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1959

MICRO PHOTO
CLEVELAND OHIO

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

January 6, 1959 Volume 738 Number 1

PATENTS

NOTICES

Patents Available for Licensing or Sale

2,697,215. Temperature Change and Fire Alarm Apparatus. James Morris, Jr. Correspondence to: Borst, Leek and Des Marais, 10 E. 40th St., New York 16, N. Y.

2,825,674. Method of Producing Boards of Pressed Composition Material. Werner Prase, Stuttgart, Germany. Correspondence to: Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,837,398. Process of Removing Hydrocyanic Acid, Hydrogen Sulfide and Ammonia From Gases. Otto Groesskinsky, Heinrich Fruhbuss, and Walter Klempt, Germany. Correspondence to: Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,857,704. Directional Bait Sliding Attachment. Teichi Yamada, P. O. Box 33, Makawao, Maui, Territory of Hawaii.

2,858,214. Light Sensitive Plate Coating. Lawrence L. Pries, 1963 Tijeras Road, Santa Fe, N. Mex.

2,859,725. True Vertical Indicator. Donald B. Genasci, 100 San Mateo Drive, Menlo Park, Calif.

2,862,400. Gear (One-Piece Construction Pinion and Gear To Reduce Stresses and Minimize Tooth Deflection). Joseph D'Angelo, 3912 Primrose Ave., Greensboro, N. C.

General Electric Company is prepared to grant non-exclusive licenses *in the field of radio purposes* under the following 5 patents upon reasonable terms to domestic manufacturers.

Applications for license may be addressed to: Patent Counsel, Appliance & Television Receiver Division, General Electric Company, Appliance Park, Louisville 1, Ky.

2,852,602. Noise Elimination in Television Receiver Utilizing Noise Inverter and Amplifier.

2,852,712. Yoke Coil Form.

2,857,456. Color Oscillator Arrangement for Color Receiver.

2,857,588. Decorative Plastic Side Channel for Glass of Television Set.

2,858,436. Automatic Frequency Control System.

Disclaimers

2,686,053.—*Henry W. Phillips*, Kenmore, N. Y. BOWLING PIN ELEVATING MECHANISM. Patent dated Aug. 10, 1954. Disclaimer filed Dec. 8, 1958, by the assignee, *American Machine & Foundry Company*.

Hereby enters this disclaimer to claim 13 of said patent.

2,809,902.—*Edwin M. Ransburg*, Indianapolis, Ind. METHOD AND APPARATUS FOR ELECTROSTATICALLY COATING ARTICLES. Patent dated Oct. 15, 1957. Disclaimer filed Dec. 4, 1958, by the assignee, *Ransburg Electro-Coating Corp.*

Hereby enters this disclaimer to claim 3 of said patent.

2,850,394.—*Chastain G. Harrel* and *Helen A. Baeder*, Minneapolis, Minn. PROCESS FOR MAKING A NON-DUSTING EGG ALBUMEN PRODUCT. Patent dated Sept. 2, 1958. Disclaimer filed Dec. 5, 1958, by the assignee, *The Pillsbury Company*.

Hereby enters this disclaimer to claims 1 and 2 of said patent.

New Applications Received During November 1958

Patents	5,969
Designs	346
Plant Pats	8
Reissues	23
Total	6,346

Issue

Patents	833	No. 2,866,973 to No. 2,867,805, incl.
Designs	43	No. 184,204 to No. 184,246, incl.
Plant Pats	3	No. 1,792 to No. 1,794, incl.
Reissues	2	No. 24,584 to No. 24,585, incl.
Total	881	

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1958

Total number of pending applications (excluding Designs)	201,598
Total number of pending Design applications	6,983
Total number of applications awaiting action (excluding Designs)	84,136
Total number of Design applications awaiting action	3,121
Date of oldest new application	Dec. 6, 1957
Date of oldest amended application	Dec. 3, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 55, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 32, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 33, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders; Harrows and Diggers; Plows	4-7-58	4-10-58
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	3-28-58	3-10-58
3. (VII) MARMELSTEIN, N., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	6-3-58	5-26-58
4. (VI) FALLER, E. A. (SCHULZ, H. O., acting), Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	4-21-58	4-23-58
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	2-11-58	1-15-58
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	4-11-58	4-9-58
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	4-4-58	4-3-58
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	4-9-58	2-18-58
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	4-21-58	4-3-58
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	4-28-58	4-1-58
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	4-29-58	5-3-58
12. (III) SPINTMAN, S. (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	3-14-58	3-27-58
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work. Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	3-10-58	3-10-58
14. (III) WILTZ, W. A., (acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	12-27-57	12-23-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus	3-26-58	3-17-58
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	3-28-58	3-11-58
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	6-3-58	6-3-58
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	3-21-58	3-10-58
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	4-4-58	4-1-58
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	4-7-58	4-8-58
21. (III) MADER, R. C., Textiles	3-7-58	3-7-58
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	3-17-58	2-20-58
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	12-6-57	12-3-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	6-24-58	7-2-58
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	4-24-58	4-15-58
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	5-1-58	5-1-58
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	5-19-58	5-14-58
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	3-3-58	2-20-58
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	3-11-58	3-7-58
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling; Refrigeration	3-28-58	4-1-58

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	6-13-58	6-15-58
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	5-1-58	4-28-58
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements; Roofs	5-1-58	4-14-58
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	5-1-58	4-9-58
35. (IV) DEMBO, L. J., Dispensing; Filling Receptacles; Toilet; Sheet Feeding	7-1-58	7-3-58
36. (V) EVANS, R. L., Measuring and Testing; Automatic Weighers; Weighing Scales	1-3-58	1-2-58
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	2-10-58	1-24-58
38. (I) PARKER, C. B., (acting), Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	5-29-58	6-17-58
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	6-2-58	6-12-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5-1-58	4-25-58
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	4-9-58	4-18-58
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	3-12-58	3-12-58
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	5-5-58	5-1-58
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	1-20-58	1-6-58
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	4-15-58	4-10-58
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	4-14-58	4-16-58
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	4-22-58	4-22-58
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	3-4-58	2-26-58
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Concentrating Evaporators; Glass	4-23-58	4-1-58
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber; Synthetic Resins (part) (e. g., Butadiene Polymers and Copolymers, Polyacrylonitriles, Acrylate Polymers and Copolymers)	3-13-58	3-26-58
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas; Oscillators	4-16-58	4-3-58
52. (V) LE ROY, C. A., Supports and Racks	3-26-58	3-14-58
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	6-23-58	6-13-58
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	6-16-58	6-17-58
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	2-3-58	2-6-58
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	4-3-58	4-15-58
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Cutting and Punching	3-17-58	3-17-58
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part); Selective Punching	4-1-58	3-1-58
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	3-3-58	2-13-58
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	5-1-58	5-1-58
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Railway Mail Delivery; Feeding of Indefinite Lengths	4-1-58	4-1-58
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	4-18-58	5-1-58
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	3-4-58	3-20-58
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	3-3-58	3-3-58
66. (V) LISANN, L., Geometric Instruments; Acoustics; Building Structures	3-12-58	3-17-58
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	4-22-58	4-9-58
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	5-20-58	5-27-58
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	4-15-58	4-14-58
CLASS. DIVS. II—LADY, J. E., Detectors; Miscellaneous Electron Tube Circuits	5-1-58	5-5-58
CLASS. DIVS. III—WAHL, R. A., Metal Bending; Web Feeding	6-2-58	4-21-58
CLASS. DIVS. IV—BERLOWITZ, W., Earth Boring	4-29-58	5-9-58
CLASS. DIVS. V—ANGEL, C. D., Scaffolds; Masonry and Concrete Structures; Time-Controlling Apparatus; Packed Rod Joints; Joint Packings	4-9-58	4-18-58
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part) i. e., Polyethylenes	7-31-58	6-18-58
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	5-26-58	6-20-58
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	4-10-58	4-14-58

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1959, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,268,540 to 2,271,509, inclusive
Plant Patents ..... Numbers 499 to 501, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals
District of Columbia Circuit

GODFREY L. CABOT, INC.

v.

ROBERT C. WATSON, COMMISSIONER OF PATENTS

No. 14,517. Decided November 28, 1958

[— U. S. App. D. C. —; — F.2d —; 119 USPQ 365]

APPEAL from the United States District Court for the District of Columbia. [District Court opinion reported at 159 F. Supp. 132, 117 USPQ 173.]

AFFIRMED.

Harold T. Stowell (*Harold L. Stowell of counsel*) for appellant.

Clarence W. Moore (*Joseph Schimmel* of counsel) for the Commissioner of Patents.

Before EDGERTON, WILBUR K. MILLER, and BASTIAN, *Circuit Judges*

PER CURIAM:

This appeal is from a judgment for the defendant in a suit under 35 U. S. C. § 145 to obtain a patent. The District Court thought the claims lacked invention. We find no error.

AFFIRMED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,115,501, S. Vernet, Thermostats; **2,259,846**, S. Vernet et al., Temperature responsive element; **2,265,586**, S. Vernet, Control devices; **2,636,776**, same, Pressure operated devices, **filed** Apr. 27, 1955, D. C., E. D. Mich. (Detroit), Doc. 14337, *Detroit Controls Corp.* v. *Robertshaw-Fulton Controls Co.* Stipulation and order of dismissal with prejudice Nov. 17, 1958.

2,259,846. (See 2,115,501.)

2,265,586. (See 2,115,501.)

2,326,096, E. J. Dillman, Thermostatic control device; **2,657,859**, A. Von Wangenheim, Thermostatic mixing valve, **filed** Apr. 27, 1955, D. C., E. D. Mich. (Detroit), Doc. 14338, *Detroit Controls Corp.* v. *Robertshaw-Fulton Controls Co.* Stipulation and order of dismissal with prejudice Nov. 17, 1958.

2,341,579. (See 2,850,900.)

2,361,865. (See 2,850,900.)

2,361,866. (See 2,850,900.)

2,380,956. (See 2,850,900.)

2,390,473, R. W. Teichner, Talcum powder sticks; **2,591,468**, L. C. Carissimi, Shaver heads; **2,601,720**, same, Shaver head mounting; **2,643,453**, same, Electric dry shaver; **Reg. No. 372,566** (REMINGTON), Remington Rand, Inc., Electric dry shavers, attachments and parts thereof; **Reg. No. 658,030** (ROLLECTRIC), Sperry Rand Corp., Electric shavers and parts thereof, **filed** Nov. 18, 1958, D. C., E. D. Ill. (Chicago), Doc. 58c2023, *Sperry Rand Corp.* v. *Sunbeam Corp.*

2,416,596, S. Rosenthal, Fountain pen; **Reg. No. 641,610** (MAGIC MARKER), Speedry Products, Inc., Inks and for inking materials, **filed** Nov. 17, 1958, D. C., S. D. N. Y., Doc. 140/39, *Speedry Products, Inc.* v. *Dri Mark Products, Inc. et al.*

2,536,035, C. E. Cleeton, Means for producing a variable number of pulses, **filed** Feb. 5, 1957, D. C., Dist. of Col., Doc. 265/57, *Claud E. Cleeton* v. *American Telephone & Telegraph Co.* Final judgment; complaint dismissed with prejudice Nov. 12, 1958. **Same**, Doc. 266/57, *Claud E. Cleeton* v. *Western Electric Co., Inc.* Decree as above.

2,572,166. (See Re. 23,960.)

2,579,479, C. Djerassi et al., $\Delta^{1,4}$-pregnadiene-17 alpha-ol-3-ones, **filed** Aug. 16, 1957, D. C. N. J. (Newark), Doc. 826/57, *Syntex S. A.* v. *Schering Corp.* Stipulation and order of dismissal Nov. 14, 1958.

2,586,795. (See 2,586,796.)

2,586,796, Drisch and Brepson, Production of viscose rayon; **2,586,795**, same, Pneumatic tires; **2,597,577**, same, Rayon yarn; **2,699,983**, same, Production of viscose rayon, **filed** Nov. 18, 1958, D. C., S. D. N. Y., Doc. 140/53, *Societe Chimiotex* v. *Beaunit Mills, Inc. et al.*

2,590,066, R. L. Pattinson, Method of storing gases or liquids; **Re. 24,138**, Winslow and Moore, Lubricant purifier, **filed** Nov. 21, 1958, D. C., N. D. Tex. (Fort Worth), Doc. 2564, *Sid W. Richardson* v. *Pan American Petroleum Corp.*

2,591,468. (See 2,390,473.)

2,597,577. (See 2,586,796.)

2,601,720. (See 2,390,473.)

2,607,051, L. K. Jackson, Bedframe and special caster receiving socket construction, **filed** Oct. 19, 1956, D. C., S. D. N. Y., Doc. 114/74, *Harvard Mfg. Co.* v. *Western Spring Co.* Stipulation and order of dismissal Nov. 17, 1958. **Same, filed** Sept. 19, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 19036, *Harvard Mfg. Co.* v. *M. L. Tobin, Inc.* Cause dismissed Nov. 17, 1958.

2,625,281, Zimmerman and Hoge, Process of continuously preparing a gypsum slurry, **filed** Nov. 12, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c1986, *Hoge-Warren-Zimmerman Co.* v. *Decks, Inc.*

2,636,776. (See 2,115,501.)

2,643,453. (See 2,390,473.)

2,646,115, Bucher and Skiver, Venetian blind, **filed** Nov. 20, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 19221, *Hunter Douglas Aluminum Corp.* v. *Eugene C. Burke.*

2,657,859. (See 2,326,096.)

2,667,990. (See Re. 23,830.)

2,699,983. (See 2,586,796.)

2,716,606, G. H. Renish, Method of handling frozen meats and fish, **filed** Nov. 17, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c332, *Gerald H. Renish* v. *Grobben Bros., Inc.*

2,733,336, B. D. Ostrow, Electroplating composition for copper, **filed** Apr. 12, 1956, D. C., S. D. N. Y., Doc. 108/339, *Lea-Ronal, Inc. et al.* v. *Platers Research Corp.* Consent judgment; defendants enjoined Nov. 17, 1958.

2,779,392, Knabusch and Shoemaker, Reclining chair with extensible foot rest, suit for Declaratory Judgment **filed** May 16, 1957, D. C., E. D. Mich. (Detroit), Doc. 16694, *General Steel Products Co., Inc.* v. *La-Z-Boy Chair Co.* Final consent judgment; by stipulation Nov. 12, 1958.

2,784,561. (See 2,850,900.)

2,792,572, Rosenbaum and Harvey, Interlock knit garment, **filed** Nov. 19, 1958, D. C., S. D. N. Y., Doc. 140/99, *Mock Fashioning Associates* v. *Associated Lerner Shops of America, Inc.*

2,813,402. (See 2,850,900.)

2,825,763, M. De Vries, Apparatus for transmitting mechanical vibrations, **filed** Nov. 14, 1958, D. C., E. D. Va. (Richmond), Doc. 1836, *Machiel De Vries et al.* v. *Whitney's Audio Service.* **Same**, Doc. 1837, *Machiel De Vries et al.* v. *Hodge TV Service, Inc.*

2,834,374. (See 2,850,900.)

2,848,079, M. Brodie, Stitch concealing binding for luggage,

filed Nov. 14, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. c/19198, *Glass Laboratories, Inc.* v. *Myer Brodie.*

2,850,900, B. R. Evans, Pressure indicator; **2,834,374**, O. Klinkenberg, Safety relief valve; **2,813,402**, Poethig and Evans, Apparatus for liquid filling of pressure storage tanks; **2,784,561**, G. R. Postlewait, Liquefied gas valve; **2,861,866**, H. L. Norway, Valve construction; **2,861,865**, same, Liquefied petroleum gas system; **2,841,579**, S. L. Sundstrom, Valve assembly; **2,830,956**, R. E. Evarts, Throwover regulator, filed Nov. 20, 1958, D. C. Minn. (Minneapolis), Doc. 4/58–Civ–413, *The Bastian-Blessing Co.* v. *Vincent Brass & Aluminum Co.*

2,851,166, W. W. Block, Combination serving cart and rack for stacked serving tables, filed Nov. 7, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c1977, *Quaker Stretcher Co.* v. *Cal-Dak Co., Inc. et al.* Order of dismissal by stipulation Nov. 20, 1958.

Re. 23,830 (of **2,667,900**), A. B. Mojonnier, Dispensing mechanism with time controlled flow, filed Feb. 19, 1954, D. C., N. D. Ill. (Chicago), Doc. 54c277, *The Mojonnier Dawson Co.* v. *U. S. Dairies Sales Corp. et al.* Claims 1, 6, and 7 of Re. 23,830 held valid; defendants restrained Nov. 18, 1958.

Re. 23,960 (of **2,572,106**), D. J. Lorusso, Antenna system for television, filed July 5, 1955, D. C. Mass. (Boston), Doc. 55/589, *Daniel J. Lorusso et al.* v. *Ultra Hi T V Mfg. Corp.* Final judgment; claim 3 held invalid Nov. 13, 1958.

Re. 24,138. (See 2,590,066.)

Des. 181,857, W. G. Pankonin, Wire staple removing tool, filed Nov. 17, 1958, Ct. Cls., Doc. 508/58, *Ace Fastener Corp.* v. *The United States.*

Des. 175,895, A. S. Staff, Lace, filed Nov. 21, 1958, D. C. S. D. N. Y., Doc. 140/148, *Tesagon Mills, Inc.* v. *Pab Laces, Inc.*

Des. 183,728. (See Des. 183,815.)

Des. 183,815, R. Silber, Lace; **Des. 183,728**, O. Engelhard, same, filed Nov. 17, 1958, D. C., S. D. N. Y., Doc. 140/22, *Native Laces & Textiles, Inc.* v. *Raval Lace Co., Inc.*

Plant Pat. 455, W. E. Lammerts, Rose plant; **Plant Pat. 632**, same; **Plant Pat. 792**, H. C. Swim, same; **Plant Pat. 1280**, same, filed Aug. 26, 1957, D. C., E. D. Tex. (Tyler), Doc. 2362, *Armstrong Nurseries, Inc. of California* v. *Andrew C. Smith et al.* Patents held valid and infringed June 23, 1958 (notice received Nov. 24, 1958).

Plant Pat. 484, W. Kordes, Rose plant; **Plant Pat. 823**, E. S. Boerner, same, filed Aug. 26, 1957, D. C., E. D. Tex. (Tyler), Doc. 2366, *Jackson & Perkins Co. of New York* v. *Marvin Dewitt Hood et al.* Patents held valid and infringed June 24, 1958 (notice received Nov. 24, 1958).

Plant Pat. 591, F. Melland, Rose plant, filed Aug. 26, 1957, D. C., E. D. Tex. (Tyler), Doc. 2364, *Conrad-Pyle Co. of Pennsylvania* v. *Andrew C. Smith et al.* Patent held valid and infringed June 24, 1958 (notice received Nov. 24, 1958).

Plant Pat. 632. (See Plant Pat. 455.)

Plant Pat. 672, E. S. Boerner, Rose plant, filed Aug. 26, 1957, D. C., E. D. Tex. (Tyler), Doc. 2365, *Jackson & Perkins Co. of New York* v. *Andrew C. Smith et al.* Patent held valid and infringed June 24, 1958 (notice received Nov. 24, 1958).

Plant Pat. 792. (See Plant Pat. 455.)

Plant Pat. 792(a), H. C. Swim, Rose plant; **Plant Pat. 1280(a)**, same, filed Aug. 26, 1957, D. C., E. D. Tex. (Tyler), Doc. 2363, *Armstrong Nurseries, Inc. of California* v. *Marvin Dewitt Hood et al.* Patent held valid and infringed June 24, 1958 (notice received Nov. 24, 1958).

Plant Pat. 823. (See Plant Pat. 484.)

Plant Pat. 1280. (See Plant Pat. 455.)

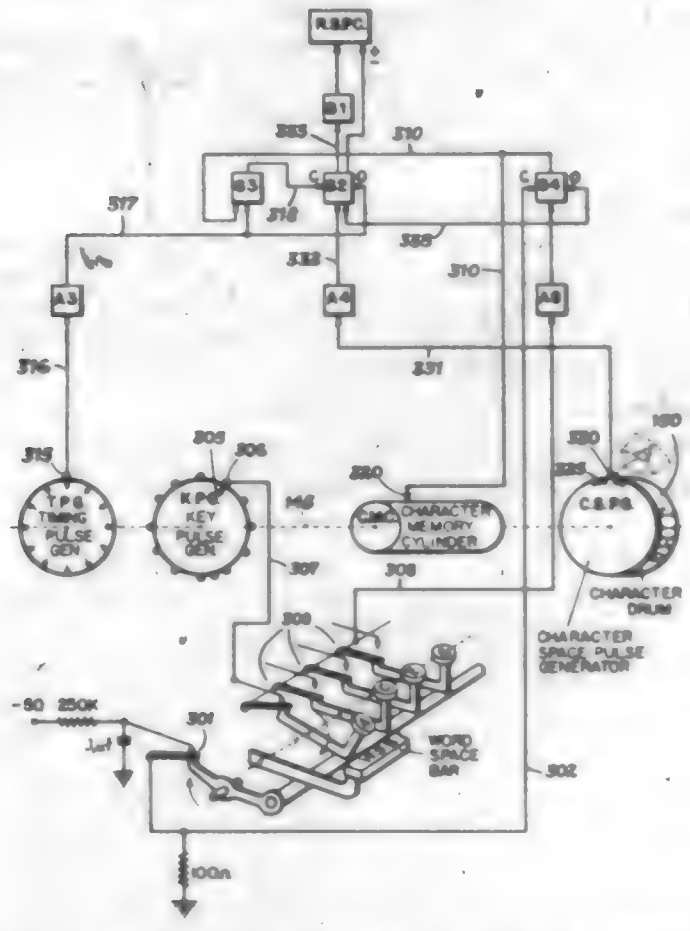
Plant Pat. 1280(a). (See Plant Pat. 792(a).)

REISSUES

JANUARY 6, 1959

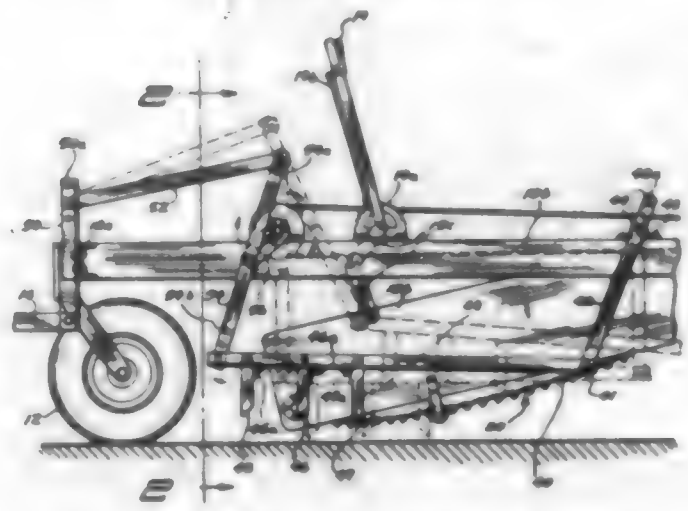
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,584
PHOTOTYPESETTING
Frederick J. Hooven, Dayton, Ohio
Original No. 2,714,842, dated August 9, 1955, Serial No. 205,576, January 11, 1951. Application for reissue November 26, 1956, Serial No. 624,481
41 Claims. (Cl. 95—4.5)



1. A photocomposing machine adapted to compose a line of composition on a record film including a character carrier having a plurality of characters thereon of different widths, a flash source of light, continuously rotating means for effecting continuous relative movement between said carrier and said light source, means for continuously advancing said film in direct relation with the rotation of said means and in increments which are small in relation to the individual character widths, means for selecting a series of characters, means controlled in accordance with the character selected for controlling said instant of the flashing of said light within a single revolution of said *continuously rotating means* [character carrier] to effect the flashing of the selected character upon said film, means for sensing the width of the selected characters, and means controlled in accordance with said width sensing means for causing said rotating means to rotate a predetermined whole number of revolutions to advance said film proportionately in accordance with the width of the selected character to effect the proper number of increments of film advance to accomplish the spacing of the character in the line.

24,585
VINE CLEARING DEVICE
Rudolph Olson, Franklin, Minn., assignor to Dahlman Manufacturing Company, Braham, Minn., a corporation of Minnesota
Original No. 2,802,326, dated August 13, 1957, Serial No. 491,583, March 2, 1955. Application for reissue February 17, 1958, Serial No. 715,841
8 Claims. (Cl. 171—12)



6. A vine clearing device used in connection with a potato harvester comprising a frame and a pair of spaced aprons having in combination, an arm having one end pivotally mounted to the front end portion of said frame, a second arm having one end pivotally secured to the free end of said first arm and extending downwardly, a transversely extending shaft journaled in said frame, a crank secured to said shaft, said second arm being pivoted to said crank intermediate its ends, and a blade operationally connected to said second arm and extending downwardly to a point near the ground level, and means for rotating said shaft whereby said blade will be reciprocated.

PLANT PATENTS

GRANTED JANUARY 6, 1959

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,792
ROSA FLORIBUNDA PLANT
Edward Burton Le Grice, North Walsham, Norfolk, England
Application January 15, 1958, Serial No. 709,126
1 Claim. (Cl. 47—61)

The new and distinct variety of Rosa Floribunda plant herein shown and described.

1,793
IRIS PLANT
Robert V. Schreiner, Salem, Oreg.
Application May 14, 1958, Serial No. 735,346
1 Claim. (Cl. 47—60)

A new and distinct variety of iris plant, substantially as herein shown and described, characterized particularly by the distinctly glistening sheen of the amethyst color-

ing of the flowers which are exceptionally large in size and nearly spherical in form; pronounced ruffling of the outer edges of the petals; the heavy texture of the blooms which resists the elements; the large, firm gracefully cupped standards and semi-flaring falls; its height and well-spaced stem-branching; broad foliage, and ease of propagation.

1,794

ROSE PLANT

Albert J. Restani, San Francisco, Calif.

Application April 14, 1958, Serial No. 728,582

1 Claim. (Cl. 47—61)

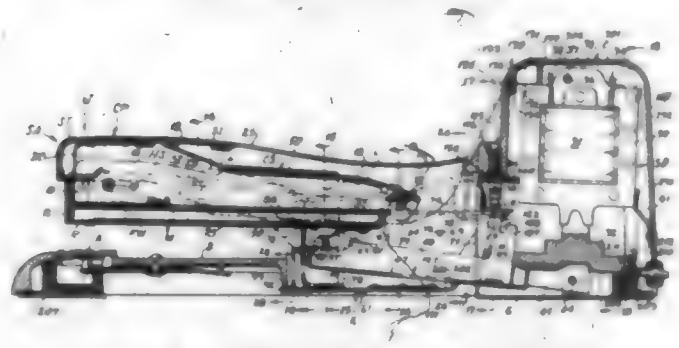
A new and distinct variety of rose plant of the polyantha class, substantially as herein shown and described, retaining the free habit of bloom that enables its parent variety to supply blooms continuously during all seasons under greenhouse conditions, and characterized particularly as to novelty by its true red color that is held without fading until the petals fall, the large number of petals that number about two times as many as those of its parent, the better form of the rose as a bud and as an open flower, and the longer lasting nature of cut flowers obtained from the rose plant.

PATENTS

GRANTED JANUARY 6, 1959

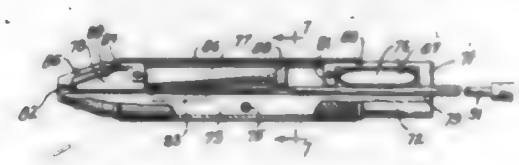
GENERAL AND MECHANICAL

2,866,973
ELECTRIC STAPLING MACHINE
Henry Ruskin, Bayside, N. Y., assignor, by mesne assignments, to Patents Management Corporation, Atlanta, Ga., a corporation of Georgia
Application March 12, 1956, Serial No. 570,860
17 Claims. (Cl. 1—3)



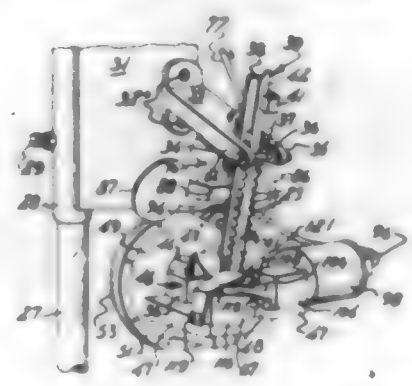
1. In an electric stapling machine, a casing, a staple containing arm comprising a magazine for receiving a staple strip and a liftable cover for opening and closing said magazine and including normally raised but depressible plunger means carrying a staple ejecting blade for driving the foremost staple of said strip out of said magazine, a solenoid including a core, coil and a vertically guided armature; an electric circuit including said coil, spring controlled switch means interposed in said circuit to normally hold said circuit open, an intervenor having a rear part pivotally connected to the lower part of said armature, means associated with said casing for pivotally supporting said intervenor intermediate the front and rear ends thereof, said intervenor having at its front end means for removably engaging and driving said cover to operate said plunger means, and means effective pursuant to application of finger pressure on said cover for actuating said switch means to close said circuit and activate said solenoid so that stapling may occur.

2,866,974
NAILING IMPLEMENT
Harold G. Hoffman, Rockford, Ill.
Application February 13, 1956, Serial No. 564,967
6 Claims. (Cl. 1—46)



1. A nailing implement comprising a body having a chamber intermediate the ends thereof defining a reservoir opening at the side of said body for loosely receiving a supply of nails, a sleeve surrounding said body and movable thereon to selectively cover and uncover said reservoir, said body having a nail guide channel extending longitudinally of said reservoir and in open communication therewith, the end portions of said body each having a passage therein aligned with each other and with opposite ends of said channel, an elongated bar type permanent magnet mounted in the body to extend longitudinally of the channel at the side thereof opposite said reservoir for attracting a nail from the reservoir into the channel and for releasably retaining a nail in the channel, and an elongated driving member formed of a ferro-magnetic material mounted for axial sliding movement through said passages and longitudinally of said channel across said magnet for driving the nail retained by the magnet out of the body.

2,866,975
COMBINATION BAG CUTTER AND BAG CLIPPING DEVICE
Frank H. Ina, Milwaukee, Wis.
Application February 25, 1957, Serial No. 641,914
8 Claims. (Cl. 1—120)

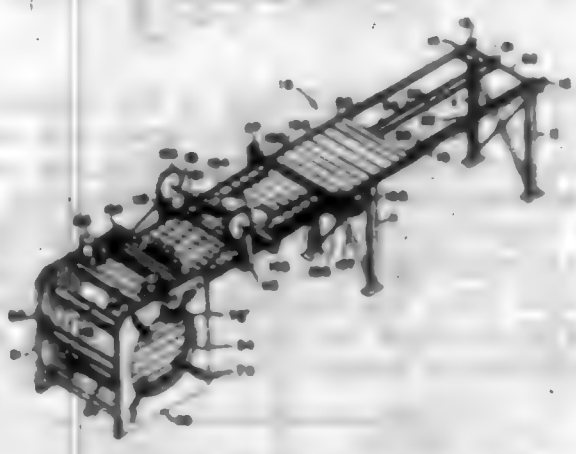


7. In the art of closing and trimming the necks of plastic bags and the like, the combination of a clip fastener unit including clip clamping jaws operable to apply a clip around the neck of a bag, and a bag cutter including a reciprocable cutter blade operable adjacent said jaws to cut through the neck of a bag above the clip applied by said jaws; first compressed air responsive driving means for closing the jaws of said fastener and causing application of a clip to said bag neck; second compressed air responsive driving means for reciprocating said cutter blade to cut through said bag neck; a source of compressed air in common communication with both said first and second driving means; common valve means for simultaneously opening and closing communication between said source and first and second driving means; said second driving means having a substantially higher air pressure operating response than the pressure operating response of said first driving means, whereby said first driving means will, upon opening of said common valve means, operate to close said clamping jaws and apply a clip to said bag neck prior to operation of said second driving means.

2,866,976
HOGSHEAD MACHINE
John C. Lang, Louisville, Ky., assignor, by mesne assignments, to Grey Equipment, Inc., a corporation of North Carolina
Application February 15, 1956, Serial No. 565,718
12 Claims. (Cl. 1—129)

1. A hogshead machine comprising an elongated table having spaced guides at its sides for receiving the ends of staves in side-by-side relation, a conveyor having spaced means for receiving and positively moving the staves for a single hogshead at a time along the table to a delivery end, hogshead forming apparatus at the delivery end of the conveyor for receiving staves in side-by-side relation therefrom, said apparatus comprising spaced members, one for the top and one for the bottom end of a hogshead, a cylinder and piston assembly mounted transversely to the table between the spaced end members and having its axis substantially parallel to the staves being received from the delivery end of the table, an ejector plate

mounted on the piston at one end of the cylinder, said bottom end member having an opening through which a completed hogshead may be ejected by the ejector plate, a forming drum rotatably mounted around the cylinder, a plurality of rollers rotatably mounted between the end members in spaced relation around the drum, the rollers being spaced radially from the drum approximately the thickness of a stave, the roller mounting means providing for initial adjustment of the rollers radially of the axis of the drum, the rollers being spaced to provide an open space between the rollers adjacent to the delivery end of the conveyor whereby staves from the conveyor may be received between the drum and the rollers, said rollers having sprockets on one of their ends, the sprockets being on the corresponding ends of all the rollers, chain drive means engaged with the outer periphery of said sprockets, anvil means mounted adjacent to the delivery end of the conveyor and positioned so that the staves will be fed thereover, a plurality of staplers being positioned intermediate the stave guides and spaced substantially therefrom, wire guiding means for use with each stapler, additional staplers mounted on the hogshead forming apparatus at the top thereof and adjacent to the bottom and top ends of the hogsheads forming apparatus, retractable anvil means mounted on the bottom end member and adapted to be positioned beneath the stapler at the bottom end, other anvil means mounted on the top end member, retractable roller guides mounted on the ejector member and adapted to hold a head against the bottom end plate and a linear adjacent to its periphery, and band guiding means for use with said additional staplers.

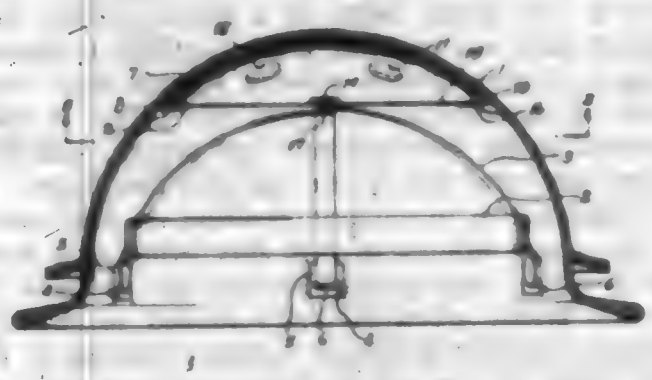


2,866,977

HEADGEAR WITH STABILIZING CROWN RIGGING

Walter S. Fiskes, Brooklyn, N. Y., assignor to Leonard P. Frieder, Great Neck, N. Y.

Application August 25, 1955, Serial No. 530,567
2 Claims. (Cl. 2—3)



1. In a headgear comprising a rigid helmet shell and rigging means to support the shell and spaced inwardly therefrom and adapted to engage the wearer's head, said rigging means including headband means adapted to encircle the head, head strap means connected to the headband means and adapted to extend over the crown of the wearer's head, and substantially inelastic connecting means extending between the headband means and the lower part of the shell to maintain said lower part spaced from the wearer's head; the combination of an anchor cup shaped to conform to the contour of the inner helmet shell wall at the crown portion thereof, means retaining said cup in abutting relation with said crown portion, said cup being provided adjacent its periphery with a plurality of slots, and a plurality of substantially inelastic straps, each strap extending horizontally between the upper portion of the head strap means and the shell, each said strap having one end thereof secured to the head strap means and the end opposite said one end looped through one of said slots, said rigging means, said inelastic straps and said anchor cup cooperating to maintain said upper shell portion spaced from the wearer's head.

2,866,978

HELMET WITH COMBINED VISOR AND EAR-CHEEK SHIELDS

Whitney A. Stuart, New Brunswick, N. J., and Leonard G. Huxtable, New York, N. Y., assignors to the United States of America as represented by the Secretary of the Army

Application February 21, 1957, Serial No. 641,778
2 Claims. (Cl. 2—6)



1. The combination with a helmet shell including crown and nape portions respectively having lower and front edges which intersect on opposite sides of said helmet to define the top and rear limits of substantially triangular areas exposing side portions of the face and head of the wearer, covering means for said areas, said covering means comprising an arcuate visor having legs straddling said crown, a combined ear-cheek shield integral with each leg and extending downwardly therefrom, coaxial pivots on opposite sides of said shell pivotally connecting said legs of said visor thereto for pivotal movement of said covering means from a retracted position at least substantially entirely clear of said areas to a plurality of operative positions each covering said areas, said ear-cheek shields including counterbalancing portions disposed in the opposite side of said pivots from said visor and substantially counterbalancing the latter in all of said positions, said visor having an upper edge overlapping said lower edge of said crown and said ear-cheek shields having rear edges overlapping said front edges of said nape portion when said covering means is in each operative position, and said rear edges of said ear-cheek shields being in frictional engagement with said crown in each operative position to maintain said covering means in such position.

2,866,979

TOELET

Ralph W. Russell, Siler City, N. C., assignor, by mesne assignments, to Pohatcong Hosiery Mills, Inc., Pawtucket, R. I., a corporation of New Jersey

Application April 22, 1957, Serial No. 654,246
4 Claims. (Cl. 2—61)

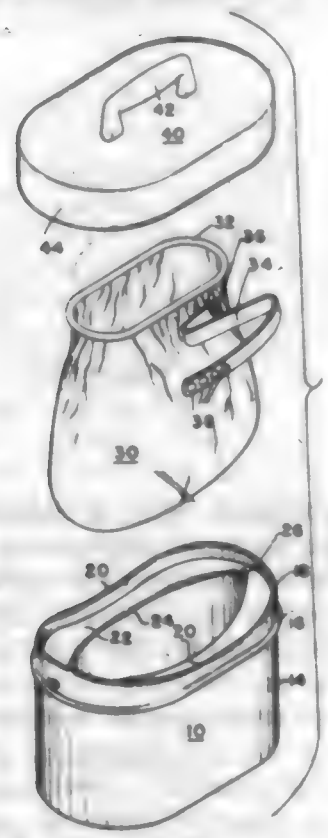
1. A toelet comprising a relatively inelastic bottom portion knitted from relatively inelastic yarn and adapted to extend under the sole portion of the wearer's foot, a

relatively elastic top portion knitted from twisted stretch yarn and united to the forward part of said bottom portion along a curving front and side edge line, said bottom portion extending rearwardly of said top portion, an elastic



edging at the free rear edge of said top portion and having an elastic pull greater than that of said stretch yarn, and a relatively inelastic edging at the free rear edge of the bottom portion.

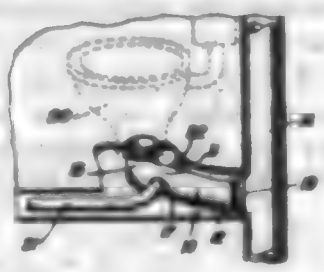
2,866,980
TOILET
Lillian J. Huntington, Seattle, Wash.
Application October 19, 1953, Serial No. 386,930
5 Claims. (Cl. 4—142)



4. A portable toilet to be used in an automobile or the like, comprising: an upwardly-open, horizontally-elongated portable container adapted to be straddled and having a capacity to accumulate a normal discharge of body waste, said container having on its outer surface an outwardly-protruding, annular bead extending thereabout and spaced a short distance below the upper edge of the container, a fluid-impervious, disposable, thin-walled sack lining said container, said sack having an expandible, normally-constricted mouth including a resilient, thickened lip of less circumference than the circumference of the lower portion of said sack, the mouth of said sack being turned inside out over said upper edge of said container and having said thickened lip engaged below said exterior bead.

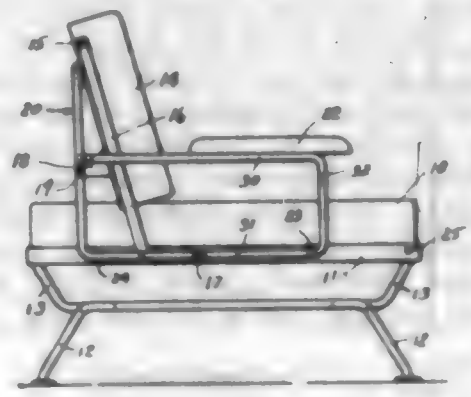
2,866,981
PLUMBING UNIT
Albert Hartford McMinn, Beaver Falls, Pa.
Continuation of application Serial No. 429,269, May 12, 1954. This application October 14, 1957, Serial No. 689,919
2 Claims. (Cl. 4—211)

1. A plumbing unit comprising, a vertical stack having a horizontal coupling, a toilet bowl arranged near and spaced from the vertical stack and off center with respect thereto and having a tubular bottom, and a unitary tubular element for connecting the vertical stack and toilet bowl, said unitary tubular element being generally horizontal in use and including horizontal end sections and an intermediate bend integrally connecting the end sections, one end section being arranged at a predetermined horizontal angle with relation to the other end section so that one end section extends laterally beyond the other



end section for an amount equal to that required due to the off-center arrangement of the bowl with respect to the stack, a vertical section arranged at the outer end of one horizontal end section, a bend integrally connecting the vertical section and said outer end, the companion horizontal end section having a straight outer end, the straight outer end engaging within the horizontal coupling of the stack and the vertical section engaging within the tubular bottom of the toilet bowl.

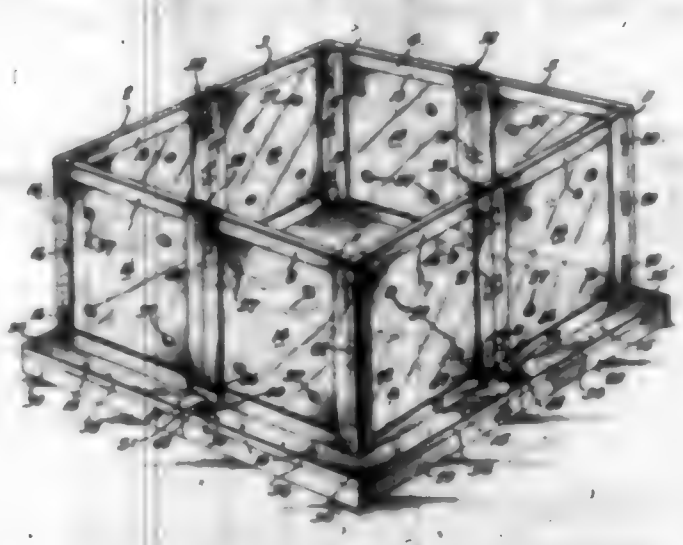
2,866,982
CONVERTIBLE SOFA-BED STRUCTURE
George T. Purves, Jr., Indianapolis, Ind.
Application November 30, 1955, Serial No. 550,125
1 Claim. (Cl. 5—45)



In a convertible sofa bed structure, an elevated horizontally disposed first frame, a seat cushion supported on said frame, an arm rest frame of a length less than the width of said first frame and seat cushion pivoted at its lower forward end to said first frame inwardly from one end thereof and swingable in a plane parallel therewith, said arm rest frame being of a height greater than the height of said seat cushion, a substantially L-shaped link having its lower branch pivoted to said first frame inwardly of the ends of said arm rest frame in the same horizontal plane with said arm rest pivoted and disposed between said arm rest frame and said first frame, a back rest supported in upstanding position on said seat cushion, the upper branch of said link being of a length to have its upper end project beyond the forward end of said first frame when pivotally moved to substantially horizontal position to insure a proper meeting of the adjacent edges of the seat cushion and back rest, a pivot on the free end of the upper branch of said link connecting the said link with said back rest inwardly from the upper end of said back rest a distance equal to the projection of said link beyond said first frame when in horizontal position, a bracket projecting rearwardly from said back rest near the lower end thereof, a leg projecting upwardly from the rear end of said arm rest frame and serving as a support for the back rest to maintain the

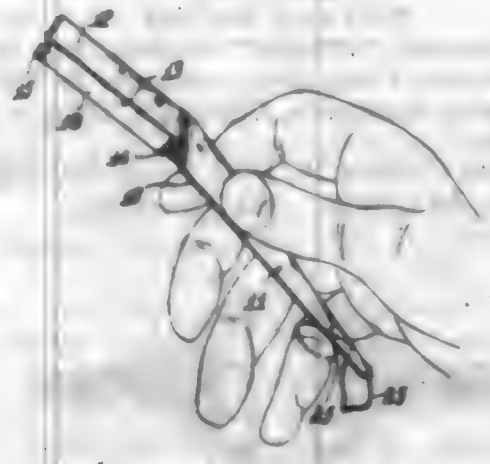
back rest at an angle with respect to the surface of the seat cushion comfortable to the user of the seat cushion, a pivot connecting the rear end of said bracket with said leg; said leg being of a length substantially equal to the elevation of said seat cushion and when resting on the floor to act as a support for the back rest in alignment with the seat cushion with little if any of the first frame projecting above the surface of the back rest, and stop means secured to the first frame near its forward edge to support said second frame when swung in horizontal alignment with the first frame.

2,866,983
BABY PEN
Theophylus Foster Rose, Petersburg, Va.
Application April 6, 1956, Serial No. 576,653
2 Claims. (Cl. 5—99)



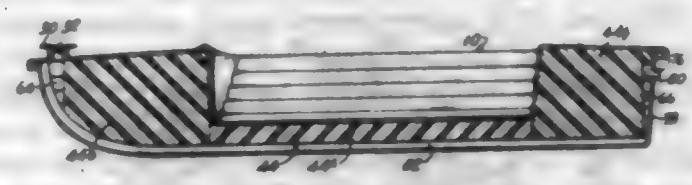
1. A portable play pen for babies comprising a plurality of panel-like sides, hinged together in series fashion for folding in portable form when not in use, a plurality of basal sections hinged together alternately on top and bottom to form a base and adapted to be folded in portable fashion, brackets respectively engaging said sides and in operative relation with means on said base to prevent vertical displacement, and means respectively engaging the top middle portions of said sides to prevent arcuate displacement.

2,866,984
HAIR CUTTING TOOL
Harold Plough, Aurora, Ill.
Application May 24, 1957, Serial No. 661,476
10 Claims. (Cl. 7—14.1)



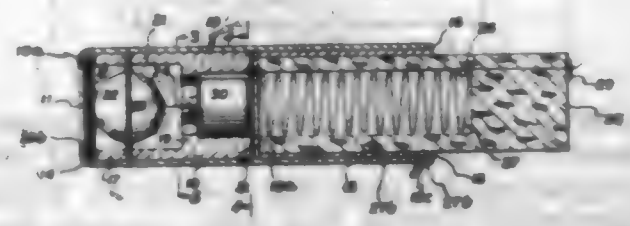
4. In a hair cutting tool of the type adapted to be held in the hand, said tool comprising a head portion and an elongated handle portion, a cutting blade carried in the head portion, and resilient means on the handle engageable with a finger on a hand to prevent slipping of the tool when held loosely.

2,866,985
PLASTIC BOAT
Fred N. Blackmore, Orchard Lake, Mich., assignor to Plastiform Company, Ypsilanti, Mich., a corporation of Michigan
Application November 29, 1956, Serial No. 625,066
6 Claims. (Cl. 9—6)



1. A skiff for children comprising a hull, a deck fixedly secured thereto, a cockpit defined in said deck, said cockpit and said hull each having a bottom wall disposed in predetermined spaced apart parallel relationship and means disposed between said bottom walls and in abutting relationship therewith for supporting the bottom wall of said cockpit and reinforcing said skiff, the sides of said hull and said cockpit having a stepped tapering complementary configuration whereby the individual steps of the cockpit and the hull are adapted to nest in intimate abutting relationship.

2,866,986
DEVICE FOR LOCATING AND RETRIEVING SUBMERGED OBJECTS
Gerhardt C. Stichling, West Orange, N. J.
Application October 11, 1955, Serial No. 539,813
1 Claim. (Cl. 9—9)

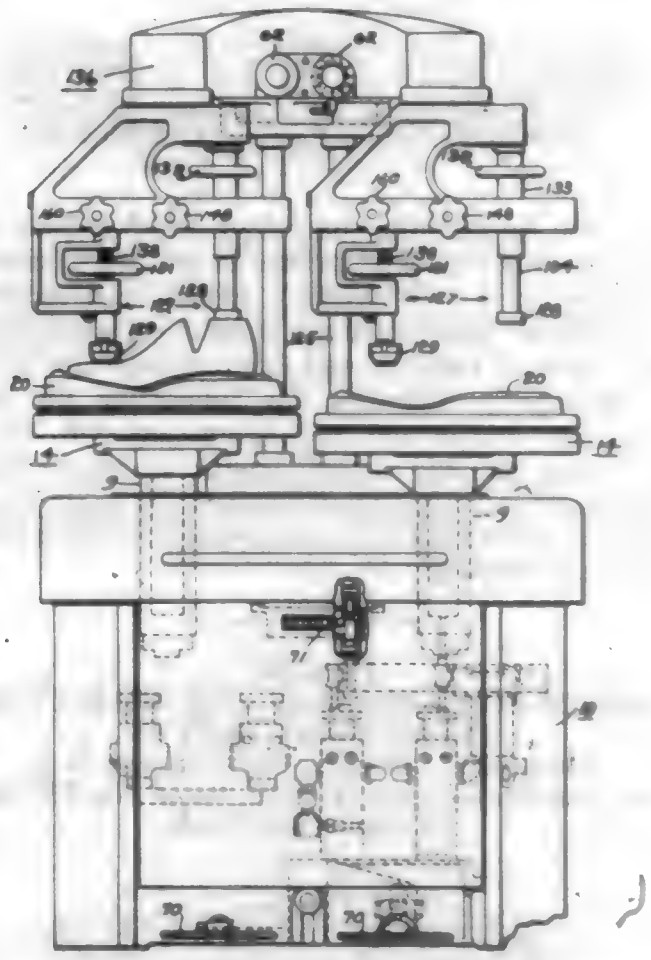


In a device of the character described, a tubular casing, a float member in the form of a cork inserted into an end of said casing and having a relatively tight fit with respect to the latter and movable longitudinally thereof to be free therefrom, that portion of said float member inserted into said casing being provided with a cavity, a length of line disposed within said cavity, one end of said line being fixed with respect to said float member, the other end of said line being fixed with respect to said casing, and means for causing said device to function in the sense that said float member is caused to move longitudinally of said casing to become free from the latter and thus to become freely movable away from the same for the distance limited by the length of said line; said means including gas-generating means disposed within said casing between the other end thereof and said float member and characterized by the fact that said means generates a gas upon exposure to a liquid, a closed capsule containing such liquid and disposed within said casing, at least part of the wall structure of said capsule being puncturable, a puncturing part supported within said casing between said capsule and said gas-generating means and having a relatively rigid and relatively sharp point disposed in proximity to said part of said wall structure and effectual to puncture the latter, said capsule being movable relatively with respect to said point and in such wise as to effect the puncturing of said part of said wall structure by said point, said casing being provided with a water-inlet opening, and a diaphragm disposed within said casing between said water-inlet opening and said capsule and movable responsive to occurring water pressure from without said casing to engage said capsule and to impart movement to the latter to effect said puncturing.

2,866,987
SHOE PRESSES

John F. Smith, Braintree, and Fred Dawson, West Roxbury, Mass., assignors to Compo Shoe Machinery Corporation, Boston, Mass., a corporation of Delaware

Application December 7, 1953, Serial No. 396,516
11 Claims. (Cl. 12—36)



1. A press comprising a cylinder having a piston movable therein, an inflatable pad carried by said piston, a work support spaced from said pad, means including a first valve for supplying fluid under pressure into said cylinder for causing said piston to move a work article on said pad against said support, means including a second valve for supplying fluid under pressure into said pad for inflating said pad to cause said pad to press said article against said support, a first solenoid for actuating said first valve, a second solenoid for actuating said second valve, means including a switch closed and then opened by an operator, and a relay energized when said switch is closed, for supplying electric current to said solenoids for actuating said valves to supply fluid under pressure into said cylinder and pad, a holding circuit closed when said relay is energized by the closing of said switch for maintaining said relay energized when said switch is opened, and timing means for opening said holding circuit after a predetermined period of time.

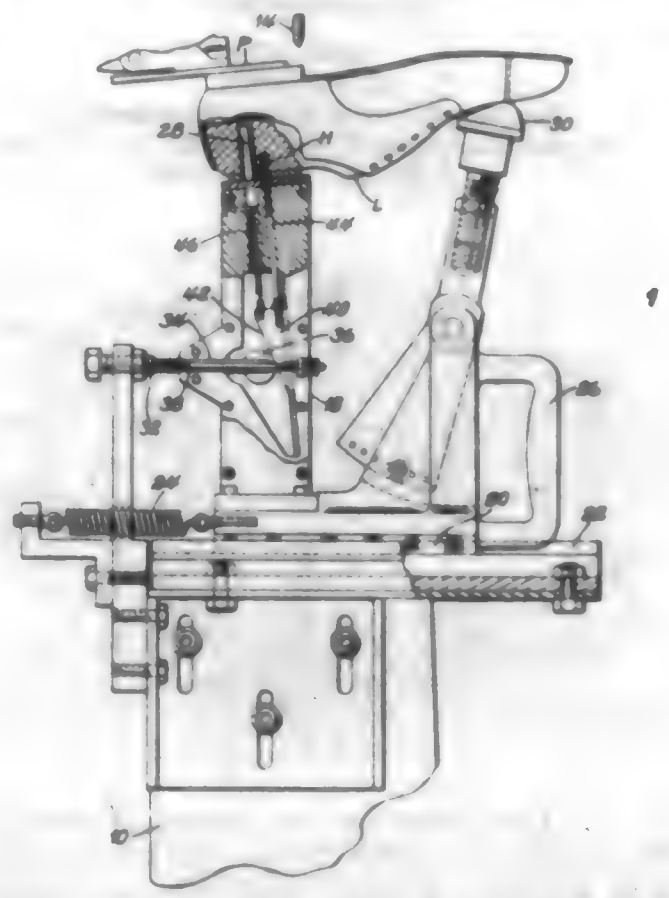
5. In combination, a pad box having an upper resilient diaphragm and a lower support member, a pad box support member, one of said members having pins extending therefrom towards the other member, and the other member having aligned openings therein into which said pins extend when said lower support member is in position on said pad box support member, said members having aligned openings through which fluid is supplied for dilating said diaphragm, and a gasket extending around said last mentioned aligned openings between said members.

2,866,988
LAST POSITIONING DEVICE FOR SHOE MACHINES

Adelbert W. Rockwell, Jr., Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application February 6, 1957, Serial No. 638,621
14 Claims. (Cl. 12—127)

6. In a shoe machine, for performing an operation at an operating station in the machine upon shoe parts that are assembled on lasts of different sizes each of said lasts being provided at an accessible location with a recess having a depth that bears a coding ratio to a size characteristic of the particular last thereby providing an index for determining the correct operative position for each last in the machine so that regardless of size variations the shoe parts may be accurately presented at the operating station, the combination of: a work carriage having mounting means for supporting a last when loaded thereon; means, including a guide tending to urge

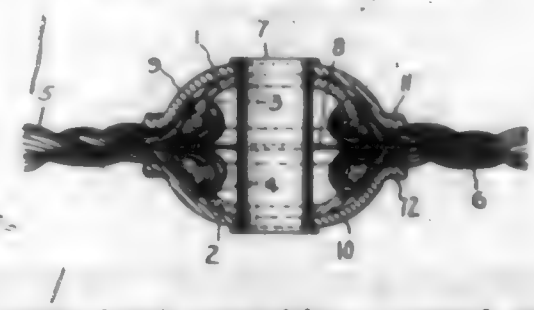


the carriage and last in a direction from a loading station toward and beyond the operating station in the machine; an abutment member shiftably mounted on the carriage and engageable with a stop for variably limiting the movement of the carriage in said direction; a slidable wedge for shifting the abutment member relative to the carriage; a probe finger affixed to the wedge and extending therefrom in a direction so as to enter said recess in a loaded last; and resilient means urging said finger to penetrate the depth of the recess thereby controlling the position of the last and shoe parts with respect to the operating station.

2,866,989
ROTARY BRUSH

Ruben O. Peterson, University Heights, and Brooks E. Nelson, Chagrin Falls, Ohio, assignors to The Osborn Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application October 26, 1953, Serial No. 388,334
14 Claims. (Cl. 15—198)



1. A rotary brush comprising a central tubular hub member, a thin sheet metal washer seated centrally thereon, a pair of similar cupped annular sheet metal discs of smaller diameter than said washer seated on said hub member respectively to either side of said washer

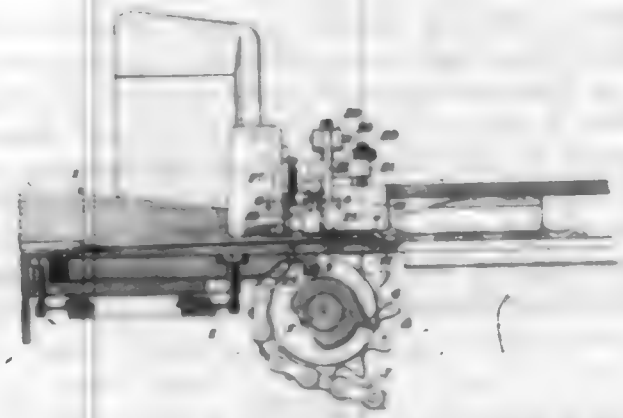
with their concave faces opposed thereto, said discs having a plurality of holes therethrough adjacent their outer peripheral edges with the number of such holes being the same in each disc, a pair of similar dished annular face plates of substantially the same diameter as said washer seated on said hub member and respectively embracing said cupped metal discs, the outer peripheral edge portions of said face plates being recurved to define therebetween a radially outwardly opening annular channel centrally divided by said washer, and twisted tufts of wire brush bristle material inserted through said holes and doubled and twisted on themselves, said tufts extending generally radially outwardly through such annular channel with the tufts thus secured to each disc slightly inclined toward but braced against said interposed washer to position their outer ends in the same general radial plane, the tufts of one disc alternating with the tufts of the other disc and the ends of said hub member being upset to secure the assembly firmly together.

2,866,990

SPACE BAND CLEANING APPARATUS

William P. Donchower, Folsom, Pa., assignor to Maurice H. Hartzell and Blanche D. Hartzell, Chester, Pa.

Application October 26, 1956, Serial No. 618,466
6 Claims. (Cl. 15—93)



1. In a space band cleaning machine of the type having means to feed space bands in the direction of their length so that they have a leading edge comprising, in combination, a knife structure overlying the path of travel of the space bands, a guideway disposed so as to have a vertical downward component, and in which the knife structure is slidable so as to have a component of movement in a downward direction, means for biasing the knife downwardly in its guideway to engage a space band so that as the band moves lengthwise any type metal adhering thereto will be removed by the knife, and means for raising the space band to the knife as the band travels beneath the knife edge.

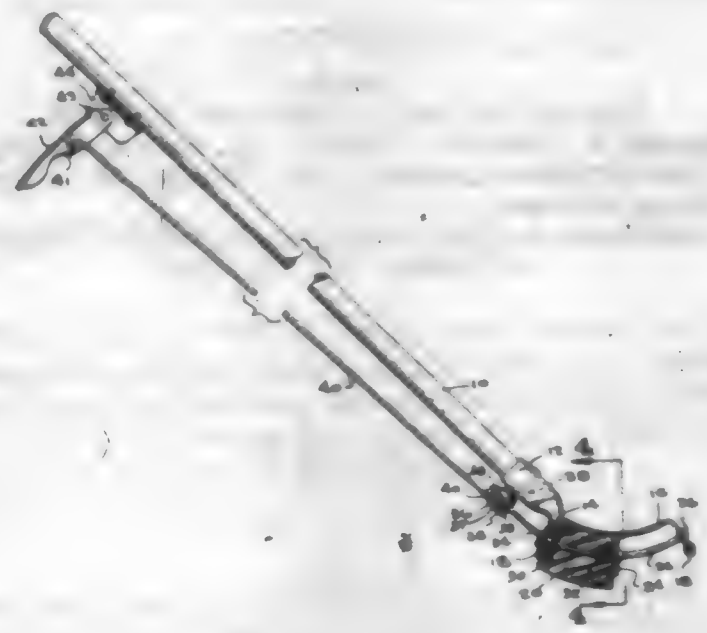
2,866,991

FLOOR MOP HAVING A CURVED HEAD COMPRESSIBLE IN A CORRESPONDINGLY CURVED PATH

David Chao, Los Angeles, Calif.

Application December 14, 1956, Serial No. 628,428
1 Claim. (Cl. 15—119)

A mop comprising: an elongated handle; an elongated frame fixedly secured to the handle and formed as a downwardly opening channel member having its length normal to that of the handle, said member including a top wall generally in the form of the sector of a cylinder having a transversely downwardly convex undersurface and front and back walls extending downwardly from the opposite longitudinal edges of the top wall along lines radiating from the center about which said undersurface is curved; at least one guide pin connected between the front and back walls and curved about said center in downwardly spaced relation to the top wall; a water-absorbent, soft, compressible head embraced by the channel member and having a plurality of transverse bores through one of which the guide pin extends, the head being transversely curved correspondingly to said pin and to the undersurface of the top wall of the frame and having a top surface in face-to-face contact with said top wall, the head having a front and a back surface, the back surface being in engagement with the back wall of the frame; a pressure plate bearing against the front surface of the head and slidably supported on the guide pin; an actuating pin connected to the pressure plate and extending through a second bore of the head, the actuating pin being curved about said center; and means on the handle connected with the actuating pin and shiftable longitudinally of the handle away from the frame, said means moving the pressure plate in an arcuate path about said center toward the back wall to compress the head in said arcuate path between the pressure plate and back wall, said means including a bracket connected to the actuating pin, a yoke pivotally mounted upon the handle adjacent the frame, said yoke being of U-shape and



having a bight portion disposed downwardly from the handle rearwardly of said back wall of the frame, said bight portion extending transversely of the handle and swinging in a downwardly arcuate path, the bracket being U-shaped to include legs and a bight part, the legs of the bracket being loosely pivotally connected to said bight portion of the yoke, and an elongated connecting rod extending longitudinally of and below the handle and having a pivotal connection to said bight portion of the yoke between the legs of the bracket, the actuating pin being engaged in the bight part of the bracket in abutting relation to the connecting rod, said connecting rod extending in position to be shifted longitudinally of the handle by a user, said bight part of the bracket extending in position to hold the actuating pin against movement relative to the bracket in one direction longitudinally of the handle, said connecting rod at the location at which the same is in abutting relation to the actuating pin engaging the actuating pin against movement longitudinally of the handle in an opposite direction.

2,866,992

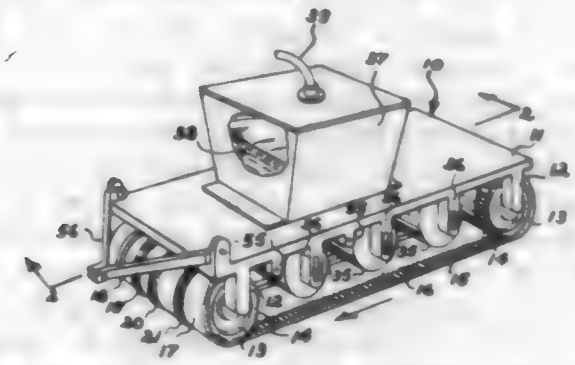
ROAD MARKING APPARATUS

Harry A. Toulmin, Jr., Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application October 15, 1954, Serial No. 462,442
5 Claims. (Cl. 15—131.65)

1. A device for applying plastic paint to a road comprising a vehicle, means on said vehicle for retaining a

supply of plastic paint, an endless track of resilient material supporting the vehicle, substantially V-shaped recesses in said track and adapted to spread on contact with the road to substantially one-half of their original height



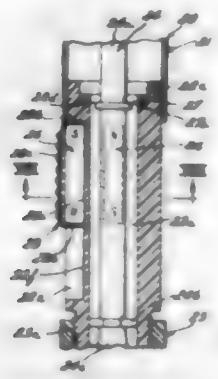
under the weight of the device, the said recesses being transverse to the path of said track, and means on said device for filling said recesses with plastic paint from said paint retaining means.

2,866,993

MAGNETIC FOUNTAIN APPLICATOR

Sigmund E. Edelstone, Chicago, Ill., assignor to Dupli-Color Products Company, Inc., Chicago, Ill., a corporation of Illinois

Application November 18, 1954, Serial No. 469,639
10 Claims. (Cl. 15—139)



6. In a fountain brush having a dispensing nozzle carrying a valve and brush unit, said nozzle having a valve seat adjacent the discharge orifice thereof, said valve and brush unit adapted to be sheathed within the nozzle or have the brush bristles thereof project beyond the nozzle, the improvement of a shiftable magnet carried by an elongated guiding groove in the outer wall of the nozzle, a magnet retainer slidably embracing said nozzle and overlying said magnet in said groove, magnet actuated means on said valve and brush unit in the path of the magnetic field of said magnet to align said means with the magnet, said retainer accessible from the outside of the nozzle to effect shifting of the magnet in said groove and effect shifting of said means and the valve and brush unit within the nozzle to sheath the brush bristles or project the brush bristles as desired and control said valve with respect to said valve seat.

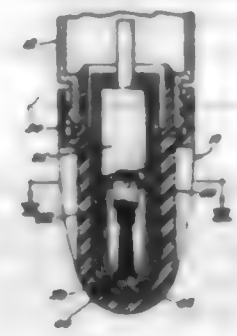
2,866,994

FOUNTAIN APPLICATOR

Albert E. Neely, Chicago, Ill., assignor to Dupli-Color Products Company, Inc., Chicago, Ill., a corporation of Illinois

Application July 18, 1955, Serial No. 522,464
9 Claims. (Cl. 15—139)

1. A device of the type described, comprising a hollow body adapted to contain liquid therein, said body including a mouth, a nozzle projecting outwardly from the mouth of said body, a plug member formed of resilient material providing a radially outwardly extending flange, a first annular sleeve, a second annular sleeve and a radially inwardly extending flange, said radially outwardly extending flange being seated on said mouth, said first annular sleeve being snugly received in said mouth, said second annular sleeve snugly receiving the base end portion of said nozzle, said radially inwardly extending flange presenting an end abutment in said second annular sleeve, the base end portion of said nozzle being seated on said abutment, a removable closure cap embracing said nozzle, said cap having an end seal overlying the nozzle end to seal the nozzle, thread means interconnecting said cap and said body, said cap having



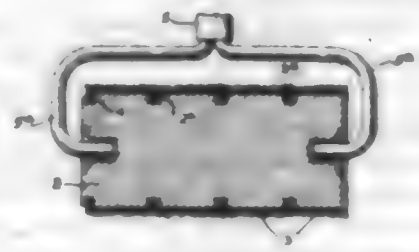
an internal shoulder seating on said radially outwardly extending flange and bearing thereon in response to tightening of said cap onto said body to effect a sealing engagement of said cap onto said flange and said flange onto the mouth of the body, said overlying end seal of said cap forcing the base end of said nozzle into sealing engagement with said end abutment while the shoulder is bottomed on the radially outwardly extending flange in response to tightening of said cap onto said body.

2,866,995

PAINT ROLLER FOR WOVEN WIRE FENCES

Ingwald M. Evensen, Toronto, Ontario, Canada

Application November 13, 1952, Serial No. 320,213
11 Claims. (Cl. 15—230)



5. A paint roller for fencing of the kind formed by a plurality of wires so engaged with each other that they define lines of wires running in one direction and other lines of wires transverse to the first-mentioned lines, comprising a rigid rotatable cylinder having a groove in its outer cylindrical surface, the groove encircling the said cylinder and being of a width sufficient to accommodate wire of the fencing extending in the direction of the groove to locate the roller relatively to the fencing, the cylindrical surface at either side of the groove being of materially greater width measured in a direction transverse to the groove than the width of the groove itself, a covering on the cylindrical surface at either side of the groove, the covering having an outer soft fibrous pile surface and being adapted to spread paint over wires extending in a direction transversely of the groove, and free edge portions of the covering overhanging the groove from each side of the groove, the free edge portions being sufficiently flexible to be deflectable into the groove by wire extending in the direction of the groove to spread paint over the wire.

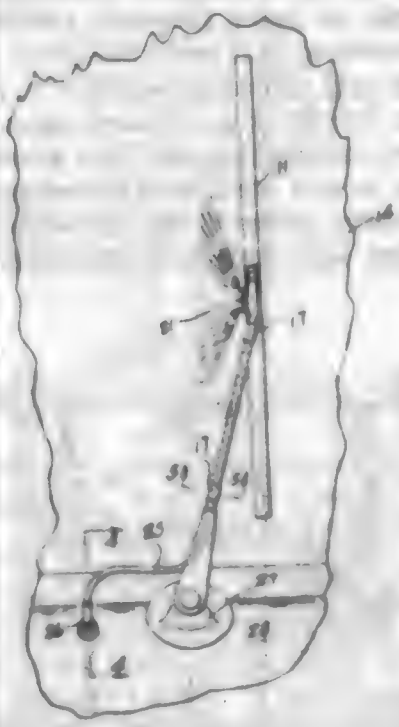
2,866,996

WINDSHIELD WASHER DEVICE

Edwin C. Krusche, Homewood, Ill.

Application May 24, 1957, Serial No. 661,527
3 Claims. (Cl. 15—250.4)

1. In a windshield wiper assembly, a substantially flat oscillating drive arm, a wiper blade, means pivotally connecting the end of said drive arm to the intermediate portion of said blade, a rigid liquid liquid conduit, a plurality of flat plate elements secured to the top surface of said conduit, means clampingly securing said plate elements against the bottom surface of the drive arm, whereby to support said conduit beneath said drive arm in



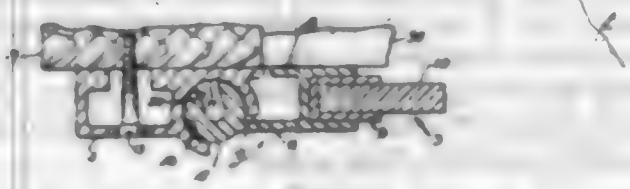
a position extending toward the blade, an offset portion on the end of said conduit adjacent the blade, said offset portion being closed at its end and being apertured to define a nozzle directed laterally relative to the blade, and a flexible conduit connected to the opposite end of said rigid conduit and adapted to be connected to a source of windshield-clearing liquid.

2,866,997

CONTINUOUS HINGE

Harold E. Eskridge, Akron, and Waldo O. Johnson, Wooster, Ohio, assignors to Weather-Seal, Inc., Barberton, Ohio, a corporation of Ohio

Application April 5, 1957, Serial No. 651,879
2 Claims. (Cl. 16—171)



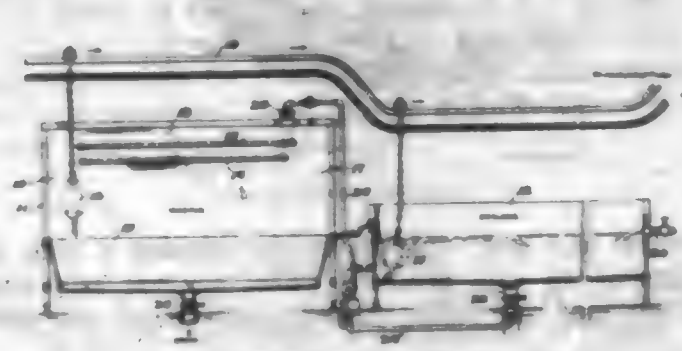
1. In a hinge construction for mounting a closure on a supporting frame comprising one hinge member having a cylindrical hinge pintle, said hinge pintle having an integral flat flange extending therefrom in non-symmetrical relation thereto, said flange defining a plane intersecting a radius of the pintle and positioned parallel to a tangent to said radius, and a second hinge member having an arcuate surfaced hinge pintle socket of uniform radius throughout provided therein and with a non-symmetrically positioned slot extending the length of such hinge pintle socket and having an outer marginal portion spaced from said radius, said hinge pintle socket pivotally receiving said hinge pintle with said flange extending through said slot, the arcuate surface of said hinge pintle socket being in full bearing contact with all of said cylindrical hinge pintle received therein, said hinge pintle and said hinge pintle socket being constructed and arranged to have motion limiting contact therebetween only by said outer marginal portion of said slot contacting said flange in one direction of movement of said closure, said first hinge member having a section connected to said flange for supporting said closure, said second hinge member having a section thereon by which such hinge member can be secured to said supporting frame, said section of said first hinge member connected to said flange contacting said frame to limit hinge action in the other direction of hinge movement.

2,866,998

METHOD OF TREATING AND PROCESSING POULTRY

Herman B. Turner, Timberville, Va.

Original application February 24, 1955, Serial No. 490,176, now Patent No. 2,820,245, dated January 21, 1958. Divided and this application July 2, 1957, Serial No. 669,504
1 Claim. (Cl. 17—45)



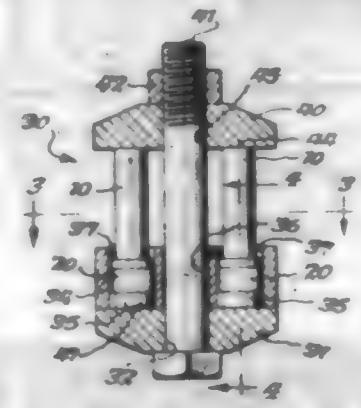
The method of treating freshly killed poultry prior to defeathering thereof comprising first washing the poultry by hot-spraying the same and then immediately scalding the poultry at a temperature in the range of about 120° to 125° F. for from 10 to 20 seconds.

2,866,999

METHOD AND APPARATUS FOR MAKING PLASTIC SEAL MEMBERS FOR LIQUID SPRINGS

Paul H. Taylor, Grand Island, N. Y., assignor to Walker-Strippit Corporation, North Tonawanda, N. Y., a corporation of New York

Application March 16, 1954, Serial No. 416,527
8 Claims. (Cl. 18—1)



8. A resizing and remolding fixture for plastic seals that have been molded around reciprocal metallic pistons and each of which has a circular groove in one end thereof, comprising a die that has a plurality of cylindrical die cavities spaced equi-angularly about a common axis and adapted to receive a plurality of said pistons, a seat in each cavity against which one end of a piston is adapted to seat, a ring in each cavity shaped complementary to said circular grooves and against which the circular groove in the seal on a piston seats, a clamping disc for engaging the opposite ends of the pistons distal from said grooves, and a bolt and nut for adjusting said disc toward said die to apply pressure by means of said rings to said seals.

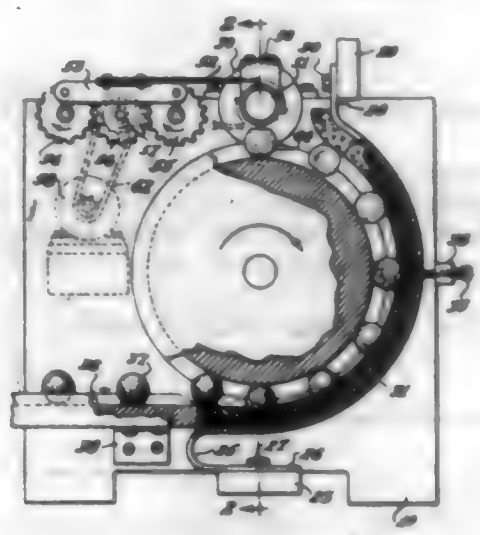
2,867,000

MECHANISM FOR FORMING VARIOUS ARTICLES FROM MOLDABLE MATERIALS

Kalman Z. Huszar, Foster, Ohio

Application April 24, 1956, Serial No. 580,358
11 Claims. (Cl. 18—5)

11. Apparatus comprising a frame, a rotatable circular wheel having a groove throughout its perimeter, an arcuate spring spaced from said wheel, a resilient pad on said spring, means to rotate said wheel on its



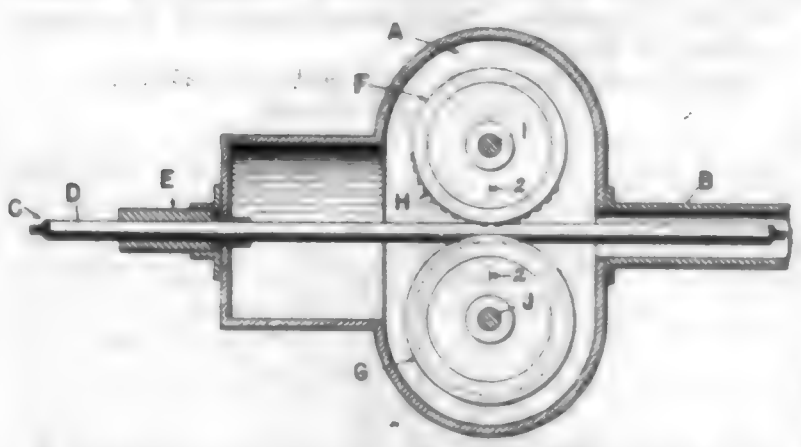
axis toward said pad, and means for placing a slug of said material on said grooved wheel so that said slug will be squeezed and rolled between said wheel and pad.

2,867,001

MEANS AND METHOD FOR FORMING INDICIA ON THE SURFACE OF CONTINUOUS VULCANIZED PRODUCTS

Edward H. Lewis, Los Angeles, Willis D. Rice, Monterey Park, and Edward Estrin, Los Angeles, Calif., assignors to Western Insulated Wire Co., a corporation of California

Application December 3, 1954, Serial No. 472,884
7 Claims. (Cl. 18—6)



1. The method consisting in continuously feeding into and through a vulcanizing atmosphere a length of conduit having a sheath formed of extruded plastic vulcanizable material, and after a minor period of exposure of the conduit sheath to said atmosphere as compared to the period required for sheath vulcanization and not earlier than about the moment sheath surface vulcanization commences, the step of simultaneously molding and pre-vulcanizing indicia of substantial thickness on said sheath while in such atmosphere under applied heat and pressure and while the other sheath areas are undergoing the surface vulcanizing action of said atmosphere, and said minor period of sheath exposure to said atmosphere reducing exterior sheath body elasticity and increasing its density at such area so as to result in better compacting of the sheath body at and inwardly of the walls of indicia formed therein.

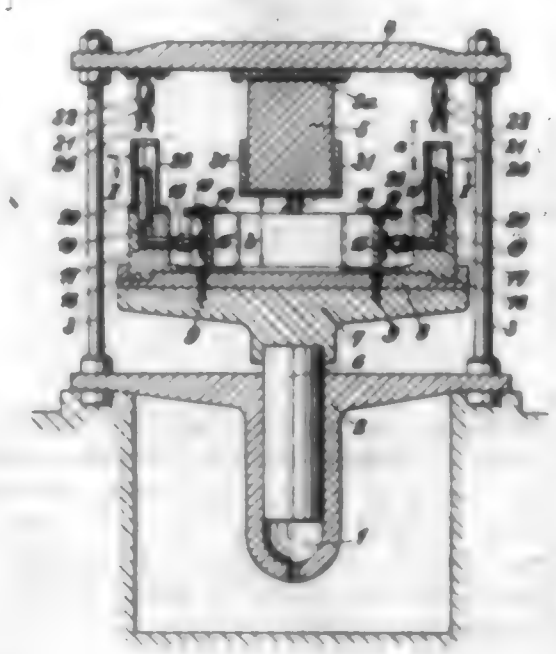
2,867,003

PRESS ATTACHMENT

Bogdan Zaloszecky, Vienna, Austria, assignor to Fa. Gassmeck, Vienna, Austria

Application January 30, 1957, Serial No. 637,194
Claims priority, application Austria February 1, 1956
10 Claims. (Cl. 18—16)

9. A molding press comprising, in combination, a first press member and a second press member, one press member being movable in one direction toward nad away from the other press member between a retracted position and an advanced operative position; a set of lateral press jaws mounted on said first press member, each press jaw being movable in a direction transverse to said one direction between an outer retracted position and an inner advanced position, said press members and said press jaws defining in said advanced positions a pressure space for molding an article of granulated material; hydraulic operating means mounted on said first press member and being connected to said press jaws for actuating the same; and coupling means mounted on said second press member and engaging said hydraulic operating means in an



intermediate position of said one press member during advance movement of the same for actuating said hydraulic operating means so that during further advance movement of said one press member said press jaws are moved from said outer retracted positions to said inner advanced positions and whereby during the return movement of said one press member from said advanced position said press jaws are moved to said retracted positions; and a set of stationary releasing means on said first press member for engaging and releasing said coupling means in another intermediate position of said one press member when said press jaws arrive in said retracted positions of the same.

2,867,003

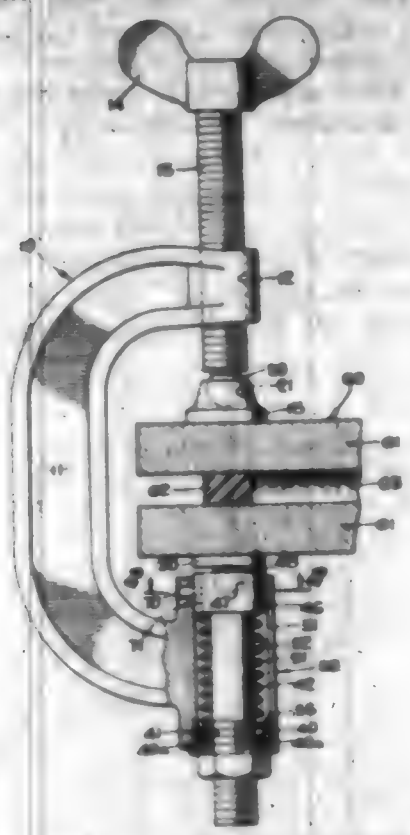
APPARATUS FOR CASTING PLASTIC SHEETS

Kenneth M. Stiles, Van Nuys, Calif., assignor to The Sierracin Corporation, Burbank, Calif., a corporation of California

Application February 13, 1956, Serial No. 565,207
8 Claims. (Cl. 18—39)

1. A clamp for use in casting plastics in sheet form, comprising the combination of a generally C-shaped body member having an upper leg and a lower leg, a lead screw operably connected to said upper leg for clamping adjustment relative thereto, an upper foot member operably connected to said lead screw, a lower foot member operably connected to said lower leg for clamping adjustment relative thereto, means for resiliently urging said lower foot member in the direction of said upper

foot member, means for adjusting the resiliency of said urging means and means for releasably locking said



lower foot member against movement in response to said resilient means.

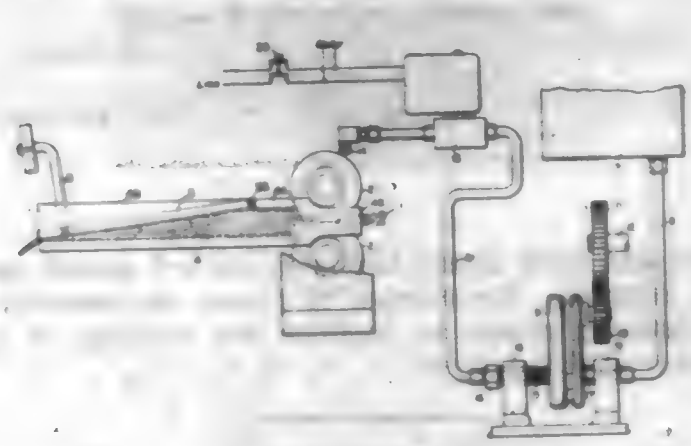
2,867,004
PRODUCTION OF POLYAMIDE BARS IN CONTINUOUS PROCESS
Robert Levium, Ede, and Jan Lodewijk Voigt, Arnhem, Netherlands, assignors to N. V. Onderzoekingsinstituut Research, Arnhem, Netherlands, a corporation of The Netherlands
Application December 30, 1954, Serial No. 478,816
Claims priority, application Netherlands December 31, 1953
5 Claims. (Cl. 18—55)



1. A continuous process for the manufacture of elongated shaped articles of substantial cross-section from an artificial thermoplastic substance having a narrow melting range comprising the steps in sequence of melting said artificial thermoplastic substance to form a free-flowing liquid, feeding the liquid in the form of a stream under pressure at a substantially uniform temperature through a heat-insulating zone to a molding zone immediately following the heat-insulating zone, shock cooling the stream upon entry into the molding zone to form a thick solid annulus of the material adjacent the entrance to the molding zone, moving the annulus through the molding zone where it becomes progressively thicker until a solid elongated shaped article is formed, and continuously pulling the formed elongated article under tension from the cooled molding zone.

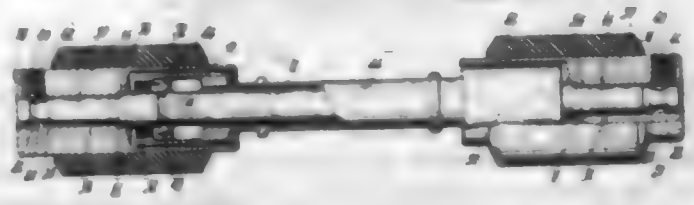
2,867,005
METHOD AND APPARATUS FOR CONTINUOUS PRODUCTION OF LIQUID TREATED CRIMPED TEXTILE FIBERS
Silas M. Wheelock, North Andover, Mass., assignor to Pacific Mills, Lawrence, Mass., a corporation of Massachusetts
Application June 11, 1953, Serial No. 360,990
2 Claims. (Cl. 19—66)

1. An apparatus for the continuous production of liquid-treated crimped textile fibers which comprises a pair of rotatable feeding rolls which grip and feed strands of fibers, a receptacle into which the strands are fed and in which the strands are crimped, said receptacle diminishing in cross-sectional area in the direction of feed of the strands, and means for applying a finish to the



crimped strands comprising a pump to deliver fine streams of the finish to the surface of one of the feeding rolls, a valve for controlling delivery of said finish from said pump and means for opening said valve upon rotation of said rolls and for closing said valve when said rolls are not being rotated.

2,867,006
TOP ROLLS
Lester W. Pray, Saco, Maine, assignor to Saco-Lowell Shops, Boston, Mass., a corporation of Maine
Application March 30, 1956, Serial No. 575,200
7 Claims. (Cl. 19—142)

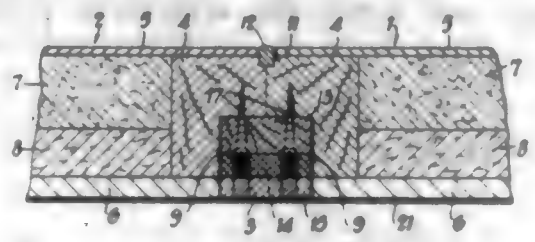


1. A top roll comprising a central shaft having at least one end portion of reduced diameter with a surface portion extending between the central portion of said shaft and said end portion, an annular groove with a conical outer surface adjacent the outer end of said end portion, a pair of axially-spaced bosses mounted on said shaft, at least one of said bosses having an axial bore receiving said shaft end portion including an inner bore mating with said surface portion to limit movement of said boss inwardly along said shaft, and fastening means demountably securing said one boss to said shaft for rotation therewith, said fastening means having an end surface mating with the conical outer surface of said groove to limit movement of said boss outwardly along said shaft.

2,867,007
BUILDING STRUCTURES
William Andrew Balmain, London, England, assignor to Uni-Seco (Overseas) Limited, London, England, a British company
Application November 22, 1954, Serial No. 470,433
Claims priority, application Great Britain September 15, 1954
4 Claims. (Cl. 20—4)

2. In a building structure comprising prefabricated, thermally-insulated building panels assembled in aligned relationship to form a wall or ceiling of said structure, a jointing post for securing together juxtaposed, edge portions of adjacent panels, said jointing post comprising an elongated, laminated member formed by at least three layers of comparable thicknesses including a first layer for engaging said juxtaposed edge portions of said panels and adaptable for securing said panels thereto by fastening

means inserted through said first layer into said panel edge portions, a second layer of thermally-insulating material superposed on said first layer and a third layer of facing material superposed on said second layer, said



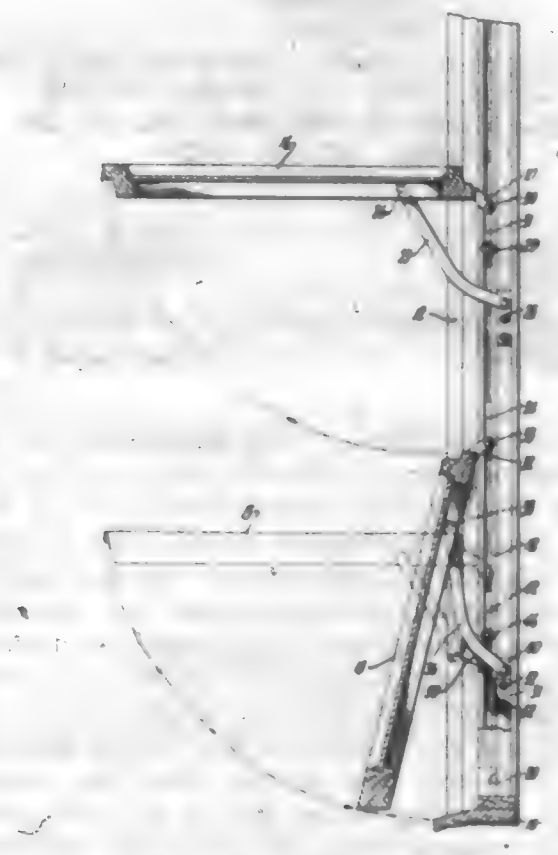
second and third layers having performed spaced apertures extending therethrough to permit the insertion of the fastening means to facilitate the securing of said panels to said first layer.

2,867,068

INDEPENDENTLY OPERABLE MULTIPLE SASH CONSTRUCTION WITH AUTOMATIC CLOSING MECHANISM

Arthur H. Soule, San Marino, Calif., assignor to Continental Specialties Company, Ltd., Los Angeles, Calif., a corporation of California

Application June 1, 1951, Serial No. 229,516
1 Claim. (Cl. 20—42)



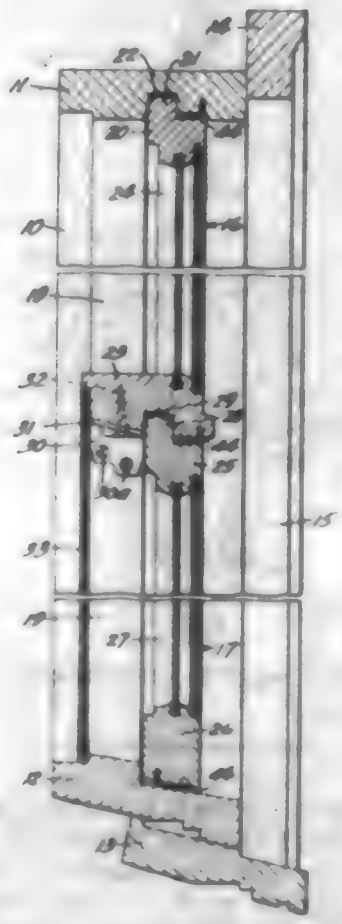
A louver-type window construction, comprising a frame, a plurality of sashes, means for swingably mounting the sashes in the frame including mechanism for retaining the sashes in open position when the sashes are moved to opened position, latch means releasably connecting one of said sashes to the remainder of said sashes to allow movement of said one sash in an opening direction to be imparted to the remaining sashes, means operable when said one sash is moved from a closed position to an open position to release said latch means to permit closing movement of said one sash independently of said remaining sashes, and a pair of leaf springs connected to the frame and arranged to be engaged by that portion of the first-named means swingably mounting said one sash when said one sash is opened, whereby movement of said first-named means will deform said leaf springs and said leaf springs will thereby urge said first-named means in the opposite direction to cause said one sash to return to its closed position after the force causing opening of said one sash is removed.

2,867,069

WINDOW STRUCTURE

Vera P. Fredricksen, Bayport, Minn., and Lyle W. Ward, Hudson, Wis., assignors to Andersen Corporation, Bayport, Minn., a corporation of Minnesota

Application February 6, 1957, Serial No. 638,487
2 Claims. (Cl. 20—42)



2. A window structure comprising, a frame having a header, side jamb and sill members, upper and lower sashes normally extending substantially in a common plane in said frame and having vertically disposed stile members, said upper sash having a meeting rail and said lower sash a hinge rail formed to fit in interlocking engagement with said meeting rail, said meeting rail projecting at the inner side of said hinge rail and having an outwardly and downwardly sloping bottom surface, angle brackets secured to said side jamb members respectively for fastening said upper sash in a fixed position in said frame, each of said brackets having an inclined flange slidably fitting the lower surface of an inwardly projecting portion of said meeting rail and permitting outward swinging of said meeting rail and upper sash relative to the frame for removal of the upper sash, means for detachably connecting said inclined flange of each of said brackets to said meeting rail, and hinge means having members connected to said side jamb members and to said stile members of the lower sash respectively for supporting said lower sash in various open positions in which said sash projects angularly to and outwardly from the upper sash.

2,867,010

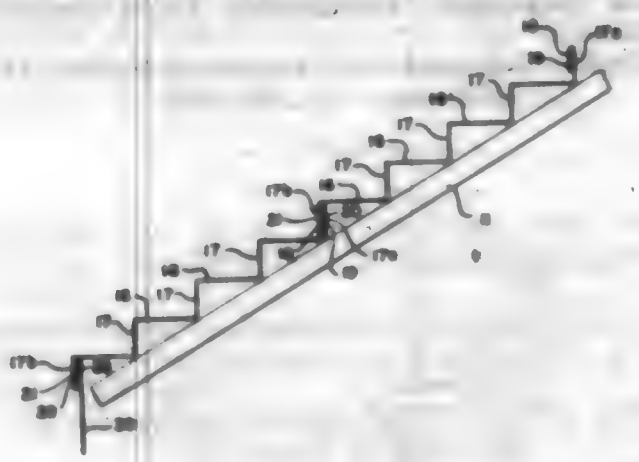
AWNINGS

Samuel H. Ellman, Detroit, Mich., assignor to Lite-Vent, Inc., Detroit, Mich.

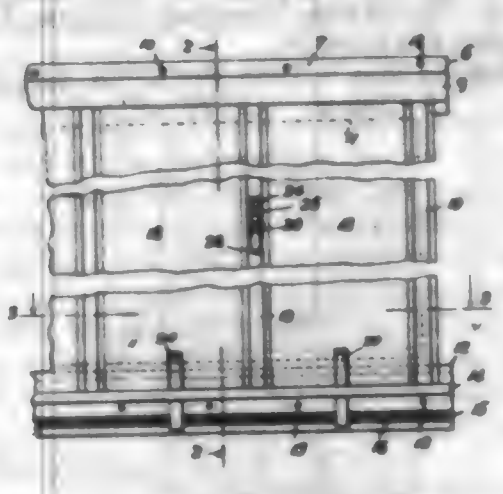
Application December 28, 1956, Serial No. 631,365
1 Claim. (Cl. 20—57.5)

In an awning formed of a unitary, thin sheet metal material bent into a stair-like configuration in cross-section, the improvement consisting of a single panel being formed of a number of identical sections each extending the entire width of the panel and each section being bent into a number of identical downwardly directed steps extending the full width of the section and formed of risers and treads which meet at substantially sharp right angle bends and terminating in risers, the riser on the up-

ward end of the section extending upwardly and the riser on the downward end of the section extending downwardly, with the riser at each end having an integral flange bent from and arranged parallel to the respective riser and extending the full length of the respective riser and spaced from the riser a distance approximately the thickness of the sheet material to form a channel opening towards the steps, but with the flanges being on the sides of their risers which face towards each other and the end risers being of the same height as the risers located between them; the flange on one section riser being frictionally interlocked in the channel of the adjacent section riser to secure the sections together end to end and to form a four ply thick seam extending the full width of the panel and acting as a support joint, with the interlocking being accomplished by sliding one flange into the adjacent channel in the direction of the length of the flange and of the channel, wherein the sections form a single panel having the appearance of being formed of a single sheet of material shaped like a conventional stairs; said panel being secured to support bars having flat top surfaces and arranged beneath the panel transverse of the steps, with the sharp corners formed by a tread meeting the lower end of a riser resting upon the support bar top surfaces.

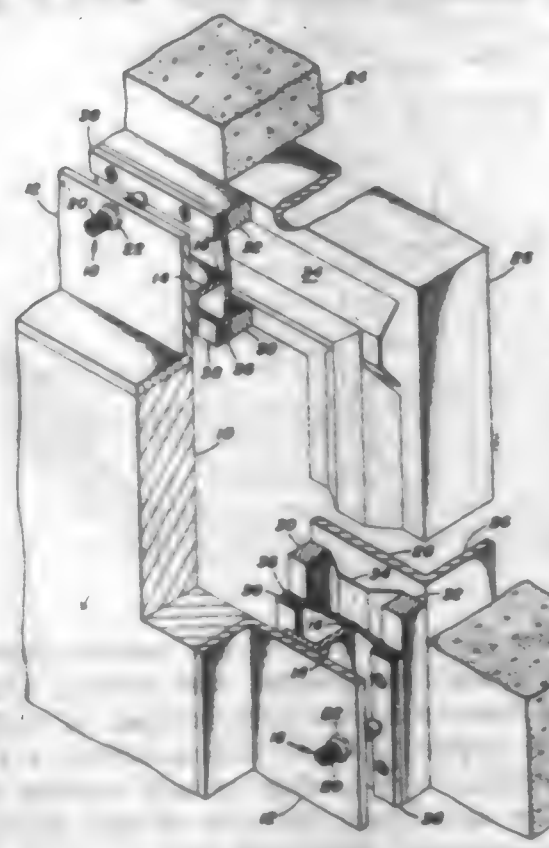


2,867,011
SHUTTER STRUCTURE
Nathan Becker, Miami, Fla., assignor to Birmingham Industries, Inc., Miami, Fla., a corporation of Florida
Application June 6, 1955, Serial No. 513,284
4 Claims. (Cl. 20—58)



1. In a shutter structure, a mounting base secured below the window opening and parallel therewith, a sill projecting outwardly from said mounting base at substantially right angles thereto and having an opening therein terminating adjacent to said base, a panel covering said window opening and resting at its lower edge on said sill against said base, said base having an outwardly bowed portion at its lower end spaced said sill and beyond the inner edge of said opening, and a wedge inserted through said sill opening and engaged with said outwardly bowed portion whereby the upper end of said wedge is forced inwardly by said bowed portion into engagement with said panel.

2,867,012
DOOR SEAL
Warren E. Emley, Jr., Berea, Ohio
Application March 30, 1956, Serial No. 575,288
4 Claims. (Cl. 20—69)
(Granted under Title 35, U. S. Code (1952), sec. 266)

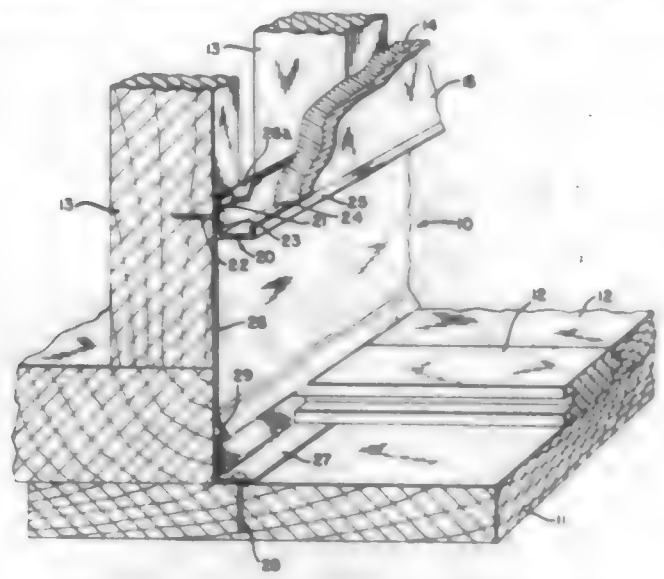


3. A sealing arrangement for a door and an associated structure having a door opening comprising, a frame supported on said structure in surrounding relationship to said door opening provided with a channel recess extending the full peripheral length of said frame, a thin, strong, flexible, non-elastic, impervious, heat-resistant diaphragm extending across the face of said channel recess the full length thereof, means for securing the edges of said diaphragm along the edges of said channel recess, spring means within said channel recess continuously supporting said diaphragm and urging said diaphragm outwardly of said channel recess as a flat surface substantially parallel to the plane of the door opening, said spring means having a substantial continuous flat portion adapted to engage the diaphragm and a pair of spring leg members extending from each edge of said flat portion and lodged in the inner corners of said channel recess such that the figure in a plane transverse of said channel recess defined by the spring and the base of the channel recess opposite said diaphragm is substantially that of an isosceles trapezoid, a contact member extending peripherally of said door having a rigid sealing edge to effect substantially a peripheral line-contact seal with the flat, spring-supported portion of said diaphragm upon closure of said door.

2,867,013
PREFORMED BASE MEMBER
Everett K. Haag and Wilbur V. Helsinger, Cuyahoga Falls, Ohio, assignors to Paragon Development, Inc., Cuyahoga Falls, Ohio, a corporation of Ohio
Application June 14, 1955, Serial No. 515,384
4 Claims. (Cl. 20—74)

1. A wall base as for trimming the lower corners of a room defined by wall and floor structures thereof, comprising an elongated relatively thin backing plate of substantial width in a vertical plane thereof and adapted to

be attached flatly against said wall structure adjacent the floor structure prior to application of wall finishing material to the wall structure, said backing plate having an inwardly presented rib-like projection coextending lengthwise thereof adjacent the lower marginal portion of the same and defining a horizontally presented shoulder adapted to engage along a marginal horizontal face of a floor finishing layer mounted on the floor structure with the marginal edge of the layer presented toward said wall structure, said backing plate having affixed thereon an inwardly extending angular flange which is spaced



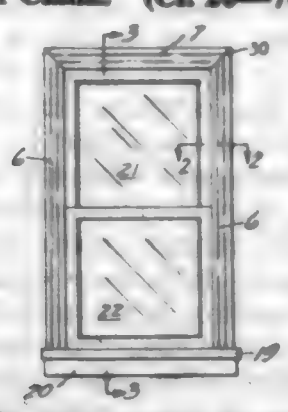
vertically below the upper edge of the backing plate and providing an upwardly presented seat portion adapted to receive the lower marginal edge portions of wall finishing material applied to said wall structure, a longitudinally continuous web portion of said backing plate defined between said flange and said rib-like projection thereby being outwardly offset with respect to the inner edge of said flange and thereby adapted to be offset with respect to the inner face of said applied finishing material, said web portion providing an inwardly and substantially unobstructedly exposed surface of broad lateral area.

2,867,014

WINDOW CASING CONSTRUCTION

Vern P. Fredricksen, Bayport, Minn., assignor to Andersen Corporation, Bayport, Minn., a corporation of Minnesota

Application July 30, 1957, Serial No. 675,077
1 Claim. (Cl. 20—74)



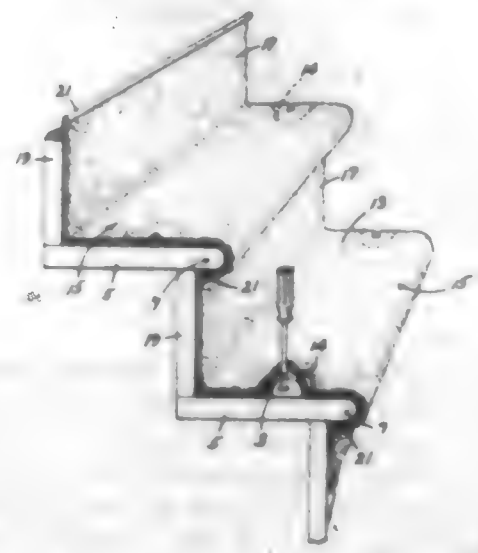
A trim strip adapted to cover the joint between a window frame member or the like and an adjoining wall surface regardless of whether said wall surface is flush with said frame member or offset inwardly or outwardly therefrom, said trim strip having opposite longitudinal sides either of which is adapted to be exposed to view or selectively applied toward said frame member and wall surface, and having one longitudinal edge portion which is relatively thicker than the other longitudinal edge portion, narrow substantially parallel marginal surfaces extending along each of said edge portions, the marginal surfaces at one side of said strip being in a common plane and the marginal surfaces at the other side being offset laterally one from the other, and relatively wide intermediate curved surfaces extending between the marginal surfaces at each side and merging therewith gradually, the portions of said curved surfaces adjoining said marginal surfaces being adapted to contact the underlying wall surface and frame surface with said marginal surfaces disposed at various angles to compensate for minor variations in the relative positions of the wall surface and frame.

2,867,015

STAIRWAY CARPETING

William E. Meixner, Devon, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application September 26, 1956, Serial No. 612,253
10 Claims. (Cl. 20—79)



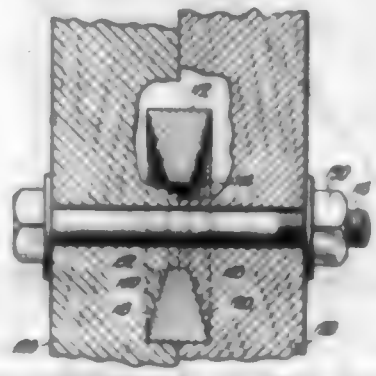
1. A stairway carpet section adapted to cover at least the tread surface of a stairway comprising a backing panel, and a covering secured to the backing panel in contacting relationship, said fabric covering being free of the panel for a small area at least along one boundary of the panel whereby the fabric covering may be raised from the panel at this area, and means cooperating with the panel at said free area for use in affixing the carpet section to the tread surface of the stairway.

2,867,016

TIMBER CONNECTOR

Donald R. Baker, Blue Springs, Mo., and John A. Nelson, Overland Park, and Alton B. Storer, Mission, Kans., assignors to The Marley Company, Kansas City, Mo., a corporation of Delaware

Application May 9, 1955, Serial No. 507,103
5 Claims. (Cl. 20—92)



1. A connector for increasing the load-carrying and shear strength characteristics of a tie bolt joint interconnection between the overlapped ends of a pair of elongated timbers comprising an annular, unitary member adapted to be embedded equally within identical, preformed, substantialy complemental recesses in opposed faces of the timbers and in surrounding relationship to the tie bolt, said member having radially spaced, substantially cylindrical, parallel, inner and outer peripheral

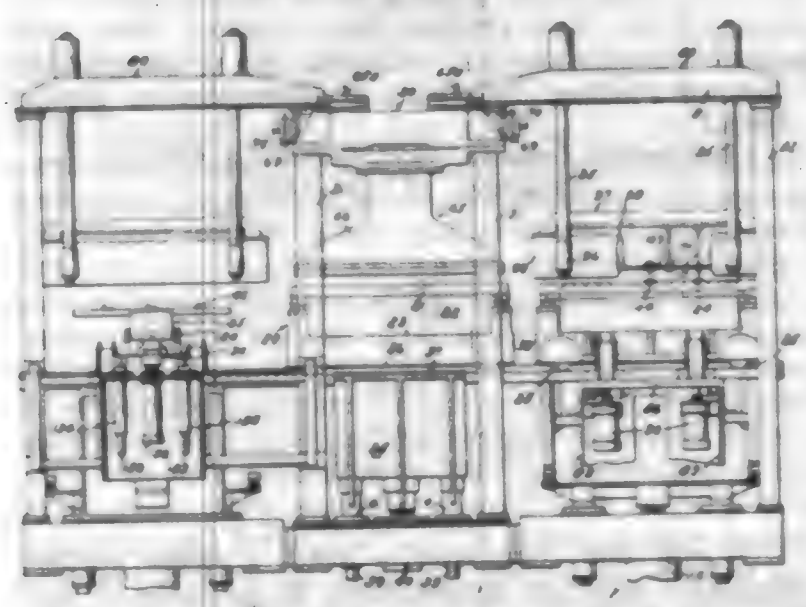
surfaces and opposed annular sides joining said surfaces, said peripheral surfaces each being spaced from and concentric with the tie bolt when the connector is in said recesses, said outer peripheral surface being substantially wider than the inner peripheral surface and the latter being disposed substantialy midway between the circular edges of said outer peripheral surface and the distance between said peripheral surfaces being greater than the distance between the outer cylindrical face of the bolt and said inner preipheral surface of the connector when the latter is disposed in said recesses, the sides of said member being substantially frusto-conical in configuration and progressively and uniformly converging from said outer peripheral surface to the inner peripheral surface of the connector whereby the diameter of said outer peripheral surface defines the outer diameters of the timber cores presented by said opposed annular recesses.

2,867,017

METHOD OF AND APPARATUS FOR MAKING RESIN BONDED SAND SHELL MOLDS AND CORES

Raymond H. Sutter, Bloomfield Township, Mich., assignor to Sutter Products Company, Holly, Mich., a corporation of Michigan

Application February 13, 1957, Serial No. 639,977
3 Claims. (Cl. 22—10)



1. In a method of making heat-cured sand cores or molds in two pattern boxes each having separable cope and drag sections, the steps of positioning one of said pattern boxes at a first station, introducing at said first station a heat-curable sand composition into an interior pattern cavity cooperably defined by the cope and drag sections of said one pattern box, shifting the one pattern box to a second station, subsequently positioning a second pattern box at the first station for the introduction of the sand composition thereinto, heat curing the sand composition in the one box while at said second station, separating the cope and drag sections of the one box, stripping and removing cured sand cores or molds from the one box at said second station, shifting said second box to a third station for curing and stripping of the molds or cores therein, and returning said first box to said first station only after said second box has been shifted therefrom.

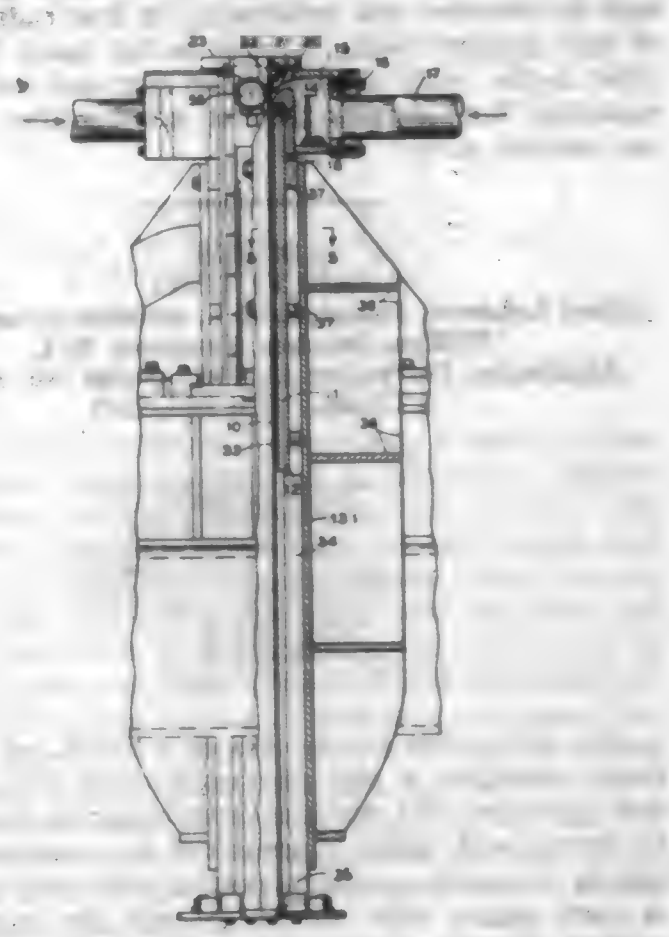
2,867,018

CONTINUOUS CASTING MOLD

Isaac Harter, Jr., and Temple W. Ratcliffe, Beaver, and William G. Wilson, Beaver Falls, Pa., assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application July 19, 1955, Serial No. 522,914
10 Claims. (Cl. 22—57.2)

7. A fluid cooled mold comprising a plurality of substantially upright mold liners positioned in abutting relationship to define an open ended continuous casting mold, walls including a horizontally positioned plate member adjacent the upper end of each of said mold liners and defining a cooling fluid inlet chamber at the upper end portion of each of said mold liners, means for pendently supporting each of said mold liners from one of said plate members, a weir plate exteriorly spaced from each of said mold liners to form a cooling fluid flow passage between said liner and weir plate, the upper



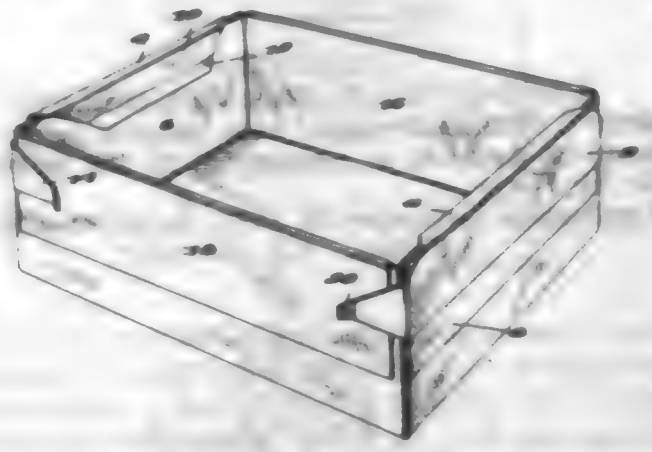
end portion of said weir plate projecting into said fluid inlet chamber to a position spaced from said horizontal plate member and cooperating therewith to define a converging entrance to said cooling fluid flow passage, the lower end of each of said weir plates terminating at a position intermediate the vertical length of said mold liner, and a support member rigidly positioning each of said weir plates and the lower end of each mold liner against movement in a direction normal to the plane of said weir plate.

2,867,019

DEVICE FOR HOLDING DOWN FLAPS OF CARDBOARD BOXES

Clifford J. Streeter and Kenneth R. Kadoun, Coeur d'Alene, Idaho

Application March 5, 1956, Serial No. 569,338
3 Claims. (Cl. 24—81)



1. A device for holding down three flaps of a cardboard box or the like comprising an elongated flat member having a length slightly greater than one side of the box, a first part extending from the top edge of the member centrally thereof at right angles thereto and a second

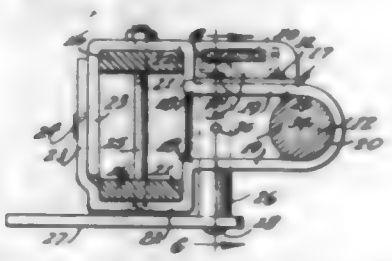
part extending from the first part at right angles thereto in a plane parallel with the plane of said member and forming therewith a downwardly open groove of a width substantially equal to the combined thickness of the box side wall and one of the cover flaps, and portions extending from either end of said member in the same direction as said first part and in planes perpendicular to the plane thereof for engaging the flaps on the sides of the box, said portions being substantially shorter than said flat member and terminating in free ends, all parts of said portions being at least as far apart from each other as the width of said second part and said portions extending further from the flat member than said first and second parts.

2,867,020

SAFETY UNIT

Albert Lefebvre, Johnston, R. I., assignor of one-half to William Jakober, Cranston, R. I.

Application November 13, 1953, Serial No. 391,899
1 Claim. (Cl. 24—134)



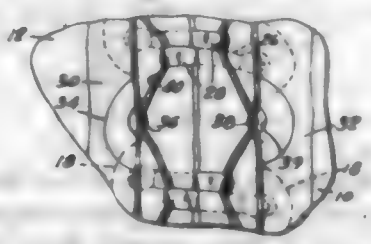
In a safety unit for a cable of a block and tackle, a casing including a pair of spaced apart side members each including flat portions interconnected together by an arcuate web which is positioned in circumjacent relation to the cable, a straight section extending outwardly at right angles with respect to each flat portion, flat sections extending from each straight section, and overlapping end portions extending inwardly from said flat sections and secured together, a shaft extending rotatably through said flat portions and having a reduced diameter portion, an exteriorly knurled cam secured to said shaft and interposed between said pair of flat portions for engagement with the cable, an L-shaped pin mounted in said shaft and extending from said shaft and outwardly from one of said side members, a coil spring connected to said pin and to said one side member, said spring serving to maintain said cam immobile in its adjusted positions in engagement with the cable, and a cover enclosing said coil spring, a handle secured to the reduced diameter portion of said shaft, said cam having an arcuate recessed portion for engagement with the cable, said handle being arranged on the opposite side of said casing from said cover, the sides of said cam frictionally and snugly engaging the inner surfaces of said flat portions.

2,867,021

LACING FOR RADOME PANELLING

Casimir T. Wittl, Tallmadge, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force

Application September 23, 1957, Serial No. 685,764
3 Claims. (Cl. 24—140)



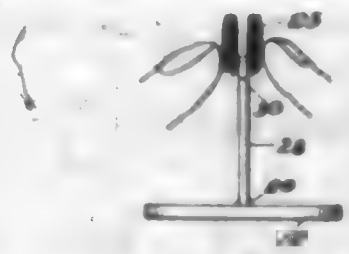
1. A hinge type lacing for panelling for double walled structures comprising a first double walled panel and a second double walled panel, four strips attached to said panels in parallel relationship, one positioned adjacent each adjoining panel edge and spaced therefrom, said strips being formed with a tubing along the inner edge of each, and having spaced openings in said tubing, reinforcing patches placed along said strips and around said tubing, said patches having openings coinciding with the openings in said strips, four ropes, one drawn through each of said tubings and forming with said openings a series of eyes along the facing edges of said strips, a series of looped straps secured into the eyes which are located on one side area of said first and second panels, said looped straps being drawn through between the mating edges of said first and second panels, a rope anchored on said first panel and threaded upwardly, first through an eye located on one side area of said first panel, then through a looped strap originating from the opposite side of said second panel, through an eye of said first panel and so on upwardly until all of the eyes on one side of the first panel and all of the loops originating from the second panel have been engaged, then threaded downwardly, first through a free eye located on said second panel, then through a loop originating from said first panel and so on until all free eyes on said second panel, and all loops originating from said first panel are engaged.

2,867,022

CUFF LINK

Quirino Chiappinelli, Jr., Cranston, R. I., assignor to Federal Findings Co., Inc., a corporation of Rhode Island

Application June 13, 1957, Serial No. 665,391
5 Claims. (Cl. 24—41)



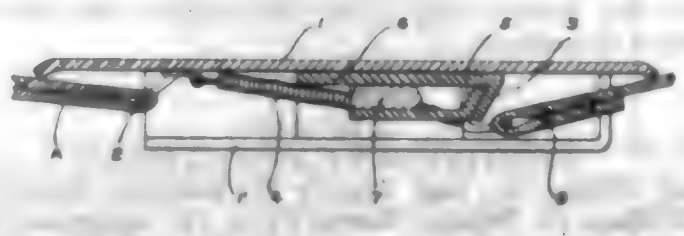
1. A cuff link comprising a head, a shank portion extending it generally perpendicular to the plane of said head and affixed thereto, a second head mounted at the free end of said shank, said second head comprising an elongated flexible tube with the axis of said tube normally extending perpendicular to the axis of said shank whereby said second head may be flexed transversely of the axis thereof to extend generally parallel to the axis of said shank.

2,867,023

EXTENSION BELT BUCKLE

Paul R. Putnam, Downey, Calif., assignor of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California

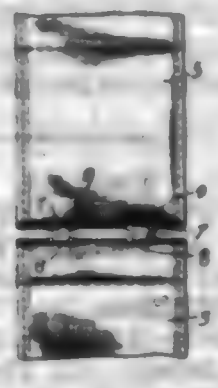
Application August 15, 1955, Serial No. 528,389
4 Claims. (Cl. 24—163)



1. An extension belt buckle cooperable for attachment to belt regions whereby to effectively render the fastened belt capable of extension as a result of tension applied to the belt, comprising: a belt buckle body member having a front surface, a rear surface and opposed first and

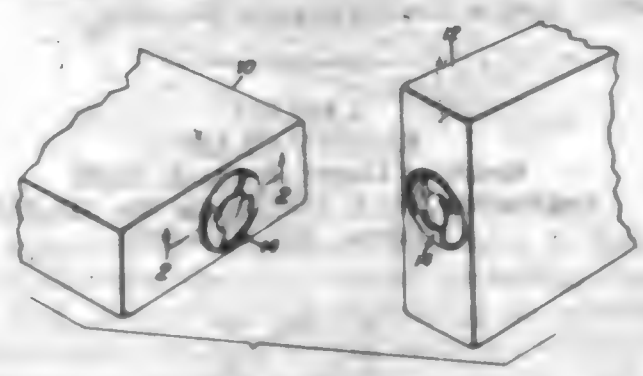
second ends, said first end being cooperable for attachment with respect to a belt at a first region thereof; a first catch member including a first plate member slidably mounted closely adjacent to said rear surface of said belt buckle body member for reciprocation between said opposed first and second ends thereof and also including a rearwardly directed first lip member carried by said first plate member adjacent the end thereof most remote from said first end of said belt buckle body member and extending angularly rearwardly therefrom in a direction inclined toward said first end of said belt buckle body member; biasing spring means connected between said first catch member and said belt buckle body member and normally biasing said first catch member toward said first end of said belt buckle body member; and a second catch member including a second plate member positionable behind said first plate member when in engaged position and also including a second forwardly directed lip member positioned adjacent the end of said second plate member most remote from said first end of said belt buckle body member and projecting angularly forwardly therefrom and inclined toward said second end of said belt buckle body member, said second lip member being cooperable to lie immediately adjacent to and in abutting contact with said first lip member and on the side of said first lip member nearest to said first end of said belt buckle body member when said second catch member is engaged with said first catch member, said second catch member being cooperable for attachment with respect to a belt at a second region thereof; said first and second catch members including magnetic retaining means magnetically retainingly cooperable with each other to prevent said first and second catch members from becoming inadvertently disengaged except when said first and second catch members are selectively manually removably disengaged said magnetic retaining means comprising a permanent magnet carried by one of said plate members between said first and second plate members and also comprising a ferromagnetic portion carried by the other of said plate members and magnetically retainingly abuttingly cooperable with said permanent magnet to constrain said first and second plate members toward each other and to constrain said first and second lip members from becoming inadvertently disengaged except when said first and second lip members are selectively manually removably disengaged.

2,867,824
HARNESS RELEASE
John J. Sepa, Hollywood, Calif., assignor of one-half to John A. Gaylord, Pacific Palisades, Calif.
Application March 3, 1953, Serial No. 340,838
10 Claims. (Cl. 24—211)



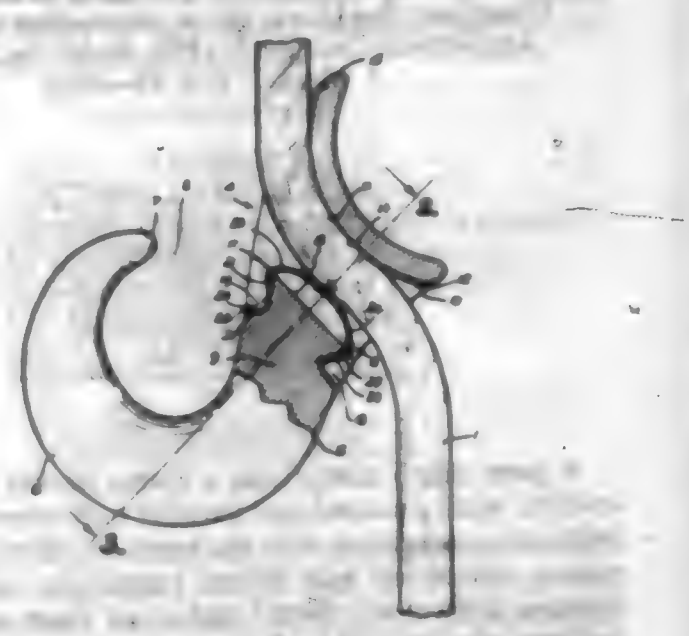
1. A parachute harness release comprising, a webbing having a fold, a release member enclosed within said webbing adjacent said fold, and having a prong extending through an opening in the webbing at said fold, a second webbing having a fold, a second release member enclosed within said webbing adjacent said fold; said latter webbing having an opening at the fold for the entrance of said prong, the second release member having a locking member movable into a locking engagement with said prong, and means for actuating said locking member into releasing position.

2,867,825
INTERLOCK FASTENER
Richard P. Aler, Baltimore, Md.
Application March 9, 1954, Serial No. 415,035
5 Claims. (Cl. 24—221)



1. An interlock fastener comprising a pair of identical fastener members disposed in interested relation, each of said fastener members including a central hub, and at least one pair of identical radiating wings, each of said wings lying in a common plane offset from the plane of said hub, a tab connecting each wing with said hub, said tab being completely disposed inwardly of its associated wing, an upper surface of said hub being coplanar with a lower surface of said wings, wings of one of said fastener members completely underlying the wings of the other of said fastener member and said hubs being coplanar with wings of the opposite ones of said fastener members each of the underlying portions of the wings including relatively parallel serrations in mating engagement with each other.

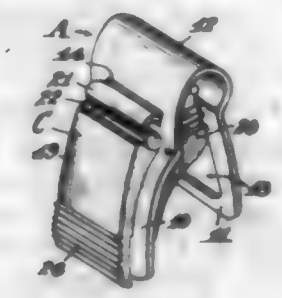
2,867,826
SLING HOOK
James G. Gale, Kansas City, Mo., assignor to Newco Manufacturing Company, Inc., Kansas City, Mo., a corporation of Missouri
Application December 3, 1956, Serial No. 625,778
2 Claims. (Cl. 24—230.5)



1. A sling hook structure comprising, a body having an enlarged base portion at one end with a passage therethrough adapted to receive a rope threaded therethrough, a hook on the other end of said body, said passage being flared at each end thereof with the side of said passage opposite the hook curved in the same direction as said hook, an elongate resilient gripping member in the passage and extending longitudinal thereof, and inturned ends on the resilient gripping member engaged over the

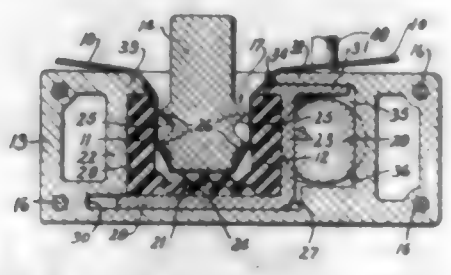
body at opposite ends of one side of the passage to retain said gripping member positioned in said passage, the portion of the resilient gripping member in the passage being crowned toward the opposite side of the passage with the intermediate portion of said gripping member normally spaced from said opposite side of the passage a distance less than the diameter of the rope, whereby a rope extending through the passage is frictionally engaged by the resiilent member and said opposite side of the passage and resiliently clamped therebetween to hold the hook structure against free slippage on the rope.

2,867,027
SAFETY CLASP
Reinhard Guyot, Burbank, Calif.
Application July 1, 1955, Serial No. 519,551
4 Claims. (Cl. 24—250)



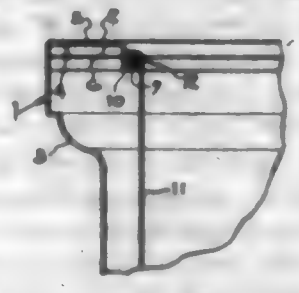
4. In a clasp embodying front and back leg members resiliently connected together by a spring bow, the improvement comprising a pivot bar on said front leg member, and a lever arm pivotally carried on said pivot bar; a single protuberance on said lever arm having opposed convergent sides consisting of transversely extending parallel stepped ridges having the edges thereof terminating at their ends in acute corners; said back leg member having an opening adapted to receive said protuberance and having side members with convergent inner margins bordering said opening with which said ridges co-operate to form a grip.

2,867,028
YARN CLAMP
Wayne C. Trost, Rockford, Ill., assignor to Barber-Colman Company, Rockford, Ill., a corporation of Illinois
Application October 7, 1953, Serial No. 384,649
1 Claim. (Cl. 24—262)



A yarn clamp comprising a frame having an elongated internal wall, a second and parallel wall opposing said first wall and cooperating with the same to define an elongated recess, means on said frame supporting said walls for relative movement toward and away from each other to collapse and expand said recess, an elongated member of U-shaped cross section composed of a resilient material and disposed within said recess with one leg against each of said walls, the portion of said member connecting said legs being corrugated to yieldably urge the legs against the respective walls while permititng collapse of said recess, an elongated bar insertible in said recess between said legs when the recess is expanded and having clamping surfaces opposing each of said legs, and an actuator connected to said walls and operable to move the walls to collapse said recess and press said legs against said clamping surfaces thereby to grip a thread snubbed around said bar.

2,867,029
BURIAL CASKET BODY CONSTRUCTION
George C. Hillenbrand, Batesville, Ind., assignor to The Batesville Casket Co., Inc., Batesville, Ind., a corporation of Indiana
Application February 11, 1957, Serial No. 639,261
4 Claims. (Cl. 27—6)



3. In an all metal rectangular casket body construction, said body including an inwardly turned flange extending all of the way around the open top of said body, an integral reinforcing frame adapted to constitute the sole bracing for the casket body, said frame constituted by four frame members, each frame member including a planar portion which is secured to the under side of the flange, and a channel portion on the inner side of said planar portion.

2,867,030
BURIAL CASKET CONSTRUCTION
George C. Hillenbrand, Batesville, Ind., assignor to The Batesville Casket Co., Inc., Batesville, Ind., a corporation of Indiana
Application February 11, 1957, Serial No. 639,262
7 Claims. (Cl. 27—14)

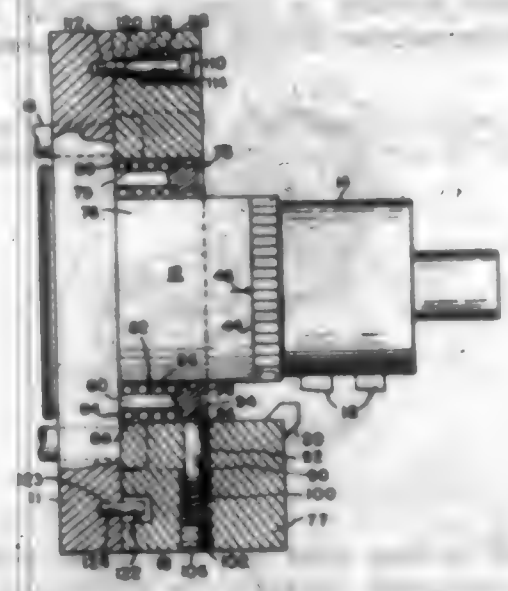


2. A casket top comprising a sheet metal structure adapted to be fastened to a casket body, said top provided with an internally extending flange which is in horizontal position when the casket top is in closed position and a reinforcing channel secured to said flange, said channel projecting inwardly of the flange and extending all of the way around the casket top, an ornamental sheet material insert having its margin disposed in said channel, and means for securing said margin in said channel.

2,867,031
COUPLING STRUCTURE
Ottis R. Briney, Jr., and James W. Briney, Pontiac, Mich., assignors to Briney Manufacturing Co., Pontiac, Mich., a corporation of Michigan
Application October 22, 1956, Serial No. 617,368
12 Claims. (Cl. 29—105)

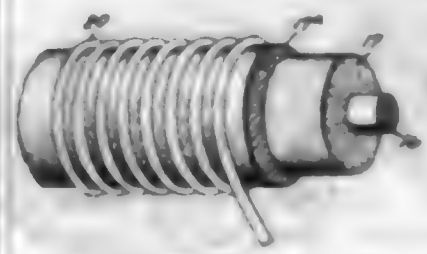
1. Coupling structure comprising a body comprising a cylindrical post and a radial flange at one end of said post, said flange having an accurately finished planar surface perpendicular to the axis of said post, an angularly adjustable eccentric bushing surrounding said post, an annular member having a cylindrical opening surrounding said bushing and bearing against said planar surface, anti-friction means between said cylindrical post

and said bushing and between said bushing and said annular member, key means between said body and mem-



ber, and means carried by said body pressing said member firmly against said planar surface.

2,867,832
METHOD FOR PRODUCING VACUUM TUBE HEATER ELEMENTS
Forrest E. Gebrke, Huntington, and William T. Granger, Floral Park, N. Y., assignors to Sylvania Electric Products, Inc., a corporation of Massachusetts
Original application October 27, 1950, Serial No. 192,442. Divided and this application August 11, 1953, Serial No. 377,370
3 Claims. (Cl. 29—155.5)

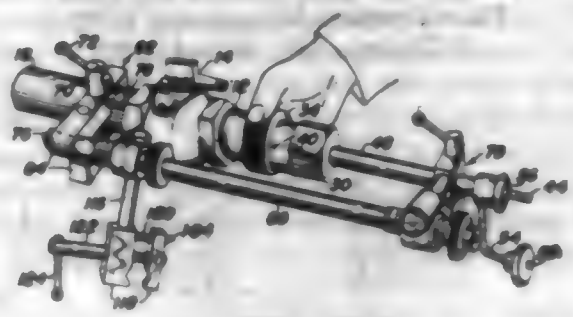


1. The method of producing a mandrel-supported heater which comprises the steps of coating said mandrel with an intimate mixture of cellulose acetate and methyl methacrylate, forming the heater about the coated mandrel, chemically extracting the methyl methacrylate to leave voids in said coating, applying an insulating coating to the coated mandrel after extracting said methyl methacrylate to substantially fill said voids, and heating said coating to volatilize and drive off said cellulose acetate.

2,867,833
CORROSION-RESISTANT ALLOY
John W. Graham, Ligonier, Pa., assignor to Kennametal Inc., Latrobe, Pa., a corporation of Pennsylvania
No Drawing. Application May 2, 1955
Serial No. 505,541
13 Claims. (Cl. 29—182.7)

1. A corrosion-resistant alloy characterized by a density of from 5.4 to 7.1 grams per cubic centimeter, high resistance to oxidation at temperatures of 1800° F. and above, high transverse rupture strength and a high stress-to-rupture value at elevated temperatures consisting essentially of a carbide phase sintered with a binder and which alloy is comprised of at least 30% of the carbide phase and at least 20% of the binder, said carbide phase including titanium carbide (TiC) and at least 2% of columbium carbide (CbC) and said binder including at least 1.4% of aluminum, at least 13.5% nickel, and at least 2% of molybdenum.

2,867,834
APPARATUS FOR CHANGING STOPS
Walter J. Bowen, Decatur, Ill., assignor to Mueller Co., Decatur, Ill., a corporation of Illinois
Application November 18, 1954, Serial No. 469,650
4 Claims. (Cl. 29—213)



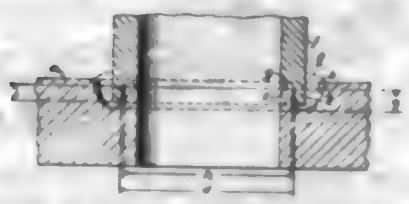
1. In apparatus for changing a stop valve or the like on the downstream end of a conduit containing a pressurized fluid, the combination comprising an expansible closure assembly having a tubular member, a draw rod longitudinally movable in said tubular member, said rod having one end portion extending outwardly from one end of said tubular member, means engageable with the opposite end of said draw bar and the opposite end of said tubular member for effecting a longitudinal movement between said draw bar and tubular member in a direction moving said one bar end toward said one tubular member end, and expansible means between said one bar end and said one tubular member end for expansion into closing engagement with the conduit interior upstream of the stop valve in response to actuation of said longitudinal movement effecting means, and exterior securing means for safely maintaining said expansible closure assembly in closing engagement with the conduit during the changing of the stop valve including longitudinally spaced clamping means for engaging said tubular member at longitudinally spaced inner and outer positions thereon disposed outwardly of the conduit end and conduit engaging means for securing said clamping means to the conduit end so as to prevent longitudinally outward movement thereof, said tubular member having outwardly facing abutment means adjacent each end thereof for engagement with the spaced clamping means respectively of said exterior securing means to thereby positively prevent outward longitudinal movement of said tubular member when either of said spaced clamping means is in engagement with the tubular member.

2,867,835
THERMAL INSULATION
Le Roy R. Patterson, Jr., Erie, Pa., assignor to General Electric Company, a corporation of New York
Application October 30, 1952, Serial No. 317,807
3 Claims. (Cl. 29—455)



1. The method of making an insulating structure which comprises providing a pan shaped wall and a second wall both including edge portions, placing a batt of compressible glass fiber insulation including end surfaces and side surfaces between said walls, providing a baffle generally normal to said walls and adjacent said side surfaces of said batt and extending around the entire periphery of said side surfaces, pressing said walls toward each other to compress said batt and to bring said edge portions into engagement, said baffle being interposed between said side surfaces of said batt and said edge portions during said movement of said walls, and welding said edge portions to seal said walls to each other.

2,867,036
METHOD FOR WELDING TUBE NIPPLES
Heinrich Hovelmann, Koln-Dellbruck, Germany, assignor to Walther & Cie, A. G., Koln-Dellbruck, Germany
Application May 20, 1955, Serial No. 516,301
In Germany January 20, 1950
Public Law 619, August 23, 1954
Patent expires January 20, 1970
3 Claims. (Cl. 29—471.7)



1. A method of welding a metallic tube nipple to an apertured metallic base comprising the steps of forming a recess in one surface of the base about the aperture to provide a projection between the recess and aperture on the base, forming an internal shoulder at a predetermined axial distance from the end of the tube nipple to be joined, inserting said projection into said end of the tube nipple, and fusion depositing weld metal into the recess while heating the metal of the projection and the shoulder to a pressure welding temperature and applying sufficient axial pressure to the tube nipple to cause the upper surface of the projection to be pressure welded to the lower face of the shoulder at that temperature.

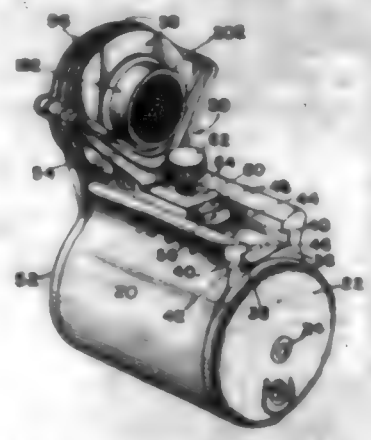
2,867,037
COMPOSITION FOR SOLDERING METAL AND METHOD FOR USING SAME
Ledra M. Lawton, Buffalo, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
No Drawing. Application April 12, 1955
Serial No. 500,999
12 Claims. (Cl. 29—487)

1. A composition for coating and soldering metals consisting essentially of about 1–5% of a metal fluoride selected from the group consisting of sodium, potassium, calcium and magnesium fluoride, 8–16% sodium chloride, 0–4% ammonium chloride, and the balance being zinc chloride, said composition being substantially anhydrous.

11. In the process of fabricating metal objects, the steps of coating the metal parts with a coating and solder mixture suspended in a non-aqueous liquid, said mixture consisting essentially of 8–16% NaCl, 1–5% NaF, 0–4% NH_4Cl, 0–6% KCl, the remainder being $ZnCl_2$, assembling said metal parts, heating said coated parts to a temperature of from 600 to 900° F., and washing said parts in hot water, said salts being substantially anhydrous.

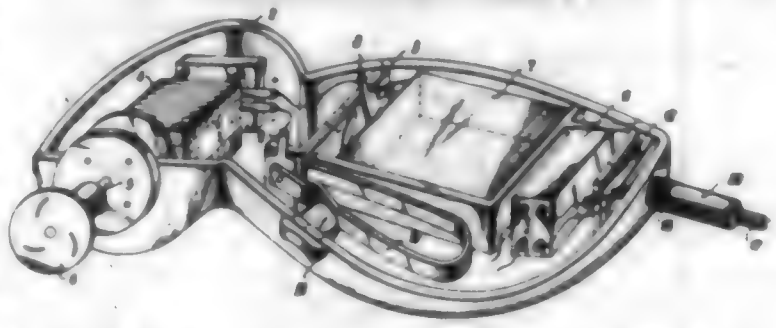
2,867,038
ELECTRICALLY OPERATED SHAVER WITH ROTARY SELF-ADJUSTING CUTTING BLADES
John Braecker, Glendale, Calif.
Application November 9, 1956, Serial No. 621,352
33 Claims. (Cl. 30—41.5)

1. In an electrically operated shaver, a tubular motor casing including front and rear end walls closing said casing, an electric motor disposed within said casing and including an armature shaft projecting through said rear end wall, a pair of spaced longitudinally extending ribs on said casing exteriorly thereof and defining therebetween a T-shaped slot, a backing plate on said casing projecting radially outwardly beyond said slot at the forward end thereof, a cutter drive shaft projecting through said backing plate, a power train operatively connecting said armature and drive shaft, a cutter head including a shell formed with hair-receiving openings therein, a rotatable cutter having a cutting edge designed for cooperation with said openings to sever hairs extending through the latter, and a central driving hub having a central bore therein into which the forward end of said drive shaft extends, a clamping member having a T-shaped base member slidable in said slot toward and away



from said backing plate and engageable with the cutter shell for releasably clamping the latter against the backing plate, means engageable with the motor casing for securing said clamping member in its clamping position, and a releasable driving connection between said hub and cutter drive shaft.

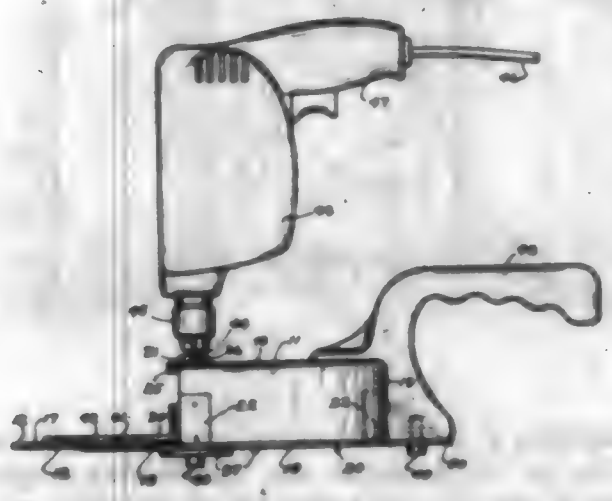
2,867,039
ELECTRIC DRY SHAVING APPARATUS
Wilhelm Zäch, Pforzheim, Germany, assignor of one-half to Artur Härter K. G., Ellmendingen, near Pforzheim, Germany
Application February 7, 1956, Serial No. 564,045
Claims priority, application Germany February 26, 1955
3 Claims. (Cl. 30—43)



1. A dry shaver comprising, in combination, a housing; a low voltage D. C. motor located in said housing and having two motor terminals; a rotary cutter device attached to said motor; a storage battery located in said housing and connected to said motor terminals as a source of low voltage direct current for energizing said motor with a predetermined direction of turn; a normally open switch connected in circuit with said motor and said storage battery for applying voltage to said motor from said battery by closing said switch whenever desired; a bridge-type rectifier device having a positive and a negative output terminal and two input terminals, and being located in said housing, said positive output terminal being connected to the positive pole of said storage battery and said negative output terminal being connected to the negative pole of said storage battery; and a plug socket arranged in said housing and adapted to receive the plug end of a low votlage cable, said socket being connected to said input terminals of said rectifier device, said bridge-type rectifier providing unalterable polarity of energy supply to said D. C. motor, so that by connecting said plug socket to an outside low voltage source of direct current said motor is energized with said predetermined direction of turn and said storage battery is charged by said outside source of direct current, and that by connecting said plug socket to an outside low voltage source of alternating current said motor is energized with the same direction of turn and said storage battery is charged by said outside source of

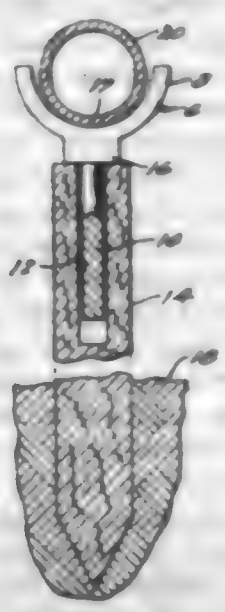
alternating current through said rectifier while alternatively said motor may be energized by said storage battery alone independently of any one of said other sources.

2,867,040
HEDGE CUTTER
Aloys P. Mertesdorf, Minneapolis, Minn.
Application August 19, 1957, Serial No. 679,002
5 Claims. (Cl. 30—205)



1. A hedge cutter comprising a flat plate, circumferentially spaced teeth in a single plane at a side of and rigid with said plate, each of said spaced teeth being bounded by a straight forward surface and a curved rearward surface in meeting relation to each other at an outer end thereof, said forward surfaces extending inwardly and rearwardly and said rearward surfaces extending rearwardly and inwardly, the inner end of each forward surface merging in the inner end of the rearward surface of a next adjacent forward tooth and said forward surfaces providing first knife edges, a bearing member in spaced relation to and rigid with said plate, a shaft rotatably mounted in the plate and bearing member in perpendicular relation to said plate, a cutter bar in adjacent relation to the plate and teeth fixed on said shaft, an advancing internal bounding surface of said cutter bar providing a second knife edge, and means for accomplishing rotation of the shaft with cutter bar to cause said second knife edge to be slid over said first knife edges in direction rearwardly of said teeth.

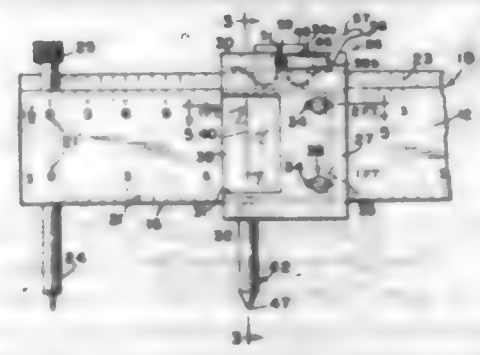
2,867,041
SCREED SUPPORT AND METHOD OF USING
Eugene Campbell McMillan, Detroit, Mich., assignor to McMillan Floor Products Company, Hazel Park, Mich., a corporation of Michigan
Application April 10, 1957, Serial No. 652,047
6 Claims. (Cl. 33—74)



1. A screed support comprising, a stake having one end adapted to be driven into the ground and a bore in the other end thereof, and a saddle having a screed supporting portion on one end thereof with the other end thereof removably disposed in said bore and a transverse shoulder intermediate said ends of the saddle for engaging the top of said stake to longitudinally position the saddle relative thereto.

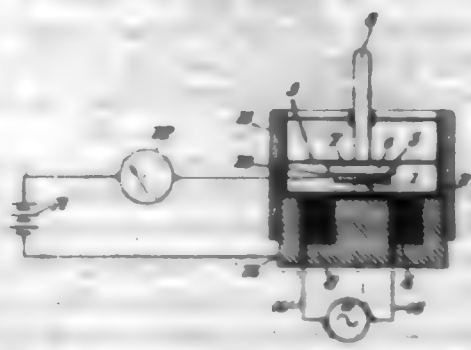
4. A target rod construction comprising, an elongated rod having a flat shoulder near the one end thereof, a target adjustably mounted on the other end of said rod, and a tubular body slidably mounted on said rod between said target and said shoulder and adapted to be reciprocated to pound on said shoulder, said one end of the rod being blunt for engaging a stake to be driven into the ground by the pounding of said tubular body on said shoulder.

2,867,042
GEOMETRICAL INSTRUMENTS
Dozier A. Sutton, Warwick, Va.
Application August 26, 1955, Serial No. 530,725
12 Claims. (Cl. 33—158)



4. A geometrical instrument comprising a scale, a slide thereon, means at one end of the scale for holding such end in a set position on a drawing surface, said slide embodying two opposite side panels and top and bottom parts connecting the panels, a stylus carried by said bottom part, one of said panels having a window opening, a transparent window pane in said opening having a hairline thereon, means for adjusting the window pane in said opening to bring the hairline in the plane which extends transversely of the beam and contains the point of the stylus, and means for securing the slide against movement on the scale.

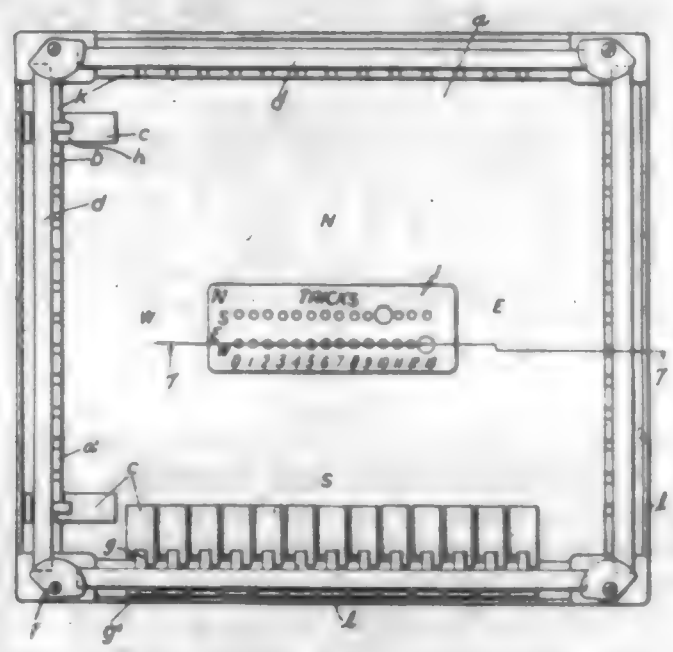
2,867,043
VARIABLE ELECTRIC RESISTANCE SEMI-CONDUCTOR DEVICES
Jean Marie Baptiste Jarret and Jacques Henri Jarret, Lyon, France, assignors to "Les Applications Electroniques des Caoutchoucs" (A. E. C.), Courbevoie, France, a corporation of France
Application October 2, 1953, Serial No. 383,833
Claims priority, application France October 16, 1952
3 Claims. (Cl. 33—172)



1. A measurement apparatus of the type described which comprises, in combination, an electric circuit including in series a source of current, a semi-conductor element made of a material having a rubber-like elasticity in which are incorporated very fine conductor particles, an electrode arranged to cooperate with said ele-

ment, and an electric measurement device in said circuit responsive to resistance variations therein, means for imparting a vibratory auxiliary relative displacement to said semi-conductor element and said electrode to bring them periodically into and out of contact with each other, and means for imparting to said two last mentioned parts, in a direction parallel to said vibratory displacement, a main relative displacement to be measured, the amplitude of said vibratory auxiliary displacement being higher than the range of said main relative displacement.

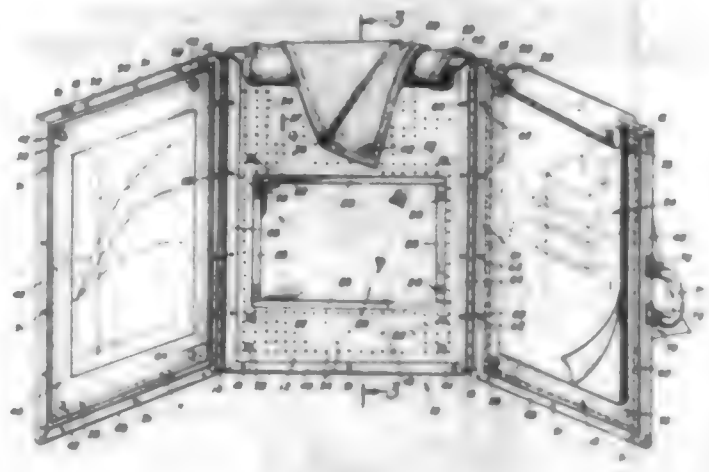
2,867,044
DEVICES FOR INDICATING AND PLAYING CARD GAMES
Mark Daniels, Hendon, London, England
Application September 16, 1955, Serial No. 534,830
4 Claims. (Cl. 35—8)



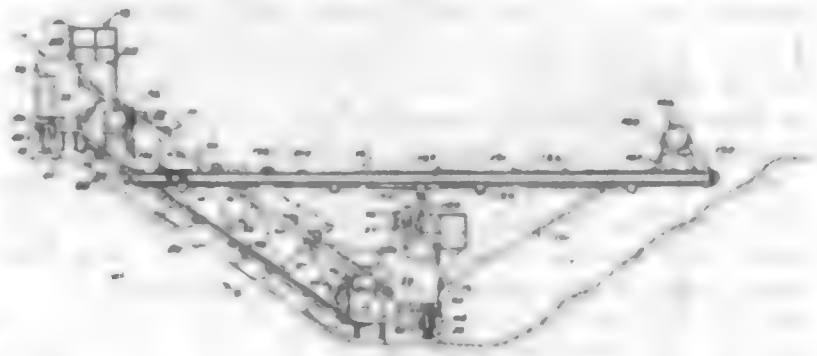
1. A device enabling indication and playing of hands in card games, which device comprises a set of fifty-two plaques each simulating one of a pack of cards, a rectangular board, a plurality of members each fixedly mounted along a side of said board, a plurality of bearing means each for one of said plaques in a hand of cards, with said bearing means including recesses provided in said fixed members, a plurality of shaft members each disposed in a corresponding recess and turnable each through an angle of about 180° about an axis substantially perpendicular to the side of one of said recesses, each of said shaft members carrying one of said plaques and a removable strip securing a selected plurality of said shaft members in said recesses.

2,867,045
VISUAL INSTRUCTION AIDS
Irvine H. Milligate, New Milford, N. J.
Application September 6, 1956, Serial No. 608,369
5 Claims. (Cl. 35—60)

4. A visual instruction aid comprising in combination; a unitary rigid transportable display board of lightweight material provided with a plurality of receptacles for receiving a plurality of clips for attaching objects to said display board; an opening provided within said display board; a projection screen removably mounted across said opening; fastening means for attaching and detaching said projection screen to said display board; a projection screen cover; a plurality of fastening means on said cover and on said screen for removably securing said cover to a side of said screen; a plurality of receptacles for receiving a plurality of clips for fastening objects to said projection screen cover; a plurality of clips interfitted with said receptacles of said display board and said cover for mounting objects on said display board and said cover; means for removably mounting a plurality of cloth boards on said display board; means for detachably mounting a turn-back chart on said display board; a plurality of hinge means for interfolding a plurality of panels of said display board for transporting said display board; and a handle for carrying said display board.

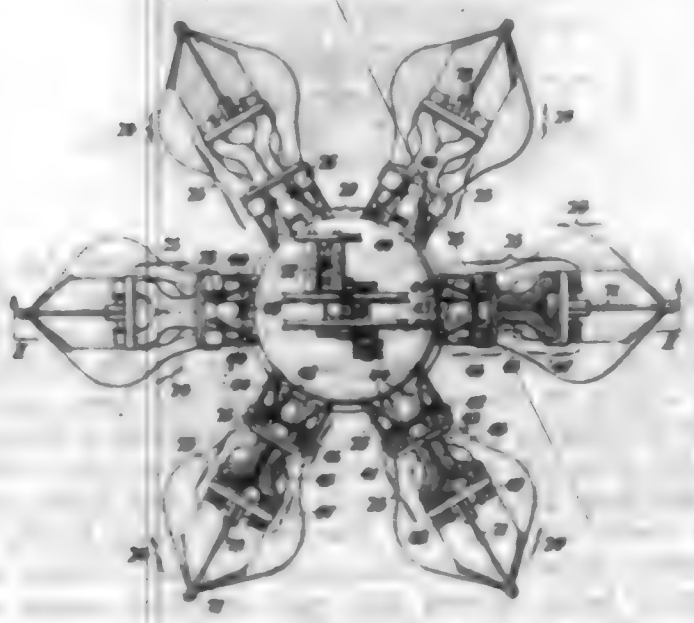


2,867,046
CANAL WALL TRIMMER
Josef Baer, Auburn, Wash., assignor to Baer Steel Products, Inc., Auburn, Wash., a corporation of Washington
Application December 28, 1954, Serial No. 476,373
14 Claims. (Cl. 37—35)



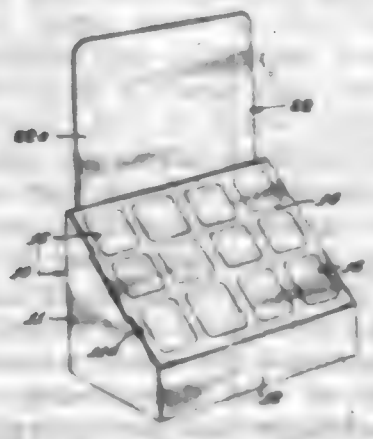
1. A canal trimmer for sloping walled canals comprising an upper transport vehicle adapted to travel along one bank of a canal, a second transport vehicle provided with wheels adapted to travel on a rail at the bottom of the canal, power means for moving said vehicles, a trimmer frame, one end of which is fixed to the upper vehicle and the other end of which is fixed to the lower vehicle, said trimmer frame extending up one wall of the canal parallel to the slope of said wall, a bucket conveyor supported on said trimmer frame and having an upwardly moving lower flight extending along said frame from a rotatable support near the lower end of the frame to a second rotatable support near the upper end thereof, said bucket conveyor being operable to trim off excess surfacing aggregate from a canal wall as the frame is moved along the canal by said vehicles and elevate the excess material to the upper edge of the canal wall, a cross conveyor on said frame adjacent to the upper end thereof onto which the bucket conveyor deposits said aggregate, and a stacking conveyor carried by said frame and positioned beneath the discharge end of the cross conveyor, said stacking conveyor extending across the canal above the lower transport vehicle and being supported on the lower end of said frame, whereby to deliver the excess aggregate to the upper portion of the other sloping wall of the canal.

2,867,047
MULTIPLE SHELL GRAB
Herbert Zimmermann, Dortmund, Germany, assignor to Hoesch Werke Aktiengesellschaft, Dortmund, West Germany
Application June 11, 1956, Serial No. 590,606
Claims priority, application West Germany December 19, 1955
15 Claims. (Cl. 37—182)



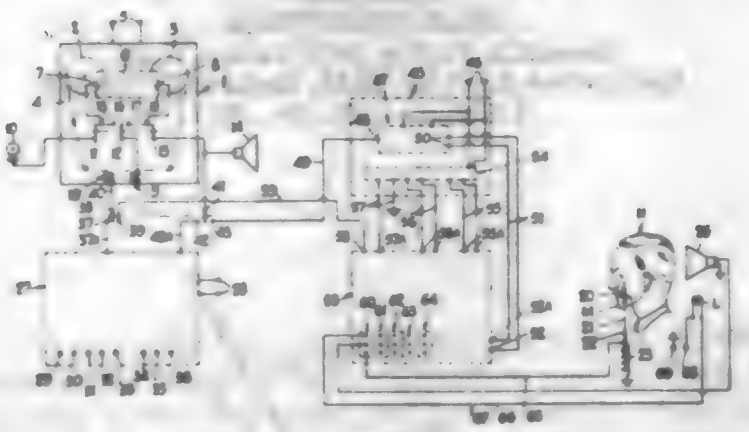
1. A multiple shell grab comprising a head member, a base member normally positioned below the head member, means connected to the head and base members for moving said head and base members toward each other against the action of gravity, a plurality of grab shells pivotally connected to said base member in star fashion with capacity for swinging movement to open and close said shells, substantially rigid means pivotally connected to said head member and pivotally connected to said shells for swinging said shells in response to the movement between said head and base members, and connecting means including a lost motion connection adjacent to said head member between said rigid means and said head member providing for movement of said rigid means in a direction generally extending between said head and base members to provide for a shell lagging behind the other shells in closing upon encountering a strong resistance.

2,867,048
DISPLAY BOXES
Norman Holtzman, Los Angeles, Calif., assignor, by mesne assignments, to Paper Mate Manufacturing Company, Culver City, Calif., a corporation of Delaware
Application May 2, 1955, Serial No. 505,485
14 Claims. (Cl. 40—7)



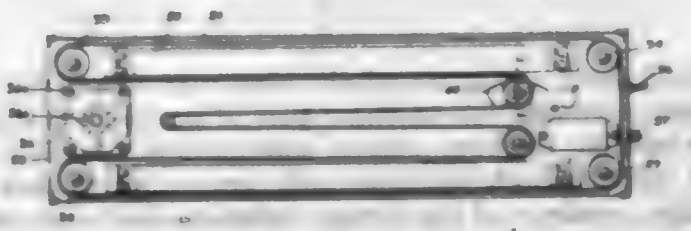
1. In a display device: a box structure including a back panel; a movable display panel adapted to occupy a retracted position in substantial face-to-face relation with and adjacent to said back panel; means for slidably guiding said display panel for movement from said retracted position to an extended position relative to said back panel; a laterally biased and movable lock means on one panel; and means provided on the other panel for locking engagement with said laterally movable lock means for securing the display panel in such extended position.

2,867,049
DISPLAY APPARATUS
Auguste Harry Brackensey, London, England, assignor of one-half to The Franco-British Electrical Company Limited, London, England, a British company
Application March 29, 1954, Serial No. 419,544
Claims priority, application Great Britain March 31, 1953
11 Claims. (Cl. 40—28.3)



1. A display installation comprising a model for simulating an animate individual, a plurality of movable members combined with the model and arranged upon activation to cause animation thereof, mechanism coupled to the movable members for mechanical activation thereof, a sound reproducer disposed in the proximity of said model, a frequency responsive selection device, connections between said mechanism and said selection device, a first component transducer arranged to be responsive to a recorded sound track on a tape, a second component transducer arranged to be simultaneously responsive to a recorded multi-frequency action track on said tape, said first and second component transducers together constituting a tape record transducing apparatus, said action track having thereon signals of different frequencies indicative of particular mechanical activations for the model related to the recorded sounds, connections between said first component transducer and said sound reproducer, and connections between said second component transducer and said frequency responsive selection device, said frequency responsive selection device being arranged to respond sequentially to the signals of different frequencies by permitting selectively according to the nature of a signal, mechanism of the model to activate the latter.

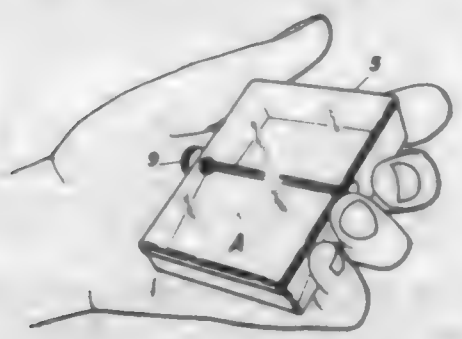
2,867,050
MOVING MESSAGE PROJECTOR
William R. Westfall, Forest Hills, N. Y.; Marie S. Westfall, executrix of said William R. Westfall, deceased
Application November 5, 1953, Serial No. 390,397
3 Claims. (Cl. 40—32)



1. A moving message projector comprising a casing having at least one window, a translucent screen mounted in each window, a source of light within said casing, an endless opaque tape, perforations in said tape arranged in the form of letters and words, a driver roller mounted by

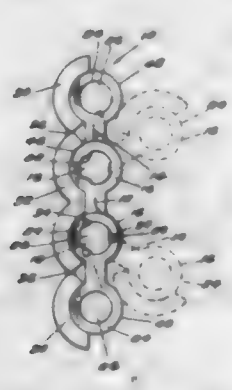
said casing, a motor drivably connected therewith, a plurality of spindles mounted by said casing and a plurality of spools mounted by said spindles for rotation about their own axes, said spindles extending into said spools a distance of about one-half the height of said spools the peripheral surface of said spools having a crown of from 0.75° to 1.75°, and means for removably locking said spools on said spindles, said means comprising a press fit fastener adapted for insertion in the top of said spindles, said tape being wound about portions of the peripheries of said roller and said spools and thereby driven between said light source and said screen.

2,867,851
SELF-PROMPTER
Donald J. Taylor, Mill Valley, Calif.
Application April 28, 1958, Serial No. 731,258
1 Claim. (Cl. 40—78)



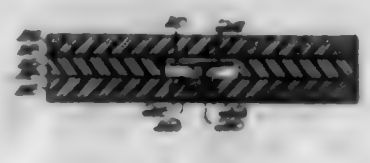
In a device of the character described, a receptacle having a transparent cover, an inclined card-supporting surface formed in said receptacle substantially halfway of its length and adapted to support cards thereon, means for feeding one of said cards from its stacked position to the opposite end of said receptacle, said means including a shaft extending across the said receptacle and mounted in slots formed in the side of said receptacle, and flexible wipers carried by said shaft and adapted to engage the topmost portion of said stack, and means for rotating said shaft.

2,867,852
BEAD CONVERTER
Hans J. Feibelman, Providence, R. I., assignor to Coro of Rhode Island, Inc., a corporation of Rhode Island
Application April 3, 1957, Serial No. 650,478
4 Claims. (Cl. 41—10)



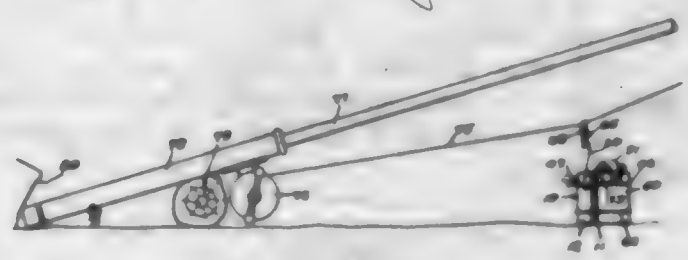
1. A bead converter of the character described comprising a center link having a pair of openings in spaced, side-by-side relation, and a substantially identical end link overlappingly abutting said center link so that one of the openings of the former coincides with one of the openings of the latter, said links being pivotally secured to each other about the center axis of said coinciding openings, said center link having an enlarged marginal cap extending along one longitudinal edge thereof, whereby to act as a stop for limiting inward pivotal movement of said end link.

2,867,853
ARTICLE MOUNTING
Ladislav Boor, Philadelphia, Pa., assignor to the United States of America as represented by the Secretary of the Army
Application May 24, 1955, Serial No. 510,876
3 Claims. (Cl. 41—35)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A transparent protective mounting block for preserving and displaying an article, comprising a clear transparent plastic base plate having smooth and plain upper and lower surfaces, means for fixedly mounting said article on the upper surface of said base plate, a clear transparent plastic intermediate plate of a thickness not less than the height of said article above the surface of said base plate and having smooth and plain upper and lower surfaces, said intermediate plate having an aperture therethrough for receiving said article, said aperture being aligned with said mounting means and being sufficiently large in area to admit said article, and a clear transparent plastic top plate having smooth and plain upper and lower surfaces; said base plate, intermediate plate and top plate being hermetically secured together to form a transparent block enclosing said article.

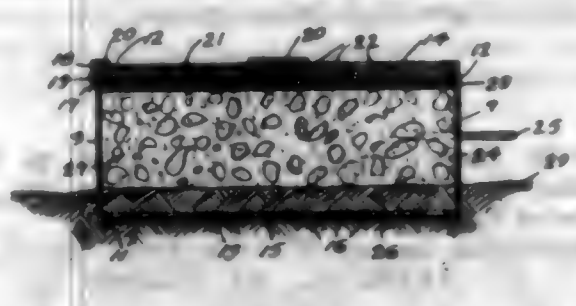
2,867,854
WARNING DEVICE
Tetsuro Okimoto, Sacramento, Calif.
Application July 31, 1957, Serial No. 675,460
1 Claim. (Cl. 43—17)



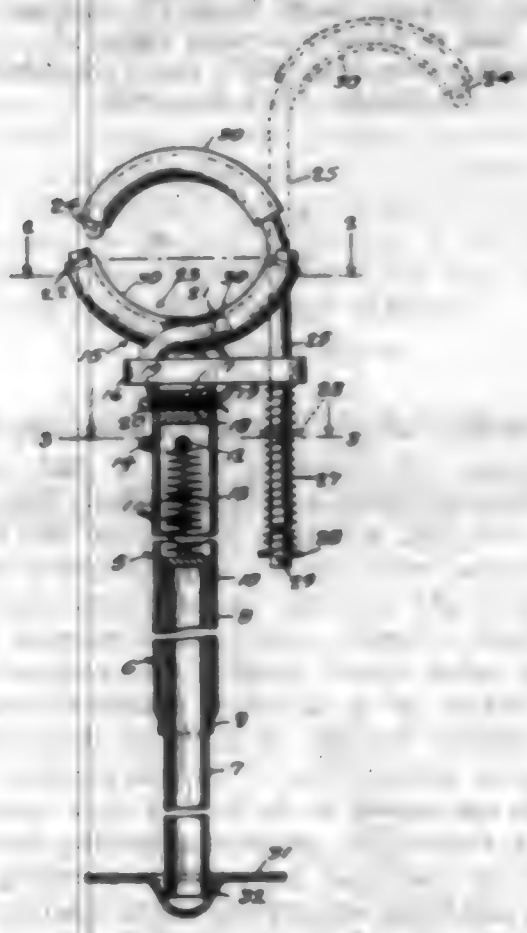
In a warning signal in combination, a base, a hollow cover having an opening therein for said base, an insulating block secured to said base, a pair of flexible contacts, each having an opening therethrough, mounted on and extending from said insulating block, an audible signal on said base, a visual signal on said base, an electrical circuit connecting said flexible contacts and said audible and visual signals, a source of power for said circuit, a manual switch in said circuit, an externally threaded metallic sleeve having an unthreaded reduced end portion extending through said opening in said hollow cover, an insulating bushing having a threaded bore extending therethrough carried by said base, said sleeve being threadedly engaged in said bushing, the unthreaded reduced end of said sleeve being extended through the opening in the contact adjacent said bushing, the other end of said sleeve being unthreaded and enlarged and seating in said opening in said hollow cover, a flexible cord extending through said threaded sleeve to a point exteriorly of signal and connected through the opening in the more remote of said flexible contacts to the remote contact, whereby a pull on said flexible cord will move said remote contact into engagement with said adjacent contact and said end of said metallic sleeve.

2,867,855
EARTHWORM TRAP AND BREEDING BOX
Frank S. Lebiedzinski, Hatboro, Pa.
Application August 23, 1957, Serial No. 679,908
6 Claims. (Cl. 43—55)

1. An earthworm trap and breeding box comprising a container including imperforated side walls, a perforated bottom and a perforated top, a layer of soil disposed in the bottom portion of the container, and a layer of a material forming a worm food disposed in said container above the soil layer for attracting worms into the container through the perforations of the bottom, said perforated bottom being adapted to be disposed in contact with the earth whereby worms may pass upwardly through said bottom perforations into the soil layer of the container.

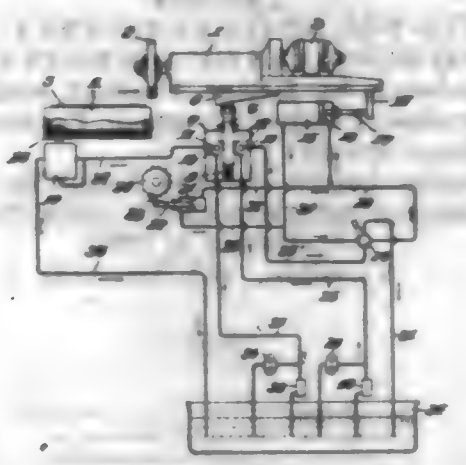


2,867,856
TREE BRANCH PROP
Charles N. Berger, Easton, Pa.
Application December 5, 1956, Serial No. 626,494
3 Claims. (Cl. 47—43)



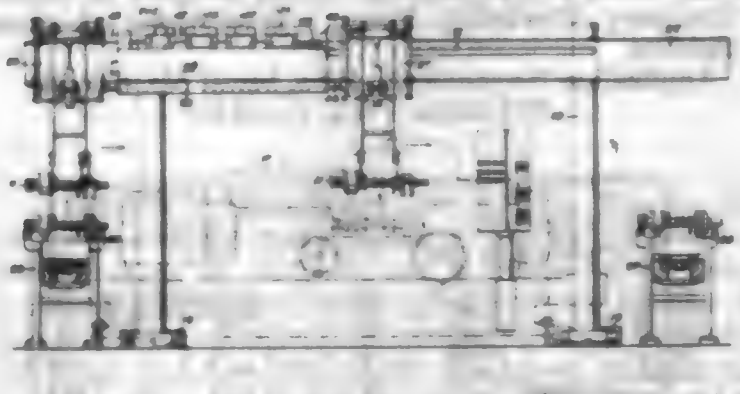
1. A tree branch supporting prop comprising an elongated extensible standard, a head connected to the upper end of said standard including means for detachably clamping said head to a tree branch for positioning the standard therebeneath, and means carried by the standard and yieldably urging the upper end of the standard toward an extended position whereby said head is yieldably supported by the standard, said head including a plate mounted on the upper end of the standard, a pair of fork arms fixed to and extending upwardly from the plate, said fork arms having portions disposed in cross relation to one another and being curved to form an upwardly opening fork, a hook having an elongated shank extending slidably through the plate and swivelly mounted therein for positioning said hook over the fork or to one side thereof, and spring means carried by the hook shank and urging the hook and shank downwardly, said fork and hook combining to form said yieldable clamping means.

2,867,857
GRINDING APPARATUS
Sazuma Kakiuchi, Tokyo, Japan
Application February 21, 1957, Serial No. 641,692
3 Claims. (Cl. 51—51)



1. A grinding apparatus comprising a grinder slidably mounted for longitudinal reciprocation and including a rotatably driven whetstone positioned laterally of the direction of longitudinal reciprocation of said grinder, a rotatably mounted and vertically movable material holder, a hydraulic motor connected to said holder for rotating the same, hydraulically operated means for raising and lowering said holder, a cylinder, a piston slidably mounted in said cylinder and connected to said grinder for reciprocating the same, a source of fluid under pressure, a system of passageways connecting said fluid source to said motor, said hydraulically operated means and said cylinder, a cam carried by said grinder, a rod in contact with said cam for being reciprocated thereby, a plurality of valves in said system capable of varying the relative flow of fluid to said motor and said cylinder and connected to said rod for being operated thereby and a control valve in said system for changing the flow of fluid to said cylinder to change the direction of movement of said grinder.

2,867,858
WORK TRANSFER APPARATUS
Harold E. Balsiger and Alvin J. Jones, Waynesboro, Pa., assignors to Landis Tool Company, Waynesboro, Pa.
Application September 21, 1956, Serial No. 611,393
20 Claims. (Cl. 51—105)



15. In a machine tool for performing a machining operation on a workpiece, a transfer apparatus comprising supporting means, a horizontal track mounted on said supporting means, a carriage slidably mounted on said track, a slide mounted for vertical movement on said carriage, a work lifting device comprising a pair of spaced hooks, a pair of vertically spaced links connecting each of said hooks to said slide, a hydraulic motor on said carriage connected to said slide for effecting said vertical movement, a hydraulic motor on said slide, and connecting means between said second hydraulic motor and

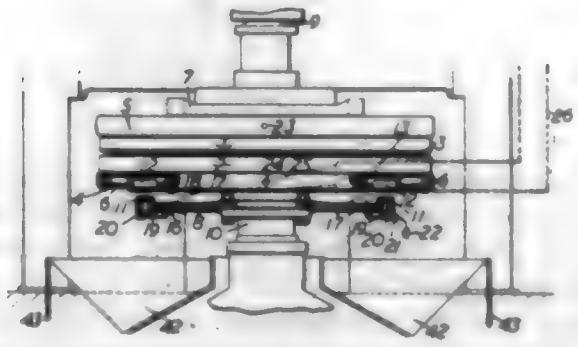
said hook supporting means, and means for adjusting the spacing between the hooks whereby to accommodate workpieces of different dimensions, control means for effecting a predetermined sequence of operation of said hydraulic motor, said control means being actuated by said machine tool at the end of a machining operation, control means actuated by said transfer apparatus at the end of a transfer cycle for starting said machine tool.

2,867,055

APPARATUS FOR SIMULTANEOUSLY GRINDING THE TWO SURFACES OF A RIBBON OF GLASS

Stanley Charnock, St. Helens, England, assignor to Pilkington Brothers Limited, Liverpool, England, a corporation of Great Britain

Application August 29, 1956, Serial No. 606,834
Claims priority, application Great Britain September 1, 1955
6 Claims. (Cl. 51—112)



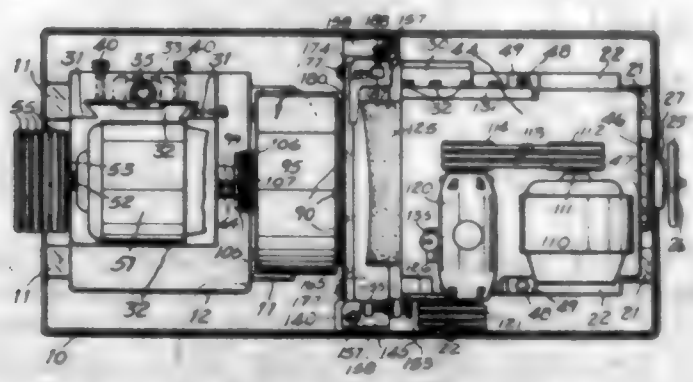
1. The combination in and for an apparatus for simultaneously grinding the two surfaces of a ribbon of glass travelling substantially horizontally, comprising a bottom grinder unit and an adapter plate unit therefor, said units having axial communicating hollows for conducting abrasive fluid to the operative surface of said grinder unit, cylindrical drivers carried by one of said units on upright axes, the other unit defining upright faces against which said drivers abut with line contacts for rotary drive action of said units about a substantially vertical axis, said units having confronting faces extending generally transverse to the latter axis, and a resilient sealing ring located between said faces and extending along said faces and about said hollows, said ring being housed in one of said units and extending on the radially inner sides of said drivers, to prevent seepage of abrasive fluid from said hollows along said faces to said drivers.

2,867,060

CENTERLESS GRINDER

Loring Coes, Jr., Brookfield, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts

Application November 9, 1956, Serial No. 621,365
20 Claims. (Cl. 51—129)



1. A centerless grinder comprising a cup shaped grinding wheel having a plane annular grinding surface, a work rest extending substantially parallel to said plane annular surface so that the geometrical projection of its top onto said plane surface defines two separated areas on the annular surface, a regulating wheel component opposite one of said areas forming with the area and part of the work rest a grinding station throat, a regulating wheel component opposite the other of said areas forming with the area and part of the work rest another grinding station throat, means to journal and to rotate the grinding wheel and means journalling the regulating wheel components for rotation, whereby grinding will be done at both grinding station throats.

2,867,061

GRINDERS

Daniel W. Heck, Tarentum, Pa., assignor to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania

Application January 31, 1958, Serial No. 712,511
14 Claims. (Cl. 51—188)



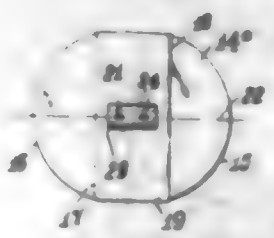
13. In a belt grinder having rolls adapted to utilize an endless grinder belt, the combination therewith of, a grinder belt having tape of flexible material applied lengthwise of and secured to at least a portion of the back of said grinder belt and disposed to extend beyond each of the edges of the belt for a distance of between about 1/16 inch and 1 inch to prevent said edges from scoring the rolls.

2,867,062

PLEATED BUFFING WHEEL

Fritz E. Hendrickson, South Elgin, Ill., assignor of one-half to Murray Ireland, Elgin, Ill.

Application March 18, 1957, Serial No. 646,733
2 Claims. (Cl. 51—193)



1. In a buffing wheel, a circular hub having an axial opening therein for mounting it on a shaft, mutually spaced spokes extending outwardly radially from the periphery of said hub, a buffing annulus on said hub having a peripheral work surface and comprised of a plurality of multi-ply elements of fabric material carried by said spokes, a medial pleat in each element, said elements each being folded along a line perpendicular to the pleat therein so as to define a semi-circular shape having a greater number of material thickness in its medial pleated portion than at its end portions, mounting brackets one seated in the fold of each element and each having integral leg portions extending through the material at the fold, said leg portions overlying the related spoke and being secured thereto to hold the element in place, said spokes being peripherally spaced to permit the end portions of adjacent elements to overlap one another to afford a material thickness in the peripheral work surface of said overlapped portions that is substantially the same as the thickness of the peripheral work surface of the medial pleated portions of said elements.

2,867,063

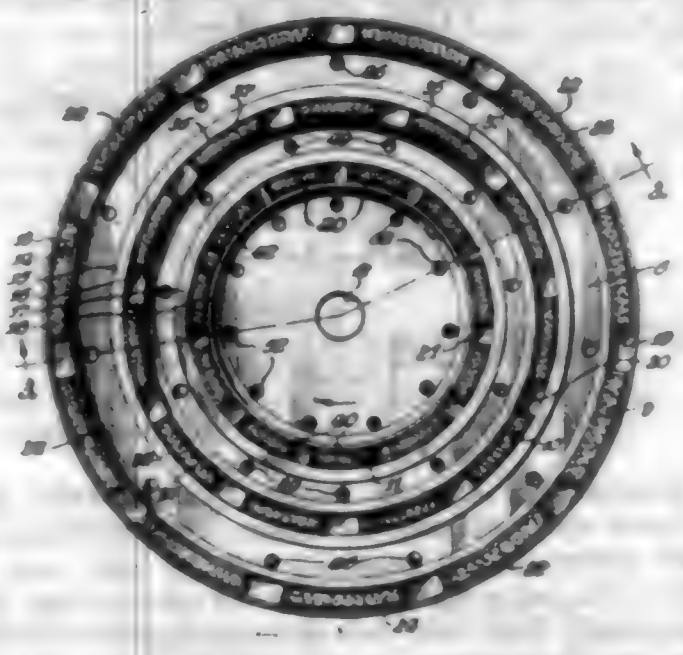
MULTIPLE GRINDING WHEEL

Leopold H. Metzger, Glencoe, Ill., assignor to Super-Cut, Inc., Chicago, Ill., a corporation of Illinois

Application February 28, 1956, Serial No. 568,318
10 Claims. (Cl. 51—209)

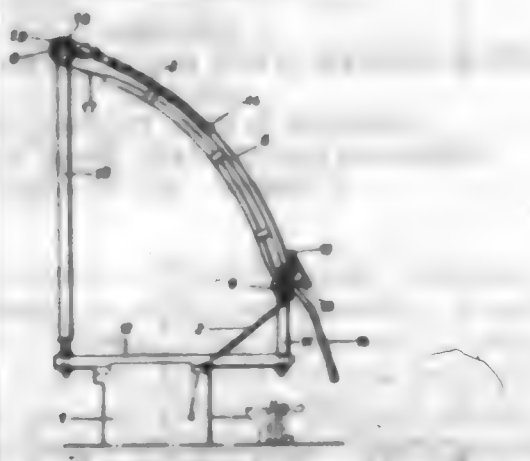
1. A rotary multiple grinding wheel for grinding a flat surface on a piece of glass or similar material, said

grinding wheel comprising a rigid disc-like body adapted to have the central portion thereof connected drivably to one end of a power driven shaft the axis of which is at right angles to said flat surface, and a plurality of circular, spaced apart, concentrically arranged grinding annulae mounted fixedly on the front face of the body and having forward parts in the form of matrices with abrasive particles therein, said parts presenting forward grinding surfaces, said annulae being so disposed that the grinding surfaces of their respective parts are stepped with respect



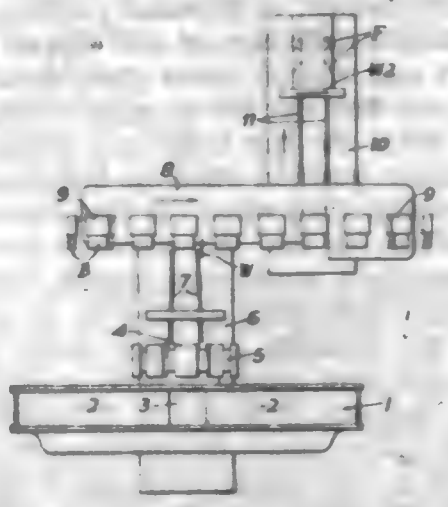
to the front face of the wheel body with the grinding surface of the forward part of the inside annulus of smallest radial extent being spaced forwardly from said front face of the wheel body a distance greater than the grinding surface of the forward part of the outside annulus of largest radial extent, and the grinding surface of the forward part of each annulus other than the inside annulus of smallest radial extent lies in an imaginary plane which is perpendicular to the axis of rotation of the wheel body and intersects the forward part of the next adjacent annulus on the inside of each such annulus.

2,867,064
SPLASH GUARD FOR MACHINE TOOLS AND LIKE PURPOSES
Dan S. Hermansson, Munkedal, Sweden
Application September 6, 1957, Serial No. 682,421
5 Claims. (Cl. 51—272)



1. A splash guard device for use on a machine tool of the type having fluid supplied to the tool and workpiece, comprising in combination a pair of guide rods secured to the machine parallel to its longitudinal axis and fixed in spaced planes, a rectangular frame, means to slidably attach said frame to said guide rods, the upper attaching means providing for pivoting of the frame about its corresponding rod as an axis, a transparent panel carried by said frame, and guide means for the lateral edges of the panel formed on said frame whereby said panel may be moved in a direction normal to the machine axis to permit access to the tool and workpiece.

2,867,065
METHODS OF AND MEANS FOR WRAPPING BLOCK-SHAPED ARTICLES
Charles Thomas Hall, Deptford, London, England, assignor to Molins Machine Company Limited, Deptford, London, England, a British company
Application September 11, 1956, Serial No. 609,221
Claims priority, application Great Britain September 16, 1955
5 Claims. (Cl. 53—170)



1. In cigarette wrapping apparatus, means to feed a batch of cigarettes in a direction transverse to the longitudinal axes of the cigarettes, means to grip one end part of the batch, means to fold a piece of wrapping material about the other end part while the said one end part is being gripped, means to move the partly wrapped batch in the direction of the longitudinal axes of the cigarettes so as to expose the said one end part of the batch, and means to fold a further piece of wrapping material about the said one part so as to complete the enclosure of the batch and so that the said further piece partly overlaps the first said piece.

2,867,066
BAG CLOSING APPARATUS
Leland H. Platt, Leland H. Platt, Jr., and John D. Platt, Los Angeles, Calif.
Application December 12, 1955, Serial No. 552,629
10 Claims. (Cl. 53—198)



1. Apparatus for securing filled flexible bags in closed condition comprising an endless bag advancing conveyor moving along an endless path, said conveyor having a series of units moving therewith along said endless path and adapted to grip and advance closed neck portions of said bags, and fastening means along said path operating to tape closed said neck portions held by said units, each of said units including a structure forming a throat of progressively decreasing width into which said neck portion of a bag is movable toward a reduced width inner end of the throat, each unit including an element adapted to extend across said throat and mounted for swinging movement relative to said throat from an outer retracted position to an inner holding position and toward said reduced width inner end of the throat in a direction to follow the neck into the throat and thereby gather and hold the neck within the inner end of the throat, said element being

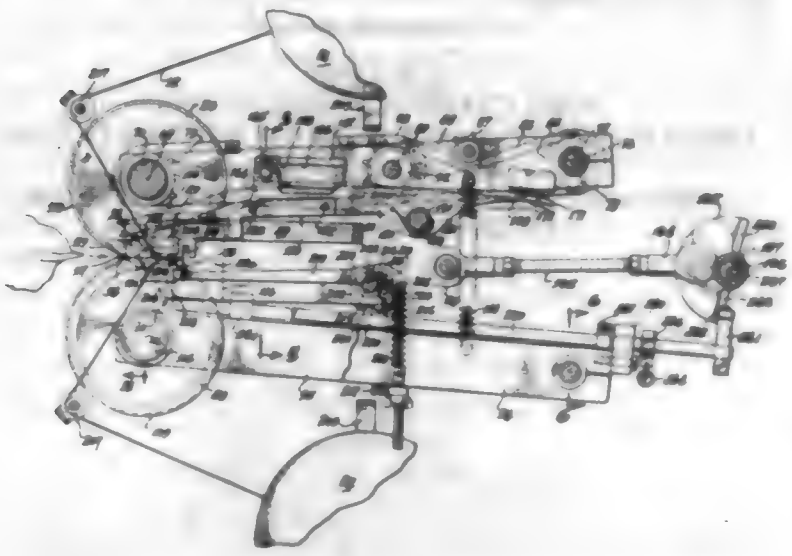
positioned to allow free withdrawal of the bag from said throat in said retracted position but to prevent such withdrawal in said holding position, each unit including a second element connected to said first element to swing therewith relative to the throat and adapted to be deflected inwardly by movement of a bag into the throat and by said deflection to swing said first element from said retracted position toward said holding position, and each unit including an overcenter spring operable to yieldingly hold said first element in retracted position and operable upon said inward deflection of said second element by a bag to move past a dead center position and then yieldingly urge said first element to said holding position to gather and retain the bag neck, said spring being closer to its dead center position when the first element is in said retracted position than when the first element is in said holding position, so that the elements can be deflected inwardly past dead center and toward holding position by a relatively light force exerted by an inmoving bag neck, and the elements can then move inwardly far enough beyond dead center to exert a relatively greater force on the bag neck to hold it in the throat, said fastening means including means feeding pressure sensitive tape to a bag neck as it is advanced by one of said units along said endless path, and a pair of relatively deflectible pressure members forming a yielding restriction through which the neck and tape are forced by the movement of said units, to thereby tape the neck closed.

2,867,067

APPARATUS FOR CLOSING FLEXIBLE BAGS

John D. Platt, Leland H. Platt, Jr., and Leland H. Platt, Los Angeles, Calif.

Application March 13, 1957, Serial No. 645,737
25 Claims. (Cl. 53—198)



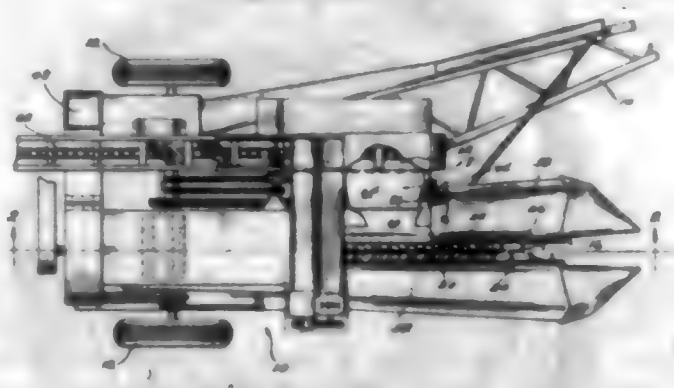
1. Apparatus for closing the neck of a flexible bag comprising a pair of pressure elements between which a gathered bag neck may be forced and operable to apply adhesive tape to said neck to fasten it in closed condition, a pair of opposed rollers adapted to engage opposite sides of an initially opened bag neck and to advance the material thereof between the rollers and toward said pressure elements so that the neck is gathered to closed condition in front of the pressure elements, means for driving at least one of said rollers to advance and gather the bag neck, means for feeding tape to said pressure elements, an advancing member movable relative to said rollers and said pressure elements and operable to engage a neck which has been gathered by the rollers and to force the neck between said pressure elements to apply the tape thereto, means for actuating said advancing member at least one of said pressure elements being free for lateral deflection away from the other pressure element by said bag neck as it is forced between said pressure elements by said advancing member, and means yieldingly resisting said deflection of said one pressure element by the advancing bag neck and thereby tightly pressing said tape into fastening relation with the bag neck.

2,867,068

CORN HARVESTER

Ferdinand J. Dumanowski, Davenport, Iowa, assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin

Application August 28, 1956, Serial No. 606,697
1 Claim. (Cl. 56—15)



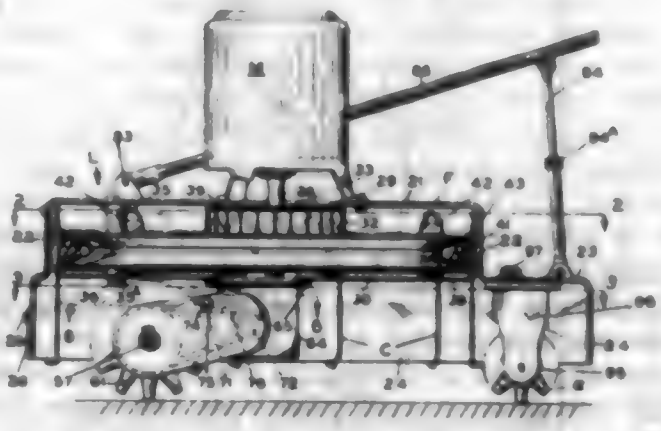
In a corn harvester for treating standing stalks; having a frame and stalk severing means, a rearwardly moving stalk conveyer, and snapping rolls to snap ears from said stalks, and a rearwardly moving ear conveyer spaced transversely from said stalk conveyer to receive snapped ears, in combination, an ear hopper intermediate said rolls and said ear conveyer, and communicating with said stalk conveyer and said ear conveyer, a transversely-swinging gate disposed in said hopper and pivotally mounted midway between said ear conveyer and said stalk conveyer whereby the gate can be swung into position to direct said snapped ears toward either said stalk conveyer or said ear conveyer, manually-operated crank means at one end of said hopper, a linkage in said hopper adjacent said crank means, said linkage comprising a pair of link members pivoted together at one end and having free ends, the free end of one of said members being pivoted to said gate at a point spaced from said hinge, and the free end of the other member being secured to said crank integrally, and resilient means connected between said crank and said frame to urge said gate toward either of said positions upon manually actuating said crank.

2,867,069

POWER MOWER WITH ENDLESS BELT CUTTING MEANS

Benjamin F. Ellis, Portland, Oreg.

Application June 28, 1957, Serial No. 668,737
2 Claims. (Cl. 56—25)



1. A lawn mower comprising a housing, rotatable means supporting said housing for movement, a motor supported on said housing, a drive sheave positioned within said housing supported and driven by said motor, a pair of spaced apart idler sheaves journalled in said housing in horizontally aligned relation with respect to

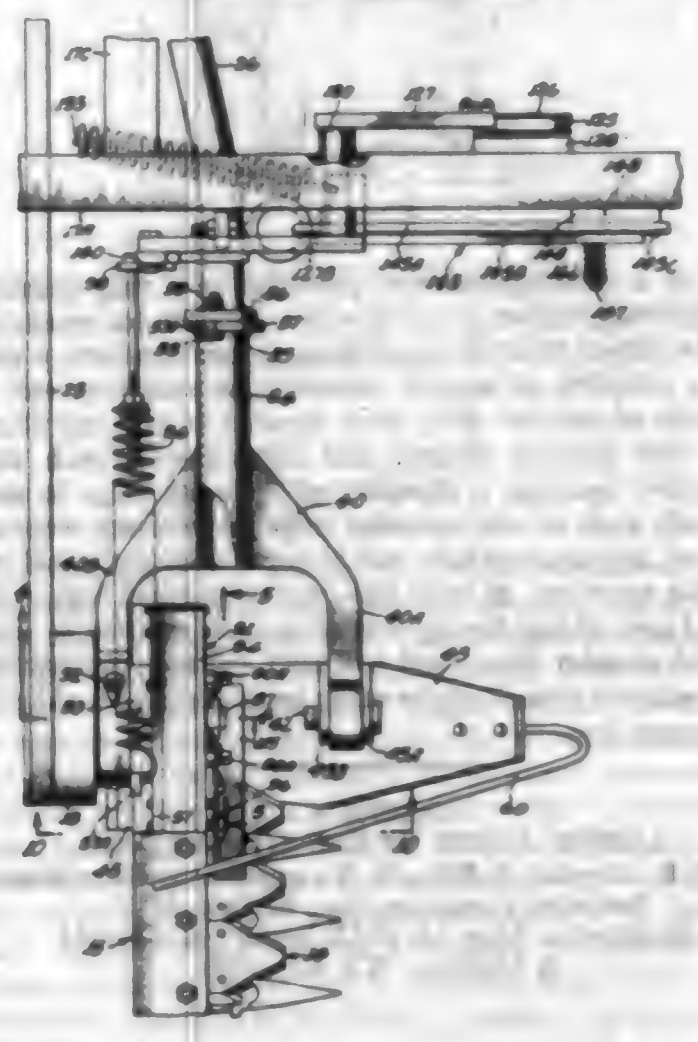
said drive sheave, an endless belt trained about said idler sheaves and said drive sheave for movement thereabout on rotation of said drive sheave, a plurality of clips secured in vertically extending longitudinally spaced relation to said belt, said clips having an inwardly opening vertical channel integrally formed on each side edge of each clip, one of said channels on each clip having a plurality of vertically spaced openings formed therein, an inverted U-shaped resilient wire member engaged in the channels of each clip, a hook integrally formed on one end of said member selectively engaged in one of said openings, said member having the other end thereof substantially elongated and depending from said clip, and a horizontally offset cutter blade integrally formed on the terminus of said other end, said resilient wire member permitting displacement of said cutter blade from its position generally underlying said clip.

2,867,870

DRIVE MEANS FOR RECIPROCATING CUTTING ASSEMBLY

Floyd McCall and Lloyd McCall, Romoland, Calif.

Application July 24, 1956, Serial No. 599,774
4 Claims. (Cl. 56—296)



1. In an arrangement of the character described, a relatively stationary structure, a member rotatably mounted on said structure about a first axis, a pair of rollers rotatably supported on said member for rotation about a common axis which is off-center with respect to the first-mentioned axis, a yoke member having an apertured portion with the walls thereof engageable with said roller, one of said walls comprising a bar adjustably mounted on said yoke member, said structure incorporating guide means for guiding the movement of said yoke member along generally a straight line, said guide means comprising a single bar forming a part of said yoke member which is centrally located with respect to said first axis, said structure having roller means mounted thereon engageable with opposite sides of said bar, said roller means being adjustably mounted on said structure, and a reciprocable cutting assembly rigidly connected to said yoke member.

2,867,871

RAKING DEVICE

Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely N. V.

Application November 5, 1956, Serial No. 620,382
Claims priority, application Netherlands November 18, 1955
7 Claims. (Cl. 56—377)



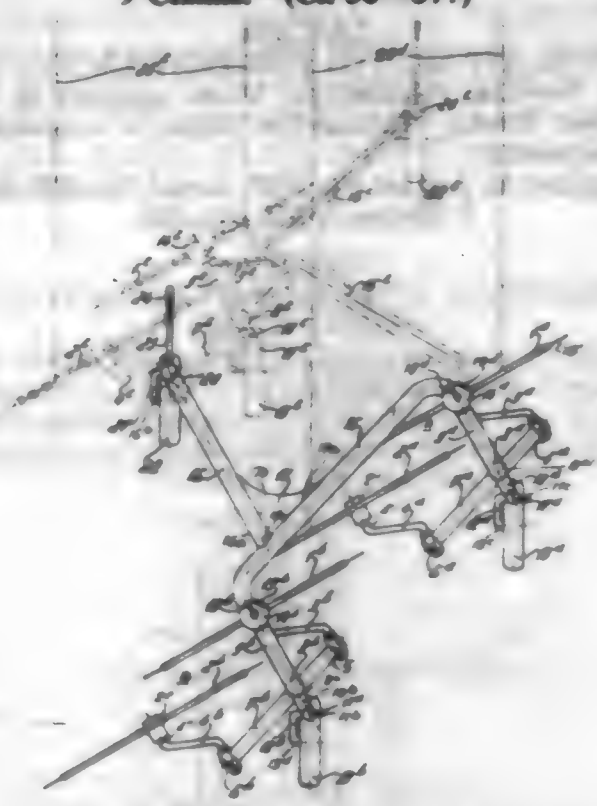
1. A device for laterally displacing material lying on the ground comprising a frame normally in operative position, running wheels connected to said frame and manual propelling means on the frame for propelling said frame, rake wheel supporting means, hinge means connecting the rake wheel supporting means to said frame, a plurality of rake wheels rotatably supported by said supporting means, the contact of the running wheels and two of the rake wheels with the ground defining a polygon of ground contact, and means on said device for releasably retaining the frame in a second position on the hinge means with the center of gravity of the frame overlying the polygon.

2,867,872

SIDE DELIVERY RAKE AND SWATH TURNER

Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely N. V., Maasland, Netherlands, a limited company of the Netherlands

Application July 29, 1953, Serial No. 371,008
Claims priority, application Netherlands August 2, 1952
9 Claims. (Cl. 56—377)



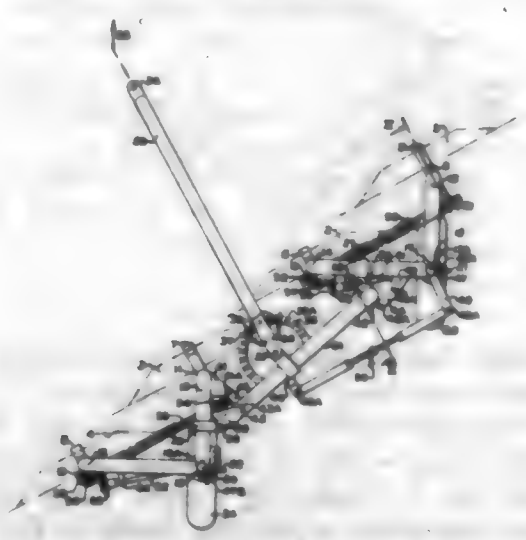
1. A raking device comprising a main frame including a laterally extending draft means, two wheel supported frames, at least one raking wheel on each of said two wheel supported frames, the wheels being arranged in overlapping relationship, adjustably lockable pivot means interconnecting each of said wheel supported frames to said main frame whereby the relative positions of the frames are adjustable and a running wheel coupled to said draft means for facilitating ground traversing movement.

2,867,873

SIDE DELIVERY RAKE

Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely, Maasland, Netherlands, a Dutch company

Application February 28, 1955, Serial No. 491,150
Claims priority, application Netherlands March 5, 1954
8 Claims. (Cl. 56—377)



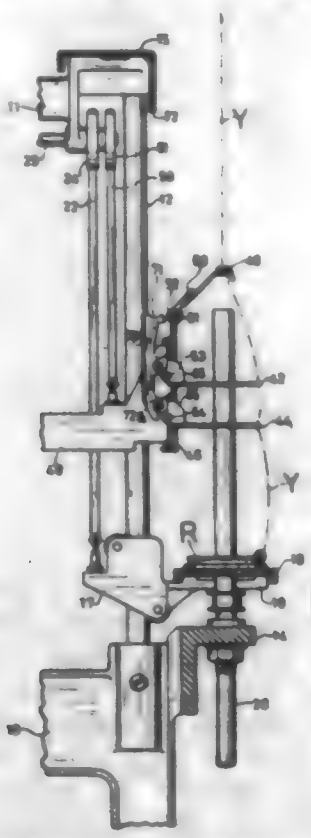
1. A raking device comprising a mobile frame, at least one axle connected to said frame in a substantially horizontal position, a raking member on said axle and defining a plane normal to said axle, positive driving means operatively associated with and putting said raking member into rotation, and tines provided on the periphery of the raking member for displacing rakable substance on the ground, said tines each including a torsion section, a ground contacting section and an intermediate section coupling said torsion and ground contacting sections, said torsion section being connected to said raking member and defining a center line spaced from said axle, said intermediate section normally being angularly displaced relative to said plane but being pivotable on said torsion bar into said plane.

2,867,874

DOFFING APPARATUS FOR TEXTILE MACHINE

Ross B. Newton, Whitinsville, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a corporation of Massachusetts

Application August 13, 1957, Serial No. 677,890
7 Claims. (Cl. 57—52)



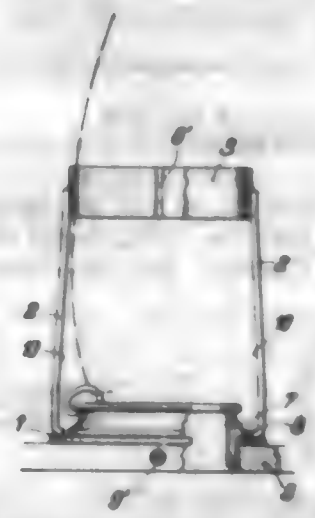
1. In a textile machine having bobbin-supporting spindles, in combination, a yarn guide for each spindle, a pair of vertically-spaced anti-balloon rings for each spindle, a separate pivotal support for each ring and for said yarn guide, means to raise said rings and yarn guide above the spindle, and means to swing said rings and yarn guide away from the axis of said spindle.

2,867,875

DEVICE FOR CONSTRICTING THE THREAD BALLOON IN RING SPINNING AND RING DOUBLING FRAMES

Ernst Reissmueller, Hof (Saale), Germany, assignor to Hermann Ebeauer & Co., Hof (Saale), Germany

Application March 19, 1956, Serial No. 572,386
Claims priority, application Germany March 31, 1955
10 Claims. (Cl. 57—106)



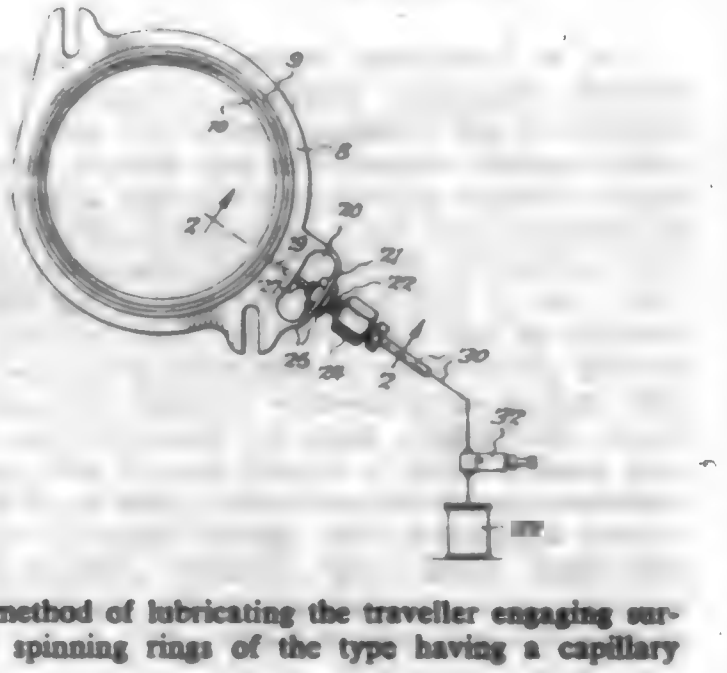
1. In a spinning machine provided with ring spinning and doubling frames and a traveller, a device for constricting the thread balloon, comprising in combination, a ring rail, a plurality of annular openings in said ring rail, a plurality of annular discs, each secured to said rail about each said opening thereof and aligned with each said respective opening, a plurality of spinning rings in said ring rail, each of said spinning rings respectively securing each of said discs to said rail about one of each said respective openings, at least one pair of support legs, each of said pair of legs having one of its ends secured to each of said circular discs, and a thread balloon constricting hoop secured to each of the other ends of each of said pair of support legs.

2,867,876

LUBRICATION OF SPINNING RINGS

Hyatt B. Atwood, Buffalo, N. Y., assignor to Herr Manufacturing Company, Inc., Buffalo, N. Y.

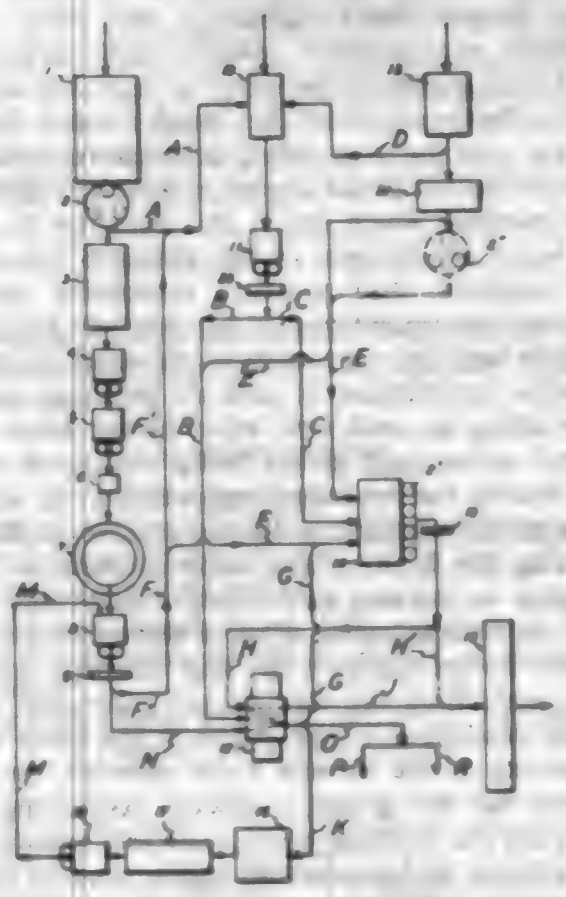
Application May 16, 1957, Serial No. 659,641
8 Claims. (Cl. 57—120)



1. A method of lubricating the traveller engaging surfaces of spinning rings of the type having a capillary

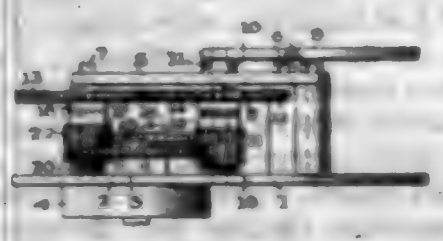
passage terminating at a bearing surface of the ring and through which lubricant may pass, which includes the step of supplying lubricant under pressure to said capillary passage at intervals of time and continuing the supplying of lubricant through said passage by capillary action when the pressure is interrupted.

2,867,977
PROCESS OF MAKING YARN
Robert C. Wilkie, Andover, Mass., assignor to Pacific Mills, Lawrence, Mass., a corporation of Massachusetts
Application December 21, 1954, Serial No. 476,643
5 Claims. (Cl. 57—157)



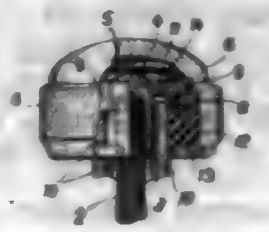
1. The process of making yarn which comprises forming fibers into sliver, collecting the sliver into masses of coils each arranged around a central opening, compressing and setting the coiled masses into packages about 20 to 26% of their original height without substantial increase in their diameter, reducing the sliver in one drafting operation to the condition of untwisted substantially constant weight roving, coiling said roving in masses of coils each arranged around a central opening with a plurality of ends in each mass, compressing and setting the coiled masses into packages about 20% to 26% of their original height without substantial increase in their diameter, and spinning said roving into yarn with a draft of about 25 to 600, as required to produce the yarn count desired.

2,867,978
SELF-WINDING MECHANISM FOR WATCHES
Charles G. Scott, Kingsport, Tenn.
Application October 11, 1952, Serial No. 314,314
6 Claims. (Cl. 58—82)



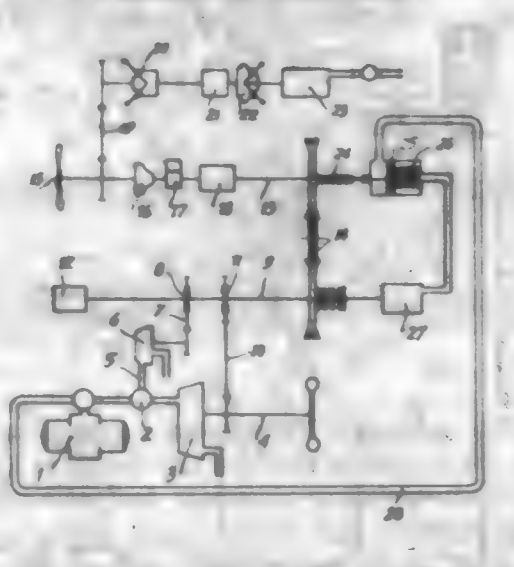
1. In a winding mechanism for a timepiece having a mainspring and a winding gear for the mainspring, the improvement which comprises a pair of spaced rotatable arbors, a reciprocatory driving member so connected to one of said arbors that movement of said driving member in one sense causes rotational movement of said one of said arbors in one direction, and movement of said driving member in the opposite sense causes rotational movement of said one of said arbors in the reverse direction, a pair of meshing gears secured to the respective arbors for rotation therewith, a pinion mounted on each of said arbors for rotation independently of the arbor on which it is mounted, a fourth gear, distinct from said winding gear, mounted for rotation about its axis and meshing with each of said pinions but not meshing with said winding gear, and one-way clutch means between each pinion and the gear mounted on the same arbor therewith, each of said one-way clutch means being engaged when its respective arbor is rotating in the same direction, only one of said pinions meshing with the winding gear, whereby movement of said driving member in either of said senses causes rotation of the winding gear in the same direction.

2,867,979
WATCH CROWN
Richard Pfisterer, Pforzheim, Germany
Original application August 17, 1954, Serial No. 450,345, now Patent No. 2,849,854, dated September 2, 1958. Divided and this application April 10, 1957, Serial No. 657,493
7 Claims. (Cl. 58—90)



1. A crown for a watertight watch of the type having, an undivided winding-shaft surrounded by a tube; said crown being provided with an inner collar of packing material and a resilient plate above said packing collar which collar surrounds the outer end of said winding-shaft and said tube, and a coupling part rigidly secured to the outer end of the winding-shaft and suitably shaped to overlap said packing collar and nutatably resting against said resilient plate pressed by said resilient plate against said packing collar.

2,867,980
DRIVING MECHANISM FOR AUXILIARY APPARATUSES
Lucien Peras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France
Application September 24, 1956, Serial No. 611,526
Claims priority, application France September 26, 1955
7 Claims. (Cl. 60—13)



1. In an assembly for driving the auxiliary equipment of a gas turbine driven vehicle, in combination, a free-piston gas generator, a main propulsion turbine, an auxil-

iary turbine, means providing communication between the gas generator and the main and auxiliary turbines including means for providing working-fluid under pressure from the generator to the turbines separately and selectively, a first and a second driven shaft each arranged for driving at least some of the auxiliary equipment, first power transmission means for selectively driving the first shaft from the main turbine and second power transmission means for selectively driving the first shaft from the auxiliary turbine, means for effecting speed-ratio changes between the shafts in dependence on the power output of the gas generator thereby to control the speed of the second shaft as a function of the power output of said gas generator.

2,867,081

HYDROCARBON FUEL COMPOSITION AND THE METHOD OF OPERATING A JET ENGINE THEREWITH

Ellsworth E. Kimmel, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware

No Drawing. Application June 7, 1956
Serial No. 589,861
19 Claims. (Cl. 60—35.4)

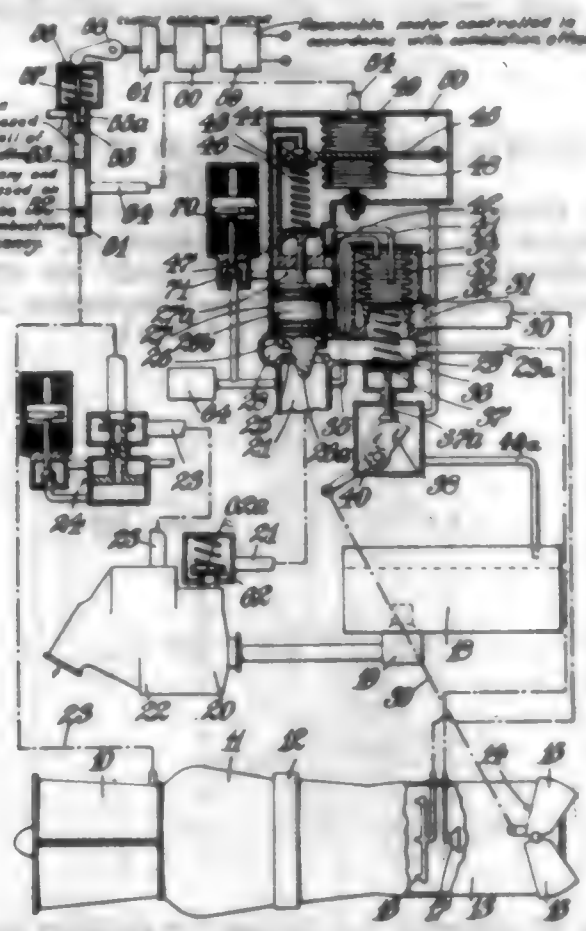
1. The method of operating a jet engine which comprises supplying to the combustion zone of said jet engine a hydrocarbon fuel boiling in the range of 200° to 700° F. containing between 5 and 30% by weight of an aluminum compound having the formula $(R)_nAlH_{3-n}$ wherein R is a lower alkyl radical and n is an integer equal to from 1 to 3, burning said fuel in the combustion zone of said engine and exhausting resulting gases from said engine so as to impart thrust thereto.

2,867,082

FUEL SUPPLY SYSTEM FOR GAS-TURBINE REHEAT COMBUSTION EQUIPMENT

Rowan Herbert Colley, Sunnyhill, Derby, England, assignor to Rolls-Royce Limited, Derby, England, a British company

Application March 30, 1956, Serial No. 575,208
Claims priority, application Great Britain April 6, 1955
10 Claims. (Cl. 60—35.6)



1. A reheat fuel system for a jet-propulsion gas-turbine having a compressor, a jet pipe, reheat combustion equipment in the jet pipe and a variable-area propelling nozzle, which fuel system comprises reheat fuel burners, a fuel supply conduit conveying fuel to said burners, upstream and downstream valves in flow series in said fuel conduit; the upstream valve comprising a first orifice, an adjustable valve element co-operating with said first orifice and adjustable to vary the effective area of said first orifice, a piston connected to adjust said valve element, said piston having a portion of a first face loaded by the fuel pressure in the fuel conduit upstream of said pair of valves in the sense to adjust the valve element to increase said effective area, a bleed conduit connected at one end to the fuel conduit upstream of the valves and having an outlet at its other end, a restrictor in said bleed conduit, a vent valve controlling the outlet of the bleed conduit, said piston having a second face loaded in the sense of reducing said effective area by the pressure in the bleed conduit between the restrictor and the vent valve, pressure-responsive means, means connected to the engine compressor and producing an air pressure which varies as a function of and in the same sense as changes in the absolute compressor delivery pressure, said pressure responsive means being connected to respond to said air pressure and being connected to load the vent valve in the sense of opening the vent valve on increase of said air pressure, and resilient means acting on said vent valve in the sense of closing the vent valve, said piston being connected to said resilient means and on movement varying the load applied by the resilient means to the vent valve in the sense of increasing the load as the valve element is moved by the piston to increase said effective area; and the downstream valve comprising a valve seating, a throttle valve member co-operating with said seating, and control means controlling the throttle valve member comprising a spring producing a load acting in the sense to increase the opening of the throttle valve member, an adjustable abutment for the spring, a linkage connecting the abutment with the variable-area propelling nozzle to adjust the abutment to increase the spring load as the area of the nozzle is increased, and second pressure-responsive means connected to respond to the pressure in the fuel conduit upstream of the upstream valve and producing a load which increases as the fuel pressure in said fuel conduit and opposes the spring load.

2,867,083

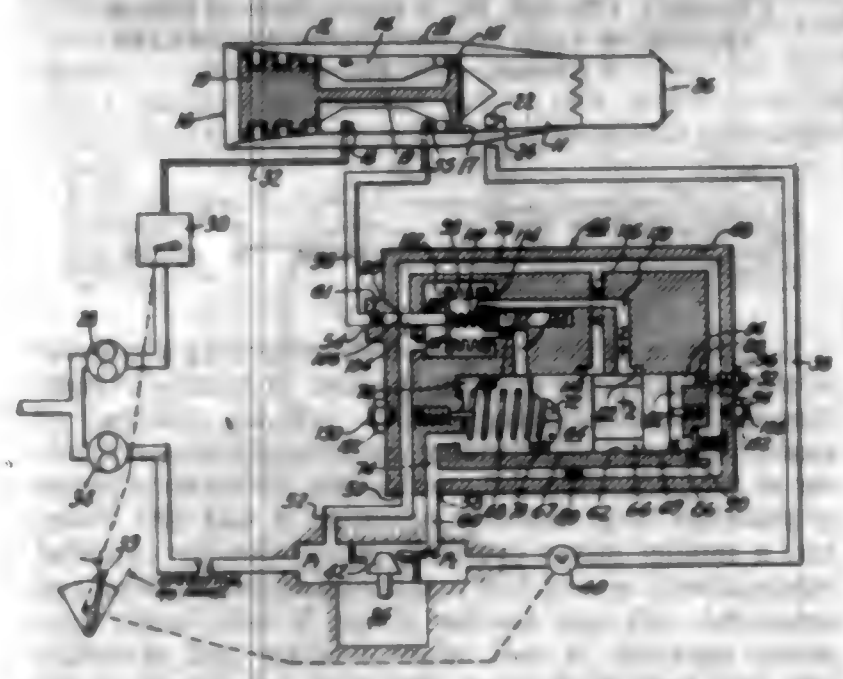
IGNITION CONTROL FOR TURBOJET AFTERBURNER

Howard L. McCombs, Jr., South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application May 3, 1956, Serial No. 582,438
11 Claims. (Cl. 60—35.6)

7. In a gas turbine power plant having a compressor, a main burner for burning fuel in the presence of air delivered by said compressor, a turbine responsive to a motive fluid from said burner, and an afterburner downstream from said turbine for burning additional fuel in the presence of exhaust gases from said turbine, afterburner fuel metering means comprising a fuel pump, a fuel manifold, a first conduit for delivering pressurized fuel to said fuel manifold, valve means in the conduit for controlling the fluid flow therethrough, a second conduit for delivering pressurized fuel to said fuel manifold and having a parallel flow relationship with said valve means, a branch conduit connected between said second conduit and said main burner, valvular means in said branch conduit for controlling the fuel flow therethrough, pressure responsive means having a fluid connection with said valvular means, said pressure responsive means being responsive to the pressure differential across said valve means and being adapted to control the movement of said valvular means upon operation of said afterburner,

said valvular means acting to introduce a predetermined excess quantity of fuel into said main burner where it



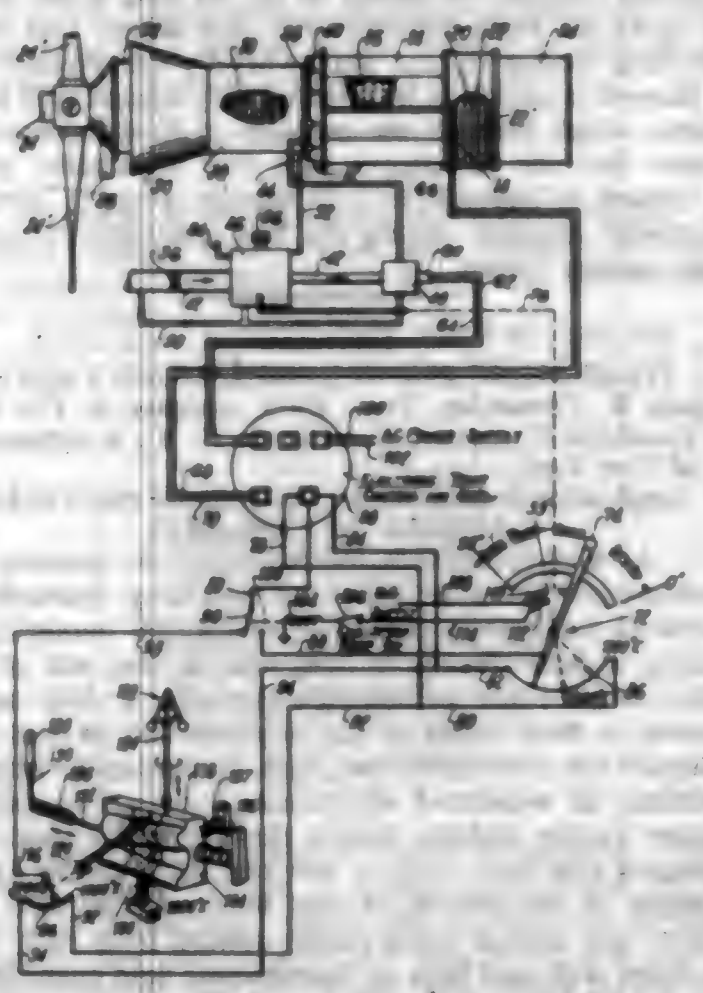
is subsequently ignited and carried through said turbine to said afterburner to ignite the fuel supplied thereto by said second conduit.

2,867,084

FUEL FEED AND POWER CONTROL SYSTEM FOR GAS TURBINE ENGINES HAVING AN ENGINE TEMPERATURE CONTROL

Daryl L. Criswell, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application March 22, 1954, Serial No. 417,863
9 Claims. (Cl. 60—39.28)



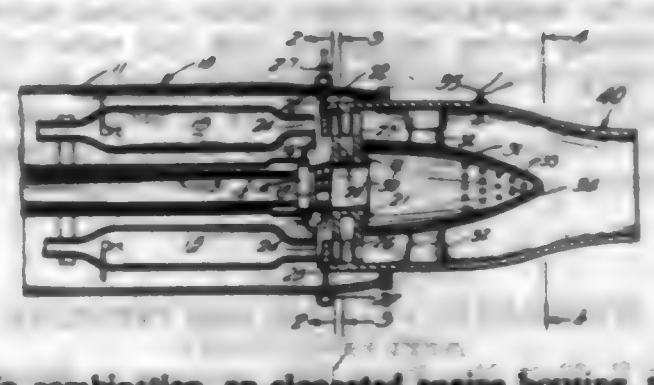
6. In a fuel feed and power control system for an engine, conduit means connected to deliver fuel to the engine, first means for withdrawing from said conduit means a predetermined percentage of fuel over the operating range of the engine, second means operatively connected to said first means for controlling the percentage of fuel withdrawn thereby as a function of a first engine operating condition such as a reference temperature to which the engine is controlled during engine operation at constant speed, and third means responsive to variations in a second engine operating condition such as engine speed operatively connected to said first means for controlling the percentage of fuel withdrawn thereby as a function of said first engine operating condition during acceleration of the engine.

2,867,085

AFTERBURNER DESIGN, VAPORIZING TYPE

Michael S. Sabec, Trumbull, Conn., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application March 3, 1955, Serial No. 492,054
3 Claims. (Cl. 60—39.71)



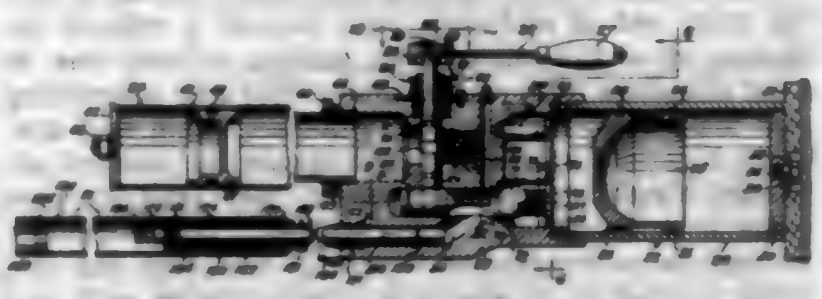
3. In combination, an elongated engine housing, main combustor means disposed in said housing, a main engine shaft running a portion of the length of said housing and disposed with its axis at the center of said housing, bearing means supporting said main shaft, shielding means extending from said main combustor to said main shaft, a plurality of hollow turbine nozzles extending inwardly from said housing and disposed adjacent an end of said combustor means, fuel inlet means coupled to said hollow turbine nozzles through the wall of said housing, a plurality of spokes extending substantially radially from the end of said main shaft, a flat plate extending substantially parallel with the axis of said main shaft mounted on the ends of said spokes, a plurality of turbine discs extending radially from said plate, turbine blades mounted on the ends of each disc, a hollow tail cone open at its larger end, said tail cone extending over said discs and providing a passage continuing a passage formed by hollow nozzles, said shield and said plate, said hollow tail cone having a plurality of apertures formed therein, and strut means extending from the wall of said tail cone.

2,867,086

PORTABLE PRESSURE FLUID POWER DEVICES

Emmett L. Haley, Dallas, Tex.

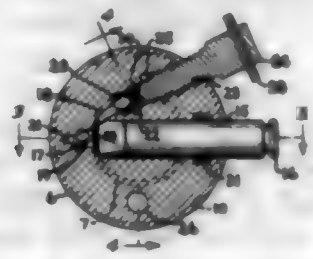
Application December 20, 1954, Serial No. 476,277
9 Claims. (Cl. 60—51)



1. A power device comprising: a power fluid reservoir; a second reservoir for a compressible fluid; a power member in said second reservoir urged in one direction by said compressible fluid; means for transferring power fluid from said power fluid reservoir to said second reservoir to move said power member in the opposite direction against the force exerted by said compressible

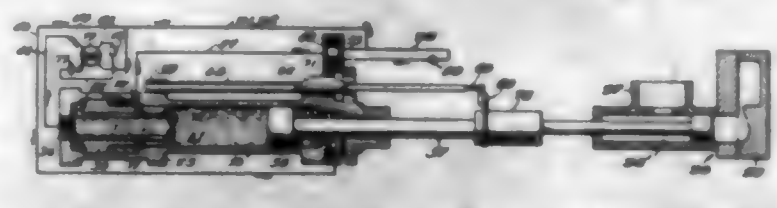
fluid; and means for releasing power fluid from said second reservoir to an element to be actuated by said power fluid to operate said element; said means for releasing power fluid including a valve member, means resiliently urging said valve member toward closed position, and a quick-acting trigger mechanism including a trigger piston actuated by the power fluid and movable into contact with said valve member to move said valve member to open position, means engageable with said trigger piston for holding said trigger piston against movement into engagement with said valve member and releasable to permit said trigger piston to move into contact with said valve member, passage means providing fluid communication between the space between said trigger piston and said valve member and said power fluid reservoir, valve means controlling flow through said passage means, said means engageable with said trigger piston for holding said trigger piston against movement also having means engageable with said valve member controlling flow through said passage means for actuating said valve means and operable to permit said valve means to close before said trigger piston is released for movement into contact with said valve member.

2,867,887
HYDRAULIC VALVING FOR PRESSURE APPLYING UNITS
Clare E. Holt, Fox Point, Wis., assignor to Blackhawk Mfg. Co., Milwaukee, Wis., a corporation of Wisconsin
Application November 5, 1956, Serial No. 620,292
1 Claim. (Cl. 60—52)



In a hydraulic power unit, a unitary base supporting a power cylinder and a liquid supply reservoir and being provided with a main bore extending laterally of the cylinder axis into said base from one side only thereof for a major portion of the width of said base, the inner end of said bore being provided with a reduced portion in axial alinement therewith and in turn communicating with said reservoir remote from said main bore through an inlet passage formed in said base, an inlet valve housed within said reduced portion of the main bore, said base also being provided with an auxiliary transverse bore extending into said base from one side thereof in the same plane as that of said main bore and with its axis intersecting the axis of said main bore at an acute angle, the inner end of said auxiliary bore communicating with the inner end of said main bore through a reduced extension of said auxiliary bore formed in said base in axial alinement with said auxiliary bore and intersecting said main bore, an outlet valve housed within said auxiliary bore and normally seated against the reduced extension thereof to close the same, said auxiliary bore being in open communication with said power cylinder through an outlet passage formed in said base and also being adapted to be placed in communication with said reservoir through a release passage formed in said base, a release valve received in and movable along said auxiliary bore toward and away from the reduced extension thereof and across said release passage for closing and opening the same, and a pump plunger reciprocable within said main bore to successively draw liquid from said reservoir past said inlet valve and force the same to said power cylinder past said outlet valve.

2,867,888
PRESSURE MULTIPLIER
Albert S. Kux, Chicago, Ill., assignor to Kux Machine Company, Chicago, Ill., a corporation of Illinois
Application April 22, 1955, Serial No. 503,250
4 Claims. (Cl. 60—54.5)

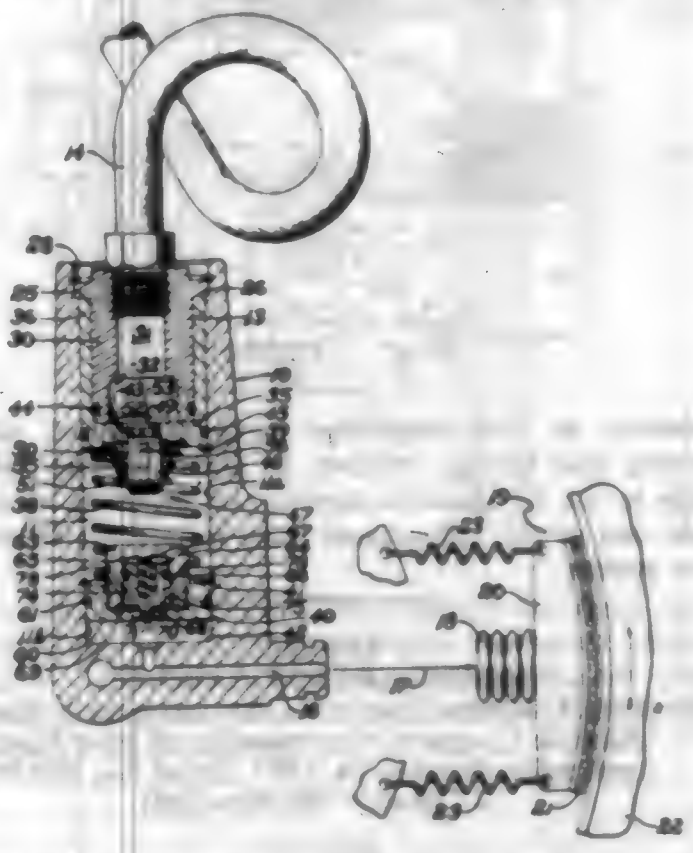


3. A device of the type described comprising a cylinder structure including a cylinder chamber of relatively larger diameter communicating with a cylinder chamber of smaller diameter and forming an internal annular shoulder at the circumferential meeting line therewith, a piston of relatively large diameter operating in said first chamber, a smaller piston operating in said smaller chamber independently of said first mentioned piston, a piston rod connected with said smaller piston, a tube fixedly supported coaxially in said larger chamber and extending into said smaller chamber, said tube being open at the head end but closed at the base end and having a port in the tube wall adjacent the closed end, said larger piston being concentric with said tube and being reciprocable thereon, a sleeve concentric with said tube and connected to said larger piston and adapted to effect opening and closing of said port, means controlling the flow of pressure fluid through said tube and port to move said smaller piston, said larger piston and annular shoulder defining a pressure chamber containing fluid restraining movement of said larger piston up to a predetermined point of movement of said smaller piston, means thereafter operable to permit discharge of fluid from said last-mentioned chamber, whereby pressure fluid admitted into said larger cylinder chamber is caused to act on said larger piston to move the same together with said sleeve, said sleeve effecting closure of said port, whereby the pressure fluid is thereafter caused to be directed only against said larger piston which through the medium of fluid confined between the tube and sleeve ends and the smaller piston is caused to transmit to said smaller piston a force of increased intensity during the final portion of travel of said smaller piston.

2,867,889
HYDRAULIC FLUID REGULATING VALVE
James K. Parmerlee, Troy, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application September 19, 1955, Serial No. 535,010
5 Claims. (Cl. 60—54.5)

1. A valve mechanism for regulating the quantity and pressure of hydraulic fluid for operating hydraulically actuated equipment, the valve mechanism comprising a casing, a bore therein, a fluid inlet at one end of said bore adapted for communication with a fluid supply source, a fluid outlet at the opposite end of said bore adapted for communication with hydraulically actuated portions of associated equipment, a pressure-regulating piston axially slidable within the portion of said bore adjacent said fluid inlet, a flow-regulating piston axially slidable in the portion of said bore adjacent said fluid outlet, said pistons being axially spaced from each other to define with said bore an intermediate fluid chamber between said pistons, a spring in said chamber for opposing displacement of said pistons relatively toward each other, and means in said chamber to limit the stroke of said flow-regulating piston between two axially-spaced positions thereof, said pressure-regulating piston including a valve and means for urging the valve toward a closed position, the valve being operable to open upon engagement with said flow-regulating piston upon displacement

of the pressure-regulating piston toward said flow-regulating piston to provide communication between said inlet and said intermediate chamber, and said flow-regulating piston including an orifice, a housing cap secured to said piston, a valve body slidable in said housing cap having a sealing face directed toward said orifice, a spring within said cap urging said valve body toward said orifice



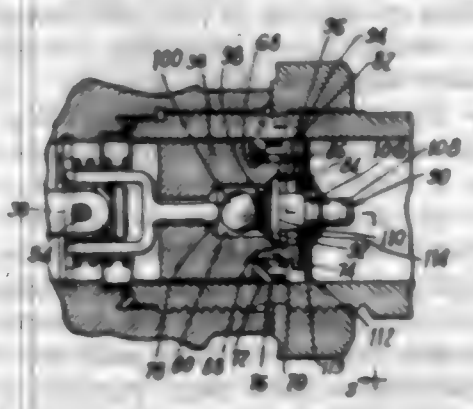
to seat said sealing face against said orifice to close said orifice, and a surface on said valve body in communication with fluid in said intermediate chamber, the valve body being operable when the flow-regulating piston is in either of its two limiting positions to open said orifice in response to a predetermined pressure of fluid in said intermediate chamber against said surface.

2,867,079

POWER ACTUATED BLEED STRUCTURE

Gunther Pfeifer, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application April 14, 1955, Serial No. 501,238
6 Claims. (Cl. 60—54.6)



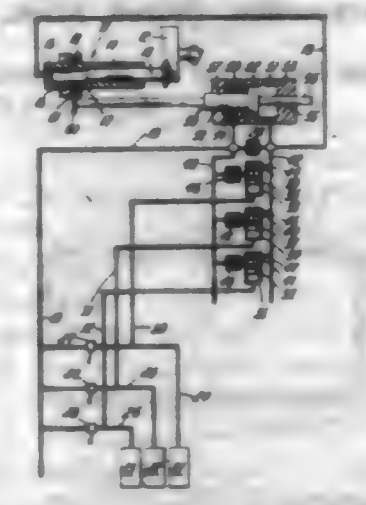
1. In a hydraulic pressure system, a hydraulic cylinder having a bore therein, a piston reciprocable in said bore and having fluid seal means on its outer periphery adjacent one end thereof for preventing fluid flow in either direction past said piston, said sealing means being immovably held in an unported annular recess in the outer surface of said piston member, said piston having a fluid passage therethrough, said fluid passage terminating in an annular face portion on the end of the piston adjacent said seal means, a support member carried by said piston, fluid directing means on said support member in close proximity to said annular face portion of said piston and including a peripheral edge in close proximity to said cylinder bore, and fluid bleed means in communication with the upper portion of said cylinder bore, whereby movement of bleed fluid through said piston is directed adjacent said annular piston face, past said piston seal means, adjacent said cylinder bore and out said bleed means removing substantially all air entrapped in said hydraulic cylinder.

2,867,951

HYDRAULIC SYSTEMS

George Orloff and Alan Cameron-Johnson, Gloucester, England, assignors to British Messier Limited, Gloucester, England, a British company

Application December 4, 1956, Serial No. 626,199
Claims priority, application Great Britain December 7, 1955
13 Claims. (Cl. 60—97)



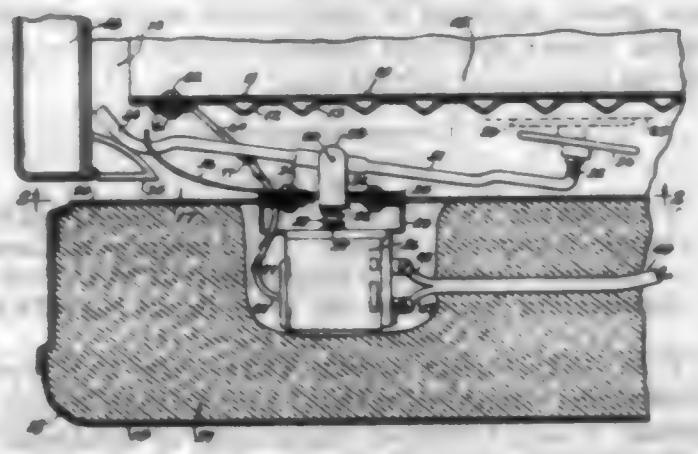
1. In a hydraulic system, a supply pump, means for varying the delivery of said pump, a plurality of intermittently-operating services supplied by said pump, each said service having a selector valve to control the admission of pressure fluid thereto, restriction means in the pump delivery line with a flow area adjustable in accordance with the number of services to be supplied, said flow area increasing step-wise when the number of services supplied increases and reducing step-wise when said number of services reduces, and means for comparing the pressures in the delivery line on opposite sides of said restriction means and for operating the pump delivery-varying means so as to reduce the pump delivery when the pressure difference increases and vice versa, irrespective of pump input speed.

2,867,092

AUTOMATIC DEFROST CONTROL

Robert P. Perry, Greenville, Mich., assignor, by mesne assignments, to Happ Corporation, Detroit, Mich., a corporation of Virginia

Application August 26, 1954, Serial No. 452,267
8 Claims. (Cl. 62—140)



1. In combination with a refrigerator having a door-equipped evaporator, an elongated arm equipped adjacent one end with a pad and adjacent its other end with a cam follower, a support intermediate the ends of said arm and being shiftable toward and away from said

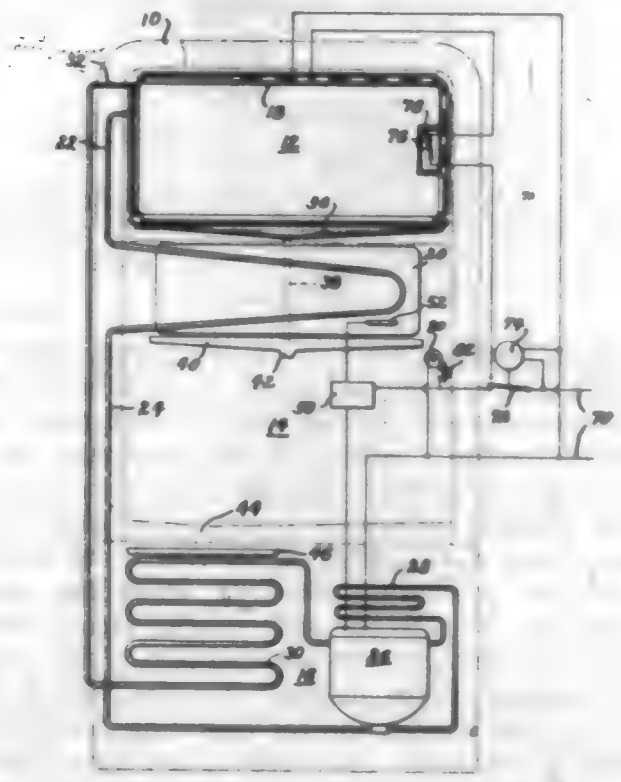
evaporator, said arm being pivotally carried by said support about an axis enabling said pad to be swung toward and away from said evaporator, means for biasing said arm to bring said pad into engagement with said evaporator and for biasing said support away from the evaporator, cam means carried by said door and being engageable with said cam follower, when said door is closed, to pivot said arm about said axis to move said pad into spaced relation with said evaporator, and control means operatively arranged with said support in response thereto upon the shifting thereof a predetermined distance from said evaporator.

2,867,093

DEFROSTING ARRANGEMENT FOR REFRIGERATING SYSTEM

Edward C. Simmons, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 20, 1955, Serial No. 554,287
4 Claims. (Cl. 62—152)



1. In a refrigerator having a storage compartment for food, an evaporator for refrigerating said food storage compartment, a compressor, a condenser, means for connecting said compressor, condenser, and said evaporator in series refrigerant flow relationship, heater means arranged in thermal exchange relationship with said evaporator for defrosting said evaporator, said heater means comprising flexible means wrapped around said evaporator and a heating element between said flexible means and said evaporator, said heater element being embedded in a groove provided in said flexible means, said flexible means having apertures therein beneath said evaporator for the drainage of defrost water.

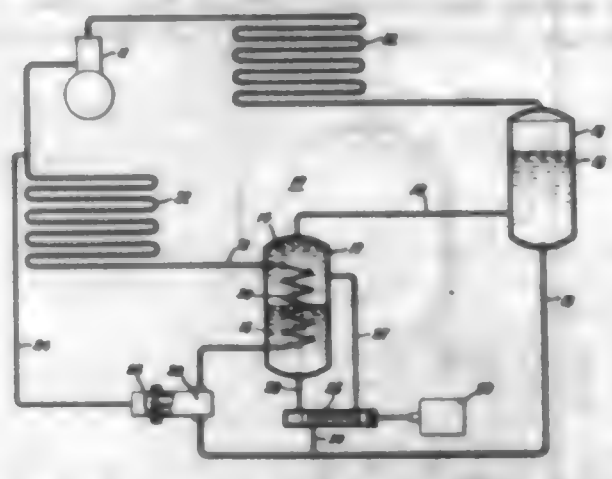
2,867,894

VARIABLE TEMPERATURE REFRIGERATION

Carlyle S. Herrick, Alplaus, N. Y., assignor to General Electric Company, a corporation of New York

Application September 30, 1954, Serial No. 459,442
3 Claims. (Cl. 62—174)

1. A refrigeration system comprising a compressor, a condenser connected in fluid flow relation to said compressor, a liquid receiver maintained at condenser pressure and connected in fluid flow relation to said condenser, a supply of low temperature immiscible refrigerants in said receiver, an evaporator, a conduit connecting said receiver to said evaporator, means connecting said evaporator to said compressor in fluid flow relation, a storage receiver maintained at condenser pressure, a supply of low temperature immiscible refrigerants in two separate liquid layers within said storage receiver, said storage receiver arranged to receive refrigerant from said liquid receiver, said conduit connecting said liquid



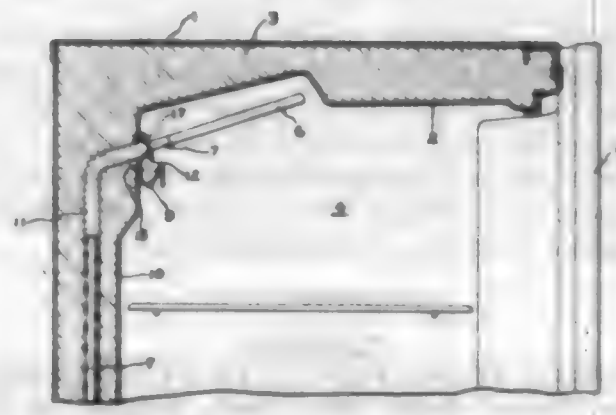
receiver to said evaporator being positioned partially within said storage receiver in heat exchange relationship to the refrigerants therein, and means to selectively add one of the refrigerants from the storage receiver to the system.

2,867,895

REFRIGERATOR CABINET

Kenneth A. Robbie, Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application October 14, 1957, Serial No. 689,880
2 Claims. (Cl. 62—285)



1. A refrigerator comprising an outer shell and an inner liner spaced from said shell and defining a food storage compartment, an inclined evaporator disposed in said compartment for cooling the contents thereof, said liner including an opening in one wall thereof below said evaporator, conduit means extending through said opening for connecting said evaporator to a source of refrigerant, a tubular resilient heat insulating covering on said conduit means extending through said opening and terminating a short distance within said compartment, a drain trough disposed below said evaporator for collecting defrost water dripping from said evaporator, said trough including a vertical portion for closing said opening, said vertical portion having a slot therein for receiving said conduit means including said tubular covering, said slot including spaced edge portions for engaging and compressing the portions of said tubular covering in contact therewith.

2,867,896

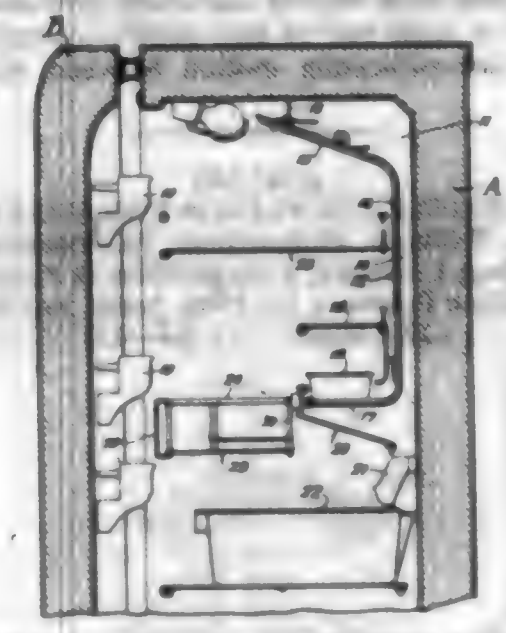
REFRIGERATOR

Homer E. Rosebrook, Earl K. Harley, and Burton A. Swartzloff, Greenville, Mich., assignors, by mesne assignments, to Hupp Corporation, Detroit, Mich., a corporation of Virginia

Application June 16, 1955, Serial No. 515,922
10 Claims. (Cl. 62—288)

9. In a refrigerator providing a refrigerating compartment open at its front side, a door closing said front side, and an evaporator supported within said compartment

and extending downwardly along the rear side thereof but spaced inwardly from said rear side to provide an air channel therebetween, said evaporator providing a substantially horizontal leg at its lower end and having an upwardly and forwardly inclined top leg, and a



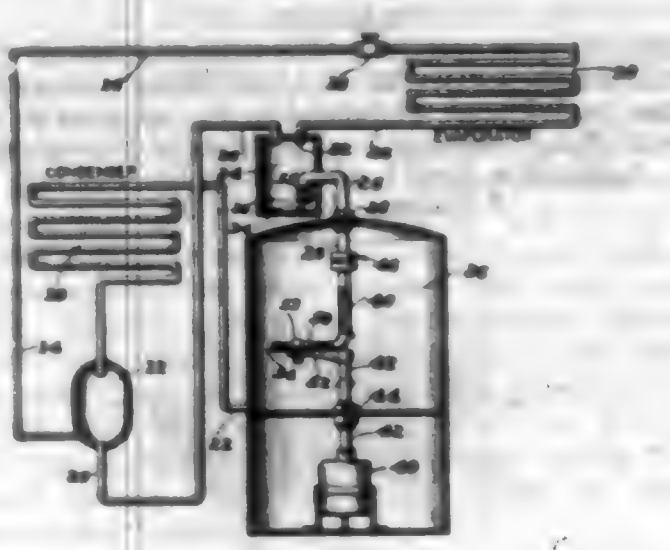
shelf mounted within said compartment between said evaporator and said door for swinging movement in the horizontal plane between a first position adjacent said horizontal leg and a second position providing direct access to said horizontal leg.

2,867,097

HEAT PUMP REFRIGERATING APPARATUS

Donald S. Justice, Washington, D. C., assignor, by mesne assignments, to The Justice Company, a corporation of the District of Columbia

Application April 7, 1955, Serial No. 499,850
13 Claims. (Cl. 62—324)



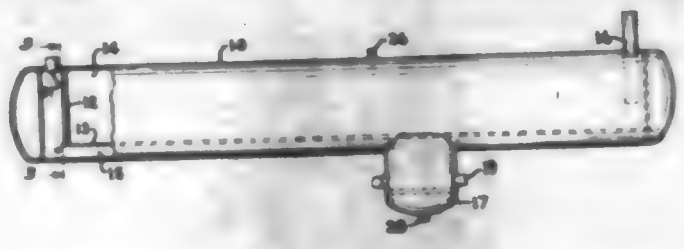
13. A heat pump comprising the combination of an evaporator, a condenser, a refrigerant receiver, an expansion means coupled between said condenser and said evaporator, a centrifugal pump means arranged to discharge refrigerant to said condenser, means for alternately supplying said centrifugal pump with liquid refrigerant from said receiver and gaseous refrigerant from said evaporator, said centrifugal pump means comprising a prime mover, an axially extending conduit rotatably coupled to said supply means and mechanically engaged with said prime mover for rotation upon its axis, a hollow annular ring concentric with said axially extending conduit, a centrifuging conduit coupled to the free end of and extending substantially radially from said axially extending conduit into the lumen of said annular ring, means for periodically voiding the lumen of the ring and discharging the refrigerant radially therefrom when the liquid refrigerant at least partially fills the lumen of said ring, a sealed chamber enclosing said conduits and said ring to retain the pressure created by the rotation of said centrifuging conduit.

2,867,098

REFRIGERANT RECEIVER AND OIL SEPARATOR

Erich J. Kocher, Milwaukee, Wis., assignor to The Vilter Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin

Application October 22, 1956, Serial No. 617,585
2 Claims. (Cl. 62—473)



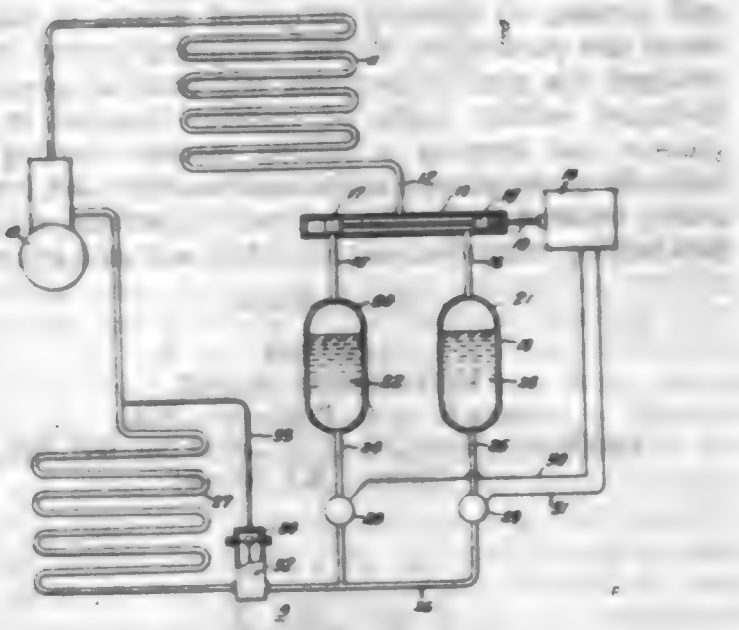
1. A liquid receiver for refrigerant circulating systems, comprising, means forming a horizontally elongated receiving chamber for liquid refrigerant having lubricant entrained therein, spaced liquid inlet and outlet conduits communicating with the opposite extreme ends of the interior of said chamber, baffle means within the inlet end of said chamber between said inlet and said outlet for directing all incoming liquid toward the bottom of said chamber, a separating screen interiorly spanning said chamber from end to end and below said outlet conduit to provide an upper refrigerant confining space and an elongated lower separated lubricant confining space within said chamber, means forming a secondary chamber depending from and communicating with said lower lubricant confining space for receiving lubricant settling therein, and a refrigerant circulating compressor for withdrawing lubricant from said secondary chamber for re-use in lubricating the compressor.

2,867,099

DUAL TEMPERATURE REFRIGERATION

Albert E. Schubert, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

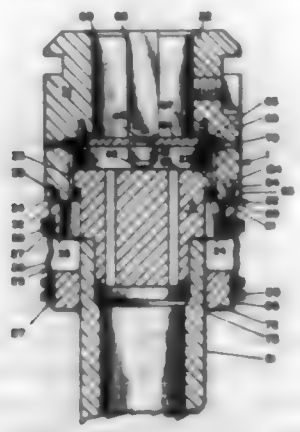
Application June 29, 1954, Serial No. 440,826
3 Claims. (Cl. 62—502)



1. A refrigeration system comprising an evaporator, a pair of liquid receivers connected parallel with each other and to the inlet side of said evaporator, a different refrigerant in each of said receivers, valve means positioned between said receivers and said evaporator to selectively circulate one of said refrigerants through the evaporator, a compressor connected to the outlet side of said evaporator, a condenser connected to the outlet side of

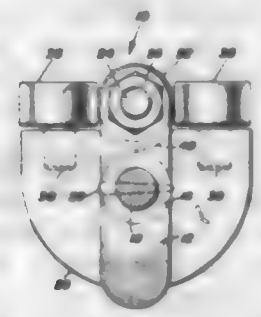
said compressor, and valve means connecting said receivers with said condenser, said valve means returning the circulating refrigerant to its associated liquid receiver.

2,867,100
SEAL ASSEMBLY
Donald J. Beecher, Erie, Pa., assignor to American Flexible Coupling Company, Erie, Pa., a corporation of Pennsylvania
Application October 24, 1955, Serial No. 542,148
2 Claims. (Cl. 64—9)



1. In combination, a coupling for two shafts and means to attach two shafts thereto comprising a generally cylindrical member having a bore therethrough, said bore being adapted to receive one end of a shaft, said bore being counterbored at one end, a peripheral shoulder in said counterbore where said counterbore joins said bore, a plate attached to said shoulder and extending transversely of said bore, a member attached to the center of said plate and extending therefrom in said counterbore and terminating in an end having a shape conforming to a portion of a sphere, internal teeth formed in said counterbore and extending axially thereof, a hub having external teeth thereon engaging said internal teeth and axially slidable thereon, the end of said hub being generally flat and engaging said spherical surface, said hub and said cylindrical member being rotatable in axial misalignment with each other, said cylindrical member terminating at the end thereof adjacent said hub in a reduced size peripheral portion, a collar having an enlarged size diameter portion on one end, said enlarged size diameter portion receiving said reduced size peripheral portion, an external peripheral groove in said reduced size portion, an internal peripheral groove in said enlarged size portion overlying said external groove, an O-shaped washer made of resilient material in said grooves and forming a holding member holding said collar in place on said cylindrical member and forming a seal between said collar and said cylindrical member, and sealing means between said hub and said collar.

2,867,101
UNIVERSAL JOINT
John S. Case, Baltimore, Md.
Application June 24, 1957, Serial No. 667,469
9 Claims. (Cl. 64—9)

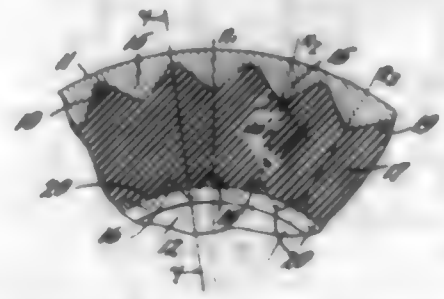


2. A coupler for transmitting motion between a pair of running shafts, comprising, a U-shaped yoke secured to one of said shafts in a plane perpendicular to the axis of said one shaft, a roller mounted for rotation at each of the outer ends of said yoke, a crank arm secured to the other of said shafts in a plane perpendicular to the axis of said other shaft, and a third roller mounted for rotation at the outer end of said crank arm and arranged to contact at least one of said rollers mounted on said yoke for communicating motion between said pair of shafts.

2,867,102
FLEXIBLE COUPLINGS FOR SHAFTS
William A. Williams, Philadelphia, Pa., assignor to T. B. Wood's Sons Company, a corporation of Pennsylvania
Application February 13, 1956, Serial No. 565,147
12 Claims. (Cl. 64—11)

1. A flexible coupling for connecting rotatable shafts end to end and transmitting power therebetween comprising, an elastic connector having angular formations at its end portions, a socket secured on each shaft end and facing each other, each of said sockets having a recess in its surface facing toward the opposing socket, said recesses conforming in shape to the formations of said connector end portions and said connector having its end portions seated in said sockets, the portions of said sockets engaging said end portions of said connector being spaced apart axially so that the portion of said connector between said portions of said sockets is flexed in torsional shear in transmitting power in operation.

2,867,103
GRIPPING ARRANGEMENTS FOR FLEXIBLE COUPLINGS FOR POWER TRANSMISSION SHAFTS
William A. Williams, Philadelphia, Pa., assignor to T. B. Wood's Sons Company, a corporation of Pennsylvania
Application April 1, 1957, Serial No. 649,722
5 Claims. (Cl. 64—11)



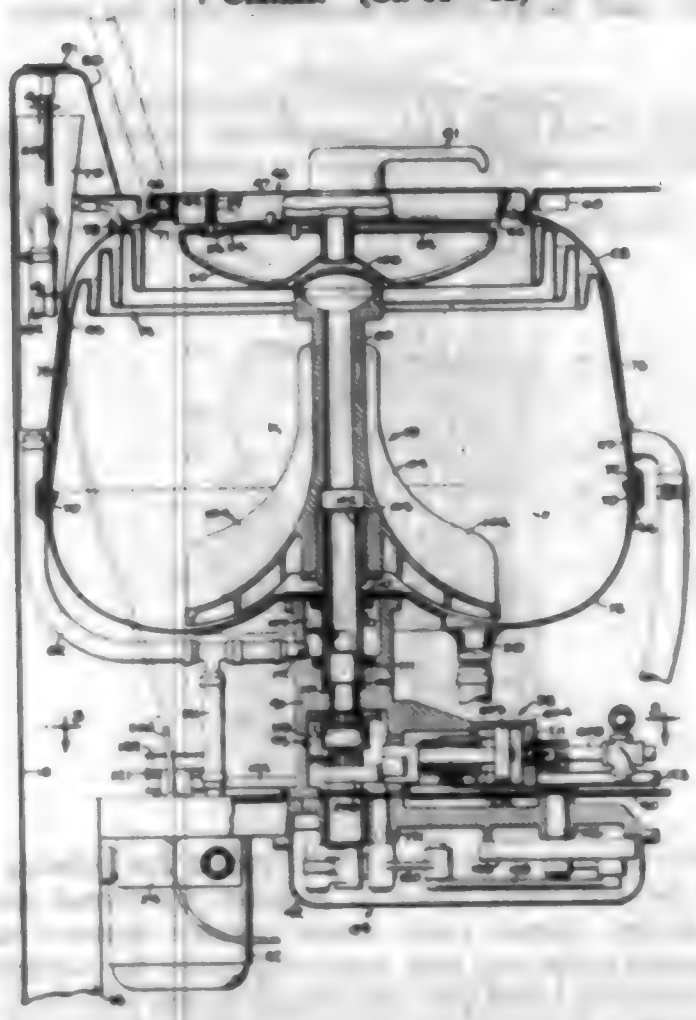
1. In a flexible coupling for connecting rotatable power transmission shafts end to end, a coupling hub mounted on the adjacent end portions of said shafts, said hubs each having walls forming an annular opening extending thereabout and opening toward each other, the inner and outer walls of said hubs forming said opening being provided with sets of axially extending teeth, having side walls arranged at angles to the respective radii, a tubular flexible connector extending between said coupling hubs and having end portions extending into said annular openings, said end portions having inner and outer sets of teeth corresponding in cross sectional shape and size to the corresponding teeth of said inner and outer walls of said hubs, said teeth of said connector being shorter in axial extent than the teeth of said hubs and terminating axially inwardly of said openings relative to the terminations of corresponding teeth of said hub walls.

2,867,184

AUTOMATIC LAUNDRY MACHINE

Berthold R. Thiele, Ripon, Wis., assignor, by mesne assignments, to McGraw-Edison Company, a corporation of Delaware

Application January 5, 1954, Serial No. 402,266
7 Claims. (Cl. 68—12)



6. In an automatic laundry machine having a stationary tub of globe-like shape, an agitator in said tub, and means for driving said agitator, the combination of a flexible and resilient sleeve-like liner sealed at its marginal edges to overlie the interior side surface of said tub, said liner having corrugated folds in its upper portion permitting it to contract against said interior side surface, said liner also having a plurality of protuberances on its outer surface to prevent sticking to said surface, an opening defined in the side portion of the tub wall communicating with the space between said liner and said interior surface, an opening in the bottom portion of the tub wall, means for connecting said bottom opening to a drain, and means for supplying pressured water through said side opening to expand said liner into squeezing engagement with wet clothes in said tub to thereby extract water from said clothes for passage through said bottom opening.

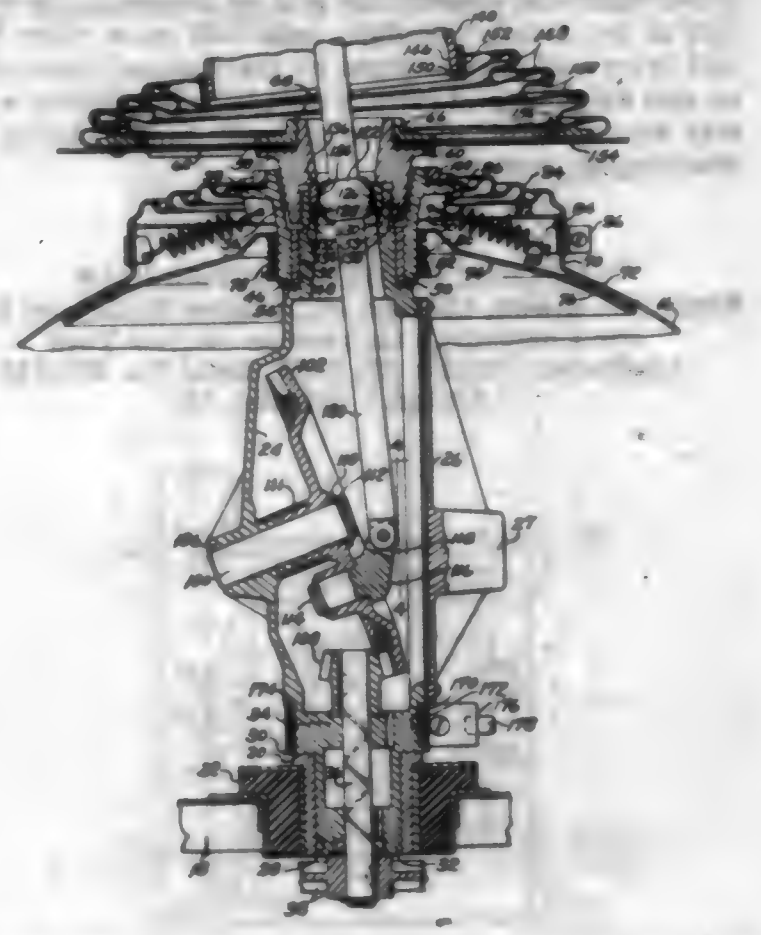
2,867,185

WASHING MACHINES

William G. Landwier, Fayetteville, N. Y., assignor, by mesne assignments, to The Murray Corporation of America, Detroit, Mich., a corporation of Delaware

Application March 31, 1953, Serial No. 345,889
13 Claims. (Cl. 68—23)

1. In a washing machine, a rotatable hollow column, a wash tub mounted on the upper end thereof, and rotatable with the column, a drive shaft journaled in the lower end of the column axially thereof, and projecting beyond the lower end of the column, gearing within the column driven by said drive shaft, means to prevent relative rotation in one direction between said gearing and column, a driven shaft and agitator means mounted in the upper end of said column and drivably connected with said gearing, a flexible seal extending between and secured to said last-named means and wash tub, a frame having a universally mounted resilient support journal for said column at its lower end, means associated with said column and frame for braking the rotation of said col-



umn during agitation, and a reversible motor for driving said gearing.

2,867,186

CLOTHES WASHING APPARATUS

George M. Stone, Jr., Naperville, and Michael S. Slesink, Chicago, Ill., assignors to General Electric Company, a corporation of New York

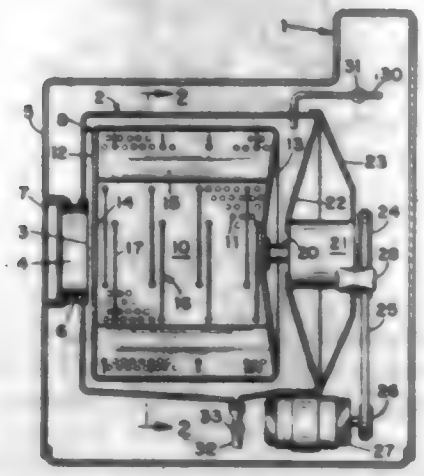
Application September 17, 1957, Serial No. 684,540
14 Claims. (Cl. 68—24)



10. In apparatus for carrying out clothes washing and drying operations the combination comprising: a perforated drum mounted for rotation about a substantially horizontal axis to contain fabrics undergoing washing operations, said drum having end walls, a generally tubular side wall, and an access opening to receive fabrics in one of said walls; mounting means for said drum; means to lift and tumble clothes within said drum; a plurality of circumferentially spaced movable grids mounted to the side wall of said drum on its interior, said grids providing a resting place for fabrics contiguous with and generally parallel to said drum side wall, said grids having at least one point on their periphery pivotally attached to said drum wall and a weight fastened to an opposite unattached edge whereby said grid can pivot inwardly about said attached point; and means including a drive motor to rotate said drum at a relatively high centrifuging speed to extract liquid from fabrics therein whereby the grid and fabrics disposed thereon will be in close proximity to the drum wall throughout the drum's entire rotational orbit due to the large magnitude of the centrifugal force associated with said centrifuging speed, and at slower speeds including a tumble speed to facilitate drying fol-

lowing the centrifuging operation, said slower speeds having correspondingly lower centrifugal forces associated therewith whereby the grid on traversing the upper half of the drum's rotational orbit will move away from said drum wall interior urged by gravitational force acting on said weighted grid thereby dislodging any fabrics which may have adhered to the drum wall interior during the centrifuging operation.

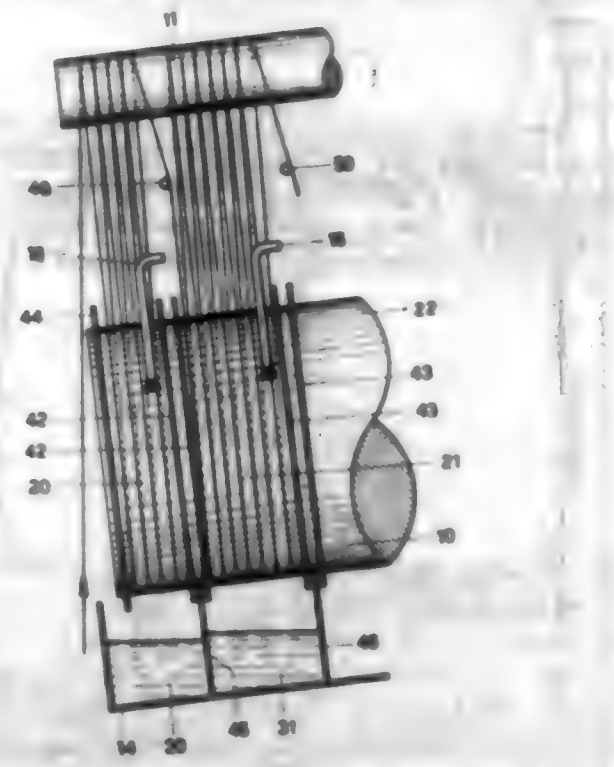
2,867,107
CLOTHES WASHING APPARATUS
Bernard E. Brown, Chicago, Ill., assignor to General Electric Company, a corporation of New York
Application October 29, 1957, Serial No. 693,135
7 Claims. (Cl. 68—24)



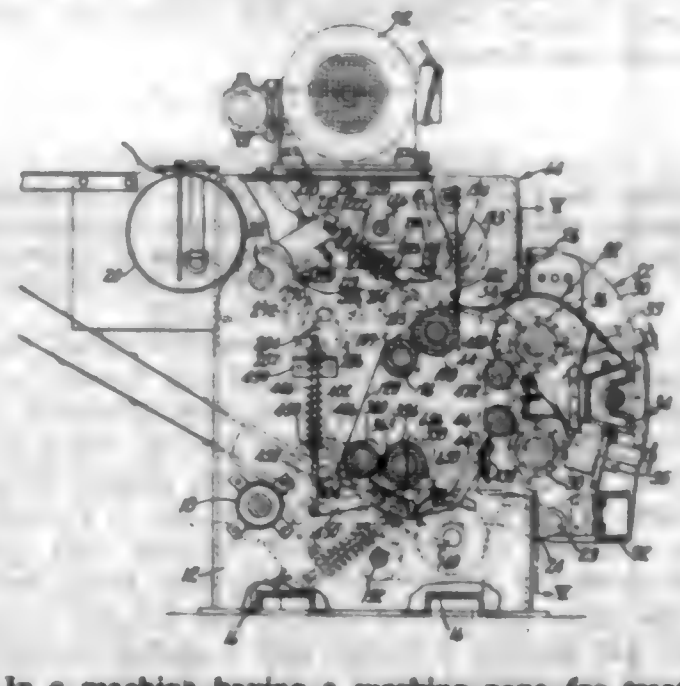
1. In apparatus for washing and drying fabrics by operations including a high speed centrifuging extraction operation, the combination comprising: a substantially cylindrical perforated drum to contain the fabrics, said drum being rotatable about a horizontal axis; a plurality of mutually spaced vanes extending inwardly from said drum parallel to the axis of rotation of said drum, said vanes being adapted to lift and tumble the fabrics during washing and drying operations of the apparatus; a plurality of wire structures secured within said drum adjacent the cylindrical wall thereof intermediate each adjacent pair of vanes, whereby the respective structures are interposed between the fabrics and the side wall of the drum, the opposite ends of each of said structures freely projecting through openings in said drum permitting said structures movement radially of said drum; and means for rotating said drum at a centrifuging speed whereby the respective structures and fabrics disposed thereon will move outwardly into close proximity to the drum wall for the escape of liquid from said fabrics, said structures, upon interruption of rotation of said drum, moving inwardly away from said drum wall urged by gravitational force acting on said structure and said fabrics, thereby dislodging fabrics which may have adhered to the drum wall interior during the centrifuging operation.

2,867,108
REEL TYPE APPARATUS FOR THE LIQUID TREATMENT OF YARN
Goffredo Severini, Milan, Italy, assignor to Studi E. Brevetti Applicazioni Tessili S. r. l., Milan, Italy
Application October 17, 1952, Serial No. 315,291
Claims priority, application Italy November 8, 1951
2 Claims. (Cl. 68—205)

1. In a continuous spinning machine for the spinning of textile fibres of the class indicated, in particular of viscose rayon filaments, in combination, a thread-storing thread-advancing device comprising a processing roller divided into processing zones comprising at least one zone for each of the following wet processing treatments at least: setting, first washing, desulphurizing, second washing, bleaching and third washing, and slanted at an angle of at least 6° to horizontal to cause the processing liquors to flow on its surface in countercurrent to the thread, an advancing roller of substantially smaller diameter than said processing roller and in askew relationship, thereby to cause the thread to travel over both rollers in a generally helical path, peripheral flange means separating the adjacent wet treatment zones of the processing roller, said flange means extending over the entire periphery of said processing roller, means for rotating at least the processing roller to progress the thread along the device, thread guide means located between said advancing roller and said processing roller for deflecting the thread to travel past said flange means without contacting them, means for feeding processing liquor to each treatment zone, a plurality of collecting receptacles below the processing roller, a separate receptacle for each processing zone, said flange means overlapping the walls of said receptacle and being directed toward the interior of said receptacles to cause the drip from each treatment zone to be deposited in only one receptacle.



2,867,109
THROUGH-FEED MACHINES FOR TREATING SHEET MATERIALS
Harry Phillips, Hamilton, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application January 17, 1957, Serial No. 634,779
15 Claims. (Cl. 69—42)



1. In a machine having a working zone for treating sheet material, a feed roll for feeding a work piece

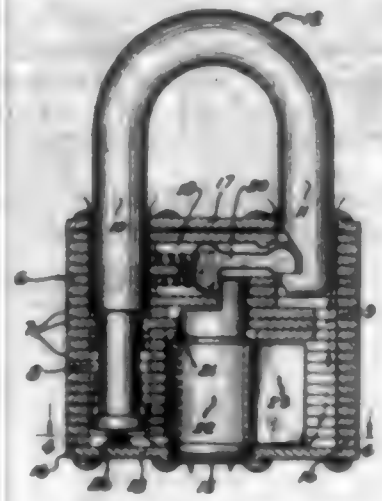
through said zone, said feed roll having a plurality of spaced annular grooves in the periphery thereof, a plurality of plates, each adapted to be received in one of said grooves in such manner that said plates form a grating for stripping said work piece from engagement with said roll after it is fed thereby.

2,867,110

DRAINAGE PORTED PADLOCK

Daniel J. Foote, Wauwatosa, and Milton Soref, Milwaukee, Wis., assignors to Master Lock Company, Milwaukee, Wis., a corporation of Wisconsin

Application July 12, 1957, Serial No. 671,644
2 Claims. (Cl. 70—38)



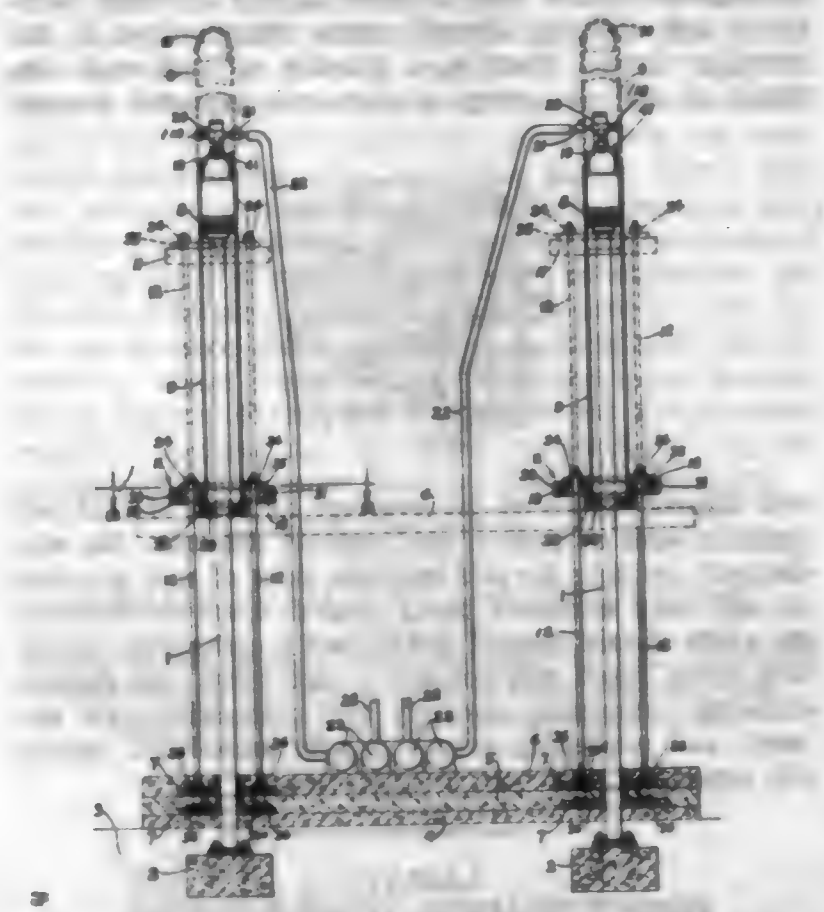
1. A padlock, comprising a laminated body formed of a plurality of superimposed secured-together main plates, said laminated body having therein a central cavity, a bottom end plate closing the bottom end of the body and having a central opening therethrough communicating directly with said body central cavity, a cylinder and plug assembly housed within said body cavity and projecting at one end into said bottom end plate opening, there being drainage clearance between the periphery of said bottom end plate opening and the projecting portion of the cylinder and plug assembly, the end portion of the cylinder and plug assembly received by said bottom end plate opening having a slotted keyway therein communicating with said bottom end plate opening, the end portions of all of the main plates on one side of the central cavity being formed with aligned openings to provide a long shackle leg socket and the end portions of a group of adjacent main plates toward the outer end of the body being formed with aligned openings to provide a short shackle leg socket, the corresponding end portions of the remainder of the main plates below the short shackle leg socket being formed with aligned openings therein registering with the short shackle leg socket to provide a short shackle leg socket drainage conduit, and a body plate, rigid throughout, positioned between the lowermost main plate and the bottom end plate and having therein a central opening which surrounds the cylinder and plug assembly and which additionally has therein openings laterally of its central opening which form continuations of the long shackle leg socket and the short shackle leg socket drainage conduit, there being oppositely directed openings in said body plate between opposite margins of its central opening and its openings laterally thereof to register respectively with the long shackle leg socket and the short shackle leg socket drainage conduit to provide for drainage and expulsion of foreign matter from the padlock body via the shackle leg sockets, the body plate openings, the body central cavity and the bottom end plate opening.

2,867,111

APPARATUS FOR ERECTING BUILDINGS

Philip N. Youtz, Yorktown Heights, N. Y.

Application August 1, 1952, Serial No. 302,876
7 Claims. (Cl. 72—1)



1. Lifting equipment for use in erecting a building having a ground floor level and an upper floor level and also having vertical supporting columns and an upper floor unit supported by said columns at an upper floor level, said lifting equipment having means to raise an upper floor unit from ground floor level to an upper floor level, which means comprises a plurality of the supporting columns of the building being erected which columns rise to a level somewhat above the level to which the upper floor unit is to be lifted, a piston head mounted on the top of each column, each piston head having a diameter greater than that of the column on which it is mounted, a plurality of elongated cylinder members, one for each piston head, in which said piston heads operate, each cylinder member extending downwardly below the piston head therein and having a length greater than the height of a story of said building, said downwardly extending portion of each cylinder member telescoping the corresponding column and having its wall well spaced therefrom, means connecting each cylinder member to said upper floor unit to be lifted from ground floor level, and means to deliver simultaneously to each cylinder member above its piston head the same amount of liquid under pressure, whereby the cylinder members with the upper floor unit attached thereto are moved simultaneously upwardly at the same speed to carry said upper floor unit to its upper floor level.

2,867,112

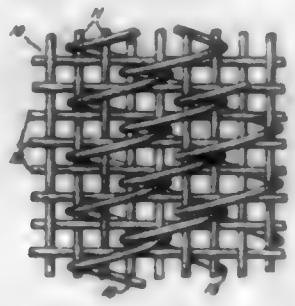
WIRE MESH SUPPORTED REFRACTORY

Raymond E. Krone, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application November 20, 1953, Serial No. 393,389
1 Claim. (Cl. 72—50)

A thin wall heat, flame and corrosion resistant structure comprising in combination, a first and second group of substantially parallel filamentary metal wire elements, the said wire elements of the first group being interwoven with the wire elements of the second group and defining a flexible integral planar reticulated mesh, a plurality of helical metal wire support elements intertwined through the interstices of said mesh parallel to each

other and to one of said groups of wire elements, each support element having its axis within the spatial limits of said mesh, each support element on two of its opposite sides longitudinally of its axis being intertwined in overlapped relation with adjacent support elements therealong and defining aligned spaces therebetween in the overlaps formed thereby, a plurality of said wide elements of said one group continuously threaded through



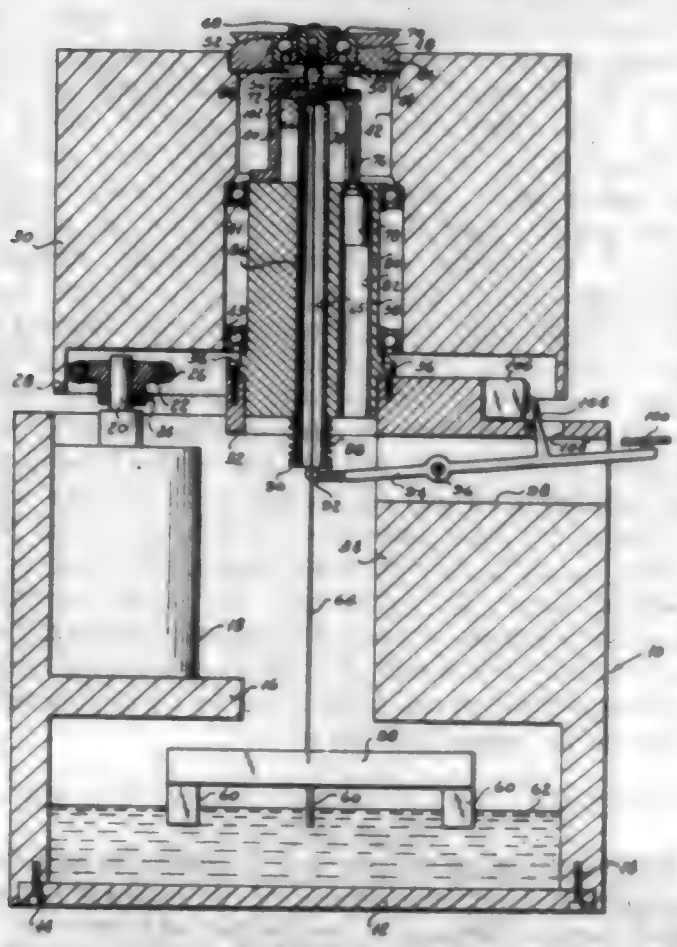
said aligned spaces of the overlaps of each of said two opposite sides of each of said support elements, the wire elements defining the two opposite sides of said plurality of said wire elements being spaced apart substantially the width of said aligned spaces, and a compacted refractory metal fused and bonded to said mesh and support elements completely covering and embedding said elements and producing a substantially monolithic, internally supported, thin wall integral body.

2,867,113

DIRECT READING TORQUE TESTER

Bruce L. Mims, Danbury, Conn., assignor to The Barden Corporation, Danbury, Conn., a corporation of Connecticut

Application February 7, 1955, Serial No. 486,375
9 Claims. (Cl. 73—9)



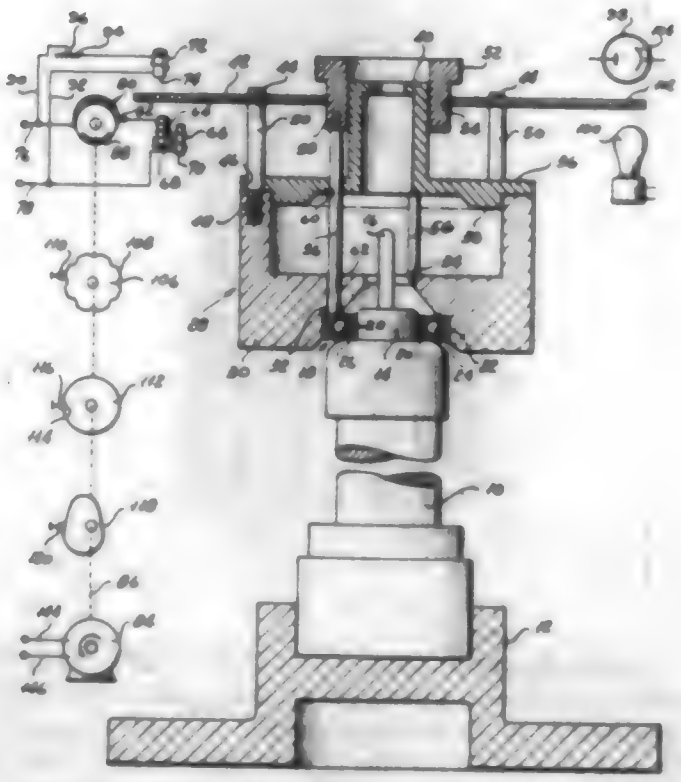
1. A torque tester for determining the torque characteristics of a rolling bearing having a pair of races including in combination means for supporting said bearing by a first of said races, means for rotating said supporting means to rotate said first race, a load, a supporting member of small cross-sectional area for suspending said entire load from the second of said races, means for restraining said second race from rotation, means responsive to said restraining means for producing an output signal including a first component representing average torque and a second component representing torque variations, means for separating said first component from said second component, first indicating means responsive to said separated first component, and second indicating means responsive to said separated second component.

2,867,114

TORQUE METER FOR TESTING BEARINGS

Bruce L. Mims, Danbury, Conn., assignor to The Barden Corporation, Danbury, Conn., a corporation of Connecticut

Application August 11, 1954, Serial No. 449,183
12 Claims. (Cl. 73—9)



1. A torque meter for measuring the starting torque of rolling bearings having a pair of races and rolling elements including in combination means for supporting said bearing by a first one of said races, means for applying a gradually increasing torque to the second one of said races to produce a predetermined rotary displacement of the second race, means for detecting said predetermined rotary displacement of said second race, means responsive to said torque-producing means for making a digital record of torque and means responsive to said detecting means for actuating said record-producing means to determine the end of a test when said record-producing means carries a record of the torque necessary to produce said predetermined rotary displacement.

2,867,115

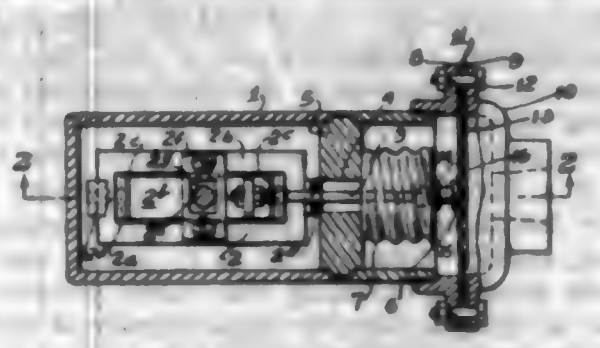
MEANS FOR EXTENDING RANGE OF TRANSDUCERS

Louis D. Statham, Beverly Hills, Calif., assignor to Statham Instruments, Inc., Los Angeles, Calif., a corporation of California

Application May 11, 1953, Serial No. 354,195
5 Claims. (Cl. 73—398)

1. A transducer comprising a case, a motion sensing device mounted in said case, a first flexible diaphragm mounted in said case, a motion-transmitting connection between said diaphragm and said motion sensing device, a removable adapter, means for mounting said adapter on said case, a second diaphragm removably mounted in said adapter, and a removable universal motion-transmitting connection between said diaphragms, the second mentioned connection preventing twist in said first diaphragm due to any non-parallel displacement of

said second diaphragm; whereby, when said adapter, second diaphragm, and second mentioned connection are



assembled with said case, a force applied to said second diaphragm is transmitted to said sensing device.

2,867,116

METHOD OF MEASURING CHARACTERISTICS OF POROUS MATERIAL

Julius S. Aronofsky, George C. Wallick, and Paul P. Reichertz, Dallas, Tex., assignors, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York

Application December 27, 1954, Serial No. 477,664
10 Claims. (Cl. 73—38)



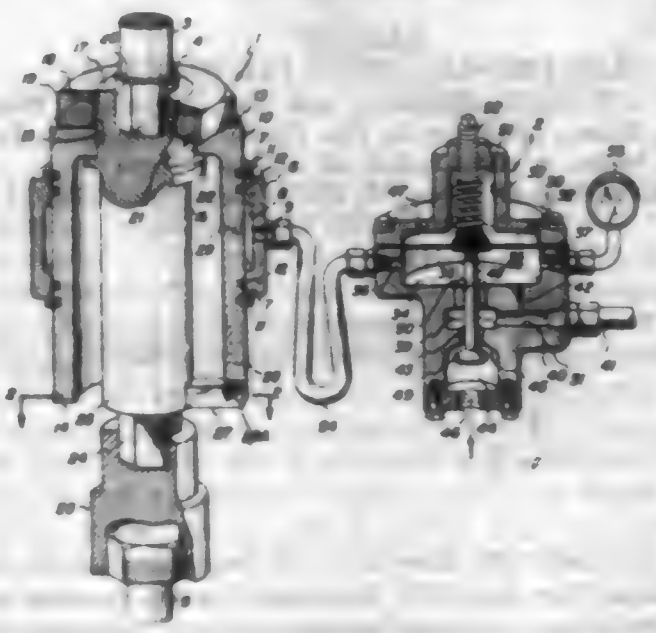
1. The process comprising the steps of establishing gas flow communication between a porous material and a reservoir having a known volume, establishing a known gas pressure in said porous material and said reservoir, establishing a known gas pressure over an end wall of said porous material, said last mentioned gas pressure being different from said first mentioned gas pressure whereby a gas pressure differential is established at said end wall of said porous material, permitting transient flow of gas within said porous material resulting from establishment of said gas pressure differential, measuring the time required for the gas pressure within said porous material and said reservoir to attain a predetermined fraction of the higher of said two gas pressures, establishing again a known gas pressure in said porous material and said reservoir, establishing again a known gas pressure over an end wall of said porous material, said last mentioned gas pressure being different from said previously mentioned gas pressure whereby a gas pressure differential is established at said end wall of said porous material, the values of each of said two last mentioned gas pressures being different from the values of each of said two previously mentioned gas pressures but such that the gas pressure differential is the same as said previously mentioned gas pressure differential and the higher one of said two last mentioned gas pressures also being the higher one of said two previously mentioned gas pressures, permitting transient flow of gas within said porous material resulting from establishment of said last mentioned gas pressure differential, measuring the time required for the gas pressure within said porous material and said reservoir to attain the same previously mentioned fraction of the higher of said two last mentioned gas pressures, changing the volume of said reservoir, establishing a known gas pressure in said porous material and said reservoir, establishing a known gas pressure over an end wall of said porous material, said last mentioned gas pressure being different from said previously mentioned gas pressure whereby a gas pressure differential is established at said end wall of said porous material, said gas pressure differential being the same as said two previously mentioned gas pressure differentials and the values of each of said gas pressures being the same as the values of a pair of said previously mentioned gas pressures and the higher one of said two last mentioned gas pressures also being the higher one of said two pairs of previously mentioned gas pressures, permitting transient flow of gas within said porous material resulting from establishment of said last mentioned gas pressure differential, and measuring the time required for the gas pressure within said porous material and said reservoir to attain the same previously mentioned fraction of the higher of said last two mentioned gas pressures whereby the gas slip corrected permeability and the porosity of said porous material may be determined.

2,867,117

TORQUE MEASURING AND REGULATING DEVICE

Walter Ernst, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio

Application July 23, 1956, Serial No. 599,685
6 Claims. (Cl. 73—139)



2. In a torque control device, a regulator having a chamber and an outlet opening, said chamber having a flexible wall, said regulator connected to a source of fluid pressure, means for supplying a portion of said fluid under pressure to said chamber, means for conveying the remainder of said fluid under pressure to said regulator outlet, a torsion device connected to said regulator outlet opening, a member for transmitting torque from said torsion device to an object, means responsive to the angular displacement of said member to said torque for varying the pressure in said chamber in response to said angular displacement wherein said chamber pressure will be a function of the torque exerted by said torsion device, and a valve in said outlet connected to said flexible wall wherein said valve is urged to the closed position in response to pressure increase in said chamber to regulate the flow of fluid under pressure to said torsion device.

2,867,118

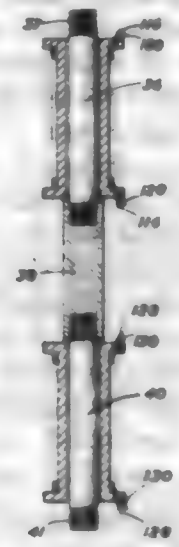
TRANSDUCER AND STRESS MEASURING MEANS

Patrick Edgar Cavanagh, Oakville, Ontario, Canada, assignor to Ontario Research Foundation, Toronto, Ontario, Canada, a corporation, by special act, of Ontario

Application September 19, 1955, Serial No. 535,153
6 Claims. (Cl. 73—141)

1. A means for measuring stress comprising: a core of positively magnetostrictive and a core of negatively

magnetostrictive material, a bifilar wound coil adjacent each of said cores, means for stressing said cores in a predetermined ratio, a Wheatstone bridge circuit con-



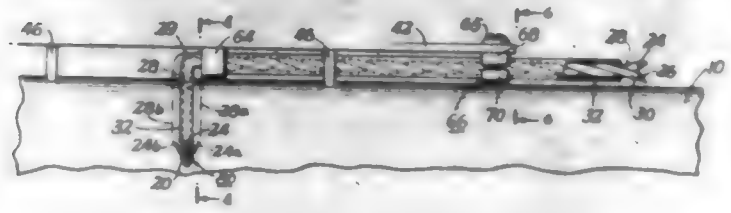
taining the respective windings of one of said bifilar wound coils in one pair of opposite arms and the respective windings of the other of said bifilar wound coils in the other pair of opposite arms.

2,867,119

ELECTROMAGNETIC FLOWMETER

Stocker S. Sturgeon, Foxboro, and Neil E. Handel, Wrentham, Mass., assignors to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts

Application September 14, 1954, Serial No. 455,923
6 Claims. (Cl. 73—194)



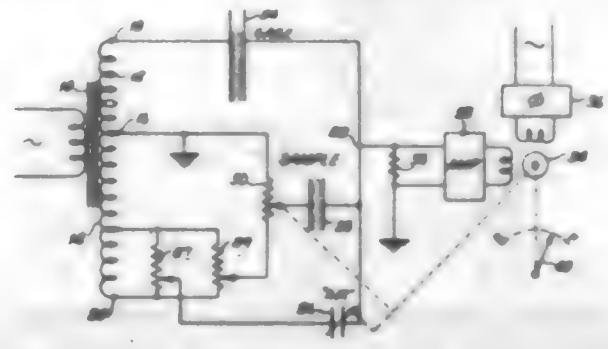
1. In an induction flowmeter of the type wherein the fluid whose flow is to be measured travels transversely across the lines of force of a magnetic field, and wherein two electrodes are at least partially immersed in the fluid at points on a line generally transverse of the direction of fluid flow and also generally transverse of the magnetic lines of force, such that movement of the fluid causes a cutting of the magnetic lines of force and thereby generates a voltage between the electrodes proportional to the rate of fluid flow, the combination which comprises: a section of metallic pipe through which fluid may be caused to flow, a layer of electrical insulating material positioned adjacent the inner wall of said pipe to prevent short-circuiting of electromotive forces generated within said fluid, coil means disposed external to said pipe and connected to a source of alternating-current energizing potentials, said coil means being arranged to produce magnetic flux in the interior of said pipe, a pair of conductive electrodes extending through the wall of said pipe in regions generally on opposite sides thereof and arranged to make electrical contact with said fluid, means for insulating said electrodes from said pipe, a pair of rigid hollow shield tubes positioned outside said pipe, a portion of said shield tubes being twisted together and extending longitudinally along said pipe wall at an approximately uniform distance therefrom, said rigid hollow shield tubes having an approximately right angle bend at one end of said twisted portion with each tube extending from said one end in opposite directions, circumferentially around said pipe wall to a point adjacent but slightly away from said electrode so as to form a rigid saddle portion positioned in a plane generally perpendicular to the pipe axis, a pair of insulated lead wires each connected to a respective one of said electrodes and each extending through a respective one of said rigid hollow shield tubes for connection to electrical amplifier means, a clamping device fixedly positioned with respect to said pipe section and arranged to hold said shield tube twisted portion in a firm pressure grip so as to prevent longitudinal or lateral movement thereof, said clamping device being readily releasable so as to permit said rigid shield tube structure including said saddle portion to be moved as an integral member longitudinally of said pipe whereby the flexible portions of said lead wires between said electrodes and said shield tubes may be deformed slightly into a position providing minimum inductive coupling between said coil means and said lead wires, and means for supporting said coil means and said clamping device on said pipe section.

2,867,120

COMPENSATED FUEL GAGE BRIDGE

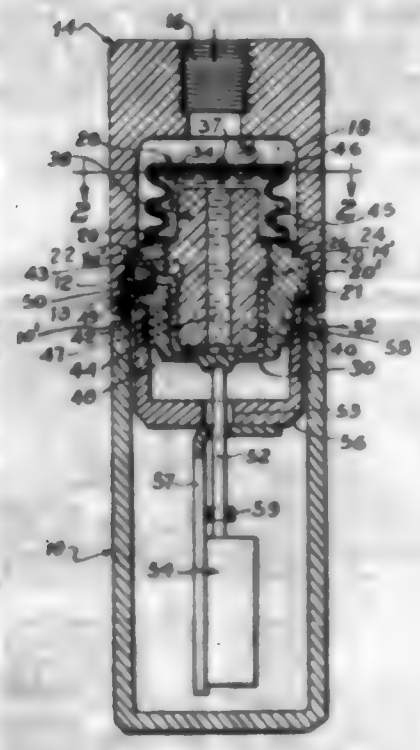
Curtis R. Schafer, Westport, Conn., assignor to The Liquidometer Corporation, Long Island City, N. Y., a corporation of Delaware

Continuation of application Serial No. 183,966, September 9, 1950. This application September 21, 1956, Serial No. 611,278
19 Claims. (Cl. 73—304)



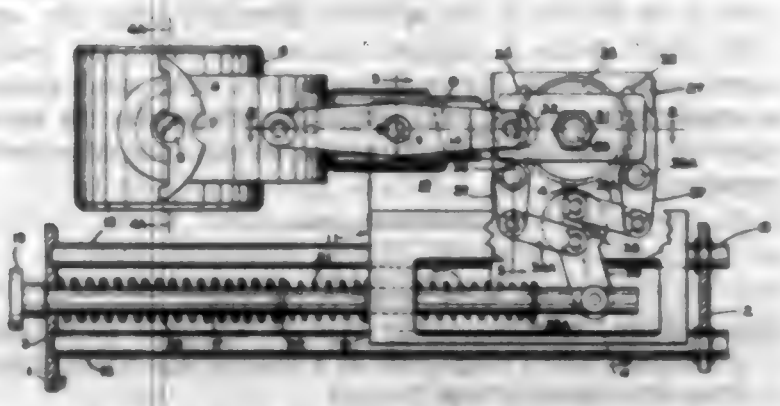
1. A liquid level gaging system including an alternating current bridge having alternating current energizing means and an unbalance detector, two adjoining arms of said bridge having gaging and sampling capacitors therein, said capacitors being an assembly adapted to be disposed in a tank whose liquid level is to be gaged, said assembly including a set of three concentric electrodes insulated each from the others and including an outer pair of electrodes and an inner pair of electrodes with the middle electrode common to both pairs, one of said pairs of insulated electrodes being formed as a container with intake and overflow openings and having means connected to the intake opening to receive and retain a full charge of liquid when liquid is being charged into the tank, the other pair of insulated electrodes being disposed to extend throughout the range of liquid levels to be gaged and being formed as a container with openings at the top and bottom thereof exposed to the surrounding space of the tank so as to be variably filled in dependence on the level of liquid in the tank, an adjustable electrical control connected as an arm of the bridge and adapted to balance the sampling capacitor arm against the effect on the bridge of the current in the liquid-filled portion of the gaging capacitor arm, an adjustable circuit including a high-Q capacitor connected to said energizing means and to said common electrode and having adjustment means adapted to balance the bridge in respect to the effect of the current in the portion of the gaging capacitor that extends above the liquid level, said adjustable electrical control and said adjustment means and said high-Q capacitor being ganged for conjoint operation and being situated remote from said assembled gaging and sampling capacitors.

2,867,121
PRESSURE TRANSDUCER
Gilbert N. Ross, Beverly Hills, Calif., assignor to Statham Instruments, Inc., a corporation of California
Application May 17, 1954, Serial No. 430,067
7 Claims. (Cl. 73—410)



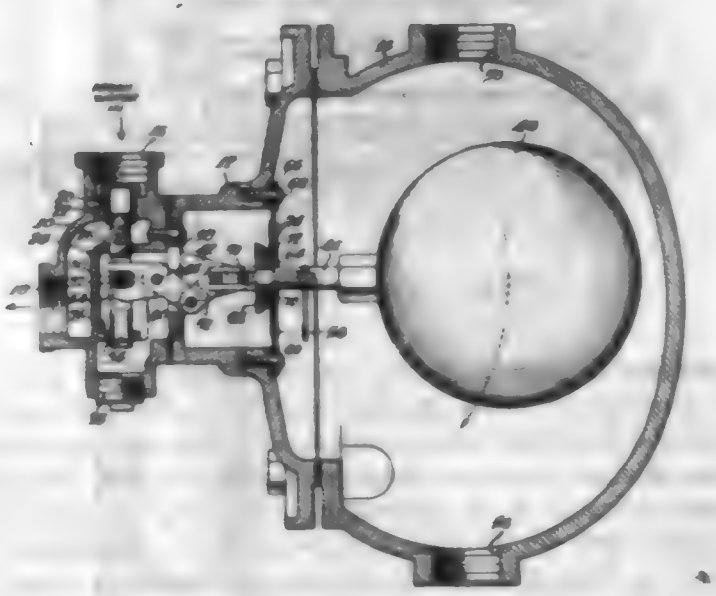
1. A fluid pressure sensing device, which comprises a yieldable container closed at one end, said container being subject to a pressure to be sensed, a resilient member forming a closure opposite the other end of said container, a substantially rigid member positioned between said yieldable container and said resilient member, the stiffness of said resilient member being substantially greater than the stiffness of said yieldable container, liquid in said container and in contact with said resilient member, said liquid partially filling said container and leaving a void of low vapor pressure therein adjacent said one end of said container, said yieldable container having sufficient stiffness to maintain said void against external pressure up to a predetermined external pressure, said void being of minor volume relative to the total volume of said container, and motion sensing means connected to said resilient member.

2,867,122
GYRO CAGING MECHANISM
Charles E. Hurlburt, River Edge, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application May 28, 1956, Serial No. 587,837
12 Claims. (Cl. 74—5.1)



1. In combination, a vertical gyro bearing case having freedom on a horizontal axis, a cam actuable to rotate the case and arrestable upon the case being brought to a level position, a camming member movable to actuate the cam and adapted to arrest the same upon the case being brought to the level position, pendulous means for adjusting the camming member and thereby the said level position of the case; and common means for first locking the pendulous means against oscillation and then moving the camming member to actuate the cam.

2,867,123
SEALING MEANS
Leopold J. Kuiecik, Chicago, Ill., assignor to McDonnell & Miller, Inc., Chicago, Ill., a corporation of Delaware
Application March 8, 1956, Serial No. 570,269
2 Claims. (Cl. 74—18.1)

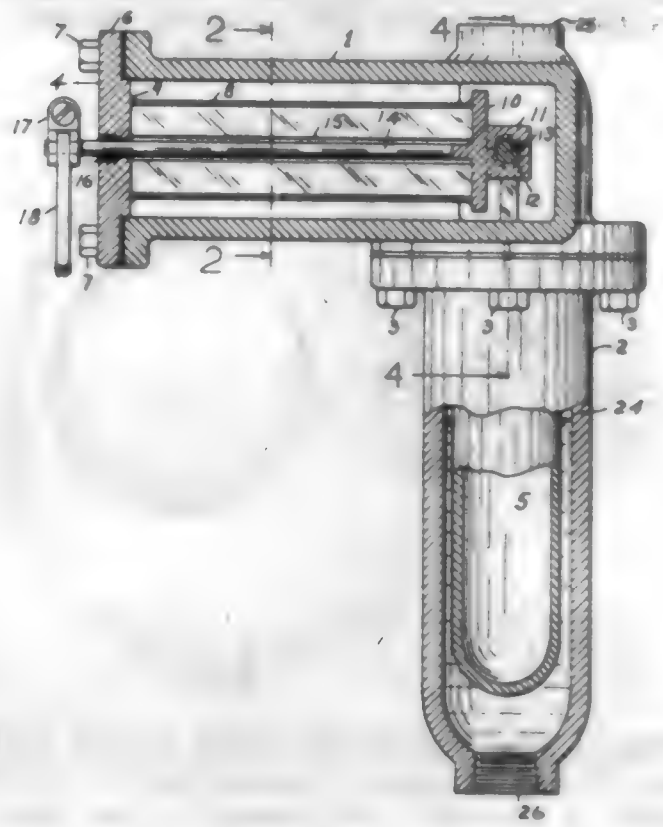


2. Sealing means comprising a thin annular metallic stamping having an axially extending annular rim bent outwardly to one side of the stamping at the inner circular margin thereof, said stamping having annular corrugations therein concentrically surrounding said annular rim, said corrugations imparting resiliency in an axial direction to said stamping and rendering the same responsive to differentials in the fluid pressure exerted on opposite sides thereof, and a spherical segment having a base portion and a spherical surface portion in which the diameter of the base portion is greater than the inner diameter of said annular rim, and means for pivotally mounting said spherical segment at the center of curvature of the spherical surface thereof and to the side of said stamping opposite said annular rim with the spherical surface of said spherical segment movably engaging within the base portion of said annular rim, said spherical segment sealingly engaging said stamping at the base of said annular rim, and said stamping due to its resiliency maintaining a spring seat on said spherical segment to maintain the seal therebetween.

2,867,124
TORQUE DEVICE FOR LIQUID CONTROL
Francisco Angel Quiroz, Newark, N. J.
Application August 29, 1957, Serial No. 680,949
4 Claims. (Cl. 74—18.1)

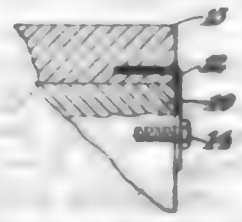
1. A device for transmitting motion from a moving element within a housing to a movable element outside of the housing, comprising an elongated tube of relatively small diameter, formed by a number of longitudinal channels with a curvature corresponding to the diameter of said tube, said channels being kept in position by a number of longitudinal fins or blades of the same length of said tube, said fins or blades being formed by material extending radially from the edge of one channel and folded back on itself in close contact, to connect and support the edge of another channel, said fins or blades being of a width substantially greater than the diameter of the tube; a supporting disc having an aperture of the same diameter of said tube and adapted to be welded to one end of said tube and fins or blades, to close all

passage to the inside of said tube, except through the supporting disc aperture; a second disc welded to the other end of said tube and fins or blades, to close all passage from the inside of the housing to the interior of said tube; a bar of smaller diameter than the diameter of the inside of said tube, welded perpendicularly to the welded face of said second disc and extending concentrically through said tube and the aperture in the supporting disc; a lever bar extending radially from the



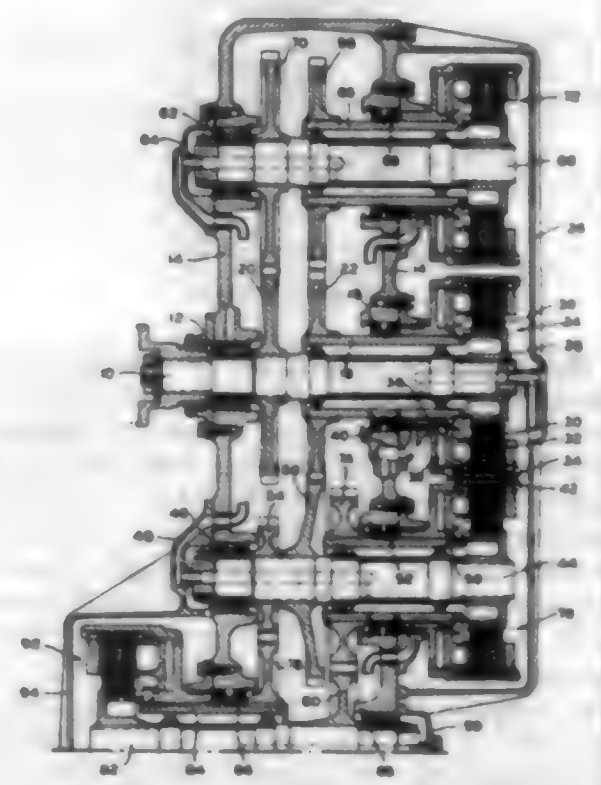
second disc; means for mounting the supporting disc in the housing, means for imparting motion to said lever bar from the moving element within the housing in order to rotate the second disc and the bar extending therefrom and means for transmitting motion from the portion of the bar extending out of the housing to the movable element outside of the housing.

2,867,125
FRICTION MATERIAL
Wilfrid Glover, Leyland, England, assignor to British Tyre & Rubber Company Limited, London, England, a British company
Application June 24, 1955, Serial No. 517,884
Claims priority, application Great Britain June 25, 1954
1 Claim. (Cl. 74—230.7)



A rigid metal pulley having on its circumferential surface a layer of an electrically conductive resilient fire-resistant friction pulley-lagging material comprising 30 to 60% of an elastomer selected from the class consisting of polychloroprene, polyvinyl chloride, copolymers of vinyl chloride and vinylidene chloride, mixtures of copolymers of butadiene and acrylonitrile with polyvinyl chloride, mixtures of copolymers of vinyl chloride and vinylidene chloride with copolymers of butadiene and acrylonitrile; 5 to 30% of a grit selected from the class consisting of finely divided quartz, finely divided slate flour, and finely divided silica; and 10 to 30% of an electrically conducting carbon black; and 5 to 30% of a plasticizer comprising a major proportion of a phosphoric acid ester; said layer being adhesively bonded to said pulley surface; and a plurality of perforated metal electrically conductive strips embedded in said layer against displacement therein at the circumferential margins of said layer, said strips having portions projecting from said layer and embracing the radial sides of the pulley, and means for fastening said projecting portions rigidly in electrically conducting relation to the radial sides of the pulley.

2,867,126
TRANSMISSION
Ronald H. Bolster, Jackson, Mich., assignor to Clark Equipment Company, a corporation of Michigan
Application August 31, 1956, Serial No. 607,470
6 Claims. (Cl. 74—360)

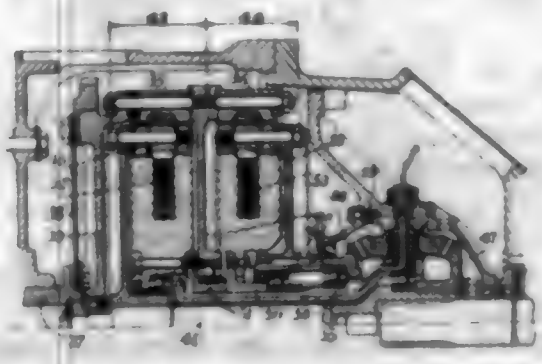


1. A transmission comprising an input shaft and a reverse drive shaft in spaced parallel relation and so connected as to be simultaneously and continuously driven by rotation of the input shaft, a first drive gear rotatable about the input shaft, a second drive gear rotatable about the reverse drive shaft, a first clutch means for clutching the first drive gear to the input shaft, a second clutch means for clutching the second drive gear to the reverse drive shaft, a countershaft, a torque transmitting gear secured to said countershaft and continuously meshing with said first and second drive gears so as to be driven in one direction when the first clutch means is engaged and to be driven in the opposite direction when the second clutch means is engaged, an output shaft, and multi-speed gear means drivingly associated with said torque transmitting gear and said output shaft whereby the latter may be driven in either direction in any one of several speeds.

2,867,127
CHANGE-SPEED DEVICE
Henri Fehr, Montmorency, France, assignor to Société Anonyme dite: Compagnie de Construction Mecanique, Procedes Sulzer, Paris, France
Application March 22, 1956, Serial No. 573,214
Claims priority, application France March 22, 1955
1 Claim. (Cl. 74—378)

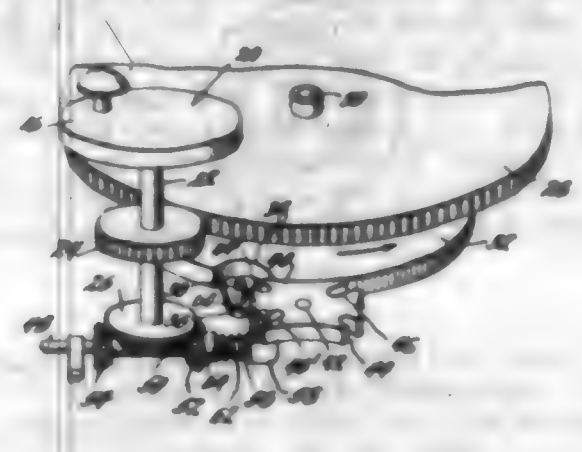
A change-speed device comprising an engine shaft, a first and a second adjacent coaxial rotary field magnet driven from said engine shaft, non-magnetic centering

plates carrying said two rotary field magnets, a fixed tubular member, coaxial with said engine shaft, a first shaft disposed internally of said tubular member, a first armature solid with said first shaft, another, hollow shaft coaxial to and mounted externally of said tubular member, another armature solid with said other hollow shaft, a first and a second stationary field member, said first and second rotary field magnets, armatures and stationary field members being coaxial respectively and constituting a pair of synchronous homopolar clutches, and a train of gears constituting a mechanical connection between said other hollow shaft and said first shaft, whereby, when said first stationary field member is energized, said



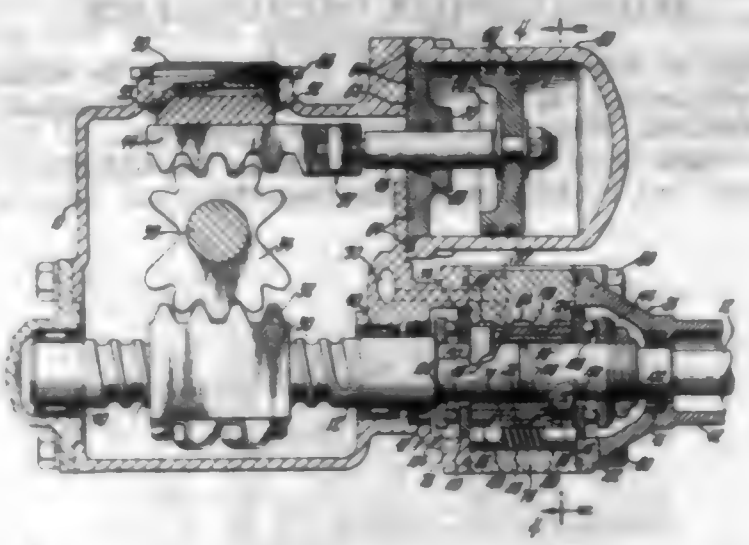
first armature is rotatably driven from said first rotary field magnet and the motion of said engine shaft transmitted directly to said first shaft, and, when said other stationary field member is energized, said other armature is driven and the motion of said engine shaft transmitted through said other rotary field magnet to said other shaft and then through said train of gears to said first shaft.

2,867,123
AUTOMATIC RANGE SYSTEM TRANSMISSION MEANS
Frank M. Krantz, Ellicott City, and Richard F. Haelkamp, Lansdowne, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application August 8, 1956, Serial No. 602,946
6 Claims. (Cl. 74—378)



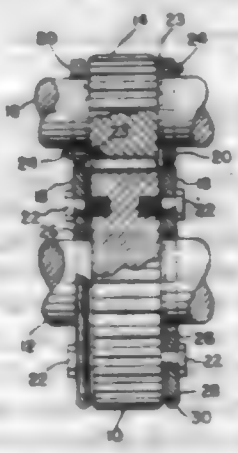
1. An automatic transmission device comprising a driving shaft, a driven shaft, a driving bevel gear fixedly mounted on said driving shaft for rotation therewith, a pair of driven bevel gears mounted on said driven shaft for rotation therewith; means actuated by said driving shaft for moving one of said driven bevel gears into engagement with said driving bevel gear and moving said other driven bevel gear out of engagement with said driving bevel gear, whereby for a given direction of rotation of the driving shaft, a driving connection between the driving bevel gear and one of the driven gears causes said driven shaft to be rotated in one direction, and driving connection with the other driven gear causes rotation of said driven shaft in an opposite direction.

2,867,124
FLUID POWER STEERING VALVE
Robert W. Burton, Farmington, and Robert L. Nance, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 28, 1953, Serial No. 388,884
7 Claims. (Cl. 74—388)



7. In a fluid power steering gear including a rotatable steering shaft mounted for limited axial movement, a steering part movable on rotation of said shaft and adapted to transmit forces tending to move said shaft axially and a fluid motor operatively connected to a steering part, the combination of a valve for controlling said motor, said valve comprising a stationary housing and a movable element having a normal position within said housing, one of said stationary housing and said movable element having a plurality of ports therein, the other a plurality of corresponding lands said movable element surrounding said steering shaft and having associated therewith thrust means inducing axial movement thereof with said shaft, said valve being further characterized in that the said movable element, in its normal position, stands in a floating relation with respect to said shaft and is slightly spaced from said thrust means to the end that in operation of the valve binding thereof from misalignment either of said stationary part or said shaft is substantially precluded.

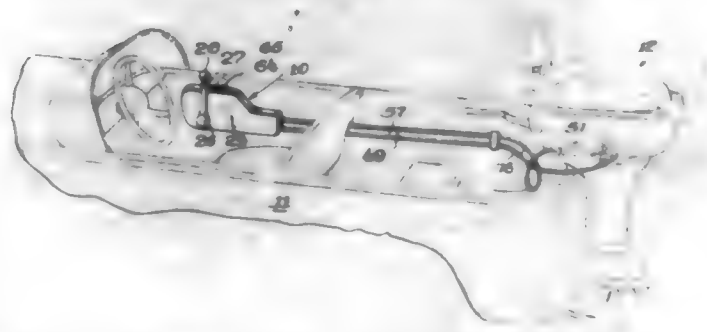
2,867,130
MEANS FOR REDUCING GEAR NOISE
Kurt G. F. Moeller, Annapolis, Md.
Application October 5, 1954, Serial No. 460,522
6 Claims. (Cl. 74—443)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A damping device comprising, a first rotatable member, a second rotatable member engaging said first member, vibration damping means respectively affixed to each of said members, the damping means on one rotatable member being in frictional contact with the damping means on the other rotatable member, and vibration absorbing means interposed between one of said rotatable

members and the vibration damping means affixed thereto, whereby vibrations generated by said interengaged rotatable members are absorbed by said absorbing means and said vibration damping means.

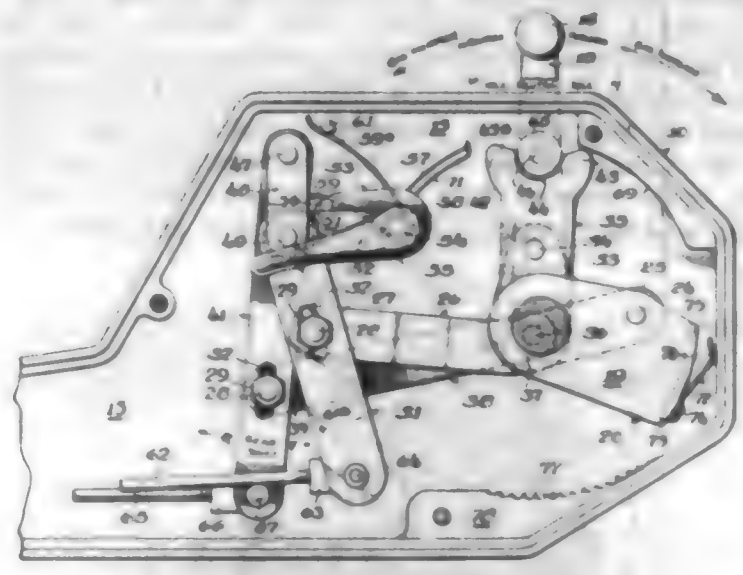
2,867,131
REMOTE CONTROL MECHANISM FOR MOTOR BOATS
Simon E. Schroeder, Oshkosh, Wis., assignor, by mesne assignments, to Fox River Manufacturing Company, Oshkosh, Wis., a corporation of Wisconsin
Application October 30, 1956, Serial No. 619,321
17 Claims. (Cl. 74—472)



1. In combination with the motor of a motor boat having a transmission adapted to be shifted from neutral into forward and reverse and a throttle controlling the fuel supply and speed of the motor, an auxiliary throttle control for use when starting the motor, control mechanism mounted in the boat remote from said motor and connected to the motor for controlling the transmission and the throttle, said remote control mechanism including a support, a single control lever pivotally mounted on said support, a U-shaped bracket having spaced parallel legs journalled in the support for swinging movement and movable by said control lever, a cam member swingably mounted at its upper end on said support and depending into the space between said legs of the bracket, eccentric means on one of said legs for actuating said cam member, means for connecting said cam member to the transmission, said lever being movable from neutral to shift the transmission to forward or reverse, a connection from the other of said legs to said throttle, and means actuated by movement of said lever from neutral to forward or reverse to shift said transmission, return said auxiliary throttle control to inoperative position and then open the throttle whereby the motor speed is increased only after the transmission is engaged for either forward or reverse and when the transmission is disengaged by movement of the lever from forward or reverse to neutral, the motor speed is reduced to idling after which the transmission is disengaged.

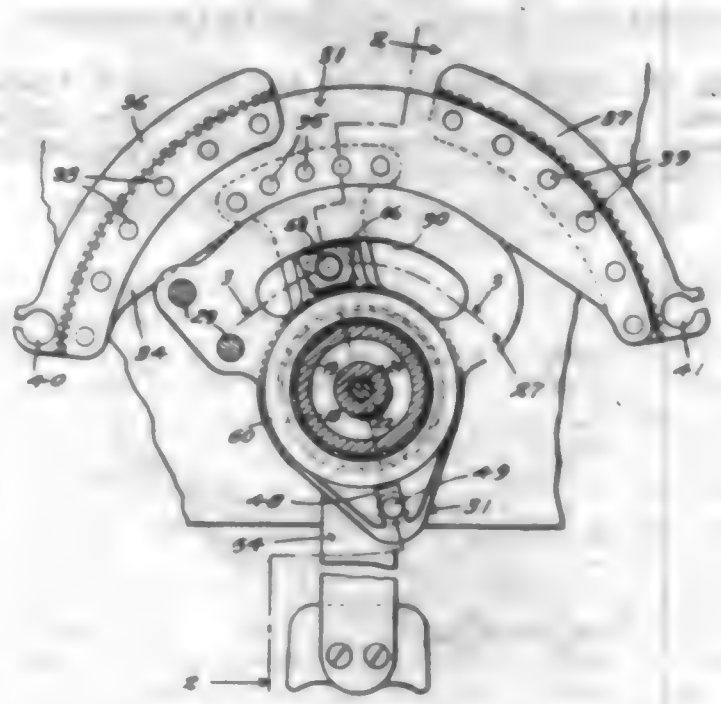
2,867,132
SINGLE LEVER THROTTLE AND SHIFT CONTROL
Simon E. Schroeder, Oshkosh, Wis., assignor, by mesne assignments, to Fox River Manufacturing Company, Oshkosh, Wis., a corporation of Wisconsin
Application March 5, 1957, Serial No. 643,986
14 Claims. (Cl. 74—472)

1. In combination with the motor of a motor boat having a transmission adapted to be shifted from neutral into forward and reverse and a throttle controlling the fuel supply and speed of the motor, an auxiliary throttle control for use when starting the motor, control mechanism mounted in the boat remote from said motor and connected to the motor for controlling the transmission and the throttle, said remote control mechanism including a housing, a single lever throttle and shift control pivotally mounted on said housing, a yoke having spaced parallel legs journalled in the housing for swinging movement and rotatable by said control lever, a gear shift member pivotally mounted intermediate its ends upon one leg of said yoke, means for connecting one end of said gear shift member to said throttle, the other end of said member being bifurcated to provide spaced projections and a cam slot therebetween, a roller mounted upon a fixed pivot in the housing and adapted



to be received in the cam slot when the single lever and the yoke are disposed in neutral position and to control the movement of said gear shift member as the latter is moved by rotation of said yoke, and means for connecting the other leg of said yoke to said throttle.

2,867,133
SELF-LOCKING CONTROL DEVICE
Benton M. Ewing, Farmingdale, N. Y.
Application February 17, 1954, Serial No. 410,831
2 Claims. (Cl. 74—531)



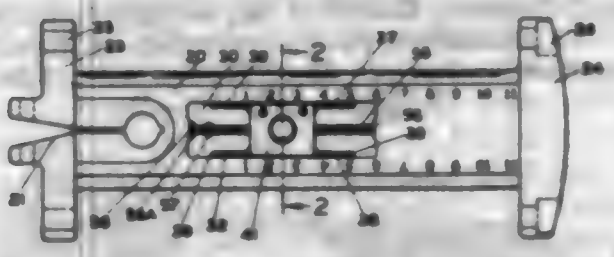
1. An anti-creep means comprising a supporting member, a pivot on said supporting member, a driven member rotatably carried by said pivot, a driving member rotatably carried by said pivot, a stationary arcuate keeper fixed relative to said supporting means and having an arcuate segmental slot formed therein, a locking member loosely carried by said pivot and having a portion engaging in said arcuate slot in said keeper, interengaging means carried by said driven member and said locking member for effecting locking engagement of said portion of said locking member with the edges of said arcuate slot of said keeper, and release means carried by said driving member engaging said locking member for releasing the locking engagement of said portion of the latter from said arcuate slot of said keeper.

2,867,134

ADJUSTABLE STROKE CRANK

Paul H. Scherf, Fred R. Bayne, and Roderick F. Hammack, Lancaster, Ohio, assignors to Allen Foundry & Machine Works, Inc., Lancaster, Ohio, a corporation of Ohio

Application April 23, 1957, Serial No. 654,513
4 Claims. (Cl. 74—600)



1. An adjustable stroke crank for an oil well pumping unit comprising a one-piece crank body having an elongated guide opening extending longitudinally therewithin with bearings formed along the elongated edges thereof, a mounting block slidably mounted in said opening and carrying a wrist pin projecting laterally outwardly from said opening, said block having retaining shoulders which engage the faces of the bearings adjacent the elongated edges of the guide opening to prevent lateral movement in both directions of the block from the guide opening, said retaining shoulders comprising oppositely extending lugs integrally formed on the block at one face thereof and extending laterally over the adjacent faces of the respective bearings and a separate retaining plate clamped to the opposite face of the block and projecting laterally over the adjacent faces of the respective bearings, said block having a flat longitudinally extending bearing surface at one edge cooperating with a flat longitudinally extending bearing surface on the bearing at the adjacent edge of said elongated guide opening and having a longitudinally extending transversely inclined surface at its opposite edge, a wedge member disposed at said last-named edge having a flat longitudinally extending outer bearing surface which cooperates with a flat bearing surface on the bearing at the adjacent edge of said elongated guide opening and having a longitudinally extending transversely beveled inner surface complemental to and engaging the inclined edge surface of the block, means for adjusting said wedge transversely of the block and for holding it in adjusted position so that the block will fit snugly into the opening and will be properly guided therealong, and adjusting means for moving said block along the guide opening and holding it in adjusted position, said means comprising a screw threaded through the block extending longitudinally of the guide opening and in engagement with the ends of the guide opening.

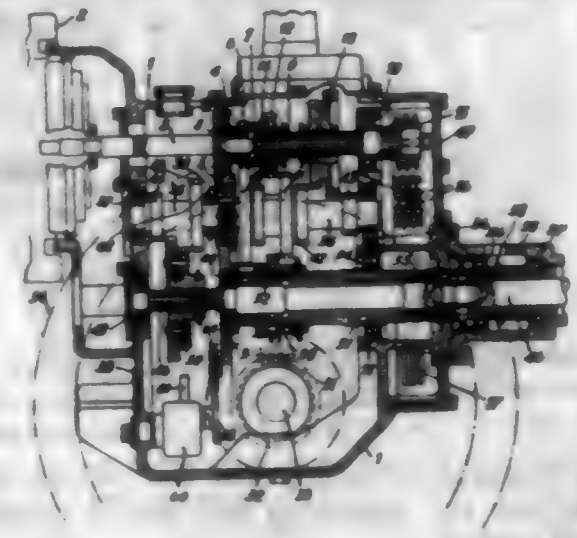
2,867,135

MECHANISM FOR SELF-PROPELLED MACHINES

Paul Schiller, Zurich, Switzerland

Application March 16, 1954, Serial No. 416,671
7 Claims. (Cl. 74—700)

1. A transmission mechanism for a self-propelled vehicle for removing bulk material such as snow and comprising, in combination, an engine shaft; a main drive shaft parallel to the engine shaft; gear means connecting said engine shaft with said main drive shaft; a spline shaft associated with the propelling means of the vehicle and being coaxial with said engine shaft; first coupling means for coupling said first drive shaft to said engine shaft and including a shiftable coupling member including first gear means and being mounted on said spline shaft for axial shifting movement so that said spline shaft can be directly driven from engine shaft; second gear means including two gears mounted on said spline shaft for axial shifting movement; gear means on said main drive shaft cooperating with said first and second gear means for driving said spline shaft from said main drive shaft and at different speeds; an intermediate shaft; transmission means connecting said first drive shaft with said intermediate shaft; gear means on said intermediate shaft; a spline shaft adapted to be connected to the propelling means of the vehicle; stepped gear means mounted on said spline shaft shiftable in axial direction and cooperating with said gear means on said intermediate shaft for driving said other spline shaft at selected speeds depending on said different speeds of said first drive shaft so that the propelling means of the vehicle are operated at different speeds; a hollow shaft adapted to be connected to cutter means on the vehicle; third stepped gear means



mounted on said hollow shaft non-rotatable and shiftable in axial direction and cooperating with said gear means on said main drive shaft for driving said hollow shaft at selected speeds independently of the speed of said first drive shaft and said spline shaft and said propelling means; an ejector shaft adapted to be connected to impeller ejector means and passing through said hollow shaft, said ejector shaft having a splined portion projecting out of said hollow shaft; and stepped gear means mounted on said splined portion for axial shifting movement and cooperating with said gear means on said main drive shaft for driving said ejector shaft at selected speeds independently of the speeds of said first drive shaft and said spline shaft and said propelling means.

2,867,136

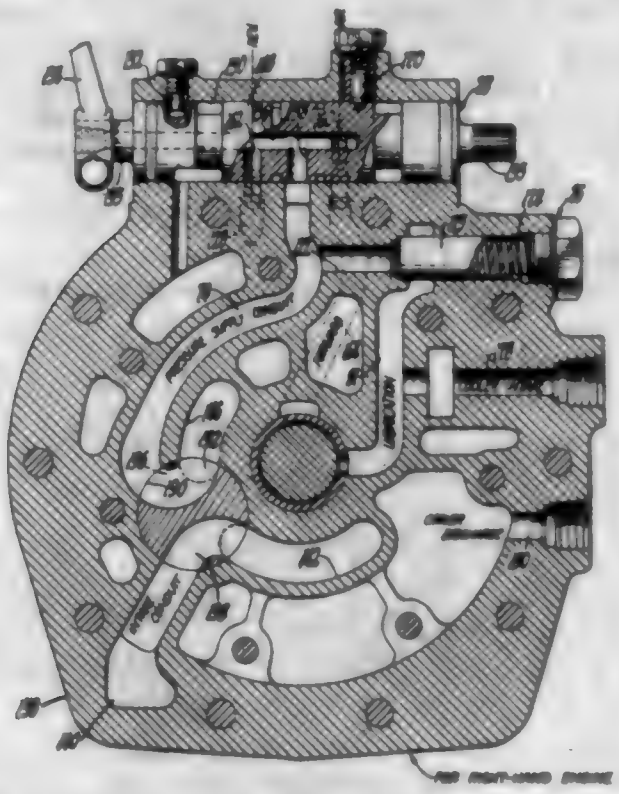
TRANSMISSION

Harold H. Albinson, Detroit, and Joseph F. Voss, Plymouth, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 31, 1955, Serial No. 512,222
6 Claims. (Cl. 74—732)

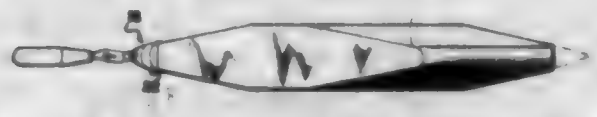
5. In a fluid pressure operated transmission in combination, a pump casing containing a rotary pump having a pair of pumping chambers, one of which is an intake chamber when the pump is rotating in one direction, and a discharge chamber for supplying liquid under pressure when the pump is rotating in the opposite direction, a gear casing containing a plurality of pressure-operated drive-establishing devices and containing a sump for liquid not under pressure; an intermediate casing mechanically and hydraulically connecting the pump casing and gear casing, the intermediate casing having a first bore, a valve in the bore adapted to direct oil under pressure selectively to the pressure-operated drive-establishing devices, a first passage connected to that one of the pump chambers which is the intake chamber when the pump is rotating in one direction, a second passage connected to that one of the pump chambers which is the discharge passage when the pump is rotating in the same sense, an intake passage connected to the sump, a pressure passage connected to said bore and adapted

to supply liquid under pressure to said valve, and a second bore in the intermediate casing communicating with all of said passages; and a fourth casing in the bore



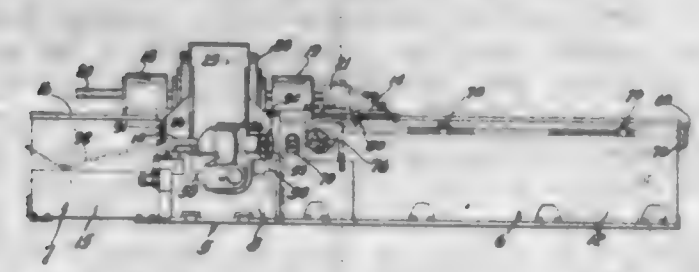
having passages connecting said first passage to said intake passage and connecting said second passage to said pressure passage.

2,867,137
CUTTING TOOLS AND METHOD OF MAKING SAME
Wilbur R. Joy, Prestonsburg, Ky.
Application November 9, 1954, Serial No. 467,776
4 Claims. (Cl. 76—101)



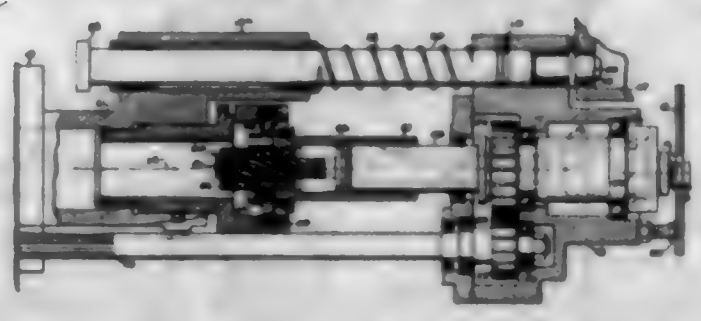
1. The method of providing a hard cutting tip on a tool which comprises the steps of providing a flat surface at the cutting end of said tool, depositing a first bead of hard metal alloy on said flat surface, allowing said bead to cool, and then depositing beads of progressively smaller width extending outwardly from said first bead in successively superposed relation to thereby form a tip on said tool.

2,867,138
CENTER DRIVE BORING MACHINE
George A. Kendall and James S. Ross, Saginaw, Mich., assignors to Wickes Machine Tool Division of The Wickes Corporation, a corporation of Michigan
Application May 21, 1953, Serial No. 356,353
8 Claims. (Cl. 77—3)



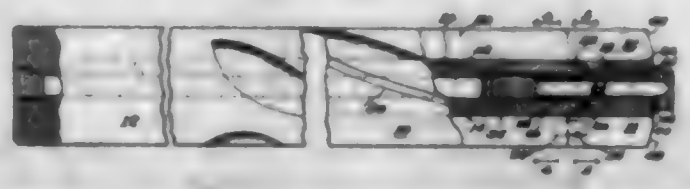
1. In a boring machine tool, a rotary work holder, a tool bar having a cutting tool thereon intermediate the ends of said bar, means for moving said bar to cause movement of said tool axially through said work holder and a workpiece, means for feeding said work holder transversely of the axis of said cutting tool to permit profiling cuts to be taken in the internal diameter of the workpiece, means for supporting opposite ends of said bar during cutting operations, means for rotating said work holder, and means for rapid traversing said workholder transversely to permit movement thereof outwardly to a position in which the holder may be loaded and unloaded.

2,867,139
BORING UNIT
Harry J. Caldwell, Rockford, Ill., assignor to Barnes Drill Co., Rockford, Ill., a corporation of Illinois
Application January 28, 1957, Serial No. 636,768
9 Claims. (Cl. 77—3)



2. A tool unit having, in combination, a hollow power rotated spindle having internal gear teeth, a reciprocable head rotatably supporting said spindle, means for advancing said head toward and from an operating position and dwelling the same in such position, a cup journaled in said spindle concentric with the axis thereof and having an internal bore with its axis offset laterally from said first axis, a tool shank projecting from the open end of said cup and journaled in said cup bore for free turning relative thereto and with its axis disposed adjacent said spindle axis in one angular position of said cup whereby said shank axis is swung bodily relative to said spindle axis during turning of the cup relative to said spindle, a cutting tooth projecting radially from the projecting end of said shank and having a cutting face disposed at a desired rake angle, external gear teeth concentric with said shank axis and meshing with said spindle teeth to transmit rotary power to said tool while holding the tool against turning relative to the spindle, and means operable in timed relation to the rotation of said spindle to turn said cup relative to the spindle and thereby feed said cutting tooth outwardly and substantially radially while the latter is held by said gear teeth against substantially turning relative to the spindle.

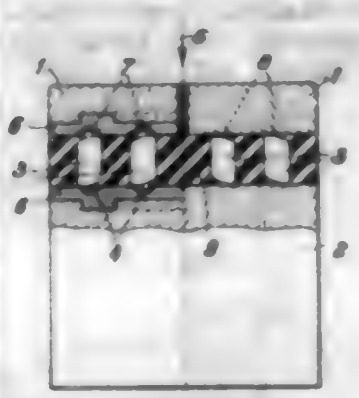
2,867,140
CORE DRILL
Sidney A. Gotts, Rockford, Ill., assignor to Metal Cutting Tools, Inc., Rockford, Ill., a corporation of Illinois
Application December 15, 1955, Serial No. 553,326
1 Claim. (Cl. 77—58)



In a drill, the combination of a rotary shank member, said shank member having a plurality of flutes, a removable tip member, said tip member being provided with a plurality of flutes each having a cutting edge at its outer end, said cutting edges being inclined outwardly and rearwardly and the flutes of said tip member being symmetrically arranged with respect to the flutes of said shank member, means comprising a pin and socket connection for connecting each shank flute to one of said tip flutes to transmit driving torque from said shank flutes to said tip flutes, one of said members having a central boss and the other member having a corresponding recess, said boss being seated in said recess to axially

align said members, said tip member having an axial passageway, means for rigidly holding said tip member and said shank together and for preventing relative longitudinal movement comprising a bolt, said shank and said bolt each having an axial passageway, said shank and bolt passageways being in fluid communication so as to convey fluid to said cutting edges, said last named means including mutually engageable means on said bolt and said shank, said bolt having a head in engagement with the outer end of said tip member, a plurality of radial passages in said head each communicating with said bolt passageway at one end and having their other ends located adjacent to said cutting edges, said radial passages extending slightly rearwardly in substantially the same direction as said cutting edges whereby to discharge fluid from said shank and bolt passageways directly onto said cutting edges.

2,867,141
APPARATUS FOR DEFORMING SHEETS OR PROFILES
Walter Eckold, St. Andreasberg, Sperrluttertal (Oberharz), Germany
Application May 12, 1954, Serial No. 452,196
Claims priority, application Switzerland May 15, 1953
5 Claims. (Cl. 78—61)



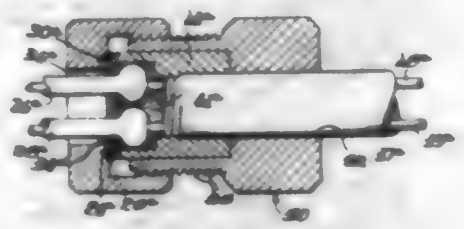
1. A tool for deforming sheet metal and profiled elements especially for swaging and drawing, comprising a pair of adjacent jaws to directly contact the sheet metal to be deformed, a carrying body upon which the pair of adjacent jaws are arranged on the carrying body, and a plurality of support members interposed between the jaws and the carrying body to effect the mutual working movements of the jaws when a pressure is applied to the jaws perpendicular to the direction of mutual movement of the jaws and to effect the return movement of the jaws when the pressure is removed, the support members each being in the form of a rolling body with curved contacting surfaces so that upon the application of a force the rolling bodies will be caused to roll upon the jaws and the carrying body between which they are maintained, and thereby cause a relative motion of the two jaws, each rolling body being in the form of a strip with curved rolling ends, the center of curvature of the rolling ends of each strip lying on opposite sides of a longitudinal axis of the strip, so that the strip is caused to roll due to the force transmitted by the horizontally disposed surfaces on the jaws and the carrying body between which surfaces the rolling bodies are provided.

2,867,142
TOOLS FOR RELEASING SPEED NUTS
Alma A. Hutchins, Pasadena, Calif., assignor to George J. Bischer, Pasadena, Calif.
Application February 25, 1957, Serial No. 642,301
13 Claims. (Cl. 81—3)

1. A tool for removing from about a stem a nut having a base portion and a stem gripping portion; said tool comprising a handle, and an elongated essentially helically coiled member carried by said handle adapted to extend helically about said stem for at least about one complete turn and adapted to be turned about said stem by said handle and to engage said nut and remove it from the stem, said coiled member having an outer end portion disposed essentially transversely of the stem axis at an outer end of the tool and spaced from an adjacent turn of said member, said outer end portion being tapered to a reduced axial dimension and being adapted to engage and bear in opposite axial directions against said base and stem gripping portions of the nut and to thereby wedge said portions of the nut axially apart upon rotation of said member by the handle, whereby the nut is released for removal by said member from about the stem, said end portion of the helically coiled member having an axially outer surface facing essentially axially away from the rest of said member for engaging and bearing against said base portion of said nut, said axially outer surface of said end portion being so shaped as to extend along said end portion of the coiled member toward the extremity of said end portion at substantially zero helical pitch and therefore without substantial advancement axially of the member, said end portion of the coiled member having an axially inner surface of substantial helical pitch at its opposite axial side facing essentially toward the handle to give to said end portion its tapered wedging configuration, and said member having a portion directly adjoining and merging with said end portion which is disposed at a substantial helical pitch greater than said substantially zero pitch of said axially outer surface.



2,867,143
TOOL FOR SEAMLESS CONDUIT TERMINAL ELEMENTS
Arthur I. Appleton, Northbrook, Ill.
Application September 10, 1954, Serial No. 455,331
11 Claims. (Cl. 81—15)



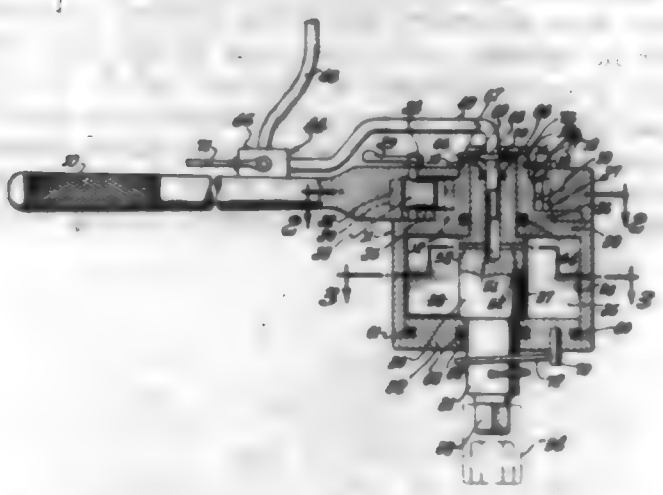
1. A tool for use in effecting crimping of a sealing skirt on a seamless conduit terminal element around a sealing well cap for such element, said tool comprising a barrel having a stepped longitudinal passageway therethrough, said passageway being divided into large and small diameter portions which are separated by an annular radial face, there being a tapered shoulder radially surrounding a portion of said face with its radially innermost margin spaced axially from said face in a direction toward said small diameter portion and flaring radially outward toward said large diameter portion, and means for positively drawing said barrel axially over the terminal element so that the skirt telescopes into said large diameter portion of the barrel passageway and is deformed radially inward by engagement with said tapered shoulder.

2,867,144

POWER OPERATED APPARATUS FOR TIGHTENING THREADED FASTENING ELEMENTS

Robert T. Stevens, Altadena, Calif., assignor, by decree of distribution, to Adele M. Stevens, executrix of the estate of Dillon Stevens, deceased

Application October 20, 1952, Serial No. 315,794
10 Claims. (Cl. 81—52.4)



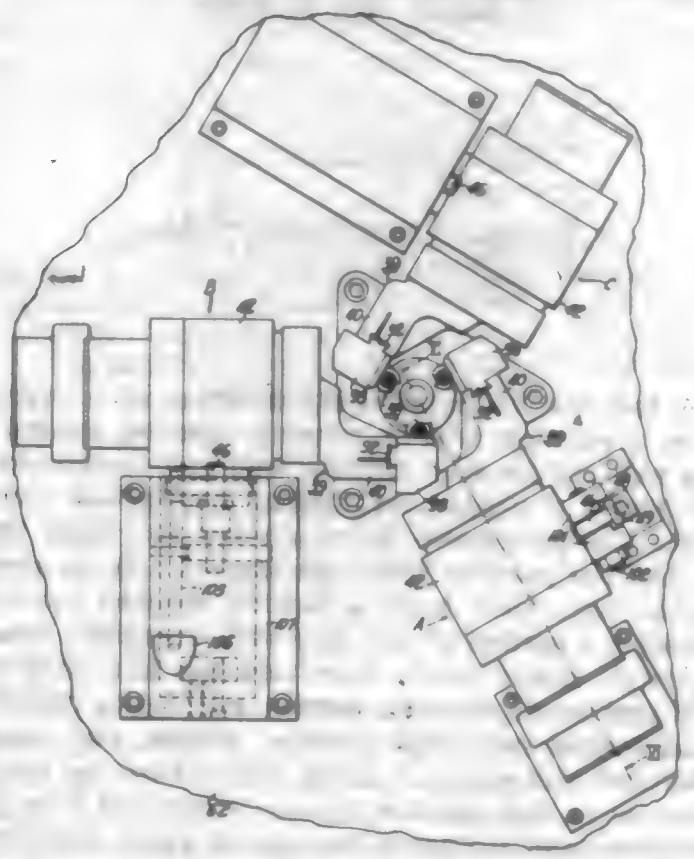
1. In apparatus for tightening threaded fastening elements: a driven member; a fluid motor of the stall type operatively connected to said driven member to rotate the same to tighten a threaded fastening element to a predetermined torque at which said motor will stall; means for mechanically rotating said fluid motor comprising an overrunning clutch through which mechanical motion is imparted to said fluid motor to rotate said driven member to tighten the threaded fastening element to a torque less than the predetermined torque; and means for feeding fluid under pressure to said fluid motor to effect fluid rotation of said motor with fluid pressure being applied to said motor until said motor stalls.

2,867,145

APPARATUS AND METHOD OF MAKING A SPIRALLY GROOVED BALL TYPE BEARING MEMBER

John A. Markstrum, Detroit, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application May 29, 1953, Serial No. 358,471
4 Claims. (Cl. 82—12)



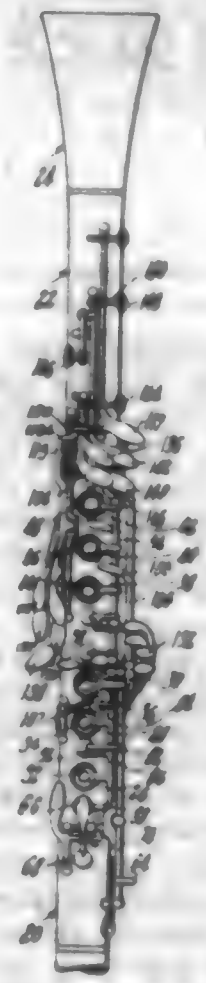
1. In combination, a workpiece holder rotatable on an axis of rotation, cutting tool means comprising a rotatable shaft having a crank arm on the end thereof with a cutting tool holder attached to said crank arm, a first support member rotatably mounting said shaft of said cutting tool means for rotation about an axis transverse to said axis of rotation, thereby to pivotally displace the cutting tool holder through a spherical arc, a second support member pivotally mounting said first support member for accommodating movement toward and away from said workpiece holder, actuating means on said second support member engaging said first support member to pivotally move said cutting tool holder toward and away from said workpiece holder, a drive shaft for selectively rotating said workpiece holder through a predetermined arc, a gear train interconnecting said drive shaft of said workpiece holder and said rotatable shaft of said cutting tool means for synchronous movement, a rack and pinion drive connected to said drive shaft to relatively displace said shaft through said predetermined arc, and hydraulic drive means to actuate said rack and pinion drive and to operate said first mentioned actuating means, said workpiece holder comprising an expanding collet, and actuating means connected to said expanding collet operated by said hydraulic drive means.

2,867,146

CLARINET

Rosario Mazzeo, Boston, Mass.

Application August 15, 1956, Serial No. 604,163
16 Claims. (Cl. 84—382)



1. In a clarinet constructed in accordance with the Boehm system, having tone holes including first, second and third finger holes left hand and first, second and third finger holes right hand, the combination of a B♭ tone hole, a B♭ lever and pad movable between open and closed positions to close said hole, means biasing said B♭ lever to the open position, a first finger hole ring and associated tone hole covering lever actuated by the first finger left hand from a normally open to a closed position, a plurality of other finger hole rings shiftable when actuated from normally open to closed positions, a one-way actuating connection between one of said plurality of rings and said B♭ lever adapted for the open position of said one ring to hold the B♭ lever closed and for the

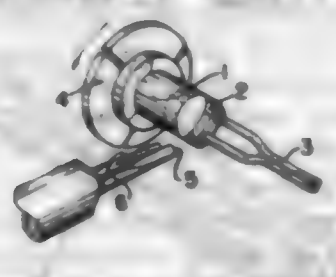
closed position of said one ring to permit the Bb lever to open, and means overriding said first mentioned biasing means for yieldably maintaining said one ring open and said Bb lever closed.

2,867,147

MANUFACTURE OF ELECTRIC BLASTING CAPS

John Joseph O'Neill, Jr., Alton, Ill., assignor to Olin Mathieson Chemical Corporation, East Alton, Ill., a corporation of Virginia

Application September 27, 1954, Serial No. 458,442
3 Claims. (Cl. 86—1)



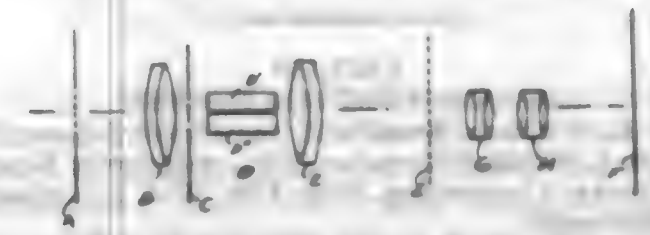
1. In the manufacture of electric blasting caps, the process comprising heating an assembled electric blasting cap having a thermoplastic bridge plug and a thermoplastic case to a temperature above the melting points of said thermoplastic materials in the area of the external line of juncture of the bridge plug and case, forming a furrow in the heated portion of the external surface of the bridge plug and another furrow in the heated portion of the external surface of the case, said furrows being parallel to and co-extensive with the external juncture of the bridge plug and case, and intermixing the molten materials displaced by said furrows over the external juncture of the bridge plug and the case.

2,867,148

INTERFEROMETERS

Harry Svante Svensson, Sundbyberg, Sweden, assignor to LKB-Produkter Fabriksaktiebolag, Stockholm, Sweden, a Swedish company

Application January 21, 1953, Serial No. 332,206
Claims priority, application Sweden January 31, 1952
6 Claims. (Cl. 88—14)



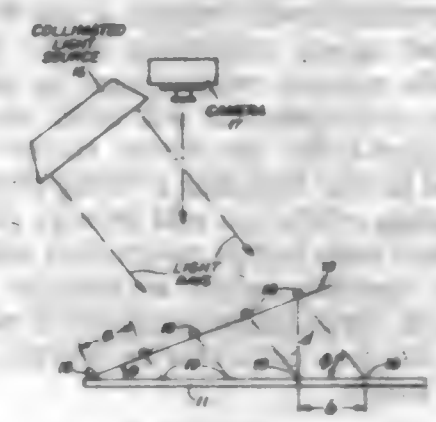
1. An optical arrangement for interferometry comprising a diaphragm provided with a plurality of apertures of small extension in at least one direction, means to illuminate said apertures whereby to define a light source, diaphragm means providing a double aperture which splits the radiation from the light source into two coherent beams of light, a test object in the path of one of said beams with an optical thickness in the direction of the optic axis that is constant at least in a section through said axis in which the extension of the light source apertures is small; a reference object in the path of the other light beam with an optical thickness that is essentially the same as that of the test object and that is also constant at least in said section, a light-indicating device, and a lens system making the planes of the light source apertures and the light-indicating device optically conjugate at least in said section through the optic axis; the centre spacing e between the light source apertures satisfying the equation $Gde=mD\lambda$, where G is the magnification factor of the optical imagery from the light source apertures to the light-indicating device, d the distance between the centres of the two apertures of said diaphragm means, D the optical distance between said diaphragm means and the light-indicating device, λ the wavelength of the light, and m an arbitrary positive integer.

2,867,149

METHOD OF DETERMINING SURFACE FLATNESS

Charles T. Goddard, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 5, 1953, Serial No. 384,144
4 Claims. (Cl. 88—14)



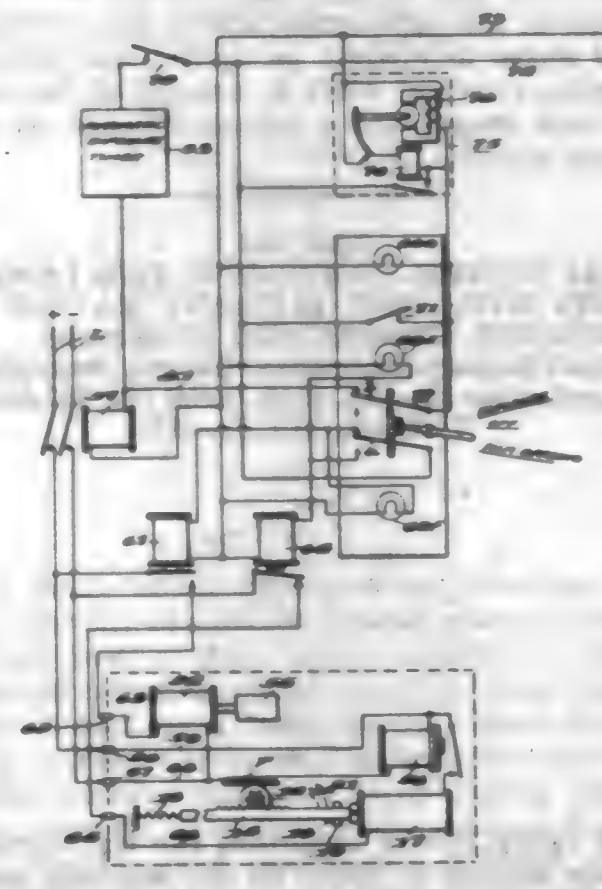
1. The method of determining surface flatness comprising positioning a grating having closely spaced parallel lines at an acute angle to the surface whose flatness is to be determined and directly adjacent the surface, projecting parallel rays of light through the grating onto the surface at an acute angle to the surface to form grating line shadows on the surface, and recording through said grating the pattern of superimposed grating line shadows and grating lines to detect deviations from straightness of said grating line shadows, said deviations from straightness corresponding to deviations from flatness of said surface.

2,867,150

PHOTOGRAPHIC REPRODUCTION APPARATUS

John E. Fillingame, Washington, D. C., assignor to National Geographic Society, Washington, D. C., a corporation of the District of Columbia

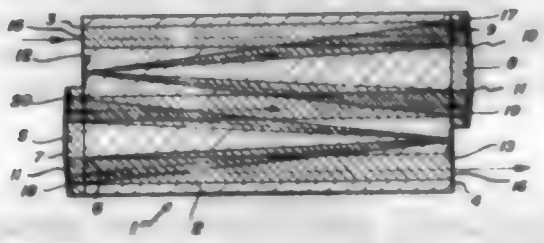
Application July 20, 1954, Serial No. 444,698
1 Claim. (Cl. 88—24)



In a photographic camera having a spring closed shutter provided with a shutter solenoid for opening the

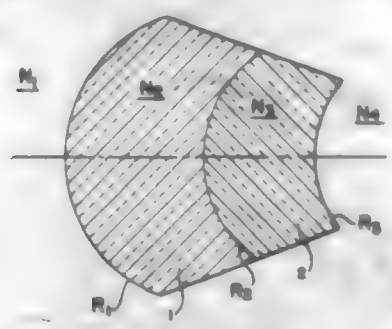
same, and feed mechanism for advancing the film on which exposures are made, said feed mechanism including a feed solenoid for setting a film feed rack in position for movement by a spring upon deenergization of the feed solenoid; a control network including a shutter circuit for energizing said shutter solenoid and a film feed circuit for energizing said feed solenoid, normally open contact means in each of said circuits, a primary relay for closing said normally open contact means, a pair of normally closed contacts in each of said circuits, a main shutter relay controlling the normally closed contacts of the shutter circuit, a main film feed relay controlling the normally closed contacts of the film feed circuit, and control means comprising circuit elements including manually operable switch means for energizing in alternation one or the other of said main relays, thereby selectively to open either the shutter circuit or the film feed circuit and further including a timing switch in series with a push button switch and said primary relay, whereby closure of said push button switch after adjustment of said manually operable switch to energize said main shutter relay will result in energization of said primary relay and said film feed circuit for an interval determined by said timing switch.

2,867,151
TELESCOPIC SIGHT
Walter Mandler, Midland, Ontario, Canada, assignor to Ernst Leitz Canada Limited, Midland, Ontario, Canada
Application March 22, 1957, Serial No. 647,807
Claims priority, application Germany March 22, 1956
9 Claims. (Cl. 88—32)



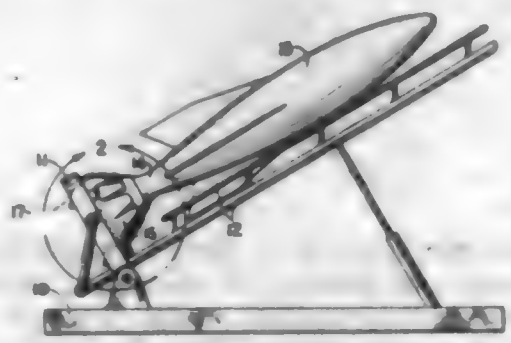
1. A unit-power telescope sight, comprising, in combination two concave mirrors, portions of which face each other, a part of one of said concave mirrors forming the objective and producing an inverted real image while at least part of the other concave mirror forms the ocular of the sight, optical means for reversing said inverted image to produce an upright real image, two plane mirrors each of which is arranged in the plane of one of said images, and a reticule disposed on one of said plane mirrors.

2,867,152
OPTICAL SYSTEM COMPRISING TWO LENS ELEMENTS WITH ONE ELEMENT HAVING TWO SEPARATED CONCENTRIC SURFACES
Raphaël Boolsky-Bogopolsky, Geneva, Switzerland
Application May 28, 1956, Serial No. 587,866
7 Claims. (Cl. 88—57)



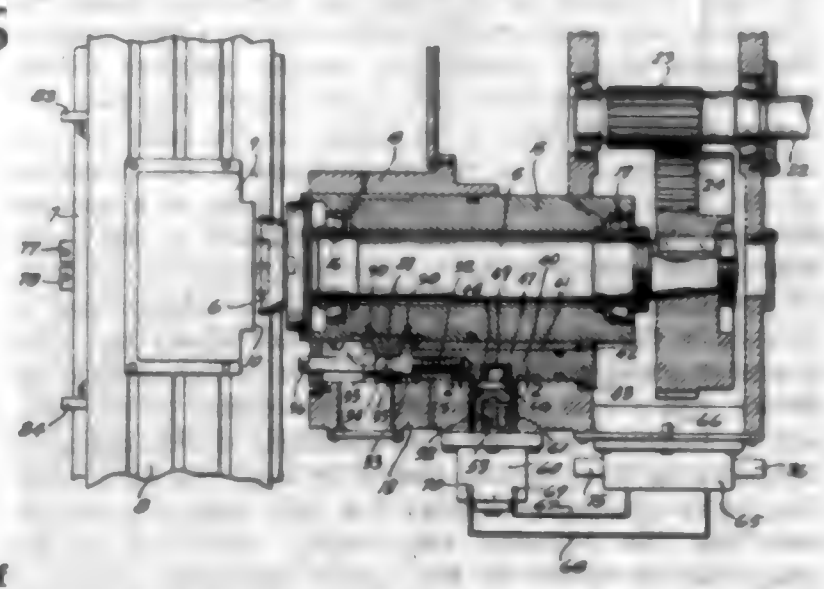
1. An optical system comprising two lens elements of which one element is limited by two separated and substantially concentric surfaces and the other element by a third and outer dispersive surface not concentric with said first-named surfaces, the concentric surfaces forming a subcomponent having a substantially spherical stigmatic focal surface which is imaged as an almost plane surface by the operation of the said outer dispersive surface of the second lens element.

2,867,153
LAUNCHING CONTROL DEVICE
Joseph Hirsch, Pacific Palisades, Calif., assignor to Aerophysics Development Corporation, a corporation of California
Application September 6, 1955, Serial No. 532,539
1 Claim. (Cl. 89—1.7)



An apparatus for gradually releasing a rocket propelled missile comprising in combination: a launching frame; a hollow frusto-conical member having tapered slot means cut laterally along its surface to define a plurality of fingers; means rigidly securing said frusto-conical member to said launching frame; a frusto-conical adapter member adapted to be secured to a portion of said missile in alignment with the center of gravity thereof, said adapter having a surface angle with respect to the axis of said frusto-conical member for cooperation with said plurality of fingers, said fingers circumferentially gripping said adapter member, said surface angle and the taper of said slot means being such that relative movement of said adapter and missile with respect to said frusto-conical member and launching frame is retarded by the radially directed spring force of said fingers for a period greater than the period during which initial transient thrust eccentricities exist.

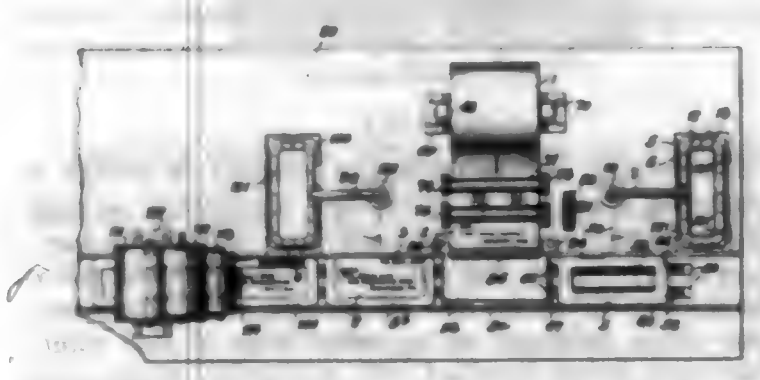
2,867,154
RETRACTING MECHANISM
Morris L. Hutchens, Brookfield, and Joseph J. Lenert and Frank J. Schalk, Milwaukee, Wis., assignors to Kearney & Trecker Corporation, West Allis, Wis., a corporation of Wisconsin
Application September 23, 1955, Serial No. 536,260
4 Claims. (Cl. 90—16)



1. In a retracting mechanism for moving a movable member of a machine tool to effect a separating movement

between a workpiece and a cutting tool so that the cutter will not contact the finished surface of the workpiece during the return stroke; a frame; a rotary hydraulic motor mounted on said frame and having a drive shaft, said motor being arranged to rotate its drive shaft through a portion of a revolution in either direction; an eccentric pin connected to be driven by said drive shaft about an axis offset from but parallel to its own axis so that it is driven in an arcuate path; a slide slidably supported by said frame and having a slot for receiving said eccentric pin for sliding movement in a direction transverse to the direction of movement of the slide so that the slide will be moved in its path of travel when the eccentric pin is actuated to accommodate the arcuate movement of the pin; means connecting said slide to said movable member so that movement of the slide will effect a similar movement of the movable member; and an abutment mounted on said frame in position to be abutted by said slide to limit its movement in the direction in which it moves the movable member into cutting position; whereby the retracting movement of the movable member is effected by the arcuate movement of said eccentric pin and the cutting position of the movable member is accurately established by said abutment, while the retracted position of the movable member is determined by the limit of movement of the hydraulic motor.

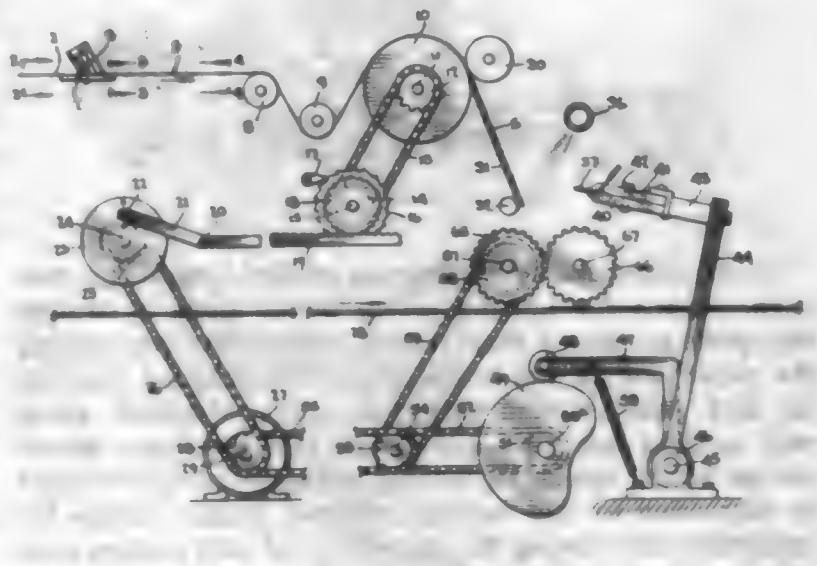
2,867,155
APPARATUS FOR MAKING STENCILS
Alvin George Herrmann, Freeport, N. Y.
Application January 28, 1955, Serial No. 484,671
7 Claims. (Cl. 93—1)



1. In an apparatus of the character described, supporting means for a stack of stencil frame halves, supporting means for a second stack of stencil frame halves, a support for a roll of stencil paper located between the stacks, means for drawing stencil paper from the roll, means for successively feeding stencil frame halves from the first stack to a position in front of the roll whereby tissue drawn from the roll will be extended across the top of the frame half so positioned, means for cutting off sections of the stencil paper when it is positioned above the frame half, means for pressing the cut-off stencil paper section into adherent contact with the upper face of the stencil half, and means for taking successive stencil frame halves from the second stack and applying the same over each of the first frames and the stencil paper that has been applied thereto.

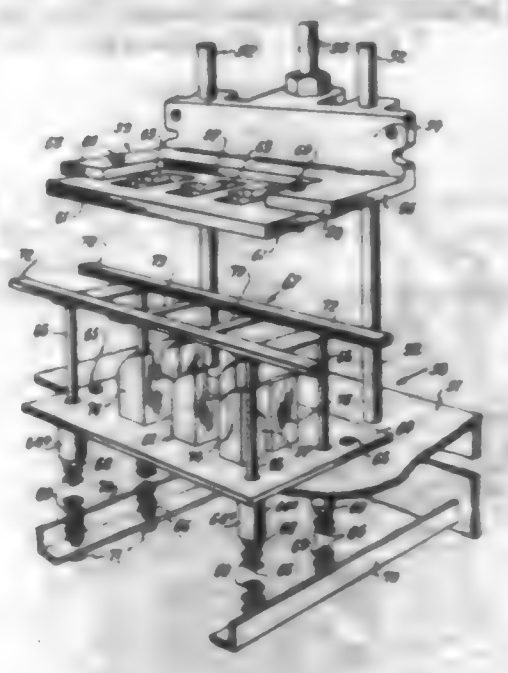
2,867,156
APPARATUS FOR MAKING PLASTIC BAGS
Robert J. Burg, Dobbs Ferry, N. Y.
Application July 18, 1956, Serial No. 598,683
8 Claims. (Cl. 93—8)

1. In an apparatus for making bags from thermoplastic material, means for intermittently feeding a strip of flattened, tubular thermoplastic material, a knife operative to sever a marginal edge portion from the strip to thereby transform the strip into two-ply, single-fold formation, a flat rigid support over which the transformed strip is fed and at which the strip is halted with a bag-sized section thereof extending beyond the edge of the support, a heated element adapted to contact the strip at a point beyond the support to thereby fuse together the plies of the strip and separate the bag-sized section there-



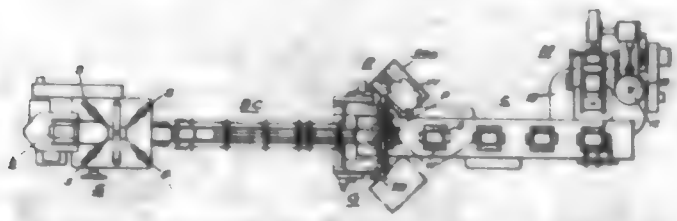
of from the remainder of the strip, means for swinging the heated element to and from the strip while the strip is in position of rest, and a gripping device for engaging the end portion of the bag-sized section and drawing the section away from the remainder of the strip immediately upon completion of the combined fusing and separating operation by the heated element.

2,867,157
MACHINE FOR FORMING PACKAGE TRAYS
Marietta Tanner Moore, Dallas, Tex.
Application September 27, 1954, Serial No. 458,338
13 Claims. (Cl. 93—37)



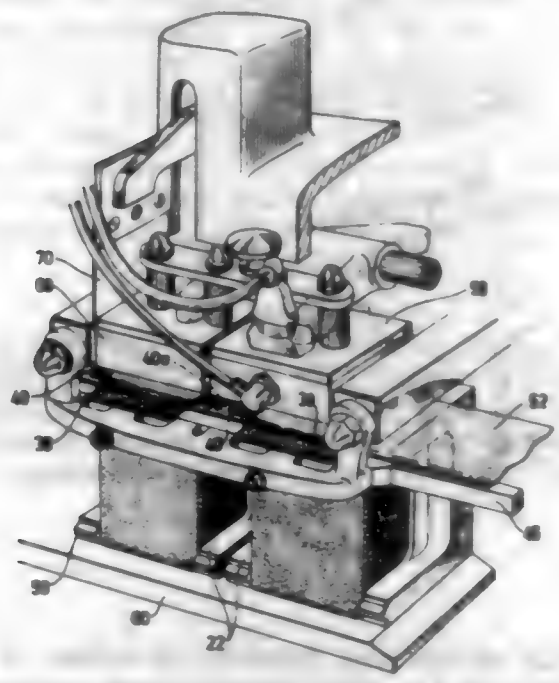
1. A device of the type described including: a fixed base; a plurality of upwardly extending cams mounted on said fixed base; a blank holder mounted on said base for vertical movement toward said fixed base and downwardly of said cams; means on said blank holder for holding a blank against displacement from said holder in either direction vertically; means biasing said blank holder upwardly away from said cams and fixed base; and a pressure plate reciprocably mounted over said blank holder for engaging the blank holder and moving it down toward the base and over the cams.

2,867,158
AUTOMATIC BOX WRAPPING SYSTEM
William F. Andresen, Jr., Contoocook, N. H., and Roy Schempp, Philadelphia, Pa., assignors, by mesne assignments, to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application April 4, 1955, Serial No. 498,914
21 Claims. (Cl. 93—54)



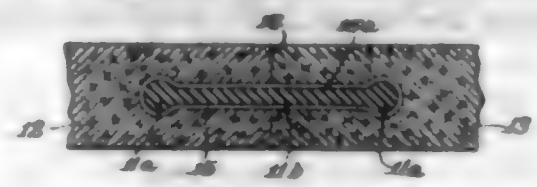
1. An automatic box wrapping system comprising conveyor means for moving set-up boxes along a straight line path as viewed from above, means for interrupting the movement of the boxes at a predetermined location on said path, suction conveyor means disposed along said straight line path and below said conveyor means for the boxes, means for feeding adhesive-coated wrappers in succession to said suction conveyor means, means for cyclically interrupting the movement of said suction conveyor means each time the center lines of a wrapper are in alignment with and below the center lines of a box at said predetermined location, and registering means for moving the boxes in succession downwardly into register with corresponding wrappers on said suction conveyor means to form assemblies of box structure and partially applied sheet material to be conveyed along said path to a station for transfer to a box wrapping machine.

2,867,159
DEVICE FOR PRODUCING CONTAINERS SEALED WITH COVERS
Boye Benzon-Petersen, Lund, Sweden, assignor to Aktiebolaget Akerlund & Rausing, Lund, Sweden, a Swedish company
Application May 13, 1955, Serial No. 508,224
Claims priority, application Sweden May 14, 1954
7 Claims. (Cl. 93—36)



1. In an automatic machine of the kind recited for producing rectangular packages from collapsed container blanks having end flaps, means for successively transforming collapsed container blanks of a blank supply into rectangular upright tube form, while horizontally supplying them into individual U-shaped holders having substantially plane horizontal U-formed end surfaces, the effective inner cross-section and the effective height of said U-formed holders substantially corresponding to the outer cross-section and the height, respectively, of the rectangular container blank side wall; endless conveyor means for carrying said U-shaped holders edgewise along a horizontal re-entrant path through the machine; means for successively outwardly folding said end flaps of said upright tube-formed container blanks so as to lie against said U-formed end surfaces of said holders; means for successively covering one end opening of said upright tube-formed container blanks and at least part of the corresponding outwardly folded end flaps with an individual flexible membrane and sealing said membrane to the respective end opening edges and end flaps to form a re-entrant leak-proof sealing; means for severing from a flexible continuous strip successive strip lengths to form said sealing membranes; means for successively inwardly folding and mutually securing the end flaps of said sealed-off container blank ends to form bottom and top end closures, respectively, said folding, sealing, severing, and flap closing means each being cooperative with at least one of the two holder end surfaces of at least one of two successive U-shaped holders to secure functioning of the respective means.

2,867,160
WATERSTOP CONNECTION
Leroy C. Wangerow, Chicago, Ill., assignor to Serviced Products Corporation, a corporation of Delaware
Application October 1, 1954, Serial No. 459,619
3 Claims. (Cl. 94—18)



1. A waterstop barrier structure adapted to bridge a joint between construction members, comprising: a pair of rubbery, flexible, elongated waterstop strips each having a width between opposite side edges considerably greater than its thickness and adapted to have said opposite side edges arranged on opposite sides of said joint, the side edges being provided with anchoring means, one end portion of one strip being adjacent to an end portion of the other strip; and a rubbery, flexible preformed connector sleeve having thin side walls defining the sides of a pair of end sockets receiving said end portions, each socket having a preformed transverse shape conforming to the shape of one of said end portions.

2,867,161
FILM HOLDER
Clarence Gary Padgett, Glenview, Ill.
Application February 14, 1956, Serial No. 565,363
4 Claims. (Cl. 95—100)

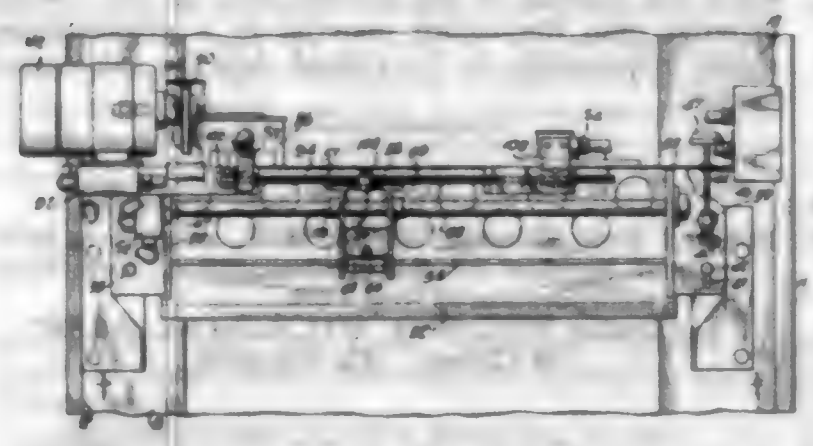
1. A device of the character described comprising a generally rectangular frame having a means for suspending said frame in a fluid, an elongated cross member extending between and carried by opposite sides of said frame and having a slot in one end, and an elongated coiled wire tension spring disposed telescoped over said cross member and having one end permanently fixed relative to said frame and its other end free, said free end having means for longitudinally extending said spring along said cross member, said last-mentioned means comprising a hook formed from the wire of the spring, said hook being rotatable about the axis of the spring and thereby movable into said slot for releasably holding said spring in extended condition for holding the adjacent turns of said spring spaced one from another for easy insertion of an edge of a sheet of photographic film material or the

like therebetween, said spring being adapted to support a plurality of sheets of such material by gripping the edges



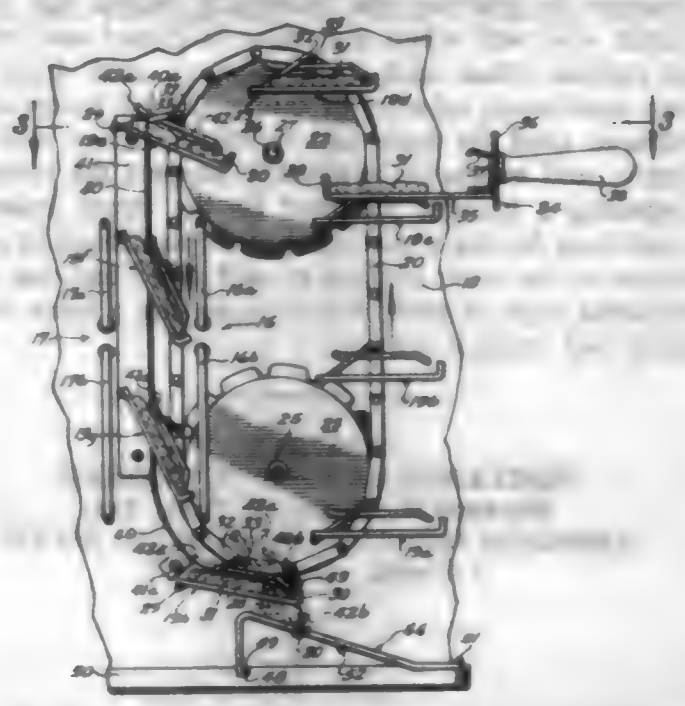
thereof between the respective turns upon release of said holding means.

2,867,162
APPARATUS FOR PRODUCTION OF COOKED PRODUCTS
Herbert T. Hunter, Catonsville, Md., and Ben W. Wilson, Manhasset, N. Y., assignors to DCA Food Industries Inc., New York, N. Y., a corporation of New York
Application January 25, 1957, Serial No. 636,369
11 Claims. (Cl. 99—354)



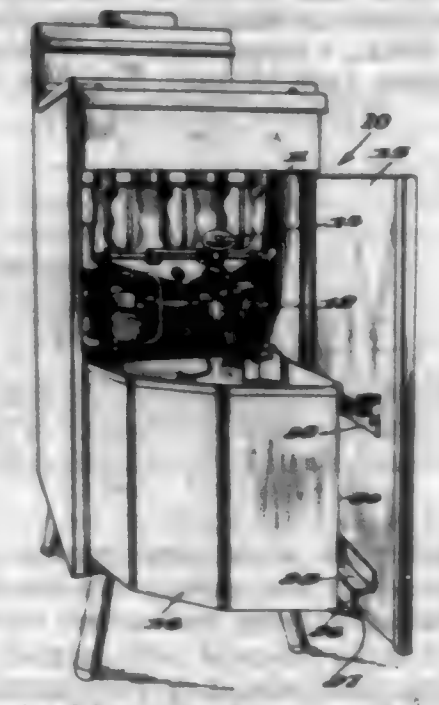
1. An improved apparatus for the production of a cooked product comprising a cooking device, a conveyor longitudinally substantially continuously movable through said cooking device, a mechanism for forming and cutting dough into pieces of predetermined shape, said mechanism having a discharge opening disposed above said conveyor, and means for reciprocating said dough forming and cutting mechanism in a forward and return stroke along a transverse path across the direction of advance of said conveyor said path having a longitudinal component in the direction of advance of said conveyor, the longitudinal component of the speed of said dough forming and cutting mechanism during its forward stroke along said transverse path being substantially equal to the speed of said conveyor.

2,867,163
ROASTING MACHINE FOR HAMBURGER PATTIES, OR THE LIKE
Abe M. Bloom, Van Nuys, Calif.
Application May 9, 1955, Serial No. 506,938
5 Claims. (Cl. 99—386)



4. In apparatus for cooking food: a conveyor structure comprising a pair of upper horizontally coaxial wheels and a pair of lower horizontally coaxial wheels; endless flexible members each cooperable with an upper wheel and the corresponding lower wheel; a carriage for supporting articles of food and having supporting elements, the operative portions of which extend substantially in a common plane; means pivotally suspending the carriage between corresponding portions of said flexible member; a feeler member carried by said carriage; and a track substantially paralleling a portion of the path of one of said flexible members and cooperable with said feeler member to incline said plane to the horizontal; said axis of pivotal suspension being so located with respect to the carriage that unless restrained, said plane is substantially horizontal.

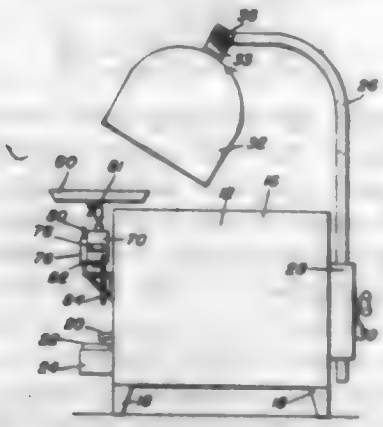
2,867,164
DEEP FAT FRIER
Donald M. Lutze, Concord, N. H., assignor to J. C. Pitman & Sons, Inc., Concord, N. H., a corporation of New Hampshire
Application July 19, 1957, Serial No. 672,933
4 Claims. (Cl. 99—403)



1. A deep fat frier comprising, a cabinet, a frying well adapted to contain melted fat, means to mount said well

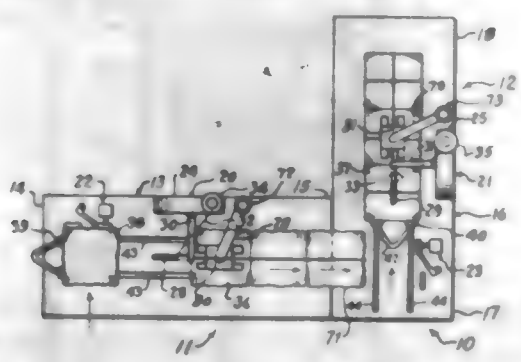
in the upper part of said cabinet, a used fat drain cock secured to the lower portion of said well, a swingably hinged door for said cabinet, a used fat receptacle, and means to removably support said receptacle on the inner surface of said door to be swingable therewith and in a manner to position the receptacle within the cabinet beneath said well when said door is closed and without said cabinet when said door is open, said drain cock being positioned, relative to said well and receptacle, to discharge used fat into said receptacle when said door is open, said means to removably support the receptacle comprising a bracket mounted on the upper inner side of said door having a portion thereof positioned in spaced relation to the inner surface of said door, and one upper horizontal edge of said receptacle having a hook for engaging said bracket portion.

2,867,165
PORTABLE BARBECUE COOKER
Reynard H. Money, El Paso, Tex.
Application June 22, 1956, Serial No. 593,237
1 Claim. (Cl. 99—423)



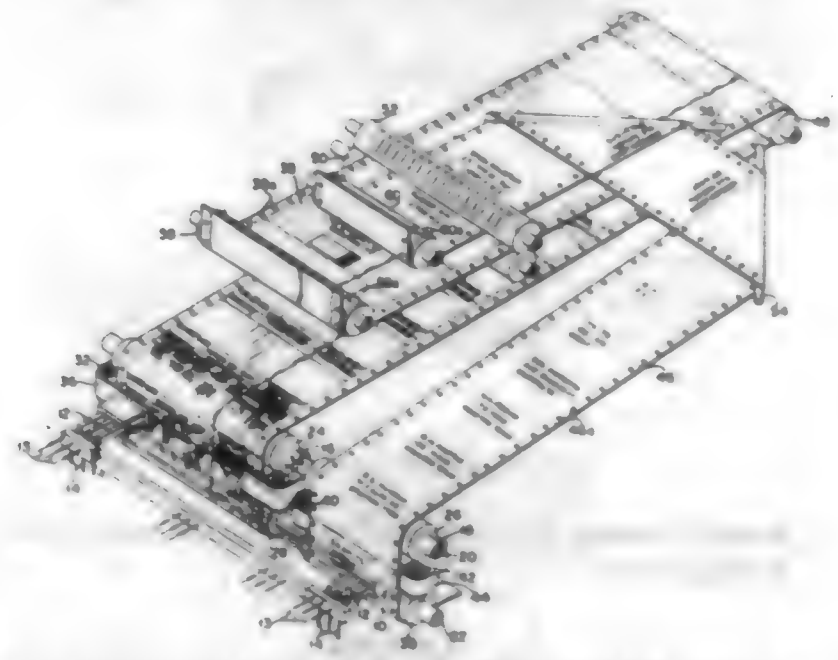
In combination, an open top oven having front and back walls, a motor, means mounting said motor on said front wall, a horizontal tray mounted on said motor to project part way over the top of the oven and being rotatable by said motor, an upright rod mounted on the backwall of the oven, and a heat reflecting bonnet above said oven and tray having heating means therein and mounted on said rod in downwardly and forwardly inclined position to deflect heat downwardly onto said tray and into the top of said oven simultaneously.

2,867,166
BUNDLE TYING MACHINE
James B. Saxton and Joseph J. Bachmayer, Blissfield, Mich., assignors to National Bundle Tyer Company, Blissfield, Mich., a corporation of Michigan
Application April 15, 1957, Serial No. 653,027
5 Claims. (Cl. 100—4)



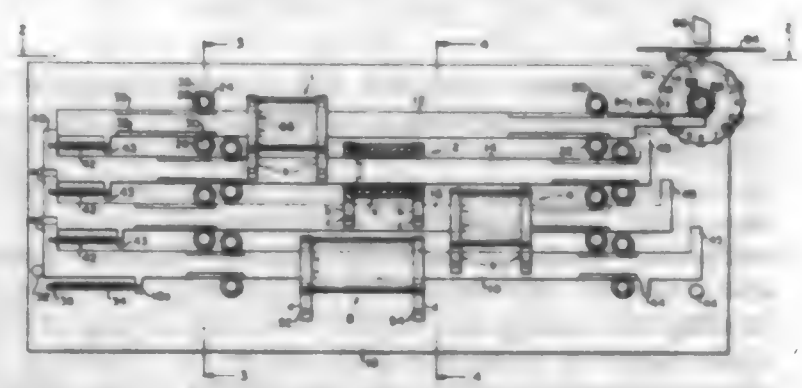
1. A machine for cross tying bundles comprising a first table, a feeder for moving bundles longitudinally along said table, a tying mechanism for tying a line around said bundle, a second table located at the end of said first table and extending perpendicularly relative thereto, a second feeder for moving said bundle along said second table, a second tying mechanism for tying a line around said bundle in a plane normal to the first tie, means actuated by emplacement of a bundle on the front of the first table for actuating the first feeder, means actuated by movement of a bundle onto the front of the second table from the adjacent end of the first table for actuating the second feeder, disabling means normally preventing the actuation of the first feeder, and means actuated by the second feeder when the second feeder is in bundle receiving position for overcoming said disabling means.

2,867,167
PRINTING MECHANISM
George E. Mitchell, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 27, 1956, Serial No. 630,834
6 Claims. (Cl. 101—47)



1. In an apparatus having a print station, means for feeding a record material and a transfer material through the print station, means for concurrently printing data on said record material and related data on said transfer material, means for thereafter bringing the record material and the transfer material together, and means to effect the copying of the printed data on the transfer material onto the record material in a predetermined spatial relationship to the related data on said record material.

2,867,168
PRINTER POSITIONING MECHANISM
Robert I. Roth, Briarcliff Manor, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 6, 1953, Serial No. 390,532
10 Claims. (Cl. 101—93)



1. In an aggregative printer or the like, a support, a series of movable parts mounted on said support, succeeding ones of said parts having driving connections with preceding ones and stops operable to limit relative displacements of preceding ones, a stop on said support de-

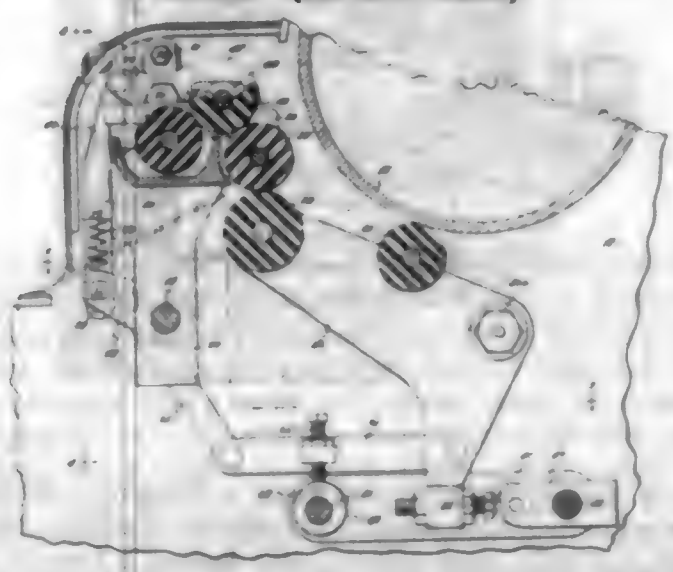
termining the initial position of the last part, and a series of selectively actuable devices corresponding to the series of parts and supported fully and respectively by succeeding parts and the support and operable to move the respective parts relative to the succeeding parts and the support.

2,867,169

COMBINED MOISTENING AND CONTACT PRESSURE CONTROL FOR LIQUID PROCESS DUPLICATING MACHINES

Henry P. Kell, Chicago, Ill., assignor to The Fixture Hardware Corporation, Chicago, Ill., a corporation of Illinois

Application March 18, 1954, Serial No. 417,030
6 Claims. (Cl. 101—132.5)



1. In a duplicating machine having a rotatable drum for carrying a master sheet, a yieldable pressure roller positioned to press copy sheets against the master sheet, a moistening roller and a feed roller cooperating to moisten and to feed copy sheets between the drum and pressure roller, a liquid containing fountain, a fountain roller therein, a transfer roller riding on the fountain roller and engaging the moistening roller and applying a limited liquid coating of liquid thereto for moistening the copy sheets, supports for said pressure roller movable toward and away from the drum to vary the engaging pressure of a copy sheet and a master sheet passing between the pressure roller and the drum, a manually operable member operably connected to the supports to increase and decrease the pressure of the pressure roller against the drum, and connections between said member and the transfer roller operable to decrease the pressure of the transfer roller on the fountain roller in response to increased pressure of the pressure roller on the drum.

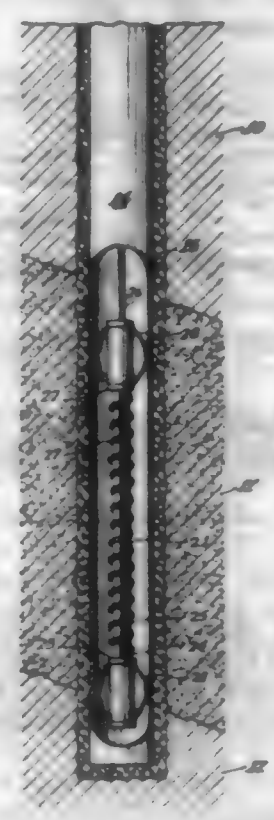
2,867,170

EXPLOSIVE DEVICE

Theodore A. Kibby, San Tome, Venezuela, assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application June 25, 1954, Serial No. 439,401
1 Claim. (Cl. 102—21.8)

An explosive device for fracturing the cement sheath surrounding a well casing which comprises an essentially rigid, vertically elongate, metallic core member of substantially circular transverse configuration throughout its length, said core member having intermediate its end portions an explosive cord mounting section of reduced diameter, each of said end portions being provided with means for centralizing the core member in a well casing, said explosive cord mounting section having a straight longitudinal groove in its outer surface, a length of explosive cord, said explosive cord extending in one direction along the explosive cord mounting section and in the groove and thence extending along the explosive cord mounting section in the opposite direction wrapped tightly as a helix about both the explosive cord mounting section and the extent of the explosive cord disposed in the groove, the helical extent of the explosive cord pressing tightly against the extent of the explosive cord in the groove to afford a multiplicity of vertically spaced contacts therebetween for the transference of detonation therebetween through such contacts, a blasting cap se-



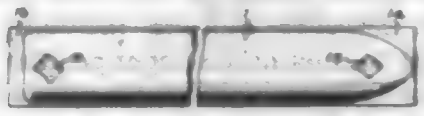
cured to one end of the explosive cord, means for detonating the blasting cap, and means for suspending the device in a well, whereby selection of the number of turns of explosive cord in the helix per unit length of the cord mounting section can fix within a broad and continuous range the amount of explosive force to be applied per unit length of a well casing with the multiplicity of contacts reducing the possibility of a misfire.

2,867,171

MINE BLASTS

Anatole a. k. a. Edgard Demeleane, Mons, Belgium

Application March 31, 1954, Serial No. 420,195
Claims priority, application Belgium April 10, 1953
2 Claims. (Cl. 102—22)



1. A safety device for use with a blasting cartridge comprising in combination therewith a liquid-tight translucent material casing, a casing filling comprising a flame extinguishing medium having luminous substances therein to permit the user to determine the presence of the device in a mine hole.

2,867,172

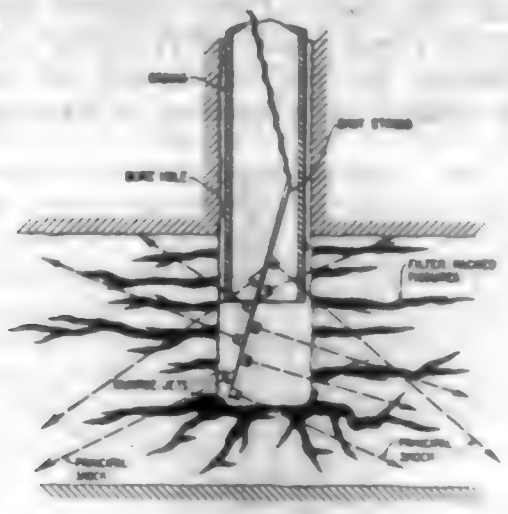
DETONATION OF UNPRIMED BASE CHARGES

Joseph R. Hradel, Mount Pleasant, Mich.

Application July 19, 1954, Serial No. 444,383
9 Claims. (Cl. 102—23)

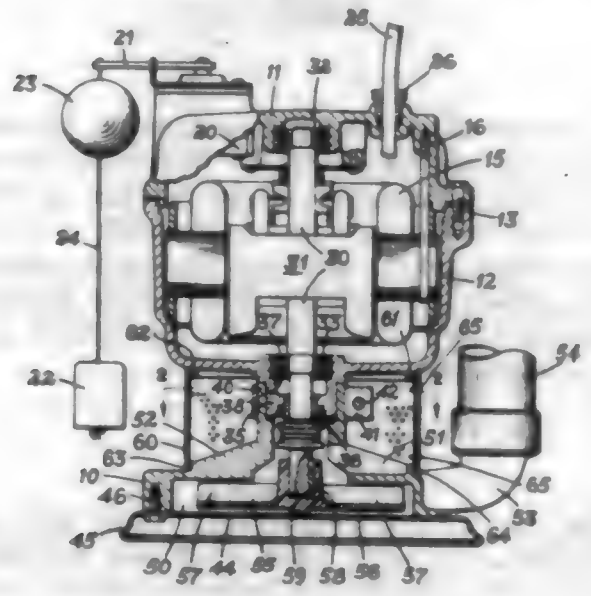
1. In a process for loading and shooting bore holes as in oilwell and mining operations, the steps which include: preparing a slurry of granular unsensitized explosive material in a fluid media; forcing said slurry material into a geologic formation whereby the fissures in said formation filter pack said granular unmprimed explosive allowing the liquid media to pass through; lowering

a string of shaped charges down said bore hole adjacent said filter packed formation; detonating said shaped



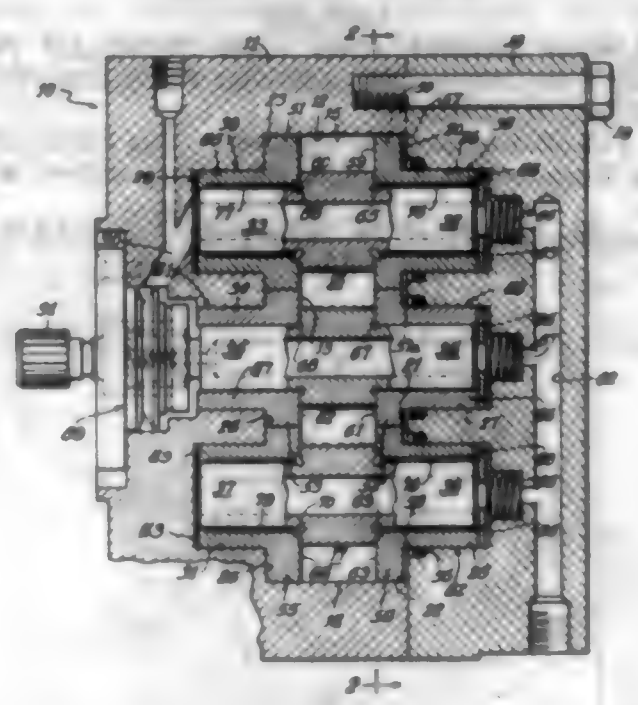
charges causing shock detonation of said explosive material in said geologic formation through intervening barriers.

2,867,173
PUMP
Kenneth R. Lang, Dayton, Ohio, assignor to The Tait Manufacturing Company, a corporation of Ohio
Application April 29, 1955, Serial No. 504,783
2 Claims. (Cl. 103—87)



1. A submersible pump of the character described comprising an impeller housing including a pumping chamber having an inlet in the upper portion of said housing, a substantially water-tight motor casing having motor parts therein including a drive shaft projecting downwardly therefrom, a tubular boss depending from said casing in surrounding relation with said shaft and of substantially smaller diameter than said casing, said impeller housing including a tubular boss extending upwardly therefrom above and radially inwardly of said inlet, said housing boss being split and proportioned to telescope over the lower end of said casing boss, means for releasably clamping said bosses together in telescoped relation to form the entire support for said casing on said housing with said drive shaft extending therethrough into said pumping chamber, said casing having an annular shoulder on the lower end thereof substantially concentric with and of substantially greater diameter than said boss thereon, means forming on said housing a peripheral surface located radially outwardly of said inlet and matching the radially outer peripheral surface of said shoulder in aligned relation therewith, and a tubular perforate screen encircling and seating on said peripheral surfaces to screen solid particles from access to said bosses and to said pumping chamber inlet.

2,867,174
THREE GEAR PRESSURE LOADED PUMP
Henry H. Campbell, East Cleveland, and Frank C. Stanek, Chagrin Falls, Ohio, assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application July 22, 1955, Serial No. 523,884
3 Claims. (Cl. 103—126)

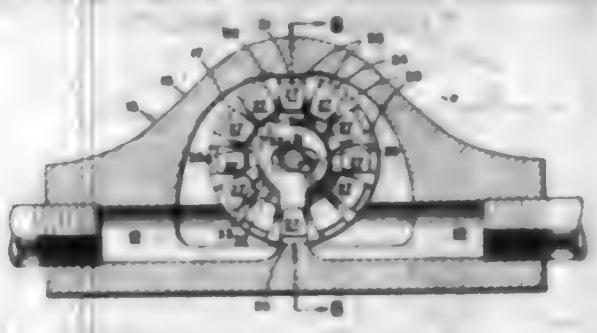


1. A pump device comprising: a housing containing three adjoining substantially cylindrical chambers having radial end walls, said housing also having a pair of high pressure ports and a pair of relatively low pressure ports, one of each pair of ports communicating with one pair of housing chambers and the other of each pair of ports communicating with another pair of housing chambers, a toothed gear member in each of said housing chambers, one pair of which meshes at the juncture of one pair of said housing chambers and another pair of which meshes at the juncture of another pair of said housing chambers; end plate means disposed in each of said chambers and being associated with said gear members; means defining a pair of flat chordal surfaces on one of said end plate means; means defining a flat chordal surface on each of the other end plate means, said end plate means being so disposed that each end plate means has a flat chordal surface thereof cooperating with a flat chordal surface of its adjacent end plate means, said end plate means including front faces cooperable with the adjacent side faces of the associated gear members, said front faces and said side faces constituting pairs of adjacent faces which provide a pumping seal between said gear members and said end plate means, said front faces being subject to the pressures in said housing, at least one of said end plate means also having a back face normally spaced from the adjacent radial end walls of the associated housing chamber and having a portion cooperable with said housing to provide a pressure space at the back of said end plate means; and means establishing communication between the corresponding one of said high pressure ports and said pressure space to subject the back of said end plate means to the pressure in said high pressure port to maintain said pumping seal.

2,867,175
VARIABLE CAPACITY HYDRAULIC PUMP
Juston Waite West, United States Navy
Application April 2, 1953, Serial No. 346,549
6 Claims. (Cl. 103—161)
(Granted under Title 35, U. S. Code (1952), sec. 266)

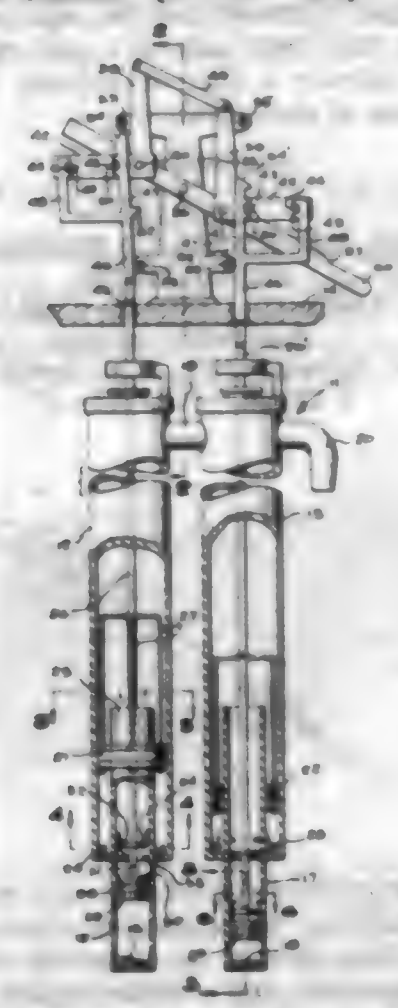
5. In a variable capacity fluid pump having a housing with a compartment defined therein and intake and discharge passages communicating with said compartment,

the combination of an impeller rotatable within said compartment, a drive shaft integral with said impeller to rotate the latter, said impeller including a circular disc and a plurality of circumferentially spaced transverse elongate vanes integral with and extending from said disc to define a plurality of transverse elongate diametrically opposed piston chambers therebetween, a plurality of elongate diametrically opposed pistons radially slidable within said chambers arranged in pairs and rotatable with said impeller, a plurality of rigid flat slotted links integrally connecting opposite pairs of said pistons, a



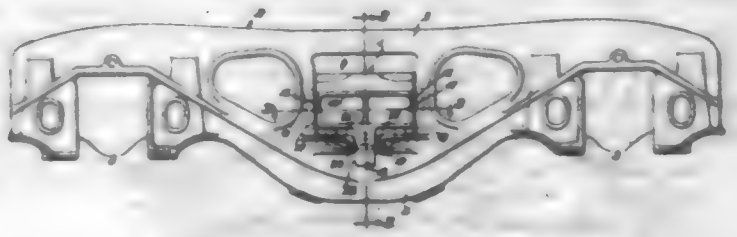
piston displacement adjustment shaft oppositely disposed to said drive shaft mounted for incremental movement between diametrically opposed eccentric positions and passing through the slots of each link so that said links are arranged along said adjustment shaft in adjacent relationship to each other, a pair of circular disc cams disposed upon said adjustment shaft one on each side of said links, the periphery of said cams radially engaging said pistons to maintain their positions around said adjustment shaft and means connecting said adjustable shaft to said housing for adjustably moving said adjustment shaft relative to said housing.

2,867,176
EQUALIZED FLUID PUMP
William H. Porter, Phoenix, Ariz.
Application December 22, 1955, Serial No. 554,725
5 Claims. (Cl. 103—183)



4. In a pump, a pair of stationary vertical cylinders, each having fluid intake means at its lower end and fluid discharge means at its upper end, respective pistons in the cylinders, said pistons having piston rods connected thereto, valve means in the pistons formed and arranged to open when the pistons move downwardly and to close when the pistons move upwardly, a support, a lever pivoted to said support at a point located substantially midway between the axes of the cylinders, respective link members pivotally connected to the piston rods, means drivingly connecting the link members to respective portions of the lever on opposite sides of the pivot connection and being formed and arranged to move the pistons in opposite directions in their cylinders responsive to oscillation of the lever in either direction, each link member being mounted for oscillation toward and away from the pivot connection, said last named means including a pair of upstanding arms on each link member spaced from the pivot connection, one arm being relatively close to the pivot connection and the other arm being relatively far from the pivot connection, respective transverse projections on the lower portions of the opposite sides of the support, respective cam elements on the lower portions of the link members engageable with said projections and formed and arranged to rotate each link member outwardly when its associated piston reaches its lowermost position, means drivingly connecting the upstanding arm of each link member nearest the pivot connection to the lever when the link member is rotated outwardly, respective transverse projections on the opposite sides of the upper portion of the support, respective further cam elements on the upper portions of the link members engageable with said last-named projections and formed and arranged to rotate each link member inwardly when its associated piston reaches its uppermost position, and means drivingly connecting the upstanding arm of each link member furthest from the pivot connection to the lever responsive to inward rotation of the link member.

2,867,177
RAILWAY TRUCK
Emil H. Blattner, Williamsville, N. Y., assignor to The Symington-Gould Corporation, Depew, N. Y., a corporation of Maryland
Application November 23, 1953, Serial No. 393,782
6 Claims. (Cl. 105—203)

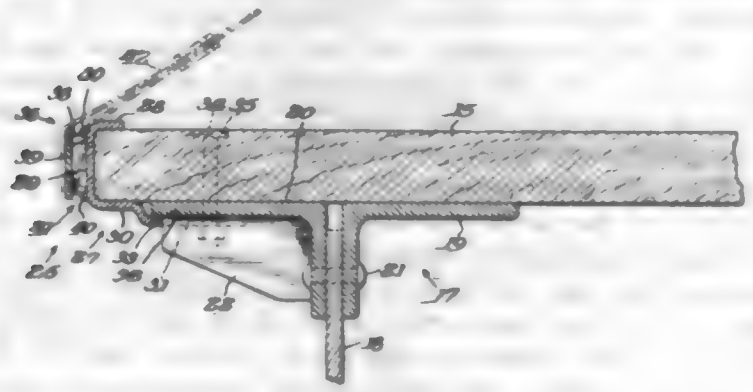


1. In a railway truck having a side frame, a window opening therein and a bolster in said opening, the combination of an arcuate surface on an underside of said bolster and engageable with a bottom of said window opening for rocking of said bolster laterally relative to said side frame, tongue means depending from said bolster, and slot means on said side frame, said tongue means rockably engaging and limited in lateral movement by said slot means for centering said bolster laterally in said window opening while permitting said relative rocking between said bolster and side frame.

2,867,178
LADING STRAP ANCHOR FOR FLAT CARS
Franklin P. Adler, Michigan City, Ind., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application January 11, 1954, Serial No. 403,141
4 Claims. (Cl. 105—369)

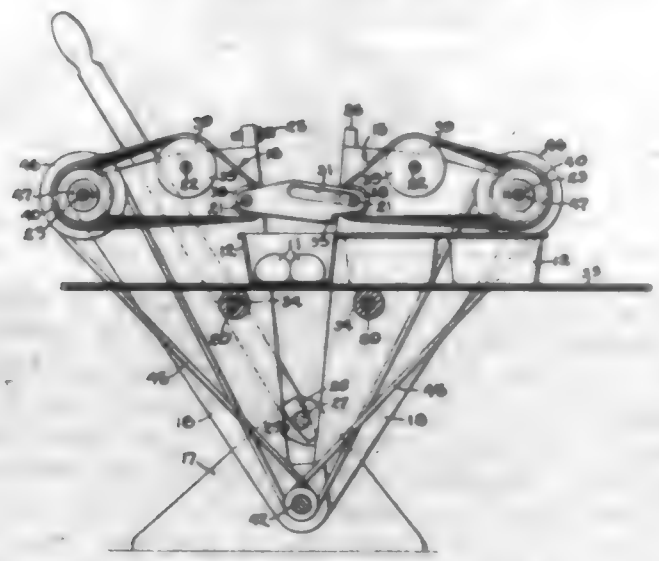
1. In combination with a flat freight hauling vehicle having a floor and a side sill, a guide member and lading

strap anchoring strip assembly comprising a longitudinally extending guide member secured to said floor and said sill and extending out laterally beyond an end surface of said floor, said guide member including a generally upright portion adjacent to and paralleling said end surface of the floor and a bottom edge flange extending inwardly integrally from said upright portion and engaging the lower surface of said floor, and said assembly including also a longitudinally extending anchoring strip extending laterally beyond said upright portion of the guide member and secured thereto at a plurality of lon-



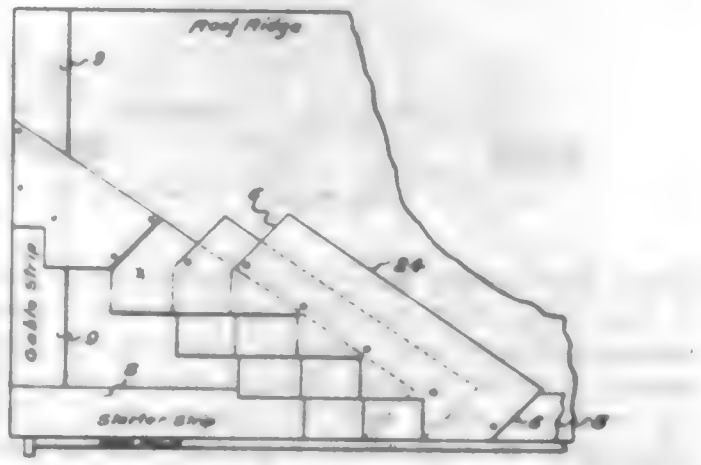
gitudinally spaced locations, said anchoring strip comprising a generally flat elongated plate member disposed in a generally upright plane substantially parallel to the plane of said upright portion of the guide member and having a plurality of short lengths of its upper and lower marginal edge portions extending inwardly at longitudinally spaced intervals forming attachment legs with the ends thereof welded to said upright portion of the guide member thereby spacing from said upright portion flat lengths of the anchoring strip extending lengthwise thereof between said attachment legs to provide a plurality of openings for receiving lading straps.

2,867,179
MACHINE FOR TWISTING AND PANNING BREAD DOUGH
Floyd E. Eyster, Rockford, Ill.
Application May 9, 1956, Serial No. 583,739
16 Claims. (Cl. 107—8)



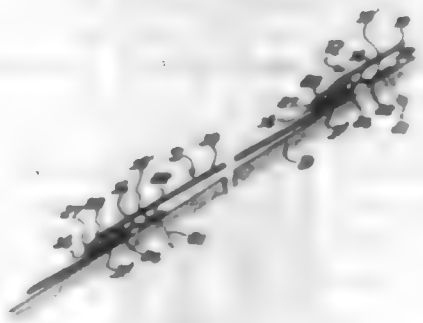
5. In a machine for twisting two elongated strips of dough together, the combination of, a frame, an elongated trough supported on said frame and having two walls diverging upwardly away from each other and each comprising sections disposed adjacent and on opposite sides of the longitudinal center of the trough to engage and support strips to be twisted at points distributed throughout the lengths of the strips, and means on said frame mounting said sections for movement along inclined paths transverse to the trough and advancing the sections of both of said walls on one side of said center in one direction transversely of the trough and the other sections on the other side of the center in the opposite direction, each of said points of engagement on each of said sections having a speed correlated with and greater than the speed of the point nearest said center by an amount proportional to the approximate spacing of the points from the center.

2,867,180
STRIP SHINGLE ROOFING
James L. May, Mobile, Ala.
Application August 9, 1957, Serial No. 677,258
5 Claims. (Cl. 108—7)



2. A shingle roof comprising an eave, a plurality of strip shingles forming rows in diagonal relation to said eave in offset overlapping relationship to each other, each shingle having a plurality of teeth with a long and a short side, the long sides of said teeth being substantially parallel to said eave, each of said strip shingles having a rear strip edge and left and right parallel straight side edges, said left strip side edge forming with said rear edge an obtuse angle and said right strip side edge forming with said rear edge an acute angle, each of said strips having fastening means comprising nails located immediately above and to the right of the apex of the right angle formed by the long side and short side of a pair of adjacent teeth whereby to provide a line of holding force extending across the base of each tooth.

2,867,181
INDIVIDUAL SHINGLE AND ROOFING FORMED THEREWITH
Lewis B. Ashbaugh, Compton, Calif., assignor to Paul Sutro, in trust
Application November 30, 1953, Serial No. 394,999
1 Claim. (Cl. 108—17)

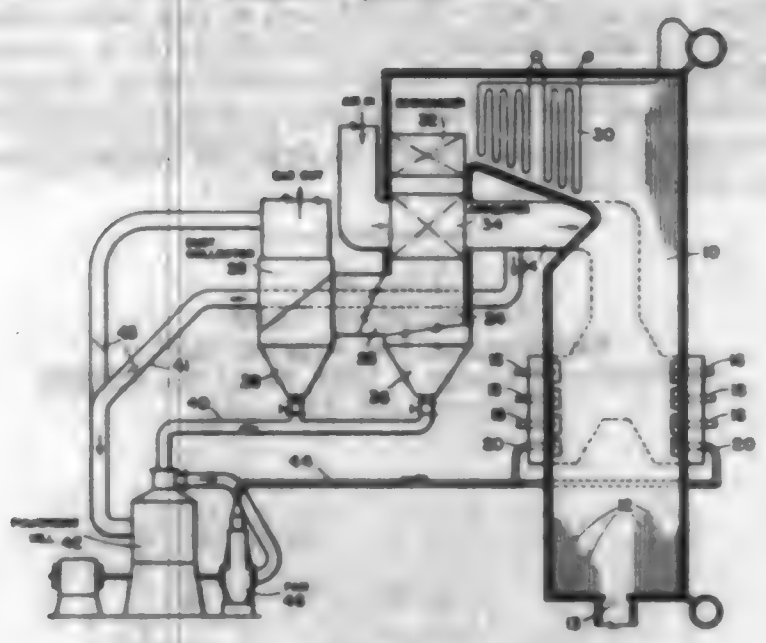


A joint interposed between first and second adjoining shingles comprising: an upstanding rib formed along an edge of said first shingle; an elongated resilient strip of waterproof material; and a folded-under flange formed along the edge of said second shingle gripping a portion of the width of said strip with the remaining portion of the width of said strip being unconfined and with said unconfined portion of said strip abutting said rib.

2,867,182
METHOD OF BURNING GRANULAR LOW VOLATILE FUELS

Joe Crites, Larchmont, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application April 26, 1954, Serial No. 425,639
9 Claims. (Cl. 110—28)

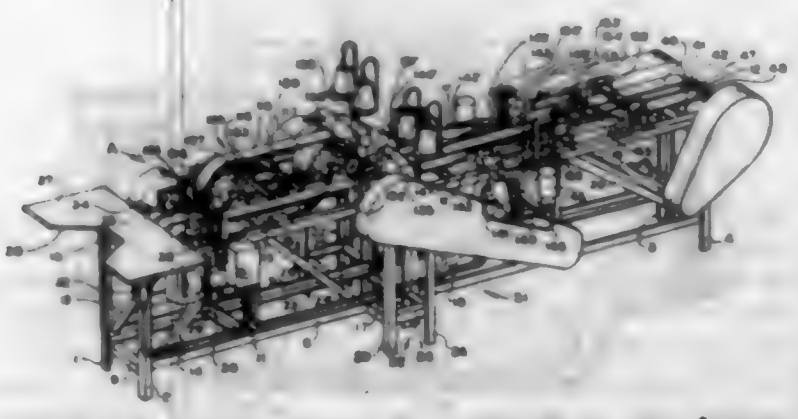


1. The method of burning in suspension in a furnace a granular carbonaceous fuel that is of such coarseness and has such a low percentage of volatile matter that it is incapable of self-sustaining ignition when suspension firing is employed, comprising injecting and burning in suspenson in said furnace a fuel capable of self-sustaining ignition, simultaneously injecting the low volatile fuel into the furnace in such intimate relation to said burning fuel as to cause ignition and burning in suspension of a portion of the same therewithin, collecting the unburned low volatile fuel portions that pass from the furnace entrained in the combustion gases, pulverizing the fuel portions thus collected and reintroducing the thus pulverized fuel into the furnace generally at the location of the burning fuel and burning the same in suspension therewithin.

2,867,183
MACHINES FOR MAKING VACUUM CLEANER BAGS

Arthur P. Klasing, Webster Groves, Mo., assignor to Central States Paper & Bag Co., St. Louis, Mo., a corporation of Missouri

Application December 12, 1957, Serial No. 702,368
13 Claims. (Cl. 112—10)

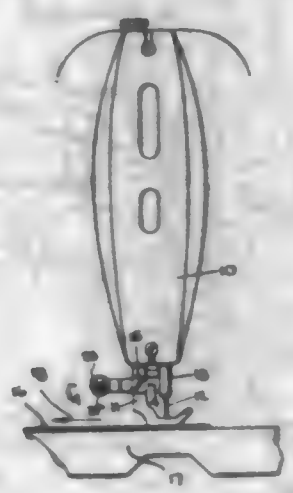


1. An automatic machine for making bags out of open-ended flat tubular bag-blanks; said machine comprising a relatively long straight line conveyor having a plurality of spaced pushers for engaging the longitudinal margins of the bag-blank, means for folding the bag-blank intermediate the ends to form lap seams therein, means for securing the folded over portions together to close the lap-seams, means for applying a cardboard patch to a side wall of the bag-blank, means for stitching the ends of the bag-blank to close same, means for applying covering strips of tape over the stitched ends of the bag-blank, and means for cutting the several bag-blanks apart.

2,867,184
THREAD CUTTER

Herbert J. Klapper, Brooklyn, N. Y., assignor to Superior Sewing Machine & Supply Corporation, New York, N. Y., a corporation of New York

Application March 17, 1958, Serial No. 721,808
1 Claim. (Cl. 112—252)



A thread cutting and holding attachment for a sewing machine comprising a bracket having an arm adapted to be mounted upon the presser foot of said sewing machine so as to extend rearwardly therefrom, an elongated blade having a major blade axis and mounted upon said arm so as to extend transversely of said arm and so as to overlie the path of movement of clothing fed rearwardly under said presser foot during the operation of said sewing machine, said blade having a rear cutting edge extending parallel to said axis, an elongated compression coil spring having a spring axis, and means mounting said compression spring upon said arm with said blade extending through said spring and with the respective axes of said blade and of said spring parallel to each other, said cutting edge being located rearwardly of and above the bottom portion of said compression spring, the spacing and tensioning of the turns of said compression spring being such as to permit thread to be readily drawn frictionally between successive turns of said spring and against said cutting edge for cutting of the thread, and also being such as to normally hold the loose cut thread frictionally between said turns.

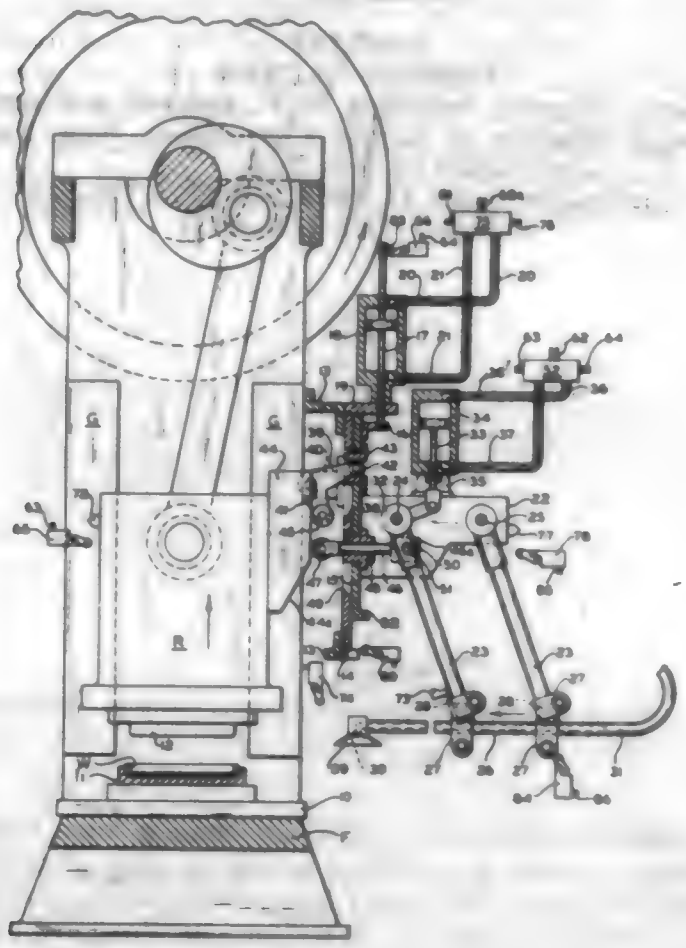
2,867,185
TRANSFER MECHANISM

Charles E. Hayward, Alma, Mich., assignor to The Lobdell-Emery Manufacturing Company, Alma, Mich., a corporation of Michigan

Application December 15, 1955, Serial No. 553,300
7 Claims. (Cl. 113—50)

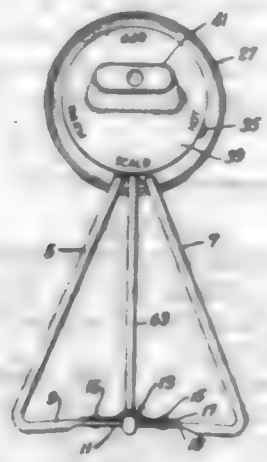
1. In work transfer apparatus for a press or like machine, the combination with the reciprocating ram and stationary frame, including the bed of the machine, of a support reciprocable on said frame parallel to the ram, a work engaging element, at least one pendant arm pivotally mounted on said support supporting said element, first power actuated means remote from the ram operatively connected to said arm for swinging the arm and moving the element in between the ram and bed and out therefrom, second power actuated means remote from the ram and operatively connected to said reciprocable support for normally moving the latter toward said bed when the element is in between the ram and bed to lower said element, and for returning the support in the opposite direction to raise said element prior to removing it, and means mounted on said frame and connected to said

support so as to be normally moved out of the path of said ram by said first and second power actuated means concurrently with said pendant arm and support by the



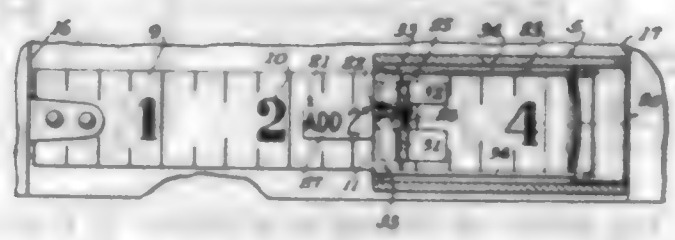
ram on its forming stroke for actuating said reciprocable support and said pendant arm to raise the element and move it out from between the ram and bed in the event the first and second power actuated means fail.

2,867,186
TEMPERATURE ALARM
Earl J. Wells, Comptche, Calif.
Application May 2, 1956, Serial No. 582,120
1 Claim. (Cl. 116—102)



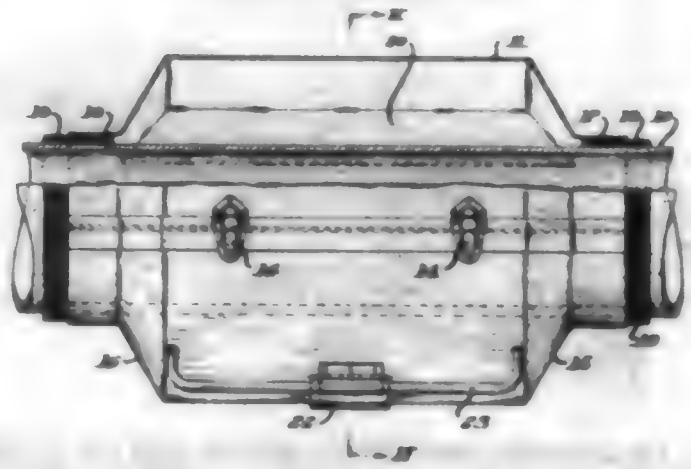
A temperature alarm device comprising: a support consisting essentially of two heavy, wire-like legs and a movable operating rod, a temperature-responsive bimetallic strip supported between the bottoms of said legs and connected to the lower portion of said rod and oriented to increase its downward curvature on the application of heat thereto and thus pull said rod downwardly, one of said legs being bent at its upper end to form a support for a post, the other of said legs being attached to said first leg and flattened to form a support for a flat, spring-like member having a hammer at the end thereof, a bell supported on said post, a dial assembly having an inwardly-extending hub rotatable on said post, and carrying indicia and a central knob outwardly thereof, a cam plate having a striking knob also mounted on said hub, a coil spring wound round the hub, one end thereof fitting into a hole in the cam plate and the other end bearing against said post, said spring being put under tension by winding said knob clockwise, said cam plate having a series of teeth around its periphery arranged in the form of a helix, said operating rod having a pointed upper end engageable with said teeth so that, when pulled down by said bimetallic strip, said coil spring is released to cause said cam to rotate in counterclockwise direction causing said striking knob to strike said spring-like member thus causing said hammer to strike the bell to produce an audible warning.

2,867,187
MEASURING TAPE
Earl Huggins, Los Angeles, Calif.
Application February 3, 1958, Serial No. 712,965
7 Claims. (Cl. 116—132)



1. In a measuring tape having a housing provided with an opening and a wound-up tape disposed in said housing and adapted to have its end drawn outward through said opening to measure, the improvement that comprises, a normally-retracted telltale carried by the housing adjacent said opening, and means carried by the housing and connected to the telltale and operable to move the latter to extended position superimposed over the tape at the point of its egress from the housing, said telltale being provided with indicia advising the addition of the width of the housing to the measurement shown at said point of egress for all inside measurements.

2,867,188
METHODS AND APPARATUS FOR COATING PIPE AND THE LIKE
Ruben H. Kuxhaus, Ponca City, Okla., assignor to Reynolds Laboratories, Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application February 12, 1954, Serial No. 409,817
4 Claims. (Cl. 118—108)



1. A pipe coating apparatus comprising a sleeve adapted to be placed around and spaced radially from the walls of the pipe to be coated, said sleeve being reduced at each end to form an annular flange spaced slightly from the walls of the pipe, baffle means in said sleeve extending lengthwise thereof over substantially the entire length and radially inwardly to a point adjacent

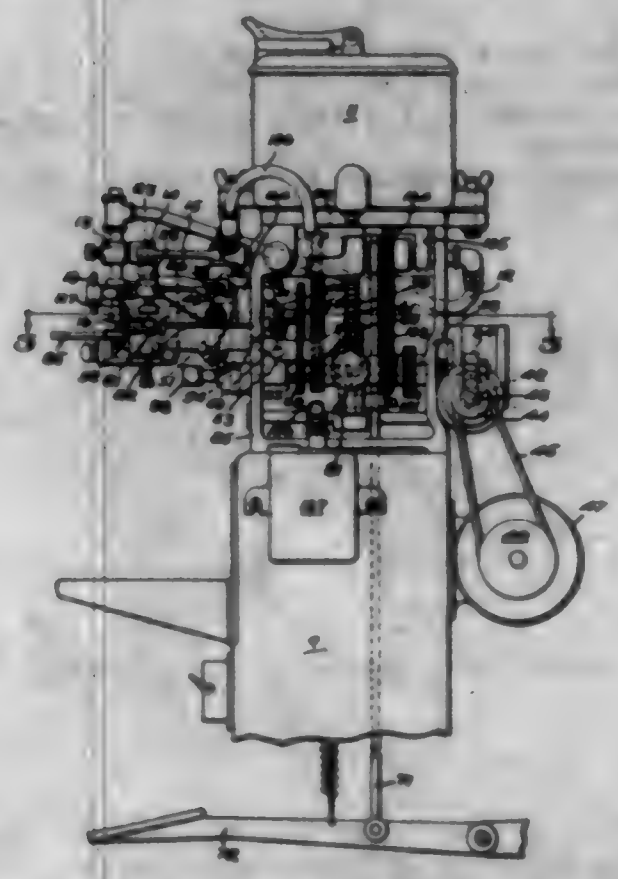
the pipe walls and resilient spreader means on each annular flange portion and engaging the pipe walls to be coated, said resilient spreader means having a multiplicity of inwardly extending filaments in engagement with the pipe surface to be coated.

2,867,139

ADHESIVE APPLYING MACHINE

Fred Dawson, West Roxbury, Mass., assignor to Compo Shoe Machinery Corporation, Boston, Mass., a corporation of Delaware

Application September 28, 1954, Serial No. 457,088
3 Claims. (Cl. 118—409)



2. In a machine for applying adhesives to shoe soles and having upper and lower feed rolls for rotating a sole, and having means for raising the lower feed roll for engaging a sole between said feed rolls, the combination of means for adjusting said raising means for varying the distance said lower roll is raised for permitting soles having different thicknesses and hardnesses to be engaged by said rolls, said adjusting means comprising a manually operated control knob, a cam connected to said knob, a cam follower for said cam, and resilient means connecting said cam follower to said raising means.

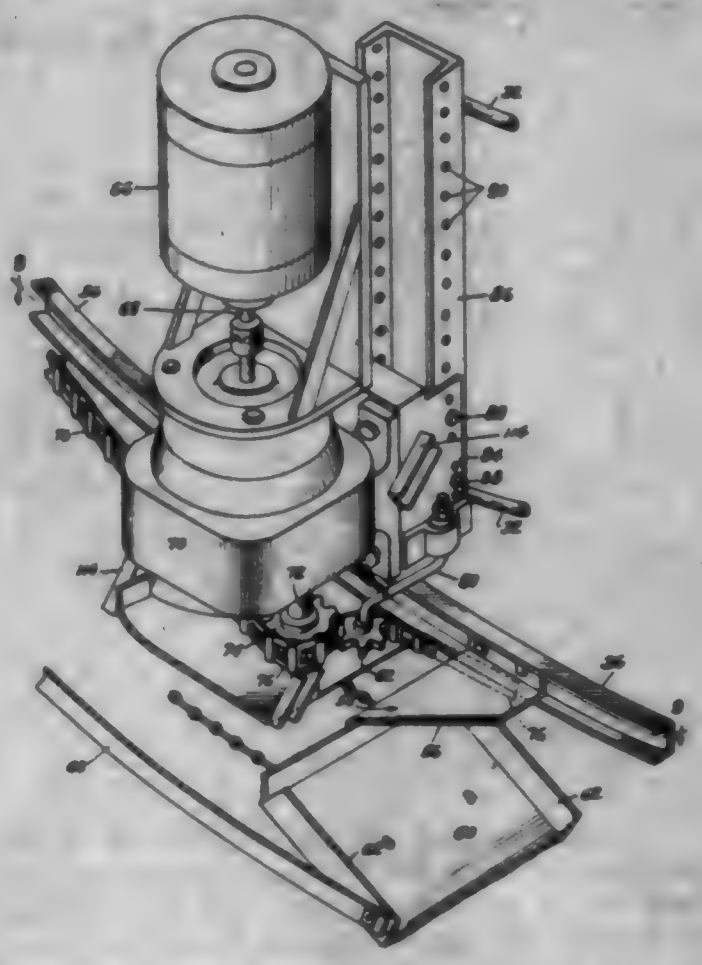
2,867,150

SILAGE DISTRIBUTOR

Donald Rutten, Plainfield, Ill., assignor to Rallec Company, a corporation of Illinois

Application July 16, 1956, Serial No. 598,106
7 Claims. (Cl. 119—52)

1. The combination with a circular silo having a vertical chute along one wall of the same, doors opening into said chute, a shallow stationary trough around the periphery of said silo at its base and a pair of circular hoops encircling said silo above said trough of, a plurality of vertical support members spaced around said silo and carried by said hoops, rollers carried by said support members in horizontal alignment around said silo, said rollers having peripheral top and bottom edge flanges, a ring member carried by said rollers between their edge flanges, downwardly depending scoops connected to said ring member and means for rotating said ring member, said ring member being channel shaped, said means comprising an encircling chain frictionally engaging against the vertical leg of said channel member, and a motor for driving said chain, said motor vertically disposed above said ring member and having a sprocket



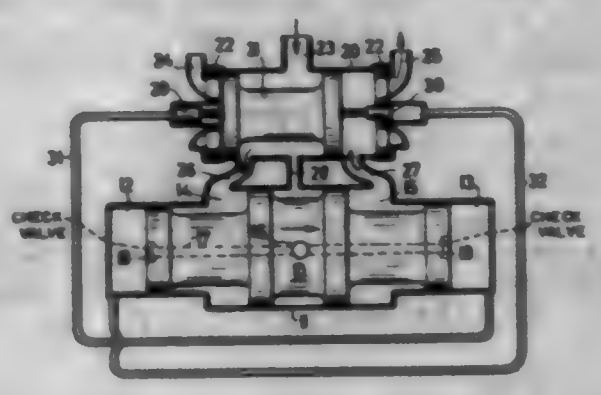
engaging said chain, said ring member, chain and motor vertically adjustable on said support members.

2,867,151

FREE PISTON VIBRATORS

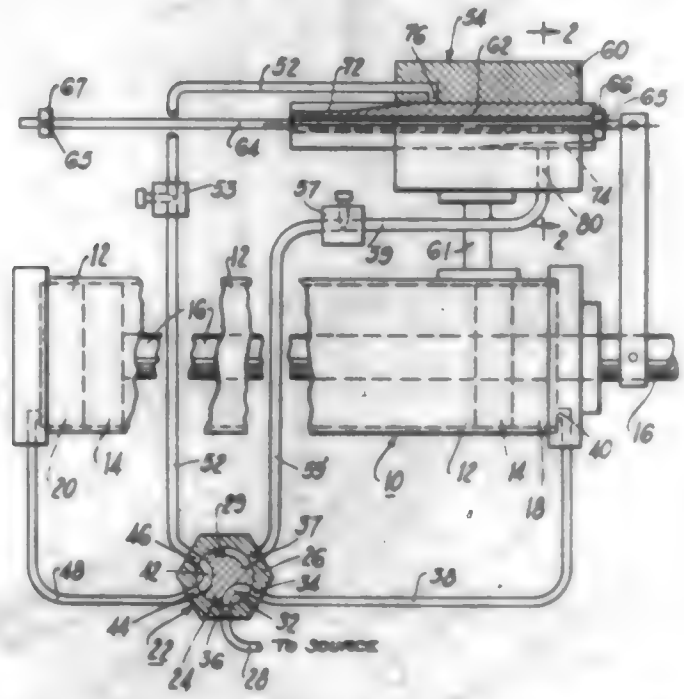
Helmut Herrmann, Lunen-Altlunen, Germany, assignor to Gewerkschaft Eisenhütte Westfalia, Wethmar, near Lunen, Westphalia, Germany, a German corporation

Application July 23, 1956, Serial No. 599,559
Claims priority, application Germany August 1, 1955
19 Claims. (Cl. 121—17)



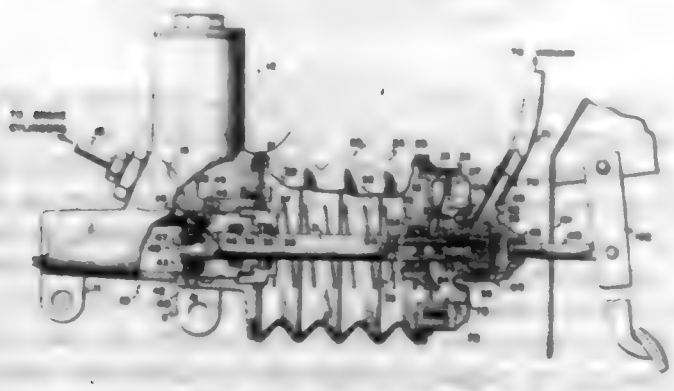
1. Free piston vibrator comprising a cylinder, a double-ended piston freely movable back and forth in said cylinder, a cylinder head at each end of the cylinder forming an extension of the cylinder, a piston extension on each end of said piston extending into in substantially fluid-tight engagement with the walls of said cylinder heads, said cylinder heads defining gas cushions for said piston extensions limiting the travel of said piston in each direction, means for passing compressed gas into said cylinder on one side of said piston between said piston and piston extension for moving said piston in one direction and on the other side of said piston between said piston and piston extension for moving said piston in the other direction and means controlled by pressure variations in said gas cushions for reversing the flow of compressed gas from one side of said piston to the other.

2,867,192
STAGE MOTOR
John H. Ettinger and Kenneth V. Emerick, South Bend, Ind., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application October 10, 1955, Serial No. 539,492
2 Claims. (Cl. 121—38)



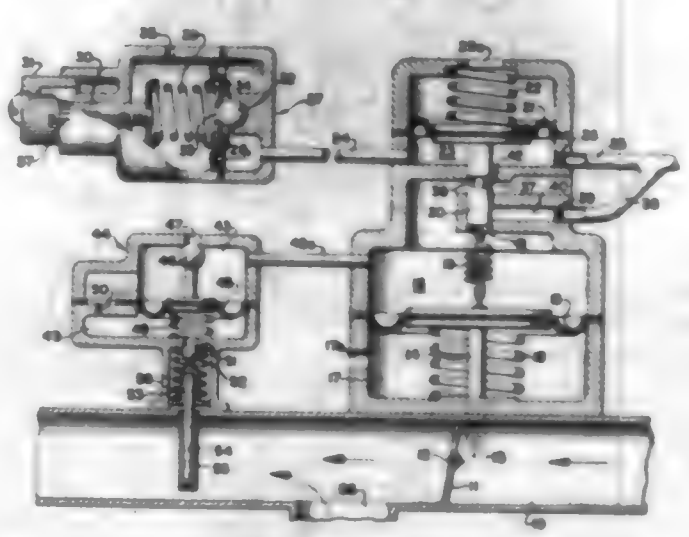
1. A valve adapted to control the rate of flow of power fluid from a fluid pressure motor and thereby control the mode of movement of the power element of said motor, said valve including a fixed member having a valve member receiving opening therein and also having two power fluid controlling ports therein, a movable valve member reciprocably mounted within said opening and serving, depending upon its position with respect to the fixed valve member, to control the rate of flow of power fluid through one or the other of said ports, and means for actuating the movable valve member to effect the latter control operation including force transmitting means adapted to interconnect the power element of the aforementioned motor with the movable valve member said force transmitting means including a rod reciprocably mounted within the latter valve member, and thrust members secured to said rod and operable, with a movement of the rod, to contact the movable valve member with the operation of the valve.

2,867,193
POWER MECHANISM
David T. Ayers, Jr., Birmingham, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application February 15, 1955, Serial No. 488,217
17 Claims. (Cl. 121—41)



1. A power mechanism comprising an axially elongated bearing, a plunger slidable in said bearing, a motor comprising a stationary head fixed with respect to said bearing, a movable head supported solely by said plunger and spaced from said stationary head, and a bellows connected between said heads and forming therewith a motor chamber, a follow-up control valve mechanism having fluid connection with said motor chamber and with the atmosphere and a source of vacuum, said follow-up control valve mechanism comprising a pair of valve elements relatively movable axially of said plunger, one valve element being carried by said plunger, means having mechanical engagement with said plunger and with said movable head and with the other of said valve elements for delivering power from said other valve element and said movable head to said plunger, and a pedal connected to the other valve element to move it with respect to said one valve element to disconnect said motor from the atmosphere and connect it to said source.

2,867,194
PNEUMATIC REMOTE POSITION ACTUATOR
Raymond W. Jensen, Phoenix, Ariz., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application September 2, 1955, Serial No. 532,206
9 Claims. (Cl. 121—41)

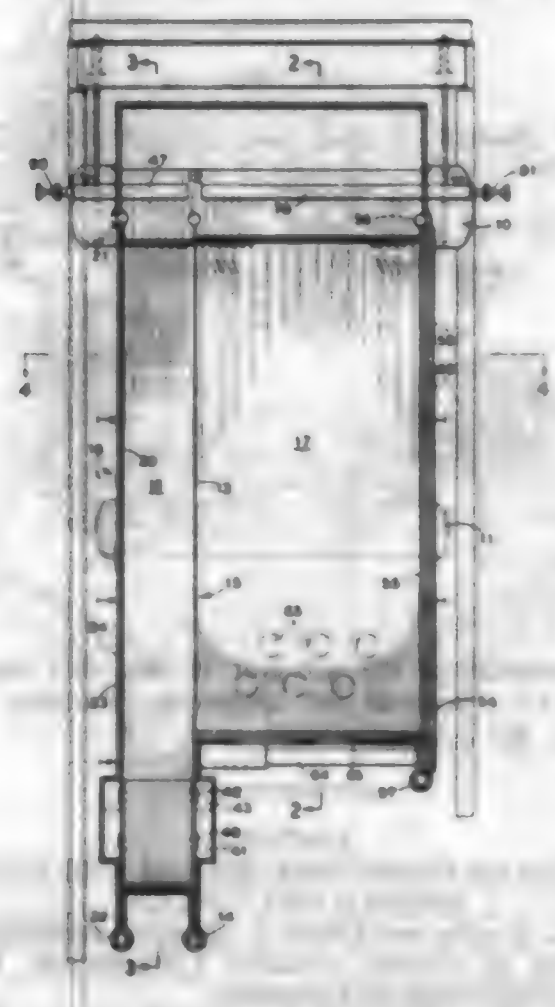


1. In an actuator: a first pneumatic pressure responsive member formed for the transmission of motion to a device to be actuated; a feedback valve disposed for operation by said member; a second pneumatic pressure responsive member operably disposed relative to said feedback valve and co-operating with said first pressure responsive member to operate said feedback valve; pressure regulating means communicating with said second pneumatic pressure responsive means; pressure inlet means, said feedback valve communicating with said pressure inlet means and said first pressure responsive member; and a thermostatically operated bleed-off valve communicating with said first pressure responsive member for varying the pressure thereon independently of said feedback valve.

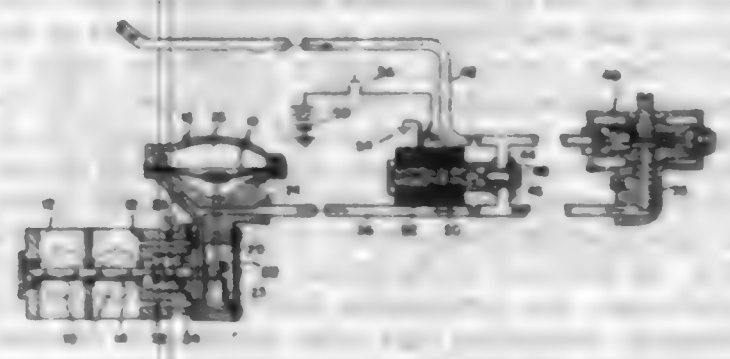
2,867,195
APPARATUS FOR THE RECOVERY OF HEAT AND CHEMICALS
Edwin J. Hanck, Fair Lawn, N. J., and Stanley Soda, Astoria, N. Y., assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New York
Application May 9, 1955, Serial No. 506,856
5 Claims. (Cl. 122—248)

1. A vapor generator comprising upper and lower drums, fluid cooled means defining a combustion chamber and a convection gas-pass, a common fluid cooled imperforate division wall separating said combustion chamber and convection gas-pass into separate gas-passes through said vapor generator, at least a portion of said division wall being subjected to heat on both sides thereof, means in one of said furnaces for the incineration of residual liquor and the recovery of chemicals in molten form therefrom, means in the second of said furnaces for the combustion of a fluent fuel for the generation of high temperature heating gases, banks of widely spaced fluid

heating tubes positioned in the convection gas-pass of said first furnace, banks of relatively closely spaced fluid heating tubes positioned in the convection gas-pass of said second furnace, separate superheaters positioned in the separate gas-passes, means for introducing vapor separately into said superheaters from said upper drum, and means for separately discharging the superheated vapor from said superheaters whereby the vapor generator can be operated as a chemical recovery unit and produce more steam than obtainable from the incineration of the residual liquor alone without altering the efficiency of chemical recovery.

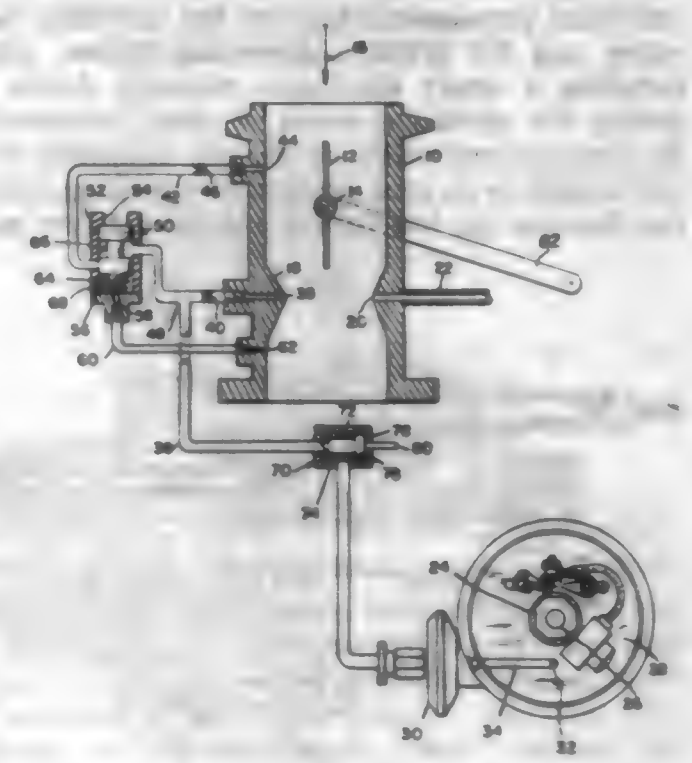


2,867,196
ENGINE GOVERNOR MECHANISM
Joseph E. Francis, Utica, Mich., assignor to Holley Carburetor Company, Van Dyke, Mich., a corporation of Michigan
Application January 28, 1957, Serial No. 636,752
4 Claims. (Cl. 123—103)



1. Engine speed control mechanism for an internal combustion engine comprising an engine throttle, a fluid motor connected to said throttle to close said throttle, means for supplying manifold vacuum to said motor to actuate said motor, a bleed passage connected to said motor to prevent operation of said motor, a control valve in said bleed passage, engine speed responsive centrifugal means for closing said control valve at a predetermined engine speed to cause throttle closing operation of said motor, a bypass passage around said control valve, a by-pass valve in said bypass passage, and manually controlled means for actuating said bypass valve to render said control valve ineffective to control said motor.

2,867,197
IGNITION CONTROL FOR AN INTERNAL COMBUSTION ENGINE
William E. McCollough, Detroit, Mich., assignor to Holley Carburetor Company, Van Dyke, Mich., a corporation of Michigan
Application February 11, 1957, Serial No. 639,319
6 Claims. (Cl. 123—117)

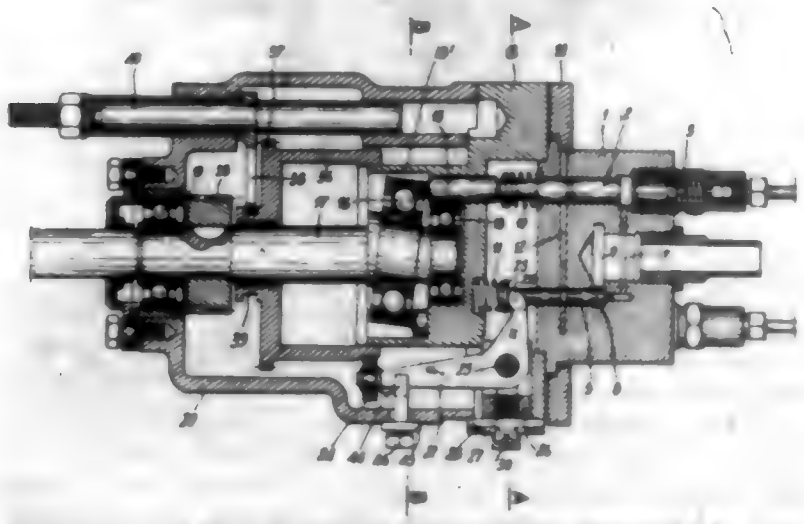


6. An internal combustion engine having an air supply passage provided with a venturi therein, a fuel inlet at the throat of said venturi, a throttle plate in said passage upstream from said venturi, an ignition distributor including a pressure responsive motor for adjusting said distributor, a pressure passage connecting said motor to the throat of said venturi, a first calibrated restriction in said pressure passage, a bleed passage connecting a portion of said pressure passage between said first restriction and said motor to atmosphere, a second calibrated restriction in said bleed passage, valve means located in said bleed passage and responsive to pressure in said air supply passage downstream from said venturi effective to regulate air flow through said bleed passage, an idle valve in said pressure passage, and mechanical means actuated automatically by the operator upon moving the throttle plate to idling position to close said idle valve.

2,867,198
METHODS OF REGULATING POWER OUTPUT IN INTERNAL COMBUSTION ENGINES
Lucien Péras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France
Application June 30, 1955, Serial No. 519,149
Claims priority, application France December 23, 1954
5 Claims. (Cl. 123—139)

1. In a solid fuel injection pump for use in a pump-injection fluid system of a multi-cycle internal combustion piston engine, in combination, means comprising individual discharge connections from the pump to the individual cylinders for connecting individual fluid conduits thereto for providing individual fluid paths from the pump to associated individual cylinders of the engine, for each fluid path a normally closed delivery valve automatically operable to an open position when a predetermined fuel discharge pressure is applied to the individual delivery valves upstream thereof and automatically operable to a closed position when the discharge

pressure is less than said predetermined pressure, each individual delivery valve being disposed upstream of an associated discharge connection, means including pressure generating means to deliver intermittently a constant volume of fuel under pressure to the delivery valves individually for effecting injections of fuel of constant volume into the cylinders individually, means for variably controlling the fuel injections to the cylinders comprising a plurality of admission valves biased to a closed position, means defining a plurality of individual passageways providing communication between the admission valves individually and the fuel system, means defining individual passageways between the individual admission valves and the pressure generating means, and means including a rotary distributor rotatably driven for operating the admission valves in timed relationship with the pressure generating means, and to operate the valves individually to an open position for providing communication between the fuel system and the pressure generating



means and for operating the valves to a closed position for permitting the pressure generating means to deliver fuel under pressure to the delivery valves only during closure of the individual admission valves, the rotary distributor having camming means to maintain a variable number of admission valves in open position during a predetermined number of cycles thereby to interrupt fuel injections to a variable number of cylinders during a predetermined number of cycles to vary the power output of the engine in correspondence to a mathematical fraction representative of the power output of the engine in which the numerator is equal to the total number of fuel injections effected during a predetermined number of cycles which is equal to the denominator of said fraction.

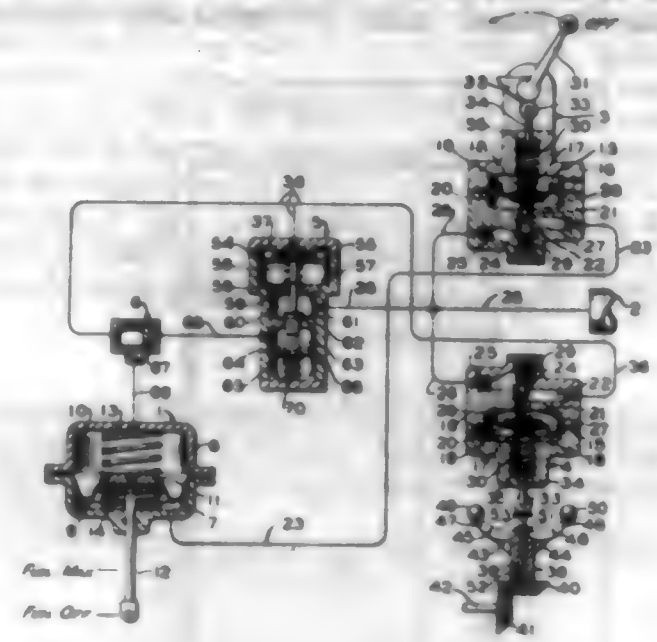
2,867,199

GOVERNOR CONTROL APPARATUS

Edward L. Holbrook, East McKeesport, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application October 16, 1956, Serial No. 616,336
10 Claims. (Cl. 123—140)

1. Governor apparatus for the fuel control device of a variable speed engine, said apparatus comprising a double-acting actuator for the fuel control device operative responsively, according as the one or the other of two opposing fluid pressures predominates, in a fuel increasing direction or in a fuel decreasing direction, respectively, and operative to maintain a given fuel supply position of the fuel control device when the said pressures are in substantial equilibrium; operator-controlled valve means for controlling the said one pressure to select a desired speed of the engine; valve means operative responsively to engine speed for controlling the said other pressure in accordance with the actual engine speed; and means responsive to reduction of one of the opposing pressures below a certain low value for altering the relation of the pressures acting in said actuator so as to



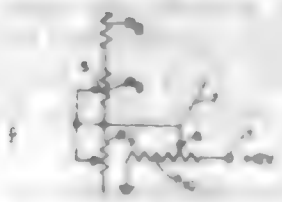
cause operation of the actuator in said fuel decreasing direction to a position for completely shutting off fuel supply to the engine.

2,867,200

AUXILIARY CONTROL MEANS FOR PULSE PRODUCING CIRCUIT

William L. Gryder and Glenn L. Haugen, Baltimore, Md., assignors to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware

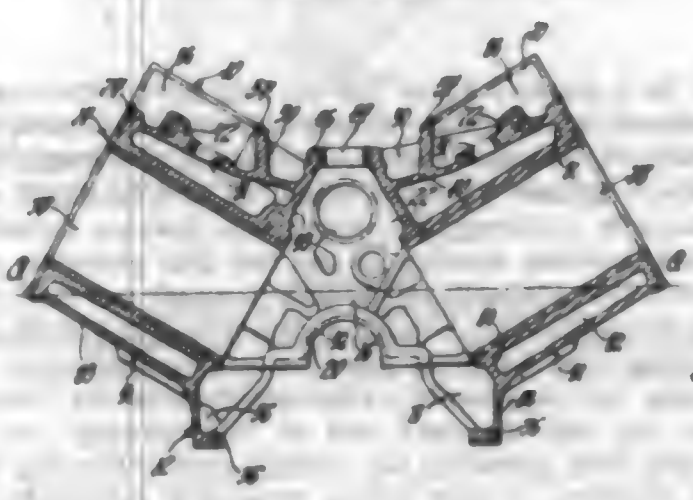
Application March 20, 1957, Serial No. 647,397
6 Claims. (Cl. 123—179)



4. In a dual channel pulse producing system for producing a pair of pulse trains with the pulses of said trains occurring in alternation, said system forming part of a fuel injection system for an internal combustion engine wherein said pulses individually actuate respective valves of said fuel injection system, said pulse producing system comprising a pair of monostable multivibrators and means triggering said multivibrators in alternation, each of said multivibrators comprising a pair of amplifying stages, regenerative feedback means coupling said stages, capacitive means coupling the output of a first of said stages to the input of the second, a resistive discharge circuit for said capacitive coupling means, and means variably biasing said capacitive coupling means to provide a first control of the duration of the pulses of the output of said multivibrator: the combination therewith of means for additionally controlling said pulse duration to automatically increase said duration as a function of the temperature existing at the manifold of said engine and to further increase said duration by a fixed amount in response to the completion of the starting circuit of said engine, the last named means comprising a potentiometer connected to said discharge circuit in a manner to vary the discharge time thereof as the setting of said potentiometer is varied, an element reciprocable along a certain path, means connecting said element and said potentiometer whereby the setting of said potentiometer is varied by movement of said element along said path, temperature deformable means connecting said element to a fixed point at said

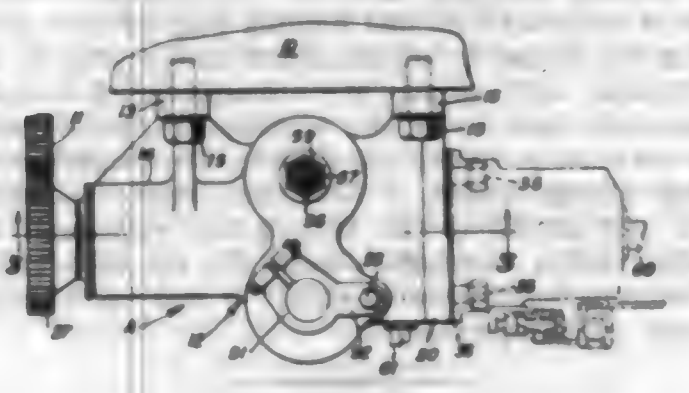
manifold and operable with change of temperature within a given range to variably position said element along a portion of said path, and a solenoid operable on said element when said starting circuit is completed to move said element along the remainder of said path.

2,867,201
CYLINDER BLOCK
John Dolza, Davisburg, and John B. Burnell, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 28, 1954, Serial No. 465,296
5 Claims. (Cl. 123—195)



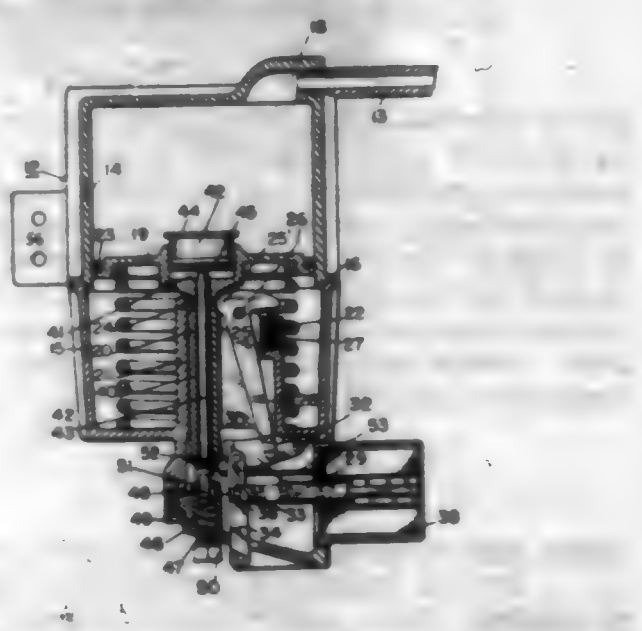
1. An engine block comprising a body having substantially oppositely disposed rows of cylinders formed therein on intersecting planes and having exterior surfaces formed thereon on opposite sides of a reference plane intersecting said body and the axes of said cylinders, each one of said exterior surfaces being formed to provide equal or decreasing increments of surface as that exterior surface extends from said reference plane so that no portion of that exterior surface overlies any other portion of said exterior surfaces in a direction perpendicular to said reference plane.

2,867,202
INTERNAL COMBUSTION ENGINE ACCESSORY ADAPTER DRIVE UNIT
Joseph Weissenbach, Los Angeles, Calif.
Application February 14, 1955, Serial No. 488,075
3 Claims. (Cl. 123—195)



1. A unitized component assembly for converting a diesel-cycle engine having an auxiliary driving shaft into an engine operating on an Otto-cycle, said unit comprising: a housing adapted to be mounted on a part of the engine structure adjacent said auxiliary driving shaft; a distributor mounted on and supported by said housing and having an operating countershaft extending into the housing; tachometer driving means including a countershaft extending into said housing; a speed responsive engine control governor mounted on and supported by said housing and having an operating shaft extending into said housing adapted to be driven from the auxiliary driving shaft of the engine; and transmission means within said housing forming a driving connection between said governor shaft and said countershafts.

2,867,203
PRE-OILING DEVICE FOR ENGINES
Clarence L. Easton and Joseph R. McClelland, Portland, Oreg.
Application August 6, 1956, Serial No. 602,184
5 Claims. (Cl. 123—196)

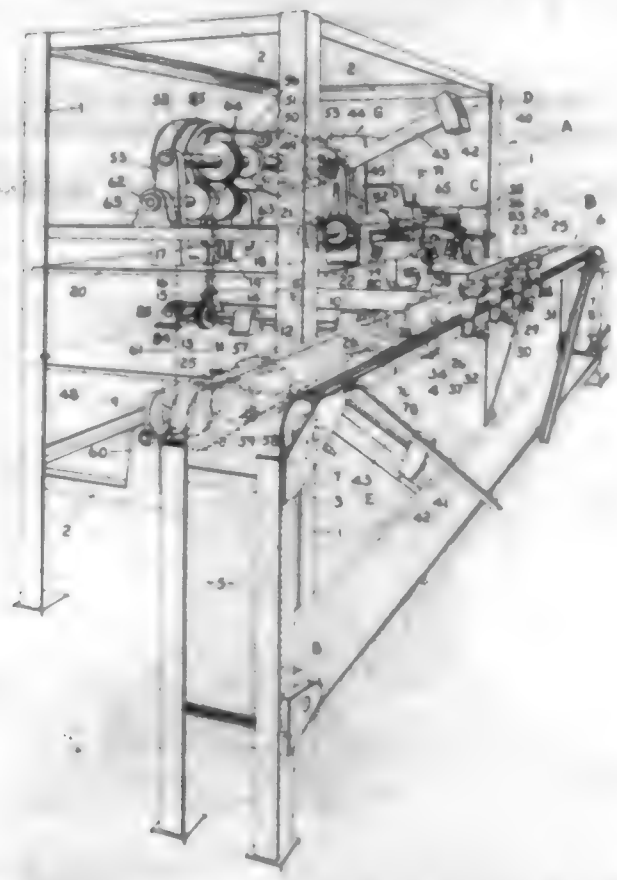


1. In a pre-oiling device for an internal combustion engine having an electrical ignition circuit and a lubricating system with a lubricant pump operated by the engine, a housing mounted adjacent said engine, a lubricant pressure cylinder in said housing, a conduit joining said cylinder with said lubricating system, a piston movable in said cylinder, spring means connected with said piston for moving said piston so as to expel lubricant from said cylinder into said lubricating system, the force exerted by said spring being less than that exerted on said piston in the opposite direction by lubricant from said lubricating system when said pump is operating, spring actuated locking means automatically locking said piston in retracted position when lubricant from said lubricating system thrusts said piston into such retracted position, lock releasing means for releasing said piston to expel lubricant from said cylinder back into said lubricating system when the lubricant pressure is less than the force exerted by said spring on said piston, a solenoid operating said lock releasing means, a circuit for said solenoid, whereby the energizing of said solenoid will result in releasing said locking means, and means carried by said piston and responsive to the lubricant pressure in said cylinder for opening said circuit for said solenoid so as to prevent the energizing of said solenoid when said pump is in operation.

2,867,284
STONE FACERS
Joseph Arvay, Oshawa, Ontario, Canada
Application May 1, 1958, Serial No. 732,227
19 Claims. (Cl. 125—6)

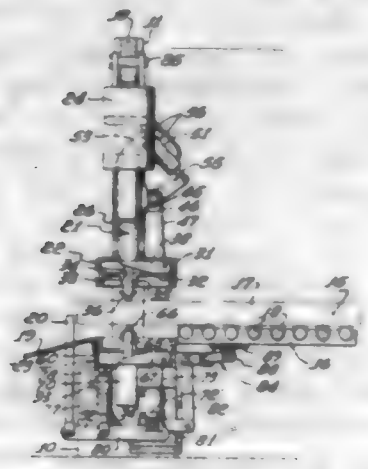
1. A stone facing machine comprising a frame, an intermittently driven conveyor unit for transporting stones with a step-by-step motion, upper and lower chisels, holders on said frame for said chisels and supporting them for reciprocal movements, said holders containing said chisels at suitable angles for chipping opposite edge faces of stones, said chisels having inner cutting edges and outer heads, upper and lower hammers operably mounted on said frame for striking the heads of said chisels, actuator means for said hammers, a power transmission unit for said actuator means, lifters mounted on said frame for raising the respective chisels after a

chipping stroke, means for operating said lifters in timed sequence to said hammers, and a chip disposal belt dis-



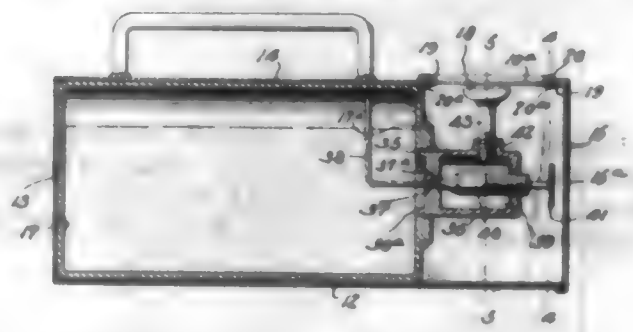
persed transversely of said endless conveyor belt and operating to carry away chips.

2,867,205
STONE SPLITTING MACHINE
George A. Vesper, Costa Mesa, Calif.
Application January 22, 1957, Serial No. 635,306
9 Claims. (Cl. 125—23)



6. In a stone splitting machine having a base, upright columns thereon, a tooth holder on the columns and a tooth holder on the base, and a movable mounting securing one of said holders to the machine, the combination of a vertically actuated tooth mechanism mounted on at least one of the holders, said mechanism comprising a set of separate parallel teeth vertically mounted in the respective holder, a horizontal cam wedge for each tooth having a cam track in camming engagement with the respective tooth, each wedge having a horizontal retaining track, a horizontal square shaft rotatably mounted on the respective holder, means forming a slot in each wedge and a leaf spring for each wedge having one end releasably mounted in the respective slot and the other end secured to one face of said shaft, a lever on said shaft, and a fluid powered ram pivotally secured at one end thereof to the holder and at the other end thereof to the lever whereby to simultaneously force all the teeth into spring pressed engagement with the stones by fluid pressure.

2,867,206
PORTABLE HEATER AND COOKER
Alfredo Mendez, Chicago, Ill.
Application January 7, 1955, Serial No. 480,579
3 Claims. (Cl. 126—38)

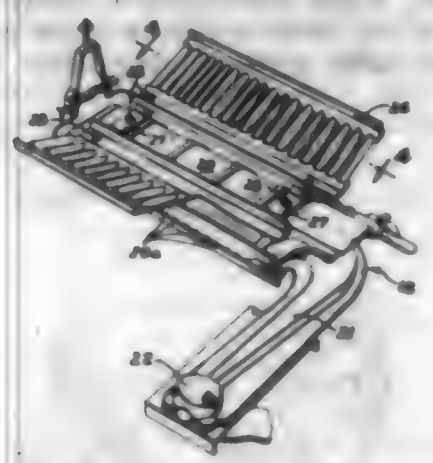


1. In a portable vapor fuel-burning stove providing an elongated substantially cylindrical tank, a casing-like housing of rectangular cross-section and of a length substantially greater than the length of said fuel tank and frictionally receiving the latter, said housing providing a tank-insertion opening at one end and providing top, bottom and side walls in addition to a rear end wall; said rear end wall of the housing constituting a rear tank end-engaging stop to limit insertion of the tank into the housing and to provide a chamber between the forward tank end and the open end of said housing, the top housing wall providing an opening communicating with said chamber, a valve casing removably carried by the forward end of said tank and having communicating fuel inlet and outlet passages of which the former is open to said tank, a valve in said valve casing and controlling the fuel flow to said outlet passage, a control member operatively connected to said valve and located exteriorly of said valve casing, a burner, a burner-supporting fuel supply pipe supported by said valve casing and communicating with said outlet passage, the outer burner-supporting portion of said pipe extending in a direction substantially normal to the axis of said cylindrical tank; at least the valve casing, valve control member and the major portion of said pipe including the burner-adjacent portion thereof being housed in said housing chamber to be protected by adjacent housing walls, the top, side and bottom walls of said housing making tangential frictional engagement with opposed tank wall portions whereby to prevent undesired relative shifting of the tank and housing and to provide upper and lower tank and housing wall defined compartments at each side of the tank and opening into said chamber, the frictional engagement of said fuel tank and housing wall portions maintaining the burner in predetermined relationship to said top housing wall opening, the aforementioned compartments above and below the housing side wall-engaging tank portions providing pigeon-hole like implement-receiving storage spaces, a heat user support extending above and carried by the housing top wall about said opening, and a ventilated closure for the open end of said housing and providing access to said valve control member and compartments.

2,867,207
HEAT RADIATING MEANS FOR BROILER BURNERS
John R. Fulmer, Kankakee, Ill., assignor to Geo. D. Roper Corporation
Application March 8, 1954, Serial No. 414,740
3 Claims. (Cl. 126—41)

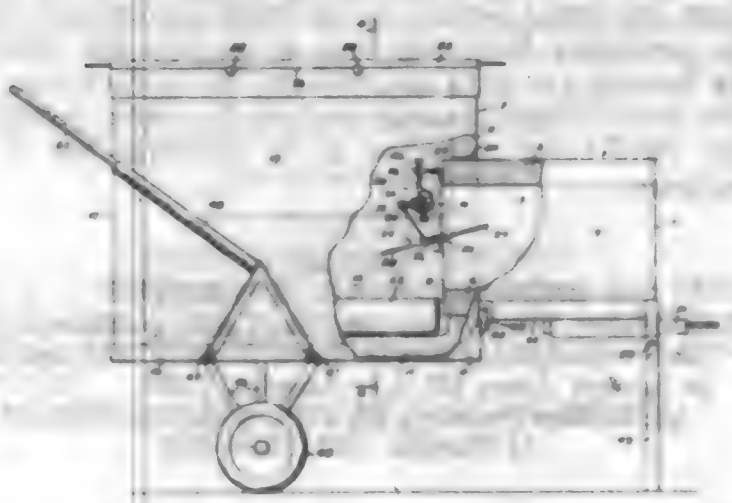
3. For use as an attachment in a broiler oven having a top flue opening and having a horizontally disposed burner with flame ports opening substantially horizontally along one side, the combination of a heat radiating wing of sheet metal having a series of longitudinally spaced louvers formed by inclined metal fins, and a bracket for attaching said wing to the burner with the fins inclined

toward the flue opening and in superposed relation to the ports to be licked by flames emanating from the latter,



said wing thereby being heated to radiate heat downwardly while gaseous products of combustion from the flames pass freely through said louvers toward the flue opening.

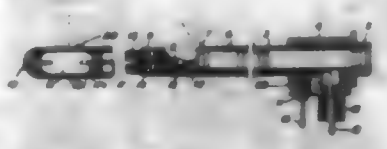
2,867,208
PORTABLE BARBECUE
Harry True and Gordon Douglas Brown, Vallejo, Calif.
Application May 21, 1954, Serial No. 431,463
2 Claims. (Cl. 126—276)



1. A portable barbecue consisting of a separate oven unit in form of a box having a bottom, side walls, a front wall, a rear wall and an open top, a separate firebox unit having an open front and rear ends, a bottom, a top and side walls, said front wall of the oven having an opening therein into which the rear end of said firebox is placed; a damper carried by the rear end of said firebox, a thermostatic control attached to the rear end of said firebox and located in the oven, said control being operatively connected with said damper for opening and closing the rear end of said firebox upon a decrease or increase respectively of the oven temperature and thereby maintaining a preselected temperature in the oven; a grill for supporting food to be cooked secured in the open top of the oven, and a frame for supporting said oven and the firebox in proper relation.

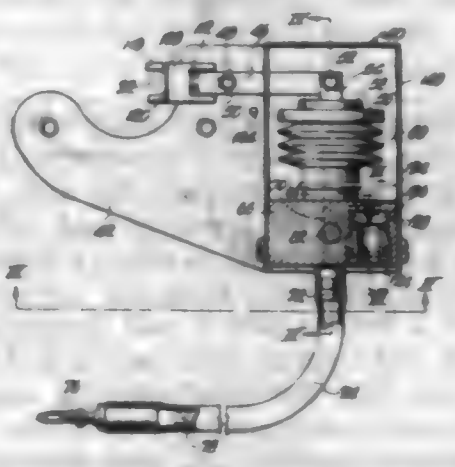
2,867,209
ENDOSCOPIC DEVICES
André Gabriel François Fourés, Paris, Jean René Marie Girard, Boulogne-Billancourt, and Robert Louis Marie de Montard, Paris, France, assignors to Societe Francaise de Construction d'Appareils Medicaux, Paris, France
Application April 16, 1956, Serial No. 578,524
Claims priority, application France May 4, 1955
11 Claims. (Cl. 128—6)

1. A device for endoscopic purposes and the like comprising in combination, a single endoscopic probe to be introduced into the cavity to be inspected, and containing within a unitary hollow elongated housing a miniaturized flash tube, a low-voltage inspection lamp and an optical lens system retransmitting to the open end of the probe any light flux picked up from the said cavity, a photographic camera receiving upon its objective the said light flux from the probe and a voltage generator for supplying of both the said flash tube and inspection lamp within the probe, the said flash tube and the inspection lamp being placed in registry with respective windows



cut in the metallic housing of the probe and each having a terminal connected to the said housing to which an electrical ground is applied, and the external activation control electrode of the flash tube also being connected to the said metallic housing, each further terminal of the flash tube and inspection lamp being supplied through an electrical insulated wire running to an input sealed-in connection along the said optical lens system which extends from a window of the said housing to the open end of the probe.

2,867,210
AUTOMATIC CYCLING ATTACHMENT FOR PRESSURE BREATHING THERAPY UNITS
Vivian Ray Bennett, Yucca Valley, Calif., assignor to Bennett Respiration Products, Inc., a corporation of California
Application May 1, 1957, Serial No. 656,377
8 Claims. (Cl. 128—29)

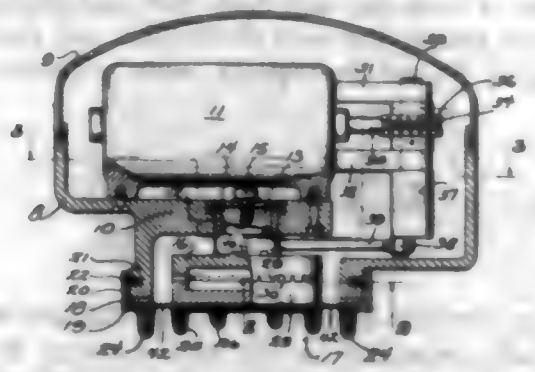


3. In automatic cycling apparatus for use with a respirator unit having a cycling valve provided with an exposed, shiftable, operating element and a hose coupled with the cycling valve and adapted for coupling with a gas administering mask, the combination of: a base; an elongated arm pivotally mounted on the base intermediate its ends; coupling means at one end of the arm adapted for operative engagement with the element for shifting the latter as the arm is moved; a bellows having an open extremity and a closed extremity; structure mounting the bellows adjacent its open extremity upon the base; connecting means at the opposite end of the arm operably coupled with the closed extremity of the bellows for movement of the arm by the bellows as the latter is inflated or deflated; and a fluid carrying conduit coupled with the open extremity of the bellows and adapted to be oppositely coupled with the hose; and a flow control valve interposed in the conduit.

2,867,211
MASSAGER WITH RELATIVELY MOVABLE FINGERS
Alvin W. Hughes, Bensenville, Ill.
Application May 13, 1957, Serial No. 658,861
20 Claims. (Cl. 128—49)

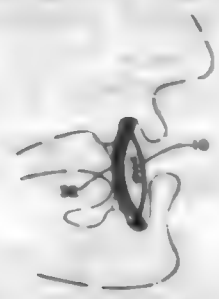
10. In a massager, the combination with a massaging head comprising a flexible web having a plurality of sets

of massaging fingers in inner and outer series, said inner and outer series being laterally spaced on said web, of a plurality of elements connected with said web adjacent



said inner and outer series, and motordriven means for effecting relative movement between said elements whereby to effect lateral movemnt between said series.

2,867,212
SNORE STOPPING MOUTHPIECE AND PROCESS OF MAKING SAME
William A. Nunn, Jr., La Mesa, Calif.
Application December 27, 1957, Serial No. 705,532
3 Claims. (Cl. 128—136)



1. An anti-snoring mouthpiece comprising: a first ovate panel of flexible sheet material dimensionally adapted to be inserted in the mouth between the teeth and the lips; a second panel centrally apertured and peripherally secured to the first ovate panel to define a continuous channel extending substantially along the common periphery of the panels; a flexible tube in said channel and defining a closed loop; and a spring wire loop in said tube directly supporting said tube and thus indirectly supporting said ovate panels along said common periphery; said panels being of inelastic material, and said channel has an internal dimension several times the diameter of said tube, whereby elongation of the ovate panels in the direction of the major axes thereof is inhibited while transverse collapse is made possible, thus permitting the user to close his mouth without uncomfortable projection of the ends of the ovate panels into the cheeks.

2,867,213
FLUTTER VALVE FOR DRAINAGE OF THE PLEURAL CAVITY
Paul A. Thomas, Jr., San Francisco, Calif.
Application June 12, 1957, Serial No. 665,364
2 Claims. (Cl. 128—350)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An apparatus for draining the pleural cavity of a living subject comprising a catheter having an intake end and a discharge end, the intake end of the catheter constructed for insertion directly into the pleural cavity, a one-way valve assembly having an intake portion and an outlet portion, the outlet portion comprising a large diameter first tube and a small diameter second tube integrally attached to it to form a continuous sealed passage, the intake portion comprising a third tube having a small outside diameter part and a large outside diameter part, the large outside diameter part having a flat inclined face, the third tube having a centrally located passageway of uniform diameter, a resilient occluding flap hingedly attached to and covering the flat inclined face of the outside diameter part of the intake portion, the outside diameter part of the intake portion of the valve assembly fitting telescopically inside the large diameter part of the outlet portion to form a seal between the intake and outlet portions, the resilient occluding flap



offering minimal resistance to passage of gas or liquid from the intake portion to the outlet portion and acting to completely block any flow in the opposite direction by forming a positive seal with the flat inclined face, and the small outside diameter part of the intake portion of the valve being connected to the discharge end of the catheter.

2,867,214
SKIN TREATING APPARATUS
John Walter Wilson, Los Angeles, Calif., assignor of one-third to Ralph Leikart II, Santa Barbara, and one-third to Samuel Ayres III, Los Angeles, Calif.
Application February 14, 1956, Serial No. 565,325
12 Claims. (Cl. 128—355)

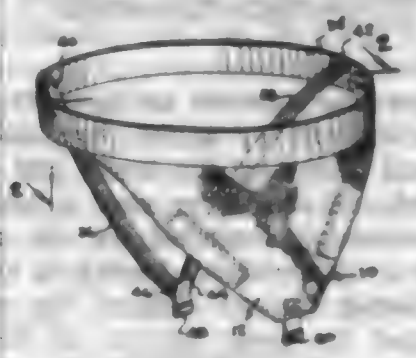


5. An abrasive device comprising a handle member, a pair of concentrically arranged shafts extending longitudinally of the handle member, means for driving said shafts in opposite directions, brush members located in adjacent planes individual to said shafts and a shield supported from said handle member and enveloping a portion of both of said brush members.

2,867,215
GARMENT
Charles T. Horton, Aberdeen, and Henry A. Hight, Jr., Carthage, N. C.
Application June 21, 1957, Serial No. 667,880
3 Claims. (Cl. 128—399)

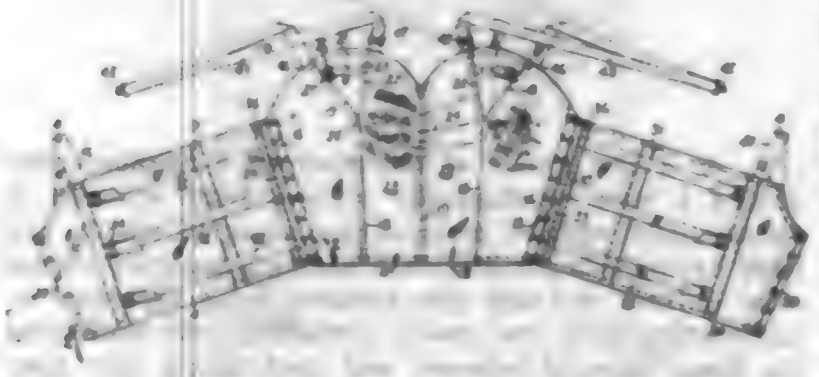
1. A garment comprising an endless waist band, an inverted substantially triangular strip of material having

the base portion thereof secured to said waist band and depending therefrom, means adjacent each side of said strip to slidably receive heating elements therein, a pair of straps having one of their respective ends fixedly secured to said waist band at spaced intervals, said straps converging downwardly toward each other, means securing together the lower ends of said straps, a sanitary napkin supporting clamp fixedly secured to the lower ends of said straps and to the lower end of said strip



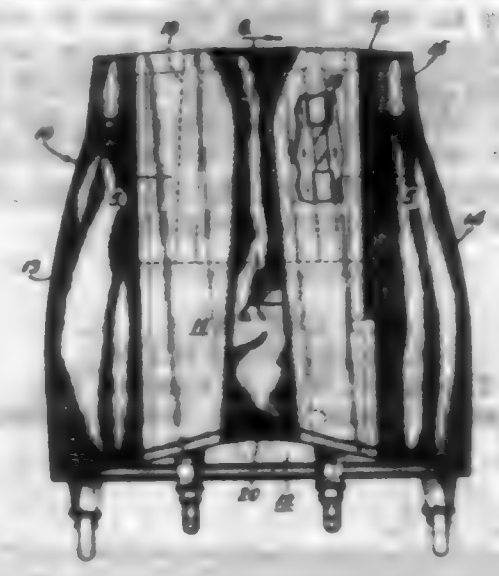
of material, the marginal edges of the sides of said strip being reverted, means securing the reverted portions of said strip in position, said reverted portions each having an elongated substantially rectangular flap extending inwardly from said sides of said strip, and said last named means securing two sides of said flaps to said strip to form a pair of pockets each having an open upper end, each of said pockets being adapted to removably receive a heating element therein.

2,867,216
CONTROLLING GARMENTS
Emory C. Champagne, Woodbridge, and Jane Ann Pfoh, Bridgeport, Conn., assignors to The Berger Brothers Company, New Haven, Conn., a corporation of Connecticut
Application April 23, 1956, Serial No. 580,078
3 Claims. (Cl. 128—429)



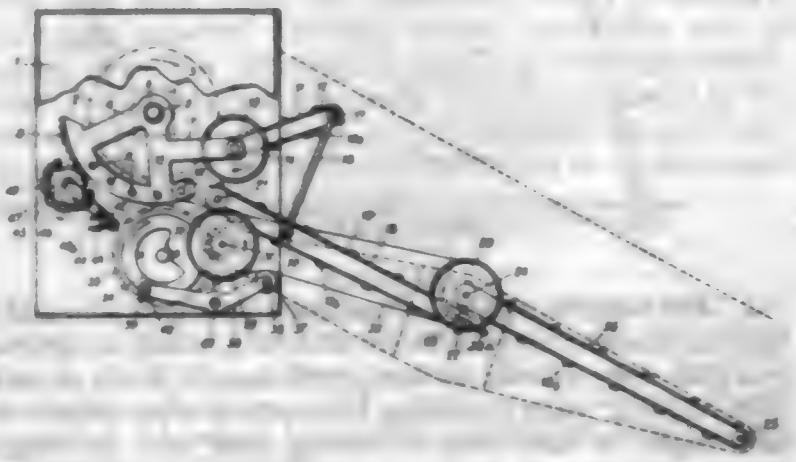
1. A fabric controlling garment comprising a pair of front panels joined at their adjacent edges at approximately the center line of the garment, a gusset inserted in the upper edge of each panel to form a breast pocket with the adjacent edge of the panel, each of said gussets having a slide clasp secured at one edge thereof, a tape secured to the opposite edge thereof and slidably engaged with said clasp to draw the edges of the gusset together and accentuate the contour of the pockets, side sections having their inner edges secured to the outer edges of the front panels and their free edges meeting at the back of the subject to provide a body-encircling garment, said side sections being adjustable girthwise of the garment, a laterally flexible stay member extending substantially vertically of the garment adjacent the inner edge of each side section, and vertically spaced adjusting straps extending laterally across the side sections to adjust the horizontal dimensions thereof, one end of each of said straps being connected to the side section adjacent said stay member.

2,867,217
GIRDLE CONSTRUCTION
Herbert Berg, Merion, Pa., assignor to True Form Corset Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application July 30, 1956, Serial No. 600,835
4 Claims. (Cl. 128—547)



1. In a girdle having a front panel formed of material having no stretch in the circumferential direction of the girdle, an elastic insert centrally of the front panel extending vertically for the full length thereof, said elastic insert being stretchable in the circumferential direction only of the girdle, the sides of said insert being secured to said front panel and converging inwardly toward each other from the top and bottom of the girdle to provide a restricted portion of the insert of less stretch than the remainder of the insert spaced downwardly a predetermined distance from the top of the girdle, and an inner reinforcing panel secured to the opposite sides of said front panel inwardly overlying the restricted portion of said insert, said inner reinforcing panel having a predetermined amount of stretch in the circumferential direction only of the girdle.

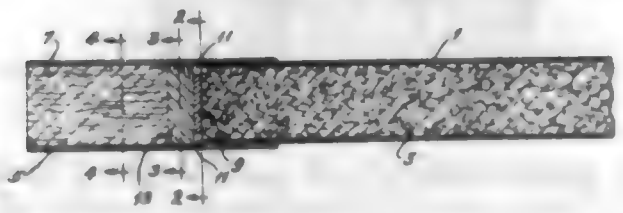
2,867,218
THRESHER HAVING ANGULARLY ADJUSTABLE CONCAVE
Jean Moulec, Penhars-Quimper, France
Application February 17, 1955, Serial No. 488,885
Claims priority, application France February 26, 1954
5 Claims. (Cl. 130—27)



1. A threshing machine comprising a frame, a shaft supported by said frame, a threshing cylinder rotatably supported by said shaft, a concave mounted for angular adjustment about said shaft in relation to the threshing cylinder, said concave extending only over a limited arc

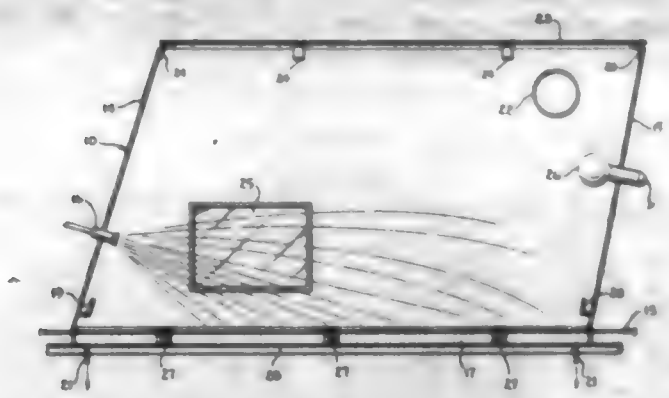
about the cylinder, a sill attached to one end of the concave, means for feeding crops transversely over said sill between the concave and the threshing cylinder, means for adjustably positioning the concave in relation to the threshing cylinder prior to the operation of the machine, and means for retaining said concave stationary in relation to the cylinder during the operation of the machine, said crop feeding means including an elevator having an upper section adjacent to said sill and a pair of slidable plates forming a bridge between said upper elevator section and said sill, one of said plates having its front edge hingedly connected to said upper elevator section and the other of said plates having its rear edge hingedly connected to the sill and its front edge resting upon said first mentioned plate.

2,867,219
CIGARETTE FILTER
Thomas F. Hug, St. Charles, Mo.
Application August 2, 1956, Serial No. 601,662
4 Claims. (Cl. 131—10)



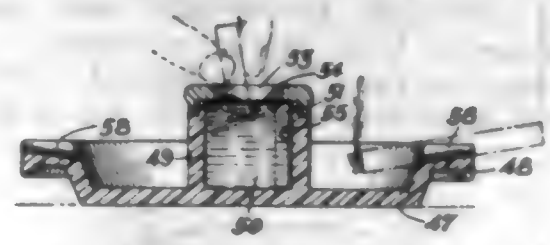
1. In a cigarette filter having a tube-like mouthpiece extending rearwardly from a cigarette, the improvement comprising a disc of relatively impervious material located adjacent the front of the mouthpiece, said disc being formed with openings of uniform size uniformly disposed solely about its periphery so as to direct and concentrate flow of smoke adjacent the wall of the mouthpiece, and a mass of fibrous filtering material disposed behind said disc to intercept the smoke upon leaving the openings at the periphery of said disc.

2,867,220
HUMIDIFICATION CHAMBER
Harold Cahn and William J. Theros, Lancaster, Pa., assignors to General Cigar Co., Inc., New York, N. Y., a corporation of New York
Application September 5, 1956, Serial No. 608,149
5 Claims. (Cl. 131—136)



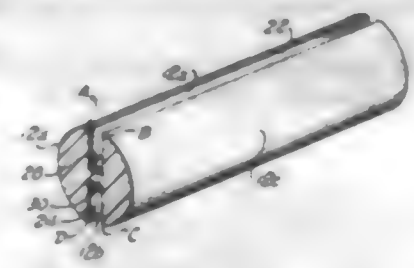
1. The combination of a conveyer belt and a humidification chamber disposed over said belt, which comprises two side walls positioned along the opposite edges of said belt, two end walls extending transversely with respect to the length of said belt, a ceiling held with its edges in spaced relation to the upper edges of said side walls and said end walls, means for humidifying the space over said belt and within said chamber formed by said side walls, said end walls and said ceiling, and means for exhausting the atmosphere from within said chamber at a level in the upper portion of said chamber but below the upper edges of said side walls and said end walls.

2,867,221
CIGARETTE EXTINGUISHER AND ASH TRAY
Frank S. Farley, Atlantic City, N. J.
Application September 2, 1955, Serial No. 532,182
2 Claims. (Cl. 131—256)



1. In a cigar and cigarette extinguisher, the combination which comprises a cup-like receptacle including a cylindrical wall closed at the lower end and having a threaded nipple on the upper end, a collar having an opening therethrough threaded on the nipple of the receptacle, an upright member having an arcuate in cross section, positioned in one side of the receptacle and clamped against the inner surface of the base of the receptacle by the collar for retaining the upright member in position, and a spring plate integral with the upright member and extending from the upper end thereof providing a closure for the opening through the collar and positioned to be depressed by the action of snuffing a cigarette thereon whereby the cigarette passes into liquid in the receptacle.

2,867,222
CORE MEMBER OF FOAM MATERIAL FOR HAIR CURLERS
Carl Louis Otto, La Nelle Burnham Otto, and Joan Britton, New York, N. Y., assignors to Caronelle, Inc., New York, N. Y., a corporation of New York
Application June 1, 1955, Serial No. 512,519
10 Claims. (Cl. 132—39)



4. As a new article of manufacture, a member comprising a body of elastically resilient foam material of substantially uniform cross section along its length, said body having side portions each having a convexly curved outer surface and said side portions being separated by confronting slots, and means containing and reinforcing the foam material between said confronting slots comprising a strip of material stiffer than said foam material attached to the foam material at the bottom of at least one of said slots.

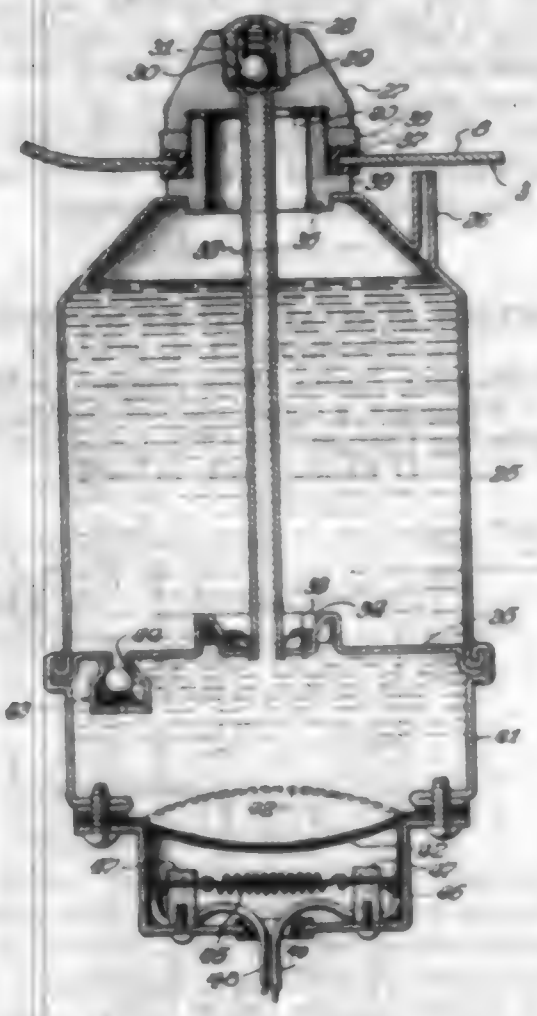
2,867,223
HAIR CURLING DEVICE
Rose L. Anzalone, Buffalo, N. Y.
Application March 6, 1957, Serial No. 644,398
10 Claims. (Cl. 132—40)



1. A hair curling device comprising, a spindle adapted to be rotated in opposite directions about an axis extend-

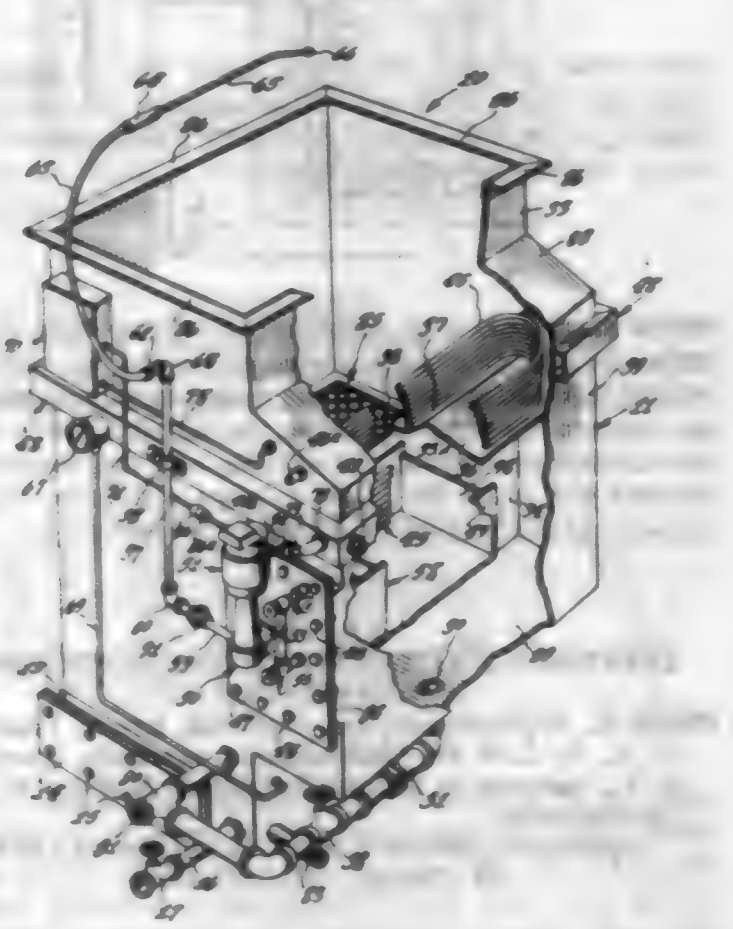
ing lengthwise thereof to wind a group of hair strands thereon, a pair of opposed arms, and a pivot pin extending through said arms adjacent one end thereof and into one end of said spindle in alinement with said axis for mounting said arms on said spindle and holding said arms and said spindle in assembled relation, said pin mounting each of said arms for pivoting in opposite directions about said axis relative to the other of said arms and to said spindle and mounting said spindle for rotation in opposite directions about said axis, whereby said arms can be rotated about said axis away from each other to open said arms and can be grasped in one hand to hold the device while said spindle is rotated about said axis relative to said arms by another hand to wind a group of hair strands on said spindle, and whereby said arms can be rotated toward each other about said axis to close said arms and clasp a group of hair strands therebetween and said spindle can continue to be rotated about said axis relative to said arms to complete the winding of a group of hair strands on said spindle.

2,867,224
WASHING APPARATUS WITH WATER CONDITIONING DISPENSER
Leonard J. Martiniak, Chicago, and Jack E. Belsinger, Brookfield, Ill., assignors to General Electric Company, a corporation of New York
Application December 22, 1955, Serial No. 554,846
9 Claims. (Cl. 134—58)



1. A device for dispensing a measured quantity of liquid into a tub or vat, comprising a container for said liquid, means for mounting said container relative to said said vat, a conduit communicating between the interior of said vat and said container and accommodating the filling of said container with said liquid from the interior of said vat, a closure cap normally carried by the end of said conduit communicating with said vat and removable therefrom from the interior of said vat, a reservoir in communication with said container, first check valve means accommodating flow of said liquid only from said container into said reservoir, a thermally actuated pump in said reservoir, a discharge tube leading from said reservoir into said vat, second check valve means accommodating flow of liquid only from said reservoir through said tube into said vat, thermal means for actuating said pump to effect a discharge of a quantity of said liquid from said reservoir through said tube into said vat, and means for energizing said thermal means.

2,867,225
DEGREASER
Erich R. Zademach, Hillside, Charles J. Anger, Chatham, and Irwin L. Lans, Nutley, N. J., assignors to Metalwash Machinery Company, Elizabeth, N. J., a co-partnership
Application October 26, 1953, Serial No. 388,396
25 Claims. (Cl. 134—189)

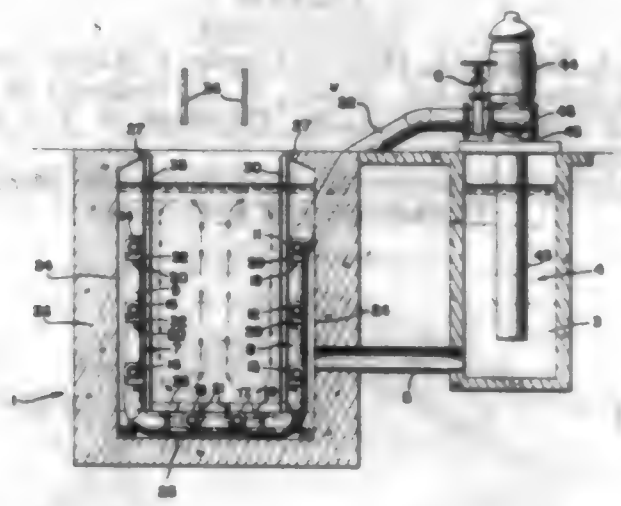


11. In a degreaser, a main tank having unobstructed side walls and an open top, a side tank offset from said main tank, condenser means at the top of said side tank, partition means sealing off said side tank below said condenser means from said main tank, said partition means including a drain plate below said condenser means, water separator means within said side tank below said drain plate, said drain plate opening on to said water separator means, pipe means connecting said side tank with said main tank, said condenser means including a vertically disposed helically wound continuous coil of tubing extending substantially the full horizontal dimension of said side tank, an outlet and inlet mounted in the end wall of said side tank, and means for releasably connecting the inlet and outlet of said tubing to said inlet and outlet.

2,867,226
METHOD AND APPARATUS FOR TREATING APPARATUS FOR RAPID QUENCHING OF METALS
Joseph H. Williams, Ravenswood, W. Va., and Ewell E. McDole, Berkeley, Calif., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware
Application May 31, 1956, Serial No. 588,405
6 Claims. (Cl. 134—199)

1. A device for quenching heated articles comprising a quench tank containing a quenching liquid, a plurality of downwardly directed injection nozzles spaced at intervals within said tank in close proximity to the side walls thereof, a plurality of spaced upwardly directed injection

nozzles located on the bottom of said quench tank in the central portion thereof, liquid forcing means whereby liquid from said tank is forced through said nozzles to produce high velocity jets of liquid which are directed downwardly along the sides of said quench tank and directed upwardly in the central portion of said tank thereby causing a high velocity circulation of liquid



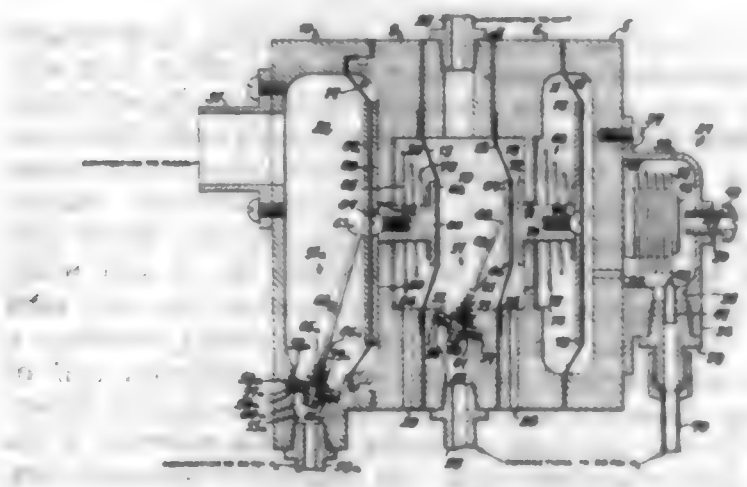
within said tank in a plurality of substantially circular paths which circulatory paths envelope the immersed articles to be treated within the quenching liquid whereby the upward directed jets cause the liquid to wipe across one surface of each of the articles and the downwardly directed jets cause the liquid to wipe across the opposite surfaces of the articles.

2,867,227

DIFFERENTIAL PRESSURE GAS SUPPLYING APPARATUS

Phillip E. Meidenbauer, Jr., deceased, late of Lancaster, N. Y., by Lois W. Meidenbauer, executrix, Lancaster, N. Y., assignor to Firewel Industries, Buffalo, N. Y., a copartnership

Application March 1, 1954, Serial No. 413,305
19 Claims. (Cl. 137—64)



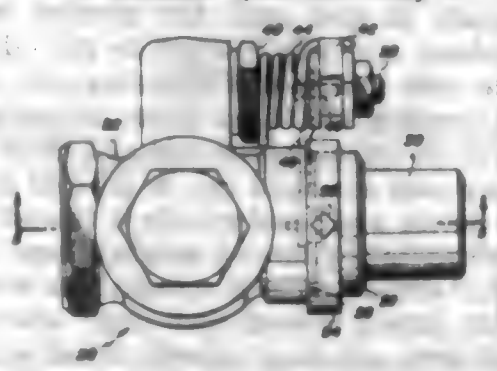
1. A differential pressure gas supplying apparatus for maintaining the suit pressure of an aviator flying at high altitudes at a differential between ambient pressure and the critical minimum pressure at which one's blood would boil at normal temperatures, comprising a hollow casing, an internal movable wall across the interior of said casing dividing said casing into two chambers and moved essentially in response to the pressure differential in said chambers, means arranged to maintain a constant pressure approximately said critical minimum pressure in one of said chambers, means arranged to maintain ambient pressure in the other of said chambers, and means responsive to the movement of said movable wall in response to a differential in said pressures and arranged to produce said suit pressure.

2,867,228

EMERGENCY SHUT-OFF VALVE

Frederick F. Rike and Richard V. Klikunas, Dayton, Ohio, assignors to Buckeye Iron & Brass Works, Dayton, Ohio, a corporation of Ohio

Application June 15, 1956, Serial No. 591,624
6 Claims. (Cl. 137—68)



1. In an emergency valve of the nature referred to; a valve body having a flow channel therethrough with inlet and outlet ends for connection with the flow system, a valve member in said body movable for opening and closing said channel, a lever external of the valve body connected with said member to move said member, spring means biasing the valve member toward channel closing position, the outlet end of said valve body comprising a detachable collar, said collar having an annular zone of predetermined weakness thereabout to provide for a break-off point in the valve body, a ring mounted on said collar on the opposite side of said annular zone from the valve body and being angularly adjustable on the collar, and a link connected between the lever and a predetermined point on the ring for holding said valve member in any predetermined position between closed and full open, the connection between the link, lever and ring being such that said link may be released from one of said rings and levers by fingertip pressure

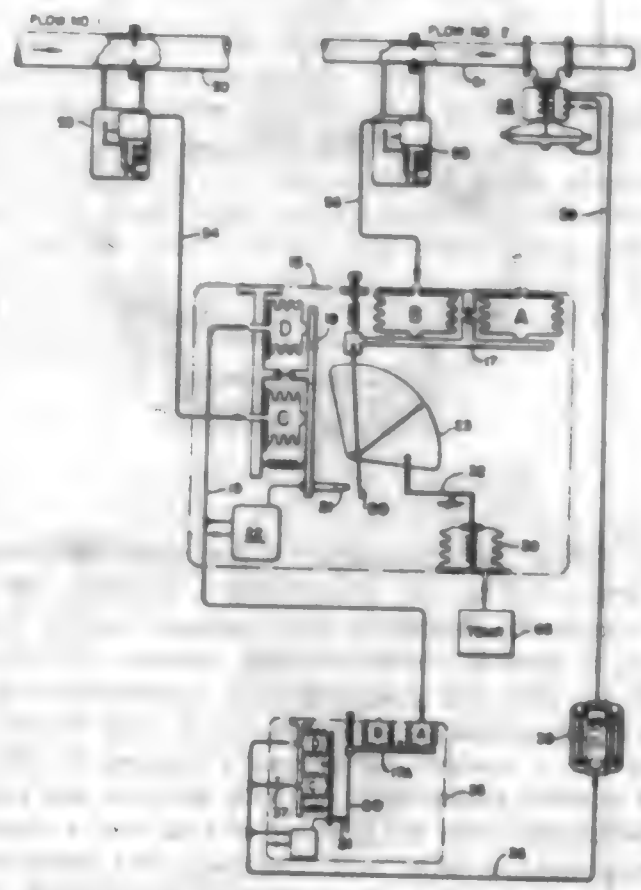
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2,867,229

CONTROL SYSTEMS WITH PROPORTIONAL BAND SELECTING MEANS

Jack F. Shannon, Euclid, Ohio, assignor to Bailey Meter Company, a corporation of Delaware

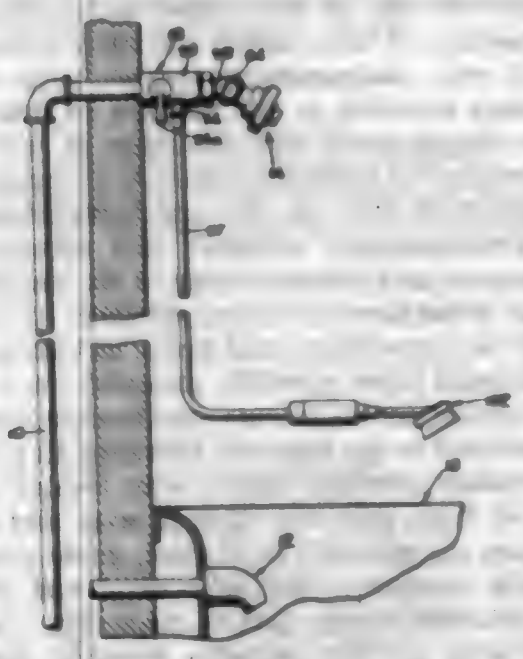
Application February 27, 1956, Serial No. 568,123
11 Claims. (Cl. 137—85)



1. A fluid pressure relay of the force-position-balance type including; a first beam pivoted between its ends, a

first pair of expansible-contractible fluid pressure receiving chambers acting upon the first beam at opposite sides of its pivot, and loading means for the first beam; a second beam pivoted between its ends, a second pair of expansible-contractible fluid pressure receiving chambers acting upon the second beam at opposite sides of its pivot, and loading means for the second beam; a fluid pressure nozzle-baffle couple establishing the relay output as a fluid pressure determined as a result of variable bleed and having one element positioned by the first beam and the other element positioned by the second beam to adjust the bleed between said elements, and a supply of fluid pressure for the couple; a support for the components of the relay having a wall on one side of which the beams and chambers are mounted; and an adjustable sensitivity means on the other side of the wall arranged to modify the rate of positioning of one of the couple elements by its positioning beam, including, (*a*) an angularly movable sector having an axis shaft member extending through the support wall, (*b*) a power means mounted on the external side of the wall and responsive to remotely established variable signals, (*c*) a mechanical connection between the power means and axis shaft member extending through the casing wall, and (*d*) means linking a point on said sector and one of said couple elements.

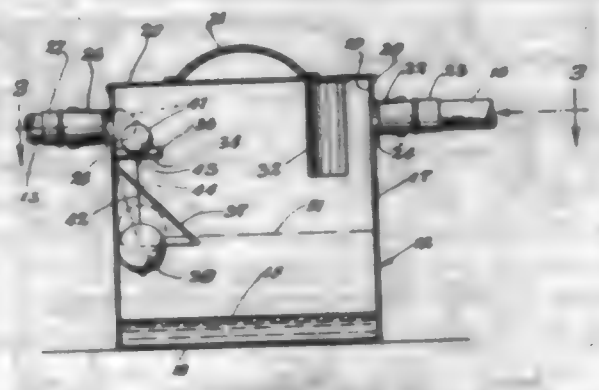
2,867,230
DIVERTER VALVE FOR A SHOWER INSTALLATION
Ralph E. Bletcher and Irving A. Ward, Los Angeles, Calif., assignors of small percentages to various assignees
Application April 25, 1955, Serial No. 503,517
2 Claims. (Cl. 137—119)



1. In a shower installation a diverter comprising: a housing having an inlet and a pair of outlets, a chamber in said housing communicating with said outlets and said inlet, a spider in said housing covering the first of said outlets, port means in said spider communicating said first outlet with said chamber, valve means projecting into said port means and piston means connected to said valve means positioned in the other of said outlets, whereby flow through said last mentioned outlet shuts off flow through said first mentioned outlet.

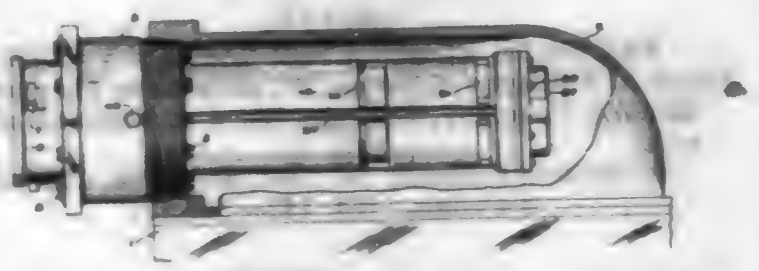
2,867,231
LIQUID SEPARATOR
William Gerstenzang, Buffalo, N. Y.
Application March 11, 1954, Serial No. 415,670
6 Claims. (Cl. 137—202)

1. A liquid separator for suction devices comprising a tank, a cover for said tank, an intake passage for said tank having a deflector adjacent thereto, an outlet passage from said tank, a float within said tank responsive to the liquid level therein, a guide for said float, and a check for said outlet passage, said float being connected



to said check and being supported thereby within said guide above the normal liquid level in said tank and said check being responsive only to flow in said outlet passage to close said passage when said liquid level reaches a predetermined height.

2,867,232
TANK FILLING SHUT-OFF VALVE
George H. Snyder, Baltimore, Md.
Application September 25, 1956, Serial No. 611,986
7 Claims. (Cl. 137—403)

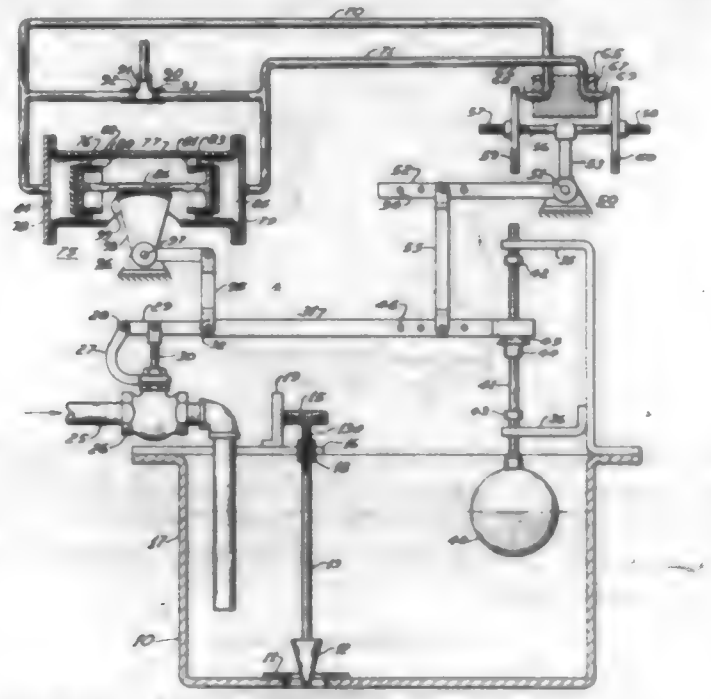


1. A tank filling shut-off valve adapted to be mounted in a tank to be filled comprising a tubular walled body having an opening in the forward end for the admission of liquid thereinto, a rearwardly facing valve seat on the inner wall intermediate the ends of the tubular body, the wall of the body having circumferential liquid discharge openings therethrough immediately to the rear of the valve seat, a piston slidable in the body having a portion to contact said seat and close said circumferential openings and means in said body including the piston to direct the flow of liquid beyond the piston to move the valve to closing position when the tank to which the valve is connected is filled.

2,867,233
LIQUID LEVEL CONTROL SYSTEM
Samuel L. Adelson, Tucson, Ariz., assignor to Inflico Incorporated, Tucson, Ariz., a corporation of Delaware
Application July 15, 1954, Serial No. 443,636
19 Claims. (Cl. 137—413)

1. Apparatus for maintaining a substantially constant liquid level in a basin having inlet means and outlet means, and a valve controlling flow through said inlet means and having a valve-positioning element, comprising a liquid level responsive means in said basin, an air motor having opposed pressure chambers, each of said pressure chambers having a flexible wall, means adapted to supply air under pressure to said pressure chambers, means for regulating the air pressure in said pressure chambers from the movement of said liquid level responsive means, said pressures being equal when said regulating means is in its equilibrium position, and transmission means operable by movement of said flexible walls upon an unbalance of said pressures due to movement of said liquid level responsive means to move said

valve-positioning element and said regulating means in accordance with the difference in the air pressures in said chambers, said liquid level responsive means being



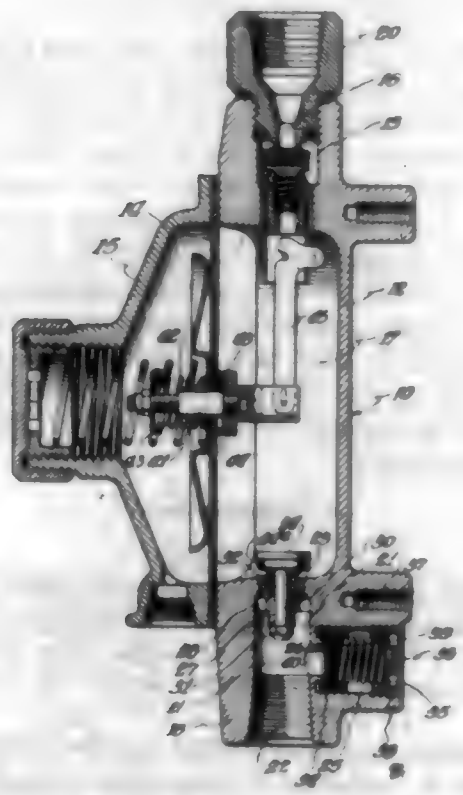
independent of the operation of said transmission means and positioned solely by changes in the liquid level in said basin.

2,867,234

PRESSURE REGULATOR SAFETY VALVE

Evans R. Billington, Chicago, Ill., assignor to The Bastian-Blessing Company, Chicago, Ill., a corporation of Illinois

Application February 14, 1951, Serial No. 210,940
4 Claims. (Cl. 137—505.11)



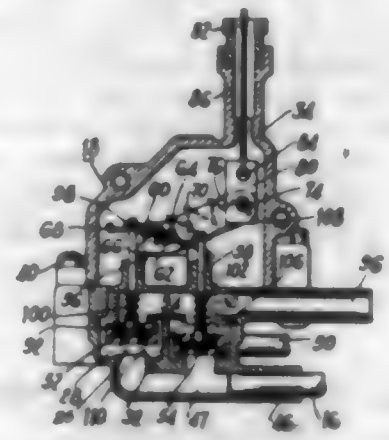
1. In combination with a fluid pressure regulator for delivering fluid at a predetermined reduced pressure, said regulator having a pressure chamber therein, a safety device connected to said regulator and comprising a body having a passage therethrough in direct communication with said chamber for the flow of fluid at reduced pressure from said chamber, an excess flow check valve in said passage closing in the direction of fluid flow and constructed and arranged to completely arrest flow through said passage, the upstream face of said check valve being subject to the pressure of fluid flow, a safety relief valve mounted in a branch passage connecting said first passage to the atmosphere downstream and sufficiently close to said check valve that opening of said relief valve induces sufficient excess fluid flow through said check valve to effect a rapid closing of said check valve, said relief valve being adjustable to open at a pressure appreciably in excess of the predetermined delivery pressure, and said check valve being adjustable to remain closed until dissipation of upstream pressure.

2,867,235

SNAP ACTING DUAL VALVE MECHANISM

Edward E. Hupp, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application March 15, 1955, Serial No. 494,435
1 Claim. (Cl. 137—622)



A valve mechanism including a casing shaped to provide two control compartments, a vacuum compartment, and an air vent compartment; a valve member within the casing movable to one position to interconnect the vacuum compartment with one of the control compartments and to another position to interconnect the latter compartment with the air vent compartment; another valve member with the casing movable to one position to interconnect the vacuum compartment with the other of said control compartments and to another position to interconnect the latter compartment with the air vent compartment; and means for simultaneously actuating said valve members to connect one of said compartments to the vacuum compartment and at the same time vent the other of said compartments to the atmosphere, said means including a longitudinally disposed lever pivotally mounted on a wall in one of said casing compartments, lost motion connection means at each end of the lever for operating its connected valve, an actuator member for the lever located adjacent to and spaced from one end of said lever and adapted to move across the pivotal axis thereof, guide connection links pivotally connecting the lever pivot and the actuator, and preloaded spring means connecting the distal end of said lever and the actuator, whereby movement of the actuator causes the spring to move across the lever pivot and rotate the lever to effect a snap action of said lever to alternately actuate the respective valves loosely connected thereto.

2,867,236

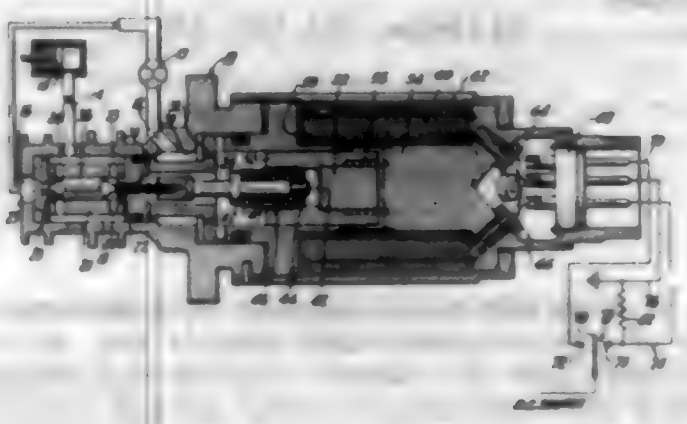
SOLENOID OPERATED VALVE WITH PROVISION FOR SAFE FAILURE

Clarence J. Klein, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application April 6, 1956, Serial No. 576,711
8 Claims. (Cl. 137—623)

1. In a fluid pressure control device comprising a hollow cylindrical housing, an inlet port in said housing connected with a source of fluid under pressure, a first outlet port connected to a servo system, a second outlet port in communication with a source of low fluid pressure

and a valve member operable to block communication between said outlet ports and permit communication between said inlet port and said first outlet port when in one position and to block communication between said inlet port and said first outlet port and permit communication between said outlet ports when in another position; means controlling the position of said valve including a soft iron pole member positioned within said housing in such manner as to close one end of said housing, a hollow cylindrical soft iron armature resiliently attached to said valve and movable axially in said housing to abut against said pole member, a cylindrical permanent magnet positioned within said armature, a spring positioned between said armature and said pole member, a first winding embedded in said housing and positioned concentrically with respect to said pole member and said armature, said winding being moved in such direction that, upon energization, the magnetomotive force developed thereby urges said armature toward said pole piece, a second winding positioned concentrically with respect to said first winding and wound so that upon energization a magnetomotive force is produced opposing the first named magnetomotive force.

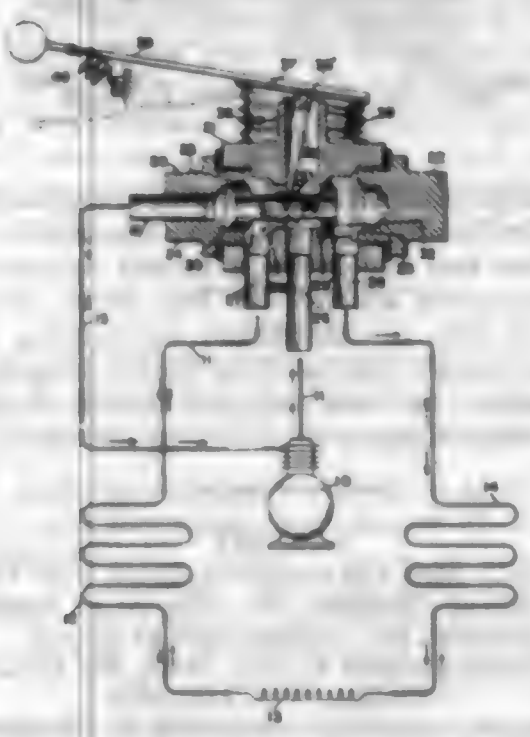


2,867,237

VALVE CONSTRUCTIONS

Walter F. Allingham, North Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Application February 20, 1956, Serial No. 566,667
2 Claims. (Cl. 137—625.29)



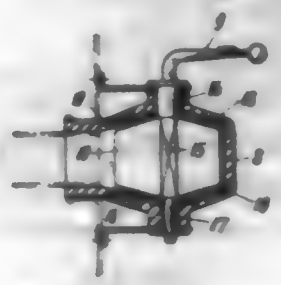
1. In valve construction, the combination of a housing having an inlet, an outlet and two ports which function interchangeably as inlet or outlet ports placed on opposite sides of the inlet, a first valve seat placed on one side of the inlet between the inlet and one of the two interchangeable ports, a second valve seat placed on the opposite side of the inlet between the inlet and the other of the two interchangeable ports, a third valve seat placed adjacent the opposite side of one of the two interchangeable ports, a fourth valve seat placed adjacent the opposite side of the other of the two interchangeable ports, a valve member slidable in said housing having an opening therethrough which functions as a portion of a passageway connecting the first interchangeable port and the outlet port when the valve is in a first position seating on the second valve seat and on the third valve seat, and means to move said valve to a second position to seat on the first valve seat and on the fourth valve seat to connect the second interchangeable port with the outlet and to connect the inlet with the first interchangeable port.

2,867,238

ROTARY DISTRIBUTING VALVE FOR A MOTOR VEHICLE HEATING AND VENTILATING SYSTEM

Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany

Application July 16, 1953, Serial No. 368,295
Claims priority, application Germany July 18, 1952
12 Claims. (Cl. 137—625.46)



1. Control device for heating and ventilation systems in motor vehicles comprising a casing with fluid passages formed of sound-absorbing material and stiffened with reinforcing parts, a control member rotatably supported in said casing to control the flow through said fluid passages, metallic bushings embedded in said casing for supporting therein said control member, said reinforcing parts including metallic spoke-like arms spreading outwardly from said bushings, and metallic rings interconnecting the free ends of said spoke-like arms.

2,867,239

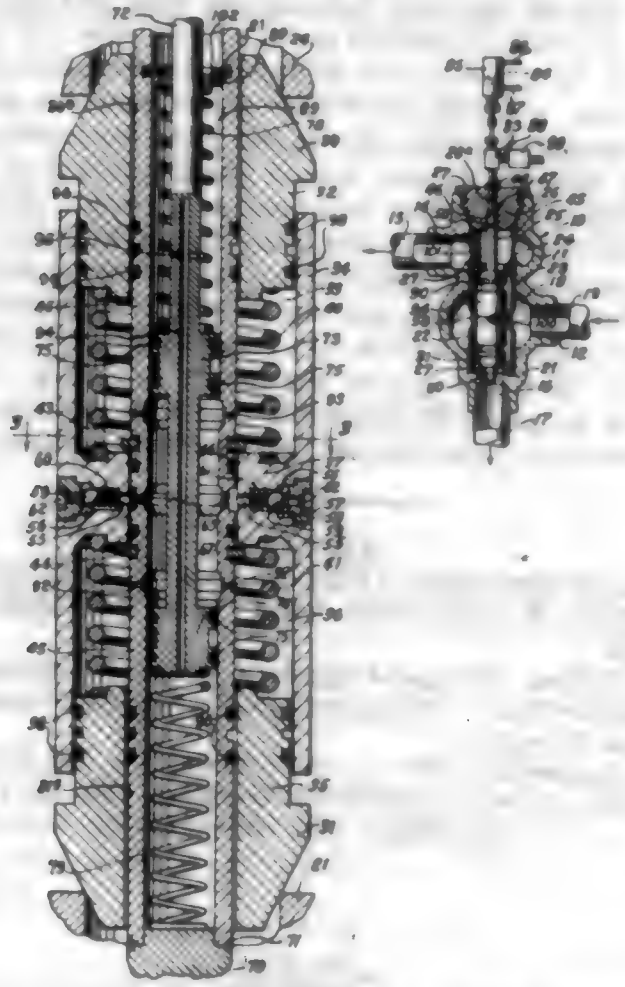
VALVES

Mathew L. Freeman, Houston, Tex.

Application May 4, 1956, Serial No. 582,881
9 Claims. (Cl. 137—627.5)

1. A three-way valve comprising: a body having an inlet, a first outlet and a second outlet; a tubular sleeve disposed in said body between said inlet and said outlet; means dividing the bore of said sleeve into separate chambers at its opposite ends; a pair of valve plugs slidable in said separate chambers in the opposite ends of said tubular sleeve between positions opening and closing said outlets; means sealing between said valve plugs and said sleeves; resilient means within said tubular sleeve biasing each of said valve plugs in opposite directions toward closed positions to prevent flow of fluid from said inlet to one of said outlets, said valve plugs being exposed to the pressure of the fluid from the inlet which tends to move said valve plugs toward open positions again the force of said resilient means, and interconnected valve means communicating with both said chambers for selectively introducing pressure of an operating fluid into said separate chambers in said tubular sleeve selectively to bias said valve plugs toward closed positions, said valve means also

providing for selectively releasing the pressure of the operating fluid from within each separate chamber to permit



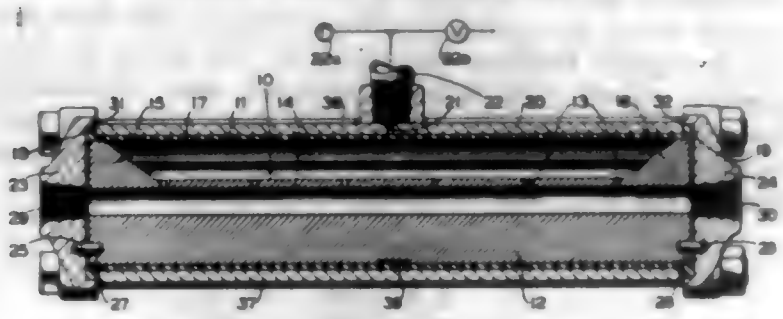
fluid pressure within the valve body to move the selected valve plug to open position.

2,867,240

PULSATION DAMPENER DEVICE

Arthur J. Bent, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application January 30, 1956, Serial No. 562,188
2 Claims. (Cl. 138—30)



1. A pulsation dampening apparatus for absorbing pressure surges in a fluid conveying conduit, said apparatus comprising a mandrel having a tubular portion for fluid pressure communication with the conduit and a plurality of longitudinally extending ridge-like projections uniformly spaced about and joined to the exterior of said tubular portion, a resilient sleeve surrounding said mandrel for defining respective chambers between said sleeve and said ridge-like projections, said tubular portion having a plurality of orifices via which each of said respective chambers is open to the conduit, housing means having a bore concentrically surrounding said sleeve and defining between said bore and sleeve another chamber charged with gas at a preselected pressure, and means providing flow paths whereby the gas in said other chamber may flow around the outside of said resilient sleeve, said sleeve being secured adjacent its respective ends in sealed relation to said housing means and mandrel for sealing off said respective chambers from said other chamber, the outer circumference of said sleeve being substantially equal to the circumference of said bore, and the perimeter of said mandrel including the ridge-like projections thereof being substantially equal to the inner circumference of said sleeve.

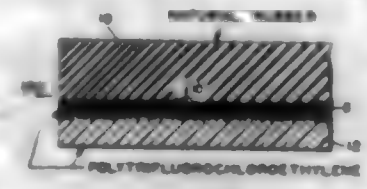
2,867,241

LAMINATION OF THERMOPLASTIC POLYMERS

Lee J. FitzHarris, Dayton, Ohio, assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

Original application April 4, 1955, Serial No. 499,871. Divided and this application May 7, 1956, Serial No. 583,267

14 Claims. (Cl. 138—65)



1. A novel pipe which comprises an inner protective layer of a thermoplastic olefin polymer film, an outer supporting layer of a settable material and interposed between said inner protective layer and said outer supporting layer, a plurality of thermoplastic olefin polymer particles, said particles being fused to a surface of said protective layer, and embedded in a surface of said supporting layer.

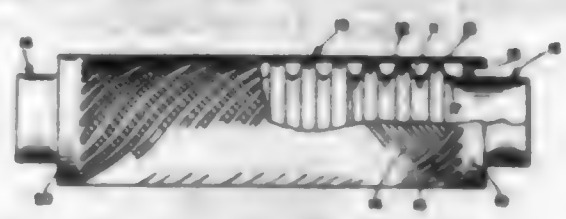
14. A process for fabricating a plastic lined pipe which comprises providing an inner protective layer of a thermoplastic olefin polymer in tubular form, fusing particles of a thermoplastic olefin polymer to the outer surface of said tubular thermoplastic olefin polymer, applying a settable material to the outer surface of said tubular thermoplastic olefin polymer and embedding said particles in said settable material.

2,867,242

HIGH PRESSURE FLEXIBLE HOSE

Clare W. Harris, Long Beach, Calif., and Lawrence M. Nelson, East Detroit, Mich., assignors to North American Aviation, Inc.

Application January 16, 1956, Serial No. 559,454
7 Claims. (Cl. 138—56)



2. A high pressure conduit covering comprising an end fitting, a first helically slotted sleeve attached to and extending from said end fitting, a second helically slotted sleeve peripherally around said first sleeve, the helical angle of the slots of said second sleeve being reversed from that of the slots in said first sleeve, the ends of said sleeves opposite the ends attached to said fitting being adapted to be attached to an adjoining structure.

2,867,243

DEVICE FOR CHANGING STOP VALVES

Walter J. Bowan, Decatur, Ill., assignor to Mueller Co., Decatur, Ill., a corporation of Illinois

Application August 9, 1955, Serial No. 527,261
7 Claims. (Cl. 138—89)

5. A plugging assembly comprising an elongated tube, a draw rod mounted for longitudinal movement within said tube and having an end portion extending outwardly from one end of said tube, opposed abutments on the outer end of said rod end portion and on said tube end, respectively, an expansible member surrounding said draw

rod end portion between said abutments for expansion by compression therebetween, means on the other end portion of said draw rod acting against the other end of said tube for moving said draw rod longitudinally relative to said tube in a direction to move said rod abutment toward



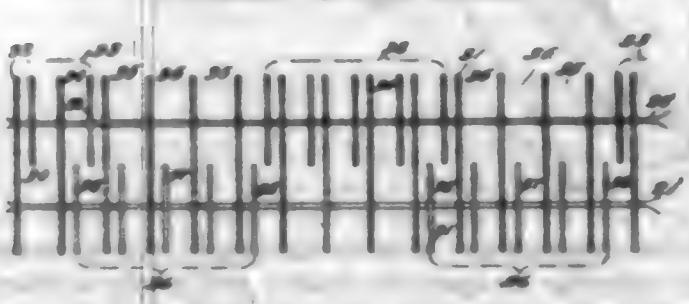
said tube abutment to compress said expansible member, and interengageable means on said tube, at said one end thereof, and on the adjacent portion of said rod for limiting longitudinal movement of said tube relative to said rod in the direction of said other end thereof.

2,867,244

PILE FABRIC TEXTURING DUE TO PILE OVERLAPS

Frank W. E. Hoeselbarth, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania

Application May 17, 1954, Serial No. 430,295
6 Claims. (Cl. 139—403)



1. A pile fabric having in the face of the fabric a plurality of symmetrical textured islands of elevated level, having at least two pile warps, at least one binder warp, a stuffer warp and wefts interwoven together, each of the pile warps being raised in the pile in successive transverse rows of pile projections, there being lateral of the fabric a series of symmetrically separated groups of pile ends of the first pile warp and also of pile ends of the second pile warp respectively out of phase with one another, the middle of each group of pile ends of one pile warp corresponding to the side of the adjoining group of pile ends of the other warp, within each group the pile ends of one pile warp extending continuously with an end in each course, and the groups being separated by at least one course having no end of the particular pile warp, at the positions at which one group terminates and another group begins the pile being deflected laterally to form the periphery of one of the islands.

2,867,245

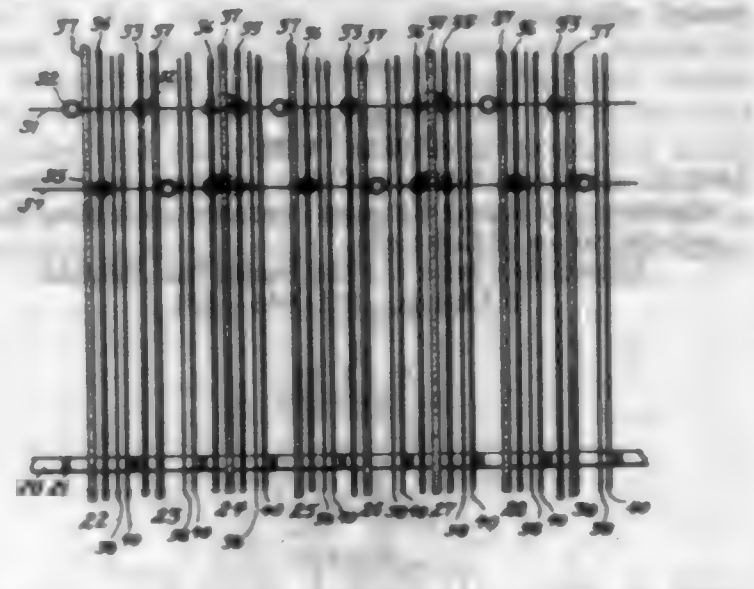
CARPET WITH IMPROVED COVERAGE

Frank W. E. Hoeselbarth, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania

Original application August 13, 1956, Serial No. 603,761. Divided and this application August 27, 1957, Serial No. 680,518

2 Claims. (Cl. 139—403)

1. A pile carpet, having courses defined by recurring binder warp ends woven in the same direction comprising two sets of pile warp ends alternately raised in the pile, at least one stuffer warp end in each course, top and bottom wefts above and below the stuffer warp ends, and tying in the pile warp ends, and at least one binder warp end woven in the same direction in each course and tying together the top and bottom wefts, the first, fourth, seventh, etc., courses having an end of the first pile warp set on one side of the stuffer warp end and having an end out of the second pile warp set, the second, fifth, eighth, etc., courses having an end of the second pile warp set on the other side of the stuffer warp end and



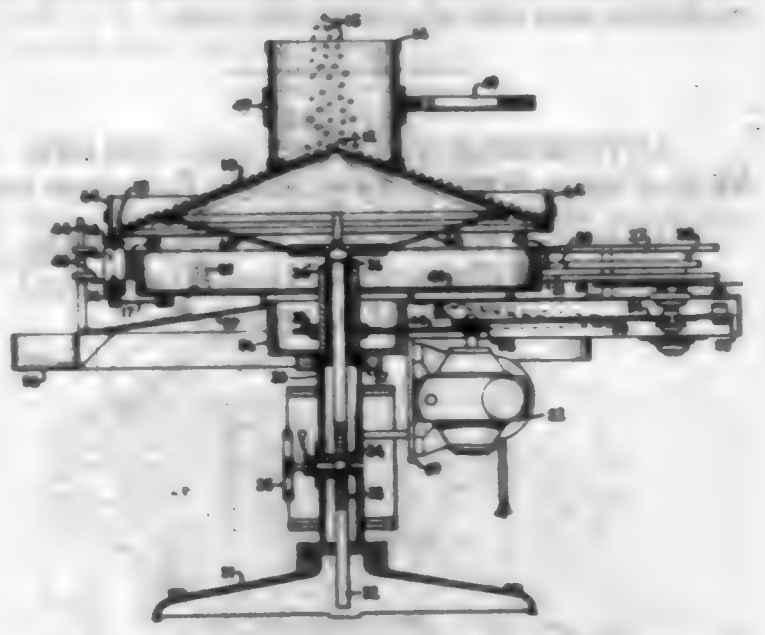
having an end out of the first pile warp set, and the third, sixth, ninth, etc., courses having an end of the first pile warp set on the said other side of the stuffer warp end and having an end of the second pile warp set on the said one side of the stuffer warp end.

2,867,246

RECEPTACLE FILLER

Floyd E. Busse, Berlin, Wis., assignor, by mesne assignments, to Consolidated Foundries and Mfg. Corp., a corporation of Delaware

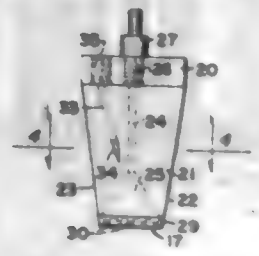
Application December 20, 1955, Serial No. 554,261
8 Claims. (Cl. 141—34)



5. Receptacle filling apparatus comprising, a conveyor having a perforated inverted cone-shaped conveying surface terminating in a lower annular peripheral edge, a hopper for supplying a product to be packed to the apex of said conveyor, an annular resiliently supported revolvable track for receiving a succession of open-mouthed receptacles and supporting and advancing the same with the mouths thereof positioned adjacent to and below the lower edge of said conveyor, means for regulating the flow of the product from the hopper to the surface of the conveyor, means for moving the conveyor axially to different positions of adjustment relative to said track, means for rotating said conveyor to aid gravitation of the product over the surface thereof and supply an abundance of the product to the receptacles while foreign matter is removed from the gravitating product through the perforations in said surface, means for vibrating said track and the receptacles supported thereby to aid in packing

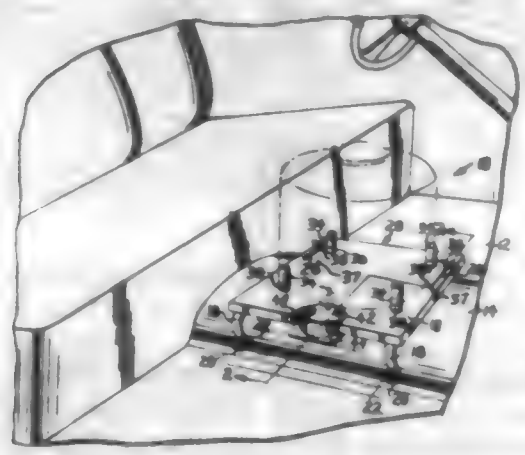
the product within the receptacles, and a brush revolvable about an axis transverse to the path of movement of said track and peripherally cooperable with the mouths of the receptacles for removing excess product from the successive receptacles and leveling the same as they are advanced with said track.

2,867,247
FEED TUBE
John E. Aldridge, Denver, Colo., assignor, by mesne assignments, to Kuner-Empson Company, Brighton, Colo., a corporation of Colorado
Application June 4, 1956, Serial No. 589,064
5 Claims. (Cl. 141—39)



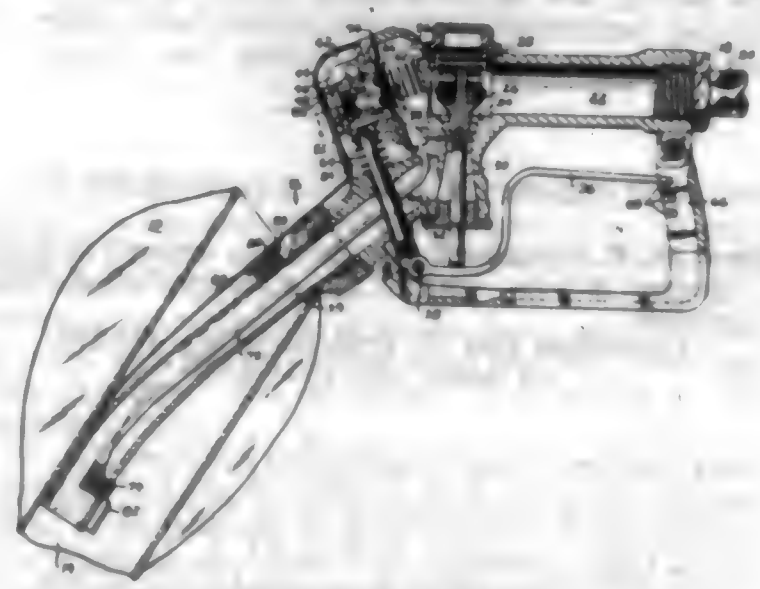
4. A liquid filling tube of the class described comprising a head portion arranged for connection to a liquid supply, a body portion interconnected with said head portion and arranged to extend partially into a container to be filled, an internal conduit in said body portion interconnected with said supply, an outwardly flared cavity in said body portion adjacent to and spaced from an edge remote from said head portion, said conduit communicating with said cavity and interconnected at the apex thereof, and a plurality of outlets in the edge remote from said head portion directed downwardly and outwardly so as to discharge liquid along the bottom of the container being filled, there being a tapered passageway interconnecting each said outlet with said cavity.

2,867,248
AUTOMOBILE THERMOS JUG HOLDER
Ira C. Forney, Newton, Kans.; Birdie F. Forney, executrix of said Ira C. Forney, deceased
Application March 9, 1956, Serial No. 570,631
1 Claim. (Cl. 141—375)



In receptacle holder means for automobiles and the like vehicles, the combination with a jug-shaped receptacle having a rounded edge and flat bottom portion with substantially vertical side walls and having a discharge spigot located in the side wall adjacent the bottom portion, a receptacle holder comprising a rectangular platform, leg means attached to said platform, said legs being arranged in spaced pairs and comprising outwardly inclined feet portions for engaging a raised arcuate shaped floor section of the vehicle, a notch in the platform at one side and means therebeneath to receive and support a receptacle beneath said discharge spigot of the jug, said leg means being secured to the underneath side of said platform and extending downwardly therefrom, each of said leg means having a downwardly and outwardly projecting foot portion at its lower end whereby the leg means will engage the side walls of the raised arcuate floor of said vehicle and support the platform horizontally, said pairs of leg means being adjustable toward and away from each other.

2,867,249
METHOD AND APPARATUS FOR DISPENSING LIQUIDS
Carl E. Denlinger, Dayton, Ohio, assignor to Buckeye Iron & Brass Works, Dayton, Ohio, a corporation of Ohio
Application March 22, 1956, Serial No. 573,239
3 Claims. (Cl. 141—286)



3. In combination with an automatic nozzle having a valve operable to open the nozzle and a trip mechanism operable when tripped to cause immediate closing of the valve, a device for mounting on the nozzle which comprises; an angular lever having an arcuate longer arm adapted for lying along the top of the spout of the nozzle and loosely embracing the said spout so as to be retained on the spout while being movable toward and away from said spout and a shorter arm having means for engaging and actuating the trip mechanism of the valve, and means on the longer arm for retaining a spring between it and the spout of said nozzle so that said spring urges said longer arm away from said spout, said trip mechanism comprising a portion external of the valve that is engaged by the shorter arm of the lever, there being a cover element mounted on the nozzle and enclosing said portion of the trip mechanism and the shorter arm of the lever, the said cover retaining the lever in assembled relation with the valve and providing a pivotal support therefor on the nozzle.

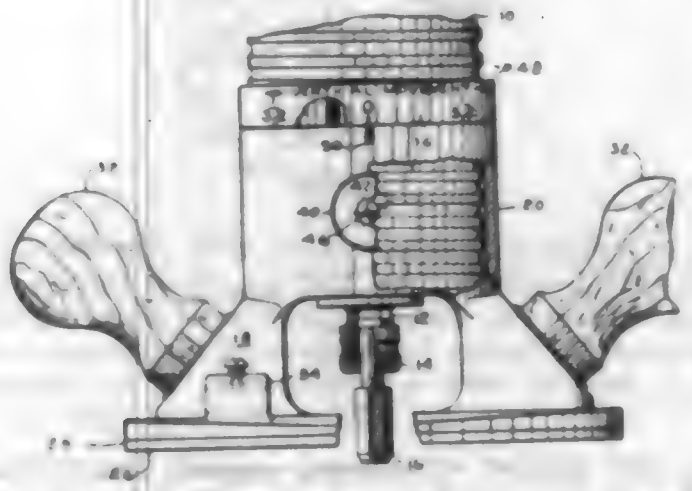
2,867,250
DISC CUTTING ATTACHMENT FOR BAND SAWS
Lucien Guilbault, Montreal, Quebec, Canada, assignor to The Robert Mitchell Co., Limited, Montreal, Quebec, Canada
Application March 19, 1957, Serial No. 647,088
15 Claims. (Cl. 143—26)



9. In a disc cutting attachment for band saws comprising a table member mounted for reciprocating movement in a straight line, a frame supported on said table, a spring loaded drum journalled in said frame, a shaft rotatable with said drum and projected through said

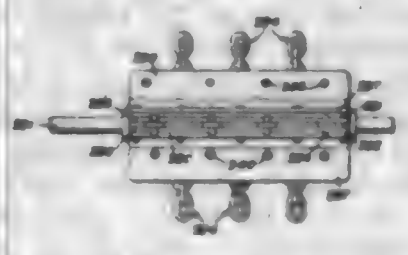
frame to carry a blank to be cut, and a flexible tape secured to and wrapped around said drum, said tape when pulled rotating said drum and shaft relative to said table and frame and against the pressure of said spring.

2,867,251
ROUTER DEPTH ADJUSTMENT MEANS
Whitfield Moretti, Millers Falls, and Leonard C. Pratt, Greenfield, Mass., assignors to Millers Falls Company, Greenfield, Mass., a corporation of Massachusetts
Application May 21, 1957, Serial No. 660,632
5 Claims. (Cl. 144—134)



1. A router comprising a power unit having a circular motor housing on which is formed a thread along a substantial length of the housing, said thread having a relatively low helix angle and a pitch in excess of the thread height, a power shaft extending from one end of the housing for attachment of a cutter thereto, positioning means comprising a sleeve embracing said threaded housing and a workpiece guide adjacent said cutter, and a thread engaging member slidably mounted in said sleeve and spring means yieldably holding said member in for engagement with said thread whereby the sleeve may be slid axially of the housing for rough adjustment of the work guide and rotated about said thread for fine accurate adjustment.

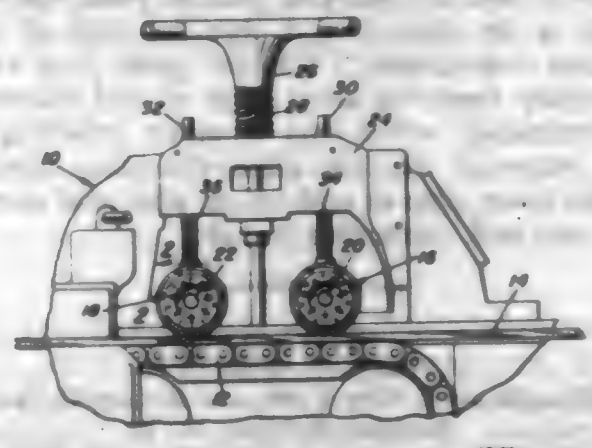
2,867,252
DEBARKING ROTOR HAVING CUSHIONED FLAILS
Frederick Laurence Dillingham, Sylacauga, Ala., assignor to Soderhamns Machine Manufacturing Co., Talladega, Ala., a corporation of Alabama
Application August 29, 1956, Serial No. 606,883
10 Claims. (Cl. 144—208)



1. In a debarking machine, a bark-removing unit comprising a rotatable shaft, a plurality of opposed pairs of vanes extending axially along, and outwardly from, the shaft, a plurality of chain units distributed along each vane, and means including strips of resilient padding material on each side of each vane and mounting the units on the vanes.

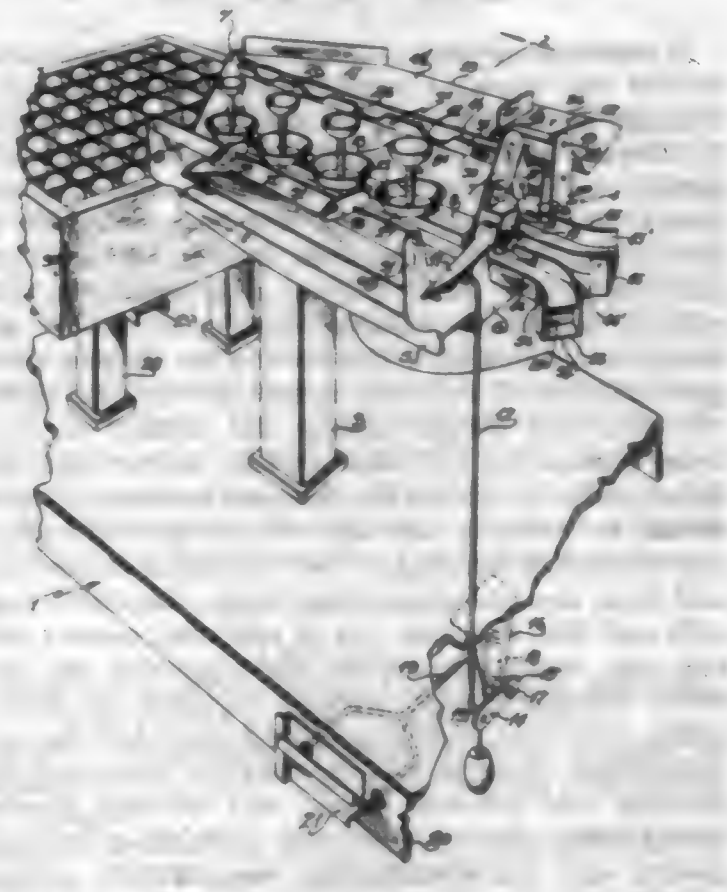
2,867,253
FEED ROLL FOR WOODWORKING MACHINE
Herbert E. Coalwell, Reno, Nev.
Application September 28, 1956, Serial No. 612,810
3 Claims. (Cl. 144—246)

1. A feed roll for a woodworking machine, said feed roll comprising a hub adapted to be driven by the machine, said hub having a plurality of circumferentially spaced pockets in the periphery thereof, a plurality of shoes, each shoe having a substantially arcuate work contacting outer surface, each pocket having one of said shoes so that said shoes are circumferentially spaced around the periphery of said hub, each shoe having an ear provided with a smooth curved surface and located in one of said pockets, means connected to said hub and mounting said shoes for free pivotal movement about axes that are tangential to a circle about the axis of rotation of said hub and that lie at the centers of the respective smooth curved surfaces whereby said shoes



are pivotally movable to conform to different shaped work pieces, a plurality of brake elements, means movably mounting one element in each pocket, each element having a smooth surface complementary to the smooth curved surface of the corresponding shoe, said smooth surfaces of a brake element and its corresponding shoe being in contact with each other, and mechanical means carried by said hub and engaging said brake elements to adjust the positions of said elements in said pockets and thereby bring said smooth surfaces together and thus constrain the pivotal movement of said ears and shoes with which they are connected.

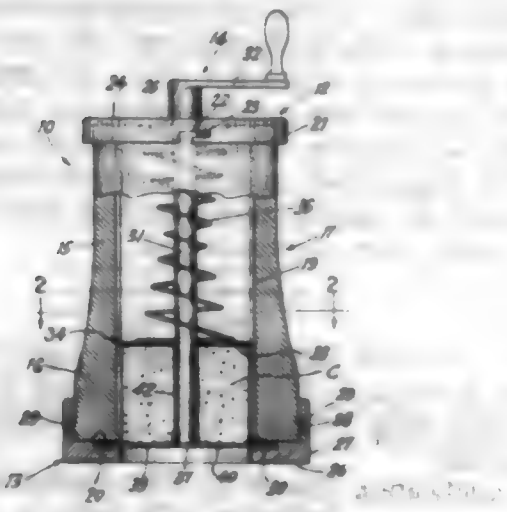
2,867,254
EGG SEPARATOR
James A. Mowat, Winnipeg, Manitoba, Canada, assignor to Mid-West Produce Co., Ltd., Winnipeg, Manitoba, Canada
Application August 12, 1957, Serial No. 677,563
4 Claims. (Cl. 146—2)



1. An egg separator comprising in combination a supporting framework, a support mounted for tilting move-

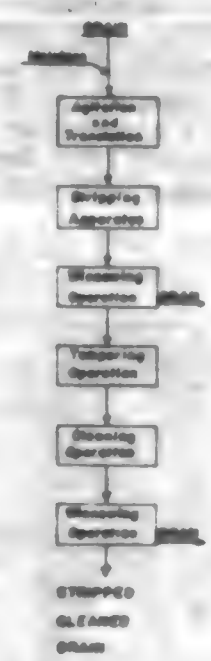
ment on said supporting framework, means to tilt said support, at least one egg separating component mounted on said support, said egg separating component comprising a yolk containing cup and an albumen containing cup situated below said yolk containing cup, a pair of troughs in said framework adapted to receive yolks on the one hand and albumen on the other hand when said support is tilted, an albumen cut-off plate adapted to be contacted by the perimeter of said yolk containing cup when said support is tilted and to guide yolk from yolk containing cup to one of said troughs and albumen from said albumen containing cup to the other of said troughs, said cut-off plate including an inclined plate, semi-circular cut-outs in the edge of said plate for each of said egg separating components, a forward guide plate extending downwardly from the lower edge of said inclined plate and terminating within said albumen collecting trough and a rearward dividing plate extending downwardly from the lower edge of said cut-off plate and terminating within said yolk containing trough.

2,867,255
CHEESE GRATER
William Berney, New York, and Robert C. Brown, Jackson Heights, N. Y.
Application November 1, 1956, Serial No. 619,714
1 Claim. (Cl. 146—61)



A grater comprising a casing open at the opposite ends thereof and having a substantially cylindrical outer surface and an axial bore of square cross section for receiving therein a block of gratable material of square cross section, a removable cap mounted on one end of said casing for closing one end of said bore, a circular grater disc having marginal portions thereof abutting flat end portions at the other end of said casing, an annular retainer detachably mounted on the other end of said casing and including a rim portion for holding the marginal portions of said disc against the flat end portion at the other end of said casing, said retainer rim portion being formed on the inner surface thereof with an annular rabbet to receive the marginal portions of said disc, means for rotating said disc relative to said casing end and retainer comprising a shaft extending axially through said bore, one end of said shaft being detachably engaged with said disc, the other end of said shaft passing through said cap, handle means on the projecting end of said shaft, follower means slidably mounted on said shaft within said bore, spring means on said shaft having one end thereof abutting said cap and the other end thereof abutting said follower means, said follower means and spring being operative to urge said block of material toward said disc whereby the forward face portions of said block of material is grated by said disc as said handle means is turned.

2,867,256
METHOD OF STRIPPING EPIDERMAL MATERIAL FROM GRAINS
Theodore Earle, Santa Monica, Calif.
Application August 8, 1955, Serial No. 526,854
3 Claims. (Cl. 146—221.9)

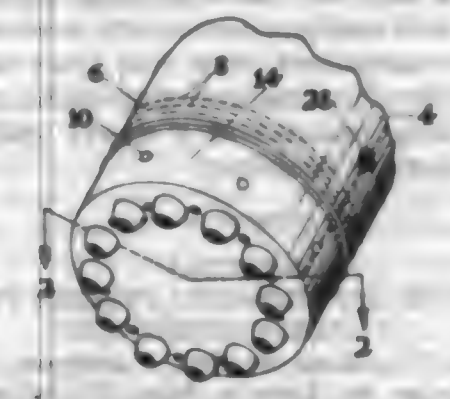


1. The method of stripping exposed laminations of epidermal material from cereal grains having laminate bran coats characterized by interbonding films disruptively reactive to moisture which consists of the sequentially-correlated steps of admixing with the normally dry grain a proportioned amount of added moisture wholly absorbable by the epidermal material laminations to be removed in penetration therethrough to softening and relaxing effect upon the bonding films thereunder, moderately agitating the moistened grain for a time period adequate to uniformly distribute the added moisture over and to absorb the same within the epidermal material of the grain to substantial elimination of free moisture from the surfaces of the grain berries and consequent initial loosening of the penetrated epidermal material, promptly agitating the moisture-conditioned, substantially surface-dry grain mass to generation of pervading indiscriminate grain berry migrations under gentle controlled pressures less than will fracture the berries promotive of frictions diversely and intermittently acting on the contacting berry surfaces to slough therefrom the loosened epidermal material, winnowing the so-treated grain for separation of detached epidermal material from the stripped berries, conditioning the winnowed berries through standing as a mass for a time period effective to establish penetration of retained moisture through the freshly-exposed laminations of the epidermal material of the berries to softening and relaxing effect upon the bonding films thereunder, again agitating the so-conditioned, substantially surface-dry grain mass to generation of pervading indiscriminate grain berry migrations under gentle controlled pressures less than will fracture the berries promotive of frictions diversely and intermittently acting on the contacting berry surfaces to slough therefrom the loosened epidermal material, and subsequently again winnowing the grain for segregation of a stripped, cleaned grain berry product substantially free of epidermal material detached therefrom.

2,867,257
VENTILATED GOLF BAG
Theodore Simons Cart, Harbourton, N. J., assignor to Atlantic Products Corporation, Trenton, N. J., a corporation of New Jersey
Application October 1, 1956, Serial No. 613,196
1 Claim. (Cl. 150—1.5)

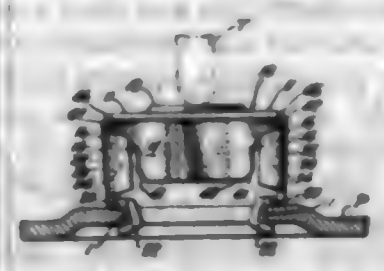
In a golf bag which is closed about the sides and open at the top to provide a space for receiving golf clubs, a

base for the golf bag comprising a member formed of relatively stiff material of substantially uniform thickness secured about its edges to the sides of the bag and serving to close and define the bottom of said club receiving space, said member having a plurality of spaced projections extending downwardly from the lower surface there-



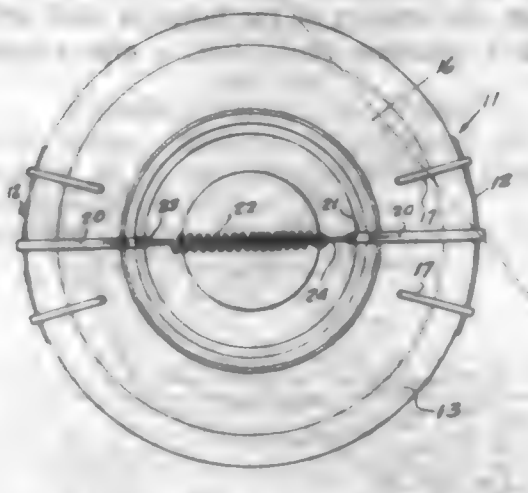
of and provided with corresponding depressions in the upper surface of the member, said member having vent openings therein communicating with the club receiving space between said depressions and serving to permit the circulation of air throughout the lower portion of the club receiving space to ventilate the same.

2,867,258
THREADED FASTENER AND DEFORMABLE HOLDER THEREFOR
Laurence H. Flora and Charles A. Kelley, Cleveland, Ohio, assignors to Tinnerman Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application October 26, 1953, Serial No. 388,387
2 Claims. (Cl. 151—41.74)



1. A fastening assembly including a work part having a work opening therein and a fastening device, said fastening device comprising a nut or bolt head and a holder attaching said nut or bolt head in the work opening, said nut or bolt head comprising a body portion and at least one projecting flange and said holder comprising a strip of sheet metal formed into a base portion extending across the top of the nut or bolt head and arms extending from opposite edges of said base and in clasping relation to said nut or bolt head, said arms extending a distance substantially greater than the axial length of said nut or bolt head and having ends of reduced width defining outwardly directed attaching hooks received in holding relation in the work opening and abutments on edges of said arms bearing on the work part outside of the work opening, said nut or bolt head being disposed in wedging relation between said arms to force the latter outwardly and into engagement with confronting defining surfaces of the work opening, said base being collapsed intermediate said arms in a direction generally normal to the plane of said base and toward the free ends of said arms, said collapsed base defining a downwardly deformed bearing portion engaging the top of said nut or bolt head to prevent movement of said nut or bolt head away from the work in one direction while engagement of said flange with the work part limits movement of said nut or bolt head with respect to the work part in the opposite direction.

2,867,259
TRACTION ATTACHMENT FOR VEHICLE WHEELS
Charles P. Barron, Superior, Wis.
Application September 3, 1957, Serial No. 681,747
3 Claims. (Cl. 152—225)



1. An anti-skid device for a resilient vehicle tire comprising a plurality of arcuate tread-engaging members shaped to engage on spaced portions of the tread of a tire, a plurality of traction lugs secured transversely on the outer surface of each of the members and having resilient inwardly extending end arms adapted to clampingly engage the side walls of the tire, prongs on the inner surfaces of the members penetrable into the tread of the tire, and resilient means connecting certain of the end arms and acting to urge the members against the tread of the tire.

2,867,260
METHOD FOR STRETCHING AND CUTTING SHEET METAL, AND MACHINE FOR CARRYING OUT THE METHOD
Fritz Ungerer, Pforzheim, Germany
Application January 11, 1954, Serial No. 403,324
Claims priority, application Germany January 12, 1953
1 Claim. (Cl. 153—35)

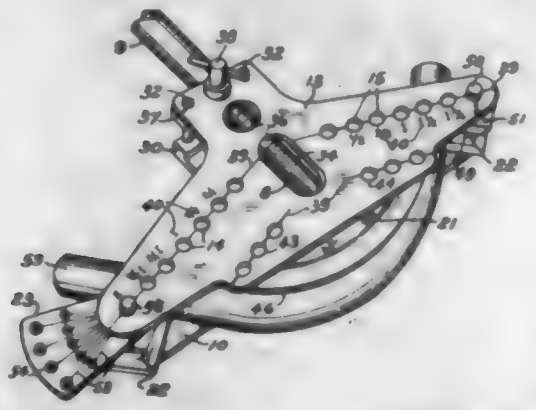


Method of straightening wavy metal sheets comprising, in combination, the steps of clamping and thereby solely supporting a wavy metal sheet at two clamping lines located in a plane on opposite edge portions of said sheet, applying a tensile force to said sheet along said clamping lines until the metal sheet is straightened and planar; pulling said opposite edge portions of the thus-straightened sheet until the straightened sheet is tensioned to a permanently straightened planar condition; reducing the pullling force on said opposite edge portions to substantially zero value; maintaining said sheet clamped at said two clamping lines and simultaneously cutting the sheet in substantially un-tensioned condition adjacent both said edge portions inwardly of said clamping lines.

2,867,261
PIPE BENDER WITH BEND INDICATOR MEANS ON PIVOTAL REACTION BLOCKS
Raymond J. Traupmann, Wauwatosa, Wis., assignor to Blackhawk Mfg. Co., West Allis, Wis., a corporation of Wisconsin
Application February 23, 1955, Serial No. 490,035
4 Claims. (Cl. 153—38)

1. A pipe bender comprising, a plunger movable along a guide member, a rigid plate having its mid-portion fix-

edly attachable to an end of the guide member and being provided with two series of holes diverging away from said member end, another rigid plate having its mid-portion detachably attachable to said member end and being provided with two similar series of holes also diverging away from said member end and which are axially alineable with corresponding holes in said fixedly attached plate, the centers of the holes in each series being disposed in a common center-line, a pipe engaging shoe



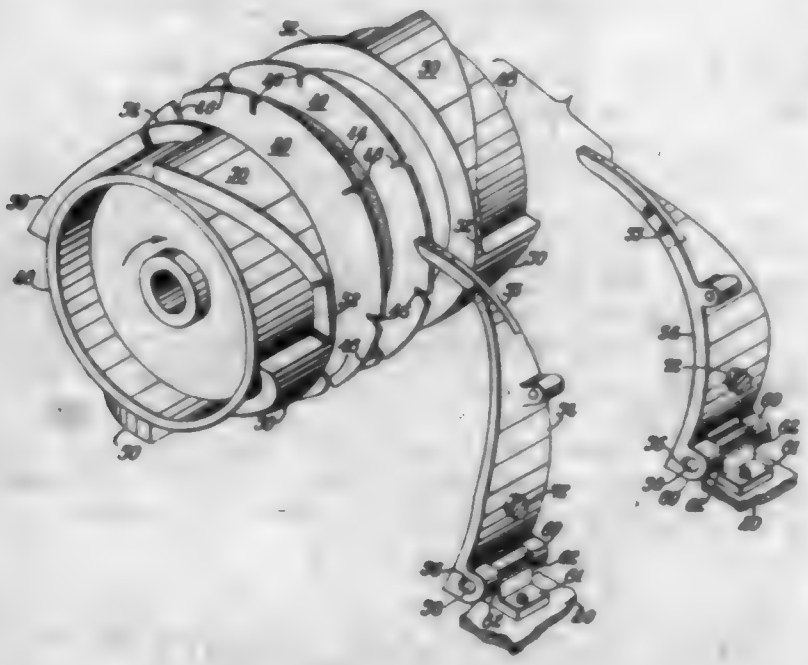
attachable to said plunger and being movable thereby between said plates mid-way between said diverging series of holes, a pipe engaging block pivotally mounted between said plates to swing about the axis of alined holes of said series on each of the opposite sides of said shoe, and an angle bend indicator connected with and being operable by the movement of one of said blocks and having thereon bend designating indicia alineable with said center-line of the adjacent hole series whenever the desired degree of pipe bending has been effected.

2,867,262

MACHINES FOR STRAIGHTENING WIRE LEADS OF ELECTRIC COMPONENTS BY ROLLING SAID LEADS BETWEEN SURFACES OF TAPERING PRESSURE MEMBERS

John Richard Ainsworth, John L. Lutyens, and Alan White, Leicester, England, assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application June 3, 1957, Serial No. 663,210
Claims priority, application Great Britain July 25, 1956
3 Claims. (Cl. 153—39)



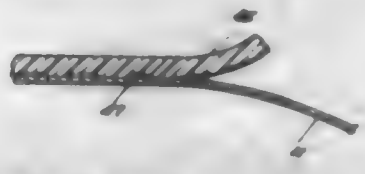
1. A machine for straightening the coaxial leads of components comprising a frame, a pair of rotary lead-engaging members mounted on the frame and spaced apart to accommodate successive component bodies while engaging their leads, each of said members having formed peripherally thereon evenly spaced, tapering surfaces the narrower ends of which are disposed adjacent to the ends of the component bodies and extend in the direction of rotation, a pair of members yieldingly mounted on the frame for cooperation respectively with the successive tapered surfaces of said rotary members, each of the yieldingly mounted members having a lead-engaging surface complemental to the tapering surfaces and having a narrower end extending opposite to the direction of said rotation, and rotary means for feeding the successive components with their leads extending between the cooperative lead-engaging surfaces, said feeding means being operated at a slower speed than the rotary lead-engaging members.

2,867,263

METHOD OF APPLYING PATTERNS TO VINYL FLOOR COVERINGS

Francis John Woodford Bartlett, Pontypool, Mon, England, assignor to Francis John Woodford Bartlett, Pontypool, Mon, England, and William W. Prager, New York, N. Y., as trustees

Application April 4, 1955, Serial No. 499,252
4 Claims. (Cl. 154—26)



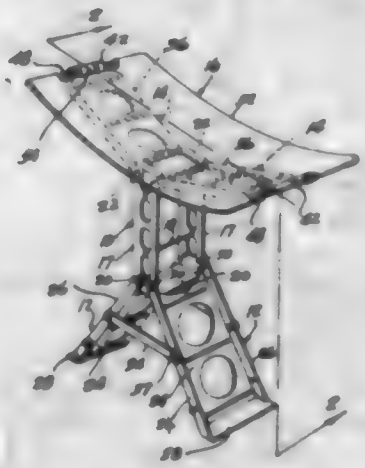
1. The method of making a vinyl type covering for floors, walls and the like which comprises the steps of printing a vinyl resin ink on a strippable backing material, heating the printed backing material so as to remove solvent therefrom, applying to said printed backing, malleable resinous granules comprising a mixture of polymers from the group consisting of polyvinyl chloride, copolymers of vinyl chloride and vinyl acetate and copolymers of vinyl chloride and vinylidene chloride, the said granules further comprising a polymer mixture in which 45 to 90 percent, by weight, thereof is a polymer obtained by emulsion polymerization and 10 to 55 percent thereof is a dispersion type polymer, pressing the said granules into a continuous sheet and onto the printed backing, passing the resulting composite vinyl sheet and backing through a heating zone maintained between 120° C. and 180° C., and stripping the vinyl layer from the backing material thereby providing a covering of at least 10 mils thickness having inlaid therein, for at least 5 percent of its thickness, a regularly repeatable pattern.

2,867,264

COLLAPSIBLE CHAIR

Clifford R. Anderson, Albert City, Iowa

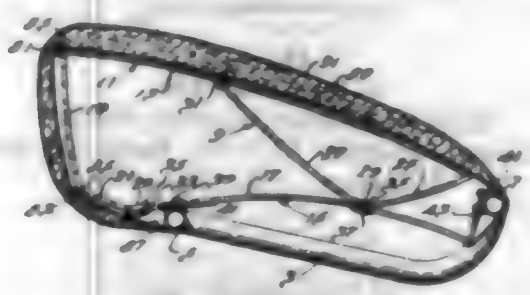
Application July 12, 1957, Serial No. 671,538
3 Claims. (Cl. 155—139)



1. A frame for a collapsible chair comprising a body structure elongated in a vertical direction and formed

open along opposite sides thereof; a pair of leg assemblies pivotally connected to the lower end of said structure for swinging movement in a common plane between inoperative collapsed positions in which said assemblies extend in parallelism along said sides, and operative extended positions in which said assemblies diverge downwardly from said lower end, said leg assemblies in their collapsed positions extending as closures of said sides; and a pair of support arms constituting the seat portion of the chair frame and pivotally connected to the upper end of said structure for swinging movement in the plane of the leg assemblies through the respective open sides between inoperative collapsed positions and operative extended positions, the support arms in their extended positions projecting laterally outwardly in opposite directions from the upper end of the body structure, the support arms in their collapsed position extending in parallelism and being disposed wholly within the body structure, the leg assemblies in their collapsed positions extending as abutments disposed in the path in which the support arms swing from their collapsed to their extended positions.

2,867,265
SPRING CONSTRUCTION
Hyland C. Flint, Birmingham, Mich., assignor to American Metal Products Company, Detroit, Mich., a corporation of Michigan
Application July 15, 1950, Serial No. 174,111
3 Claims. (Cl. 155—179)



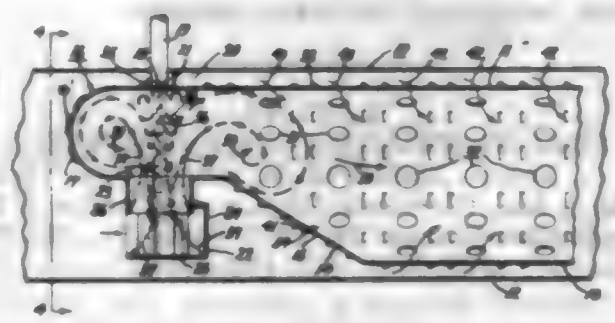
1. A zigzag spring unit comprising a closed loop of sinuous spring wire including an upper web and a lower web, a sinuous spring strip inside of said loop interconnecting an intermediate point on the upper web with the lower web, and a sinuous spring portion extending longitudinally from the lower web and then bent upwardly toward the upper web whereby it is adapted for connection to a rail of a supporting frame in a manner to permit the upper web to deflect downwardly in front of the rear rail.

2,867,266
CRASH PADS FOR VEHICLE SEAT BACKS
Richard S. Vogler, Carbondale, Ill.
Application November 30, 1956, Serial No. 625,493
2 Claims. (Cl. 155—188)



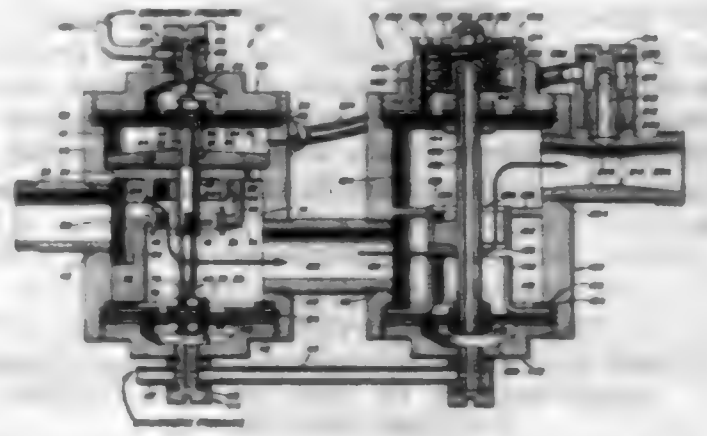
1. A vehicle seat back crash pad comprising a body of resilient compressible material having a cross section larger than the thickness of a vehicle seat back, said body having top and rear sides which are convex while the body is uncompressed, the convexities of the top and rear sides being substantially continuous with each other, said body having intersecting bottom and front surfaces for several engagement with the top and the rear side of a vehicle seat back, and securing means secured to and depending from said body for securement on the front and rear sides of a vehicle seat back.

2,867,267
COMBUSTION CHAMBER
Anthony J. Nerad, Alplaus, and Robert H. Johnson, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application February 23, 1954, Serial No. 411,864
4 Claims. (Cl. 158—1)



1. A combustion chamber comprising in combination, an outer casing defining an air flow path, an inner liner spaced inwardly of said casing, said liner having an upstream enclosing end, a vortex air nozzle positioned on the side wall of said liner adjacent said closed end, means to admit combustion air to said air nozzle, said vortex air nozzle including a throat section adjacent said liner side wall and in flow communication with the interior thereof, a body section next adjacent said throat section and in air flow communication with the throat section, and a series of turning vanes in said body section to impart a vortical motion to the air for delivery to said throat and the interior of said liner, and a fuel nozzle positioned adjacent said closed end and in opposition to the throat of said vortex air nozzle, to spray fuel into the vortical air flow from said air nozzle.

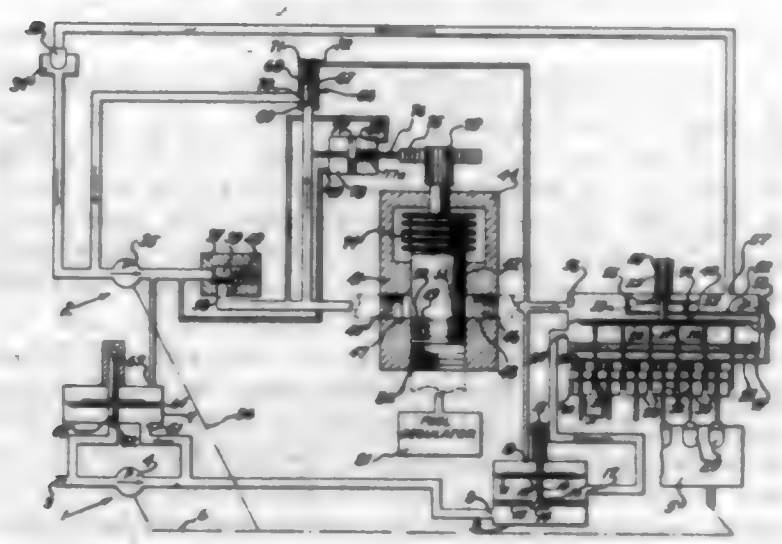
2,867,268
METERING VALVE
Howard E. Brown, Austin, Tex., assignor to the United States of America as represented by the Secretary of the Navy
Application November 23, 1954, Serial No. 470,839
7 Claims. (Cl. 158—36)



1. A fuel meter for maintaining a constant fuel-to-air ratio for a ramjet engine comprising, a fuel pressure throttling valve receiving fuel and including a pressure valve member adapted to cooperate with a pressure valve seat to provide a variable pressure valve opening, a variable flow area valve connected in series with said throttling valve and receiving the outflow therefrom, means for obtaining the static atmospheric pressure, means for obtain-

ing the atmospheric stagnation pressure, means for varying the effective flow area of said variable flow area valve in accordance with changes in atmospheric pressure, means applying a pressure proportional to the pressure drop occurring across the variable flow area valve to said pressure valve member, and means also applying the differential pressure between atmospheric pressure and stagnation pressure to said pressure valve member, thereby causing said valve member to assume a position balancing said pressure drop and said differential atmospheric and stagnation pressure whereby the pressure drop across said variable flow area valve is maintained proportional to said differential atmospheric and stagnation pressure and the flow through said variable flow area valve is maintained proportional to the product of said effective flow area and the square root of the difference between atmospheric stagnation and static pressure.

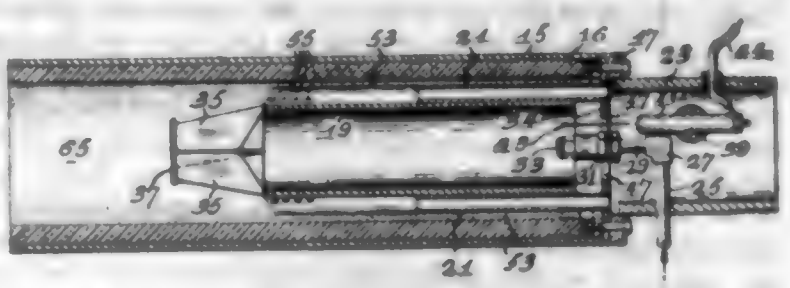
2,867,269
FUEL FLOW AND CONTROL SYSTEM
Frank C. Bayer, Euclid, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application October 29, 1953, Serial No. 388,983
6 Claims. (Cl. 158—36.4)



6. A fuel flow and control system to control fuel flow for a gas turbine or the like, comprising: a fuel flow system and a control medium system isolated therefrom and regulating fuel flow therethrough; said control medium system including a throttle valve, a positive displacement pump driven at the speed of the turbine, a speed sensing valve downstream of the pump to produce a pressure drop in the control medium system, means responsive to the pressure drop to control opening of the throttle valve in accordance with pump output, a relief valve to maintain a constant pressure drop across said throttle valve, and means regulating the pressure in the control system downstream of said throttle valve as a function of flow downstream of said valve; said fuel flow system including valve means regulating fuel flow responsive to said pressure downstream of the throttle valve.

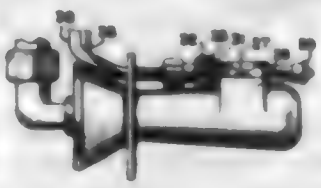
2,867,270
VAPORIZING TYPE OIL BURNER
Witold B. Brzozowski, Montebello, Quebec, Canada
Application July 18, 1955, Serial No. 522,701
3 Claims. (Cl. 158—76)

1. A vaporizing oil burner, comprising in combination, a refractory-lined main burner tube, a blast box at one end of said tube to provide blast air for combustion, a baffling member connected to and intervening said blast box and burner tube, a plurality of cooling tubes mounted on said baffling member and each having an inlet end adjacent to said blast box to receive air therefrom and an outlet end within said burner tube remote from said blast box but spaced from the opposite end of the burner tube, said cooling tubes also being spaced from the wall of said burner tube, a mixing tube supported by said cooling tubes and extending from a point spaced from said baffling member to a point near the end of said cooling tubes, said baffling member having a centrally located opening forming a passage leading from the blast box to the mixing tube, fuel atomizing means for supplying atomized liquid fuel at the inlet end of the mixing tube, the mixing tube constituting a chamber within which atomized fuel



is ignited and projected forward into said combustion tube, the space between the outside of the mixing tube and the burner tube constituting with the space between the inlet end of the mixing tube and the baffling member a return passage for gases to return from the outlet end of the mixing tube to the inlet end of the mixing tube, the cooling tubes having at their outlet ends a plurality of openings leading tangentially onto the outer surface of the mixing tube whereby the end of the mixing tube is cooled by fresh air.

2,867,271
GAS BURNER
Earl C. Jackson, Detroit, Mich.
Application December 23, 1953, Serial No. 399,985
2 Claims. (Cl. 158—99)



2. A burner unit for application to a furnace comprising a tubular nozzle including an inner end having a restricted discharge opening, an intermediate portion of the nozzle having a restricted cross-sectional shape and the outer end portion of the nozzle having a rapidly diverging open interior, means to secure a supply fitting to the outer end of said nozzle, means to control the supply of air to said burner, the inner end of the fitting being provided with a restricted orifice for directing combustion gas toward the inner end of the burner and thereby drawing air through the outer end of such burner, a flange mounted on the burner and projecting laterally beyond the lateral dimensions of the inner end thereof and provided with a cut out portion for receiving pilot light gas supply and control elements, a laterally extending lug on the nozzle projecting radially in the same direction from the tubular nozzle as said cut out, upon which a bracket may be mounted for a pilot light for projecting a flame toward the inner end of said nozzle and upon which a flame responsive structure controlled by said pilot light may be mounted.

2,867,272
GAS BURNER
Harold E. Morrison, Benton Harbor, Mich., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application May 19, 1954, Serial No. 430,791
2 Claims. (Cl. 158—113)

1. A gas burner comprising a horizontally extending metal tube having an inlet at one end thereof, a cylindrical wall portion at the inlet end thereof converging to

a reduced diameter throat of a venturi and diverging from said throat to a generally cylindrical wall portion contoured adjacent the outer end thereof in the form of a uniform inwardly turned wall terminating in a burner orifice, and a downwardly opening hollow hemispherical flame deflector mounted on said tube rearwardly of said



burner orifice and extending over said burner orifice and downwardly to a level substantially midway of each side of the tube and thereby surrounding about one half the circumference of the burner orifice, and cooperating therewith to effect a shielded flame pocket and to arrest forward travel of the flame and deflect and uniformly spread the flame.

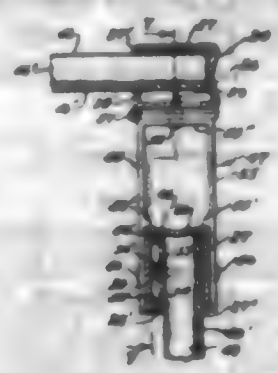
2,867,273

HINGED AWNING STRUCTURE

Frederick S. Brennan, Evanston, Ill., Forrest H. Hudson, Tucker, Ga., and Robert J. Considine, Encinitas, Calif., assignors to Ray-O-Lite Corp. of America, Atlanta, Ga., a corporation of Georgia

Application July 20, 1955, Serial No. 523,222

10 Claims. (Cl. 160—58)



6. An awning for a door or window opening in a building comprising a top and side wings attached to said top along the sides thereof, said top comprising a panel of rectangular shape having a molding of U-shape cross-section enclosing the bottom and two side edges and an elongated top edge member attached to the top edge, said moldings and top edge member being secured together at the corners, said wings being generally triangular and comprised of panel means having stepped portions therein and received along the bottom and top edge in molding pieces of U-shaped cross-section having legs, one of said last-mentioned legs of each of said molding pieces having a transverse flange extending toward said panel means therein a distance at least equal to the thickness of a leg of said molding piece to form a stiffening for the molding, said bottom and top molding pieces of said wings being secured together at one end to form one corner of said generally triangular shaped wing.

2,867,274

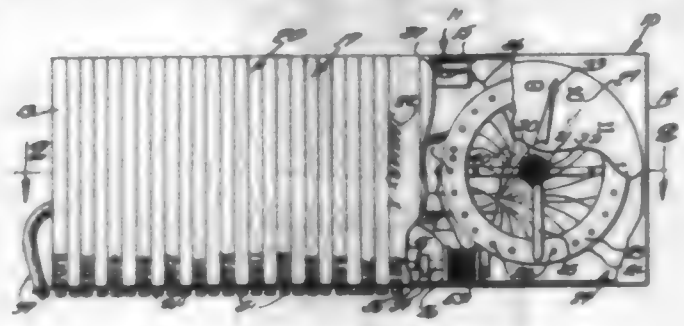
APPOINTMENT CLOCK

Leroy R. Taylor, Louisville, Ky.

Application May 31, 1957, Serial No. 662,889

1 Claim. (Cl. 161—1)

In an appointment clock, a hollow housing including a horizontally disposed bottom wall, spaced parallel vertically disposed end walls, spaced parallel vertically disposed side walls, a vertically disposed partition arranged in said housing and coacting with said walls to define a compartment, a platform arranged parallel to the bottom wall of said housing and extending from the lower edge of said partition to one of said end walls, a pad of writing sheets supported on said platform, a clock motor positioned in said compartment, a bracket extending upwardly from said clock motor, a collar supported above said clock motor and supported by said bracket, a plurality of spaced apart terminals extending through said collar, a shaft extending upwardly from said clock motor, an hour hand connected to said shaft, a lever extending outwardly from said shaft and mounted for movement into and out of engagement with said terminals, an insulated strip supported in said housing on the bottom wall thereof, an insulated base supported in said housing and spaced from said strip, a plurality of spaced parallel



L-shaped clips secured to said strip, wires leading from said clips to said terminals, a support member spaced from said strip and from said base, said base being provided with a plurality of spaced apart cutouts therein defining shoulders, a plurality of spaced parallel plungers mounted for movement into and out of engagement with said clips, spring pressed push buttons for actuating said plungers, spring members pivotally connected to said plungers and having portions mounted for movement into and out of engagement with said cutouts and shoulders, a solenoid for periodically actuating said base, and a sounding member electrically connected to said lever.

2,867,275

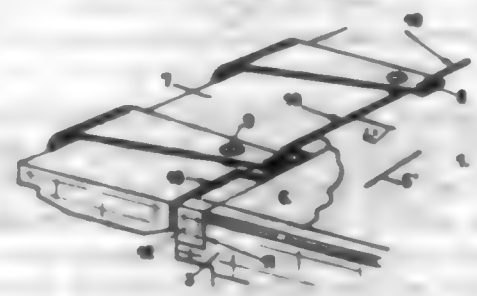
SHEET GRIPPER MEANS FOR PRESSES

Frédéric Laufer, Prilly, Switzerland, assignor to J. Bobst and Son S. A., Prilly, near Lausanne, Switzerland, a corporation of Switzerland

Application July 11, 1957, Serial No. 671,335

Claims priority, application Switzerland July 18, 1956

4 Claims. (Cl. 164—48)



1. Apparatus for processing a sheet comprising a support adapted to support the sheet for the performance of work on the latter, gripper means for gripping the sheet at spaced portions of a margin of said sheet, and auxiliary means on the support and effectively constituting a part thereof and defining at least one opening to accommodate said gripper means thereby to provide support for the margin of the sheet other than at said portions.

2,867,276

SELF-CONTAINED PERFORATING IMPLEMENT

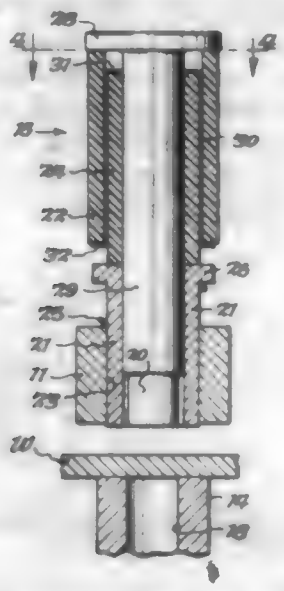
Paul H. Taylor, Grand Island, N. Y., assignor to Wales-Strippit Corporation, North Tonawanda, N. Y., a corporation of New York

Application April 14, 1955, Serial No. 501,274

19 Claims. (Cl. 164—110)

1. Apparatus for perforating a workpiece comprising a punch, a first resilient, compressible, plastic, tubular

member surrounding said punch and in which said punch reciprocates, a second resilient, plastic, tubular member surrounding said first plastic member, one of said plastic, tubular members being of greater compressibility than the other, and means connecting said plastic members



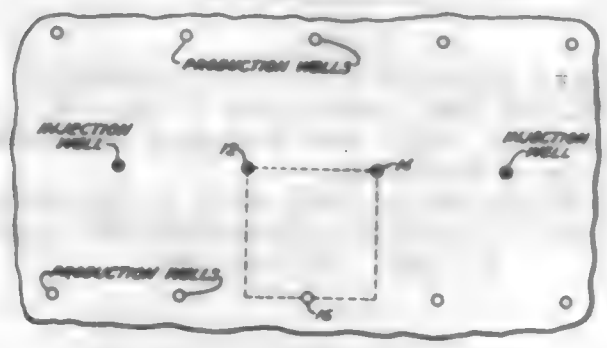
to said punch for compressing and elastically distorting said second plastic member and then said first plastic member serially on a working stroke of said punch to thereby store energy in said members for stripping said punch from said workpiece.

2,867,277

PRODUCTION OF HYDROCARBON MATERIAL

Charles F. Weinaug and Daniel Ling, Lawrence, Kans., assignors to The University of Kansas Research Foundation, Lawrence, Kans., a corporation of Kansas

Application February 14, 1956, Serial No. 565,358
10 Claims. (Cl. 166—9)



1. In a method of recovering petroleum from an underground formation the steps comprising displacing the petroleum from the formation to and recovering it from a production well by injecting into the formation at least one premixed fluid mixture of petroleum and a hydrocarbon fluid, said mixture being of viscosity intermediate of said petroleum and said hydrocarbon fluid, and then injecting a hydrocarbon displacement fluid, said mixture supplying a transition zone between the petroleum and said fluid.

2,867,278

SEALING POROUS FORMATIONS

Harvey E. Mallory, Midland, Tex., and William H. Ayscue, Wilmington, Del., assignors to Great Western Drilling Company, Midland, Tex., a corporation of Texas

No Drawing. Application November 16, 1956
Serial No. 622,547
9 Claims. (Cl. 166—33)

1. The method of sealing a porous underground formation adjacent to the borehole of a well which comprises introducing into the borehole a fluid composition containing as its active ingredient an organic polyisocyanate compound having at least two unreacted isocyanate groups per molecule, forcing said composition from the borehole into the pores of the formation under pressure, and holding the composition in the pores of the formation under pressure for a sufficient time to allow reaction of the polyisocyanate compound with a chain extender comprising a polyfunctional compound containing at least two active hydrogen atoms whereby to fill the pores with a polymeric reaction product and thereby sealing the pores against the passage of fluid.

2,867,279

PROCESS AND COMPOSITIONS FOR TREATING GEOLOGICAL FORMATIONS

Thomas G. Cocks, Edwardsville, Ill., assignor to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application March 18, 1957
Serial No. 646,558
20 Claims. (Cl. 166—42)

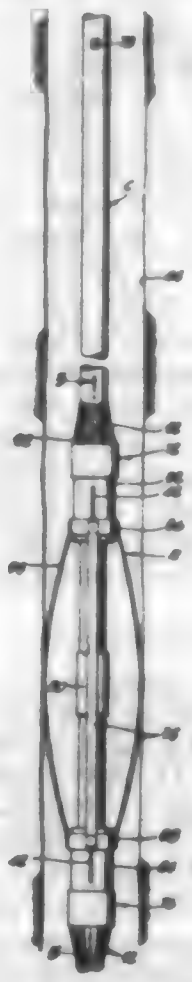
1. A process of improving the characteristics of geological formations which comprises contacting said formations with water having dissolved therein a hydroxy substituted carboxylic acid and a bactericidally active basic organic nitrogen compound having at least one aliphatic group of at least 8 carbon atoms in chain length, said hydroxy substituted carboxylic acid being soluble in water at 20° C. as its calcium salt to the extent of at least 500 parts per million and having a dissociation constant (K_1) of from 2×10^{-3} to 1×10^{-4}, and the amount of said acid being sufficient to adjust the pH of said water to a range equal to or less than that of the connate water present in said formation, with the weight ratio of acid to basic organic nitrogen compound being within the range of from 25:1 to 1:3.

2,867,280

SCRATCHER CONSTRUCTION FOR ABRADING WELL BORE HOLES

Frank Daniel De Jarnett, Long Beach, Calif., assignor of one-half to Paul A. Medearis

Application January 13, 1955, Serial No. 481,559
13 Claims. (Cl. 166—173)



1. In oil well production equipment, the combination comprising: a casing to extend into a well bore; a plu-

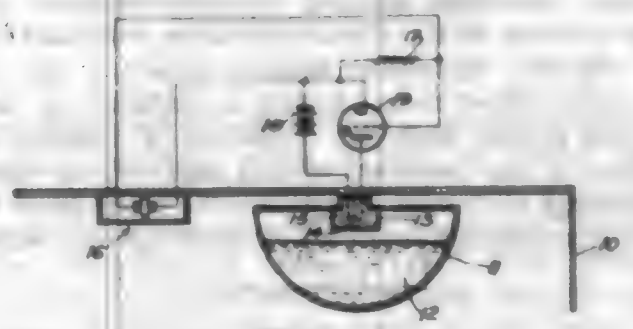
rality of spring fingers mounted on said casing to swing between outwardly extending effective positions to abrade the surface of the well bore and retracted positions spaced inwardly from the surface of the well bore; yielding means rotatably mounted on said casing for frictional engagement with the well bore; a sleeve rotatably surrounding and axially movable on said casing; means fixed on said sleeve movable axially along said casing to a position holding said fingers in a retracted position; key means to maintain said sleeve in a substantially fixed rotatable but movable axial position relative to said yielding means; and corresponding mating helical screw threads on said casing and on said sleeve to cause axial movement of said sleeve and said finger holding means on said casing to release said fingers by rotation of said casing with respect to said yielding means.

2,867,281
VEHICLE FIRE EXTINGUISHER APPARATUS
Val K. Donohue, Omaha, Nebr.
Application March 14, 1955, Serial No. 493,889
6 Claims. (Cl. 169—2)



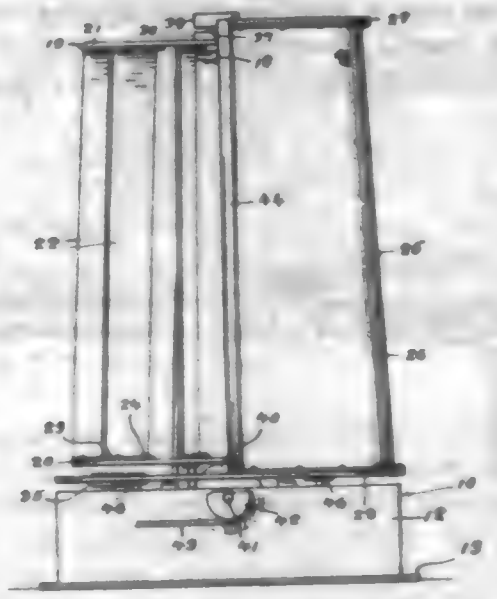
1. In combination: an ammunition carrying truck having dual wheel assemblies and apparatus for fighting fires breaking out in a tire of a dual wheel assembly comprising: outlet means for fire extinguishing material disposed adjacent said tires and directed toward said tires, means controllable from a position adjacent the driver's seat of said motor vehicle for delivering fire extinguishing material to said outlet means whereby the operator can cause delivery of fire extinguishing material to said tires at times when said vehicle is in motion to prevent excess spreading of a tire fire until said vehicle can be stopped.

2,867,282
EXPLOSION SUPPRESSING SYSTEM
Samuel M. Bagno, Astoria, and Ernest A. Joerren, Brooklyn, N. Y., assignors to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application December 30, 1954, Serial No. 478,744
3 Claims. (Cl. 169—4)



1. In an explosion suppressing system, the combination of means for storing an explosion suppressing medium and releasing the medium in the vicinity of an explosion hazard, said means including an electrically controlled device for effecting release of the medium, a network for controlling the energization of said device, and a piezoelectric pressure transducer in the vicinity of the hazard having a rate of pressure rise characteristic and being connected in said network to effect energization of said device in response to a predetermined rate of pressure rise at the incipience of an explosion.

2,867,283
WIND POWER MACHINE
John L. Shanahan, St. Louis, Mo.
Application July 17, 1956, Serial No. 598,326
5 Claims. (Cl. 170—15)

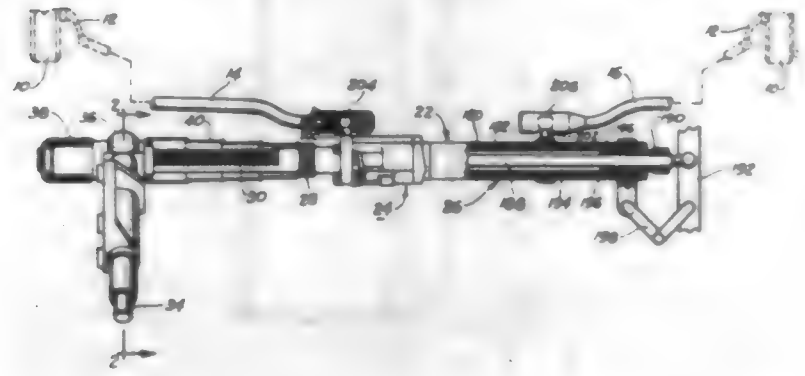


1. In a wind power machine, a stationary base including a horizontally disposed top wall and vertically disposed side walls, horizontally disposed flanges on the lower edges of said side walls, a horizontally disposed shaft extending through one of said side walls and having a pulley on its outer end and a friction wheel on its inner end, there being a cutout in the top wall of said base for the projection therethrough of said friction wheel, a stationary tower extending upwardly from said base, a rotor mounted for rotary movement about said tower and said rotor including a lower circular disc arranged in engagement with said friction wheel, said rotor further including an upper circular disc of less diameter than said lower disc, a plurality of radially disposed blades extending between said discs and secured thereto, a movable shield surrounding a portion of said rotor, said shield including a curved baffle and a horizontally disposed top plate, a stub shaft extending from the top of said tower to the top plate on said shield, ball bearing assemblies arranged in engagement with said stub shaft and engaging the top of said rotor and the top plate on said shield, and a horizontally disposed circular plate connected to the lower end of said shield.

2,867,284
HYDRAULIC POWER STEERING DEVICE WITH RACK AND PINION ACTUATING MEANS
Howard E. Hruska, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application June 13, 1955, Serial No. 514,865
3 Claims. (Cl. 180—79.2)

1. A power steering device for a vehicle comprising steerable wheels, spindle arms and tie rods associated with said wheels, a control valve having a housing member with a bore therein, a valve member movable in opposite directions from a normally neutral position within said bore, an inlet port, a return port, two working ports, pressure reaction means opposing movement of said valve member from a normally neutral position, and pressure regulating means limiting the pressure to the reaction means, a power unit rigidly connected to said control valve, said power unit having an outer casing and an inner casing, a piston within said inner casing, a piston rod con-

nected to said piston and connected to a fixed part of the vehicle structure, passages communicating said power unit with said control valve, one of said passages being formed by the inner and outer casings of said unit, rigid connector elements connecting said power unit and control valve to the ends of said tie rods permitting the tie rods to gyrate relative to said connector elements, means connecting said power unit to a fixed part of the vehicle structure thereby preventing said power unit from rotating about its longitudinal axis but permitting limited movement along its longitudinal axis, a hand operable steering wheel, motion translating means operable by said steering wheel, said motion translating means including a steering shaft, a



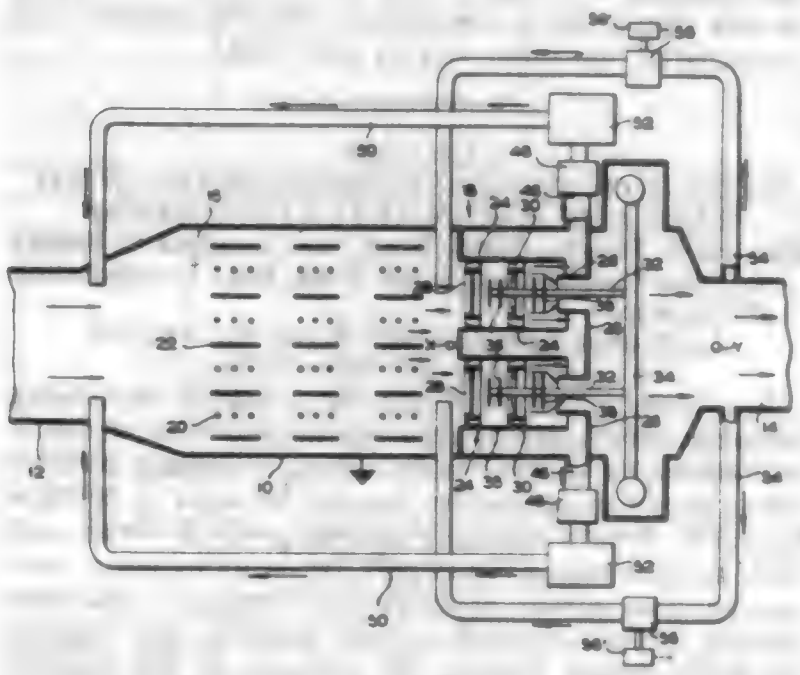
pinion gear cut on said steering shaft, a rack meshing with said pinion gear, said rack being in coaxial alignment with said power unit and control valve, a ball stud attached to one end of said rack for actuating the valve member lying within said control valve, means surrounding said steering shaft for adjusting the mesh between said pinion and rack, said rack, control valve, and power unit being rigidly connected so as to form an integrated assembly extending laterally of said vehicle their axes being substantially perpendicular to the axis of the steering shaft, said motion translating means thereby providing a direct transfer of steering wheel rotation into a transverse movement of said assembly.

2,867,285

GAS CLEANING APPARATUS

Harry A. Winternute, Plainfield, N. J., assignor to Research Corporation, New York, N. Y., a corporation of New York

Application March 13, 1956, Serial No. 571,380
3 Claims. (Cl. 183—7)



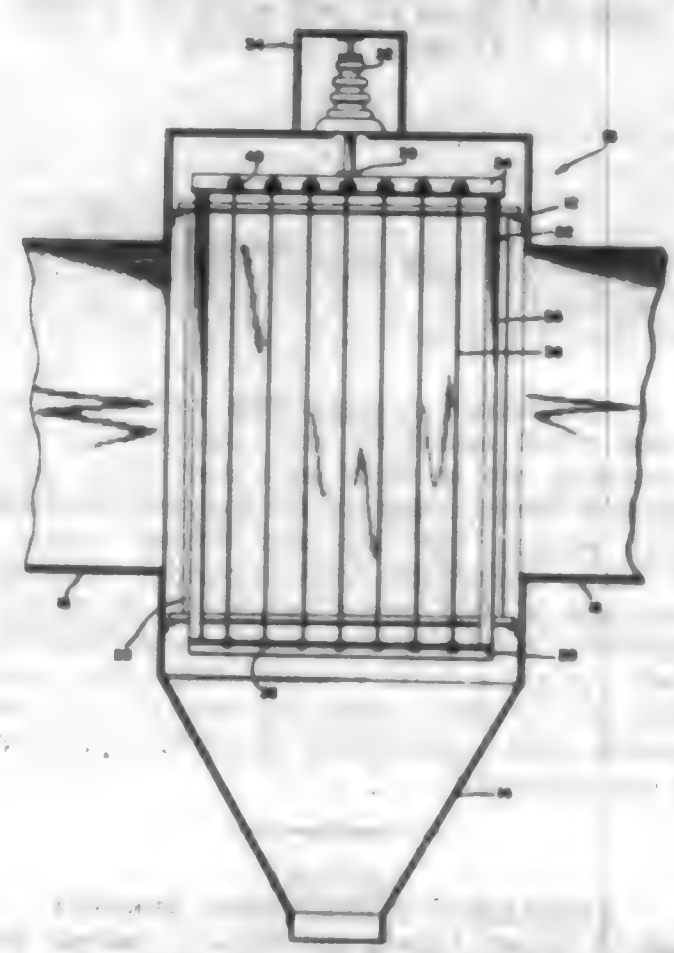
1. In an electrified centrifugal gas cleaning device including a tubular housing, a gas swirling and separating chamber in the housing, a gas inlet and a gas outlet for said gas swirling and separating chamber and control means sensitive to a pressure differential between the inlet and the outlet of the chamber for maintaining a constant volume of gas flow through said chamber, said control means including a gas recirculating connection communicating with the gas outlet and gas inlet for said chamber, powered fan means in said recirculating connection, an electric control element having operable connection with said fan power means, a presettable meter measuring differential in pressure between the gas inlet and gas outlet, and said control element having responsive connection to said meter.

2,867,286

DISCHARGE ELECTRODE TENSIONING MEANS

Rudolf G. Strauber, Somerville, N. J., assignor to Research-Cottrell, Inc., Bridgewater Township, Somerset County, N. J., a corporation of New Jersey

Application April 23, 1956, Serial No. 579,827
3 Claims. (Cl. 183—7)



1. In a discharge electrode assembly for an electrical precipitator operative over a substantial temperature range comprising a rectangular frame and a plurality of parallel discharge electrodes secured between opposed lateral members of the frame, the combination with said assembly of thermal expansible bellows means, a gas sealed within said bellows means having a coefficient of thermal expansion greater than the coefficient of thermal linear expansion of the members of said assembly to maintain the discharge electrodes taut within the rectangular frame upon thermal expansion of the members of the assembly.

2,867,287

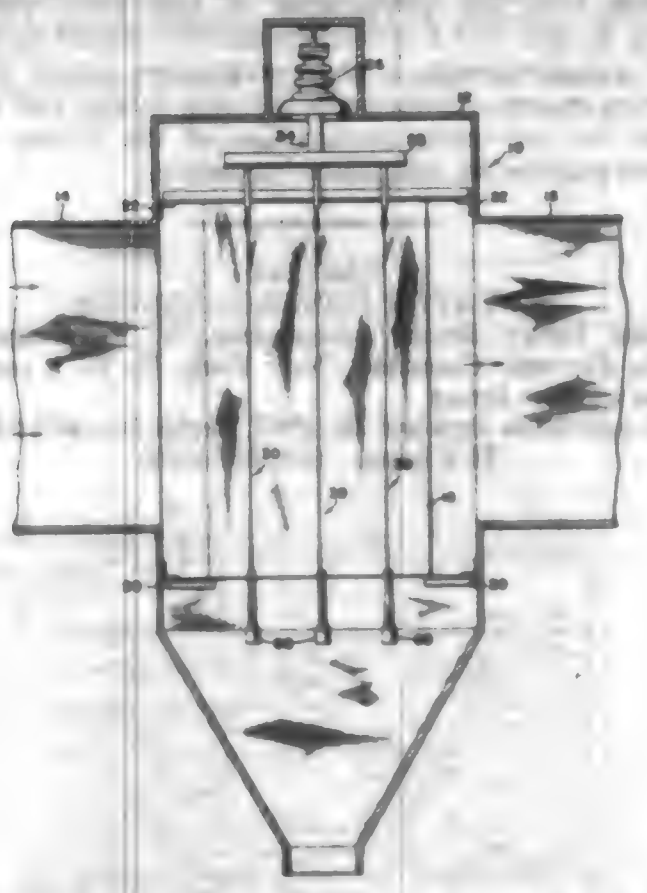
DISCHARGE ELECTRODE

John A. Armstrong, Plainfield, N. J., assignor to Research Corporation, New York, N. Y., a corporation of New York

Application June 4, 1956, Serial No. 589,065
5 Claims. (Cl. 183—7)

1. In a discharge electrode construction for an electrical precipitator having an electrode supporting frame, the combination comprising an elongate wire, helical sections formed integrally with each end of said wire, rigid tubular shroud members for receiving and snuggly engag-

ing at least portions of said helical sections and for retaining the terminal portions of said sections, and



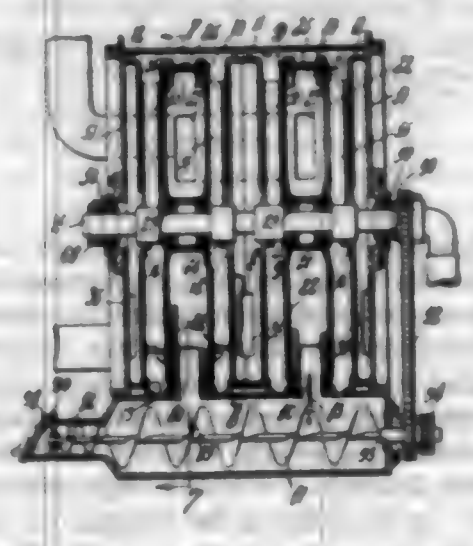
means for connecting at least one of said shroud members to the electrode supporting frame.

2,867,288

DUST FILTER AND COLLECTOR

John Turner, Newton, Mass., assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware

Application July 1, 1955, Serial No. 519,377
21 Claims. (Cl. 183—61)



2. A filter member comprising a pair of spaced inner and outer concentric rings, a pair of spaced annular sheet material filter elements having their outer margins overlying the edges of said outer rings and their inner margins overlying the edges of said inner rings, and means for holding the margins of said elements beyond said edges overlying adjacent faces of said rings.

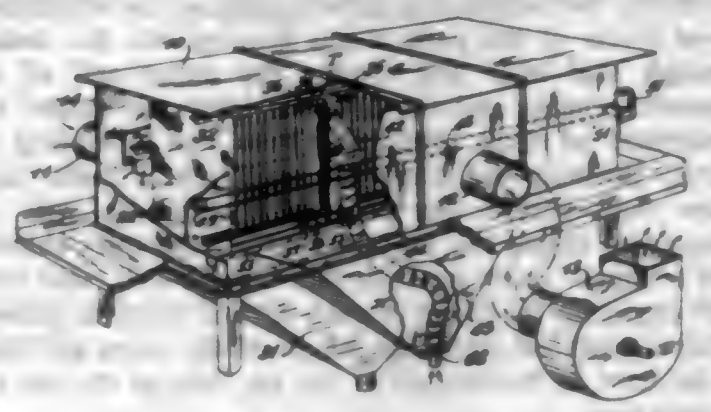
2,867,183

DUST COLLECTOR

Carl R. Sare, Shaker Heights, Ohio, assignor to The W. W. Sly Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application August 16, 1956, Serial No. 604,370
19 Claims. (Cl. 183—61)

1. In a dust collector, a casing, a dust wall therein dividing the casing into a dust chamber and a clean air chamber, a plurality of porous bags in said dust chamber arranged side by side with their open ends attached to said dust wall normally in communication with said clean air chamber, a traveler movable back and forth over the clean air side of said dust wall, means for conducting reverse air through said traveler and through said wall for cleaning said bags progressively, said traveler comprising a pair of resilient rollers turning on their axes



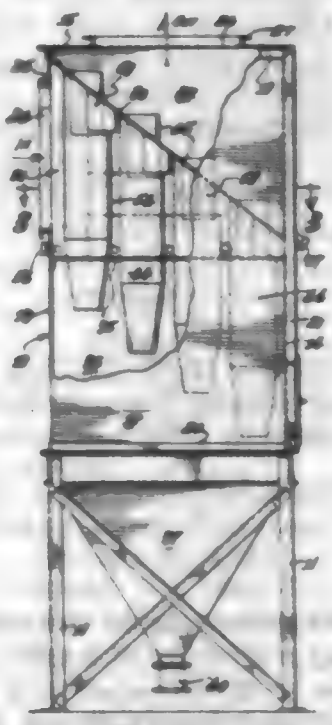
at right angles to the direction of movement of the traveler and disposed on opposite sides of last named means, said reverse air conducting means passing between said rollers and contacting both of them for preventing the reverse air from entering the clean air chamber, said resilient rollers as they travel over the dust wall yielding sufficiently to seal the wall, including any irregularities therein, on both sides of the bag being cleaned and to cause the reverse air to travel through that bag.

2,867,256

MULTIPLE ELEMENT CYCLONIC SEPARATOR

Norman M. McGrane, Long Beach, Calif., assignor to Western Precipitation Corporation, Los Angeles, Calif., a corporation of California

Original application March 16, 1953, Serial No. 342,653, now Patent No. 2,768,744, dated October 30, 1956. Divided and this application July 9, 1956, Serial No. 596,617
2 Claims. (Cl. 183—83)



1. Apparatus for separating suspended particles from a stream of gas by centrifugal action, comprising: a housing having a gas inlet and a gas outlet; a pair of rows of separating tubes inside the housing, each tube having a forwardly facing involute inlet near the top and the rows each containing a plurality of tubes, each row extending generally in the direction of flow of the gas stream entering the housing and having the tubes

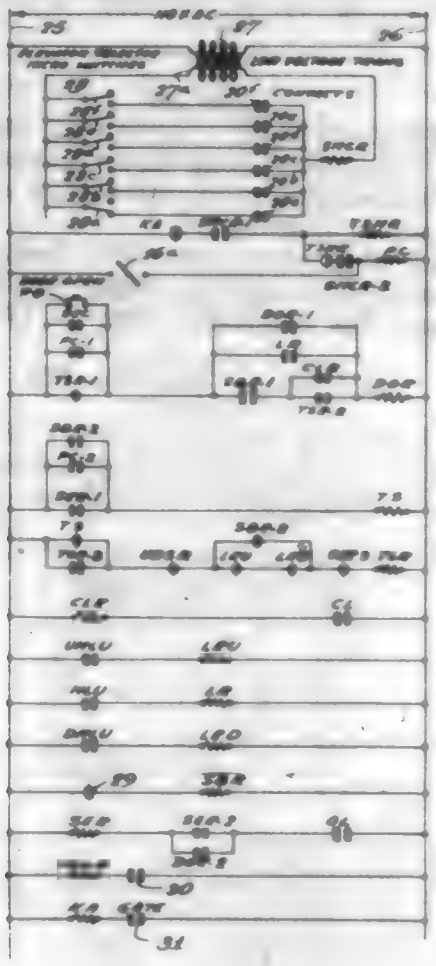
in that row at levels progressively lower in said direction of gas flow, and the rows being spaced transversely of the direction of said gas flow to allow the gas to pass between forward tubes to reach and enter rearward tubes of the rows; an upper transverse wall within the housing cooperating with the housing to define an inlet chamber and an outlet chamber communicating respectively with the gas inlet and the gas outlet of the housing, said wall extending rearwardly and downwardly across successively lower levels of the path of gas flowing into the housing through said inlet and closing the upper end of said separating tubes and the involute inlets; an outlet tube concentric of each separating tube and extending upwardly through said transverse wall; and a lower transverse wall within the housing cooperating with the housing to define the bottom wall of said inlet chamber and a hopper space beneath said second wall, said lower wall engaging the tubes in each of said rows at different relative positions along the length of the tubes and being at the level of the bottom of the gas inlet of the last tube of each row.

2,867,291

ELECTRICAL CONTROL SYSTEM

Knute Henry Pierson, Seattle, Wash., and Wayne F. Meinhardt, Davenport, Iowa, assignors, by mesne assignments, to Montgomery Elevator Company, a corporation of Delaware

Application July 6, 1956, Serial No. 596,295
15 Claims. (Cl. 187—29)



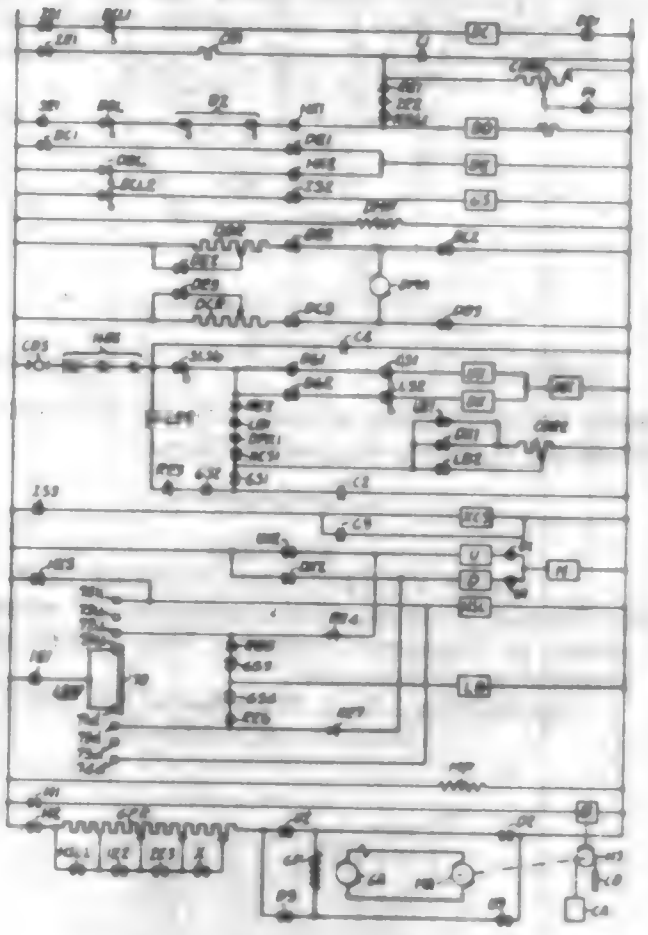
10. In a control system for an elevator car running in a shaft and serving a plurality of floors: means, including a switch, sensitive to the presence of a prospective passenger on one of said floors adjacent the shaft of the elevator; a relay having an energization circuit including said switch, for actuating the relay in the presence of a prospective passenger; means for detecting the presence of a passenger in the doorway of said car; means responsive to said detecting means for delaying the departure of said car; an auxiliary energization circuit for said delaying means including a first contact associated with said relay; timing means having an energization circuit including said contact, said timing means including a contact in the energization circuit of said delaying means for permitting departure of said car a predetermined period of time after the energization of said relay and said timing means; and a second contact associated with said relay and interposed in the energization circuit of said delaying means, between the delaying means and timing means for preventing energization of the timing means on energization of said detecting means.

2,867,292

ELEVATOR CONTROL SYSTEM

William Henry Bruns, Lincolndale, N. Y., assignor to Otis Elevator Company, New York, N. Y., a corporation of New Jersey

Application October 28, 1957, Serial No. 692,684
20 Claims. (Cl. 187—29)

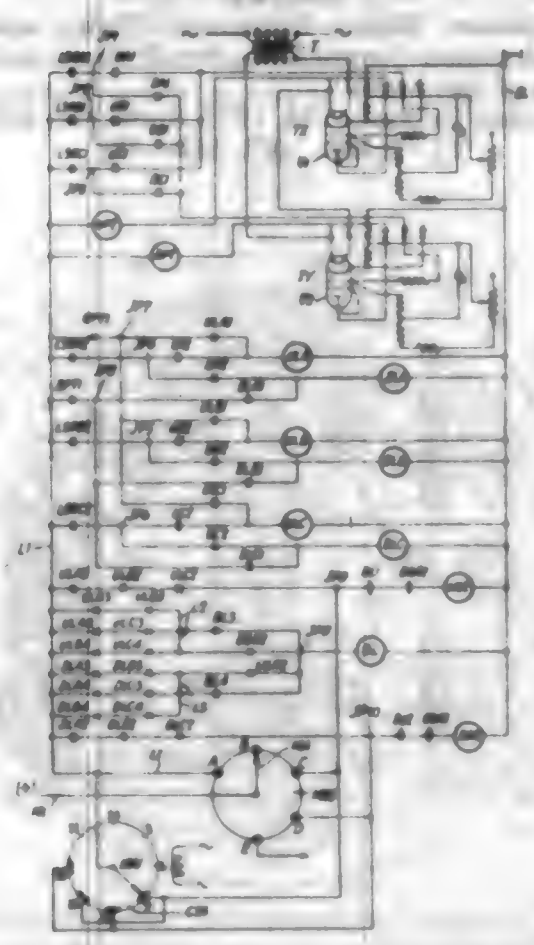


20. An elevator system comprising; an elevator car serving a plurality of landings; closure means controlling access to the car at a landing; means for operating said closure means; means including an electromagnetic switch adapted upon operation to cause operation of said closure operating means to open said closure means; leveling mechanism operable within a certain zone with respect to each landing at which a stop is being made to cause the car in stopping to be brought to the landing level; a condenser; means responsive to the arrival of the car at a certain distance from the landing ahead of said zone for connecting said condenser across the coil of said switch to cause operation thereof by the discharge of said condenser and thus operation of said closure opening control means to initiate the opening of said closure means prior to the arrival of said car in said zone; closure control means operable in said zone at a certain distance from the landing and adapted upon operation prior to the end of said transitory operation to cause current to be supplied to said coil to maintain said switch and thus said closure opening control means operated to continue the closure means opening operation to open said closure means as the car is being brought to the landing by said leveling mechanism; and means operable in said zone at a less distance from the landing to disconnect said condenser from across the coil of said switch.

2,867,293
LIFT CONTROL SYSTEMS

William John Bailey, Bexley, England, assignor to J. & E. Hall Limited, London, England, a company of Great Britain

Application January 2, 1958, Serial No. 706,836
Claims priority, application Great Britain
January 14, 1957
16 Claims. (Cl. 187—29)

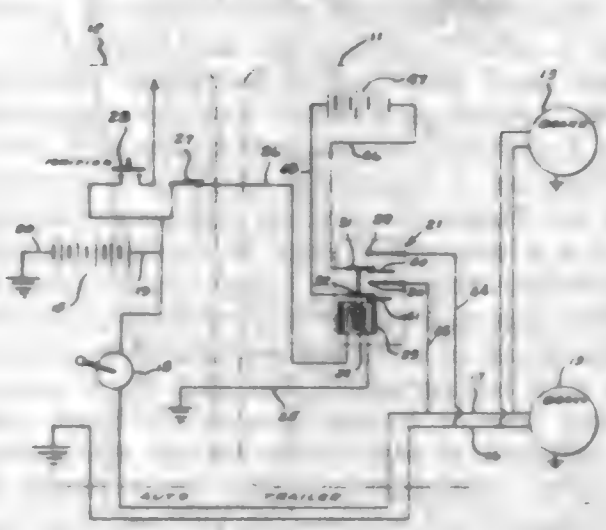


11. A lift control system for a plurality of cars arranged to serve a number of floors, the system comprising means for operating the cars in any one of a plurality of different modes, said modes including a first mode of operation that is suitable for heavy up traffic, a second mode of operation that is suitable for heavy down traffic, a third mode of operation that is suitable when there is heavy traffic in neither direction and a fourth mode that is suitable for simultaneous heavy up and heavy down traffic, means for each car for determining whether the car is loaded, first means for each car for registering the loaded condition of the car when the latter is travelling upwardly, second means for each car for registering the loaded condition of the car when the latter is travelling downwardly, and selection means for causing the cars to be operated in the first mode when a first predetermined number of the first registering means have been operated for the period between adjacent ones of which there is not more than a first predetermined time interval during which none of the first registering means is operated, for causing the cars to be operated in the second mode when a second predetermined number of the second registering means have been operated for periods between adjacent ones of which there is not more than a second predetermined time interval during which none of the second registering means is operated, for causing the system to change from the first mode to the fourth mode when a third predetermined number of the second registering means have been operated for periods between adjacent ones of which there is not more than a third predetermined time interval during which none of the second registering means is operated, for causing the system to change from the second mode to the fourth mode when a fourth predetermined number of the first registering means have been operated for periods between adjacent ones of which there is not more than a fourth predetermined time interval during which none of the first registering means is operated, and for causing the cars to be operated in the third mode when no other mode is selected.

2,867,294
TRAILER BREAKAWAY CONTROL

Freddie H. Sturdivant, Spokane, Wash.

Application April 9, 1954, Serial No. 422,154
3 Claims. (Cl. 188—3)



1. In a tractor-trailer brake system wherein the trailer is provided with an electrically operated brake and the tractor is provided with a source of electric current having one terminal grounded to the tractor frame and one ungrounded terminal, a second source of current on said trailer having both of its terminals ungrounded, an electromagnetic double-pole, single-throw switch on the trailer, said switch comprising a winding, a pair of conductors extending from the trailer to the tractor and connecting said winding to the frame of the tractor and to the ungrounded terminal of said first-named source of current respectively, circuit means connecting the ungrounded terminal of said first-named source of current to said brake, a control switch on the tractor connected in said circuit means to control the energization of the brake, a pair of switch contacts controlled by said winding, said sets of contacts being opened when the winding is energized and closed in response to the de-energization of said winding, and additional circuit means connecting the terminals of said second source of current to the terminals of said brake respectively through said sets of contacts, whereby the brake will be operated when said energizing winding is disconnected from said first-named source of current by the breakage of said conductors.

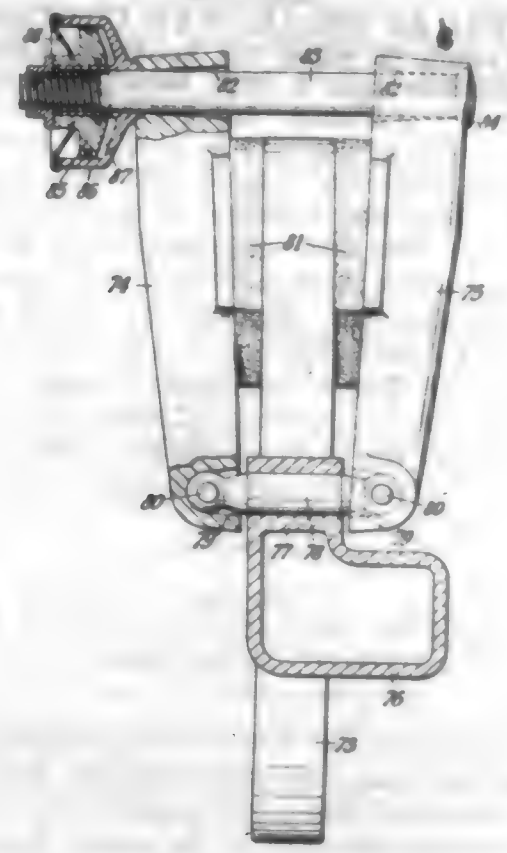
2,867,295
DISC BRAKE FOR VEHICLES

Henry James Butler, Sutton Coldfield, England, assignor to Dunlop Rubber Company Limited, London, England, a British company

Application November 7, 1952, Serial No. 319,379
Claims priority, application Great Britain
October 11, 1951
3 Claims. (Cl. 188—73)

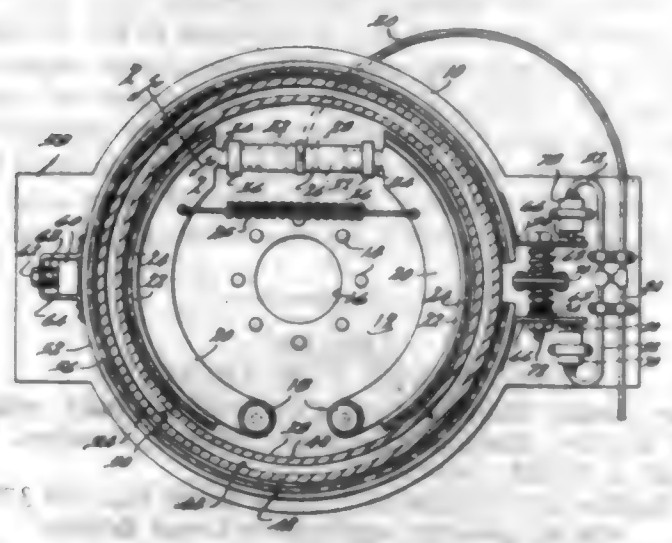
1. A disc brake for vehicles comprising a rotatable disc, a torque resisting support having portions lying on opposite sides of the axis of rotation of said disc and projecting beyond the periphery of said disc, a pin supported by each projecting portion with the longitudinal axis of each pin parallel to said axis of rotation, said pins extending beyond the faces of said disc, aligned pressure plates one on each side of said disc, said pressure plates being of V-shape, each extremity of each V-shaped plate overlying a pin end, and each extremity of each pressure plate having a recess mating with its respective pin, and pegs, one transverse each pin and recess, the pegs of each pressure plate having their longi-

tudinal axes aligned and lying parallel to a diameter of said disc to permit said pressure plates to pivot on said pegs to swing to and from opposite sides of said disc, pads of frictional material secured to said pressure plates between said pressure plates and said disc to frictionally



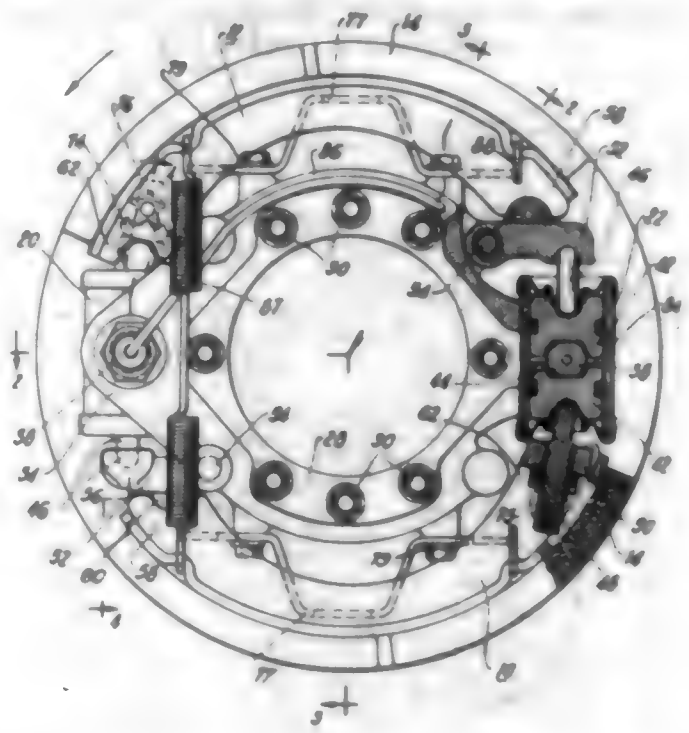
engage a minor portion of the radially-extending sides of said disc, and a fluid pressure operated mechanism engaging said pressure plates to swing said plates toward said disc to bring said friction pads into frictional contact with said disc.

2,867,296
HYDRAULIC BRAKE SYSTEM
Ignacio L. Requenes, Detroit, Mich.
Application November 22, 1954, Serial No. 470,279
2 Claims. (Cl. 188—76)



1. In a braking system, a rotatably mounted brake drum comprising an outer annulus, an inner annulus and a pair of discs interjoining the edges of said annuli to form a hollow chamber in said drum, a shield, a pair of brake shoes independently pivotally mounted on said shield, a hydraulic cylinder mounted on said shield and actuatable to pivot said shoes into engagement with said inner annulus, an annular brake band overlying said outer annulus and having two ends, a pair of arms individually affixed to said ends and extending substantially in spaced parallelism with one another, spring means for forcing said arms apart, means for establishing an adjustable limit to the extent of separation of said arms, a pair of hydraulic cylinders mounted on said shield and actuatable to force said arms towards one another, means engaging said brake band at a point diametrically opposite said ends for resiliently supporting a portion of said brake band in proximity to said outer annulus, hydraulic apparatus for concurrently energizing all of said cylinders, and a normally liquid coolant in said chamber.

2,867,297
BRAKE
William Edward White, Buchanan, Mich., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application December 28, 1953, Serial No. 400,428
12 Claims. (Cl. 188—78)

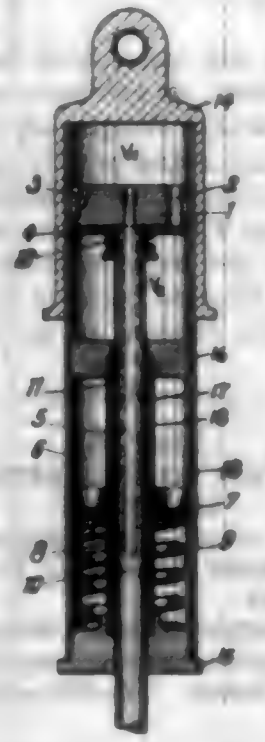


1. A brake comprising a torque spider, a pair of individually self-energizing brake shoes each having a rim and two transverse strengthening webs, a fluid motor mounted between each of the adjacent ends of said shoes and operatively connected therewith, axially offset projections of said torque spider extending on either side of said wheel cylinders, an anchor pin laterally received through the midportion of each of said wheel cylinders and positioned in said projections, shoe positioning means clamped to said torque spider and received between the transverse webs on said shoes, a pivoted applying lever associated with one end of each of said shoes, a thrust link operatively connected to the end of each of said levers, means for enabling the ends of said shoes associated with said levers to slide and pivot on said levers intermediate the ends thereof, an adjustor associated with one end of each of said shoes consisting of a post positioned in the webs of said shoes to permit pivotal movement of said shoes thereon, a boss located on the midportion of said post and positioned between the webs of said shoes to prevent turning of said adjustors, and an externally threaded thrust link received in an opening in each of said adjustors, said thrust links bearing against pistons in said fluid motors and adapted to vary the retracted position of the ends of the shoes associated therewith.

2,867,298
TELESCOPIC SHOCK ABSORBER
Albert Roder, Heilbronn, Neckar, Germany, assignor to NSU Werke Aktiengesellschaft, Neckarsulm, Wurttemberg, Germany
Application October 12, 1956, Serial No. 615,616
Claims priority, application Germany October 15, 1955
4 Claims. (Cl. 188—88)

1. In a shock absorber, a cylinder, means separating the interior of the cylinder into a piston accommodating por-

tion and a storage chamber portion, a piston reciprocable in said piston accommodating portion and having ports therethrough permitting displacement of fluid from one side of the piston to the other, a piston rod extending from one face of the piston through the storage chamber portion and exteriorly of the cylinder, a sleeve element within the storage chamber portion, surrounding the piston rod and having a transverse dimension greater than the transverse dimension of the piston rod so as to define an annular space between the exterior of the piston rod and the interior of the sleeve element, at least one port in the sleeve element providing communication between



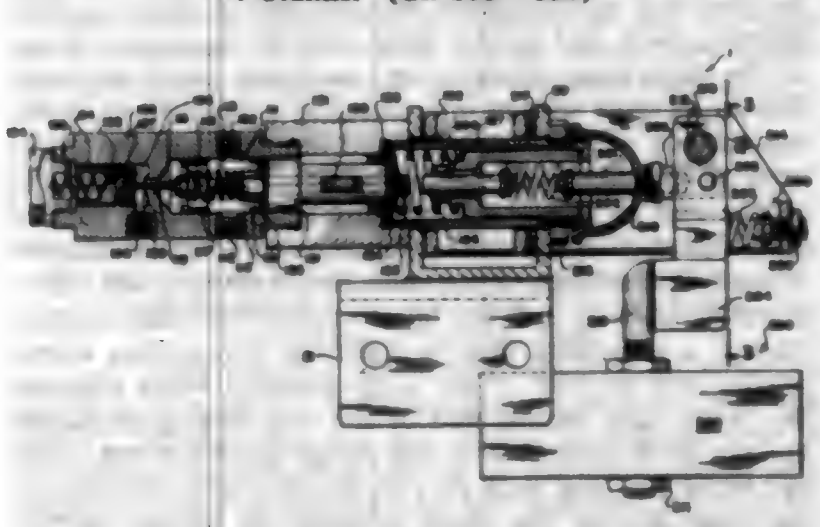
the storage chamber portion and said annular space, said piston and rod having duct means therethrough providing constant uninterrupted communication between the said annular space and that portion of the cylinder adjacent the face of the piston that is remote from the storage chamber and which constitutes the low pressure compartment of the cylinder, and means applying resilient pressure to the interior of the storage chamber whereby when the piston moves in a direction away from the storage chamber, a quantity of fluid is displaced into the storage chamber and upon reverse movement of the piston a quantity of fluid is returned from the storage chamber into the low pressure compartment of the cylinder.

2,867,299

ANTI-SKID BRAKE MECHANISM

George Platon Jankauskas, New York, N. Y., assignor to Walter A. Dubovick, Ferds, and John P. Konak and Paul A. Konak, South River, N. J.

Application May 26, 1954, Serial No. 432,525
4 Claims. (Cl. 188—152)



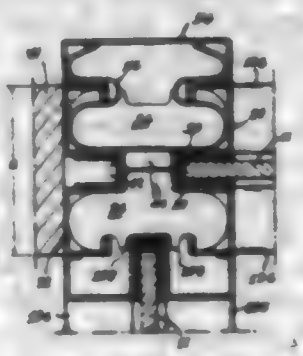
1. In a hydraulic braking system of a wheeled vehicle having a braked wheel on at least one front and one rear axle: a wheel cylinder and a wheel piston in said wheel cylinder for each braked wheel; a master cylinder and a master piston in said master cylinder; brake lines connecting said master cylinder to said wheel cylinders; hydraulic fluid in said cylinders and lines; means for actuating said master piston to increase fluid pressure in said master cylinder; a pressure operated variable control valve assembly interposed in the brake lines extending from said master cylinder to the wheel cylinders associated with the rear braked wheels, said valve assembly having a high pressure chamber connected to the brake line leading from said master cylinder, a low pressure chamber connected to the brake lines leading to each cylinder associated with a rear braked wheel and hydraulic pressure limiting means including a valve, a control member movable in response to and having only a single face exposed to the pressure in said low pressure chamber for seating said valve in response to a predetermined high pressure in said low pressure chamber, and a regulatable resilient loading means opposing said action of said control member on said valve to unseat said valve at pressure lower than said predetermined high pressure whereby the fluid pressure applied to said rear wheel cylinders is not affected by the rate of actuation of said master piston above said predetermined high pressure and the maximum fluid pressure that can be applied to said rear wheel cylinders, regardless of the force exerted on said master piston, will not exceed said predetermined high; and inertia means depending upon deceleration of said vehicle for increasing pressure in said rear wheel cylinders above said predetermined high pressure in said low pressure chamber.

2,867,300

PARTITION CONSTRUCTION

John A. Bolnsack, Pottsville, Pa., assignor to Astra Steel Products Corporation, New York, N. Y., a corporation of New York

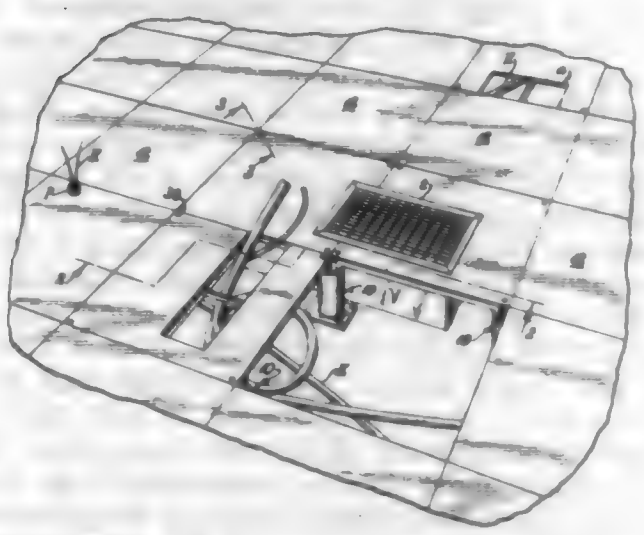
Application March 15, 1956, Serial No. 571,712
3 Claims. (Cl. 189—34)



1. In a partition construction, a post assembly comprising a pair of post members disposed in spaced apart confronting disposition, panel receiving grooves extending along said post members inwardly of the outer faces thereof, and a plurality of clips spaced longitudinally of said post members retaining the latter in fixed spaced apart confronting disposition, said post member spacing between the outer faces thereof substantially corresponding to the width thereof whereby an additional post member or trim member of corresponding width interchangeable therewith may be secured in abutting relation to said pair of post members transversely of the latter with the opposite side edges of said additional post member or trim member being in flush relation with said outer faces of said pair of post members, each of said post members having a recessed central portion extending therealong and defining said grooves, and longitudinal flanges at the opposite sides thereof defining the width dimension of said post members, said additional post member or trim member having longitudinal flanges at the opposite sides thereof corresponding to said post member flanges, said

additional post member or trim member having the flanges thereof in said flush relation with said outer faces of said pair of post members when secured to the latter.

2,867,301
FALSE FLOORING SYSTEM
Joseph H. Benton, Baton Rouge, La.
Application July 26, 1956, Serial No. 600,187
1 Claim. (Cl. 189—34)



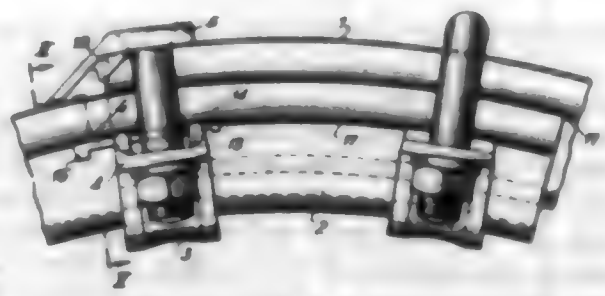
A flooring system for supporting objects above the base floor comprising in combination a plurality of pedestals and a plurality of rectangular planar members, each of said pedestals comprising a plate adapted to rest on the base floor, said plate having an upwardly extending tubular member with circular inside and outside walls in horizontal cross section, said tubular member having an open top with a horizontal top end, each of said planar members comprising a rectangular frame with a planar top surface sheet, said frame comprising side members intersecting at the corners of the frame and strengthening cross members extending perpendicular to the insides of said side members and intersecting at the center of said frame, an inwardly directed arcuate portion extending for an arc of 90° and formed near each corner of said frame, said portion having its center at the corner of said planar member, the underside of said arcuate portion having in the area toward the inside of said planar member a horizontal shoulder and in the area toward the outside of said portion having a downwardly extending lip also 90° arcuate in horizontal cross section, said lip having its wall near the outside of said planar member vertically disposed and its wall toward the inside of said planar member tapered outwardly so that the thickness of the lip diminishes as its lower end is approached, the circular inside wall of the tubular member having the same radius as the greatest radius of each 90° arcuate lip on the side of said lip closest to the inside of said planar member, said planar members all disposed in a single plane to present a continuous floor surface, four adjacent planar members having adjacent corners meeting in a single point with the edges of said top surface sheets immediately adjacent said corners in tight abutment, said adjacent corners being supported by a single tubular member, said horizontal shoulder of each corner resting on the horizontal top end of the said single tubular member and said depending 90° arcuate lips extending into the circular inside of the tubular member, whereby the abutment of the edges of said top surface sheets immediately adjacent said corners gives firm backing to said 90° arcuate lips and said 90° arcuate lips of the said four adjacent corners form a circular wedge forcing outwardly on the inside of said tubular member in all directions to position firmly the said four adjacent planar members and to force the edges of said top surface sheets into even closer abutment.

2,867,302
CONNECTING CLIP
Verner M. Miller, Minneapolis, Minn.
Application October 11, 1956, Serial No. 615,338
8 Claims. (Cl. 189—35)



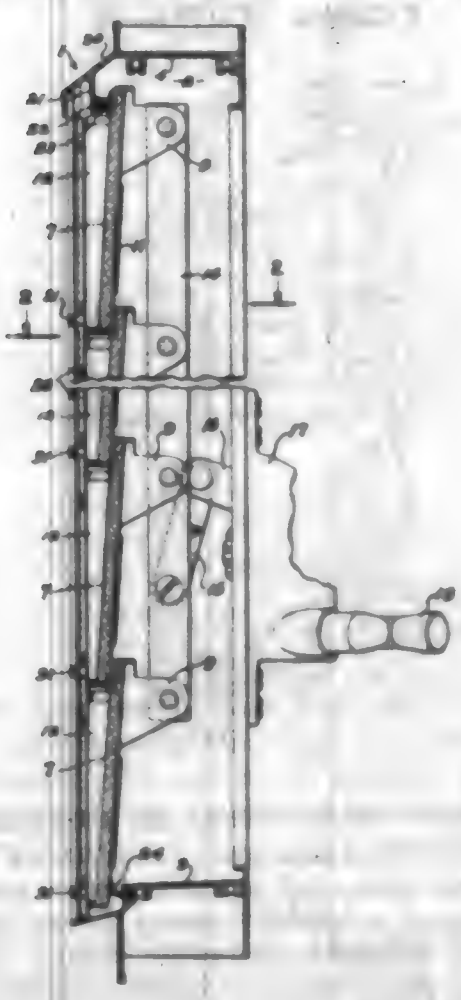
1. A connecting clip constituted as a flat blank including a body member, an extension on said body member and spaced, parallel flanges on and projecting interiorly of said extension and providing a guideway therewith, and an attachment element constituted as a flat piece of material including a body portion superimposed upon and secured against the body member of said flat blank and a wing portion situated between said spaced, parallel flanges in contiguous relation to an internal surface of said extension.

2,867,303
COUPLING FOR OVERLAPPING PROFILE MEMBERS
Hans Weinert and Adolf Wille, Bochum, Germany, assignors to Bochumer Eisenhütte Heintzmann & Co., Bochum, Germany
Application February 1, 1955, Serial No. 485,558
Claims priority, application Germany February 5, 1954
3 Claims. (Cl. 189—36)



1. A coupling for the overlapping ends of curved frame members particularly for supporting mine passages and composed of interfitting inner and outer U-shaped frame members with out-turned flanges disposed along the free edges of the U, comprising a U-shaped clamp extending laterally over the inner frame member, a U-shaped strap member extending around the outer frame member and having a pair of flanges and an intermediate space between the middle part of the U-shaped strap member and the middle part of the outer frame member, means interconnecting the ends of the U-shaped clamp and the U-shaped strap member and including a bolt and nut connection, and an elongated tapered cam member secured between each end of the strap and its respective flange of the outer frame member and each cam being relatively thin in its cross section in a direciton normal to its working surface which is smaller and thinner than the thickness of the flange of the frame member, and is flexible at one end in a direction normal to its working surface with a projecting pin at said flexible end which is adapted to contact the flange of the outer frame member for a firm gripping contact, and the other end of the cam member having a projecting stop to limit the penetrating extent of the cam relative to the strap member when adjacent the latter, said flexible end of the cam flexing to release the pin from contact with the flange of the frame member when the cam is in its end position with the projecting stop against the strap member to permit relative movement of the frame members when subjected to excessive pressure.

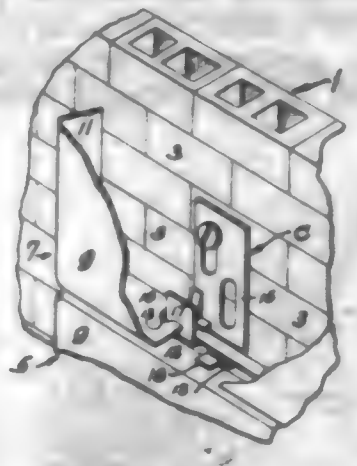
2,867,304
WEATHER STRIP FOR JALOUSIE WINDOWS
Samuel Greene, Newark, N. J.
Application March 21, 1955, Serial No. 495,427
8 Claims. (Cl. 189—62)



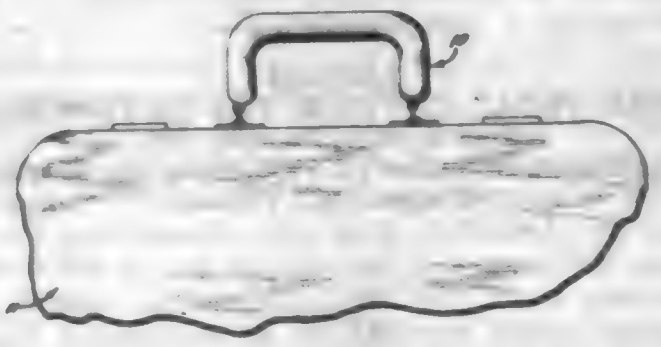
2. A metal window having a frame including vertical side stiles having outwardly projecting extensions with enlarged outer end portions, each of said enlarged end portions having a groove therealong, a plurality of elongated channel-shaped glass-panel supporting clips swingably supported on each of the side stiles, glass panes in said clips, means for swinging said clips, one elongated metal weather strip pivotally supported along one long edge in the groove in the enlarged outer end portions of each of said extensions, the other free long edges of the strips being in overlapping engagement with the outer surfaces of the adjacent clips in closed position so that opening movement of the clips is imparted to the strips, and outstruck tongues on the clips projecting laterally outwardly of the clips and extending across the overlapping long edges of the adjacent strips in closed position, said strips being arranged so that in open position the free long edges thereof are disposed in the path of movement of the tip ends of the tongues and the strips are engaged by said tongues during closing movement of the clips for moving said strips to closed position.

2,867,305
PANEL SHEET MOUNTING CLIP
Macon Baker, St. Louis, Mo., assignor to Atlas Enameling Co. Inc., St. Louis, Mo., a corporation of Missouri
Application June 24, 1957, Serial No. 667,586
5 Claims. (Cl. 189—88)

1. A mounting clip for a sheet metal wall panel or the like, comprising an attaching leg, a second leg at one end of the attaching leg and normal thereto, an arm at the outer end of the second leg at the same side of said second leg as the attaching leg and substantially paralleling the attaching leg, a portion of the second leg being offset therefrom in the same direction as said arm and forming a shoulder facing away from the attaching leg and toward the plane of the second leg, and a retainer strip inclined outwardly from the attaching leg and toward the second leg and having a terminal spaced from the second leg.



2,867,306
LUGGAGE HANDLE
Joseph R. Pick and Theodore M. Lasiuski, Chicago, Ill.; Vincent Curtis Baldwin and Continental Illinois National Bank and Trust Company of Chicago, executors of said Joseph R. Pick, deceased
Application October 14, 1955, Serial No. 540,431
3 Claims. (Cl. 190—57)

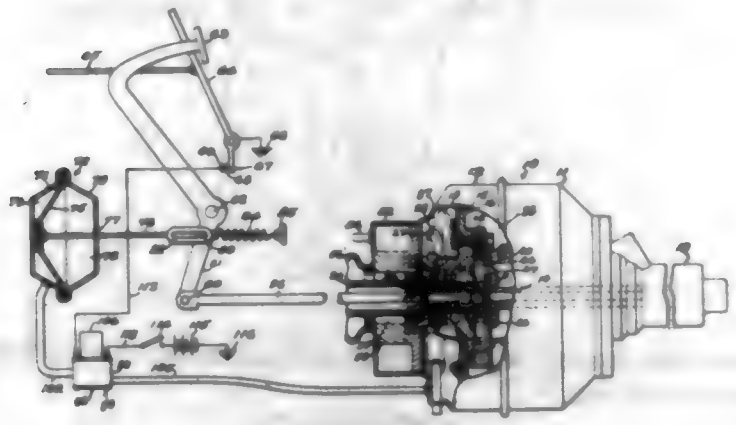


1. In a piece of luggage including a bag and a handle body with the handle of an inverted generally U-shaped configuration having tubular free ends, said tubular free ends comprising mating shell sections defining housings and having solid junction portions at the outer ends thereof joining together said mating shell sections, each solid junction portion having an opening therein, and spring means carried in each of said housings and each having a lost motion shock responsive supporting element carried by the spring means at one end and slidably extending through the associated opening and adapted to be connected to the bag at the other end, whereby said shock responsive supporting element is extensible responsive to downward gravitations of the bag relative to said handle to cushion and minimize the transmission of shock to said handle.

2,867,307
BOOSTER BRAKE MECHANISM
Jeannot G. Ingres, Dearborn, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application February 10, 1954, Serial No. 409,337
12 Claims. (Cl. 192—3)

4. In combination, a booster brake mechanism comprising a booster motor having a pressure responsive unit therein dividing it into a relatively constant pressure chamber and a variable pressure chamber, valve mechanism for said booster motor, pedal means connected to said valve mechanism and movable from a normal off position to energize said booster motor, an auxiliary fluid motor having a pressure responsive unit connected to said pedal means and energizable by differential pressure in said variable pressure chamber to oppose movement of said pedal means from a normal off

position, an accelerator pedal having a normal idling position, and accelerator pedal controlled means operatively connected between said variable pressure chamber and said auxiliary motor, said pedal controlled means including control portions for preventing communication between said variable pressure chamber and said



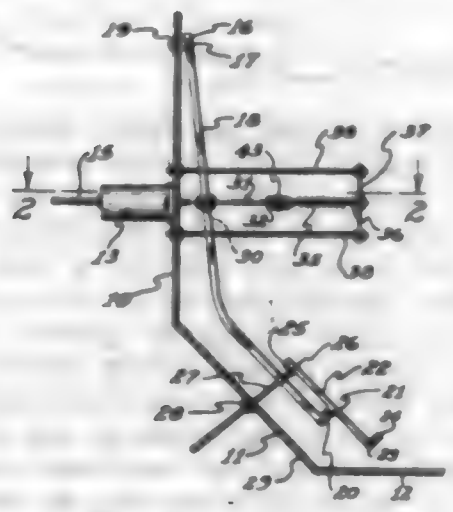
auxiliary motor when said pedal means is operated during a first condition of said accelerator pedal whereby said auxiliary motor offers no resistance to movement thereof, and in which said control portions permit communication between said variable pressure chamber and auxiliary motor during a second condition of said accelerator pedal.

2,867,308

SINGLE PEDAL CONTROL FOR AUTOMOBILES

Alfred E. Burr, Phoenix, Ariz.

Application December 15, 1955, Serial No. 553,363
3 Claims. (Cl. 192—3)



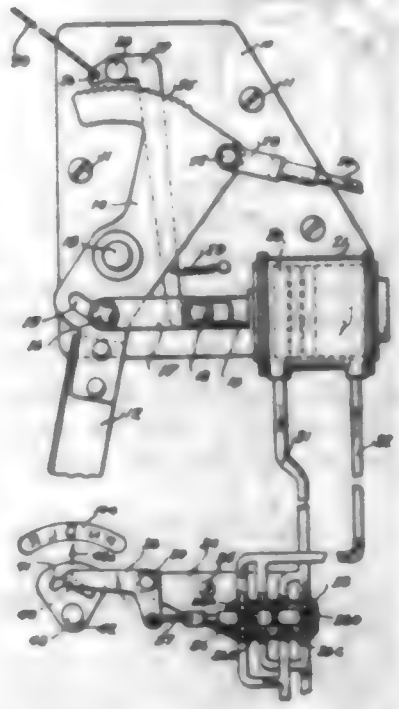
1. A single pedal control for an automobile having, a frame portion, a carburetor, a downwardly extending main operating arm, means for pivotally supporting the upper end of said arm on said frame portion, and a brake operating device connected to be actuated by the movement of said arm, an accelerator-brake pedal having an upper toe portion and a lower heel portion, means intermediate said heel and toe portions of said pedal for freely pivotally mounting said pedal on the lower end of said arm, a carburetor control rod, means for connecting said rod to the upper toe end of said pedal so that toe pressure exerted on the toe end of said pedal actuates the carburetor of the automobile to accelerate the movement thereof, and stop means on said control rod adapted to engage said frame portion to arrest return movement of said rod at idling position of the carburetor of the vehicle providing the sole means to limit free pivotal movement of said pedal so that application of pressure to the heel portion of said pedal while the toe end of said pedal is held by said stop causes movement of said arm to apply the brakes of said automobile.

2,867,309

HYDRAULIC ACTUATOR FOR FOOT OPERATED EMERGENCY BRAKE

Joseph F. Martin, Detroit, Mich., assignor to Mabel M. Martin, Detroit, Mich., and himself as tenants by the entireties with full rights of survivorship

Application December 24, 1956, Serial No. 630,405
2 Claims. (Cl. 192—4)



1. In a motor vehicle, having an emergency brake mechanism, including a foot lever for actuating the emergency brake pull cable, and a speed selector mechanism, the combination of a member secured to one end of said foot lever and moveable therewith, means connecting said member to said cable, a hydraulic cylinder comprising part of a hydraulic pressure system, a double acting piston in said cylinder, means connecting said piston to said member, a hydraulic valve for controlling said pressure system interposed in the hydraulic system between said cylinder and a source of hydraulic pressure, and means connected to said speed selector and said valve whereby the shifting from one position to another of said speed selector mechanism actuates said valve, said member having ratchet teeth formed on one edge, a locking pawl pivoted near said member and positioned to engage and disengage said teeth, an extension on said pawl in contacting relation with means attached to said piston, whereby to move said pawl in one direction upon the movement of said piston, and means for moving said pawl in the opposite direction.

2,867,310

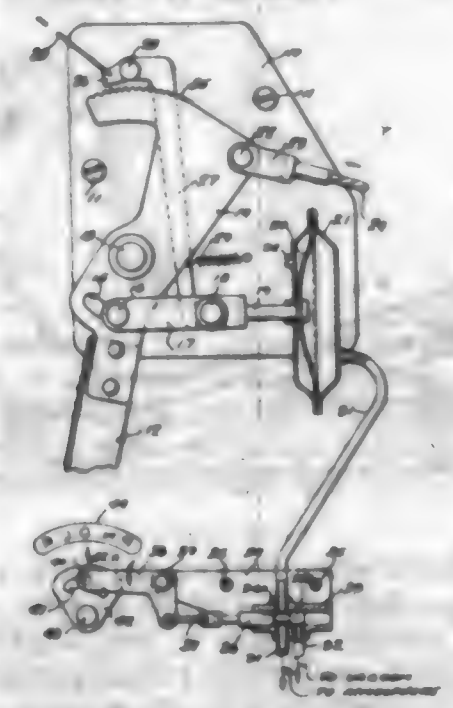
VACUUM ACTUATOR FOR FOOT OPERATED EMERGENCY BRAKE

Joseph F. Martin, Detroit, Mich., assignor to Mabel M. Martin, Detroit, Mich., and himself, as tenants by the entireties with full rights of survivorship

Application December 24, 1956, Serial No. 630,406
2 Claims. (Cl. 192—4)

1. In a motor vehicle, having an emergency brake mechanism, including a foot lever for actuating the emergency brake pull cable, and a transmission control mechanism, the combination of a member secured to one end of said foot lever and movable therewith, means connecting said member to said cable, a vacuum device having a diaphragm therein, one side of which device may be opened to atmosphere, and the other side of which device is connectible to a source of vacuum, means connecting said diaphragm to said member, a control valve interposed between said vacuum device and the atmosphere and said source of vacuum, and means responsive to the movement of said transmission control mechanism for controlling said valve, said first named

member having ratchet teeth formed on one edge, a locking pawl pivoted near said member and positioned to engage and disengage said teeth, an extension on said pawl in contacting relation with means attached to said



diaphragm, whereby to move said pawl in one direction upon the movement of said diaphragm in one direction, and for moving said pawl in the opposite direction, upon the movement of said diaphragm in that direction.

2,867,311

VARIABLE SPEED FLUID TRANSMISSION UNIT

George Garner, Calgary, Alberta, Canada

Application November 4, 1954, Serial No. 466,844
4 Claims. (Cl. 192—60)



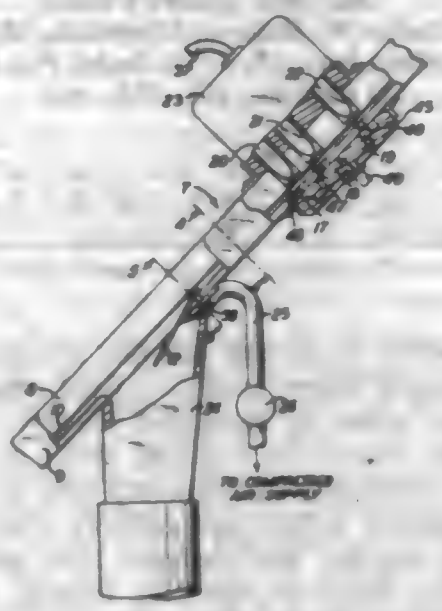
1. A variable speed fluid transmission unit comprising in combination an enclosing oil filled casing and cover therefor, a driving shaft journalled for rotation in one end of said casing, a driven shaft journalled for rotation in the other end of said casing and in axial alignment with said driving shaft, a disc concentrically secured to the inner end of said driven shaft, a further disc spaced and parallel from said first mentioned disc, a plurality of curved valve members spanning the periphery of said disc thereby maintaining same in said spaced and parallel relationship, a crank pin operatively connected to said driving shaft and extending between said discs parallel to the axes thereof, means for increasing and decreasing the distance between the axis of said crank pin and the axis of said driving and driven shaft, thus imparting eccentricity to said crank pin, a plurality of open-ended cylinders trunnioned for rocking motion between said discs and adjacent at their head ends one each of said curved value members, a ram for each of said cylinders, a big-end of each of said rams concentrically connected to said crank pin, ports in each of said valve members, said eccentricity of said crank pin varying the length of stroke of each said ram, and thus the power is transmitted to said discs via said ram and cylinder combination and via said curved valve members, and pressurized hydraulic fluid substantially filling said casing.

2,867,312

ARTICLE SORTING DEVICE

Jean E. Lape, Coopersburg, Pa., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application April 8, 1955, Serial No. 500,114
7 Claims. (Cl. 193—43)



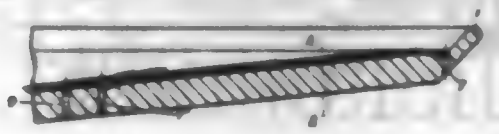
1. Sorting apparatus for removing from a feed track improperly oriented elongated articles having end portions of different lengths interconnected by a relatively narrow portion, the feed track having a passage therethrough for guiding the articles, said sorting apparatus comprising a plurality of photoelectric cells, means for producing and directing a beam of light across the passage in the track to each of the cells, the beams being substantially wider than the narrow portion of the article, said photoelectric cells being positioned with respect to the track so that only articles of a prescribed orientation passing through the track will cause the simultaneous blackout of all the cells and means responsive to the simultaneous condition of the cells for removing improperly oriented articles from the track.

2,867,313

METHOD AND APPARATUS FOR ARRANGING AND FEEDING WIRE FILAMENTS

Zoltan Deshaw, London, and Helen Deshaw, Ilford, England, assignors to Lemay Lamps Limited, Ilford, England, a British company

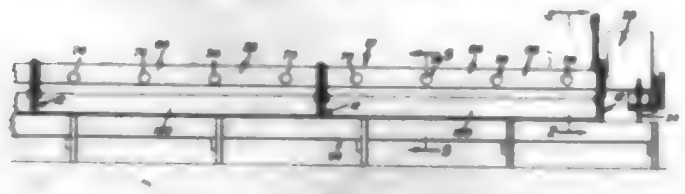
Application April 26, 1956, Serial No. 580,810
6 Claims. (Cl. 198—33)



1. Apparatus for automatically feeding coiled-wire filaments from a disordered mass to at least one delivery point with the filaments in a predetermined orientation, comprising a surface which has a receiving area on which a mass of filaments may be placed, at least one groove formed in said surface, said groove extending into said receiving area and upwardly from said area to a delivery point, said groove being of sufficient depth and width to receive a filament; means for vibrating said surface in such manner as to cause filaments dropping into said groove at the receiving area to advance along said groove in succession to said delivery point, means for arresting each filament on reaching said delivery point preparatory to removal means which serves while a filament is at said delivery point to prevent a following filament from endwise abutting and displacing the filament at the delivery point by causing said following filament to be placed from the groove so that it can roll back towards

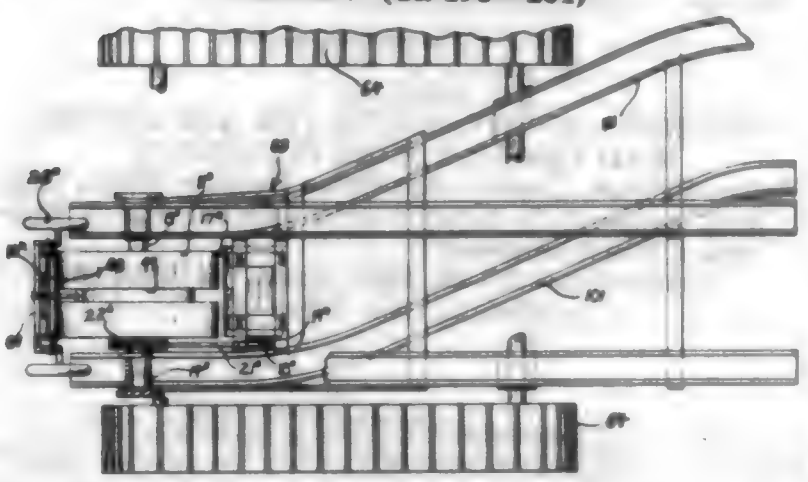
said receiving area, and means for returning to said receiving area filaments located away from said area but not in said groove.

2,867,314
AUGER CONVEYOR
Charles W. Hansen, Ellsworth, Minn.
Application June 18, 1957, Serial No. 666,358
6 Claims. (Cl. 198—64)



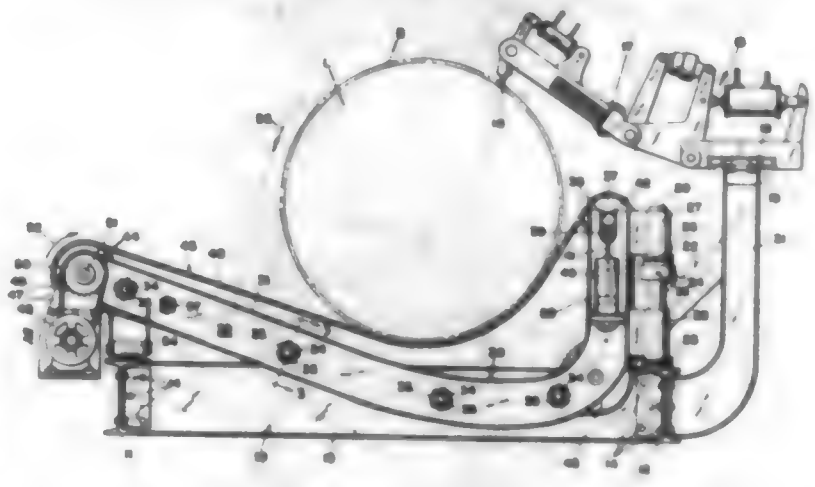
1. A conveyor for forage and like materials, said conveyor comprising frame means, a fixed hopper mounted on said frame means, an elongated delivery tube mounted on said frame means for rotation about its longitudinal axis, means connecting said delivery tube to said hopper, an auger disposed within said delivery tube and extending into said hopper, said delivery tube having longitudinally spaced discharge openings therein, and rotation adjustment control means operatively associated with said delivery tube for positioning same about its axis for controlling the flow of material through said discharge openings therein, the lowest walls of said discharge openings being disposed progressively lower from a high point adjacent said hopper away from said hopper to a low point remote from said hopper whereby a pre-adjusted even discharge of material along the length of said delivery tube is facilitated.

2,867,315
CONVEYING APPARATUS
Sterling S. Lanier, Jr., Nortonville, Ky., assignor of small percentages to various assignees
Application December 7, 1955, Serial No. 551,651
5 Claims. (Cl. 198—201)



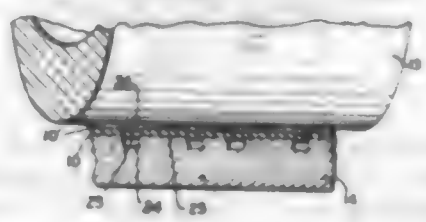
1. In conveying apparatus adapted to be supported by a relatively flat supporting surface, an endless conveyer belt comprising a plurality of belt sections with adjacent ends thereof overlapping each other, pulleys at the discharge and receiving ends of the conveyer belt around which the belt passes, vertical pins pivotally connecting said overlapping ends to each other, transverse axles secured adjacent their centers to said pins, lost motion connecting means between the sides of said belt sections and the adjacent ends of said axles, means limiting axial movement of said connecting means relative to said axles, wheels mounted for rotation on said axles in position to engage said supporting surface and support said belt intermediate said pulleys, means guiding the lower flight of said belt laterally of the upper flight after the belt has passed around the pulley at the discharge end, and means guiding the lower flight of the belt laterally beneath the upper flight as the lower flight approaches said receiving end of the conveyer.

2,867,316
LOG-HANDLING DEVICE
John J. Uhlenkott, Kellerville, Idaho
Application September 6, 1957, Serial No. 682,371
3 Claims. (Cl. 203—75)



1. A log-handling device comprising a support frame including a front rail; vertical spindles carried by said frame in a series parallel to and laterally spaced from said rail; each said spindle pivotally supporting a cradle member on a vertical axis for swinging movement in a horizontal path; said cradle member extending laterally to said front rail; mobilizing means supporting said cradles on said front rail; each said cradle carrying an endless, powered log-supporting chain; power means for co-operatively driving all of said chains, whereby to rotate a log supported thereby; and means for corporately and selectively pivoting said cradles in parallelism to angular positions, whereby to axially advance a log supported thereon by said power-driven chains at varying speeds according to manual selection.

2,867,317
METHOD AND APPARATUS FOR PREVENTING SLIPPAGE OF TAPE ROLLS AND RESULTING PRODUCT
Clarence W. Vogt, Norwalk, Conn.
Application September 21, 1953, Serial No. 381,285
7 Claims. (Cl. 206—59)

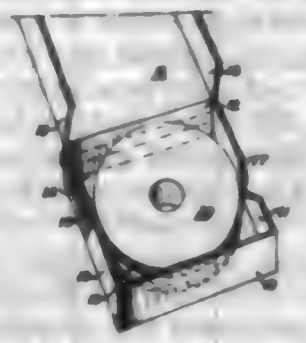


1. The method of forming rolls of adhesive tape having a plurality of nonslipping convolutions of tape sheet material, which comprises applying a continuous coating, nonuniform in thickness, of pressure-sensitive adhesive to a base tape material having portions displaced to provide for application of a different thickness of coating relative to the undisplaced portions, the displaced portions being in the form of zig-zag ridges on the side of the tape opposite the coating, and then raising the coating where the coating is thicker by smoothing out the displaced portions, and rolling the tape into a roll.

2,867,318
COMBINED HOUSING AND TAPE RETAINING MEANS FOR TAPE HOLDING REELS
Thomas S. Kulka, Cleveland, Ohio
Application March 16, 1955, Serial No. 494,771
1 Claim. (Cl. 206—59)

A combined housing and tape retaining means comprising side walls and a bottom wall providing a generally rectangular box having a greater width than depth, slits in opposite side walls substantially midway of the

length and height thereof and an endless elastic band extending through said slits and across said box in a plane substantially parallel to said bottom and substantially midway between said bottom and the tops of



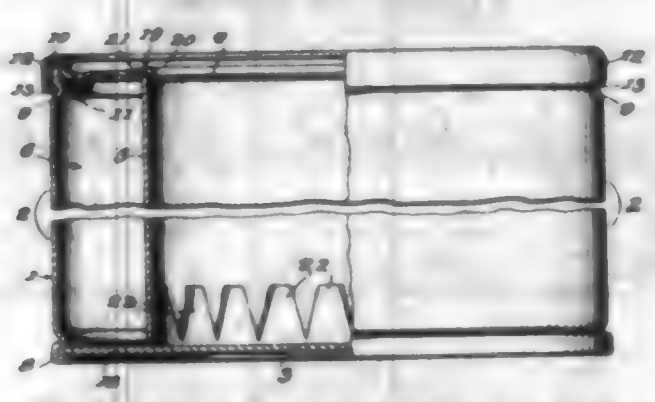
said side walls and about the outside of one-half of the box, a flat reel of tape disposed in said box with the portion of said band within said box engaging said tape thereon and retaining said reel in said box and preventing said tape from unwinding from said reel.

2,867,319

STRAND PACKAGING METHOD AND MEANS

Paul E. Jones and David E. Perry, Van Wert, Ohio, assignors to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application October 6, 1955, Serial No. 538,832
3 Claims. (Cl. 206—59)



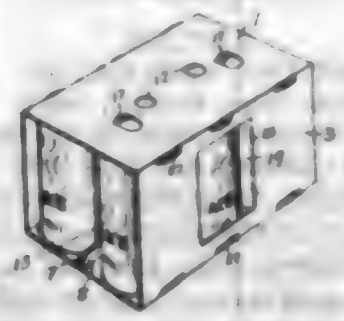
1. A container having a cylindrical side wall, a bottom and a readily removable cover, a cylindrical tubular core within said container in spaced concentric relation with said side wall, said tubular core extending from said bottom to an elevation for supporting contact with said cover, and a core centering means comprising a flat ring resting on said bottom and extending from said tubular core to said side wall and having an integral flange bent upwardly within the tubular core and secured thereto.

2,867,320

CARRIER FOR CANS

Noble Andre, San Francisco, Calif., assignor to Andre-Matic Machinery Company, San Leandro, Calif.

Application December 28, 1953, Serial No. 400,675
6 Claims. (Cl. 206—65)



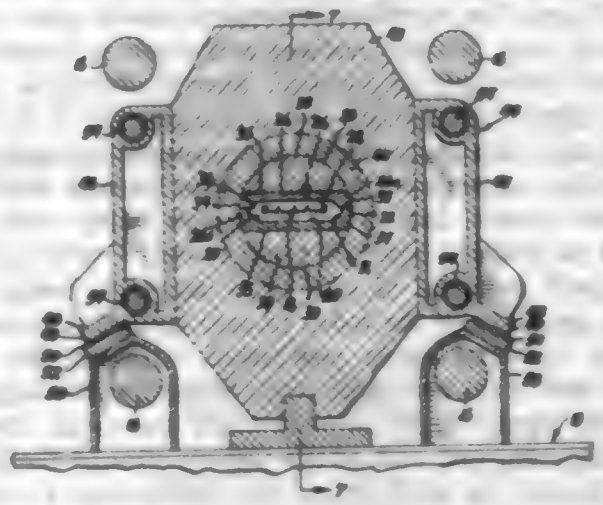
3. In combination with a pair of parallel rows of vertically disposed cylindrical cans, a carrier therefor comprising a single elongated sheet of cardboard folded along spaced parallel lines extending transversely thereacross to provide a central horizontal panel, a pair of opposed vertical side panels, a pair of horizontal coplanar end panels in opposed relation to said central panel extending to a vertical plane bisecting said central panel, and a pair of opposed vertical engaging, disconnected end sections at the adjacent ends of said end panels extending toward said central panel substantially in said plane, said central panel extending over one of the ends of the cans of said rows and said end panels each extending over the opposite ends of the cans of a row of said pair, with said side panels extending over the oppositely outwardly facing sides of the pair of rows, said side panels being formed with rows of openings along the junctures between said side panels and said end panels and between said side panels and said central panel, each of said cans having radially outwardly projecting chimes at its opposite ends, the chimes on the ends of the cans of said rows extending through said openings respectively, said end sections extending between the chimes of the cans of said pair of rows holding the chimes at one of the ends of said cans in the said openings in which they are positioned and means integral with said central panel and in said plane extending toward said sections and between the end cans of said pair of rows holding the chimes on the cans of said end pair at the other end of said cans in the said openings in which they are positioned, said sections and said last mentioned means extending past the chimes adjacent thereto for preventing the chimes at opposite sides thereof from shifting vertically relatively to positions in which one overlies the other, the ends of said carrier at the ends of said rows being open.

2,867,321

CONTAINER FOR AN EXTRUSION PRESS

Carl G. A. Swanson, Kenmore, N. Y., assignor, by mesne assignments, to Lake Erie Machinery Corporation, Buffalo, N. Y., a corporation of New York

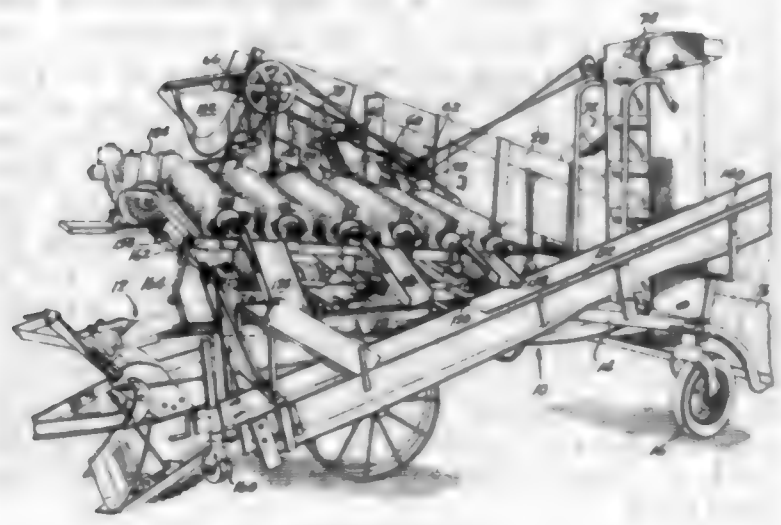
Application June 3, 1955, Serial No. 512,999
1 Claim. (Cl. 207—15)



A billet container for producing an extrusion having a major cross-sectional dimension and a minor cross-sectional dimension comprising, a pair of counterpart liner sections jointly forming a through bore into contact with the walls of which a billet is expanded by pressure applied from one end of said bore to force the metal from said billet as said extrusion from the opposite end of said bore, said bore having a minor cross-sectional dimension and a major cross-sectional dimension, each of said counterpart liner sections including a wall of said major dimension and having a part wall of said minor dimension at each end thereof creating parting surfaces internally forming a separating line along said bore at opposite sides thereof, at least one face of each section that forms the minor dimension of said bore sloping to said separating line, the parting surfaces of said liner sections transversely extending in separated relation from the ex-

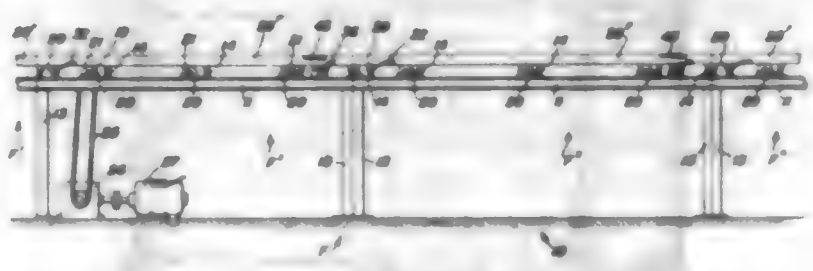
terior thereof toward said bore, and terminating in parallel engaging faces extending in the direction of the minor dimension of said bore to the line of separation of said bore whereby said counterpart liner sections allow expansion of said bore under extrusion pressures in the direction of said minor dimension and resist said expansion in the direction of said major dimension.

2,867,322
POTATO HARVESTING APPARATUS
George A. Weisenfeld, Breese, Ill.
Application December 27, 1957, Serial No. 705,535
4 Claims. (Cl. 209—75)



1. In a potato harvesting apparatus, a mobile frame, a first endless conveyor positioned upon said frame so as to have an upper flight substantially parallel to said frame and mounted on said frame for traveling movement about spaced horizontal axes, a second endless conveyor arranged so as to extend exteriorly about said first conveyor and to have an upper flight spaced above and parallel to the upper flight of said first conveyor and mounted on said frame for traveling movement about other spaced horizontal axes, a third endless conveyor arranged so as to extend exteriorly about said second conveyor and to have an upper flight spaced above and parallel to the upper flight of said second conveyor and mounted on said frame for traveling movement about further spaced horizontal axes, said second and third conveyors being each fabricated of an endless band of mesh material with openings of the mesh material of said third conveyor being larger than the openings of the mesh of said second conveyor, an overhead delivery chute positioned adjacent the upper flight of said third conveyor and having the discharge end above the upper flight of said third conveyor inwardly of and adjacent one end of the last-mentioned flight, conveying means on said frame for delivering a mass of freshly gathered potatoes having stones associated therewith to said chute, a pair of brush rollers rotatable in opposite directions arranged in spaced side by side aligned relation positioned transversely of the upper flight of each of said first, second, and third conveyors, each of said pairs of rollers being disposed so that one of the complemental ends of said rollers are adjacent to and spaced below the other end of the complemental conveyor upper flight with the rollers sloping downwardly from the other end of the last-mentioned flight, and another conveying means connecting the other end of each of the upper flights of said conveyors to said one complemental end of said pairs of rollers for delivering the graded potato-stone portions to the respective pairs of rollers, the upper flight of said third conveyor upon having a mass of freshly gathered potatoes admixed with stones delivered thereon retaining thereon the potatoes and stones of a size larger than the mesh openings, permitting the potatoes and stones of a size smaller than the mesh openings to pass onto the upper flight of said second conveyor, and transporting the retained graded potato-stone portion to the other end of said upper flight, the upper flight of said second conveyor upon having the potatoes and stones of a size smaller than the mesh openings of said third conveyor received thereon retaining the potatoes and stones of a size larger than the mesh openings of said second conveyor, permitting the potatoes and stones of a size smaller than said mesh openings to pass onto the upper flight of said first conveyor, and transporting the retained graded potato-stone portion to the other end of said second conveyor upper flight, the upper flight of said first conveyor upon having the potatoes and stones of a size smaller than the mesh openings of said second conveyor received thereon retaining thereon said potatoes and stones and transporting the retained graded potato-stone portion to the other end of said first conveyor upper flight, said pairs of rollers upon having the graded potato-stone portions received thereon retaining and transporting the potatoes of the portions to the other ends thereof and permitting passage therethrough of the stones of said portions.

2,867,323
LUMBER SORTING MACHINE
Harold C. Cook, Clinton, N. C., assignor to Cook Machine Company, Clinton, N. C., a partnership composed of Harold C. Cook and Leroy V. Cook
Application February 12, 1958, Serial No. 714,859
5 Claims. (Cl. 209—90)

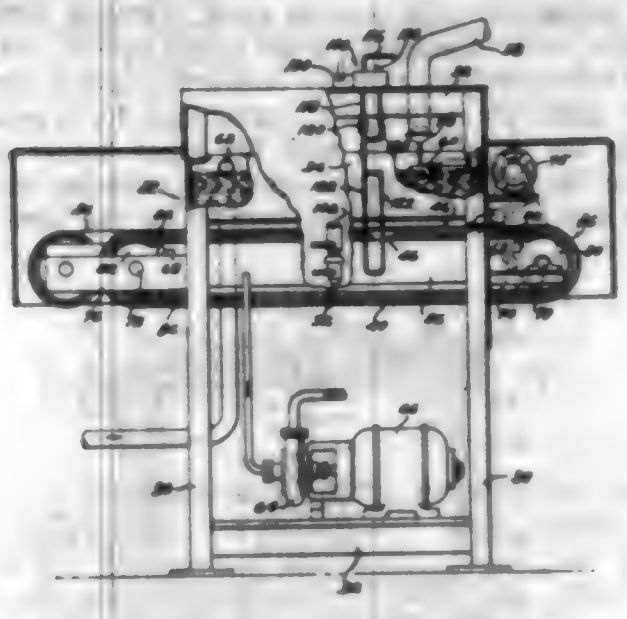


1. A lumber sorting machine comprising an elongated horizontal frame, a plurality of horizontally aligned rollers journalled to said frame, a fence plate secured to said frame above said rollers, said rollers having a tapered peripheral face with said fence plate extending perpendicularly from the upper portion of said tapered peripheral face, means to rotate said rollers simultaneously whereby said rollers move a board to be sorted through said machine in engagement with said fence plate, an ejector plate positioned in overlying relation to the upper edge of said fence plate, means extending generally upright parallel to said fence plate journalling said ejector plate and supporting said ejector plate for vertical sliding movement, and means positioned below said fence plate engageable by a board moving through said machine for raising said ejector plate out of the path of the board moving through said machine.

2,867,324
FILTER APPARATUS
Gene Hirs, Detroit, Mich.
Application March 12, 1956, Serial No. 571,020
4 Claims. (Cl. 210—97)

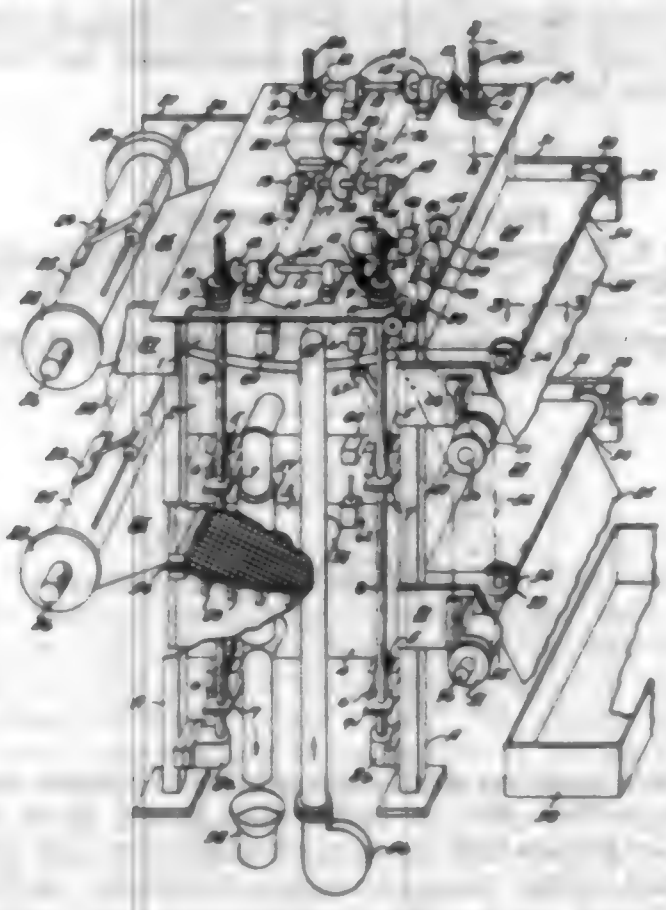
1. A fluid filtering apparatus comprising, a pair of frame members for interposition in a fluid flow line and having spaced opposed fixed surfaces, a filter medium disposed between said frame member surfaces, said filter medium passable between said surfaces for replacement of the filter medium, means operable to move said filter medium, a gasket between said surfaces clearing the filter medium during replacement and displaceable to close the space around the peripheries of the frame member surfaces to seal the joints between the surfaces and the filter

medium after replacement thereof, means operable to displace said gasket, and a control responsive to predeter-



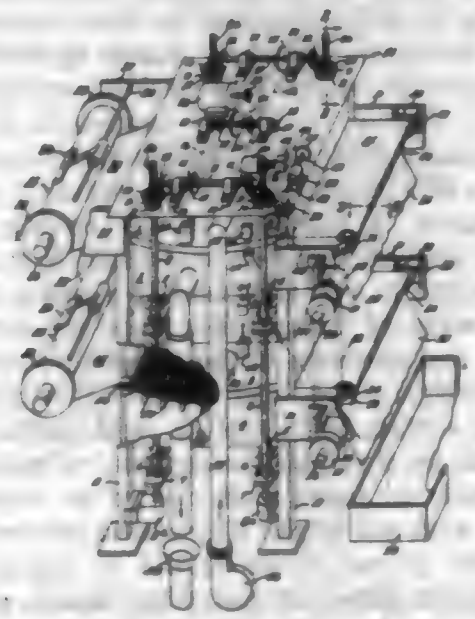
mined movement of said filter medium to control said last-named means.

2,867,325
FILTER APPARATUS
Gene Hirs, Detroit, Mich.
Application September 27, 1955, Serial No. 536,902
12 Claims. (Cl. 210—97)



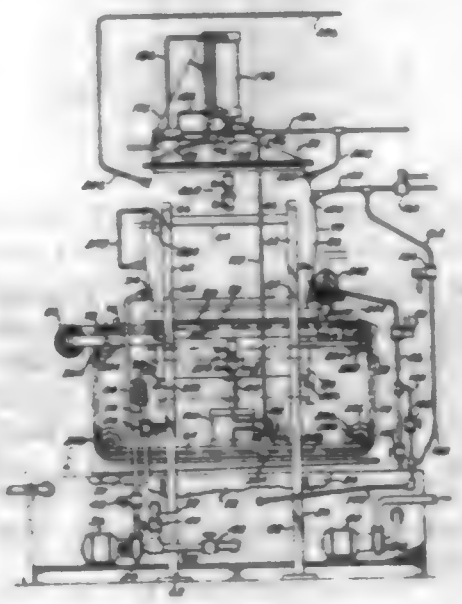
1. In a fluid filter apparatus, an upper shell and a lower shell having open confronting surfaces, a supply line leading to the upper shell, a discharge leading from the lower shell, one of said shells being movable away from and toward the other shell, means responsive to pressure in one of the shells for moving said movable shell away from said other shell, means for feeding a filter medium between said shells, means responsive to movement of said movable shell away from said other shell for actuating said feeding means, and a delayed action control means for arresting said feeding means and also for returning said movable shell toward the other shell.

2,867,326
FILTER APPARATUS
Gene Hirs, Detroit, Mich.
Application September 27, 1955, Serial No. 536,903
14 Claims. (Cl. 210—104)



1. In a liquid filtering apparatus, supporting means, a pair of vertically disposed separable fluid conductors having communicating flow passages, a portion of a filter media disposed between said flow passages forming substantially fluid tight joints with said conductors, the upper conductor having an inlet for liquid to be filtered and the lower conductor having an outlet for filtered liquid, feed means operable to feed said filter media along a path of travel to position a clean filter medium between said conductors when said conductors are separated, a control responsive to a condition of the fluid and a control responsive to liquid level in said lower conductor mutually controlling separation of said conductors and said feed means.

2,867,327
FILTER APPARATUS
Gene Hirs, Detroit, Mich.
Application January 18, 1957, Serial No. 634,963
4 Claims. (Cl. 210—106)



1. In a liquid filter aparatus, a support, a head on said support having a normally open inlet for liquid to be filtered and having a normally closed drain, a backing member within said head having opposite liquid pervious surfaces, loose granules coating said surfaces to provide spaced filter media, said backing member having a normally open outlet out of said head, a pump normally supplying contaminated liquid to said head and maintain-

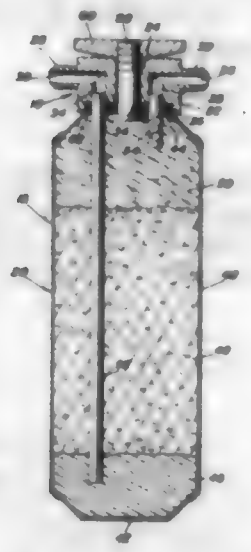
ing a liquid pressure therein above atmospheric pressure to force the liquid through the head and also to hold the granules to said backing member, a control responsive to a predetermined increase in the back pressure within said head to close said inlet and head outlet and open said drain, means operable to introduce compressed air into said head to hold the granules to said backing member on loss of the liquid pressure, means operable to effect a partial vacumm within said backing member to hold the granules thereto, a control responsive to predetermined decrease in the level of the liquid draining from said head to shut off the compressed air and start the vacuum effecting means, a movable carrier having a pair of scrapers on opposite sides of said backing member, said carrier movable in one direction to remove the foreign matter and some of the granules from one surface of the filter media and movable in the opposite direction to remove the foreign matter and some of the granules from the opposite surface of the media, said carrier controlled by said liquid level responsive control, an indexing mechanism operable to index said carrier to engage one of the scrapers with one of the filter media surfaces on travel of the carrier in one direction and to engage the other scraper with the other of said filter media surfaces for travel of the carrier in the opposite direction, and a timer controlling movement of said carrier and said indexing mechanism and controlled by said liquid level responsive control.

2,867,328

DISPOSABLE WATER FILTER ATTACHMENT

Egon Sorensen, Glen Riddle, Pa., assignor to Sunroc Corporation, Glen Riddle, Pa., a corporation of Pennsylvania

Application October 30, 1956, Serial No. 619,287
4 Claims. (Cl. 210—282)



1. A filter attachment comprising a mounting fitting, said mounting fitting including an inlet connection and an outlet connection, a disposable cartridge releasably carried by said mounting fitting, said mounting fitting having a bore therethrough, a fastener passing through said bore and securing said cartridge to said mounting fitting, said cartridge having projecting inlet and outlet fittings releasably communicated with said inlet and outlet connections.

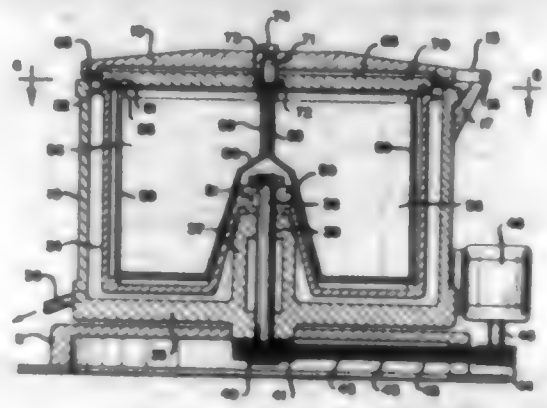
2,867,329

CENTRIFUGAL LAUNDRY EXTRACTOR MACHINE

Abe Miller, Detroit, Mich., assignor to Miller Laundry Machinery Company, Detroit, Mich.

Application August 7, 1957, Serial No. 676,818
1 Claim. (Cl. 210—360)

A laundry extractor having an outer cylindrical shell, a disc shaped cover therefor, and an outer basket fitted within the shell; means to rotate the outer basket within the shell; an inner basket loosely fitted within the outer basket and comprising two separate halves, the inner basket top edge being substantially coplanar with the outer basket top edge and its outer diameter being less than the inner diameter of the outer basket, the inner basket halves shifting radially outwardly against the outer basket under the influence of centrifugal force caused by rotating the outer basket with the inner basket therein, an outer basket disc shaped cover for covering the outer basket and being under and secured to the shell cover



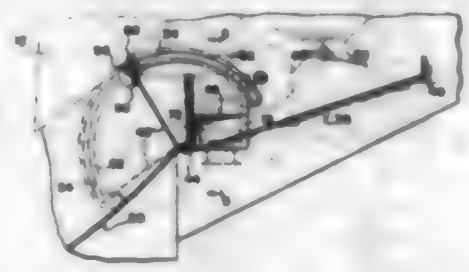
and being provided with a continuous annular sealing strip secured thereto at its outer periphery and against its bottom wall and arranged to rest on the top edge of the outer basket and beneath the outer basket cover, said sealing strip being of such a radial dimension as to extend inwardly of the outer basket to seal also against the top edge of the inner basket when the inner basket halves are shifted against the outer basket by centrifugal force, but to clear the inner basket halves when the inner basket is normally inserted within the outer basket and before the outer basket is so rotated.

2,867,330

FILTER CONSTRUCTION

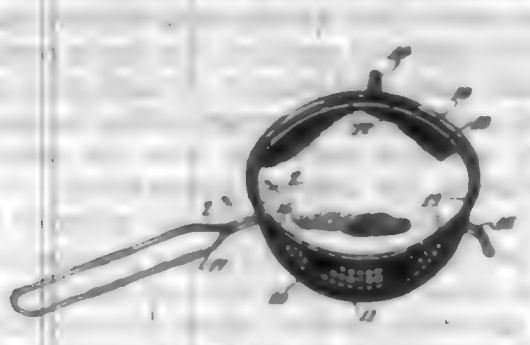
Berne A. Schepman, Mundelein, Ill., assignor, by mesne assignments, to The Eimco Corporation, Salt Lake City, Utah, a corporation of Delaware

Application September 22, 1955, Serial No. 535,896
4 Claims. (Cl. 210—392)



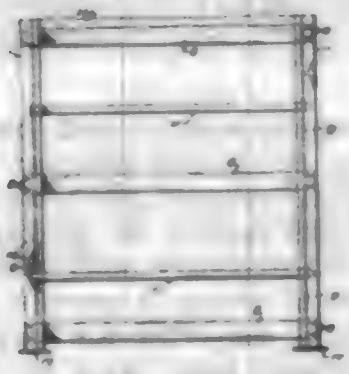
1. In a travelling web filter consisting of a rotary drum having a filter deck, a guide roller spaced from said drum, an endless filter medium extending over said drum and said roller, means for separate removal of filter cake formed on the filter medium, means for rotating said drum in a slurry tank to dispose successive portions of the filter medium in a slurry, filter medium washing apparatus including a wash liquid retaining trough having one of its walls pivotally mounted for selective movement from a liquid retaining to a dumping position, whereby washed off solids accumulated therein may be dumped into the slurry tank, a wash liquid inlet communicating with said trough, and a wash liquid outlet communicating with said trough, said outlet including an adjustable dam interposed between said trough and the exit end of said outlet whereby the depth of wash liquid in said trough may be selectively controlled and emptied separate from said slurry tank.

2,867,331
STRAINER CONSTRUCTIONS
Paul Bilder, Esslingen (Neckar), Mettingen, Germany, assignor to Ekco Products Company, Chicago, Ill., a corporation of Illinois
Application March 26, 1956, Serial No. 573,872
2 Claims. (Cl. 210—471)



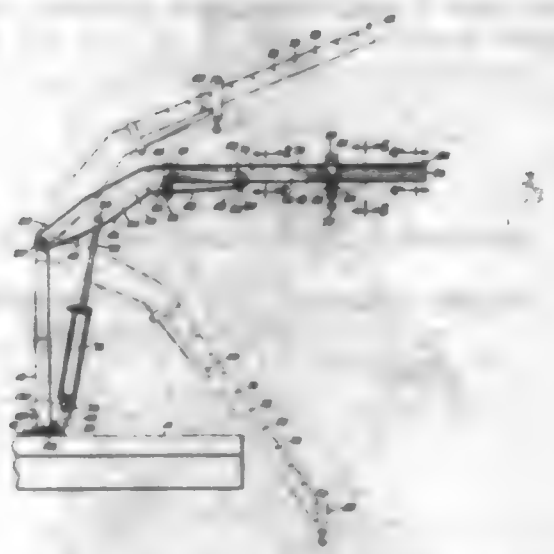
1. A strainer comprising a bowl shaped body formed of two interengaged layers of wire mesh fabric, each layer having a mesh size at variance with that of the other layer, a handle frame about which the upper edge portions of said bowl shaped body is curled, and a reinforcing rim member clinched over said curled upper edge portions of said body to secure said frame, rim and body in rigid assembly, and a soldered joint between interengaging portions of said layers to establish rigid connection of said layers at a plurality of locations throughout the area of said body.

2,867,332
SHELVING ASSEMBLY
John James Adams and Herbert James Kennedy, Ottawa, Ontario, Canada
Application April 28, 1954, Serial No. 426,188
5 Claims. (Cl. 211—147)



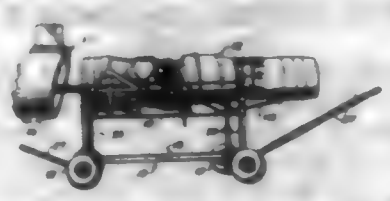
1. A shelving stack comprising at least four substantially identical upright metal corner posts, each post being of channel cross section and having side walls, each said side wall having an internal groove therein extending from end to end thereof, the groove of one side wall being opposite to the groove of the other side wall, a plurality of substantially identical cross members each having end portions disposed between the side walls of separate pairs of said posts and fixed thereto to connect each said pair of posts together, said posts being otherwise free of fixed connecting means, a plurality of metal strips each having a plurality of longitudinally spaced apertures therein and edge portions disposed in said grooves of the side walls of one of said posts, each end of each said strip being in substantial abutment with one of said cross members, and a plurality of shelves each comprising a pair of metal bars having a shelf member carried thereby, each said bar having a recessed portion at each end thereof projecting beyond said shelf member, each said recessed portion being in supporting engagement with a respective one of said strips through one of said apertures, said shelves constituting the sole means connecting together said separate pairs of posts.

2,867,333
HOISTING CRANE
Alphonse D. De Shano, Hamilton, Ohio, assignor to Emmett Conrad, Falmouth, Ky.
Application July 17, 1956, Serial No. 598,378
1 Claim. (Cl. 212—144)



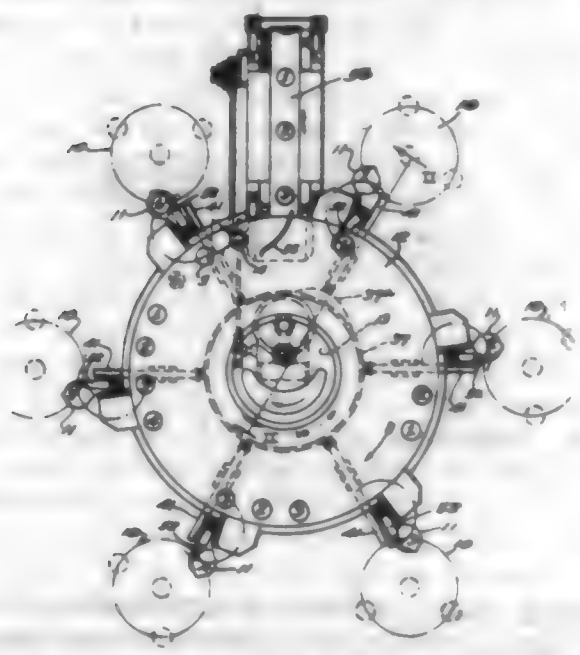
A hoisting crane comprising in combination, an upright standard having an upper end, a beam having a pivot end and a free end, and means hinging the pivot end of the beam to the upper end of the standard for disposition of the beam at various angles of inclination to the standard, means for elevating and lowering the beam about its pivot end, an elongate beam extender, and means for detachable mounting of the extender upon the free end of the beam to increase the reach thereof, said mounting means comprising a fulcrum and hook connection at the free end of the beam, a travelling load-supporting carriage shiftable lengthwise along the beam extender, and stop means selectively adjustable upon the extender for limiting travel of the carriage along the beam extender.

2,867,334
HANDLING APPARATUS
John F. Aiken, La Mesa, Frank A. Tompkins, Chula Vista, and Donald C. Zapf, Whittier, Calif., assignors to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware
Application September 10, 1954, Serial No. 455,246
6 Claims. (Cl. 214—1)



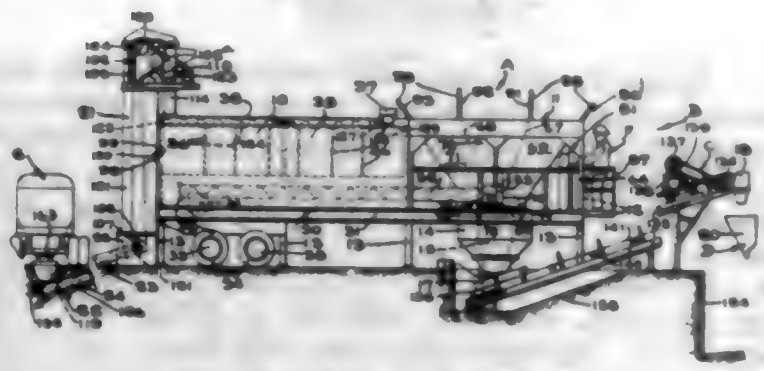
1. Engine handling apparatus comprising a mobile base frame structure, a supporting structure movably positioned upon said frame, said frame structure being comprised of a plurality of interconnected hollow members, means coupled between said frame and said supporting structure for adjustably changing the relative lateral positions of said frame and said supporting structure, said supporting structure including horizontally positioned ways adapted to support an engine for longitudinal movement thereover, means carried by said supporting structure for moving said engine over said ways, means comprising individually operable jack members carried by said frame for adjustably locating the vertical position of said frame relative to the ground, and means for adjustably changing the relative vertical positions of said frame and said supporting structure, said last mentioned means including cable means internally disposed within said hollow members of said frame structure and operatively connected to said supporting structure and actuating means carried by said frame for effecting adjustable displacement of said cable means.

2,867,335
GLASSWARE TRANSFER DEVICE
Eustace Harold Mumford, Ottawa Lake, Mich., assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application November 1, 1954, Serial No. 465,868
5 Claims. (Cl. 214—1)



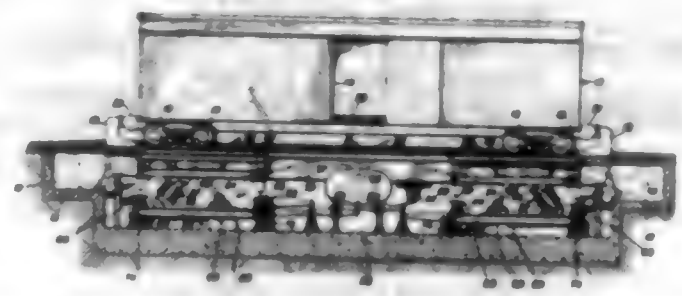
1. In an apparatus for transferring formed ware from stationary ware forming units, the combination of a ware receiving table, means to continuously rotate said table in a clockwise direction, a series of ware supporting pedestals disposed in spaced apart relationship about the circumference of said table and adapted to receive formed ware from said forming units, transfer arms individual to each said pedestal, a continuously rotating cam common to all said transfer arms, said cam adapted for counter-clockwise rotation to actuate each said transfer arm in counter-clockwise sequence for transferring ware from each said pedestal in seriatim, the timing between said oppositely rotating members being such that the ware is transferred to the said receiving table in repeated numerical sequence beginning with first forming unit to the last and means to move the ware from said table in the said numerical sequence.

2,867,336
MOBILE CONCRETE BATCHING MECHANISM
Robert B. Soldini, Millbrae, and Daniel R. Camp, Cupertino, Calif.
Application March 3, 1955, Serial No. 491,916
2 Claims. (Cl. 214—2)



1. A mobile concrete batching mechanism comprising a trailer-type vehicle, a covered cement bin of weatherproof construction mounted on said vehicle, said cement bin having a capacity in excess of that of a predetermined size of hopper-bottom bulk cement truck, a cement receiving hopper removably mounted laterally adjacent the vehicle and positioned to receive bulk cement discharged by gravity from a hopper-bottom cement truck, enclosed, weatherproof means for elevating cement from the receiving hopper into the cement bin, means in the cement bin for distributing cement elevated thereinto by the elevating means throughout a substantial area of the cement bin, an open top, partitioned, sand and aggregate storage hopper of smaller capacity than the cement bin mounted on the vehicle alongside the cement bin and of a height convenient for filling from ground stored aggregate piles by means of a tractor mounted scoop shovel, controlled discharge gate means in the lower end of the sand and aggregate hopper, a weigh batcher removably mounted beneath the sand and aggregate hopper to receive material gravitating from said hopper through said gate means, a cement compartment mounted within the weigh batcher, a cement conveyor extending from the cement bin to a point adjacent the cement compartment of the weigh batcher, controlled actuating means mounted to drive the cement conveyor for transferring a predetermined weight of cement from the cement bin into the cement compartment of the weigh batcher, means for controlling the discharge of material from the weigh batcher, and a batch materials conveyor removably mounted beneath the weigh batcher to receive the contents of the latter when discharged therefrom and to convey said contents toward a selected delivery point.

2,867,337
RAILWAY CAR WEIGHING AND UNLOADING APPARATUS
Willard E. Erickson, Chicago, Ill., assignor to Link-Belt Company, a corporation of Illinois
Application August 29, 1957, Serial No. 681,019
12 Claims. (Cl. 214—2)



1. A device of the type defined, comprising a primary base having two spaced secondary bases normally resting thereon, said primary and secondary bases supporting aligned rails thereon for guiding the wheels of a railway car, said secondary bases being spaced to receive the two sets of wheels at opposite end portions of said car and being supported for vertical movements relative to the primary base, means for fastening a railway car to said primary base with its wheels resting on said secondary bases, means mounting said primary base for oscillatory movements to effect the removal of material from the car, means for vibrating said primary base, the secondary bases and the car as a unit to impart said oscillatory movements to the railway car, means for lifting said secondary bases and the car above said primary base, and means for measuring and registering the weight supported by said lifting means.

2,867,338
APPARATUS FOR PULLING AND RACKING TUBING IN VERTICAL POSITION
Wayne W. Simmonds, Tulsa, Okla., assignor to John H. Lucas, as trustee
Application December 29, 1955, Serial No. 556,322
5 Claims. (Cl. 214—2.5)

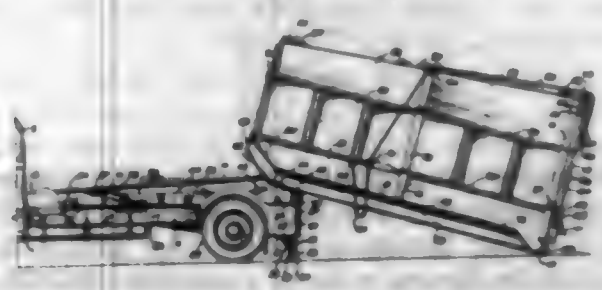
1. Apparatus for servicing a well by moving tubing and rods to and from same comprising, a mast having spaced substantially upright standards for positioning on opposite sides of a well hole to be serviced, said standards being connected at their upper and lower ends, axially aligned upper shafts adjacent the upper ends of the standards, means supporting said aligned shafts on said

standards with the adjacent ends of the shafts spaced apart, axially aligned lower shafts carried by the standards adjacent the lower ends thereof with the adjacent ends of said lower shafts spaced apart, pairs of sprockets on the respective ends of the upper and lower shafts, pairs of endless chains having pivotally connected links operating over the respective aligned upper and lower sprockets, each chain having a path of movement in a vertical plane defined by the upper and lower sprockets with the planes of the paths of movement of the pairs of chains parallel and on opposite sides of the well hole



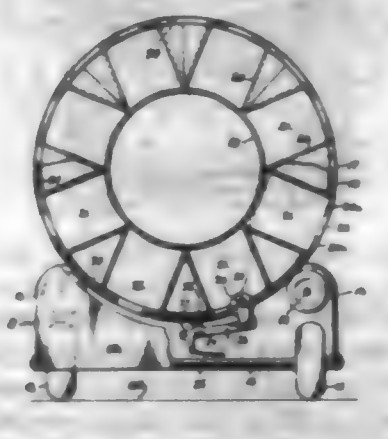
to be serviced, an elevator, means attached to the respective chains and adapted to travel therewith for pivotally suspending the tubing elevator between said chains, said sprockets being positioned relative to the well hole whereby the chains each have one run in a vertical plane and the elevator when suspended from said one run of the chains is movable in alignment with said well hole and when suspended from the other run of said chains is movable in a plane spaced from the well hole, and power means operatively connected with the upper sprockets for rotating same and effecting simultaneous movement of the chains for raising and lowering the tubing elevator.

2,867,339
LOAD CARRYING VEHICLES AND BODIES THEREFOR
Floyd E. Nelson, Kansas City, Kans.
Application August 17, 1956, Serial No. 604,700
9 Claims. (Cl. 214—517)



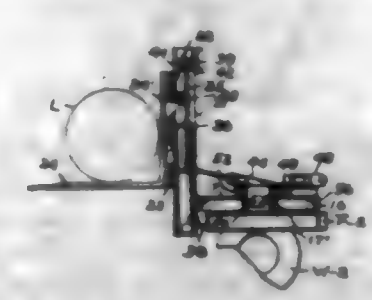
1. In a load-carrying apparatus having a wheel supported chassis with an elongated frame having the rearward portion thereof pivotally mounted adjacent the rear end of the chassis for vertical swinging movement relative thereto with means for raising and lowering said elongated frame, a load-carrying body having a bottom, side and front end wall with an open rear end, means securing the body on the elongated frame, a door for closing the rear opening of the body, means pivotally mounting the door on the body at the upper end of the rear opening thereof for swinging movement for opening and closing said rear opening, an arm hinged on the door adjacent the pivotal mounting thereof for vertical swinging movement relative thereto, an elongated flexible member movably engaging the arm and door in spaced relation to the pivotal mountings thereof, resilient means connecting one end of the flexible member to the door, means on the chassis and spaced from the pivotal mounting of the elongated frame engaging the flexible member adjacent the other end thereof whereby raising movement of the elongated frame and body thereon moves the flexible member relative to the closed position of the door and arm, and spaced stop means on the flexible member for engaging the arm and door to effect relative swinging movement thereof and raising movement of the door in response to upward swinging movement of the elongated frame and body thereon.

2,867,340
BALE WAGONS
George R. Brownlee and Donald J. Brownlee, Sylvia, Kans.
Application October 7, 1957, Serial No. 688,455
6 Claims. (Cl. 214—521)



1. In a self-loading and unloading bale wagon, the combination of a wheeled chassis, an elongated drum rotatably mounted on said chassis, longitudinal partitions provided in said drum and separating the interior thereof into a plurality of circumferentially arranged bale receiving compartments, a bale loading and unloading station provided at one end of said drum in alignment with one of the compartments therein, conveyor means provided on said chassis in alignment with said loading and unloading station for moving bales in and out of the compartment aligned with said station, means for rotating said drum for bringing the respective compartments successively in alignment with said station, said conveyor means on said chassis being projectable in and retractable from the compartments of said drum, and means for projecting and retracting said conveyor means in and from said compartments.

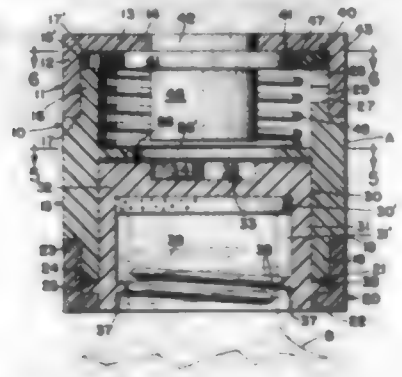
2,867,341
LOAD CARRIAGE FOR A ROAD VEHICLE
Henry A. Tieslau, Berkeley, Calif.
Application January 4, 1957, Serial No. 632,588
4 Claims. (Cl. 214—672)



1. In a vehicular transfer unit of the class described, an elongated vehicle, a lift fork having mutually coplanar load-supporting arms extending transversely and rigidly from a planar frame, a carriage supporting said fork frame for its rectilinear adjustment thereon, a turntable carried by the vehicle for its rotative adjustment about a fixed upright axis through a central longitudinal vehicle line, and means adjustably and hingedly mounting said carriage on the turntable for its swinging adjustment about a horizontal axis fixedly related to the turntable and its rotation with the turntable between a loading posi-

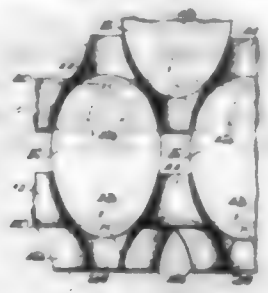
tion in which the fork arms are extended for loading engagement beneath an elongated load article horizontally disposed transversely of the vehicle and an angularly tilted-back load-transporting position in which the load article is cradled between the fork arms and frame in overlying relation to the said vehicle line.

2,867,342
SAFETY LOCKING MECHANISM FOR A ROTATIVELY MANIPULATED MEMBER
Conrad W. Bears and Jorge A. Lazarte, Rochester, Minn.
Application May 9, 1957, Serial No. 658,136
3 Claims. (Cl. 215—9)



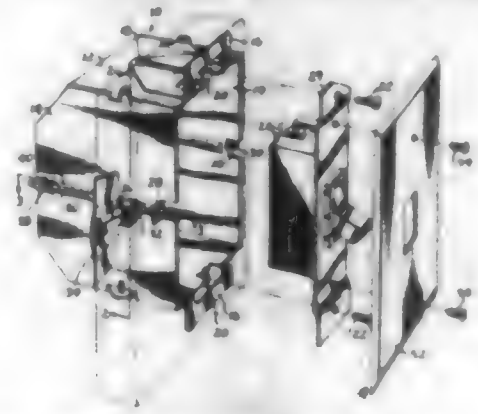
1. In a rotatively manipulated member, an outer cylindrical member having an end portion, said end portion having an opening formed therein, a disc member mounted concentrically within said outer member, means for urging said disc toward said opening of said end portion of said outer member, an inner cylindrical member having an end portion and concentrically and rotatably mounted in said outer member, equally spaced slot means formed on said outer member, equally spaced projections formed on said disc member adapted to engage said slot means, means for engaging said disc member with said inner member simultaneously with the engagement of said projections with said slot means of said outer member to thereby rotate said inner member by rotating said outer member.

2,867,343
EGG TRAY
Stanley F. Flynn, Arlington, Va.
Application September 26, 1956, Serial No. 612,339
6 Claims. (Cl. 217—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



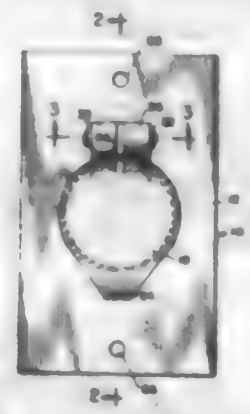
1. In combination, at least two like trays adapted to be placed one directly above the other, the trays being adapted to be placed inside a crate or other container, each tray comprising a flat plate having perforations arranged in rows, each perforation being of sufficient size to receive and seat the lower end of a fragile object; a plurality of resilient flexible tubular object-supporting members fixed to said flat plate and extending upwardly therefrom whereby every object-seating perforation has one of said tubular members on either side; said tubular members being located and dimensioned so that the sides of the seated objects are either contacted by said tubular members or will be contacted upon slight tilting of said objects; and a plurality of resilient flexible tubular object-supporting members fixed to said flat plate and extending downwardly therefrom and into contact or near contact with the sides of an object seated on the next lower tray, there being six of said downwardly extending members for each object so seated; all of said tubular object supporting members being hollow with both ends open.

2,867,344
MOUNTING ARRANGEMENT FOR SWITCH BOXES AND THE LIKE
Edward C. Nickell, Franklin, Ohio
Application March 16, 1956, Serial No. 572,161
1 Claim. (Cl. 220—3.6)



As a new article of manufacture; a side plate for an electric outlet or switch box, a tab turned out from the front edge of the box and apertured, a screw extending through the aperture, and a toggle nut on the screw, said side plate being formed to present a groove for the nut to slide in, and said plate supportingly engaging the end of the screw opposite said tab.

2,867,345
WEATHERPROOF OUTLET
Frank G. Bellek, Chicago, Ill., assignor to Bell Electric Company, Chicago, Ill., a corporation of Illinois
Application April 9, 1956, Serial No. 576,986
1 Claim. (Cl. 220—24.3)



An all weather electrical outlet comprising a base plate defining an upstanding annular flange providing an outlet opening, a cover having a flat seating surface to seat on said annular flange, a hinge extension on said cover having parallel side edges and an inner surface which is parallel to the seating surface, a bracket secured to said base plate having a pair of upstanding parallel bracket arms, a pivot bar secured by said bracket arms in parallel spaced relation to said base plate, a pair of depending flanges on said hinge extension defining openings for receiving said pivot bar, one of said flanges being disposed inwardly a predetermined distance from the adjacent side edge of said hinge extension to define a cover hinge extension abutment flange, and a spring helically disposed on said pivot bar having one end secured to said bracket and the other end secured to said cover a distance from said first end to exert tension stress on said spring to move said cover and abutment flange laterally with the inner surface of the abutment flange contacting the rear surface of one of the bracket arms wherein the cover is locked in open position when said cover is pivoted upwardly a predetermined extent, said spring further being under torsion stress to bias said

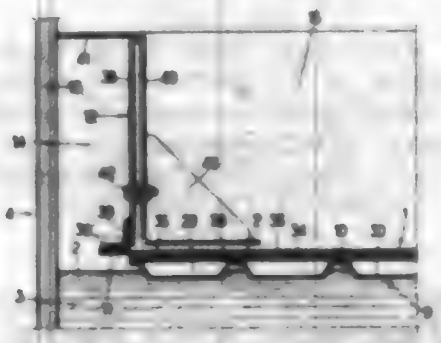
cover downwardly upon said annular flange when said cover and abutment flange are moved laterally in the opposite direction past said bracket arm rear surface.

2,867,346

FLOATING PLASTIC SCREEN

Alfred Champagnat, Paris, France, assignor of one-half to The British Petroleum Company Limited, London, England, a British company

Application September 26, 1955, Serial No. 536,550
Claims priority, application France October 6, 1954
19 Claims. (Cl. 220—26)



1. The combination with a storage vessel for volatile liquids, the vessel having an upright wall and a fixed roof, of: a blanket comprising an upper thin sheet of flexible elastic plastic material and attached to the underside of said upper sheet, a plurality of small, contiguous, cellular float units, said float units comprising an upper thin sheet of flexible elastic plastic material having attached thereto another thin sheet of flexible elastic plastic material in which a plurality of contiguous hollow cells are provided, these two float unit sheets being attached one to the other around said cells to seal said cells individually and provide said plurality of small contiguous cellular float units, said blanket being capable of floating on the free surface of the stored liquid with said first mentioned upper thin sheet at a small distance from and in a parallel direction with the free surface of the stored liquid for protecting the same against evaporation, the blanket being of a size and configuration to cover substantially, but not entirely, the entire free surface of the stored liquid so as to leave only a narrow clearance between the periphery of the blanket and said wall providing a narrow free annular liquid surface between said periphery and said wall whereby catching and wedging by unevennesses of said wall is substantially avoided when the blanket rises or falls with the level of the stored liquid; and, an apron for said blanket, made also of at least one thin sheet of flexible elastic plastic material, which is of sufficient rigidity to be self-supporting yet sufficiently flexible to be deformed if submitted to stresses resulting from being caught by unevennesses of said wall, and sufficiently elastic to resume its original form when it has passed the unevennesses, said apron extending upwardly from said blanket and fringing the blanket around substantially its entire periphery in substantially wholly spaced relation to said wall for maintaining, above said narrow free annular liquid surface and at said wall, a ring of vapours in equilibrium with the stored liquid, whereby the losses by evaporation on the free annular liquid surface are restricted in a considerable degree.

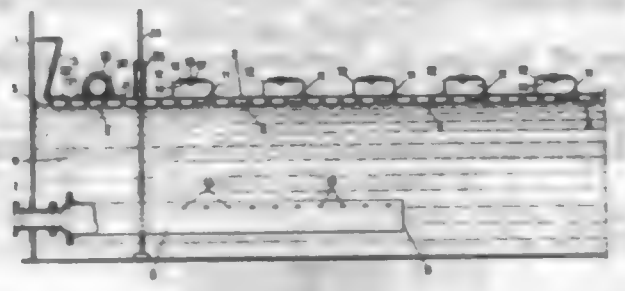
2,867,347

LIQUID STORAGE APPARATUS

Alfred Champagnat, Paris, France, assignor of one-half to The British Petroleum Company Limited, London, England, a British corporation

Application January 28, 1957, Serial No. 636,808
Claims priority, application France February 4, 1956
7 Claims. (Cl. 220—26)

1. Apparatus for storing a volatile fluid comprising a tank having a bottom, a rigid side wall and a top, a filling pipe extending through said side wall, a flexible screen to cover the surface of the stored fluid, a plurality of hollow elements at the bottom of said screen to cause said screen to float on the surface of the stored fluid, an open-ended extension tube connected to said filling pipe and extending from said side wall into said tank and parallel to the bottom of said tank, a plurality of holes spaced along the length and passing through the top of said extension tube, the length of said extension tube being greater than fifty centimeters with the hole nearest to said side wall being at least fifty centimeters from said side wall, a plurality of openings in said screen disposed over said extension tube, the opening nearest said side



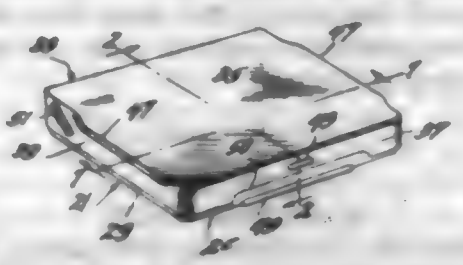
wall being at least fifty centimeters from said side wall, a plurality of valves attached to the top of said screen each covering one of said openings, the total cross-sectional area of said openings being at least equal to the cross-sectional area of said extension tube, the cross-sectional area of said extension tube being at least double the cross-sectional area of said filling pipe, and a semi-rigid reinforcing element attached to the top of said screen near the periphery of said screen whereby when fluid and a gas are injected into said tank via said filling pipe and said extension tube, deforming of said screen by pockets of gas is minimized by said reinforcing element and by said valve-covered openings which permit escape of the gas which rises to the surface of the fluid.

2,867,348

CONTAINER

Charles C. Morrison, Little Neck, N. Y., assignor to F. N. Burt Company, Inc., Buffalo, N. Y., a corporation of Delaware

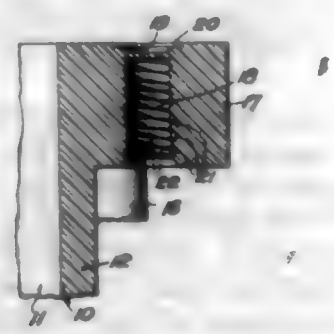
Application March 24, 1955, Serial No. 496,531
4 Claims. (Cl. 220—31)



1. A shallow rectangular container of sheet material comprising a body member and a cover member, each having front, rear, and side walls integrally formed with a top and bottom wall, respectively, the rear wall and the immediately adjacent sections of the side walls of the body member having a portion equal in height to the maximum height of the remaining sections of said side wall, said cover member fitting snugly over the body member with its front, rear, and side walls overlapping, at least in part, the corresponding walls of the body member with the edges of portions of the body walls of maximum height abutting the top wall of the cover member, a pivotal connection between the members to permit relative swinging movement thereof about a horizontal axis adjacent said rear walls, which connection consists of mating nodes and elongated recesses formed in the side walls of the two members adjacent the rear walls thereof, said recesses each extending from a point adjacent the rear end of the upper edge of a side wall of the cover member forwardly towards the front end

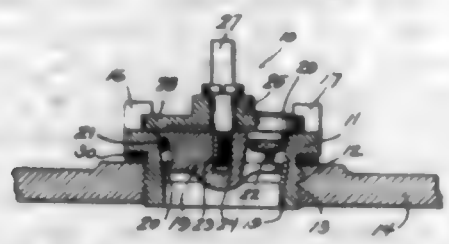
and downwardly to a point adjacent the lower edge of said side wall, and said nodes being each located adjacent the rear end of the upper edge of a side wall of the body member, whereby when said container is open said nodes are positioned adjacent the lower ends of said recesses and the application of pressure to the members to close the container moves the nodes towards the upper ends of the recesses, thereby guiding the members into proper closing alignment, said nodes being positioned adjacent the upper ends of the recesses when the container is closed.

2,867,349
MOLDED PLASTIC ARTICLES SUCH AS OUTLET BOXES
William M. Parker, Jr., Parkersburg, W. Va., assignor to Union Insulating Co., Inc., Parkersburg, W. Va., a corporation of West Virginia
Application October 1, 1953, Serial No. 383,546
1 Claim. (Cl. 220—3.3)



An open face box to be used as an outlet or junction box and adapted to be supported from an unfinished wall or the like with its open outer face disposed adjacent the wall area to be plastered, said box being molded from a rigid plastic material and having at the edge of its open face a part with an outwardly-facing element-mounting screw hole therein, internal screw threads in said hole and of a size to receive a metal machine screw, and a thin flash of the plastic material temporarily closing the screw receiving end of the hole to protect the screw threads therein from plaster during the plastering operation, said flash being molded integrally with said part and being hard but readily breakable when an element-mounting machine screw is to be inserted in the hole, said flash being slightly spaced inwardly from the outer surface of the part at the open face of the box to provide a countersink concentric with the hole to indicate the location of the flash.

2,867,350
CLOSURE CAPS
Lambert W. Fleckenstein, Milwaukee, Wis.
Application July 19, 1956, Serial No. 598,941
1 Claim. (Cl. 220—46)



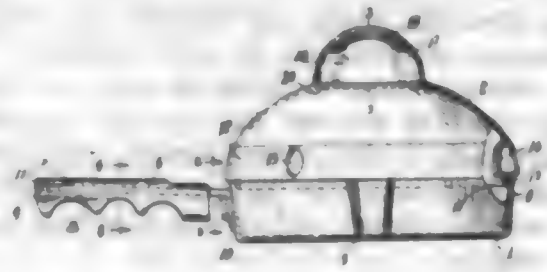
A closure cap assembly comprising a neck ring, an inclined interior surface in said neck ring, a plug having a wide peripheral depression to accommodate an O ring, said depression being trapezoidal in cross-section whereby the inner wall of said depression is pitched at an inclination varying from the inclination of the neck ring to effect tightening of said plug by compression of the O ring therebetween, a cap rotatably secured to said plug, vertical wings on said cap for manual rotation thereof, integral cam plates on the cap, a stop boss on the upper surface of the lower end of each cam plate, vertical upstanding keeper blocks surmounting the neck ring, and short inclined lower surfaces on said keeper blocks co-acting with the cam plates on said cap for tightening or releasing the assembly.

2,867,351
BODY RETAINING SELF LOOSENING COVER AND CAN
Cameron MacLeod, Jr., Glen Moore, Pa.
Application June 1, 1956, Serial No. 588,671
1 Claim. (Cl. 220—43)



A container comprising telescoping can and cover elements, said can element having a bottom portion and an upstanding frusto-conical wall portion defining an open top end, said cover element having a top portion and a depending frusto-conical wall portion defining an open bottom end, said wall portions having a substantially common longitudinally extending axis generally normal to the top and bottom portions with the wall portion of the can element tapering toward said axis and toward the open top end, the wall portion of the cover element diverging away from said axis toward the open bottom end, said wall portions being substantially contiguous and disposed in generally parallel relationship when said can and cover elements are positioned in concentric relation to each other during assembly of the container to form an instantaneous seal therebetween over substantially the full height of the wall portion of the can element when the wall portions are moved axially of each other and brought into frictional engagement on assembly of the container, said wall portion of the cover element extending from the top portion thereof beyond the bottom portion of the can element and terminating in a lower edge which projects below the bottom portion of the can element when the elements are in assembled relation to enable the instantaneous breaking of the seal and disassembly of the elements by tapping the said lower edge against a solid surface.

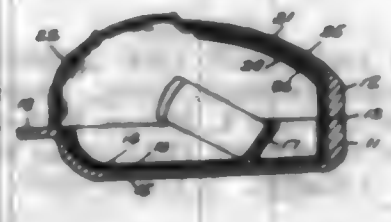
2,867,352
NON-SPLATTER COVERED SKILLET
Nobuyoshi Kawano, Toronto, Ontario, Canada
Application January 5, 1956, Serial No. 557,611
1 Claim. (Cl. 220—44)



In a covered skillet a lid for a pan having a circular side wall, said lid comprising a dome-shaped body downwardly terminating in a skirt portion of a diameter at least equal to the side wall of said pan, said skirt portion provided with inlet openings at intervals therearound, a horizontal ledge-forming wall integrated with said skirt portion and co-extensive therewith, said ledge-forming wall projecting inwardly of said skirt portion to seat on said side wall and having an inner edge portion, a retaining wall of a circular extent depending from said

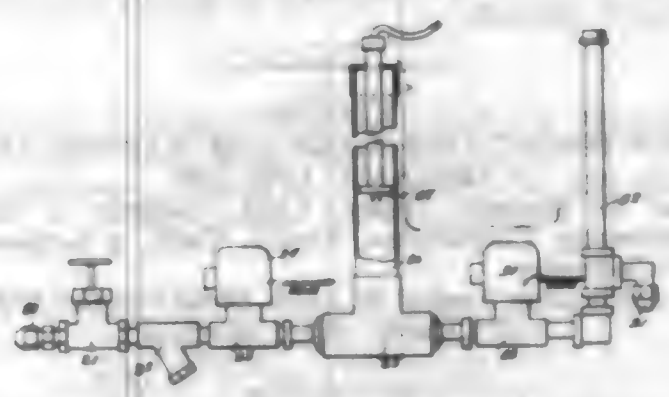
ledge-forming wall at said inner edge portion for engaging said side wall for precluding displacement of the lid when the lid is placed on the pan, and vertical baffle walls disposed interiorly of said lid in spaced relation to said skirt portion thereof, each baffle wall located behind an inlet opening in said skirt portion and providing an intervening passage communicating at its ends with the free space within the lid, each baffle wall joined at its lower end to said ledge-forming wall and having a juncture at its upper end with said skirt portion over and above the respective inlet opening.

2,867,353
DISPLAY BOX FOR WATCHES, ETC.
Arthur R. Botham, New York, N. Y., assignor to Arrow Manufacturing Company, Incorporated, West New York, N. J., a corporation of New Jersey
Application April 4, 1956, Serial No. 576,175
3 Claims. (Cl. 220—82)



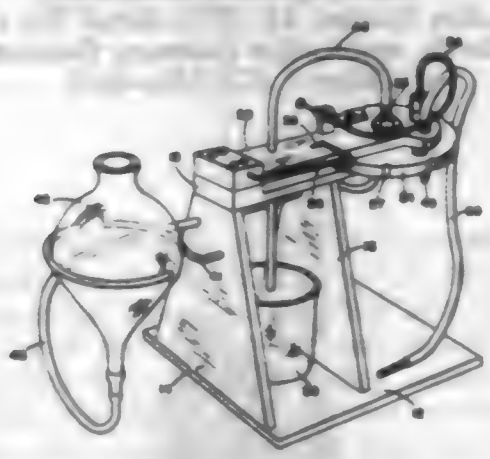
1. In a display box of the type having a base portion adapted to be closed by a lid pivotally hinged to the rear side of said base portion, the improved construction comprising a lid comprising two plastic compositions having different transparencies, said lid having an inside concave and an outside convex surface, the front curved portion of said lid being made of transparent plastic material of self-supporting thickness, the rear portion of said lid being formed of opaque plastic material, whereby said lid may be opened so that the base area thereof is preferentially illuminated from above by light passing through said transparent portion while the opaque portions thereof provides a background for the contents of the opened box.

2,867,354
LIQUID DISPENSING MECHANISM
William A. Tanzola, Havertown, and John R. Schleber, Horsham, Pa., assignors to Betz Laboratories, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application June 12, 1957, Serial No. 665,178
5 Claims. (Cl. 222—64)



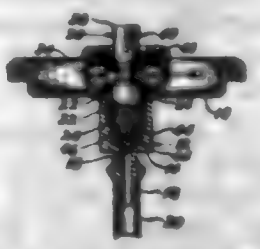
1. A liquid dispensing system including a source of liquid under pressure and a discharge pipe through which the liquid is dispensed to a main system, in combination with a measuring container, an inlet valve between the source and the measuring container, an outlet valve between the measuring container and the discharge pipe, electrical means operative when the measuring container is empty for closing the outlet valve and opening the inlet valve in response to a timer, electrical means responsive to the level of the liquid in the measuring container for closing the inlet valve including a liquid contact switch, said means including a relay having a relay switch-opening coil in a circuit branch in series with the liquid contact switch, having a relay switch in series with the liquid contact switch, and having a relay switch-closing coil, the electrical means for opening and closing the valves including solenoids, a timer having a normally closed switch and a normally open switch, the normally closed switch being in a circuit branch in series with the inlet valve solenoid and with the relay switch and in parallel with the series-connected relay switch-opening coil and liquid contact switch, the normally open switch being in series with two circuit branches, one including the outlet valve solenoid and the other including the relay switch-opening coil, and electrical means responsive to the timer for opening the outlet valve.

2,867,355
APPARATUS AND METHODS USEFUL IN THE PREPARATION OF PRECISE DILUTIONS OF LIQUIDS
Alan Richardson Jones, Wellesley Hills, Mass.
Application September 2, 1954, Serial No. 453,849
2 Claims. (Cl. 222—136)



1. Apparatus of the character described comprising two parallel spaced horizontal stationary plates, a third plate mounted between said stationary plates for movement relative thereto, the top and bottom plates having two pairs of aligned apertures and the top plate having an aperture spaced between said pairs of apertures, an aperture in said third plate and means retaining said plates in relatively movable relation for passing said third plate aperture in sequence, first into alignment with one of said pairs of aligned apertures, second into alignment with the intermediate top plate aperture, and then into alignment with the other pair of aligned apertures, whereby said third plate aperture may carry a liquid placed therein through the first pair of apertures into communication with a liquid disposed in said intermediate top plate aperture for mixture therewith, and then may carry the volume of mixed liquid contained therein into alignment with the second pair of aligned apertures for permitting removal of the mixed liquid therefrom.

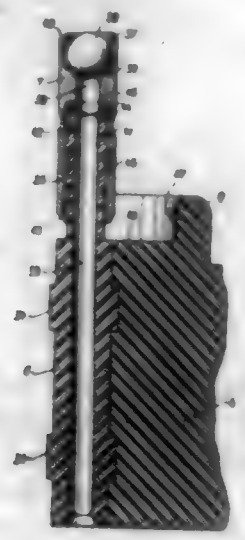
2,867,356
VALVE
Ralph Henry Thomas, Rahway, N. J., assignor to Colgate-Palmolive Company, New York, N. Y., a corporation of Delaware
Application July 6, 1956, Serial No. 596,358
4 Claims. (Cl. 222—148)



1. A self-purging top mounting valve for dispensers of gas-propelled products adapted for use in a substan-

tially upright position wherein said valve is surrounded by gaseous propellant comprising a valve body having therein a product supply opening and a gas admission port, a valved outlet, a movable valve stem, said valve stem being adapted to close said outlet at a first position, to open said outlet at a second position, and to simultaneously open said outlet and said gas admission port and close said product supply opening at a third position, a projecting member on said valve body normally restricting said valve stem to said first and second positions, and a recess in said valve stem adapted to receive said projection and thereby selectively permit movement of said valve stem to said third position so as to simultaneously close said product supply opening and allow propellant gas to pass through the thereby opened gas admission port and said outlet and purge said valve of product.

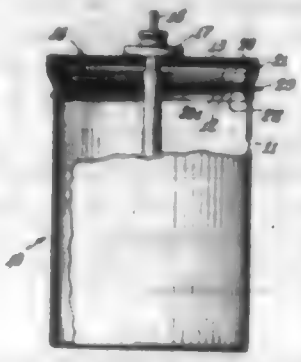
2,867,357
FILLABLE CONTAINER
Hermann Schneider and Hedwig Schneider, nee Hommel, Hamburg-Altona, Germany
Application October 25, 1956, Serial No. 618,389
Claims priority, application Germany October 26, 1955
7 Claims. (Cl. 222—212)



1. A container having in combination a flexible wall portion, a non-flexible nozzle portion connected to said wall portion, a tubular shank member passing through said nozzle portion opening into said container, a valve part screwed on the exposed end of said tubular shank member and in communication with the bore thereof, valve means within said valve part for dispensing the content of said container, said valve means comprising a movable valve member arranged within said valve part and adapted to close a valve seat communicating with the bore of said shank member, and means for refilling said container, said means comprising openings in said valve part which are arranged to communicate with the bore of the tubular shank member upon axial movement of the valve part.

2,867,358
AEROSOL CONTAINER WITH VALVE
Philip Meshberg, Fairfield, Conn.
Application February 6, 1956, Serial No. 563,567
13 Claims. (Cl. 222—394)

1. An improved receptacle for containing a substance under pressure comprising a containing member having an annular wall portion provided with an inturned flange adjacent the open end thereof, a valve unit having a valve means and a laterally extending mounting portion provided with a depending flange at the edge thereof projecting below said laterally extending mounting portion, said valve unit being adapted to fit over said containing member forming a closure therefor with the depending flange engaging the annular wall, a pressure-sealing means including a resilient sealing member disposed between the valve unit and containing member adjacent the respective flanges thereof, and means tightly securing said



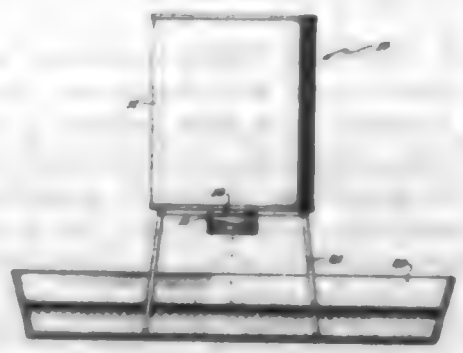
valve unit to said containing member wedging therebetween the resilient sealing member so that the sealing efficiency of the sealing means is maintained in the event of increased internal pressures within said receptacle.

2,867,359
SEED PACKAGE AND DISPENSER
E. O. N. Adams, Redmond, Oreg., assignor of twenty-five percent to Merle L. Hogan, Redmond, Oreg.
Application January 18, 1957, Serial No. 634,921
3 Claims. (Cl. 222—485)



1. A dispensing package for seeds comprising a receptacle having an open top, a cover extending over the open top of said receptacle, said cover being provided with a plurality of openings each of an elongated area, said openings being arranged in a row along and inwardly of one side edge of said cover, each of said openings being of the same area and increasing in width from one end to the other end thereof with the narrow and larger ends of the openings being adjacent each other, a shelf positioned within said receptacle below and spaced from said cover, said shelf having an opening positioned inwardly of the side edge of said shelf adjacent the other side edge of said cover, and a valve plate superimposed upon said cover and connected to said receptacle for sliding movement to positions partially or wholly bridging said cover openings.

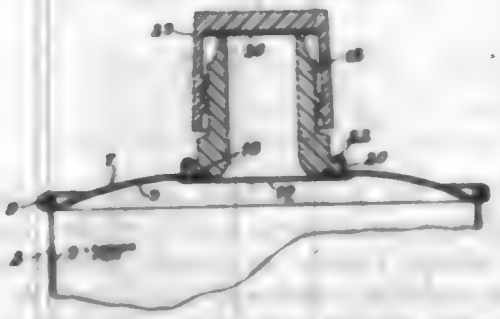
2,867,360
SELF-TIMING DISPENSER FOR VAPORIZABLE ORGANIC LIQUIDS
Jagan N. Sharma, Venice, Calif., assignor to Zenith Processing Corporation, Venice, Calif., a corporation of California
Application August 28, 1956, Serial No. 605,092
10 Claims. (Cl. 222—541)



1. A self-timing dispenser for vaporizable organic liquids having fungicidal and decay inhibiting properties,

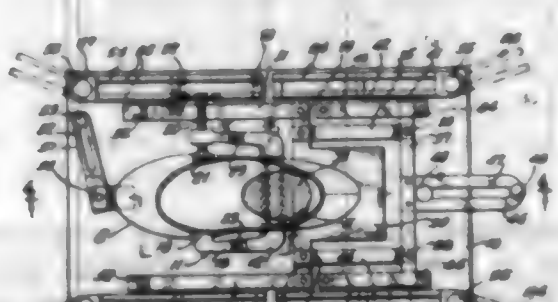
comprising: a metallic container provided with a removable closure in its top; a through port in said closure; a normally gas-tight metallic foil between the port in said closure and container contents; a body of organic vaporizable liquid in said container and a small quantity of acid within said container, said acid having a greater density than said organic liquid and being immiscible with the organic liquid, the quantity of acid and the character of the metal foil being correlated to effect disruption of the foil by said acid within a predetermined period of time when said container is inverted, to liberate said organic liquid through the port in said closure at such predetermined time.

2,867,361
DISPENSING CAN HAVING A RESILIENT SPOUT
Andrew M. Toft, Chicago, Ill., assignor to National Can Corporation, Chicago, Ill., a corporation of Delaware
Application October 17, 1955, Serial No. 540,679
3 Claims. (Cl. 222—574)



1. A dispensing can of metal, said can having a closure wall in which is formed a dispensing opening, the inner surface of said can having a protective film thereon which inhibits chemical action between the can and the contents thereof, a metal retainer ring having an internal flange bearing against said closure wall on the outside of the can and around said dispensing opening, the metal of the can around said dispensing opening being hemmed outwardly of the can over the edge of said internal flange to secure the ring in place and with the protective film coated surface at said hem extending to a position facing outwardly of the can, and a spout of a resilient, inert, plastic material having a flange which is on the film of the film covered outwardly facing portion of the hem and is on the internal flange of the ring and is surrounded by said retainer ring, the end of said retainer ring remote from the hem being curled radially inwardly into pressure engagement with the said spout flange and compressing said spout flange into sealing engagement with the hemmed portion of said can.

2,867,362
DEVICE FOR SUPPORTING DISPLAY FIGURES
Erich Bloch, New York, N. Y.
Application August 24, 1955, Serial No. 530,351
19 Claims. (Cl. 223—120)



1. A support device for a display figure having lower portions simulating legs and lower foot extremities, comprising a base adapted to extend along the underside of a foot extremity, a platform for directly supporting at least a part of the underside of the foot extremity, said platform being adjustably secured to said base for elevational adjusting movement in relation to said base, a manipulable member on said base guided for movement along the top of said base, means responsive to the movement of said member along the top of said base for moving said platform elevationally in relation to said base, and means for clamping the lower foot extremity for anchorage to the support device.

2,867,363
SAW SCABBARD
Karl Knemmerling, Canton, Ohio
Application April 29, 1957, Serial No. 655,782
3 Claims. (Cl. 224—2)



1. A scabbard for saws, comprising two side members, means connecting the edge portions of the side members together, said means terminating at a point spaced from the top of the scabbard at one edge of the scabbard, a substantially U-shape casing connected to the outer surfaces of said side members at points spaced from the adjacent edges thereof at said one edge of the scabbard and above said termination point, and a detachable reversible saw tooth guard longitudinally slidably located in said casing, said saw tooth guard being formed of leather and bent into substantially U-shape, the edge portions thereof being located between the casing and the outer surfaces of the side members.

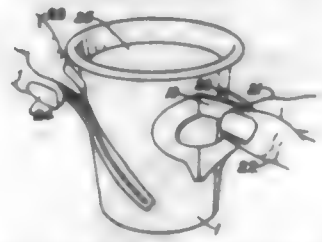
2,867,364
HOLDER FOR MILK CONTAINER
Nunzio Bramante, Moorestown, N. J.
Application March 22, 1957, Serial No. 647,759
1 Claim. (Cl. 224—45)



In a holder for milk containers, a square-shaped upper horizontal frame having sides, a front, and a back; a lower horizontal frame of the same size and shape as said upper frame and having sides, a front, and a back; a U-shaped vertical frame including legs secured to the

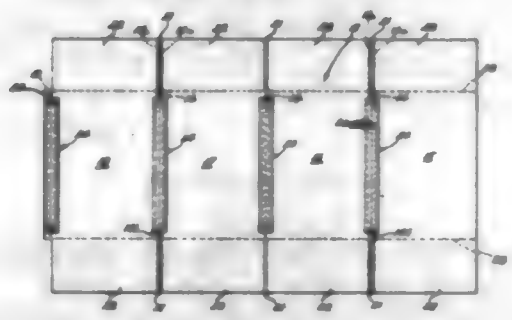
sides of said horizontal frames by spot welding and a base having a central upwardly offset portion; two additional vertical frames having legs secured to the fronts and backs of said horizontal frames by spot welding and bases passing beneath said offset portion and spot welded thereto; and a flat handle consisting of a main body portion substantially parallel to the legs of said vertical frames and arranged midway therebetween, a curved top portion having its end curled over and welded to the back of said upper horizontal frame and an inclined bottom portion having its end curled over and welded to said lower horizontal frame whereby said main body portion of the handle is offset with respect to the closest adjacent legs of said last-mentioned vertical frames, said frames and handle being covered with plastic.

2,867,365
CONTAINER
Harry B. La Tourette, Jr., Clayton, Mo.
Application February 15, 1954, Serial No. 410,082
2 Claims. (Cl. 229—1.5)



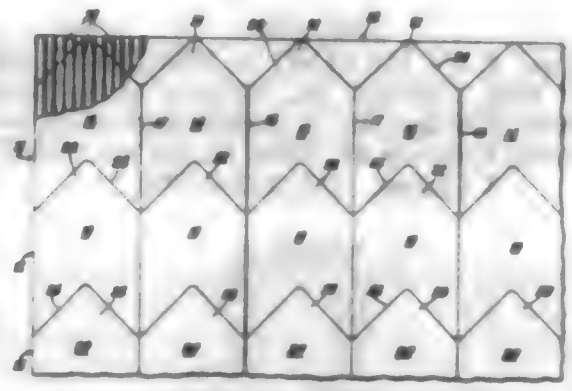
1. A paper container comprising a side wall consisting of a blank coiled on itself to provide overlapping outside and inside wall end portions adhesively secured together in sealing relationship, a spoon detachably carried by the outer overlapping end portion as an integral sidewall-conformable extended part of said portion at least partially cut out of said portion sufficiently to be readily and completely removable therefrom by hand, and an outwardly foldable handle portion also integral with said outside end portion adjacent the outer edge of the sidewall in laterally displaced relationship with respect to said spoon whereby the container may be firmly grasped by said handle portion while the spoon is being pulled from said outer end portion.

2,867,366
CRATE
Arthur L. Whiton, Evanston, and Ralph J. Byers, Des Plaines, Ill., assignors to Chicago Mill & Lumber Company, Chicago, Ill., a corporation of Illinois
Application July 25, 1955, Serial No. 524,037
3 Claims. (Cl. 229—14)



1. A crate for packaging a cabinet structure wherein only the bottom of the cabinet structure is joined with the crate which comprises a substantially square hollow body member of corrugated board defining a space to receive said structure, said body member comprising closing flaps at each end thereof, an open rigid bottom platform overlying the bottom closing flaps and adapted to be secured to the base of the cabinet structure, and an open rigid slatted member underlying the closed flaps at the upper end of the body member, a vertically disposed angularly-shaped member secured to adjacent sides of the body member at each corner forming portion thereof to define therewith an elongated and substantially square pocket, and a substantially square cleat freely received within each pocket bearing at its bottom end against the platform skid, and at its upper end against the slatted member.

2,867,367
CORNER PACKING
James N. Butz, Detroit, Mich., assignor to Continental Can Company, Inc., a corporation of New York
Application July 16, 1956, Serial No. 597,997
5 Claims. (Cl. 229—14)



1. A blank for a container corner packing and the like, comprising an elongated strip of flat sheet material, said strip having a series of panels formed thereon by a plurality of parallel transverse lines, each of said panels having a substantially right-angled extended portion at one end thereof and a substantially right-angled cut-out portion at the other end thereof, the apex of said extended portion and the apex of said cut-out portion lying on a line which is parallel to said transverse lines, said strip being adapted to be reversely folded along said parallel transverse lines to form an accordion pleated corner packing having a container corner engaging portion formed by the extended portions of said panels and an article engaging portion formed by the cut-out portions of said panels.

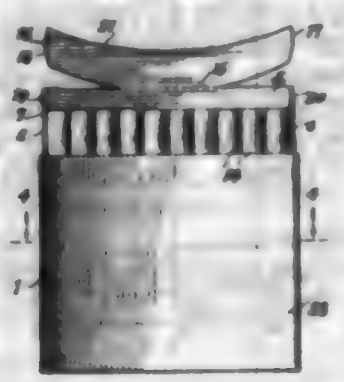
2,867,368
CIGARETTE CARTON
Mitri Kaplan, Brooklyn, N. Y.
Application April 24, 1958, Serial No. 730,782
2 Claims. (Cl. 229—17)



1. A dispensing carton comprising a longitudinal bottom panel, a pair of opposed longitudinal side panels each integral to and at a right angle to said bottom panel, a top longitudinal panel integral to and normally at a right angle to a side panel, a longitudinal sealer panel integral to and at a right angle to said top panel and sealed to the adjacent dispensing side panel, an end panel integral to and at a right angle to each of the ends of the other and opposed side panel, said top and bottom longitudinal panels having relatively small sealer panels in-

tegral to and at a right angle to each of its respective ends and sealed respectively to the respective end panels, said dispensing side panel being secured longitudinally by a perforated tear line, said longitudinal sealer panel secured to said side panel being secured by a perforated tear line, said side dispensing panel having a medial longitudinal tear line and a plurality of spaced-apart parallel tear lines each disposed at a right angle to said medial line thereby dividing up the dispensing panel into a plurality of small individually removable dispensing panels, said small sealer panels secured to one of said end panels being secured by a respective perforated line to its respective top and bottom panel, thereby providing a tearable end panel tearable away from its normally confining sealer panels secured thereto.

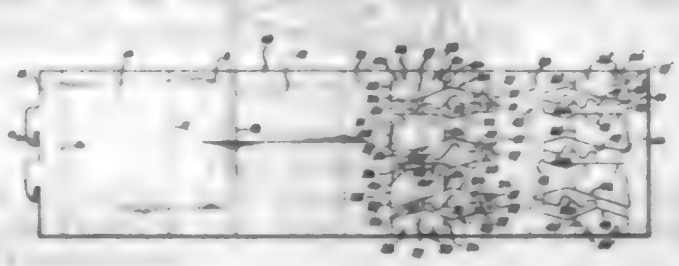
2,867,369
CONTAINERS FOR CIGARETTES
Charles C. Cernera, New York, N. Y.
Application June 21, 1954, Serial No. 438,259
2 Claims. (Cl. 229—20)



1. A container for cigarettes and similar articles comprising, an outer cardboard sleeve of rectangular formation having front and rear walls which are transversely arched, an arched tray slidably mounted within the sleeve and movable by sliding movement to expose an end portion out of one end of the sleeve, the tray having a curved bottom wall conforming in curvature to the curved rear wall of the sleeve, the tray having side walls and end walls, one of the end walls being permanently closed, the other end wall being hinged for a portion only of its length to the curved rear wall of the tray at a central point thereof, said end wall having a forward edge conforming in curvature to the arched front wall of the sleeve, said end wall having opposite end portions free of attachment to the rear wall of the tray, said hinged end wall constituting a foldable flap movable to open position to permit of endwise removal of cigarettes from the tray, the side walls of the tray being each formed with a groove in its inner surface adjacent to the free end portions of the hinged end wall whereby said free end portions can be entered into said grooves to hold the hinged end wall in closed position, the side walls of the tray slightly diverging away from one another from the closed end of the tray to the hinged wall thereof to cause the sleeve, when fitted over the tray, to urge the side walls of the tray toward one another near the hinged end wall to thereby urge the grooves in the side walls into engagement with the ends of the hinged end wall and thereby hold said end wall in closed position.

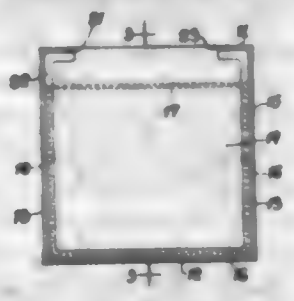
2,867,370
MULTI-CELLULAR CARTON
Joseph A. O'Reilly, San Francisco, Calif.
Application January 23, 1956, Serial No. 560,724
3 Claims. (Cl. 229—28)

1. A rectangular multi-cellular carton blank having opposite end edges and opposite side edges connecting corresponding ends of said end edges, a plurality of score lines defining therebetween a top wall, a back wall, a bottom wall and a front wall, one of said score lines defining an edge of the front wall being spaced from one end edge of the blank and defining a panel portion therebetween, said panel portion having a first plurality of substantially longitudinally extending and co-extensive cuts formed therethrough defining a first plurality of independent strips of material therebetween which are attached only at their ends, said panel portion also having a second plurality of substantially longitudinally extending and co-extensive cuts formed therethrough spaced longitudinally from said first plurality of cuts and defining a second plurality of independent strips of material therebetween which are attached only at their ends, alternate strips of each of said first plurality and second plurality of strips having first, second and third score lines formed therein extending transversely to said side edges of the blank, said first score lines being disposed at one end of the alternate strips, said second score lines being disposed at the opposite ends of the alternate strips, said third score lines being disposed at an intermediate portion of said alternate strips between said first and



second score lines, the alternate strips of said first plurality of strips having fourth score lines formed therein extending transversely to the side edges of the blank, each of said fourth score lines being disposed between the first and third score lines of the associated alternate strip, each of the strips between said alternate strips of said first and second plurality of strips having cuts formed therethrough extending transversely to said side edges of the blank and having score lines formed therein intersecting said last mentioned cuts and extending substantially parallel to the side edges of the blank, each of said last mentioned strips having fifth and sixth score lines formed therein extending transversely to said side edges of the blank, the last mentioned strips of said first plurality of strips also having seventh score lines formed therein between said sixth score lines and one end of the associated strips and extending transversely to said side edges of the blank, said panel portion having a score line extending transversely to said side edges of the blank and disposed between and spaced from said first and second plurality of strips.

2,867,371
BOXES HAVING FLEXIBLY HINGED COVERS
Robert Nyden, Manhasset, N. Y.
Application August 10, 1955, Serial No. 527,492
5 Claims. (Cl. 229—44)



1. A box comprising a body having rear, front, side and bottom walls and an open top and arranged with a fulcrum spaced forwardly of the rear wall and a notch in the upper edge portion of the rear wall having the bottom wall of the notch in a plane below the fulcrum, a cover a close the open top of the body, and a hinge member of flexible material secured at the end portions to the

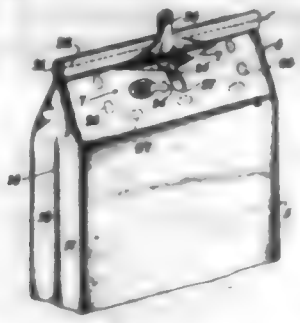
body and to the cover and having an intermediate portion free of the body and of the cover and pleated transversely of the length of said member and extended into the notch in the rear wall of the body with the pleated portion in expanded condition when the cover is in closed position, and the front portion of the cover is lifted by pressing on the rear portion of the cover and compressing the pleated portion of the hinge member to cause a portion of the cover spaced forwardly of the rear edge of the cover to engage the fulcrum.

2,867,372

BAG STRUCTURE WITH POCKET

Richard M. Fox, Marysville, Ohio, assignor to The O. M. Scott & Sons Company, Marysville, Ohio, a corporation of Ohio

Application October 5, 1955, Serial No. 538,556
2 Claims. (Cl. 229—56)



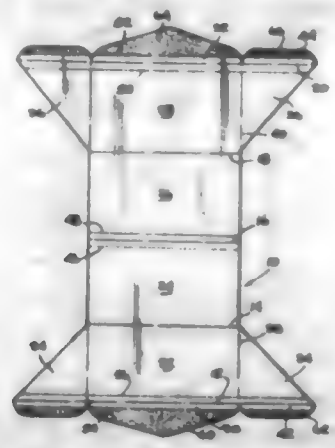
1. A multiply bag having two ends, one of which ends is closed prior to filling the bag, the other end to be closed subsequent to filling: a lateral row of fastening means at said one end maintaining said one end closed; means, between and including portions of the outer ply and next inner ply, adjacent said one end of one side of the bag constituting a compartment, said means also including bonding material joining said outer ply and said next inner ply to constitute at least one lateral edge of the compartment spaced away from said one closure of the bag a distance no greater than a position approximately midway between the bag ends, the other lateral edge of said compartment being provided by said lateral row of fastening means at said one closed end; a loading of desired material disposed in said compartment; and scoring in said portion of the outer ply intermediate said bonding material and said row of fastening means defining a pull tab to enable tearing of said portion of outer ply to gain access to said compartment.

2,867,373

DOUBLE LETTER ENVELOPE

Milton M. Kaufmann, Rome, N. Y.

Application April 1, 1955, Serial No. 498,551
5 Claims. (Cl. 229—73)



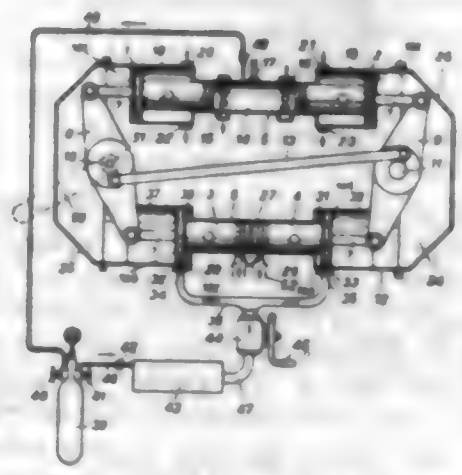
1. A double letter envelope comprising a rectangular piece of paper, means transversely subdividing the piece into at least four consecutive panels successively and foldable with respect to each other, two of said panels being end panels, a wing foldably attached to each side edge of each end panel, a flap foldably attached to the outer edge of each end panel, each said wing having an edge colinear with the outer edge of its associated end panel, a tab foldably attached to each colinear edge of each wing, one end panel being smaller in height than the other panels, the other end panel being larger in height than the other panels, the double letter envelope including an initial letter envelope consisting of the larger end panel and its adjacent panel and a return letter envelope comprising the remaining panels, said two letter envelopes being joined by one of said subdividing means, the attaching means between each end panel and its associated flap having a weakened zone on each side thereof, one of said zones being located on the flap and the other being located on the associated end panel, the weakened zone on each flap extending across the tabs at the same end of the piece of paper, the weakened zone on each end panel extending across its associated wings, and a weakened zone located on each side of said one subdividing means.

2,867,374

MEANS FOR STARTING INTERNAL COMBUSTION ENGINES OF THE OPPOSED PISTON TYPE

Hans Petersen, Surth (Rhine), Germany

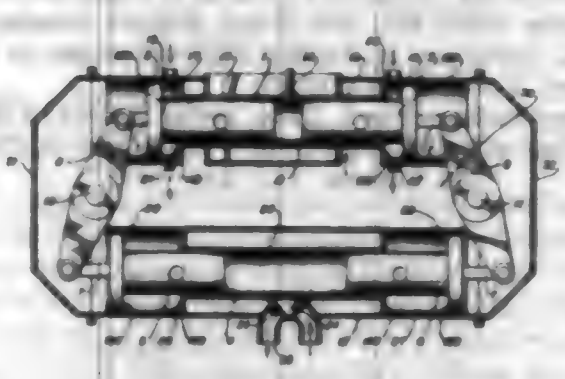
Application July 16, 1954, Serial No. 443,948
Claims priority, application Germany June 27, 1953
7 Claims. (Cl. 230—56)



1. A starting device for a free motor piston machine, comprising compressor cylinder means, a pair of free compressor pistons reciprocally movable in opposite directions in said compressor cylinder means and constructed for driving connection to the motor piston means of said machine, each of said compressor pistons when in its inner dead center position defining with a respective end portion of said compressor cylinder means a corresponding starting stroke space, each of said respective end portions of said compressor cylinder means being provided with at least one starting aperture positioned to be obturated by the associated compressor piston when the same is in said inner dead center position thereof, reservoir means in communication with said starting apertures and constructed to contain at a predetermined operating pressure a quantity of compresser gas sufficient for only one starting stroke of said compressor pistons, said compressor cylinder means defining additionally from said reservoir means to each of said starting stroke spaces a flow path of substantially restricted cross-section relative to said starting apertures, and starting valve means communicating with said starting stroke spaces and operable to control the build-up of pressure in said starting stroke spaces, whereby upon operation of said starting valve means to permit a pressure build-up in said starting stroke spaces, compressed gas flows from said reservoir means via said flow path into said starting stroke spaces at a relatively slow rate determined by the restricted cross-section of said flow path to slowly initiate said pressure build-up and thus said starting stroke of said compressor pistons, while upon continued movement of the latter

during said starting stroke thereof in said compressor cylinder means, said starting apertures are freed and said compressed gas then flows from said reservoir means via said starting apertures into said starting stroke spaces at a relatively high rate determined by the relatively larger cross-sections of said starting apertures to thereby effect a rapid pressure build-up and subject said compressor pistons substantially immediately to the full operating pressure so as to rapidly complete the starting stroke of said compressor pistons.

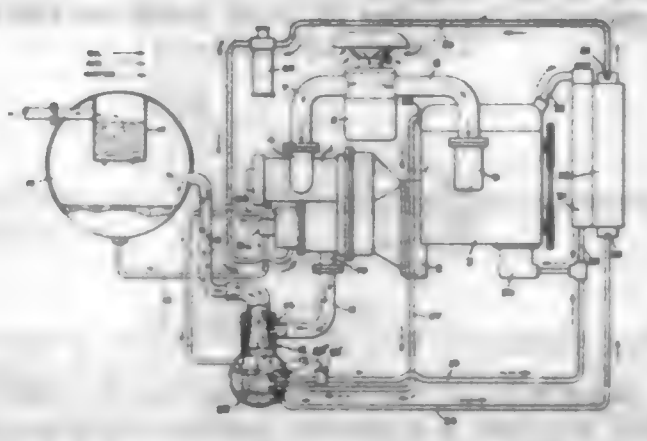
2,867,375
INTERNAL COMBUSTION ENGINE-AIR COMPRESSOR
Hans Petersen, Surth (Rhine), Germany
Application July 30, 1954, Serial No. 446,802
In Switzerland January 14, 1949
Public Law 619, August 23, 1954
Patent expires January 14, 1969
7 Claims. (Cl. 230—56)



1. In a combined internal combustion engine-air compressor; two side by side groups of cylinders each defining a mid-length stroke space and two end stroke spaces of increased diameter as compared to the associated mid-length stroke space, a pair of pistons oppositely reciprocal in said cylinders of each of said groups, the pistons of each pair having confronting inner end-portions working within and of the same diameter as the respective mid-length stroke space, and further having outer end portions working within and of the same diameter as the respective end stroke spaces, and means connecting each piston of one of said pairs with a corresponding one of the pistons of the other pair for simultaneous reciprocation in opposite directions relative to one another, one of said cylinder groups and its associated pistons constituting parts of a two-stroke internal combustion engine, and the other of said cylinder groups and its associated pistons constituting parts of an air compressor, at least one of said cylinders of said other group being provided with at least one aperture normally enabling flow of air into and out of said one cylinder and positioned so as to be obturated by the associated piston during movement of the latter in a direction tending to reduce the size of the corresponding stroke space, whereby any air remaining in the latter will be compressed upon continued movement of said last-named piston in this direction for storing the required return movement energy thereof.

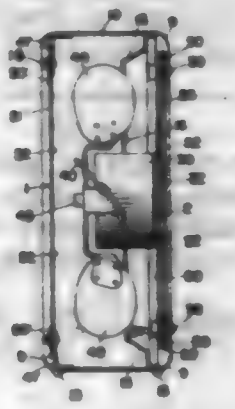
2,867,376
OIL HEATING ARRANGEMENT FOR ROTARY FLUID COMPRESSOR
Alexander J. Kelz, Springfield, and Sylvan R. Hirsch, Longmeadow, Mass., assignors to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application March 25, 1954, Serial No. 418,567
1 Claim. (Cl. 230—207)

In combination, a compressor, a prime mover for driving said compressor, a fluid cooling system for the prime mover, a lubrication system for the compressor including a pump and a lubricant reservoir, a heat exchange means in said lubricant reservoir, a conduit means connecting said heat exchange means to the fluid cooling system for



the prime mover, and a normally open valve disposed in said conduit means and adapted to close when the temperature of the lubricant in said lubricant reservoir reaches a predetermined maximum value.

2,867,377
FAN ASSEMBLY
Oscar L. Lasko, West Chester, Pa., assignor to Lasko Metal Products, Inc., West Chester, Pa., a corporation of Pennsylvania
Application April 22, 1957, Serial No. 654,389
4 Claims. (Cl. 230—259)



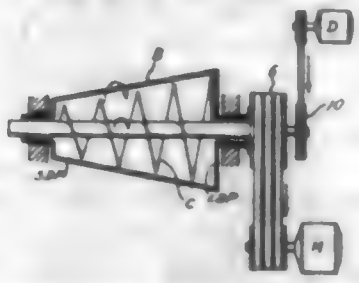
1. A fan assembly comprising a rectangular casing, said casing having axially aligned front and rear rectangular openings, a venturi ring positioned in said casing having its axis aligned with the central axis of the casing, the larger intake end of said venturi ring being positioned adjacent the rear opening of the casing and its reduced converging suction end extending inwardly of the casing, flange portions connected to said venturi ring, said flange portions being connected to the inner sides of the casing for retaining the venturi ring within the casing, a rectangular open-wire grill retained adjacent the said front and rear rectangular openings of said casing and of substantially coextensive area, said grills being formed of a plurality of regularly spaced vertical and horizontal wires connected at their ends to a peripheral rectangular wire frame member and to each other at their intersecting contacting portions, a motor positioned axially within the casing and supported on the medial portion of the said rear grill, a fan blade assembly carried on the shaft of said motor having a plurality of rotatable fan blades, said motor and fan blade assembly being positioned entirely within said casing, said fan blades being positioned coaxially of said venturi ring and adjacent the suction end thereof, said motor being reversible for rotating the fan assembly in selected opposed directions, said rear grill being retained by said flanges connected to the venturi ring by bolts passing therethrough, said bolts being supported in yieldable bushings to minimize vibration during operation of the fan assembly.

2,867,378

CENTRIFUGING MACHINES

Walter F. Harlow, Quarndon, England, assignor to International Combustion (Holdings) Limited, London, England, a British company

Application September 16, 1954, Serial No. 456,413
2 Claims. (Cl. 233—7)



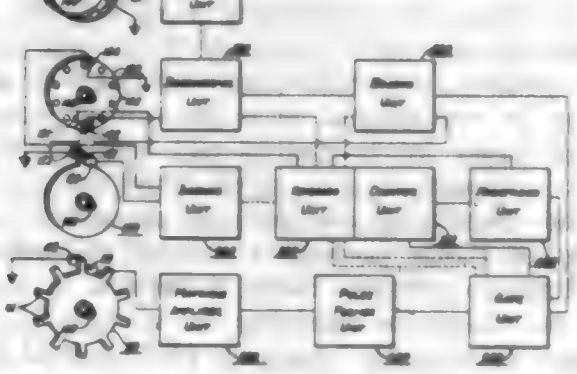
1. A centrifuging machine comprising in combination a shell member, a conveyor member contained within the shell member, a driving shaft for said shell member and a driving shaft for said conveyor member coaxial with said shell member driving shaft, a housing containing epicyclic gearing, said shell member driving shaft being splined in said housing and said conveyor driving shaft projecting into said housing and being splined to a pinion therein, an output shaft projecting from said housing, a train of epicyclic gears inside the housing coupling said pinion with said output shaft, an electric motor for rotating said housing, an electric current generator coupled to said output shaft and providing an output indicative of the power necessary to produce differential movement of the shell member and the conveyor member, said output being utilized by said electric motor, and a current overload device in the output of the generator for cutting out the latter on overload.

2,867,379

MAGNETIC DECIMAL ACCUMULATOR

Meryl C. Burns, Richmond, George J. Gisl, Jr., Berkeley, and Robert J. Stahl, Redwood City, Calif., assignors to Marchant Calculators, Inc., a corporation of California

Application February 12, 1951, Serial No. 210,592
27 Claims. (Cl. 235—61)



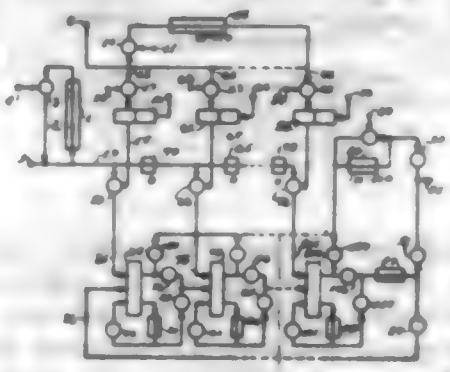
8. In a device of the class described having a moving magnetic accumulator with a plurality of magnetizable portions, one of said portions being magnetized to represent a numeral value, a decade counter, and selection means connected to the counter for conditioning the latter for a number of counts representing a second numeral value; the combination of, a circuit for generating a shaped counting pulse in synchronism with the movement of each of said portions past a fixed point in space, a normally closed gate coupled between the counter and said generator and effective when opened to couple pulses from the generator to the counter for advancing the latter through said number of counts, an actuating circuit including a detection device associated with the accumulator and energized to generate an actuating pulse in response to movement of said magnetized portion past said detection device, and means coupled to the actuating circuit and operable in response to said actuating pulse for energizing said detection device to demagnetize the magnetized portion of the accumulator; with coupling means between the actuating circuit and the gate, a calculation initiating means for enabling said coupling means to open the gate in response to said actuating pulse, means constituting a second coupling between the counter and the gate and energized by the counter upon completion of said number of counts to close the gate, a magnetizing circuit connected to the counter and triggered thereby upon completion of said number of counts to generate a magnetizing pulse, a magnetizing coil positioned adjacent the accumulator, and a coupling between the magnetizing circuit and the magnetizing coil for transmitting said magnetizing pulse to the magnetizing coil to thereby magnetize a portion of said accumulator representing the sum of the two aforesaid numeral values.

2,867,380

ELECTRICAL DIGITAL MULTIPLIER DEVICES

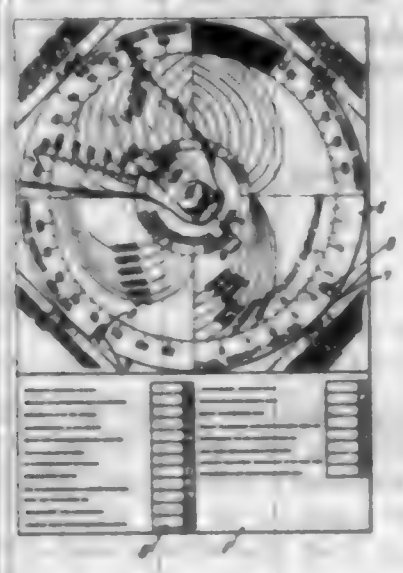
Gérard Jean René Piel and Roger Robert Dunine, Paris, France, assignors to Societe d'Electronique et d'Automatisme, Courbevoie, France

Application June 1, 1954, Serial No. 433,750
Claims priority, application France July 2, 1953
36 Claims. (Cl. 235—61)



1. In a digital series multiplying device for the multiplication of a multiplicand coded train of binary number pulses and a multiplier coded train of binary number pulses through repeated additions of the partial product coded trains of pulses each one representing the product of the multiplicand coded train by one digit of the multiplier coded train, an accumulative recirculating loop store for the simultaneous additive combination of a plurality of coded trains which is a submultiple of the number of pulse periods in these trains including in combination, a corresponding plurality of adder circuits in cascade connection and a delay line having a number of digital places equal to the number of pulse periods in each of the trains minus the number of said adder circuits, gating means from the output of said delay line to one input of the first adder circuit of said cascade for the recirculation of the pulse train resulting from such a simultaneous additive combination and further gating means for the issuance of a final result pulse train after a number of applications of such pluralities of coded trains which is equal to the quotient of the number of pulse periods in each incoming coded train by the number of said adder circuits, input means for applying each of the incoming coded trains of a plurality to one input of one of said adder circuits, and each one of said adder circuits including: (*a*) gating means in its result output for cancelling thereon any first pulse period digit of any result pulse train therefrom; (*b*) gating means in its internal carry-over feedback loop for cancelling at the output of said loop any carry pulse which may be formed therein at the last pulse period of any of its own addition operation; (*c*) and gating means also in said internal carry-over feedback loop for routing any of such carry pulses as in (*b*) to the result output of the adder circuit in substitution of the cancelled result pulse at (*a*).

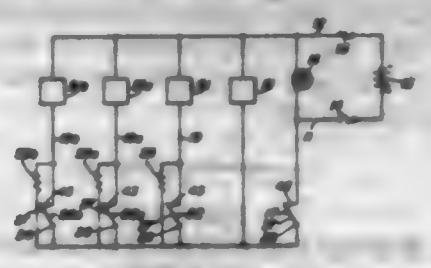
2,867,381
AIRCRAFT PAYLOAD COMPUTER
Archie J. Clapp, Jr., Springfield, Va.
Application November 27, 1957, Serial No. 699,426
4 Claims. (Cl. 235—61)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A computer for helicopters comprising a base member having four sets of curves fixedly carried thereby, said four sets being disposed each, respectively, in a different one of the four quadrants of the same circular region; one of said sets showing the effect of temperature on allowable gross weight; a second one of said sets showing the effect of dew point on allowable gross weight; the third one of said sets showing the effect of take-off headwind on allowable gross weight; the fourth one of said sets showing the effect of ground speed on flight duration and required amount of fuel; and a second member serving as an indicating member mounted for rotation relative to said first member about an axis perpendicular to and passing through the center of said circular region; said second member having four quadrantally spaced markings radially extending from said axis, each arranged to cooperate, respectively, with one of said sets of curves; one of said radial markings being calibrated in altitude and cooperating with said first set of curves; another of said markings being calibrated in dew point temperature and cooperating with said second set of curves; the third one of said markings being calibrated in take-off headwind velocity and cooperating with said third set of curves; the quadrant containing said third set of curves being provided with an arcuate scale described about said axis and calibrated in gross weight; the juncture of said third radial marking with said arcuate scale indicating the allowable gross weight of the helicopter; the fourth radial marking being calibrated in flight distance and cooperating with said fourth set of curves; the quadrant containing said fourth set of curves being provided with arcuate scales described about said axis and calibrated in flight duration and amount of fuel; the flight duration and amount of fuel required being indicated by the juncture of said fourth radial marking with said last-mentioned scales.

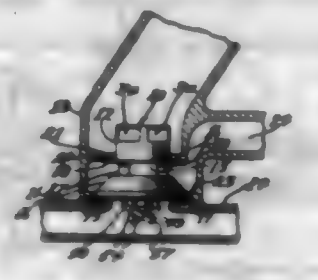
2,867,382
MANEUVERING LOADS ACCELEROMETER
Preston R. Weaver, Boulder, Colo., assignor to the United States of America as represented by the Secretary of the Navy
Application June 29, 1954, Serial No. 448,299
6 Claims. (Cl. 235—92)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A maneuvering loads accelerometer comprising a source of current; a reference acceleration sensing element connected in series with said source; a reference counter and a plurality of registering units each connected in parallel with said source and said sensing element, each of said units including a counter connected



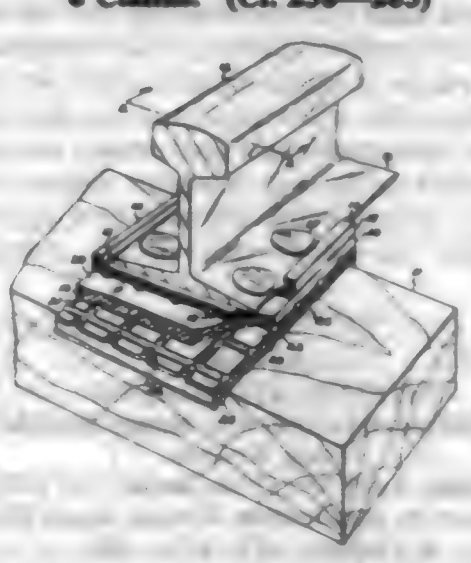
in series with an acceleration sensing element shunted by a resistor.

2,867,383
SLEEVE VALVE WATERLINE THERMOSTAT
Harold B. Drapeau, Oak Park, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application November 9, 1954, Serial No. 467,805
10 Claims. (Cl. 236—34.5)



2. In a thermostatically operated valve structure, an annular casing defining a fluid flow path axially therethrough, a thermostatic element within said casing and having a cylinder and a piston extensible therefrom upon predetermined increases in temperature, a generally cylindrical valve body extending from said casing and having a wall portion of one diameter adjacent said casing and converging to a wall portion of a smaller diameter remote from said casing having a plurality of circumferentially spaced ports leading therethrough, a sleeve valve slidably guided within said valve body and having a wall portion of one diameter adjacent the outer end portion of said valve body, said sleeve valve diverging to a wall portion of a larger diameter at the inner end of said valve for engagement with the reduced diameter wall portion of said valve body to block the flow of fluid between said wall portions, and an amplifying linkage connection between said thermostatic element and said valve.

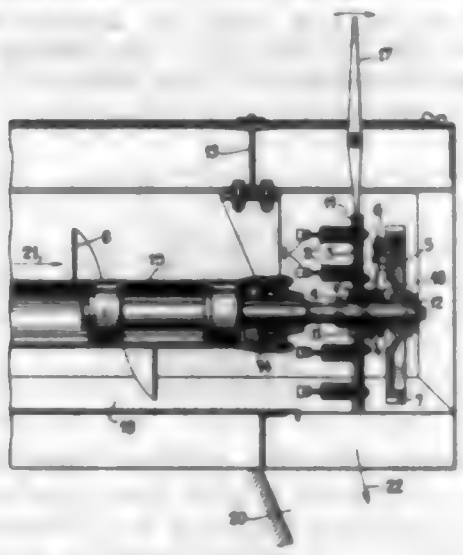
2,867,384
METHOD AND ARTICLE OF MANUFACTURE FOR SUPPORTING RAILS
Harry A. Toulmin, Jr., Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
Application October 1, 1954, Serial No. 459,785
6 Claims. (Cl. 238—283)



1. In a tie plate assembly for interposition between a rail and cross-tie, a non-metallic tie plate engaging said

rail, a non-metallic tie saddle positionable upon said cross-tie, and a non-metallic compressible pad susceptible to permanent deformation between said tie-plate and tie saddle, said pad being bonded to the opposed faces of said tie-plate and tie-saddle to form a non-metallic tie assembly therewith.

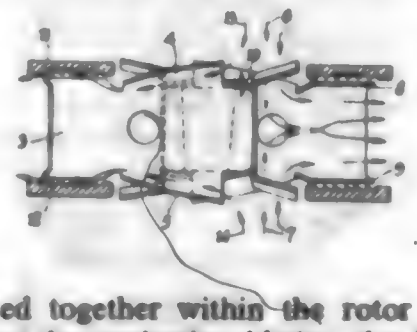
2,867,385
DEVICE FOR DISINTEGRATING STRANDS OF FUEL
Johannes Josef Martin, Munich, Germany
Application March 27, 1957, Serial No. 648,948
Claims priority, application Germany April 18, 1956
8 Claims. (Cl. 241—32)



1. A device for dividing up or disintegrating fuel masses after they have been fed thereto by a conveyor, said device comprising a rotatable drive shaft whose rotation axis is substantially parallel to the direction of movement of the fuel masses entering the device, a carrier member extending at a right angle from and being axially movable on said shaft between two extreme positions, said carrier member having a side facing the entering fuel mass, a plurality of disintegrating members flexibly connected with said carrier member and extending from said side substantially parallel to the rotation axis of said shaft and in a direction opposite to the direction of movement of the fuel mass for effecting disintegration of the fuel mass in a plane located substantially at a right angle to the direction of movement of the fuel mass, clutch means operatively associated with said carrier member and with said shaft for rotation of said carrier member by said shaft when said carrier member is in a predetermined axial position on said shaft and for permitting free rotation of said shaft relatively to said carrier member when the latter is axially moved out of said predetermined position by the fuel mass entering the device, said carrier member having a hub portion axially movable on said shaft and forming one half of said clutch means, said hub portion having a circumferential portion, a radial recess in said circumferential portion, a leaf spring extending into said recess, and an element extending radially of said shaft, said leaf spring having an end rigidly connected with said element distant from said shaft, said leaf spring being initially bent to retain said carrier member in either one of its extreme axial positions.

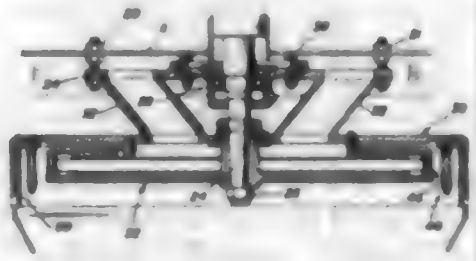
2,867,386
MIXING APPARATUS
George Wilfred Edwards and Roger Joseph Sevin, Paris, France
Application April 19, 1956, Serial No. 579,224
Claims priority, application France April 20, 1955
4 Claims. (Cl. 241—46)

1. In a mixing head for mixing materials incorporating a mixing rotor into which the materials to be mixed are drawn from the top and bottom of the rotor which in turn discharges the mixed materials at its periphery, the rotor comprising a hub, a plurality of outwardly-projecting blades attached to the hub in planes parallel to the axis of rotation of the rotor, each of the blades carrying a vane projecting from each of its upper and lower edges inwardly from its outer end portion, said vanes carried by the blades being disposed so that on rotation of the rotor two independent streams of the materials to be mixed are drawn into the rotor from above and below



the rotor, mixed together within the rotor and thrown outwardly along the projecting blades, the improvement comprising a stationary annular disc adjacent and lapping said outer end portions of the projecting blades, and a vane projecting from the edge of each blade adjacent to said disc in a direction opposite to the direction of rotation of the rotor and extending along and cooperating with the adjacent surface of the disc to effect a shearing and grinding action on at least a portion of the material thrown outwardly by the rotor along the blade and the adjacent surface of the annular disc.

2,867,387
CENTRIFUGAL IMPACTING MACHINE
Robert B. Dodds, Woodbridge, Kurt H. Conley, Hamden, and Santo Manicone, New Haven, Conn., assignors to Safety Industries, Inc., New Haven, Conn., a corporation of Delaware
Application November 23, 1955, Serial No. 548,667
7 Claims. (Cl. 241—275)

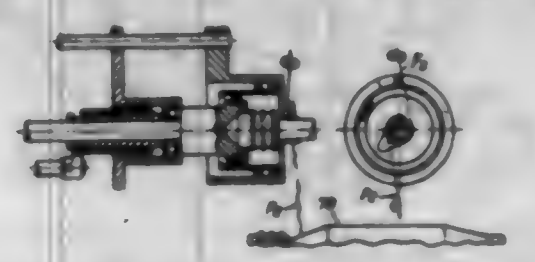


4. In a machine for centrifugally impacting a granular product, in combination, a casing, a rotor rotatably mounted in said casing, said rotor comprising a pair of vertically spaced disks, means for directing the product to be treated onto the bottom disk of said rotor, a plurality of impactors arranged substantially adjacent the edge of said rotor and spanning the space between said disks, said bottom disk having an annular groove adjacent said impactors on the periphery of said rotor, and a plurality of ceramic plates mounted in said groove and shaped to provide a surface sloping upwardly towards the impactors.

2,867,388
METHOD OF AND ARRANGEMENT FOR WINDING THE STARTING END YARN ON TO PIRNS IN AUTOMATIC WEFT PIRN WINDING MACHINES
Karl Marx and Max Stäubli, Horgen, Switzerland, assignors to Maschinenfabrik Schweiter A. G., Horgen, Switzerland, a Swiss company
Application April 5, 1955, Serial No. 499,486
Claims priority, application Switzerland April 8, 1954
5 Claims. (Cl. 242—37)

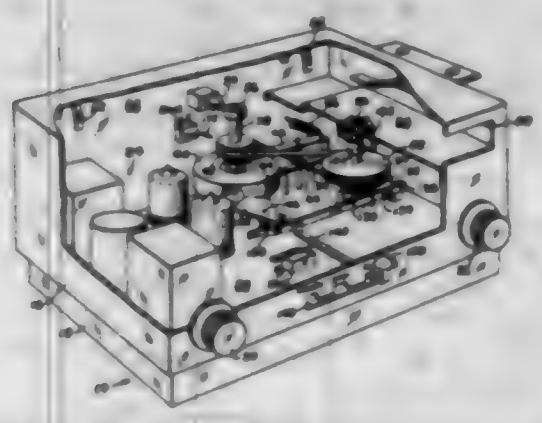
1. The method of transferring yarn to an empty rotating pirn for starting the winding operation for the empty

pirn while the yarn extends with one portion between a yarn guide and a full pirn rotatable in its ejected position; comprising the steps of deviating said yarn portion from one side of the diameter of said empty pirn to thereby form a loop from said yarn portion at the opposite side of said empty pirn, carrying the loop about the empty pirn for entraining said loop about said empty



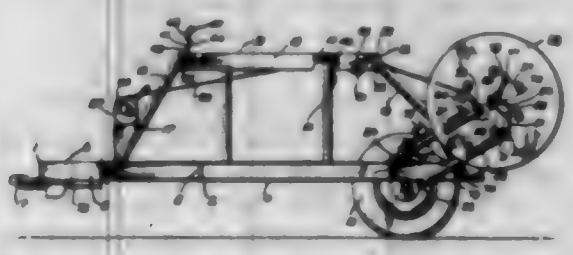
pirn with said loop moving around said empty pirn at full peripheral speed of said empty pirn, and finally rotating said empty pirn at a rate of speed greater than that of said full pirn to thereby rip said yarn adjacent said full pirn, thus presenting a yarn end, which together with said loop is completely wound in the yarn package to be formed on said empty pirn.

2,867,385
SOUND REPRODUCING DEVICE
Charles William Vieth, Dayton, Ohio
Application July 12, 1954, Serial No. 442,817
3 Claims. (Cl. 242—55.11)



2. In combination; a cartridge having two spools therein with a magnetic tape leading therebetween, said cartridge having aperture means exposing a portion of the tape, each spool having a drive hub accessible through a different wall of the cartridge, a unit having a compartment for receiving the cartridge including a magnetic pick up head and a drive capstan to engage the exposed portion of the tape between the spools, a reciprocable drive member in the unit to engage one of the spool hubs, a first shifter element for shifting said drive member into and out of engagement with said hub, a second shifter element to move the capstan to and from engagement with the tape, and means for operating the shifter elements together into and out of their operative positions.

2,867,390
SPOOL TRAILER
Robert M. Anrig, Ottawa, Kans.
Application June 29, 1956, Serial No. 594,949
8 Claims. (Cl. 242—86.5)



1. A wheeled carriage having a main frame, longitudinally extending rails, means supporting the rails above the main frame substantially at opposite sides thereof with a lateral spacing for receiving a cable spool to be carried therebetween, said cable spool having an axial spindle extending therefrom transversely of said rails, said rails having ends terminating in spaced relation to one end of the main frame and cooperating therewith to provide an unobstructed opening for movement of a cable spool between said ends of the rails, carrier members adjacent said one end of the main frame and at each side thereof with a lateral spacing for receiving the cable spool therebetween, pairs of parallel links pivotally connected respectively to points along said main frame adjacent said one end thereof and to similarly spaced points on the carrier members for vertical swinging movement of the carrier members relative to the main frame, said carrier members each having portions thereon for alignment with the rails when the carrier members are in fully elevated position, means operatively connected with the pairs of parallel links for swinging same for raising and lowering the carrier members, means on the carrier members for holding a spool spindle during elevation of a spool on the carrier members, and stiff legs having one end pivotally mounted on opposite sides of the main frame between the pivotal connections of the pairs of parallel links and said one end of the main frame, said stiff legs having other ends engageable with the carrier members when in partially elevated position for cooperating with the pairs of parallel links in supporting the carrier members and spool thereon during transportation.

2,867,391
DUCTED WING FOR AIRCRAFT
Edwin Jacobsen, Altadena, Calif.
Application December 7, 1953, Serial No. 396,567
1 Claim. (Cl. 244—15)

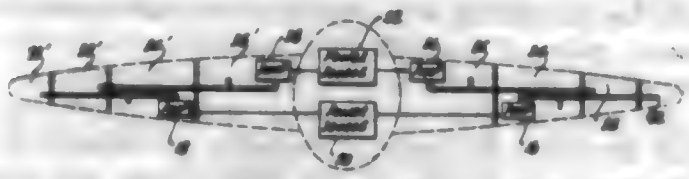


In a jet operated airplane having a jet engine, a compressor, and an exhaust tube, a foraminous wing surface consisting of an upper skin secured to a corrugated structural member which forms air manifolds with the underside of said upper skin, a multiplicity of narrow parallel strips placed in juxtaposition to each other on the upper side of said upper skin leaving narrow continuous slots between them, a multiplicity of holes disposed in the upper skin connecting said slots to said manifolds, said slots extending from a point near the leading edge to a point near the trailing edge of the wing substantially parallel to the longitudinal center line of the airplane, said air manifolds interconnecting the slots and the air compressor inlet of the jet engine, a valve for controlling the amount of air drawn through the slots and control surfaces disposed near the outlet end of the engine exhaust tube for use in vertical or low velocity flight.

2,867,392
BOUNDARY LAYER CONTROL FOR AIRCRAFT
William P. Lear, Pacific Palisades, Calif., assignor to Lear, Incorporated, Santa Monica, Calif.
Application August 19, 1955, Serial No. 529,530
1 Claim. (Cl. 244—42)

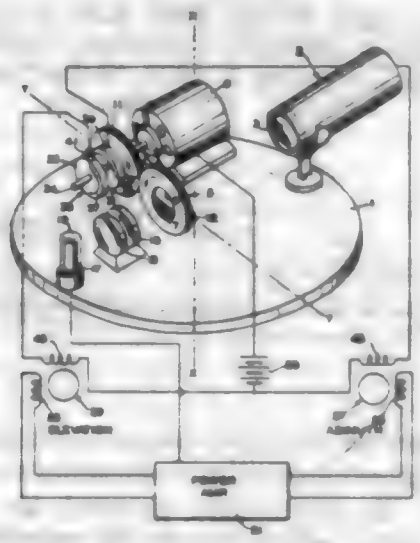
Apparatus for providing balanced boundary layer control in hollow airfoils on either side of an axis comprising means parallel to the axis sub-dividing each of the airfoils into a plurality of compartments, those on one side of the axis being substantially equal in respect to

volume and spacing from the axis to those on the opposite side, predetermined areas of the active surfaces of the airfoils having a multiplicity of apertures providing communication between said compartments and the external atmosphere, an even plurality of air pumps, duct means providing fluid communication between one of each pair of pumps and one or more compartments of the airfoil on one side of the axis and one or more compartments of



the airfoil on the opposite side, means providing fluid communication between the other of each pair of pumps and the remaining compartments, and the duct means for either pump of a pair being so arranged that relatively equal boundary layer capacity on both sides of the axis is served thereby, whereby failure of one pump will still allow substantial boundary layer control distributed equally on both sides of the axis by the remaining pump.

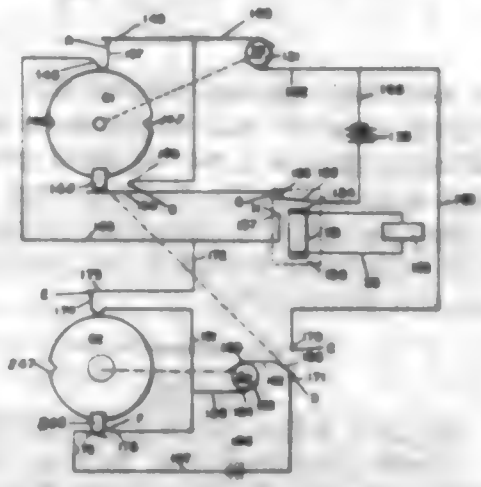
2,867,393
NAVIGATION DEVICE
Robert M. Burley, Syosset, N. Y., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application January 11, 1950, Serial No. 137,977
3 Claims. (Cl. 244—77)



2. In a device of the class described adapted to be mounted in a craft having azimuth and elevation controls and to maintain the craft on a fixed course, sensitive means exposed to rays from a celestial body, means for directing the rays to said sensitive means, and a member periodically interrupting said rays and cooperating with said sensitive means to produce signals when the amount of energy received by said sensitive means from said rays varies, means to produce a pair of reference voltages in quadrature with one another, the phase of the signal relative to the phases of said reference voltages being determined by the attitude of said directing means relative to the celestial body, and reversible motors for operating the azimuth and elevation controls of the craft and responsive to said signals and reference voltages to maintain the craft on a fixed course.

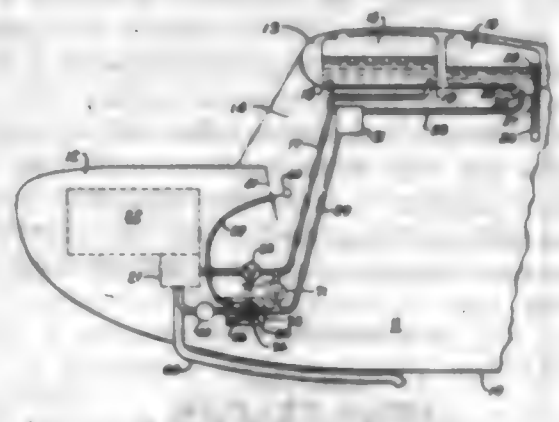
2,867,394
PULSE CONTROL OF PROGRAMMING DEVICE FOR AIRCRAFT
Frank P. Schmidt, Erie, Pa.
Application May 26, 1954, Serial No. 432,490
7 Claims. (Cl. 244—77)

4. In combination, a model airplane having a control member for controlling the direction of flight thereof and means to control said control member, said means comprising a motor operatively connected to said control member, an electrical circuit to control said motor, said circuit comprising a source of electrical power, switching means having a relay to connect said source of power to said motor, radio receiver means to actuate said switching means, said switching means driving said motor to move said control member from a neutral position to a first position to control said airplane in a first direction when said relay is closed and is held closed, said motor being energized by said circuit and driving said control member through said first position through neutral to a second position to control said airplane in a second



direction when said relay is closed, then opened, and promptly reclosed and held closed a second time by said radio receiver means, said motor returning said control member to neutral when said relay is allowed to remain open, said circuit comprising a second motor and said airplane having a second control member operatively connected to said second motor, said second motor being controlled by the position of said first motor driving said second control member to a predetermined position when said first control member is driven from neutral and driving said second control member to neutral when said first motor has driven said first control member to neutral.

2,867,395
AUXILIARY FUEL SYSTEM
Nathanael Salat, Huntingdon Valley, Pa.
Application May 21, 1953, Serial No. 356,475
6 Claims. (Cl. 244—135)



1. An improved dual fuel supply system on an aircraft having an engine and a wing at a higher level than the engine, said engine having a carburetor venturi and main fuel jet therein and having an enlarged intake manifold passage downstream of the carburetor venturi and main jet for conducting the air-fuel mixture directly to the engine cylinders, said fuel supply system comprising fuel tank means in the wing, a main fuel line leading from the tank means to said main jet, an auxiliary fuel line having an inlet at the fuel tank means and an unrestricted outlet in the air intake manifold downstream of the carburetor main jet and venturi and opening directly into said manifold passage, said inlet being at a higher eleva-

tion than said outlet so that fuel in said tank means will force fuel from said outlet into said passage in a steady stream independently of the functioning of said main jet and venturi, and a manually controllable metering valve in said auxiliary fuel line for controlling the delivery of auxiliary fuel to said manifold passage.

2,867,396
RELEASABLE AIRCRAFT TANK MOUNTING
Quinton C. Johnson, Torrance, Calif., assignor to the United States of America as represented by the Secretary of the Air Force
Application June 4, 1957, Serial No. 663,557
9 Claims. (Cl. 244—137)



1. A device for releasably mounting objects on an aircraft comprising a front and a rear post fixed to an object to be carried, shaft means passing through an aperture in each post and extending therefrom, a pair of pivoted members suspended from said aircraft, one of said members being positioned adjacent each post, means urging said members away from said posts, forked means on said members for straddling said shaft means, cooperating ball and socket means between each of said posts and its adjacent member, adjustable means on said shaft, a part of said adjustable means abutting each of said members, and pivoted link means releasably held between said shaft and said aircraft and holding said shaft against longitudinal movement.

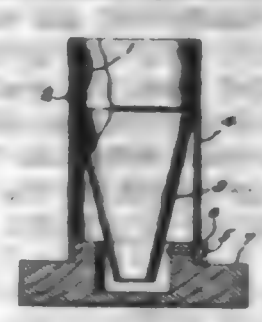
2,867,397
MOUNTING MEANS FOR DISHED FLUSH-TYPE RECEPTACLES
William E. Bragg, Springfield, Me.
Application November 22, 1954, Serial No. 470,337
1 Claim. (Cl. 248—27)



A bracket for mounting a flush type receptacle on a wall with a portion of the receptacle extending through a rectangular opening in the wall, said bracket comprising a resilient body portion formed of sheet material, the body portion being rectangular in elevation and substantially semi-circular in vertical cross-section, said body portion having edge portions disposed parallel to the axis of curvature thereof, a pair of straight flat corner lugs extending from each of said edges as continuations of said body portion, and a pair of outturned longitudinal flanges on said edges, said flanges being disposed intermediate the lugs of its respective edge and at right angles thereto for engagement with the rear side of the wall adjacent the opening therein, said mounting bracket being formed from a single originally rectangular plate.

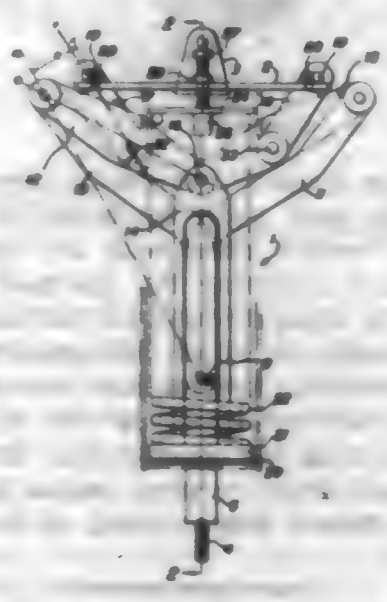
2,867,398
CHRISTMAS TREE HOLDER
Theophylus Foster Rose, Petersburg, Va.
Application August 7, 1956, Serial No. 602,554
1 Claim. (Cl. 248—44)

A tree holder structure comprising in combination a receptacle, a base, circular in shape and of a larger diameter than the receptacle, said base having a hollow portion in the center thereof, a cylinder detachably mounted on the base and supportingly receiving the receptacle there-within with a portion of said receptacle extending into the hollow portion of the base; leaf



springs disposed in spaced relation about the inner surface of the receptacle, rivets securing the springs to the receptacle and the receptacle to the cylinder, said springs serving as self adjusting supporting means for a supported tree or the like.

2,867,399
UNIFORM TENSION PIPE SUPPORT
Alexander V. Alexeff, Barberton, Ohio, assignor to Oehler Development & Manufacturing Corporation, Akron, Ohio, a corporation of Ohio
Application February 4, 1954, Serial No. 408,260
10 Claims. (Cl. 248—54)

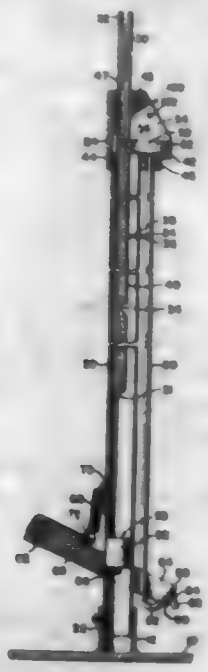


1. A hanger comprising a top plate, means for securing the top plate to a support, a support load member, a pair of angular links pivotally secured to said support member and having diverging upper ends and aligned lower portions, a pair of rocker arms pivotally connected at outer ends thereof to the upper ends of said links and extending in towards each other, said rocker arms and the axis of load applied thereto by said links forming a small acute angle at no load and forming an angle of over 45° at full load, a pair of hanger arms pivotally carried by said top plate with each hanger arm pivotally secured to a different one of said rocker arms intermediate the ends thereof, a plate member pivotally secured to the inner ends of said rocker arms and engaging said load member for reciprocatory movement only therebetween, a compressor plate secured to the lower end of said plate member, and coil spring means compressed between and reacting against said compressor plate and said top plate.

2,867,400
BAGGING MACHINE
Joseph E. Stehr, Silverton, Ohio
Application July 7, 1954, Serial No. 441,751
2 Claims. (Cl. 248—161)

1. A garment hanger comprising an upright hollow post having a lower end and an open upper end, an upright garment-support rod slidable within said post and

having opposite ends and an intermediate portion, the intermediate portion being notched transversely at intervals to engage a pawl, a hollow hood supported atop the hollow post, said hood including upper and lower walls having upright openings therein to receive, respectively, the upright slidable rod, and the open upper end of the post, said hood lower wall having a third upright opening therein offset from the post-receiving opening and the upper end of the post, an elongate substantially horizontal pawl enclosed within the hood, a nose end on the pawl to engage individually the transverse notches of the rod when the rod is extended from the post, an



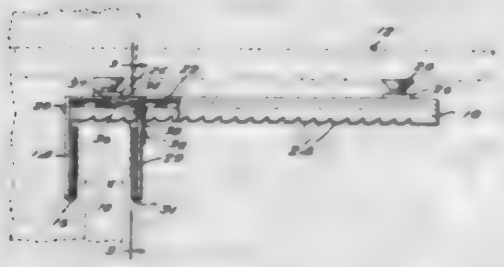
opposite end on the pawl, and means pivoting the opposite end of the pawl upon the hood for movement of the pawl in a vertical plane with the intermediate portion of the pawl overlying the aforesaid third opening of the hood, an elongate actuator rod having an upper end slidable within the offset third opening of the hood, to abut the overlying intermediate portion of the pawl, and means operatively connected with the actuator rod, to selectively elevate the upper end of the latter, for displacing the pawl about its pivot means and disengaging the nose end thereof from a notch of the garment-support rod.

2,867,401

ADJUSTABLE CHAIR ARM GRIPPING TRAY HOLDER

Henry L. Sheahan, Santa Monica, Calif.

Application August 24, 1953, Serial No. 375,911
1 Claim. (Cl. 248—226)



A chair arm gripping tray holder comprising a fixed jaw for engaging one side of a chair arm, a pair of spaced parallel rails secured at one end to said fixed jaw to extend across the chair arm, opposed grooves in the inner side edges of said rails extending substantially throughout the length thereof, ratchet teeth on the bottom edge of each rail, spaced cross bars secured to the upper edges of said rails for supporting a tray, a cross plate slidably received in said grooves, said plate being of less thickness than the width of said grooves to permit rocking movement of said plate in said grooves, a movable jaw having a reduced portion disposed between said rails and providing shoulders disposed below said ratchet teeth, a beveled upper surface on each shoulder for engaging said ratchet teeth and means securing said movable jaw to said plate whereby upon movement of said movable jaw toward said fixed jaw and into clamping engagement with the opposite side of a chair arm, said plate may be rocked in said grooves to engage said beveled shoulders with said ratchet teeth to hold said movable jaw in clamping position and upon rocking said plate in the opposite direction said shoulders will be disengaged from said ratchet teeth to release said movable jaw from clamping position.

2,867,402

SUPPORT

Clarence W. Graybill and Silas H. Graybill, Conestoga, Pa.

Application July 15, 1955, Serial No. 522,304
1 Claim. (Cl. 248—226)



A support for attachment to an automobile bumper having top and bottom edges, comprising an upstanding post; article-supporting means thereon; and means for clamping the post to a bumper including first and second hooks, said hooks including elongated shanks projecting laterally from and spaced longitudinally of the post in approximate perpendicularity thereto with the hooks in confronting relation for engagement one with the top and the other with the bottom edge of the bumper, and first and second bumper-contacting elements in the space between the hooks, said first and second elements including bars projecting laterally from the post in planes parallel to said shanks, at locations spaced equal distances from the first and second hooks respectively, longitudinally of the post, the first hook and the first element being connected to the post against movement longitudinally of the post and the second hook and second element being connected to the post for conjoint adjustment longitudinally of the post, each of said bars being formed to a U-shape so as to include a bight and legs projecting from the bight, the bight of each bar being the portion of the bar nearest the post with the legs projecting outwardly from the post and including free end portions covered with resilient material and extending away from each other so as to bear against the adjacent surface of the bumper, the legs of each bar being symmetrically disposed at opposite sides of and in laterally spaced relation to the hook adjacent thereto, for engagement of said free end portions of each bar against the bumper at locations spaced longitudinally of the bumper from and at opposite sides of the location at which the bumper is contacted by the adjacent hook.

2,867,493

SPORTSMAN'S LANTERN HOLDER

Frank J. Graf, Springfield, Ohio, assignor, by mesne assignments, to The Sportsmans Products Company, Springfield Township, Clark County, Ohio, a partnership

Application April 7, 1954, Serial No. 421,502
1 Claim. (Cl. 248—310)

In a lantern holder for use on small boats: a substantially horizontal base for the support of a lantern, a

flange integral with the base extending along one edge of the base vertically upward therefrom, a collar secured to the flange and extending over said base thereabove and completely free of the base to define a spacing therewith through which a lower edge of a lantern may pass to be retained by the collar and base, a second flange depending from an edge of the base opposite the one edge,



and means, including a pivot pin, extending downwardly of the base from the second flange for supporting the second flange, base and collar, the pivot pin being of circular cross-section and having a lower free end thereof receivable in an oar-lock opening of a boat for swinging movement of the holder as a unit with respect to the boat.

2,867,404

PIVOT MOUNTING FOR LIGHTING FIXTURES

Robert E. V. Ramsing, Los Angeles, Calif., assignor to Ruby Lighting Corporation, Whittier, Calif., a corporation of California

Application September 23, 1957, Serial No. 685,612
7 Claims. (Cl. 248—324)



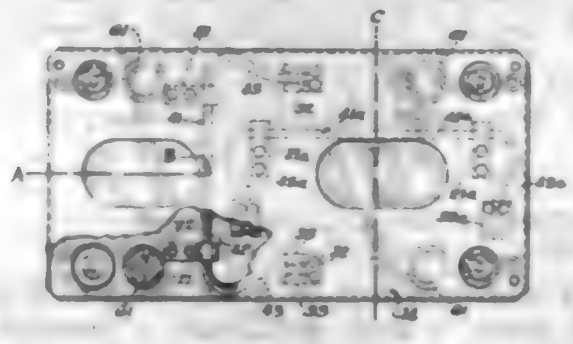
3. A pivot mounting for a pendant type light fixture assembly having a tubular supporting stem and a lamp supporting frame provided with an entrance opening through which an end portion of said stem is adapted to project with sufficient clearance to accommodate relative adjustment between said frame and stem along a linear path intersecting the longitudinal axis of said stem, said mounting comprising an outer clamping member straddling said stem and engaging the outer face of said frame at opposite sides of said entrance opening, an inner clamping member engaging the inner face of said frame at opposite sides of said entrance opening and having a channel shaped portion opening toward said frame and spanning the area of said frame surrounding said entrance opening, said channel portion being concavely curved on the arc of a cylinder having its axis perpendicular to said linear path of adjustment of the frame relative to the stem, means for connecting said clamping members in fixed relation to said frame and means clamped between said frame and said inner clamping member when said clamping members are in fixed relation to said frame including a swivel member connected to said stem for movement therewith, said swivel member having a ridge portion with which the inner surface of the frame at opposite sides of the stem has engagement along a line perpendicular to said linear path of adjustment of the frame relative to the stem and perpendicularly intersecting the longitudinal axis of the stem, and also having a second and third ridge portion with which the channel portion of the inner clamping member has engagement along a pair of spaced apart lines parallel to and at equal distances from opposite sides of a plane containing said first ridge portion and the longitudinal axis of said stem, whereby said swivel member and the stem are adjustable relative to the frame about a transverse axis coincident with said first ridge portion.

2,867,405

INSTRUMENT SHOCK MOUNT

Loren E. Curriston, Grand Rapids, Mich., assignor to Lear, Incorporated, Grand Rapids, Mich.

Application November 6, 1953, Serial No. 390,541
2 Claims. (Cl. 248—358)



1. In a shock mount to be interposed between a fixed location and a mounted device for allowing relative translational movement therebetween while providing rotational rigidity which includes a plate for securement to the fixed location, a second plate upon which the device may be mounted, and means interposed between said plates for absorbing translational vibratory movement therebetween, the combination comprising a first pair of coaxial bearings having a common axis affixed to one of said plates and spaced apart thereon, a second pair of coaxial bearings providing a rotational axis secured to the other said plate and having its axis parallel to the common axis of said first pair of coaxial bearings, and a sway bar connecting said plates through said bearings comprising a U-shaped member having its base pivoted on said common axis of said first pair of bearings, each leg of the member being provided with a shoe slidable relatively thereto and said shoes being journalled in respective ones of said second pair of bearings for rotation of said member about said rotational axis whereby translational displacement of said plates is enabled upon pivoting of said sway bar but rotation thereof about an axis perpendicular to the plane including said bar is prohibited.

2,867,496

HEAVY DUTY CARGO TIE-DOWN

Frank L. Davis, College Point, N. Y., assignor to Davis Aircraft Products Inc., New York, N. Y., a corperation of New York

Application March 14, 1955, Serial No. 493,956
8 Claims. (Cl. 248—361)

1. Takeup and tensioning device for cargo holding strap, comprising a fulcrum carrying fitting having parallel spaced sides, a toggle lever having spaced sides fulcrumed to said spaced sides of the fulcrum carrying fitting, inner and outer cross-pins carried by said spaced sides of the lever in substantially triangular relation to the

fulcrum center, a retainer having spaced sides pivoted on the outer cross-pin and having a strap encircling guide loop at the free end of the same and a strap looped about the inner pin and extending in doubled relation over said



outer pin and through said guide loop and said toggle lever having pivotal movement about said fulcrum center sufficient to carry both pins past dead-center relation with said fulcrum center.

2,867,407

AXIAL FLOW ROTOR CONSTRUCTION OF JOINED PARTS

Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan

Application October 1, 1952, Serial No. 312,457
13 Claims. (Cl. 253—39)



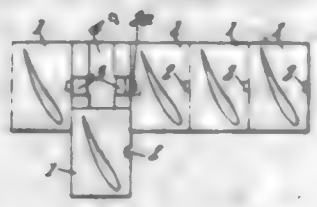
1. In combination in an elastic fluid axial flow compressor wheel, a sheet metal disk, a plurality of sheet metal socket means on said disk spaced peripherally thereabout adjacent the perimeter thereof, each said socket means having peripheral flanges faying the side surfaces of said disk and fixed thereto, each said socket means having axially directed flanges spaced apart peripherally, a plurality of sheet metal blades having root ends each nesting in a said socket means with a portion of said blade between said axially directed flanges, said portions being fixed to said flanges therebetween along a radial extent thereof, and sheet metal rim means extending peripherally about said disk and between adjacent said blades at the root ends thereof and from leading to trailing edges thereof to sustain a static pressure rise in said fluid flowing rearward between said blades, said rim means having front and rear flanges extending radially inward to a limited extent to provide for visual inspection of the joints between said blades and said socket means.

2,867,408

AXIAL LOCKING OF ROTOR BLADES FOR TURBINES AND THE LIKE

Paul Kolb, George F. Arkless, and John R. Bolter, Newcastle-upon-Tyne, England, assignors to C. A. Parsons & Company Limited, Newcastle-upon-Tyne, England

Application March 17, 1954, Serial No. 420,418
Claims priority, application Great Britain April 10, 1953
3 Claims. (Cl. 253—77)



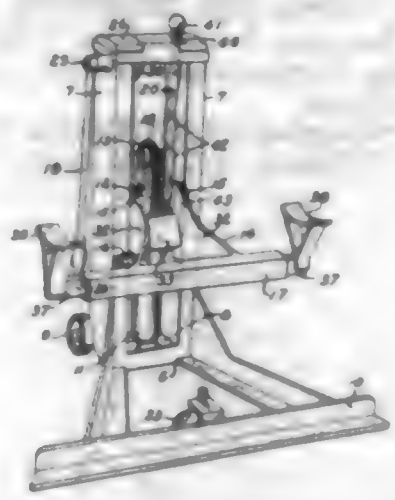
1. In a bladed rotor for a compressor, turbine or fan, comprising a rotor body having a plurality of axially extending circumferentially spaced dovetail slots and a corresponding plurality of blades having faces fitting in the said dovetail slots and held radially and circumferentially thereby, the said blades having also circumferentially extending platforms overlying the rotor periphery at each side of the groove, so that the platform of adjacent blades substantially touch each other, means for locking the blades to the rotor body against axial movement, comprising for each blade, a locking piece having a base portion shorter in the axial direction than the face of the blade and a protruding tongue of less width in the axial direction than the base portion and extending radially from the axially middle part thereof, the rotor body between each adjacent dovetail slot having a slot holding and fitting the base portion of said locking piece, the last said slot having a radially open portion accommodating a said tongue and the blade platforms having recesses receiving and fitting the said protruding tongues.

2,867,409

SERVICE JACK

Harold I. Southerwick, Whitefish Bay, Wis., assignor to Blackhawk Mfg. Co., West Allis, Wis., a corporation of Wisconsin

Application September 15, 1954, Serial No. 456,094
3 Claims. (Cl. 254—2)



1. A portable jack assemblage comprising, a transportable chassis having thereon upstanding parallel guideways, an hydraulic lift mounted upon said chassis and having a load lifting plunger movable upwardly between said guideways and also having a pump for raising and a release valve for effecting lowering of the plunger, a load carrier guided for movement along said guideways, a flexible element having one end secured to said chassis and its opposite end secured to said carrier while its medial portion is movably cooperable with the upper end of said plunger to vary the elevation of the carrier relative to the chassis, a pump operating handle mounted upon one of said guideways and being operatively connected with said pump to effect raising of said plunger and said carrier, and a load holding lever mounted upon said chassis and being directly cooperable with said carrier to sustain the load, said lever being swingable independently of said pump operating handle to release the load and being formed for cooperation with said release valve to effect lowering of said plunger and carrier when the lever is swung into load releasing position.

2,867,410

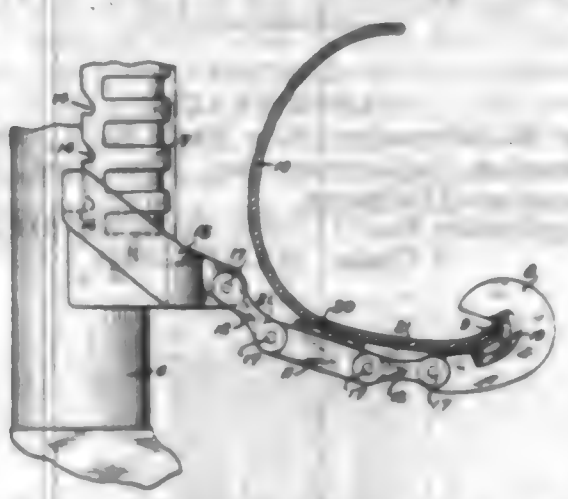
BUMPER TYPE VEHICLE LIFT ATTACHMENT

Harold I. Southerwick, Whitefish Bay, Wis., assignor to Blackhawk Mfg. Co., West Allis, Wis., a corporation of Wisconsin

Application February 9, 1955, Serial No. 487,046
3 Claims. (Cl. 254—133)

2. In a bumper type vehicle lift attachment, a unitary rigid hook having integral opposite side projections form-

ing a laterally widened arcuate platform adjoining a recess horizontally engageable with the lower inner edge of a bumper of C-shaped cross-section, a triple link motion transmitting chain having one end link pivotally attached by a horizontal pin to said hook beneath the bumper remote from said edge, and a jack operable yoke pivotally attached by a horizontal pin to the opposite end link



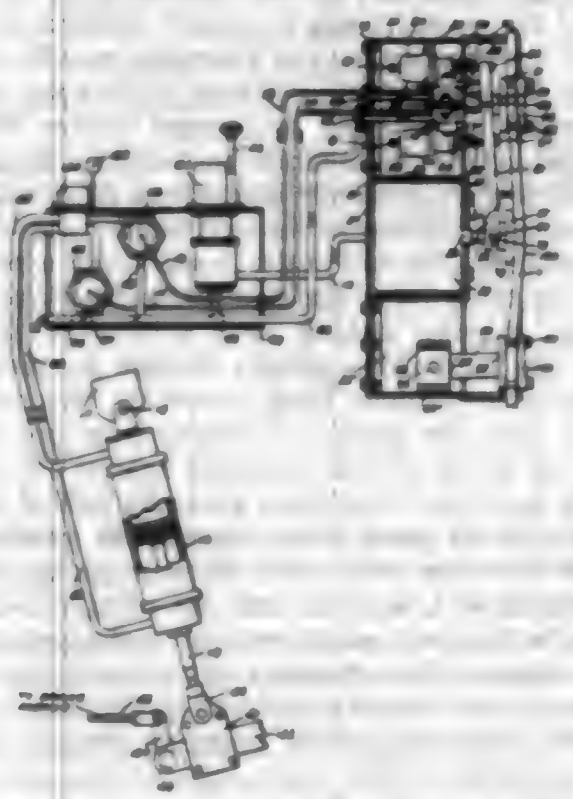
of said chain, the intervening link of said chain being pivotally attached by horizontal pins to said end links and provided with a similarly widened integral but plane platform engageable with the bottom of the same bumper remote from said hook, and said chain links and said hook and yoke being relatively swingable about said horizontal pins only in a plane perpendicular to said bumper edge and bottom.

2,867,411

WEIGHT CONTROL UNIT FOR ROTARY DRILLING RIGS

Wayne W. Simmonds, Tulsa, Okla., and Arlie J. Simmonds, Glendale, Calif., assignors to John H. Lucas, trustee for said Wayne W. Simmonds and said Arlie J. Simmonds

Application September 26, 1956, Serial No. 612,389
4 Claims. (Cl. 254—173)



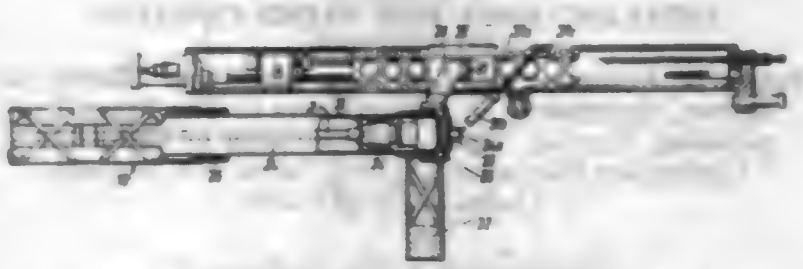
1. Apparatus for automatically feeding drilling tools suspended from a cable reeved over a crown block of a derrick and connected to said tools, said cable having one end secured to the derrick floor and the other end to a drum for winding the cable thereon comprising, a control unit for attachment to said cable, said unit including a cylinder having a diaphragm therein and a rod connected to said diaphragm, a head on said rod for engaging against said cable, a master valve for adjusting pressure of fluid to said diaphragm cylinder, a fluid supply, means for supplying fluid from the fluid supply to said master valve and to said diaphragm cylinder, control valves in said unit, means supplying fluid from the fluid supply to said control valves, an arm connected to said head and having connection with the control valves in the unit for alternately operating said valves upon movement of the head by change of weight on the cable, brake means connected to said cable, means including a cylinder and piston movable between the ends of the cylinder and having connection with said brake means, a pair of relay valve means having connection with the means for supplying fluid to the valves in the unit and respectively to opposite ends of said cylinder for automatically controlling the supply of fluid to the respective ends of said cylinder, and means fluidly connecting the control valves and relay valve means for supplying signal pressure thereto for actuating same whereby change in weight on the cable will change the angle of the cable in the control unit to operate the control valves to change the signal pressure to the relay valve means and fluid supply from said relay valve means to operate the cylinder thereby braking or releasing of cable on the drum.

2,867,412

DRILLING MACHINE FOR ROCK FACES AND THE LIKE

Eric Wilson Hurd, Pendleton, Salford, England, assignor to F. Taylor & Sons (Manchester) Limited, Salford, England, a British company

Application August 3, 1955, Serial No. 526,149
Claims priority, application Great Britain August 7, 1954
1 Claim. (Cl. 255—51)



A drilling machine for rock faces and the like including a wheeled chassis, a turntable on said chassis, a superstructure on said turntable, a jib mounted by one of its ends for pivotal movement in a vertical arc on said superstructure, a hydraulic ram mounted on said turntable and extending angularly upwardly to said jib, a pivotal connection between said ram and said jib at a position intermediate the ends of said jib, a motor mounted at the end of said jib, a counter-balanced bracket mounted on said jib, a drill unit mounted in said bracket and connecting means between said motor and said bracket for controlling rotational movement of said drill unit about the longitudinal axis of said jib, said jib comprising an outer part of lattice structure and an inner part of tubular construction, said motor being mounted on the outer end of said tubular part, a hydraulic ram mounted in said outer part and connected to said inner part for controlling extension from and retraction into said outer part of said inner part, guide rails within said outer part, and shoes secured to said inner part cooperating with said guide rails to prevent rotation of said inner part.

2,867,413

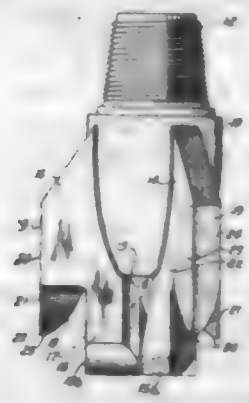
WELL DRILLING BITS

Ole K. Olsen, Garland, Tex.

Application December 19, 1955, Serial No. 553,832
8 Claims. (Cl. 255—61)

1. A drill bit including: a body having means at one end to secure it to the lower end of a drill string; and three radially extending blades disposed longitudinally of the body and spaced uniformly around the body, each of said blades being vertically straight and having its lower portion reduced in width to provide a pilot blade disposed below the lower end of the body, the lower edge of each

pilot blade having a substantially horizontal cutting edge, the outer surface of said pilot blades extending parallel to the axis of the body to a point adjacent the lower end of the body, the lower portion of the blade then extending downwardly and outwardly to a point at the extreme outer edge of the blade, said outer edge of the blade extending vertically parallel to the longitudinal axis of the

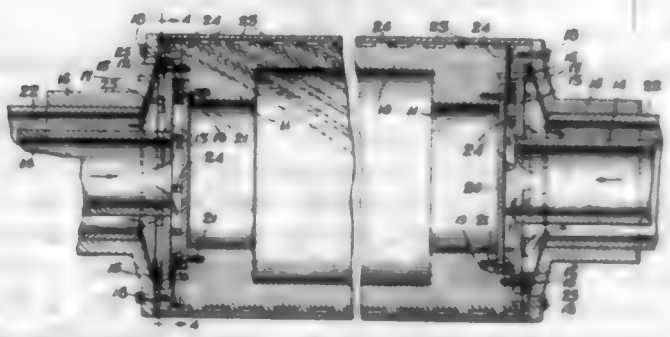


body and extending laterally a substantial distance from said body, said downwardly and outwardly curved lower edge surface forming a finger point disposed radially outwardly from the pilot blade and positioned above the lower cutting edge of the pilot blade, said downwardly and outwardly extending portion of the blade forming said finger point being entirely disposed laterally beyond the periphery of said body.

2,867,414
CHILLING ROLL FOR PAPER COATING MACHINES

James D. Maloney, Jr., Kingston, Ohio, and Clinton B. Brown, Staatsburg, N. Y., assignors to The Mead Corporation, Dayton, Ohio, a corporation of Ohio

Application December 23, 1955, Serial No. 555,061
1 Claim. (Cl. 257—95)



A device of the character described comprising a drum having a first series of spaced helically extending grooves formed in the outer face thereof, said drum having a second series of like grooves each positioned between a pair of adjacent grooves of said first series of grooves, a shell affixed upon said drum, means for moving fluids through one series of grooves in one direction and through the other series of grooves in the opposite direction, means forming an inner chamber adjacent each end of said drum, means forming an outer chamber adjacent each end of said drum, a supply pipe connected to each of said inner chambers, a discharge pipe connected to each of said outer chambers, said drum having a radial hole extending from each alternate groove adjacent one end thereof to communicate with one of said inner chambers, said drum having a like radial hole adjacent the opposite end of each remaining groove to communicate with the other inner chamber, said drum having a plurality of passageways each formed in that end thereof remote from said radial holes and each interconnecting a groove with an adjacent outer chamber, said means forming said outer chambers comprising a relatively large circular recess in each end of said drum, and an annular flange affixed to said drum in each of said relatively large recesses, and said means forming said inner chambers comprising a relatively small recess formed in each end of said drum inwardly of and communicating with the relatively large recess of that end of the drum, and a cover plate affixed in each of said relatively small recesses, said supply pipes each being affixed at its inner end to the inner periphery of its associated flange; said recesses, flanges, cover plates and supply pipes being mutually concentric.

2,867,415
VAPOR HEATER

Wilbert W. Schroedter, New York, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application June 17, 1955, Serial No. 516,261
1 Claim. (Cl. 257—241)



A vapor heater comprising a plurality of vertical panels disposed in side-by-side relation within a gas passageway opening directly out of a furnace and through which combustion gases from said furnace are directed, the median planes of the panels being in spaced relation across the width of the passageway and generally parallel with the gas flow, the panels being disposed so that the upstream edge thereof is subjected to intense radiant heat with the portions of the panels more remote from this upstream edge receiving progressively less radiant heat, said panels being comprised of numerous continuous tubes interconnected between inlet and outlet headers with a portion of each of the tubes being disposed within the plane of each panel and thereby making up a portion of the panel whereby the vapor flows serially through the several panels, these tube portions being sinuously bent and internested to form the panels, in passing from one panel to another the group of tubes disposed nearest the upstream edge of a panel and comprising generally half of the tubes that make up the panel being crossed with relation to the remainder of tubes with each of these groups of tubes being crossed in a body so that the relative location of the tubes within each group remains unchanged while the relative location of the groups is charged with this crossing of tubes in this manner positioning alternate of these groups of tubes nearest the upstream edge in adjacent panels.

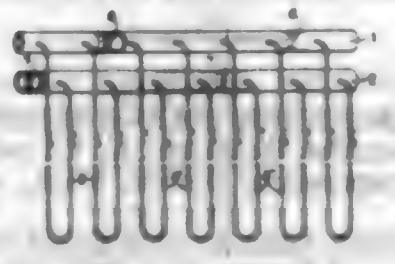
2,867,416
TUBULAR COMBUSTION CHAMBER LINING FOR FORCED FLOW STEAM GENERATORS

Arthur Lieberherr, Winterthur, Switzerland, assignor to Sulzer Frères, Société Anonyme, Winterthur, Switzerland, a corporation of Switzerland

Application June 30, 1954, Serial No. 440,393
Claims priority, application Switzerland October 15, 1953
6 Claims. (Cl. 257—248)

1. In a tubular lining for a combustion chamber wall of a forced flow steam generator, a plurality of parallel

tubes, each tube having an inlet end and an outlet end, a first and a second substantially parallel row of axially aligned substantially tubular headers placed at a right angle to said tubes at one end thereof, a row of axially aligned intermediate substantially tubular collectors placed at a right angle to said tubes at the other end thereof, the inlet ends of a first group of said tubes being connected with a first of said headers of said first row, the outlet ends of the tubes of said first group being connected with a first of said intermediate collectors, the inlet ends of the tubes of a second group being connected with said first intermediate collector, the outlet ends of the tubes of said second group being connected with a first of said headers of said second row, a third group



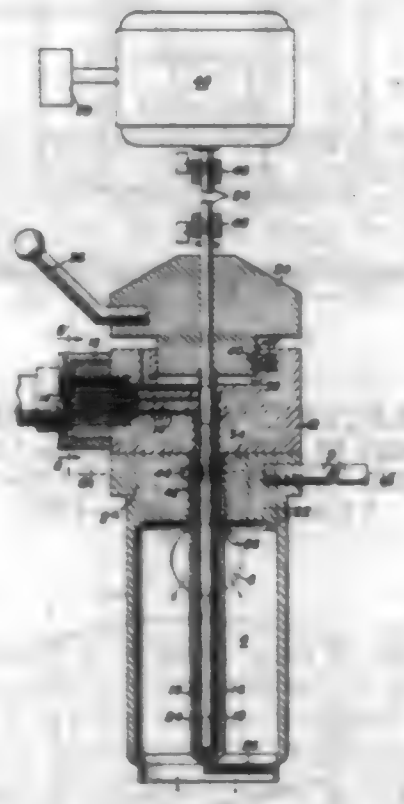
of said tubes having their inlet ends connected with said first header of said second row, the outlet ends of the tubes of said third group being connected with a second of said intermediate collectors, a fourth group of tubes having their inlet ends connected with said second intermediate collector and having their outlet ends connected with a second of said headers of the first row, the inlet ends of a fifth group of said tubes being connected with said second header of said first row, the outlet ends of said tubes of said fifth group being connected with a third of said intermediate collectors, the inlet ends of a sixth group of said tubes being connected with said third intermediate collector, and the outlet ends of the tubes of said sixth group being connected with a second header of said second row of headers.

2,867,417
HEATING ELEMENT
Axel Nora Alexander Axlander, Stocksund, near Stockholm, Sweden
Application November 16, 1955, Serial No. 547,215
Claims priority, application Sweden November 18, 1954
1 Claim. (Cl. 257—256)



A radiating element for heating and cooling purposes comprising a substantially plane pipe system of heat conductive material for the circulation of a heating medium, at least one plate of heat conductive material adjoining at least one side of the pipe system and corrugated to stiffen the plate and to form vertical air flow channels, said plate having vertical flat portions connected to the pipe system by heat conductive connections, said connections consisting of generally evenly spaced connecting elements of heat conductive material, each connecting element having a relatively thin base, integrally formed fingers projecting from one side of the base to engage a portion of the pipe system, flange portions projecting beyond each end of the base, a plurality of integrally formed rib portions, shorter in length than the fingers, projecting from the opposite side of the base and the flanges to engage corresponding openings in the flat portions of the plate and extending therebeyond, the terminal ends of the fingers being bent to conform to the pipe surface and the rib portions being deformed to engage the exterior surface of the flat portions of the plate, the length of the fingers and one side of the base providing substantially the same length as the opposite side of the base and the flanges whereby rigid heat conducting connections are made which provide substantially the same amount of contact surface for the pipe as for the plate.

2,867,418
SELECTIVE DISPENSING APPARATUS
Frederic P. Merrels, Silver Spring, Md.
Application March 9, 1956, Serial No. 570,584
12 Claims. (Cl. 259—8)

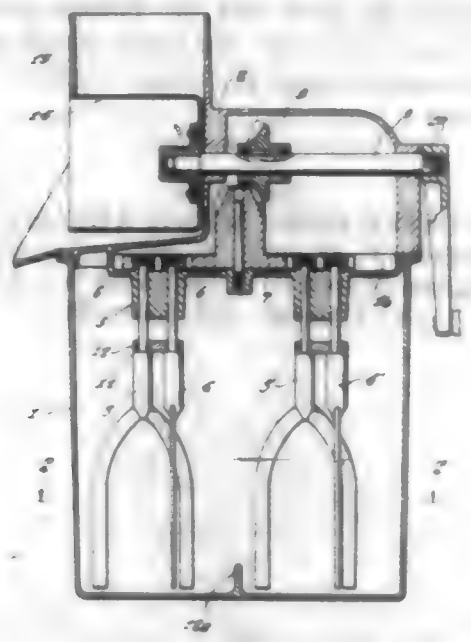


1. Apparatus for mixing and dispensing any one of a plurality of selected flavors of ice cream and similar materials, comprising a receiving and mixing chamber having a discharge opening at the bottom end thereof, means for delivering ice cream of a neutral flavor to the upper part of said chamber, a flavor dispensing and mixing nozzle mounted for rotation substantially in said discharge opening and means including a plurality of flavor pipes, and a manually settable head for selectively and individually coupling a desired flavor pipe with said nozzle, for delivering a selected flavor to said nozzle for mixing with said neutral ice cream, whereby substantially all the ice cream mixed with the selected flavor is dispensed at each operation.

2,867,419
BEATING DEVICE FOR HOUSEHOLD PURPOSES
August Heinzerling, Altmorschen, Bezirk Kassel, Germany
Application February 24, 1956, Serial No. 567,571
Claims priority, application Germany February 26, 1955
1 Claim. (Cl. 259—64)

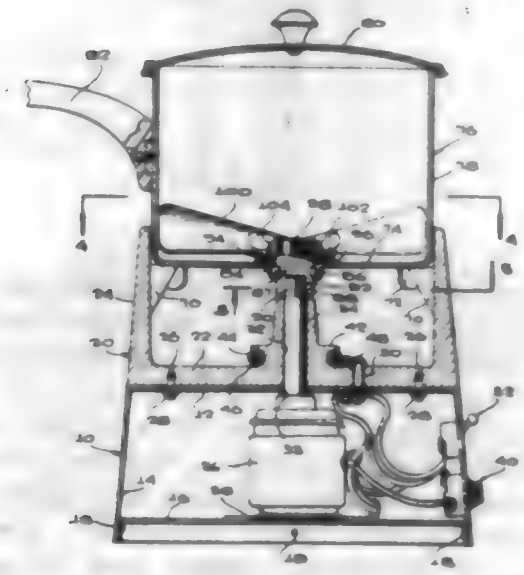
In a beating devise for household purposes including a vessel of substantially oval shape, a lid arranged on said vessel and provided with a beater driving mechanism, in combination, a projection extending vertically and upwardly from the bottom of said vessel, whereby a partition is formed dividing the lower portion of said vessel into two separate compartments for holding predetermined quantities of different mixtures in each of said compartments, respectively, two vertically disposed beaters, spaced from one another, rotably and detachably secured to said driving mechanism, said beaters being vertically aligned with said compartments, so that each

beater extends into the compartment with which it is aligned, whereby different mixtures may be stirred in



each of said compartments, without intermixing with one another.

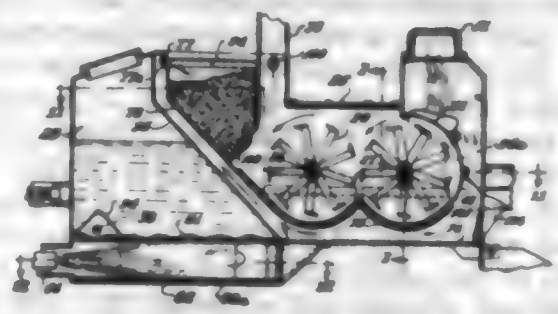
2,867,420
ELECTRIC DOUBLE BOILER
Donald M. Potts, Los Angeles, Calif.
Application May 10, 1957, Serial No. 658,304
1 Claim. (Cl. 259—108)



A combination blender and double boiler comprising a base having an upwardly opening recess and formed with an upwardly projecting boss centered in the recess and having at its lower end, a circumferential groove, said boss being formed with an axial bore; heating means in the form of an annular electrical resistance engaged in said groove and exposed within the recess; a container removably supported in the recess; an agitator rotatably mounted in the container; and means in the bore for driving the agitator and connectable drivingly to the agitator responsive to positioning of the container on the base.

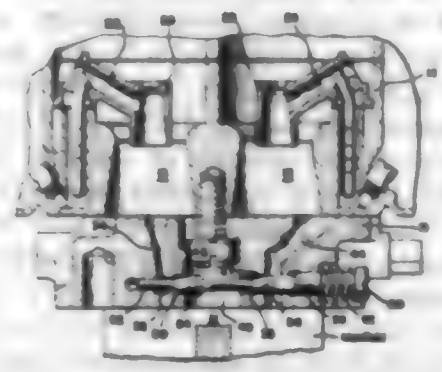
2,867,421
BITUMINOUS MIXER, MOBILE, COMPLETE WITH HEATED BITUMEN TANK, AND COMBINED AGGREGATE DRIER AND MIXER
William T. Camm, Fort Thomas, Ky., assignor to Littleford Brothers, Inc., Cincinnati, Ohio, a corporation of Ohio
Application May 11, 1955, Serial No. 507,585
21 Claims. (Cl. 259—158)

1. A road patching machine comprising a frame, a twin shaft pug mill mounted on said frame, a jacket surrounding said pug mill, a first burner adjacent said pug



mill, and means selective to direct heat and flames from said first burner into said pug mill or into said jacket.

2,867,422
CARBURETOR IDLING MECHANISM
Richard J. Brunner, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 23, 1956, Serial No. 579,805
2 Claims. (Cl. 261—23)

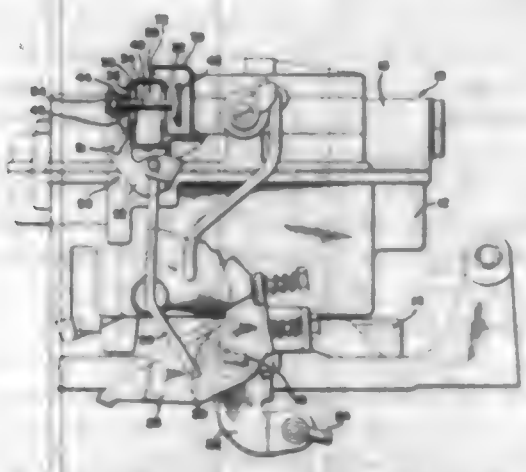


1. A carburetor disposed upon a manifold, said carburetor comprising a float bowl casing, a throttle body, a pair of induction passages extending through said casing and said body, a throttle in each of the induction passages, a pair of by-pass conduit means formed in the throttle body and each having ends respectively communicating with one induction passage anteriorly and posteriorly of the associated throttle to provide an idling mixture flow through each passage when the throttle otherwise closes the passage, said pair of bypass passage means including a common bore, a pair of axially spaced valve seats in said bore, a passage connecting the common bore intermediate said valve seats with the manifold, a valve member disposed in said bore and including a pair of axially spaced lands formed thereon, said lands respectively coacting with said seats to control the flow through each by-pass conduit means, and means on said valve member permitting unison adjustment of said valve lands with respect to the associated seats.

2,867,423
IDLE VENT VALVE
Charles E. Wing, East Lansing, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 23, 1956, Serial No. 579,807
1 Claim. (Cl. 261—43)

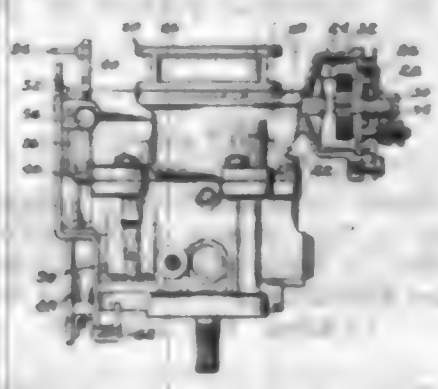
A carburetor comprising a throttle valve, a fuel reservoir casing, a cover for said casing, a vent casing disposed on said cover and in communication with said fuel reservoir, a port in said vent casing open to atmosphere, a vent valve normally closing said port, and means connecting said throttle and vent valves permitting said vent valve to open when said throttle valve is in a substantially closed position, and a cup-shaped shield mounted on said cover and partially surrounding said

vent casing, said port opening downwind and said shield opening upwind with respect to the direction in which



ambient air normally passes over said carburetor, said vent valve opening toward the closed end of said shield.

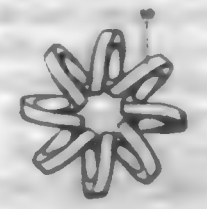
2,867,424
CARBURETOR
Robert W. Sutton, Elmira, N. Y., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application February 18, 1957, Serial No. 640,868
2 Claims. (Cl. 261—52)



1. In a carburetor having an induction passage, a choke in said passage, a shaft for said choke, a choke lever secured to said shaft, a fast idle cam rotatably mounted on said shaft and having a one-way connection with said choke lever, an abutment formed on said fast idle cam, a throttle in said passage, a throttle lever operatively connected to said throttle, a member formed on said throttle lever for engagement with said cam to determine the idle position of said throttle, and a cam formed on said throttle lever for engagement with said abutment to open said choke when said choke is in a predetermined partially open position and said throttle lever is moved from an open position toward a closed position, said last mentioned cam being formed to engage said abutment to prevent said choke from opening when said choke is in fully closed position and said throttle is moved from an open position to idle position.

2,867,425
MASS TRANSFER PROCESS AND PACKING UNITS THEREFOR
Aaron J. Teller, Gainesville, Fla., assignor to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio
Application October 5, 1956, Serial No. 614,270
6 Claims. (Cl. 261—95)

1. A liquid-gas contact apparatus comprising a tower having inlet and outlet openings and containing a mass of randomly arranged, interlocked tower packing units, the units being made up of approximately circular, integrally connected filament portions having their axes approximately tangent to a circle at approximately evenly spaced points therearound, the number of such spaced approximately circular portions being from 6 to 12 and the diameter of such circle being approximately equal to the diameter of one of such approximately circular filament portions plus the diameter of a smaller circle whose circumference is not less than the cross-sectional dimen-



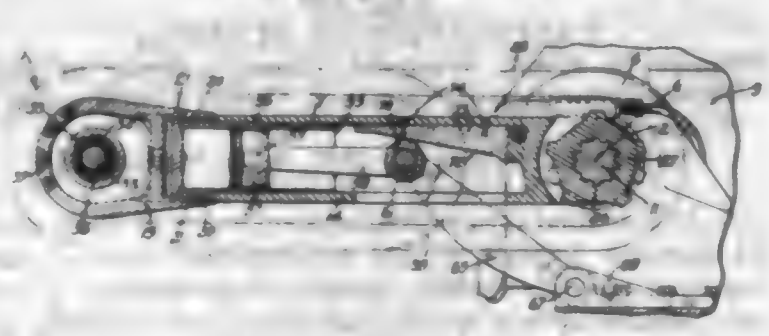
sion of the filament portion in the direction of its axis times the number of such filament portions and not greater than the circumference of one of such approximately circular filament portions.

2,867,426
USE OF HIGH PRESSURE FLUIDS IN COAL MINES
David Lincoln Dowie, Farnham, England, assignor to Anthend Limited, London, England
Application July 10, 1956, Serial No. 597,832
Claims priority, application Great Britain July 18, 1955
12 Claims. (Cl. 262—12)



1. The method of winning coal or the like, which comprises the steps of compressing air to a relatively low pressure at a point remote from the working face of the coal and simultaneously delivering such air to a point adjacent the working face, further compressing such air at said point adjacent the working face to a pressure of from about 4 to about 10 times greater than such relatively low pressure and delivering such further compressed air to the working face, and controlling the delivery of such further compressed air so as to controllably expand such air within the confines of the coal to win the coal therefrom.

2,867,427
DISINTEGRATING MECHANISM FOR LONGWALL CONTINUOUS MINER
John A. Russell, Sydney, Nova Scotia, Canada, and Joseph R. Boullié, Greensburg, Pa., assignors to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Continuation of application Serial No. 131,895, December 5, 1949. This application January 9, 1957, Serial No. 637,507, now abandoned.
16 Claims. (Cl. 262—28)



1. In combination, a body, a vein-attacking and disintegrating mechanism pivotally mounted on said body to swing about a pivot on the latter and comprising a swingable frame pivotally supported on said body and having disintegrating means guided in non-circular orbits thereon for orbital movement in the planes of swing of

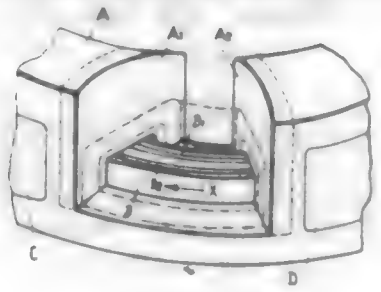
said disintegrating mechanism, and mechanism for swinging said frame relative to said body including a strut member pivotally connected to said body in offset relation to the pivot of said frame and having an end guided for movement on said frame, generally longitudinally of the latter, and motor means on said frame within the projection of said frame lying within said orbits and including a movable motor element for moving said end of said strut member longitudinally of said frame to swing said strut member about its pivotal connection with said body, said disintegrating means surrounding said motor means.

2,867,428

ROTARY HEARTH FURNACE PROVIDED WITH A REMOVABLE SECTOR FOR HEARTH MAINTAINANCE

Carlo Montagna, Dalmine, Italy, assignor to Dalmine S. p. A., Milan, Italy, a corporation of Italy

Application August 4, 1955, Serial No. 526,492
Claims priority, application Italy August 10, 1954
4 Claims. (Cl. 263—7)



1. A rotary hearth furnace comprising, in combination, housing means including an annular base portion and an arcuate hollow upper portion on said annular base portion, said upper portion having a pair of radially extending transverse end walls, each of said end walls being formed with a passage opening, said housing means being formed with a radially directed charging opening adjacent one of said end walls and with a radially-directed discharging opening adjacent the other of said end walls; movable door means on said housing for covering and uncovering said charging and discharging openings thereof; annular hearth means located intermediate said base portion and said upper portion and adapted to rotate along said base portion, said annular hearth means passing through said passage openings of said transverse end walls so that a portion of said annular hearth means is accessible from outside said housing means; and removable cover means fitting between said transverse end walls for covering said annular hearth means between said transverse end walls whereby said annular hearth means may be completely enclosed when access to said portion thereof is not desired.

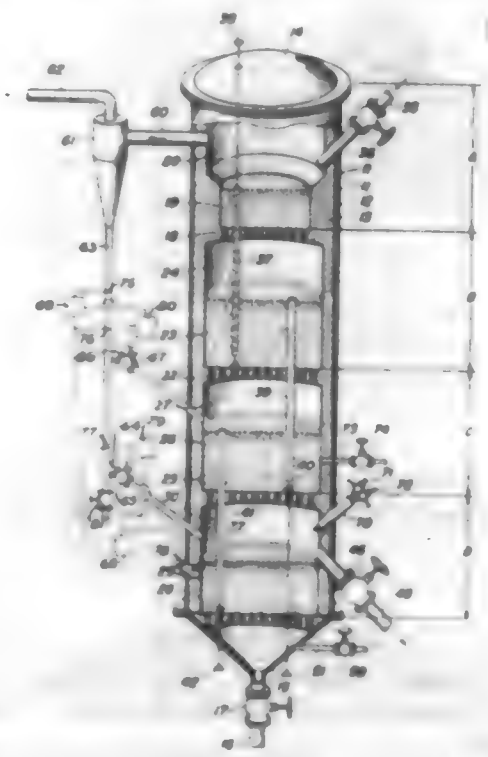
2,867,429

CALCINATION OF ALUMINA

Thomas D. Heath, Westport, Conn., assignor to Dorr-Oliver Incorporated, Stamford, Conn., a corporation of Connecticut

Application March 25, 1957, Serial No. 648,154
9 Claims. (Cl. 263—21)

1. In a method for the fluidized treatment of finely divided alumina hydrate which includes the steps of passing such alumina hydrate progressively through at least one preheating bed, a calcining bed, and a cooling bed, separating entrained fine solids including partially calcined fine solids from fluidizing gases leaving the preheating bed, said separated solids being at a temperature substantially lower than the temperature of solids in the calcining and cooling beds; the improvement which comprises introducing a quantity of said separated solids into said cooling bed in an amount sufficient to effect cooling of solids in such bed, but insufficient to cool solids in such bed below 800° F., thereby effecting further calcination of such separated solids in such cooling bed and introducing the remaining portion of said separated solids to said calcining bed.

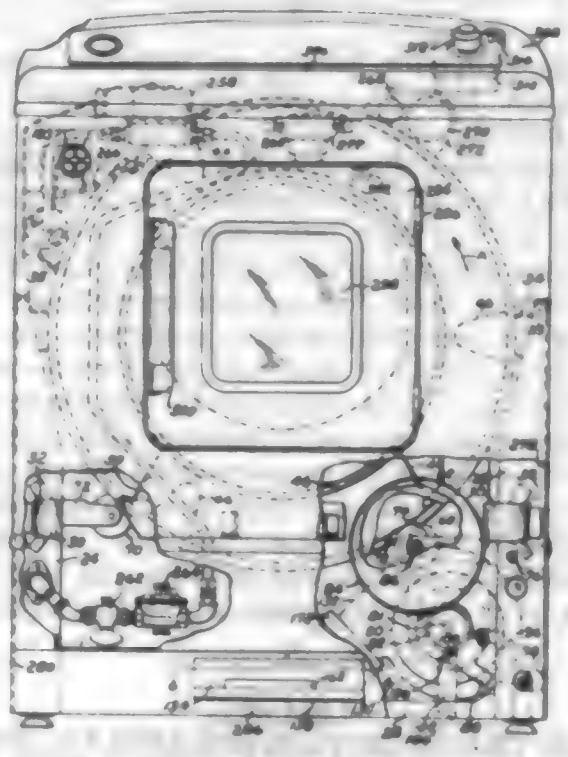


2,867,430

LAUNDRY DRYERS

Herbert E. Hullar, Syracuse, N. Y., assignor, by mesne assignments, to The Murray Corporation of America, Detroit, Mich., a corporation of Delaware

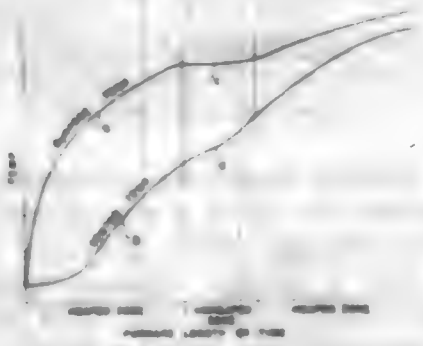
Application December 31, 1952, Serial No. 328,928
1 Claim. (Cl. 263—33)



A laundry dryer comprising a substantially imperforate drum arranged with its axis substantially horizontal, a laundry tumbling cylinder rotatably mounted therein having a perforate peripheral wall, a substantially rectangular cabinet surrounding said drum, said drum having a large aperture in an upper side wall thereof facing an upper corner of said cabinet formed by a side wall and the top thereof, means for withdrawing air from said drum at a point remote from said aperture, an arcuate plate adapted to be attached to said drum in covering relation to said drum aperture, axially spaced end walls mounted on said plate and a cover connecting said end walls and spaced radially outward of said plate and having a ver-

tical portion and a lateral extending portion, said cover and curved plate forming a circumferentially open ended box, a burner in the space between said plate and cover adjacent the lower end, inner and outer spaced baffles arranged within said box and extending between said ends and in substantially parallel relation to the lateral portion of said cover, said outer baffle being nearest said cover, the outer baffle underlying substantially the lateral portion of said cover, and the inner baffle underlying said first named baffle and having a portion extending downwardly along and in spaced relation to the vertical portion of said cover to a point below the upper portion of said burner and between said burner and cover, said baffles at their upper end having portions extending substantially radially toward said drum and to said plate, said radial portions being circumferentially spaced, said plate having an aperture bounded at opposite ends substantially by said end walls, and along its upper edge by the radial portion of said outer plate, and having its lower edge below the radial portion of said inner baffle, whereby to provide an air inlet path to said drum from the upper open end of said cover downwardly between said cover and outer baffle, and upwardly between said baffle to said aperture, a second passage extending upwardly between said cover and inner baffle and joining the path between said baffles leading to said plate aperture, and a third path following underneath said inner baffle to the lower portion of said plate aperture.

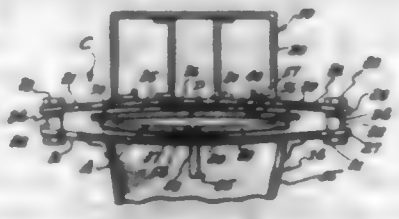
2,867,431
METAL HEATING
Frederic O. Hess, Philadelphia, Pa., assignor to Sciaky Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application July 1, 1955, Serial No. 519,549
6 Claims. (Cl. 263—52)



2. The method of heating a steel billet which comprises raising the temperature of the center of the billet continuously from ambient to the desired high temperature above the transformation temperature by conduction from the surface thereof, heating the surface of the billet at a rate faster than heat is conducted into the interior thereof until the center has substantially reached the transformation temperature, maintaining the surface of the billet at a substantially constant temperature as the center is being heated by conduction from the surface until the center has passed through the transformation temperature, and continuing to heat the surface of the billet to the desired temperature at a rate decreasing with respect to the rate of heating of the center thereof.

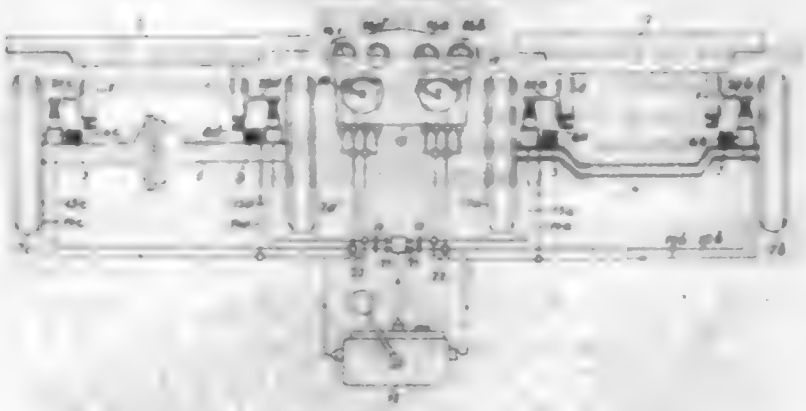
2,867,432
LOAD INDICATING MEANS
Stephen Barker, Alhambra, and Percival M. Heinmiller, La Canada, Calif., assignors to Utility Trailer Manufacturing Company, Los Angeles, Calif., a corporation of California
Application December 17, 1953, Serial No. 398,677
1 Claim. (Cl. 265—40)

In combination, a vehicle under-structure which is spring-supported from the vehicle wheels, a lading-taking structure on top of the under-structure, means connecting the two structures and acting to transmit, from one to the other, forces of torque, draft and traction, said means including a pair of elongated vertically opposed horizontally extending members, vertical spacers between the members near their free ends, bolts extending through



the spacers and connecting said members, a hydraulic capsule between the members and between said spacers, the spacers being of less vertical extent than is the capsule, whereby, when said bolts are taken home, the upper member is bowed out of a horizontal plane.

2,867,433
LOAD WEIGHING DEVICE FOR LORRIES
Karl Torsten Bergenheim, Ljungskile, and Arthur Helge Andersson and Per Ingemar Bergenheim, Gotaborg, Sweden
Application March 29, 1954, Serial No. 419,444
Claims priority, application Sweden February 18, 1954
2 Claims. (Cl. 265—40)

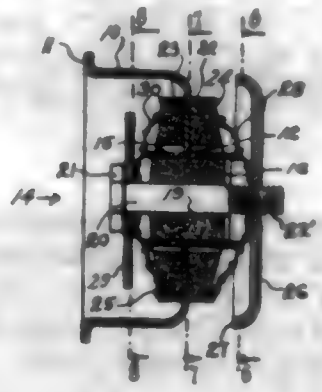


1. In a weighing device for the cargo of a motor lorry having a plurality of hydraulic cylinders and cooperating pistons acting as individual weighing devices mounted between the lorry axles and the platform body, manometers calibrated to read in pounds connected to said hydraulic cylinders, pump means to supply hydraulic fluid to the hydraulic cylinders, an inlet in the cylinder below the piston in the lowest position of the same, an outlet positioned above the inlet and covered by the piston in said position, a separate fluid branch for each cylinder from the main pressure pipe of the pump connected to the inlet, each of said fluid branches being provided with a flow restriction, and a separate fluid branch from the main suction pipe of the pump connected with the outlet, the piston in its uppermost position being held up by the fluid pressure clearing the outlet for circulation of the fluid through the pump, and the upper ends of the pistons bearing against the platform body when the lorry is empty, and preventing the platform when loaded from pressing the lorry springs downwardly.

2,867,434
VIBRATION DAMPENER
Kenneth W. Johnson, Dayton, Ohio
Application March 28, 1957, Serial No. 649,252
6 Claims. (Cl. 267—1)

1. A device of the character described comprising a casing having an end wall and a centrally disposed opening therein, a base for said casing, means for attaching said base to a supporting structure, an annular resilient member on opposite faces of said end wall of said casing in concentric relation to the opening therein, a cylindrical spring of metal positioned in and extending

through said opening, a cylindrical block of resilient material frictionally mounted in said cylindrical spring, a bolt extending centrally through said block, a head for said bolt within said casing, a cap threadably mounted on the outer end of said bolt, a washer mounted on said bolt adjacent said head, a concavo-convex yieldable



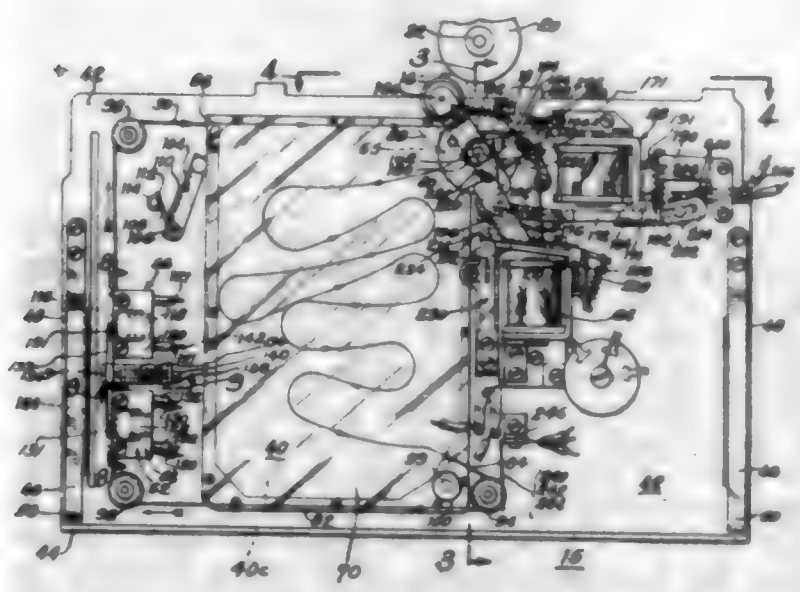
element surrounding said bolt and presenting its convex face to said washer, and a like concavo-convex element surrounding said bolt and presenting its convex face to said cap, said concavo-convex elements each having their peripheral edges in contact with an adjacent annular resilient member.

2,867,435

RECORDER

Howard S. Gleason, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application September 3, 1953, Serial No. 378,289
21 Claims. (Cl. 271—2.1)



19. A recorder-reproducer apparatus comprising a plurality of separate magnetic recorder units mounted in a spaced relation, each of said recorder units including a first drive mechanism for advancing a length of sensible medium step-by-step and a second drive mechanism for advancing the medium continuously, means in each of said recorder units for operating the first drive mechanism, motor driven means common to and disposed adjacent all of said recorder units, and means in each of said recorder units for rendering said motor driven means effective to actuate said second drive mechanism.

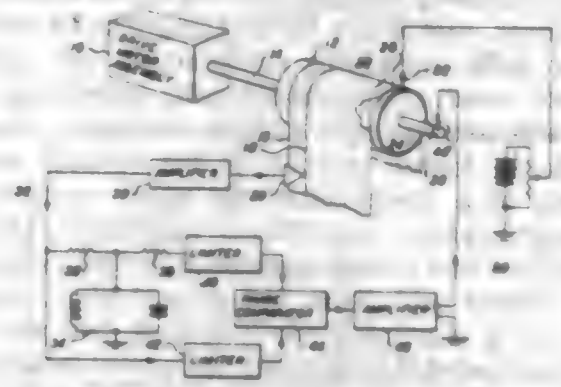
2,867,436

SPEED CONTROL

Theodore Miller, Los Angeles, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application July 1, 1955, Serial No. 519,392
5 Claims. (Cl. 271—2.6)

5. In a tape transport system which includes a rotatable member, means for rotating the member, and means on the outer periphery of the rotatable member for engaging the tape so that rotation of the member causes tape movement, the improvement which comprises at least one layer of electro-strictive material extending around and forming a part of the rotatable member, and means



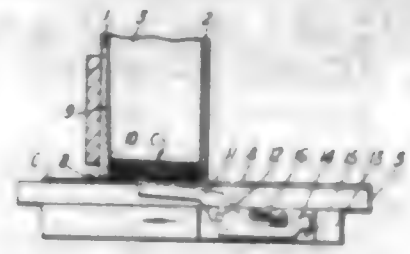
electrically coupled to the electro-strictive layer and operable to cause the electro-strictive layer to change its physical dimensions for controlling the effective diameter of the rotatable member while it is rotating, so as to effect a control of the speed of the tape.

2,867,437

CARD FEEDING APPARATUS

John Colin Davy, Woldingham, England, assignor to Powers-Samas Accounting Machines Limited, London, England, a British company

Application May 4, 1956, Serial No. 582,796
Claims priority, application Great Britain June 3, 1955
4 Claims. (Cl. 271—44)



1. Card feeding apparatus comprising a magazine having a bottom by which a pile of cards is supported and a throat through which the card resting on the bottom is fed, a pusher element reciprocable in a straight line path towards and from said throat and having a card-engaging face projecting through said bottom to engage the rear edge of the card resting thereon and to maintain engagement with said edge until it is moved through said throat, said bottom including a ramp having on opposite sides of the path of the pusher element card-engaging surfaces the level of which at the position of first engagement of a card by the pusher element is such as to permit said face to engage a portion only of the thickness of the card edge and which declines progressively from said position towards said throat to permit progressive projection of said face above said surfaces to effect engagement of the full thickness of the card edge during movement of the card by said face through said throat.

2,867,438

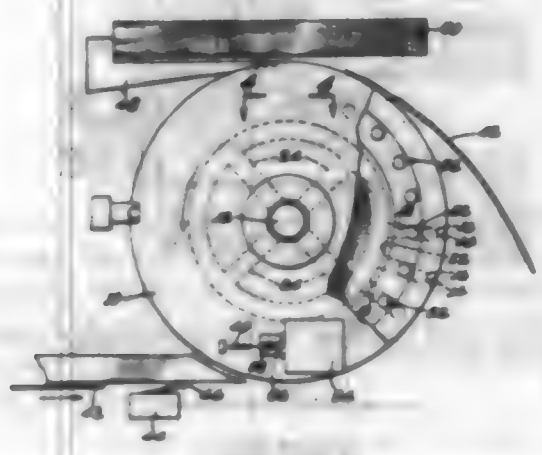
PAPER-STACKING DEVICE

Tatsu Hori, San Francisco, Calif., assignor, by mesne assignments, to General Electric Company, New York, N. Y., a corporation of New York

Application October 19, 1956, Serial No. 617,100
13 Claims. (Cl. 271—74)

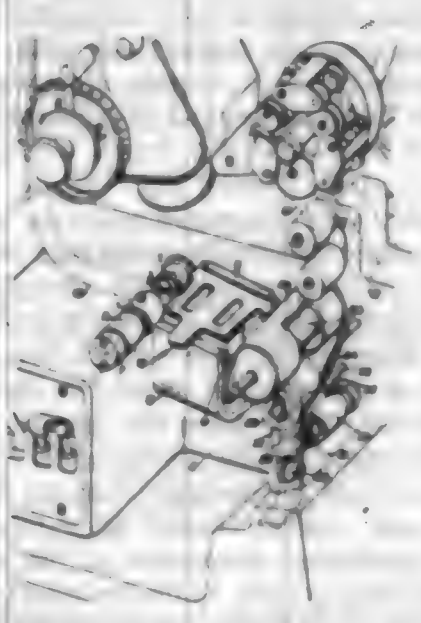
1. A paper pickup device comprising a rotatably supported cylindrical surface, a plurality of sets of openings in said surface, a plurality of passages in said cylindrical surface, each set of openings communicating with a different one of said passages, means for applying suction to all

said passages, and valve means in each passage to control the application of suction to the set of holes communicating therewith, said valve means including a valve pin movably mounted in the walls defining a passage and extending across said passage, said valve pin being movable between a first and a second position, in said first



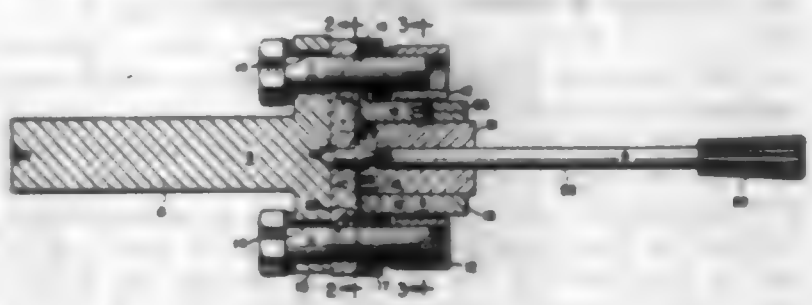
position said valve pin being adapted to block said passage and in said second position being adapted not to block said passage, means to move a valve pin to its second position when it is desired to apply suction to the set of holes communicating with said passage to pick up paper, and means to move said valve pin to its first position when it is desired not to apply suction to said set of holes.

2,867,439
SOUND READING DEVICE FOR KINEMATOGRAPHIC PROJECTORS
Antoine Heurtier, Saint-Etienne, France, assignor to Etablissements Heurtier & Cie, Saint-Etienne, France, a French corporation
Application October 29, 1954, Serial No. 465,699
Claims priority, application France March 25, 1954
7 Claims. (Cl. 274—4)



1. In a magnetic sound-reading device for films in kinematographic projectors, said film having a sound track along its edge, in combination: a casing, magnetic reading heads in said casing, a lid on said casing over said heads, a carrier ahead of said casing and said heads and movable relatively to said casing, a recessed film passageway in said carrier, first guide means in said passageway and having cooperating V-notched surfaces, said first guide means being adjustable in length in a direction transverse to that of the travel of said films whereby said first guide means is adapted to accommodate films of different widths, second guide means intermediate said first guide means and said heads and adapted to guide the film as it is about to engage the heads said second guide means having cooperative V-notched surfaces, said first and second guide means guiding the film solely by engagement of the V-notches in said surfaces with the thickness of the longitudinal edges of the film, said carrier and said first and second guide means being adapted to guide and position said films to make the sound track register exactly in alignment with said heads, unitary spring means attached to said lid and adapted to contact directly the film in a direction parallel to that of the travel of said film and urging the film with an adjustable pressure over and flat against said heads, a freely revoluble shaft located beyond said heads, bearings for both ends of said shaft, and means adapted to urge the film passing off the heads into engagement with an accurately defined section of the shaft between its bearings, said shaft and said last named means cooperating to tension the film in its progression out of said casing to prevent wobbling of the film, thereby avoiding disturbance of the sound-reading.

2,867,440
FLOATING REAMER OR TAP HOLDER
Walter Truman McLaughlin, Chicago, Ill.
Application July 11, 1955, Serial No. 748,020
6 Claims. (Cl. 279—16)

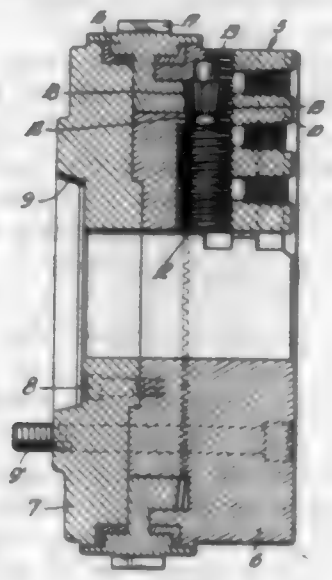


1. A tool holder comprising, three superimposed disk-like elements the two outer of which elements respectively have oppositely-disposed axial extensions, the extension on one outer element being for mounting on a machine carriage and the other outer element extension having a longitudinal bore to support a tool, diametrically-spaced threaded bolts extending through the three elements outwardly of the extensions and threadedly supported only on the intermediate element for locking together the one outer element and the intermediate element in radially-adjusted relationship, a centering pin fixed on the intermediate element and extending into the bore of the other outer element extension, means for clamping a tool in the said other outer element with one end of the tool concentrically seated on the said centering pin, and nuts threaded on the ends of the bolts for positioning the other outer element on the bolts to retain the end of the tool seated on the centering pin.

2,867,441
POWER CHUCK
Walter F. Skillin, New Britain, Conn., assignor to Union Manufacturing Company, New Britain, Conn., a corporation of Connecticut
Application December 10, 1956, Serial No. 627,327
3 Claims. (Cl. 279—112)

1. In a chuck, a chuck body, a chuck jaw movable thereon, an annular ring mounted on the outside of said chuck body and rotatable relatively thereto on the axis of the chuck body, said annular ring having a bevel gear thereon at the inside of the chuck body, a bevel pinion rotatably mounted in said body and meshing with said

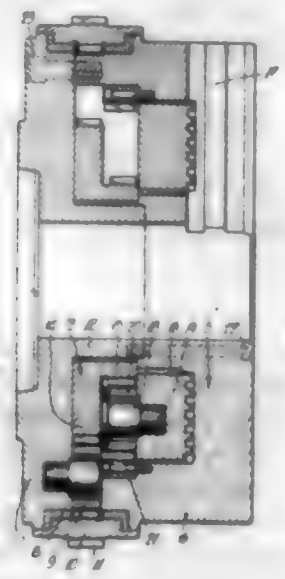
bevel gear, a screw coaxial with and movable with said bevel pinion, and means of connection between said jaw and said screw for moving the jaw upon rotation of said screw.



2,867,442
POWER CHUCK

Walter F. Skillin, New Britain, and Alexandra Damijonaitis, Newington, Conn., assignors to Union Manufacturing Company, New Britain, Conn., a corporation of Connecticut

Application December 10, 1956, Serial No. 627,326
8 Claims. (Cl. 279—114)



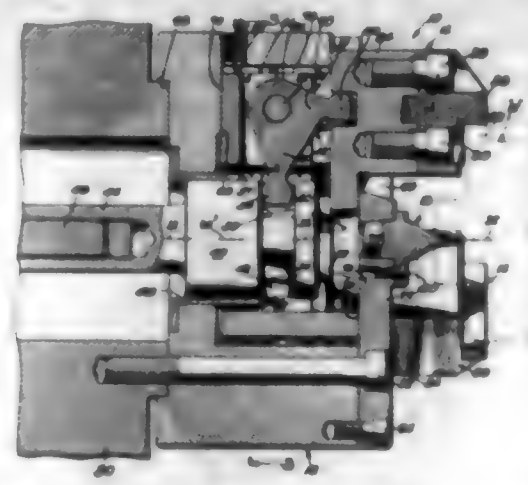
1. In a chuck of the character indicated, a chuck body, chuck jaws movable thereon, scroll means for moving said jaws, a hub gear including a gear and a relatively smaller pinion, means for driving said gear, a scroll pinion carried by said scroll means and rotatable relatively thereto and meshing with said first-mentioned pinion, and stationary gear means meshing with said scroll pinion.

2,867,443
POWER-OPERATED CHUCK OF THE COMPENSATING TYPE

Linwood B. Swanson, Newington, Conn., assignor to The Cushman Chuck Company, Hartford, Conn., a corporation of Connecticut

Application April 18, 1956, Serial No. 578,945
12 Claims. (Cl. 279—119)

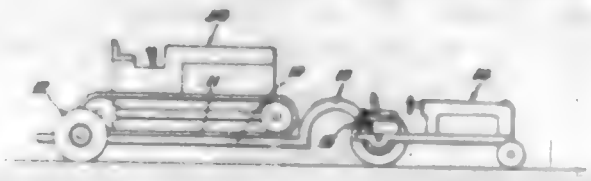
1. In a compensating chuck, the combination with a chuck body having a longitudinal axis and jaws guided thereon for movement into and from gripping engagement with work, of a carrier floatable in said body in any direction in a plane at right angles to said axis; devices associated with said jaws, respectively, being pivoted on said carrier and having with their associated jaws driving connections floatable transversely of the latter for moving said jaws on rocking said devices about their pivot axes; and means in said body for simultaneously rocking said devices while permitting said carrier to float.



2,867,444
LOW-BED VEHICLE WITH SWING-UNDER RETRACTABLE WHEELS

William W. Henning, Prospect Heights, and Gottfried J. Storatz, Park Ridge, Ill., assignors to International Harvester Company, a corporation of New Jersey

Application March 8, 1956, Serial No. 570,278
9 Claims. (Cl. 280—9)



5. In a low bed hauling vehicle, a bed frame having a rear edge and side edges extending forwardly from opposite ends of the rear edge, the side edges containing wheel-receiving notches of which each has a receded edge extending fore and aft of the frame; wheel spindles pivotally mounted upon the bed frame respectively adjacent the receded edges for swinging movement about fore and aft extending axes to selectively dispose said spindles to project oppositely in a substantially horizontal plane in vertical registry respectively with said notches or dispose the spindles to project downwardly; wheels journalled upon said spindles and of a diameter to project both above and below the bed frame while the spindles are horizontal and the wheels are vertical; a sub frame including a skid with a ground-engaging skid surface, the sub frame being mounted beneath said bed frame and movable from an upward retracted position above the ground into lowered ground-engaging positions of which the lowermost disposes the skid surface below the lowermost portions of the vertical wheels to elevate the bed frame and lift the wheels from the ground, the spindles being operable when swung downwardly to swing the tilted wheels therewith downwardly through the bed frame notches, the skid surface being of extended area to substantially supplement floatation of the wheels when projected against the ground while the wheels in transportive support of the bed frame are mired into the ground, and means for projecting the skid and maintaining the skid surface thereof in pressure contact with the ground at selective elevation above the lower sides of the mired wheels to attain such supplement floatation.

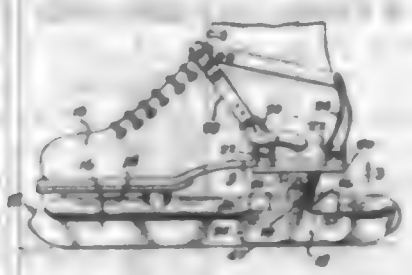
2,867,445
AUXILIARY RUNNER FOR ICE SKATES

Paul J. Lachat, Wlisted, Conn.

Application May 17, 1957, Serial No. 659,793
4 Claims. (Cl. 280—11.12)

1. The combination, with an ice skate of the shoe skate type, said ice skate including a shoe and a runner perma-

nently attached thereto, of an auxiliary runner attachment comprising a base plate formed separately from and underlying the shoe, said base plate being centered between opposite sides of the shoe; straps on the plate connected about said shoe; an auxiliary blade extending horizontal-



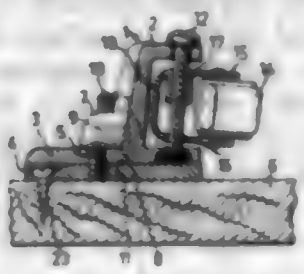
ly below one side of the base plate; and means spaced laterally from the midwidth portion of the base plate and connecting the blade and base plate, said means comprising a plate rigid with and depending from the base plate, a tongue extending upwardly from the blade, and a bolt connecting the tongue and plate.

2,867,446

TOE CLAMP FOR SKI BINDING

Alois Rehacek, Vienna, Austria, assignor to Wiener Metallwaren- und Schnallenfabrik Schar-Smolka, Vienna, Austria, a firm

Application August 23, 1954, Serial No. 451,511
Claims priority, application Austria February 10, 1954
11 Claims. (Cl. 280—11.35)



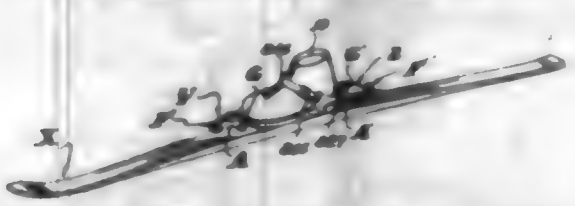
5. In a ski binding, in combination, a base plate, a swivel plate, a first pivot rotatably securing said swivel plate to said base plate, a pair of second pivots, supporting means for said second pivots on said swivel plate, a pair of levers respectively fulcrumed on said second pivots and adapted to engage the toe portion of a shoe, and detent means for releasably maintaining said plates in a normal relative position.

2,867,447

SAFETY SKI BINDING

Gaffron D. Mueller, Los Angeles, Calif.

Application August 15, 1955, Serial No. 528,200
5 Claims. (Cl. 280—11.35)



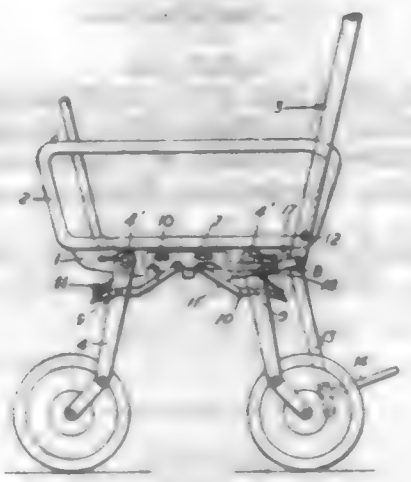
1. In combination, a toe binding for releasably securing the toe of a boot to a ski, and including, a toe lug projecting from the boot, a housing carried by the ski adjacent the toe end of the boot, a horizontally disposed cam rotatably carried by the housing on a vertical perpendicular axis and with a recess engaged with the lug, and a spring biased follower with a flat face and operating the cam, said cam having laterally spaced lobes with straight aligned faces engaging said follower face to normally position the recess to retain the toe of the boot in position on the ski, and a heel binding for releasably securing the heel of the boot to the ski and including, a heel lug projecting from the boot, a housing carried by the ski adjacent the heel end of the boot, a vertically disposed cam rotatably carried by the housing on a horizontal transverse axis and with a recess engaged with the lug, and a spring biased follower with a flat face engaged with the cam, said cam having a lobe with a face engaging said follower face to normally position the recess to retain the heel of the boot in position on the ski.

2,867,448

FOLDABLE SEAT, CHIEFLY A BABY-CAR

Enrique Sarabia Mandi, San Sebastian, Spain

Application January 29, 1958, Serial No. 711,876
Claims priority, application Spain February 4, 1957
5 Claims. (Cl. 280—36)



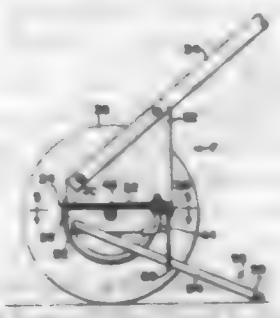
1. A collapsible wheeled seat, chiefly a baby-car comprising a body, a back pivotally secured to said body and adapted to be shifted between an upwardly directed position and a collapsed normally horizontal position, four wheeled uprights forming a front pair and a rear pair, independent transverse pivoting means for said uprights secured to the lower part of the body respectively at the front of said body for the front pair of uprights and at the rear of said body for the rear pair of uprights, a lever system operatively connected with the back, separate members mechanically independent of each other and of the back and controlled by the lever system upon a shifting of said back into a horizontal position, to urge the front uprights into a collapsed substantially horizontal position to the front of the body and the rear uprights into a collapsed substantially horizontal position to the rear of the body.

2,867,449

HAND CART ADAPTED FOR USE WITH INTERCHANGEABLE LOAD CARRIERS

Francis B. Shawver, Davenport, Iowa

Application October 14, 1957, Serial No. 689,811
6 Claims. (Cl. 280—47.18)



4. A mobile unit of the class described, comprising: a transverse support frame having opposite depending fore-and-aft side members, said side members respectively having transversely coaxial apertures; wheels carrying the frame respectively adjacent to the side members; transverse depending plate means at the rear of the frame and secured thereto and having a pair of transversely spaced

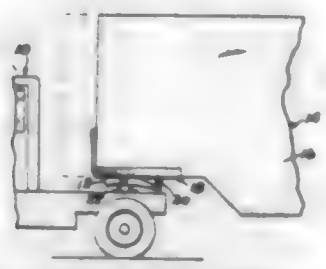
angular slots, each slot affording an upright part and a lower transverse part; a bail having a rear transverse bight rearwardly of the depending plate means and a pair of fore-and-aft legs extending forwardly respectively through the aforesaid slots, each leg having its terminal front end portion turned laterally as a pintle loosely received in the respective aperture of the side member to mount the bail for swinging vertically within the limits of the upright parts of the slots, and said pintles being axially shiftable in their respective side member apertures to enable transverse shifting of the bail when the legs thereof are alined with the transverse parts of said slots whereby to afford lock means for the bail when swung downwardly; and means for releasably retaining the bail in an upper position.

2,867,450

TRAILER KING PIN CONSTRUCTION

Paul Tenenbaum, Oak Park, Mich., assignor to Copco Trailer Division, a division of Copco Steel & Engineering Company, Centerline, Mich., a corporation of Michigan

Application February 10, 1958, Serial No. 714,356
6 Claims. (Cl. 280—407)



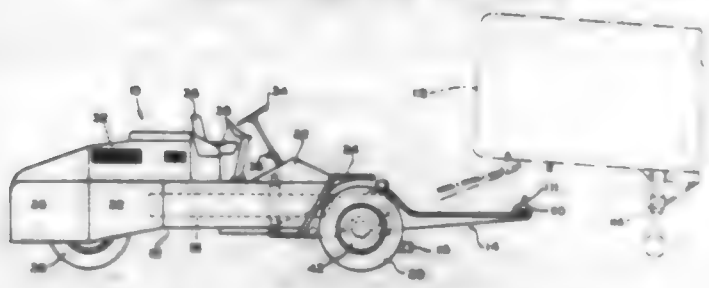
1. In a trailer king pin construction releasably engageable with a tractor fifth wheel structure, a pair of king pins mounted in a trailer base structure longitudinally thereof in spaced relationship to each other at the forward end of said trailer, the rearward king pin of said pair being fixedly secured in said base structure and depending below the plane of said structure in fifth wheel engaging position, the forward king pin being mounted rotatably in said structure for movement into and out of fifth wheel engaging position, and means conjoined to said forward king pin to rotate said latter king pin selectively into and out of fifth wheel engaging position.

2,867,451

MACHINE FOR HANDLING SEMITRAILERS

Edward P. Repke, Coloma, Mich., assignor to Clark Equipment Company, a corporation of Michigan

Application September 14, 1954, Serial No. 455,949
7 Claims. (Cl. 280—479)



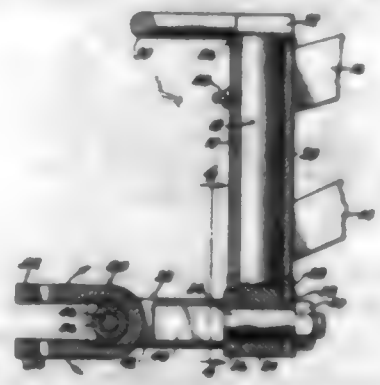
1. A machine for handling highway semitrailers and the like, comprising a body portion, an elongated two-part boom positioned in horizontally disposed relation partially within and partially without said body portion, means pivotally mounting one part of the said boom on the said body portion for pivotal movement about a normally horizontal axis, means pivotally mounting the second part of the boom on the said one part for movement about a vertically disposed axis, and means near the outer end of the said second part for engaging a load.

2,867,452

UNIVERSAL HITCH ASSEMBLY

Eugene A. Ricklick, Minneapolis, Minn., assignor to Stockland Road Machinery Company, Minneapolis, Minn., a corporation of Minnesota

Application March 19, 1956, Serial No. 572,427
2 Claims. (Cl. 280—492)



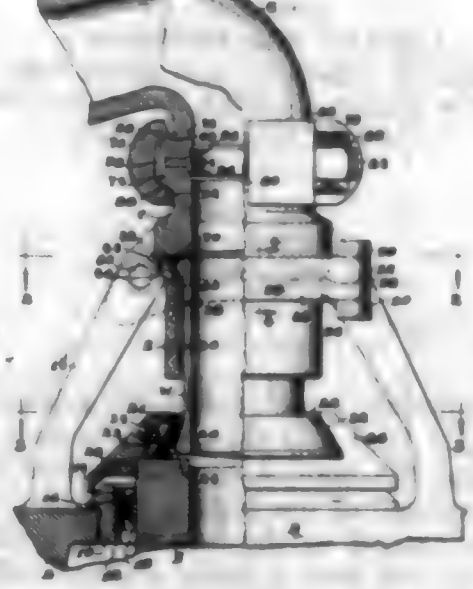
1. A universal hitch assembly for securing a trailer unit to a towing vehicle comprising an elongated tubular housing adapted to be secured in fixed vertical position to the trailer unit, a rod journaled in said tubular housing for rotation about its longitudinal vertical axis therewithin, one end of said rod extending beyond one end of said tubular housing and having a flange for supportingly mounting said rod in said housing, the other end of said rod extending beyond the other end of said tubular housing and having a transverse bore formed therein, first clevis means comprising a fork having a rotatable spindle attached to one end thereof, said spindle being rotatably positioned in the transverse bore of said rod so as to provide unrestricted rotation of said spindle about its longitudinal, horizontal axis within said bore, a cross pin attached to said fork, and second clevis means pivotally supported by said cross pin for rotation about an axis transverse to the longitudinal axis of the spindle of said first clevis means.

2,867,453

SWIVEL COUPLING WITH INSERTED SECTION TYPE SWIVEL UNIT

John D. Watts, Beauman Lefevre, and Erwin F. Hill, Houston, Tex., assignors to Gray Tool Company, Houston, Tex., a corporation of Texas

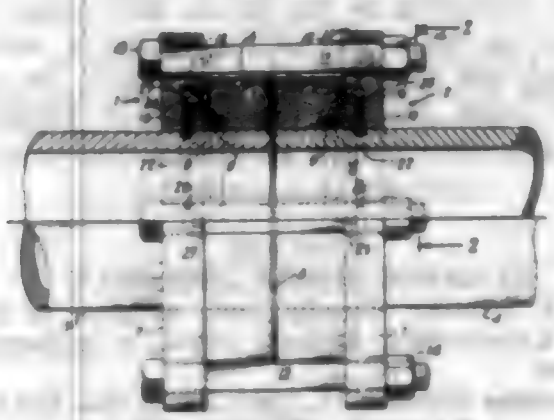
Application November 5, 1953, Serial No. 390,383
4 Claims. (Cl. 285—31)



1. In a swivel, the combination comprising: a body having an upper housing terminating in a union collar fixed thereto; a swivel stem mounted in said body and terminating with an upper end in said housing; a wash pipe assembly including a wash pipe having a locking ring flexibly secured to the lower end thereof and lower seal means extending downwardly below said locking

ring, and a flanged seal box slidably rotatably mounted on the upper end of said wash pipe having upper seal means extending thereabove; said housing having a side opening therein of a size to receive said wash pipe assembly, and means for removably mounting said wash pipe assembly between the upper end of said stem and said collar releasable to permit quick lateral removal of said wash pipe assembly, said means comprising an annular support on the upper end of said stem having a side opening of a size to receive the locking ring of said wash pipe assembly therethrough and a locking element for rigidly securing said locking ring thereto with said lower seal means in engagement with said stem, a gate hinged to said upper housing, and flange engaging surfaces on said upper housing and said gate for engaging the flanged seal box to retain the same in alignment with said collar with said upper seal means in engagement with said collar.

2,867,454
AXIALLY BOLTED PIPE COUPLING WITH KEYED FLANGES
Andrew A. Pollia, San Francisco, Calif.
Application April 3, 1956, Serial No. 575,815
4 Claims. (Cl. 285—368)



1. A coupling for a pair of pipe sections arranged in confronting relation, comprising a pair of hubs mounted upon the confronting ends of the pipe sections, a washer interposed between the hubs, a pair of flanges mounted upon the pipe sections rearwardly of the hubs and having rims projecting beyond the hubs, the hubs and the flanges of each section having confronting recesses to form annular chambers about the sections, rings mounted in the chambers and bearing upon the front walls thereof, a plurality of keys mounted upon the rear face of each ring in widely spaced relation and in contact with the cooperating flange, each pipe section having a plurality of limited and straight-bottom grooves positioned for the keys to engage therein, and means for drawing the rims of the flanges toward one another, whereby the hubs are forced upon the washer with a certain degree of bendability about the washer.

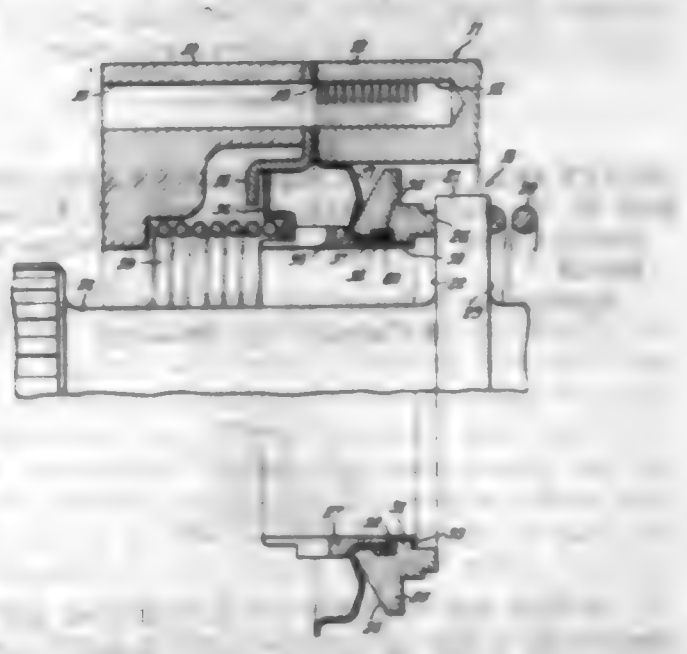
2,867,455
BEARING SEAL ASSEMBLY
Frederick W. Recknagel, Verbank, N. Y., assignor to The Federal Bearings Co., Inc., Poughkeepsie, N. Y., a corporation of New York
Application March 16, 1956, Serial No. 572,092
5 Claims. (Cl. 286—5)

5. In a bearing comprising relatively rotatable inner and outer annular members spaced apart by a complement of antifriction elements, said inner and outer members each being provided adjacent their respective end faces with an annular groove, an improved bearing seal assembly comprising an annular shield rigidly engaged around one of its peripheries to the annular groove of one of said annular members, said shield extending radially towards and terminating short of the other of said annular members, a resilient and substantially flat annular seal with an annular metallic grommet flanged in the shape of a U integrally about one of its peripheries to form two side flanges extending radially along the side surfaces of the seal, the flange along the inner side of the seal being radially longer than but parallel to the flange along the outer side surface, the longer flange extending radially to approximately the terminating end portion of



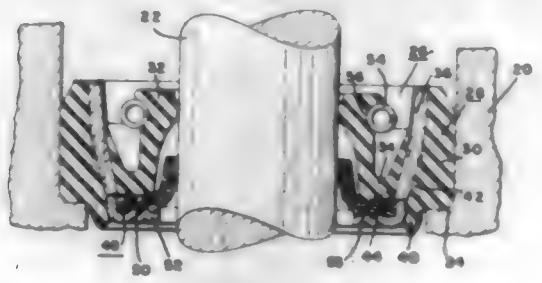
said shield, the peripherally flanged portion of the seal being rigidly seated in the annular groove of the other annular member, the free end portion of said resilient seal extending radially towards and behind said shield in wiping and sealing engagement with the inside surface thereof, the longer flange of the grommet adding stiffness to the seal as well as supporting the seal against the inner surface of said shield.

2,867,456
SEAL
Henry H. Campbell, East Cleveland, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application July 30, 1956, Serial No. 600,932
5 Claims. (Cl. 286—11)



1. In a fluid seal assembly for a rotary shaft having a radially extending flange, a diaphragm, a sealing ring, resilient means biasing said flange against said sealing ring and resilient means biasing said sealing ring toward said flange from an opposite direction; the improved means of attaching said seal ring to said diaphragm comprising a radially inwardly extending flange on said sealing ring intermediate the ends thereof, a portion of said diaphragm inserted in said sealing ring, a cylindrical confining shell having an outwardly extending flange intermediate the ends thereof, said confining shell inserted in said portion of said diaphragm and holding said diaphragm against said sealing ring, a radially extending surface on said shell in contact with said radially inwardly extending flange whereby the sealing ring and shell are assembled in a pre-determined relationship so that said outwardly extending flange of said confining shell does not engage said diaphragm.

2,867,457
FLUID SEAL
Ellwood F. Riesing, Dayton, and Cletus L. Moorman, Trotwood, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 16, 1954, Serial No. 443,852
4 Claims. (Cl. 286—11.16)



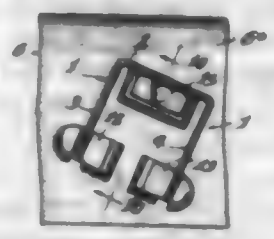
1. A fluid seal of the radial type comprising in combination; an annular body of elastomeric material adapted to be positioned between relatively moving concentrically located members, said body including a sealing lip of annular shape adapted to radially seal against one of said members, a garter spring disposed around said lip for increasing the sealing force thereof, an annular reinforcing member molded within a portion of said body of elastomeric material and spaced from said sealing lip, said reinforcing member including a castellated portion extending outwardly of the body and spaced from the sealing lip, said castellated portion including a plurality of alternately outwardly extending and inwardly turned portions for forming a seat, an annular resilient sealing member spaced from the sealing lip and positioned by association with said seat and adapted to bear against said one of the members to be sealed at a point remote from the engagement of the sealing lip, said annular resilient member being held in clamped relation to the remainder of said seal by the swedging over of said upstanding portions of said reinforcing member.

2,867,458
SHAFT SEAL FOR GAS TURBINES AND THE LIKE
Rolf H. W. Kroekel, West Greenwich, R. I., assignor to Sealol Corp., Warwick, R. I., a corporation of Rhode Island
Application February 23, 1956, Serial No. 567,258
10 Claims. (Cl. 286—22)



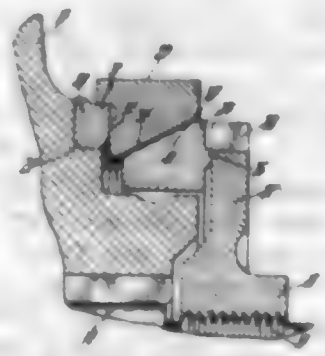
1. A fluid seal assembly for gas turbines and the like comprising a pair of independently radially contractible split rings disposed on a common axis, each of said rings having an inner periphery forming a running sealing surface for a shaft, said rings having their splits circumferentially offset, both of said rings having abutment surfaces concentric with their running surfaces but the abutment surface of the primary of said rings being at a greater diameter than that of the secondary of said rings, a solid annulus disposed in the path of both said abutment surfaces for limiting contraction of said secondary ring to a firm running fit against said shaft and of said primary ring to a smaller diameter, both of said rings having their outer peripheral surfaces exposed to the high pressure to be sealed, and the primary ring being nearer to the high pressure side of the seal along said shaft than the secondary ring, said solid ring having radially extending webs against opposite surfaces of which said primary and secondary rings bear and means for holding said primary, secondary and solid rings in axially assembled relation with said splits circumferentially offset.

2,867,459
AUTOMATICALLY INTERLOCKING JOINT BETWEEN A BAR AND A PLATE
Francis P. Brennan, Chicago, Ill.
Application August 26, 1957, Serial No. 680,323
3 Claims. (Cl. 287—20)



1. In combination, a plate, an inverted channel bar comprising a bottom wall and two side walls, said walls having at corresponding ends inturned lips lying in the plane of the edge faces at said ends, said plate having on one face protruding pockets all opening in the same direction in which said lips are seated, the pockets in which the lips on the side walls are seated also each being open on one side to permit the corresponding lip to protrude through that side, projections on the plate beside the latter pockets and engaging with the exposed side of the bar in registration with the lips seated in such pockets, a projection on the lip on the bottom wall of the channel at the mouth of the pocket in which that lip is seated, and there being an opening in the plate in which the latter projection is seated to pevent withdrawal of the lips from the pockets.

2,867,460
TURBINE ROTOR ASSEMBLY
Kenneth O. Johnson, Camby, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 21, 1953, Serial No. 387,503
7 Claims. (Cl. 287—52)

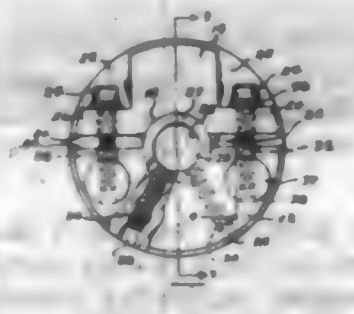


1. A turbine rotor assembly comprising, in combination, a plurality of wheels rotatable about an axis, means extending in the axial direction for binding the wheels together, and means interposed between the wheels and the first-mentioned means for compensating for relative axial thermal expansion of the wheels and the second-mentioned means comprising a continuous internally conical ring of relatively high thermal expansion and a continuous externally conical ring of relatively low thermal expansion slidably fitting within the first-mentioned ring.

2,867,461
ADJUSTABLE LOCKING COUPLING
Stanley Kahn, West Newton, and Nesbit L. Duncan, Belmont, Mass., assignors to the United States of America as represented by the Secretary of the Air Force
Application December 5, 1957, Serial No. 700,922
4 Claims. (Cl. 287—119)

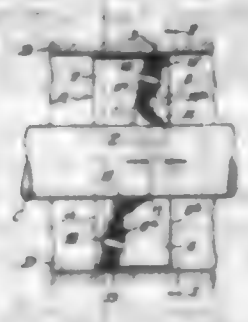
1. An adjustable coupling between two inline rotary shafts comprising a first member and a second member, telescoping and rotary movable portions on said first and second members, said first member adapted to be rigidly attached to a drive shaft, means on said second

member for rigidly attaching said second member to a driven shaft, means for securing phase adjustment between said drive shaft and said driven shaft comprising a pair of threaded bolts securing said first and second members together, said bolts being positioned normal to the axis of said coupling, on opposite sides thereof and spaced a distance therefrom, smooth surfaced bores



on said first and second members for receiving said bolts with an amount of play, plug pivots received in axially extending openings in said second member, said plug pivots having threaded bores for threadedly receiving said bolts whereby relative rotary movement between said first and second members may be obtained to secure inphase alignment by tightening one of said bolts and loosening the other.

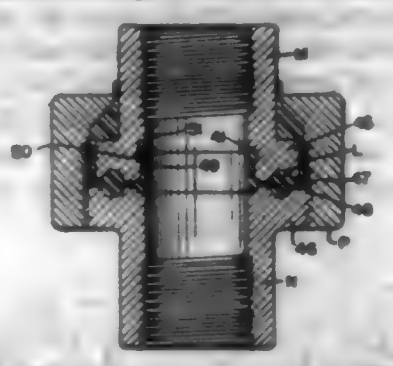
2,867,462
HOUSING CONFINED LIP SEAL
Milton R. Nielsen, Lombard, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application December 28, 1953, Serial No. 400,630
3 Claims. (Cl. 288—3)



1. An oil seal comprising a yieldable lip-type seal annulus arranged in surrounding relation on a rotatable shaft with the lip of the seal normally in narrow line contact with the shaft surface; and means supporting said annulus comprising a pair of axially aligned shell sections of ungula form arranged with their oblique ends parallel and adjacent each other to define a channel in which said seal annulus is positioned with its lip in a plane oblique to the axis of the shaft; and means separable from said shell sections and securing said sections together to anchor said seal annulus in said channel, the obliquity of the annulus being effective during rotation of the shaft to axially increase said normal line contact by the seal lip to a wide annular band extending longitudinally on the shaft.

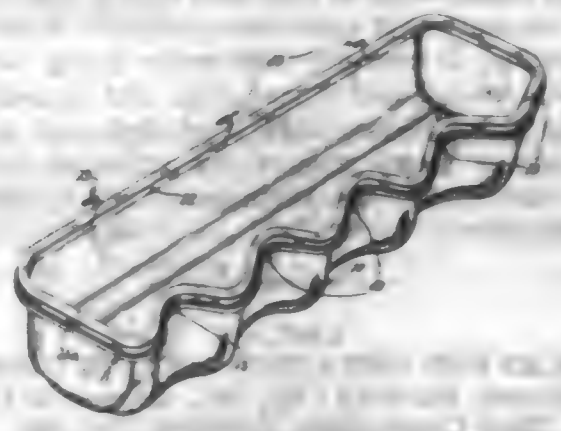
2,867,463
PACKING MEMBERS FOR PIPE JOINTS AND THE LIKE
Kenneth M. Snider, Mansfield, Ohio, assignor to The American Coupler Company, Cleveland, Ohio, a corporation of Ohio
Application March 21, 1955, Serial No. 495,596
1 Claim. (Cl. 288—19)

As an article of manufacture, a gasket for partial recessing in the adjoining end portions of two tubular members, said gasket having an integral body portion comprising a first annular outer part, a second annular outer part and an annular central part between the outer parts, and two annular flanges integral with and extending outwardly from the central part, each of said flanges having opposite faces in substantial parallelism, said body portion having a transverse cross section in which the surface of one of said outer parts is defined by an arc of a circle of which the axis thereof intersects the plane of one like face of each flange and terminates at said one like face of each flange, the other of said outer parts being provided with a wedge portion with one face of the wedge portion extending to the other like face of one of



said flanges, and the transverse cross section of said other outer part exhibiting an arcuate outer surface defined by an arc of a circle the axis of which intersects the planes of the others of said opposite faces, the last-named arc being of substantially 90° and the other face of said wedge portion extending to one end of said arcuate outer surface of the other outer part.

2,867,464
GASKET MOUNTING
Donald S. Crampton, Grosse Pointe Farms, Mich., assignor to Felt Products Mfg. Co., Chicago, Ill., a corporation of Illinois
Application April 19, 1957, Serial No. 653,812
3 Claims. (Cl. 288—22)

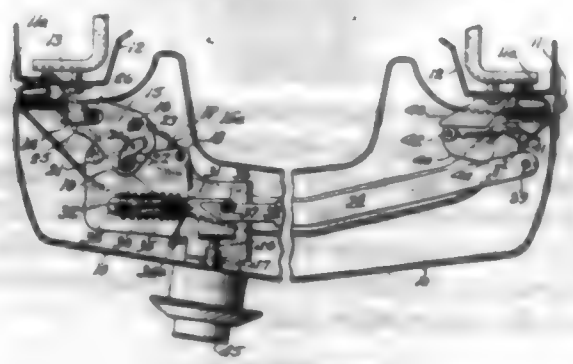


1. A gasket mounting comprising the combination of a gasket, a support, and means extending laterally from the outer periphery of said gasket for securing the latter to an exposed surface of said support, said means including a substantially U-shaped element having the legs thereof of unequal lengths and disposed in askew relation with respect to one another, the longer of said legs being embedded in the surface of said gasket disposed substantially normal to the exposed surface of said support, said element being pivotal about said embedded leg as an axis whereby the shorter leg slidably engages the underside of said exposed support surface; the axis of said embedded leg being angularly disposed relative to the gasket surface penetrated by said longer leg whereby said shorter leg is disposed in substantially parallel relation with respect to said gasket surface and spaced above said exposed support surface when said element is in a predetermined position of pivotal adjustment.

2,867,465
LATCH CONTROL MECHANISM
Andrew J. Van Noord, Grand Rapids, Mich., assignor to Jervis Corporation, Grandville, Mich., a corporation of Michigan
Application March 16, 1956, Serial No. 572,134
9 Claims. (Cl. 292—216)

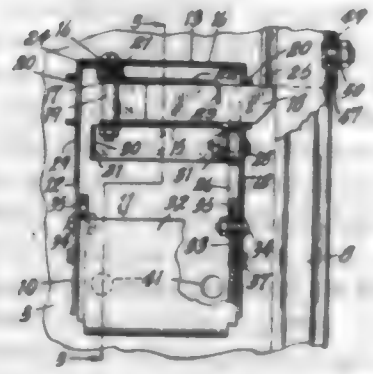
1. For use with a cabinet, a door hinged to said cabinet along one edge and a keeper mounted on said cabinet,

the novel combination of a latch mechanism mounted on said door and adapted to engage said keeper and draw the door tightly closed with respect to the cabinet and a cooperating door-mounted control apparatus for said latch mechanism, said latch mechanism including a bolt movable between a latched and an unlatched position, a main spring adapted to urge said latch bolt into its latched position and main spring support means movable relative to said bolt in one direction to energize said main spring and in the opposite direction to de-energize said main spring, said control apparatus including a link extending across said door and having a portion thereof adapted to releasably engage said main spring support



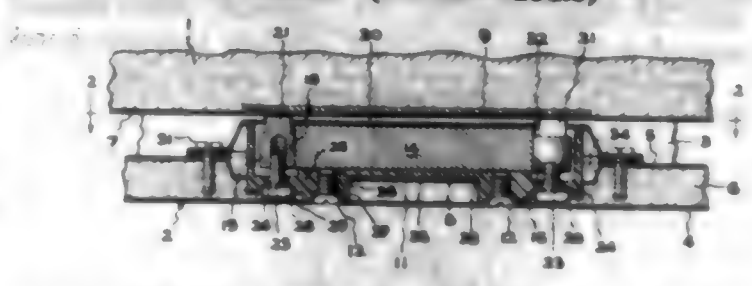
means, spring means for urging the latching engagement of said main spring support means and said link, means connected to said link and engaging said cabinet adjacent the hinged edge thereof and effective to move said link toward said hinged edge as said door closes and away from said hinged edge as said door opens, said link being effective to move said main spring support means in said one direction to energize said main spring when said link moves toward said hinged edge, and manually operable means for disconnecting said link and said main spring support means against the action of said spring means to de-energize said main spring and to release said latch mechanism.

2,867,466
LOCKS FOR UPWARDLY ACTING DOORS
Earl L. Stroup, Hartford City, Ind., assignor to Overhead Door Corporation, Hartford City, Ind.
Application November 25, 1955, Serial No. 548,828
7 Claims. (Cl. 292—244)



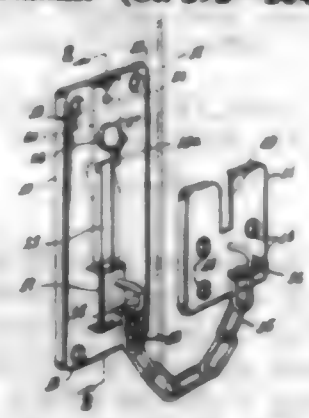
7. A lock comprising a housing having bolt openings in opposite sides thereof, a bolt positionable to project through a selected one of said bolt openings, means for pivotally supporting the bolt in either of its adjusted positions, a spring for biasing the bolt to keeper engaging position in either of its adjusted positions, a pivotally mounted bolt release lever adjustably positionable to coact with the bolt in its adjusted position, and an actuating member for said release lever pivotally mounted on said housing and provided with means engaging the release lever when it is positioned in either of its positions.

2,867,467
MAGNETIC DOOR LATCH
Thomas P. Foley, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application October 5, 1955, Serial No. 538,737
6 Claims. (Cl. 292—251.5)



1. A magnetic latch for holding a door member in closed position relative to a cabinet member, said latch comprising a recessed supporting member adapted to be mounted on one of said members, an elongated magnet disposed in said recess, a pair of cylindrical pole pieces in said recess in contact with mating arcuate grooves provided in the opposite ends of said magnet, said pole pieces including non-circular face portions extending outwardly from and normal to the axis of said magnet, means effective upon rotation of said pole pieces to adjust the positions of said face portions, and a removable non-magnetic cover plate overlying said recess and retaining the magnet therein, said cover plate including non-circular holes for receiving the face portions of said pole pieces and preventing rotation thereof.

2,867,468
SAFETY-LOCK DOOR CHAIN
Erling P. Bugge, Los Angeles, Calif.
Application July 18, 1955, Serial No. 522,576
7 Claims. (Cl. 292—264)

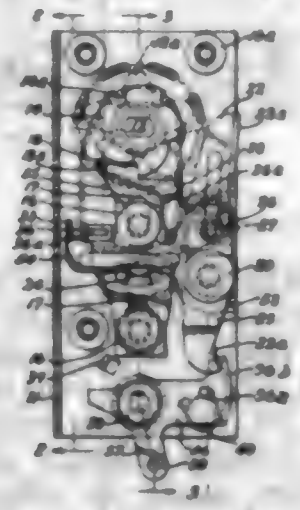


6. A door chain device which includes: a chain plate, a chain having one end permanently attached to said chain plate; a coupler attached to the opposite end of said chain and having means to engage the walls of a slot for holding said coupler; a locking plate having a slot therein, said slot being enlarged at one end to receive said coupler, the portion of the plate bordering the remainder of said slot being adapted to engage and retain said coupler; and spring means having one end anchored to said locking plate adjacent said enlarged portion of said slot, said spring means extending along said slot and terminating short of the other end thereof, the free end of said spring means being engageable with said coupler to prevent the movement thereof within said slot toward said enlarged portion from the opposite end.

2,867,469
DOOR LOCK
John H. Roethel, Coral Gables, Fla.
Original application May 27, 1953, Serial No. 357,760, now Patent No. 2,791,457, dated May 7, 1957. Divided and this application September 17, 1956, Serial No. 611,688
4 Claims. (Cl. 292—279)

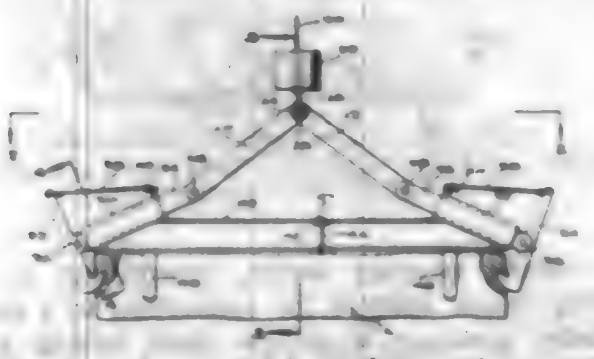
1. In a door latch mechanism, a support having a plate portion for disposition at the door jamb and hav-

ing a flange extending angularly from said plate portion, a rotatable latch device mounted on said plate portion, detent means comprising a member slidably mounted on said plate portion and having a projection on one end thereof engageable with said latch device for holding the same in latching position, a detent actuator mounted on said plate portion and having a blocking portion, said detent means being mounted on said plate portion for movement independently of said actuator, said actuator having a portion provided with a part arranged in opposing relation to a part of said detent means to abut the same upon movement of said actuator



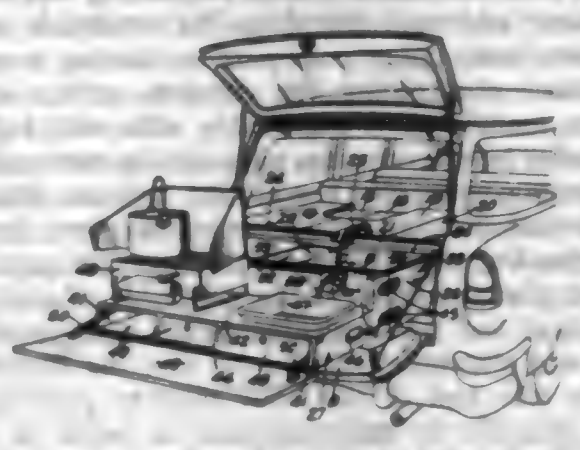
in one direction to move said detent means out of holding position with respect to said latch device, an inner manually operable bell crank lever pivotally mounted on the support and having a lever arm engageable with a part on said actuator for moving the same in said one direction, a member movably mounted on said support adjacent said detent actuator and having blocking means for cooperation with said blocking portion, and inner manually operable means for moving said member to dispose said blocking means in position to be engaged by said blocking portion thereby to block movement of the said actuator in said one direction.

2,867,478
LOG GRAPPLE
Jack B. Golden, Bellflower, Calif.
Application March 15, 1957, Serial No. 646,367
6 Claims. (Cl. 294—85)



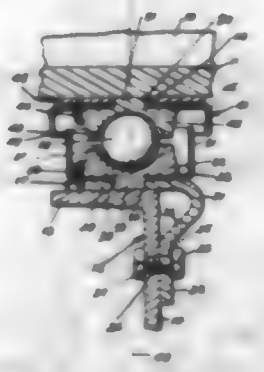
1. A log grapple comprising: elongated support means including guides at opposite ends thereof; links shiftable toward and away from each other within the respective guides; grapple hooks pivoted intermediate their ends on the links outwardly from the ends of the support means for swinging movement about horizontal axes in opposite directions between log-engaging and -disengaging positions responsive to movement of the links toward and away from each other, respectively; a flexible element connected between one end of the hooks and said support means, the other ends of the hooks being formed with log-engaging, confronting teeth; a toggle connected between the links, arranged for extension and contraction in a direction longitudinally of the support means for shifting the links toward and away from each other; a suspension cable connected to the toggle for contracting the same responsive to upward pull on the cable; and means on the cable for operating the toggle to extended position responsive to the creation of slack in the cable.

2,867,471
CAMPING APPARATUS FOR STATION WAGONS
Allen B. Coon, Jr., Pasadena, Calif.
Application November 21, 1955, Serial No. 547,894
8 Claims. (Cl. 296—23)



3. A camping apparatus adapted for installation in a station wagon, comprising: a frame structure defining a flat rectangular drawer compartment open at one end; an inner drawer section; an outer drawer section; handle means at opposite sides of each drawer section to facilitate insertion into said drawer compartment; and separable fastener elements at said opposite sides of the drawer sections for rigidly connecting said drawer sections in tandem for movement in unison into and out of said drawer compartment.

2,867,472
VEHICLE BODY SUPPORT FOR ABSORBING HORIZONTAL COMPONENT OF LOADS
William D. Harper, Wellesley Hills, Mass.
Application July 22, 1958, Serial No. 750,127
2 Claims. (Cl. 296—35)



1. In combination with a vehicle body having a side member provided with a horizontal arm and a depending vertical arm, a support between said body and said member, said support including a horizontal portion resting on the horizontal arm of a side member, said horizontal portion having one side thereof projected beyond said vertical arm and curved downwardly and inwardly toward the side member so as to provide a curved portion spaced from the vertical arm, said curved portion being connected to an inwardly inclined portion which terminates in a vertical end portion engageable with the adjacent vertical side of said side member, means for securing said vertical end portion to said side member, said horizontal portion having upwardly projected ends terminating in outwardly and laterally disposed flanges extending in opposite directions, a lubricating cup mounted on said horizontal portion, a lower ball cup within said lubricating cup, means connecting said ball cup to said lubricating cup and the longitudinal portion

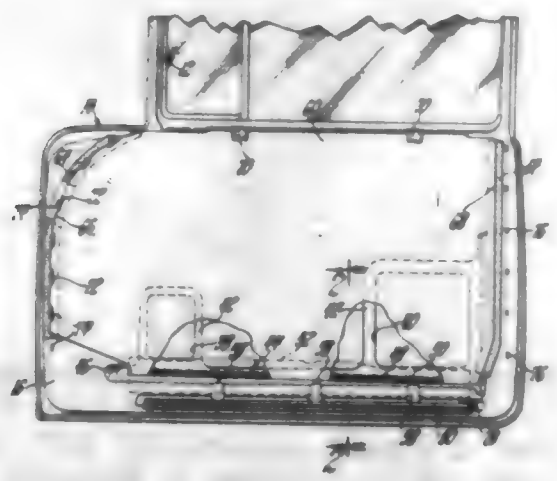
of said lower member, said ball cup having a concave recess in the upper surface thereof, a ball loosely mounted in said recess, said upper plate member having reduced depending end portions terminating in inwardly disposed lateral confronting flanges arranged to be positioned beneath and be overlapped by the flanges on said horizontal portion of the lower member, an inverted annular cup-shaped shield connected to the underside of said plate and spaced inwardly therefrom, an inverted upper ball cup member within said shield, means connecting said inverted cup member and said shield to the underside of said upper plate, said upper cup member having a concave inner surface confronting the concave surface of said lower cup member and engageable with said ball, said plate member having openings adjacent the corners thereof and projecting outwardly beyond the adjacent flanges of the horizontal portion of the lower member, fastening means extending through said openings for connecting said upper plate member to the underside of said body, said openings and said fastening means being positioned between said depending flanges so that the support adjacent the rear end of the body may be positioned as close as possible to said rear end in order to insure optimum distribution of the load, said openings being disposed outside of the adjacent sides of the horizontal plate portion of the lower member so as to be readily accessible for receiving the fastening means or for withdrawing the same from said plate member, and the curved portion of said lower member providing means whereby the ball of each support is located nearly over said vertical arm in order to absorb the gravitational thrust of the weight of the body and thus relieve any tendency of the horizontal arm of the side member to be forced downwardly when the vehicle body is subjected to an excessive load.

2,867,473

VEHICLE BODY PANEL SEALING MEANS

Frank M. Gibson, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 15, 1956, Serial No. 571,779
7 Claims. (Cl. 296—44)



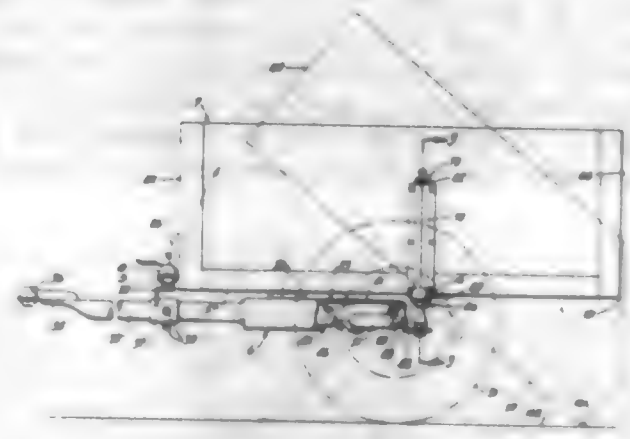
1. The combination comprising, a vehicle door having door inner and outer panels defining a door well, an opening in said door inner panel to provide access to said door well, embossed channel means located adjacent the lower edge of said inner panel and projecting inwardly within said door well, slot means in a wall of said channel means, a flexible member of substantially the size of said inner panel to close said opening, said member having its lower edge portion slidably received within said slot means and being bent laterally to said lower edge portion to lie substantially flush with the plane of said inner panel, and adhesive means releasably securing opposite side edges of said flexible member to said panel to either side of said opening.

2,867,474

DOLLY AND DEMOUNTABLE PART THEREFOR

Frank F. Linn, Oakland, Calif.

Application April 26, 1955, Serial No. 504,825
9 Claims. (Cl. 296—5)



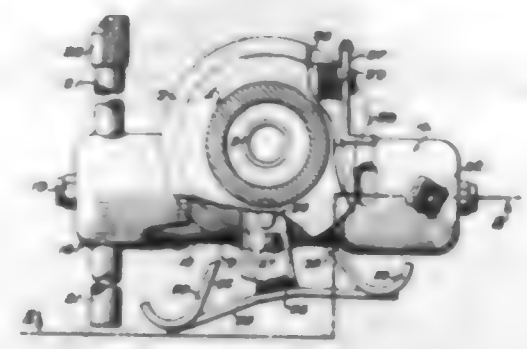
1. A dolly and demountable part therefor comprising, a wheel supported chassis, a plurality of mounting balls carried by said chassis, and a plurality of expandable and contractable ball grasping units carried by said part and positioned for detachable engagement with said balls and each having a manually engageable and displaceable operative handle for effecting quick attachment to and detachment from one of said balls, said balls and units being designed for swivel action, and a pair of said balls and units being arranged to provide rotative displacement of said part on said chassis about an axis connecting said pair of balls.

2,867,475

ROTARY SPRAYING DEVICE

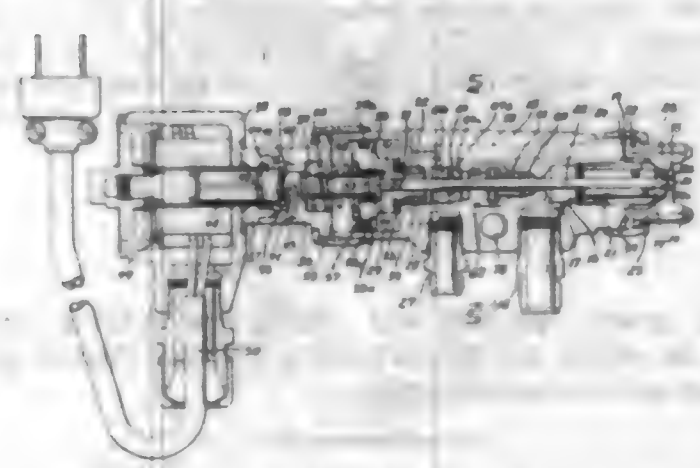
Elpiddfor Paramoneff, Los Angeles, Calif., assignor to C. E. Howard Corporation, South Gate, Calif., a corporation of California

Application December 22, 1955, Serial No. 554,692
9 Claims. (Cl. 299—69)



1. A rotary spraying device, comprising: a tubular supporting means adapted for connection to a source of fluid under pressure; a hollow shaft having spraying means at its extremities including a reaction nozzle to effect rotation of said shaft; a housing structure journaling said supporting means and shaft about transversely related axes, said housing having means defining passageways between said supporting means and shaft; axially directed means at the ends of said shaft disposed in axially overlapping relation with adjacent portions of said housing structure, and ports in said means and housing portions adapted to move intermittently and alternately into registry as said shaft rotates, thereby to produce intermittent jets of fluid; a ratchet carried by said supporting means; a pawl oscillatably mounted on said housing structure to engage said ratchet; and impingement members alternately engaged by said jets of fluid, to effect oscillation of said pawl and advancement of said housing structure about the axis of said supporting means.

2,867,476
SPRAY GUN
John F. Stefen, Detroit, Mich.
Application May 31, 1956, Serial No. 588,475
8 Claims. (Cl. 299—86)



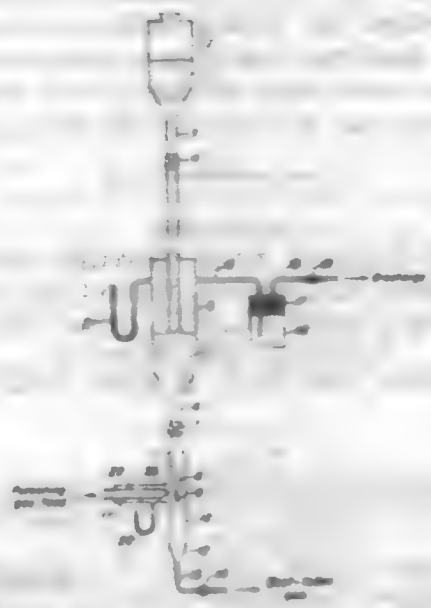
1. A spray gun of the class described, comprising: a body; an outlet nozzle mounted on one end of said body and having an outlet opening for the emission of liquid therefrom; a cylinder on the opposite end of said body; a retainer mounted on said opposite end of said body and forming a closure for said cylinder and having conduit means communicating said cylinder with the atmosphere; said conduit means including a compartment, a first passage communicating said compartment with said cylinder, and a second passage communicating said compartment with the atmosphere; a valve in said compartment for closing communication between said passages; a piston slidably mounted in said cylinder; a spring in said cylinder normally urging said piston in one direction; an inlet port in said body communicating with said cylinder at one side of said piston for conducting air under pressure thereinto, and moving said piston in the opposite direction against the compression of said spring; an inlet port in said body for conducting liquid under pressure into said body for emission through the outlet opening of the said nozzle; a rod in said body having a needle valve at one end for engaging said nozzle and closing said outlet opening; said rod at its opposite end extending through said piston; and, an enlargement on said rod engageable with said piston, upon movement of said piston against the compression of said spring a slight distance for engaging said needle valve and moving said needle valve to open position.

2,867,477
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application December 13, 1955, Serial No. 552,793
15 Claims. (Cl. 301—37)



1. In a wheel structure, a wheel including tire rim and body parts one of which has generally radially extending spaced protuberances disposed generally in a common circle about the axis of the wheel, and a metallic circular cover member having an outer marginal edge portion merging into a dished curved inner portion with shoulder means at the junction of said portions, said outer portion having offset structure providing recesses on the axially outer side of the cover adapted to register with said wheel protuberances, each recess being defined on one of its sides by said shoulder means, said shoulder means being disposed in a circle, common to all said recesses and being resiliently deflectable radially when pressed against said wheel protuberances for entry of said protuberances into said recesses to retain the cover on the wheel and against turning, and lead-in guide means on said cover in axial alignment with at least one of said recesses to aid in the axial alignment of said recess with respect to the associated protuberances, said lead-in guide means including circumferentially spaced pairs of axially inwardly diverging edges with the edges in each of the pairs being spaced circumferentially of one another.

2,867,478
PULSATING COUNTER-FLOW FEEDER
Correll C. Shale, Morgantown, W. Va., assignor to the United States of America as represented by the Secretary of the Interior
Application June 9, 1958, Serial No. 740,983
6 Claims. (Cl. 302—26)
(Granted under Title 35, U. S. Code (1952), sec. 266)



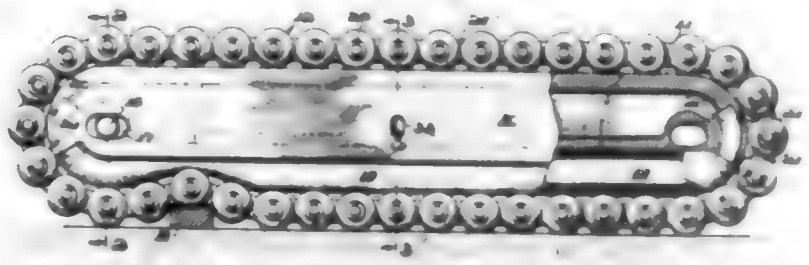
1. A method for entraining finely divided solid particles in a gas stream, which comprises the steps of maintaining a mass of finely divided particles in a packed state in a storage zone, as set forth hereinafter, said storage zone having a vertical conduit zone at the bottom thereof, terminating in a rearwardly extending nozzle portion having an orifice, impinging a pulsating gas jet on said nozzle portion, said gas jet and nozzle portion being enclosed in a pressure zone, the direction of gas flow being so to entrain solid particles flowing from said orifice, said pulsating gas jet having a pressure cycle which varies from a maximum pressure to a minimum pressure, passing a portion of the gas at the period of maximum pressure through the conduit zone at a velocity at least sufficient to maintain the finely divided solid therein in a fluidized condition, and then through the storage zone at a lower velocity, whereby an upper level of solid material in a packed, non-fluidized state is maintained in the storage zone, withdrawing the said gas portion from a region above the solids level in said storage zone, discharging finely divided solids from the nozzle portion during the period of minimum gas pressure, entraining said solid in the gas stream, and removing said solid laden gas stream from the pressure zone.

2,867,479
AIR-BRAKE BLEEDER SYSTEM
Chester Kowalski, Clyde, Ohio
Application September 26, 1955, Serial No. 536,667
4 Claims. (Cl. 303—70)



1. In an air brake system for tractor and trailing vehicles the combination of an auxiliary reservoir, brake cylinder, train line, train line circuit and a triple valve on each said trailing vehicle, and a source of electric current, said system further including: a bleeder valve for said auxiliary reservoir and having an actuator therefor comprising a solenoid connected to said train line circuit, an armature shiftable by said solenoid in one direction when said solenoid is energized, means connecting said armature to said bleeder valve, spring means for shifting said armature in the opposite direction when said solenoid is de-energized, a circuit from said source of electric current including a manually operable switch on said tractor vehicle connected to said train line circuit to energize said solenoids, a second switch in the connection between each solenoid and associated train line circuit operable by the movement of said armature, mechanical means for locking said armature in its solenoid shifted position, and means connected with said train line for selectively releasing said locking means when said train line is in a fully charged condition.

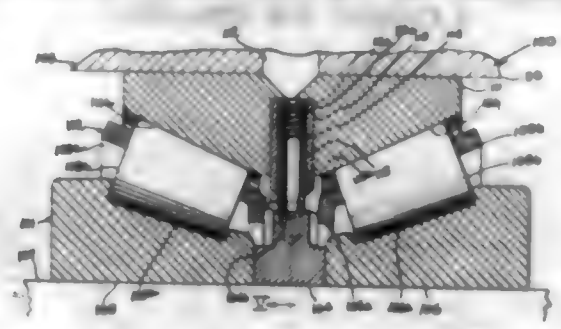
2,867,480
ENDLESS TREAD AND TRACK ASSEMBLY
Walton W. Cushman, Webb City, Mo.
Application October 31, 1957, Serial No. 693,789
3 Claims. (Cl. 305—10)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An endless tread and track assembly for a tractor having, in combination, a track-supporting frame, an endless chain carrying a series of pairs of closely spaced nonmetallic rollers, sprockets rotatably carried by the frame over which said chain travels, at least one of said sprockets being driven, the lower portion of said frame having a pair of closely spaced parallel longitudinal inflatable elastic tubes with which said rollers contact during their travel, means for inflating said elastic tubes, and metal anchoring means attached to the opposite ends of the inflatable elastic tubes to engage with and anchor them to the track-supporting frame.

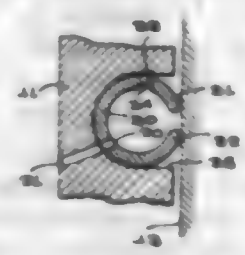
2,867,481
LUBRICATION SYSTEM
Lloyd Hornbostel, Beloit, Wis., assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application October 17, 1955, Serial No. 540,904
8 Claims. (Cl. 308—187)

1. A lubrication system comprising a bearing including a pair of relatively rotatable elements defining a housing and a third rotatable element within the housing engaging both of said pair of elements, a conduit carried by one of said pair of elements, another of said elements rotatable relative to said one element providing an an-



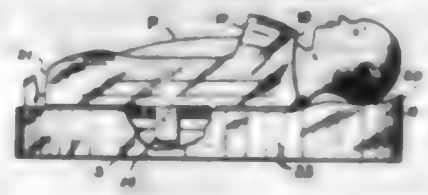
nular groove opposing said conduit and defining therewith an orifice, and means feeding lubricant through said orifice and into said housing.

2,867,482
PISTON RINGS
Joseph J. Schmidt, Willoughby, Ohio
Application January 31, 1958, Serial No. 712,530
5 Claims. (Cl. 309—44)



5. In combination, a cylinder, a piston mounted in said cylinder, said piston being formed with an annular piston ring groove, the wall of said groove being further formed with a substantially smaller annular sub-groove, an annular body of generally C-shaped cross section mounted in said first-named groove and opening outwardly, a rib on said body engaged in said sub-groove, and resilient outer marginal flanges on said body sealingly and yieldably engaged with the inside wall of said cylinder, said piston being formed with an oil passage and the body being formed with an aperture registering with said oil passage.

2,867,483
RESTRAINING DEVICE FOR LIVE BODIES
Eugene Rodin, Hempstead, N. Y.
Application May 10, 1956, Serial No. 584,068
10 Claims. (Cl. 311—5)

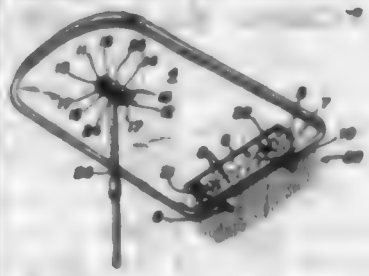


1. A surgical restraining tray for a live body comprising a molded plastic platform having upwardly facing concave portions for receiving said live body therein, and a substantially rigid, molded plastic cover disposed over said platform and including convex body portions in mating relation to opposed portions of the concave portions in said platform, said platform and cover having interengageable means for locking said cover to said platform.

2,867,484
AUTOMOBILE TRAY OR WRITING DESK
Russell D. Jennings, Bridgman, Mich.
Application October 11, 1957, Serial No. 689,687
1 Claim. (Cl. 311—21)

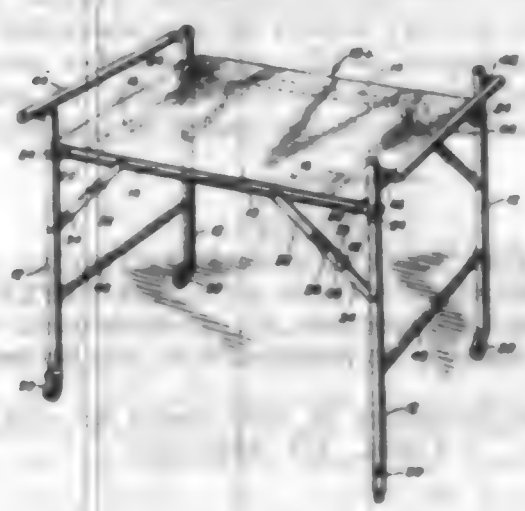
A writing table or desk for motor vehicles comprising a flat rigid member having a top table surface, a bottom

surface and at least one edge subsisting between said bottom and said top surfaces, an elongated right-angle bar having a first member secured to the bottom surface of said rigid member and a second member depending downwardly therefrom parallel to and adjacent said at least one edge, a plurality of bolt-receiving apertures extending through said second member perpendicular to said edge, a plurality of bolts each having a hook end



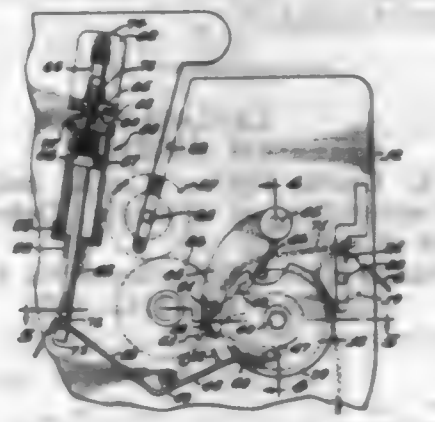
and a threaded end, said bolts being of such a diameter to be capable of being received in said apertures and said hook ends of said bolts being of a width less than the spacing between the bars of a grill in the instrument panel of a motor vehicle, a nut for each of said bolts disposed on the opposite side of said second member from said hook ends of said bolts and a vertically positionable leg engageable with the bottom surface of said rigid member remote from said angle member.

2,867,485
FOLDING STAND
Theodore F. Schmidt, Elmhurst, Ill.
Application May 8, 1957, Serial No. 657,830
5 Claims. (Cl. 311—84)



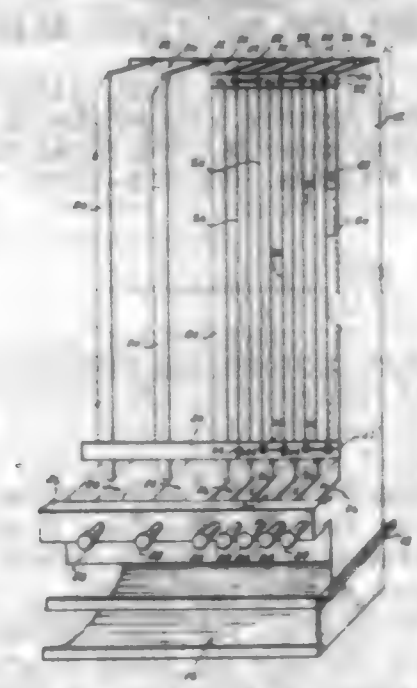
1. In a folding stand, a supporting rectangular top, legs connected at the outer sides of the top near the upper ends of the legs, the connection comprising a hinging plate between each leg and substantially parallel to the side of the top pivoted at one side of the plate to the top and secured to the inside of the leg, the pivot of each plate being angularly offset with respect to the leg and the legs being of a length such that the legs of one end fold against the underside of the top and the legs of the other end fold over and against the first folded legs, the folded legs being substantially parallel to the top and to each other, and locking link means pivoted to each leg at a distance below the hinging plate and to the adjacent outer side of the top at a distance from the end with intermediate pivoted and engaging portions limiting the plate hinging movement of the leg to a supporting extended position at right angles to the top in one direction and to engagement substantially parallel with the under side of the top in the folded direction.

2,867,486
INTERMITTENTLY DISPENSING ROLLER TOWEL CABINET
Manuel Turetz, Los Angeles, Calif.
Application August 16, 1955, Serial No. 528,662
4 Claims. (Cl. 312—38)



1. In an intermittent web feeding device, a rotary mechanism adapted to be rotated by advance of said web thereover, an abutment member mounted on said mechanism for swingable movement relative thereto, an abutment follower member carried by said mechanism for rotation therewith and positioned on said mechanism to engage said abutment member when said abutment member is restrained against rotation in the direction of rotation of said mechanism, a stop member movable between a first position in the path of said abutment member and a second position free of said path, means normally biasing said stop member into said second position, means carried by said mechanism for overcoming said biasing means during rotation of said mechanism and causing said stop member to move into said first position, and means for time delaying the return of said stop member to said second position by said biasing means, whereby the rotation of said mechanism is arrested by engagement of said abutment member by said abutment follower member when said stop means is in said first position and is engaged by said abutment member.

2,867,487
CONTAINERS FOR COLUMNAR MERCHANDISING MACHINE
William T. Kirkpatrick, Madison, N. J., assignor to Rowe Manufacturing Co., Inc., Whippany, N. J., a corporation of New York
Application October 5, 1954, Serial No. 460,430
2 Claims. (Cl. 312—42)



1. In a columnar merchandising machine container having a plurality of columns formed by pairs of ad-

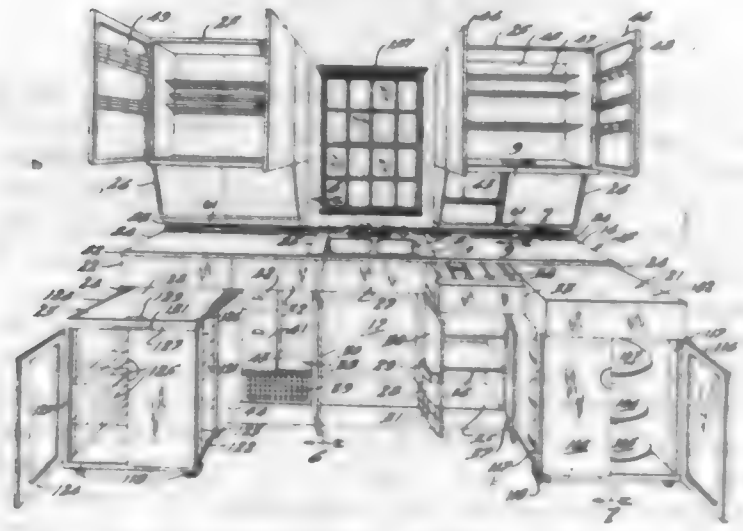
jacent vertically extending panels, a first support mounted adjacent the upper ends of said panels, a second support arranged adjacent the other ends of said panels, a plurality of elongated retainers extending between said supports and formed of a continuous length of elastic material, and bearing means carried by said supports along which said length of elastic material forming said retainers is adapted to slide.

2,867,488

KITCHEN ASSEMBLY

Lurelle V. A. Guild, Darien, Conn., assignor to The Murray Corporation of America, Detroit, Mich., a corporation of Delaware

Application June 2, 1952, Serial No. 291,221
3 Claims. (Cl. 312—107)



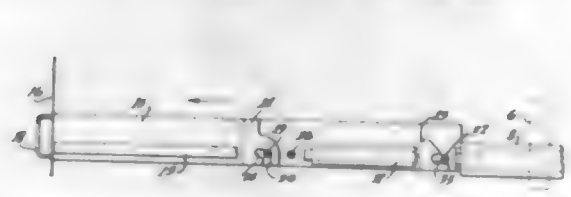
2. A pull-out type of cabinet for a kitchen assembly embodying a cabinet unit which is open at the front, a pull-out unit emboding a frame structure including a floor panel, a rear panel and a top panel, door means for enclosing the front of said frame structure, wheels on the front and rear of said frame structure for permitting the pull-out unit to be drawn outwardly from the front opening in the cabinet unit, shelves provided within said pull-out unit, said shelves being mounted on a central rotatable column permitting the shelves to rotate within the frame structure, and slide elements on said cabinet and pull-out unit for releasably limiting the outward movement of said unit.

2,867,489

MECHANISM FOR ROTATING ELECTRICAL UNITS

Jules Medow, Los Angeles, Calif., assignor to Radio Corporation of America, a corporation of Delaware

Application November 28, 1956, Serial No. 624,927
9 Claims. (Cl. 312—323)



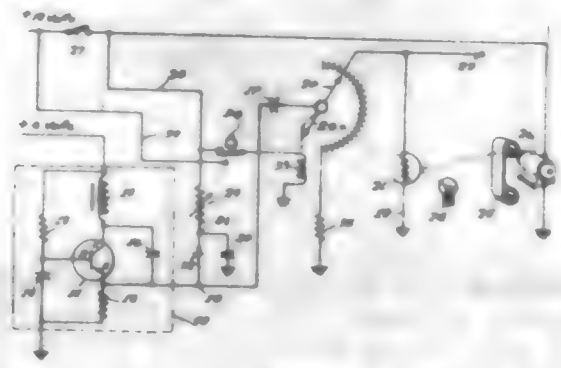
1. A mounting for locking and rotating an electrical unit on movable runners comprising a pair of plates having a groove in each plate and a curved external surface, said groove having two sections at substantially 90 degress to each other, said plates being attached to the sides of said unit near the center of gravity thereof, a pin in each groove of each plate on which said unit is rotatable a predetermined amount, said pins being attached to said runners, means for holding said unit on said pins, and a second pair of pins contacting said curved surfaces when said first-mentioned pins are in the ends of two of said sections of said grooves.

2,867,490

SEQUENCE INDICATOR FOR OSCILLOGRAMS

Thomas Bardeen, Fox Chapel, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application September 29, 1955, Serial No. 537,438
4 Claims. (Cl. 346—49)



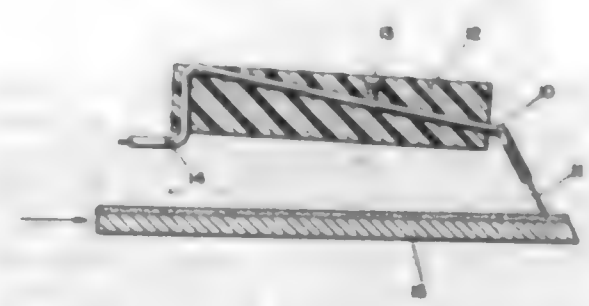
4. Apparatus for sequentially marking successive multichannel recordings that are made on a recorder having a record-motion-control switch, which comprises a Colpitts oscillator having one output terminal connected to ground and including a transistor having an emitter element, a stepping switch, means for actuating said stepping switch concurrently with closure of the record-motion-control switch, means for supplying output signal from said oscillator to said stepping switch, means for connecting each of a plurality of steps of said stepping switch to a different recording channel, a condenser having a first terminal connected to ground, a resistor having a first terminal connected to the second terminal of said condenser and having a second terminal connected to the record-motion-control switch, and a rectifier connected to pass current from the common terminal of said condenser and said resistor to the emitter of said transistor.

2,867,491

STYLUS FOR RECORDING ELECTRICAL IMPULSES ON CARBON COATED PAPER

Miles E. Nelson, Philadelphia, Pa., assignor to the United States of America, as represented by the Secretary of the Army

Application November 28, 1956, Serial No. 623,510
1 Claim. (Cl. 346—74)



An improved stylus and mounting therefor for use with recording apparatus of the type employing a heat sensitive record sheet, said improvement comprising a stainless steel rod, a terminal at one end of said rod to which an electric current source is connected, a tungsten rod one end of which is swaged into the other end of said stainless steel rod, the other end of said tungsten rod being rounded to allow for smooth movement over said heat sensitive record sheet without danger of tearing or digging in, and a block of non-conductive material for holding said stainless steel rod and tungsten rod.

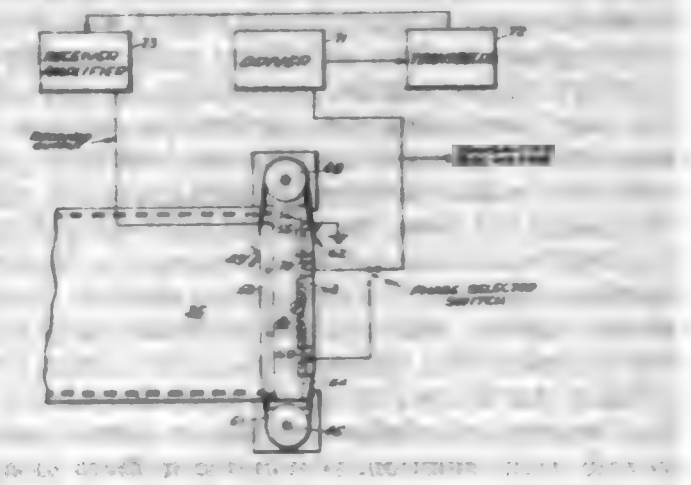
2,867,432

DEPTH SOUNDER KEYING AND WRITING APPARATUS

Gilbert A. Horsman, Sharon, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application March 28, 1957, Serial No. 649,287
11 Claims. (Cl. 346—74)

1. A keying and writing apparatus comprising in combination a pair of pulley wheels, an endless belt carried by said wheels, means for rotating said belt by rotatably energizing said wheels, electrically-conductive stylii carried by said belt and spaced a fixed distance apart, an electrically-conductive member disposed in the rotational path of said stylii and in contact with each one of said stylii over a portion of their rotational path, an electrically-conductive contact disposed in the path of one of said stylii over a portion of its rotating path, said contact being electrically short-circuited to said conductive member during the rotational path of one of said stylii, and the other of said stylii being electrically connected to said member at a predetermined position thereon at the instant of said short circuit and for a predetermined period thereafter during its rotational path.



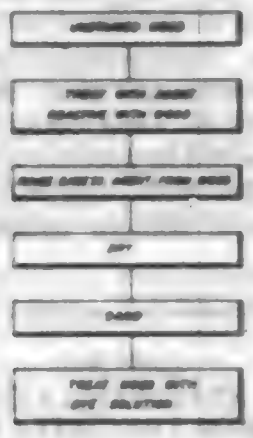
CHEMICAL

2,867,493

ACTIVATION OF WOOD FOR DYEING ACID DYESTUFFS

Herman R. Nack, Troy, Ohio, assignor to Chadeloid Corporation, Dayton, Ohio, a corporation of Delaware

Original application November 6, 1951, Serial No. 255,102, now Patent No. 2,733,119, dated January 31, 1956. Divided and this application June 27, 1955, Serial No. 521,212
5 Claims. (Cl. 8—6.5)



3. In a process of staining wood with a dye, the step of initially chemically treating the surface of the unstained wood by the application thereto of an aqueous solution of a salt selected from the group consisting of an oxidizing water-soluble salt and a water-soluble reducing salt, and thereafter contacting the thus treated wood surface with a dye to stain the same, said dye being selected from the group consisting of an acid dyestuff and a basic dyestuff, and wherein said acid dyestuff is applied to wood pretreated with said reducing salt and said basic dyestuff following pretreatment of the wood with said oxidizing salt.

2,867,494

METHOD OF METALLIZING AZOIC DYEINGS

Clemens Streck, Londonville, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 2, 1956
Serial No. 601,658
12 Claims. (Cl. 8—42)

1. The process of metallizing azoic dyeings which comprises impregnating a fibrous material selected from the class consisting of cotton and regenerated cellulose with an alkaline solution of an azoic coupling component, a coordinating agent selected from the class consisting of aliphatic amino- and hydroxy-carboxylic acids, and a metallizing compound of the group consisting of soluble and dispersible salts of copper, cobalt, and nickel, and then treating the impregnated fiber with a diazo solution, in which the diazo is free from solubilizing groups, and simultaneously dyeing and metallizing in situ by treatment at elevated temperatures with an aqueous medium having a pH of not more than 7, the said azoic coupling component and the said diazo yielding an o, o'-dihydroxy configuration in the final dyestuff.

2,867,495

PROCESS FOR PRODUCING CHLOROTRIFLUOROETHYLENE FIBERS

Robert L. Myers, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application May 11, 1953
Serial No. 354,398
10 Claims. (Cl. 18—54)

3. The process for the production of mono-filaments from chlorotrifluoroethylene homopolymers having a softening point above about 210° C. which comprises the steps of preparing a mixture of finely divided chlorotrifluoroethylene homopolymer in a liquid organic solvent boiling below 140° C., said polymer being of a small particle size, placing said mixture in a closed container provided with a needle valve having a small orifice, heating said mixture to a temperature above the boiling point of the organic solvent, so that super-atmospheric pressure is developed, and below the polymer degradation temperature until a solution of polymer in said organic solvent is effected, opening said valve and permitting the dissolved polymer to extrude through said orifice into air as a substantially solvent free mono-filament, and heating said mono-filament to eliminate the voids therein, thereby producing a filament of smaller diameter than said first-mentioned mono-filament.

2,867,496

PROCESS FOR THE RECOVERY OF ZINC SULPHATE FROM SOLUTIONS OF ZINC SULPHATE AND MAGNESIUM SULPHATE

Edwin Holroyd Sharples, Kenilworth, England, assignor to Courtaulds Limited, London, England, a British company

No Drawing. Application December 3, 1954
Serial No. 473,052
Claims priority, application Great Britain January 6, 1954
3 Claims. (Cl. 18—54)

1. In a process for the production of viscose rayon wherein viscose is extruded into a coagulating bath containing sulphuric acid, sodium sulphate and zinc sulphate

to form filaments, the filaments are withdrawn from the coagulating bath and are stretched in a hot acid stretching bath containing sulphuric acid, spent liquid is collected from the coagulating bath and treated with lime containing magnesia to form an effluent mud: a method for the recovery of zinc sulphate comprising the steps of treating the mud containing zinc hydroxide, calcium sulphate, magnesium hydroxide and ferrous hydroxide with dilute sulphuric acid to dissolve the zinc hydroxide and ferrous hydroxide and leave the calcium sulphate undissolved, removing the calcium sulphate, treating the filtrate with an oxidising agent to convert ferrous sulphate to ferric sulphate, treating with calcium carbonate until a chemical test indicates that the solution is free from ferric iron, filtering the mixture to obtain a solution of zinc sulphate and magnesium sulphate, adding powdered calcium carbonate to the solution, heating the mixture to a temperature within the range of 65° to 95° C. to precipitate the zinc as a basic zinc carbonate and leave the magnesium sulphate in solution, removing the precipitated material and dissolving it in sulphuric acid to produce a zinc sulphate solution substantially free from magnesium sulphate.

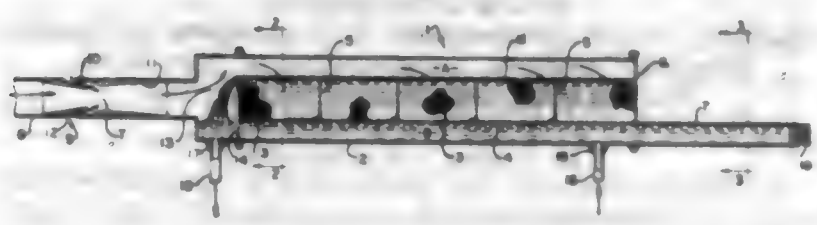
2,867,457

METHOD OF CATALYTICALLY PURIFYING EXHAUST GASES AND REGENERATING THE CATALYST UTILIZED THEREIN

Eugene J. Houdry, Ardmore, and Willard R. Calvert, Ridley Park, Pa., assignors to Oxy-Catalyst, Inc., a corporation of Pennsylvania

Application March 28, 1955, Serial No. 497,116

8 Claims. (Cl. 23—2)



5. A method for the purification of exhaust gases from engines using leaded gasoline, involving the simultaneous removal of lead compounds therefrom and the catalytic oxidation of oxidizable constituents thereof which comprises the steps of flowing said exhaust gases and air through a purifier containing a bed of relatively small pellets of oxidation catalyst, maintaining said bed at an elevated temperature such as to insure the catalytic oxidation of the oxidizable constituents thereof, while at the same time collecting in said bed a substantial portion of the lead compounds present in the exhaust gases, continuing the operation of said purifier until the accumulation of said lead compounds substantially effects the activity of the oxidation catalyst, and periodically flowing through the purifier in contact with said catalyst bed an aqueous solution of the reagent capable of dissolving and thereby removing said lead compounds without dissolving or damaging said catalyst, draining and then flushing said bed with water, effecting drying of said wet catalyst by operating the engine and passing the hot exhaust products mixed with air through said wet catalyst thereby effecting partial drying and concomitant partial activation thereof by means of the sensible heat content of said exhaust gases, continuing the flow of exhaust gases and air through said partially activated catalyst thereby effecting catalytic oxidation of a portion of the oxidizable constituents of said gases thereby rapidly completing the drying and activation of the remainder of said catalyst bed.

2,867,458

METHOD FOR THE SEPARATION OF LITHIUM ALUMINUM HYDRIDE FROM ALUMINUM HYDRIDE

John S. Roscoe, Tonawanda, N. Y., and George W. Schaeffer, St. Louis, Mo., assignors, by mesne assignments, to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application June 15, 1955, Serial No. 515,726

3 Claims. (Cl. 23—14)

1. A method for the separation of lithium aluminum hydride from aluminum hydride in admixture therewith, the aluminum hydride being present in an amount less than about 10% by weight, which comprises contacting the mixture of lithium aluminum hydride and aluminum hydride with a molar amount, based on the moles of aluminum hydride and lithium aluminum hydride present, of a lower tertiary alkyl amine while the reactants are in admixture with a lower dialkyl ether thereby forming a precipitate consisting of 1:1 molar of addition product the lithium aluminum hydride and the lower tertiary alkyl amine, and separating the precipitate from the reaction mixture.

2,867,499

CONVERSION OF SODIUM TETRACHLOROALUMINATE TO SODIUM ALUMINUM HYDRIDE

Carl D. Good, Niagara Falls, and Howard D. Batha, Grand Island, N. Y., assignors, by mesne assignments, to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application March 22, 1956

Serial No. 573,301

3 Claims. (Cl. 23—14)

1. A method for the conversion of sodium tetrachloroaluminate to sodium aluminum hydride which comprises reacting the sodium tetrachloroaluminate with a lower dialkyl ether containing not more than 3 carbon atoms in each alkyl radical, the ether being maintained in liquid phase, to form an addition product of aluminum chloride and the lower dialkyl ether and thereafter reacting said addition product with sodium hydride to form sodium aluminum hydride.

2,867,500

METHOD FOR REMOVING CONTAMINATION FROM PRECIPITATES

Glenn W. Stahl, Waynesboro, Va., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application September 7, 1951

Serial No. 245,637

11 Claims. (Cl. 23—14.5)

1. A method for removing uranium fission products from a bismuth phosphate carrier precipitate which has carried the same from aqueous solution therewith, which comprises washing the precipitate with an aqueous solution of ammonium hydrogen fluoride.

2,867,501

VOLATILE CHLORIDE PROCESS FOR THE RECOVERY OF METAL VALUES

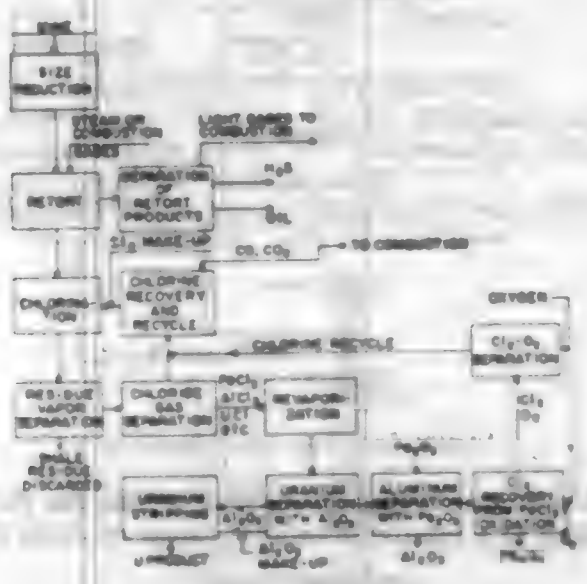
William R. Hanley, Bronx, N. Y., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application June 6, 1956, Serial No. 589,839

10 Claims. (Cl. 23—145)

2. A method of separately recovering uranium, aluminum and iron from Chattanooga shale which comprises heating the shale without sintering at a temperature to remove a substantial portion of the organic matter, reacting the heated shale with a chlorinating agent selected from the group consisting of phosgene, carbon tetrachloride, chlorine and a mixture of chlorine and sulfur monochloride to form a volatilized stream of inorganic chlo-

rides, passing said volatilized stream to a condensation zone at a temperature in the range 100 to 300° C. to remove metal chlorides volatile in said condensation zone, and to condense the chlorides of uranium, iron and aluminum, revolatilizing the condensed chlorides at a temperature in the range 600 to 1000° C., passing said revolatilized chlorides into contact with granular alumina to



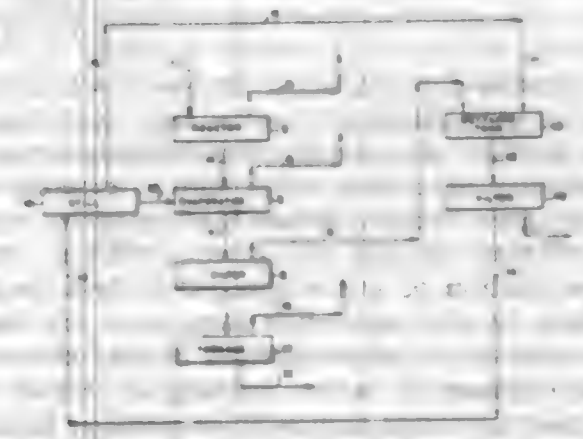
selectively react uranium with said alumina, passing the remaining volatilized chlorides from said alumina into contact with ferric oxide to selectively deposit aluminum on said bed and reacting the chloride stream passing from said oxide bed with oxygen to convert the ferric chloride to ferric oxide and chlorine and recycling the thus formed chlorine.

2,867,502

PRODUCTION OF AMMONIUM PENTABORATE AND BORIC OXIDE FROM BORAX

Hugo Stange, Niagara Falls, and Sheldon L. Clark, Tonawanda, N. Y., assignors, by mesne assignments, to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application August 16, 1954, Serial No. 449,922
8 Claims. (Cl. 23—59)



3. A method for the production of boric oxide which comprises thermally decomposing ammonium pentaborate.

2,867,503

COBALT AND NICKEL RECOVERY USING CARBON DIOXIDE LEACH

Tubis Kumar Roy, Elizabeth, N. J., assignor to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 10, 1954
Serial No. 435,930
5 Claims. (Cl. 23—61)

1. A process for selectively recovering at least one metal value selected from the group consisting of cobalt and nickel from a mixture of alkaline solids containing at least one acid-soluble compound of said metal value and of at least one diluent metal selected from the group consisting of iron and aluminum, which process consists essentially of: treating an aqueous slurry of said mixture and water with carbon dioxide gas at a temperature in the range of from about 15° to about 35° C., under superatmospheric pressures, whereby at least a part of said metal value is selectively dissolved from said mixture; maintaining said pressure with carbon dioxide until said metal value is substantially completely dissolved; then while maintaining resultant slurry under at least sufficient pressure to prevent precipitation of said dissolved metal value, separating resultant solution from residual undissolved solids; then at least partially pressure-relieving the resultant separated solution, whereby carbon dioxide is released from the pressure-relieved solution and a precipitate is obtained in which the mol ratio of metal values to diluent metal is increased over that in said mixture; removing released carbon dioxide and collecting said precipitate.

2,867,504

PREPARATION OF POTASSIUM POLYPHOSPHATE

Peter William Brett Semmens, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, Millbank, London, England, a corporation of Great Britain

No Drawing. Application January 30, 1956
Serial No. 562,038
Claims priority, application Great Britain
January 20, 1956
5 Claims. (Cl. 23—106)

1. A process for the preparation of water-insoluble potassium polyphosphate which comprises heating an intimate mixture comprising ammonium dihydrogen orthophosphate and potassium chloride at a temperature between 200° C. and 300° C., for approximately one hour, and thereafter heating said mixture at a temperature of about 700° C. for about two hours.

2,867,505

PRODUCTION OF ALUMINA

Herman S. Bloch, Skokie, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application November 21, 1955
Serial No. 548,240
3 Claims. (Cl. 23—143)

1. A process for producing substantially pure alumina which comprises reacting water with metallic aluminum of at least 99.5% purity in the form of subdivided solid particles at a temperature of at least 250° F. but below 482° F. at a sufficient pressure to maintain a liquid phase of water.

2,867,506

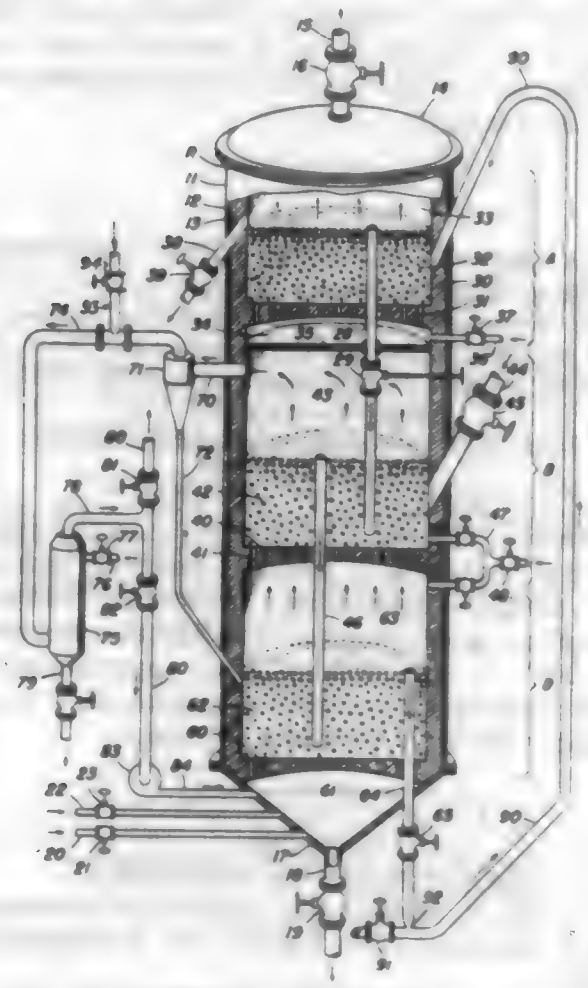
PRODUCING SULPHUR DIOXIDE GAS

Elliott J. Roberts, Westport, Conn., assignor to Dorr-Oliver Incorporated, Stamford, Conn., a corporation of Delaware

Application July 18, 1956, Serial No. 598,598
1 Claim. (Cl. 23—177)

The process for producing sulfur-dioxide gas which comprises establishing a first mass of finely divided solids in a first reaction zone, maintaining said mass of solids at a temperature sufficient to effect reaction between finely divided iron sulfide solids and ferric oxide solids but below the sintering temperature of solids in the mass, establishing a second mass of finely divided solids in a second reaction zone, maintaining said second mass of solids at a temperature sufficient to effect reaction between iron sulfide and free oxygen but below the sintering temperature of solids in said second mass, rendering both of said masses of solids as turbulently mobilized fluidized beds by passing a stream of gas at solids fluidizing velocities upwardly through the second mass of solids thence up-

wardly through the first mass of solids and discharging said gas from said first mass of solids, introducing finely-divided iron sulfide solids and ferric solids into said first mass of solids in proportions sufficient to effect partial desulfurization of the iron sulfide by reaction with ferric oxide to yield substantially pure sulfur dioxide gas while concomitantly forming unoxidized elemental sulfur vapor, discharging said pure sulfur-dioxide gas along with said unoxidized sulfur vapor from said first mass of solids in said uprising gas stream, transferring partially desulfurized solids from said first mass of solids into the second mass of solids, introducing a free oxygen bearing gas into the uprising gas stream passing through the second



mass of solids in an amount sufficient to oxidize substantially all of the sulfur therein to sulfur-dioxide but insufficient to oxidize sulfur to sulfur trioxide thereby producing sulfur-dioxide gas and sulfur free solids, discharging such solids from the second mass, discharging the sulfur-dioxide gas from the second mass in said uprising gas stream and flowing it to the first mass of solids; said process being characterized in that additional free oxygen is introduced into the gases discharged from said first mass of solids in an amount sufficient to oxidize sulfur therein to sulfur-dioxide but insufficient to oxidize said sulfur to sulfur trioxide and a portion of said gases is introduced into said second mass of solids as the uprising gas stream passing through both of said masses.

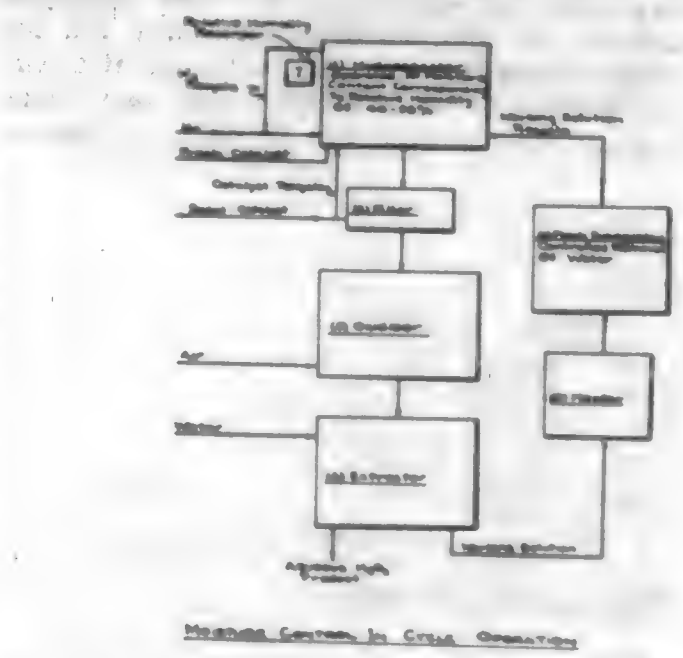
2,867,507

HYDROGENATION OF ALKYLANTHRAQUINONES

Willard S. Gleason, Jr., Lewiston, N. Y., and Jerome W. Sprauer, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application May 8, 1958, Serial No. 733,988
7 Claims. (Cl. 23—207)

1. In a process for producing hydrogen peroxide involving alternately hydrogenating an alkylanthraquinone and oxygenating the resulting alkylanthrahydroquinone to regenerate said alkylanthraquinone and simultaneously produce hydrogen peroxide, the improvement comprising effecting said hydrogenation in the presence of a catalyst comprising metallic palladium on an activated alumina support while maintaining the water content of



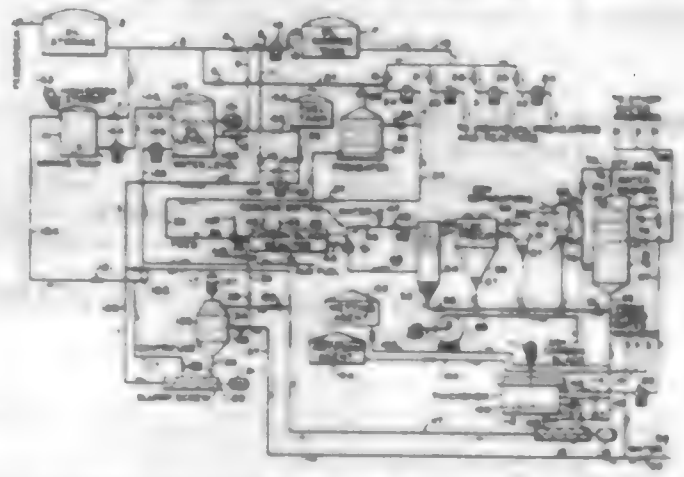
the hydrogenator system at a value within the range corresponding to a relative humidity range of 40 to 98%.

2,867,508

PROCESS FOR PRODUCING CARBON BLACK

James Q. Wood and Lyle W. Pollock, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application January 3, 1952, Serial No. 264,788
12 Claims. (Cl. 23—209.4)



1. A process for producing carbon black comprising the steps of pyrochemically converting a feed comprising a major portion of normally liquid hydrocarbon and a minor portion of carbon black into a gaseous effluent comprising gases and dry carbon black particles suspended in said effluent, cooling said gaseous effluent, removing the major portion of said suspended carbon black from said effluent by dry separation steps as a dry flocculent powder, removing a minor portion of said carbon black from said effluent by water washing a portion of said effluent to remove said carbon black particles in the form of an aqueous slurry, at least partially dewatering said slurry, mixing said at least partially dewatered slurry with a liquid and returning the resulting mixture to a pyrochemical conversion step.

2,867,509

DIRECT COLOR TEST EMPLOYING DIISONITROSOACETONE

Valentine J. Fischer, Newark, N. J., and Jacob I. Miller, Baltimore, Samuel Saxe, Edgewood, and Benjamin Witten, Baltimore, Md., assignors to the United States of America as represented by the Secretary of the Army

No Drawing. Application November 8, 1956
Serial No. 621,184
1 Claim. (Cl. 23—230)

A method for the detection of a substance selected from the group consisting of isopropyl methylphosphono-

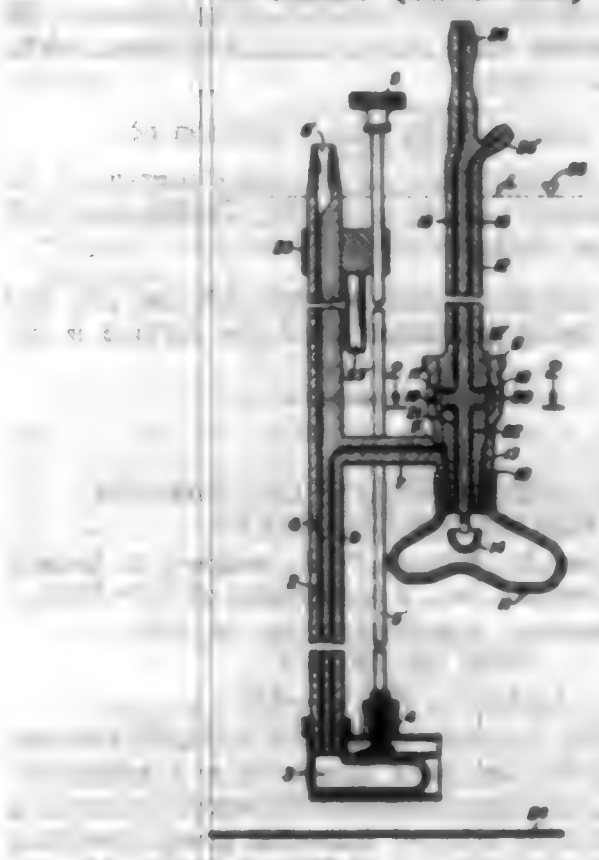
fluoridate, ethyl dimethylphosphoroamidocyanidate, pinacolyl methylphosphonofluoridate, cyclohexyl methylphosphonofluoridate, diisopropylphosphofluoridate, tetraethyl pyrophosphate, para-oxon, and parathion, which comprises reacting said compound under alkaline conditions with a compound selected from the group consisting of diisonitrosoacetone and the amine and alkali metal salts thereof.

2,867,510

MANOMETRIC APPARATUS

Franz Josef Zapp, Homburg (Saar), Saarland, assignor, by mesne assignments, to Will Corporation, Rochester, N. Y., a corporation of New York

Application November 5, 1956, Serial No. 620,485
10 Claims. (Cl. 23—253)



1. Apparatus, including a manometer, for measuring pressure in a reaction vessel, characterized by the fact that the manometer and the reaction vessel are connected by a sleeve which has a ground internal bore and by a stopper which has a ground external surface fitting into said bore and which is rotatable therein, said reaction vessel being mounted on the lower end of said sleeve, said sleeve having two angularly-spaced grooves extending longitudinally over a portion of the inside of its bore, and said stopper being provided with two pairs of axially-extending capillary ducts, one pair of said capillary ducts extending to the lower ends of the stopper and opening at their lower ends into the reaction vessel, said one pair of capillary ducts ending at their upper ends at the periphery of stopper and opposite said grooves, the other said pair of said capillary ducts ending at their lower ends at the periphery of said stopper and opposite said grooves, whereby said grooves may connect said two pairs of capillary ducts in one position of rotary adjustment of said stopper, said stopper having two diverging mouth pieces along its height and the ducts of said other pair of capillary ducts extending to the ends of said mouthpieces.

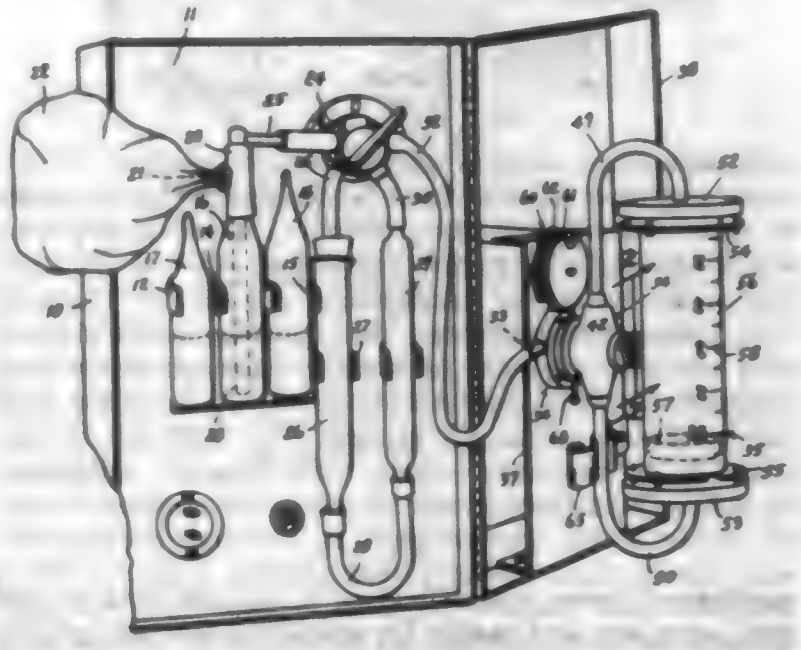
2,867,511

APPARATUS FOR MEASURING ALCOHOL CONTENT OF GASES

Rolla N. Harger, Indianapolis, Ind., assignor to Indiana University Foundation, Bloomington, Ind., a corporation of Indiana not for profit

Application July 29, 1955, Serial No. 525,311
9 Claims. (Cl. 23—254)

1. Apparatus for measuring the alcoholic content of human breath, comprising a collapsible non-elastic container for holding a sample of breath under atmospheric pressure, means coupled to said container for removing any alcohol contained in said breath and color changeable to a predetermined degree in response to a predetermined amount of alcohol, a metering pump coupled to said alcohol-removing means for drawing breath from said container through said means, said pump having a transparent cylinder of fixed length and normally disposed vertically, a measuring scale on the outer surface of said cylinder, a gravity movable piston therein for drawing a fixed quantity of breath through said means during each downward stroke, means for supporting said cylinder in a vertical plane for rotation about a horizontal axis whereby said cylinder may be rotated 180°



at a time to cause repeated strokes of said piston, said supporting means comprising a rotatable two-way valve coupled to each end of said cylinder for opening the lower end thereof to atmosphere and the upper end thereof to said alcohol-removing means whereby said pump may be operated through successive strokes to measure the amount of breath necessary to produce said color change, and a valve coupled between said alcohol removing means and said two way valve for stopping flow of gas into said cylinder and for stopping motion of said piston at points intermediate the ends of said scale to provide fractional strokes of said piston and fractional volume readings on said scale corresponding to the stopped positions of said piston.

2,867,512

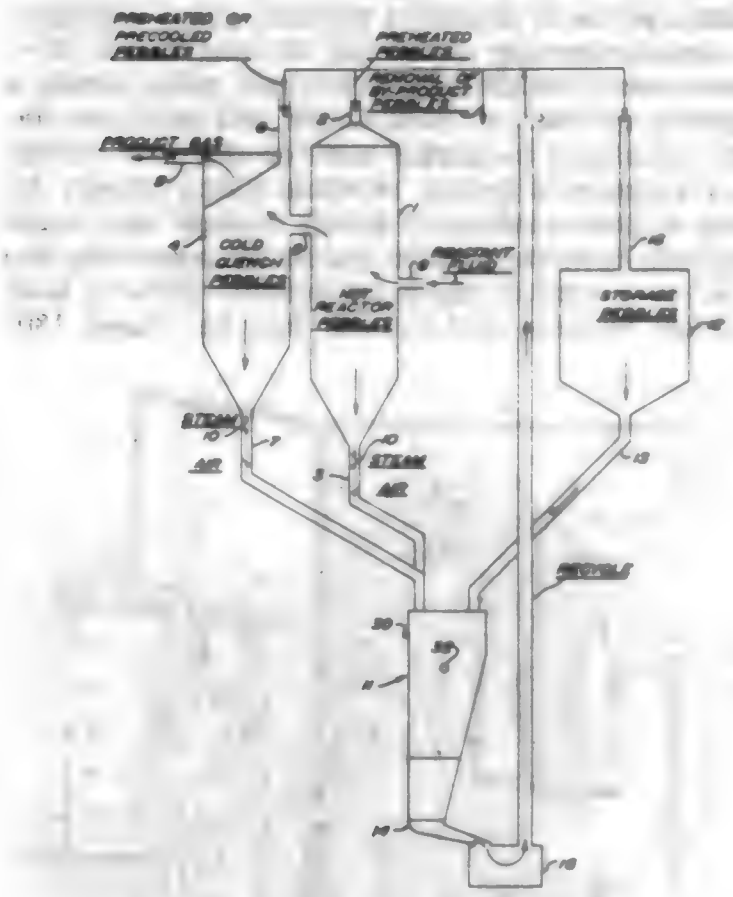
PEBBLE HEAT EXCHANGE APPARATUS

Theodore F. Loughry and Robert M. Escott, Toledo, Ohio, assignors to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio

Application April 15, 1955, Serial No. 501,656
5 Claims. (Cl. 23—284)

1. Heat treating apparatus comprising, in combination: a first container for hot pebbles; means for heating the pebbles in the first container; a second container for cold pebbles; means for delivering pebbles from a common stream to said first and second containers; a proportioning unit forming a chamber having a vertical partition dividing said chamber into first and second open topped and open bottomed compartments; a first pipe means for delivering a moving mass of pebbles from said first container to said first compartment; second pipe means for delivering a moving mass of pebbles from said second container to said second compartment; a discharge spout connected to the bottom of said chamber for discharging a moving mass of pebbles therethrough; means for withdrawing pebbles from said spout at a sufficiently slow rate to maintain a moving bed of pebbles in said containers, pipe means, and chamber; adjustable

means adjacent the bottom of said partition for proportioning the rates of flow of pebbles through said com-



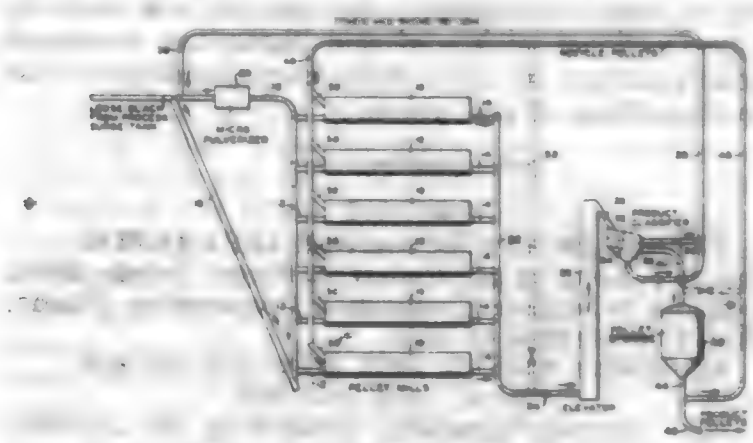
partments; means for delivering a reactant fluid to said first container; and means for delivering reaction product fluid from said first container to said second container.

2,867,513

PROCESS AND APPARATUS FOR PELLETING

Lyndon D. Boyer, Norman, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application January 19, 1956, Serial No. 560,166
17 Claims. (Cl. 23—314)



1. A process for pelleting powdered pelletable material which comprises pelleting said material in a plurality of rotating pellet mills; collecting effluent pellets from said mills in a common mass; recycling a portion of the pellets from said mass to each of said mills; and recovering another portion of pellets from said mass as product.

10. Apparatus for pelleting powdered pelletable material comprising in combination a plurality of separate, independently rotatable pelleting mills each having a feed line leading into one end and an effluent pellet line leading from the other end; common pellet collecting means connected with each said effluent line; and pellet recycle conveyor means connecting said common pellet collecting means to the feed end of each said mill.

2,867,514

METHOD OF DEOXIDIZING AN ALUMINUM SURFACE

Nelson J. Newhard, Jr., Oreland, and James H. Thirsk, Meadowbrook, Pa., assignors to Amchem Products, Inc., a corporation of Delaware

No Drawing. Application September 12, 1955
Serial No. 533,983
4 Claims. (Cl. 41—42)

1. The method of treating an aluminum surface which consists in subjecting the surface to the action of an aqueous acid solution consisting essentially of hexavalent chromium and fluoride, the quantity of hexavalent chromium being from 10 to 100 grams per liter and the quantity of fluoride being sufficient to give a bath activity at least as great as a solution of:

Chromic acid	grams	30
48.8% hydrofluoric acid	milliliters	0.25
Water, to make 1 liter.		

but having no more activity than a solution of:

Chromic acid	grams	30
48.8% hydrofluoric acid	milliliters	1
Water, to make 1 liter.		

the pH of the solution being between 0.5 and 1.0, and the treatment being continued until the surface is deoxidized.

2,867,515

FUEL OIL COMPOSITIONS CONTAINING FORMALDIMINE SALTS

Harry J. Andress, Jr., Pitman, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Application May 10, 1955
Serial No. 507,479
6 Claims. (Cl. 44—63)

1. A distillate fuel oil containing a small amount, sufficient to inhibit the color formation and sedimentation in said oil, of a formaldimine salt formed by reacting (A) a formaldimine selected from the group consisting of (1) a formaldimine of the general formula $(RN{=}CH_2)_2$, where R is a normal primary aliphatic hydrocarbon radical containing from about 8 to about 18 carbon atoms and (2) a formaldimine of the general formula $RN{=}CH_2$, where R is a tertiary alkyl radical containing from about 4 to about 24 carbon atoms and which is linked to the nitrogen atom through a tertiary carbon atom thereof, with (B) an acidic organic compound selected from the group consisting of carboxylic acids, phenols, thiophenols and thiols, the carboxyl, hydroxyl and thiol radicals in said compound being in all instances attached to an otherwise unsubstituted hydrocarbon radical, at a temperature of from about 50° C. to about 175° C., the proportions of formaldimine used in the reaction being about ½ mole per equivalent weight of the acidic organic compound when the formaldimine corresponds to the formula $(RN{=}CH_2)_2$ and about 1 mole per equivalent weight of the acidic organic compound where the formaldimine corresponds to the formula $RN{=}CH_2$.

2,867,516

PROCESS FOR BURNING GASEOUS FUELS

Charles John Pedersen, Salem, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 18, 1954
Serial No. 450,794
4 Claims. (Cl. 48—197)

1. A process for reducing the smoking tendencies of a flame produced in the combustion of gaseous hydrocarbon fuels with oxygen, which comprises incorporating into the gaseous fuel-oxygen mixture 1 part by weight of a volatilizable dicyclopentadienyliron compound per 20

to 2000 parts by weight of the gaseous fuel, the amount of oxygen employed being at least that theoretically required to effect complete combustion of the fuel.

2,867,517
DETONATOR COMPOSITIONS

David T. Zebree, Kingston, N. Y., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 31, 1956
Serial No. 631,467
19 Claims. (Cl. 52—2)

12. As a new blasting initiator composition, a finely divided ignition mixture consisting essentially of lead and tellurium and as an additive component at least one additive selected from the group consisting of magnesium, aluminum, silicon, sulfur and phosphorus in an amount sufficient to reduce the burning time of said composition.

2,867,518
DETONATOR COMPOSITIONS

David T. Zebree, Kingston, N. Y., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 31, 1956
Serial No. 631,469
20 Claims. (Cl. 52—2)

1. As a blasting initiator composition, an ignition mixture of lead and tellurium containing a metal salt of a long chain fatty acid in an amount sufficient to decrease the burning time of said lead and tellurium but less than that which completely desensitizes the said composition to ignition, whereby spread in burning time of said lead and tellurium is also decreased.

2,867,519
HERBICIDAL GREASE COMPOSITION

Jeffrey H. Bartlett, Westfield, William H. Brugmann, Jr., Middlesex, and Arnold J. Morway, Clark, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 19, 1955
Serial No. 553,718
6 Claims. (Cl. 71—2.6)

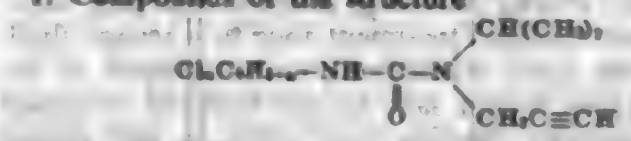
1. A herbicidal grease composition having an unworked penetration value of at least 27.5 mm. which comprises a mineral oil base normally having a viscosity of about 50 to 2000 SSU at 100° F., said oil base being thickened by a herbicidal thickener finely dispersed therein to form said grease composition, said thickener comprising the combination of 0.5 to 10 wt. percent, based on the oil base, of a herbicidal salt of a halogenated aryloxy compound having an aliphatic acid substituent of 1 to 3 carbon atoms and about 3 to 50 wt. percent, based on the oil, of a soap selected from the group consisting of alkali and alkaline earth metal soaps of C_{12} to C_{20} fatty acids.

2,867,520
1-(CHLORARYL) 3-ALKYL 3-ALKYNYL UREA

David J. Beaver, Richmond Heights, Philip C. Hamm, Webster Groves, and Paul J. Stoffel, St. Louis, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application November 23, 1956
Serial No. 623,759
6 Claims. (Cl. 71—2.6)

1. Compounds of the structure



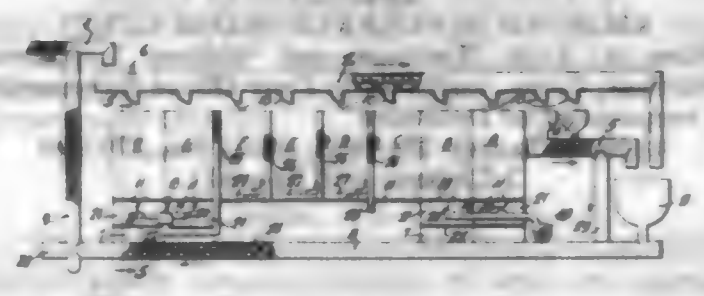
wherein $Cl_nC_6H_{5-n}$— is a chlorine substituted phenyl radical free of substituents ortho to the nitrogen atom and where n is a whole number from 2 to 3.

5. A herbicidal composition comprising an inert carrier, and as the essential active ingredient a compound of claim 1 in an amount sufficient to exert herbicidal action.

2,867,521
SIMULTANEOUS AEROBIC AND ANAEROBIC COMPOSTING PROCESS

George A. Jeffreys, Salem, Va.

Application March 3, 1955, Serial No. 491,980
20 Claims. (Cl. 71—8)



1. A process for composting organic waste materials which comprises subjecting waste material having a minimum pH of about 7, a water content within the range of about 40 to 70% and a temperature substantially below about 45° C. to the predominant action of mesophilic bacteria while aerating only predetermined spaced portions within the mass of material, whereby only said portions within the material are aerated, until the temperature of the mass by virtue of the active growth of the mesophilic bacteria rises above about 45 to 50° C., then subjecting the mass to the predominant action of thermophilic bacteria at temperatures above about 45 to 50° C. while aerating only predetermined spaced portions within the mass of material, whereby only said portions within the material are aerated, until substantial decomposition of the waste material has taken place aeration of the predominantly mesophilic and predominantly thermophilic bacterial stages being accomplished by perforating the mass of material at spaced intervals to form continuous air channels open at two surfaces of the mass and permitting air to circulate through said channels, both obligate aerobic and obligate anaerobic bacteria proliferating actively and simultaneously during said mesophilic and thermophilic bacterial phases, within the body of the material then subjecting the material to the predominant action of actinomycete organisms while aerating the material substantially throughout its mass.

2,867,522
METHOD FOR PRODUCING FERTILIZERS AND BASES FROM SLUDGES

Leroy Henry Facer, Phelps Township, Ontario County, N. Y., assignor, by mesne assignments, to Glenn C. Cooley, Schenectady, N. Y., Warren Dunham Foster, Ridgewood, N. J., and Halfdan Grepersen, New York, N. Y., trustees

No Drawing. Application April 23, 1951
Serial No. 222,536
27 Claims. (Cl. 71—37)

1. A process of manufacturing a mixed phosphatic fertilizer which also contains nitrogen, potash and magnesium and is low in chlorine which comprises passing gas from the destructive distillation of coal through a bath of sulphuric acid, the ratio of said sulphuric acid to the ammonia of the gas being such as to produce a first acidic sludge, mixing potassium chloride and sulphuric acid in proportions to evolve hydrogen chloride and to form a second acidic sludge, the amount of sulphuric acid being substantially greater than that which is necessary to produce the amount of hydrogen chloride which is evolved, mixing said first and second acidic sludges ground phosphate rock and ground dolomite in proportions to convert the insoluble magnesium of the lime-

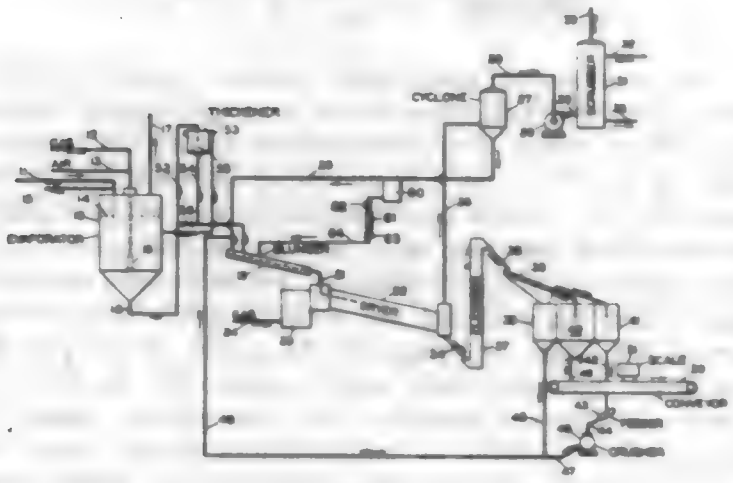
stone to a soluble form and the unavailable phosphate of the rock to available forms, the concentration of said acid being such as to supply not more than the amount of water required in the acidulation reaction and the amount necessary to furnish substantially the full amount of water of crystallization for the completely hydrated product and the above operations being carried out in the absence of external heat, and curing said mixture.

2,867,523

AMMONIUM SULFATE PRODUCTION

William A. Lutz, Westport, and William T. Marston, Fairfield, Conn., assignors to Dorr-Oliver Incorporated, a corporation of Delaware

Application July 28, 1953, Serial No. 370,694
2 Claims. (Cl. 71—61)



1. In the process for producing granular ammonium sulfate particles wherein such particles are produced by concentrating and thickening an ammonium sulfate solution to yield a magma of fine ammonium sulfate crystals, subjecting the resulting magma to agitation in an agitation zone to which fine substantially dry ammonium sulfate crystals are added in an amount sufficient to maintain an optimum moisture content sufficient to promote agglomeration of said crystals into relatively larger granules but insufficient to promote sticking together of the resulting relatively larger granules on subsequent drying, removing granules from said agitation zone, drying said removed granules, and classifying said granules into an intermediate product size fraction as well as an undersize and an oversize fraction, the undersize and oversize fractions constituting the source of dry crystals added to said agitation zone; the improvement enabling maintenance of a relatively higher moisture content in said agitation zone while increasing the yield of said intermediate product size granules therein, comprising adding ammonium hydroxide to the ammonium sulfate magma introduced into said agitation zone.

2,867,524

SULFATE LIQUOR TREATMENT

Melvin C. Chang, Mount Lebanon, Pa., assignor to Crucible Steel Company of America, Pittsburgh, Pa., a corporation of New Jersey

No Drawing. Application July 25, 1957
Serial No. 674,052
1 Claim. (Cl. 75—.5)

In the pickling of steel, a cyclic process for regenerating the acid values in the spent liquor from the pickling bath and producing finely divided iron powder therefrom, with consumption of a gaseous reducing agent only, which comprises the steps of contacting the ferrous sulfate and sulfuric acid containing spent pickle liquor with a gaseous chlorinating agent selected from the group consisting of hydrogen chloride, carbonyl chloride and mixtures thereof to form additional sulfuric acid and a ferrous chloride precipitate, separating the ferrous chloride precipitate from the more concentrated sulfuric acid solution, recirculating the acid solution to the pickling bath, contacting the separated ferrous chloride precipitate with a gaseous reducing agent selected from the group consisting of hydrogen, carbon monoxide, coke oven gas and mixtures of hydrogen and carbon monoxide between about 900 and 1300° F. to form iron powder and the aforementioned gaseous chlorinating agent, recirculating the chlorinating agent to the pickle liquor treating step, and removing the iron powder from the system.

2,867,525

AGGLOMERATING FINELY DIVIDED ALUMINUM SMELTING MIXTURES

Hirsch Loevenstein, Salem, Oreg., assignor to Harvey Machine Co., Inc., Terrance, Calif., a corporation of California

No Drawing. Application August 1, 1955
Serial No. 525,770
6 Claims. (Cl. 75—3)

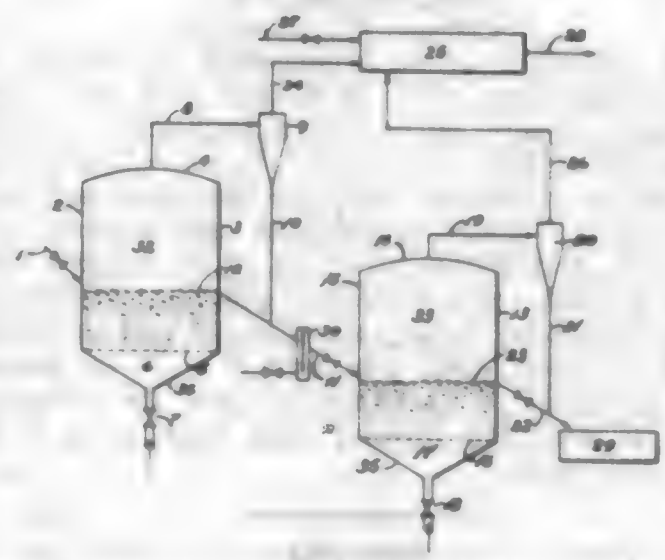
1. The process of agglomerating finely divided, aluminum-containing minerals preliminary to smelting which comprises providing the aluminum-containing mineral in admixture with from 10 to 60% lime, mixing with the mineral and lime a plasticizing quantity of water, and forming the resulting plastic mixture comprising mineral, lime and water into aggregates of predetermined size and shape, whereby the resulting aggregates will not disintegrate before subsequent smelting thereof, percent being expressed as precent by weight of the dry mixture.

2,867,526

METHOD FOR REMOVING ARSENIC FROM ARSENOPYRITE ORES

Thomas D. Heath and Norbert G. T. Holle, Westport, Conn., assignors to Dorr-Oliver Incorporated, Stamford, Conn., a corporation of Delaware

Application March 14, 1957, Serial No. 646,864
9 Claims. (Cl. 75—9)



1. A method for roasting pyrite ores containing arsenic comprising the steps of autogenously roasting said ores in an oxygen deficient atmosphere in a first fluidized treatment zone to produce volatile arsenic products, sulfur gases and partially roasted iron sulfides, removing said volatilized arsenic products from said first treatment zone with the exiting fluidizing gases, discharging solids from said first fluidized treatment zone to a second fluidized treatment zone, maintaining an atmosphere of excess free oxygen within said second fluidized treatment zone, autogenously roasting said solids in said second treatment zone to produce ferric oxide and sulfur dioxide, discharging roasted solids from said second fluidized treatment zone, conducting said exiting gases from said

first treatment zone to a dust separator, the improvement which comprises: maintaining said dust separator at temperatures in excess of the condensation temperature of said volatilized arsenic products contained in said exiting gases, conducting solids separated in said dust separator to said second treatment zone, conducting effluent gases from said dust separator to a combustion chamber, introducing sufficient free oxygen bearing gases into said combustion chamber to oxidize substantially all volatile arsenic products contained in said effluent gases to solid arsenic compounds and all elemental sulfur and sulfide sulfur in said effluent gases to sulfur dioxide, transferring the combustion products comprising sulfur dioxide and solid arsenic compounds from said combustion chamber to a gas scrubbing stage to effect separation of said solid arsenic compounds from the gaseous sulfur dioxide, whereby substantially arsenic free sulfur dioxide is recovered and the iron content of said pyrite ores containing arsenic is recovered as ferric oxide substantially free of arsenic and suitably conditioned for blast furnace feed.

2,867,527

PROCESS OF SIMULTANEOUSLY PRODUCING CALCIUM METAL AND A SILICON-ALUMINUM ALLOY

Jean Lucien Andrieux and Etienne Bonnier, Grenoble, France

No Drawing. Application September 20, 1956
Serial No. 610,902
Claims priority, application France October 5, 1955
3 Claims. (Cl. 75—67)

1. A process of simultaneously producing calcium metal and a silicon-aluminum alloy, which comprises heating a mixture of aluminum-calcium alloy and silicon-calcium alloy in an inert atmosphere at a temperature of 1300–1400° C. at a pressure of 0.1 to 1 micron of mercury to distill off calcium and produce a molten residue of silicon-aluminum alloy, condensing and recovering the calcium, and recovering the silicon-aluminum alloy.

2,867,528

METHOD OF PRODUCING COPPER METAL POWDER

David J. I. Evans, Edmonton, Alberta, and Steve Romanchuk, Fort Saskatchewan, Alberta, Canada, assignors to Sherritt Gordon Mines Limited, Toronto, Ontario, Canada, a company of the Province of Ontario

No Drawing. Application November 21, 1957
Serial No. 697,780
6 Claims. (Cl. 75—109)

1. In a method of producing copper metal powder from aqueous solutions and slurries which contain dissolved salts of copper and at least one of the metals of the group consisting of nickel and cobalt by reacting such solutions and slurries in a reaction vessel with a sulphur-free reducing gas at elevated temperature and pressure whereby dissolved copper values are reduced to and precipitated from the solution as copper metal powder; the improvement which comprises conducting the reducing reaction in a cycle of reducing steps in which, following initial precipitation of copper metal particles and prior to the final step of the cycle, a charge of fresh solution is reacted with said reducing gas in a step of the cycle in the presence of previously precipitated copper metal particles until the solution is substantially depleted of dissolved copper values; each step of the cycle comprising agitating and heating the charge of fresh solution at a temperature within the range of from about 200° F. to about that at which the reducing reaction is conducted prior to the introduction of the reducing gas until dissolution of dissolved metals of the group consisting of nickel and cobalt is obtained; reacting said solution with a sulphur-free reducing gas until the solution is substantially depleted in dissolved copper values; discharging reacted solution from the reaction vessel; and, in the final step of the cycle, terminating the reducing reaction prior to precipitation from the solution of a metal of the group consisting of nickel and cobalt; and thereafter separating and recovering product copper metal powder of high purity from the final step of the cycle.

2,867,529

PROCESS FOR RECOVERING PRECIOUS METALS FROM REFRACTORY MINERALS

Frank A. Forward and Wei Cheng Liu, Vancouver, British Columbia, Canada, assignors to Sherritt Gordon Mines Limited, Toronto, Ontario, Canada, a company of the Province of Ontario

No Drawing. Application August 5, 1957
Serial No. 676,376
5 Claims. (Cl. 75—118)

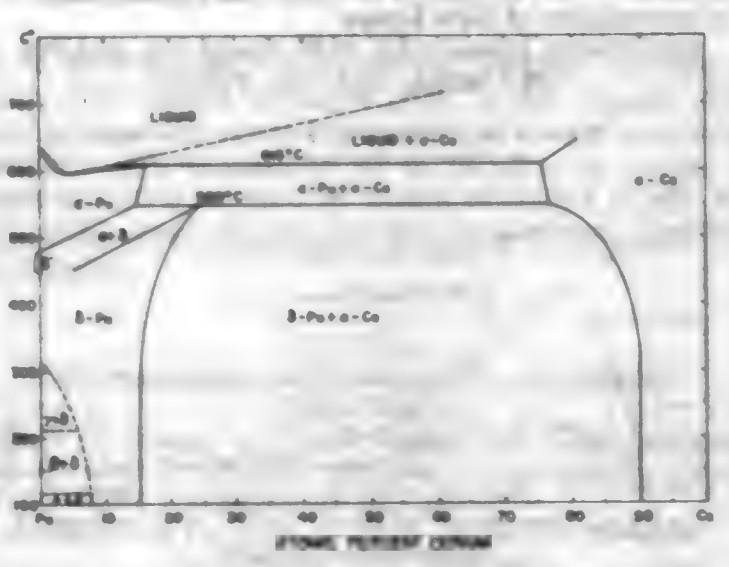
1. The method of treating a refractory, metal bearing material which contains sulphur, at least one precious metal, and at least one metal or metalloid compound of the group consisting of lead, arsenic and antimony, which comprises roasting the metal bearing material in comminuted state in a non-oxidizing atmosphere and at a temperature above about 900° F. but below the fusion temperature of the particles to remove at least part of at least one member of the group consisting of arsenic and antimony by distillation, removing treated metal bearing particles from the roasting step and dispersing them in an aqueous medium of the group consisting of water and aqueous acid sulphate solution to form a slurry, agitating and reacting the slurry with a free oxygen bearing gas at a temperature within the range of from about 200° F. to about 375° F. and under a partial pressure of oxygen above about 10 pounds per square inch to convert at least a portion of the sulphur contained in the metal bearing material to elemental sulphur in the form of liquid sulphur globules with occluded metal bearing particles, converting liquid sulphur globules to solid sulphur pellets, separating solid sulphur pellets from the slurry, re-cycling sulphur pellets and occluded metal bearing material to the roasting step of the method, and recovering precious metals from the undissolved, oxidized residue from the slurry.

2,867,530

PLUTONIUM-CERIUM ALLOY

Arthur S. Coffinberry, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application August 29, 1957, Serial No. 681,149
2 Claims. (Cl. 75—122.7)



1. An alloy for a neutronic reactor fuel consisting essentially of from 5 to 90 atomic percent cerium and the balance plutonium.

2,867,531

CORROSION-RESISTANT LOW ALLOY STEEL

James C. Holzwarth, Birmingham, and Robert F. Thomson, Grosse Pointe Woods, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

No Drawing. Application January 31, 1957
Serial No. 637,376
7 Claims. (Cl. 75—123)

1. A corrosion-resistant low alloy steel comprising about 0.03% to 1% carbon, 0.25% to 1.5% manganese, 0.05% to 0.8% molybdenum, 0.02% to 0.5% arsenic, 0.02% to 0.5% antimony, 0.04% to 0.25% tin, and the balance substantially all iron.

2,867,532

WEAR RESISTANT ALLOY STEEL

Peter Payson and David L. Dilworth, Jr., Pittsburgh, Pa., assignors to Crucible Steel Company of America, Pittsburgh, Pa., a corporation of New Jersey

No Drawing. Application January 16, 1957
Serial No. 634,408
6 Claims. (Cl. 75—126)

1. A forgeable and wear resistant alloy steel containing about: 1.65 to 2.75% carbon, from more than 5% to 6.5% chromium, 2 to 5% vanadium, 1.75% to 5% molybdenum, up to 1% manganese, up to 1.5% silicon, up to 1.5% tungsten, up to 0.5% sulfur, and the balance substantially iron, characterized in being hardenable to a minimum of C 62 Rockwell in sections up to about four inches round, on air cooling from about 1800° F.

2,867,533

METHOD FOR OVERCOMING EMBRITTLEMENT OF STEEL ALLOYS

Leroy E. Fink, Beaverton, Oreg., assignor to Electric Steel Foundry Company, Portland, Oreg., a corporation of Oregon

No Drawing. Application September 23, 1957
Serial No. 685,415
2 Claims. (Cl. 75—130.5)

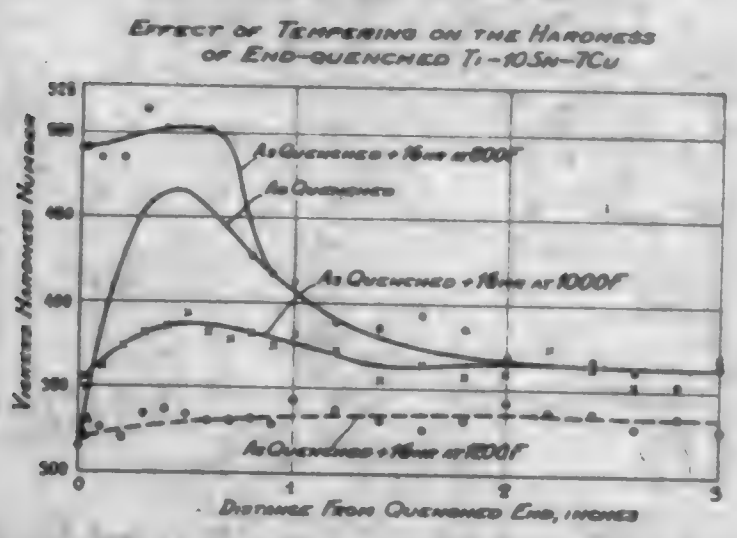
2. In a process for preventing "hot shortness" in an austenitic cast stainless steel alloy, the steps of heating the alloy to bring it to a molten state and then adding to the molten alloy vanadium and titanium simultaneously, the proportion of the vanadium being .05 to .25%, and of the titanium .01 to .15%.

2,867,534

TITANIUM BASE ALPHA DISPERSOID ALLOYS

Robert I. Jaffee, Worthington, and Horace R. Ogden, Columbus, Ohio, assignors, by mesne assignments, to Crucible Steel Company of America, Flemington, N. J., a corporation of New Jersey

Application January 23, 1957, Serial No. 635,705
26 Claims. (Cl. 75—175.5)



1. An alloy consisting essentially of about: 0.5 to 23% of at least one alpha promoter selected from the group consisting of aluminum, tin, antimony and zirconium, but not to exceed 12% aluminum and 19% antimony, 0.5 to 20% of at least one active eutectoid beta promoter selected from the group consisting of copper, nickel, cobalt, silicon and beryllium, but not to exceed 12% of nickel and cobalt, 3% of silicon and 2% of beryllium, balance substantially titanium, characterized in being materially hardened and strengthened on heating above the critical temperature, until a beta-containing microstructure is obtained and thereupon rapidly cooling to a temperature substantially below the critical.

2,867,535

PROCESS FOR DRYING NON-CRYSTALLIZABLE SUGAR MOLASSES

Moises Salcedo Vega, Colonia del Valle, Mexico, assignor to Sucro-Mel Sociedad Anonima, Mexico City, Mexico, a corporation of Mexico

No Drawing. Application January 4, 1957
Serial No. 632,425
3 Claims. (Cl. 99—6)

1. A process for the production of non-hygroscopic dry products from molasses which comprises thoroughly mixing a mixture of 8 to 12% sodium stearate, 45 to 55% calcium oxide, 4 to 6% ethyl alcohol and 25 to 35% water with molasses, the quantity of such mixture admixed with the molasses being about 20 to 25 g. per unit of molasses having a dry solids content corresponding about to that of 1000 grams of molasses of a specific gravity of 85° Brix at 20° C., and then spray drying such admixture.

2,867,536

FLAVOR-CONTAINING DRINKING STRAW

Bruce Ronald Mead and Charles Robert Mead, Los Angeles, Calif., and Robert Harding, Rayleigh, England

Application June 10, 1954, Serial No. 435,736
Claims priority, application Great Britain May 7, 1954
8 Claims. (Cl. 99—138)

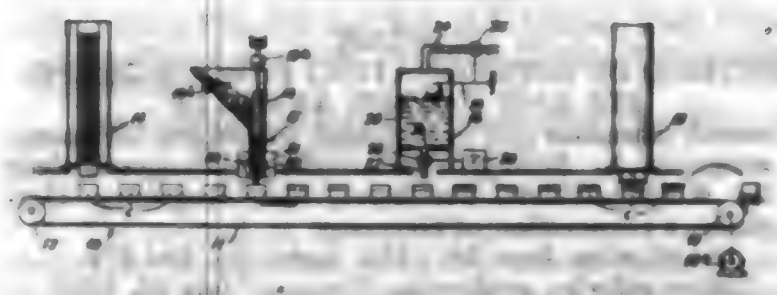


1. A drinking straw comprising an outer tube of non-consumable material, an inner tube spaced from and extending axially along the outer tube and having an uninterrupted through bore, means integral with one of said tubes engaging locating and retaining in relation to itself the other tube in position to maintain an annular chamber between the two tubes extending for a major portion of the length of the straw, and a filling of soluble flavouring material in said annular chamber.

2,867,537
PROCESS FOR PRODUCING CREAMED COTTAGE CHEESE

Randall Whitaker, Sayville, N. Y., assignor, by mesne assignments, to National Dairy Products Corporation, New York, N. Y., a corporation of Delaware

Application September 26, 1955, Serial No. 536,399
5 Claims. (Cl. 99—178)



4. In a process for preparing and packaging creamed cottage cheese, the steps of depositing a quantity of dry cheese curd into a container while substantially preserving the initial curd particle size, depositing a quantity of cream into the container, sealing the container, and inverting the container.

2,867,538
PROTECTIVE BACKING COMPOSITIONS FOR MIRRORS

Arthur Bienenfeld, Chicago, Ill.

No Drawing. Application June 27, 1955
Serial No. 518,357
1 Claim. (Cl. 106—14)

A sprayable composition for the protective backing for the silver coating of a mirror consisting essentially of 48% of paraffin, 5% of triethanolamine to provide an emulsifier resulting in wide dispersion of the wax, 1% of phenol to provide a stabilizer and preservative to maintain proper suspension of the wax and to protect it against deteriorating influences and 46% of water, said composition having been agitated into an emulsion, said emulsion sprayable with a compressed air type of spray gun on the silver coating of a mirror for regular and uniform application, said water adapted to evaporate to leave the applied backing hard, durable and moisture-repellent, to protect the silver coating from moisture and other corrosive effects in the atmosphere.

2,867,539
PHTHALOCYANINE PIGMENTS

Robert E. Bremiliard, Westfield, and Leon Katz, Springfield, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 7, 1955
Serial No. 551,528
21 Claims. (Cl. 106—288)

1. A blue phthalocyanine pigment composition consisting essentially of a copper phthalocyanine and about 0.5 to 5% of an alkaline earth metal salt of sulfonated zinc phthalocyanine, containing about 1.25 to 2.5 sulfonic acid groups per zinc phthalocyanine molecule by weight of said copper phthalocyanine.

2,867,540
MODIFIED CARBON BLACK PRODUCT AND PROCESS

Darrel Melvin Harris, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

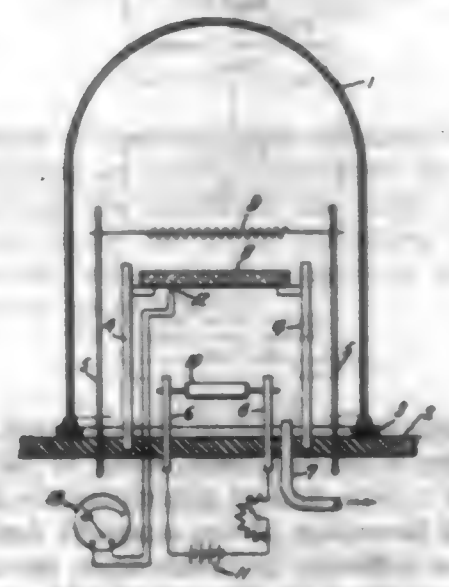
No Drawing. Application December 30, 1955
Serial No. 556,444
10 Claims. (Cl. 106—307)

1. A process for the improvement of carbon black which comprises mixing carbon black with 0.15 to 7.5 percent by weight of an amine, calculated as percent nitrogen, the said amine having from 2 to 18 carbon atoms, and heating the said mixture to a temperature of from 50° C. to 350° C. in the presence of oxygen.

2,867,541
METHOD OF PREPARING TRANSPARENT LUMINESCENT SCREENS

Henry D. Coghill, Burnt Hills, and Lewis R. Koller, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

Application February 25, 1957, Serial No. 641,985
13 Claims. (Cl. 117—33.5)

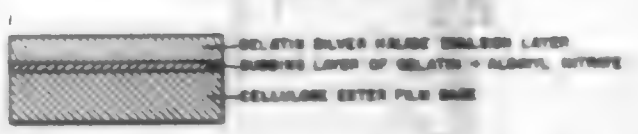


1. The method of preparing a transparent luminescent screen which method comprises the steps of vacuum evaporating upon a transparent substrate a first crystalline layer of phosphor host material, vacuum evaporating upon the crystalline layer a second amorphous layer of the same phosphor host material, and heat-treating the layers in a reducing and activating atmosphere to cause the activation and crystallization of the second layer.

2,867,542
GELATIN ADHESIVE LAYERS

Lodewijk Felix De Keyser, Mortsel-Antwerp, and Lodewijk August Van Dessel, Wilrijk-Antwerp, Belgium, assignors to Gevaert Photo-Producten N. V., Mortsel-Antwerp, Belgium, a Belgian company

Application May 24, 1955, Serial No. 510,844
Claims priority, application Belgium May 26, 1954
4 Claims. (Cl. 117—34)



4. A photographic light-sensitive material including a gelatin silver halide emulsion layer, a film support of a cellulose ester of a lower fatty acid, and a layer consisting essentially of a mixture of 90 to 10 parts by weight of gelatin and 10 to 90 parts by weight of alginyl nitrate, the last named layer uniting the first named layer and the film support.

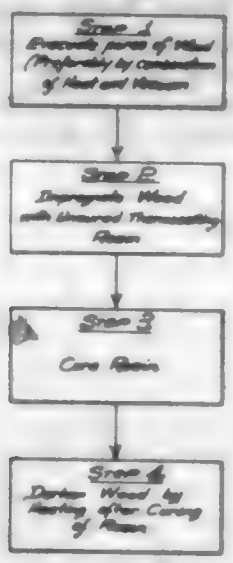
2,867,543
WOOD IMPREGNATING AND COLORING PROCESS

William H. Braun, Jr., North Hollywood, Calif., assignor to Western Sealant Development Corporation, Culver City, Calif., a corporation of California

Application October 22, 1956, Serial No. 617,224
14 Claims. (Cl. 117—46)

1. The method of producing an impregnated darkened wooden member that comprises evacuating air and volatile constituents from the pores of a piece of wood by heating the wood and subjecting it to a vacuum, then immersing

said wood in a body of uncured thermosetting resin in liquid form, applying pressure to said resin and thereby forcing the resin into the pores of the wood, removing said wood from the body of resin with some of the resin retained in the pores of the wood and coating the surface of the wood, heating said wood and carried resin and thereby curing the latter to a hardened polymerized form,



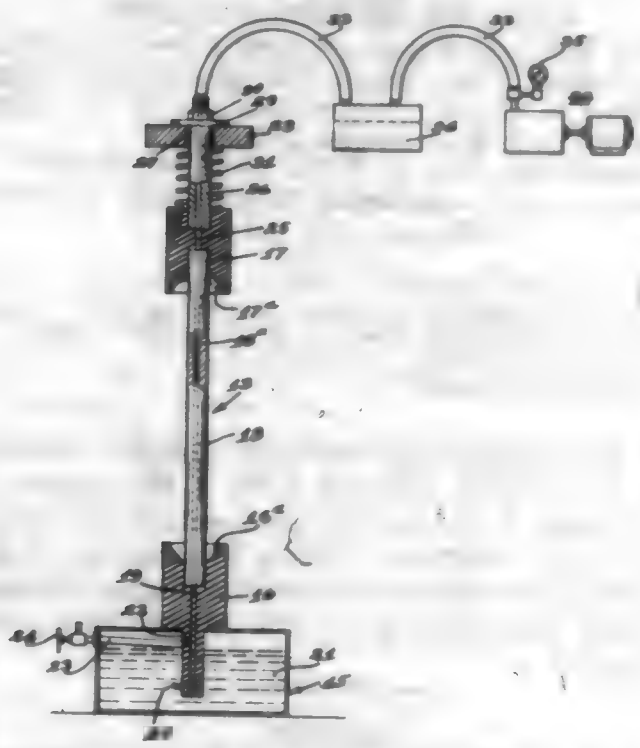
and then continuing the heating of said wood and carried resin after the latter has been cured to said hardened form and for a time and at a temperature sufficient to visibly darken the color of the wood by heat after said curing but not sufficient to break down the cured resin, said cured resin being transparent to allow the darkened grain of the wood to be visible therethrough.

2,867,544

METHOD AND APPARATUS FOR COATING THE INTERIOR SURFACES OF SMALL DIAMETER GLASS TUBING

Lynn O. Hall, Jr., Vineland, N. J., assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application February 23, 1956, Serial No. 567,340
5 Claims. (Cl. 117—97)



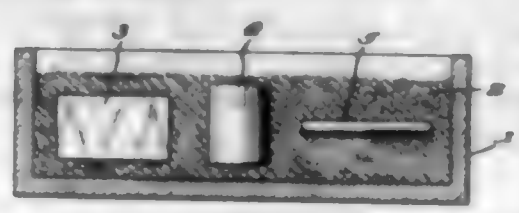
1. The method of coating the interior surface of an open ended glass tube with a continuous film of paint or the like material to impart relatively permanent color to the tube, which consists in effecting communication between one end of the tube and a source of supply of the coating material in liquid flowable form, exhausting the air from said tube via the other open end to thereby cause flow of the material to the interior of said tube and effecting communication between the lower end of the tube and the atmosphere to terminate flow of the coating material from the source of supply into said tube prior to complete filling of the tube with said material while continuing the removal of air from said other end of the tube whereby the coating material already delivered to said tube is in part distributed over the theretofore uncoated interior surface and any excess material is removed through said open end by suction.

2,867,545

METHOD OF IMPREGNATING POROUS GRAPHITE AND CARBON ARTICLES

Heinrich Hammon and Leo Mudel, Meitingen, Germany, assignors to Siemens-Planiawerke Aktiengesellschaft für Kohlefabrikate, Meitingen, near Augsburg, Germany, a corporation of Germany

Application June 29, 1956, Serial No. 594,878
Claims priority, application Germany July 22, 1955
1 Claims. (Cl. 117—162)



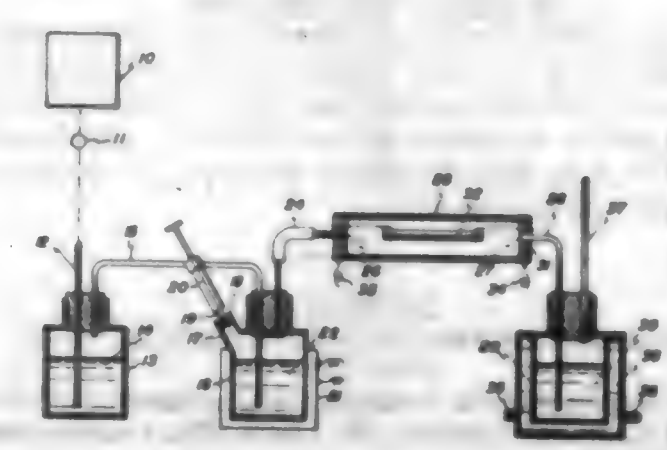
1. A method of treating shaped porous carbonaceous articles, impregnated with a hardenable thermosetting synthetic resin, to preserve desired surface characteristics of the article, comprising taking the article directly after impregnation thereof with the synthetic resin and embedding it in a mass of loosely packed absorbent carbonaceous powder of a material having properties corresponding substantially to the properties of the material forming the article and capable of removal therefrom after such treatment, heating said absorbent powder so as to heat said article for the purpose of effecting hardening of the synthetic resin while said article is so embedded, the size of the particles of such powder being on the order of about 1 to 2 mm., whereby the synthetic resin on the surface of the article is deposited on the particles of such powder and thus removed from the surface of the article, thereby preventing formation of a synthetic resin film on such surface.

2,867,546

GAS PLATING OF ALUMINUM USING ALUMINUM TRIISOBUTYL

William M. MacNevin, Columbus, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application February 8, 1956, Serial No. 564,199
10 Claims. (Cl. 117—107)



1. A method of aluminum plating material which comprises establishing a source of dry inert gas free of oxygen and moisture, enclosing said material to be plated in a plating chamber filled with said inert gas, introducing aluminum triisobutyl into said plating chamber and in contact with said material, and heating said material to

a temperature to cause decomposition of said aluminum triisobutyl and deposition of aluminum onto the surface of said material.

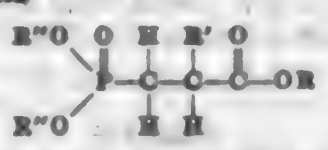
2,867,547

METHOD OF FLAMEPROOFING FIBERS, COMPOSITIONS USED THEREIN AND THE RESULTING PRODUCTS

Arthur Dock Fon Toy and Robert S. Cooper, Park Forest, Ill., assignors to Victor Chemical Works, a corporation of Illinois

No Drawing. Application September 22, 1953
Serial No. 381,760
16 Claims. (Cl. 117—136)

1. The method of flameproofing cellulosic fibers which comprises impregnating the fibers with a partially polymerized dialkenyl beta, carboxyalkyl alkanephosphonate having the formula



wherein R'' is a member of the class consisting of allyl and methallyl radicals, R' is a member of the class consisting of hydrogen atoms and methyl radicals and R is a member of the class consisting of methyl and ethyl radicals, and heating the impregnated fibers at a temperature and for a time sufficient to effect further polymerization and attachment of the resulting polymer to the fibers.

2,867,548

METHOD OF FLAMEPROOFING FIBERS, COMPOSITIONS USED THEREIN AND THE RESULTING PRODUCTS

Arthur Dock Fon Toy and Robert S. Cooper, Park Forest, and Thornton P. Traise, South Chicago Heights, Ill., assignors to Victor Chemical Works, a corporation of Illinois

No Drawing. Application September 22, 1953
Serial No. 381,761
27 Claims. (Cl. 117—136)

1. The method of flameproofing cellulosic fibers which comprises impregnating the fibers with a fabric impregnating bath containing a partial polymer of a beta, gamma, unsaturated dialkenyl beta, cyanoethanephosphonate, wherein each alkenyl group is a member of the class consisting of allyl and methallyl radicals, dissolved in a non-deleterious volatile solvent, removing a substantial amount of said solvent, and heating the impregnated fibers at a polymerizing temperature and for a time sufficient to effect further polymerization and attachment of the resulting polymer to the fibers.

2,867,549

PROCESS FOR FLAMEPROOFING PAPER

Charles R. Outterson, Richmond, Va., assignor to The Albemarle Paper Manufacturing Company, Richmond, Va., a corporation of Virginia

No Drawing. Application March 6, 1956
Serial No. 569,689
13 Claims. (Cl. 117—137)

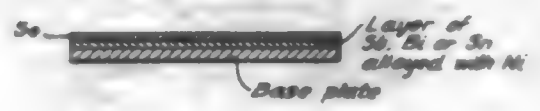
1. A process for flameproofing paper which comprises impregnating an at least partially sized paper sheet with a suspension comprising rosin dispersed in a solution of water-soluble flameproofing salts, the flameproofing salts being characterized by a maximum pH of about 7 and being incorporated in the paper in an amount sufficient to render said paper substantially flameproof, said rosin being incorporated in the paper in an amount sufficient to impart substantial water resistance to said water-soluble flameproofing salts.

2,867,550

METHOD OF MAKING SELENIUM RECTIFIERS AND ARTICLE PRODUCED THEREBY

Joachim F. L. Weber, Nurnberg, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application February 19, 1954, Serial No. 411,539
Claims priority, application Germany February 27, 1953
7 Claims. (Cl. 117—200)



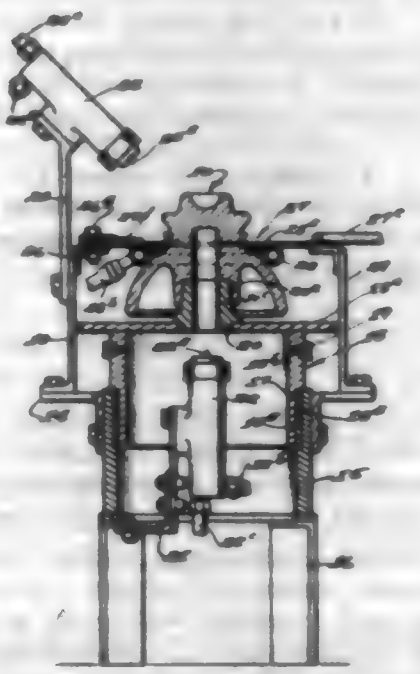
1. A process of manufacturing selenium rectifiers comprising producing an intermediate layer on a base plate before applying the selenium, the layer comprising a metal selected from the group consisting of antimony, bismuth and tin, with a slight quantity of nickel between 0.1 to 2 percent by weight.

2,867,551

APPARATUS AND METHOD FOR APPLYING CONDUCTIVE COATINGS TO INSULATORS

John Kozak, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application August 24, 1955, Serial No. 530,299
10 Claims. (Cl. 117—201)



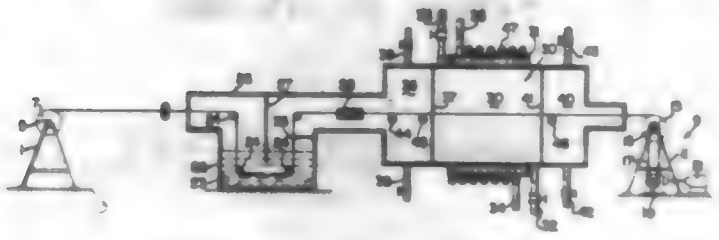
1. Apparatus for applying a conductive coating to only the top and the internal surfaces of a skirted insulator comprising, in combination, a hollow rotatable support having an upstanding hollow post portion constructed to engage the outer portion of the internal bore of a skirted insulator and thereby rotatably support said insulator, means for rotating said support, a bottom spray nozzle mounted to project a spray upwardly through said hollow post portion, a top spray nozzle mounted to project a spray downwardly upon the top surfaces of said skirted insulator, an apertured baffle plate constructed to closely surround the skirted insulator above the skirted portion thereof, thereby protecting said skirted portion from spray from said top spray nozzle, and an annular array of nozzles constructed and arranged to direct air upwardly through the annular opening defined between said baffle plate and the skirted insulator, thereby preventing leakage of spray downwardly through said opening.

2,867,552

METALLIZED FILAMENTARY MATERIALS

Howard J. Homer, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application June 1, 1954, Serial No. 433,510
2 Claims. (Cl. 117—217)



1. In a method of producing an electrical conductor composite body having a core of electrically non-conductive filaments, the steps of coating a plurality of strands composed of said fibers with a thermosetting resin, said strands being arranged in substantially parallel relation, vibrating the resultant resin-coated strands to spread the strands apart, and while thus separated depositing a coating of metal on the spread apart strands to metallize each strand substantially uniformly, said strands being metallized by depositing metal thereon from a heat-decomposable gaseous metal bearing compound which is brought in contact therewith and heat-decomposed while in contact with said resin-coated strands of material, and heating the resultant coated strands to thermoset said resin coating.

2,867,553

CURING ORGANOPOLYSILOXANES WITH SULPHUR DICHLORIDE

Frank M. Precopio, Erie, Pa., assignor to General Electric Company, a corporation of New York

No Drawing. Application April 13, 1956
Serial No. 577,925
8 Claims. (Cl. 117—232)

8. The method of making an insulated electrical conductor which comprises forming a solution of an organopolysiloxane having the formula

$$R_aH_bSiO_{\frac{4-(a+b)}{2}}$$

where the sum of $a+b$ is equal to from 1 to 3, inclusive, b has a value of from 0 to 1, inclusive, and represents members selected from the class consisting of alkyl radicals, aryl radicals, haloaryl radicals, aralkyl radicals, cycloalkyl radicals, unsaturated cycloaliphatic hydrocarbon radicals, and unsaturated aliphatic hydrocarbon radicals, applying said solution to a copper wire, evaporating the solvent from said solution, whereby a coating of the uncured organopolysiloxane is formed on said wire, contacting the surface of said coated wire with sulfur dichloride, and removing any residual sulfur dichloride from the resulting coated conductor.

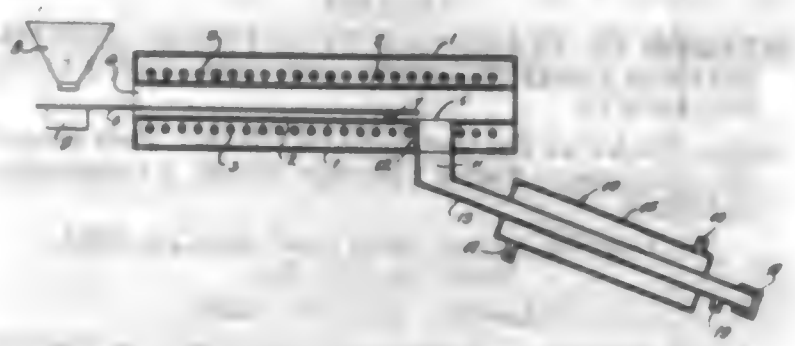
2,867,554

PROCESS OF MAKING SOFT IRON SHOT

Lewis P. Wilson, Edwardsville Township, Madison County, Ill., and Robert L. Turner, deceased, late of Alton, Ill., by Dorothy H. Turner, executrix, New Haven County, Conn., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application April 20, 1953, Serial No. 349,612
6 Claims. (Cl. 148—3)

1. In the art of making shot, the process comprising providing molten iron containing not more than about 0.25 percent impurities, casting the molten iron into near-spheres having a diameter between about 0.062 and about 0.144 inch, then heating the near-spheres in their as-cast condition above 1670° F. but substantially below the melting point thereof for about 5 minutes, and maintaining a non-oxidizing atmosphere of dry hydrogen containing not more than about 3 percent water



about said near-spheres while the same are being elevated to, maintained at, and cooled from said temperature to a temperature not in excess of 1300° F.

2,867,555

NODULAR CAST IRON AND PROCESS OF MANUFACTURE THEREOF

Thomas Wetzel Curry, Lynchburg, Va.

Application November 28, 1955, Serial No. 549,322
16 Claims. (Cl. 148—3)

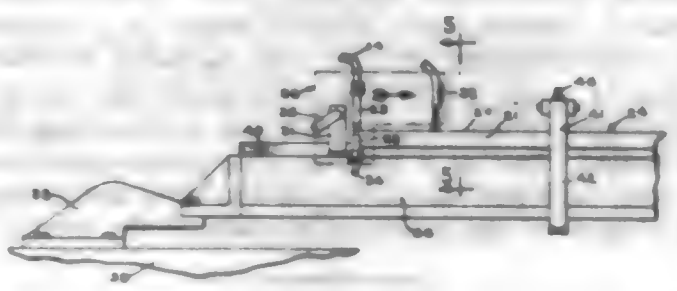
1. In the manufacture of chilled cast and annealed nodular iron having spheroidal graphite, graphitic aggregates and flakes, the process of simultaneously injecting molten metal with calcium carbide and a nodulizing alloy containing magnesium, the relative quantity of calcium carbide being sufficient to protect the magnesium from oxidation and to control the amount of residual magnesium within the range of less than 0.01%, then cooling and solidifying the iron and thereafter annealing the casting thereof.

2,867,556

METHOD OF FLAME HARDENING

George E. Tegen, Fond du Lac, Wis., assignor to Giddings & Lewis Machine Tool Company, Fond du Lac, Wis., a corporation of Wisconsin

Application September 18, 1953, Serial No. 381,090
8 Claims. (Cl. 148—21.56)



7. The method of flame hardening a rail-like workpiece of cast iron having a cross section of inverted V-shape, said method comprising the steps of, flame hardening a longitudinal surface of said workpiece while restraining only the ends of the same, removing the restraint on said ends after said surface of said workpiece has been flame hardened whereby said workpiece assumes a longitudinal curvature having a maximum normal deflection at the center of the workpiece, inverting said workpiece and placing the same on a support, heating said workpiece to a temperature of approximately 300 degrees Fahrenheit, mechanically loading the workpiece at its center until it assumes a reverse deflection within the range of about 3 to 4.5 times said normal deflection, and releasing the loading on said workpiece when the same has cooled to room temperature whereby said workpiece assumes a straight condition.

2,867,557

METHOD OF PRODUCING SILICON STEEL STRIP

John H. Crede, Tarentum, Robert H. Henke, Fox Chapel, Edward L. Pulaski, Tarentum, and Carl P. Stroble, Brackenridge, Pa., assignors to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania

No Drawing. Application August 2, 1956
Serial No. 601,659
12 Claims. (Cl. 148—111)

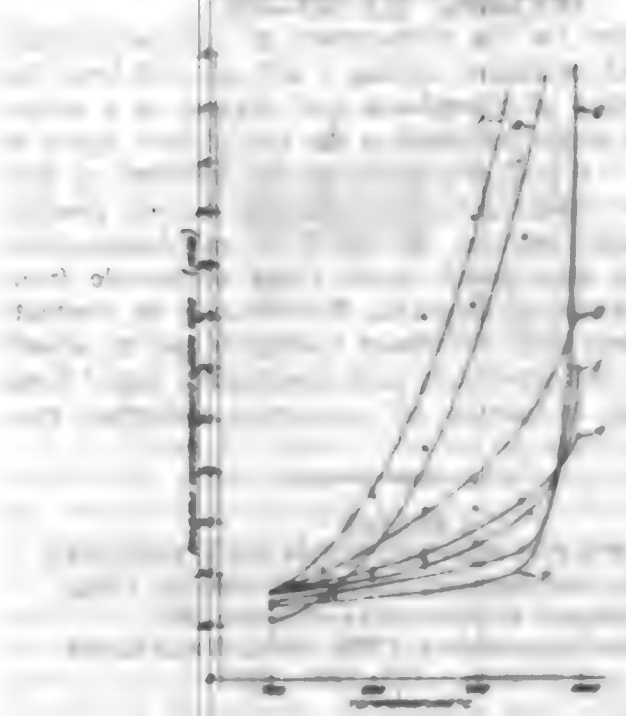
1. A process of producing highly grain oriented silicon steel for magnetic purposes, said steel containing substantially 2.5% to 4% silicon, including as steps, hot working the steel from ingot to hot rolled strip followed by a cold rolling treatment and a final high temperature anneal, the hot working being accomplished by heating the ingot to a temperature about 2300° F. and slabbing the heated steel to produce a hot slab having a thickness of from ¾ to 1½ inches and a temperature of not less than 2000° F., and immediately subjecting the hot slab to a series of hot reductions to produce a hot rolled strip having a thickness of 0.060 to 0.10 inch before the temperature of said hot rolled strip decreases to below 1600° F., the direct hot working from heated ingot to hot rolled strip being a direct hot working without an intermediate reheating of the steel.

2,867,558

METHOD FOR PRODUCING GRAIN-ORIENTED SILICON STEEL

John E. May, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application December 31, 1956, Serial No. 631,542
3 Claims. (Cl. 148—111)



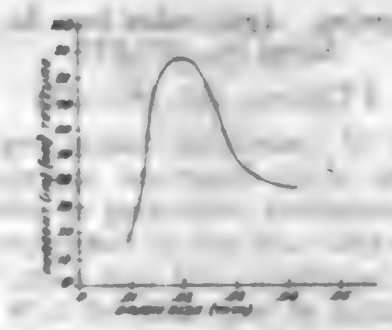
1. The method of fabricating polycrystalline sheet-like bodies of metal comprising electrical grade silicon-iron alloy consisting essentially of from about 2.5 to 4.0 percent silicon, more than about 0.012 percent sulfur, a sufficient amount of an element selected from the group consisting of manganese, titanium and chromium to combine with the sulfur to form sulfide and the balance substantially all iron comprising the steps of cold reducing an at least partially recrystallized body of said alloy at least 40 percent to form a body of intermediate thickness, heat treating said cold reduced body at a temperature of between 700° C. to 1000° C. to produce a measured average grain size of from about 0.010 mm. to about 0.030 mm., cold reducing said annealed body at least 40 percent by unidirectional rolling to produce a sheet-like body of final thickness and raising the temperature of said cold worked sheet-like body to a temperature of at least 900° C. for a time sufficient to effect secondary recrystallization of the material.

2,867,559

METHOD FOR PRODUCING GRAIN ORIENTED SILICON STEEL

John E. May, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application December 31, 1956, Serial No. 631,889
4 Claims. (Cl. 148—111)



1. The method of fabricating polycrystalline sheet-like bodies of metal consisting of electrical grade silicon-iron alloy having from about 2.5% to 4.0% silicon, comprising the steps of cold reducing an at least partially recrystallized body of such material at least 40 percent by unidirectional rolling to form a body of intermediate thickness, heat treating said cold reduced body of intermediate thickness at a temperature of from 700° C. to 1000° C. to produce a measured average grain size of from about 0.010 mm. to about 0.030 mm., cold reducing said annealed body at least 40 percent by unidirectional rolling to produce a sheet-like body of final thickness and raising the temperature of said cold worked sheet-like body to from about 950° C. to about 1200° C. for a time sufficient to develop the desired high degree of (110) [001] texture.

2,867,560

METHOD OF MAKING LAMINATED SHEET MATERIAL

Jay F. Strawinski, Baltimore, Md.

No Drawing. Application January 11, 1954
Serial No. 403,459
16 Claims. (Cl. 154—124)

1. The method of making laminated sheet material having an uninterrupted interior layer of polyvinyl alcohol film and exterior layers of thin sheet material in direct engagement with the faces of said interior layer which comprises, prior to the application of the exterior layers to the interior layer, increasing the area of the polyvinyl alcohol film by first moistening the film and then stretching the film in a plurality of directions in a water vapor saturated atmosphere.

2,867,561

SULFURIZED TETRATHIOPHOSPHATES

Carleton B. Scott, Pomona, Calif., assignor, by mesne assignments, to Collier Carbon and Chemical Corporation, a corporation of California

No Drawing. Application May 28, 1956
Serial No. 587,456
15 Claims. (Cl. 167—22)

1. As a new composition of matter, a sulfurized tetrathiophosphate product containing from 1 to about 8 atoms of chemically combined sulfur per molecule of tetrathiophosphate, said product being obtained by heating a mixture comprising elemental sulfur and a tetrathiophosphate selected from the class consisting of trimethyl-tetrathiophosphate and dimethyl-tetrathiophosphate in a ratio of between 1 and about 8 atomic weights of sulfur per molecular weight of said tetrathiophosphate at a reaction temperature between about 150° C. and about 200° C. for a period of time between about 1 and about 20 hours under a pressure between about 5 p. s. i. g. and the autogenic pressure of the reaction mixture at said reaction temperature, said conditions of time and temperature being sufficient to effect the formation of said sulfurized tetrathiophosphate product.

2,867,562

DODECYLGUANIDINE SALTS AS FRUIT TREE FUNGICIDES

Glentworth Lamb, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 26, 1956
Serial No. 593,837

4 Claims. (Cl. 167—22)

1. A method of controlling fungus organisms which attack fruit trees, which comprises: applying to the trees a fungicidal composition containing an effective amount of a monocarboxylic acid salt of dodecylguanidine as the essential active ingredient, said acid being selected from the group consisting of fatty acids of 2–18 carbon atoms and benzoic and naphthoic acids, said dodecylguanidine salt acting effectively as both a protectant and eradicant for an extended period after application while being substantially non toxic to the host trees and to warm blooded animals.

2,867,563

PHENYL MERCURY COMPOUNDS

David M. Musser, Fairlawn, and Ralph Zoccolillo, Ridgewood, N. J., assignors to Refined Products Corporation, Lyndhurst, N. J., a corporation of New Jersey

No Drawing. Application July 27, 1954
Serial No. 446,144

3 Claims. (Cl. 167—30)

2. A composition of matter containing approximately the following proportions of ingredients: 4.9 parts by weight of phenyl mercuric acetate, 10.5 parts by weight of lactic acid (80% strength), 15 to 45 parts by weight of water and 69.6 to 39.6 parts by weight of monoethyl ether of ethylene glycol.

2,867,564

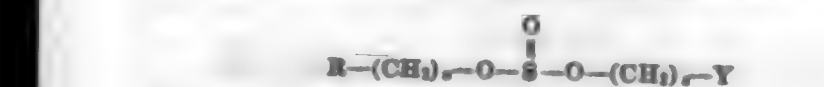
HALOGENATED BICYCLOHEPTENYL SULFITE DERIVATIVES

Sidney B. Richter, Chicago, Ill., assignor to Velsicol Chemical Corporation, Chicago, Ill., a corporation of Illinois

No Drawing. Application March 28, 1957
Serial No. 647,196

8 Claims. (Cl. 167—30)

1. A composition of matter having the general formula



wherein R is a bicyclo(2.2.1)-3-heptenyl radical containing from 4 to 6 halogen atoms selected from the group consisting of chlorine and bromine, x is an integer from 1 to 4, z is an integer from 2 to 4, and Y is a halogen atom selected from the group consisting of chlorine, bromine and fluorine.

2,867,565

SULFONAMIDE COMPOSITION COMPRISING A LIPID-AQUEOUS EMULSION CARRIER

Wolffe Harry Feinstone, Indianapolis, Ind.

No Drawing. Application August 12, 1957
Serial No. 677,769

3 Claims. (Cl. 167—51.5)

1. A therapeutic composition for oral administration comprising an absorbable sulfonamide and a lipid-aqueous emulsion containing 20% to 60% by weight of an edible fat, the concentration of the sulfonamide being 0.5 gram per 5 cc. of said composition.

2,867,566

VETERINARY ORGANOTIN COMPOSITIONS

Elliott L. Weinberg, East Brunswick Township, Middlesex County, N. J., assignor to Metal and Thermit Corporation, Woodbridge Township, N. J., a corporation of New Jersey

No Drawing. Application December 27, 1956
Serial No. 630,732

11 Claims. (Cl. 167—53.1)

1. A veterinary composition effective in the control of parasites in fowl selected from the class consisting of coccidia, ascarids and cestodes comprising an orally ingestible vehicle containing a small but effective non-toxic amount of a compound having the general formula $[R_mSn(NZ)_y]X_{4-m}$, wherein m is a whole number from 2 to 3; y is a whole number from 1 to 2; R is a group selected from the class consisting of lower alkyl and phenyl groups; NZ is an amino group selected from the class consisting of piperazines, phenothiazines and alkyl amines having from 1 to 12 carbon atoms; and X is a pharmaceutically acceptable electronegative group; said compound being present in an amount not less than 0.005% by weight of the composition.

2,867,567

PROCESS OF PREPARING ANTI-HAEMOPHILIC GLOBULIN

Ethel Bidwell, Oxford, England, assignor to National Research Development Corporation, London, England, a British body corporate

No Drawing. Application January 20, 1956
Serial No. 560,289
Claims priority, application Great Britain January 21, 1955

14 Claims. (Cl. 167—74)

1. A process for the preparation of anti-haemophilic globulin which comprises adding a salt selected from the group consisting of phosphates and citrates to a supernatant liquid while maintaining the pH of said liquid at from 6.0 to 7.0 and discontinuing the addition of said salt upon the appearance of a small but definite precipitate, the major portion of which is anti-haemophilic globulin, said supernatant liquid being obtainable from the blood plasma of Ungulata Artiodactyla by contacting said plasma with aluminum hydroxide gel to adsorb prothrombin and separating said supernatant liquid from the aluminum hydroxide gel containing adsorbed prothrombin.

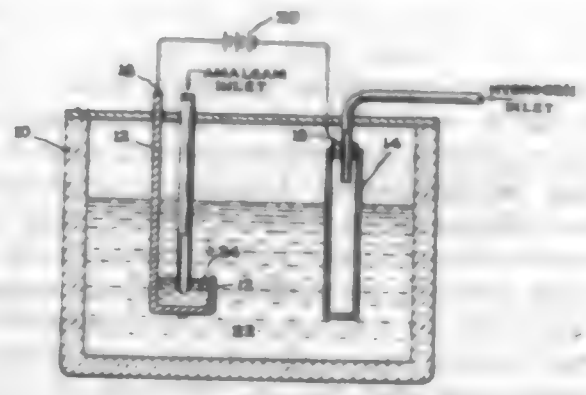
2,867,568

ELECTROLYTIC PRODUCTION OF HYDRIDES

George L. Cunningham, Cleveland Heights, Ohio, assignor to Horizons Incorporated

Application September 1, 1955, Serial No. 532,098

5 Claims. (Cl. 204—61)



1. A process for the production of an alkali metal hydride which comprises electrolyzing a fused salt bath consisting essentially of at least one alkali metal compound selected from the group consisting of alkali metal hydroxides and alkali metal halides in an electrolytic cell provided with an alkali metal amalgam anode and

a porous metal cathode, composed of metal from the group consisting of iron, nickel and alloys based on at least one of said metals, introducing hydrogen into the bath through the pores of said porous cathode for reaction with the alkali metal as it forms during the electrolysis, and recovering the alkali metal hydride from said fused salt bath.

2,867,569

ELECTROLYSIS PROCESS

Richard Leonard Kronenthal, Fair Lawn, N. J., assignor to Colgate-Palmolive Company, New York, N. Y., a corporation of Delaware

No Drawing. Application July 6, 1956
Serial No. 596,144
4 Claims. (Cl. 204—72)

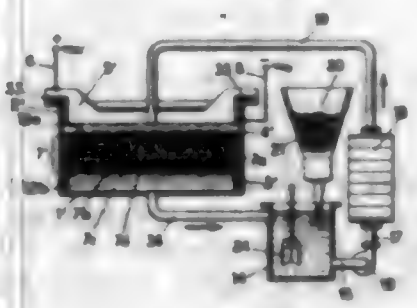
1. An electrolysis procedure for the production of aliphatic alcohols and olefins which comprises electrolyzing an aliphatic carboxylic acid salt in an electrolyte consisting essentially of a lower aliphatic ketone of up to about 4 carbon atoms having dissolved therein from about 2 to about 10% water.

2,867,570

DEVICES FOR PRODUCING MANGANESE DIOXIDE BY ELECTROLYSIS

René Dufour and Marcel Verron, Paris, and Alphonse Gabriel Le Magoarou, Colombes, France, assignors to Société Anonyme Cartoucherie Française, Paris, France, a corporation of France

Application October 11, 1955, Serial No. 539,902
Claims priority, application France October 14, 1954
13 Claims. (Cl. 204—83)



1. A device for manufacturing manganese dioxide by electrolysis, comprising a tank unit adapted to receive an electrolyte constituted by a manganese salt and subdivided, by at least one diaphragm, into one anodic compartment with at least one anode and one cathodic compartment with at least one cathode located below said anodic compartment, each cathode comprising a granulated mass of native manganese dioxide and at least one perforated electrically conducting sheet supporting said mass of manganese dioxide; means for withdrawing electrolyte from said cathodic compartment and for adding thereto a manganese compound, and means for thereafter delivering said withdrawn electrolyte into said anodic compartment.

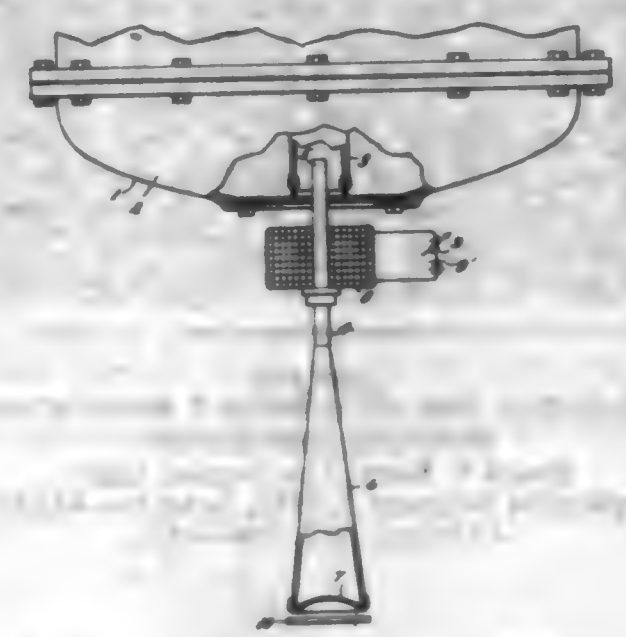
2,867,571

DEPOLYMERIZATION OF HIGH MOLECULAR WEIGHT DEXTRAN

Winthrop D. Bellamy, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application September 30, 1953, Serial No. 383,244
2 Claims. (Cl. 204—154)

1. In the process of preparing dextran having an average molecular weight within the clinically useful range, the steps which comprise irradiating native dextran having a weight average molecular weight within the range of several million to several hundred million with a dose of high energy electrons possessing an energy equivalent to at least 50,000 electron volts of the order of 10^6 to 10^8 Roentgen units, and thereafter separating from said irradiated dextran a dextran fraction having a weight average molecular weight in the 25,000 to 100,000 range.



2,867,572

DELEADING OF GASOLINE BY IRRADIATION

John F. Germann and Edward F. Degering, Natick, Mass.

No Drawing. Application September 28, 1956
Serial No. 612,896
7 Claims. (Cl. 204—154)
(Granted under Title 35, U. S. Code (1952), sec. 266)

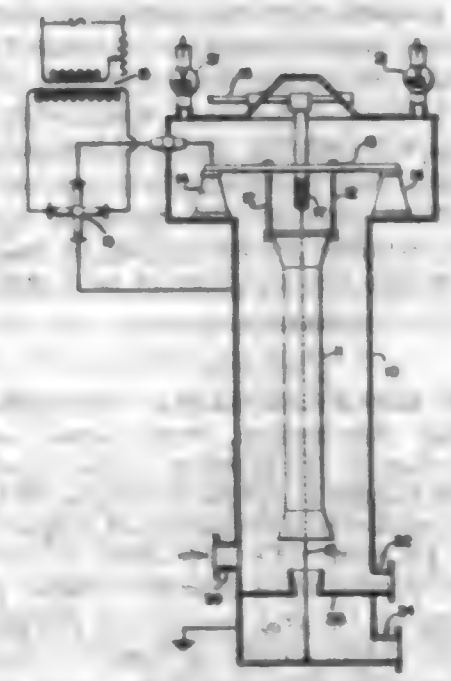
1. The process of precipitating tetraethyllead from gasoline containing tetraethyllead, comprising irradiating said gasoline with high energy electrons at a dosage of at least about 10 megareps, said electrons emanating from an electron accelerator of at least about 1,000,000 electron volts capacity, whereby said tetraethyllead is decomposed into material which is precipitable in said gasoline, and separating the precipitated material by filtration.

2,867,573

PRODUCTION OF OXIDIZING LIQUIDS

Harry A. Wintermute, Plainfield, N. J., assignor to Research Corporation, New York, N. Y., a corporation of New York

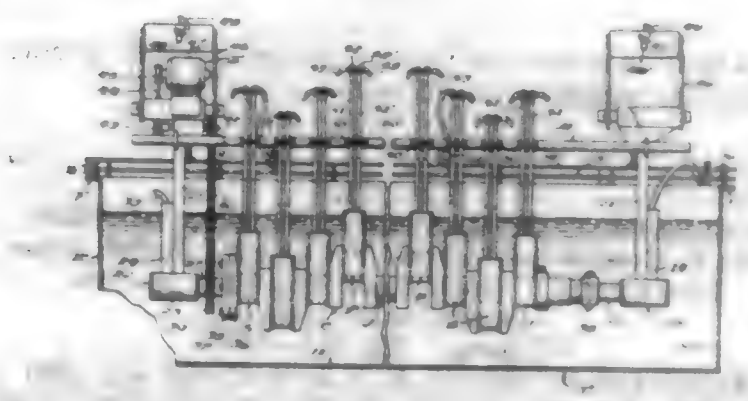
Application August 7, 1956, Serial No. 602,636
3 Claims. (Cl. 204—164)



1. The method of providing an aqueous liquid having high oxidizing potential which comprises passing an oxygen-containing gas between complementary vertical discharge and non-discharge electrodes, the discharge elec-

trode comprising a vertically suspended wire electrode adjacent said non-discharge electrode, supplying a stream of aqueous liquid along the surface of said vertically suspended discharge electrode, maintaining between said complementary electrodes an electrical potential effective to yield a corona discharge therebetween, said corona discharge effecting the spraying of at least a portion of said aqueous liquid from said discharge electrode surface into the interelectrode space, and recovering separately the unsprayed portion of the aqueous liquid from the sprayed portion having said high oxidizing potential.

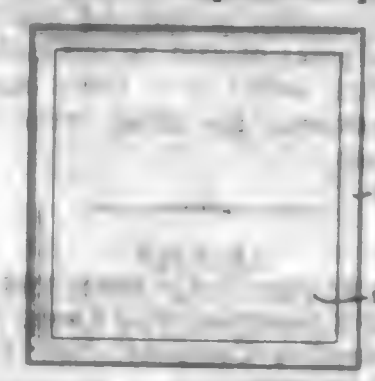
2,867,574
FLUID ELECTRICAL CONTACT DEVICE AND SUPPORT THEREFOR
Ernest V. Berry, Los Angeles, Calif.
Application February 1, 1957, Serial No. 637,761
4 Claims. (Cl. 204—212)



1. A device for electroplating the curved surface of an elongate cylindrical member, which includes: a rigid, horizontally disposed elongate member; supporting means that permit it to be raised or lowered relative to an electro-plating tank; two supports depending downwardly from said member which are longitudinally adjustable thereon; two horizontally disposed housings affixed to the lower ends of said supports; a vertically disposed tubular member which extends upwardly from one of said housings and communicates with the interior thereof; two horizontal shafts rotatably supported in said housings and projecting from the inwardly disposed ends thereof; means mounted on the inwardly disposed ends of said shafts to removably engage the end portions of said cylindrical member for the rotatable support thereof; an elongate electrical contact member projecting downwardly through one of said tubular members to contact a body of metallic electrical-conducting fluid disposed within said housing and in contact with one of said shafts; means to rotate said cylindrical member and said horizontal shafts; an anode adjacent said curved surface; and means connecting said contact member and anode to a source of electrical power to allow electroplating of said cylinder when disposed within the confines of said tank.

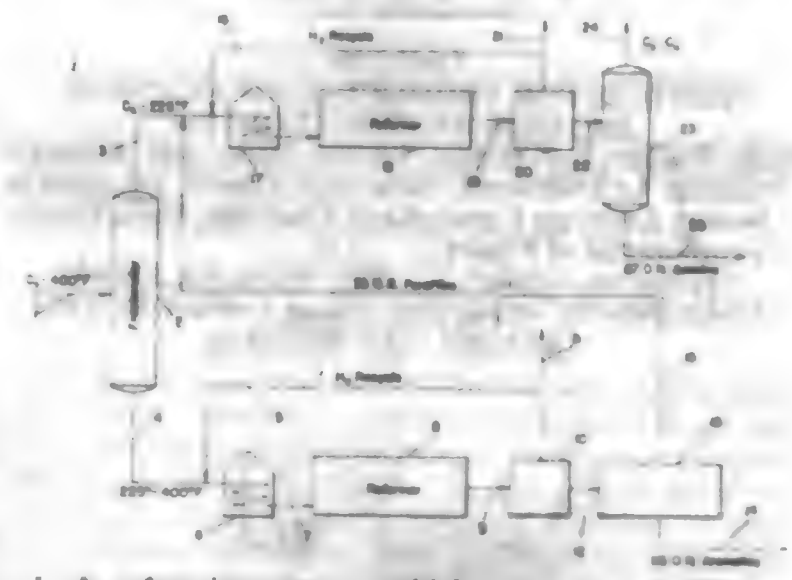
2,867,575
SELECTIVE ION-PERMEABLE MEMBRANES
Geert J. de Jong, Amsterdam, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands
Application August 27, 1954, Serial No. 452,729
Claims priority, application Netherlands August 29, 1953
1 Claim. (Cl. 204—296)

A process for producing a selective cation permeable membrane having an integral reenforced margin portion, which comprises sulphonating a film of polyethylene by treating same with chlorosulphonic acid in the dry state at a temperature between 0° and 50° C., and in the absence of a catalyst until the electrical resistance per square decimeter of permeable wall area of said article is below 10, while protecting a margin portion thereof from said sulphonation whereby said membrane consists essentially of a film of sulphonated polyethylene with



an integral reenforcing margin of unsulphonated polyethylene.

2,867,576
REFORMING STRAIGHT-RUN NAPHTHA
Earl M. Honeycutt, Claymont, Del., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application October 14, 1955, Serial No. 540,550
6 Claims. (Cl. 208—65)



1. A reforming process which comprises distilling a petroleum fraction containing naphthenes and boiling below about 425° F. into a higher and a lower boiling fraction, reforming said higher boiling fraction in the presence of hydrogen and a hydrogenation-dehydrogenation catalyst in a first reforming zone at a temperature between about 850° F. and 950° F., and at a pressure of from about 300 p. s. i. g. to about 600 p. s. i. g., recovering a first reformate from said first reforming zone, separating the first reformate into an aromatic fraction and a paraffinic fraction, admixing the paraffinic fraction with the said lower boiling petroleum fraction, and reforming the mixture in the presence of hydrogen and a hydrogenation-dehydrogenation catalyst in a second reforming zone at a temperature between about 875° F. and 975° F. and at a pressure of from about 100 p. s. i. g. to about 500 p. s. i. g., reforming conditions in the second reforming zone being more severe than in the first reforming zone.

2,867,577
PROCESS FOR REFORMING ARSENIC-CONTAINING HYDROCARBONS
Peter Urban, Jr., Chicago, and Ralph B. Thompson, Hinsdale, Ill., assignors to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware
No Drawing. Application June 14, 1952
Serial No. 293,646
17 Claims. (Cl. 208—88)

1. The method of converting an arsenic-containing hydrocarbon charge which comprises treating the charge with a sulfur-free reagent consisting essentially of a nitrogen compound containing three attached groups and an unshared pair of electrons, separating therefrom a charge fraction having an arsenic content of less than

about 0.05 part per million and less than that of said charge, and subjecting said charge fraction to conversion in the presence of a catalyst comprising a noble metal.

2,867,578

CRACKING A HYDROCARBON OIL WITH A SILICA - ALUMINA - CHROMIUM OXIDE-BERYLLIUM OXIDE CATALYST COMPOSITE

Alfred E. Hirschler, Springfield, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application December 29, 1954
Serial No. 478,530
1 Claim. (Cl. 208—120)

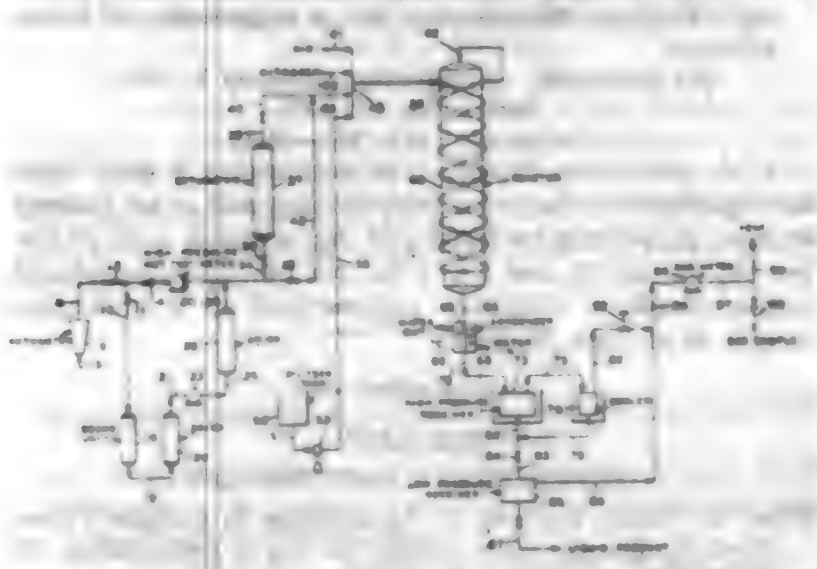
Process of cracking which comprises contacting a straight run petroleum hydrocarbon fraction boiling in the range of from 375° F. to 500° F. with a catalyst consisting essentially of from 61 to 93% by weight silica, from 6 to 20% by weight alumina, from 1 to 12% by weight chromium oxide and from 0.2 to 7% by weight beryllium oxide at a temperature within the range of 450° C. to 540° C., a space velocity of from 0.5 to 3 and at substantially atmospheric pressure, and recovering gasoline of high octane rating from the reaction mixture.

2,867,579

REACTIVATION OF CATALYST FOR USE IN THE REFORMING OF HYDROCARBON OILS

Robert T. Loughran, Jersey City, and William P. Burton, Little Silver, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application August 2, 1952, Serial No. 302,352
17 Claims. (Cl. 208—136)



1. A process which comprises regenerating a molybdenum oxide catalyst containing carbonaceous material by burning with an oxygen containing gas for the removal of carbonaceous material in an amount sufficient to restore catalytic properties substantially for reforming light hydrocarbon oils, treating the regenerated catalyst with a gaseous material containing free hydrogen at a temperature of about 875° to about 1050° F., in the presence of added water in the amount of about 0.1 to about 15 mol percent, contacting the treated catalyst with a light hydrocarbon oil under suitable reforming conditions to produce a reformed liquid product of high anti-knock quality.

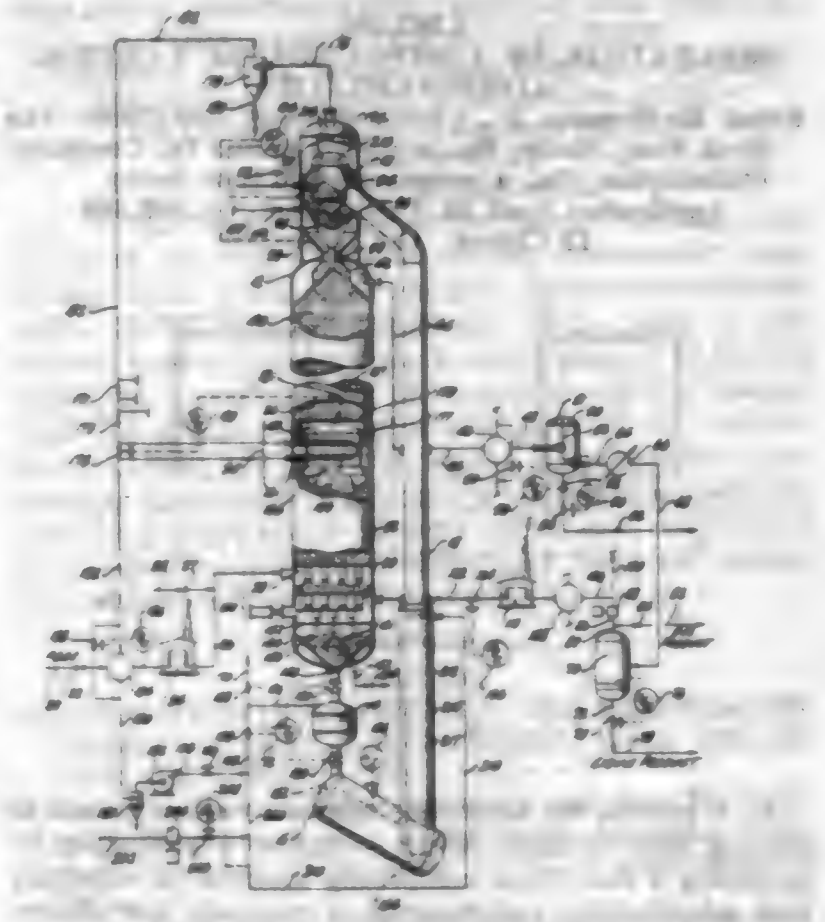
2,867,580

HYDROCARBON CONVERSION PROCESS AND APPARATUS

Clyde H. O. Berg, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application May 11, 1956, Serial No. 584,347
13 Claims. (Cl. 208—165)

1. In a solids-fluid contacting process wherein a stream of granular solid contact material is recirculated generally downwardly through a fluid contacting zone and then upwardly as a moving bed through a solids conveyance regeneration zone, a reactant fluid is passed through said contacting zone in direct contact with said contact material therein, a conveyance-regeneration fluid is recirculated upwardly through said conveyance-regeneration zone at a rate sufficient to maintain a substantial pressure gradient therein and to convey said material therethrough and to regenerate it, and a force is applied against the regenerated material discharging therefrom to maintain it at a bulk density substantially equal to its static bulk density, the improvement which comprises passing at least part of said regeneration-conveyance fluid from the outlet of said conveyance-regeneration zone through a closed cyclic path external to said conveyance-regeneration zone, decreasing the pressure of



the circulating fluid in said external path at at least one point therein thereby forcing at least part of said fluid through at least one reheating zone within said contacting zone in indirect heat exchange relation with the reactant fluid only and out of contact with said solids which surround said reheating zone thereby cooling said regeneration fluid to recover at least part of heat of regeneration contained as sensible heat therein and supplying heat to said reactant fluid passing through said contacting zone, adding additional regeneration fluid to the cooled regeneration fluid, passing the cooled regeneration fluid through a regeneration fluid preheating zone in indirect heat exchange with at least the first part of said conveyance-regeneration zone to absorb heat of regeneration therefrom, and injecting the preheated fluid into the inlet of said conveyance-regeneration zone to convey and regenerate said contact material.

2,867,581

DESULFURIZATION OF PETROLEUM HYDROCARBONS WITH IMPREGNATED CATALYSTS

Paul G. Nahin, Brea, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application September 24, 1951
Serial No. 248,097
14 Claims. (Cl. 208—216)

1. A process for the catalytic desulfurization of petroleum hydrocarbons which contain contaminating sulfur compounds which comprises subjecting said hydrocarbons

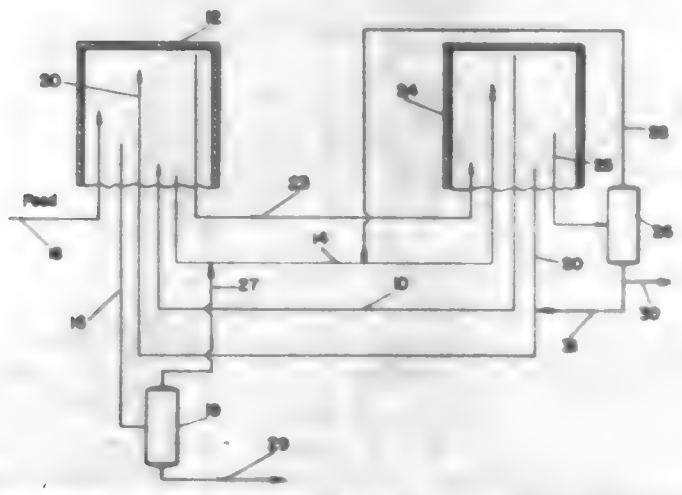
and said contaminating sulfur compounds to an elevated temperature in the presence of hydrogen and a catalyst containing between 8% and about 20% by weight of an oxide of a metal in the left-hand column of group VI of the periodic table promoted by a finite amount less than 2% by weight of an oxide of a metal selected from the group consisting of cobalt and nickel, and wherein said sulfur compounds contaminating said petroleum hydrocarbons are present therein in sufficient quantities to rapidly poison the group VI metal oxide catalyst when used alone on said carrier, said catalyst being prepared by the alternate impregnation of said carrier in aqueous solutions of salts of said metals, and calcination of the impregnated carrier to convert said salts to the corresponding oxides.

2,867,582

SEPARATION OF COMPOUNDS OF VARYING ADSORBABILITIES

Frank R. Shuman, Jr., Chester Springs, and James Van Dyck Fear, Media, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application April 24, 1956, Serial No. 580,380
13 Claims. (Cl. 208—310)



1. A process for separating mixtures of compounds of varying adsorbabilities which comprises continuously introducing a feed stock comprising material of relatively high adsorbability and material of relatively low adsorbability to the interior of a centrifuge wheel at a point intermediate the hub and periphery of said wheel, continuously introducing finely divided adsorbent material on which the material of relatively high adsorbability is more readily adsorbed than the material of relatively low adsorbability to the interior of the centrifuge wheel at a point nearer the hub thereof than the point of introduction of the feed stock, causing the adsorbent material to move countercurrently to the feed stock under the influence of centrifugal force, withdrawing adsorbent material having adsorbed thereon material of relatively high adsorbability from a point in the centrifuge wheel nearer the periphery thereof than the point of introduction of the feed stock, recovering material of relatively high adsorbability from the so withdrawn adsorbent material, and withdrawing a stream substantially depleted in material of relatively high adsorbability from a point in the centrifuge wheel nearer the hub of the wheel than the point of introduction of the adsorbent material.

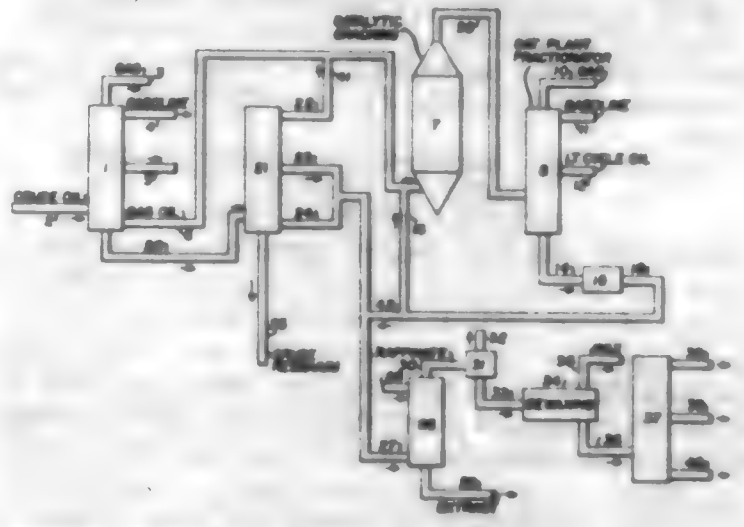
2,867,583

PRODUCING LUBRICATING OILS BY SOLVENT EXTRACTION

Clinton H. Holder, Westfield, and Walter M. Busch, Rumson, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application October 7, 1953, Serial No. 384,744
5 Claims. (Cl. 208—327)

1. A process for producing lubricating oil by solvent extraction of a virgin lubricating oil distillate normally boiling in the range of about 700° to 1150° F., which comprises: segregating a higher boiling fraction of said distillate boiling in the range of about 800° to 1150° F., thereby excluding the lowest boiling fraction from said distillate, blending with said higher boiling fraction a catalytic cycle oil constituting catalytically cracked con-



stituents boiling in the range of about 650° to 1020° F., in an amount such that said catalytic cycle oil will constitute from about 5% to about 40% of the volume of the blend, and thereafter treating said blend with a solvent having a preferential selectivity for aromatic type constituents, and segregating a raffinate product.

2,867,584

DRILLING FLUID

J. O. Scott, Dallas, Tex., assignor to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application January 3, 1955
Serial No. 479,680
7 Claims. (Cl. 252—8.5)

1. A water base drilling mud comprising a water base having dispersed therein a mineral clay, salt in an amount at least 20 percent by weight of the solution, 1 to 10 lbs. per bbl. of starch, and 1 to 5 lbs. per bbl. of a hydrolyzed polyacrylonitrile which is polymerized to a molecular weight of at least 50,000.

2,867,585

DETERGENT COMPOSITION

Peter T. Vitale, Clifton, N. J., assignor to Colgate-Palmolive Company, New York, N. Y., a corporation of Delaware

No Drawing. Application September 6, 1957
Serial No. 682,292
10 Claims. (Cl. 252—135)

1. A detergent composition consisting essentially of a water soluble non-ionic polyoxyethylene detergent condensate containing at least about 5 ethenoxy groups and a higher aliphatic alcohol containing about 12 to 20 carbon atoms, the ratio of said non-ionic detergent to aliphatic alcohol being from about 25:1 to 4:1 by weight.

2,867,586

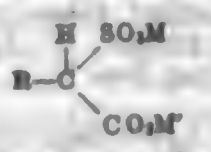
SYNTHETIC DETERGENT BAR COMPOSITIONS

James K. Weil, North Wales, and Alexander J. Stirton and Elmer W. Maurer, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

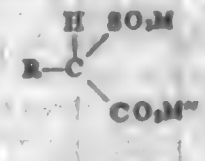
No Drawing. Application December 12, 1956
Serial No. 627,960
6 Claims. (Cl. 252—152)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A synthetic detergent bar consisting essentially of, on the active dry detergent basis, from 40–90% by weight

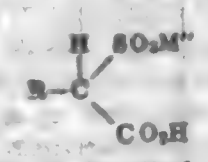
of salts of alpha-sulfonated fatty acids of the general formula,



and 10–60% by weight of salts of alpha-sulfonated fatty acids selected from the group consisting of



and



where R is a straight chain alkyl group of from 14–22 carbon atoms, M is selected from the group consisting of sodium and potassium, M′ is selected from the group consisting of sodium, potassium, and hydrogen, and M″ is selected from the group consisting of ammonium and triethanolammonium, the amount of carboxylic hydrogen in said salts always constituting from about 4% to about 50% of the total gram equivalents of sodium, potassium, ammonium, triethanolammonium, and carboxylic hydrogen.

2,867,587

WATER-STABILIZED ZINC PHOSPHATE PHOSPHORS

Daniel J. Donahue, Lancaster, and Stanley A. Hoshowsky, East Petersburg, Pa., assignors to Radio Corporation of America, a corporation of Delaware

No Drawing. Application November 1, 1954
Serial No. 466,282
3 Claims. (Cl. 252—301.6)

1. A method of water-stabilizing finely-divided zinc phosphate phosphor particles prior to deposition on a support including mixing into an aqueous medium (1) the zinc phosphate phosphor particles and (2) sufficient free zinc oxide to maintain said mixture in the range of pH between 6.5 and 10.

2,867,585

PROCESS FOR PREPARING ALUMINA CATALYST COMPOSITIONS

Carl D. Keith, Munster, Ind., and Anna P. Hanel, West Orange, N. J., assignors to Engelhard Industries, Inc., a corporation of New Jersey

No Drawing. Application March 30, 1955
Serial No. 498,084
6 Claims. (Cl. 252—466)

1. A process for the preparation of an alumina hydrate composition of alumina trihydrate which comprises mixing an aqueous solution of a salt of aluminum with aqueous ammonium hydroxide while controlling the relative amounts of said salt of aluminum and said ammonium hydroxide to effect a pH of the mixed solution from 7 to about 9.5 during precipitation of substantially the entire alumina hydrate and while controlling the temperature from about 70° to about 160° F., separating precipitated alumina hydrate from the resulting solution, washing the alumina hydrate with water to remove contaminating water-soluble ions while maintaining a pH of at least about 7 and converting the washed hydrate composition to an alumina hydrate containing about 65 to about 95% of alumina trihydrate.

4. In the production of an alumina base-platinum metal catalyst by formation of an alumina hydrogel, converting the hydrogel to a hydrate composition predominating in alumina trihydrate, incorporating a platinum metal in the hydrate composition in finely distributed form, drying and calcining the resulting catalyst, a process for preparation of the alumina hydrate composition which comprises mixing an aqueous solution of a salt of aluminum with aqueous ammonium hydroxide while controlling the relative amounts of said salt of aluminum and said ammonium hydroxide to effect a pH of the mixed solution from 7 to about 9.5 during precipitation of substantially the entire alumina hydrate and while controlling the temperature from about 70° to about 160° F., separating precipitated alumina hydrate from the resulting solution, washing the alumina hydrate with water to remove contaminating water-soluble ions while maintaining a pH of at least about 7, and converting the washed hydrate composition to a mixture containing from about 65 to about 95 percent alumina trihydrate phase.

2,867,589

MOLDING COMPOSITION CONTAINING PHENOL-FORMALDEHYDE AND RUBBER

Carlton A. Richie, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio

No Drawing. Application July 26, 1957
Serial No. 674,310
5 Claims. (Cl. 260—17.2)

1. A molding composition for plastic closures, each 100 parts by weight of said molding composition comprising 42–48 parts of an uncured phenol-formaldehyde resin, 28–38 parts of woodflour, 10–20 parts of vulcanized rubber composition, a small amount of carbon black and a small amount of stearate compound selected from the group consisting of zinc stearate and calcium stearate, each 100 parts by weight of said rubber composition comprising 12–70 parts of butadiene-styrene copolymer rubber, and 8–30 parts sulfur, said composition on combustion analysis yielding 1–35 parts ash content per 100 parts of rubber composition.

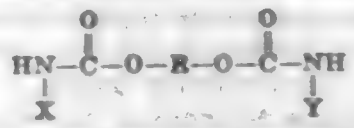
2,867,590

COMPOSITION COMPRISING MELAMINE-ALDEHYDE, α-ALKYL-D-GLUCOSIDE AND DICARBAMATE COMPOUND

Alexander Costras, South Norwalk, and Iver H. Updegraff, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 31, 1956
Serial No. 631,405
16 Claims. (Cl. 260—17.3)

1. A composition of matter which comprises a polymerizable melamine-aldehyde condensate plasticized with a minor portion of modifiers comprising between about 1 and about 5 parts of an alpha alkyl-D-glucoside wherein the alkyl group contains from one to four carbon atoms and between about 1 and about 5 parts by weight of a substance of the group consisting of dicarbamates and aldehyde condensation products thereof, which dicarbamates have the formula:



wherein R is a saturated aliphatic radical containing from 2 to 10 carbon atoms, and X and Y each represents a member of the group consisting of hydrogen atoms and alkyl radicals.

2,867,591

AIR DRYING WRINKLE COATING COMPOSITION CONTAINING EPOXY RESIN ESTERS

Burton E. Lederman, Dayton, Ohio, assignor to Midland Chemical Corporation, Dayton, Ohio, a corporation of Delaware

No Drawing. Application January 12, 1954
Serial No. 403,628
6 Claims. (Cl. 260—18)

5. The process of preparing a coating composition adapted to be applied to a surface and dried to a wrinkle

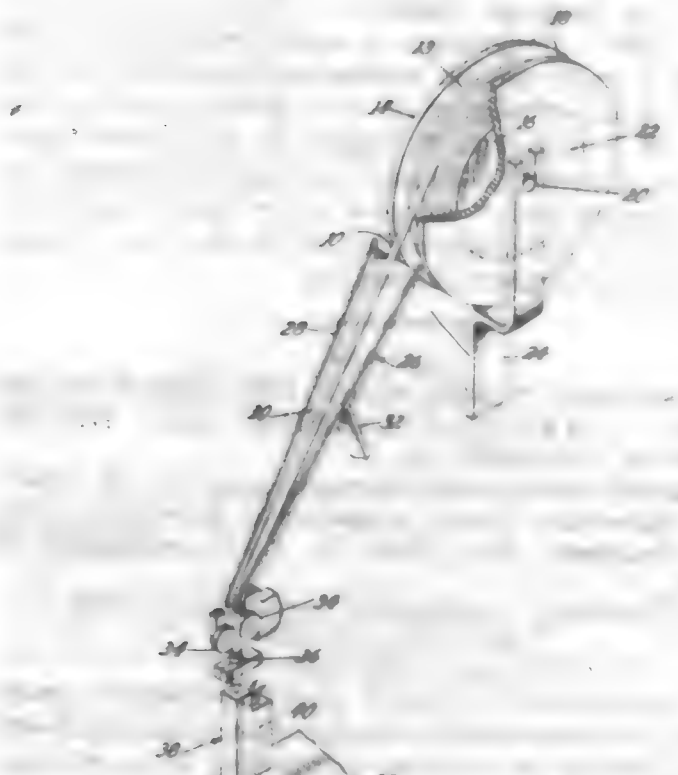
finish, said process comprising mixing, in parts by weight, 50 to 100 parts polymeric condensation product of bisphenol and epichlorhydrin having a 1,2 epoxy equivalency between 1 and 2, and 30 to 75 parts drying oil fatty acid, heating the mixture to a temperature of 380 to 540° F. until esterification is completed, thinning the resultant resinous mass with xylol thinner to provide a resinous vehicle having 50% solids content, introducing pigment in the amount approximating about 6 parts pigment to 100 parts of said resinous vehicle, 5 to 7 parts oil soluble metal drier, and adding thereto 15 to 20 parts of a polyalkylene polyamine to accelerate the drying of the coating composition to a hard wrinkle film.

2,867,592

THERMOPLASTIC POLYAMIDE-EPOXY ADHESIVES

Thomas C. Morris, Lexington, Mass., and Adolph M Chaplick, Hudson, N. H., assignors to B. B. Chemical Co., Boston, Mass., a corporation of Massachusetts

Application May 7, 1954, Serial No. 428,304
6 Claims. (Cl. 260—18)



1. A permanently fusible, thermoplastic adhesive comprising a resinous polyamide reaction product of a polymeric polyene fat acid and an alkylene polyamine possessing at least two primary amino groups, and a minor proportion of a resinous polyepoxide reacted with said polyamide, said polyamide having an amine value in excess of 1 mg. of $—NH_2$ per gram of polyamide, and said resinous polyepoxide being a resinous glycidyl polyether of a member of the group consisting of polyhydric phenols, polyhydric alcohols and mixtures of these, said resinous polyepoxide being present in amounts from ¼% by weight based on the weight of said polyamide to not more than about 90% of that quantity which will form in a mixture consisting of the polyamide and polyepoxide heated for one-half hour at 150° C. a gel structure in which a 3/16" steel ball will just begin to fall erratically through a body of the resin in a glass tube 1" in diameter at a temperature of 150° C., said polyepoxide serving to increase the dimensional stability and strength of the composition.

2,867,593

COATING VEHICLE

Russell T. Dean, Stamford, Conn., and Rupert J. Schefbauer, Hasbrouck Heights, N. J., assignors to Interchemical Corporation, New York, N. Y., a corporation of Ohio

No Drawing. Application October 20, 1954
Serial No. 463,619
3 Claims. (Cl. 260—22)

1. A vehicle for the coating industry characterized by rapid dry and good color retention, comprising the product formed by (*a*) reacting an alkyd resin forming polyhydric alcohol having at least three hydroxyl groups with a material of the group consisting of glyceride drying oils and drying oil fatty acids, at a relatively high temperature, to form an ester having free hydroxyl groups and (*b*) reacting the ester so obtained at a substantially lower temperature with an alkyd resin forming dicarboxylic acid consisting essentially of alpha-beta unsaturated acid and a monohydric alcohol which is 2-5 endomethylene Δ-3 tetrahydrobenzyl alcohol, to an acid number below 35, the monohydric alcohol being present in the ratio of 0.8 to 1.1 mols per mol of dibasic acid, and the monohydric alcohol and drying oil acids together being present to a total of about 1.5 to 3.0 mols per mol of dibasic acid.

2,867,594

VINYL CHLORIDE RESIN STABILIZED WITH 2-ETHYL HEXYL ARYL PHOSPHITES

Floyd R. Hansen, Bedford, and Baruch Zaremsky, Cleveland, Ohio, assignors to Ferro Chemical Corporation, Bedford, Ohio, a corporation of Ohio

No Drawing. Application March 21, 1957
Serial No. 647,466
6 Claims. (Cl. 260—23)

1. Polyvinyl chloride resin stabilized with 0.1 to 20 parts, per 100 parts of resin, of diphenyl mono-2-ethyl hexyl phosphite.

2,867,595

VULCANIZATION OF RUBBER

Allen Skipsey, Woking, England

No Drawing. Application August 27, 1954
Serial No. 452,725
12 Claims. (Cl. 260—23.7)

1. In a process for the vulcanization of sulfur vulcanizable rubbers which comprises vulcanizing an unvulcanized composition containing such a rubber with a sulphide of phosphorus capable of vulcanizing the rubber, the improvement which comprises vulcanizing such a composition after the addition of an aluminum salt of a hydrocarbon carboxylic acid selected from the group consisting of aromatic acids having at least 7 carbon atoms, open chain aliphatic acids having at least 8 carbon atoms, and cycloaliphatic acids having at least 6 carbon atoms, said salt being soluble in said composition.

2,867,596

ELECTRIC CABLES AND CONDENSER INSULATION INCLUDING WAX AND PETROLEUM

Geoffrey Ernest Bennett, Crayford, England, assignor to Dussek Brothers & Company Limited, Crayford, England, a British company

No Drawing. Application July 26, 1954
Serial No. 445,937
Claims priority, application Great Britain
August 13, 1953
5 Claims. (Cl. 260—27)

1. A composition for the impregnation of fibrous material for the insulation of the conductors of cables which composition consists of petrolatum containing from 3 percent to 50 percent by weight of a synthetic Fischer Tropsch hydrocarbon wax having a molecular weight of about 600, a melting point between 108° and 110° C., a boiling point under atmospheric pressure of above

460° C., and low dielectric loss, together with from 1 percent to 40 percent by weight of at least one compound selected from the group consisting of polyisobutylene having a molecular weight of approximately 100,000 and polyethylene having a molecular weight of approximately 2,500.

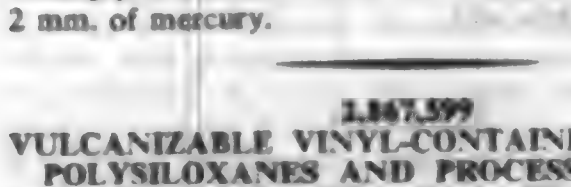
2,867,597

METHODS OF FLAMEPROOFING FIBERS, COMPOSITIONS USED THEREIN

James R. Costello, Jr., Chicago Heights, and Thornton P. Traise, South Chicago Heights, Ill., assignors to Victor Chemical Works, a corporation of Illinois

No Drawing. Application September 22, 1953
Serial No. 381,763
4 Claims. (Cl. 260—29.6)

1. The method of flameproofing cellulosic fibers which comprises impregnating the fibers with an emulsion containing (*a*) a dialkenyl beta, carboxyalkyl alkanephosphonate having the formula



wherein R'' is a member of the class consisting of allyl and methallyl radicals, R' is a member of the class consisting of hydrogen atoms and methyl radicals and R is a member of the class consisting of methyl and ethyl radicals, and (*b*) a dilute aqueous solution of polyvinyl alcohol containing not more than about 3.2% by weight, based on the weight of the reactants, of a polyvinyl alcohol, and heating the impregnated fibers at a polymerizing temperature and for a period of time sufficient to effect further polymerization and attachment of the resulting polymer to the fibers.

2,867,598

COMPOSITION COMPRISING POLYVINYL CHLORIDE PLASTICIZED WITH A TURPENTINE-DICARBOXYLIC ESTER ADDUCT

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corperation of Delaware

No Drawing. Application July 21, 1955
Serial No. 523,605
3 Claims. (Cl. 260—29.8)

1. A resinous composition comprising polyvinyl chloride plasticized with an addition product of turpentine and a dicarboxylate selected from the class consisting of alkyl fumarates and maleates having from 1 to 8 carbon atoms in the alkyl radical, said addition product having a boiling point of below 200° C. at a pressure of less than 2 mm. of mercury.

2,867,599

VULCANIZABLE VINYL-CONTAINING ORGANOPOLYSILOXANES AND PROCESS OF PREPARING ELASTOMERS THEREFROM

Dallas T. Hurd, Burnt Hills, and Robert C. Osthoff, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application August 16, 1954
Serial No. 450,229
6 Claims. (Cl. 260—37)

1. A vulcanizable mixture comprising (A) from 60 to 94.5 parts, by weight, of an organopolysiloxane gum having the average structural formula

$$(CH_2{=}CH)_a(R)_bSiO_{\frac{4-(a+b)}{2}}$$

where R represents members selected from the class consisting of alkyl, cycloalkyl, aryl, alkaryl, aralkyl, and halogenated aryl radicals and mixtures thereof, at least 50 mole percent of said members being methyl radicals, *a* has a value from 0.0086 to 0.18, *b* has a value from 1.80 to 2.0014, the sum of *a*+*b* being equal to from 1.98 to 2.01, (B) from 3 to 40 parts, by weight, of carbon black, and (C) from 0.5 to 5 parts, by weight, of sulfur.

2,867,600

SYNTHETIC RESINOUS COMPOSITION, PROCESS OF IMPREGNATING THEREWITH AND PRODUCT THEREOF

Alexander Coutrat, South Norwalk, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 1, 1954
Serial No. 459,830
8 Claims. (Cl. 260—39)

7. A resinous composition which comprises at least 60% by weight of a benzoguanamide-aldehyde resin and correspondingly up to 40% by weight of an alkyd resin, said composition containing as an anti-flaking agent from about 1% to 5% of silica gel based on the total weight of resin solids.

2,867,601

GRAFT COPOLYMER OF UNSATURATED MONOMER AND COPOLYMER OF FLUORINATED OLEFIN AND PERMALEIC ACID AND PROCESS OF PREPARING SAME

Billy F. Landrum, Belleville, and Ralph L. Herbst, Jr., Westfield, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Original application November 29, 1954, Serial No. 471,913. Divided and this application July 7, 1958, Serial No. 751,587
7 Claims. (Cl. 260—45.5)

1. A graft copolymer comprising (A) a copolymer of a halogen substituted monoolefin containing at least two fluorine atoms and containing no halogen other than fluorine, chlorine and bromine, and permaleic acid and (B) an ethylenically unsaturated monomer.

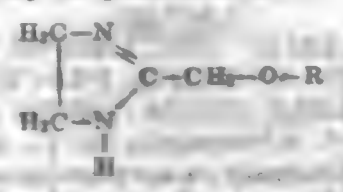
2,867,602

DYE RECEPTIVE FIBER FORMING ACRYLONITRILE POLYMER CONTAINING 2-ALKYLENEOXY SUBSTITUTED IMIDAZOLINES AND BLENDS THEREOF WITH ACRYLONITRILE POLYMER

George E. Ham and Alfred B. Craig, Decatur, Ala., assignors to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware

No Drawing. Application December 15, 1954
Serial No. 475,556
11 Claims. (Cl. 260—45.5)

1. A fiber-forming copolymer of from 90 to 98% by weight of acrylonitrile and from 2 to 10% by weight of a compound having the general formula:



wherein R is an alkenyl radical selected from the group consisting of vinyl, allyl, methallyl, ethallyl and isopropenyl.

2,867,603

BLENDS OF ORGANOPOLYSILOXANE, POLYBUTADIENE AND DI-α-CUMYL PEROXIDE AND METHOD OF CURING SAME

Moyer M. Safford, Schenectady, and Robert L. Myers, Ballston Lake, N. Y., assignors to General Electric Company, a corporation of New York

Application March 27, 1956, Serial No. 574,336
22 Claims. (Cl. 260—45.5)

1. A curable composition comprising a blend of (1) an organopolysiloxane curable to the elastic state and

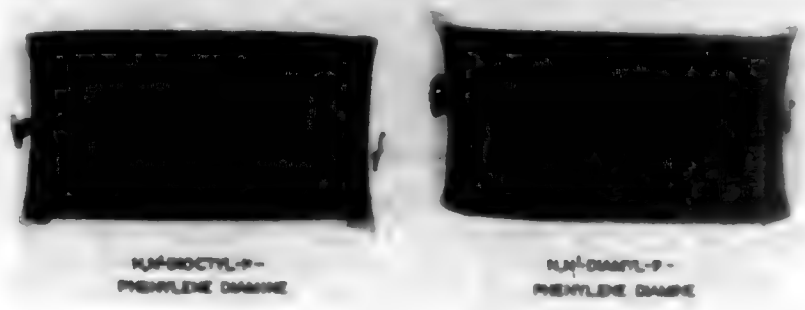
selected from the class consisting of hydrocarbon substituted and halohydrocarbon substituted organopolysiloxanes, (2) a rubbery polymer of polybutadiene, and (3) di-α-cumyl peroxide.

2,867,604

ANTIOZIDATION OF RUBBER

Robert H. Rosenwald, Western Springs, and Joseph A. Chenicek, Bensenville, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

Application June 17, 1955, Serial No. 516,226
14 Claims. (Cl. 260—45.9)



1. A method of stabilizing a rubbery polymer of a conjugated 1,3-diene normally subject to cracking by the action of ozone which comprises incorporating therein, in concentration of from about 1% to about 5% by weight to retard the cracking effect of ozone on the rubber, an N, N'-di-sec-alkyl-p-phenylene diamine in which each of the alkyl groups contains from 8 to 9 carbon atoms.

2,867,605

THERMOSTABILIZATION OF POLYVINYL CHLORIDE WITH HEAVY METAL CONTAINING ZEOLITES

Moyer M. Safford, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application March 23, 1955
Serial No. 496,310
5 Claims. (Cl. 260—45.75)

1. A thermostable polyvinyl chloride resin composition containing a stabilizing quantity of a silicoaluminate zeolite possessing cation exchange properties and in which at least a substantial portion of the exchangeable ions are ions of a metal of the group consisting of cadmium, barium, lead, strontium and tin.

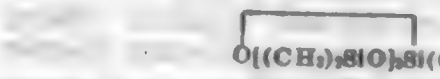
2,867,606

POLYMERIZABLE ORGANOPOLYSILOXANE SOLUTIONS AND THE PROCESS OF PREPARING GELS FROM THESE SOLUTIONS

Alfred R. Gilbert, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application May 11, 1954
Serial No. 429,136
12 Claims. (Cl. 260—46.5)

1. An organopolysiloxane solution polymerizable to a cross-linked gel consisting of octamethylcyclotetrasiloxane containing from 0.05 to 20 percent, by weight, based on the weight of said octamethylcyclotetrasiloxane, of a compound having the formula



$$O\{(CH_3)_2SiO\}_nSi(CH_3)CH_2X$$

where X is a member selected from the class consisting of halogen, acyloxy radicals, and dimethyl sulfonium iodide radicals, and a catalytic amount of a basic organopolysiloxane polymerization catalyst.

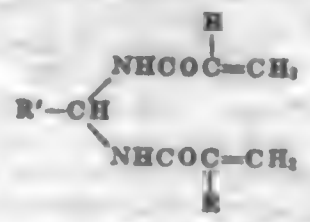
2,867,607

RESINOUS COMPOSITIONS

Yun Jen, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 23, 1957
Serial No. 685,418
8 Claims. (Cl. 260—69)

1. A process for preparing a resinous composition comprising reacting in an aqueous medium (1) a water-soluble polyamine having a carbon to nitrogen atomic ratio not exceeding three and (2) a diacrylamido compound having the formula



wherein R'—CH< is a hydrocarbon residue of an aldehyde and R is a member of the group consisting of hydrogen and alkyl radicals having one to four carbon atoms, in a mol ratio of (1) to (2) of 0.5:1 to 3:1, respectively, at a temperature ranging from about 25° C. to reflux until the reaction product of (1) with (2) has a viscosity within the range of from about A to T at 33% resin solids measured at 25° C. on the Gardner-Holdt scale, adding a sufficient amount of an acid to form the substantially complete salt of the said reaction product of (1) with (2), thereupon reacting said salt with (3) an alkaline metal cyanate in an amount of from about 0.9 to 1.5 mols per atom of nitrogen in said salt until the exotherm ceases, thereupon reacting the said composite reaction product of (1), (2) and (3) at a pH from about 7 to 10 with (4) formaldehyde on the basis of from one to three mols per ureido group of said composite reaction product.

2,867,608

COPOLYMERS OF FLUORINE CONTAINING OLEFINS AND PERMALEIC ACID AND PROCESS OF PREPARING SAME

Billy F. Landrum, Belleville, and Ralph L. Herbst, Jr., Westfield, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application November 29, 1954
Serial No. 471,913
17 Claims. (Cl. 260—77.5)

1. A copolymer of a polymerizable halogen substituted monoolefin containing at least two fluorine atoms and containing no halogen other than fluorine, chlorine and bromine, and permaleic acid.

ERRATUM

For Class 260—78 see:
Patent No. 2,867,805

2,867,609

PREPARATION OF POLYPYROMELLITIMIDES

Walter Murray Edwards, Ivan Maxwell Robinson, and Edward Noonan Squire, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 13, 1955
Serial No. 515,246
5 Claims. (Cl. 260—78)

1. A process for the preparation of high-molecular-weight polypyromellitimides which comprises heating a finely divided polypyromellitimide-forming salt in the solid state with removal of volatiles until a solid-stage condensation product having an inherent viscosity of at least 0.04 is obtained, and thereafter further heating the

resulting product until a polypyromellitimide, having an inherent viscosity of at least 0.4, is obtained, said polypyromellitimide-forming salt consisting essentially of substantially equimolar amounts of (*a*) a basic component selected from the group consisting of difunctional diprimary diamines and mixtures thereof and (*b*) an acidic component selected from the group consisting of pyromellitic diacid diesters in which the esterified carboxyl groups are attached to non-adjacent carbon atoms, and mixtures thereof, said inherent viscosity being measured at 0.5% concentration in meta-cresol at 25° C.

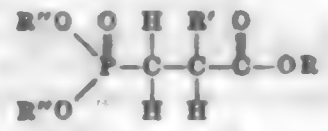
2,867,610

POLYMERS AND COPOLYMERS OF DIALKENYL BETA - (CARBOXYALKYL) ALKANEPHOSPHONATES

Arthur Dock Fon Toy and Robert S. Cooper, Park Forest, Ill., assignors to Victor Chemical Works, a corporation of Illinois

No Drawing. Application September 22, 1953
Serial No. 381,764
10 Claims. (Cl. 260—78.5)

1. A polymer consisting essentially of a completely polymerized di beta, gamma alkenyl beta (carboxyalkyl) alkanephosphonate of the formula



wherein R is a member of the class consisting of methyl and ethyl radicals, R′ is a member of the class consisting of hydrogen and methyl radicals, and R″ is a beta, gamma unsaturated alkenyl radical of the class consisting of allyl and methallyl radicals.

2,867,611

METHOD FOR THE PREPARATION OF POLYSULFONYL CHLORIDES OF STYRENE RESINS

Arthur S. Teot, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application January 24, 1955
Serial No. 483,801
4 Claims. (Cl. 260—79.3)

1. A method for the preparation of a resin polysulfonyl chloride from a sulfonated resinous polymer in which resinous polymer the polymerically combined monomer units consist essentially of (*a*) a monovinylaromatic hydrocarbon and (*b*) from 0 to 4 percent by weight of acrylonitrile based on the resinous polymer, which method comprises suspending the sulfonated resinous polymer in carbon tetrachloride, adding thereto at least 1.5 molecular proportions of thionyl chloride for each equivalent of sulfonic acid group in the sulfonated resinous polymer, the proportion of carbon tetrachloride being at least 80 percent by weight of the whole mixture, and maintaining the resulting mixture at a reaction temperature between 25° C. and the boiling point of the mixture until at least 70 percent of the sulfonic acid groups in the sulfonated resinous polymer have been converted to sulfonyl chloride groups.

2,867,612

PROCESS FOR THE POLYMERIZATION OF ETHYLENE

Gustav Pieper and Eberhard Stein, Leverkusen, and Hans-Ferdinand Rickert, Koln-Stammheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application October 5, 1955
Serial No. 538,804
Claims priority, application Germany October 8, 1954
7 Claims. (Cl. 260—94.9)

1. A process for the production of polymerization products of ethylene which comprises maintaining the ethylene in an inert medium at temperatures ranging between about 10° and 400° C., in contact with a catalyst mixture obtained by reacting (1) a compound selected from the group consisting of titanium tetrachloride, titanium trichloride, and zirconium tetrachloride, with (2) a compound of an alkali metal selected from the group consisting of lithium, sodium, and potassium which contains an organic radical of 1–18 carbon atoms bonded to the metal through a carbon atom, said alkali metal being the sole metal present in the compound; said alkali metal compound being employed in quantities of about 1.2–12 moles per 1 mole of said metal halide.

2,867,613

TOBIAS ACID COMPOSITIONS AND DIAZOTIZATION THEREOF

Cecil Arthur Spencer, Plainfield, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 11, 1956
Serial No. 609,681
6 Claims. (Cl. 260—141)

1. In the process for the diazotization of 2-aminonaphthalene-1-sulfonic acid, the improvement which comprises diazotizing in the presence of at least 0.0005 part, per part of said amino naphthalene sulfonic acid of an agent selected from the group consisting of polyvinyl alcohol, dextrin, polyvinyl pyrrolidone and hydrolyzed polyacrylonitriles.

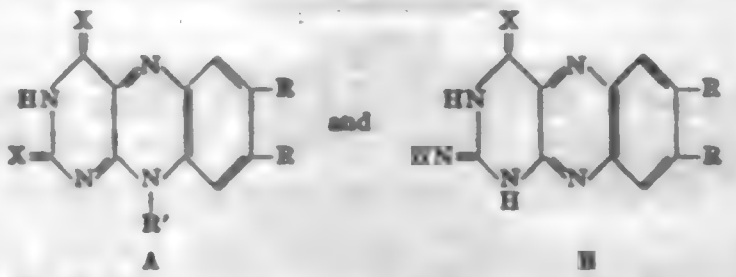
2,867,614

ANALOGS OF RIBOFLAVIN AND THEIR PREPARATION

Thomas Joseph Bardos and Donald B. Olsen, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application June 2, 1955
Serial No. 512,854
11 Claims. (Cl. 260—211.3)

1. The structural analogs of riboflavin of the group consisting of compounds represented by the formulae



A and B

wherein X is selected from the group consisting of oxygen and an imino group, wherein R is selected from the group consisting of methyl, ethyl and halogen, wherein R′ is a radical of the group consisting of alkyl and hydroxy alkyl radicals, and wherein at least one X in formula A is imino.

2,867,615

PREPARATION OF GLYOXALATED COMPOUNDS OF STARCH

René Léon Lehmann and Louis Gandon, Paris, France, assignors to Bozel-Maletra, Société Industrielle de Produits Chimiques, Paris, France, a corporation of France

No Drawing. Application December 28, 1955
Serial No. 556,019
Claims priority, application France October 19, 1955
10 Claims. (Cl. 260—233.3)

9. A stable starch adhesive giving, when dried, a film substantially insoluble in water, comprising the reaction product of heating, while stirring, a dispersion of starch in an aqueous solution of glyoxal, first at a temperature of at least 50° C. but below about 75° C. until a substantial amount of an insoluble compound is precipitated and secondly at a higher temperature higher than 75° C. but not exceeding about 100° C., at least until said insoluble compound is dissolved.

2,867,616

7-DEHYDRO DIOSGENIN COMPOUNDS AND PROCESS FOR MAKING SAME

George Rosenkranz and Jesús Romo, Mexico City, Mexico, assignors to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application October 24, 1950
Serial No. 191,941
Claims priority, application Mexico May 17, 1950
15 Claims. (Cl. 260—239.55)

11. A new compound selected from the group consisting of Δ^7-dehydo diosgenin, the lower fatty acid esters of Δ^7-dehydro diosgenin and the benzoic acid ester of Δ^7-dehydro diosgenin.

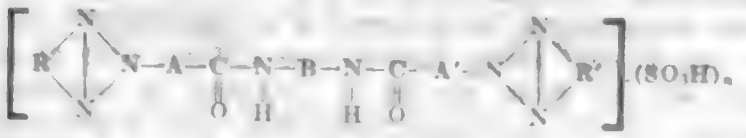
2,867,617

BIS-ARYLTRIAZOLE OPTICAL BLEACHES

Norman L. Anderson, Hamburg, N. Y., assignor to Allied Chemical Corporation, New York, N. Y., a corporation of New York

No Drawing. Application March 23, 1956
Serial No. 573,329
14 Claims. (Cl. 260—240)

1. A bis-aryl triazole having 1 to 6 sulfo groups and, in the free acid form, corresponding to the formula



wherein:

R and R′ are selected from the group consisting of radicals of benzene and naphthalene and their lower alkyl and lower alkoxy derivatives, which radicals are each bound by two adjacent carbon atoms to two nitrogen atoms of the triazole radical,

A and A′ are selected from the group consisting of radicals of benzene and its lower alkyl and lower alkoxy derivatives,

B is selected from the group consisting of the radicals of benzene and stilbene, and

n is a whole number from 1 to 6.

2,867,618

3,4-DIHYDRO-2H-1,3-BENZOXAZINE

Raymond H. Rigterink, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 14, 1957
Serial No. 640,073
1 Claim. (Cl. 260—244)

3,6-dicyclohexyl-3,4-dihydro-2H-1,3-benzoxazine.

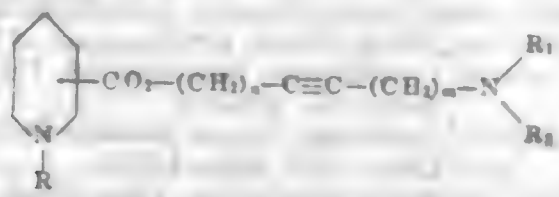
2,867,619

AMINOALKYNYL-N-ALKYLPIPERIDINE CARBOXYLATES

John H. Biel, Milwaukee, Wis., assignor to Lakeside Laboratories, Inc., a corporation of Wisconsin

No Drawing. Application November 5, 1956
Serial No. 620,165
7 Claims. (Cl. 260—247.2)

1. A member of the group consisting of compounds of the formula



wherein *m* and *n* are integers from 1 to 5, R is a member of the group consisting of lower alkyl groups and phenyl-lower alkyl groups, and R_1 and R_2 are members of the group consisting of lower alkyl groups, phenyl-lower alkyl groups, and groups in which R_1 and R_2 are joined to each other to form a member of the group consisting of the pyrrolidino, morpholino and piperidino groups, and non-toxic acid addition salts and non-toxic quaternary ammonium salts, said quaternary ammonium salts having a member from the group consisting of lower alkyl and phenyl-lower alkyl groups.

2. 4-morpholino-2-butynyl (N-methyl) pipecolinate.

2,867,620

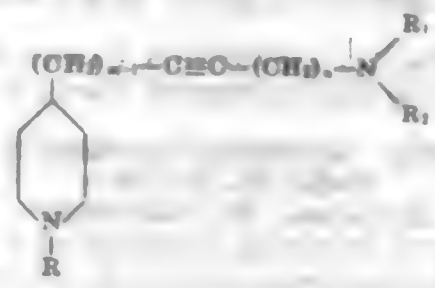
N-ALKYLPIPERIDYL ALKYNYLAMINES

John H. Biel, Milwaukee, Wis., assignor to Lakeside Laboratories, Inc., a corporation of Wisconsin

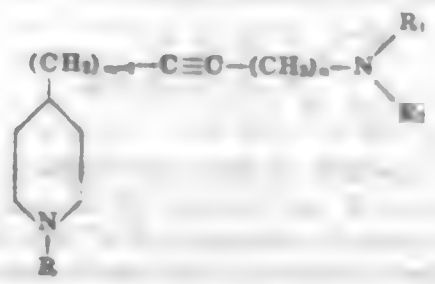
No Drawing. Application August 30, 1956
Serial No. 606,977
10 Claims. (Cl. 260—247.5)

3. β-(4-morpholino-2-butynyl)-N-methyl piperidine.

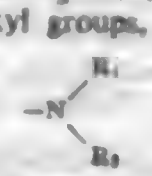
9. A member of the group consisting of compounds of the formulae



and



and non-toxic acid addition and non-toxic quaternary ammonium salts thereof, wherein *m* is an integer from 1 through 6, *n* is an integer from 1 through 5, R is a lower alkyl group and R_1 and R_2 are members of the group consisting of lower alkyl groups, and groups in which



represents a member of the group consisting of the morpholino, pyrrolidino and piperidino groups, said quaternary salts containing a member of the group consisting of lower alkyl, lower alkynyl and phenyl-lower alkyl groups.

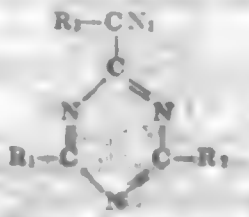
2,867,621

METHYL TRIAZINES

Christoph J. Grundmann and Ehrenfried Kober, Columbus, Ohio, assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application August 1, 1956
Serial No. 601,363
7 Claims. Cl. 260—249.9)

1. The method of preparing methyl triazines which comprises admixing, at a temperature of about 0° C. to 160° C., an acid selected from the group consisting of strong inorganic mineral acids, acetic acid, benzoic acid and p-aminobenzoic acid, with a diazo triazine of the formula

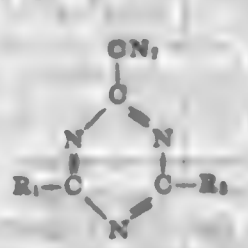


wherein R_2 is selected from the group consisting of hydrogen, chlorine, alkyl, aryl, alkoxy, aryloxy, thioalkyl, thioaryl, amino, monoalkylamino, monoarylamino, dialkylamino, diarylamino and aziridino groups, R_3 is selected from the group consisting of chlorine, alkoxy, aryloxy, thioalkyl, thioaryl, amino, monoalkylamino,

monoarylamino, dialkylamino, diarylamino, aziridino and



groups wherein R_3 has the meaning described blow, R_3 is selected from the group consisting of hydrogen, alkyl, aryl, and carbalkoxy groups and aliphatic alkyl groups substituted by



wherein the alkyl group of the alkyl and alkyl-containing substituents of R_1, R_2 and R_3 contains from 1 to 8 carbon atoms and the aryl group of the aryl and aryl-containing substituents of R_1, R_2 and R_3 is selected from the group consisting of phenyl, tolyl and xylyl.

4. The method of preparing 2-[4'-amino-benzoyloxy]-methyl-4,6-bis(diethylamino)-1,3,5-triazine which comprises reacting p-aminobenzoic acid with 2-diazomethyl-4,6-bis(diethylamino)-1,3,5-triazine at a temperature of about 0° C. to 160° C.

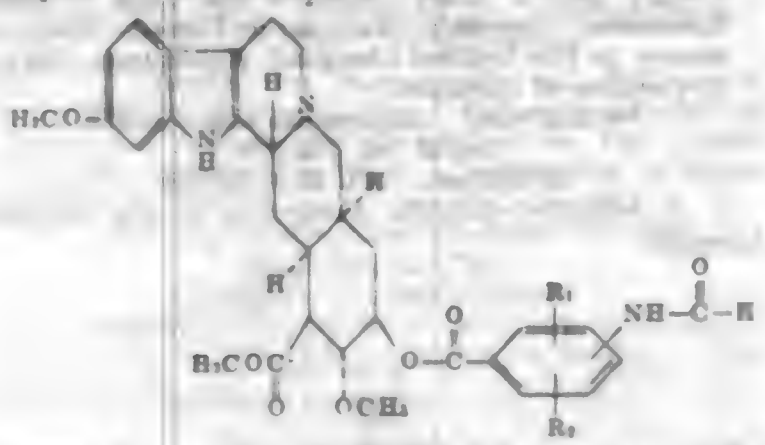
2,867,622

ESTERS OF RESERPIC ACID

Robert Armistead Lucas, Mendham, N. J., assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J., a corporation of New Jersey

No Drawing. Application June 4, 1957
Serial No. 663,349
14 Claims. (Cl. 260—287)

1. A member of the group consisting of esters of methyl reserpate of the formula:



in which R stands for a member of the group consisting of lower alkyl and lower alkoxy, R_1 for a member of the group consisting of hydrogen, lower alkoxy, lower alkyl-carbonyloxy, lower alkoxy-carbonyloxy, lower alkyl-carbonylamino and lower alkoxy-carbonylamino and R_2 for a member of the group consisting of hydrogen, lower alkoxy, lower alkyl-carbonyloxy and lower alkoxy-carbonyloxy, and therapeutically useful salts thereof.

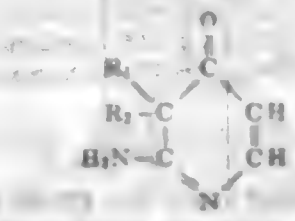
2,867,623

PYRIDINE COMPOUNDS

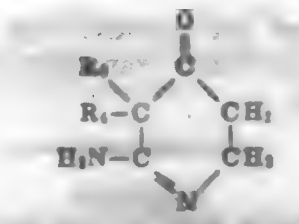
August Hans Lutz and Otto Schnider, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application October 28, 1957
Serial No. 692,526
Claims priority, application Switzerland
November 28, 1956
8 Claims. (Cl. 260—296)

1. A member of the group consisting of bases having the formula



and



wherein R_1 and R_2 each represents a member of the group consisting of alkyl and alkenyl, and R_3 and R_4 each represents alkyl, said groups represented by R_1 and R_2 and by R_3 and R_4 having together a total of 2 to 10 carbon atoms in a given compound,

and pharmaceutically acceptable acid addition salts of said bases.

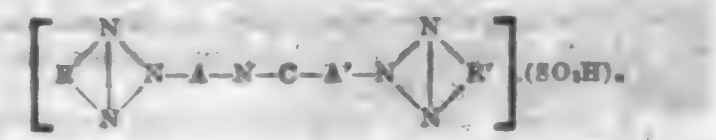
2,867,624

BIS-ARYLTRIAZOLE COMPOUNDS

Norman L. Anderson, Hamburg, N. Y., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application March 23, 1956
Serial No. 573,311
10 Claims. (Cl. 260—308)

1. A bis-aryltriazole having 1 to 6 sulfo groups and, in the free acid form, corresponding to the formula



wherein:

R and R' are selected from the group consisting of radicals of benzene and naphthalene and their lower alkyl and lower alkoxy derivatives, which radicals are each bound by two adjacent carbon atoms to two nitrogen atoms of the triazole radical,

A and A' are selected from the group consisting of radicals of benzene and its lower alkyl and lower alkoxy derivatives, and

n is a whole number from 1 to 6.

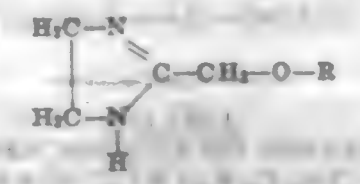
2,867,625

CERTAIN 2-OLEFINOXYMETHYL IMIDAZOLINES

George E. Ham and Alfred B. Craig, Decatur, Ala., assignors to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware

No Drawing. Original application December 15, 1954, Serial No. 475,556. Divided and this application November 12, 1957, Serial No. 701,280
6 Claims. (Cl. 260—309.6)

1. A compound having the general formula:



wherein R is an alkenyl radical selected from the group consisting of vinyl, allyl, methallyl, ethallyl and isopropenyl.

2,867,626

SYNTHESIS OF PORPHYRIN VANADIUM COMPLEXES

John Gordon Erdman, Allison Park, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application May 18, 1956
Serial No. 585,604
16 Claims. (Cl. 260—314)

1. In a process for synthesizing a porphyrin vanadium complex by reacting a porphyrin with a compound of vanadium the improvement which comprises reacting a porphyrin with a vanadyl salt in a mutual solvent for

the porphyrin and the vanadyl salt, the said vanadyl salt being one in which vanadium is present in the quadrivalent state.

2,867,627

PROCESS FOR THE MANUFACTURE OF POLYENE ALDEHYDES

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, near Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application July 13, 1956
Serial No. 597,566
Claims priority, application Switzerland July 20, 1955
6 Claims. (Cl. 260—340.9)

1. A process which comprises condensing a compound selected from the group consisting of 6-[2',6',6'-trimethylcyclohexen-(1')-yl-]-4-methyl - 3 - hydroxy - hexen-(4)-yne-(1), 6-[2',6',6'-trimethyl-cyclohexadien-(1',3')-yl]-4-methyl-3-hydroxyhexen(4)-yne-(1), 6-[2',6',6'-trimethyl-cyclohexylidene]-4-methyl-3-hydroxy-hexen-(4)-yne-(1), 6-[2'6',6'-trimethyl-cyclohexen-(2')-ylidene]-4-methyl-3-hydroxy-hexen-(4)-yne-(1) and 6-[2',6'-dimethyl-hepten-(5')-ylidene]-4-methyl-3-hydroxy-hexen-(4)-yne-(1) by a Grignard reaction with a compound selected from the group consisting of the lower alkyl acetals and the ethylene acetal of methylglyoxal and hydrolysing the metal-organic compound obtained.

3. A process which comprises mixing excess lithium aluminum hydride in an inert solvent with a C_{19}-dihydroxy-aldehyde-acetal selected from the group consisting of the lower alkyl acetals and the ethylene acetal of 8-[2',6',6'-trimethyl-cyclohexen - (1') - yl] - 2,6 - dimethyl - 2,5-dihydroxy-octaen - (6) - yne - 3 - al - (1), 8 - [2',6',6'-trimethyl-cyclohexadien - (1',3') - yl] - 2,6 - dimethyl - 2,5-dihydroxy-octaen - (6) - yne - 3 - al - (1), 8 - [2',6',6'-trimethyl-cyclohexylidene] - 2,6 - dimethyl - 2,5 - dihydroxy-octaen - (6) - yne - 3 - al - (1), 8 - [2',6',6' - trimethyl-cyclohexen - (2') - ylidene] - 2,6 - dimethyl - 2,5-dihydroxy-octaen - (6) - yne - 3 - al - (1), and 8 - [2',6'-dimethyl-hepten - (5') - ylidene] - 2,6 - dimethyl - 2,5-dihydroxy-octaen - (6) - yne - 3 - al - (1) and hydrolyzing the metal-organic compound obtained, thereby producing the corresponding C_{19}-acetal selected from the group consisting of the lower alkyl acetals and the ethylene acetal of 8 - [2',6',6' - trimethyl-cyclohexen - (1') - yl] - 2,6-dimethyl-octatrien - (2,4,6) - al - (1), 8 - [2',6',6'-trimethyl-cyclohexadien - (1',3') - yl] - 2,6 - dimethyl-octatrien - (2,4,6) - al - (1), 8 - [2',6',6' - trimethyl-cyclohexylidene] - 2,6 - dimethyl-octatrien - (2,4,6) - al - (1), 8 - [2',6',6'-trimethyl-cyclohexen - (2') - ylidene] - 2,6 - dimethyl-octatrien - (2,4,6) - al - (1), and 8 - [2',6' - dimethyl-hepten - (5') - ylidene] - 2,6 - dimethyl-octatrien - (2,4,6)-al-(1).

2,867,628

HYDROGENATION OF COMPOUNDS ABSORBED ON THE CATALYTIC SUPPORT

Oliver W. Cass, Lewiston, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 6, 1954
Serial No. 421,429
7 Claims. (Cl. 260—346.8)

1. In the catalytic hydrogenation of an unsaturated organic compound capable of being hydrogenated, the improvement which comprises (1) passing a gaseous mixture containing said organic compound into contact with a porous adsorbent for said compound and thereby adsorbing the compound from the gaseous mixture, said adsorbent serving as the support for a finely-divided metallic catalyst for hydrogenating the compound, (2) interrupting the passage of the mixture into contact with the adsorbent, and (3) subsequently hydrogenating the organic compound while it is held on the adsorbent.

6. In the catalytic hydrogenation of maleic anhydride, the improvement which comprises (1) passing a mixture of gases containing volatilized maleic anhydride into contact with a porous adsorbent for maleic anhydride serving as a support for a finely-divided metallic hydrogenation catalyst and thereby adsorbing maleic anhydride from said mixture, (2) stopping the passing of the mixture into contact with the porous adsorbent and (3) subsequently hydrogenating the maleic anhydride while it is held adsorbed on the porous adsorbent.

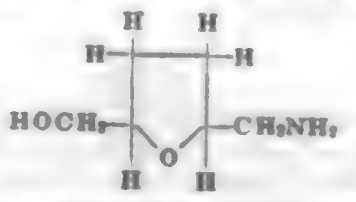
2,867,629

DERIVATIVES OF 5-HYDROXYMETHYL FURFURAL AND PROCESS OF PRODUCING THEM

John D. Garber, Westfield, Robert E. Jones, Rahway, and Robert A. Gasser, North Plainfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application November 5, 1956
Serial No. 620,167
4 Claims. (Cl. 260—347.7)

1. The compound represented by the formula:



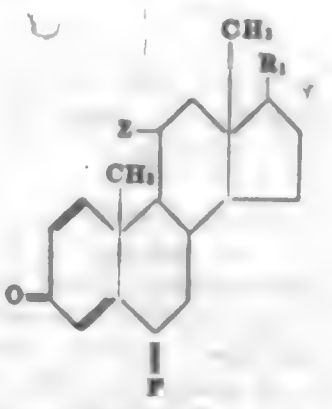
2,867,630

6-FLUORO ANDROSTENES

Raymond L. Pederson and Milton E. Herr, Kalamazoo, John C. Babcock, Portage Township, Kalamazoo County, and J. Allan Campbell and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

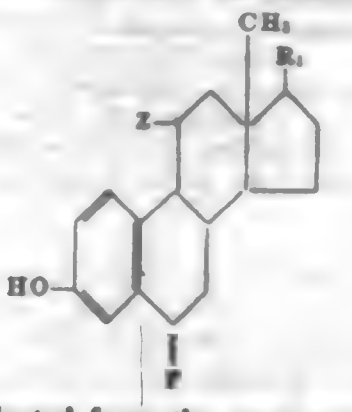
No Drawing. Application June 9, 1958
Serial No. 740,530
38 Claims. (Cl. 260—397.3)

1. A 6-fluoro-1-dehydro compound of the following formula:



wherein R_1 is selected from the group consisting of hydroxyl, OAcyl, and keto, and term Acyl representing the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, and Z is selected from the group consisting of hydrogen, hydroxyl, and keto.

26. A 6-fluoro compound of the following formula:



wherein R_1 is selected from the group consisting of hydroxyl, OAcyl, and keto, the term Acyl representing the

acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, and Z is selected from the group consisting of hydrogen, hydroxyl, and keto.

2,867,631

6-METHYLATED AND 11-OXYGENATED-17α-HYDROXY-21-FLUORO 4-PREGNENE 3,20 DIONES

Frank H. Lincoln, Jr., Kalamazoo, and William P. Schneider and George B. Spero, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 23, 1956
Serial No. 623,763
5 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6 - methyl - 11β,17α - dihydroxy - 21 - fluoro - 4 - pregnene-3,20-dione and 6-methyl-17α-hydroxy-21-fluoro-4-pregnene-3,11,20-trione.

2,867,632

6-METHYL STEROID COMPOUNDS

Frank H. Lincoln, Jr., Kalamazoo, and William P. Schneider and George B. Spero, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 23, 1956
Serial No. 623,788
5 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6 - methyl - 11β,17α - dihydroxy - 1,4 - pregnadiene-3,20-dione and 6-methyl-17α-hydroxy-1,4-pregnadiene-3,11,20-trione.

2,867,633

11-OXYGENATED-6-METHYL-17α-HYDROXY-4-PREGNENE-3,20-DIONES

Frank H. Lincoln, Jr., Kalamazoo, and William P. Schneider and George B. Spero, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 23, 1956
Serial No. 623,790
5 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6-methyl-11β,17α-dihydroxy-4-pregnene-3,20-dione and 6-methyl-17α-hydroxy-4-pregnene-3,11,20-trione.

2,867,634

11-OXYGENATED 6-METHYL-PREGNADIENES

Frank H. Lincoln, Jr., Kalamazoo, and William P. Schneider and George B. Spero, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 23, 1956
Serial No. 623,822
7 Claims. (Cl. 260—397.45)

1. A compound from the group consisting of 6-methyl-11β,17α-dihydroxy-21-fluoro-1,4-pregnadiene-3,20 - dione and 6-methyl-17α-hydroxy-21-fluoro-1,4-pregnadiene-3,11,20-trione.

2,867,635

6-METHYL, 9α, 21-DIFLUORO, 11 OXYGENATED, 17α HYDROXY-4-PREGNENE-3,20 DIONE STEROID COMPOUNDS

Frank H. Lincoln, Jr., Kalamazoo, William P. Schneider, Kalamazoo Township, Kalamazoo County, and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application March 6, 1957
Serial No. 644,200
4 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6 - methyl - 9α,21 - difluoro - 11β,17α - dihydroxy - 4 - pregnene-3-20-dione and 6-methyl-9α,21-difluoro-17α-hydroxy-4-pregnene-3,11,20-trione.

2,867,636

6-METHYL-9α,21 DIFLUORO-11 OXYGENATED 17α HYDROXY-1,4 PREGNADIENE-3,20 DIONE STEROID COMPOUNDS

Frank H. Lincoln, Jr., Kalamazoo, William P. Schneider, Kalamazoo Township, Kalamazoo County, and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application March 6, 1957
Serial No. 644,201
3 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6 - methyl - 9α,21 - difluoro - 11β,17α - dihydroxy - 1,4 - pregnadiene - 3,20 - dione and 6 - methyl - 9α,21 - difluoro - 17α - hydroxy - 1,4 - pregnadiene - 3,11,20 - trione.

2,867,637

6α METHYL, 9αF,17α OH 1,4 PREGNADIENE COMPOUNDS

Frank H. Lincoln, Jr., Kalamazoo, William P. Schneider, Kalamazoo Township, Kalamazoo County, and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application May 17, 1957
Serial No. 659,748
3 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6-methyl-9α-fluoro-11β,17α-dihydroxy-1,4 - pregnadiene-3,20-dione and 6-methyl-9α-fluoro-17α-hydroxy-1,4-pregnadiene-3,11,20-trione.

2,867,638

6-METHYL-9α FLUORO-11 OXYGENATED PREGNENES

Frank H. Lincoln, Jr., William P. Schneider, and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application May 17, 1957
Serial No. 658,754
3 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6-methyl - 9α - fluoro - 11β,17α - dihydroxy - 4 - pregnene-3,20-dione and 6-methyl-9α-fluoro-17α-hydroxy-4-pregnene-3,11,20-trione.

2,867,639

PROCESS FOR STABILIZING AND REFINING TUNG OIL AND PRODUCT THEREOF

John Andrew Watts, Long Beach, Miss., assignor to The Tungolin Company, Inc., Long Beach, Miss., a corporation of Mississippi

No Drawing. Application August 13, 1954
Serial No. 449,799
8 Claims. (Cl. 260—428)

1. A process for stabilizing and refining tung oil which comprises treating tung oil at a temperature of about 170–190° F. with at least about 5% of a solid adsorbent for at least about 15 minutes to effect decolorization and deodorization without substantially increasing the viscosity of said oil; removing the solid adsorbent, heating a minor proportion comprising at least about 20% of the tung oil after said treatment with solid adsorbent to a temperature of about 475–500° F., said temperature being maintained for up to about 15 minutes, and combining said high-temperature treated portion with the

major proportion of the adsorbent-treated oil the maximum temperature to which said major proportion of tung oil is subjected being about 190° F.

8. A stable, refined tung oil having a viscosity of about Q to S on the Gardner scale, and characterized by substantially less odor than the untreated oil and light color, said oil being substantially stable against formation of glyceryl-β-elaeostearate.

2,867,640

OXALATE PROCESS FOR SEPARATING ELEMENT 94

John William Gofman, San Francisco, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 5, 1947
Serial No. 752,831
6 Claims. (Cl. 260—429.1)

1. A process of separating plutonium values having a maximum valence of +4 from hexavalent uranium values contained together in an aqueous solution, comprising adjusting the acidity of said solution to between 0.05 and 4 N; adding thorium cations and oxalic acid anions to said solution, the quantity of said oxalic acid anions being from about 0.0 to 0.02 M in excess of the stoichiometric amount for precipitation of all of the thorium as the oxalate, whereby the oxalate precipitates and said plutonium values are preferentially carried by the precipitate formed; and separating the plutonium-containing precipitate from a uranium-containing solution.

2,867,641

HYDROCARBONTINBORATES

Hugh E. Ramsden, Metuchen, N. J., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application July 2, 1954
Serial No. 441,165
19 Claims. (Cl. 260—429.7)

14. As a composition of matter a hydrocarbontin borate having the formula

$$(R_3Sn)_{3-n}(R')_{2n}(BO_3)_2$$

wherein R and R' are univalent radicals selected from the class consisting of alkyl and monocyclic aromatic hydrocarbon radicals, and n is a whole number, including zero, which is not greater than 2.

15. A method of preparing a hydrocarbontin borate of claim 14 which comprises heating a hydrocarbontin oxide with a compound selected from the class consisting of boric acid and a partial hydrocarbon boric acid ester above room temperature and for a sufficient period of time to effect complete reaction, and recovering said hydrocarbontin borate, the hydrocarbon groups of said reactants being selected from the class consisting of alkyl and monocyclic aromatic hydrocarbon radicals.

2,867,642

DIVINYLTIN OXIDE AND METHOD OF PREPARATION

Hugh E. Ramsden, Scotch Plains, and Sanders D. Rosenberg, North Plainfield, N. J., assignors to Metal & Thermit Corporation, Rahway, N. J., a corporation of New Jersey

No Drawing. Application September 18, 1956
Serial No. 610,665
6 Claims. (Cl. 260—429.7)

2. A process for preparing divinyltin oxide comprising hydrolyzing a compound selected from the class consisting of divinyltin chloride and divinyltin bromide.

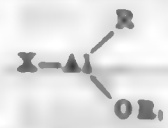
2,867,643

PRODUCTION OF ALKYL ALUMINIUM HALIDES

Guenther Hamprecht, Limburgerhof, Pfalz, and Hubert Muehlbauer, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application October 17, 1956
Serial No. 616,368
Claims priority, application Germany October 19, 1955
13 Claims. (Cl. 260—448)

1. A process for production of aluminium organic compounds selected from the group consisting of compounds of the general formula



and

$$R—Al—X_2$$

in which X is a halogen with an atomic weight between 35 and 127, R is an alkyl group having 1–4 carbons, and R_1 is a hydrocarbon radical having 1–7 carbons, which process comprises reacting a reducing metal from the group consisting of aluminium, magnesium, and zinc with an aluminium halide, the halide having an atomic weight between 35 and 127, in the presence of an ether selected from the group consisting of ethers having the formulas R—O—R and R—O—R_1 in which R is an alkyl group having 1–4 carbons and R_1 is a hydrocarbon radical having 1–7 carbons.

2,867,644

PROCESS FOR THE PREPARATION OF RESINS FROM ABIETYL ALCOHOLS

René Leclercq, Woluwe Saint-Pierre, and René Oscar Paquet, Braine-le-Comte, Belgium, assignors to Union Chimique Belge S. A., Brussels, Belgium, a corporation of Belgium

No Drawing. Application June 4, 1957
Serial No. 663,364
Claims priority, application Belgium June 22, 1956
4 Claims. (Cl. 260—453)

1. A process for the preparation of diisocyanate resins which comprises reacting at a temperature between 100 and 300° C. and in the presence of an inert gas, at least one diisocyanate selected from the group consisting of methylene-bis-(4-phenyl-isocyanate), hexamethylene diisocyanate, toluene-2,4-diisocyanate and 3,3'-dimethoxy-4,4'-diphenylene diisocyanate, with at least one abietyl alcohol selected from the group consisting of abietyl, dihydroabietyl and tetrahydroabietyl alcohols, the molecular ratio of diisocyanates to abietyl alcohols used being between 10:1 and 1:5.

3. A diisocyanate resin prepared by reacting at a temperature between 100 and 300° C. and in the presence of an inert gas, at least one diisocyanate selected from the group consisting of methylene-bis-(4-phenyl-isocyanate), hexamethylene diisocyanate, toluene-2, 4-diisocyanate and 3,3'-dimethoxy-4,4'-diphenylene diisocyanate with abietyl alcohols selected from the group consisting of abietyl, dihydroabietyl and tetrahydroabietyl alcohols and their mixtures, the molecular ratio of diisocyanates to abietyl alcohols used being between 10:1 and 1:5.

2,867,645

PREPARATION OF ALKALI METAL SALTS OF DIESTERS OF PHOSPHORIC ACID

Willem van Eijk, Ernest George Germain Werner, and Nicolaas Max, Amsterdam, Netherlands, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application January 17, 1955
Serial No. 482,378
Claims priority, application Netherlands
February 12, 1954
9 Claims. (Cl. 260—461)

1. In a process for preparing an alkali metal dialkyl phosphate by reacting a phosphorus oxyhalide with an alkanol having between 4 and 17 carbon atoms in the presence of an inert liquid water-immiscible aliphatic diluent selected from the group consisting of alkanes and halogenated alkanes having boiling points between about 50° and about 170° C., and mixtures thereof and thereafter reacting the resulting dialkyl phosphoryl halide with an aqueous solution of an alkali metal base to hydrolyze said phosphoryl halide to the corresponding acid and to neutralize said corresponding acid, the improvement which comprises conducting the reaction of the phosphoryl halide with the aqueous solution of the alkali metal base in the presence of the same inert liquid water-immiscible aliphatic diluent used in the preparation of the dialkyl phosporyl halide so that a system consisting only of two liquid phases is formed.

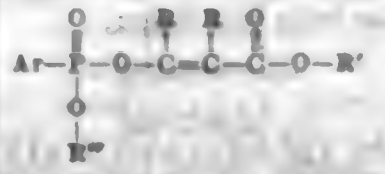
2,867,646

COMPLEX ARYLPHOSPHONATES

Richard R. Whetstone, Denver, Colo., William J. Raab, Haworth, N. J., and Walter E. Hall, Modesto, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application April 9, 1956
Serial No. 576,831
7 Claims. (Cl. 260—461)

1. A complex phosphonate of the formula



wherein Ar is an aryl radical chosen from the group consisting of phenyl, aminophenyl, di(lower alkyl) aminophenyl, (phenyl lower alkyl amino) phenyl, chlorophenyl and naphthyl, R is a member of the class consisting of hydrogen and alkyl radicals, R' is an alkyl radical, and R'' is an alkyl radical containing up to 6 carbon atoms.

2,867,647

PENTAERYTHRITOL TETRANITRATE

Robert Stewart Gow, Fairlie, Scotland, John Frederick Williamson, deceased, late of Ardrossan, Scotland, by Audrey Joy Williamson, executrix, Saltcoats, Scotland, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application February 4, 1957
Serial No. 637,888
6 Claims. (Cl. 260—467)

1. Pentaerythritol tetranitrate particles having a coating of water-soluble non-ionic surface active agent, said surface active agent consisting of at least one polyoxyethylene derivative having a chain of at least three ethyleneoxy groups and selected from the group consisting of polyoxyethylene derivatives of higher fatty alcohols, polyoxyethylene derivatives of organic acid amides, polyoxyethylene derivatives of alkyl phenols, and polyoxyethylene derivatives of organic carboxylic acids having at least six carbon atoms.

2,867,648

PROCESS OF PRODUCING TURPENTINE-UNSATURATED DICARBOXYLIC ESTER ADDUCTS

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application July 21, 1955
Serial No. 523,609
5 Claims. (Cl. 260—468)

1. The method which comprises heating turpentine with an ester having the formula

YOOCCH:CHCOOY'

in which Y and Y' are alkyl radicals of from 1 to 8 carbon atoms, at a temperature of from 150–280° C., in the presence of an inhibitor of polymerization, removing from the resulting reaction product material boiling up to and at the boiling point of a monomeric Diels-Alder 1:1 adduct of turpentine and said ester, and obtaining as residue a high-boiling polycarboxylate-containing addition product of turpentine with said ester.

2,867,649

PROCESS OF PURIFYING PYRETHRIN EXTRACTS

Thomas A. Haney, Stony Brook, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application September 6, 1956
Serial No. 608,188
3 Claims. (Cl. 260—468)

1. A method for the purification of concentrated extracts of pyrethrum flowers in a petroleum solvent boiling within the kerosene range which comprises admixing such an extract with from two to four times its weight of at least one saturated aliphatic hydrocarbon containing from five to seven carbon atoms, maintaining the mixture at a temperature within the range from 0° C. to −30° C. for a time sufficient to precipitate constituents of the extract insoluble in chlorofluoromethanes and chlorofluoroethanes, separating the precipitate from the remainder of the mixture, and removing said saturated aliphatic hydrocarbon from the mixture.

2,867,650

PROCESS FOR THE PREPARATION OF MONODIOL ESTERS OF TEREPHTHALIC ACID

Otto Ernst van Lohuizen, Delft, and Eric Jan Mouton, The Hague, Netherlands, and Ferdinand Leonard Schoutteden, Wilrijk-Antwerp, Belgium, assignors to Gevaert Photo-Producten N. V., Antwerp, Belgium, a Belgian company

No Drawing. Application October 13, 1955
Serial No. 540,336
Claims priority, application France October 14, 1954
2 Claims. (Cl. 260—475)

1. Process for the preparation of monoglycol esters of terephthalic acid, comprising reacting at a temperature between 20° C. and 110° C. a monoester of terephthalic acid selected from the group of alkyl and aryl esters, the ester radical containing 1 to 6 carbon atoms, with a mixture containing an excess of glycol and alkali metal ions in an amount sufficient to form an alkali salt of the monoester and alkali glycolate, the glycol radical being of the series $-(CH_2)_nOH$ wherein n is an integer from 2 to 10, the excess of glycol being such as to substantially prevent the reaction of both of its hydroxyl groups, both the alkali salt and glycolate used being soluble in the glycol, allowing the alkali glycolate to dissociate, using the alkali ion as an ester interchange catalyst, and recovering the monoglycol terephthalate by an acid treatment.

2,867,651

PURIFICATION OF ALCOHOLS AND PRODUCTION OF ESTERS IN THE PRESENCE OF BOROHYDRIDES

Robert H. Wise, Hammond, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application October 24, 1955
Serial No. 542,521
27 Claims. (Cl. 260—475)

1. A process for the treatment of a water-immiscible alcohol fraction containing at least 4 carbon atoms per molecule produced by catalytic reaction at elevated temperatures of a reaction mixture comprising essentially carbon monoxide and hydrogen, said fraction containing connate impurities, including carbonyl compounds, carboxylic acids and alcohol interaction products thereof, which process comprises contacting said alcohol fraction with a metal borohydride selected from the group consisting of alkali metal borohydrides and alkaline earth metal borohydrides in an effective proportion of at least about 0.001% by weight based on said alcohol fraction and sufficient at least to destroy undesirable impurities in said alcohol fraction which have color-producing tendencies in a subsequent reaction of said alcohol fraction, and effecting said contacting at an effective temperature of at least about 0° C. for an effective period of at least about 3 minutes.

23. In a process for producing an ester of an organic carboxylic acid by reaction of an aliphatic alcohol of Oxo process origin with a member of the group consisting of organic polycarboxylic acids and anhydrides of organic polycarboxylic acids, the improvement which comprises conducting the esterification in the presence of from about 0.001% to about 1.0% by weight based on the weight of said alcohol of a metal borohydride selected from the group consisting of alkali metal borohydrides and alkaline earth metal borohydrides.

2,867,652

NEW CAROTENOID AND PROCESS FOR THE MANUFACTURE THEREOF

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application January 30, 1957
Serial No. 637,094
Claims priority, application Switzerland January 31, 1956
11 Claims. (Cl. 260—488)

1. 1,26 - di(2,6,6-trimethyl-1-cyclohexen-1-yl)-3,7,11,-16,20,24 - hexamethyl - 1,3,5,7,9,11,15,17,19,21,23,25-hexacosadodecaen-13-yne.

2,867,653

PRODUCTION OF ISOPROPENYLACETATE

Franz Büttner and Eduard Enk, Burghausen-Upper Bavaria, Germany, assignors to Wacker-Chemie G. m. b. H., Munich, Germany

No Drawing. Application March 27, 1957
Serial No. 648,780
Claims priority, application Germany April 13, 1956
4 Claims. (Cl. 260—488)

1. In a process for the production of isopropenylacetate by reacting acetone and ketene, the step which comprises carrying out said reaction in the presence of polyphosphoric acid as catalyst.

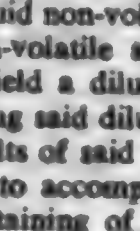
2,867,654

ACYLATION OF α-MONOAMINO CARBOXYLIC ACIDS

Bernard W. Town, Mount Vernon, N. Y., assignor to Schwarz Laboratories, Inc., a corporation of New York

No Drawing. Application January 27, 1955
Serial No. 484,573
12 Claims. (Cl. 260—518)

1. The process of N-acylating α-monoamino carboxylic acids which comprises reacting an α-monoamino carboxylic acid at a temperature below 100° C., with an acylating agent having the formula



in which R is from the group consisting of alkyl containing 1 to 5 carbon atoms and chloralkyl containing 1 to 5 carbon atoms, employing from 1 to 3 molar equivalents of acylating agent per mol of said α-monoamino acid and in the presence of sufficient water to provide a ratio of amino acid to water of from 1:9 to 1:1.5.

2,867,655

PROCESS FOR RECOVERING VOLATILE ALIPHATIC ACIDS

Donald F. Othmer, Coudersport, Pa.

Application February 20, 1957, Serial No. 641,393
4 Claims. (Cl. 260—527)

1. The process of preparing concentrated volatile aliphatic acids from an industrial aqueous liquor containing their salts comprising subjecting said aqueous liquor to simultaneous acidification and multi-cell evaporation to remove progressively said acids with water, as vapors; conveying said vapors in an upward stream; passing concentrated liquid non-volatile aqueous acid downwardly through said upward moving vapor stream of aliphatic acids and water; removing some of the water from said vapor stream by said liquid non-volatile acid upon contact between the liquid non-volatile acid and the water in said vapor stream to yield a diluted liquid non-volatile acid solution; and reacting said diluted liquid non-volatile acid solution with the salts of said volatile aliphatic acids in the industrial liquor to accomplish said acidification, and to facilitate the obtaining of said volatile aliphatic acids from said liquor in a free form; and evaporating substantially completely said volatile aliphatic acids along with some water from said liquor.

2,867,656

PREPARATION OF DIALKOXY ALKYL DERIVATIVES OF DIMERS OF CONJUGATED OLEFINS

Robert E. Robinson and John F. Nobis, Cincinnati, Ohio, assignors to National Distillers and Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application March 27, 1956
Serial No. 574,089
8 Claims. (Cl. 260—533)

1. A process for preparation of isomeric mixtures of dialiphatic ether derivatives of aliphatic dimers of a conjugated diolefin which comprises subjecting a conjugated diolefin to reaction with a finely dispersed alkali metal in an ether reaction medium, said ether being a member from the group consisting of aliphatic monoethers having a methyl group in which the ratio of the number of oxygen atoms to the number of carbon atoms is not less than 1:4 and aliphatic polyethers including polyethers corresponding to those in which all of the hydroxyl hydrogen atoms of a polyhydric alcohol are replaced by alkyl groups, to produce an isomeric mixture of dialkali metal derivatives of dimers of said conjugated diolefins, said isomeric mixture being comprised predominantly of branched chain dimers of said diolefin, and subjecting said mixture to reaction with a chloro aliphatic ether of relatively low molecular weight to convert said mixture of alkali metal derivatives to a mixture of dialkoxy alkyl derivatives of dimers of said conjugated diolefin, said mixture of dialkoxy alkyl derivatives being comprised predominantly of such derivatives in which the diolefin dimer portion is branched chain.

2,867,657

PREPARATION OF DIBASIC ACIDS

Charles M. Selwitz, Pittsburgh, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application August 29, 1956
Serial No. 606,801
10 Claims. (Cl. 260—537)

1. A method for producing aliphatic dibasic carboxylic acids which comprises oxidizing an oxygen-containing compound selected from the group consisting of secondary polyalcohols and aliphatic polyketones containing at least two functional groups and at least two methylene groups adjacent at least two of the functional groups, each of said functional groups being separated from another of said functional groups by at least three carbon atoms, with nitric acid.

10. A method for producing a mixture comprising azaleic, sebacic and suberic acids which comprises oxidizing 5,14-octadecanedione with nitric acid having a concentration of about 20 to about 70 percent at an elevated temperature of about 50° to about 250° F. and for a time sufficient to obtain such mixture.

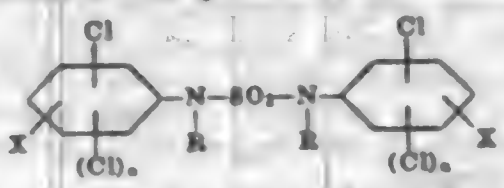
2,867,658

HALO SUBSTITUTED SULFANILIDES

Wilhelm E. Frick, Birsfelden, Switzerland, assignor to J. R. Geigy A.-G., Basel, Switzerland, a Swiss firm

No Drawing. Application May 6, 1957
Serial No. 657,016
Claims priority, application Switzerland May 18, 1956
6 Claims. (Cl. 260—551)

1. An insecticidal compound of the formula:



wherein R represents a member selected from the group consisting of hydrogen and lower alkyl radicals, X represents a member selected from the group consisting of Cl, Br and CF_3, and n is one of the numerals 0 and 1.

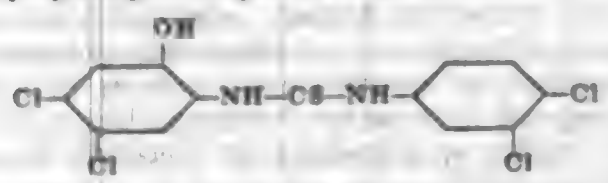
2,867,659

POLYHALOGEN SUBSTITUTED MONOHYDROXY-DIPHENYL UREA AND THIOUREA COMPOUNDS

Ernst Model, Basel, and Jakob Bindler, Riehen, near Basel, Switzerland, assignors to J. R. Geigy A.-G., Basel, Switzerland, a Swiss firm

No Drawing. Application August 16, 1956
Serial No. 604,306
Claims priority, application Switzerland December 22, 1953
5 Claims. (Cl. 260—552)

5. A polyhalogen compound of the formula:



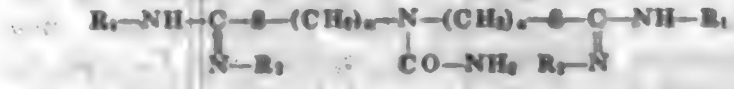
2,867,660

ALIPHATIC BISISOTHIURONIUM COMPOUNDS

Moses Wolf Goldberg, Upper Montclair, and Albert Israel Rachlin, Hackensack, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application July 24, 1957
Serial No. 673,756
6 Claims. (Cl. 260—553)

1. A free base of the group selected from those having the structural formula



wherein R_1 and R_2 each represents a member of the group consisting of hydrogen, lower alkyl and lower alkenyl, and n represents an integer from 2 to 3, and salts of said free bases.

2,867,661

NON-HYGROSCOPIC ANTIBIOTIC SALT

Jay S. Buckley, Jr., Groton, and Charles R. Stephens, Jr., Waterford, Conn., and Richard L. Wagner, Jr., Forest Hills, N. Y., assignors to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application December 8, 1955
Serial No. 551,726
1 Claim. (Cl. 260—559)

A process for the preparation of relatively non-hygroscopic, crystalline oxytetracycline hydrochloride having a melting point of about 204° C. which comprises heating about one part by weight of oxytetracycline hydrochloride having a melting point of from about 185° C. to 195° C. in at least two parts by weight of a solvent selected from the group consisting of acetone, benzaldehyde, furfuraldehyde, two to four carbon atom alkanols, lower alkyl ethers of ethylene glycol and mixtures thereof at a temperature of at least about 50° C. and up to the reflux temperature of the selected solvent and recovering resulting crystalline oxytetracycline hydrochloride having a melting point of about 204° C.

2,867,662

ACETYLENICALLY UNSATURATED COMPOUNDS

Thomas E. Loadergan, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 26, 1956
Serial No. 624,202
4 Claims. (Cl. 260—583)

1. A 1,6-diamino-2,4-hexadiyne containing two primary amino groups and in which each carbon atom vicinal to each nitrogen atom is completely substituted by aliphatic radicals selected from the group consisting of methyl, ethyl, n-propyl, tetramethylene and pentamethylene groups.

2,867,663

HYDROGENATION PROCESS

Richard Norman Lacey, Hull, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company

No Drawing. Application November 12, 1954
Serial No. 468,583
Claims priority, application Great Britain November 19, 1953
2 Claims. (Cl. 260—593)

1. A process for producing a saturated aliphatic ketone which comprises hydrogenating with molecular hydrogen an α:β-ethylenically unsaturated aliphatic ketone selected from the group consisting of ethylidene acetone, methyl isopropenyl ketone and mesityl oxide in the vapour phase at a temperature in the range from 100° to 300° C. substantially at atmospheric pressure and in the presence of a catalyst consisting of palladium supported on a material selected from the group consisting of gamma-alumina and pumice and containing from 0.1 to 2.0% by weight of palladium based on the total volume of the catalyst, whereby the saturated aliphatic ketone corresponding to the α:β-ethylenically unsaturated aliphatic ketone is produced and formation of the corresponding carbinol is suppressed.

2,867,664

PROCESS FOR THE PRODUCTION OF TRIPHENYL-DODECYLPHOSPHONIUM-PENTACHLORPHENOLATE AND ITS STABLE AQUEOUS SOLUTIONS

August Kottler and Heinrich Scheffler, Biberach an der Riss, Germany, assignors to Dr. Karl Thomae G. m. b. H., Chemisch-Pharmazeutische Fabrik, Biberach an der Riss, Germany, a firm

No Drawing. Application July 21, 1953
Serial No. 369,533
Claims priority, application Germany July 25, 1952
10 Claims. (Cl. 260—696.5)

1. Process for the production of triphenyl-dodecyl-phosphonium-pentachlorphenolate which comprises mixing a substance taken from the class consisting of alkali metal pentachlorophenolates, higher alkyl amine pentachlorophenolates and higher alkanol amine pentachlorophenolates with a compound taken from the class consisting of triphenyl-dodecyl-phosphonium chloride and bromide.

2,867,665

ALKYLENEBIS[TRIALKYLPHOSPHONIUM HALIDES] AND PROCESSES FOR THE MANUFACTURE THEREOF

Clinton A. Dornfeld, Glenview, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application July 9, 1956
Serial No. 596,439
4 Claims. (Cl. 260—606.5)

1. A compound of the formula

$$R_3P^+—(C_{10}H_{20})—P^+R_32X^-$$

wherein R is selected from the group consisting of methyl and ethyl radicals, and X is halogen selected from the group consisting of chlorine, bromine, and iodine.

2,867,666

PRODUCTION OF ALPHA-METHYLBENZYL HYDROPEROXIDE

Floyd B. Erickson, Robert A. Heimach, and Bernard S. Wildi, Dayton, Ohio, and Tracy M. Patrick, Jr., Kirkwood, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 22, 1954
Serial No. 457,782
9 Claims. (Cl. 260—610)

1. A process which comprises oxidizing ethylbenzene with molecular oxygen in the presence of a basic substance selected from the group consisting of the alkali metal carbonates and the alkaline earth metal carbonates and oxides, at a temperature within the range of 135° C. to 160° C. for a period of time limited to produce maximum α-methylbenzyl hydroperoxide content in the reaction mixture.

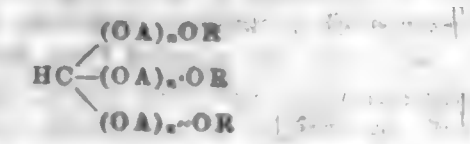
2,867,667

OLEFIN OXIDE ORTHO ESTER CONDENSATION PRODUCTS

Otis C. Dermer, Stillwater, Okla., and Frank Bier Slezak, Painesville, Ohio, assignors to Cities Service Research and Development Company, New York, N. Y., a corporation of New Jersey

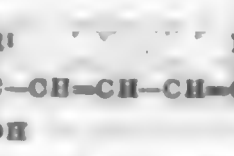
No Drawing. Application May 29, 1958
Serial No. 738,642
15 Claims. (Cl. 260—615)

1. A compound having the generic formula



in which A is a bivalent hydrocarbon radical selected from the group consisting of ethylene and propylene; n is an integer from 1 to 4 inclusive; n' and n'' are any integers from 0 to 4 inclusive and R is an alkyl group having from 1 to 5 carbon atoms.

7. A process for preparing organic compounds having the generic formula



in which A is a bivalent hydrocarbon radical selected from the group consisting of ethylene and propylene; n is an integer from 1 to 4 inclusive; n' and n'' are any integers from 0 to 4 inclusive and R is an alkyl group having from 1 to 5 carbon atoms, which comprises reacting an olefin oxide selected from the group consisting of ethylene and propylene with an alkyl orthoformate in the presence of not more than 0.5% of boron trifluoride at a temperature between about 0° C. and 10° C.

2,867,668

TERPENE ALCOHOLS AND COMPOUNDS THEREOF, AND PROCESSES FOR MAKING SAME

Ernst T. Theimer, Rumson, N. J., assignor to Van Ameringen-Haebler, Inc., Union Beach, N. J., a corporation of New York

Application October 9, 1956, Serial No. 614,834
6 Claims. (Cl. 260—631.5)

1. The process which comprises combining hydrogen chloride with allo-ocimene in the proportion of not more than about 1 mol of hydrogen chloride per mol of allo-ocimene, prior to any substantial decomposition of the resulting allo-ocimene hydrochloride hydrolyzing the product formed with an aqueous base in the presence of a non ionic dispersing agent, and recovering alcohols having the empirical formula $C_{10}H_{18}O$ therefrom.

6. A mixture of conjugated diolefinic tertiary alcohols having $D_{15}=0.877$ and $N_{D20}=1.4913$, and having the structural formula

where one of the symbols R^1 and R^2 is methyl and the other is ethyl.

2,867,669

METHOD OF FORMING MONONITRO HYDROCARBONS

Charles A Burkhard, Alplaus, and John F. Brown, Jr., Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application August 19, 1954
Serial No. 451,066
9 Claims. (Cl. 260—644)

1. The method of forming substantial amounts of mononitro derivatives of a hydrocarbon compound containing olefinic unsaturation which consists essentially of contacting said hydrocarbon compound with nitric oxide in the presence of a trace up to 2 percent, by weight, of nitrogen dioxide.

2,867,670

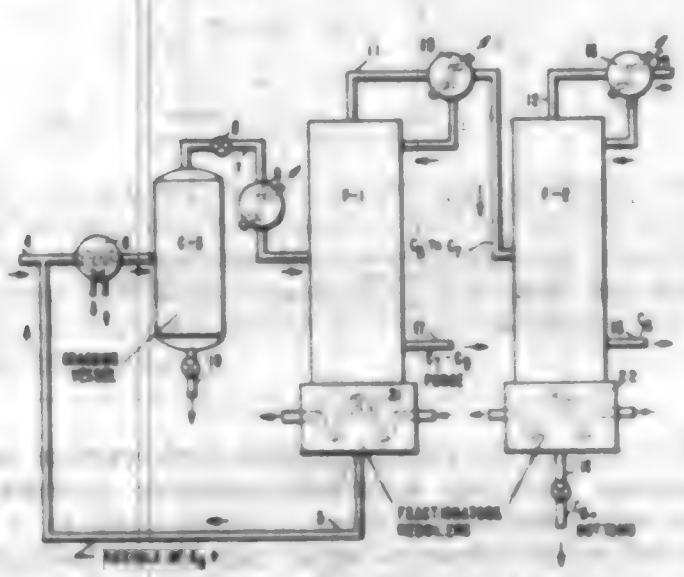
SEPARATION AND PURIFICATION OF CYCLODIENES

Lawrence W. McLean and Leon C. Kenyon, Jr., Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application March 2, 1954, Serial No. 413,615
4 Claims. (Cl. 260—666)

4. In separating and purifying C_5 and C_6 cyclodiene monomers contaminated by C_7 to C_9 hydrocarbon impurities in a vapor stream from a cracking zone, first fractionating said stream to separate the C_5 and C_6 monomers with about 0.5 to 1.5 weight percent C_7 im-

purities in an overhead distillate vapor at a temperature of about 136° F. to 138° F. from a first fractionating zone having a reboiling bottoms temperature of 320° F. to 360° F., a portion of the overhead distillate being refluxed to the upper part of said first fractionating zone for temperature control, withdrawing a side stream purge of C_7 to C_9 impurities from said first fractionating zone, recycling bottoms of the first fractionating zone to the cracking zone in a proportion of about 400 to 500% of



fresh feed thereto to form said vapor stream, and separating the C_8 and C_9 monomers of the overhead distillate from the first fractionating zone in a second fractionating zone having a bottoms temperature in the range of 350° F. to 400° F. to crack substantially all dimer formed in said second fractionating zone, said second fractionating zone being maintained substantially free of C_7 to C_9 hydrocarbon impurities except for the small amount of C_7 impurities present in the overhead distillate from said first fractionating zone.

2,867,671

DEHYDROGENATION OF SATURATED AROMATIC HYDROCARBON TO A CYCLOOLEFIN IN THE PRESENCE OF FREE BROMINE

Richard D. Mullineaux, Oakland, and John H. Raley, Walnut Creek, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application July 30, 1956
Serial No. 601,652
5 Claims. (Cl. 260—666)

1. A process for the dehydrogenation of a saturated hydroaromatic hydrocarbon to a corresponding cycloolefin which comprises subjecting a mixture of a compound selected from the group consisting of saturated monocyclic hydroaromatic hydrocarbons, decalin and tetralin and from 0.1 to about 1 mole of free bromine per mole of feed hydrocarbon in vapor phase to a temperature of at least about 400° C. for a short time to produce a total reaction product in which the content of hydroaromatic olefin is very high while the amount of aromatic product is relatively low and recovering cycloolefin from said product.

2,867,672

METHOD OF MINIMIZING STYRENE POLYMERIZATION DURING STORAGE

Rolf H. Hemmerich, Larchmont, N. Y., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application August 29, 1955
Serial No. 531,262
1 Claim. (Cl. 260—666.5)

In a process for minimizing polymerization of styrene, wherein a liquid body of styrene containing a polymerization inhibitor is contained at about atmospheric temperature and pressure in a storage vessel having an enclosed vapor space above the surface of the body of liquid, styrene vaporizes in the vapor space while substantially none of the inhibitor vaporizes therewith, the vaporized styrene condenses on the surfaces enclosing the vapor space, and at least a portion thereof polymerizes, the step comprising spraying the enclosing surfaces with a portion of the inhibited liquid body of styrene circulated from the lower portion of said storage vessel whereby polymerization of styrene vapors condensing on the enclosing surfaces is inhibited and the condensed styrene is washed into the main body of the liquid styrene.

2,867,673

SIDE-CHAIN ALKYLATION IN THE PRESENCE OF A LEAD TETRAALKYL CATALYST

Joseph A. Chenicek, Bensenville, and Herman S. Bloch, Chicago, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application May 14, 1954
Serial No. 429,978
13 Claims. (Cl. 260—668)

1. A process for the side chain alkylation of an alkylbenzene in which at least one hydrogen atom is directly attached to the alpha carbon group, which comprises reacting said alkylbenzene with an alkene at condensation conditions including a temperature of from about 50° to about 400° C. and a pressure of from about atmospheric to about 200 atmospheres in the presence of a lead tetraalkyl catalyst which forms free radicals at said conditions.

2,867,674

PROCESS FOR PRODUCTION OF PARA-(TERTIARY ALKYLATED)-ALKYLBENZENES

Seymour H. Patinkin, Chicago, and Robert A. Sanford, Park Forest, Ill., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 25, 1955
Serial No. 542,778
3 Claims. (Cl. 260—671)

1. A method for the production of para-(tertiary-alkylated)-alkylbenzenes which comprises reacting a mono-alkylbenzene in which the alkyl group contains from 1 to 3 carbon atoms with a tertiary olefin containing from 4 to 5 carbon atoms in the presence of a catalyst comprising sulfuric acid while controlling the temperature at about —20 to 0° C. and the molar ratio of alkylbenzene to olefin to catalyst at about 2–4:0.5–1.5:0.5–1, respectively.

2,867,675

PROCESS FOR THE POLYMERIZATION OF MONO-OLEFIN AND ACETYLENE HYDROCARBONS

Isadore Shapiro, Pasadena, and Harold G. Weiss, Duarte, Calif., assignors, by mesne assignments, to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application December 1, 1955
Serial No. 550,513
2 Claims. (Cl. 260—673)

1. Process for the polymerization of mono-olefin and acetylene hydrocarbons having from two to four carbon atoms which comprises contacting such hydrocarbons at a temperature of about 10° C. to 150° C. with a surface modified oxide of the class consisting of at least one of silica, alumina, and magnesia gels containing chemically combined boron in the surface structure of the gel, wherein hydrogen atoms of hydroxyl groups of the original gel

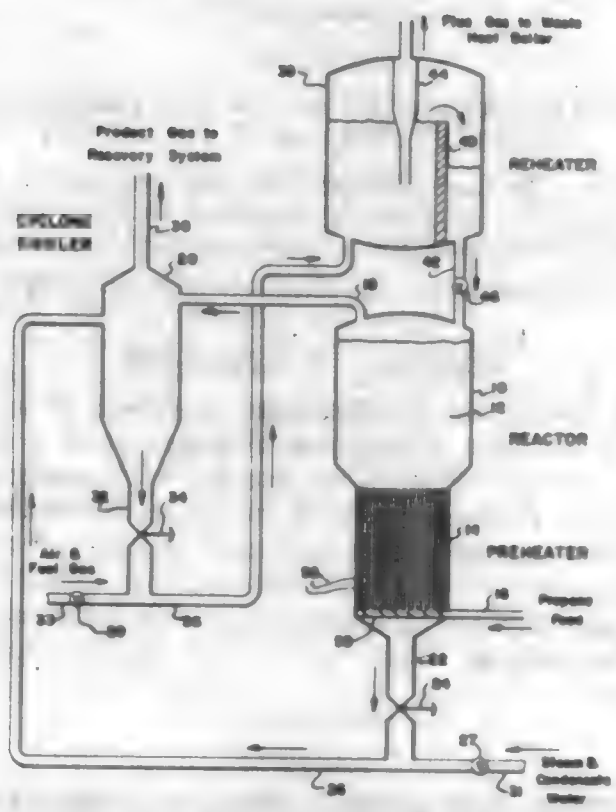
structure have been replaced by $—BX_2$ radicals in which X is selected from the group consisting of hydrogen atoms and hydroxyl radicals.

2,867,676

PROCESS FOR CONDUCTING HIGH TEMPERATURE CONVERSIONS USING FLUIDIZED SOLIDS AS HEAT EXCHANGE MEDIA

Donald K. Wunderlich, Chicago, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

Application January 4, 1956, Serial No. 557,307
2 Claims. (Cl. 260—673)



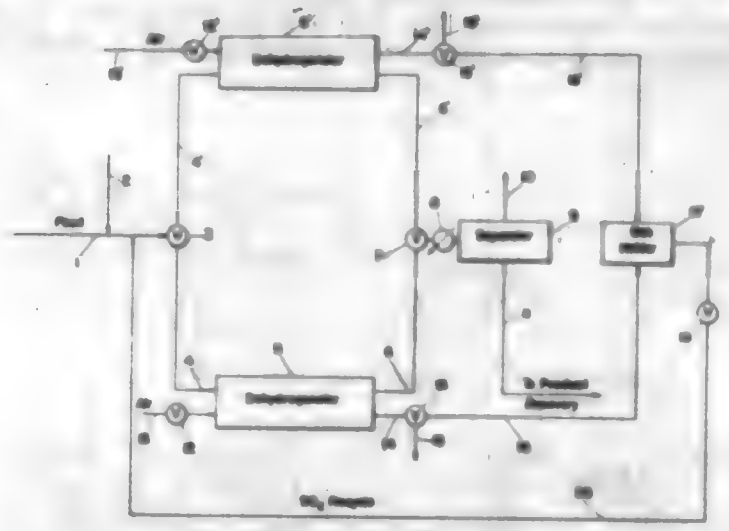
1. A method for conducting chemical conversions at high temperatures which comprises maintaining a bed of fluidized solids at high temperature in a reaction zone, withdrawing a portion of the solids of said bed and heat exchanging said withdrawn solids with a feed stock, passing the resulting heated feed stock into said bed of fluidized solids to effect conversion to desired product, passing the resulting products of reaction into a cyclone separating zone, cooling the heat exchanged withdrawn solids to a lower temperature and then passing them into contact with said products in said separating zone, recovering cooled and cleaned products from said separating zone, passing said solids from said zone to a reheating zone and burning coke and tar deposits therefrom, and then passing reheated solids into said reaction zone.

2,867,677

DEHYDROGENATION OF HYDROCARBONS

Peter B. Murray, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application May 15, 1956, Serial No. 584,989
1 Claim. (Cl. 260—673.5)



In a process for dehydrogenating hydrocarbons which comprises admixing a dehydrogenatable hydrocarbon with sulfur dioxide to form a mixed feed in a mol ratio of hydrocarbon to sulfur dioxide of from about 10:1 to about 1:1, passing the mixed feed into contact with a catalyst selected from the group consisting of the oxides of molybdenum, cobalt, and tungsten, and mixtures thereof, at temperatures favoring dehydrogenation of the hydrocarbon for a period of time sufficient to convert a substantial portion of the catalyst to sulfide and to lay down a minor amount of a carbonaceous deposit on the catalyst, while recovering hydrocarbons of lesser saturation than the hydrocarbon component of the feed, the improvement which consists in stopping flow of the mixed feed to the catalyst, passing an oxygen-containing gas over the catalyst while reacting the oxygen with the sulfide to produce oxides and sulfur dioxide, collecting a substantially oxygen-free sulfur containing gas until substantially all sulfur has been removed from the catalyst, continuing passage of oxygen-containing gas over the catalyst until substantially all carbonaceous material has been removed from the catalyst while venting the off-gases, stopping flow of oxygen-containing gas over the catalyst, purging oxygen from the catalyst, and resuming passage of mixed feed to the catalyst, the sulfur dioxide content of the mixed feed being substantially completely supplied by recycle of the sulfur dioxide containing gas recovered in the process to admixture with the hydrocarbon component of the feed.

ELECTRICAL

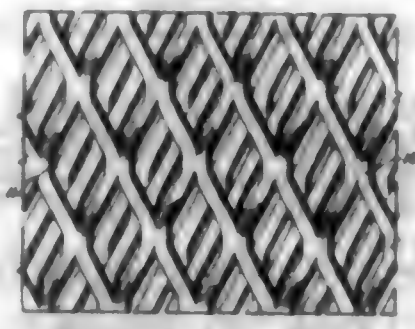
2,867,678

NEGATIVE ELECTRODE FOR SILVER-ZINC BATTERIES

Jean Doyen, Paris, France, assignor to Yardney International Corporation, New York, N. Y., a corporation of New York

Application January 26, 1956, Serial No. 561,592
Claims priority, application France January 28, 1955
2 Claims. (Cl. 136—71)

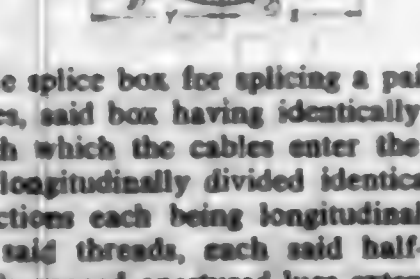
1. A negative electrode for batteries of the alkaline type, comprising a sheet composed of a plurality of apertured layers of expanded zinc laminated together in staggered relationship of their apertures, each of said layers having a thickness of the order of one tenth of a millimeter and not exceeding one millimeter.



2,867,679
GAS COMPOSITION FOR COOLING AND INSULATING PURPOSES

James D. Cobine, Rexford, N. Y., assignor to General Electric Company, a corporation of New York

Application December 4, 1952, Serial No. 324,079
6 Claims. (Cl. 174—17)

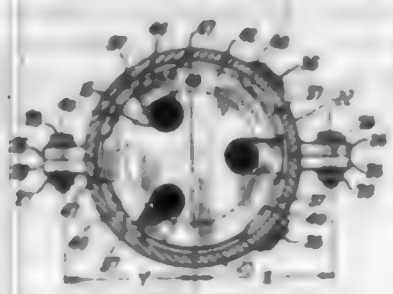


3. In an electric device of the type producing heat during its operation and having a member enclosing said device, and a gas within said member, said gas consisting of helium and sulfur hexafluoride, the latter gas being present as a constituent in the range of about 4 to 50 percent by volume.

2,867,680
SPLICE BOX

Henry D. Stecher, Cleveland, Ohio

Application February 9, 1955, Serial No. 487,116
7 Claims. (Cl. 174—92)

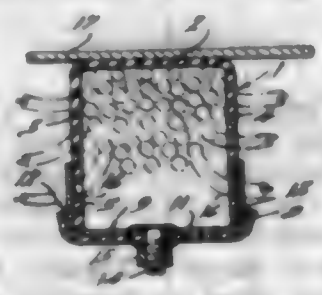


5. A cable splice box for splicing a pair of multi-conductor cables, said box having identically threaded open ends through which the cables enter the box, said box comprising longitudinally divided identical half-sections, said half-sections each being longitudinally symmetrical except for said threads, each said half-section having longitudinally spaced apertured lugs extending outwardly from the longitudinal side edges of the said section, the apertures of the lugs on each side edge being longitudinally aligned and the apertures on one side being spaced a greater distance from the longitudinal axis of the half-section than the apertures on the other side thereof, said half-sections being mated with correspondingly spaced apertures adjacent and aligned, and fastening means in said aligned apertures securing said half-sections together.

2,867,681
WIRING DUCT

Alwin Leopold Huebner, Milwaukee, Wis., assignor to Square D Company, Detroit, Mich., a corporation of Michigan

Application February 18, 1955, Serial No. 489,079
5 Claims. (Cl. 174—101)

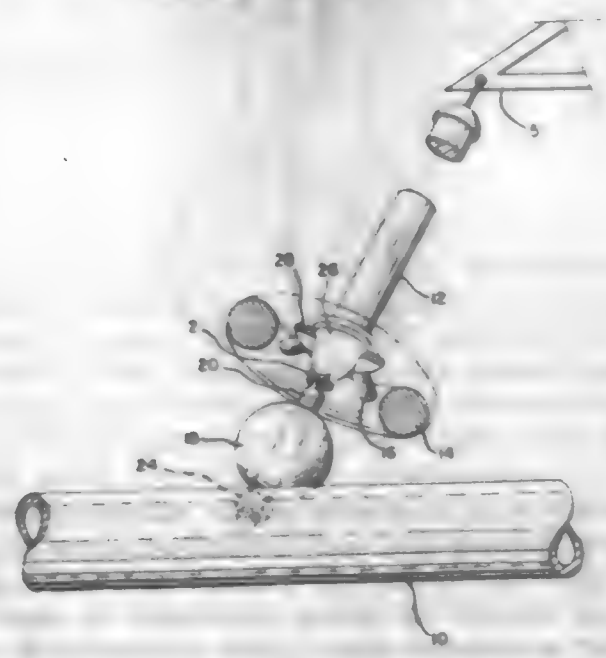


4. A wiring duct for the reception of circuit conductors comprising an elongated channel of insulating material having a substantially U-shaped cross section, the legs of said U having a multiplicity of openings therein for the passage of circuit conductors, means on the bight of said U-shaped channel for mounting it to a supporting surface, a U-shaped cover of insulating material closing the open side of said channel, metallic mounting brackets for said cover attached to said cover and interlocked with said channel, said mounting brackets being of substantially U-shape and disposed on the underside of the cover with the bracket legs embracing the outer surfaces of the channel legs, and tongues projecting from the inner surfaces of said bracket legs and engaged with certain of said conductor openings in interlocking relation, the spacing between said cover brackets being a multiple of the spacing between said conductor openings so that said bracket tongues will engage within said conductor openings along the duct.

2,867,682
CORONA PROOF LINK

Kenneth G. Smith, Linthicum Heights, and George H. Washington, Ellicott City, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application February 25, 1955, Serial No. 490,703
3 Claims. (Cl. 174—140)



1. A high potential insulating device for suspending an electrical conductor from a main supporting structure comprising, a rod-type insulator adapted to depend from said supporting structure, a torus-shaped corona ring attached to the distal end of said insulator, a rod-type link having an end pivotally attached to the distal end of said insulator, a pivotal mounting on the other end of said link for attachment to said conductor at angles other than 90° to the axis of said conductor, and a smooth surfaced, corona prevention body having a maximum diameter smaller than the outer diameter of said corona ring mounted on said link adjacent said pivotal mounting whereby an electrostatically strain-free surface is provided between said conductor and said corona ring despite the angular variation of said link with respect to said conductor.

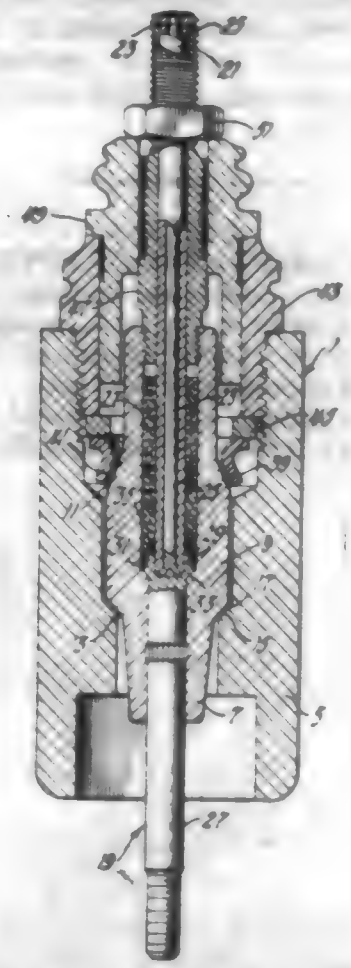
2,867,683
HIGH ENERGY ELECTRICAL LEAD-IN

Robert W. Smith, Flint, Mich., assignor to General Motors Corporation, a corporation of Delaware

Application January 15, 1954, Serial No. 404,282
3 Claims. (Cl. 174—152)

2. A hermetically sealed electrical lead-in plug comprising a shell having a stepped bore therein providing a ledge on its inner wall surface, a ceramic insulator having a stepped bore therein providing a ledge on its inner wall surface, a raised section formed on the outer surface of said insulator providing an upper and lower

annular shoulder, said lower shoulder being seated on said first-mentioned ledge, a sealing gasket positioned between said ledge and said lower shoulder, a continuous lead-in conductor positioned in the insulator bore, said conductor comprising a composite upper portion formed of a nickel-cobalt-iron alloy tube positioned in free sliding relationship about a copper core, said upper portion being brazed to a nickel lower portion having an enlarged head providing a shoulder adapted to be seated on said insulator ledge, a glass-bentonite seal in said insulator bore about said tube for sealing said conductor



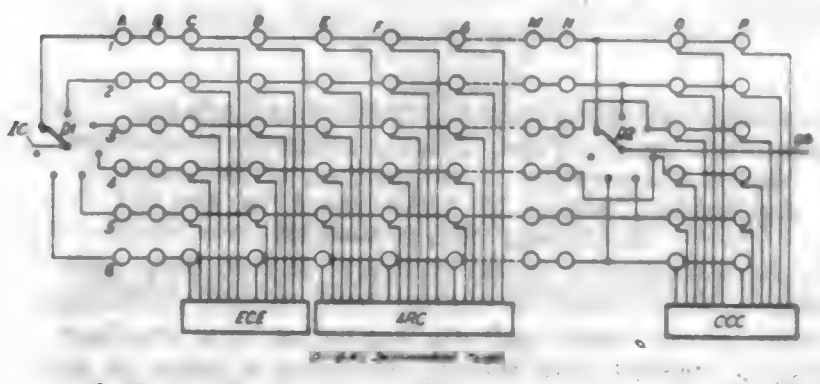
within said bore, a ceramic spacer positioned about said tube and abutting said seal, a terminal screw positioned in the upper portion of said insulator bore and about said tube, an annular C spring positioned on said upper shoulder, an annular metal spacer positioned on the upper end of said spring, an axially adjustable jam nut positioned in said shell in abutment with said metal spacer for applying axial pressure on said lower shoulder and sealing said insulator within said shell, and an insulator sleeve positioned about said terminal screw for separating said screw from said nut.

2,867,684

ELECTRICAL COMMUNICATION SYSTEMS

Gordon Taylor Dain, Wraysbury, England, assignor to British Telecommunications Research Limited, Taplow, England, a British company

Application March 1, 1955, Serial No. 491,397
Claims priority, application Great Britain March 3, 1954
6 Claims. (Cl. 178—2)



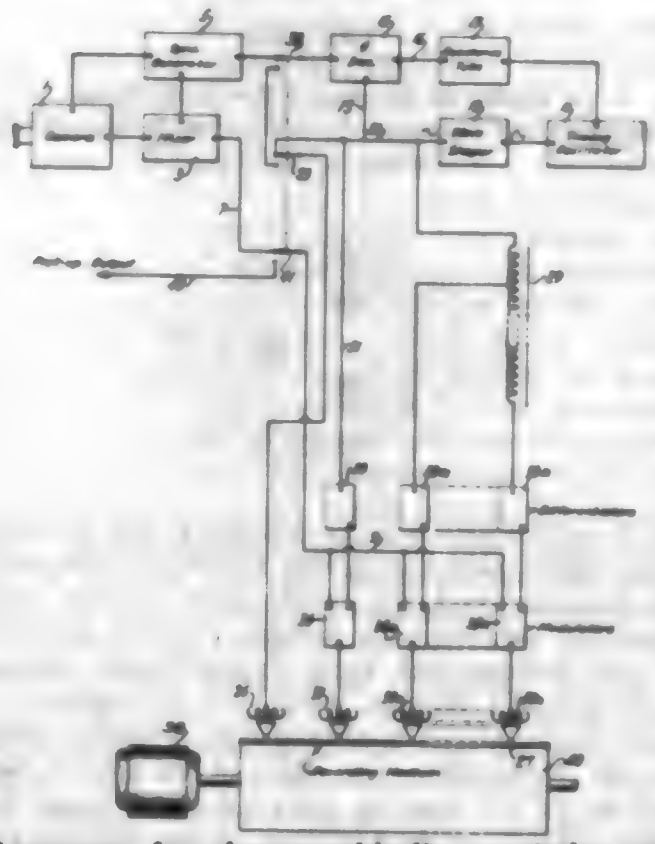
3. In a telegraph switching system employing a start-stop telegraph code, an incoming line, a storage register comprising a plurality of sets of cold cathode tubes, each set including a tube for each element of a character, first distributing means for distributing signal elements arriving over said incoming line to the first set of tubes, means for transferring all the stored characters from one set of tubes to the next successively through the register, second distributing means for scanning the final set of tubes in order to transfer to the outgoing line the successive elements of the character stored thereon, and switching means associated with a plurality of sets of tubes and operable to effect a route switching operation under the joint control of said plurality of sets of tubes responsive to predetermined characters stored thereon.

2,867,685

TELEVISION RECORDING AND REPRODUCING SYSTEM

Wayne Johnson, Los Angeles, Calif., assignor, by mesne assignments, to Minnesota Mining & Manufacturing Co., St. Paul, Minn., a corporation of Delaware

Application February 18, 1952, Serial No. 272,083
17 Claims. (Cl. 178—6.6)



1. Apparatus for phonographically translating television signals comprising multiple head means for simultaneously recording a plurality of electrical waves as parallel phonographic tracks, a timing wave generator of substantially constant frequency, means for deriving from said timing wave alternating pulses short in comparison with the period of said timing wave, a plurality of balanced modulators each having one output and two input circuits, a connection from the output circuit of each of said modulators to an individual head of said recording means, means for supplying the signals to be recorded to one input circuit of each of said modulators, and means for supplying to the second input circuit of each of said modulators said alternating pulses in different phases.

2,867,686

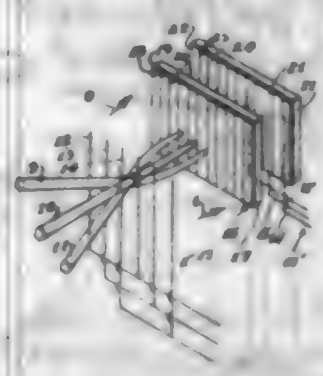
ELECTRONIC STORAGE TUBES

Theodore Hafner, New York, N. Y.

Application November 2, 1953, Serial No. 389,599
4 Claims. (Cl. 178—6.8)

1. In an electronic storage device, a storage layer including a pattern of discrete elements adapted to store information under control of electrons of one predetermined pulsation frequency applying one predetermined potential thereto, and adapted to release information under control of electrons of another predetermined pul-

sation frequency applying another predetermined potential thereto substantially lower than said first predetermined potential, means for selectively directing electrons of different pulsation frequencies to said storage layer, several arrays of grid elements arranged in front of said storage layer, each array being arranged in front of a corresponding array of storage elements so as to selectively either permit or restrict passage of electrons to said storage elements upon different voltages being applied to said grid elements, separate switching means including voltage sources for selectively applying different voltages to each of said grid arrays so as to either permit



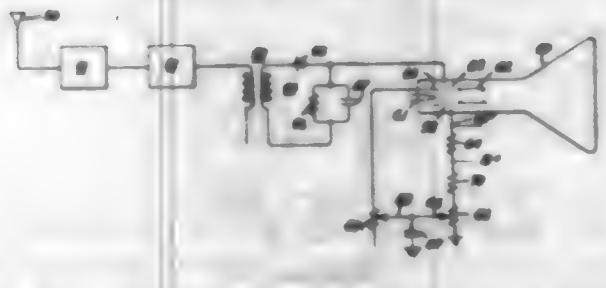
or restrict passage of electrons to each of the different arrays of storage elements for time intervals substantially independent of each other; said arrays of storage elements including at least one array of storage elements having a leakage delay which is substantially larger than that of the other arrays of storage elements; said different arrays of storage elements being interlaced so that each array of storage elements extends in intervals over the entire area of the storage layer, and a receiving layer arranged behind said storage layer substantially coextensive therewith for converting the electrons released from that storage layer into a visible picture.

2,867,687

CATHODE RAY REPRODUCTION TUBE HAVING AUXILIARY FUNCTION OF SYNCHRONIZING SIGNAL SEPARATION

William E. Glenn, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application September 15, 1954, Serial No. 456,230
4 Claims. (Cl. 178—7.5)



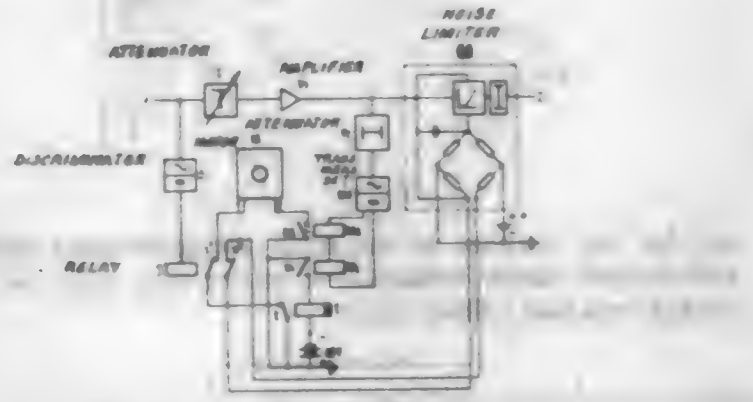
1. In a television receiver for the utilization of picture and sweep synchronizing signals the combination of a demodulator connected to be supplied with a high frequency wave including both picture and synchronization information with a cathode ray discharge device for displaying the picture having a cathode, a control grid, an accelerating anode and screen supported in spaced relation in the order named, said control grid and said accelerating anode having aligned apertures therein interposed in the path between said cathode and said screen with the aperture in said accelerating anode of substantially larger area than the aperture in said control grid and conducting means extending across the aperture of said control grid and providing the outer portion of the aperture therein with a more negative cutoff characteristic than the central portion thereof so that as the control electrode voltage becomes more negative the cutoff point for the beam current to said screen is reached before the cutoff point for electrons collected by said anode, means connecting the output of said demodulator circuit to said control grid and means connecting said anode to an output circuit for utilizing synchronizing information from said demodulator produced by electrons collected on said accelerating anode.

2,867,688

AUTOMATIC VOLUME REGULATOR

Cornelis Bevoort and Raimond Edouard Marie Baudet, The Hague, Netherlands, assignors to Staatsbedrijf der Posterijen, Telegrafie en Telefonie, The Hague, Netherlands

Original application May 26, 1951, Serial No. 228,394. Divided and this application March 18, 1957, Serial No. 649,270
Claims priority, application Netherlands June 16, 1950
9 Claims. (Cl. 179—1)



1. An automatic volume regulator consisting of an input and an output circuit, a first attenuator means for adjusting the output speech level of said regulator to a given mean value, a second attenuator means connected on the output side of said regulator for normally inserting a large value of attenuation in said output circuit to limit the line noise thereover, and discriminator apparatus to condition said first attenuator means for operation only with receipt of speech frequencies which are of a usable level at the input side of said regulator and which are of a syllabic rhythm, and to simultaneously control said second attenuator to remove said attenuation from said output circuit.

2,867,689

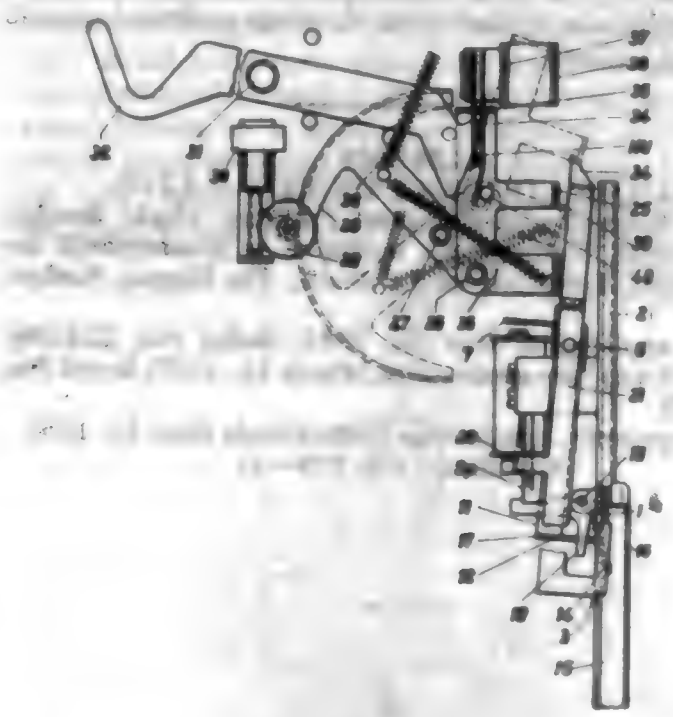
TELEPHONE PAY STATION COMPRISING COIN COUNTING DEVICE FOR DIFFERENT CALL RATES

Arno Horn and Heinrich Langner, Munich, Germany, assignors to Siemens & Halske Aktiengesellschaft, Munich, Germany, a corporation of Germany

Application April 25, 1955, Serial No. 503,551
In Germany January 28, 1950
Public Law 619, August 23, 1954
Patent expires January 28, 1970
9 Claims. (Cl. 179—6.3)

1. A telephone pay station comprising a generally vertically extending coin storage deposit chute for receiving and storing a plurality of coins successively deposited therein at the upper end thereof, a coin collect chute and a coin return chute respectively disposed at the lower end of said coin storage chute and respectively extending therefrom, a pivotally mounted coin return lever having an extension normally projecting into said storage coin deposit chute through a first opening formed in a wall of said deposit chute at the lower end thereof to block discharge of deposited coins by engagement with the edge of the lowermost coin disposed in said deposit chute, a second opening formed in said wall of said deposit chute ahead of said first opening, a pivotally mounted collect lever having an extension facing said second opening, a coin collect magnet, exchange controlled circuit means for

actuating said coin collect magnet, and means operated by said coin collect magnet for displacing said collect lever to move the extension thereof into said second open-



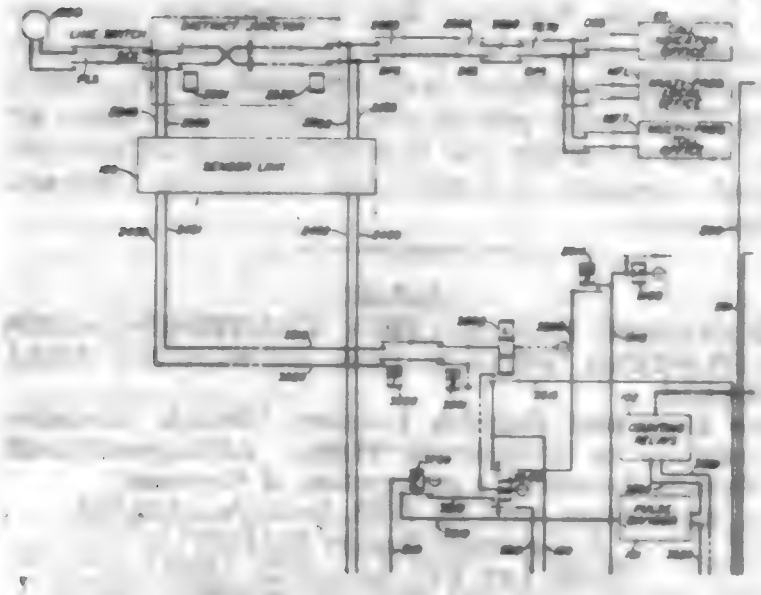
ing for the purpose of engaging the lowermost coin in said deposit chute broadside to move such coin for discharge into said collect chute.

2,867,690

AUXILIARY SENDER CIRCUIT

Charles O. Parks, East Norwalk, Conn., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application July 13, 1956, Serial No. 597,746
11 Claims. (Cl. 179—18)



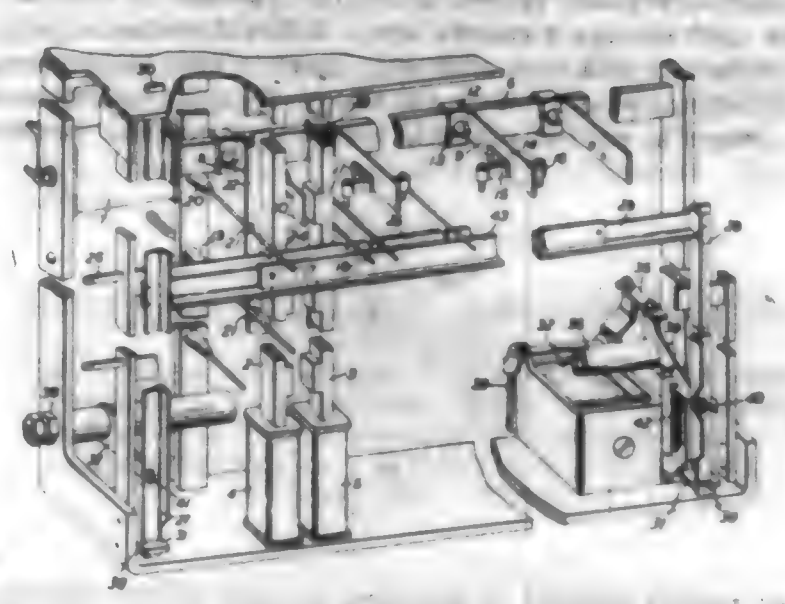
1. In a telephone system a local office, other offices, switching equipment at said other offices, trunks connecting said local office with said other offices, subscriber senders in said local office, means to set up a control circuit between one of said subscriber senders and one of said other offices including one of said trunks, means in said one subscriber sender for controlling the switching equipment at said other office over said control circuit, auxiliary senders, means to select one of said auxiliary senders, means to set up a control circuit between said one subscriber sender and a different one of said other offices, a relay in said subscriber sender, means responsive to the selection of said auxiliary sender to operate said relay, and contacts controlled by said relay to insert said selected auxiliary sender in said last-mentioned control circuit.

2,867,691

CROSSBAR SWITCH

Jakob Kruithof, Antwerp, Belgium, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application January 28, 1953, Serial No. 333,738
Claims priority, application Netherlands April 28, 1952
10 Claims. (Cl. 179—27.54)



1. A cross-bar switch comprising a plurality of groups of contacts coordinately arranged, two groups of bars of magnetic material coordinately disposed in spaced planes to form an array of crossing points adjacent said contacts, a plurality of groups of contact actuating elements, each element adapted to actuate a different one of said contacts, a different group of said elements coupled to each bar in the first of said bar groups, means for selectively inducing a magnetic flux between given bars in each of said bar groups thereby to displace an actuating element adjacent the cross-point of said given bars.

2,867,692

MAGNETIC RECORD DUPLICATING DEVICE FOR PRODUCING MAGNETIC RECORDS

Marvin Camras, Chicago, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois

Application December 22, 1952, Serial No. 327,268
11 Claims. (Cl. 179—100.2)



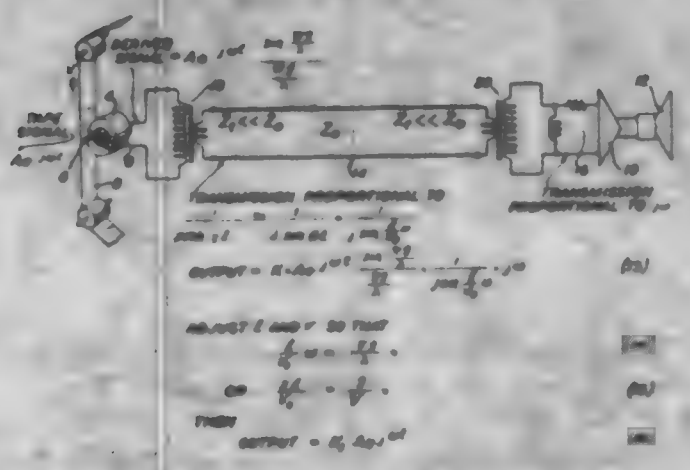
1. A duplicating device for transferring a magnetic pattern from a master magnetic record to a paramagnetic copy record medium comprising, in combination, a wound core for producing a magnetic transfer field in and around an air gap defined by opposing legs of said core, a master magnetic record medium and a paramagnetic copy medium disposed in said gap, and means for holding said record media in said magnetic transfer field, said means including a lever arm pivotally connected to said core and a sleeve surrounding one of said opposing legs, said sleeve reciprocably assembled with said lever arm and operable to compress said media into contact with one another against the other of said opposing legs within said magnetic tramfer field in said air gap.

2,867,693

EQUALIZATION OF APERTURE EFFECT

Gordon Raisbeck, Bernards Township, Somerset County, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 28, 1954, Serial No. 433,236
16 Claims. (Cl. 179—100.2)



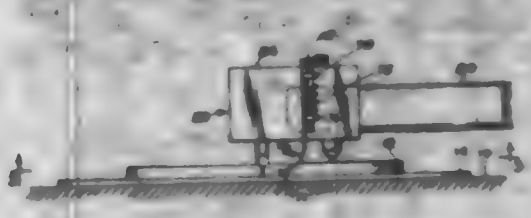
1. In combination with apparatus for generating a time signal from a space pattern which comprises an aperture of width g past which said space pattern is moved with a relative speed v and terminals at which the generated signal appears for application to a reproducer, said apparatus having a response having a significant factor which is a function of the wavelength of said space pattern, an equalizer for said response which comprises a uniform low-loss transmission line, and a reflecting termination at each end of said line, said line and said terminations, taken together, having a transfer admittance and being coupled in tandem between said terminals and said reproducer, the length and propagation speed of said line being so coordinated with the width g of said aperture and with the speed v of said relative movement that said transfer admittance is substantially the reciprocal of said significant factor.

2,867,694

DISC RECORD CUTTING MEANS

Charles Pearson, Jr., Elmhurst, Ill.

Application December 7, 1956, Serial No. 626,937
7 Claims. (Cl. 179—100.4)



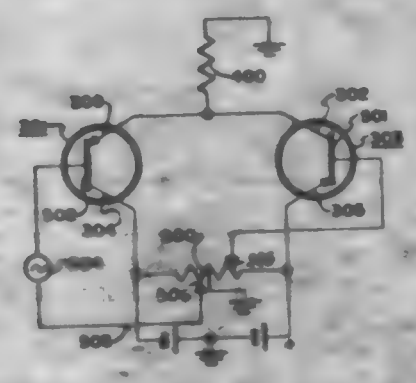
1. In combination, a housing having a top wall and downwardly extending side walls, one of said side walls having a gap therein to accommodate the end of a tone arm of a phonograph, said housing having the interior thereof opposite the wall gap free so that said housing can be disposed over the end of a tone arm and extend laterally from the tone arm on both sides thereof, adjustable means on said housing for clamping said housing over the end of a tone arm, a stationary sleeve disposed within said housing and carried thereby adjacent one end of the housing and laterally of the tone arm, a plunger movable in said sleeve, said plunger being movable in a direction generally perpendicular to the plane of a record, a tracking stylus carried by said plunger at the free end thereof, means for biasing said plunger to an outward position with respect to said sleeve, said tracking stylus being adapted to cooperate with a pregrooved guide disc record having a track of desired pitch cut therein, said guide and blank discs having different sizes so that the usable portion of the record blank and the pregrooving are both accessible, and an electro-magnetic record cutting type of transducer carried within said housing, said transducer and tracking stylus being disposed laterally on opposite sides of the tone arm, said transducer having a cutting stylus for cutting a record groove in a record blank, said transducer being usable with a battery and resistance type of microphone to provide a simple and economical construction for use with a conventional phonograph.

2,867,695

TEMPERATURE-COMPENSATED DIRECT CURRENT TRANSISTOR AMPLIFIER

James L. Buie, Sun Valley, Calif., assignor to Hoffman Electronics Corporation, a corporation of California

Application April 12, 1954, Serial No. 422,484
9 Claims. (Cl. 179—171)



5. A transistor amplifier exhibiting performance which is substantially independent of operating temperature including, in combination, a plurality of transistors each having emitter, collector, and base terminals; coupling means providing a direct current path between said emitter terminal of a first of said plurality of transistors and said collector terminal of a second of said plurality of transistors; an input terminal directly coupled to said base terminal of said first transistor; voltage means provided with a first terminal exhibiting a common reference potential, a second terminal exhibiting a direct current potential of a first polarity, and a third terminal exhibiting a direct current potential which is of equal magnitude but of a second and opposite polarity to said potential exhibiting said first polarity; an output load resistor directly coupled between said coupling means and said first terminal of said voltage means; said collector terminal of said first transistor being directly coupled to said second terminal of said voltage means, said emitter terminal of said second transistor being directly coupled to said third terminal of said voltage means, and first and second means for biasing said base terminals of said first and second transistors, respectively.

2,867,434

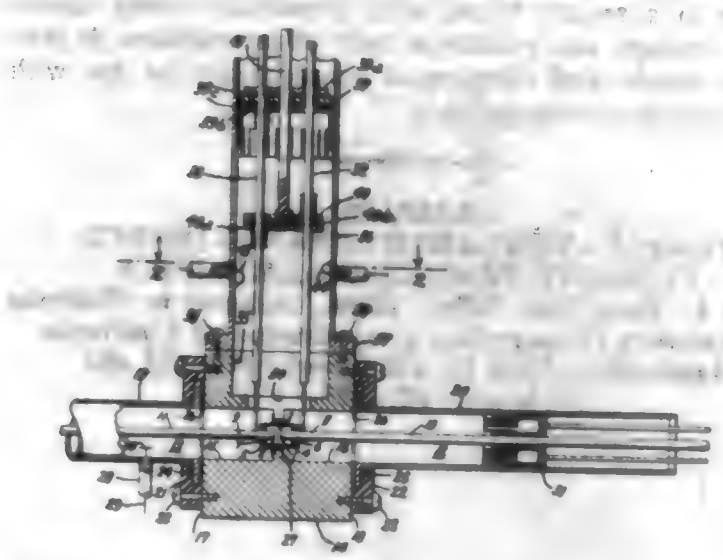
MICROWAVE GROUNDED CATHODE CIRCUIT

Norman T. Lavoo, Watervliet, N. Y., and Robert L. Kyhl, Brookline, Mass., assignor to General Electric Company, a corporation of New York

Application December 28, 1956, Serial No. 631,217
5 Claims. (Cl. 179—171)

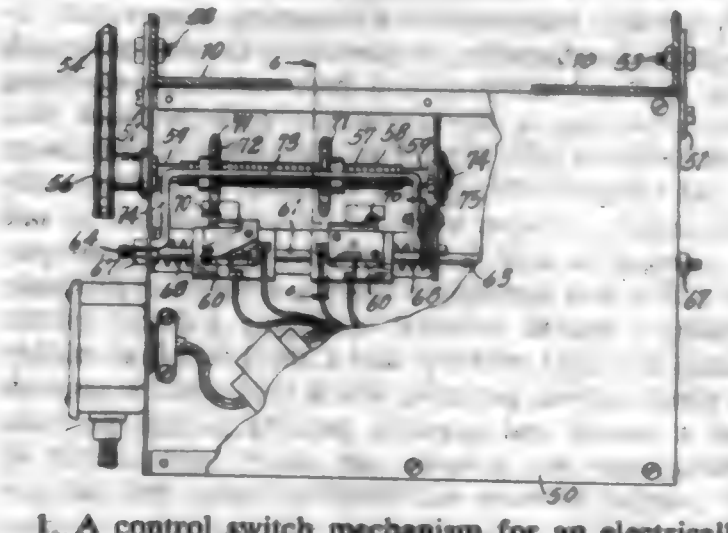
1. A high frequency system comprising an electric discharge device including cathode, grid and anode terminals supported in axially spaced and mutually insulated relation in the order named, concentric resonators extending in opposite directions from said device, each of said resonators including a hollow cylindrical outer conductor and an inner conductor, said outer conductor being connected to said grid terminal and said inner conductors being connected with said anode and said cathode respectively, said outer conductor defining an opening through the outer wall of said resonators and a pair of spaced parallel conductors extending through said open-

ing and coupled to the inner conductors of said resonators, a hollow conductor surrounding said parallel con-



ductors and a pair of output circuits coupled to said parallel conductors in oppositely phased relation.

2,867,697
DOOR CONTROL OPERATOR AND LIMIT SWITCH MECHANISM
Earl L. Stroup, Hartford City, Ind., assignor to Overhead Door Corporation, Hartford City, Ind.
Application September 13, 1956, Serial No. 609,574
8 Claims. (Cl. 200—47)



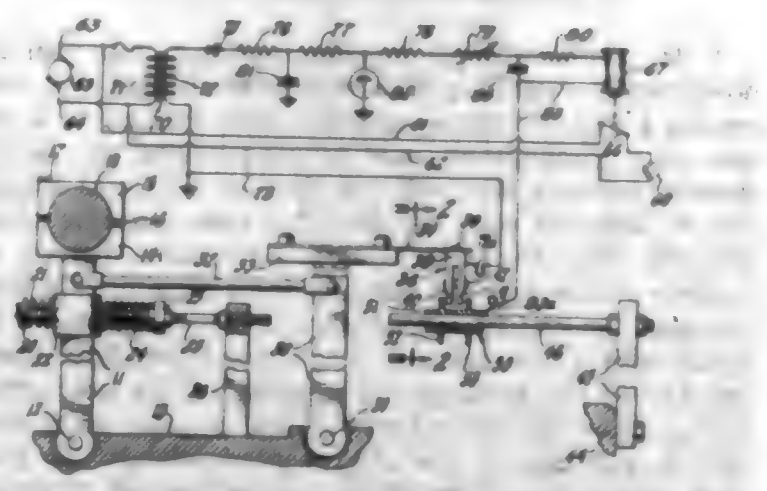
1. A control switch mechanism for an electrically reversible motor comprising a housing, parallel slideways within said housing, a pair of switches provided with laterally spaced arm-like slides mounted on said ways to support the switches for independent adjustment longitudinally of the ways, a threaded reversibly driven shaft disposed within said housing in parallel relation to said slideways, switch tappets having threaded engagement with said shaft to be simultaneously driven thereby, said tappets being independently adjustable on said shaft and having uniformly spaced peripheral notches, an elongated detent swingably mounted in said housing for engagement with aligned notches of said tappets, a spring anchored to a wall of said housing and biasing said detent into said notches, a screw anchoring the spring and positioned to engage a portion of the detent to hold the detent in spaced relation to the bottoms of the notches, and holding plates mounted on said switch slides engageable in a notch of a tappet engaged with the switch, the length of said detent exceeding that of the threaded portion of the shaft, said shaft having unthreaded portions at the ends thereof of less diameter than that of the threaded portion so that a tappet is automatically disengaged from the threaded portion of the shaft in the event of failure of a switch, said housing being provided with an opening through which said detent may be manually disengaged and the tappets individually adjusted on said shaft.

2,867,698
AUTOMOBILE FUEL TANK ALARM
Charles Gendolfo, Bronx, N. Y.
Application November 25, 1955, Serial No. 548,863
1 Claim. (Cl. 200—56)



A fuel gauge for a fuel alarm system, including a fuel dial having a range of indicia thereon to indicate full tank at one end and empty tank at the other end and having an aperture through which a dial pointer may extend, a bearing support upon the rear of the dial, a pointer shaft extending through the bearing support and having a dial pointer mounted upon the forward end and extending through the dial aperture with one end of the pointer adjacent to the indicia of the dial, an insulated shaft portion secured to the rear portion of said pointer shaft rearwardly of said dial and in turn having a rearwardly extending conductive shaft portion upon the rear of said insulated shaft portion, a conductor mounted upon the conductive shaft portion and making effective continuous electrical contact therewith, a stationary contact distinct from said conductor disposed rearwardly of said dial, and a rear metal contact arm fixed upon the rear end of said conductive shaft portion in substantial parallelism with the dial pointer in effective position to make active contact with said stationary contact when said dial pointer approaches the portion of said dial bearing the empty tank indicia, a circuit connection to the stationary contact and a second circuit connection to said conductor of said shaft portion.

2,867,699
SWITCHING DEVICE
William F. King, Birmingham, Mich.
Original application March 15, 1951, Serial No. 215,715, now Patent No. 2,773,389, dated December 11, 1956. Divided and this application April 9, 1956, Serial No. 577,862
7 Claims. (Cl. 200—61.45)



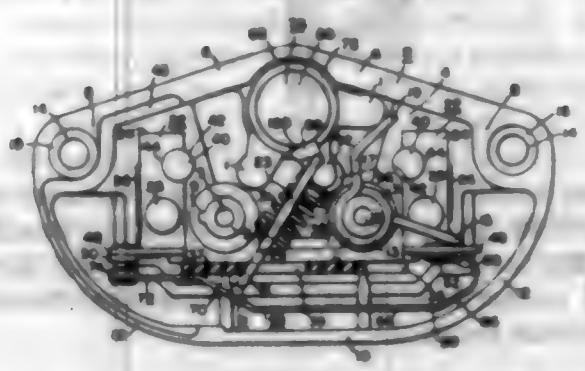
1. A switching device of the character described, including: a primary movable contact; means defining limits of movement therefor; and a secondary slidable contact having fixedly spaced portions straddling the primary contact and in the path of movement thereof, the fixed distance between the spaced portions of said secondary contact being greater than the width of said primary contact in an amount slightly less than the maximum limit of

movement of said primary contact whereby the primary contact engages the stationary contact and carries the stationary contact with it during a portion of maximum movement of the primary contact.

2,867,700
SWITCH

Owen L. Taylor, Easton, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a corporation of Connecticut

Application August 18, 1955, Serial No. 529,301
12 Claims. (Cl. 200—67)

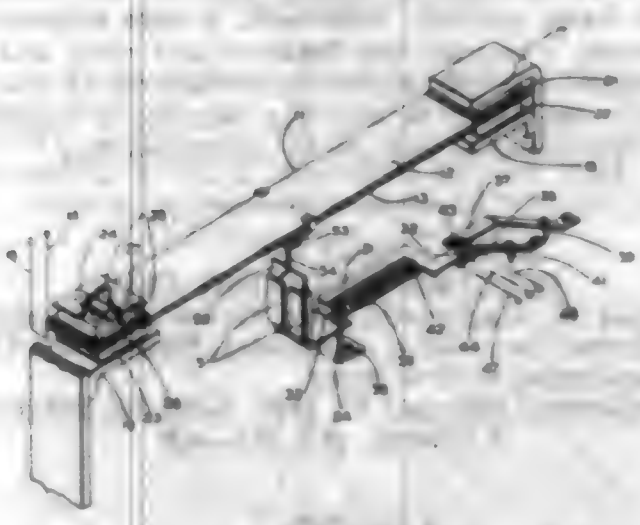


11. An electric switch comprising, a support of insulating material, separable contacts mounted on said support, a contact operating plate mounted for reciprocable movement on said support for opening and closing said contacts in response to movement of the plate in opposite directions, an overcenter spring toggle mechanism having an operating member pivotally mounted on said support and an oscillatable actuating member received in a relatively large opening in said plate so as to have lost motion with respect to said plate, means limiting movement of said operating member in opposite directions including an indexing spring acting on said operating member to bias it to each of its extreme positions, and means limiting motion of said plate in opposite directions.

2,867,701
DEVICE FOR PROVIDING REPRODUCIBLE MECHANICAL MOTIONS

Edward G. Thurston, Cleveland, Ohio, assignor to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio

Application February 15, 1955, Serial No. 488,374
11 Claims. (Cl. 200—87)

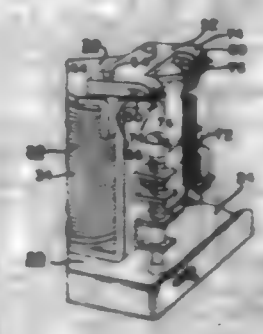


1. A device for providing reproducible mechanical motions into a plurality of predetermined positions, comprising: a motor element; a driven element; position-stabilizing means establishing a plurality of stable positions for said driven element so as to act upon said driven element to urge it from other positions into an adjacent one of said stable positions; and coupling means, comprising two coupling members, constrained in relatively slidable relationship with clearances of capillary dimensions therebetween, and a viscous material disposed therebetween but unconstrained by external structure from escaping, each of said two coupling members being connected individually to one of said motor and driven elements to provide relatively tight slip-free mechanical coupling between said two elements during relatively rapid motions of said motor element, resulting from changes in the energization thereof for driving said driven element between positions corresponding to two of said stable positions, but providing relatively loose coupling, with viscous slippage between said members of said coupling means, to conform to any relatively slow variations of the individual positions of said motor element which correspond to said stable positions of said driven element.

2,867,702
SWITCH

Lyman A. Rice, Anderson, Ind., assignor to General Motors Corporation, a corporation of Delaware

Application May 15, 1956, Serial No. 584,986
8 Claims. (Cl. 200—87)

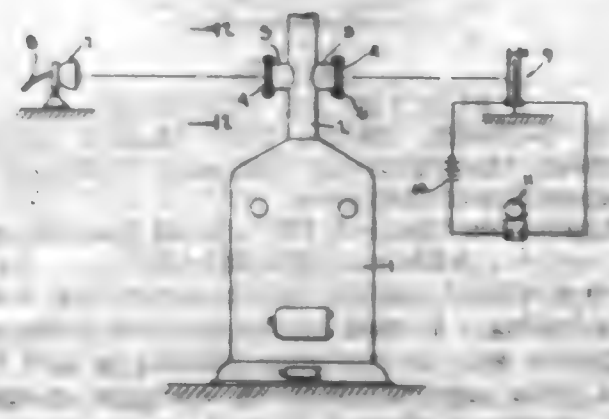


1. An electromagnetic switch comprising; a base, a support for said base, an electromagnet having an extending portion for securing; a support for an armature, a terminal and said base support to said base, an elongated rivet spaced from said electromagnet and having a stationary contact portion on one end and the other end arranged to secure said base support and a second terminal to the base, a movable contact on the armature arranged to engage said stationary portion of the rivet when said electromagnet is energized, and a strip metal hinge and a stop member laminated on said armature, said strip metal hinge being secured to said armature and armature support and the stop member being secured to said armature and extending across the armature support to engage the armature support for limiting the movement of said armature when the electromagnet is de-energized.

2,867,703
PHOTOTHERMIC RELAY AND CONTROL SYSTEM

George Koslow, New York, N. Y.

Application March 25, 1957, Serial No. 648,433
6 Claims. (Cl. 200—138)



4. A thermally actuated control or alarm apparatus comprising, in combination, a source of radiant heat of fixed intensity, a heat responsive relay exposed in the direction of said source of radiant heat and responsive to variation in the opacity of the heat transmitting medium, said relay including a bimetallic plate composed

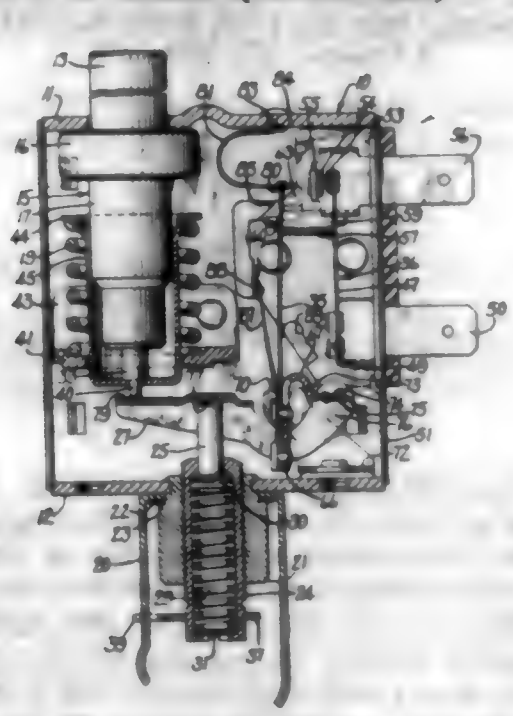
of strips of metal having disparate thermal coefficients, a second bimetallic plate having the same thermal characteristics as the bimetallic plate of the relay, said second plate being in spaced confronting relation to said relay plate, a shielding plate disposed between said bimetallic plates whereby said second bimetallic plate is shielded from the source of radiant heat, a device mounted on said second plate and mechanically actuated by the movement of the relay to communicate said movement in response to variation in opacity of the heat transmitting medium.

2,867,704

THERMOSTATIC SNAP ACTING SWITCH

Nicholas Miller, Chicago, Ill., assignor to The Dole Valve Company, Morton Grove, Ill., a corporation of Illinois

Application May 21, 1957, Serial No. 660,633
11 Claims. (Cl. 200—140)



1. A thermostatic snap acting switch comprising a switch casing, a rockable snap blade and lever within said casing and respectively pivotable about parallel axes, an overcenter spring rockingly mounted at one end in said casing in advance of said snap blade and having rocking engagement with said snap blade at its opposite end, means operating said snap lever to move said snap blade in a direction to effect closing of an energizing circuit comprising a thermal element having a power member extensibly movable upon increases in temperature and having operative engagement with said snap lever, and a fulcrum for said snap lever disposed within said casing on the opposite side of said lever from said power member and selectively adjustable from the outside of said casing to vary the temperature range of operation of said switch.

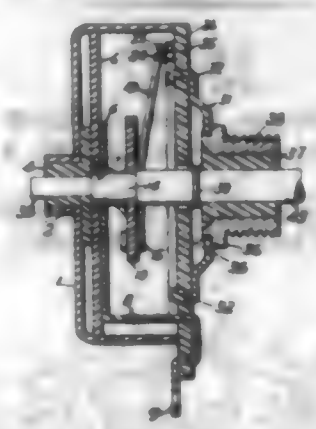
2,867,705

ELECTRICAL RESISTOR

John R. Beckwith, Mexico City, Mexico, assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application March 5, 1957, Serial No. 643,983
3 Claims. (Cl. 201—55)

1. An electrical control device comprising a metallic housing having a bearing at one end and being open at the opposite end, an insulating bushing in said bearing, a front plate constructed of an insulative material, an arcuate resistance element secured on one face of said front plate, means fastening said front plate to said casing forming an enclosed chamber with said resistance element therein, a metallic control shaft journalled in said insulating bushing and said front plate whereby said shaft is insulated from said housing, an insulative rotor keyed to said shaft in said chamber, an electrically conductive frame secured to said rotor, said frame having projecting resilient arms, one of said arms bearing on said resistance element, a conductive ring surrounding said shaft in said chamber, said conductive ring being insulated from said shaft and said housing, another of



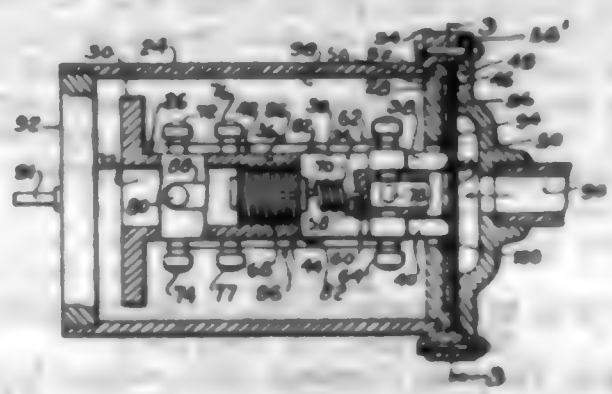
said arms bearing upon said ring, a connector extending from said ring and positioned to intercept said frame to limit the rotation thereof, and terminal lugs providing electrical connections to said connector and the ends of said resistance element.

2,867,706

PRESSURE SENSITIVE RESISTOR

Louis D. Statham, Beverly Hills, Calif., assignor to Statham Instruments, Inc., Los Angeles, Calif., a corporation of California

Application May 17, 1954, Serial No. 430,227
7 Claims. (Cl. 201—63)



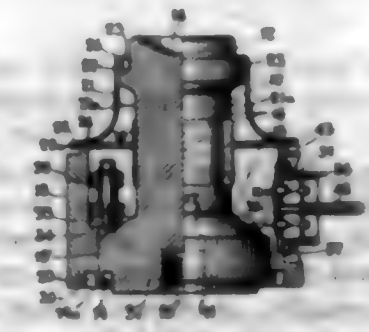
1. A transducer which comprises a frame, a flexible diaphragm mounted on said frame, an electrical resistance strain wire stretched in tension between and connected to said frame and said diaphragm, a plate adjacent said diaphragm, a narrow gap between said plate and said diaphragm, said gap permitting oscillation of said diaphragm, and liquid in said gap forming a liquid film which is retained in said gap by capillary action.

2,867,707

ELECTRIC WEIGHING CELL

Dennison H. MacDonald, East Haven, Conn., assignor to Revere Corporation of America, Wallingford, Conn., a corporation of New Jersey

Application February 17, 1956, Serial No. 566,165
5 Claims. (Cl. 201—63)



1. A load measuring cell comprising in combination, a single column member integrally formed with a sup-

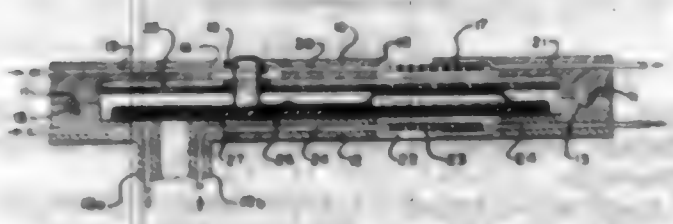
porting base portion at one end and a load receiving portion at the other end, electrical strain gauge means applied to surface areas on an intermediate portion of said column member, a rigid casing surrounding said column member and providing therein a space in which said strain gauge means and connections thereto are located, said casing having a lower portion which extends around in embracing relation to said column member and is sealed in respect thereto, and an annular closure member for sealing the upper end edge of said casing with respect to the column member, the upper end of which closure member engages and is sealed with respect to the column member, portions of such closure member beneath its upper sealed end being directed downwardly and thence being curved outwardly to flare into a peripheral portion substantially in a plane generally perpendicular to the column member and sealed with respect to said upper end edge portion of the casing, said closure member being formed of thin sheet metal, and, due to its downwardly and outwardly flared shape, being resilient in both horizontal and vertical directions with respect to the column portions which it surrounds.

2,867,708

METHODS AND APPARATUS FOR INDUCTION HEATING

Dick M. Criswell, Wheeling, W. Va., assignor to Wheeling Steel Corporation, a corporation of Delaware

Application March 14, 1957, Serial No. 645,951
4 Claims. (Cl. 219—10.43)



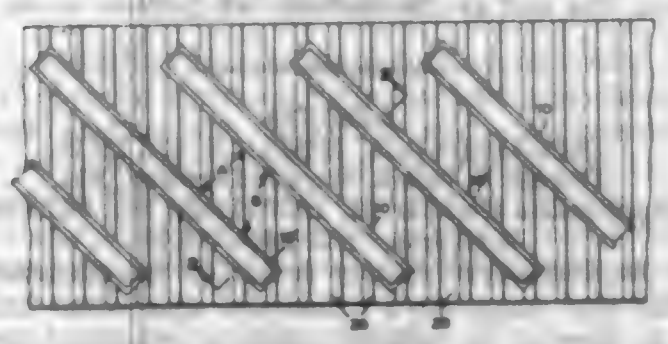
1. An inductor for heating flat or irregular shapes comprising at least two separable members forming therebetween a treating zone, openings in at least one of said memers corresponding to the areas to be treated, inductor means in said openings, interengaging electrode members adapted to connect the members and the inductor means in series and means supplying current to the members.

2,867,709

STRAY FIELD ELECTRODE BUFFER

Milton Rothstein and Bernard Lichtenstein, Flushing, N. Y., assignors to Radio Receptor Company, Inc., Brooklyn, N. Y., a corporation of New York

Application June 14, 1956, Serial No. 591,319
10 Claims. (Cl. 219—10.53)



1. For use in high frequency electric field heating of work pieces by the stray fields between substantially parallel elongated electrodes engaged with the same surface of the work; a buffer of dielectric material interposed between the electrodes and the work; the surface of the buffer directly engaged by the electrodes being interrupted by spaced depressions to provide air gaps therein between adjacent electrodes of opposite polarity, and the air gaps being in the shortest physical distance between adjacent electrodes to increase the length of the arc-over path between the electrodes.

2,867,710

ELECTRIC HEATER

Theodore W. Glynn, Kingsport, Tenn., assignor to Blue Ridge Glass Corporation, Kingsport, Tenn., a corporation of New York

Application August 30, 1957, Serial No. 681,289
8 Claims. (Cl. 219—34)



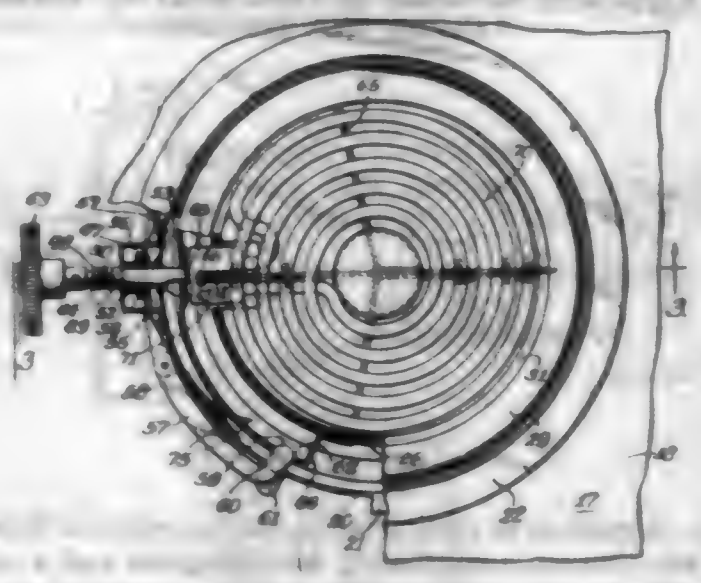
2. In an electric heater, a rectangular metal tray having a backwall and a forwardly extending sidewall, tubular resilient spacers mounted in the tray and extending along its sidewall at its corners, the spacers having feet engaging the backwall and projecting inward along it, clips secured to said backwall and overlapping said feet to help hold the spacers in place, a glass heater plate engaging the front of the spacers and having an electric resistance element on its rear surface, and retaining means secured to the tray overlapping marginal areas of the plate to hold the plate firmly against the spacers, the spacers having integral protuberance extending forward between the tray sidewall and the edge of the plate.

2,867,711

COUNTERTOP COOKING APPARATUS

Daniel R. Fisher, Jr., Benton Harbor, and Marion R. Karocki, St. Joseph, Mich., assignors to Whirlpool Corporation, a corporation of Delaware

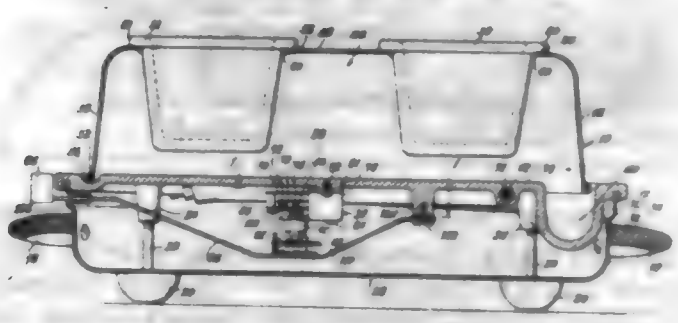
Application April 17, 1957, Serial No. 653,386
15 Claims. (Cl. 219—37)



1. In cooking apparatus of the character described, a structure comprising a top wall having an opening therein, a supporting member pivotally mounted on said wall at said opening thereof for turning movement about a transverse axis and reversible to occupy either one of two operative positions for disposing either side of said member at said opening, one side of said member providing a surface substantially conforming to said opening and disposed to be positioned therein substantially flush with the upper surface of said top wall in one position of said member, a cooking appliance mounted on said member at the opposite side thereof and exposed through said opening for use in the other position of said member, an adjusting member mounted on said structure for turning movement about said axis and for movement along said axis toward and away from said supporting

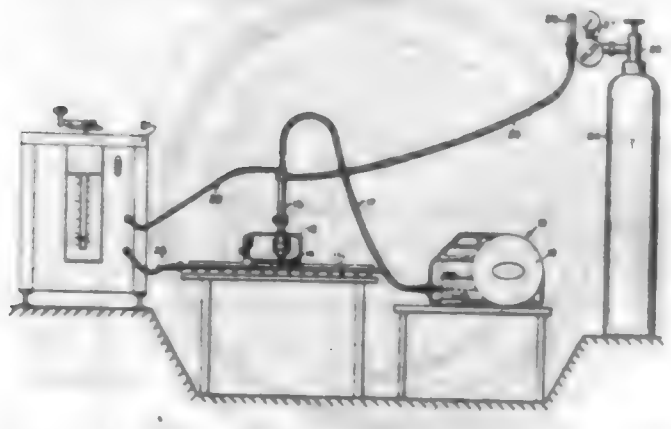
member, said adjusting member being connected to said supporting member for turning the latter to either of its said two positions, and supplementary means cooperating with said adjusting member for releasably locking said supporting member in each of its said two positions.

2,867,712
STEAM TABLE GRILL
Fred C. Schwaneke, Chicago, Ill., assignor to Dormeyer Corporation, Chicago, Ill., a corporation of Illinois
Application April 21, 1955, Serial No. 502,973
8 Claims. (Cl. 219—43)



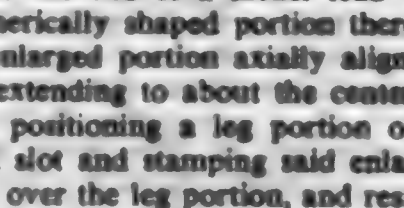
1. Cooking apparatus comprising a grid having a cooking surface, means for heating said grid, an enclosure removably mounted on said grid in sealing relation therewith forming a chamber, a well, formed in said grid for the selective reception of water, said well being in communication with said chamber and atmosphere and in heat exchange relation with said grid, said enclosure being apertured for reception of food receptacles whereby heat may be imparted to food received in said receptacles either directly from said grid or through the medium of steam formed by vaporization of water in said well.

2,867,713
GAS SHIELDED ARC CUTTING
Albert Muller, Watchung, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application November 15, 1954, Serial No. 468,646
5 Claims. (Cl. 219—69)



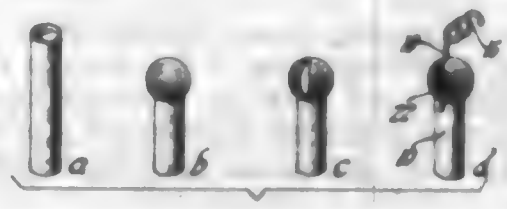
1. A method of cutting metal which comprises forming an arc between a consuming wire electrode and a workpiece to be cut, increasing the electron emissivity of said wire electrode by supplying to said arc a substance comprising a metal selected from the group consisting of the alkali metals, the alkaline earth metals, lanthanum and the lanthanum series rare earth metals, actinium and the actinium series rare earth metals, scandium, and yttrium, supplying current through said wire electrode to said arc with said electrode at least part of the time at negative polarity relative to the workpiece and with said current at a strength sufficient both to penetrate said workpiece and form a kerf therein as said electrode is moved laterally with respect to said workpiece and to project molten metal axially from the end of said electrode freely beyond the walls of said kerf, feeding the electrode wire to said arc at a rate such that an arcing portion of said electrode is maintained within said kerf, and shielding the end of said wire electrode, the arc, and the portion of the workpiece being cut with a flowing stream of inert gas.

2,867,714
SUPPORT FOR STUD-WELDING GUN
John Robert MacLachlan, London, England, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application April 18, 1956, Serial No. 579,053
Claims priority, application Great Britain April 21, 1955
3 Claims. (Cl. 219—98)



1. A support for a welding gun carrying a stud to be welded to a workpiece at the point of intersection of two perpendicular marking-off lines on the workpiece, comprising a base member adapted to be placed on the workpiece and provided with a welding opening substantially larger than the stud, at least two locating marks on said base member and lying one on each of two perpendicular lines having an intersection point within said opening, and means on said base member for supporting the welding gun with the stud at said intersection point.

2,867,715
METHOD FOR MAKING LAMP BULB
Robert N. Falge, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 13, 1954, Serial No. 449,572
1 Claim. (Cl. 219—117)

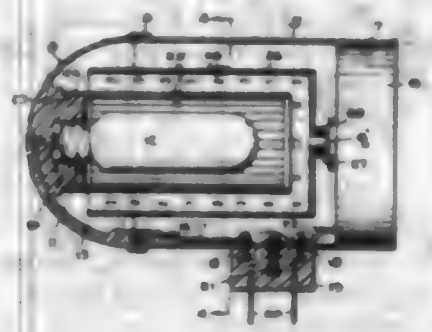


In a process for making a lamp bulb, the steps of applying heat to the end of a nickel lead wire to form an enlarged spherically shaped portion thereon, forming a slot in said enlarged portion axially aligned with said lead wire and extending to about the center of said enlarged portion, positioning a leg portion of a tungsten filament in said slot and stamping said enlarged portion to close the slot over the leg portion, and resistance welding the free end of the filament leg portion to the lead wire.

2,867,716
ORNAMENTAL DISPLAY DEVICE
Vincent B. Ream, West Hollywood, Fla.
Application October 22, 1957, Serial No. 691,635
2 Claims. (Cl. 240—10.1)

1. An illuminated display device of the character described that comprises a cylindrical transparent housing that is open at its opposite ends, a cylindrical electric motor that has interfitting engagement within one open end of the housing and with the motor having a drive shaft that is axial with respect to the housing, a semispherical transparent closure cap for the opposite end of the housing, the closure cap being detachably connected with the housing, the closure cap having an enlarged centrally arranged portion that is provided with an electric socket, an incandescent lamp engageable with-

in the socket to be axially disposed with respect to the housing, the enlarged portion of the cap being externally cylindrical, a fixed drum supported upon the cylindrical portion and with the drum being provided with a circumferentially arranged group of color strips, the drum being concentric to and in spaced apart relation to the lamp, a second drum that is arranged outwardly of and in spaced apart concentric relation to the first named drum and with the second named drum being rotatably connected to the shaft of the motor, a plug-in connector carried by the housing for connection with a source of



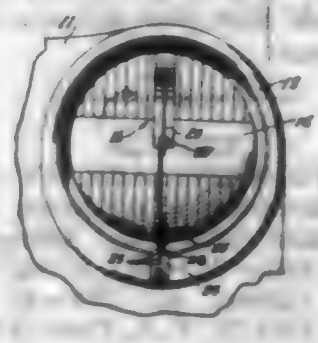
electrical energy, separable connector elements carried by the housing and the cap and with the elements of the housing being connected to the plug, and with the elements of the cap being connected with the socket, the said motor being also connected with the plug and whereby the motor and the lamp are simultaneously energized, the said second named drum being circumferentially closely perforated and whereby various colors passing through the segments will be projected through the apertures and through the transparent housing and the cap to impinge upon surrounding objects.

2,867,717
LEG ATTACHED LIGHT
Michael J. Forquer, Greeley, Colo.
Application July 6, 1956, Serial No. 596,339
1 Claim. (Cl. 240—10.68)



In a flashlight, the combination of a case and a movable closure for the case, means to hold said closure in selected position with respect to said case including a series of ribs and an undulated clamp carried by said case and said closure and in engagement with each other, an elongated conductive strip located internally and extending longitudinally of said casing, a first angulated arm contacting one pole of a battery in the battery case, a second angulated arm spaced from and parallel to said first angulated arm and coacting with the latter and the part of the strip therebetween for supporting the battery in the battery case, a third angulated arm spaced from and parallel to the other angulated arms to provide a contact, an angulated conductive strap detachably fastened in said closure, a lamp socket formed by one leg of said strap, said one leg of the conductive strap being disposed in opposition to said third angulated arm and adapted to be brought into contact with the latter for functioning as a switch in response to movement of said closure on said case, said closure being of light transmissive material and having walls which define a lamp cavity in which said socket is disposed.

2,867,718
GLARE REDUCING SHIELD
James B. Anderson, Garland, Tex.
Application October 1, 1956, Serial No. 613,152
1 Claim. (Cl. 240—46.01)



In combination with an automobile head light having a lens and a pair of housing members adapted to clamp the peripheral surfaces of the light between them whereby the light is supported and retained in place, a glare reducing shield comprising a strip, formed of opaque material and having a non-reflecting back surface, positioned over the outside of the lens and extending downwardly from the top edge of the lens, along its vertical center line, to substantially its horizontal center line, the strip being curved to conform substantially to the curvature of the lens and the upper end of the strip being shaped for engagement with the peripheral surfaces of the light and being secured thereto by the housing members, a vertically disposed fin attached to the strip along its vertical center line and extending outwardly at right angles thereto, a tab attached to one of the housing members below the lens, and a tension spring connected at its ends to the fin and the tab whereby the lower end of the strip is secured in engagement with the lens.

2,867,719
LIGHTING FIXTURES
Allan P. Stephenson and Jack Kaufman, Chicago, Ill., assignors to Compco Corporation, Chicago, Ill., a corporation of Illinois
Application December 7, 1955, Serial No. 551,576
3 Claims. (Cl. 240—51.11)



2. In a fluorescent lighting fixture; an opaque housing having a top wall and a plurality of depending walls defining a cavity for mounting therein electrical components including fluorescent lighting tubes, a translucent light diffusing member having a bottom wall and upwardly protruding flangeless side walls, a frame of channel-

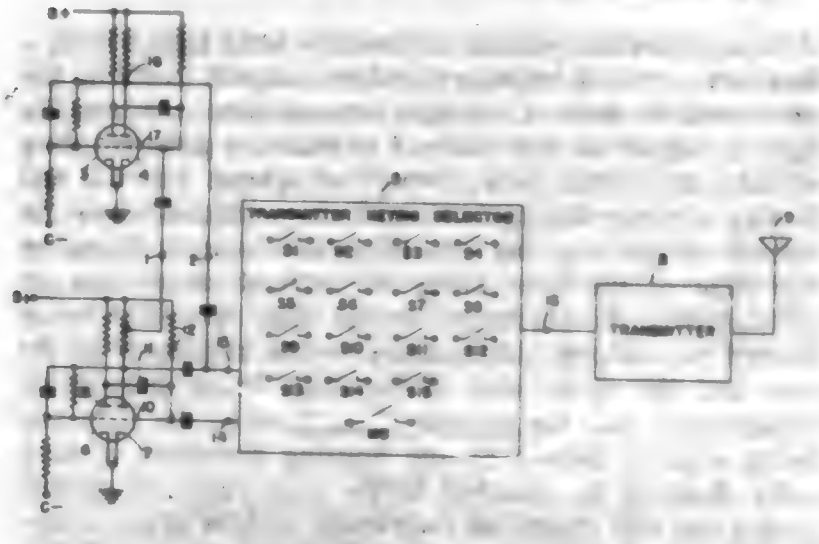
shaped cross-section mounted with the upper marginal edges of said diffusing member side-walls positioned in said channels, said diffusing member side-walls formed with a plurality of slots, said slots spaced one from the other and positioned in spaced relationship with the top edges of said side-walls, and retaining elements positioned inside said cavity, said retaining elements cooperating with said slots to removably support said diffusing member in optimum light diffusing unmasked relationship, said diffusing member side-walls positioned in close proximity to the side-walls of the housing, each of said retaining elements comprising a device having a portion adapted to protrude into said slot and another portion affixed to said frame.

2,867,720

COMMUNICATION RELIABILITY APPARATUS

Conrad H. Hoeppner, Washington, D. C., and Carl Harrison Smith, Jr., Arlington, Va.

Application October 26, 1945, Serial No. 624,914
5 Claims. (Cl. 250—6)
(Granted under Title 35, U. S. Code (1952), sec. 266)



2. A system of pulse radio communication comprising means transmitting consecutively and within a predetermined interval of time for each element of a message a plurality of identical pulse groups each of which conveys the entire message element, means receiving said pulse groups, means connected to said receiving means for registering the pulse comprising said pulse groups, means connected to said receiving means for striking from registration any previously received pulses in response to the initial pulse of the first received of said plurality of pulse groups, said registering means registering the remaining pulses in said first received pulse group, and means connected to said striking means holding same unresponsive to the initial pulses of subsequent pulse groups conveying the same message element, said registering means also registering all those pulses of each of said subsequent groups corresponding to pulses present as transmitted but not as received in previous pulse groups conveying the same message element.

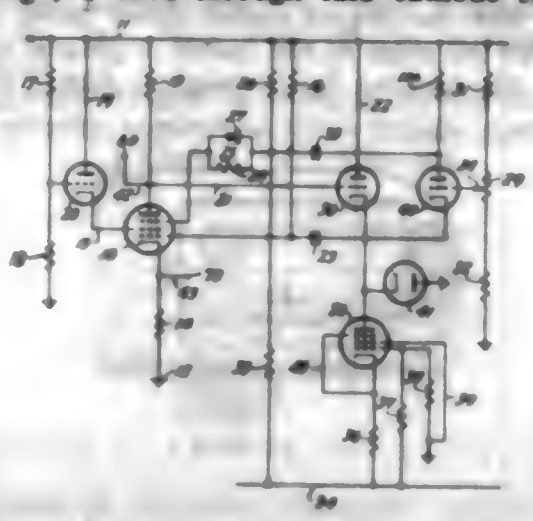
2,867,721

REGENERATIVE PHANTASTRON TIME DELAY CIRCUIT

Delos B. Churchill, East Norwich, N. Y., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application March 27, 1953, Serial No. 344,951
4 Claims. (Cl. 250—27)

2. A regenerative circuit for providing extremely short and accurate time delays between a first and a second electrical impulse which comprises, in combination, a vacuum tube, having an anode and a first control grid, which, independent of said first electrical impulse, is in a normally non-conductive state, a cathode follower tube having a second control electrode directly connected to said anode and also having its cathode coupled to said first control grid, said first electrical impulse being applied to said second control electrode of said cathode follower giving rise to an output pulse at the cathode thereof, said output pulse being applied to said first control grid to initiate conduction in said vacuum tube and giving rise to a negative pulse at said anode thereof, said negative pulse being fed back through said cathode follower to



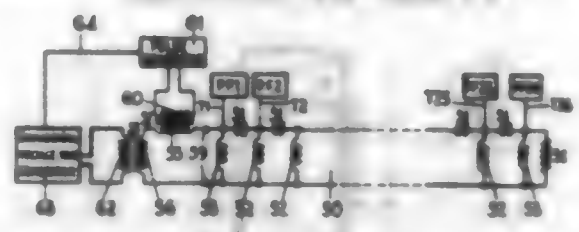
said first control grid whereby the voltage at said anode of said vacuum tube decreases at a linear rate, means, having a control potential thereof fixed independent of said first electrical impulse, for producing a negative output pulse when said plate voltage has reached a predetermined value, said negative output pulse being applied to said suppressor grid of said vacuum tube to return it to its normally non-conductive state.

2,867,722

ELECTRIC PULSE DISTRIBUTORS

John Gilbert Little, Harrow, England, assignor to The General Electric Company Limited, London, England

Application February 19, 1954, Serial No. 411,493
6 Claims. (Cl. 250—27)



1. An electric pulse distributor comprising a phase shifting network which comprises a plurality of similar sections connected in cascade and which has a pair of input terminals and a plurality of output tappings spaced along it in one direction from the input terminals, means to supply across the said input terminals a signal having a substantially sinusoidal voltage waveform, means to supply a train of voltage pulses to at least one of said input terminals of the phase shifting network, and a plurality of pulse forming means which are coupled one to each of the output tappings of the phase shifting network and which are each responsive to the resultant voltage at the output tapping to which it is coupled passing through a value in the region of the mean voltage of the signal having the substantially sinusoidal waveform due to a pulse of the said train being superimposed on that signal as it passes along the phase shifting network.

2,867,723

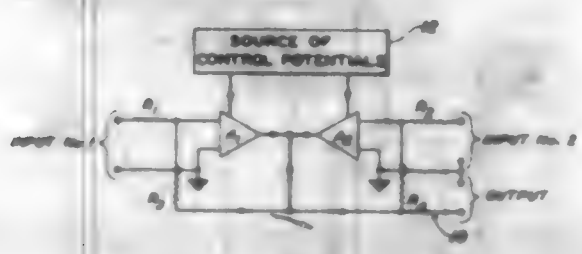
ELECTRONIC SWITCHING APPARATUS

Carl P. Spaulding, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamic Corporation, Pasadena, Calif., a corporation of California

Application May 17, 1954, Serial No. 430,049
2 Claims. (Cl. 250—27)

2. Electronic switching apparatus for selectively responding to any one of a plurality of separate input

signals and providing corresponding output signals which are substantially equal quantitatively to the selected input signals comprising a plurality of separate input circuits each having a series resistance, a common output circuit, a plurality of D. C. amplifiers coupling the input circuits to the output circuit, means for selectively activating the amplifiers, and means for causing the appa-



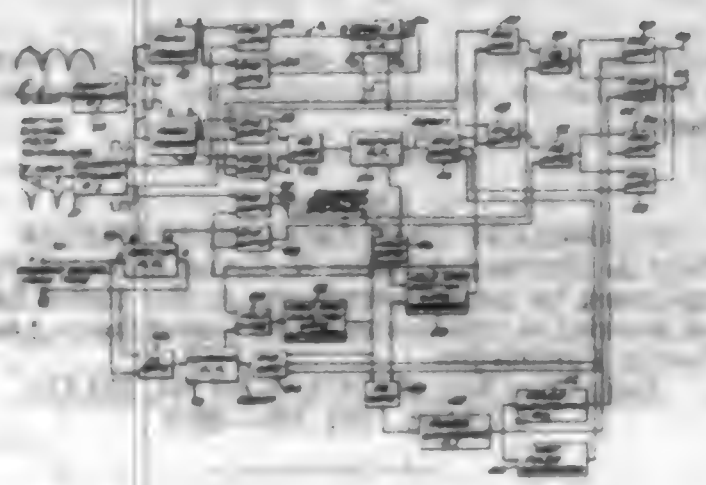
ratus to have an overall amplification substantially equal to one, including a negative feedback circuit coupled between the output circuit and the input circuits, said negative feedback circuit having a series resistance coupled to each series resistance input circuit to provide a resistive adding circuit combining feedback and input signals.

2,867,724

CONTROL CIRCUIT

Norman L. Olson, Los Angeles, Calif., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application November 23, 1956, Serial No. 623,937
8 Claims. (Cl. 250—27)



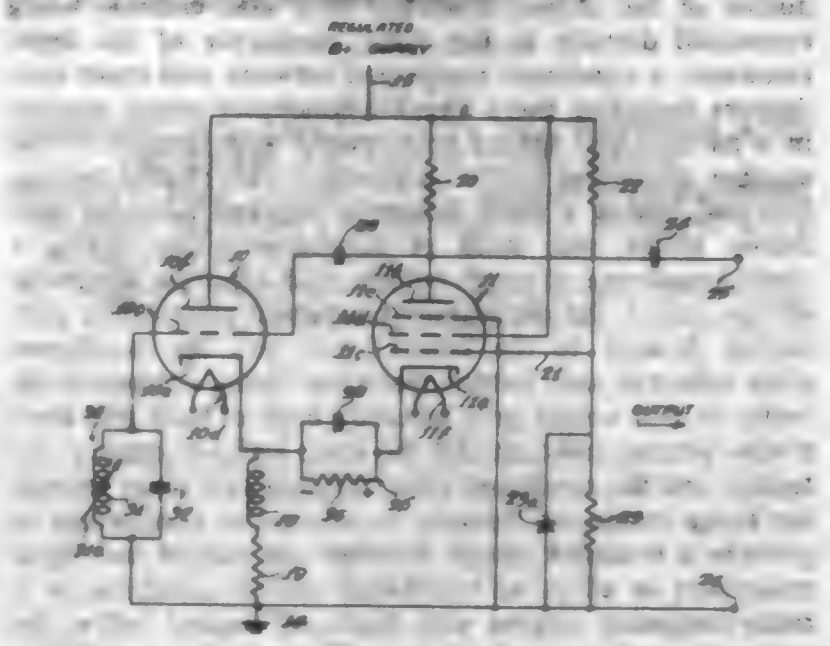
4. A circuit for generating a first and a second pulse in a manner representative of a direction of motion responsive to a first and second train of relatively phase-displaced signals generated responsive to motion comprising first and second means to which said first and second trains of signals are applied, each said means generating a first output responsive to a signal exceeding a predetermined value and otherwise generating a second output, storage means, means responsive to a first output of said first means to activate said storage means to store whether said second means is producing a first or a second output at the time, a first pulse generator, a second pulse generator, means responsive to a second output of said first means occurring after said first output to energize said first pulse generator, means to energize said second pulse generator from said first pulse generator output, a first pulse terminal, a second pulse terminal, and means responsive to said storage means storing a first output to couple said first and second pulse generator outputs respectively to said first and second pulse terminal and responsive to said storage means storing a second output to couple said first and second pulse generator outputs respectively to said second and first pulse terminals.

2,867,725

ELECTRONIC OSCILLATOR

Joseph B. Batchelor, Jr., Monroe, Ga., assignor, by mesne assignments, to Patronix, Inc., Chicago, Ill., a corporation of Delaware

Application February 20, 1956, Serial No. 566,426
4 Claims. (Cl. 250—36)



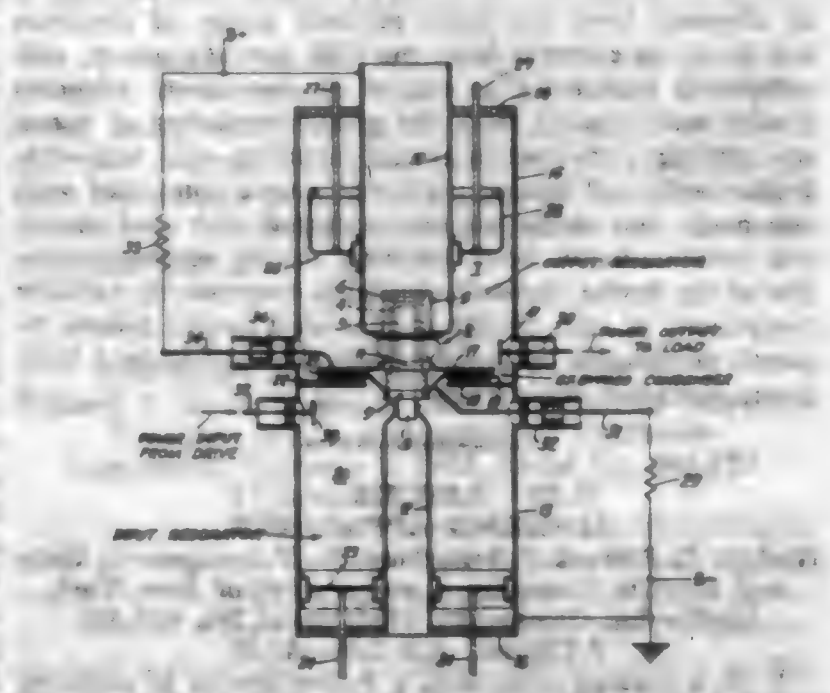
1. An oscillator comprising, in combination, first and second electron discharge devices each having at least an anode, cathode and control electrode, means tandemly connecting said two devices respectively as "cathode follower" and "fixed-grid-potential" stages including a common impedance connected in series between both of the cathodes and a point of reference potential, an antiresonant impedance connected between the control electrode of said first device and said point of reference potential, a feedback connection between the anode of said second device and the control electrode of said first device, and a compensating impedance interposed in series between said common impedance and the cathode of said second device to maintain the frequency of oscillation substantially constant notwithstanding changes in the transconductance of said second device.

2,867,726

RADIO FREQUENCY GENERATOR

Donald Henry Preist, Mill Valley, Calif., assignor to Eitel-McCullough, Inc., San Bruno, Calif., a corporation of California

Continuation of abandoned application Serial No. 245,041, September 4, 1951. This application September 18, 1956, Serial No. 610,517
8 Claims. (Cl. 250—36)



1. A radio-frequency circuit comprising coaxial type input and output resonators each having inner and outer

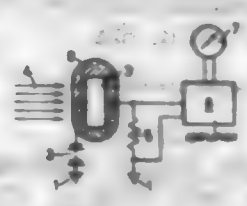
conductors with both inner conductors being axially aligned and both outer conductors being axially aligned, an electron discharge device having at least anode, cathode, control grid and screen grid electrodes positioned within said resonators and between said inner conductors, said anode being connected directly to the inner conductor of the output resonator and said cathode being connected directly to the inner conductor of the input resonator, a condenser positioned between said inner conductors including three annular condenser plates stacked in a parallel and spaced relationship with respect to one another transverse to the longitudinal axis of said resonators and having a solid dielectric between adjacent condenser plates, said stack of condenser plates having a central aperture through which said electron discharge device passes, the centermost condenser plate being connected directly to the control grid and the condenser plate adjacent said output resonator being connected directly to said screen grid whereby both of said grid electrodes assume substantially the same radio-frequency potential, and the condenser plate adjacent said input resonator being connected directly to said outer conductors to provide a feedback circuit between the output and input resonators to effect an oscillatory circuit condition or a radio-frequency bypass with feedback limited below the value required to produce an oscillatory circuit condition depending upon the magnitude of the capacitive coupling introduced between the control grid and the outer conductors.

2,867,727

METHOD AND DEVICE FOR THE SENSING OF NEUTRONS

Heinrich Welker and Rolf Gremmelmaier, Erlangen, Germany, assignors to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany

Application March 7, 1956, Serial No. 569,997
Claims priority, application Germany March 18, 1955
9 Claims. (Cl. 250—83.1)



1. In combination with a source of neutrons, a neutron sensing device comprising a crystalline semiconductor body responsive to the flow of neutrons from said source when in operation and consisting essentially of a semiconductor compound of the type $A_{III}B_V$ wherein A_{III} is an element from the third periodic group of elements and B_V is an element from the fifth periodic group, said compound containing as one of its constituent elements a substance selected from the group consisting of boron and nitrogen, an electric circuit including said semi-conductor body and having a current source connected with said body, and output means connected with said circuit, said semiconductor body forming, during sensing operation of the device, the only condition-responsively variable component of said circuit so that said output means responds to electric parameter change caused in said body due to incidence of neutrons.

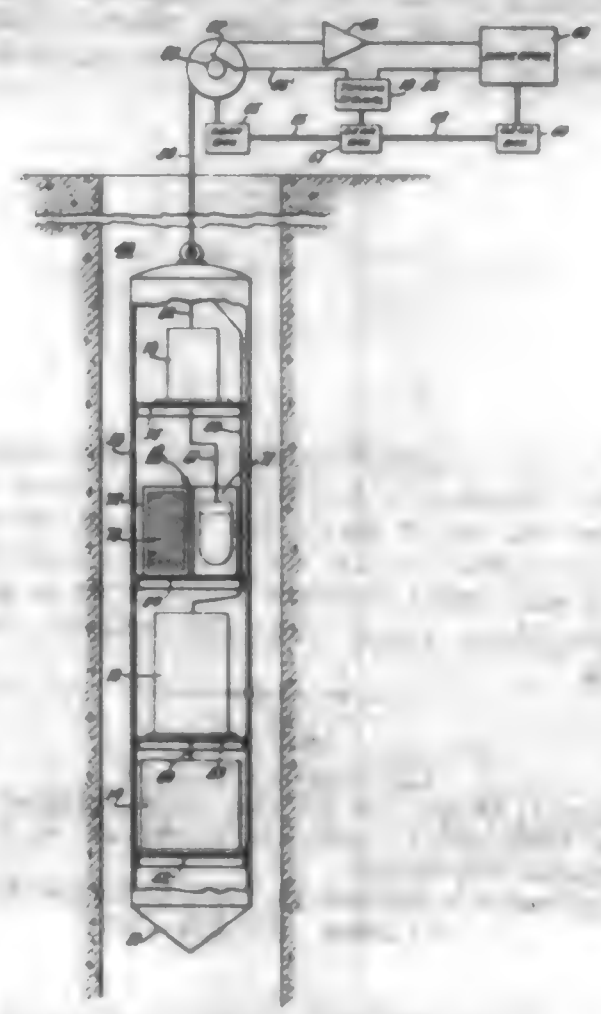
2,867,728

LOGGING APPARATUS

Herbert C. Pollock, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application October 28, 1954, Serial No. 465,331
8 Claims. (Cl. 250—83.3)

1. In a logging apparatus, a pulsed source of neutrons including a first means to produce ions and a second means energized by said first means to accelerate said ions to produce neutrons for irradiating at least one material to be examined and means for detecting the reflected and induced products of said irradiation whereby an indication of the characteristics of the material is obtained.

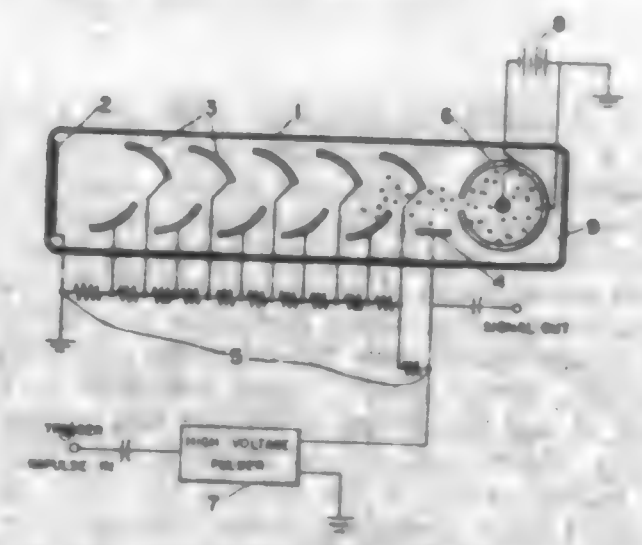


2,867,729

SECONDARY ELECTRON MULTIPLIERS

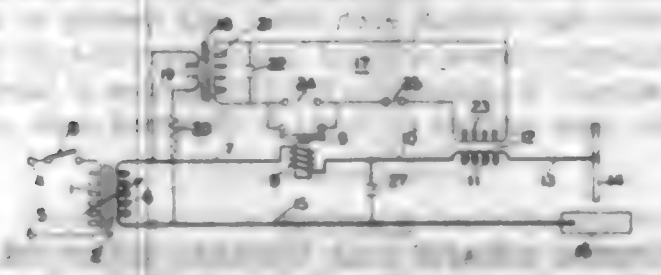
George A. Morton and Milton W. Green, Princeton, N. J., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application July 19, 1955, Serial No. 523,133
6 Claims. (Cl. 250—207)



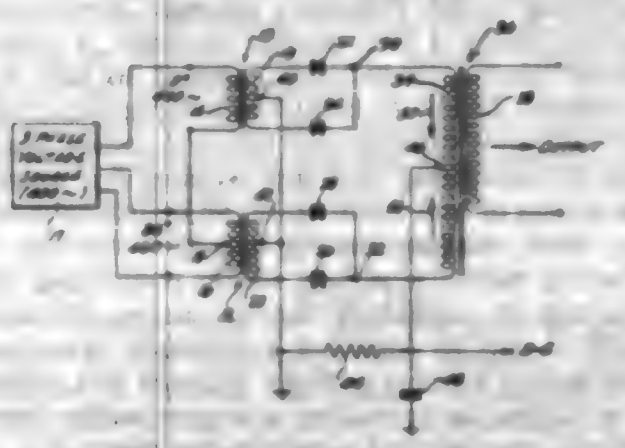
1. In an electron multiplier tube circuit, the combination comprising a cathode, a plurality of dynodes, an anode, an envelope enclosing said components, gas within said envelope, means adjacent said anode but remote from said cathode for ionizing said gas within said envelope, and means for providing operating potentials to the said dynodes and anode intermittently for brief periods.

2,867,730
ARC WELDING APPARATUS
Alanson U. Welch, York, Pa., assignor, by mesne assignments, to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application November 14, 1957, Serial No. 696,556
8 Claims. (Cl. 307—3)



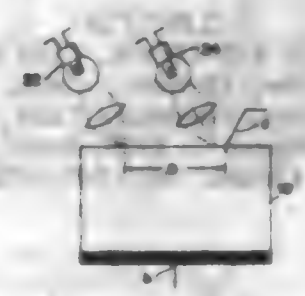
8. Arc welding apparatus comprising an adjustable reactance arc welding transformer operable at commercial frequencies and having a primary winding and a secondary winding, a pair of welding circuit conductors respectively connected to the terminals of said secondary winding of said welding transformer for supplying current to a welding arc, a low reactance control transformer having its primary winding connected through a load limiting resistor across the secondary winding of said welding transformer and having its secondary winding connected to energize a high frequency oscillator having in series circuit a capacitor, two spark gaps, and the primary winding of a coupling transformer whose secondary winding is connected in circuit with one of said pair of welding circuit conductors, said control transformer being constructed to apply a voltage to the input circuit of said oscillator which is sufficient to produce spark gap discharges in said oscillator only when the output voltage of the secondary winding of said welding transformer is greater than the voltage of an arc supplied thereby through said pair of welding circuit conductors, means responsive to an electrical change in welding circuit conditions at said pair of welding circuit conductors upon the establishment of an arc supplied through said conductors for shortcircuiting one of said spark gaps of said high frequency oscillator, and a high frequency bypass capacitor connected across said pair of welding circuit conductors to form with said secondary winding of said coupling transformer a localized circuit directly connected for supplying high frequency voltage and current to an arc in circuit with said pair of welding circuit conductors.

2,867,731
LINE FREQUENCY DOUBLER
Robert T. Henney, Los Angeles, Calif., assignor to Lear, Incorporated
Application December 28, 1956, Serial No. 631,314
3 Claims. (Cl. 307—11)



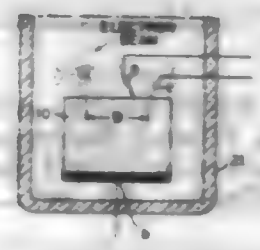
3. A line frequency doubler comprising first and second input transformers each having a primary winding and a secondary winding, an output transformer having two primary windings and a secondary winding, respective full-wave rectifiers connected between the secondary windings of said input transformers and the primary windings of said output transformer, said rectifiers being arranged to effect current flow in opposite directions through the primary windings of said output transformer, and means to apply respective cyclical voltages having a 90° phase difference to the primary windings of said first and second input transformers.

2,867,732
CURRENT MULTIPLICATION TRANSISTORS AND METHOD OF PRODUCING SAME
Richard F. Rutz, Fishkill, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application May 14, 1953, Serial No. 354,955
5 Claims. (Cl. 307—88.5)



1. A transistor comprising a semiconductor body and collector and base electrodes and first and second control elements therefor, each said control element comprising a source of light rays disposed to cause said rays to impinge upon one surface of said semiconductor body.

2,867,733
CURRENT MULTIPLICATION TRANSISTORS AND METHOD OF PRODUCING SAME
Lloyd P. Hunter, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application May 14, 1953, Serial No. 354,956
8 Claims. (Cl. 307—88.5)

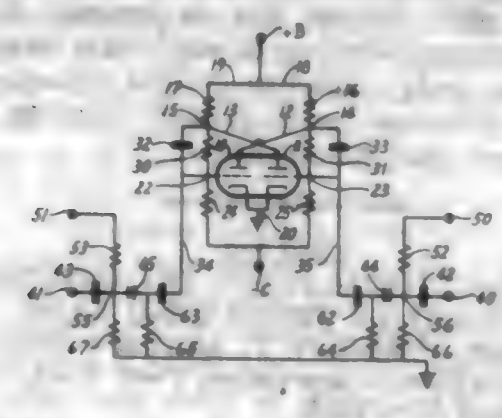


4. A transistor of the current multiplication type comprising a semiconductor body, collector and base electrodes and a control element therefor, and a source of electrons disposed to cause said electrons to impinge upon one surface of said semiconductor body to form a reservoir of accumulated excess carriers in the semiconductor body.

2,867,734
DECOUPLED DIODE GATE CIRCUITS
William P. Steed, Oakland, Calif., assignor to Marchant Research, Inc., a corporation of California
Application February 8, 1954, Serial No. 408,873
3 Claims. (Cl. 307—88.5)

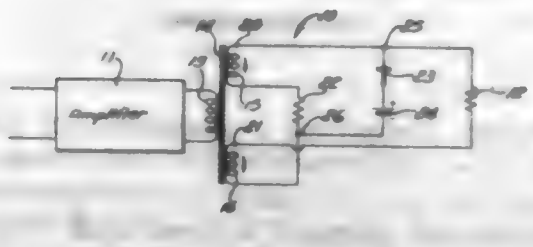
1. The combination of: a utilization circuit having at least one control element for receiving input signals; means for applying a predetermined bias potential to said control element; a source of input signals; a semiconductor diode having an input and an output; a connection between said source and the diode input; means for applying a gating potential to the input of said diode;

and a capacitor substantially constituting the sole connection between the output of the diode and said control



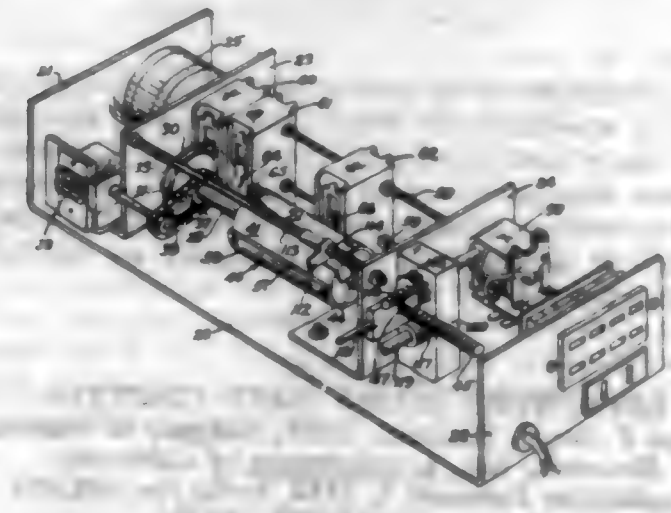
element for preventing the flow of direct current between the input of said diode and said control element.

2,867,735
BIAS CONTROL CIRCUIT
Edwin N. Kaufman, Downey, Calif., assignor to The Goldak Company, Glendale, Calif., a partnership
Application March 7, 1955, Serial No. 492,351
12 Claims. (Cl. 307—88.5)



1. In a control circuit for coupling the output of an amplifier to a load, the combination of: coupling means having an input and first and second outputs, each of said outputs having a load terminal and a bias terminal, the relative phasing of said first output load and bias terminals being the same as that of said second output load and bias terminals, said load terminals being adapted to be coupled directly to the load; an impedance element connected between said first and second bias terminals; and rectifying means connected between said first load terminal and said second bias terminal.

2,867,736
LIQUID DISPENSING APPARATUS
Grant A. Wiswell, Burlingame, Calif.
Application November 7, 1955, Serial No. 545,373
9 Claims. (Cl. 307—141)



1. A control device for use in combination with a dispensing apparatus wherein liquid is dispensed from a storage container by a timed valve, said control device including in combination a rotatable cylindrical drum having mounted thereon at least one cam plate, said cam plate being shaped so that the distance between its two substantially axial edges corresponds inversely to the pressure head curve of the liquid in the container; stationary means actuated by said cam plate when said drum is rotated and held actuated by said cam plate during an interval; means to rotate said drum at a uniform speed past said stationary means; and means to translate said drum axially as it rotates, so as to subject said stationary means to a different segment of said cam plate each time they contact each other and thereby to hold said stationary means actuated longer intervals each time, in an amount to compensate for the decrease in head, so that the same amount of liquid is dispensed each cycle.

2,867,737
TUNING MEANS FOR VIBRATOR MOTOR
Eric Byland, Lancaster, Pa., assignor to Schick Incorporated, Lancaster, Pa., a corporation of Delaware
Application July 9, 1956, Serial No. 596,691
4 Claims. (Cl. 310—19)



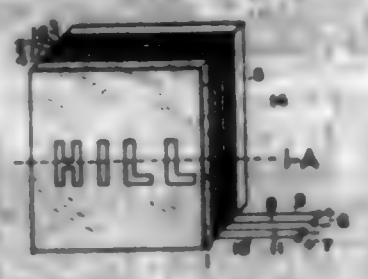
4. In a vibrator structure of the kind including a base, a magnetic vibrator unit attached thereto and including an armature, a leaf spring connected at one end with the armature and at its other end mounted on a yieldable bracket secured to the unit, the improvement which comprises a laterally extending tab attached to said bracket and overlying a portion of the said base, said portion of the base having a pilot hole and said tab having a slot exposing the pilot hole, said hole and slot adapted to receive an adjustment tool for adjusting the position of the tab and hence the bracket and spring, and the tab having a second slot for the passage of a clamping screw for locking the tab to the base in its adjusted position.

2,867,738
INDUCTION FREQUENCY CHANGER
Clarence F. Schwan, Warrensville Heights, Ohio, assignor to The Reliance Electric & Engineering Company, a corporation of Ohio
Application January 31, 1956, Serial No. 562,452
15 Claims. (Cl. 310—168)



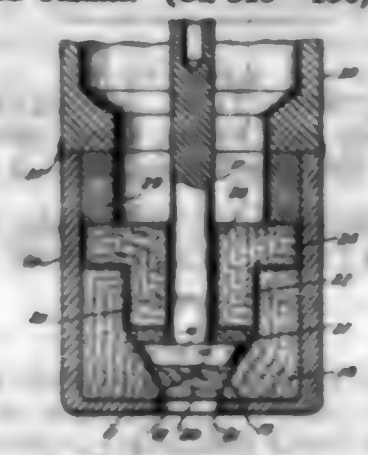
1. An induction rotary frequency changer, comprising, a first winding having a first number of poles, a second short circuited winding inductively coupled to said first winding, magnetic means to complete a magnetic circuit for each of said poles through said first and second windings, means for energizing said first winding for providing rotation to one of said windings on an induction motor principle, a third winding having a second number of poles and having output terminals, means connecting said output terminals to capacitive means, means including said magnetic means to complete a magnetic circuit for each of said second number of poles through said second and third windings for indactive generator action upon rotation of said one of said windings for producing an output voltage at said terminals at a frequency independent of any teeth on said magnetic means and equal to the frequency applied to said first winding minus the motor and generator action slip frequencies multiplied by the quotient of the second number of poles divided by the first number of poles.

2,867,739
ELECTROLUMINESCENT COLOR LAMP
Hyman A. Michlin, New York, N. Y.
Application January 5, 1956, Serial No. 557,562
10 Claims. (Cl. 313—108)



1. The means for producing an electroluminescent pattern in rapidly changing resultant colors comprising a plurality of superimposed electroluminescent phosphor layers, each layer emitting in at least one color, at least one area of each layer emitting in a color different from and in superimposed relation with an area of a color in at least one other layer; means for simultaneously selectively energizing individual areas of the electroluminescent phosphor layers to selectively effect different color emission in different intensities from the electroluminescent layers so as to produce a resultant color pattern; and means for varying the said selective energizing of color emission so as to produce patterns in changing resultant colors.

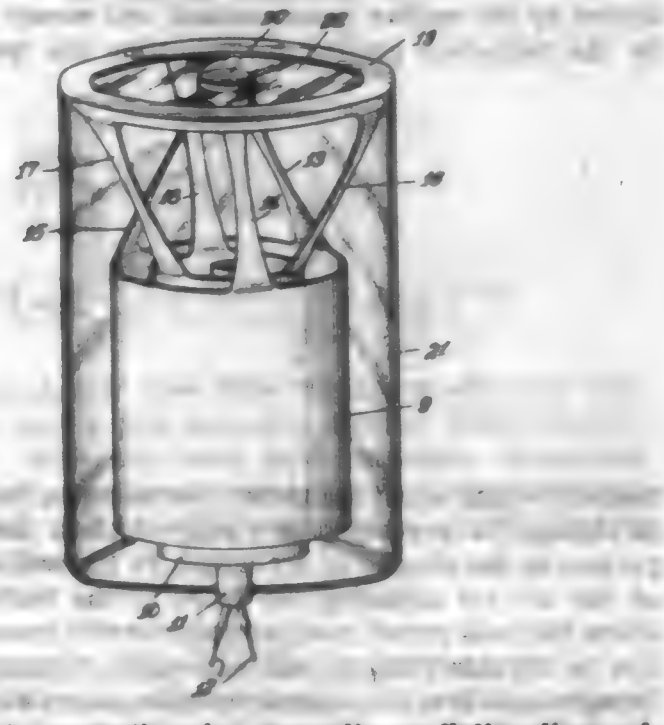
2,867,740
SPARK DEVICE
Louis H. Segall, Sidney, N. Y., assignor to Bendix Aviation Corporation, Sidney, N. Y., a corporation of Delaware
Application February 7, 1957, Serial No. 638,761
18 Claims. (Cl. 313—130)



1. A spark gap device comprising a tubular shell having an internal flange forming a first electrode, a first, tubular insulator in said shell having an end surface engaging the inner surface of the shell flange, the first insulator having an opening therethrough, the end of the opening nearer the shell flange forming a seat tapered with its smallest diameter adjacent said shell flange, a second insulator seated in such tapered portion of the opening in the first insulator, thereby forming a highly constricted annular passage, a second electrode in said first insulator in spark gap relation with said shell flange, said constricted annular passage being interposed between the first and second electrodes.

2,867,741
ELECTRICAL DISCHARGE TUBE
Werner Jacobi, Grafelfing, near Munich, Germany, assignor to Siemens and Halske Aktiengesellschaft, Munich and Berlin, Germany, a corporation of Germany
Application May 20, 1955, Serial No. 509,949
Claims priority, application Germany September 27, 1949
3 Claims. (Cl. 313—247)

1. An electrode structure for use in an electric discharge tube comprising a cathode, a control grid surrounding said cathode, a plate surrounding said grid, a first centrally disposed terminal element for said plate, a second annular terminal element for said grid disposed concentric with said first centrally disposed terminal element for said plate, and means for respectively interconnecting said plate with said first centrally disposed terminal element and said grid with said second annular terminal element, said last named means comprising leads extending in generally radially disposed planes from said plate inwardly and connecting with said first centrally disposed terminal element, and leads extending in generally radially disposed planes from said grid outwardly and connecting with said second annular terminal element.



2,867,742
DISPENSER CATHODE
Hendrikus Johannes Leenmens, Marinus Jacobus Jansen, and Pieter Willem Hazyman, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 18, 1954, Serial No. 411,222
Claims priority, application Netherlands
February 26, 1953
4 Claims. (Cl. 313—346)

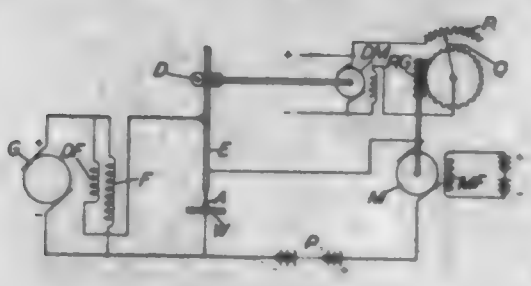


1. In the method of manufacturing a dispenser cathode comprising a body of refractory metal having an internal cavity and at least one emissive surface portion, one wall portion surrounding said cavity being porous, the pores of said latter wall portion constituting the largest passageways connecting the cavity to said surface, the steps of forming a mixture of alkaline earth carbonates, sintering said mixture in a non-reactive atmosphere to convert the same to a coherent body of alkaline earth oxides substantially impervious to reactive gases, and closing said cavity after placing the sintered body therein whereby said cathode can be activated substantially without the release of gases.

2,867,743
ELECTRIC ARC WELDING SYSTEMS
James Christopher Needham, Greenford, and William Griffin Hull and Peter Thomas Houldcroft, London, England, assignors to E. R. A. Patents Limited, Leatherhead, Surrey, England, a company of Great Britain
Application July 6, 1954, Serial No. 441,428
9 Claims. (Cl. 314—75)

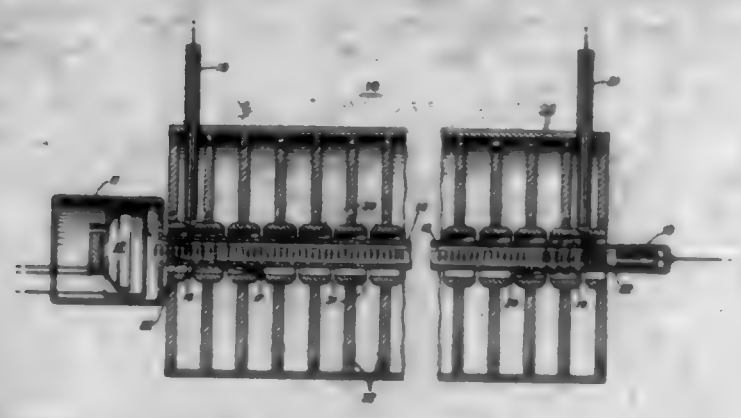
1. In an electric arc system in which an arc is formed between a consumable electrode and a work-piece, the

combination of means for continuously feeding said electrode towards the work-piece at a preset rate to maintain an arc between said electrode and said work-piece, a source of power supply connected to supply said arc and maintain said arc at a self-adjusting length, motive power means responsive to the arc voltage, reduction gearing driven by the motive power means, and means controlled by the reduction gearing for adjusting the speed of the



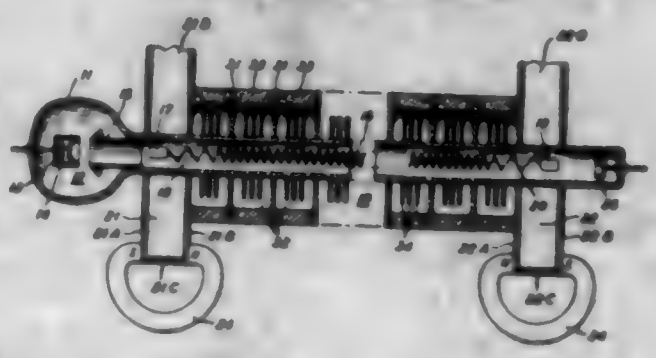
feeding means about the preset rate to move the electrode to change the arc-length at a rate which is slow in comparison to the change of arc-length by the self adjustment of the arc for adjusting the speed of the feeding means about the said preset rate, second movable means responsive to the arc voltage, and high-ratio reduction gearing between said first and second movable means whereby said speed is effectively adjusted only on the occurrence of long-term changes in said arc.

2,867,744
TRAVELING WAVE TUBE
Rudolf Kompfner, Far Hills, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 30, 1953, Serial No. 383,247
4 Claims. (Cl. 315—3.5)



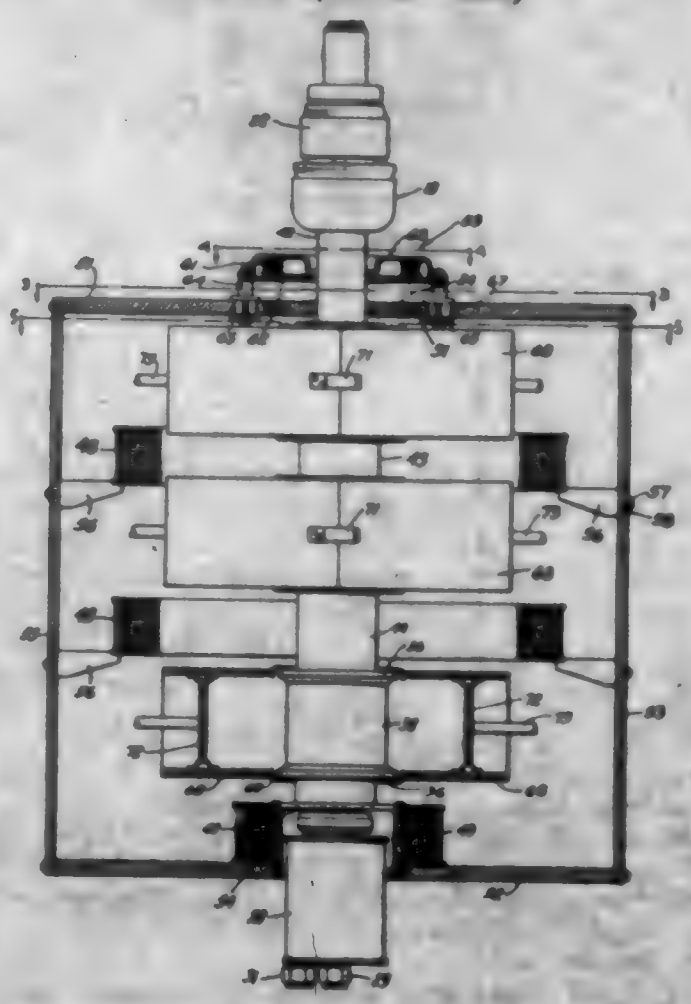
4. In a traveling wave tube, an envelope, an electron gun and target spaced apart in said envelope for defining therebetween a path of electron flow, a slow wave transmission circuit positioned along the path of flow for propagating an electromagnetic wave in coupling proximity to said electron flow, and means for maintaining a large number of short high intensity magnetic field regions in succession along the path of electron flow, the polarity of adjacent field regions being reversed, said means including a succession of annular permeable members spaced apart along the path of flow for serving as a succession of pole pieces, a succession of annular disk magnets positioned transverse to the path of flow and magnetized in the radial direction, each magnet of the succession being positioned to have one pole face in contact with one of the successive permeable members, the polarities of the pole faces of adjacent magnets in contact with adjacent members being opposite whereby successive members are oppositely poled, and permeable shielding means enclosing the magnets for serving as the return path for the flux between adjacent magnets.

2,867,745
PERIODIC MAGNETIC FOCUSING SYSTEM
John R. Pierce, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 7, 1953, Serial No. 384,717
10 Claims. (Cl. 315—3.5)



1. In combination, an envelope, an electron source and a target spaced apart within said envelope for defining therebetween a longitudinal path of electron flow, a succession of annular permeable elements uniformly spaced apart along and surrounding the path of electron flow for serving as a succession of pole pieces, and a permanent magnet structure for polarizing successive pole pieces oppositely for establishing a continuous succession of spatially alternating focusing fields along the path of flow, and magnetically permeable means closely surrounding the envelope and disposed along the path of flow between successive pole pieces for maintaining along the path of flow the strength of the magnetic field at values higher at portions corresponding to regions adjacent the pole pieces than at portions corresponding to regions intermediate the pole pieces.

2,867,746
ELECTRON TUBE APPARATUS
Donald H. Preist, Mill Valley, Calif., assignor to Eitel-McCullough, Inc., San Bruno, Calif., a corporation of California
Application December 14, 1953, Serial No. 397,977
8 Claims. (Cl. 315—5.35)



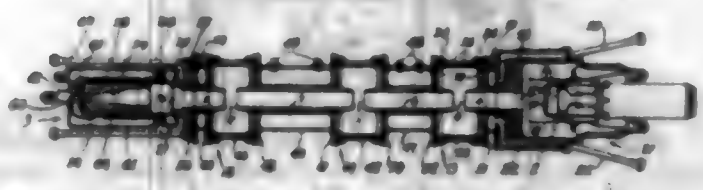
1. An electron tube apparatus comprising an elongated envelope, an electron gun at one end of the envelope and

a collector electrode at the other end, a drift tube extending axially between the gun and collector, cavity resonators disposed along the drift tube, a main magnetic circuit positioned about a portion of the envelope for directing an electron beam in a path axially of the envelope, means shielding the electron gun from the field of the main magnetic circuit, and a magnetic lens encircling the envelope axis between the gun and said shielding means, said magnetic lens being radially movable relative to the axis of said main magnetic circuit for guiding the electron beam axially into the field of the main magnetic circuit, said shielding means being located between said main magnetic circuit and said gun.

2,867,747
ELECTRON TUBE

Clayton E. Mardock, Millbrae, Calif., assignor to Eitel-McCullough, Inc., San Bruno, Calif., a corporation of California

Application January 9, 1953, Serial No. 330,474
3 Claims. (Cl. 315—5.38)

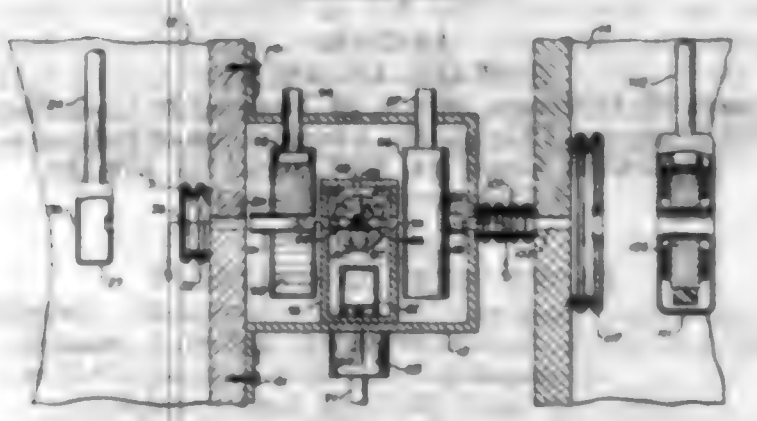


1. A cavity resonator type electron tube, comprising an elongated evacuated envelope, an electron gun at one end of the envelope and a collector electrode at the other end, a drift tube extending axially of the envelope, said collector comprising a cup-shaped metal member forming a portion of said evacuated envelope, and a metal insert in the member having a wall thickness substantially greater than that of the member and having a tapered bore axially aligned with the drift tube, the external surface of said insert and the inner surface of said member being in contact over a substantial area, whereby heat is rapidly and uniformly transmitted from said insert to said member.

2,867,748
HEAVY ION LINEAR ACCELERATOR

Chester M. Van Atta, Berkeley, Calif., Edward Robert Beringer, Hamden, Conn., and Lloyd Smith, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application October 10, 1957, Serial No. 689,460
16 Claims. (Cl. 315—5.42)

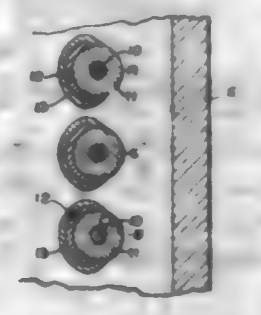


1. In a method of accelerating ions, the steps comprising ionizing atoms of an element to a first charge-to-mass ratio, accelerating the resultant ions to an energy substantially equal to one m. e. v. per nucleon, stripping orbital electrons from such accelerated ions to provide a second charge-to-mass ratio, and finally accelerating the resultant stripped ions to a final energy of at least ten m. e. v. per nucleon.

2,867,749
COLOR TELEVISION

Alexander E. Charlton, Cincinnati, Ohio, assignor to Photoceramics, Inc., Cincinnati, Ohio, a corporation of Ohio

Application February 27, 1956, Serial No. 567,845
16 Claims. (Cl. 315—21)

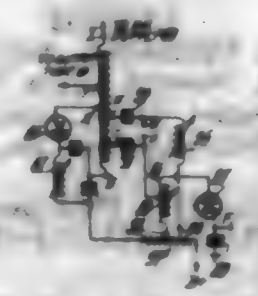


1. A cathode-ray color tube having an electron emitting means and a grid structure against which electron beams are projected, said grid structure comprising parallel wire grid elements coated with a light transmitting material and provided with means for fluorescing different colors.

2,867,750
ADJUSTABLE VOLTAGE SUPPLIES

Bernard V. Vonderschmitt, Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application March 15, 1954, Serial No. 416,850
12 Claims. (Cl. 315—22)



1. In a cathode ray tube system, a variable voltage supply comprising the combination of a transformer, a damper tube circuit connected across a portion of said transformer, a first inductance, a second inductance inductively coupled to said first inductance, rectifying means, means for connecting said first inductance effectively in shunt with a portion of said transformer, means for connecting said rectifying means and said second inductance in series with said first inductance, and means for varying the coupling between said first and second inductances to vary the amplitude of the rectified output of said rectifying means.

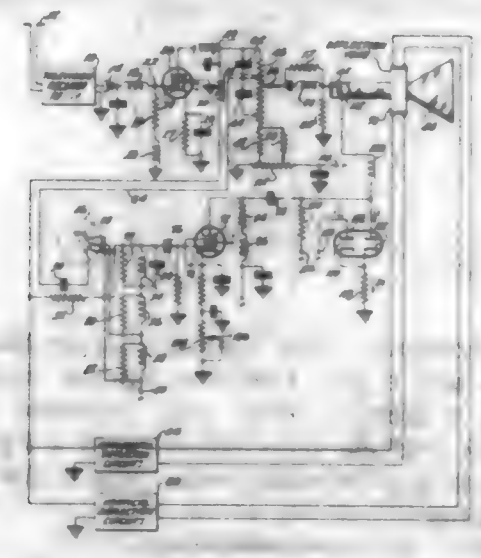
2,867,751
SIGNAL PROCESSING CIRCUITS

Simeon L. Tourshou, Philadelphia, Pa., and Edwin B. Smith, Collingswood, and Gordon E. Skorup, Westmont, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application November 14, 1952, Serial No. 320,544
6 Claims. (Cl. 315—30)

1. In a video signal amplifying system, the combination of: an input terminal designated to receive a video signal having high and low frequency components; a video amplifier having an input and output circuit; said video amplifier having a band-pass characteristic sufficiently broad to embrace at least a majority of the signal frequency components in said video signal; signal coupling means connected between said video signal input terminal and the input circuit of said video amplifier; a high frequency accentuating circuit coupled with said video signal input terminal for developing an output signal representing only the higher frequency components of said video signal; a

second video signal amplifier having an input circuit and an output circuit; signal coupling means connected from said high frequency accentuating circuit to the input circuit of said second video amplifier for applying only high frequency video signal components thereto; an amplitude responsive gating circuit connected with the output circuit



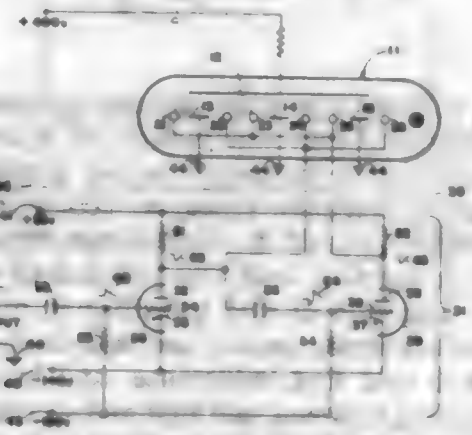
of said second video amplifier for restricting output signals from said second video amplifier to signals having amplitude levels above a predetermined minimum, and a single video signal responsive utilization means coupled with the output circuits of said first and second video amplifiers.

2,867,752

PULSE FORMING NETWORKS

Hugh F. Stoddart, Newton Upper Falls, and Theodore Vouteslas, Arlington, Mass., assignors, by mesne assignments, to Baird-Atomic, Inc., a corporation of Massachusetts

Application August 11, 1954, Serial No. 449,063
2 Claims. (Cl. 315—84.6)



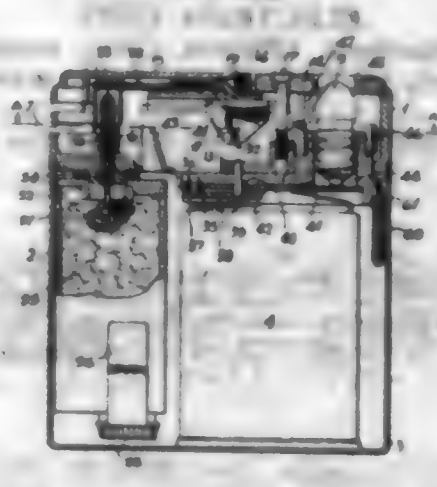
1. A system for counting and visually indicating counts of electrical pulses, said system comprising a multi-stable glow discharge device having a plurality of cathode circuits and a pair of guide electrodes for each of said cathode circuits, a source of voltage to produce a glow discharge in one of said cathode circuits, and a pulse forming network alternately to decrease the potential of the guides in each of said pairs upon the occurrence of individual ones of said electrical pulses thereby successively to transfer the glow from one of said cathode circuits to another, said pulse forming network including first and second triode electron discharge devices each having an anode circuit and a control circuit, first and second differentiating circuits coupled to the control circuits of said first and second triodes, respectively, means for impressing individual ones of said electrical pulses on said first differentiating circuit momentarily to increase the current flow in the anode circuit of said first triode, means for deriving a first negative voltage pulse from the anode circuit of said first triode, means for impressing said first negative pulse on one of the guides in each of said pairs momentarily to lower their potential and on said second differentiating circuit momentarily to increase the current flow in the anode circuit of said second triode, means for deriving a second negative voltage pulse from the anode circuit of said second triode, and means for impressing said second negative pulse on the other of the guides in each said pairs momentarily to lower their potentials subsequent to the first-mentioned ones of said guides.

2,867,753

LIGHTER WITH ELECTRIC IGNITION

Hans Hubert Quandt, Karlsruhe, Germany, assignor of one-half to Rudolf Mohr, Karlsruhe, Germany

Application November 17, 1955, Serial No. 547,574
Claims priority, application Germany May 23, 1952
11 Claims. (Cl. 317—91)



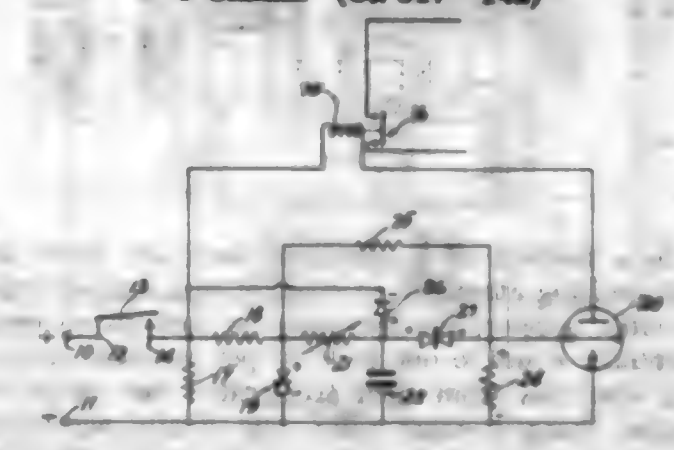
1. Lighter comprising a container for volatile, inflammable liquid fuel; a wick arranged to be fed with fuel from said container; a casing for housing said container; a head member assembled on said casing, a supporting plate on the head member, a lid pivotally mounted on the supporting plate and adapted to move from a closed position overlying the wick to an open position; said lid being formed as a double-armed lever having a first arm carrying a means for sealing the wick and a lug forming a second arm which is shorter than said first arm and extends beyond the pivotal point of the lid; guide means arranged on the underside of the supporting plate, an igniter carrier carrying an igniter wire said igniter carrier being adapted to slide along said guide means from a rest position to an igniting position near the wick, in open position of the lid, and back to the rest position in which the carrier is located under the lug and is adapted to lock the lid in its closed position, a handle slidable externally of the head, and a pin connecting said handle and said carrier for causing movement of the carrier by manual movement of said handle.

2,867,754

TIME-DELAY RELAY

George W. O'Bleness, Skokie, Ill., assignor to Cook Electric Company, Chicago, Ill., a corporation of Delaware

Application August 14, 1957, Serial No. 678,205
5 Claims. (Cl. 317—142)



1. Time-delay relay apparatus comprising input means adapted to be connected to a D.-C. voltage source, a

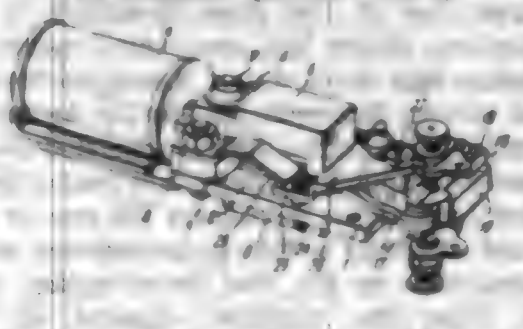
transistor having a pair of primary electrodes and a control electrode, a capacitor, first circuit means including a resistance element and a switch connecting said capacitor to said input means for charging said capacitor from said voltage source when said switch is closed, second circuit means comprising a Zener diode and a second resistance element shunted across said capacitor, said Zener diode having a critical conduction voltage substantially smaller than the voltage of said source, means applying the potential across said second resistance element between the control electrode and one of the primary electrodes of said transistor, a current-responsive relay, and other circuit means connecting said relay in circuit with said primary electrodes and said input means, operative to pass primary-electrode current from said transistor through said relay for actuating the same, the potential across said second resistance element being applied to said control electrode in the polarity tending to render the path between said primary electrodes in said transistor conductive when current is flowing through said Zener diode.

2,867,755

ELECTROMAGNETIC DEVICES

Frederick Emil Rommel and Malcolm Simons, London, England, assignors to Telephone Manufacturing Company Limited, London, England, a British Company

Application October 17, 1955, Serial No. 540,911
Claims priority, application Great Britain November 3, 1954
11 Claims. (Cl. 317—176)



1. An electromagnetic device comprising a frame member, a magnetic structure mounted on said frame member and presenting a working air gap between a pair of pole pieces, an armature mounted to vibrate in said air gap and about a vibrational axis extending transversely of the armature, a pair of resilient suspension arms attached to said armature and extending from opposite sides thereof along said vibrational axis, a retaining member pressing on said arms to retain them in position with respect to said frame member, means offset from said vibrational axis for turning said retaining member with respect to said frame member whereby said armature may be tilted about an axis parallel to said vibrational axis, and two screw-threaded studs, each of said studs being adjustably fitted in said frame member and being formed with a conical end, said conical end serving as a bearing surface on which a corresponding one of said arms is carried.

2,867,754

ELECTROMAGNETIC RELAY

Günther Makowski, Munich, Germany, assignor to Siemens & Halske Aktiengesellschaft, Berlin and Munich, Germany, a corporation of Germany

Application April 26, 1956, Serial No. 580,883
Claims priority, application Germany May 16, 1955
4 Claims. (Cl. 317—187)

1. In an electromagnetic relay having a core and a movable armature the free end of which is in normal position spaced by an air gap from the free end of the core, a device for holding the armature in attracted position after attraction thereof responsive to energization of said core, said device comprising a non-magnetic latch member rotatably mounted at the free end of said armature, and a permanent magnet carried by said latch member and forming a unit therewith, the polarization of said permanent magnet being in a sense opposite to the polarization of said core resulting in the energization



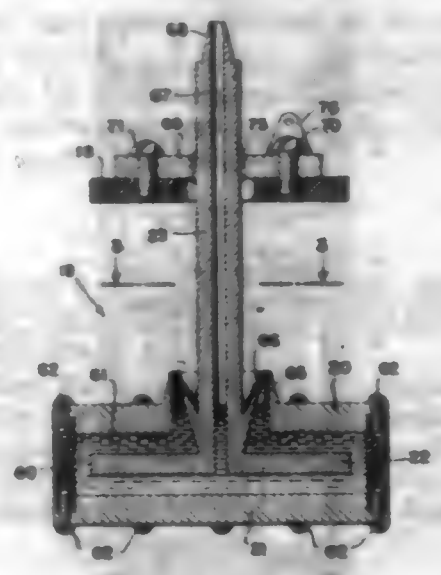
thereof to effect attraction of said armature, so as to cause incident to the attraction of said armature attraction of said permanent magnet and consequently rotation of said latch member to place such latch member in interlocking engagement with said core.

2,867,757

ELECTRICAL APPARATUS

Robert J. Wagner, Feasterville, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application September 25, 1953, Serial No. 382,393
1 Claim. (Cl. 317—246)



An adjustable impedance element comprising, a first metallic plate, a second metallic plate, a hollow separating member formed of electrical insulating material separating said metallic plates in fixed relation and forming with said plates an enclosure, means defining an opening through one of said plates and having an outwardly extending knife edge surrounding said opening, a movable metallic plate positioned between said first and second plates, a mechanical input member connected to said movable plate and extending through said opening, said input member having an outwardly extending conical surface with a knife edge which is arranged to be in cooperative relation with the knife edge of said opening, and a liquid filling said enclosure to an extent to cover the cooperating surfaces of said plates with said cooperating knife edges serving to retain said liquid within said enclosure.

2,867,758

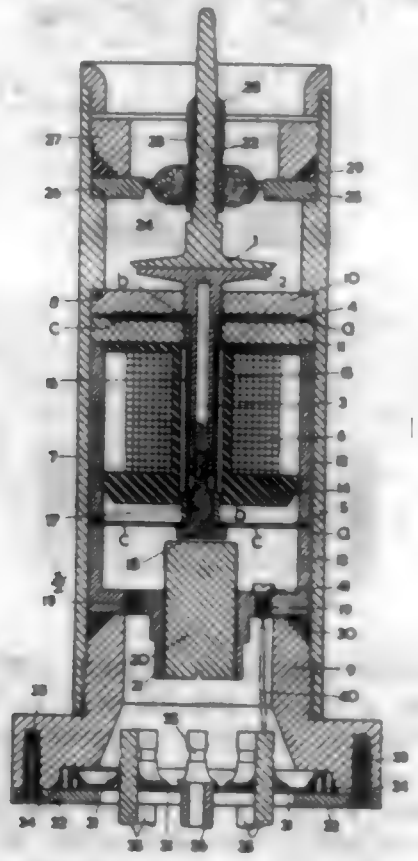
DEVICES COMPRISING ELECTRICAL CONDENSERS ADAPTED TO VARY THEIR CAPACITY PERIODICALLY

Graham Henry Wilstead, Richmond, England, assignor to Electronic Instruments Limited, Richmond, England, a British company

Application December 22, 1954, Serial No. 476,958
Claims priority, application Great Britain December 22, 1953
4 Claims. (Cl. 317—250)

1. A vibratory capacitor for delivering a periodically varying capacitance, said capacitor comprising, in combination, a sealed generally cylindrical casing filled with

an inert gas, two capacitor plates disposed in the casing transversely of the longitudinal axis thereof in closely adjacent parallel relationship, mounting means stationarily supporting one of said plates, vibrating means supporting the other plate for linearly reciprocating the same toward and away from said stationary plate, said mounting means including a stem transversely extending from the respective plate, a support ring and an insulating insert sealed to said ring and said stem for supporting the latter, said ring being sealed to the inner wall of the casing, said vibrating means including a stem made of magnetic material and transversely extending from said other plate, an upper and a lower diaphragm device centrally secured to axially spaced portions of the magnetic stem, at least the lower diaphragm device being made of nonmagnetic material, a pair of clamping plates made of magnetic material engaging therebetween the periphery of said upper device and fitted in said casing, a pair of clamping sleeves made of magnetic material engaging therebetween the periphery of said lower device and fitted in said casing, pressure and sealing means engaging one of said sleeves for pressing said clamping plates and sleeves against a shoulder formed in the inner wall



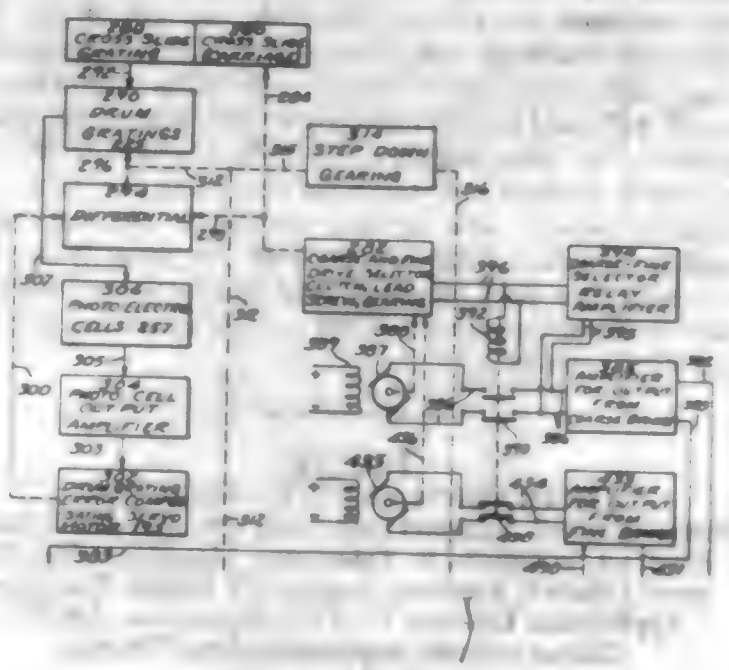
of the casing and sealed to the wall and exciting coil means disposed in the casing surrounding said magnetic stem but leaving clearance to permit reciprocation of the said stem upon energization of the coil means, and means for adjusting the amplitude of the oscillations of the magnetic stem of the vibrating means and the respective capacitor plate, said adjustment means including a control block made of magnetic material disposed in axial alignment with the respective end of said magnetic stem of the vibrating means spaced apart therefrom to define an air gap, mounting means made of magnetic material supporting said block axially displaceable to vary said air gap and extending from the sleeve engaged by said pressure and sealing means to form a magnetic circuit and including said block, said block mounting means, said clamping sleeves, said clamping plates, said magnetic stem and said air gap between the stem and the block, the width of said air gap controlling the reluctance of said magnetic circuit whereby the amplitude of the oscillations of the stem is adjustable by varying said air gap and terminal means for supplying current to said coil means, said terminal means including conductors extending through said block mounting means.

2,857,559

SERVOMOTOR CONTROL SYSTEM ADAPTED FOR MACHINE TOOL USE

George E. Comstock 3d, Holden, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts

Application July 12, 1954, Serial No. 442,644
17 Claims. (Cl. 318—29)



2. In apparatus of the class described, a movable machine element, coarse feed mechanical means to move said element, a first servo motor connected to drive said coarse feed means, fine feed mechanical means to move said element, a second servo motor connected to drive said fine feed means, a clutch between said coarse feed means and said fine feed means to connect the one or the other to move said element, a first potentiometer and a first electric connection to the first servo motor, a driving connection from the machine element to the first potentiometer to drive it, a second potentiometer and a second electric connection to the second servo motor, a driving connection from the machine element to the second potentiometer to drive it, a first Wheatstone bridge incorporating said first potentiometer, means to unbalance said first Wheatstone bridge in such a direction that resultant movement of said first potentiometer eventually restores balance, a second Wheatstone bridge incorporating said second potentiometer, means to unbalance said second Wheatstone bridge in such a direction that resultant movement of said second potentiometer eventually restores balance, and a selector amplifier and relay connected to operate the clutch and to maintain either the first or the second electric connections and to open the other, whereby to move the machine element by coarse feed or fine feed shifting from coarse to fine feed automatically responsive to the selector amplifier.

2,857,760

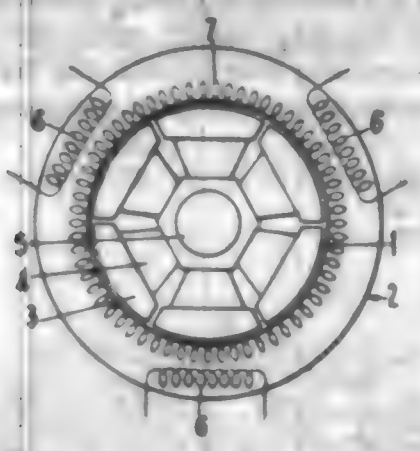
ELECTRIC MOTORS

Joseph Pritchard Haggard and Peter Scott, Birmingham, England, assignors to The General Electric Company Limited, London, England

Application January 10, 1957, Serial No. 633,452
Claims priority, application Great Britain January 11, 1956
6 Claims. (Cl. 318—169)

1. An electric motor comprising rotor and stator components, one component having a permanent magnet field system and the other component being provided with two windings, one winding being adapted to be energised from a main electric supply for the motor, and the other winding forming a closed circuit

adapted to interact with the permanent magnet field system and produce a braking effect when the main supply



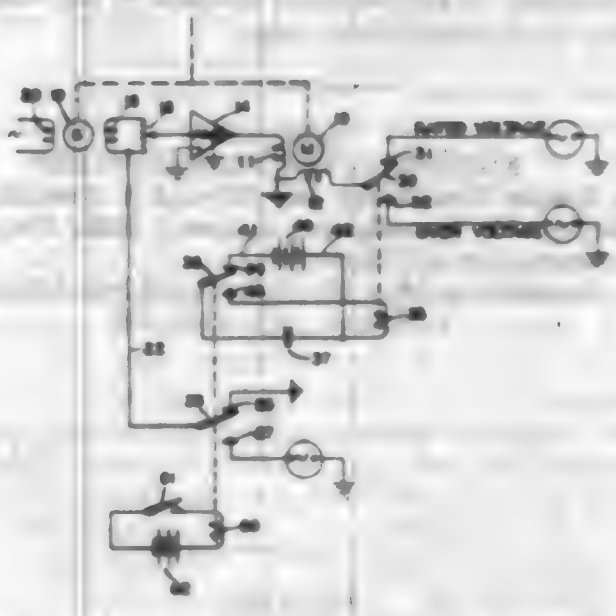
for the motor fails and the rotor component is rotated by a load associated therewith.

2,867,761

MOTOR CONTROL SYSTEM

William A. Hartmann, Jr., Pacific Palisades, Calif., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application November 19, 1955, Serial No. 548,684
4 Claims. (Cl. 318—230)



1. A control system comprising a motor having a fixed phase winding and a variable phase winding, and means for energizing said fixed and variable phase windings of said motor including a normal voltage source, an over voltage source, and a command voltage source, control means operable for connecting said command voltage source and said variable excitation phase winding, means for timing the energization of said fixed phase winding, means to render said timing means effective upon operation of said control means, selective means operated by said timing means for connecting said fixed phase winding and said over voltage source for a predetermined length of time, and said selective means thereafter operated by said timing means to disconnect said over voltage source and connect said fixed phase winding to said normal voltage source.

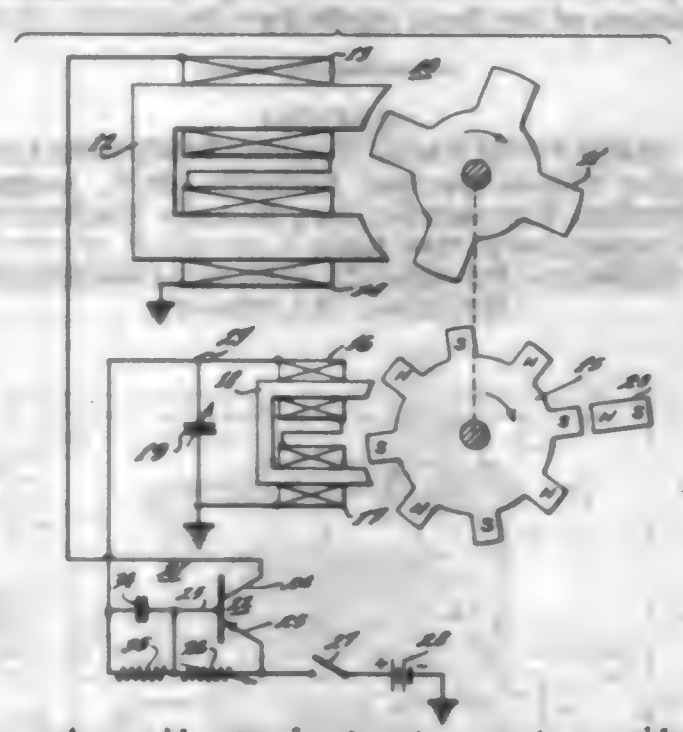
2,867,762

COMMUTATORLESS ELECTRIC MOTOR

James N. Lehman, Mount Ephraim, and John B. Theiss, Collingswood, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application April 29, 1955, Serial No. 504,728
10 Claims. (Cl. 318—254)

1. The combination with an electric motor having a rotor, a stator and a field winding upon said stator of a power supply and control means for said motor comprising means for generating a current which is repetitive periodically according to the speed of rotation of said rotor, terminal means providing a connection for a source of direct-current, means connected to said terminal means for energizing said field winding from said direct current



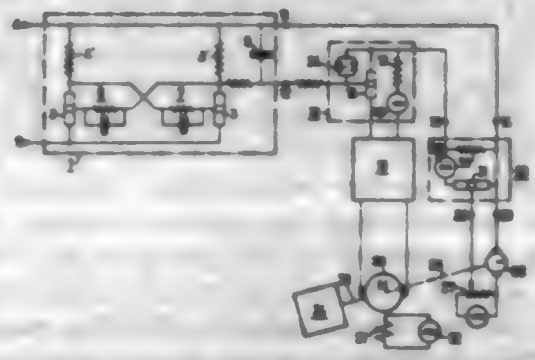
source when said rotor is at rest so as to provide for self-starting thereof, and means associated with said last named means for energizing said field winding from said source for intervals determined by the direction of said periodically varying current.

2,867,763

SYSTEM FOR CONTROLLING OR REGULATING AN ELECTRIC MOTOR BY PULSES OF VARIABLE PULSING RATIO

Georg Sichling, Erlangen, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt and Erlangen, Germany, a corporation of Germany

Application August 2, 1955, Serial No. 526,009
Claims priority, application Germany August 3, 1954
16 Claims. (Cl. 318—317)



10. A motor speed control system, comprising a control circuit and a motor whose speed is to be regulated, means governed by variations in motor speed to produce a correlated, variable, direct regulating voltage, a triangular pulse voltage generator connected in the control circuit of the system, the triangular pulse voltage being connected in series opposition with the said direct voltage, the magnitude of said direct voltage being variable at least between the zero value and the peak value of the triangular pulse voltage, a square-wave voltage output semiconductor device having its input side connected in the circuit of the series opposed voltages, said device being controlled by the voltage resulting from the difference of the triangular pulse and direct voltages, said device being fully conductive at a very small value of its control voltage in comparison with the peak value of the triangular pulse voltage, the device supplying a square-wave voltage whose pulsing ratio, defined as the ratio of the pulse cycle period to the duration of the individual pulse occurring within that period, corresponds to the magnitude of the variable direct voltage, power am-

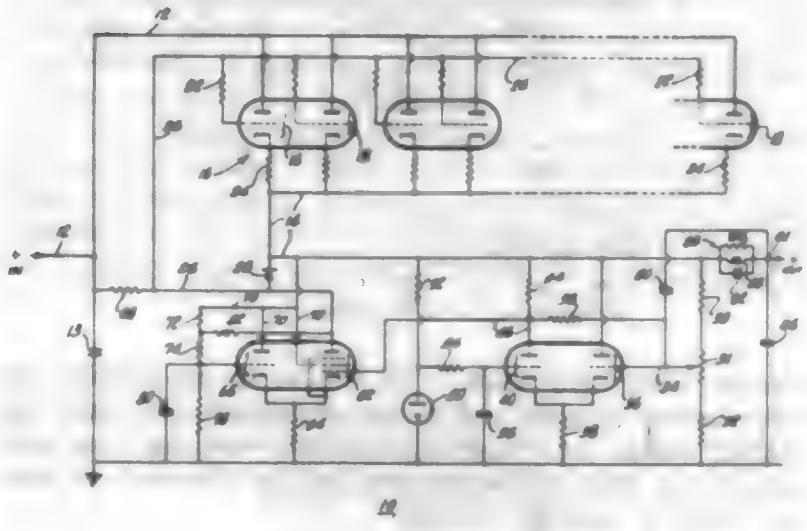
plifier means connected between the motor and the square-wave voltage output semiconductor device, the effective power output of the power amplifier means and the power input of the motor being dependent upon the variations of the direct regulating voltage.

2,867,764

DIRECT-VOLTAGE REGULATING CIRCUIT

Charles William Harrison, Millington, N. J., assignor to Harrison Laboratories, Inc., Berkeley Heights, N. J., a corporation of New Jersey

Application December 27, 1955, Serial No. 555,623
12 Claims. (Cl. 323—22)



1. In a high efficiency, high current capacity voltage regulating circuit, means including an input lead to supply an unregulated direct voltage, a variable electronic resistance connected between said input lead and a direct voltage output lead and adapted to be changed in resistance to keep the voltage on said output lead substantially constant, and control means connected between said output lead and said electronic resistance and including a first stage and a second stage, said first stage comprising first and second three electrode amplifiers matched and balanced to each other and having positive feedback which increases zero frequency gain by at least four times, the control electrode of one of said amplifiers being direct voltage connected to said output lead, the control electrode of said other amplifier being connected to an independent reference voltage source, said second stage comprising a voltage amplifier whose input is connected to the output of said first stage and whose output is connected to said electronic resistance, said second stage voltage amplifier also having positive feedback which increases zero frequency gain by at least four times.

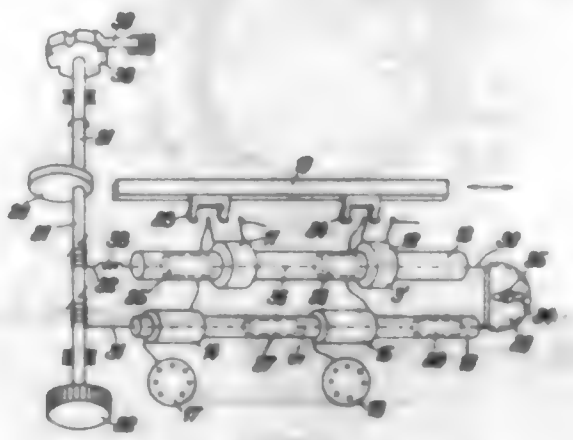
2,867,765

TUNER AND RANGE SWITCH

Ernst Klettke and Gerhard Engelmann, Hannover, Germany, assignors to Telefunken G. m. b. H., Berlin, Germany

Application January 24, 1956, Serial No. 561,121
Claims priority, application Germany January 29, 1955
7 Claims. (Cl. 323—74)

1. In a resonant circuit, a tuning device for selecting one of a plurality of distinct frequency channels, the channels being distributed over at least two separate ranges of channel frequencies, comprising a set of coils comprising at least one coil for each range and capable of tuning all of the channels in each frequency range; a separate tuning core axially aligned with each coil, core mounting means attaching said cores together in predetermined relationship and passing through each coil, the spacing of the coils along the mounting means being fixed and selected so that each core traverses the tuning range of the coil with which it is associated at a time exclusive of the tuning time of the other cores; mechanical actuating means coupled to said core mounting means to reciprocate the latter; and selecting means controlled by said mechanical means and successively selecting the coils relating to one range as the cores associated with the selected coils



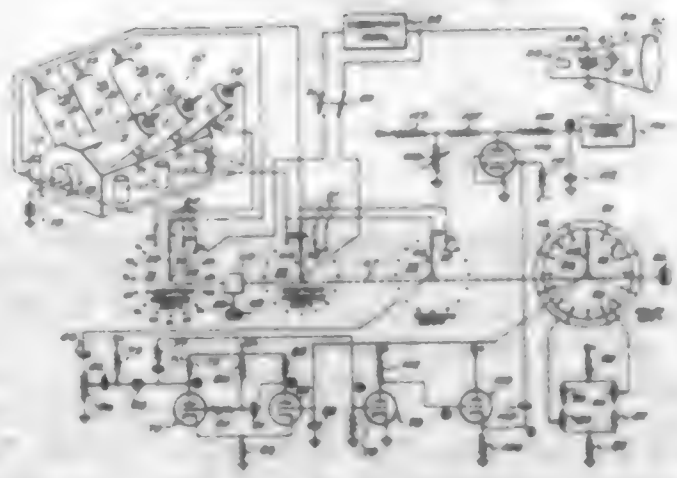
are traversing that tuning range, the linear distribution of the respective tuning coils of each range and the ratios of diameter of each coil to its associated core being varied from range to range such that the amount of movement of said mechanical means from resonance at one channel to resonance at any adjacent channel in one range is the same as that in each other range.

3,867,766

ENGINE ANALYZER SYSTEM

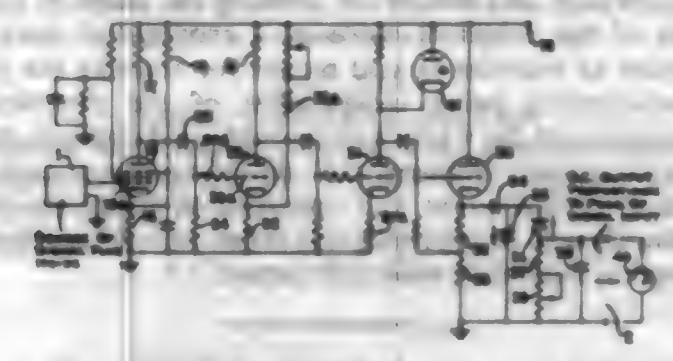
Alan Broder, Glen Oaks, and Edward A. Sammis, Roslyn Heights, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware

Application May 25, 1955, Serial No. 510,962
8 Claims. (Cl. 324—16)



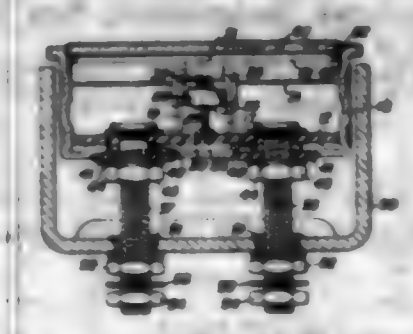
3. An engine analyzer for an engine wherein a plurality of successively firing cylinders have unequal time periods separating the occurrence of a characteristic of each cylinder operation to be observed, said engine analyzer comprising means adapted to be associated respectively with each of said cylinders for supplying a signal representing said characteristic, a cathode ray tube, an electrical circuit including a first switch for selectively coupling any one of said means to said tube, means for generating and applying a sweep wave to said tube, means including a second switch operable with said first switch for selecting the next previously fired cylinder to that chosen by the first switch and for supplying a control signal in timed relation to the occurrence of a preselected event in the cycle thereof for initiating an operation of said sweep wave generating means, and means operable with said switches for selectively effecting time delays of different but predetermined lengths between the occurrence of said control signals and the initiation of operation of said sweep wave generating means.

2,867,767
SIGNAL DETECTORS
Clare D. McGillem, Indianapolis, and Robert E. Williams, Fort Wayne, Ind., assignors to Industrial Research Associates, Inc., Indianapolis, Ind., a corporation of Indiana
Application June 6, 1955, Serial No. 513,620
4 Claims. (Cl. 324—78)
(Granted under Title 35, U. S. Code (1952), sec. 266)



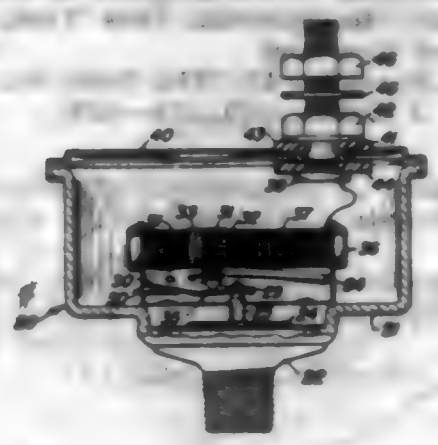
1. A pulse measuring system comprising: first, second, and third grid-controlled amplifiers coupled in cascade between a source of intermixed noise and pulse signals and a pulse utilization circuit, each of said amplifiers having at least an anode, a grid, and a cathode; means establishing the grid-cathode potentials of the said first and second amplifiers at a potential below plate-current cutoff; a coupling condenser connected between the anode of the first amplifier and the control grid of the second amplifier; a grid-leak resistor connected between the grid side of the said condenser and a source of constant potential such as ground to form a resistance-capacitance network having a time constant greater than the longest period between two successive pulses of the said pulse signals, such that the said control grid of the second amplifier will be driven above the cutoff potential only after integration of a plurality of pulses passed by the first amplifier; a differentiating circuit coupled to the output of the third amplifier; and a rectifier coupled between said utilization circuit and the said differentiating circuit for developing a direct-current potential having a magnitude representative of the repetition frequency of the said pulse signals.

2,867,768
AMMETER
Austin E. Fribance, Rochester, and Robert A. Hunt, Penfield, N. Y., assignors to Rochester Manufacturing Company, Inc., Rochester, N. Y., a corporation of New York
Application January 19, 1953, Serial No. 331,912
5 Claims. (Cl. 324—146)



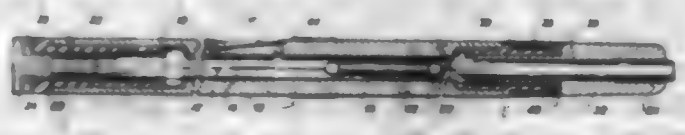
1. An electric meter comprising a pivoted, polarized, magnetic armature, a single current conducting strap disposed in operative relation to said armature and having parallel portions at opposite sides, respectively, of the pivotal axis of said armature and a bridging portion extending over said armature and connecting said parallel portions, said strap being so disposed relative to said armature that the axis of said armature is disposed in a central plane of said strap, a pointer operatively connected to said armature, and a U-shaped, permanent, holding magnet carried by said conducting strap and arranged in operative relation to said armature to influence it constantly toward its starting position, said holding magnet having its legs lying outside of and alongside the parallel portions of said strap and having the portion, which connects its legs, resting on the bridging portion of said strap.

2,867,769
REMOTE INDICATING APPARATUS
Robert A. Hunt, Penfield, and Austin E. Fribance, Rochester, N. Y., assignors to Rochester Manufacturing Company, Rochester, N. Y., a corporation of New York
Application January 19, 1953, Serial No. 332,018
3 Claims. (Cl. 324—146)



1. An indicating meter comprising a magnetically-conductive casing, a bracket secured in said casing, a current carrying coil mounted on said bracket, a polarized permanently magnetized armature pivotally mounted in said bracket and movable by said coil about an axis perpendicular to the axis of said coil, a pointer secured to said armature to pivot therewith, a zeroizing horseshoe-shaped electromagnet mounted in operative relation to said armature to have its legs disposed at opposite sides of a plane containing the axis of said armature to influence said armature toward its starting position, the opposite legs of said electromagnet being adjustable relative to one another to vary the influence of said electromagnet on said armature, and a permanent magnet mounted within and in operative relation to said casing and to said armature to urge said armature constantly toward its starting position, means connecting said coil in series with an electric power source and a variable resistor, and means for connecting said electromagnet directly to said power source.

2,867,770
GALVANOMETER STRUCTURE
John R. Tavis, Los Angeles, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application December 14, 1954, Serial No. 475,129
5 Claims. (Cl. 324—154)



1. In a galvanometer having a body portion in which a suspension system is located, the improvement which comprises a cylindrical electrical plug-in means holding the lower end of the suspension system and connected to and electrically insulated from the lower extremity of the body portion, an annular-shaped electrical contact affixed to the electrical plug-in means and disposed concentrically with respect to the longitudinal axis of the galvanometer, an insulated conductive wire extending through the interior of the body portion of the galvanometer interconnecting the annular-shaped electrical contact and the upper end of the suspension system, a second electrical contact affixed to the electrical plug-in means

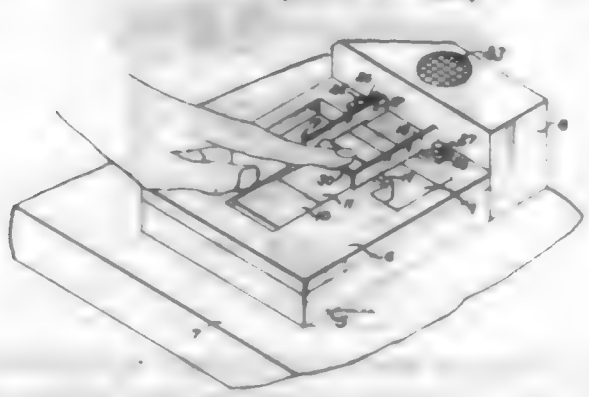
below the annular-shaped electrical contact and coupled to the lower end of the suspension system, and means insulating the two electrical contacts from each other and also from the body of the galvanometer, so that both of the electrical contacts for the galvanometer are located in the electrical plug-in means at the lower end of the galvanometer and are insulated from the body portion of the galvanometer.

2,867,771

ELECTRICAL TESTING FIXTURE

Donald R. Denault, Andover, Mass., and George Minchenko, Salem-Depot, N. H., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application November 12, 1954, Serial No. 468,441
2 Claims. (Cl. 324—158)



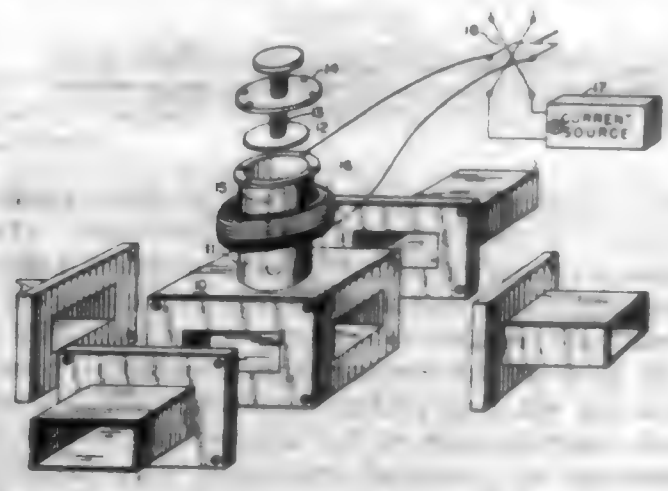
1. In a fixture for testing electrical units having bodies with lead wires extending from opposite sides thereof, a base having a flat top portion, a pair of spaced rigid electrodes affixed to the base for making electrical connection to a testing circuit, mutually parallel lead wire contacting portions on the electrodes spaced from and extending substantially parallel to the plane of the flat portion with the space between said contacting portions and the base for receiving the lead wires of a unit to be tested, a depressible platform mounted to the base between the contacting portions of the electrodes for receiving bodies of units to be tested for advancement therealong with the lead wires positioned in the space between the base and the contacting portions, and resilient means for elevating the platform to urge the lead wires into rubbing contact with said contacting electrode portions to insure connecting the unit into the testing circuit when the body of a unit is advanced over the platform.

2,867,772

MICROWAVE CIRCULATOR

Philip J. Allen, North Forestville, Md.

Application June 29, 1956, Serial No. 595,024
12 Claims. (Cl. 333—9)
(Granted under Title 35, U. S. Code (1952), sec. 266)



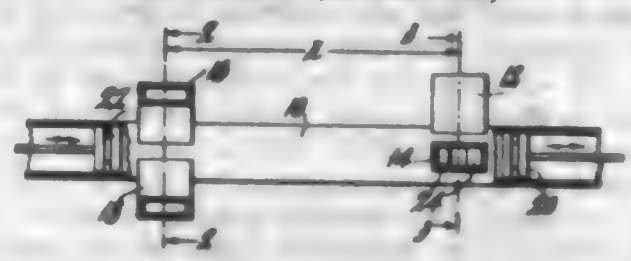
1. A microwave circulator for use in a waveguide system comprising a turnstile junction having a plurality of coplanar ports capable of supporting a single dominant mode of a propagated wave equidisposed with respect to each other about a common central point with an additional port capable of supporting two orthogonally disposed dominant modes disposed directly above said common central point; a waveguide section capable of supporting two orthogonally disposed dominant modes of a propagated wave connected to said additional port; means for reflecting back a propagated wave within said waveguide section, and means for rotating the plane of polarization of the principal mode of a propagated wave, the direction of rotation in said means for rotating the plane of polarization being independent of the direction of propagation of the wave therethrough; said rotating means being interposed between said reflecting means and said common central point and operative to rotate the plane of polarization of a propagated wave an odd multiple of 45 degrees with each traversal thereof.

2,867,773

FOUR TERMINAL WAVEGUIDE NETWORK

Nathaniel I. Korman, Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application August 20, 1948, Serial No. 45,280
15 Claims. (Cl. 333—11)



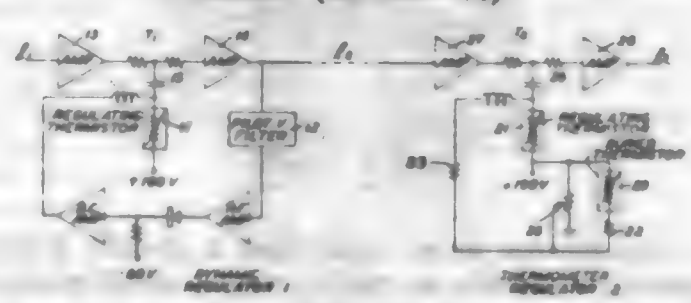
9. A four terminal-pair waveguide network comprising a circular hollow pipe waveguide having a longitudinal axis, and two pairs of rectangular hollow pipe waveguide arms, each said rectangular waveguide arm having a longitudinal axis and broad and narrow internal walls and each having a junction with said circular waveguide, at each said junction the said axes of the circular waveguide and the rectangular waveguide arm being normal to each other and the broad walls of each rectangular waveguide arm being parallel to the said circular waveguide axis, the waveguide axis of one of said rectangular waveguide pair being normal to that of the other of the same pair.

2,867,774

GAIN REGULATOR FOR CARRIER SYSTEMS

Norton W. Bell, Arcadia, Calif., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 17, 1952, Serial No. 326,557
2 Claims. (Cl. 333—16)



1. In a cable communication system comprising at least two sections of cable interconnected by a repeater including at least two active amplifier stages and an interstage network between them, a gain regulator for stabilizing the transmission of said cable system against temperature-induced variations, said regulator comprising a control network including first and second branches connected in parallel, the parallel combination of branches being connected in series with a common resistance across a source

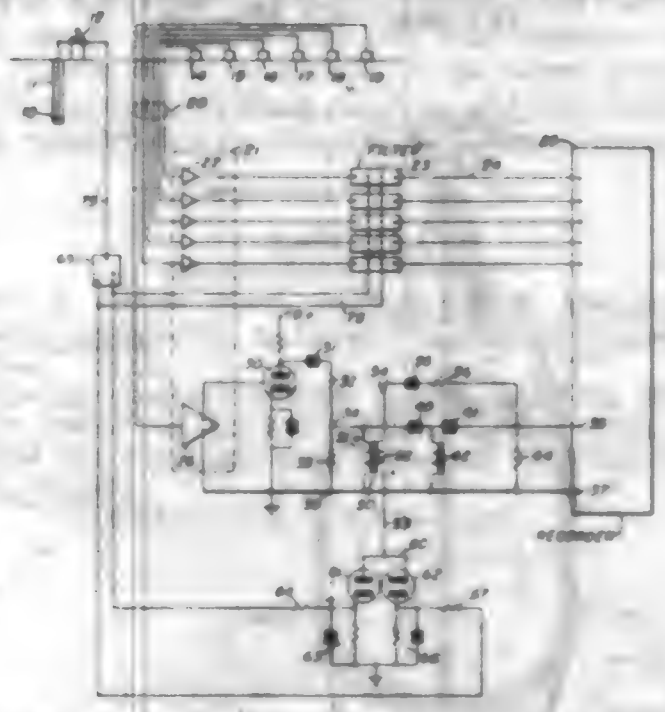
of constant potential, a thermistor connected in said first branch and exposed to the same ambient temperature as said cable, a second thermistor in said second branch, and means connecting said second branch only as an element of said interstage network, the change in resistance of said second thermistor in response to changes in temperature of said first thermistor adjusting said interstage network to vary the gain of said repeater inversely with temperature.

2,867,775

TIME VARIABLE FILTER

Goethe M. Groeneveldt, Dallas, Tex., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York

Application November 25, 1953, Serial No. 394,431
8 Claims. (Cl. 333—17)



1. In a seismic signal channel for amplifying and recording seismic waves, a filter network having input terminals and output terminals and whose frequency response varies as a predetermined function of time during a wave recording period following a starting signal which comprises a first signal path between said input and output terminals having a fixed amplitude-frequency characteristic and a selected cutoff frequency, a second signal path between said input and output terminals and including means for deriving an inverted signal from said input terminals, a variable impedance in said second path for controlling both the phase and the amplitude of the signal in said path to produce a signal substantially all of whose frequencies to one side of said cutoff frequency reinforce like frequencies of the signal through said first path and substantially all of whose frequencies to the other side of said cutoff frequency attentuate like frequencies of the signal through said first path, and means for varying said variable impedance as a predetermined function of time following said starting signal.

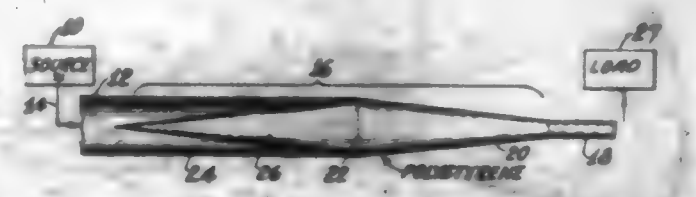
2,867,776

SURFACE WAVEGUIDE TRANSITION SECTION

William C. Wilkinson, Jr., West Windsor Township, Mercer County, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Continuation of application Serial No. 155,488, April 12, 1950. This application December 31, 1954, Serial No. 479,153
14 Claims. (Cl. 333—21)

8. A waveguide transition section comprising a hollow conductive waveguide, a dielectric surface waveguide, said waveguides being positioned with one end of one waveguide near to but spaced from one end of the other waveguide, said ends being devoid of any metallic connection therebetween, one of said waveguides having a tapered section at said one end thereof that is made of material similar to the material of said one waveguide and that increases from the configuration of



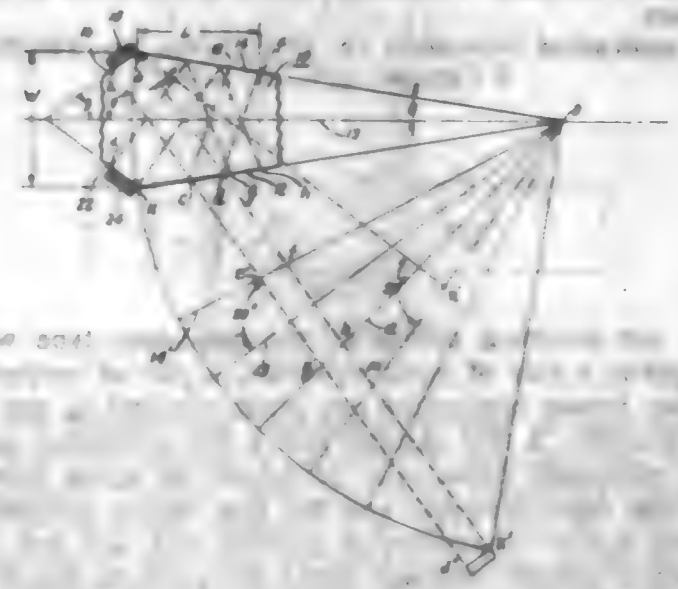
said one waveguide at said one end to a larger configuration in a direction toward said other waveguide, said tapered section transferring wave energy between said waveguides.

2,867,777

DELAY LINE

John L. Robinson, Wenonah, N. J., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Continuation of abandoned application Serial No. 315,788, October 20, 1952. This application August 21, 1957, Serial No. 681,131
19 Claims. (Cl. 333—30)



1. A signal delay line comprising a medium for transmitting acoustic wave energy, said medium being bounded in part by two plane reflecting surfaces, said reflecting surfaces being disposed at an angle of 2ϕ degrees with respect to each other, and means disposed in contact with said medium for converting the signal to be delayed to a directive beam of acoustic wave energy and for converting acoustic wave energy received after passage through said medium to an output signal, said means comprising N transducers disposed in contact with said medium, where N is an integer, the axis of directivity of each of said transducers making an angle $90-(n-1)\phi$ degrees with the bisector of the angle defined by said two reflecting surfaces, where n is an even integer for the value of $N=1$ and an odd integer for the value of $N=2$, the value of n being such that said beam is multiply reflected by at least one of said reflecting surfaces.

2,867,778

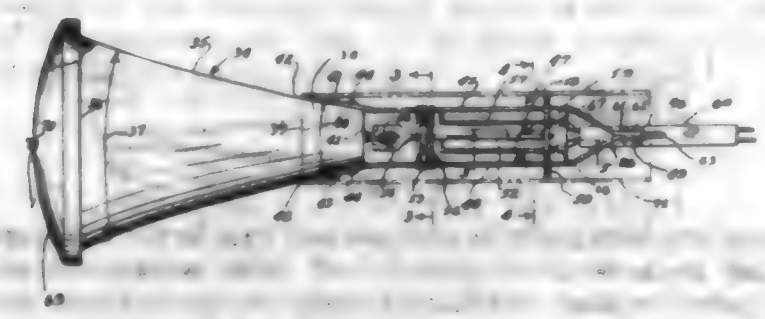
SURFACE WAVE TRANSMISSION LINE COUPLER

Theodore Hafner, New York, N. Y.

Application October 12, 1953, Serial No. 385,489
9 Claims. (Cl. 333—33)

1. In a system for coupling a surface wave transmission line to a two-wire transmission line, a conducting cone frustum adapted to receive said surface wave transmission line in its outer opening, at least one conductor conductively attached at one end to said frustum at its inner opening and extending substantially parallel to the axis of said frustum, another conductor extending

along said axis substantially parallel to said first conductor and having one end situated near said inner opening and adapted to be connected to said surface wave transmission line, the other end of said other conductor



being conductively attached to said first conductor at the other end thereof, and means for connecting said two wire transmission line to points of said two conductors, respectively, away from the other ends of said conductors.

2,867,779

SEISMOGRAPH FILTER SYSTEMS

Thomas Bardeen, Fox Chapel, and Irving C. Zacher, Cheswick, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application November 14, 1955, Serial No. 546,706
4 Claims. (Cl. 333—70)



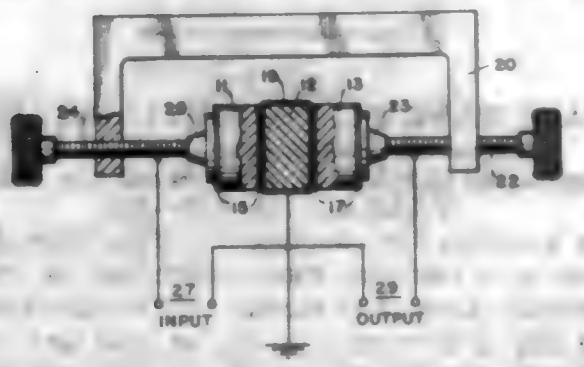
1. An electrical circuit of the band-pass type which comprises a pair of input terminals, a pair of output terminals, means connecting one input terminal to one output terminal, a first resistor and a first condenser and a first adjustable inductance connected in series between the free input terminal and the free output terminal, a second resistor connected in parallel with said first condenser, a second condenser and a third resistor connected in parallel between said output terminals, a fourth resistor in series with a second adjustable inductance connected in parallel between said output terminals, and said second and fourth resistors having resistances respectively which maintain the shape of the filter frequency characteristic as the band-pass midfrequency is changed by adjustment of said inductances.

2,867,780

CERAMIC BARIUM TITANATE ELECTRO-MECHANICAL FILTER

David S. Potter, Seattle, Wash., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application October 29, 1956, Serial No. 619,092
4 Claims. (Cl. 333—72)



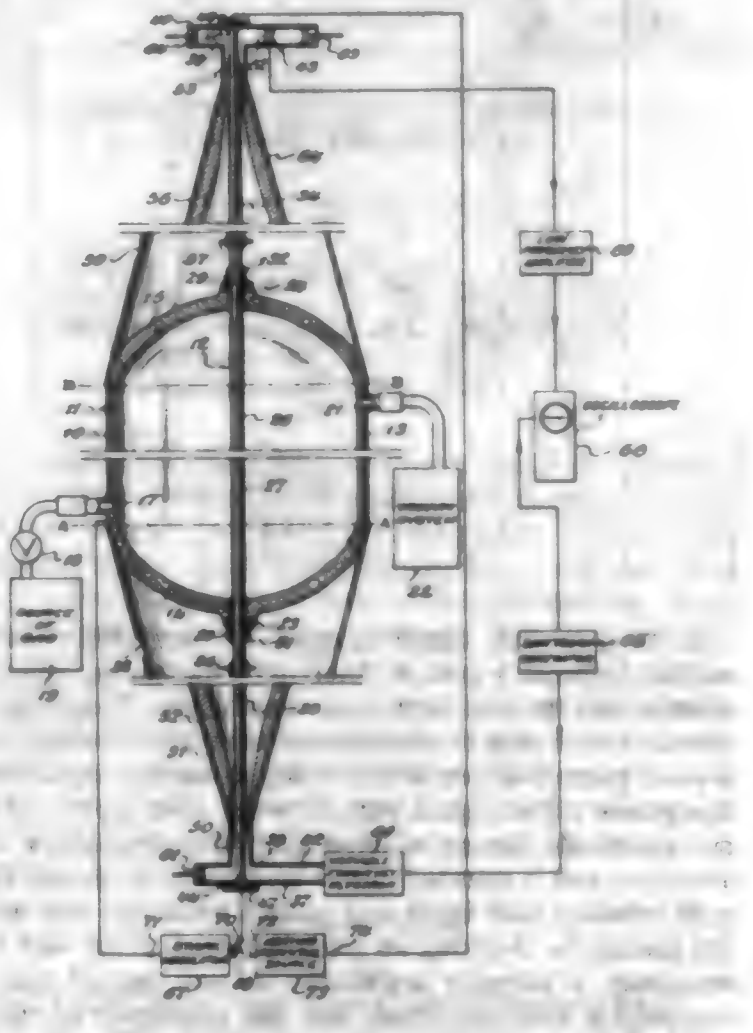
1. An electrical filter which shows resonances for numerous modes comprising a plurality of cooperating electrically polarized barium titanate discs, means for mounting said discs adjacent each other in axial alignment with each other and having their opposed faces in close engagement, a highly conductive metallic coating on each of the opposed faces of said discs, said mounting means consisting of a non-conductive U-shaped clamp having screw adjusting means in each arm of said clamp for varying the tightness of engagement of said opposed faces for varying the pass-band width of the filter, and electrical input and output connections for said discs.

2,867,781

MICROWAVE SPECTROMETER ABSORPTION CELLS

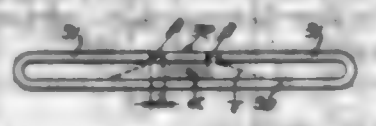
Kiyo Tomiyasu, Flushing, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application November 26, 1954, Serial No. 471,283
12 Claims. (Cl. 333—73)



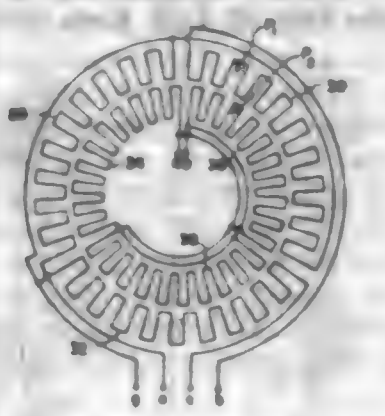
1. A microwave absorption cell, comprising a container of low loss dielectric material including inlet means in a wall thereof for passage into said container of a fluid having microwave absorptive properties, a section of surface wave microwave transmission line comprising a dielectric coated uni-conductor portion supported within said container for guiding electromagnetic waves over a predetermined microwave frequency range along the outer surface of said uni-conductor portion through said fluid at a phase velocity along said axis which is reduced with respect to the velocity of light, means coupled to said uni-conductor portion for launching said electromagnetic waves thereon, metallic means disposed about said container along said uni-conductor portion, said metallic means being radially spaced from the axis of said uni-conductor portion by a sufficient amount so that it has no appreciable effect on electromagnetic wave energy guided by said uni-conductor portion over said microwave frequency range, and means for applying a modulation voltage between said uni-conductor portion and said metallic means for providing an electric field across said container for Stark modulation of said fluid.

2,867,782
MICROWAVE LINES AND HIGH Q FILTERS
Maurice Arditi, Clifton, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application May 13, 1955, Serial No. 508,046
10 Claims. (Cl. 333—73)



1. A microwave transmission line comprising a pair of elongated conductors extending in the same direction including a first conductor, a second conductor of approximately C-shaped cross section, with the side edges being inwardly turned to face each other, and means for supporting said first conductor adjacent the opposed in-turned edges of the gap of said C configuration with said edges being spaced a distance from said first conductor equal to a fraction of the wavelength at the means frequency of waves propagated along said line, said first conductor being mounted directly between said in-turned edges.

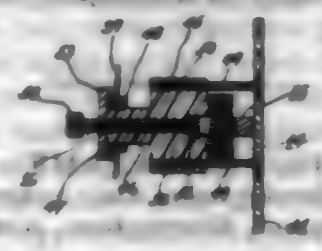
2,867,783
MEASURING DEVICE
Robert S. Childs, South Sudbury, Mass., assignor, by mesne assignments, to Edward G. Martin, Cambridge, Mass.
Original application November 6, 1948, Serial No. 58,651, now Patent No. 2,671,892, dated March 9, 1954. Divided and this application December 29, 1953, Serial No. 401,091
8 Claims. (Cl. 336—123)



1. Apparatus for electrical measurement comprising two relatively movable members, a winding on the first member consisting of a number of conductors each series connected to its next adjacent conductor, wherein adjacent conductors of the winding carry currents in opposite directions; and two windings on the second member, each consisting of a number of series-connected conductors in inductive relation with the conductors of the first member, the conductors of each of said two windings on the second member being accurately spaced with the same spacing as the conductors of the first member, one of the windings on the second member being displaced relative to the other winding by a fraction of the conductor spacing to form two phases in which voltages are generated in the same time phase but displaced in space phase.

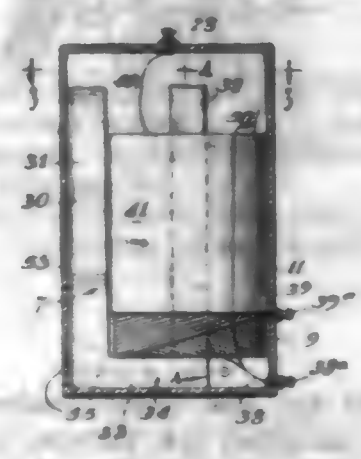
2,867,784
CORROSION TESTING DEVICE
Justin J. Shapiro, Silver Spring, Md., assignor to American Instrument Company, Inc., Silver Spring, Md.
Application October 7, 1953, Serial No. 384,639
3 Claims. (Cl. 336—134)

3. In a testing device of the character described, a housing having a front wall, a support plate, means securing said support plate in a position parallel to and spaced from said front wall, a block member adjustably secured to said wall, the end of said block member being formed with a transverse groove facing said support plate, a U-shaped magnetic core secured between said plate and said block member, said core having spaced



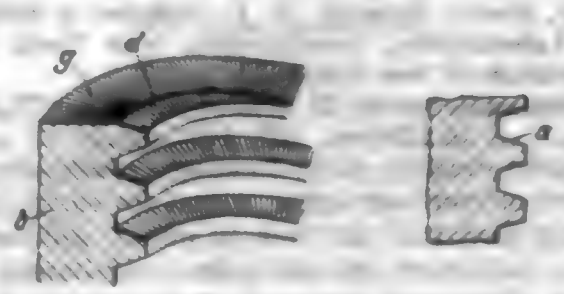
legs received in said groove, and a magnetic adjusting screw extending through said wall between and parallel to said legs and threadedly engaged through said block member, the end of the screw projecting into said groove between said spaced legs.

2,867,785
IGNITION COIL
Ranza A. Crumblin, Chicago, Ill.
Application March 6, 1953, Serial No. 340,758
8 Claims. (Cl. 336—178)



1. An ignition coil comprising a pair of legs and a base member defining a generally U-shaped core, made of magnetic material, said legs being connected together solely by said base member, a primary winding disposed on one leg of said core adjacent said base member and a secondary winding disposed on the same leg of said core, said secondary winding being located above said primary winding and away from said base member.

2,867,786
MOUNTING MEANS FOR CARBON ELECTRODES OR GRAPHITE ELECTRODES
Ernst Doetsch, Nurnberg, and Gregor Klier, Schwaig, near Nurnberg, Germany, assignors to C. Conradty, Nurnberg, Germany, a partnership
Application April 26, 1956, Serial No. 580,879
Claims priority, application Germany April 29, 1955
6 Claims. (Cl. 339—263)



6. A screw-threaded connection for carbon and graphite electrodes comprising a threaded member hav-

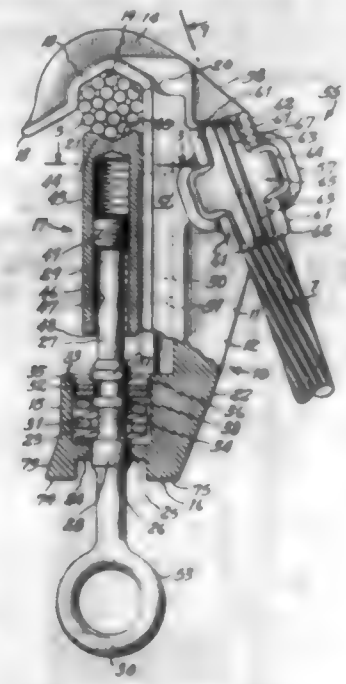
ing the contacting surface faces thereof mechanically roughened to provide a locking between the threaded connection and to form current-conducting and co-operating surfaces that reduce the electrical resistance therebetween to a value below that of smooth-surface electrodes of corresponding size.

2,867,787

HOT LINE CLAMP

Nils L. Nilsson, Birmingham, Ala., assignor to Anderson Electric Corporation, Birmingham, Ala., a corporation of Alabama

Application March 11, 1958, Serial No. 720,612
9 Claims. (Cl. 339—264)



1. An electrical hot line clamp comprising a body portion having a stationary jaw thereon, a movable jaw disposed adjacent said stationary jaw and having a clamping surface thereon and a downwardly facing internally threaded bore therein, an operating stem rotatably disposed on said body portion in axial alignment with said movable jaw and in direct underlying relation with said clamping surface, said stem threadably engageable with said bore to effect adjustment of said movable jaw toward said stationary jaw without elevation of said stem, means slidably connecting said movable jaw and said body portion to prevent rotation of said movable jaw relative to said body portion, enclosed resilient means interconnecting said stem and said body portion for permitting limited yielding movement of said stem and said movable jaw away from said stationary jaw in response to forces exerted by the electrical line being clamped, and connector means on said body portion for connecting a branch conductor thereto.

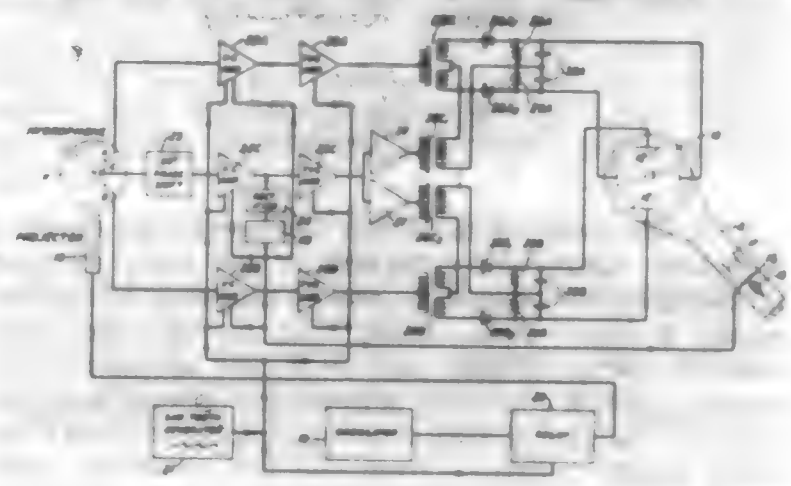
2,867,788

OBJECT LOCATING SYSTEMS

William R. Harry, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application February 27, 1943, Serial No. 477,353
10 Claims. (Cl. 340—6)

1. An echo ranging object locating system comprising a compressional wave projector, means for energizing said projector to propagate time spaced pulses, a detector responsive to reflections of said pulses and having a predetermined directional response characteristic, a visual indicating device, and a resolving circuit connecting said detector to said indicating device and effective to resolve the response of said detector into two angularly related electric fields at said device for actuating it, said resolving circuit comprising a first amplifying means associated with said detector and having a predetermined gain characteristic such that the gain thereof varies substantially proportionately inversely to the variation in intensity of said reflections with distance between said detector and the source of the reflections and a second amplifying means connected between said first amplifying means and



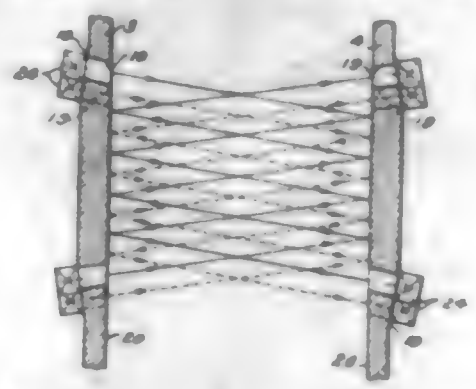
said indicating device and having a predetermined time-gain characteristic such that the gain thereof varies proportionally to the time interval between the propagation of a pulse by said projector and the arrival of the corresponding reflection at said detector.

2,867,789

MERCURY MEMORY TANK

John H. MacNeill and Charles F. West, Melbourne, Fla., assignors to the United States of America as represented by the Secretary of the Air Force

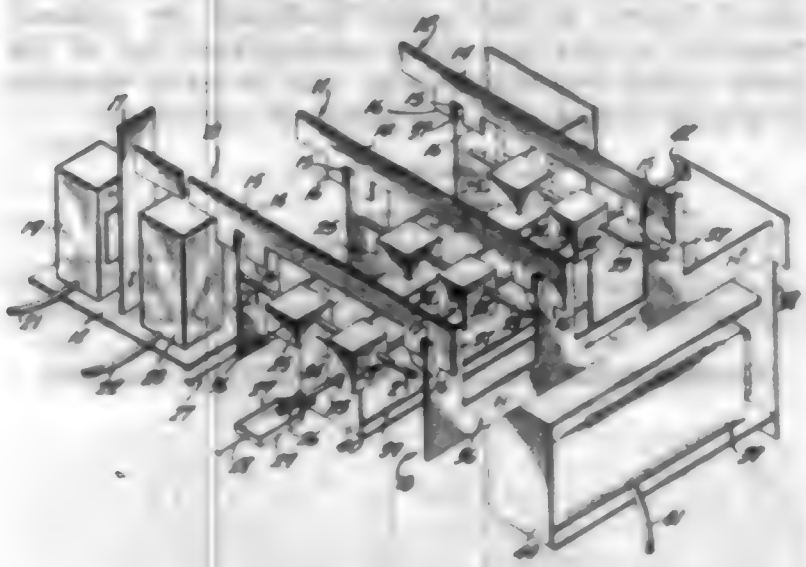
Application April 28, 1955, Serial No. 504,701
3 Claims. (Cl. 340—173)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A mercury memory tank comprising a hollow cylindrical main body, end plates closing the ends of said main body to form a cylindrical cavity, the inner faces of said end plates being flat and parallel to each other, the outer faces of said end plates having identical centrally located raised portions in the form of truncated four-sided equilateral pyramids having base sides approximately equal to the diameter of said cylindrical cavity, a plurality of passageways having axes normal to the sides of said pyramids extending from said pyramid sides to said inner surfaces, the openings to the passageways in each of said pyramid sides being arranged in evenly staggered inner and outer rows such that the axes of each passageway located in an outer row of each end plate lies in a plane that is normal to the inner faces of said end plates and contains the axis of a passageway in the other end plate located in an inner row, a plurality of electro-acoustic transducers equal in number to the number of passageways, a pair of transducer retainer plates each attached to said main body and positioned adjacent to the outer faces of said end plates, said transducer retainer plates holding said transducers in contact with said pyramid sides so that each covers one of the passageway openings in said pyramid sides, said cylindrical cavity and said passageways being filled with mercury, said main body being made of metal and having a glass

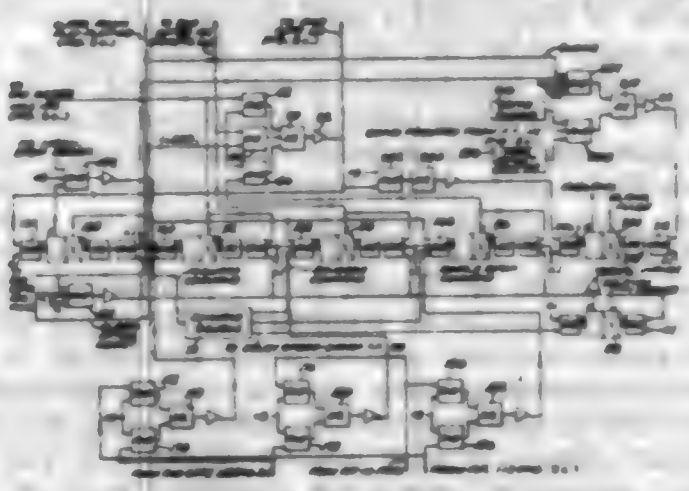
liner, said end plates being made of glass, and a grounding ring of metal foil located between each end plate and said liner and extending into said mercury.

2,867,790
INFORMATION STORAGE MATRIX
Benjamin M. Durfee, Binghamton, and Albert D. Miller, Vestal, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 16, 1955, Serial No. 553,640
13 Claims. (Cl. 340—173)



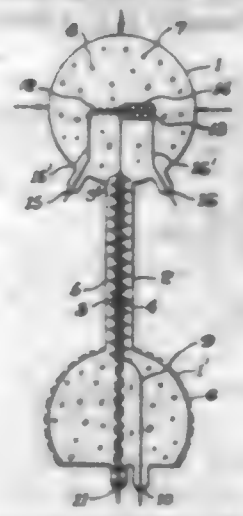
1. An information storage matrix comprising a plurality of storage conductors each slidably received by at least two switch elements, each of said conductors normally electrically joined to one of said elements and electrically insulated from the other of said elements, a plurality of slides, means for independently moving each of the slides, an actuator for selectively sliding each of said conductors into electrical contact with the other switch element and operated by one of the slides, the operation of said actuators by said slides normally failing to slide the conductors into contact with the other element, and means for selectively enabling a plurality of said actuators to displace at least one selected storage conductor upon operation of an associated slide, said displacement of the conductor electrically connecting its associated two switch elements.

2,867,791
CONTROL APPARATUS
Jacob Goldberg and Bonnar Cox, Palo Alto, Calif., assignors, by mesne assignments, to General Electric Company, New York, N. Y., a corporation of New York
Application July 20, 1956, Serial No. 599,089
6 Claims. (Cl. 340—174)



1. In a magnetic-tape recording system apparatus for controlling the drive applied to said tape in response to forward, reverse, and stop commands, said apparatus comprising input circuits for storing a command, interlock means for preventing storage of a command by said input circuits if an identical command is already being stored, means for preventing storage of a further command until the first command is fulfilled, a counter having a plurality of successive count states, means for enabling said counter to count through said states responsive to a command being stored by said input circuits, means to prevent reading from said tape responsive to said counter being enabled by said enabling means, output command circuits, means for instructing said output command circuits to issue a first signal representative of a command to remove all drives from said tape responsive to said counter attaining a first count state, means for instructing said output command circuits to issue a second signal representative of a command to apply a reverse drive responsive to a reverse-command signal in said input circuits and to said counter reaching a second count state, means for instructing said output-command circuits to issue a third signal representative of a command to apply a forward drive responsive to a forward command in said input circuits and to said counter reaching said second count state, and means responsive to said output-command circuits issuing command signals to inactivate said means to prevent reading from said tape.

2,867,792
RADIATION DETECTION
Melville F. Peters, Livingston, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application November 8, 1954, Serial No. 467,431
14 Claims. (Cl. 340—227)

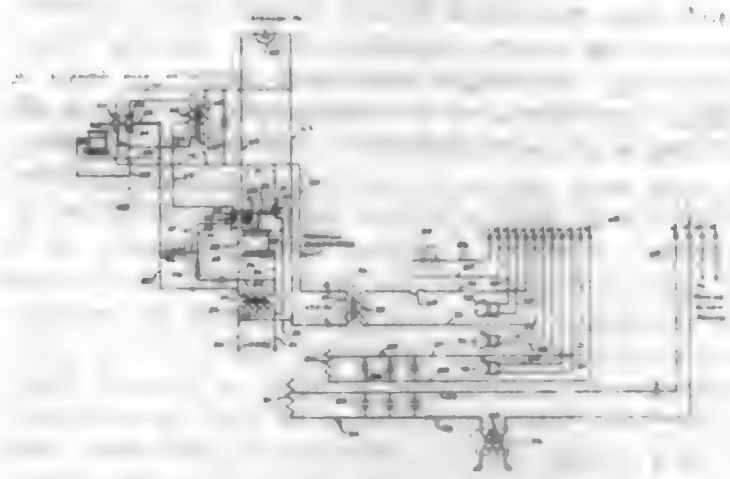


1. In a radiation detection system, an electrical indicating circuit, means for controlling operation of said circuit, said means including a coiled oscillation-generating element sensitive to infra-red rays, and means including a frequency counting unit whose voltage output is variable along the lower range of oscillating frequencies of said coiled element, and becomes steady when the oscillating frequency exceeds a predetermined value, thereby maintaining the effectiveness of said sensitive element at any temperature, however high.

2,867,793
PARALLEL DETECTOR FIRE ALARM SYSTEM
Thomas W. Bland and Lester A. O'Brien, San Jose, Calif.
Application January 14, 1955, Serial No. 481,784
6 Claims. (Cl. 340—227)

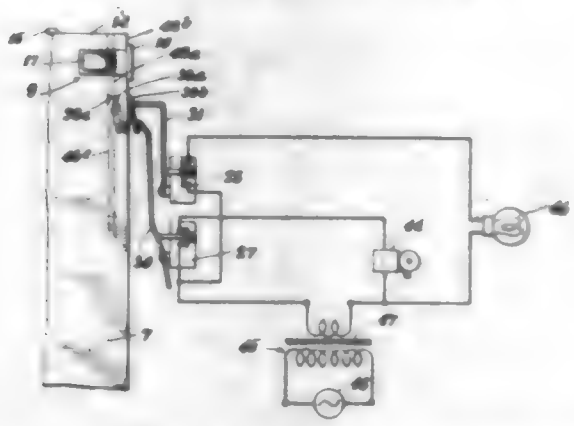
1. In a fire alarm system of the type having a detector circuit comprising a resistance and a normally open thermally responsive element arranged to shunt said resistance upon a predetermined rise in temperature, a normally deenergized fire alarm relay device and a normally energized supervisory relay device connected in parallel with each other, a first source of current, circuit means connecting said source in series with said detector circuit and the parallel-connected relay devices, a second

source of current, means arranged to connected said second source to the series circuit in place of the first-named source in response to failure of said first source, the normal current in the series circuit being insufficient to energize said fire alarm relay device but being sufficient to maintain said supervisory relay device ener-



gized, the fire alarm relay device being energized when said thermally responsive element closes, first signal means operated in response to energization of said fire alarm relay device, and second signal means operated in response to deenergization of said supervisory relay device.

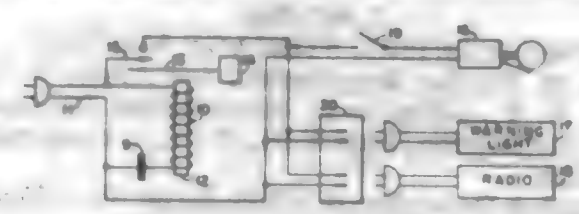
2,867,794
PRINTING PRESS SHEET REGISTRY INDICATOR
Vincent J. Dillon, Leonia, N. J.
Application July 18, 1955, Serial No. 522,637
7 Claims. (Cl. 340—259)



1. A sheet registry indicator for a printing press sheet feeder comprising a mounting bar, a mounting means thereon to adjustably attach the indicator to the sheet feeder, a sheet edge contacting shoe, an elongated support for said contacting shoe on said mounting bar, roller means mounting said contacting shoe on said support for reciprocal motion thereon, a resilient means urging said contacting shoe in one direction toward a sheet edge, a stop means providing a limit to the motion of the shoe under the urging of said resilient means, switch means on said mounting bar operatively connected to said contacting shoe for operation thereby, and a signal device connected to said switch means.

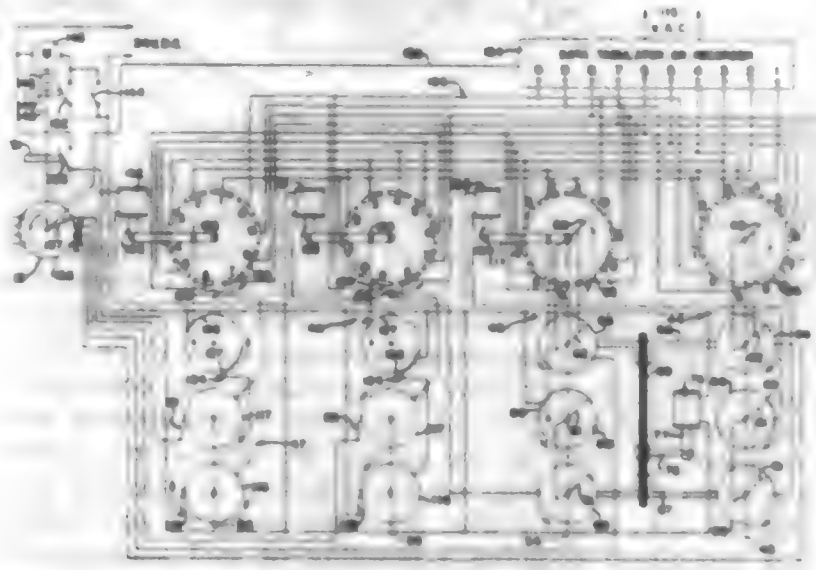
2,867,795
POWER SYSTEM TRANSMITTED ALARM
Ernest W. Longton, Amedee J. Beaudoin, and Peter W. Johnson, United States Navy
Application December 8, 1955, Serial No. 551,964
3 Claims. (Cl. 340—310)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A remote control system comprising a reed of magnetic material rigidly mounted at one end and free to vibrate at the other end at its resonant frequency, a pair of power input terminals, means for connecting said input terminals to a source of alternating electric power, an electromagnet disposed adjacent said reed and connected across said power terminals, a control circuit, a normally open switch having an arm member disposed to be engaged by the free end of said reed, said reed adapted to mechanically close said open switch when set in vibra-



tion, said switch in its closed condition connecting said control circuit to said power terminals, the resonant frequency of said reed being selected near that of the power source whereby the reed may be set in vibration by a small change in the frequency of said source.

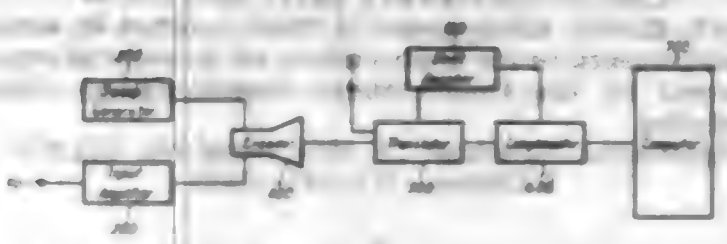
2,867,796
ANALOG TO DIGITAL CONVERTER
James Madison Kendall, Coral Hills, Md.
Application September 23, 1953, Serial No. 382,017
6 Claims. (Cl. 340—347)
(Granted under Title 35, U. S. Code (1952), sec. 266)



5. Digital converter apparatus for indicating measurements by numerical values comprising, in combination, means including a first rotatable shaft for converting said measurements into shaft rotations, a plurality of circuit selector means arranged in spaced adjacency, a plurality of 10 to 1 ratio driving means each interconnecting each of said selector means respectively with the next adjacent selector means, one of said selector means being driven directly by said first rotatable shaft, a plurality of commutators each having a plurality of spaced commutator contacts each corresponding to a different digit and there being one commutator for each of said selector means, a plurality of shafts with a shaft for each of the selector means and rotated by the driving means, each of said contacts being indicative of a digit adapted to be employed in a numerical value, a plurality of brush means with one each fixedly mounted on each of said selector means shafts and rotatable therewith, each of said brush means being adapted to rotationally sweep the contacts of its associated commutator in seriate order as the selector means shafts are rotated by said first rotatable shaft and after rotation to be positioned in an instant setting with respect to said contacts which correspond to the instant measurement being taken, a recorder mechanism, a plurality of operating circuits interconnecting the commutator contacts of each selector means with said recorder mechanism, means for energizing each of said brush means in consecutive order whereby the instant setting of each of the brush means with respect to the contacts thereof is recorded, resilient means for normally holding disengaged at least the first and second of said

brush means corresponding to the first and second selector means from the contacts thereof during the rotation of said shafts, means for engaging said first and second brush means with the contacts thereof only when the shafts have stopped rotating and said circuits are energized, said last-named means including a movable contact ring mounted adjacent each of said first and second brush means respectively, means for moving said contact rings and engaging the rings with said resilient means for moving said last-named brush means into engagement with their respective commutators, and means energized when said circuits are energized for rotating the succeeding commutators through an angle greater than the angle of spacing between adjacent contacts as required by said rotational position of the sequentially proceeding brush sufficiently to maintain a particular contact in proper contact relation with respect to the brush means thereof.

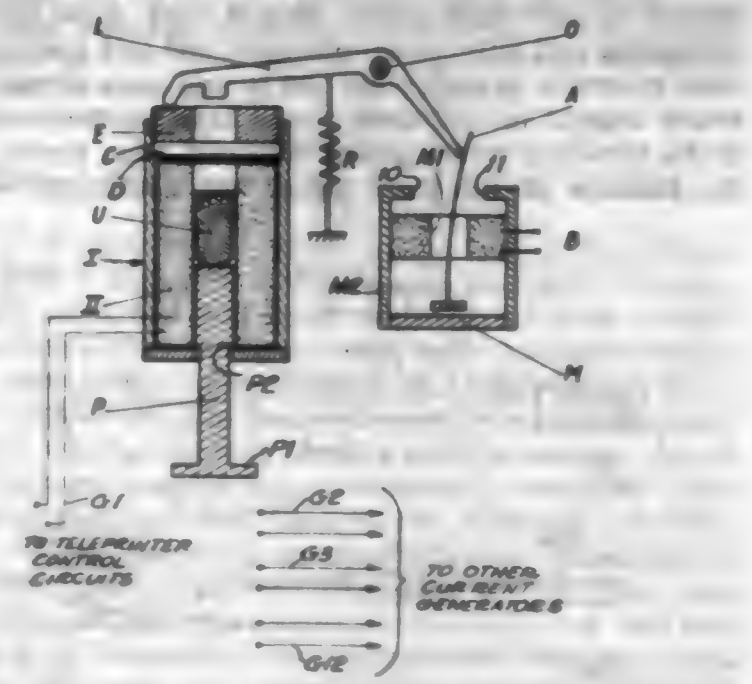
2,867,797
ANALOG-TO-DIGITAL CONVERTERS
George B. Greene, Berkeley, and Gunnar Wahlstrom, San Francisco, Calif., assignors to Marchant Research, Inc., a corporation of California
Application March 9, 1954, Serial No. 415,004
13 Claims. (Cl. 340—347)



1. An analog-to-digital converter comprising: a source of signals, each of said signals constituting an analog representation of a value; an encoder connected to said source for receiving a given one of said signals and for encoding said given signal into a first serial pulse train representing a reflected binary word which is a predetermined function of the value represented by said given signal; a complementer; a translator connected to the encoder to produce in response to the receipt of said first serial pulse train, a second serial pulse train representing the complement of a conventional binary word equivalent to said reflected binary word, said translator being operable to enable said complementer to produce a third serial pulse train representing the true form of said conventional binary word upon receipt at said complementer of said second serial pulse train representing the complement of said conventional binary word; and means for transmitting said second serial pulse train to said complementer.

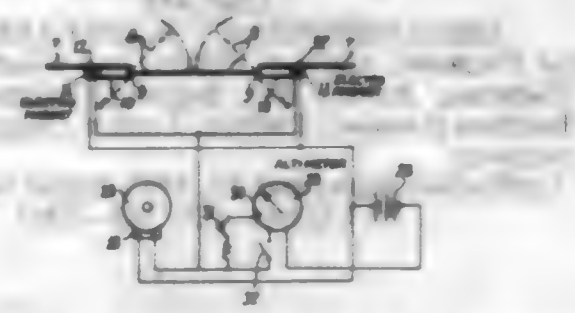
2,867,798
GENERATORS FOR PRODUCING PULSES OF ALTERNATING CURRENT
Jules Hector Coqueiet, Jamioulx, Belgium, assignor to Ateliérs de Constructions Electriques de Charleroi, Brussels, Belgium, a Belgian company
Application April 25, 1955, Serial No. 503,505
Claims priority, application France May 18, 1954
3 Claims. (Cl. 340—359)

1. A generator for producing pulses of alternating current comprising, a magnetic circuit including a resilient blade of magnetic material fixedly connected at one end in said magnetic circuit and having its other end free to vibrate near a pole of said magnetic circuit and being able to conduct flux, means including a pivoted lever for adjustably and releasably holding said blade in a predetermined beat position which is determinative of the maximum amplitude of the vibrations of said blade when released, means constantly biasing the lever toward a position for bending the blade, an electromagnet having a movable plunger core which is imparted movement when the electromagnet is energized for delivering an impact to the lever at the end of its movement and for moving said lever away from said blade in a general



direction toward which the blade tends to move initially when released from its beat position, and means including a coil surrounding said blade for producing a current corresponding to the vibrations of said blade.

2,867,799
DISTRESS SIGNAL FOR AEROPLANES
Alexander S. Decarie, Montreal, Quebec, Canada
Application December 24, 1956, Serial No. 630,390
4 Claims. (Cl. 340—366)



1. In a device of the character described comprising in combination, an aircraft fuselage, a compartment on the inner wall of said fuselage, a pair of hinged doors on the wall of said fuselage enclosing said compartment, said doors opening outwards from the fuselage and being held in the closed position by magnetic means, a captive balloon in said compartment, a windlass, a cable on said windlass having one end secured to said balloon, magnetic means holding said windlass from unwinding, an altimeter in said aircraft and an electrical circuit including a circuit breaker, controlled by said altimeter, energizing both said magnetic means, the said circuit breaker in said electrical circuit being opened when the said altimeter indicates a drop of said aircraft to a predetermined altitude thereby effecting release of said balloon from the aircraft.

2,867,800
MICROWAVE PHASING SYSTEM
John F. Zaleski, Queens Village, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application September 18, 1948, Serial No. 49,937
12 Claims. (Cl. 343—13)

1. In a system for transmitting high frequency pulse signals, receiving the echoes thereof and for maintaining the phase of the oscillations of the pulse signals substantially constant, a generator of high frequency pulse signals, a generator of continuous wave oscillations of substantially the same frequency as the oscillation of said

high frequency pulse signals, a receiver, an antenna, a main wave guide energy transmission circuit connected to said antenna, a branch wave guide circuit connecting said receiver to said main circuit, branch wave guide circuits connecting said pulse signal generator and said continuous wave generator to each other and to said main circuit and means located in said main circuit between the juncture of the receiving branch circuit with said main circuit and the juncture of the pulse signal and continuous wave

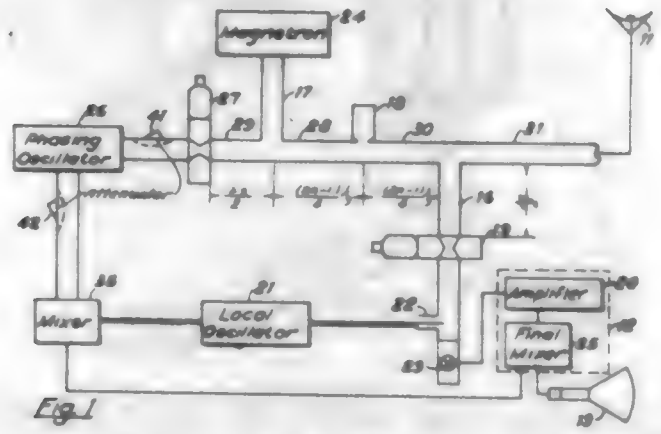


Fig. 1

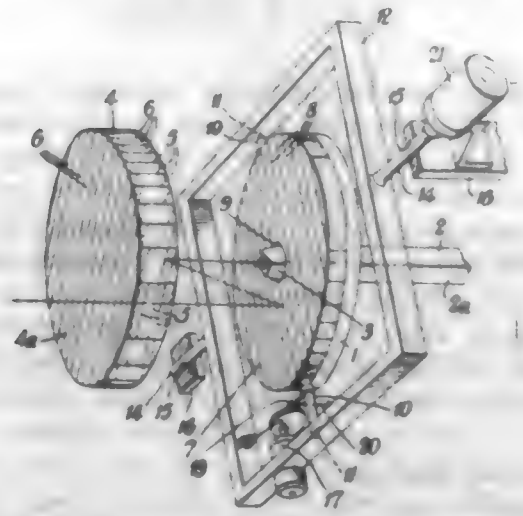
branches with each other and said main circuit for reflecting a low impedance across said main circuit at its juncture with said pulse signal and continuous wave guide branches and a second low impedance across said main circuit at its juncture with said receiving branch at the side remote from said antenna during the interval between pulse signals and for removing said low impedances in response to the occurrence of said high frequency pulse signals.

2,867,801

HIGH FREQUENCY RADIO AERIALS

Peter Frederick Mariner, Elstree, and Charles Alexander Cochrane, Potters Bar, England, assignors to Elliott Brothers (London) Limited, London, England, a British company

Application September 14, 1953, Serial No. 379,858
12 Claims. (Cl. 343—756)



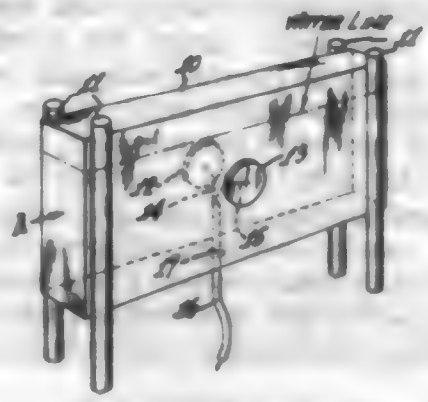
1. A high frequency radio aerial comprising a primary source emitting radiation polarised in a given plane, an auxiliary reflector arranged to be illuminated by said radiation and constructed as a collimator to reflect with a plane wave-front substantially the whole of the incident radiation polarised in said given plane but to permit free passage therethrough of substantially all radiation incident thereon which has its plane of polarisation at substantially 90° to said given plane, a main reflector arranged to be illuminated by radiation reflected from said auxiliary reflector and constructed to re-reflect said reflected radiation as an emergent beam polarised in a plane substantially at 90° to said given plane and means for oscillating said main reflector about at least one axis normal to the axis of the main reflector to cause the radiation reflected from said main reflector to follow a predetermined path.

2,867,802

WATER ANTENNA

Nils E. Lindenblad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application November 2, 1953, Serial No. 389,527
12 Claims. (Cl. 343—767)



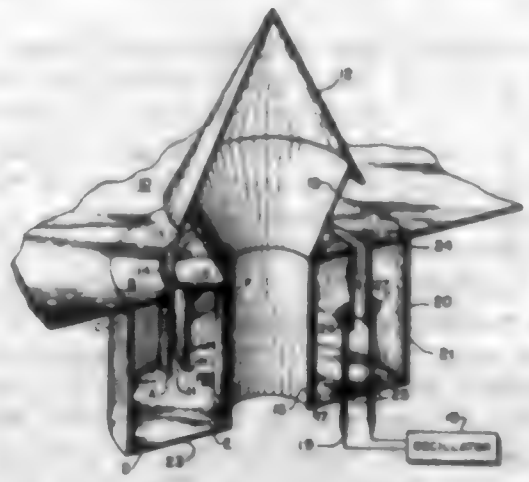
11. A slot antenna comprising a body of conductive fluid having therein a dielectric space to form a slot at the surface of said fluid, and a pair of antenna leads positioned at opposite sides of said space to electrically contact said fluid.

2,867,803

CIRCULAR CAVITY SLOT ANTENNA

Paul L. Kerley, Albuquerque, N. Mex., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application November 13, 1956, Serial No. 621,972
5 Claims. (Cl. 343—769)



1. A cavity slot antenna comprising first and second conducting coaxial cylinders, two conducting plates, said cylinders being joined at one end by one of said conducting plates, the other plate having a circular slot therein forming inner and outer portions, said slot being concentric with said cylinders, the other ends of said cylinders being joined respectively to said inner and outer portions conducting flanges extending from said slot toward but not touching said one of the plates, and a cylindrical conductor placed coaxially within said cylinders and extending outwardly from said plates.

2,867,804

ANTENNA ARRAY AND FEED SYSTEM THEREFOR

Herman E. Gihring, Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application December 1, 1954, Serial No. 472,465
The terminal fifteen years of the term of the patent to be granted has been disclaimed
10 Claims. (Cl. 343—853)

1. In a broadcasting system, an antenna array comprising, in combination, first and second antennas of different lateral dimensions located in an end-to-end relationship along the longitudinal axis of said array, means for elec-

trically connecting said antennas, and means for feeding signals to be radiated by said antennas to said connecting means at a point removed from the mid-point between the ends of said connecting means, said point



being located from said mid-point at an electrical distance equivalent to the delay in the wave front of the antenna of smaller lateral dimensions relative to the wave front of the antenna of larger lateral dimensions.

2,867,885

PROCESS FOR THE ELIMINATION OF THE UNCONVERTED POLYMER-FORMING MONOMERS FROM SYNTHETIC LINEAR POLYAMIDES

Hermann Ludewig, Rudolstadt, Thuringia, Germany, assignor to VEB Thueringisches Kunstfaserwerk "Wilhelm Pieck" Schwarza, Rudolstadt, Germany

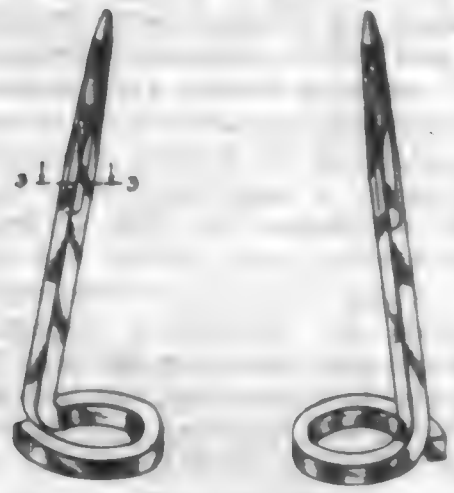
No Drawing. Application March 1, 1954
Serial No. 413,427
Claims priority, application Germany July 25, 1953
7 Claims. (Cl. 260—78)

1. A process for the separation of unconverted monomer from a highly viscous melt of a polyamide containing the same, said polyamide being formed from a material selected from the class consisting of 6-aminohexanoic acid, caprolactam and a mixture of a condensation product of adipic acid and hexamethylene diamine with caprolactam, which comprises forming a highly viscous melt of said polyamide comprising substantially completely polymerized monomer and unconverted monomer, introducing a strong current of superheated steam maintained at a temperature of between 200°–300° C. into said melt, whereby said steam is caused to enter said melt and pass through it, sweeping with it unconverted monomer, separating the steam and unconverted monomer contained therein from the melt, conveying said melt substantially free of monomer to a degassing zone and allowing said melt to quiesce in said degassing zone until most of the residual steam bubbles are freed from said melt, said melt remaining in said degassing zone at most for about 30 minutes.

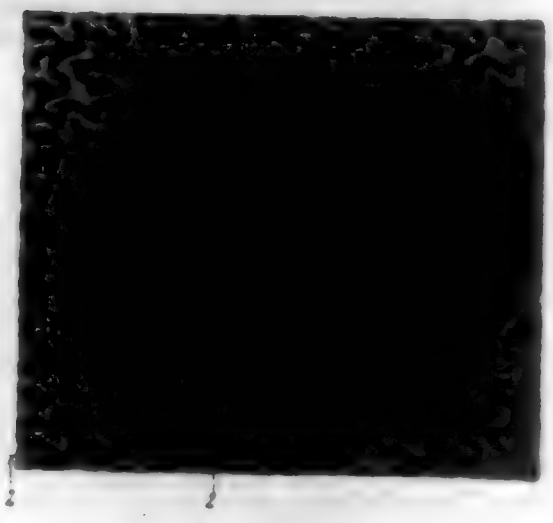
DESIGNS

JANUARY 6, 1959

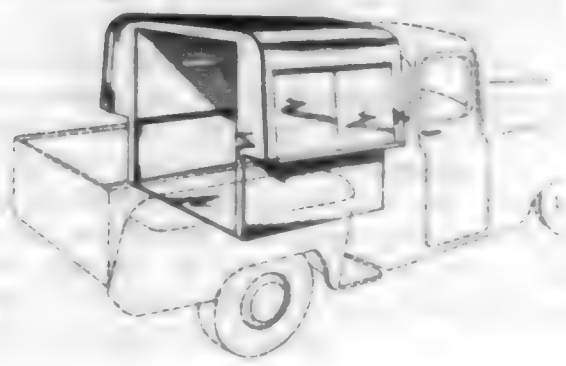
184,204
BALL POINT PEN
Roger Allan, Paris, France
Application November 19, 1957, Serial No. 48,538
Claims priority, application France July 18, 1957
Term of patent 14 years
(Cl. D74—17)



184,205
BREATHABLE POLYMER COATED FABRIC
Howard L. Amberson, Madison, Wis., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 5, 1958, Serial No. 49,503
Term of patent 14 years
(Cl. D92—1)



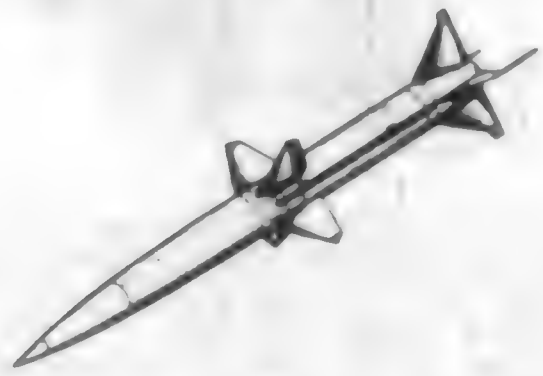
184,206
REMOVABLE SEMI-BODY ADAPTOR UNIT FOR PICK-UP TRUCKS
Louis E. Amborn, Willows, Calif.
Application February 7, 1958, Serial No. 49,534
Term of patent 14 years
(Cl. D14—3)



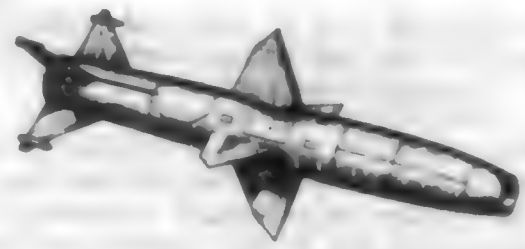
184,207
BOTTLE
William H. Baird, Wheeling, W. Va., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application December 12, 1956, Serial No. 44,167
Term of patent 14 years
(Cl. D58—8)



184,208
GUIDED MISSILE
Alfred J. Bell and Carl W. Besserer, Silver Spring, and Everard A. Bonney, West Hyattsville, Md., assignors to the United States of America as represented by the Secretary of the Navy
Application March 11, 1949, Serial No. 1,348
Term of patent 14 years
(Cl. D71—1)



184,209
RAM-JET MISSILE
Alfred J. Bell and Carl W. Besserer, Silver Spring, and Everard A. Bonney, West Hyattsville, Md., assignors to the United States of America as represented by the Secretary of the Navy
Application April 5, 1949, Serial No. 1,800
Term of patent 14 years
(Cl. D71—1)



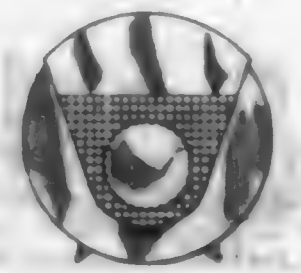
184,210
COASTER FOR MILK CARTONS OR THE LIKE
Joseph Bernabo, Pittsburgh, Pa.
Application February 21, 1957, Serial No. 44,946
Term of patent 7 years
(Cl. D44—10)



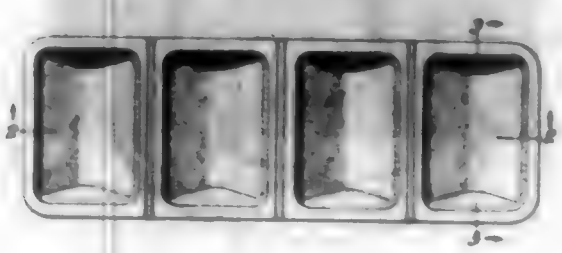
184,211
DRESS
Oleg Cassini, New York, N. Y.
Application August 26, 1958, Serial No. 52,380
Term of patent 3½ years
(Cl. D3—26)



184,213
COMPUTING DEVICE
Trace Christenson, Jr., Niles, Mich., assignor to C. J. Major-J. F. Thornburg Enterprises, Mishawaka, Ind., a partnership
Application October 17, 1956, Serial No. 43,383
Term of patent 14 years
(Cl. D52—1)



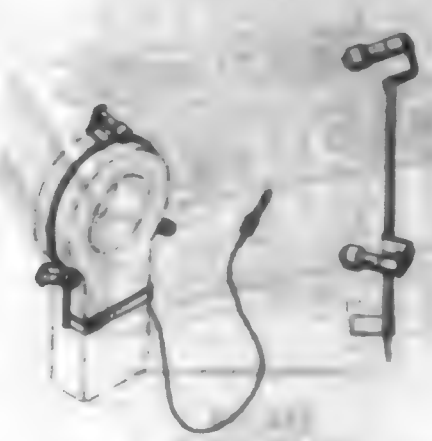
184,213
PACKING TRAY
Urban H. Despres, Clinton, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine
Application September 25, 1957, Serial No. 47,847
Term of patent 14 years
(Cl. D58—13)



184,214
PHOTOGRAPHIC FLASH LIGHT
Lester A. Dine and Edgar S. Lemmey, Levittown, N. Y.
Application May 7, 1958, Serial No. 50,793
Term of patent 14 years
(Cl. D61—1)



184,215
PHOTOGRAPHIC LIGHT UNIT
Lester A. Dine and Edgar S. Lemmey, Levittown, N. Y.
Application May 7, 1958, Serial No. 50,794
Term of patent 14 years
(Cl. D61—1)



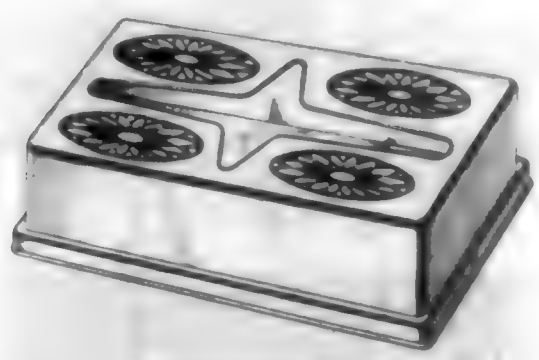
184,216
TRACTOR
Bernard E. Erlacher, Peoria, and David L. Painter, Evanston, Ill., assignors to LeTourneau-Westinghouse Company, Peoria, Ill., a corporation of Illinois
Application January 30, 1957, Serial No. 44,670
Term of patent 14 years
(Cl. D14—3)



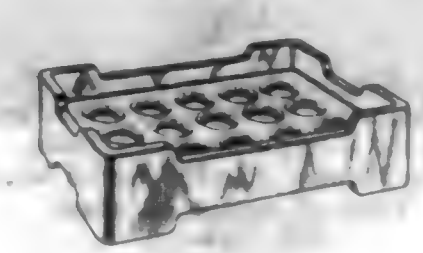
184,217
TRUCK
Bernard E. Erlacher, Peoria, Ill., Ralph H. Kress, Kansas City, Mo., and Ernst W. Spannhake, Peoria, Ill., assignors to LeTourneau-Westinghouse Company, Peoria, Ill., a corporation of Illinois
Application February 7, 1957, Serial No. 44,785
Term of patent 14 years
(Cl. D14—3)



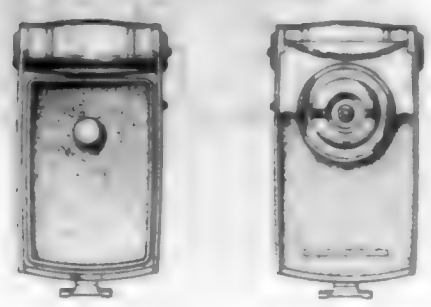
184,218
TISSUE DISPENSER
Aaron Harry Fishman, East Rockaway, N. Y., assignor to Eagle Roll Leaf Stamping Co., Brooklyn, N. Y., a partnership
Application January 14, 1958, Serial No. 49,256
Term of patent 14 years
(Cl. D52—2)



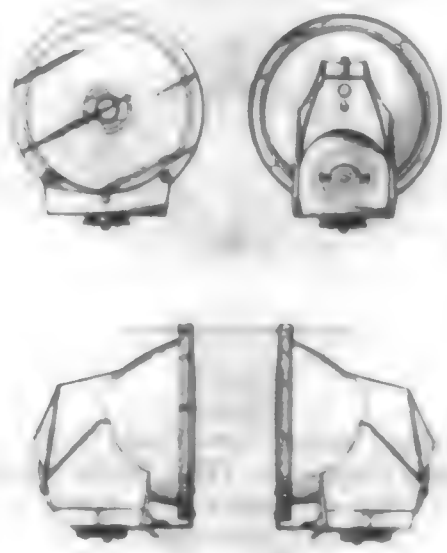
184,219
SOAP DISH
Tully V. Foster, Canton, Ohio
Application October 16, 1956, Serial No. 43,373
Term of patent 14 years
(Cl. D4—3)



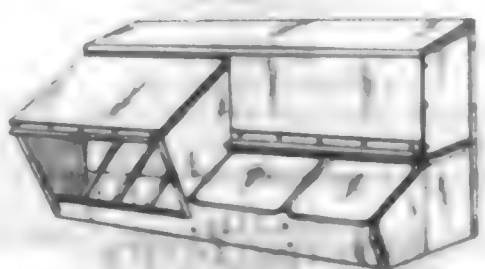
184,220
FOLDABLE FLASH BULB UNIT FOR CAMERAS
Sidney Freed, Silver Spring, Md.
Application October 13, 1958, Serial No. 52,948
Term of patent 14 years
(Cl. D61—1)



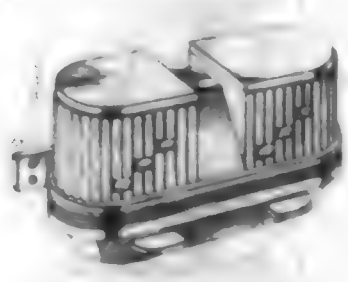
184,221
FLASH BULB UNIT FOR CAMERAS
Sidney Freed, Silver Spring, Md.
Application October 13, 1958, Serial No. 52,949
Term of patent 14 years
(Cl. D61—1)



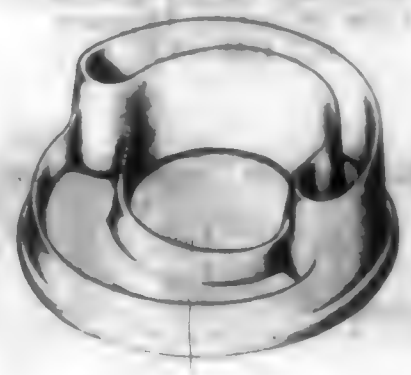
184,222
PIG AND HOG FEEDER
Abraham S. Friedman, Hicksville, Ohio, assignor to The National Ideal Company, Toledo, Ohio, a corporation of Ohio
Application April 29, 1958, Serial No. 50,665
Term of patent 7 years
(Cl. D12—2)



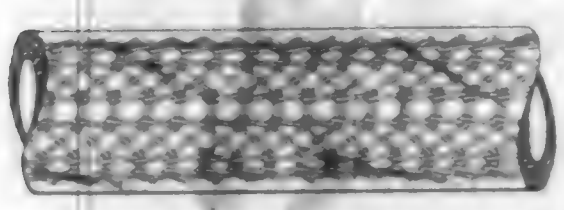
184,223
COFFEE AND SUGAR DISPENSER UNIT
Joseph V. Galbo, Buffalo, N. Y.
Application July 15, 1958, Serial No. 51,794
Term of patent 7 years
(Cl. D44—22)



184,224
ARTICHOKE DISH
Mary E. Gorzelnik, Bakersfield, Calif.
Application July 7, 1958, Serial No. 51,657
Term of patent 14 years
(Cl. D44—15)



184,225
FLEXIBLE HOSE
John Grecnin, Philadelphia, Pa., assignor to Fidelity Machine Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application January 23, 1957, Serial No. 44,580
Term of patent 14 years
(Cl. D43—1)



184,226
STREET LIGHTING LAMP OR THE LIKE
Kenneth F. Guggemos, Winsted, Minn.
Application May 27, 1957, Serial No. 46,607
Term of patent 14 years
(Cl. D48—31)



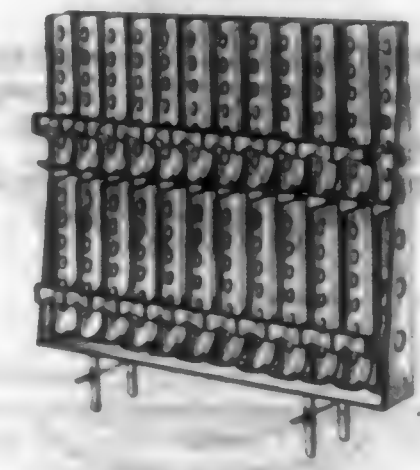
184,227
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 19, 1958, Serial No. 49,708
Term of patent 14 years
(Cl. D92—1)



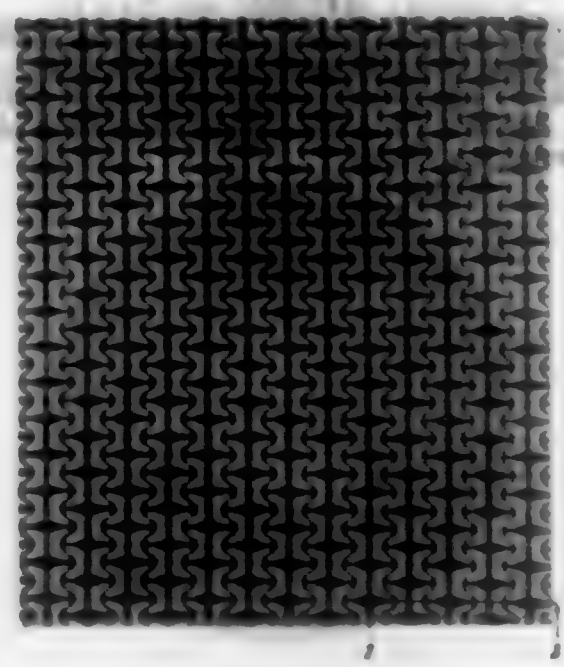
184,228
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 19, 1958, Serial No. 49,707
Term of patent 14 years
(Cl. D92—1)



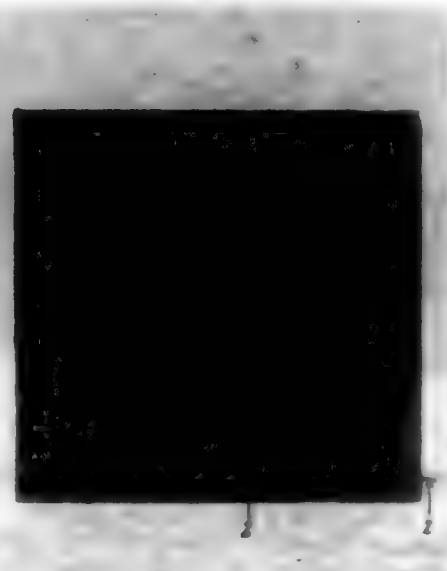
184,229
MULTIPLE BIN DISPENSING RACK FOR CIGARETTE PACKAGES
Simon Heselov, Youngstown, Ohio
Application January 14, 1958, Serial No. 49,250
Term of patent 14 years
(Cl. D52—2)



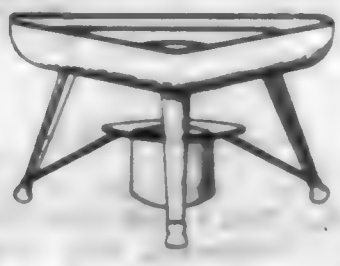
184,230
BREATHABLE POLYMER COATED FABRIC
Jack D. Kahney, Mishawaka, Ind., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application January 23, 1958, Serial No. 49,365
Term of patent 14 years
(Cl. D92—4)



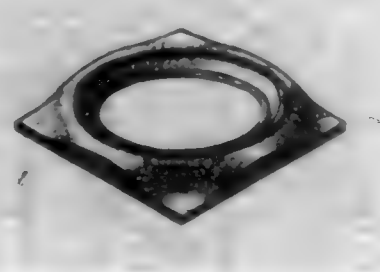
184,231
BREATHABLE POLYMER COATED FABRIC
Jack D. Kalmey, Mishawaka, Ind., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application January 23, 1958, Serial No. 49,368
Term of patent 7 years
(Cl. D92—1)



184,232
WARMER FOR CARAFES AND THE LIKE
Ernest L. Lilja, La Grange Park, Ill., assignor to Club Aluminum Products Company, Chicago, Ill., a corporation of Illinois
Application June 7, 1957, Serial No. 46,521
Term of patent 14 years
(Cl. D44—10)



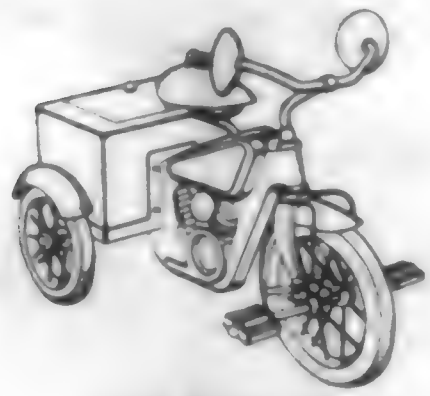
184,233
FRAME FOR CHINAWARE OR SIMILAR ARTICLE
Donna D. Littlepage, Fort Worth, Tex.
Substituted for abandoned design application Serial No. 28,495, January 12, 1954. This application April 2, 1956, Serial No. 40,865
Term of patent 14 years
(Cl. D29—20)



184,234
DRIP GUARD
Virginia M. Maccio, Waltham, Mass.
Application August 23, 1957, Serial No. 47,485
Term of patent 3½ years
(Cl. D44—39)



184,235
CHILD'S VEHICLE
Stuart Nelson Mann, Derby, N. Y., assignor to Evans Products Company, Plymouth, Mich., a corporation of Delaware
Application August 23, 1957, Serial No. 47,488
Term of patent 14 years
(Cl. D34—15)



184,236
EYEGLASS FRONT
Albert G. McNeill, Maple Glen, Pa., assignor to Bachmann Bros., Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application June 13, 1958, Serial No. 51,346
Term of patent 3½ years
(Cl. D57—1)



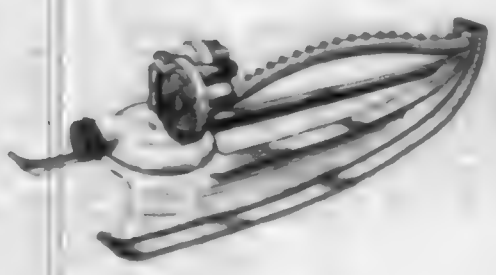
184,237
EYEGLASS FRONT
Albert G. McNeill, Maple Glen, Pa., assignor to Bachmann Bros., Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application June 13, 1958, Serial No. 51,349
Term of patent 3½ years
(Cl. D57—1)



184,238
CHAIR
George Nelson, Queens, and John F. Pile, Brooklyn, N. Y., assignors to Herman Miller Furniture Company, Zeeland, Mich., a corporation of Michigan
Application October 3, 1957, Serial No. 47,956
Term of patent 14 years
(Cl. D15—1)



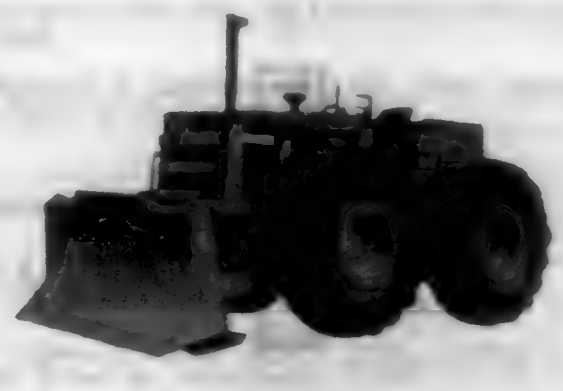
184,239
LAWN SPRINKLER
Lowen R. Nelson, Peoria, Ill.
Application February 28, 1958, Serial No. 49,851
Term of patent 14 years
(Cl. D91—1)



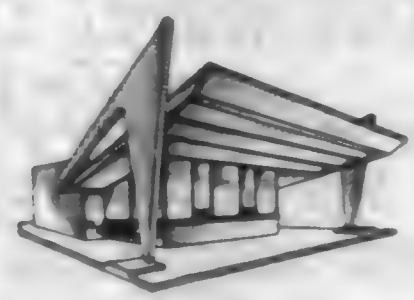
184,240
GOLF CLUB HEAD COVER
James E. Noonan, Peoria, Ill.
Application November 28, 1956, Serial No. 43,969
Term of patent 14 years
(Cl. D34—5)



184,241
EARTHMOVING TRACTOR AND PUSHER COMBINATION
David L. Painter, Evanston, Ill., assignor to LeTourneau-Westinghouse Company, Peoria, Ill., a corporation of Illinois
Application March 18, 1957, Serial No. 45,291
Term of patent 14 years
(Cl. D14—3)



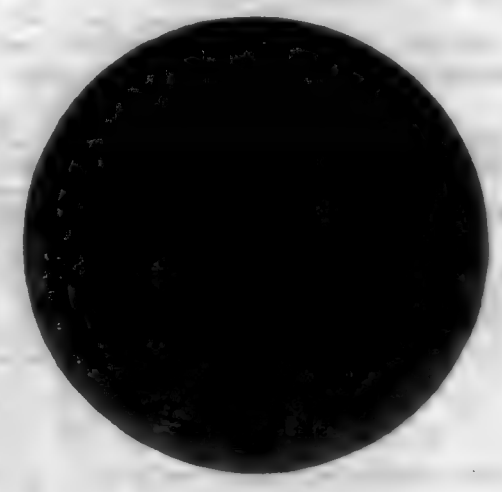
184,242
BUILDING
Milton Schwartz, Barrington, Ill.
Application August 21, 1958, Serial No. 52,326
Term of patent 14 years
(Cl. D13—1)



184,243
PERSONALIZED FILLER CAP
Sidney Sherman and Charles Sherman, Baltimore, Md.
Application February 14, 1957, Serial No. 44,870
Term of patent 14 years
(Cl. D91—1)



184,244
PLATE OR SIMILAR ARTICLE
Shuzo Terano, Mizuho-ku, Nagoya, Japan
Application May 23, 1957, Serial No. 46,317
Term of patent 3½ years
(Cl. D44—15)



184,245

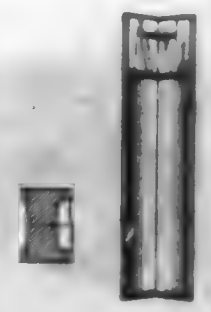
FILM MAGAZINE

Lawrence A. Ulmschneider, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application February 25, 1957, Serial No. 44,970

Term of patent 14 years

(Cl. D61—1)



184,246

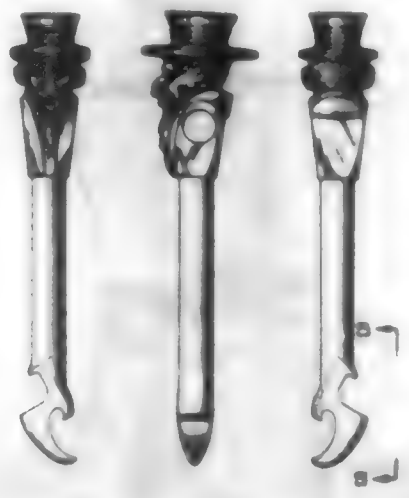
CONTAINER OPENER OR SIMILAR ARTICLE

Karl Uebeck, Marburg, Germany

Application October 18, 1957, Serial No. 48,154

Term of patent 7 years

(Cl. D44—29)







LIST OF REISSUE PATENTEES

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NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Dahlman Mfg. Co.: *See*—
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Hooven, Frederick J. Phototypesetting. Re. 24,584, 1–6–59, Cl. 95—4.5.

Olson, Rudolph, to Dahlman Mfg. Co. Vine clearing device. Re. 24,585, 1–6–59, Cl. 171—12.

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Le Grice, Edward B. Rosa floribunda plant. 1,792, 1–6–59, Cl. 47—61.

Bestani, Albert J. Rose plant. 1,794, 1–6–59, Cl. 47—61.
Schreiner, Robert V. Iris plant. 1,793, 1–6–59, Cl. 47—60.

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Allan, Roger. Ball point pen. 184,204, 1–6–59. Cl. D74—17.
Amberson, Howard L., to United States Rubber Co. Breathable polymer coated fabric. 184,205, 1–6–59, Cl. D92—1.
Ambern, Louis E. Removable semi-body adaptor unit for pick-up trucks. 184,206, 1–6–59, Cl. D14—3.
Bachmann Bros., Inc.: *See*—
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McNeill, Albert G. 184,237.
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Bell, Alfred J., C. W. Besserer, and E. A. Bonney, to the United States of America, as represented by the Secretary of the Navy. Guided missile. 184,208, 1–6–59, Cl. D71—1.
Bell, Alfred J., C. W. Besserer, and E. A. Bonney, to the United States of America, as represented by the Secretary of the Navy. Ram-jet missile. 184,209, 1–6–59, Cl. D71—1.
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Besserer, Carl W.: *See*—
Bell, Alfred J., Besserer, and Bonney. 184,208.
Bell, Alfred J., Besserer, and Bonney. 184,209.
Bonney, Everard A.: *See*—
Bell, Alfred J., Besserer, and Bonney. 184,208.
Bell, Alfred J., Besserer, and Bonney. 184,209.
Cassini, Oleg. Dress. 184,211, 1–6–59, Cl. D3—26.
Christenson, Trace, Jr., to C. J. Major J. F. Thornburg Enterprises. Computing device. 184,212, 1–6–59, Cl. D52—1
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Lilja, Ernest L. 184,232.
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Dine, Lester A., and E. S. Lemmey. Photographic flash light. 184,214, 1–6–59, Cl. D61—1.
Dine, Lester A., and E. S. Lemmey. Photographic light unit. 184,215, 1–6–59. Cl. D61—1.
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Fishman, Aaron H. 184,218.
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Mann, Stuart N. 184,235.
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Grecsin, John. 184,225.
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Foster, Tully V. Soap dish. 184,219, 1–6–59, Cl. D4—3.
Freed, Sidney. Foldable flash bulb unit for cameras. 184,220, 1–6–59, Cl. D61—1.
Freed, Sidney. Flash bulb unit for cameras. 184,221, 1–6–59, Cl. D61—1.
Friedman, Abraham S., to The National Ideal Co. Pig and hog feeder. 184,222, 1–6–59, Cl. D12—2.
Galbo, Joseph V. Coffee and sugar dispenser unit. 184,223, 1–6–59, Cl. D44—22.
Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 184,227, 1–6–59, Cl. D92—1.
Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 184,228, 1–6–59, Cl. D92—1.
Gornelaik, Mary H. Artichoke dish. 184,224, 1–6–59, Cl. D44—15.
Grecsin, John, to Fidelity Machine Co., Inc. Flexible hose. 184,225, 1–6–59, Cl. D43—1.
Guggenos, Kenneth F. Street lighting lamp or the like. 184,226, 1–6–59, Cl. D48—31.
Heselov, Simon. Multiple bin dispensing rack for cigarette packages. 184,229, 1–6–59, Cl. D52—2.
Kahney, Jack D., to United States Rubber Co. Breathable polymer coated fabric. 184,230, 1–6–59, Cl. D92—1.
Kahney, Jack D., to United States Rubber Co. Breathable polymer coated fabric. 184,231, 1–6–59, Cl. D92—1.
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Dine, Lester A., and Lemmey. 184,215.
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Eriacher, Bernard E., and Painter. 184,216.
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Littlepage, Donna D. Frame for chinaware or similar article. 184,233, 1–6–59, Cl. 29—20.
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Major, C. J. J. F. Thornburg Enterprises: *See*—
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McNeill, Albert G., to Bachmann Bros., Inc. Eyeglass front. 184,237, 1–6–59, Cl. D57—1.
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Sherman, Sidney, and C. Sherman. Personalized filter cap. 184,243, 1–6–59, Cl. D91—1.
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Bell, Alfred J., Besserer, and Bonney. 184,209.
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Goforth, Henry E. 184,228.
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Kahney, Jack D. 184,231.
Usbeck, Karl. Container opener or similar article. 184,246, 1–6–59, Cl. D44—29.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 6TH DAY OF JANUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Adams, E. O. N., Redmond, Oreg., 25% to M. L. Hogan. Seed package and dispenser. 2,867,359, 1–6–59, Cl. 222—483.

Adams, John J., and H. J. Kennedy. Shelving assembly. 2,867,332, 1–6–59, Cl. 211—147.

Adelson, Samuel L., to Infilco Inc. Liquid level control system. 2,867,233, 1–6–59, Cl. 137—413.

Adler, Franklin P., to Pullman-Standard Car Mfg. Co. Lading strap anchor for flat cars. 2,867,178, 1–6–59, Cl. 105—369.

Aerophysics Development Corp.: *See*—
Hirsch, Joseph. 2,867,153.

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Bohnsack, John A. 2,867,300.

Aiken, John F., F. A. Tompkins, and D. C. Zapf, to General Dynamics Corp. Handling apparatus. 2,867,334, 1–6–59, Cl. 214—1.

Ainsworth, John R., J. L. Lutyens, and A. White, to United Shoe Machinery Corp. Machines for straightening wire leads of electric components by rolling said leads between surfaces of tapering pressure members. 2,867,262, 1–6–59, Cl. 153—39.

Air Reduction Co., Inc.: *See*—
Muller, Albert. 2,867,713.
Welch, Alanson U. 2,867,730.

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Benzon-Petersen, Boye. 2,867,159.

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Aldridge, John E., to Kuner-Empson Co. Feed tube. 2,867,247, 1–6–59, Cl. 141—39.

Aler, Richard P. Interlock fastener. 2,867,025, 1–6–59, Cl. 24—221.

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Heck, Daniel W. 2,867,061.

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Allied Chemical & Dye Corp.: *See*—
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American Metal Products Co.: *See*—
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Anderson, Norman L., to Allied Chemical Corp. Bis-aryltriazole optical bleaches. 2,867,617, 1–6–59, Cl. 260—240.

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Andre, Noble. 2,867,320.

Andre, Noble, to Andre-Matic Machinery Co. Carrier for cans. 2,867,320, 1–6–59, Cl. 206—65.

Andresen, William F., Jr., and R. Schempp, to Food Machinery and Chemical Corp. Automatic box wrapping system. 2,867,158, 1–6–59, Cl. 93—54.

Andress, Harry J., Jr., to Socony Mobil Oil Co., Inc. Fuel oil compositions containing formaldimine salts. 2,867,515, 1–6–59, Cl. 44—63.

Andrieux, Jean L., and E. Bonnier. Process of simultaneously producing calcium metal and silicon-aluminum alloy. 2,867,527, 1–6–59, Cl. 75—67.

Anrig, Robert M. Spool trailer. 2,867,890, 1–6–59, Cl. 242—86.5.

Anzalone, Rose L. Hair curling device. 2,867,223, 1–6–59, Cl. 132—40.

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Arditi, Maurice, to International Telephone and Telegraph Corp. Microwave lines and high Q filters. 2,867,782, 1–6–59, Cl. 333—73.

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Barnes Drill Co.: *See*—
Caldwell, Harry J. 2,867,139.

Barron, Charles P. Traction attachment for vehicle wheels. 2,867,259, 1-6-59. Cl. 152—225.

Bartlett, Francis J., W., to F. J. W. Bartlett and W. M. Prager, trustees. Method of applying patterns to vinyl floor coverings. 2,867,268, 1-6-59. Cl. 154—28.

Bartlett, Jeffrey H., W. H. Brugmann, Jr., and A. J. Morway, to Esso Research and Engineering Co. Herbicidal grease composition. 2,867,519, 1-6-59. Cl. 71—2.6.

Basch, Walter M.: *See*—
Holder, Clinton H., and Basch. 2,867,583.

Bastian-Blessing Co., The: *See*—
Billington, Evans R. 2,867,234.

Batcheler, Joseph B., Jr., to Patronix, Inc. Electronic oscillator. 2,867,725, 1-6-59. Cl. 250—36.

Batesville Casket Co., Inc., The: *See*—
Hillenbrand, George C. 2,867,029.
Hillenbrand, George C. 2,867,030.

Batha, Howard D.: *See*—
Good, Carl D., and Batha. 2,867,466.

Baudet, Raimond E. M.: *See*—
Beveert, Cornelis, and Baudet. 2,867,683.

Bayer, Frank C., to Thompson Products, Inc. Fuel flow and control system. 2,867,269, 1-6-59. Cl. 158—36.4.

Bayne, Fred R.: *See*—
Scherf, Paul H., Bayne, and Hammack. 2,867,134.

Beaudoin, Amedee J.: *See*—
Longton, Ernest W., Beaudoin, and Johnson. 2,867,795.

Beaver, David J., F. C. Hamm, and P. J. Stoffel, to Monsanto Chemical Co. 1-(chloraryl) 3-alkyl 3-alkynyl ureas. 2,867,520, 1-6-59. Cl. 71—2.6.

Behringer, Jack E.: *See*—
Martiniak, Leonard J., and Behringer. 2,867,224.

Becker, Nathan, to Birmingham Industries, Inc. Shutter structure. 2,867,011, 1-6-59. Cl. 20—58.

Beckwith, John R., to Raytheon Mfg. Co. Electrical resistor. 2,867,705, 1-6-59. Cl. 201—55.

Beecher, Donald J., to American Flexible Coupling Co. Seal assembly. 2,867,100, 1-6-59. Cl. 64—9.

Bell Electric Co.: *See*—
Bellek, Frank G. 2,867,345.

Bell, Norton W., to Bell Telephone Laboratories, Inc. Gain regulator for carrier systems. 2,867,774, 1-6-59. Cl. 333—16.

Bell Telephone Laboratories, Inc.: *See*—
Bell, Norton W. 2,867,774.
Goddard, Charles T. 2,867,149.
Harry, William R. 2,867,788.
Kompfner, Rudolf. 2,867,744.
Parks, Charles O. 2,867,690.
Pierce, John R. 2,867,745.
Rainbeck, Gordon. 2,867,692.

Bellamy, Winthrop D., to General Electric Co. Depolymerization of high molecular weight dextran. 2,867,571, 1-6-59. Cl. 204—154.

Bellek, Frank G., to Bell Electric Co. Weatherproof outlet. 2,867,345, 1-6-59. Cl. 220—24.3.

Beloit Iron Works: *See*—
Hornbostel, Lloyd. 2,867,481.

Bendix Aviation Corp.: *See*—
Burley, Robert M. 2,867,393.
Criswell, Daryl L. 2,867,084.
Ettinger, John H., and Emerick. 2,867,182.
Gryder, William L., and Haugen. 2,867,200.
Hartmann, William A., Jr. 2,867,761.
Hruska, Howard R. 2,867,284.
Hupp, Edward E. 2,867,235.
Hurlburt, Charles E. 2,867,122.
Klein, Clarence J. 2,867,238.
McCombs, Howard L., Jr. 2,867,083.
Pfeifer, Gunther. 2,867,090.
Segall, Louis H. 2,867,740.
Sutton, Robert W. 2,867,434.
White, William E. 2,867,297.

Bennett, Geoffrey E., to Dunck Brothers & Co. Ltd. Electric cables and condenser insulation including wax and petroleum. 2,867,596, 1-6-59. Cl. 260—27.

Bennett Respiration Products, Inc.: *See*—
Bennett, Vivian R. 2,867,210.

Bennett, Vivian R., to Bennett Respiration Products, Inc. Automatic cycling attachment for pressure breathing therapy units. 2,867,210, 1-6-59. Cl. 128—29.

Bent, Arthur J., to Westinghouse Air Brake Co. Pulsation dampener device. 2,867,240, 1-6-59. Cl. 138—30.

Benton, Joseph H. False steering system. 2,867,201, 1-6-59. Cl. 180—34.

Benson-Petersen, Boye, to Aktiebolaget Akerlund & Rausing. Device for producing containers sealed with covers. 2,867,150, 1-6-59. Cl. 93—36.

Berg, Clyde H. O., to Union Oil Co. of California. Hydrocarbon conversion process and apparatus. 2,867,580, 1-6-59. Cl. 208—165.

Bergenheim, Karl T., A. H. Andersson, and P. I. Bergenheim. Load weighing device for lorries. 2,867,433, 1-6-59. Cl. 265—40.

Bergenheim, Per I.: *See*—
Bergenheim, Karl, Andersson, and Bergenheim. 2,867,433.

Berger Brothers Co., The: *See*—
Champagne, Emory C., and Pfob. 2,867,216.

Berger, Charles N. Tree branch prop. 2,867,056, 1-6-59. Cl. 47—43.

Beringer, Edward R.: *See*—
Van Atta, Chester M., Beringer, and Smith. 2,867,748.

Berney, William, and B. C. Brown. Cheese grater. 2,867,255, 1-6-59. Cl. 146—61.

Berry, Ernest V. Fluid electrical contact device and support therefor. 2,867,574, 1-6-59. Cl. 204—212.

Betz Laboratories, Inc.: *See*—
Tansola, William A., and Schieber. 2,867,354.

Beveert, Cornelius, and R. H. M. Baudet, to Staatsbedrijf der Posterijen, Telegrafie en Telefonie. Automatic volume regulator. 2,867,683, 1-6-59. Cl. 179—1.

Bidwell, Ethel, to National Research Development Corp. Process of preparing anti-haemophilic globulin. 2,867,567, 1-6-59. Cl. 167—74.

Biel, John H., to Lakeside Laboratories, Inc. Aminoalkynyl-N-alkylpiperidine carboxylates. 2,867,619, 1-6-59. Cl. 260—247.2.

Biel, John H., to Lakeside Laboratories, Inc. N-alkylpiperidyl alkynylamines. 2,867,620, 1-6-59. Cl. 260—247.5.

Biemenfeld, Arthur. Protective backing compositions for mirrors. 2,867,538, 1-6-59. Cl. 106—14.

Billington, Evans R., to The Bastian-Blessing Co. Pressure regulator safety valve. 2,867,234, 1-6-59. Cl. 137—505.11.

Bindler, Jakob: *See*—
Model, Ernst, and Bindler. 2,867,659.

Birmingham Industries, Inc.: *See*—
Becker, Nathan. 2,867,011.

Blacher, George J.: *See*—
Hutchins, Alma A. 2,867,142.

Blackhawk Mfg. Co.: *See*—
Holt, Clare E. 2,867,087.
Southerwick, Harold L. 2,867,409.
Southerwick, Harold L. 2,867,410.
Traupmann, Raymond J. 2,867,261.

Blackmore, Fred N., to Plastiform Co. Plastic boat. 2,866,985, 1-6-59. Cl. 9—6.

Bland, Thomas W., and L. A. O'Brien. Parallel detector fire alarm system. 2,867,793, 1-6-59. Cl. 340—227.

Blattner, Emil H., to The Symington-Gould Corp. Railway truck. 2,867,177, 1-6-59. Cl. 105—203.

Bletcher, Ralph E., and I. A. Ward, assors. of small percentages to various assignees. Diverter valve for a shower installation. 2,867,230, 1-6-59. Cl. 137—119.

Bloch, Erich. Device for supporting display figures. 2,867,362, 1-6-59. Cl. 223—120.

Bloch, Herman S.: *See*—
Chenicek, Joseph A., and Bloch. 2,867,673.

Bloch, Herman S., to Universal Oil Products Co. Production of alumina. 2,867,505, 1-6-59. Cl. 23—143.

Bloom, Abe M. Roasting machine for hamburger patties, or the like. 2,867,163, 1-6-59. Cl. 99—386.

Blue Ridge Glass Corp.: *See*—
Glynn, Theodore W. 2,867,710.

Bobet, J., and Son S. A.: *See*—
Laufer, Frédéric. 2,867,275.

Bochumer Eisenhutte Heintzmann & Co.: *See*—
Weinert, Hans, and Wille. 2,867,203.

Bohnsack, John A., to Aetna Steel Products Corp. Partition construction. 2,867,300, 1-6-59. Cl. 189—34.

Bolster, Ronald H., to Clark Equipment Co. Transmission. 2,867,126, 1-6-59. Cl. 74—360.

Bolter, John R.: *See*—
Kolb, Paul Arkless, and Bolter. 2,867,408.

Bonnier, Etienne: *See*—
Andrieux, Jean L., and Bonnier. 2,867,527.

Bonisky-Bogopolsky, Raphael. Optical system comprising two lens elements with one element having two separated concentric surfaces. 2,867,152, 1-6-59. Cl. 88—57.

Boor, Ladislav, to United States of America, Army. Article mounting. 2,867,053, 1-6-59. Cl. 41—35.

Borg-Warner Corp.: *See*—
Campbell, Henry H. 2,867,434.
Campbell, Henry H., and Stanek. 2,867,174.
Nielsen, Milton R. 2,867,462.

Botham, Arthur R., to Arrow Mfg. Co., Inc. Display box for watches, etc. 2,867,353, 1-6-59. Cl. 220—82.

Bouille, Joseph R.: *See*—
Russell, John A., and Bouille. 2,867,427.

Bowan, Walter J., to Mueller Co. Apparatus for changing stops. 2,867,034, 1-6-59. Cl. 29—213.

Bowan, Walter J., to Mueller Co. Device for changing stop valves. 2,867,243, 1-6-59. Cl. 138—89.

Bayer, Lyndon D., to Phillips Petroleum Co. Process and apparatus for pelleting. 2,867,513, 1-6-59. Cl. 23—314.

Bozel-Maletra, Societe Industrielle de Produits Chimiques: *See*—
Lehmann, Rene L., and Gandon. 2,867,615.

Brackenrey, Auguste H., ½ to The Franco-British Electrical Co., Ltd. Display apparatus. 2,867,049, 1-6-59. Cl. 40—28.3.

Bragg, William E. Mounting means for dished flush-type receptacles. 2,867,397, 1-6-59. Cl. 248—27.

Bramante, Nunzio. Holder for milk container. 2,867,364, 1–6–59, Cl. 224—45.

Braun, William H., Jr., to Western Sealant Development Corp. Wood impregnating and coloring process. 2,867,543, 1–6–59, Cl. 117—46.

Brennan, Francis P. Automatically interlocking joint between a bar and a plate. 2,867,459, 1–6–59, Cl. 287—20.

Brennan, Frederick S., F. H. Hudson, and R. J. Considine, to Ray-O-Lite Corp. of America. Hinger awning structure. 2,867,273, 1–6–59, Cl. 160—58.

Briney, James W.: *See*—
Briney, Ottis R., Jr. and J. W. 2,867,031.

Briney Mfg. Co.: *See*—
Briney, Ottis R., Jr. and J. W. 2,867,031.

Briney, Ottis R., Jr. and J. W., to Briney Mfg. Co. Coupling structure. 2,867,031, 1–6–59, Cl. 29—105.

British Messier Ltd.: *See*—
Orloff, George, and Cameron-Johnson. 2,867,091.

British Petroleum Co. Ltd., The: *See*—
Champagnat, Alfred. 2,867,346.
Champagnat, Alfred. 2,867,347.

British Telecommunications Research Ltd.: *See*—
Dain, Gordon T. 2,867,684.

British Tyre & Rubber Co. Ltd.: *See*—
Glover, Wilfrid. 2,867,125.

Briton, Joan: *See*—
Otto, Carl L., Otto, and Briton. 2,867,222.

Broder, Alan, and E. A. Sammis, to Sperry Rand Corp. Engine analyzer system. 2,867,766, 1–6–59, Cl. 324—16.

Brouillard, Robert E., and L. Katz, to General Aniline & Film Corp. Phthalocyanine pigments. 2,867,539, 1–6–59, Cl. 106—288.

Brown, Bernard E., to General Electric Co. Clothes washing apparatus. 2,867,107, 1–6–59, Cl. 68—24.

Brown, Clinton B.: *See*—
Maloney, James D., Jr., and Brown. 2,867,414.

Brown, Gordon D.: *See*—
True, Harry, and Brown. 2,867,208.

Brown, Howard E., to United States of America, Navy. Metering valve. 2,867,268, 1–6–59, Cl. 158—36.

Brown, John F., Jr.: *See*—
Burkhard, Charles A., and Brown. 2,867,669.

Brown, Robert C.: *See*—
Berney, William, and Brown. 2,867,255.

Brownlee, Donald J.: *See*—
Brownlee, George R. and D. J. 2,867,340.

Brownlee, George R. and D. J. Bale wagons. 2,867,340, 1–6–59, Cl. 214—521.

Bruecker, John. Electrically operated shaver with rotary self-adjusting cutting blades. 2,867,038, 1–6–59, Cl. 30—41.5.

Brugmann, William H., Jr.: *See*—
Bartlett, Jeffrey H., Brugmann, and Morway. 2,867,519.

Brunner, Richard J., to General Motors Corp. Carburetor idling mechanism. 2,867,422, 1–6–59, Cl. 261—23.

Bruns, William H., to Otis Elevator Co. Elevator control system. 2,867,292, 1–6–59, Cl. 187—29.

Bryant Electric Co., The: *See*—
Taylor, Owen L. 2,867,700.

Brzozowski, Witold B. Vaporizing type oil burner. 2,867,270, 1–6–59, Cl. 258—76.

Buckeye Iron & Brass Works: *See*—
Denlinger, Carl E. 2,867,249.
Rike, Frederick F., and Klikunas. 2,867,228.

Buckley, Jay S., Jr., C. R. Stephens, Jr., and R. L. Wagner, Jr., to Chas. Pfizer & Co., Inc. Non-hygroscopic antibiotic salt. 2,867,661, 1–6–59, Cl. 260—559.

Bugge, Erling P. Safety-lock door chain. 2,867,468, 1–6–59, Cl. 292—264.

Buie, James L., to Hoffman Electronics Corp. Temperature-compensated direct current transistor amplifier. 2,867,695, 1–6–59, Cl. 179—171.

Burg, Robert J. Apparatus for making plastic bags. 2,867,156, 1–6–59, Cl. 93—8.

Burkhard, Charles A., and J. F. Brown, Jr., to General Electric Co. Method of forming mononitro hydrocarbons. 2,867,669, 1–6–59, Cl. 260—644.

Burley, Robert M., to Bendix Aviation Corp. Navigation device. 2,867,393, 1–6–59, Cl. 244—77.

Burnell, John B.: *See*—
Dolza, John, and Burnell. 2,867,201.

Burns, Meryl C., G. J. Giel, Jr., and R. J. Stahl, to Marchant Calculators, Inc. Magnetic decimal accumulator. 2,867,379, 1–6–59, Cl. 235—61.

Burr, Alfred E. Single pedal control for automobiles. 2,867,308, 1–6–59, Cl. 192—3.

Burt, F. N., Co., Inc.: *See*—
Morrison, Charles C. 2,867,348.

Burton, Robert W., and R. L. Nance, to General Motors Corp. Fluid power steering valve. 2,867,129, 1–6–59, Cl. 74—388.

Burton, William P.: *See*—
Loughran, Robert T., and Burton. 2,867,579.

Busse, Floyd E., to Consolidated Foundries and Mfg. Corp. Receptacle filler. 2,867,246, 1–6–59, Cl. 141—34.

Butler, Henry J., to Dunlop Rubber Co. Ltd. Disc brake for vehicles. 2,867,295, 1–6–59, Cl. 188—73.

Buttner, Franz, and E. Enk, to Wacker-Chemie G. m. b. H. Production of isopropenylacetate. 2,867,653, 1–6–59, Cl. 260—488.

Butz, James N., to Continental Can Co., Inc. Corner packing. 2,867,367, 1–6–59, Cl. 229—14.

Byers, Ralph J.: *See*—
Whiton, Arthur L., and Byers. 2,867,366.

Bylund, Eric, to Schick Inc. Tuning means for vibrator motor. 2,867,737, 1–6–59, Cl. 310—19.

Cahn, Harold, and W. J. Theros, to General Cigar Co. Inc. Humidification chamber. 2,867,220, 1–6–59, Cl. 131—136.

Caldwell, Harry J., to Barnes Drill Co. Boring unit. 2,867,139, 1–6–59, Cl. 77—3.

Calvert, Willard R.: *See*—
Houdry, Eugene J., and Calvert. 2,867,497.

Cameron-Johnson, Alan: *See*—
Orloff, George, and Cameron-Johnson. 2,867,091.

Camm, William T., to Littleford Brothers, Inc. Bituminous mixer, mobile, complete with heated bitumen tank, and combined aggregate drier and mixer. 2,867,421, 1–6–59, Cl. 259—158.

Camp, Dariel R.: *See*—
Soldini, Robert B., and Camp. 2,867,336.

Campbell, Henry H., and F. C. Stanek, to Borg-Warner Corp. Three gear pressure loaded pump. 2,867,174, 1–6–59, Cl. 103—126.

Campbell, Henry H., to Borg-Warner Corp. Seal. 2,867,456, 1–6–59, Cl. 286—11.

Campbell, J. Allan: *See*—
Pederson, Raymond L., Herr, Babcock, Campbell, and Hogg. 2,867,630.

Camras, Marvin, to Armour Research Foundation of Illinois Institute of Technology. Magnetic record duplicating device for producing magnetic records. 2,867,692, 1–6–59, Cl. 179—100.2.

Caronelle, Inc.: *See*—
Otto, Carl L. and L. B., and Briton. 2,867,222.

Carrier Corp.: *See*—
Allingham, Walter F. 2,867,237.

Cart, Theodore S., to Atlantic Products Corp. Ventilated golf bag. 2,867,257, 1–6–59, Cl. 150—1.5.

Case, John S. Universal joint. 2,867,101, 1–6–59, Cl. 64—9.

Case, Oliver W., to E. I. du Pont de Nemours and Co. Hydrogenation of compounds absorbed on the catalytic support. 2,867,628, 1–6–59, Cl. 260—346.8.

Cavanagh, Patrick E., to Ontario Research Foundation. Transducer and stress measuring means. 2,867,118, 1–6–59, Cl. 73—141.

Central States Paper & Bag Co.: *See*—
Klasing, Arthur P. 2,867,183.

Cernera, Charles C. Containers for cigarettes. 2,867,269, 1–6–59, Cl. 229—20.

Chadeloid Corp.: *See*—
Nack, Herman R. 2,867,493.

Champagnat, Alfred, ½ to The British Petroleum Co. Ltd. Floating plastic screen. 2,867,346, 1–6–59, Cl. 220—26.

Champagnat, Alfred, ½ to The British Petroleum Co. Ltd. Liquid storage apparatus. 2,867,347, 1–6–59, Cl. 220—26.

Champagne, Emory C., and J. A. Pfoh, to The Berger Brothers Co. Controlling garments. 2,867,216, 1–6–59, Cl. 128—429.

Chang, Melvin C., to Crucible Steel Co. of America. Sulfate liquor treatment. 2,867,524, 1–6–59, Cl. 75—5.

Chao, David. Floor mop having a curved head compressible in a correspondingly curved path. 2,866,991, 1–6–59, Cl. 15—119.

Chaplick, Adolph M.: *See*—
Morris, Thomas C., and Chaplick. 2,867,592.

Charlton, Alexander E., to Photoceramics, Inc. Color television. 2,867,749, 1–6–59, Cl. 315—21.

Charnock, Stanley, to Pilkington Brothers Ltd. Apparatus for simultaneously grinding the two surfaces of a ribbon of glass. 2,867,059, 1–6–59, Cl. 51—112.

Chemical Construction Corp.: *See*—
Roy, Tuhin K. 2,867,503.

Chemstrand Corp., The: *See*—
Ham, George E., and Craig. 2,867,602.
Ham, George E., and Craig. 2,867,625.

Chenicek, Joseph A.: *See*—
Rosenwald, Robert H., and Chenicek. 2,867,004.

Chenicek, Joseph A., and H. S. Bloch, to Universal Oil Products Co. Side-chain alkylation in the presence of a lead tetraalkyl catalyst. 2,867,673, 1–6–59, Cl. 260—668.

Chiappinelli, Quirino, Jr., to Federal Findings Co., Inc. Cuff link. 2,867,022, 1–6–59, Cl. 24—41.

Chicago Mill & Lumber Co.: *See*—
Whiton, Arthur L., and Byers. 2,867,366.

Childs, Robert S., to E. G. Martin. Measuring device. 2,867,783, 1–6–59, Cl. 336—123.

Churchill, Delos B., to United States of America, Atomic Energy Commission. Regenerative phantastron time delay circuit. 2,867,721, 1–6–59, Cl. 250—27.

Ciba Pharmaceutical Products, Inc.: *See*—
Lucas, Robert A. 2,867,622.

Cities Service Research and Development Co.: *See*—
Dermer, Otis C., and Slezak. 2,867,067.

Clapp, Archie J., Jr. Aircraft payload computer. 2,867,381, 1–6–59, Cl. 235—61.

Clark Equipment Co.: *See*—
Bolster, Ronald H. 2,867,126.
Repke, Edward P. 2,867,451.

Clark, Sheldon L.: *See*—
Stange, Hugo, and Clark. 2,867,502.

Clevite Corp.: *See*—
Thurston, Edward G. 2,867,701.

Coalwell, Herbert E. Feed roll for woodworking machine. 2,867,253, 1–6–59, Cl. 144—246.

Cobine, James D., to General Electric Co. Gas composition for cooling and insulating purposes. 2,867,679, 1–6–59, Cl. 174—17.

Cochrane, Charles A.: *See*—
Mariner, Peter F., and Cochrane. 2,867,301.

Cocks, Thomas G., to National Aluminate Corp. Process and compositions for treating geological formations. 2,867,279, 1–6–59, Cl. 166—42.

Coes, Loring, Jr., to Norton Co. Centerless grinder. 2,867,060, 1–6–59, Cl. 51—129.

Coffinberry, Arthur S., to United States of America, Atomic Energy Commission. Plutonium-cerium alloy. 2,867,530, 1–6–59, Cl. 75—122.7.

Coghill, Henry D., and L. R. Koller, to General Electric Co. Method of preparing transparent luminescent screens. 2,867,541, 1-6-59, Cl. 117—33.5.

Colgate-Palmolive Co.: *See*—
Kronenthal, Richard L. 2,867,569.
Thomas, Ralph H. 2,867,556.
Vitale, Peter T. 2,867,585.

Colley, Rowan H., to Rolls-Royce Ltd. Fuel supply system for gas-turbine reheat combustion equipment. 2,867,082, 1-6-59, Cl. 60—35.6.

Collier Carbon and Chemical Corp.: *See*—
Scott, Carleton B. 2,867,561.

Combustion Engineering, Inc.: *See*—
Crites, Joe. 2,867,182.
Schroedter, Williburt W. 2,867,415.

Commonwealth Engineering Co. of Ohio, The: *See*—
Ernst, Walter. 2,867,117.
Homer, Howard J. 2,867,552.
MacNevin, William M. 2,867,546.
Toulmin, Harry A., Jr. 2,866,992.
Toulmin, Harry A., Jr. 2,867,384.

Compco Corp.: *See*—
Stephenson, Allan P., and Kaufman. 2,867,719.

Compo Shoe Machinery Corp.: *See*—
Dawson, Fred. 2,867,189.
Smith, John F., and Dawson. 2,866,987.

Comstock, George E., 3d, to Norton Co. Servometer control system adapted for machine tool use. 2,867,759, 1-6-59, Cl. 318—29.

Conley, Kurt H.: *See*—
Dodds, Robert B., Conley, and Manicone. 2,867,387.

Conrad, Emmett: *See*—
De Shane, Alphonse D. 2,867,333.

Conradty, C.: *See*—
Doetsch, Ernst, and Klier. 2,867,786.

Considine, Robert J.: *See*—
Brennan, Frederick S., Hudson, and Considine. 2,867,273.

Consolidated Electrodynamics Corp.: *See*—
Miller, Theodore. 2,867,436.
Spaulding, Carl P. 2,867,723.
Tavis, John R. 2,867,770

Consolidated Foundries and Mfg. Corp.: *See*—
Busse, Floyd E. 2,867,248.

Continental Can Co., Inc.: *See*—
Buta, James N. 2,867,367.
Jones, Paul E., and Perry. 2,867,319.

Continental Illinois National Bank and Trust Co. of Chicago: *See*—
Pick, Joseph R., and Lasinski. 2,867,306.

Continental Specialties Co., Ltd.: *See*—
Soule, Arthur H. 2,867,006.

Cook Electric Co.: *See*—
O'Bleness, George W. 2,867,754.

Cook, Harold C., to Cook Machine Co. Lumber sorting machine. 2,867,323, 1-6-59, Cl. 209—90.

Cook Machine Co.: *See*—
Cook, Harold C. 2,867,323.

Cooley, Glenn C.: *See*—
Facer, Leroy H. 2,867,522.

Coon, Allen B., Jr. Camping apparatus for station wagons. 2,867,471, 1-6-59, Cl. 296—23.

Cooper, Robert S.: *See*—
Toy, Arthur D. F., and Cooper. 2,867,547.
Toy, Arthur D. F., and Cooper. 2,867,610.
Toy, Arthur D. F., Cooper, and Traise. 2,867,548.

Copco Trailer Division, a division of Copco Steel & Engineering Co.: *See*—
Tenenbaum, Paul. 2,867,450.

Coquelet, Jules H., to Ateliers de Constructions Electriques de Charleroi. Generators for producing pulses of alternating current. 2,867,798, 1-6-59, Cl. 340—359.

Core of Rhode Island, Inc.: *See*—
Feibelman, Hans J. 2,867,052.

Costello, James R., Jr., and T. P. Traise, to Victor Chemical Works. Methods of flameproofing fibers, compositions used therein. 2,867,597, 1-6-59, Cl. 260—29.6.

Courtaulds Ltd.: *See*—
Sharples, Edwin H. 2,867,496.

Coutras, Alexander, and I. H. Updegraff, to American Cyanamid Co. Composition comprising melamine-aldehyde, o-alkyl-D-glucoside and dicarbamate compound. 2,867,590, 1-6-59, Cl. 260—17.3.

Coutras, Alexander, to American Cyanamid Co. Synthetic resinous composition, process of impregnating therewith and product thereof. 2,867,600, 1-6-59, Cl. 260—29.

Cox, Bonnar: *See*—
Goldberg, Jacob, and Cox. 2,867,791.

Craig, Alfred B.: *See*—
Ham, George E., and Craig. 2,867,602.
Ham, George E., and Craig. 2,867,625.

Crampton, Donald S., to Felt Products Mfg. Co. Gasket mounting. 2,867,464, 1-6-59, Cl. 288—22.

Crede, John H., E. H. Henke, E. L. Pulaski, and C. P. Stroble, to Allegheny Ludlum Steel Corp. Method of producing silicon steel strip. 2,867,557, 1-6-59, Cl. 148—111.

Criswell, Daryl L., to Bendix Aviation Corp. Fuel feed and power control system for gas turbine engines having an engine temperature control. 2,867,084, 1-6-59, Cl. 60—39.28.

Criswell, Dick M., to Wheeling Steel Corp. Methods and apparatus for induction heating. 2,867,708, 1-6-59, Cl. 219—10.43.

Crites, Joe, to Combustion Engineering, Inc. Method of burning granular low volatile fuels. 2,867,182, 1-6-59, Cl. 110—28.

Crucible Steel Co. of America: *See*—
Chang, Melvin C. 2,867,524.
Jaffee, Robert I., and Ogden. 2,867,524.
Payson, Peter, and Dilworth. 2,867,532.

Crumbliss, Hanna A. Ignition coil. 2,867,785, 1-6-59, Cl. 336—178.

Cunningham, George L., to Horizons Inc. Electrolytic production of hybrides. 2,867,568, 1-6-59, Cl. 204—61.

Curriston, Loren E., to Lear, Inc. Instrument shock mount. 2,867,405, 1-6-59, Cl. 248—358.

Curry, Thomas W. Nodular cast iron and process of manufacture thereof. 2,867,555, 1-6-59, Cl. 148—3.

Cushman Chuck Co., The: *See*—
Swanson, Linwood B. 2,867,443.

Cushman, Walton W. Endless tread and track assembly. 2,867,480, 1-6-59, Cl. 305—10.

DCA Food Industries Inc.: *See*—
Hunter, Herbert T., and Wilson. 2,867,162.

Daimler-Benz Akt.: *See*—
Wilfert, Karl. 2,867,238.

Dain, Gordon T., to British Telecommunications Research Ltd. Electrical communication systems. 2,867,684, 1-6-59, Cl. 178—2.

Daimine S. p. A.: *See*—
Montagna, Carlo. 2,867,428.

Damijonaitis, Alexandra: *See*—
Skillin, Walter F., and Damijonaitis. 2,867,442.

Daniels, Mark. Devices for indicating and playing card games. 2,867,044, 1-6-59, Cl. 25—8.

Davis Aircraft Products Inc.: *See*—
Davis, Frank L. 2,867,406.

Davis, Frank L., to Davis Aircraft Products Inc. Heavy duty cargo tie-down. 2,867,406, 1-6-59, Cl. 248—361.

Davy, John C., to Powers-Samas Accounting Machines Ltd. Card feeding apparatus. 2,867,437, 1-6-59, Cl. 271—44.

Dawson, Fred: *See*—
Smith, John F., and Dawson. 2,866,987.

Dawson, Fred, to Compo Shoe Machinery Corp. Adhesive applying machine. 2,867,189, 1-6-59, Cl. 118—409.

Dazzi, Joachim, to Monsanto Chemical Co. Composition comprising polyvinyl chloride plasticized with a turpentine-dicarboxylic ester adduct. 2,867,598, 1-6-59, Cl. 260—29.8.

Dazzi, Joachim, to Monsanto Chemical Co. Process of producing turpentine-unsaturated dicarboxylic ester adducts. 2,867,648, 1-6-59, Cl. 260—468.

Dean, Russell T., and R. J. Schefbauer, to Interchemical Corp. Coating vehicle. 2,867,593, 1-6-59, Cl. 260—22.

Decarie, Alexander S. Distress signal for aeroplanes. 2,867,799, 1-6-59, Cl. 340—866.

Degering, Edward F.: *See*—
German, John F., and Degering. 2,867,572.

De Jarnett, Frank D., ¼ to P. A. Medearis. Scratcher construction for abrading well bore holes. 2,867,280, 1-6-59, Cl. 166—173.

De Jong, Geert J., to Stamicarbon N. V. Selective ion-permeable membranes. 2,867,575, 1-6-59, Cl. 204—296.

De Keyser, Lodewijk F., and L. A. Van Dessel, to Gevaert Photo-Production N. V. Gelatin adhesive layers. 2,867,542, 1-6-59, Cl. 117—34.

Demeleane, Anatole a. K. a. Mine blasts. 2,867,171, 1-6-59, Cl. 102—22.

De Montard, Robert L. M.: *See*—
Foures, Andre G., Girard, and De Montard. 2,867,209.

Denault, Donald R., and G. Minchenko, to Western Electric Co., Inc. Electrical testing fixture. 2,867,771, 1-6-59, Cl. 324—158.

Dentinger, Carl E., to Buckeye Iron & Brass Works. Method and apparatus for dispensing liquids. 2,867,249, 1-6-59, Cl. 141—206.

Dermer, Otis C., and F. B. Slezak, to Cities Service Research and Development Co. Oledin oxide ortho ester condensation products. 2,867,667, 1-6-59, Cl. 260—615.

De Shane, Alphonse D., to Emmett Conrad. Hoisting crane. 2,867,333, 1-6-59, Cl. 212—144.

Deshaw, Heinz: *See*—
Deshaw, Zoltan and H. 2,867,313.

Deshaw, Zoltan and H., to Ismay Lamps Ltd. Method and apparatus for arranging and feeding wire filaments. 2,867,312, 1-6-59, Cl. 198—33.

Dillingham, Frederick L., to Soderhamn Machine Mfg. Co. Debarking rotor having cushioned flails. 2,867,252, 1-6-59, Cl. 144—208.

Dillon, Vincent J. Printing press sheet registry indicator. 2,867,794, 1-6-59, Cl. 340—259.

Dilworth, David L., Jr.: *See*—
Payson, Peter, and Dilworth. 2,867,532.

Distillers Co Ltd., The: *See*—
Lacey, Richard N. 2,867,663.

Dodds, Robert B., K. H. Conley, and S. Manicone, to Safety Industries, Inc. Centrifugal impacting machine. 2,867,387, 1-6-59, Cl. 241—275.

Doetsch, Ernst, and G. Klier, to C. Conradty. Mounting means for carbon electrodes or graphite electrodes. 2,867,786, 1-6-59, Cl. 339—263.

Dole Valve Co., The: *See*—
Drapeau, Harold B. 2,867,383.
Miller, Nicholas. 2,867,704.

Dolza, John, and J. B. Burnell, to General Motors Corp. Cylinder block. 2,867,201, 1-6-59, Cl. 123—195.

Donahue, Daniel J., and S. A. Hoshowsky, to Radio Corp. of America. Water-stabilized zinc phosphate phosphors. 2,867,587, 1-6-59, Cl. 252—301.6.

Donehower, William P., to M. H. and B. D. Hartzell. Space band cleaning apparatus. 2,866,990, 1-6-59, Cl. 15—93.

Donehue, Val K. Vehicle fire extinguisher apparatus. 2,867,281, 1-6-59, Cl. 169—2.

Dormeyer Corp.: *See*—
Schwaneke, Fred C. 2,867,712.

Dornfeld, Clinton A., to G. D. Searle & Co. Alkylenebis [trialkylphosphonium halides] and processes for the manufacture thereof. 2,867,665, 1-6-59, Cl. 260—606.5.

Dorr-Oliver Inc.: *See*—
Heath, Thomas D. 2,867,429.
Heath, Thomas D., and Holle. 2,867,526.
Lutz, William A., and Marston. 2,867,523.
Roberts, Elliott J. 2,867,506.

Dow Chemical Co., The: *See*—
Rigterink, Raymond H. 2,867,618.
Teot, Arthur S. 2,867,611.

Dowie, David L., to Austland Ltd. Use of high pressure fluids in coal mines. 2,867,426, 1-6-59, Cl. 262—12.

Doyen, Jean, to Yardney International Corp. Negative electrode for silver-zinc batteries. 2,867,678, 1-6-59, Cl. 136—71.

Drapeau, Harold B., to The Dole Valve Co. Sleeve valve waterline thermostat. 2,867,383, 1-6-59, Cl. 236—34.5.

Dubovick, Walter A.: *See*—
Jankauskas, George P. 2,867,299.

Dufour, René, M. Verron, and A. G. Le Magearou, to Societe Anonyme Cartoucherie Francaise. Devices for producing manganese dioxide by electrolysis. 2,867,570, 1-6-59, Cl. 204—83.

Dumanowski, Ferdinand J., to J. I. Case Co. Corn harvester. 2,867,068, 1-6-59, Cl. 56—15.

Duncan, Nesbit L.: *See*—
Kahn, Stanley, and Duncan. 2,867,461.

Dunlop Rubber Co. Ltd.: *See*—
Butler, Henry J. 2,867,295.

Dupli-Color Products Co., Inc.: *See*—
Edelstone, Sigmund E. 2,866,993.
Neely, Albert E. 2,866,994.

Du Pont de Nemours, E. I., and Co.: *See*—
Cass, Oliver W. 2,867,628.
Edwards, Walter M., Robinson, and Squire. 2,867,609.
Gleason, Willard S., Jr., and Sprauer. 2,867,507.
Londergan, Thomas E. 2,867,662.
Pedersen, Charles J. 2,867,516.

Durfee, Benjamin M., and A. D. Miller, to International Business Machines Corp. Information storage matrix. 2,867,790, 1-6-59, Cl. 340—173.

Dusek Brothers & Co. Ltd.: *See*—
Bennett, Geoffrey E. 2,867,596.

Dussine, Roger R.: *See*—
Piel, Gerard J. R., and Dussine. 2,867,380.

E. R. A. Patents Ltd.: *See*—
Needham, James C., Hull, and Houldcroft. 2,867,743.

Earle, Theodore. Method of stripping epidermal material from grains. 2,867,256, 1-6-59, Cl. 146—221.9.

Easton, Clarence L., and J. R. McClelland. Pre-oiling device for engines. 2,867,203, 1-6-59, Cl. 123—196.

Ebenauer, Hermann & Co.: *See*—
Reissmuller, Ernst. 2,867,075.

Eckold, Walter. Apparatus for deforming sheets or profiles. 2,867,141, 1-6-59, Cl. 78—61.

Edelstone, Sigmund E., to Dupli-Color Products Co., Inc. Magnitic fountain applicator. 2,866,993, 1-6-59, Cl. 15—139.

Edwards, George W., and R. J. Sevin. Mixing apparatus. 2,867,386, 1-6-59, Cl. 241—46.

Edwards, Walter M., I. M. Robinson, and E. N. Squire, to E. I. du Pont de Nemours and Co. Preparation of polypyromellitimides. 2,867,609, 1-6-59, Cl. 260—78.

Eimco Corp., The: *See*—
Schepman, Berne A. 2,867,330.

Eitel-McCullough, Inc.: *See*—
Murdock, Clayton E. 2,867,747.
Preist, Donald H. 2,867,746.
Preist, Donald H. 2,867,726.

Ekco Products Co.: *See*—
Bäder, Paul. 2,867,331.

Electric Steel Foundry Co.: *See*—
Fink, Leroy E. 2,867,533.

Electronics Instruments Ltd.: *See*—
Wilstead, Graham H. 2,867,758.

Elliott Brothers (London) Ltd.: *See*—
Mariner, Peter F., and Cochrane. 2,867,801.

Ellis, Benjamin F. Power mower with endless belt cutting means. 2,867,069, 1-6-59, Cl. 56—25.

Ellman, Samuel H., to Lite-Vent, Inc. Awnings. 2,867,010, 1-6-59, Cl. 20—57.5.

Emerick, Kenneth V.: *See*—
Ettinger, John H., and Emerick. 2,867,192.

Emley, Warren E., Jr. Door seal. 2,867,012, 1-6-59, Cl. 20—69.

Engelhard Industries, Inc.: *See*—
Keith, Carl D., and Hauel. 2,867,588.

Engelmann, Gerhard: *See*—
Klettke, Ernst, and Engelmann. 2,867,765.

Enk, Eduard: *See*—
Buttner, Franz, and Enk. 2,867,653.

Erdman, John G., to Gulf Research & Development Co. Synthesis of porphyrin vanadium complexes. 2,867,620, 1-6-59, Cl. 260—314.

Erickson, Floyd B., R. A. Heimach, D. S. Wildi, and T. M. Patrick, Jr., to Monsanto Chemical Co. Production of alpha-methylbenzyl hydroperoxide. 2,867,666, 1-6-59, Cl. 260—610.

Erickson, Willard E., to Link-Belt Co. Railway car weighing and unloading apparatus. 2,867,337, 1-6-59, Cl. 214—2.

Ernst, Walter, to The Commonwealth Engineering Co. of Ohio. Torque measuring and regulating device. 2,867,117, 1-6-59, Cl. 73—139.

Esso Research and Engineering Co.: *See*—
Bartlett, Jeffrey H., Brugmann, and Morway. 2,867,519.
Holder, Clinton H., and Basch. 2,867,588.
McLean, Lawrence W., and Kenyon. 2,867,670.

Escott, Robert M.: *See*—
Loughry, Theodore F., and Escott. 2,867,512.

Estridge, Harold E., and W. O. Johnson, to Weather-Seal, Inc. Continuous hinge. 2,866,997, 1-6-59, Cl. 16—171.

Estrin, Edward: *See*—
Lewis, Edward H., Rice, and Estrin. 2,867,001.

Etablissements Heurtier & Cie: *See*—
Heurtier, Antoine. 2,867,439.

Ettinger, John H., and K. V. Emerick, to Bendix Aviation Corp. Stage motor. 2,867,192, 1-6-59, Cl. 121—38.

Evans, David J. I., and S. Romanchuk, to Sherritt Gordon Mines Ltd. Method of producing copper metal powder. 2,867,528, 1-6-59, Cl. 75—109.

Evensen, Ingwald M. Paint roller for woven wire fences. 2,866,995, 1-6-59, Cl. 15—230.

Ewing, Benton M. Self-locking control device. 2,867,133, 1-6-59, Cl. 74—531.

Eyster, Floyd E. Machine for twisting and panning bread dough. 2,867,179, 1-6-59, Cl. 107—6.

Fa. Gassareck: *See*—
Zaloszecky, Bogdan. 2,867,002.

Facer, Leroy H., to G. C. Cooley, W. D. Foster, and H. Gregersen, trustees. Method for producing fertilizers and bases from sludges. 2,867,522, 1-6-59, Cl. 71—37.

Paige, Robert N., to General Motors Corp. Method for making lamp bulb. 2,867,715, 1-6-59, Cl. 219—117.

Farbenfabriken Bayer Akt.: *See*—
Pieper, Gustav, Stein, and Eicket. 2,867,612.

Farley, Frank S. Cigarette extinguisher and ash tray. 2,867,221, 1-6-59, Cl. 131—256.

Fear, James V. D.: *See*—
Shuman, Frank R., Jr., and Fear. 2,867,582.

Federal Bearings Co., Inc., The: *See*—
Recknagel, Frederick W. 2,867,455.

Federal Findings Co., Inc.: *See*—
Chiappinelli, Quirino, Jr. 2,867,022.

Fehr, Henri, to Societe Anonyme dite: Compagnie de Construction Mecanique Procedes Sulzer. Change-speed device. 2,867,127, 1-6-59, Cl. 74—378.

Feibelman, Hans J., to Coro of Rhode Island, Inc. Bead converter. 2,867,052, 1-6-59, Cl. 41—10.

Feinstone, Wolfe H. Sulfonamide composition comprising a lipid-aqueous emulsion carrier. 2,867,565, 1-6-59, Cl. 167—51.5.

Felt Products Mfg. Co.: *See*—
Crampton, Donald S. 2,867,484.

Ferro Chemical Corp.: *See*—
Hansen, Floyd R., and Zaremsky. 2,867,594.

Fillingame, John R., to National Geographic Society, Photographic reproduction apparatus. 2,867,150, 1-6-59, Cl. 88—24.

Fink, Leroy E., to Electric Steel Foundry Co. Method for overcoming embrittlement of steel alloys. 2,867,533, 1-6-59, Cl. 75—130.5.

Finken, Walter S., to L. P. Frieder. Headgear with stabilizing crown rigging. 2,866,977, 1-6-59, Cl. 2—3.

Finnerman Products, Inc.: *See*—
Flora, Laurence H., and Kelley. 2,867,258.

Firewel Industries: *See*—
Meidenbauer, Phillip E., Jr. 2,867,227.

Fischer, Valentine J., J. I. Miller, S. Sass, and B. Witten, to United States of America, Army. Direct color test employing dinitrotoluacetone. 2,867,509, 1-6-59, Cl. 23—230.

Fisher, Daniel R., Jr., and M. R. Karecki, to Whirlpool Corp. Countertop cooking apparatus. 2,867,711, 1-6-59, Cl. 219—37.

Fitz Harris, Leo J., to Minnesota Mining and Mfg. Co. Lamination of thermoplastic polymers. 2,867,241, 1-6-59, Cl. 138—55.

Fixture Hardware Corp., The: *See*—
Kell, Henry P. 2,867,169.

Fleckenstein, Lambert W. Closure caps. 2,867,350, 1-6-59, Cl. 220—40.

Flint, Hyland C., to American Metal Products Co. Spring construction. 2,867,265, 1-6-59, Cl. 155—179.

Flora, Laurence H., and C. A. Kelley, to Finnerman Products, Inc. Threaded fastener and deformable holder therefor. 2,867,258, 1-6-59, Cl. 151—41.74.

Flynn, Stanley F. Egg tray. 2,867,343, 1-6-59, Cl. 217—37.

Foley, Thomas P., to General Electric Co. Magnetic door latch. 2,867,467, 1-6-59, Cl. 292—251.5.

Food Machinery and Chemical Corp.: *See*—
Andresen, William F., Jr., and Schempp. 2,867,158.

Foote, Daniel J., and M. Soref, to Master Lock Co. Drainage ported padlock. 2,867,110, 1-6-59, Cl. 70—38.

Forney, Birdie F.: *See*—
Forney, Ira C. 2,867,248.

Forney, Ira C., deceased; by B. F. Forney, executrix. Automobile thermos jug holder. 2,867,248, 1-6-59, Cl. 141—375.

Forquer, Michael J. Leg attached light. 2,867,717, 1-6-59, Cl. 240—10.68.

Forward, Frank A., and W. C. Lin, to Sherritt Gordon Mines Ltd. Process for recovering precious metals from refractory minerals. 2,867,529, 1-6-59, Cl. 75—118.

Foster, Warren D.: *See*—
Facer, Leroy H. 2,867,522.

Fourde, André G. F., J. R. M. Girard, and R. L. M. De Montard, to Societe Francaise de Construction d'Appareils Medicaux. Endoscopic devices. 2,867,209, 1-6-59, Cl. 128—6.

Fox, Richard M., to The O. M. Scott & Sons Co. Bag structure with pocket. 2,867,372, 1-6-59, Cl. 229—56.

Foxboro Co., The: *See*—
Sturgeon, Stocker S., and Handel. 2,867,119.

Fox River Mfg. Co.: *See*—
Schroeder, Simon E. 2,867,131.
Schroeder, Simon E. 2,867,132.

Francis, Joseph E., to Holley Carburetor Co. Engine governor mechanism. 2,867,196, 1-6-59, Cl. 123—103.

Franco-British Electrical Co. Ltd., The: *See*—
Brackenbey, Augusto H. 2,867,049.

Fredricksen, Vern P., and L. W. Ward, to Andersen Corp. Window structure. 2,867,009, 1-6-59, Cl. 20—42.
Fredricksen, Vern P., to Andersen Corp. Window casing construction. 2,867,014, 1-6-59, Cl. 20—74.
Freeman, Mathew L. Valves. 2,867,239, 1-6-59, Cl. 137—527.5.
Fribance, Austin E.: *See*—
Hunt, Robert A., and Fribance. 2,867,769.
Fribance, Austin E., and R. A. Hunt, to Rochester Mfg. Co., Inc. Ammeter. 2,867,768, 1-6-59, Cl. 324—146.
Frick, Wilhelm E., to J. R. Geigy, A.-G. Halo substituted sulfanilides. 2,867,658, 1-6-59, Cl. 260—551.
Frieder, Leonard P.: *See*—
Finken, Walter S. 2,866,977.
Fulmer, John E., to Geo. D. Roper Corp. Heat radiating means for broiler burners. 2,867,207, 1-6-59, Cl. 126—41.
Gadget-Of-The-Month Club, Inc.: *See*—
Putnam, Paul R. 2,867,028.
Gale, James G., to Newco Mfg. Co., Inc. Sling hook. 2,867,026, 1-6-59, Cl. 24—230.5.
Gandon, Louis: *See*—
Lehmann, Reed L., and Gandon. 2,867,615.
Garber, John D., R. B. Jones, and R. A. Gasser, to Merck & Co., Inc. Derivatives of 5-hydroxymethyl furfural and process of producing them. 2,867,629, 1-6-59, Cl. 260—347.7.
Garner, George. Variable speed fluid transmission unit. 2,867,311, 1-6-59, Cl. 192—60.
Garrett Corp., The: *See*—
Jensen, Raymond W. 2,867,194.
Gasser, Robert A.: *See*—
Garber, John D., Jones, and Gasser. 2,867,629.
Gaylord, John A.: *See*—
Sepe, John J. 2,867,024.
Gehrke, Forrest E., and W. T. Granger, to Sylvania Electric Products, Inc. Method for producing vacuum tube heater elements. 2,867,032, 1-6-59, Cl. 29—155.5.
Geigy, J. R., A.-G.: *See*—
Frick, Wilhelm E. 2,867,658.
Model, Ernst, and Bindler. 2,867,659.
General Aniline & Film Corp.: *See*—
Brouillard, Robert E., and Katz. 2,867,539.
Streck, Clemens. 2,867,494.
General Cigar Co., Inc.: *See*—
Cahn, Harold, and Theros. 2,867,220.
General Dynamics Corp.: *See*—
Aiken, John F., Tompkins, and Zapf. 2,867,334.
Gleason, Howard S. 2,867,435.
Olson, Norman L. 2,867,724.
General Electric Co.: *See*—
Bellamy, Winthrop D. 2,867,371.
Brown, Bernard E. 2,867,107.
Burkhard, Charles A., and Brown. 2,867,669.
Cobine, James D. 2,867,679.
Coghill, Henry D., and Koller. 2,867,541.
Foley, Thomas P. 2,867,497.
Gilbert, Alfred R. 2,867,606.
Glenn, William E. 2,867,687.
Goldberg, Jacob, and Cox. 2,867,791.
Herrick, Carlyle S. 2,867,094.
Hori, Tatsu. 2,867,438.
Hurd, Dallas T., and Oathoff. 2,867,509.
Krone, Raymond E. 2,867,112.
Lavoo, Norman T., and Kybl. 2,867,696.
Martiniak, Leonard J., and Bebinger. 2,867,224.
May, John E. 2,867,558.
May, John E. 2,867,559.
Myers, Robert L. 2,867,495.
Nerad, Anthony J., and Johnson. 2,867,267.
Patterson, Le Roy R., Jr. 2,867,035.
Pollock, Herbert C. 2,867,728.
Precopio, Frank M. 2,867,553.
Robbie, Kenneth A. 2,867,095.
Safford, Moyer M. 2,867,605.
Safford, Moyer M., and Myers. 2,867,803.
Schubert, Albert E. 2,867,099.
Stone, George M., Jr., and Siwiak. 2,867,106.
General Electric Co. Ltd., The: *See*—
Haggard, Joseph P., and Scott. 2,867,760.
Little, John G. 2,867,722.
General Motors Corp.: *See*—
Albinson, Harold H., and Voss. 2,867,186.
Brunner, Richard J. 2,867,422.
Burton, Robert W., and Nance. 2,867,129.
Dolza, John, and Burnell. 2,867,201.
Paige, Robert N. 2,867,715.
Gibeon, Frank M. 2,867,473.
Holswarth, James C., and Thomson. 2,867,521.
Johnson, Kenneth O. 2,867,460.
Lawton, Ledra M. 2,867,037.
Rice, Lyman A. 2,867,702.
Riesing, Ellwood F., and Moorman. 2,867,457.
Simmons, Edward C. 2,867,093.
Smith, Robert W. 2,867,683.
Wing, Charles E. 2,867,423.
General Precision Laboratory Inc.: *See*—
Zaleski, John F. 2,867,800.
German, John F., and E. F. Degering. Deleading of gasoline by irradiation. 2,867,572, 1-6-59, Cl. 204—154.
Gerstmann, William. Liquid separater. 2,867,231, 1-6-59, Cl. 137—202.
Getts, Sidney A., to Metal Cutting Tools, Inc. Core drill. 2,867,140, 1-6-59, Cl. 77—58.
Gevaert Photo-Producten N. V.: *See*—
De Keyser, Lodewijk F., and Van Dessel. 2,867,542.
Van Lohuizen, Otto E., Mouton, and Schoutedon. 2,867,550.
Gewerkschaft Eisenhütte Westfalia: *See*—
Herrmann, Helmut. 2,867,191.
Gibeon, Frank M., to General Motors Corp. Vehicle body panel sealing means. 2,867,473, 1-6-59, Cl. 296—44.
Giddings & Lewis Machine Tool Co.: *See*—
Tegtu, George R. 2,867,556.
Giel, George J., Jr.: *See*—
Burns, Meryl C., Giel, and Stahl. 2,867,379.
Gihring, Herman E., to Radio Corp. of America. Antenna array and feed system therefor. 2,867,804, 1-6-59, Cl. 343—853.
Gilbert, Alfred R., to General Electric Co. Polymerizable organopolysiloxane solutions and the process of preparing gels from these solutions. 2,867,606, 1-6-59, Cl. 260—46.5.
Girard, Jean R. M.: *See*—
Fourés, André G. F., Girard, and De Montard. 2,867,209.
Gleason, Howard S., to General Dynamics Corp. Recorder. 2,867,435, 1-6-59, Cl. 271—2.1.
Gleason, Willard S., Jr., and J. W. Sprauer, to E. I. du Pont de Nemours and Co. Hydrogenation of alkylanthraquinones. 2,867,507, 1-6-59, Cl. 23—207.
Glenn, William E., to General Electric Co. Cathode ray reproduction tube having auxiliary function of synchronizing signal separation. 2,867,687, 1-6-59, Cl. 178—7.5.
Glover, Wilfrid, to British Tyre & Rubber Co. Ltd. Friction material. 2,867,125, 1-6-59, Cl. 74—230.7.
Glynn, Theodore W., to Blue Ridge Glass Corp. Electric heater. 2,867,710, 1-6-59, Cl. 219—34.
Goddard, Charles T., to Bell Telephone Laboratories, Inc. Method of determining surface flatness. 2,867,149, 1-6-59, Cl. 88—14.
Gofman, John W., to United States of America, Atomic Energy Commission. Oxalate process for separating element 94. 2,867,640, 1-6-59, Cl. 260—429.1.
Goldak Co., The: *See*—
Kaufman, Edwin N. 2,867,735.
Goldberg, Jacob, and B. Cox, to General Electric Co. Control apparatus. 2,867,791, 1-6-59, Cl. 340—174.
Goldberg, Moses W., and A. I. Rachlin, to Hoffmann-La Roche Inc. Aliphatic isothiuronium compounds. 2,867,660, 1-6-59, Cl. 260—553.
Golden, Jack B. Log grapple. 2,867,470, 1-6-59, Cl. 294—85.
Gondolfo, Charles. Automobile fuel tank alarm. 2,867,856, 1-6-59, Cl. 200—56.
Good, Carl D., and H. D. Batha, to Olin Mathieson Chemical Corp. Conversion of sodium tetrachloroaluminate to sodium aluminum hydride. 2,867,498, 1-6-59, Cl. 23—14.
Goodrich, B. F., Co., The: *See*—
Parmerlee, James K. 2,867,060.
Gow, Robert S., J. F. Williamson, deceased, by A. J. Williamson, executrix, to Imperial Chemical Industries Ltd. Pentaerythritol tetranitrate. 2,867,647, 1-6-59, Cl. 260—467.
Graf, Frank J., to Sportsman Products Co., The. Sportsman's lantern holder. 2,867,403, 1-6-59, Cl. 248—310.
Graham, John W., to Kennametal Inc. Corrosion-resistant alloy. 2,867,033, 1-6-59, Cl. 29—182.7.
Granger, William T.: *See*—
Gehrke, Forrest E., and Granger. 2,867,032.
Gray Tool Co.: *See*—
Watts, John D., Lefevre, and Hill. 2,867,453.
Graybill, Clarence W. and S. H. Support. 2,867,402, 1-6-59, Cl. 248—226.
Graybill, Silas H.: *See*—
Graybill, Clarence W. and S. H. 2,867,402.
Great Western Drilling Co.: *See*—
Mallory, Harvey E., and Ayeras. 2,867,278.
Green, Milton W.: *See*—
Morton, George A., and Green. 2,867,729.
Greene, George B., and G. Wahlstrom, to Marchant Research, Inc. Analog-to-digital converters. 2,867,797, 1-6-59, Cl. 340—347.
Greene, Samuel. Weather strip for jalousie windows. 2,867,304, 1-6-59, Cl. 189—62.
Gregersen, Halfdan: *See*—
Facer, Leroy H. 2,867,522.
Gremmelmaier, Rolf: *See*—
Welker, Heinrich, and Gremmelmaier. 2,867,727.
Grey Equipment, Inc.: *See*—
Lang, John C. 2,866,976.
Groenendyke, Goethe M., to Socony Mobil Oil Co., Inc. Time variable filter. 2,867,775, 1-6-59, Cl. 333—17.
Grundmann, Christoph J., and H. Kober, to Olin Mathieson Chemical Corp. Methyl triazines. 2,867,621, 1-6-59, Cl. 260—249.9.
Gryder, William L., and G. L. Haugen, to Bendix Aviation Corp. Auxiliary control means for pulse producing circuit. 2,867,200, 1-6-59, Cl. 128—179.
Guilbault, Lucien, to The Robert Mitchell Co., Ltd. Disc cutting attachment for band saws. 2,867,250, 1-6-59, Cl. 143—26.
Guild, Lurelle V. A., to The Murray Corp. of America. Kitchen assembly. 2,867,488, 1-6-59, Cl. 312—107.
Gulf Oil Corp.: *See*—
Kibby, Theodore A. 2,867,170.
Gulf Research & Development Co.: *See*—
Bardeen, Thomas. 2,867,490.
Bardeen, Thomas, and Zacher. 2,867,778.
Erdman, John G. 2,867,626.
Selwitz, Charles M. 2,867,657.
Guyot, Reinhard. Safety clasp. 2,867,027, 1-6-59, Cl. 24—250.
Haag, Everett K., and W. V. Holsinger, to Paragon Development, Inc. Preformed base members. 2,867,012, 1-6-59, Cl. 20—74.
Haayman, Pieter W.: *See*—
Lemmens, Hendrikus J., Jansen, and Haayman. 2,867,742.
Hafner, Theodore. Electronic storage tubes. 2,867,686, 1-6-59, Cl. 178—6.8.
Hafner, Theodore. Surface wave transmission line coupler. 2,867,778, 1-6-59, Cl. 333—33.

Haley, Emmett L. Portable pressure fluid power devices. 2,867,086, 1–6–59, Cl. 60—51.

Hall, Charles T., to Molins Machine Co. Ltd. Methods of and means for wrapping block-shaped articles. 2,867,065, 1–6–59, Cl. 53—170.

Hall, J. & E., Ltd.: *See*—
Bailey, William J. 2,867,293.

Hall, Lynn O., Jr., to Owens-Illinois Glass Co. Method and apparatus for coating the interior surfaces of small diameter glass tubing. 2,867,544, 1–6–59, Cl. 117—97.

Hall, Walter E.: *See*—
Whetstone, Richard R., Raab, and Hall. 2,867,646.

Ham, George E., and A. B. Craig, to The Chemstrand Corp. Dye receptive fiber forming acrylonitrile polymer containing 2-alkyleneoxy substituted imidazolines and blends thereof with acrylonitrile polymer. 2,867,602, 1–6–59, Cl. 260—45.5.

Ham, George E., and A. B. Craig, to The Chemstrand Corp. Certain 2-olefinoxymethyl imidazolines. 2,867,625, 1–6–59, Cl. 260—309.6.

Hamm, Philip C.: *See*—
Beaver, David J., Hamm, and Steffel. 2,867,520.

Hammack, Roderick F.: *See*—
Scherf, Paul H., Bayne, and Hammack. 2,867,134.

Hammen, Heinrich, and L. Mustel, to Siemens-Planiawerke Akt. Fuer Kohlefabrikate. Method of impregnating porous graphite and carbon articles. 2,867,545, 1–6–59, Cl. 117—102.

Hamprecht, Guenther, and H. Muehlbauer, to Badische Anilin- & Soda-Fabrik Akt. Production of alkyl aluminium halides. 2,867,643, 1–6–59, Cl. 260—448.

Handel, Neil E.: *See*—
Sturgeon, Stocker S., and Handel. 2,867,110.

Haney, Thomas A., to Olin Mathieson Chemical Corp. Process of purifying pyrethrin extracts. 2,867,648, 1–6–59, Cl. 260—468.

Hanley, William E., to United States of America, Atomic Energy Commission. Volatile chloride process for the recovery of metal values. 2,867,501, 1–6–59, Cl. 23—14.5.

Hansen, Charles W. Auger conveyor. 2,867,314, 1–6–59, Cl. 198—64.

Hansen, Floyd R., and B. Zaremsky, to Ferro Chemical Corp. Vinyl chloride resin stabilized with 2-ethyl hexyl aryl phosphites. 2,867,594, 1–6–59, Cl. 260—23.

Harding, Robert: *See*—
Mead, Bruce R. and C. R., and Harding. 2,867,536.

Harger, Rolla N., to Indiana University Foundation. Apparatus for measuring alcohol content of gases. 2,867,511, 1–6–59, Cl. 23—254.

Harley, Earl K.: *See*—
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Harlow, Walter F., to International Combustion (Holdings) Ltd. Centrifuging machines. 2,867,378, 1–6–59, Cl. 233—7.

Harper, William D. Vehicle body support for absorbing horizontal component of loads. 2,867,472, 1–6–59, Cl. 296—35.

Harris, Clare W., and L. M. Nelson, to North American Aviation, Inc. High pressure flexible hose. 2,867,242, 1–6–59, Cl. 138—56.

Harris, Darrel M., to Monsanto Chemical Co. Modified carbon black product and process. 2,867,540, 1–6–59, Cl. 106—307.

Harrison, Charles W., to Harrison Laboratories, Inc. Direct-voltage regulating circuit. 2,867,764, 1–6–59, Cl. 323—22.

Harrison Laboratories, Inc.: *See*—
Harrison, Charles W. 2,867,764.

Harry, William R., to Bell Telephone Laboratories, Inc. Object locating systems. 2,867,782, 1–6–59, Cl. 340—6.

Harshaw Chemical Co., The: *See*—
Teller, Aaron J. 2,867,425.

Harter, Artur K. G.: *See*—
Zach, Wilhelm. 2,867,039.

Harter, Isaac, Jr., T. W. Ratcliffe, and W. G. Wilson, to The Babcock & Wilcox Co. Continuous casting mold. 2,867,018, 1–6–59, Cl. 22—57.2.

Hartmann, William A., Jr., to Bendix Aviation Corp. Motor control system. 2,867,761, 1–6–59, Cl. 318—230.

Hartzell, Blanche D.: *See*—
Donehower, William P. 2,866,990.

Hartzell, Maurice H.: *See*—
Donehower, William P. 2,866,990.

Harvey Machine Co., Inc.: *See*—
Loevenstein, Hirsch. 2,867,525.

Hauck, Edwin J., and S. Suda, to The Babcock & Wilcox Co. Apparatus for the recovery of heat and chemicals. 2,867,195, 1–6–59, Cl. 122—240.

Hauel, Anna P.: *See*—
Keith, Carl D., and Hauel. 2,867,588.

Haugen, Glenn L.: *See*—
Gryder, William L., and Haugen. 2,867,200.

Hayward, Charles E., to The Lobdell-Emery Mfg. Co. Transfer mechanism. 2,867,186, 1–6–59, Cl. 113—50.

Heath, Thomas D., to Dorr-Oliver Inc. Calcination of alumina. 2,867,429, 1–6–59, Cl. 263—21.

Heath, Thomas D., and N. G. T. Holle, to Dorr-Oliver Inc. Method for removing arsenic from arsenopyrite ores. 2,867,526, 1–6–59, Cl. 75—9.

Heck, Daniel W., to Allegheny Ludlum Steel Corp. Grinders. 2,867,061, 1–6–59, Cl. 51—188.

Heimsch, Robert A.: *See*—
Erickson, Floyd B., Heimsch, Wildi, and Patrick. 2,867,668.

Heinmiller, Percival M.: *See*—
Barker, Stephen, and Heinmiller. 2,867,432.

Heinzerling, August. Beating device for household purposes. 2,867,419, 1–6–59, Cl. 259—64.

Hemmerich, Rolf H., to Shell Development Co. Method of minimizing styrene polymerization during storage. 2,867,672, 1–6–59, Cl. 260—666.5.

Hendrickson, Fritz E., ½ to M. Ireland. Pleated buffing wheel. 2,867,062, 1–6–59, Cl. 51—193.

Henke, Robert H.: *See*—
Crede, John H., Henke, Pulaski, and Stroble. 2,867,557.

Henning, William W., and G. J. Storatz, to International Harvester Co. Low-bed vehicle with swing-under retractable wheels. 2,867,444, 1–6–59, Cl. 280—9.

Hennsey, Robert T., to Lear, Inc. Line frequency doubler. 2,867,731, 1–6–59, Cl. 307—11.

Herbst, Ralph L., Jr.: *See*—
Landrum, Billy F., and Herbst. 2,867,601.
Landrum, Billy F., and Herbst. 2,867,608.

Hercules Powder Co.: *See*—
Zebree, David T. 2,867,517.
Zebree, David T. 2,867,518.

Hermansson, Dan S. Splash guard for machine tools and like purposes. 2,867,064, 1–6–59, Cl. 51—272.

Herr Mfg. Co., Inc.: *See*—
Atwood, Hyatt B. 2,867,076.

Herr, Milton E.: *See*—
Pederson, Raymond L., Herr, Babcock, Campbell, and Hogg. 2,867,630.

Herrick, Carlyle S., to General Electric Co. Variable temperature refrigeration. 2,867,094, 1–6–59, Cl. 62—174.

Herrmann, Alvin G. Apparatus for making stencils. 2,867,155, 1–6–59, Cl. 93—1.

Herrmann, Helmut, to Gewerkschaft Eisenhütte Westfalia. Free piston vibrators. 2,867,191, 1–6–59, Cl. 121—17.

Hess, Frederic O., to Selas Corp. of America. Metal heating. 2,867,431, 1–6–59, Cl. 263—52.

Heurtier, Antoine, to Etablissements Heurtier & Cie. Sound reading device for kinematographic projectors. 2,867,439, 1–6–59, Cl. 274—4.

Hight, Henry A., Jr.: *See*—
Horton, Charles T., and Hight. 2,867,215.

Hill, Erwin F.: *See*—
Watts, John D., Lefevre, and Hill. 2,867,453.

Hillenbrand, George C., to The Batesville Casket Co., Inc. Burial casket body construction. 2,867,029, 1–6–59, Cl. 27—6.

Hillenbrand, George C., to The Batesville Casket Co., Inc. Burial casket construction. 2,867,030, 1–6–59, Cl. 27—14.

Hirs, Gene. Filter apparatus. 2,867,324, 1–6–59, Cl. 210—97.

Hirs, Gene. Filter apparatus. 2,867,325, 1–6–59, Cl. 210—97.

Hirs, Gene. Filter apparatus. 2,867,326, 1–6–59, Cl. 210—104.

Hirs, Gene. Filter apparatus. 2,867,327, 1–6–59, Cl. 210—106.

Hirsch, Joseph, to Aerophysics Development Corp. Launching control device. 2,867,153, 1–6–59, Cl. 87—1.7.

Hirsch, Sylvan R.: *See*—
Keir, Alexander J., and Hirsch. 2,867,376.

Hirschler, Alfred E., to Sun Oil Co. Cracking a hydrocarbon oil with a silica-alumina-chromium oxide-beryllium oxide catalyst composite. 2,867,578, 1–6–59, Cl. 208—120.

Hoeppner, Conrad H., and C. H. Smith, Jr. Communication reliability apparatus. 2,867,720, 1–6–59, Cl. 250—6.

Hoesch Werk Akt.: *See*—
Zimmermann, Herbert: 2,867,047.

Hoesselbarth, Frank W. E., to C. H. Masland & Sons. Pile fabric texturing due to pile overlaps. 2,867,244, 1–6–59, Cl. 139—403.

Hoesselbarth, Frank W. E., to C. H. Masland & Sons. Carpet with improved coverage. 2,867,245, 1–6–59, Cl. 139—403.

Hoffman Electronics Corp.: *See*—
Buie, James L. 2,867,695.

Hoffman, Harold G. Nailing implement. 2,866,974, 1–6–59, Cl. 1—46.

Hoffmann-La Roche Inc.: *See*—
Goldberg, Moses W., and Rachlin. 2,867,680.
Isler, Otto, Montavon, Ruegg, and Zeller. 2,867,627.
Isler, Otto, Montavon, Ruegg, and Zeller. 2,867,652.
Lutz, August H., and Schnider. 2,867,623.

Hogan, Merle L.: *See*—
Adams, E. O. N. 2,867,259.

Hogg, John A.: *See*—
Pederson, Raymond L., Herr, Babcock, Campbell, and Hogg. 2,867,630.

Holbrook, Edward L., to Westinghouse Air Brake Co. Governor control apparatus. 2,867,199, 1–6–59, Cl. 123—140.

Holder, Clinton H., and W. M. Basch, to Esso Research and Engineering Co. Producing lubricating oils by solvent extraction. 2,867,583, 1–6–59, Cl. 208—327.

Holle, Norbert G. T.: *See*—
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Holley Carburetor Co.: *See*—
Francis, Joseph E. 2,867,196.
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Holsinger, Wilbur V.: *See*—
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Holt, Clare E., to Blackhawk Mfg. Co. Hydraulic valving for pressure applying units. 2,867,087, 1–6–59, Cl. 60—52.

Holtzman, Norman, to Paper Mate Mfg. Co. Display boxes. 2,867,048, 1–6–59, Cl. 40—7.

Holzwarth, James C., and R. F. Thomson, to General Motors Corp. Corrosion-resistant low alloy steel. 2,867,531, 1–6–59, Cl. 75—123.

Homer, Howard J., to The Commonwealth Engineering Co. of Ohio. Metallized filamentary materials. 2,867,552, 1–6–59, Cl. 117—217.

Hommel, Hedwig: *See*—
Schneider, Hermann and Hedwig. 2,867,357.

Honeycutt, Earl M., to Sun Oil Co. Reforming straight-run naphtha. 2,867,576, 1–6–59, Cl. 208—65.

Hori, Tatsu, to General Electric Co. Paper-stacking device. 2,867,438, 1–6–59, Cl. 271—24.

Horizons Inc.: *See*—
Cunningham, George L. 2,867,568.

Horn, Arno, and H. Langner, to Siemens & Halske Akt. Telephone pay station comprising coin counting device for different call rates. 2,867,689, 1-6-59, Cl. 179—6.3.
Hornbostel, Lloyd, to Beloit Iron Works. Lubrication system. 2,867,481, 1-6-59, Cl. 308—187.
Horsman, Gilbert A., to Raytheon Mfg. Co. Depth sounder keying and writing apparatus. 2,867,492, 1-6-59, Cl. 346—74.
Horton, Charles T., and H. A. Hight, Jr. Garment. 2,867,215, 1-6-59, Cl. 128—399.
Hoshowsky, Stanley A.: *See*—
Donahue, Daniel J., and Hoshowsky. 2,867,587.
Houdry, Eugene J., and W. R. Calvert, to Oxy-Catalyst, Inc. Method of catalytically purifying exhaust gases and regenerating the catalyst utilized therein. 2,867,497, 1-6-59, Cl. 23—2.
Houldcroft, Peter T.: *See*—
Needham, James C., Hull, and Houldcroft. 2,867,743.
Hovelmann, Heinrich, to Walther & Cie. A. G. Method for welding tube nipples. 2,867,036, 1-6-59, Cl. 29—471.7.
Howard, C. E., Corp.: *See*—
Paramanoff, Elpidifor. 2,867,475.
Hradel, Joseph R. Detonation of unprimed base charges. 2,867,172, 1-6-59, Cl. 102—23.
Hruska, Howard E., to Bendix Aviation Corp. Hydraulic power steering device with rack and pinion actuating means. 2,867,284, 1-6-59, Cl. 180—79.2.
Hudson, Forrest H.: *See*—
Brennan, Frederick S., Hudson, and Considine. 2,867,273.
Huehnel, Alwin L., to Square D Co. Wiring duct. 2,867,681, 1-6-59, Cl. 174—101.
Heuleskamp, Richard F.: *See*—
Kranta, Frank M., and Huelskamp. 2,867,128.
Hug, Thomas F. Cigarette filter. 2,867,219, 1-6-59, Cl. 131—10.
Huggard, Joseph P., and P. Scott, to The General Electric Co. Ltd. Electric motors. 2,867,760, 1-6-59, Cl. 318—169.
Huggins, Earl. Measuring tape. 2,867,187, 1-6-59, Cl. 116—132.
Hughes, Alvea W. Massager with relatively movable fingers. 2,867,211, 1-6-59, Cl. 128—49.
Hull, William G.: *See*—
Needham, James C., Hull, and Houldcroft. 2,867,743.
Hullar, Herbert E., to The Murray Corp. of America. Laundry dryers. 2,867,430, 1-6-59, Cl. 262—33.
Hunt, Robert A.: *See*—
Fribance, Austin E., and Hunt. 2,867,768.
Hunt, Robert A., and A. E. Fribance, to Rochester Mfg. Co. Remote indicating apparatus. 2,867,769, 1-6-59, Cl. 324—146.
Hunter, Herbert T., and R. W. Wilson, to DCA Food Industries Inc. Apparatus for production of cooked products. 2,867,162, 1-6-59, Cl. 99—354.
Hunter, Lloyd P., to International Business Machines Corp. Current multiplication transistors and method of producing same. 2,867,732, 1-6-59, Cl. 307—88.5.
Huntington, Lillian J. Toilet. 2,866,980, 1-6-59, Cl. 4—142.
Hupp Corp.: *See*—
Perry, Robert P. 2,867,092.
Rosebrook, Homer E., Harley, and Swartzloff. 2,867,096.
Hupp, Edward E., Bendix Aviation Corp. Snap acting dual valve mechanism. 2,867,235, 1-6-59, Cl. 137—622.
Hurd, Dallas T., and R. C. Osthoff, to General Electric Co. Vulcanizable vinyl-containing organopolysiloxanes and process of preparing elastomers therefrom. 2,867,598, 1-6-59, Cl. 260—37.
Hurd, Eric W., to F. Taylor & Sons (Manchester) Ltd. Drilling machine for rock faces and the like. 2,867,412, 1-6-59, Cl. 255—61.
Huribert, Charles E., to Bendix Aviation Corp. Gyro caging mechanism. 2,867,122, 1-6-59, Cl. 74—5.1.
Husmar, Kalman Z. Mechanism for forming various articles from moldable materials. 2,867,000, 1-6-59, Cl. 18—5.
Hutchens, Morris L., J. J. Lenert, and F. J. Schalk, to Kearney & Trecker Corp. Retracting mechanism. 2,867,154, 1-6-59, Cl. 90—16.
Hutchins, Alma A., to G. J. Blacher. Tools for releasing speed nuts. 2,867,142, 1-6-59, Cl. 81—3.
Hurtable, Leonard G.: *See*—
Stuart, Whitney A., and Hurtable. 2,866,978.
Imperial Chemical Industries Ltd.: *See*—
Gow, Robert S., and Williamson. 2,867,647.
Semmens, Peter W. B. 2,867,504.
Indiana University Foundation: *See*—
Harger, Rolla N. 2,867,511.
Industrial Research Associates, Inc.: *See*—
McGillem, Clare D., and Williams. 2,867,767.
Ine, Frank H. Combination bag cutter and bag clipping device. 2,866,975, 1-6-59, Cl. 1—120.
Inflico Inc.: *See*—
Adelson, Samuel L. 2,867,233.
Ingres, Jeannot G., to Kelsey-Hayes Co. Booster brake mechanism. 2,867,307, 1-6-59, Cl. 188—8.
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Dean, Russell T., and Schefbauer. 2,867,533.
International Business Machines Corp.: *See*—
Durfee, Benjamin M., and Miller. 2,867,790.
Hunter, Lloyd P. 2,867,733.
Mitchell, George R. 2,867,167.
Roth, Robert L. 2,867,168.
Rutz, Richard F. 2,867,782.
International Combustion (Holdings) Ltd.: *See*—
Harlow, Walter F. 2,867,378.
International Harvester Co.: *See*—
Henning, William W., and Stoutz. 2,867,444.
International Standard Electric Corp.: *See*—
Kruithof, Jakob. 2,867,691.
Weber, Joachim F. L. 2,867,550.
International Telephone and Telegraph Corp.: *See*—
Arditi, Maurice. 2,867,782.
Ireland, Murray: *See*—
Hendrickson, Fritz E. 2,867,062.
Isler, Otto, M. Montavon, R. Ruegg, and P. Zeller, to Hoffmann-La Roche Inc. Process for the manufacture of polyene aldehydes. 2,867,627, 1-6-59, Cl. 260—340.9.
Isler, Otto, M. Montavon, R. Ruegg, and P. Zeller, to Hoffmann-La Roche Inc. New carotenoid and process for the manufacture thereof. 2,867,652, 1-6-59, Cl. 260—488.
Ismay Lamps Ltd.: *See*—
Deshaw, Zoltan and H. 2,867,318.
Jackson, Earl C. Gas burner. 2,867,271, 1-6-59, Cl. 158—99.
Jacobi, Werner, to Siemens and Halske Akt. Electrical discharge tube. 2,867,741, 1-6-59, Cl. 313—247.
Jacobsen, Edwin. Ducted wing for aircraft. 2,867,552, 1-6-59, Cl. 244—15.
Jaffee, Robert I., and H. R. Ogden, to Crucible Steel Co. of America. Titanium base alpha dispersoid alloys. 2,867,534, 1-6-59, Cl. 75—175.5.
Jakober, William: *See*—
Lefebvre, Albert. 2,867,020.
Jankauskas, George P., to W. A. Dubovick, J. P. and P. A. Kozak. Anti-skid brake mechanism. 2,867,299, 1-6-59, Cl. 188—152.
Janssen, Marinus J.: *See*—
Lemmens, Hendrikus J., Janssen, and Haayman. 2,867,742.
Jarret, Jacques H.: *See*—
Jarret, Jean M. B. and J. H. 2,867,043.
Jarret, Jean M. B. and J. H., to "Les Applications Electroniques des Caoutchoucs" (A. E. C.). Variable electric resistance semi-conductor devices. 2,867,043, 1-6-59, Cl. 33—172.
Jeffreys, George A. Simultaneous aerobic and anaerobic composting process. 2,867,521, 1-6-59, Cl. 71—8.
Jen, Yun, to American Cyanamid Co. Resinous compositions. 2,867,607, 1-6-59, Cl. 260—60.
Jennings, Russell D. Automobile tray or writing desk. 2,867,484, 1-6-59, Cl. 311—21.
Jensen, Raymond W., to The Garrett Corp. Pneumatic remote position actuator. 2,867,194, 1-6-59, Cl. 121—41.
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Lincoln, Frank H., Jr., W. P. Schneider, and G. B. Spero, to The Upjohn Co. 6-methyl steroid compounds. 2,867,632, 1–6–59, Cl. 260—397.45.
Lincoln, Frank H., Jr., W. P. Schneider, and G. B. Spero, to The Upjohn Co. 11-oxygenated-6-methyl-17α-hydroxy-4-pregnene-3,20-diones. 2,867,633, 1–6–59, Cl. 260—397.45.
Lincoln, Frank H., Jr., W. P. Schneider, and G. B. Spero, to The Upjohn Co. 11-oxygenated 6-methyl-pregnadienes. 2,867,634, 1–6–59, Cl. 260—397.45.
Lincoln, Frank H., Jr., W. P. Schneider, and G. B. Spero, to The Upjohn Co. 6-methyl, 9α,21-difluoro, 11 oxygenated, 17α-hydroxy-4-pregnene-3,20 dione steroid compounds. 2,867,635, 1–6–59, Cl. 260—397.45.
Lincoln, Frank H., Jr., W. P. Schneider, and G. B. Spero, to The Upjohn Co. 6-methyl-9α,21 difluoro-11 oxygenated 17α-hydroxy-1,4 pregnadiene-3,20 dione steroid compounds. 2,867,636, 1–6–59, Cl. 260—397.45.
Lincoln, Frank H., Jr., W. P. Schneider, and G. B. Spero, to The Upjohn Co. 6α methyl, 9αF, 17α OH 1,4 pregnadiene compounds. 2,867,637, 1–6–59, Cl. 260—397.45.
Lincoln, Frank H., Jr., W. P. Schneider, and G. B. Spero, to The Upjohn Co. 6-methyl-6α fluoro-11 oxygenated pregnenes. 2,867,638, 1–6–59, Cl. 260—397.45.
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Martin, Joseph F. 2,867,310.
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May, John E., to General Electric Co. Method for producing grain oriented silicon steel. 2,867,559, 1–6–59, Cl. 148—111.
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Thiele, Berthold R. 2,867,104.
McLaughlin, Walter T. Floating reamer or tap holder. 2,867,440, 1–6–59, Cl. 279—16.
McLean, Lawrence W., and L. C. Kenyon, Jr., to Esso Research and Engineering Co. Separation and purification of cyclodienes. 2,867,670, 1–6–59, Cl. 260—666.
McMillan, Eugene C., to McMillan Floor Products Co. Screed support and method of using. 2,867,041, 1–6–59, Cl. 33—74.
McMillan Floor Products Co.: *See*—
McMillan, Eugene C. 2,867,041.
McMinn, Albert H. Plumbing unit. 2,866,981, 1–6–59, Cl. 4—211.
Mead, Bruce R. and C. R., and R. Harding. Flavor-confining drinking straw. 2,867,536, 1–6–59, Cl. 99—138.
Mead, Charles R.: *See*—
Mead, Bruce R. and C. R., and Harding. 2,867,536.
Mead Corporation, The: *See*—
Maloney, James D., Jr., and Brown. 2,867,414.
Medearis, Paul A.: *See*—
De Jarnett, Frank D. 2,867,280.
Medow, Jules, to Radio Corp. of America. Mechanism for rotating electrical units. 2,867,489, 1–6–59, Cl. 312—323.
Meidenbauer, Lois W.: *See*—
Meidenbauer, Phillip E., Jr. 2,867,227.
Meidenbauer, Phillip E., Jr., deceased, by L. W. Meidenbauer, executrix. Firewel Industries. Differential pressure gas supplying apparatus. 2,867,227, 1–6–59, Cl. 137—64.
Meinhardt, Wayne F.: *See*—
Pierson, Knute H., and Meinhardt. 2,867,291.
Meissner, William E., to American Viscose Corp. Stairway carpeting. 2,867,015, 1–6–59, Cl. 20—79.

Mendez, Alfredo. Portable heater and cooker. 2,867,206, 1–6–59, Cl. 126—38.
Merck & Co., Inc.: *See*—
Garber, John D., Jones, and Gasser. 2,867,629.
Merrels, Frederic P. Selective dispensing apparatus. 2,867,418, 1–6–59, Cl. 259—8.
Mertesdorf, Aloys P. Hedge cutter. 2,867,040, 1–6–59, Cl. 30—205.
Meshberg, Philip. Aerosol container with valve. 2,867,358, 1–6–59, Cl. 222—394.
Metal Cutting Tools, Inc.: *See*—
Getts, Sidney A. 2,867,140.
Metal & Thermit Corp.: *See*—
Ramsden, Hugh E. 2,867,641.
Ramsden, Hugh E., and Rosenberg. 2,867,642.
Weinberg, Elliott L. 2,867,566.
Metalwash Machinery Co.: *See*—
Zademach, Erich R., Auger, and Lang. 2,867,225.
Metzger, Leopold H., to Super-Cut, Inc. Multiple grinding wheel. 2,867,063, 1–6–59, Cl. 51—209.
Michlin, Hyman A. Electroluminescent color lamp. 2,867,739, 1–6–59, Cl. 313—108.
Midland Chemical Corp.: *See*—
Lederman, Burton E. 2,867,591.
Mid-West Produce Co. Ltd.: *See*—
Mowat, James A. 2,867,254.
Miller, Abe, to Miller Laundry Machinery Co. Centrifugal laundry extractor machine. 2,867,329, 1–6–59, Cl. 210—360.
Miller, Albert D.: *See*—
Durfee, Benjamin M., and Miller. 2,867,790.
Miller, Jacob I.: *See*—
Fischer, Valentine J., Miller, Sass, and Witten. 2,867,509.
Miller Laundry Machinery Co.: *See*—
Miller, Abe. 2,867,329.
Miller, Nicholas, to The Dole Valve Co. Thermostatic snap acting switch. 2,867,704, 1–6–59, Cl. 200—140.
Miller, Theodore, to Consolidated Electrodynamics Corp. Speed control. 2,867,436, 1–6–59, Cl. 271—2.6.
Miller, Verner M. Connecting clip. 2,867,302, 1–6–59, Cl. 189—35.
Millers Falls Co.: *See*—
Moretti, Whitfield, and Pratt. 2,867,251.
Millgate, Irvine H. Visual instruction aids. 2,867,045, 1–6–59, Cl. 35—60.
Mims, Bruce L., to The Barden Corp. Direct reading torque tester. 2,867,113, 1–6–59, Cl. 73—9.
Mims, Bruce L., to The Barden Corp. Torque meter for testing bearings. 2,867,114, 1–6–59, Cl. 73—9.
Minchenko, George: *See*—
Denault, Donald R., and Minchenko. 2,867,771.
Minneapolis-Honeywell Regulator Co.: *See*—
Wagner, Robert J. 2,867,757.
Minnesota Mining & Mfg. Co.: *See*—
Johnson, Wayne. 2,867,685.
Fitz Harris, Leo J. 2,867,241.
Landrum, Billy F., and Herbst. 2,867,601.
Landrum, Billy F., and Herbst. 2,867,608.
Mitchell, George E., to International Business Machines Corp. Printing mechanism. 2,867,167, 1–6–59, Cl. 101—47.
Mitchell, Robert Co., Ltd., The: *See*—
Guilbault, Lucien. 2,867,250.
Model, Ernst, and J. Bindler, to J. R. Geigy, A.-G. Polyhalogen substituted monohydroxydiphenyl urea and thiourea compounds. 2,867,659, 1–6–59, Cl. 260—552.
Moeller, Kurt G. F. Means for reducing gear noise. 2,867,130, 1–6–59, Cl. 74—443.
Mohr, Rudolf: *See*—
Quandt, Hans H. 2,867,753.
Molins Machine Co. Ltd.: *See*—
Hall, Charles T. 2,867,065.
Money, Reynard H. Portable barbecue cooker. 2,867,165, 1–6–59, Cl. 99—423.
Monsanto Chemical Co.: *See*—
Beaver, David J., Hamm, and Stoffel. 2,867,520.
Dazzi, Joachim. 2,867,598.
Dazzi, Joachim. 2,867,648.
Erickson, Floyd B., Heimach, Wildi, and Patrick. 2,867,668.
Harris, Darrel M. 2,867,540.
Montagna, Carlo, to Dalmine S. p. A. Rotary hearth furnace provided with a removable sector for hearth maintenance. 2,867,428, 1–6–59, Cl. 263—7.
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Isler, Otto, Montavon, Ruegg, and Zeller. 2,867,627.
Isler, Otto, Montavon, Ruegg, and Zeller. 2,867,652.
Montgomery Elevator Co.: *See*—
Pierson, Knute H., and Meinhardt. 2,867,291.
Moore, Marietta T. Machine for forming package trays. 2,867,157, 1–6–59, 93—37.
Moorman, Cletus L.: *See*—
Riesing, Ellwood F., and Moorman. 2,867,457.
Moretti, Whitfield, and L. C. Pratt, to Millers Falls Co. Router depth adjustment means. 2,867,251, 1–6–59, Cl. 144—134.
Morris, Thomas C., and A. M. Chaplick, to B. B. Chemical Co. Thermoplastic polyamide-epoxy adhesives. 2,867,592, 1–6–59, Cl. 260—18.
Morrison, Charles C., to F. N. Burt Co., Inc. Container. 2,867,348, 1–6–59, Cl. 220—31.
Morrison, Harold E., to Whirlpool Corp. Gas burner. 2,867,272, 1–6–59, Cl. 158—113.
Morton, George A., and M. W. Green, to United States of America, Atomic Energy Commission. Secondary electron multipliers. 2,867,729, 1–6–59, Cl. 250—207.
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Bartlett, Jeffrey H., Brugmann, and Morway. 2,867,519.
Moullec, Jean. Thresher having angularly adjustable concave. 2,867,213, 1–6–59, Cl. 130—27.
Mouton, Eric Jan: *See*—
Van Lohuizen, Otto E., Mouton, and Schouteden. 2,867,650.
Mowat, James A., to Mid-West Produce Co. Ltd. Egg separator. 2,867,254, 1–6–59, Cl. 146—2.
Muehlbauer, Hubert: *See*—
Hamprecht, Guenther, and Muehlbauer. 2,867,643.
Mueller Co.: *See*—
Bowan, Walter J. 2,867,034.
Bowan, Walter J. 2,867,243.
Mueller, Gaffron D. Safety ski binding. 2,867,447, 1–6–59, Cl. 280—11.35.
Muller, Albert, to Air Reduction Co., Inc. Gas shielded arc cutting. 2,867,713, 1–6–59, Cl. 219—69.
Mullineaux, Richard D., and J. H. Raley, to Shell Development Co. Dehydrogenation of saturated aromatic hydrocarbon to a cycloolefin in the presence of free bromine. 2,867,671, 1–6–59, Cl. 260—666.
Mumford, Eustace E., to Owens-Illinois Glass Co. Glassware transfer device. 2,867,335, 1–6–59, Cl. 214—1.
Murdock, Clayton E., to Eitel-McCullough, Inc. Electron tube. 2,867,747, 1–6–59, Cl. 315—5.38.
Murray Corp. of America, The: *See*—
Guild, Lurelle V. A. 2,867,488.
Hullar, Herbert E. 2,867,430.
Landwier, William G. 2,867,105.
Murray, Peter B., to Sun Oil Co. Dehydrogenation of hydrocarbons. 2,867,677, 1–6–59, Cl. 260—673.5.
Musiol, Leo: *See*—
Hammen, Heinrich, and Musiol. 2,867,545.
Musser, David M., and Zocolillo, to Refined Products Corp. Phenyl mercury compounds. 2,867,563, 1–6–59, Cl. 167—30.
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Safford, Moyer M., and Myers. 2,867,603.
Myers, Robert L., to General Electric Co. Process for producing chlorotrifluoroethylene fibers. 2,867,495, 1–6–59, Cl. 18—54.
NSU Werke Akt.: *See*—
Roder, Albert. 2,867,296.
N. V. Onderzoekingsinstituut Research: *See*—
Levison, Robert, and Voigt. 2,867,004.
Nack, Herman R., to Chadeloid Corp. Activation of wood for dyeing acid dyestuffs. 2,867,493, 1–6–59, Cl. 8—6.5.
Nahin, Paul G., to Union Oil Co. of California. Desulfurization of petroleum hydrocarbons with impregnated catalysts. 2,867,581, 1–6–59, Cl. 208—216.
Nance, Robert L.: *See*—
Burton, Robert W., and Nance. 2,867,129.
National Aluminate Corp.: *See*—
Cocks, Thomas G. 2,867,279.
National Bundle Tyer Co.: *See*—
Saxton, James B., and Bachmayer. 2,867,166.
National Can Corp.: *See*—
Toft, Andrew M. 2,867,361.
National Dairy Products Corp.: *See*—
Whitaker, Randall. 2,867,537.
National Distillers and Chemical Corp.: *See*—
Robinson, Robert E., and Nobis. 2,867,656.
National Geographic Society: *See*—
Fillingame, John E. 2,867,150.
National Research Development Corp.: *See*—
Bidwell, Ethel. 2,867,567.
Needham, James C., W. G. Hull, and P. T. Houldcroft, to R. R. A. Patents Ltd. Electric arc welding systems. 2,867,743, 1–6–59, Cl. 314—75.
Neely, Albert E., to Duall-Color Products Co., Inc. Fountain applicator. 2,866,994, 1–6–59, Cl. 15—139.
Nelson, Brooks E.: *See*—
Peterson, Ruben O., and Nelson. 2,866,989.
Nelson, Floyd E. Load carrying vehicles and bodies therefor. 2,867,339, 1–6–59, Cl. 214—517.
Nelson, John A.: *See*—
Baker, Donald R., Nelson, and Storer. 2,867,016.
Nelson, Lawrence M.: *See*—
Harris, Clare W., and Nelson. 2,867,242.
Nelson, Miles E., to United States of America, Army. Stylus for recording electrical impulses on carbon coated paper. 2,867,491, 1–6–59, Cl. 346—74.
Nerad, Anthony J., and R. H. Johnson, to General Electric Co. Combustion chamber. 2,867,267, 1–6–59, Cl. 158—1.
Newco Mfg. Co., Inc.: *See*—
Gale, James G. 2,867,026.
Newhard, Nelson J., Jr., and J. H. Thirsk, to Amchem Products, Inc. Method of deoxidizing an aluminum surface. 2,867,514, 1–6–59, Cl. 41—42
Newton, Ross B., to Whitin Machine Works. Doffing apparatus for textile machine. 2,867,074, 1–6–59, Cl. 57—52.
Nickell, Edward C. Mounting arrangement for switch boxes and the like. 2,867,344, 1–6–59, Cl. 220—3.6.
Nielsen, Milton R., to Borg-Warner Corp. Housing confined lip seal. 2,867,462, 1–6–59, Cl. 288—3.
Nilsson, Nils L., to Anderson Electric Corp. Hot line clamp. 2,867,787, 1–6–59, Cl. 330—264.
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Robinson, Robert E., and Nobis. 2,867,656.
North American Aviation, Inc.: *See*—
Harris, Clare W., and Nelson. 2,867,242.
North American Philips Co., Inc.: *See*—
Lemmens, Hendrikus J., Jansen, and Haayman. 2,867,742.
MacLachlan, John R. 2,867,714.
Norton Co.: *See*—
Coes, Loring, Jr. 2,867,060.
Comstock, George E., 2d. 2,867,759.
Nunn, William A., Jr. Snore stopping mouthpiece and process of making same. 2,867,212, 1–6–59, Cl. 128—136.
Nyden, Robert. Boxes having flexibly hinged covers. 2,867,371, 1–6–59, Cl. 229—44.

O'Bleness, George W., to Cook Electric Co. Time-delay relay. 2,867,754, 1–6–59, Cl. 317—142.
O'Brien, Lester A.: *See*—
Bland, Thomas W., and O'Brien. 2,867,793.
Oehler Development & Mfg. Corp.: *See*—
Alexeff, Alexander V. 2,867,209.
Ogden, Horace R.: *See*—
Jaffee, Robert I., and Ogden. 2,867,534.
Okimoto, Tetsuro. Warning device. 2,867,054, 1–6–59, Cl. 42—17.
Olin Mathieson Chemical Corp.: *See*—
Good, Carl D., and Batha. 2,867,490.
Grundmann, Christoph J., and Kober. 2,867,621.
Haney, Thomas A. 2,867,649.
O'Neill, John J., Jr. 2,867,147.
Reece, John S., and Schaeffer. 2,867,498.
Shapiro, Isadore, and Weiss. 2,867,675.
Stange, Hugo, and Clark. 2,867,502.
Wilson, Lewis P., and Turner. 2,867,554.
Olsen, Donald B.: *See*—
Bardos, Thomas J., and Olsen. 2,867,614.
Olsen, Ole K. Well drilling bits. 2,867,413, 1–6–59, Cl. 255—61.
Olson, Norman L., to General Dynamics Corp. Control circuit. 2,867,724, 1–6–59, Cl. 250—27.
O'Neill, John J., Jr., to Olin Mathieson Chemical Corp. Manufacture of electric blasting caps. 2,867,147, 1–6–59, Cl. 86—1.
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Cavanagh, Patrick E. 2,867,118.
O'Reilly, Joseph A. Multi-cellular carton. 2,867,370, 1–6–59, Cl. 229—28.
Orloff, George, and A. Cameron-Johnson, to Bri'ish Messier Ltd. Hydraulic systems. 2,867,091, 1–6–59, Cl. 60—97.
Osborn Mfg. Co., The: *See*—
Peterson, Ruben O., and Nelson. 2,866,960.
Osthoff, Robert C.: *See*—
Hurd, Dallas T., and Osthoff. 2,867,509.
Othmer, Donald F. Process for recovering volatile aliphatic acids. 2,867,655, 1–6–59, Cl. 260—527.
Otis Elevator Co.: *See*—
Bruns, William H. 2,867,292.
Otto, Carl L. and L. N. B., and J. Briton, to Caromelle, Inc. Core member of foam material for hair curlers. 2,867,222, 1–6–59, Cl. 132—39.
Otto, La Nelle B.: *See*—
Otto, Carl L. and L. N. B., and Briton. 2,867,222.
Otterson, Charles R., to The Albermarle Paper Mfg. Co. Process for fameproofing paper. 2,867,549, 1–6–59, Cl. 117—137.
Overhead Door Corp.: *See*—
Stroup, Earl L. 2,867,466.
Stroup, Earl L. 2,867,697.
Owens-Illinois Glass Co.: *See*—
Hall, Lyan O., Jr. 2,867,544.
Kosak, John. 2,867,551.
Mumford, Eustace H. 2,867,335.
Richie, Carlton A. 2,867,580.
Oxy-Catalyst, Inc.: *See*—
Houdry, Eugene J., and Calvert. 2,867,497.
Pacific Mills: *See*—
Wheelock, Silas M. 2,867,095.
Wilkie, Robert C. 2,867,077.
Padgett, Clarence G. Film holder. 2,867,161, 1–6–59, Cl. 95—100.
Paper Mate Mfg. Co.: *See*—
Holtzman, Norman. 2,867,045.
Paquet, René O.: *See*—
Leclercq, René, and Paquet. 2,867,844.
Paragon Development, Inc.: *See*—
Haag, Everett K., and Holsinger. 2,867,013.
Paramonoff, Elpidifor, to C. E. Howard Corp. Rotary spraying device. 2,867,475, 1–6–59, Cl. 299—69.
Parker, William M., Jr., to Union Insulating Co., Inc. Molded plastic articles such as outlet boxes. 2,867,349, 1–6–59, Cl. 220—3.3.
Parks, Charles O., to Bell Telephone Laboratories, Inc. Auxiliary sender circuit. 2,867,690, 1–6–59, Cl. 179—18.
Parmerlee, James K., to The B. F. Goodrich Co. Hydraulic fluid regulating valve. 2,867,069, 1–6–59, Cl. 60—54.5.
Parsons, C. A., & Co. Ltd.: *See*—
Kolb, Paul, Arkless, and Bolter. 2,867,408.
Patents Management Corp.: *See*—
Ruskin, Henry. 2,866,973.
Patinkin, Seymour H., and R. A. Sanford, to Sinclair Refining Co. Process for production of para-(tertiary alkylated)-alkylbenzenes. 2,867,674, 1–6–59, Cl. 260—671.
Patrick, Tracy M., Jr.: *See*—
Erickson, Floyd B., Heimsch, Widdi, and Patrick. 2,867,383.
Patronix, Inc.: *See*—
Batcheler, Joseph B., Jr. 2,867,725.
Patterson, Le Roy R., Jr., to General Electric Co. Thermal insulation. 2,867,035, 1–6–59, Cl. 29—455.
Payson, Peter, and D. I. Dilworth, Jr., to Crucible Steel Co. of America. Wear resistant alloy steel. 2,867,532, 1–6–59, Cl. 75—126.
Pearson, Charles, Jr. Disc record cutting means. 2,867,694, 1–6–59, Cl. 179—100.4.
Pedersen, Charles J., to E. I. du Pont de Nemours and Co. Process for burning gaseous fuels. 2,867,516, 1–6–59, Cl. 48—197.
Pedersen, Raymond L., M. E. Herr, J. C. Babcock, J. A. Campbell, and J. A. Hogg, to The Upjohn Co. 6-Saors androstenes. 2,867,630, 1–6–59, Cl. 260—397.3.
Perks, Lucien, to Regie Nationale des Usines Renault. Driving mechanism for auxiliary apparatuses. 2,867,080, 1–6–59, Cl. 60—18.
Perks, Lucien, to Regie Nationale des Usines Renault. Methods of regulating power output in internal combustion engines. 2,867,196, 1–6–59, Cl. 123—139.
Perry, David E.: *See*—
Jones, Paul E., and Perry. 2,867,319.
Perry, Robert P., to Hupp Corp. Automatic defrost control. 2,867,092, 1–6–59, Cl. 62—140.
Peters, Melville F., to Specialties Development Corp. Radiation detection. 2,867,702, 1–6–59, Cl. 340—227.
Petersen, Hans. Means for starting internal combustion engines of the opposed piston type. 2,867,374, 1–6–59, Cl. 230—56.
Petersen, Hans. Internal combustion engine-air compressor. 2,867,375, 1–6–59, Cl. 230—56.
Petersen, Ruben O., and H. E. Nelson, to The Osborn Manufacturing Co. Rotary brush. 2,866,960, 1–6–59, Cl. 15—198.
Pfeifer, Gunther, to Bendix Aviation Corp. Power actuated bleed structure. 2,867,080, 1–6–59, Cl. 60—54.6.
Pfisterer, Richard. Watch crown. 2,867,978, 1–6–59, Cl. 58—90.
Pfizer, Chas., & Co., Inc.: *See*—
Buckley, Jay S., Jr., Stephens, and Wagner. 2,867,061.
Pfoh, Jane A.: *See*—
Champagne, Emery C., and Pfoh. 2,867,216.
Philco Corp.: *See*—
Robinson, John L. 2,867,771.
Phillips, Harry, to United Shoe Machinery Corp. Through-feed machines for treating sheet materials. 2,867,109, 1–6–59, Cl. 69—42.
Phillips Petroleum Co.: *See*—
Boyer, Lyndon D. 2,867,513.
Wood, James Q., and Pollock. 2,867,506.
Photoceramics, Inc.: *See*—
Charlton, Alexander R. 2,867,749.
Pick, Joseph R., deceased: T. M. Lesinski, V. C. Baldwin, and Continental Illinois National Bank and Trust Co. of Chicago, executors. Luggage handle. 2,867,306, 1–6–59, Cl. 190—57.
Piel, Gerard J. R., and R. B. Downing, to Societe d'Electronique et d'Automatisme. Electrical digital multiplier devices. 2,867,380, 1–6–59, Cl. 235—61.
Pieper, Gustav, K. Stein, and H. F. Rickert, to Farbenfabriken Bayer Akt. Process for the polymerization of ethylene. 2,867,612, 1–6–59, Cl. 260—94.9.
Pierce, John R., to Bell Telephone Laboratories, Inc. Periodic magnetic focusing system. 2,867,748, 1–6–59, Cl. 315—8.5.
Pierson, Knute H., and W. F. Meinhardt, to Montgomery Elevator Co. Electrical control system. 2,867,291, 1–6–59, Cl. 187—29.
Pilkington Brothers Ltd.: *See*—
Charnock, Stanley. 2,867,060.
Pitman, J. C., & Sons, Inc.: *See*—
Lutes, Donald M. 2,867,164.
Plastiforms Co.: *See*—
Blackmore, Fred N. 2,866,965.
Platt, John D.: *See*—
Platt, Leland H., L. H., Jr., and J. D. 2,867,066.
Platt, John D., L. H., Jr., and L. H. Apparatus for closing flexible bags. 2,867,067, 1–6–59, Cl. 53—124.
Platt, Leland H.: *See*—
Platt, John D., L. H., Jr., and L. H. 2,867,067.
Platt, Leland H., L. H., Jr., and J. D. Bag closing apparatus. 2,867,066, 1–6–59, Cl. 53—198.
Platt, Leland H., Jr.: *See*—
Platt, John D., L. H., Jr., and L. H. 2,867,067.
Platt, Leland H., L. H., Jr., and J. D. 2,867,066.
Plough, Harold. Hair cutting tool. 2,866,994, 1–6–59, Cl. 7—14.1.
Pohatcong Hosiery Mills, Inc.: *See*—
Russell, Ralph W. 2,866,979.
Polla, Andrew A. Axially bolted pipe coupling with keyed flanges. 2,867,454, 1–6–59, Cl. 285—368.
Pollock, Herbert C., to General Electric Co. Logging apparatus. 2,867,728, 1–6–59, Cl. 250—83.3.
Pollock, Lyle W.: *See*—
Wood, James Q., and Pollock. 2,867,506.
Porter, William H. Equalized fluid pump. 2,867,178, 1–6–59, Cl. 103—183.
Potter, David E., to United States of America, Navy. Ceramic barium titanate electro-mechanical filter. 2,867,760, 1–6–59, Cl. 333—72.
Pytta, Donald M. Electric double boiler. 2,867,430, 1–6–59, Cl. 239—266.
Powers-Samas Accounting Machines Ltd.: *See*—
Davy, John C. 2,867,437.
Prager, William H.: *See*—
Bartlett, Francis J. W. 2,867,268.
Pratt, Leonard C.: *See*—
Moretti, Whitfield, and Pratt. 2,867,531.
Pray, Lester W., to Saco-Lowell Shops. Top rolls. 2,867,006, 1–6–59, Cl. 19—142.
Precopio, Frank M., to General Electric Co. Curing organopolysiloxanes with sulphur dihalide. 2,867,553, 1–6–59, Cl. 117—232.
Preist, Donald H., to Ettel-McCullough, Inc. Electron tube apparatus. 2,867,746, 1–6–59, Cl. 315—5.35.
Preist, Donald H., to Ettel-McCullough, Inc. Radio frequency generator. 2,867,726, 1–6–59, Cl. 250—36.
Pulaski, Edward L.: *See*—
Crede, John H., Henke, Pulaski, and Stroble. 2,867,287.
Pullman-Standard Car Mfg. Co.: *See*—
Adler, Franklin P. 2,867,178.
Purves, George T., Jr. Convertible sofa-bed structure. 2,866,962, 1–6–59, Cl. 5—66.
Putnam, Paul R., ½ to Gadget-Of-The-Month Club, Inc. Extension belt buckle. 2,867,028, 1–6–59, Cl. 24—163.
Quandt, Hans H., ½ to R. Mohr. Lighter with electric ignition. 2,867,753, 1–6–59, Cl. 317—61.
Quiroz, Francisco A. Torque device for liquid control. 2,867,124, 1–6–59, Cl. 74—13.1.

Raab, William J.: *See*—
Whetstone, Richard R., Raab, and Hall. 2,867,448.
Rachlin, Albert L.: *See*—
Goldberg, Moses W., and Rachlin. 2,867,660.
Radio Corp. of America: *See*—
Donahue, Daniel J., and Hoshowsky. 2,867,587.
Gibring, Herman E. 2,867,804.
Korman, Nathaniel I. 2,867,773.
Lehman, James N., and Theiss. 2,867,762.
Lindenblad, Nils E. 2,867,802.
Medow, Jules. 2,867,489.
Tourshou, Simeon I., Smith, and Skorup. 2,867,751.
Vonderschmitt, Bernard V. 2,867,750.
Wilkinson, William C., Jr. 2,867,776.
Radio Receptor Co., Inc.: *See*—
Rothstein, Milton, and Lichtenstein. 2,867,709.
Railoc Co.: *See*—
Rutton, Donald. 2,867,190.
Raisbeck, Gordon, to Bell Telephone Laboratories, Inc. Equalization of aperture effect. 2,867,693, 1–6–59, Cl. 179—100.2.
Raley, John H.: *See*—
Mullineaux, Richard D., and Raley. 2,867,671.
Ramsden, Hugh E., to Metal & Thermit Corp. Hydrocarbontinborates. 2,867,641, 1–6–59, Cl. 260—429.7.
Ramsden, Hugh E., and S. D. Rosenberg, to Metal & Thermit Corp. Divinyltin oxide and method of preparation. 2,867,642, 1–6–59, Cl. 260—429.7.
Ramsing, Robert E. V., to Ruby Lighting Corp. Pivot mounting for lighting fixtures. 2,867,404, 1–6–59, Cl. 248—324.
Ratcliffe, Temple W.: *See*—
Harter, Isaac, Jr., Ratcliffe, and Wilson. 2,867,018.
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Brennan, Frederick S., Hudson, and Considine. 2,867,273.
Raytheon Mfg. Co.: *See*—
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Horsman, Gilbert A. 2,867,492.
Ream, Vincent B. Ornamental display device. 2,867,716, 1–6–59, Cl. 240—10.1.
Recknagel, Frederick W., to The Federal Bearings Co., Inc. Bearing seal assembly. 2,867,455, 1–6–59, Cl. 286—5.
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Regie Nationale des Usines Renault: *See*—
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Rehacek, Alois, to Wiener Metallwaren- und Schnallenfabrik Schar-Smolka. Toe clamp for ski binding. 2,867,446, 1–6–59, Cl. 280—11.35.
Reicherts, Paul P.: *See*—
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Reissmuller, Ernst, to Hermann Ebenauer & Co. Device for constricting the thread balloon in ring spinning and ring doubling frames. 2,867,075, 1–6–59, Cl. 57—108.
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Schwan, Clarence F. 2,867,738.
Repke, Edward P., to Clark Equipment Co. Machine for handling semitrailers. 2,867,451, 1–6–59, Cl. 280—479.
Requenes, Ignacio L. Hydraulic brake system. 2,867,296, 1–6–59, Cl. 188—76.
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Wintermute, Harry A. 2,867,285.
Wintermute, Harry A. 2,867,573.
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Streuber, Rudolf G. 2,867,286.
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MacDonald, Dennison H. 2,867,707.
Rice, Lyman A., to General Motors Corp. Switch. 2,867,702, 1–6–59, Cl. 200—87.
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Lewis, Edward H., Rice, and Estrin. 2,867,001.
Richie, Carlton A., to Owens-Illinois Glass Co. Molding composition containing phenol-formaldehyde and rubber. 2,867,589, 1–6–59, Cl. 260—17.2.
Richter, Sidney B., to Velsicol Chemical Corp. Halogenated bycycloheptenyl sulfite derivatives. 2,867,564, 1–6–59, Cl. 167—30.
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Ricklick, Eugene A., to Stockland Road Machinery Co. Universal hitch assembly. 2,867,452, 1–6–59, Cl. 280—492.
Riesing, Ellwood F., and C. L. Moorman, to General Motors Corp. Fluid seal. 2,867,457, 1–6–59, Cl. 286—11.16.
Rigterink, Raymond H., to The Dow Chemical Co. 3,4-dihydro-2H-1,2-benzoxazines. 2,867,618, 1–6–59, Cl. 260—244.
Rike, Frederick F., and R. V. Klikunas, to Buckeye Iron & Brass Works. Emergency shut-off valve. 2,867,228, 1–6–59, Cl. 137—68.
Robbie, Kenneth A., to General Electric Co. Refrigerator cabinet. 2,867,095, 1–6–59, Cl. 62—286.
Roberts, Elliott J., to Dorr-Oliver Inc. Producing sulphur dioxide gas. 2,867,508, 1–6–59, Cl. 23—177.
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Robinson, Robert E., and J. F. Nobis, to National Distillers and Chemical Corp. Preparation of dialkoxy alkyl derivatives of dimers of conjugated olefins. 2,867,656, 1–6–59, Cl. 260—533.
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Rochester Mfg. Co.: *See*—
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Rockwell, Adelbert W., Jr., to United Shoe Machinery Corp. Last positioning device for shoe machines. 2,866,963, 1–6–59, Cl. 12—127.
Roder, Albert, to NSU Werke Akt. Telescopic shock absorber. 2,867,296, 1–6–59, Cl. 188—88.
Rodin, Eugene. Restraining device for live bodies. 2,867,483, 1–6–59, Cl. 311—5.
Roethel, John H. Door lock. 2,867,469, 1–6–59, Cl. 292—279.
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Rommel, Frederick E., and M. Simona, to Telephone Mfg. Co., Ltd. Electromagnetic devices. 2,867,755, 1–6–59, Cl. 317—176.
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Roscoe, John S., and G. W. Schaeffer, to Olin Mathieson Chemical Corp. Method for the separation of lithium aluminum hydride from aluminum hydride. 2,867,496, 1–6–59, Cl. 23—14.
Rose, Theophylus F. Baby pen. 2,866,963, 1–6–59, Cl. 5—99.
Rose, Theophylus F. Christmas tree holder. 2,867,356, 1–6–59, Cl. 248—44.
Rosebrock, Homer E., R. K. Harley, and B. A. Swartzlef, to Hupp Corp. Refrigerator. 2,867,096, 1–6–59, Cl. 62—286.
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Ramsden, Hugh E., and Rosenberg. 2,867,642.
Rosenkrans, George, and J. Romo, to Syntex S. A. 7-dehydro diosgenin compounds and process for making same. 2,867,616, 1–6–59, Cl. 260—239.55.
Rosenwald, Robert H., and J. A. Chenicek, to Universal Oil Products Co. Antioxidation of rubber. 2,867,604, 1–6–59, Cl. 260—45.9.
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Roy, Tuhin K., to Chemical Construction Corp. Cobalt and nickel recovery using carbon dioxide leach. 2,867,503, 1–6–59, Cl. 23—61.
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Ruby Lighting Corp.: *See*—
Ramsing, Robert E. V. 2,867,404.
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Isler, Otto, Montavon, Ruegg, and Zeller. 2,867,652.
Ruskin, Henry, to Patents Management Corp. Electric stapling machine. 2,866,973, 1–6–59, Cl. 1—3.
Russell, John A., and J. R. Bouille, to Joy Mfg. Co. Disintegrating mechanism for longwall continuous miner. 2,867,427, 1–6–59, Cl. 262—28.
Russell, Ralph W., to Pohatcong Hosiery Mills, Inc. Toilet. 2,866,979, 1–6–59, Cl. 2—61.
Rutton, Donald, to Railoc Co. Silage distributor. 2,867,190, 1–6–59, Cl. 119—52.
Lutz, Richard F., to International Business Machines Corp. Current multiplication transistors and method of producing same. 2,867,732, 1–6–59, Cl. 307—88.5.
Saboe, Michael S., to United States of America, Navy. Afterburner design, vaporizing type. 2,867,085, 1–6–59, Cl. 60—39.71.
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Safety Industries, Inc.: *See*—
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Safford, Moyer M., and R. L. Myers, to General Electric Co. Blends of organopolysiloxane, polybutadiene and di-α-cumyl peroxide and method of curing same. 2,867,602, 1–6–59, Cl. 260—45.5.
Safford, Moyer M., to General Electric Co. Thermostabilization of polyvinyl chloride with heavy metal containing zeolites. 2,867,605, 1–6–59, Cl. 260—45.75.
Saint, Nathanael. Auxiliary fuel system. 2,867,366, 1–6–59, Cl. 244—135.
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Broder, Alan, and Sammis. 2,867,766.
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Sarabia Mandl, Enrique. Foldable seat, chiefly a baby-car. 2,867,448, 1–6–59, Cl. 280—36.
Sare, Carl R., to The W. W. Sly Mfg. Co. Dust collector. 2,867,289, 1–6–59, Cl. 183—61.
Sass, Samuel: *See*—
Fischer, Valentine J., Miller, Sass, and Witten. 2,867,509.
Saxton, James B., and J. J. Bachmayer, to National Bundle Tyer Co. Bundle tying machine. 2,867,166, 1–6–59, Cl. 100—4.
Schaeffer, George W.: *See*—
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Schafer, Curtiss R., to The Liquidometer Corp. Compensated fuel gage bridge. 2,867,120, 1–6–59, Cl. 73—304.
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Scheffler, Heinrich: *See*—
Kottler, August, and Scheffler. 2,867,664.
Schempp, Roy: *See*—
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Schepman, Bernie A., to The Elmco Corp. Filter construction. 2,867,330, 1–6–59, Cl. 210—292.

Scherf, Paul H., F. R. Bayne, and R. F. Hammack, to Alten Foundry & Machine Works, Inc. Adjustable stroke crank. 2,867,134, 1-6-59, Cl. 74—600.

Schick Inc.: *See*—
Bylund, Eric. 2,867,737.

Schieber, John R.: *See*—
Tanzola, William A., and Schieber. 2,867,254.

Schiller, Paul. Mechanism for self-propelled machines. 2,867,125, 1-6-59, Cl. 74—780.

Schmidt, Frank P. Pulse control of programming device for aircraft. 2,867,194, 1-6-59, Cl. 244—77.

Schmidt, Joseph J. Piston rings. 2,867,482, 1-6-59, Cl. 309—44.

Schmidt, Theodore F. Folding stand. 2,867,465, 1-6-59, Cl. 311—94.

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Schneider, Hermann, and Hedwig, nee Hommel. Fillable container. 2,867,357, 1-6-59, Cl. 222—212.

Schneider, William P.: *See*—
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Schnider, Otto: *See*—
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Schroeder, Simon H., to Fox River Mfg. Co. Remote control mechanism for motor boats. 2,867,181, 1-6-59, Cl. 74—472.

Schroeder, Simon H., to Fox River Mfg. Co. Single lever throttle and shift control. 2,867,182, 1-6-59, Cl. 74—472.

Schroeder, Wilbert W., to Combustion Engineering, Inc. Vapor heater. 2,867,418, 1-6-59, Cl. 257—241.

Schubert, Albert E., to General Electric Co. Dual temperature refrigeration. 2,867,099, 1-6-59, Cl. 62—502.

Schwan, Clarence F., to The Reliance Electric & Engineering Co. Induction frequency changer. 2,867,728, 1-6-59, Cl. 310—160.

Schwaneke, Fred C., to Dormeyer Corp. Steam table grill. 2,867,712, 1-6-59, Cl. 219—43.

Schwarz Laboratories, Inc.: *See*—
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Scott, Carleton B., to Collier Carbon and Chemical Corp. Sulfurized tetrathiophosphates. 2,867,561, 1-6-59, Cl. 167—22.

Scott, Charles G. Self-winding mechanism for watches. 2,867,078, 1-6-59, Cl. 58—62.

Scott, J. O., to The Atlantic Refining Co. Drilling fluid. 2,867,584, 1-6-59, Cl. 252—8.5.

Scott, O. M., & Sons Co., The: *See*—
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Scott, Peter: *See*—
Huggard, Joseph P., and Scott. 2,867,760.

Sealol Corp.: *See*—
Kroekel, Rolf H. W. 2,867,458.

Searle, G. D., & Co.: *See*—
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Segall, Louis H., to Bendix Aviation Corp. Spark device. 2,867,740, 1-6-59, Cl. 313—139.

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Hess, Frederic G. 2,867,431.

Selwitz, Charles M., to Gulf Research & Development Co. Preparation of dibasic acids. 2,867,657, 1-6-59, Cl. 260—537.

Semmens, Peter W. B., to Imperial Chemical Industries Ltd. Preparation of potassium polyphosphate. 2,867,504, 1-6-59, Cl. 23—108.

Sepe, John J., Jr., to J. A. Gaylord. Harness release. 2,867,024, 1-6-59, Cl. 24—211.

Serviced Products Corp.: *See*—
Wangerow, Leroy C. 2,867,166.

Severini, Goffredo, to Studi E. Brevetti Applicazioni Tessili S. r. l. Reel type apparatus for the liquid treatment of yarn. 2,867,104, 1-6-59, Cl. 68—205.

Sevin, Roger J.: *See*—
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Shale, Correll C., to United States of America, Interior. Pulsating counter-flow feeder. 2,867,478, 1-6-59, Cl. 302—26.

Shanahan, John L. Wind power machine. 2,867,282, 1-6-59, Cl. 170—15.

Shannon, Jack F., to Bailey Meter Co. Control systems with proportional band selecting means. 2,867,229, 1-6-59, Cl. 137—85.

Shapiro, Isadore, and H. G. Weiss, to Olin Mathieson Chemical Corp. Process for the polymerization of mono-olefin and acetylene hydrocarbons. 2,867,675, 1-6-59, Cl. 260—673.

Shapiro, Justin J., to American Instrument Co., Inc. Corrosion testing device. 2,867,784, 1-6-59, Cl. 336—134.

Sharma, Jagan N., to Zenith Processing Corp. Self-timing dispenser for vaporizable organic liquids. 2,867,360, 1-6-59, Cl. 222—541.

Sharples, Edwin H., to Courtaulds Ltd. Process for the recovery of zinc sulphate from solutions of zinc sulphate and magnesium sulphate. 2,867,496, 1-6-59, Cl. 18—54.

Shawver, Francis B. Hand cart adapted for use with interchangeable load carriers. 2,867,449, 1-6-59, Cl. 280—47.18.

Sheahan, Henry L. Adjustable chair arm gripping tray holder. 2,867,401, 1-6-59, Cl. 248—226.

Shell Development Co.: *See*—
Hemmerich, Rolf H. 2,867,672.
Mullineaux, Richard D., and Raley. 2,867,671.
Van Eijk, Willem, Werner, and Max. 2,867,645.
Whetstone, Richard R., Raab, and Hall. 2,867,646.

Sherritt Gordon Mines Ltd.: *See*—
Evans, David J. I., and Romaschuk. 2,867,538.
Forward, Frank A., and Lin. 2,867,539.

Shuman, Frank R., Jr., and J. V. D. Fear, to San Oil Co. Separation of compounds of varying adsorbabilities. 2,867,582, 1-6-59, Cl. 208—310.

Sichling, Georg, to Siemens-Schuckertwerke Akt. System for controlling or regulating an electric motor by pulses of variable pulsing ratio. 2,867,763, 1-6-59, Cl. 318—317.

Siefen, John F. Spray gun. 2,867,476, 1-6-59, Cl. 239—86.

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Jacobi, Werner. 2,867,741.
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Siemens-Plania-werke Akt. Fuer Kohlefabrikate: *See*—
Hammen, Heinrich, and Musiol. 2,867,545.

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Simmonds, Arlie J.: *See*—
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Simmonds, Wayne W., to J. H. Lucas as trustee. Apparatus for pulling and racking tubing in vertical position. 2,867,338, 1-6-59, Cl. 214—2.5.

Simmonds, Wayne W. and A. J.; J. H. Lucas, trustee for W. W. and A. J. Simmonds. Weight control unit for rotary drilling rigs. 2,867,411, 1-6-59, Cl. 254—173.

Simmons, Edward C., to General Motors Corp. Defrosting arrangement for refrigerating system. 2,867,093, 1-6-59, Cl. 62—152.

Simons, Malcolm: *See*—
Rommel, Frederick E., and Simons. 2,867,755.

Sinclair Refining Co.: *See*—
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Wunderlich, Donald K. 2,867,676.

Sisulak, Michael S.: *See*—
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Skillin, Walter F., to Union Mfg. Co. Power chuck. 2,867,441, 1-6-59, Cl. 279—112.

Skillin, Walter F., and A. Damijonaitis, to Union Mfg. Co. Power chuck. 2,867,442, 1-6-59, Cl. 279—114.

Skipsey, Allen. Vulcanization of rubber. 2,867,595, 1-6-59, Cl. 260—23.7.

Skorup, Gordon E.: *See*—
Tourshou, Simeon I., Smith, and Skorup. 2,867,751.

Sleznak, Frank B.: *See*—
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Hoeppner, Conrad H., and Smith. 2,867,720.

Smith, Edwin B.: *See*—
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Smith, John F., and F. Dawson, to Compo Shoe Machinery Corp. Shoe presses. 2,866,987, 1-6-59. Cl. 12.

Smith, Kenneth G., and G. H. Washington, to United States of America, Navy. Corona proof link. 2,867,652, 1-6-59, Cl. 174—140.

Smith, Lloyd: *See*—
Van Atta, Chester M., Deringer, and Smith. 2,867,748.

Smith, Robert W., to General Motors Corp. High energy electrical lead-in. 2,867,683, 1-6-59, Cl. 174—152.

Snider, Kenneth M., to The American Coupler Co. Packing members for pipe joints and the like. 2,867,463, 1-6-59, Cl. 288—19.

Snyder, George H. Tank filling shut-off valve. 2,867,232, 1-6-59. Cl. 137—403.

Societe Anonyme Cartoucherie Francaise: *See*—
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Societe Anonyme dite: Compagnie de Construction Mecanique Procedes Sulzer: *See*—
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Societe d'Electronique et d'Automatisme: *See*—
Piel, Gerard J. R., and Dussine. 2,867,380.

Societe Francaise de Construction d'Appareils Medicaux: *See*—
Fourès, André G. F., Girard, and De Montard. 2,867,209.

Socony Mobil Oil Co., Inc.: *See*—
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Aronofsky, Julius S., Wallick, and Reichertz. 2,867,116.
Groenendyke, Gerthe M. 2,867,775.

Soderhamn Machine Mfg. Co.: *See*—
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Soldini, Robert B., and D. R. Camp. Mobile concrete batching mechanism. 2,867,336, 1-6-59, Cl. 214—2.

Soref, Milton: *See*—
Foote, Daniel J., and Soref. 2,867,110.

Sorensen, Egon, to Sunroc Corp. Disposable water filter attachment. 2,867,328, 1-6-59, Cl. 210—282.

Soule, Arthur H., to Continental Specialties Co., Ltd. Independently operable multiple sash construction with automatic closing mechanism. 2,867,006, 1-6-59, Cl. 20—42.

Southerwick, Harold I., to Blackhawk Mfg. Co. Service jack. 2,867,409, 1-6-59, Cl. 254—2.

Southerwick, Harold I., to Blackhawk Mfg. Co. Bumper type vehicle lift attachment. 2,867,410, 1-6-59, Cl. 254—133.

Spaulding, Carl P., to Consolidated Electrodynamics Corp. Electronic switching apparatus. 2,867,725, 1-6-59, Cl. 250—27.

Specialties Development Corp.: *See*—
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Peters, Melville F. 2,867,792.

Spencer, Cecil A., to American Cyanamid Co. Tobias acid compositions and diazotization thereof. 2,867,613, 1-6-59, Cl. 260—141.

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Sperry Rand Corp.: *See*—
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Tomiyasu, Kiyo. 2,867,781.
Sportsman Products Co., The: *See*—
Graf, Frank J. 2,867,403.
Sprauer, Jerome W.: *See*—
Gleason, Willard S., Jr., and Sprauer. 2,867,507.
Square D Co.: *See*—
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Squire, Edward N.: *See*—
Edwards, Walter M., Robinson, and Squire. 2,867,809.
Staatsbedrijf der Posterijen, Telegrafie en Telefonie: *See*—
Bevoort, Cornelis, and Baudet. 2,867,688.
Stahl, Glenn W., to United States of America, Atomic Energy Commission. Method for removing contamination from precipitates. 2,867,500, 1–6–59, Cl. 23—14.5.
Stahl, Robert J.: *See*—
Burns, Meryl C., Giel, and Stahl. 2,867,379.
Stalker Development Co., The: *See*—
Stalker, Edward A. 2,867,407.
Stalker, Edward A., to The Stalker Development Co. Axial flow rotor construction of joined parts. 2,867,407, 1–6–59, Cl. 253—39.
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De Jong, Geert J. 2,867,575.
Standard Oil Co. (Indiana): *See*—
Wise, Robert H. 2,867,651.
Stanek, Frank C.: *See*—
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Statham Instruments, Inc.: *See*—
Statham, Louis D. 2,867,115.
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Statham, Louis D., to Statham Instruments, Inc. Means for extending range of transducers. 2,867,115, 1–6–59, Cl. 73—398.
Statham, Louis D., to Statham Instruments, Inc. Pressure sensitive resistor. 2,867,706, 1–6–59, Cl. 201—63.
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Marx, Karl, and Stäubli. 2,867,388.
Stecher, Henry D. Splice box. 2,867,680, 1–6–59, Cl. 174—92.
Steed, William P., to Marchant Research, Inc. Decoupled diode gate circuits. 2,867,734, 1–6–59, Cl. 307—88.5.
Stehr, Joseph E. Bagging machine. 2,867,400, 1–6–59, Cl. 248—161.
Stein, Eberhard: *See*—
Pieper, Gustav, Stein, and Rickert. 2,867,012.
Stephens, Charles R., Jr.: *See*—
Buckley, Jay S., Jr., Stephens, and Wagner. 2,867,661.
Stephensen, Allan P., and J. Kaufman, to Compco Corp. Lighting fixtures. 2,867,719, 1–6–59, Cl. 240—51.11.
Stevens, Adele M.: *See*—
Stevens, Robert T. 2,867,144.
Stevens, Dillon: *See*—
Stevens, Robert T. 2,867,144.
Stevens, Robert T., deceased; A. M. Stevens, by decree of distribution, executrix of the estate of D. Stevens, deceased. Power apparatus for tightening threaded fastening elements. 2,867,144, 1–6–59, Cl. 81—52.4.
Stichling, Gerhardt C. Device for locating and retrieving submerged objects. 2,866,986, 1–6–59, Cl. 9—9.
Stiles, Kenneth M., to The Sierracin Corp. Apparatus for casting plastic sheets. 2,867,003, 1–6–59, Cl. 18—39.
Stirton, Alexander J.: *See*—
Weil, James K., Stirton, and Maurer. 2,867,586.
Stockland Road Machinery Co.: *See*—
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Stoddart, Hugh F., and T. Voutselas, to Baird-Atomic, Inc. Pulse forming networks. 2,867,752, 1–6–59, Cl. 315—94.6.
Stoffel, Paul J.: *See*—
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Stone, George M., Jr., and M. S. Siwiak, to General Electric Co. Clothes washing apparatus. 2,867,106, 1–6–59, Cl. 68—24.
Storatz, Gottfried J.: *See*—
Henning, William W., and Storatz. 2,867,444.
Storer, Alton B.: *See*—
Baker, Donald R., Nelson, and Storer. 2,867,016.
Strawinski, Jay F. Method of making laminated sheet material. 2,867,560, 1–6–59, Cl. 154—124.
Streck, Clemens, to General Aniline & Film Corp. Method of metallizing azoic dyeings. 2,867,494, 1–6–59, Cl. 8—42.
Streeter, Clifford J., and K. R. Kadoun. Device for holding down flaps of cardboard boxes. 2,867,019, 1–6–59, Cl. 24—81.
Streuber, Rudolf G., to Research-Cottrell, Inc. Discharge electrode tensioning means. 2,867,280, 1–6–59, Cl. 183—7.
Stroble, Carl P.: *See*—
Crede, John H., Henke, Pulaski, and Stroble. 2,867,557.
Stroup, Earl L., to Overhead Door Corp. Locks for upwardly acting doors. 2,867,466, 1–6–59, Cl. 292—244.
Stroup, Earl L., to Overhead Door Corp. Door control operator and limit switch mechanism. 2,867,697, 1–6–59, Cl. 200—47.
Stuart, Whitney A., and L. G. Huxtable, to United States of America, Army. Helmet with combined visor and ear-cheek shields. 2,866,978, 1–6–59, Cl. 2—6.
Studi E. Brevetti Applicazioni Tessili S. r. l.: *See*—
Severini, Goffredo. 2,867,108.
Sturdivant, Freddie H. Trailer breakaway control. 2,867,294, 1–6–59, Cl. 188—3.
Sturgeon, Stocker S., and N. E. Handel, to The Foxboro Co. Electromagnetic flowmeter. 2,867,119, 1–6–59, Cl. 73—194.
Sucro-Mel Sociedad Anonima: *See*—
Vega, Moises S. 2,867,535.
Suda, Stanley: *See*—
Hauck, Edwin J., and Suda. 2,867,195.
Sulzer Freres, Societe Anonyme: *See*—
Lieberherr, Arthur. 2,867,416.
Sun Oil Co.: *See*—
Hirschler, Alfred E. 2,867,575.
Honeycutt, Earl M. 2,867,576.
Murray, Peter B. 2,867,677.
Shulman, Frank R., Jr., and Pear. 2,867,582.
Sunroc Corp.: *See*—
Sorensen, Egon. 2,867,228.
Super-Cat, Inc.: *See*—
Metzger, Leopold H. 2,867,063.
Superior Sewing Machine & Supply Corp.: *See*—
Klapper, Herbert J. 2,867,184.
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Loughry, Theodore F., and Escott. 2,867,512.
Sutro, Paul: *See*—
Ashbaugh, Lewis B. 2,867,161.
Sutter Products Co.: *See*—
Sutter, Raymond H. 2,867,017.
Sutter, Raymond H., to Sutter Products Co. Method of and apparatus for making resin bonded sand shell molds and cores. 2,867,017, 1–6–59, Cl. 22—10.
Sutton, Dosier A. Geometrical instruments. 2,867,042, 1–6–59, Cl. 33—155.
Sutton, Robert W., to Bendix Aviation Corp. Carburetor. 2,867,424, 1–6–59, Cl. 261—52.
Svensson, Harry S., to LKB-Produkter Fabriksaktieboleg. Interferometers. 2,867,148, 1–6–59, Cl. 88—14.
Swanson, Carl G. A., to Lake Erie Machinery Corp. Container for an extrusion press. 2,867,321, 1–6–59, Cl. 207—15.
Swanson, Linwood B., to The Cushman Chuck Co. Power-operated chuck of the compensating type. 2,867,443, 1–6–59, Cl. 279—119.
Swartzloff, Burton A.: *See*—
Rosebrook, Homer E., Harley, and Swartzloff. 2,867,668.
Sylvania Electric Products, Inc.: *See*—
Gehrke, Forrest E., and Granger. 2,867,032.
Syssington-Gould Corp., The: *See*—
Blattner, Emil H. 2,867,177.
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Rosenkranz, George, and Romo. 2,867,616.
Talt Mfg. Co., The: *See*—
Lung, Kenneth R. 2,867,173.
Tansola, William A., and J. R. Schieber, to Betz Laboratories, Inc. Liquid dispensing mechanism. 2,867,354, 1–6–59, Cl. 222—64.
Tavis, John R., to Consolidated Electrodynamics Corp. Galvanometer structure. 2,867,770, 1–6–59, Cl. 324—154.
Taylor, Donald J. Self-prompter. 2,867,051, 1–6–59, Cl. 40—78.
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Hurd, Eric W. 2,867,412.
Taylor, Leroy E. Appointment clock. 2,867,274, 1–6–59, Cl. 161—1.
Taylor, Owen L., to The Bryant Electric Co. Switch. 2,867,700, 1–6–59, Cl. 200—67.
Taylor, Paul H., to Wales-Strippit Corp. Method and apparatus for making plastic seal members for liquid springs. 2,866,999, 1–6–59, Cl. 18—1.
Taylor, Paul H., to Wales-Strippit Corp. Self-contained perforating implement. 2,867,276, 1–6–59, Cl. 164—110.
Tegen, George E., to Giddings & Lewis Machine Tool Co. Method of flame hardening. 2,867,556, 1–6–59, Cl. 148—21.56.
Telefunken G. m. b. H.: *See*—
Klettke, Ernst, and Engelmann. 2,867,765.
Telephone Mfg. Co. Ltd.: *See*—
Rommel, Frederick E., and Simons. 2,867,755.
Teller, Aaron J., to The Harshaw Chemical Co. Mass transfer process and packing units therefor. 2,867,425, 1–6–59, Cl. 261—95.
Tenenbaum, Paul, to Copco Trailer Division, a division of Copco Steel & Engineering Co. Trailer king pin construction. 2,867,450, 1–6–59, Cl. 280—407.
Teot, Arthur S., to The Dow Chemical Co. Method for the preparation of polysulfonyl chlorides of styrene resins. 2,867,611, 1–6–59, Cl. 260—79.3.
Thelmer, Ernst T., to Van Ameringen-Haebler, Inc. Terpene alcohols and compounds thereof, and processes for making same. 2,867,668, 1–6–59, Cl. 260—631.5.
Theiss, John B.: *See*—
Lehman, James N., and Theiss. 2,867,762.
Theros, William J.: *See*—
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Thiele, Berthold R., to McGraw-Edison Co. Automatic laundry machine. 2,867,104, 1–6–59, Cl. 68—12.
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Thomas, Paul A., Jr. Flutter valve for drainage of the pleural cavity. 2,867,213, 1–6–59, Cl. 128—350.
Thomas, Ralph H., to Colgate-Palmolive Co. Valve. 2,867,356, 1–6–59, Cl. 222—148.
Thompson Products, Inc.: *See*—
Bayer, Frank C. 2,867,269.
Markstrum, John A. 2,867,145.
Thompson, Ralph B.: *See*—
Urban, Peter, Jr., and Thompson. 2,867,577.
Thomson, Robert F.: *See*—
Holzwarth, James C., and Thomson. 2,867,531.
Thurston, Edward G., to Clevite Corp. Device for providing reproducible mechanical motions. 2,867,701, 1–6–59, Cl. 200—87.
Tieslau, Henry A. Load carriage for a road vehicle. 2,867,341, 1–6–59, Cl. 214—672.

Toft, Andrew M., to National Can Corp. Dispensing can having a resilient spout. 2,867,361, 1-6-59, Cl. 222—574.

Tomiyasu, Kiyo, to Sperry Rand Corp. Microwave spectrometer absorption cells. 2,867,781, 1-6-59, Cl. 333—73.

Tompkins, Frank A.: *See*—
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Toulmin, Harry A., Jr., to The Commonwealth Engineering Co. of Ohio. Road marking apparatus. 2,866,992, 1-6-59, Cl. 15—131.05.

Toulmin, Harry A., Jr., to The Commonwealth Engineering Co. of Ohio. Method and article of manufacture for supporting rails. 2,867,384, 1-6-59, Cl. 238—283.

Tourshou, Simeon L., E. B. Smith, and G. E. Skorup, to Radio Corp. of America. Signal processing circuits. 2,867,751, 1-6-59, Cl. 315—30.

Town, Bernard W., to Schwartz Laboratories, Inc. Acylation of ε-monoamino carboxylic acids. 2,867,654, 1-6-59, Cl. 260—518.

Toy, Arthur D. F., and R. S. Cooper, to Victor Chemical Works. Method of flameproofing fibers, compositions used therein and the resulting products. 2,867,547, 1-6-59, Cl. 117—136.

Toy, Arthur D. F., R. S. Cooper, and T. P. Traise, to Victor Chemical Works. Method of flameproofing fibers, compositions used therein and the resulting products. 2,867,548, 1-6-59, Cl. 117—136.

Toy, Arthur D. F., and R. S. Cooper, to Victor Chemical Works. Polymers and copolymers of dialkenyl beta-(carboxyalkyl) alkanephosphonates. 2,867,610, 1-6-59, Cl. 260—78.5.

Traise, Thornton P.: *See*—
Costello, James R., Jr., and Traise. 2,867,597.
Toy, Arthur D. F., Cooper, and Traise. 2,867,548.

Traupmann, Raymond J., to Blackhawk Mfg. Co. Pipe bender with bend indicator means on pivotal reaction blocks. 2,867,261, 1-6-59, Cl. 153—38.

Trost, Wayne C., to Barber-Colman Co. Yarn clamp. 2,867,028, 1-6-59, Cl. 24—262.

True Form Corset Co., Inc.: *See*—
Barg, Herbert. 2,867,217.

True, Harry, and G. D. Brown. Portable barberue. 2,867,208, 1-6-59, Cl. 126—276.

Tungolin Co., Inc., The: *See*—
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Turetta, Manuel. Intermittently dispensing roller towel cabinet. 2,867,488, 1-6-59, Cl. 312—38.

Turner, Dorothy H.: *See*—
Wilson, Lewis P., and Turner. 2,867,554.

Turner, Herman B. Method of treating and processing poultry. 2,866,998, 1-6-59, Cl. 17—45.

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Turner, Robert L.: *See*—
Wilson, Lewis P., and R. L. and D. H. Turner. 2,867,554.

Uhlenkott, John J. Log-handling device. 2,867,316, 1-6-59, Cl. 203—75.

Ungerer, Fritz. Method for stretching and cutting sheet metal, and machine for carrying out the method. 2,867,260, 1-6-59, Cl. 153—35.

Uni-Seco (Overseas) Ltd.: *See*—
Balmain, William A. 2,867,007.

Union Chimique Belge S. A.: *See*—
Leclercq, René, and Paquet. 2,867,644.

Union Insulating Co., Inc.: *See*—
Parker, William M., Jr. 2,867,349.

Union Mfg. Co.: *See*—
Skillin, Walter F. 2,867,441.
Skillin, Walter F., and Damijonaitis. 2,867,442.

Union Oil Co. of California: *See*—
Berg, Clyde H. O. 2,867,580.
Nahin, Paul G. 2,867,581.

United Shoe Machinery Corp.: *See*—
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Phillips, Harry. 2,867,109.
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Agriculture: *See*—
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Air Force: *See*—
Johnson, Quinten C. 2,867,206.
Kahn, Stanley, and Duncan. 2,867,461.
MacNeill, John H., and West. 2,867,782.
Wittl, Casimir T. 2,867,021.
Army: *See*—
Boor, Ladislav. 2,867,083.
Fischer, Valentine J., Miller, Sass, and Witten. 2,867,500.
Nelson, Miles E. 2,867,491.
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Atomic Energy Commission: *See*—
Churchill, Delos B. 2,867,721.
Coffinberry, Arthur S. 2,867,530.
Gofman, John W. 2,867,640.
Hanley, William E. 2,867,501.
Kerley, Paul L. 2,867,803.
Morton, George A., and Green. 2,867,729.
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Van Atta, Chester M., Beringer, and Smith. 2,867,748.
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Brown, Howard E. 2,867,268.
Krantz, Frank M., and Hneiskamp. 2,867,128.
Potter, David S. 2,867,780.
Saboe, Michael S. 2,867,085.
Smith, Kenneth G., and Washington. 2,867,682.
Weaver, Preston R. 2,867,282.

Universal Oil Products Co.: *See*—
Bloch, Herman S. 2,867,505.
Chenicek, Joseph A., and Bloch. 2,867,672.
Rosenwald, Robert H., and Chenicek. 2,867,604.
Urban, Peter, Jr., and Thompson. 2,867,577.
University of Kansas Research Foundation, The: *See*—
Weinaug, Charles F., and Ling. 2,867,277.
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Coutras, Alexander, and Updegraff. 2,867,590.
Upjohn Co., The: *See*—
Lincoln, Frank H., Jr., Schneider, and Spero. 2,867,631-6.
Pederson, Raymond L., Herr, Babcock, Campbell, and Hogg. 2,867,630.
Urban, Peter, Jr., and R. B. Thompson, to Universal Oil Products Co. Process for reforming arsenic-containing hydrocarbons. 2,867,577, 1-6-59, Cl. 208—88.
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Ludewig, Hermann. 2,867,805.
Van Ameringen-Haebler, Inc.: *See*—
Theimer, Ernst T. 2,867,668.
Van Atta, Chester M., E. R. Beringer, and L. Smith, to United States of America, Atomic Energy Commission. Heavy ion linear accelerator. 2,867,748, 1-6-59, Cl. 315—5.42.
Van der Lely, Ary: *See*—
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Van der Lely, Cornelis and Ary. 2,867,071.
Van der Lely, Cornelis and Ary. 2,867,072.
Van der Lely, C., N. V.: *See*—
Van der Lely, Cornelis and Ary. 2,867,071.
Van der Lely, Cornelis and Ary. 2,867,072.
Van der Lely, C.: *See*—
Van der Lely, Cornelis and Ary. 2,867,072.
Van der Lely, Cornelis, and A., to C. van der Lely, N. V. Raking device. 2,867,071, 1-6-59, Cl. 56—377.
Van der Lely, Cornelis and A., to C. van der Lely, N. V. Side delivery rake and swath turner. 2,867,072, 1-6-59, Cl. 56—377.
Van der Lely, Cornelis, and A., to C. van der Lely. Side delivery rake. 2,867,073, 1-6-59, Cl. 56—377.
Van Dessel, Lodewijk A.: *See*—
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Van Eijk, Willem, R. G. G. Werner, and N. Max, to Shell Development Co. Preparation of alkali metal salts of diesters of phosphoric acid. 2,867,645, 1-6-59, Cl. 260—461.
Van Lohuizen, Otto E., E. J. Mouton, and F. L. Schouteden, to Gevaert Photo-Producten N. V. Process for the preparation of mono-diol esters of terephthalic acid. 2,867,650, 1-6-59, Cl. 260—475.
Van Noord, Andrew J., to Jervis Corp. Latch control mechanism. 2,867,465, 1-6-59, Cl. 292—216.
Vega, Moises S., to Sucro-Mel Sociedad Anonima. Process for drying non-crystallizable sugar molasses. 2,867,535, 1-6-59, Cl. 99—66.
Velsicol Chemical Corp.: *See*—
Richter, Sidney B. 2,867,564.
Verron, Marcel: *See*—
Dufour, René, Verron, and Le Magoarou. 2,867,570.
Vesper, George A. Stone splitting machine. 2,867,205, 1-6-59, Cl. 125—23.
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Toy, Arthur D. F., and Cooper. 2,867,547.
Toy, Arthur D. F., and Cooper. 2,867,610.
Toy, Arthur D. F., Cooper, and Traise. 2,867,548.
Vieta, Charles W. Sound reproducing device. 2,867,389, 1-6-59, Cl. 242—55.11.
Vilter Mfg. Co., The: *See*—
Kocher, Erich J. 2,867,098.
Vitale, Peter T., to Colgate-Palmolive Co. Detergent composition. 2,867,585, 1-6-59, Cl. 252—135.
Vogler, Richard S. Crash pads for vehicle seat backs. 2,867,206, 1-6-59, Cl. 155—188.
Vogt, Clarence W. Method and apparatus for preventing slippage of tape rolls and resulting product. 2,867,317, 1-6-59, Cl. 206—59.
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Vonderschmitt, Bernard V., to Radio Corp. of America. Adjustable voltage supplies. 2,867,750, 1-6-59, Cl. 315—22.
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Albinson, Harold H., and Voss. 2,867,136.
Voutselas, Theodore: *See*—
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Wacker-Chemie G. m. b. H.: *See*—
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Wagner, Richard L., Jr.: *See*—
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Wagner, Robert J., to Minneapolis-Honeywell Regulator Co. Electrical apparatus. 2,867,757, 1-6-59, Cl. 317—246.
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Greene, George B., and Wahlstrom. 2,867,797.
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Taylor, Paul H. 2,866,999.
Taylor, Paul H. 2,867,276.
Wallick, George C.: *See*—
Aronofsky, Julius S., Wallick, and Reicherts. 2,867,116.
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Wangerow, Leroy C., to Servicised Products Corp. Waterstop connection. 2,867,160, 1-6-59, Cl. 94—18.
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Fredricksen, Vern P., and Ward. 2,867,009.

Washington, George H.: *See*—
Smith, Kenneth G., and Washington. 2,867,682.
Watts, John A., to The Tungolin Co., Inc. Process for stabilizing and refining tung oil and product thereof. 2,867,639, 1–6–59. Cl. 260—428.
Watts, John D., B. Lefevre, and E. F. Hill, to Gray Tool Co. Swivel coupling with inserted section type swivel unit. 2,867,458, 1–6–59, Cl. 285—31.
Weather-Seal, Inc.: *See*—
Eskridge, Harold E., and Johnson. 2,866,997.
Weaver, Preston R., to United States of America, Navy. Maneuvering loads accelerometer. 2,867,382, 1–6–59, Cl. 235—92.
Weber, Joachim F. L., to International Standard Electric Corp. Method of making selenium rectifiers and article produced thereby. 2,867,550, 1–6–59, Cl. 117—200.
Weil, James K., A. J. Stirton, and E. W. Maurer, to United States of America, Agriculture. Synthetic detergent bar compositions. 2,867,586, 1–6–59, Cl. 252—152.
Weinaug, Charles F., and D. Ling, to The University of Kansas Research Foundation. Production of hydrocarbon material. 2,867,277, 1–6–59, Cl. 166—6.
Weinberg, Elliott L. Metal and Thermit Corp. Veterinary organotin compositions. 2,867,566, 1–6–59, Cl. 167—53.1.
Weinert, Hans, and A. Wille, to Bochumer Eisenhutte Heintzmann & Co. Coupling for overlapping profile members. 2,867,303, 1–6–59, Cl. 189—36.
Weisenfeld, George A. Potato harvesting apparatus. 2,867,322, 1–6–59, Cl. 209—75.
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Shapiro, Isadore, and Weiss. 2,867,675.
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Welker, Heinrich, and R. Gremmelmaier, to Siemens-Schuckertwerke Akt. Method and device for the sensing of neutrons. 2,867,727, 1–6–59, Cl. 250—83.1.
Wells, Earl J. Temperature alarm. 2,867,180, 1–6–59, Cl. 116—102.
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MacNeill, John H., and West. 2,867,789.
West, Juston W. Variable capacity hydraulic pump. 2,867,173, 1–6–59, Cl. 103—161.
Western Electric Co., Inc.: *See*—
Denault, Donald E., and Minchenko. 2,867,771.
Lape, Jean E. 2,867,312.
Western Insulated Wire Co.: *See*—
Lewis, Edward H., Rice, and Estrin. 2,867,001.
Western Precipitation Corp.: *See*—
McGrane, Norman M. 2,867,290.
Western Sealant Development Corp.: *See*—
Braun, William H., Jr. 2,867,543.
Westfall, Marie S.: *See*—
Westfall, William R. 2,867,050.
Westfall, William R., deceased; M. S. Westfall, executrix. Moving message projector. 2,867,050, 1–6–59, Cl. 40—32.
Westinghouse Air Brake Co.: *See*—
Bent, Arthur J. 2,867,240.
Holbrook, Edward L. 2,867,199.
Wheeling Steel Corp.: *See*—
Criswell, Dick M. 2,867,708.
Wheelock, Silas M., to Pacific Mills. Method and apparatus for continuous production of liquid treated crimped textile fibers. 2,867,005, 1–6–59, Cl. 19—66.
Whetstone, Richard R., W. J. Raab, and W. E. Hall, to Shell Development Co. Complex arylphosphonates. 2,867,646, 1–6–59, Cl. 260—461.
Whirlpool Corp.: *See*—
Fisher, Daniel R., Jr., and Kareeki. 2,867,711.
Morrison, Harold E. 2,867,272.
Whitaker, Randall, to National Dairy Products Corp. Process for producing creamed cottage cheese. 2,867,537, 1–6–59, Cl. 99—178.
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Ainsworth, John R., Lutyens, and White. 2,867,362.
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Whiton, Arthur L., and R. J. Byers, to Chicago Mill & Lumber Co. Crate. 2,867,366, 1–6–59, Cl. 229—14.
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Wiener Metallwaren- und Schnallenfabrik Schar-Smolka: *See*—
Rehacek, Alois. 2,867,446.
Wildi, Bernard S.: *See*—
Erickson, Floyd B., Heimsch, Wildi, and Patrick. 2,867,668.
Wilfert, Karl, to Daimler-Benz Akt. Rotary distributing valve for a motor vehicle heating and ventilating system. 2,867,238, 1–6–59, Cl. 137—625.46.
Wilkie, Robert C., to Pacific Mills. Process of making yarn. 2,867,077, 1–6–59, Cl. 57—157.
Wilkinson, William C., Jr., to Radio Corp. of America. Surface waveguide transition section. 2,867,776, 1–6–59, Cl. 333—21.
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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

January 6, 1959 Volume 738 Number 1

TRADEMARKS

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 182,901 (CANADA DRY "PALE GINGER ALE" AND DESIGN), *J. J. McLaughlin Limited*, Ginger ale; **Reg. No. 187,718**, same, *Canada Dry Ginger Ale, Inc.*, same; **Reg. No. 312,622** (CANADA'S DRY'S "SPARKLING WATER" AND DESIGN), same, Carbonated water; **Reg. No. 365,536** (CANADRY COLA AND DESIGN), same; **Reg. No. 391,185** (CANADA DRY), same, Non-alcoholic, maltless beverages, including ginger ales, carbonated water, etc.; **Reg. No. 391,786** (CANADA DRY AND DESIGN), same; **Reg. No. 392,150**, same; **Reg. No. 413,222**, same; **Reg. No. 414,767** (CANADA DRY "SPUR" AND DESIGN), same; **Reg. No. 537,106** (CANADA DRY AND DESIGN), same, Ginger ale; **Reg. No. 537,516**, same, Carbonated water, filed Nov. 21, 1958, D. C., S. D. N. Y., Doc. 140/153, *Canada Dry Corp. v. Canadian Club Ginger Ale Co.*

Reg. No. 187,718. (See Reg. No. 155,002.)

Reg. No. 291,775 (THE WISP), Van Raalte Co., Hosiery, filed Nov. 11, 1958, D. C., S. D. N. Y., Doc. 140/122, *Van Raalte Co., Inc. v. Wispese Corp.*

Reg. No. 313,022. (See Reg. No. 155,002.)

Reg. No. 320,204 (GENERAL ELECTRIC AND DESIGN), General Electric Co., Dynamo electric machines and parts thereof, etc., filed Nov. 14, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c2002, *General Electric Co. v. Co-Op Office Machines Assn. et al.*

Reg. No. 357,963 (SPEED-WALL), The Glidden Co., Ready mixed paint; **Reg. No. 444,052** (SPRED), same, Paints, semi-paste paint bases, etc., filed Oct. 9, 1958, D. C., S. D. Ind. (Indianapolis), Doc. 58c239, *The Glidden Co. v. The Sargent-Gerke Co.* Same, Doc. 58c260, *The Glidden Co. v. The Sargent-Gerke Co.*

Reg. No. 365,558. (See Reg. No. 155,002.)

Reg. No. 372,300 (REMINGTON), Remington Rand, Inc., Electric dry shavers, attachments and parts thereof; **Reg. No. 658,600** (ROLLECTRIC), Sperry Rand Corp., Electric shavers and parts thereof; **2,396,473**, R. W. Teichner, Talcum powder sticks; **2,591,468**, L. C. Carissimi, Shaver heads; **2,691,730**, same, Shaver head mounting; **2,643,483**, same, Electric dry shaver, filed Nov. 18, 1958, D. C., E. D. Ill. (Chicago), Doc. 58c2023, *Sperry Rand Corp. v. Sunbeam Corp.*

Reg. No. 391,785. (See Reg. No. 155,002.)

Reg. No. 391,786. (See Reg. No. 155,002.)

Reg. No. 392,150. (See Reg. No. 155,002.)

Reg. No. 413,222. (See Reg. No. 155,002.)

Reg. No. 414,767. (See Reg. No. 155,002.)

Reg. No. 502,515 (TONI), The Toni Co., Home permanent waving kit, etc.; **Reg. No. 535,778**, same, Creme hair rinse, filed Nov. 21, 1958, D. C., S. D. N. Y., Doc. 140/149, *The Gillette Co. v. Ed Pinaud, Inc.*

Reg. No. 518,800 (PRESTO MANGE REMEDY AND DESIGN), Elva H. Bradford, doing business as Presto Mange Remedy Co., A mange remedy for external use on animals, etc.; **Reg. No. 574,570** (PRESTO SARCOPTIC "MANGE" REMEDY AND DESIGN), same, Remedy used to cure animal sarcoptic mange, filed Nov. 12, 1958, D. C., W. D. Okla. (Oklahoma City), Doc. 8235, *Elva H. Bradford, doing business as Presto Mange Remedy Co. v. Swamp & Dixie Laboratories, Inc. et al.*

Reg. No. 511,000 (1ST AND DESIGN), First National Bank of Chicago, Transactions of commercial, savings, investment and foreign banking, etc., filed Mar. 28, 1958, D. C., N. D.

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	10, 890
Date of oldest new application	April 20, 1958
Date of oldest amended application	July 1, 1958

A. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION

	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERRA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	6-1-58	8-26-58
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	6-20-58	7-1-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 50; and Certification Marks	6-2-58	8-1-58
Renewals [All Classes]	10-28-58	11-24-58
Sec. 12 (c) Publications (All Classes)	10-22-58	11-24-58

Applications Filed During the Month of November 1958—1,625

Registrations Issued	346—No. 671,998 to No. 672,343
Renewals Issued	53

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $3.75 additional; single copies, 20 cents each.

Ill. (Chicago), Doc. 58c569, *The First National Bank of Chicago* v. *The First Commercial Bank*. Trademark held valid; defendant enjoined Nov. 20, 1958.

Reg. No. 513,130. (See Reg. No. 155,002.)

Reg. No. 525,770. (See Reg. No. 502,315.)

Reg. No. 527,168. (See Reg. No. 155,002.)

Reg. No. 527,210. (See Reg. No. 155,002.)

Reg. No. 531,881 (CO-OP), National Cooperatives, Inc., Gasoline, regular, leaded, and premium, power kerosene, etc., **amended complaint** filed Nov. 12, 1958, D. C., S. D. Ind. (Indianapolis), Doc. 58c24, *National Cooperatives, Inc. et al.* v. *Petroleum Co-op System, Inc. et al.*

Reg. No. 535,493. (See Reg. No. 544,243.)

Reg. No. 544,243 (PERNOD), Etablissements Pernod, Maisons Pernod Fils, Hemard et Pernod Pere et Fils Reunies (Societe Anonyme), An anis liquor; **Reg. No. 535,493** (PERNOD AND DESIGN), same, Liquor with an anis base, filed Nov. 24, 1958, D. C., S. D. N. Y., Doc. 140/163, *Pernod, Inc. et al.* v. *Foreign Vintages, Inc.*

Reg. No. 547,321 (AAA AND DESIGN), American Automobile Assn., Emergency road service and repairing of motor vehicles, etc., filed Aug. 18, 1958, D. C. N. J. (Trenton), Doc. 913/58, *American Automobile Association* v. *Sweet Slumber Cottages*. Stipulation and order for injunction filed Sept. 2, 1958.

Reg. No. 574,576. (See Reg. No. 510,599.)

Reg. No. 577,125 (SINGER), Singer Manufacturing Co., Sewing machines etc., such as service, maintenance and repair, fashion services, management services; **Reg. No. 578,652** (S AND DESIGN), same; **Reg. No. 582,337** (SINGER), same, Thermoplastic material in the form of sheets and strips. filed Mar. 18, 1958, D. C., S. D. N. Y., Doc. 131/115, *Singer Manufacturing Co. and Singer Sewing Machine Co.* v. *H. B. Vacuum Stores, Inc.* Consent judgment; defendants enjoined Nov. 19, 1958.

Reg. No. 578,652. (See Reg. No. 577,125.)

Reg. No. 582,337. (See Reg. No. 577,125.)

Reg. No. 641,619 (MAGIC MARKER), Speedry Products, Inc., Inks and for inking materials; **2,416,396**, S. Rosenthal, Fountain pen, filed Nov. 17, 1958, D. C., S. D. N. Y., Dec. 140/38, *Speedry Products, Inc.* v. *Dri-Mark Products, Inc. et al.*

Reg. No. 644,032. (See Reg. No. 357,982.)

Reg. No. 646,178 (THERMO-CYCLOPAD), Niagara Mfg. & Distributing Corp., Motor operated massage devices in the form of cushions, etc.; **Reg. No. 646,179** (CYCLO-PAD), same; **Reg. No. 655,908** (CYCLO-MASSAGE), same; **Reg. No. 660,179** (CYCLOID-ACTION), same, filed Nov. 17, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c2007, *Niagara Mfg. & Distributing Corp. et al.* v. *Howard Industries, Inc.*

Reg. No. 646,179. (See Reg. No. 646,178.)

Reg. No. 654,578 (TARANTINO'S), Frank J. Tarantino, Sea Food products, filed Nov. 13, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37824, *MacSweeney Enterprises, Inc.* v. *Frank J. Tarantino et al.*

Reg. No. 655,908. (See Reg. No. 646,178.)

Reg. No. 658,888. (See Reg. No. 372,508.)

Reg. No. 660,179. (See Reg. No. 646,178.)

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 2.101 to 2.105.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 47,494. E. I. du Pont de Nemours & Company, Wilmington, Del. Filed Mar. 11, 1958.

VITON

For Synthetic Rubber and Rubber Compositions.
First use about December 1956.

SN 48,898. Calcadea Corporation, San Jose, Calif. Filed Apr. 2, 1958.

Redi-Set

For Prepared Seed Package Including Flower Seeds and Potting Soil.
First use in September 1957.

SN 49,424. Eagle Ottawa Leather Company, Grand Haven, Mich. Filed Apr. 10, 1958.

CORRECTAN

For Leather.
First use Mar. 22, 1947.

SN 49,871. Walter L. Potter, d. b. a. Rotary Mud Co., Oklahoma City, Okla. Filed Apr. 17, 1958.

FRAC-SEAL

For Small Particles of Cord Reinforced Rubber Tire Carcasses With the Cord Ends Frayed as an Additive to Drilling Mud To Avoid or Terminate Lost Circulation.
First use Mar. 1, 1958.

SN 49,980. O. M. Scott and Sons Company, Marysville, Ohio. Filed Apr. 18, 1958.

FAMILY

Owner of Reg. No. 637,218.
For Lawn and Grass Seed.
First use Nov. 8, 1957.

SN 49,981. O. M. Scott and Sons Company, Marysville, Ohio. Filed Apr. 18, 1958.

PICTURE

Owner of Reg. No. 637,217.
For Lawn and Grass Seed.
First use Nov. 8, 1957.

SN 50,270. Burlen-Dixie Corporation, Chicago, Ill. Filed Apr. 24, 1958.

DIXIEFOAM

For Padding for Use in Upholstery of Furniture, Bedding, and Automobiles.
First use Apr. 17, 1958.

SN 50,518. Peabody Coal Company, St. Louis, Mo. Filed Apr. 28, 1958.

RIVER QUEEN

For Coal.
First use Apr. 3, 1958.

SN 51,795. Inventa A. G., Lucerne, Switzerland. Filed May 16, 1958.

GRILON

Owner of Swiss Reg. No. 139,846, dated Sept. 18, 1951; and U. S. Reg. Nos. 570,297 and 570,296.
For Staple Fibres Made of Polymerization Product of Caprolactam (Nylon 6).

Class 2—Receptacles

SN 33,764. Henry D. Swartz, d. b. a. Swartz Manufacturing Company, Dorchester, Mass. Filed July 15, 1957.

STORA-BOX

For Collapsible Containers of the Transparent Type for Storing Hats, Shoes, Gloves, Blankets and the Like.
First use in May 1957.

SN 37,681. Rap-In-Wax Paper Company, Minneapolis, Minn., by change of name from Rapinwax Paper Company, Minneapolis, Minn. Filed Sept. 23, 1957.

SAF-T-STRENGTH

For Cutting Edge for Dispensing Carton for Rolls of Flexible Packaging Material Such as Waxed Paper.
First use Sept. 1, 1956.

SN 38,251. American Can Company, Easton, Pa. Filed Oct. 3, 1957.

BOUQUET

For Paper Cups for Use as Containers for Ice Cream and Other Dairy Products.
First use June 20, 1957.

SN 42,122. Fibreboard Paper Products Corporation, San Francisco, Calif. Filed Dec. 10, 1957.

KRISP KOOLED

For Paperboard Shipping Cases.
First use Sept. 23, 1957.

SN 46,689. American Can Company, New York, N. Y. Filed Feb. 27, 1958.



Owner of Reg. No. 414,826.
For Paper Cartons.
First use Dec. 12, 1957.

SN 49,418. Cochran Continental Container Corporation, Louisville, Ky. Filed Apr. 10, 1958.

VISI-BUBBLE

For Metal Foil and Plastic Containers for Foods and the Like.
First use Mar. 6, 1958.

SN 51,508. Raymond L. Schmidt, d. b. a. R. L. Schmidt Comb Case Co., Bakersfield, Calif. Filed May 12, 1958.

Raymond's

For Pocket Comb Cases.
First use Oct. 31, 1957.

SN 51,515. Harry Steiner, New York, N. Y. Filed May 12, 1958.

THE MARKETEER

For Shopping Cart and Utility Bag Combination.
First use Mar. 10, 1958.

SN 51,745. Schering Corporation, Bloomfield, N. J. Filed May 15, 1958.

CORITAINER

For Combination Pill-Box and Bottle Cap.
First use Apr. 22, 1958.

SN 52,174. Vacooler Company, Elyria, Ohio. Filed May 22, 1958.

VACOOLER

For Vacuum Bulk Milk Tanks.
First use Sept. 2, 1957.

Class 4—Abrasives and Polishing Materials

SN 52,301. Glitter Products, Inc., Detroit, Mich. Filed May 26, 1958.

GLITTER GLAZE

No claim is made to the word "Glaze" apart from the mark as shown. Owner of Reg. Nos. 335,785 and 336,076.
For Polishing Material for Automobiles, Furniture, Kitchen and Bathroom Fixtures and Lacquer, Enameled, or Varnished Surfaces.
First use on or about August 1957.

SN 53,971. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed June 20, 1958.

RALTEC

For Floor Wax.
First use Nov. 20, 1957.

SN 53,973. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed June 20, 1958.

LUMEX

For Floor Wax.
First use Nov. 20, 1957.

SN 54,374. The Carborundum Company, Niagara Falls, N. Y. Filed June 27, 1958.

LUMINOX

Owner of Reg. No. 180,992.
For Frictional Rubbing Belts.
First use Apr. 8, 1958.

Class 6—Chemicals and Chemical Compositions

SN 13,836. The Harshaw Chemical Company, Cleveland, Ohio. Filed Aug. 13, 1956.

METOL

Owner of Reg. No. 57,145.
For Photographic Developers.
First use on or about Aug. 20, 1891.

SN 17,762. Erich Schumm, d. b. a. Schumm & Co. K. G., Murrhardt, Württemburg, Germany. Filed Oct. 18, 1956.

Esbit

Owner of German Reg. No. 486,907, dated July 10, 1936.
For Solid Carbon Dioxide and Solid Fuel Composed Mainly of Alcohol or Amine.

SN 25,208. Wilson & Co., Inc., Chicago, Ill. Filed Feb. 27, 1957.

WILSON W MARTIN

The drawing is lined for red.
For Fatty Acids, Stearic Acids, Red Oil, and White Olein.
First use Jan. 9, 1957.

SN 28,735. Süddeutsche Isolatorenwerke G. m. b. H., Freiburg im Breisgau, Germany. Filed Apr. 23, 1957.

RICOLIT

Owner of German Reg. No. 683,478, dated Oct. 28, 1955.
For Molding Composition Composed of Resins and Inorganic Mineral Fillers.

SN 30,884. Belding Corticelli Industries, Inc., New York, N. Y. Filed May 28, 1957.

BCI

For Synthetic Resins.
First use Jan. 12, 1955.

SN 38,091. National Research and Development Corporation, Atlanta, Ga. Filed July 2, 1957.

ElectroTouch

For Electrode Jelly Used To Make Electrical Contact Between Electrodes and a Patient's Body.
First use on or about June 13, 1957.

SN 34,564. Clifton Thomas Spear, d. b. a. The Diamond Spear Co., Texarkana, Tex. Filed July 29, 1957.

PERM-O-SEAL

-does what others claim!

Applicant, reserving all rights he may have to the slogan "Does What Others Claim!" claims at the present time the use of this slogan only in connection with the balance of the trademark bearing the words "Perm-O-Seal."
For Chemical Compound To Stop Leaks in Automotive Radiators.
First use December 1928.

SN 35,750. Emery Industries, Inc., Cincinnati, Ohio. Filed Aug. 19, 1957.

EMTALL

For Fatty Acids.
First use Aug. 13, 1957.

SN 37,377. Car-Freshner Corporation, Watertown, N. Y., assignee of Julius Samann, Zug, Switzerland. Filed Sept. 17, 1957. Sec. 2(f).

CAR-FRESHNER

Assignee owner of Reg. Nos. 593,047 and 604,347.
For Absorbent Bodies Impregnated With a Perfumed Air Deodorant.
First use Aug. 8, 1952.

SN 37,401. American Alcolac Corporation, Baltimore, Md. Filed Sept. 18, 1957.

SIPENE

Owner of Reg. No. 624,730.
For Alkylamine for General Industrial Use.
First use July 23, 1957.

SN 39,381. Capco Chemical Corporation, Providence, R. I. Filed Oct. 23, 1957.

TERRAFLOR

For Chemical Binder for Cement and Stone Chip Mixtures and Aggregates.
First use on or about Aug. 5, 1957.

SN 40,469. Knickerbocker Biosales, Inc., New York, N. Y., assignee of Knickerbocker Biologicals, Inc., New York, N. Y. Filed Nov. 12, 1957.

DOLICHOSIN

For Extract of Seeds of Dolichos Biflorus Used for Typing Human Red Blood Cells.
First use Oct. 30, 1957.

SN 41,446. Elekal, Société Anonyme, Paris, France. Filed Nov. 27, 1957.

CHLOROBLOC

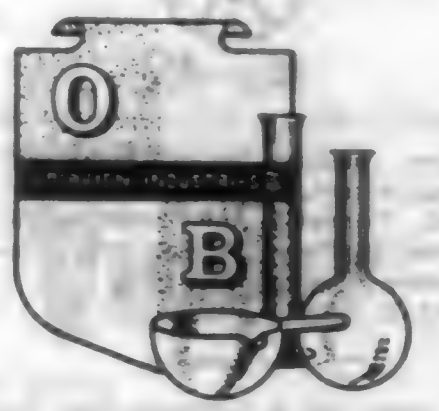
Owner of French Reg. No. 1,512, dated Oct. 28, 1956 (Poitiers); Natl. Inst. No. 81,548.
For Block Deodorant Containing Chlorophyll.

SN 41,476. Plastiseal Corporation, Los Angeles, Calif. Filed Nov. 27, 1957.

PLASTISEAL

Owner of Reg. No. 552,284.
For Cementitious Compounds and Undercoating Compounds for Textiles, Carpets, and Rugs.
First use June 14, 1950.

SN 41,561. O'Brien Industries, Inc., Caldwell, N. J. Filed Nov. 29, 1957.



For Water-Treating Chemicals—Namely, Scale and Corrosion Inhibitors.
First use in or about March 1948.

SN 41,804. Emerson & Cuming, Inc., Canton, Mass. Filed Dec. 5, 1957.

ECCOMOLD

For Synthetic Resins Useful for Laminating and Molding.
First use Jan. 23, 1957.

SN 41,807. Emerson & Cuming, Inc., Canton, Mass. Filed Dec. 5, 1957.

ECCOSEAL

For Synthetic Resins Useful for Impregnating, Imbedding, and Casting.
First use Feb. 5, 1957.

SN 42,062. Theland, Inc., New York, N. Y. Filed Dec. 9, 1957.

ALURIT

For Exothermic, Insulating, Anti-Pipe Compounds for Use in the Steel Industry.
First use Jan. 7, 1957.

SN 42,252. Universal Oil Products Company, Des Plaines, Ill. Filed Dec. 11, 1957.

UNICOR L.H.S.

Owner of Reg. No. 595,376.
For Inhibitor to Organic Substances.
First use Sept. 19, 1957.

SN 42,668. Strohmeyer & Arpe Company, New York, N. Y. Filed Dec. 18, 1957.



For Animal, Vegetable and Synthetic Waxes—Namely, Bayberry Wax, Beeswax, Candelilla Wax, Carnauba Wax, Japan Wax, Ouricury Wax, Montan Wax, and Palm Wax.
First use Dec. 4, 1957.

SN 42,669. Strohmeyer & Arpe Company, New York, N. Y. Filed Dec. 18, 1957.



The Japanese wording "Ki-ku" translated into English means "chrysanthemum."
For Animal, Vegetable and Synthetic Waxes—Namely, Beeswax, Candelilla Wax, Carnauba Wax, Japan Wax, Ouricury Wax, Montan Wax, and Palm Wax.
First use Oct. 30, 1957.

SN 42,738. Stein, Hall & Company, Inc., New York, N. Y. Filed Dec. 19, 1957.

RAMALIN

For Amylopectic Fraction of Starch, Having a General Use in Industrial Arts.
First use Sept. 6, 1957.

SN 43,061. Vineland Poultry Laboratories, Landis Township, N. J. Filed Dec. 26, 1957.

FORMALDEGEN

For Poultry Fumigant.
First use Nov. 1, 1957.

SN 43,328. Monsanto Chemical Company, St. Louis, Mo. Filed Jan. 2, 1958.

SANTOCOOL

Owner of Reg. No. 541,488.
For Liquid Functional Fluid Sold for Use as a Dielectric Coolant for Electronic Equipment, a Force or Power Transmission Fluid, a Heat Exchange Medium or a Lubricant.
First use Dec. 19, 1957.

SN 44,326. Universal Oil Products Company, Des Plaines, Ill. Filed Jan. 20, 1958.

POLYFLO

For Additive To Prevent Deposition of Solids in Hydrocarbon Fluids.
First use Jan. 10, 1958.

SN 44,385. Fisons Limited, Felixstowe, Suffolk, England. Filed Jan. 21, 1958.

FISONS

Priority claimed under Sec. 44(d) on British Reg. No. 772,169, dated Dec. 12, 1957.
For Herbicides and Insecticides.

SN 44,588. Becker & Company Limited, London, England, assignee of British Reweld Company Limited, London, England. Filed Jan. 24, 1958.

NEBEMA

Owner of British Reg. No. 761,645, dated Jan. 22, 1957.
For Chemical Products Including Sizing Agents for Use in the Paper Making Industry.

SN 45,181. S. C. McAdams, d. b. a. Par-O-Lene Chemical Company, Wichita Falls, Tex. Filed Feb. 3, 1958.

PAR-O-LENE

For Chemicals Used in the Treatment of Petroleum Emulsions for the Purpose of Breaking the Emulsions.
First use 1946.

SN 45,529. California Aerosol Company, Los Angeles, Calif. Filed Feb. 10, 1958.

Petti-Stiff

For Perfumed Liquid Preparation Which Renews the Stiffness to Petticoats.
First use June 26, 1957.

SN 45,532. Copper Pigment and Chemical Works, Inc., Elizabeth, N. J. Filed Feb. 10, 1958.



For Metal Salts—Namely, Copper Cyanide and Nickel Sulfate.
First use Mar. 15, 1956.

SN 46,025. John F. Seile, d. b. a. Florida Laboratories, Gainesville, Fla. Filed Feb. 17, 1958.

CHEM CON

For Concrete Admixture.
First use Jan. 2, 1956.

SN 46,104. Robner AG., Pratteln (Robner SA., Pratteln) (Robner Ltd., Pratteln), Pratteln, Switzerland. Filed Feb. 19, 1958.

RONAGEN

Owner of Swiss Reg. No. 115,671, dated June 18, 1946.
For Dyes.

SN 46,237. Monsanto Chemical Company, St. Louis, Mo. Filed Feb. 20, 1958.

Monsanto

The drawing is lined for red, but this particular color is not claimed as a feature of the mark. Owner of Reg. Nos. 369,183, 647,496, and others.
For Benzoic Acid, Benzyl Benzoate, Vanillin, Methyl Salicylate, and Saccharin.
First use at least as early as November 1957; January 1940 in a substantially identical form.

SN 46,860. Vanadium Corporation of America, New York, N. Y. Filed Feb. 26, 1958.

THERMOSIL

Owner of Reg. No. 615,587.
For Silicon Containing Exothermic Compositions for Addition to Metal Baths.
First use Jan. 23, 1958.

SN 46,861. Vanadium Corporation of America, New York, N. Y. Filed Feb. 28, 1958.

THERMOKROMSIL

Owner of Reg. No. 615,587.
For Chromium and Silicon Containing Exothermic Compositions for Addition to Metal Baths.
First use Jan. 23, 1958.

SN 46,949. International Resistance Company, Philadelphia, Pa. Filed Mar. 3, 1958.

SELECTREZ

For Synthetic Molding Compounds and Resins.
First use November 1957.

SN 46,996. Roux Laboratories, Inc., New York, N. Y. Filed Mar. 3, 1958.

ROUMINE 142

Owner of Reg. Nos. 413,541 and 500,998.
For Specially Refined p-Phenylenediamine.
First use Feb. 19, 1958.

SN 47,065. Monarch Laboratories, Inc., Chicago, Ill. Filed Mar. 4, 1958.

ODORITE

Owner of Reg. No. 560,703.
For Especially Compounded Chemicals in Solid and Liquid Form Used Only for Purifying Air and Absorbing Objectionable Odors in Restrooms and Similar Confined Spaces.
First use January 1947.

SN 48,790. Quality Chemical Products Co., Forest Park, Ill. Filed Mar. 31, 1958.

CLO-SOFT

For Laundry Rinse.
First use Dec. 20, 1956.

SN 48,838. Imperial Chemical Industries Limited, London, England. Filed Apr. 1, 1958.

VULCACEL

For Blowing Agents for Rubbers, Plastics, and Resins.
First use Feb. 3, 1931; in commerce Jan. 31, 1955.

SN 49,197. Sanford Process Co., Inc., Los Angeles, Calif. Filed Apr. 7, 1958.

SANFRAN

For Electrolyte Additive for Electrolytes Employed in Anodic Oxidation of Aluminum.
First use Dec. 17, 1956.

SN 49,415. Catalin Corporation of America, New York, N. Y. Filed Apr. 10, 1958.

CAO

For Antioxidants for Use in Gasoline, Fuels, Insulating and Lubricating Oils, Rubber, Industrial Fats and Oils, Plastics and Waxes.
First use Feb. 1, 1958.

SN 49,432. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed Apr. 10, 1958.

Vimar

For Polyester Resins.
First use Mar. 7, 1958.

SN 49,433. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed Apr. 10, 1958.

Vitel

For Polyester Resins.
First use Mar. 7, 1958.

SN 49,508. Minnesota Perlite Corporation, Minneapolis, Minn. Filed Apr. 11, 1958.

FURY

For Insecticide.
First use Apr. 8, 1958.

SN 49,688. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed Apr. 15, 1958.

OXONE

Owner of Reg. No. 46,673.
For Monopersulfate Oxidizing Compound.
First use Mar. 4, 1957.

SN 49,714. St. Regis Paper Company, New York, N. Y. Filed Apr. 15, 1958.

SRALKYD

For Resinous Molding Compositions.
First use Jan. 3, 1958.

SN 49,723. Union Carbide Corporation, New York, N. Y. Filed Apr. 15, 1958.

UNION CARBIDE

For Synthetic Zeolites for Use as Adsorbents, Ion Exchange Agents, Catalysts, and for Other Uses in the Industrial Arts.
First use on or about Mar. 27, 1958.

SN 49,732. American Finish & Chemical Company, Chelsea, Mass. Filed Apr. 16, 1958.

AMFLEX

Owner of Reg. No. 599,840.
For Oil for Treating Outsoles and Leather for Increasing the Flexibility Thereof.
First use Jan. 13, 1954.

SN 49,750. Eutectic Welding Alloys Corporation, Flushing, N. Y. Filed Apr. 16, 1958.

EUTEC-LIQUITOR

For Liquid Brazing Fluxes.
First use Apr. 9, 1958.

SN 49,929. W. R. Grace & Co., Cambridge, Mass. Filed Apr. 18, 1958.

SRDA

For Chemical Composition for Use as a Retarding and Plasticizing Additive for Portland Cement and Portland Cement Concrete.
First use Aug. 13, 1943.

SN 49,933. Hyland Laboratories, Los Angeles, Calif. Filed Apr. 18, 1958.

RA-TEST

For Reagents for Ascertaining the Rheumatoid Factor Developed in Persons Having Rheumatoid Arthritis.
First use Mar. 19, 1958.

SN 50,011. J. T. Baker Chemical Company, Phillipsburg, N. J. Filed Apr. 21, 1958.

CAL-IODIN

For Calcium Iodate Purified Powder.
First use Apr. 8, 1958.

SN 50,600. Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen on Rhine, Germany. Filed Apr. 29, 1958.

BASOLAN

For Dyestuffs.
First use Feb. 24, 1951; in commerce Aug. 6, 1956.

SN 50,673. Joseph Bancroft & Sons Co., Wilmington, Del. Filed Apr. 30, 1958.

MCR

For Synthetic Resins Used in Finishing Textile Fabrics.
First use Apr. 23, 1958.

SN 50,674. Joseph Bancroft & Sons Co., Wilmington, Del. Filed Apr. 30, 1958.

JB

For Synthetic Resins Used in Finishing Textile Fabrics.
First use Apr. 23, 1958.

SN 50,945. S. C. Johnson & Son, Inc., Racine, Wis. Filed Oct. 3, 1958.

DPA

For Chemical Intermediate—Namely, Substituted Valeric Acid.
First use Nov. 15, 1957.

Class 7—Cordage

SN 45,459. The Dayton Rubber Company, Dayton, Ohio. Filed Feb. 7, 1958.

NYCRON

For Cord Used in the Fabrication of Vehicle Tires.
First use Nov. 13, 1957.

SN 45,460. The Dayton Rubber Company, Dayton, Ohio. Filed Feb. 7, 1958.

DAYLON

For Cords for Vehicle Tires.
First use Nov. 15, 1957.

SN 45,461. The Dayton Rubber Company, Dayton, Ohio. Filed Feb. 7, 1958.

NYBRED

For Cords for Vehicle Tires.
First use Dec. 3, 1957.

Class 9—Explosives, Firearms, Equipments, and Projectiles

SN 44,339. Transamerican Match Corporation, New York, N. Y. Filed Jan. 20, 1958.

VICTORIA



Owner of Reg. No. 215,856.
For Matches.
First use January 1957; in July 1919 as to "Victoria."

SN 46,097. Acme Industries, Inc., Appleton, Wis. Filed Feb. 19, 1958.

ACME

For Apparatus for Loading Shotgun Shells.
First use Nov. 1, 1955.

SN 50,621. Samuel Jackson's Sons, Inc., Philadelphia, Pa. Filed Sept. 26, 1958. Sec. 2(f).

BRISTOL

For Flares, Including Railroad Fusees, Highway Fusees, and Marine Distress Signal Flares.
First use June 30, 1953.

Class 10 — Fertilizers

SN 53,031. Maynard S. Grunder, d. b. a. Northwest Leaf Products Co., Puyallup, Wash. Filed June 6, 1958.

FOREST GOLD

For Leaf Mold Soil Conditioner.
First use Mar. 28, 1947.

Class 11 — Inks and Inking Materials

SN 50,515. Old Town Corporation, Brooklyn, N. Y. Filed Apr. 28, 1958.

TYPAL

Owner of Reg. No. 320,874.
For Typewriter Ribbons and Inked Ribbons Used in Printing and Typing Operations, and Carbon Paper.
First use July 27, 1934.

SN 53,731. Harold A. Rodrbaugh, Philadelphia, Pa. Filed June 17, 1958.

GOLD SILK

For Carbon Paper and Ribbons.
First use Apr. 2, 1956.

SN 54,603. A. B. Dick Company, Miles, Ill. Filed July 1, 1958. Sec. 2(f).

CONTAC-DRI

Owner of Reg. No. 580,863.
For Printing Inks.
First use May 24, 1948.

Class 12 — Construction Materials

SN 48,224. Alter Corporation, Waukesha, Wis. Filed Mar. 24, 1958.

ATLAS

For Aluminum Clapboard Siding.
First use on or about Feb. 18, 1958.
Subj. to Intf. with SN 54,910.

SN 50,409. Sears, Roebuck and Co., Chicago, Ill. Filed Apr. 25, 1958.

DB DAVID BRADLEY

For Roofing (Corrugated Metal), Stock Stalls, Farrowing Houses, Brooder Houses, Poultry and Utility Houses (Prefabricated), and Stanchions.
First use on or about July 28, 1956.

SN 52,066. H. H. Robertson Company, Pittsburgh, Pa. Filed May 21, 1958.

STYPOLIGHT

For Translucent Structural Panels.
First use on or about Jan. 1, 1956.

SN 52,273. Butler Manufacturing Company, Kansas City, Mo. Filed May 26, 1958.

Stylux

For Translucent Plastic Panels for Use as Windows, Walls, Roofs, Partitions and the Like.
First use May 14, 1958.

SN 52,811. Humphrey-Wilkinson, Incorporated, North Haven, Conn. Filed May 26, 1958.

PLATCH

For Plastic Adhesive Mending Compound and Filler.
First use May 9, 1958.

SN 52,373. Eutectic Welding Alloys Corporation, Flushing, N. Y. Filed May 26, 1958.

FIXALL

Owner of Reg. No. 572,272.
For Puttying Compositions.
First use May 12, 1958.

SN 52,463. Baldwin-Hill Company, Trenton, N. J. Filed May 28, 1958.

CLARITONE

For Fiber Board.
First use Mar. 13, 1958.

SN 52,483. The Flintkote Company, New York, N. Y. Filed May 28, 1958.

SEAL-TAB

For Roofing Strip Shingles.
First use on or about August 1956.

SN 54,910. U. S. Aluminum Siding Corporation, Franklin Park, Ill. Filed July 7, 1958.

Atlas

For Aluminum Clapboard and Siding.
First use on or about Nov. 30, 1953.
Subj. to Intf. with SN 48,224.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

SN 52,937. ACF Industries, Incorporated, New York, N. Y. Filed June 5, 1958.

WKM

Owner of Reg. Nos. 400,326 and 658,203.
For Valves for the Controlling of Fluids and Parts Therefor, Tubing Slips and Spiders, Welding Fittings and Flanges and Tube Connectors Including Return Bend, Terminal, Corner, T and Elbow Fittings.
First use on or about Jan. 1, 1923.

SN 53,645. Russell, Burdsall & Ward Bolt and Nut Company, Port Chester, N. Y. Filed June 16, 1958.

TENSILOCK

For Bolts, Nuts, and Screws.
First use June 4, 1958.

SN 53,659. Standard Screw Company, Bellwood, Ill. Filed June 16, 1958.

DIALCET

For Fluid Valves—Namely, Faucets.
First use May 14, 1958.

SN 54,580. Veteran Enterprises, Inc., Burbank, Calif. Filed June 30, 1958.

Veteran

For Litter Bag Holders.
First use Dec. 15, 1957.

SN 54,898. Shur-Lok Corporation, Anaheim, Calif. Filed July 7, 1958.

STA-FAST

For Specialty Fasteners, for Industrial Use—Namely, Spacers and Insert Nuts for Sandwich Panels, Snap-in Insert Nuts, Molded-in Insert Nuts, Self-Locking Nuts, Self-Locking Shear Fasteners for Sandwich Panels, Floating Barrel Nuts, Flanged Projection Welding Nuts, Insulation Coated Nuts, Flush Nuts, Angle Bracket Nuts, High Temperature Flange Nuts, and Spring Loaded Latching Pins.
First use May 15, 1958.

SN 55,068. Guest, Keen & Nettlefolds Limited, Smethwick, England. Filed July 10, 1958.

GKN

Owner of British Reg. Nos. 516,882, 518,831, dated Oct. 14, 1930, and Dec. 18, 1930, respectively.
For Cable Hooks, Screws, Bolts, Tie Bars, Spikes, Cotters, Gibs, Studs, Rivets, Washers, Nails, Tacks, Screw Hooks, Screw Eyes, Nuts, Taper Pins, and Staples.

SN 55,245. The Lafayette Brass Manufacturing Co., Inc., New York, N. Y. Filed July 14, 1958.

STROLLER

For Lawn Sprinklers.
First use in November 1957.

SN 55,246. The Lafayette Brass Manufacturing Co., Inc., New York, N. Y. Filed July 14, 1958.

TRIG-A-MATIC

For Hose Nozzles.
First use in November 1957.

SN 55,681. Koninklijke Fabrieken Diepenbrock & Reigers N. V., Uift, Netherlands. Filed July 21, 1958.

DRU

Owner of Dutch Reg. No. 104,589, dated Apr. 18, 1950.
For Household and Kitchen Utensils of Enameled Cast Iron and Sheet Iron.

Class 15—Oils and Greases

SN 23,442. Maroon Corporation, Revere, Mass. Filed Mar. 4, 1957.

K_2

For Silicone Compound for Use as a Lubricant.
First use April 1954.

SN 41,139. The R. J. Brown Company, St. Louis, Mo. Filed Nov. 22, 1957.

BRONOCO
KLENSOL

Owner of Reg. Nos. 158,906 and 399,598.
For Petroleum Aliphatic Naphthas.
First use July 24, 1957.

SN 41,140. The R. J. Brown Company, St. Louis, Mo. Filed Nov. 22, 1957.

BRONOCO
ZOLEX

Owner of Reg. Nos. 158,906 and 399,598.
For Petroleum Aromatic Naphthas.
First use July 24, 1957.

SN 41,142. The R. J. Brown Company, St. Louis, Mo. Filed Nov. 22, 1957.

BRONOCO
TOLEX

Owner of Reg. Nos. 158,906 and 399,598.
For Petroleum Aromatic Naphthas.
First use July 24, 1957.

SN 47,197. Kendall Refining Company, Bradford, Pa. Filed Mar. 6, 1958.



The drawing is lined for red but no claim is made to color.
Owner of Reg. Nos. 100,828, 218,631, and others.
For Gear Lubricant.
First use October 1941; in 1885 as to "Kendall."

SN 50,610. Esso Standard Oil Company, New York, N. Y. Filed Apr. 29, 1958.

"HAPPY MOTORING"

Owner of Reg. No. 361,822.
For Gasoline, Lubricating Oils, and Greases.
First use May 2, 1938.

SN 51,006. General Motors Corporation, Detroit, Mich. Filed May 5, 1958.

NUT-EZE

For Penetrating Oils.
First use Mar. 4, 1958.

SN 51,987. General Mills, Inc., Minneapolis, Minn. Filed May 20, 1958.

RELEASAGEN

For Mold Release Agent.
First use May 7, 1958.

SN 53,543. Union Oil Company of California, Los Angeles, Calif. Filed June 13, 1958.

DRILLUBE

For Greases.
First use Nov. 18, 1935.

Class 16—Protective and Decorative Coatings

SN 50,571. Williamsburg Restoration, Incorporated, Williamsburg, Va. Filed Apr. 28, 1958.

WILLIAMSBURG

Owner of Reg. Nos. 390,815 and 665,074.
For Paints.
First use January 1937.

SN 50,572. Williamsburg Restoration, Incorporated, Williamsburg, Va. Filed Apr. 28, 1958.



Owner of Reg. No. 665,074.
For Paints.
First use December 1946.

SN 58,211. Lawter Chemicals, Inc., Chicago, Ill. Filed Sept. 2, 1958.

U-V-SORB

For Coating Composition for Use in the Protection and Sealing of Surfaces.
First use Aug. 19, 1958.

SN 58,484. Allentown Paint Manufacturing Company, Allentown, Pa. Filed Sept. 8, 1958.

SUNNY-LAND

For Paint.
First use July 1, 1929.

SN 59,271. Clover Leaf Paint & Varnish Corporation, d. b. a. Viceroy Paint Company, Long Island City, N. Y. Filed Sept. 22, 1958.

VICEROY

For Paints, Varnishes, and Shellacs.
First use July 3, 1956.

SN 59,272. Clover Leaf Paint & Varnish Corporation, d. b. a. Somerset Paint Co., Long Island City, N. Y. Filed Sept. 22, 1958.

SOMERSET

For Varnishes, Paints, and Shellacs.
First use Sept. 10, 1958.

SN 59,345. Seidlitz Paint and Varnish Company, Kansas City, Mo. Filed Sept. 22, 1958.

SATIN FLOR

Owner of Reg. No. 619,794.
For Latex-Type Liquid Paint.
First use Aug. 12, 1958.

SN 59,381. Cudner & O'Connor Co., Chicago, Ill. Filed Sept. 23, 1958.

CANDOC

For Wood Finishes—Namely, Lacquers, Stains, and Varnishes.
First use in 1935.

SN 59,476. Maas & Waldstein Co., Newark, N. J. Filed Sept. 24, 1958.

PLEXTONE

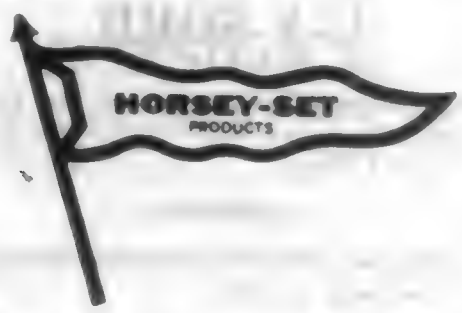
Owner of Reg. No. 547,125.
For Coating Compositions.
First use Oct. 17, 1949.

SN 59,500. Carlisle Chemical Works, Inc., Reading, Ohio. Filed Sept. 25, 1958.

AD-VIS

For Bodying Agents for Paints and Varnishes.
First use May 28, 1958.

SN 59,540. Horsey, Robson & Co., Inc., New York, N. Y. Filed Sept. 25, 1958.



For Plastic and Similar Coating Compositions.
First use Aug. 14, 1958.

SN 59,788. United States Mineral Wool Company, Stanhope, N. J. Filed Sept. 29, 1958.

SOUND-SHIELD

For Coating Applied by Spraying Pre-Mixed Mineral Fibers and Binders.
First use Sept. 11, 1958.

Class 17 — Tobacco Products

SN 48,486. Larus & Brother Company, Richmond, Va. Filed Mar. 26, 1958.

BLEND 7

For Smoking Tobacco.
First use Mar. 14, 1958.

SN 48,487. Larus & Brother Company, Richmond, Va. Filed Mar. 26, 1958.

BLEND 11

For Smoking Tobacco.
First use Mar. 14, 1958.

SN 52,005. Philip Morris Incorporated, New York, N. Y. Filed May 20, 1958.

ALL AMERICAN

Owner of Reg. No. 396,446.
For Cigarettes.
First use Feb. 3, 1916.

Class 18 — Medicines and Pharmaceutical Preparations

SN 16,168. Faru Medicine Co., Inc., Decatur, Ill. Filed P. R. Oct. 27, 1958. Am. S. R. Sept. 24, 1956.

FARU

For Analgesia for the Relief of Muscular Aches and Pains.
First use June 7, 1936.

SN 27,375. Carl Fisher, d. b. a. Carl Fisher & Co., Madison Heights, Mich. Filed Apr. 2, 1957.

FLO-RATION

For Fluorine Tablets for Individual Use in Supplementing Drinking Water.
First use Feb. 25, 1957.

SN 35,732. Biorex Laboratories Limited, London, England. Filed Aug. 19, 1957.

BIOSONE

Owner of British Reg. No. 731,284, dated Feb. 28, 1956.
For Ointments, Suppositories, Lotions, Injections, Emulsions and Suspensions Containing Liquorice Derivatives Whether Natural or Synthetic Either Alone or in Combination With Other Therapeutic Agents and All Having Anti-Inflammatory and Anti-Pruriginous Properties and All Being for Veterinary Use.

SN 37,763. American Cyanamid Company, New York, N. Y. Filed Sept. 25, 1957.

ARZENE

For Compounds Containing Arsenosobenzene for Coccidiosis.
First use Apr. 28, 1953.

SN 38,327. Armour and Company, Chicago, Ill. Filed Oct. 4, 1957.

ARLAXAR

For Tranquilizer Preparation.
First use Sept. 18, 1957.

SN 40,962. Pharmaco, Inc., Kenilworth, N. J. Filed Nov. 19, 1957.

CONTROL 24

For Preparation Used for the Treatment of Upper Respiratory Diseases, Hay Fever, and Similar Ailments.
First use Nov. 13, 1957.

SN 41,005. Carter Products, Inc., New York, N. Y. Filed Nov. 20, 1957.

DEPRA

For Pharmaceutical Preparation for Use in the Treatment of Depression.
First use Oct. 4, 1957.

SN 41,345. Ultra Tone Co., Union City, N. J. Filed Nov. 22, 1957.

ULTRA TONE MAGIC SALVE

Applicant disclaims exclusive use of the word "Salve" apart from the mark as shown.
For Ointment for Athlete's Foot Fungus Itch, Corns, Mosquito Bites, and Similar Skin and Scalp Conditions.
First use July 6, 1937.

SN 41,546. Irwin, Neisler and Co., Decatur, Ill. Filed Nov. 29, 1957.

CARDALIN

For Control of Bronchial Asthma, Congestive Heart Failure, Paroxysmal Dyspnea, Cardiac Edema, Pulmonary Edema, Angina Pectoris, Coronary Thrombosis, Myocardial Infarction and Cheyne-Stokes Respiration.
First use Mar. 1, 1952.

SN 41,795. Bristol-Myers Company, New York, N. Y. Filed Dec. 5, 1957.

DI-ALMINATE

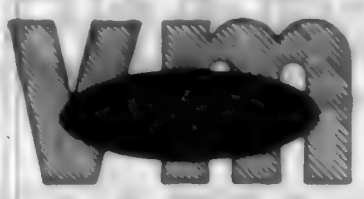
Owner of Reg. No. 434,313.
For Antacid Ingredient in an Analgesic.
First use Oct. 14, 1957.

SN 42,337. American Home Products Corporation, New York, N. Y. Filed Dec. 13, 1957.

ULTRAFINED

For Refined Antigenic Materials for Injection Prophylaxis.
First use Oct. 30, 1957.

SN 42,543. Scott Products Company, d. b. a. United Vitamin Products, Chicago, Ill. Filed Dec. 16, 1957.



The drawing is lined for green and golden yellow.
For Vitamin and Mineral Tablets.
First use Oct. 30, 1957.

SN 43,044. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Dec. 26, 1957.

FLOROTIC

For Pharmaceutical Preparation Consisting of a Hormone and Antibiotic Combination Used in the Treatment of Otic Infections.
First use Nov. 11, 1957.

SN 43,139. Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. Filed Dec. 30, 1957.

'ACTIFED'

For Internally Administered Antihistaminic Preparation.
First use Dec. 12, 1957.

SN 43,397. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Jan. 3, 1958.

NEOTHION

For Veterinary Preparations for the Treatment of Mastitis.
First use Oct. 30, 1957.

SN 43,724. Abbott Laboratories, North Chicago, Ill. Filed Jan. 10, 1958.

ABBO-SERT

Owner of Reg. Nos. 574,356, 649,012, and others.
For Syringe Containing Medicaments for Administration of Same Into Orifices of the Human and Animal Body.
First use Dec. 12, 1957.

SN 44,028. John V. Knight, d. b. a. Clinic Vitamins, Rochester, Minn. Filed Jan. 15, 1958.



The drawing is lined for yellow and red. The words "Multi-Vitamin Tablets" being the name of the goods are hereby disclaimed.
For Multi-Vitamin Preparations in Tablet Form.
First use Nov. 25, 1957.

SN 44,116. A. H. Robins Company, Inc., Richmond, Va. Filed Jan. 16, 1958.

ROBINS

Owner of Reg. Nos. 521,047 and 522,748.
For Pharmaceutical Preparations in the Form of Liquids, Capsules, Tablets, and Injectables.
First use Mar. 1, 1932.

SN 44,904. Biosana Dr. Med. Hans Krause, Eilendorf, near Aachen, Germany. Filed Jan. 29, 1958.

NICOPYRON

Owner of German Reg. No. 679,079, dated July 14, 1955.
For Pharmaceutical Preparations—Namely, Antirheumatica, Antineuralgica, Analgetica, and Antiphlogistica.

SN 46,084. Healthbank, Inc., St. Petersburg, Fla. Filed Feb. 13, 1958.

HEALTHBANK

For Preparation Consisting of Vitamins, Minerals, and Citrus Bioflavonoids.
First use Jan. 15, 1958.

SN 46,979. Nutritional Science Corporation, Lynwood, Calif. Filed Mar. 3, 1958.

DERITON

Owner of Reg. No. 589,786.
For Natural Food Supplement in Concentrated Form Comprised of a Blend of Land and Sea Food Plant Ingredients With Protein, Lecithin, Honey, and Dextrose Added.
First use Nov. 18, 1957.

SN 47,911. Dr. Karl Thomae G. m. b. H., Biberach an der Riss, Germany. Filed Mar. 17, 1958.

MENORITAN

Owner of German Reg. No. 694,117, dated Aug. 22, 1956.
For Medicinal Preparation for the Treatment of Gynecological Indications.

SN 48,041. Natcon Chemical Co. Incorporated, New York, N. Y. Filed Mar. 19, 1958.

SEPAL

For Analgesic and Antiarthritic Preparation.
First use Feb. 11, 1958.

SN 50,177. Ophthalmos, Inc., Union City, N. J. Filed Apr. 22, 1958.

ALMOCETAMIDE

For Medicinal Preparation for Treatment of the Eyes.
First use Sept. 1, 1957.

SN 50,456. Norman Dartell, d. b. a. Dartell Laboratories, Los Angeles, Calif. Filed Apr. 28, 1958.

ALERTRINS

For Dietary Food Supplement Composed of Extracts and Concentrates of Natural, Organic Malt, Yeast, Rice Polishings and Cola Nut; a Natural Origin Saccharide Complex; and Supplying Niacin, Glutamic Acid, Vitamin C, Hesperidin Complex, and Vitamin B-1.
First use Apr. 10, 1958.

SN 51,623. Egyesuelt Gyogyszer es Tapszergyar, Budapest, Hungary. Filed May 14, 1958.

GASTROBAMAT

Owner of Hungarian Reg. No. 103,846, dated Aug. 26, 1957.
For Medicinal Preparation Having a Gangliocholytic and Tranquilizing Effect.

SN 52,470. Chesebrough-Pond's Inc., New York, N. Y. Filed May 28, 1958.

FIRST SPRAID

For Antibiotic Spray Bandage.
First use Apr. 24, 1958.

SN 52,633. Leon Cwi, d. b. a. Laboratory Products Company, Chicago, Ill. Filed May 22, 1958.

VIT-O-ZEST

For Dietary Supplement Consisting Essentially of Vitamins and Minerals.
First use Mar. 20, 1958.

SN 52,979. The Purdue Frederick Company, New York, N. Y. Filed June 5, 1958.

PAS-TEBAMIN

For Pharmaceutical Preparation Useful in the Treatment of Tuberculosis.
First use May 22, 1958.

SN 53,012. Caltex Distributors, Inc., Los Angeles, Calif. Filed June 6, 1958.

DEXAPRO

For Appetite Depressant and Weight Control Preparation.
First use May 13, 1958.

SN 53,013. Chicago Pharmacal Company, Chicago, Ill. Filed June 6, 1958.

NUTRANUL

For Medicinal Preparation in Powder Form Adapted for Use in Treatment of Gastric Ulcers.
First use June 1, 1958.

SN 53,264. The Iso-Sol Company, Inc., Lindenhurst, N. Y. Filed June 10, 1958.

ADRENATRATE

For Ophthalmic Medicines.
First use on or about Mar. 12, 1958.

SN 53,471. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed June 13, 1958.

DOBURIL

Owner of German Reg. No. 330,892, dated Mar. 25, 1941.
For Chemotherapeutic Agent for Medicinal Use.

SN 53,505. The Iso-Sol Company, Inc., Lindenhurst, N. Y. Filed June 13, 1958.

CONTACTISOL

For Ophthalmic Medicines—Namely, a Stable Antiseptic Cleaning Solution for Eye Pieces Such as Artificial Eye Implants, Artificial Eyes, and Contact Lenses.
First use on or about July 1, 1950.

SN 53,507. The Iso-Sol Company, Inc., Lindenhurst, N. Y. Filed June 13, 1958.

PILOVISC

For Ophthalmic Medicines—Namely, a Miotic.
First use on or about May 7, 1958.

SN 53,636. Organon Inc., Orange, N. J. Filed June 16, 1958.
Owner of Reg. Nos. 347,233, 662,487, and others.

ORGACYL

For Topical Hormone Cream for Medicinal Purposes.
First use May 20, 1958.

SN 53,979. Egyesuelt Gyogyszer es Tapszergyar, Budapest, Hungary. Filed May 14, 1958.

GASTRIPON

Owner of Hungarian Reg. No. 103,691, dated May 7, 1957.
For Medicinal Preparation Comprising p-Phenylbenzyl-Trans-Atropinium Bromide, and Having Anti-Cholinergetic, Spasmolytic and Tranquilizing Effect.

SN 54,030. Ethica Standard Co., Inc., Great Neck, N. Y. Filed June 23, 1958.

Ethica STANDARD

For Pharmaceutical Preparations.
First use Jan. 27, 1958.

SN 54,581. The Wander Company, d. b. a. Smith-Dorsey, Chicago, Ill. Filed June 30, 1958.

TUSSAGESIC

For Product Used as a Cough Preparation, an Analgesic and Decongestant.
First use June 18, 1958.

SN 55,197. San-Ott Laboratories, Brooklyn, N. Y. Filed June 30, 1958.

GLYDONN

For Combination in Capsule Form of Glycine, Aluminum Hydroxide Gel, Butabarbital Sodium, and Belladonna, for Use as an Antacid and Antispasmodic.
First use Apr. 1, 1958.

SN 55,198. San-Ott Laboratories, Brooklyn, N. Y. Filed June 30, 1958.

CINAPATE

For Alkaloid of Rauwolfia Serpentina, Reserpine, in Capsule Form.
First use Apr. 1, 1958.

SN 55,576. The Crookes Laboratories Limited, London, England. Filed July 18, 1958.

MYOFERRIN

Owner of British Reg. No. 742,316, dated May 12, 1955.
For Pharmaceutical Preparations for Intra-muscular Injection.

SN 55,591. Medco Company, Inc., Metairie, La. Filed July 18, 1958.

HISTABAR

MEDSULES

For Medicine—Namely, Pyrilamine Maleate, Metapyrilene HCL, Propheupyridamine Maleate and Dextro-Amphetamine HCL.
First use Feb. 7, 1957.
Subj. to Intf. with SN 59,950.

SN 55,895. Apotekavarucentralen Vitrum Apotekareaktiebolaget, Stockholm, Sweden. Filed July 24, 1958.

CECEKIN

Owner of Swedish Reg. No. 85,065, dated June 13, 1958.
For Medical Hormone Preparations for Roentgen-Diagnostic Purposes.

SN 57,637. Parke, Davis & Company, Detroit, Mich. Filed Aug. 21, 1958.

PROPOQUIN

For Antimalarial Preparation.
First use July 11, 1958.

SN 57,717. Rene H. Ryan, d. b. a. Reser Laboratories, Kansas City, Kans. Filed Aug. 22, 1958.

N. A. T.

For Therapeutic Vitamin Preparations.
First use Apr. 25, 1958.

SN 57,848. Max Sobel, d. b. a. Somac Laboratories, Newark, N. J. Filed Aug. 25, 1958.

MASOGIN

For Analgesic, Antipyretic and Antihistaminic Compound for Relief of the Discomforts of the Common Cold, Simple Headache, and Muscular Aches and Pains.
First use Aug. 19, 1958.

SN 58,491. The British Drug Houses Limited, London, England. Filed Sept. 8, 1958.

NEUROSTERON

Owner of British Reg. No. 748,807, dated Dec. 7, 1955.
For Pharmaceutical Substances and Preparations for the Treatment of Disorders of the Nervous System.

SN 58,554. McCoy Pharmaceutical Company, Thief River Falls, Minn. Filed Sept. 8, 1958.

MOR

For Solution for Relief of Gastric Hyperacidity.
First use July 10, 1958.

SN 59,950. Blaine Parker Products Incorporated, Brooklyn, N. Y. Filed Oct. 2, 1958.

HISTABAN

For Medicinal Cold Tablet.
First use May 3, 1958.
Subj. to Intf. with SN 55,591.

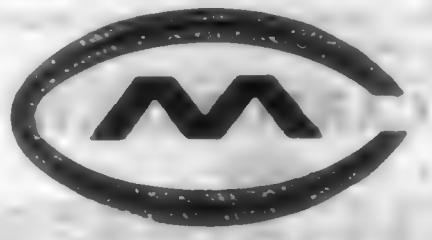
Class 19—Vehicles

SN 51,037. Market Forge Company, Everett, Mass. Filed May 5, 1958.

REDDI-RAK

Owner of Reg. No. 600,517.
For Article Carrier for Use on Tops of Vehicles.
First use Mar. 18, 1953.

SN 51,696. Cushman Motor Works, Inc., Lincoln, Nebr. Filed May 15, 1958.



The drawing is lined for the colors gold and black, however, color is not an essential part of the mark. Owner of Reg. No. 594,814.
For Two and Three Wheel Vehicles Both Gasoline and Electric.
First use Apr. 17, 1958.

SN 53,679. Universal Lumber Co., d. b. a. Universal Target Co., Los Angeles, Calif. Filed June 16, 1958.

MISSILE-TOW

For Aerial Tow Targets.
First use Apr. 7, 1958.

SN 53,791. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed June 18, 1958.

JOB MASTER

For Vehicle Wheels and Rims.
First use Mar. 6, 1958.

SN 53,805. Laboratory Furniture Co., Inc., Mineola, N. Y. Filed June 18, 1958.

UNIT-LAB

For Articles of Science Laboratory Furniture and Equipment—Namely, Utility Laboratory Trucks.
First use Nov. 15, 1957.

SN 53,913. Western Auto Supply Company, Kansas City, Mo. Filed June 19, 1958.

WIZARD

Owner of Reg. Nos. 295,879, 661,667, and others.
For Air Conditioning Units for Automobiles.
First use Jan. 19, 1956.

SN 53,051. The Daho Products Company, Columbus, Ohio. Filed July 10, 1958.

KWIK-STIK SAF-T-MIRROR

The words "Kwik Stik" are disclaimed apart from the mark as shown.
For Mirrors Used on Vehicles.
First use June 12, 1958.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 53,115. The Carborundum Company, Niagara Falls, N. Y. Filed June 9, 1958.

CARBOTRONIC

Owner of Reg. No. 414,650.
For Synthetic, Electrically Conductive Granules, Made Especially for Lightning Arrester Construction and for Other Similar Applications.
First use Apr. 28, 1944.

SN 53,320. Lawrence L. Bush, Jr., Waco, Tex. Filed June 11, 1958.

WACOM

For Amateur Radio Transmitter.
First use Dec. 1, 1957.

SN 53,531. Raymond Engineering Laboratory, Inc., Middletown, Conn. Filed June 13, 1958.

squitch

For Electric Switches.
First use June 6, 1958.

SN 53,617. JFD Electronics Corporation, Brooklyn, N. Y. Filed June 16, 1958.

SEALCAP

For Electrical Capacitors.
First use May 12, 1958.

SN 54,084. Notifier Corporation, Lincoln, Nebr. Filed June 23, 1958.

N-CO

For Electrical Signaling Devices Particularly Adapted for Use in Fire Alarm Systems, Sprinkler Supervisory Systems, Burglar Alarm Systems, Watchman Service Systems and Parts Thereof—Namely, Electrical Switches and Alarm Bells.
First use June 10, 1958.

Class 22—Games, Toys, and Sporting Goods

SN 38,391. Schaper Manufacturing Co., Inc., Minneapolis, Minn. Filed Oct. 4, 1957.

CIRCUS-TIME

For Game Apparatus—Namely, a Game Board in the Form of a Shallow Box, the Bottom of Which Constitutes the Playing Field Defining Circuitous Paths and a Chance Element To Determine Positional Moves of Playing Pieces.
First use Feb. 1, 1957.

SN 39,862. Daisy Manufacturing Company, Plymouth, Mich. Filed Oct. 31, 1957.

2 GUN MARSHAL

For Toy Gun and Holster Set.
First use Sept. 15, 1957.

SN 47,267. Manning Manufacturing Corp., d. b. a. M-M Corp., Chicago, Ill. Filed Mar. 7, 1958.



Beebees

For Roller Skates.
First use Feb. 11, 1958.

SN 48,508. Taylor Electric, Inc., Detroit, Mich. Filed Mar. 26, 1958.

RED-HED

For Golf Bag Accessory Comprising Tubes for Holding Individual Golf Clubs and Fixture for Positioning and Holding the Tubes in the Golf Bag.
First use Feb. 24, 1958.

SN 48,995. Jaymar Specialty Company, Brooklyn, N. Y. Filed Apr. 3, 1958.

MARJAY

Owner of Reg. No. 579,674.
For Toy Piano.
First use Mar. 11, 1958.

SN 49,747. Walt Disney Productions, Burbank, Calif. Filed Apr. 16, 1958.

ZORRO

For Toy Rubber Balloons.
First use Dec. 16, 1957.

SN 51,758. White Stag Mfg. Co., d. b. a. Canvas Products Co., Portland, Oreg. Filed May 15, 1958. Sec. 2(f) as to "Hirsch Weis."

Hirsch Weis

The English translation of the German words "Hirsch Weis" is "white stag."
For Sleeping Bags, Fish Creels, and Knapsacks for Sportsmen's Use.
First use in 1912.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

SN 52,507. The McNeil Machine & Engineering Company, Akron, Ohio. Filed May 28, 1958.

POWER MASTER

Owner of Reg. No. 505,332.
For Pumps for Pumping Materials From Drums.
First use Mar. 7, 1958.

SN 52,329. Swingline, Inc., Long Island City, N. Y. Filed May 28, 1958.

27

For Stapling Machines.
First use in September 1952.

SN 52,837. C. & W. Sales, d. b. a. C. & W. Sales & Mfg., Iola, Wis. Filed June 4, 1958.

BARN-O-MATIC

For Mechanical Barn Cleaner—Namely, Motor Driven Endless Conveyor for Removing Manure.
First use Sept. 19, 1957.

SN 53,135. Necchi Societa per Azioni, Pavia, Italy. Filed June 9, 1958.

NORA

Priority claimed under Sec. 44(d) on Italian application filed Mar. 12, 1958; Reg. No. 138,285, dated June 19, 1958.
For Sewing Machines and Their Parts.

SN 53,289. Ripco, Inc., Oxford, Pa. Filed June 10, 1958.



For Air Unloaders—Namely, Pneumatic Devices for Handling Granular Material.
First use May 19, 1958.

SN 53,290. Ripco, Inc., Oxford, Pa. Filed June 10, 1958.

RIPCO

For Air Unloaders—Namely, Pneumatic Devices for Handling Granular Material.
First use Dec. 10, 1957.

SN 53,485. The Desmond-Stephen Mfg. Co., Urbana, Ohio.

DESMOND

Filed June 13, 1958. Sec. 2(f).
For Grinding Wheel Dressers and Cutters.
First use at least as early as 1905.

SN 53,515. Lanco Products Corporation, New York, N. Y. Filed June 13, 1958.

LANCO LIKWIFIER

For Mixing and Blending Machine for Use in Food Processing Plants Such as Dairies, Ice Cream Factories, and Bakeries.
First use May 22, 1958.

SN 54,362. The Healen Corporation, Vestal, N. Y. Filed June 26, 1958.

DEANSAW

Applicant disclaims the word "Saw" apart from the mark as shown.
For Power Saws.
First use Mar. 21, 1958.

SN 54,734. Brandt Machinery Company, Pittsburgh, Pa. Filed July 3, 1958.

NATIONAL

For Metal Plate Shears.
First use in 1948.

SN 54,757. General Mills, Inc., Minneapolis, Minn. Filed July 3, 1958.

TWIN STAR

For Stainless Steel Flatware.
First use June 23, 1958.

SN 54,763. Ingersoll-Rand Company, New York, N. Y. Filed July 3, 1958.

VACUJET

For Rock Drill.
First use June 6, 1958.

SN 54,948. Hein, Lehmann & Co. AG, Duesseldorf, Germany. Filed July 8, 1958.

RIMETTA

Owner of German Reg. No. 627,187, dated Sept. 25, 1952.
For Sieve Bottoms, Grates, Grate Rods, Sieves, Sieve Wires, Sieve Grid Rods.

SN 55,033. Sprout, Waldron & Company, Inc., Muncy, Pa. Filed July 9, 1958.

PNEU-VAC

For Pneumatic Conveying Systems for Bulk Material.
First use Nov. 3, 1948.

SN 55,252. Minneapolis-Moline Company, Hopkins, Minn. Filed July 14, 1958.

MINNEAPOLIS MOLINE

Owner of Reg. Nos. 390,414, 507,797, and 543,420.
For Agricultural and Industrial Machinery, Implements and Accessories—Namely, Internal Combustion Engines, Tractors, Combines, Huskers, Snappers, Shellers, Picker-Shellers, Power Units, Balers, Plows, Mowers, Harrows, Choppers, Strippers, Windrowers, Planters, Drills, Cultivators, Spreaders, Loaders, Irrigation Units, Threshers, Pulverizers, Mills, Rakes, Discers, Soil Conditioners, Blowers, Transplanters, Rotary Hoes, Middlebreakers, Tool Carriers, Fertilizers, Weeders, Subsoilers, and Packers.
First use Apr. 15, 1958.

SN 57,385. W. Mannhardt and Son, Chicago, Ill. Filed Aug. 18, 1958.

Cube'n Crush

For Ice Dispensing Machines, Ice Vending Machines.
First use July 17, 1958.

SN 57,903. International Combustion (Export) Limited, London, England. Filed Aug. 26, 1958.

VACSEAL

Owner of British Reg. No. 566,853, dated Feb. 27, 1936; and U. S. Reg. No. 355,725.
For Pumps and Parts Thereof.

SN 58,342. Kay Enterprises, Inc., Hazel Park, Mich. Filed Sept. 8, 1958.

KUT-IT

For Fruit Sectioners.
First use July 1, 1958.

SN 58,346. Lord Manufacturing Company, Erie, Pa. Filed Sept. 8, 1958.

DYNASHOCK

For Shock Mountings.
First use September 1958.

SN 58,547. Lord Manufacturing Company, Erie, Pa. Filed Sept. 8, 1958.

TEMPROOF

For Vibration Mountings.
First use September 1958.

SN 58,548. Lord Manufacturing Company, Erie, Pa. Filed Sept. 8, 1958.

BTR

For Vibration Mountings.
First use September 1958.

SN 59,110. The International Silver Company, Meriden, Conn. Filed Sept. 18, 1958.

SOPHISTICATE

For Stainless Steel Flatware—Namely, Knives, Forks, and Spoons.
First use Sept. 11, 1958.

SN 59,199. McCulloch Corporation, Minneapolis, Minn. Filed Sept. 19, 1958.

FLYING SCOTT

For Outboard Motors.
First use Mar. 31, 1958.

SN 59,246. Astra Trading Corporation, New York, N. Y. Filed Sept. 22, 1958.

STELLAR

Owner of Reg. No. 617,426.
For Kitchen Utensils—Namely, Spoons, Forks, Presses, Spades, Scoops, Squeezers, Spatulas, Can and Bottle Openers, Cutters, and Kitchen Cutlery.
First use Mar. 18, 1956.

SN 59,254. Brimson Electric Company, Incorporated, Coral Gables, Fla. Filed Sept. 22, 1958.

Sea Gull

For Electric Winches.
First use Aug. 8, 1958.

SN 59,280. Expert Tool and Mfg. Co., Chicago, Ill. Filed Sept. 22, 1958.



For Pumps.
First use May 13, 1949.

SN 50,318. Manufacture Belge d'Aiguilles, Eupen, Belgium. Filed Sept. 22, 1958.

STITCH-EZE

For Sewing Machine Needles.
First use Sept. 5, 1958.

SN 50,595. Central Die and Supply Corporation, St. Louis, Mo. Filed Sept. 26, 1958.

IMP

For Dies Used for Cutting Materials, Such as Leather, Fabrics, and the Like.
First use Feb. 11, 1955.

SN 50,596. Chikoan Company, Brea, Calif. Filed Sept. 26, 1958.

LONGSWEEP

For Swivel Joints.
First use Mar. 18, 1958.

SN 50,597. Clinton Engines Corporation, Clinton, Mich. Filed Sept. 26, 1958.

CLINTALLOY

For Internal Combustion Engines.
First use in August 1958.

SN 50,611. A. A. Gage Company, Ferndale, Mich. Filed Sept. 26, 1958.

ULTRADEX

For Indexing Fixtures.
First use Aug. 25, 1958.

SN 50,783. Sommer Tap and Tool Corporation, Lynbrook, N. Y. Filed Sept. 29, 1958.

"elektraLUBE"

For Taps for Cutting Threads.
First use Mar. 27, 1956.

SN 50,794. Wire Abrasives Company, d. b. a. Metal Improvement Equipment Company, Los Angeles, Calif. Filed Sept. 29, 1958.

m
i

For Shot Peening Apparatus and Equipment for Gauging Shot Peened Work.
First use Aug. 15, 1958, on shot peening apparatus.

SN 50,849. Progressive Engineering, Inc., Rockland, Mass. Filed Sept. 30, 1958.

NY-PRO-LON

For Textile Machinery Including Top Rolls and Accessories.
First use Mar. 7, 1958.

SN 50,861. Thompson Products, Inc., Cleveland, Ohio. Filed Sept. 30, 1958.

POWER-GROOVE

For Pistons for Internal Combustion Engines.
First use July 11, 1958.

Class 25—Locks and Safes

SN 52,884. Herring-Hall-Marvin Safe Company, Hamilton, Ohio. Filed June 4, 1956.

Constellation

For Bank Vaults.
First use June 21, 1957.

Class 26—Measuring and Scientific Appliances

SN 54,570. Specialties, Inc., Syosset, N. Y. Filed June 30, 1958.

RAPROMATIC

For Photographic Apparatus—Namely, Apparatus for Developing Exposed Film.
First use Dec. 27, 1957.

SN 54,595. Avol Manufacturing Company, Portland, Oreg. Filed July 1, 1958.

AVOL

For Rule for Measuring Areas and Volumes.
First use Nov. 20, 1957.

Class 27—Horological Instruments

SN 42,036. Movado Watch Agency, Inc., New York, N. Y. Filed Dec. 9, 1957.

CALENDOSCOPE

Owner of Reg. Nos. 407,090, 524,247, and others.
For Watches.
First use Aug. 6, 1957.

SN 48,501. The Henri Stern Watch Agency, Inc., New York, N. Y. Filed Feb. 7, 1958.

PHILIPPE

Owner of Reg. Nos. 400,257 and 520,291.
For Watches.
First use Jan. 20, 1958.

SN 48,879. Swank, Inc., Attleboro, Mass. Filed Apr. 1, 1958.

SWANK

Owner of Reg. No. 259,457.
For Watches.
First use Mar. 25, 1958.

SN 49,369. Hammel, Riglander & Company, Inc., New York, N. Y. Filed Apr. 9, 1958.

Nivastar

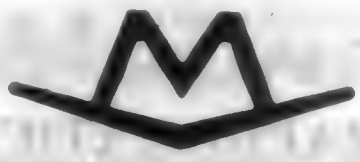
For Springs for Watches and Clocks.
First use Apr. 1, 1958.

SN 50,242. Pugh Bros. Jewelry Company, Pittsburgh, Pa. Filed Apr. 23, 1958.

GOLDEN PB TRIANGLE

For Watches, Strap Watches, Clocks, Watch Cases, Parts, and Movements.
First use Mar. 8, 1958.

SN 54,158. Fabriques Movado, La Chaux de Fonds, Neuchatel, Switzerland. Filed June 24, 1958.



Owner of Swiss Reg. No. 167,898, dated Nov. 1, 1957.
For Time Pieces and Parts Thereof.

SN 55,652. Charles Denning Limited, Sag Harbor, N. Y. Filed July 21, 1958.

CHARLES DENNING

For Horological Instruments—Namely, Clocks.
First use Apr. 28, 1958.

SN 56,056. Sunbeam Corporation, Chicago, Ill. Filed July 25, 1958.

VARI-LITE

For Clocks.
First use June 30, 1958.

SN 56,148. Albert F. Long Co., Denver, Colo. Filed July 28, 1958.

LONG

Owner of Reg. No. 573,606.
For Watches and Clocks.
First use Jan. 1, 1948.

SN 56,975. Ernest W. Lefkowitz, Winston-Salem, N. C. Filed Aug. 11, 1958.

WINSTON

For Watches.
First use June 25, 1958.

Class 28—Jewelry and Precious-Metal Ware

SN 34,380. The Henri Stern Watch Agency, Inc., New York, N. Y. Filed July 25, 1957. Sec. 2(f).

PATEK

Owner of Reg. Nos. 400,257 and 520,291.
For Bracelets.
First use July 3, 1957.

SN 40,472. Leru, Inc., New York, N. Y. Filed Nov. 12, 1957.

SUNGLO

For Unstrung Plastic Beads To Be Used in Making Such Jewelry Items as Necklaces, Bracelets, Earrings and the Like.
First use on or about Nov. 6, 1957.

SN 44,317. Rings O'Devotion, Inc., New York, N. Y. Filed Jan. 20, 1958.

RING O'DEVOTION

The word "Ring" is disclaimed apart from the mark as shown.
For Diamond Rings.
First use in or about March 1944.

SN 46,680. Weingeroff & Son, Inc., Providence, R. I. Filed Feb. 26, 1958.

STACY

For Jewelry—Namely, Cuff Links, Tie Bars, and Money Clips.
First use Jan. 10, 1958.

SN 49,088. Speidel Corporation, Providence, R. I. Filed Apr. 4, 1958.

AMERICAN JET

For Watch Bracelets.
First use Mar. 21, 1958.

SN 50,398. Sears, Roebuck and Co., Chicago, Ill. Filed Apr. 25, 1958.

BOYVILLE

For Jewelry—Namely, Tie Clasps and Cuff Links.
First use on or about June 7, 1957.

SN 51,720. The Lander Co., Inc., d. b. a. Elizabeth Post, New York, N. Y. Filed May 15, 1958.

ELIZABETH POST

The name "Elizabeth Post" is that of a living individual whose consent is on file. Owner of Reg. Nos. 654,883 and 667,199.
For Costume Jewelry.
First use Feb. 10, 1958.

SN 53,414. Lenox Jewelry Products Corp., New York, N. Y. Filed June 12, 1958.

SNAP-O-MAT

For Bracelets and Wrist Watch Bands.
First use May 1, 1958.

SN 55,416. Renoir of California, Inc., Los Angeles, Calif. Filed July 16, 1958.

SAUTEUR

For Costume Jewelry.
First use June 19, 1958.

SN 55,482. Is-Bel Products, Inc., New York, N. Y. Filed July 17, 1958.

armel DESIGNS

The word "Designs" is disclaimed when apart from the mark.

For Men's Jewelry Used on Shirts and Ties—Namely, Cuff Links, Studs, Tie Clips, Tie Chains, Tie Pins, and Tie Tacks.

First use June 2, 1958.

SN 57,391. Mister Pickwick, Inc., Chicago, Ill. Filed Aug. 18, 1958.



MISTER PICKWICK

The name "Mister Pickwick" identifies the fictional character in Dickens' novel "Pickwick Papers."

For Jewelry—Namely, Lapel Buttons, Lapel Pins, Cuff Links, Watch Fobs, Key Chains, Tie Clips, Tie Pins, Stick Pins, Charms, Bracelets, Lockets, Rings, and Earrings.

First use Mar. 17, 1958.

SN 58,217. Massover Brothers, Inc., Chicago, Ill. Filed Sept. 2, 1958.

TWILIGHT STAR

For Articles of Jewelry—Namely, Rings, Earrings, Cuff Links, Pins, Pendants, and Charms.

First use August 1955.

Class 30—Crockery, Earthenware, and Porcelain

SN 50,415. Stetson China Co., Lincoln, Ill. Filed Apr. 25, 1958.

HERITAGE BY STETSON

Owner of Reg. Nos. 402,581, 570,973, and others.

For China Dinnerware.

First use Mar. 26, 1958.

Class 31—Filters and Refrigerators

SN 58,488. J. H. Batteiger Company, Inc., Los Angeles, Calif. Filed Sept. 8, 1958.

METRO-AIRE

For Commercial Refrigeration Equipment and Refrigerated Water Fountains.

First use Jan. 28, 1955.

SN 59,048. The Morse-Smith-Morse Company, Watertown, Mass. Filed Sept. 17, 1958.

FIROMATIC

Owner of Reg. No. 367,531.

For Fuel Oil Filters.

First use Aug. 1, 1941.

SN 59,095. Culligan, Inc., Northbrook, Ill. Filed Sept. 18, 1958.

CULLCITE

Owner of Reg. Nos. 442,445, 526,353, and others.

For Small Particles of Anthracite Employed as a Filter Material and To Minimize Pressure Loss in Water Conditioning Equipment.

First use Nov. 30, 1955.

Class 32—Furniture and Upholstery

SN 59,185. Louis H. Haines, d. b. a. Patrician File Company, Marianna, Ark. Filed Sept. 19, 1958.

PATRICIAN

For Tiltable Vertical Filing Devices for Prescriptions and the Like.

First use July 10, 1958.

SN 59,250. Bush Brothers, Olean, N. Y. Filed Sept. 22, 1958.

PORT-A-RACK

For Floor Type Towel Stand or Drying Rack.

First use February 1956.

SN 59,470. The F. H. Lawson Company, Cincinnati, Ohio. Filed Sept. 24, 1958.

LAWSON

For Bathroom Cabinets.

First use Aug. 27, 1958; 1945 as to "Lawson."

SN 59,763. Pittsburgh Plate Glass Company, Pittsburgh, Pa. Filed Sept. 29, 1958.

HIGH-FIDELITY

For Mirrors.

First use Sept. 5, 1958.

Class 33—Glassware

SN 36,596. Loblaw, Inc., Buffalo, N. Y. Filed Sept. 3, 1957.

FAMILY FAIR

For Glass Tumblers.

First use June 27, 1957.

Class 34 — Heating, Lighting, and Ventilating Apparatus

SN 53,432. Sears, Roebuck and Co., Chicago, Ill. Filed June 12, 1958.

HARMONY HOUSE

For Fireplace Sets (Consisting of Screen, Poker, Brush, Shovel, Tongs and Stand).
First use June 15, 1954.

SN 54,818. Carrier Corporation, Syracuse, N. Y. Filed July 7, 1958.

WEATHERPUMP

For Air Conditioning Systems Such as Residential Heating and Cooling Systems.
First use Oct. 5, 1956.

SN 54,968. Harry Stone, d. b. a. Stone Manufacturing Company, El Segundo, Calif. Filed July 8, 1958.

CORONET

For Fireplace Screens, Andirons, Fire Sets, Fireplace Tools, Log Baskets, Log Holders, and Other Fireplace Accessories.
First use July 23, 1957.

Class 35 — Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 53,393. D K Manufacturing Company, Chicago, Ill. Filed June 12, 1958.



Owner of Reg. No. 573,296.
For Flexible Metal Hose.
First use Mar. 1, 1957; Oct. 13, 1952, as to "Cobra."

SN 53,961. F. W. Smith Tire & Battery Co., St. Paul, Minn. Filed June 20, 1958.

BUILT SMITH

For Retreaded Tires.
First use Mar. 15, 1954.

SN 54,100. Rubber Improvement Limited, Wellingborough, England. Filed June 23, 1958.

RILFLEX

For Conveyor, Elevator and Transmission Belting.
First use on or about Dec. 31, 1956; in commerce on or about Dec. 31, 1957.

SN 54,101. Rubber Improvement Limited, Wellingborough, England. Filed June 23, 1958.

LEONEX

For Conveyor, Elevator and Transmission Belting.
First use on or about Dec. 31, 1951; in commerce on or about Dec. 31, 1956.

SN 54,403. Globe Woven Belting Co., Inc., Buffalo, N. Y. Filed June 27, 1958.



For Woven Textile Conveyor Belting.
First use Jan. 2, 1916.

Class 36 — Musical Instruments and Supplies

SN 53,374. Bigtop Records, Inc., New York, N. Y. Filed June 16, 1958.



For Grooved Phonograph Records.
First use May 29, 1958.

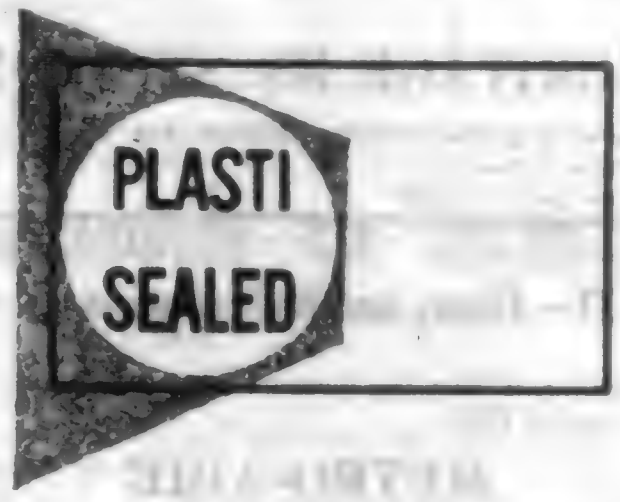
Class 37 — Paper and Stationery

SN 26,253. Drug Package, Incorporated, St. Louis, Mo. Filed Mar. 15, 1957. Sec. 2(f).

COLORAP

For Wrapping Paper and Paper Bags.
First use July 3, 1936.

SN 29,239. James Seeman Studios, Inc., Richmond Hill, N. Y. Filed May 1, 1957.



The stippling in the drawing represents shading.
For Wallpaper.
First use Feb. 7, 1957.

SN 41,534. The Frederick Post Company, Chicago, Ill. Filed Nov. 29, 1957.

DUST-IT

For Cleaning Powder for Drawings.
First use Nov. 15, 1954.

SN 42,628. Ben-Mont Papers, Inc., Bennington, Vt. Filed Dec. 18, 1957. Sec. 2(f).

BRILLIANTONE

Owner of Reg. No. 565,785.
For Wrapping Paper, Primarily Intended for the Wrapping of Gifts.
First use May 8, 1950.

SN 51,185. General Aniline & Film Corporation, New York, N. Y. Filed May 7, 1958.

DURATRACE

For Reproducing Materials Especially Tracing Vellum and Tracing Cloth.
First use Apr. 14, 1958.

SN 54,767. American Greetings Corporation, Cleveland, Ohio. Filed May 16, 1958. Sec. 2(f).

ALL-IN-ONE

Owner of Reg. No. 571,426.
For Packages or Kits of Wrapping Paper, Ribbon, Seals, and/or Gift Cards.
First use June 24, 1949.

SN 52,103. The Data Products Incorporated, Hartford, Conn. Filed May 22, 1958.



For Imprinted Checks and Check Books, Bank Stationery.
First use May 5, 1958.

SN 53,929. Converter Corporation, Leominster, Mass. Filed June 20, 1958.

Shelf-Styk

For Shelf Paper Having an Adhesive Surface.
First use Jan. 6, 1958.

SN 54,150. Goldsmith Bros., New York, N. Y. Filed June 24, 1958. Sec. 2(f).

RIGID
Sure Grip

For Wire Clips for Stationery Purposes.
First use Dec. 23, 1932.

SN 54,318. Knight Brothers Paper Company, d. b. a. Crusader Paper Products Company, Jacksonville, Fla. Filed June 26, 1958.

Crusader

Owner of Reg. No. 397,227.
For Blank Books, Specifically School Composition Books and Stenographic Note Books.
First use May 1, 1958.

SN 54,431. Prudential Paper Products Co., Inc., New York, N. Y. Filed June 27, 1958.

PEN-TONE

Owner of Reg. No. 534,300.
For Writing Papers, Tablets, Note Books, Looseleaf Insert Pages, Typewriting Papers, and Envelopes.
First use Apr. 16, 1958.

Class 38—Prints and Publications

SN 53,960. The S. H. Smith Co., Indianapolis, Ind. Filed June 20, 1958. Sec. 2(f).

THE WOOD-WORKER AND VENEERS AND PLYWOOD

Owner of Reg. Nos. 534,425 and 541,099.
For Periodical Trade Publications.
First use Apr. 29, 1958.

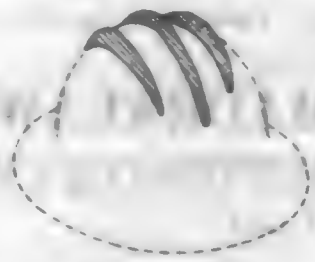
SN 54,440. The Traffic Service Corporation, Washington, D. C. Filed June 27, 1958.

TRAFFIC WORLD

Owner of Reg. No. 223,119.
For Periodical.
First use Jan. 4, 1913.

Class 39—Clothing

SN 676,096. E. D. Bullard Company, San Francisco, Calif. Filed Nov. 5, 1954.



The mark consists in the green coloring of the three beads or ridges in the upper part of the hat crown.
For Protective or Safety Hats, Helmets, and Caps.
First use Sept. 29, 1954.

SN 19,840. Wohl Shoe Company, St. Louis, Mo. Filed Nov. 23, 1956.

LARKS

For Shoes.
First use Nov. 16, 1956.

SN 36,095. Munsingwear, Inc., d. b. a. Vassar Co., Minneapolis, Minn. Filed Aug. 23, 1957.

SLENDER—STA

For Women's Girdles and Pantie Girdles.
First use Aug. 6, 1957.

SN 40,673. Gabrielle Fashions, Inc., New York, N. Y. Filed Nov. 14, 1957.

THE HOUSE OF BOUFFANTS
Gabrielle

For Bouffant-Type Petticoats and Skirts Made With Crinolines.
First use May 1, 1954.

SN 44,685. Henri Bendel, Inc., New York, N. Y. Filed Jan. 27, 1958.

YOUNG-TIMERS

For Girls', Misses', and Women's Coats; Shoes Made of Leather, Rubber and Fabric, and Combinations Thereof; Fur Coats, Scarves, Jackets, Muffs, and Hats; Corsets, Blouses, Sweaters, Handkerchiefs, Scarfs, Tams, Suits, and Dresses.
First use Aug. 7, 1941.

SN 48,853. Lester Pincus Shoe Corporation, New York, N. Y. Filed Mar. 28, 1958.

VINCELLI

For Shoes, Slippers, and Boots.
First use Nov. 4, 1954.

SN 49,313. Susan Thomas, New York, N. Y. Filed Apr. 8, 1958.

SKINNY

For Ladies' and Misses' Skirts, Slacks and Dresses, Blouses, Jackets, Shorts, and Suits.
First use Feb. 20, 1958.

SN 49,351. Cluett, Peabody & Co., Inc., New York, N. Y. Filed Apr. 9, 1958.

MADRALAWN

Owner of Reg. No. 191,812.
For Outer Shirts.
First use May 22, 1924.

SN 49,746. Walt Disney Productions, Burbank, Calif. Filed Apr. 16, 1958.

ZORRO

For Boys' Hats.
First use Sept. 27, 1957.

SN 50,544. The Stafford-Higgins Company, Incorporated, South Norwalk, Conn. Filed Apr. 28, 1958.

"SEA 'N SHORE"

For Women's Bathing Suits.
First use Apr. 26, 1958.

SN 50,948. White Stag Mfg. Co., d. b. a. Canvas Products Co., Portland, Oreg. Filed May 2, 1958. Sec. 2(f).

Hirsch Weis

The English translation of the German words "Hirsch Weis" is "white stag." Owner of Reg. Nos. 599,396 and 655,865.
For Waterproof Outer Garments for Men—Namely, Overcoats, Coats, Vests, Trousers, Overalls, and Jackets.
First use in 1912.

SN 51,470. Lane Bryant, Inc., New York, N. Y. Filed May 12, 1958.

WAIT-MATES

For Maternity Wear Consisting of Suits, Dresses, Coats, Skirts, Sweaters, Blouses, Slips, Petticoats, Panties, Girdles, Brassieres, Corsets.
First use Apr. 17, 1958.

SN 51,539. Fashion Park, Inc., Rochester, N. Y. Filed May 13, 1958.

STEIN BLOCH VINTAGE TONES

No registration rights are claimed for the word "Tones" apart from the mark shown and applicant waives none of its common-law rights in same. Owner of Reg. Nos. 289,235, 416,902, and others.
For Men's and Young Men's Suits.
First use Mar. 7, 1958.

SN 51,719. The Lander Co. Inc., d. b. a. Elizabeth Post, New York, N. Y. Filed May 15, 1958.

ELIZABETH POST

The name "Elizabeth Post" is that of a living individual whose consent is of record.
For Dresses, Brassieres, Gloves, and Undergarments.
First use Feb. 10, 1958.

SN 51,977. Cisco, Inc., New York, N. Y. Filed May 20, 1958.

SCARDIGAN

For Combined Muffler-Waistcoats.
First use Apr. 30, 1958.

SN 52,211. Fitts Cotton Goods Company, Atlanta, Ga. Filed May 28, 1958.

MIRACLE SOFT

The word "Soft" is disclaimed apart from the mark as shown.
For Infants' Diapers.
First use in March 1952.

SN 52,243. Sewell Manufacturing Company, Bremen, Ga. Filed May 23, 1958.



For Men's Suits, Trousers, Coats, Vests, Topcoats, and Overcoats.
First use Apr. 24, 1958.

SN 52,244. Sewell Manufacturing Company, Bremen, Ga. Filed May 23, 1958.



For Men's Suits, Trousers, Coats, Vests, Topcoats, and Overcoats.
First use Apr. 24, 1958.

SN 52,245. Sewell Manufacturing Company, Bremen, Ga. Filed May 23, 1958.



The word "Clothes" is disclaimed apart from the mark as shown.
For Men's Suits, Trousers, Coats, Vests, Topcoats, and Overcoats.
First use Apr. 24, 1958.

SN 53,002. The Alligator Company, St. Louis, Mo. Filed June 6, 1958.

ALLIGATOR WOOL WARMER

Owner of Reg. Nos. 75,365, 251,201, and 358,234.
For Cut-Out, Detachable Inner Linings for Men's Coats.
First use in April 1947.

SN 53,618. F. Jacobson & Sons, Inc., New York, N. Y. Filed June 16, 1958.

CAREEZE

For Men's and Boys' Pajamas.
First use June 3, 1958.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 24,236. Blue Ridge Textile Co., Inc., Banger, Pa. Filed Feb. 12, 1957.

VOCAMA

For Tricot Knit Fabric Sold by the Yard for Making Into Dresses, Robes, Blouses, Shoes, Handbags, Children's Wear, Millinery, Men's Hats, Sport Jackets, Bathrobes, and the Like.
First use Jan. 2, 1957.

SN 30,563. Celanese Corporation of America, New York, N. Y. Filed May 23, 1957.

ARNELCORD

Owner of Reg. Nos. 609,202 and 612,394.
For Textile Fabrics—Namely, Ninon and Poplin-Type Fabrics.
First use May 16, 1957.

SN 30,564. Celanese Corporation of America, New York, N. Y. Filed May 23, 1957.

ARNELESE

Owner of Reg. Nos. 609,202 and 612,394.
For Textile Fabrics—Namely, Ninon and Poplin-Type Fabrics.
First use May 16, 1957.

SN 37,896. Massimiliano Noberasco, Milan, Italy. Filed Sept. 26, 1957.

RESINOVA

Priority claimed under Sec. 44(d) on Italian application filed June 19, 1957; Reg. No. 137,750, dated June 12, 1958.
For Textile Fabrics Made of Synthetic Fibres, Impregnated or Not With Rubber or Synthetic Resins and Used for Clothing Including Coats, Suits, and Robes.

SN 50,108. Scapa Dryers, Limited, Blackburn, Lancashire, England. Filed Apr. 21, 1958.

SYNTHO-ASBESTOS

For Papermakers' Dryer-Felts—Namely, Bands of Woven Fabric Material Made Wholly or in Part of Asbestos Used in the Paper-Making Art.
First use February 1956; in commerce February 1956.

SN 50,109. Scapa Dryers, Limited, Blackburn, Lancashire, England. Filed Apr. 21, 1958.

SYNTHO-COTTON

For Papermakers' Dryer-Felts—Namely, Bands of Woven Fabric Material Made Wholly or in Part of Cotton Used in the Paper-Making Art.
First use February 1956; in commerce February 1956.

SN 50,653. Wm. Simpson, Sons & Co., Inc., New York, N. Y. Filed Apr. 29, 1958.

PIMANETTE

For Cotton Fabrics in the Piece.
First use Sept. 10, 1932.

SN 50,654. Wm. Simpson, Sons & Co., Inc., New York, N. Y. Filed Apr. 29, 1958.

AIR FLOW

For Mercerized and Treated Fabric for Use in the Manufacture of Shirts, Nurses' Uniforms, and Other Wearing Apparel.
First use Oct. 13, 1934.

SN 52,206. Dazian's, Inc., New York, N. Y. Filed May 23, 1958.

DIACOUSTIC FABRICS

Applicant disclaims the word "Fabrics" apart from the mark as shown.
For Drapery Fabrics.
First use Feb. 10, 1958.

SN 52,540. Wyandotte Worsted Company, Inc., Waterville, Maine. Filed May 28, 1958.

SUPER LUSTROSA

Owner of Reg. No. 630,118.
For Piece Goods of Wool.
First use May 14, 1958.

Class 44—Dental, Medical, and Surgical Appliances

SN 35,353. Johnson & Johnson, New Brunswick, N. J. Filed Aug. 12, 1957. Sec. 2(f).

JOHNSON'S

Owner of Reg. Nos. 635,697, 620,110, and others.
For Elastic Hosiery.
First use January 1955.

SN 37,392. Pascal Company, Inc., Seattle, Wash. Filed July 26, 1957.



For Refillable Kit Consisting of a Nebulizer and a Bottle of a Solution of Racemic Epinephrine Hydrochloride.
First use Sept. 21, 1934.

SN 37,847. American Silk Sutures, Inc., Long Island, N. Y. Filed Sept. 26, 1957.

GARDLOK

For Sutures.
First use June 27, 1957.

SN 39,545. Niblack System, Inc., Houston, Tex. Filed Oct. 25, 1957.



For Massaging Machines To Aid in Slenderizing and Reducing.
First use December 1939.

SN 45,124. Pauline M. Cowles, San Francisco, Calif. Filed Feb. 3, 1958.

FLEX-O-RING

For Colostomy Sets and Parts Thereof To Restrict or Control Leakage From the Elimination Tracts.
First use Mar. 23, 1955.

SN 47,664. George McQ. Kilmer, Edgemere, Md. Filed Mar. 13, 1958.

I. P. LIMHIKE

For Device Adapted for Assisting Paralyzed or Hemiplegic Persons to Dress Themselves.
First use Mar. 7, 1958.

SN 49,434. Walter Ratner, d. b. a. The Grant Company, Chicago, Ill., assignee of Gerald H. Gould, North Miami, Fla. Filed Apr. 10, 1958.

TRIMOBILE

For Therapeutic Exercising Devices in the Nature of a Horizontal Bar With Detachable Spring Pulls.
First use Mar. 5, 1958.

SN 50,138. The Kendall Company, Boston, Mass. Filed Apr. 21, 1958.

CURITY

For Nursers—Namely, Nursing Bottles, Caps and Sealing Discs for Nursing Bottles, and Nipples.
First use Mar. 12, 1958.

Class 45—Soft Drinks and Carbonated Waters

SN 36,677. Sweetie Beverages, Inc., Philadelphia, Pa. Filed Sept. 4, 1957.

ACE HIGH

For Root Beer.
First use Nov. 20, 1956.

SN 48,069. Adolph Westphal Bottling Works, River Forest, Ill. Filed Mar. 19, 1958.



The drawing is lined for red.
For Bottled Root Beer.
First use May 1, 1919.

SN 50,326. The Topp Cola Co., Savannah, Ga. Filed Apr. 24, 1958.

TOPP COLA

No claim is made to the word "Cola" apart from the other features of the mark shown in the drawing.

For Cola Flavored Soft Drink.

First use Apr. 8, 1958.

Class 46—Foods and Ingredients of Foods

SN 692,484. Motta S. p. A. per l'Industria Dolciaria e Alimentare, also d. b. a. Motta, S. p. A., Milan, Italy. Filed Aug. 4, 1955.



The wording "Marca Depositata" and "Motta Milano" is disclaimed apart from the mark shown. Owner of Italian Reg. No. 50,239, dated Jan. 30, 1935; and U. S. Reg. No. 575,941.

For Cookies, Cake, Candy, Biscuits, Cooking and Baking Chocolate, Candied Fruits, Chewing Gum, Sweet Flours With Malt, Ice Cream, Sherbet, Preparations for Making Ice Cream, Syrup for Food Beverages and Other Food Purposes.

SN 692,485. Motta S. p. A. per l'Industria Dolciaria e Alimentare, also d. b. a. Motta, S. p. A., Milan, Italy. Filed Aug. 4, 1955.



The English translation of the Latin wording "Summa Laetitia" is "highest enjoyment." Owner of Italian Reg. No. 102,525, dated June 4, 1951.

For Cookies, Cake, Candy, Biscuits, Jams, Cooking and Baking Chocolate, Candied Fruits, Chewing Gum, Sweet Flours With Malt, Ice Cream, Sherbet, Preparations for Making Ice Cream, Syrup for Food Beverages and Other Food Purposes.

SN 693,309. Commissary Corporation, Wooster, Ohio. Filed Aug. 18, 1955.



Owner of Reg. Nos. 567,732, 631,702, and others.

For Packaged Ice Cream, Ice Cream Cones, Ice Cream Sundaes, Milk Shakes, and Imitation Ice Cream—Namely, Low Fat Milk Sherbet; Ice Cream Toppings—Namely, Hot Chocolate Fudge, Butterscotch, Chocolate Syrup, Marshmallow, Hawaiian Pineapple, Cherry, Butterscotch Dip Top, and Chocolate Dip Top; and Take-Home Toppings—Namely, Chocolate Fudge, Pineapple, Cherry, Butterscotch, and Chocolate Syrup; and Concentrated Syrups—Namely, Strawberry, Cherry, Pineapple, and Vanilla; and Mixes and Concentrates for Preparing Such Ice Cream and Sherbet.

First use on or about Aug. 23, 1951.

SN 30,898. Draper Food Products Inc., Milford, Del. Filed May 28, 1957. Sec. 2(f).



The drawing is lined for red and blue.

For Canned Vegetables, Canned Tomato Juice.

First use Nov. 2, 1921.

SN 36,243. The Ski Hut, d. b. a. Pac-Lite Foods, Berkeley, Calif. Filed Aug. 26, 1957.

TRAILWISE

For Dehydrated and Dry Packed Food Products—Namely, Vegetables, Fruits, Eggs, Soup, Soup Bases, and Fruit Juice Powders.

First use about May 1954.

SN 37,112. Springfield Milling Corporation, Minneapolis, Minn. Filed Sept. 12, 1957.

VIGORENA

For Livestock Feeds.

First use on or about Oct. 1, 1929.

SN 37,730. General Foods Corporation, White Plains, N. Y. Filed Sept. 24, 1957. Sec. 2(f).

GOOD TO THE LAST DROP

Owner of Reg. No. 212,831.

For Coffee and Tea.

First use at least as early as 1910 on coffee.

SN 38,938. Winn-Dixie Stores, Inc., Jacksonville, Fla. Filed Oct. 15, 1957.

THRIFTY MAID

Owner of Reg. No. 626,317.

For Canned Peaches, Pears, Evaporated Milk, Tomato Juice, Peas, Corn.

First use Aug. 26, 1953.

SN 40,942. Hagan Chemicals & Controls, Inc., Pittsburgh, Pa. Filed Nov. 19, 1957.

CITRAFOS

For Chemical Preparation Used in the Treatment of Meats and Meat Products To Improve Their Color and Moisture Retention.

First use July 10, 1957.

SN 41,547. Jaret Imports, Inc., Brooklyn, N. Y. Filed Nov. 29, 1957.

VIVA

For Candy.

First use in or about October 1956.

SN 43,485. Crowley's Milk Company, Inc., Binghamton, N. Y. Filed Jan. 6, 1958.



For Fluid Milk and Cream, Buttermilk, Butter, Chocolate Milk Drink, and Cheeses.
First use July 1, 1957.

SN 46,158. Perk Foods Co., Chicago, Ill. Filed Feb. 19, 1958.

"KAT-NIP"

For Cat Food.
First use Dec. 18, 1957.

SN 48,422. Mars, Incorporated, Chicago, Ill. Filed Mar. 25, 1958.

MARSWEETS

Owner of Reg. Nos. 646,198, 804,055, and others.
For Candy.
First use Mar. 4, 1958.

SN 49,263. Flavour Candy Company, Chicago, Ill. Filed Apr. 8, 1958.

CANDY ZOO

Applicant disclaims any exclusive rights in the word "Candy."
For Candy.
First use Feb. 20, 1958.

SN 49,751. Farley Manufacturing Company, Skokie, Ill. Filed Apr. 16, 1958.

JEYBO'S

For Candy.
First use on or about Mar. 31, 1958.

SN 50,305. Leaf Brands, Inc., Chicago, Ill. Filed Apr. 24, 1958.

CLOUD 9

For Candy.
First use Apr. 1, 1958.

SN 51,340. Garfield Williamson Inc., Jersey City, N. J. Filed May 9, 1958.

WINTER LIFE

For Wild Bird Food.
First use January 1948.

SN 52,880. A. Sahadi & Company, Inc., New York, N. Y. Filed June 3, 1958.

A. Sahadi

Owner of Reg. Nos. 554,102 and 565,780.
For Halvah.
First use May 19, 1958.

SN 53,458. Acerola Processing Corporation, Sabana Seca Toa Baja, Puerto Rico. Filed June 13, 1958.

WONDERFRUIT

For Canned Acerola Juice.
First use Apr. 16, 1958.

SN 53,838. Standard Brands Incorporated, New York, N. Y. Filed June 18, 1958.

FORVITAN

Owner of Reg. No. 376,333.
For Yeast.
First use Mar. 31, 1958.

SN 54,006. James Choumas, d. b. a. J. C. Produce Co., Los Angeles, Calif. Filed June 23, 1958.

BLYTHE MESA

For Fresh Vegetables and Melons.
First use 1949.

SN 55,160. Orange Rice Milling Company, Orange, Tex. Filed July 11, 1958.

ECON-O-PACK

For Uncooked Rice.
First use Apr. 25, 1958.

SN 55,280. Foremost Dairies, Inc., d. b. a. Western Condensing Company, San Francisco, Calif. Filed July 14, 1958.

REDDI-SPONGE

For Dry Whey With Certain Protein Fractions Adjusted.
First use May 28, 1958.

SN 55,335. Pecheur Lozenge Company, Inc., Brooklyn, N. Y. Filed July 15, 1958.



Owner of Reg. No. 372,065.
For Rolls of Candy in Disk Form.
First use Mar. 1, 1958.

SN 56,285. Louis Albert, d. b. a. Louis Albert & Son Food Co., Omaha, Nebr. Filed July 30, 1958.



Owner of Reg. No. 555,760.
For Food Dressings for Salads, Vegetables, Meats, and Other Edible Foods.
First use Apr. 25, 1958; May 12, 1947, as to "Albert's."

Class 48 — Malt Beverages and Liquors

SN 44,700. The Genesee Brewing Company, Inc., Rochester, N. Y. Filed Jan. 27, 1958.

DICKENS

For Ale.
First use about Oct. 21, 1957.

SN 53,085. Weber Waukesha Brewing Company, Waukesha, Wis. Filed June 6, 1958. Sec. 2(f) as to "Weber."



Owner of Reg. No. 657,544.
For Beer.
First use May 12, 1958; in 1850 as to "Weber."

SN 53,086. Weber Waukesha Brewing Company, Waukesha, Wis. Filed June 6, 1958.



Owner of Reg. No. 657,544.
For Beer.
First use May 12, 1958.

Class 49 — Distilled Alcoholic Liquors

SN 52,055. National Distillers and Chemical Corporation, New York, N. Y. Filed May 21, 1958. Sec. 2(f).

OLD DOVER

For Whiskey.
First use on or about Apr. 23, 1934.

Class 50 — Merchandise Not Otherwise Classified

SN 51,451. Geo. B. Hart Inc., Rochester, N. Y. Filed May 12, 1958.

OA-SOUZER

For Device for Immersing and Saturating an Absorbent Body, Known as an "Oasis," With Water and Then Draining It So That It Can Be Used as a Support and Moistener for Cut Flowers and Other Plant Clippings.
First use Feb. 13, 1958.

Class 51 — Cosmetics and Toilet Preparations

SN 52,325. Germaine Monteil Cosmetiques Corporation, New York, N. Y. Filed May 26, 1958.

SUPER-FIRMA

For Cosmetic Face Lotion, Cosmetic Face Powders, Lipsticks, and Rouge.
First use Apr. 25, 1958.

Class 52 — Detergents and Soaps

SN 21,768. Allied Block Chemical Company, Pittsburgh, Pa. Filed Jan. 7, 1957.



For Waterless Hand Cleaner.
First use Sept. 24, 1954.

SN 47,420. Pioneer Salt Company, Philadelphia, Pa. Filed Mar. 10, 1958.

PIO-SORB

For Fuller's Earth Preparation for Absorbing Grease and Dirt.
First use on or about Dec. 3, 1954.

SN 48,837. Hysan Products Company, Chicago, Ill. Filed Apr. 1, 1958.

PORCENA

For Cleaning Preparation in Liquid Form for Use in Cleaning Porcelain, and Other Surfaces.
First use Mar. 26, 1958.

SN 49,543. Amchem Products, Inc., Ambler, Pa., by change of name from American Chemical Paint Company, Ambler, Pa. Filed Apr. 14, 1958.

RIDOLINE

Owner of Reg. Nos. 348,573, 403,838, and 405,078.
For Detergent.
First use Apr. 27, 1931.

SN 49,970. J. L. Prescott Company, Passaic, N. J. Filed Apr. 18, 1958.



Owner of Reg. Nos. 197,285 and 526,640.
For Liquid Detergent for Household Use.
First use Apr. 7, 1958.

SN 50,577. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Apr. 28, 1958.

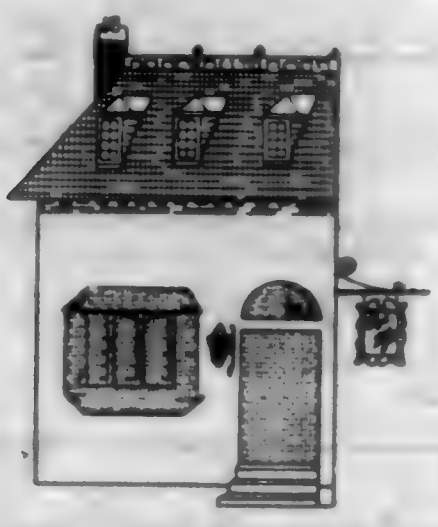
MERSOSTRIP

For Alkaline Composition for Stripping Paint.
First use Dec. 10, 1951.

SERVICE MARKS

Class 100—Miscellaneous

SN 22,484. John R. Thompson Co., Chicago, Ill. Filed Jan. 11, 1957.



The drawing is lined for red and yellow but no claim to color is made as other contrasting colors might be utilized to give the same effect. The horizontal lines in the roof of the house are a feature of the mark and do not represent color. Owner of Reg. Nos. 616,985 and 629,238.
For Restaurant Services.
First use about Jan. 15, 1956.

SN 26,204. Prexy's, Inc., New York, N. Y. Filed Mar. 14, 1957.



The lining in the drawing constitutes lining forming part of the mark and does not represent color.
For Catering Services.
First use Apr. 2, 1941.

SN 38,028. The Diversey Corporation, Chicago, Ill. Filed Sept. 30, 1957.

SANI-PLAN

Owner of Reg. No. 542,832.
For Sanitation Advisory Service for Hospitals, Beverage, Dairy and Food Plants, Eating Establishments, Creameries and Condenseries—Namely, Advice as to Cleaning and Sanitation Methods and the Type of Materials for Use With Such Methods.
First use January 1946.

SN 38,940. National Rural Electric Cooperative Association, Washington, D. C. Filed Oct. 14, 1957. COLLECTIVE MARK.



Owner of Reg. Nos. 646,629, 650,681, and others.
For Services of Rural Electric Cooperatives and Public Utility Districts—Namely, the Generation and/or Distribution of Electric Service, Promoting the Merchandising of Electric Appliances by Affiliated Dealers, and Promoting the General Welfare of Said Affiliated Dealers and of the Individuals Who Are Members of Said Rural Electric Cooperatives and Said Public Utility Districts.
First use November 1951.

SN 46,112. Doane Agricultural Service, Inc., St. Louis, Mo. Filed Feb. 19, 1958.

STIMULIGHT

For Planning and Designing Farm Buildings.
First use Jan. 20, 1958.

SN 49,272. Grossman & Sons, Inc., Columbus, Ohio. Filed Apr. 8, 1958.



Applicant disclaims the use of the words "Rag Bag."

For Services in Connection With a Program in Helping Schools To Obtain Funds by Operating Campaigns To Gather Waste Rags.

First use on or about Sept. 1, 1954.

SN 50,998. Fabric Research Laboratories, Inc., Dedham, Mass. Filed May 5, 1958.

FRL

For Research, Development and Consultation, for Industry and Government, in the Fields of Textiles, Plastics, Paper, Leather and Elastomers, and in Preparing Reports Thereon.

First use December 1949.

SN 52,008. Photronix, Inc., Columbus, Ohio. Filed May 20, 1958.



For Aerial Photogrammetry, Ground Surveys by Use of Photogrammetry, and Computation of Earthwork Quantities, Roadway Templates, Bridge Design and the Like.

First use Sept. 17, 1957.

Class 101 — Advertising and Business

SN 700,779. Big Bear Stores Company, Columbus, Ohio. Filed Dec. 29, 1955.

BUCKEYE

For Promoting the Sale of the Goods and Services of Others by Means of Trading Stamps Redeemable in Premiums.

First use Oct. 4, 1955.

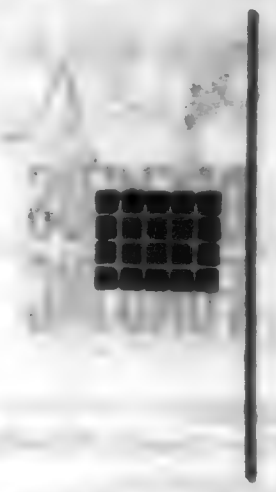
SN 20,424. Isadore Warshaw, d. b. a. Warshaw Collection of Business Americana, New York, N. Y. Filed Dec. 4, 1956. Sec. 2(f).

Warshaw Collection OF Business Americana

For Research Service in the Field of Trademarks, Advertisements, and Other Business Materials, Said Research Being Based on an Extensive Collection of Labels, Posters, Etc. and the Rental of Portions of Said Collection for Exhibition Purposes.

First use on or about June 1, 1941.

SN 30,987. Brett Lithographing Company, Long Island City, N. Y. Filed May 29, 1957.



The mark consists of 16 individual small rectangles set up to make 1 large rectangle and each small rectangle contains a different color as if in a spectrum. On the right side is a single vertical red line.

For Lithographing Services for Others.

First use June 25, 1956.

Class 102 — Insurance and Financial

SN 23,609. Barney & Barney, San Diego, Calif. Filed Feb. 4, 1957.

InSUREplan

For Analyzing Insurance Needs of Others and Advising as to the Most Efficient Types of Coverage Called for in Each Situation.

First use May 19, 1950.

SN 41,513. California-Western States Life Insurance Company, Sacramento, Calif. Filed Nov. 29, 1957.



The lining is not symbolic of color but is a feature of the mark. The words "Life Insurance Policy" and "One Policy Protects All the Family" are disclaimed apart from the mark as shown.

For Writing Life Insurance and Supplemental Accident and Health Insurance.

First use Aug. 15, 1957.

SN 45,085. United American Insurance Company, Dallas, Tex. Filed Jan. 31, 1958.



Applicant disclaims all wording except the term "United." The lining is a feature of the mark and is not intended to signify color.

For Underwriting of Insurance.

First use Jan. 15, 1958.

SN 48,974. The Dreyfus Fund Incorporated, New York, N. Y. Filed Apr. 3, 1958.

DREYFUS FUND INC

Owner of Reg. No. 638,192.

For Financial Service—Namely, Investing the Funds of Others.

First use on or about Mar. 1, 1957; on or about May 15, 1952, exclusive of the representation of the lion.

SN 51,355. Lee County Land & Title Co., Miami Beach, Fla. Filed May 9, 1958.

LEECO SYSTEM

For Services Rendered in Obtaining Payment of Outstanding Accounts of Others.

First use Apr. 17, 1958.

Class 103—Construction and Repair

SN 20,292. Pacific Fire Extinguisher Company, San Francisco, Calif. Filed Dec. 3, 1956.

FSD FIRE DETECTION SERVICE

The mark is not lined for color. Applicant disclaims exclusive right to the words "Fire Detection Service" apart from their use as a part of the mark shown.

For Installation and Maintenance of Automatic Fire Alarm Systems.

First use July 1, 1922; Jan. 1, 1921, as to "FDS"; July 1, 1914, as to "Fire Detection Service."

SN 49,476. Don Younger, Inc., San Francisco, Calif. Filed Apr. 10, 1958.



For Building Construction, Remodeling and Repairing.

First use Feb. 15, 1957.

SN 50,854. John Winkler's Sons, Inc., Far Rockaway, N. Y. Filed May 1, 1958.

WINKLERIZE

For Cleaning Furs and Rugs.

First use 1953.

Class 105—Transportation and Storage

SN 44,851. Vacationair Travel Plan, Inc., New York, N. Y. Filed Jan. 28, 1958.

VACATIONAIR

For Service Arranging for Air Travel Vacations for Groups of Employees.

First use in or about June 1957.

SN 45,342. Dimitrios G. Panos, d. b. a. Travelscope, Manhasset, N. Y. Filed Feb. 5, 1958.

TRAVELSCOPE

For Tourist Agency Services—Namely, the Planning of Tours and Securing of Transportation Reservations and/or Lodgings.

First use December 1953.

SN 46,717. Empire Household Shipping Company of New York, Inc., New York, N. Y. Filed Feb. 27, 1958.

UNI-VAN

For Transportation by Railroad, Truck, and Steamship of Household Goods Packed in Large Containers.

First use approximately July 17, 1951.

SN 50,778. Corporate Air Transport, Inc., Flushing, N. Y. Filed May 1, 1958.

CAT

For Transportation of Persons and Property by Airplane.

First use Feb. 5, 1958.

Class 106—Material Treatment

SN 36,154. Bremson Photo Industries, Inc., Kansas City, Mo. Filed Aug. 26, 1957.



The drawing is lined for blue and red but no claim is made thereto apart from the mark taken as a whole. Owner of Reg. No. 639,128.

For Photographic Processing.

First use July 15, 1957.

SN 38,860. The O. M. Scott and Sons Company, Marysville, Ohio. Filed Oct. 14, 1957. Sec. 2(f).

DR. SCOTT

Owner of Reg. Nos. 340,485, 563,909, and others.

For Advisory Service on Lawn Problems—Namely, Soil Testing and Weed and Grass Identification.

First use Aug. 28, 1957.

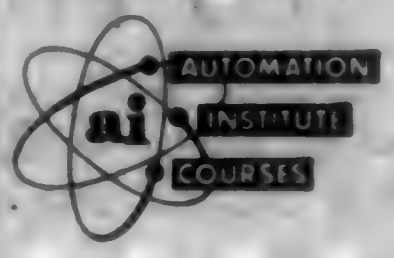
Class 107—Education and Entertainment

SN 43,276. Douglas F. Storer, New York, N. Y. Filed Dec. 31, 1957.

THIS YOU CAN BELIEVE

For Title of a Radio Program in the Nature of Stories Relating to Unusual Occurrences, Phenomena, Places, and Things of General Interest.
First use Sept. 14, 1957.

SN 47,710. Automation Institute of America, Inc., San Francisco, Calif. Filed Mar. 14, 1958.



No claim is made to the words "Automation Institute Courses" apart from the mark.
For Classroom Instruction Courses in Business Automation.
First use Feb. 1, 1956.

SN 49,014. Storer Broadcasting Company, Miami Beach, Fla. Filed Apr. 2, 1958.

TELL THE WORLD

For Title of a Radio Program Featuring the Expression of Opinion of Members of the Public by the Broadcast of Comments Submitted by Letter or Telephone.
First use Dec. 19, 1957.

SN 49,372. Robert Charles McAllister, Norfolk, Va. Filed Apr. 9, 1958.

BOB AND CHAUNCEY

For Title of a Television Program.
First use Apr. 1, 1955.

SN 49,374. Robert Charles McAllister, Norfolk, Va. Filed Apr. 9, 1958.

NUDNICKS

For Title of a Television Program.
First use Feb. 3, 1958.

SN 50,840. Show Tours, Inc., New York, N. Y. Filed May 1, 1958.



Applicant disclaims the descriptive words "Theatre," "Trains" and "Planes."
For Preparation and Conducting of Theatre and Entertaining Travel Service by Common Carrier Including Railroad Trains, Airplanes, Omnibuses, and Steamships Between the States of the United States and to Europe.
First use June 30, 1955.

COLLECTIVE MEMBERSHIP MARKS

Class 200

SN 37,290. Allied Retail Lumber Dealers, Denver, Colo. Filed Sept. 18, 1957.



The descriptive words "Quality Products" and "Qualified Dealers" are disclaimed apart from the mark as shown.
For Indicating Membership in Applicant's Corporation.
First use July 1, 1957.

CERTIFICATION MARKS

Class A—Goods

SN 28,179. National Wooden Pallet Manufacturers Association, Washington, D. C. Filed Apr. 15, 1957.



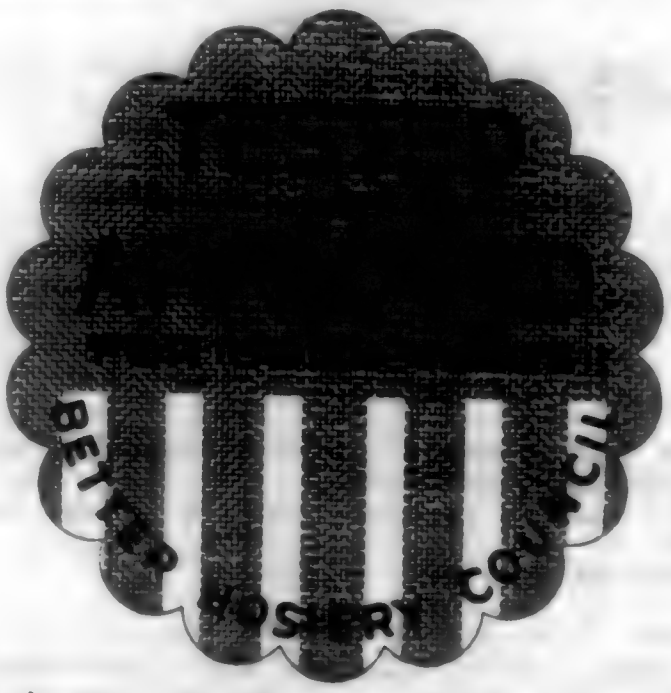
The mark certifies that the goods meet standards which are set by applicant as to workmanship, construction, design and quality of material. In use, the mark includes a grade designation and the number of a particular member mill.

For Wooden Pallets.

First use June 21, 1954.

TM 34

SN 28,371. National Association of Hosiery Manufacturers, Inc., New York, N. Y. Filed Oct. 4, 1957.



The drawing is lined for orange. The mark certifies that the hosiery on which it is used meets standards set by applicant as to wear, colorfastness, washability, accuracy of size, and quality in relation to price.

For Men's, Women's, Misses', Boys', Children's, and Infants' Socks, Stockings, Anklets, and Hosiery.

First use July 1, 1957.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

671,998. S STRUCTURLITE AND DESIGN. Structurlite Plastics Corporation. SN 3,244. Pub. 10–21–58. Filed 2–23–56.

671,999. BRONCHO. The General Tire & Rubber Company. SN 27,300. Pub. 10–21–58. Filed 4–1–57.

672,000. TELLERETTE. The Harshaw Chemical Company. SN 30,771. Pub. 10–21–58. Filed 5–27–57.

672,001. FLURAN. United States Stoneware Co. SN 31,710. Pub. 10–21–58. Filed 6–10–57.

672,002. TROVIDUR. Dynamit-Actien-Gesellschaft vormals Alfred Nobel & Co. SN 32,478. Pub. 10–21–58. Filed 6–24–57.

672,003. XALON. The General Tire & Rubber Company. SN 32,487. Pub. 10–21–58. Filed 6–24–57.

672,004. WEE WILLIE. Waller Flowerseed Company. SN 32,789. Pub. 10–21–58. Filed 6–27–57.

672,005. CHEVY CHASE. Raymond D. Payne, d. b. a. Lone Star Rose Nursery. SN 33,741. Pub. 2–4–58. Filed 7–15–57.

672,006. SAMMY SORGHUM ETC. AND DESIGN. James W. Lindsey, d. b. a. Lindsey Seed Company. SN 36,595. Pub. 9–9–58. Filed 9–3–57.

672,007. PIC A PUF. Johnson & Johnson. SN 38,149. Pub. 10–21–58. Filed 10–1–57.

672,008. GLEN GARDEN. Malcolm Bros. d. b. a. Aldermaston Sales. SN 40,206. Pub. 10–21–58. Filed 11–7–57.

672,009. LEPRECHAUN. Aodagan O'Rahilly. SN 43,265. Pub. 10–21–58. Filed 12–31–57.

672,010. MAXROFOL. Farbenfabriken Bayer Aktiengesellschaft. SN 43,840. Pub. 10–21–58. Filed 1–13–58.

672,011. BARAGEL. National Lead Company. SN 44,297. Pub. 10–21–58. Filed 1–20–58.

672,012. RAYLON. Pittsburgh Plate Glass Company. SN 45,804. Pub. 10–21–58. Filed 2–10–58.

Class 2—Receptacles

672,013. SARAN-O-VAC ETC. AND DESIGN. Prinston Corporation. SN 5,893. Pub. 9–21–56. Filed 4–5–56.

672,014. SEIDEN AND DESIGN. H. G. Seiden & Co. Inc., d. b. a. Seiden Brass and Giftware. SN 36,112. Pub. 10–21–58. Filed 8–23–57.

672,015. GLAMAKOTE. American Can Company, assignee of Marathon Corporation. SN 36,721. Pub. 10–14–58. Filed 9–3–57.

672,016. CAN-HOP. Aladdin Laboratories, Incorporated. SN 44,946. Pub. 10–21–58. Filed 1–30–58.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

672,017. CONCEAL-IT. Al-Min Distributing, Inc. SN 19,932. Pub. 10–21–58. Filed 11–27–56.

Class 4—Abrasives and Polishing Materials

672,018. CADIE WINDO WIPE. Cadie Chemical Products, Inc. SN 24,116. Pub. 10–21–58. Filed 7–22–57.

672,019. FLOR-GLEAM AND DESIGN. Floyd S. Arnold, d. b. a. Arnold's Supply Company. SN 41,971. Pub. 10–21–58. Filed 12–9–57.

672,020. DRI-BORE. H. & A. Selmer, Inc. SN 48,210. Pub. 10–21–58. Filed 3–21–58.

Class 5—Adhesives

672,021. WELDIT. Weldit Corporation, assignee of Singer Home Products Corp. SN 47,442. Pub. 9–9–58. Filed 3–10–58.

672,022. KOBOND. National Starch Products Inc. SN 48,572. Pub. 10–21–58. Filed 3–27–58.

Class 6—Chemicals and Chemical Compositions

672,023. PENN-SIZE. Pennsalt Chemicals Corporation. SN 34,455. Pub. 10–21–58. Filed 7–26–57.

672,024. TRIPLE THREAT. DeMert & Dougherty, Inc. SN 35,920. Pub. 10–21–58. Filed 8–21–57.

672,025. PARTALL. Mortier F. Barras, d. b. a. Rexco. SN 37,716. Pub. 10–14–58. Filed 9–24–57.

672,026. STA-PUT. Cling-Surface Company. SN 38,595. Pub. 10–21–58. Filed 10–9–57.

672,027. POLYPHILONIC. Petrolite Corporation. SN 39,267. Pub. 10–21–58. Filed 10–21–57.

672,028. POLYPHOBONIC. Petrolite Corporation. SN 39,268. Pub. 10–21–58. Filed 10–21–57.

672,029. X–60. Ag Products Co. SN 44,859. Pub. 10–21–58. Filed 1–29–58.

672,030. MONSANTO M. Monsanto Chemical Company. SN 45,592. Pub. 10–21–58. Filed 2–10–58.

672,031. PRIOPLAST. Fritz Schenker-Winkler, d. b. a. Kaspar Winkler & Co. SN 46,761. Pub. 10–21–58. Filed 2–27–58.

672,032. DIASTIX. Ames Company, Inc. SN 47,810. Pub. 10–21–58. Filed 3–17–58.

672,033. LABSTIX. Ames Company, Inc. SN 47,811. Pub. 10–21–58. Filed 3–17–58.

672,034. NUTRISEPT. Middlebrooks-Lancaster, Inc. SN 48,105. Pub. 10–21–58. Filed 3–20–58.

Class 10—Fertilizers

672,035. TRACIN. Puget Sound Pulp and Timber Company. SN 34,459. Pub. 10–21–58. Filed 7–26–57.

672,036. COLO-GRO AND DESIGN. Kingston Farmers Exchange, Inc. SN 35,009. Pub. 10–21–58. Filed 7–9–58.

672,037. GARDENURE. Organic Compost Corporation. SN 35,262. Pub. 10–21–58. Filed 7–14–58.

Class 12—Construction Materials

672,038. ANCOR. Ackermann Manufacturing Company, assignee of Flash-Stone Company, Inc. SN 681,123. Pub. 7–19–55. Filed 1–26–55.

672,039. MAGOX. Central National Bank of Cleveland, trustee, assignee of Basic, Incorporated. SN 11,052. Pub. 9–9–58. Filed 6–27–56.

672,040. DFPA. Douglas Fir Plywood Association. SN 20,914. COLLECTIVE MARK. Pub. 10–21–58. Filed 12–12–56.

672,041. ZIRCOA. Zirconium Corporation of America. SN 29,330. Pub. 10–21–58. Filed 5–2–57.

672,042. VELODIZE. The William L. Bonnell Company, Inc. SN 30,396. Pub. 10–21–58. Filed 5–21–57.

672,043. NOVOWALL. United States Plywood Corporation. SN 33,304. Pub. 10–21–58. Filed 7–5–57.

672,044. MICRO-MATCH AND DESIGN. Miller Brothers Company, Inc. SN 33,821. Pub. 10–21–58. Filed 7–16–57.

672,045. MICRO-MATCH. Miller Brothers Company, Inc. SN 33,822. Pub. 10–21–58. Filed 7–16–57.

672,046. CHIPSTONE. Robbins Floor Products, Inc. SN 34,815. Pub. 10–21–58. Filed 8–1–57.

672,047. THERMO-JET. L. O. F Glass Fibers Company. SN 35,272. Pub. 10–21–58. Filed 8–9–57.

672,048. TILE-RITE. The Tile-Rite Company. SN 40,787. Pub. 10–21–58. Filed 11–15–57.

672,049. TFC. Tennessee Fabricating Company. SN 41,677. Pub. 10–21–58. Filed 12–2–57.

672,050. LUMIRAMA. Litecraft Manufacturing Corp. SN 43,944. Pub. 10–21–58. Filed 1–14–58.

672,051. WEATHER-SEAL. Weather-Seal, Inc. SN 47,340. Pub. 10–21–58. Filed 3–11–58.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

672,052. DESIGN OF ELECTRONIC SYMBOL. Keuffel & Esser Company, assignee of Micro-Master, Inc. SN 32,197. Pub. 8–5–58. Filed 6–18–57.

672,053. MICRO-MASTER. Keuffel & Esser Company, assignee of Micro-Master, Inc. SN 32,198. Pub. 8–5–58. Filed 6–18–57.

672,054. DANCO. The Danielson Manufacturing Company. SN 42,273. Pub. 8–5–58. Filed 12–12–57.

672,055. CHECK A FLOOD. Rosson Manufacturing Co. SN 45,414. Pub. 10–21–58. Filed 2–6–58.

672,056. AQUA DIAL. Wright Mfg. Company. SN 47,037. Pub. 10–21–58. Filed 3–3–58.

672,057. UNATAP. Walker Crosweller & Company Limited. SN 48,886. Pub. 10–21–58. Filed 4–1–58.

672,058. VINALUME. New York Wire Cloth Company. SN 48,926. Pub. 10–21–58. Filed 4–2–58.

672,059. AUTO-RAIN. Michigan Orchard Supply Company. SN 49,007. Pub. 10–21–58. Filed 4–3–58.

672,060. AMERICAN SCOUT. United States Steel Corporation. SN 49,017. Pub. 10–21–58. Filed 4–3–58.

672,061. ACE. Ace Fastener Corporation. SN 49,398. Pub. 10–21–58. Filed 4–10–58.

672,062. DB DAVID BRADLEY. Sears, Roebuck and Co. SN 50,401. Pub. 9–30–58. Filed 4–25–58.

Class 14—Metals and Metal Castings and Forgings

672,063. RX MET. Michigan Industries Co. SN 34,363. Pub. 10–21–58. Filed 7–25–57.

672,064. MANGA-TONE N. M. The Resisto-Loy Company, Inc. SN 36,910. Pub. 10–21–58. Filed 9–9–57.

672,065. KENPLATE. Kennametal Inc. SN 42,102. Pub. 10–21–58. Filed 12–27–57.

672,066. CRUCAST. Crucible Steel Company of America. SN 43,301. Pub. 10–21–58. Filed 1–2–58.

672,067. HI-PHY. Morris P. Kirk & Son, Inc. SN 44,715. Pub. 10–21–58. Filed 1–27–58.

672,068. KENSPRAY. Kennametal Inc. SN 45,578. Pub. 10–21–58. Filed 2–10–58.

672,069. READY MARK. Brown & Sharpe Manufacturing Company. SN 46,203. Pub. 10–21–58. Filed 2–20–58.

Class 15—Oils and Greases

672,070. DIAMOND. Diamond Candle Co., Inc. SN 673,810. Pub. 12–27–55. Filed 9–27–54.

Class 16—Protective and Decorative Coatings

672,071. CEE BEE AND DESIGN. Cee-Bee Chemical Co., Inc. SN 44,878. Pub. 10–21–58. Filed 1–29–58.

672,072. SPEED ROCK. General Paint & Varnish Company Inc., d. b. a. Wheeler Varnish Works. SN 48,985. Pub. 10–21–58. Filed 4–3–58.

672,073. FROST CAP. Deer-O Paints and Chemicals, Ltd. SN 53,594. Pub. 10–21–58. Filed 6–16–58.

672,074. STRAN-KOTE. Stran-Steel Corporation. SN 53,962. Pub. 10–21–58. Filed 6–20–58.

672,075. "FIESTA" AND DESIGN. Columbia Varnish Company. SN 54,006. Pub. 10–21–58. Filed 6–23–58.

672,076. CHEMFAST MAXI-MIL. Devoe & Raynolds Company, Inc. SN 54,016. Pub. 10–21–58. Filed 6–23–58.

672,077. TRU-GLAZE. Devoe & Raynolds Company, Inc. SN 54,017. Pub. 10–21–58. Filed 6–23–58.

672,078. ZIPON AND DESIGN. Sidney S. Gabriel, d. b. a. Zipon Wood Finishes. SN 54,033. Pub. 10–21–58. Filed 6–23–58.

Class 17—Tobacco Products

672,079. ESQUIRE. Esquire, Inc., assignee of Associated Cigar Company. SN 27,657. Pub. 10–15–57. Filed 4–8–57.

Class 18—Medicines and Pharmaceutical Preparations

672,080. CITROL. Grove Laboratories Incorporated, assignee of Grove Laboratories, Inc. SN 19,141. Pub. 10–21–58. Filed 11–13–56.

672,081. CORYZADINE. Irwin, Neisler and Co. SN 38,193. Pub. 3–4–58. Filed 8–26–57.

672,082. CORYZATAN. Irwin, Neisler and Co. SN 38,194. Pub. 3–18–58. Filed 8–26–57.

672,083. C. S. A. American Pharmaceutical Company. SN 39,937. Pub. 10–21–58. Filed 11–1–57.

672,084. V–K. Eli Lilly and Company. SN 40,834. Pub. 9–2–58. Filed 11–18–57.

672,085. HI-SCORE. Cramer Chemical Company. SN 42,843. Pub. 10–21–58. Filed 12–23–57.

672,086. KEEPAWAY. Vigor Laboratories Limited, d. b. a. Keepaway Laboratory. SN 43,491. Pub. 10–21–58. Filed 1–6–58.

672,087. FURADEX. The Norwich Pharmacal Company, d. b. a. Eaton Laboratories. SN 44,841. Pub. 10–21–58. Filed 1–24–58.

672,088. GLYCAMIDE. Merck & Co., Inc. SN 45,039. Pub. 10–21–58. Filed 1–31–58.

672,089. TOFRANIL. Geigy Chemical Corporation. SN 45,471. Pub. 9–16–58. Filed 2–7–58.

672,090. MONSANTO M. Monsanto Chemical Company. SN 45,591. Pub. 10–21–58. Filed 2–10–58.

672,091. QUEEN BEE. Caltex Distributors, Inc. SN 46,599. Pub. 10–21–58. Filed 2–26–58.

672,092. NP–27. The Norwich Pharmacal Company. SN 47,067. Pub. 10–21–58. Filed 3–4–58.

672,093. COBA-TERRAMYCIN. Chas. Pfizer & Co., Inc. SN 47,210. Pub. 10–21–58. Filed 3–6–58.

672,094. NODANE. Wren Pharmacal Co. SN 47,620. Pub. 10–7–58. Filed 3–12–58.

672,095. LOZOTHRICIN. Rexall Drug Company. SN 48,867. Pub. 10–21–58. Filed 4–1–58.

672,096. NABOTHRICIN. Rexall Drug Company. SN 48,868. Pub. 10–21–58. Filed 4–1–58.

672,097. GLUTAN H-C-L. American Cyanamid Company. SN 49,730. Pub. 10–21–58. Filed 4–16–58.

672,098. EQUANITRATE. American Home Products Corporation, d. b. a. Wyeth Laboratories. SN 49,894. Pub. 10–21–58. Filed 4–18–58.

672,099. GRADUMET TRAL. Abbott Laboratories. SN 50,139. Pub. 10–21–58. Filed 4–22–58.

672,100. NULSTRESS. White Laboratories, Inc. SN 50,265. Pub. 10–21–58. Filed 4–23–58.

672,101. QUIETROL. White Laboratories, Inc. SN 50,266. Pub. 10–21–58. Filed 4–23–58.

672,102. MELSA. Melville Sahyun, d. b. a. Sahyun Laboratories. SN 50,316. Pub. 10–21–58. Filed 4–24–58.

672,103. MELSA-FAX. Melville Sahyun, d. b. a. Sahyun Laboratories. SN 50,317. Pub. 10–21–58. Filed 4–24–58.

672,104. TERNAC. Paul B. Elder Company. SN 50,463. Pub. 10–21–58. Filed 4–28–58.

672,105. WONDER-SLIM. Gary-Howe Corp. SN 50,616. Pub. 10–21–58. Filed 4–29–58.

672,106. AMETENSE. SchenLabs Pharmaceuticals, Inc. SN 50,645. Pub. 10–21–58. Filed 4–29–58.

672,107. THEOMET. Schering Corporation. SN 50,649. Pub. 10–21–58. Filed 4–29–58.

672,108. DREMELON. Vitamin Council Incorporated. SN 50,750. Pub. 10–21–58. Filed 4–30–58.

672,109. ARISTOPRIN. American Cyanamid Company. SN 51,607. Pub. 10–21–58. Filed 5–14–58.

672,110. ARISTOGESIC. American Cyanamid Company. SN 51,608. Pub. 10–21–58. Filed 5–14–58.

672,111. ARISTOMIN. American Cyanamid Company. SN 51,611. Pub. 10–21–58. Filed 5–14–58.

672,112. ARISTOCYL. American Cyanamid Company. SN 51,612. Pub. 10–21–58. Filed 5–14–58.

672,113. METILON. Schering Corporation. SN 51,742. Pub. 10–21–58. Filed 5–15–58.

672,114. NOVAPRAL. Schering Corporation. SN 51,743. Pub. 10–21–58. Filed 5–15–58.

672,115. TRANSAMOL. Schering Corporation. SN 51,744. Pub. 10–21–58. Filed 5–15–58.

672,116. ARISTODERM. American Cyanamid Company. SN 54,662. Pub. 10–21–58. Filed 7–2–58.

Class 19 — Vehicles

672,117. CAR/PETS. H. B. Egan Manufacturing Company. SN 34,523. Pub. 10–21–58. Filed 7–29–57.

672,118. SPORT KING. King Trailer Co., Inc. SN 43,544. Pub. 10–21–58. Filed 1–7–58.

672,119. EPCO. Exchange Parts Company of Fort Worth. SN 43,837. Pub. 10–21–58. Filed 1–13–58.

672,120. GENRALINE. W. H. Frick, Inc. SN 44,172. Pub. 10–21–58. Filed 1–17–58.

672,121. RICHARDSON. Richardson Boat Co., Inc. SN 48,583. Pub. 10–21–58. Filed 3–27–58.

672,122. BROWN. Clark Equipment Company, assignee of Brown Trailers Inc. SN 48,703. Pub. 10–21–58. Filed 3–31–58.

672,123. THE CAPITOL. Capitol Trailer Coach Company, Inc. SN 48,900. Pub. 10–21–58. Filed 4–2–58.

672,124. LO-MERC. Ronson-Richards Processing Co., Inc. SN 48,934. Pub. 10–21–58. Filed 4–3–58.

672,125. EAGLE DESIGN. Northrop Aircraft, Inc. SN 49,602. Pub. 10–21–58. Filed 4–14–58.

672,126. REPRESENTATION OF AN EAGLE WITHIN A TRIANGLE AND CIRCLE. Northrop Aircraft, Inc. SN 49,603. Pub. 10–21–58. Filed 4–14–58.

672,127. REPRESENTATION OF AN EAGLE WITHIN A GLOBE, TRIANGLE, AND CIRCLE. Northrop Aircraft, Inc. SN 49,604. Pub. 10–21–58. Filed 4–14–58.

Class 21 — Electrical Apparatus, Machines, and Supplies

672,128. EASY-FLO. Regal Ware, Inc. SN 23,252. Pub. 10–21–58. Filed 1–25–57.

672,129. CHARGE-A-LITE. Sperry Rand Corporation. SN 24,211. Pub. 10–21–58. Filed 2–11–57.

672,130. THANK-U-COURTESY. Paul A. H. de Macarté, d. b. a. Thank-U-Courtesy Horn. SN 29,143. Pub. 10–21–58. Filed 4–30–57.

672,131. GOLDEN LINE. James A. Viola, d. b. a. Rapid Electric Company. SN 29,770. Pub. 4–8–58. Filed 5–8–57.

672,132. KO-KO KING. Ralph M. Stilwell. SN 29,838. Pub. 10–21–58. Filed 5–10–57.

672,133. AMPOWER. AMP Incorporated. SN 30,631. Pub. 10–21–58. Filed 5–24–57.

672,134. SWITCHPAK. Illinois Tool Works. SN 31,012. Pub. 10–21–58. Filed 5–29–57.

672,135. CARLOMA "– – SHH" ETC. AND DESIGN. Carloma Corporation. SN 31,463. Pub. 10–21–58. Filed 6–6–57.

672,136. FAIRWAY. Montgomery Ward & Co., Incorporated. SN 33,823. Pub. 10–21–58. Filed 7–16–57.

672,137. THERMALEX. Essex Wire Corporation. SN 34,126. Pub. 10–21–58. Filed 7–22–57.

672,138. SODEREX. Essex Wire Corporation. SN 34,597. Pub. 10–21–58. Filed 7–30–57.

672,139. TORCHIE AND DESIGN. Breese Industries, Inc., by change of name from Breese Burners, Inc. SN 34,910. Pub. 10–21–58. Filed 8–5–57.

672,140. RAINBRAIN ETC. AND DESIGN. Harold A. Seele, d. b. a. Pacific Tool and Die Co. SN 37,045. Pub. 10–21–58. Filed 9–11–57.

672,141. HI AND DESIGN. Holub Industries, Inc. SN 37,788. Pub. 10–21–58. Filed 9–25–57.

672,142. M METZ AND DESIGN. Transformatoren- und Apparate-Fabrik Paul Metz. SN 37,824. Pub. 10–21–58. Filed 9–25–57.

672,143. HUDSON AMERICAN. Vocaline Company of America, Inc., assignee, by mesne assignments, from Hudson American Corporation. SN 41,018. Pub. 10–21–58. Filed 11–20–57.

672,144. CARMASTER. Guilbert, Incorporated. SN 44,962. Pub. 10–21–58. Filed 1–30–58.

672,145. ROCKHIDE. Rockbestos Products Corporation. SN 44,964. Pub. 10–21–58. Filed 1–30–58.

672,146. NRG. Tobe Deutschmann Corporation. SN 45,426. Pub. 10–21–58. Filed 2–6–58.

672,147. BL. Belling & Lee Limited. SN 45,447. Pub. 10–21–58. Filed 2–7–58.

672,148. PENTA. Penta Laboratories, Inc. SN 47,274. Pub. 10–21–58. Filed 3–7–58.

672,149. PERSONNA. Personna International, Inc. SN 47,275. Pub. 10–21–58. Filed 3–7–58.

672,150. STINKY. Radco Manufacturing Company, Inc. SN 47,282. Pub. 10–21–58. Filed 3–7–58.

672,151. SMOKY. Radco Manufacturing Company, Inc. SN 47,283. Pub. 10–21–58. Filed 3–7–58.

672,152. YARDNEY ARCTIC AND DESIGN. Yardney Electric Corporation. SN 47,301. Pub. 10–21–58. Filed 3–7–58.

672,153. B-SHUR. B-Shur Manufacturer. SN 47,336. Pub. 10–21–58. Filed 3–10–58.

672,154. HILL H AND DESIGN. Hill Transformer Co., Inc. SN 47,380. Pub. 10–21–58. Filed 3–10–58.

672,155. ROTOVANCE. Holley Carburetor Company. SN 47,383. Pub. 10–21–58. Filed 3–10–58.

672,156. SEA RAD. Multi-Products Company. SN 47,408. Pub. 10–21–58. Filed 3–10–58.

672,157. RADISIL. Engelhard Industries Limited. SN 47,633. Pub. 10–21–58. Filed 3–13–58.

672,158. FLIGHT ENGINEERED AND DESIGN. Bowers Battery and Spark Plug Co. SN 47,721. Pub. 10–21–58. Filed 3–14–58.

672,159. PENNSYLVANIA TRANSMOBILE AND DESIGN. McGraw-Edison Company. SN 48,037. Pub. 10–21–58. Filed 3–19–58.

672,160. PARA-SCOPE. Channel Master Corporation. SN 48,143. Pub. 10–21–58. Filed 3–21–58.

672,161. WEATHERMAN. Orival E. Borst, d. b. a. L. T. Labs. SN 48,434. Pub. 10–21–58. Filed 3–26–58.

672,162. VEEP. Philco Corporation. SN 48,652. Pub. 10–21–58. Filed 3–28–58.

672,163. METALTITE. Metaltite Products, Inc. SN 48,768. Pub. 10–21–58. Filed 3–31–58.

672,164. SODERON. Essex Wire Corporation. SN 49,430. Pub. 10–21–58. Filed 4–10–58.

672,165. SODERBOND. Essex Wire Corporation. SN 49,431. Pub. 10–21–58. Filed 4–10–58.

Class 22 — Games, Toys, and Sporting Goods

672,166. DESIGN GREEN CAPPING MEMBER. Dayton Bait Corporation. SN 27,673. Pub. 10–21–58. Filed 4–8–57.

672,167. GYMIK EXERCISOR. Farison Manufacturing Company. SN 28,503. Pub. 10–21–58. Filed 4–19–57.

672,168. BOX-A-BALL. Donald F. Duncan, Incorporated. SN 30,005. Pub. 10–21–58. Filed 5–14–57.

672,169. TED SYKES. Ideal Products, Inc. SN 35,471. Pub. 10–21–58. Filed 8–13–57.

672,170. SILVER HORDE. Lew Morrison. SN 47,883. Pub. 10–21–58. Filed 3–17–58.

672,171. ODD BALL. Lester M. Davis, d. b. a. Les Davis Fishing Tackle Co. SN 30,877. Pub. 10–21–58. Filed 5–2–58.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

672,172. KEEN-EDGE. Joseph A. Cahil, d. b. a. Cahil Manufacturing Company. SN 681,469. Pub. 10–4–55. Filed 2–10–55.

672,173. DESIGN OF GREEN STRIPE ON BACK OF KNIFE. The Ohio Knife Co. SN 15,623. Pub. 9–23–58. Filed 9–13–56.

672,174. CHOICE VEND. Central Tool Company, Incorporated. SN 28,109. Pub. 10–21–58. Filed 4–15–57.

672,175. THOMPSON HYDRA-CAM AND DESIGN. Earl A. Thompson Manufacturing Company. SN 29,842. Pub. 10–21–58. Filed 5–10–57.

672,176. QUICKFIT. Quickfit & Quartz Limited. SN 35,679. Pub. 10–21–58. Filed 8–16–57.

672,177. DESIGN OF CIRCLES ON SQUARE. Quickfit & Quartz Limited. SN 36,021. Pub. 10–21–58. Filed 8–22–57.

672,178. FABRI-FLEX. F. Jos. Lamb Company. SN 42,292. Pub. 10–7–58. Filed 12–12–57.

672,179. SKODA. Zavody V. I. Lenina Plzen, Narodni Podnik. SN 45,359. Pub. 10–21–58. Filed 2–5–58.

672,180. ELK-CO_2. Elkhart Brass Manufacturing Company, Inc. SN 45,549. Pub. 10–21–58. Filed 2–10–58.

672,181. JET-SETTER. General American Transportation Corporation. SN 47,191. Pub. 10–21–58. Filed 3–6–58.

672,182. PORTAPAL. R. H. Corbett & Company Limited. SN 48,247. Pub. 10–21–58. Filed 3–24–58.

672,183. KINGMATIC. John J. King. SN 48,418. Pub. 10–21–58. Filed 3–25–58.

672,184. BORLETTI. Fratelli Borletti Societa per Azioni. SN 50,225. Pub. 10–21–58. Filed 4–23–58.

672,185. ROTO-LOCK. Ideal Industries, Inc. SN 50,230. Pub. 10–21–58. Filed 4–23–58.

672,186. POWER-MATE. Remington Arms Company, Inc. SN 50,313. Pub. 10–21–58. Filed 4–24–58.

672,187. CFL. Ronson Corporation. SN 50,642. Pub. 10–21–58. Filed 4–29–58.

672,188. BEEBE BROS. Beebe Bros. SN 51,258. Pub. 10–21–58. Filed 5–8–58.

672,189. SLICK SHIFT. The Triumph Corporation. SN 51,382. Pub. 10–21–58. Filed 5–9–58.

672,190. KERMATH. J. S. Ballantine, d. b. a. Ballantine Industries. SN 53,466. Pub. 10–21–58. Filed 6–13–58.

672,191. SCOTTISH. Scottish Tool, Die & Metal Products Company. SN 53,833. Pub. 10–21–58. Filed 6–18–58.

672,192. ROTEX. James L. Skerritt, d. b. a. Rotex Manufacturing Co. SN 53,836. Pub. 10–21–58. Filed 6–18–58.

672,193. UNION CARBIDE AND DESIGN. Union Carbide Corporation. SN 53,842. Pub. 10–21–58. Filed 6–18–58.

672,194. GRIP TORC. H. & T. Keesling. SN 53,881. Pub. 10–21–58. Filed 6–19–58.

Class 25 — Locks and Safes

672,195. MOBIL-MANOR LOCK. J. Chesler & Sons, Inc. SN 45,785. Pub. 10–21–58. Filed 2–12–58.

Class 26 — Measuring and Scientific Appliances

672,196. ACTIFILM AND DESIGN. General Aniline & Film Corporation. SN 27,293. Pub. 8–26–58. Filed 4–1–57.

672,197. MICRO-MASTER. Keuffel & Esser Company, assignee of Micro-Master, Inc. SN 30,672. Pub. 7–22–58. Filed 5–24–57.

672,198. SHADOMASTER. Watson, Manasty & Company Limited. SN 33,388. Pub. 10–21–58. Filed 7–8–57.

672,199. PERMA LINE. Heiliger, Incorporated. SN 34,690 Pub. 5–13–58. Filed 7–31–57.

672,200. TURBIDSCOPE. U. S. Electrical Motors, Inc. SN 37,757. Pub. 10–21–58. Filed 9–24–57.

672,201. STARCRAFT. Starcraft. SN 42,243. Pub. 10–21–58. Filed 12–11–57.

672,202. TRAJECTOR. Trans-Sonics, Inc. SN 44,049. Pub. 10–21–58. Filed 1–15–58.

672,203. UNIFIT. Xylite Products Co., Inc. SN 45,298. Pub. 10–21–58. Filed 2–4–58.

672,204. DY AND DESIGN. Dynec, Inc., by change of name from Dynac, Inc. SN 48,151. Pub. 10–21–58. Filed 3–21–58.

672,205. FASTLINE. Optical Gaging Products, Inc. SN 48,323. Pub. 10–21–58. Filed 3–24–58.

672,206. "VEETUBE." Vacuum Electronic Mfg. Corp. SN 48,372. Pub. 10–21–58. Filed 3–24–58.

672,207. EYE AND ARROW DESIGN. Marion Electrical Instrument Co. SN 48,421. Pub. 10–21–58. Filed 3–25–58.

672,208. PLATE MATE. Robertson Photo-Mechanix, Inc. SN 48,438. Pub. 10–21–58. Filed 3–25–58.

672,209. NORMAPAN. General Aniline & Film Corporation. SN 48,534. Pub. 10–21–58. Filed 3–27–58.

672,210. EYE-MATIC. Revere Camera Company. SN 48,581. Pub. 10–21–58. Filed 3–27–58.

672,211. PANA-VUE. Sawyer's Inc. SN 48,793. Pub. 10–21–58. Filed 3–31–58.

Class 29—Brooms, Brushes, and Dusters

672,212. "NUN BETTER." Rittenbaum Brothers. SN 45,279. Pub. 10–21–58. Filed 2–4–58.

672,213. WINK-O-PAD. Mavon Products Co. SN 46,356. Pub. 10–21–58. Filed 2–21–58.

Class 30—Crockery, Earthenware, and Porcelain

672,214. THE FRIENDLY VILLAGE AND DESIGN. Johnson Bros. (Hanley) Limited. SN 30,024. Pub. 10–21–58. Filed 5–14–57.

672,215. FAIR OAKS. Regal China, Inc. SN 42,924. Pub. 10–21–58. Filed 12–23–57.

Class 31—Filters and Refrigerators

672,216. DB DAVID BRADLEY. Sears, Roebuck and Co. SN 50,403. Pub. 10–7–58. Filed 4–25–58.

672,217. FAIRFAX. Koch Refrigerators, Inc. SN 53,620. Pub. 10–21–58. Filed 6–16–58.

Class 32—Furniture and Upholstery

672,218. "COMMENT." Craddock Furniture Corporation. SN 39,930. Pub. 10–21–58. Filed 11–1–57.

672,219. CUM-GRAVITY. R. M. Martin, d. b. a. Bilt-Wel Company. SN 40,860. Pub. 10–21–58. Filed 11–18–57.

672,220. C AND E. Chittenden and Eastman Company. SN 42,833. Pub. 10–21–58. Filed 12–23–57.

672,221. WONDER WALL. The I-XL Furniture Co., Inc. SN 44,825. Pub. 10–21–58. Filed 1–28–58.

672,222. STRETCH-OUT. Sealy, Incorporated. SN 49,622. Pub. 10–21–58. Filed 4–14–58.

672,223. THE LUXWOOD. The James P. Lamm Co. SN 52,542. Pub. 9–9–58. Filed 5–12–58.

672,224. H. Harveton Furniture, Inc. SN 54,160. Pub. 10–21–58. Filed 6–24–58.

672,225. HILA-PLAS. The General Fireproofing Company. SN 54,397. Pub. 10–21–58. Filed 6–27–58.

Class 33—Glassware

672,226. SCREENLOK ETC. Safetee Glass Company. SN 39,673. Pub. 10–21–58. Filed 10–28–57.

672,227. BOROCRYSTAL ETC. AND DESIGN. Borske Sklo, Narodni Podnik. SN 40,115. Pub. 10–21–58. Filed 11–5–57.

672,228. FLEURETTE. Anchor Hocking Glass Corporation. SN 48,389. Pub. 10–21–58. Filed 3–25–58.

672,229. COLOR-BREAK. Kimble Glass Company. SN 49,388. Pub. 10–21–58. Filed 4–14–58.

Class 34—Heating, Lighting, and Ventilating Apparatus

672,230. QUICKFIT. Quickfit & Quartz Limited. SN 35,678. Pub. 10–21–58. Filed 8–16–57.

672,231. DESIGN OF CIRCLES ON SQUARE. Quickfit & Quartz Limited. SN 36,020. Pub. 10–21–58. Filed 8–22–57.

672,232. HABITAT. Habitat, Inc. SN 49,367. Pub. 10–21–58. Filed 4–9–58.

672,233. COMFORTEER. F. P. Ryan. SN 49,462. Pub. 10–21–58. Filed 4–10–58.

672,234. NELSON AIRE. American Air Filter Company, Inc. SN 49,892. Pub. 10–21–58. Filed 4–18–58.

672,235. HART. Globe American Corporation, d. b. a. Vulcan-Hart Manufacturing Company. SN 49,920. Pub. 10–21–58. Filed 4–18–58.

Class 36—Musical Instruments and Supplies

672,236. DATE. Columbia Broadcasting System, Inc. SN 47,493. Pub. 10–21–58. Filed 3–11–58.

672,237. MAGICTONE. Frederick Cryde, Inc. SN 48,614. Pub. 10–21–58. Filed 3–28–58.

672,238. PHONOCORD. Packard Bell Electronics Corporation. SN 48,781. Pub. 10–21–58. Filed 3–31–58.

Class 38—Prints and Publications

672,239. GL AND DESIGN. Germsback Library, Inc. SN 46,131. Pub. 10–21–58. Filed 2–19–58.

672,240. THE NATION'S AGRICULTURE. American Farm Bureau Federation. SN 47,808. Pub. 10–21–58. Filed 3–17–58.

Class 39—Clothing

672,241. AMBERLEY. The Rauh Company. SN 21,945. Pub. 6–4–57. Filed 12–31–56.

672,242. POLLYANNA. H. O. Toor Footwear, Inc. SN 34,188. Pub. 4–8–58. Filed 7–22–57.

672,243. SHU-SAVER. Roscoe L. Hockley, d. b. a. Shooters' Specialties. SN 35,048. Pub. 10–21–58. Filed 8–6–57.

672,244. FORDMIL. Alexander Rotter, d. b. a. Milford Hosiery Co. SN 43,967. Pub. 10–21–58. Filed 1–14–58.

672,245. STRETCHETTES. Portage Hosiery Company. SN 45,195. Pub. 10–21–58. Filed 2–3–58.

672,246. PIATTO'S. Tower-Sulfer Shoe Manufacturing Company. SN 45,427. Pub. 10–21–58. Filed 2–6–58.

672,247. PICK UP. Peter Pan Foundations, Inc. SN 46,005. Pub. 10–21–58. Filed 2–17–58.

672,248. CAMP SCHOOL ETC. AND DESIGN. The Camp Shop, Inc. SN 48,236. Pub. 10–21–58. Filed 3–24–58.

672,249. PENNEBAKER'S. A. E. Pennebaker, Inc. SN 48,327. Pub. 10–21–58. Filed 3–24–58.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

672,250. WASHOMATIC. Weil & Schoenfeld Fabrics, Inc. SN 21,655. Pub. 5–6–58. Filed 12–26–56.

672,251. KENTSHIRE. Pepperell Manufacturing Company. SN 47,138. Pub. 10–21–58. Filed 3–5–58.

672,252. BRIJEAN ETC. AND DESIGN. Nassau Fabrics, Inc. SN 49,177. Pub. 10–21–58. Filed 4–7–58.

672,253. ONORA. Baronio Fabrics, Inc. SN 49,238. Pub. 10–21–58. Filed 4–8–58.

672,254. BELDORA. Baronio Fabrics, Inc. SN 49,239. Pub. 10–21–58. Filed 4–8–58.

672,255. DALGORA. Baronio Fabrics, Inc. SN 49,240. Pub. 10–21–58. Filed 4–8–58.

672,256. VALLEDORA. Baronio Fabrics, Inc. SN 49,663. Pub. 10–21–58. Filed 4–8–58.

672,257. AVALANCHE. Portland Woolen Mills, Inc. SN 49,707. Pub. 10–21–58. Filed 4–15–58.

Class 44—Dental, Medical, and Surgical Appliances

672,258. ETHICON. Ethicon, Inc. SN 36,067. Pub. 10–21–58. Filed 8–23–57.

672,259. TRIMSTER. The W. E. Bassett Company. SN 44,361. Pub. 10–21–58. Filed 1–21–58.

672,260. PACEMAKER. The W. E. Bassett Company. SN 44,365. Pub. 10–21–58. Filed 1–21–58.

672,261. ALTEST. Allied Stores Corporation. SN 46,394. Pub. 10–21–58. Filed 2–24–58.

Class 46—Foods and Ingredients of Foods

672,262. DE MENT'S AND DESIGN. Dement's. SN 696,022. Pub. 10–21–58. Filed 10–7–55.

672,263. BAKERY BELLS. Klein Chocolate Company. SN 11,931. Pub. 10–21–58. Filed 7–11–56.

672,264. BB AND DESIGN. Blumenthal Bros. Chocolate Co. SN 21,292. Pub. 7–22–57. Filed 12–10–56.

672,265. PLEASE! CHAMPION AND DESIGN. Champion Animal Food Company. SN 27,002. Pub. 10–21–58. Filed 4–17–57.

672,266. LANCIA. Lionelli Packing Co., Inc., d. b. a. Lionelli Packing Co. SN 33,979. Pub. 10–21–58. Filed S. R. 7–18–57. Am. P. R. 8–4–58.

672,267. LIONELLI. Lionelli Packing Co., Inc., d. b. a. Lionelli Packing Co. SN 33,980. Pub. 10–21–58. Filed S. R. 7–18–57. Am. P. R. 8–4–58.

672,268. SPANISH PRIDE. Specialty Food Packing and Importing Co. SN 36,399. Pub. 10–21–58. Filed 8–28–57.

672,269. PRIDE OF SPAIN. Specialty Food Packing and Importing Co. SN 36,400. Pub. 10–21–58. Filed 8–28–57.

672,270. SIFERS CHOCOLATE FLO'Z. Sifers Chocolate Syrup Company, Inc. SN 37,750. Pub. 10–21–58. Filed 9–24–57.

672,271. VITALITY COCKTAIL. Cape Cod Cooks, Inc. SN 38,017. Pub. 10–21–58. Filed 9–30–57.

672,272. REDUSAN. The Vinan Nutritional Laboratories. SN 40,517. Pub. 10–21–58. Filed 11–12–57.

672,273. DUBBLE BUBBLE AND DESIGN. Frank H. Fleer Corporation. SN 44,452. Pub. 10–21–58. Filed 1–22–58.

672,274. DAIRYPELS. Eastern States Farmers' Exchange, Incorporated. SN 44,606. Pub. 10–21–58. Filed 1–24–58.

672,275. H & K. Old Judge Coffee Company. SN 45,187. Pub. 10–21–58. Filed 2–3–58.

672,276. FRIENDLY FAMILY FRUITS AND DESIGN. Mark G. Gehlar, d. b. a. Oregon Fruit Products Co. SN 45,249. Pub. 10–21–58. Filed 2–4–58.

672,277. JUNO. Leaf Brands, Inc. SN 46,465. Pub. 10–21–58. Filed 2–24–58.

672,278. OLD SOL. Bachman Chocolate Manufacturing Co. SN 47,089. Pub. 10–21–58. Filed 3–5–58.

672,279. CAMBRIC. Evergreen Mills, Inc., d. b. a. Ada Milling Company. SN 47,358. Pub. 10–21–58. Filed 3–10–58.

672,280. HEKMAN. United Biscuit Company of America. SN 47,468. Pub. 10–21–58. Filed 3–10–58.

672,281. DEMO. Sam Drey, assignee of Salt River Valley Produce, Inc. SN 50,392. Pub. 10–21–58. Filed 4–25–58.

672,282. SILENT SAM. Sam Drey, assignee of Salt River Valley Produce, Inc. SN 50,393. Pub. 10–21–58. Filed 4–25–58.

672,283. DELCO. The Pillsbury Company, by change of name from Pillsbury Mills, Inc. SN 50,528. Pub. 10–21–58. Filed 4–28–58.

672,284. WAFCO. Wafco Mills, Inc. SN 50,752. Pub. 10–21–58. Filed 4–30–58.

672,285. SLENDERELLA. Slenderella Systems, Inc. SN 51,070. Pub. 10–21–58. Filed 5–5–58.

Class 50—Merchandise Not Otherwise Classified

672,286. WAX-PAK. Esso Standard Oil Company. SN 38,136. Pub. 10–21–58. Filed 10–1–57.

672,287. SUN-PORT BTC. AND DESIGN. Walter Juhasz, d. b. a. The Walters Co. SN 39,470. Pub. 10–21–58. Filed 10–24–57.

672,288. THE BURLINGTON WAY. Burlington Fabricators, Inc. SN 45,208. Pub. 10–21–58. Filed 2–6–58.

672,289. MEMO-MINDER AND DESIGN. Gotham Chalkboard & Trim Co. Inc. SN 46,539. Pub. 10–21–58. Filed 2–25–58.

Class 51—Cosmetics and Toilet Preparations

672,290. D'LITE. E. J. Searry & Company. SN 33,484. Pub. 10–21–58. Filed 8–12–57.

672,291. HAPPY BIRTHDAY. Richard Hudnut. SN 36,858. Pub. 10–21–58. Filed 9–9–57.

672,292. HIS AND HER. The House for Men, Inc. SN 37,163. Pub. 10–21–58. Filed 9–13–57.

672,293. DREAM SET. The Andrew Jergens Company. SN 46,457. Pub. 10–21–58. Filed 2–24–58.

672,294. PRIZE. Carter Products, Inc. SN 46,803. Pub. 10–21–58. Filed 2–28–58.

672,295. NUTRI-METICS. Nutritional Science Corporation. SN 46,978. Pub. 10–21–58. Filed 3–3–58.

672,296. SCULPTURE WAVE. Harold C. Parks, d. b. a. Parks Laboratories. SN 47,909. Pub. 10–21–58. Filed 3–18–58.

672,297. DESIGNER. E. Frederics, Inc. SN 48,067. Pub. 10–21–58. Filed 3–20–58.

672,298. JANIE. Middlebrooke-Lancaster, Inc. SN 48,109. Pub. 10–21–58. Filed 3–20–58.

Class 52—Detergents and Soaps

672,299. KISS AND DESIGN. Tracy-Burns Enterprises, Inc. SN 53,373. Pub. 9–9–58. Filed 6–11–58.

Service Marks

Class 100—Miscellaneous

672,300. UNITED ELECTRODYNAMICS. United Geophysical Corporation. SN 696,751. Pub. 10–21–58. Filed 10–10–55.

672,301. INFRANK AND DESIGN. Arthur P. MacArthur SN 3,209. Pub. 10–21–58. Filed 2–23–56.

672,302. SPORTSMANSHIP HALL OF FAME. E. P. Coleman, d. b. a. Sportsmanship Hall of Fame. SN 10,583. Pub. 10–21–58. Filed 6–20–56.

672,303. HIP AND DESIGN. Health Information Foundation. SN 46,542. Pub. 10–21–58. Filed 2–25–58.

Class 101—Advertising and Business

672,304. ASTE AND DESIGN. American Society of Tool Engineers. SN 9,929. Pub. 10–21–58. Filed 6–11–56.

672,305. MANPOWER. Manpower, Inc. SN 26,843. Pub. 10–21–58. Filed 3–25–57.

Class 102—Insurance and Financial

672,306. T.I.C. AND DESIGN OF MALTESE CROSS. Time Insurance Company. SN 34,021. Pub. 10–21–58. Filed 7–18–57.

672,307. TIME INSURANCE COMPANY. Time Insurance Company. SN 34,022. Pub. 10–21–58. Filed 7–18–57.

Class 103—Construction and Repair

672,308. TREAD TCCO WELD. Treadwell Construction Company. SN 6,874. Pub. 10–21–58. Filed 4–20–56.

672,309. TREAD TCCO WELL. Treadwell Construction Company. SN 6,876. Pub. 10–21–58. Filed 4–20–56.

672,310. "MR. BRAKES." Brake Laboratories, Inc. SN 31,380. Pub. 10–21–58. Filed 6–5–57.

672,311. WALSH ETC. AND DESIGN. Walsh Shoe Machinery Company, Ltd., d. b. a. Walsh Shoe Repair System. SN 41,056. Pub. 10–21–58. Filed 11–20–57.

Class 104—Communication

672,312. BEEZEE. Westinghouse Broadcasting Company, Inc. SN 35,217. Pub. 10–21–58. Filed 8–8–57.

Class 106—Material Treatment

672,313. GENERAL AMERICAN AND DESIGN. General American Transportation Corp. SN 44,076. Pub. 10–21–58. Filed 1–16–58.

Class 107—Education and Entertainment

672,314. KATHLEEN CARTER AND DESIGN. Kathleen Carter Schwab. SN 660,331. Pub. 10–21–58. Filed 6–27–55.

Collective Membership Marks

Class 200

672,315. KUSTOMS OF AMERICA—KOA AND DESIGN. Kustoms of America, Inc. SN 18,167. Pub. 10–21–58. Filed 10–25–56.

672,316. IYOB FILIAE AND DESIGN. International Order of Job's Daughters. SN 38,463. Pub. 10–21–58. Filed 10–7–57.

672,317. THE ARABIC CLUB AND DESIGN. The Arabic Club. SN 39,506. Pub. 10–21–58. Filed 10–25–57.

Certification Mark

Class A—Goods

672,318. API. American Petroleum Institute. SN 35,823. Pub. 10–21–58. Filed 7–23–58.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 12—Construction Materials

672,319. American Encaustic Tiling Company, Incorporated, d. b. a. American Encaustic Tiling Company, Lansdale, Pa. SN 31,067. Filed P. R. 5–31–57. Am. S. R. 10–24–58.

AMERICAN TILE

For Ceramic Tile.
First use Feb. 18, 1957.

Class 14—Metals and Metal Castings and Forgings

672,320. Ladish Co., Cudahy, Wis. SN 50,070. Filed 4–21–58.

LADISH

For Custom Forgings, Rolled Rings, Steel Bars and Billets.
First use in February 1957.

Class 18—Medicines and Pharmaceutical Preparations

672,321. Irwin, Neisler and Company, Decatur, Ill. SN 24,047. Filed P. R. 2–8–57. Am. S. R. 9–22–58.

THINCOTE

For Moisture Vapor Barrier Coating Used on Pharmaceutical Tablets.
First use Dec. 24, 1956.

672,322. Vane B. Lucas, d. b. a. Lucas Products Company, Bedford, Iowa. SN 30,345. Filed P. R. 5–20–57. Am. S. R. 1–2–58.

Lucas Feed Factors

For Animal Feeds.
First use Sept. 22, 1953.

Class 21—Electrical Apparatus, Machines, and Supplies

672,323. Phelps Dodge Copper Products Corporation, New York, N. Y. SN 9,741. Filed P. R. 6–6–56. Am. S. R. 10–28–58.

GRIP-EZE

For Insulated Wire.
First use on or about Mar. 1, 1956.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

672,324. Council Manufacturing Corp., Fort Smith, Ark. SN 27,849. Filed P. R. 4–10–57. Am. S. R. 11–6–58.



For Machines for Mixing Syrup With Carbonated or Other Water and Dispensing the Product as a Soft Drink.
First use Jan. 7, 1957.

Class 24—Laundry Appliances and Machines

672,325. Bishop David Freeman Co., Evanston, Ill. SN 14,818. Filed P. R. 8–21–56. Am. S. R. 10–2–58.

CUSHNTOP

For Pads for the Pressing Surface of a Pressing Machine, Topping Surfaces for Pads for the Pressing Surface of a Pressing Machine and Combination Pads and Topping Surfaces for Pads for the Pressing Surface of a Pressing Machine.
First use on or about Dec. 4, 1955.

Class 27—Horological Instruments

672,326. Barton & Chase Inc., Philadelphia, Pa. SN 34,766. Filed P. R. 8–1–57. Am. S. R. 10–24–58.

TRUFIT

For Watch Parts.
First use August 1950.

Class 30—Crockery, Earthenware, and Porcelain

672,327. Stetson China Co., Inc., Lincoln, Ill. SN 47,303. Filed 3–4–58.



The terms "Hand Painted," "Oven Proof," "Detergent Proof," "Underglaze," and "Made in U. S. A." are disclaimed apart from the mark as shown.
For Dinnerware—Namely, Dishes, Plates, Cups and Saucers Made of Earthenware.
First use Oct. 23, 1956.

Class 34—Heating, Lighting, and Ventilating Apparatus

672,328. Lennox Industries Inc., Marshalltown, Iowa. SN 27,867. Filed 4–10–57.

BREEZE CONTROL

For Air Control Device for Air Cooling Apparatus.
First use Jan. 14, 1954.

Class 36—Musical Instruments and Supplies

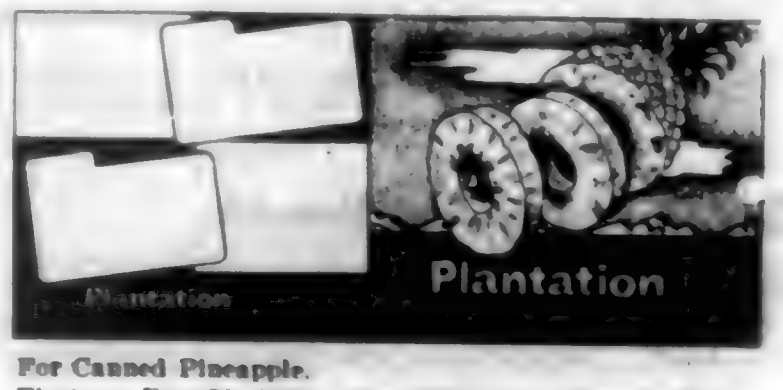
672,329. Russell J. Schwartz, d. b. a. Real Estate Workshop, Minneapolis, Minn. SN 23,095. Filed P. R. 1–23–57. Am. S. R. 11–3–58.

MANAGEMENT WORKSHOP

For Grooved Phonograph Records.
First use Dec. 28, 1956.

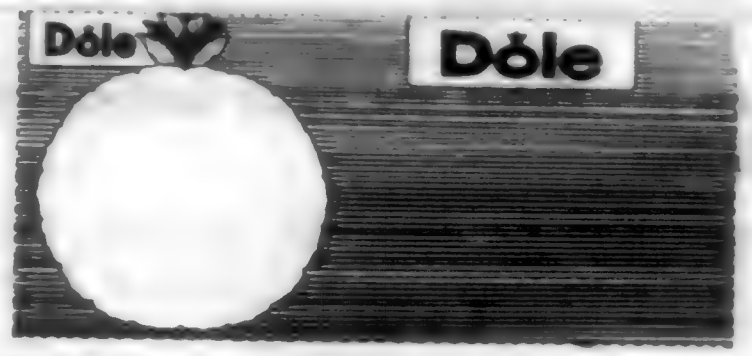
Class 46—Foods and Ingredients of Foods

672,330. Hawaiian Pineapple Company, Limited, Honolulu, Territory of Hawaii. SN 23,144. Filed P. R. 1–24–57. Am. S. R. 10–7–58.



For Canned Pineapple.
First use Dec. 21, 1956; May 1909 as to "Plantation."

672,331. Hawaiian Pineapple Company, Limited, Honolulu, Territory of Hawaii. SN 24,394. Filed P. R. 2–18–57. Am. S. R. 10–7–58.



The drawing is lined for light blue and dark blue.
For Canned Fruits and Canned Fruit Juices.
First use Sept. 27, 1956; 1927 as to "Dole" on canned fruits.

Class 50—Merchandise Not Otherwise Classified

672,332. Liberty Distributors Group, Philadelphia, Pa. SN 52,932. COLLECTIVE MARK. Filed 4–30–58.

TRUSTWORTHY

For Ladders—Namely, Step-Ladders, Straight Ladders, and Extension Ladders.
First use November 1956.

Class 51 — Cosmetics and Toilet Preparations

672,333. Philip F. Rosmarin, d. b. a. P. I. P. Products, New York, N. Y. SN 39,012. Filed P. R. 10-16-57. Am. S. R. 11-4-58.



For Skin Cleanser.
First use January 1957.

Service Marks

Class 100 — Miscellaneous

672,334. John F. Doran, d. b. a. Malt 'N' Burger Co., Waterloo, Iowa. SN 15,534. Filed P. R. 9-12-56. Am. S. R. 11-14-58.

Malt 'N' Burger

For Restaurant Services.
First use July 1, 1956.

672,335. Stephen W. Spencer, Pittsburgh, Pa. SN 34,262. Filed 7-28-57.

Spencer
Permu-Sure Method

For Removal of Superfluous Hair From Human Bodies by Electrolysis and by Thermolysis.
First use October 1947.

Class 101 — Advertising and Business

672,336. William S. Orkin, d. b. a. Orkin Exposition Management, New York, N. Y. SN 38,844. Filed P. R. 10-14-57. Am. S. R. 10-14-58.

FAMILY LIVING SHOW

No claim is made to the word "Show" apart from the mark as shown.

For Promotion of Shows and Exhibitions Relating to Participation of Families in General Cultural, Educational and Leisure Activities.
First use Oct. 9, 1957.

672,337. Adrian Bauer and Alan Tripp, Inc., Philadelphia, Pa. SN 39,509. Filed P. R. 10-25-57. Am. S. R. 11-4-58.

TOTAL MARKETING

For Advertising Services.
First use Oct. 14, 1957.

672,338. Rent-A-Luggage, Inc., San Francisco, Calif. SN 39,750. Filed P. R. 10-29-57. Am. S. R. 11-10-58.



For Luggage Rental Service.
First use July 12, 1957.

672,339. Trade-A-Home, Inc., Atlantic, Iowa. SN 39,924. Filed P. R. 10-31-57. Am. S. R. 9-16-58.

"TRADE-A-HOME"

For Real Estate Brokerage Services, Specializing in Handling Real Estate That Must Be Traded in Before the Owner Can Purchase Other Property.
First use Dec. 21, 1956.

Class 102 — Insurance and Financial

672,340. C. I. T. Financial Corporation, New York, N. Y. SN 9,625. Filed P. R. 6-5-56. Am. S. R. 8-21-58.

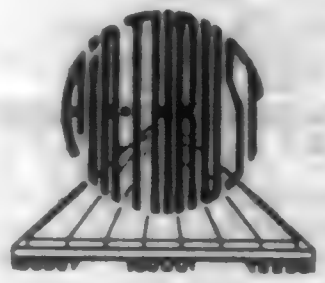


The words "Insurance Companies" are disclaimed apart from the mark as shown. The lining forms a part of the mark and is not intended to designate color.

For Underwriting of Comprehensive Property and Personal Liability Insurance.
First use Dec. 3, 1951; on or about Dec. 1, 1941, as to "Service Insurance Companies."

Class 103 — Construction and Repair

672,341. Howard E. Higginbotham, d. b. a. Hardwood Floors Company, Stone Park, Ill. SN 40,758. Filed P. R. 11-15-57. Am. S. R. 10-15-58.



For Contracting Services—Namely, the Laying of Pneumatic Cushion Supported Hardwood Flooring.
First use May 9, 1957.

Class 105 — Transportation and Storage

672,342. Shanly International Corporation, Buffalo, N. Y. SN 28,748. Filed P. R. 2-4-57. Am. S. R. 9-9-57.

TRIPS FOR A TRIFLE

For Travel Agency Services—Namely, Arranging Travel Programs and All-Expense Vacation Tours, Selling Transportation Tickets and Making Hotel Reservations.
First use January 1953.

Class 106 — Material Treatment

672,343. Congress Textile Printers, Inc., Hawthorne, N. J. SN 30,741. Filed P. R. 5-27-57. Am: S. R. 10-13-58.

This is a
SHIMMERTONE
Print

For Service of Printing Upon Textile Materials.
First use on or about May 18, 1956.

TRADEMARK REGISTRATIONS RENEWED

122,536. ADMIRAL. Cl. 27. 8-20-18.
124,187. NEPTUNE ATLANTIC AND DESIGN. Cl. 21. 1-21-19.
124,509. COTELLA. Cl. 42. 2-25-19.
124,527. FILENES. Cl. 39. 2-25-19.
124,674. COTELLA. Cl. 39. 3-11-19.
124,836. BEST ON RECORD. Cl. 46. 3-18-19.
125,016. NEPTUNE. Cl. 21. 4-8-19.
358,810. RENDEZVOUS. Cl. 28. 7-26-38.
359,837. BALLAD. Cl. 51. 8-30-38.
360,589. MARIONETTE. Cl. 51. 9-20-38.
361,258. PERMACELL. Cl. 1. 10-11-38.
361,568. BARRETT. Cl. 1. 10-25-38.
361,683. DERMALOR. Cl. 44. 10-25-38.
361,834. RED BOY. Cl. 23. 11-1-38.
361,847. CRESCENT SEAL AND DESIGN. Cl. 20. 11-1-38.
361,851. FLORISTS' REVIEW. Cl. 38. 11-1-38.
361,867. INTERNATIONAL. Cl. 23. 11-1-38.
361,994. SONNET. Cl. 51. 11-8-38.
362,102. HATTIE CARNEGIE. Cl. 51. 11-8-38.
362,307. NACAN. Cl. 6. 11-15-38.
362,980. JEAN HARPER. Cl. 39. 12-6-38.
363,142. EQUATOR. Cl. 37. 12-13-38.
363,211. REPRESENTATION OF HERCULES. Cl. 1. 12-13-38.
363,417. MAILLARD'S AND DESIGN. Cl. 46. 12-27-38.
363,637. ROGER FIELDS AND DESIGN. Cl. 39. 1-3-39.
363,840. AKRAFLO. Cl. 26. 1-10-39.
364,058. OTIS AND DESIGN. Cl. 39. 1-17-39.
364,212. MATANIA. Cl. 43. 1-24-39.
364,233. MARLENE. Cl. 39. 1-24-39.
364,386. BUG-GETA. Cl. 6. 1-31-39.
364,605. OLD ROSE AND DESIGN. Cl. 46. 2-7-39.
364,906. GROUND GRIP. Cl. 35. 2-21-39.
364,951. UNIVERSITY. Cl. 42. 2-21-39.
365,022. BROILKING. Cl. 21. 2-21-39.
365,044. CORTALEX. Cl. 18. 2-21-39.
365,085. PEGGY SAGE. Cl. 51. 2-21-39.
365,312. REPRESENTATION OF ALADDIN LAMP AND DESIGN. Cl. 28. 3-7-39.
365,351. BABYDEER SHOES AND DESIGN. Cl. 39. 3-7-39.
365,385. QUICK WIT. Cl. 22. 3-7-39.
365,807. PALENA AND DESIGN. Cl. 18. 3-21-39.
365,864. SCRAM. Cl. 6. 3-21-39.
365,913. TORULEXIN. Cl. 18. 3-21-39.
365,914. ZELAN. Cl. 6. 3-21-39.
366,215. BARATEX NO-SEAM TUBULAR. Cl. 50. 4-4-39.
366,232. F-E AND REPRESENTATION OF MALE AND DESIGN. Cl. 6. 4-4-39.
366,235. DIOSTATE. Cl. 18. 4-4-39.
366,402. NCR AND DESIGN. Cl. 26. 4-11-39.
366,403. GEARS DESIGN. Cl. 26. 4-11-39.
366,404. NCR. Cl. 26. 4-11-39.
366,464. REPRESENTATION OF GEARS. Cl. 37. 4-11-39.
366,465. NCR AND DESIGN. Cl. 37. 4-11-39.
366,552. NCR AND DESIGN. Cl. 23. 4-18-39.
366,567. NCR AND DESIGN. Cl. 32. 4-18-39.

TRADEMARK REGISTRATIONS CANCELED

Section 8

297,515. "EFEDRON" ETC. AND REPRESENTATION OF CARTON. Cl. 18. 9-20-32.
298,427. DORIC. Cl. 37. 10-25-32.
298,749. REPRESENTATION OF PUSH-OUT-CARTON AND DRAWING LINED FOR BLUE. Cl. 2. 11-1-32.
397,967. RHINAFEDRIN. Cl. 18. 9-29-42.

The following registrations issued Nov. 13, 1951

566,795. TOP SHEET. Cl. 37.
566,802. TANK FOR THE WORLD COLUMBIAN AND DESIGN. Cl. 44.
566,803. NUTROKOTE. Cl. 2.
566,809. DURA-MAID. Cl. 18.
566,813. KWIK-TILE. Cl. 12.
566,815. FANTASIE BLOUSE FABRIC AND DESIGN. Cl. 42.
566,816. DESIGN FOR DIAMOND QUALITY SPRING CLOTHES PINS. Cl. 24.
566,826. HI-WHITE. Cl. 1.
566,831. VIDEO. Cl. 36.
566,835. KEEPEES. Cl. 10.
566,836. JOHN BLYE. Cl. 39.
566,838. POP CORN JUNIOR AND DESIGN. Cl. 22.
566,841. LADDER BACK. Cl. 39.
566,844. BEELINE AND DESIGN. Cl. 22.
566,845. UPECO. Cl. 46.
566,847. HAPPY DOG SPONGE RUB. Cl. 52.
566,849. MID-TOWNER. Cl. 39.
566,860. COLOR MART. Cl. 16.
566,863. PREMELT. Cl. 6.
566,865. JOLEN. Cl. 39.
566,868. DEERHILL AND DESIGN. Cl. 16.
566,869. DUNBAR AND DESIGN. Cl. 26.
566,875. DECAY-FYTER. Cl. 18.
566,882. PELLENT. Cl. 6.
566,883. FORMULA 22. Cl. 52.
566,884. VICALAINE BY WYNER. Cl. 39.
566,886. DESIGN OF SHIELD WITH FLORAL DECORATION. Cl. 18.
566,887. LAZY LENSES AND DESIGN. Cl. 26.
566,888. MAC MASTER. Cl. 39.
566,890. "A"-LINE. Cl. 26.
566,896. COLORCROME. Cl. 13.
566,900. SOFOLATOR. Cl. 31.
566,902. MODERNART. Cl. 16.
566,905. INDOR. Cl. 23.
566,910. SCROLL DESIGN ON YELLOW AND BLACK LABEL. Cl. 51.
566,914. CENTRIFLEX. Cl. 13.
566,915. CENTRIVIS. Cl. 13.
566,920. DIACRYL. Cl. 42.
566,931. STROK-IT. Cl. 22.

566,936. CHIGGA-BOO AND DESIGN. Cl. 18.
566,937. TOTSOX AND DESIGN. Cl. 39.
566,940. ARTBECK BASTER. Cl. 2.
566,942. THE CHANTICLEER. Cl. 39.
566,943. THE SUNSHINE LINE AND DESIGN. Cl. 38.
566,945. NITRAMONCAL. Cl. 10.
566,953. POIRETTE MISTOLON. Cl. 39.
566,955. PARK AVENUE. Cl. 31.
566,956. CRESFIL. Cl. 39.
566,957. CRESFIL. Cl. 42.
566,959. TELLUX. Cl. 13.
566,961. ACTIVATED COLORS. Cl. 16.
566,963. UP'N OVER. Cl. 39.
566,966. SNO-FLEECE. Cl. 16.
566,967. SNO-GLOSS. Cl. 16.
566,969. ROSEBERRY. Cl. 42.
566,970. TANILIN. Cl. 42.
566,972. DRI-CONE. Cl. 16.
566,974. ALDINAMIDE. Cl. 18.
566,975. LUCAS. Cl. 26.
566,977. PRISMA GLASSES WITHIN DESIGN. Cl. 26.
566,978. DUBLINAIRE. Cl. 42.
566,979. BRYERSORB. Cl. 18.
566,990. REVERIE. Cl. 42.
566,991. VALBOW. Cl. 42.
566,999. GREG AND DESIGN. Cl. 31.
567,003. ACROCEL. Cl. 42.
567,006. PROTOFORM. Cl. 35.
567,010. TAZMEER. Cl. 42.
567,012. BLUE DIAMOND MULTIPLE AND DESIGN. Cl. 35.
567,013. DESIGNS BY HALGIN. Cl. 100.
567,021. ROLLER-COOLER COOLS THE WORLD. Cl. 34.
567,026. CHICAGO T V WEEK. Cl. 38.
567,027. WERNER'S. Cl. 34.
567,029. GOODHART. Cl. 34.
567,032. PRES-TO-DRI AND DESIGN. Cl. 29.
567,033. DOLL-E-CRIB BY AMSCO AND DESIGN. Cl. 22.
567,034. HYDRO-FALL SCALDER. Cl. 34.
567,035. "BETTER LIVING THROUGH BETTER HEATING WITH SAMCO." Cl. 34.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 1—Raw or Partly Prepared Materials

130,202. Apr. 13, 1920. Lewis Implement and Seed Company, Louisville, Ky. Pub. by Lewis Seed Company, Incorporated, Louisville, Ky.



For Garden, Vegetable, and Field Seeds.

361,618. Oct. 25, 1938. Delta & Pine Land Co. of Mississippi, Scott, Miss. Pub. by registrant.



For Cotton Seed for Planting.

Class 6—Chemicals and Chemical Compositions

164,684. Feb. 27, 1923. Theodor Leonhard Wax Co., Paterson, N. J. Pub. by registrant.

PIONEER

For Beeswax.

359,848. Aug. 30, 1938. Baxter Laboratories, Inc., Morton Grove, Ill. Pub. by registrant.

DEXTRAMIN

For Dextrose and Amino Acids.

419,139. Feb. 5, 1946. B. Laporte Limited, Luton, Bedfordshire, England. Pub. by Laporte Chemicals Limited, London, England.



For Barium Peroxide, Sodium Perborate, Sodium Percarbonate and Ammonium Persulphate.

Class 11—Inks and Inking Materials

364,846. Feb. 14, 1939. Nuodex Products Co., Inc., Elizabeth, N. J. Pub. by Heyden Newport Chemical Corporation, New York, N. Y.

NUODITE

For Ink Driers.

Class 12—Construction Materials

360,112. Sept. 6, 1938. Tank Seal Products Company, Tulsa, Okla. Pub. by D. L. Korn, Sapulpa, Okla.

"NATASCO"

For Plastic Tank Cement; Plastic Tank Bottom Cement; Inside Shell Cement; Fibre Caulking Compound Long Fibre; Fibre Caulking Compound Short Fibre; Petroleum Proof (No-Crode) Caulking Compound; Gray Plastic Roof Cement; Red Plastic Roof Cement; Tank Ring Cement, Regular; Tank Ring Cement, Heavy; Tank Bottom Primer; Petroleum Proof (No-Crode) Metal Coating and Insulation Weather Coat.

Class 15—Oils and Greases

191,568. Nov. 11, 1924. Thermoil Lubricants Co., Tulsa, Okla. Pub. by Thermoil Lubricants Corporation, Elk City, Okla.

THERMOIL

For Petroleum Products Consisting of Lubricating Oils and Greases.

330,747. Oct. 5, 1937. Home Fuel Oil Company, Passaic, N. J. Pub. by Coastal Oil Company, Newark, N. J.

THERMEX

For Fuel Oil.

Class 16—Protective and Decorative Coatings

286,561. Sept. 1, 1931. The Gibson-Homans Company, Cleveland, Ohio. Pub. by registrant.

BLACK-JACK

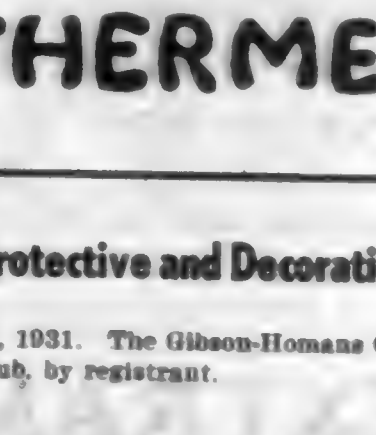
For Asbestos Roof Coating in the Nature of Paint and Roof Paint.

365,065. Feb. 21, 1939. Nuodex Products Co., Inc., Elizabeth, N. J. Pub. by Heyden Newport Chemical Corporation, New York, N. Y.

NUACT

For Drier Preservatives for Driers for Paste and Ready-Mixed Paints, Varnishes, and Paint Enamels.

365,066. Feb. 21, 1939. Nuodex Products Co., Inc., Elizabeth, N. J. Pub. by Heyden Newport Chemical Corporation, New York, N. Y.



For Driers for Paste and Ready-Mixed Paints, Varnishes and Paint Enamels, Drier Preservatives for Driers for Paste and Ready-Mixed Paints, Varnishes and Paint Enamels, Wetting and Dispersing Agents for Pigmented Coating Materials, Bodying Agents for Paste and Ready-Mixed Paints, Varnishes, Paint Enamels and Lacquers, and Grinding Agents for Pigments for Paste and Ready-Mixed Paints, Enamels and Lacquers.

Class 17—Tobacco Products

142,424. May 17, 1921. The American Tobacco Company, New York, N. Y. Pub. by Taylor Brothers, Inc., Winston-Salem, N. C.



For Smoking and Chewing Tobacco.

278,807. Dec. 30, 1930. The American Tobacco Company, New York, N. Y. Pub. by Taylor Brothers, Inc., Winston-Salem, N. C.



For Chewing Tobacco.

Class 18—Medicines and Pharmaceutical Preparations

362,008. Nov. 8, 1938. Parke, Davis & Company, Detroit, Mich. Pub. by registrant.

DESICOL

For Bile Preparation for Use in Treatment of Biliary Deficiencies.

363,180. Dec. 13, 1938. Parke, Davis & Company, Detroit, Mich. Pub. by registrant.

ANTUITRIN-S

For Anterior Pituitary-Like Sex Hormone.

383,062. Feb. 21, 1939. Picot Laboratories, Inc., Mount Vernon, N. Y. Pub. by registrant.



For Laxative and Purgative Preparation—Namely, Magnesia.

373,805. Dec. 26, 1939. Baxter Laboratories, Inc., Glenview, Ill. Pub. by registrant.

SERADEX

For Parenteral Solutions Consisting of an Admixture of Dextrose and Human Blood Serum for Injection, Intravenously and Subcutaneously in Patients Suffering From Hypoproteinaemia and Other Deficiencies or Ailments.

380,930. Sept. 10, 1940. Baxter Laboratories, Inc., Glenview, Ill. Pub. by registrant.

CITRADEX

For Solutions for Preserving Blood Withdrawn for Transfusion Purposes and for Preventing the Coagulation of Such Blood.

Class 19—Vehicles

394,000. Dec. 31, 1940. Catherine V. Richards, d. b. a. Federal Trailer Company, Detroit, Mich. Pub. by Federal Trailer Company, Detroit, Mich.



For Trailers.

414,625. June 19, 1945. Crescent Truck Company, Lebanon, Pa. Pub. by Barrett-Cravens Company, Northbrook, Ill.

PALLETIER

For Electric Industrial Trucks.

Class 21—Electrical Apparatus, Machines, and Supplies

380,715. Aug. 30, 1938. Goodrich Electric Company, Chicago, Ill. Pub. by Appleton Electric Company, Chicago, Ill.

KEYSTONE
GOODRICH ELECTRIC CO.
CHICAGO

For Unitary Electric Lighting Fixtures.

380,456. Sept. 20, 1938. The Black and Decker Manufacturing Company, Towson, Md. Pub. by registrant.



For Electrical Apparatus and Machines and Accessories, Consisting of Portable Electric Tools for Use in Such Craft Work as Drilling, Boring, Grinding, Buffing, Burnishing, Screw Driving, Nut Running, and the Like.

385,550. Mar. 11, 1941. Private Telephones, Inc., Cleveland, Ohio. Pub. by Frank R. Mallalieu, Jr., d. b. a. Transelectric Manufacturing Company, Oxford, Pa.



For Automatic Office Telephones.

Class 22—Games, Toys, and Sporting Goods

246,708. Sept. 11, 1928. Nestor Johnson Manufacturing Company, Chicago, Ill. Pub. by registrant.

JUNIOR JOHNSONS

For Ice Skates.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

122,517. Aug. 20, 1918. National Water Main Cleaning Co., New York, N. Y. Pub. by registrant.

NATIONAL

For Machines for Cleaning Water-Mains and Boiler-Tubes.

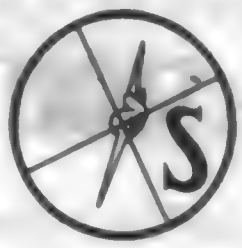
Class 26—Measuring and Scientific Appliances

363,849. Jan. 10, 1939. Shuron Optical Company, Inc. (New York corporation), Geneva, N. Y. Pub. by Shuron Optical Company, Inc. (Pennsylvania corporation), Geneva, N. Y.

BROWLINE

For Frames and Mountings for Spectacles and Eyeglasses.

441,499. Nov. 30, 1948. Specialties, Inc., Syosset, N. Y. Pub. by registrant.



For Electrical Computers for Use in Aircraft Instruments, Electromechanical Telemetering and Servo Mechanisms, Remote Control Equipment for Pilotless Aircraft, Angle of Attack Indicators for Aircraft, Skid Indicators for Aircraft, Air Stream Direction Detector, Rate of Climb Indicator.

Class 28—Jewelry and Precious-Metal Ware

340,417. Nov. 10, 1936. Cohn & Rosenberger, Inc., New York, N. Y. Pub. by Coro, Inc., New York, N. Y.

Debutante

For Comb Cases, Cigarette Cases, Compacts, Initials, Lockets, Pendants, Evening Bags, Clips, Containers, Buckles, Hat Ornaments, All Made Wholly or Partly or Plated Wholly or Partly With Precious Metals, and Stones for Setting, and Other Jewelry for Personal Wear or Adornment, Not Including Watches.

Class 32—Furniture and Upholstery

360,894. Sept. 27, 1938. R. C. Heller Co., Inc., Baltimore, Md. Pub. by registrant.

GOLD BOND

For Box Springs, Couches, and Pillows.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

16,066. Dec. 4, 1888. Revere Rubber Company, Boston, Mass. Pub. by United States Rubber Company, New York, N. Y.

"MOGUL"

For Rubber Belting and Hose.

Class 37—Paper and Stationery

195,004. Feb. 17, 1925. Alfred B. Lemon, Providence, R. I. Pub. by Riverside Paper Corporation, Appleton, Wis.

COLORTONE

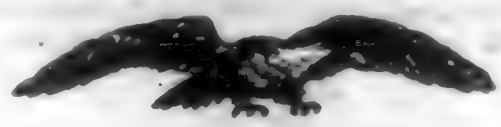
For Writing and Printing Papers.

315,089. July 17, 1934. Eagle Pencil Company, New York, N. Y. Pub. by registrant.

EAGLE

For Lead Pencils, Crayons, Pencil Leads, Lumber Leads, Pencil Point Protectors, Pencil Holders, Pencil Lengtheners, Pencil Cases, Lead Boxes, Mechanical Pencils, Manually-Operated Pencil Sharpeners, Penholders, Metallic Pens, Stylographic Pens, Fountain Pens, Rubber Erasers, Pencil Boxes, School Sets, Pen and Pencil Clips, Trays for Lead Pencils and Penholders and Easels for Lead Pencils and Penholders, Desk Sets and Desk Stands.

315,090. July 17, 1934. Eagle Pencil Company, New York, N. Y. Pub. by registrant.



For Lead Pencils, Crayons, Pencil Leads, Lumber Leads, Pencil Point Protectors, Pencil Holders, Pencil Lengtheners, Pencil Cases, Lead Boxes, Mechanical Pencils, Manually-Operated Pencil Sharpeners, Penholders, Metallic Pens, Stylographic Pens, Fountain Pens, Rubber Erasers, Pencil Boxes, School Sets, Pen and Pencil Clips, Trays for Lead Pencils and Penholders and Easels for Lead Pencils and Penholders, Desk Sets and Desk Stands.

315,091. July 17, 1934. Eagle Pencil Company, New York, N. Y. Pub. by registrant.



For Lead Pencils, Crayons, Pencil Leads, Lumber Leads, Pencil Point Protectors, Pencil Holders, Pencil Lengtheners, Pencil Cases, Lead Boxes, Mechanical Pencils, Manually-Operated Pencil Sharpeners, Penholders, Metallic Pens, Stylographic Pens, Fountain Pens, Rubber Erasers, Pencil Boxes, School Sets, Pen and Pencil Clips, Trays for Lead Pencils and Penholders and Easels for Lead Pencils and Penholders, Desk Sets and Desk Stands.

Class 39—Clothing

32,490. Feb. 14, 1899. C. B. Gibbon & Son, Philadelphia, Pa. Pub. by S. Goldberg & Co. Inc., Hackensack, N. J.



For Ladies' Shoes.

124,618. Dec. 31, 1918. The Manhattan Shirt Company, New York, N. Y. Pub. by registrant.

Manhattan

For Outer Shirts and Dress-Shirts.

265,291. Dec. 24, 1929. Varsity Hosiery Corporation, New York, N. Y. Pub. by Joseph E. Melker, New York, N. Y.

VARSITY GIRL

For Hosiery.

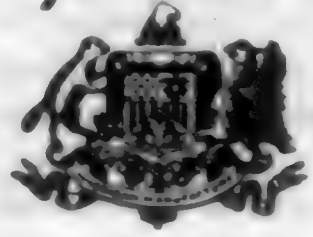
357,536. June 7, 1938. The May Department Stores Company, St. Louis, Mo. Pub. by registrant.

POSTUR-PEDIC

For Men's, Women's, and Children's Leather Shoes.

360,268. Sept. 13, 1938. John B. Stetson Company, Philadelphia, Pa. Pub. by registrant.

The STETSON Special



For Men's and Boys' Felt and Straw Hats and Cloth Caps.

362,354. Nov. 15, 1938. J. Schoeneman, Inc. (Maryland corporation), Baltimore, Md. Pub. by J. Schoeneman, Incorporated (Delaware corporation), Baltimore, Md.

KASHUR

For Coats, Vests, and Trousers for Men, Youths, and Boys.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

120,898. Feb. 19, 1918. Liberty & Co. Limited, London, England. Pub. by registrant.

LIBERTY

For Handkerchiefs, Piece Goods of Silk, Wool, Worsted, Hair, Jute, Linen or Cretonne, Either Alone or in Combination One With Another, Shawls of Silk, Wool, Worsted and Hair and Quilts.

124,137. Jan. 14, 1919. Ordinator Company, Inc., New York, N. Y. Pub. by E. I. du Pont de Nemours and Company, Wilmington, Del.

"TONTINE"

For Window-Shade Cloth.

Class 44—Dental, Medical, and Surgical Appliances

361,682. Oct. 25, 1938. Detroit Dental Manufacturing Co., Detroit, Mich. Pub. by Kerr Manufacturing Company, Detroit, Mich.

CRYSTOLEX

For Denture Materials.

Class 46—Foods and Ingredients of Foods

136,840. Nov. 9, 1920. Kaffee Hag Corporation, New York, N. Y. Pub. by General Foods Corporation, White Plains, N. Y.

CAFFREE

For Decaffeinated Coffee.

360,648. Sept. 20, 1938. Sampson Snyder, d. b. a. Bastrop Orchard Co., Bastrop, La. Pub. by registrant.

LOUISE-ANNE

For Fresh Deciduous Fruits.

432,230. Aug. 26, 1947. F & F Laboratories, Inc., Chicago, Ill. Pub. by registrant.

LARKS

For Hard Candy Drops.

Class 50—Merchandise Not Otherwise Classified

359,406. Aug. 16, 1938. Acme Backing Corporation, Stamford, Conn. Pub. by registrant.

FLEXKIN

For Processed Piece Goods Made of Cotton and Leather.

Class 51—Cosmetics and Toilet Preparations

359,670. Aug. 30, 1938. Pond's Extract Company, New York, N. Y. Pub. by Cheesebrough-Pond's Inc., New York, N. Y.

PRINCESS MARGUERITE

For Skin Cream.

361,949. Nov. 8, 1938. Pond's Extract Company, New York, N. Y. Pub. by Cheesebrough-Pond's Inc., New York, N. Y.

POND'S
COLD CREAM
CLEANSES
CLEARS SOFTENS SMOOTHS

For Cold Cream.

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Abbott Laboratories, North Chicago, Ill. 672,060, pub. 10-21-58. Cl. 18.
Ace Fastener Corp., Chicago, Ill. 672,061, pub. 10-21-58. Cl. 13.
Achermann Mfg. Co., Wheeling, W. Va., from Flash-Stone Co., Inc., Philadelphia, Pa. 672,038, pub. 7-19-55. Cl. 12.
Acme Backing Corp., Stamford, Conn. 359,406, 12(c) pub. 1-6-59. Cl. 50.
Activated Color, Inc., Long Island City, N. Y. 566,961, canc. Cl. 16.
Ada Milling Co.: *See*—
Evergreen Mills, Inc.
Ag Products Co., Chicago, Ill. 672,029, pub. 10-21-58. Cl. 6.
Aircraft-Marine Products Inc., Harrisburg, Pa. 566,883, canc. Cl. 52.
Aladdin Laboratories, Inc., Minneapolis, Minn. 672,016, pub. 10-21-58. Cl. 2.
Aldermaston Sales: *See*—
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Barrett Co., The.
National Aniline & Chemical Co., Inc.
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Al-Min Distributing, Inc., New York, N. Y. 672,017, pub. 10-21-58. Cl. 2.
AMP Inc., Harrisburg, Pa. 672,133, pub. 10-21-58. Cl. 21.
American Air Filter Co., Louisville, Ky. 672,234, pub. 10-21-58. Cl. 34.
American Can Co., New York, N. Y., from Marathon Corp., Menasha, Wis. 672,015, pub. 10-14-58. Cl. 2.
American Cyanamid Co., New York, N. Y. 566,956, canc. Cl. 39.
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American Cyanamid Co., New York, N. Y. 672,097, pub. 10-21-58. Cl. 18.
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American Encaustic Tiling Co.: *See*—
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American Farm Bureau Federation, Chicago, Ill. 672,240, pub. 10-21-58. Cl. 38.
American Home Products Corp., d. b. a. Wyeth Laboratories, New York, N. Y. 672,096, pub. 10-21-58. Cl. 18.
American Metal Specialties Corp., Hatboro, Pa. 567,033, canc. Cl. 22.
American Petroleum Institute, New York, N. Y. 672,318, pub. 10-21-58. Cl. A.
American Pharmaceutical Co., New York, N. Y. 672,063, pub. 10-21-58. Cl. 18.
American Prismatic Glasses Inc., Boston, Mass. 566,977, canc. Cl. 26.
American Society of Tool Engineers, Detroit, Mich. 672,304, pub. 10-21-58. Cl. 101.
American Tobacco Co., The, New York, N. Y., by Taylor Brothers, Inc., Winston-Salem, N. C. 142,424, 12(c) pub. 1-6-59. Cl. 17.
American Tobacco Co., The, New York, N. Y., by Taylor Brothers, Inc., Winston-Salem, N. C. 278,807, 12(c) pub. 1-6-59. Cl. 17.
Ames Co., Inc., Elkhart, Ind. 672,032-3, pub. 10-21-58. Cl. 6.
Anchor Hocking Glass Corp., Lancaster, Ohio. 672,228, pub. 10-21-58. Cl. 23.
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Arabic Club, The, Dayton, Ohio. 672,317, pub. 10-21-58. Cl. 200.
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Arnold, Floyd S., d. b. a. Arnold's Supply Co., Rochester, Minn. 672,019, pub. 10-21-58. Cl. 4.
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Bachman Chocolate Mfg. Co., Mount Joy, Pa. 672,278, pub. 10-21-58. Cl. 46.
Ballantine Industries: *See*—
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Ballantine, J. S., d. b. a. Ballantine Industries, Absecon, N. J. 672,190, pub. 10-21-58. Cl. 22.
Barash, Joseph, New York, N. Y. 386,215, ren. 4-4-59. Cl. 50.
Baronio Fabrics, Inc., New York, N. Y. 672,253-6, pub. 10-21-58. Cl. 42.
Barrett Co., The, to Allied Chemical Corp., New York, N. Y. 361,566, ren. 10-25-58. Cl. 1.
Barrett-Cravens Co.: *See*—
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Bartmann & Bixer, Inc., New York, N. Y. 566,990, canc. Cl. 42.
Bartmann & Bixer, Inc., New York, N. Y. 566,991, canc. Cl. 42.
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Baxter Laboratories, Inc., Morton Grove, Ill. 359,848, 12(c) pub. 1-6-59. Cl. 6.
Baxter Laboratories, Inc., Glenview, Ill. 373,805, 12(c) pub. 1-6-59. Cl. 18.
Baxter Laboratories, Inc., Glenview, Ill. 380,230, 12(c) pub. 1-6-59. Cl. 18.
Beck, Arthur, Co., Chicago, Ill. 566,940, canc. Cl. 2.
Beebe Bros., Seattle, Wash. 672,166, pub. 10-21-58. Cl. 28.
Belling & Lee Ltd., Enfield, England. 672,147, pub. 10-21-58. Cl. 21.
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Blumenthal Bros. Chocolate Co., Philadelphia, Pa. 672,264, pub. 7-23-57. Cl. 46.
Blye, John, Inc., New York, N. Y. 566,836, canc. Cl. 39.
Bonnell, William L., Co., Inc., The, Newnan, Ga. 672,042, pub. 10-21-58. Cl. 12.
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Borst, Orival E., d. b. a., L. T. Lake, Waukegan, Ill. 672,161, pub. 10-21-58. Cl. 21.
Botany Mills, Inc., Passaic, N. J. 567,010, canc. Cl. 42.
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B-Shur Manufacturer, Long Beach, Calif. 672,153, pub. 10-21-58. Cl. 21.
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Caltex Distributors, Inc., Los Angeles, Calif. 672,091, pub. 10-21-58. Cl. 18.
Camp Shoe, Inc., The, New York, N. Y. 672,248, pub. 10-21-58. Cl. 39.

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Carter Products, Inc., New York, N. Y. 672,294, pub. 10–21–58. Cl. 51.
Cee-Bee Chemical Co., Inc., Downey, Calif. 672,071, pub. 10–21–58. Cl. 16.
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Chesebrough-Pond's Inc.: *See*—
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Cling-Surface Co., Buffalo, N. Y. 672,026, pub. 10–21–58. Cl. 6.
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Cohn & Rosenberger, Inc.
Council Mfg. Corp., Fort Smith, Ark. 672,324. Cl. 23.
Cox, Rupert, d. b. a. Pilot Products Co., Pilot Mountain, N. C. 566,936, canc. Cl. 18.
Craddock Furniture Corp., Evansville, Ind. 672,218, pub. 10–21–58. Cl. 32.
Cramer Chemical Co., Gardner, Kans. 672,085, pub. 10–21–58, Cl. 18.
Crescent Truck Co., Lebanon, Pa., by Barrett-Cravens Co., Northbrook, Ill. 414,625, 12(c) pub. 1–6–59. Cl. 19.
Crucible Steel Co. of America, Pittsburgh, Pa. 672,066, pub. 10–21–58. Cl. 14.
Cryde, Frederick, Inc., New York, N. Y. 672,237, pub. 10–21–58. Cl. 36.
Davis, Les, Fishing Tackle Co.: *See*—
Davis, Lester M.
Davis, Lester M., d. b. a. Les Davis Fishing Tackle Co., Tacoma, Wash. 672,171, pub. 10–21–58. Cl. 22.
Dayton Bait Corp., Dayton, Ohio. 672,166, pub. 10–21–58. Cl. 22.
Dayton Price and Co., Ltd., New York, N. Y. 566,955, canc. Cl. 31.
Danielson Mfg. Co., The, Danielson, Conn. 672,054, pub. 8–5–58. Cl. 13.
Deerhill Paint Co.: *See*—
Deerhill Paint Corp.
Deerhill Paint Corp., Brooklyn, to L. Hirschberg, New York, N. Y., d. b. a. Deerhill Paint Co. 566,866, canc. Cl. 16.
Deer-O Paints and Chemicals, Ltd., Phoenix, Ariz. 672,073, pub. 10–21–58. Cl. 16.
Delta & Pine Land Co. of Mississippi, Scott, Miss. 361,618, 12(c) pub. 1–6–59. Cl. 1.
De Macarte, Paul A. H., d. b. a. Thank-U-Courtesy Horn, Rockville, Conn. 672,130, pub. 10–21–58. Cl. 21.
Dement's, Oswego, N. Y. 672,262, pub. 10–21–58. Cl. 46.
DeMert & Dougherty, Inc., Chicago, Ill. 672,024, pub. 10–21–58. Cl. 6.
Demling, John P., Oak Park, Ill. 566,931, canc. Cl. 22.
Designs by Halgin, Inc., now by change of name Halgin Fabrics, Inc., New York, N. Y. 567,015, canc. Cl. 100.
Detroit Dental Mfg. Co., by Kerr Mfg. Co., Detroit, Mich. 361,682, 12(c) pub. 1–6–59. Cl. 44.
Devoe & Raynolds Co., Inc., Louisville, Ky. 672,076–7, pub. 10–21–58. Cl. 16.
Diamond Candle Co., Inc., Newburgh, N. Y. 672,070, pub. 12–27–55. Cl. 15.
Diamond Match Co., The, New York, N. Y. 566,816, canc. Cl. 24.
Dixie-Portland Flour Co., Memphis, Tenn. 364,605, ren. 2–7–59. Cl. 46.
Doran, John F., d. b. a. Malt-N-Burger Co., Waterloo, Iowa. 672,334. Cl. 100.
Douglas Fir Plywood Assn., Tacoma, Wash. 672,040, pub. 10–21–58. Cl. 12.
Drey, Sam, Phoenix, from Salt River Valley Produce, Inc., Glendale, Ariz. 672,281, pub. 10–21–58. Cl. 46.
Drey, Sam, Phoenix, from Salt River Valley Produce, Inc., Glendale, Ariz. 672,282, pub. 10–21–58. Cl. 46.
Dunbar Glass Corp., Dunbar, W. Va. 566,869, canc. Cl. 26.
Duncan, Donald F., Inc., Chicago, Ill. 672,166, pub. 10–21–58. Cl. 22.
Du Pont, E. I., de Nemours and Co.: *See*—
Ordinator Co., Inc.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 365,914, ren. 3–21–59. Cl. 6.
Dymec, Inc., by change of name from Dynac, Inc., Palo Alto, Calif. 672,204, pub. 10–21–58. Cl. 26.
Dynac, Inc.: *See*—
Dymec, Inc.
Dynamit-Actien-Gesellschaft Vormals Alfred Nobel & Co., Troisdorf, Germany. 672,002, pub. 10–21–58. Cl. 1.
E-Z Mills, Inc., New York, N. Y. 364,058, ren. 1–17–59. Cl. 39.
Eagle Pencil Co., New York, N. Y. 315,089, 12(c) pub. 1–6–59. Cl. 37.
Eagle Pencil Co., New York, N. Y. 315,090, 12(c) pub. 1–6–59. Cl. 37.
Eagle Pencil Co., New York, N. Y. 315,091, 12(c) pub. 1–6–59. Cl. 37.
Eagle-Picher Co., The, Cincinnati, Ohio. 566,966, canc. Cl. 16.
Eagle-Picher Co., The, Cincinnati, Ohio. 566,967, canc. Cl. 16.
Eastern States Farmers' Exchange, West Springfield, Mass. 672,274, pub. 10–21–58. Cl. 46.
Eaton Laboratories: *See*—
Norwich Pharmacal Co., The.
Egan, H. B., Mfg. Co., Muskogee, Okla. 672,117, pub. 10–21–58. Cl. 19.
Elder, Paul B., Co., Bryan, Ohio. 672,104, pub. 10–21–58. Cl. 18.
Elkhart Brass Mfg. Co., Elkhart, Ind. 672,180, pub. 10–21–58. Cl. 23.
Empire Milling Co., to Archer-Daniels-Midland Co., Minneapolis, Minn. 124,836, ren. 3–18–59. Cl. 46.
Engelhard Industries Ltd., London, England. 672,157, pub. 10–21–58. Cl. 21.
Esquire, Inc., New York, N. Y., from Associated Cigar Co., Dallas Town, Pa. 672,079, pub. 10–15–57. Cl. 17.
Essex Wire Corp., Fort Wayne, Ind. 672,137–8, pub. 10–21–58. Cl. 21.
Essex Wire Corp., Fort Wayne, Ind. 672,164–5, pub. 10–21–58. Cl. 21.
Esso Standard Oil Co., New York, N. Y. 672,266, pub. 10–21–58. Cl. 50.
Ethicon, Inc., Bridgewater, N. J. 672,258, pub. 10–21–58. Cl. 44.
Evergreen Mills, Inc., d. b. a. Ada Milling Co., Ada, Okla. 672,279, pub. 10–21–58. Cl. 46.
Exchange Parts Co. of Fort Worth, Fort Worth, Tex. 672,119, pub. 10–21–58. Cl. 19.
F & F Laboratories, Inc., Chicago, Ill. 432,230, 12(c) pub. 1–6–59. Cl. 46.
FR Corp., The: *See*—
Fink-Roselieve Co., Inc.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 672,010, pub. 10–21–58. Cl. 1.
Farison Mfg. Co., Napoleon, Ohio. 672,167, pub. 10–21–58. Cl. 22.
Federal Trailer Co., Detroit, Mich. 384,000, 12(c) pub. 1–6–59. Cl. 19.
Federated Department Stores, Inc.: *See*—
Filene's, Wm., Sons Co.
Filene's, Wm., Sons Co., to Federated Department Stores, Inc., d. b. a. Wm. Filene's Sons Co., Boston, Mass. 124,527, ren. 2–25–59. Cl. 39.
Fink-Roselieve Co., Inc., to The FR Corp., New York, N. Y. 366,232, ren. 4–4–59. Cl. 6.
Firestone Tire & Rubber Co., The, Akron, Ohio. 364,908, ren. 2–21–59. Cl. 35.
Flash-Stone Co., Inc.: *See*—
Achermann Mfg. Co.
Fleer, Frank H., Corp., Philadelphia, Pa. 672,273, pub. 10–21–58. Cl. 46.
Florists' Publishing Co., Chicago, Ill. 361,851, ren. 11–1–58. Cl. 38.
Foley & Co., Chicago, Ill. 566,875, canc. Cl. 18.
Fratelli Borletti Societa per Azioni, Milan, Italy. 672,184, pub. 10–21–58. Cl. 23.
Frederics, E., Inc., Brooklyn, N. Y. 672,297, pub. 10–21–58. Cl. 51.
Freeman, Bishop, David, Co., Evanston, Ill. 672,325. Cl. 24.
Frick, W. H., Inc., Cleveland, Ohio. 672,120, pub. 10–21–58. Cl. 19.
Gabriel, Sidney S., d. b. a. Zipco Wood Finishes, Syracuse, N. Y. 672,078, pub. 10–21–58. Cl. 16.
Gary-Howe Corp., New York, N. Y. 672,105, pub. 10–21–58. Cl. 18.

Geblar, Mark G., d. b. a. Oregon Fruit Products Co., Salem, Oreg. 672,276, pub. 10–21–58. Cl. 46.
Geigy Chemical Corp., Ardsley, N. Y. 672,060, pub. 9–16–58. Cl. 18.
General American Transportation Corp., Chicago, Ill. 672,181, pub. 10–21–58. Cl. 23.
General American Transportation Corp., Chicago, Ill. 672,313, pub. 10–21–58. Cl. 106.
General Aniline & Film Corp., New York, N. Y. 672,196, pub. 8–26–58. Cl. 26.
General Aniline & Film Corp., New York, N. Y. 672,209, pub. 10–21–58. Cl. 26.
General Cable Corp.: *See*—
Atlantic Insulated Wire & Cable Co.
General Fireproofing Co., The, Youngstown, Ohio. 672,225, pub. 10–21–58. Cl. 32.
General Foods Corp.: *See*—
Kaffee Hag Corp.
General Paint & Varnish Co. Inc.; d. b. a. Wheeler Varnish Works, Chicago, Ill. 672,072, pub. 10–21–58. Cl. 16.
General Tire & Rubber Co., The, Akron, Ohio. 671,999, pub. 10–21–58. Cl. 1.
General Tire & Rubber Co., The, Akron, Ohio. 672,093, pub. 10–21–58. Cl. 1.
Gernsback Library, Inc., New York, N. Y. 672,239, pub. 10–21–58. Cl. 38.
Gerson, Sam, Co., Philadelphia, Pa. 566,849, canc. Cl. 39.
Gibbon, C. D., & Son, Philadelphia, Pa., by S. Goldberg & Co. Inc., Hackensack, N. J. 22,490, 12(c) pub. 1–6–59. Cl. 39.
Gibson-Homans Co., The, Cleveland, Ohio. 286,561, 12(c) pub. 1–6–59. Cl. 16.
Globe American Corp., d. b. a. Vulcan-Hart Mfg. Co., Kokomo, Ind. 672,235, pub. 10–21–58. Cl. 24.
Goldberg, S., & Co. Inc.: *See*—
Gibbon, C. D., & Son.
Good Items, Inc., Chicago, Ill. 567,029, canc. Cl. 34.
Goodrich Electric Co., by Appleton Electric Co., Chicago, Ill. 359,715, 12(c) pub. 1–6–59. Cl. 21.
Gordon Cartons, Inc., Baltimore, Md. 566,803, canc. Cl. 2.
Gospel Trumpet Co., Anderson, Ind. 566,943, canc. Cl. 38.
Gotham Chalkboard & Trim Co. Inc., New Rochelle, N. Y. 672,289, pub. 10–21–58. Cl. 50.
Graduate School of Banking, The, New York, N. Y. 365,812, ren. 3–7–59. Cl. 28.
Grove Laboratories Inc., Ladue, from Grove Laboratories, Inc., St. Louis County, Mo. 672,060, pub. 10–21–58. Cl. 18.
Guilbert, Inc., Philadelphia, Pa. 672,144, pub. 10–21–58. Cl. 21.
Habitat, Inc., New York, N. Y. 672,232, pub. 10–21–58. Cl. 34.
Halgin Fabrics, Inc.: *See*—
Designs by Halgin, Inc.
Hall-Mack Co., Los Angeles, Calif. [illegible], canc. Cl. 13.
Hallmark, Inc.: *See*—
Schwob, Adolphe, Inc.
Hanes Hosiery Mills Co., Winston-Salem, N. C. 566,841, canc. Cl. 39.
Hardwood Floors Co.: *See*—
Higginbotham, Howard E.
Hardy, James G., d. b. a. James G. Hardy & Co., to James G. Hardy & Co., Inc., New York, N. Y. 364,951, ren. 2–21–59. Cl. 42.
Hardy, James G., & Co., Inc.: *See*—
Hardy, James G.
Harshaw Chemical Co., The, Cleveland, Ohio. 672,000, pub. 10–21–58. Cl. 1.
Hart and Burns, Inc., Arlington, Calif. 566,972, canc. Cl. 16.
Hart Drug Corp., Miami, Fla. 297,515, canc. Cl. 18.
Harveton Furniture, Inc., Atlanta, Ga. 672,224, pub. 10–21–58. Cl. 32.
Hawaiian Pineapple Co., Ltd., Honolulu, Hawaii. 672,330–31. Cl. 46.
Health Information Foundation, New York, N. Y. 672,303, pub. 10–21–58. Cl. 100.
Heeman Mfg. Co., Wooster, Ohio. 566,835, canc. Cl. 10.
Heller, R. C., Co., Inc., Baltimore, Md. 360,894, 12(c) pub. 1–6–59. Cl. 32.
Heltige, Inc., Garden City, N. Y. 672,199, pub. 5–13–58. Cl. 26.
Hercules Powder Co., Wilmington, Del. 363,211, ren. 12–13–58. Cl. 1.
Heyden Newport Chemical Corp.: *See*—
Nuodex Products Co., Inc.
Higginbotham, Howard E., d. b. a. Hardwood Floors Co., Stone Park, Ill. 672,341. Cl. 103.
Hill Transformer Co., Inc., San Carlos, Calif. 672,154, pub. 10–21–58. Cl. 21.
Hirschberg, Louis: *See*—
Deerhill Paint Corp.
Hockley, Roscoe L., d. b. a. Shooters' Specialties, Baltimore, Md. 672,243, pub. 10–21–58. Cl. 39.
Holley Carbureter Co., Warren, Mich. 672,155, pub. 10–21–58. Cl. 21.
Holub Industries, Inc., Sycamore, Ill. 672,141, pub. 10–21–58. Cl. 21.
Home Fuel Oil Co., Passaic, by Coastal Oil Co., Newark, N. J. 250,747, 12(c) pub. 1–6–59. Cl. 15.
House For Men, Inc., The, Chicago, Ill. 672,292, pub. 10–21–58. Cl. 51.
Huber, J. M., Corp., Red Bank, N. J., and New York, N. Y. 566,826, canc. Cl. 1.
Hudnut, Richard, Morris Plains, N. J. 672,291, pub. 10–21–58. Cl. 51.
Hudson American Corp.: *See*—
Vocaline Co. of America Inc.
I-XL Furniture Co., Inc., The, Goshen, Ind. 672,221, pub. 10–21–58. Cl. 32.
Ideal Industries, Inc., Sycamore, Ill. 672,185, pub. 10–21–58. Cl. 23.
Ideal Products, Inc., Sykesville, Pa. 672,169, pub. 10–21–58. Cl. 22.
Illinois Knitting Co., Mt. Vernon, Ill. 566,937, canc. Cl. 39.
Illinois Paint Works: *See*—
Sears, Roebuck and Co.
Illinois Tool Works, Chicago, Ill. 672,134, pub. 10–21–58. Cl. 21.
International Appliance Corp., Brooklyn, N. Y. 365,023, ren. 2–21–59. Cl. 21.
International Order of Job's Daughters, Owosso, Mich. 672,316, pub. 10–21–58. Cl. 200.
International Paper Box Machine Co., The, Nashua, N. H. 361,867, ren. 11–1–58. Cl. 23.
Irwin, Neisler and Co., Decatur, Ill. 672,081–2, pub. 3–4–58. Cl. 18.
Irwin, Neisler and Co., Decatur, Ill. 672,321. Cl. 18.
Jergens, Andrew, Co., The, Cincinnati, Ohio. 672,293, pub. 10–21–58. Cl. 51.
Johnson Bros. (Hanley) Ltd., New York, N. Y. 672,214, pub. 10–21–58. Cl. 20.
Johnson, Gordon, Co., Kansas City, Mo. 567,034, canc. Cl. 34.
Johnson & Johnson, New Brunswick, N. J. 672,007, pub. 10–21–58. Cl. 1.
Johnson, Nestor, Mfg. Co., Chicago, Ill. 246,706, 12(c) pub. 1–6–59. Cl. 22.
Juhase, Walter, d. b. a. The Walters Co., New York, N. Y. 672,287, pub. 10–21–58. Cl. 50.
Kaffee Hag Corp., New York, by General Foods Corp., White Plains, N. Y. 136,840, 12(c) pub. 1–6–59. Cl. 46.
Kaspar Winkler & Co.: *See*—
Schenker-Winkler, Fritz.
Keesling, H. & T., Los Gatos, Calif. 672,194, pub. 10–21–58. Cl. 23.
Keepaway Laboratory: *See*—
Vigor Laboratories Ltd.
Kennametal Inc., Latrobe, Pa. 672,065, pub. 10–21–58. Cl. 14.
Kennametal Inc., Latrobe, Pa. 672,068, pub. 10–21–58. Cl. 14.
Kerr Mfg. Co.: *See*—
Detroit Dental Mfg. Co.
Keuffel & Esser Co., Hoboken, N. J., from Micro-Master, Inc., Kansas City, Mo. 672,052–3, pub. 8–5–58. Cl. 13.
Keuffel & Esser Co., Hoboken, N. J., from Micro-Master, Inc., Kansas City, Mo. 672,197, pub. 7–22–58. Cl. 26.
Kimble Glass Co., Toledo, Ohio. 672,229, pub. 10–21–58. Cl. 33.
King, John J., Chicago, Ill. 672,183, pub. 10–21–58. Cl. 23.
King Trailer Co., Inc., Torrance, Calif. 672,118, pub. 10–21–58. Cl. 19.
Kingston Farmers Exchange, Inc., Kingston, Ohio. 672,036, pub. 10–21–58. Cl. 10.
Kirk, Morris P., & Son, Inc., Los Angeles, Calif. 672,067, pub. 10–21–58. Cl. 14.
Klein Chocolate Co., Elizabethtown, Pa. 672,263, pub. 10–21–58. Cl. 46.
Knickerbocker Clothing Co., St. Louis, Mo. 363,637, ren. 1–3–59. Cl. 39.
Koch Refrigerators, Inc., Kansas City, Mo. 672,217, pub. 10–21–58. Cl. 31.
Korn, D. L.: *See*—
Tank Seal Products Co.
Krupp, Paul, Co., Inc., New York, N. Y. 566,965, canc. Cl. 39.
Kustoms of America, Inc., Hollywood, Calif. 672,315, pub. 10–21–58. Cl. 200.
L. O. F. Glass Fibers Co., Toledo, Ohio. 672,047, pub. 10–21–58. Cl. 12.
L. T. Labs: *See*—
Borst, Orival E.
Ladish Co., Cudahy, Wis. 672,320. Cl. 14.
Lamb, Joe. F., Co., Vandyke, Mich. 672,178, pub. 10–7–58. Cl. 23.
Laporte, B., Ltd., Luton, Bedfordshire, by Laporte Chemicals Ltd., London, England. 419,139, 12(c) 1–6–59. Cl. 6.
Laporte Chemicals Ltd.: *See*—
Laporte, B., Ltd.
Leaf Brands, Inc., Chicago, Ill. 672,277, pub. 10–21–58. Cl. 46.
Lebanon Shirt Co., Inc., New York, N. Y. 566,888, canc. Cl. 39.
Lee, Frank H., Co., The, Danbury, Conn. 566,942, canc. Cl. 39.
Lemen, Alfred B., Providence, R. I., by Riverside Paper Corp., Appleton, Wis. 195,004, 12(c) pub. 1–6–59. Cl. 37.
Lennox Industries Inc., Marshalltown, Iowa. 672,328. Cl. 34.
Leonhard, Theodor, Wax Co., Paterson, N. J. 164,684, 12(c) pub. 1–6–59. Cl. 6.
Lewis Implement and Seed Co., by Lewis Seed Co. Inc., Louisville, Ky. 130,202, 12(c) pub. 1–6–59. Cl. 1.
Lewis Seed Co., Inc.: *See*—
Lewis Implement and Seed Co.
Liberty & Co. Ltd., London, England. 120,598, 12(c) pub. 1–6–59. Cl. 42.
Liberty Distributors Group, Philadelphia, Pa. 672,332. Cl. 50.
Lilly, Eli, and Co., Indianapolis, Ind. 672,084, pub. 9–2–58. Cl. 18.
Lindsey, James W., d. b. a. Lindsey Seed Co., Lubbock, Tex. 672,006, pub. 9–9–58. Cl. 1.
Lindsey Seed Co.: *See*—
Lindsey, James W.
Lionelli Packing Co.: *See*—
Lionelli Packing Co., Inc.
Lionelli Packing Co., Inc., d. b. a. Lionelli Packing Co., West New York, N. J. 672,206–7, pub. 10–21–58. Cl. 46.
Litecraft Mfg. Corp., Passaic, N. J. 672,050, pub. 10–21–58. Cl. 12.

Lone Star Rose Nursery: *See*—
Payne, Raymond D.
Lotshaw, Andy, Co., Chicago, Ill. 566,882, canc. Cl. 6.
Lucas Products Co.: *See*—
Lucas, Vane B.
Lucas, Vane B., d. b. a. Lucas Products Co., Bedford, Iowa. 672,322. Cl. 18.
Lufkin Rule Co., The, Saginaw, Mich. 566,975, canc. Cl. 26.
Luxem, James P., Co., The, Franklin Park, Ill. 672,223, pub. 9–9–58. Cl. 32.
MacArthur, Arthur P., Milford, Pa. 672,301, pub. 10–21–58. Cl. 100.
Maillard Corp., The: *See*—
Maillard, Henry, Inc.
Maillard, Henry, Inc., to The Maillard Corp., New York, N. Y. 363,417, ren. 12–27–58. Cl. 46.
Mallalieu, Frank B., Jr.: *See*—
Private Telephones, Inc.
Malt 'N' Burger Co.: *See*—
Doran, John F.
Manhattan Shirt Co., The, New York, N. Y. 124,019, 12(c) pub. 1–6–59. Cl. 39.
Manpower, Inc., Milwaukee, Wis. 672,305, pub. 10–21–58. Cl. 101.
Marathon Corp.: *See*—
American Can Co.
Marion Electrical Instrument Co., Manchester, N. H. 672,207, pub. 10–21–58. Cl. 26.
Mark Cross Co., New York, N. Y. 566,887, canc. Cl. 26.
Marlboro Shirt Co., Inc., Baltimore, Md. 566,963, canc. Cl. 39.
Martin, R. M., d. b. a. Bilt-Wel Co., Pella, Iowa. 672,219, pub. 10–21–58. Cl. 32.
May Department Stores Co., The, St. Louis, Mo. 357,536, 12(c) pub. 1–6–59. Cl. 39.
McGraw-Edison Co., Chicago, Ill. 672,159, pub. 10–21–58. Cl. 21.
McKesson Appliance Co.: *See*—
McKesson Appliance Co., The.
McKesson Appliance Co., The, to McKesson Appliance Co., Toledo, Ohio. 361,683, ren. 10–25–58. Cl. 44.
Meiker, Joseph E.: *See*—
Varsity Hosiery Corp.
Merck & Co., Inc., Rahway, N. J. 672,088, pub. 10–21–58. Cl. 18.
Metaltite Products, Inc., Hammond, Ind. 672,163, pub. 10–21–58. Cl. 21.
Meyercord Co., The, Chicago, Ill. 566,813, canc. Cl. 12.
Michigan Industries Co., Detroit, Mich. 672,063, pub. 10–21–58. Cl. 14.
Michigan Orchard Supply Co., South Haven, Mich. 672,059, pub. 10–21–58. Cl. 13.
Micro-Master, Inc.: *See*—
Keuffel & Esser Co.
Mid-Continent Paint Mfg. Co., Kansas City, Mo. 566,860, canc. Cl. 16.
Middlebrooke-Lancaster, Inc., Brooklyn, N. Y. 672,034, pub. 10–21–58. Cl. 6.
Middlebrooke-Lancaster, Inc., Brooklyn, N. Y. 672,298, pub. 10–21–58. Cl. 51.
Milford Hosiery: *See*—
Rotter, Alexander.
Miller Brothers Co., Inc., Johnson City, Tenn. 672,044–5, pub. 10–21–58. Cl. 12.
Mono Service Co., Newark, N. J. 298,749, canc. Cl. 2.
Monsanto Chemical Co., St. Louis, Mo. 672,030, pub. 10–21–58. Cl. 6.
Monsanto Chemical Co., St. Louis, Mo. 672,090, pub. 10–21–58. Cl. 18.
Montgomery Ward & Co., Inc., Chicago, Ill. 672,136, pub. 10–21–58. Cl. 21.
Morrison, Lew, Lynwood, Wash. 672,170, pub. 10–21–58. Cl. 22.
Multi-Products Co., Oak Park, Mich. 672,156, pub. 10–21–58. Cl. 21.
Nassau Fabrics, Inc., New York, N. Y. 672,252, pub. 10–21–58. Cl. 42.
National Aniline & Chemical Co., Inc., to Allied Chemical Corp., New York, N. Y. 362,307, ren. 11–15–58. Cl. 6.
National Cash Register Co., The, Dayton, Ohio. 366,402, ren. 4–11–59. Cl. 26.
National Cash Register Co., The, Dayton, Ohio. 366,402, ren. 4–11–59. Cl. 26.
National Cash Register Co., The, Dayton, Ohio. 366,404, ren. 4–11–59. Cl. 26.
National Cash Register Co., The, Dayton, Ohio. 366,464, ren. 4–11–59. Cl. 37.
National Cash Register Co., The, Dayton, Ohio. 366,465, ren. 4–11–59. Cl. 37.
National Cash Register Co., The, Dayton, Ohio. 366,552, ren. 4–18–59. Cl. 23.
National Cash Register Co., The, Dayton, Ohio. 366,567, ren. 4–18–59. Cl. 32.
National Lead Co., New York, N. Y. 672,011, pub. 10–21–58. Cl. 1.
National Starch Products Inc., New York, N. Y. 672,022, pub. 10–21–58. Cl. 5.
National Water Main Cleaning Co., New York, N. Y. 122,517, 12(c) pub. 1–6–59. Cl. 23.
New York Wire Cloth Co., York, Pa. 672,058, pub. 10–21–58. Cl. 13.
Northrop Aircraft, Inc., Beverly Hills, Calif. 672,125–7, pub. 10–21–58. Cl. 19.
Norwich Pharmacal Co., The, d. b. a. Eaton Laboratories, Norwich, N. Y. 672,087, pub. 10–21–58. Cl. 18.
Norwich Pharmacal Co., The, Norwich, N. Y. 672,092, pub. 10–21–58. Cl. 18.
Nuodex Products Co., Inc., Elizabeth, N. J., by Heyden Newport Chemical Corp., New York, N. Y. 364,846, 12(c) pub. 1–6–59. Cl. 11.
Nuodex Products Co., Inc., Elizabeth, N. J., by Heyden Newport Chemical Corp., New York, N. Y. 365,068, 12(c) pub. 1–6–59. Cl. 16.
Nuodex Products Co., Inc., Elizabeth, N. J., by Heyden Newport Chemical Corp., New York, N. Y. 365,068, 12(c) pub. 1–6–59. Cl. 16.
Nutritional Science Corp., Lynwood, Calif. 672,295, pub. 10–21–58. Cl. 51.
Oerlikon Italiana-Societa Industriale per Azioni, Milano (Affori), Italy. 566,905, canc. Cl. 23.
Ohio Knife Co., The, Cincinnati, Ohio. 672,173, pub. 9–23–58. Cl. 23.
Old Judge Coffee Co., St. Louis, Mo. 672,275, pub. 10–21–58. Cl. 46.
Oneida Ltd., Oneida, N. Y. 358,810, ren. 7–20–58. Cl. 28.
Optical Gaging Products, Inc., Rochester, N. Y. 672,205, pub. 10–21–58. Cl. 26.
O'Rahilly, Aodagan, Leitrim, Ireland. 672,009, pub. 10–21–58. Cl. 1.
Ordinator Co., Inc., New York, N. Y., by E. I. du Pont de Nemours and Co., Wilmington, Del. 124,137, 12(c) pub. 1–6–59. Cl. 42.
Oregon Fruit Products Co.: *See*—
Gehlar, Mark G.
Organic Compost Corp., Germantown, Wis. 672,037, pub. 10–21–58. Cl. 10.
Orkin Exposition Management: *See*—
Orkin, William S.
Orkin, William S., d. b. a. Orkin Exposition Management, New York, N. Y. 672,336. Cl. 101.
Osterreichische Stickstoffwerke Aktiengesellschaft, Linz-on the-Danube, Austria. 566,945, canc. Cl. 10.
P. I. P. Products: *See*—
Rosmarin, Philip F.
Pacific Paint & Varnish Co.: *See*—
Sears, Roebuck and Co.
Pacific Tool and Die Co.: *See*—
Seele, Harold A.
Packard Bell Electronics Corp., Los Angeles, Calif. 672,238, pub. 10–21–58. Cl. 36.
Pancordion, Inc., Long Island City, N. Y. 566,831, canc. Cl. 36.
Paparelli, Louis A., Albuquerque, N. Mex. 365,807, ren. 3–21–59. Cl. 18.
Parke, Davis & Co., Detroit, Mich. 362,008, 12(c) pub. 1–6–59. Cl. 18.
Parke, Davis & Co., Detroit, Mich. 362,130, 12(c) pub. 1–6–59. Cl. 18.
Parker Brothers, Inc., Portland, Maine, and Salem, Mass. 365,385, ren. 3–7–59. Cl. 22.
Parks, Harold C., d. b. a. Parks Laboratories, Eugene, Oreg. 672,296, pub. 10–21–58. Cl. 51.
Parks Laboratories: *See*—
Parks, Harold C.
Payne, Raymond D., d. b. a. Lone Star Rose Nursery, Tyler, Tex. 672,005, pub. 9–4–58. Cl. 1.
Peggy Sage, Inc., Stamford, Conn. 365,065, ren. 2–21–59. Cl. 51.
Pelouze Mfg. Co., Evanston, Ill. 566,890, canc. Cl. 26.
Pennebaker, A. E., Inc., Greenville, S. C. 672,249, pub. 10–21–58. Cl. 39.
Pennsalt Chemicals Corp., Philadelphia, Pa. 672,033, pub. 10–21–58. Cl. 6.
Penta Laboratories, Inc., Santa Barbara, Calif. 672,148, pub. 10–21–58. Cl. 21.
Pepperell Mfg. Co., Boston, Mass. 672,251, pub. 10–21–58. Cl. 42.
Personna International, Inc., New York, N. Y. 672,149, pub. 10–21–58. Cl. 21.
Peter Pan Foundations, Inc., New York, N. Y. 672,247, pub. 10–21–58. Cl. 89.
Petrolite Corp., Webster Groves, Mo. 672,027–8, pub. 10–21–58. Cl. 6.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 672,092, pub. 10–21–58. Cl. 18.
Phelps Dodge Copper Products Corp., New York, N. Y. 672,323. Cl. 21.
Philco Corp., Philadelphia, Pa. 672,162, pub. 10–21–58. Cl. 21.
Picot Laboratories, Inc., Mount Vernon, N. Y. 365,062, 12(c) pub. 1–6–59. Cl. 18.
Pillsbury Co., The, by change of name from Pillsbury Mills, Inc., Minneapolis, Minn. 672,283, pub. 10–21–58. Cl. 46.
Pillsbury Mills, Inc.: *See*—
Pillsbury Co., The.
Pilot Products Co.: *See*—
Cox, Rupert.
Pittsburgh Plate Glass Co., Pittsburgh, Pa. 672,012, pub. 10–21–58. Cl. 1.
Poirette Corsets, Inc., New York, N. Y. 566,953, canc. Cl. 39.
Pond's Extract Co., by Chesebrough-Pond's Inc., New York, N. Y. 359,670, 12(c) pub. 1–6–59. Cl. 51.
Pond's Extract Co., by Chesebrough-Pond's Inc., New York, N. Y. 361,949, 12(c) pub. 1–6–59. Cl. 51.
Portage Hosiery Co., Portage, Wis. 672,245, pub. 10–21–58. Cl. 39.
Portland Woolen Mills, Inc., Portland, Oreg. 672,257, pub. 10–21–58. Cl. 42.
Priestley, B., & Co., Inc., New York, N. Y. 566,969, canc. Cl. 42.
Printon Corp., New York, N. Y. 672,013, pub. 9–21–58. Cl. 2.
Private Telephones, Inc., Cleveland, Ohio, by F. B. Mallalieu, Jr., d. b. a. Transelectric Mfg. Co., Oxford, Pa. 365,559, 12(c) pub. 1–6–59. Cl. 21.
Puget Sound Pulp and Timber Co., Bellingham, Wash. 672,035, pub. 10–21–58. Cl. 10.
Quickfit & Quartz Ltd., London, England. 672,170–7, pub. 10–21–58. Cl. 23.

Quickfit & Quartz Ltd., London, England. 672,230–1, pub. 10–21–58. Cl. 34.
Radco Mfg. Co., Inc., South Bend, Ind. 672,150–1, pub. 10–21–58. Cl. 21.
Rapid Electric Co.: *See*—
Viola, James A.
Raub Co., The, Cincinnati, Ohio. 672,241, pub. 9–4–57. Cl. 39.
Raven Products Co., New York, N. Y. 672,213, pub. 10–21–58. Cl. 29.
Rayflex Fabrics, Inc., New York, N. Y. 567,003, canc. Cl. 42.
Real Estate Workshop: *See*—
Schwartz, Russell J.
Red Devil Tools: *See*—
Smith, Landon P., Inc.
Regal Ware, Inc., Kewaskum, Wis. 672,128, pub. 10–21–58. Cl. 21.
Remington Arms Co., Inc., Bridgeport, Conn. 672,186, pub. 10–21–58. Cl. 23.
Rent-A-Luggage, Inc., San Francisco, Calif. 672,238. Cl. 101.
Resisto-Loy Co., Inc., The, Grand Rapids, Mich. 672,044, pub. 10–21–58. Cl. 14.
Retex Mfg. Co.: *See*—
Sherritt, James L.
Revere Camera Co., Chicago, Ill. 672,210, pub. 10–21–58. Cl. 26.
Revere Rubber Co., Boston, Mass., by United States Rubber Co., New York, N. Y. 16,066, 12(c) pub. 1–6–59. Cl. 35.
Rexall Drug Co., Los Angeles, Calif. 672,095–6, pub. 10–21–58. Cl. 18.
Rexco: *See*—
Barrus, Mortier F.
Reynolds Metals Co., Richmond, Va. 566,809, canc. Cl. 13.
Rhinopto Co., Dallas, Tex. 297,967, canc. Cl. 18.
Richardson Boat Co., Inc., North Tonawanda, N. Y. 672,121, pub. 10–21–58. Cl. 19.
Rittenhaum Brothers, Atlanta, Ga. 672,212, pub. 10–21–58. Cl. 29.
Riverside Paper Corp.: *See*—
Lemon, Alfred B.
Robbins Floor Products, Inc., Tuscumbia, Ala. 672,046, pub. 10–21–58. Cl. 12.
Robertson Photo-Mechanix, Inc., Chicago, Ill. 672,208, pub. 10–21–58. Cl. 26.
Rochester Products Corp., New Haven, Conn. 672,145, pub. 10–21–58. Cl. 21.
Rosson Corp., Newark, N. J. 672,167, pub. 10–21–58. Cl. 23.
Rosmarin, Philip F., d. b. a. P. I. P. Products, New York, N. Y. 672,338. Cl. 51.
Rosson Mfg. Co., Chicago, Ill. 672,055, pub. 10–21–58. Cl. 13.
Rosson-Richards Processing Co., Inc., Houston, Tex. 672,124, pub. 10–21–58. Cl. 19.
Rotter, Alexander, d. b. a. Milford Hosiery Co., New York, N. Y. 672,244, pub. 10–21–58. Cl. 39.
Royal Chim, Inc., Sebring, Ohio. 672,215, pub. 10–21–58. Cl. 20.
Ryan, F. P., Lookout Mountain, Tenn. 672,233, pub. 10–21–58. Cl. 34.
Safetee Glass Co., Philadelphia, Pa. 672,226, pub. 10–21–58. Cl. 33.
Sahyun Laboratories: *See*—
Sahyun, Melville.
Sahyun, Melville, d. b. a. Sahyun Laboratories, Santa Barbara, Calif. 672,102–3, pub. 10–21–58. Cl. 18.
Salt River Valley Produce, Inc.: *See*—
Drey, Sam.
Samuel Stamping & Enameling Co., Chattanooga, Tenn. 567,035, canc. Cl. 34.
Sawyer's Inc., Portland, Oreg. 672,211, pub. 10–21–58. Cl. 26.
Scarry, E. J., & Co., Denver, Colo. 672,220, pub. 10–21–58. Cl. 51.
Schenker-Winkler, Fritz, d. b. a. Kaspar Winkler & Co., Altstetten, Zurich, Switzerland. 672,031. Cl. 6.
Schenlabs Pharmaceuticals, Inc., New York, N. Y. 672,106, pub. 10–21–58. Cl. 18.
Schering Corp., Bloomfield, N. J. 672,107, pub. 10–21–58. Cl. 18.
Schering Corp., Bloomfield, N. J. 672,113–15, pub. 10–21–58. Cl. 18.
Schoeneman, J., Inc., by J. Schoeneman, Inc., Baltimore, Md. 362,354, 12(c) pub. 1–6–59. Cl. 39.
Schwab, Kathleen C., Kansas City, Mo. 672,314, pub. 10–21–58. Cl. 107.
Schwartz, Russell J., d. b. a. Real Estate Workshop, Minneapolis, Minn. 672,329. Cl. 36.
Schweb, Adolphe, Inc., New York, N. Y., to Hallmark, Inc., Chicago, Ill. 122,536, ren. 8–20–58. Cl. 27.
Scottish Tool, Die & Metal Products Co., Cleveland, Ohio. 672,191, pub. 10–21–58. Cl. 23.
Sealy, Inc., Chicago, Ill. 672,222, pub. 10–21–58. Cl. 32.
Sears, Roebuck and Co., also d. b. a. Illinois Paint Works, and as Pacific Paint & Varnish Co., Chicago, Ill. 566,902, canc. Cl. 16.
Sears, Roebuck and Co., Chicago, Ill. 672,062, pub. 9–30–58. Cl. 13.
Sears, Roebuck and Co., Chicago, Ill. 672,216, pub. 10–7–58. Cl. 31.
Seele, Harold A., d. b. a. Pacific Tool and Die Co., Los Angeles, Calif. 672,140, 10–21–58. Cl. 21.
Selden Brass and Giftware: *See*—
Selden, H. G., & Co. Inc.
Selden, H. G., & Co. Inc., d. b. a. Selden Brass and Giftware, New York, N. Y. 672,014, 10–21–58 Cl 2
Selmer, H. & A., Inc., Elkhart, Ind. 672,020, pub. 10–21–58. Cl. 4.
Semler, R. B., Inc., now by merger The J. B. Williams Co., New Canaan, Conn. 566,910, canc. Cl. 51.
Sewai, Wong, d. b. a. Wing Lee Wai, San Francisco, Calif., and Hongkong, China. 566,886, canc. Cl. 18.
Shanly International Corp., Buffalo, N. Y. 672,242. Cl. 105.
Shooters' Specialties: *See*—
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Shuron Optical Co., Inc., by Shuron Optical Co., Inc., Geneva, N. Y. 363,849, 12(c) pub. 1–6–59. Cl. 26.
Sifers Chocolate Syrup Co., Inc., Iola, Kans. 672,270, pub. 10–21–58. Cl. 46.
Silby Chemical Corp., Miami, Fla. 566,847, canc. Cl. 52.
Singer Home Products Corp.: *See*—
Weldit Corp.
Sherritt, James L., d. b. a. Retex Mfg. Co., New York, N. Y. 672,192, pub. 10–21–58. Cl. 23.
Slenderella Systems, Inc., Stamford, Conn. 672,285, pub. 10–21–58. Cl. 46.
Smith, Landon P., Inc., Irvington, to Red Devil Tools, Union, N. J. 361,834, ren. 11–1–58. Cl. 23.
Snyder, Sampson, d. b. a. Bastrop Orchard Co., Bastrop, La. 360,648, 12(c) pub. 1–6–59. Cl. 46.
Societe Miniere et Metallurgique de Pemarroya, Paris, France. 566,959, canc. Cl. 13.
Societe Rhodiaceta, Paris, France. 566,920, canc. Cl. 42.
Sorg Paper Co., The, Middletown, Ohio. 363,142, ren. 12–13–58. Cl. 37.
Southern Air Conditioning Mfg. Co., Fort Worth, Tex. 567,021, canc. Cl. 34.
Specialties, Inc., Syosset, N. Y. 441,499, 12(c) pub. 1–6–59. Cl. 26.
Specialty Food Packing and Importing Co., Chicago, Ill. 672,268–9, pub. 10–21–58. Cl. 46.
Spencer, Stephen W., Pittsburgh, Pa. 672,335. Cl. 100.
Sperry Rand Corp., New York, N. Y. 672,129, pub. 10–21–58. Cl. 21.
Sportsmanship Hall of Fame: *See*—
Coleman, E. P.
Standard Water Softener Co.: *See*—
Tyler, Joan.
Standard Western Co.: *See*—
Tyler, Joan.
Starcraft, Cleveland, Ohio. 672,201, pub. 10–21–58. Cl. 26.
Stetson China Co., Inc., Lincoln, Ill. 672,327. Cl. 30.
Stetson, John B., Co., Philadelphia, Pa. 360,288, 12(c) pub. 1–6–59. Cl. 39.
Stilwell, Ralph H., Oakland, Calif. 672,132, pub. 10–21–58. Cl. 21.
Stran-Steel Corp., Ecorse, Mich. 672,074, pub. 10–21–58. Cl. 16.
Structarlite Plastics Corp., Hebron, Ohio. 671,996, pub. 10–21–58. Cl. 1.
T. V. List, Inc., from Chicago T. V. Week, Inc., Chicago, Ill. 567,026, canc. Cl. 38.
Tambro Fabrics Corp., New York, N. Y. 566,815, canc. Cl. 42.
Tambro Fabrics Corp., New York, N. Y. 566,970, canc. Cl. 42.
Tambro Fabrics Corp., New York, N. Y. 566,978, canc. Cl. 42.
Tank Seal Products Co., Tulsa, by D. L. Korn, Sapulpa, Okla. 360,112, 12(c) pub. 1–6–59. Cl. 12.
Taylor Brothers, Inc.: *See*—
American Tobacco Co., The.
Tennessee Fabricating Co., Memphis, Tenn. 672,049, pub. 10–21–58. Cl. 12.
Thank-U-Courtesy Horn: *See*—
De Macarte, Paul A. H.
Thermoil Lubricants Co., Tulsa, by Thermoil Lubricants Corp., Elk City, Okla. 191,568, 12(c) pub. 1–6–59. Cl. 15.
Thermoil Lubricants Corp.: *See*—
Thermoil Lubricants Co.
Thiries, J., Pere & Fils & Cartier-Bresson, Societe a Responsabilite Limitee, Lille, France. 384,212, ren. 1–24–59. Cl. 43.
Thomas, David, New York, N. Y. 566,999, canc. Cl. 51.
Thompson, Earl A., Mfg. Co., Detroit, Mich. 672,175, pub. 10–21–58. Cl. 23.
Tile-Rite Co., The, Cleveland, Ohio. 672,048, pub. 10–21–58. Cl. 12.
Time Insurance Co., Milwaukee, Wis. 672,206–7, pub. 10–21–58. Cl. 102.
Tobe Deutschmann Corp., Norwood, Mass. 672,146, pub. 10–21–58. Cl. 21.
Tober-Salfer Shoe Mfg. Co., St. Louis, Mo. 672,246, pub. 10–21–58. Cl. 39.
Toor, H. O., Footwear, Inc., Annville, Pa. 672,242, pub. 4–8–58. Cl. 39.
Tracy-Burns Enterprises, Inc., Flint, Mich. 672,290, pub. 9–9–58. Cl. 52.
Trade-A-Home, Inc., Atlantic, Iowa. 672,339. Cl. 101.
Transelectric Mfg. Co.: *See*—
Private Telephones, Inc.
Transformatoren- und Apparate-Fabrik Paul Metz, Furth (Bay.), Germany. 672,142, pub. 10–21–58. Cl. 21.
Trans-Sonics, Inc., Lexington, Mass. 672,202, pub. 10–21–58. Cl. 26.
Treadwell Construction Co., Midland, Pa. 672,308–9, pub. 10–21–58. Cl. 103.
Trimfoot Co.: *See*—
Wizard Lightfoot Appliance Co.
Triumph Corp., The, Baltimore, Md. 672,189, pub. 10–21–58. Cl. 23.
Tyler, Joan, d. b. a. Standard Western Co., and as Standard Water Softener Co., Los Angeles, Calif. 566,900, canc. Cl. 31.
Union Carbide Corp., New York, N. Y. 672,193, pub. 10–21–58. Cl. 23.
Union Pour l'Exportation des Conserves Marocaines & Leur Approvisionnement, Casablanca, French Morocco. 566,845, canc. Cl. 46.
United Biscuit Co. of America, Melrose Park, Ill. 672,280, pub. 10–21–58. Cl. 46.

United Geophysical Corp., Pasadena, Calif. 672,300, pub. 10–21–58. Cl. 100.
U. S. Electrical Motors, Inc., Los Angeles, Calif. 672,200, pub. 10–21–58. Cl. 26.
United States Plywood Corp., New York, N. Y. 672,042, pub. 10–21–58. Cl. 12.
United States Rubber Co.: *See*—
Revere Rubber Co.
United States Rubber Products, Inc.
United States Rubber Co., New York, N. Y. 567,012, canc. Cl. 35.
United States Rubber Products, Inc., to United States Rubber Co., New York, N. Y. 361,258, ren. 10–11–58. Cl. 1.
United States Steel Corp., Pittsburgh, Pa. 672,060, pub. 10–21–58. Cl. 13.
United States Stoneware Co., Tallmadge, Ohio. 672,001, pub. 10–21–58. Cl. 1.
Upjohn Co., The, Kalamazoo, Mich. 365,044, ren. 2–21–59. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 365,913, ren. 3–21–59. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 366,235, ren. 4–4–59. Cl. 18.
Vacuum Electronic Mfg. Corp., New Hyde Park, N. Y. 672,206, pub. 10–21–58. Cl. 26.
Varsity Hosiery Corp., by J. E. Meiber, New York, N. Y. 265,391, 12(c) pub. 1–6–59. Cl. 39.
Vigor Laboratories Ltd., d. b. a. Keepaway Laboratory, London, England. 672,086, pub. 10–21–58. Cl. 18.
Viola, James A., d. b. a. Rapid Electric Co., New York, N. Y. 672,131, pub. 4–8–58. Cl. 21.
Visan Nutritional Laboratories, The, Burbank, Calif. 672,272, pub. 10–21–58. Cl. 46.
Vitamin Council Inc., St. Paul, Minn. 672,106, pub. 10–21–58. Cl. 18.
Vocaline Co. of America Inc., Old Saybrook, Conn., from Hudson American Corp., New York, N. Y. 672,143, pub. 10–21–58. Cl. 21.
Vulcan-Hart Mfg. Co.: *See*—
Globe American Corp.
Wafco Mills, Inc., Greensboro, N. C. 672,284, pub. 4–21–58. Cl. 46.
Wahl Co., The, Chicago, Ill. 298,427, canc. Cl. 37.
Wai, Wing L.: *See*—
Sewai, Wong.
Walker Crosweller & Co. Ltd., Cheltenham, England. 672,057, pub. 10–21–58. Cl. 13.
Waller Flowerseed Co., Guadalupe, Calif. 672,004, pub. 10–21–58. Cl. 1.
Walsh Shoe Machinery Co., Ltd., d. b. a. Walsh Shoe Repair System, New York, N. Y. 672,311, pub. 10–21–58. Cl. 103.
Walsh Shoe Repair System: *See*—
Walsh Shoe Machinery Co., Ltd.
Walters Co., The: *See*—
Juhase, Walter.
Watson, Manasty & Co. Ltd., London, England. 672,198, pub. 10–21–58. Cl. 26.
Weather-Seal, Inc., Barberton, Ohio. 672,051, pub. 10–21–58. Cl. 12.
Weil & Schoenfeld Fabrics, Inc., New York, N. Y. 672,350, pub. 5–6–58. Cl. 42.
Weil, Walter M., d. b. a. Cooper Metallurgical Associates, Cleveland, Ohio. 566,863, canc. Cl. 6.
Weldit Corp., from Singer Home Products Corp., New York, N. Y. 672,021, pub. 5–6–58. Cl. 5.
Werner Co., The: *See*—
Werner, John F.
Werner, John F., d. b. a. The Werner Co., Tracy, Minn. 567,027, canc. Cl. 34.
Westinghouse Broadcasting Co., Inc., New York, N. Y. 672,312, pub. 10–21–58. Cl. 104.
Wheeler Varnish Works: *See*—
General Paint & Varnish Co. Int.
White Laboratories, Inc., Kenilworth, N. J. 672,100–1, pub. 10–21–58. Cl. 18.
Williams, J. B., Co.: *See*—
Semler, R. B., Inc.
Wilson Brothers Inc.: *See*—
Wilson, Carles G.
Wilson, Carles G., d. b. a. Wilson Brothers, Memphis, Tenn., to Wilson Brothers Inc. 566,836, canc. Cl. 22.
Wizard Lightfoot Appliance Co., St. Louis, to Trimfoot Co., Farmington, Mo. 365,351, ren. 3–7–59. Cl. 39.
Wren Pharmacal Co., Greenville, S. C. 672,094, pub. 10–7–58. Cl. 18.
Wright Mfg. Co., Phoenix, Ariz. 672,054, pub. 10–21–58. Cl. 13.
Wyeth Laboratories: *See*—
American Home Products Corp.
Wyner, I. A., & Co., Inc., New York, N. Y. 566,884, canc. Cl. 39.
Yardney Electric Corp., New York, N. Y. 672,152, pub. 10–21–58. Cl. 21.
Zavody V. I. Lenina Plzen, Narodni Podnik, Plzen, Czechoslovakia. 672,179, pub. 10–21–58. Cl. 23.
Zipon Wood Finishes: *See*—
Gabriel, Sidney S.
Zirconium Corp. of America, Solon, Ohio. 672,041, pub. 10–21–58. Cl. 12.
Zylite Products Co., Inc., New York, N. Y. 672,203, pub. 10–21–58. Cl. 26.

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NOTICES

Erratum

All references to Patent No. 2,866,098 to Frank M. Alexander, assignor to Industrial Nucleonics Corporation, for Measuring and Controlling System, appearing in the OFFICIAL GAZETTE of December 23, 1958, should be deleted as the application was withdrawn from issue and the patent was not issued.

Additional Steroid Punched Card File

Through the cooperation of the Pharmaceutical Manufacturers Association, the U. S. Patent Office now has available for distribution punched cards pertaining to those steroid compounds described as new in an extensive segment of the current non-patent literature. All steroid compounds are not included but only those selected as being new. The selection and coding of the new steroid compounds was done by a private contractor under the auspices of the Pharmaceutical Manufacturers Association.

The coding system employed in these cards is fully compatible with that of the currently issued steroid cards for the patent literature. However, each new compound of each citation will be recorded on a separate punched card rather than being superimposed on a single card as is the case for patents.

The coverage of the literature is from January 1958 only and efforts will be made to keep the file current.

A new instruction and coding manual is now being printed and will be distributed to subscribers to either set of steroid cards.

Since the individual card basis of coding will necessitate a larger number of cards and increased transportation and handling costs, it will be necessary to apply a separate fee for the non-patent literature steroid card service. This has been set at $15.00 for all cards pertaining to citations bearing a 1958 date. Subscriptions and fees should be sent to the Commissioner of Patents, U. S. Patent Office, Washington 25, D. C. Care should be used to distinguish between subscriptions for the patent and the non-patent steroid files.

Adjudicated Patents

(C. A. Tex.) Stephens Patent No. 2,405,100 (41—42), for pulsation, elimination in gas lines. Claims 1, 2 and 8 to 12 *Held* invalid. *Fluor Corp.* v. *Gulf, Interstate Gas Co.*, 259 F.2d 405; 119 USPQ 1.

(C. A. Fla.) Fairchild Patent No. 2,786,101 (179—100.1), for process for removing incrustation from a surface. *Held* invalid. *Fairchild* v. *Poe*, 259 F.2d 329; 119 USPQ 8.

(D. C. Ind.) Clapper Patent No. 2,452,834 (180—54), for hot-air deflector for tractors, *Held* invalid. *Clapper* v. *Original Tractor Cab Co. Inc., et al.*, 165 F. Supp. 565; 116 USPQ 316.

(D. C. Calif.) Tuohy Patent No. 2,510,438 (88—645), for contact lens. Claims 1 and 2 *Held* valid and infringed. *Soleg Laboratories, Inc.* v. *Graham, et al.*, 165 F. Supp. 428; 118 USPQ 438.

(D. C. Ill.) Anderson Patent No. 2,596,063 (15—245), for windshield wiper blade linkage assembly. Claims 6, 8 and 12 *Held* valid and infringed. *The Anderson Co.* v. *Sears, Roebuck & Co. et al.*, 165 F. Supp. 611; 119 USPQ 236.

(D. C. Calif.) Hammon Patent No. 2,597,478 (137—505.42), for regulator valve, *Held* invalid and not infringed. *National Welding Equipment Co.* v. *Hammon Precision Equipment Co.*, 165 F. Supp. 788; 119 USPQ 13.

(D. C. Calif.) Hammon Patent No. 2,597,479 (137—505.42), for gas pressure regulator adjusting mechanism. *Id.*

(D. C. Calif.) Hammon Patent No. 2,685,300 (210—484), for valve control. *Id.*

(D. C. Tex.) Claypool and Best Patent No. 2,698,761 (285—3), for production safety joint. Claims 5 to 11 *Held* valid and infringed. *Claypool* v. *Houston Oil Field Material Co.*, 166 F. Supp. 173; 118 USPQ 153.

(D. C. Calif.) Adler and Adler Patent No. 2,699,817 (155—147), for folding high chair. Claims 1 to 3 *Held* invalid. *Trenton Industries* v. *A. E. Peterson Mfg. Co.*, 165 F. Supp. 523; 119 USPQ 41.

(D. C. Ill.) Nesson Patent No. 2,709,825 (15—250), for clip for wiper blades. Claims 7 to 10 *Held* invalid and not infringed. *The Anderson Co.* v. *Sears, Roebuck & Co. et al.*, 165 F. Supp. 611; 119 USPQ 236.

(D. C. N. Y.) Hoye and Robinson Patent No. 2,750,758 (62—155), for automatic defrosting refrigerator cabinet. *Held* invalid and not infringed. *Schaefer, Inc.* v. *Mohawk Cabinet Co.*, 165 F. Supp. 688; 118 USPQ 411.

(D. C. Va.) Marvel Patent No. 2,800,232 (210—484), for separator for liquids. Claim 3 *Held* valid and infringed. *Bowser Inc.* v. *Richmond Engineering Co., Incorp.*, 166 F. Supp. 68; 118 USPQ 278.

(D. C. Calif.) Hammon Des. Patent No. 153,063 (78—1), for gas pressure regulator, *Held* invalid and not infringed. *National Welding Equipment Co.* v. *Hammon Precision Equipment Co.*, 165 F. Supp. 788; 119 USPQ 13.

(D. C. Calif.) Hammon Des. Patent No. 153,064. *Id.*

(C. A. Mass.) Reinecke and Hauser Des. Patent No. 168,709 (87.3), for portable typewriter case or similar article. *Held* invalid. *Hawley Products Co. et al.* v. *U. S. Trunk Co., Inc. et al.*, 259 F.2d 69; 118 USPQ 424.

(C. A. Mass.) Koffler Des. Patent No. 177,475 (87.5), for hand luggage or similar article, *Held* invalid. *Id.*

New Applications Received During November 1958

Patents	5,969
Designs	346
Plant Pats	8
Reissues	23
Total	6,346

Issues

Patents	1,320	No. 2,867,806 to No. 2,869,125, incl.
Designs	25	No. 184,247 to No. 184,271, incl.
Plant Pats	6	No. 1,795 to No. 1,800, incl.
Reissues	4	No. 24,586 to No. 24,589, incl.
Total	1,355	

(C. A. Mass.) Koffler Des. Patent No. 178,889 (87.5). *Id.*

(C. A. Mass.) Koffler Des. Patent No. 179,016 (87.5). *Id.*

(C. A. Mass.) Koffler Des. Patent No. 179,017 (87.5). *Id.*

(C. A. Tex.) Kinnear Reissue Patent No. 23,416 (255—302), for drill, *Held* not infringed. *Kinnear-Weed Corp.* v. *Humble Oil and Refining Co.*, 259 F.2d 398; 119 USPQ 10.

(D. C. Va.) Marvel Reissue Patent No. 24,136 (120—315), for water-fuel separator. Claims 1 to 3 and 5 *Held* valid and infringed. *Bowser Inc.* v. *Richmond Engineering Co., Incorp.*, 166 F. Supp. 68; 118 USPQ 278.

Patents Available for Licensing or Sale

2,849,299. Method of Chem-Milling Honeycomb Structures. Harold S. Young, 315 Kimball Terrace, Chula Vista, Calif.

2,857,619. Apparatus for Preparing Hams (Removing Bones). Robert T. Massengill, 8817 S. Throop St., Chicago 20, Ill.

2,861,558. Timing and Idling Control Mechanism. Forrest McClain, Delsea Drive, Green Creek, N. J.

General Electric Company is prepared to grant non-exclusive licenses upon reasonable terms to domestic manufacturers under the following 17 patents.

Applications for license under the following 10 patents may be addressed to: General Electric Company, Housewares and Radio Receiver Division, 1285 Boston Ave., Bridgeport 2, Conn.

2,387,757. Container and Iron.

2,716,297. Steam Iron.

2,762,143. Steam Iron.

2,768,455. Steam Irons.

2,769,258. Steam Irons.

2,794,275. Steam Iron.

2,802,288. Steam Irons.

2,802,289. Steam Iron.

2,810,218. Steam and Dampening Iron.

2,819,543. Steam and Dampening Iron.

Applications for license under the following 5 patents may be addressed to: Patent Counsel, Light Military Electronics Department, General Electric Company, Utica, N. Y.

2,816,178. Automatic Bias Control for a Wave-Translating Stage.

2,816,279. Calibrated Electrical Telemetering Instrument.

2,829,371. Component Placement Apparatus.

2,830,133. Phase-Inverting Translating Circuit.

2,834,933. Electrical Peak Follower Circuit.

Applications for license under the following 2 patents may be addressed to: General Electric Company, Patent Counsel, Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,840,544. Condensation Polymers of 2,6-Dihydroxy-4-Carboxy-Pyridine and Formaldehyde and Method of Making the Same.

2,843,557. Composition Containing Epoxy Resin, Polyvinyl Chloride, and Plasticizer.

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1958

Total number of pending applications (excluding Designs)	201, 598
Total number of pending Design applications	6, 983
Total number of applications awaiting action (excluding Designs)	84, 136
Total number of Design applications awaiting action	3, 121
Date of oldest new application	Dec. 6, 1957
Date of oldest amended application	Dec. 3, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 52, 62
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 49, 53, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 40, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders; Harrows and Diggers; Plows	4-7-58	4-16-58
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	3-28-58	3-10-58
3. (VII) MARMELSTEIN, N., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	5-2-58	5-26-58
4. (VI) FALLER, E. A. (SCHULZ, H. O., acting), Hoists; Power Driven Conveyers; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	4-21-58	4-29-58
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	2-11-58	1-15-58
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	4-11-58	5-9-58
7. (IV) GONSALVES, J. R. (ANDERSON, E. G., acting), Optics	4-4-58	5-3-58
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	4-9-58	5-15-58
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	4-21-58	5-3-58
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	4-28-58	4-1-58
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	4-29-58	5-2-58
12. (III) SPINTMAN, S. (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	3-14-58	3-27-58
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	3-10-58	3-10-58
14. (III) WILTZ, W. A., (acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	12-27-57	12-23-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus	3-28-58	3-17-58
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	3-28-58	3-11-58
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	4-2-58	4-3-58
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	3-21-58	3-10-58
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	4-4-58	4-1-58
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	4-7-58	4-8-58
21. (III) MADER, R. C., Textiles	3-7-58	3-7-58
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	3-17-58	2-20-58
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	12-6-57	12-3-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	6-24-58	7-2-58
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	4-28-58	4-15-58
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	5-1-58	5-1-58
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	5-19-58	5-14-58
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	3-3-58	3-20-58
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	3-11-58	3-7-58
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling; Refrigeration	3-28-58	4-1-58

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	6-13-58	6-15-58
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	5-1-58	4-28-58
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements; Roofs	5-1-58	4-14-58
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	5-1-58	4-9-58
35. (IV) DEMBO, L. J., Dispensing; Filling Receptacles; Toilet; Sheet Feeding	7-1-58	7-3-58
36. (V) EVANS, R. L., Measuring and Testing; Automatic Weighers; Weighing Scales	1-2-58	1-2-58
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	2-10-58	1-24-58
38. (I) PARKER, C. B., (acting), Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	5-28-58	6-17-58
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	5-2-58	6-13-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5-1-58	4-25-58
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	4-9-58	4-18-58
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	2-12-58	2-12-58
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	5-5-58	5-1-58
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	1-20-58	1-8-58
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	4-15-58	4-10-58
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	4-14-58	4-16-58
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	4-22-58	4-22-58
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	3-4-58	3-25-58
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Concentrating Evaporators; Glass	4-29-58	4-1-58
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber; Synthetic Resins (part) (e. g., Butadiene Polymers and Copolymers, Polyacrylonitriles, Acrylate Polymers and Copolymers)	3-13-58	3-27-58
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas; Oscillators	4-16-58	4-3-58
52. (V) LE ROY, C. A., Supports and Racks	3-28-58	3-14-58
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	5-23-58	6-13-58
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	5-15-58	6-17-58
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	2-3-58	2-6-58
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	4-3-58	4-15-58
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Cutting and Punching	3-17-58	3-17-58
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part); Selective Punching	4-1-58	5-1-58
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	3-3-58	2-13-58
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	5-1-58	5-1-58
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Railway Mail Delivery; Feeding of Indefinite Lengths	4-1-58	4-1-58
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	4-18-58	5-1-58
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	3-4-58	3-25-58
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	3-3-58	3-3-58
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	3-12-58	3-17-58
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	4-22-58	5-6-58
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	5-29-58	5-27-58
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	4-15-58	4-14-58
CLASS. DIVS. II—LADY, J. E., Detectors; Miscellaneous Electron Tube Circuits	5-1-58	5-5-58
CLASS. DIVS. III—WAHL, R. A., Metal Bending; Web Feeding	5-2-58	4-21-58
CLASS. DIVS. IV—BERLOWITZ, W., Earth Boring	4-29-58	5-6-58
CLASS. DIVS. V—ANGEL, C. D., Scaffolds; Masonry and Concrete Structures; Time-Controlling Apparatus; Packed Rod Joints; Joint Packings	5-6-58	4-18-58
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part) i. e., Polyethylenes	7-31-58	6-18-58
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	5-26-58	5-26-58
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	4-10-58	4-14-58

*Established August 28, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1959, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents	Numbers 2,868,540 to 2,871,509, inclusive
Plant Patents	Numbers 499 to 501, inclusive

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,321,573, T. B. Chace, Washing machines; **2,389,134**, C. A. Brown, Flow control valve; **2,444,677**, R. A. Rosenblum, Flow control device; **2,489,932**, same; **2,506,780**, D. H. Halenza, Fluid control unit; **2,815,041**, V. E. Rimsha, Single solenoid hydraulic control valve, **filed** Nov. 24, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c2050, *The Dole Valve Co.* v. *Scovill Mfg. Co.*

2,806,266, K. A. Siden, Drapery, curtain, and similar hanging, **filed** Jan. 24, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 63/58–WM, *Margaret E. Rankin et al.* v. *Edward E. King et al.* Summary judgment declaring patent invalid; complaint dismissed (notice Nov. 28, 1958).

2,389,134. (See 2,321,573.)

2,414,823, F. H. Osborne, Thermoplastic paper and process of preparing the same, **filed** Nov. 24, 1958, D. C. Mass. (Boston), Doc. 58/1134–S, *C. H. Dexter & Sons, Inc.* v. *Kimberly-Clark Corp.*

2,444,677. (See 2,321,573.)

2,489,932. (See 2,321,573.)

2,506,780. (See 2,321,573.)

2,553,955, Parks and Parks, Method of manufacturing connecting rods, **filed** Dec. 1, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c341, *James E. Parks and Parks Engineering, Inc.* v. *Precision Parts Corp.*

2,572,786, H. L. Vining, Pressure regulator for fuel lines, **filed** Dec. 27, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 1428/57, *Henry L. Vining* v. *Sears, Roebuck & Co.* Summary judgment for defendant holding claim 7 invalid (notice Nov. 28, 1958).

2,607,577, A. A. Straub, Convector for gas heaters, **filed** Mar. 22, 1956, D. C., N. D. Ohio (Cleveland), Doc. 32,641, *A. A. Straub Co., Inc.* v. *Lee Wilson Engineering Co., Inc.* Consent order; patent held valid and infringed Nov. 24, 1958.

2,647,550. (See 2,727,295.)

2,697,925, N. H. Goodman, Tights and method of making same, **filed** Dec. 4, 1958, D. C., S. D. N. Y., Doc. 140/278, *Danskin, Inc.* v. *S. Capezio, Inc.*

2,717,602, J. J. Colm, Pacifier, **filed** Nov. 26, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 19,232, *Jack J. Colm* v. *Solar Drugs and Sundries Corp.*

2,721,669, C. D. Keely, Machine for applying gummed tape to box blanks, **filed** Dec. 1, 1958, D. C. N. J. (Newark), Doc. 1302/58, *Universal Corrugated-Box Machinery Corp., Inc.* v. *General Corrugated-Machinery Co., Inc.*

2,727,295, P. D. Wright, Seaming tape; **2,647,550**, W. J. Reinhard, Extensible tape for joining carpet sections, **filed** Nov. 25, 1958, D. C., S. D. N. Y., Doc. 140/183, *United States Rubber Co. et al.* v. *Consolidated Trimming Corp.*

2,737,426, W. F. Peterson, Trunk piston; **2,737,427**, W. M. Venner et al., same, **filed** June 11, 1958, D. C., S. D. Ohio (Cincinnati), Doc. 4250, *Sterling Aluminum Products, Inc.* v. *Aluminum Industries, Inc.* Order of dismissal with prejudice Nov. 21, 1958.

2,737,427. (See 2,737,426.)

2,744,966, A. C. Bernstein, Intercommunication system, **filed** Dec. 2, 1958, D. C., S. D. N. Y., Doc. 140/255, *Du Kane Corp.* v. *Executone, Inc.*

2,815,041. (See 2,321,573.)

2,828,672, L. Arce et al., Apparatus for controllably applying semifluid and pastry materials, **filed** Nov. 12, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1058/58, *Lee Mart Co. et al.* v. *Spray-Way, Inc.*

2,831,393, R. H. Bennett, Spectacle mounting, **filed** Nov. 26, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 19239, *Art-Craft Optical Co.* v. *Whitney Optical Co., Inc. et al.*

2,832,302. (See Re. 24,370.)

2,850,962, S. Briskman et al., Shears with arcuate profiled teeth, **supplemental complaint** filed Oct. 14, 1958, D. C., S. D. N. Y., Doc. 129/329, *Samuel Briskman* v. *Grifon Cutlery Corp.* **Same**, Doc. 131/67, *Samuel Briskman et al.* v. *Rex Cutlery Corp.* **Same**, Doc. 133/286, *Samuel Briskman et al.* v. *Karl Peters, Jr.*

Re. 24,370 (of 2,832,302), C. Harris, Embroidering mechanism for zigzag sewing machines, **filed** Sept. 10, 1958, D. C., W. D. S. C. (Greenville), Doc. 2429, *Singer Manufacturing Co.* v. *Sewing Machine Exchange.* Consent decree; defendant enjoined Nov. 26, 1958.

Des. 186,420, H. Lebensfeld, Table base, **filed** Nov. 28, 1958, D. C., S. D. N. Y., Doc. 140/213, *United Industrial Syndicate, Inc.* v. *L. & B. Products Corp.*

Des. 188,143, M. Cohen, Garment display rack, **filed** Sept. 26, 1958, D. C., N. D. Ohio (Cleveland), Doc. 29941, *Maurice Cohen et al.* v. *Frocly, Inc.* Consent decree; defendant enjoined Nov. 17, 1958.

Des. 176,328, J. C. Hampshire, Skillet or similar article; **Des. 183,124**, same, Casserole or similar article, **filed** Dec. 1, 1958, D. C., S. D. N. Y., Doc. 140/232, *Bridgeport Brass Co.* v. *Steelmasters, Inc.*

Des. 178,985, W. W. Block, Tray, **filed** Apr. 29, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c761, *Quaker Stretcher Co.* v. *The Cal-Dak Co., Inc. et al.* Consent order of dismissal with prejudice Nov. 21, 1958.

Des. 183,124. (See Des. No. 176,328.)

REISSUES

JANUARY 13, 1959

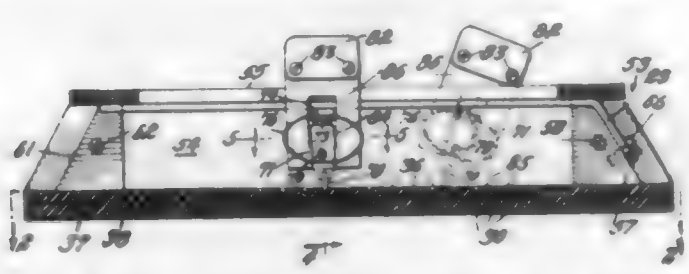
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,586
ELECTRIC SWITCHBOARDS

Ariel R. Davis, Salt Lake City, Utah

Original No. 2,796,473, dated June 18, 1957, Serial No. 469,201, November 16, 1954. Application for reissue August 11, 1958, Serial No. 755,836

6 Claims. (Cl. 200—16)



6. An electrical switchboard comprising a base having lateral grooves and lateral strips spacing said grooves, said strips having laterally extending surfaces between said grooves and extending transverse thereto to provide a bearing surface for a blade, each of said grooves having opposing walls on opposite sides of said grooves and forming with the said strip surfaces opposing edges and extending inwardly from said strip surfaces and edges to form a groove portion recessed from said edges, electrical conductive means positioned in said recessed grooved portion with a top contact surface of said conductive means positioned inwardly within said groove to provide a space above said electrical conductive surface to receive the end of a conductive contacting blade, a contactor carrying a movable conductive contact blade adapted to enter said grooves to permit tilting of said blade in said groove and having spring means for urging said blade into said groove and into engagement with said top conductive contact surface, longitudinal guide means for movably supporting said contactor to move and tilt relative to said base and move said blade at an angle to said base across said strips and grooves for the rapid changing of position of the contactor, said contact blade at an angle moving across the surface of a strip and dropping off the strip to enter the space at an angle and contacting at an angle the opposing wall, said blade when held in the tilted position projecting less than the depth of said space into said groove by said force to permit rapid movement across a plurality of grooves from one position to another without engagement of intermediate electrical conductive means.

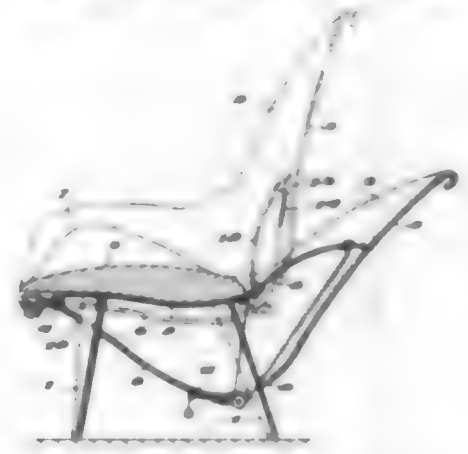
24,587
RECLINING CHAIR

Herbert V. Thaden, High Point, N. C., assignor to Thaden Molding Corporation, High Point, N. C., a corporation of North Carolina

Original No. 2,824,601, dated February 25, 1958, Serial No. 585,085, May 15, 1956. Application for reissue September 10, 1958, Serial No. 760,827

5 Claims. (Cl. 155—152)

1. A reclining chair comprising a seat frame, means for supporting said seat frame a fixed distance above a floor supporting surface, a rigid shell having a normally substantially vertically disposed back portion adapted to support the shoulders of an occupant and a bottom portion substantially at right angles to said back portion, means for pivotally connecting the forward edge of the bottom portion of said shell to said seat frame so that said shell may pivot rearwardly from an erect position to a reclined position with respect to said seat frame, a kidney plate adapted to support the small of the back of



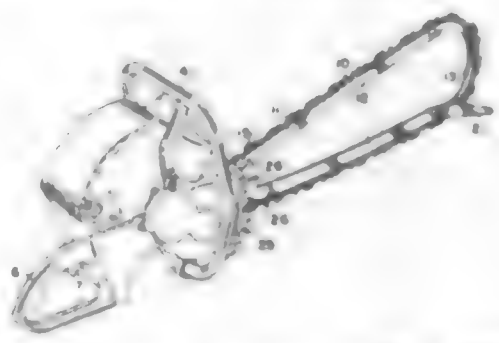
the occupant, said kidney plate being pivotally connected at its lower edge to the rear edge of said seat frame, and spring means intermediate said shell and said seat frame biasing said shell to its erect position with respect to said seat frame.

24,588
CHAIN SAW FOR CUTTING BRUSH AND SMALL TREES

Joseph H. Budd, Pleasantville, N. Y., assignor, by mesne assignments, to Textron, Inc., a corporation of Rhode Island

Original No. 2,797,717, dated July 2, 1957, Serial No. 491,930, March 3, 1955. Application for reissue August 15, 1958, Serial No. 755,365

3 Claims. (Cl. 143—32)

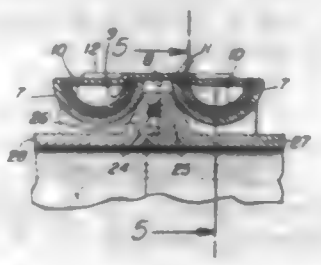


3. In a chain saw, a power unit, a chain driving sprocket adjacent the one side of said power unit and drivingly connected thereto, a chain guide mounted on said unit adjacent said sprocket and projecting forwardly from said unit in the plane of said sprocket, a cutting chain running on said guide and driven by said sprocket, said chain having an outbound run moving away from said unit and an inbound run moving toward said unit, rear handle means at the rear of said unit, front handle means at the front of said power unit on the side opposite said sprocket, said saw being supportable by said handle means in a position with the sprocket side of said unit down and said chain guide projecting forwardly and downwardly in a plane inclined to horizontal, said chain guide comprising a bar curved in an edgewise direction and having two slightly curved longitudinal portions diverging from said sprocket at an angle of approximately ten to fifteen degrees to one another and an approximately semicircular outer portion joining the outer ends

of said longitudinal portions and having a diameter approximately one third the length of said longitudinal portions, said longitudinal portions of the guide bar supporting said outbound and inbound runs of said chain, and a spur removably mounted on said guide bar adjacent the outer end of the longitudinal portion on which the inbound run of said chain is supported, said spur projecting outwardly beyond said outer portion of the chain guide and laterally away from a longitudinal center line bisecting said angle between said longitudinal portions of said guide bar, said spur being thereby disposed at an acute angle to the adjacent part of said outer portion of the guide bar immediately outwardly of said spur in a position to receive work in the acute angle between said spur and said outer portion of said guide so as to be cut by said chain running on the outer portion of said guide, the outer portion of said guide bar being of reduced cross section so that work cut by the chain running on the outer portion of the guide bar does not bind on said outer portion of the guide bar.

24,589
BIMETALLIC COUPLING FOR FLANGED PIPE ELEMENTS
Douglas Smith, South Norwalk, Conn.
Original No. 2,773,709, dated December 11, 1956, Serial No. 558,505, January 11, 1956. Application for reissue September 2, 1958, Serial No. 757,158
7 Claims. (Cl. 285—187)

1. An exterior coupling for flanged pipe elements, the coupling comprising a band adapted to surround the two flanges and bimetallic retainers on the band [having] *comprising* lugs near the edges of the band curled toward the middle of the band and over the inner face thereof with free legs facing toward each other adapted to press against the flanges with a component of force coaxial with the coupling [, there being] *and* in each retainer inside the lug a curled piece of metal of a higher coefficient of expansion than the lug; *the end portions of said lugs and of said pieces of metal which are remote from said flanges being fixed against relative movement in a direction away from said flanges;* there being an indentation on the inner face of the band in which the free leg of the two opposite retainers rests, the curled pieces of metal of higher coefficient being thereby held against movement circumferentially of the band and the retainer also being limited in retraction *in directions away from said flanges.*



PLANT PATENTS

GRANTED JANUARY 13, 1959

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,795
PEACH TREE
Alexander Kojakanian, Modesto, Calif., assignor of one-half to Aram Kojakanian, Modesto, Calif.
Application March 24, 1958, Serial No. 723,618
1 Claim. (Cl. 47—62)

A new and distinct variety of peach tree, as illustrated and described, characterized by small pink flowers which bloom substantially with the Merrill Fiesta and Kim Elberta, and by relatively large clingstone fruit having yellow skin blushed bright red to medium red over one-half to three-fourths of the fruit surface, and firm, meaty, non-melting yellow flesh shading to red toward the stone, with darker red streaks next to the latter; and further characterized—in comparison with the Merrill Halloween I—by more external red color, the non-melting flesh, and a somewhat later harvest season, the latter normally extending through the last three weeks of October.

1,796
ROSE PLANT
Herbert C. Swim, Ontario, Calif., assignor to Armstrong Nurseries, Inc., Ontario, Calif., a corporation of California
Application February 26, 1958, Serial No. 717,794
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the class between the hybrid tea and floribunda classes, substantially as herein shown and described, characterized particularly as to novelty by its unique combination of very vigorous, much-branched and fast-breaking habits of growth, attractive glossy dark green foliage of from medium to large size, a floriferousness approaching that of "Floradora" (unpatented), a habit of bearing flowers sometimes singly and sometimes in small clusters on stems of medium length, attractive buds ranging in form from ovoid to urn-shaped, well-formed, high-centered double flowers when fully open, a flower size between that of "Charlotte Armstrong" (Plant Patent No. 455) and "Floradora," better-than-average petal substance approaching that of "Floradora," with attendant long-lasting flower qualities, and a distinctive general color tonality of the flowers ranging between Cherry and Rose Red.

1,797
ROSE PLANT
Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York
Application June 3, 1958, Serial No. 739,640
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by the unique combination of Dark Cress Green foliage which contrasts strikingly with the flower color, cup-shaped flowers and large individual florets, long-lasting flower qualities suitable for both indoor and outdoor use, good hardiness, and a distinctive La France Pink general color tonality of the flowers, lightly overcast with Esosine Pink.

1,798
CHRYSANTHEMUM PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application June 3, 1958, Serial No. 739,641
1 Claim. (Cl. 47—60)

A new and distinct variety of chrysanthemum plant of the decorative type, substantially as herein shown and described, characterized particularly as to novelty by the unique combination of a free and vigorous habit of growth, an unusually free production of suckers, good winter hardiness, and a distinctive Light Coral Red general color tonality of the flowers.

1,799
ROSE PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application June 3, 1958, Serial No. 739,642
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by the unique combination of medium size, upright and compact habits of plant growth, irregular flower cluster habit, a distinctive Spectrum Red, lightly overcast with Scarlet Red, general color tonality of the flowers, long-lasting quality of the flower color, and a suitability for pot forcing use by florists.

1,800
CAMELLIA PLANT

Carlisle Norwood Hastie, Jr., John's Island, S. C.

Application June 9, 1958, Serial No. 740,984
1 Claim. (Cl. 47—60)

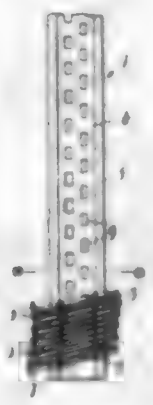
A new and distinct variety of camellia plant of the japonica type, subetantially as herein shown and described, characterized particularly as to novelty by the unique combination of its very vigorous and compact habits of growth, ease of propagation, good winter hardiness, good plant shape, good foliage of medium size and abundant quantity, freedom from Glomerella disease, heavy blooming habit, good bloom form, and a distinctive and attractive Light Pink general color tonality of the blooms similar to that of the variety "Debutante" (unpatented), but with a blooming period beginning just after that of "Debutante" finishes.

PATENTS

GRANTED JANUARY 13, 1959

GENERAL AND MECHANICAL

2,867,806
FASTENER STRIP
Joseph E. Ganton, Toronto, Ontario, Canada
Application July 26, 1954, Serial No. 445,803
6 Claims. (Cl. 1—56)



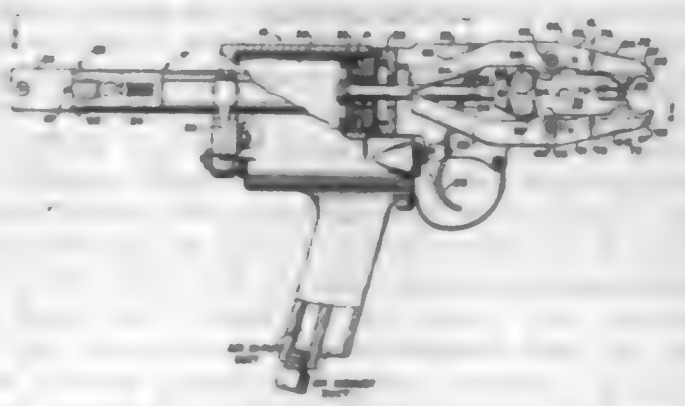
1. A fastener carrying strip comprising a longitudinally extending flexible sheet of material having both faces thereof formed with relatively thicker edge portions, the edges of one face supporting a plurality of fasteners disposed in spaced relation transversely of said sheet and extending beyond said edges on opposite sides of said sheet, means for securing said fasteners to said strip and the edges upon the opposite face of said sheet having bias cuts throughout the length of said strip to enable rolling of the strip and being adapted to space succeeding layers of said fastener supporting sheet as said sheet is wound in the form of a coil.

2,867,807
DRIVEN TYPE FASTENER
Edgar P. Anstett, Chicago, Ill.
Application December 16, 1955, Serial No. 553,489
2 Claims. (Cl. 1—56)



1. An assembly of fasteners of a type intended for driving, comprising a plurality of similar fasteners each provided with a head and an elongated shank, said head having a pair of opposite substantially flat parallel sides, said shank terminating in a free penetrating end of reduced thickness section smaller than the remainder of the shank, said shank having an upper portion adjacent the head and a lower portion adjacent the penetrating end, the upper portion of each shank having a pair of opposite flat sides each coplanar with one of the opposite sides if its adjacent head and the lower portion having two pairs of opposite barbed sides, the barbed sides of one pair being continuations of said opposite flat sides and each extending from a flat side of said upper portion and gradually tapering toward the opposite side and toward the section of reduced thickness at the penetrating end of the shank, said coplanar flat sides of the head and upper shank portion of each fastener being adhered to corresponding flat sides of the head and upper shank portion of an adjacent fastener to form the assembly in a straight stick for use in a driving machine, said two pairs of opposite barbed with both tapered and barbed surfaces for maximum sides providing the lower portion of each fastener shank resistance to withdrawal from material into which driven.

2,867,808
TOOL FOR CLINCHING HOG RINGS
Paul R. Van Sittert, Cleveland, Ohio, assignor to The Rotor Tool Company, a corporation of Ohio
Application December 12, 1955, Serial No. 552,332
5 Claims. (Cl. 1—187)
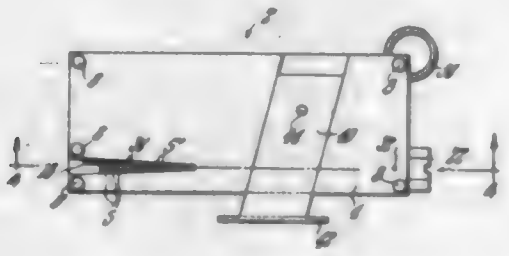


1. In a tool for clinching hog rings the combination of first and second side plates, first and second opposed ring clinching members pivotally mounted by said first and second side plates for movement between open and closed positions, wall means in said clinching members defining converging ring guide grooves having a discharge portion, clinching grooves continuing from said discharge portion, juncture shoulder means formed at the intersection of said discharge portion and said clinching grooves, the distance between said clinching grooves being slightly greater than the distance between said juncture shoulder means, said grooves defining a path of travel for said rings, said guide grooves and said clinching grooves lying substantially in the same plane, a single back-up anvil pivotally secured to said first side plate and having a portion movable into and out of said path of travel, said portion being located substantially midway between said guide grooves in said opposed members at said discharge portion, a spring member urging said back-up anvil into said path of travel, said back-up anvil having a cam surface, a push member for moving rings through said guide grooves and into said clinching grooves, said push member having a recessed portion for avoiding said back-up anvil, said rings adapted to engage said cam surface of said back-up anvil in traveling through said path to move said anvil out of said path and permit passage of said rings to said clinching grooves.

2,867,809

DEVICE FOR APPLYING PREFORMED SINKERS TO FISHLINES

Edmund J. Czelusniak, Easthampton, and Frederick R. Belliveau, Chicopee Falls, Mass.

Application October 3, 1957, Serial No. 688,069
2 Claims. (Cl. 1—187)



1. A device for holding a stack of preformed lead sinkers having line receiving grooves therein longitudinally of said stack and for crimping the endmost sinker of the stack thereof onto a fishline in the groove thereof comprising, an elongated holder having a longitudinal guideway along a side thereof for a stack of separate preformed sinkers having line receiving grooves uppermost thereof along said stack, said guideway having a forward outlet end, a spring in the rear portion of said guideway for urging a stack of sinkers therein forwardly towards said outlet end, a member releasably connected to said holder at a rear end of said guideway for abutting said spring and being removable for insertion of sinkers and said spring in said guideway, an upper portion of said holder adjacent the outlet of the guideway having a slot therethrough into the guideway for insertion of a line into the groove of the endmost sinker of a stack thereof in said guideway, portions of said holder at opposite sides of said slot arranged to overlie opposite upper sides of sinkers in said guideway, said holder provided with a closed recess having an end wall disposed transversely relative to and adjacent the outlet end of said guideway and a side wall, a crimper reciprocable along said end wall between outer crimping and inner non-crimping positions having a crimping portion and a stop portion at the outer end thereof adjacent the outlet end of the guideway, said holder having a passageway between said recess and guideway for the outer end of said crimper, said crimping portion being formed in crimping position of the crimper to engage and press on a side portion of an endmost sinker to crimp the same on a line in the groove thereof, said stop portion adapted to permit the withdrawal of a crimped sinker from the guideway thereunder and arranged as a stop for the sinker of the stack adjacent said crimped sinker, an elongated lever pivoted intermediate its ends in said recess for swinging movements and having one end in operable engagement with said crimper to reciprocate said crimper in crimping and non-crimping directions, a manually engageable operating member reciprocably guided on to said holder for movements transversely thereof, and operative connecting means between said member and opposite end of said lever.

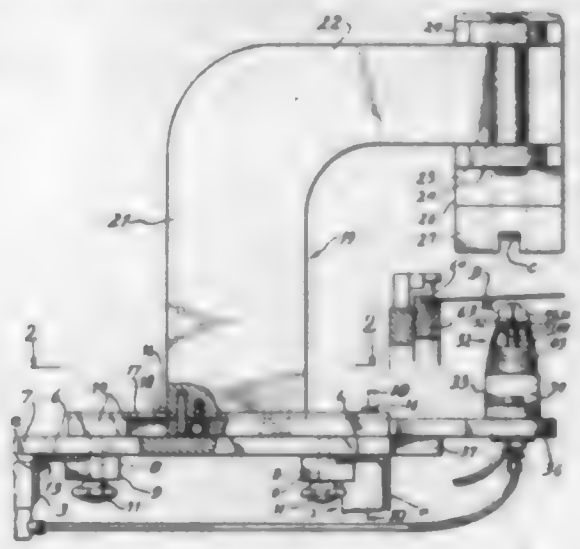
2,867,810

ELECTRONIC COMPONENT ATTACHING HEAD

George A. Gagnon, Wilmette, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware

Application October 9, 1956, Serial No. 614,868
13 Claims. (Cl. 1—220)

1. Attaching apparatus for coupling a circuit component to the obverse side of a supported printed circuit blank, the component having a pair of leads bent parallel to each other and the blank having apertures therein receiving the leads portions of which extend from the reverse side of said blank comprising a pair of lead spreaders adjacent the reverse side of said blank, said spreaders being mounted to move radially of an axis normal to said reverse side and each having an end associated with said side, a fluid pressure motor having a piston on said axis, cam means, follower means, one of said means being on said spreaders and the other of said means being connected to said piston, and resilient means coupled to said spreaders to bias said cam means and follower means into cooperative engagement with each other thereby for



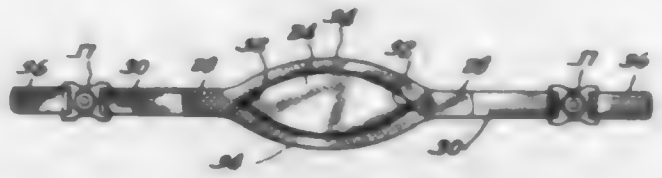
the ends of the spreaders to occupy a contracted position when said piston is in one of its positions when the protruding lead portions may extend on either side of said spreader ends, movement of said piston toward another of its positions moving said spreader ends out of their contracted positions for them to bend said protruding portions about edges of the blank at the apertures therein by first engaging said portions and pressing them outward and then wiping them into intimate association with said blank by passing longitudinally of the bent portions thereby to clinch the leads to said blank.

2,867,811

CHIN STRAP FOR HELMET

Robert T. Jones, Oak Park, Ill., assignor to John T. Riddell, Inc., Chicago, Ill., a corporation of Illinois

Application September 13, 1955, Serial No. 533,935
7 Claims. (Cl. 2—3)

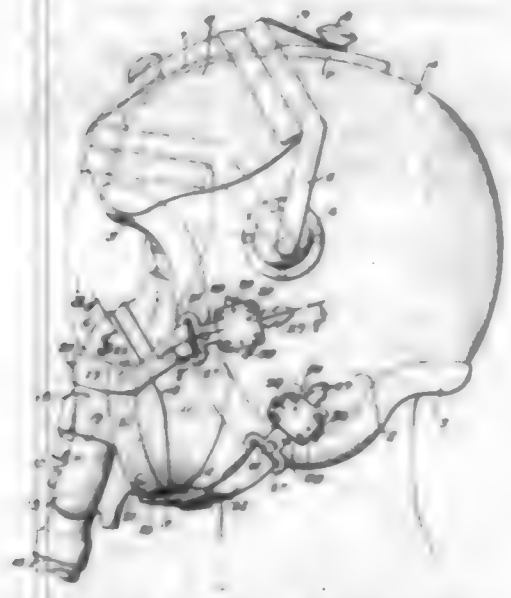


1. The process of manufacturing a chin strap for use with a football helmet or the like, which comprises providing an elongated woven flexible web slit longitudinally to provide divided sections of the web intermediate its ends, impregnating said web with a heat-curable resinous substance, forming a cup-shaped member of a flexible fabric to accommodate the chin of a wearer, impregnating at least the peripheral section of said cup shaped member with a heat-curable resinous substance, partially curing the plastic material of said web and of said cup, inserting said cup between the divided sections of said web with its peripheral section in overlapping face-to-face contact with the divided sections of the web and with the undivided sections thereof immediately adjacent the divided sections, and heating the thus formed assemblage to complete the curing of the resinous substance to form a flexible cured composition and to bond said cup and web together.

2,867,812
RETAINING MEANS FOR HELMETS AND FACE MASKS

Herman P. Roth, Manhattan Beach, and Charles F. Lombard, Redondo Beach, Calif., assignors, by mesne assignments, to United Tanks, Inc., Inglewood, Calif., a corporation of California

Application October 10, 1955, Serial No. 539,618
7 Claims. (Cl. 2—6)



1. The combination with a helmet having a rigid shell adapted to fit over the head of the wearer and having ear-covering side portions, and a face mask having a forward portion adapted to fit over and enclose the nose and mouth, and an under portion adapted to fit under and engage the chin of the wearer, of a retaining means, comprising: a rigid saddle member of substantially the same configuration as and being carried by said face mask and engaging portions of said mask at said forward and under portions thereof; a pair of upper straps and a pair of lower straps extending from fixed laterally spaced points on the forward and under portions of said saddle member to the side portions of said helmet; and means readily adjustably securing said straps to the side portions of said helmet at spaced points in fixed relation to each other and to said helmet, said means anchoring said straps to prevent pivotal movement of said face mask relative to said helmet.

2,867,813
AVIATOR'S HELMET

Russell L. Miller, Encinitas, Calif., assignor to Bill Jack Scientific Instrument Co., Solana Beach, Calif.

Application October 25, 1957, Serial No. 692,474
2 Claims. (Cl. 2—6)

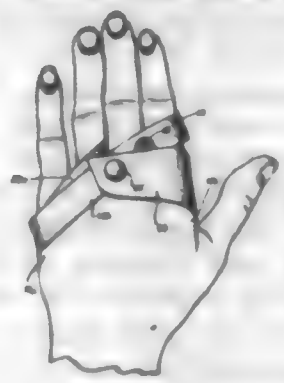


1. An aviator's helmet comprising an outer shell with an edge portion thereof defining an interior cavity, said shell including a forehead portion, two ear encompassing portions, and a base of the head portion at the rear of the shell joining said ear portions, the ear portions and head base portion of said shell being inherently resilient, a resilient seal secured along the entire length of said cavity defining edge portion of the shell and extending inwardly thereof for contact at all points with the head of the wearer to block the open reception of noise from the exterior of the helmet to the cavity thereof, and a resilient liner of high sound attenuating characteristics secured within said shell and substantially encompassing the entire interior surface thereof, said seal extending inwardly of the shell cavity a greater distance than the liner, and said liner being in contact with the seal within the shell along the upper surface of the seal.

2,867,814
GOLFING HAND GRIP

John H. Miles, Jr., Ravenna, Ohio

Application September 4, 1956, Serial No. 607,797
4 Claims. (Cl. 2—20)

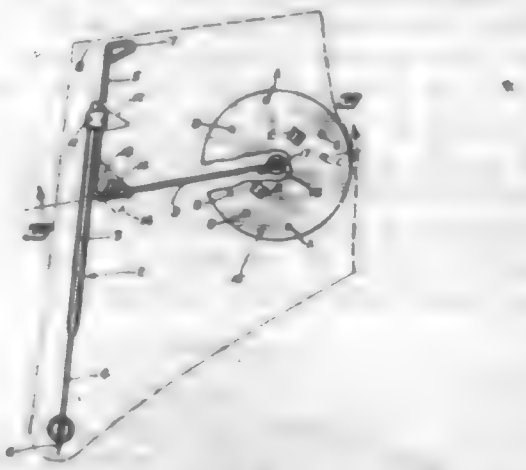


1. A golfing hand grip of flexible material comprising a narrow elongated back segment which has a radial end and an ulnar end, said back segment having a finger-receiving loop formed by inner and outer portions for engagement respectively with the front and back of a finger on the hand of a wearer, said inner and outer portions being joined to provide a bight at the radial end of said back segment for engagement with the radial side of a finger of the hand of a wearer which is received in said loop, said back segment being shaped and dimensioned to extend across the back of the hand away from said bight to the ulnar side of the hand, and a front segment which is substantially wider than said back segment and connected to the ulnar end of said back segment and shaped and dimensioned to extend across the palm of the hand from the ulnar side to the radial side of the hand.

2,867,815
COLLAR ATTACHMENTS

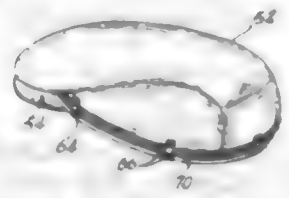
Kenneth J. Wittenberg, La Crosse, Wis.

Application January 3, 1956, Serial No. 556,922
6 Claims. (Cl. 2—132)



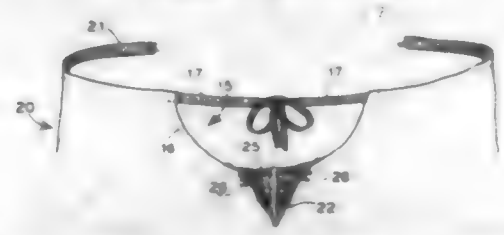
5. In a device of the class described, an elongated member comprising dual telescopic sections connected together for axial movement, one of said sections having terminal means for engaging the fold at the upper edge of a collar wing, and the other of said sections having means for engaging the tip of the collar wing, means urging said sections into extended positions to secure the device to the collar wing, an arm extending laterally from said elongated member, and a plate-like element pivoted to the outer end of said longitudinally extending arm and having spaced means therein for receiving the usual securing pins or prongs of a given insignia or ornament.

2,867,816
ADJUSTABLE HEADWEAR
Benjamin Rossett, Brooklyn, N. Y.
Application May 8, 1956, Serial No. 583,544
1 Claim. (Cl. 2—197)



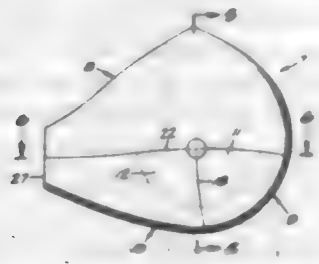
An improved article of headwear of adjustable size comprising a crown portion having a lower opening formed therein which is surrounded by a head band defining the lower border of said crown portion, a visor secured to and projecting outwardly of said head band, said crown portion overlying the upper face of said visor, a plurality of circumferentially spaced vertical loops disposed along the outer face of said head band, the upper and lower ends of said loops being secured to said head band by means of studs engaging said upper and lower ends, said studs being provided with enlarged decorative heads and rearwardly directed legs passing through said loops and said crown portion and being laterally bent, a liner disposed within said crown portion and overlying said stud legs, a circumferentially extending belt completely encircling said head band and registering with said loops, the forward portion of said belt being concealed between said visor and the overlying portion of said crown, and buckle means carried solely by said belt for adjusting the circumference of said belt and maintaining said belt in adjusted position.

2,867,817
MATERNITY GARMENT
Jeanne Kaye, New York, N. Y.
Application December 8, 1955, Serial No. 551,828
1 Claim. (Cl. 2—211)



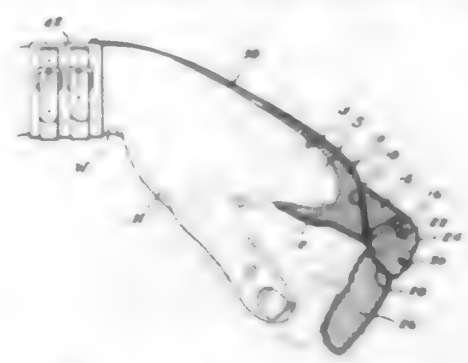
In a maternity garment a skirt portion having an upper hem line interrupted by a relatively wide cut out extending downwardly therefrom at the front center of the skirt and having an upwardly concave lower margin; at least one V-shape notch extending generally downwardly from the lower margin of said cut out; a gusset secured across said notch; and interengageable fastener means on the sides of said notch, whereby said notch may be contracted or expanded within the extent of said gusset to accommodate, in cooperation with said recess, increases in the girth of the abdomen.

2,867,818
SURGICAL BUST PAD
Helen G. Creamer, Pasadena, Calif.
Application April 4, 1955, Serial No. 499,141
16 Claims. (Cl. 3—36)



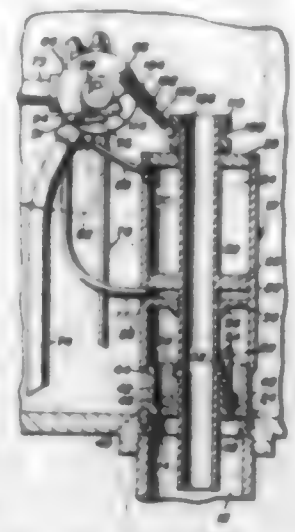
1. A bust pad comprising a continuous layer of resilient material having an external surface formed into the shape of a human breast and a plurality of rigid, inflexible particles embedded within said layer to increase the density of said layer at any desired position, at least some of said particles being individually confined by said layer and all said particles being small enough in size to permit universal flexing at said desired position solely by relative movement between the particles.

2,867,819
ARTIFICIAL FINGERS
Lloyd E. George, Montague, Mich.
Application May 7, 1954, Serial No. 428,196
3 Claims. (Cl. 3—12.6)



2. In an artificial finger device, a hand receiving body, stationary finger elements projecting from one end of said body in laterally spaced relation to each other having outer ends, said outer ends having slots therein having closed ends, movable finger elements having inner and outer ends, the inner ends of the movable finger elements having lugs projecting therefrom, said lugs being narrower than said inner ends and being engaged in said slots, pivot pins traversing the outer ends of the stationary finger elements and their slots and the lugs of the movable elements, V-shaped springs having coils circumposed on the pivot pins at opposite sides of the lugs, said springs having divergent legs engaging the closed ends of the slots of the stationary elements and the shoulders on the inner ends of the movable elements, a wristband adapted to be embracingly secured to the wrist of a wearer, and control cords extending through said stationary elements and connected at one end to the movable finger elements at a point intermediate the ends of said movable finger elements, the other ends of said cords being connected to said wristband.

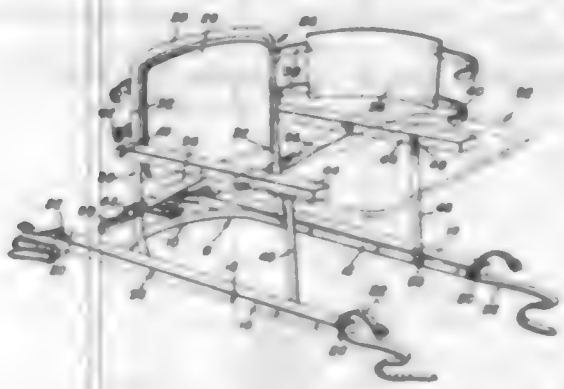
2,867,826
SUBMERGED FLUSHING DEVICE
James A. Gray, San Francisco, Calif., assignor to Alessandra Gray, Verona, Italy
Application July 8, 1957, Serial No. 670,406
14 Claims. (Cl. 4—41)



1. In a flushing device for a flush tank of a water closet having an outlet, said device comprising a casing in registry with the flush tank outlet and having a water port

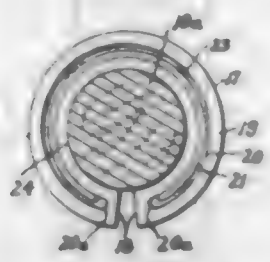
near said outlet, a generally vertically movable valve to open and close said port and movably mounted in said casing, a wall having an aperture and disposed in said casing and which separates the casing into a chamber, a piston having a piston rod extending through said aperture and disposed in said chamber, means including a multiple position valve to conduct water under pressure into said chamber alternately on opposite faces of said piston to move said piston, means releasably fastening the part of said piston rod on the exterior of said chamber to said valve so that said valve is moved to the port opening position in response to the application of water under pressure into said chamber on one face of said piston and the consequential movement of said piston.

2,867,821
FOLDING BED CHAIR
Jimmie B. Bolton, Columbia, La.
Application October 29, 1956, Serial No. 618,981
2 Claims. (Cl. 5—332)



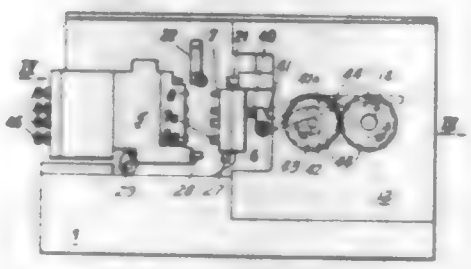
1. A portable folding bed chair comprising a pair of elongated coplanar spaced parallel rigid rails adapted to rest atop a bed mattress and provided at their respective ends with adjustable strap means whereby the rails may be attached to and removably anchored on frame members of the bed, a U-shaped member having a bight portion and legs, said U-shaped member being horizontally interposed between said rails and having its legs fastened to the inner lengthwise edges of the respective rails, said legs being spaced apart sufficiently to expose the mattress so that the exposed portions of the mattress may provide a seat for the user of the chair, a folding backrest embodying a second U-shaped member having a bight portion and limbs, said limbs being hingedly connected with the median portions of the legs of the first named U-shaped member, arm rests hingedly connected at one end to median portions of the respective limbs, struts pivotally connected at their upper ends to said arm rests and pivotally connected at their lower ends to the legs of the first named U-shaped member, and a broad chest-embracing and patient retaining band having strap means at its ends connected to the limbs of the second named U-shaped member in a plane above said arm rests.

2,867,822
OAR LOCKS
Lester W. Downs, Torrington, Conn.
Application October 2, 1957, Serial No. 687,707
7 Claims. (Cl. 9—24)



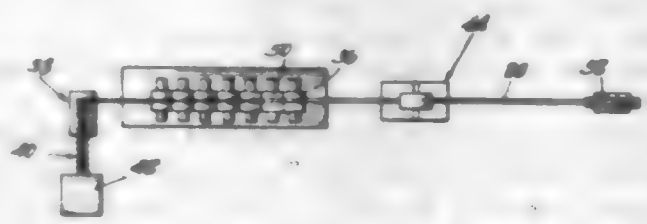
1. A stop collar for oar locks, comprising an expansible and contractible ring-like body adapted to be positioned on an oar adjacent an oar lock, and a ring-like spring embedded in said body for urging the same to its contracted position whereby to frictionally grip the oar and sustain itself in a fixed location thereon.

2,867,823
HEADING MACHINE HAVING AN ADDITIONAL PUNCH STROKE EFFECTIVE AT THE FORWARD POSITION OF THE HEADER SLIDE
Claus Louis, Solingen, Karl Sieber, Hamburg, and Friedrich-Karl Koch, Krefeld, Germany
Application September 12, 1955, Serial No. 533,594
Claims priority, application Germany September 13, 1954
4 Claims. (Cl. 10—12)



1. In a forging machine for upsetting blanks, having a frame and a die block fixedly mounted therein, a reciprocating carriage having a punch mounted therein in alignment with the die block, a slide bearing supporting said carriage, a crank gear constituting the drive means for reciprocating the carriage, a shaft mounted in the frame for supporting said crank gear, said punch being longitudinally displaceable and adapted to execute an additional stroke, said punch comprising a lever pivotally mounted on the carriage, a thrust member mounted on the carriage and having one arm engaging the other end of the lever, a cam disc rotatably driven by the drive means actuating said carriage, the other arm of said thrust member engaging the cam disc for imparting a reciprocating motion to the thrust member, the additional movement of said punch being derived from the cam disc at the forward position of the carriage.

2,867,824
METHOD FOR MAKING SHEET MATERIAL SPLIT-RING LOCK WASHERS
John B. O'Connor, Glenview, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application May 4, 1955, Serial No. 506,011
2 Claims. (Cl. 10—86)



1. A substantially scrapless method for manufacturing sheet material lock washers having a split annular body and split annular marginal flanges extending inwardly in opposing spaced relationship, comprising continuously advancing an elongated strip of sheet material of substantially uniform thickness along a predetermined path of travel, successively scoring said strip along substantially equally spaced lines extending obliquely to the longitudinal axis of the strip for providing predetermined lines along which the strip is subsequently broken while providing junctures between adjacent sections of the strip which resist unintentional breaking, the distance between said score lines being equal to the circumferential measurement of a finished washer article, then longitudinally folding the advancing strip to provide the strip with a central body portion and opposite spaced marginal flanges,

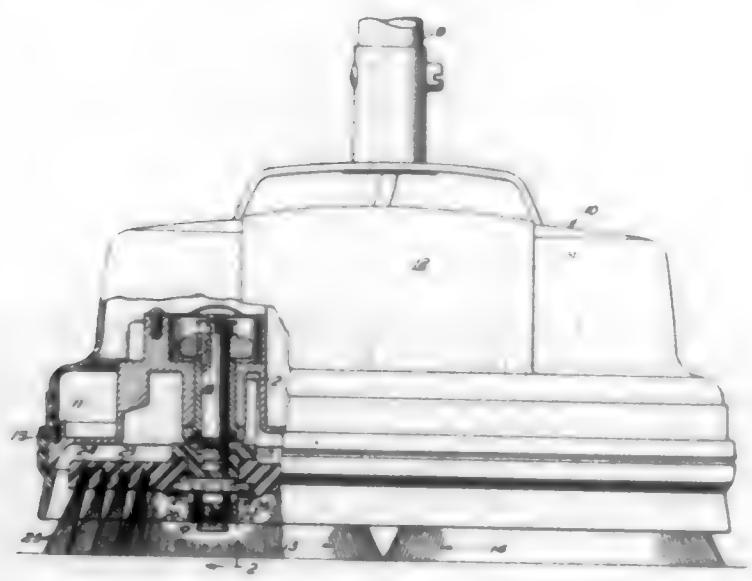
subsequently helically coiling the advancing strip so that said flanges extend inwardly and each convolution carries a score mark, and then breaking the strip along each of said obliquely extending score lines.

2,867,815

DRIVING CONNECTION FOR FLOOR POLISHERS

Melvin H. Ripple, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application October 4, 1956, Serial No. 613,876
2 Claims. (Cl. 15—49)



1. In a floor polisher, a rotatable vertically extending drive shaft, a drive pin extending through a transverse opening in the lower end of said drive shaft, spring means for biasing said drive pin upwardly, a rotary brush having a rigid brush back, an opening extending centrally through said brush back for receiving the lower end of said shaft, said opening having radial extensions through which the ends of said drive pin may pass as said brush is assembled over said drive shaft, and cam recesses formed in the bottom face of said brush about the opening therethrough and extending in both directions on either side of each of said radial extensions whereby said brush may be rotated in either direction as it is assembled to said drive shaft, said cam recesses each having the same contour including a downwardly sloping cam surface for moving said drive pin downwardly against the bias of said spring means as said brushes rotate during assembly, stops against which the ends of said drive pin abut when said brush is assembled and a recess in front of each of said stops into which the ends of said drive pin snap under the bias of said spring means as said brush is assembled, the arrangement being such that said brush may be rotated in either direction during assembly to said drive shaft to bring the ends of said pin against one pair of said stops, whereby the ends of said pin will move against the opposite pair of said stops and remain assembled should the brush be rotated while resting on the floor in a direction to move said one pair of stops away from the ends of the drive pin.

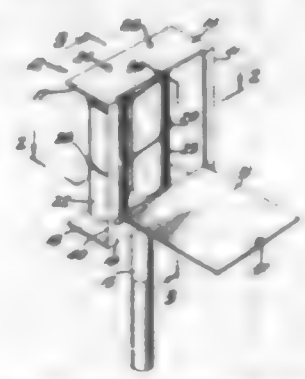
2,867,826

FOOD SPREAD UTENSIL

Joseph Breslaw, Denver, Colo.

Application May 16, 1955, Serial No. 508,455
8 Claims. (Cl. 15—105)

1. In a utensil for spreading butter upon an object held in close proximity and external to the utensil, carrying means, at least one rotative member journalled to said carrying means, said carrying means having a wall laterally spaced from said rotative member, cutting means at one edge of the wall so that a pat of butter may be sliced into the space between the wall and the rotative member, said rotative member being of such configura-



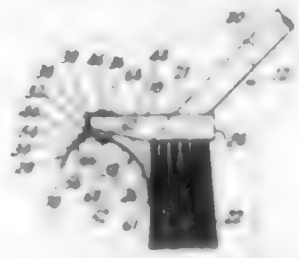
tion as to cut into the pat of butter and to rotate portions of the butter onto the said object.

2,867,827

COMBINATION BRUSH AND SNOW MOVER

Emanuel Gantz, Harrison, N. Y., assignor to Empire Brushes, Inc., Port Chester, N. Y., a corporation of New York

Application July 5, 1957, Serial No. 670,177
6 Claims. (Cl. 15—111)



1. In combination, a brush back having an upper surface and a front edge, and an inclined under-surface extending downwardly and rearwardly from the front edge, and a flat undersurface extending from said inclined surface and disposed parallel to said upper surface, bristles extending downwardly from said parallel undersurface, and a member attached to the front of said brush back and having a top flange contacting the upper surface of the brush back, said member having a portion located at the front edge of said brush back, and a plate disposed below said inclined surface and being curved rearwardly and downwardly, and a scraper extending downwardly and forwardly of said front edge.

2,867,828

SANITARY TALCUM DUSTER

Vladimir N. Trutneff, San Francisco, Calif.

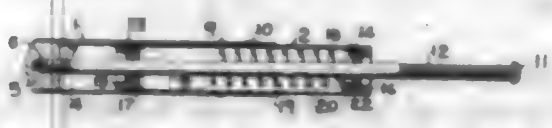
Application September 25, 1957, Serial No. 686,080
3 Claims. (Cl. 15—131.1)



1. In a new article of manufacture, a sanitary talcum duster comprising a brush having a hollow perforated

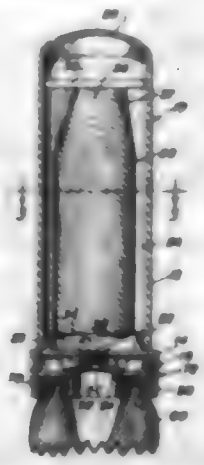
bottom; a container within said bottom having a perforated bottom; a cup also having a perforated bottom and slidably mounted upon said container, with said cup perforations offset from the perforations of said container; spring means for normally holding the bottom of said cup against the bottom of said container to close the perforations therein; and a plunger secured to said cup and adapted to move the same away from the bottom of said container.

2,867,829
APPLICATORS
Joseph Averta, Scarsdale, N. Y., assignor of twenty-five percent to Samuel B. Leavin and twenty-five percent to William H. Leavin, both of New York, N. Y.
Application February 26, 1958, Serial No. 717,584
5 Claims. (Cl. 15—133)



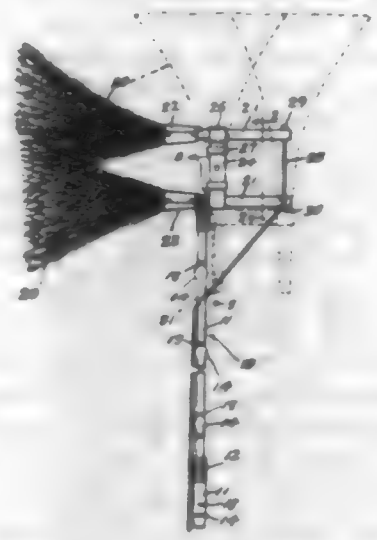
1. An applicator consisting of a main cylindrical housing, a closure plug at one end of the housing, a smooth cylindrical applicating rod secured to said plug and extending centrally and axially through and beyond said housing, and a cylindrical cartridge, said cartridge having washers at its ends slidably to receive said rod, said cartridge being slidably mounted in said housing on said rod, said rod having a knob at its free end and a ribbed section adjacent said knob, said cartridge containing an applicating medium to be transferred to said ribbed section when said cartridge is moved to enclose said rod, said cartridge in turn being movable into said housing to expose said ribbed section to enable a user to use said ribbed section as the medium applying instrument, said washers forming liquid tight joints with said rod to permit an applicating medium to be picked up by said ribbed section.

2,867,830
BRUSH HEAD STRUCTURE
Alexander R. Usdavin, Washington, D. C.
Application September 5, 1957, Serial No. 682,999
2 Claims. (Cl. 15—176)



1. A brush head structure comprising a circular head member provided with a central bore and with arcuate sockets concentric with said bore, a circular plate coaxial with said head member, arcuate keeper fingers provided on one side of said plate and removably disposed in said sockets to separably connect the plate to said head member, an annular flange provided at the other side of said plate, a circular head secured to said plate in coaxial relation, said head including an annular inner wall defining a central opening, an annular outer wall spaced from said inner wall, and a plurality of radial ribs connecting the outer and inner walls together, said flange extending into said head in frictional engagement with the inner surface of said outer wall, said plate having an opening in register with said bore and with the opening in said head, and an annular bristle unit mounted in the space between the inner and outer walls and projecting outwardly from the head.

2,867,831
ADJUSTABLE CLEANING IMPLEMENT
Louis Francis, Miami, Fla.
Application February 28, 1958, Serial No. 716,462
5 Claims. (Cl. 15—234)



1. A cleaning implement comprising an elongated highly flexible bamboo handle, a pair of coil spring loops secured to an end of said handle, said loops being arranged in closely spaced relation extending generally longitudinally with respect to said handle and diverging in a direction away from said handle, a shank extending through and grasped by said spring loops with said shank normally extending transversely to the longitudinal axis of said handle, and a duster secured to one end of said shank for engaging and moving over a remote surface to be cleaned on whip like movement of said bamboo handle.

2,867,832
WALL SPONGE
Ida Hanninen, Ardmore, Pa.
Application April 13, 1956, Serial No. 577,982
2 Claims. (Cl. 15—244)



1. In a wall sponge, a cleaning head comprising a square metallic plate having a pair of outwardly opening recesses formed in opposite side edges thereof and a pair of correspondingly shaped flat pieces of sponge secured to the opposite faces of said plate, a handle comprising a rod having a divided end providing two flexible diverging arms with each arm having an end piece carrying an

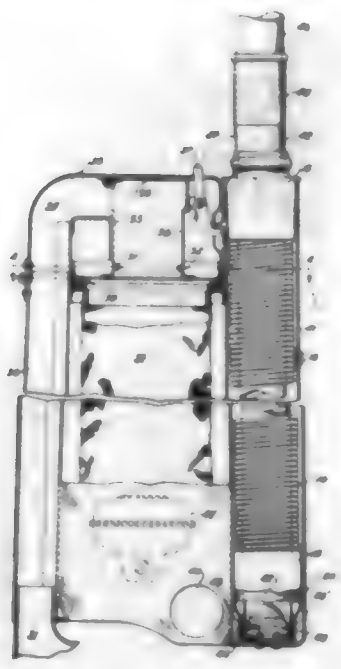
inwardly extending pivot pin, said pivot pins being received in said recesses, said arms being formed with a pair of outwardly opening notches, and a locking ring slidable on said rod and having a bead adapted to be received in said notches.

2,867,833

CONVERTIBLE SUCTION CLEANERS

Jack E. Duff, Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application April 6, 1955, Serial No. 499,613
6 Claims. (Cl. 15—323)



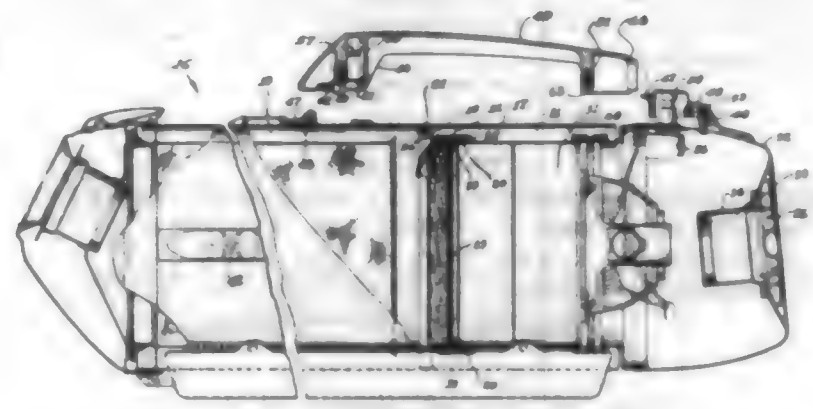
1. In a suction cleaner of the type which is convertible from on-the-floor cleaning to off-the-floor cleaning, a body mounted for ambulatory movement over a surface to be cleaned including a downwardly facing nozzle for use in on-the-floor cleaning, a propelling handle pivoted to said body and extending in a generally vertical direction when in storage position, a converter port associated with said cleaner for use in converting the cleaner to off-the-floor cleaning, suction creating means for alternatively producing a flow of air through said nozzle or through said converter port, an air flow path from said nozzle to said suction creating means, a second air flow path from said converter port to said suction creating means including a portion of said first air flow path, a single length of reinforced corrugated hose extensible to at least twice its collapsed length by the application of a few pounds pull thereto for use in off-the-floor cleaning, said hose being of the self-collapsing type which automatically assumes its collapsed position when the extending force is released, a fitting attached to each end of said hose, one of said fittings being detachably connectible to said converter port for converting said cleaner to off-the-floor cleaning, means associated with said converter port and with said one fitting for closing the air flow path from said nozzle to said suction creating means and opening the air flow path from said converter port to said suction creating means as said one fitting is connected to said converter port, an elongated cylindrical receptacle associated with said handle, said receptacle having an inside diameter slightly larger than the outside diameter of said hose when the latter is in its collapsed condition and being of a length to just receive said hose and fittings when said hose is in its collapsed condition whereby said hose and fittings may be completely encased in said receptacle when the cleaner is used for on-the-floor cleaning and easily removed from said receptacle and attached to said converter port when the cleaner is used for off-the-floor cleaning and wherein said hose may then be extended to at least twice the length of said receptacle to provide ample hose length for off-the-floor cleaning.

2,867,834

TANK TYPE VACUUM CLEANER

George M. Kelly, Sturgis, Mich., assignor to Kingston Products Corporation, Kokomo, Ind., a corporation of Indiana

Application January 23, 1953, Serial No. 332,913
5 Claims. (Cl. 15—327)



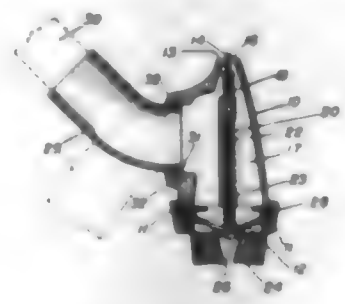
2. A cleaner comprising a cylindrical casing open at one end, a pair of identical rings including a first ring mounted in said casing inwardly of said open end, and a second ring spaced from said first ring adjacent the open end of said casing, each of said rings being angular and being made of a resilient material, each of said rings being substantially T-shape in cross section with a radially inwardly extending leg and opposite axially extending arms, one arm of said first ring supported by said casing and the other arm extending toward said open end of said casing, a motor generally complementary in configuration to the configuration of the rings inserted into the casing through said open end and having opposite ends received in said first and said second rings, respectively, and a cover member closing said open end of said casing and carrying said second ring and means fastening said cover member to said casing whereby said motor is clamped between and supported solely by the resilient engagement of said motor with the first and second rings.

2,867,835

DOUBLE ACTING VACUUM AND SCRUBBING HEAD

Charles K. Brown, Jr., Verona, N. J., and Charles K. Brown, Sr., Fairmont, W. Va.

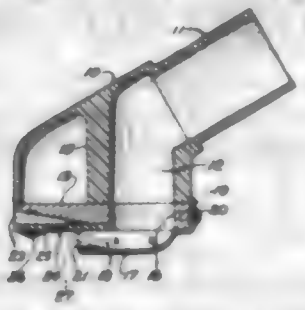
Substituted for abandoned application Serial No. 186,872, September 26, 1950. This application December 28, 1956, Serial No. 631,354
4 Claims. (Cl. 15—328)



3. A combined suction nozzle and brush, comprising, a casing open at at least one end to form a slit, means for securing bristles to the other end of said casing projecting outwardly thereof to form a brush, the inside of said casing constituting a vacuum chamber communicating with said slit, means for connecting said chamber to a source of vacuum, said means including a curved swivel joint having one end connected laterally to said casing, said swivel joint being connectible to a handle at its opposite end, a squeegee within said chamber, said squeegee protruding through said slit and spaced from the walls thereof, whereby said squeegee may be flexed selectively against each of the longitudinal walls of said slit, and means for supporting said squeegee, said squeegee and

means for securing said bristles having a common vertical axis, whereby they may be selectively used on a flat surface by swivelling of said handle about said casing.

2,867,836
AIR ACTUATED CLEANING TOOL
Jack E. Duff, Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application April 4, 1955, Serial No. 499,836
2 Claims. (Cl. 15—404)



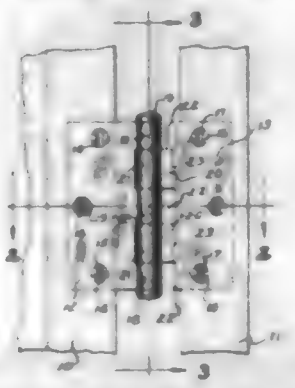
1. A suction cleaning tool comprising: a body having an air discharge conduit adapted to be connected to a source of suction, means on said body defining an air inlet normal to the surface being cleaned for passage therethrough of ambient and dirt laden air to said discharge conduit, means including a flexible vane forming an auxiliary air passageway in said body connected to ambient air and having an outlet arranged to discharge into said air inlet and communicating therethrough with said air discharge conduit, said vane normally closing said ambient air outlet and being movable between two extreme positions in one of which it closes said ambient air outlet and in the other of which it prevents passage of dirt laden air through said air inlet, said vane having a portion arranged in said air inlet and subjected to the air pressures passing through said air inlet and auxiliary ambient air passageway for vibrating said vane between said extreme positions to alternately interrupt flow of ambient and dirt laden air through said air inlet into said discharge conduit, said vane having a portion extending forwardly from said air inlet and disposed exteriorly of said body in spaced relation to the surface being cleaned to impart pulsations to the air therebetween for agitating the surface to remove dirt therefrom as said vane vibrates to interrupt said flow of ambient and dirt laden air through said inlet.

2,867,837
DOOR LOCK ABUTMENT
Bernie J. Craig, Pasadena, Calif.
Original application December 18, 1950, Serial No. 201,281, now Patent No. 2,705,882, dated April 12, 1955. Divided and this application September 27, 1954, Serial No. 458,480
1 Claim. (Cl. 16—85)



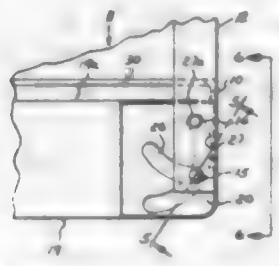
The combination with an abutment member for use on a vehicle which includes a body member having a door opening and having a swinging door member for closing the opening, said abutment member being adapted to be secured to one of said members, said abutment member including an intermediate base portion having a front face, said base portion being planar and being provided with upper and lower opposed jaw forming portions which are disposed above and below the base portion and are integral with and are rigid continuations of the base portion, one of the jaw forming portions of the abutment member having a jaw surface disposed perpendicular to the front face of the base portion, the other jaw forming portion including a protuberance which has a top, closed ends and closed sides, one of the sides of the protuberance comprising a fixed jaw surface at least a part of which is inclined, the other side of the protuberance having an attaching portion thereon, said last mentioned portion being adapted to be secured to said one member, of holding means which is adapted to be secured to the other of said members and which is provided with a part immovable relatively thereto and movable between the jaw forming portions of the abutment member, at least a portion of the perpendicular jaw surface being inclined for engagement with the immovable part of said holding means which passes over the base portion as it moves to engaged position, and includes a dovetail wedge mounted on and slidable relative to the holding means, the sliding dovetail wedge including a surface which engages the inclined surface of the other jaw forming portion of the abutment member in wedging relation thereto, the jaw surfaces maintaining the holding means in a predetermined vertical position, a portion of one of said jaw forming portions constituting a guiding part against which the holding means will engage and slide along before said holding means comes to engaged position.

2,867,838
ADJUSTABLE HINGE
Carl T. Nielsen, Redwood City, Calif.
Application July 19, 1955, Serial No. 522,900
1 Claim. (Cl. 16—131)



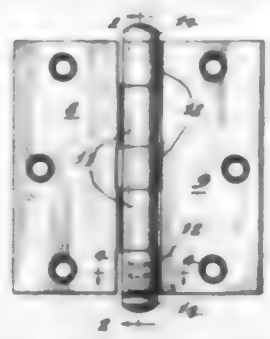
In an adjustable hinge, a first plate of rectangular formation, a plurality of spaced parallel curved portions arranged along an outer longitudinal edge of said plate and said curved portions being provided with registering openings, a second plate of rectangular formation having a plurality of spaced parallel flanges extending outwardly therefrom from an outer longitudinal edge thereof, and each of said flanges terminating in a cylindrical sleeve, said sleeves being interposed between the curved portions of said first plate, said sleeves having openings registering with the openings in said curved portions, a pin extending through the registering openings in said sleeves and curved portions, portions of the outer longitudinal edge of said second plate being cut away intermediate and outwardly of said sleeves to provide clearance between said curved portions and said second plate, there being slots in said flanges, said slots serving to weaken the flanges slightly so that bending or twisting of the parts of the second plate can be more easily accomplished, said slots being of rectangular formation and being arranged at the junction of the flanges with the second plate, said slots extending completely across the flanges from one edge to the other, said slots being arranged in aligned end-to-end relation with respect to each other.

2,867,839
DOOR HINGE
Herbert D. Squire, Galesburg, Ill., assignor to Midwest Manufacturing Corporation, Galesburg, Ill.
Application October 17, 1957, Serial No. 690,765
5 Claims. (Cl. 16—166)



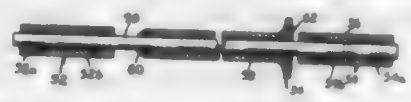
1. A hinge construction for supporting a refrigerator door opposite to a door opening in a cabinet comprising a pair of support members carried by the cabinet on one side thereof and spaced from each other and extending forwardly of the cabinet, each of said support members having a first hinge pin near the cabinet and a second hinge pin spaced outwardly therefrom, said door being formed with guide members for engagement with said hinge pins, each guide member when the door is closed comprising a first arcuate guideway extending concentric to said first hinge pin and receiving said second hinge pin and a second arcuate guideway for receiving said first hinge pin extending concentric to one end of the first guideway.

2,867,840
HINGE
Raymond C. Peterson, Rockford, Ill., assignor to National Lock Co., Rockford, Ill., a corporation of Delaware
Application March 29, 1957, Serial No. 649,498
4 Claims. (Cl. 16—168)



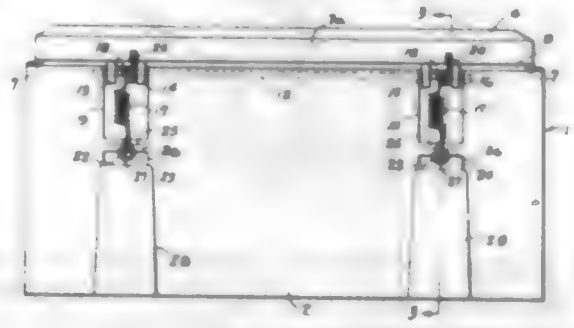
3. A false hinge pintle end comprising a portion arranged to be seated in a hinge leaf bore, a head, and embossed portions projecting longitudinally of the pin from the inner face of said head.

2,867,841
SPRING-URGED HINGE CONSTRUCTION FOR DOORS, COVERS AND THE LIKE
Reginald B. Baldauf, Valley Stream, N. Y.
Application December 15, 1954, Serial No. 475,490
2 Claims. (Cl. 16—180)



1. A spring-urged hinge construction, comprising a pair of hinges, a torsion rod serving as a common pintle for said hinges, each hinge consisting of a pair of hinge plates, one of the hinge plates of one of said hinges being secured to one end of said torsion rod, a torsion tube mounted on said torsion rod, one end of said torsion tube being secured to the opposite end of said torsion rod, the opposite end of said torsion tube being secured to the other hinge plate of said last mentioned hinge, the torsion tube being adjustably secured to the hinge plate by means of a hexagon-shaped member secured to said torsion tube, an adjusting wrench connected to said hexagon-shaped member, and a keeper on said hinge plate which engages and holds said adjusting wrench.

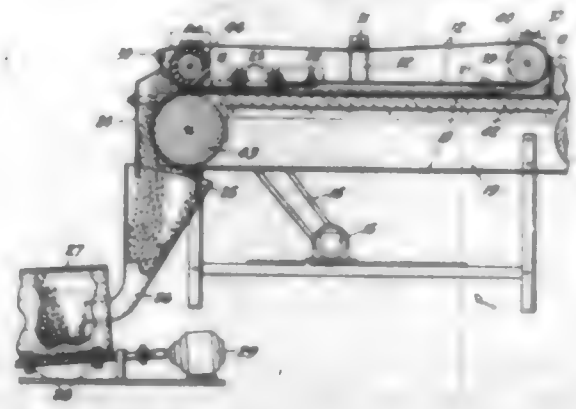
2,867,842
HINGE STRUCTURE FOR CONTAINERS
Evans T. Morton, Knoxville, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application June 1, 1954, Serial No. 433,407
8 Claims. (Cl. 16—189)



1. In a container having a wall and a door, said wall having an edge portion provided with a groove and a recess extending downwardly from said edge portion, a partition secured to said wall for dividing said recess into upper and lower recesses, said partition having a slot therein, a hinge structure including a pintle arranged in said groove and said door being pivotally mounted on said pintle, and resilient means having a portion bearing on said pintle, a second portion arranged in the upper recess below said pintle, a wire portion arranged in said slot, and an enlarged portion arranged below said partition for anchoring one end of the resilient means to the wall of said container, and the opposite end of said resilient means being in the form of an arm for engaging said door for normally maintaining it in closed position.

5. A spring for use in a hinge structure, said spring including a first coil having an arm extending from one end thereof, a second coil having one end secured to the first coil, the central axis of the second coil being arranged at an angle to the axis of the first coil, a wire secured to the opposite end of the second coil which wire terminates in a third coil which is arranged substantially perpendicular to a vertical plane passing through the central axis of the first coil.

2,867,843
APPARATUS FOR COMPACTING FINELY DIVIDED SOLIDS
Harold L. Browne and Owen C. Cookingham, Midland, and Donn W. Pendleton, Beaverton, Mich., assignors to Dow Corning Corporation, Midland, Mich., a corporation of Michigan
Application January 10, 1955, Serial No. 480,900
6 Claims. (Cl. 18—1)



1. An apparatus for compressing a finely divided solid comprising squeeze rolls, two endless conveyers positioned face to face one above the other so that the adjacent faces are substantially parallel laterally, at least

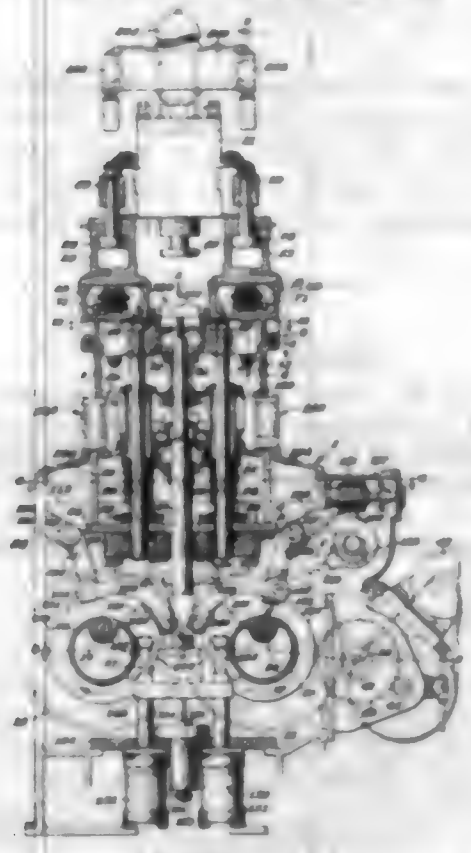
one of which conveyers is pervious to air, said conveyers passing between and being driven by the squeeze rolls, means for feeding finely divided solid between the adjacent faces of the conveyers, a rigid member adjacent to and parallel the edges of the upper conveyer, said member being so positioned that it holds the edges of the upper conveyer against the lower from a point adjacent to where the solid is fed, to a point adjacent the squeeze rolls, a series of rigid members extending laterally across the upper conveyer and so positioned that they force the upper conveyer against the adjacent face of the lower conveyer thereby deaerating the solid between the adjacent conveyer surfaces and means for removing the compressed solid from the conveyers after it has been compressed by passing between the squeeze rolls.

2,867,844

PRESS FOR MOLDING POWDERED MATERIAL

Keith W. Hall, Ann Arbor, Mich., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania

Application January 18, 1954, Serial No. 404,710
22 Claims. (Cl. 18—16.5)



1. A press comprising, in combination, a platen having a die, upper and lower punches receivable in the die, mechanism for effecting relative movement of said punches toward each other to compact material in the die, mechanism for moving one of the punches to eject a compactrd article from the die including cam means having relatively inclined linear cam surfaces and means engageable with said surfaces for following the same, one of said cam means being operatively connected to the ejection punch to transmit an ejection stroke thereto, means for adjusting the relative inclination of said cam surfaces with respect to each other, and means for relatively reciprocating said cam and follower means so as to impart a predetermined length of ejection stroke to the ejection punch in accordance with the relative inclination of said cam surfaces.

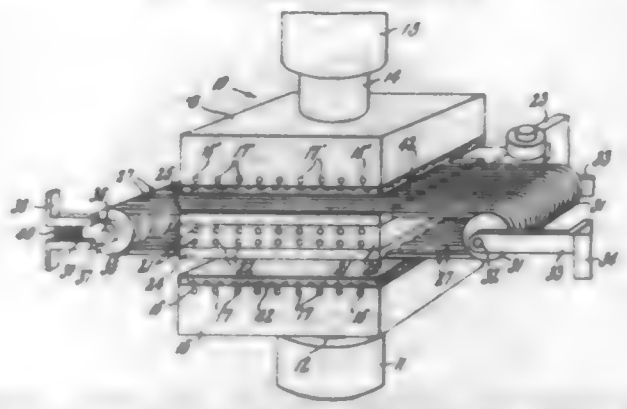
2,867,845

APPARATUS FOR MOLDING AND CURING BELTS

Herman C. Sauer, Ambler, Pa., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application November 28, 1956, Serial No. 624,825
3 Claims. (Cl. 18—17)

1. In apparatus for molding and curing a continuous belt which contains rubber or the like, a press including a first platen and a second platen, one of the platens being movable toward and away from the other platen, a mold plate carried by the first platen and having an elongated rectilinear cavity extending inwardly from the surface thereof that is remote from the first platen, said cavity having a configuration corresponding to that to be attained in the belt, means for subjecting the belt to tension and for maintaining a rectilinear section of the belt in at least partial registry with the cavity, and means interposed between the mold plate and the second platen



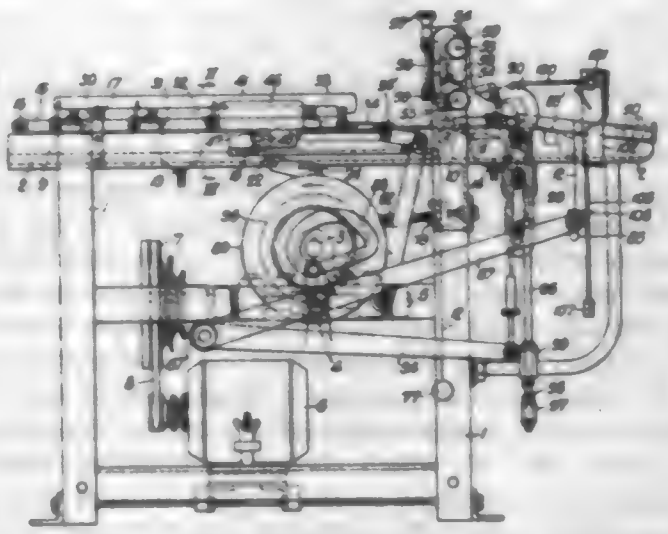
and comprising a resilient, deformable, compressible, blanket member having a first surface facing said surface of the mold plate and a second surface substantially parallel to the first surface and facing the second platen, said member having a plurality of intersecting grooves extending inwardly from its second surface, the parts being so constructed and arranged that the first surface of the member is adapted to bear against said surface of the mold plate and said section of the belt and the member is compressed upon predetermined movement of said one of the platens toward the other platen.

2,867,846

ROLLING OF PLASTIC STRIPS

George Albert Rowley, Hertfordshire, England, assignor to Plastic Binding Corporation, Chicago, Ill., a corporation of Delaware

Application December 30, 1950, Serial No. 203,579
19 Claims. (Cl. 18—19)



1. A machine for automatically rolling comb-shaped plastic strips each into a separate roll, comprising heating apparatus for warming the strips, a magazine for mandrel rods, means for curling individual warmed strips at a rolling station into separate rolls about mandrel rods, said means comprising a strip rolling device, strip feeding means for advancing strips to said heating apparatus where they are softened and then to the rolling device, mechanism for actuating said feeding means and rolling means in coordination, heating apparatus to warm the mandrel rods, and means for advancing the mandrel rods selectively in coordination with the action of the strip feeding means and rolling device first to said last-men-

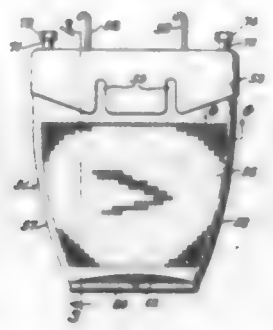
tioned heating apparatus to warm them and then to said rolling device where the strips are wrapped around warm mandrel rods.

2,867,847

FORMS FOR MANUFACTURE OF DEPOSITED LATEX ARTICLES

Wilbur A. Miller and Edwin B. Gienger, Jr., Dover, Del., assignors to International Latex Corporation, Dover, Del., a corporation of Delaware

Application April 22, 1953, Serial No. 350,342
19 Claims. (Cl. 18—41)



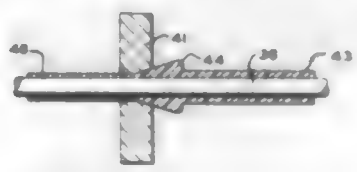
1. A form for making porous, sheathlike, deposited latex articles which comprises a rigid backing for maintaining the shape of the form constant during dipping and an article generating surface supported by said backing, a portion of said surface having therein a multitude of small isolated pores bridgeable by liquid rubber latex, and means within said form adapted to be activated to force gas out of said pores.

2,867,848

HEAT-STRESS CRACKING RESISTANCE OF THERMOPLASTIC FILAMENTOUS ARTICLES

Roger M. McGlamery, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application November 23, 1956, Serial No. 623,772
9 Claims. (Cl. 18—47.5)



1. A method of imparting heat-stress cracking resistance to a filamentous article of crystalline ethylene polymer which is a polymerizate of a monomer system comprising from 70 to 100 weight percent ethylene, from 0 to 30 weight percent monoolefin selected from the group consisting of propylene, 1-butene, 2-butene and mixtures thereof, and from 0 to 3 weight percent acyclic monoolefin having from 5 to 12 carbon atoms per molecule, said polymer being characterized by a crystallinity at 25° C. of at least 80 percent, a density of at least 0.94 grams per cubic centimeter, and a softening temperature of at least 240° F. which comprises applying sufficient circumferential pressure to the surface of said article at a temperature below the softening point of said polymer to effect a reduction in density of said polymer.

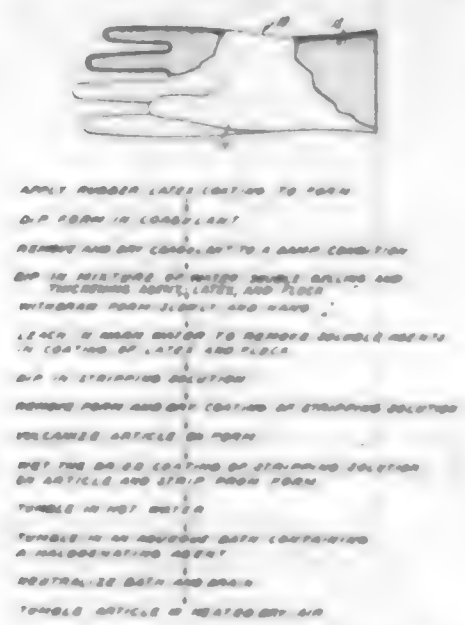
2,867,849

METHOD OF MAKING SLIP-FINISH FLOCK COATED RUBBER ARTICLE

Howard E. Drew, Greenville, R. I., Albert L. Warden, Fall River, Mass., and Edouard A. Brodeur, Jr., Greenville, R. I., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application December 15, 1954, Serial No. 475,469
5 Claims. (Cl. 18—58.6)

1. The method of manufacturing a flock coated hollow rubber article comprising the steps of applying a rubber latex coating to a form, applying coagulant to said rubber latex coating, applying a second coating containing a mixture of a water soluble gelling and thickening agent, flock and rubber latex, said flock being mixed with the water soluble gelling and thickening agent before the latex is added, washing said second coating to remove



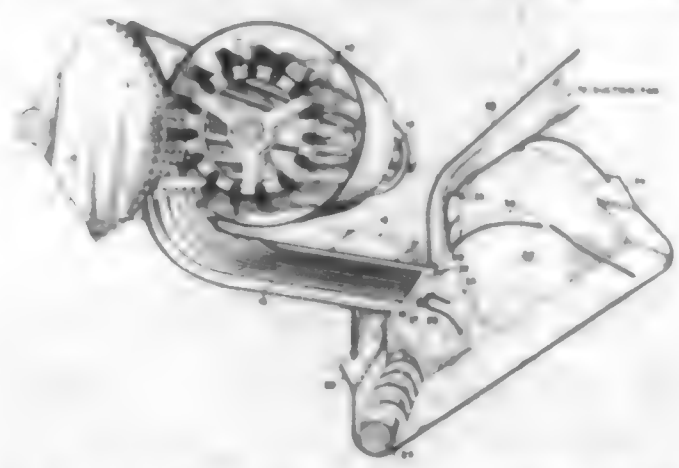
said gelling and thickening agent, vulcanizing said rubber containing coatings, removing said article from said form, tumbling said article in a water bath, tumbling said article in an aqueous bath containing a halogenating agent, separating said bath and said article, and drying said article.

2,867,850

FIBER CLEANER

Mayer Mayer, Jr., New Orleans, and James I. Kotter, Metairie, La., assignors to the United States of America as represented by the Secretary of Agriculture

Application November 12, 1957, Serial No. 696,002
4 Claims. (Cl. 19—58)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A fiber cleaner comprising; a rotatable fiber processing cylinder onto which are fed fibers containing trash heavier than the fibers, a rotatable doffer cylinder mounted parallel to and adjacent the processing cylinder, the adjacent face of the doffer cylinder moving in the same direction as that of the processing cylinder but at a greater speed, a housing enclosing the doffer cylinder, a fiber-trash separating conduit having its entrance adjacent the processing and doffer cylinders, into which air flows for conveying the fibers opened by the fiber processing and doffer cylinders, said conduit extending downwardly and curving horizontally and containing partitions along its bottom which extend the length of it to form troughs for the conveyance of the trash and leaving free space above said troughs for the conveyance of the fibers, a trash box and a low pressure conduit leading therefrom, a divider between the fiber-trash separating conduit and the entrance to the low pressure conduit, said divider being a rectangular plate and adjustable

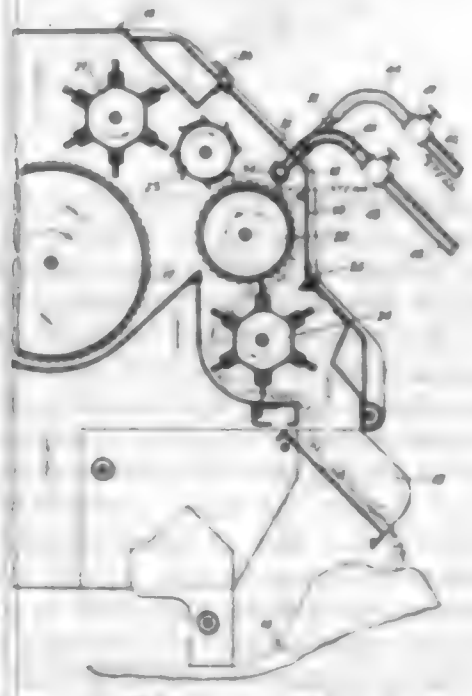
vertically, clockwise and counterclockwise to enable a variation in the division of fibers from trash as they flow from the fiber-trash separating conduit, whereby the trash box receives the trash which is deflected by the divider as it flows from the troughs and the conduit of lesser pressure takes up the fibers as they are deflected by the divider as they flow from the region above the troughs.

2,867,851

APPARATUS FOR HUMIDIFYING SEED COTTON

Orville Mitchell and William P. Freeman, Jr., Dallas, Tex., assignors to John E. Mitchell Company, Dallas, Tex., a corporation of Missouri

Application March 12, 1952, Serial No. 276,287
4 Claims. (Cl. 19—66)



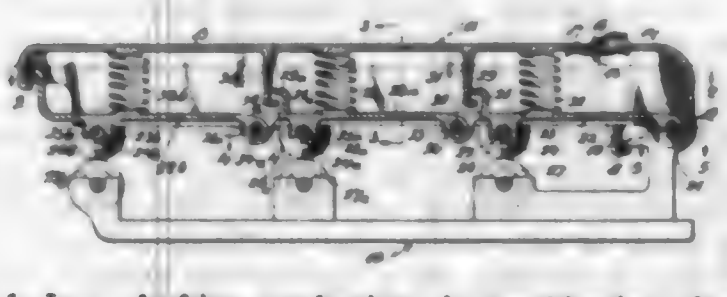
2. In a cotton conditioning machine having means for causing cotton to flow in a stream, a humidifying device for applying moisture to said stream of cotton, said device comprising a manifold with a series of steam discharge holes through a wall of said manifold, means for introducing steam into said manifold for discharge out of said manifold through the steam discharge holes, means for withdrawing said manifold from the stream of cotton and displacing the manifold bodily to a non-humidifying position where said holes will be disposed away from said cottom and at the top portion of said manifold to prevent discharge of condensate through said discharge holes.

2,867,852

DRAFTING MECHANISM FOR SPINNING MACHINES

Erwin Dausch, Esslingen Neckar, Germany, assignor to SKF Kugellagerfabriken G. m. b. H., Schweinfurt, Germany

Application December 8, 1955, Serial No. 551,782
Claims priority, application Germany December 18, 1954
13 Claims. (Cl. 19—135)



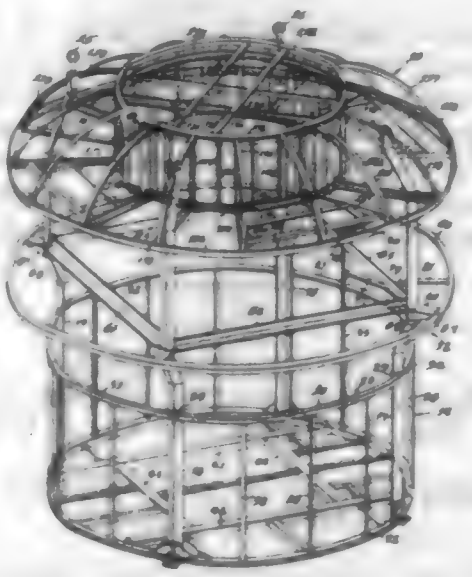
1. In a drafting mechanism, in combination, frame means; elongated support means carried by said frame means for movement to and from an operating position located over the drawing plane; a first top rolls carrying arm pivotally connected at one end to one of said means; a second top rolls carrying arm extending forwardly from said first arm and having a rear end portion pivotally connected to a front end portion of said first arm; and means engaging one of said arms for urging the same downwardly toward the drawing plane when said support means is in said operating position thereof.

2,867,853

PORTABLE STRUCTURE

Edwin G. Lindgren, La Grange Park, Ill.

Application June 30, 1955, Serial No. 519,115
8 Claims. (Cl. 20—1.6)



1. A portable building structure comprising a frame and covering material; said frame including a base ring, floor framing secured to said base ring, a plurality of columns secured to and extending upwardly from said base ring, a second ring of substantially the same diameter as said base ring secured to said columns substantially above said base ring, a third ring of substantially larger diameter than said base ring, a plurality of brackets secured to said columns and to said third ring and supporting said third ring substantially above and concentric with said second ring, a plurality of straight frame members secured to and extending between successive ones of said columns at substantially the same level as said third ring, a fourth ring of substantially the same diameter as said third ring, and a plurality of brackets secured to said columns and to said fourth ring and supporting said fourth ring substantially above said third ring and concentric therewith; said covering material including flooring on said floor framing, cylindrical paneling encircling said frame and extending between said base ring and said second ring, a counter extending from said third ring inwardly at least to said frame members, covering material encircling said frame and extending from said second ring to said third ring, a ceiling extending inwardly from said fourth ring, and a roof covering the top of said portable building structure and extending to said fourth ring; and means secured to said columns for permitting convenient lifting of said building structure.

2,867,854

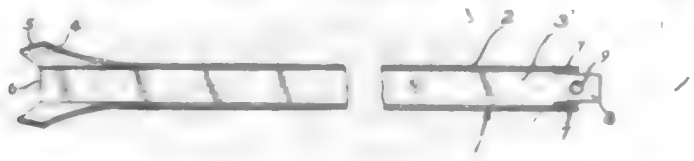
BRIDGING STRUT

Percy Aiken, Minneapolis, Minn., assignor to Acrometal Products, Inc., Minneapolis, Minn., a corporation of Minnesota

Application January 27, 1958, Serial No. 711,189
1 Claim. (Cl. 20—9)

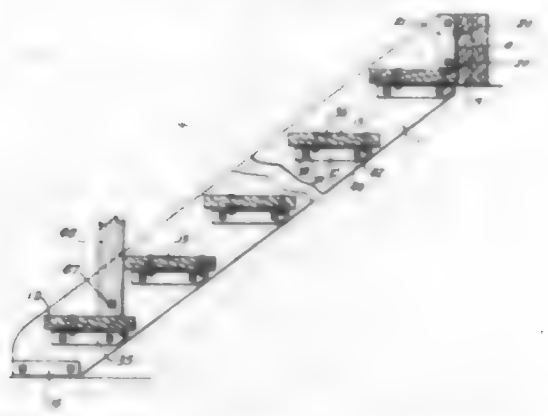
A strut for bridging spaced wooden joists comprising an elongated channel-shaped body formed from sheet metal and including laterally spaced side members and a connecting bottom member, opposite ends of said side members defining longitudinally outwardly projecting anchoring teeth adapted to penetrate opposed wall surfaces of a pair of spaced joists, the upper end portions

of said side members being flared outwardly whereby to increase the spacing between the anchoring teeth defined thereby beyond the planes of said side members, and the adjacent upper end of said bottom member limiting penetration of said teeth into an engaged joist, the lower end of said bottom member defining an anchoring tongue



which projects longitudinally outwardly of the adjacent anchoring teeth, the longitudinally inner extremity of said anchoring tongue being disposed substantially even with the inner extremities of said teeth, said tongue being adapted to be bent into parallel relationship with the surface of an adjacent joist and having a perforation therein for the reception of a secondary anchoring device.

2,867,855
ADJUSTABLE STAIR
Elmer F. Xanten, Rockford, Ill., assignor to Adjustable Stair & Mfg. Co., Rockford, Ill., a corporation of Illinois
Application February 16, 1953, Serial No. 337,180
2 Claims. (Cl. 20—10)



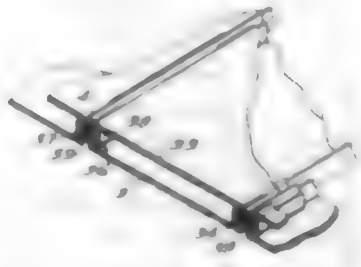
1. An adjustable stair adapted to be installed in a basement stair well of a building prior to installation of the basement floor and adjustable to accommodate different floor-to-floor spacing comprising a pair of spaced downwardly inclined stringer members, a pair of stringer member supports pivotally attached to the upper ends of said stringer members and adapted for attachment in the stair well to permit elevating and lowering of said stringer members, means for selectively clamping the stringer members to said supports to lock the stringer members in a preselected adjusted position, a pair of angle iron foot plates pivotally attached to the lower ends of said stringer members for limited angular adjustment relative thereto to level the lower face of the foot plates for engagement with the floor, means for selectively clamping said foot plates to said stringer members, a plurality of elongated angle iron tread mounting members, said tread mounting members having a pair of longitudinally spaced holes in one leg adjacent opposite ends thereof, said stringer members having a first row of spaced holes adjacent the upper edge thereof and a second row of spaced holes horizontally aligned with one of the holes in the first row, adjacent the lower edge thereof and each substantially a first set of bolts each extending through the hole adjacent the forward end of one of the bracket members and through one of said holes in said first row in the stringer members, a second set of bolts each extending through the hole adjacent the rear end of one of the bracket members and through one of the holes in the second row of holes in said stringer members, the holes in one of the members through which said second set of bolts extends being vertically elongated to permit angular adjustment of the bracket members relative to the stringer members about the first set of bolts, nuts on each of said bolts for clamping the bracket members to the stringer members in the adjusted position thereof, and treads mounted on said tread mounting brackets and extending between said stringer members.

2,867,856
PANEL CONSTRUCTION AND ASSEMBLY
Roger G. Cudini, Birmingham, Mich., assignor to Moynahan Bronze Company, a corporation of Michigan
Application October 11, 1955, Serial No. 539,757
3 Claims. (Cl. 20—11)



1. In a window assembly, a first frame element having an inwardly directed flange, a window light disposed against said flange, said first frame element having an integral portion disposed at substantially a right angle to said flange, said integral portion having a pair of facing grooves formed therein, one of said grooves having its outer edge converge outwardly toward the other groove, a second element fixedly disposed within said grooves and adapted to bear against said light on the side opposite the flange to support the light therebetween, said second element having a pair of opposite edges removably received within said grooves, said second element being formed adjacent one of said edges with a groove, and a bowed spring received within said last-named groove and resiliently bearing against the adjacent converging edge of its adjacent groove in said first element to yieldably urge said second element in the direction of said flange and maintain the edges of said second element within said grooves.

2,867,857
PANEL CONSTRUCTION
Robert T. McCarthy, Walnut Creek, Calif.
Application May 23, 1955, Serial No. 510,073
3 Claims. (Cl. 20—15)



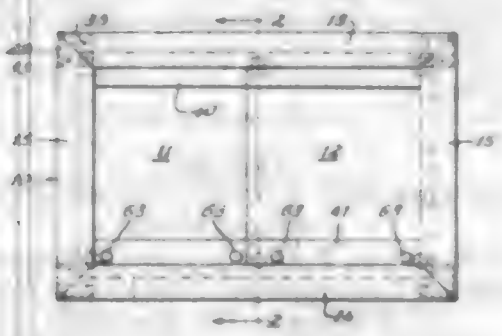
2. Construction apparatus comprising a plurality of panel sections, each of said sections having a web portion and a generally normally disposed flange extending along the longitudinally extending edge of said section, said panels being positioned with a pair thereof in parallel spaced overlying relationship with the flanges thereof directed towards each other and positioned in parallel relationship, two of such pairs of sections being brought into adjacent relationship, with a space existing between each flange of each section and the adjacent flanges of each pair of sections, and a clip member having a plurality of U-shaped depressions formed therein extending longitudinally of said panels along the line of connection thereof with each of said U-shaped portions engaging a flange on one of said panels and with each flange snugly embraced on both sides thereof by said clip portions.

2,867,858
DOOR SAFETY DEVICES
Lawrence L. Wiesner, Wichita, Kans.
Application February 16, 1956, Serial No. 565,873
1 Claim. (Cl. 20—16)



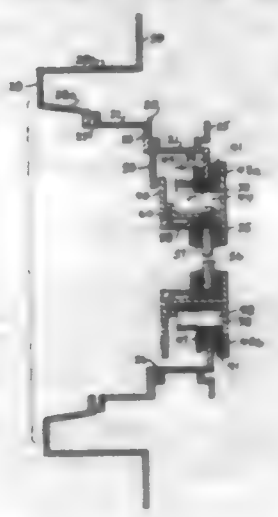
A protective device for doors; said device comprising a strip of thin spring material, one side portion of said strip of material being curved transversely, the other side portion of said strip of material being formed as a support for the first said side portion of the said strip of material, said support for the first said side portion of the said strip of material having means therein for attachment to a support for the said device, a plurality of rub elements, and means in said rub elements for attachment thereof to a supporting element therefor the spring quality of said strip of material serving to urge one edge of the strip of material into engagement with the said rub elements, said strip of material having indentures therein, one for each rub element, said rub elements being receivable, one in each of said indentures, said indentures being of a lesser depth than the thickness of the said rub elements so as to prevent the edge of the strip of material from engaging any object other than the said rub elements.

2,867,859
SLIDING PANEL HARDWARE
Raymond J. Brink and John A. Buelow, St. Paul, Minn., assignors to Designware Industries, Incorporated, St. Paul, Minn., a corporation of Minnesota
Application October 18, 1954, Serial No. 462,668
14 Claims. (Cl. 20—19)



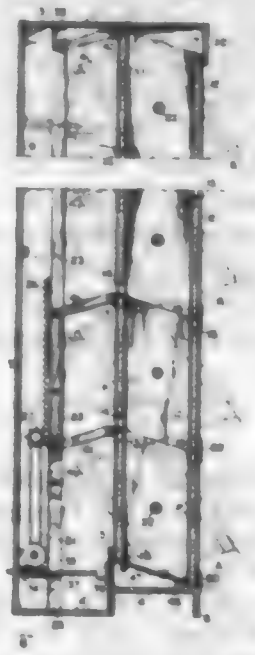
1. A sliding panel structure including in combination a rectangular frame consisting of four frame members of similar cross channel-shaped section having mitered corners, the frame members being arranged with bases forming the periphery of the frame and with parallel sides forming the front and rear surfaces, a partition extending between the channel sides spaced inwardly from each channel base, and a divider parallel to, and between, the channel side forming two side by side channel portions, panels within said frame, each panel having an H-shaped frame secured to the upper and lower edges thereof forming channel grooves extending longitudinally of its top and bottom surface, rollers supported in said channel groove for supporting said panels, and a resilient guide secured in said top channel groove engaging the relative channel sides of said rectangular frame.

2,867,860
VENTILATING WINDOW STRUCTURE
Ernest L. Anderson, Seattle, Wash.
Application November 26, 1956, Serial No. 624,460
11 Claims. (Cl. 20—52.2)



9. In a ventilating window structure a sliding vent comprising a vent frame having an outwardly faced border channel at the sill thereof having leg flanges with one of said leg flanges turned inwardly a minor part of the width of the channel to provide a stop narrowing the width of the mouth of the channel, and the other leg flange of the channel being inwardly offset at the floor of the channel a distance corresponding to the width of said stop, a longitudinally corrugated spacer strip having a width approximating the narrowed mouth of the channel, and an outwardly faced weather strip channel secured to said spacer strip along one side thereof and having a combined depth with the spacer strip as great as the depth of said channel beneath said stop, said spacer strip being adapted to be yieldingly compressed for insertion of the spacer strip channel as a unit into said border channel.

2,867,861
DOUBLE-PANELED LOUVER JALOUSIE STRUCTURE
Joseph E. Pilson, El Portal, Fla.
Application December 9, 1955, Serial No. 552,159
7 Claims. (Cl. 20—62)



1. In jalousie construction including a frame having a pair of opposed jambs and head and sill members therefor, the combination therewith of a plurality of louvers

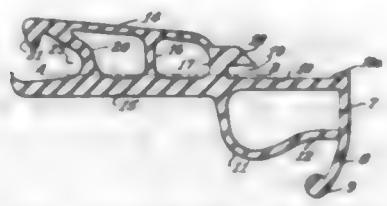
arranged between said jambs and oscillable between open and closed positions, each of said louvers comprising an inner panel and an outer panel disposed in parallel and spaced apart relation to provide a free air passage therebetween, said louvers being pivotable to an open position inclining said inner panels in substantially a common plane with the outer panel of the louver next therebelow and in contiguous alinement therewith, the contiguous panels forming a baffle for the exclusion of rain and the passages conducting air through said louvers, said head having a downturned trim member pivotably connected thereto along the frontal marginal edge thereof and in closure engagement with the front face of the topmost of said louvers, the trim member having outward pivotal movement against said topmost louver, spring means urging said trim member into engagement with said topmost louver.

2,867,862

REFRIGERATOR DOOR GASKET

Herbert D. Squire, Galesburg, Ill., assignor to Midwest Manufacturing Corporation, Galesburg, Ill., a corporation of Illinois

Application August 8, 1955, Serial No. 526,924
5 Claims. (Cl. 20—69)



2. A gasket of deformable, resilient material comprising a rear wall, an outer wall connected to the outer end of said rear wall and extending forward therefrom transverse to said rear wall, a front wall comprising a convex segment connected to said rear wall at a location thereon spaced inward from said outer wall, said convex segment extending forward away from said location on the rear wall and then curving outward toward said outer wall and forward to its forward extremity and from its forward extremity continuing outward toward said outer wall and rearward back toward said rear wall, and a straight segment connected at one of its ends to the outer end of said convex segment at a location disposed rearward from the forward extremity of said convex segment to define therewith a forwardly facing recess, said straight segment being connected at its other end to said outer wall at a location thereon spaced forward from said rear wall and rearward from the forward extremity of said convex segment, said rear wall, outer wall and front wall defining a hollow space between them, and a rib connected to said outer wall at the juncture of said straight segment of the front wall therewith and extending forward as a smooth continuation of said outer wall and inward across said straight segment in spaced relation to said straight segment forward of said straight segment and terminating in a free end disposed forward and outward beyond said outer extremity of the convex segment of the front wall, said rib being deformable into said recess to engage said front wall thereat.

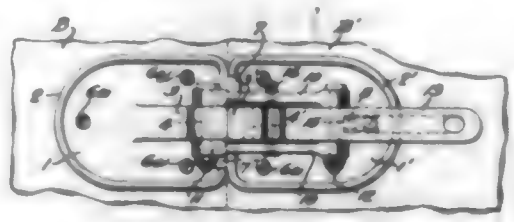
2,867,863

LATCHING MECHANISMS

William A. Webb and Joel M. Jacobson, Baltimore, Md., assignors to Aircraft Armaments, Inc., Baltimore, Md., a corporation of Ohio

Application April 2, 1952, Serial No. 280,032
5 Claims. (Cl. 20—92)

1. A latch mechanism comprising a pair of duplicate and identical base plates disposed adjacent to each other in opposed relation, identical abutments protruding upwardly from said base plates, a lug formed on each said base plate at one side of said abutment and projecting to overlie the opposite base plate, a handle assembly for clamping together said base plates in tight juxtaposed relation comprising a link having one end thereof pivotally engaging the abutment on one of said base plates, a handle pivotally connected to the opposite end of said



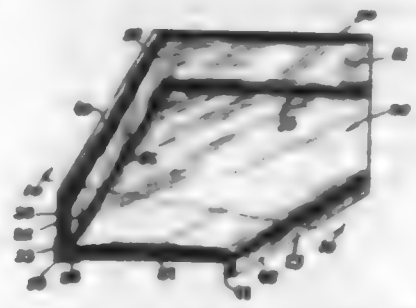
link, and a seat formed in the end of the abutment on the other one of said base plates remote from the first abutment for receiving the end of said handle by an over-center movement of the handle assembly relative to pivotal mounting of said link on said first-mentioned abutment.

2,867,864

CORNER CONSTRUCTION AND METHOD OF FORMING SAME

Earl B. Githens, Indianapolis, Ind., assignor to Cabinet Top Industries, Indianapolis, Ind., a copartnership consisting of Earl B. Githens and Melba S. Githens

Application July 13, 1955, Serial No. 521,712
5 Claims. (Cl. 20—92)



1. A work surface corner construction comprising a single piece of bendable, substantially inductile sheet material, said piece of sheet material comprising three portions, each such portion having a rigid backing element secured to its reverse surface, said several backing elements being spaced from each other, and each such portion having a forward exposed surface lying in a plane which intersects the plane of each of the others, the surface of each of two of said portions merging with the surface of the third portion along a coved section, the outboard region of each of said two portions being curved, said two portions and the coved sections and the curved regions meeting at a continuously closed joint lying in a plane perpendicular to the plane of the surface of said third portion.

2,867,865

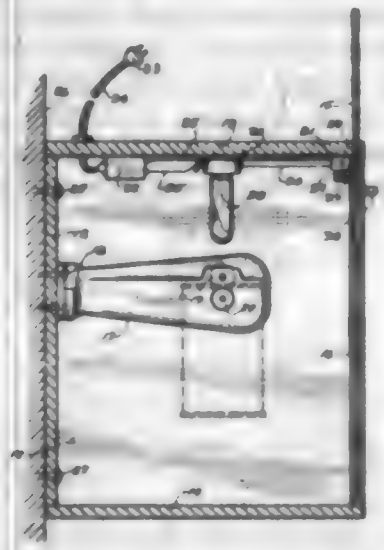
CAN OPENER AND RADIANT ENERGY STERILIZER

Claire S. Ryan and Robert S. Lane, Minneapolis, Minn.

Application December 28, 1956, Serial No. 631,182
2 Claims. (Cl. 21—102)

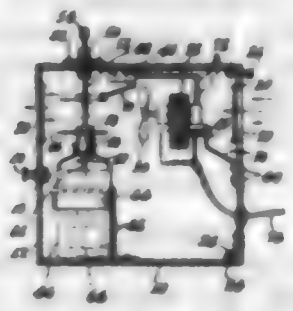
2. A combination can opener and radiant energy sterilizer comprising a cabinet bounded by upper, lower and upstanding side walls providing an interior space and open at a side thereof, a can opener within said interior space, means supporting said can opener upon one of said walls, a door for said cabinet to be situated in closed relation to the open side thereof, said cabinet walls and said door when closed together completely enclosing said interior space and the door being removable from said open side of the cabinet to render said can opener accessible, a shank for actuating said can opener assembled therewith and extending through one of said upstanding side walls, an operating arm rigid with said shank and

disposed exteriorly of the cabinet, a germicidal lamp within said cabinet for emitting bacteria killing rays against the can opener, a normally closed electric circuit for said



germicidal lamp, and means actuable in response to removal of said door from the open side of said cabinet for causing said electric circuit to be broken.

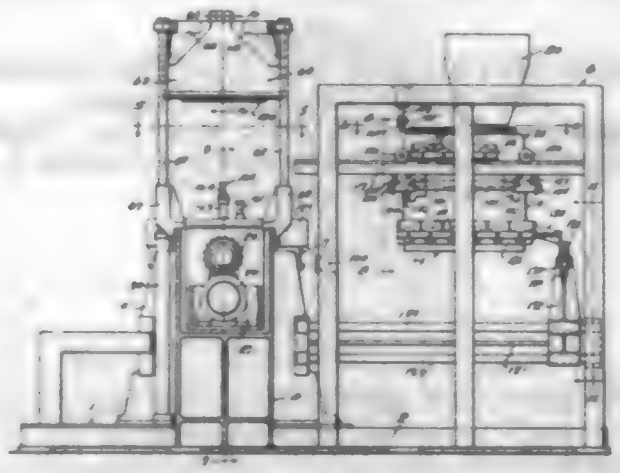
2,867,866
DEODORANT DISPENSER
Maurice G. Steele, Rouse, N. Y.
Application August 5, 1955, Serial No. 526,624
1 Claim. (Cl. 21—126)



In a rapid evaporating dispenser for a volatile liquid deodorant, a container for said liquid having a reduced upper neck, a detachable stopper mounted in said neck and having a depending hook secured thereto, a wick connected at its upper end to said hook and having its lower end immersed in said liquid, a vertical rod extending upwardly from the top of said stopper for permitting the manual lifting of said stopper from said neck and the exposure of the upper end of said wick above said container, an electric fan above said container facing said wick, and switch means secured to said stopper, operative to close the circuit through said electric fan when said rod is lifted to raised position to cause said fan to blow air for rapidly evaporating said liquid therefrom across the exposed portion of said wick.

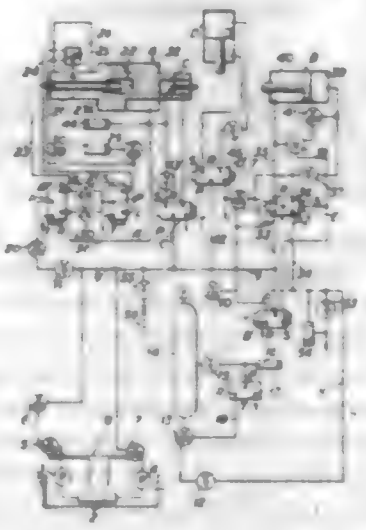
2,867,867
SHELL MOLDING MACHINE
Emery I. Valyi, New York, N. Y.
Application April 15, 1957, Serial No. 652,966
40 Claims. (Cl. 22—20)

1. A shell mold forming machine of the character described comprising a pattern carriage adapted to have a pattern removably secured thereon, means by which said carriage is rotatably supported for rotation about a fixed horizontal axis, means by which said carriage is rotated back and forth between upright and inverted positions, a vertically reciprocal mold curing oven normally disposed in aligned vertically spaced relation above said carriage, a sand box adapted to contain a supply of molding mixture for application to the upper surface of said pattern, said sand box being normally disposed in laterally spaced relation to said carriage, means by which said sand box is moved into and out of position between said carriage and said mold curing oven and over a pattern mounted on said carriage, means by which said sand box is releasably clamped to said carriage for rotation therewith, means by which said curing oven is moved into and out of engagement with said carriage over and around a pattern mounted on said carriage, stripping mechanism mounted on said carriage by which a completed mold is stripped from said pattern, said sand box being divided into upper and lower compartments by a set of louvers, said upper compartment being adapted to contain a supply of molding mixture and said lower compartment being adapted to encompass a pattern mounted on said carriage, means by which said



louvers are opened when said box is in an upright position over said carriage and pattern to thereby dump molding mixture from said upper compartment onto said pattern, means by which said louvers are closed after said sand box has been rotated to inverted position with said carriage to thereby trap in said upper compartment the unbonded molding mixture which was returned to said upper compartment by the inverting of said sand box, the leading and trailing ends of the lower compartment of said sand box being provided with a pair of vertically slidable doors, and means by which said doors are maintained in lower closed position when said sand box is in engagement with said carriage and in upper oven position when said sand box is disposed in laterally spaced relation to said carriage.

2,867,868
DIE-CASTING MACHINES
Eric Kellett and Leslie William Chambers, Birmingham, England, assignors to The Birmingham Small Arms Company Limited, Birmingham, England
Application February 20, 1956, Serial No. 566,481
Claims priority, application Great Britain February 25, 1955
11 Claims. (Cl. 22—68)



1. A die-casting machine comprising two movable parts for carrying die members, with one of those movable

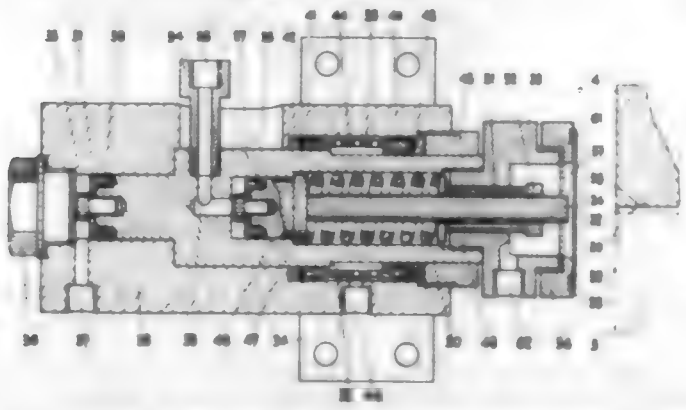
parts capable of a movement other than coaxially with the movement of the other, jacks operable by oil under pressure and in respective operative connection with said parts, electrically operated valves to control the supply of oil to the jacks, an electric switch adjustably disposed for operation by jack-effected movement of one of said parts to operate the valve supplying oil to the jack for the other of said parts, whereby both of the said parts may partake of their respective said movements simultaneously, control means to initiate the movement of the first mentioned of said parts by electric operation of the valve supplying oil to its jack, and an electric control system connected to said electrically operated valves and to said electric switch.

2,867,869

VENTING DEVICE FOR DIE CASTING MACHINES

Fritz Hodler, Territet, Switzerland

Application January 28, 1958, Serial No. 710,085
Claims priority, application Switzerland October 1, 1957
6 Claims. (Cl. 22—73)



1. A venting device for die casting apparatus of the type having a pair of relatively movable die elements having opposed die faces between which is formed a die cavity, at least one of said die faces having a channel therein for evacuating air and gases from the die cavity, comprising valve means secured to the die casting apparatus adjacent and spaced laterally from the die elements, said valve means having a longitudinally movable sleeve therein, means for moving said sleeve longitudinally to cause one end thereof to come into contact with both die elements about the orifice of the die face channel prior to the casting operation and for moving said sleeve away from the die elements when the injection of material into the die cavity is terminated, passage means within said movable sleeve adapted to be connected to a vacuum source for allowing air and gases to be evacuated from the die cavity when said sleeve is in contact with said die elements, and a valve element within said movable sleeve for closing the die channel at a predetermined time during the injection cycle to prevent ejection of material from the die cavity.

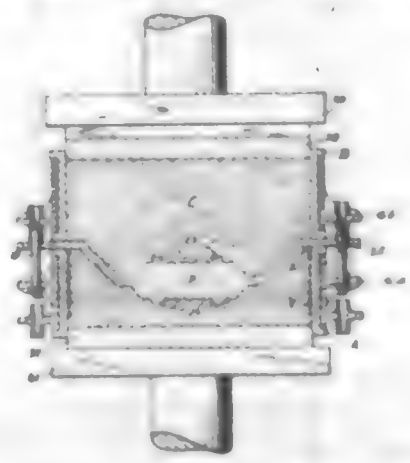
2,867,870

METHOD AND APPARATUS FOR MAKING SAND MOLDS FOR CASTINGS

Russell J. Hines, Lakewood, Ohio, assignor to The Hines Flask Company, Cleveland, Ohio, a corporation of Ohio

Application October 5, 1956, Serial No. 614,143
2 Claims. (Cl. 22—129)

1. A method of making a sand mold comprising, placing a first flask upon a pattern plate having a body portion with cope and drag forming portions thereon and having wings extending downwardly and outwardly substantially from the horizontal centerline of the body portion thereby positioning the body portion substantially within the flask, placing a band within the flask and resting it upon the pattern plate, whereby the band directly encircles the cope and drag forming portions of the plate, filling the flask with sand substantially to the top of the flask, placing a squeeze board within the flask and on top of the sand therein, whereby a portion of the board extends above the top of the flask, compacting the sand against the pattern plate, inverting the entire mold forming mechanism thus far assembled, placing a second flask on the inverted mechanism in aligned relationship therewith, filling the second flask with sand substantially to the top of the flask, placing a second squeeze board within the second flask and on top of the sand therein, whereby a portion of the second board projects above



the top of the second flask, compressing the sand between the squeeze boards, removing the second squeeze board, forming pouring and vent holes in the mold, removing the second flask with the cope forming portion of the sand therein from the pattern plate, removing the pattern plate from the first flask, replacing the second flask with the cope forming portion of the mold therein on top of the first flask to form a completed mold having a cavity therein, and removing both of the flasks from the mold, whereby the band remains embedded within the mold directly opposite the cavity.

2,867,871

HOT-TOP FOR INGOT MOLD

Harry D. Shephard, Jr., Pittsburgh, Pa., assignor to Foundry Services Incorporated, Columbus, Ohio, a corporation of New York

Application July 10, 1956, Serial No. 596,910
7 Claims. (Cl. 22—147)



2. In a hot-top for use on an ingot mold defining a mold cavity, the combination of a cast metal member having an inner wall defining a cavity therein, said hot-top cavity being smaller than the ingot mold cavity when the hot top is placed on the ingot mold so that said member overhangs the mold cavity, with a liner of moldable exothermically reacting material arranged within said hot top cavity and spaced from the wall thereof to define an annular space extending to the bottom of the hot top and opening into the mold cavity, said space being at least about 1/16 inch.

2,867,872

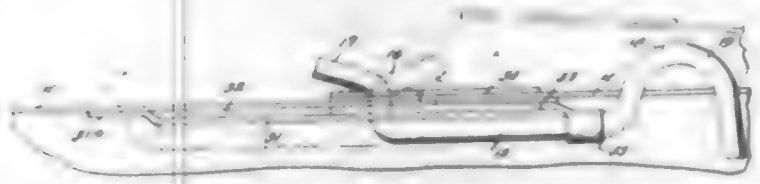
BALE TIE

Frank A. Teeple, Jr., Atlanta, Ga., assignor to Atlantic Steel Company, Atlanta, Ga., a corporation of Delaware

Application February 24, 1955, Serial No. 490,203
3 Claims. (Cl. 24—26)

1. A permanent bale tie comprising a bale band having a fastening hole at each end, a rod-like fastening

hook having an elongated central shank portion underlying the ends of said bale band and an upstanding neck at one end of the shank portion terminating in a forwardly and upwardly slanting hook end, said neck being permanently seated rotatably in the fastening hole at one end of said bale band and rotatably engageable in a fastening hole in the other end of the bale band, whereby when the fastening hook is turned to point said slanting end in one direction relatively to the bale band the engaged ends of the bale band are held together and when the fastening hook is turned to an opposite direction relatively to the bale band, said other end of the bale band



is disengaged and released from the fastening hook, and a handle formation on the other end of said shank portion extending above said bale band whereby the fastening hook may be turned to change the facing direction of said hook end, said bale tie including a retainer plate having a hole penetrated by said neck of the fastening hook and disposed intermediate the shank portion of the fastening hook and said one end of the bale band, retaining the fastening hook against dislodgement from said one end of the bale band, and means connecting said plate to the fastening hook for turning movement therewith.

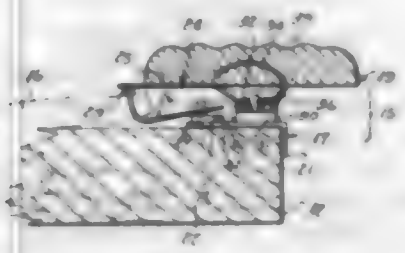
2,867,873

CURTAIN TIEBACK DEVICE

Samuel M. Scavetto, Garfield, N. J.

Application February 16, 1956, Serial No. 565,846

5 Claims. (Cl. 24—73)



1. A curtain tieback device comprising in combination, an attaching bracket having a flat portion adapted to be secured to the inner face of the frame of a window opening, a member sidewardly elongated toward the opening adapted to be connected to a curtain to be tied back, said member having a first generally flat portion nearest the opening, and a second portion inwardly offset from the first portion and generally parallel thereto, and a releasable snap fastener on the bracket and member for securing such parts together, said fastener comprising two confronting generally flat parts one of which is a male member having a stud normal to its main extent and the other is a female member receiving the stud, one of the fastener parts being mounted on the second portion of the elongated curtain-holding member.

2,867,874

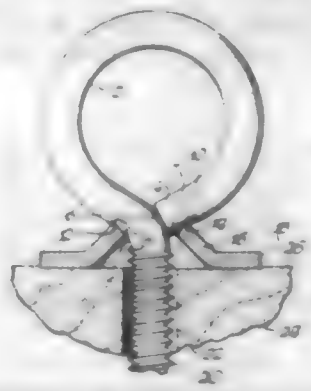
EYE BOLT AND WASHER MEANS PREVENTING DISPLACEMENT OF THE FREE END OF THE EYE

Charles O. Larson, Sterling, Ill.

Application October 7, 1953, Serial No. 384,630

2 Claims. (Cl. 24—115)

1. An anchorage device for use with a support having an opening therethrough comprising an elongated rigid shank, one end of said shank being shaped to form an eye with the free end of the shank turned back and abutting an intermediate portion of the shank at the point that said eye is joined to said shank, a washer having an outer plate-like portion merging into a central outstanding dome-like portion, said washer having a thickness to provide substantial rigidity for said dome-like portion, said dome-like portion having an aperture formed therein centrally thereof, said aperture having a diameter to receive said shank therethrough and less than said eye, the walls defining said aperture being disposed at acute angles to provide a relatively sharp outstanding arcuate edge to receive and abut against the adjacent surfaces of said eyes, the adjacent surfaces of said eye having a notch therein to receive said arcuate edge, the other end of said shank being threaded and extending through the opening in an



associated support with said washer and said eye disposed on one side of the associated support and said threaded shank end extending beyond the other side of the associated support, and a nut threaded on said threaded end to mount said shank and said washer on the associated support, said eye being turnable before tightening of said nut to any desired position relative to said washer and the associated support and after tightening of said nut being clamped in such position against turning and against opening, tightening of said nut clamping said eye against said dome-like portion of said washer whereby the free end of the shank forming said eye is securely anchored by said arcuate edge and held against movement away from the adjacent intermediate shank portion.

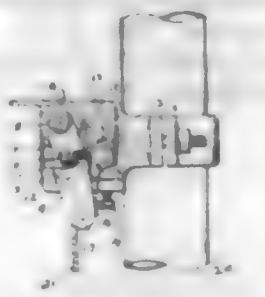
2,867,875

CABLE CLAMP

Lawrence L. Davison, Houston, Tex.

Application April 19, 1954, Serial No. 423,895

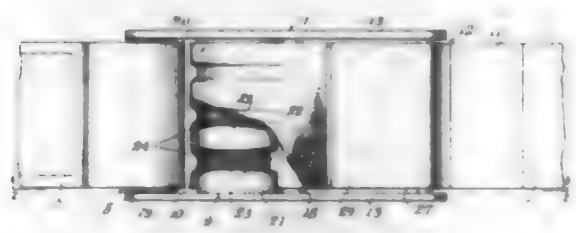
6 Claims. (Cl. 24—133)



6. In a line clamp, anchoring means having a lateral wall, a rotatable pulley mounted on said wall and a line mounted on said pulley and a depending lever loosely mounted on an extension of the axis of said pulley and movable in a clockwise and counter clockwise direction, a vertically reciprocable toothed jaw on said wall, said lever having a horizontal slot therein through which a stud is extended and mounted in said wall, a toothed pivotable jaw adapted to be moved toward and away from said reciprocable jaw loosely mounted on said stud, inwardly projecting upper and lower members on said lever, the lower member being positioned to have a line positioned on one side thereof and to move said lever toward the reciprocable jaw upon a pull on said line and the upper projecting member being positioned to contact one side of said pivotable jaw and move same into clamping relation with said reciprocable jaw, clamping the line be-

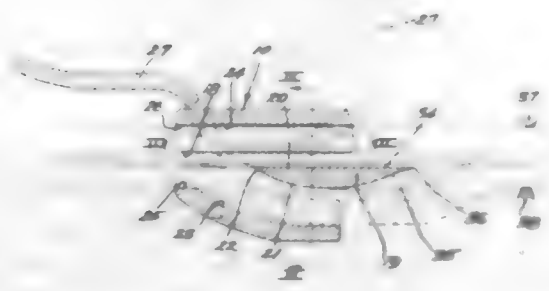
tween the jaws, said clamping action being releasable by disengaging said line from said lower projecting member and exerting a downward pull on said line and moving said lever in a reverse direction by bearing against said lower projecting member on the other side thereof causing the end of said slot in said lever to contact said stud and move said pivotable jaw away from said reciprocable jaw.

2,867,876
BUCKLE
Edwin C. Elsner, Glendale, and Ernest Prete, Jr., Los Angeles, Calif., assignors, by direct and mesne assignments, to Aeroquip Corporation, Jackson, Mich., a corporation of Michigan
Application January 25, 1954, Serial No. 405,757
5 Claims. (Cl. 24—168)



1. In a buckle for connecting the ends of a strap, a frame having sides between which said strap ends are disposed, a member spanning between the frame sides and to which one strap end is connected, a second and cylindrical member spanning between the frame sides adjacent the first member and over which the other strap end is trained in the form of a bight that terminates in a free end, said latter strap end being deformable, means to releasably clamp said free end to resist pull between the strip ends, and circumferentially arranged and transversely spaced means embodied in said cylindrical member to deform transversely spaced and circumferential portions of the strap bight outwardly from the in-between portions engaged by the cylindrical member, said latter means comprising projections on the cylindrical surface of said cylindrical member, said projections outwardly deforming the strap bight trained thereover under the mentioned pull.

2,867,877
SLIDER FOR SLIDE FASTENERS
Karel Jan Staller, Fairborn, Ohio, and Emil F. Svec, New York, N. Y., assignors to Flexigrip Inc., New York, N. Y., a corporation of New York
Application November 20, 1953, Serial No. 393,352
4 Claims. (Cl. 24—201)



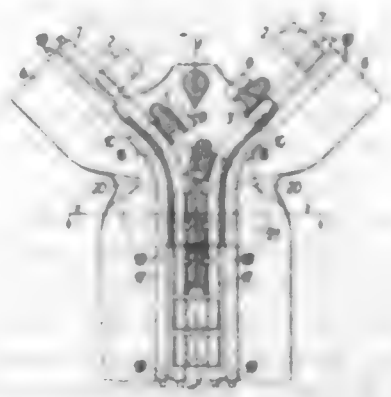
1. A slider having a straight slot and a curved slot in opposite sides thereof defining therebetween a connecting bridge having concave surfaces respectively parallel to said straight and curved slots and converging to a concave rearward edge, the rearward end portion of said curved slot being spaced forwardly from the rearward end portion of said straight slot, a handle on the same side of the slider as said straight slot, and a link pivotally connected to said handle and having ends projecting into said slots for sliding movement between points spaced forwardly and rearwardly of said rearward edge of said bridge.

2,867,878
SLIDE ACTUATED CLOSURE
Gideon Sundback, Meadville, Pa., assignor to Talon, Inc., a corporation of Pennsylvania
Application April 30, 1953, Serial No. 352,199
7 Claims. (Cl. 24—205)



1. In a slide fastener closure of the class described, a pair of stringers made of a plastic material, each stringer consisting of a longitudinally extending continuous length member having a series of opposed spaced-apart interlocking portions arranged therealong integrally connected together by relatively thin flexible portions, each of said interlocking portions having a substantially hook-shaped projection arranged on one side of the longitudinal medial plane thereof and extending outwardly from the inner edge thereof, a recess corresponding in shape to said projection arranged in each of said interlocking portions to one side of said projection and directly next thereto on the other side of the longitudinal medial plane of said interlocking portion, each of said recesses being open to that side of the interlocking portion in which it is arranged.

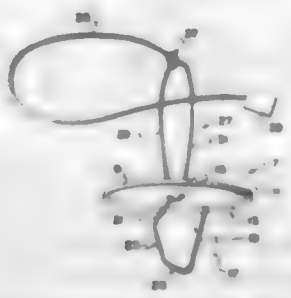
2,867,879
SLIDE FASTENER
Walter Urban and Georg Bohra, Vienna, Austria, assignors to Etablissement Atled, Vaduz, Liechtenstein, a corporation of Liechtenstein
Application November 24, 1954, Serial No. 471,007
Claims priority, application Austria November 27, 1953
6 Claims. (Cl. 24—205.13)



1. In a slide fastener the combination of two juxtaposed pieces of flexible sheet material having co-planar marginal zones, the marginal zone of each piece forming a longitudinal groove paralleling its edge, with a series of links alternately attached to the edge of a respective one of said pieces at a location beyond said groove and with a slide movable along said marginal zones for selectively closing or opening the fastener by aligning or disaligning said links with one another, said slide having two converging side portions each guided in the longitudinal groove of a respective one of said pieces, said side portions urging said links into mutual alignment upon movement of said slide in one direction, said slide further having a wedge portion intermediate said side portions adapted to separate said links upon movement

of said slide in opposite direction, said links having each a front end provided with a ball-shaped projection and a rear end formed with a socket adapted to receive the projection of an adjacent link in the aligned position thereof.

2,867,880
SLIDER PULL
Elsa A. O'Hanlon, Pacific, Mo.
Application January 20, 1955, Serial No. 483,056
2 Claims. (Cl. 24—205.15)



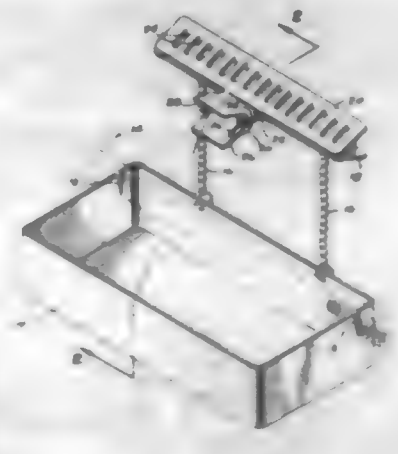
1. A slider pull adapted to operate a hookless fastener, said slider pull including a hook adapted to be detachably connected to the tab of a slider of a hookless fastener, a handle for said hook, a rigid disc, said hook and handle being connected to said rigid disc and extending therethrough in substantially perpendicular relation with respect to the plan dimension of the disc, and the hook having a maximum width less than the diameter of the disc to thereby prevent the hook from coming into contact with parts of the hookless fastener other than the tab thereof, said hook and handle being adjustably connected to said disc for projection of the hook from the disc in position for its connection to the tab and retraction of the hook toward and adjacent the disc, said handle and said disc constantly biasing said hook into retracted position, and said handle adapted to be connected to a cord for grasping by the user of the slider pull to impart a pulling force on the hook to actuate the slider.

2,867,881
JAM-FREEING SLIDER FOR SEPARABLE FASTENERS
Louis H. Morin, Bronx, N. Y.
Application March 16, 1955, Serial No. 494,781
13 Claims. (Cl. 24—205.15)



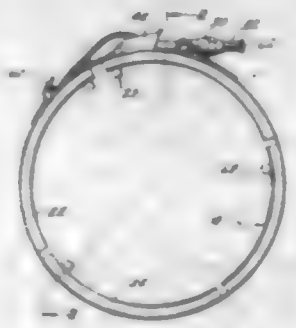
1. A jam-freeing slider for separable fastener stringers, said slider comprising a top wall part having an integral web at one end, an elongated bar member protruding from said web and arranged in spaced relation to said top wall part, a bottom wall part apertured to receive said bar member, means for yieldably coupling said bottom wall part with the top wall part, said means including a plate fixed to said bar member, said bar member having a T-shaped projecting stabilizing member, and said bottom wall part having a recess, snugly, but freely, receiving said stabilizing member in maintaining alinement of the wall parts one with respect to the other in the use of said slider.

2,867,882
CLIP-ON HAIR PIN TRAY
Nada Moore, Bessemer, Pa.
Application September 3, 1954, Serial No. 453,984
1 Claim. (Cl. 24—253)



In a clip for securing an article to a garment, elongated upper and lower flat plates in coextensive and superimposed relation, said plates having first and second longitudinal edges, handle portions projecting from said first edges intermediate the ends thereof, means on the intermediate portions of the handle portions hingedly connecting the plates together for movement about an axis parallel to their lengths and yieldably urging the plates to close toward each other, said plate having facing sides, and longitudinal rows of teeth struck out of said plates adjacent said second longitudinal edges so as to extend toward each other from the facing sides of the plates, said handle portions being angulated relative to the plates and having inner ends arranged to engage each other at said first longitudinal edges in the closed position of the plates so as to limit closure of said plates to positions thereof wherein said facing sides diverge from said engaging inner ends of the handle portions, said teeth being spaced from each other in the rows, and the teeth of the several plates being staggered relative to each other, with the teeth of one row being positioned to engage between teeth of the other row, the teeth of the two rows having free ends arranged to be stopped in spaced relation to the facing sides of the plates by the engagement of the inner ends of the handle portions.

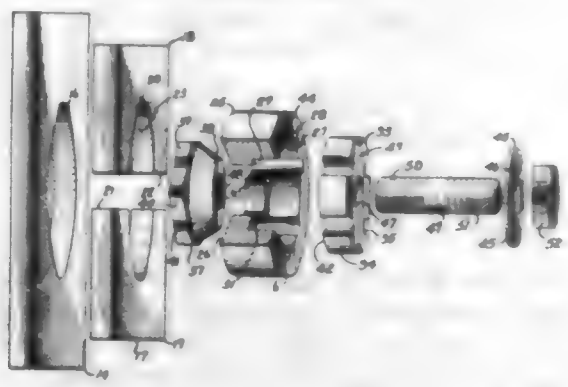
2,867,883
CLAMP
Howard A. Talmadge, Granville, Mass., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application April 19, 1956, Serial No. 579,303
10 Claims. (Cl. 24—279)



3. A clamp comprising an encircling band, an abutment secured to one end of said band, a hinged abutment secured to the other end of said band, contractable means connecting said abutments to draw said abutments together to tighten said band, the walls of said hinged abutment defining an aperture through which the adjacent end of said contractable means may pass upon movement of said abutment about its hinge, and an extension of said contractable means connected to said adjacent end pass-

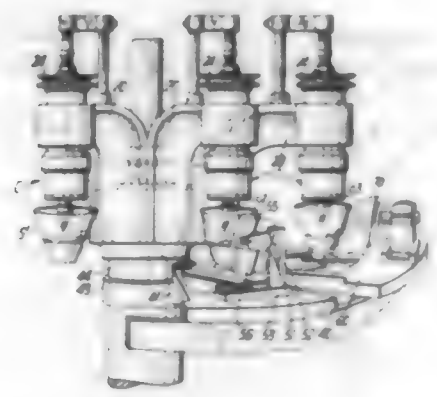
ing through said aperture and including a stop on said extension spaced from said adjacent end and too big to pass through said aperture.

2,867,884
POST-TENSIONED ANCHOR DEVICE
Fred H. Brandt, Kansas City, Mo., assignor to Prestressing, Incorporated, San Antonio, Tex., a corporation of Texas
Application September 7, 1954, Serial No. 454,562
4 Claims. (Cl. 25—1)



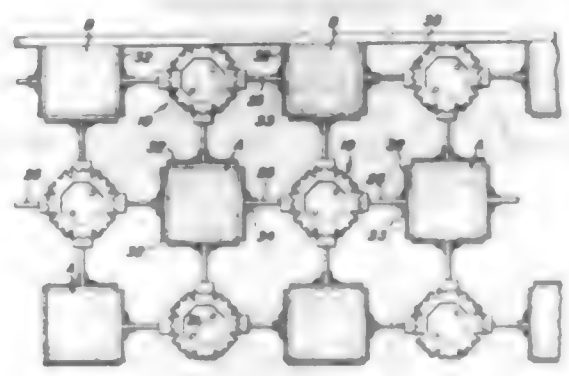
1. An anchor for reinforcing members having nodules on an end thereof, said anchor including a collar member having longitudinal grooves for accommodating the reinforcing members, a core member having seated support in the collar member for retaining the reinforcing members in said grooves, a complimentary core member engaging the collar member in opposite relation with the first named core member, said complimentary core member having a threaded axial opening registering with an axial opening in said other core member, an externally threaded nipple having one end engaging the threads of the complimentary core member and extending through the opening of said other core member, and a nut on the nipple engaging said other core member to draw said members together for retaining the reinforcing members in said grooves.

2,867,885
TURNING MACHINES
Maurice W. Abberley, Samuel T. Parker, and Arthur G. Ellis, Stoke-on-Trent, England
Application August 6, 1954, Serial No. 448,322
5 Claims. (Cl. 25—24)



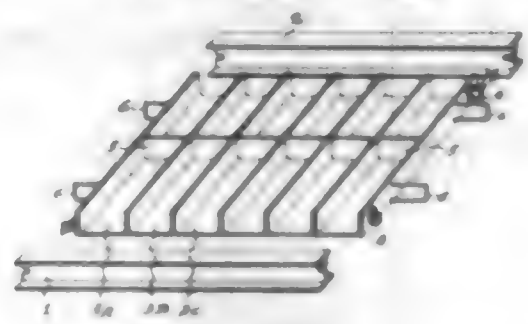
1. A machine for turning articles of clayware comprising a chuck for supporting the article, means for rotating the chuck, a tool mechanism including a profiled turning tool located at an angle to the axis of rotation of the article and to the line of advancement of said tool, and means for moving the tool mechanism in a curved path so that the turning tool travels in a curved path and tangentially relative to the surface of the article and progressively engages the article initially at one part of its height and successively thereafter engages other parts along its height whereby the surface of the article is progressively turned.

2,867,886
PAVING APPARATUS
Walter F. Benson, Great Falls, Mont.
Application May 19, 1958, Serial No. 736,362
12 Claims. (Cl. 25—118)



1. For use in laying concrete platforms and the like on a horizontal surface, a molding unit comprising a polygonal horizontal body adapted to rest on said surface, an arm projecting from one side of said body, a molding plate carried by the end of said arm remote from said body, said body and said plate being of the same height, whereby, when they rest on a flat surface, the tops thereof lie in a common plane, said side of said body and the adjacent end of said arm being provided with coacting detachable connecting elements, such elements being identical at each side of said body whereby, when said unit is in a predetermined place and said plate has been used in the formation of a concrete element at the side thereof remote from said body, said arm may be disconnected from one side of said body and moved and connected to another side thereof for re-use of said plate in a molding operation without moving said body.

2,867,887
MOULD
Edward Bevan Ratcliffe, Hamilton, Ontario, Canada, assignor to Angelstone Limited, Hamilton, Ontario, Canada
Application April 24, 1956, Serial No. 580,234
2 Claims. (Cl. 25—119)

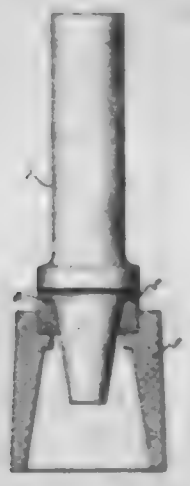


1. A multi-compartment concrete and cast stone block mould comprising a plurality of channels firmly joined together at their sides providing thereby a unitary structure, the properties and dimensions of the channels being such as to provide thereby a flexible bottom for said unitary structure, a plurality of transverse dividers, located in said channels said dividers being of such dimensions as to fit firmly in the channels and being affixed to the channels only at the bottom thereof, and removable end members adapted to seal the ends of said unitary structure.

2,867,888
METHOD OF FIRING ALUMINA CERAMICS
Carl F. Schaefer, Flint, and Karl Schwartzwalder, Holly, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 3, 1955, Serial No. 479,482
3 Claims. (Cl. 25—157)

1. A method for firing a ceramic body of the type containing at least about 90% alumina and requiring a firing

temperature on the order of at least about 3100° F., said method comprising the steps of supporting said body on a sintered mass consisting essentially of from 80% to



90% alumina and the balance zirconia, substantially all of the alumina in said mass having a grain size prior to sintering not greater than 100 mesh, and firing said body while so supported.

2,867,859

MOLDED FABRIC AND BRASSIERE CONSTRUCTION AND METHOD OF MAKING THE SAME

Wirt L. Thompson, Jr., Fairfield, Conn.

Application November 23, 1956, Serial No. 623,869
22 Claims. (Cl. 28—72)



8. In a method of making a brassiere cup, the steps of weaving a flat fabric composed, over the area which is to be the cup, of a plurality of rows of warp yarns comprised successively of thermosetting plastic yarns drawn to different degrees, the warp yarns passing adjacent the margins of the area being fully drawn and those passing through the center being partially drawn, and a plurality of rows of filling yarns interlaced with the warp yarns, successive rows being formed of thermosetting yarns drawn to different degrees, the yarn of the rows adjacent the center being partially drawn, molding the fabric into a three-dimensional cup shape to stretch the partially drawn yarns, and heat setting the molded shape.

2,867,890

METHOD OF MAKING DECORATIVE MATERIAL

Edna Florence Baxter, Cambridge, England

Application November 29, 1956, Serial No. 625,185
Claims priority, application Great Britain
November 30, 1955
11 Claims. (Cl. 28—72)



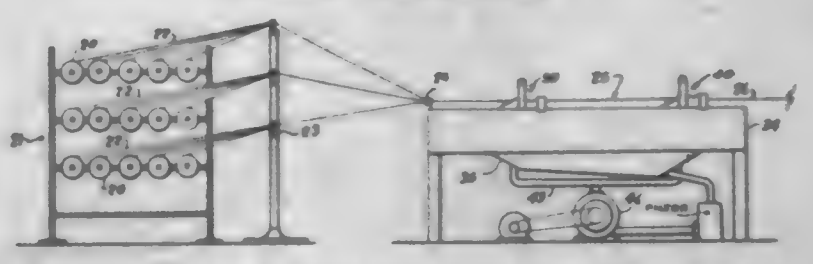
1. A method of shaping a synthetic plastic material, which comprises forming an elongated strip of thin material to present a continuous portion extending along the length of the strip and a series of discrete individually movable portions extending from said continuous portion at a substantial angle thereto, twisting said continuous portion approximately about its longitudinal axis, and setting the said portion in its twisted form.

2,867,891

PROCESS FOR MANUFACTURE OF COATED FILAMENTARY MATERIAL

Richard C. Horton and William H. Miller, Pawtucket, R. I., and William Kenneth Lydic, Attleboro, Mass., assignors to Owens-Corning Fiberglas Corporation, a corporation of Delaware

Application March 11, 1954, Serial No. 415,584
1 Claim. (Cl. 28—73)



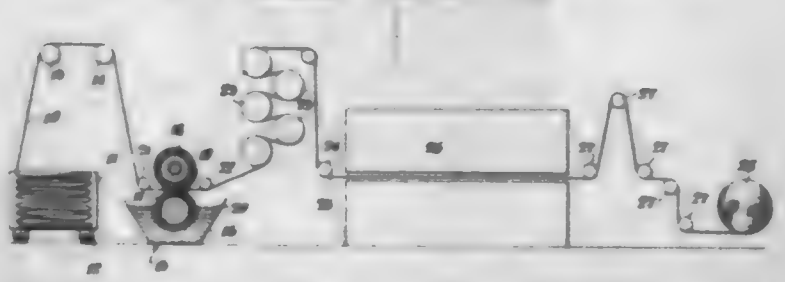
A method for making an open mesh glass fiber material suitable for screening and the like, and having precoated temperature and moisture resistant thermoplastic coated glass fiber elements, said method comprising weaving said elements into an open mesh fabric of spaced warp and spaced weft strands with the strands thereof in surface contact at their points of intersection, moving said fabric continuously through a zone having a temperature sufficiently high and at a rate sufficiently slow, for fusing said thermoplastic coatings for fusing the coating of said warp and weft strands to each other at their points of intersection for securing said strands together at such points.

2,867,892

RESIN PRE-TREATMENT OF PLISSE FABRICS

Joseph W. Houth, New York, N. Y., assignor to United Merchants and Manufacturers, Inc., New York, N. Y., a corporation of Delaware

Application October 21, 1954, Serial No. 463,712
2 Claims. (Cl. 28—74)



1. Method of forming permanent plisse effects in cellulosic fabrics which includes the steps of applying to the fabric a resin shrinkage stabilizer, and subsequently subjecting the fabric to widthwise tension, relaxing the widthwise tension to which the fabric has been subjected and subjecting the same to lengthwise tension, penetrating only selected portions of the fabric with a shrinking agent while keeping the fabric still under lengthwise tension, slackening the lengthwise tension on the fabric while allowing the shrinking agent to continue its penetration, and subsequently removing the shrinking agent from the fabric while the fabric remains in a slackened condition, and maintaining the fabric in a state of relaxed widthwise tension without framing.

2,867,893

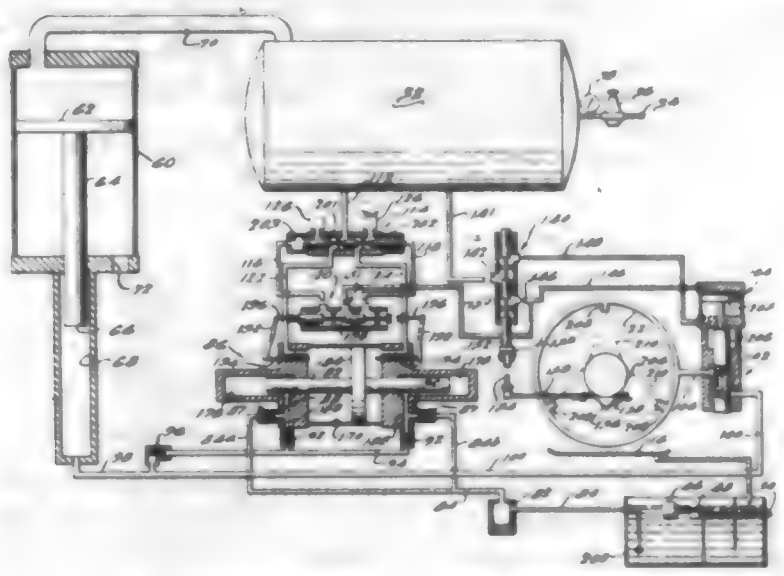
DESCALING APPARATUS FOR FORGING INGOTS

Arne O. Andreen, Lansing, and Forrest A. Reinhart, Dearborn, Mich.

Application September 1, 1955, Serial No. 531,928
7 Claims. (Cl. 29—81)

1. An apparatus for descaling hot metal comprising means for spraying high pressure water over the surface

of the said hot metal, a ram and a ram cylinder for supplying water at said high pressure to said spraying means, said ram being movable between two extreme positions, an actuating piston attached to said ram, an accumulator vessel for maintaining a substantially constant pressure of a compressible operating fluid on said actuating piston



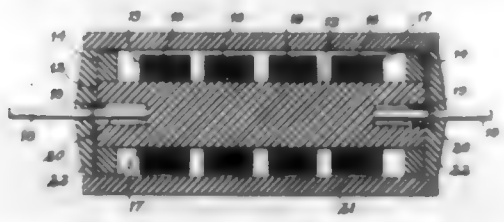
during movement of said ram between said positions, means for supplying water to said ram cylinder at a pressure sufficient to overcome said constant pressure, and valving means for releasing water from said ram cylinder to said spraying means.

2,867,854

MAGNETICALLY ENCLOSED COIL

Lester E. Hill, Nashville, Tenn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois

Application November 29, 1954, Serial No. 471,780
6 Claims. (Cl. 29—155.56)



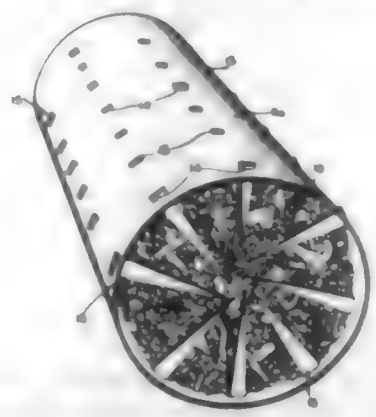
1. A method of making a magnetically enclosed coil, said method comprising molding finely divided magnetic ferrite material with a resinous binder into a rod-like cylindrical core having axial recesses in its opposite ends, firing said core to a temperature in excess of 2000 degrees Fahrenheit but less than 2350 degrees Fahrenheit, molding finely divided magnetic ferrite material with a resinous binder into a pair of apertured disks, each of said disks having an aperture therein of a size substantially the same as the ends of said fired core to make a close slip fit thereover, slipping said disks over the ends of said core, shrinking said disks onto said core by refiring said core and said mounted disks to a temperature of about 2350 degrees Fahrenheit, molding finely divided magnetic ferrite material with a resinous binder into a cylindrical sleeve, firing said sleeve, winding wire in a coil on said core, inserting end leads into said recesses, connecting the ends of said wire to said end leads, flowing solder into said recesses to anchor said leads, mounting said sleeve around said winding, core and disks, flowing finely divided magnetic ferrite material with a polyester resinous binder into the ends of said sleeve over and around said disks to seal in said winding and form magnetic bridges between said sleeve and said disks, and curing said polyester binder at a temperature of about 125 degrees centigrade.

2,867,855

TITANIUM SCRAP RECOVERY AND ELECTRODE MANUFACTURE

William Howell, Warren, and Richard M. Scriver, North Jackson, Ohio, assignors to Mallory-Sharon Metals Corporation, a corporation of Delaware

Application August 19, 1955, Serial No. 529,517
2 Claims. (Cl. 29—184)



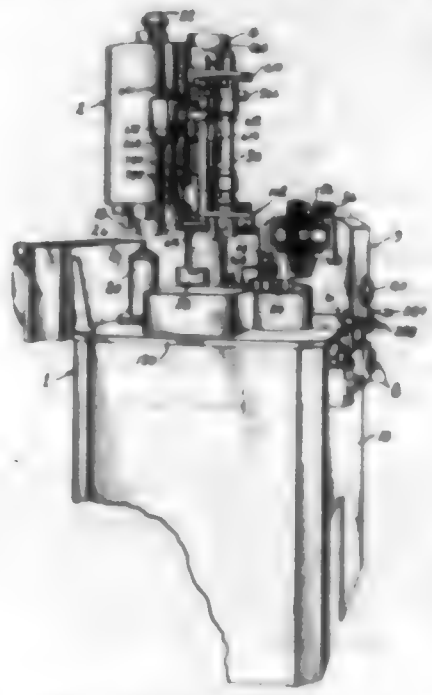
1. The method of making a consumable electrode for the production of titanium ingots from titanium scrap, including the steps of providing an elongated sheet metal container having a closed lower end and an open upper end, cutting slots around all sides of the container from one end thereof to the other, packing the container with pieces of titanium scrap material of various shapes, sizes and character including sheet and plate shearings and punchings, chips and skulls, substantially entirely filling the container from the lower closed end to the upper open end thereof, and inserting substantially triangular spikes of titanium sheet and plate material through said slots radially of the container into the mass of scrap material to substantially the center thereof, throughout the length of the container, whereby said spikes lie in radial lines of the container and emanate substantially from a center.

2,867,896

COIL INSERTING MACHINE FOR ARMATURES

Washington J. Caldwell, Toledo, Ohio

Application February 9, 1954, Serial No. 409,078
14 Claims. (Cl. 29—205)



1. In an assembling machine for positioning the inner side of a coil in the slots of an armature, a magazine member for substantially identical pre-wound coils consisting of a holding frame open at one end to allow removal of coils, spring-biased means to urge the coils along the frame toward its open end, retaining means capable of being released to hold the coils adjacent the open end of the frame, holding means to grasp a single

coil at the open end of the frame when the retaining means is momentarily released, a second resilient holding means, means to advance the first holding means forwardly to position the coil just grasped into the second holding means, means to advance the second holding means into the locus of the armature, means to slide the coil from the second holding means to position the coil into a slot of the armature, means to cause sequential rotation of the armature to present the slots one after another, and automatic means to cause sequential operation of the various means whereby the coils are positioned individually in the slots of the armature.

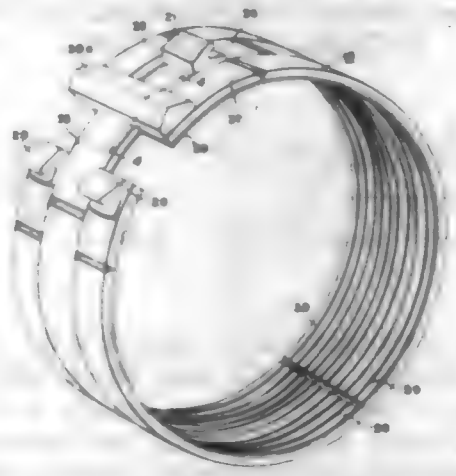
2,867,897
CUTTING PROCESS OF OIL-FILLED ELECTRIC CABLES
Luigi Emanueli, Milan, Italy, assignor to Pirelli Societa per Azioni, Milan, Italy, a corporation of Italy
Application February 1, 1954, Serial No. 407,193
Claims priority, application Italy February 5, 1953
7 Claims. (Cl. 29—401)



6. A process for cutting and sealing an oil-filled electric cable under pressure having the purpose of avoiding air introduction into the oil duct or ducts of a cable laying on whatever slope which comprises the following operations: cutting the cable by means of a thin saw having its blade a little wider than the diameter of the cable, maintaining the saw always parallel to a stated direction during the cutting in order to prevent air from entering the kerf below the blade and at the same time maintaining the two cable sections, that are obtained in cutting the cable, in close contact with the saw blade; introducing into the kerf formed by the blade, to close it, during the extraction of the blade and without removing said sections, two sheets of a thick, slightly permeable cloth which, after the blade has left the cut, are each bent over a cable end to form a hood and are bound around said cable end; separating the ends of the two cable sections from one another; closing the ducts by forcing bored tapered pins into the respective ducts by piercing the hood, then inserting temporary bore closing caps into the heads of the respective pins; and removing the cloth hoods when the operation is over.

2,867,898
METHOD OF MANUFACTURING A BRAKE BAND
Edward J. Voster and Harold W. Schultz, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 28, 1954, Serial No. 439,578
10 Claims. (Cl. 29—416)

1. The method of manufacturing a brake band adapted for double encirclement of a drum in the same direction of rotation wherein the band includes a cylindrical central ribbon disposed between coextensively extending cylindrical outer ribbons with one end of the central ribbon unitized with one side of an inflexible connecting bar and the opposite side of the central ribbon disconnected from the bar and one end of each of the outer ribbons unitized with the side of the bar from which the central ribbon is disconnected and the opposite end disconnected from the side of the bar with which the central ribbon is connected, said method comprising, arranging a metal strap into a substantially cylindrical form having an open segment, bonding into the so formed strap and in the open segment thereof a segment having a bar-like portion disposed transversely of the strap with a part of the bar-like portion extending substantially above the outer peripheral surface of the strap, effecting an opening through the strap on one side of the said bar-like portion with the ends of the opening terminating inwardly of opposite edges of the strap, effecting other openings through the strap on the opposite side



of the said bar-like portion extending inwardly from each of opposite edges of the strap with the inner ends of the respective openings disposed substantially in linear alignment with the respective opposite ends of the first mentioned opening, and severing the strap longitudinally around its periphery linearly with each of the ends of said first mentioned opening and with the respective linearly aligned ends of the second mentioned openings from the said first opening to the said second openings whereby to form a central circular ribbon connected at one end only to one side of the bar-like portion and outer ribbons each connected at one end only to the opposite side of the bar-like portion.

2,867,855
METHOD OF SOLDERING GERMANIUM DIODES
Bernard Jacobs, Clifton, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
No Drawing. Application June 26, 1953
Serial No. 364,496
2 Claims. (Cl. 29—494)

1. A method of soldering an electrode to a semiconductor element, comprising melting solder in an inert atmosphere to prevent oxidation of the solder, floating the semi-conductor element on said molten solder, removing the semi-conductor element from the molten solder whereby a thin layer of solder is adhered thereto, mounting the electrode on said thin layer, and melting said thin layer to bond the electrode thereto.

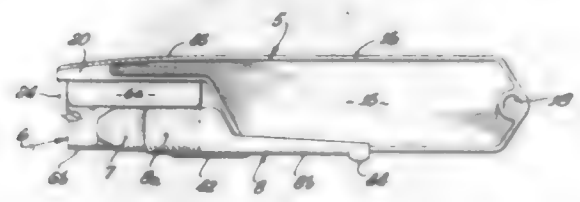
2,867,900
SPURT SHIELD FOR CAN OPENERS
Charles A. Hanington, Freeport, N. Y.
Application August 2, 1957, Serial No. 676,822
3 Claims. (Cl. 30—16)



1. A spurt shield, adapted to be mounted on a can opener having a body bent and shaped to provide a sharp end for piercing the top of a can and a portion punched

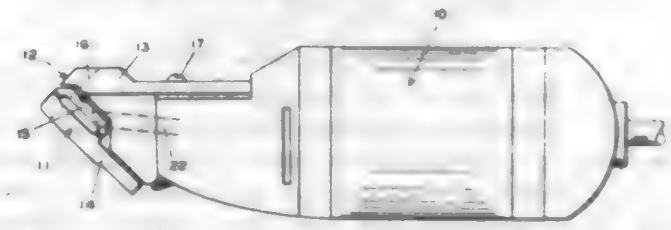
out of said body adjacent said bend to provide an opening and a can bead engaging hook constituting a fulcrum for the opener, said shield comprising a shank portion of flexible material, hook means for securing said shank portion to the opener, a cupped end on said shank portion dimensioned to overlie said sharp end of the opener and a can opening made thereby, and means engaging the opener for resisting the upward flexing movement of said cupped end with respect to the piercing end of said opener.

2,867,901
CUTTER
Frederick E. Warnes, Anaheim, Calif.
Application January 14, 1958, Serial No. 708,850
2 Claims. (Cl. 30—151)



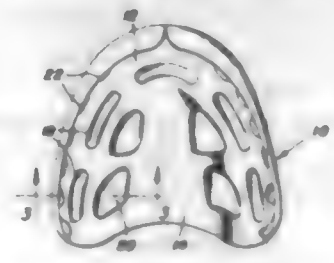
1. A cutter comprising an elongated body whose inner end portion provides a handle and whose outer end portions defining a laterally opening recess, a flexible cutting blade mounted in said recess, said recess having a length substantially equal the length of said blade whereby the body portions defining the ends of said recess provide end abutments for said blade, a blade retaining plate carried by said body in position opposed to and spaced from the portion of said body which defines the bottom of said recess, said plate being of a length and width less than the length and width of said recess whereby to enable said blade to be flexed into and out of said recess, and the bottom outer end portion of said body being cut away to expose a portion of the cutting edge of said blade, and guard means slidably carried by said body for movement into and out of shielding relationship to said exposed portion of the cutting edge of said blade.

2,867,902
POWER DRIVEN HAIR CLIPPER
Erny W. Groves, Athens, Ohio, assignor of one-half to Wade Tom, Athens, Ohio
Application April 8, 1958, Serial No. 727,052
3 Claims. (Cl. 30—200)



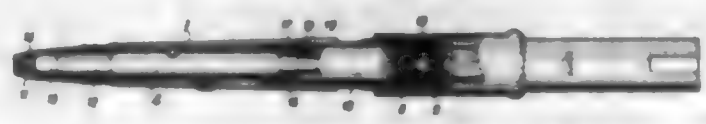
1. A hair clipper comprising a cutting head composed of relatively movable cutting members, said cutting members having blunt outer surfaces which cooperate to form a flat bearing surface for contacting with the hair, said members having cutting grooves formed therein which cooperate to provide grooves extending from the leading to the trailing edge of the head for receiving the hair when the bearing surface of the cutting head bears against the hair on a person's head with the hair extending longitudinally therethrough, said cutting members comprising two fixed comb members with an oscillatable cutting member disposed therebetween, all of said cutting members having the blunt outer surfaces which cooperate to form the flat bearing surface, all of said members having the cutting grooves formed therein which extend from the leading edge to the trailing edge of the cutting head.

2,867,903
MEANS FOR HOLDING DENTURES IN PLACE
Roy E. Hedges, Imperial, Nebr., assignor of fifty percent to Melvin L. Bonner, Imperial, Nebr.
Application July 29, 1957, Serial No. 674,916
1 Claim. (Cl. 32—3)



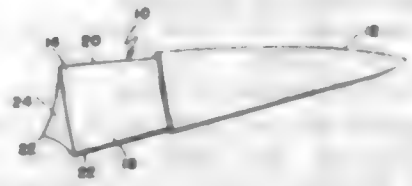
In a denture plate having a channel portion corresponding in shape longitudinally to the alveolar ridge of a mouth and a distal ridge bounding said channel portion, a plurality of elongated recesses in the bottom of said channel portion extending in end-to-end spaced apart relation in said channel portion longitudinally thereof, and a plurality of recesses in said ridge facing said channel portion and spaced apart longitudinally of said channel portion in staggered relation to the first named recesses, said recesses forming closely spaced separate suction cups for retaining the plate in place against the alveolar ridge of a mouth.

2,867,904
DRILLING OR GRINDING TOOLS, MORE PARTICULARLY FOR DENTAL PURPOSES
Erich Hoffmeister, Biberach-Riss, Germany
Application May 19, 1955, Serial No. 509,585
Claims priority, application Germany January 20, 1955
7 Claims. (Cl. 32—26)



1. A hand piece, more particularly for dental purposes, comprising in combination, an outer sheath, a hand piece point on said sheath, a spindle sleeve within said outer sheath and extending into the hand piece point, said spindle sleeve having a flat forward end face and a bearing cone and the hand piece point having a cone bearing for co-operation with said bearing cone to support the spindle sleeve within the outer sheath and hand piece point, an axially adjustable thrust bearing ring screwed into the hand piece point for co-operation with the flat forward end face of the spindle sleeve and an adjusting sleeve displaceable within the outer sheath for axially adjusting the spindle sleeve to cause the flat forward end face of the spindle sleeve to bear against the rear end of said thrust bearing ring.

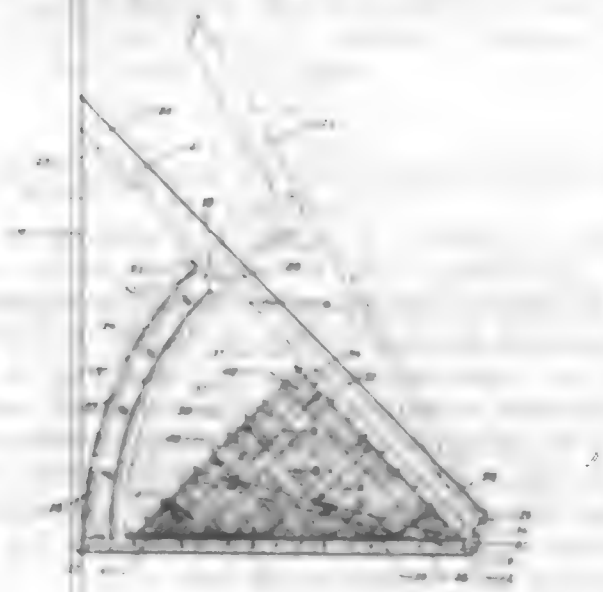
2,867,905
DENTAL WEDGE
Douglas G. Meacham, Seattle, Wash.
Application June 1, 1953, Serial No. 358,639
1 Claim. (Cl. 32—63)



In a dental wedge, an elongated body of hard slightly compressible material tapering throughout its length from a butt end to a pointed end, said body being adapted to swell slightly when moistened and having a generally triangular cross sectional configuration with the entire

width of each side face concave slightly in relation to its thickness, said body being formed so as to fit tightly in the space between a matrix on one tooth and an adjacent tooth so as to temporarily spread the teeth to securely retain the matrix in tooth filling position and a plastic coating fitted upon said body extending longitudinally from the pointed end and of a material fusible at a comparatively low temperature to tightly retain the wedge in position and to enable fusion of more than one wedge in a space of greater width than one wedge.

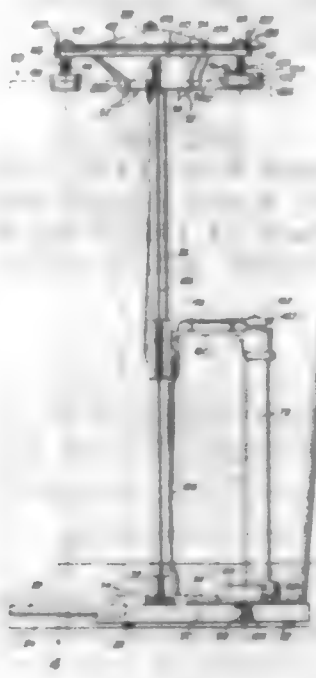
2,867,906
GRAPHICAL INSTRUMENT
Koung-Shin Lee, Forest Hills, N. Y.
Application November 1, 1954, Serial No. 466,032
1 Claim. (Cl. 33—93)



A drafting instrument comprising a 45° right isosceles triangular base plate, a sectoral frame having a curved portion and two straight sides disposed at 45° relative to one another and meeting at a vertex, said frame pivotally attached at said vertex to a corner portion of one of the acute angles of said base plate in overlying relation to the same to provide an axis of rotation for said frame relative to said base, a straight edge member attached along one of said sides of said frame, said member movable into limiting contact along its length with the hypotenuse of said base plate, a smaller similar 45° right isosceles triangular graph-ruled area on said base plate having one of its acute angled vertices located at said axis and having its hypotenuse disposed parallel to the equal side of said base plate adjacent said axis, and the equal side of the area coincident with said axis disposed parallel to the hypotenuse of said base plate, decimal indicia marked along the equal sides of said area, corresponding indicia marked along the other of said sides of said frame, angular indicia along said curved portion of said frame marked off in actual and complementary degrees, and an index mark on said base plate adjacent the rotational path of said curved portion of said frame to indicate on said angular indicia the angular setting of said straight edge relative to said equal side of said base plate adjacent said axis.

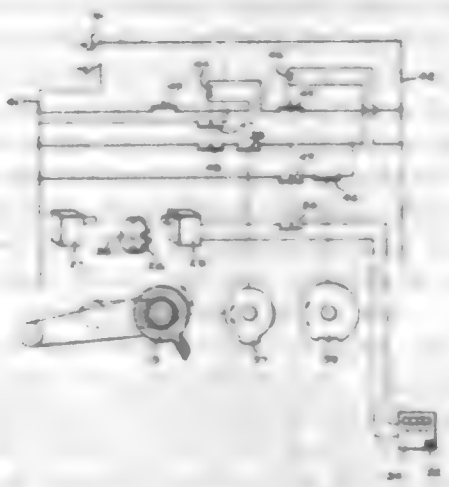
2,867,907
PORTABLE LINOLEUM MEASURING AND CUTTING DEVICE
Rudolph J. Gerber, Beechhurst, N. Y., assignor, by mesne assignments, to Richard K. Bernstein, New York, N. Y., Alfred J. Bernstein and A. M. Bernstein, both of Trenton, N. J.
Application April 26, 1955, Serial No. 503,882
17 Claims. (Cl. 33—130)

9. A dispensing device for rolling, measuring and severing flexible floor covering material or the like from a rotatable stock roll, comprising rotatable take-up means positionable adjacent the stock roll; said take-up means being provided with means for gripping the leading edge of said material; means for rotating said take-up means for withdrawing said material from the stock roll and forming it into a second roll; metering means for measuring and indicating the length of material withdrawn from the stock roll, said metering means having a friction operating wheel disposed adjacent the path of said material between the stock roll and said take-up means for



engaging one surface of said material; cutting means for severing the withdrawn material from the stock roll when a desired length has been withdrawn, said cutting means being mounted for guided traversal of the width of the material along a line intersecting the point of contact between said friction wheel and the surface of said material; means for disengaging said friction wheel from the surface of said material to permit passage of said cutting means; and means for removing said second roll of the material from the take-up means.

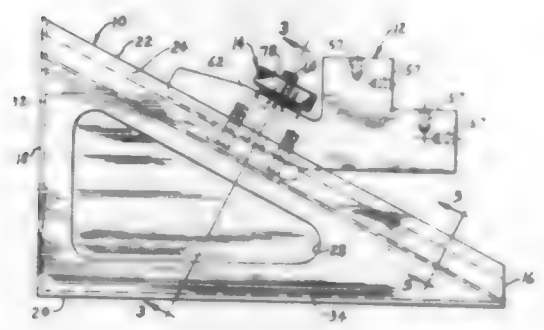
2,867,988
APPARATUS FOR MEASURING SHEARED LENGTHS
Edmund S. Murrah, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts
Application October 9, 1953, Serial No. 385,112
6 Claims. (Cl. 33—141)



1. An apparatus for measuring lengths of rolling mill product resulting from the cutting action of a shear comprising a measuring roll arranged to contact and be driven by the product, a pulse generator including a rotatable disk having apertures regularly arranged about the axis of rotation connected to the roll to produce electrical

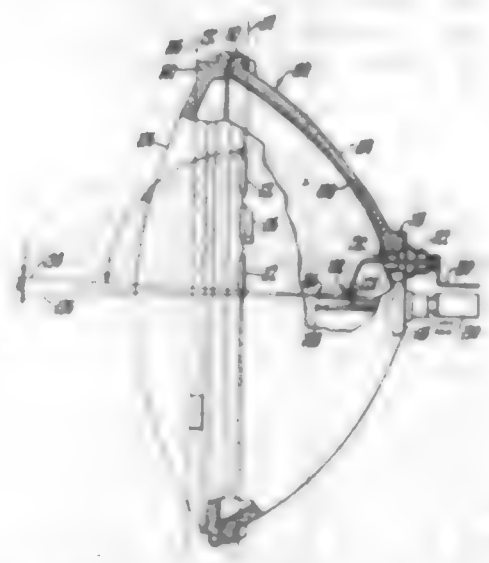
pulses in accordance with the rotation of the roll, an electronic pulse counter electrically connected to the generator for indicating the total number of pulses received therefrom, switches connected to the shear and interposed between the generator and the counter for limiting the transmission of pulses from the generator to the counter to the time interval between two consecutive cutting instants, a normally-open starter switch circuit interposed between the generator and the counter, a holding circuit for maintaining the starter switch circuit in closed condition, and cam-actuated switch means for rendering the holding circuit inoperative at the second of the said cutting instants.

2,867,909
PRECISION PARALLEL GAUGE
Karl L. Keller, Detroit, Mich.
Application March 23, 1955, Serial No. 496,103
2 Claims. (Cl. 33—162)



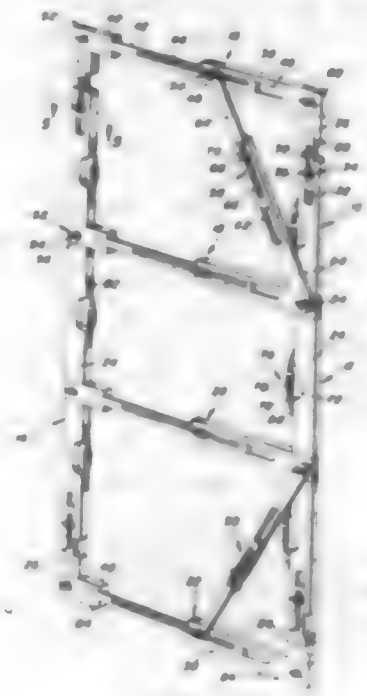
1. A precision parallel gauge of the class described, comprising: a base member made from a single solid piece of material; said base member having a horizontal bottom surface and two vertical end surfaces perpendicular to said bottom surface; one of said end surfaces being longer than the other end surface; a downwardly sloping upper surface connecting said end surfaces; said upper sloping surface being provided with an inverted T-slot; a slide movably mounted on said upper sloping surface; said slide including a tail portion adapted to slidably engage the upper sloping surface and being provided with a downwardly extended portion which is adapted to extend into the leg of said T-slot; said slide further including an integral horizontal leg extending outwardly from the lower end of said tail portion in the vertical plane of the base member and being parallel to the horizontal bottom surface and perpendicular to the end surfaces of the base member, and an integral vertical leg extending outwardly from the lower end of said tail portion in the vertical plane of the base member and being perpendicular to the horizontal bottom surface and parallel to the vertical end surfaces of the base member; each of said horizontal and vertical legs being provided with a horizontal face and a vertical face having tapped holes therein for securing a tool to said faces; an aperture extending through said tail portion and communicating with said T-slot; a lock screw slidably mounted in said aperture and being provided with an enlarged head on the lower end thereof which is slidably mounted in the head portion of said T-slot; a pair of spaced apart guide pins fixedly mounted in the head of said screw and extending upwardly therefrom; a pair of spaced apart apertures in the lower surface of said downwardly extended portion of the tail portion; a spring in each of said last mentioned apertures; said guide pins being adapted to be slidably engaged in said last mentioned apertures and abut against the springs therein; a recess in the upper surface of said tail portion surrounding the aperture through the tail portion; a set of swivel washers mounted on the upper end of said lock screw; the lower one of said washers being seated in said recess; and, a lock nut threadably mounted on the upper end of said lock screw.

2,867,910
PROJECTION LAMP AIMING
Robert N. Faige, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 29, 1955, Serial No. 531,035
12 Claims. (Cl. 33—180)



1. An aiming instrument comprising a support member having a plurality of spaced seating elements terminating in a common plane, a reference arm on the support member extending at a predetermined angle with respect to said plane, an aiming element pivotally mounted on the support member for angular adjustment with respect to the reference arm, and a level indicating device adjustably mounted on the reference arm for angular adjustment with respect to the arm.

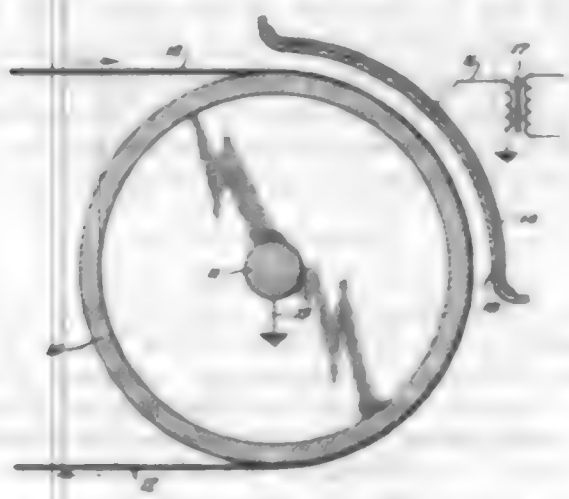
2,867,911
DOORWAY TEMPLATE
William J. Atkinson, Sarasota, Fla., assignor of one-half to John M. Saba, Sarasota, Fla.
Application July 30, 1956, Serial No. 600,820
1 Claim. (Cl. 33—194)



A template for accurately measuring door openings for facilitating the cutting of a door to fit the opening, said template comprising a pair of longitudinally adjustable elongated side members, a plurality of longitudinally adjustable transverse members interconnecting the side members with the remote transverse members being disposed at the ends of the side members, longitudinally adjustable braces extending diagonally between the remote transverse members and one of the side members for rigidifying the template, said braces being terminally pivoted to said one side member and terminally pivotally

and slidably connected to the remote transverse members for varying the diagonal position of said braces, means for locking all of the adjustable members in adjusted position for varying the size of the template to fit a door opening, one of the remote transverse members having spacers mounted thereon to provide clearance for the bottom of a door, said side members being sectional, the remote sections of the side members being longitudinally adjustable for providing longitudinal adjustment for the side members, the central of said sections having a plurality of cutouts on the inner edge forming areas of weakness, a pushing and pulling means for each cutout mounted on the central of said sections and bridging the respective cutout for bending the outer edge of the side member for conforming to the curves in the frame of a door opening and comprising a pair of rods having remote ends attached to the side member at opposite sides of the bridged cutout, and a turnbuckle threadedly connecting the other ends of said rods.

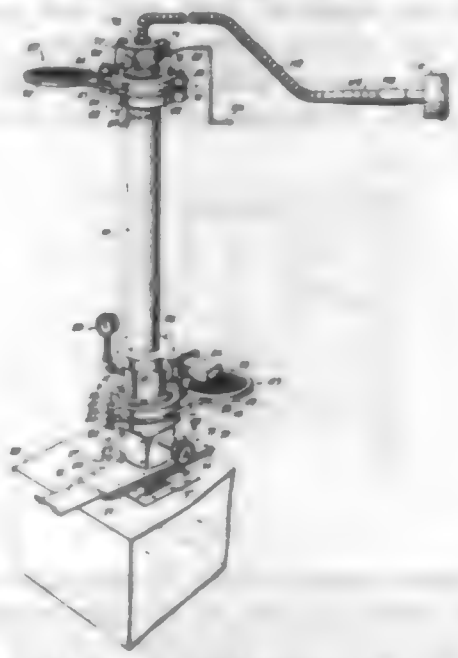
2,867,912
METHOD FOR THE DECONTAMINATION OF METAL FOILS
Mathew F. Kritchever, Glencoe, Ill., assignor of twenty-five percent to Horace Dawson, Evanston, Ill.
Application May 11, 1956, Serial No. 584,242
6 Claims. (Cl. 34—1)



1. In a process for treating oil-contaminated foils, the steps of passing the foil surface carrying oil at a spaced distance from an electrode, grounding the foil, interposing between said electrode and said foil a dielectric barrier, and subjecting said electrode to a high voltage alternating current to produce an electron discharge against said foil to remove the oil therefrom.

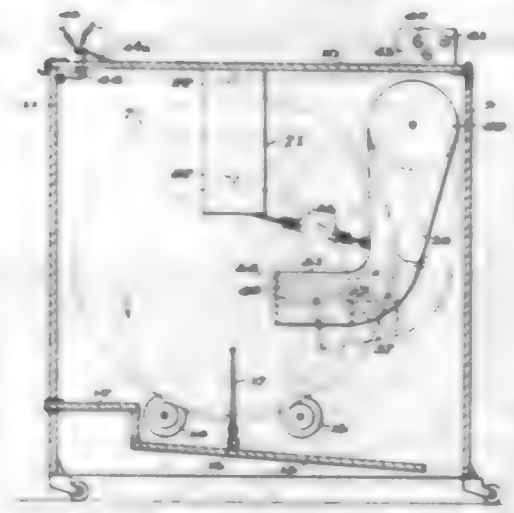
2,867,913
APPARATUS FOR DRYING AND HUMIDIFYING MATERIALS
Andrew J. Faecher, Arlington, Tex.
Application May 24, 1956, Serial No. 586,961
10 Claims. (Cl. 34—46)

1. In combination with a materials drying system having an electrical circuit incorporating electrically actuated burner valves and a steam humidifying valve, a moisture control device comprising an elongate tubular body disposed to receive at its lower end a sampling of air entrained with materials moving through said system, a plurality of relatively parallel flues extending longitudinally through the upper portion of said body having their upper and lower ends sealed against passage of air other than said sampling of air, means for cooling said flues to reduce the temperature of the sampling of air ascending therethrough, a moisture sensing element in the upper end of said tubular body with which said sampling of air is brought into intimate contact, means for filtering from said sampling of air foreign matter entrained therein in its course through said tubular body, separate means spaced apart longitudinally in said tubular body for determining the pressure and temperature of the sampling of air passing upwardly therethrough and means connecting said moisture sensing element electrically in said electrical circuit to effect alternate opening and closing of



the circuit to said burner and steam valves according to variations in the moisture content of the materials processed through said system.

2,867,914
TIRE DEFROSTER, CLEANER, AND DRYER
Joseph A. Tomchak, McKees Rocks, Pa.
Application December 31, 1956, Serial No. 631,781
4 Claims. (Cl. 34—104)

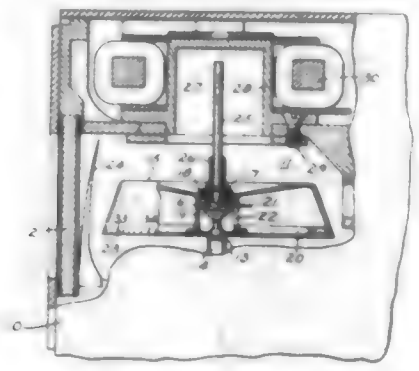


1. Tire treating apparatus that comprises a cabinet, rollers therein for supporting a tire, means for rotating one of the rollers and thereby rotating the tire about its axis, jet members positioned to discharge against the sides of the tire and disposed in a radial direction for a substantial distance alongside the tire, a conduit that supports the jet members and serves to direct fluid under pressure to the jets, means for supporting the conduit for movement in said radial direction, a spring that yieldably urges the conduit toward the tire tread, and a roller carried by the conduit in position to be engaged by the tire tread and thereby serve as a stop member that limits movement of the conduit toward the tire tread.

2,867,915
INSTRUMENT TILT SIMULATOR FOR NON-FLYING AIRCRAFT TRAINER
James F. Dement, Alexandria, Va., Howard H. J. Benson, Jr., Takoma Park, Md., and Edward H. Niemeyer, Edinburg, Va., assignors, by mesne assignments, to ACF Industries, Incorporated, a corporation of New Jersey
Application November 3, 1953, Serial No. 389,988
5 Claims. (Cl. 35—12)

1. An instrument, such as a compass for a nonflying aircraft trainer, comprising a scale-carrying member hav-

ing a single pivot support, means for rotating the member on said pivot support to simulate changes in the course of the trainer, and means for tilting the rotational axis of the member to simulate pitch and roll movements of the trainer, said tilting means comprising a bar magnet attached to the member with the axis of the magnet coinciding with the rotational axis of the member, a rela-



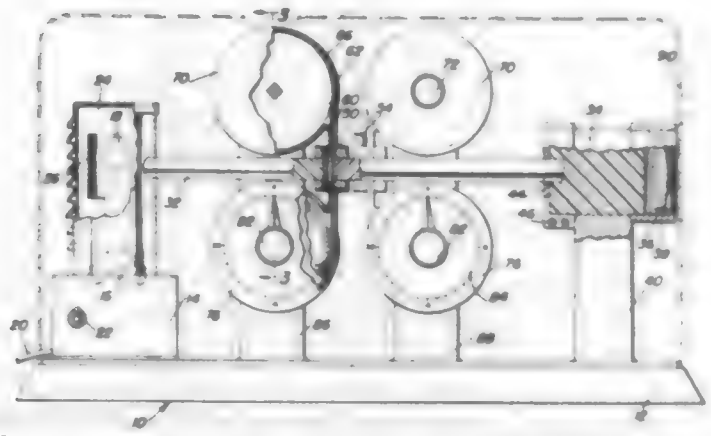
tively stationary annular core of magnetic material encircling the extending end of the bar magnet, coils on said core, and means for regulating current flow through said coils to produce a variable magnetic flux field in the central aperture of the core, which field interacts with the field of the bar magnet to tilt the rotational axis of the carrying member.

2,867,916

APPARATUS FOR OPTICALLY MIXING COLORS

Sidney H. Birdseye, Arlington, Va., assignor of fifty percent to Bertram Michael Landemann, Washington, D. C.

Application October 19, 1954, Serial No. 463,155
4 Claims. (Cl. 35—19)



1. A color mixing device comprising a source of light, means for transmitting the light along a plurality of paths, means for coloring the light in each path, means for varying the intensity of the colored light in each path, and means for converging and projecting the colored light thereby forming a variable resultant color, said means for converging and projecting the colored lights including a solid collecting and mixing rod for projecting the mixed colors onto a viewing area in true spectral quality.

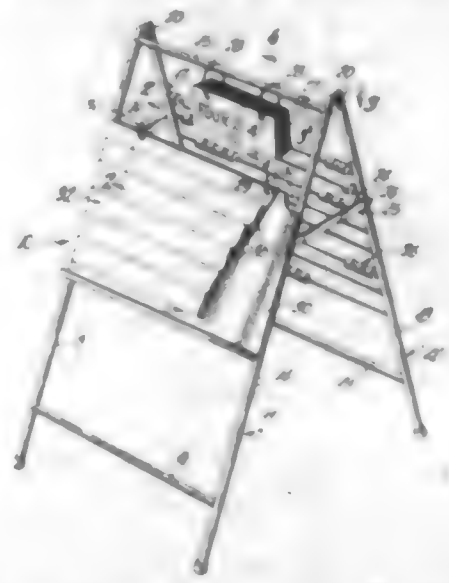
2,867,917

STAND FOR READING INSTRUCTION AND THE LIKE

Vida Mae Carlton, San Angelo, Tex., assignor of one-half to Dorothy Howerton, San Angelo, Tex.

Application April 24, 1957, Serial No. 654,835
3 Claims. (Cl. 35—35)

1. Educational apparatus for use in teaching reading classes and the like wherein cards each imprinted with a word or figure to be taught during each lesson over the period of a selected teaching program are to be displayed to the class, comprising a display rack for continuously supporting the group of imprinted cards throughout the period of the teaching program including an easel having laterally spaced pairs of legs, a horizontal rod connected between said pairs of legs adjacent the upper ends thereof for supporting said cards in a pack, ring-like supporting members spaced from each other along the axis of said rod and extending through said cards and around said rod for releasably suspending the entire group of cards from said rod and forming uninterrupted guides along which the cards may be in-



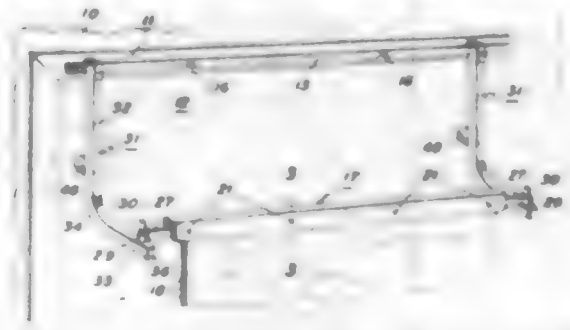
dividually transferred from the front of the pack of cards over the rod to the back of the pack, and means extending transversely of the rack and supported by said legs forming horizontally arranged pockets for supporting a plurality of said cards in side-by-side relation below the level of said pack of cards when the cards are removed from suspended condition relative to said rod.

2,867,918

BRACKET MEANS FOR DISPLAYING GLOBES, MAPS, AND THE LIKE FROM WALL RAILS

William S. Miller, Evanston, Ill., assignor to Denoyer-Geppert Company, a corporation of Illinois

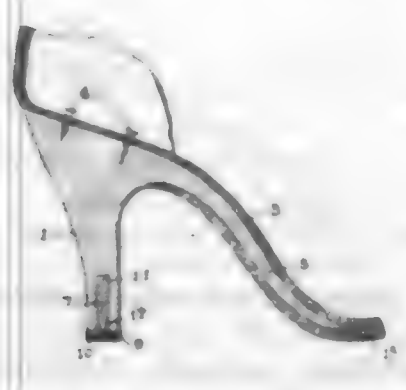
Application July 5, 1957, Serial No. 670,063
7 Claims. (Cl. 35—40)



1. A bracket for removably and adjustably supporting a teaching appliance from a flat display rail horizontally arranged along a wall or blackboard, the rail having longitudinally spaced notches in its lower edge, said bracket comprising a single piece of channel metal of U-shape in cross section bent between its ends to provide an upright arm with the flanges projecting rearwardly from the web portion and a lower forwardly projecting arm with the flanges projecting downwardly from the web portion, means at the top of said upright arm for detachable and slidable interlocking engagement of the bracket on a notched rail, said means comprising a pair of upwardly projecting lugs formed by cutting away and notching the flanges at the top of the upright arm to provide a transverse rail receiving channel, an inverted J-shaped plate closing the top of the channel in said metal piece, said plate having depending long and short portions, the long portion being fastened to the front of the web portion and the short portion forming a lug disposed in vertically spaced relation to said pair of lugs, the latter being adapted to pass through a notch in the display rail and coact with

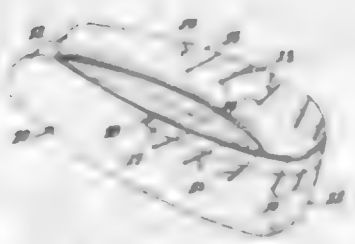
the lower edge of the latter after the lug formed by said short portion of the plate is hooked over the upper edge of the display rail, a wall-engaging foot piece projecting rearwardly from the lower portion of said upright arm, and an appliance supporting pin projecting upwardly from the web portion at the outer end of said forwardly projecting lower arm.

2,867,919
HEELS FOR FOOTWEAR
Raul Rodolfo Nappa, Montevideo, Uruguay
Application March 18, 1957, Serial No. 646,591
4 Claims. (Cl. 36—24.5)



1. A shank and heel unit for a shoe comprising a heel, a shank integral with said heel, said heel having a central elongated longitudinal opening terminating in the bottom face of said heel, nailable material secured in and substantially filling said opening, the remainder of said heel being solid, and a top lift mounted on said bottom face of said heel and secured to said nailable material.

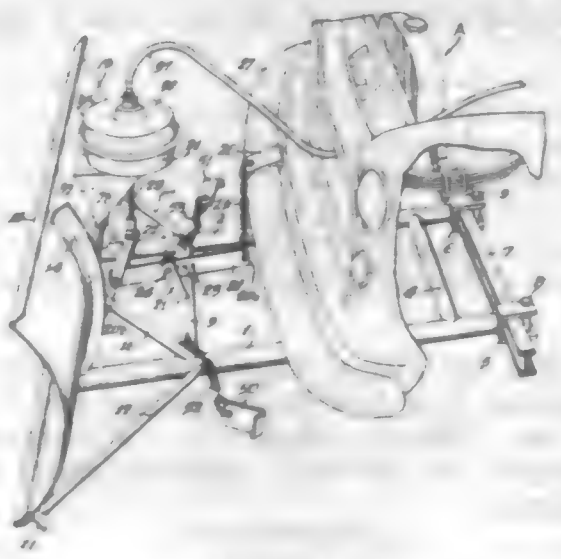
2,867,920
SHOE COUNTERS
Oscar J. Dube, Fall River, Mass.
Application November 7, 1955, Serial No. 545,440
1 Claim. (Cl. 36—68)



In a shoe counter of relatively stiff material comprising bight and leg portions having a free upper wall edge, the improvement comprising a plurality of slashings extending inwardly from said free upper edges of said bight and leg portions, resilient means connecting said slashings, and means for securing said resilient means and said stiff material together.

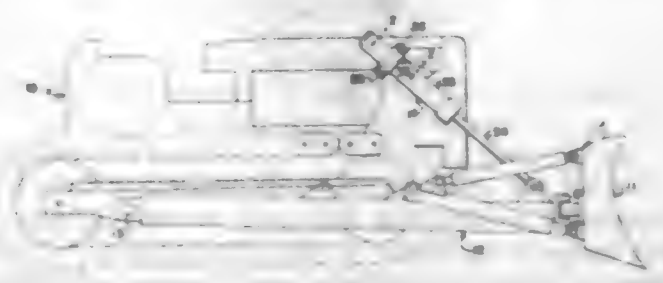
2,867,921
POWER-OPERATED IMPLEMENT ATTACHMENT
William Delbert Brown, Woodbine, Iowa
Application January 25, 1957, Serial No. 636,382
4 Claims. (Cl. 37—42)

1. In a snowplow attachment for a vehicle, in combination, a frame detachably connectible to a vehicle, a blade on the frame, a lever pivoted intermediate its ends on the frame and between the blade and the vehicle, a member adapted to connect one end of the lever to the vehicle to prevent downward movement of said one end relative to the vehicle, a reciprocable member connected to and extending upward from the other end of the



lever and movable relative to the frame, and means on the frame for moving the member relative to the frame.

2,867,922
HYDRAULIC RAM MOUNTINGS FOR EARTH MOVING MACHINES
George S. Allin, Flossmoor, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application December 31, 1954, Serial No. 479,100
5 Claims. (Cl. 37—144)

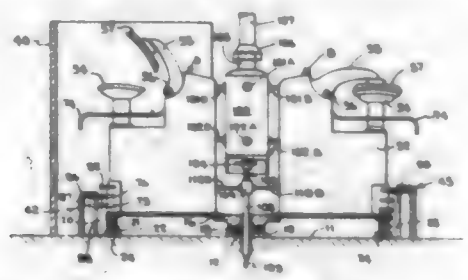


1. In an angle dozer having a tractor and having a forwardly extending blade assembly pivotally mounted on said tractor, a hydraulic ram, means mounting the cylinder of said hydraulic ram against any movement along a transverse horizontal axis to said tractor while providing for a certain range of pivotal movement of said hydraulic ram about said axis, said means further formed to release said cylinder from said tractor when said cylinder is pivoted to a certain position beyond said range, said certain range of a certain amount and said means positioned on said tractor and said cylinder so that when the piston of said hydraulic ram is pivotally connected to said blade assembly said range coincides with the increment of pivotal movement of said cylinder as said hydraulic ram is operated to raise and lower said blade assembly through the entire operating range of said blade assembly, and said means further positioned on said tractor and said cylinder so that said cylinder attains said certain position when said cylinder is pivoted beyond said increment.

2,867,923
ROTARY PRESSING MACHINE
Ole H. Langen, Minneapolis, Minn., assignor to The Unipress Company, Incorporated, Minneapolis, Minn., a corporation of Minnesota
Application March 16, 1956, Serial No. 572,020
13 Claims. (Cl. 38—22)

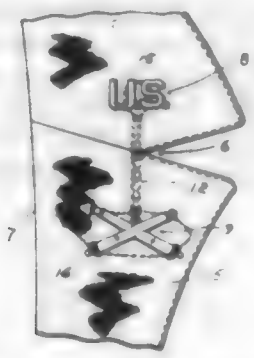
1. In a rotary pressing machine having a frame mounted for rotation about a fixed axis on a stationary base, said frame having thereon a plurality of separate presses each having cooperating pressing elements, at least one of which is heated, and compressed air power mechanism connected to said elements and controls there-

for, for moving them into engagement for cooperating pressing action, the improvement comprising heat generator means mounted on the rotary frame for at least one of the pressing elements of each press, and a supply line



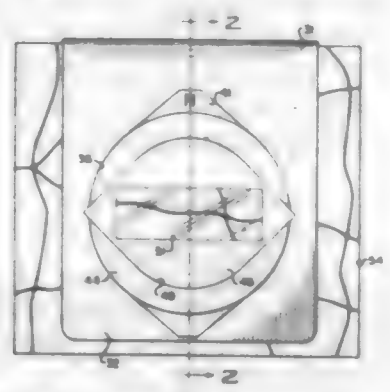
co-axial with the axis of rotation of said rotary frame and extending from said stationary base and connected to said heat generator means for conducting a heat-energy supply to said heat generator means on said rotary frame.

2,867,924
INSIGNIA ASSEMBLIES
Woodrow Kerce, Bangor, Maine
Application July 21, 1958, Serial No. 749,957
8 Claims. (Cl. 40—1.5)



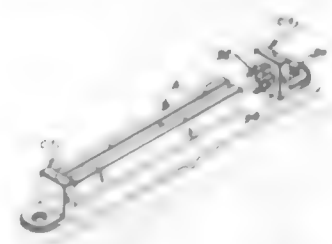
1. A military insignia assembly to be worn on a lapel, said assembly comprising first and second insignia, each of said insignia including a pin consisting of a first part for passage through the lapel and a bent part offsetting the insignia to which it is attached in relation to said first part and being of sufficient length to entend through said lapel when the insignia is positioned against the outer face thereof, and a member to be disposed on the inner face of the lapel and detachably holding said first parts approximately parallel to said inner face and in predetermined relation to each other.

2,867,925
MAP HOLDING CLIP
Hugh P. Botts, New York, N. Y.
Application April 9, 1957, Serial No. 651,690
3 Claims. (Cl. 40—10)



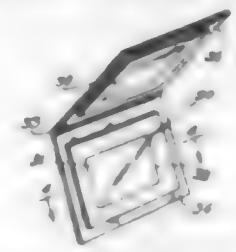
1. A map-holding clip which comprises a flat plate-like apertured member having a circular opening, a clip member connected to the plate-like member for engaging a map to hold the map flat against the plate-like member, a plate-like rotary member mounted in said opening, said rotary member including a pair of oppositely disposed projections received on one side of the apertured member and a second pair of oppositely disposed projections received on the other side of the backing member, each of the projections of the second pair being intermediate the projections of the first pair, and a diametrically extending elongated window in said rotary member, the rotary member being turnable to align the window with a selected portion of the map.

2,867,926
NAME AND NUMBER SIGN
Norman Cutler, Philadelphia, Pa., assignor to Royal Factories, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application March 16, 1956, Serial No. 571,989
1 Claim. (Cl. 40—140)



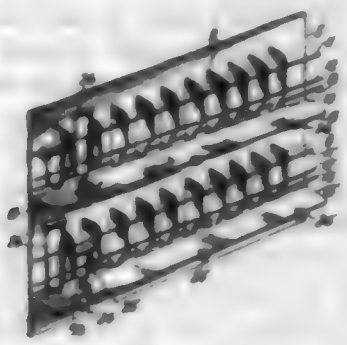
A name and number display sign comprising a carrier frame of square cross-section, a plurality of flat metal letter and numerical characters, and a pair of end brackets, said end brackets having a square periphery registering with the periphery of said carrier frame and being detachably secured to the ends thereof in flush abutting engagement therewith, a slot rectangular in cross-section projecting into said frame and longitudinally extending across one surface thereof, an interior groove rectangular in cross-section longitudinally extending within said carrier frame and intersecting at right angles to the slot, said metal characters each having a flat base portion with a plurality of lugs projecting outwardly from each side thereof and at right angles thereto, said base being slidably supported in the slot, and said lugs being slidably supported in said groove, a centrally disposed projection extending from one face of each of said brackets and having a cross-section complementary with the intersecting slot and groove, a mounting leg with an aperture therein on each of said brackets, said brackets being secured upon a surface with the projections abutting the respective first and last character at the base portion thereof whereby any desired orientation of the characters is afforded at 90° intervals.

2,867,927
PROTECTIVE COVERS FOR PHOTOGRAPHIC TRANSPARENCIES
Sol Schwartz, Flushing, N. Y.
Application June 7, 1954, Serial No. 434,968
1 Claim. (Cl. 40—158)



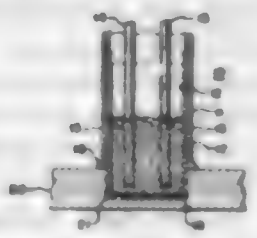
A protective device for photographic transparencies in combination with a frame, comprising a transparency retaining frame folded over providing frame sections with aligned windows, transparent optic sheets of a size smaller than the frame sections and larger than the windows, said sheets including central raised portions equal in size to the windows and retained therein, and an intermediate rectangular spacer frame separate from the retaining frame mounted between said frame sections adjacent the folded over edge.

2,867,928
ARTIST'S PAINT TUBE RACK
Frank Jordon Angell, New York, N. Y.
Application June 25, 1956, Serial No. 593,673
4 Claims. (Cl. 41—4)



1. An artist's paint tube rack slidable into the normally grooved cover of the conventional artist's paint box comprising a base plate, rows of perpendicular partitions on the front side of said plate, a minimum of two rods traversing said partitions close to their peripheries for the purpose of encaging the paint tubes in the compartments formed by said partitions and for maintaining them in a downward-pointing position, and pivotally projecting removably mounted longitudinal plates extending one under each row of tubes for the purpose of receiving the hand-expressed paint from said tubes.

2,867,929
METHOD AND APPARATUS FOR CHEMICALLY BORING METALLIC MATERIAL
Frederick A. Monahan, La Mesa, Calif., assignor to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware
Application December 28, 1956, Serial No. 629,598
8 Claims. (Cl. 41—9)



1. Apparatus for forming an opening in a metallic work-piece by the use of a chemical etchant, said apparatus comprising a container having an opening through its lower end, said container having wall members and edge surfaces on said wall members defining said opening and arranged in a desired configuration, said edge surfaces adapted to be pressed upon the surface of a work-piece to outline an area of said surface to be subject to the action of a chemical etchant, said edge surfaces conforming in contour to the contour of the surface where pressed thereagainst for intimate contact between said edge surfaces and said work-piece surface, and conduit means projecting into said container for affording a circulating supply of chemical etchant within said container, said chemical etchant adapted to operate through said opening in said container to erode the surface of the work-piece outlined by said edge surfaces and to undercut material of the work-piece in the areas beneath said edge surfaces to permit progressive movement of said container wall members into said undercut areas.

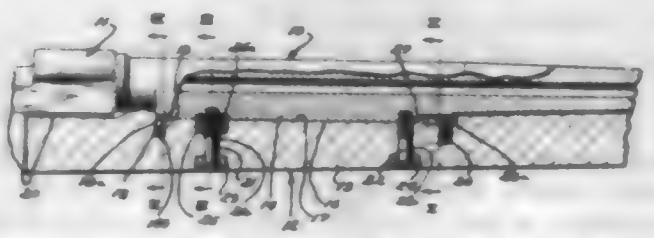
2,867,930
THUMB-OPERATED TRIGGER SAFETY
Casimer M. Niesp, Buffalo, N. Y.
Application January 23, 1956, Serial No. 560,662
2 Claims. (Cl. 42—70)

2. In a mechanism to prevent firing a weapon until a thumb-piece is moved after the firing hand of the user is in final position to pull the trigger, a safety mechanism for insertion into the chamber of a gun stock and comprising a trigger having a locking lug extending into said chamber, a lock lever pivotally mounted intermediate its ends and having a locking lug portion on the lower end thereof engageable with the locking lug on said trigger, a slide piece longitudinally movable in the upper portion of said chamber and positioned underneath the upper wall of said chamber, said slide piece having an elongated slot for receiving the upper end of said pivotally mounted lock lever, a thumb-piece actuator slidably mounted on the upper surface of said gun stock chamber and having a



portion thereof slidably connected with said slide piece to form a driving connection therewith to enable said slide piece to be moved in a reverse direction to disengage said lock lever from said trigger locking lug to unlock the trigger to permit manual actuation of the trigger, and a spring continuously urging said slide piece in a direction to pivot said lock lever into engagement with said trigger locking lug, said spring being attached to said thumb-piece actuator portion below said slide piece to prevent downward disconnection of the slide piece from said portion.

2,867,931
GUN BARREL AND GUN STOCK ASSEMBLY
Everett R. Schreiber, Maywood, Ill.
Application August 17, 1955, Serial No. 529,019
7 Claims. (Cl. 42—75)

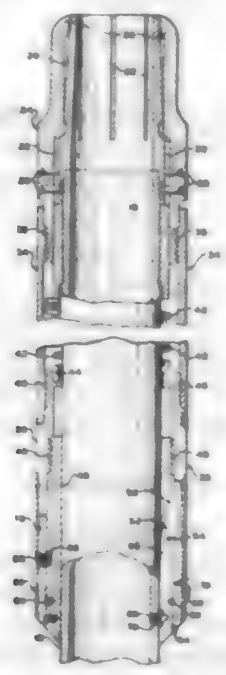


1. A mounting device for attaching a rifle barrel to a stock comprising a locating stud in the stock maintaining a slip fit with the barrel, an attaching screw extending through the stock and the stud into threaded engagement with said barrel to provide a connection between the barrel and the stock, a groove in said barrel spaced from said connection, a second locating stud in said stock and having a rib in slip fit with said groove, and a second attaching screw extending through said stock and threadedly received by said barrel providing a second connection between the barrel and the stock.

2,867,932
AUTOMATIC CHOKE FOR SHOTGUNS
George M. Keightley, Wichita, Kans., assignor to Jarvis Manufacturing, Inc., Wichita, Kans., a corporation of Kansas
Application January 23, 1956, Serial No. 560,493
10 Claims. (Cl. 42—79)

1. Choke apparatus for a shotgun, comprising, in combination, a first body member mountable on the barrel of said shotgun to form an extension thereof and having a contractile section, a first sleeve member disposable concentrically about said first body member and in slidable relation thereto and operable as it is slid on said body member in one direction to restrict said contractile section to reduce the cross sectional area thereof, a second body member concentrically disposable about and securable to said barrel and spaced from said

first body member, said second body member having a stop dog extending radially therefrom, a second sleeve member disposable concentrically about said barrel, movably connected to said first sleeve member and said second body member and operable as it is turned on said second body member to slide said first sleeve member, a pair of stop dogs angularly mounted on said second sleeve member and extending rearwardly therefrom, one of said dogs on said second sleeve member being positioned and operative on turning said second sleeve member to engage said dog on said second body member to limit travel of said second sleeve member in one direction and the other of said dogs on said second sleeve member being positioned and operative upon turning said second sleeve member to engage said dog on said second body member to limit travel of said second sleeve member in the other



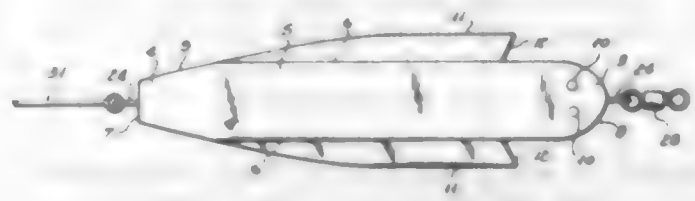
direction, resilient means operatively connectable to continuously urge said second sleeve member to turn on said second body member, a plurality of angularly spaced notches in said second sleeve member, a latch member mounted on said second body member and operable to catch said second sleeve member with said latch member in engagement in one of said notches, an opening through said barrel communicating with the interior of said barrel, and means mounted on said second body member yieldably urging said latch member to cover said opening and into latching engagement with said second sleeve member, said latch member being disengageable by gas pressure on said latch member exerted through said opening upon shooting said gun to allow one of said notches to pass said latch member and allow turning of said second sleeve member.

2,867,933
FISH LURE
Byron O. Stookey, Hatboro, Pa.
Application January 4, 1957, Serial No. 632,463
1 Claim. (Cl. 43—42.02)



A fish lure comprising a body member having a shape simulating a frog, a U-shaped member having parallel arm and a bight portion, said bight portion being pivotally mounted in said body at the rear end thereof, with the bight portion extending transversely across the rear end of said body, a coil spring surrounding said bight and constantly urging said U-shaped member to a normal position with the parallel arms thereof disposed at an acute angle to the length of said body, upper leg elements encompassing said arms, lower leg elements pivotally secured to the lower ends of said upper leg elements, each of said lower leg elements being formed of yieldable resilient material and including a foot portion yieldably biased to a normal position at an acute angle relative to the adjacent lower leg element, said body having a recess in the rear thereof, a lever fixed to the bight of said U-shaped member and engaging in said recess, said body having a longitudinal bore therethrough terminating in said recess, and a rod loosely engaging in said bore and pivotally secured to said lever, said rod having an eye at the forward end thereof for connecting with a fishing line.

2,867,934
FISH LURE
Finn H. Magnus, Essex Fells, N. J.
Application November 1, 1955, Serial No. 544,205
4 Claims. (Cl. 43—42.35)



4. A plastic fish lure of the spoon bait type comprising an elongated shallow channel-shaped body of plastic material having one end rounded resembling the head of a small bait fish and having its other end shaped to resemble the tail end of a small bait fish, wings extending from the sides of the body, spaced cross-pieces and L-shaped pieces in both ends of the body providing communicating and intersecting slots, attaching devices for attaching a fishing line and a fish hook removably mounted in the slots in the head end and in the tail end, respectively, of the body, a closure plate seated on the inner surface of the wings and on the outer surfaces of the cross-pieces and L-shaped pieces for closing the open side of the body and for retaining the attaching devices in position against displacement, said attaching devices each including a piece of wire bent upon itself to form a loop at one end, juxtaposed legs and prongs bent at right angles to said legs, the loops extending outside the body, a swivel attached to the loop at the head end of the body, a fishing line attached to said swivel, and a hook attached to the loop at the tail end of the body, the tail end of the body being bent at an angle to the plane of the remainder of the body whereby said body resembles a spoon.

2,867,935
FISH LURES
William B. Mearns, Nanaimo, British Columbia, Canada
Application December 9, 1957, Serial No. 701,658
1 Claim. (Cl. 43—42.35)



A fish lure constituted by an elongated member of tapering cross-section, said member being provided with a V-shaped groove so as to define said member into a head portion, serving as the leading end of said member, and a main body portion, said head having a substantially

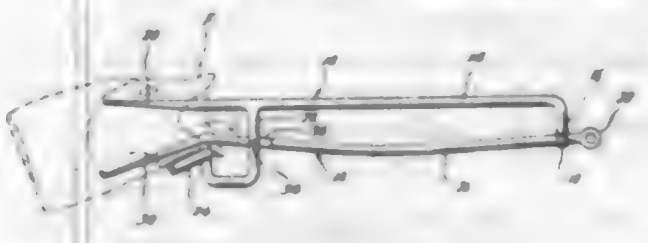
flat outer face extending at an angle upwardly and rearwardly from a lower leading edge of said member, said V-shaped groove substantially encircling the base of said head and extending at an angle upwardly and rearwardly from a point adjacent said lower leading edge to a point located a predetermined distance from an upper leading edge of said member, one face of said V-shaped groove forming the underside of said head portion whereas the remaining face of said V-shaped groove forms a substantially flat leading face of said main body portion, said flat leading face being in spaced parallel relation with said flat outer face of said head and, together with the latter, being arranged at an angle to the longitudinal axis of said member, said substantially flat outer face and said groove combining, when said lure is drawn through water, respectively to urge the lure downwardly and impart an erratic path of travel thereto.

2,867,936
PUSH-BUTTON FISHING BOBBER
Frederick A. Lambach, Omaha, Nebr.
Application November 16, 1955, Serial No. 547,103
11 Claims. (Cl. 43—44.95)



1. A fishing bobber comprising; a buoyant body portion including a casing, the outer surface of said casing having a pair of spaced apart outwardly facing shoulders defining an outwardly facing groove, a head carried by said casing and arranged to seat in said groove between said shoulder for locking the bobber to a fishing line by wedging the line between said shoulders and said head, and said head having a slot disposed outwardly of said shoulders when the head is seated, said slot being adapted slidably to receive a fishing line whereby the bobber is arranged to slide on the line.

2,867,937
FISH HOLDING IMPLEMENT
Thomas E. Little, Houston, Tex.
Application April 18, 1957, Serial No. 653,574
2 Claims. (Cl. 43—53.5)



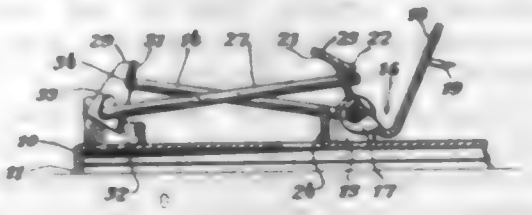
1. An implement for holding a fish with its mouth open comprising two elongated members each having a jaw at one end and a handle portion at the other end, one of said members having a branch portion mediate its ends, means forming a pivotal connection between the other of said members mediate its ends and said branch portion with the jaws of the members positioned to be moved toward each other for insertion in the mouth of a fish upon movement apart of said handle portions and to be moved apart into engagement with the mouth of the fish to hold the mouth open upon movement of the handle portions toward each other, and means on said branch portion positioned for coaction with one of said jaws to clampingly engage the mouth of the fish.

2,867,938
TRAP FOR ANIMALS
Edward J. Niemeyer, Maricopa, Calif.
Application December 19, 1955, Serial No. 553,964
13 Claims. (Cl. 43—63)



1. A device for trapping animals consisting of two independent side elements so formed as to create an enclosure when their corresponding edges are brought together; selectively disengageable hinge means pivotally connecting said side elements together adjacent similar edges thereof so that said side elements are free to move into an open position in which the enclosure is not complete and into a closed position in which the enclosure is complete; said selectively disengageable hinge means consisting of a first curved lip carried along the edge of one side element and a second smaller curved lip carried along the adjacent edge of the opposite side element, said second smaller curved lip being pivotally mounted within said first curved lip and being selectively disengageable therefrom when pivotally opened beyond a predetermined point; selectively disengageable spring means; said side elements and said spring means being provided with selectively disengageable holding and engaging means connecting said spring means to said side elements so as to force said side elements into said closed position; and tripping means associated with said side elements in such a way as to prevent said side elements from moving into said closed position until said tripping means is disturbed and then in such a way as to allow said elements to assume said closed position; said side elements being separable by selective disengagement of said selectively disengageable hinge means and by selective disengagement of said selectively disengageable spring means and being substantially congruently curved and positionable in relatively reversed compact interfitting convex-outside-to-concave-inside stacked relationship.

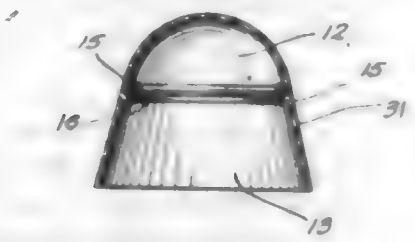
2,867,939
TRAPS FOR MICE, RATS OR THE LIKE VERMIN
Richard Henry Evans, Fetcham, England, assignor to J. P. Braun, New York, N. Y.
Application May 24, 1956, Serial No. 587,034
3 Claims. (Cl. 43—83.5)



1. In a vermin trap of the type comprising a base, a jaw pivotally mounted on the base and spring biased to a forward position, means to releasably hold said jaw in a rearward set position, and a combined bait carrier and trigger for said last named means, said means comprising a catch member having an upper bar portion adapted to engage said jaw in the rearward position of the latter, said catch member also including a lower bar portion, a catch holding arm extending towards said trigger and bait carrier, means for pivotally mounting the rearward end of said catch holding arm to said base adjacent the rearward position of said jaw, means for pivotally mounting said catch member adjacent the rearward position of said jaw with said arm passing between the upper and lower bar portions of said catch member whereby the pivotal move-

ment of the catch member is limited by contact of said lower bar with said arm, means for pivotally mounting said trigger and bait carrier so that in one position the trigger thereof is adapted to releasably hold the forward end of said arm in a position in which the catch holding arm and lower bar of the catch member permits the pivotal movement of the catch member to the rear to an extent insufficient to release the jaw held by the upper bar of said catch member.

2,867,940
SOAP DISHES
Robert Andrew Pitton, Brooklyn, N. Y.
Application April 9, 1956, Serial No. 577,039
4 Claims. (Cl. 45—28)



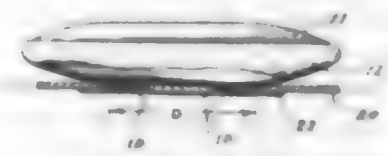
1. A dish comprising a central bowl of hemispherical form and a surrounding supporting skirt of annular form, said bowl being normally concave with its upper edge non-detachably attached to the upper edge of said skirt at an annular junction so that it is suspended therefrom and therewithin in dependent centered relationship thereto and with the skirt extending below the bottom of the bowl to support it, said bowl being of flexible material so that it can be flexed upwardly about said junction into convex position above said skirt to facilitate cleaning.

2,867,941
TOY AIRPLANE
Robert A. Du Breuil, Hicksville, N. Y.
Application May 1, 1957, Serial No. 656,255
3 Claims. (Cl. 46—79)



1. A toy airplane, comprising a plurality of assembled elements of paperboard blank form provided with appropriate cuts and folding scores defining in said blanks the characteristic airplane parts of said elements, the elements including a fuselage element, a nose element, a wing element, a rudder element, a pair of similar stabilizer elements, and a nose weight element, the cuts and folding scores of said fuselage element defining therein a main body portion and a tail portion and air duct forming member projecting forwardly from said main body portion and adapted in the completed assembly to overlie side wall surfaces of the nose element, said tail portion being provided with flaps, and interlocking securing means for said flaps, and capable of being assembled thereby into tube form in simulation of the tail pipe of a jet airplane, and its body portion being provided with flaps provided with interlocking securing means which upon being folded upon their folding scores and secured beneath the body portion will impart to the body portion an upwardly bowed contour and will thus maintain it, said last named flaps also providing beneath the body portion a wing element engaging and positioning surface, and said nose element having interconnected and relatively separately assemblable fore and aft portions, the fore portion comprising the nose proper and a simulated cockpit, and being provided at its opposite longitudinal edges with a base panel, having a rearward extension, and an assembly flap, said base panel and assembly flap carrying complemental locking securing means and bendable upon their respective folding scores into engagement beneath said fore portion to secure the same in upwardly bowed and hollow forwardly tapering condition, and said nose proper comprising a top portion and securing flaps having complemental securing locking means and capable of being assembled in substantially hollow conical form, positioning tabs extending forwardly from the fore portion of the nose element for embracing engagement by said conically assembled nose proper, and the aft portion of said nose element comprising relatively foldable panels secured to the rearward extension of said base panel and serving, when relatively folded, to provide a box-like tubular member for telescoping association with the forward portion of said fuselage element and having a top wall panel providing a seat for the wing element complemental to the wing element engaging and positioning surface of said fuselage element, said sides of the fore portion of the nose element and the forwardly projecting air duct forming members of the fuselage element being provided with complemental interengaging locking elements serving to secure the nose element and the fuselage element relatively assembled, and the tail portion of the fuselage element and said rudder and stabilizer elements being provided with cooperating positioning and securing means whereby their assembly may be effected.

2,867,942
WHISTLE WITH INTEGRAL ATTACHING MEANS
George Wintrins, Carversville, Pa., assignor to Wintrins Inc., New York, N. Y., a corporation of New York
Application April 15, 1953, Serial No. 349,020
7 Claims. (Cl. 46—175)

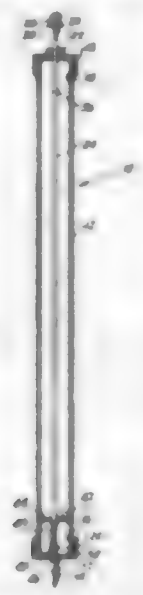


4. A whistle including shells constructed of malleable metal and shaped to extend toward one another to enclose a chamber between them with opposite and spaced sides of the chamber having openings therethrough for the passage of air to produce the whistle sound, means joining the shells with one another around their peripheral edges, prongs extending from one of the shells in the direction of the air flow axis of the chamber, said prongs being of one-piece construction with that shell and made of material displaced from the air passage opening through that shell and having their junctures with the shell around the edges of said air passage opening.

2,867,943
TREE INJECTION DEVICE
Albert W. Whitesell, Caddo, Okla.
Application November 29, 1957, Serial No. 699,791
1 Claim. (Cl. 47—57.5)

A tree injection device comprising an elongated barrel, a closure member at each end of the barrel, a plunger positioned for axial movement in said barrel and having one end extending through the corresponding closure member at one end of the barrel, a valve head at the opposite end of the plunger, a valve opening in the closure member at the opposite end of the barrel, said valve head being movable to seat in said valve opening to close said valve opening, means biasing said valve head into said valve opening, means connected to said one end of said plunger outside said barrel for moving

said plunger against the biasing direction of said valve head, chopping means on said closure member at said opposite side of the barrel, said chopping means being in alignment with said valve opening, said chopping means comprising a chisel portion integral with said closure member at said opposite side of said barrel, said chisel portion comprising a blade having a beveled cutting edge and a central groove extending from a point adjacent



to said valve to said cutting edge of said blade, and means biasing said valve head comprising a coiled spring surrounding said plunger, a washer on said plunger, a plunger guide on said barrel, said coiled spring being positioned between said washer and said plunger guide, and a finger connected to said plunger at one end pivoted to the corresponding closure member at its other end, and a handle extending from the pivotal connection to the closure member.

2,867,944

METHOD OF TREATING SOIL BY NON-IONIC SURFACE ACTIVE AGENTS

Lawrence W. Fletcher, Havertown, Pa., assignor to Agronomists' Research Corporation, a corporation of Delaware

No Drawing. Application April 28, 1954
Serial No. 424,513
18 Claims. (Cl. 47—58)

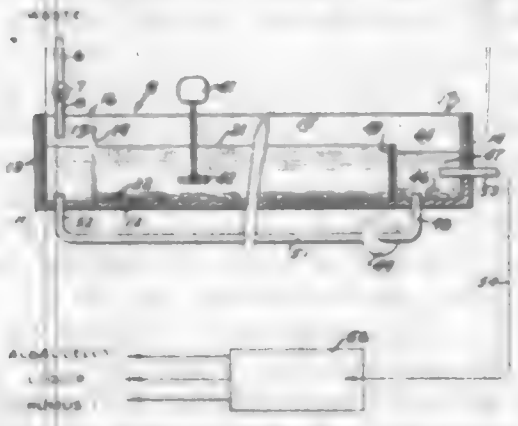
1. The method of treating soil to improve its water penetration, absorption and retention properties which comprises applying thereto a composition consisting essentially of a non-ionic surface active agent and a vehicle therefor.

2,867,945

PROCESS OF PHOTOSYNTHETIC CONVERSION OF ORGANIC WASTE BY ALGAL-BACTERIAL SYMBIOSIS

Harold B. Gotaas, Berkeley, and William J. Oswald, Concord, Calif., assignors to the Regents of the University of California, a corporation

Application October 19, 1955, Serial No. 541,448
14 Claims. (Cl. 47—58)



1. A process of photosynthetic conversion of organic waste by algal-bacterial symbiosis comprising establishing a pond open to the air and sun, flowing bacteria-containing organic waste into said pond, supplying said pond with a photosynthetic micro-organism, withdrawing effluent from said pond after an average detention period therein based upon oxygen supplied by said photosynthetic micro-organism, and separating said effluent substantially into photosynthetic organisms and liquid.

2,867,946

METHOD OF FORMING SEED STARTERS

Roger D. Kobs, Minneapolis, Minn., assignor to Northrup, King & Co., Minneapolis, Minn., a corporation of Minnesota

Application June 13, 1957, Serial No. 665,409
2 Claims. (Cl. 47—58)



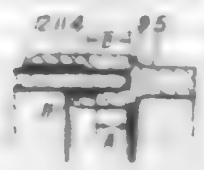
1. The method of uniformly affixing magnetically responsive metal coated seeds to spaced undersurfaces of generally concave wells formed in plate-like tops of seed starters, said method comprising applying a water soluble adhesive to the undersurfaces of said concave wells, passing said top over and in spaced relationship to a bed of seeds so metallically treated while the adhesive on said concave undersurfaces is still in a tacky state, and applying a metallic field to said metallically treated seeds through said top whereby to cause said seeds to impinge upon the tacky undersurfaces with sufficient force to remain in engagement therewith when said adhesive is dried.

2,867,947

GLASS TO METAL SEALS

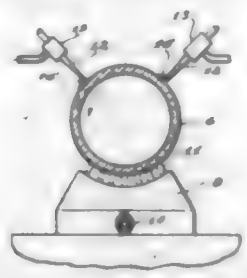
Bernard Thomson and Eric William Swift, Aldwych, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application January 25, 1956, Serial No. 561,309
Claims priority, application Great Britain March 4, 1955
5 Claims. (Cl. 49—81)



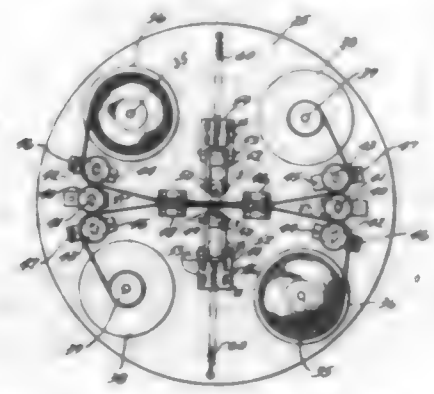
1. The method of manufacture of a plated metal to glass seal of the fork type referred to comprising coating the base metal over the areas to be sealed to the glass with metal of a higher conductivity to a thickness not greater than the maximum to provide a seal capable of withstanding thermal shock yet less than required, over areas not protected by the glass, to provide the requisite conductivity in the finished seal, coating the remaining areas of the base metal where high conductivity is required to such thickness as will suffice to provide the said requisite conductivity and sealing the glass to the thinner coating with the edge of the glass overlapping the thicker coating to prevent removal or impairment of any of the said thinner coating during subsequent processing of the seal, said thicker coating being laid down in steps of respective different thicknesses and said thinner coating plated to the minimum thickness required for high frequency conduction.

2,867,948
ELECTRIC WELDING GLASS PARTS
George Zimmerman, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application January 12, 1954, Serial No. 403,541
5 Claims. (Cl. 49—82)



1. The method of welding two glass parts together which comprises heating surface portions of said parts and thereby softening the glass, bringing said softened surfaces together, embedding spaced electrodes in the softened glass, transmitting electrical energy between the electrodes through the softened glass sufficient to raise the temperature and melt a sub-surface portion of the glass at the welding area, causing a relative movement of the glass and the electrodes, while the latter are embedded within the glass, in a path extending along the united surfaces, thereby causing the electrodes to plow through and stir the molten glass.

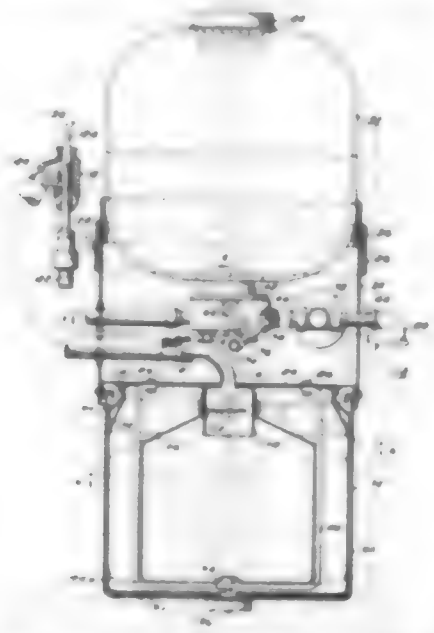
2,867,949
PROCESS AND APPARATUS FOR FINISHING METAL AND PRODUCTS RESULTING THEREFROM
Henry A. Meyer, Oakville, Conn.
Application August 10, 1955, Serial No. 527,439
22 Claims. (Cl. 51—5)



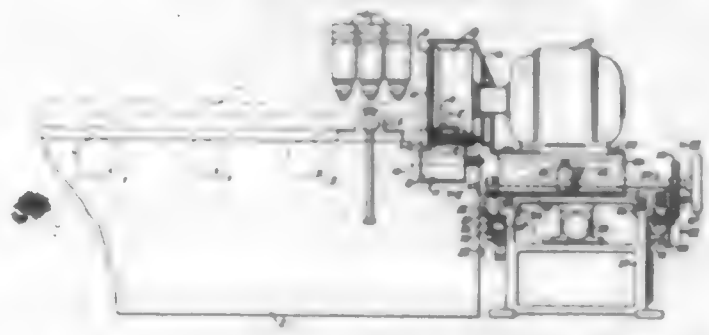
12. In machinery for treating the surface of cylindrical metal stock, the combination including replenishable abrading means and means to produce relative revoluble movement between stock to be treated and said abrading means, and means to operatively engage said abrading means with the cylindrical surface of the stock to revolubly score said surface and to intermittently actuate said replenishable abrading means step-by-step during said relative revoluble motion between the stock and the abrading means.

2,867,950
APPARATUS FOR REMOVING CARBON FROM THE COMBUSTION CHAMBER OF AN INTERNAL COMBUSTION ENGINE
Edward Joseph Ciesluk, Jackson, Mich., assignor to Kent-Moore Organization, Inc., Detroit, Mich., a corporation of Michigan
Application September 15, 1955, Serial No. 534,516
3 Claims. (Cl. 51—8)

1. In apparatus for removing carbon from the inner wall surfaces of a cylinder of an internal combustion engine: an airtight blast granule storage receptacle having a removable lid for filling with blast granules and adapted to hold at one time sufficient blast granules to remove carbon from a plurality of cylinders, an air passageway at the bottom of said receptacle communicating therewith to receive a gravity flow of blast granules directly therefrom as air passes through the passageway and also into the receptacle to pressurize the receptacle and having air intake and outlet ends, a granule delivery control valve through which communication is established between the storage receptacle and the air passageway to control the gravity flow of blast granules from the receptacle to the passageway, an air control valve in the passageway to control the flow of air therethrough, actuating means coupling the granule control valve with the air control valve for determined joint operation, an air intake line coupled with the intake end of said passageway and adapted to communicate with a source of compressed air, and an air outlet line coupled with the outlet end of said passageway and adapted to communicate with the engine cylinder to be cleaned.



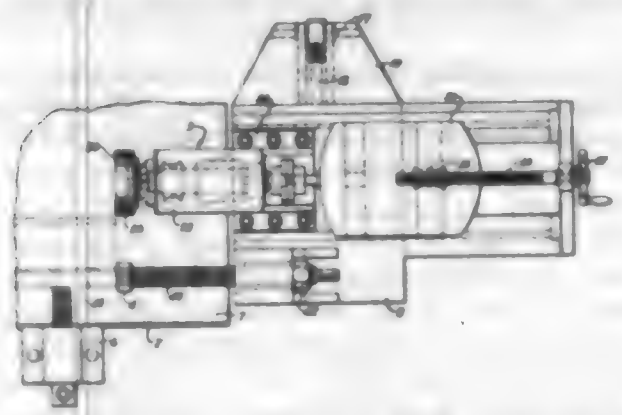
2,867,951
RAIL END GRINDER
Otto A. Clarke and Ralph W. Dickson, Gary, Ind., assignors to United States Steel Corporation, a corporation of New Jersey
Application December 17, 1954, Serial No. 475,928
6 Claims. (Cl. 51—56)



3. An apparatus for squaring railroad rail ends comprising a conveyor having a plurality of parallel rolls for conveying a rail endways thereover and in a direction transversely of the axes of said rolls, a carriage mounted for reciprocating movement over a rectilinear path parallel to the axes of said rolls, a stop in the path of movement of said rail over said conveyor for engaging an end thereof and stopping it in a predetermined position with the rail extending normal to said path and the end thereof engaged by said stop being positioned adjacent said carriage, a clamp for holding said rail on said conveyor against movement out of said predetermined position, a grinding wheel mounted on said carriage with its axis extending transversely of said rectilinear path, means for reciprocating said carriage to move the axial end face of said grinding wheel over said rail end to perform a grinding operation thereon, and means

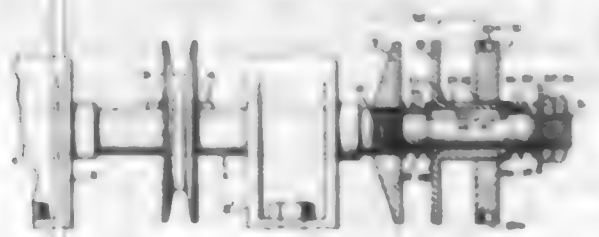
mounting said stop for movement out of engagement with said rail end and out of the path of grinding wheel movement by said carriage.

2,867,952
RAIL END GRINDER
Roscoe C. Britton and Henry Haltof, Gary, Ind.
Application January 6, 1955, Serial No. 480,152
2 Claims. (Cl. 51—56)



1. An apparatus for squaring railroad rail ends comprising a carriage mounted for rectilinear reciprocating movement, a conveyor means for delivering a rail endways toward said carriage, a stop in the path of movement of said rail over said conveyor means and for engaging an end thereof to stop it in a predetermined position with the end engaged thereby adjacent said carriage, means mounting said stop on said carriage, means for retaining said rail on said conveyor means against movement out of said predetermined position, a grinding wheel mounted on said carriage in a position spaced from said stop along the path of reciprocating movement of the carriage, and means for reciprocating said carriage to move said stop out of positioning engagement with said rail and for moving said grinding wheel over said adjacent rail end to perform a grinding operation thereon.

2,867,953
ATTACHMENT FOR SAW GRINDING MACHINES
Thomas H. Kennerty, Moncks Corner, S. C.
Application July 23, 1958, Serial No. 750,501
3 Claims. (Cl. 51—168)



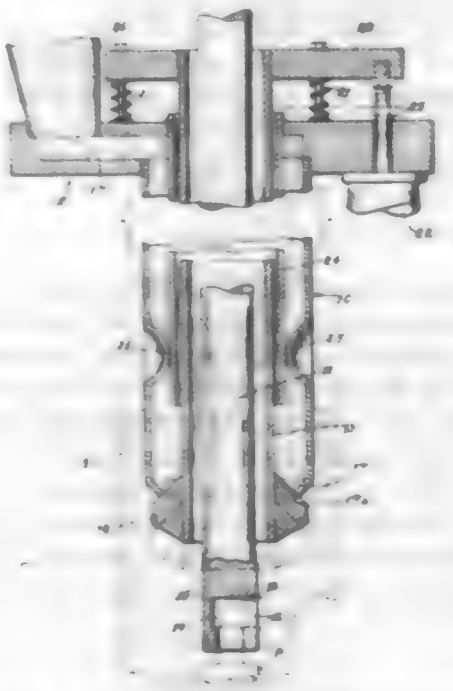
1. A unit for adjusting and controlling the axial movement of a grinding wheel mounted on a driven arbor, said arbor having a longitudinal keyway and threads at its outer end, comprising, in combination, a fixed collar on said arbor, a movable collar slidable on the arbor over the threads thereon, adjustable nut means on said arbor threads for actuating said movable collar; a wheel carrying hub disposed between said fixed and movable collars and having a fixed plate at one end and external threads on the other end, a locking plate threaded for engagement with said threads on the hub, said hub having annular recesses at opposite ends thereof, a key in said arbor keyway for non-rotatably securing the hub to the arbor, said key of less length than the keyway, bushings surrounding the arbor at each side of the hub and disposed between the same and said collars, springs coiled about said bushings and located between facing sides of the hub and the collars, whereby, when the adjusting nut means is advanced toward the movable collar the tension of both springs will be increased, the bushings will engage said key, thereby controlling the axial movement of said grinding wheel.

2,867,954
POLISHING PAD AND METHOD OF MAKING THE SAME
Edwin D. Phillips, North Plainfield, N. J.
Application September 26, 1956, Serial No. 612,281
9 Claims. (Cl. 51—195)



1. A lens polishing pad comprising a flat body of an absorbent material impregnated and bonded throughout with an organic resin and a polishing rouge combined with and retained in the resin impregnated body by an adhesive and covering at least one side of the body.

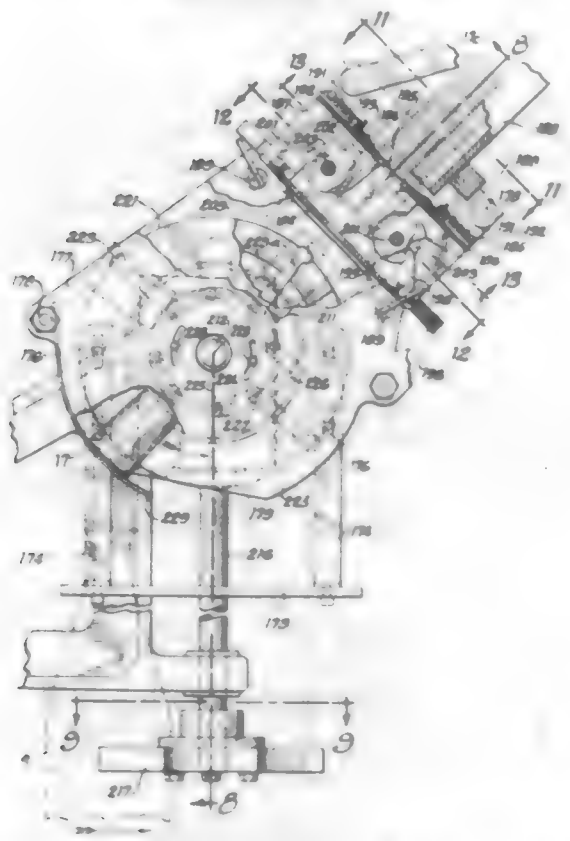
2,867,955
FILLING APPARATUS
Joseph McOrily, Wilkinsburg, Pa., assignor to Edwin L. Wiegand Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 7, 1955, Serial No. 513,708
8 Claims. (Cl. 53—239)



5. In the art of making electric heating elements comprising an elongated tubular sheath, a resistance conductor extending longitudinally of said sheath and flowable electrical insulating material holding said resistance conductor spaced from the inner sheath wall, apparatus for depositing said flowable insulating material within said sheath comprising an upright outer elongated tubular member of a transverse size to freely fit longitudinally within said sheath, means providing for entrance of said flowable insulating material to an upper inner portion of said outer member, an inner elongated tubular member within said outer member, and an elongated tension rod member within said inner tubular member and connectable to an end portion of said resistance conductor to maintain the latter taut and spaced from the inner sheath wall during deposition of insulating material, said inner tubular member having a transverse dimension so as to be spaced from the inner wall surface of said outer tubular member and to freely receive and pass said tension rod member and the connected resistance conductor, adjoining lower portions of said outer and inner tubular members being formed with cooperating valve member and valve seat parts to control flow of said insulating

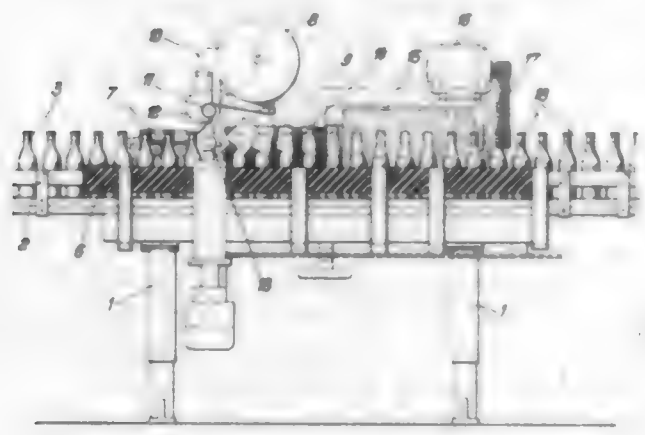
material from the lower portion of said outer tubular member and into said sheath, and said outer and inner tubular members being relatively shiftable in a longitudinal manner to provide for selective engagement and disengagement of said valve member and valve seat.

2,867,956
TAPERED TUBE FORMING AND APPLYING MECHANISM
Harvey S. Murrell, Chicago, Ill.
Application July 3, 1953, Serial No. 365,835
7 Claims. (Cl. 53—296)



1. In a machine of the class described, means for guiding a stack comprising a plurality of tapered tubes nested with their smaller ends lowermost, means for serially removing the lowermost tubes from said stack one at a time, means for individually receiving the tubes from said removing means and inverting the same to dispose each tube with its larger end lowermost, and means for presenting bottles serially to said receiving means in timed relationship therewith to enable a tapered tube to be dropped thereby over the upper end of each bottle.

2,867,957
BOTTLE CAP MOUNTING APPARATUS
Alois Rohbogner, Munich, Germany, assignor to Haendler & Natermann, o. H. G., Hann-Munden, Germany
Application July 29, 1955, Serial No. 525,310
17 Claims. (Cl. 53—296)



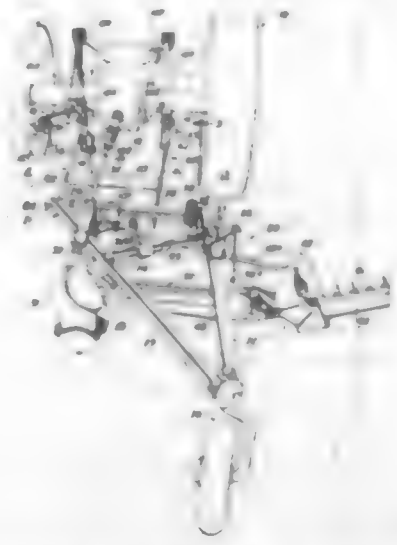
1. An apparatus for mounting of caps, preferably of metal foil, on bottles comprising a liquid dispenser, a feeding mechanism for supplying capping material, a severing device for cutting capping pieces from said material, a roller for delivering one of said capping pieces to each bottle, a cap-applying device, an enveloping device, a smoothing device, a conveyor for moving said bottles in an upright position and means for rotating the bottles about their vertical axes past and in contact with said dispenser and said cap-applying, enveloping and smoothing devices whereby said caps are each applied to a bottle.

2,867,958
HEADER MOUNTING FOR HARVESTER THRESHERS
Lawrence E. Allen, Independence, Mo., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application May 7, 1956, Serial No. 583,317
3 Claims. (Cl. 56—21)



1. A harvester thresher comprising in combination a mobile longitudinal body structure presenting a narrow throat structure having a forwardly facing thrust transmitting surface, a laterally extending header structure having a rearwardly facing thrust transmitting surface in cooperable engagement with said forwardly facing thrust transmitting surface; and separable means for positively urging said thrust transmitting surfaces into abutting engagement with each other, said means comprising coupling prong members mounted on one of said structures, said coupling prongs each having a transverse shoulder to transmit a longitudinal thrust, means mounted on the other of said structures for receiving said coupling prongs, and locking wedges operatively interposed between the other of said structures and said transverse shoulders.

2,867,959
HITCH DEVICE FOR TRAILING BREAK-BACK MOWER
Charles B. Peak, Geneseo, Ill., assignor, by mesne assignments, to Deere & Company, a corporation of Delaware
Application June 13, 1955, Serial No. 515,133
10 Claims. (Cl. 56—25)



1. A hitch device for coupling a break-back mower to a power-lift-equipped tractor having a pair of transversely spaced and rearwardly extending draft links freely swingable laterally within limits about their forward ends and operative to swing vertically in response to vertical

adjustment of power lift means mounted on the tractor, and wherein the mower has a frame provided with a vertical pivot at one side of a front end portion and with a releasable latch at the opposite side of the front end portion and a cutter bar operative to be raised or lowered in response to vertical adjustment of the power lift means mounted on the tractor; said hitch device comprising: a pair of longitudinally extending arms adaptable to be mounted on each of the respective draft links to cause their front end portions to be positioned proximate to the forward ends of the draft links whereby vertical movement of the draft links will result in a relatively small displacement of the front end portions; a pair of longitudinally extending and rigid elongated members positionable to lie adjacent to the aforesaid arms and rigidly fixed to one another by laterally extending framework including a laterally extending bar fixed to the members and having pivot means thereon adjacent to one end thereof for receiving the mower pivot to establish an axis for backbreak swinging of the mower; latch receiving means mounted on the bar and adjacent to the other end thereof for connection to the releasable latch on the mower; and means connecting the forward ends of the elongated members to forward portions of the arms permitting relative vertical swinging between the members and the arms.

2,867,960
LAWN TRIMMER AND EDGER WITH WHEEL ADJUSTING MEANS

Harry L. Stiles and Nicholas T. Thome, Chicago, Ill., assignors to The Silex Company, Hartford, Conn., a corporation of Connecticut

Application May 13, 1955, Serial No. 508,178
5 Claims. (Cl. 56—25.4)



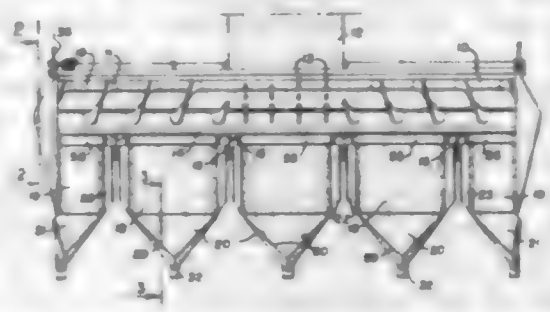
1. In a device for cutting grass and the like comprising a base, a handle on said base manually engageable by an operator for guiding said device along the ground, a motor on said base, and a rotary cutter driven by said motor and adapted for rotation about a substantially vertical axis, the combination comprising a channel-shaped member on said base having a vertical web and a pair of rearwardly projecting vertical side flanges, said side flanges having vertically spaced sets of horizontally aligned openings opening along the rear edges of said flanges through relatively restricted horizontal slots, a pair of wheels, an axle rotatably mounting said wheels, and axially movable means on said axle and engageable in said openings for detachably locking said axle in any of said sets of openings.

2,867,961
CORN HARVESTING ATTACHMENTS FOR GRAIN COMBINES

Harold Heilbrun, Gering, Nebr.

Application July 25, 1957, Serial No. 674,144
3 Claims. (Cl. 56—119)

1. A corn harvesting attachment for a grain combine of the type having a crop-collecting scoop preceded by a sickle, comprising: a horizontal platform frame having a front and a rear frame member and two side frame members secured together to form an open rectangular frame; front hinges on said front frame member; rear hinges on said rear frame member; side hinges on each side frame member; a medially positioned supporting tube secured at its rear extremity to the middle of said rear frame member and extending forwardly beneath and in attached relation to said front frame member and forwardly of the latter; pivot supporting plates extending downwardly from adjacent the rear extremity of said supporting tube; a cantilever tube mounted adjacent its forward extremity on said pivot supporting plates and extending horizontally rearward from said platform frame to support the latter; a triangular frame mounted on said front hinges and extending to an apex forwardly

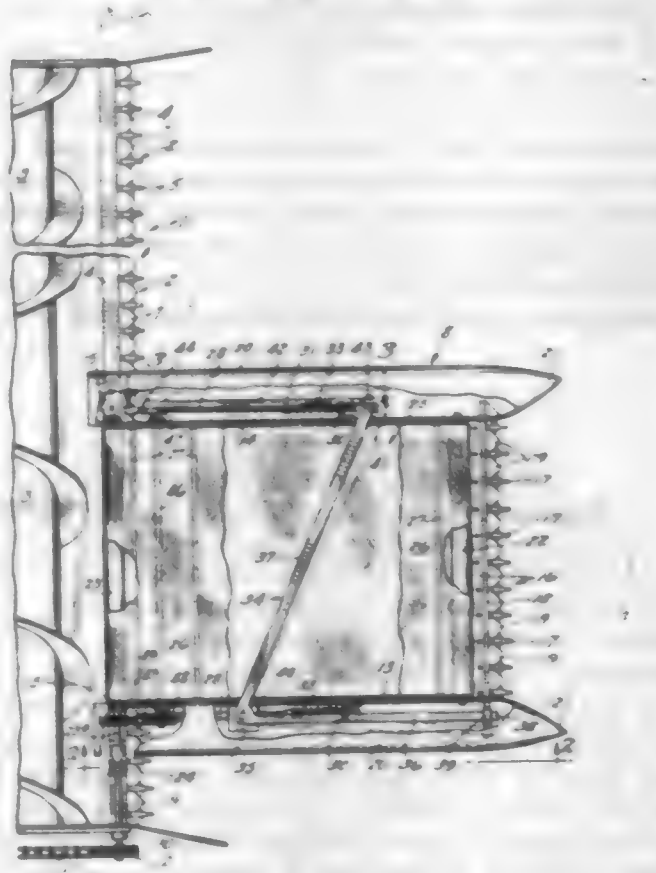


of said front frame member; a ground-engaging runner plate secured beneath said apex to support said triangular frame; a side flap member mounted on each of said side hinges; an apron plate mounted on said rear hinge; a platform plate mounted on and covering said platform frame; a raised, three-sided, pyramid-like gathering element mounted on and covering said triangular frame; and means for attaching the rear extremity of said cantilever tube to said combine beneath the scoop thereof so that a plurality of harvesting attachments will be supported forwardly of said combine in horizontal, spaced-apart relation with the side flap members of adjacent attachments in close parallel relation and with the apron plates movably overlying said sickle.

2,867,962
ROW CROP ATTACHMENT FOR COMBINES

Cyril G. Meyer, Wahpeton, N. Dak.

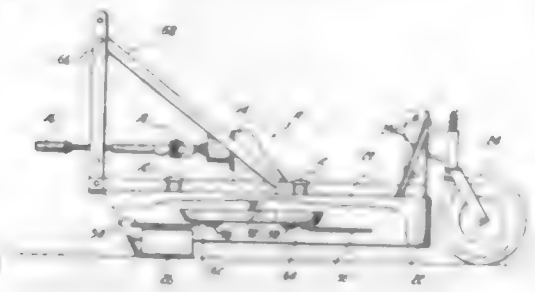
Application January 10, 1958, Serial No. 708,198
1 Claim. (Cl. 56—158)



A row crop harvesting attachment for sickle-equipped harvesting combines, said attachment comprising a pair of laterally spaced side frame members adapted to be detachably secured to the sickle of said combine to

project forwardly thereof in parallel relationship, a sickle bar connecting the front end portions of said frame members, a cooperating cutter-equipped mower bar mounted for reciprocating movements on said sickle bar, an endless conveyor belt mounted between said frame members for conveying material from said sickle bar to said harvesting combine, means associated with said frame members for imparting conveying movements to said conveyor belt and including a drive shaft adapted to be operatively coupled to said harvesting machine to be rotated thereby, and means for imparting reciprocatory movement to said mower bar, said means comprising a crank operatively connected to said drive shaft, a bell crank lever pivotally secured on a vertical axis to one of said side frame members intermediate said drive shaft and said mower bar, one arm of said bell crank extending generally longitudinally of said frame member and coupled at its forward end to one end portion of said mower bar, the other arm of said bell crank lever extending between the flights of said conveyor belt through slots in said frame members, and a pitman arm pivotally connected at one end to the extended end of said other arm and at its other end to said crank.

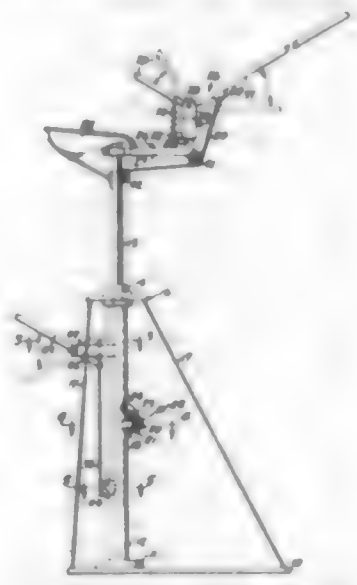
2,867,963
ROTARY DISK-TYPE MOWER CUTTER MECHANISM
Forby W. Lawrence and Orby W. Lawrence, Selma, Ala., assignors to Lawrence Bros., Inc., Selma, Ala., a corporation of Alabama
Application February 7, 1956, Serial No. 563,914
2 Claims. (Cl. 56—295)



1. In a cutter mechanism having a vertical drive shaft, a blade holder operatively connected to said drive shaft, said blade holder including a flat bottom portion and an upstanding outwardly flared peripheral flange attached thereto, a plurality of radial bracing members attached to the upper side of said bottom portion, and a pair of outwardly extending blades attached to said bottom portion by pivotal means passing through outer ends of opposed bracing members, each of said blades having a cutting portion offset downwardly from the plane of attachment of said blade to said bottom portion.

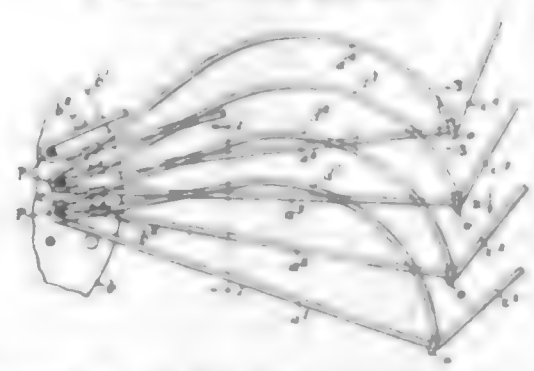
2,867,964
TREE LIMB SHAKING DEVICE
William E. Roberts, Lockhart, Tex.
Application June 26, 1957, Serial No. 668,076
2 Claims. (Cl. 56—328)

1. In a harvester, a base, a support member mounted in said base, a hollow post extending upwardly from said support member and provided with a longitudinally extending slot, a body member mounted on the upper end of said post, a collar extending outwardly from said body member, braces extending between said collar and base, a vertically shiftable tube slidably mounted in said post, a plurality of spaced apart teeth on said tube arranged adjacent said slot, ears extending outwardly from said post, a gear wheel rotatably supported by said ears and having teeth arranged in engagement with the teeth on said tube, a locking dog pivotally connected to said hollow post and positioned thereon for engagement with said gear wheel, a handle on said gear wheel for rotating said gear wheel, a seat connected to the upper end of said tube, a bracket extending from said tube and including a horizontally disposed portion and a vertically disposed portion, the vertically disposed portion of said bracket being provided with an upstanding shank of reduced diameter, there being an annular groove



in said shank, a bushing rotatably mounted on said shank, a securing element extending through said bushing and engaging said groove, a bar pivotally connected to said bushing and including a pair of angularly arranged portions, a cable having one end connected to said bar and said cable extending through said tube, and a pivotally mounted lever connected to said cable.

2,867,965
ROTARY RAKING WHEEL
Charles Goodall and Maurice Goodall, Silverhill, Barton-under-Needwood, Burton-on-Trent, Staffordshire, England
Application August 27, 1956, Serial No. 606,458
Claims priority, application Great Britain September 7, 1955
9 Claims. (Cl. 56—377)

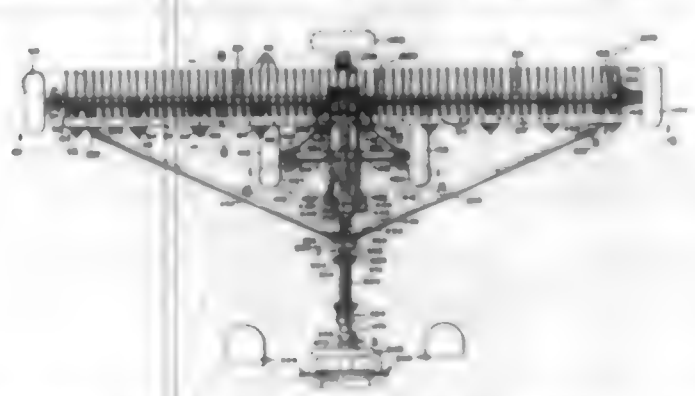


1. A rotary tool of the kind specified, for an agricultural or horticultural machine, comprising the combination of a hub, a plurality of resilient tines secured at their inner ends to the hub, and a corresponding number of resilient links secured to and extending from the hub and having separate outer ends respectively connected to the outer end portions of the tines, each link being shaped to extend across an intermediate portion of at least one tine other than that to which the outer end of the link is connected, so that the tines and the links extending across them bear against one another when the outer ends of the tines are flexed in one direction laterally of the tool.

2,867,966
HAY RAKE
Wayne P. Adams, Alliance, Nebr.
Application March 7, 1956, Serial No. 570,067
2 Claims. (Cl. 56—384)

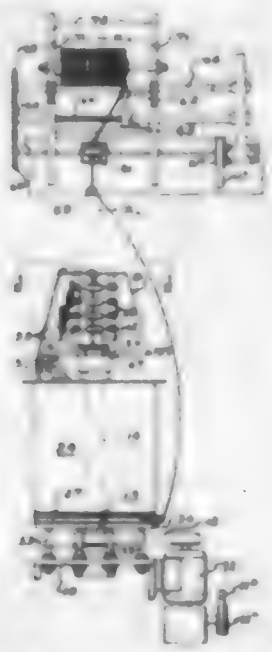
1. A hayrake comprising: a center frame section attachable to a towing vehicle during raking; wheels sup-

porting said center frame section; two elongated spaced apart transverse frame members arranged end to end on each side of said center frame section, said transverse frame members being each pivotally attached to said center frame section for upward and downward swinging movement of their outer ends; wheels supporting the outer ends of said transverse frame members; two trans-



verse rake beams arranged end to end alongside respective transverse frame members, said rake beams being spaced substantially forward of said transverse frame members; means pivotally securing said rake beams each to the adjacent one of said transverse frame members for the pivoting of said rake beams about normally horizontal transverse axes; and teeth attached to said rake beams and extending downwardly therefrom.

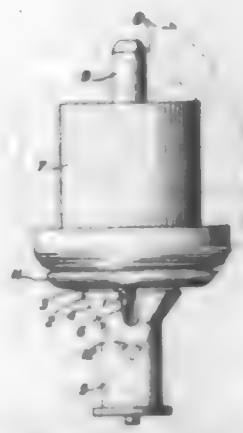
2,867,967
APPARATUS FOR MAKING YARN
Earl W. Starnes, Alexander City, Ala.
Application November 20, 1956, Serial No. 623,440
10 Claims. (Cl. 57—36)



3. The combination with a two for one fiber strand twisting apparatus of the kind in which the strand generates a ballooning figure of revolution during the twisting thereof, of strand attenuating means located wholly within the figure of revolution of the strand.

2,867,968
YARN ACCUMULATING MEMBER
Karl-Heinz Rehn, Remscheid-Lennep, Germany, assignor to Barmer Maschinenfabrik Aktiengesellschaft, Wuppertal-Oberbarmen, Germany, a German joint-stock company
Application September 20, 1954, Serial No. 457,036
Claims priority, application Germany September 26, 1953
3 Claims. (Cl. 57—58.65)

1. A combined whorl and thread storage member for cabling spindles, comprising in combination, a whorl portion, a frusto-conical portion emerging from and expanding in a direction away from said whorl portion, a thread storage groove in the base of said frusto-conical portion, a thread overflow member disposed above said groove, and radial thread ducts extending from the center of the base of said frusto-conical portion, toward the side of said frusto-conical portion as well as toward



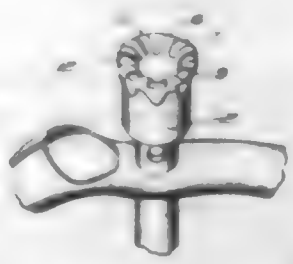
its top, said ducts thus expanding as they approach the lateral confines of the frusto-conical portion, into openings extending over the entire side of the frusto-conical portion.

2,867,969
DOUBLE TWISTER
Jenó Beyer, Arnhem, Netherlands, assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application October 1, 1952, Serial No. 312,537
Claims priority, application Netherlands
November 29, 1951
6 Claims. (Cl. 57—58.83)



2. A double twist spindle assembly for textile yarns comprising a rotatable spindle having an axial opening and a radial opening communicating therewith, a yarn package holder freely rotatably supported by said spindle above said radial opening and a flyer disposed beneath said package holder in coaxial relationship with and freely rotatable with respect to said spindle.

2,867,970
FLYERS FOR ROVING MACHINES
Rudolf Richter, Bad Mergentheim, Germany
Application May 31, 1955, Serial No. 512,107
5 Claims. (Cl. 57—115)



1. An annular surface formation for association with a flyer nose and adapted to be fixed with respect to said nose to rotate in unison therewith, said surface formation surrounding an opening in said nose when thus as-

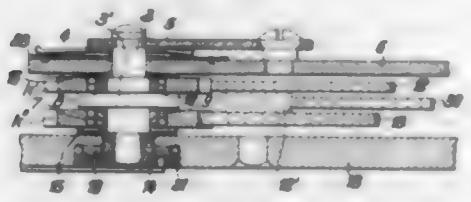
sociated in operating position and having a portion which is adapted to engage a roving passing into said opening, said surface portion originating a distance inwardly from the outer end of the surface formation and curving progressively more rapidly outward with respect to the longitudinal passage axis to terminate at said outer end of the surface formation, said portion having a plurality of separated equally spaced grooves therein around the extent of said surface formation, which grooves extend substantially entirely between the said origination and termination of said portion, each said groove having a bottom of substantial width, having rounded corners at the juncture of the bottom and sides thereof and having rounded edges at the juncture of the sides thereof and said portion.

2,867,971

SELF-WINDING MECHANISM, MORE ESPECIALLY FOR WRIST WATCHES

Hans Bertsch and Ernst Stein, Schwenningen (Neckar), Germany, assignors to Friedrich Mauthe, G. m. b. H., Schwenningen (Neckar), Germany

Application June 21, 1954, Serial No. 438,202
Claims priority, application Germany June 23, 1953
1 Claim. (Cl. 58—82)



A self-winding mechanism for wrist watches comprising a base plate, an arbor, means for supporting the lower end of said arbor in said base plate including a ball bearing supported in said base plate and a bushing threaded on said end of the arbor and engaging said ball bearing, a collar mounted on the arbor intermediate its ends, two toothed crown wheels mounted one above and one below said collar, two unidirectional ball clutches each interposed between said arbor and a respective one of said toothed crown wheels and adapted to couple one of said wheels to the arbor only during rotation of the arbor in one direction and to couple the other wheel to the arbor only during rotation of the arbor in the other direction, transmission means operatively engaging said crown wheels for transmitting the rotary movements of said crown wheels resulting from rotation of the arbor to a winding gear of a spring casing so that said winding gear is always rotated in the same direction independently of the direction of rotation of the arbor, a balance weight, and slip friction clutch means coupling said balance weight to the upper unsupported end of the arbor immediately adjacent one of said toothed crown wheels adapted to act for both directions of rotation of the arbor; said friction clutch means comprising a bridge rigidly connected at one end to the balance weight and having its other end rotatable about the upper end of the arbor, and a star-shaped spring and a friction disc located on the arbor between the said other end of the bridge and the balance weight.

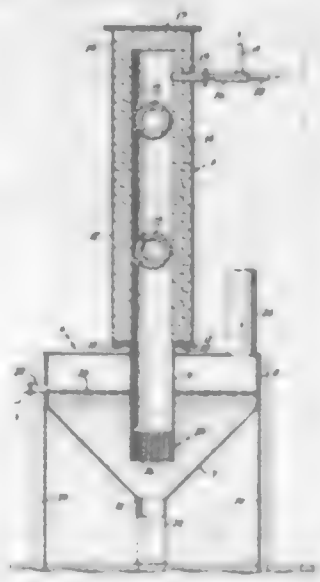
2,867,972

SUBMERGED FLAME EVAPORATOR

Francis Louis Holderreed, Anaconda, and Robert E. Sullivan, Butte, Mont., assignors to The Anaconda Company, a corporation of Montana

Application December 5, 1951, Serial No. 259,981
2 Claims. (Cl. 159—16)

2. The method of concentrating solutions by evaporation which comprises combusting a mixture of fuel and air to provide hot gases of combustion, passing said hot gases of combustion admixed with an excess of about from 40% to 50% of air over the amount required for complete combustion of the fuel downwardly through a body of the solution to be concentrated to a lower portion thereof, and discharging the mixture of gases of com-



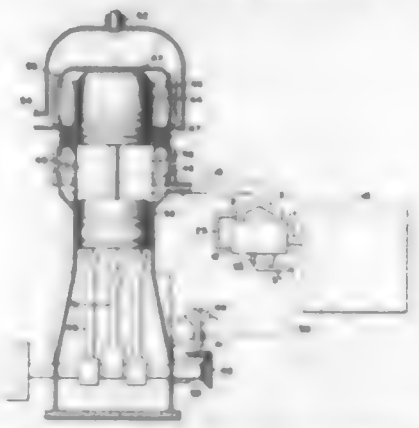
bustion and air into the solution in streams of bubbles of different size, with the bubbles of smallest size being introduced farthest from the bottom of the body of solution and with the size of the bubbles progressively increasing toward the bottom of the body of solution.

2,867,973

HOT-GAS RECIPROCATING APPARATUS

Roelf Jan Meyer, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

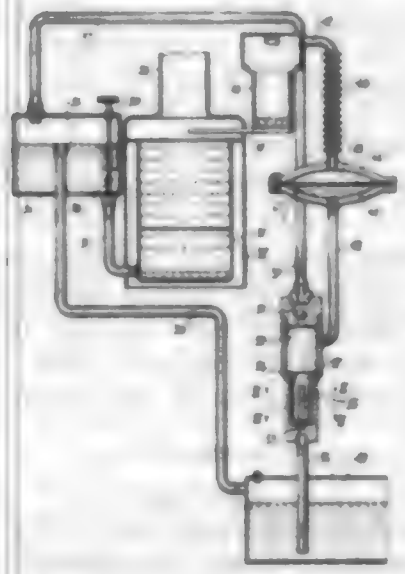
Application May 1, 1953, Serial No. 352,458
Claims priority, application Netherlands May 1, 1952
3 Claims. (Cl. 60—24)



1. A device for suppling working medium to at least one working space of a hot-gas reciprocating apparatus comprising; a casing, a conduit system connected to said working space and including a main conduit, first and second branch conduits connecting said main conduit with said casing, a first non-return valve in said first branch conduit permitting working medium to be conducted to said casing, a second non-return valve in said second branch conduit preventing working medium from being conducted to said casing, a supply vessel, means communicating said supply vessel with said casing for supplying said working medium through said casing and one of said branch conduits to said working space, two reducing valves in said casing, one of said reducing valves opening in the direction of said first non-return valve, the other of said reducing valves opening in the direction of said second non-return valve, means for simultaneously adjusting said reducing valves to predetermine the pressure at which they will open, said adjusting means including a common lever operatively connected to said reducing valves, an expandable chamber, an operating piston in said chamber, a spring at least substantially mounted in said chamber and operatively urged against said lever,

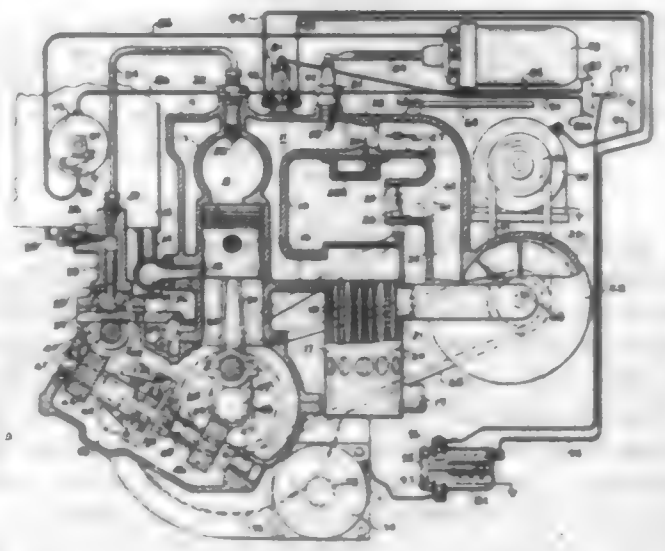
and a conduit connecting said chamber with said second branch conduit whereby the pressure of the working medium connected back through said conduit and acting on said spring together with the pressure of the working medium on said reducing valves are substantially equal. and means actuated by the cycle pressures occurring in said working space of said engine for bringing about a variation in the tension of said spring which results in movement of said lever.

2,867,974
HEAT MOTOR PUMP
Harald Svenning Wenander, Stockholm, Sweden, assignor to Aktiebolaget Bonthron & Ewing, Stockholm, Sweden, a corporation of Sweden
Application April 22, 1952, Serial No. 283,789
Claims priority, application Sweden November 29, 1951
1 Claim. (Cl. 60—25)



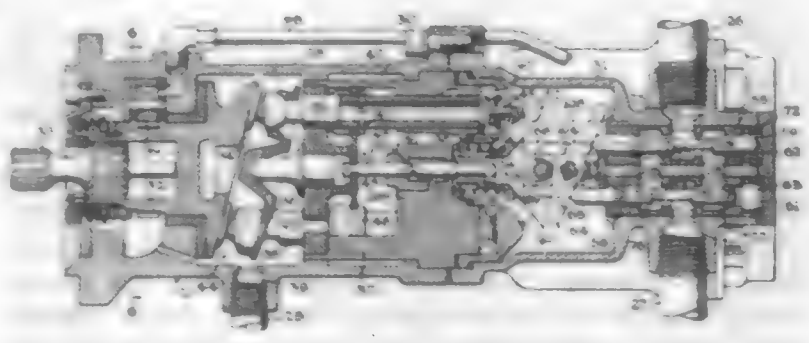
An automatic heat motor pump for pumping a liquid which comprises, in combination, a boiler containing a predetermined quantity of a volatile liquid, means for transmitting heat to the boiler for vaporizing said liquid, a condenser having one end in liquid communicating relationship with the boiler, means defining a first chamber for collecting the condensate from said condenser, said chamber being in liquid communicating relationship with the other end of said condenser and being of sufficient volume to hold all of the liquid contained in said boiler, said chamber, said condenser and said boiler forming a closed system, one wall of said chamber being formed by a flexible diaphragm for direct contact with the condensate collected in said chamber, means defining a second chamber adjacent said first chamber with said flexible diaphragm forming a wall of said second chamber, said second chamber containing the liquid to be pumped, and said flexible diaphragm being drawn into said first chamber upon occurrence of the pressure drop therein when all of the liquid in the boiler has been vaporized to initiate the return flow of liquid from said first chamber to said boiler, said second chamber being connected to a tank containing a supply of the liquid to be pumped and to an effluent line for discharging the liquid contained in said second chamber, and check valves for regulating the flow of liquid to said second chamber from said supply tank and to said discharge line upon movement of said flexible diaphragm in response to pressure changes in the closed system, said boiler consisting of an upper cylindrical portion, a lower cylindrical portion having a smaller diameter than said upper portion, and a central funnel-shaped portion connecting the two cylindrical portions, and a return conduit for the condensate communicating tangentially with the inner surface of the upper cylindrical portion, whereby condensate returning through said conduit is discharged along the inner surface of said upper cylindrical portion in a circumferentially-directed path.

2,867,975
STEAM ENGINE
Marion Mallory, Detroit, Mich.
Application October 26, 1953, Serial No. 388,124
6 Claims. (Cl. 60—27)



1. An engine comprising a cylinder having a wall, a second wall spaced from said first named cylinder wall, a piston reciprocating in said cylinder, the said walls having a tortuous way therebetween for the introduction of hot combustion gases, combustion means in communication with said passageway, means for injecting water into said cylinder, part of said last named means being arranged to receive heat from said walls, whereby to preheat the water to be injected into said cylinder, and throttle means for controlling the said combustion means and said water injecting means.

2,867,976
PUMP
Matthew W. Huber, Watertown, N. Y., assignor to The New York Air Brake Company, a corporation of New Jersey
Application October 11, 1956, Serial No. 615,368
7 Claims. (Cl. 60—52)



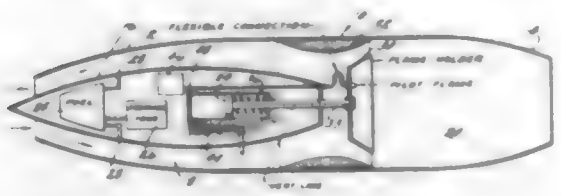
1. In combination, a pump; adjustable means for progressively varying the displacement of said pump; yielding means for biasing said adjustable means to a position establishing minimum pump displacement; a pump discharge passage and two delivery paths; a reversing valve normally closing said discharge passage but operable to vary progressively the communication between said passage and a selected delivery path; and means responsive to a selection of pump displacement and path of delivery for positioning said adjustable means against the bias of said yielding means and for simultaneously operating said reversing valve to establish a communication between said discharge passage and the selected delivery path proportional to the movement of said adjustable means.

2,867,977

SELF-STABILIZED BURNER

Richard S. Buck, Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application October 2, 1953, Serial No. 383,742
3 Claims. (Cl. 60—35.6)



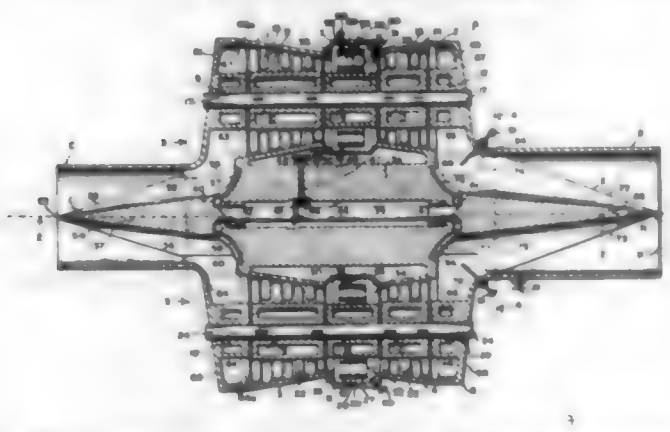
1. In a ramjet power plant having a diffuser, a combustion chamber downstream of said diffuser and receiving gases from said diffuser, an exhaust nozzle for discharging gases from said combustion chamber, means for injecting fuel into said combustion chamber, means for igniting the fuel-air mixture located downstream of said injecting means, a flamespreader adjacent said igniting means comprising a member blocking a portion of the passage formed by said combustion chamber, and means for automatically adjusting the position of said member in any one of a number of positions in a range including mechanism for sensing the pressure of the gases approaching said combustion chamber, the amount of blockage of said passage being proportional to the pressure sensed by said sensing mechanism.

2,867,978

DUAL SYSTEM PROPULSION MEANS

Adolphe C. Peterson, Minneapolis, Minn.

Application February 4, 1957, Serial No. 638,170
10 Claims. (Cl. 60—35.6)



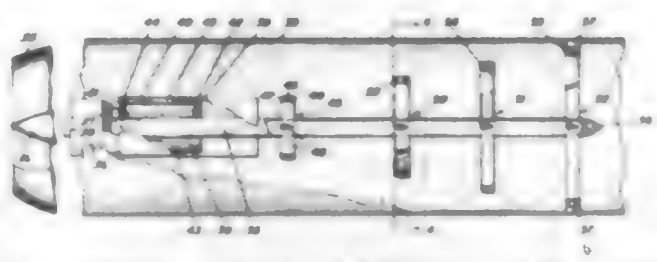
7. In a propulsion means, an air intake forwardly directed and open to atmosphere, a discharge tube rearwardly directed and open to atmosphere, an intermediate passage arranged to be connected with said air intake at its forward end and to be connected with said discharge tube at its rearward end, a plural number of compressor-turbine units mounted adjacent said intake and discharge tubes and passage, each compressor-turbine unit having rotatable therein a compressor-turbine rotor means, each of said means rotating as a unit, a combustion chamber means between the compressor means and turbine means of said compressor-turbine rotor means and means for injection of fuel thereto, ports from said air intake to said compressor means and ports from said turbine means to said discharge tube, valve means arranged axially of said air intake and said discharge tube to control said ports and the entry to and discharge from said intermediate transfer passage, said valve means comprising a valve member movably disposed in said air intake and having ports adapted to open said air intake to said transfer passage in one position and having ports adapted to open said air intake to said first named ports to said compressor means in another position, said valve means comprising also a valve member movably disposed in said discharge tube and having ports adapted to open said transfer passage to said discharge tube in one position and having ports adapted to open said second named ports from said turbine means to said discharge tube in another position, means for injecting fuel to air passing through said transfer passage to said discharge tube when the valve means directs such passage, and means for initiating combustion of air and fuel in said combustion chamber means or of air passing from said transfer passage with fuel to said discharge tube as fuel enters to either.

2,867,979

APPARATUS FOR IGNITING FUELS

James W. Mullen II, Richmond, Va., assignor to Experiment Incorporated, Richmond, Va., a corporation of Virginia

Application April 29, 1946, Serial No. 665,878
19 Claims. (Cl. 60—35.6)



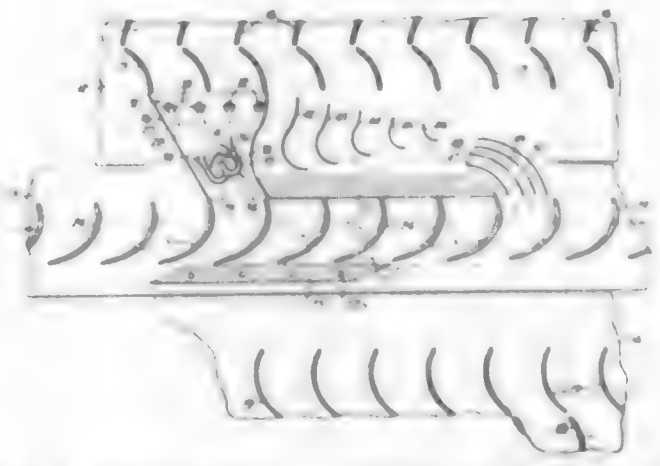
4. In a ram-jet, a duct and injector and flame holder means within said duct and spaced therefrom, said means comprising a hollow generally annular shroud having a plurality of apertures in communication with the manifold formed by the hollow of said shroud.

2,867,980

PRIME MOVER OF THE GAS TURBINE TYPE

Kenneth K. Knopf, San Mateo, Calif.

Application September 1, 1953, Serial No. 377,840
3 Claims. (Cl. 60—39.37)

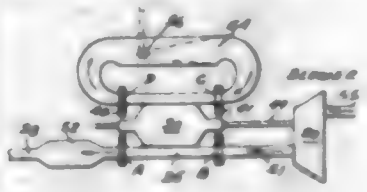


2. In a prime mover a turbine rotor provided with circumferentially spaced blades, said blades being curved and spaced to provide unobstructed flow passages between the same, a housing surrounding the rotor, means stationary with respect to the rotor blades defining with said blades a plurality of circumferentially spaced combustion chambers within the housing, means for forming a combustible mixture of fuel and air, means for introducing said combustible mixture into said combustion chambers, a compressor unit adapted to supply air under pressure to said rotor, the flow of compressed air being through the areas between the stationary means and between the blades of the rotor passing from one combustion chamber to the next whereby combustion supporting air is supplied to the combustion chambers and whereby remaining products of combustion from a preceding combustion chamber are scavenged from the spaces between the blades and the blades cooled, and flow directing means serving to cause a stream of cooling air to flow across said stationary means to cool the same.

2,867,981
AERODYNAMIC WAVE MACHINE FUNCTIONING AS A COMPRESSOR AND TURBINE

Max Berchtold, Paoli, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application May 9, 1956, Serial No. 583,647
3 Claims. (Cl. 60—39.45)



1. An aero-dynamic wave machine to produce shaft power operating on a forward cycle of instationary flow phenomenon; said aero-dynamic wave machine being comprised of a rotor, a first stator plate and a second stator plate; said rotor having a plurality of blades positioned around the periphery thereof to provide a plurality of channels; said channels being open at each end; said first stator plate being positioned at a first end of said channels and said second stator plate being positioned at a second end of said channels; said first stator plate having a hot exhaust port and a cold air pick-up port; said second stator plate having a cold air intake port and a hot intake nozzle; said cold air pickup port having a higher total pressure than said hot intake nozzle to thereby cause the creation of a reflected compression wave when said first end of one of said channels reaches the leading edge of said cold air pick-up port; said reflected compression wave travelling upstream and decelerating the fluid in said rotor; said hot intake nozzle having a trailing edge which is operatively positioned on the circumference of said rotor with respect to said leading edge of said cold air pick-up port so that said reflected compression wave created at said leading edge of said cold air pick-up port will traverse said one channel and arrive at the opposite end of said one channel during the time said channel passes said trailing edge of said hot intake nozzle; said blades having a configuration to extract the energy transformed by the deceleration of the fluid.

2,867,982
COMBUSTION CHAMBERS FOR JET-PROPULSION ENGINES, GAS TURBINES OR THE LIKE

John Stanley Clarke, Blacko, near Nelson, England, and Eric Samuel Collinson, Wexford, Ontario, Canada, assignors to Joseph Lucas (Industries) Limited, Birmingham, England

Application November 18, 1954, Serial No. 469,686
1 Claim. (Cl. 60—39.69)

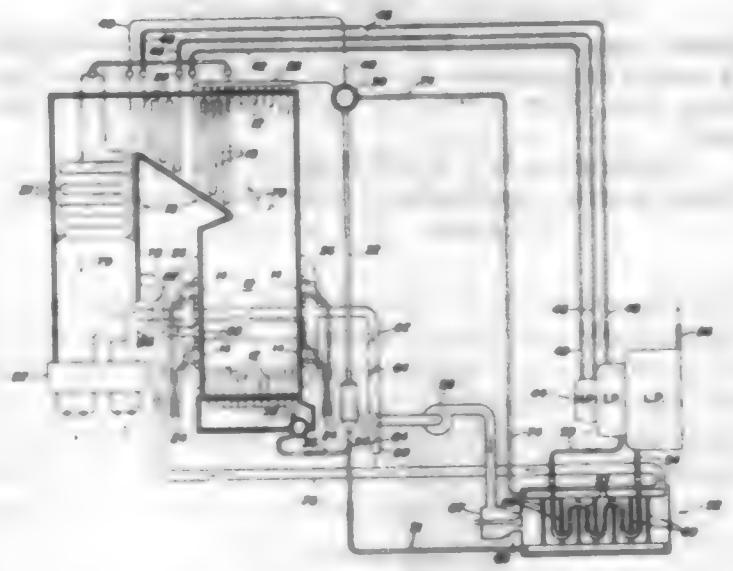


An annular combustion chamber for a prime mover, having at one end an annular entrance through which air under pressure can flow into said chamber, and having in combination baffle means situated around the interior of said chamber in a transverse plane adjacent said entrance, and separated from the internal peripheral surfaces of said chamber by spaces through which air admitted to said entrance can flow, burner nozzles carried by said baffle means in spaced relationship around the interior of said chamber, said baffle means having openings through which air from said entrance can flow between said nozzles, and swirl plates having edges contiguous with edges of the said openings and mounted on the approach side of said baffle means for setting up a swirling motion in the air passing through said openings.

2,867,983
POWER PLANT WITH SEPARATELY FIRED REHEATER

Wilbur H. Armacost, Scarsdale, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application October 29, 1953, Serial No. 389,071
13 Claims. (Cl. 60—73)

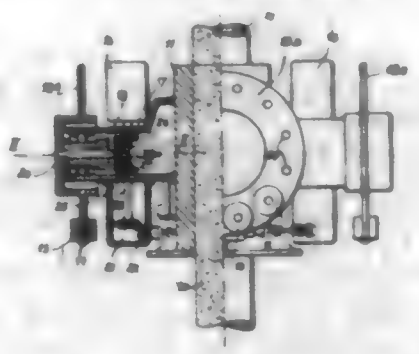


10. In a power plant installation operating on the reheat cycle the combination of a steam boiler fired by suitable burners and including a furnace with fluid circulating tubes on its wall, a superheater operatively connected to receive the steam generated by the boiler and superheat the same to a desired temperature and an air heater downstream of said superheater relative to the flow of combustion gases through the boiler and operating to heat combustion supporting air, said air heater being connected with said furnace to supply heated combustion supporting air thereto, a separately fired reheater for reheating the superheated steam generated by said boiler after a portion of its energy has been utilized, means conveying the combustion gases generated in the reheater to said boiler and introducing the same into the furnace thereof and into the boiler at a location intermediate the superheater and air heater, and means operative to adjustably control the proportioning of these combustion gases between these two locations.

2,867,984
DRIVING OR EXTRACTING PILES OR LIKE MEMBERS

Jacques Desvaux, Paris, and François Berthet, Houilles, France

Application October 21, 1955, Serial No. 542,006
Claims priority, application France October 28, 1954
4 Claims. (Cl. 61—73)



1. A device for driving piles and the like comprising a framework rigidly fixed to the pile, two pairs of vertical

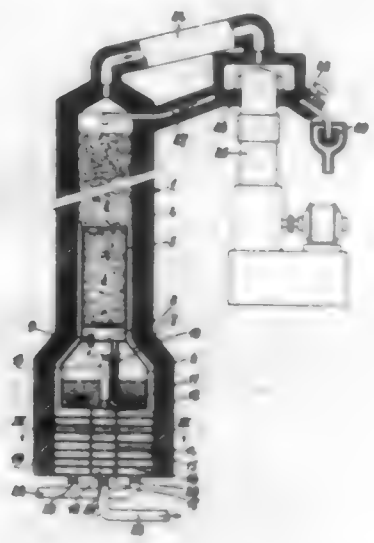
flywheels with ceentric weights on the said framework, the two fly-wheels of each pair being mounted in spaced relation along the same axis perpendicular to the axis of the pile and on each side of the pile the axes of the two pairs of fly-wheels being orthogonal to each other, means for fixing the eccentric weights on the said fly-wheels, means for driving the fly-wheels in rotation at the same speed, the two fly-wheels of one pair rotating in the same direction, and means for reversing the direction of rotation of one pair of fly-wheels with respect to the other pair.

2,867,985

GAS-SEPARATING APPARATUS

Johannes van der Ster, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application July 2, 1954, Serial No. 441,082
Claims priority, application Netherlands July 15, 1953
4 Claims. (Cl. 62—40)



1. A gas separating apparatus comprising a fractionating column having an insulating outer jacket and including a boiler, a cold-gas refrigerator for withdrawing heat from said gas separating apparatus including a freezer and a condensor surrounding said freezer, means maintaining a sub-atmospheric pressure in said condensor including a first outlet for condensed fluid provided with a liquid lock therein, a second outlet for condensed fluid connected to said column, and an inlet for said column wherein a gas mixture to be fractionated is drawn into said column at substantially atmospheric pressure due to the presence of sub-atmospheric pressure in said condensor, a tube in said boiler for expelling at least part of the vapor present in said boiler, means provided between the boiler and part of said column for causing a flow resistance to the rising vapors in said boiler whereby a pressure is built up in said boiler sufficient to expel said part of the vapor through said tube.

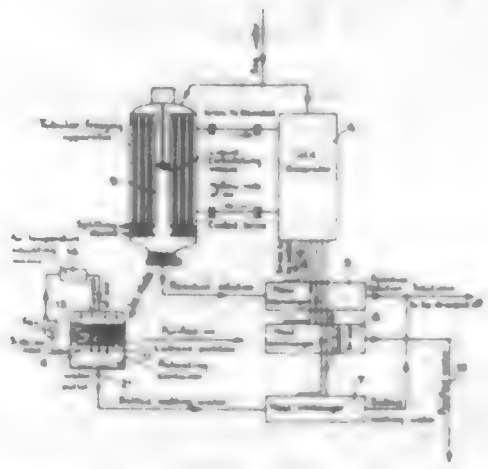
2,867,986

PROCESS TO DEMINERALIZE OR TO CONCENTRATE THE SALINE SOLUTIONS BY FREEZING SAID SOLUTIONS

Georges Trépaud, Paris, France

Application May 12, 1955, Serial No. 507,967
Claims priority, application France May 12, 1954
10 Claims. (Cl. 62—58)

3. A process for obtaining fresh water from a saline solution, comprising the steps of partially freezing the saline solution, separating the thus obtained ice from the remaining solution, bringing said ice into a divided state, blowing through said divided ice a flow of warm air to reheat the same progressively up to a temperature slightly below 0° C., withdrawing simultaneously the salted melting water, separating ice obtained thereby containing the required amount of salt, and melting said finally obtained ice.

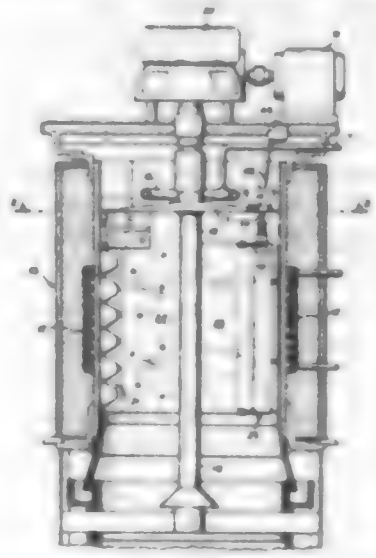


2,867,987

CONTROL DEVICE FOR ICE MAKING MACHINES

David Earle MacLeod and Enoch J. Karb, Syracuse, N. Y., assignors to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Application July 26, 1956, Serial No. 600,214
11 Claims. (Cl. 62—71)



2. A method for making ice comprising the steps of flowing a thin film of water over a refrigerated surface to form a thin sheet of ice thereon; gauging the thickness of the sheet of ice; exerting a compressive force on the ice sheet to sever the bond between the ice and the surface, whereby ice of a given thickness is formed and stopping the severing of said bonds in the event that an excess thickness of ice is gauged.

2,867,988

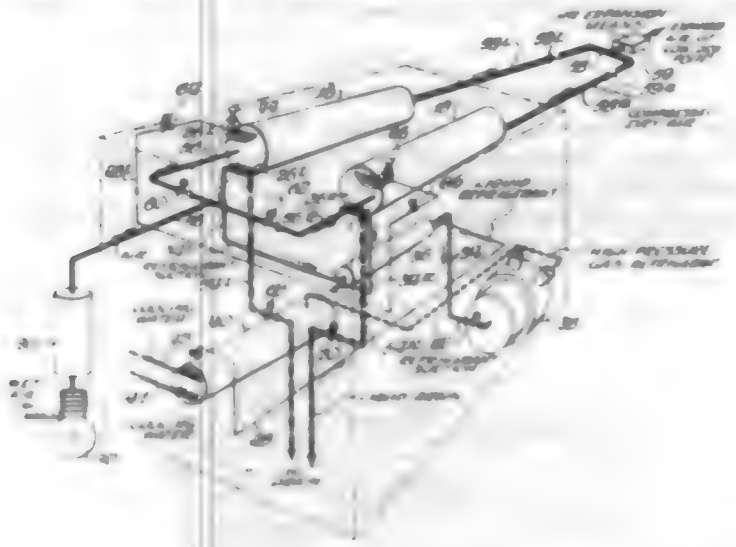
AIR DRYER CONSTRUCTION AND METHOD OF OPERATION

Paul H. Brandt, Park Ridge, Ill.

Application October 14, 1955, Serial No. 540,537
4 Claims. (Cl. 62—93)

2. The method of operating a two part dryer having first and second air treating chambers each having a cooling means and a heater comprising the steps of: first, passing air through the first chamber while energizing the cooling means of the same and while the heating means of the second chamber is energized; second, continuing the passage of air through the first chamber and energization of the cooling means thereof, while energizing the cooling means of the second chamber; third, passing air through the second chamber while energizing the cooling means of the same and while the heating means of the first chamber is energized; and fourth, passing air through the second chamber while energizing

the cooling means of the same and while the cooling means of the first chamber is energized, the whole being carried out at time intervals sufficient to remove the



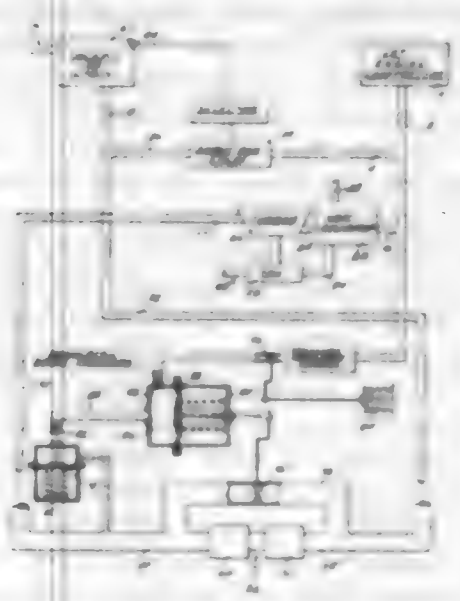
frost and condensate from each chamber to precool the same to normal air drying temperature before air is passed therethrough.

2,867,989

WATER SEPARATOR DE-ICING CONTROL

Thomas J. McGuff, Warehouse Point, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application February 17, 1955, Serial No. 488,821
7 Claims. (Cl. 62—150)



1. In combination with a water separator having an inlet and having a flow of moisture laden air normally flowing therethrough, by-pass means connected with said inlet and controlled by the pressure at the separator inlet for by-passing said separator and limiting the pressure rise in the inlet to said separator, means responsive to the ambient pressure for actuating said by-pass means and by-passing said separator when the ambient pressure is reduced below a preselected value less than sea-level pressure.

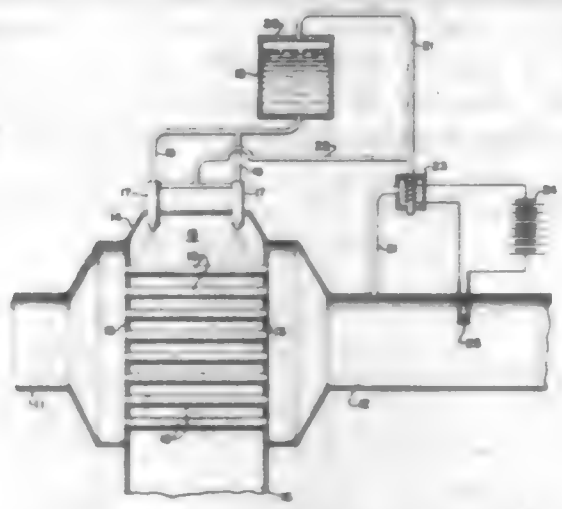
2,867,990

SPRAY TYPE EVAPORATIVE COOLER

John R. Cary, Redondo Beach, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application January 24, 1956, Serial No. 560,991
2 Claims. (Cl. 62—171)

1. A spray type evaporative cooler, comprising: a first pass in said cooler having heat transfer wall means; a first duct for conducting fluid from a source to said first pass; a second duct for conducting fluid from said first pass to a point of use; a second pass in heat transfer relationship to said first pass; means completely enclosing one end of said second pass and forming a spray chamber; outlet means at the other end of said second pass open to ambient atmosphere; means in said spray chamber for spraying an evaporative substance onto the surface of said heat transfer wall means in said second pass for cooling said fluid flowing through said first pass; a reser-



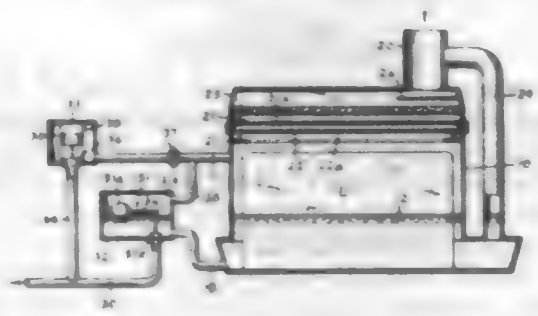
voir for storing and supplying said evaporative substance to said spray means; conduit means for conducting a flow of fluid from said second duct to said reservoir and said spray means; valve means for controlling the flow of fluid to said reservoir and said spray means; and means responsive to the temperature of the fluid discharged from said first pass for actuating said valve means.

2,867,991

INVERTIBLE EVAPORATOR

Jerzy Makowski, Babylon, N. Y., assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland

Application July 18, 1957, Serial No. 672,809
6 Claims. (Cl. 62—169)



1. An apparatus in which vapor is evolved from a liquid comprising a housing for the liquid, a vapor discharge passage, and a pair of relatively movable perforated plates separating the liquid in the housing and the vapor discharge passage, each perforation in one of the plates being offset with respect to each perforation in the other of the plates, said perforated plates being spaced apart in one position of the evaporator to permit the evolved vapor to pass through both of said perforated plates and to be discharged from the housing through the vapor discharge passage, and said perforated plates being movable together when the evaporator is inverted to stop the flow of the liquid through said perforated plates.

2,867,992

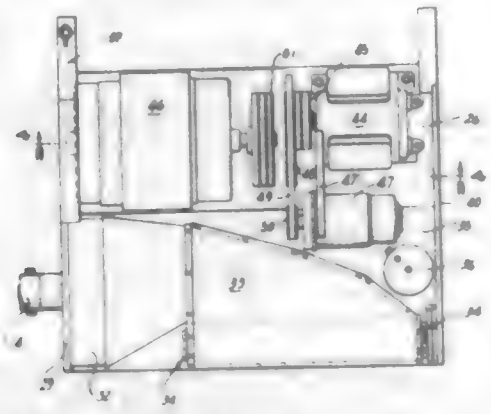
CONDENSER COOLING IN MOBILE REFRIGERATION UNIT

James W. McGuffey, Lansing, Mich., assignor to Tranter Manufacturing, Inc., Lansing, Mich., a corporation of Michigan

Application February 1, 1956, Serial No. 562,699
11 Claims. (Cl. 62—241)

11. Apparatus adapted to be mounted on a vehicle for refrigerating an enclosed body thereof, comprising a compressor unit having means adapted to be drivingly connected with a part of said vehicle to drive the com-

pressor unit at variable output rate in response to variations in the speed of the vehicle; and an air circulatory condenser unit adapted to be mounted in its entirety in a zone adjacent and beneath one side of said body, in a manner whereby the air circulating capacity of said condenser is influenced by ram and aspirative actions at its intake and discharge, respectively, in accordance with the speed of said vehicle, and a rise in compressor output rate is thereby accompanied by a rise in the air circulating capacity of said condenser, said condenser unit including a fully shrouded housing having an air



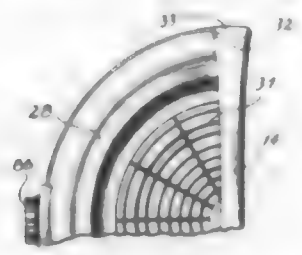
intake in said zone opening forwardly of said body and substantially unobstructed by said vehicle or body, a discharge opening in said zone provided with louvers inclined to the rear and outwardly of said side of said body for a side and rearward discharge of air, a fan located in said housing adjacent said air intake, and a coil in said housing adjacent said discharge, said shrouded housing defining an air circulating path past said coil which is shielded from external disturbance between said intake and discharge; and means to mount said condenser and compressor units in said zone with said compressor unit located inwardly of said housing.

2,867,993

DEHUMIDIFIER

Evans T. Morton, Knoxville, and Walter H. Weinrich, Lake Rice, Ill., assignors to Admiral Corporation, Chicago, Ill., a corporation of Delaware

Application February 1, 1954, Serial No. 407,484
5 Claims. (Cl. 62—297)



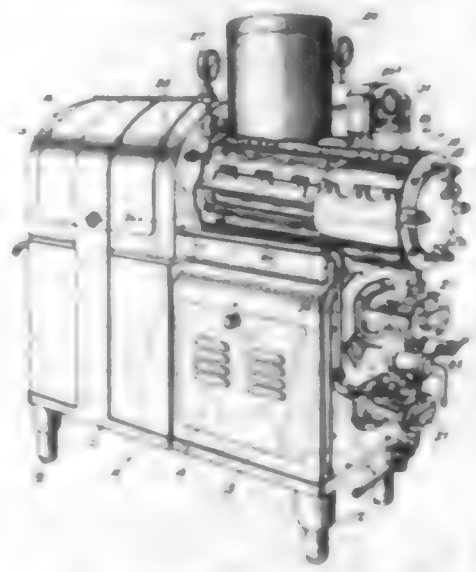
1. A dehumidifying apparatus comprising an upstanding cowl having air inlet and outlet openings at its lower and upper ends, respectively, a baffle plate extending substantially completely across the interior of said cowl adjacent the lower end of the cowl, said baffle plate having therein a central opening and a plurality of apertures for passing air from the air inlet opening up into the cowl, a motor-compressor mounted centrally within said cowl with its lower end disposed in said central opening in the baffle plate, an evaporator and a condenser in closed circuit with said motor-compressor, said evaporator having a lower tortuous portion in heat transfer relationship to said baffle plate and an upwardly extending portion composed of successive convolutions which extend up from said baffle plate and are wound around said motor-compressor, said upwardly extending portion of the evaporator being disposed in the path of the air flow up through said apertures in the baffle plate, a fan disposed at the upper end of the cowl, a motor for driving the fan mounted centrally within the cowl directly above said motor-compressor, and said condenser surrounding said motor for the fan and being disposed in the path of the air flow from said apertures in the baffle plate up through the cowl.

2,867,994

REFRIGERATION APPARATUS

Alden H. Wakeman, Lakemills, Wis., assignor to The Creamery Package Mfg. Company, Chicago, Ill., a corporation of Illinois

Application December 14, 1955, Serial No. 553,042
4 Claims. (Cl. 62—343)



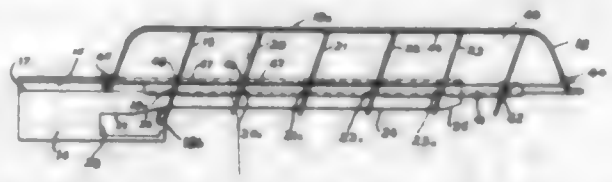
1. A freezing apparatus for ice cream mix or the like comprising an elongated first refrigerated compartment having a relatively large cross-sectional area through which the mix initially passes; power actuated first means movably mounted within said first compartment for simultaneously aerating and vigorously agitating substantially the entire volume of mix contained within said first compartment as the mix moves longitudinally through said first compartment toward one end thereof; an elongated second compartment having a refrigerated interior surface, said second compartment being serially connected to said first compartment one end; elongated second means mounted for relative rotational movement within said second compartment, the longitudinal dimensions of said second means and said second compartment being substantially the same, the periphery of said second means being disposed in close proximity to the refrigerated interior surface of said second compartment and cooperating therewith to form a restrictive elongated passageway of relatively small cross-sectional area and in enveloping relation with said second means and through which the mix is caused to pass in a relatively quiescent state to effect uniform reduction in temperature and controlled overrun of the mix; and third means mounted on the periphery of said second means and in slidable contact with said second compartment interior surface to prevent adhesion of the mix thereon.

2,867,995

ICE CUBE EJECTION MEANS

Walter H. Weinrich, Kenneth C. Mudd, and Duane S. Noecker, Galesburg, Ill., assignors to Midwest Manufacturing Corporation, Galesburg, Ill., a corporation of Illinois

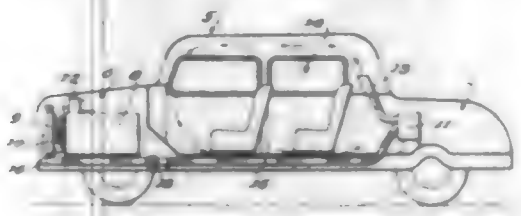
Application July 16, 1956, Serial No. 597,928
7 Claims. (Cl. 62—364)



1. A bracket for the removal of ice cubes from an ice cube tray containing a cube-forming grid, said bracket

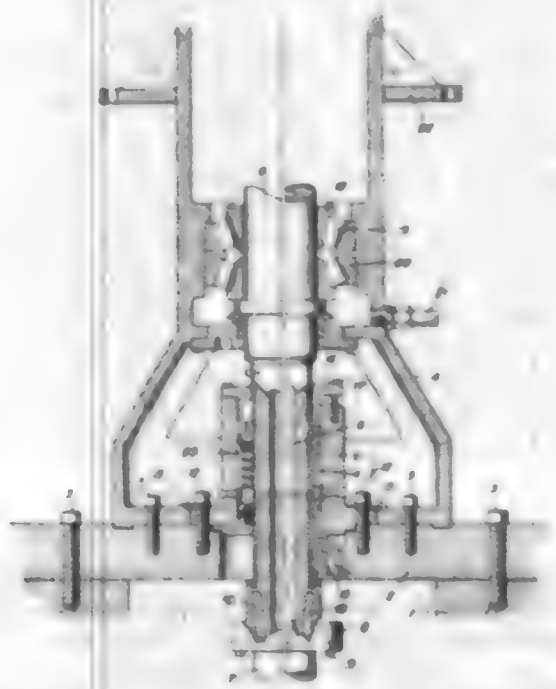
having guide means for guiding an inverted tray for sliding movement along the bracket, and said bracket having a portion positioned to be engaged by the grid to operate the grid to release the ice cubes as the tray is slid along the bracket.

2,867,996
COOLING MEANS FOR VEHICLE MOTORS
George P. Bullard, Pottstown, Pa.
Application September 1, 1955, Serial No. 531,877
2 Claims. (Cl. 62—243)



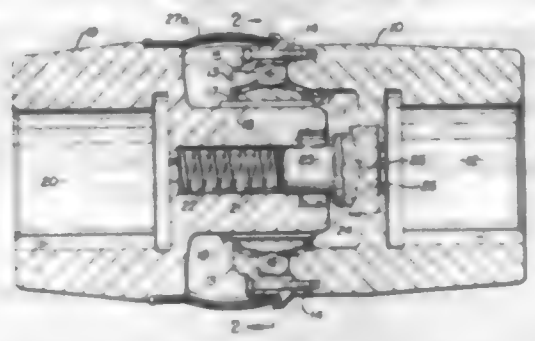
1. An air conditioning and motor cooling system for attachment to a conventional motor vehicle having an engine, a fan driven by said engine, and an engine cooling radiator at its front end, and a luggage compartment at its rear end; including a compressor adjacent said engine and driven thereby, an air conditioning unit in said luggage compartment operatively connected with said compressor, ducts for conducting cooled air to the passenger compartment of said vehicle, an elongated cooled air duct extending forwardly from said air conditioning unit along the body of said motor vehicle, discharge means at the end of said elongated duct furnishing cooled air to the front face of said radiator and means including said engine driven fan for drawing air through the radiator, said fan being disposed on the opposite side of the radiator from said discharge means.

2,867,997
AGITATOR SHAFT ASSEMBLY
Francis Gerard Lake, Glen Cove, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application June 11, 1956, Serial No. 590,544
4 Claims. (Cl. 64—1)



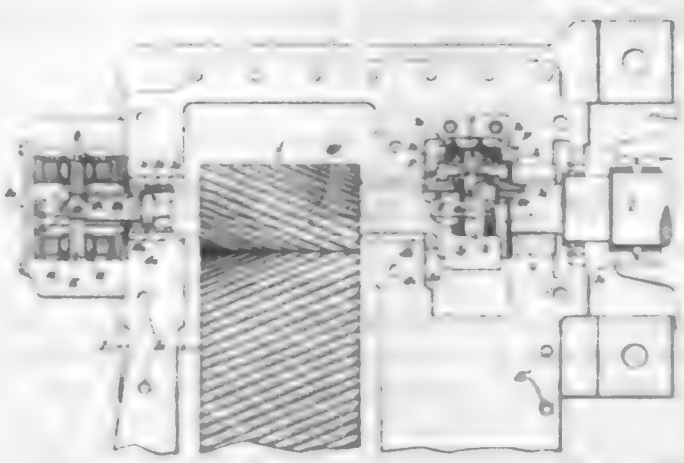
1. An improved drive shaft assembly adapted for pressure vessels and the like which consists essentially of: (1) a cover plate having a centrally located opening therethrough and being removably attached to a base member; (2) interchangeably fixed sealing means housed in an enclosure directly and removably attached to said cover plate; (3) fixed thrust bearing means located above and independent from said sealing means enclosure; (4) a drive shaft housing member removably attached to said cover plate adapted to enclose and separately contain the sealing and thrust bearing means; (5) a driven axially aligned drive shaft centrally extending through the thrust bearing means, sealing means and cover plate, respectively; and (6) a depending shafting detachably mounted to the axially aligned drive shaft at a point beneath the cover plate.

2,867,998
CONSTANT VELOCITY COUPLING
Lothar S. Heym, Youngstown, Ohio
Application September 7, 1956, Serial No. 608,581
2 Claims. (Cl. 64—7)



1. In a constant velocity coupling, including a driving member having a spherical socket at one end, said spherical socket having a plurality of circumferentially spaced parallel slots therein and a plurality of rollers disposed one in each of said slots, and a driven member having a projecting end positioned within said spherical socket, an arcuate grooved spherical ring gear positioned on said projecting end for movement longitudinally thereof, said rollers engaging said arcuate grooves in said ring gear, the improvement comprising a plunger reciprocally mounted in said projecting end of said driven member, spring means normally urging said plunger outwardly therefrom and into engagement with said driven member.

2,867,999
CLOSE-COUPLED ROTOR ASSEMBLY WITH THRUST-TRANSMITTING FLEXIBLE COUPLING FOR TURBINE-GEAR UNIT
Herbert N. Hoffman, Lunenburg, Mass., and Sherman P. Brickett, East Derry, N. H., assignors to General Electric Company, a corporation of New York
Application December 3, 1957, Serial No. 700,423
6 Claims. (Cl. 64—9)



1. A close-coupled rotor assembly comprising a first rotor having a first end flange portion adjacent and substantially coaxial with an end of a second rotor, bearing means located near the adjacent ends and rotatably journaling said rotors independently, thrust bearing means engaging a portion of the second rotor remote from the first rotor, the second rotor having a longitudinal bore opening adjacent the first rotor end flange and extending to a point adjacent the thrust bearing means, the second rotor having a second end flange portion at the end thereof remote from the thrust bearing means and adjacent the

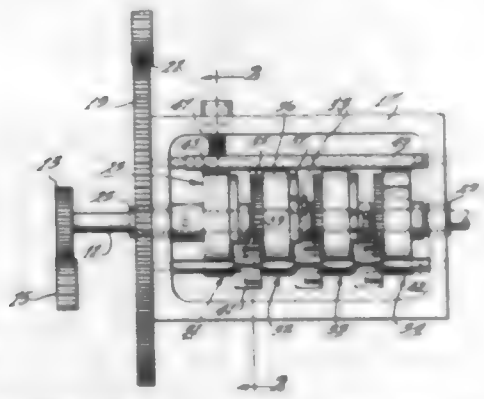
first rotor end flange portion, said first and second rotor end flange portions having annular members defining spline teeth, a coupling sleeve member with end portions disposed substantially coaxial with and adjacent said first and second end flange portions and having spline teeth engaging the flange spline teeth for transmitting torque between rotors, and a transversely flexible thrust-transmitting strut member disposed within said bore and having one end rigidly secured to the end of the second rotor adjacent the thrust bearing means and a second end portion projecting through the coupling sleeve member and rigidly secured to the first rotor end flange portion.

2,868,000

SELF-REGISTERING OVERLOAD MECHANISM

Archie Gold, Philadelphia, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force

Application September 30, 1955, Serial No. 537,768
8 Claims. (Cl. 64—29)



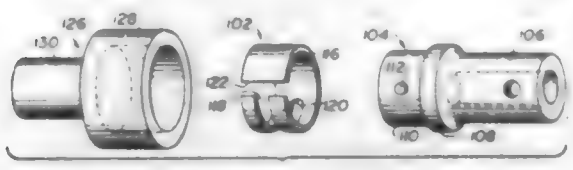
1. A self-registering overload mechanism comprising an input member and an output member, a mechanism connected between said members to measure the differential angular rotation of said members, latch means coupling said input member and said output member, said latch means being adapted to disengage in response to a predetermined differential load on said members, and said latch means being adapted to engage when said differential angular rotation of said members has been taken up.

2,868,001

BIDIRECTIONAL SLIP COUPLING

Robert C. Russell, Shaker Heights, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application February 21, 1956, Serial No. 567,019
8 Claims. (Cl. 64—30)



1. A coupling device comprising a rotatable input member, a rotatable output member, an arcuate, resilient band interposed in frictional driving relation between said input and output members, means on one of said members to drive an arcuate portion of said band in one direction of rotation and to drive a greater arcuate portion of said band in the opposite direction of rotation.

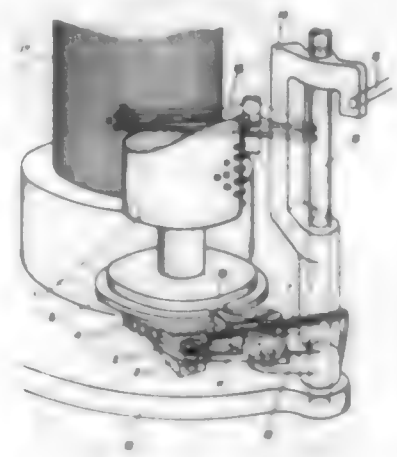
2,868,002

CONTROL DEVICE FOR CIRCULAR KNITTING MACHINES

Luigi Ferraguti, Condove, Italy

Application June 19, 1956, Serial No. 592,417
Claims priority, application Italy June 20, 1955
4 Claims. (Cl. 66—14)

1. In a circular knitting machine, a patterning drum, patterning levers operated by said drum, a ratchet gear driving said drum and operated by the main drive of the knitting machine, a control member operated by the main drive of the knitting machine and adapted to execute two active strokes of different lengths, a lever system operated by said control member and adapted, when operated by the shorter stroke of said control member,



to lift said patterning levers and to stop said ratchet gear and, consequently, said drum, and adapted, when operated by the longer stroke of said control member, to further lift said patterning levers and to temporarily release said ratchet gear, causing said patterning drum to rotate idly to its initial position.

2,868,003

PHOTOFLASH LAMP

Warren F. Albrecht, Euclid, Ohio, assignor to General Electric Company, a corporation of New York

Application February 13, 1957, Serial No. 639,959
5 Claims. (Cl. 67—31)



1. A photographic flash lamp comprising a sealed radiation-transmitting bulb, a pair of spaced metallic electrodes extending into said bulb, one of said electrodes having substantially its full length within the bulb coated with electrically insulating material, at least a portion of said insulating material consisting of a primer, a loose mass of metallic combustible material substantially filling said bulb and in contact with both the primer on said one electrode and with the other electrode and forming an electrically conducting path therebetween for formation of a spark discharge between said one electrode and the combustible material through said primer upon application of a high voltage current to said electrodes, and a combustion-supporting atmosphere in said bulb.

2,868,004

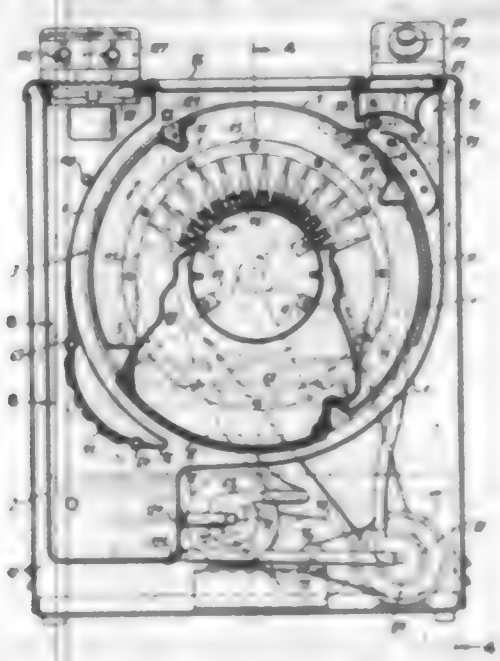
WASHING AND DRYING MACHINES

Kenneth R. Runde, St. Louis County, Mo.

Application October 11, 1952, Serial No. 314,335
15 Claims. (Cl. 68—12)

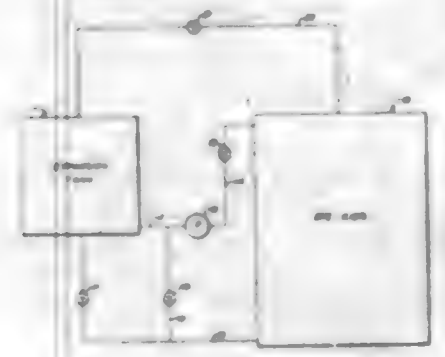
1. A machine for washing fabrics comprising a container, an enclosure supported for rotation within said container on a substantially horizontal axis, said enclosure being provided with a perforated peripheral wall structure, means for delivering fabric washing liquid to said enclosure, and a flexible expansible balancing member, the length of which is approximately equal to the inner circumference of said enclosure and disposed within the latter and partially filled with liquid which is distinct

from the liquid delivered into said enclosure and serves as a means for balancing the machine and means for



securing the aforementioned length portion of said flexible member to a side wall portion of said enclosure.

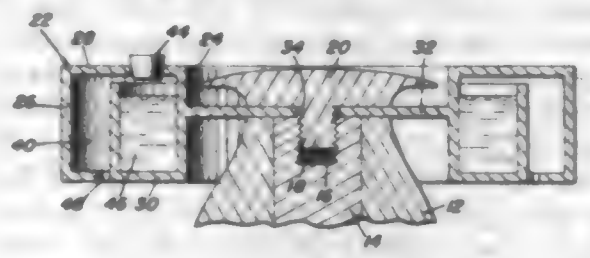
2,868,005
TEXTILE DYEING APPARATUS
William S. Johnson, Salisbury, N. C.
Application July 27, 1956, Serial No. 600,587
5 Claims. (Cl. 68—184)



5. Apparatus for dyeing textile materials, said apparatus comprising a dye kier for receiving textile materials to be dyed, an expansion tank for receiving and supplying a dye bath to said kier, a circulating pump, a feed conduit connected from said expansion tank to the intake of said pump, a pipe connecting the discharge of said pump to said kier, a dye bath return pipe connected from said kier to said expansion tank, a valve in said return pipe, a by-pass conduit connected to said return pipe between said valve and said kier and to the intake of said pump and a second valve in said by-pass conduit whereby said first and second valves may be set to re-circulate a portion of said dye bath directly from said return pipe through said by-pass conduit and said pump to said kier, the remaining portion of said dye bath returning to said expansion tank for mixing with the contents thereof and re-circulation through said kier.

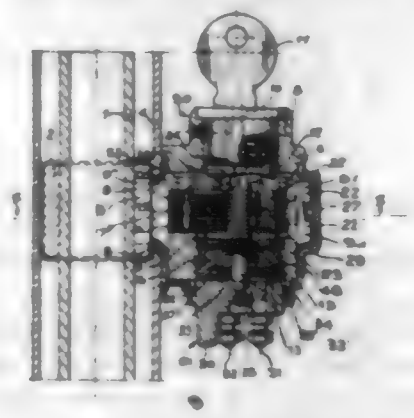
2,868,006
CLOTHES TREATING LIQUID DISPENSER FOR AUTOMATIC WASHING MACHINES
Loyal H. Tingley, Jr., Vermont, Ill.
Application January 13, 1956, Serial No. 559,011
14 Claims. (Cl. 68—207)

3. A clothes washing machine adapted to proceed through a sequence of operations including a washing operation, a centrifugal extraction operation, and a rinsing operation, a rotatable clothes basket, an agitator disposed within said clothes basket, drive means for driving said agitator for washing clothes and for rotating said basket to extract liquid centrifugally from said clothes and causing said agitator to rotate with said basket during the rotation thereof, and a rinse agent dispenser mounted on said agitator for discharging a liquid rinse agent after the extraction operation to treat the liquid in said basket during the rinsing operation, said dispenser including



means for containing said rinse agent in said dispenser during the washing operation, means for retaining said rinse agent in said dispenser during the extraction operation, and means for discharging the rinse agent at the end of the extraction operation.

2,868,007
ANTI-THEFT DEVICE
Abram Neiman, Neuilly, and Paul Lipschutz, Croisy, France, said Lipschutz assignor to said Neiman
Application March 6, 1956, Serial No. 569,883
Claims priority, application France March 15, 1955
3 Claims. (Cl. 70—252)



1. In a theft preventing device for use in a combination with a lockable part of a motor vehicle having an ignition circuit and a starter circuit, said device comprising: a body having a slot, a bolt displaceable in said slot, said bolt being settable in retracted positions and in a position partly protruding from said body for locking engagement with said lockable part, an actuating member rotatably mounted in said body, said actuating member having a passage for receiving a lock-key for operation by the latter, a switch including stationary terminal means and movable contact means, a series of terminals on said terminal means for connection with said circuits, controlling means operatively coupling said rotatable actuating member to said displaceable bolt and said movable contact means for causing a simultaneous displacement of said bolt and said movable contact means in coordination with a rotation of said actuating member, said actuating member being settable in a "stop" position wherein the contact means interrupts the ignition and starter circuits at the terminals, in a "drive" position wherein the contact means closes the ignition circuit and interrupts the starter circuit at said terminals and in a "start" position wherein the contact means closes the ignition and starter circuits at said terminals, said bolt being in a retracted position when said actuating member and contact means are in said "stop," "drive" and "start" positions, engaging means on said bolt, and an actuating spring acting on said bolt for urging same into its protruding position, said engaging means being in engagement with the lock-key inserted into said actuating member and projecting from the latter, when said actuating member is in said "stop" position so as to hold said bolt in a retracted position, said actuating spring being released for urging said bolt into its pro-

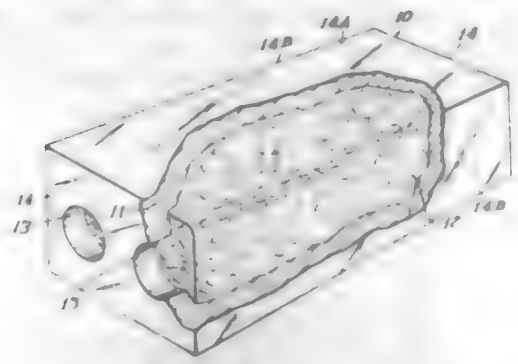
truding position for locking engagement with said lockable part upon withdrawal of the lock-key from said actuating member and, thus, disengagement from said engaging means, said controlling means including first controlling means operatively coupling said rotatable actuating member to said displaceable bolt and said movable contact means for causing coordinated movements of said actuating member, said bolt and said contact means during movements between said "stop" and "drive" positions, and second controlling means including a first lug on said actuating member and a second lug on said bolt, said lugs being positioned for displacing said bolt when a rotation of the actuating member from the "stop" position to the "drive" position is continued beyond said "drive" position.

2,868,008

BUILDING BRICK

Harry A. Toulmin, Jr., Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application December 1, 1953, Serial No. 395,467
4 Claims. (Cl. 72—36)



4. A wall structure comprising a plurality of lightweight building bricks arranged to present a surface, each of said bricks comprising an enclosed ceramic casing substantially rectangular in shape having end walls and having a hollow interior, a glass fiber block within said hollow interior completely filling the same and comprising glass fibers compacted into a block and impregnated with a thermosetting resin binder to form an integral mass, said ceramic casing being fused to all faces of said glass fiber block, portions of the inner surface of said ceramic casing infiltrating into said glass fiber block below the outer surfaces thereof to form an interlocking of the ceramic casing with each of the surfaces of the glass fiber block, there being apertures in the closed end walls of said ceramic casing exposing said glass fiber block to the exterior, and mortar between cooperating faces of adjacent lightweight building bricks with the mortar between the end walls of the building bricks extending into the apertures therein to provide an interlocking between the mortar and the end walls of the bricks.

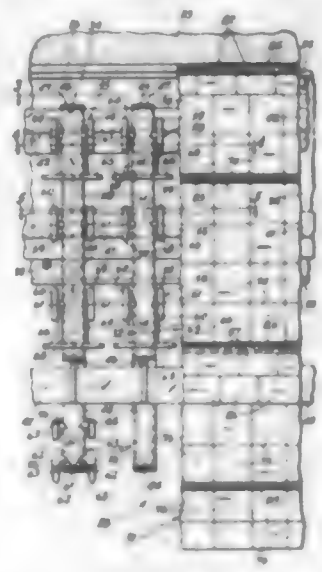
2,868,009

SUSPENDED FURNACE WALL CONSTRUCTION

Herman W. Weber, Richmond Heights, Mo., assignor to Laclede-Christy Company, St. Louis, Mo., a corporation of Missouri

Application November 26, 1954, Serial No. 471,411
2 Claims. (Cl. 72—101)

1. In a vertical furnace wall, means for supporting identical refractory tiles to accommodate various degrees of both vertical and lateral expansion of the tiles, said supporting means comprising a plurality of runner bars retained in parallel upright position, a plurality of shelves disposed one above another on each of said runner bars, said shelves having individual flat horizontal upper surfaces, vertically disposed refractory tiles supported on said shelves, and a plurality of hangers in removable interlocking engagement with each of said runner bars for retaining said tiles in substantial vertical alignment in a vertical plane parallel to said runner bars, said hangers being disposed in vertically spaced pairs of horizontally



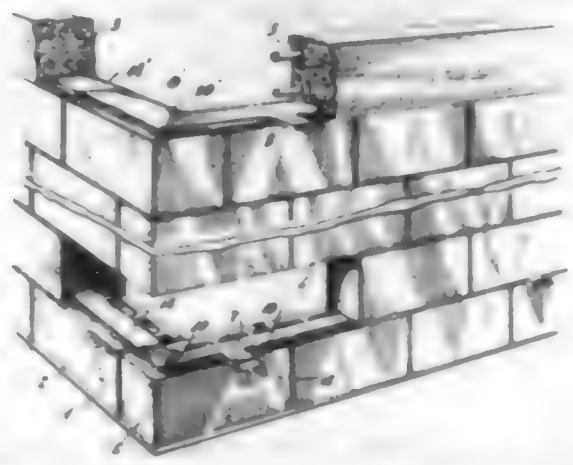
opposed hangers on each runner bar, each hanger having individual pivotal engagement with two adjacent tiles, the axis of said pivotal engagement being vertical.

2,868,010

VENTILATED BLOCK WALL

Marion D. Murphy, West Palm Beach, Fla.

Application November 4, 1954, Serial No. 466,793
1 Claim. (Cl. 72—127)



A ventilated wall comprising a plurality of courses of vertically cored cementitious blocks having mortar joints between said courses, a lintel beam secured to the top course of said blocks, and a pair of peripherally positioned ventilating devices positioned within the said mortar joints, one of said devices comprising a plurality of space unrestricted channel-shaped members having an outwardly extending channel-shaped projection on each of said members communicating with the atmosphere and the core of said blocks over which positioned, channel-shaped connectors forming continuous pheripheral air passages with said members by telescopingly engaging said members, said channel-shaped members and connectors being peripherally positioned over the vertical cores in a course of said blocks near the bottom of said wall, the second set of said devices peripherally positioned in a mortar bed between the top course of said blocks and said lintel beam of said wall, and said channel-shaped members and connectors having a thickness less than the thickness of the mortar bed in which positioned.

2,868,011

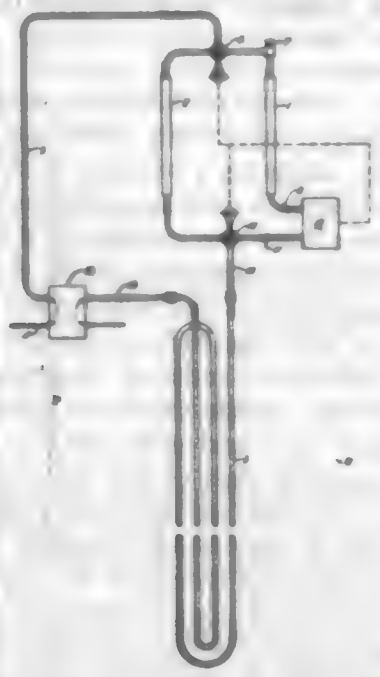
MULTIPLE-COLUMN CHROMATOGRAPHIC APPARATUS

Norman D. Coggeshall, Verona, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application December 16, 1955, Serial No. 553,571
3 Claims. (Cl. 73—23)

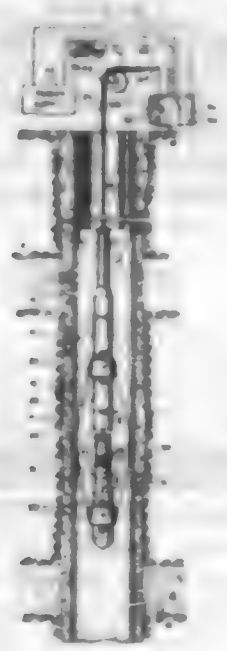
1. A partition chromatography apparatus which comprises a first partition column and a parallel by-pass

column, means to introduce a carrier gas into said parallel columns, a principal partition column in series with the first column and the by-pass column, means between said first column and said principal column for analyzing the effluent from said first column, valve means responsive to said analyzing means for switching the flow of carrier



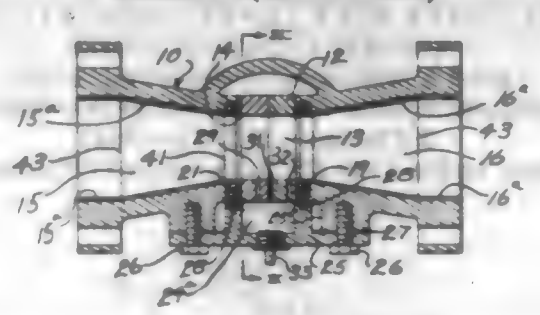
gas from said first column to said by-pass column on the appearance of a predetermined constituent in the effluent from the first column, means intermediate the valve means and the first column for introducing a fluid mixture to be analyzed, and means for analyzing the effluent from said principal column.

2,868,011
FLOWMETER
Maurice P. Lebourg, Houston, Tex., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas
Application November 16, 1954, Serial No. 469,089
6 Claims. (Cl. 73—155)



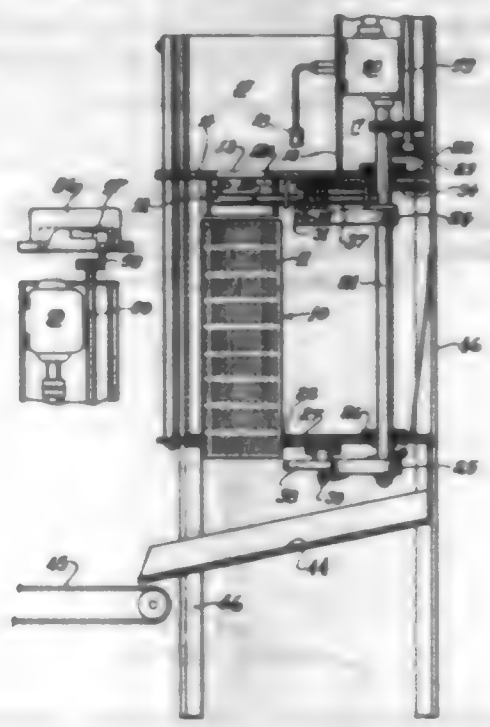
1. In apparatus for indicating fluid flow in a well, the combination comprising an elongated housing adapted for lowering into a well, a single bladed paddle rotatably mounted exteriorly of said housing on an axis transverse to said housing, motor drive means in said housing for rotating said paddle to move the same alternately with and against fluid flow, means continuously responsive to variations in the loading of said paddle in moving with and against fluid flow for producing a signal representing said variations, and recording means responsive to said signal for providing a time record of the amplitude of such variations.

2,868,013
FLUID MEASURING APPARATUS AND VALVE EMBODIED THEREIN
Charles E. Terrell, Birmingham, Ala.
Application November 1, 1954, Serial No. 466,059
6 Claims. (Cl. 73—213)



1. In fluid measuring apparatus, a housing, there being a fluid passage in the housing comprising a cylindrical throat section and a frusto conical convergent section joined in a sharp and unbroken angle to the upstream end of the throat section, the relation of the diameter of the throat section to the major diameter of the convergent section (d/D) being .600 to .625, the included angle of the convergent section being approximately 21°, the length (l) of the throat section being between $1.4d$ and $1.5d$, there being at least one laterally directed opening extending from outside the housing into the throat and positioned approximately $.50d$ to $.60d$ from the upstream end of the throat section, and a connection by means of which pressure in said lateral opening may be impressed on a pressure actuated indicator.

2,868,014
SHRIMP METERING DEVICES
Fernand S. Lapeyre and James M. Lapeyre, New Orleans, La., assignors to The Peelers Company, Houma, La., a partnership
Application August 30, 1954, Serial No. 452,957
11 Claims. (Cl. 73—223)



1. A shrimp metering device comprising a shrimp and water receiving tank, a foraminous metering container, a blocking chute communicating said metering container with said tank for passing the shrimp to be metered from said receiving tank to said container, trapping means at the top and bottom of said metering container to trap a metered quantity of shrimp therein, and release means connected to said trapping means and control means for said release means arranged in said tank to actuate said trapping means to release a metered quantity of shrimp from said container when said container has been filled with shrimp and excess shrimp matt in said blocking chute

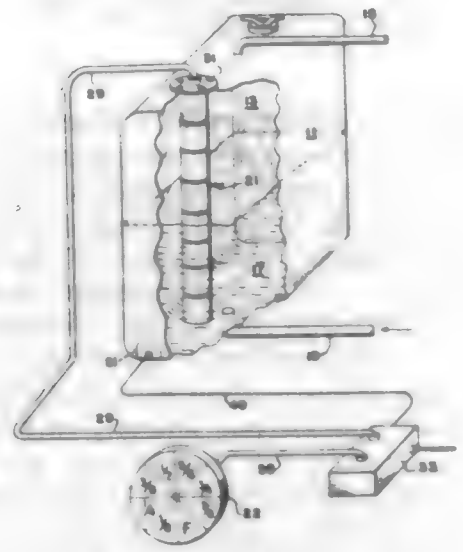
forming a fluid seal causing the water to rise in said tank to a predetermined level at which time said release means are actuated.

2,868,015

CAPACITIVE STEP LEVEL INDICATOR FOR CONDUCTIVE LIQUIDS

John T. Haropulos, Kensington, Md.

Application June 30, 1953, Serial No. 365,298
2 Claims. (Cl. 73—304)
(Granted under Title 35, U. S. Code (1952), sec. 266)



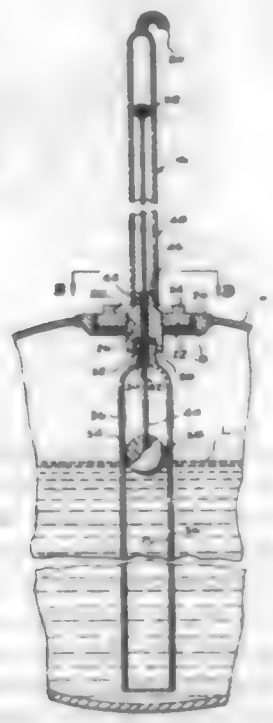
1. In a remote indicating level gauge for use in a conductive liquid, a capacitive unit at least partially submersed in said liquid comprising a plurality of vertically disposed juxtapositioned capacitive elements each insulated from the remaining capacitive elements and from said liquid to thereby prevent current flow between the elements and contamination of such elements by the liquid, conductive means contacting said conductive liquid, individualized current responsive elements connected to each of said capacitive segments respectively, and a source of alternating current connected to said conductive means and to said current responsive elements.

2,868,016

LIQUID LEVEL GAUGE

Robert F. Steed, Fuquay Springs, N. C.

Application October 7, 1955, Serial No. 539,045
2 Claims. (Cl. 73—322)



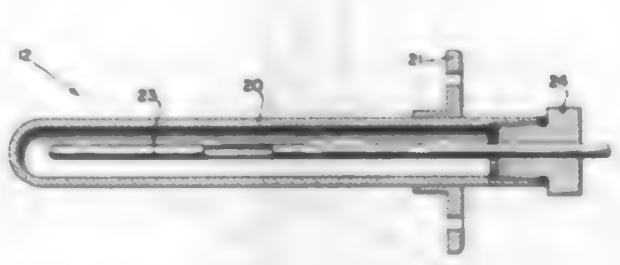
1. A liquid level gauge for mounting in an opening of a tank, comprising a tubular connector member adapted for centering in the tank opening and formed with external threads substantially medially between opposite ends of the member; a flat, centrally apertured plug having external threads and formed with threads on the wall of the center aperture thereof, the last named threads engaging said connector member with the connector member extending through the aperture of the plug and projecting at its opposite ends upwardly and downwardly from the respective, opposite faces of the plug, said plug being formed with an upstanding projection extending about and spaced outwardly from said center opening and shaped for receiving a wrench, said projection having a large center recess communicating with the center aperture of the plug with the connector member at one end projecting upwardly within the recess, the connector member being formed at one end with an axial threaded recess communicating with the bore of the tubular member and at its other end with a reduced, exteriorly threaded axial extension through which the bore opens; a rod loosely slidable in said bore and projecting at its opposite ends beyond the opposite ends of the tubular member; a float on one end of the rod; an indicator element on the other end of the rod; a sight tube receiving said other end of the rod and internally threaded at one end for engagement on the reduced axial extension of the connector member; and a guide tube receiving the float-provided end of the rod and formed with a plurality of openings through which liquid may enter the guide tube, the guide tube being formed at one end with a reduced, exteriorly threaded axial extension engageable in said recess of the connector member, said extension of the guide tube being formed with an axial bore forming an extension of the bore of the connector member, the float being of substantially greater diameter than the bore of the extension of the guide tube, the indicator element being of greater diameter than the diameter of the bore of the connector member, whereby to hold the connector member, rod and guide tube against detachment from one another when the guide tube is threaded out of the recess of the connector member.

2,868,017

TEMPERATURE MEASURING APPARATUS

Richard B. Beard, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application August 31, 1954, Serial No. 453,350
5 Claims. (Cl. 73—368.2)



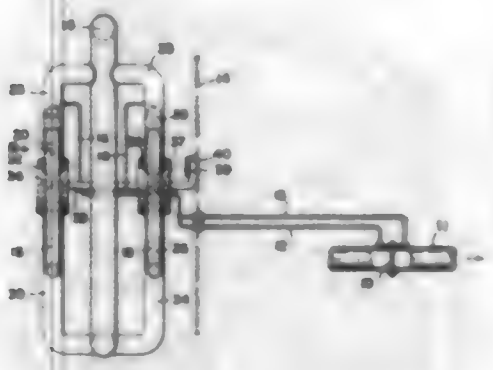
1. Temperature measuring apparatus comprising a hermetic container for disposal in a space where a temperature is to be measured, a mixture of reactant gas constituents in said container and constituting the gaseous atmosphere thereof, the chemical equilibrium of said constituents being dependent upon the temperature thereof, a permeable member defining a chamber in said container, said permeable member passing a constituent of said atmosphere to said chamber to establish a constituent of partial pressure therein in accordance with the temperature to which said atmosphere is subjected, and pressure sensing means connected to said chamber.

2,868,018

RING BALANCE FOR MEASURING PRESSURE DIFFERENCES

Robert Clark Du Bois, Fairfield, Conn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application July 22, 1954, Serial No. 445,169
6 Claims. (Cl. 73—405)



1. An improvement in connecting pressure lines to a pivoted ring balance manometer comprising a first hollow annulus, a low and high pressure chamber separated by a liquid in said annulus, a hollow partial annulus concentrically mounted on said first annulus, said partial annulus having one end open to atmosphere, and its other end connected to said low pressure chamber of said first annulus by way of a hollow spoke portion, a stationary conduit within and spaced from the inner walls of said hollow partial annulus, a pool of liquid between the said partial annulus and said stationary conduit, said stationary conduit having one end fixedly connected to a low pressure source and having its other end opening into the end portion of said partial annulus that is connected to the low pressure chamber, a second partial annulus concentrically mounted on said first annulus, said second partial annulus having one end open to atmosphere and its other end connected to said high pressure chamber of said first hollow annulus by way of a second hollow spoke portion, another stationary conduit within and spaced from the inner walls of said second partial annulus, a pool of liquid between said second partial annulus and said latter mentioned stationary conduit and said latter mentioned stationary conduit having one end fixedly connected to a high pressure source and having its other end opening into the said end portion of said last mentioned annulus that is connected to said high pressure chamber.

2,868,019

SOIL CORING APPARATUS

Almond D. Bull, Chickasha, Okla.

Application August 7, 1953, Serial No. 373,072
2 Claims. (Cl. 73—421)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In an apparatus for obtaining soil profile core specimens, an elongated soil coring tube, a driving head for said coring tube, means for coupling the driving head to the coring tube and driving means for driving said coring tube into and withdrawing it from the soil; said driving head comprising a cylindrical member secured to the driving means of the apparatus; said coupling means comprising a first cylindrical member adapted to fit within the driving head and to protrude therefrom, means for securing said first cylindrical member within the driving head, a transverse slot provided near the protruding end of said first cylindrical member and extending only partially around the circumference, a second cylindrical member of outside diameter equal to that of the first cylindrical member, a shaft portion extending longitudinally from the second cylindrical member and being integral therewith, said shaft portion being adapted to fit loosely within the first cylindrical member, means for rotatably securing the shaft portion within the first cylindrical member, means secured to the shaft portion to restrict its rotation to the length of the slot in the end of the first cylindrical member; the second cylindrical member being provided with a triangular slot at the end thereof, said triangular slot at its upper end being continued transversely to the longitudinal axis of the second cylindrical member and ending in a circular recessed opening provided with an upwardly extending lip; said aforementioned coring tube



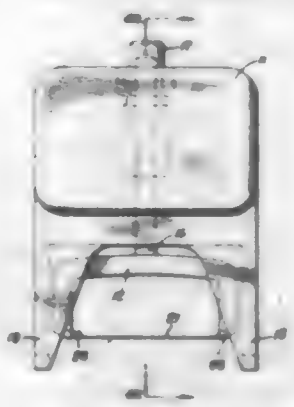
being provided at its upper end with a shaft portion inserted and rigidly secured therein, said shaft portion protruding from the coring tube and being of such a diameter as to rotatably fit within the second cylindrical member of the coupling, a pin driven transversely through the protruding end of the shaft portion extending to both sides therefrom and adapted to mate with the triangular slot and circular recess at the end of the second cylindrical member of the coupling.

2,868,020

APPARATUS FOR APPLYING A LIQUID SAMPLE

Fred G. Williams, Jr., Redwood City, Calif., assignor to Beckman Instruments, Inc., Fullerton, Calif., a corporation of California

Application February 24, 1955, Serial No. 490,262
6 Claims. (Cl. 73—432)



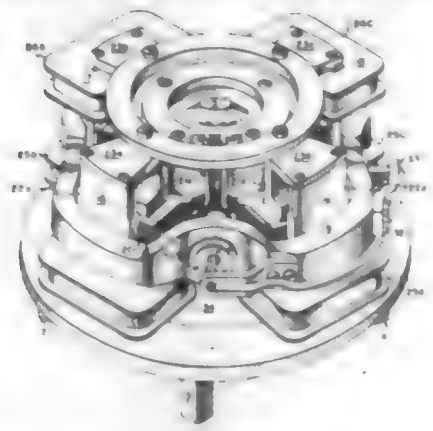
1. In a device for applying a liquid sample to a sample carrier, a pair of spaced parallel wires adapted to carry a film of the sample between the same, a bow serving to mount the wires and having its extremities attached to the extremities of the wires, a frame having a pair of legs extending adjacent the ends of the bow, the extremities of said legs being notched for engagement with a member over which a paper strip is draped, said legs forming guideways for the end portions of the bow, means for moving the bow with respect to the frame between retracted and advanced positions, said bow in its advanced position bringing the bottom surface of said liquid sample into contact with the sample carrier, and spring means serving to urge said bow towards the retracted position.

2,868,021

GYROSCOPIC APPARATUS

Hugh Brougham Sedgfield, Hampton, and William Fisher Luttrelle, Holyport, England, assignors to The Sperry Gyroscope Company Limited, Brentford, England, a British company

Application July 15, 1954, Serial No. 443,578
Claims priority, application Great Britain July 17, 1953
6 Claims. (Cl. 74—5.4)



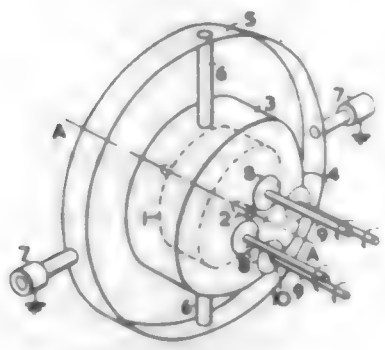
1. The combination in a gyroscopic apparatus with a gyroscopic rotor mounted to spin about a spin axis in a rotor case supported with freedom about a first axis perpendicular to the rotor spin axis in a gimbal frame mounted on a support with freedom about a second axis perpendicular to the first axis and normally perpendicular to the spin axis; electromotive torque producing means between the support and rotor case including a plurality of equiangularly disposed electromagnets fixedly connected to the support having air gaps across which flux passes in a radial direction in the plane of the gimbal frame axes displaced at an angle to each of the gimbal frame axes, and a single energized coil fixedly connected to the rotor case bowed outwardly therefrom in oppositely disposed positions to thread the air gaps in the respective electromagnets.

2,868,022

GYROSCOPIC APPARATUS

Stanley Barcroft, Farnborough, England, assignor to The Minister of Supply, in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland, London, England

Application August 31, 1955, Serial No. 531,636
12 Claims. (Cl. 74—5.4)



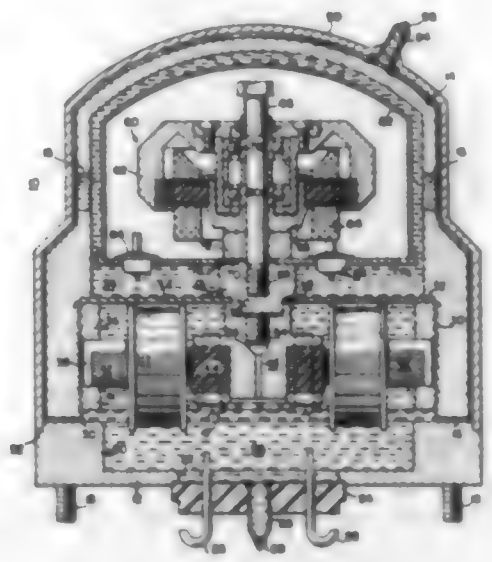
1. In a free gyroscope having multiple gimbals including an inner gimbal, means for processing said free gyroscope comprising, a driven clutch member having a spherical surface secured to the inner gimbal and positioned with its centre axis in axial alignment with the centre axis of rotation of the gyroscope gimbals, rotary clutch driving means having outwardly bevelled driving surfaces positioned normal to said spherical surface and in frictional contact therewith for driving said driven clutch member, stationary mounting means for said driving means positioned adjacent said gimbals, and means for continuously rotating said driving means whereby the driving means continuously contacts the driven clutch member in a slipping frictional engagement.

2,868,023

TWO-AXIS RATE GYROS

Charles R. Bonnell, Columbia Heights, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application January 28, 1955, Serial No. 484,636
13 Claims. (Cl. 74—5.6)



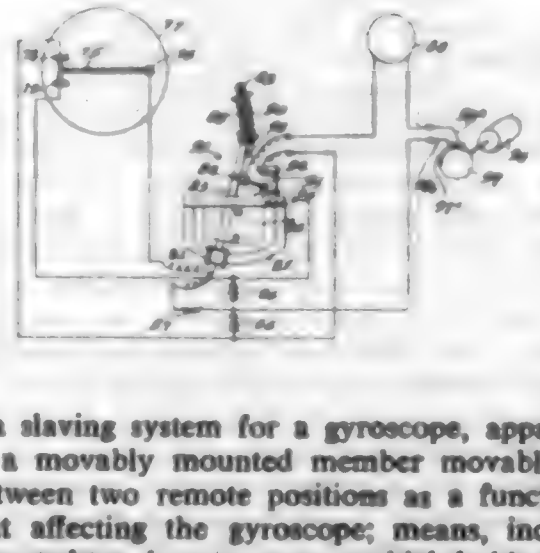
5. A two-axis rate gyro of the class described comprising: a base; a flexible diaphragm secured at its periphery to said base; a hollow sealed housing mounted on said diaphragm on one side thereof; a spin motor positioned inside said housing and including a rotor and spinning means therefor; pickoff means comprising a stationary portion secured to said base and a movable portion mounted on said diaphragm on the other side thereof; means on said base for enclosing said diaphragm, said housing, and said pickoff means; and liquid means disposed within said enclosing means so that the unfloated mass attached to said one side of said diaphragm is equal to the unfloated mass attached to said other side of said diaphragm, said flexible diaphragm permitting displacement of said housing about two axes at right angles to each other.

2,868,024

SLAVING MECHANISM FOR GYROS

Hans-Joachim Kurt Meyer, Lemont, Ill., assignor to Ampatco Laboratories Corporation, a corporation of Delaware

Application September 28, 1954, Serial No. 458,834
6 Claims. (Cl. 74—5.47)



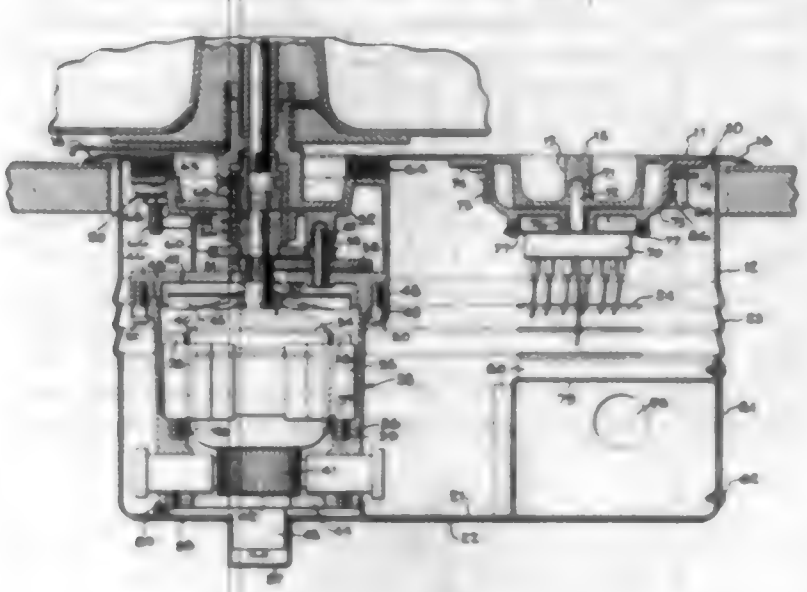
1. In a slaving system for a gyroscope, apparatus including: a movably mounted member movable over a range between two remote positions as a function of a movement affecting the gyroscope; means, including a spring actuated toggle arrangement which holds the member in the limiting position, for urging the member toward the nearest of said limiting positions; motor means for applying a restoring force to the gyroscope; and means for actuating the motor means in accordance with the position of the movable member.

2,868,025

KITCHEN POWER UNIT

Walter A. Spear, Cincinnati, Ohio, assignor to Nu-Tone, Inc., Cincinnati, Ohio, a corporation of New York

Application November 30, 1955, Serial No. 550,139
7 Claims. (Cl. 74—16)



1. A kitchen appliance motor unit comprising a rectangular flush plate having the outer marginal edges thereof angulated downwardly and outwardly to provide a continuous, rigidifying bevel extending around the four sides thereof, a rectangular housing having the upper marginal edge thereof rigidly secured to the underside of the flush plate inwardly of the bevelled outer edges thereof to further rigidify said flush plate, said unit adapted to be installed in an opening of a kitchen counter top with the bevelled edges of the flush plate resting upon the counter top surrounding said opening to suspend the housing therefrom, means associated with said housing and engageable an electric motor residing within the housing, anti-vibrawith said counter top to fasten the unit to said counter top, tion means suspending the electric motor from the underside of said flush plate independently of said housing, removable means to provide access through the flush plate to the motor, the latter named means adapted to be closed whereby the upper surface of the flush plate is substantially continuous with a kitchen counter top in which the unit is installed.

2,868,026

VARIABLE SPEED CHANGE MECHANISM

Lyman J. Finehout, Kenneth L. Eberhoff, and James H. Overman, Shelbyville, Ill., assignors to P. R. Mallory & Co. Inc., Indianapolis, Ind., a corporation of Delaware

Application August 22, 1957, Serial No. 679,707
18 Claims. (Cl. 74—125)



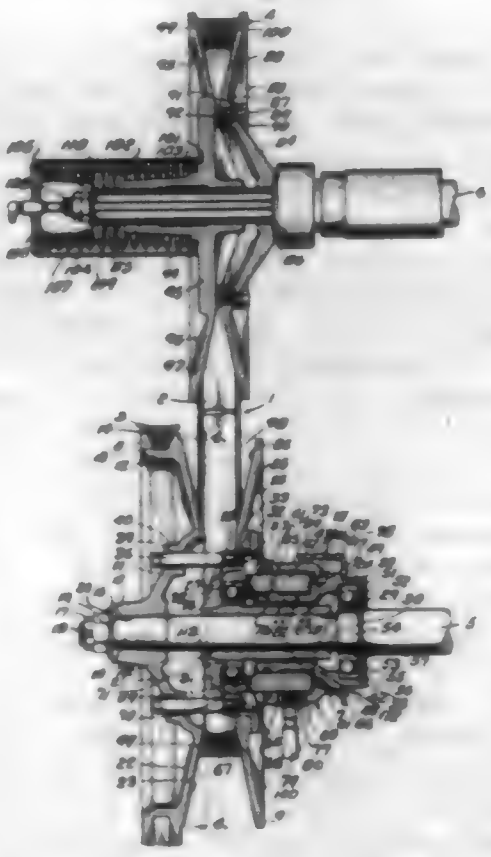
1. An advancement mechanism for an intermittent timing device comprising a motor connected to a suitable power source, said motor moving a gear train, a cam activated by said gear train, a cam follower comprising an holding means, a post on which said holding means is rotatably mounted, a roller for said holding means, a ratchet wheel connected to a shaft for moving the same, a flat spring connected to said holding means, the free end of said spring being directed against a tooth of said ratchet wheel so that as said cam is rotated said spring is deflected so as to store energy therein, the energy so stored being released against said tooth of said ratchet when said cam is rotated to a drop position and said follower falls therealong, said energy moving said ratchet for a predetermined distance in accordance with a determined cam frequency.

2,868,027

VARIABLE SPEED CHANGE MECHANISM

Lester E. Oberholtz, Kansas City, and Lawrence E. Allen, Independence, Mo., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application August 8, 1955, Serial No. 527,079
3 Claims. (Cl. 74—230.17)



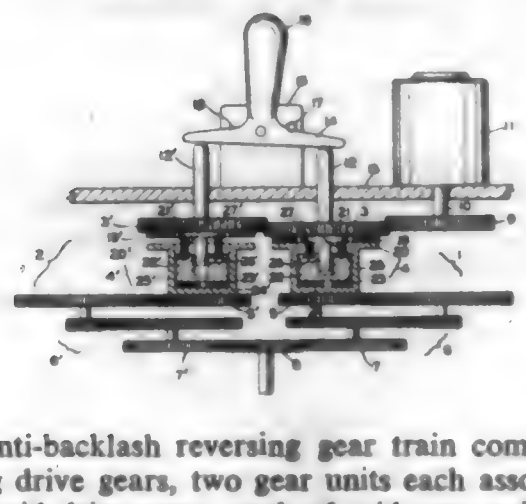
1. In a variable speed transmission, the combination of a V-belt; a pair of belt contacting members having facing sides diverging outwardly to engage the V-belt therebetween; a shaft supporting said members for rotation on a fixed axis with one of said members being shiftable thereon to and from the other member to effect a radial change in the contact point of the V-belt with said diverging sides; a fluid pressure cylinder comprising a cylindrical inner sleeve part positioned in surrounding radially spaced relation to said shaft and having a radially outward extending end portion, a cylindrical outer sleeve part positioned in radially spaced surrounding relation to said inner sleeve and having a radially inward extending end portion, one of said end portions having a cylindrical seat, the other of said end portions positioned in abutting relation with said cylindrical seat to define an annular piston chamber closed at one end; a first bearing means mounted in supporting relation between said shaft and said one end of said chamber to afford relative rotation between the latter and said shaft; an annular piston positioned in said piston chamber for axial back and forth sliding movement and having one end projecting through the open end of said piston chamber; a second bearing means operatively interposed in thrust transmitting relation between said shiftable member and said one end of said piston and affording relative rotation between the latter and said shiftable member; and means for admitting pressure fluid to said chamber for actuating said piston.

2,865,225

ANTI-BACKLASH GEAR TRAIN

John C. Ziegler, Maywood, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application August 31, 1953, Serial No. 377,490
1 Claim. (Cl. 74—409)



An anti-backlash reversing gear train comprising two meshing drive gears, two gear units each associated with one of said drive gears, each of said gear units including a clutch operably connected to the associated drive gear, said clutch including an annular first clutch member carried by the associated drive gear, a lead gear and a second clutch member carried by the lead gear, one of said members movable into and out of engagement with the other clutch member, a friction member mounted on each drive gear concentric with the annular clutch member and bearing against the associated second clutch member carried by the lead gear, means drivingly connecting the friction member and the associated drive gear, spring means to bias said friction member so as to maintain continuous frictional engagement with said second clutch member carried by the lead gear, control means for alternatively operating the first-mentioned clutch of each gear unit to selectively connect and disconnect its associated drive gear and gear unit, said control means operatively connected to said spring means so as to increase the biasing force applied thereby to said friction member upon the connection of its associated drive gear and gear unit through said first-mentioned clutch, a driven gear engaged by both gear units and arranged to be driven alternatively in either direction through the selectively operated clutch and associated gear unit, and the friction member associated with the other gear unit applying a relatively low torque to said other gear unit and a torque less than the torque applied to said other gear unit through the driven gear by the selectively operated clutch.

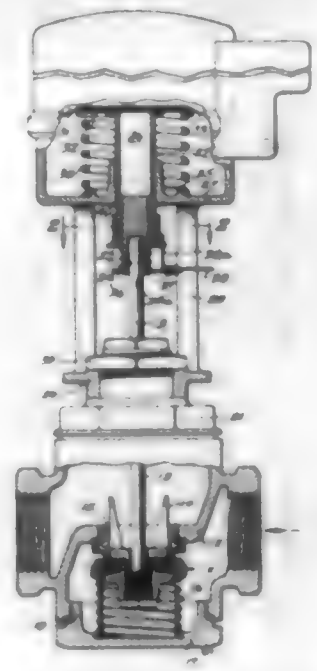
2,868,029

ADJUSTABLE TIME DELAY VALVE

William A. Ray, North Hollywood, Calif., assignor to General Controls Co., a corporation of California

Application February 15, 1954, Serial No. 410,340
2 Claims. (Cl. 74—424.8)

1. In a device of the character described: a first movable member; a second movable member; said first member being adapted to position a load; said second member being engageable with said first member for operating said first member; means determining initial positions of said members in which said members are operatively spaced; a motor for slowly advancing said second member toward said first member; an abutment element carried by one of said members and interposed between them; means forming a threaded connection between said element and said one member for relative longitudinal movement therebetween in a direction corresponding to the direction of movement of said one member; a flexible resilient disc carried by said element; a flexible detent carried near the outer edge of the disc, and having one arm extending substantially radially of the disc and another arm extending transverse to the disc and eccentrically thereof; a circular member carried by said one member coaxially of said element and having a flange in which substantially equiangularly spaced outwardly directed slots are formed; said other arm of said detent being selectively engageable with any one of the slots for selectively preventing relative movement between said element and said one member.

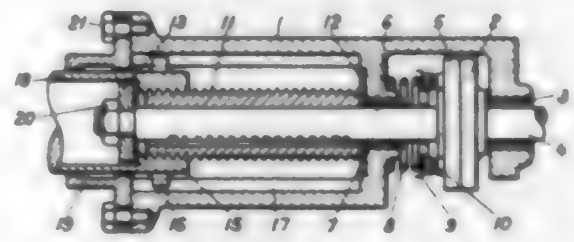


2,868,030

DEVICE FOR TRANSFORMING A ROTARY MOVEMENT TO A LINEAR MOVEMENT

Haakon Forwald, Ludvika, Sweden, assignor to Allmanna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a Swedish corporation

Application December 31, 1956, Serial No. 631,791
3 Claims. (Cl. 74—424.8)



1. A device for transforming rotary motion into linear motion, comprising a housing, a driving shaft journalled in the housing, a driving clutch member attached to the said shaft, an axially movable driven shaft journalled in the housing, a driven clutch member attached to the driven shaft, spring means pressing the driven clutch member into engagement with the driving clutch member, an externally screw-threaded sleeve mounted to rotate with the driven shaft and having limited axial movement thereon, a nut member engaging the screw thread of said sleeve, means arranged between the housing and the nut member to prevent rotary movement of the nut member and to permit axial movement thereof within the housing, and means attached to the nut member and extending beyond the housing to transmit the linear motion transformed from the rotary motion of the driving shaft.

2,868,031

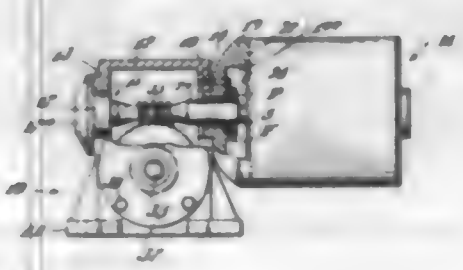
SPEED REDUCER WITH DETACHABLE DRIVE MOTOR

Martin T. Schumb, Milton, Mass., assignor to The Murray Company of Texas, Inc., Dallas, Tex., a corporation of Delaware

Application August 6, 1956, Serial No. 602,169
4 Claims. (Cl. 74—425)

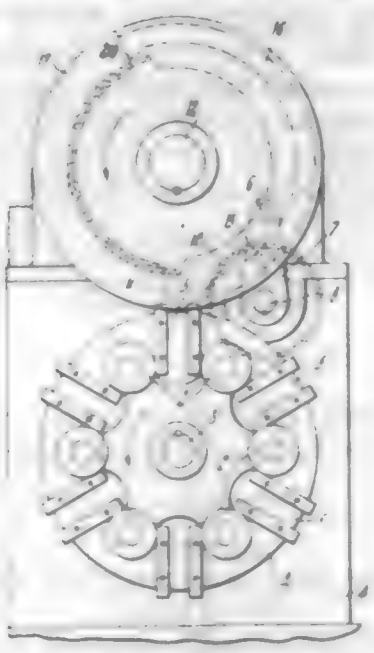
1. The combination in a speed reducer of the kind which has a rigid frame including spaced parallel walls

defining opposite sides of a chamber which houses reduction gearing comprising a worm shaft having thereon a worm which meshes with a worm wheel—one end of the worm shaft having an axial bore which provides a socket for the reception of an end of a motor shaft, said walls of the housing having axially aligned openings, of a diameter appropriate to receive bearings for the worm shaft, and a bearing for one end of the worm shaft housed in one only of said openings, characterized in that the other of said openings houses a hub, in lieu of a bearing, said hub forming a part of a motor supporting bracket, the hub fitting snugly in said opening and having an axial bore of a diameter exceeding that of the worm shaft and through which the socketed end of the worm shaft passes with clearance, the bracket having at one side an annular flat face, perpendicular to the axis of the bore in the hub and from which the hub projects, which makes close contact with the outer surface of the apertured wall of the frame in which the bracket hub is housed, bolts passing through the bracket at said flat face for detachably securing the bracket to the last-named wall of the frame, the bracket having at its opposite side a flat face having therein an annular rabbet, coaxial with the bore in the hub, the bracket having a plurality of bolt holes at the region of said last-named flat face, an end-mounted motor having a casing, one end of the casing having an annular rib which fits in said rabbet in the bracket and which is detachably secured to the bracket by bolts passing through said last-named bolt holes, the motor having a shaft which turns in axially spaced bearings within the motor casing, one end of the motor shaft fitting within the aforesaid socket in the end of the worm shaft, means constraining the worm shaft to turn with the motor shaft while permitting relative coaxial motion of said shafts, and packing embracing that portion of the worm shaft which is external to the chamber of the speed reducer frame and which is operative to prevent escape of lubricant by flow along the worm shaft from the chamber in the frame.



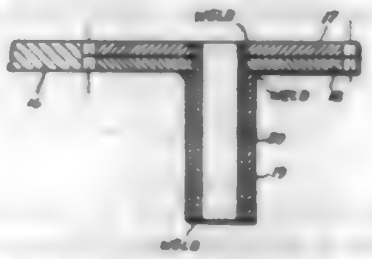
2,868,032
INDEXING MECHANISM
Carroll E. Miller, Windsor, Vt., assignor to Cone Automatic Machine Company Inc., Windsor, Vt., a corporation of Vermont
Application February 12, 1954, Serial No. 409,816
1 Claim. (Cl. 74—436)

In combination, a rotary disc to be indexed, a plurality of cam ways radiating from the indexing axis of said disc, a rotary drive shaft, a cam member mounted on said drive shaft, said rotary disc and cam member being disposed in parallel planes, a rotary jack shaft parallel to said drive shaft, an indexing arm carried by said jack shaft to revolve in a plane parallel to and between the planes of the rotary disc and cam member, a cam follower mounted on one face of said arm to engage said cam member and lock said arm during a portion of each revolution of the drive shaft, a second follower mounted on the other face of said arm to engage successively in said ways to index said disc when the jack shaft rotates, a pinion on said jack shaft, and a gear segment on said drive shaft meshing with said pinion during the portion of each revolution of the drive



shaft when said cam follower is not in engagement with said cam member.

2,868,033
TORSION BAR ANTI-BACKLASH GEAR
Raymond A. Gaither, Pendleton, Ind.
Application July 3, 1957, Serial No. 669,902
2 Claims. (Cl. 74—440)
(Granted under Title 35, U. S. Code (1952), sec. 266)

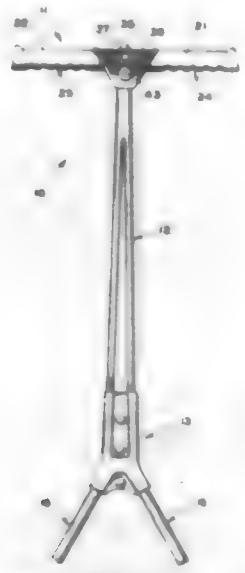


1. In a gear train, first and second tubular shafts concentrically mounted one within the other, said first tubular shaft having an outside diameter substantially equal to the inner diameter of said second shaft with said first shaft being in contacting relationship throughout the entire length of said second shaft, first and second gears fixedly attached to the ends of said first and second tubular shafts, respectively, said first and second gears being in contacting relation one above the other and having the same diametral pitch and number of teeth thereon, a third gear substantially equal in width to the combined widths of said first and second gears and meshing with said first and second gears, and means for securing the tubular shaft end opposite said first gear to the tubular shaft end opposite said second gear whereby relative rotation between said first and second gear produces torsion in said tubular shafts.

2,868,034
LAWNMOWER HANDLE CONSTRUCTION
Clayton K. Cole, Kalamazoo, Mich., assignor to Atlas Press Company, Kalamazoo, Mich., a corporation of Michigan
Application December 16, 1955, Serial No. 553,657
2 Claims. (Cl. 74—487)

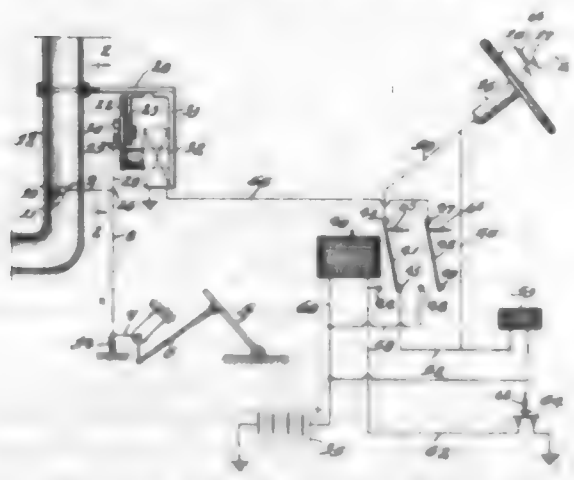
1. In a handle construction for a power lawnmower, the combination comprising: an elongated handle member having means providing hand grips thereon on either side of the central portion thereof; an elongated, tubular main shank; means connecting said main shank to said handle member so that the upper end of said shank is spaced from said handle member and said shank extends transversely of the longitudinal axis of said handle member from the central portion thereof, said connecting

means including a handle bracket having securing means connected to said handle member adjacent the respective axial ends of the central portion thereof and a tubular bracket shank which is secured in overlapping relationship to the upper end of said main shank; a lever mounted on the central portion of said handle member between said securing means for pivotal movement about the longitudinal axis of said handle member; a cable anchor



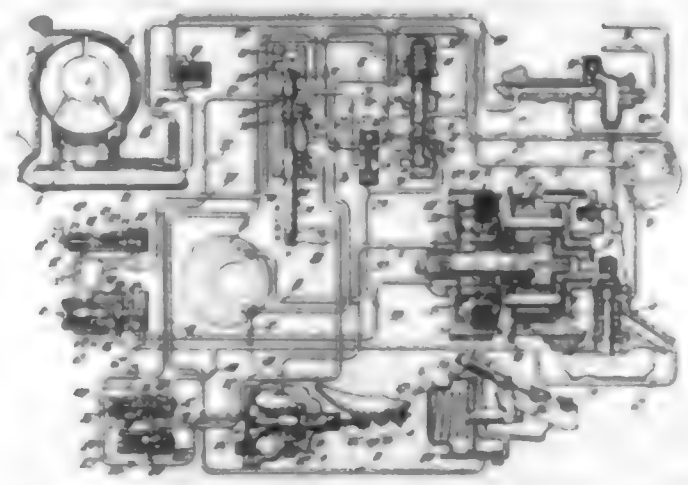
bracket secured to said handle member, said bracket including means to hold said lever in longitudinally nonmoving position on said handle member and also including a cable guide means lying within the upper end of said main shank; a control cable secured to said lever and extending through said cable guide means and through said main shank and adapted to move longitudinally therewithin in response to pivotal movement of said lever.

2,868,035
CONTROL SYSTEM FOR ACCELERATOR
Thomas J. Mudon, East Chicago, Ind.
Application June 17, 1955, Serial No. 516,244
1 Claim. (Cl. 74—513)



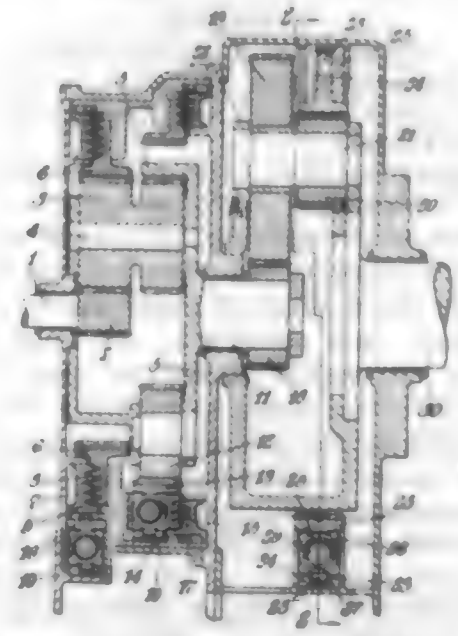
A control system for holding an engine accelerator in a motor vehicle in predetermined drive position comprising an accelerator, a member movable in a fixed path, a connection between said member and said accelerator whereby said member is movable in response to movement of said accelerator, an electromagnet in effective relation with said member, and means energizing said electromagnet to immobilize said member and thereby hold said accelerator in desired position, said means energizing said electromagnet comprising a voltage source and a switch means in series therewith connected to said electromagnet, said switch means including a portion of a horn circuit and a horn switch for energizing said horn circuit, an auxiliary switch, both of said switches being biased to open position, and means responsive to momentary closure of said auxiliary switch closing said switch means to energize said electromagnet and disconnecting said horn switch from said horn circuit to open said horn circuit and rendering said horn switch, when manually closed, effective to maintain said switch means in closed condition and thus maintain said electromagnet energized until release of said horn switch.

2,868,036
TRANSMISSION CONTROL SYSTEMS
John L. Hickey and William G. Wallace, Fairview Park, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 12, 1955, Serial No. 533,679
2 Claims. (Cl. 74—754)



1. In a transmission having a fluid actuated member adapted to change the gear ratio between rotatable driving and driven elements of the transmission, a source of fluid under pressure, selector valve means at times adapted to direct fluid from said source to said fluid actuated means, flow control means for controlling the rate of flow of fluid from said selector valve means to said fluid actuated means, said flow control means including a plurality of passages controlled by a plurality of independent timing valves, certain of said passages including restrictions, means responsive to the speed of one of said rotatable elements for operating said timing valves, one of said valves being operable to restrict flow at a relatively low speed of said one rotatable element and the other valve being operable to restrict flow at a relatively high speed of said one rotatable element.

2,868,037
TORSIONALLY RESILIENT MOUNTING
Thomas Hindmarch, Chesham, England
Application September 23, 1954, Serial No. 457,898
Claims priority, application Great Britain January 1, 1954
4 Claims. (Cl. 74—785)



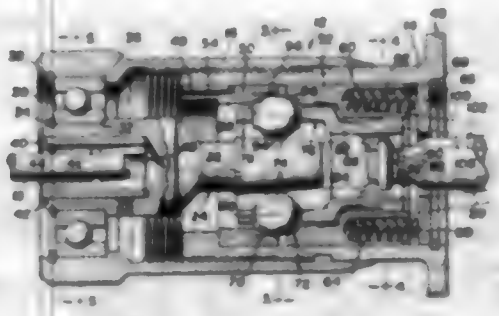
1. An epicyclic transmission comprising a casing, a gear assembly within the casing and including a sun gear,

a planet carrier and a planet gear on the carrier meshing with the sun gear, an annular member having teeth meshing with the planet gear, a second annular member carried by the casing and movable axially into engagement with the first annular member to constitute a braking means, and a series of tangential springs associated with said annular members allowing limited rotational movement between said members and the casing to compensate for varying torques transmitted through the gear assembly.

2,868,038
INFINITELY VARIABLE PLANETARY TRANSMISSION

Henry Robert Billeter, Deerfield, Ill., assignor, by mesne assignments, to Liquid Controls Corporation, North Chicago, Ill., a corporation of Illinois

Application May 26, 1955, Serial No. 511,206
3 Claims. (Cl. 74—796)



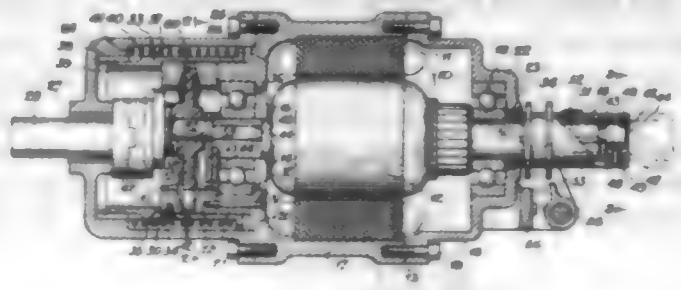
1. A device of the character disclosed comprising housing means including a tubular inner housing member and an outer thimble threaded thereon for relative axial adjusting movement, inner race means including a body portion mounted in the outer thimble for rotation but restrained axially and having a conic portion forming an inner race extending axially into the inner housing member with its small end leading thereinto and movable axially therein in response to adjusting movements of the thimble on the inner housing member, the body portion having means for connection with an input shaft, outer race means mounted in the inner housing member including a pair of race members both fixed rotationally and one fixed and the other movable axially and having interfacing conic surfaces together forming an outer ball race, the fixed race member being proximate the large end of the inner race and the movable race member being proximate the small end, the movable race member having a tubular extension, spring means between the tubular extension and the adjacent end of the housing member yieldingly biasing the movable race member toward the other and fixed race member, and rotatable ball cage means within the outer race members having a tubular ball cage and balls therein engaging the races and having a tubular extension with bearing support in the extension of the movable race member and also having means for detachable connection of an output shaft thereto.

2,868,039
VARIABLE SPEED TRANSMISSIONS

Royal Lee, Elm Grove, Wis.

Application January 3, 1956, Serial No. 556,989
6 Claims. (Cl. 74—798)

1. In a power transmission, a driving shaft, a planet wheel carrier rotatably supported by said shaft to turn on an axis eccentric to said shaft, said carrier having a bearing eccentric to the axis of said carrier, a planet wheel rotatably carried on said bearing, circular track means coaxial with said shaft and extending about said planet wheel, said planet wheel having a rolling frictional engagement with said track means, said carrier being angularly adjustable about its axis to vary the effective radius of said bearing with respect to the driving shaft axis to

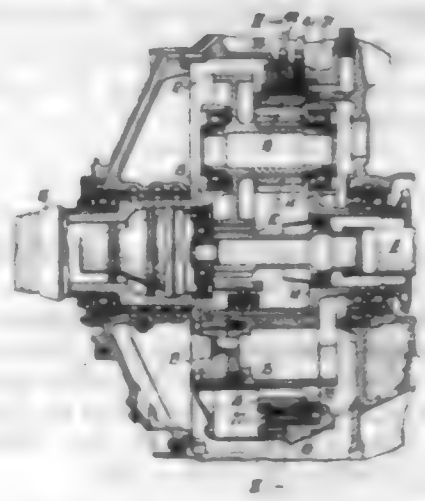


thereby vary the speed ratio of the transmission, and a driven shaft coupled to said planet wheel.

2,868,040
RESILIENT ORBIT GEAR AND MOUNTING THEREFOR

Reginald Henry Douglas Chamberlin, Ealing, London, England, assignor to D. Napier & Son Limited, London, England, a company of Great Britain

Application February 21, 1956, Serial No. 566,985
Claims priority, application Great Britain March 8, 1955
5 Claims. (Cl. 74—801)



1. Transmission gearing comprising a pinion meshing with an internally toothed annulus gear, a mounting ring assembly surrounding and supporting the annulus gear, the ring assembly making effective contact with the annulus gear over an area which is limited in width in an axial direction to substantially less than the width of the teeth of the gear in an axial direction, so that individual parts of the gear on opposite sides of the plane passing through the effective center line of support are capable of deflection in a radial direction, the said plane being displaced axially from a plane normal to the axis and passing through the mid points in the lengths of the teeth of the gear measured axially, so that the teeth of the gear which at any moment are in mesh with the teeth of the pinion become inclined radially outwards at a small angle to the central axis of the gear, so as to compensate for any misalignment of the teeth of the pinion over a wide range of applied loads.

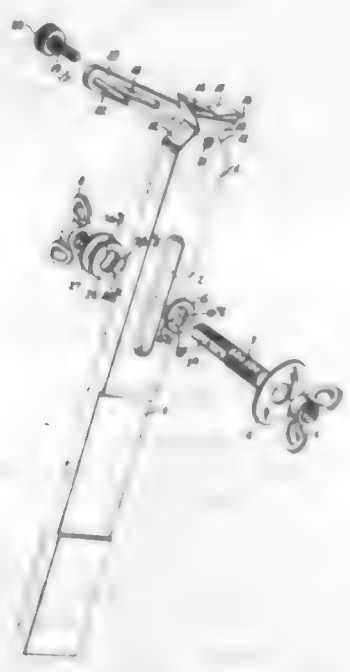
2,868,041
CIRCULAR SAW FILER

Edmund Namiotka, Johnson City, N. Y.

Application July 16, 1956, Serial No. 598,201
5 Claims. (Cl. 76—31)

2. A circular saw file guiding device comprising a bar of substantially rectangular cross-section adapted to be mounted adjacent one end on a support, said bar having adjacent its other end an axial slot; a member extending through said slot adapted to extend through the central hole of a circular saw; means on said member for frictionally clamping said saw to said bar; said bar having a transverse groove in its end adjacent said support adapted

to receive the teeth of saws of various diameters; the outer end of said bar having opposed V-shaped notches adjacent its outer end forming a substantially V-shaped head, the outer end of which head is adapted to be aligned



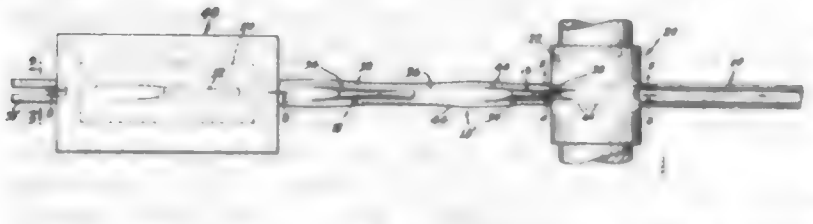
with the outer edge of a tooth of said saw and adapted to guide a reciprocable file when engaging the outer end of said tooth; and means for positioning the teeth of said saw with respect to said head.

2,868,042

METHOD OF MAKING A ONE PIECE SOLID HANDLE KNIFE

Joseph Albert Bakos and Robert Elmer McGuire, Wallingford, and Raymond Joseph Kensel, Middletown, Conn., assignors to R. Wallace & Sons Manufacturing Company, Wallingford, Conn., a corporation of Connecticut

Application June 11, 1956, Serial No. 590,543
7 Claims. (Cl. 76—104)



7. A method of making a one-piece solid handle knife, comprising providing a metal blank of predetermined cross section, cold rolling said metal blank between a pair of complementary rollers to form a rolled blank comprising a longitudinal member having a first formed blade part and a subsequently formed handle part whereby the excess material of the blade part flows longitudinally and is forced into said subsequently formed handle part, said handle part being of greater cross section than said blade part, and thereafter cutting said longitudinal member to outline and severing the same from said rolled blank.

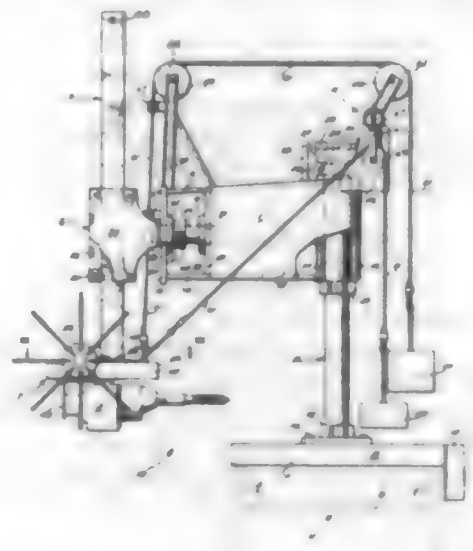
2,868,043

PORTABLE HORIZONTAL DRILL

Ollice C. Robbins, Munster, Ind.

Application May 20, 1957, Serial No. 660,293
8 Claims. (Cl. 77—7)

1. A drill assembly comprising a base adapted to be mounted upon a workpiece or vehicle, an upstanding post mounted on said base, a carriage slidably mounted on said post and rotatably adjustable for 360° therearound, pivotally mounted guide means carried by said carriage, a support bar slidably mounted in said guide, and a drill mounted on said support bar for selected reciprocal movement toward said post, whereby said drill may be swung



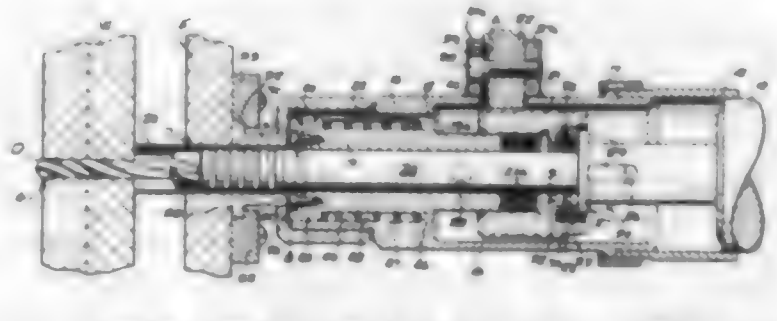
into a plurality of operating positions in relation to said work piece.

2,868,044

CUTTING DEPTH CONTROL DEVICE

Walter C. Chaffee and Claude L. Robinson, Spring Lake, Mich., assignors to Gardner-Denver Company, Quincy, Ill., a corporation of Delaware

Application March 3, 1955, Serial No. 491,844
7 Claims. (Cl. 77—55)



1. A cutting depth control device for use with a tool having a rotary shaft which is reciprocated to move a cutting element to and from a workpiece, said device comprising, in combination, a housing attachable to the tool such that it is held against rotation, a spindle adapted for connection to the rotary shaft and adapted to carry the cutting element, a first stop rigid with said spindle, means journaling said spindle and longitudinally movable with respect to said housing, said means being engageable with the workpiece, a second stop mounted on said means and longitudinally adjustable with respect thereto for engagement by said first stop to limit penetration of the cutting element into the workpiece, and an adjusting element mounted on said housing and operably connected to said second stop for manually longitudinally adjusting the same.

2,868,045

CHAMFERING AND DEBURRING TOOL

Joseph W. Fried, North Hollywood, Calif.

Application October 10, 1955, Serial No. 539,518
12 Claims. (Cl. 77—73.5)

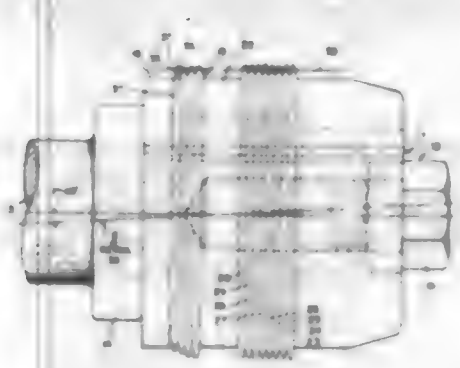
1. A deburring and chamfering tool comprising a shank rotatable about a longitudinal central axis, a blade having only two cutting edges disposed on opposite sides of said axis, said blade being loosely disposed in a diametric slot in the shank so as to be laterally swingable therein, spring means urging the blade to project from the end of the shank but permitting the blade to be forced into the shank, means providing a pivot for the blade slidable in the shank enabling the blade to move laterally in said slot and to move longitudinally relatively thereto, a pilot slidable on the shank embracing opposite sides

of the blade and normally extending beyond the blade, and spring means urging the pilot into its normal position



but permitting the pilot to be forced toward the shank to fully expose the cutting edges of the blade.

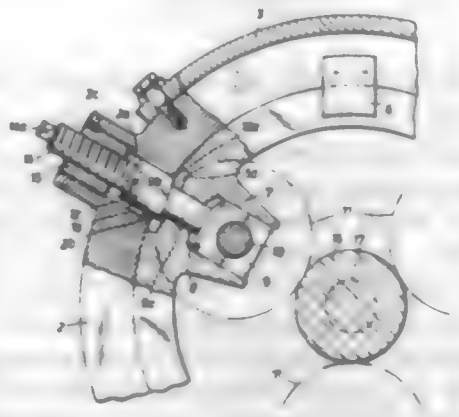
2,868,046
APPARATUS FOR MANUFACTURING INTEGRAL FINNED TUBING
Raymond H. Greene, Detroit, Mich., assignor to Calumet & Hecla, Inc., Chicago, Ill., a corporation of Michigan
Application June 7, 1954, Serial No. 434,745
2 Claims. (Cl. 80—13)



2. A roll pass for rolling up fins from tubular stock comprising a plurality of crossed axes rolls, each roll comprising a rotary support arbor, a first group of coaxial annular fin-forming members, a second group of coaxial annular fin-forming members, rigidly assembled together on said arbor, the radially inner portions of said annular members of each group being of uniform thickness, the peripheral portions of the members of each group being spaced axially of the arbor to provide annular grooves therebetween, the peripheral portions of the members of each group having uniform pitch, a spacer between said groups, said spacer having a thickness which exceeds a multiple of the pitch of the peripheral portions of the annular members in adjacent groups by an amount approximately equal to the elongation of the stock caused by the rolling action of the group of annular members ahead of the spacer.

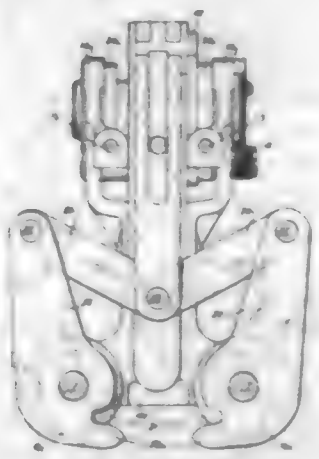
2,868,047
ROLLING MILL
Julius Züblin, Glarisegg, near Steckborn, Switzerland
Application February 13, 1956, Serial No. 565,258
Claims priority, application Switzerland February 14, 1955
1 Claim. (Cl. 80—38)

A rolling mill for thin metal sheets and foils comprising a pair of standards, a ring supported in each standard with the axes of the rings in alignment and the rings rotatable about the aligned axes, each of the said standards and associated rings having at least three radial guide-ways angularly spaced from one another about the circumference of the standard and associated ring, a bearing and pressure bolt member supported in each one of said guide-ways of said rings and radially slidable therein, a piston member supported in each of said guide-ways of said standards and radially slidable therein, each of said pressure bolt members having an oblique outer face and each of said piston members having an oblique inner face, pressure bolt members operatively associated with the piston members with each of said piston mem-



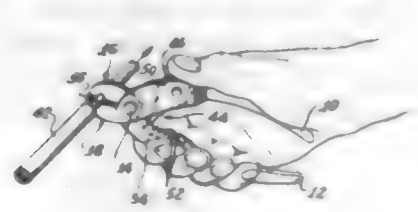
bers abutting the cooperating pressure bolt member with the said oblique faces thereof in mutual contact, three rolls supported between the said rings, bearings in the rings, each roll having the opposite ends thereof journalled in a cooperating one of the bearings in the said rings, at least one centerless working roll supported between said at least three rolls, screw means for individually adjusting the radial position of each of said piston members in its respective guide-way, and means for adjusting in unison the angular position of each of said rings with respect to the standard in which it is supported, to cause said abutting oblique surface to adjust said rolls.

2,868,048
STRAP SEALING TOOL
John J. Pachter, Harvey, Ill., assignor to Acme Steel Company, Chicago, Ill., a corporation of Illinois
Application February 16, 1955, Serial No. 488,543
6 Claims. (Cl. 81—9.1)



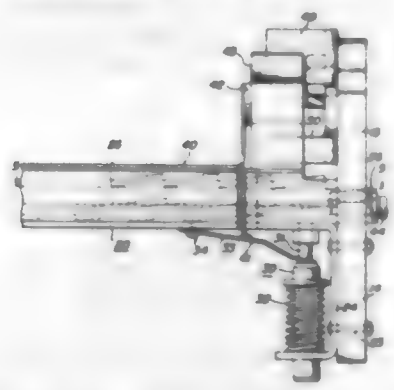
1. The combination in a tool adapted to form a joint between a metal seal and enclosed overlapping strap ends, of relatively movable parts adapted to deform said seal and the overlapping strap ends to form an interlocking joint, means for actuating said parts including a reciprocating member adapted to move through a forward stroke to actuate said parts to form a joint and to move through a reverse stroke to retract said parts from the joint, a rack bar carried by said member, a pinion for actuating said rack bar, a pivoted lever arm, a pawl carried by said lever arm and adapted to engage said pinion, and a detent for engaging said rack bar to hold said reciprocating member after a partial forward stroke thereof.

2,868,049
WIRE STRIPPER
Charles A. Radcliffe, Los Angeles, Calif., assignor to The Plomb Tool Company, Los Angeles, Calif., a corporation of California
Application November 16, 1956, Serial No. 622,667
3 Claims. (Cl. 81—9.5)



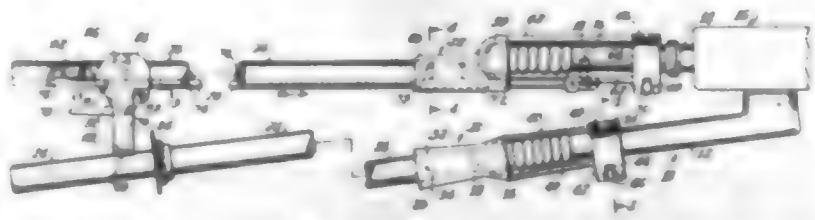
2. In a plier-type tool of the character described, a pair of crossed handles, means connecting said handles for pivotal movement toward and away from one another, a pivotal pawl on the inner side face of one handle, said pawl having a tooth extending beyond the inner edge of said one handle and toward the inner edge of the other handle, said inner edge of the other handle having a series of notches for selectively receiving said tooth and restraining the latter against pivotal movement, said pawl being pivotally adjustable when the handles are separated for engagement of said tooth in a selected one of said notches upon subsequent closing of the handles whereby to limit closing of the handles, the radial spacing between said notches and the pivotal axis of the pawl being different in any given relative position of the handles whereby different predetermined minimum handle spacings are obtained by selective engagement of said tooth in said notches, said pawl having a portion projecting beyond the outer edge of said one handle in every position of engagement of said pawl in said notches to enable pivotal adjustment of the pawl by the thumb of a hand grasping the tool.

2,868,050
WORKPIECE FEED DEVICE
Irving F. Weiss, Cleveland, Ohio
Application October 5, 1955, Serial No. 538,601
3 Claims. (Cl. 81—15)



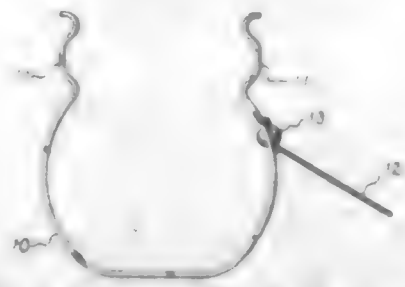
1. A feed device for successively advancing workpieces to a tool device having relatively closable work members, said feed device comprising, a track means having guide surfaces shaped to confine a series of the workpieces to a longitudinal path of movement along the track means, said track means having a terminus positioned to project said path of movement between said closable work members, a first stop means extendable to a first position into said path of movement in a position to engage a workpiece and hold the workpiece at said terminus with a portion of the workpiece extended beyond the terminus into a work receiving position between said closable work members, said first stop means retractable to a second release position, a second stop means extendable to a first position into said path of movement in a position to engage and hold a workpiece second in series to the workpiece at said terminus engaged by the first stop means, and control means coordinated with the relative movement of the work members in control of said first and second stop means causing said first stop means to move from said first to said second position and said second stop means to move from the second to the first position upon closing of the work members upon the first workpiece in the series, said control means acting in response to parting of said work members to first move the first stop means from the second to the first position and thereafter move the second stop means from the first to the second position.

2,868,051
HOT STICK TOOL WITH EXTENSION HANDLES
Henry P. Dupre, Wilton, and Walter Reischer and Richard G. Wallenhorst, Norwalk, Conn., assignors to Burndy Corporation, a corporation of New York
Application January 24, 1956, Serial No. 561,843
11 Claims. (Cl. 81—15)



1. A tool comprising a multistroke press having jaws and a pair of arms mounted to said tool, one moving with respect to the other to compress the jaws against each other, a release mechanism for releasing the jaws of the press from compression, a pair of handles each having free ends and connecting means to the arms of the press, said tool provided with a control rod having connecting means to the release mechanism and terminating at the free end of one of the handles whereby the press may be operated at a distance beyond the press arms.

2,868,052
TIRE CHAIN APPLYING TOOL WITH POSITION SIGNALING MEANS
Douglas T. Corbin, Washington, D. C.
Application August 3, 1955, Serial No. 526,235
1 Claim. (Cl. 81—15.8)

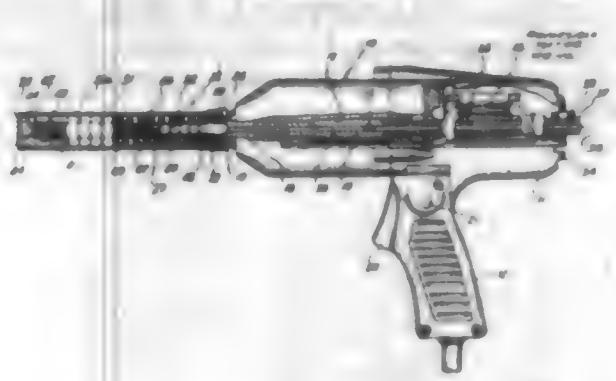


An auto-skid chain applying tool for vehicles having low hanging fenders comprising: a single length of spring stock bent into a generally U-shape and including a transverse portion and side arms extending upwardly from the ends of said transverse portion, the free ends of said arms having means for gripping and firmly holding the end links of a tire chain when said tool is operatively positioned about a vehicle tire; and a flexible antenna fixedly secured to the intermediate portion of the outermost of said tool arms and extending outwardly therefrom, said antenna being of sufficient length to gently contact and scrape against said fender whereby to signal the position of the said tool relative to said fender.

2,868,053
MOTOR OPERATED NUT RUNNER PROVIDED WITH MAGAZINE STORAGE MEANS
Gordon L. Jorgensen, Clarion, and Irvin A. Jorgensen, Fort Dodge, Iowa
Application May 28, 1958, Serial No. 738,423
12 Claims. (Cl. 81—57)

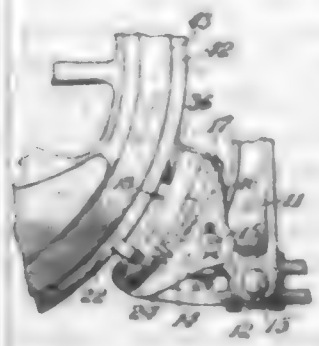
9. The combination with a reversible motor-driven wrench having a reversibly rotatable spindle, of a maga-

zine socket including a rotatable tubular member having one end driven by said spindle, a nut engaging socket formed within the other end of said tubular member, and a stem member arranged within and extended axially of said tubular member, with one end of said stem member being spaced inwardly from said other end of the tubular member, and means to secure a high ratio of rotational



speeds between said spindle and said stem member, with said stem member having a central longitudinally extended slot over the greater portion of the length thereof, and which slot is open to said one end thereof, and with the portions of said stem member on opposite sides of said slot at said one end being formed with external left- and right-hand threads to engage both left hand and right hand threaded nuts.

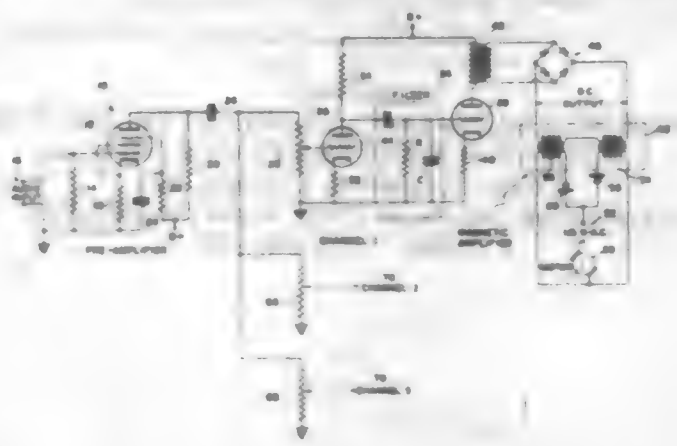
2,868,054
TREAD AND FLANGE REDUCER
John L. McQuillen, Madison, N. J.
Application February 28, 1956, Serial No. 568,390
5 Claims. (Cl. 82—36)



1. A tread and flange reducer comprising a tool holder adapted to press a tool to a flanged wheel with braking pressure, a concave face on the tool holder complementary to the flanged wheel whose tread or flange is to be reduced, a slot in the concave face on the tool holder disposed transversely to the peripheral contour of the flanged wheel whose tread or flange is to be reduced, a cutting tool slidably positioned in the slot, a convex face on the tool holder, a mounting means positioned on the convex face of the tool holder.

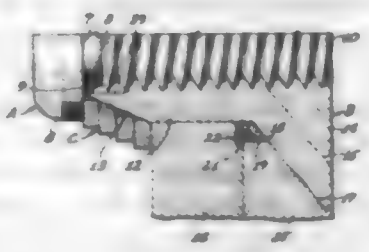
2,868,055
AUDIO FREQUENCY CONTROLLED FOUNTAIN
Anthony Simos, West Haven, Conn.
Application June 3, 1955, Serial No. 512,973
5 Claims. (Cl. 84—464)

1. A device for controlling a plurality of water spray fountains in accordance with individual frequency bands of an audio frequency energy source, comprising an audio amplifier having an output circuit, a plurality of power amplifiers connected to be controlled by the output circuit of said audio amplifier, said power amplifiers each having different band pass characteristics and a power output circuit, a full wave rectifier connected in each of said power output circuits, a plurality of electrically driven water pumps, and a magnetic amplifier interconnecting the output of each of said full wave rectifiers with one each of said electrically driven pumps to separately



control said plurality of sprays in accordance with variations of the audio frequency.

2,868,056
BLIND FASTENER HAVING EXPANSIBLE COIL SPRING HEAD
Albert J. La Torre, Rolling Hills, Calif.
Application October 20, 1955, Serial No. 541,628
6 Claims. (Cl. 85—2.4)



1. In a blind fastener: a bolt element including a shank having a male thread, wrenching means at one end thereof, and head means providing a radial driving shoulder at the other end thereof; a nut element threaded onto said shank, including an intermediate tubular body having a cylindrical outer wall and a female thread for meshing with the thread of said shank, a conical mandrel at one end thereof, opposed to said driving shoulder, and a head at the other end thereof adjacent said wrenching means; and an auxiliary head element axially interposed between said driving shoulder and said mandrel, in the form of a coil spring comprising turns of rectangular cross section having a greater radial dimension than axial thickness, said turns being normally axially spaced, said coil spring having, in an end turn thereof adjacent said nut element, a frusto-conical counterbore receiving the tip of said mandrel and positioning said coil spring in coaxial relation to said bolt and nut element and said coil spring being normally of cylindrical overall configuration and having an inner diameter slightly larger than the maximum diameter of said male thread; said head means and coil spring and said cylindrical outer wall of the nut element, in a loose assembly of said parts, having a common outer diameter whereby said loose assembly may be freely inserted through registering openings slightly larger than said diameter in work sheets to be secured together; said auxiliary head element being adapted, as the result of advancing threading movement of said bolt into said nut, to be driven by said driving shoulder against said mandrel and thereby expanded into frusto-conical form, and finally having its turns closed upon one another by compression between the adjacent work sheet and said driving shoulder, with an end turn of maximum diameter engaging the adjacent work sheet outside the diameter of said opening, with an opposite end turn of minimum diameter abutting said driving shoulder, and with an intermediate portion of intermediate diameter engaged oetween said end turns in stepped

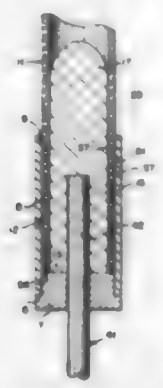
relation thereto and the entire auxiliary head providing an end load transmitting abutment between said head means and said adjacent work sheet.

2,868,057
SHEET METAL NAIL TAPERED OPPOSITE THE DRAWN PENETRATING END
Edgar P. Anstett, Chicago, Ill.
Application August 2, 1956, Serial No. 601,732
1 Claim. (Cl. 85—30)



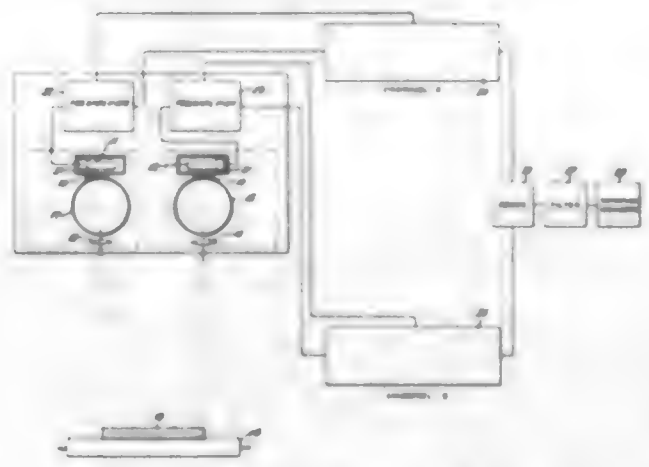
A driven type fastener, comprising: a cleat having an integral laterally extending head and body blanked from sheet metal stock so that the cleat has throughout generally the thickness of the stock with metal edge portions drawn on one side of the cleat providing the usual rounded edge portions formed in the blanking, said cleat body having an elongated shank having its width at least as great as its thickness and a short penetrating end portion with symmetrically tapering lateral edges with said drawn rounded portion at the extreme end thereof forming a small rounded surface on one side of said extreme end portion, an opposed generally flat surface on the opposite side of said end portion tapering slightly to said extreme end toward said rounded surface, said end having a blunt surface extending across the end joining said rounded and tapering surfaces, said latter surfaces forming a penetrating end of less thickness than said stock and offsetting the tendency of said rounded portion of the penetrating end portion to curl the cleat when driven into material.

2,868,058
SHOTGUN SHELL CASE NECK RESIZER
George R. Dom, Sacramento, Calif.
Application October 29, 1956, Serial No. 618,721
1 Claim. (Cl. 86—23)



A device for use in resizing the neck portion of a shotgun case comprising: a circular base plate having a thickness equal to at least one-fourth of its diameter, a tube having its base mounted coaxially on said plate, the walls of said tube having a vent hole therein, a right circular cylinder having its base mounted coaxially on said plate and defining in conjunction with said tube an annular compartment adapted snugly to receive a shotgun shell case neck to a predetermined depth, said cylinder projecting outwardly beyond the margin of said tube and terminating in a rounded nose, and an electrical heating element extending coaxially through said base and into said cylinder.

2,868,059
STEEL MILL OPTICAL WIDTH GAGE
Harry R. Summerhayes, Jr., Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application October 5, 1953, Serial No. 384,299
5 Claims. (Cl. 88—14)



1. A non-contacting width gage including in combination a pair of photoelectric devices positioned to view respective opposite edges of an object being gaged, means for scanning the view of each of said photoelectric devices in the direction of the width of said object to thereby produce substantially square wave shape alternating electric signals which are representative of the width of the object in the area of view of the respective photoelectric device, a first conductive path including a pair of photoelectric device gain-control circuits each including an electron discharge device having a plurality of control electrodes, each of said photoelectric devices being coupled between two control electrodes of its respective electron discharge device, means operatively coupled to one of the two control electrodes of each of said electron discharge devices to which the associated photoelectric device is coupled for providing varying control electric signals thereto to thereby control the sensitivity of the respective photoelectric device, respective wave-shaping circuits coupled to the output of each of said electron discharge devices, each of said wave-shaping circuits including a bi-stable multivibrator, a differentiating circuit coupled between the output of the electron discharge device and its respective multivibrator, and a second conductive path coupled between the output of the electron discharge device and the input to the multivibrator in parallel circuit relationship with the differentiating circuit, and a common output indicating circuit operatively coupled to the output of both of said bi-stable multivibrators.

2,868,060
SPECTROPHOTOMETER
Karl Arne Lennart Åkerman, Stockholm, and Karl Erik Sundström, Solna, Sweden, assignors to Beckman Instruments, Inc., South Pasadena, Calif., a corporation of California
Application March 22, 1954, Serial No. 417,782
Claims priority, application Sweden April 1, 1953
15 Claims. (Cl. 88—14)

1. In an apparatus for measuring an optical characteristic of a sample as a function of a reference, the combination of: a radiation source; a radiation detector; operating means for directing a beam of radiation from said source alternately to intercept a sample and a refer-

ence before being directed to said detector, said beam operating means including a support and spaced first and second mirrors fixed thereto, said first mirror being positioned to receive at oblique incidence the light beam from said source, said second mirror being positioned to receive said beam after reflectance from said first mirror at such incidence as to further reflect said beam toward said detector in a direction parallel to the direction of incidence on said first mirror; means for uniformly vibrating said support through an arcuate path while maintaining unchanged the directions of incidence



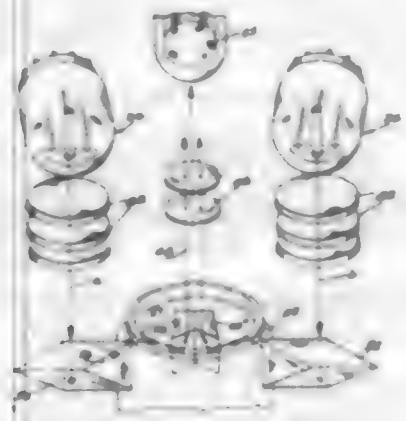
of said beam upon said mirrors and maintaining unchanged the axial position of said beam reflected from said second mirror, the vibration of said support displacing the beam traversing the intermirror space between first and second path positions, said vibrating means including a parallelogram linkage having a base spaced from said support, a pair of frame members spaced from each other, and resilient means hinging said base, said support and said frame members together as the sides of a parallelogram; and means for supporting said sample in said intermirror space to intercept said beam in one of said path positions.

2,868,861

INSPECTION OF GLASSWARE BY RADIATION

William J. Fedorchak, Granite City, Ill., and Richard L. Early, Toledo, and James W. Johnesee, Maumee, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio

Application October 26, 1954, Serial No. 464,683
9 Claims. (Cl. 88—14)



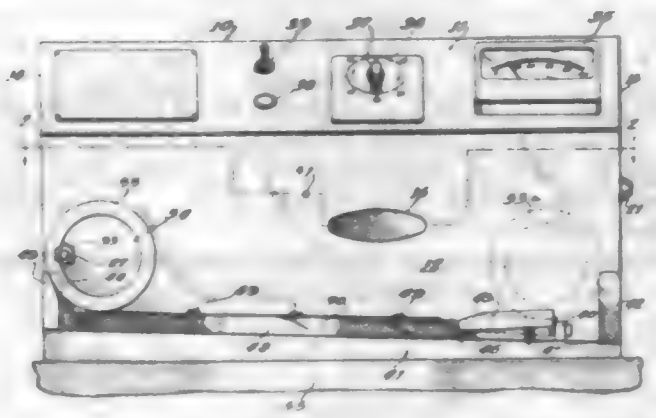
9. Apparatus for detecting surface defects in the surface of a hollow article of transparent material, said apparatus comprising means for rotating the article about an axis, a plurality of separate sources of light radiation, means for concurrently directing beams of radiation from said sources against the exterior surface of said article while the latter is rotating and thereby causing said beams to scan a circumferential surface of the article, whereby radiation is transmitted through the wall of the article, means within the rotating article for reflecting the transmitted radiation outwardly from the article in the direction of said axis, and a cell sensitive to said radiation positioned in the path of said radiation, whereby a defect in the surface being scanned will cause a change in the intensity of the radiation reaching said cell and cause the latter to give a signal.

2,868,862

OPTICAL DEVICE FOR TESTING ABSORPTION

Bernard W. Haley, Berwyn, Ill., assignor to Hillside Laboratory, a corporation of Illinois

Application December 3, 1956, Serial No. 625,764
5 Claims. (Cl. 88—14)



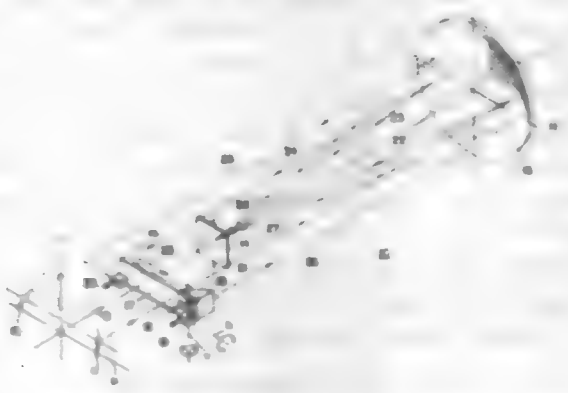
1. In a device for measuring the absorption rate of liquids by porous sheet materials, the combination comprising an inclined ramp having a smooth uniform upper surface, a roller positioned at the upper end of said inclined ramp and means for retaining said roller at the upper end of said ramp, electrically energized means for releasing said roller to permit it to roll down said ramp, means cooperating with said roller when it reaches the lower end of said ramp to energize a source of illumination and means for focusing a beam of light from said source onto the surface of said ramp at a point between the upper and lower ends of the ramp when the latter is raised to a substantially vertical position, means for raising said ramp to a substantially vertical position in order to intersect said focused light beam, photoelectric means positioned to receive light reflected from liquid-treated porous sheet material placed on the surface of said ramp, and means for recording the amount of reflected light at any given time interval.

2,868,863

ADJUSTABLE MIRROR SUPPORT IN SUCCESSIVE DISPERSION MONOCHROMATOR

Edward L. Weiss, Philadelphia, Pa., assignor to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania

Application May 16, 1957, Serial No. 659,530
5 Claims. (Cl. 88—14)



1. In a monochromator system including radiant energy dispersing means and a pair of angularly related plane mirrors for causing radiant energy to make another pass through said dispersing means thereby to obtain greater dispersion of the radiant energy, the improvement of adjustment means for said mirrors comprising a common support for both of said mirrors, means for adjusting said support and said mirrors forward and backward along the optical path of said system to provide a coarse focus adjustment of the dispersed radiant energy, means for adjusting said support about an axis parallel to the path of a ray passing between the centers of said angularly related mirrors to provide adjustment of the

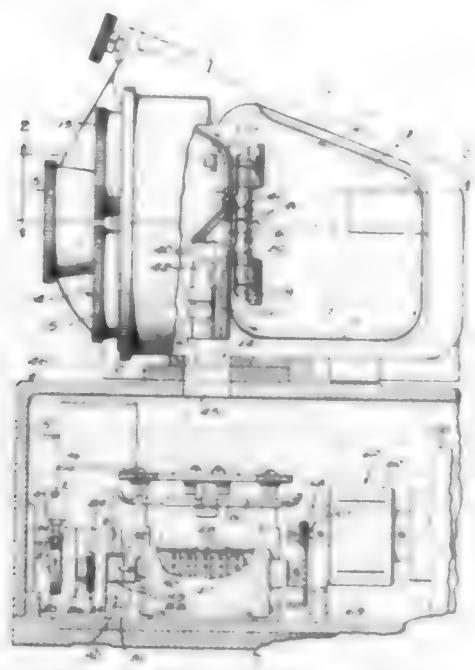
rays relative to the center of said dispersing means, and means for adjusting said support for said mirrors about an axis parallel to the intersection of the planes of said mirrors said axis being located closer to one mirror than to the other to provide a fine focus adjustment of said dispersed radiant energy.

2,868,064

MOVING PICTURE CAMERA FOR PHOTOGRAPHING TWO OBJECTS SIMULTANEOUSLY

Joseph F. Henkel, Sunnyside, N. Y., assignor to Cameraflex Corporation, New York, N. Y., a corporation of New York

Application April 29, 1953, Serial No. 351,783
4 Claims. (Cl. 88—16)



1. In a motion picture camera having an aperture plate with a picture aperture and a sound aperture therein through which light is passed to adjacent areas of a film, a rotating shutter disposed in front of said aperture plate and disposed at an angle thereto, a prism on said aperture plate in registration with the sound aperture therein, a lens system mounted on said aperture plate in the space provided between the aperture plate and the angle shutter to direct light onto said prism for reflection thereby through said sound aperture onto said film, a base carrying said camera, a housing carrying said base, a counter disposed in said housing, means including an opening in said housing registering with said lens system projecting an image of said counter onto said film for photographing on the sound track area of said film, a strobe light in said casing to illuminate said counter for the above purpose, means including an energizing circuit and a commutator connected to flash said strobe light, a drive shaft for said shutter, and gears connecting said commutator to rotate in synchronism with said drive shaft for flashing said strobe light at the time of each shutter opening.

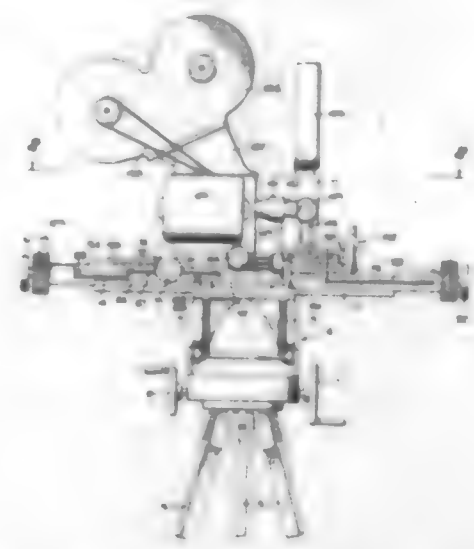
2,868,065

STEREOSCOPIC CAMERA SYSTEM

Albert W. Tondreau, Van Nuys, Calif., assignor to Warner Bros. Pictures, Inc., Burbank, Calif., a corporation of Delaware

Application May 11, 1953, Serial No. 354,098
2 Claims. (Cl. 88—16.6)

1. In a stereoscopic camera system, a fixed base plate, means for mounting a first and a second camera mechanism slidably relative the base plate, each camera mechanism having means to advance a film in a plane substantially at right angles to the plane of film advance of the other, and each having an optical system including a lens, each optical system having the optical axis of its lens perpendicular to the film plane of the respective camera mechanism; the optical system for the first camera mechanism being fixed on the base plate and including means to bend a beam of light through an angle of 90°, the optical system for the second camera mechanism being slidably mounted on said base plate in a direction perpendicular to its optical axis for binocular adjustment, the first camera mechanism being mounted on an adjustable plate for movement parallel to said base plate, adjusting means for moving said adjustable plate on the fixed base plate, means for moving said adjustable plate in the direction of the optical axis of the lens in the first optical system, another adjustable plate movably mounted on said fixed base plate, adjusting means on the fixed base plate for moving said other plate in the direction of the optical axis of the second optical system, a third adjustable plate movably mounted on said other adjustable plate, adjusting means for moving said third adjustable plate in a direction perpendicular to the optical axis of the second optical system, said second camera mechanism being adjustably mounted on said third adjustable plate, and rotatable means on said base plate for simultaneously adjusting the first and second plates to move each camera mechanism in the direction of the optical axis of its lens system, said rotatable means having controlling means for adjustment thereof from a plurality of positions, and said second camera mechanism being pivotally mounted on said third adjustable plate.



2,868,066

OPTICAL RECTIFIER

Sidney C. Argyle, Glendora, Calif., assignor to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio

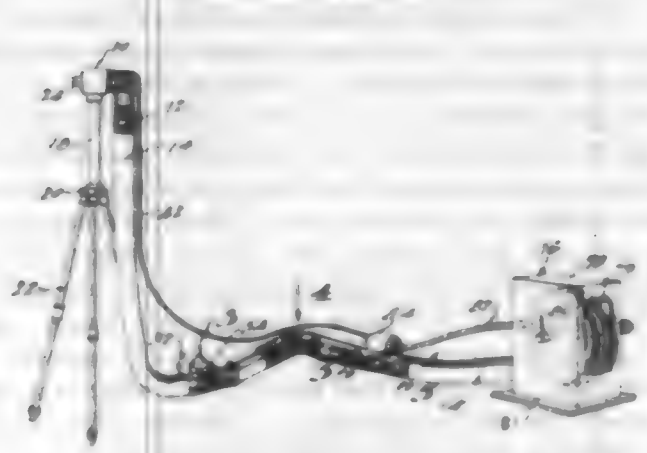
Application September 9, 1957, Serial No. 682,733
12 Claims. (Cl. 88—16.8)



1. An optical system having an optical axis, comprising: an objective lens; a second lens; both of said lenses having optical centers disposed on said optical axis, the said second lens being so disposed and arranged that principal rays from an object point which pass through the said two lenses emerge from the second lens parallel to said optical axis; a pair of refractive means disposed on said optical axis, said pair of lenses and pair of refractive means having a focal plane, said pair of refractive means being disposed between said second lens and said focal plane, there being a pair of opposed

parallel major light transmitting surfaces on each of said refractive means, said pair of refractive means each having an axis of rotation, said axes being disposed in directions mutually perpendicular to each other and to said optical axis, said axes of rotation being displaced from one another in the direction of said optical axis so as to permit rotation of said pair of refractive means without interference with one another; means for rotating said refractive means so that angles made by said optical axis and said major light transmitting surfaces of each of said refractive means are of equal magnitude, said means for rotating said refractive means being adjustable to a constant speed, thereby providing a linear motion of image points in the image plane which motion is transverse to said optical axis and which results from refraction of light rays from an object which traverse said optical system while said pair of refractive means are rotated.

2,868,067
REMOTELY LOCATED SUPPLY SYSTEM AND APPARATUS FOR A CAMERA
Paul W. Schwimmer, Detroit, Mich.
Application August 2, 1954, Serial No. 447,016
4 Claims. (Cl. 88—17)



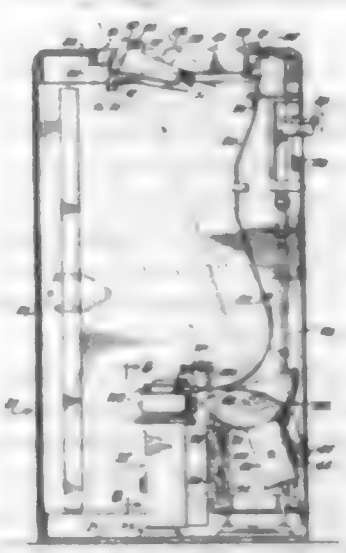
1. Apparatus of the character described, in combination, a camera, a conveying means, said conveying means being operatively connected to said camera, a film and the like storage means, said conveying means also being operatively connected to said storage means, said conveying means being comprised of a plurality of interconnected rigid and flexible base member portions carrying a pair of film guide means thereon, a detachable light-tight means enclosing said conveying means, and power drive means operatively connected to said conveying means to actuate said film and the like from the storage means over one of said guide means to the camera for exposure and, thence back over the other of said guide means to the storage means.

2,868,068
APPARATUS FOR TESTING EYES
John M. Richards, Santa Barbara, Calif.
Application April 28, 1953, Serial No. 351,606
2 Claims. (Cl. 88—20)



1. Equipment for testing eyes in different positions of gaze, said equipment including a first and a second lens holder for supporting test lenses in position in front of a patient's left and right eye, respectively, a first and a second display device located behind the first and second lens holders, respectively and in position to be viewed by the patient through lenses in said holders, each display device having a width greater than the interpupilary spacing of the lens holders, a common support on which the lens holders and the display devices are mounted, the lens holders being in relatively fixed positions on said common support, said support including means that holds the first display device in a direct line with the optical axis of test lenses in the first lens holder, the second display device having a reflector which projects the line of vision through lens in the second lens holder, at an angle and to a target means out of line with the optical axis of a lens in said second lens holder, the reflector being at a location forward of the first display device and said reflector also being located in a position where the reflected image of the second display device is out of the field viewed by an eye at the first lens holder, bearing means on which the second display device is movable to change the line of vision to that display device with respect to the line of vision to the first display device, the relatively fixed lens holders being adjustable transversely of their optical axes for the interpupilary distance between successive operations of the equipment and each of the display devices includes a screen located beyond the lens holder by the actual distance for which a test is to be made, the screen of the first display device being relatively fixed on the support and the screen of the second display device, together with the reflector being on said bearing means for horizontal movement into different angular positions, and the space between the lens holders and the screens being uncovered so that the screens can be watched and manipulated by an examiner while the patient views them through lenses in the lens holders, and there are target means adjustably and movably mounted on the screens, and means on the screens for shifting the target means into different positions of gaze that require the patient to view the target means through different peripheral areas of the test lenses in the holders.

2,868,069
FINGERPRINT AND DOCUMENT COPYING DEVICE
Kenneth C. Elmore, Arcadia, Calif.
Application September 29, 1954, Serial No. 459,013
4 Claims. (Cl. 88—24)



4. A photographic device comprising in combination: a cabinet having an opening in the top side thereof, a camera disposed in the lower portion of said cabinet in a position to photograph an object in said opening, a combination hand support and document holder having a lower side and an upper side, said holder comprising means for mounting a document to be photographed on the lower side of said holder, means for movably supporting said holder in said opening to permit exposure of the lower side thereof to a position outside said cabinet to facilitate mounting a document on said lower side

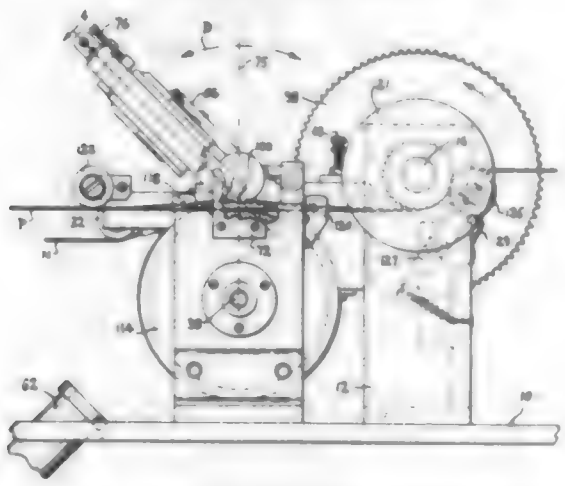
of said holder and to permit mounting of said holder in said opening with said document on the lower side thereof, said holder also comprising a hand-engaging member on the upper side of said holder, said member being adapted to receive a hand of an individual presenting the document with the palm of the hand over said holder and with the distal portions of the fingers extending beond one edge of the holder on one side thereof into said opening and with the thumb of the hand extending beyond the edge of said holder on the other side thereof into said opening with the fingers and thumb substantially in the plane of the document held by the holder, said thumb, fingers, and document being within the field of view of said camera, and means for operating said camera for photographing said document and said distal portions of said fingers simultaneously.

2,868,070

OPTICAL PRINTING APPARATUS

Brian O'Brien, Jr., and Brian O'Brien, Pomfret, Conn., assignors to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application October 18, 1954, Serial No. 462,717
16 Claims. (Cl. 88—24)



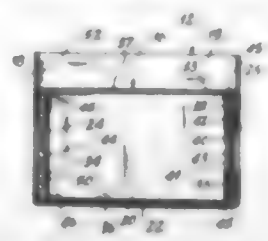
1. Projection printing apparatus comprising a first film-actuating means for moving an image carrying strip film past an illumination position in said apparatus, a second film-actuating means for moving a sensitized strip film past a copying position in said apparatus, driving means operatively connected to said first and second film-actuating means so as to cause continuous simultaneous movement of both films during exposure of said sensitized film, an optical system optically aligned with said illumination and copying positions, and including an objective for forming an image of information on said first-mentioned strip film at said illumination position upon said second-mentioned strip film at said copying position, film illuminatng means including a light source for illuminating said first strip film at said illumination position in such a manner that only a narrow elongated transverse area thereof will transmit light rays to said objective, film supporting means for maintaining moving portions of said first and second films in operative positions at said illumination and copying positions, respectively, said film supporting means being of such transverse shapes and so positioned as to support said portions of said films at said illumination and copying positions during simultaneous movement thereof, so that said portions will be in conjugate relation to each other, and with at least one of said shapes being of a controlled transverse curvature, and means for angularly positioning said optical system relative to the direction of travel of the transversely curved portion of said one film so that the optical axis of said system will intersect said last mentioned portion substantially at a given acute angle, whereby light rays coming from said narrow elongated transverse area of said first film and transmitted by said objective will form upon said second film during movement thereof a film image which has side portions thereof progressively longitudinally displaced relative to the central portion thereof so as to compensate at least to a material degree for the droop distortion that would otherwise appear in the image when projected in a given inclined manner onto a given horizontally curved viewing screen.

2,868,071

BOX VIEWER

Henry G. H. Kiehl, St. Louis, Mo., assignor to Church-Craft Pictures, Inc., St. Louis, Mo., a corporation of Missouri

Application January 30, 1956, Serial No. 562,132
2 Claims. (Cl. 88—29)



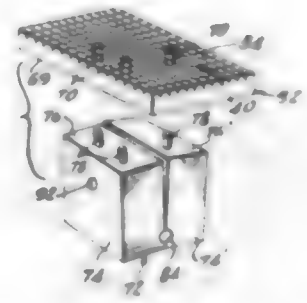
1. A box viewer comprising, in combination, a box bottom member including a bottom panel, opposed end panels, and opposed side panels, each of said opposed side panels having a pair of opposed spaced windows, opposed windows being in alignment, a table member in said bottom member including a top panel, opposed end panels, and opposed side panels, each of said table opposed side panels having a pair of opposed spaced windows, opposed windows being in alignment, and lens members supported by one side panel filling the spaced windows thereof, said table member end panels extending at one edge beyond the plane of the table member side panel remote from said lens members providing a slot between said table member side panel and one of said bottom member side panels for the reception of a picture slide, said opposed windows of said bottom member and said table member being aligned for viewing of a picture slide disposed in said slot.

2,868,072

MOUNT FOR PARAFFIN-BLOCKED HISTOLOGIC TISSUE SPECIMEN

Edwin C. Weinkopf, Brewster, N. Y., and Michael Charles Gioia, North Bergen, N. J., assignors to Technicon International Ltd., Chauncy, N. Y., a corporation of New York

Application March 29, 1955, Serial No. 497,712
13 Claims. (Cl. 88—40)



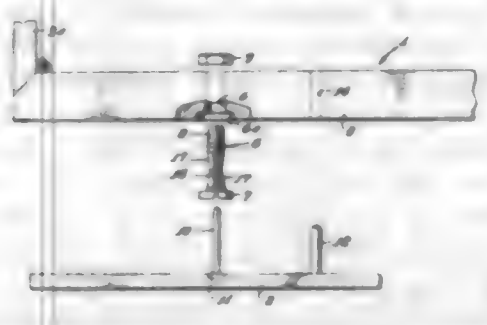
1. A device for mounting a paraffin-blocked histologic tissue specimen to the specimen holder of a microtome for cutting tissue sections for microscopic examination of the tissue, comprising a mounting plate having an outer face with an interrupted surface area for the adhesion thereto of a paraffin-blocked histologic specimen, adaptor means for mounting said plate to the specimen holder, said adaptor means being of such conformation as to always orient the tissue specimen in the same position relative to said specimen holder, and means providing for the releasable interengagement of said adaptor means and said plate.

2,868,073

FASTENING MEANS FOR MOUNTING REPLACEABLE ORNAMENTS ON SPECTACLES

Mac Rosen, Van Nuys, and Harold A. Meyers, Los Angeles, Calif.

Application April 11, 1955, Serial No. 500,616
3 Claims. (Cl. 88—41)



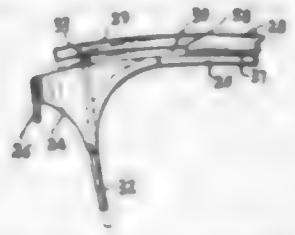
1. In fastening means for detachably mounting ornamental trim on spectacles, wherein said trim is provided with a mounting projection and said spectacles are provided with an opening in a part thereof: a socket member insertable into said opening; said socket member having a bore for reception of said projection; and a head on one end of said socket member engageable with a surface of said spectacles adjacent one end of said opening; the other end of said socket member having external screw threads for cooperation with a nut for engaging a surface of said spectacles adjacent the other end of said opening; said socket member having slots extending axially thereof and terminating short of said head and said screw threaded end; said slots defining therebetween elongated resilient portions; each of said resilient portions being joined at its ends to said socket member and having radially inwardly offset portions for frictionally engaging said projections.

2,868,074

OPHTHALMIC MOUNTINGS

Armand De Angelis, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application January 17, 1955, Serial No. 482,112
4 Claims. (Cl. 88—47)



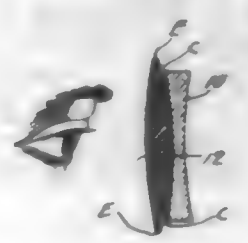
2. An ophthalmic mounting comprising a main lens supporting structure embodying a bridge having rim portions extending outwardly of the opposed sides thereof and terminating in temporal end members to which temples may be attached, said rim portions being adapted to overlie the upper edge portions of the lenses with one of said portions having a groove to receive the other of said portions, said rim portions each having a barlike member secured to the upper surface thereof throughout the major portion of the length of said upper surface and having outwardly extending resilient portions on the temporal sides of said rim portions and spaced therefrom by an amount to permit flexing said resilient portions in a direction toward and away from said rim portions, and eyewire portions of less cross-sectional size than said rim portions adapted to encircle the remaining contour portions of the lenses and being self-conforming to the shape of said contour portions, one of said latter eyewire and contour portions being grooved to receive the other of said portions, each of said eyewire portions having one end thereof secured to the main lens supporting structure adjacent the bridge and having its opposed end secured adjacent the outer end of the resilient end portion of the barlike member whereby downward flexing of said resilient end portion will permit expansion of the opening within said rim portion and said eyewire portion for ease in placement of a lens in said opening and upon releasing said downward flexing of said resilient portion and the tendency thereof to return to its initial set being adapted to cause the interfitting portions of the eyewires and rims with the contour edge of the lens to resiliently grip and hold the lens in said opening.

2,868,075

OPTICAL LENSES

Carl F. Bivens, Denver, Colo.

Application October 23, 1953, Serial No. 387,911
1 Claim. (Cl. 88—54)



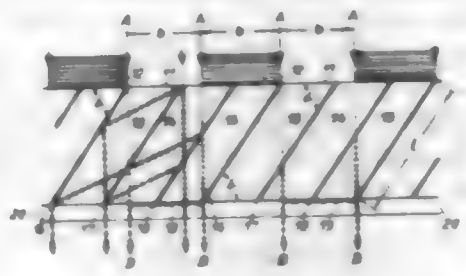
A compound lens comprising a glass lens element; a plastic lens element formed to mate with one face of the glass lens element; a polarizing element comprising a relatively thin layer of treated celluloee acetate adhesively attached to said glass lens element and means for securing the glass lens, attached polarizing element and plastic lens in assembled relation comprising an adhesive bond applied solely to the edges of the lenses with said bond being spaced from the edges of the polarizing element.

2,868,076

POLARIZER FOR PRODUCING UNIFORMLY POLARIZED LIGHT WITH AID OF INTERFERENCE POLARIZERS AND PHASE RETARDERS

Walter Geffcken and Hubert Schroeder, Landshut, Bavaria, Germany, assignors to Jenaer Glaswerk Schott & Gen., Mainz, Germany

Application May 13, 1953, Serial No. 354,702
Claims priority, application Germany May 17, 1952
24 Claims. (Cl. 88—65)



1. A polarizer for the production of uniformly polarized light especially in headlights and stereoprojectors having polarizing interference layers and reflecting layers as well as phase retarding foils, solid light transmitting bodies carrying said layers and said foils, said bodies being arranged in the form of a plate and having a plane light entrance surface and a spaced plane light exit surface both planes lying parallel to one another, bands impervious to light arranged on said light entrance surface and between them forming light entrance bands, said interference layers and said reflecting layers lying between said bodies intermediate the entrance and exit surfaces and spaced from one another and parallel to one another, the layers being at an angle with the light entrance surface of larger than 45° but smaller than 90°, two of said interference layers lying behind each light transmitting band and part of one interference layer behind part of the other layer, whereby the entering light through each light trans-

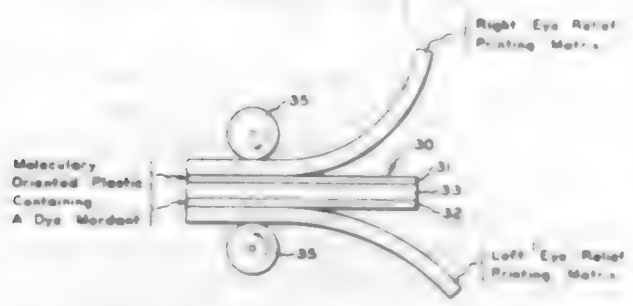
mitting band impinges on both interference layers, said layers polarizing and dividing the light in transmitting portions and reflecting portions having another plane of polarization as the transmitted portion, said two interference layers and said reflecting layers being arranged so that one of the two interference layers directs the reflected portion of light to the other of the two interference layers which directs this portion to the exit surface of the plate and said other interference layer directs the reflected portion of polarized light produced by it to one of said reflecting surfaces, this surface reflecting said portion to the exit plane, said phase retarding foils being arranged in the path of one of the portions of light to rotate its polarization axis parallel to the axis of the other portion of light.

2,868,077

FILM STOCK FOR DICHROIC DYE IMAGES

William H. Ryan, Billerica, and Vivian K. Walworth, Concord, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application July 19, 1954, Serial No. 444,074
11 Claims. (Cl. 88—65)



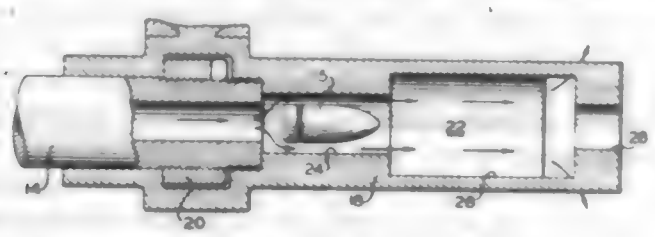
1. An organic-dye, light-polarizing film material having a high density and a resulting improved polarizing efficiency, said film material comprising a transparent, high molecular weight, water-soluble, hydroxyl-containing vinyl polymer having its molecules oriented in a given direction, a dichroic direct cotton dye contained in at least a given portion of said film material so as to render said portion light polarizing, and a mordant having an affinity for said dichroic direct cotton dye which enhances the receptivity of said molecularly oriented vinyl polymer for said dichroic direct cotton dye and holds said dye substantially immobilized, said mordant comprising an organic, high molecular weight, polymeric compound containing basic nitrogen, said light-polarizing film material, by reason of said coaction of the vinyl polymer, dye and mordant, having a dye density which is substantially higher than that of an organic-dye light polarizer formed, respectively, from a similar hydroxyl-containing vinyl polymer and a similar dichroic direct cotton dye but which is devoid of said polymeric compound containing basic nitrogen.

2,868,078

NOISE REDUCER FOR GUN

William J. Jarrett, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application January 11, 1956, Serial No. 558,593
1 Claim. (Cl. 89—14)
(Granted under Title 35, U. S. Code (1952), sec. 266)



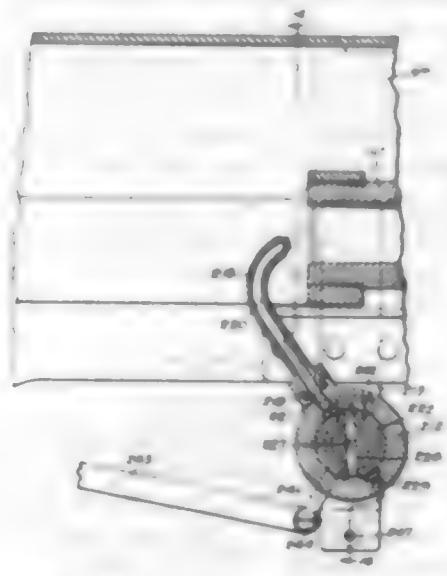
An attachment for the muzzle end of a firearm barrel to reduce the noise produced by the discharge of gases therefrom, said attachment including the combination of a body provided with a chamber having a diameter larger than that of the bore of the barrel, an annular flange provided with a rear face and disposed at the front end of said chamber, said flange having an aperture therethrough in axial alignment with the barrel, a pair of mouth portions extending radially outward from said chamber rearwardly of said flange for the discharge of the gases, cutout portions extending forwardly in said body from said mouth portions, arcuate surfaces formed on said flange by said cutout portions, arcuate edges formed at the junctions of said arcuate surfaces with said rear face, said arcuate surfaces having a radius smaller than that of said chamber to locate said edges in the forward path of the gases to set up vibrations therein when discharged through said mouth portions, and said chamber having a predetermined length for producing the vibrations at a frequency higher than that of audible sound.

2,868,079

MACHINE GUN COOLING SYSTEM

George A. Hawkins, Lafayette, Ind., assignor to Purdue University, Lafayette, Ind.

Application December 19, 1947, Serial No. 792,722
19 Claims. (Cl. 89—14)



1. In a cooling system for a rapid fire automatic gun having a barrel, a nozzle carried by said gun and movable from a first position in which its vent is directed into the bore of said barrel adjacent the breech thereof, to a second position in which said nozzle is out of alignment with said barrel, means operated in timed relation with firing of said gun to move said nozzle between said first and second positions and valve means responsive to firing of said gun to connect said nozzle to a source of coolant under pressure only when said nozzle is in said first position.

2,868,080

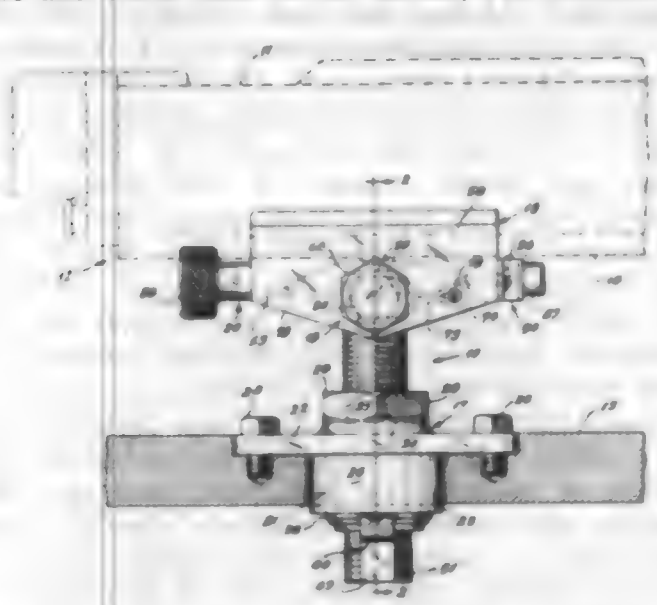
GUN MOUNT ASSEMBLY

Edward J. Meyer, Normandy, Mo.

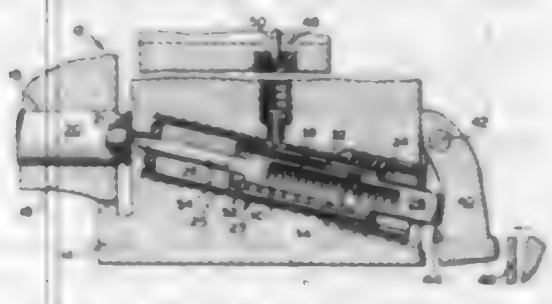
Application January 5, 1956, Serial No. 557,554
4 Claims. (Cl. 89—37)

1. A gun mount assembly comprising carrier means having gun supporting surfaces and a first channel defining element adapted to enclose a gib on one side of a gun; latch means including a latch member releasably lockable with said carrier means to provide a second channel defining element adapted to enclose a gib on the opposite side of the gun, said latch member and carrier means having aligned alternate bosses with a bore extending therethrough, said bore having spaced axial slots about its periphery, a latch pin slidable in said bore and having interrupted splines adapted to extend across the interstices of adjacent bosses to prevent relative movement between said latch member and said carrier means, and resilient clip means biasing said latch pin into latch

locking position; elevational adjustment means adapted to raise and lower said carrier means; and azimuth adjustment means adapted to effect lateral movement of said carrier means.



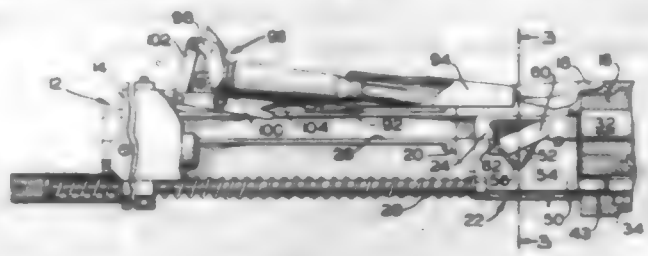
2,868,081
RETRACTABLE FIRING PIN
Donald P. Grover, Chicago, Ill., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application August 29, 1956, Serial No. 606,940
2 Claims. (Cl. 89—135)



1. In an automatic gun including a recoil unit with a stop, a member in the recoil unit provided with chambers for inclosing cartridges with the primers thereof disposed in the chambers at depths within a predetermined range of values and a firing station for the chambers for discharge of the cartridges therein, and an actuator disposed for reciprocation with respect to the recoil unit to engage the member and convey the chambers to the firing station through the forces produced by the discharge, a firing device comprising a firing pin in the recoil unit, a striker in engagement with said firing pin, a sleeve inclosing said firing pin, a return spring engaging said sleeve to bias said striker towards the stop and said firing pin to a position spaced from the primers, a position spring disposed between said firing pin and said striker to bias said firing pin towards electrical contact with primers disposed in the chambers at the greatest depth of the predetermined range and a lever pivoted and biased to a normal position on the recoil unit, said lever being disposed for engagement between said striker and the actuator.

2,868,082
DROP LOCK BOLT FOR GUN
Robert G. Nutting, Glenview, and Robert F. Windstrup, Chicago, Ill., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application October 13, 1955, Serial No. 540,362
3 Claims. (Cl. 89—190)

1. In a machine gun including a barrel and an extension member mounted on the breech thereof, a bolt device comprising a bolt member actuatable between a recoil and a battery position, a bifurcated portion in the extension member to slidingly receive said bolt member, a pair of tines formed by said bifurcated portion and disposed for sliding engagement with the side of said bolt member, a groove extending along the inside of each of said tines parallel to the longitudinal axis of the barrel, supporting means extending from each side of the bolt



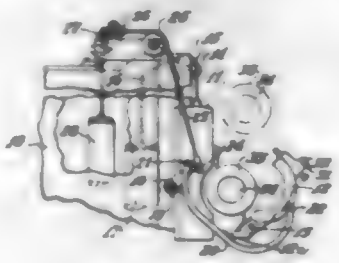
member for sliding cooperation with said grooves, means for pivotally interrupting said supporting means when said bolt member is in battery position to block said bolt member against rearward displacement, and stop portions in said extension member engageable by said supporting means where interrupted for releasably blocking said bolt member in the battery position.

2,868,083
PREFABRICATED GUN RECEIVER
Robert F. Windstrup, Chicago, Ill., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application September 21, 1955, Serial No. 535,775
2 Claims. (Cl. 89—199)



1. A gun comprising a receiver with main and bearing sections and structural bolts connecting said sections, a barrel assembly slidably disposed in said bearing section and provided with an extension, a recoil device for engagement between said assembly and said bearing section, a bolt return device and a pin for connection of said bolt return device to said receiver, and an operating bolt axially slidable in said extension, said structural bolts and said pin being removable from said sections for selective forward and rearward removal of said bolt from the gun.

2,868,084
COUNTERBALANCED CAP FOR ARBOR SUPPORTS
John M. Walter, Cincinnati, Ohio, assignor to The G. A. Gray Company, Cincinnati, Ohio, a corporation of Ohio
Application August 17, 1954, Serial No. 450,478
4 Claims. (Cl. 90—11)



4. In an arbor support having a hinged cap, and mounted on a column of a machine tool, a cable secured to said support, a pulley mounted on said column, said cable passing over said pulley and having the weight secured thereto, said weight being of sufficient magnitude to counterbalance the weight of said arbor support less said hinged cap, a first link pivotably secured to said support, a connecting link pivotably secured to said first link and to said cap, a second cable secured to said first link

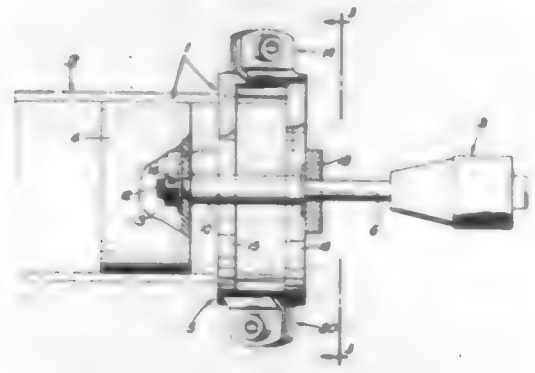
and passing over a second pulley mounted on said column, and a weight secured to said second cable, said second cable and said first link being in substantially colinear vertical alignment in the closed position of said cap, whereby as said cap swings open and its moment increases, said first link swings away from the vertical to increase correspondingly the effective moment of said second weight, said weights together being of a magnitude to counterbalance said entire arbor support.

2,868,085

TOOL FOR TAPERING CONDUIT OR PIPE ENDS

Andrew J. Klein, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware

Application June 24, 1954, Serial No. 439,113
1 Claim. (Cl. 90—12)



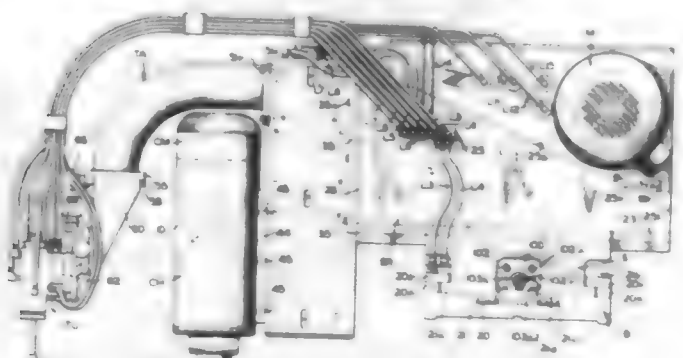
A tool for externally tapering the outer surface of a portion of a pipe comprising a mandrel to slide within the bore of the pipe, said mandrel having a transverse wall, an annular bore-engaging wall and a bearing extending from opposite sides of said transverse wall, a spindle rotatably mounted in said bearing, an open annular body carried by said spindle and being interiorly of greater diameter than said annular bore-engaging wall to adapt it to surround and slide along the outer surface of the pipe, said body comprising spaced-apart rings, a strap located diametrically of one of said rings with which said spindle is rigid, a support bridging said rings provided with a slot, angularly disposed brackets on the exterior of said support, a bit for tapering said portion of the pipe having a tongue mounted in said slot and extending between said brackets, and securing means for said tongue mounted by said brackets.

2,868,086

TRACER CONTROLLED POWERED FEED MILLING MACHINES

Allen D. Gunderson, Racine, Wis., assignor to George Gorton Machine Co., Racine, Wis., a corporation of Wisconsin

Application February 14, 1957, Serial No. 640,203
12 Claims. (Cl. 90—13)



1. In a duplicating machine, in combination, a base having a straight-line slideway extending completely thereacross through and unobstructed at the opposite ends of said base; a saddle member slidably mounted on said slideway on said base constrained to straight-line movements thereby in either direction longitudinally across said base and beyond either end thereof; said saddle member having on the side thereof opposite said base a straight-line slideway thereacross normal to the straight-line path of longitudinal movements of said saddle member on said base; a ram support structure slidably mounted on said slideway on said saddle member constrained thereby to straight-line movements in either direction across said saddle member; a ram member slidably mounted on one end of said ram support structure constrained to straight-line movements thereon along a path normal to the straight-line paths of movement of said saddle member and said ram support structure; a cutterhead, including a cutter spindle mounted in normally fixed position on and movable as a unit assembly with said ram member; a tracer arm mounted on said ram member in a normally fixed position relative to the position of mounting of said cutterhead on said ram member; said tracer arm extending laterally outwardly from said ram member and being bodily movable with said ram member and said cutterhead thereon as a unit assembly; a tracer unit mounted on said tracer arm; said tracer unit being of the hydraulic type including hydraulic control valves therein and a tracer spindle connected therewith for selectively operating said control valves; a first hydraulic means operatively connected between said base and said saddle member for moving the latter; a second hydraulic means operatively connected between said saddle member and said ram support structure for cross-moving the latter on said saddle member; a third hydraulic means operatively connecting said ram member with said ram support structure for moving said ram member with said cutterhead, said tracer arm and said tracer unit together as a unit assembly on and independently of said ram support structure; a self-contained, powered hydraulic unit including a fluid supply tank and a fluid pressure pump and driving motor therefor mounted on and movable as a unit assembly with said ram support structure for supplying fluid under pressure from said fluid supply tank to said first hydraulic means, said second hydraulic means and said third hydraulic means; flexible pressure fluid lines connected between said pump and said fluid supply tank and said control valves of said tracer unit; flexible fluid lines connected between said control valves of said tracer unit and said first hydraulic means, said second hydraulic means and said third hydraulic means, respectively, for controlling operations of said saddle member, said ram support structure and said ram member by selective operation of said control valves of said tracer unit by said tracer spindle; and said flexible pressure fluid lines between said pump and said fluid supply tank and said control valves of said tracer unit and between said control valves and said first hydraulic means, said second hydraulic means and said third hydraulic means being in normal permanent connection therewith and of lengths providing slack therein for movements freely of said saddle member, said ram support structure, and said ram member throughout the maximum ranges of movements thereof, respectively.

2,868,087

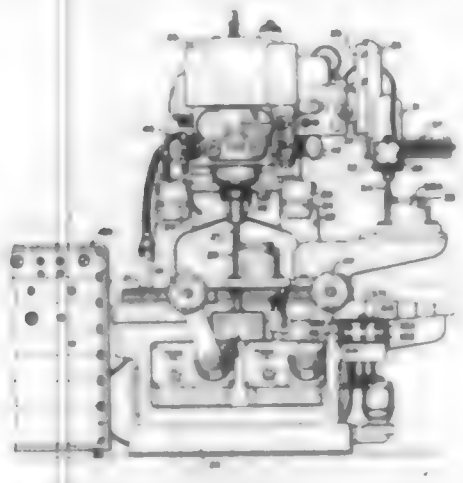
TRACING APPARATUS

John M. Morgan, Jr., Montgomery, Ohio, assignor to The Cincinnati Milling Machine Co., Cincinnati, Ohio, a corporation of Ohio

Application December 28, 1954, Serial No. 477,976
28 Claims. (Cl. 90—13.5)

1. In a milling machine having a cross-feed slide, a cutting tool on said slide, and a workpiece slide movable transversely to said cross-feed slide for supporting the workpiece for 360° movement relative to said tool, the combination of fluid pressure motors for moving said slides, a pattern carried by one of said slides and a tracer carried by the other of said slides for 360° move-

ment relative to said pattern, said tracer including a non-directional finger adapted to contact the side of said pattern and to be given a normal deflection thereby in any direction from zero to 360 degrees as the tracer follows along the pattern, means controlled by the over or under-deflection of said finger for causing an electric



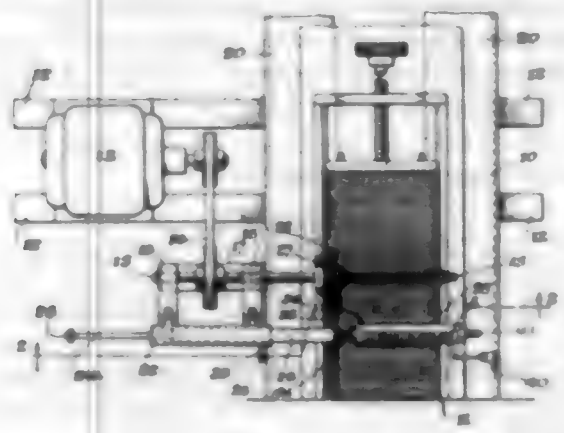
signal of one phase or another to be produced depending on the direction of deflection of said finger from its position of normal deflection, and means including electromagnetic valve means for controlling the operation of said motors in accordance with said signals so as to cause said cutting tool to shape the workpiece in conformity with the contour of the pattern.

2,868,083

APPARATUS FOR NOTCHING THE EDGES OF ADDRESSOGRAPH PLATES

Leo P. Dougherty, New York, N. Y.

Application July 2, 1953, Serial No. 365,660
1 Claim. (Cl. 90—16)



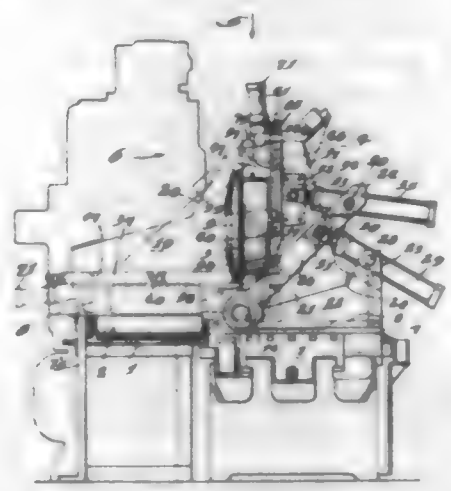
In a machine for notching the edges of addressograph plates, in combination, a horizontally extending arbor, means for rotating said arbor, means for mounting a cutter on said arbor to rotate therewith, said cutter being adjustable along said arbor, a holder for addressograph plates mounted for reciprocatory movement beneath and transversely of said arbor, said holder clamping addressograph plates with their edges in position to be operated upon by said cutter, means for adjusting the said cutter to a selected one of a plurality of fixed calibrated positions along said arbor, said adjusting means for said cutter comprising a sleeve of rectangular cross-section extending parallel to said arbor and fastened at one end to said arbor, a block of rectangular cross-section mounted for reciprocation in said sleeve, an end in said sleeve, said end having an aperture therein, a rod fixed to said block and extending through said aperture and a forked member affixed to and extending substantially perpendicular to said block and projecting horizontally to the position of said arbor with the tines thereof on opposite sides of said cutter, and means to retain said cutter in a selected one of said fixed positions.

2,868,088

MILLING MACHINE

George B. Seeberg and Herman E. Bargren, Rockford, Ill., assignors to Sundstrand Machine Tool Co.

Application June 28, 1954, Serial No. 439,738
14 Claims. (Cl. 90—21)



6. In a scalping machine, in combination, a work support of supporting a billet in pickup position, a longitudinally movable carriage alongside said work support at said pickup position, a work holding fixture pivotally mounted on said carriage for lateral swinging movement thereon from a horizontal position over a billet at said pickup position on said work support to a vertical position over said carriage, means for swinging said fixture from said horizontal to said vertical position, gripping means on said work holding fixture for gripping said billet when said fixture is in said horizontal position and for holding said billet during movement of said fixture from the horizontal to said vertical position to effect movement of said billet to a position tilting the bottom surface thereof to an exposed vertical position for a scalping operation while held in said fixture, a cutter, means for moving said carriage past said cutter for scalping said bottom surface of the billet while held by said fixture in said vertical position, and cooperating stop means on the work support and on the work holding fixture engageable when said fixture moves down to said pickup position to insure that said pickup position of the fixture is always the same, whereby when said gripping means is released said billet will fall onto said work support and can again be gripped for a cut of the same depth as the preceding cut, said means for swinging said work holding fixture comprising, a pivot arm swingably mounted on said carriage, first piston and cylinder means connected between said pivot arm and said carriage for swinging said pivot arm through a first 45° angle, and second piston and cylinder means connected between said pivot arm and said fixture for swinging said fixture through an additional 45° angle.

2,868,090

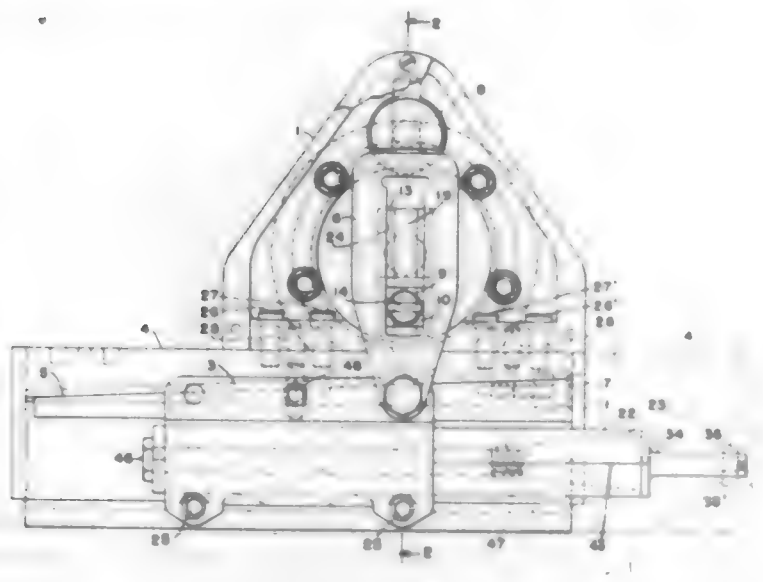
ATTACHMENT FOR INTERNAL KEYWAY CUTTING AND SLOTTING

David S. McCullough, Racine, Wis., assignor to The Dumore Company, Racine, Wis., a corporation of Wisconsin

Application July 18, 1956, Serial No. 598,573
3 Claims. (Cl. 90—39)

1. A portable tool unit for reciprocating a tool adapted to have a work piece positioned relative thereto, comprising a vertical supporting structure adapted to be mounted on a base by means of instrumentalities providing for the adjustment of said structure thereon in a horizontally longitudinal as well as a horizontally transverse direction with a supporting bracket vertically adjustable on said structure and feed means for effecting such adjustment, a frame mounted on said bracket to constitute an overhang, a rotatable crank operating in a vertical plane, a crank pin, a rocker arm oscillatable by the crank pin to

generate a reciprocating motion, a pivot mounted above the path of said crank on the frame on which the rocker arm turns, a horizontal guide structure connected to the frame and having guide means tangent to the bottom of a circle surrounding the axis of the crank, a ram movable



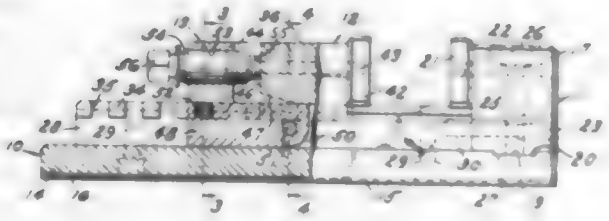
along said guide means by the rocker arm, a reversible cutting tool positionable for push-cutting or draw-cutting, means for supporting the tool from the ram, and means for reversing rotation of the crank, whereby said cutting tool is employable for push-cutting as well as for draw-cutting of longitudinal grooves in said work piece.

2,868,091

QUICK ACTING PRECISION MILLING AND GRINDING VISE

Arthur J. Du Bois, Goodrich, Mich.

Application October 11, 1956, Serial No. 615,284
1 Claim. (Cl. 90—60)



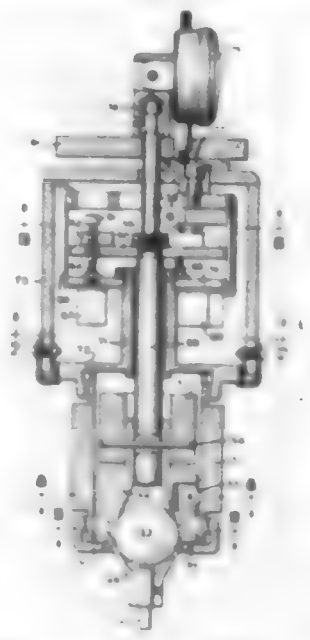
A vise comprising, a horizontal bed; a stationary jaw fixedly mounted on one end of said bed; a pair of spaced apart longitudinal slideways fixedly mounted on the uppermost side of said bed and extending from said stationary jaw to the other end of the bed; a guide bar mounted on the outer side of each of said slideways; a movable jaw slidably mounted on said slideways for travel along said bed; a guide member fixedly mounted on each side of said movable jaw and being provided with an inwardly extended lip portion which engages the underside of one of said guide bars; a rack means formed on the inner side of each of said slideways; a clamp slidably mounted on said bed between said slideways; a first pin carried on said clamp adjacent the forward end thereof and adapted to extend outwardly from the sides of said clamp below said rack means; a second pin carried on said clamp adjacent the rear end thereof and adapted to extend outwardly from the sides of said clamp and to releasably mesh with said rack means for retaining the clamp in a selected position on said bed against longitudinal movement thereon; and, a horizontal clamping screw threadably mounted on said clamp and adapted for engagement with said movable jaw for clamping the movable jaw in place against a workpiece held between said jaws.

2,868,092

CONTOUR SENSING CONTROL FOR MACHINE TOOLS

John L. Foncannon and Ernest F. Adams, Wichita, Kans., assignors to Beech Aircraft Corporation, Wichita, Kans., a corporation of Delaware

Application April 2, 1956, Serial No. 575,610
3 Claims. (Cl. 90—62)



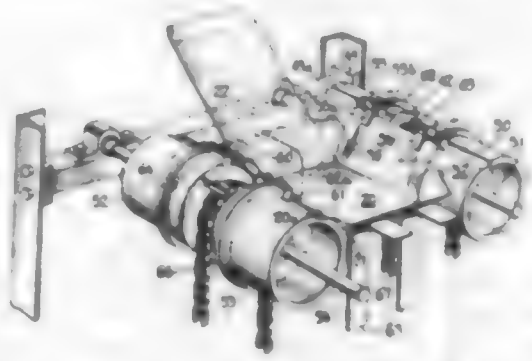
1. Control tracer for cooperation with the contour cam of a duplicating machine, comprising supporting structure having a horizontally disposed annular supporting shoulder, a cup having a corresponding annular shoulder mounted free to rock on said supporting shoulder, an upright tracer finger dependent from said cup for cooperation with the contour cam, a ball supported in said cup, a ball confining cup inverted over said ball, means for guiding said ball confining cup in straight line vertical movement, a stem rising from said vertically movable ball confining cup, control switch mechanism operable by said stem, and means for weighting said ball confining cup and switch operating stem to hold said ball receiving cup normally seated on said annular supporting shoulder with said tracer finger in upright relation free of spring or other pressure forces.

2,868,093

METHOD AND APPARATUS FOR SETTING UP BOX BLANKS

Joseph M. Schmied, Pawtucket, R. I., assignor to St. Regis Paper Company, New York, N. Y., a corporation of New York

Application June 14, 1957, Serial No. 665,683
20 Claims. (Cl. 93—49)



3. In apparatus for setting up initially flattened box blanks, the combination comprising: means for engaging opposite marginal areas of side flaps of said flattened box blank, means for mounting said engaging means for rotation about parallel spaced axes and for angular movement in fixed phase relationship, means for acting upon said opposite side flaps during engagement thereof by said engaging means thereby to open corner lock slits

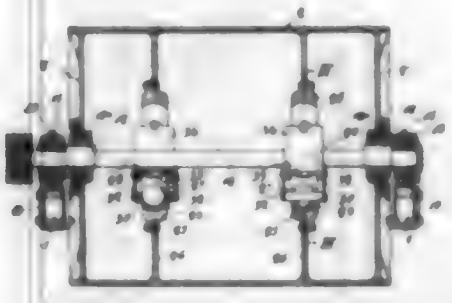
formed along the end margins of said side flaps for the reception of corner tabs which in turn are connected to side edges of opposite side walls of the box blank, side wall erecting elements positioned in the path of movement of said side walls, and guide means for guiding said corner tabs into their respective open corner lock slits responsive to relative movement of said side walls and side wall erecting elements.

2,868,094

ROLLER VIBRATOR

Ture Evert Andersson, Ljungby, Sweden, assignor to Vibro-Plus Corp., Woodside, Long Island, N. Y., a corporation of Delaware

Application January 27, 1954, Serial No. 406,547
Claims priority, application Sweden January 30, 1953
3 Claims. (Cl. 94—48)



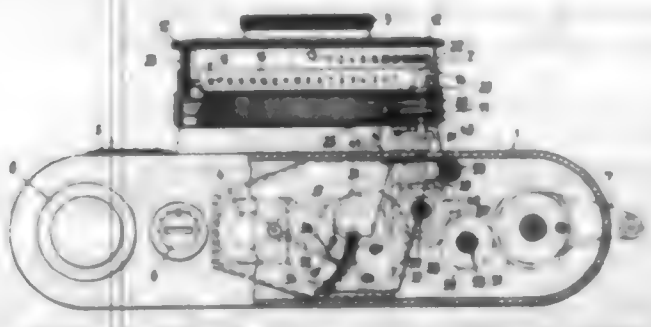
1. A vibratory roller mechanism comprising a cylindrical roller drum, bearings in the ends of the drum, a driven rotatable shaft extending through and rotatably supported by the bearings in the roller drum, a grooved raceway supported from the inner periphery of the drum, said raceway being concentric with the drum and spaced from the shaft; a ball weight rotatably supported in the raceway groove; a driver for the ball including a member connected to the shaft, a ring surrounding the ball, and spring members joining the ring to the member and supporting the ring rigidly against movement along the raceway groove and resiliently against movement parallel to the raceway axis; whereby rotation of the shaft causes the ball to travel along the raceway and directly vibrate the drum.

2,868,095

PHOTOGRAPHIC CAMERA CONSTRUCTION

Kurt Gebele, Munich, Germany, assignor to Hans Deckel, Munich, Germany, and Friedrich Wilhelm Deckel, Zug, Switzerland

Application April 27, 1956, Serial No. 581,056
Claims priority, application Germany April 29, 1955
11 Claims. (Cl. 95—10)



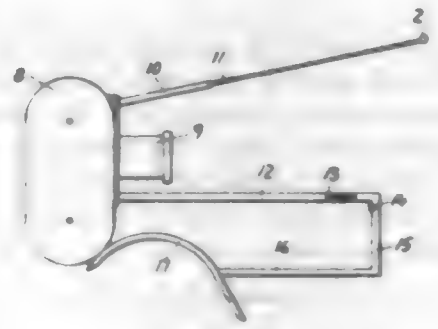
1. A photographic camera construction including a shutter having an exposure value adjusting member movable through a range of travel for adjusting at least one of the two factors of exposure duration and diaphragm aperture which together determine the exposure value of an exposure, a shutter tripping member movable to initiate an exposure-making operation of the shutter, a control member coupled to said exposure value adjusting member to move therewith, a built-in light meter including a movable member positionable in accordance with variations in light intensity and having a portion constituting an abutment cooperating with said control member to stop motion of said control member in one direction, resilient means tending to move said exposure value adjusting member and said control member in said one direction, a film winding member means operated by movement of said film winding member for moving said adjusting member and control member in an opposite direction to a starting position at one end of their range of travel, means for latching said adjusting member and control member in said starting position, and means operated by said shutter tripping member for unlatching said latching means so that said resilient means may move said adjusting member and said control member in said one direction until said control member is stopped by said movable member of said light meter.

2,868,096

CAMERA FOR THE PHOTOGRAPHING OF OBJECTS WITH KNOWN EXTENSION LENGTH

Rolf E. Rothfjell, Stockholm, Sweden

Application April 24, 1952, Serial No. 284,046
1 Claim. (Cl. 95—11)



A finder and a shoulder support in combination with a camera, the shoulder support comprising a carrying organ shaped to the shoulder of the photographer, means for securing one end of said organ to the bottom of the camera with the free end extended forwardly thereof, a U-shaped frame for the camera and carrying organ, means for securing one end of said frame to said organ and the opposite end to the front of the camera, said organ and frame being outside the field of image; the finder comprising a telescopic rod disposed on the front of the camera adjacent the top and extended forwardly thereof, said rod being along the line of the field of image when said carrying organ maintains the camera in correct vertical position.

2,868,097

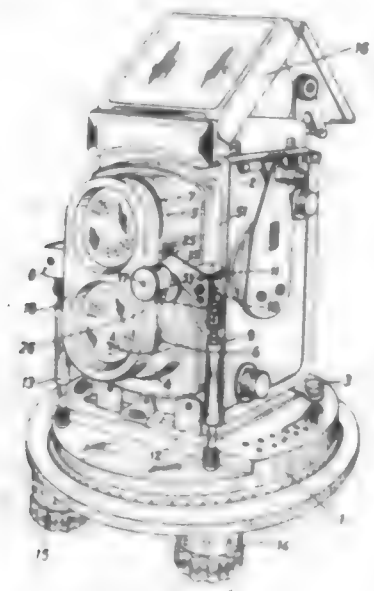
LENS AND FILTER HOLDER FOR PHOTOGRAPHIC CAMERAS

Richard Weiss, Braunschweig, Germany, assignor to Franke & Heidecke, Fabrik Photographischer Prazisions-Apparate, Braunschweig, Germany, a German firm

Application June 29, 1954, Serial No. 440,199
Claims priority, application Germany July 1, 1953
7 Claims. (Cl. 95—11)

1. A photographic camera device comprising a camera body and a lens mounted thereon, a holder for a supplementary optical element, said holder being pivoted to said camera body on a pivot offset to one side of a line which extends vertically through said lens when said camera body is held in normal upright picture-taking position, said pivot also being eccentric with respect to the center of gravity of said holder, abutment means for limiting turning movement of said holder on said pivot to two extreme positions in one of which said supplementary optical element is alined with said lens and in the other of which said supplementary element is out of alinement with said lens, said pivot and abutment means

being so placed that when said camera is in normal upright picture-taking position gravity will tend to maintain said holder in either one of said extreme positions in which it has been set and when said camera is rotated about an axis parallel to said pivot gravity will tend to swing said holder from one of its extreme positions to



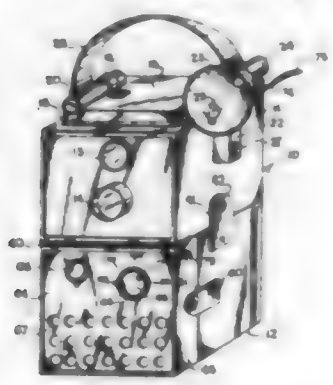
the other, a shaft having a manipulating element, a gear mounted on said camera and operatively connected to said shaft to be turned thereby, and locking mechanism carried by said camera body and controlled by said gear for locking said holder in either one of said extreme positions in which it has been set notwithstanding rotation of said camera about said axis.

2,868,098

CASING FOR CAMERA

Rene Lopez, New York, N. Y.

Application April 13, 1956, Serial No. 578,041
2 Claims. (Cl. 95—11.5)



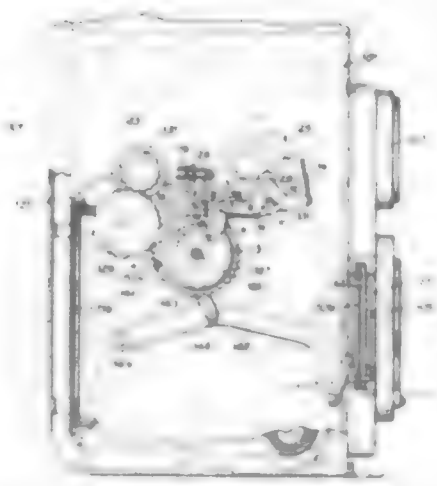
1. In a device of the character described, a casing having a pair of hinged sections, one of said sections including a first rectangular box having an open side, a battery mounted in said box and connected to a socket on one wall of said box, another rectangular box removably secured to the open side of the first box and providing a cover therefor, the other of said sections containing a camera, a flash bulb holder mounted on one wall of said other section, electrical cable means separably connecting said flash bulb holder and socket to energize the flash bulb, said other box being further separably attached to said other section, the combined widths and depth of the first and second boxes of said one section being equal to the width and depth respectively of said other section, said sections forming a single rectangular body when the sections are closed, and a handle secured near the top of said other section for carrying the casing with the sections closed, said camera being set up for taking pictures by the light of said flash bulb when the sections are closed.

2,868,099

INTERCONNECTED FILM FEED AND SHUTTER SETTING MECHANISM FOR PHOTOGRAPHIC CAMERAS

Richard Weiss, Braunschweig, Germany, assignor to Franke & Heidecke, Fabrik Photographischer, Präzisions-Apparate, Braunschweig, Germany, a firm of Germany

Application January 17, 1956, Serial No. 559,723
Claims priority, application Germany May 23, 1950
12 Claims. (Cl. 95—31)



2. A photographic camera comprising a shutter, a tensioning member movable to tension said shutter ready for making an exposure, a film spool winding member, a rotary driving member operatively connected to said spool winding member through a one-way driving connection so that rotation of said driving member in a first direction will turn said spool winding member and rotation of said driving member in a second direction will be ineffective to turn said winding member, an operative connection between said driving member and said tensioning member effective upon rotation of said driving member in either direction to move said tensioning member to tension the shutter, an abutment portion on said driving member, a movable stop member normally lying in the path of travel of said abutment portion to contact therewith to determine a normal rest position of said driving member and to prevent rotation thereof in said second direction beyond said rest position, and a manually operable release member for releasing said stop member from said abutment portion to permit said driving member to turn in said second direction to tension the shutter without turning said spool winding member.

2,868,100

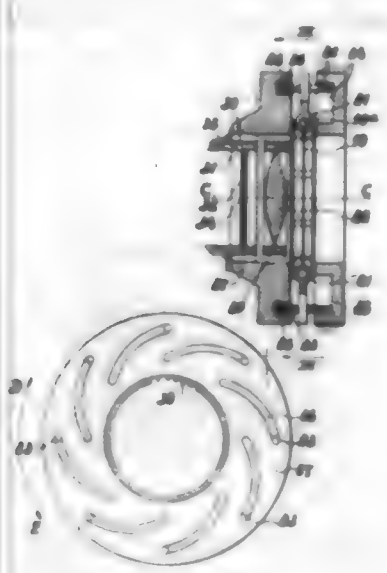
CAMERA COMPRISING A PICK-UP TUBE AND A LENS OBJECTIVE WITH A VARIABLE EFFECTIVE APERTURE RATIO

Christiaan Jacobus Seur, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 26, 1955, Serial No. 542,993
Claims priority, application Netherlands November 16, 1954
2 Claims. (Cl. 95—64)

1. A diaphragm and filter arrangement for a camera including a lens objective comprising a light-pervious filter constituted of an elastic taut film positioned in the path of light, first means to adjust the tension of said film, second means to adjust the aperture ratio of said lens objective, and means coupling said first and second

means whereby upon variation of the aperture ratio of said lens the tension of said film is varied to thereby

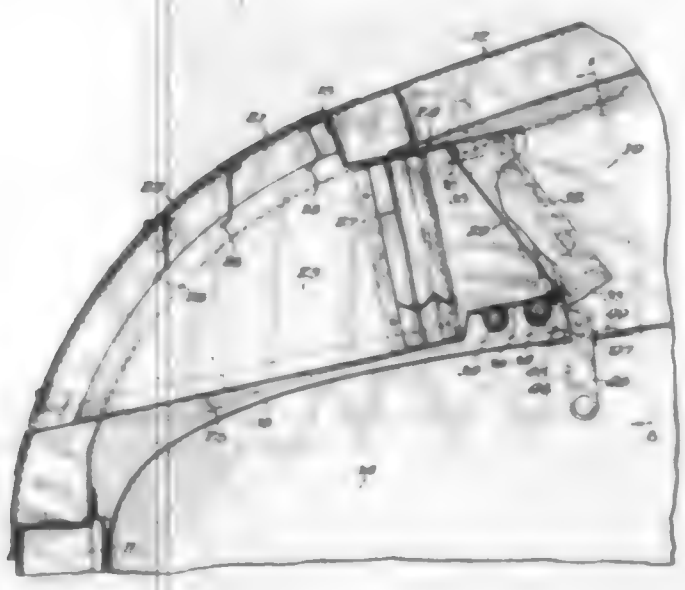


change the light permeability of the filter in an opposite sense.

2,868,101
VENTILATING ARRANGEMENT FOR PASSENGER VEHICLES

Wilfrid Fall, Worcester, Mass., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application January 29, 1954, Serial No. 406,989
3 Claims. (Cl. 98—10)

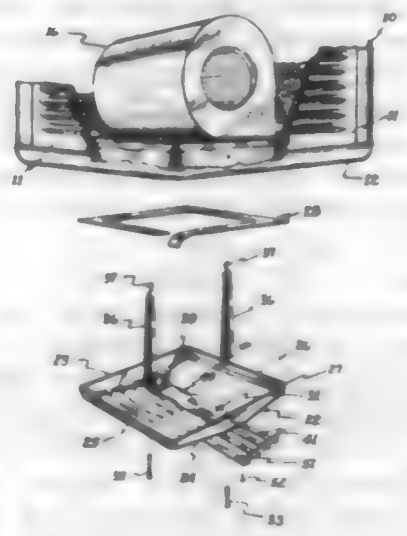


1. In a passenger vehicle, a pair of spaced vertically disposed walls, a top wall extending between the vertically disposed walls, a bottom wall extending between the vertically disposed walls, the vertically disposed walls and the top and bottom walls together forming a housing, a damper pivotally mounted by pivot means adjacent its top edge supported in the vertically disposed walls, an operating arm positioned longitudinally of the damper adjacent one side thereof and secured to the damper, a link having one end pivotally connected to said arm, a lever arm having one end pivotally connected to the other end of said link, a rod rotatably mounted on the bottom wall and the other end of the lever arm being fixedly secured to the rod, an actuating arm having one end fixedly secured to the rod, and a handle pivotally connected to said actuating arm, movement of the handle causing the damper to move between open or closed positions in the housing.

2,868,102
MOUNTING STRUCTURE FOR AIR CONDITIONING APPARATUS

Oscar C. Meignard, Phoenix, Ariz., assignor to Wright Mfg. Company, Phoenix, Ariz., a corporation of Arizona

Application August 5, 1957, Serial No. 676,147
2 Claims. (Cl. 98—39)

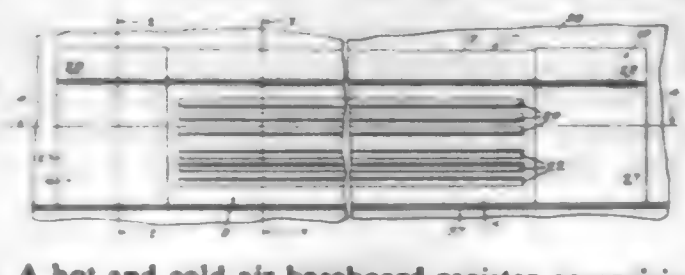


1. In combination in a mounting structure for an air conditioning apparatus comprising a cooler housing having a mounting surface adapted to engage the outside of a structure to be air conditioned, said structure including an opening aligned with a blower discharge opening in said cooler housing, a grille frame adapted to engage the inside of said structure to be air conditioned around said opening therein, a cross member forming an integral part of said frame, a clamping means located in said opening, means connecting said clamping means to said cooler housing, means connecting said clamping means to said cross member whereby tightening of said clamping means permanently clamps said cooler housing rigidly to the outside of said structure to be air conditioned and said frame rigidly to the inside of said structure to be air conditioned, and demountable louvers in said rigidly fixed frame each side of said cross-member removable to provide access to manipulate said clamping means.

2,868,103
HOT AND COLD AIR BASEBOARD REGISTER

Zeno F. Molitor, Stockton, Ill.

Application May 24, 1957, Serial No. 661,479
3 Claims. (Cl. 98—40)



1. A hot and cold air baseboard register comprising an elongated hollow sheet metal casing having a bottom adapted to rest on a floor and an upstanding rear wall adapted to be disposed against a wall, said casing including a front wall having an upper set and a lower set of elongated openings each extending longitudinally of the casing, a louver associated with each of said openings, said louvers being struck outwardly from said front wall, and said openings opening outwardly of the casing into the louvers, the louvers, associated with the upper set of openings, being disposed to open upwardly, and the louvers, associated with the lower set of openings, being disposed to open downwardly, said casing having an elongated partition extending from end-to-end thereof, said partition being disposed between the upper and lower sets of openings and dividing said casing into a

lower return air chamber disposed below the partition and an upper hot air chamber disposed above the partition, and said casing having means adapted to accommodate the discharge end of a hot air conduit to discharge into said upper chamber and a second means for accommodating an inlet end of a return air conduit in communication with said lower chamber, said casing including an intermediate section having open ends and end sections having open inner ends and closed outer ends, the open inner ends of said end sections telescopically engaging the open ends of said intermediate section, and said partition including end portions carried by said end sections and telescopically engaging an intermediate partition portion carried by said intermediate section, said openings and louvers being formed in the front wall portion of said intermediate section, said end sections being extensible and retractable to vary the over-all length of the register to accommodate the register to the spacing between the hot and return air ducts, the bottom and partition portion of one of said end sections being provided with said means for accommodating the discharge end of the hot air conduit which extends upwardly therethrough, and the bottom portion of said other end section being provided with said means for accommodating the inlet end of the return air duct which extends downwardly therefrom through the floor.

2,868,104

COMBINATION RIDGE CAPPING AND VENTILATOR FOR USE ON STRUCTURES WITH PITCHED ROOFS

Knud A. Honholt and James T. Walker, Grand Forks, British Columbia, Canada

Application November 27, 1956, Serial No. 624,630
2 Claims. (Cl. 98—42)



1. A combination ridge capping and ventilator comprising a pair of spaced base members positioned on opposite sides of and extending throughout the length of a roof ridge opening and having S-shaped folds along their proximate longitudinal edges terminating in upwardly extending wind-break flanges, brackets having lower flanges engaged in said folds and secured to said base members, said brackets having upper flanges, and an inverted V-shaped ridge capping, said ridge capping having downwardly diverging lower portions secured on said upper flanges, said wind-break flanges extending above said lower portions of said ridge capping.

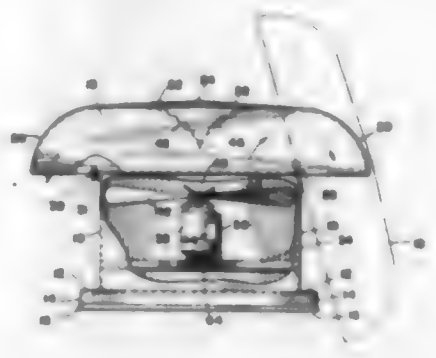
2,868,105

POWER VENTILATOR FOR ROOFS

Harold Knutson and Harold G. Knutson, Chicago, Ill.

Application July 15, 1953, Serial No. 368,158
3 Claims. (Cl. 98—43)

1. A ventilator having a hollow rectangular casing open at the top and bottom, a power fan located in the casing, a cover for the casing overlapping and extending beyond it at opposite sides and ends and extending upwardly above the top of the casing with transverse deflectors curved upwardly, outwardly and downwardly from a common juncture above the power fan for guiding gaseous materials to and from the fan inward and outwardly at the bottom and around the edges of the cover, means at one end of the casing to mount the cover for sliding and pivotal movement from a horizontal position over the top of the casing to a substantially vertical position at one end of the casing and to return therefrom to horizontal position, the said means comprising a fixed bar at one end of the casing having circular ends which project beyond the opposite sides and the cover having supporting members at the lower inside edges of the sides



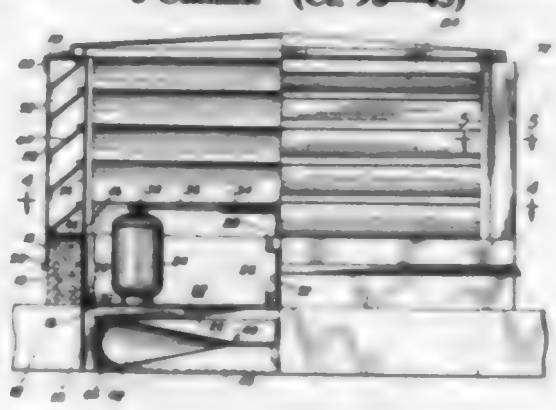
engageable above and below the projecting ends of said bar forming a pivoting guideway of such a length that the cover can be tilted upwardly from the end opposite said bar from a closed position to pivot and slide relative to the bar for swinging the cover to one end of the top and uncovering the casing.

2,868,106

ROOF VENTILATOR

Harold Knutson and Harold G. Knutson, Chicago, Ill.

Application December 9, 1954, Serial No. 474,868
6 Claims. (Cl. 98—43)



1. In a louvered ventilator structure a power driven fan and supporting means therefor comprising side plates connected together to form a rectangular structure with upper outwardly projecting flanges, a ventilator housing comprising a corresponding number of sides with louvered units for each side of the ventilator and carried by the flanges of said side plates, corner post connections between the ends of adjacent louvered units also carried by the flanges, a cover extending over the top of all of the connected units, means for securing the cover in place on the tops of and overlapping the edges of the inner sides of the units, the cover having downwardly turned sides with outwardly turned flanges at the lower edges, and offset strips attached to one or more of the said tops beneath which corresponding flanges of the cover are engaged to hold the cover in place.

2,868,107

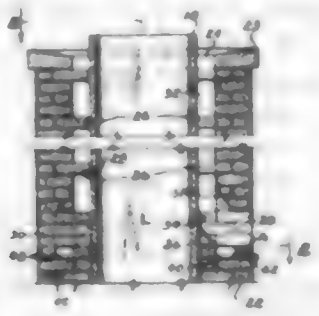
CHIMNEY STRUCTURE

William L. Greene, Annapolis, Md., assignor to Rogers, Taliaferro & Lamb, Architects, Annapolis, Md., a partnership

Application October 4, 1956, Serial No. 613,890
3 Claims. (Cl. 98—58)

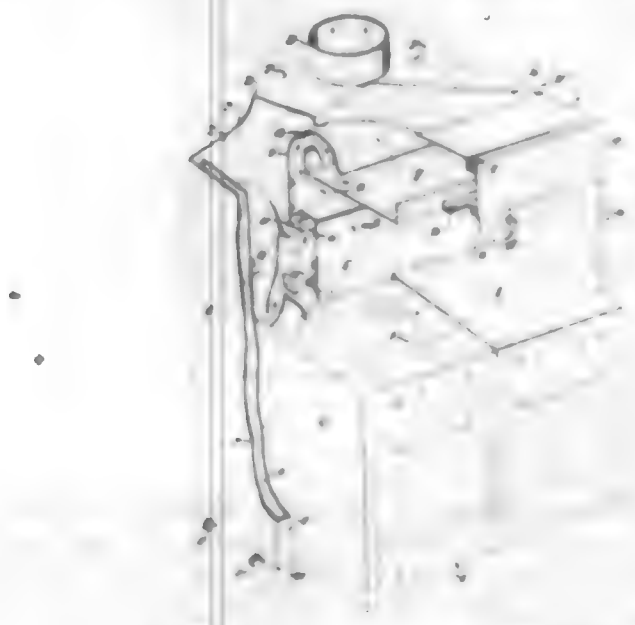
1. A chimney comprising a flue and a coextensive outer covering material, a chamber formed at the upper

end of said chimney between said flue and said outer covering material and having an open top adjacent the top of said flue and having a closed bottom a substantial distance below the top of said flue and formed by solid engagement of said covering material with said flue, a plurality of passageways on all sides of said chimney adjacent the bottom of said chamber and extending through the outer covering material from the exterior



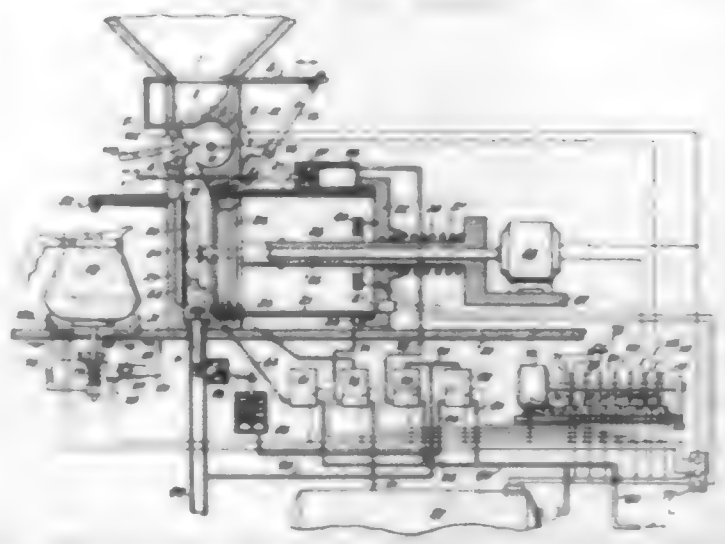
thereof to said flue and communicating with the bottom of said chamber, the side walls of said passageways extending vertically upwardly a height less than the height of said chamber and forming vertical transverse baffles separating each opening and passageway from adjacent openings and passageways, said passageways having an inwardly and upwardly sloping bottom wall for deflecting horizontal winds entering said openings upwardly into said chamber.

2,868,108
VENTILATOR
Ulric K. Petersen, Sonora, Calif.
Application June 9, 1955, Serial No. 514,146
1 Claim. (Cl. 98—115)



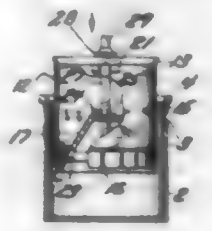
A ventilator for use with a range comprising: a pair of end panels; a back panel extending between said end panels; a hood mounted on said back panel and extending between said end panels, said hood including a substantially horizontal top plate extending between said end panels, a facade plate depending from the front edge of said top plate and extending between said end panels, a walled grease collecting pan including a bottom plate, said pan being detachably mounted on the lower edge of said facade plate in at least partially air-tight relation therewith, said pan extending laterally between said end panels and rearwardly toward said back panel, the back wall of said pan being spaced from said back panel to form a substantially vertical passageway therebetween, the upper portion of said back wall of said pan being recurved forwardly and downwardly toward said bottom plate; an exhaust fan mounted in an opening in said top plate of said hood and adapted to exhaust gases from the chamber within said hood defined by said back panel, said end panels, said top plate, said facade plate and said bottom plate of said pan; a deflector plate extending between said end panels and mounted on said back panel, said deflector plate projecting forwardly and downwardly and being in substantially uniform spaced relation with respect to said recurved back wall of said pan to form a throat adapted to conduct gases from said passageway into said pan; and a front panel vertically mounted on the range and spaced from said back panel, said front panel extending between said end panels to form with said back panel a vertical conduit adapted to conduct oven gases, said front panel terminating in a rearwardly projecting portion spaced from said bottom plate of said pan to define a channel therewith adapted to conduct gases rearwardly and to the entrance of said passageway.

2,868,109
COFFEE MAKER
James F. Davis, Northridge, Calif.
Application December 13, 1954, Serial No. 474,689
10 Claims. (Cl. 99—282)



8. A coffee maker comprising, a cylinder, a piston in the cylinder, a spring urging the piston to the rear end of the cylinder, the space in front of the piston forming a brewing chamber, a dispensing spout in the chamber, a filter in the chamber for the coffee passing to the spout, a water flow controlling valve, a conduit for water under pressure through the valve to the rear end of the cylinder to advance the piston against the pressure of the spring, a thermostatically controlled water heating element in the space behind the piston, a conduit from the valve to the other end of the cylinder, means for operating the valve to open a passage through the two conduits, pressure of the spring causing the piston to recede and in receding to force the water behind the piston through said passage into the brewing chamber, a coffee grinder, valves for admitting coffee ground by said grinder to the brewing chamber as the water enters therein, and means for timing the operation of all said valves and the coffee grinder.

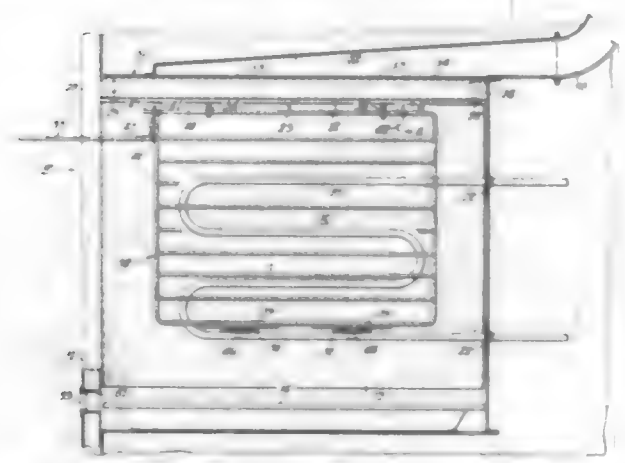
2,868,110
COFFEE MAKERS
Thomas J. Kehoe, Perrysburg, Ohio
Application November 8, 1954, Serial No. 467,573
11 Claims. (Cl. 99—299)



1. In a coffee maker having a liquid retaining chamber and a diffuser chamber for the coffee particles to be ex-

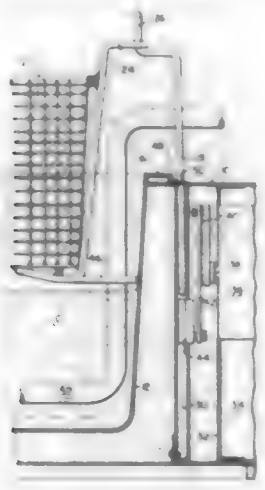
tracted by the liquid, the improvement comprising: a movable imperforate bottom on said diffuser chamber providing a variable slit means around its periphery between said periphery and the bottom edge of said chamber to prevent passage of coffee particles therethrough but to permit the flow of the liquid between said chambers, the adjacent edges of the bottom of said diffuser chamber and the sides of said diffuser chamber being formed at an acute angle with respect to each other and with said slit means at the apex of said angle, at least one of said edges being flexible, spacer means bridging said slit means to form a plurality of peripheral variable slots of said slit between said edges, and means in said diffuser chamber for movably supporting said bottom for varying said slots.

2,868,111
VERTICAL BROILER
William H. Laskowski, Effingham, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application June 8, 1955, Serial No. 513,994
3 Claims. (Cl. 99—392)



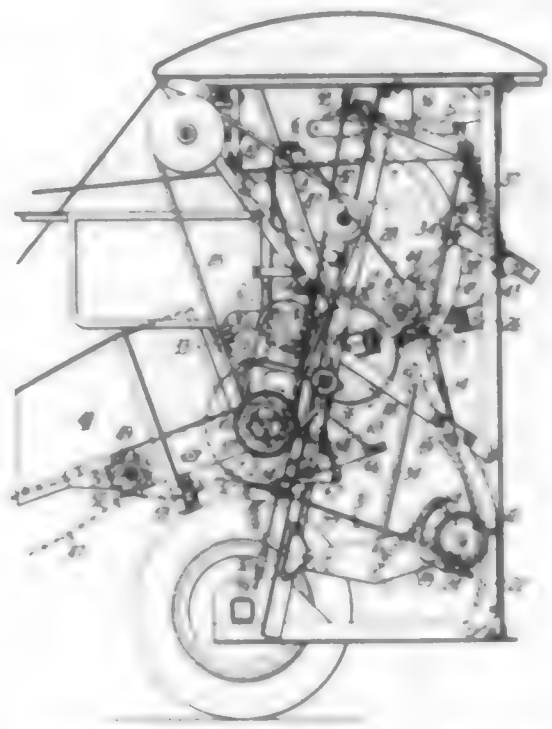
2. In a vertical broiler, a housing having top, side and bottom walls, means defining an access opening in the front of said housing, an access door for said opening, heating elements disposed in said housing, means for placing food in a vertical plane between said heating elements, a container of hydrous material beneath said food placing means, and ventilating means for said housing and comprising means defining an air inlet opening at the bottom of said access door proximate the top of said container and means defining an air outlet opening at the top of said housing.

2,868,112
COOKING MACHINE
George H. Bushway, Rye Beach, N. H.
Application May 13, 1955, Serial No. 508,193
3 Claims. (Cl. 99—410)



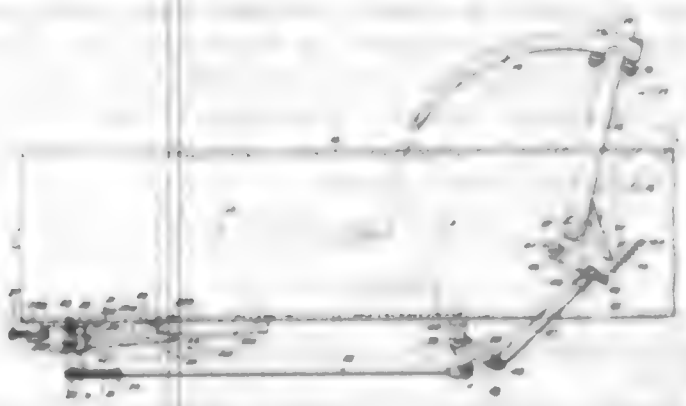
1. A cooking machine comprising a sheet metal box-like casing, a vertical partition dividing the casing into two chambers, one chamber being covered by the top wall of the casing and the other chamber having an opening through the top wall, a cooking tank removably disposed within the opening and extending downwardly into said other chamber, a foraminous basket removably disposed within the tank, means connected to the basket and including an electric motor in the covered chamber and a shaft extending through the partition for lifting the basket, an electric terminal socket in said top wall of the casing, a control box seated on said top wall and having electric terminals removably extending into the socket, and an electric heating unit carried by the control box in position extending downwardly into the tank beneath the basket when the control box is thus seated on the top wall, the control box containing means for energizing the heater and motor and the control box and heating unit being removable from the casing as a unit, and the partition permitting thorough washing and cleaning of said other chamber without exposing the means including the motor in the said one chamber.

2,868,113
AUTOMATIC BELT CLUTCH FOR CONVEYER DRIVE
Paul H. Harrer, La Porte, Ind., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application November 16, 1954, Serial No. 469,240
4 Claims. (Cl. 100—5)



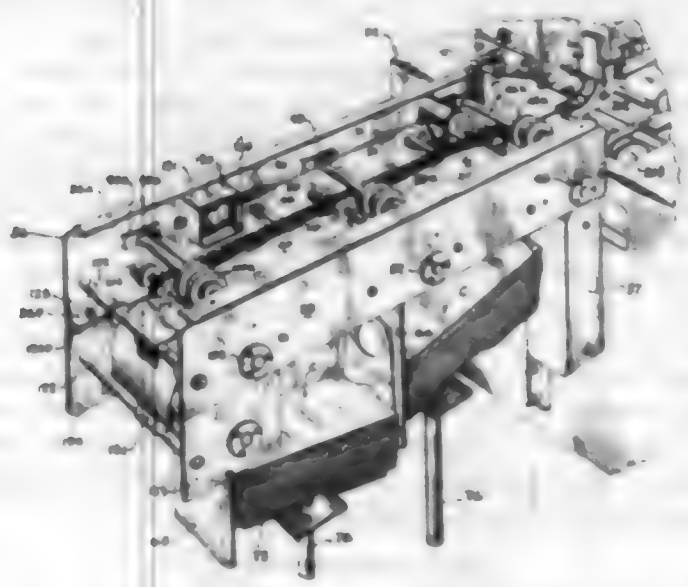
1. In a baling machine of the type wherein a mat of incoming material is rolled into a cylindrical bale and twine is wrapped around said bale before its ejection from the machine, the combination of material feeding means including a rotary drive shaft, bale forming means including a rotary drive shaft in transversely spaced relation to said drive shaft of said material feeding means, twine wrapping and bale ejecting mechanisms operatively associated with said bale forming means, a belt drive operatively interposed between said shafts including an endless belt and a back and forth adjustable sheave element cooperable with said belt so as to selectively establish a power transmitting connection between said shafts by adjustment of said sheave element in a belt tightening direction, and so as to interrupt said power transmitting connection by adjustment of said sheave element in a belt slackening direction, control means responsive to operation of said bale forming means so as to initiate operation of said twine wrapping mechanism and to adjust said sheave element in said belt slackening direction upon formation of a bale of predetermined diameter, and control means responsive to operation of said bale ejecting mechanism so as to adjust said sheave element in said belt tightening direction.

2,868,114
PLUNGER CONTROL MEANS
James H. Hollyday, New Holland, Pa., assignor to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware
Application February 23, 1956, Serial No. 567,259
5 Claims. (Cl. 100—19)



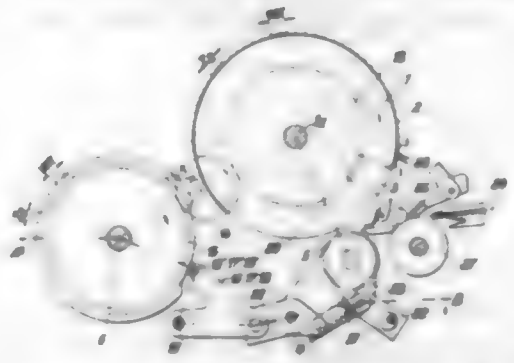
1. In an automatic baler having a bale case, a plunger reciprocable in said bale case, and normally inoperative banding means, including needle means, synchronized with said plunger for forming bands around completed bales, the combination of a control member pivotally mounted on said bale case and adjustable to two positions thereon, said control member when pivoted in either of said two positions being engageable with said plunger, means biasing said control member toward pivoted position, releasable means regulated by said needle means normally holding said biasing means inoperative, said releasable means being released on actuation of said needle means whereby said control member is pivoted by said biasing means, said control member when pivoted in one position of adjustment locking said plunger in extended position and when pivoted in the other position of adjustment acting as a safety stop for the plunger.

2,868,115
PRINTING MACHINES
Walter T. Gollwitzer, Euclid, Ohio, assignor to Addressograph-Multigraph Corporation, Wilmington, Del., a corporation of Delaware
Application February 28, 1955, Serial No. 490,836
21 Claims. (Cl. 101—2)



1. In a machine of the kind described adapted to produce business instruments of different orders, a receiving station including different stackers correspondingly as there are different orders of the instruments, a guideway through the receiving station, feed means for advancing instruments toward the different stackers, a deflector associated with one of the stackers and having a normal released position enabling an instrument of one order to be fed along said guideway past said one stacker to a second one of the stackers, means to actuate and lock in actuated position said deflector in advance of an instrument of another order that is to be received in said one stacker so that the deflector in actuated position is operative to direct said other ordered instrument to the said one stacker, and means operated by the other ordered instrument when passing to said one stacker to release the deflector from actuated position.

2,868,116
APPARATUS FOR PRINTING SPACED TEXT PORTIONS ADJACENT EACH OTHER
Wilhelm Ritzerfeld, Berlin-Dahlem, and Gerhard Ritzerfeld, Berlin-Grunewald, Germany
Application April 27, 1955, Serial No. 509,264
Claims priority, application Germany April 28, 1954
10 Claims. (Cl. 101—132.5)

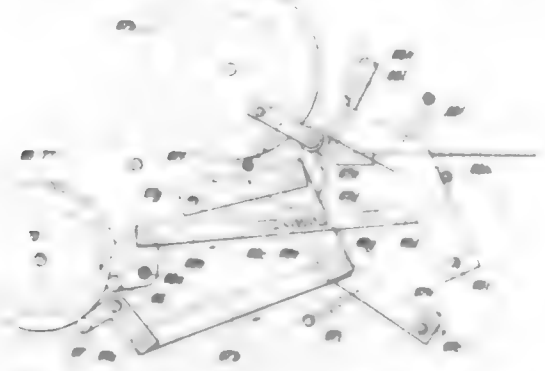


1. In a rotary printing device comprising, in combination, a rotary printing roller adapted to support a printing form having a text thereon having lines extending in axial direction of said printing roller, said printing roller being adapted to move the printing form through a printing line; a pressure roller cooperating with said printing roller at said printing line; movable supporting means supporting said pressure roller for movement between an operative position engaging said printing roller and an inoperative position spaced from said printing roller, said rollers being adapted to grip a supplied copy sheet along said printing line and to transport the same in printing engagement with said printing roller only when said pressure roller is in said operative position; holding means for holding the copy sheet stationary when said pressure roller is in said inoperative position; a rotary cam device including a plurality of cam means, said rotary cam device being connected to said printing roller for rotation therewith so as to turn in timed relationship with the text on the same, each of said cam means consecutively engaging said movable supporting means and moving the same and therewith said pressure roller during each revolution of said printing roller from said inoperative position to said operative position for printing spaced portions of the text adjacent each other on a copy sheet, said pressure roller being in said inoperative position thereof when undesired portions of the text move through said printing line, at least one of said cam means including a carrier means, and a plurality of cam discs mounted on said carrier means shiftable in axial direction and having cam tracks corresponding to line portions of said text; and a cam follower roller mounted on said movable supporting means and cooperating with said cam discs, the number of cam discs engaging said cam follower roller during rotation of said cam device being adjustable by shifting said cam discs in axial direction.

2,868,117
ROTARY DUPLICATING APPARATUS
Wilhelm Ritzerfeld, Berlin-Dahlem, and Gerhard Ritzerfeld, Berlin-Grunewald, Germany
Application May 19, 1955, Serial No. 509,604
In Germany October 1, 1948
Public Law 619, August 23, 1954
Patent expires October 1, 1968
16 Claims. (Cl. 101—132.5)

1. A rotary duplicator comprising, in combination, a driven rotary duplicating roller; means on said duplicat-

ing roller for holding a master sheet having a head portion and a plurality of line portions; a pressure roller cooperating with said duplicating roller along a printing line; movable supporting means supporting said pressure roller for movement between an operative position cooperating with said duplicating roller and an inoperative position spaced from said duplicating roller, said rollers being adapted to grip a copy sheet at said printing line and transport the same in printing engagement with said master sheet only when said pressure roller is in said operative position; means for maintaining the copy sheet stationary when said pressure roller is in said inoperative position; stripper means located in the bight between said rollers for separating copy sheets after printing from said duplicating roller and from the master sheet; linking means connecting said stripper means with said mov-



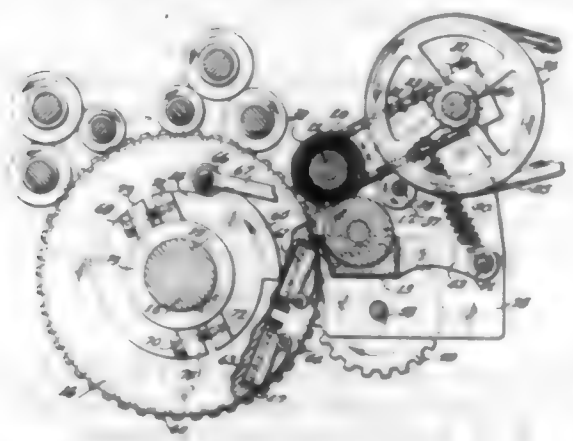
able supporting means for movement with the same; moistening means for moistening copy sheets fed to said rollers; a movable support for said moistening means supporting the same for movement between an operative moistening position and an inoperative position; and selectively operable shifting means connected to said duplicating roller and actuated by rotation thereof, said shifting means including first means engaging said movable supporting means and second means engaging said movable support and moving the same and therewith said pressure roller and said moistening means automatically and positively at least twice during each revolution of said duplicating roller through a selective cycle of movements between said operative and inoperative positions so as to print the head portion and selected spaced line portions of said master sheet adjacent each other on the copy sheet.

2,868,118

LITHOGRAPHIC OFFSET PRESS PLATE DAMPENING DEVICE

Harold P. Dahlgren, Mobile, Ala.

Application September 24, 1954, Serial No. 458,226
5 Claims. (Cl. 101—147)



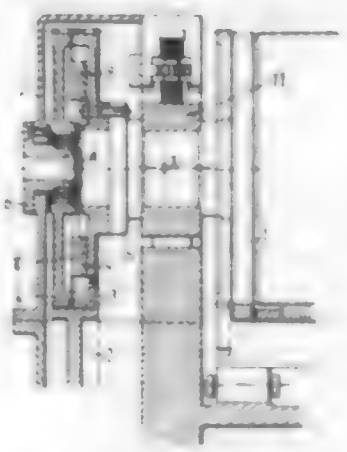
1. In a printing plate moistener for a lithographic offset printing machine having a rotatable plate cylinder with a lithographic offset printing plate mounted thereabout, the combination which comprises, an elongate cylindrical brush rotatably mounted on the machine in spaced parallel relationship to the exterior side of the plate; an elongate liquid retaining tray mounted on the machine and extending parallel to the brush; a quantity of wetting liquid in said tray; an elongate liquid supply roller rotatably mounted on the machine parallel to the brush, having one side thereof immersed in said liquid and the other side thereof in rotative contact with the brush with the peripheral surface of the roller impressed into the bristles of the brush, whereby upon release of the bristles from the roller, as the roller and brush rotate, the liquid on the surface of said roller is atomized and projected against the surface of the printing plate as the plate is rotated; and means to rotate the brush, roller and plate cylinder.

2,868,119

DRIVING ARRANGEMENT FOR THE IMPRESSION CYLINDER OF A CYLINDER PRINTING PRESS

Artur Büttner, Heidelberg, Germany, assignor to Schnellpressenfabrik Aktiengesellschaft Heidelberg, Heidelberg, Germany

Application December 31, 1957, Serial No. 706,344
Claims priority, application Germany December 31, 1956
3 Claims. (Cl. 101—283)



1. In a cylinder printing press having a driven impression cylinder mounted for selective movement between a selected raised position and a lowered printing position, an improved driving arrangement for the impression cylinder comprising, a driving gear for selectively driving the impression cylinder, a pair of cooperating driven gears for imparting rotative movement to said cylinder regardless of whether it is in its raised or lowered position, one of said pair of gears being mounted for continuous engagement with the driving gear, the other gear of said pair of gears being fixed to the impression cylinder and movable therewith between the lowered and raised positions and mounted engaging the driving gear only when the cylinder is in its lowered position, a flexible coupling associated with said pair of gears mounted slidably engaging one of said pair of gears and releasably fixed relative the other gear of said pair of gears thereby to impart rotative movement from the gear continuously engaged with the driving gear to the other gear only when said impression cylinder is not in its lowered position, whereby the impression cylinder is selectively rotatively driven in both of said positions.

2,868,120

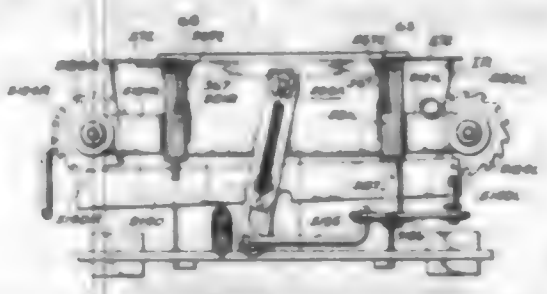
PRINTING MACHINES

Carl J. Hueber, Euclid, Ohio, assignor to Addressograph-Multigraph Corporation, Cleveland, Ohio, a corporation of Delaware

Original application July 26, 1954, Serial No. 445,771. Divided and this application January 10, 1958, Serial No. 708,099
5 Claims. (Cl. 101—336)

1. In a printing machine, ribbon feed and reversing mechanism comprising a pair of ribbon spools having ratchet wheels connected respectively thereto for ad-

vancing said spools, a control lever mounted pivotally in the machine, a feed lever having drive means at opposite ends respectively for drivingly engaging one of said ratchet wheels when the feed lever is in a first tilted ratchet driving position and for drivingly engaging the other of said ratchet wheels when in a second tilted ratchet driving position, an abutment located on and between the ends of said feed lever, a drive pin on said control lever adapted to normally engage one side or the other of said abutment in a first position of said drive pin so as to transmit endwise lateral shifting movement to said feed lever upon rocking movement of said control lever, said drive pin being adapted to shift laterally from one side of said abutment to a second position on the other side of said abutment when said feed lever encounters resistance against endwise shifting movement as aforesaid, a pair of cam surfaces on said feed lever separated by a tooth, a second pin supported for shift-



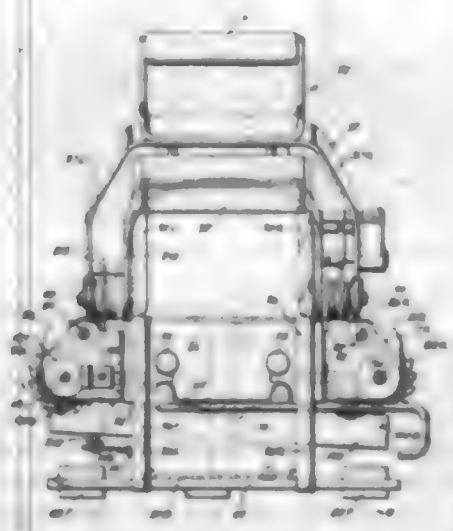
ing movement lengthwise of said control lever in a direction away from said feed lever and normally engageable with one of said cam surfaces on one side of said tooth to define a first position of said second pin, said second pin being adapted to shift laterally across said tooth from engagement with the one cam surface in to engagement with the other cam surface on the other side of said tooth to define a second position of said second pin, and yielding means acting on said second pin to forcefully hold the second pin against said one cam surface to tilt the feed lever in said one tilted driving position on said first pin as a fulcrum, and whereby when the feed lever encounters resistance causing the first pin to assume its second position as aforesaid the second pin shifts also to its second position as enabled by said yieldable means and is forcefully held against the other of said cam surfaces to establish a new fulcrum for said feed lever in its second tilted driving position.

2,868,121

PRINTING MACHINES

William J. Hampton, South Euclid, Ohio, assignor to Addressograph-Multigraph Corporation, Cleveland, Ohio, a corporation of Delaware

Application September 26, 1955, Serial No. 536,553
1 Claim. (Cl. 101—336)



In a printing machine having a printing anvil, a feed and reversing mechanism for a carbon ribbon and comprising a pair of ribbon spools supported outwardly of the respective ends of said anvil and each having a ratchet wheel and a drive shaft connected thereto for advancing said spools, clamping means engaging each of said drive shafts to apply individual retarding forces to said ratchet wheels, means to individually adjust said clamping means to selectively establish the amount of retarding force applied to each of said drive shafts, guide rollers journaled for free rotation outwardly of the ends of said anvil and over which the carbon ribbon passes in passing to and from said spools, a generally vertically disposed control lever pivotally mounted on said anvil and depending therefrom, a generally horizontal feed lever disposed in a plane between the upper and lower ends of said control lever and having drive means at opposite ends for respectively drivingly engaging one of said ratchet wheels when said feed lever is in a first tilted generally horizontal ratchet driving position and for drivingly engaging the other of said ratchet wheels when in a second tilted generally horizontal ratchet driving position, said feed lever having opposed upper and lower edges and being formed with an opening substantially at its midpoint affording a pair of symmetrical fulcrum pockets disposed between the upper and lower opposed edges of said feed lever, said feed lever having a tooth formed on the periphery of said opening between said pockets, said tooth pointing downward toward the lower edge of said feed lever, said feed lever having another tooth formed on the upper one of said opposed edges thereof and whereat ends of a pair of symmetrical cam surfaces terminate, said cam surfaces also being formed on said upper edge of the feed lever, said teeth being directly opposite one another and said pockets and said cam surfaces being spaced substantially equally from the center points of said teeth, a supporting and driving pin fixed on said control lever and being normally disposed in one of said pockets as the sole support for said feed lever and for imparting lateral shifting forces to the first named tooth to move said feed lever laterally upon oscillating movements of said control lever, a second pin normally engaged with one of said cam surfaces, said second pin being fixed on a generally vertically disposed slide bar aligned axially with said control lever, said slide bar being carried on said control lever for movement therewith as a unit and said slide bar being adapted to slide axially relative to said control lever to enable said second pin to be relieved from said one cam surface, a relatively short coil spring anchored at one end adjacent the lower end of said control lever and connected at its other end to the second one of said pins to normally hold the second pin carried by the slide bar forcefully against said one cam surface causing said feed lever to fulcrum about the first pin disposed in one of said pockets as aforesaid, whereby when said feed lever encounters resistance against lateral movement as aforesaid both said pins shift laterally to their second positions to establish a new fulcrum for said feed lever causing the feed lever to assume its second tilted position, and drive means connected to the lower end of said control lever below said anchor for said coil spring and below the lower edge of said feed lever and adapted to oscillate said control lever.

2,868,122

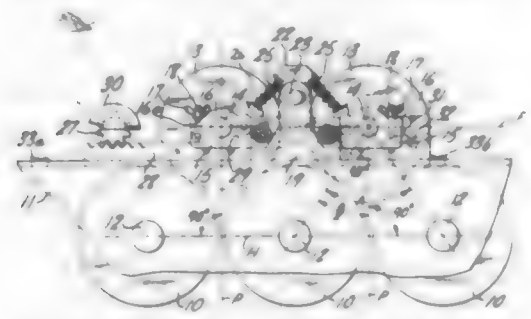
AUTOMATIC ROLLER SETTING FOR INK DISTRIBUTION SYSTEMS

Harry W. Faeber, Larchmont, N. Y., assignor to Time, Incorporated, New York, N. Y., a corporation of New York

Application July 6, 1954, Serial No. 441,418
10 Claims. (Cl. 101—348)

1. In an inking mechanism for a printing machine, the combination of a rotatable ink transfer roller which receives ink from one surface and transfers it to another, the ink transfer roller being disposed above and in engagement with the said surfaces, pivotal arms supporting the ends of the roller, a fixed mounting shaft, a pivotal

link connecting the pivotal arms with the mounting shaft, the arrangement affording a pivot between the link and the pivotal arms, which pivot is movable in space, whereby the roller is capable of finding its position automatically by gravity relative to and intermediate the surfaces



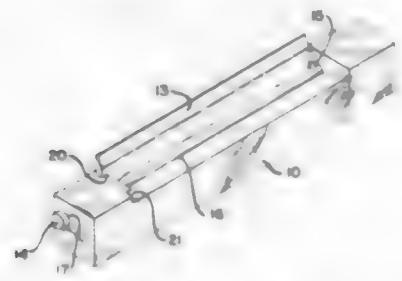
which it engages, an adjustable clamp for locking said pivotal arm in a desired adjusted position, said clamp having a shank portion, and means defining an oversized hole surrounding the shank portion of the clamp, said hole permitting limited translational movement of the axis of the ink roller when the clamp is released.

2,868,123

GUIDE MARKERS

William J. Martin, Pittsburgh, and Elmer J. Kraus, Gibsonia, Pa.

Application May 27, 1957, Serial No. 661,730
6 Claims. (Cl. 101—400)



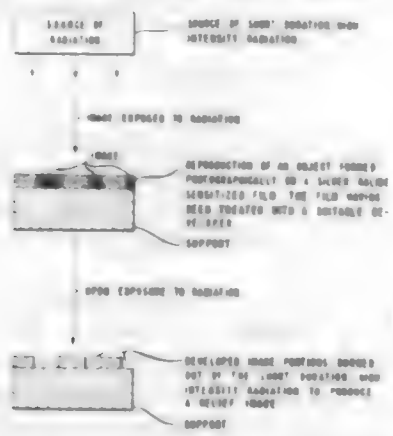
1. A guide marker for printing presses and the like comprising a housing adapted to be fixed in a printing chase, an elongated recess in said housing, blade means pivoted in said recess adapted to be moved from a recessed position within the recess of said housing to an exposed position transverse to one side of the housing with the edge of the blade member extending above said one side to the plane of the printing surface and releasable locking means retaining the blade member selectively in the recessed and exposed positions.

2,868,124

PROCESS FOR PREPARING RELIEF IMAGES

Harry Edward Crawford, Red Bank, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application April 4, 1956, Serial No. 575,951
8 Claims. (Cl. 101—401.1)



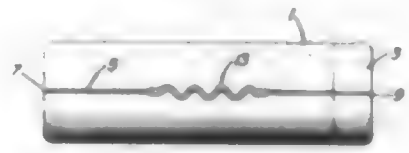
1. A process of preparing a relief image which comprises exposing a photographic element, said element comprising a developed silver image in a water-permeable organic binding agent, to the radiation of at least one short duration, high intensity source, said source positioned at a distance up to about 24 inches from said photographic element and characterized by an energy input from about 500 to 50,000 watt-seconds, a luminous energy output value from about 21,000 to about 33,000,000 lumen-seconds, a flash time duration from about 100 to 10,000 microseconds, and an emission of radiation of wavelength in the range from about 3,000 A. to about 26,000 A., whereby said silver image vaporizes leaving a depression where the image existed.

2,868,125

METHOD OF ASSEMBLING A DELAY PARACHUTE BOMB

Bernhard Rogge, Baldwin, Md., assignor to the United States of America as represented by the Secretary of the Army

Application December 17, 1954, Serial No. 476,094
2 Claims. (Cl. 102—4)
(Granted under Title 35, U. S. Code (1952), sec. 266)



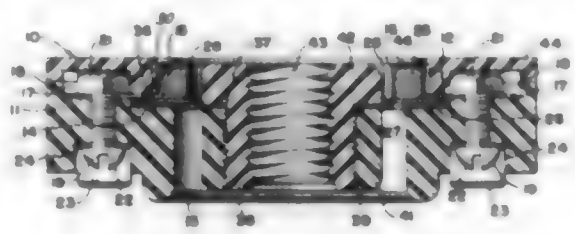
1. A method of assembling a delay parachute bomb comprising a bomb body, a cover at one end of said body and a parachute folded within said cover and connected to said body, said method comprising the following steps: placing an elongated sleeve about a retaining wire intermediate its ends, placing said retaining wire about said bomb body and cover in a position such as to retain said cover on said body, securing the ends of said retaining wire to a delay adapted to release said wire at a predetermined time, thereafter progressively crimping said sleeve until a specified tension is attained in said wire and, when said specified tension is attained, terminating said crimping.

2,868,126

ELECTROLYTICALLY CONTROLLED DELAY DEVICE

John C. Goff, Silver Spring, Monroe B. Goldberg, Hyattsville, and Allen J. Sondheimer, Bethesda, Md., assignors to the United States of America as represented by the Secretary of the Navy

Application December 4, 1952, Serial No. 324,158
2 Claims. (Cl. 102—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)

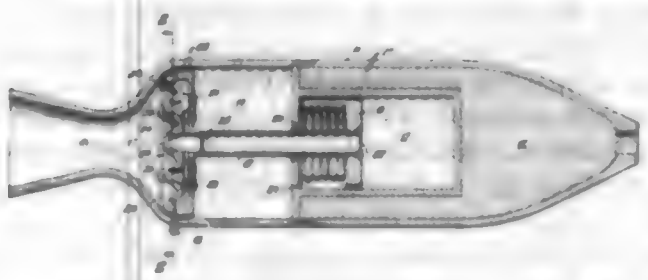


1. In an electrolytic cell, an annular positive electrode, an annular negative electrode, insulating means for supporting said electrodes in spaced relation, a porous separator between said electrodes, said negative electrode having an insulating coating on a portion of the surface thereof, said porous separator contacting at least a part of that portion of the surface of the negative electrode which is free of said coating, and means for interconnecting said electrodes whereby resulting electrolytic action will decompose the aforesaid part of said negative electrode.

2,868,127
ROCKET MOTOR

Homer M. Fox, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application June 5, 1953, Serial No. 359,931
4 Claims. (Cl. 102—49)

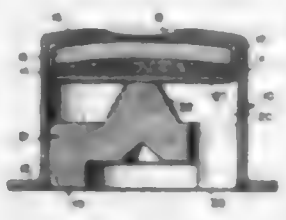


1. A rocket comprising a shell member containing an explosive charge; a fuel tank; an oxidizer tank; a combustion chamber; a piston assembly, said piston assembly comprising a piston head disposed within said fuel tank so as to form a movable wall thereof, a piston head disposed within said oxidizer tank so as to form a movable wall of said tank and said combustion chamber, and a hollow shaft connecting said piston heads, the interior of said hollow shaft communicating with said fuel tank, said piston head forming said movable wall of said oxidizer tank and said combustion chamber having nozzle openings therein communicating with said oxidizer tank and said combustion chamber and having nozzle openings communicating between the interior of said hollow shaft and said combustion chamber; pressure sensitive sealing means disposed within said hollow shaft and adapted so as to seal a hypergolic fuel within said hollow shaft; pressure sensitive sealing means sealing said nozzle openings communicating between said oxidizer tank and said combustion chamber; and a resilient member adapted to move said piston assembly into said oxidizer tank and into said fuel tank when released by a starting means, said resilient means having sufficient power to rupture said pressure sensitive sealing means.

2,868,128
HERMETICALLY SEALED PRIMER

Thomas D. Ramsey, United States Navy, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Navy

Application March 19, 1946, Serial No. 655,536
4 Claims. (Cl. 102—86.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

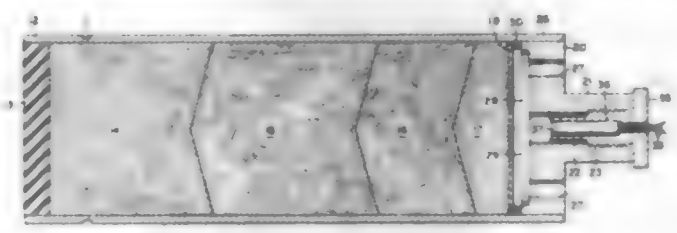


4. In a primer of the character disclosed, a casing having one end portion thereof bent back upon itself to form a transverse barrier therein and intermediate the length thereof, an explosive charge pressed onto the upper surface of said barrier, a concavo-convex metallic disc pressed into engagement with the outer surface of said explosive charge, a flange on said bent back portion and pressed into engagement with said disc throughout a major portion of the surface thereof, a metallic binder applied to said flange and a portion of said disc for hermetically sealing the charge within the casing, and means arranged within the other end of the casing in abutting engagement with the barrier and constructed and arranged to fire said charge in response to a sudden blow received thereby.

2,868,129
FLARE DEVICE

Thomas H. Johnson, Santa Barbara, Ernest M. Kane, Oxnard, and John Q. Tabor, Jr., Goleta, Calif., assignors to the United States of America as represented by the Secretary of the Navy

Application August 10, 1956, Serial No. 603,458
6 Claims. (Cl. 102—87)
(Granted under Title 35, U. S. Code (1952), sec. 266)

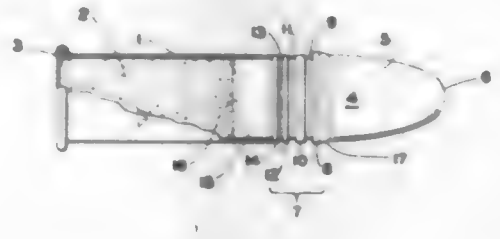


6. A tracking flare device which comprises a hollow body having a flammable charge disposed therein, and a cap at least partially closing one end of said body, said cap being composed of a thermally-destructible substance designed to be consumed by said flammable charge when the latter is ignited, said cap having an aperture for conducting igniting gases to the surface of said charge, said cap having in addition at least one preformed opening to atmosphere therein located in laterally spaced relation to the aperture through which said igniting gases are conducted to the surface of said charge, said opening performing the dual function of venting the products of combustion of said charge material and also providing an increased area of cap surface which is exposed to the flame generated by ignition of said charge material, said cap being separated by an air space from the surface of said flammable charge in order to effect a distribution of said igniting gases over a substantial portion of the surface of said charge and thus facilitate ignition thereof, and means for sealing said charge material from atmospheric effects.

2,868,130
AMMUNITION

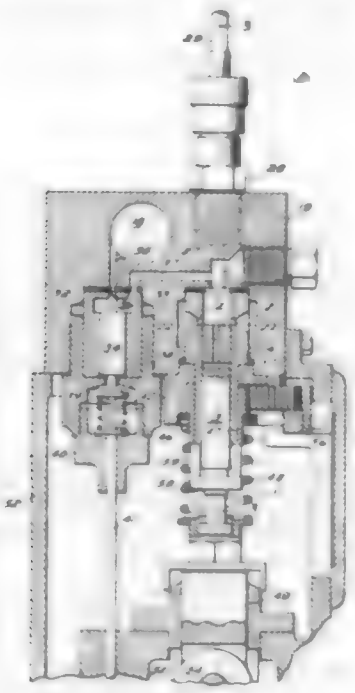
Ronald A. Gulley, Jennings, Mo., and Thabus R. Harvey, East Alton, and Charles M. Schreiber, Alton, Ill., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application June 17, 1953, Serial No. 362,336
3 Claims. (Cl. 102—92.5)



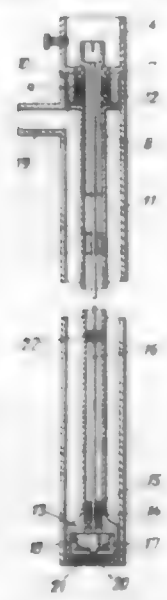
1. A small arms projectile comprising a heel, a substantially prolate hemispheroidal nose having a length of between substantially 0.8 of a caliber and one caliber and having a greatest nose diameter of between substantially 0.8 of a caliber and one caliber and intermediate said heel and nose a rifling band including a cylindrical portion of substantial length and of a diameter of substantially one caliber, said band diameter being greater than said greatest nose diameter and said band having an anterior edge tapering from said cylindrical portion to said greatest nose diameter to subtend an angle between substantially 15° and 30° with the longitudinal axis of the projectile, said projectile having a length of about 2.1 of a caliber.

2,868,131
FLUID DELIVERY APPARATUS
Ernest V. Parker, Oakland, Calif.
Application January 31, 1955, Serial No. 485,002
5 Claims. (Cl. 103—41)



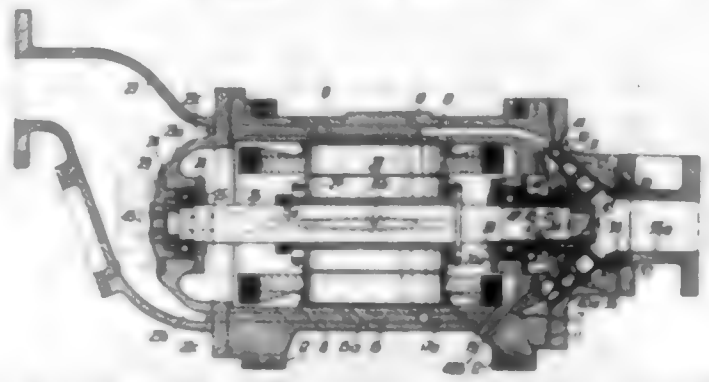
5. Fluid delivery apparatus comprising a plurality of reciprocating fluid pumps with each having outlet means adapted for connection to individual high pressure fluid means at predetermined and controllable portions of pump stroke, means defining a single accumulator chamber, and a plurality of differential valves connected one to the discharge side of each pump and to said accumulator chamber, said valves being spring loaded to normally remain closed and being oriented to receive pump pressure in opposition to spring pressure for opening in response to a predetermined pump pressure, whereby said accumulator chamber, said discharge side of said pump and said outlet may all be placed in flow communication.

2,868,132
TANK-PUMP
Egon Rittershofer, Karlsruhe-Durlach, Germany, assignor to Nikolaus Laing, Stuttgart, Germany
Application April 16, 1953, Serial No. 349,239
Claims priority, application Germany April 24, 1952
7 Claims. (Cl. 103—87)



1. A portable pump adapted to be manipulated by hand with respect to a liquid to be processed thereby, comprising a tubular riser conduit having the configuration of a pipe with uniform outer diameter throughout its length, one end of said riser conduit to be immersed in the liquid which is to be processed, discharge means extending from said riser conduit in the vicinity of the other end thereof, a drive shaft axially disposed in said riser conduit and extending longitudinally therewithin, a propeller element carried by said drive shaft in the vicinity of the end of said riser conduit which is to be immersed in the liquid to be processed, said propeller element being axially removable from said drive shaft, inlet openings formed in said riser conduit at the end thereof which is adjacent said propeller element, means for rotatably supporting said drive shaft within said riser conduit, a motor for driving said drive shaft, a housing for said motor which is manually removably inserted thereinto, means for axially manually removably mounting said housing on said riser conduit at the end thereof which is adjacent said discharge means, the shaft of said motor extending axially centrally of said riser conduit when the motor is inserted in said housing and the latter mounted on said riser conduit, and clutch means carried by said motor shaft for engagement, within said housing, with cooperating clutch means carried by said drive shaft so as to connect said motor shaft in driving relationship with said drive shaft solely responsive to manual insertion of said motor while effecting release of said driving relationship solely responsive to manual removal of said motor.

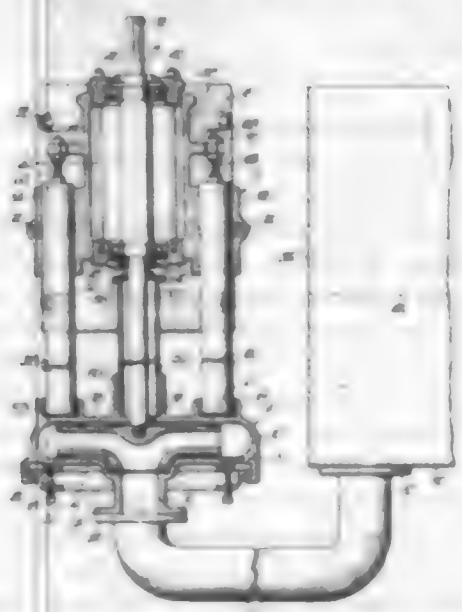
2,868,133
CENTRIFUGAL PUMPS
John Clark, deceased, late of Rutherglen, Scotland, by Jane B. Clark and Margaret S. L. Clark, Rutherglen, and Helen MacMurchy, Strathaven, Scotland, executrices, assignors to Jane Barr Clark, Rutherglen, Lanarkshire, Great Britain
Application September 14, 1956, Serial No. 610,026
2 Claims. (Cl. 103—87)



1. A centrifugal pump comprising a cylindrical casing constituting the pump body and having an annular axial passage, a wall at each end of said casing, one said end wall leaving exposed said passage and having a central aperture, and the other end wall having a series of circumferentially-disposed passages communicating with said passage, an electric motor housed within said casing and between said end walls, the shaft of said motor being disposed along the longitudinal axis of said casing and projecting through said end wall aperture, a combined journal and thrust anti-friction bearing carried internally by each said end wall and journalling said shaft, means rendering fluid-tight the motor housing where penetrated by said shaft, a conical impeller fixedly mounted on the end of said shaft projecting from the motor housing to communicate with said casing passage, spiral vanes on said impeller, said vanes forming therebetween ducts each of substantially uniform cross-sectional area throughout its length, spiral vanes in said casing passage at the impeller adjacent end thereof and forming therebetween fixed spiral ducts at the delivery end of said impeller, an annular extension on said impeller co-axial therewith and projecting therefrom in the direction away from said casing, an external peripheral annular flange on said extension, a cover mounted over said impeller and having a central aperture penetrated by said extension which projects therethrough, said cover having in its casing-remote face and surrounding said central aperture an annular recess of greater radial length than said extension flange, an external

peripheral flange on said cover, means securing said cover flange to said casing radially outwardly of said casing passage, an inlet branch secured to said impeller cover in abutting relation with said casing-remote face of said cover, the abutting face where confronting said annular recess providing a bearing surface which is recessed to accommodate said extension flange, a sealing ring floatingly accommodated in said annular recess, and means preventing rotation of said sealing ring, whereby said sealing ring is held to bear on said extension flange and said bearing surface where surrounding the latter both by the pressure of liquid which may leak thereto and by the minus pressure which may exist in said inlet branch.

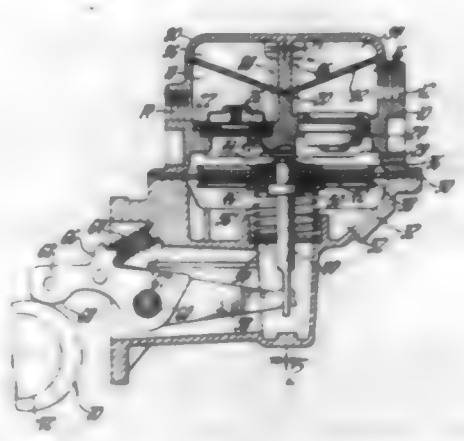
2,868,134
PUMP
Perry I. Nagle, Chicago Heights, Ill.
Application May 27, 1952, Serial No. 290,143
4 Claims. (Cl. 103—103)



1. In a fluid impelling device, the combination of a pump operable under an hydrostatic head determined by the normal operating liquid level within a sump, said pump having a housing provided with an inlet communicating with said sump and having an outlet for the discharge of liquid material therefrom, an impeller mounted in said housing, said housing having a substantially horizontally-disposed top wall provided with an opening therein, a power shaft secured to said impeller and extending upwardly through said opening, a hollow member having an open upper end and being fluid-tight to a point above the normal liquid level within the sump, said member surrounding said shaft and being connected to said housing wall at its base end and extending upwardly above the normal liquid level within the sump, whereby the space between said hollow member and the shaft is in communication with the interior of said housing through said opening to permit the liquid material therein to seek the liquid level of said sump during operation of said pump, a bearing stand for the pump disposed above said hollow member, means adjustably supporting the pump housing from the bearing stand, bearing supporting means supported by the bearing stand and located above the hollow member, and bearings for the impeller shaft carried by said bearing supporting means.

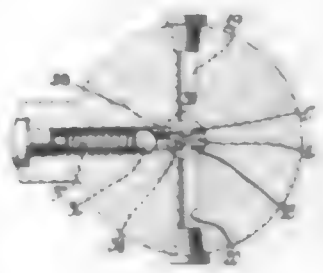
2,868,135
FUEL PUMP WITH PULSATOR
Donald R. Reinertson, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 19, 1955, Serial No. 541,421
6 Claims. (Cl. 103—150)

1. A fuel pump having a pump body with a pump chamber partially defined by a pumping diaphragm and provided with inlet and outlet valves, chambers and ports, recessed means forming a plurality of pulsator chambers and fixed to said pump body, said valves having axes parallel with the axis of said pumping diaphragm, bi-planar diaphragm means interposed between said pump



body and said recessed means and closing said pulsator chambers, and at least part of said bi-planar diaphragm means being inclined away from one of said valves and extending to the pump body at one side of one of said ports.

2,868,136
PUMP
Elek K. Benedek, deceased, late of Chicago, Ill., by Melba L. Benedek, administratrix, Chicago, Ill., assignor to Melba L. Benedek
Application May 13, 1954, Serial No. 429,632
1 Claim. (Cl. 103—161)

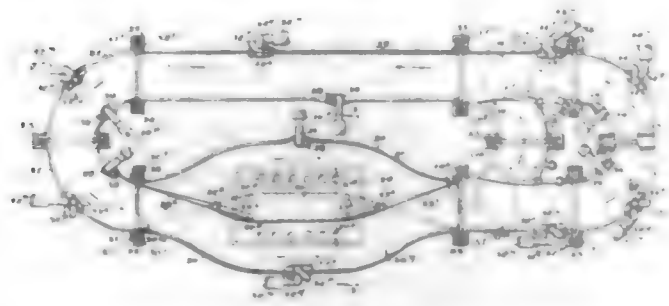


A radial piston pump comprising a fixed pintle having inlet and outlet ports therein, a cylinder block rotatably mounted on said pintle, a plurality of radially extending bores in said block for sequential cooperation with said inlet and outlet ports, a cylindrical piston freely slidable in each of said bores, a roller bearing positioned around said cylinder block with the inner race thereof in abutting relation with the outer ends of said pistons, a fixed housing supporting said pintle and roller bearing in eccentric relation to each other, a radial passage extending through said housing to a point adjacent said pintle and having a diameter overlapping extensions of said inlet and outlet ports, and separate apertures connecting said passage with the respective inlet and outlet, said aperture connecting said outlet to said passage being substantially concentric of the axis of said passage and said aperture connecting said inlet to said passage being eccentric of the axis of said passage and a spring pressed check valve in said passage and normally closing the aperture leading to the outlet to provide a high pressure bypass from said outlet to said inlet said passage providing the guide for said valve with the spring of said spring pressed valve being positioned concentric of the axis of said passage and the check valve having its outer surface guided by the walls of the passage for concentrically contacting and closing the aperture connecting the passage and the outlet.

2,868,137
TOY

Henry A. James, Orlando, Fla., assignor of one-half to John M. Blanton, Orlando, Fla.

Application August 18, 1955, Serial No. 529,109
5 Claims. (Cl. 104—73)



1. A toy having a waterway, means connected to said waterway including a pump for moving water in the waterway and having a plurality of nozzles, each connected to said pump and said waterway at variably spaced intervals therealong, each of said nozzles having independent stream-directing means adjustably mounted thereon for selectively discharging water from the nozzle into the waterway in any one of a plurality of horizontal directions corresponding to the adjusted position of the stream-directing means relative to the nozzle.

2,868,138
MECHANICALLY OPERATED POWER AND FREE CONVEYOR SYSTEM

Leonard J. Bishop, Birmingham, and Paul Klamp, Detroit, Mich., assignors to Mechanical Handling Systems, Inc., Detroit, Mich., a corporation of Michigan

Application June 6, 1955, Serial No. 513,452
47 Claims. (Cl. 104—88)

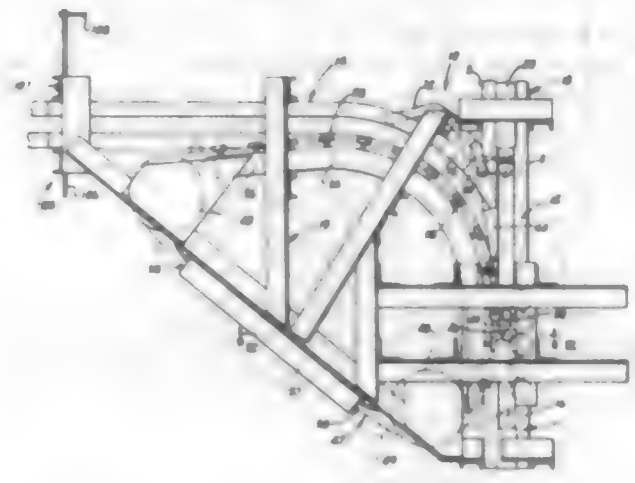


1. A conveyor system comprising a main track having generally aligned first and second track sections spaced from each other, a branch track section positioned to one side of the first main track section, a switch track section extending between the adjacent ends of said main track sections and pivoted to the second main track section for swinging movement from a straight line position in registration with said first main track section to a position in registration with said branch track section, trolleys movable in the direction of said main track, an endless mechanism to drive said trolleys along said main track, power operated means driven by said endless mechanism for swinging the free end of said switch track section from registration with said first main track section into registration with said branch track section, and means for actuating said power operated means comprising an actuator mechanically connected to said power operated means and having a part engageable by a trolley moving in the direction of said main track in advance of said switch track section to initiate operation of said power operated means to swing said switch track section from its straight line position into registration with said branch track section.

2,868,139
POWER AND FREE CONVEYOR SYSTEM

Paul Klamp, Detroit, Mich., assignor to Mechanical Handling Systems, Inc., Detroit, Mich., a corporation of Michigan

Application July 30, 1956, Serial No. 601,001
33 Claims. (Cl. 104—88)



1. An exit switch mechanism for a conveyor system characterized by divergent main and branch track sections and trolley or like units advanced by a forwarding mechanism along said main track section, said switch mechanism comprising a switch device movably mounted adjacent the zone of divergence of said track sections and operative in a first position to divert a unit from the main onto the branch section, a driven conveyor device receiving a unit from said forwarding mechanism and positively advancing the same into said branch section, said unit engaging said switch device in being so advanced to place said device in a second position to guide a succeeding unit for undiverted advance, signal devices located in advance and to the rear of said switch device, in reference to the diverted path of advance of a unit, said signal devices being successively actuated by advancing units, and means operatively connected to said respective signal devices and acting in response to said successive actuations to replace said switch device in said first position.

2,868,140
STAKE POCKET CONSTRUCTION

Raymond M. Shaver, Michigan City, Ind., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware

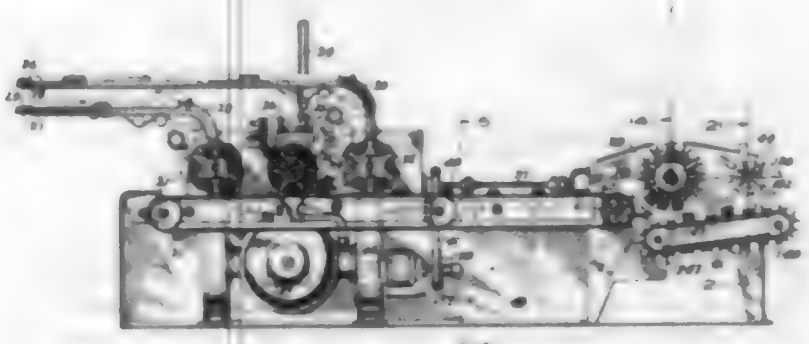
Application June 15, 1955, Serial No. 515,697
2 Claims. (Cl. 105—390)



1. In combination with a vehicle having a side sill and a floor above and projecting outwardly beyond said side sill, floor support and stake pocket means comprising a plurality of aligned spaced combined support and pocket members secured to and extending outwardly of the side sill each including a substantially horizontal plate portion extending outwardly of the side sill at the level of the floor bottom supporting the outwardly projecting floor portion and a vertical plate portion integrally connected to each end of the horizontal plate portion, said vertical plate portions being formed by bending down the terminal portions of the horizontal plate portions and each having its inner edge welded to the side sill and being spaced from the vertical plate portion of the next adjacent combined support and pocket member and forming therewith the two transverse walls of a stake pocket, and a plate spaced outwardly from and parallel to the side sill connecting said two transverse walls by being welded

thereto and cooperating with the portion of the side sill between said transverse walls to form the two longitudinal walls of said stake pocket, and said floor portion being apertured above said stake pocket to admit a stake.

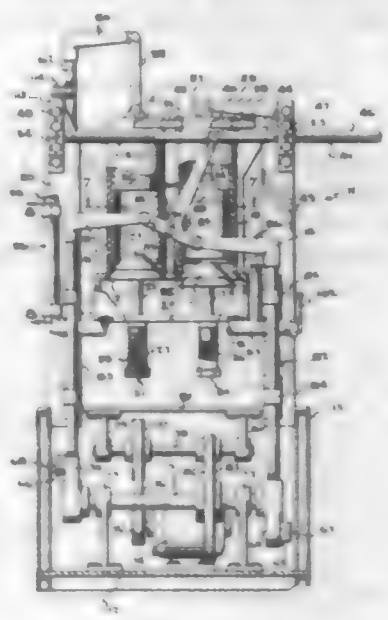
2,868,141
SANDWICH MACHINES
Arthur J. Griner, Westfield, N. J., assignor to National Biscuit Company, New York, N. Y., a corporation of New Jersey
Application August 23, 1950, Serial No. 180,931
11 Claims. (Cl. 107—1)



1. In a sandwich machine, the combination of two cake feed cylinders spaced apart, a filling cylinder located between the feed cylinders, an endless conveyor having its upper run beneath said cylinders and extending therebeyond to a delivery point, means for driving all three cylinders continuously in the same direction at the same peripheral speed and the conveyor at the same speed as the surface speed of the cylinders and in the same direction as their bottom surfaces, means for supplying cakes to the feed cylinders and filler to the filling cylinder at their top surfaces, a holder in the first feed cylinder operated to receive a cake at the top thereof and carry it to the bottom and there deposit it on the conveyor, a pocket in the filling cylinder operated to receive a measured quantity of filler at the top thereof and carry it to the bottom and deposit it on the cake delivered from the first feed cylinder, a holder in the second feed cylinder operated to receive a cake at the top thereof and carry it to the bottom and there deposit it on the filler carried by the cake deposited from said first feed cylinder to form a sandwich, a rotating collecting cylinder adjacent the delivery end of the conveyor, grippers on the collecting cylinder adapted to be brought by rotation of the cylinder successively into position to receive sandwiches from the delivery end of the conveyor and when filled move them away, means for opening the grippers as they come into receiving position, a stacker for pushing successive sandwiches from the conveyor into an open gripper to fill it with a group thereof, means for closing the gripper when filled, and means including a common driving connection for synchronizing the rotation of the collecting cylinder and opening and closing of the grippers with the deposit of cakes and filler on the conveyor by the feed and filling cylinders.

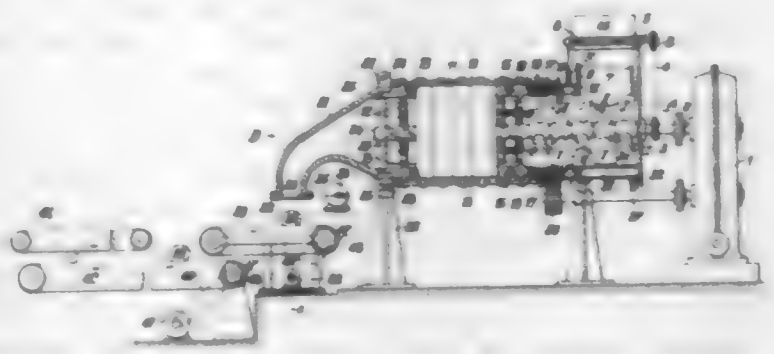
2,868,142
ICE CREAM FRUIT INJECTOR
Sanford R. Beyette, St. Regis Falls, N. Y., assignor to Gordon D. Beyette, West Haven, Conn.
Application December 17, 1957, Serial No. 703,318
10 Claims. (Cl. 107—1)

1. In an apparatus for injecting food materials into ice cream, an ice cream conduit, an injection chamber communicating with said conduit, a cylinder on said injection chamber in communication therewith, a yieldable check valve between said cylinder and said injection chamber, a piston in said cylinder, a hopper for food materials adjacent said cylinder, an apertured sleeve valve in said cylinder, said cylinder having an apertured wall portion exposed to said hopper, said sleeve valve being rotatable so that its aperture registers with the aperture in said wall portion, means to simultaneously rotate said sleeve



valve to registering position with said wall portion aperture and to elevate said piston in said cylinder, and means to simultaneously rotate said sleeve valve to closed position and lower said piston, whereby to force food material past said check valve into said injection chamber.

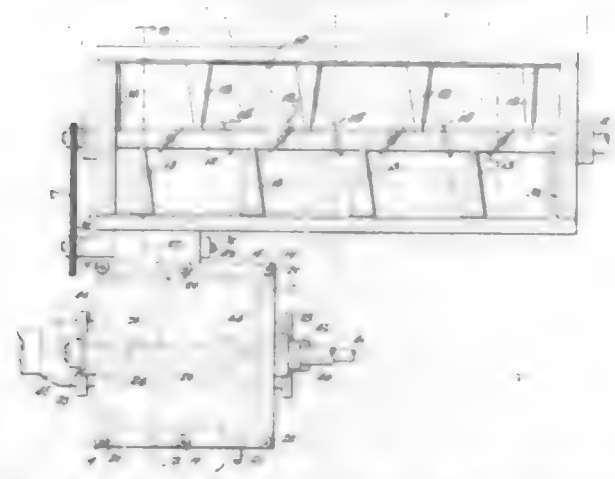
2,868,143
APPARATUS FOR MAKING BREAD AND PASTRY DOUGH
Hans Strahmann, Wentorf, Post Reinbek, Germany
Original application September 28, 1953, Serial No. 382,519. Divided and this application October 11, 1954, Serial No. 461,564
5 Claims. (Cl. 107—30)



1. Kneading apparatus for kneading bread and pastry doughs of all types, comprising, in combination, an elongated stationary housing having a central axis and an inlet and outlet end; a shaft having its axis coincident with said central axis, being mounted in said housing for rotation about said central axis, and having a free portion extending through a substantial distance beyond said outlet end of said housing; supply means communicating with said inlet of said housing for supplying a mixture of flour and liquid thereto to be kneaded therein; a plurality of blade units, each of which includes a hub and a plurality of kneading blades extending radially therefrom, removably fixed to said shaft for rotation therewith and being located next to each other on said shaft at the portion thereof located within said housing and being spaced from each other along said shaft at said free portion thereof; a plurality of apertured kneading plates respectively located between said spaced blade units on said free portion of said shaft, said plates being connected together for rotation as a unit and being freely turnable on said shaft for rotation with respect to the same; first sealing means located between said housing and the plate nearest to said outlet end of said housing; turning means operatively connected to said shaft and plates for

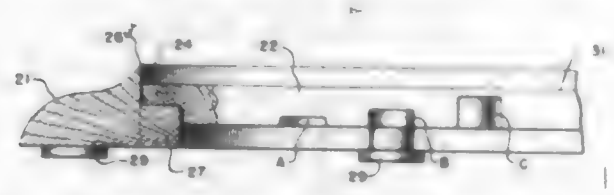
simultaneously turning the same in opposite directions, respectively, so that all of said blade units turn together in a direction opposite to the turning direction of said plates; and an outlet conduit communicating directly with the plate most distant from said housing; second sealing means located between said outlet conduit and said last-mentioned plate.

2,868,144
APPARATUS FOR DEAERATING ALIMENTARY PASTE, DOUGH AND LIKE SUBSTANCES
Paul Ambrette, Westbury, N. Y.
Application December 2, 1954, Serial No. 472,623
6 Claims. (Cl. 107—31)



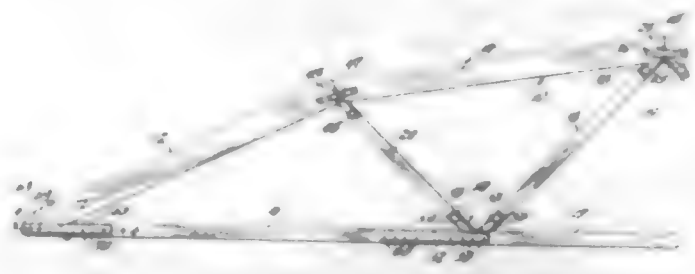
1. In apparatus for preparing and deaerating alimentary paste dough having a mixing trough provided with means to impart both mixing agitation to dough ingredients productive of a granular dough mixture and movement of the dough mixture through said trough to its discharge end for delivery therefrom through a side discharge port, a closed vacuumized deaerating chamber disposed in side by side relation to said mixing trough and adapted to deliver deaerated dough mixture to a consolidating and shaping means, said deaerating chamber having a dough mixture receiving port opposed to the discharge port of the mixing trough, a rotary air lock means comprising a cylindrical casing affixed to and between the mixing trough and the deaerating chamber, said casing having an intake in register with the discharge port of the mixing trough and an outlet in register with the receiving port of the deaerating chamber, and a driven rotor rotatable in said casing about an axis parallel to the longitudinal axes of said trough and chamber, said rotor having radial gate members defining intermediate sectoral pockets to receive and transfer the granular dough mixtur from the mixing trough to the deaerating chamber.

2,868,145
DEVICE FOR CUTTING DOUGH
Chester E. Brooke, San Diego, Calif.
Application February 11, 1957, Serial No. 639,395
2 Claims. (Cl. 107—46)



1. A device for cutting dough comprising in combination, an annulus, the upper surface at the inner boundary line of said annulus projecting upwardly to provide a circular dough cutting edge; a plurality of inwardly extending lugs spaced equidistant of one another along the inner periphery of said annulus, said lugs terminating below said dough cutting edge; and a disc rotatably carried within the annulus, the periphery of the disc lying adjacent the inner boundary of the annulus; a plurality of sets of recesses in the underside of the disc and disposed to complement the lugs, each set having recesses equal in number to the number of lugs, and each set differing in depth.

2,868,146
TRUSS CONSTRUCTIONS
Charles Mackintosh, Los Angeles, Calif.
Application August 6, 1952, Serial No. 302,905
1 Claim. (Cl. 108—23)



A truss construction comprising, in combination, a lower chord, an arched upper chord which comprises a plurality of substantially straight wooden elements secured end to end, and at least one web strut extending between and secured to the upper and lower chords, a metal abutment plate of considerably less area than the end areas of said upper chord elements but somewhat more than that area at which progressive failure of the elements due to yielding of the fibers thereof under compression would occur disposed between and in abutting bearing contact with a small lowermost portion of said adjacent end areas of adjoining elements, said lower small bearing areas being arranged to occur upon a conic section intersecting the lower end portions of the upper chord of the truss, thus facilitating designing and laying-out of the truss, rendering innocuous workmen's errors in angle cutting the ends of the upper chord elements, and reducing both the bending stresses and bending deflection of the upper chord elements, and at least one joint strap connecting each pair of adjacent ends of adjoining elements of said upper chord, said strap being located in generally transverse alignment with said abutment plate, the area of the ends of said elements above said plate being wholly free of contact with each other.

2,868,147
LOOPER ATTACHMENT AND METHOD
Sidney E. Wood, Batesville, Miss., assignor to Jahill Company, Indianapolis, Ind.
Application March 27, 1957, Serial No. 648,843
12 Claims. (Cl. 112—25)



1. In a dial looper, the combination with a dial having looper points projecting radially from and rotatable around its periphery, of a support having a fixed and a movable part, a pair of relatively movable cutter blades mounted on said movable part and positioned normally in a plane above the plane of said points, means for shifting said movable part to position said pair of blades in

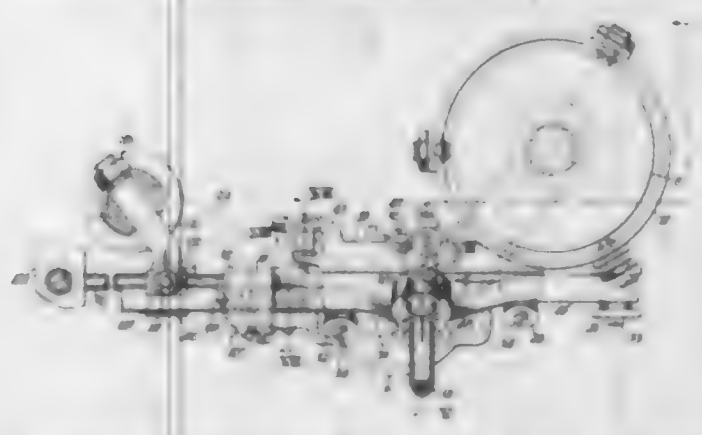
a plane above said normal plane, and means for activating said last means at predetermined points in the rotary movement of said looper points.

2,868,145

WELT SHOE SEWING MACHINES

Otto Franz Hoppe, Schonberg, and Heinrich Richard Ruhr, Frankfurt am Main, Germany, assignors, by mesne assignments, to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application July 2, 1954, Serial No. 441,144
Claims priority, application Germany July 10, 1953
13 Claims. (Cl. 112—46)



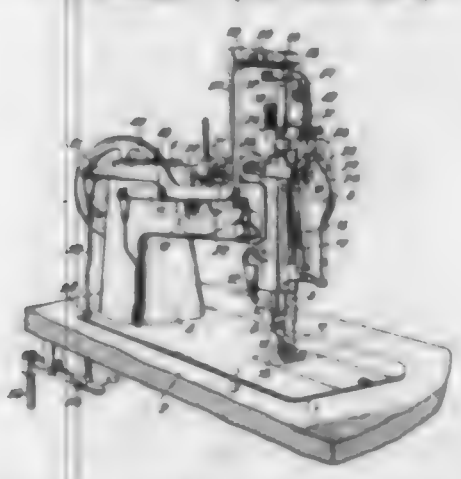
1. A welt tempering device for use with a shoe sewing machine, having a main frame, and a receptacle on the main frame for moistening liquid into which the welt is dipped by twisting about a lengthwise axis of the welt, in combination with a welt immersing guide mounted above the receptacle and provided with a roll for pressing the welt beneath the level of the liquid in the receptacle, a fixed edge guide flange extending into the liquid in the receptacle at an angle to the liquid surface and acting to direct one edge of the welt, a stud on which the roll is rotatably mounted extending upwardly from the higher side of and at right angles to the flange, and two guide rolls on the flange rotating on axes parallel to that of the immersing roll, between which guide rolls the immersing roll stud is mounted.

2,868,149

SEWING MACHINES

Karl Winz, Kaiserslautern, Pfalz, Germany, assignor to G. M. Pfaff A.-G., Kaiserslautern, Pfalz, Germany, a joint-stock company

Application July 30, 1956, Serial No. 600,748
Claims priority, application Germany August 9, 1955
2 Claims. (Cl. 112—125)



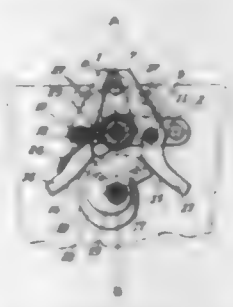
1. In a sewing machine having a work support and a machine arm including a main drive shaft and supporting a machine head vertically above said work support, a reciprocating cutter bar mounted in said machine head having a cutter end extending downwardly and an operating end extending upwardly from said machine head and having a recess, a spring extending between said cutter bar and said machine head biasing said cutter bar toward inoperative position away from said work support, driving means including a crank arm and a shaft journaled in the machine arm linking said cutter bar by way of a slidable pin on said crank arm for reciprocating movement to said main drive shaft, said slidable pin extending through an aperture in the machine head for engaging said recess, an adjusting nut disposed endwise and circumferentially of said slidable pin, a pressure member disposed on the operating end of said cutter bar and having a slot, a spring biased slidable bolt extending through said pressure member and having an outwardly extending conformation movable in said slot, a trip lever extending substantially parallel to said cutter bar and mounted on the machine head having one arm in operating engagement with said adjusting nut and the other arm proximate said pressure bolt, a spring secured to one arm of said lever and biasing said lever toward said pressure bolt, a double armed control lever mounted on a pivot laterally of the machine including manipulating means and spring biased toward inoperative position, said control lever extending lengthwise of the machine arm and having an upwardly extending portion presenting a transverse member proximate said pressure member transversely of said slidable bolt arcuately movable about said pivot into engagement with said pressure member and said conformation to move said other arm outwardly, said one arm inwardly, and said cutter bar downwardly thereby permitting said slidable pin to enter said recess and cause said cutter bar to follow the movement of said crank arm.

2,868,150

MEANS FOR ADJUSTING THE STROKE OF THE FEED DOG IN SEWING-MACHINES

Antonio Moro, Milan, Italy, assignor to S. p. A. Fratelli Borletti, Milan, Italy

Application November 30, 1956, Serial No. 625,399
Claims priority, application Italy December 20, 1955
5 Claims. (Cl. 112—210)



1. Mechanism for controlling the setting of a feed dog control lever comprising a feed dog control lever, said lever having a pin on one arm thereof, a shaft rotatably mounting said lever, second and third shafts disposed on opposite sides of said first shaft, a pair of displacement control levers mounted on said second and third shafts and having cam follower surfaces on the lower arms thereof and engagement surfaces for said pin on the upper arms thereof, and adjustable cam means contacting said cam follower surfaces to vary the positions of said displacement control levers and thereby control the range of movement of said pin and feed dog control lever.

2,868,151

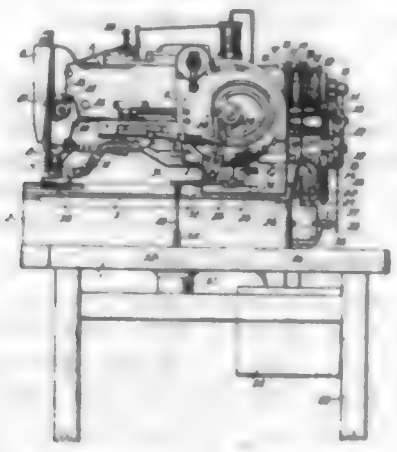
THREAD CONTROLLED AUTOMATIC STOP DEVICE FOR SEWING MACHINES

Karl Winz, Kaiserslautern, Pfalz, Germany, assignor to G. M. Pfaff A. G., Kaiserslautern, Pfalz, Germany, a corporation of Germany

Application July 19, 1956, Serial No. 598,872
Claims priority, application Germany August 2, 1955
13 Claims. (Cl. 112—219)

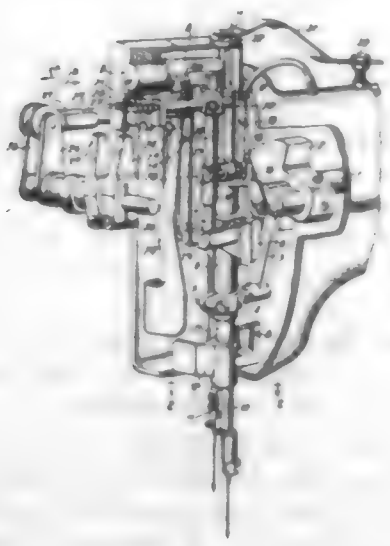
1. In an automatic stop device for sewing machines and the like, an oscillatable element controlled by peri-

odic thread tension during the operation of the machine, an electric circuit including a source of current and interrupting contact means normally urged to closed position and controlled by said element, to periodically open and close said circuit and to produce a series of current



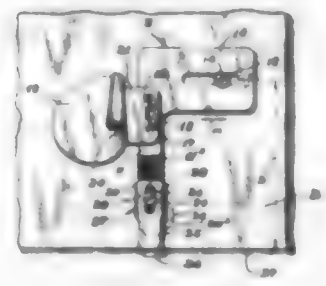
pulses at the oscillating rhythm of said element, current responsive means controlled by said circuit to stop the operation of said machine, and electric time delay means in said circuit to retard said current pulses by time periods, to prevent energization of said current responsive means during operation of said element.

2,868,152
DOUBLE NEEDLE SEWING MACHINE
Christian Josef Marines Benink and Rudolf Reeber, Kaiserslautern, Germany, assignors to G. M. Pfaff A.-G., Kaiserslautern, Pfalz, Germany, a corporation of Germany
Application March 28, 1955, Serial No. 497,302
Claims priority, application Germany March 29, 1954
4 Claims. (Cl. 112—221)



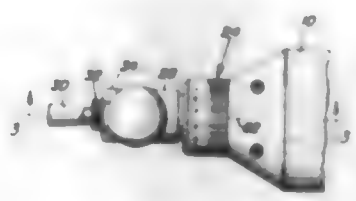
2. In a double needle sewing machine having a power drive, in combination, two needle carriers disposed adjacent each other and reciprocable together for double needle sewing, and each needle carrier being immobilizable independently of the other, a sleeve surrounding both needle carriers and being in driving connection with said power drive to be reciprocable thereby for driving said needle carrier, means operable from the exterior of said sewing machine for releasably coupling each needle carrier independently of the other with said sleeve including a bore structure formed on each needle carrier and defining a horizontal bore, said sleeve having two openings each alignable with a bore of a needle carrier, a pin movably disposed in each bore, and a movable shifter connected to each pin and operable to move said pin axially of said bore for interconnection with and, respectively, disconnection from, an opening of said sleeve for releasably connecting said needle carriers with said sleeve.

2,868,153
ADJUSTABLE GAUGE ATTACHMENT HOLDER FOR SEWING MACHINES
Seymour Gordon, New York, N. Y.
Application August 6, 1956, Serial No. 602,154
1 Claim. (Cl. 112—257)



In a hemmer attachment holder for a sewing machine having a bedplate, the combination comprising a flat generally rectangular plate having a slot therein, a screw disposed therein and engaged in an aperture in the bedplate, a work piece removably secured by screws to said flat plate, an arm in the form of a flat strip-like member formed integrally with said flat plate, said arm being coplanar with the flat plate and extending perpendicular thereto, said arm having a threaded aperture near the free end thereof and having serrations on its upper surface, and a member forming an extension of the arm slidably supported on the arm, said extension member being a narrow plate having depending flanges juxtaposed to opposite sides of the arm, said narrow plate having a centrally disposed elongated slot therein, a screw extending through said latter slot and being threaded in said aperture and having a head bearing on said narrow plate, said narrow plate having serrations on its bottom surface adapted to coact with the serrations on the arm, said narrow plate having a portion extending beyond said flanges and terminating in a depending hook engaged with an edge of the bedplate, whereby rotational movement of the work piece and the flat plate on the bedplate is effectively prevented.

2,868,154
MACHINE DIAL CONTROL
Norman Oram, Devils Lake, N. Dak.
Application June 18, 1957, Serial No. 666,428
5 Claims. (Cl. 116—115.5)

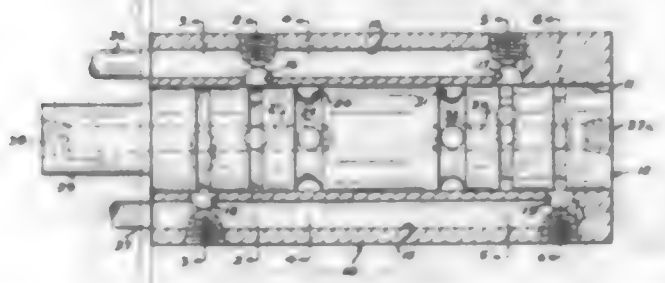


1. In combination with the feed mechanism of a machine tool having a feed screw, a housing in which said feed screw is journaled, and indicating dial rotatably carried by said screw, and a manually operable handle immovably attached to the outer end of said feed screw; and indicating dial control including cam operated means frictionally engaging the inner surface of said dial to prevent relative rotation between said dial and said screw, a longitudinally extending cam movably mounted in the feed screw and operatively engaging said cam operated means, means forming a handle for manually disengaging said cam from said cam operated means, and a spring normally urging said cam into engagement with said cam operated means.

2,868,155
HYDRAULIC POSITION INDICATOR

Stanley D. Phillips, San Jose, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the United States Air Force

Application January 29, 1957, Serial No. 637,054
5 Claims. (Cl. 116—124)

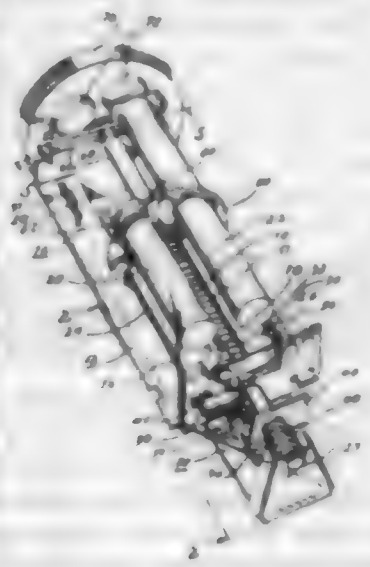


1. A position indicator comprising a main housing incorporating a main fluid passageway extending longitudinally thereof and a valve shaft rotatably positioned within the main passageway and adapted for connection to a remote device and including a pair of hydraulic circuits connected at opposite ends and comprising a first common fluid passageway incorporated within said valve shaft and adapted for connection to a source of fluid under pressure, a pair of diametrically opposed fluid passageways incorporated within said main housing in communication with the first common passageway and a second common fluid passageway incorporated within said valve shaft remote and separated from the first common passageway and adapted for connection to a drain, a pair of valve means incorporated in said valve shaft for each of said circuits to regulate the flow through each of said circuits, said valve means regulating the flow in response to movement of the remote device whose location is to be indicated, and conduit means connecting the pair of circuits intermediate the pair of valve regulating means in each of the circuits, said connecting means including signaling means attached at opposite sides to said conduit means to indicate the position of the device to be indicated by the pressure differential between the pair of circuits.

2,868,156
SONIC WAVE GENERATOR

Rinaldo E. De Cola, Parkridge, Reuben C. Carlson, River Grove, and Alf F. Adel, Chicago, Ill., assignors to Admiral Corporation, Chicago, Ill., a corporation of Delaware

Application July 5, 1957, Serial No. 669,982
4 Claims. (Cl. 116—137)

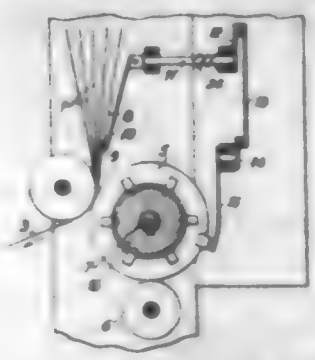


1. A supporting structure, a shaft rotatably mounted upon said supporting structure, shaft positioning means operatively associated with said supporting structure and said shaft to provide a plurality of discrete angular positions for said shaft, a plurality of sonic wave generating rods mounted upon said shaft parallel with the axis of said shaft and equidistant from said shaft, successive ones of said plurality of rods being positioned from the preceding rod angular distances which are equal, respectively, to the angular distances between successive ones of said discrete angular positions of said shaft so that each successive rod will assume the same angular position with respect to the supporting structure as the preceding rod as the shaft is rotated through its various discrete positions, single hammer means operatively disposed relative to the particular rod in juxtaposition thereto, and means operable to strike said hammer means against said particular rod.

2,868,157
PAPER-GUMMING MACHINES

Jean Augery, Paris, and Fernand Boulnet, Marseille, France, assignors to Societe Anonyme dite: "La Charfa," Paris, France

Application May 29, 1956, Serial No. 588,164
Claims priority, application France June 3, 1955
2 Claims. (Cl. 118—8)

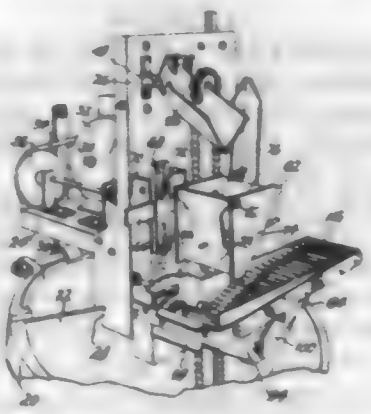


1. A machine for pasting a moving paper sheet on a line at a constant distance from one edge of said paper sheet, comprising a driving shaft, a hub rigidly secured on the driving shaft, said hub having an outer cylindrical surface cut with a number of rectilinear longitudinal grooves, an annular pasting member having an outer periphery to paste the moving paper sheet and an inner periphery engageable around the outer cylindrical surface of the hub, cage means on said inner periphery of the annular pasting member, a plurality of balls rotatably carried by the annular pasting member in said cage means, said balls rotatably engaging said rectilinear longitudinal grooves and thus rigidly associating the annular pasting member in rotation with the hub and simultaneously permitting an easy sliding longitudinal movement of said annular pasting member on said hub and mechanical means co-acting with said one edge of the paper sheet and controlling the longitudinal movement of the annular pasting member in a manner responsive to the longitudinal location of said edge relative to the hub.

2,868,158
MACHINE FOR COATING CANDY CENTERS

Perley A. Hilliard, Weymouth, Mass.

Application June 22, 1956, Serial No. 593,124
8 Claims. (Cl. 118—24)



1. Mechanism for enrobing candy centers, comprising an upright frame, a trough projecting forward from said

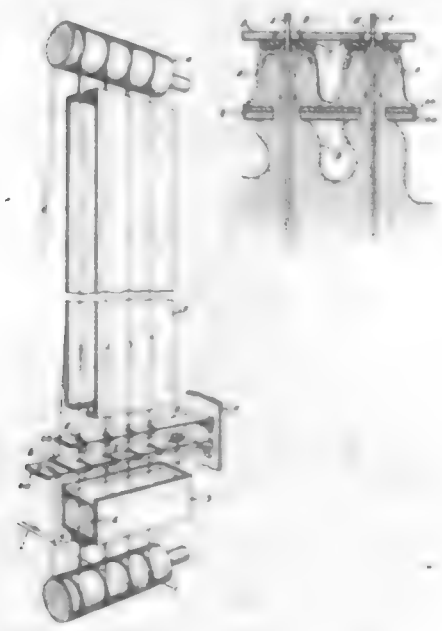
frame and open at its outer end, power-driven means for supplying a stream of melted chocolate into said trough, a hopper adjustably and removably attached to said frame beneath the open end of said trough, said hopper having an elongated narrow discharge aperture at its bottom, a receptacle mounted on said frame below said hopper, an endless open-link conveyor in said receptacle having a portion directly under said aperture, and means for driving said supplying means and said conveyor.

2,868,159

WIRE COATING APPARATUS

Harry B. Lit and Richard P. Anderson, Pittsfield, Mass., assignors to General Electric Company, a New York corporation

Application November 17, 1955, Serial No. 547,372
4 Claims. (Cl. 118—125)



1. Apparatus for coating an elongated article with liquid coating material comprising, in combination, means for applying the liquid coating material to the elongated article; die means for reducing the thickness of the coating of liquid material on the elongated article and removing the excess liquid material therefrom while the elongated article is moved substantially vertically upward through said die means; and baffle means for providing a symmetrical flow of the liquid coating material around the elongated article in the vicinity of said die means, said baffle means having a substantially horizontal surface portion spaced a predetermined distance from said die means and extending continuously around the elongated article for controlling the flow of the excess liquid material removed by said die means, whereby a concentric coating of uniform thickness is produced by said die means on the elongated article.

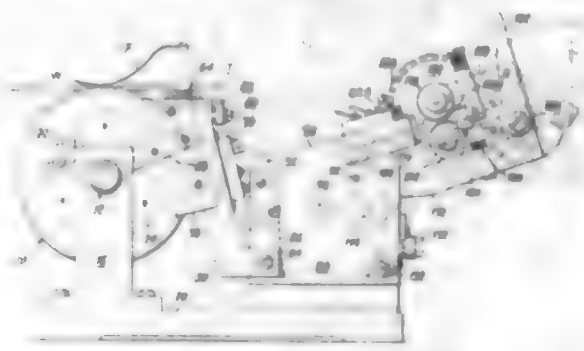
2,868,160

MACHINES FOR APPLYING HEATED THERMOPLASTIC ADHESIVES

Hans C. Paulsen, Medford, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application May 31, 1955, Serial No. 512,146
10 Claims. (Cl. 118—202)

1. In a machine for applying heated thermoplastic adhesive to work pieces, a driven applying roll, a housing associated with and partially surrounding the roll and provided with a passage for conducting adhesive to the periphery of the roll, a heated casing provided with an elongated passageway for receiving and melting the leading end of a solid rod of adhesive and having an inlet and an outlet, means for feeding the leading end of a solid rod of adhesive into the inlet of said passageway, and



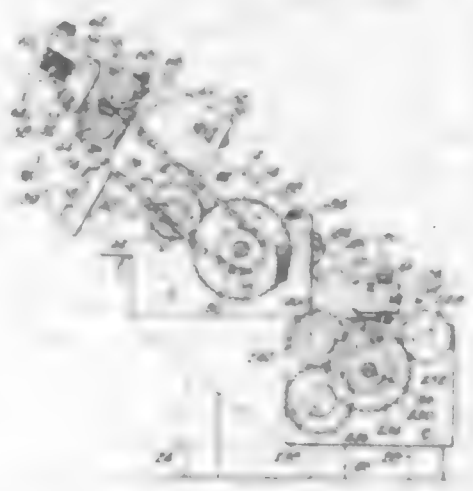
means connecting said outlet with the passage in said housing.

2,868,161

APPARATUS FOR APPLYING STRIPES OF THERMOPLASTIC CEMENTS TO FLAT BLANKS

Herbert Johnson and George F. C. Burke, Beverly, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application July 5, 1955, Serial No. 519,844
3 Claims. (Cl. 118—202)



1. In a machine for applying thermoplastic cement supplied in a solid form, a melting unit, an applying unit, each of said units comprising a rotary member and a two-part casing containing said rotary member, each of said casings having one part which is recessed to receive the rotary member, the rotary member of the applying unit projecting through an aperture in the casing for contact with a piece of work moved past it, the recessed portion of the casing of the melting unit being aligned with the unrecessed portion of the applying unit and having a plate-like member connecting the two, said applying unit having an accumulator recess beside the outgoing portion of the rotary applying member, and a passage for conducting the melted cement starting adjacent to the rotary member in the melting unit through the interposed plate-like member and the respective casings to said accumulator recess.

2,868,162

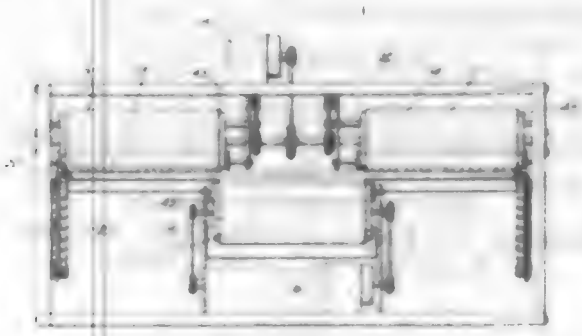
ENDLESS BELT PAINT APPLICATOR

Wendell M. Knain, New Kennington, Pa., assignor to General Electric Company, a corporation of New York

Application May 1, 1957, Serial No. 656,399
6 Claims. (Cl. 118—219)

1. An endless belt paint coating machine for long, cylindrical work pieces which are transversely fed into the machine in close side-by-side relation, the opposite ends of the work pieces being supported on a pair of endless conveyors, a rigid supporting guide way backing up a segment of each conveyor so the weight of the work pieces moving through the machine will be carried by the guide ways, the machine comprising three endless coating belts, each belt being stretched on a pair of

rollers, one of said belts being arranged at the center of the machine for engaging the work pieces while the other two of said belts are disposed on the opposite side of the work pieces with one belt at each end, the two end belts slightly overlapping the edges of the center belt to obtain complete paint coverage of the unsupported length of the



work pieces, all of the belts being driven in the same direction with the center belt moving at a different speed from the two side belts, the belts bearing against the work pieces and causing them to revolve whereby paint applied to the outer surface of the belts will adhere to the revolving work pieces to form a continuous coating.

2,868,163

APPARATUS FOR COATING CAVITIES

Godfrey M. Boyd, Catonsville, Md., assignor to General Electric Company, a corporation of New York

Application May 6, 1954, Serial No. 427,916
3 Claims. (Cl. 118—317)



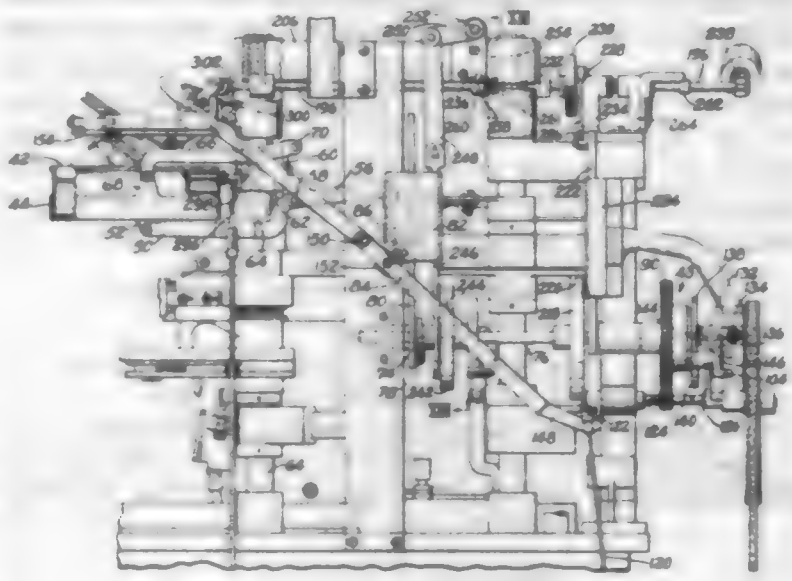
3. A spraying apparatus comprising an upright shaft, a carriage, means mounting said carriage on said shaft for sliding movement therealong, a plurality of elongated upright spray guns, means mounting said guns on said carriage for movement therewith, drive means connected to said shaft for rotating the same, and means for reciprocating said carriage along said shaft, said carriage reciprocating means comprising a first cam, means connecting said first cam to said carriage for movement therewith, a cam follower which engages said first cam, and means connecting said follower to said shaft for rotation therewith; and means for controlling spraying by said guns comprising a valve, means connecting said valve to said guns, a second cam which engages said valve, and means connecting said second cam to said shaft for rotation therewith; and a work supporting table above said carriage, said table having apertures formed therein which are aligned with said guns.

2,868,164

SHOE COUNTER HANDLING MECHANISMS

Edward Quinn, Saugus, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Original application November 9, 1951, Serial No. 255,673, now Patent No. 2,740,138, dated April 3, 1956. Divided and this application January 17, 1955, Serial No. 482,224
15 Claims. (Cl. 118—421)



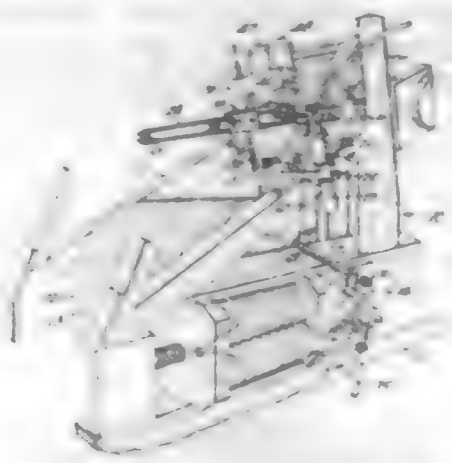
1. In a shoe machine, a counter carrier constructed and arranged to transfer a counter from a first station to a second station, a vessel, a holder for the vessel, means for moving the holder upwardly to cause the immersion in fluid in the vessel of the counter mounted on the carrier and located in the first station, a cam shaft, a first cam on said shaft for moving the holder upwardly into counter immersing position and downwardly to its initial position, a second cam on said shaft, and connections from said second cam for moving the counter carrier from the first station to the second station.

2,868,165

APPARATUS FOR BUILDING UP AND HARD-SURFACING CYLINDRICAL ROLLERS

Hugo A. Altman, Minneapolis, Minn.

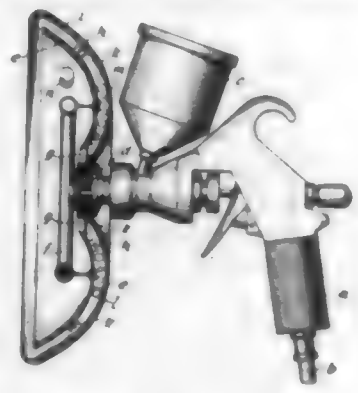
Application January 3, 1956, Serial No. 556,843
6 Claims. (Cl. 118—620)



1. In apparatus for refacing a substantially cylindrical surface of a crusher roll in an ore crushing machine, said apparatus comprising attachment means adapted for clamping connection to the frame of such a machine, an elongated mounting extending longitudinally substantially axially of the roll and adjacent the cylindrical surface thereof, said mounting being adjustably secured to the attachment means for adjustment in multi-directions, a supply of welding wire, a wire controlling and feeding head engaging the wire in driving relation and being constructed and arranged for driving the wire toward the surface of such a roll, said head being movably mounted on said mounting and being movable longitudinally

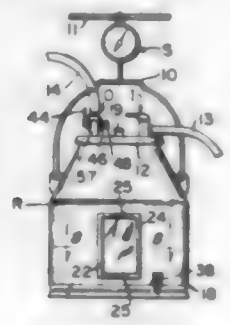
thereof and longitudinally of the roll, electrical conducting means connected in conducting relation with said wire adjacent the roll and being adapted for connection to a source of welding current, drive means carried by said mounting and being operably connected with said head in drive relation, said driving means being constructed and arranged for moving said head along said mounting when said driving means is operated, and said driving means including an adjustably tendable oscillatory driving connection adapted for driving connection with the roll and being constructed and arranged for operating said drive means when said roll is rotated, whereby to facilitate application of the apparatus to machines of different types and to progressively move the head and welding wire axially of the roller as the latter is rotated to thereby form a substantially spirally disposed weld bead on the roll surface from one end thereof to the other end.

2,868,166
DEVICE FOR SPRAYING AND DRYING OF PAINTS, VARNISH OR THE LIKE
Karlmann Brechenmacher, Stuttgart, Germany
Application November 19, 1953, Serial No. 393,131
Claims priority, application Germany November 24, 1952
7 Claims. (Cl. 118—643)



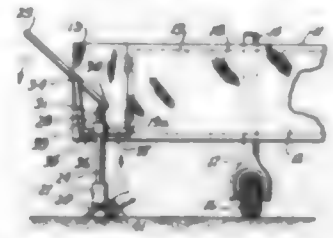
1. A spray gun having a spray nozzle, a ring-shaped reflector curved forward on its inner edge and mounted on said spray gun so as to surround said spray nozzle, and a ring-shaped infra-red radiator mounted in front of the reflector surface and in a plane at right angles the axis of the spray nozzle.

2,868,167
MILKING AND WEIGHING APPARATUS
Clarence A. Clark, Lafayette, Colo.
Application July 22, 1957, Serial No. 673,305
11 Claims. (Cl. 119—14.05)



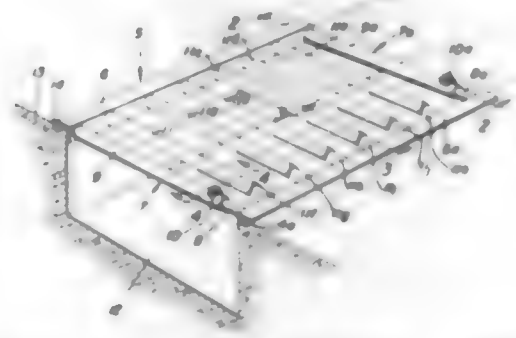
1. Apparatus for milking and weighing milk, comprising a receptacle adapted to be associated with a scale, said receptacle having three openings at least adjacent the top thereof; a first valve connected with the first of said openings and provided with a connection for a milking device adapted to be attached to a cow, said valve when open permitting the transmission of a suction effect from said receptacle to said milking device through said connection; a second valve separately connected to the second and the third of said openings and provided with a connection for a suction device, so as to transmit suction to the interior of said receptacle through either of said second and third openings; and conduit means extending from the second of said openings to a point adjacent the bottom of said receptacle, said second valve having one position in which a suction effect is transmitted through said third opening to the interior of said receptacle, so as to produce a suction effect at said first valve, and another position in which the suction effect is transmitted through said conduit for removal of the contents of said receptacle through the connection to said suction device.

2,868,168
STARTING BAR FOR HORSE RACING
Samuel George Dunn, Vancouver, British Columbia, Canada
Application February 20, 1956, Serial No. 566,719
9 Claims. (Cl. 119—15.5)



1. A ground engaging starting bar assembly for horse racing secured to the conventional starting gate, said assembly including an elongated starting bar extending underneath each stall of said starting gate in a continuous manner, means movably supporting said starting bar from the rear of said starting gate whereby said bar is adjacent the surface of the ground.

2,868,169
COW BARN GUTTER GRATE
Arnold A. Schriever and Virgil L. Johnson, Zumbrota, Minn.
Application May 3, 1957, Serial No. 656,825
1 Claim. (Cl. 119—28)

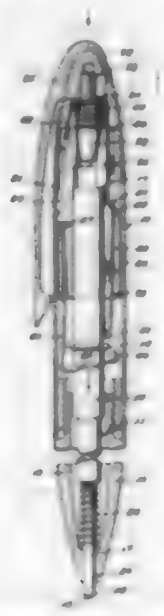


A cow barn gutter grate comprising a frame including a pair of angle iron side bars adapted to receive the upper corners of a gutter, a pair of telescopic end bars terminally connecting said side bars and providing for lateral adjustment of said side bars relatively to vary the width of the frame, and angle iron grate bars extending inwardly of said frame from each of said side bars, the angle iron bars extending from one side bar overlapping and slidably engaging the angle iron bars extending from the other side bar to permit varying the width of the frame, said angle iron bars being of inverted V-shape in cross-section to discourage cows from standing thereon.

2,868,170
RETRACTABLE MECHANISM OF PINCH YOKE TYPE
Walter B. Spatz, Los Angeles, Calif., assignor, by mesne assignments, to Paper Mate Manufacturing Company, Culver City, Calif., a corporation of Delaware
Application October 14, 1953, Serial No. 385,973
2 Claims. (Cl. 120—42.03)

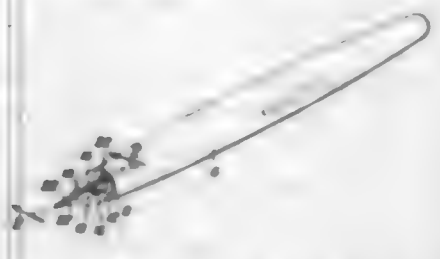
2. In a writing instrument including an upper case portion provided with an upper body portion therein, said

upper body portion having an axial bore adaptable to slidably receive the upper end portion of a writing unit, and a longitudinal groove adjacent said bore: an upwardly biased writing unit extending into the axial bore and provided with a lug; an upwardly biased actuating member extending from the upper end of the case portion and axially movable with respect thereto; an actuating arm attached to the actuating member and extending downwardly through said groove alongside said writing unit, said actuating arm being resiliently biased laterally away from the writing unit and lug thereon; means on the upper body portion for positioning said actuating arm proximate to the writing unit when the arm is in retracted position for alignment and engagement of said



arm with said lug at a predetermined portion of its travel in said groove to move the writing unit longitudinally with it for projection of the unit; and a resilient blade extending longitudinally along said writing unit and provided with a transversely extending pinch yoke at one end, the other end of the blade being fixed in the upper case portion, said pinch yoke having an inclined position relative to the axis of the writing unit to grasp the writing unit to resist upward movement of the writing unit therethrough, said positioning means on the upper body portion at another portion of travel of said arm cooperating with said arm to guide said arm into engagement with said pinch yoke for moving said yoke out of said inclined position to release said writing unit for movement thereof into retracted position.

2,868,171
FOUNTAIN PEN WITH TRIPLEX WRITING POINT
Yasuo Watanabe, Kaiaheo, Territory of Hawaii
Application October 10, 1957, Serial No. 689,284
4 Claims. (Cl. 120—42.18)



1. A fountain pen through the medium of which a user thereof has several selectively usable writing points at his disposal comprising a barrel having a single liquid ink containing and delivering reservoir, a multipurpose writing means embodying several selectively usable pen points having shank portions fixed together, and adapter means fitted into the leading end of said reservoir, said adapter means being capable of operatively removably supporting the respective shank portions in operative position relative to said leading end and having individual ink feeders projecting beyond said leading end and cooperatively connected with their respective pen points, said pen points being disconnected and separated from each other by intervening slits by way of which ink may flow to said points, said slits being straight, there being three slits progressively varying in gage so that the points, which are precision ground, may be poised and used for fine, medium and broad writing needs, and said feeders corresponding to each other in length and cross-section and contiguously overlying their intended slits for a predetermined distance and terminating inwardly of the extremities of said points.

2,868,172
FILLING CAP FOR USE WITH VALVED FOUNTAIN PEN
Ernest Kerman, Tel-Aviv, Israel
Application July 13, 1953, Serial No. 367,562
1 Claim. (Cl. 120—46)

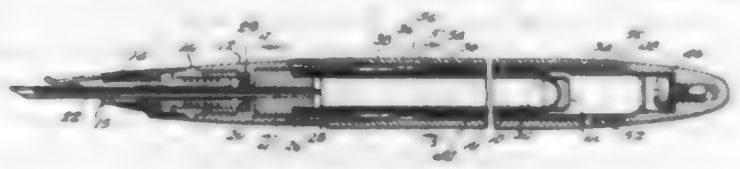


For use with a fountain pen having, for filling purposes, an ink receiving opening at one end and an air escape opening at the opposite end, a hollow cap adapted to fit over said escape opening end for filling said pen by suction, said cap being flexible whereby it may be manually squeezed, said cap having attached thereto a one-way valve, said one way being in a direction outward of the pen to which the cap attaches, when in position for filling, whereby squeezing and then release of the cap causes air to be exhausted from said pen through said air escape opening and ink to be sucked in through said ink receiving opening, said one way valve attached to said cap being located at one end of the cap and said cap being otherwise entirely empty whereby said cap may be positioned over the writing end of the fountain pen to protect said writing end when the pen is not being used.

2,868,173
WRITING INSTRUMENT
Richard J. Mansheim, Fort Madison, Iowa, assignor to W. A. Sheaffer Pen Company, Fort Madison, Iowa, a corporation of Delaware
Application June 1, 1954, Serial No. 433,521
7 Claims. (Cl. 120—47)

1. A writing implement comprising a barrel, a writing nib disposed at the forward end of said barrel, a cartridge unit longitudinally reciprocable between a forward filling position and a rearward writing position, said cartridge unit including a collapsible writing fluid reservoir and a forwardly extending filling tube in fluid communication with said reservoir, said cartridge unit being held against rotation within said barrel and said filling tube being in fluid communication with said writing nib in said rear-

ward position, a rotatable sleeve held against longitudinal reciprocation within said barrel, threaded means cooperating between said unit and said sleeve for reciprocating the unit upon rotation of the sleeve, plunger means mounted for rotation and longitudinal reciprocation be-



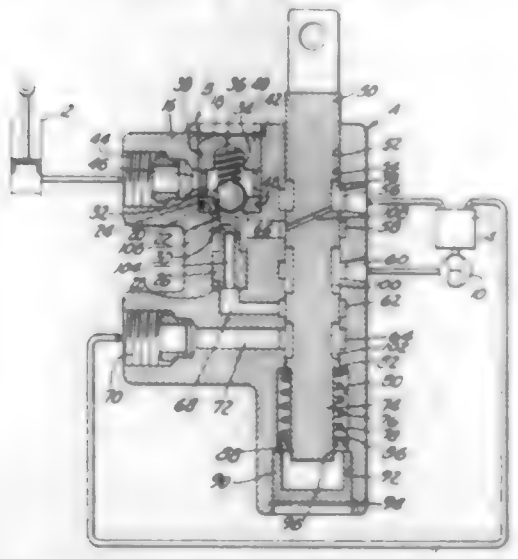
tween extended and retracted positions within said barrel between said unit and said sleeve, and holding means connecting said plunger means and said sleeve in axially slidable relationship whereby said plunger means is independently axially reciprocable and rotation of said plunger means produces rotation of said sleeve.

2,868,174

SELECTOR VALVE WITH SNUBBING ACTION

Paul B. Shutt, St. Joseph, Mich., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application June 25, 1957, Serial No. 667,923
6 Claims. (Cl. 121—40)



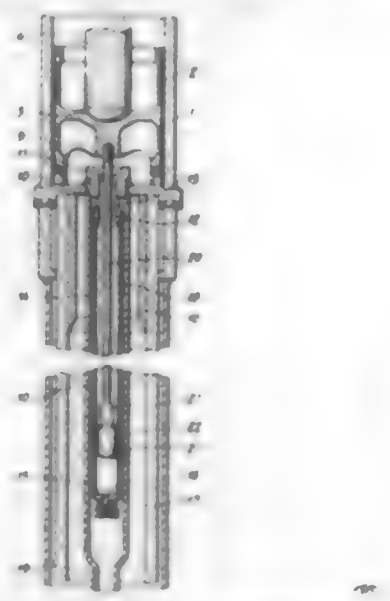
1. In a fluid pressure control system having a lift cylinder with a movable wall therein to form an expansible chamber in which the movable wall is biased into a retracted position or the equivalent for providing reverse flow; a source of fluid pressure, a valve body member having a flow chamber therein, a second movable wall in said flow chamber dividing said flow chamber into first and second opposing chambers and being adapted for longitudinal movement in said flow chamber, a valve seat in said first opposing chamber facing away from said second movable wall, a valve closure member on the other side of said valve seat from said second movable wall, said valve closure member being biased against said valve seat, said second movable wall being constructed and arranged to abut said valve closure member and force it from its seat, flow conducting means communicating the opposite side of said valve seat from said second movable wall to said expansible chamber of said lift cylinder, a first port in said first opposing chamber positioned in such manner as to communicate with said valve seat during the time said closure member is biased off of its valve seat by said second movable wall, a second port in said second opposing chamber, valve means constructed and arranged to conduct pressure from said pressure source to said second port while permitting return flow out of said first port when said valve means is in one position, and closing off said second port while permitting flow out of said first port when in a second position, means providing a restriction to flow out of said second opposing chamber with said valve means in its second position, and means forming a restriction to return flow from said lift cylinder during the time in which said second movable wall moves in a direction permitting said valve closure member to approach its valve seat, whereby a cushioning effect is provided for said lift cylinder before return flow is stopped by said valve closure member.

2,868,175

PRESSURE FLUID SERVOMOTOR

Johan Elis Forslund, Skelleftea, Sweden

Application March 30, 1954, Serial No. 419,893
2 Claims. (Cl. 121—46)



1. A pressure fluid servomotor including a piston displaceable in a power cylinder to a limit position, a slide valve member rigidly connected to said piston for controlling communication between said power cylinder and a slide valve cylinder within which said slide valve member is displaceable and for controlling communication between said slide valve cylinder and a passage adapted to be connected to a source of fluid under pressure, said slide valve cylinder being, along the major portion of its length, of larger diameter than said slide valve member but being of reduced diameter at the portion thereof in the region of the slide valve member corresponding to said limit position to provide slidable sealing engagement with said slide valve member, said slide valve cylinder being closed at its end displaced from said power cylinder, a valve controlled orifice in the lower end of said slide valve cylinder in communication with said passage permitting flow of fluid from the slide valve cylinder into said passage and preventing flow of fluid into said slide valve cylinder from said passage, said slide valve member having a reduced diameter portion on the side thereof toward said power cylinder and having a bore therethrough placing in communication with each other the portions of the slide valve member disposed at opposite ends of its enlarged portion, said slide valve member acting to restrict communication between said power cylinder and said passage when the reduced diameter portion of the slide valve member is in the reduced diameter portion of the slide valve cylinder and to cut off communication between said power cylinder and said passage when the full diameter portion of the slide valve member is in the reduced diameter portion of the slide valve cylinder.

2,868,176

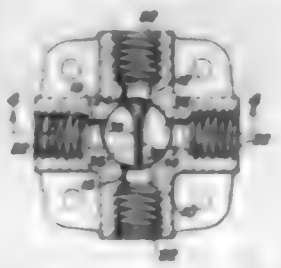
ROTARY PLUG VALVE

Robert H. Bennett, Munster, Ind.

Application July 14, 1954, Serial No. 443,312
1 Claim. (Cl. 121—46.5)

A valve comprising a housing, a rotary tapered valve plug in the housing, said housing being provided with a plurality of coplanar ports therein of like diameter radi-

ating from said valve plug and spaced apart a distance slightly greater than the diameter of said ports and comprising a pair of service ports at diametrically opposite sides of the valve plug, and a pair of inlet and outlet ports, respectively, intermediate the service ports, said valve plug having a pair of transverse grooves in opposite sides thereof coplanar with said ports and transversely concave for free flow therethrough and converging relatively to form a transverse partition between the grooves having a widened portion at one side of the valve plug of substantially the same diameter as the distance between



two adjacent ports and slightly wider than the diameter of each port, said grooves being of a length to communicate any two adjacent ports, said valve plug having different angular positions in which said grooves communicate either service port with either the inlet or outlet port and angular positions in which said widened portion closes any one port while said grooves communicate the other three ports with the partition aligned with the closed port and said widened portion spaced from each port adjacent the closed port so that said plug valve is positionable to completely open the closed port without overlapping either of the two adjacent ports.

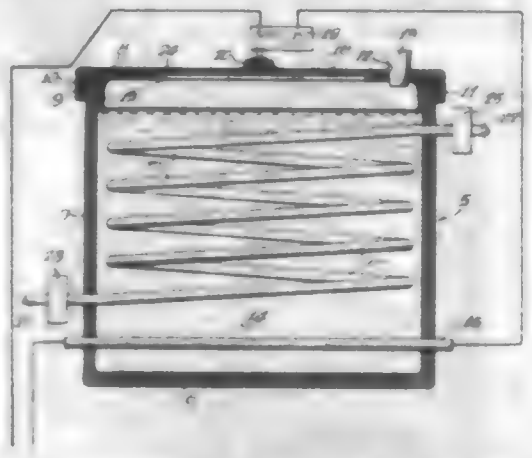
2,868,171

AUTOMATICALLY REGULATED LIQUID HEATER

Herbert W. Peters, Milwaukee, Wis., assignor to Cory Corporation, a corporation of Delaware

Application July 27, 1955, Serial No. 524,729
10 Claims. (Cl. 122—32)

1. Means for heating a fluid to a desired temperature, comprising: a closed container; a fluid fill in the container having a liquid phase and a vapor phase; heating means for delivering heat energy into said fill; means for transferring heat energy from the liquid phase of the fill to the fluid to be heated; and means controlling the heating means to effect delivery of heat energy into the fill to maintain the fill at boiling temperature, including means responsive to variations in the pressure of the



vapor phase operative to permit heat delivery to the fill when the vapor phase exerts less than a predetermined pressure at the boiling temperature and preclude heat delivery to the fill when the vapor phase exerts more than a predetermined pressure at the boiling temperature.

2,868,177

FLUID MOTOR WITH PISTON ACTUATED REVERSING VALVE MEANS

Clinton L. Graybill, Superior, Mont.

Application November 4, 1955, Serial No. 545,067
1 Claim. (Cl. 121—123)



A fluid pressure responsive motor comprising a cylinder closed at both of its ends, a reciprocating piston within the cylinder, said piston having a shaft extending to the interior of the cylinder and to the exterior thereof, said shaft having a bore open at its exterior end and adapted for communication with a source of fluid pressure and in communication at its opposite end through a valve seat with the interior of said cylinder, said piston shaft having an exhaust port open to the interior of the cylinder on both sides of the piston and terminating at one of its ends in a valve seat in spaced relation to the first mentioned valve seat on the same side of the piston as the first mentioned valve seat, a downwardly spring-urged ball valve adapted for engagement with the valve seat of said exhaust port to close the same and thereby allow fluid pressure to enter the cylinder through the other valve seat to force the piston in one direction and to engage the first mentioned valve seat at the end of the piston travel to allow escapement of the fluid pressure through said exhaust port, and said cylinder having openings therein located on the opposite side of the piston from the valved bore opening for discharging the exhausted fluid pressure.

2,868,179

FUEL BURNING APPARATUS

Otto Lotz, Oberhausen, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application May 31, 1952, Serial No. 290,876
2 Claims. (Cl. 122—235)



1. Fuel burning apparatus comprising cyclone furnaces formed about horizontally extending parallel axes at a common level, each of said furnaces having a central gas outlet and a lower slag outlet formed in an end wall of each furnace, a secondary chamber of relatively narrow cross section axially of said cyclone furnaces and receiving gases and slag discharging therefrom, a radiant chamber extending above said common level and receiving said gases from said secondary chamber, and means including upright cooling tube walls for sub-dividing said secondary chamber into gas flow compartments corresponding in number to the number of said cyclone furnaces whereby gases and slag from individual furnaces

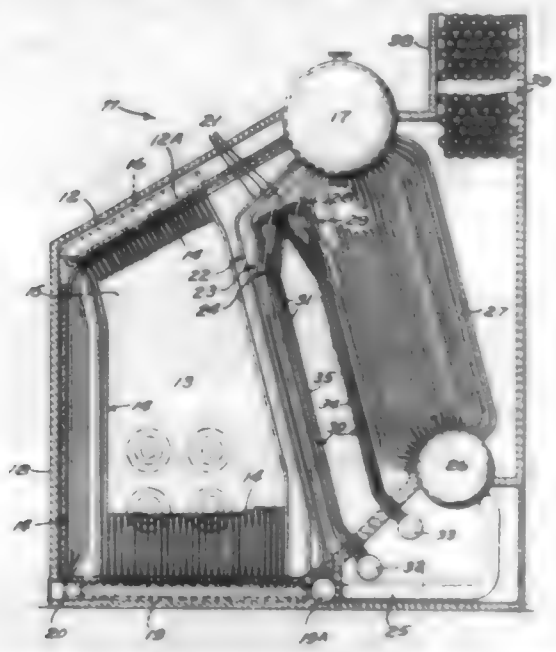
are discharged into the respective compartments, said upright walls having tubes arranged with portions extending across upper ends of said compartments and forming slag screens in the path of gases passing to said radiant chamber.

2,868,180

HEAT EXCHANGE APPARATUS

John F. Thunstrom, New York, N. Y., assignor to Foster Wheeler Corporation, New York, N. Y., a corporation of New York

Application August 11, 1955, Serial No. 527,678
4 Claims. (Cl. 122—478)



1. In a tubular arrangement for fluid heat exchangers, a substantially vertical first fluid conducting tubular member having fixed ends adjacent to one another and having a pair of coplanar legs substantially parallel with each other, one of said legs being substantially straight and merging into an upper loop and intermediate portion while the second leg is substantially straight and to a point vertically below the point on said one leg where the latter merges into the loop portion, said second leg being inclined toward said one leg from the first-mentioned point and merging into the other side of the loop portion, a second vertical fluid conducting tubular member disposed along each leg of said first tubular member and coplanar therewith, the second tubular member along said one leg being spaced from the latter except adjacent the second-mentioned point where it extends toward and in engagement with said one leg, the second tubular member along said second leg being spaced from the latter except adjacent the first-mentioned point where it engages said second leg, said last-mentioned second tubular member thereafter being inclined and arranged parallel to the inclined portion of said second leg, and a pair of substantially vertical third fluid conducting tubular members arranged in parallel planes, one of said third tubular members being on one side of the plane containing the first and the second fluid conducting tubular members and the other third tubular member being on the other side of said plane for preventing lateral movement of said first fluid conducting tubular member transversely of said third fluid conducting tubular members.

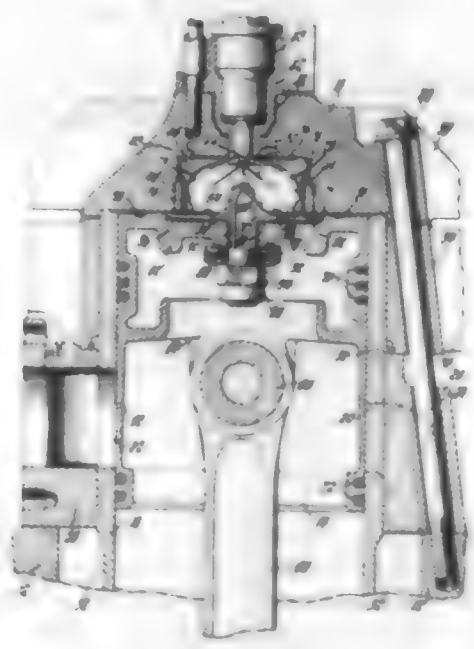
2,868,181

COMBUSTION CHAMBER FOR INTERNAL COMBUSTION ENGINE

John Dolza, Davisburg, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 25, 1956, Serial No. 593,466
17 Claims. (Cl. 123—32)

1. A combustion chamber for an internal combustion engine including a housing member having cooling means associated therewith, a member of a highly heat resistant material mounted in said housing member and defining a portion of said combustion chamber, a plurality of lands intermediate said housing member and said heat resistant member defining slip surfaces and limiting the heat conducting contact therebetween, one of said members having a surface thereon of predetermined dimension and spaced clearance with the other of said members on assembly and expansible into heat controlling contact with said other member when the temperature of said one member has reached a predetermined maximum.

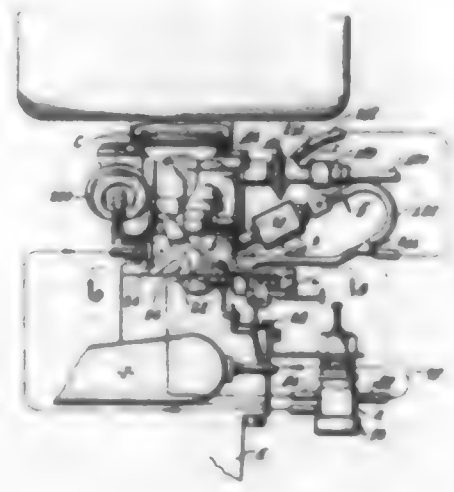


2,868,182

FUEL SHUT-OFF APPARATUS

George W. Cornelius, Portuguese Bend, Calif., assignor to Holley Carbureter Company, Van Dyke, Mich.

Application October 17, 1955, Serial No. 540,817
21 Claims. (Cl. 123—97)



1. Fuel shut-off apparatus for use with an internal combustion engine having carburetor means, an intake manifold connected with said carburetor means, an idling fuel passage in said carburetor means and a throttle valve in said carburetor means, comprising: a shut-off member for controlling the flow of fluid through said idling fuel passage; an opening formed in said carburetor means, said opening being substantially covered by said throttle valve when the latter is in a closed position and uncovered by said throttle valve when the latter is in an open position; and means operatively interposed between said opening and said shut-off member for effecting operation of the latter responsive to the position of said throttle valve. ...

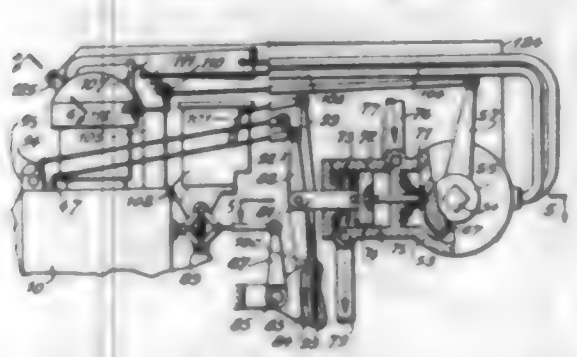
2,868,183

ENGINE FUEL-AIR RATIO CONTROL

Ferdinando Carlo Reggio, Tampa, Fla.

Application February 9, 1954, Serial No. 409,063, which is a division of application Serial No. 564,379, November 20, 1944, now Patent No. 2,670,724, dated March 2, 1954. Divided and this application May 6, 1957, Serial No. 657,401

27 Claims. (Cl. 123—119)



1. For use with an engine having an air induction system and a fuel supply system, the combination with a three-dimensional cam having two distinct orders of reversible motion, of manually operable means for imparting reversible motion of the first order to said cam, air induction temperature responsive means for imparting reversible motion of the second order to said cam, a cam follower positioned by said cam, a servomotor, servomotor control means positioned by the cam follower, fuel-air ratio regulating means associated with said fuel supply system and movable to vary the engine fuel-air ratio, engine speed responsive means, and an operative connection including said speed responsive means for actuating said fuel-air ratio regulating means from the servomotor.

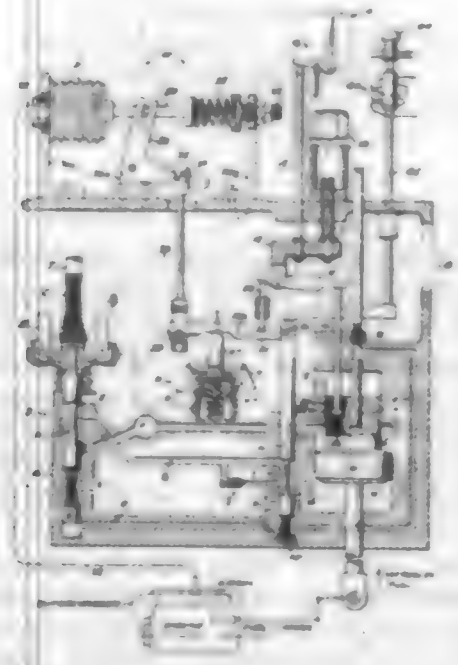
2,868,184

ENGINE LOAD LIMITING CONTROLS

Lloyd Jackson Moulton, Mentor, Ohio, assignor to Curtiss-Wright Corporation, a corporation of Delaware

Application April 22, 1957, Serial No. 654,401

8 Claims. (Cl. 123—140)



1. An internal combustion engine control mechanism, including a hydraulic governor of the servomechanism type, wherein speed responsive means in the governor operates through a governor pilot valve to change the position of a governor output motor element whereby to increase and decrease fuel to the engine, and wherein means associated with the engine operates to supply air under variable pressure capable of supporting combustion; the combination of a load limiting valve mechanism in the governor operative to prevent normal speed responsive action of the pilot valve from increasing engine fuel via the output motor element, means capable of actuating said load limiting valve mechanism primarily and conditionally as a function of movements of said output motor element in its fuel-increasing direction to limit such movements, and pressure responsive means in the governor connected for operation as a function of the air supply pressure producing means and operating on said load limiting valve mechanism to change the operating relationship between the output motor element and said valve mechanism.

2,868,185

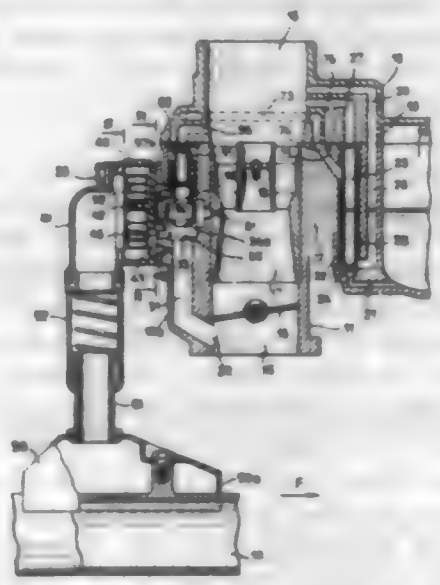
CARBURETTING APPARATUS FOR INTERNAL COMBUSTION ENGINES

Francesco Bellicardi, Bologna, Italy, assignor to Soc. per Az. Edoardo Weber-Fabbrica Italiana Carburatori, Bologna, Italy

Application May 11, 1956, Serial No. 584,352

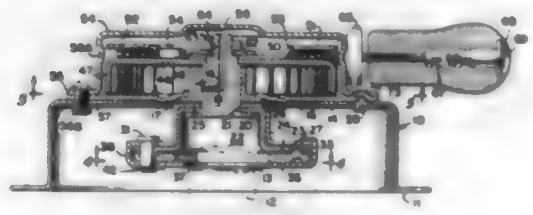
Claims priority, application Italy May 12, 1955

7 Claims. (Cl. 123—180)



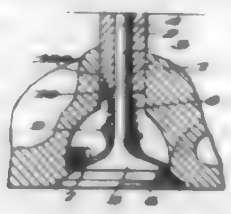
1. In a carbureting apparatus for motor vehicle internal combustion engines, a body, an induction passage in said body, a Venturi in said passage, a throttle valve in said induction passage past said Venturi, a float chamber in said body, a starting fuel well in said body having its lower portion connecting with the float chamber, a slidable piston valve controlling communication between the top portion of said starting well and said induction passage, said valve comprising a cylinder and a piston capable of axial displacement in said cylinder, a conduit connecting the lower end of said cylinder with the induction passage at a point past the throttle valve, said conduit forming within the cylinder a valve seat, a conical valve on the lower end of the piston facing said seat, spring means biasing the piston together with its conical valve toward said seat, means including a casing providing a thermo-control duct through which air is conveyed to the induction passage, said casing having a flat bottom disposed adjacent said cylinder, a passage opening from said casing into said conduit beyond said valve seat to provide continuous flow of air from said casing to said conduit, and a second passage opening from said casing into said cylinder above said valve seat to provide flow of air from said casing to said conduit under control of said valve, a bimetallic spiral in said casing, means anchoring the inner end of said spirial to the bottom of said casing, a pivoted rocker arm operatively connecting the outer end of said spiral to said piston so that the position of said piston is determined by the joint action of said spring and said spiral, said spiral acting in a direction to move said valve toward closed position upon increase of temperature of air flowing through said duct including said casing.

2,868,186
INTERNAL COMBUSTION ENGINE STARTER
Walter H. Schnacke, Evansville, Ind.
Application April 1, 1954, Serial No. 420,387
18 Claims. (Cl. 123—185)



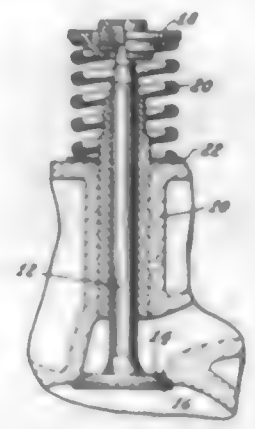
1. A portable starter for internal combustion engines comprising a housing closed at the top and open at the bottom and having a portion of generally circular outline with an outward extension thereon, a plate mounted on the open bottom of said housing, a bearing in said plate, a spiral spring having its inner end fixed in said bearing, a barrel open at the bottom and closed at the top retaining said spiral spring, the outer end of said spiral spring being connected to the periphery of said barrel, the plate preventing the spring from being unintentionally removed from said barrel, a shaft rotatably mounted in said bearing and having a shoulder above said bearing formed by a reduction in the diameter of the shaft and having a flat portion adjacent the shoulder, the barrel of said spiral spring having a corresponding elongated opening non-rotatably receiving said flattened portion of the shaft, a real plate having a central portion of generally circular outline on the outer surface of said barrel, said reel plate having a marginal portion offset from the central portion by approximately the diameter of a cable, said offset portion of the reel plate extending into the central portion in a smooth curve, an aperture in the central portion adjacent the smooth curve, a pin rotatable in said aperture, a cable having its inner end fixed to said pin and passing outwardly from the housing through an aperture in the elongated portion of the housing, a handle threaded on said cable, a sleeve fixedly secured to the outer end of said cable, a washer on said sleeve and fixed to the outer end thereof, said handle having a bore therethrough receiving said sleeve and tightly engaging said washer thereby fixing the outer end of the cable in said handle, said handle having a shank portion extending along said cable a distance appreciably greater than the length of said sleeve and preventing sharp bending of said cable, means mounted on said shaft on the lower side of said bearing plate for engaging peripheral projections on a shaft for driving the same.

2,868,187
MASKED VALVE
Siegfried Meurer, Nurnberg, Germany, assignor to Maschinenfabrik Augsburg-Nürnberg A. G., Nurnberg, Germany
Application November 3, 1955, Serial No. 544,798
Claims priority, application Germany November 4, 1954
8 Claims. (Cl. 123—188)



1. A masked intake valve for an internal combustion engine, comprising a valve head, a separate mask mounted upon said head, means fixing said mask to said valve head for longitudinal movement therewith, and means for restraining said mask from rotational movement with said valve head.

2,868,188
VALVE SPRING SPACER
Elwood L. Havens, Dearborn, Mich., assignor to Silver Seal Products Co., Lincoln Park, Mich., a corporation of Michigan
Application October 15, 1956, Serial No. 615,829
5 Claims. (Cl. 123—188)



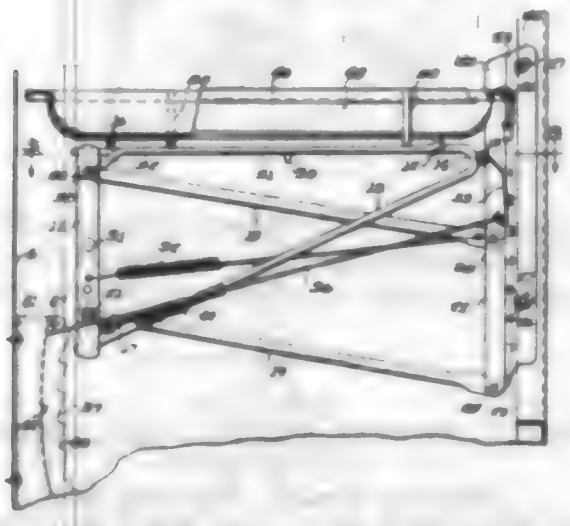
1. A device for altering valve spring tension in an internal combustion engine which comprises, an apertured disk of uniform predetermined thickness having at least one surface provided with interruptions extending radially to adapt it to mechanically engage a surface in contact therewith under pressure, said interruptions comprising, a radial groove on one side of said device and a radial embossment on the other side.

2,868,189
FIREPLACE APPLIANCE
Gilbert A. Watrous, San Diego, Calif., assignor to Brazit Associates, San Diego, Calif., a partnership
Application May 3, 1954, Serial No. 427,249
1 Claim. (Cl. 126—25)



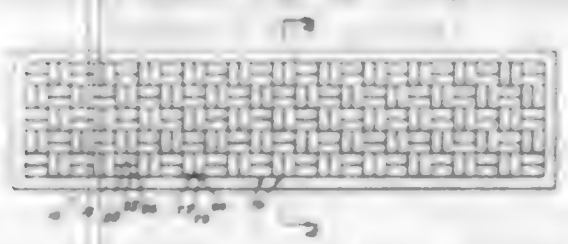
A fireplace appliance for cooking food both in and out of doors, comprising a pair of spaced parallel, horizontal bar members turned down at both of their ends, respectively, to define legs for supporting said bar members in spaced relation from a supporting surface, a pair of horizontal parallel cross bars bridging between said horizontal bar members in spaced relation adjacent the legs thereof, and being detachably secured thereto to define a rectangular frame, said cross bars adjacent the same horizontal bar member being turned upwardly, respectively, to define superior vertical posts at one side of said frame, said cross bars at their opposite ends, respectively, being turned upwardly to define vertical posts of a height inferior to said superior posts at their opposite ends but cooperative with the latter to confine logs, fuel, and brazier means between them upon said rectangular frame; and a gridiron comprised of a rectangular support, a grid associated with said support, and post-engaging means at a side thereof, said gridiron being cantilevered upon said superior posts by said post-engaging means to project in spaced, parallel, overlying relation to said rectangular frame, said gridiron being adjustable with respect to said superior posts to alter the spacing between it and said rectangular frame.

2,868,190
ADJUSTABLE BROILER MECHANISM
Herbert M. Reeves, Kankakee, Ill., assignor to Geo. D. Roper Corporation
Application December 24, 1954, Serial No. 477,472
5 Claims. (Cl. 126—41)



5. In a broiling oven having a front opening, a unitary adjustable broiler mechanism comprising, in combination, a broiling rack support frame disposed in the oven, said frame having a generally rectangular horizontal portion and a vertical portion rigidly connected to and projecting downwardly from the rear edge of said horizontal portion, said vertical portion extending transversely to said horizontal portion over a substantial portion of the latter's width, a support bracket removably secured in the oven adjacent the front opening thereof, parallel swinging links spaced apart vertically and pivotally interconnected between said bracket and said vertical portion, a bracket having vertically spaced notches mounted at the rear of the oven, and a locking bar shiftably connected to the front of said horizontal portion and extending in underlying, supporting relation to the bottom of said vertical portion, the rear end of said locking bar being selectively engageable with the notches of said last-named bracket to support said broiling rack support frame at adjustable heights.

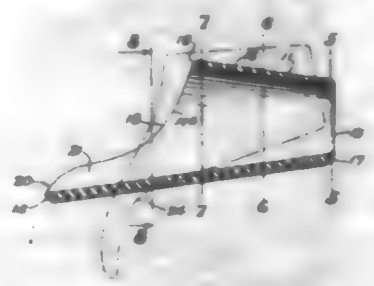
2,868,191
FOOT MASSAGING DEVICE
Steve Juhasz, Hammond, La.
Application July 5, 1957, Serial No. 670,140
3 Claims. (Cl. 128—60)



1. A massaging device comprising an elongated substantially rectangular support having a convex side; a plurality of prismatic members, each face of each of said members being an equilateral parallelogram; said members each having one face thereof juxtaposed with respect to said support, said one faces being arranged in side-by-side relationship with the apex of one of said members being angularly inclined with respect to the apex of a next adjacent one of said members; and means fixedly securing said members to said support.

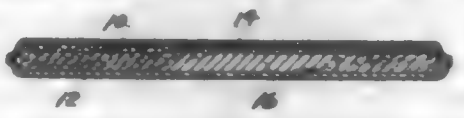
2,868,192
PROSTHETIC GENITAL DEVICES
Charles Dannen, San Francisco, Calif., assignor to The Deg Corporation, Carson City, Nev., a corporation of Nevada
Application October 21, 1957, Serial No. 691,252
7 Claims. (Cl. 128—79)

1. A prosthetic genital device comprising an elongated resilient and flexible penis engaging member having circumferential forward and base end portions, and adapted for longitudinally and circumferentially engaging the penis between the glans ridge and the opposite ischio-base end, and a resiliently flexible tongue extending rearwardly from a lower portion of the circumference of said base end of the penis-engaging member, said tongue being adapted for bending from its alignment to bear against the adjacent



body portion of the user whereby said penis-engaging portion may be elevated and maintained at an angular inclination responsive to the resilience of said tongue portion, said resilient tongue member having connection to said circumferential base end of the penis-engaging member around a portion only of the circumference of said base end thereof, whereby counter-resistance to the elevating resilience of said tongue is eliminated.

2,868,193
EMERGENCY SPLINT COMPRESS
Leon J. Kreft, Auburn, Mass., assignor of ten percent to Aram Tashjian, Worcester, Mass.
Application January 18, 1954, Serial No. 404,469
5 Claims. (Cl. 128—89)



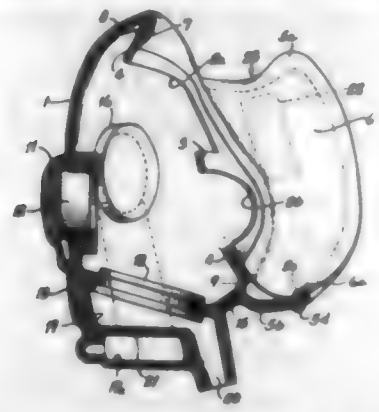
5. A splint compress comprising an envelope, a sheet of deformable material in the envelope capable of holding the latter to any shape to which it is deformed, a relatively thick padding in the envelope substantially coextensive with and covering the deformable sheet, and ties on the envelope for securing the latter to the person in form fitting deformed shape without stopping blood circulation, said ties extending across the compress in mutually spaced relation.

2,868,194
SAFETY GARMENT AND BELT FOR INFANTS
Catherine W. Lee, Los Angeles, Calif.
Application June 25, 1957, Serial No. 667,822
1 Claim. (Cl. 128—134)



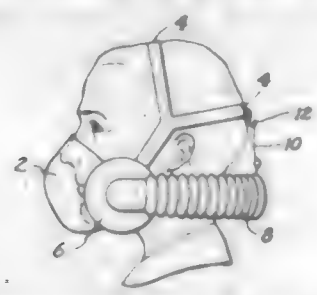
A safety garment and belt for infants comprising a jacket adapted to be fitted about the upper portion of a child's body, means for fastening the jacket at both front, rear and a restraining strap fastened to the garment, said restraining strap having its ends adapted to be fastened to the sides of a bed, the fastening means including neck tapes and waist tapes, the neck portions including vertical cuts at both front and rear, the neck fastening tapes being at the upper ends of the cuts, the waist fastening tapes being stitched to both the front and rear of the garment, and the restraining strap being likewise stitched to the garment over one of the waist fastening straps.

2,868,195
OXYGEN MASK
Walter S. Finken, Brooklyn, N. Y., assignor to Leonard P. Frieder, Great Neck, N. Y.
Application August 3, 1955, Serial No. 526,280
8 Claims. (Cl. 128—141)



1. An oxygen mask comprising a housing of stiffly resilient material open at one side to receive the nose and mouth of a wearer, oxygen inlet means and outlet means communicating with the interior of said housing, a flange on said housing encircling said opening and adapted to engage the wearer's face snugly to inhibit leakage from the housing, flap means of stiffly resilient material projecting from the sides and bottom of the housing at localities spaced from the wearer's face and extending outwardly and rearwardly so that the periphery of said flap means engages loosely the wearer's cheeks and chin, a thin membrane of material more elastic and more flexible than said housing and flap means and extending from said flange to the flap means periphery, said membrane, said housing and said flap means cooperating to define a chamber, and means providing fluid communication between said chamber and the interior of said housing, so that oxygen under super-atmospheric pressure flowing into said housing is effective to inflate said chamber, whereupon said membrane expands and closely engages the wearer's face, thereby substantially preventing leakage of oxygen.

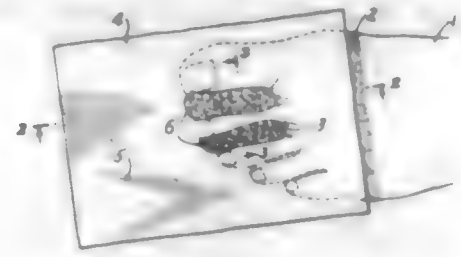
2,868,196
DUST FILTER MASK
Gerhard K. E. H. Stampe, Lubeck, Germany, assignor to Otto Heinrich Drager, Lubeck, Germany
Application August 18, 1954, Serial No. 450,770
Claims priority, application Germany July 27, 1953
12 Claims. (Cl. 128—146)



1. A dust filter comprising a face mask, a filter container mounted on said mask so as to extend over the cheek of a wearer thereof and having its center at about mouth level, said container communicating with the interior of said mask and having a fine dust filter mounted therein, and a tubular coarse dust filter connected to said container outwardly of said fine dust filter and longitudinally extending in the direction of the neck of a wearer of said mask.

2,868,197
FORM-FITTING FOOTWEAR
Alan E. Murray, New York, N. Y.
Application September 11, 1956, Serial No. 609,292
8 Claims. (Cl. 128—153)

7. A toe protector comprising a continuous layer of latex impregnated woven fabric material having loops therein extending down into a plurality of recesses between adjacent toes, each of said loops having three dimensional form corresponding to the shape of the sides



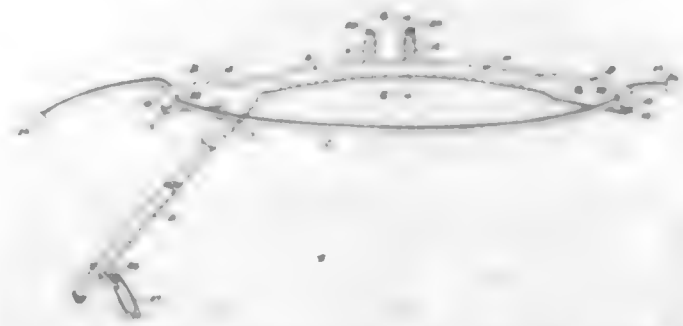
of the toes adjacent said recesses and each of said loops being filled with separate strips of a woven fabric material which assist the loops in retaining their three dimensional form.

2,868,198
UNIDIRECTIONAL VALVE FOR ANESTHESIA EQUIPMENT
Burnham Brooke, Portland, Oreg.
Application March 9, 1956, Serial No. 570,576
9 Claims. (Cl. 128—188)



4. A respiratory valve unit for use with a face mask or endotracheal tube comprising a port plate having inlet and outlet ports, a housing member on one side of said plate forming with said plate an inlet passageway extending along said plate and communicating with said inlet port and an outlet passageway extending along said plate and communicating with said outlet port, a housing member on the opposite side of said plate defining a chamber in communication with both of said ports, said last housing member having a connector opening for said mask and tube closely adjacent and overlapping both of said ports, and valves on said ports.

2,868,199
CANNULA
Charles H. Hudson, Los Angeles, Calif.
Application May 20, 1955, Serial No. 509,831
3 Claims. (Cl. 128—206)



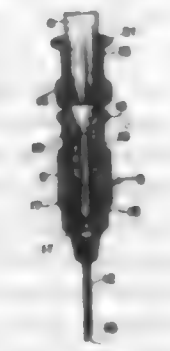
1. An improved nasal cannula adapted to both protect the soft nasal tissue and to positively direct fluid flow within the nasal passages comprising: a soft, flexible plastic tube having its ends closed and flattened, with an inlet tube extending out at an angle adjacent one end; said plastic tube having an integral pair of tubular, flexible, but shape-retaining extensions protruding therefrom with each tubular extension having an orifice adjacent its outer end, said plastic tube and tubular extensions forming a flexible nasal cannula providing a smooth contacting surface adjacent the soft tissues of the nasal passage during insertion of each tubular extension into a patient's nostril, said flattened ends being tilted with respect to the plane where said tubular extensions intersect said plastic tube.

2,868,200
FLASH-BACK INDICATOR
Theodore H. Gewecke, Glenview, Ill., assignor to Baxter Laboratories, Inc.
Application November 1, 1954, Serial No. 466,074
6 Claims. (Cl. 128—214)



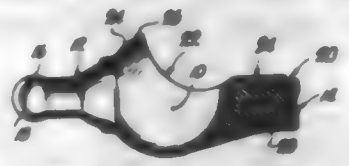
1. A flash-back indicator for a parenteral administration set, comprising a flexible tubular member having a finger-squeezable intermediate chamber portion of greater cross-sectional area than that of the end portions of the said tubular member, said flexible tubular member being constructed of a material adapted to reseal itself upon puncture by a hypodermic needle whereby the administration of supplemental medication is expedited.

2,868,201
ASPIRATING NEEDLE HUB
Daniel Gabriel, Pennington Gap, Va.
Application March 8, 1954, Serial No. 414,639
2 Claims. (Cl. 128—221)



1. A needle assembly for use with a hypodermic syringe of the type which has a tapered tip at its distal end, said assembly comprising a hypodermic needle including a hub having a tapered seat, an axial bore in communication with said seat, and a cannula one end of which is lodged in the distal end of said bore, and an aspirating needle including a hub having a seat for frictional mounting on the syringe tip, a tapered tip dimensioned for entry into the seat of the hypodermic needle hub, an axial bore through the tip of said aspirating needle hub and in communication with the seat thereof, and a stub cannula of greater diameter than said hypodermic cannula, one end of which is lodged in the distal end of said bore of said aspirating needle hub and dimensioned to extend into the bore of said hypodermic needle hub without contact with the cannula thereof when said hypodermic needle hub is frictionally mounted on the tip of said aspirating needle hub, the mating tip and seat of said hubs being dimensioned to position the proximal end of said hypodermic needle hub closely adjacent the distal end of the syringe tip when the needles are assembled and the seat of the aspirating needle is mounted thereon.

2,868,202
INFANT FEEDING DEVICE
Milton Dodge, Kansas City, Mo., assignor of one-half to Abe Okrend, Kansas City, Mo.
Application September 24, 1956, Serial No. 611,416
3 Claims. (Cl. 128—252)



1. An infant feeding device molded entirely of flexible material and comprising a substantially spherical bowl provided with a handle and a tubular nipple having a substantially spherical, terminal end provided with an elongated slit therein defining a normally closed slot disposed to be opened when said terminal end of the nipple is compressed during use of the device, said slit being of sufficient dimension to permit relatively rapid but restricted flow of food from the bowl through the nipple, the handle and the nipple extending from the bowl in diametrically opposite directions, there being an opening in the bowl between the nipple and the handle adjacent the upper face of the latter, the nipple being below the opening.

2,868,203
ANTI-COLIC NURSING DEVICE
William C. Tichy, Levittown, N. Y.
Application April 15, 1957, Serial No. 652,936
5 Claims. (Cl. 128—252)

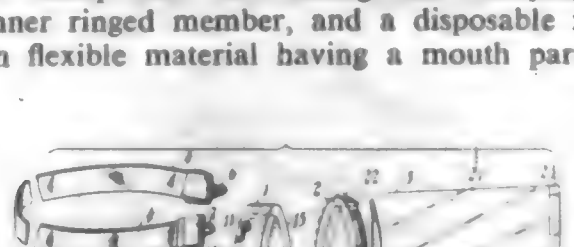


1. A valve means for use in combination with a nursing bottle having a mouth portion and a resilient nipple attached to said bottle contiguous with said mouth opening, said valve means including a casing adapted to be retained by said nipple proximate to the mouth portion of said bottle, said casing comprising a top wall normally facing the interior of said nipple, a bottom wall normally facing the interior of said bottle, means integral with said casing adapted to be engaged by said nipple so as to form a liquid tight seal, a valve seat positioned within said casing, a cavity formed in said casing characterized by a pair of parallel walls defining a flow passage from said valve seat to said top wall, said passage being larger at said top wall than at said valve seat, a length of flexible tubing having a first end attached to said casing and communicating with said valve seat and a second end adapted to be disposed within said bottle, a movable ball disposed in said cavity cooperating with said valve seat to provide a substantially liquid-tight seal, ball guide means integral with said casing, said ball guide means extending axially from said valve seat to proximate to said top wall, said ball being caged within said guide means and constrained thereby to move axially only, said top wall opening being sufficiently long so that the said ball seat is exposed when said ball is in its highest position.

2,868,204
COLOSTOMY DEVICE
Richard E. Walker, Toronto, Ontario, Canada, assignor to A. B. C. Specialty Company, Toronto, Ontario, Canada, a partnership
Application January 26, 1955, Serial No. 484,108
11 Claims. (Cl. 128—283)

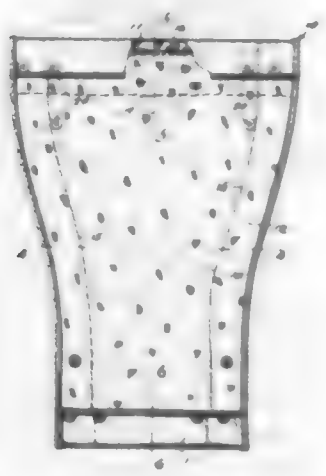
1. A colostomy appliance comprising inner and outer ring members of substantially rigid material, said mem-

bers being interfitted one about the other, the inner ring member having an inner side face for contact with the body of the wearer and having a peripheral clamping face, the outer ring member being split and having an interior clamp face surrounding said clamping face of said inner ringed member, and a disposable receptacle of thin flexible material having a mouth part inserted



smoothly between said clamping faces of the said ring members with the margins of the mouth part reversely folded into encompassing relation around the outer ring member, and said inner and outer ring members being dimensioned so that said clamping faces are operative by tension to releasably secure the mouth of the receptacle therebetween.

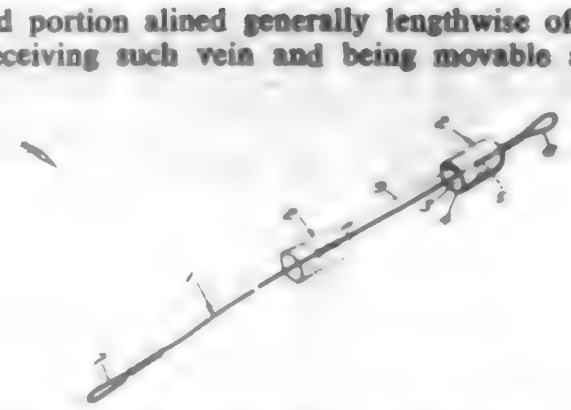
2,868,205
DIAPER
Michael Epstein, Pasadena, Calif., assignor of one-half to Phillip G. Friend, Pasadena, Calif.
Application December 6, 1956, Serial No. 626,760
3 Claims. (Cl. 128—284)



1. An improved diaper of the kind described comprising a substantially rectangular envelope open at one side edge thereof, said envelope including an impervious outer sheet of flexible material, an absorbent inner sheet of flexible material overlying said outer sheet, stitches securing said sheets together on the edges thereof save for the open end of said envelope, an absorbent lining sheet secured to said inner sheet, said absorbent lining being secured to said inner sheet spaced from the outer edges thereof and snap fastenings on said outer sheet for securing the edges thereof together including a folded portion of the cloth of the diaper.

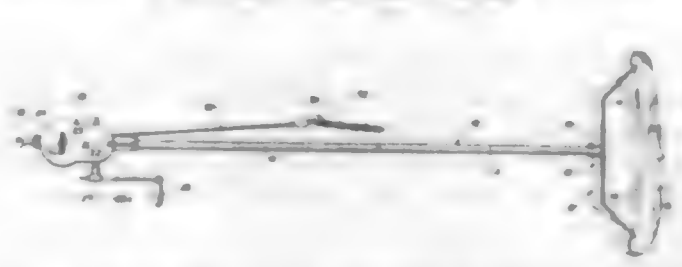
2,868,206
INTRA LUMINAL VEIN STRIPPER
Frederick G. Stoesser, Buffalo, N. Y.
Application July 25, 1956, Serial No. 599,948
6 Claims. (Cl. 128—303)

1. An intra luminal vein stripper comprising, an elongated wire adapted to be inserted into the vein to be stripped, and a bucket member carried by said wire for engaging such vein and stripping the same as said wire is drawn therethrough, said member having a generally cupped portion alined generally lengthwise of said wire for receiving such vein and being movable along said



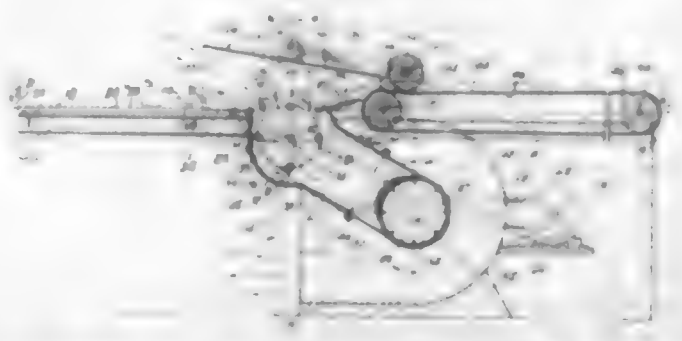
wire from one end to the other thereof for removing the stripped vein therefrom.

2,868,207
COMBINED CALF AND FOAL PULLER AND HOIST
Paul V. Horst, Adams County, Colo.
Application September 8, 1953, Serial No. 378,970
5 Claims. (Cl. 128—352)



1. In a calf puller, an elongated frame, an animal-engaging and embracing shoe carried at one end of said frame, an adjustable belt carried by said shoe for holding it in animal-embracing position, a housing disposed at the opposite end of the frame, a cable-carrying winding reel rotatably mounted within the housing, a cable on the reel having its free end portion extending outside the housing, a hand crank associated with the winding reel for revolving the same, a shaft extending through the housing to which said crank is attached, a worm on said shaft, a worm gear also located within the housing in mesh with the worm and providing means for revolving the cable winding reel, clutch means associated with the worm gear and winding reel to release the winding reel from its driving connection with the worm gear and worm at predetermined times, and releasable flexible connecting means for connecting the free end of the cable with the legs of the calf being delivered whereby upon rotation of the hand crank, the winding reel is revolved to wind the cable on the reel and thus pull the calf slowly, gently and positively toward the housing to effect the delivery thereof.

2,868,208
STALK STRIPPER
Milton C. Welch, Toomsuba, Miss.
Application April 13, 1956, Serial No. 577,976
2 Claims. (Cl. 130—31)



1. In apparatus for stripping leaves from stalks, a support frame; a feed table mounted thereon and formed to a width such as to permit a plurality of stalks to be supported upon and advanced along said table simultaneously; a bladed rotor journalled upon the frame

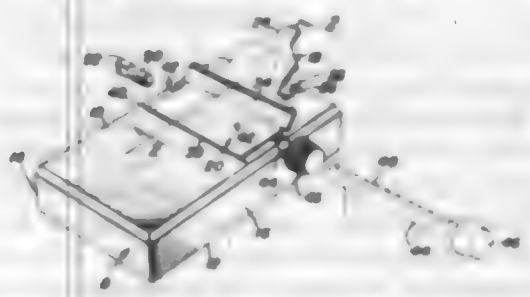
forwardly of the table in the sense of the direction of movement of stalks fed along the table, said rotor including a series of flat angularly spaced blades each of which has its length parallel to the axis of rotation of the rotor, each blade in length extending the full distance across the stalk-support area of the table, each of said blades lying in a plane normal to a plane extending radially of the rotor through the blade, said blades having longitudinal cutting edges leading in the sense of the direction of rotation of the rotor, the axis of the rotor being horizontal and the plane of each blade, at the crest of the blade's travel over said axis being horizontal and slightly higher than the work table, whereby each blade will be in supporting relation to and will contact the undersides of the several side-by-side stalks advanced thereover, in a position extending perpendicularly to the lengths of the stalks, thus to cut from the stalks leaves extending downwardly therefrom while simultaneously advancing the stalks; a hood overlying the rotor and feed table and having an end opening rearwardly for passage of the stalks thereinto; a conduit having an inlet end communicating with the hood, said rotor being disposed within the inlet end of the conduit; and means for producing an air current within the hood and conduit flowing downwardly through the rotor for pulling leaves downwardly into the rotor into the spaces between the blades for cutting of the leaves by the blades.

2,868,209

CIGARETTE MAKER

Oswald J. Marcotte, Ironton, Mo.

Application May 29, 1957, Serial No. 662,422
3 Claims. (Cl. 131—58)



1. For home or similar use, a portable device for making an individual cigarette comprising, a longitudinally slotted cigarette forming tube cylindrical in cross-section, open at one end and closed and provided at its other end with a finger-gripable and turning knob, an insertable and removable closing plug fitted into said open end, a base having a flat surface on which a cigarette paper is accessibly and removably laid flatwise, said base having a groove formed therein and opening through said surface and also opening through opposite marginal edge portions of the base and providing a pocket-like channel, said tube being removably and rotatably mounted in said channel, and means carried by said base for holding an edge portion of a piece of cigarette paper so that the paper may be tucked into the tube in a manner to temporarily line the tube for reception of tobacco, said means comprising a paper-edge holddown clamp having a spring-biased hingedly mounted blade parallel to and spaced from one lengthwise edge of the mouth of the channel.

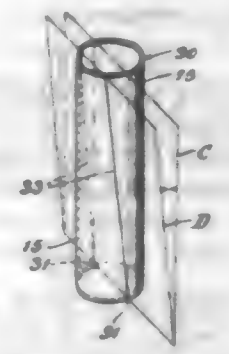
2,868,210

CIGARETTE MAKING MACHINES

Werner Dupke, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co. K. G., Hamburg-Bergedorf, Germany

Application November 17, 1955, Serial No. 547,489
Claims priority, application Germany December 24, 1954
6 Claims. (Cl. 131—66)

1. An inlet finger for compressing the tobacco in cigarette machines, comprising an elongated member constituted by an elongated section of a hollow cylindrical member formed by a curved wall, said section being defined by a plane passing through the entire length of said hollow cylindrical section, said plane being disposed at an angle with respect to the longitudinal axis of said hollow



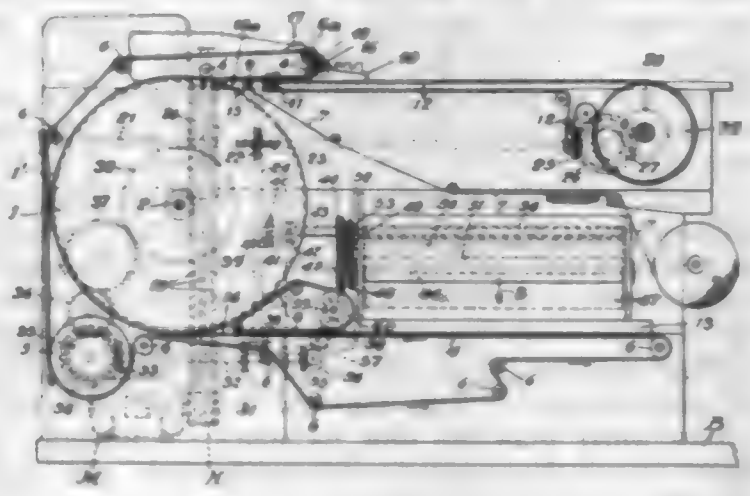
cylinder whereby said finger is provided with longitudinally extending tapered edges defined by the interception of said angularly disposed plane with the curved wall of said cylinder, and a supporting lug attached to said finger for supporting same on said cigarette machine.

2,868,211

TOBACCO ROD MAKING MACHINES

Willy Richter, Hamburg-Bergedorf, and Max Neubert, Hamburg-Bahrenfeld, Germany, assignors to Kurt Korber & Co. K. G., Hamburg-Bergedorf, Germany

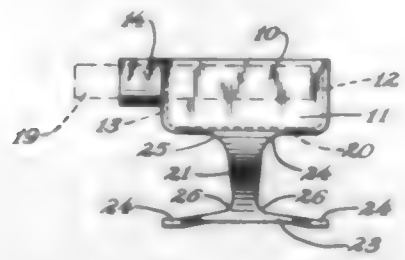
Application July 15, 1957, Serial No. 671,907
Claims priority, application Germany July 20, 1956
2 Claims. (Cl. 131—66)



1. In a tobacco rod making machine, a circular conveyor disc provided on its circumference with a tobacco receiving groove, means for rotating said disc about its center in a vertical plane, an endless conveyor band having a horizontal portion engaging first the lowest point of said circular conveyor disc and then extending substantially along one-half of the circumference of said disc to cover the groove therein before reversing its direction and returning in spaced relation from said conveyor disc to a position b ow said horizontal portion of said endless conveyor belt, means for moving said endless conveyor belt to feed cut tobacco into the groove of said conveyor disc during the rotation thereof, means forming a tobacco feeding channel at the lower entrance end of the groove in said disc, said channel being provided with converging walls forming a restricted channelway portion, a tobacco rod forming means at the upper portion of said circular conveyor disc, and means including a tobacco conveying channel for transferring the tobacco discharged at the upper portion of said disc into said tobacco rod forming means, said last mentioned means including a doctor blade entering the groove in said conveyor disc for directing the tobacco into said tobacco conveying channel, said tobacco feeding channel increasing in size from said restricted channelway portion toward the lower entrance portion of said circular disc, and said tobacco conveying channel being provided with divergent walls forming a

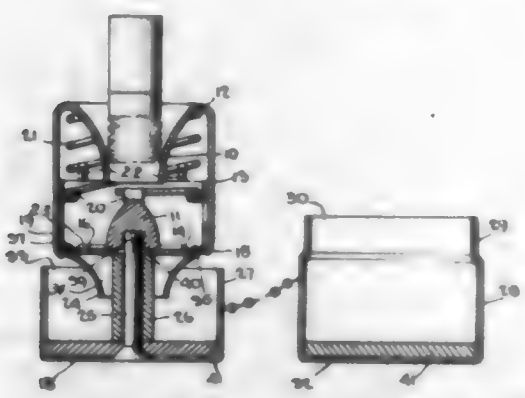
channelway increasing in size adjacent and leading away from the upper exit portion of said conveyor disc, said tobacco conveying channel being provided with converging walls extending from said divergent walls in the direction of said tobacco rod forming means.

2,868,212
CIGARETTE HOLDER
Philip J. Schoenberger, West St. Paul, Minn.
Application September 20, 1952, Serial No. 310,593
1 Claim. (Cl. 131—174)



An ash catching cigarette smoking holder and finger engageable supporting standard including in combination a hollow receptacle having an open top, parallel side and end walls providing a receptacle having an interior dimension designed to hold and accommodate the cross-sectional but not the full length of one whole cigarette at a time in slightly spaced relationship to said side walls and one end wall, the opposite end wall being provided with a central notch, spaced parallel side walls integral with the wall having the notch and forming a U-shaped trough merging into the notch, said spaced parallel side walls being slightly closer together than the diameter of a cigarette so that a cigarette may be held in place by friction and compressed slightly therebetween with one end suspended within the confines of the said walls and the other end may project from the one said notched end wall and said trough, a finger holding supporting standard extending downwardly from said hollow receptacle, said finger holding support being adapted to be engaged between the fingers, and an elongated base having end portions, said base being connected to said finger holding standard and of substantially the same length as the said receptacle with the said end portions being slightly wider than the said receptacle to underlie the fingers in relative parallel relationship with said receptacle as it overlies the fingers.

2,868,213
CIGARETTE EXTINGUISHER AND ASH RECEPTACLE UNIT
Jay B. Hinson, Hartsdale, N. Y.
Application August 12, 1955, Serial No. 527,988
2 Claims. (Cl. 131—237)



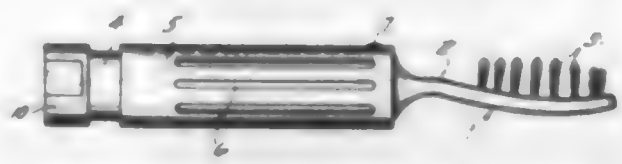
1. A closable cigarette extinguishing unit, including a pyramid against which the cigarette may be pushed to extinguish it, a slidable funnel-shaped member adapted to guide the cigarette to the pyramid having an arch extension having a downwardly directed cylindrical skirt, a base supporting the pyramid, an upstanding cylindrical wall located within the skirt and carried by the base and on which the skirt is slidable, a spring carried by the upstanding wall and adapted to be thrust upwardly against the apex of said arch, a depending wall extending inwardly from the upstanding wall and adapted to guide ashes centrally of the base, and an upstanding vertical wall rising from the periphery of the base and adapted to receive the skirt when the skirt is slid down within the vertical wall, said upstanding wall and skirt forming an annular opening around the skirt adapted to receive the cylindrical rim of a hood adapted to cover the skirt.

2,868,214
HAIR BANDS
Jack M. Levy, Brooklyn, N. Y.
Application March 7, 1957, Serial No. 644,500
1 Claim. (Cl. 132—46)



A hair band consisting of an arcuate thin, flat strip of resilient material extending through substantially more than 180°, so that it conforms with the round shape of and embraces the head, said strip being of shallow channel cross-section comprising a web having inturned flanges at both side edges, said flanges being serrated to form series of stubby teeth substantially shorter than the width of said web and having relatively blunt ends, said teeth projecting at an obtuse angle to the transverse plane of the inside of said strip, each such series of stubby teeth extending throughout substantially the entire length of said strip whereby, when the band is applied to the head, not only do said teeth engage the hair and scalp around the top of the head, but the teeth adjacent the end portions of the band grip the sides of the head and tend to prevent the band from becoming displaced, and whereby, due to the shape and angular disposition of said teeth, likelihood of injury to the scalp is minimized.

2,868,215
COMBINATION TOOTHBRUSH AND DENTIFRICE CARRIER
Maurice R. Mechem, Owatonna, Minn.
Application February 18, 1957, Serial No. 640,964
3 Claims. (Cl. 132—84)



1. In a device of the class described, a brush having an enlarged rearwardly opening tubular handle-forming portion at its rear end, a tubular guard sleeve mounted for longitudinal sliding movements on said handle-forming portion from an extended position encompassing said brush to a retracted position exposing said brush, means positively limiting movements of said guard sleeve beyond said extended and retracted positions, an elongated cross-sectionally generally U-shaped cradle-forming member slidably receivable in said tubular handle forming portion, the rear end of said member being provided with

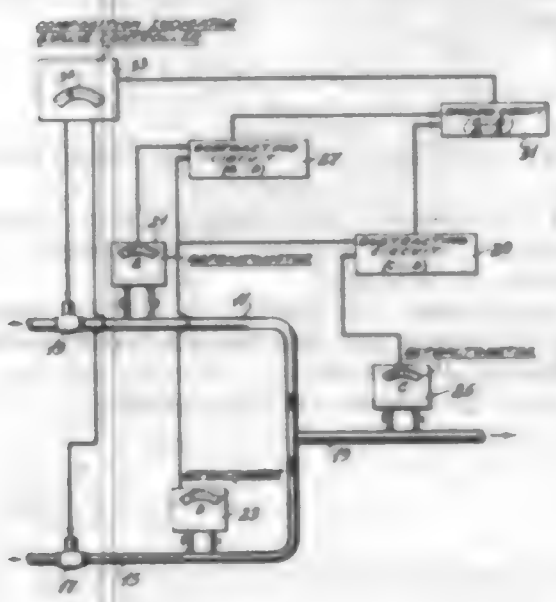
an enlarged closure-forming head, said head having therein a forwardly opening generally segmental slot for the reception of the flat closure strip-equipped end of a collapsible tubular dentifrice container, the forward end of said member being provided with an offset apertured flange which projects transversely of the axis thereof intermediate the sides thereof for the reception of the reduced neck of said dentifrice container.

2,868,216

METHOD AND APPARATUS FOR DETERMINING, AND FOR MAINTAINING CONSTANT, THE PROPORTIONS OF A FLOWING FLUID MIXTURE

James M. Robertson, Kingsville, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application March 16, 1953, Serial No. 342,589
12 Claims. (Cl. 137—9)



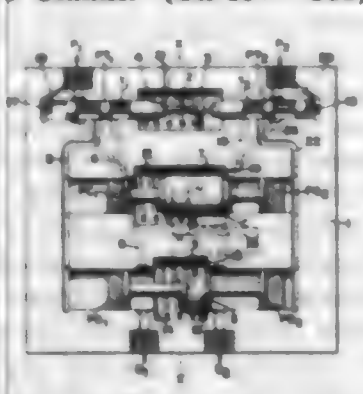
1. A method of continuously determining the proportion of a first liquid in a flowing mixture of first and second liquids supplied to said mixture in separate streams, said first liquid and said mixture varying in their refractive indices, said method comprising automatically and continuously measuring the indices of refraction of said first liquid and said mixture; continuously automatically subtracting the index of said second liquid from the index of said first liquid thereby obtaining a first difference; continuously automatically subtracting the index of said second liquid from the index of said mixture and obtaining a second difference; and continuously electronically dividing said second difference by said first difference thereby obtaining said proportion as a quotient.

2,868,217

DOUBLE CIRCUIT HYDRAULIC DISTRIBUTOR

Jacques Faisandier, Chatillon-sous-Bagneux, France

Application March 26, 1956, Serial No. 573,800
Claims priority, application France March 29, 1955
3 Claims. (Cl. 137—112)



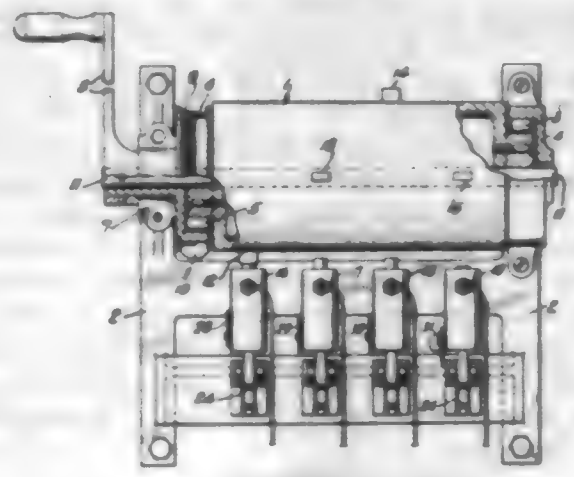
1. A hydraulic distributing device for automatic connection of a receiver into a normal or an emergency circuit each having a respective source of equal fluid pressure comprising in combination, passage means formed between each said source and said receiver respectively, a first common sliding distributing valve in each of said passage means, a second common sliding distributing valve in each of said passage means between the said first distributing valve and the receiver, a plurality of resilient means urging respectively said first distributing valve and said second distributing valve into positions whereby the passage is cleared in normal circuit condition between the normal supply source and said receiver when the pressure is the same in the two circuits, said resilient means rated to let said valves slide into positions whereby the passage is cleared in the emergency circuit in response to a drop of pressure in the normal circuit.

2,868,218

AUTOMATIC TANK FILLING CONTROL

Emerson Childs, Bogota, Colombia, assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application May 31, 1956, Serial No. 588,312
5 Claims. (Cl. 137—121)



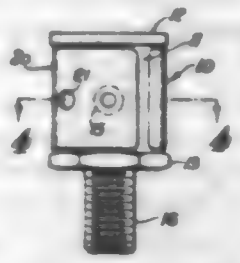
5. An automatic tank filling control for a battery of tanks comprising a base, a rotary element mounted for rotation on said base having a plurality of spaced projecting members extending therefrom corresponding to the number of tanks to be controlled, prime mover means for said rotary element, a plurality of piston housings pivotally mounted on said base and having pistons therein, pneumatic means controlled by the fluid level in said tanks to actuate said pistons whereby each is extended to engage a projecting member, and a three-way push valve associated with each piston housing for controlling a fluid flow, said valve being actuated by the pivotal movement of said piston housing caused by the engagement of said piston with said projecting member.

2,868,219

VALVE CONSTRUCTION

Gustav E. Lucks, Greenfield Park, N. Y.

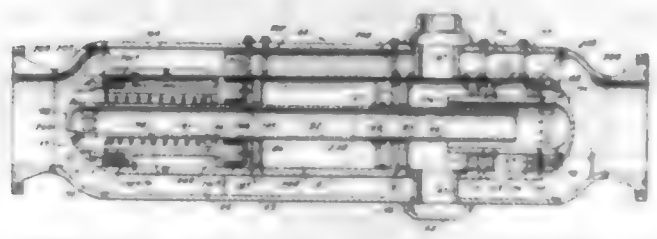
Application July 21, 1955, Serial No. 523,534
3 Claims. (Cl. 137—197)



1. A valve permitting the passage of gases and not liquids therethrough, said valve comprising a casing having an outlet port, a threaded nipple connected to one end of said casing and having an inlet port, a sliding member having apertures mounted to slide over said outlet port and change the effective area thereof; and mois-

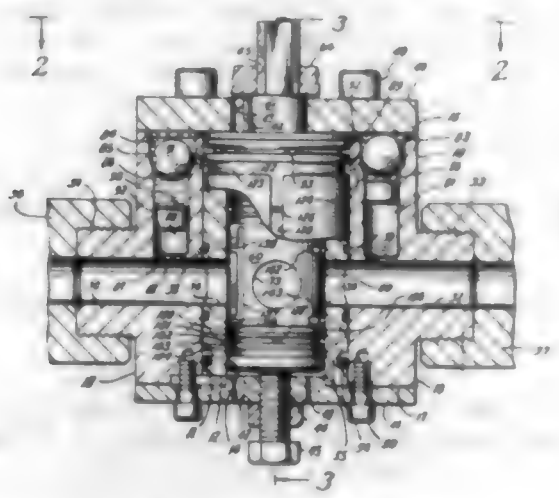
ture absorbing valve means within said casing interposed between said inlet and outlet and adapted to expand when coming in contact with liquids thereby closing said outlet.

2,868,220
VALVES
Mathew L. Freeman, Houston, Tex.
Application December 21, 1955, Serial No. 554,441
9 Claims. (Cl. 137—219)



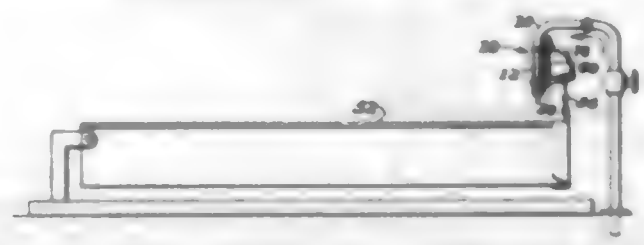
1. A valve of the type described including: a valve body having a flow passage and connectible in a fluid transmission line for transmitting fluid from the upstream side of the valve body to the downstream side; a main valve member in said valve body for closing said flow passage of said valve body and preventing flow of line fluid through said passage between said upstream and downstream sides; means for actuating said main valve member to close said flow passage; and means for selectively venting said upstream and downstream sides of the line to atmosphere while said flow passage is closed; said last mentioned means including a vent valve for connecting the interior of said valve body to the atmosphere, a valve means for selectively connecting the upstream side of the line to the interior of said valve body, and separate valve means providing a flow passage through said main valve member and selectively connecting the downstream side of the line to the interior of said valve body.

2,868,221
PLUG VALVE
Robert Eichenberg and Ray S. Burns, Houston, Tex, assignors to George A. Butler, Houston, Tex.
Application September 24, 1956, Serial No. 611,642
6 Claims. (Cl. 137—246.12)



4. An automatic plastic-sealed plug valve comprising a body having a cylindrical plug chamber therethrough and a pair of flow paths from opposite sides of said chamber to the valve exterior, a cylindrical plug rotatably disposed in said chamber having a sleeve therearound, said sleeve having extensions of said flow paths through opposite sides thereof in alignment with said flow paths, said plug having a flow path therethrough alignable by rotation of said plug with said flow paths and extensions to open said valve and rotatable with said plug to a position out of alignment with said flow paths and extensions to close said valve, a plastic sealant reservoir in said body to each side of said plug in pressure communication with one of said flow paths, sealing grooves around each end of said plug for sealing between the plug ends and the interior of said sleeve, sealing grooves around each end of said flow path through said plug for sealing therearound between said plug and said sleeve, unidirectional passage means from each said reservoir to said plug end sealing grooves and said flow path sealing grooves, whereby a higher fluid pressure in one of said flow paths, said valve being closed, will cause sealant to flow out of said reservoir in pressure communication therewith through said unidirectional passage to said plug end sealing grooves and to said flow path sealing groove at the opposite side of said plug to form seals at said grooves, no sealant being caused to flow to said flow path sealing groove at the same side of said plug because of the said higher fluid pressure at that side of the plug, and no sealant being caused to flow from said grooves to the other of said reservoirs because of said unidirectional passage therebetween, said valve being sealed in the manner described regardless of which of said flow paths said higher fluid pressure is in.

2,868,222
DOUBLE ACTION AUTOMATIC WATERING VALVE
Charles T. Robinson, Chattanooga, Tenn., assignor to Cumberland Case Company, Chattanooga, Tenn., a corporation of Tennessee
Original application December 8, 1954, Serial No. 473,977. Divided and this application December 16, 1957, Serial No. 703,108
12 Claims. (Cl. 137—408)

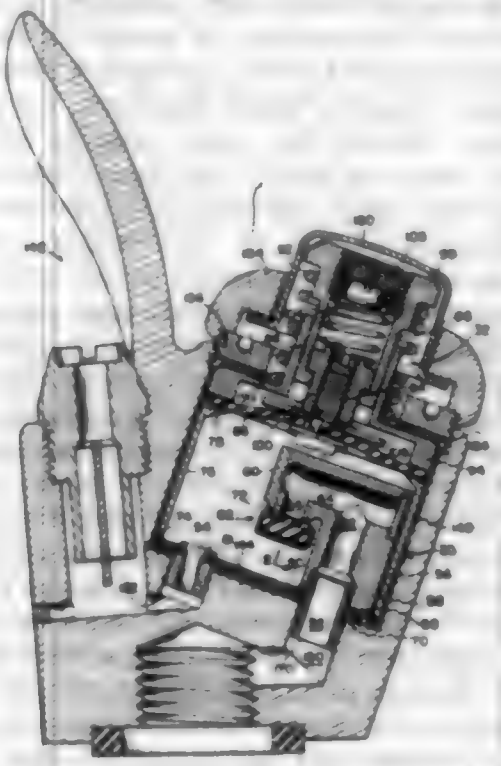


1. In combination, a valve housing, valve means mounted in said housing, a lever pivotally supported by said housing, said lever extending generally horizontally and operatively connected with said valve means, a watering trough suspended from said lever, a manually shiftable latch member pivotally supported near one end by said housing and having its other end constructed to engage and lock said lever, said latch member having a portion extending beyond its pivot, and a tension spring connected at one end with said extended portion, and at the other end with said lever.

2,868,223
VALVES
Walter O. Lum, Livingston, N. J., assignor to Arthur C. Homeyer, Essex Falls, N. J.
Application November 3, 1954, Serial No. 466,613
3 Claims. (Cl. 137—454.6)

1. A cartridge valve unit comprising, in combination, a main body portion having a cylindrical side wall and a bottom wall, a removable cover member mounted upon the top of said main body portion defining a fluid storage chamber therewith, a fluid inlet and a fluid outlet in said bottom wall communicating with the interior of said chamber, an inverted L-shaped duct piece having an inverted J-shaped duct in communication at one end with said inlet and terminating at the opposite end in a discharge opening facing toward and spaced from said bottom wall, a valve closure stirrup member extending through said cover member at one end and having a valve closure element supported for selective movement between ar open and a closed position with said discharge opening of said duct piece, spring means acting between said stirrup member and said cover member biasing said valve

closure element toward said closed position, said valve closure element being normally disposed between said discharge opening and said bottom wall, and the distance between the widest portion of said L-shaped duct piece and the inner surface of said side wall being greater than



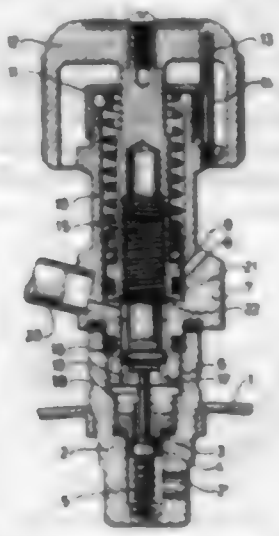
the width of said valve closure element, whereby said stirrup is movable between said widest portion of said L-shaped duct piece and the inner surface of said side wall and removable through said top of said main body portion.

2,868,224

CONTROL VALVES FOR AN APPLIANCE BURNING A GASEOUS FUEL

Helge Johannes Karlsson, Hagersten, and Sten Sune Axelsson, Hagalund, Sweden, assignors to Aktiebolaget Bahco, Stockholm, Sweden, a corporation of Sweden

Application January 18, 1956, Serial No. 560,016
Claims priority, application Sweden September 19, 1955
5 Claims. (Cl. 137—495)



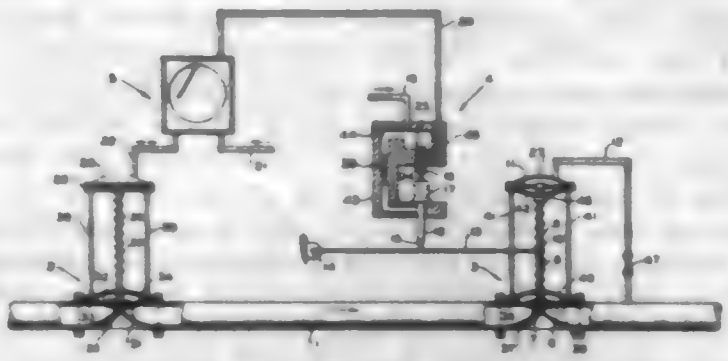
1. A control valve assembly for controlling the flow of fuel for the burner of an appliance burning a gaseous fuel fed from a fuel container, said assembly containing a valve housing having a fuel inlet and a fuel outlet, passage means defining a valve seat forming a flow path of the fuel flow from said inlet to said outlet, a movable valve control member spring biased toward said seat, yieldable pressure responsive means coacting with said movable valve member to hold the latter in its valve opening position below a predetermined pressure of the fuel flow through the valve and to yield for movement of the valve control member toward its closing position in response to a pressure of the fuel flow above said predetermined pressure, said pressure responsive means including a cylinder, a plunger slidably supported in said cylinder, a loaded spring means yieldably urging said plunger toward said valve member and an abutment portion on said plunger engaging the valve member for controlling the position thereof by the position of the plunger in the cylinder, said plunger exposed to the pressure of said flow in the direction opposite to the direction of the force of said loaded spring means, the position of the plunger being a function of the balance of the spring means and the fuel flow thereby controlling the valve opening by the pressure of the fuel flow through the valve assembly, said plunger having a threaded axial bore and said abutment portion including a plug threaded in said axial bore, the free end of the plug engaging said valve member, said plunger being rotatable relative to the plug and axially displacing the plug within the plunger to vary the position of the valve member independently of the force of the spring means and the fuel flow, the inner wall of the passage being formed with a longitudinal keyway, and said plug being axially guided in said keyway to prevent rotation of the plug upon rotation of the plunger.

2,868,225

FLUID FLOW SENSING AND CONTROL APPARATUS

William E. Wigham, Floyd Lane, and Alva R. Wilson, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

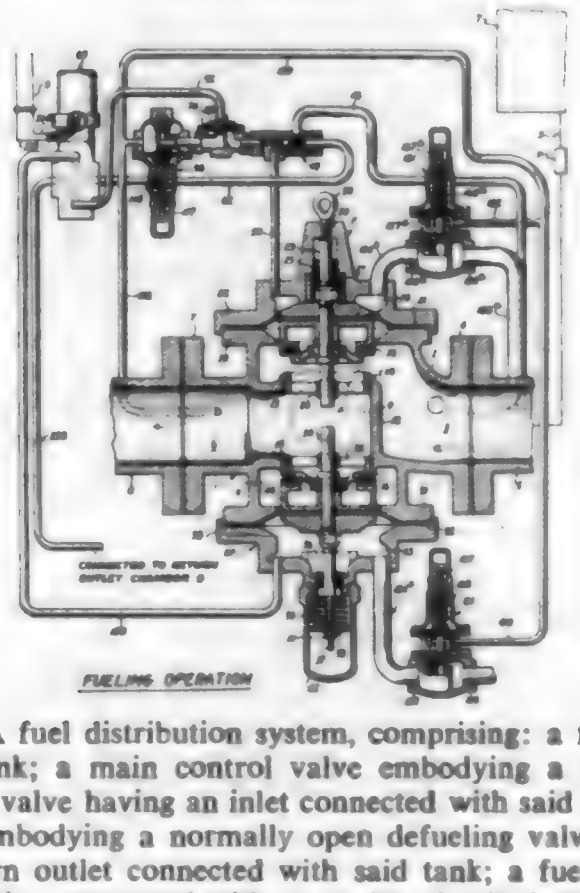
Application January 4, 1954, Serial No. 401,839
4 Claims. (Cl. 137—503)



1. A fluid flow sensing apparatus comprising a first conduit, one portion of said conduit having a smaller cross section than the remainder of the conduit, the smaller cross section portion being provided with a seat for the diaphragm of a diaphragm type valve, an opening in said conduit opposite said seat, a resilient first diaphragm covering said opening fluid-tight, a spring loaded valve stem element biasing said first diaphragm in the direction of said seat, said valve stem element being radially positioned with respect to said conduit, a flexible second diaphragm attached to said valve stem element at its other end, a fluid-tight case covering the side of said second diaphragm opposite said conduit, and a second conduit communicating said first conduit on the downstream side of said valve seat as regards direction of flow of fluid through said first conduit with the space intermediate said second diaphragm and said case.

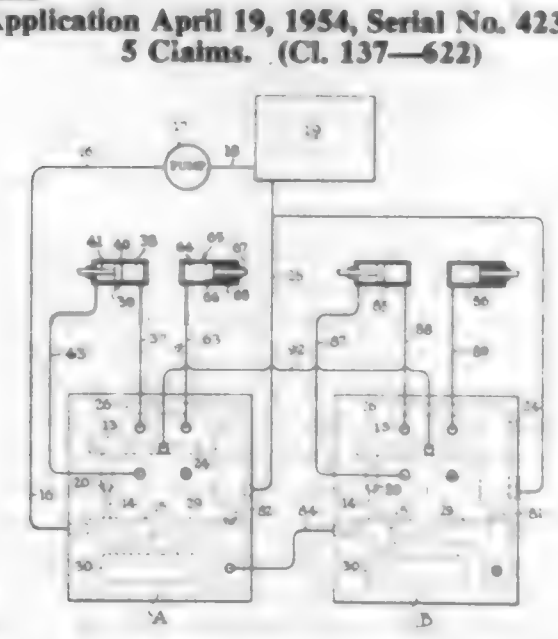
2. A fluid flow sensing apparatus comprising a conduit, one portion of said conduit having a smaller cross section than the remainder of the conduit, the smaller cross section portion being provided with a seat for the diaphragm of a diaphragm type valve, an opening in said conduit opposite said seat, a resilient diaphragm covering said opening, an orifice in said diaphragm on the downstream side of said seat as regards direction of flow of fluid, a spring loaded valve stem element biasing said diaphragm in contact with said seat, a housing covering said resilient diaphragm fluid-tight, and said spring loaded valve stem element extending through said housing in a fluid-tight manner.

2,868,226
FUELING AND DEFUELING SYSTEM
David E. Griswold, San Marino, Calif., assignor to Donald G. Griswold, Alhambra, Calif.
Application May 12, 1953, Serial No. 354,446
18 Claims. (Cl. 137—561)



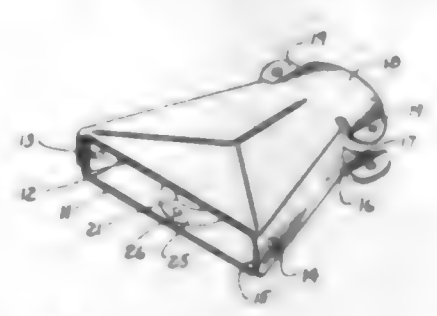
7. A fuel distribution system, comprising: a fuel storage tank; a main control valve embodying a normally closed valve having an inlet connected with said tank and also embodying a normally open defueling valve having a return outlet connected with said tank; a fuel distributing pipe connected with an outlet of said fueling valve and adapted to be placed in communication with said return outlet of said defueling valve; control means for simultaneously effecting opening of said fueling valve and closing of said defueling valve to permit flow of fuel from said tank to said distributing pipe; means controlling said fueling valve to maintain a substantially constant pressure in said distributing pipe; means for permitting opening of said defueling valve in the event that the pressure in said distributing pipe exceeds a predetermined given pressure; and means operable independently of said control means for effecting closing of said fueling valve simultaneously with the opening of said defueling valve.

2,868,227
VALVE CONTROLLED UNIT FOR HYDRAULIC MOTORS
William T. Stephens, Painsville, Ohio, assignor to Parker-Hannifin Corporation, Cleveland, Ohio, a corporation of Ohio
Application April 19, 1954, Serial No. 423,881
5 Claims. (Cl. 137—622)



3. In a control valve connectible with hydraulically operable motors for controlling operation of the same, a housing having first and second bores to slidably receive first and second valve elements, a pair of exhaust passages intersecting both bores at spaced points and lead-to a common exhaust chamber having an outlet port, a pair of motor passages for each bore, each said motor passage having an outlet-inlet port connection and said motor passages intersecting the respective bore at spaced points between said exhaust passages, a single high pressure supply chamber which intersects both bores in a single plane between the motor passages intersecting the particular bore, an intake chamber connectible with a source of fluid under pressure and intersecting the first bore outwardly of one of said exhaust passages, said intake chamber being connected to said supply chamber, a check valve between said intake and supply chambers and permitting flow of fluid only from the intake chamber to the supply chamber, a bypass passage intersecting the first bore outwardly of the intake chamber and also intersecting the second bore, a bypass extension passage intersecting the second bore adjacent the bypass passage, said intake chamber, bypass passage, and bypass extension passage constituting a through passage, a first valve element slidable in the first bore and a second valve element slidable in the second bore, said valve elements being slidable in opposite directions from a neutral position in which the through passage is open at the respective bore and in which position communication between the respective motor passages and said supply chamber and exhaust passages is blocked, to an operative position in which one of the motor passages controlled by at least one of the valves is open to the supply chamber and the other motor passage controlled by said one valve is open to an exhaust passage, and in which operating position the through passage is blocked at the respective bore, a first passage connecting the bypass extension passage to the common exhaust chamber, a second passage leading from the bypass extension passage to the exterior of the housing, means for selectively opening and closing said first and second passages for establishing a connection between the bypass extension passage and either the common exhaust chamber or the housing exterior, as selected.

2,868,228
EXHAUST EXTENSION
Linus E. Russell, Springfield, Ohio, assignor to Peters & Russell, Inc., Springfield, Ohio, a corporation of Ohio
Application February 5, 1954, Serial No. 408,418
11 Claims. (Cl. 138—46.5)



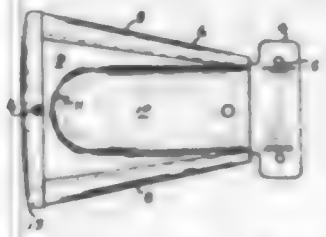
1. An exhaust pipe extension, including a pair of shell elements in aligned superposed spaced apart relation, marginal side edges on said elements being turned over into interfitting relation, opposing clamp members on adjacent ends of said shell elements at one end thereof, and pivot means interconnecting said shell elements adjacent to the other end thereof, said elements being relatively movable about said pivot means to separate said clamp members for a facile mounting and demounting of the extension with respect to an exhaust pipe and means seating to the inner surface of one of said shell elements about an opening therein intermediate its length to contain exhaust gases and deflect them through said opening.

2,868,229

EXHAUST DEFLECTOR

Linus E. Russell, Springfield, Ohio, assignor to Peters & Russell, Inc., Springfield, Ohio, a corporation of Ohio

Application November 16, 1955, Serial No. 547,099
6 Claims. (Cl. 138—46.5)



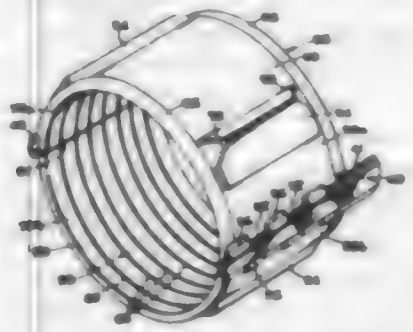
4. An exhaust deflector unit including a cover plate adapted for mounting on a tail pipe and having integral depending side portions the extremities of which are turned laterally inward toward the longitudinal axis of the cover plate, a deflector plate received in and enclosed by said cover plate comprising a longitudinal recessed portion having in cross section substantially the shape of an inverted U, the sides of said recessed portion terminating in flanges extending laterally outward and resting on the inturned extremities of said cover plate, the recessed portion of said deflector plate being open at its one end and terminating at its other end in a wall extending downwardly to merge with said flange.

2,868,230

MEANS TO SUPPORT AND INSULATE PIPELINES

William S. Stokes, Tarzana, Calif., assignor to Pipeline Coating & Engineering Co., Incorporated, Los Angeles, Calif., a corporation of California

Application September 26, 1956, Serial No. 612,327
13 Claims. (Cl. 138—65)



1. In a band-type spacer for use in a cylindrical casing to embrace and support a pipeline having a coating of a given thickness of a relatively soft material capable of cold flow, said spacer having an inner support surface conforming generally to the cylindrical configuration of the coating for face-to-face pressure contact with the coating, and said surface having circumferentially extending ribs projecting inwardly therefrom of less radial dimension than the thickness of the coating for partial penetration of the coating to serve as barriers to prevent cold flow of the coating material in an axial direction out of the area of pressure contact without completely penetrating the coating to destroy the continuity thereof.

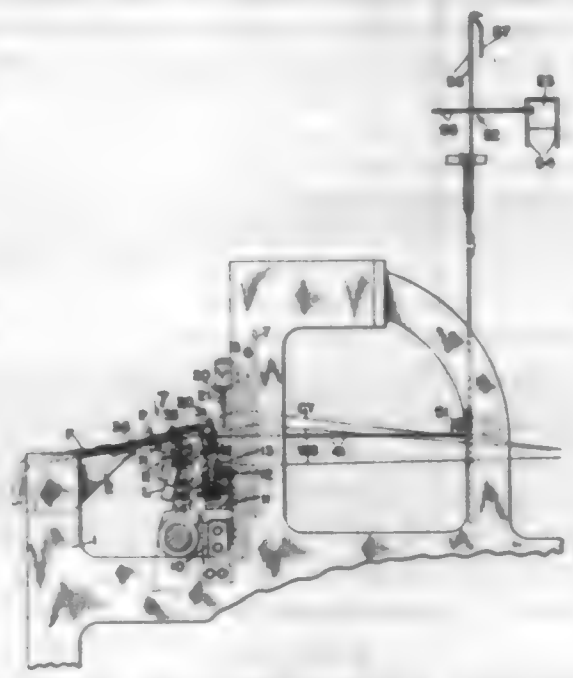
2,868,231

PILE FABRIC LOOM AND PILE WIRE THEREFOR

Walter Y. Robb, Whitinsville, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts

Application January 27, 1955, Serial No. 484,479
15 Claims. (Cl. 139—46)

1. In a pile wire for weaving embossed patterns, a flat body having provision at the rear end thereof for attachment to a support, a flat pile former slidable on the body in a generally back and forth direction and having the forward end thereof provided with two tuft loop engaging parts of different heights, the planes of the flat body and



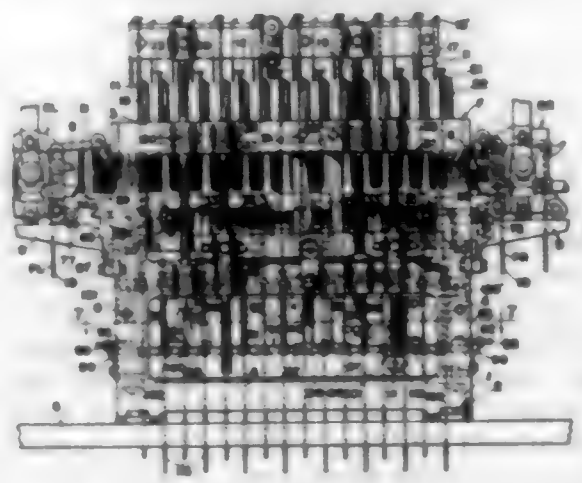
flat former being substantially parallel, and means operatively connected to said former by which the position of said parts can be changed relatively to said body.

2,868,232

JACQUARD MECHANISM FOR LOOM

Herbert V. Foster, Providence, and Douglas Johnston, West Barrington, R. I., assignors to Crompton & Knowles Corporation, Worcester, Mass., a corporation of Massachusetts

Application September 6, 1956, Serial No. 608,389
16 Claims. (Cl. 139—59)



1. In a double cylinder jacquard mechanism having oppositely vertically reciprocating lifter knives, an upright movable upwardly between the paths of the knives from a down position thereof and having on the upper end thereof a pair of oppositely pointing hooks rigid with each other, one hook for and normally in the path of each knife when the latter begins an upward movement, a hook when over its knife having a tendency to vibrate out of the path of its knife when the latter is in low position, and means acting in timed relation with the knives to exert a force on the upright when the latter is in down position to resist said tendency.

2,868,233

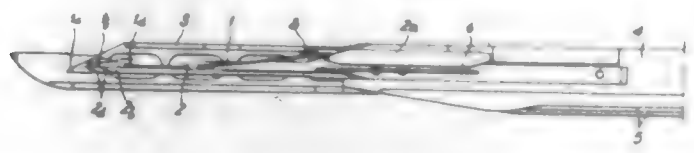
WEFT FEEDERS FOR WEAVING LOOMS WITH CONTINUOUS FEED

Raymond Dewas, Amiens, France

Application October 18, 1956, Serial No. 616,681
Claims priority, application France October 26, 1955
1 Claim. (Cl. 139—123)

A weft inserting device for a continuous weaving loom of the type comprising a reciprocatory pulling needle

fitted with a resilient clamp having two branches the tips of which are resiliently urged towards each other, and a stationary releasing blade located on the path of travel of said clamp adapted to slightly move said branch tips away from each other for opening said clamp and,



thus, releasing the weft thread clenched therein, the length of said releasing blade and its location relative to the clamp in the extreme position thereof outside the shed being such that said releasing blade remains engaged between the branch tips of the clamp when said clamp is near, and in, said outermost position.

2,868,234

PICKING MECHANISM FOR LOOM

Philip A. Nims, Auburn, Mass., assignor to Crompton & Knowles Corporation, Worcester, Mass., a corporation of Massachusetts

Application July 30, 1956, Serial No. 600,868
6 Claims. (Cl. 139—147)



1. In a picking member for a loom picking shaft formed with a flat lengthwise surface, a hub having a longitudinal hole therethrough to receive the shaft, a bore through said hub transverse of said hole and oblique to said flat surface when the hub is on the shaft, a single wedge element in said bore having a flat wedging surface extending from the large end to the small end of the wedge element, the latter lying wholly on one side of the plane of said wedging surface, and a screw element threaded into one end of the bore engaging the large end of the wedge element and effective when turned in a given direction to force the wedging surface into tight holding relation with the flat surface of the shaft, said wedge element being insertible small end first into said bore after the hub is on said shaft due to the fact that the wedge element lies wholly on one side of the plane of said wedging surface.

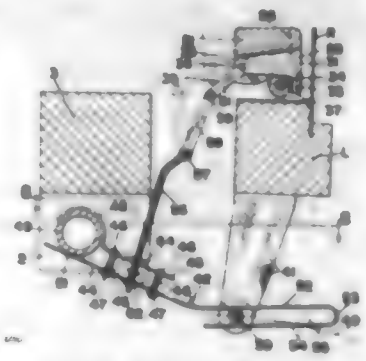
2,868,235

THREAD CUTTING TEMPLE FOR WEFT REPLENISHING LOOMS

Albert Cederlund, Worcester, and William E. Kimmel, Millbury, Mass., assignors to Crompton & Knowles Corporation, Worcester, Mass., a corporation of Massachusetts

Application January 17, 1958, Serial No. 709,490
22 Claims. (Cl. 139—303)

7. In a weft replenishing loom having a rearwardly and forwardly moving lay, a shuttle box at the magazine end of the loom, a thread cutting temple at said end having a head and a movable and a stationary cutter blade substantially therein to have a thread cutting operation when the lay moves rearwardly, and thread control means within said head to guide the outgoing thread extending from the selvage to a substantially depleted



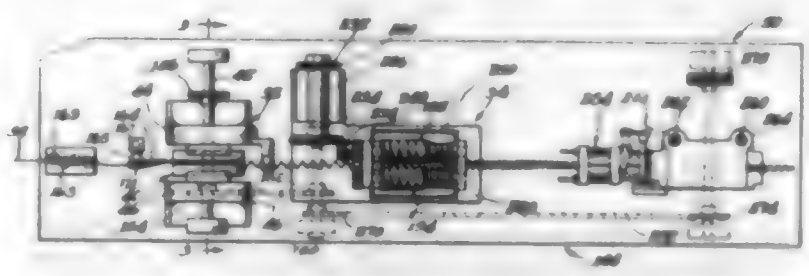
shuttle in said shuttle box into the range of said cutting blade incident to a weft replenishing operation.

2,868,236

APPARATUS FOR MAKING WIRE ARTICLES

Clarence J. Smith, Rockford, Ill., assignor, by mesne assignments, to W. F. and John Barnes Company, Rockford, Ill., a corporation of Illinois

Application November 2, 1953, Serial No. 389,809
7 Claims. (Cl. 140—71)



1. In an apparatus for making wire articles from wire stock moving along a path of travel, the combination comprising a plurality of wire bending members disposed on opposite sides of said path of travel, means supporting said members for movement along a portion of said path of travel means mounting said members on said supporting means for pivotal movement with respect to said supporting means into said path of travel portion and for movement relative to said supporting means and transversely of and toward and away from said path of travel portion, and means for actuating said members on opposite sides of the path of travel portion alternately so that the members are pivoted into said path of travel portion to form the wire into a zigzag shape and then laterally withdrawn and pivoted from said path of travel portion to disengage from the wire.

2,868,237

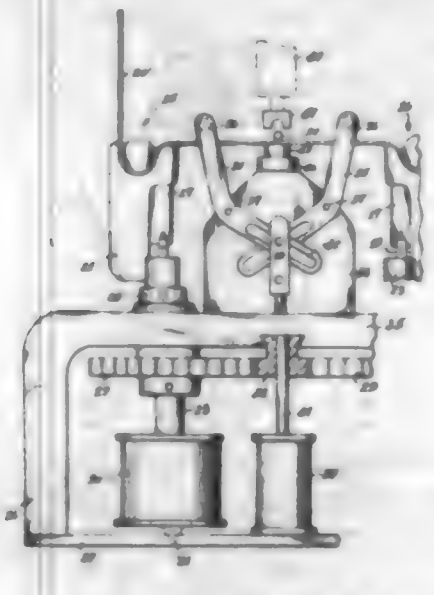
WIRE BENDING APPARATUS

Sam Larkin, New York, N. Y.

Application April 16, 1956, Serial No. 578,344
12 Claims. (Cl. 140—71)

1. In a wire bending apparatus, a frame, a die means comprising two parts relatively movable towards and away from each other for bending the end portion of a wire between them into a J-form whereby the remaining portion of the wire extends free of the die means from the tip end of the shorter arm of such J-form in angular relation to such shorter arm and substantially in the plane of such J-form, means on the frame for holding such remaining portion of the wire whereby such end portion is positioned between said die parts; said die means as a unit being pivotally mounted on the frame about an axis substantially in the plane of the J-form and in angular relation to said remaining portion of the wire, whereby when said die means is swung while the J-form portion of the wire is held by the die parts, said J-form will turn maintaining the direction of the longer arm of the J-form; the extent of such turning being substan-

tially a half turn, means associated with said die means for moving the die parts towards and away from each

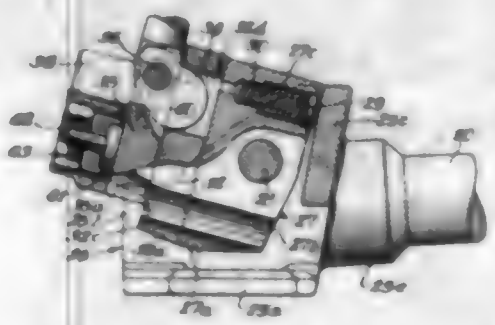


other and means associated with said die means for turning such die means about said axis.

2,868,238
SHEARING AND GRIPPING DEVICE FOR BINDING TOOLS

Marchand B. Hall, Chicago, Ill., assignor to Acme Steel Company, Chicago, Ill., a corporation of Illinois

Application May 14, 1953, Serial No. 354,959
6 Claims. (Cl. 140—93.2)

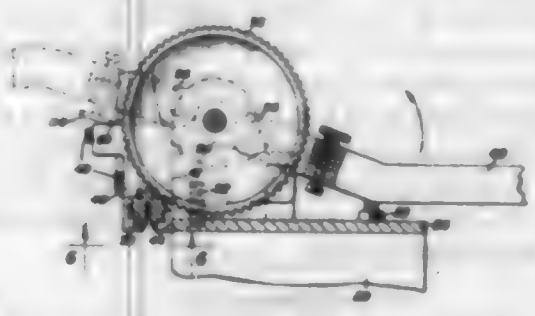


1. A device of the class described, comprising a block having a flange forming a seat for a metal strap, a gripping dog pivotally mounted on said block, means for causing said gripping dog normally to engage a strap seated on said flange, a pivoted operating lever, a cam actuated by said lever, and a member carried by said gripping dog and having a slot engaged by said cam, whereby pivotal movement of said lever will move said gripping dog away from said flange.

2,868,239
WIRE TYING MACHINE

Charles L. Ellis, Miami, Fla.

Application December 20, 1954, Serial No. 476,244
1 Claim. (Cl. 140—93.6)

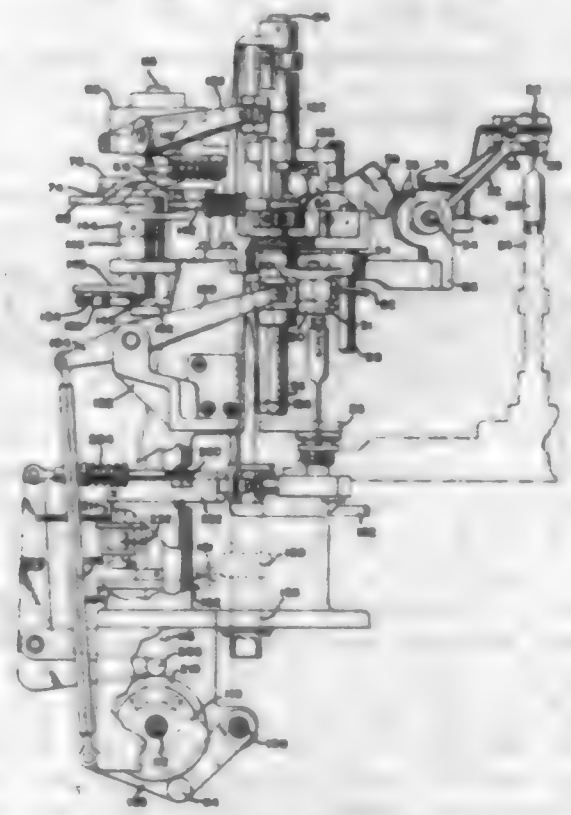


A wire tying machine including a base support member having a forward edge portion, a cooperating drive and twisting gear assembly which includes enmeshed drive and twisting gears rotatably carried by said base support member, drive and twisting gear assembly actuating means operatively associated with said drive gear and pivotally supported on said base member, said twisting gear having a portion providing a normally downwardly opening peripheral slot located beyond the forward edge of the base member for receiving the wire to be tied, a movable cutter pivotally supported on said support member, a spring reacting on said movable cutter and urging said cutter to the open position, a downwardly opening fixed cutter carried on said base support member adjacent to the path of travel of said movable cutter, said actuating means including a bifurcated handle having cam rollers thereon for actuating said movable cutter, resilient stop means extending between the bifurcated portions of said handle, abutment means carried on said base support member in the pivotal path of travel of said handle and engageable by said stop means during rotation of said handle forming a wire tie, said stop means being operative to urge said handle in the direction opposite to that for making a wire tie and positioning the transverse slot in said twister gear in the normal downwardly opening direction, and a wire tensioning device carried by said support member adjacent to said cutters to draw the wire tightly for both twisting and cutting.

2,868,240
TUBE TRANSFER MECHANISM

Henry W. Roeber, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application August 9, 1956, Serial No. 603,150
6 Claims. (Cl. 141—65)



2. An electron tube processing machine comprising a turret with a series of casings arranged circularly of the turret, each having a combined blow out and suction port, a conduit mounted for swinging movement about a vertical axis and movable between a position where its mouth is over a port and where it is removed therefrom, a blow out valve in said casing leading to said port and having a radially extending valve stem normally biased to closed position, a passageway through said valve stem leading to the valve, a blow out tube connected with a conduit adapted to be connected to a source of air under pressure and movable into contact with said valve stem and with its bore in alignment with the passageway in the stem and movable to shift the valve stem to open the valve, a suction conduit, a suction valve in said casing between said port and the suction conduit, said suction valve having a valve stem arranged radially of the turret and extending toward the blow out tube, interfitting connections on the blow out tube and on the suction valve

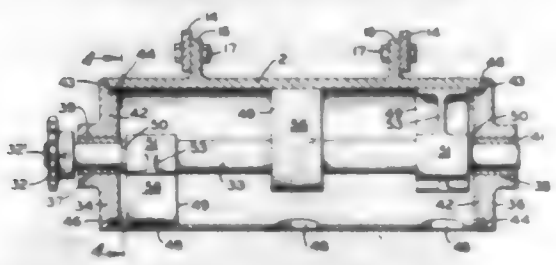
stem to enable the suction valve stem to be shifted and the suction valve opened on movement of the blow out tube away from contact with the blow out valve stem, resilient means for advancing and retracting the blow out tube, means for inserting a tubulated bulb into the port including a pair of opposed jaws mounted on a support and adapted to grasp the tubulation, means for moving the support to position the tubulation in a port, a switch mounted on the support, an arm movable with one of the jaws effective to close the switch only when the jaws are permitted, by the absence of a tubulation, to move beyond the position where they would grasp a tubulation between the jaws, an electromagnet energized by said switch, and means operated by said electromagnet movable into blocking engagement with said suction valve stem to prevent opening of the suction valve when no tubulation is present at the jaws.

2,868,241

PRODUCT METERING AND CONTAINER FILLING APPARATUS

Gerhart A. Guckel, Los Altos, Calif., assignor to James Dole Engineering Co., San Francisco, Calif., a corporation of Nevada

Application October 25, 1957, Serial No. 692,329
8 Claims. (Cl. 141—134)



3. Apparatus for filling containers with a product comprising a hollow cylindrical filler casing having a plurality of product discharge ports in a wall thereof and longitudinally spaced therealong in a row; means for introducing a product into said casing; an elongated shaft extending longitudinally of said casing and rotatable therein, valve lobes corresponding in number to said discharge ports fixedly mounted in angularly offset longitudinally spaced relationship on said shaft, each of said lobes including a relatively wide discharge port sealing surface in the shape of an arc which is connected to said shaft by relatively narrow connecting means whereby such lobe is rotatable with said shaft to open and close an associated discharge port and whipping of said product as such lobe rotates is minimized; means for rotating said shaft to open and close said discharge ports periodically by said lobes to effect product flow through said ports in separate bodily fixed streams; and conveyor means for moving said containers past said discharge ports in timed relationship with the rotation of said shaft to effect uniform filling of said containers in their travel past said casing.

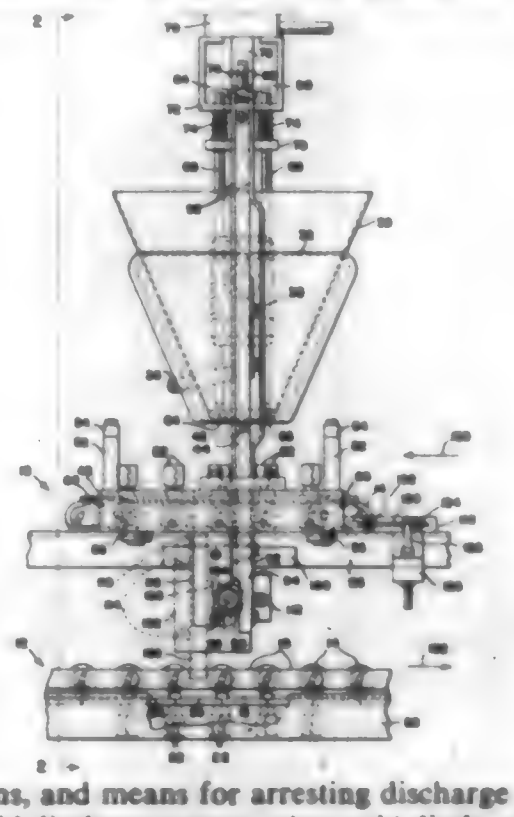
2,868,242

LIQUID MOLDING MACHINE

Jacob M. Shelly, Lansdale, Pa., assignor to Shelly Brothers, Inc., Lansdale, Pa., a corporation of Pennsylvania

Application July 20, 1955, Serial No. 523,282
5 Claims. (Cl. 141—137)

1. Apparatus for filling molds comprising means conveying a succession of molds, means for discharging a fluid material, means engageable with one portion of said conveying means for moving said discharging means in the direction of conveyor travel during discharge of material into a mold carried by said conveying means, means engageable with another portion of said conveying means for moving said discharging means in the direction opposite to the direction of said one portion of said conveying means travel to position the discharging means for discharge into a next successive mold carried by said con-



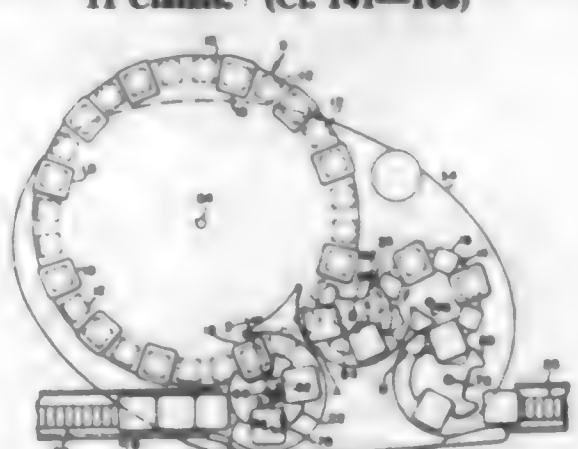
veying means, and means for arresting discharge of material from said discharge means when said discharge means is positioned between successive molds.

2,868,243

CONTAINER FEEDING ARRANGEMENT

Edgar Henschen, Towson, Md., and Frank Lyman, Spokane, Wash., assignors to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York

Application December 19, 1956, Serial No. 629,377
11 Claims. (Cl. 141—168)



1. In combination, a mechanism for performing operations upon containers, said mechanism including a rotary table having a plurality of container receiving platforms, a rotary dial for transferring containers to the platforms of said rotary table, said rotary dial having a plurality of container receiving pockets evenly spaced throughout a portion of its periphery, said rotary dial having the remaining portion of its periphery defining a spacer portion, means to rotate said rotary dial a plurality of complete revolutions for each revolution of said rotary table, said rotary dial having its pockets spaced apart a distance to position containers on alternate platforms of said rotary table while said spacer portion of said dial causes the skipping of at least two successive platforms during its travel past said rotary table.

2,868,244

MOISTENING DEVICES

Samuel Kirschenbaum, Brooklyn, N. Y.

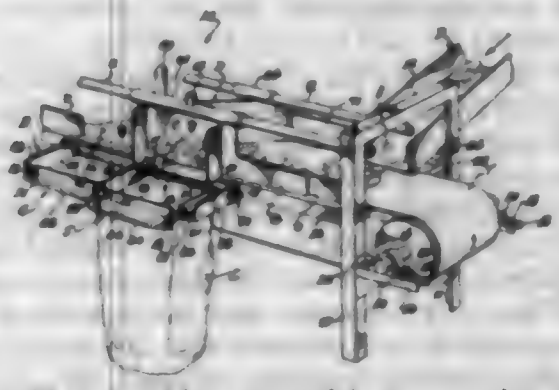
Application June 2, 1955, Serial No. 512,743
3 Claims. (Cl. 141—198)

2. A moistening device for use in conjunction with a container of fuel for filling a pyrophoric lighter or simi-

lar device having a fuel reservoir containing absorbent material, comprising: a liquid conduct element providing a channel through which fuel may flow from said container, and venting means in the form of a small opening extending through said liquid conducting element adjacent one end thereof, providing communication with said channel and the ambient atmosphere, a textile sock member covering said opening and extending into the path of liquid flowing through said liquid conducting element, whereby said sock member will become moistened during the course of filling said fuel reservoir, and absorb fuel by capillary action when the filling of said reservoir has been completed to prevent the flow of air through said small opening.



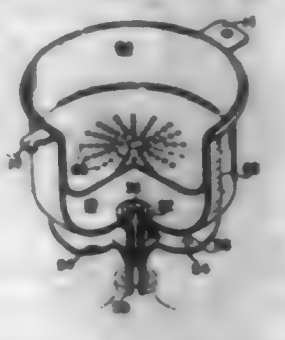
2,868,245
SACKING DEVICE
Earl A. Ernst, Bakersfield, Calif.
Application March 26, 1956, Serial No. 573,727
7 Claims. (Cl. 141—248)



1. A sacking machine comprising a moving belt for delivering graded produce to a plurality of adjacent sacking stations located alongside the front edge of said belt for depositing said produce in sacks, a device to transfer said produce from said belt sequentially into said sacks, said device including, sack holders at said station; a deflection chute that is movably supported over said belt so as to be reciprocally movable longitudinally of said belt with a portion of said chute overhanging the front edge of said belt and said holders, and having a downstream wall extending obliquely across said belt so that produce carried by said belt coming into contact with said downstream wall is urged transversely across said belt through said overhanging portion to drop into the open mouth of a sack held in one of said sack holders, and baffle means extending outwardly and depending inwardly on each of said sack holders that is adapted to deflect produce dropping from said overhanging portion of said chute into said sack, with the portions of said baffle means that are disposed intermediate adjacent holders being in substantially abutting relationship so that when said chute is moved from one holder to an adjacent holder, said produce is prevented from coming to rest between holders and is deflected into one of said adjacent sack holders.

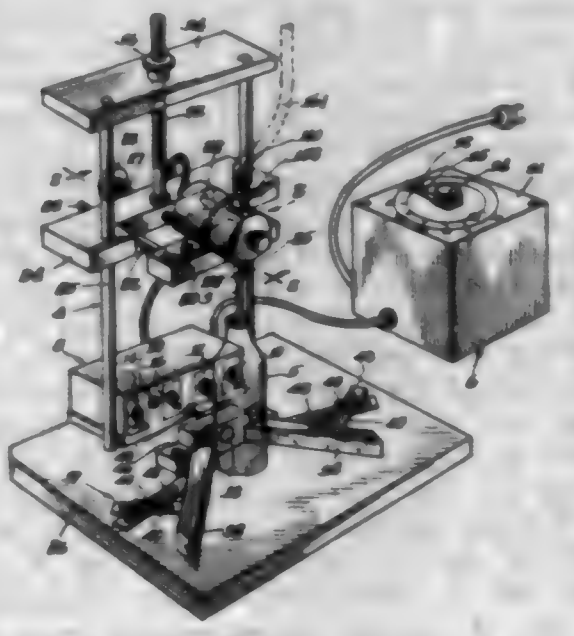
2,868,245
SELF-CLOSING FUNNEL FOR BOTTLES, JARS AND THE LIKE
Aslaug B. Nelson, Cordova, Territory of Alaska
Application September 4, 1956, Serial No. 607,907
4 Claims. (Cl. 141—286)

1. A self-closing funnel for bottles, jars and the like, comprising: a bowl-shaped body having a full diameter open top and a bottom having a relatively small discharge opening, a cylindrical ferrule, forming an interior spout, secured in said discharge opening, in axial alignment with said bowl, having an interior cylindrical bore in its upper end and a lower bore portion having a plurality of inwardly directed, longitudinally extending ribs, a valve member adapted for limited reciprocation within said ferrule and having a tubular form and asolid head closing the upper end and providing an outwardly extending valve flange, a plurality of openings in the wall of said valve member near its closed end, a bevel-seated valve surface formed on said valve flange and a coacting



beveled valve seat formed in the upper end of said ferrule, an outer spout, having a belled upper end, secured to said valve member and in generally spaced relationship therefrom for the purpose of providing an air passageway, a flanged extension for the upper end of said outer spout and disposed in spaced relationship to the bottom of the funnel body, spacing means adapted to provide an air passageway between said outer spout and the bottom of the funnel body adjacent it, said outer spout having a bore with a cross-sectional area substantially larger than the cross-sectional area of the bore of said valve member, and a strainer adapted to fit into the upper portion of the funnel body.

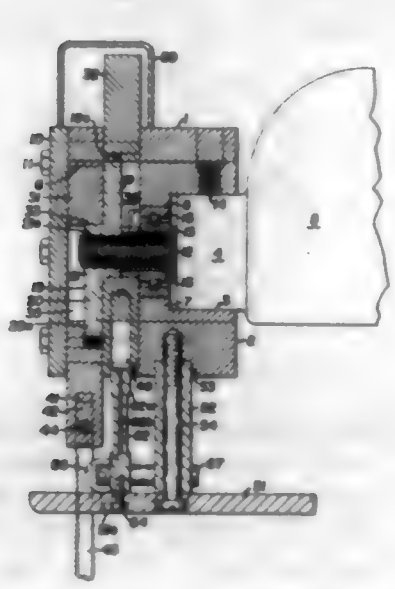
2,868,247
BOTTLE FILLING APPARATUS
Sydney R. Weinberg and Aloysius J. Feit, Chicago, Ill.
Application October 8, 1956, Serial No. 614,700
14 Claims. (Cl. 141—361)



1. In a bottle filling machine, a supply outlet through which material for the bottles is to be discharged, a valve for controlling the passage of material through said supply outlet, start control means movable between a first and a second position, means for normally urging said start control means to said second position, means responsive to movement of said start control means to said first position for holding the same in said position, an actuator in the path of movement of a bottle moved beneath said supply outlet and arranged to move mechanically said start control means to said first position, and manually operable shut-off means for operating said valve

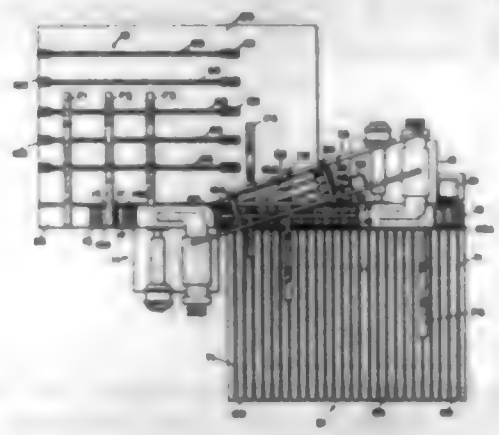
to its valve-closing position and for simultaneously disabling operation of said holding means of said start control means.

2,868,248
PORTABLE RECIPROCATING POWER SAW
Ragnar K. Pedersen, Plainfield, N. J.
Application July 9, 1956, Serial No. 596,569
1 Claim. (Cl. 143—68)



A jig saw device which comprises a housing, a rotatable shaft extended axially into said housing, a cam unit mounted on said shaft for rotation therewith, within said housing, said cam unit essentially consisting of two overlapped and superposed circular elements of equal diameter, each affording a continuous peripheral cam surface, said unit disposed in perpendicular relation to the axis of said shaft, with said axis extending through a point in a line common to the centers of each element and equidistant therefrom, a pair of reciprocal slide elements, of substantially balanced weights and equal dimensions, each of said slide elements defining a grooved portion extending laterally of one surface thereof, equidistant from opposite ends of said slide and of a width substantially equal to the diameter of said cam elements, said groove portion adapted to receive one of said cam elements, each of said slide elements further defining a slotted portion longitudinally thereof which opens through the bottom wall of said grooved portion laterally and midway between the ends thereof, said slotted portion adapted freely to receive said rotatable shaft, said slide elements disposed in aligned surface to surface relation on opposite sides of said cam unit and in parallel relation to a line extended through the centers of the cam elements of said unit, with each said cam elements received in one of the respective grooved portions of said slide elements, a guide way for said slide elements defined diametrically of said housing and opening therethrough, a saw blade receptacle in one outer end portion of one of said slide elements, and in longitudinal, axially alignment therewith, a pair of laterally spaced, parallel recess portions defined in the corresponding outer end portion of the other slide element, a shoe plate supported by and rigidly secured to said housing in radially spaced relation thereto and in right angular relation to said slide elements, a pair of hollow piston tubes mounted on said shoe plate in right angular relation thereto and each in coaxial relation to one of said recess portions in the ends of said other slide element, said piston tubes adapted to be received in reciprocal relation within said recess portions; and an air jet tube opening from the interior of each hollow piston tube through the side wall thereof toward the axis of said saw blade receptacle.

2,868,249
WOODWORKING APPARATUS
Richard G. Tayler and Junius O. Puckett, Memphis, Tenn.
Application January 23, 1956, Serial No. 560,554
17 Claims. (Cl. 144—91)

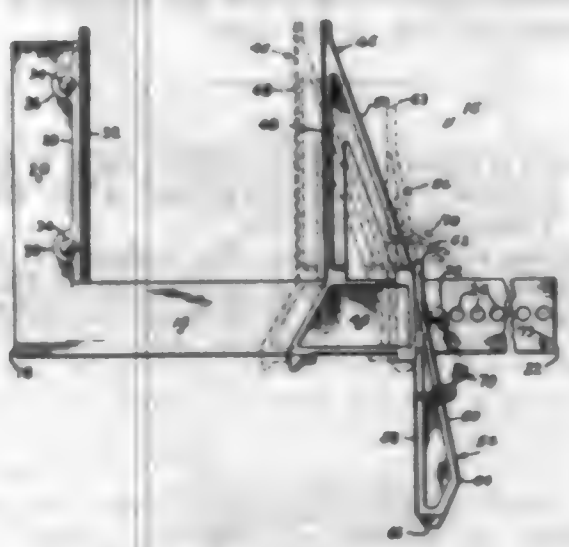


1. Woodworking apparatus for forming the opposite ends of lumber comprising a pair of spaced end-matchers, an endless end carrying conveyor joining the end-matchers and disposed for successive feeding of the opposite ends of lumber to said end-matchers, driving means operably coupled to said end carrying conveyor for driving said conveyor, a first feed conveyor movable in an endless path adjacent to and synchronized with said end carrying conveyor whereby said first feed conveyor is adapted to convey lumber sidewise with the ends thereof carried by said end carrying conveyor and the remaining portion thereof carried by said first feed conveyor, a second feed conveyor disposed on the opposite side of said end carrying conveyor from said first feed conveyor and diagonally disposed relative to said first feed conveyor, said second feed conveyor being movable in an endless path adjacent to and synchronized with said end carrying conveyor whereby said second feed conveyor is adapted to convey lumber sidewise with one of the ends thereof carried by said end carrying conveyor and the remaining portion thereof carried by said second feed conveyor, said first feed conveyor being disposed adjacent one of said end-matchers and said second feed conveyor being disposed adjacent the other of said end-matchers whereby said first feed conveyor is adapted to feed lumber in conjunction with said end carrying conveyor to said one of said end-matchers and said second feed conveyor is adapted to feed lumber in conjunction with said end carrying conveyor to said other of said end-matchers, groups of rotatably mounted rollers disposed in the path of the lumber adjacent said end carrying conveyor between said end-matchers, said groups of rollers including an upper group and a lower group underlying the upper group, means for rotating said upper rollers in one direction at a common rate of speed, means for rotating said lower rollers in the opposite direction at the same speed, said groups of rollers being axially skewed relative to said end carrying conveyor and having a component of conveying motion in a direction to move the lumber lengthwise onto said second feed conveyor while being moved sidewise by said end carrying conveyor.

2,868,250
CONCRETE FORM U-CLAMP
Lawrence S. Holmboe, Sr., Oklahoma City, Okla.
Application March 9, 1955, Serial No. 493,243
4 Claims. (Cl. 144—291)

1. A concrete form U-clamp, including: an elongated flat bar member having a rigid right angular extending arm permanently secured at one end thereof in the plane of the width of the bar, said member having a plurality of longitudinally spaced-apart perforations normal to the said plane and adjacent the end opposite said rigid arm, said arm having a longitudinally ridged and transversely serrated gripping face extending along the longitudinal

edge facing said opposite end; a movable arm slidably carried by said member in parallel relation with said rigid arm, said movable arm having a gripping face similar to and for cooperatively gripping a concrete form with said rigid arm; a wedge completely surrounding and longitudinally, transversely and non-rotatively slidably carried on and by said member between said movable arm and the opposite end of said member; and a pin selectively carried by one of said perforations adjacent and between said wedge and said opposite end, whereby transverse movement of said wedge in the plane of said bar urges said movable arm toward said rigid arm to grip opposing walls of a concrete form therebetween.



2. A concrete form U-clamp, including: an elongated flat bar member having a rigid right angular extending arm permanently secured at one end thereof in the plane of the width of the bar, said member having a plurality of longitudinally spaced-apart perforations normal to said plane and adjacent the end opposite said rigid arm, said arm having a serrated gripping face extending along the longitudinal edge facing said opposite end, a movable arm slidably carried by said member and having a serrated gripping face in parallel relation with said rigid arm for cooperatively gripping opposite sides of a concrete form, the end of said movable arm opposite said serrated edge being substantially normal to the axis of said bar member and having a concave edge disposed transversely thereof; a wedge longitudinally slotted to be longitudinally and transversely slidably carried by said member, said wedge having one longitudinal convex edge through which the slot passes disposed adjacent to and interfitting with said concave edge of said movable arm; and a pin removably carried by one of said perforations adjacent said wedge opposite said convex edge, whereby forced transverse movement of said wedge relative to said member urges said movable arm toward said rigid arm to grip opposing walls of a concrete form therebetween and said interfitting concave and convex surfaces prevents spreading of the slot walls.

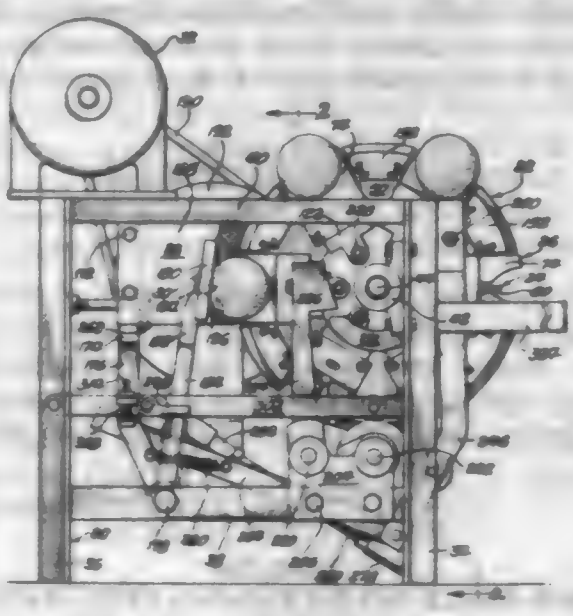
2,868,251

FREESTONE PITTER

Clarence Richard Thompson, Olympia, Wash., assignor to Special Equipment Company, Portland, Oreg., a corporation of Oregon

Application December 22, 1954, Serial No. 476,899
13 Claims. (Cl. 146—28)

1. In a machine for processing fruit of the freestone type including a rotatable fruit conveyor disk having a blunt periphery, a pair of spreader blades, one spreader blade being pivotally mounted on one side of said conveyor disk and the other spreader blade being pivotally mounted on the other side of said conveyor disk and opposite and in alignment with said one spreader blade, said spreader blades having a first set of circumferentially extending cutting edges positioned radially outwardly beyond the periphery of said conveyor disk and spaced apart to receive a fruit pit therebetween, and a second set of cutting edges extending inwardly from said first



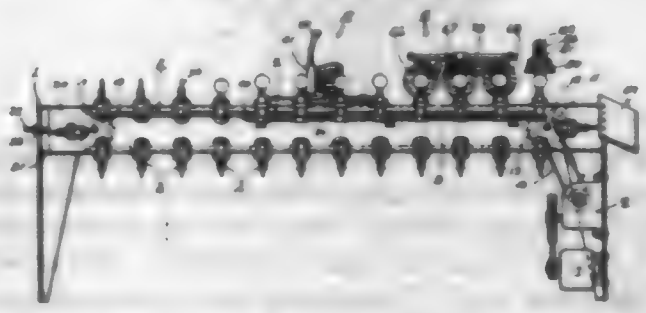
set of cutting edges and adapted to cut the flesh of the fruit about the pit.

2,868,252

APPARATUS FOR AND PROCESS OF REMOVING SKINS FROM TOMATOES

Richard C. Boucher, Bryan, Ohio

Application December 20, 1955, Serial No. 554,159
2 Claims. (Cl. 146—46)



1. Apparatus of the kind described comprising a frame, a conveyor movable on the frame, a support for a tomato mounted on the conveyor for rotary and tiltable movement, means for normally urging the support to a tilted position with respect to the conveyor, a flame projector mounted for reciprocating movement with respect to the frame, elongated abutment means on the frame engageable with the support for rotating and moving the support from a tilted position to an erect position as it approaches the projector during travel of the conveyor in one direction, means for moving the projector from a starting position in the same direction as the conveyor and substantially at the same rate of speed for a predetermined distance so that a tomato adapted to be carried by the support will be subjected to a flame adapted to emanate from the projector, means for returning the projector back to its starting position after it has traveled said distance, and said urging means being operable to move the support back to an inclined position after the support leaves the abutment means on said frame.

2,868,253

SHEAR BAR MOUNTING MEANS TO PROVIDE A CURVED CUTTING EDGE

William A. Kirk and Joseph A. Brown, Lancaster, Pa., assignors to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware

Application July 5, 1956, Serial No. 595,875
6 Claims. (Cl. 146—117)

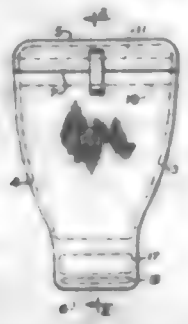
1. A stationary knife having a normally straight cutting edge, a flat support for said knife, and means for connecting said knife to said support whereby said knife is bowed outwardly relative to said support, said means

comprising a middle pocket in said support, a pair of pockets in said support on opposite sides, respectively, of said middle pocket, and equidistant therefrom, the depth of said pair of pockets being the same and greater than the depth of said middle pocket, three spacer members of



identical thickness, one positioned in each of said pockets and projecting outwardly thereof, said knife being adapted to abut against the spacer in said middle pocket, and means for drawing said knife toward said support whereby the knife is brought into engagement with the spacers in said pair of pockets.

2,868,254
ONE-PIECE SELF-CLOSING CONTAINER
Albert A. Saad, Zanesville, Ohio
Application May 21, 1956, Serial No. 586,315
9 Claims. (Cl. 150—.5)



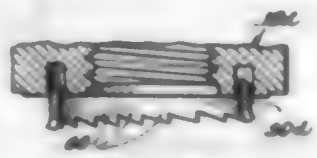
1. A one piece, self closing container having at least two openings for receiving and dispensing discrete articles of approximately uniform width, said container molded from resilient material and comprising flat concaved front and back walls, converging side walls and parallel end walls, one of said end walls having a pair of inwardly directed confronting separably contacting shoulders generally coextensive with the length of said end wall, said one end wall and said shoulders having an elongated slit extending therethrough to provide one of said openings in said container and a plurality of ribs disposed on the inner surface of each of said side walls adjacent to and parallel to said one end wall, the spacing between one of said ribs on one of said side walls and an adjacent rib on the other of said walls being approximately equal to the thickness of the discrete articles to be dispensed by said container.

2,868,255
COMBINATION COVER AND ENCLOSURE FOR CHRISTMAS TREES AND OTHER DISPLAYS
Paul Joseph Fancher, Blue Island, Ill.
Application August 1, 1957, Serial No. 675,601
7 Claims. (Cl. 150—52)



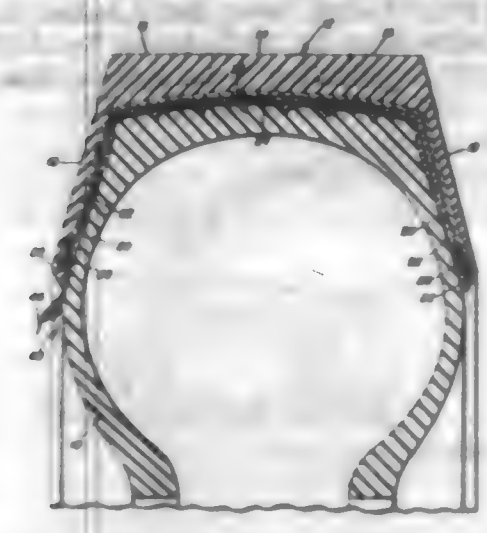
1. A combination cover and enclosure for Christmas trees and other displays comprising a cover portion having an opening near the center thereof to receive the trunk of the tree and of a dimension and configuration to extend outwardly beneath the branches of the tree to catch material which may drop therefrom, an enclosure portion extending from said cover portion and of a dimension and configuration to be drawn up over the branches of the tree and gathered together at the top completely to enclose the tree, first fastener means in proximity to said opening in said cover portion for fastening the central portion of said cover and enclosure about the trunk of the tree and beneath the branches thereof, and second fastener means in proximity to the outer margin of said enclosure portion for fastening the gathered outer margin of the cover and wrapper in closed position about the top of the tree.

2,868,256
HELICALLY FORMED RESILIENT LOCK WASHER WITH INNER NUT ENGAGING AND OUTER WORK ENGAGING TEETH
Ongijesa Jules Poupitch, Itasca, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application September 23, 1954, Serial No. 457,989
1 Claim. (Cl. 151—35)



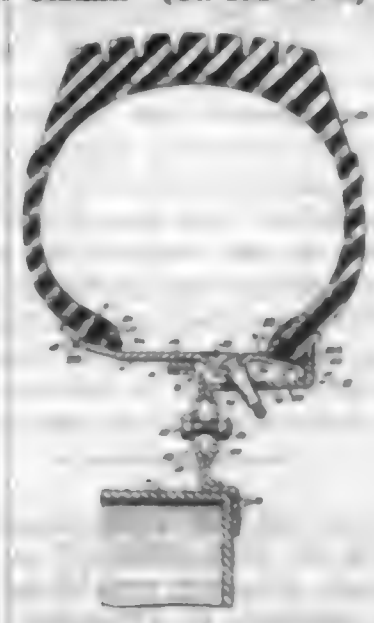
A preassembled rotary fastener assembly comprising a threaded rotary fastener member having a substantially radially extending clamping face and an annular substantially axially extending groove of predetermined radial width in said clamping face between inner and outer margins thereof, and a resilient sheet metal lock washer including a substantially axially extending annular body portion having a radial thickness substantially less than the width of said groove, said body portion being axially split and helically twisted substantially uniformly around the entire circumference thereof with the end portions axially offset from one another, said body portion initially having a diameter different from the corresponding diameter of a first side wall of said groove and being sprung into said groove with one side of the body portion resiliently engaging the said first side wall of the groove for retaining the washer and fastener member in assembled relationship, a plurality of tooth means on and spaced substantially along the full circumferential length of the inner margin of said body portion and said tooth means being bent in one direction out of the plane of the body portion and projecting axially and radially outwardly from the opposite side of said body portion for biting engagement with the fastener member within said groove and facing circumferentially in one direction for restraining rotation of the washer relative to the fastener member in that direction, said axially and radially extending tooth means adjacent the body portion presenting inclined side cam surfaces engageable with the said first side wall of the groove for facilitating insertion of the washer body into the groove, and a plurality of additional tooth means on and spaced circumferentially along the outer margin of said body portion and bent in an opposite direction from the plane of the body portion to project in the opposite direction from the first-mentioned tooth means for engaging a workpiece and restraining rotation of the washer relative to the workpiece in a direction opposite to the direction in which said first-mentioned tooth means face.

2,868,257
MEANS FOR RECAPPING TIRES
Howard O. Redfearn, Keaukou, Kona, Territory of Hawaii
Application June 20, 1955, Serial No. 516,363
6 Claims. (Cl. 152—187)



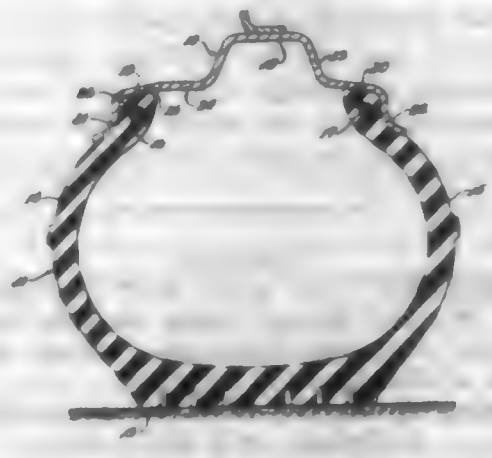
1. A tire recap and tread construction adapted to embrace the tread and side wall portion of a pneumatic tire and provide a retread therefor comprising; a body having a tread portion and side walls with beads and adapted to overlie and cover the tread and the side walls respectively of a tire, the side walls of said body being of sufficient size to cover the side walls of the tire to about the midportion thereof only, said body including at least two plies of fabric secured to the body beads, tread elements bonded to said body, a skeletal network of tension elements disposed in the tread and side wall portions of said body and disposed in contact with at least one of said plies, said network including transverse tension elements having their opposite ends anchored in said body beads, a layer of vulcanizable material forming a resilient, deformable liner for said body and underlying the innermost ply and adapted to contact the tread and side walls of a tire for securing said body thereto, at least some of said transverse tension elements including loops extending radially from the body and embedded and anchored in said body treads.

2,868,258
TUBELESS TIRE AND RIM THEREFOR
Robert Pope Powers, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application December 14, 1956, Serial No. 628,295
9 Claims. (Cl. 152—362)



1. An open-beaded pneumatic tubeless tire comprising a tread and sidewalls, said sidewalls terminating respectively in substantially inextensible beads, each of said beads having a rim-contacting surface bounded by a heel portion at the outer edge of said surface and a toe portion at the inner edge of said surface, said rim-contacting surfaces being molded in frusto-conical form, one of said rim-contacting surfaces flaring outwardly in diameter at a substantial angle to the rolling axis of said tire from the toe portion to the heel portion thereof and the second of said rim-contacting surfaces flaring outwardly in diameter at a substantial angle to the rolling axis of said tire from the heel portion to the toe portion thereof and the second of said surfaces being substantially smaller in mean diameter than said first-mentioned surface.

2,868,259
RIM
Robert P. Powers, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application September 28, 1955, Serial No. 537,169
2 Claims. (Cl. 152—381)

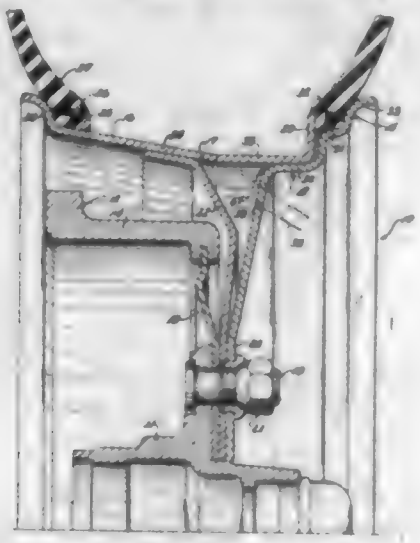


1. A drop-center rim for use in the combination of a wheel and a tubeless tire, said rim having angularly inclined inner and outer bead seats extending at an angle to the axis of the wheel and terminating in side flanges at the inner and outer sides of said wheel to provide radial and axial support, respectively, for the inner and outer beads of said tire, said rim having a substantially cylindrical ledge portion immediately adjacent and greater in axial extent than said outer bead seat, said substantially cylindrical ledge portion having a diameter providing a compression-fit with the toe of the bead of the tire mounted on said outer bead seat whereby, when severe axial forces are imposed upon said tire, in a direction to displace said outer tire bead from its bead seat, said ledge portion provides a supporting surface for and maintains sealing contact with said displaced outer tire bead.

2,868,260
WHEEL CONSTRUCTION
Robert P. Powers and Harry Mulder, Akron, and Denny Fordyce, Jr., Barberton, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application July 6, 1955, Serial No. 520,323
3 Claims. (Cl. 152—396)

1. A wheel construction for an open bead type tubeless tire comprising a hub portion, a disc portion extending radially outwardly from said hub and supporting a rim base, said base comprising an integral, endless channel member terminating at one edge in an axially outer first side flange and having a first bead seat immediately adjacent said flange, said rim base having a drop center well portion having a diameter substantially less than the diameter of said first bead seat, said base terminating at its other edge in a radially outwardly extending, intermediate flange opposite said first side flange, said intermediate flange having an outer diameter appreciably less than the outer diameter of the first side flange but greater than the largest diameter of said bead seat, and an endless,

integral, removable clamping ring comprising a radial portion adapted to be assembled with said disc portion, said removable clamping ring having a second bead seat of substantially the same diameter as said first bead seat



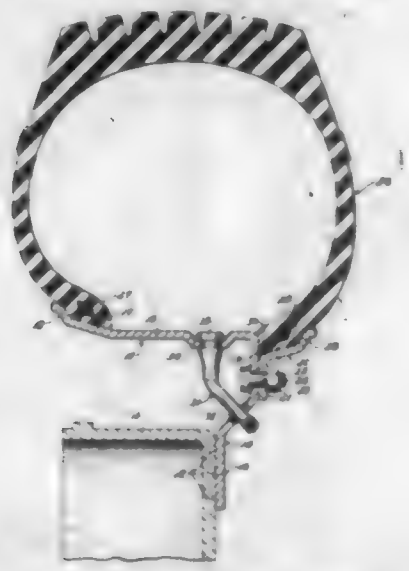
adjacent said intermediate flange when said base and ring are assembled, said second bead seat terminating at an axially outward side flange, said second bead seat having a width narrower than the width of the thickest portion of the bead of a tire normally mounted on said wheel.

2,868,261

TUBELESS TIRE AND RIM THEREFOR

Robert P. Powers, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application July 14, 1955, Serial No. 522,052
2 Claims. (Cl. 152—396)



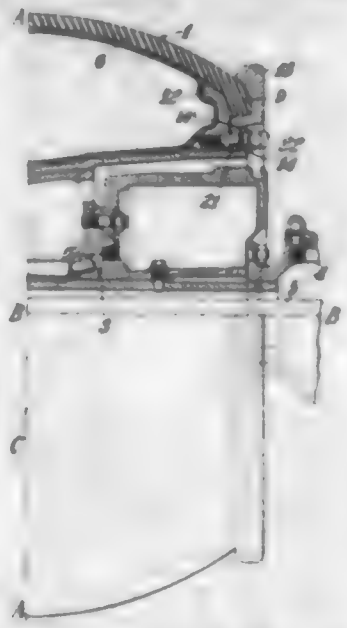
1. In combination, a wheel and a tubeless tire mounted thereon, said wheel comprising a radially extending portion supporting an endless, one-piece rim base which extends as a cantilever in an axial direction over a brake drum associated with said wheel, and which terminates at its cantilever edge in a first side flange, a first bead seat adjacent said side flange comprising a conical surface tapering outwardly toward said side flange, said bead seat and side flange supporting one bead of said tire, and an endless one-piece clamping ring completing the rim of said wheel and comprising a radial portion adapted to be removably secured to said first-mentioned radial portion, said clamping ring having a second bead seat and a second side flange supporting a second bead of said tire, said second bead seat comprising a conical surface tapering oppositely to said first bead seat, said first tire bead having a diameter providing a compression fit with said first bead seat and said second tire bead having an appreciably smaller diameter than said first tire bead and said second tire bead having a compression fit with said second bead seat, said second tire bead being clamped on its bead seat between said second side flange and said first-mentioned radial portion adjacent said rim base to provide an air-tight seal between said rim base and ring to retain air within the chamber enclosed by said tire and said rim parts.

2,868,262

PNEUMATIC TIRES

Nicholas Peter Sorrell Straussler, London, England

Application June 13, 1955, Serial No. 515,153
Claims priority, application Great Britain June 23, 1950
14 Claims. (Cl. 152—401)



1. A rim assembly for a low pressure tire of large size, said tire being of the character comprising an annular casing of vulcanized resilient material of transversely arched form subtending an angle within the range of 70 to 110 degrees with the apex of the angle lying on the vertical center line of the rim assembly closer to the horizontal axis of the rim assembly than to the location of the periphery of said casing, said casing including margins constituted as substantially radially inwardly directed beaded edges and adapted to form with the rim assembly a chamber for air under low pressure, said rim assembly comprising an annular rim structure having a radially inwardly extending flange at one end thereof and a radially outwardly extending flange at the other end thereof, said radially inwardly extending flange having an outer face, said radially outwardly extending flange having an inner face, a first pair of separate inner and outer clamping rings shaped to receive and clamp between them one of the said beaded edges of the casing, means for drawing said rings together and for releasably securing them to the outer face of said radially inwardly extending flange for axial withdrawal therefrom when released, a second pair of separate inner and outer clamping rings shaped to receive and clamp between them the other of said beaded edges of the casing, means for drawing said second pair of rings together and for releasably securing them to said radially outwardly extending flange, at least the inner ring of said second pair of clamping rings being located adjacent the inner face of said flange, and the external diameter of said annular rim structure in the area between said flanges not exceeding the internal diameter of said last-mentioned inner clamping ring whereby upon release of the two sets of clamping rings the tire casing and at least three of the clamping rings can be withdrawn axially from the rim structure.

2,868,263

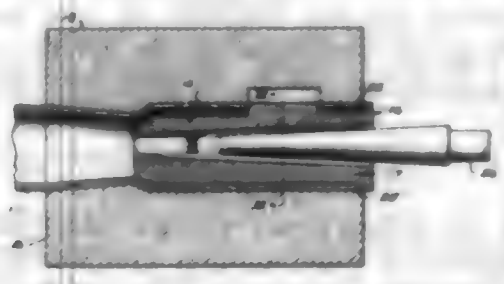
WEDGE BIASED MEANS FOR MAKING A JOINT SOCKET IN THE SIDE OF A TUBE

Donald P. Marquis, Ferndale, and Oliver S. French, Detroit, Mich., assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application September 4, 1952, Serial No. 307,816
1 Claim. (Cl. 153—21)

Apparatus for the manufacture of a joint socket from a length of hollow tubing comprising, an expandable die

member for insertion within the tubing, said die member comprising a first substantially semi-cylindrical die member insertable endwise into said tubing snugly conforming to the inner surface thereof, a second die member carried by said first die member and resiliently maintained in a position separated from said first die member, guide means associated with said first and second die members limiting relative movement therebetween to a direction transverse to the longitudinal axis thereof, second generally rectangular guide means on said second die member for association with an elongated generally rectangular slot in said tube, tube-deforming means extending



from said second guide means and comprising an enlarged base of non-rectangular configuration with a tapered surface extending from the rectangular guide means thereto whereby separation of said first and second die members within said tube will cause expansion of the walls of said slot into said non-rectangular configuration, and wedge means reciprocal along the axis of said tube between said first and second die members for expanding the walls of said slot by said tube-deforming means without deformation of the diametrically opposite tube wall to which the wedging forces are transmitted by said first die member.

2,868,264

ARTICULATED DIE

Everett E. Jones, Hagerstown, Md., assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland

Application October 22, 1954, Serial No. 463,881
6 Claims. (Cl. 153—51)



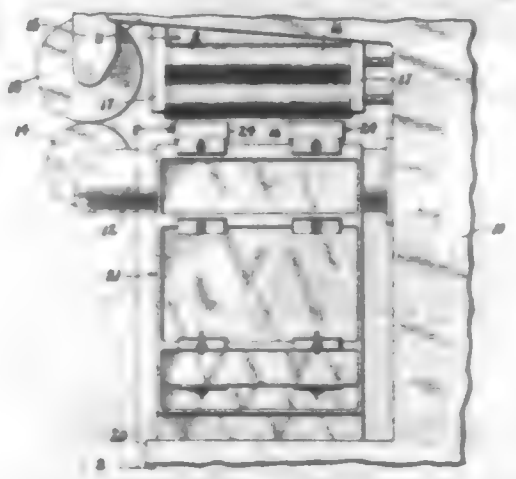
1. Apparatus for forming parts by stretch forming methods comprising a plurality of rigid die segments, each having a forming surface and a base surface, flexible connecting means joining the segments together with adjacent segments virtually contiguous to each other in a series, said flexible connecting means permitting adjacent segments to assume different angular positions relative to each other in a plane parallel to the base surfaces of the segments, a rigid, relatively flat templet having a relatively narrow master edge, a hook-like element on the portion of each segment opposite the base surface of each die segment, said hook-like members engaging the narrow master edge of the templet to register the segments relative to the master edge when the templet is positioned on top of the segments, thereby imparting the curvature of the master edge of the templet to the forming surfaces of the segments, and means for fixedly securing said templet and die segments in their adjusted positions on a base member.

2,868,265

ALTERNATIVELY USABLE ROTARY AND LONGITUDINAL MATERIAL GUIDING MEANS

Arthur L. Williams, Warren, Ohio, assignor to The Federal Machine and Welder Company, Warren, Ohio, a corporation of Ohio

Application February 27, 1953, Serial No. 339,290
8 Claims. (Cl. 153—54)



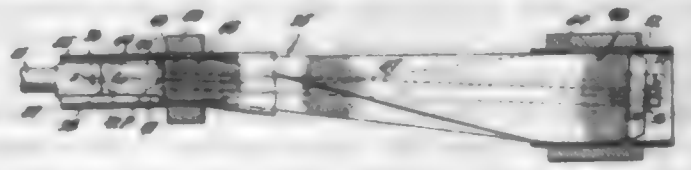
1. Apparatus for producing tubular members from relatively flat stock and for supporting the formed tubular member for axial movement, comprising forming means for forming said stock into a tubular member, a plurality of spaced guide means arcuately disposed to lie along the transverse periphery of the tubular member when formed, each guide means comprising a pair of rolls, a first roll of each guide means having its axis generally parallel to the axis of the tubular member for rolling movement in the direction of the movement of said stock as it is formed to produce said tubular member, and a second roll of each guide means having its axis generally normal to the axis of the tubular member for rolling action as the tubular member is moved axially, and means for withdrawing said first rolls from engagement with the periphery of the tubular member and for substantially simultaneously advancing said second rolls to engagement with the periphery of the tubular member.

2,868,266

MANDREL FOR USE IN TWISTING RECTANGULAR TUBING

Francis J. Fuchs, Jr., Winston-Salem, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application November 4, 1953, Serial No. 390,138
4 Claims. (Cl. 153—63)



2. An articulated mandrel for supporting the interior of non-circular tubing during twisting and linear displacing operations, which comprises a stem, a core rod secured to the stem, a plurality of thin, flat laminations having peripheral configurations corresponding to the internal cross section of the tubing, each of said laminations being provided with an aperture for rotatably mounting the laminations on the core rod, said apertures being larger than the diameter of the core rod by an amount such as to allow a desired displacement of the tubing and being offset from the centers of the laminations to allow for the displacement of the tubing during the deforming operation, means to retain the laminations on the rod, and resilient means tending to maintain the laminations in mutual alignment.

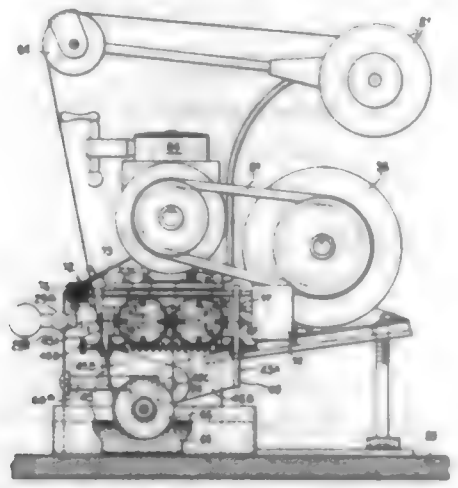
2,868,267

WIRE COILING MACHINE WITH ROTATING MANDREL AND COILING TOOLS

Stephen A. Platt, Grand Haven, Mich.

Continuation of application Serial No. 251,053, October 12, 1951. This application March 21, 1957, Serial No. 647,726

8 Claims. (Cl. 153—64)



5. A wire coiling machine including a rotary mandrel having a free end and rotatively mounted portion spaced backwardly away from said free end, means for rotating said mandrel, means for feeding wire transversely onto said mandrel at a location spaced axially from said mounted portion, means for feeding said wire in a substantially stationary linear path to the side of said mandrel which rotates in the same direction said wire is feeding so that the wire may wind on said mandrel to form a helical coil sliding axially forwardly on said mandrel towards and over said free end with said mandrel and coil rotating in the same rotary direction, rotary tools which are all axially offset transversely from the axis of said mandrel and forming at least one surface lying in a transverse plane positioned to engage the rear of the first convolution of said coil forming at said location and preventing said convolution from sliding axially backwardly on said mandrel in a direction away from said free end and one of said tools forming at least one substantially cylindrical surface positioned to bear substantially tangentially against at least said first convolution and holding the latter radially against said mandrel, said tool forming said substantially cylindrical surface being entirely free from contact with said mandrel so that said substantially cylindrical surface and said mandrel may be rotated at peripheral speeds differing relative to each other, means for rotating said tool forming said substantially cylindrical surface in a direction opposite to the rotating direction of said mandrel so that the peripheral portions of said mandrel and said coil and said substantially cylindrical surface all travel in the same peripheral directions at their respective areas of contact with each other, means for varying the peripheral speed of said tool forming said substantially cylindrical surface relative to the peripheral speed of said mandrel, and mounting means for said rotary tools for varying the angular position of said rotary tools relative to an axis perpendicular to the axis of rotation of each of said rotary tools.

2,868,268

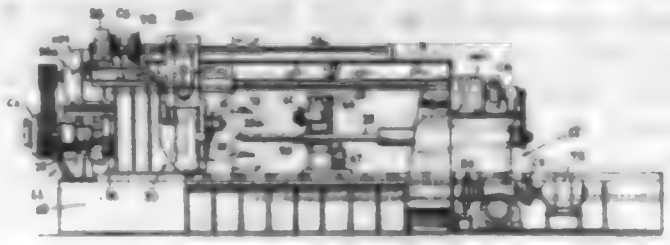
COIL-FORMING MACHINE WITH GENERATOR CONTROLLED SPINDLE POSITIONING MEANS

Thomas E. Lewis, Jr. and Victor A. Zaveruha, Trumbull, Conn., assignors to The Coulter & McKenzie Machine Co., Inc., Bridgeport, Conn., a corporation of Connecticut

Application February 4, 1954, Serial No. 408,202

5 Claims. (Cl. 153—67)

3. In a coil forming machine having a spindle and a chuck thereon adapted to grip the end of a piece of stock to be coiled about a mandrel, means for locating the spindle in a predetermined rotative position comprising drive means for the spindle including an electromagnetically operated clutch and an electromagnetically operated brake; means including a generator actuated by the spindle for controlling the energization of the clutch



and brake to slowly rotate the spindle to said predetermined position for the gripping of said stock by the chuck; and means controlled by the spindle for braking the spindle when the spindle reaches said predetermined position.

2,868,269

PROCESS OF TREATING SHEET MATERIAL AND PRODUCT RESULTING THEREFROM

Henry A. Letteron, Coshocton, Ohio, assignor to General Electric Company, a corporation of New York

No Drawing. Application February 21, 1956 Serial No. 567,035

17 Claims. (Cl. 154—2.6)

1. A process for the impregnation of brittle sheet material comprising the steps of placing at least one backing material and the brittle sheet material in contiguous relation and winding the materials simultaneously on a core, at least one backing material carrying a substance selected from the group consisting of resins and resin forming monomers, and allowing the materials to remain contiguous to one another in order for transfer and impregnation of the aforesaid resinous substance to occur.

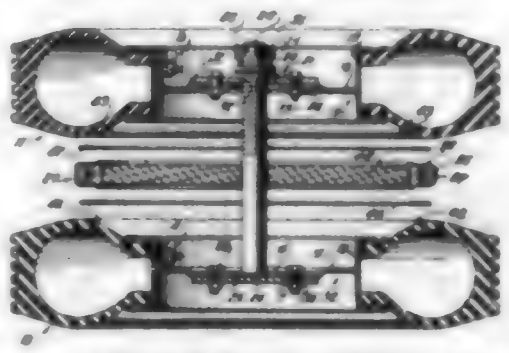
2,868,270

APPARATUS FOR VULCANIZING ORNAMENTAL TRIM ON TIRE WALLS

Roscoe L. Brown, Garland, Tex.

Application August 22, 1955, Serial No. 529,861

2 Claims. (Cl. 154—9)



1. Apparatus for applying ornamental rubber rings to the side walls of pneumatic tire casings comprising, in combination with a pair of wheels each having a rim adapted to receive a tire to be operated upon and a flange formed integrally with the rim and having a central opening surrounded by circumferentially spaced lug bolt holes, means for clamping the wheels, each with a tire mounted thereon, together in side by side relation to each other comprising a pair of flat circular plates each having circumferentially spaced holes corresponding to the lug bolt holes of the wheel flanges, one of the plates having a central opening therein, a plurality of bolts each inserted through one of the lug bolt holes of a wheel flange and one of the holes of a plate whereby each of the plates is removably connected to one of the wheel flanges, a pin having a threaded end portion rigidly connected at its opposite end to the center of one of the plates, at right angles to the plane thereof, the threaded end portion of the pin being passed through the central

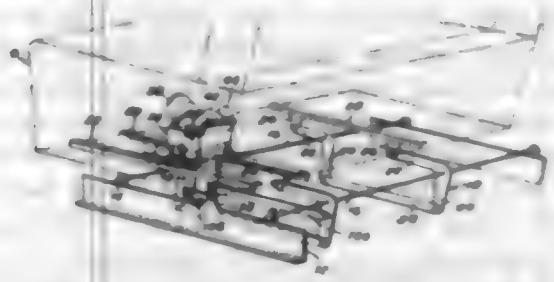
opening of the other plate, and a nut threaded on the pin and acting on the last mentioned plate whereby pressure may be applied to the opposed side walls of the tires upon tightening the nut, an annular heating element having sloped sides for engagement with the opposed side walls of the tires and having an annular recess in each side adapted to receive an annular strip for attachment to the side wall of one of the tires, and a circular template having its circumference in frictional engagement with the heating element, the template having a central opening surrounding the pin whereby the heating element is aligned concentrically with the wheels.

2,868,271

POSITIONING DEVICE

Joseph Pickles, Dearborn, Mich., assignor to Ferro Stamping Company, Detroit, Mich., a corporation of Michigan

Application December 23, 1954, Serial No. 477,229
14 Claims. (Cl. 155—14)



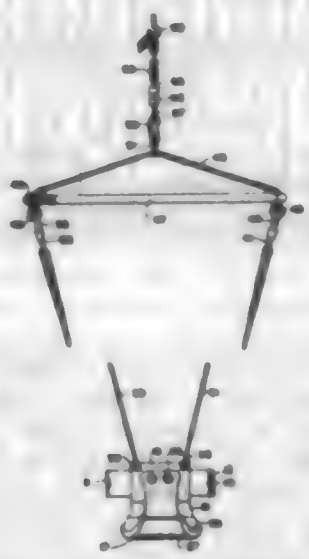
10. Actuating mechanism for a pair of independently movable members comprising a reversible motor, drive means including planetary gearing adapted to connect said motor to both the said members operable to actuate either of said members while the other is locked against actuation, lock means for each of said members, and means automatically operable to effect actuation of one of said lock means upon energization of said motor.

2,868,272

BABY SUPPORTER AND EXERCISER

Joseph D. Poole, Grantham's Landing, British Columbia, and Susan O. Poole, North Vancouver, British Columbia, Canada

Application April 16, 1954, Serial No. 423,644
6 Claims. (Cl. 155—17)



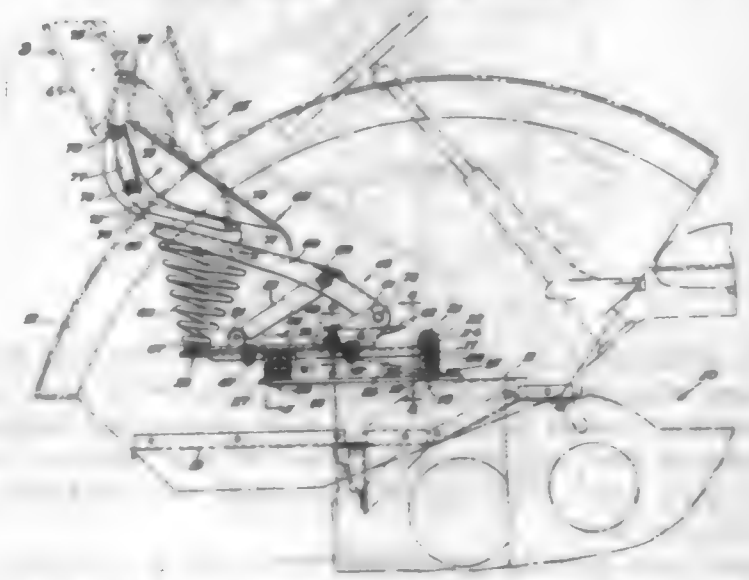
1. A baby supporter and exerciser comprising a wide waistband to fit snugly around a baby's body, said waistband including wide front and back panels formed of non-stretchable material and sides formed of elastic material secured to and extending through adjacent ends of the panels, said wide panels supporting and protecting the front and back of the baby while the elastic material retains said panels firmly against the baby, a crotch band secured to the front and back panels, straps secured directly to the front and back panels adjacent the ends thereof and extending upwardly therefrom, a spreader extending between the straps spaced above the waistband sufficiently to clear the head of a baby in the latter, and a resilient suspender connected to the spreader and the straps.

2,868,273

SWINGABLE AND RESILIENTLY MOUNTED TRACTOR SEAT

Robert D. Barrett, Westchester, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application September 28, 1956, Serial No. 612,700
6 Claims. (Cl. 155—51)



5. A vehicle seat construction including in combination: a horizontally disposed base-plate member adapted for affixment proximate one end of said plate to a vehicle, and having the opposite end of said plate arcuately shaped; a vertically disposed pedestal secured to said base-plate and extending upwardly therefrom; a longitudinally extending support member being channel-shaped in section and rotatably mounted on said pedestal with the opening of said channel facing said base-plate; said channel-shaped support member being rotatable in a plane parallel to said base-plate, and in an arc corresponding with the curvature of said arcuately-shaped end of said plate; said channel-shaped support member being mounted on said pedestal proximate one end of said support member; fastening means secured intermediate the ends of said channel-shaped support member and disposed to overlap the arcuately-shaped end of said base-plate to limit relative vertical displacement between said member and said plate; releasable pin means carried by said fastening means and operative for interlocking said channel-shaped support member with said base-plate to restrict relative rotative movement between said plate and support members; seat suspension means slidably fastened to said channel-shaped support member and disposed for longitudinal movement relative to said support member; releasable pin means interlocking said suspension means with said support member and operative to lock said suspension means against longitudinal movement relative to said support member; a seat assembly pivotally secured to said suspension means and mounted for up and down movement; and resilient means interconnecting said suspension means and said seat assembly to aid in the support of said seat assembly.

2,868,274

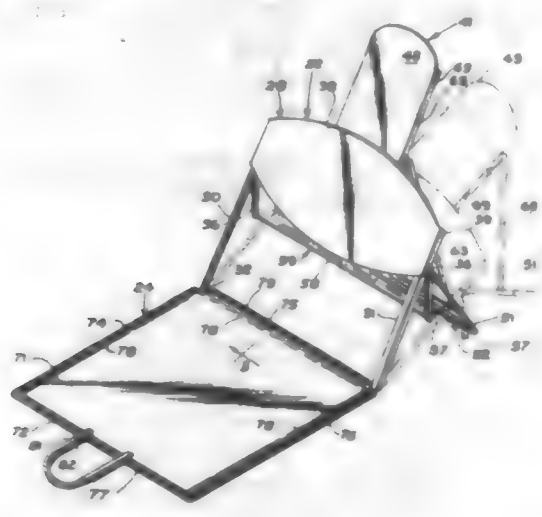
COMBINATION BACK-RESTS AND BAG STRUCTURES

Charles J. Miller, Chicago, Ill., assignor to Charles Justin Miller, Chicago, Ill.

Application August 10, 1956, Serial No. 603,292
10 Claims. (Cl. 155—154)

1. An article of manufacture comprising a back-rest, and a bag affording a cavity of capacity to receive said

back-rest, said bag having a substantially closed bottom, an open top, and side portions extending between said bottom and said top, all of said side portions being substantially closed, said bag including means which flexibly attach the bag to said back-rest and which enable the bag while attached to the back-rest to be inverted about



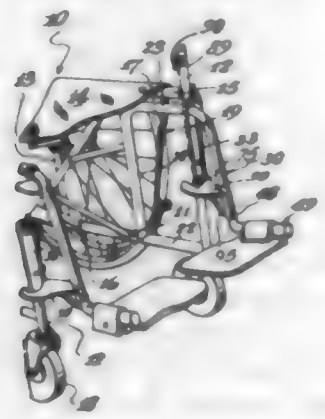
its attachment to said back-rest between a normal position, wherein said side portions are disposed in enclosing relation around said back-rest, and an actuated position wherein said bag remains attached to said back-rest but projects away from and fully discloses said back-rest to afford a seat.

2,868,275

REMOVABLE FOOT REST

William E. Mize, Ladoga, Ind., assignor, by mesne assignments, to Institutional Industries, Inc., a corporation of Ohio

Application December 13, 1955, Serial No. 552,772
10 Claims. (Cl. 155—165)



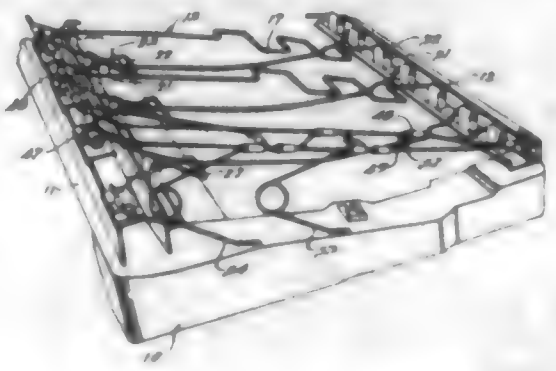
1. A foot rest assembly for a wheel chair having a pair of interconnected side frames each having a vertical front tubular support post and a substantially horizontal socket formation opening toward the front end of the chair adjacent the said post thereof, said assembly including an elongate arcuate mounting plate adapted to be attached on said post and an elongate rigid member adapted to be telescopically engaged in said socket formation, and a foot rest support part hingedly connected to said plate, said plate and part having cooperating hinge means providing an axis of pivoting along a vertical line laterally spaced outwardly of the side frame, said assembly when in normal position of use having said support part projecting forwardly of the front end of the chair, said support part adapted to be pivoted to a second position laterally removed from the front end of said chair, said support part having an end portion axially aligned with said socket formation when the same is in normal position, said rigid member having a portion extending forwardly beyond said socket for abutment with the end portion of said support part as the same is swung into its normal position.

2,868,276

FORMED SPRING CUSHION CONSTRUCTION

Hyland C. Flint, Birmingham, Mich., assignor to American Metal Products Company, Detroit, Mich., a corporation of Michigan

Application December 1, 1955, Serial No. 550,360
14 Claims. (Cl. 155—179)



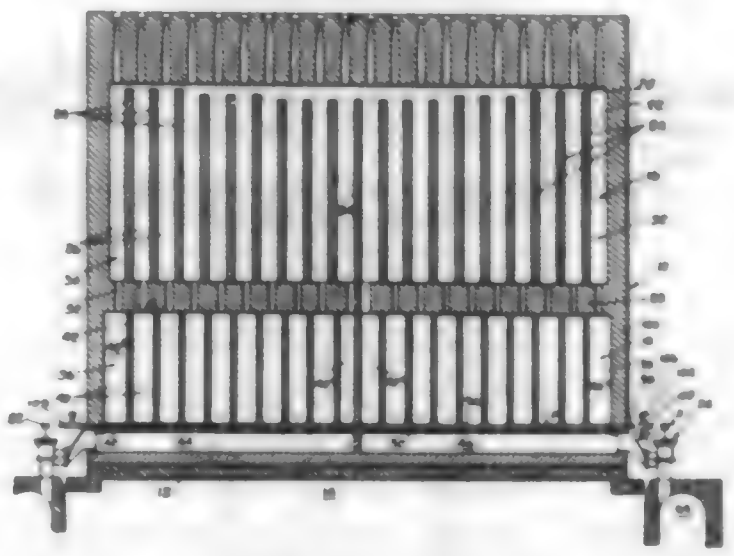
1. A spring strip made of wire having a load bearing section consisting of a straight length of the wire, offset angular portions of the wire at each end of the load bearing section which are reversely bent at right angles to the load bearing section, the right-angle section at one end being reversely bent parallel to the load bearing length and sloping downwardly therebeneath and further bent at right angles to have a web parallel to the first right-angle section from which a rightangle section extends forwardly and sloped downwardly in V-relation to the reversely extending section to form a resilient support for the end of the spring, and a laterally extending end on the forwardly extending section forming an attaching end.

2,868,277

COKE OVEN

Carl Otto, Manhasset, N. Y.

Application April 5, 1956, Serial No. 576,308
7 Claims. (Cl. 158—7.5)



5. In a device provided with a longitudinally extending channel having a closed and open end and a plurality of isolated passages in communication with said channel, means for periodically introducing gaseous fluid into said channel to flow therethrough and through said passages, means alternately operable with said last mentioned means for withdrawing gaseous fluid from said channel whereby to cause a reversing flow thereof through said passages and channel, and means for selectively actuating said last two mentioned means; means for controlling the flow of said gaseous fluid through said passages comprising a movable member having a plurality of pairs of apertures, one pair of each passage, one aperture of each of said pairs of apertures being in registry with their associated passages when said member is in one position and the other aperture of each pair of apertures being in registry with said passages when said member is in another posi-

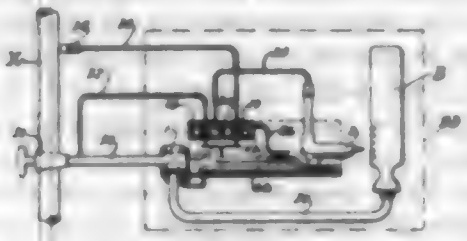
tion, the apertures in registry with said passages being progressively smaller from said open end to said closed end when gaseous fluid is introduced into said open end of said channel, the apertures in registry with said passages being progressively larger from said open end to said closed end when gaseous fluid is being withdrawn from said channel, whereby flow of gaseous fluid through said passages is relatively uniform regardless of the direction of flow therethrough, and means operatively connecting said member to said actuating means for movement thereby to and from said two positions.

2,868,278

GAS BURNER CONTROL MEANS

William D. Antrim, Cleveland Heights, Ohio, assignor, by mesne assignments, to Carrier Corporation, a corporation of Delaware

Application November 29, 1954, Serial No. 471,672
12 Claims. (Cl. 158—132)



1. In means for controlling operation of a main gas burner from a fuel source therefor, and including a main valve, a safety valve, and a main gas line leading from said fuel source to said main gas burner by way of said main and safety valves successively, a safety pilot burner arranged in igniting relation to said main burner, means thermally responsive to said safety pilot burner for actuating said safety valve, whereby operation of said main gas burner is subject to operation of said pilot burner, a pilot gas line for said safety pilot burner arranged to be subject to said main valve, a constant pilot burner arranged in igniting relation to said safety pilot burner, a gas line for said constant pilot burner independent of said main valve, a pilot valve in said safety pilot gas line, a pilot valve in said constant pilot gas line, and means thermally responsive to said constant pilot burner arranged to cause closing of both said pilot valves, upon outage of said constant pilot burner and said safety pilot burner.

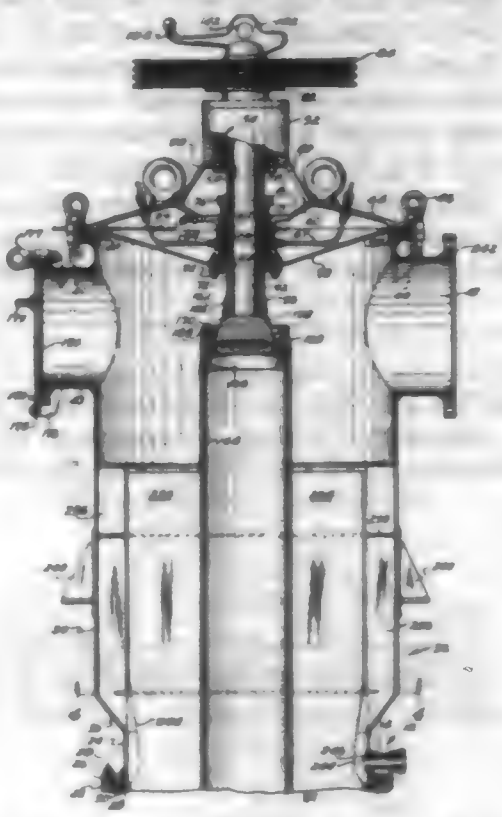
2,868,279

EVAPORATOR

Hans C. Bechtler, Zurich, Switzerland, assignor, by mesne assignments, to Rodney Hunt Machine Company, Orange, Mass., a corporation of Massachusetts

Application March 17, 1951, Serial No. 216,217
8 Claims. (Cl. 159—6)

3. Apparatus for separating entrapped liquid particles from a vapor, comprising a housing having a substantially cylindrical wall constituting a conduit through which the vapor is passed, a vapor inlet at one end of said housing and a vapor outlet at the other end of said housing, an annular cylindrical cage within said housing, said cage comprising circumferentially spaced longitudinal baffles extending inward from said wall and axially spaced transverse baffles inward from said wall and spaced therefrom said baffles being secured together and extending inwardly substantially equidistant from said wall, thereby providing an axial free space through said housing removably supporting said cage within said housing, a rotor having an imperforate surface rotatably mounted within said housing for rotation on an axis substantially concentric with the housing wall, said rotor having a substantially smaller diameter than the free space within said cage, a plurality of vanes circumferentially spaced about said rotor, each vane being secured along one edge to the rotor and extending outwardly from said rotor into close proximity with the baffles of said cage, said vanes being substantially continuous from said rotor to said baffles throughout the length of said



longitudinal baffles, and means for rotating said rotor whereby said vanes will strike liquid entrapped in said vapor and drive such liquid outward toward the housing wall between said baffles while permitting the vapor to pass through the housing.

ERRATUM

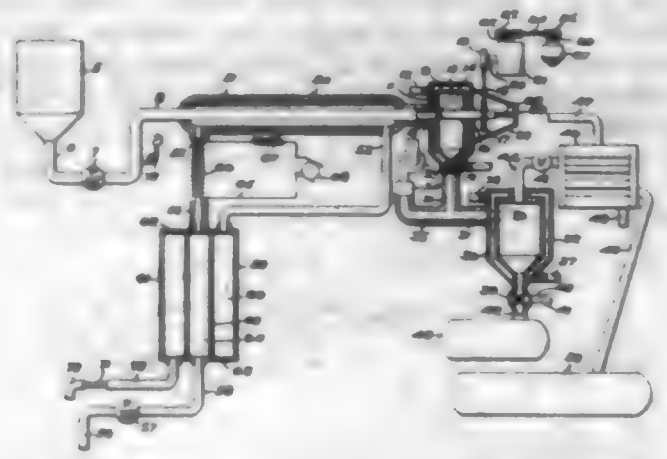
For Class 159—16 see:
Patent No. 2,867,972

2,868,280

METHOD FOR PRODUCING AEROGELS

Neil A. Sargent, Winchester, and Walter M. Davis, Jamaica Plain, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application November 25, 1953, Serial No. 394,426
19 Claims. (Cl. 159—47)



1. A continuous process of producing inorganic aerogels which comprises continuously feeding under pressure a liquid, inorganic-aerogel precursor containing a liquid phase having a critical temperature below 500° C. into a heated zone which is heated to maintain it at a temperature varying from about the critical temperature of the liquid phase in said precursor up to but not in excess of 500° C., whereby as a result of said feeding step and the formation of vapors from said liquid phase a state of turbulent flow is produced, continuously heat-

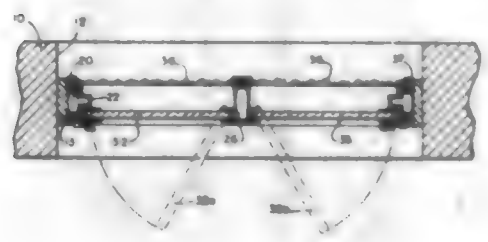
ing said precursor in said heated zone while in said state of turbulent flow at a pressure above the critical pressure of the liquid phase of the precursor until said precursor is converted to vapors and aerogel particles and continuously flowing said vapors and aerogel particles at the aforesaid temperature and pressure from the first heated zone into a second heated zone maintained at a temperature above the temperature at which condensation of the vapors on the aerogel occurs and at a pressure between about 1 and 2 atmospheres of pressure absolute and thereafter separating the vapors from the aerogel particles at a temperature above the temperature at which said vapors condense on said aerogel particles.

2,868,281

CIRCULAR WINDOW CONSTRUCTION

Alfred P. Crimboli, Greensburg, Pa.

Application April 24, 1957, Serial No. 654,681
4 Claims. (Cl. 160—92)



1. A circular window comprising, in combination, a circular rim adapted to be secured within a circular wall opening, a circular inner frame locatably supported upon said rim for rotation about a common central axis, a pair of semi-circular windows secured to one side of said inner frame, said inner frame including a pair of spaced parallel and radially outwardly extending flanges defining a housing, a plurality of roller bearings secured in circumferentially spaced relationship around said rim in engagement with said inner frame, said inner frame housing enclosing said bearings, each of said windows comprising a pair of axially aligned trunnions extending outwardly from diametrically opposite sides, and said inner frame including a pair of brackets for rotatably receiving said trunnions to permit rotation of said windows between open and closed positions.

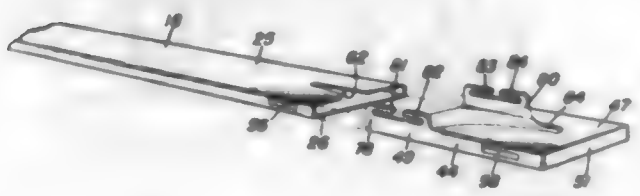
2,868,282

VENETIAN BLIND BOTTOM RAIL AND CLIP

Hal F. Mason and Albert E. Long, Bellaire, Ohio

Original application March 27, 1956, Serial No. 574,130. Divided and this application July 17, 1957, Serial No. 672,419

5 Claims. (Cl. 160—173)



1. In a Venetian blind which has tapes and lifting cords, a bottom rail having a slot within which one of the lifting cords is fitted, a knot within the lifting cord beneath the slot, a clip fitted over the end of the bottom rail, said clip being a hollow casing having side walls, a top wall and a bottom wall, said top wall having a slot within which the cord is fitted when the clip is slipped over the end of the bottom rail, and means by which to fasten to one of the ladder tapes of the blind and thereby secure the ladder tape to the bottom rail.

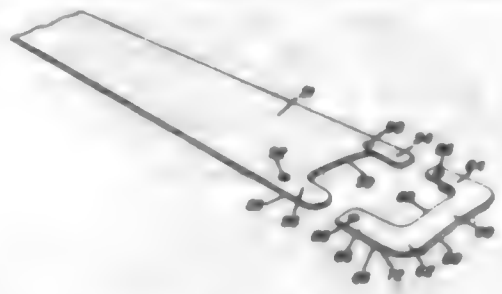
2,868,283

VENETIAN BLIND SLAT AND CLIP

Hal F. Mason and Albert E. Long, Bellaire, Ohio

Original application March 27, 1956, Serial No. 574,130. Divided and this application July 24, 1957, Serial No. 673,946

2 Claims. (Cl. 160—173)



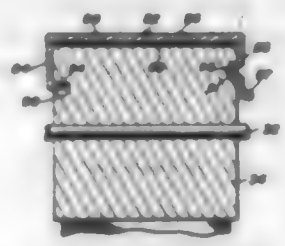
1. In a Venetian blind that has ladder tapes on which slats are supported together with lift cords for the blind, said slats having at their ends outwardly opening notches between a pair of fingers, each slat having at each end a clip, said clip being substantially U-shaped in planform and having a pair of fingers between which a notch is defined, bottom walls cooperating with a top wall to form a pocket in said clip, the fingers of said slat being fitted in said pocket with the notches of said slat and said clip partially overlying to form the side walls of an opening through which one of the lifting cords is passed, side walls and an end wall of said clip connecting the top wall to the bottom walls of said clip, said end wall constituting a stop against which said fingers of said slat abut at which position said pocket and said notch partially overlie each other to define said opening, and means including indents in said walls of said clip for fastening said clip to said slat.

2,868,284

VENETIAN BLIND

Hal F. Mason, Bellaire, and Albert E. Long, Shadyside, Ohio

Application March 27, 1956, Serial No. 574,130
4 Claims. (Cl. 160—177)



1. In a Venetian blind that has a head box, a tilt bar mounted in said head box, a pair of tapes, means releasably attaching said tapes to said tilt bar, said means including for each tape a tape saddle drivingly connected to said tilt bar, said saddle having sides and an outer surface, a tape resting thereon, a spring clip having a flat intermediate cross member extending transversely across said tape, laterally opening recesses in opposite sides of said saddle, means at the ends of said spring clip cross member disposed in said recesses to hold said spring clip fastened to said saddle, and a plurality of teeth on one surface of said clip gripping said tape.

2,868,285

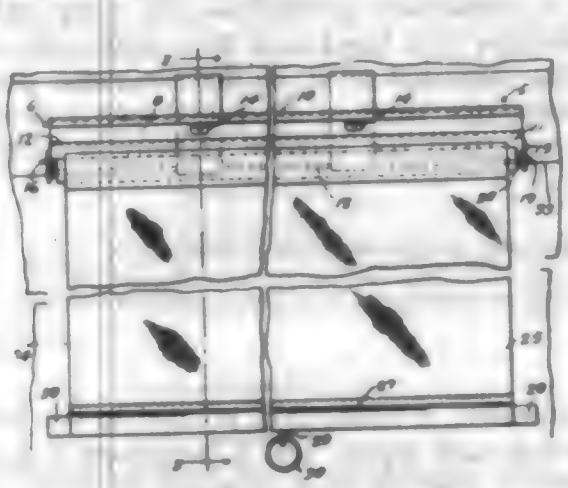
PICTURE PROJECTION SCREEN AND SUPPORT

Luther A. Pidgeon, Knightstown, Ind., assignor to Luther O. Draper Shade Company, Spiceland, Ind., a partnership

Application November 27, 1957, Serial No. 699,380
7 Claims. (Cl. 160—323)

1. In combination with a picture projection screen, a spring operated roller on which the screen is wound, an elongated rigid supporting bar, roller supporting brackets

secured to and projecting outwardly from said supporting bar in which the roller is mounted, said bar having an upper portion of hook shaped cross section extending from end-to-end thereof including a substantially flat upright portion constituting a rear wall of the bar, said



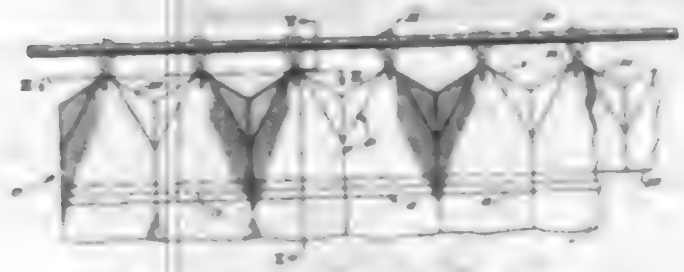
rear wall being provided with hook receiving openings, said bar including a substantially flat intermediate portion extending outwardly from the bottom edge of said rear wall, and a bottom portion forming a depending extension of an outer front edge of said intermediate portion.

2,868,286

DRAPERY HEADING

Donald P. Odermann, Burbank, Calif.

Application August 8, 1957, Serial No. 677,002
11 Claims. (Cl. 160—348)



1. A curtain structure suspendible from a rod, comprising: a flexible panel having a relatively wide and flat casing extending along the heading edge thereof; an elongated, relatively thin heading member disposed within said casing, said heading member having a plurality of bends arranged in uniform groups located at intervals along the lengthwise extent of said heading member, said bends being arranged to provide a plurality of upwardly extending peaks along said heading edge, one peak being disposed between each pair of said groups of bends; and a plurality of hanger elements, each element being connected to one of said peaks and supportable upon said rod.

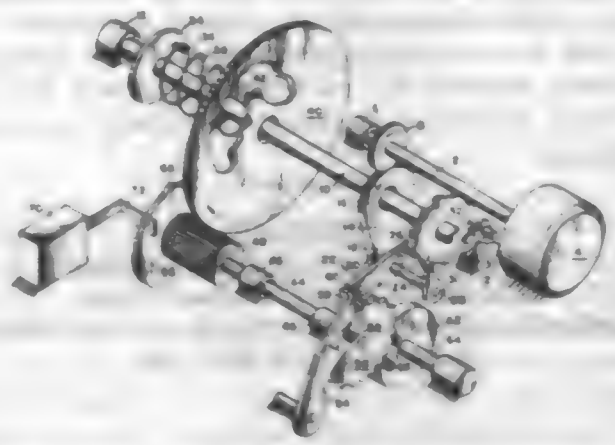
2,868,287

DELAY TIMER

Roger S. Estey, Palos Verdes Estates, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application July 17, 1956, Serial No. 598,486
2 Claims. (Cl. 161—1)

1. A self resetting timing device comprising a normally stressed spring, mechanism connected to said spring to be driven thereby, said mechanism including a relatively large driving gear supported on a first shaft for free rotation relative to said first shaft, an end disc fixedly mounted on said first shaft, said end disc and said driving gear each having an eccentric pin on the side thereof facing the other, said spring having opposite ends attached to said pins operable to cause rotational motion of said driving gear relative to said fixed end disc, an escapement wheel and a driven gear in position to be driven by said driving gear both fixedly mounted on a rotatably supported second shaft for coaxial rotation with each other, pallet means associated with said escapement wheel to control the speed of rotation thereof, latch means releasably operative to normally prevent motion of said mechanism comprising a pin on a surface of said escapement wheel and a notched sear lever pivotally mounted adjacent said escapement wheel in a position to engage said pin, means to apply an actuating force to said latch means to release said mechanism for motion including a member mounted in a position to be moved by said force to raise said sear lever out of latching contact with said pin to permit said mechanism to be operated by said spring and to then release said sear lever for gravity movement into position to catch said pin to relatch said mechanism after one rotation of said escapement wheel is completed whereby a measurable time increment results from a given cycle of operation of said mechanism, and means interposed be-



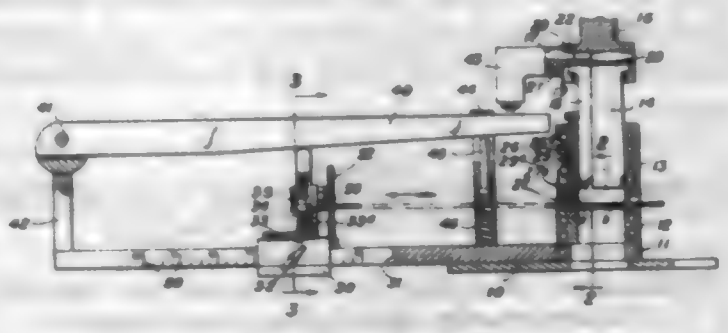
tween said spring and said force imparting means to utilize said force to stress the spring an amount to replace the energy used thereby in said cycle of operation, said means interposed between said spring and said force imparting means to stress the spring comprising a ratchet fixedly mounted on said first shaft, a rewinding block element having a pawl member attached thereto in a position to drivingly engage said ratchet, a second pawl in contact with said ratchet to prevent retrograde motion thereof, said rewinding block element being acted on directly by said force imparting means to be caused to be moved, whereby said first mentioned pawl member is moved therewith to impart motion to said ratchet and to said end disc to rewind said spring, said rewinding block also having a trip lever means attached thereto for motion therewith, said trip lever means being normally engaged with said latch means whereby said motion causes said latch means to release said mechanism for motion.

2,868,288

SLIDE FASTENER MANUFACTURE BY A CUTTING AND PUNCHING OPERATION

Rudolf Feitl, Brooklyn, N. Y., assignor to Waldes Koh-i-noor, Inc., Long Island City, N. Y., a corporation of New York

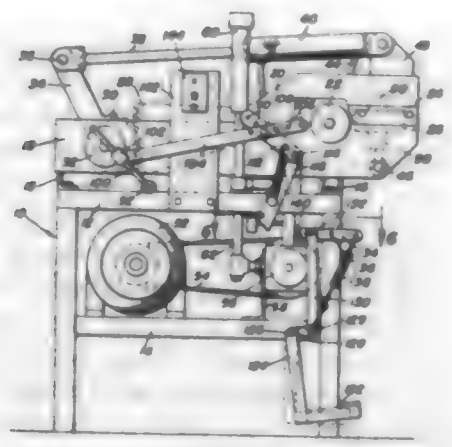
Application June 25, 1956, Serial No. 593,700
3 Claims. (Cl. 164—14)



1. Apparatus for producing individual slide fastener chains having at least an element-free extension at one end thereof from continuous fastener chain comprising, in combination, punch and die means including a recip-

rocatory punch member for removing a plurality of elements from a portion of the continuous chain having length corresponding to that of the element-free extension of the individual fastener chains, means for actuating said punch member, cutting means for cutting off lengths of the chain from the advancing end thereof, means for adjusting the spacing between said cutting means and said punch and die means in accordance with the length of individual slide fastener to be produced, said last means comprising a scale bar extending from the punch and die means in the direction of movement of the continuous chain through the latter, a carriage slidably mounted on said scale bar for adjustment therealong, said cutting means being mounted on said carriage and including a knife blade movable in a path which intersects that of the continuous chain, a pivoted lever overlying the cutting means in all positions of adjustment thereof and being operative to actuate said knife blade throughout its working stroke responsive to pivotal movement of said lever, and lever-engaging means operatively connected to said punch member for movement therewith for imparting pivotal movement to said lever responsively to actuation thereof.

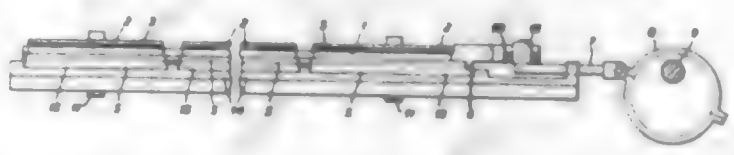
2,868,289
HYDRAULIC METAL SHEAR
Daniel F. Winter, Ceylon, Minn.
Application December 5, 1955, Serial No. 550,898
4 Claims. (Cl. 164—46)



1. A power shears comprising a stationary lower jaw and an upper jaw mounted for pivotal motion relative thereto, hydraulic actuating means for causing pivotal movement of the upper jaw, a control valve for said hydraulic means for causing upward and downward movement of said upper jaw, actuating mechanism operatively connecting said control valve to said upper jaw for reversing the operation of the hydraulic means upon predetermined movement of said upper jaw, manually operable means operatively associated with said actuating mechanism for causing said hydraulic means to effect a single stroke of said upper jaw, said upper jaw being pivoted intermediate its ends, a sector gear on said upper jaw, a driving gear journaled on said lower jaw and engaging said sector gear, said hydraulic means including a hydraulic cylinder unit disposed above and connected to the top of said movable jaw and to said driving gear.

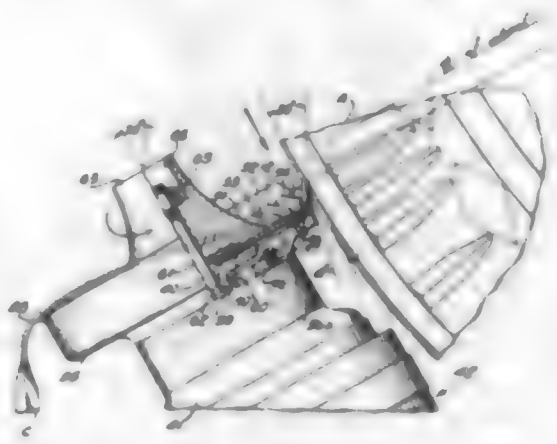
2,868,290
CUTTING DEVICES FOR CUTTING CONTINUOUS LENGTHS OF YARN OR THREAD
William Felton, Bradford, England
Application November 28, 1955, Serial No. 549,439
Claims priority, application Great Britain December 17, 1954
4 Claims. (Cl. 164—53)

1. A cutting device for cutting continuous lengths of yarn or thread, comprising a block, clamping plates on said block, cutting blades for clamping to said block by said clamping plates with the cutting edges of the blades oblique relative to the yarn or thread, a guide in which said block is slidable in a direction crosswise of the yarn or thread to be cut, a rotatable shaft, an eccentric mounted on said shaft for rotation thereby, a strap of said eccentric, a connection pivoted to said strap and to said block whereby said block can have reciprocal motion in said guide imparted to it in the crosswise direction, a second rotatable shaft, a second eccentric mounted on said second shaft for rotation thereby, a strap of said



second eccentric, a connection pivoted to the last-named strap and to said guide, and a stationary bed in which said guide is slidable in a direction at right angles to said crosswise direction, whereby said guide can have reciprocal motion imparted to it in a direction at right angles to said crosswise direction, the resultant motion imparting to each cutting blade a motion in an orbit intersecting said yarn or thread and similar to a slashing motion, and the oblique cutting edges serving for making the cutting action of the blades more effective.

2,868,291
TIRE TRUING MACHINES
Kenton D. McMahan, Scotia, N. Y.
Application December 3, 1954, Serial No. 472,807
7 Claims. (Cl. 164—61)

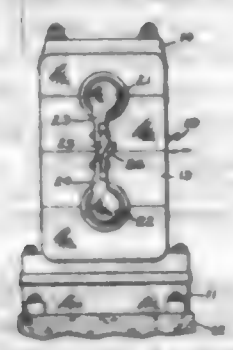


1. In a tire truing machine, a cutter device for the tire comprising a crown cutter having a circumferential flange terminating in a cutting edge, said cutter being rotatable about an axis centered in relation to said flange, a guard extending around said flange except in the region of the cutting side of said cutter, and a spinner connected to the center of said cutter for rotation therewith and defining a peripheral surface extending along said axis to permit the tire trimmings to be held by one side of said spinner surface in definite position in relation to said axis and to act with the peripheral edge of said guard to lead and guide the tire trimmings as they are cut away from the tire.

2,868,292
SHEAR
John H. Hitchcock, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts
Application January 16, 1956, Serial No. 559,488
7 Claims. (Cl. 164—66)

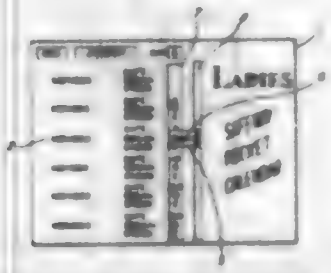
1. A shear for cutting stock of irregular cross-section comprising two rotatable drums having parallel axes, a knife mounted on each drum for rotation therewith, the knives being formed with engaging surfaces of involute

form, the portion of one knife in which cutting takes place being formed as the dedendum of an involute, while



that portion of the other knife is formed as the addendum of an involute.

2,868,293
POCKET CALENDAR DEVICE WITH PUNCH MEANS
Myra Smith Kearse, Vauxhall, N. J.
Application May 10, 1956, Serial No. 584,026
4 Claims. (Cl. 164—85)



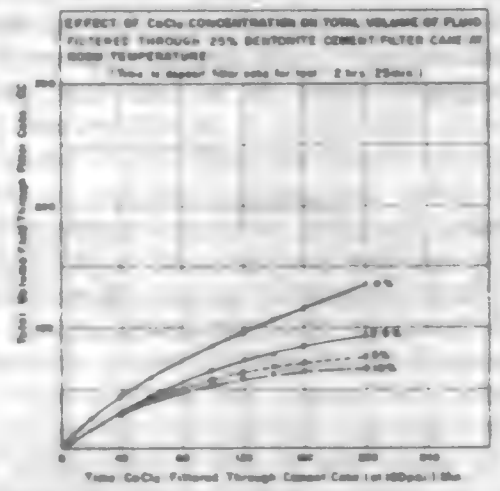
1. A pocket calendar device comprising an envelope open at each end; a card, bearing calendar indicia in vertical columnar arrangement, laterally slidable in the envelope; two adjacent vertical slots in one face of the envelope parallel to the ends of the envelope; and a card punch slidably mounted in one vertical slot with its punch point poised over the second slot.

2,868,294
WELL CEMENTING
Alvin F. Beale, Jr., Louis H. Ellers, and William T. Abel, Tulsa, Okla., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application May 23, 1955
Serial No. 510,575
27 Claims. (Cl. 166—29)

1. The method of cementing a well formed in the earth which comprises depositing therein into contact with the earth formation a flowable self-hardening mixture consisting of an aluminous material in particulate form selected from the group consisting of the oxides, hydroxides, and silicates of aluminum, phosphoric acid, and water, the ratio of the number of moles of aluminum (Al) to the number of moles of phosphorus (P) in the mixture being between 0.5 and 20, and the ratio of the number of moles of water (H_2O) to the number of moles of phosphorus (P) in the mixture being between 1.8 and 64.

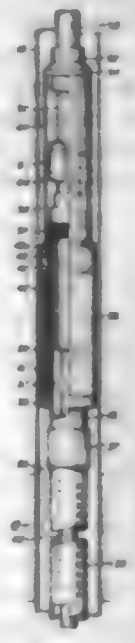
2,868,295
METHOD FOR CEMENTING WELLS
Fred A. Brooks, Jr., George W. Binkley, George K. Dumbauld, and Douglas Perry, Houston, Tex., assignors, by mesne assignments, to Jersey Production Research Company, Tulsa, Okla., a corporation of Delaware
Application December 7, 1956, Serial No. 626,880
11 Claims. (Cl. 166—29)

1. A method for accelerating strength development of cements employed in well completion operations in which a low fluid loss fluid cement is deposited in the well under a pressure greater than the pressure of a formation penetrated by the well to form an unset filter cake against said formation consisting essentially of said cement and excess fluid cement being removed from the well which comprises contacting the unset cement filter cake in the well immediately after removal of excess fluid cement with an aqueous solution of a treating reagent selected from the group consisting of calcium chloride, ammonium chloride, ammonium carbonate, alkali metal hydroxides, alkali metal sulfates, alkali metal carbonates and alkali



metal silicates, said aqueous solution being introduced and placed in the well, and said aqueous solution containing from about 1% to about 40% by weight of the treating reagent, and then applying sufficient pressure to said solution to force at least a portion of the solution from the well and through the unset cement filter cake into the formation to cause said filter cake to set and develop early strength.

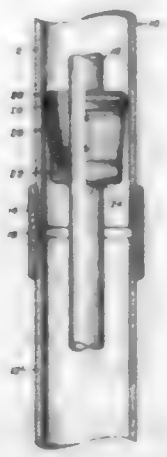
2,868,296
DUAL SCREEN ASSEMBLY
John B. Payne, Beaumont, Tex., assignor, by mesne assignments, to Jersey Production Research Company, Tulsa, Okla., a corporation of Delaware
Application February 14, 1956, Serial No. 565,523
8 Claims. (Cl. 166—119)



1. Apparatus for producing hydrocarbons from upper and lower dual production zones in a cased borehole comprising inner and outer concentric tubular members positioned in said borehole providing a first annulus between said casing and said outer tubular member and a second annulus between said inner and outer tubular members, said outer tubular member extending from above said upper zone to below said lower zone and being provided with upper and lower perforated liners adjacent each of said production zones, said inner tubular member extending from above to below said upper liner, said outer tubular member including a first movable sleeve having first and second positions, a first expansible packer positioned on said outer tubular member between said upper

and lower zones adapted to seal off said first annulus and connected to said first movable sleeve whereby said first packer is retracted when said first sleeve is in said first position and expanded when said first sleeve is in said second position, anchoring means arranged on said outer tubular member adapted to engage said casing, a second expansible packer positioned on said outer tubular member above said upper zone adapted to seal off said first annulus when expanded, a second movable sleeve connected to said second packer and having first and second positions whereby said second packer is retracted when said second sleeve is in said first position and expanded when said sleeve is in said second position, a third packer positioned on said inner tubular member adjacent the lower end thereof adapted to seal off said second annulus, frangible means releasably securing said first sleeve in said first position adapted to fracture when downward force is applied to the upper end of said outer tubular member while the lower end of said outer tubular member is maintained stationary, releasable means interconnecting said inner and outer tubular members and means attached to said inner tubular member adapted to engage the upper end of said second sleeve when said inner and outer tubular members are disconnected and said inner tubular member is moved upwardly relative to said outer tubular member whereby when said inner and outer tubular members are connected a downward force applied to the upper end of said inner tubular member exerts force on the upper end of said outer tubular member to fracture said frangible means and move said first sleeve from said first to said second position and an additional force applied to the upper end of said inner tubular member exerts force on the upper end of said outer tubular member to cause said anchoring means to engage said casing and whereby when said inner and outer tubular members are disconnected a downward force applied to the upper end of said inner tubular member moves said second sleeve from said first to said second position.

2,868,297
PACKER
Jack L. Lamberson, Jr., Baytown, Tex., assignor, by mesne assignments, to Jersey Production Research Company, Tulsa, Okla., a corporation of Delaware
Application August 29, 1956, Serial No. 606,916
4 Claims. (Cl. 166—121)



1. An assembly for use in a well containing a string of collared pipe sections having inner annular collar recesses, said assembly comprising an oil well tool having a body portion, said tool having a diameter less than the diameter of said pipe, a packer assembly comprising a hollow resilient normally contracted outwardly deformable packing member having an opening communicating with the said hollow portion thereof, said packing member being fluidly expansible into contact with the inner surface of said pipe on application of fluid pressure, means for securing said packing member to the body portion of said tool, and support means fixed to the outer surface of said deformable packing member for nesting engagement within a collar recess on expansion of said packing member through the application of fluid pressure, said support means having a vertical width less than the width of said collar recesses, whereby the outer surfaces of said deformable member on expansion thereof will be forced into sealing engagement with the inner surface of said pipe adjacent said support means.

2,868,298
CASING SCRATCHER
Fred Morgan Gist, Midland, Tex.
Application March 18, 1954, Serial No. 417,190
7 Claims. (Cl. 166—173)



1. A casing scratcher including end supports mounted on the exterior of a well casing, an elongate flexible element having its ends fixed to the end supports and free from support between its ends, and elongate resilient fingers directed outwardly from the flexible element in spaced relation to one another, each finger having its major portion spaced from adjacent fingers, whereby unimpeded circulation of fluid along the length of the casing is provided.

2,868,299
WELL BORE SCRATCHER
Fred Morgan Gist, Midland, Tex.
Application March 5, 1956, Serial No. 569,569
8 Claims. (Cl. 166—173)



6. A well bore scratcher including a plurality of independent resilient fingers, and a supporting member for mounting on a well casing and having the fingers attached thereto in spaced relation to one another, each finger being coiled in a substantially circular loop of relatively large diameter extending laterally outward of the member

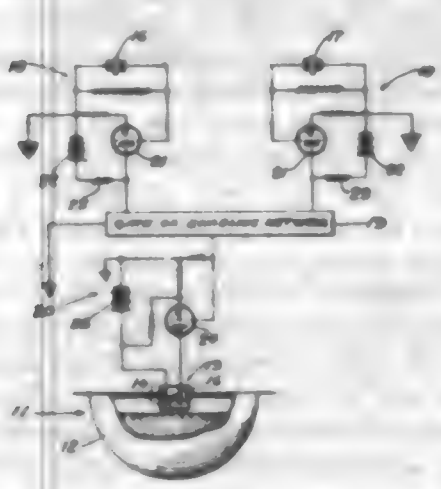
and casing for engagement with the wall of a well bore, the loops of the fingers being spaced from one another to provide flow paths therebetween.

2,868,300

EXPLOSION SUPPRESSION SYSTEM

Ernest A. Joerren, Brooklyn, N. Y., and Raymond E. Scott, Lincoln Park, N. J., assignors to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey

Application December 31, 1954, Serial No. 479,088
7 Claims. (Cl. 169—4)



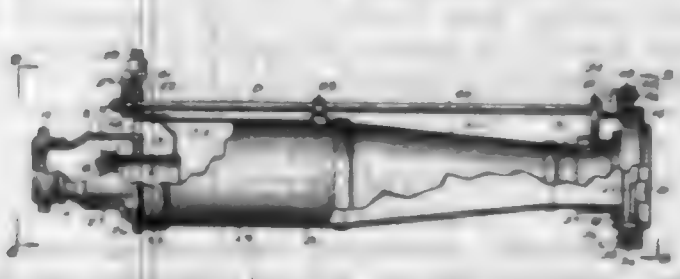
1. In a system for detecting rate of pressure rise in a confined space for containing liquid subjected to movement, the combination of an electrically controlled device, a network for controlling the energization of said device, a plurality of pressure transducers adapted to be arranged at the confined space in remote locations with respect to each other, said pressure transducers having a rate of pressure rise characteristic and being connected in said network to develop an electrical output, and means in said network for effecting energization of said device responsive only to a predetermined minimum number of electrical outputs developed simultaneously by said pressure transducers, whereby fluid pressure resulting from movement of the liquid and acting on less than all of said transducers will be rendered ineffective to energize said device.

2,868,301

FIRE EXTINGUISHING FOAM DISCHARGE NOZZLE

Paul H. Wiedorn, Philadelphia, Pa., assignor to National Foam System, Inc., a corporation of Delaware

Application March 4, 1957, Serial No. 643,719
12 Claims. (Cl. 169—15)



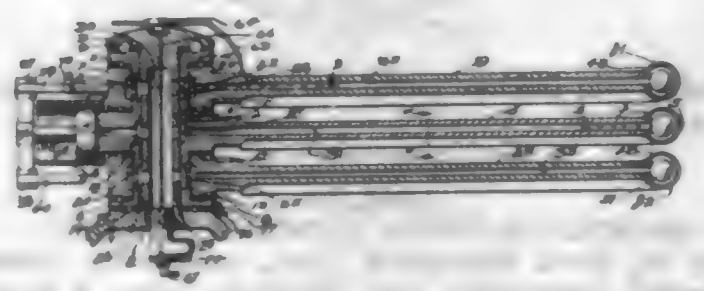
1. In apparatus for producing fire extinguishing foam, a nozzle comprising an elongated hollow nozzle body, adapted for having discharged directly thereinto a foam forming solution from a source of the latter connected to one end of said nozzle, a wall across the opposite end of said nozzle body, an elongated turbulator body circular and uniform in transverse section and extending freely through an apertured wall area having a minimum effective thickness, said turbulator body being carried by and mounted in fixed relation to said nozzle body, the aperture defining edge of said wall and the circumferentially extending outer surface area of said turbulator body that is opposed to said aperture defining edge being conjointly operative to define an annular orifice through which foam forming solution is discharged in the form of a hollow cylindrical sheet, and a conduit carried by said nozzle body and mounted in axial extension thereof for receiving said hollow cylindrical sheet of foam forming solution, said conduit being open ended to provide an inlet for air surrounding said nozzle body.

2,868,302

AUXILIARY ROTOR AIR FOIL MEANS

Adolphe C. Peterson, Minneapolis, Minn.

Application September 7, 1955, Serial No. 532,851
9 Claims. (Cl. 170—135.4)



1. In an air foil rotor means; a mounting pylon shaft, a pair of air foil blades having mounting on the mounting pylon shaft at the root ends thereof to be rotatable as a unit and to be oscillatable relatively to each other by oscillative mounting at their root ends to alternative positions in one of which the air foil blades trail from the axis of the mounting pylon shaft and are substantially parallel to each other and in the other of which positions the air foil blades are separated in the circle about said axis and spaced apart from each other radially of the pylon shaft as radii thereof; a reciprocable pressure responsive element movable with respect to a pressure chamber mounted with said air foil blades on said mounting pylon shaft to be rotatable thereon with said air foil blades, connecting links between said reciprocable pressure responsive element and said air foil blades to transmit torque from said pressure responsive element to said blades to move them from the trailing parallel positions to the radially separated positions; each said blade having fixed thereon, at a substantial distance from the said axis, a jet unit; a supply of fluid under pressure, and conductive conduit means from said supply and to said pressure chamber and to said jet units of said blades to substantially simultaneously permit flow of fluid under pressure to said pressure chamber to be applied against said pressure responsive element and to permit flow of said fluid under pressure to each of said jet units.

2,868,303

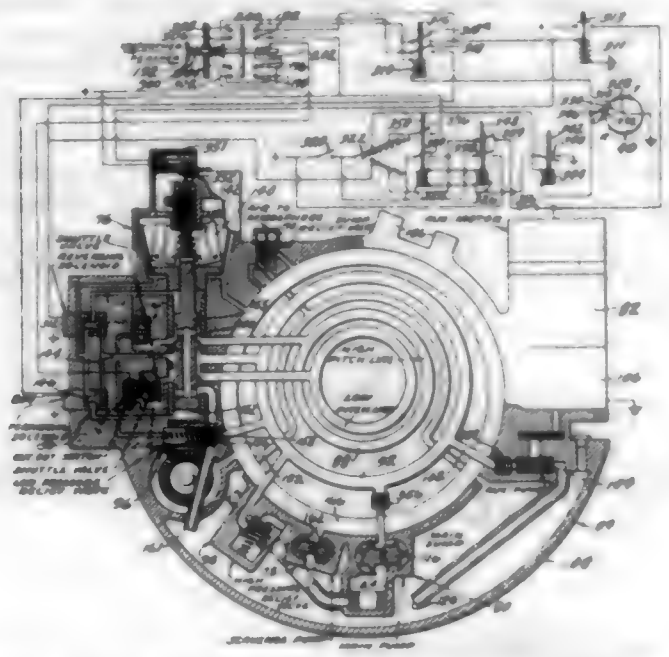
PROPELLER AUXILIARY POWER CONTROL

Chester M. Jedrziewski, Rockville, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application September 2, 1953, Serial No. 378,096
19 Claims. (Cl. 170—160.2)

3. A control for an adjustable pitch propeller comprising, a continuously operating fluid pump, an outlet for said control, a speed responsive governor controlling the flow of fluid from said pump to said outlet, a normally inactive fluid pump connected in parallel with said continuously operating pump, means actuated by said gov-

ernor, when in its governing operation it reaches a predetermined off speed position, including means for



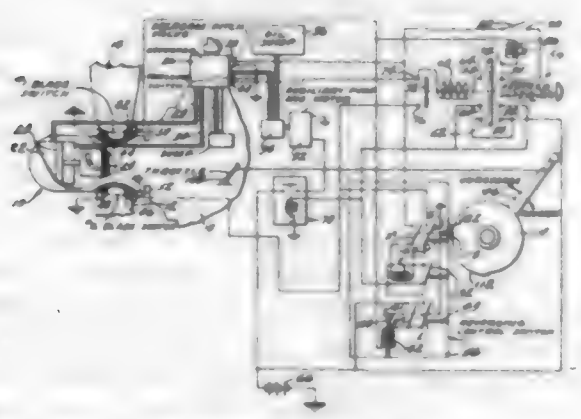
actuating said inactive pump, for supplying fluid to said outlet.

2,868,304

PROPELLER PITCH CONTROL SYSTEM

Henry M. Horn, Bloomfield, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application October 1, 1953, Serial No. 383,544
10 Claims. (Cl. 170—160.2)



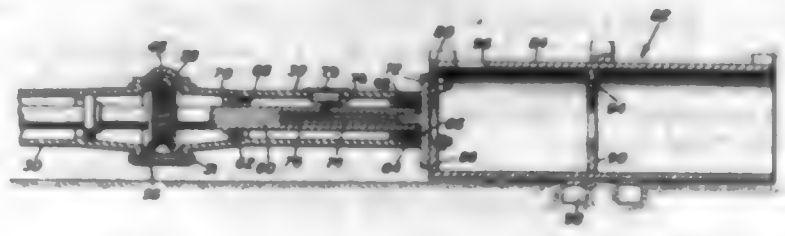
1. In a controllable pitch propeller control system, in combination, a relay, a source of power, an unfeather switch connecting said relay with said source of power, a governor, pitch decreasing means for disabling said governor and directing fluid through said governor to said propeller to reduce the pitch thereof, means connecting said pitch decreasing means with said relay for energizing said pitch decreasing means upon closing of said relay, an unreversing switch for unreversing said propeller, a latch for said unreversing switch, an electrically actuated unlatching means for unlatching said latch, pitch unreversing means connected with said propeller, said unreversing switch connecting said pitch unreversing means and said unlatching means with said source of power, a blade switch arranged in series with the coil of said relay and said unfeather switch and with said unlatching means and said unreversing switch, brush means forming a part of said blade switch and both series circuits, said blade switch completing the unfeather circuit from feathered position to a preselected high pitch position and then breaking said unfeather circuit and deenergizing said relay and disabling said pitch decreasing means, said blade switch breaking the circuit through said unlatching means from reverse to a predetermined low pitch position and then completing the circuit through said unlatching means to unlatch said unreversing switch and disable said unreversing means.

2,868,305

POWER TILLER FOR ORCHARDS

Reather C. Surratt, Denton, N. C.

Application February 13, 1957, Serial No. 639,987
5 Claims. (Cl. 172—47)



1. A tiller for use in cultivating orchards or the like comprising a hitch assembly for attachment to a towing vehicle, a transversely extending hollow housing mounted on said hitch assembly, an axle rotatably journaled in said housing, a mounting plate rigid with the outer end of said axle, a cultivator tool unit detachably secured to the mounting plate, said tool unit including a cylindrical drum, a plurality of radially projecting teeth rigid with the periphery of said drum, an end plate in one end of said drum for attachment to the mounting plate whereby the drum will be disposed laterally outwardly of the housing and extending laterally of the path of movement of the towing vehicle, and an inner plate in the drum disposed in spaced relation to the end plate for attachment to the mounting plate when the drum is reversed with the open end thereof telescoping over the housing thereby disposing the drum behind the towing vehicle.

2,868,306

TILLER FLOAT OR LEVELING DRAG

Laurence Monroe Key, Ararat, N. C.

Application January 15, 1957, Serial No. 634,285
5 Claims. (Cl. 172—200)



1. In combination with a tiller having a frame including transverse front and rear bars; a floating ground scraping and leveling drag comprising a beam having front and rear sides, and a plurality of L-shaped drawbars each having a normally substantially horizontal end portion spaced above and passing over the rear bar of the tiller frame and provided with means connected to the front bar of the tiller frame for swinging about a transverse axis, and a normally downturned end portion pivotally connected to the rear side of the ground leveling beam, and means limiting pivotal movement of the ground leveling beam relative to said downturned end portion beyond an amount permitting a predetermined degree of play during travel over the ground.

2,868,307

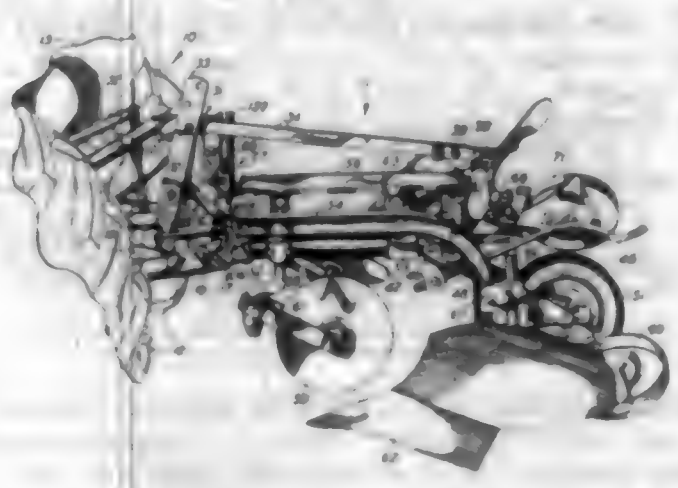
TWO-WAY PLOW

Roy F. Schwegler, Davenport, Iowa, assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin

Application December 10, 1954, Serial No. 474,426
5 Claims. (Cl. 172—225)

1. In a two-way plow the combination of a frame supported for travel above the ground, a longitudinally disposed axle projecting rearwardly from the frame, a beam frame rockably carried on the axle, soil working elements on the beam frame circumferentially spaced thereabout, an indexing plate rockably supported from said axle, a detent carried on said beam frame outwardly of the

margins of said plate and yieldingly urged toward said plate, stop plates on said indexing plate positioned to engage said detent and define the limits of rocking movement of said beam frame, an extensible fluid motor connected between said indexing plate and said beam frame for rocking said frame upon actuation of said motor,



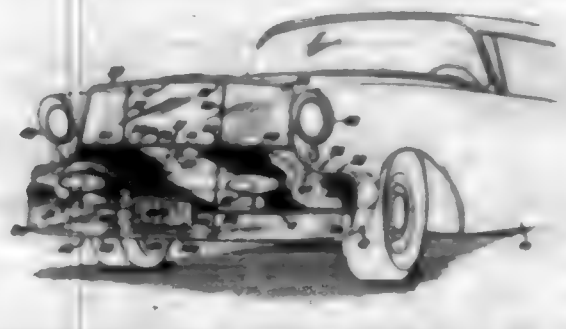
said motor, by virtue of its connection to said plate, causing rocking of said plate prior to rocking of said beam frame for disengaging said detent from one of said stop plates upon rocking of said indexing plate in one direction and from the other stop plate upon rocking of said indexing plate in the other direction.

2,868,308

BUG SHIELD FOR AUTOMOBILES

Robert R. Biewald, Lincoln, Nebr., assignor of one-third to Hiram A. Sturges, Omaha, Nebr.

Application December 12, 1955, Serial No. 552,558
1 Claim. (Cl. 180—68)



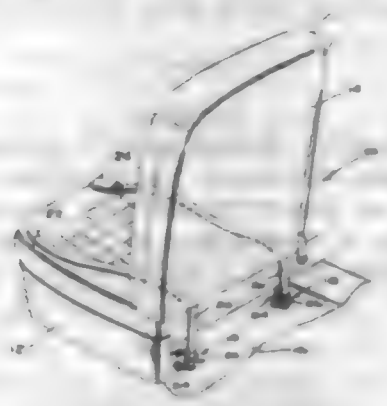
In combination with an automobile having a windshield, a forward end disposed forwardly of said windshield, and an air intake opening in a lower portion of said forward end, an insect shield comprising a frame adapted to be placed transversely of the forward end of said automobile, said frame having an upper section and a lower section, said upper section of said frame extending substantially to the top of the forward end of said automobile, the upper edge of said shield being sufficiently close to the level of the top of the hood of said automobile so as not to substantially interfere with the driver's vision to the point of eye discomfort or loss of safety, substantially imperforate first covering means attached to and supported by the upper section of said frame, said substantially imperforate first covering means extending a substantial distance downwardly across a wide area of the forward end of said automobile for shielding that area from being splattered by the body liquids of insects, said lower section of said frame being disposed beneath said upper section and around said air intake opening, a perforate second covering means attached to and supported by said lower section of said frame in a position for covering said intake opening to admit air thereinto while prevening much of the body matter of the insects from entering said air intake opening, and means for attaching said frame to said automobile in a rearwardly inclined position whereby the said first covering means is maintained in a position for deflecting air upwardly as the automobile moves forward to create an air stream for carrying insects upwardly and across the top of the forward end and windshield of said automobile, said substantially imperforate first covering means extending over an area of substantial width whereby bugs are substantially prevented from striking the sides of the windshield.

2,868,309

IGNITION SAFETY SYSTEM CUT-OUT SWITCH

Charles Ross Burgess, Toronto, Ontario, Canada; The Royal Trust Company, Elizabeth K. Burgess and Ralph E. Burgess, executors of said Charles R. Burgess, deceased

Application January 31, 1956, Serial No. 562,572
4 Claims. (Cl. 180—82)



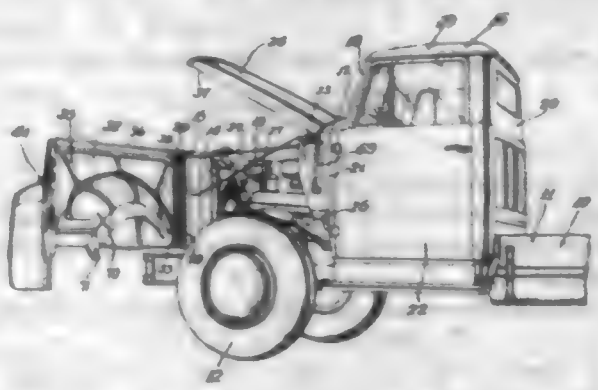
1. In a vehicle, an inertia actuated safety system comprising a safety belt secured from the vehicle floor for overlying relationship relative to a seated passenger, a displaceable safety belt anchor bolt element supported on the vehicle floor and secured to an end of the safety belt for displacement in response to a predetermined inertia-applied tension on the safety belt, spring means engaged with the anchor bolt for retaining the bolt against displacement below a predetermined tension, switch actuating means connected to the anchor bolt and movable therewith for actuating a switch mechanism, switch mechanism engageable by the switch actuating means in response to displacement of the anchor bolt element, a control circuit connected to the switch mechanism, a vehicle ignition system, a relay switch connected to the control circuit and ignition system for actuation by the switch mechanism for cutting out the vehicle ignition system in response to the predetermined inertia-applied tension force on the safety belt.

2,868,310

MOTOR VEHICLE FENDER LOCKING MEANS

Fred A. Lee, Fort Wayne, Ind., assignor to International Harvester Company, a corporation of New Jersey

Original application August 13, 1954, Serial No. 449,740, now Patent No. 2,833,364, dated May 6, 1958. Divided and this application August 26, 1955, Serial No. 530,728
6 Claims. (Cl. 180—89)



1. A releasable lock device for securing the free end of a motor vehicle body part having one end pivotally sup-

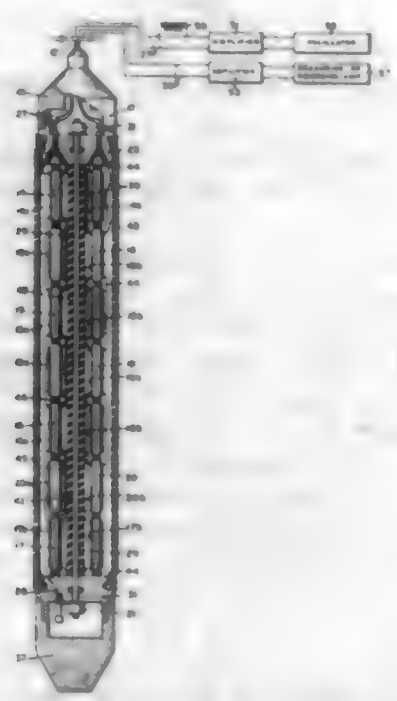
ported by a longitudinally extending chassis frame for horizontal swinging movement to and from a normal, inswung position about a vertical axis with respect to the chassis frame, comprising a first element rigid with respect to the chassis frame and longitudinally spaced from said vertical axis, the bottom surface of said element being susbtantially flat; a second element rigidly carried by the free end of said body part having a flat top surface adapted to abut the bottom surface of said first element once said body part is in its normal position, said abutting surfaces lying in a plane disposed at an acute angle with respect to a vertical plane containing the pivotal axis of said body part and parallel to the longitudinal axis of said chassis frame and at an acute angle with respect to a vertical plane parallel to the pivotal axis and parallel to the transverse axis of said chassis frame; and cam means vertically extensible through the plane in which said abutting surfaces lie to force said abutting surfaces tightly together.

2,868,311

ACOUSTIC IMPEDANCE LOGGING

Frank N. Tullos, Houston, Tex., assignor, by mesne assignments, to Jersey Production Research Company, Tulsa, Okla., a corporation of Delaware

Application March 7, 1957, Serial No. 644,652
3 Claims. (Cl. 181—.5)



1. In an acoustic impedance logging system for logging a borehole: means for generating sound waves of a particular frequency and having radial components and longitudinal components; and a plurality of spaced apart detectors; the spacing between adjacent detectors being related to the particular frequency of the generated sound waves according to the formula

$$V=fNs$$

wherein V is the expected velocity of the longitudinal components in the borehole, s is the distance between adjacent detectors, f is the frequency of the generated sound waves, and N is the number of said detectors.

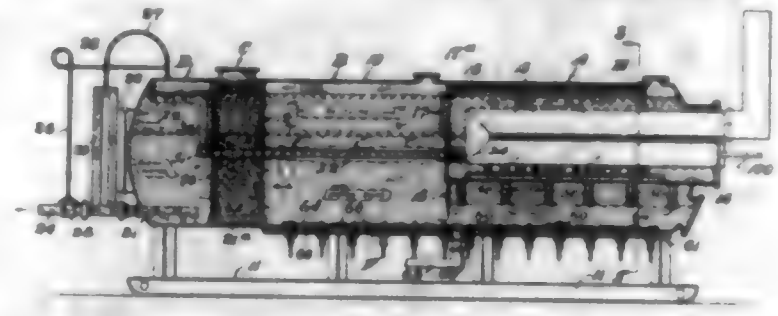
2,868,312

EMULSION TREATER

Ransome W. Erwin, Fort Worth, Tex., assignor to Salt Water Control, Inc., Fort Worth, Tex., a corporation of Texas

Application July 12, 1955, Serial No. 521,553
7 Claims. (Cl. 183—2.7)

1. A horizontal emulsion treater comprising a treating tank having an entrance zone at one end, a discharge zone at the other, and an intermediate settling zone, a heater unit in the upper portion of the entrance zone removable axially through said one end of the treater, and a free water knockout area at the bottom of the tank below the heating unit, a heat exchanger surrounding the upper portion only of the entrance zone and including the portion of the zone occupied by the heater leaving the lower portion free, said heat exchanger comprising an outer jacket having an oil and gas offtake pipe leading therefrom, an inner jacket having an



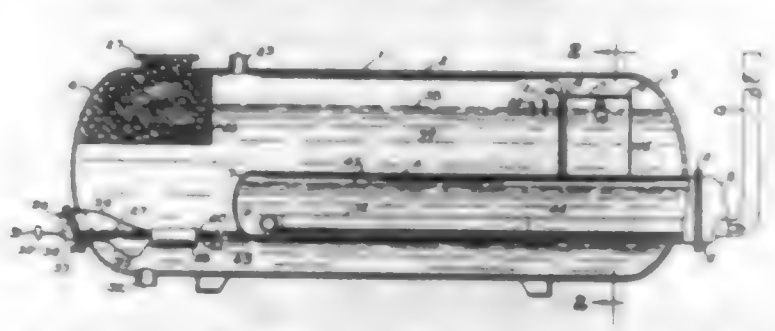
inlet pipe leading thereto, the inner jacket discharging into a zone below the heater, means for supplying emulsion under pressure and containing oil, water and gas to the inner jacket and thence to the heating unit, whereby the emulsion is separated into gas, oil and water constituents, means for withdrawing gas and oil from the discharge end of the treater and supplying the same through an external pipe to the outer jacket of the heat exchanger.

2,868,313

APPARATUS FOR SEPARATING FLUIDS

Wayne E. Lenszler and Loren E. Wood, Oklahoma City, Okla., and Alvin P. Teal, Alice, Tex., assignors to Black, Sivalls & Bryson, Inc., Kansas City, Mo., a corporation of Delaware

Application December 2, 1955, Serial No. 550,525
2 Claims. (Cl. 183—2.7)



1. An oil and water emulsion treater comprising, a horizontally disposed cylindrical vessel having an inlet end and an outlet end adapted to contain distinct oil and water strata along the entire length of said vessel and an emulsion stratum therebetween, an emulsion inlet into the inlet end of said vessel, a treated oil outlet extending from the outlet end of said vessel, said treated oil outlet positioned in said vessel to maintain the desired upper level of said oil stratum in said vessel, a water outlet extending from the outlet end of said vessel, control means associated with said water outlet to maintain the desired upper level of said water stratum in said vessel, a heater in said vessel, said heater extending into the inlet end of said vessel and extending horizontally through more than half the length of said vessel above said water stratum, an inlet spreader extending from a position above the upper level of said oil stratum and sloping downwardly in said oil stratum to a position beside said heater and above the upper level of said water stratum, said inlet spreader comprising a sloping bottom and upwardly extending flanges secured to each side of said sloping bottom, said emulsion inlet being connected to said inlet spreader to discharge the influent emulsion stream thereon between said flanges at a position above the upper level of said oil stratum, a portion of said inlet spreader being positioned in close spaced relationship to said heater to heat said inlet spreader for initially heating said influent emulsion stream to liberate gas from said influent emul-

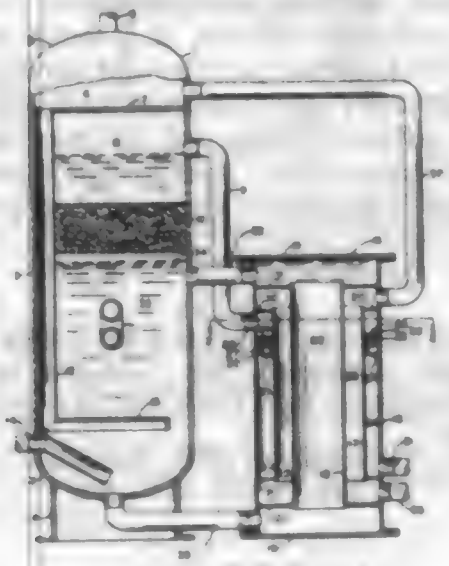
sion stream and for heating said emulsion stream during its flow down said inlet spreader to preheat said influent emulsion stream prior to its discharge from said inlet spreader and a gas outlet from said vessel.

2,868,314

APPARATUS FOR SEPARATING FLUIDS

Wayne E. Leussler and Loren E. Wood, Oklahoma City, Okla., and Alvin P. Teal, Alice, Tex., assignors to Black, Sivalls & Bryson, Inc., Kansas City, Mo., a corporation of Delaware

Application January 18, 1956, Serial No. 559,980
3 Claims. (Cl. 183—2.7)



1. In combination with an emulsion treater having an emulsion inlet, a treated oil outlet and a hot water section, an emulsion preheater comprising, a first tubular duct, a second tubular duct within said first tubular duct, a third tubular duct within said second tubular duct, each of said tubular ducts being positioned vertically, an emulsion inlet into the lower portion of the emulsion flow space between said second duct and said third duct, an emulsion outlet from the upper portion of said emulsion flow space connected to the emulsion inlet of said emulsion treater, a hot water inlet into the upper portion of said third duct connected to the upper portion of the hot water section of said emulsion treater, a hot water outlet from the lower portion of said third duct connected to the lower portion of the hot water section of said emulsion treater, a treated oil inlet into the upper portion of said first duct connected to the treated oil outlet from said treater, a treated oil outlet from the lower portion of said first duct and at least two horizontal distributor plates positioned in the space between said first duct and said second duct, the inner and outer peripheries of said plates being in close spaced relationship to said second and said first ducts respectively to provide narrow passageways directing the flow of treated oil in thin films on the outer surface of said second duct and on the inner surface of said first duct.

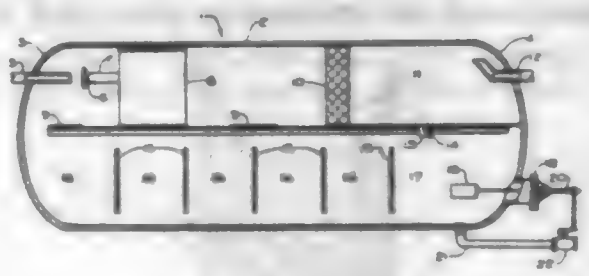
2,868,315

APPARATUS FOR SEPARATING FLUIDS

William F. Chaple and Robert E. McMinn, Oklahoma City, Okla., assignors to Black, Sivalls & Bryson, Inc., Kansas City, Mo., a corporation of Delaware

Application May 24, 1957, Serial No. 661,493
1 Claim. (Cl. 183—2.7)

An oil and gas separator comprising, a horizontally disposed cylindrical vessel having an inlet end and an outlet end, an inlet into the inlet end of said vessel, an inlet baffle, said inlet directed toward said baffle, a plurality of horizontally disposed divider plates positioned across said vessel, one of said divider plates defining the lower surface of a gas collecting chamber, a mist extraction element positioned across the entrance to said gas collecting chamber, straightening vanes positioned between said inlet baffle and said mist extraction element, a gas outlet extending from said gas collecting chamber through the outlet end of said vessel, a plurality of vertically disposed transverse partitions positioned across the lower portion of said vessel, the lower edges of said partitions



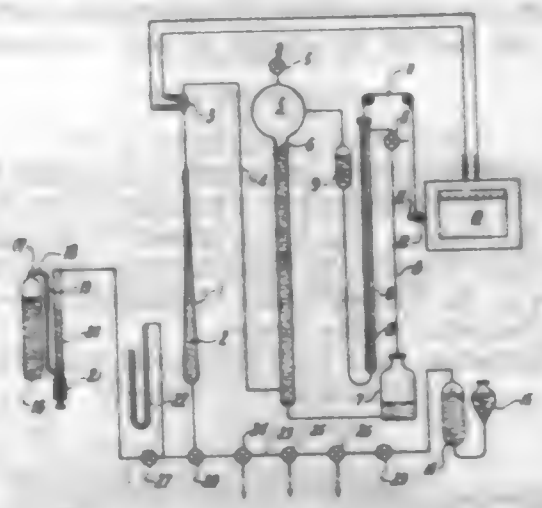
each being spaced a short distance above the lower portion of said vessel, the upper edges of said partitions being spaced a short distance below said divider plates and a liquid outlet from the lower portion of said outlet end of said vessel, said liquid outlet being positioned downstream of all of said transverse partitions.

2,868,316

APPARATUS FOR SEPARATING, IDENTIFYING AND MEASURING GASES

Lloyd V. Guild, Library, Pa.

Application May 31, 1952, Serial No. 290,865
1 Claim. (Cl. 183—4.5)



In apparatus for separating gas fractions, a fractionating column of adsorbent material, a discharge vapor container connected at one end of the column for charging a displacement vapor into the column, said container having a flow control orifice to a column of mercury, and means for adjusting the height of the mercury column to regulate the pressure drop of the displacement vapor across said orifice for controlling the rate of flow of vapor from said container.

2,868,317

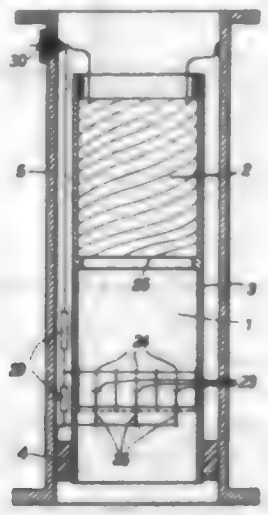
APPARATUS FOR ELECTRICALLY SEPARATING MATTER AND CONDENSATION CORES SUSPENDED IN A GAS

Friedrich Julius Maas, Zurich, Switzerland, and Johann Schedling, Vienna, Austria, assignors to G. A. Messen-Jaschin, Sarnen, Switzerland

Application June 3, 1955, Serial No. 513,024
Claims priority, application Switzerland August 10, 1954
2 Claims. (Cl. 183—7)

1. An apparatus for electrically separating a matter from a gas in which it is suspended by compressing the gas and feeding it in compressed condition through an electrofilter, said apparatus comprising means forming a pressure space to be traversed by the gas and having an inlet and an outlet for the gas stream, an electrofilter mounted in said space, means forming an ionizer chamber near the inlet of said space, an ionizer

located in said chamber and having a metallic base plate, layers of a radioactive preparation on said base plate, said layers radiating leewardly and serving as an ionizer for electrically charging the matter suspended in the gas stream, a wire axially extending into the insulating tube and serving to support said base plate, the dimensions of said preparation being small as com-



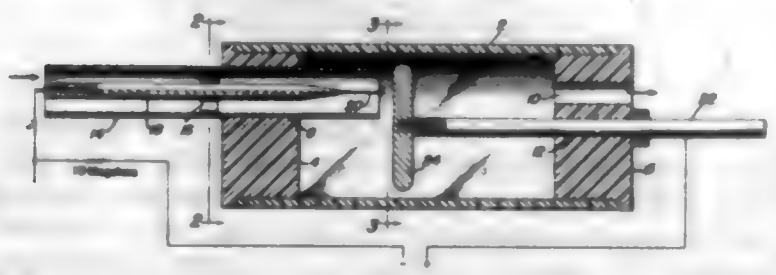
pared with the radius of the insulating tube and the range of which, for the selected gas pressure, is not substantially smaller than the radius of the insulating tube, a cylinder electrode adjacent the inner wall of the insulating tube and a net-electrode insulated from said cylinder electrode and directed leewards into the gas stream, an electric field being erected above the base plate of the ionizer by means of said electrodes.

2,868,318

COLLECTION OF AIRBORNE MATERIAL BY ELECTROSTATIC PRECIPITATION

William A. Perkins, Los Altos, Stuart W. Grinnell, Menlo Park, and Conrad F. Schadt, Palo Alto, Calif., assignors to the United States of America as represented by the Secretary of the Army

Application June 23, 1955, Serial No. 517,664
3 Claims. (Cl. 183—7)



1. An electrostatic precipitator comprising a longitudinal tube having an anode surface therein perpendicular to and supported by a central shaft coincident with the axis of said tube, a pointed cathode supported normally and in close spacing to said anode surface and to one side of the center thereof including means to admit air around said anode in a stream confined to a small area of said anode and including electrical means to supply a direct current potential difference of 8,000 to 10,000 volts between cathode and anode.

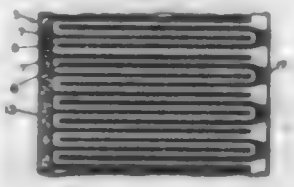
2,868,319

ELECTROSTATIC AIR FILTER CELL WITH CONDUCTIVELY STRIPED FILTER WEB

Richard D. Rivers, Louisville, Ky., assignor to American Air Filter Company, Inc., Louisville, Ky., a corporation of Delaware

Application December 19, 1955, Serial No. 553,858
13 Claims. (Cl. 183—7)

1. An electrostatic air filter cell comprising an open-faced perimetric frame, a web of air pervious di-electric air filter material mounted within said frame and having its edge portions disposed in abutting relation therewith, and means for distributing an electrostatic charge over said web including, a first series of electrically conductive stripes on said web terminating adjacent one edge thereof, a second series of electrically conductive stripes on said web disposed in predetermined spaced relation with said first series of stripes and terminating adjacent another



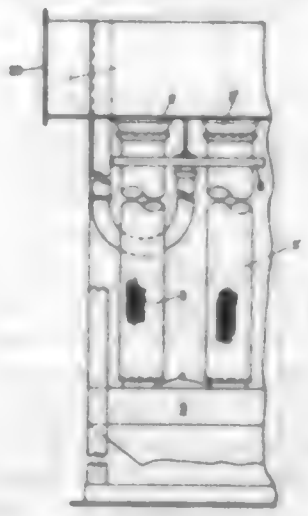
edge of said web, terminal means mounted on said frame for selective connection thereto of a source of electrical power of a predetermined polarity and conductive means disposed intermediate said frame and said first mentioned abutting edge portion of said web for providing a selective electrical connection intermediate said terminal means and said first series of conductive stripes.

2,868,320

COMBINED CYCLONE AND BAG TYPE FILTER

Karl L. Westlin, Louisville, Ky., assignor to American Air Filter Company, Inc., Louisville, Ky., a corporation of Delaware

Application December 9, 1955, Serial No. 552,187
5 Claims. (Cl. 183—34)



1. An air cleaner comprising: a dust hopper; a vertically arranged filter tube with its lower end connected to said hopper, said tube receiving incoming gas internally, filtering that gas as it passes radially outward through the tube wall and discharging the filtered dust axially downward into the hopper at a predetermined static pressure; and a vertically arranged cyclone dust separator having a tangential inlet to receive incoming gas disposed above said tube, an upper clean gas outlet discharging into said tube and an elongate conduit depending from its lower end to said hopper and contained within said tube to discharge cyclonically separated dust into said hopper at a static pressure approximating said predetermined static pressure.

2,868,321

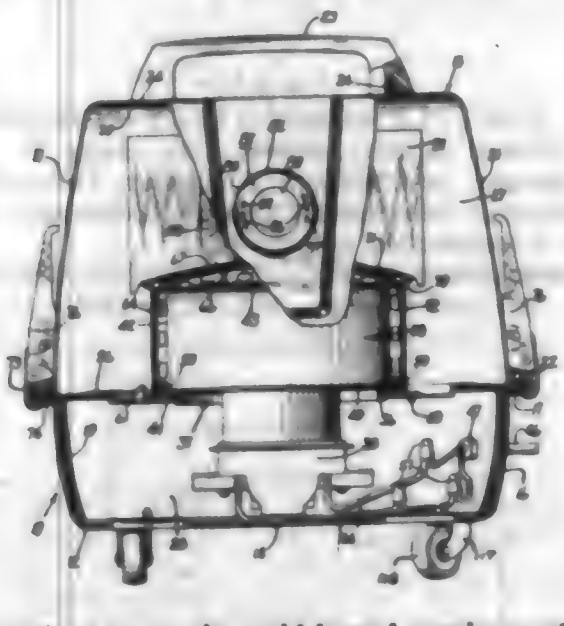
CANISTER-TYPE VACUUM CLEANER

George M. Kelly, Sturgis, Mich., assignor to Kingston Products Corporation, Kokomo, Ind., a corporation of Indiana

Application October 18, 1957, Serial No. 690,919
7 Claims. (Cl. 183—37)

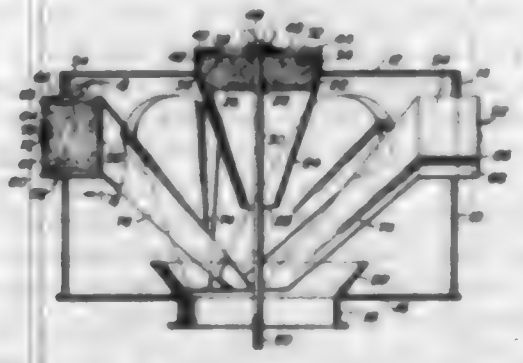
1. In a canister cleaner, a housing having a dirt-separating compartment with an inlet opening formed in the walls thereof, said housing having an edge portion extending inwardly into said dirt-separating compartment at said inlet opening, a ferrule in said opening having a barrel portion projecting through said opening into said housing and a flange overlying the edges of said opening

outside of said housing, said barrel portion having struck-out lug portions underlying said edge portion on the inside of said housing, and a dirt-separating filter bag in said compartment made of flexible porous filter material and having rigidified reinforcement means forming an in-



let opening sized to receive said barrel portion and having slots formed in said rigidified reinforcement means extending radially outwardly from said inlet opening corresponding in number and placement to said lug portions for effecting a bayonet coupling connection of said filter bag therewith.

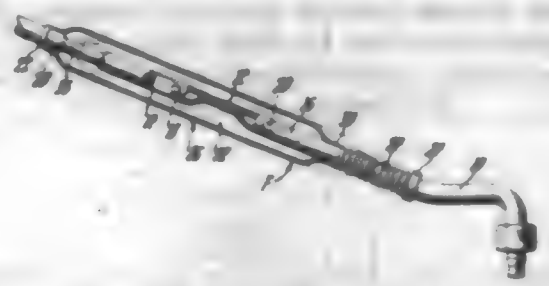
2,868,322
TURBULENT AIR-INTAKE DEVICE FOR CARBURETORS
Ralph J. Stauffer, Reading, Pa.
Application November 21, 1957, Serial No. 697,847
9 Claims. (Cl. 183—48)



1. An air-intake device for carburetors comprising a housing having top, bottom and side walls, a plurality of air inlet means in one wall of said housing, an air outlet means in another wall of said housing, a substantially conical duct connected to and extending from each of said air inlet means to said air outlet means, each of said ducts being open at each end thereof, and the discharge ends of said ducts being arranged tangentially relative to said air outlet means.

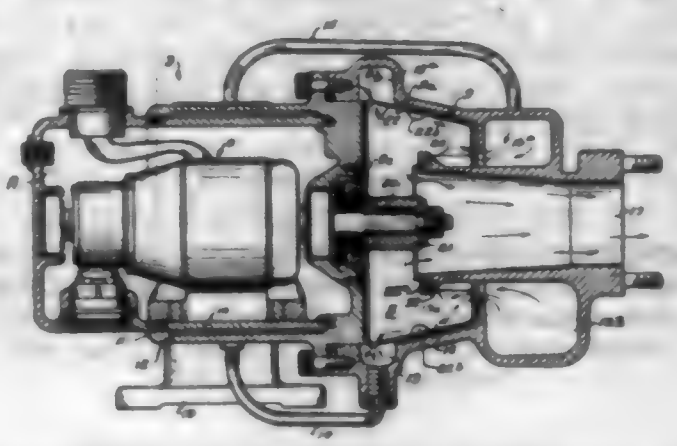
2,868,323
FILTERING DEVICE
Roger M. Young, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 1, 1956, Serial No. 601,418
2 Claims. (Cl. 183—75)

1. A filter comprising an air tube, said air tube having first and second axially spaced shoulders thereon, a sleeve mounted upon said tube and axially slidable between said shoulders, the end portions only of said sleeve contacting said tube in a sliding relationship to define a closed filter chamber between said sleeve and said tube, a spring member disposed between a first end of said sleeve and said first shoulder to bias the second end of said sleeve into engagement with said second shoulder, means in the air tube between the axially disposed shoulders obstructing the flow of air through said tube, said means including a portion of said tube depressed to contact a diametrically opposed portion of said tube, a first flat surface on said tube between said means and said first shoulder and having an aperture therein, a second flat surface on said tube between said means and said second shoulder and having an aperture therein whereby the air



entering said tube exits through one of said apertures and re-enters the air tube through the other of said apertures allowing dirt particles to collect in the filter chamber, and a reduced portion formed in said air tube between said second flat surface and said second shoulder, said sleeve and said tube forming said closed filter chamber when said second end of said sleeve is in contact with said second shoulder, and said sleeve and said reduced portion providing an outlet for said chamber to permit cleaning thereof when said second end of said sleeve overlies said reduced portion of the air tube.

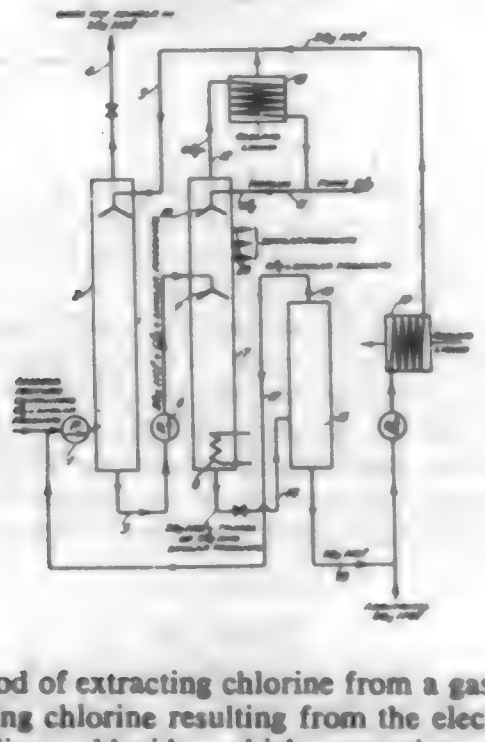
2,868,324
VENT LINE CENTRIFUGE
Robert J. Anderson, Wickliffe, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
Application December 5, 1955, Serial No. 551,184
5 Claims. (Cl. 183—77)



1. Apparatus for the separation of liquid from a mixture of entrained liquid and vapor comprising a centrifuge having an inlet adapted to receive the mixture; a volute having a gradually decreasing cross-section spiral passage in communication with said inlet imparting a rapid change of direction to the mixture, a centrifuge chamber adjacent to and in communication with said volute, a relatively large, central outlet having an inwardly flared open end in communication with the interior of the centrifuge chamber and adapted to vent separated vapor therefrom and a relatively restricted, peripherally disposed outlet adapted to pass separated liquid from the centrifuge chamber, and a truncated-conical, hollow rotor rotatably and telescopically positioned in the centrifuge chamber having a relatively narrow open end in communication with said volute to receive and apply centrifugal force on the mixture to separate the liquid therefrom and an opposite, relatively enlarged closed end incorporating a peripherally disposed passageway in communication with said restricted, peripherally disposed

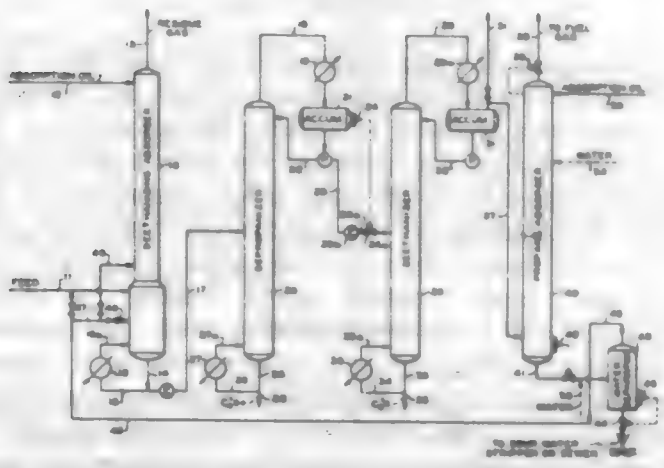
outlet and a peripheral channel incorporated in said centrifuge in communication between the peripherally disposed passageway and said peripherally disposed outlet and transferring the separated liquid being pumped rearwardly towards said relatively enlarged closed end to said last-named outlet.

2,868,325
METHOD OF EXTRACTION OF CHLORINE FROM GASEOUS MIXTURES
Marie Edouard Joseph Cathala, Toulouse, France
Application July 12, 1956, Serial No. 597,355
Claims priority, application France February 29, 1956
13 Claims. (Cl. 183—115)



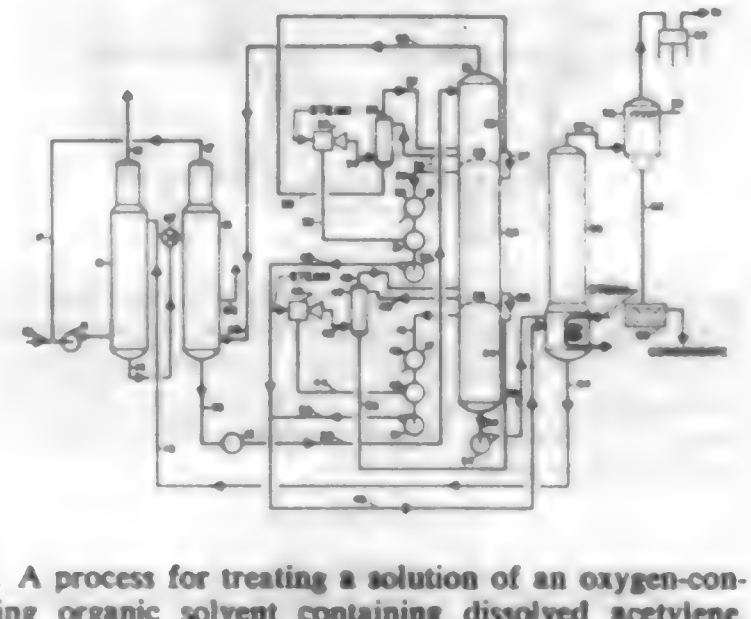
1. A method of extracting chlorine from a gaseous mixture containing chlorine resulting from the electrolysis of aqueous sodium chloride, which comprises contacting said gaseous mixture with a stream of cold chloro-sulfonic acid, thereby dissolving in said stream at least a major portion of the chlorine contained in said mixture, compressing and distilling said stream containing chlorine dissolved therein, thereby separating gaseous chlorine from said stream, and expanding said stream substantially stripped from chlorine.

2,868,326
RECOVERY OF HYDROCARBONS FROM GASES
Forrest E. Gilmore, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application March 11, 1957, Serial No. 645,307
9 Claims. (Cl. 183—115)



9. A method for recovering a gaseous hydrocarbon of reduced hydrogen sulfide content from a stream containing hydrocarbon, hydrogen sulfide and water vapor which comprises contacting said stream with an absorption medium consisting essentially of a water immiscible absorption oil in an absorption zone to absorb said hydrocarbon and hydrogen sulfide which is also unavoidably absorbed in said oil medium and under conditions forming an aqueous phase, and separating an aqueous phase from the enriched oil medium, thus removing a substantial proportion of hydrogen sulfide from said stream and recovering said hydrocarbon having a reduced hydrogen sulfide content from said medium.

2,868,327
ACETYLENE RECOVERY PROCESS
Ross William Rotzler, Texas City, John P. Hickman, La Marque, and William H. Collier, Texas City, Tex., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
Application April 9, 1957, Serial No. 651,696
14 Claims. (Cl. 183—115)



1. A process for treating a solution of an oxygen-containing organic solvent containing dissolved acetylene, said solvent having a boiling point above that of water, which comprises introducing said solution into the first of a series of desorbing stages, said stages being maintained under progressively reduced pressures, each stage being maintained at a pressure lower than the pressure in the preceding stage, transferring said solution from the first stage successively to each of the succeeding stages of lower pressure whereby acetylene gas is evolved from said solution in each stage, entraining the gas evolved in each of the stages except the first stage with a high velocity steam jet, discharging the said gas and steam from each stage respectively into separate vessels where substantially all of said steam is condensed, withdrawing the gas from each of said vessels and discharging it respectively into the solution contained in the stage just preceding that from which the gas was originally entrained, withdrawing acetylene from the first stage and withdrawing said solvent substantially free of acetylene from the stage of lowest pressure.

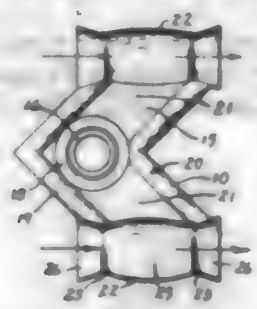
2,868,328
ACETYLENE SOLVENT
Raymond A. Franz, El Dorado, Ark., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application May 23, 1957
Serial No. 661,044
2 Claims. (Cl. 183—115)

2. In a process for the recovery of acetylene from an acetylene containing gas, the step of contacting said gas with 1-(1'-pyrrolidylcarbonyl)-pyrrolidine.

2,868,329
OIL DRIP COLLECTOR FOR VEHICLE
Edward I. Phelps, Portland, Oreg.
Application July 17, 1956, Serial No. 598,405
2 Claims. (Cl. 184—106)

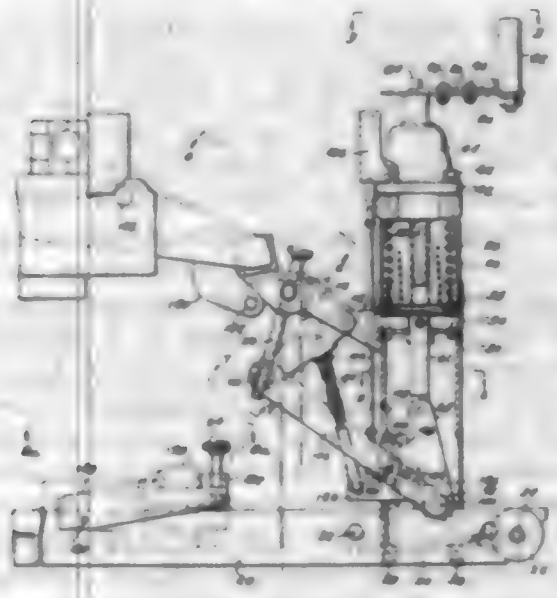
1. An oil drip collector for a vehicle lubricant housing having a drain plug, comprising a body portion en-

gageable by said drain plug and held on said housing thereby, chamber means in said body portion for collecting oil from said housing, passage means in said body



portion for directing said oil into said chamber means, and air scoop means associated with said chamber means for directing forced air currents into said chamber means and ejecting oil therefrom.

2,868,330
AUXILIARY SPRING CLOSING DEVICE
Arthur S. Caswell, Glenside, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application March 29, 1957, Serial No. 649,521
17 Claims. (Cl. 185—37)



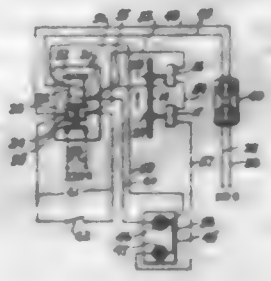
1. In an auxiliary spring closing device; said auxiliary closing device including an output member constructed to be operatively connectable to a circuit breaker operating mechanism, a spring means, a charging means for charging said spring and a latching means; said spring means being operatively connected to said output member for operating said operating member between a first and second position; said latching means being positioned to latch said spring means in a charged condition when said charging means charges said spring, and means for unlatching said latch means to allow the stored energy of said spring means when said spring means is in said charged condition to move said output member from said first position to said second position, the circuit breaker contact associated with said circuit breaker operating mechanism being operated by the stored energy of said spring.

2,868,331
LIFTING APPLIANCE
Julio Villars, Versoix-Geneva, Switzerland
Application July 12, 1955, Serial No. 521,523
Claims priority, application Switzerland July 14, 1954
2 Claims. (Cl. 187—17)



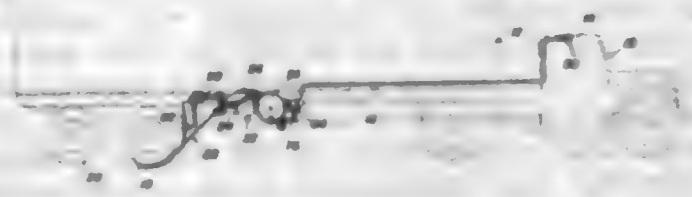
1. In a lifting appliance, a platform having frame means depending therefrom, said platform and frame means being adapted to be raised from and lowered into a pit, sheaves positioned in the upper part of said pit adjacent said frame means, motive means, transmission means drivingly connected with said motive means, means supporting said motive means and said transmission means in said pit, said transmission means having a central vertical output shaft having a drum thereon, cables connected to said drum extending over said sheaves and attached to the lower ends of said frame means, and an energy accumulator in said pit, a downward prolongation of said output shaft, said accumulator being operatively connected to said prolongation of said output shaft of said transmission means; whereby said motion means, transmission means, support means, drum, and energy accumulator have a combined vertical height no greater than the height of said frame means.

2,868,332
SAFETY APPARATUS FOR ELEVATORS
Raymond T. Berry, Arlington, Va., and Gordon M. Harwood, Washington, D. C.
Application August 28, 1956, Serial No. 606,640
5 Claims. (Cl. 187—29)



5. The combination of an elevator including a car, a motor operatively connected to said car for moving the same, a cable normally movable with said car at the same speed and in the same direction, said cable having a resiliently yieldable anchor, and a load responsive safety apparatus comprising a normally closed relay switch for said motor, a signalling device provided in said car and including primary and secondary signalling members, a normally open primary switch in circuit with the primary signalling member of said signalling device, a normally open secondary switch in circuit with the secondary signalling member and with said relay switch, and means in operative engagement with said cable for individually and successively closing the primary and secondary switches by a movement of said car relative to said cable in the presence of a predetermined load in the car.

2,868,333
VEHICLE EMERGENCY BRAKE
William J. Willison, Frostburg, Md., assignor of forty percent to James H. Winebrenner, Eckhart Mines, Md.
Application August 24, 1956, Serial No. 605,974
4 Claims. (Cl. 188—4)



1. A vehicle brake of the drag type comprising a drag brake member having a forward end, a rear portion and an intermediate portion, an anchor, means for attaching said anchor to a vehicle, means attaching said forward end to said anchor for alignment with a vehicle wheel, a receptacle disposed rearwardly of said anchor in align-

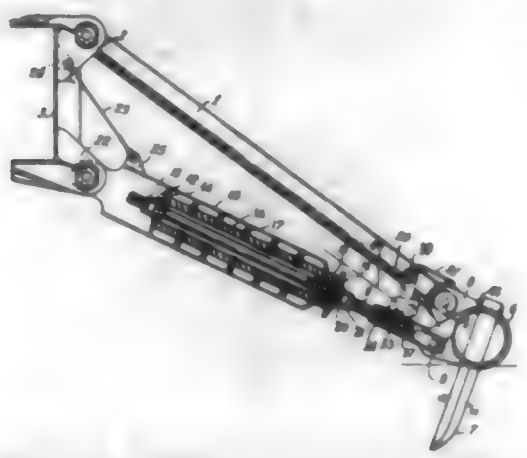
ment with said forward end, said receptacle having an open end, retaining means for normally retaining at least said intermediate portion in said receptacle, said retaining means being in the form of a releasable retaining member having one end anchored to the rear end of the central intermediate portion, a drum, an opposite end of said cable being wound upon said drum, control means for controlling operation of said drum.

2,868,334

BRAKING DEVICE FOR VEHICLES MOVING AT HIGH SPEED OVER NATURAL GROUND

Georges Brun de Saint Hippolyte, Paris, and Roger Georges Scoazec, Colombes, France, assignors to Sud-Est Aviation Societe Nationale de Constructions Aeronautiques, Paris, France

Application July 13, 1954, Serial No. 443,098
Claims priority, application France September 26, 1953
6 Claims. (Cl. 188—6)



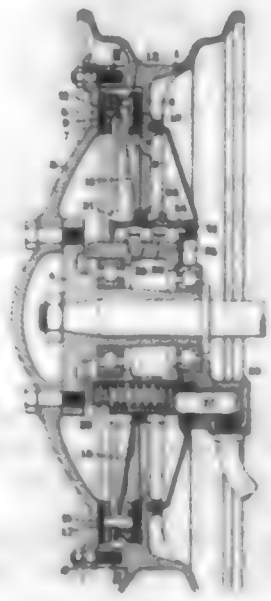
1. In a braking device for stopping vehicles moving at high speed over natural ground and of a kind comprising at least one tooth mounted on a support pivotally mounted on the vehicle and adapted to be spaced from the ground with the vehicle running freely and to be projected towards the ground in order that each tooth penetrates and frictionally engages the ground with the vehicle braked; the improvement which comprises a frame structure having two beams hingedly mounted at one of their ends around horizontal axes on the upper portion of the rear of the vehicle to be braked and converging at their other ends, a socket having its axis perpendicular to the direction of motion of the vehicle and interconnecting the other ends of said beams, a shaft mounted through said socket, a horizontal tubular cross-member perpendicular to said direction of motion, a pair of parallel arms secured on the central portion of said tubular cross-member and pivotally mounted on said shaft on either side of said socket, a pair of substantially parallel resilient struts hingedly mounted at one of their ends around horizontal axes on the lower portion of the rear of the vehicle at points in vertical alignment with the hinged mounting of said beams, and a pair of parallel lugs secured on the end portions of said tubular cross-member, set at an angle with respect to said arms and on which are pivoted the other ends of said resilient struts around a common axis perpendicular to said direction of motion; a locking device for locking said tubular cross-member on said hingedly mounted beams so that the resilient struts attain a substantially horizontal position, and means for unlocking said locking device for the vehicle to be braked; and braking teeth mounted on said tubular cross-member, substantially parallel to said resilient struts with said tubular cross-member locked and then having their point directed toward the vehicle, whereby said teeth are inactive in the locked position of said tubular cross-member.

2,868,335

BRAKE ASSEMBLY

Paul Panhard, Paris, France, assignor to Societe Anonyme des Anciens Etablissements Panhard et Levassor, Paris, France

Application April 16, 1956, Serial No. 578,357
Claims priority, application France May 6, 1955
4 Claims. (Cl. 188—72)



1. A brake comprising a rotor adapted to revolve about its axis and constituting the member to be braked, said rotor having two internal plane friction faces disposed at right angles to the axis of rotation, said faces being connected at a U shape at the outer periphery of said rotor, a pair of annular friction plates housed in said U-shaped outer periphery and adapted to act on said faces, said annular friction plates having registering faces, circular ribs of different radii formed on said registering faces respectively, a stationary support acting as a bearing to said rotor and wherein said rotor is mounted for rotational movement but held against axial sliding movement, said stationary support having an outer surface in which longitudinal hollow raceways are formed, a sleeve member having an inner surface formed with cages, balls carried by said sleeve member in said cages and in rolling engagement with said longitudinal raceways of said stationary support, a circular disk-like lever having an inner edge surrounding said sleeve member and held against axial and rotational movement relative to said sleeve member, and an outer edge disposed between said circular ribs of said registering faces of said two friction plates means for rotatably fastening the outer contour of said disk-like lever with said pair of annular friction disks without interfering with the independent longitudinal sliding movements of said inner contour of said disk-like lever and annular friction disks, and means for axially displacing said sleeve member and therefore the inner contour of said disk-like lever from a position in which said outer edge engages freely the gap left between said pair of circular ribs of said registering friction plates, to a position in which said outer edge applies to said pair of circular ribs forces of opposite directions urging said friction plates on either side of said outer edge until said friction plates engage the internal plane friction faces of said rotor.

2,868,336

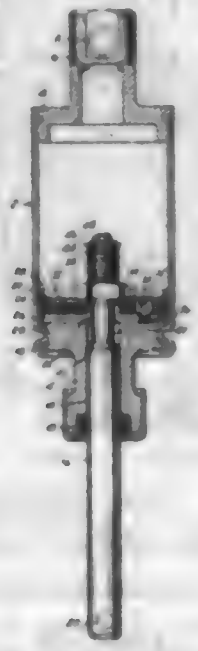
AIR DASHPOT

Harvey N. Bliss, Windsor, Conn., assignor to Veeder-Root, Incorporated, Hartford, Conn., a corporation of Connecticut

Application March 8, 1954, Serial No. 414,575
5 Claims. (Cl. 188—95)

1. An air dashpot comprising an air cylinder having sealed end walls, a reciprocal piston rod extending through one end wall, said rod having a solid portion of reduced cross section at its inner end terminating in a

radial shoulder spaced from the end of the rod, a piston slidably mounted on said portion for limited sliding movement axially of the rod toward and away from the shoulder, a spring on the rod fastened to the end of the rod and engaging the piston for biasing the piston



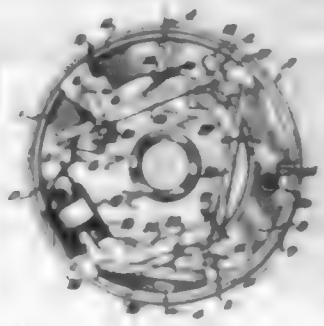
toward said shoulder, said piston having a surface complementary throughout to said one end wall whereby substantially all of the air is displaced from between the piston and said one end wall when the piston abuts said one end wall, and means forming a continuously open but restricted fluid bypass through the piston.

2,868,337

TORQUE ACTUATED VEHICLE BRAKE

James W. F. Holl, Temple City, Calif.

Application March 10, 1955, Serial No. 493,397
7 Claims. (Cl. 188—140)



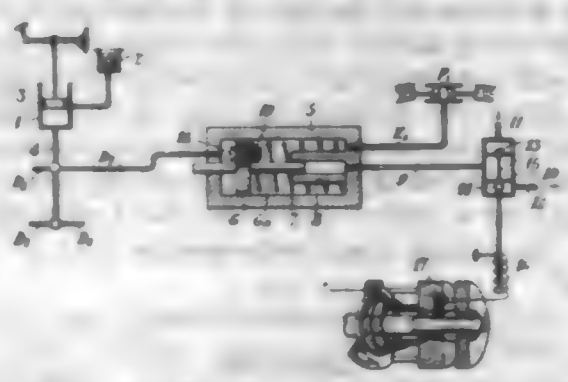
1. A torque actuated vehicle brake including a supporting structure comprising an axle, and a brake drum rotatable about said axle, a first brake shoe adapted to frictionally engage said brake drum, means mounting said first brake shoe for partial rotation with the brake drum when frictionally engaging the same, a second brake shoe, means mounting the second brake shoe adjacent the brake drum to frictionally engage the brake drum, means extending from the first brake shoe to the second brake shoe whereby partial rotation of the first brake shoe with the brake drum will move the second brake shoe into frictional engagement with said brake drum, a third brake shoe, means mounting the third brake shoe adjacent the brake drum to frictionally engage the brake drum, means extending from the second brake shoe to the third brake shoe to move said third brake shoe into frictional engagement with the brake drum, a hydraulic cylinder, means mounting the hydraulic cylinder adjacent the brake drum, a piston in the hydraulic cylinder, link means extending from the third brake shoe to said piston to move said piston in the cylinder, and a pressure outlet pipe extending from said hydraulic cylinder.

2,868,338

ANTI-SKID MECHANISM FOR MASTER CYLINDER OPERATED BRAKE

René Lucien, Neuilly-sur-Seine, and Jean-Pierre Marie Legros, Paris, France, assignors to Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M., Fribourg, Switzerland, a corporation of Switzerland

Application March 5, 1956, Serial No. 569,499
3 Claims. (Cl. 188—181)



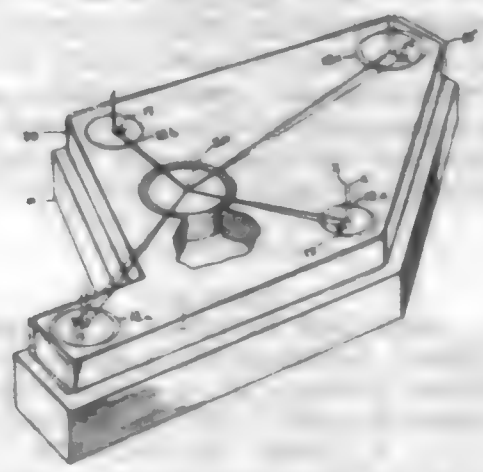
1. A device for controlling the braking of a wheel by means of a fluid under pressure comprising: a master cylinder; control means for controlling said master cylinder; a wheel cylinder; a conduit coupling said master cylinder to said wheel cylinder; a further cylinder inserted in said conduit; a piston in said further cylinder and defining therein first and second chambers, the first chamber communicating with said master cylinder, the second chamber with said wheel cylinder; an internal auxiliary cylinder provided in the second chamber; an auxiliary piston rigidly fixed to said piston and moving in said auxiliary cylinder; a valve; an auxiliary conduit coupling said auxiliary cylinder to said valve, a fluid pressure conduit and an exhaust conduit coupled to said valve; an acceleration-responsive device responsive to the wheel for controlling said valve to couple said auxiliary conduit with said fluid pressure conduit when the deceleration of the wheel reaches a pre-determined value to oppose said control means.

2,868,339

EXPANSION COMPENSATING COUPLING DEVICE

Gustaw Lazarowicz, Toronto, Ontario, Canada, assignor to Orenda Engines Limited, Village of Malton, Ontario, Canada, a corporation

Application September 9, 1957, Serial No. 682,853
2 Claims. (Cl. 189—36)



1. Structure for coupling a first member to a second member for a selected point on the first member to maintain a constant position in relation to a corresponding selected point on the second member during expansion of one member relative to the other comprising a first member having a series of at least three bores, the bores having internal surfaces of revolution and axes which are parallel to each other, a bushing in each bore in the series, the bushing having an external surface complementary to the internal surface of the bore, each bushing

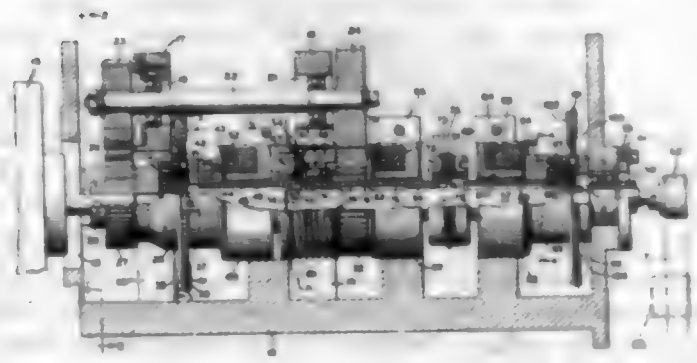
having a hole therein eccentric with the bushing, the axis of each hole being parallel to the axis of each bushing, a series of pins on the second member equal in number to the number of bushings in the first member, the axis of each pin being parallel to the axis of each bushing, the pins being located for one pin to be received in the hole in each bushing, a first angle subtended at the selected point on the first member by a line joining the axis of a bushing and the axis of the hole in that bushing being equal to a similar angle associated with each other bushing and a second angle subtended at the axis of each bushing by a line joining the axis of the bushing and the centre of the eccentric hole in that bushing and a line joining the axis of the bushing and the selected point being equal to a similar angle associated with each other bushing, the second angle being greater than 0° and less than 180°.

2,868,340

RECORD FEEDING CONTROL MEANS

Louis D. Wilson and Stanley M. Oster, Philadelphia, Pa., and Thomas Ash, Mount Holly, N. J., assignors to Remington Rand Inc., Norwalk, Conn., a corporation of Delaware

Application June 13, 1955, Serial No. 515,064
12 Claims. (Cl. 192—4)



1. In a record operating control mechanism; gear means for driving a shaft; magnet coil means including a coil and a coil housing having a central bore; a clutch disk fixed on the shaft at one side of said housing armature means including an armature disk at the opposite side of said housing and movable by said coil means when the latter is energized, clutch sleeve means fixed to said armature means and journaled in said bore for longitudinal movement when the armature disk is moved, said clutch means being shaped to provide a pressure end for driving contact with said clutch disk; and means slidably connecting said armature means with the gear means for transferring the drive to said shaft through said armature means, the sleeve means and the clutch disk when said coil is energized.

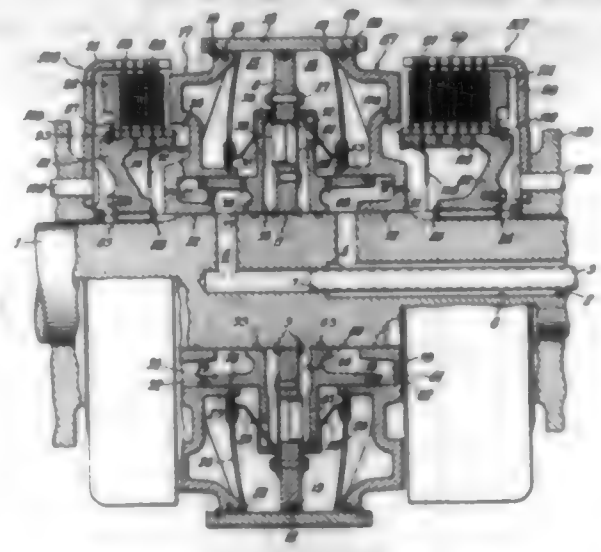
2,868,341

DOUBLE ACTING CLUTCH

Joseph B. Snoy, Rockford, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application April 1, 1957, Serial No. 649,830
8 Claims. (Cl. 192—87)

1. In a hydraulically operable clutch assembly, a housing, clutch means, spaced piston means movable to engage said clutch means, reaction means defining a plurality of first chamber means with said piston means and housing, a plurality of one-way valve means extending between said plurality of first chamber means, certain of said valve means preventing fluid flow in one direction only and others of said valve means preventing fluid flow in the opposite direction only, and other piston means defining a plurality of other chamber means with said first mentioned piston means and movable into engagement with at least certain of said one-way valve means upon the occurrence of predetermined pressure differences be-



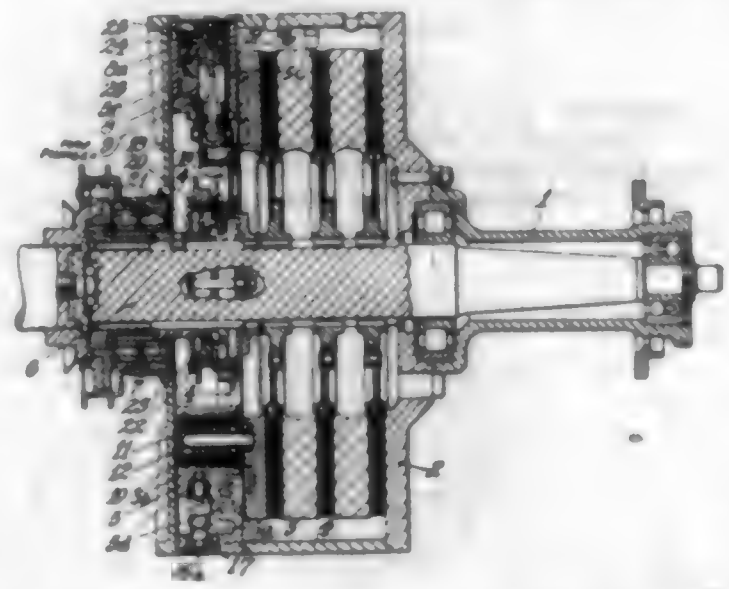
tween said first and other chamber means to prevent fluid flow through said certain one-way valve means.

2,868,342

CLUTCHES, BRAKES AND THE LIKE

Antony H. Croucher, Esher, England

Application September 18, 1953, Serial No. 381,084
Claims priority, application Great Britain September 22, 1952
5 Claims. (Cl. 192—103)



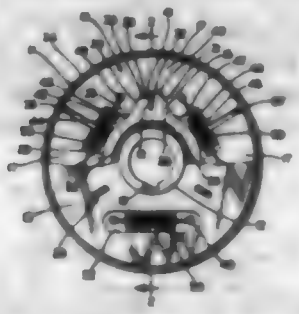
1. In a clutch, a rotating part, a hydraulic pump embodied therein, means for operating said pump, a fluid reservoir in a radially outer region of the rotating part, a pump intake leading from the reservoir, a ram chamber in a radially inner region of the rotating part, a ram in the chamber, a pump outlet leading to the ram chamber, a ram chamber outlet including a normally closed release valve leading to the reservoir, a spring-loaded radially outwardly movable weight mounted in said rotating part and normally closing the release valve, a lever pivotally mounted on the rotating part and closingly engaging with the release valve at one side of the pivot when its other side is moved outward and a second spring-loaded radially outwardly movable weight mounted in the rotating part for moving outwards under centrifugal force and engaging said other side of the lever, said first weight moving out against its spring loading at one predetermined speed of revolution of the rotating part to open the release valve and said second weight moving out against its spring loading at a higher predetermined speed of revolution to act on the lever to press in the first weight and close the release valve.

2,868,343

CENTRIFUGAL CLUTCH CONSTRUCTION

Nolte V. Sproul, Massillon, Ohio, assignor to Automatic Steel Products, Inc., Canton, Ohio, a corporation of Delaware

Application February 8, 1956, Serial No. 564,196
15 Claims. (Cl. 192—105)



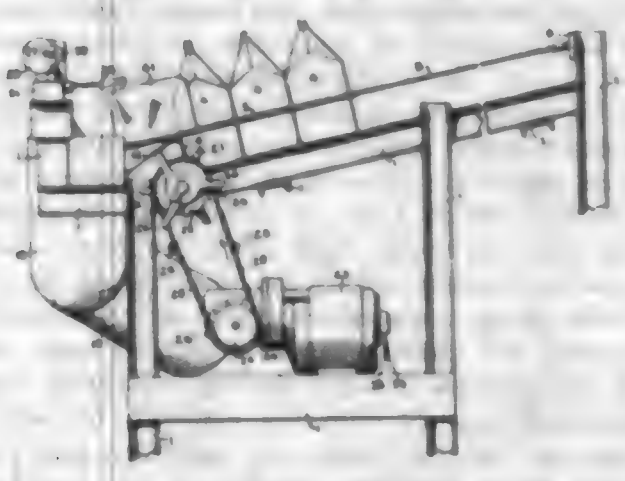
1. Centrifugal clutch construction including a driving member and a driven member, the driving member including a spider, the spider having spaced resilient projections extending generally radially therefrom, friction element means having recesses formed therein, the friction means being detachably engaged one over each of the spider projections with said projections being received in the friction means recesses, the spider projections and friction means recesses having generally radially extending side surfaces with the recess side surfaces being positioned adjacent the projection side surfaces for abutting engagement therewith, at least certain of the side surfaces of at least certain of one of the spider projections and friction means recesses being formed generally wedge-shaped, the friction means being engageable with the driven member upon radially outward movement in response to centrifugal force upon rotation of the driving member, the friction means remaining engaged by abutment with the spider projections at all times through an abutting relationship between certain of the spider projection and friction means recess side surfaces and despite outward movement of the friction means, the friction means moving radially outward to engage the driven member independent of any outward movement of said spider projections, said certain wedge-shaped side surfaces when engaged while the friction means is engaged with the driven member causing a wedging action between the respective projection and recess side surfaces providing a self-energizing clutch construction, and spring means engaged with the friction means normally holding the friction means out of engagement with the driven member.

2,868,344

VENDING MACHINE

Wendell H. Shields, Grand Rapids, Mich.

Application January 10, 1955, Serial No. 480,905
5 Claims. (Cl. 194—10)



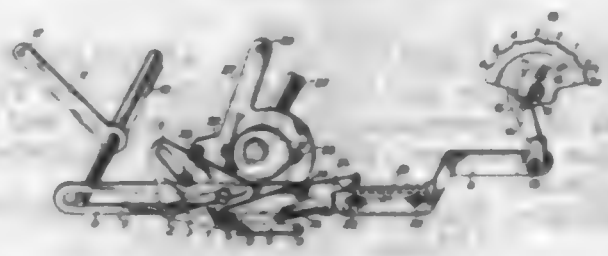
4. A vending machine comprising, a plurality of guideways along which articles to be dispensed will travel, a barrier in the path of each guideway against which said articles are stopped, an electric motor having a normally open electric circuit, a coin operated mechanism acting to close said electric circuit, a rotatable shaft extending across said guideways adjacent said barriers, a tube rotatably surrounding said shaft for a part of its length, a flipper extending radially from each said shaft and tube adjacent respective barriers, said flippers acting to raise articles over said barriers, a star wheel fixed to each said shaft and tube, a sprocket between said star wheels and freely rotatable about the axis of said shaft, a sprocket rotated by said motor, an endless chain passing around said sprockets, fingers spaced in the length of said chain and engageable with said star wheels, a delivery means into which articles are deposited by said flippers, and means in the paths of said articles after they leave said barriers, actuated by passage of said articles, to open said electric circuit.

2,868,345

DEVICE FOR ADJUSTING THE STRIKING FORCE OF THE TYPE BARS OF ELECTRIC TYPEWRITERS

Bruno Nitschke, Frankfurt am Main, Germany, assignor to Adlerwerke vorm. Heinrich Kleyer Aktiengesellschaft, Frankfurt am Main, Germany, a corporation of Germany

Application October 25, 1956, Serial No. 618,295
3 Claims. (Cl. 197—17)



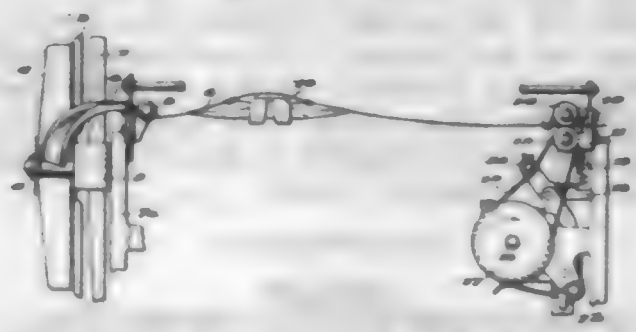
1. In an electrically driven typewriter, a device for adjusting the striking force of the type heads by adjusting the interval of contact of a drive link with a rotating cylinder, comprising a manual setting member, a stop rod, a shift lever, and means connected to the setting member, the shift lever and the stop rod to adjust the stop rod and thereby the typing force of the type heads, said means comprising a pivotally-mounted member having a guiding slot, a pin connected with the setting member and slidable in the guiding slot, and means for swinging the second-mentioned member by the shift lever about its pivotal mounting.

2,868,346

TYPEWRITER CARBON PAPER RIBBON FEEDING DEVICE

Hans Kamp, Wilhelmshaven, Germany, assignor to Olympia Werke A. G., Wilhelmshaven, Germany

Application May 8, 1956, Serial No. 583,412
Claims priority, application Germany July 26, 1955
5 Claims. (Cl. 197—151)



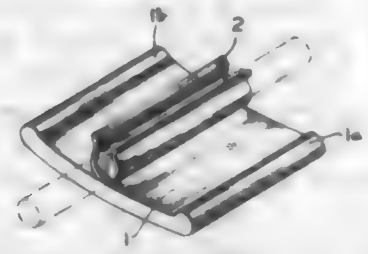
1. In a typewriter having a ribbon fork, a take-up reel mechanism, and a ribbon reversing mechanism, a device for feeding carbon paper typewriter ribbon through the ribbon fork comprising a pair of feed rollers for driving the ribbon, gear means for connecting the feed rollers to each other, and an elastic belt driven by the take-up reel mechanism upon actuation of the ribbon reversing mechanism for driving one of the feed rollers.

2,868,347

ERASURE SHIELD FOR MANIFOLD COPIES

George L. Fowler, Staten Island, N. Y.

Application November 26, 1954, Serial No. 471,228
12 Claims. (Cl. 197—181)



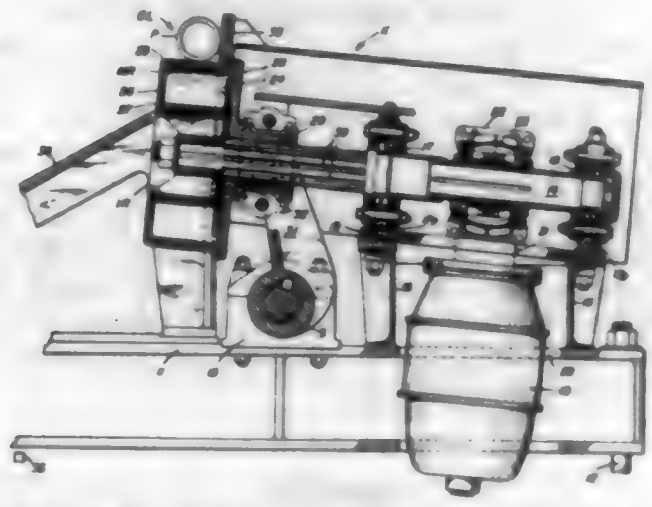
1. An erasure shield, comprising a substantially rigid shield element having opposite end portions, and included between said end portions a smooth, convex paper receiving, obverse surface portion and a reverse surface portion, and means substantially integrally associated with said reverse surface portion frictionally engageable with the paper bail of a typewriter in longitudinally slidable, arcuately movable relation thereto, said means being disposed intermediate the opposite end portions of said shield, and on a line laterally thereof.

2,868,348

ROLLING MILL KICKOUT APPARATUS

Astor L. Thurman and Dieter Hancke, Easton, Pa., assignors to Mannesmann-Meer Engineering and Construction Company, Easton, Pa., a corporation of Pennsylvania

Application October 18, 1956, Serial No. 616,779
9 Claims. (Cl. 198—21)



1. Rolling mill kickout apparatus for transferring laterally lengths of pipe, rod or the like moving axially on a conveyor, the apparatus comprising a conveyor, a kickout comprising rotatable means in line with the conveyor to receive pipe lengths from the conveyor, driving means for the rotatable means in which there are rolls to contact the pipe driven positively at a linear speed less than the axial speed of the oncoming lengths of pipe and thereby tending to reduce the axial speed of the pipe to the linear speed of the said rolls, in combination with means adapted to kick the pipe lengths laterally off the rotatable means.

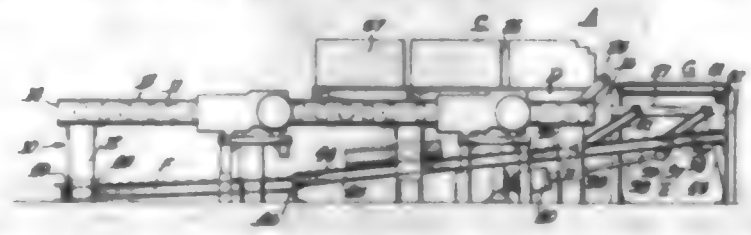
2,868,349

PALLET CONVEYING APPARATUS

Harvey A. Edmonds, Chicago, and William S. Gilbert, Lincolnwood, Ill., assignors to Structural Clay Products Research Foundation

Application June 19, 1957, Serial No. 667,871
10 Claims. (Cl. 198—21)

5. A pallet conveying apparatus for progressing pallets loaded with objects to an unloading station adjacent a continuously moving conveyor and discharging unloaded pallets back away from the unloading station, the pallet conveying apparatus comprising: a pallet advancing conveyor section; a first drive means for operating said advancing conveyor to advance pallets toward the continuously moving conveyor; an idler section intermediate said advancing conveyor section and said continuously moving conveyor and adjacent the advancing conveyor section from which loaded pallets are received, said idler section being of a length less than the length of a pallet and upon which pallets are freely movable; an intermittent pallet feeding conveyor section adjacent and intermediate the idler section and the continuously moving conveyor; a



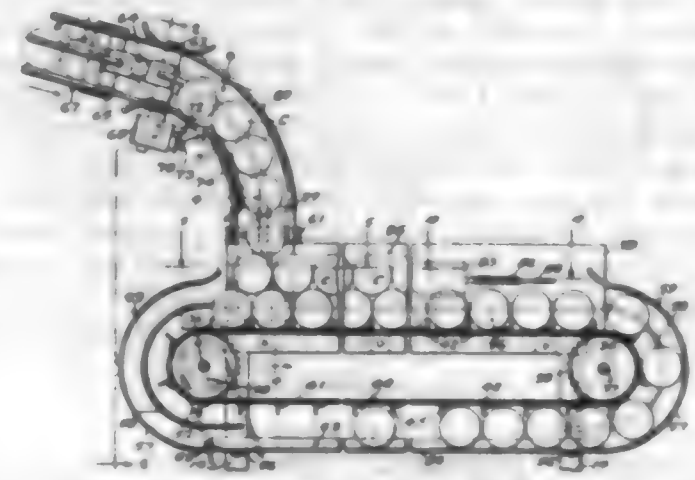
second drive means for intermittently operating said feeding conveyor section to intermittently feed loaded pallets from the idler section through the unloading station which is directly above said feeding conveyor section; a pallet lowering mechanism below the continuously moving conveyor having a support and a pallet receiving platform mounted to move from a position adjacent said feeding conveyor section to a lowered discharge position; and a pallet discharging conveyor extending from said lowered platform underneath the feeding conveyor section and the advancing conveyor section.

2,868,350

DOUBLE TIER CAN CONVEYOR

Homer W. Madden, Hanover, Ind.

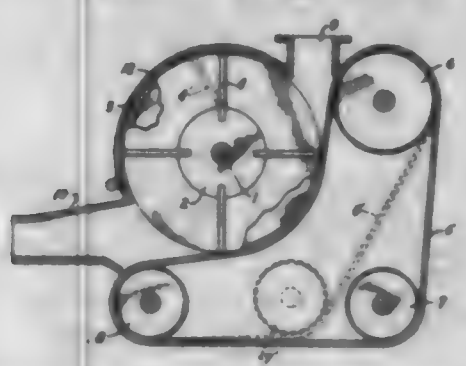
Application May 21, 1956, Serial No. 586,236
5 Claims. (Cl. 198—35)



1. A can conveying machine comprising an elongated frame, an endless can conveyor mounted for movement in said frame including upper and lower flights disposed to travel longitudinally of the frame, a power source supported by the frame and connected to the endless conveyor for driving the endless conveyor, said machine having a downwardly opening inlet adjacent one end thereof disposed above the upper flight of the endless conveyor and through which cans are adapted to be supplied by gravity onto the upper flight of the endless conveyor to be conveyed thereby toward the other end of the machine, said inlet being disposed crosswise of the machine for discharging the cans crosswise therefrom onto the conveyor, said endless conveyor having outwardly projecting longitudinally spaced conveyor elements between which the cans are received from said can inlet, said conveyor elements being disposed relative to one another in a manner to retain the cans, disposed on the endless conveyor, in close adjacency to one another, said inlet being disposed above the upper flight of the endless conveyor a distance greater than twice the diameter of the cans for stacking the cans in two tiers on the upper flight of the

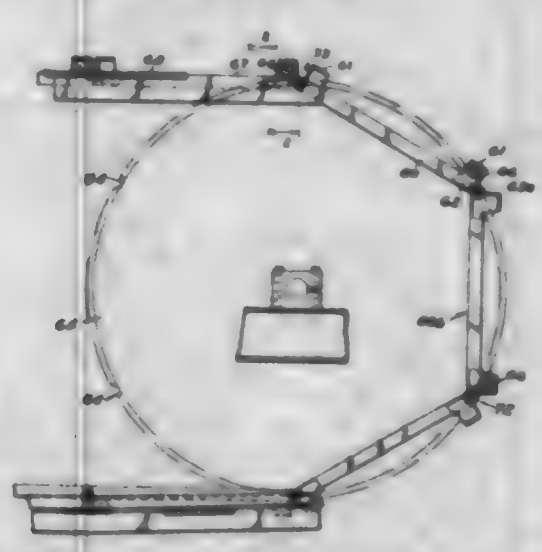
endless conveyor, and deflector means supported by and extending downwardly from the can inlet for deflecting the cans passing downwardly from said inlet laterally relative to the endless conveyor for causing the cans of the upper tier to be hooked behind the cans of the lower tier.

2,868,351
MATERIAL THROWER OR IMPACTOR
William George Hegmann, Fort Smith, Ark.
Application March 28, 1955, Serial No. 497,111
6 Claims. (Cl. 198—128)



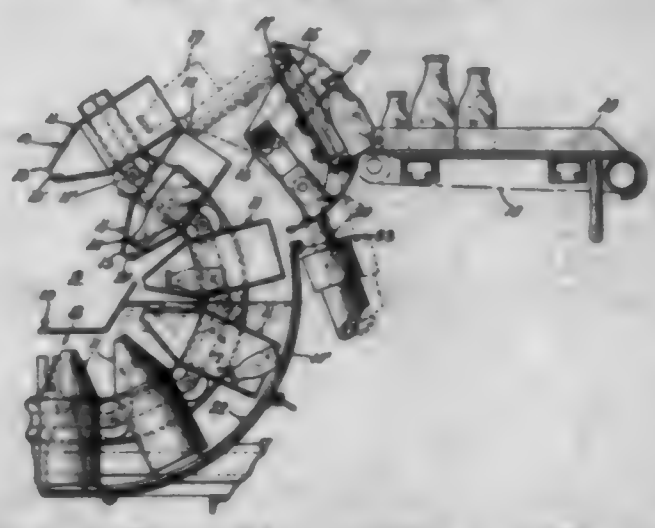
1. A charging mechanism for zinc retorts and the like, comprising a housing having side walls and a circumferential wall extending between said side walls, a material feed opening in said housing, a material discharge opening in said housing of substantially the same diameter as that of said feed opening, said openings being positioned to feed material and to discharge material in paths substantially perpendicular one to the other, an impactor member rotatably mounted in said housing, said member comprising a central rotatable hub, a plurality of laterally dispoeed blade members of a width substantially equal to the space between said sidewalls and extending from said hub outwardly to a point closely adjacent the circumferential wall of said housing, said blade members being rotatable through an arc drawn between said feed and discharge openings to receive material from said feed opening and to convey said material through an arc of approximately 90° along said circumferential wall and to deliver said material, in response to rotation of said impact member, to and through said discharge opening, said feed and discharge openings having widths substantially equal to that of the material-impacting portion of said blade members.

2,868,352
TELEVISION TUBE SETTLING CONVEYOR
Homer S. Harrison, Detroit, Mich., assignor to Allied Steel and Conveyors, Inc., Detroit, Mich., a corporation of Michigan
Application September 24, 1954, Serial No. 458,061
3 Claims. (Cl. 198—137)



1. A television tube settling conveyor of the class described characterized by longitudinally and laterally spaced end sprockets, pivotally connected conveyor chain links engaging said sprockets having a pitch length equal to the longitudinal spacing of successive television tubes carried on said conveyor with said length comprising a large chord (in the order of 60°) of said sprockets, horizontal stationary laterally positioned side track means extending throughout the entire distance between said end sprockets along the upper flight of said conveyor, laterally positioned side rollers attached to one end of said chain links adapted to engage said track and support said conveyor between sprockets along said upper flight, said track means including a gradually curved end portion adapted to gradually transfer the load of said conveyor from said stationary track to said sprocket when said rollers reach the end of said upper flight.

2,868,353
BOTTLE WASHING MACHINE
Alden H. Wakeman, Lakemills, Wis., assignor to The Creamery Package Mfg. Company, Chicago, Ill., a corporation of Illinois
Application August 13, 1954, Serial No. 449,611
4 Claims. (Cl. 198—160)

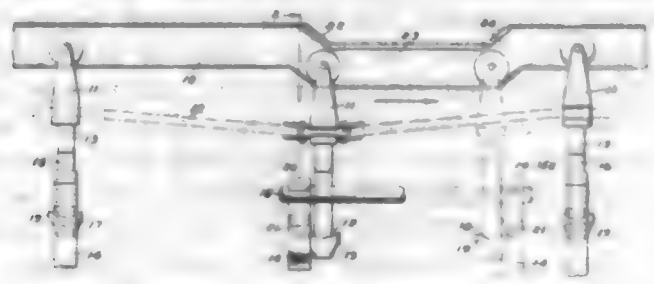


1. In a bottle washing machine, a bottle pocket mounted for movement in a tortuous path from an initial bottle-receiving position, wherein a bottle is received therein with the open end thereof downwardly inclined, to a second position, wherein the bottle assumes a position wherein the open end thereof is disposed substantially upright, and a bottle guide for maintaining the carried bottle in proper alignment within said pocket while the latter is moving from the initial to the second positions; said guide comprising a fixed body spaced a predetermined distance from the bottle-receiving end of said pocket while the latter is traveling in said tortuous path, said body being shaped to conform substantially to such tortuous path, and a pair of spaced elongated protuberances of substantially equal height mounted on said body and extending therefrom in a direction toward the bottle-receiving end of said pocket; the surface of each protuberance adjacent said pocket bottle-receiving end, being smooth and substantially noninflective and providing bearing surfaces for bottles other than such undersize bottles, the height of each protuberance being subtsantially equal and increasing gradually from the body end adjacent the initial body-receiving position to the body end adjacent said second position.

2,868,354
TROLLEY CONVEYOR INCORPORATING AUTOMATIC LOAD TRANSFER
Homer S. Harrison, Detroit, Mich., assignor to Allied Steel and Conveyors, Inc., Detroit, Mich., a corporation of Michigan
Application August 7, 1953, Serial No. 372,885
11 Claims. (Cl. 198—177)

1. An overhead trolley conveyor and load transfer system comprising a conveyor track, an inclined section in

said conveyor track, a transfer member under said inclined section, a conveyor trolley for traveling on said track, a hook on said trolley facing laterally relative to the direction of conveyor travel, and a load hook having means adapted to engage respectively said trolley hook



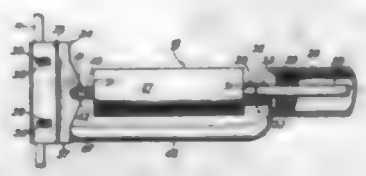
and said member and to be transferred therebetween through the change in level of said trolley hook in passing along said inclined section, one of the interengaging trolley and load hooks having projections in a plane parallel to conveyor travel for resisting horizontal disengagement with said hooks.

2,868,355

TROUGHING ROLLER ASSEMBLY FOR BELT CONVEYOR

Keith McCann, Taylorville, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application December 23, 1957, Serial No. 704,774
4 Claims. (Cl. 198—192)



1. A troughing roller assembly of the type where the load carrying reach is supported upon laterally spaced strands by troughing roller assemblies suspended across said strands at intervals therealong, the improvement in such troughing roller assembly for maintaining the same in a plane perpendicular to the longitudinal axis of said strands especially during downhill operation of said conveyor which comprises, a plurality of idler rollers articulately connected for movement in the aforesaid plane, a bracket for connecting each end of said assembly to an adjacent strand, said bracket comprising spaced limbs extending along said strand and anchored to said strand at spaced points thereon, a frame member rigidly secured to said bracket, and extending alongside the outermost roller of said assembly, an extension from said frame member extending between said outermost roller and its adjacent inner roller, and means for providing free articulation between said adjacent rollers supported at the end of said extension.

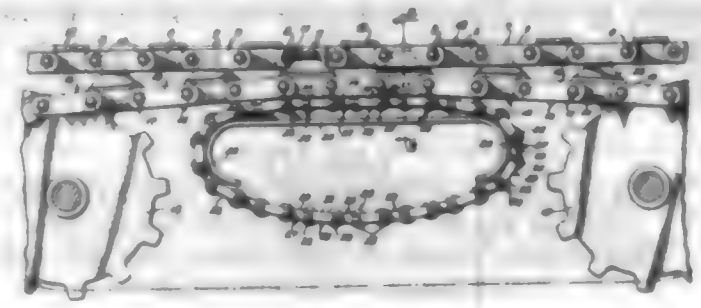
2,868,356

CATERPILLAR TYPE DRIVE FOR CONVEYOR CHAIN

George W. Haaff, Indianapolis, Ind., assignor to Link-Belt Company, a corporation of Illinois

Application November 2, 1954, Serial No. 466,284
5 Claims. (Cl. 198—203)

1. In a caterpillar type drive for a conveyor chain wherein a conveyor chain is to be driven by a drive chain dogs engageable with the conveyor chain while traveling through the active run of the drive chain, the combination therewith of an anti-friction back-up for the active run of the drive chain, comprising a stationary support mounted adjacent to and extending along the active run of said drive chain, and an endless articulate roller assembly trained around said support for movement in



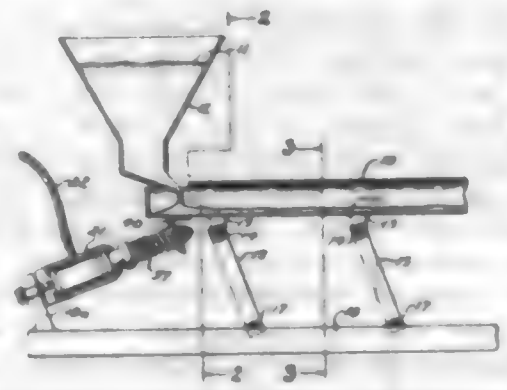
rolling engagement with both said drive chain and said support.

2,868,357

VIBRATING MEANS FOR MATERIAL CONVEYOR

John W. Thomas, Mayfield Heights, Ohio, assignor to The Cleveland Vibrator Co., Cleveland, Ohio, a corporation of Ohio

Application February 7, 1956, Serial No. 563,898
3 Claims. (Cl. 198—220)



1. Apparatus for moving material comprising, in combination, a conveyor furnishing a path for the advance of material therein, a fixed base, a plurality of rocker arms supporting said conveyor above said base, each said rocker arm being pivotally connected at its upper end to said conveyor and at its lower end to said base, a vibrator connected at its lower end to said base, a helical spring fixed at its lower end to the upper end of said vibrator and at its upper end to said conveyor, the natural frequency of the spring system, including the component of conveyor weight supported thereon, being approximately equal to the operating frequency of the vibrator, the vibrator having an element reciprocating lineally along a continuation of the helical spring axis, and the connection between the lower end of said conveyor and said base including an antifriction bearing disposed to permit limited movement of said conveyor with respect to said base along said spring axis.

2,868,358

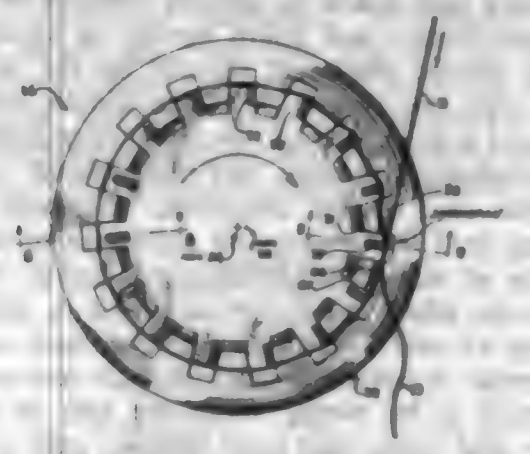
APPARATUS FOR LONGITUDINALLY FEEDING A MULTIFILAMENT, CONTINUOUS STRAND

Robert G. Russell, Granville, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware

Application August 29, 1955, Serial No. 531,152
6 Claims. (Cl. 203—183)

1. Apparatus for attenuating and longitudinally feeding a multifilament, continuous strand comprising a rotary, generally circular pulling wheel having a plurality of circumferentially spaced, periphery-forming elements, the outer surfaces of said elements forming an interrupted cylindrical peripheral surface relative to the axis of said wheel for strand contact and adhesion, means for guiding said strand into generally tangential contact with the peripheral surface of said wheel, means for rotating said wheel at high speed and a rotary strand removal structure supported independently of and rotatable in

phase with said wheel and comprising a plurality of circumferentially spaced members movable radially outward through the spaces between adjacent ones of the

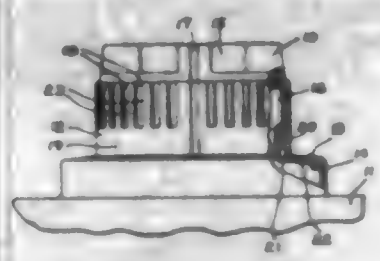


periphery-forming elements on said wheel for progressively separating said strand from the cylindrical surfaces of said elements and from said pulling wheel.

2,868,359
WIRE-DRAWING BLOCK

John A. Holbrook, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts

Continuation of application Serial No. 310,464, September, 19, 1952. This application January 27, 1958, Serial No. 711,527
1 Claim. (Cl. 205—20)



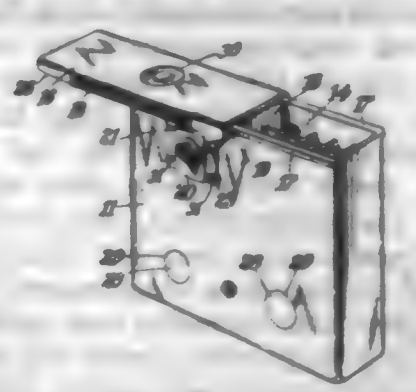
Block for use with a wire drawing machine having a base to which air under pressure may be admitted, comprising: a main body member comprising a top and a generally cylindrical wall forming a hollow interior which communicates with the base so that air under pressure may be admitted into the said interior, a plurality of elongated grooves formed in the outer surface area of said cylindrical wall extending upwardly and axially, the inner surface area of said cylindrical wall backing said groove so that it opens outwardly only, the said grooves extending axially to one end of the member, a passage extending through said cylindrical wall into each groove at the downward end thereof so that wire coiled on the body member closes the outward opening of the groove to force the air to enter the groove through the said passage, and to travel lengthwise along the groove for escape at the opposite end.

2,868,360
STORAGE CONTAINERS FOR DETONATORS

William Harry Donkin, London, England, assignor to Godfrey Holmes (Plastics) Limited, Lincoln, England, a British company

Application April 26, 1955, Serial No. 503,954
Claims priority, application Great Britain April 28, 1954
3 Claims. (Cl. 206—3)

1. A detonator magazine comprising a box made from an electrically insulating material and sub-divided internally into separate cells each of a size to receive a single detonator, a sliding lid on the box, cooperating abutments on the lid and the box which limit the relative sliding in both directions so that only a predetermined number, less than the total number, of the cells in the box can be exposed at any one time, a key-operated metal lock on the exterior of one of the side walls of the box to lock the lid in the fully closed position, said lock being secured to the box by metal rivets passing through the side wall thereof, an electrically insulating plate inserted into the box against the inside of the wall to the exterior of which the lock is secured to ensure insulation

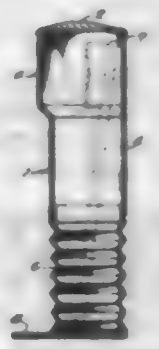


of the rivets from the cell spaces, said insulating plate having a projection to engage in a cooperating recess in the box wall such that while said projection is in said recess the plate cannot be withdrawn from the box, and means to keep the projection in the recess when the magazine is assembled for use.

2,868,361
TOOTH BRUSH HOLDER

Adam C. Zilem and Earl E. Varner, Waco, Tex.

Application March 25, 1957, Serial No. 648,246
1 Claim. (Cl. 206—15.1)



A tooth brush holder comprising a normally vertically disposed tubular receptacle having a hinged cover connected to its upper end and a bottom member which is movable axially with respect to the walls of the receptacle, the receptacle including a rigid upper wall portion which is connected to the hinged cover and a collapsible lower wall portion, capable of being folded in the manner of a bellows, connected to the bottom member.

2,868,362
COMBINATION MATCHBOOK AND THROW-AWAY ASH TRAY

Claude F. McFaul, San Francisco, Calif., assignor to Claude McFaul Corporation, a corporation of California

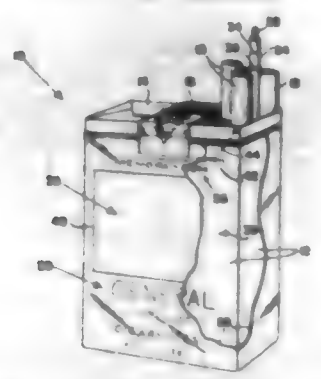
Application November 22, 1955, Serial No. 548,445
1 Claim. (Cl. 206—38)



A combination matchbook and ashtray comprising, a cover sheet turned up at one end to provide a base pocket

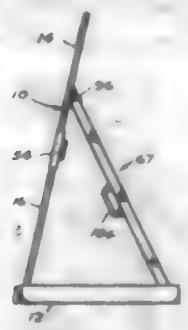
and formed with a top fold intermediate its ends to define a rear cover wall contiguous to said pocket and a depending front wall extendable from said top fold into said pocket to provide a closed position, a row of matches having lower ends secured in said pocket and uppe ignitable heads positioned within said top fold, a second sheet of metal foil paper laminated stock folded to define an open top ash receiving compartment and having foil opposed front and rear sides inserted between said matches and rear wall, said compartment being formed to open and close upon flexing of said rear wall to and from said matches, and a third frontis sheet secured to said front side of said compartment, said frontis having an inverted fold positionable over said match-heads during the use of said ash receiving compartment, the laminated sheet of said front side extending over said inverted fold of the frontis so as to provide a metal foil covering therefor protecting said match-heads against ignition.

2,868,363
CIGARETTE PACKAGE
Louis F. Legnaioli, Erlton, N. J.
Application March 7, 1957, Serial No. 644,535
5 Claims. (Cl. 206—41)



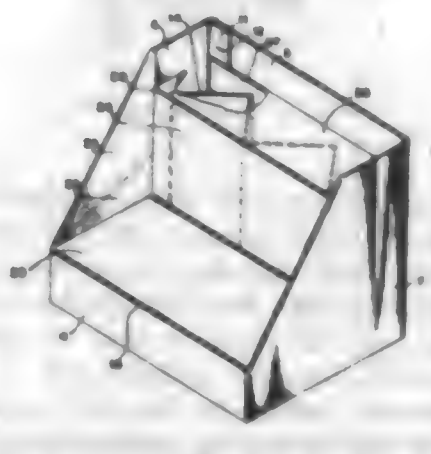
1. A sealed package of cigarettes comprising a container, a plurality of cigarettes in said container, said cigarettes being closely packed in said container, in rows with the cigarettes of each row thereof disposed in staggered relation to those of each adjacent row, a pencil arranged among said cigarettes, a transparent sheet material outer cover wrapped about said container and adapted for receiving penciled notations, said container being provided with an outer surface area of substantial expanse that is free of all printed or other matter that might obscure any of said penciled notations applied to the overlying area of said transparent cover.

2,868,364
DISPLAY DEVICE
Ray B. Heiser, Bloomfield Hills, Mich., assignor to Florer, Incorporated, Detroit, Mich., a corporation of Michigan
Application February 1, 1956, Serial No. 562,783
1 Claim. (Cl. 206—45.2)



A display device comprising a board, an open-top carrying case for said board receiving and containing said board for storage and transport, blocks secured within said case having aligned arcuate recesses for removably supporting one edge of said board when said board is propped upright for display purposes, said case having hinged thereto a lid for the open top of said case, said lid being removable to serve as a prop for supporting said board in upright position in cooperation with said blocks, said board having an abutment on the back, a second abutment formed by the inside surface of said case and spaced from said blocks, said lid, when serving as a prop, having one edge engageable with said first-mentioned abutment and the opposite edge engageable with said second abutment, releasable means for fastening said first-mentioned abutment to said lid, said one edge of said board being supported in the recess of said blocks when said board is stored in said case, said one edge of said board being an enlarged bead of arcuate contour complementary with said recesses to enable said board to be swung about the axis of said aligned recesses and while said bead engages said recesses from stored position in said case to upright position, said lid, in the closed position thereof, having a portion opposite said blocks engageable with said board for holding said bead in said recesses, and additional blocks secured within said case and spaced from the recessed blocks for supporting within said case a portion of said board spaced from said one edge, said lid having a second portion opposite said additional blocks for holding said portion of said board upon said additional blocks.

2,868,365
CONVERTIBLE RECEPTACLE FOR SHIPPING AND DISPLAY
Richard E. Paige, New York, N. Y.
Application October 4, 1954, Serial No. 460,107
17 Claims. (Cl. 206—45)



1. A shipping receptacle having top, bottom, two ends and two sides said receptacle being securely closed at all points, said top having relatively movable sections with opposed edges parallel to the upper edge of one side, one of said sections having a score line parallel to said upper edge, said side having a score line below said upper edge and parallel thereto, said score lines and said edges defining portions shaped and capable of bending inward to provide shelves at different levels in the receptacle at the front and rear thereof, said ends having diverging score lines extending from the extremities of said score line in the side to the tops of said ends and defining foldable webs to support one of said shelves.

2,868,366
DISPLAY CONTAINERS
Jerome Shiffman, New York, N. Y.
Application January 8, 1958, Serial No. 707,827
1 Claim. (Cl. 206—45.2)

A display container having a body provided with an arcuately-shaped bottom, a cover member for the body, the cover member having an arcuate depression in its top of a shape and size to receive the arcuate bottom of the body and enable the body to be fitted top uppermost on top of the cover member, thereby to present the body in a display position supported by the cover member,

projections provided on and extending outwardly from the outer surface of the bottom of the body, the top surface of the cover member being provided with a plurality of transverse serrations forming V-shaped grooves into which the projections are selectively fitted to thereby hold the body in any one of a number of tilted display positions when the body is seated on top of the cover member, the bottom of the body being provided with a central, longitudinally-extending groove of less



width than the length of the serrations and disposed at right angles thereto, and a central, upstanding rib of considerably less length than the groove provided on the top of the cover member and in the arcuate depression therein, said rib fitting in the groove and slidable longitudinally therein and holding the body against lateral shift relatively to the cover member while the body is in any of the tilted positions in which it can be fitted on top of the cover member.

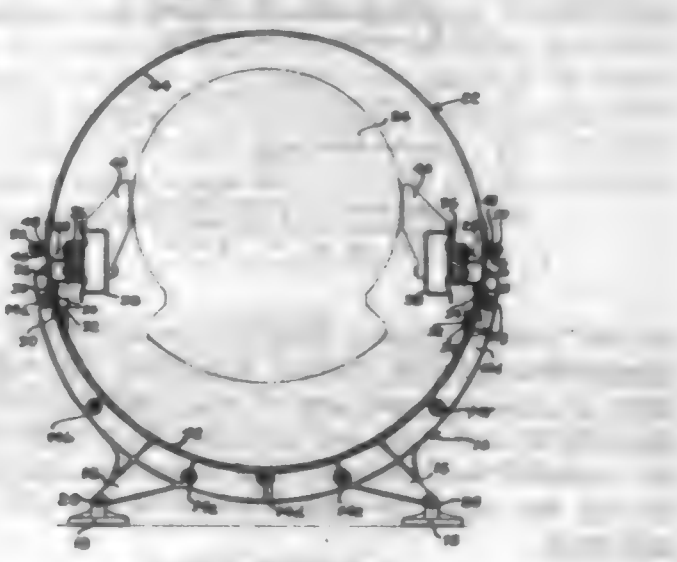
2,868,367
DISPLAY CONTAINERS
Jerome Shiffman, New York, N. Y.
Application October 2, 1957, Serial No. 687,687
1 Claim. (Cl. 206—45.2)



A display container having a body for containing articles, a cover fitting over and closing the top of the body, said cover adapted to be used as a supporting easel on which the body can be rested in tilted display position, the cover having a closed top wall formed with an arcuately-shaped depression in its upper face, said depression being transversely ribbed, the body having an outwardly-extending arcuately-shaped closed bottom, the curvature of the bottom of the body being substantially similar to the curvature of the depression in the top of the cover so that the body will seat in said depression when it is rested on the closed top wall of the cover, and projections provided on the lower face of the bottom of the body for selective engagement between the ribs in the depression to thereby hold the body in any one of various angular, tilted display positions solely by the engagement of the projections between said ribs while the cover is serving as a supporting easel for the body and said body is rested on top of the cover.

2,868,368
CONTAINER
John M. Beach, Dayton, Ohio
Application September 7, 1955, Serial No. 532,819
3 Claims. (Cl. 206—46)

1. A container for shipping and storage of heavy objects such as aircraft engines comprising, in combination, a dolly, said dolly including a plurality of arcuate yoke portions and means supporting said yoke portions in fixed spaced relation, said yoke portions cooperating to provide an arcuate bed for said dolly, a hollow substantially cylindrical receptacle nested in the bed of said dolly, the upper ends of said yoke portions terminating in contacting relation to said receptacle at diametrically opposed points, a plurality of shock mounting supports arranged in substantially diametrically opposed pairs within said receptacle, bolt means penetrating the wall of said receptacle, the shock mounting supports and the



adjacent ends of said yoke portions to secure said pairs of mounting supports to opposite ends of said yoke portions, there being one yoke portion for each pair of mounting supports, and means disposed within said receptacle engaging said mounting supports for supporting an object within said receptacle, said bolt means providing the sole fixed connection between said receptacle and said dolly.

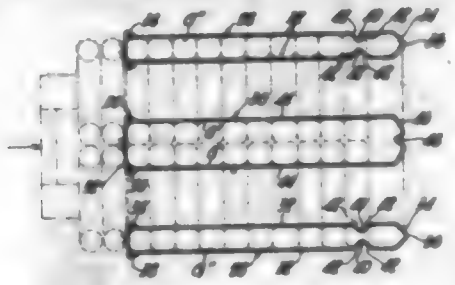
2,868,369
FOURDRINIER WIRE PACKAGE
Nelson W. Webb, Montclair, N. J., assignor to Eastwood-Nealley Corporation, Belleville, N. J., a corporation of New Jersey
Application July 24, 1957, Serial No. 673,908
13 Claims. (Cl. 206—59)

10. A Fourdrinier wire rolled for shipping and made resistant to telescoping by having an adhesive interposed between its convolutions rendering them resistant to relative sliding action, said adhesive being of the pressure sensitive type and being removable from said wire without blocking the wire's openings or remaining on its strand wires when said wire is put in service, the adhesive being applied to both sides of a tape made of relatively soft material and sufficiently thin to avoid permanently marking said wire and sufficiently thick to be strong enough to be pulled free from the wire, said adhesive adhering to said tape more firmly than to said wire so that the adhesive is removed with the tape, said tape being made from fiberglass and being coated with said adhesive, the latter being of the silicone base type having high creep resistance within the temperature range extremes encountered in shipping said wire.

2,868,370
DEVICE FOR PACKAGING COILED MATERIAL
Charles E. Franks, Waukegan, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
Application May 21, 1953, Serial No. 356,340
2 Claims. (Cl. 206—65)

1. A package comprising a plurality of annular bodies of substantially uniform diameter disposed in coaxial alignment in the form of a tubular stack, and at least two retaining ties spaced around the periphery of said stack, each of said ties included a preformed substan-

tially hairpin shape retainer having a pair of spaced limbs of substantially uniform length connected together in generally parallel relation by an integral substantially V-shape intermediate portion, each of the limbs of each retainer having coplanar V-shape portions extending inwardly toward each other intermediate their lengths, each



of said retainers being disposed on said stack with the intermediate portion thereof straddling the wall of said stack at one end and one of said limbs extending into the void of said stack and the other limb extending along the exterior wall thereof, and a tension member connecting the limbs of each retainer to the other end of said stack.

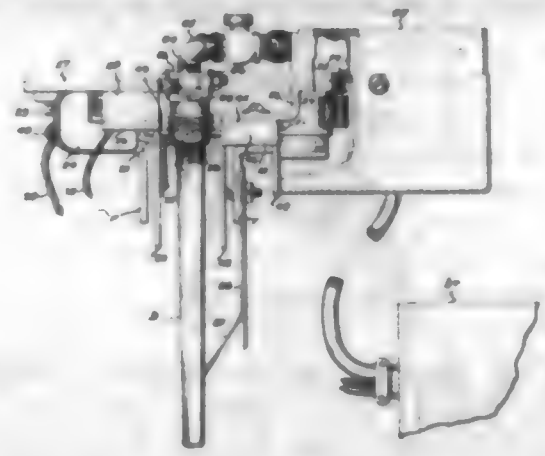
2,868,371
DISPLAY PACKAGE
Lawrence R. Thorpe, Columbus, Ohio
Application July 12, 1957, Serial No. 671,503
3 Claims. (Cl. 206—79)



1. In combination, a ready-knotted necktie having a knot portion, neckband portions and a depending drape portion, a body of flat flexible material folded to define a front leaf and a rear leaf, the front leaf being formed at its upper portion with an arcuate slit concaved upwardly to define a depending tongue engaging under the knot portion of said ready-knotted necktie and being formed with apertures at the ends of the slit through which the neck band portions of the necktie adjacent the knot portion pass, said front leaf being further formed with a plurality of vertically spaced parallel pairs of transverse slits through which said drape portion passes, said slits defining horizontal retaining bands adapted to retain the drape portion of the necktie against said front leaf, and a substantially triangular flap on the side edge of said front leaf, said rear leaf being formed with a slit adapted to receive the apex portion of the flap when the rear leaf is folded against the front leaf.

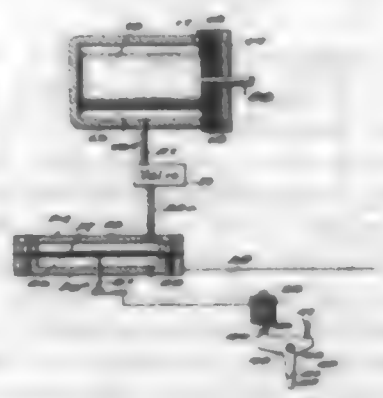
2,868,372
BOBBIN INSPECTING DEVICE
Richard Ferguson, Charlotte, N. C., assignor to The Terrell Machine Company, a corporation of North Carolina
Application February 24, 1955, Serial No. 490,378
14 Claims. (Cl. 209—72)

1. A bobbin inspecting device comprising means for suspending a series of bobbins at the butts thereof and guiding said suspended bobbins along a given path, and a laterally mounted feeler extending angularly below said suspending means into said path at a normally biased position for opposing abutment with suspended bobbins guided along said path, said feeler being yieldably mounted for displacement individually by said bobbins from said biased extending position with a selective pivoting and bodily retracting movement in a plane



aligned with the longitudinal axis of said bobbins and including the extending axis of said feeler, whereby said feeler is arranged for successively feeling the bobbins of a series guided along said path while indicating the condition of each bobbin by the selective movement thereof, and means actuated by the selective movement of said feeler for subsequently separating from said series of bobbins any bobbin causing bodily retracting movement of said feeler.

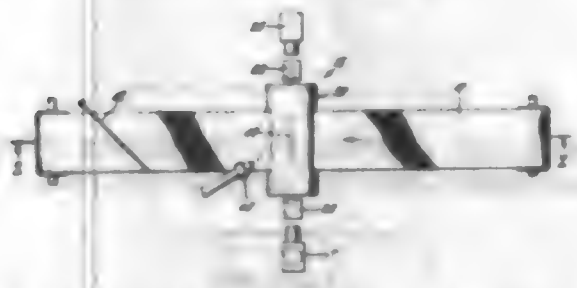
2,868,373
DISCHARGE MECHANISM FOR CAN-TESTING MACHINE
Roland E. Renard, Los Gatos, William R. Thorpe, San Jose, and James P. Davidson, Mountain View, Calif., assignors to National Can Corporation, Chicago, Ill., a corporation of Delaware
Application February 13, 1956, Serial No. 564,900
2 Claims. (Cl. 209—74)



1. A can-testing machine comprising guide means establishing a path of travel for normal cans, defective can diverting means to divert defective cans from said path of travel, at least two defective can detection means each operable to detect a defect in a can and arranged to test cans in sequence, a plurality of solenoids corresponding in number to said detection means and each connected to one of said detection means and energized by its respective detection means upon detection of a defective can, a memorizer wheel having a periphery formed with a plurality of steps corresponding in number to said detection means, each said step being provided with a plurality of radially slidable detents, a trip lever for each said step arranged to be tripped by one of said solenoids, each said trip lever being movable to move any of the detents in the step with which said trip lever is associated from a first position to a second position, a switch lever positioned adjacent said memorizer wheel and positioned to be moved by a detent in second posi-

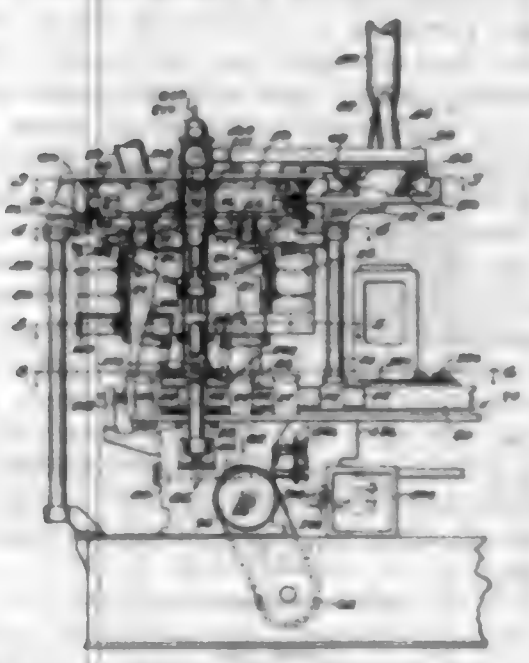
tion in any of said steps, and a switch positioned to be closed when said switch lever is moved and operable to energize said diverting means.

2,868,374
APPARATUS FOR THE PURIFICATION OF CRYSTALLINE MATERIALS
Mannie E. Borsook, Los Angeles, and Morton Alperin, Pasadena, Calif., assignors to Clinical Research Foundation, Los Angeles, Calif., a corporation of California
Application April 23, 1953, Serial No. 350,742
16 Claims. (Cl. 209—111)



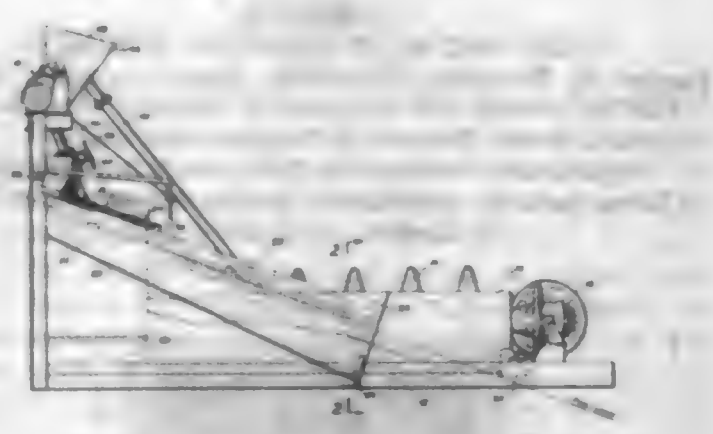
1. In apparatus for isolating optically active crystals from a mixture, the combination of: means for separating individual crystals from said mixture, a source of polarized light, said light being emitted in a path, means for presenting said individual crystals to said source of polarized light, means for registering the direction of rotation of the plane of polarized light transmitted through said individual crystals, and means for moving the individual crystals to a selected position in response to said registration.

2,868,375
PACKAGING MACHINE
Thomas P. Howard, Milton, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts
Application December 9, 1954, Serial No. 474,170
8 Claims. (Cl. 209—121)



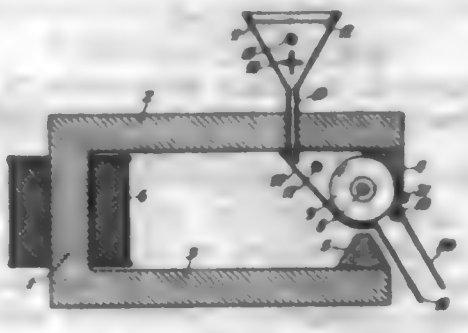
1. In a machine of the character described, in combination, a plurality of weighing mechanisms, each having a weighing receptacle provided with a gate and mounted to be continuously moved in a closed path, continuously moving container conveying means, a member mounted for and continuously moved in a corresponding closed path and having a plurality of measuring chambers, each measuring chamber having a shutter closing the bottom thereof, means for filling said chambers to form measured bulk loads of flowable solid material during their movement through one portion of said closed path, means for opening said shutters to deliver successive bulk loads into successive weighing receptacles, means for feeding a drip stream of said material through said open measuring chambers directly into said receptacles during their movement through another portion of said closed path, control means responsive to the operation of successive weighing mechanisms when a predetermined weight is reached for effecting closing of successive shutters, means for opening said gates to discharge successive weighed loads from said receptacles into successive containers during the continuous movement of the weighing mechanisms, container rejecting means, means for detecting an underweight load formed in a receptacle during its travel through said closed path, and control means responsive to said underweight load detecting means for actuating said rejecting means to effect rejection of the container into which said underweight load is discharged.

2,868,376
HEAVY MEDIA SEPARATOR
George M. Meisel, Denver, Colo., and Harry P. Kautz, Starke, Fla., assignors, by mesne assignments, to The Mine & Smelter Supply Co., a corporation of Colorado
Application July 9, 1954, Serial No. 442,346
14 Claims. (Cl. 209—172.5)



1. Classification apparatus for separating density fractions of a pulp comprising a tank adapted to hold a pool of pulp, a screw conveyor in said tank extending beyond said pool, a float overflow for said pool, a sink discharge on said tank above the level of said pool, said conveyor adapted to carry sink from said pool to said sink discharge, and outlet means for discharging middling from a predetermined strata in said pool, said middling discharge means including openings along the side of said tank intermediate said float overflow and said sink discharge and displaceable substantially between the tank bottom and the pool surface, and means for discharging middling into a launder box remote from said tank.

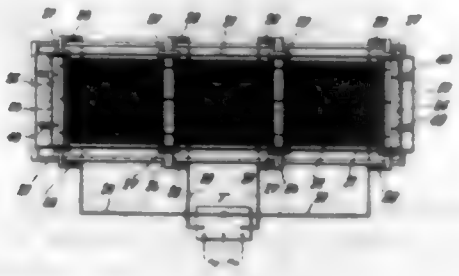
2,868,377
MAGNETIC SEPARATOR
Becalelis Svirskis, Auckland, Auckland, New Zealand
Application April 10, 1956, Serial No. 577,414
Claims priority, application Australia April 12, 1955
4 Claims. (Cl. 209—219)



4. A wet magnetic separator comprising in combination a magnet having upper and lower poles, a rotor disposed between the poles of the magnet so that lines of

magnetic force will pass between the poles through said rotor, means for rotating said rotor, a table onto which a slurry of the material to be treated is fed, a section of the table passing between the rotor and the lower pole in such manner that the components of the slurry in passing along said section will be separated magnetically into two groups, the said section of the table being closer to the surface of the rotor than to the surface of the lower pole, means to adjust the water content of the slurry fed onto the table, a first launder to collect the non-magnetic components of the slurry which pass over the end of said table, a strongly magnetized pick-off roller disposed beyond the end of said table and having a surface in close proximity to the surface of the rotor whereby the magnetic components of said slurry adhering to the rotor pass beyond the end of said table are magnetically attracted to the surface of said pick-off roller, means to rotate the pick-off roller in the opposite sense to said rotor, means adapted to remove the said magnetic components from the surface of the pick-off roller, and a second launder to receive the magnetic components removed from the pick-off roller.

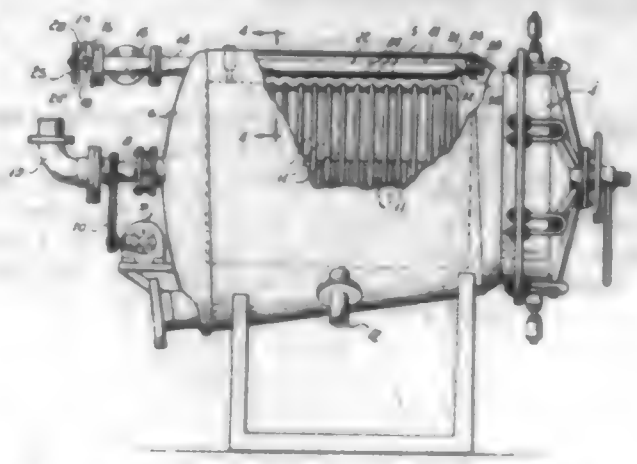
2,868,378
ELECTRICALLY HEATED SCREENS
Eugène M. Burstlein, Thionville, France, assignor of one-half to Societe des Acieries de Longwy (Societe Anonyme), Paris, France, a French company
Application October 23, 1953, Serial No. 388,006
Claims priority, application France November 3, 1952
11 Claims. (Cl. 209—238)



1. A non-cloggable longitudinally electrically heated screening device comprising a screening surface formed of a plurality of wire gauze panels juxtaposed in the longitudinal direction of said surface, said panels having an impedance per unit surface which increases in the direction of travel of the materials to be screened; coupling means for transversely securing and electrically connecting together the adjacent ends of any two successive gauze panels; conducting means secured to the free transversal ends of the first and last panels; an electrical source of heating energy and means for electrically connecting said conducting means and said coupling means successively to different terminals of said source, whereby said panels are differentially heated and the energy input per unit surface of panel decreases in the direction of travel of said materials.

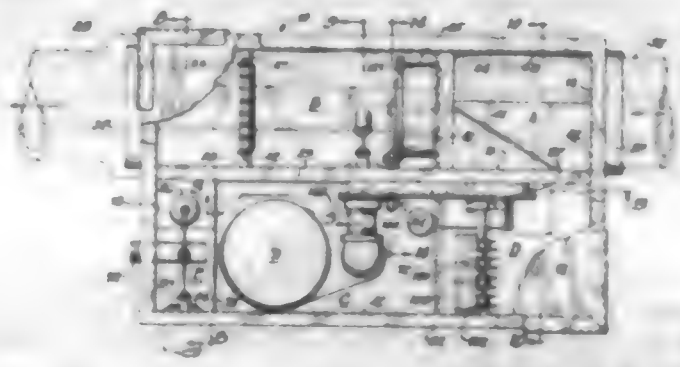
2,868,379
SPRAYING MEANS
Charles E. Hunziker, Ridgewood, N. J.
Application June 5, 1956, Serial No. 589,511
8 Claims. (Cl. 210—91)

1. In a filter construction, a casing provided with a filter pack spaced from the top of said casing and equipped with a liquid vent so arranged as to define a high level for liquid to be filtered by said pack and with said level being substantially coincident with the top of said pack, said vent being effective to preclude the rise of liquid above said level, to thus provide an air chamber within said casing above said pack, said casing being equipped with a header deposed within said chamber between the tops of said casing and said pack, said header being provided with spray nozzles terminating within the



confines of said chamber for discharging cleaning fluid from said header onto the leaves of said pack.

2,868,380
APPARATUS FOR CONTROLLING BACKWATER IN SEWAGE LINES
Deno Del Vecchio, Chicago, Ill.
Application June 20, 1957, Serial No. 666,992
20 Claims. (Cl. 210—111)

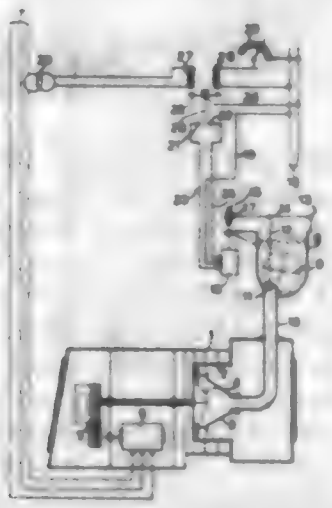


1. Apparatus for the purpose described comprising a casing having side walls, a bottom wall, a top wall and a vertical partition defining a pair of adjacent compartments, means providing an entrance to one of said compartments for flow of waste from the premises thereinto, means providing an exit from said one compartment for flow of waste thereoutof to the street main, a valve in said one compartment for isolating said entrance from said exit, a pump in the other compartment having an inlet port adapted to receive fluid from said one compartment and an outlet port, a conduit providing fluid communication between said outlet port and the casing space defined intermediate said valve and exit, means responsive to rising water level for venting the casing to atmosphere located in said other compartment, said vertical partition having a first aperture therethrough adjacent said top wall for equalizing air pressure in both compartments and a second apertur· adjacent said bottom wall providing fluid communication between said compartments.

2,868,381
SUPPLY CONTROL FOR A PUSH-TYPE CENTRIFUGE
Rudolf Siegrist, Aarberg, Switzerland, assignor to Escher Wyss Aktiengesellschaft, Zurich, Switzerland, a corporation of Switzerland
Application July 2, 1956, Serial No. 595,425
Claims priority, application Switzerland July 12, 1955
3 Claims. (Cl. 210—143)

1. In combination, a centrifuge of the type including a rotary drive motor, a rotary foraminous drum driven by the motor for separating the solid and liquid components of the material being centrifuged, a pusher member encircled by the drum and shiftable therein in the direction of the drum axis, means forming a rotary

drive connection between the pusher member and the drive motor, a flaring distributor member connected with the pusher member and defining therewith a distribution chamber, an inlet to said chamber located on the axis of rotation of the distributor, and an outlet from said chamber adjacent the drum; means for feeding material to be centrifuged to the inlet; a flow control element



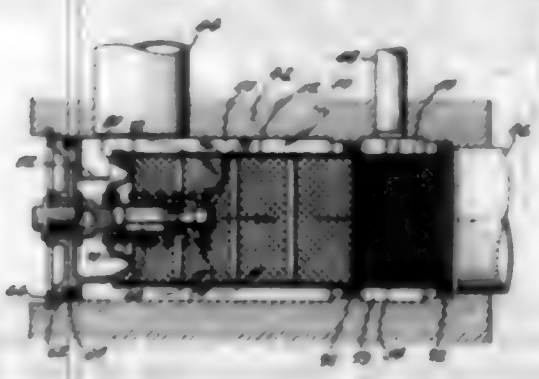
shiftable in opposite directions from a mid position to increase and decrease the rate of feed of said material; and actuating means responsive to the power drawn by the drive motor for shifting the flow control element in the flow rate increasing direction when the power decreases below a predetermined value and in the flow rate decreasing direction when the power increases above that value.

2,868,382

FILTER DEVICE WITH COARSE FILTER AND SELF-CLEANING FINE FILTER

Stanley G. Best, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application September 21, 1956, Serial No. 611,134
2 Claims. (Cl. 210—295)



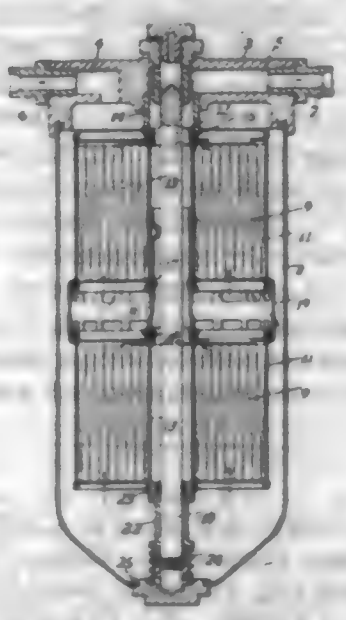
1. A filtering device for a liquid, a casing forming an outer wall, a relatively coarse filtering member in said casing wall and spaced from the wall thereof thereby forming a chamber therebetween, an inlet at one end of said casing leading to said chamber, the flow of liquid being from said inlet to said chamber through said filtering member and axially along the device inside said filtering member, a seal between said member and said casing wall and forming an end wall at the downstream end of said coarse filtering member, a relatively fine filter element downstream of said coarse filtering member, an outlet in said casing at the downstream end of the fine filter, said fine filter having a central passage for receiving the flow axially discharged from the interior of said coarse filtering member and axially discharging through said outlet a major portion of the flow received from said coarse filter whereby the inside of said fine filter is continuously scrubbed, a second outlet in said casing and receiving a minor flow radially outwardly from said fine filter element.

2,868,383

FILTERS

Wilfrid Edward Walter Nicolls, Pinner, England, assignor to C. A. V. Limited, London, England

Application January 10, 1957, Serial No. 633,491
Claims priority, application Great Britain January 13, 1956
1 Claim. (Cl. 210—323)



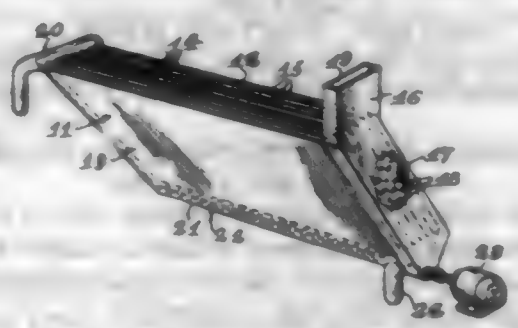
A liquid filter comprising in combination a cylindrical vessel adapted to occupy a vertical position and having a closed lower end, a cover closing the upper end of the vessel and provided with an inlet and outlet for the liquid to be filtered, at least two similar filtering units of cylindrical form arranged one above the other in coaxial relationship within the vessel, with the outer peripheries of the units spaced from the adjacent parts of the vessel, the adjacent ends of the units spaced from each other, and the upper end of the upper unit and the lower end of the lower unit spaced from the cover and the lower end of the vessel respectively, each unit having a cylindrical case provided with a perforated lower end for the admission of liquid to the unit, and with an upper end closed apart from a central opening for the exit of liquid from the unit, a filtering medium contained in the case and consisting of a double thickness of paper strip spirally coiled to provide alternate inflow and outflow passages for liquid admitted to the casing, and an axially arranged tube surrounded by the spirally coiled paper strip, another axially arranged tube interconnecting the central parts of the adjacent ends of the two units, a perforated band enclosing the space between, and removably embracing, the adjacent ends of the two units, and means supporting the units within the vessel so that liquid admitted to the vessel through the inlet can flow upwardly through the two units in parallel to the outlet.

2,868,384

APPARATUS FOR SETTLING FLUID SUSPENSIONS

Ira E. Puddington, Ottawa, Ontario, Canada, assignor to National Research Council, Ottawa, Ontario, Canada, a body corporate of Canada

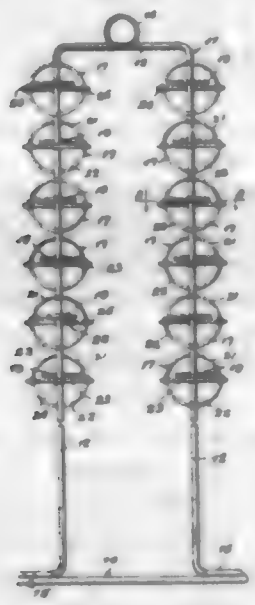
Application July 25, 1955, Serial No. 524,119
3 Claims. (Cl. 210—521)



1. Apparatus for settling fluid suspensions which comprises a container, a plurality of spaced baffles inclined

from the horizontal not less than approximately 40° nor more than approximately 60° and dividing said container into a plurality of angularly disposed settling compartments within the container, each said compartment having an angular height to width ratio of at least eight, means forming a feeding chamber at one end of said container and including a diffusion plate defining the adjacent end wall of each said compartment, said diffusion plate having a multiplicity of openings communicating with each said compartment, said feeding chamber being arranged to receive a head of fluid suspension at least equal to the height of said compartments, said openings being substantially uniformly distributed from the bottom to the top of each said compartment and each said opening having a substantially horizontal axis to feed said fluid suspension in a substantially horizontal direction into each said compartment, means for withdrawing a light component of said suspension from said compartments, and means for withdrawing a heavy component of said suspension from the bottom of said compartments.

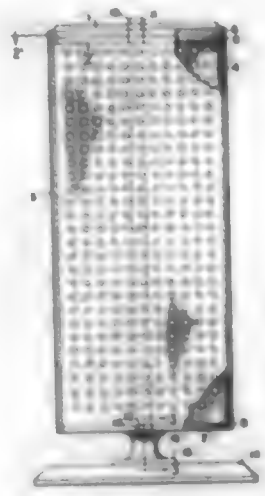
2,868,385
DISPLAY RACK CLIP
Asher Dreyfus, Jr., Dallas, Tex.
Application July 11, 1955, Serial No. 521,080
1 Claim. (Cl. 211—71)



A clip for a display rack having a base and upright leg members, said clip comprising a wire bent to form an angularly disposed upper loop and a similarly disposed lower loop having side portions, said upper loop being bent at a greater angle than said lower loop, a pivot bar secured to a leg member of the rack and extending transversely thereof, respective ends of the pivot bar being engaged with respective side portions of said lower loop, said upper loop having a transverse bar positioned upon the leg member above the pivot bar and at the side opposite the pivot bar and said upper and lower loops being disposed upon opposite sides of the pivot bar.

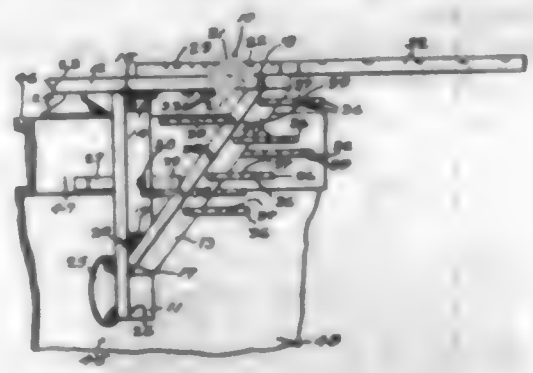
2,868,386
ROTARY DISPLAY RACK
Rome C. Seyforth, Shelby, Ohio, assignor to The Shelby Metal Products Co., Shelby, Ohio, a corporation of Ohio
Application May 3, 1955, Serial No. 505,601
1 Claim. (Cl. 211—95)

A display rack comprising vertically spaced polygonal plates with aligned corners, vertical strips extending between said plates at the corner regions thereof, each of said strips comprising interconnected inner and outer angular webs in spaced relation forming longitudinal grooves laterally displaced at an angle corresponding to that of the corner regions of the plates between which it extends, the inner webs of said strips being wider than the outer webs thereof, side members designed to receive and support articles of merchandise, said members being fitted between adjacent pairs of said strips with the lateral edges of the same received and concealed in the strip grooves, those portions of the strip grooves thus receiving the lateral edges of the side members being of a



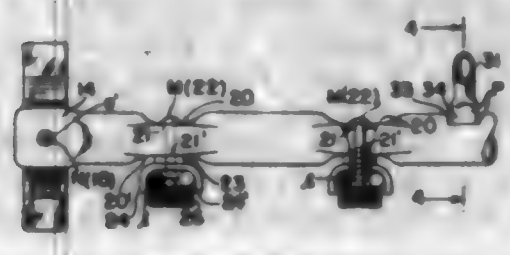
width at least equal to the thickness of such side members, the uppermost plate being recessed to receive the upper edges of said side members, a shaft on which the assembly is mounted for rotation extending centrally through the vertical-spaced plates, and a bearing associated with said shaft on which the lower of said plates rests.

2,868,387
PORTABLE CLOTHES DRYING RACK
Herbert Racker, New York, N. Y.
Application July 12, 1956, Serial No. 597,423
1 Claim. (Cl. 211—96)



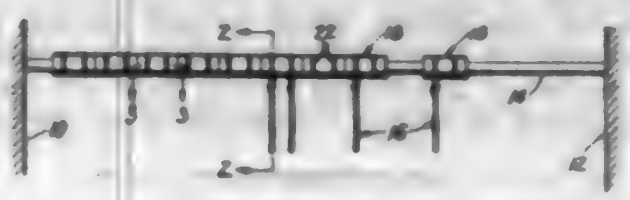
A clothes drying rack comprising an upright plate, a horizontal plate engaging the upper end of said upright plate intermediate the opposite ends of said horizontal plate in a T-shaped arrangement, a hinge element secured to each of said plates adjacent the juncture therebetween, a sliding pintle detachably securing said hinge elements together, a suction cup attached to one side of said upright plate near the lower end thereof, a second suction cup attached to the underside of said horizontal plate at the free end thereof on the same side of said upright plate as said first named suction cup, an angularly disposed hanger bar brace plate extending from the end of said horizontal plate opposite said second suction cup to said upright plate opposite said first suction cup, a hinge element secured to each of said upright plate and said brace plate adjacent the juncture therebetween, a hinge element secured to each of said brace plate and said horizontal plate adjacent the juncture therebetween, sliding pintles detachably securing said respective hinge elements together detachably securing said brace plate to said horizontal plate and to said upright plate, and a plurality of fixed and adjustable support means mounted on said brace plate and said horizontal plate.

2,868,388
CLOTHES LINE HANGER DEVICE
Orr E. Crites, Millburn, N. J.
Application May 14, 1954, Serial No. 429,766
2 Claims. (Cl. 211—119.1)



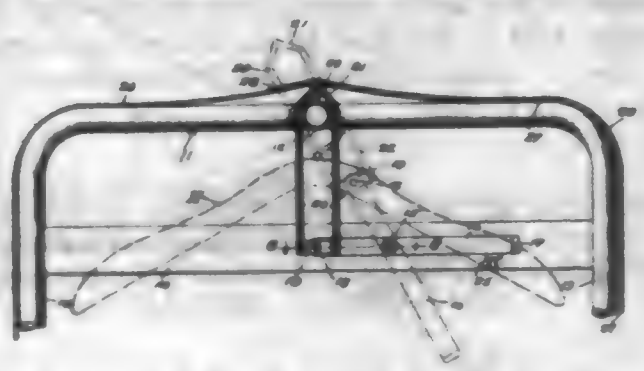
1. In a clothes line hanger device, a cross bar adapted to bear and anchor against a supporting surface, said bar being of pre-determined length and having a supporting foot at each end thereof, each foot being substantially of V-form with the sides terminating in aligned outward supporting surface contacting portions, means detachably securing each foot to its associated end of the cross bar and each end of the bar being flattened in a vertical, transverse plane to provide a seat for said feet, said bar being flattened at spaced points along its length to present vertically aligned, upper and lower horizontally flat surfaces, a bolt projecting downwardly through each vertically aligned pair of such surfaces and having a nut associated therewith to rigidify the bolts with respect to the bar but having a threaded free end of each bolt depending from the bar, each nut having downwardly curved lateral extensions forming seats straddling each bolt, a knurled nut received on the end of each bolt and having a flat upper face received between said lateral extensions to clamp the loop of a clothes line within said cleats, and the central portion of said bar being provided with aligned slots aligned in a downward direction toward that side of the bar to which said feet are secured, said slots being adapted for the reception of the flattened end of an associated bridge piece.

2,868,389
SUPPORT DEVICE FOR GARMENT HANGERS
Lindsay C. Friend, Essex, Md.
Application August 12, 1955, Serial No. 528,023
1 Claim. (Cl. 211—123)



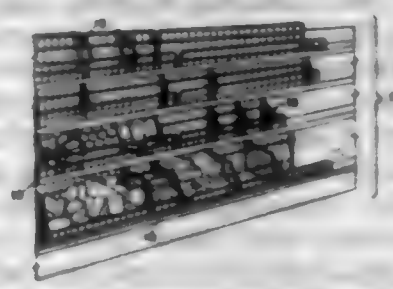
A support device for garment hangers of the type having wire suspension hooks, said device including an elongated, straight clothes bar for extension horizontally within an enclosure in which a plurality of garments are to be suspended from the support device; and a plurality of like sleeve elements freely slidable upon and receiving said bar, the several elements having squarely cut-off ends with the end surfaces of each element lying in planes perpendicular to the length of the bar, each sleeve element being formed at intervals spaced longitudinally thereof with external, circumferential grooves, each of said grooves having a narrow, semicircular cross-section such that a wire hook of a garment hanger will engage snugly therein, there being a pair of grooves on each element, the distance between the grooves of said pair being twice the distance between each groove and the adjacent extremity of the element, said grooves being spaced widely from each other and from the ends of the element adjacent the respective grooves, to an extent sufficient to prevent adjacent garments from interfering with each other, the outer diameter of each sleeve element being wholly constant from end to end thereof except for the provision of the grooves.

2,868,390
LOCKING DEVICE FOR CLOTHES HANGERS
Harold W. McCrone, Halethorpe, Md., assignor to Yankee Engineering Company, Inc., Baltimore County, Md.
Application October 25, 1955, Serial No. 542,538
3 Claims. (Cl. 211—124)



1. In a device of the character described, a frame including a base, an inverted transverse U-shaped upright having legs carried by each end of the base, a garment hanger supporting rail extending longitudinally between the centers of the bights of the uprights, a cross brace extending between the opposite legs of each upright adjacent the bight thereof, a headed pivot carried by each cross brace transversely offset from said rail, a lever carried by each pivot terminating at one end in vertical alignment with a bar pivoted on said one end of said lever, an upwardly extending support rod secured at one end to each end of said bar, a longitudinally extending angle iron hanger retaining bar having legs, one end of each leg being secured to the other end of each support rod, said hanger retaining bar extending substantially the length of said rail and a finger hold at the other end of said lever for swinging said lever to raise and swing said retaining bar from said rail.

2,868,391
DISPLAY AND BIN CONTAINER FOR SMALL, PACKAGED ARTICLES SUCH AS GROCERIES AND THE LIKE
Harold I. Sides, Chicago, Ill.
Original application February 2, 1954, Serial No. 407,688. Divided and this application January 28, 1957, Serial No. 636,667
4 Claims. (Cl. 211—181)

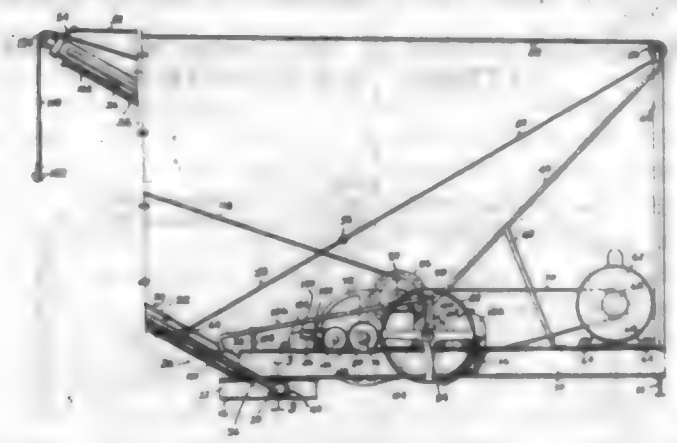


1. A display and bin container for small packaged articles such as groceries and the like comprising a plurality of container sections placed end to end, each container section consisting only of a base, an upwardly extending back portion, an upwardly extending front portion, and at least one readily removable divider which is adapted to be placed anywhere between the front and the back portions of a section to separate the container into compartments, said divider having means to anchor it in position at any desired location, said container sections and said divider both being of wire construction.

2,868,392
BOOM STRUCTURE
Glenn L. Poffenberger, Altoona, Iowa
Application September 28, 1956, Serial No. 612,680
9 Claims. (Cl. 212—8)

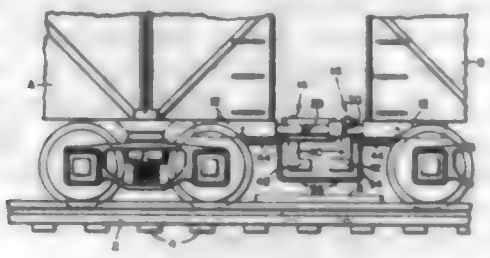
1. In a boom structure, a frame, an extensible boom pivotally secured at its inner end to one end of said frame

so as to project therefrom, an upstanding post on the other end of said frame, means for extending and retracting said boom, a pulley on the top of said post, and



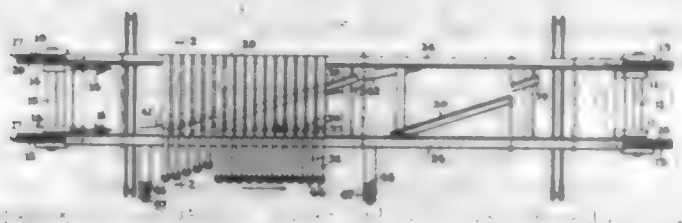
a guy line attached at its respective ends to the outer and inner end portions of said boom and reeved intermediate its ends over said pulley.

2,868,393
MODEL RAILROAD CAR COUPLER
George J. Bailey, Jr., Fitchburg, Mass.
Application June 22, 1956, Serial No. 593,129
2 Claims. (Cl. 213—75)



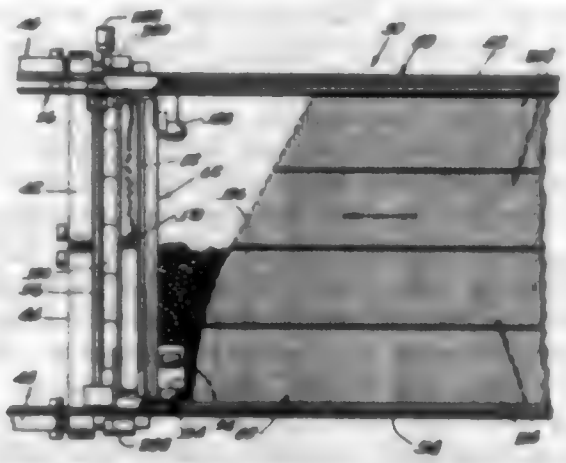
1. A coupler for a model railroad car comprising an elongated coupling element pivotally supported at its rear end for swinging movement in a horizontal plane, the forward end of said coupling element having a laterally extending member provided with a hook portion for engaging the corresponding hook portion of a second coupling element, said laterally extending member also having a vertical cam face residing at an oblique angle to the longitudinal axis of said coupling element, spring means biasing said coupling element against swinging movement in a first direction, lever means for swinging said coupling element in said first direction, said lever means comprising a first portion in engagement with said coupling element, a second portion extending downwardly and transversely beneath said coupling element and a third horizontally extending portion connecting said first and second portions, said third portion being rotatably supported in a horizontal plane and disposed substantially parallel to the longitudinal center line of said coupling element.

2,868,394
CONVEYOR
Nelson P. Greller, Washington, D. C., and Warren E. Graybeal, Hyattsville, Md.
Application September 26, 1957, Serial No. 686,493
9 Claims. (Cl. 214—11)



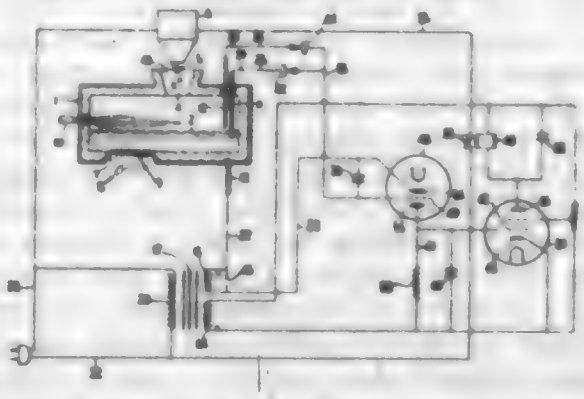
1. In a conveyor, the combination of means forming an endless conveyor apron; means serving to support said apron in two substantially horizontal runs, namely, a conveying run and a return run in which last the apron is inverted; a plurality of transverse guides carried by the apron; a carriage slidable in said guides and each including a portion which projects upward above the apron on the conveying run thereof; means positioned to function at each diversion station and capable of being rendered selectively operative or inoperative to cause diverter carriages to make excursions along said guides; means operable to select the operative or inoperative condition for successive carriages; and means rendered effective by travel of each carriage along the return run to retract successive carriages after their excursions.

2,868,395
CAN STORAGE APPARATUS
Clarence J. Smith, Rockford, Ill., assignor to W. F. and John Barnes Company, Rockford, Ill., a corporation of Illinois
Application March 21, 1956, Serial No. 573,040
17 Claims. (Cl. 214—16)



1. A storage structure for cans or other articles comprising a storage bin, article distributing means above said storage bin, and means disposed for controlling the fall of articles from said distributing means into the storage bin for restraining injury to the articles, said distributing means comprising carriage means extending transversely of the storage bin and mounted for movement longitudinally of the storage bin, conveyor means on said carriage means and extending transversely of said storage bin, and stripper means on said carriage means and mounted for reciprocable movement along said conveyor means for distributing articles from the conveyor so as to spread the articles transversely of the storage bin.

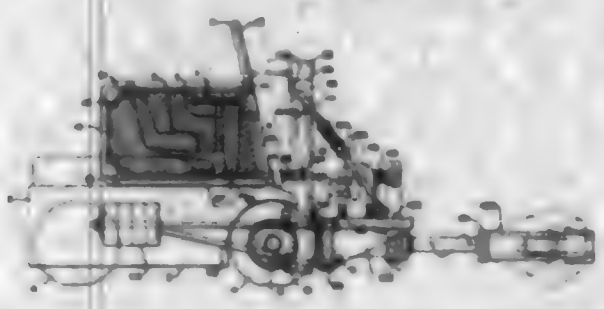
2,868,396
LEVEL CONTROL
Clarence Henry Helbing, Bay Shore, and Murray Barlowe, Bethpage, N. Y., assignors to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application September 12, 1956, Serial No. 609,429
5 Claims. (Cl. 214—18.2)



5. An apparatus for controlling the operation of a charging means so as to control the level of glass in a furnace which comprises a first circuit including a source of current, a first electrode positionable in a furnace

so that the lowermost tip of the electrode is always submerged in the glass, a second electrode positionable below the first electrode in series with the glass and the first electrode and a first rectifier wired in series with the first and second electrodes permitting current to flow in one direction only through the glass and the first and second electrodes, a second circuit including a source of current, the second electrode, a third electrode positionable in the furnace so that the lowermost tip of the electrode extends into the glass when the level of the glass is proper or too high and does not extend into the glass when the level of the glass is too low, said third electrode being in series with the glass and the second electrode and a second rectifier wired in series with the glass and the second and third electrodes so as to permit current to flow through the glass and the second and third electrodes in one direction only, which direction is opposite to that direction which current is permitted to flow through the second electrode by the first rectifier, a condenser in the first and second circuits for detecting the difference in potential charge in the circuits, a tube containing a grid and a plate circuit, the grid being attached to and charged by the condenser and means responsive to the plate circuit to energize and deenergize the charging means.

2,868,397
MANIPULATOR
Carl J. Westling, Pittsburgh, Pa., assignor to Vulcan Research Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 13, 1952, Serial No. 320,287
11 Claims. (Cl. 214—27)



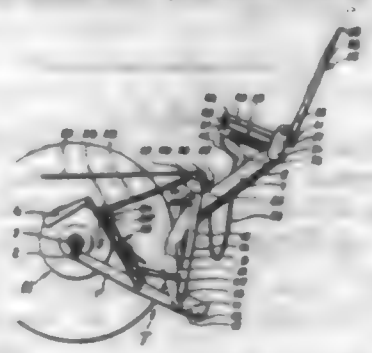
1. A manipulator comprising a base, a support generally in the form of a hollow cylinder removably connected with the base at one end of the support and projecting from the base, the support being open at its opposite end, a hollow generally cylindrical peel carrier mounted in the support for turning movement generally about its axis and projecting from the second mentioned end of the support, and removable means accessible from the first mentioned end of the support when the support is removed from the base maintaining the peel carrier against withdrawal from the support through the second mentioned end of the support.

2,868,398
REFUSE HANDLING VEHICLE
Orin M. Anderson and William A. Ferrari, San Antonio, Tex., assignors, by mesne assignments, to Pak-Mor Manufacturing Company, San Antonio, Tex., a corporation of Texas
Application June 19, 1956, Serial No. 592,406
5 Claims. (Cl. 214—82)



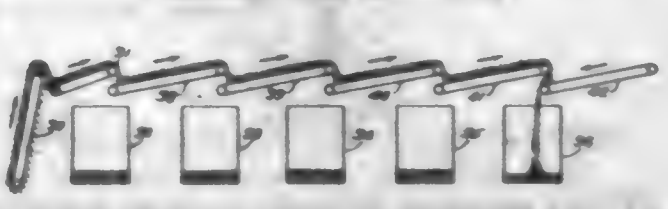
1. A refuse handling vehicle comprising an elongated refuse receptacle having a loading opening formed therein intermediate its ends, closure means at each end of said receptacle, packing means mounted for longitudinal movement within said receptacle, and means for moving said packing means from said opening toward the closure means at each end of said receptacle so as to compress refuse deposited in said receptacle through said opening against each closure means when closed and to discharge the compressed refuse out of each end of said receptacle when the associated closure means is open.

2,868,399
LOADING ATTACHMENT FOR TRACTORS
Laurent Fortier, St. Clothilde, Quebec, Canada
Application September 9, 1957, Serial No. 682,666
13 Claims. (Cl. 214—140)



1. A loading attachment for a tractor having a pair of lifting levers at the back thereof and power means for raising and lowering said lifting levers, said attachment comprising a main arm having a transverse leg at the inner end thereof, the outer ends of said transverse leg being pivotally connected to said pair of lifting levers, a loading device mounted at the outer end of said main arm, an upstanding member pivotally connected to said main arm at its lower end, a link pivotally connected to the upper end of said upstanding member and to said tractor at a point above the points of attachment of said lifting levers to said tractor, a first collapsible tension member between said upstanding member and said main arm and a second tension member between said tractor and said main arm and attached to said main arm at a point intermediate the inner and outer ends of said main arm, said second tension member being freely extensible between a retracted and elongated position and incorporating means for locking said tension member into its retracted position, so constructed and arranged that, when said second tension member is unlocked and is freely extensible, operation of said lifting levers will cause raising and lowering of said main arm and upstanding member between a low and a raised upwardly inclined position for normal loading operation and that, when said second tension member is locked in its retracted position, lowering of said lifting levers will cause said main arm to pivot into an inoperative upright position.

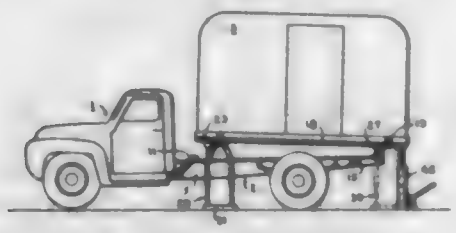
2,868,400
METHOD FOR FEEDING BULK MATERIAL TO PLURAL SUPPLY LOCATIONS
John W. Powischill, Cheltenham, and Edwin W. Hine II and George Robert Howard, Philadelphia, Pa., assignors to Proctor & Schwartz, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application June 7, 1955, Serial No. 513,684
4 Claims. (Cl. 214—152)



1. In the feeding of loose material to a plurality of supply locations arranged in serially spaced relationship, the process comprising feeding said material to a con-

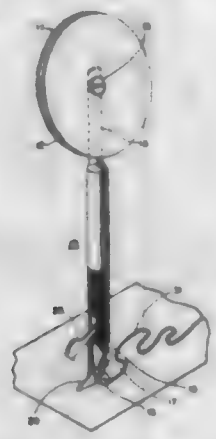
veyor system comprising a first conveyor underlying a supply conveyor and overlying one of said locations at its material-receiving end, and succeeding conveyors each underlying at its receiving end the discharge end of the preceding conveyor and overlying its associated supply location, feeding material from each of the conveyors of said system rearwardly as received until a predetermined increment has thus been deposited at its underlying discharge location, and after completion of said incremental rearward feed, feeding material as received by each of said conveyors forwardly until each of said conveyors has fed an increment to its associated discharge location, and a further increment of material has been deposited on each of the conveyors of said system, thereafter depositing the increments established on said conveyors at said locations, and repeating said sequence of steps in timed sequential cycles.

2,868,401
VEHICLE BODY CHANGING METHOD
Vernon A. Lelois, Valparaiso, Ind.
Application February 15, 1956, Serial No. 565,668
1 Claim. (Cl. 214—152)



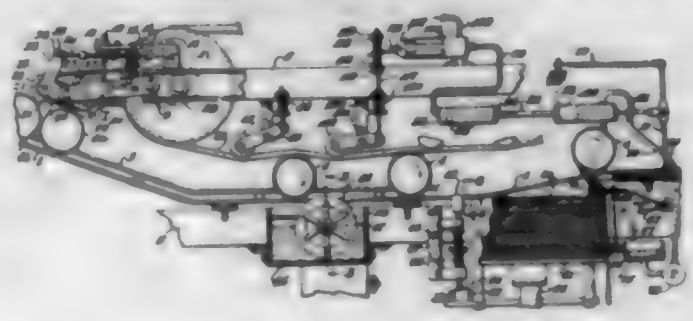
A method of assembling a body provided with fittings to a vehicle chassis provided with fittings which consists in mounting the body on a front pair of standards and a rear pair of standards, moving the chassis rearwardly under the body and between the standards, raising the rear end of the body, disconnecting the rear pair of standards from the body, lowering the rear end of the body onto the rear end of the chassis, moving the chassis forwardly to cause tilting of the front pair of standards to gradually lower the fore end of the body onto the chassis, reconnecting the rear standards to the body so they assume a tilted position substantially corresponding to that of the front standards, and then moving the chassis rearwardly so that the standards will force the body forwardly so that the fittings thereon will engage the fittings on the chassis.

2,868,402
TAPE DISPENSER
J. H. Perry, Washington, D. C.
Application May 29, 1958, Serial No. 738,903
13 Claims. (Cl. 216—29)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A tape dispenser comprising a body having means at one end for holding a roll of tape and dispensing section at the other end, means located between said first mentioned means and said dispensing section for guiding tape from said first mentioned means to the dispensing section, means including a cutting blade located on the dispensing section for partially severing the tape, a pressure roller located on the dispensing section, and means located on said dispensing section for indicating the distance between the cutting blade when actuated and the point on the circumference of the pressure roller furthest from the cutting blade.

2,868,403
CAN LABELER
Ralph J. Mattingly and John J. Mattingly, Rising Sun, Ind.
Application January 28, 1955, Serial No. 483,074
7 Claims. (Cl. 216—58)



1. In a labeling machine wherein the cans are moved through the machine with their axes transverse their direction of motion, spaced apart tracks along which the end edges of the cans are adapted to be rolled, metering means positioned to contact the cans as they enter the machine, said metering means being arranged to retard the forward movement of the cans and advance them into the machine in predetermined spaced apart relation, means for advancing the spaced cans along the tracks, means for applying an adhesive to the outer cylindrical surfaces of the advancing cans, means for supporting a stack of labels in the path of the advancing cans, a glue bar for contact with the rear edge of the uppermost label in the stack, said glue bar being movable from an operative position in contact with said label to an inoperative position out of contact with said label, and glue bar moving means disposed in the path of said can advancing means to be actuated thereby when the spacing between successive cans exceeds a predetermined amount for moving said glue bar from said operative position to said inoperative position.

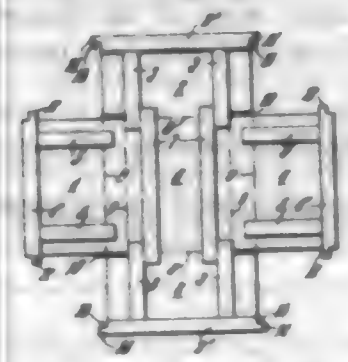
2,868,404
FOLDING BOX
Alan P. Mattes, Sacramento, Calif.
Application September 6, 1956, Serial No. 608,278
1 Claim. (Cl. 217—14)



A collapsible box comprising a pair of side walls, a pair of end walls, diagonally disposed pairs of outer hinges secured one pair to a side wall and an adjacent end wall, another pair of outer hinges being secured to to the other side and end wall, diagonally disposed inner hinges secured to the ends of said side and end walls opposite from said outer hinges, a pair of bottom walls, a pair of inwardly projecting relatively narrow cleats, one carried by the inner face of each end wall, means hingedly securing said bottom walls to the inner faces of said side walls, said bottom walls in the assembled position of the box seating on said cleats, one of said outer hinges having a spring-pressed pintle, and an inverted L-shaped locking member integral with said pintle and lockingly engageable over adjacent face abutting side and bottom walls, said cleats being of a dimension substan-

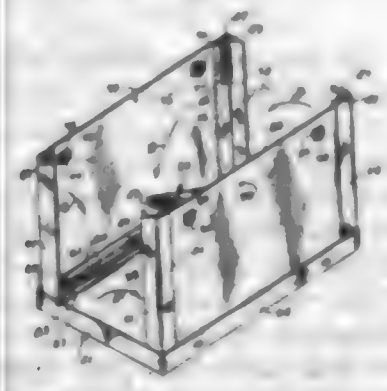
tially equal to the combined thickness of the side, end and bottom walls, and adapted to completely overlie said walls when said box is in collapsed position to provide a protection therefor.

2,868,405
TOTE BOX
Kazimir S. Zolyn, Westfield, Mass., assignor to White Industries, Inc., Westfield, Mass., a corporation
Application July 15, 1957, Serial No. 671,885
1 Claim. (Cl. 217—15)



A tote box blank adapted for setting up in the form of a receptacle comprising, a single sheet of corrugated board or the like having inner and outer faces and formed to have a bottom wall section and opposite and adjacent side and end wall sections upwardly swingable to set-up relation on bending lines provided along opposite longitudinal side edges and along transverse end edges of said bottom wall section, relatively stiff rims secured to the outer face of said side and end wall sections at outermost edges thereof, a pair of elongated braces of a certain thickness secured to the outer face of said bottom wall section disposed inwardly of and in parallelism with the bending lines for said end wall sections, a pair of supports secured to the outer face of each side wall section disposed inwardly of opposite side edges thereof and extending in parallelism with said braces, a pair of supports secured to the outer face of each end wall section disposed transversely relative to said braces, inner ends of the supports of said side and end wall sections extending beyond the bending lines for said sections and over said bottom wall section a distance equal to the thickness of said braces whereby in set-up relation of the wall sections with the braces on a flat support the inner ends of said supports will rest on the flat support, opposite ends of the rims of the end wall sections provided with end ledge portions, opposite ends of the rims of the side wall sections provided with end projecting portions to overlie said ledge portions in set-up relation of said wall sections, certain of said end portions provided with posts and the other of said end portions provided with sockets in which said posts are receivable.

2,868,406
COLLAPSIBLE PACKING CASE
Frederic G. Kookogey, New York, N. Y.
Application March 17, 1954, Serial No. 416,987
4 Claims. (Cl. 220—7)



1. In a collapsible packing case, a base having vertical flange means about its perimeter, cooperative side and end walls individually carried on said base, said side walls being hinged to said flange means by individual hinges with their axes lying on different levels within said base portion so that said side walls are in substantially spaced parallel relation when they are folded downwardly from their normal positions to their collapsed positions within said base they are in substantially parallel spaced relation therein, said end walls being hinged to said base, one of the hinges involved being spaced apart from one end of said base portion and greater distance than that of the other hinge involved is spaced from the other end of said base and said end walls having flanges thereon connected to said hinges in such a manner that when said walls are swung from their normal positions to positions where the case is collapsed, they are stratified within said base, and a cover portion having elements adapted to engage cooperative elements in said walls when they are in their normal positions and adapted to engage other cooperative elements in said base when said case is collapsed, to form a cover for said case.

2,868,487
PACKING CONTAINERS
John William Woodcock, Codsall, near Wolverhampton, England, assignor to T. I. (Group Services) Limited, Aston, England
Application January 4, 1957, Serial No. 632,546
Claims priority, application Great Britain January 12, 1956
3 Claims. (Cl. 220—7)

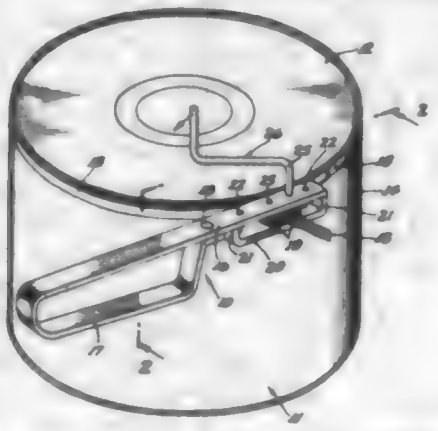


1. A collapsible packing container comprising in combination a rectangular base, a pair of rectangular side parts hingedly connected at their lower edges to opposite sides of the base so as to be foldable inwardly on to the base, a pair of rectangular upper side parts hingedly connected at their lower edges to the upper edges of the lower side parts respectively so as to be foldable outwardly relative to the latter, a rectangular top hingedly connected at opposite sides to the upper edges of the upper side parts, a pair of rectangular lower end portions rigidly connected to opposite ends of the base, a pair of rectangular upper end portions hingedly mounted on the upper edges of the lower end portions respectively so as to be foldable inwardly on to the top, locking mechanism mounted in the interior of the container for releasably retaining the upper and lower side parts on each side of the container in substantially the same plane when the container is in its erected condition, manually operable actuating means connected to the locking mechanism and mounted on the exterior of the container, manually operable clamping mechanism for drawing and releasably securing the upper end portions against the top and upper side parts, and means connected to the clamping mechanism for preventing release of the locking mechanism until the clamping mechanism has been released.

2,868,488
DEVICE FOR OPENING CONTAINERS
Kenneth J. Greeley, Cedar Glen, Calif.
Application March 20, 1956, Serial No. 572,738
8 Claims. (Cl. 220—52)

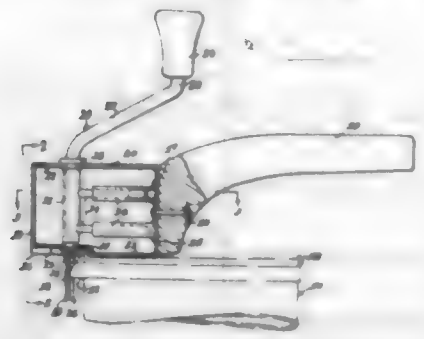
8. An opener for containers provided with a tear strip, said opener comprising: a frame having two substantially

parallel side walls spaced apart a distance sufficient to receive said tear strip flatwise therebetween, a pair of parallel rollers rotatably journaled in said side walls in fixed spaced relation to each other, said rollers each



having gear-like teeth thereon, the teeth of one roller loosely meshing with the teeth of the other roller, means for rotating one of said rollers, wherein upon rotation of the rollers said strip may be gripped by said teeth and ripped from the container.

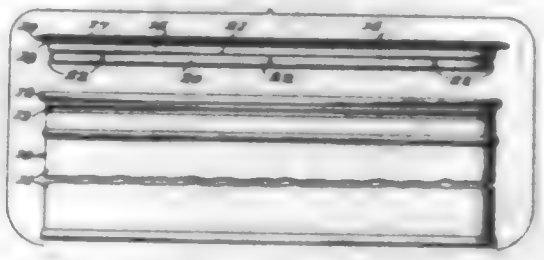
2,868,409
CAN OPENER
Louis Galos, Skokie, Ill.
Application June 26, 1957, Serial No. 668,682
4 Claims. (Cl. 220—52)



2. In a can opening device for removing the sealing strip from a can, a handle provided with a flat end portion, a hollow housing arranged contiguous to said flat end portion and having an end wall secured to said handle, said housing including spaced parallel top and bottom walls, spaced parallel side walls, there being opposed registering slots in said top and bottom walls, a crank including a first portion extending through said slots, the lower end of said first portion being bifurcated for engagement with the sealing strip to be removed, said crank further including a second portion arranged angularly with respect to said first portion and said second portion terminating in a third portion, a hand grip on said third portion, a collar arranged within said housing and having the first portion of the crank extending therethrough, a pair of spaced parallel pins extending from said collar and secured thereto, and a pair of spaced parallel sleeves secured to said first end wall for slidably receiving said pins, the bottom of the side walls being provided with slots for engagement with the rim of the can being opened.

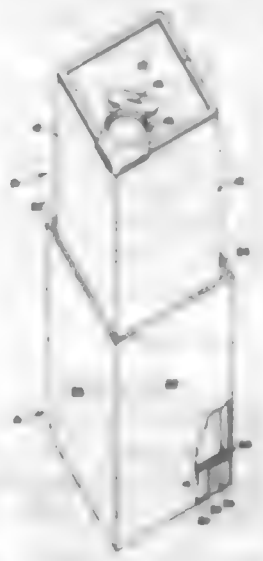
2,868,410
PAINT CAN AND COVER
John Henchert, River Forest, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application July 5, 1956, Serial No. 595,943
3 Claims. (Cl. 220—60)

1. In a paint can and cover assembly, a can having a bottom and a vertical side wall secured at its lower end to said bottom, the upper end of said can side wall being provided with a lip turned outwardly away from the can interior, and a cover of shallow cupped form and having a vertical side wall and a bottom, the upper portion of said cover side wall being cylindrical and in contact with the inner side of said can side wall and having an outwardly turned flange overlying said lip, the lower end portion of said cover side wall being offset inwardly throughout its periphery to provide a space between itself and said can side wall extending full depth of said cover side wall down to the bottom of the cover, said inwardly offset lower end portion of said cover side wall being provided with detent means projecting into said space, said detent means being located in spaced relation to the upper edge of the inwardly offset lower end portion, said can side wall also having detent means



projecting into said space and yieldably engaging said detent means of said cover side wall to removably secure the cover to the can, said detent means of one of said side walls comprising circumferentially spaced mound-like projections on this wall, said detent means of the other of said side walls consisting of a continuous rib on this wall, said rib being spaced radially of the can from said one of said side walls to provide arcuate paint drainage spaces between said mound-like projections, said detent means all being disposed intermediately of the depth of said offset cover wall portion to provide free circumferential spacing both above and below the detent means between said offset cover wall portion and the opposing can side wall.

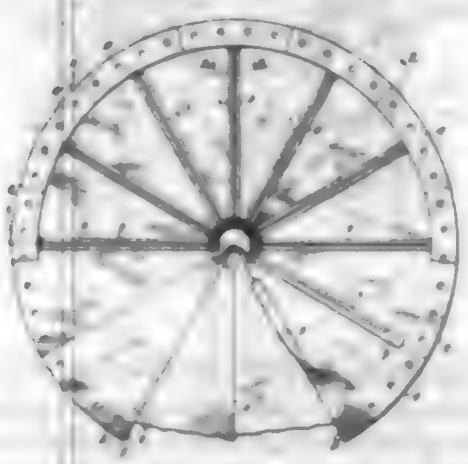
2,868,411
HOLDER FOR MILK CARTONS OR THE LIKE
Jacob Kesselman, Millburn, N. J.
Application March 5, 1957, Serial No. 644,045
4 Claims. (Cl. 220—85)



1. A holder for cartons containing milk or like fluid, said carton being characterized by flexible sides which bulge laterally beyond a vertical projection of the top and bottom ends thereof when the carton is at least partially filled with fluid, said holder being integrally molded of flexible plastic material, and comprising a bottom wall having substantially the same outline as the bottom end of the carton, side walls extending upwardly from said bottom wall, integrally molded pedestals at the corner juncture of the side walls and the bottom wall, said pedestals having a height to provide a support for the carton on a level spaced vertically above the bottom wall,

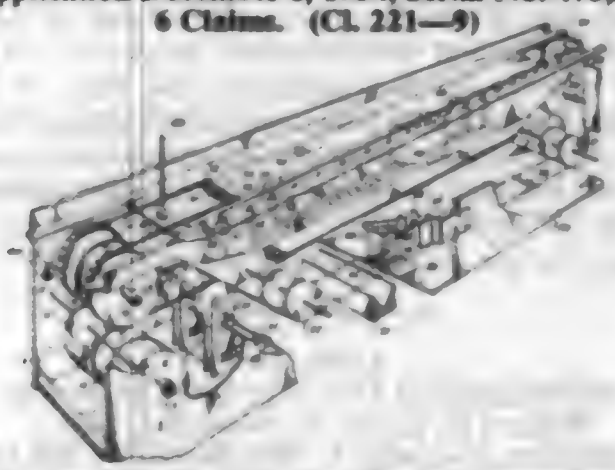
and inwardly projecting means molded integrally with each side wall of a pair of opposite side walls for frictionally engaging opposite sides of the carton, the distance between the carton engaging surfaces of opposite projecting means being slightly greater than the corresponding dimension of the bottom end of the carton, said distance being less than the distance between the bulged side walls of an at least partially filled carton, said carton engaging surfaces being substantially parallel to each other to provide a substantial area of engagement with the carton.

2,868,412
SAFETY PRESSURE RELIEF DEVICE
Robert S. Coffman, Kansas City, Mo., assignor to Black, Sivalls & Bryson, Inc., Kansas City, Mo., a corporation of Delaware
Application April 15, 1954, Serial No. 423,415
3 Claims. (Cl. 220—89)



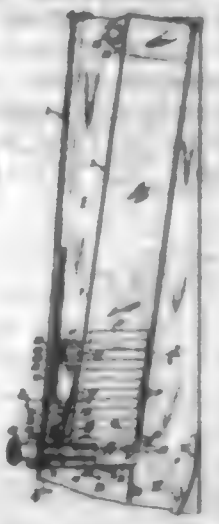
1. A safety pressure relief device comprising, a plurality of segment members, said segment members each being triangular shaped and positioned with respect to each other segment member to form a substantially flat structure having radial slots and a central opening, a plurality of frangible strips, each of said frangible strips positioned in covering relationship to one of said radial slots between said segment members, a frangible disc positioned in covering relationship to said central opening, means securing said frangible strips and said frangible disc in sealing relationships to said segment members.

2,868,413
AUTOMATIC MACHINERY
Bernd Vossen, Arlington, Va., assignor to Melpar, Inc., Alexandria, Va., a corporation of New York
Application December 6, 1954, Serial No. 473,251
6 Claims. (Cl. 221—9)



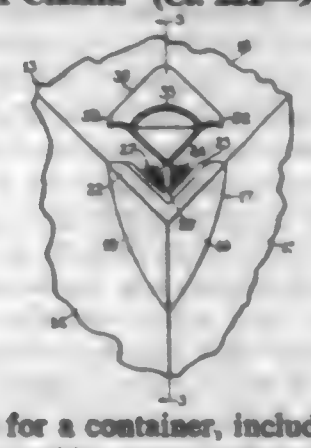
1. In combination, a plurality of magazines, each suitable for containing a plurality of components, a closure for each magazine, said closures arranged when open to permit gravity feed of said components in succession, a pneumatic closure operator for each of said closures, a source of pneumatic pressure, each of said closure operators responsive to said pneumatic pressure for opening one associated closure, a pneumatic distributor for selectively supplying pneumatic fluid under pressure to said closure operators and energizable means for actuating said pneumatic distributor to supply said pneumatic fluid under pressure in succession to said closure operators.

2,868,414
VENDING MACHINE
Harry H. Pryor, St. Louis, Mo., assignor to National Vendors, Inc., St. Louis, Mo., a corporation of Missouri
Application July 16, 1956, Serial No. 598,165
3 Claims. (Cl. 221—188)



1. A vending machine comprising a cabinet, a magazine in the cabinet adjacent the front of the cabinet for holding a stack of articles, means pivotally mounting the magazine in the cabinet adjacent one end of the magazine constituting its upper end for swinging movement in forward and rearward direction about a horizontal axis, said magazine being adapted for gravity feed of articles toward its other and lower end, said magazine having a rear discharge opening at its lower end transverse to the direction of its movement through which the lowermost article in the stack may be ejected, said magazine having a slot extending in the direction of its movement traversing its lower end, said magazine being biased to swing forward to a retracted position, an ejector mounted for reciprocation in forward and rearward directions through said slot between a rearward retracted position and a forward position, a rod extending outward from the ejector through an opening in the front of the cabinet and having a knob on its outer end adapted to be grasped by a purchaser for pulling the rod and the ejector forward and for pushing them rearward, and means operable by the ejector upon forward movement thereof by a purchaser from its retracted position and acting on the magazine for swinging said magazine rearward away from its retracted position to move its lower end clear of the ejector, the magazine swinging forward back to its retracted position under its bias upon return of the ejector rearward to retracted position.

2,868,415
DISPENSERS FOR CONTAINERS
Harold L. Loew, New York, Rocco R. Oddo, Brooklyn, and Robert M. Ruben, Forest Hills, N. Y.
Application December 16, 1955, Serial No. 553,522
11 Claims. (Cl. 222—90)



1. A dispenser for a container, including a curved wall forming an outer guide means adapted to engage upon

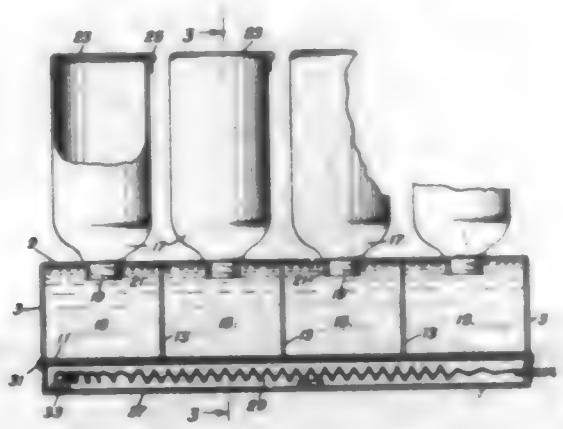
the outside of a container, a pendent member forming a curved cutter spaced a short distance inwardly from the curved wall or guide means, a top forming a bridge portion rigidly interconnecting the outer guide means and the upper end of the cutter, and a member upon the cutter rigidly and intermediately disposed thereon for turning the flap upon the container inwardly which is formed by insertion of said cutter in the top of said container.

2,868,416

APPARATUS FOR DISPENSING AND WARMING LIQUIDS

Harold G. Smith, Lewiston, Idaho, assignor of one-half to Edgar Lee Smith, Seattle, Wash.

Application December 13, 1956, Serial No. 628,197
1 Claim. (Cl. 222—146)



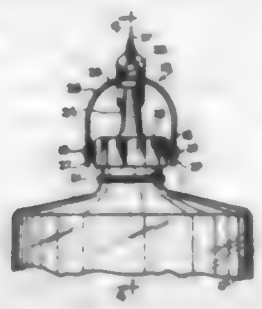
Apparatus for dispensing warmed hair and scalp treating liquid comprising a closed tank forming a compartment having a bottom wall and a top wall provided with a depending threaded neck, an open bottom liquid containing bottle rising from said top wall and inverted with a neck threaded into the first named neck for gravity feed of liquid from the bottle into the compartment, a hinged closure flap on the bottom of the bottle for opening said bottle for introducing liquid therein, a closed heated chamber on and below said bottom wall for warming the liquid in the compartment, and discharge means on said compartment for the warmed liquid.

2,868,417

CLOSURE AND SUPPORT FOR CONTAINER

Nathan Legman, Bronx, N. Y.

Application March 30, 1956, Serial No. 575,205
2 Claims. (Cl. 222—180)



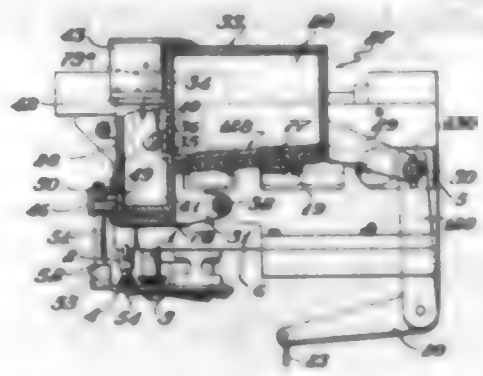
1. A closure and support for a tubular container, comprising a generally cylindrical, internally threaded cap adapted for removably securing a threaded nipple of the container, a cap having a pair of trunnions, a U-shaped bail extending over the cap and having arms pivotally mounted on the trunnions, said cap having a pouring sleeve terminating in a slanting top surface defining a pouring opening thereat, said bail having a bight portion, a closure block carried on said bight portion, said block having an inclined face for fitting against said slanting top surface to close said opening, a long flexible cord secured to the block for vertically supporting the cap and container in axial alignment with the cord with the weight of the container holding said slanting top surface and said inclined face in abutment, and a coil spring encircling one of the trunnions and having one end secured to the cap while the other end is secured to one of said arms, said coil spring normally biasing the closure block out of engagement with said sleeve when the container is lifted to relieve the cord of the weight of the container.

2,868,418

CONTROL VALVE FOR ADHESIVE DISPENSING APPARATUS

Frank J. Kazynski, Wilmington, Mass., assignor, by mesne assignments, to Jacob S. Kamborian, West Newton, Mass.

Application April 8, 1954, Serial No. 421,727
8 Claims. (Cl. 222—373)



1. In combination a closed chamber for receiving liquid adhesive, a source of liquid adhesive, a normally open valve connecting said source to said chamber, means operable to close the valve, means for supplying air under pressure to the chamber to apply pressure to the surface of the adhesive therein, and simultaneously to effect operation of said valve closing means, said means comprising a motor valve block having a piston chamber therein, a piston movable in the piston chamber, said piston having a rod fast thereto, operable to actuate the valve to effect movement of it, means normally operating on the piston to hold the rod in an inoperative position so that the valve is open, an inlet port in the block for admitting air under pressure to the other side of the piston to displace it in a direction to cause the rod to close the valve, a by-pass in the block located in a position to be uncovered by the piston as the rod is moved toward operative position, a pair of interconnected ports, one of which is connected to the chamber above the level of the adhesive therein, the other of which is open to the atmosphere, and means in the by-pass movable between two positions, one of which connects the by-pass to the port to the chamber and simultaneously blocks the interconnection between the two ports, and the other of which blocks the by-pass and interconnects the two ports, said means in the by-pass being movable to the one position by the air admitted to the by-pass and means for returning said last-named means to the other position when the supply of air pressure is cut off.

2,868,419

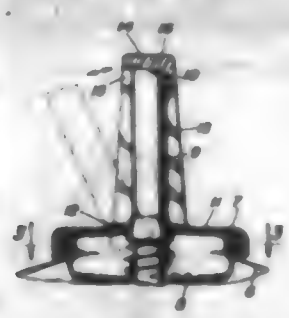
PRESSURIZED CONTAINER CLOSURE

William D. Casey, Jr., Memphis, Tenn.

Application December 4, 1956, Serial No. 626,153
3 Claims. (Cl. 222—394)

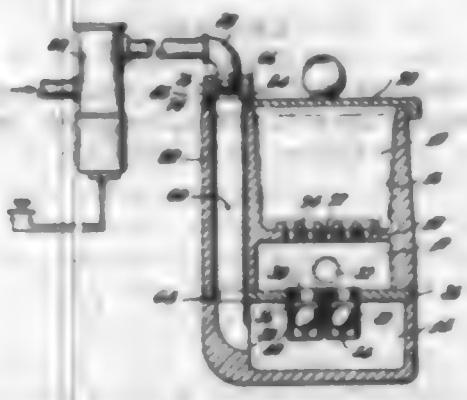
1. A closure for pressurized dispensing containers of the type including an upstanding, swingable valved discharge nozzle, said closure comprising: a cap mounted on the container and encircling the nozzle, and a substantially inverted U-shaped guard rising from said cap and forming an open frame straddling the nozzle and exposing the nozzle at opposite sides of the frame for access to the nozzle at one side of the frame to swing said

nozzle out of the other side of the frame, the bight portion of said guard having a recess therein for the recep-



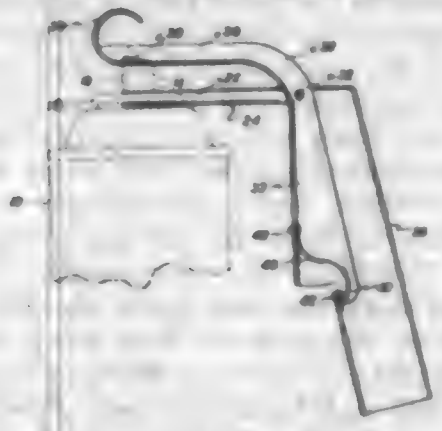
tion of the free end portion of the nozzle and closing said end portion.

2,868,420
APPARATUS FOR MELTING AND DISPENSING THERMOPLASTIC ADHESIVE
Thomas A. Weisz, Plymouth, Mass., assignor to Jacob S. Kamborian, West Newton, Mass.
Application October 30, 1957, Serial No. 693,352
12 Claims. (Cl. 222—394)



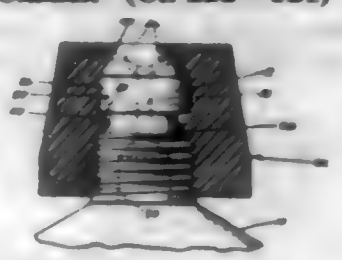
1. A container for dispensing adhesive comprising a closed pressure chamber, a discharge passage normally closed when the pressure within the chamber is normal, through which adhesive may be discharged by an increase in pressure within the chamber, means for increasing the pressure within the chamber to discharge adhesive from the chamber including a tube for holding a volume of adhesive at least equal to the volume expected to be discharged from the chamber at any given time, said tube being of comparatively small cross-section and in communication at one end with the chamber, the opposite end of the tube being adapted to be connected to a source of air pressure by means of which adhesive in the tube may be displaced to increase the pressure within the chamber and to discharge adhesive therefrom in an amount corresponding to the amount displaced in the tube, and means for supplying adhesive to the chamber when the pressure within the chamber is normal.

2,868,421
ATTACHMENT FOR SPRAY CONTAINERS
Gaylord A. Schott, Redlands, Calif.
Application April 19, 1957, Serial No. 653,995
1 Claim. (Cl. 222—473)



A device for use in handling and dispensing fluid material from a container having a collar and a valve assembly extending above the collar, comprising a hollow pistol grip handle having a cut-out portion extending from one longitudinal extremity thereof, an elongated flexible collar grip connected to the pistol grip handle in substantially perpendicular relationship and having channeled sides for gripping the collar, the collar grip having openings in the top and bottom extending from the extremity thereof to permit the collar grip to be inserted over the collar of the container without interfering with the valve assembly, a hand-operated channel-shaped lever pivotally mounted to the collar grip and having a trigger portion thereof disposed within the cut-out portion of the pistol grip handle, said portion disposed within the cut-out having an extension member beyond the cut-out portion and within the hollow of the pistol grip handle, the lever also extending through an opening in the collar grip, the lever being bent at a point above the collar grip and extended substantially parallel to the collar grip and adapted to operate the valve assembly in response to actuation of the trigger portion, a recessed indexing detent in the lever adapted to fit over the top portion of the valve assembly, and an elongated spring member having one end mounted within the trigger portion and the other end extending into the pistol grip handle and against an inside surface thereof for biasing the lever to partially overcome the spring tension of the valve assembly to maintain the top portion of the valve assembly firmly seated in the indexing detent.

2,868,422
CAPTIVE CLOSURE
Arthur G. Feller and Anthony W. Crow, Fort Wayne, Ind.
Application July 30, 1957, Serial No. 675,058
4 Claims. (Cl. 222—521)

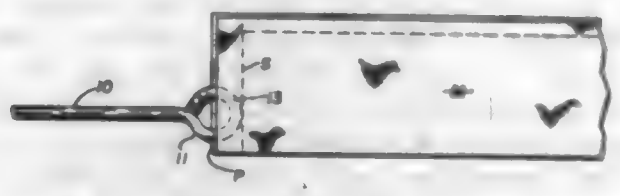


1. In combination, a cylindrically shaped nozzle having opposite ends, one end having a frusto-conical surface, a passage in said nozzle which opens through said surface, the other end being of reduced diameter and joining the larger diameter portion of the nozzle in an annular shoulder, a circumferential rib integral with and surrounding the larger diameter portion, said rib being of slightly larger diameter than said larger diameter portion and yieldable radially inwardly, said rib further being of resilient material which opposes deformation, a cap having opposite ends and a cylindrical bore therethrough, said bore having one portion of a diameter substantially equal to the diameter of said larger diameter nozzle portion, said one bore portion being rotatably engageable with said rib to provide a fluid seal, said bore having a radially inwardly extending annulus of smaller diameter than said nozzle shoulder and extending into the radial space of the smaller diameter nozzle portion, and a tapered portion in said bore shaped complementary to said frusto-conical surface, said cap being movable axially on said nozzle for abutting said annulus against said shoulder.

2,868,423
DRESSMAKER'S TOOL AND METHOD OF USING SAME
Helen E. Patterson and Carmel R. Jamison, Ellwood City, Pa.
Application August 20, 1956, Serial No. 605,095
1 Claim. (Cl. 223—42)

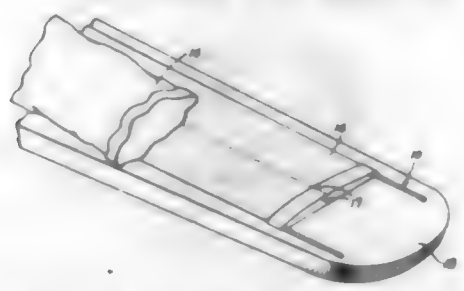
The method of turning or reversing tubular fabric articles exemplified by belts, neckties and the like, compris-

ing the use of a tool consisting of a one-piece elongate rod body of circular cross section having at one end a rounded head in the form of an eyelet shaped from a terminal portion of the body and positioned with its center on the axial center line of the body, said head having a width of approximately four times the width of the rod body and approximately one-thirtieth the length of the body, the said other end of the body terminating in a short tapered reduction of circular cross section and said re-



duction being terminally rounded to provide a blunt fabric protective end portion, the body being of constant cross sectional contour from said head to the beginning of said tapered reduction the rounded head and blunt end portion of the body having dependent cooperative functions in the use of the tool for the turning or reversing of said tubular articles by the user which consists of incompletely turning the article by thrusting the head end therethrough and completing the turning by pushing out corners of the article by the blunt end portion.

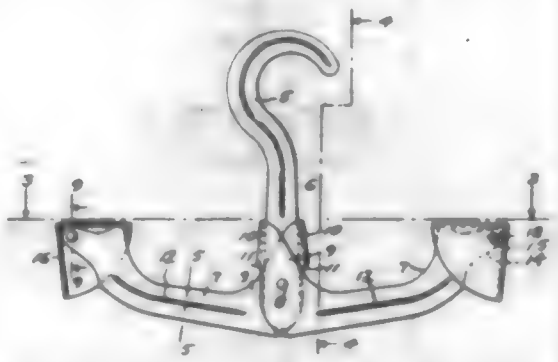
2,868,424
CUFF SHAPER
James T. Helton, Fort Collins, Colo.
Application April 26, 1956, Serial No. 580,928
1 Claim. (Cl. 223—63)



A cuff shaping tool comprising a U-shaped rod including a bottom and diverging resilient leg portions joined with the bottom and which leg portions are each substantially straight with the bottom insertable bottom first into a trouser leg with said resilient leg portions acting to tension the trouser leg to aid in the pressing of the trouser leg, in the sewing of french cuffs onto the trouser leg, and the like, said rod having about its periphery an outer thickness of water absorbent fabric along the length thereof to prevent the tool from staining the trouser leg when wet pressing same, and means on terminal end portions of each of said leg portions to prevent the fabric from unraveling, said means comprising caps enveloping the terminal portions of the leg portions along with the fabric thereon and being in assembly therewith.

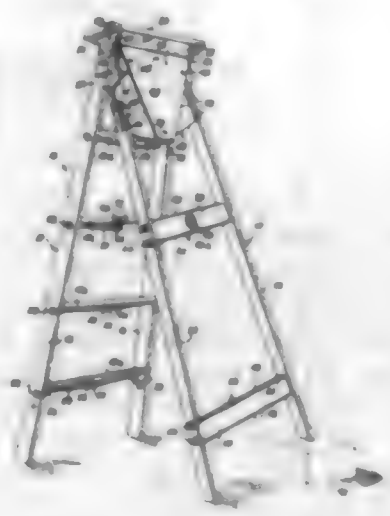
2,868,425
SELF-ADJUSTING TROUSERS HANGER
Gottfried H. Beierle, North Sacramento, Calif.
Application September 30, 1957, Serial No. 687,193
1 Claim. (Cl. 223—95)

A trousers hanger comprising a supporting hook including a shank, hanger arms pivotally mounted on said shank, means for restricting downward movement of said arms under the weight of trousers supported thereon, substantially narrow end extensions formed on the free ends of said arms, substantially triangular narrow hollow wings having one of their respective side edges open into which the extensions of said arms extend, the remaining edges of said wings being closed, said extensions being pivotally connected within said wings at points adjacent to one corner thereof, whereby said wings completely conceal said extensions and support trousers by contact with the



cuffs thereof, and said wings being adapted to contact said arms limiting pivotal movement of said wings on said extensions.

2,868,426
STEPLADDER
Howard T. Groves, Parsons, Kans.
Application June 16, 1954, Serial No. 437,035
1 Claim. (Cl. 228—31)

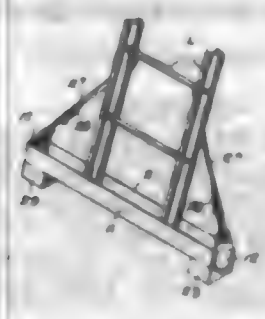


A straddle type step ladder comprising a stile including a pair of side rails rigid with respect to each other and a number of steps extending transversely therebetween, a backbrace having a pair of spaced legs rigid with respect to each other and at least one cross brace extending between said legs, a transverse hinge rod secured to said stile adjacent the upper end thereof, a yoke swingably straddling said hinge rod and having a pair of spaced parallel planar depending legs, a flat crest block rigidly secured to said yoke between the upper portions of the depending legs thereof, a flat quadrant block on the upper end of said backbrace slidably disposed between the lower portions of the depending legs of said yoke, complementary arcuate surfaces on the upper edge of said quadrant block and lower edge of said crest block, respectively, said surfaces being in the form of relatively long radius circular arcs having a common center in the plane of said quadrant block and crest block and in the vertical plane of symmetry of said ladder, said yoke legs acting as a guide for said quadrant block, and a pin and slot connection between said quadrant block and the legs of said yoke allowing relative rotational and translational movement of said quadrant block and crest block whereby said arcuate surfaces are in abutment at least when the ladder is erected, said surfaces carrying the load transmitted between said stile and backbrace and allowing said stile and backbrace to assume relative angular positions about said common center to compensate for irregularities in the surface upon which the ladder is erected.

2,868,427
SAFETY SUPPORT FOR LADDERS

George R. Hess, Philadelphia, Pa.

Application April 12, 1957, Serial No. 652,476
3 Claims. (Cl. 228—64)



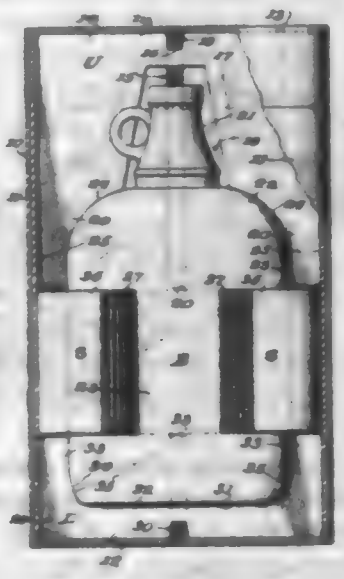
3. In combination with a ladder adapted to lean against a wall in an inclined position and having opposite side rails with square lower terminals, an attachment including a rigid elongated member of uniform transverse section provided with upright opposite side walls, upright opposite end walls, and a bottom wall that slopes downwardly from said opposite side walls inwardly to the center of said bottom wall, said opposite side and bottom walls being of double-ply sheet metal construction, said opposite end walls being of single ply sheet metal construction and having laterally extending flanges sandwiched between the double plies aforesaid, and said opposite side walls being spaced apart a distance exceeding the depth of the ladder rails, whereby the foot of said ladder is freely inserted between said opposite side walls and in any position thereof transversely of said member rests upon the inner ply of said bottom wall with the remote corners at each ladder rail lower terminal in direct contact respectively with the oppositely sloping bottom wall areas of said inner ply, a pair of flexible non-extensible straps having corresponding lower end portions fixedly anchored respectively to said opposite end walls and corresponding upper end portions passed between the ladder rails for being trained respectively over the opposite end portions of the ladder rung second from the bottom of the ladder, said straps being drawn taut for detachably securing said member against displacement, and a pair of ground engaging pads fixed to and underlying respectively the opposite end portions of said member said pads being formed to seat the latter and for tilting said member to one side in the direction in which said ladder leans, whereby to facilitate fitting said member over the ladder rails.

2,868,428
BOTTLE SHIPPING CONTAINER WITH INTERNAL YIELDABLE SUPPORTS

Harold A. Bergstrom, Van Wert, Ohio, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application June 1, 1955, Serial No. 512,429
5 Claims. (Cl. 229—14)

1. A shipping container for a frangible article having a neck, a bottom, a side wall, and a shoulder or chime, comprising a cylindrical container body of greater height and diameter than the frangible article and a removable closure, a lower support within the lower end portion of said body and comprising a pair of interfitting crossed vertical walls of yieldable material having cut out portions forming an upwardly facing pocket to snugly engage and follow the contour of the bottom and lower end portion of the wall of the article thereby providing a yielding support for the lower end of the article, said crossed vertical walls having arms disposed against the side wall of the container body and a horizontal lower portion engaging the bottom of the container body, an upper support within the upper portion of said container body and comprising a pair of interfitting crossed vertical walls of yieldable material having cut out portions forming a downwardly facing pocket to spacedly accommodate the neck and to snugly engage the shoulder and the upper portion of the wall of the article, said upper support having an upper horizontal portion disposed against the removable closure and downwardly projecting arms disposed against the side wall of the container body, and a

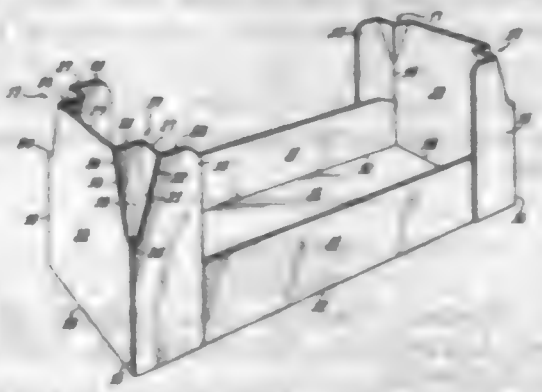


circular cushioning sleeve formed of layers of corrugated board to surround and snugly contact the side wall of the article and snugly contacting the side wall of the container body; said cushioning sleeve being positioned between and contacted by the upper and lower ends of the lower and upper supports, respectively.

2,868,425
PAPERBOARD TRAY

Curtis M. Shanahan, Whittier, Calif., assignor to Container Corporation of America, Chicago, Ill., a corporation of Delaware

Application November 14, 1956, Serial No. 622,191
1 Claim. (Cl. 229—30)



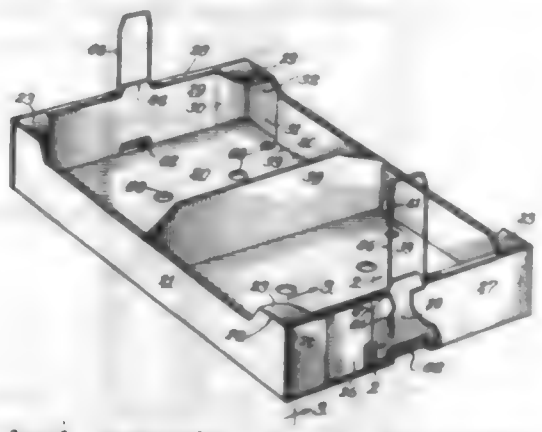
A paperboard tray comprising a rectangular bottom panel having two side walls and two end walls secured thereto in upright relation, the end walls being of a height to project somewhat above the upper edges of the side walls, corner flaps integrally joined to the edges of the end walls for connecting the end walls to the side walls, said corner flaps having a height equal to the height of the end walls, the integrally joined portions of each of the end walls and corner flaps including a foldable section defined by upwardly diverging fold lines and a center fold line symmetrical with the diverging lines to form two connected, inwardly, foldable, tapered panels at each corner of the tray, the upward extent of the center fold line being somewhat greater than that of the diverging fold lines and the upper edges of the foldable panels being tapered uniformly upward along straight lines to meet at the center fold line to compensate for the decrease in height due to the inward folding of the tapered panels along inclined lines, whereby the upper edges of the inwardly foldable panels, when so folded, will be disposed substantially in the same plane as the principal portions of the upper edges of the end walls and attached corner flaps.

2,863,430

STACKING PAPERBOARD TRAY

Joseph Portola Hamilton, Oakland, Calif., assignor to Container Corporation of America, Chicago, Ill., a corporation of Delaware

Application August 7, 1956, Serial No. 602,600
8 Claims. (Cl. 229—34)



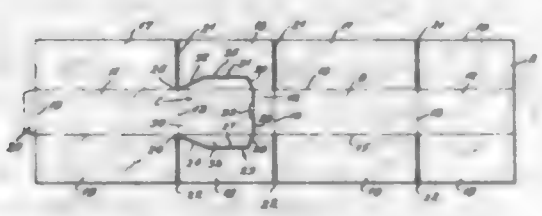
1. In a load supporting corner construction for a substantially rectangular open top stacking tray formed from a one piece blank of sheet material such as paper board and having two opposite walls of less height for the major portion of their length than the other two opposite walls, a bottom wall panel, a first wall and a second wall extending upward from said bottom wall panel and disposed substantially perpendicular to each other, said walls respectively comprising an outer panel and an inner panel secured together at their upper edges by a fold strip, a substantially horizontal corner seat attached at one outer edge to the upper edge of the outer panel of said first wall, a first flap attached to the other outer edge of said seat extending therefrom toward said bottom wall panel, a second flap attached to the end of the outer panel of the first wall extending between the panels of said second wall, and a third flap attached to the end of the inner panel of said second wall underlying said seat adjacent said other outer edge thereof and extending therefrom to said bottom wall panel, said second and third flaps providing two thicknesses of load supporting material at said other outer edge of said seat and said outer panel of said first wall providing one thickness of material supporting said seat at said one outer edge thereof.

2,863,431

BOXES

Jack Lane Painter, Clayton, Mo., assignor to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada

Application March 16, 1955, Serial No. 494,602
3 Claims. (Cl. 229—51)



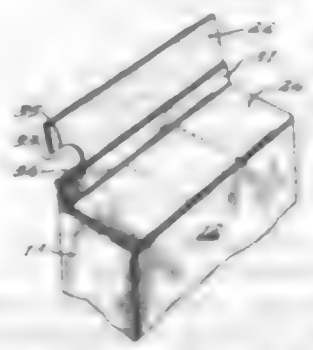
1. In a rectangular paperboard container having four walls connected together along corner defining scores, one opposed pair of walls each having integral top and bottom inner closure flaps, and another opposed pair of walls each having integral top and bottom outer closure flaps; an easy opening closure means defined by a continuous line of severance extending substantially transversely across one of said opposed walls having integral top and bottom inner closure flaps, said line of severance being in spaced substantially parallel relation to a first adjacent corner defining score of said one wall and continuing into both top and bottom inner closure flaps, thence across both said integral top and bottom inner closure flaps defining relatively narrow panel portions therein and terminating at the termini of a second corner defining score of said one wall, defining the hinge of said easy opening closure means having a vertical wall panel with connected top and bottom inner closure flap portions, which may be swung freely outwardly at least 90 degrees, to expose the contents for easy removal.

2,868,432

CARTONS WITH TEAR OPENERS

Reynolds Guyer, White Bear Lake, Minn., assignor to Waldorf Paper Products Company, Ramsey County, Minn., a corporation of Minnesota

Application June 11, 1956, Serial No. 590,562
6 Claims. (Cl. 229—51)



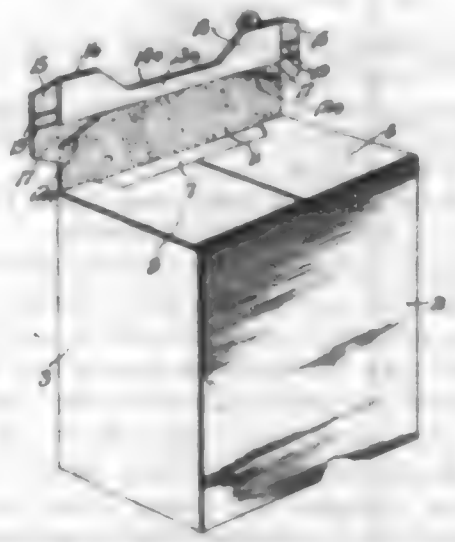
1. An opening means for a tubular carton, the carton including rectangularly arranged side walls, and closing flaps hingedly secured to an end of said wall panels, one of said flaps having a body portion of a size substantially equal to the size of the carton end, and having an extended portion hingedly secured to the end thereof along a weakened line of separation, said extended portion being folded in surface contact with the flap to which it is secured and to over-lie the same, the opposed flap over-lying the extended portion and the flap to which it is secured and being adhered in surface contact thereto, whereby said extended portion may be grasped and pulled through flap, carrying with it the portion of said opposed flap to which it is secured.

2,868,433

HANDLE RECEPTACLE

Wilbur G. Anderson, Jr., Grand Rapids, Mich., assignor to American Box Board Company, Grand Rapids, Mich., a corporation of Michigan

Application May 3, 1956, Serial No. 582,507
6 Claims. (Cl. 229—52)



1. A receptacle having vertical sides, closure flaps at the upper ends of all of said sides, except one thereof foldable inwardly, and an additional closure flap at the upper end of said one side foldable outside the first mentioned flaps, said last mentioned closure flap having transverse outer, intermediate, and inner sections, the inner section being integrally connected to the upper end of its associated side of the receptacle, a continuous transverse

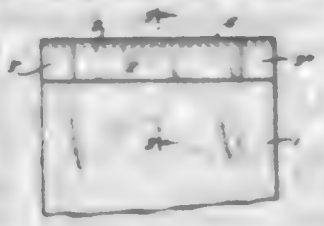
slit separating the inner and intermediate sections, and a transverse line of folding between the outer and intermediate sections, said outer section lying against, within and having cemented connection to said intermediate section, and an ear extending outwardly from and connected with each end of said intermediate section located against opposite sides of the receptacle and connected thereto.

2,868,434
PAPER CUP HANDLE
Forest E. Jones, Alliance, Ohio
Application August 23, 1957, Serial No. 679,905
6 Claims. (Cl. 229—52)



5. The combination, with a paper cup including a side wall, a bottom wall, and a circumferential, depending bead extending about the bottom wall and cooperating therewith to form a downwardly opening bottom recess in the cup, of a handle formed wholly of a stiff foldable material, the handle having a lower end permanently connected to the bottom wall and having an upper end formed with downwardly opening hook means proportioned for hooking over the upper edge of the cup, said handle having a first transverse fold line adjacent its connection to the bottom wall disposed for unfolding of the handle to a position extending around said bead and up the side wall, in which position the hook means is disposed for engaging said upper edge of the cup, the handle having at least one additional transverse fold line spaced longitudinally thereof from the first fold line along which fold lines the handle is folded flatly upon itself against said bottom wall wholly within the recess while awaiting use, said handle having a pair of longitudinal fold lines disposed symmetrically in respect to and at opposite sides of the longitudinal median line of the handle, whereby to permit folding of the handle into a channel shape when the handle is unfolded and is extended up the side wall, the handle, in its unfolded condition, being partially folded along the second named transverse fold line, whereby to impart a humped formation to the handle when the handle is in use, said handle having fold relief portions at opposite sides of said additional transverse fold lines, the channel shape of the handle providing side walls thereon with the fold relief portions being provided within said side walls.

2,868,435
CONTAINER AND CLOSURE FOR THE SAME
Walter Fischer, Wildegg, Switzerland, assignor to Gebrüder Hiestand A. G., Lenzburg, Switzerland
Application February 14, 1955, Serial No. 487,919
3 Claims. (Cl. 229—66)



1. A sealed container containing a material comprising, in combination, a bag having an edge portion defining an opening through which said material may be removed from said bag, said opening being substantially closed when elongated opposed parts of said edge portion are located with their inner faces adjacent to each other; an elongated flexible closure strip of sheet material longer than said elongated opposed parts and of substantially equal width throughout its length, having opposed side edges, and being folded along a fold line located substantially midway between said side edges to provide said strip with overlapping continuous uninterrupted sides joined at said fold line, said strip straddling said edge portion of said bag with said sides overlapping and adhesively joined to the outer faces of said opposed parts, respectively, having the fold line thereof spaced from and extending along said edge portion of said bag, and having opposed free end portions each of which extends beyond the bag, each of which is composed of a pair of joined end portions of said sides, and each of which is folded back upon the remainder of said strip; and a single elongated rib means made from bendable, permanently deformable and shape-retaining material, located between said sides of said closure strip and between said fold line and said edge portion of said bag, and having approximately the same length as said closure strip for reinforcing the same and holding the bent over portions of the same in the bent position and for ripping said strip along said fold line to open the container.

2,868,436
PAPER BAG WITH LOCKING ELEMENT HAVING CONCEALED ENDS
George W. Poppe, Stroudsburg, Pa., assignor to Equitable Paper Bag Co., Inc., Long Island City, N. Y., a corporation of New York
Application April 30, 1956, Serial No. 581,736
9 Claims. (Cl. 229—77)



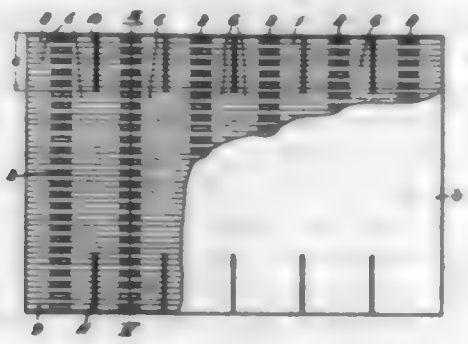
1. A bag made of flexible sheet material and having front and back panels constructed from a single sheet of material, a flap panel at the upper end of at least one of the other panels and folded downwardly, the bag having two groups of slits spaced from one another transversely of the bag, the slits having substantial components of extent lengthwise of the bag and each group of slits including registering slits in all of the panels, the bag also having outer slits spaced transversely from said groups of slits, the outer slits including at least one slit spaced from each group of slits and extending through at least one of the exposed panels at the level of the bag corresponding to the groups of the slits, another of the exposed panels being imperforate at the locations of the outer slits, and a locking element comprising a strip of stiffer material than the bag and having a length greater than the transverse distance between the outer slits, the locking element having an intermediate portion of a height less than the height of the slits and end portions at opposite ends of the intermediate portion and of a height substantially greater than that of the intermediate portion and substantially equal to the height of the slits, the locking element having a shoulder where the end portions merge with the intermediate portion of said locking element for preventing the locking element from being pulled back after being inserted through the outer slits, the locking element being adapted to be woven through both groups of slits from the side of the bag

opposite that on which there is the exposed surface having the outer slits therein so that the end portions of the locking element can be inserted through the outer slits and between the panel having the outer slits and an imperforate panel having no outer slits therein.

2,868,437
PACKING TUBE

Harm Groenhuis, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application April 22, 1954, Serial No. 424,947
4 Claims. (Cl. 229—90)



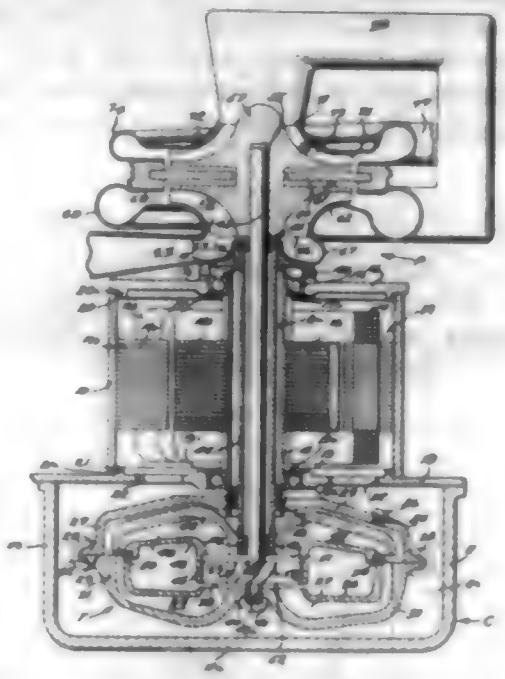
1. A packing tube of a given longitudinal dimension for containing spaced fragile objects comprising a rolled corrugated sheet, a rolled smooth sheet having a reference surface contacting said corrugations, the corrugations in said sheet being substantially parallel with said longitudinal dimension and having a given maximum height measured from said reference surface and a given pitch dimension, the corrugations being rolled on the inner surface of said tube and each corrugation having indentations at selected areas thereon to form a strip-shaped indented part, each of said strip-shaped parts being located in a direction substantially transverse to said longitudinal dimension and forming a compressible contacting rim on the inner surface of said tube, said indented parts including corrugations having over their entire length a smaller maximum constant height measured from said reference surface and a smaller pitch dimension than the corresponding maximum height and given pitch dimension respectively of the corrugations on either side of said strip-shaped indented parts.

2,868,438
COMPRESSOR

Howard M. Gammon, Claridon Township, Geauga County, Ohio, and Achilles Charles Sampietro, Detroit, Mich., assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application April 17, 1956, Serial No. 578,828
2 Claims. (Cl. 230—117)

1. In a speed increaser for a refrigerant pump, a pump element comprising upper and lower annular trough-shaped members having abutting peripheral edges and together providing an annular space therebetween, the lower member having formed therein a plurality of circumferentially spaced pumping passages extending radially outwardly from a center inlet zone to a discharge zone, a hollow drive shaft connected at one end to said upper member and extending upwardly therefrom for attachment to a prime mover, a stator in said annular space having a plurality of circumferentially spaced passages disposed in superjacent relation to said pumping passages and extending radially inwardly from said discharge zone, and a turbine runner comprising a shaft extending through said hollow shaft into said annular space and being supported for rotation by said lower member, said shaft having a hub connected thereto and a plurality of turbine blades between the radially inward portion of said stator passages and the inlet zone of said pumping passages, whereby the fluid impelled by said pump element rotatably drives said runner at a higher speed than the speed of said hollow drive shaft.



2,868,439
PLASTIC AXIAL-FLOW COMPRESSOR FOR GAS TURBINES

William J. Hampshire, Cuyahoga Falls, and Raymond R. Lepore, Akron, Ohio, assignors to Goodyear Aircraft Corporation, Akron, Ohio, a corporation of Delaware

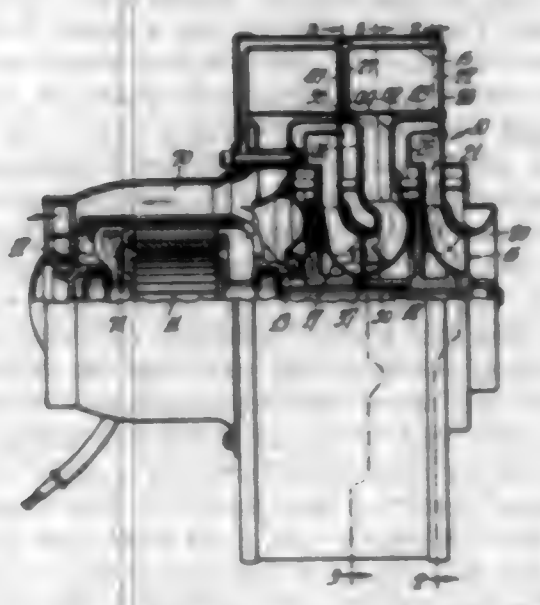
Application May 7, 1954, Serial No. 428,255
5 Claims. (Cl. 230—122)



1. For a gas turbine a multi-stage axial flow compressor having a low pressure section including a casing provided inside with a plurality of annulur grooves spaced from each other, a flanged front rotor stub shaft, a rear rotor section, a front low pressure rotor section within said casing and being connected to said stub shaft and to said rear rotor section, a stator vane assembly mounted in and fixed in each of said grooves, the front rotor section and the stator vane assemblies being substantially made of glass fibre reinforced thermosetting plastic material, said front rotor section consisting of a longitudinally-curved drum-like hollow hub increasing in diameter rearwardly and having at front an inwardly turned flange for attachment to said rotor stub shaft, an inside structure for stiffening said hub and being provided with an end flange fastened to said rear rotor section, a spaced pair of rotor blade mounting rings at each rotor blade stage being secured to the outside of said hub, said mounting rings, except the first pair, being of angular cross section having one leg facing forwardly in contact with the hub and the other leg extending radially therefrom, the hub contacting leg being provided with a forwardly extending interstage seal surface, rotor blades pivotally mounted between each pair of said rings, spacer blocks fixed to and being flush with said pairs of rings between adjacent rotor

blades, a stator vane assembly between adjacent rotor blade stages, each of said vane assemblies consisting of a pair of spaced rings inserted in said annular casing grooves, vanes with their outer ends pivotally mounted between said stator rings, spacer blocks between outer vane ends and flush with the inner casing surface, shroud rings of U-shaped cross-section closely surrounding in substantially sealing distance said interstage seal surface, fairing rings for closing the open side of said shroud rings and being longitudinally flush with said rotor blade mounting rings, said fairing rings having openings for receiving the stator vanes, and means pivotally securing the inner ends of the stator vanes to the shroud rings and fairing rings.

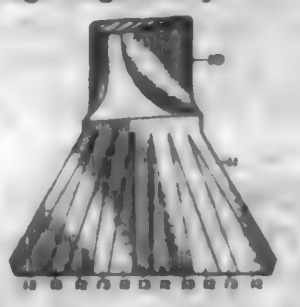
2,868,440
MULTI-STAGE CENTRIFUGAL BLOWERS, COMPRESSORS AND THE LIKE
Keaton D. McMahan, Scotia, N. Y.
Application February 3, 1953, Serial No. 334,797
18 Claims. (Cl. 230—130)



1. A multi-stage centrifugal machine for compressing gas or vapor, comprising a casing, two successive stage units in said casing comprising two successive coaxial stage impellers respectively, inlet means for the earlier stage unit, the later stage unit having an axial inlet suction eye and outlet means for the discharge from the later stage unit, means for creating from the discharge from the impeller of the earlier stage unit two jets of equal magnitude, and guide wall means for directing said two jets in opposed directions radially inwardly towards said suction eye in alignment along a radial center plane and in centered positions over the axis of the impellers, each of said jets being separate, distinct and circumferentially remote from any other jet, whereby each of said two jets is circumferentially discontinuous and whereby substantially balanced impact of the two jets is effected as they meet in the vicinity of said suction eye and substantially smooth axial deflection of said two jets into said suction eye is effected as they merge into a single stream.

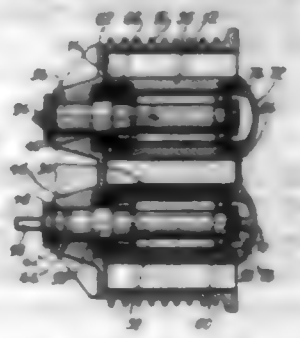
2,868,441
PLASTIC BLADES, PARTICULARLY FOR A COMPRESSOR ROTOR OF A GAS TURBINE ENGINE
Zigmund Reutt, Coventry, England, assignor to Armstrong Siddeley Motors Limited, Coventry, England
Application February 7, 1955, Serial No. 486,647
Claims priority, application Great Britain February 24, 1954
2 Claims. (Cl. 230—134)

1. A gas turbine engine compressor blade, the blade being formed of synthetic, resin-impregnated, cloth laminations bonded together and having an outwardly divergent root portion extending chord-wise of the blade, said root portion having the outer divergent faces thereof forming angles of approximately 60° with the base face thereof, the root portion having only six imperforate wedge-shaped metal inserts of small wedge angle extending chord-wise of the blade interleaved with groups of said laminations and diverging away from the blade for the sum of their wedge angles to provide the root portion



divergence, and means bonding on both sides, in the interior of the root portion, the inserts to adjacent laminations, at least some of the laminations extending spanwise of the blade and forming a part of the air impelling portion of the blade, the angle subtended by each insert being approximately 10°.

2,868,442
ROTARY DEVICE
Hans Robert Nilsson, Ektorp, Sweden, assignor, by mesne assignments, to Svenska Rotor Maskiner Aktiebolag, Nacka, Sweden, a corporation of Sweden
Application October 26, 1954, Serial No. 464,690
Claims priority, application Sweden October 27, 1953
9 Claims. (Cl. 230—143)

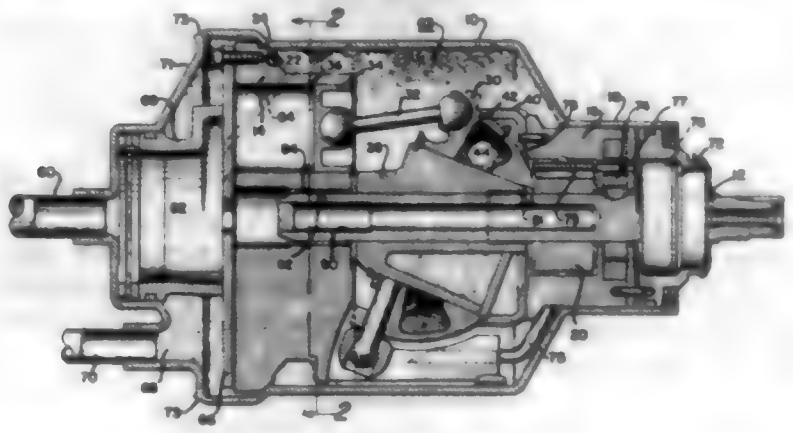


1. A rotary device comprising a casing structure providing parallel intersecting bores and having inlet and outlet ports communicating with said bores, a male rotor rotatably mounted for rotation in one of said bores and having helical lands of generally convex cross-section with intervening grooves the major portions of which lie outside the pitch circle of said male rotor, a female rotor mounted for rotation in a second bore and having helical lands of generally concave cross-section with intervening grooves the major portions of which lie inside the pitch circle of said female rotor, said lands and grooves intermeshing and cooperating with each other and the casing structure to provide working chambers for fluid in the device communicating with said ports as the rotors revolve, the profiles of the lands and grooves of said rotors being of such curvature that upon rotation of the rotors the crests of each convex land of said male rotor comes into sealing proximity with the walls of the cooperating groove of said female rotor at a place inside the pitch circle of said female rotor, one of said rotors being driven by the other of said rotors solely by engagement of the lands of said other of said rotors with the grooves of said one of said rotors, one of said rotors being made of a plastic material and the other of said rotors being made of a metal.

2,868,443
REFRIGERATING APPARATUS
John Deiza, Davisburg, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 24, 1954, Serial No. 438,986
1 Claim. (Cl. 230—186)

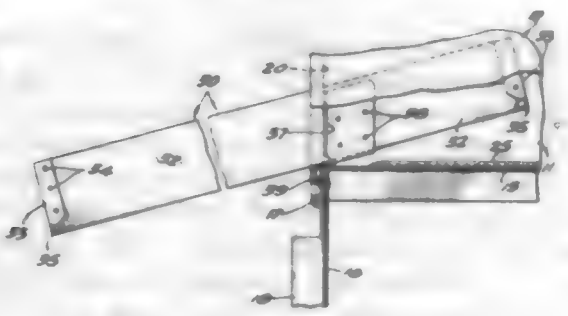
In an axial type of compressor, a stamped sheet metal housing having a circular portion provided with an in-

ternal beveled surface adjacent its one end and and having a reduced cylindrical neck portion adjacent its opposite end, a bearing insert having a press fit within said neck portion, a cylinder block having a beveled surface complementary to said first named beveled surface, said cylinder block being shiftable sideways relative to the axis of said circular portion in response to engagement of said complementary beveled surface, a



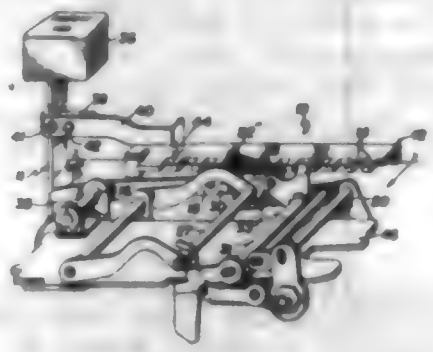
bearing aperture in said block concentric to said beveled surface, a compressor shaft having its one end journalled in said bearing aperture and having its other end journalled in said bearing insert, and means for holding said beveled surfaces in firm contact with one another, a wobble plate mechanism operated by said shaft, and an end thrust bearing for said wobble plate mechanism carried by said bearing insert.

2,868,444
MAIL BOX ACCESSORY
Donald W. Whittier, Pasadena, Calif.
Application April 28, 1958, Serial No. 731,493
3 Claims. (Cl. 232—45)



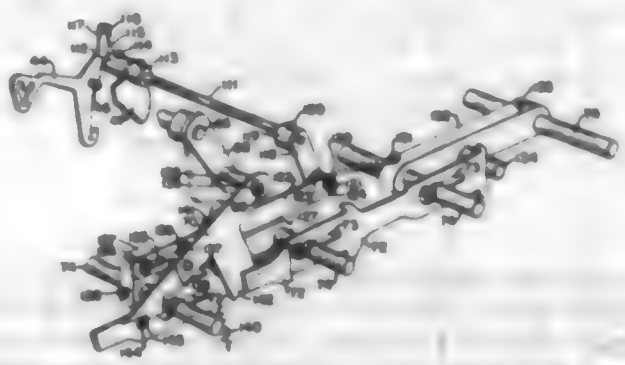
1. A mail box accessory adapted to have limited freedom of movement within a rural mail box of the type comprising an elongated, horizontally disposed mail chamber open only at one end and provided with a downwardly opening closure hinged to the lower edge of said open end, the opposite sides of said open end being turned inwardly to reinforce the edge of said open end, said accessory comprising a shallow, open-topped mail receiving receptacle having a base area of the same general shape but slightly smaller than the bottom of the mail box in which it is adapted to be used, said receptacle having fixed exteriorly to the bottom and at least one lateral side thereof outwardly extending stop means, said stop means being positioned rearwardly of a transverse plane bisecting said receptacle longitudinally thereof whereby the stop means on the bottom of said receptacle rests against the bottom of said mail box when the receptacle is withdrawn therewithin and cooperates in supporting the receptacle with its inner end at a slightly higher elevation than its forward end, and the stop means on the outer lateral side of said receptacle being engageable with the inturned edge of the mail box opening to limit withdrawal of the receptacle therethrough as the user pulls the receptacle outwardly to deposit mail in or recover mail from said receptacle.

2,868,445
REPEAT ADDITION MECHANISM FOR TEN KEY ADDING MACHINE
Harold J. Chall, San Leandro, and Charles S. Balaz, Hayward, Calif., assignors to Frideu, Inc., a corporation of California
Application June 28, 1954, Serial No. 439,544
3 Claims. (Cl. 235—60)



2. In an adding machine having a repeat-addition control key and an escapement mechanism including a toothed rack, a pivoted pawl having a detent formation, spring means urging said pawl in a direction to engage said detent formation in interdental spaces of said rack, and a pivoted lever moved into engagement with a tooth of said rack when said detent is displaced from said rack to temporarily hold said rack at an intermediate step position until said detent is returned to latching engagement with said rack, means actuated by said repeat-addition control key to release said detent from said rack without moving said pivoted lever and including an abutment formation overlying said pawl and the toothed portion of said rack when said repeat-addition control key is undepressed, said abutment formation being moved by depression of said repeat-addition control key into an interdental space of said rack and into engagement with said pawl to release said pawl from said rack, and stop said rack in position to maintain said pawl released while said repeat-addition control key is depressed and being moved to release said rack and said pawl when said repeat-addition control key is released thereby freeing said rack to move until the detent formation of said pawl engages in the next interdental space of the rack.

2,868,446
ITEM COUNTER CONTROL MECHANISM FOR ACCOUNTING MACHINES
William H. Harber, Edgware, England, assignor to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland
Application January 11, 1956, Serial No. 558,504
5 Claims. (Cl. 235—60)



1. In a machine of the class described, having a totalizer, including an element for each denominational order, and means to transfer tens digits from each denominational element to the adjacent denominational element, the combination of means including an actuator for each denominational element to enter values in said elements; means to engage and disengage the totalizer elements with and from the actuators for actuation thereby; an increment counting device; and means rendered effective by the tens transfer means for one denominational ele-

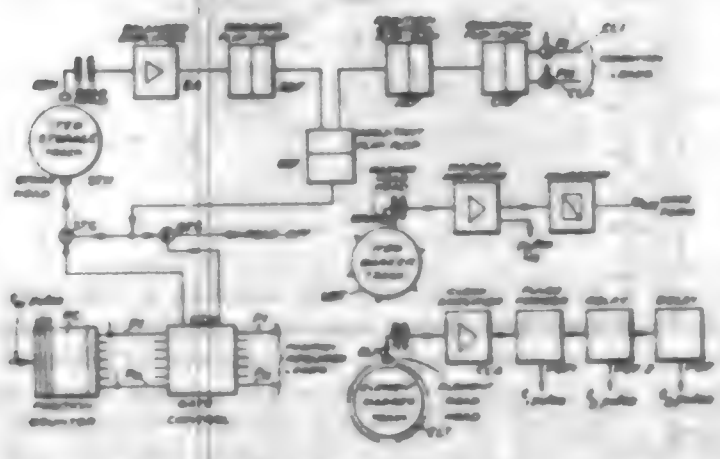
ment, and operated by the engaging and disengaging means in a subsequent machine operation to advance the counting device one increment to count the number of tens digits transferred from said one denominational element.

2,868,447

ELECTRIC REGISTER AND CONTROL CIRCUIT THEREFOR

Esmond Philip Goodwin Wright and Joseph Rice, London, England, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application May 22, 1952, Serial No. 289,385
Claims priority, application Great Britain May 23, 1951
5 Claims. (Cl. 235—61)



1. An electrical registering system comprising means for registering a plurality of electrical signals representing items of intelligence, a plurality of control means, each having either a first electrical state or a second electrical state, said states comprising said signals, means for coupling said control means to said registering means repeatedly and in turn, each for a discrete period of time, means in said coupling means for determining the state of each of said control means during each time period corresponding thereto, storing means forming part of said registering means, means for recording said signals in said storing means representing respectively the states of said control means determined by said determining means during said respective periods, means for comparing a signal stored in said storing means with that representing the state of the corresponding control means determined during the next period associated with that control means, and means responsive to said comparing means for rendering said recording means controllable by said determining means only when the state represented by the stored signal is said first state and the state of the corresponding control means determined during the next period is said second state.

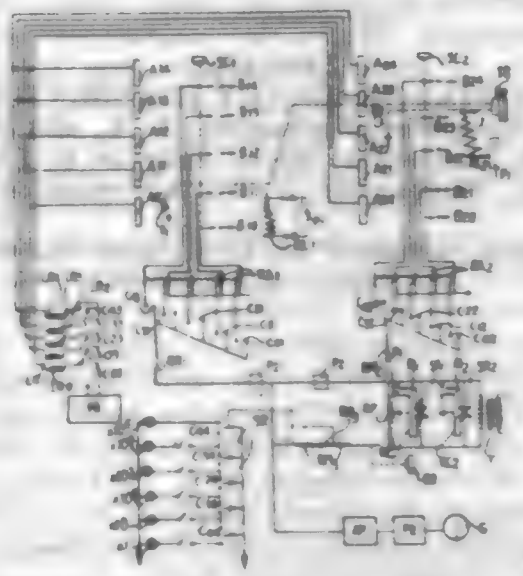
2,868,448

APPARATUS FOR THE DETERMINATION OF POLYNOMIAL FUNCTIONS AND THE SOLUTION OF ALGEBRAIC EQUATIONS

William J. Walker, Johannesburg, Transvaal, Roland M. Walker, Roodebosch, Cape Province, and Terence O'D. Duggan and Alva Izak Archer, Johannesburg, Transvaal, Union of South Africa

Application March 4, 1953, Serial No. 340,304
2 Claims. (Cl. 235—61)

1. Electro-mechanical computing apparatus comprising a series of logarithmic resistances of similar construction each including one straight edge, which resistances are mounted in parallelism with one another and with their straight edges parallel, each of the resistances mounted for movement bodily and independently of the others relative to each of two associated axes, one of which axes coincides with the straight edge of the resistance and the other at right angles thereto, means for moving each resistance independently relative to the others while maintaining the edge parallelism, a set of arms, a common spindle on which said set of arms is mounted having an axis passing the straight edges of the resistances normally thereto, one arm being provided for each resistance, a plurality of electrical contacts one movable by each of said arms and each contacting the straight edge of one of said resistances to wipe in electrical contact over the said straight edge, and scale and pointer means connected to said spindle, means for supplying an electric current with reversible polarity to each re-



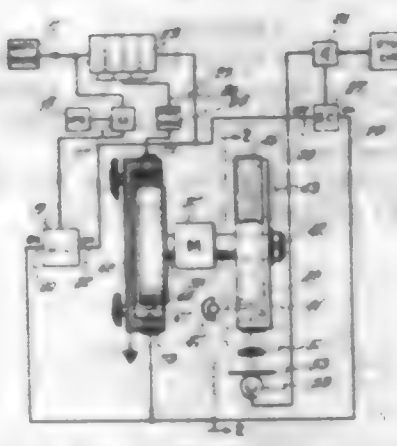
sistance, means for equalising the current fed to the respective resistances, means for algebraic summation of potential differences, means connecting each contact electrically to the beginning of the succeeding resistance of the said series and the last arm of the series to the beginning of the first resistance of the series through said algebraic summation means for measuring the potential differences occurring between the beginning of each resistance and its associated arm contact, and scales associated with the aforesaid axes of movement of each resistance.

2,868,449

NUMERICAL DATA CORRECTOR

John F. Brinster and Erwin Deutsch, Princeton, N. J., assignors to Applied Science Corporation of Princeton, Princeton, N. J., a corporation of New Jersey

Application December 9, 1953, Serial No. 397,187
4 Claims. (Cl. 235—61)



1. In apparatus for effecting non-linear transformations of digital electrical data, the combination of means for storing a single value of untransformed data having an input and having means for changing a stored value to the complement thereof, read-out means therefor comprising a source of recurrent impulses having a uniform time spacing, means for operating said value changing means, means for supplying said impulses to said input subsequent to the operation of said value changing means for thereby initiating a read-out period, said supplying means being controlled by a pre-established condition of said storing means for terminating said period, a source

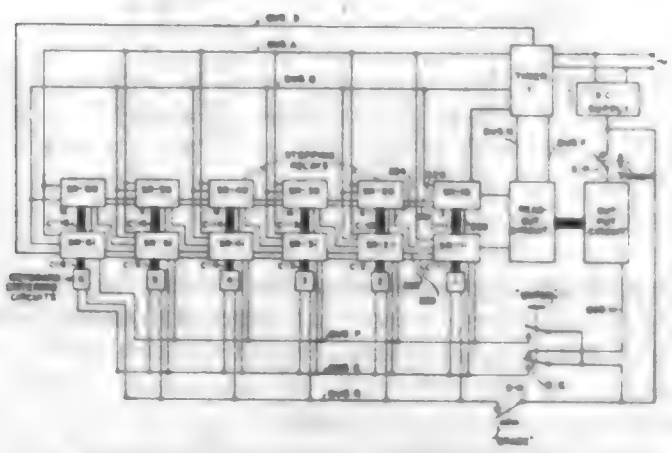
of a sequence of recurrent impulses having a generally non-uniform time spacing, a count from an established reference in said sequence of said last impulses over the read-out period being a transformed version of the count read-out of said storing means, means for storing a count of said non-uniformly spaced impulses and means controlled with said supplying means and by said first mentioned storing means for supplying said non-uniformly spaced impulses occurring during said read-out period to said means for storing a count of said non-uniformly spaced impulses.

2,868,450

DECIMAL TO BINARY TRANSLATOR

Harold S. Hemstreet, Binghamton, N. Y., and Homer D. Eckhardt, Cambridge, Mass., assignors to Link Aviation, Inc., Binghamton, N. Y., a corporation of New York

Application November 19, 1954, Serial No. 469,904
10 Claims. (Cl. 235—61)



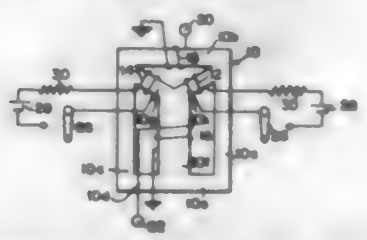
7. Decimal to binary conversion apparatus comprising first and second selective switching devices each having a plurality of positions representing decimal numbers, means for translating said second device to a position representing one half of the decimal number represented by the first device, means alternating with said first means for translating the said first device to a position representing one half of the decimal number represented by the second device, means for determining whether each position represents an odd or even number, and output means connected to the last-recited means to be actuated to positions representative of binary digit values.

2,868,451

MAGNETIC CORE HALF ADDER

Edwin W. Bauer, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application May 22, 1956, Serial No. 586,539
17 Claims. (Cl. 235—61)



1. A logical circuit comprising an element having a plurality of magnetic circuit paths, a first input winding for applying magnetomotive force to a first and a second one of said paths, said first and second paths having portions in parallel magnetic circuit relationship with respect to said first winding, said portion of said second path having a greater reluctance than said portion of said first path with which it is in parallel, a second input winding for applying magnetomotive force to said first and a third one of said paths, said first and third paths having portions in parallel magnetic circuit relationship, said portion of said third path having a greater reluctance than the portion of said first path with which it is in parallel, a first output winding embracing a portion of said first path, and a second output winding embracing a portion of said second path and a portion of said third path.

2,868,452

ADDRESS PLATE SENSING DEVICE

Leo P. Dougherty, New York, N. Y.

Application October 24, 1957, Serial No. 692,158
7 Claims. (Cl. 235—61.11)



2. In a device for sensing the notches in the edge of address plates, said device having a plurality of fingers adapted to be positioned by the presence or absence of notches in said plates; an electrical sensing head comprising a housing of insulating material, a plurality of pairs of electrical conductors extending into the rear of said housing and forming within said housing pairs of resilient electrical contact members having diversely bent forward ends, a hole in said housing intermediate of the conductors of each of said pair of conductors, a movable element of non-conductive material slidably mounted in each of said holes and having an enlarged end bearing against respective ones of its associated pair of conductors and further adapted to bend said conductors outwardly upon rearward movement of said element, a button on the front end of said element, a cover plate secured to close the open end of said sensing head and having at least one hole therein located to allow said buttons to extend through said cover plate, a contact strip of conductive material resiliently mounted along the inside of said housing adjacent the upper ones of said pairs of contact members, a second contact strip of conductive material resiliently mounted along the inside of said housing adjacent the lower ones of said pairs of contact members, said first and second strips each having slots therein located intermediate of said contact members, and means for moving said sensing head into contact with said fingers whereby the ones of said fingers in a predetermined position depress said buttons causing said movable element to bend outwardly said contact members establishing an electrical connection between each contact member of a respective pair and its associated contact strip of conductive material.

2,868,453

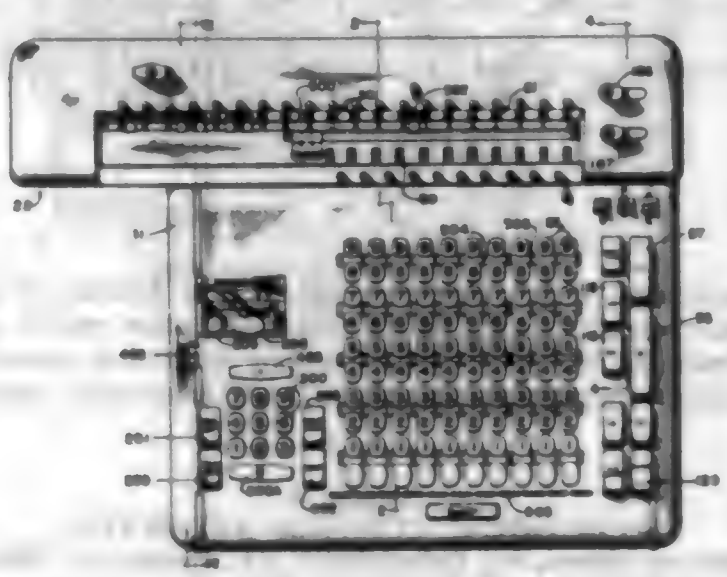
MECHANISM FOR THE ACCUMULATION OF PRODUCTS AROUND A FIXED DECIMAL

Grant C. Ellerbeck, San Leandro, Calif., assignor to Friden, Inc., a corporation of California

Application July 27, 1953, Serial No. 370,332
12 Claims. (Cl. 235—63)

1. In a calculating machine having a multiplier selection mechanism including a carriage, adjustable selection elements in said carriage normally in a zero indicating position, a manipulable value entering means for differentially adjusting said elements, means for shifting said carriage relative to said value entering means, and an escapement mechanism operable by said value entering means to control said shifting means for one ordinal shift of said carriage with each digital entry by said value

entering means including a zero, a multiple zero mechanism comprising means for disabling said escapement mechanism and enabling said shifting means to move said carriage, a manually settable indicating means for said multiple zero mechanism, means differentially adjustable by said settable means to limit the ordinal movement of said carriage in accordance with the setting of said settable means upon operation of said disabling means, selectively operable means engageable with said



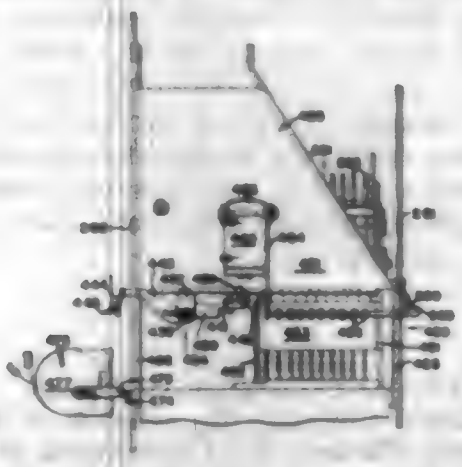
carriage in any ordinally shifted position thereof for subsequent shifting movement therewith into engagement with said adjustable means, manually operable means for engaging said selectively operable means with said carriage, means conditioned by said engaging means for operation of said disabling means, a latch means for latching said engaging means and said conditioned means in an operative position, and manually operable control means operable to effect operation of said conditioned means and release of said latch means.

2,868,454

MULTIPLYING MECHANISM FOR ACCUMULATING PRODUCTS AROUND A FIXED DECIMAL

David F. Rutland, Sherman Oaks, and James C. Barclay, Malibu, Calif., assignors, by mesne assignments, to Friden, Inc., a corporation of California

Application September 1, 1953, Serial No. 377,823
7 Claims. (Cl. 235—63)



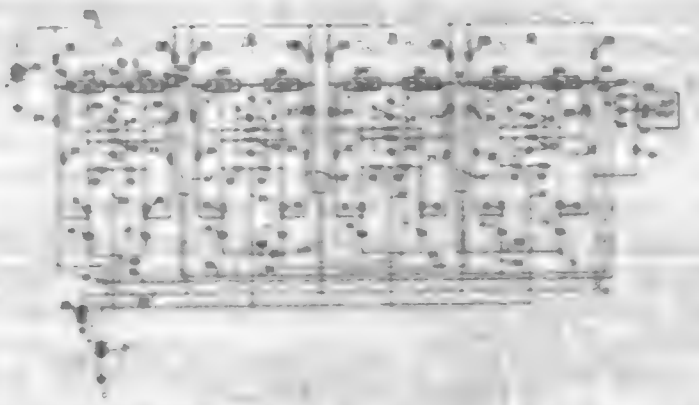
1. In a calculating machine having an ordinally shiftable product register, a selection means ordinally arranged to receive a multiplicand, means for shifting said register relative to said selection means, a multiplying mechanism for controlling the registration of a multiplicand in each shifted position of said register including a normally inoperatively positioned multiplier carriage having a plurality of ordinal elements adjustable to represent the digits of a multiplier factor, a valve entering means for adjusting said elements, means for shifting said carriage to an operative position, means for returning said carriage ordinally from an operative to an inoperative position, escapement means for the ordinal control of said carriage shifting means rendered operable by said value entering means with the entry of each digit of a multiplier factor including a zero, means for restoring each of said elements to "0" in each shifted position of said carriage thereby effecting the operation of said register shifting means and said returning means upon operation of said multiplying mechanism, and means for tabulating said register to a predetermined position with respect to said multiplicand selection means upon initiation of a multiplication operation, the combination comprising, a solenoidal control means for initiating operation of said multiplying mechanism, electrically controlled means for disabling said escapement means to enable unrestrained operation of said carriage shifting means, a stop member differentially adjustable to a plurality of positions for terminating the operation of said carriage shifting means, a detent means for said stop member operable in each adjusted position thereof, a plurality of electromagnets each of which is operable to differentially adjust said stop member in accordance with the electromagnet energized, a plurality of switches selectively operable to control the energization of a selected one of said electromagnets, a rack on said carriage for shifting movement therewith, a plurality of settable pins ordinally spaced in said rack in correspondence to the orders in said carriage, an electromechanical means controlled by each of said switches and operable to selectively set one of said pins in a selected ordinal position of said carriage, said pin being operable to engage said stop member thereby terminating the operation of said carriage shifting means, a multiplication control switch for causing energization of said electrically controlled disabling means, a switch means operable by said stop member upon engagement by a selected one of said pins to deenergize said disabling means and to energize said solenoidal control means, and means rendered operable by said returning means to reset said pins to an inoperative position upon operation of said solenoidal control means.

2,868,455

BINARY COUNTER WITH FAST CARRY

George D. Bruce, Wappingers Falls, and Paul F. Eckelman, Hyde Park, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application September 30, 1954, Serial No. 459,472
1 Claim. (Cl. 235—92)



A decimalized binary counter, comprising four binary trigger stages connected in cascade, each switchable from an "off" state to an "on" state and return in response to successive input signals, and requiring a finite time for switching between said states, signal input means for supplying signals to the first binary trigger stage, a normally open gate between the first stage output and the second stage input, a feedback from the fourth stage connected to said gate and effective to close it when said fourth stage switches "on," which occurs only in response to the eighth of a series of input signals, and a carry circuit comprising an output terminal and an And circuit feeding said output terminal and having only three in-

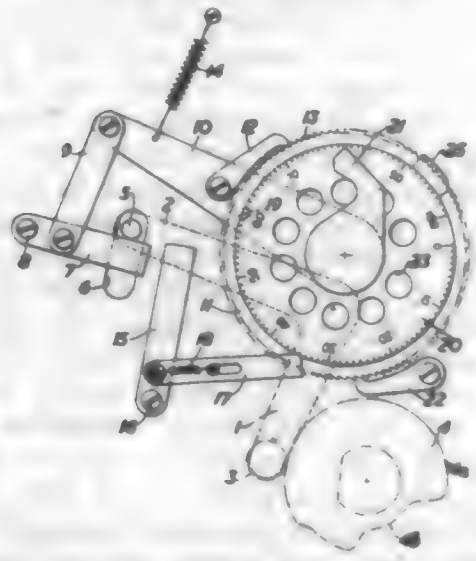
puts connected respectively to the fourth stage output, to the first stage output and to said signal input means, said And circuit being effective to transmit a signal to said output terminal when and only when said fourth stage is "on," said first stage is "on," and a further signal appears at said signal input means, which occurs immediately upon appearance of the tenth input signal of said series at said signal input means and without elapse of said switching time.

2,868,456

CONTROL MEANS FOR PRINTING OR DUPLICATING MACHINES

Carl Gustave King, Kenton, England, assignor to Rotaprint Limited, a British company

Application December 18, 1953, Serial No. 399,104
Claims priority, application Great Britain December 24, 1952
8 Claims. (Cl. 235—132)



1. Sheet counting mechanism for a rotary printing machine of the class having a sheet feed control lever and means for oscillating said lever once during each printing cycle of the machine, said mechanism comprising a wheel rotatably mounted on said machine, a rocking arm, means on said arm for imparting a stepwise rotation to said wheel, means on said sheet feed control lever which rock said arm to effect a stepwise movement of said wheel when said lever is oscillated, shiftably mounted stop means adapted when in operative position to extend into the path of said lever and prevent its movement, and means on said wheel for shifting said stop means into operative position on the completion of a predetermined number of stepwise rotational movements of said ratchet wheel.

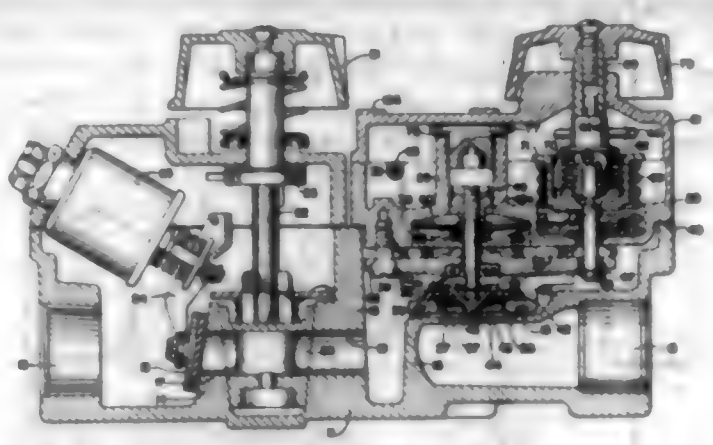
2,868,457

COMBINATION VALVE CONTROL

Courtland B. Currie, Los Angeles, and Roger S. Loveland, Temple City, Calif., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application June 6, 1955, Serial No. 513,188
6 Claims. (Cl. 236—48)

1. A valve comprising a valve body having an inlet and an outlet and a valve seat therebetween, an opening in a side of said body with the outer peripheral edge of said opening being substantially parallel with the surface of said valve seat, a valve subassembly having a cup-shaped housing with a peripheral surface coextensive with and registerable with said peripheral edge of said opening, a valve seat member carried by said housing and substantially parallel to said peripheral surface, said member having an opening therethrough aligned with an opening in said valve seat, a compressible sealing ring between said valve seat and said valve seat member, a second valve seat on said valve seat member, a valve movably mounted in said housing and adapted to engage said second valve seat, condition responsive means in said cup-shaped housing for actuating said valve and laterally off-set therefrom, snap-acting means operably



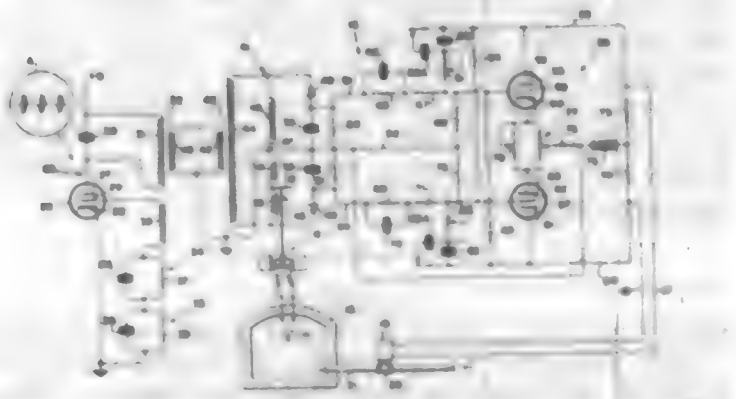
associated with said valve, and a lever pivoted at one end thereof to said housing and at the other end to said condition responsive means, said lever having operating contact intermediate its ends with said snap-acting means.

2,868,458

ELECTRICAL CONTROL APPARATUS

Warren Moore, Jr., Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application November 28, 1952, Serial No. 323,069
15 Claims. (Cl. 236—69)



4. An electrical controller, comprising in combination, a pair of normally balanced impedance circuits, one of which is arranged to be varied by an element responsive to a variable to be controlled, an intermittently operative alternating source of potential connected to supply energy to both of said pair of circuits, means for converting to direct current the alternating current in each of said pair of circuits, a pair of control electrode controlled amplifiers connected to be differentially responsive to the direct current in said pair of circuits, and a controller connected to said amplifiers, said controller regulating said variable.

2,868,459

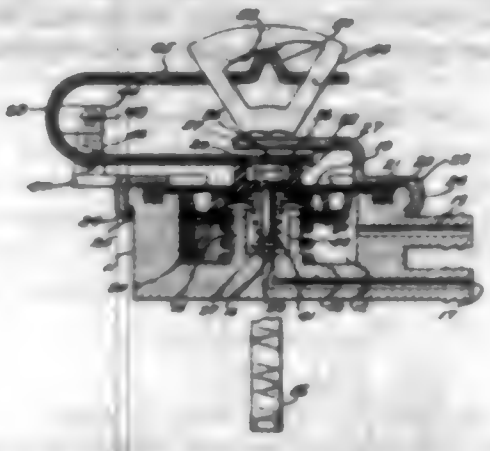
VACUUM CONTROL DEVICES

Edward E. Modes, Chicago, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

Application February 8, 1956, Serial No. 564,284
3 Claims. (Cl. 236—87)

1. In a temperature responsive vacuum control valve, a valve casing having a valve chamber therein, a port leading from said chamber and adapted to have connection with a source of vacuum, an inlet into said chamber adapted to have connection with a vacuum motor and the like to supply vacuum to operate the same, a diaphragm extending over said chamber and having an annular wall extending outwardly therefrom, a port leading through said diaphragm within the margins of said wall for venting said chamber to atmosphere, valve means within the margins of said wall in association with said

ports and operated by movement of said diaphragm inwardly and outwardly of said chamber and biased to close said port leading through said diaphragm, a bi-metal thermal element generally U-shaped in form, pivoted adjacent the base of the U and having generally parallel legs extending over said diaphragm, and means reacting against one of said legs to retain said legs from outward movement with respect to the other of said legs and biasing the other of said legs into engagement with said wall in outwardly spaced relation with respect to said valve means and normally balancing said diaphragm to maintain both of said ports closed upon balanced conditions of the vacuum within said chamber in accordance with the temperature setting of said thermal element, the high expanding side of said thermal element being on the inside thereof to effect movement of said leg engaging said wall in a direction to move said diaphragm with respect to said valve means to open said port leading through said diaphragm upon predetermined increases in temperature, and accommodating movement of said diaphragm in an opposite direction to engage said valve means and close said port within said wall and open said port leading from said chamber upon predetermined reductions in temperature.

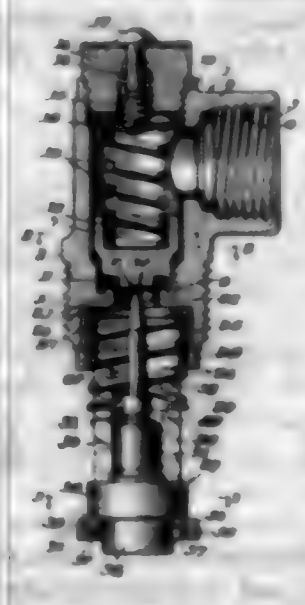


2,868,460

TEMPERATURE AND PRESSURE RELIEF VALVE ASSEMBLY

George E. Hansen, Elmwood Park, and Edward W. Carr, Cicero, Ill., assignors to Crane Co., Chicago, Ill., a corporation of Illinois

Application January 17, 1956, Serial No. 559,618
6 Claims. (Cl. 236—92)



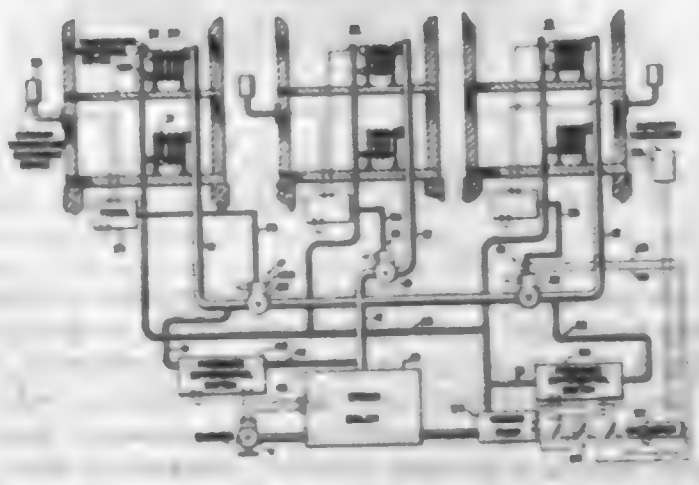
1. In a thermostatic relief valve, the combination of a casing, a closure member therefor, a temperature responsive element cooperating with the said closure member, means for attaching the said temperature responsive element to the valve casing, the latter means comprising a depending sleeve member having transversely extending apertures, the lower limits of the said apertures being defined by an inwardly extending abutment for supporting the temperature responsive element, a plate-like washer engaging a shoulder projecting portion of the temperature responsive element and having formed side portions slidably engaging the apertures of said sleeve member to permit the insertion and removal of said washer through either of said sleeve apertures, the said sleeve member having a lower central aperture for insertion and removal of the thermal unit whereupon when moving the said temperature responsive element axially so that the projecting portion thereof is above the said washer the latter washer is then removable sidewise through either of said sleeve apertures.

2,868,461

STEAM HEATING CONTROL SYSTEM

Gene T. Gaddis, Edina, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application January 16, 1956, Serial No. 559,276
10 Claims. (Cl. 237—9)



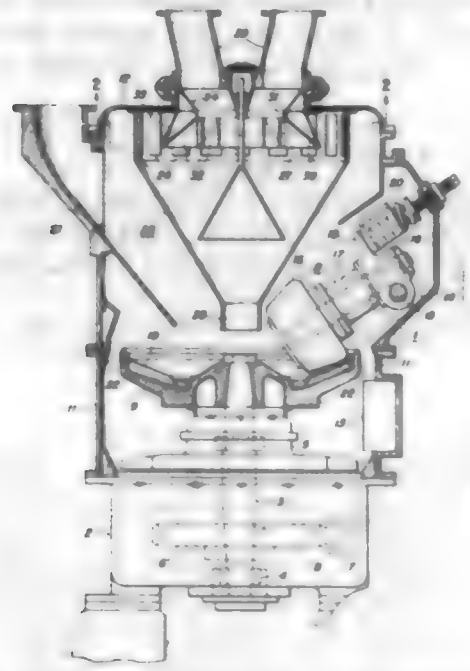
1. In a steam heating installation having a boiler for delivering steam to a plurality of zones, the boiler having a burner for supplying heat thereto; conduit means for each zone for connecting the boiler to a heat exchanger in the respective zones; valve means associated with each of said conduit means for controlling the flow of steam to the heat exchanger and thus the average temperature thereof; a vacuum pump; return conduit means for each zone for connecting the heat exchanger of each zone to the return of the boiler through said vacuum pump; first pressure responsive controller responsive to the pressure across said valve means of one zone for controlling the burner to maintain sufficient steam pressure in the boiler to maintain a predetermined pressure drop across said valve means; second pressure responsive controller responsive to the pressure across the heat exchanger associated with said valve means of another zone controlling the flow to the last mentioned heat exchanger, said second control being connected to control the operation of the vacuum pump to maintain a selected pressure drop across the heat exchanger of said second mentioned zone; control means for each of said valve means, said control means comprising; temperature responsive means responsive to outdoor temperature; temperature responsive means responsive to the average temperature of the heat exchanger in its particular zone; motor means for controlling said valve means; means connecting said outdoor temperature responsive means and said heat exchanger temperature responsive means in controlling relation to said motor means, said last mentioned means including means controlling said valve means to modulate the flow of steam to its zone in a first portion of the total range of outdoor temperature to maintain a scheduled average heat exchanger temperature and further means to selectively open and close said valve means to control the flow of steam in a second portion of the total range of outdoor temperature to maintain a scheduled average heat exchanger temperature.

2,868,462

PULVERIZING MILL WITH NOVEL OUTLET

Alexander Bogot, Hastings-on-Hudson, N. Y., and George E. Gandsey, River Forrest, Ill., assignors to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application April 9, 1954, Serial No. 422,187
5 Claims. (Cl. 241—53)



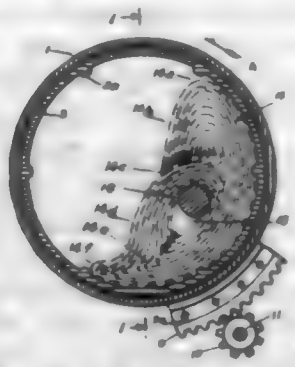
2. A gas swept pulverizing mill comprising a housing having means for receiving and pulverizing material and having a stream of carrier gas passed therethrough past said means and toward one end of the housing, said carrier gas picking up pulverized material during its passage of said means, a cyclone classifier disposed in said one end of the housing and operative to receive the mixture of gas and material and separate the coarse material from the sufficiently fine material, the outlet of the mill being coaxial of said classifier and disposed to receive said sufficiently fine material and the carrier gas from the classifier, said outlet being of circular transverse section and having convergining-diverging wall portions serially arranged with respect to the flow therethrough, a plurality of equally spaced radial vanes extending inwardly from the converging wall portion, and a plurality of outlet conduits communicating directly with the mill outlet and symmetrically arranged about the axis of said outlet.

2,868,463

BALL MILL WITH LOAD DISPERSION BAR

Newton L. Hall, Salt Lake City, Utah

Application May 14, 1957, Serial No. 659,007
2 Claims. (Cl. 241—184)



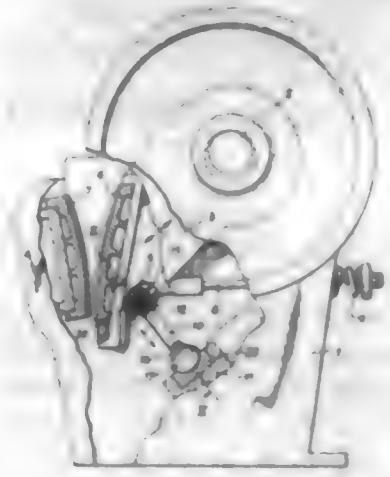
2. A rotary ball mill comprising; a single cylindrical casing with a clear grinding compartment of uniform shell diameter, said casing being rotatable about a horizontal axis, and open at both ends for respectively receiving and discharging material, said casing being adapted to contain a load of material to be ground; and a single, independent, elongated bar adapted to be freely movable within and having a length slightly less than the length of the interior of said compartment, said bar having a weight less than the weight of the volume of material comprising said load that would be displaced by a cylinder submerged in said load, said cylinder having a diameter and length equal to the diameter and length of said bar, said bar being adapted to be submerged in said load to operate freely and between the ascendent and descendent portions of said load, to disperse and distend said load portions upwardly from said bar.

2,868,464

TOGGLE CONTAINING JAW CRUSHER

Frederick William Parker, Leicester, England

Application December 22, 1953, Serial No. 399,811
Claims priority, application Great Britain
December 12, 1952
6 Claims. (Cl. 241—285)



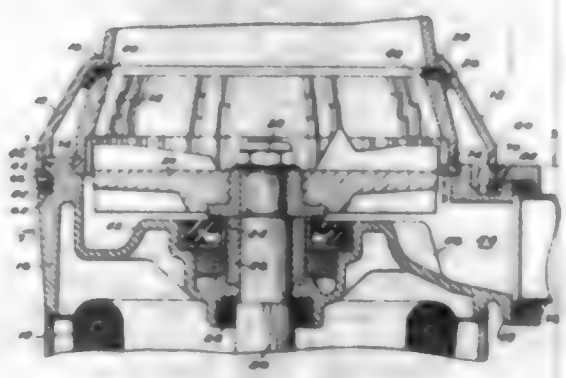
1. In a toggle jaw crusher comprising a base member supporting a movable jaw stock and a fixed jaw co-operating to crush material between them, at least one substantially triangular toggle plate having one edge fitted in a groove on the movable jaw stock and exerting a thrust thereon, and having at the apex of two of its sides a part-spherical head received in a conforming part-spherical seating mounted on said base member.

2,868,465

HOUSING ASSEMBLY FOR WASTE DISPOSAL UNIT

Eugene E. Wieczorek, Racine, Wis., assignor to In-Sink-Erator Manufacturing Company, Racine, Wis., a corporation of Wisconsin

Application February 17, 1955, Serial No. 488,749
3 Claims. (Cl. 241—285)



1. In a waste disposal unit of the type having a comminuting chamber and a supported electric motor thereon, a combination assembly construction between the bottom of the comminuting chamber and the upper end bell of the motor, which comprises, an upper end bell for said motor having a recess for a comminuting rotor and an annular chamber terminating at one portion of said end bell in a radial outlet passage, a comminuting chamber having a bottom portion of substantially the same diameter as the end bell, co-operating bayonet lugs and slots and said comminuting chamber and said end bell

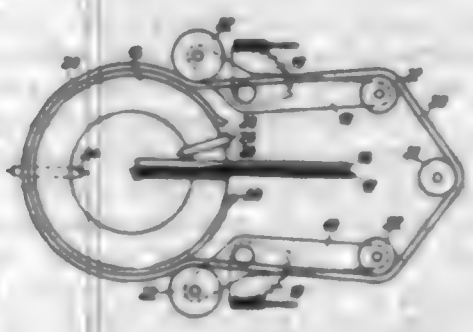
whereby relative rotation of said parts causes locking thereof, radial surfaces on the inside of said end bell and said chamber, a comminuting ring disposed between said surfaces, a sealing, compressible ring interposed between said comminuting ring and one of said radial surfaces having pre-assembly dimensions greater than the assembly clearance between said surfaces, and means to facilitate the relative rotation between said end bell and said chamber comprising vertical slots formed in the inner wall of said end bell between bayonet lugs thereon, an aperture in the wall of said comminuting chamber positioned to lie radially outward of said notches whereby a prying bar, such as a screw driver, may be inserted through said aperture and fulcrumed in said several notches to effect relative rotation between said chamber and said end bell, an outlet pipe connected to said radial outlet passage of said end bell, and a coupling flange fastened to said end bell to seal said pipe to said end bell, said coupling flange having a lug to enter said aperture in said comminuting chamber in the locked position only, wherein said chamber cannot be dis-assembled until said coupling flange is removed.

2,868,466

RING COILING MACHINE

Herbert Hammer, Zurich, Switzerland, assignor to Meteor A.-G., Zurich, Switzerland

Application June 8, 1954, Serial No. 435,307
Claims priority, application Switzerland June 11, 1953
1 Claim. (Cl. 242—4)



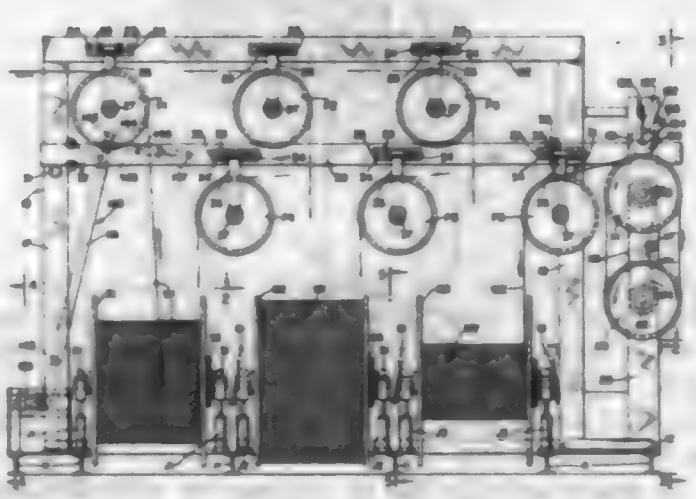
A ring coiling machine for coiling wire or tape material upon a ring, comprising in combination: an endless transport means hugging more than 180° of the circumference of the ring to be wound, adjustable guide means engaging the said endless transport means and adapting the same to varying outer diameters of rings, said guide means comprising a first guide roller adapted to press said endless transport means against the ring to be wound at the one side thereof where the transport means is moved into contact with the ring, a second guide roller adapted to press said transport means against the ring to be wound at the opposite side where the transport means is moved out of contact with said ring, at least one additional guide roller for said transport means which is outside the region of rotation of said ring, means for mounting said last named additional guide roller for lateral movement with respect to the axis thereof whereby the length of the path of the transport means between said first and second guide rollers can be changed to accommodate rings of different sizes, drive roller means outside the region of rotation of said ring for positively moving said transport means, a magazine storing the material to be wound about said ring, and an intermediate strip of flexible material arranged between the said endless transport means and the ring, said intermediate strip of flexible material being shorter in length than the circumference of the ring to be wound and approximating in thickness the outside thickness of the winding to be applied, one end of said strip being adjacent the first portion of the ring to be wound, the other end of said strip extending up to approximately the next portion of said ring to be wound.

2,868,467

MACHINE FOR PAYING OFF AND TAKING UP WIRE ON LARGE REELS

Dartrey Lewis, Trenton, N. J., assignor to John A. Roebling's Sons Corporation, Trenton, N. J., a corporation of New Jersey

Application May 13, 1954, Serial No. 429,489
10 Claims. (Cl. 242—25)



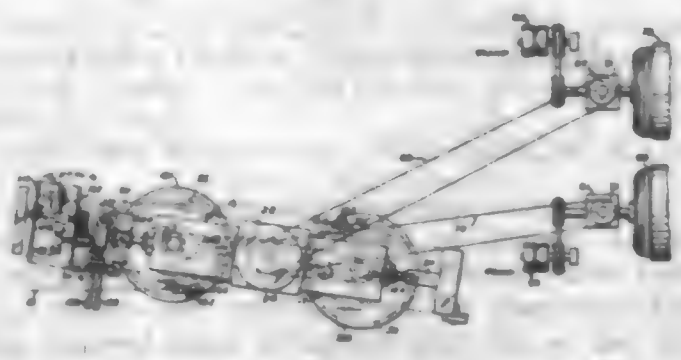
1. In a machine for handling wire or the like, first means adapted to support a plurality of reels for rotation about horizontal axes, a rotary drive shaft, second means for imparting rotation to the drive shaft, third means for effecting rotation of a selected reel in response to rotation of the drive shaft, the selected reel serving as a wire take-up reel and another of the reels serving as a wire pay-off reel, and fourth means for moving wire along a predetermined path from the pay-off reel to the take-up reel and for maintaining the wire under tension in the course of such movement, said fourth means including a variable speed drive independent of the drive shaft for imparting wire pay-off rotation to the pay-off reel.

2,868,468

STRAND REELING APPARATUS

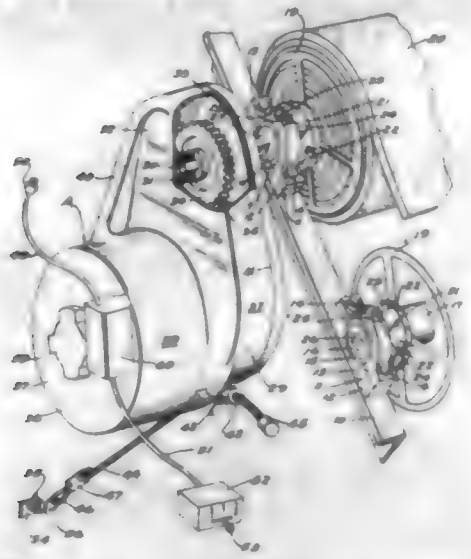
Tillman T. Bunch, near Ashland, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application April 28, 1955, Serial No. 504,498
6 Claims. (Cl. 242—25)



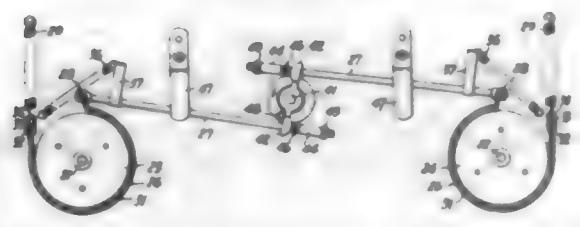
1. Strand reeling apparatus which comprises a pair of reels, means for rotating each of said reels independently of the other, means for alternately transferring a strand being reeled from one of said reels to the other, reciprocable means for distributing the strand between opposite ends of the reel upon which the strand is being reeled, and means connected operatively to the independent rotating means of both reels simultaneously and powered thereby for actuating the distributing means at any given time at a rate proportional to the algebraic sum of the instantaneous rotational speeds of the takeup reels at that time.

2,868,469
CARPET REELING APPARATUS
James F. Sullivan, St. Paul, Minn.
Application February 9, 1955, Serial No. 487,190
7 Claims. (Cl. 242—55)



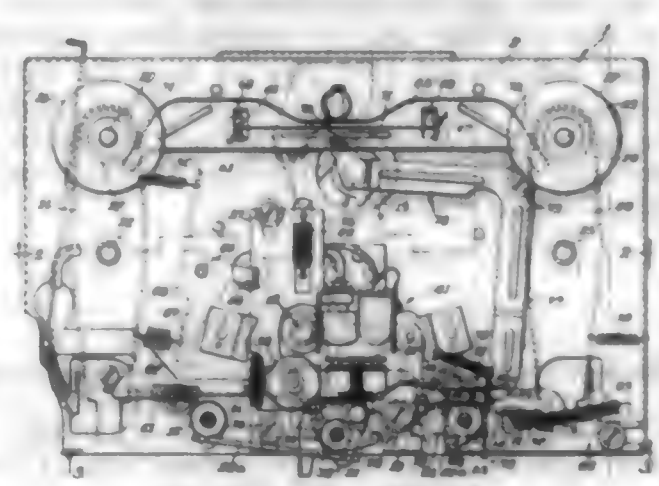
1. A power unit for use in conjunction with displaying carpet reeling having in combination any of a series of reels on which are wound heavy elongated carpeting webs, the reels being rotatably supported in independently spaced relationship, the power unit including a gear housing having a shank projecting therefrom for independent connection with each reel, a motor supported by and connected to said gear housing, said motor having its axis substantially spaced from the axis of said shank, gear means connecting said motor and said shank so that rotation of said motor will cause rotation of said shank, and means connected to said gear housing at a point substantially spaced from said shank for holding said gear housing from rotation about the center of said shank when said shank is engaged with one of said reels, said shank serving as the support for the entire power unit.

2,868,470
MAGNETIC TAPE APPARATUS
Walter T. Selsted, Redwood City, Calif., assignor to Ampex Corporation, Redwood City, Calif., a corporation of California
Application May 26, 1955, Serial No. 511,178
4 Claims. (Cl. 242—55.12)



1. In a magnetic tape apparatus of the type having two turntables adapted to mount supply and takeup reels together with motive means to drive the turntables for normal movement of the tape from the supply to the takeup reel or for rapid rewind or rapid forward movement of the tape; braking means for one of said turntables comprising a brake drum mounted to rotate with the associated turntable, a brake band extending about the periphery of the drum and having a friction surface for engaging the drum, a brake operating member attached to one end of the band, spring means for urging said one end of the band in a direction to tighten the band about the drum, lost motion means connecting the other end of the band to a fixed support, said lost motion means forming abutment stop means, separate spring means attached to the other end of the band and serving to urge the band in a direction to tighten the same about the drum and to urge said other end against said abutment stop means, means for moving the operating member in a direction to disengage the band with respect to the drum, and abutment stop means for limiting the movement of said operating member in an opposite direction, one or the other of the abutment stop means being engaged depending upon the direction of rotation of the drum.

2,868,471
TAPE RECORDER
Dietrich J. Klein, Chicago, Ill., assignor, by mesne assignments, to Warwick Manufacturing Corporation, Chicago, Ill., a corporation of Delaware
Application January 23, 1957, Serial No. 635,633
12 Claims. (Cl. 242—55.12)



12. A tape recorder comprising, a pair of spaced apart rotatable spindles each adapted to carry a tape reel, means for rotating one of said spindles including a drive pulley, a belt and a driven pulley, means mounting said one spindle for movement between a drive position in which the associated belt is sufficiently taut to drive the spindle and a second non-driving position wherein the belt is less taut, selectively operable means for braking said spindles including a movable brake member having sections thereof selectively engageable with the spindles, and means for shifting said one spindle to a drive position to rotate a reel thereon and for subsequently moving the brake member to a non-braking position.

2,868,472
FILM SPOOL HOLDING DEVICE FOR CAMERAS
Maurice A. Robbins, Jr., Endwell, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application August 19, 1954, Serial No. 451,028
3 Claims. (Cl. 242—71)



1. In a camera of the roll film type having a film takeup chamber defined between the side walls of the camera and a winding key rotatably mounted on one of the side walls, said winding key having a shaft portion for supporting one end of a film spool, a film spool holding device for supporting the other end of the film spool, a spring tension member connected to an edge of one end of said film spool holding device and extending inwardly from said edge and adapted to bear against a loaded film spool, and means for tiltably mounting said film spool holding device on the other of said side walls, said means being located adjacent said edge at the other end of said holding device whereby outward pressure ap-

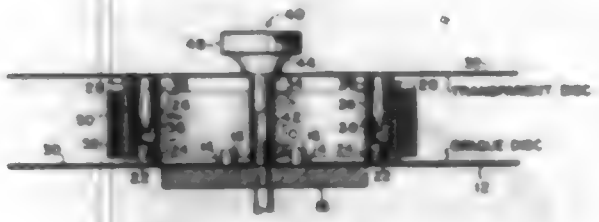
plied to the corner of said holding device diagonally opposite from said mounting means will cause outward movement and tilting of the holding device so that the tilling of said holding device will force said spring member to bear against the loaded film spool with even greater pressure than provided by the spring tension of said spring member to enable ready release of the film spool.

2,868,473

TAPE REELING APPARATUS

Richard L. Holsington, Collegeville, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application October 29, 1954, Serial No. 465,701
7 Claims. (Cl. 242—72)



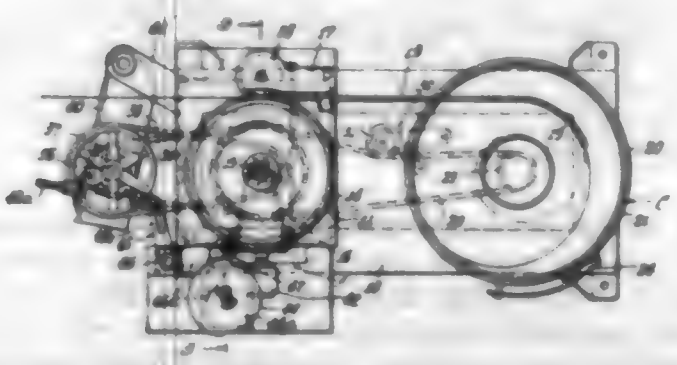
1. A tape retaining reel comprising a pair of disc-like members, means for detachably coupling said disc-like members and maintaining them together in spaced apart parallel relation about a common axis, substantially non-resilient stud elements projecting inwardly from one of said members, and sleeve-like elements projecting inwardly from the other of said members, said stud elements and sleeve-like elements interfitting with one another to form a tape-supporting hub for the winding of tape thereon and the unwinding of tape therefrom, and said sleeve-like elements being of finger-pressure flexibility to permit the elements to be flexed out of their normal axis when the members are uncoupled from one another whereby a roll of tape may be assembled on said sleeve-like elements and removed therefrom by application of finger pressure to deflect the elements.

2,868,474

MULTIPLE SPEED COILER

Thomas E. Lewis, Jr., Trumbull, Conn., assignor to The Coulter & McKenzie Machine Co., Inc., Bridgeport, Conn., a corporation of Connecticut

Application November 2, 1955, Serial No. 544,442
12 Claims. (Cl. 242—83)



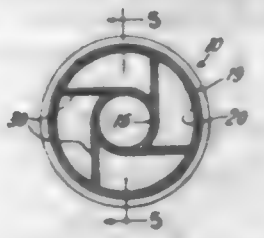
1. A method of feeding and coiling wire into a suitable container comprising the steps of feeding the wire at a predetermined linear rate, rotating a container for receiving said wire and periodically varying the ratio between linear feed rate of wire and the angular velocity at which the container is rotated to coil the wire, said ratio being maintained for a plurality of rotations of said container so as to establish predetermined different concentric wire lines for neatly and tightly coiling the wire in a prescribed manner.

2,868,475

SPOOL

Jerome J. Stern, Englewood, N. J., and Daniel D. Whyte, Brooklyn, N. Y., assignors to Whyte Manufacturing Co., Inc., New York, N. Y., a corporation of New York

Application November 3, 1954, Serial No. 466,493
2 Claims. (Cl. 242—118.4)



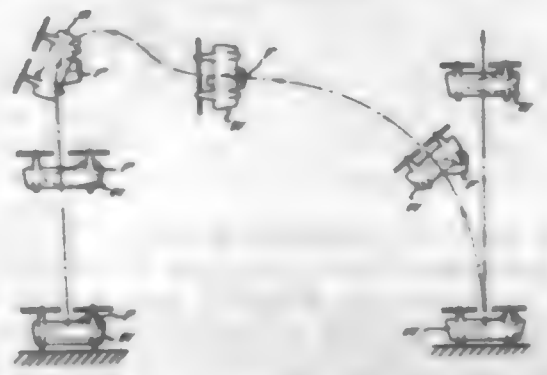
1. A spool comprising an outer cylindrical body, an inner core concentric with said body, and circumferentially spaced axially extending ribs, tangential to said core and integral with and interconnecting said core and body, each said ribs being offset circumferentially of the core in the same direction from a common radius of the core and body.

2,868,476

CONVERTIPLANE WITH TILTABLE CYLINDRICAL WING

Ernest W. Schlieben, Concord, Mass.

Application June 25, 1956, Serial No. 593,562
12 Claims. (Cl. 244—7)



1. A convertiplane construction comprising a wing member comprising a circular body of substantially toric section, means for propelling the wing, and a fuselage mounted in the wing in hinged relationship therewith.

2,868,477

JET-PROPELLED VERTICAL TAKE-OFF AIRCRAFT

Herbert Eugene Chaplin, Hayes, England, assignor to The Fairey Aviation Company Limited, Hayes, England, a British company

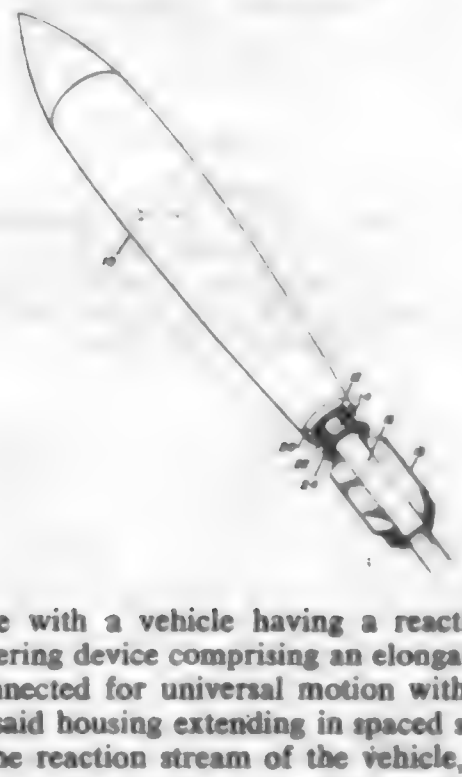
Application September 22, 1953, Serial No. 381,664
3 Claims. (Cl. 244—12)



1. An aircraft including a fuselage, wings fixed in relation to the fuselage, jet propulsion means fixed in relation to the fuselage and capable of giving a total static thrust exceeding the weight of the aircraft, an undercarriage connected to the fuselage and movable to a position in which it supports the aircraft with the fuselage in a substantially vertical position for substantially vertical take-off, a cockpit for the pilot mounted

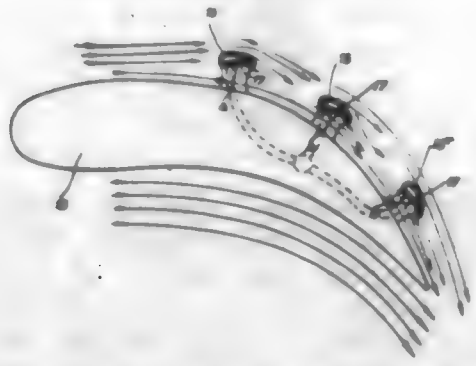
in the fuselage for movement between a first position in which the pilot is upright when the fuselage is substantially horizontal and a second position in which the pilot is upright when the fuselage is in vertical take-off position, and power-driven means controllable by the pilot for moving the cockpit relatively to the fuselage between its two positions and controlling its movement, the cockpit being pivotally connected to the fuselage for rotation about an axis near the pilot's feet and so shaped and located as to be substantially retracted within the outline of the fuselage in the first position but to protrude from the fuselage in the second position.

2,868,478
ROCKET CONTROL
Thomas McCloughy, Morris Plains, N. J.
Application May 5, 1954, Serial No. 427,698
6 Claims. (Cl. 244—14)



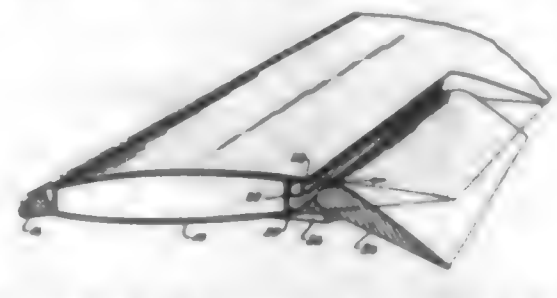
1. For use with a vehicle having a reaction driving stream, a steering device comprising an elongated housing pivotally connected for universal motion with respect to the vehicle, said housing extending in spaced surrounding relation to the reaction stream of the vehicle, means for pivoting said housing to cause a portion of said housing to engage the perimeter of the reaction stream, said housing being substantially tubular, and a lining of refractory material rotatably mounted in said housing.

2,868,479
SYSTEM FOR CONTROL OF AIR FLOW OVER AN AIRCRAFT WING
Marcel Kadosch, Paris, Jean Le Foll, Le Pre-Saint-Gervais, Francois M. L. Maunoury, Paris, and Jean Bertin, Neuilly-sur-Seine, France, assignors to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a company of France
Original application December 27, 1951, Serial No. 263,666. Divided and this application December 8, 1953, Serial No. 396,991
Claims priority, application France January 4, 1951
2 Claims. (Cl. 244—42)



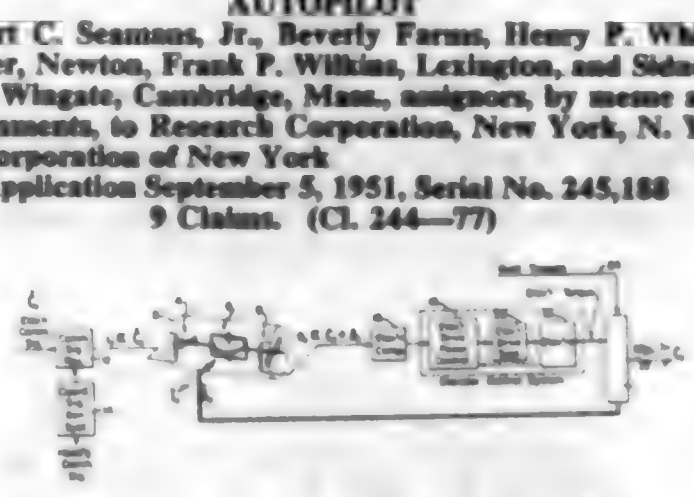
1. The combination with a high-camber aircraft wing, of a device for preventing separation of air flow from the upper surface of said wing, comprising nozzle means extending spanwise of said wing, positioned at a distance above said upper surface and ahead of the trailing edge thereof, said nozzle means having a discharge axis disposed in a generally crosswise direction with respect to said air flow and intersecting said upper surface, and means for supplying pressure fluid to said nozzle means to form jets crosswise of said air flow.

2,868,480
AIRCRAFT HIGH LIFT SUPERCIRCULATION SYSTEM USING SUPERSONIC BLOWING
John S. Attinello, Falls Church, Va.
Application February 10, 1954, Serial No. 409,545
1 Claim. (Cl. 244—42)
(Granted under Title 35, U. S. Code (1952), sec. 266)



In the method of increasing circulation about an airfoil while maintaining the angle of attack constant, when the airfoil in flight behaves in accordance with the Kutta-Joukowsky law, the steps of establishing a flow field about the airfoil and injecting a stream of expanding and accelerating fluid into the flow field above substantially the entire span of the airfoil in the direction of the flow and adjacent the upper surface of the airfoil at a velocity of at least Mach one to attract the flow in proximity to the injected stream and at the same time provide additional flow over the aft portion of the airfoil, the injecting of fluid in a downstream direction being executed over the upper airfoil surface only.

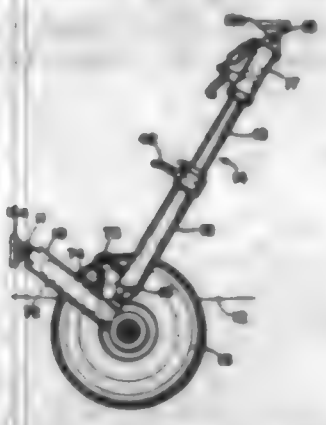
2,868,481
AUTOPILOT
Robert C. Seamans, Jr., Beverly Farum, Henry P. Whitaker, Newton, Frank P. Wilkins, Lexington, and Sidney A. Wingate, Cambridge, Mass., assignors, by mesne assignments, to Research Corporation, New York, N. Y., a corporation of New York
Application September 5, 1951, Serial No. 245,188
9 Claims. (Cl. 244—77)



6. In an automatic piloting apparatus for an aircraft with control surfaces and servo means for moving the control surface, three single-degree-of-freedom gyroscopes rigidly mounted in the aircraft so that their input axes are parallel to the elevation, heading and roll axes of the aircraft, means for causing output rotations of the elevation and heading gyros to be resisted only by torques proportional to their respective rates of output rotation, whereby the output deflection of the gyros is proportional to the deflection of the aircraft about its elevation and heading axes, means for causing output rotations of the roll gyro to be resisted only by a torque proportional to its amount of output rotation, three signal generating means which produce electric signal outputs, each dependent on the amount of output rotation of one gyro, means adapting the signal outputs of the gyros to move

the control surfaces of the aircraft to move the aircraft to a position where the gyro rotations are nulled, and torque generating means responsive to electric inputs operative about the output axes of the heading and elevation gyros to produce torques tending to cause output rotations of said elevation and heading gyros.

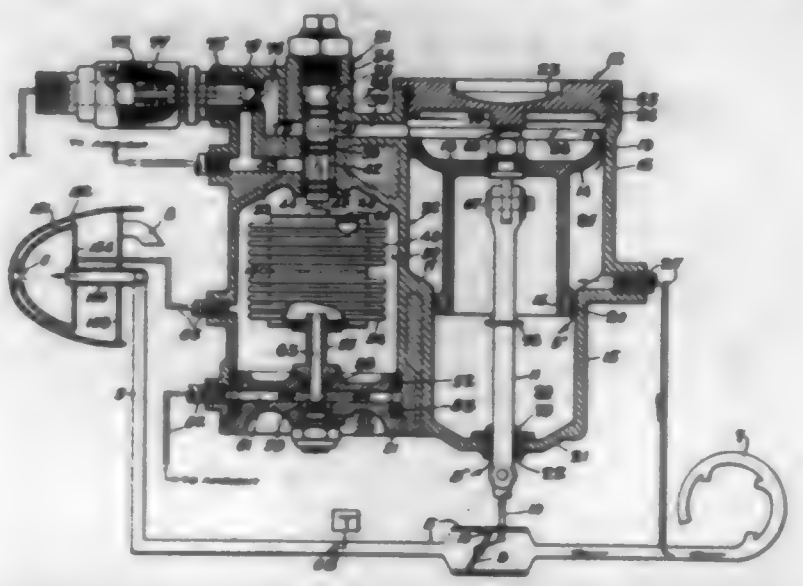
2,868,482
RETRACTABLE LANDING GEAR
William B. Westcott, Jr., Cleveland Heights, Ohio, assignor to Cleveland Pneumatic Industries, Inc., Cleveland, Ohio, a corporation of Ohio
Application October 18, 1955, Serial No. 541,249
1 Claim. (Cl. 244—102)



In a device of the character described a frame having a lower portion, a lever having two ends with one end pivotally connected to said frame for rotation between an extended position and a retracted position, a ground engaging member journaled on the other end of said lever extending below the lower portion of said frame when said lever is in said extended position and being positioned above the lower portion of said frame when said lever is in said retracted position, a load strut pivotally connected to said lever at a point spaced from the pivot of said lever on said frame and pivotally connected to said frame at a point spaced from both of said first named pivots, said load strut extending substantially perpendicular to said lever when the latter is in said extended position and approaching alignment therewith when said lever is in said retracted position, said load strut including a fluid spring cylinder and a piston co-operating therewith to form a fluid spring and a retraction actuator cylinder co-operating with said piston to form a retraction actuator, the stroke of said fluid spring being sufficiently short so that rotation of said lever from said extended position fully compressing said spring occurs before said ground engaging member moves into said frame and the stroke of said actuator being sufficiently large to move said lever to a retracted position, first lock means connecting between said piston and said retraction actuator cylinder preventing movement therebetween when said lever is in said extended position, and second lock means connected between both of said cylinders preventing movement therebetween when said lever is in said retracted position.

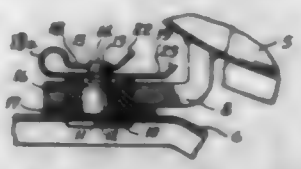
2,868,483
ANTI-ICING CONTROL SYSTEM
Rudolph E. Krueger, Burbank, Calif.
Application February 8, 1952, Serial No. 270,572
12 Claims. (Cl. 244—134)

3. A control system for regulating the operation of an aircraft wing anti-icing apparatus of the heated air type including a D-duct in the leading edge of the wing, conduit means for directing a flow of heated air under pressure through said D-duct, pumping means for producing said flow of air, and an electrically actuated throttle valve in the conduit means for varying said flow, said control system comprising: an electric actuator for positioning said valve; primary control unit in the form of a bridge circuit for controlling said actuator; a temperature responsive pilot exercising primary control over said bridge circuit; a pressure responsive follow-up pilot for resetting the control point of said primary control unit as a function of delivered air flow; an override pressure controller for limiting the pressure in the D-duct to a predetermined safe maximum value when the primary control unit is calling for air flow such as to cause a back pressure exceeding said maximum value, said controller including a pneumatic safety valve for limiting said duct pressure to



said maximum safe value, said safety valve including means for sensing and preventing excessive pressure rise in the D-duct tending to result from overshooting of said maximum value; an overheat limit control unit for overriding said pneumatic safety valve to cause the latter to move toward its closed position and including an overheat warning lamp to provide an overheat warning signal; and fail-safe means cooperating with said safety valve to cause the latter to close in the event of failure of the electrical system.

2,868,484
MOTOR MOUNTS AND CLIPS
Andrew H. Burrise, Galesburg, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application January 18, 1954, Serial No. 404,420
5 Claims. (Cl. 248—22)

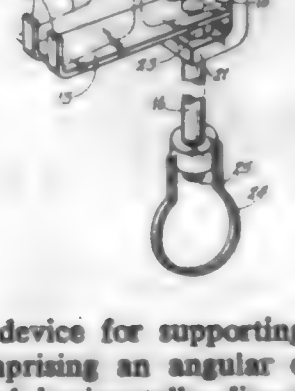


1. A mounting including a supporting member having a stud extending upwardly therefrom, the upper portion of which is provided with a groove, resilient means having a flange at its lower end for engaging the supporting member and a cylindrical portion surrounding and in slidable engagement with the upper portion of said stud, and which terminates at substantially the same horizontal plane as the lower portion of said groove, a member to be mounted having a portion provided with an aperture for receiving the cylindrical portion of the resilient means and the lower portion of which rests on said flange, and means for locking the member to be supported in place including upper and lower resilient leaves connected together at one end and the free end portions of which extend in the same general direction, said lower leaf being provided with a key-hole slot, the large portion of which receives the upper portion of said stud and the narrow portion of which is substantially the same width as the diameter of the grooved portion of said stud, and said upper leaf being provided with an aperture which is slightly larger than said stud and which is arranged in alignment with the end portion of the narrow slot in the lower leaf with a portion thereof extending outwardly

beyond the end of the narrow slot, and said locking means being slidable inwardly on the cylindrical portion of the resilient means to a position in which the opposite edges of the narrow portion of the keyhole slot engage the grooved portion of said stud and the upper portion of the stud extends through the aperture in the upper leaf to thereby prevent outward sliding movement of the locking means

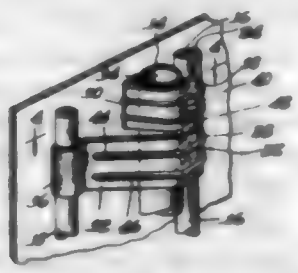
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2,868,485
I-BEAM ATTACHMENT CLAMP
Patrick Friel, Richmond Hill, N. Y.
Application July 25, 1955, Serial No. 523,959
2 Claims. (Cl. 248—59)



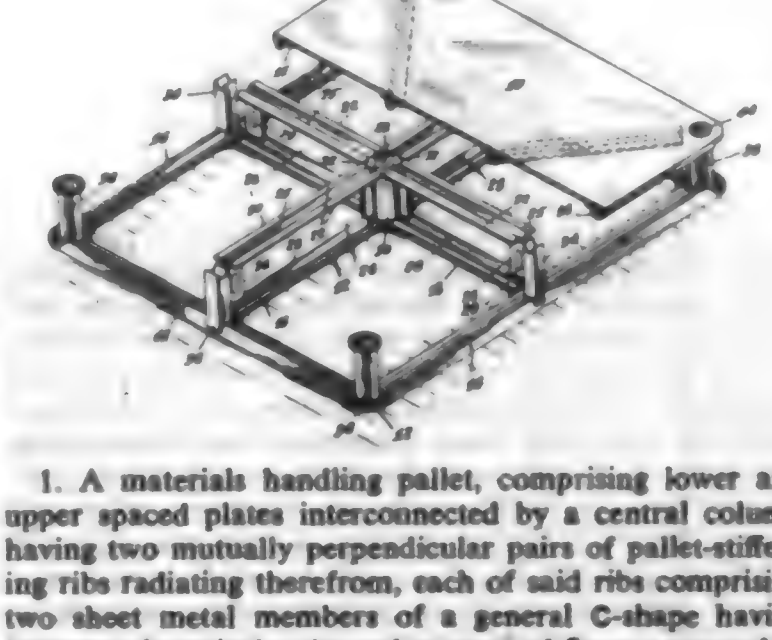
1. A clamping device for supporting a hanger on a flanged beam comprising an angular clamping bracket having vertical and horizontally disposed angular portions, with centrally aligned vertically and horizontally disposed screw-threaded openings therein, said vertical angular portion being adapted to abut against one long edge of a beam flange, a clamping bolt threaded through the horizontal opening in the vertical portion of the bracket and being adapted to overlie the upper surface of the beam flange, a combined clamping bolt and hanger rod threaded through the vertically disposed opening in the horizontal portion of the bracket and being disposed at right angles to the clamping bolt mounted on the vertical portion, an elongated plate adapted to extend across the bottom surface of the beam flange with one end disposed between said clamping bolt and said combined clamping bolt and hanger rod, means on the other end of said plate for abutting against the opposite long side edge of the beam flange, means on one end of the combined clamping bolt and hanger rod for drawing the plate and clamping bolt into clamping engagement with the beam flange, and a hanger removably mounted on the other end of the combined clamping bolt and hanger rod for supporting a pipe or the like.

2,868,486
SHEET METAL CLIP
Ougljesa Jules Poupitch, Itasca, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application October 12, 1954, Serial No. 461,815
3 Claims. (Cl. 248—68)



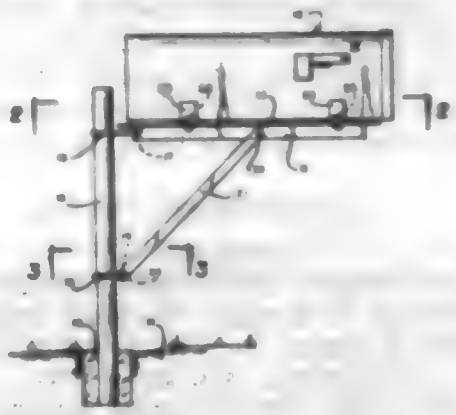
1. A one piece sheet material clip for securing a plurality of conduits or the like disposed in generally parallel relationship along a support structure comprising a body having an intermediate portion for traversing a pair of said conduits or the like and free terminal end portions turned laterally into generally opposed relationship for hooking around said pair of conduits or the like, an integral extension projecting from one side edge of one of said end portions and forming a continuation thereof, and a resilient arm integral with said extension and extending generally along said body and beyond the other of said end portions for retaining a third conduit or the like, said other marginal end portion extending for projecting partially beneath its associated conduit when the clip is fully applied to the conduits.

2,868,487
PALLET
Howard A. Robinson, Indianapolis, Ind., assignor to Hugh J. Baker & Company, Indianapolis, Ind., a corporation of Indiana
Application May 10, 1954, Serial No. 428,410
5 Claims. (Cl. 248—120)



1. A materials handling pallet, comprising lower and upper spaced plates interconnected by a central column having two mutually perpendicular pairs of pallet-stiffening ribs radiating therefrom, each of said ribs comprising two sheet metal members of a general C-shape having juxtaposed vertical webs and out-turned flanges secured to said plates, said flanges at the inner ends of one pair of aligned ribs being cut away to leave the webs projecting beyond the inner edge of the flanges and constituting extensions which are bent out of the planes of the respectively associated webs and secured to the webs of the other ribs to provide such column.

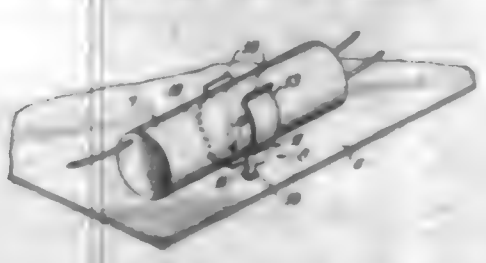
2,868,488
STEEL MAIL BOX SUPPORT FOR STEEL POST
Herman R. Hatch, West Farmington, Ohio
Application October 26, 1955, Serial No. 542,955
1 Claim. (Cl. 248—149)



A mail box support comprising, in combination, a rigid vertical post, a hollow rectangular frame having a perpendicularly related and inwardly extending peripheral flange, a first U-bolt straddled upon the upper end of said rigid post and extending through one end of said flange, nut means on the ends of said U-bolt in abutment with said flange, a second U-bolt vertically spaced below said first U-bolt, a transverse member, said second U-bolt extending through said transverse mem-

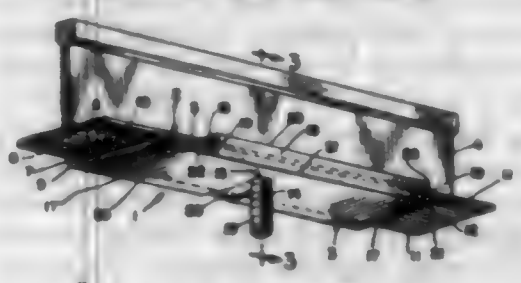
ber, second nut means securing said transverse member to said post on said U-bolt, a parallel pair of upwardly and outwardly extending braces secured to the ends of said transverse member and diverging upwardly and outwardly from said rigid post, the upper ends of said braces being pivotally connected to opposite sides of said flange, a plurality of L-shaped brackets having vertical and horizontal portions, each of said horizontal portions having an elongated slot, and bolt means passing through said frame on opposite sides thereof within said elongated slots for adjustably securing said brackets thereto for accommodating mail boxes of varying widths.

2,868,489
FASTENER ASSEMBLY AND CLIP THEREFOR
Robert C. Calcut, Chicago, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application March 1, 1954, Serial No. 413,265
3 Claims. (Cl. 248—223)



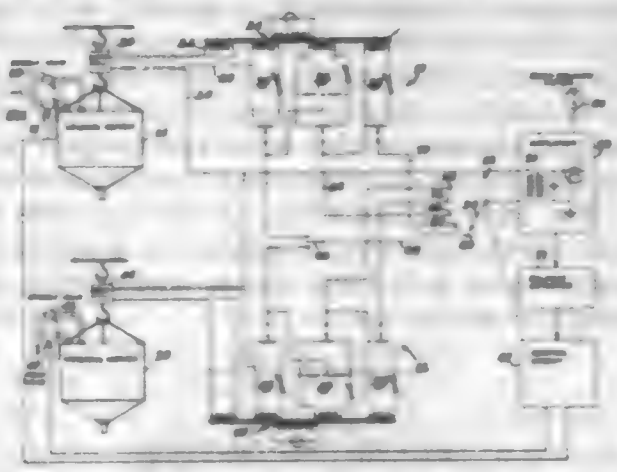
1. In combination, a mounting plate having inner and outer faces and having a pair of spaced openings therein which have mutually adjacent edges, and a one-piece clip mounted on said plate at said openings, said clip comprising a base which engages the outer face of the plate between said openings, a pair of resilient flexible gripping members connected to opposite ends of said base and extending therefrom outward away from said outer face of the mounting plate, said members having portions disposed outward from the base which are oppositely bowed away from each other to receive a supported element between them, resilient arms connected respectively to said gripping members outward from the base, said arms extending from their respective connections to said gripping members inward beyond said base and through the respective openings in the mounting plate, said arms at the inner face of the mounting plate having spaced transverse protrusions which extend toward each other and engage the inner face of the mounting plate at said mutually adjacent edges of said openings to retain the clip on the mounting plate, said transverse protrusions extending toward each other beyond the mutually adjacent edges of said openings, and said arms being stressed by the engagement of said protrusions against the inner face of the mounting plate at said mutually adjacent edges of said openings to bias the base of the clip against the outer face of the mounting plate between said openings.

2,868,490
BEAM CLIP AND SUSPENSION DEVICE
Carl R. Price, Omaha, Nebr.
Application May 9, 1956, Serial No. 583,814
4 Claims. (Cl. 248—228)



4. A beam clip and hanger for application to flanges projecting from a beam web comprising a first clip section having a base plate adapted to lie beneath the bottom of said beam, a flange bent from said base plate and adapted for engagement with the upper surface of one of said beam flanges, a threaded bolt passing through said base plate and depending downwardly therefrom, a second clip section having a base plate adapted to lie against the base plate of the first clip section, a flange bent from said base plate of the second clip section and adapted for engagement with the upper surface of the other of said beam flanges, means pivotally connecting the two sections together at the corners thereof, said second section having an arcuate slot formed therein commencing at a point near the center of the second section plate and ending through one side thereof to receive the bolt, said arcuate slot being of a shape and configuration to conform with an arc drawn from the center of the bolt to the pivotal connection of the two sections, said slot being wider than the bolt and extending an equal distance from each side of said arc, said bolt having a head flattened on its underside and fixed to the upper side of the first section plate, and interlocking means on said sections, said last named means comprising a protuberance on one section receivable in a recess in the other section.

2,868,491
BATCH WEIGHER
Matthew T. Thorsson, Moline, Ill., and Louis J. Lanier, Canoga Park, Calif., assignors to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application November 1, 1955, Serial No. 544,168
6 Claims. (Cl. 249—14)

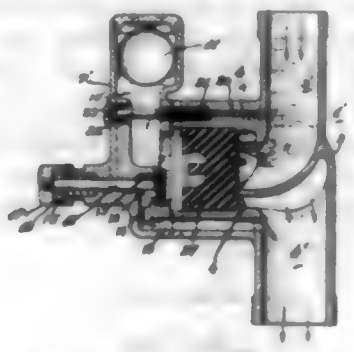


6. In a batch weigher, a first electrical weighing system for weighing a first ingredient, a second electrical weighing system for weighing a second ingredient; each weighing system including a hopper, means for producing a first voltage representative of the weight of the material to be received by said hopper, means for producing a second voltage proportional to the weight of a desired predetermined quantity of material to be received by said hopper; first valve means for delivering said first ingredient to the hopper of said first system, second valve means for delivering said second ingredient to the hopper for said second system, a balance detector to sense the relationship of said first and second voltages of said weighing systems, stepping switch means actuatable to connect said balance detector first to said first system and operate said first valve means and then connect said balance detector to said second system and operate said second valve means, and control means operated from said balance detector to actuate said stepping switch means.

2,868,492
AUTOMATIC QUIET DISCHARGE VALVE
Vittorio Volcov and Nicolas Baranoff, Buenos Aires, Argentina; said Volcov assignor to said Baranoff
Application January 25, 1954, Serial No. 405,677
2 Claims. (Cl. 251—46)

1. An automatic valve for the quiet discharge of liquids, free from water hammer, characterized in that

it comprises a metal casing forming a valve body having a removable cover and containing a damping air chamber and concentric intake and discharge pipes forming openings of entry and discharge; an intermediate chamber formed in the removable cover of the said casing, a sliding plug adapted to close said intermediate chamber, said intermediate chamber connecting the said damping air chamber directly with the discharge pipe; a controlled by-pass channel in said casing and cover for passing the liquid from the intake pipe to the damping chamber; a valve in said channel to control the passage of fluid to said damping chamber, a spherical elastic water tight member filled with air in said damping chamber for retaining a minimum amount of air in same, and elastic



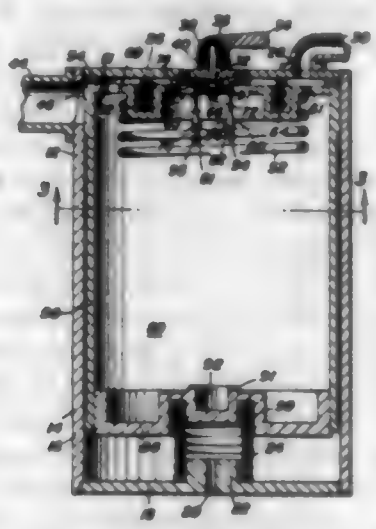
closure means for sealing the openings of entry and of discharge, the rear face whereof has an extension adapted to close said opening of entry, said elastic closure means of the entry and discharge openings consisting of a piston of resilient rubber of cylindrical shape, with a plurality of rings upon its circumference, parallel with the bases of said cylindrical piston, the rear base whereof has a circular groove corresponding to the edge of the entry pipe and another circular groove, concentric with the former and situated at the outer periphery of said rear base of said piston, corresponding to an interior shoulder within the body of the valve, whilst the front base of the said cylindrically shaped piston has a recess suitably formed to serve as holding means when fitting and dismounting the said piston.

2,868,493

FLUSHING DEVICE

James A. Gray, San Francisco, Calif., assignor to Alessandra Gray, Rome, Italy

Application May 23, 1957, Serial No. 661,222
4 Claims. (Cl. 251—49)



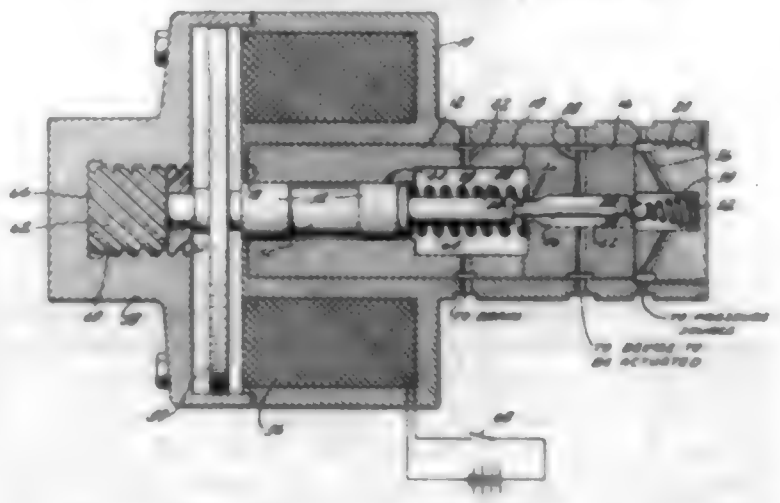
1. A flushing device for a toilet bowl, said flushing device comprising a container having an inlet port and an outlet port, a sleeve valve movably disposed in said container and arranged to control said outlet port, a piston slidably disposed in said sleeve valve, said piston being exposed to the pressure of the water of said inlet port, a spring reacting on said piston and compressed by said pressure whereby upon release of said pressure said spring pushes said piston in a direction to displace the water and move the water through said discharge port and when said sleeve valve is moved to a discharge port opening position, means carried by said container and operable from the exterior thereof for releasably locking said sleeve valve in the discharge port closing position, and a spring reacting on said sleeve valve to push said sleeve valve to the discharge port open position in response to release of said locking means.

2,868,494

ANTI-VIBRATING SOLENOID VALVE

Charles M. Kearns, Jr., Weathersfield, and William H. Habicht, Windsor, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application August 26, 1954, Serial No. 452,438
6 Claims. (Cl. 251—64)



2. A valve subject to vibration comprising a casing, a movable valve element in said casing, means urging said element toward closed position, a separate valve tappet supported by said casing and comprising a plunger, a stop carried by said casing, resilient means urging said plunger away from and out of contact with said movable element and into contact with said stop carried by said casing, means for moving said tappet into contact with said movable element to open said valve, means for reducing vibration induced movement of said plunger relative to said casing comprising means transforming relative longitudinal movement of said plunger and casing into rotational movement of said plunger, and including means increasing the frictional drag of said plunger with increasing vibration accelerations.

2,868,495

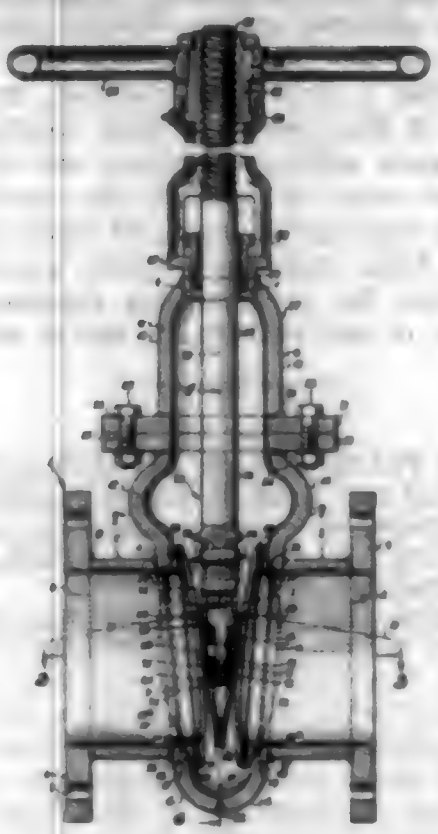
FABRICATED GATE VALVE AND METHOD OF MAKING THE SAME

Joseph E. Lucas, Caracas, Venezuela

Application December 15, 1953, Serial No. 398,402
7 Claims. (Cl. 251—86)

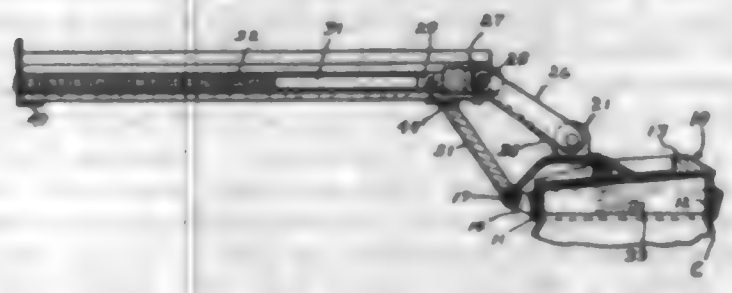
5. A gate valve, comprising: a body including similar hollow confronting central sections, said sections having abutting edges and being welded together along the sides and bottom of said abutting edges; an annular member welded to the upper end of said sections, said sections having converging wall portions disposed at angles substantially corresponding to the desired seat angles and provided with a seat opening and a spherically concave seat supporting surface surrounding said opening; a valve seat having a convex surface engaged with each of said seat supporting surfaces, whereby said valve seats can be readily aligned with each other during assembly thereof with said sections and are properly positioned to effect leakproof engagement with a gate, each of said sections having a wedling groove disposed outwardly of its associated seat; welding material in said grooves securing said seats to said sections; a cylindrical section disposed

outwardly of each of said central sections, said cylindrical sections being disposed in substantially axial alignment with the seat openings in said central sections and having



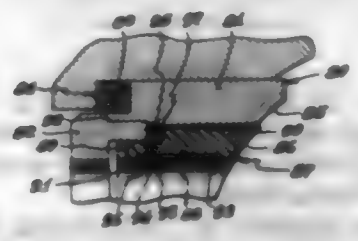
inclined ends abutting said central sections and being welded thereto, each of said cylindrical sections also having a vertical end; and an annular member welded to the vertical end of the respective cylindrical sections.

2,868,496
VALVE ACTUATING MECHANISM
Edmond L. Decker, Birmingham, Ala., assignor to Southern Car and Manufacturing Company, a corporation of Alabama
Application January 5, 1956, Serial No. 557,604
2 Claims. (Cl. 251—147)



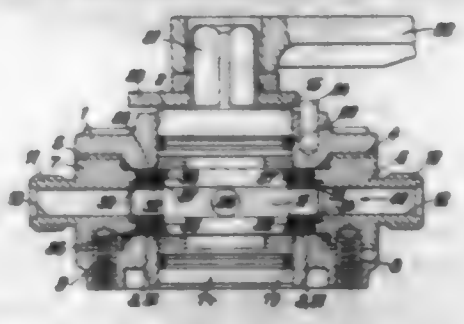
2. The combination with a seating ring positioned around the inner circumference of a conduit end and extending outwardly therefrom and a clamping ring extending around the outer circumference of the conduit end to clamp the conduit end tightly about the seating ring therein, of a valve actuating mechanism having a valve plate pivotally connected at one side thereof and seated on the outer edge of the seating ring for closing said conduit end, a link pivotally connected at one end to said plate and adapted to move said plate about its pivotal connection to opened and seated positions, an actuating rod having one end connected to the other end of said link, the other end of said actuating rod being threaded, parallel guides extending along opposite sides of said rod and in parallel relation thereto, a transverse member secured to said rod and engaging said guides with a sliding fit whereby said rod is supported for axial movement in spaced relation to the valve plate, support members connected to said guides at one end and to said clamping ring at the other end for supporting the clamping ring at opposite sides thereof, a cross member connecting said guides adjacent said other end of the rod, and an actuating member mounted for rotation on said cross member and in threaded engagement with the threaded end of the rod for moving the rod axially and thereby opening and closing the valve plate.

2,868,497
HIGH-PRESSURE VALVE ASSEMBLY
Clifford P. Graham, North Hollywood, Calif., assignor to Texsteam Corporation
Application August 2, 1954, Serial No. 447,230
2 Claims. (Cl. 251—172)



1. In a valve assembly, the combination of: a valve body provided with inlet and outlet ports and provided with an annular inwardly facing recess encircling each port defining an inwardly facing shoulder; a rotatable ported valve member positionable between said ports; a removable ported composite valve seat means for each of said ports, each valve seat means comprising an outer cyclindrical metal body portion and an inner coaxial cylindrical resilient body portion mounted within the outer body portion for relative longitudinal movement, said resilient body portion having a face normally positioned inwardly of the corresponding face on said metal body portion, both of said faces being sealingly engageable with said valve member, each body portion including a reduced cylindrical extension, the extension on said outer metal cylindrical body portion defining with said recess an annular space between said extension and said valve body, and said extension on said resilient cylindrical body portion defining with a shoulder formed on said metal cylindrical portion an annular space; and seal means in each of said annular spaces, each seal means including a resilient seal ring yieldable and deformable within its respective space cooperating to resiliently urge the inner body portion into engagement with the valve member, and a metal ring element positioned at inner and outer circumferences of each resilient seal ring to restrain flow of said resilient material and to confine said resilient material within said annular space.

2,868,498
SHUT-OFF COCK WITH ANNULAR PISTON SEALING MEANS FOR THE BALL PLUG
Rudolf Kaiser, Ettlingen, Baden, Germany
Application April 17, 1956, Serial No. 578,754
Claims priority, application Germany February 7, 1956
4 Claims. (Cl. 251—172)



1. In a valve device, in combination, a valve housing member formed with a bore therethrough; a valve arranged in said housing member, said valve being formed with a passage therethrough and being movable between open and closed positions wherein said passage is in and out of registration with said bore, respectively; and sealing means interposed between said housing member and said valve, said sealing means including an annular sealing

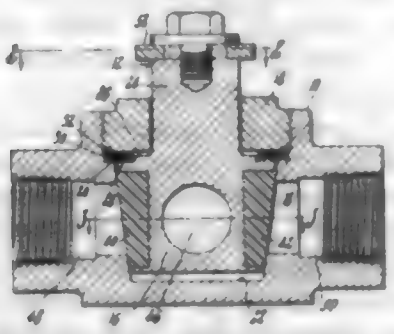
member coaxial with said bore of said housing member, said members being so shaped as to form between themselves an annular chamber of substantially rectangular cross-section bounded by an inner face, an outer face and two side faces, and a packing ring arranged in said chamber, said ring being made of a resilient material and being compressed between said side faces of said annular chamber and having, in untensioned condition, a mean diameter corresponding approximately to the mean diameter of said chamber and a radial width smaller than the radial width of said chamber.

2,868,499

PLUG TYPE VALVE

Stanley J. Kaminsky, Norwood, Mass., assignor to Industrial Plastic Fabricators, Inc., Norwood, Mass., a corporation of Massachusetts

Application January 10, 1955, Serial No. 480,719
2 Claims. (Cl. 251—314)



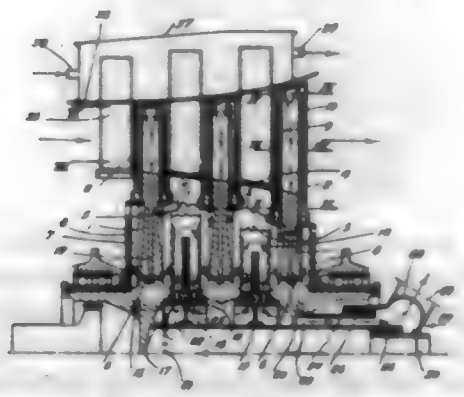
2. A plug-type valve for corrosive fluids, comprising a housing of polyvinyl chloride resin enclosed at the bottom and having a downwardly tapering chamber therein with inlet and outlet passages opening into opposite sides of the chamber, a plug of polyvinyl chloride having a frusto conical body fitting in said chamber and rotatable therein to open and close the valve, and a stem extending up from said body, said plug having a transverse bore through said body adapted to register with said passages when the plug is in the open valve position, said plug having two bearing elements of tetrafluoroethylene resin embedded in opposite sides of said body and adapted to close said passages when the plug is in the closed valve position, said elements projecting slightly outward from the conical contour of the body, and a packing around said stem arranged to expose only a corrosion resistant surface to the fluid in the valve.

2,868,500

COOLING OF BLADES IN MACHINES WHERE BLADING IS EMPLOYED

Georges Boulet, Toulouse, France

Application February 15, 1950, Serial No. 144,229
Claims priority, application France February 15, 1949
3 Claims. (Cl. 253—39.15)



1. In a bladed fluid flow machine required to run at high temperature comprising a rotary wheel, blades carried by the latter, at least some of which are each internally provided with a cavity enclosing a cooling material of a nature such that it is within said cavity in a fluid state at the normal running temperature of the rotary wheel, and heat exchanging means carried by said wheel and in operative cooling relation with said cooling material to cool the latter, said heat exchanging means including a fluid tight chamber, and for each cooled blade at least two ducts both communicating at one of their ends with said chamber and at their other ends with the cavity of a blade, the emerging points of one of said ducts in the associated blade cavity and in said chamber being respectively further remote from the wheel axis than the corresponding emerging points of the other duct in said blade cavity and in said chamber.

2,868,501

PORTABLE FLUID-PRESSURE-ACTUATED JACK

Pryor G. Cloud and John M. Cloud, Manhattan Beach, Calif., assignors, by mesne assignments, to Life Time Products Corp., West Los Angeles, Calif., a corporation of California

Application May 24, 1954, Serial No. 431,675
2 Claims. (Cl. 254—93)



1. In a fluid actuated jack means, the combination of: a base means provided with forwardly extending angularly arranged base members; an upwardly directed ram member secured to said base means at the apex of said angularly arranged base members, said ram member being of I-section and having longitudinally extending flanges providing flat, parallel front and back ways, said ram member including a web extending between said flanges and provided with a circular ram head at the top thereof having a diameter greater than the largest lateral dimension of the ram member; a reciprocally movable cylinder sleeved over said ram head and defining therewith a pressure chamber above said ram head and having an open end below said ram head; a carriage secured to the bottom end of said cylinder and extending therebelow in the direction of said base member and forwardly of the cylinder, said carriage including spaced plates having parallel portions extending into said open end of the cylinder and in close spaced relation to edges of the flanges; top and bottom roller means rotatably mounted between said plates and having roller end margins positioned between edges of said flanges and said plates for lateral alignment of the bottom end of the cylinder, said top and bottom roller means having longitudinal spaced engagement with associated back and front ways respectively on said ram member; said web on said ram member being provided with longitudinally spaced ports, a latch means carried by one of said plates for selective engagement with said ports; a transverse load bar supported by said plates in forward spaced relation to the cylinder; and means to introduce fluid under pressure to the pressure chamber for moving the cylinder and carriage relative to the ram member.

2,868,502
LIFTING DEVICE
Algot Leonard Viebke, Stockholm, Sweden
Application May 2, 1955, Serial No. 505,171
1 Claim. (Cl. 254—93)



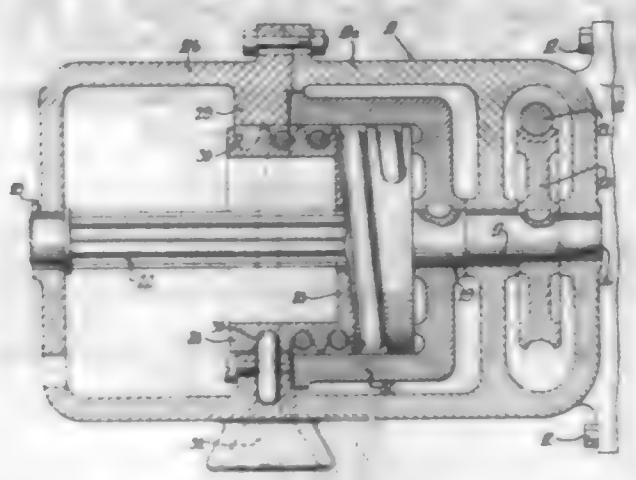
Hydraulic telescopic lifting apparatus comprising two parallel columns positioned beside each other, each of said columns consisting of the same number of telescopic sections and which are connected to a source of pressure medium, a base with which the lowermost telescopic section in each column is engaged, a platform connecting device with which the uppermost telescopic section in each column is engaged, the columns being arranged closely to each other, each telescopic section in one column, counting from the larger end of said column, rigidly connected to that telescopic section in the other column which is the same number of sections from the smaller end of the other column, each pair of connected sections having an equally large pressure area as the pressure area of each of the other pairs of connected sections.

2,868,503
WEEDING TOOL
Jerome De Lue, Detroit, Mich.
Application September 28, 1956, Serial No. 612,796
2 Claims. (Cl. 254—132)



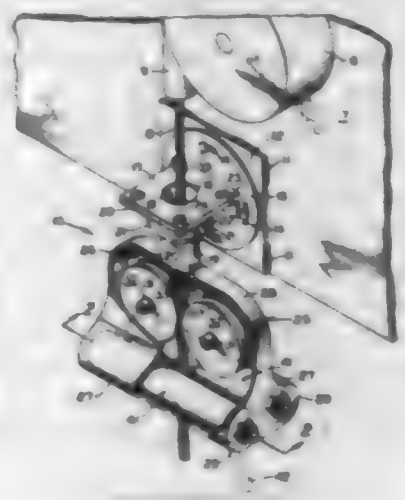
1. In a garden weeding tool, an elongated flat skid plate having forward and rear ends and side edges, and formed with a longitudinal slot reaching to its forward end, an inverted U-shaped stop comprising a bight portion and depending legs having lower ends secured to the skid plate at opposite sides of said slot at a point intermediate the ends of the skid plate, said stop being at a rearwardly inclined angle to said skid plate, a blade assembly comprising an elongated flat blade having forward and rear ends and being positioned in said slot forwardly of said stop, the forward end of the blade reaching beyond the forward end of the skid plate and having sharpened portions, a straight lever located behind said stop and having a forward end fixed to the rear end of said blade, and a rear end above said stop, said lever being angled upwardly and rearwardly relative to said blade, and pivot means at the juncture of the stop legs with the skid plate and of the blade and the lever pivoting the blade assembly on the skid plate to be swung from an elevated starting position in which the blade is coplanar with the skid plate and the lever is engaged behind the stop to an operated position in which said lever is depressed rearwardly away from the stop and the blade is elevated above the skid plate at a rearwardly declining angle.

2,868,504
NON-FOULING WINCH
John E. Minty, Muskegon, Mich., assignor to Manning, Maxwell & Moore, Inc., Muskegon, Mich., a corporation of New Jersey
Application March 2, 1955, Serial No. 491,739
13 Claims. (Cl. 254—150)



1. A non-fouling winch comprising a cable drum, shaft means slidably supporting said drum for rotating said drum in either direction of rotation while permitting reciprocation thereof, sleeve means having an internal diameter substantially equal to the diameter of said drum and connected to said rotating shaft means for simultaneous rotation therewith, means for reciprocating said drum relative to said sleeve simultaneously with the rotation thereof and means for continuously winding a cable on said drum immediately prior to movement of the wound portion of the drum into said sleeve.

2,868,505
SELF DRESSING FAIRLEAD
Glenn W. Gurley, Sacramento, Calif.
Application October 9, 1956, Serial No. 614,881
2 Claims. (Cl. 254—190)



1. A self-lubricating fairlead including an elongated housing having a pair of opposite end walls, a pair of sheaves mounted transversely in said housing in substantially co-planar spaced relation to guide a cable therebetween, a pair of right circular cylindrical rollers rotatably mounted on said housing in parallel spaced relation between said end walls to guide a cable therebetween, each of said rollers including a hollow inner tube extending between said opopsite end walls, said inner tube having an aperture extending through its wall, an outer tube mounted concentrically about said inner tube, said outer tube including a smooth uninterrupted outer surface, the ends of each of said outer tubes being closely spaced to

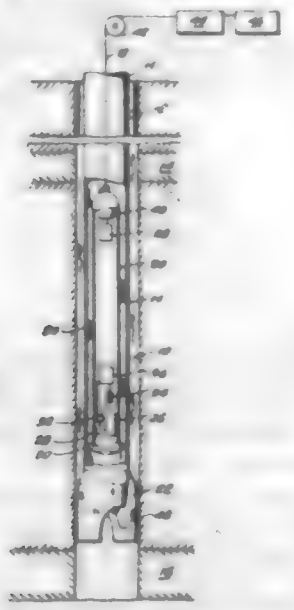
the adjacent one of said end walls, a pair of antifriction bearings interposed between said inner and said outer tube, the inner race of each of said bearings being in abutment with the adjacent one of said end walls and the outer end of the outer race being substantially coextensive with the adjacent end of said outer tube, and a grease fitting mounted on one end of said inner tube.

2,868,506

DETERMINATION OF FLUID MOVEMENT IN BORE HOLES

Alfred C. Nestle, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application June 1, 1954, Serial No. 433,685
5 Claims. (Cl. 255—1.8)



1. In the process of drilling a borehole in which drilling fluid is pumped down through a string of drill pipe and out through the drill bit into the borehole and thence passes upwardly through the annulus between the drill pipe and the wall of the borehole, the method of locating a porous zone which has been drilled through and into which said drilling fluid is being lost which comprises injecting a given quantity of a tracer material into said drilling fluid at a point within the drill pipe above the drill bit, detecting the presence or absence of said tracer at a point in the borehole spaced vertically a constant distance above said injection point, the presence of the tracer in the annulus at the level of said detection point indicating that said porous zone is located at the level of said detection point or vertically spaced from said detection point at a still greater distance from the point of injection, and the absence of the tracer in the annulus at the level of said detection point indicating that said porous zone is below the point of detection, then moving the point of tracer injection and the point of detection to a new elevation within the borehole while maintaining the constant distance between the point of injection and the point of detection, and repeating the foregoing steps.

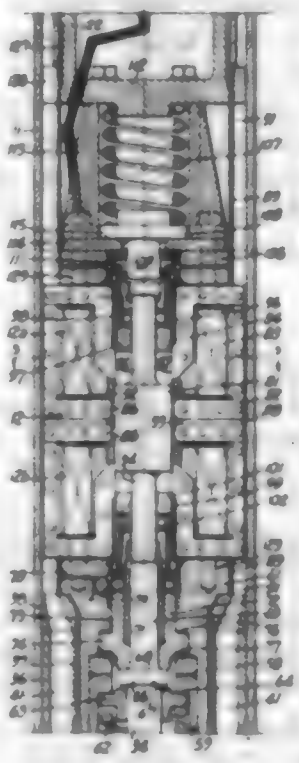
2,868,507

WELL DRILLING EQUIPMENT

James G. Scott, Simi, Roland A. Freeman, Santa Monica, and Reese T. Houston, Simi, Calif., assignors to American Percussion Tool Company, San Francisco, Calif., a corporation of California

Application July 26, 1954, Serial No. 445,666
10 Claims. (Cl. 255—4.6)

1. In well drilling equipment, a tubular housing adapted to be disposed in a well, a rotary cutter head in the lower end of the housing and aligned therewith, means forming a spline connection between the head and the housing whereby the head has limited axial movement relative to the housing and is caused to rotate together with rotation of the housing, an anvil member attached to the head within the housing and extending axially therewith, and an electrically energized actuator, said actuator including at least one electromagnet field assembly having a laminated core with spaced pole pieces terminating at the



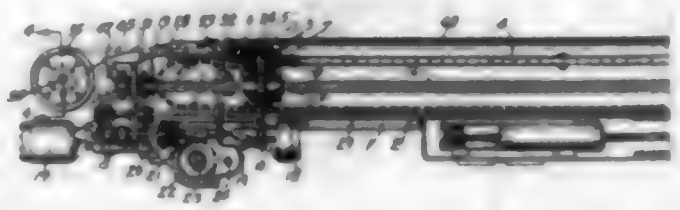
boundary of a cylindrical passage and having a gap therebetween and a central piston like core disposed axially of the housing adjacent the gap and reciprocated by energization of the electromagnet assembly to apply impacts to the anvil at a substantially constant frequency.

2,868,508

EXTENSIBLE WATER SUPPLY MEANS FOR A ROCK DRILL

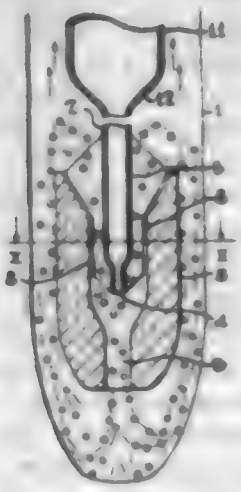
David M. Cowan, Columbus, Ohio

Original application December 6, 1954, Serial No. 473,207. Divided and this application August 18, 1955, Serial No. 529,122
14 Claims. (Cl. 255—49)



1. In combination, a guide frame providing a longitudinal guideway, actuating means for a hole-forming drilling implement, said actuating means guided for rectilinear movement back and forth longitudinally along the guideway of said guide frame to move the drilling implement toward and from the work, means for moving said drilling implement back and forth along said guideway, means for conducting fluid to said actuating means, said fluid conducting means comprising a flexible fluid conductor connected to the drilling implement and a drum journaled on said guide frame and on which said conductor is wound, and resilient energy storing means on said guide frame and actuated by said drum as the drill activating means is advanced to store up energy, said drum being rotated in unwinding direction by the pull of said conductor thereon to pay out said flexible conductor, the energy stored up in said resilient means effecting drum rotation in a direction to wind in said conductor as said drill actuating means is moved rearwardly along said guide frame.

2,868,509
PELLET IMPACT DRILLING APPARATUS
Phillip S. Williams, Tulsa, Okla., assignor, by mesne assignments, to Jersey Production Research Company
Application June 7, 1956, Serial No. 589,939
7 Claims. (Cl. 255—61)



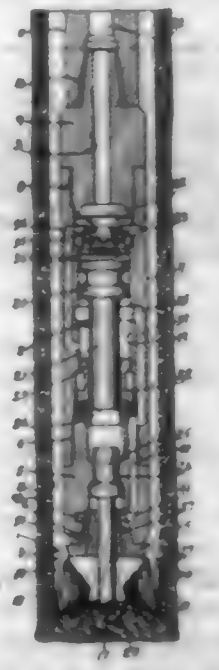
1. An apparatus for drilling a bore hole in the earth in conjunction with a liquid drilling fluid which comprises in combination, a plurality of spherical steel pellets having a diameter of from about ⅛ to 1 inch, a tubular support member extending into the bore hole, a downwardly directed primary nozzle secured to said tubular support, an open ended tubular secondary nozzle supported from said tubular support and concentrically aligned with and extending below said primary nozzle, said secondary nozzle having an internal diameter at least about twice the diameter of the pellets, the upper end of said secondary nozzle being sufficiently spaced from said primary nozzle to define a passageway therebetween of a size sufficient to enable the pellets to pass therethrough, whereby said pellets are continuously recirculated through said secondary nozzle when said liquid drilling fluid is jetted through said primary and secondary nozzles from within said tubular support member.

2,868,510
UNDER-REAMERS
Charles A. Dean, Los Angeles, Calif.
Application December 30, 1955, Serial No. 556,586
6 Claims. (Cl. 255—76)



1. An expansive earth under-reamer adapted to straighten an earth-bore, comprising a tubular body having ends each adapted to fasten into a rotary drill string, containing a central tubular opening, housing-openings in the wall of the body, individually rotatable reamers mounted in the wall to swing radially into or outwardly from the housing-openings, and piston means movable up and down within the central tubular opening and connected to swing the reamers, resilient means mounted in one end of the tubular body and bearing down against the piston means to bias the reamers outwardly, a movable stop bearing against the resilient means and held at one end of the tubular body, the stop having adjustment means to regulate said piston and reamer bias, the adjustment means being near to and readily accessible from the end of the tubular body in which the resilient means is mounted, and re-latching lock means for the reamers having a movable element interengaging the body and the piston, there being complemental recessive wall portions in the tubular body and in the piston adapted to receive said movable element for limited play therebetween to positions to lock and to unlock the piston under the bias of the adjustable resilient means, and means to move the element to the stated positions between said walls.

2,868,511
APPARATUS FOR ROTARY DRILLING
James L. Barrett, Pittsburgh, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application April 7, 1955, Serial No. 499,821
4 Claims. (Cl. 255—302)



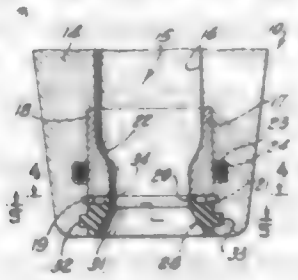
1. In combination, a rotary drill bit of the toothed roller cutter cone type attachable to a rotatable drill rod and having spaced apart roller cutters, said drill bit rotatable with the drill rod to effect drilling of a hole in solid bed-rock, the cone roller cutters of said drill bit so arranged and constructed that during the drilling operation they form a frusto-conical section of rock projecting axially upwardly at the bottom of the hole being drilled with the apex portion of the rock section lying at the bit axis between and spaced rearwardly of the forward cutting portion of the spaced roller cutters, and an impact mechanism carried by said drill rod and extending rearwardly of the drill bit, said impact mechanism including impact imparting means, means for effecting operation of said impact imparting means and an impact element axially aligned with the drill bit for receiving the blows of said impact mechanism, said impact element guided for reciprocation in adjacency to said drill bit and extending axially forwardly between the spaced roller cutters, said impact element in all positions of reciprocation disposed rearwardly of the foremost cutting portions of said roller cutters and having a blunt striking face which, when retracted, lies in a transverse plane disposed at the rearmost cutting portions of said cutters, said striking face as said impact element is driven forwardly delivering an impact blow to the apex portion of the conical rock section for creating primary fractures in the latter with the fractures generally taking the profile of the cone, thereby to facilitate the rolling cutting action of the roller cutters in the drilling of the hole.

2,868,512

JET NOZZLE PROTECTOR

Will S. Sease, Fort Worth, Tex., assignor to Chicago Pneumatic Tool Company, New York, N. Y., a corporation of New Jersey

Application May 13, 1957, Serial No. 658,573
9 Claims. (Cl. 255—314)



1. An earth boring drill comprising a bit head having a passage for the delivery of flushing fluid, a jet nozzle inserted slidably into the end of said passage, a retaining ring for the nozzle mounted in said passage below the nozzle, and an annular shield mounted in said passage below the nozzle and retaining ring, said shield being arranged to line the passage wall and protect it from impingement by turbulent fluid with abrasive particles therein.

2,868,513

HEAT EXCHANGER

Stanley C. Orr and Donald E. Kropp, Elyria, Ohio, assignors to Pfaudler Permutit Inc.

Application February 6, 1957, Serial No. 638,516
5 Claims. (Cl. 257—236)



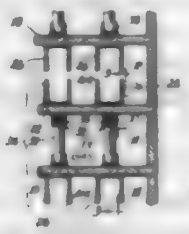
3. A heat exchanger comprising a tubular, ferrous metal shell, ferrous metal tube sheets of greater diameter than the shell and connected to the shell at its ends to define therewith a chamber for fluid, covers on the remote outer surfaces of said tube sheets, tubes extending through said chamber and tube sheets and expanded into engagement with said tube sheets, weld metal joining the ends of said tubes to said covers, bonnets for the ends of said exchanger defining with said covers chambers for extremely corrosive fluid flowing into and through said tubes, said covers, tubes and bonnets being composed of non-ferrous metal resistant to said fluids and substantially unweldable to ferrous metal, and means for securing the bonnets to the tube sheets.

2,868,514

MOUNTING SINUSOIDAL FIN ELEMENTS IN HEAT EXCHANGE ENVELOPE

Peter Hodson and Sven Holm, Wellsville, N. Y.

Continuation of abandoned application Serial No. 152,952, March 30, 1950. This application June 2, 1955, Serial No. 521,203
1 Claim. (Cl. 257—245)



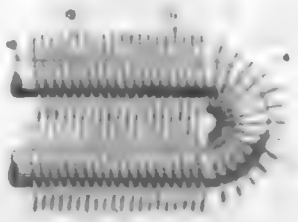
In a heat exchanger having metallic plates constituting walls of a fluid passage, and a plurality of heat exchange elements mounted in spaced relation in said passage parallel to each other and the direction of fluid flow through the passage, each element consisting of an individual metallic wire bent to substantially sinusoidal form to provide a ribbon-like element formed of a plurality of U-shaped loops lying substantially in a common plane extending substantially perpendicular to said plates, each loop having legs and a base, the bases of said loops forming the edges of said ribbon-like element; the improvement comprising a metallic channel member with base and flanges at angles thereto, said flanges being spaced apart approximately the thickness of said wire and ribbon-like element and extending along and parallel to the major axis of the ribbon-like element with bases of the loops fitting closely into said channel member and with the side faces of the ribbon-like element in contact with the flanges of the channel member and an edge of the ribbon-like element contacting the base of the channel member at intervals along a line parallel to the axis of the channel; and metallic joints permanently joining the flanges and faces of said channel to the side faces and to said edge, respectively, of said ribbon-like element over an area therebetween that is several times the projected area of the thickness of said area at the point of contact between the edge of said element and the base of said channel.

2,868,515

HEAT EXCHANGER CONSTRUCTION

Robert J. Garland, De Witt, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Application November 25, 1955, Serial No. 548,891
1 Claim. (Cl. 257—262.20)



A heat exchanger coil construction comprising a continuous run of tubing in the form of a serpentine coil, said tubing having helical fins thereon comprising a ribbon of desired height and thickness having spaced portions thereof of less height than the body of the ribbon, the fins extending a uniform distance from the tubing along the length thereof except at the arcuate portions of the serpentine coil about which the spaced ribbon portions of less height are located thereby permitting adjacent sections of tubing to be placed closely together without interference between the fins at the spaced portions.

2,868,516

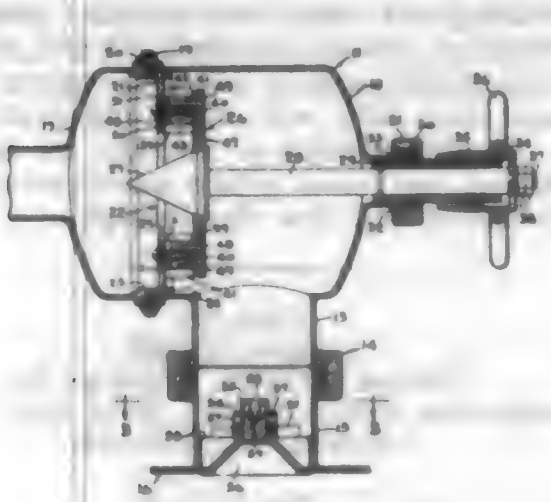
HOMOGENIZER

Karl W. Moseley, Milwaukee, Wis., assignor to W. M. Sprinkman Corporation, Milwaukee, Wis., a corporation of Wisconsin

Application March 5, 1956, Serial No. 569,484
4 Claims. (Cl. 259—4)

1. In an homogenizer, the combination of a housing, a pair of members mounted in said housing for lengthwise adjustment relative to each other and constructed and arranged to provide a series of sets of adjustably variable radially disposed circumferentially spaced homogenizing orifices, the areas of the sets of orifices varying with the radial disposition thereof, the orifices spaced

at a less radial distance from the center of the housing being larger than those at a greater radial distance, and

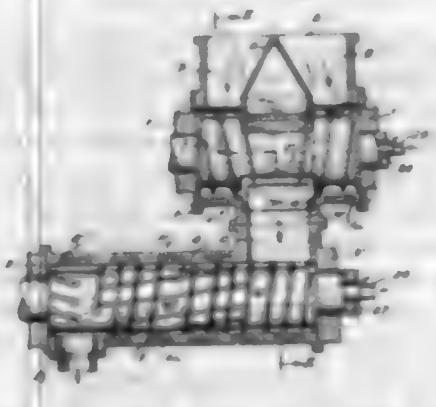


means distinct from said members for forcing the material being treated through said orifices.

2,868,517
APPARATUS FOR THE CONTINUOUS MIXING OF MATERIALS

Albert Lasch, Stuttgart-Bad Cannstatt, Germany, assignor to Werner & Pfleiderer, Stuttgart-Feuerbach, Germany

Application November 26, 1956, Serial No. 624,275
Claims priority, application Germany November 24, 1955
4 Claims. (Cl. 259—6)

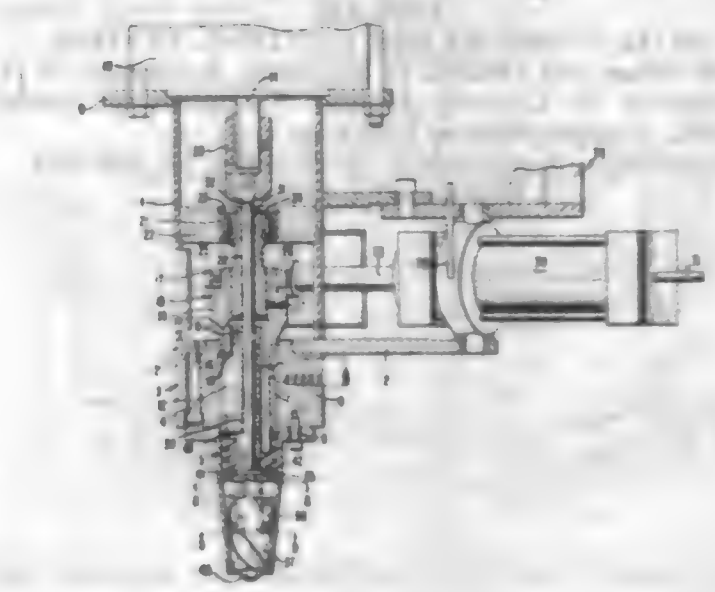


1. An apparatus for continuously mixing at least two materials comprising, in combination, a housing including a first chamber formed with an inlet, a second chamber located below said first chamber and formed with an outlet, and passage means located between and communicating at opposite ends thereof respectively with said first and said second chambers; first mixing and kneading means located in said first chamber for premixing the materials; second mixing and kneading means located in said second chamber for finish mixing the materials and for feeding the mixture from said passage means to said outlet; closure means located in said passage means for intermittently closing said passage means, said closure means being movable between a closed position in which said closure means closes said passage means and an open position in which said closure means opens said passage means so that the materials premixed in said first chamber will pass through said passage means and accumulate in said second chamber on top of said second mixing and kneading means; and automatic operating means operatively connected to said closure means for moving said closure means from said closed position to said open position in dependence of the accumulation of the material in said second chamber on top of said second kneading means.

2,868,518
MIXER

John C. Corby, Jr., Waynesboro, Va., and David C. Trimble, Yorklyn, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application January 8, 1957, Serial No. 633,011
3 Claims. (Cl. 259—8)

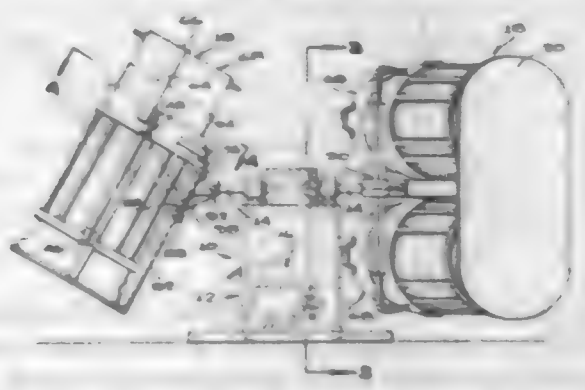


1. A mixer of the type deacribed, comprising a dual three-way mixing valve consisting of a body member and a rotary valve plug provided with cooperating inlets and passages through which two liquids may be separately circulated when the valve plug is turned in one position; outlet openings extending axially in the valve plug, the inlets of which are movable into cooperating position with the inlet for each of said liquids; a mixing chamber attached to said mixing valve in axial alignment with the rotary valve plug, the outlets in said valve plug opening into the mixing chamber; a rotary mixer arranged in said mixing chamber for simultaneously rapidly moving the material emitted from said outlet openings through the mixing chamber and mixing it in the mixing chamber; means for rotating the valve plug in the valve body whereby the liquids may be circulated or expelled into the mixing chamber; and means for rapidly rotating the mixer in the mixing chamber.

2,868,519
DRY MATERIAL MIXING MACHINE

Louis G. Tocci, Leominster, Mass.

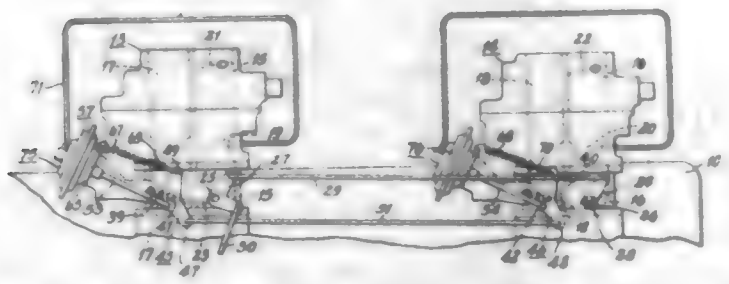
Application September 6, 1957, Serial No. 682,387
8 Claims. (Cl. 259—57)



1. In a tumbler machine, a housing having power-driven horizontal coaxial rotary shafts extending from opposite ends thereof, holder assemblies mounted on and fixed to the shafts, said holder assemblies each comprising a bottom plate, cylindrical bag holders fixed to and rising from opposite ends of the bottom plate, and means for mounting the assemblies on the shafts, each of said holders comprising stationary semi-cylindrical sections and semi-cylindrical hinged sections hinged on each of the stationary sections, a connecting plate extending between and secured to the stationary sections, clamping

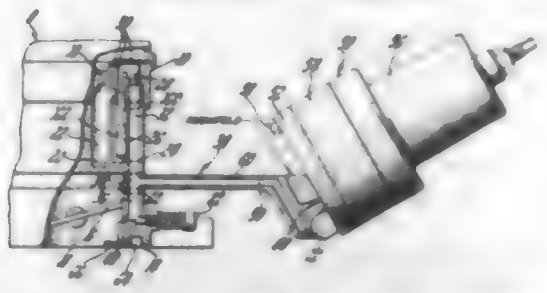
lugs on the outer ends of the hinged sections arranged to bear against the connector plate in the closed positions of the hinged sections, and a clamp mounted on said connector plate for clamping said clamping lugs against the connector plate.

2,868,520
DUAL CARBURETOR CONTROL SYSTEM
Elmer Olson and Donald D. Stoltman, Rochester, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 9, 1955, Serial No. 533,492
2 Claims. (Cl. 261—23)



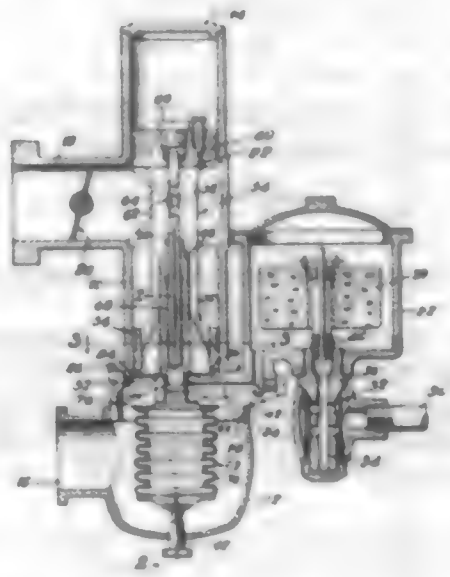
1. A pair of multibarrel carburetors for supplying fuel mixture to an internal combustion engine, each carburetor having a set of primary induction passages and a set of secondary induction passages, manually controlled throttle valves in said primary induction passages for regulating the discharge of fuel mixture therefrom, means interconnecting said primary throttle valves for concurrent manual operation, secondary throttle valves in said secondary induction passages for regulating the discharge of fuel mixture therefrom, vacuum responsive means operatively connected to the secondary throttle valves, conduit means connecting each vacuum responsive means respectively to each of said primary induction passages, and a mechanical connection between the secondary throttle valves of each carburetor whereby the vacuum forces in the respective primary induction passages are averaged for effecting synchronized movement of said secondary throttle valves.

2,868,521
DEGASSER
Howard H. Dietrich, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 21, 1957, Serial No. 647,514
4 Claims. (Cl. 261—41)



1. A fuel system for an internal combustion engine comprising a carburetor having a float bowl casing, a throttle casing, an air induction passage formed through said casings, a throttle valve for controlling the quantity of combustible mixture flowing through said induction passage, an idle fuel well formed in the float casing, an idling fuel nozzle disposed in said well and communicating with idle fuel passages formed in said float bowl and throttle casings, said idle fuel passages communicating with the induction passage posteriorly of the throttle valve, a degasser device supported upon said carburetor and including a plate-like casing member disposed between said float bowl and throttle casings, said degasser device including a passage means communicating with said idle fuel passages, valve means adapted to communicate said passage means to atmosphere, means normally biasing said valve to a position blocking communication of the passage means to atmosphere, servo means for actuating said valve, conduit means communicating said induction passage posteriorly of said throttle with said servo means whereby manifold vacuum is adapted to unseat said valve and admit atmospheric pressure to the idle fuel passages to interrupt the flow of fuel therethrough, and means in said conduit means for varying the rate of fluid flow therethrough.

2,868,522
CARBURETOR
William E. O'Neil, Evanston, Ill.
Application August 19, 1957, Serial No. 678,929
2 Claims. (Cl. 261—50)

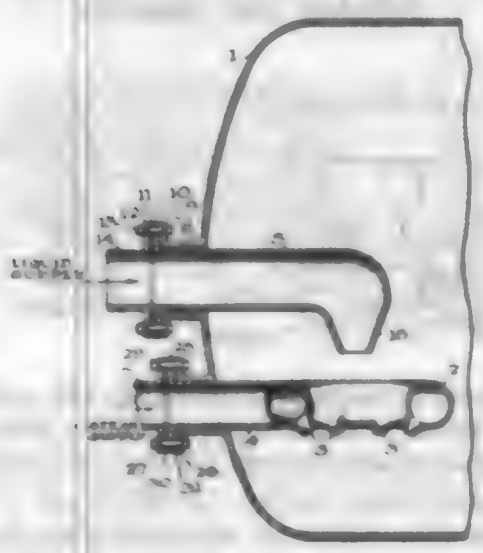


1. In a carburetor for an internal combustion engine or the like, a generally open casing having an air passage, an air intake communicating with the casing, a cone element constructed to partially close the passage through the casing, a fuel nozzle element extending through the cone, the cone and fuel nozzle being mounted for relative movement, one being fixed relative to the casing, the other being movable, a seat in the passage fixed to the casing and constructed to accept and seat the movable element, an air valve constructed with the cone element to substantially close the passage when the engine is not operating and movable away from the cone element to provide a variable area orifice with the cone element in response to the vacuum created when the engine is operating, a metering pin having grooves therein extending into the nozzle element and movable with the air valve to open the grooves for admitting variable quantities of fuel, and a peripheral flange between the air valve and cone element which functions as a seal for momentarily preventing the admission of air between the cone element and air valve, during rapid acceleration, so that with a given amount of fuel drawn through the grooves in the metering pin, the air supply will be momentarily reduced to provide a relatively rich mixture for the engine.

2,868,523
HEATING APPARATUS AND METHOD
Winston H. Cundiff, Orinda, and Donald J. Donaldson, Berkeley Woods, Calif., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware
Application June 2, 1955, Serial No. 512,818
3 Claims. (Cl. 261—77)

2. Apparatus for internally heating a body of liquid in a vessel by direct injection of steam within the body without severe water hammer, comprising a steam annulus located within said body of liquid and connected to a steam supply, said annulus having a plurality of nozzles, a feed pipe having a diameter smaller than said annulus

positioned within the body of liquid having a higher temperature for discharging an unconfined stream of lower temperature liquid axially through said annulus, the flow of said stream causing convergent circulation of said higher temperature liquid from all sides around the outer periphery of said stream in the immediate area of said



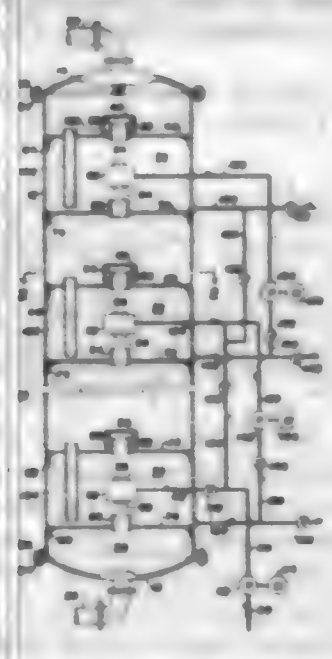
annulus said plurality of nozzles of said annulus being angularly disposed with respect to the plane of said annulus to direct jets of steam through said higher temperature liquid toward said unconfined lower temperature liquid stream at a point relatively downstream from the plane of said annulus.

2,868,524

CONTACTING APPARATUS

Weldon G. Annable, Mundelein, and William L. Jacobs, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application October 5, 1956, Serial No. 614,130
2 Claims. (Cl. 261—111)



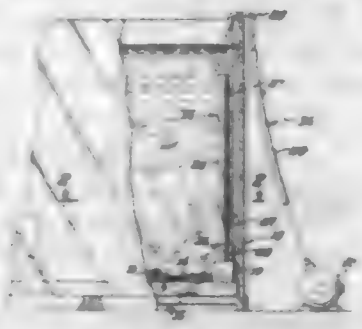
1. A liquid-vapor contacting apparatus comprising in combination, a vertically elongated tubular column having a vapor inlet and a vapor outlet at its lower and upper ends respectively, a plurality of contact zones located along the length of said column providing a continuous vapor flow path therein, each of said contact zones comprising an upper bubble cap tray and a lower liquid accumulator tray, a downcomer connected between each bubble cap tray and liquid accumulator tray so as to have its open ends immersed in the liquid levels confined thereby, each of said bubble cap and liquid accumulator tray having their spaced vapor ports in alignment with each other, means for introducing a liquid into each of said contact zones in the form of a non-coalescing fog whereby the particle size of the fog droplets is in the order of 0.1 to 0.01 millimeter in diameter, said fog-producing means operating at a pressure of at least 100 p. s. i. g. above the vapor pressure in each zone, and said fog-producing means being located between each pair of trays defining a contact zone in a position opposite the entrance and exit, respectively, of the vapor ports of the bubble cap tray and the liquid accumulator tray in such a manner that the fog is directed upwardly and downwardly to encompass the openings of said spaced vapor ports.

2,868,525

AQUARIUM AERATING DEVICE

Norman G. Hovlid, Long Beach, Calif.

Original application November 29, 1955, Serial No 550,039, now Patent No. 2,748,875, dated May 29, 1956. Divided and this application March 12, 1956, Serial No. 570,997
1 Claim. (Cl. 261—121)



A water and circulating device for use in an open-topped aquarium having a horizontal floor, comprising: a perforated plate that is supported horizontally in vertically spaced position above the floor of said aquarium so as to define a water passage space between said plate and said floor; a vertically extending bubble forming chamber extending upwardly from said plate and having a bottom end that is open for the admission of aquarium water upwardly thereinto from said water passage space, said bubble chamber having imperforate sides and a closed cover which is formed at one side with an air inlet aperture and at another side with a water and bubble outlet aperture, said air inlet aperture having an area less than the area of said outlet aperture and the combined areas of said inlet and outlet apertures being less than the area of the lower end of said bubble chamber; a circulating tube connected with said outlet aperture that extends upwardly from said bubble chamber through said aquarium to the upper portion of the latter; and an air inlet tube connected with said inlet aperture and extending upwardly through said aquarium to connect said bubble chamber with a source of air existing at a pressure in excess of the hydrostatic head within said aquarium at the elevation of said outlet aperture whereby bubbles of air are intermittently formed in said bubble chamber of greater cross-sectional area than the area of said outlet aperture, each of said bubbles buoyantly rising through said outlet aperture and said circulating tube between increments of water with said bubbles substantially completely occupying the cross-sectional area of said circulating tube during their ascent therethrough so as to circulate water from said water passage space upwardly through said outlet chamber, the water displaced from said water passage space being replenished by downward circulation of aquarium water through said plate.

2,868,526

MINING EQUIPMENT HAVING CUTTING ROTORS ADAPTABLE TO VARYING CONDITIONS

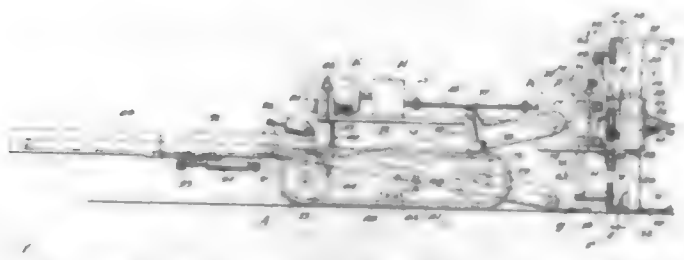
Will B. Jamison and Bloddie L. Derringe, Greensburg, Pa., assignors to Bituminous Coal Research, Inc., Washington, D. C., a corporation of Delaware

Application May 22, 1951, Serial No. 227,614
7 Claims. (Cl. 262—7)

1. In a mining machine, a plurality of cutting rotors adapted to cut circular kerfs in a body of material to be

mined, bearing blocks rotatably carrying said rotors, a support in which said blocks are movably mounted to alter the center-to-center spacing of the rotors, means for effecting such movement of said blocks, cutting mechanism adapted to cut cross-kerfs substantially tangent to the circular kerfs cut by the rotors, and means for supporting said cutting mechanism from said bearing blocks.

2. In mining equipment, a rotor drive shaft, a hub mounted on said shaft and adapted to be rotated thereby, the hub having two slots disposed on opposite sides of the axis of the shaft, a rotor arm slidably mounted in each slot, each arm being provided with a rack, a pinion mounted on said shaft and cooperating with said racks, a starwheel rotatably mounted on said hub in driving engagement with said shaft, and a pin selectively engageable with said starwheel to cause rotation thereof and fixedly mounted with respect to said rotatable hub,



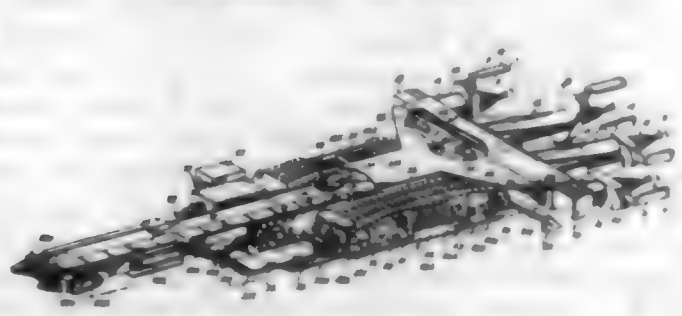
5. In mining equipment, a frame, two rotor hubs connected with said frame, each hub carrying a pair of cutters arranged to rotate in a circular path, the respective paths lying substantially in the same plane, mechanism associated with each hub to vary the diameter of the respective circular paths, mechanism to adjustably position the frame in a vertical direction and to adjustably tilt the frame in any of the positions of vertical adjustment, whereby to raise and lower said cutters and to tilt the plane of said paths, traction means having two spaced-apart axles, said vertically adjusting and tilting mechanism comprising a yoke pivotally connected between one axle and one end of said frame, hydraulic mechanism pivotally connected between the yoke and the other said axle, and second hydraulic mechanism pivotally connected between the other end of said frame and said yoke.

2,868,527

CONTINUOUS MINING MACHINE

Gerald F. H. von Stroh and Spencer Bowman, Huntington, W. Va., assignors to Bituminous Coal Research, Inc., Washington, D. C., a corporation of Delaware

Application May 23, 1951, Serial No. 229,438
39 Claims. (Cl. 262—7)



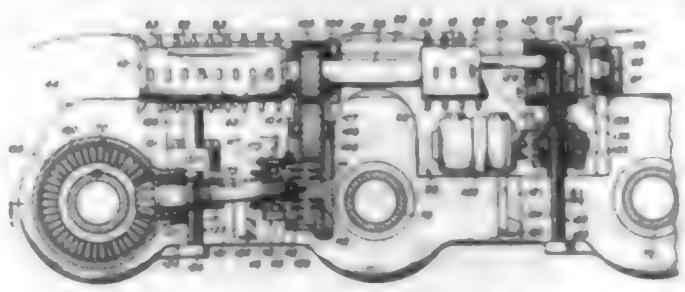
1. In a mining machine, a plurality of rotor housings provided with rotor arms, said housings and arms being adapted for rotary cutting movement, a moveable carriage, said housings being mounted on the forward end of said carriage, at least one pair of rotor housings extending forwardly from said carriage a distance greater than the other housings, burster elements located concentrically on the axis of rotation of each of said housings means responsive to said rotary movement to continuously and uninterruptedly extend and retract said arms a predetermined distance with respect to said burster element.

2,868,528

BORING TYPE MINING MACHINE HAVING DRUM TYPE CUSP CUTTER

Frank Cartlidge and Joseph Gonski, Chicago, Ill., assignors to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application June 11, 1957, Serial No. 665,062
7 Claims. (Cl. 262—7)



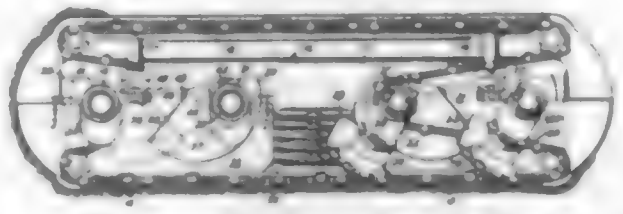
1. In a continuous mining machine for coal and the like, a plurality of boring heads rotatable about parallel axes, means for simultaneously driving said boring heads, a rotary drum cutter spaced rearwardly of said boring heads for rotation about an axis extending transversely thereof, means for vertically adjusting said cutter to cut along the mine roof, and means for driving said cutter from one of said boring heads, comprising a housing mounted coaxially with one of said boring heads for movement thereabout, a shaft journaled in said housing and extending at right angles to the axis of rotation of said boring head, a right angled geared drive connection from said boring head to said shaft, and a single universal drive coupling driven by said shaft and having drive connection with said rotary drum cutter.

2,868,529

PUSHER PLATE MEANS FOR BORING TYPE MINING MACHINE

Richard C. Lundquist, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corperation of Illinois

Application June 24, 1957, Serial No. 667,436
4 Claims. (Cl. 262—7)



1. A continous mining machine of the boring type comprising a frame extending across the front of the machine and having a material receiving throat opening toward the ground, an inclined elevating conveyor extending within said throat and having a receiving end adjacent the ground, boring head supports projecting forwardly of said frame on each side of said throat, boring heads rotatably mounted on said supports for cutting contiguous bores in advance of the machine and progressing the cuttings toward said throat and conveyor, a lower trimmer bar mounted on said frame for vertical adjustment relative thereto, upight pusher plates mounted on said lower trimmer bar on each side of said throat and extending upwardly along said throat and cooperating with said boring heads to guide the mined material to said throat, each pusher plate having an upwardly opening slot therein for receiving said forwardly projecting supports and accommodating adjustment of said lower trimmer bar into close proximity to said supports, and means pivotally mounted on said frame and operated by relative movement between said pusher plate and said frame for maintaining said slots closed in all relative positions of adjustment of said trimmer bar with respect to said frame.

2,868,530
ADJUSTABLE CONTINUOUS MINING MACHINE OF THE BORING TYPE

Joseph Gonski, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application July 15, 1957, Serial No. 671,792
6 Claims. (Cl. 262—7)

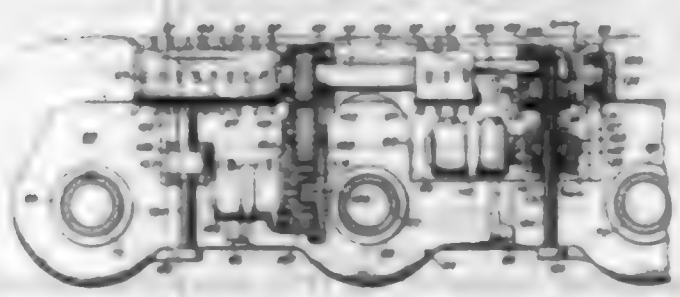


1. In a continuous mining machine for coal and the like, a main frame, a support frame spaced in advance of said main frame, a plurality of rotatable mining heads mounted on said support frame, and means supporting said support frame on said main frame and vertically moving said support frame with respect to said main frame and transferring the axial thrusting loads from said mining heads to said main frame comprising hydraulic jack means connected between said frames, a thrust transmitting shoe pivotally connected to said jack means and having slidable engagement with one of said frames, and a leveling jack connected between said frames and tilting said support frame with respect to said main frame and leveling said support frame with respect to the ground.

2,868,531
ADJUSTABLE CUSP CUTTER FOR BORING TYPE CONTINUOUS MINING MACHINE

Joseph Gonski, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application July 23, 1957, Serial No. 673,729
5 Claims. (Cl. 262—7)



5. A rotary cutter assembly for mounting on the support frame of a boring type of continuous mining machine for cutting the depending cusps of coal left between the boring heads for the machine, comprising a vertically extending plate, a transverse shaft extending across said plate adjacent the upper end thereof, bearing supports extending forwardly of said plate and rotatably supporting said shaft, at least one rotary drum cutter mounted on said shaft and driven therefrom, a motor on said plate, means driven by said motor for driving said transverse shaft and cutter, spaced slides extending vertically along the rear face of said plate for interengagement with corresponding guides on the support frame for the boring heads of the mining machine, laterally spaced vertically extending jacks mounted on the forward face of said plate adjacent opposite sides thereof, power means on said plate for simultaneously operating said jacks, and support means for said jacks on the support frame for the boring heads of the continuous mining machines supporting said plate and rotary drum cutter and the drive means therefor, for vertical adjustment with respect to the support frame for the boring heads of the continuous mining machine.

2,868,532
MINING AND LOADING MACHINE HAVING A SCREENING PLATE

Alfred Alphonse Marie Valantin, Berlin, France

Application January 2, 1957, Serial No. 632,118
Claims priority, application France January 3, 1956
6 Claims. (Cl. 262—28)

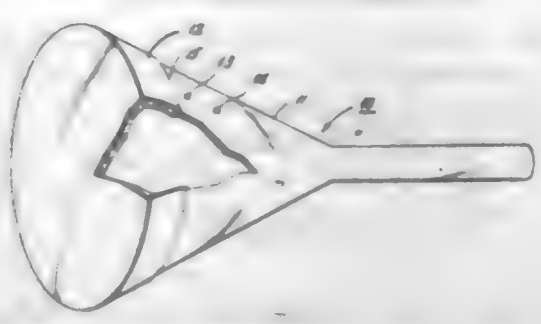


1. A mining and loading machine comprising a conveyor having a longitudinal side extending along a seam to be mined; a cutting chain mounted to travel along said longitudinal side; a guide for guiding said cutting chain along said longitudinal side; a screening plate extending laterally beyond said guide and mounted above the same and said longitudinal side to form, between this plate on the one hand and said guide and said longitudinal side on the other hand, a passage extending along the conveyor; tools operatively connected to said cutting chain and extending laterally beyond and some of them vertically above said screening plate so that, as the machine is laterally advanced into the seam, said tools undercut the seam and form therein a trench into which the screening plate engages and substantially prevents that material broken down from the undercut seam falls into the trench; and scrapers attached to said cutting chain and adapted to pick up cut and broken pieces and dust of the seam which have fallen into the trench and transfer them, through said passage, to the conveyor.

2,868,533
METHOD OF MINIMIZING HEAT INDUCED STRESS IN GLASS-WALLED ARTICLES PROVIDED WITH METAL INSERTS

George W. Pratt, Gwynedd Valley, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application December 12, 1955, Serial No. 552,418
5 Claims. (Cl. 263—2)



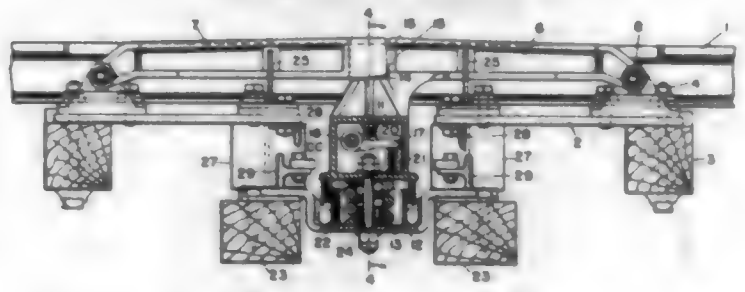
1. In the manufacture of a cathode ray tube whose envelope must be subjected to bakeout heating to drive out impurities, the method which comprises: providing a glass envelope having at least one metal button extending transversely through the wall of the glass envelope, said button being a dark body of low thermal capacity which normally would heat much more rapidly than the surrounding glass when subjected to bakeout heating, coating surfaces on the composite envelope to reduce the differential heat absorption and the consequent differential expansion of the metal button and the proximate glass wall during bakeout heating, and subjecting the composite envelope to bakeout heating during which the applied coating is effective to minimize stress in the glass wall proximate to said button.

2,868,534

WEIGHT DETECTOR FOR RAILWAY CARS

Stuart M. Phelps, Rochester, N. Y., assignor to General Railway Signal Company, Rochester, N. Y.

Application October 14, 1953, Serial No. 386,095
2 Claims. (Cl. 265—63)



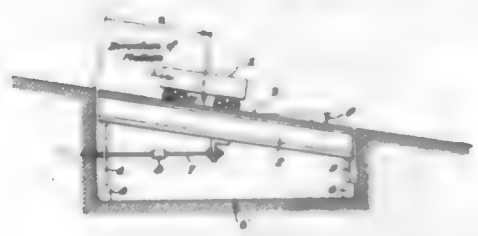
1. In a car weight detector for railroads, a treadle located adjacent and parallel to a track rail, said treadle having an arcuate top surface and being pivotally supported at one end, a coil spring resiliently supporting said treadle near its other end, said coil spring maintaining said arcuate top surface of said treadle above the top surface of said track rail and being capable of supporting the load weight of a car wheel, a housing for said coil spring, said coil spring being located within said housing and situated between a stationary support and the top of said housing which cooperates with said treadle, said housing being filled with oil and provided with passages to form an oil dashpot, a multiple position contactor having a spring biased plunger which cooperates with said other end of said treadle, said spring biased plunger cooperating with multiple contacts; whereby, each of said car wheels moving over said treadle will quickly depress said treadle against the resistance of said coil spring a distance determined by its load weight to thereby effect the closing of certain of said multiple contacts which indicate said car wheel load weight, said coil spring slowly returning said treadle toward normal after each car wheel passes thereover, said oil dashpot regulating the quick depression and slow return of said treadle.

2,868,535

MOTION LOAD WEIGHING SYSTEM

Arthur C. Ruge, Lexington, Mass., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania

Application December 21, 1955, Serial No. 554,584
5 Claims. (Cl. 265—71)



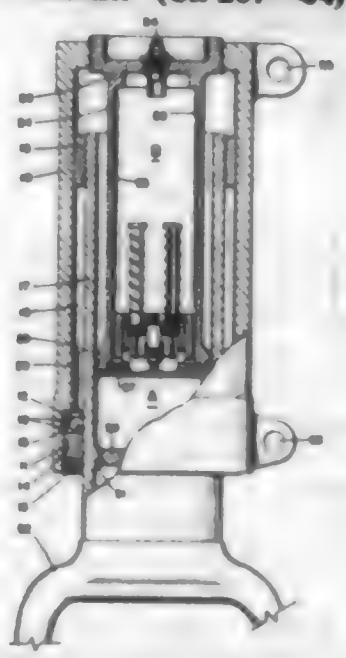
1. A weighing device comprising a load-receiving member provided with an inclined surface along which an object to be weighed travels under the influence of gravity, a fixed support, and means operatively supporting said load-receiving member by said fixed support for establishing a measure of the weight of the moving object; said weight-establishing means having load-sensing means connected to said load-receiving member and to said fixed support to support said member in a vertical direction and including a substantially horizontal stay means extending substantially in the direction of the inclination of said surface, one end of the stay means being connected to said load-receiving member for staying the same against movement in the direction of the inclination, and compensating means connected to the other end of said stay means and engaging said fixed support so as to be operated by the force acting in said stay means to compensate for the reaction effect of the motion of the object being weighed, whereby the determination of weight of said moving object is made independent of forces resulting from its motion along said surface.

2,868,536

CONSTANT LOAD METERING DEVICE

Robert N. Jungles, Parma, Ohio, assignor to Cleveland Pneumatic Industries, Inc., a corporation of Ohio

Application May 27, 1954, Serial No. 432,656
8 Claims. (Cl. 267—64)



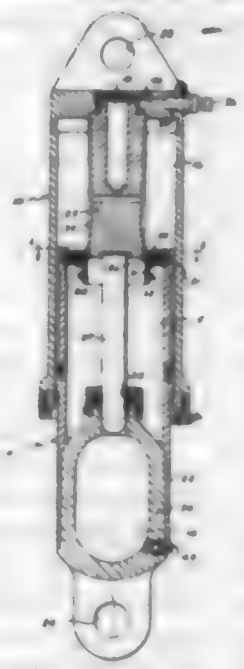
1. A shock absorbing strut comprising connected outer and inner casings arranged to telescope with a lower casing of intermediate diameter, a piston on the inner end of the inner casing, a fluid containing chamber on each side of said piston, a first and a second normally open path of communication between said chambers through said piston through which fluid is displaced to dissipate energy during compression of the strut, said first path comprising a tubular element carried by said piston leading from one of said chambers to the other, means within said tubular element responsive to initial fluid flow therethrough for closing said first path, and a valve slidable relative to said piston by virtue of pressure variation in one of said chambers for maintaining open said second path and controlling the effective size thereof.

2,868,537

SHOCK ABSORBER

Stefan J. Harvey, Kingston, N. Y.

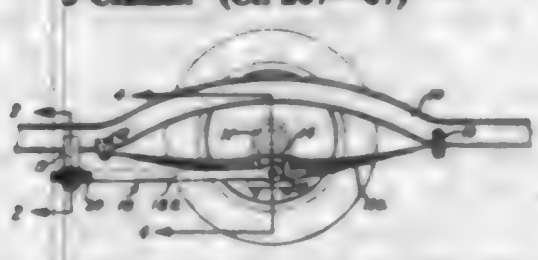
Application September 27, 1955, Serial No. 536,880
4 Claims. (Cl. 267—64)



4. In a shock absorber for vehicles, the combination of a pair of telescoping cylinders that are provided with an

internal sealed relationship, first, second and third fluid pressure chambers within said telescoping cylinders, a pair of rams mounted to abut and be in alignment within the outer cylinder, a diaphragm across the end of the inner telescoping cylinder to form the first and second fluid pressure chambers on opposite sides, the fluid chambers being filled with fluid and the fluid being compressed by means of a first ram attached to the inside of the outer telescoping cylinder and reciprocatable through the diaphragm and into the inner cylinder, while the second ram is fitted through an aperture in the third chamber and extends to abut with the end of the first ram and compresses the fluid within the third chamber to provide a resilient cushioning of shock loads and means to restrict the flow of fluid from the second chamber to said first chamber.

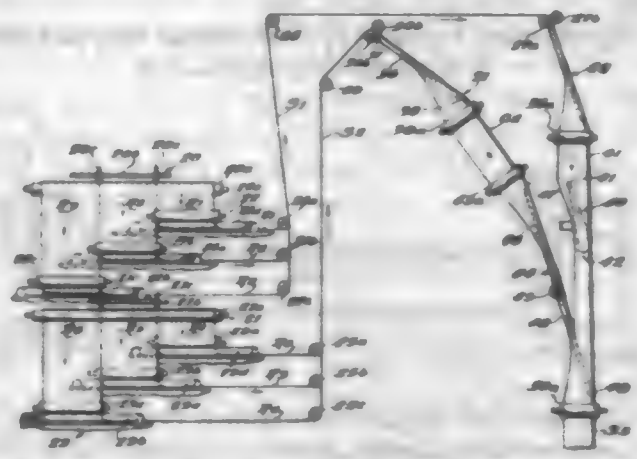
2,868,538
TRACTION CONTROLLING MEANS
Charles C. Schow, Bellflower, Calif.
Application September 23, 1957, Serial No. 685,628
5 Claims. (Cl. 267—67)



1. Traction controlling device for semi-elliptical leaf springs of automotive vehicles, comprising: a rigid longitudinal member; a bracket secured to the frame of the vehicle; a barrel mounted on said bracket to surround a cylindrical threaded end of said rigid longitudinal member, said barrel being of greater diameter than said cylindrical end; bushing means of resilient material fitted on said cylindrical end and filling the space between the surface of said cylindrical end and the inner surface of said barrel; metal sleeve means mounted between the surface of the cylindrical end of the rigid member and the inner surface of said bushing means; means preventing longitudinal displacement of the resilient bushing means with respect to the barrel; means mounted on said rigid member at each side of the barrel and transmitting axial movement of said rigid member as a force applied to said bushing means; and means pivotally securing the other end of said longitudinal member to the leaf spring at about the mid-point of the length thereof.

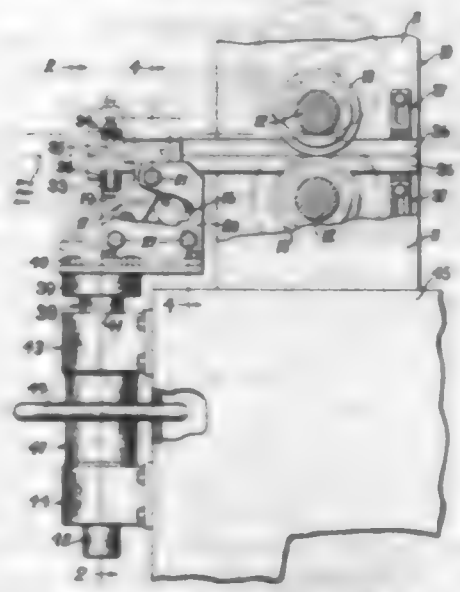
2,868,539
METHOD OF AND APPARATUS FOR FORMING SIGNATURES
George I. Koons, Flossmoor, George P. Boule, Chicago, and Kermit E. Swanson, Berwyn, Ill., assignors to R. R. Donnelley & Sons Company, a corporation of Delaware
Application October 19, 1955, Serial No. 541,371
6 Claims. (Cl. 270—41)

1. In apparatus for forming signatures of coated paper containing from sixteen to twenty-four pages: first ribbon forwarding means for feeding a first ribbon set containing two or three reel-length paper ribbons in registering superposition; first former board folder means for continuously forming a longitudinal fold line in the first ribbon set to provide a first strip group of interleaved strips which are joined along one margin; a wedge shaped strip separating member the narrow end of which is positioned between the innermost strips of the first strip group as said group leaves the former board means to partially reopen the strips of said group along its fold line; second ribbon forwarding means for feeding a second ribbon set containing two or three reel-length paper ribbons in registering superposition; second former board folder means for continuously forming a longitudinal fold line in the second ribbon set to provide a second strip group of interleaved strips which are joined along one margin; guide means adjacent the fold line of the



first strip group to guide said second strip group between the innermost partially reopened strips of the first strip group with the fold lines abutting; and means for refolding the first strip group around the second strip group.

2,868,540
GUIDE APPARATUS
Richard F. Herr, Warren, Ohio, assignor to The Herr Equipment Corporation, Warren, Ohio, a corporation of Ohio
Application August 16, 1954, Serial No. 449,917
2 Claims. (Cl. 271—2.6)



1. Apparatus for guiding longitudinal movement of tenuous material, comprising support means, slide means carried by said support means and extending transversely of the direction of movement of said material, a pair of spaced-apart guide members carried by said slide means and shiftable therealong toward and away from each other, said members slidably engaging respective transversely opposed portions of said material and said members normally being maintained in predetermined position along said slide means to guide said material along a predetermined path of travel between said members, a first adjusting screw rotatably carried by one of said members and held against axial movement relative thereto, and a second adjusting screw rotatably carried by said support means and held against axial movement relative thereto, said first adjusting screw having threaded engagement with one of said members whereby rotation thereof effects relative movement of said members along said slide means toward and away from each other to accommodate material of various transverse sizes, said second adjusting screw also having threaded engagement with one of said members whereby rotation thereof effects movement of said members in unison in a direction laterally of the direction of movement of said material to effect lateral positioning of the latter.

2,868,541
APPARATUS FOR IMPROVED CONTROL OF PAPER WEB POSITION

Edwin S. Kolodziej, Homewood, Ill., assignor to R. R. Donnelley & Sons Company, a corporation of Delaware

Application March 11, 1957, Serial No. 645,188
8 Claims. (Cl. 271—2.6)

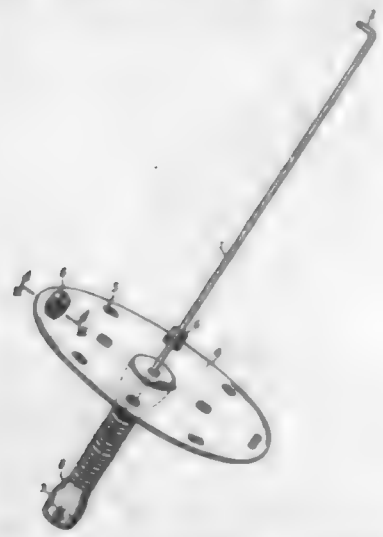


1. In a web fed machine having a roll carrying means and a web working means, means for controlling the edge position of a web during delivery thereof from a supply roll on the roll carrying means to the working means, comprising: means sensing the position of the web edge intermediate the roll carrying means and the working means; mechanism acting on the web behind the sensing means and in response thereto to guide the web transversely toward a registered position relative to the working means; displacing means associated with the roll carrying means to move the supply roll transversely of the web; and control means responsive to an extreme disposition of said mechanism for actuating the displacing means to move the supply roll a distance predetermined to translate the web to said desired registered position.

2,868,542
FENCING GAME

Peter Mieg, Schwenningen am Neckar, Germany

Application May 28, 1954, Serial No. 433,163
Claims priority, application Germany June 15, 1953
12 Claims. (Cl. 273—1)

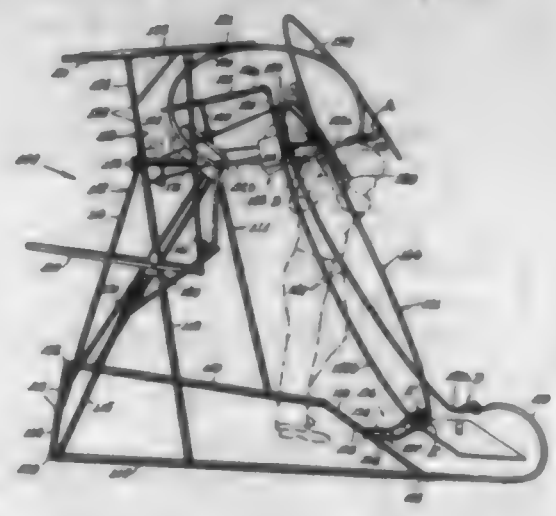


1. A game device comprising, in combination, an elongated member having a handle portion at one end and an engaging portion at its other end and adapted to be manipulated by a contestant holding the same at its handle portion; a plate-shaped guard member mounted on said elongated member between its ends adjacent said handle portion and extending transverse thereto; and at least one target member having a substantially rigid attaching portion engaging said guard member for mounting said target member in a predetermined position adjacent to the front face of said guard member, said target member being movable relative to said guard member away from said predetermined position thereon, whereby the target member may be moved away from said predetermined position upon being engaged by the engaging portion of another similar elongated member aimed by an opposing contestant in the direction of said guard member.

2,868,543
GOLF CLUB GUIDE

Frank Zega, Bridgeport, Conn.

Application May 23, 1955, Serial No. 510,279
6 Claims. (Cl. 273—191)

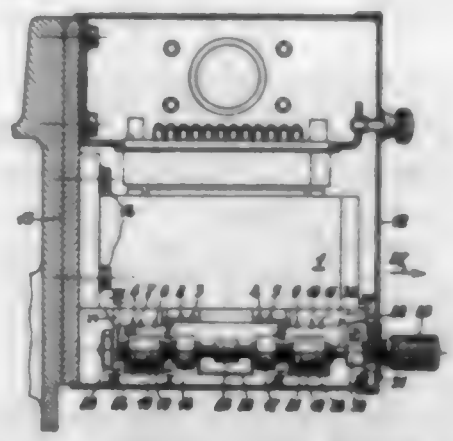


1. In a mechanical instruction device including curvilinear guide rail means conforming to the path of a prescribed golf swing for guiding a golf club during said golf swing, the combination of a base having front, rear and end members rigidly secured together, end stanchions pivotally mounted on the end members, and tie bar means releasably connecting the stanchions to hold the stanchions in upright divergent position, said stanchions folding about the end members into overlying relation with said base when said tie bar is disconnected from said stanchions, means for releasably mounting the lowest portion of the curvilinear guide means to said front member, clamping means mounted on the upper ends of said stanchions for adjustment vertically and horizontally, said clamping means being adapted to releasably clamp and support the upper portions of said guide rail means, said clamping means being adjustable vertically to accommodate players of various heights and said clamp means being adjusted horizontally to support the upper portion of said guide rail means as the guide rail means pivots about the connection to the base member in response to vertical adjustments of said clamping means.

2,868,544
APPARATUS FOR MAGNETIC RECORDING AND REPRODUCTION

Johan Paul Heinrich Hallmann, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

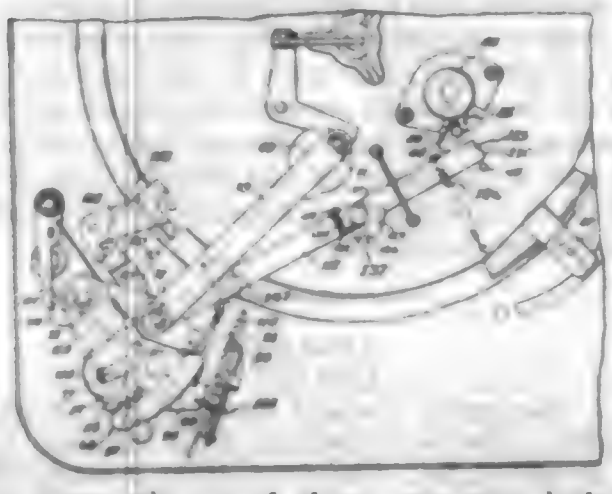
Application December 1, 1955, Serial No. 550,441
Claims priority, application Netherlands October 1, 1955
4 Claims. (Cl. 274—4)



1. Apparatus for magnetic recording and reproduction comprising a frame, a screening cap removably affixed to said frame, a plurality of magnetic transducer heads positioned in said cap, a magnetic recording medium positioned in said cap, pressing means, means for moving said

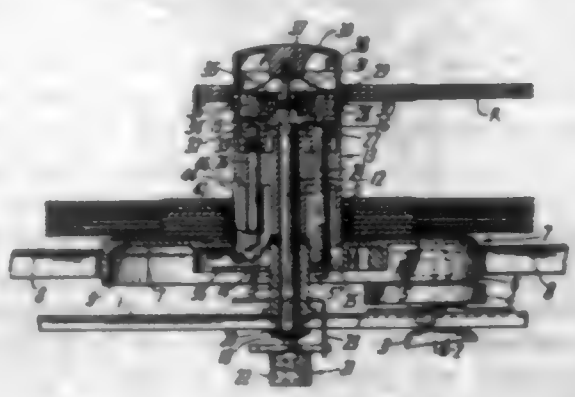
pressing means into an engaged position thereby urging said medium into operative contact with at least one of said magnetic transducer heads and into a disengaged position thereby releasing said medium from operative contact with any of said magnetic transducer heads, means for locking said cap to said frame, and means mechanically coupling said moving means with said locking means in a manner whereby the said locking means is inoperative only when said pressing means is in said disengaged position thereby permitting the removal of said cap only when said medium is released from operative contact with any of said magnetic transducer heads.

2,868,545
PHONOGRAPH RECORD PLAYER CONTROL
James E. Virtain, Jr., Skokie, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application December 3, 1952, Serial No. 323,863
3 Claims. (Cl. 274—10)



1. An automatic record player apparatus including a manually operated striker movable through a course for opening and closing a motor snap switch for activating the apparatus and a cam plate swingable through a cycle from which motion is communicated to a center post ejector for effecting release from a magazine of the lowermost of a stack of records supported thereby and keeper means engaging the top record of the stack by which the means is held in an upper position from which it is arranged to move to a lower position when the last record has been released, in combination, a linkage including a transmission link in association with the striker and movable longitudinally thereof in the course of a cycle of the cam plate, means coupled to the link for biasing said link laterally for independent operation of said link and striker spring means connecting the linkage to the cam plate, said spring being under deflection to provide yieldable driving of the link in one direction and said link being engaged by the cam plate for positive driving in the opposite direction during a cycle, a pair of mobile stops in fixed association with each other, said stops being biased into engagement with the keeper for displacement thereby out of the course of the linkage when said keeper moves to its lowermost position to provide freedom for motion of the link through a long stroke during a cycle, the stop moving into the course of the linkage for engagement therewith and consequent restriction of the linkage to a short stroke by additional deflection of the spring when the linkage is yieldably driven and the keeper is in its uppermost position, latch mechanism to deflect the course of the link for its cooperation with the striker when said link is operated through a long stroke comprising a fixed latch element, and a pivoted latch element, one of the elements being carried by the link, the pivoted element being biased to a predetermined position for engagement by the other element and being moved away from its predetermined position by said other element when the link is yieldably driven but arranged to cooperate with the said element to deflect its course and thereby deflect the course of said link so that said link at the end of a cycle may engage the striker and move it to open the switch when said link is positively driven, a short stroke of the link being ineffective to provide for cooperation between the elements to deflect the course of said link, the other of said stops engaging the linkage when the keeper is released from its uppermost position to concurrently restrict said keeper from moving to its lowermost position and to retain said one stop in engagement with the linkage to restrict the operation of the link to a short stroke until after the last released record has been played.

2,868,546
TURNTABLE POST FRICTION FINGER
Richard L. Roof, Buffalo, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application April 29, 1953, Serial No. 351,963
3 Claims. (Cl. 274—10)

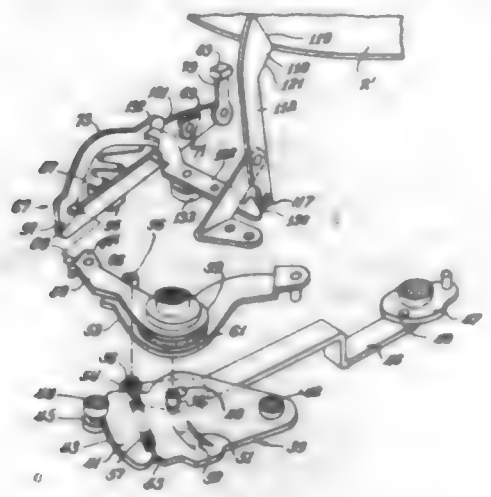


1. In an automatic disc type record changer, a turntable, a post extending therefrom, means adjacent the upper end of the post to retain a stack of records and release them one by one for sliding movement down along the post to record playing position, said record retaining and releasing mechanism including a retractable shelf and projectable knife thereabove operation in alternation to release one record at a time from beneath the stack while yet retaining the records above the lowermost one, driven means within the post to operate said shelf and knife, a shaft extending downwardly through the post drivingly connected at its upper end with said driven means, friction applying means mounted at the lower end of the post having a friction finger extending upwardly substantially along the peripheral portion of the post, biasing means urging the finger so that at least a portion thereof projects beyond the periphery of the post and into frictional engagement with the record to be played, means cooperative with the friction means and the lower end of the shaft to withdraw the friction finger to a position within the periphery of the post upon rotation of the shaft and release of a record, and then release the finger to the action of the biasing means to engage the released record upon the record assuming playing position, said means including a cam on the lower end of said shaft and a cam on the friction means and mounted to be directly engaged by said first cam.

2,868,547
AUTOMATIC RECORD PLAYER MECHANISM
James E. Vistain, Jr., Skokie, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application June 1, 1953, Serial No. 358,827
10 Claims. (Cl. 274—15)

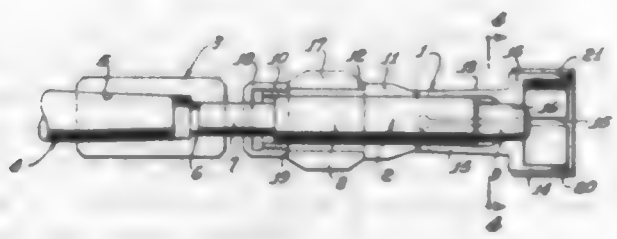
7. An apparatus for use with a record player wherein a plurality of records of different sizes may be supported above a turntable and released singly to be deposited on the turntable and means is provided for cyclicly controlling a tone arm to raise it from over the turntable, swing it outwardly beyond the path of the records and return it into playing position over the starting groove of a record and a movable selector for controlling the return of the

tone arm to record playing position said selector having a plurality of portions positioned for arresting engagement with the tone arm control means, said selector position being controlled by size of the record to be played and the arresting engagement which is determined by the angular position of the selector, comprising means for controlling the angular position of the selector including a lever pivotally supported to one side of the turntable



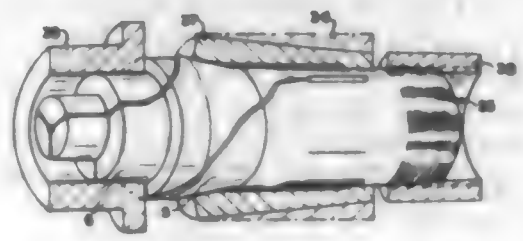
and having a portion disposed in the path of a 12" record when it is released to the turntable and arranged to be moved about its pivot by contact with the falling record, a latch, resilient means for moving said latch into locking engagement with the selector to hold it in a predetermined position, said latch having a part arranged for locking engagement with said lever for holding the latch away from the selector and arranged to be released by the lever when the lever is operated by a record.

2,868,548
EXPANDING SANDER CHUCK
Milton L. Lappin and Paul I. Zandberg, Los Angeles, Calif.
Application October 12, 1956, Serial No. 615,519
1 Claim. (Cl. 279—2)



A sander chuck as disclosed, including a spindle having at one end a uniform diameter extension and at the opposite end a frusto-conical extension, the body of said spindle between said end portions being of uniform diameter, a chuck carried on the uniform diameter portion of the spindle, the said chuck comprising a sleeve externally screw-threaded inwardly from one end and provided with an externally enlarged diameter portion, there being a freely rotatable ring on the periphery of said sleeve and having one edge portion abutting the enlarged diameter portion of the sleeve, and a cap nut carried on the threaded end of said sleeve and abutting the opposite edge of said ring, the said reduced diameter portion of the end of the spindle passing through said cap nut, the said sleeve of the chuck formed with a cup type head, the head and the sleeve formed with a quadrifid cleft, and the said head formed with a frusto-conical bore for engagement with the frusto-conical extension on the said spindle, axial movement of the chuck upon the said spindle by grasping the said ring, causing radial movement of the head inwardly or outwardly for engagement of the frusto-conical extension of the spindle with the frusto-conical bore of the head.

2,868,549
EXPANSIBLE CLAMP ARBORS
Johan E. H. Westberg, Lidingo, Sweden
Application March 14, 1956, Serial No. 571,557
3 Claims. (Cl. 279—46)



1. In an arbor for internally chucking a workpiece of the type having a body of metal with a peripherally continuous end portion and a plurality of jaw members integral with said end portion and extending axially therefrom, said jaw members being peripherally separated by a first group of axially extending slots extending from a place adjacent to said end portion, a second group of axially extending slots axially spaced from said first group, and a group of helically extending slots respectively connecting peripherally offset slots of said first and second groups, the improvement comprising each of said helically extending slots having a different helical twist at the outside and at the center of said arbor during at least a portion of its helical extent, whereby said jaw members are structurally strengthened.

2,868,550
COLLET
John L. Maryanski, Garfield Heights, and Michael L. Valentino, Cleveland Heights, Ohio, assignors to Bardons & Oliver, Inc., Cleveland, Ohio, a corporation of Ohio
Application October 3, 1956, Serial No. 613,790
2 Claims. (Cl. 279—50)

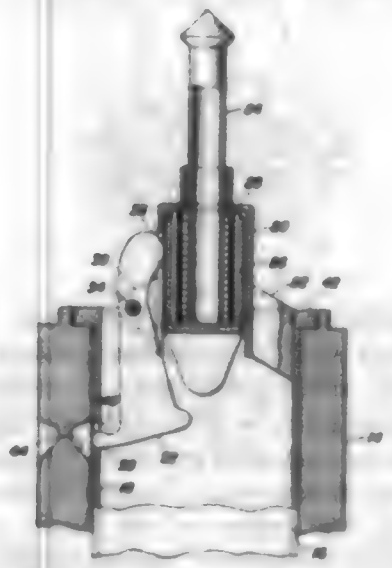


1. A collet type gripping mechanism comprising a plurality of transversely curved fingers arranged to define an annular member, a ring adjacent one end of said respective fingers, said ring having an external radial shoulder extending about its periphery immediately outwardly of said one end of said fingers and a portion extending into the annular member, said portion including a radially extending lug adjacent each respective finger with each of said lugs being received in an oversized recess in the adjacent finger, biasing means adjacent the other end of said fingers and yieldably urging said fingers in a direction to expand said annular member, and means for moving the fingers inwardly against said biasing means.

2,868,551
AUTOMATIC COUPLING OR LATCHING MECHANISM
Giuseppe R. Avellone, Elmhurst, and Robert A. Chapellier, Whitestone, N. Y., assignors to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application June 28, 1956, Serial No. 594,488
8 Claims. (Cl. 279—76)

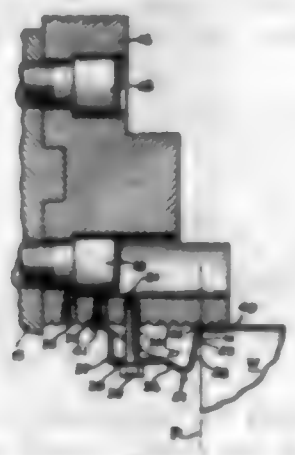
1. In an organization of the type described wherein a locking mechanism is operative to releasably lock against upward movement a vertically disposed member snugly received within an opening in a frame and held against downward movement in the frame at a given location,

the combination of a locking lever pivotally mounted on said member for pivotal movement to and from a radial outward position with respect to the vertical axis of the member and a radial inward position, a keeper provided on the frame for receiving a portion of said lever when the same occupies its radial outward position and the member is in said given location with the receipt of the lever in the keeper being effective to prevent relative vertical movement between said frame and member, cam actuating means for said lever including a generally cylindrical member mounted on the elongated member later-



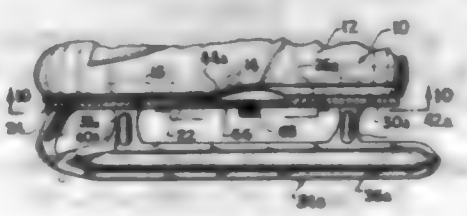
ally adjacent said lever and vertically movable with respect to said member between an upper and a lower position with said cylindrical member engaging the lever and moving it to its radial inward position when in its upper position and to its radial outward position when in its lower position, spring means urging the cylindrical member to its lower position with a force less than the weight of the elongated member and the apparatus mounted thereon and means for moving said cylindrical member upward against the force of said spring.

2,868,552
ADJUSTABLE CHUCK WORK STOPS
Frank A. Cibak, La Grange, Ill.
Application February 13, 1958, Serial No. 715,126
17 Claims. (Cl. 279—123)



1. In a lathe chuck having radially adjustable jaws, said jaws having opposed gripping surfaces, means for positioning a piece in the chuck comprising a set of stops one for each jaw, each stop including an element adapted to be fastened on the gripping surfaces of the corresponding jaws and extending outwardly for engagement with the piece, and means for fastening each stop element rigidly on the jaw so that the elements are held against dislodgement.

2,868,553
COMBINATION ICE AND ROLLER SKATES
Werner Rieckman, Manitack, N. Y.
Application March 14, 1957, Serial No. 646,101
1 Claim. (Cl. 280—7.13)



A skate construction comprising support means attachable to the foot of a user, a skate attachment removably connectible with the support means, and interlocking means releasably interengaging the support means and skate attachment against relative movement in the connected relationship thereof, said supporting means including a shoe and spaced support plates fixedly connected to the sole of the shoe, the forward supporting plate extending to the front of the shoe, the skate attachment including an elongated attaching plate extending substantially the length of the attachment and being interengageable with the spaced plates of the support means and a supporting-surface-engaging means depending from the attaching plate, said spaced plates of the support means being formed with longitudinally extending, confronting guide flanges slidably receiving the opposite longitudinal portions of the attaching plate to effect the engagement of the attaching plate with said spaced plates, said plates of the support means being spaced apart longitudinally of the shoe, the forward one of the spaced plates including at its front extremity an abutment flange engaging the attaching plate on the sliding of the attaching plate to a use position, to limit movement of the attaching plate beyond said use position, said spaced plates including guide flanges on the underside thereof in confronting relation, the attaching plate being slidably engageable with the guide flanges, the attaching plate having an opening, said interlocking means comprising a locking plate having an opening registering with that of the attaching plate and abutting the respective guide flanges in the space between said plates of the support means, said lock means further including a screw engageable in the registering openings of the locking plate and attaching plate to removably, fixedly connect the locking plate to the attaching plate.

2,868,554
TANDEM WHEEL ROLLER SKATE
William Ring, Little Falls, N. Y.
Application November 7, 1955, Serial No. 545,154
1 Claim. (Cl. 280—11.26)



A roller skate comprising a chassis frame including a pair of laterally spaced tubular side rods having a shoe plate secured on top thereof, said rods having a pair of downwardly bent inclined and tubular end members extending over the same and telescopically adjustable thereon for extension of said frame, said rods having longitudinal slots therein, and said end members having transverse bolts thereon slidable in said slots for retaining said end members in adjusted position, a wheel mounted between said end members, and an extension

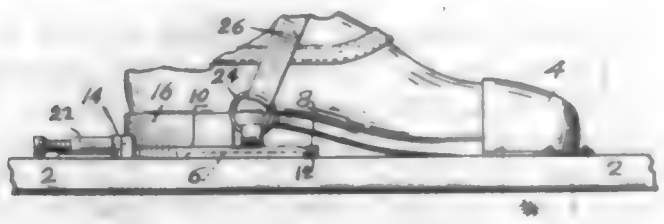
plate section slidably adjustable on said shoe plate and attached to said end members for adjustment therewith to adapt the skate for different sizes of shoes.

2,868,555

RELEASABLE SKI BINDING

Bartow B. Barnett and Norman King, Kings Beach, Calif., assignors of one-half to Bonnie B. Barnett, Lake Tahoe, Calif.

Application January 17, 1958, Serial No. 709,644
1 Claim. (Cl. 280—11.35)



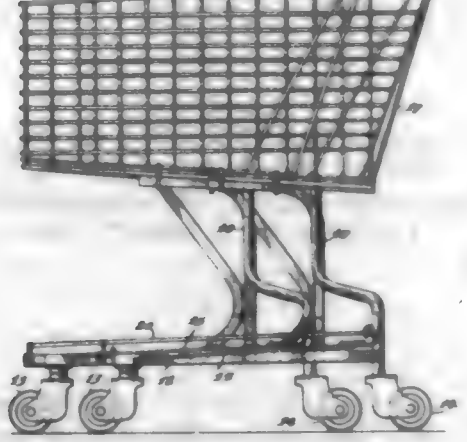
A releasable ski binding comprising the combination with a runner of a toe-cap fixed thereon; a base plate having a transverse channel in the front edge thereof and mounted to the rear of said toe-cap; a heel-plate detachably mounted upon said base-plate and having its front edge detachably engaging said channel, and having a rear edge provided with an arcuate ridge to engage the back of a shoe heel on said heel-plate, and having a dent on the back of said ridge and normally holding a toe of a shoe within said toe-cap; and an adjustable spring latch mounted upon said runner and adapted normally to engage the dent in said ridge and normally prevent disengagement of said heel-plate with said base-plate and to release said heel-plate under undue stress thereon.

2,868,556

MOVABLE LOAD CARRYING PLATFORM FOR NESTING CART

Jack Cauthon, Jackson, Mich., assignor, by mesne assignments, to Tote-Cart Company, Chicago, Ill., a partnership

Application May 14, 1957, Serial No. 659,050
6 Claims. (Cl. 280—33.99)



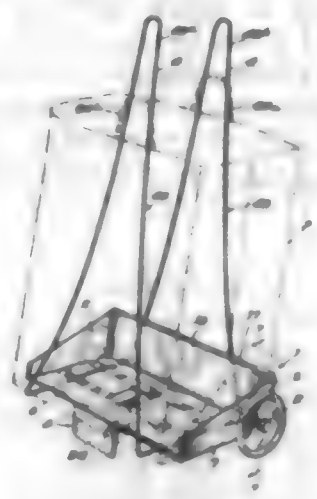
6. A portable merchandise cart adapted to be arranged in internested relationship with a similar cart, comprising: a frame, a forwardly projecting upper basket thereon; a forwardly tapered base on the frame including a front cross-member and a rear cross-member at a higher elevation than said front cross-member; a forwardly tapered platform normally supported at its front and rear by said cross-members; and means located at the rear of the platform for attaching the rear of said platform to said cross-member, said means permitting both vertical and pivotal movement of the rear of the platform and of the entire platform with respect to said cross-member.

2,868,557

DISPOSABLE SHOPPER'S CART

Jerome M. Klipp and Ralph J. Abramson, Chicago, Ill.

Application December 22, 1954, Serial No. 476,966
9 Claims. (Cl. 280—47.13)



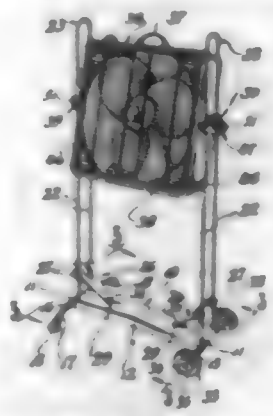
1. A disposable shopper's cart formed from a single sheet of relatively stiff material comprising an elongated, planar, generally rectangular base member of a size to receive the bottom portion of a shopping bag and support the same, a pair of end wall portions integrally connected to and extending transversely from said base member adjacent respective end edges of the latter, a longitudinal wall integrally connected to and extending transversely from said base member, interlocking means associated with said longitudinal and end walls for retaining the same in operative relation, a pair of wheels positioned adjacent respective ends of said base member and rotatable about an axis extending substantially parallel to the plane of said base member and intersecting said end walls, and a plurality of cords extending upwardly from said cart at opposite sides of a shopping bag positioned on the base member, operative to provide support for the upper portion of such a shopping bag and handle means for operating the cart.

2,868,558

ROLL-ABOUT STAND FOR FANS AND SIMILAR APPLIANCES

Carl Krumm, Chicago, Ill.

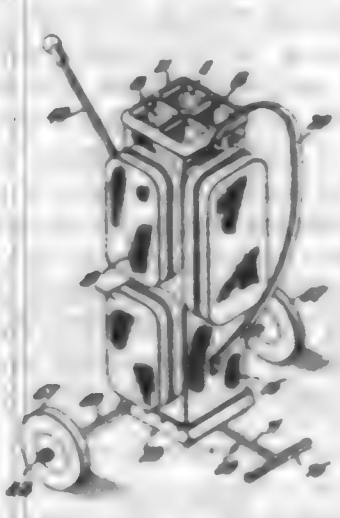
Application July 9, 1957, Serial No. 670,790
5 Claims. (Cl. 280—47.13)



3. A mobile stand for supporting a fan or other appliance adapted to be moved about for use at various locations, comprising an elongated and substantially horizontally arranged base having spaced openings adjacent each end of said base, a member at one end extending transverse of and below said base and providing a foot rest having a foot at each end disposed beyond the sides of said base upon which one end of said stand rests and an axle at the other end and also extending transverse of and below said base and having a wheel on each end of said axle, an upright at each end of said base having spaced legs with the legs of one upright projecting through said openings in said base and attached to said member

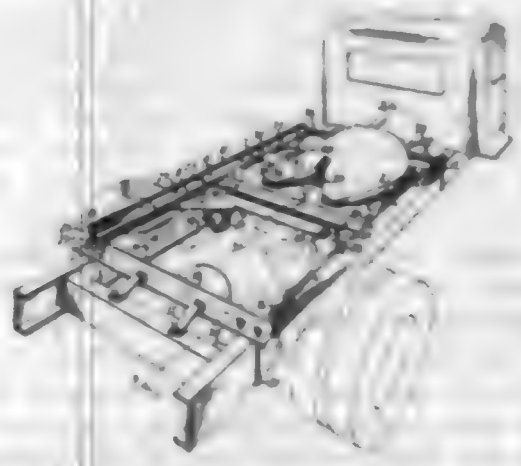
at one end of said base and the legs of the other upright projecting through said openings in said base and attached to said axle at the other end of said base, and clamping means on each upright for detachably and adjustably mounting and supporting the appliance between and upon said uprights and above the base.

2,868,559
CONVERTIBLE MOBILE GOLF BAG
Anthony Leroy Vincelette, United States Navy
Application January 20, 1955, Serial No. 483,058
5 Claims. (Cl. 280—47.33)



5. In a wheeled carrier for golf clubs, said carrier having a base member and wheel means mounted on said base member, the improvement which comprises a rest member having a leg portion and a ground-contacting portion at one end of said leg portion, a channel of said base member extending from an external surface into the interior thereof into which channel said leg portion fits for sliding movement, and a recess formed in said external surface and connecting with said channel, said recess being adapted to receive said ground contacting portion in an out of the way position, said rest member being slidable out of said frame member to a position at which said ground-contacting portion projects a substantial distance outside of said base member, at which position said rest member is adapted with said wheel means to support said bag in a generally upright position.

2,868,560
FIFTH WHEEL SLIDE MOUNT
Mark J. Perry and Samuel H. Capps, Jacksonville, Fla.
Application April 10, 1957, Serial No. 651,919
10 Claims. (Cl. 280—407)



1. A fifth wheel mount for a tractor comprising a rectangular frame having a flat base adapted to lie upon and to be attached to the bed of said tractor, said frame having side walls and a front and a rear wall extending upwardly from said base defining an open top enclosure, a rectangular plate fitted between said side walls, resting on said base and slideable forwardly and rearwardly in said enclosure, said base having a slot disposed midway between and parallel to said front and rear walls, a vertical blade disposed in said slot having an upper portion projecting upwardly above said base into said enclosure dividing said enclosure into equal forward and rearward compartments, said plate having substantially the plan shape and size of each said compartment to fit closely therein, selectively operable means to retract said blade downwardly into said slot thereby to free said plate for sliding forwardly and rearwardly from one to the other of said compartments and to return said blade upwardly to cage said plate in one or the other of said compartments, and a fifth wheel attached to said plate.

2,868,561
MAGNETIC WRITING BOARD
Guiseppina Bianchi, Puteaux, and Jean-Paul Rose, Paris, France, assignors to Societe d'Etudes, de Gestion et d'Exploitation de Brevets, S. E. G. E. B., J. Branche & Cie, Paris, France, a French company
Application March 12, 1956, Serial No. 570,861
Claims priority, application France March 17, 1955
4 Claims. (Cl. 282—29)

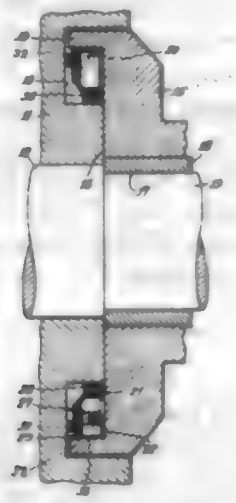


1. A magnetic writing support for retaining a sheet of writing paper having magnetizable material associated therewith, compriting a rectangular casing having long and short sides, said casing having a rectangular top plate of non-magnetic material serving for backing said sheet, a plurality of elongated members arranged in the casing to extend generally in parallel relationship to the short sides of the casing and each member including a plurality of longitudinally spaced permanent magnets, means mounting said elongated members in the casing for substantially vertical movement relative to the top plate between a position in which the said members are in abutting contact with the lower face of the top plate to retain the magneized material of the sheet in contact with the upper face of the top plate by magnetic attraction and a position in which the members are spaced from the lower face of the top plate to decrease considerably the degree of magnetic attraction, and means operatively associated with said elongated members for moving said members from one of said positions to the other.

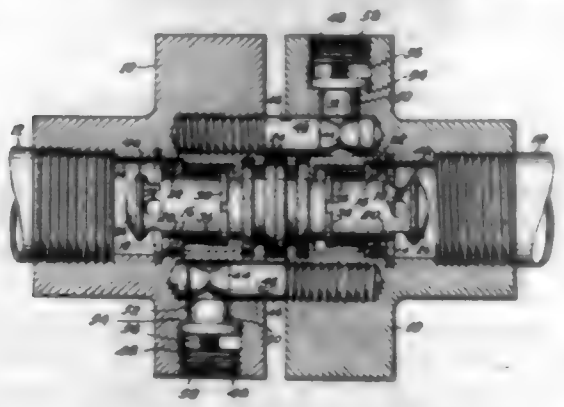
2,868,562
FACE SEAL MEANS
Elmer F. Heimbuch, Chicago Heights, Ill., assignor to Brummer Steel Company, Chicago Heights, Ill., a corporation of Illinois
Application November 26, 1956, Serial No. 624,452
4 Claims. (Cl. 288—3)

1. A face seal of the class described, comprising, an annulus of elastomeric material having an outer first web portion and an inner distortable web portion, a pair of angularly related annular lips extending outwardly from said first web portion, a first of said lips extending axially and a second of said lips extending radially, said second lip overhanging the first web portion to provide a radially inwardly facing shoulder, an abutment ring abutting the first web portion and said shoulder, a cylindrical portion extending inwardly from the inner web portion, an annular cup-like casing receiving said annulus, said casing having a radial wall and outer and inner concentric annular walls, said second lip having sliding sealing engagement with said outer concentric wall, spring means inter-

posed between the casing radial wall and said abutment ring urging the lips axially of the casing, and means sealing the cylindrical portion of the annulus on the inner concentric wall.

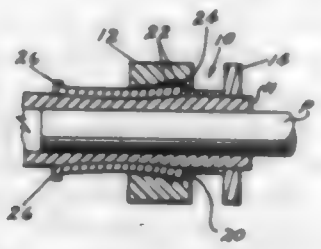


2,868,563
FLUID LINE COUPLING DEVICE
Wayne L. Wood, East Detroit, Mich.
Application June 5, 1956, Serial No. 589,567
3 Claims. (Cl. 284—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



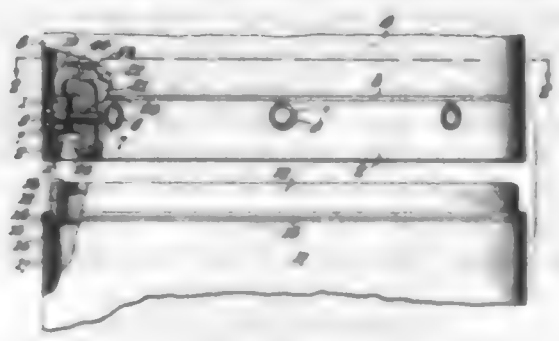
1. In a pair of identical fluid coupling body members employing mutually operated sliding valves, coupling means comprising a pin projecting from each of said body members, means varying the extent of projection of said pin from the body member, a groove formed in said pin, said groove including an inclined surface, a recess within said body member adapted to receive the pin of the other body member, a bore intersecting said recess, detent means slidably movable in said bore for engagement with said surface urging said body members toward each other, and adjustable means biasing said detent means toward said recess.

2,868,564
HOSE CONNECTOR WITH AXIALLY SLIDING LOCKING SLEEVE
Damiano Arras, New Britain, Conn.
Application November 13, 1957, Serial No. 696,169
3 Claims. (Cl. 285—243)



1. A hose connector comprising a clamping sleeve having a normally cylindrical longitudinal bore for closely receiving the external surface of an end portion of a hose and also having a plurality of circumaxially spaced slots each extending from a point adjacent to but nonetheless spaced from one end of the sleeve and extending through the other end of the sleeve to divide the body thereof into a plurality of generally longitudinal segments, each segment of the sleeve body having a smooth external surface which is tapered to provide for increasing body thickness from said other end and to define a shoulder spaced from and facing toward the said one end, a portion of each body segment between the shoulder and the said one end being of reduced thickness, and a ring embracing the body segments and having a substantially complementary tapered closely fitting bore for sliding movement along the tapered external surfaces thereof from said other end toward said one end whereby to flex the body segments radially inwardly to clamp a hose received in the bore of the sleeve, said ring being of substantially less axial extent than said body and having an internal annular groove defining a shoulder confronting the shoulder of said body segments, said groove having sufficient axial length to receive a portion of each body segment including the body shoulder whereby the body shoulder may radially expand into the groove in the ring and engage the said confronting shoulder thereon when the segments are flexed inwardly, thereby to prevent the ring from slipping on the sleeve toward said other end thereof until said shoulders have been disengaged.

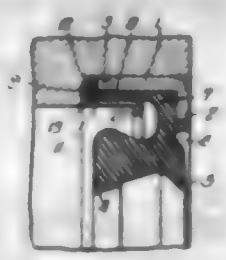
2,868,565
RELEASABLE PIVOTED CLAMP FOR JOINING INTERNALLY FLANGED STRUCTURAL MEMBERS
George E. Suderow, Staten Island, N. Y., assignor to the United States of America as represented by the Secretary of the Army
Application May 1, 1956, Serial No. 582,057
2 Claims. (Cl. 285—308)



1. A connector assembly for structural members comprising in combination with sectional units of a structure arranged in edgewise relation a first flange member secured adjacent a meeting edge of a first sectional unit, said first flange member having a gripping surface thereon, a second flange member secured to a second one of said sectional units adjacent a meeting edge thereof and having a gripping surface thereon in opposed said relation to the gripping surface on said first flange member, said first and second flange members including surfaces in contacting face relation when said first and second sectional units are adjacently located in assembled condition, support means carried internally by said first sectional unit adjacent an end thereof, a plurality of channel-shaped segments supported having rigid arms extending upwardly therefrom and hingedly connected to said support means by pin and slot means located in a plane parallel to said gripping surfaces for support of said segments and for bodily movements of said segments from and into gripping engagement with the gripping surfaces of said first and second flange members, fastening means passing through one of said flange members in a direction normal to the length of said assembled sectional units and engaging said channel-shaped segments in a direction normal to the width of said segments whereby when said fastening means is tightened said channel-shaped segments engage said gripping surfaces of said

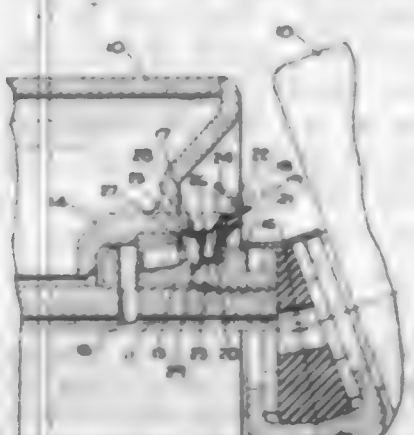
first and second flange members and bring said flanges into contacting relation drawing said first and second sectional units together to form a continuous structure.

2,868,566
CARTRIDGE TYPE SEAL FOR ROTARY SHAFTS
Thomas O. Kosatka, Chicago, Ill., assignor to Victor Manufacturing & Gasket Co., Chicago, Ill., a corporation of Illinois
Application April 1, 1955, Serial No. 498,677
1 Claim. (Cl. 286—7)



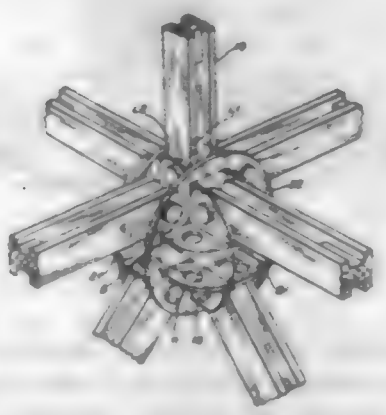
Means for forming and maintaining a fluid tight seal against fluid pressure at such a temperature as to require the use of silicone rubber, compriting the combination of a machine member having an opening through which a shaft projects, which opening is defined by an outer cylindrical surface, a radial surface extending inwardly from one end of said outer surface and a fillet joining said cylindrical and radial surfaces; a metallic shell having a cylindrical wall dimensioned for press fit engagement with said cylindrical surface and a radial wall extending inwardly from one end of said cylindrical wall; a sealing lip composed of a silicone rubber; a base portion of said sealing lip bonded to and covering the inner face of the cylindrical wall of the shell and extending across and bonded to the end of said cylindrical wall that is remote from said radial wall, said base portion also covering the inner face of the radial wall and being bonded thereto; and a flanged metallic ring slidably engaging the inner surface of the base portion of the elastomer that covers the inner surface of the cylindrical wall of the shell and engaging said radial surface of the machine member, said ring confining that portion of the elastomer bonded to the end of the cylindrical wall of the shell in the space between that end, the ring, the radial and cylindrical surfaces and the fillet of the machine member to form a seal between the member and shell and to maintain that seal even though the elastomer be softened by heated fluid in contact therewith.

2,868,567
GREASE SEAL
Arnie J. Kindig, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio
Application April 18, 1955, Serial No. 501,830
9 Claims. (Cl. 286—11)



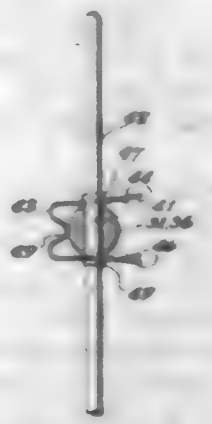
1. A rotatable assembly comprising a shaft, an annular member concentric with the shaft, bearing means supporting the annular member on the shaft for relative rotation of the annular member and the shaft, means for securing the bearing means in position, means for sealing one side of the bearing means to prevent the escape of lubricant from the bearing means and to prevent the entrance of dust to the bearing means, said sealing means comprising a first seal element on the annular member and abutting the securing means, a second seal element on the securing means and abutting the annular member, said seal elements being flexible, the first seal element being flexed by the securing means towards the bearing means and the second seal element being flexed by the annular member away from the bearing means, said annular member and the securing means respectively including means for flexing the seal elements as the securing means is assembled with the bearing means, the first seal element forming a lubricant seal and the second seal element forming a dust seal.

2,868,568
KNOCK DOWN STRUCTURES
Reinhold A. Frye, Little Falls, N. J.
Application April 29, 1958, Serial No. 731,800
10 Claims. (Cl. 287—54)



1. A device for use for connecting spacer bars having coaxially disposed pivots at both ends thereof, said device comprising a plurality of disc shaped members arranged in parallel spaced pairs, said disc shaped members in one pair having means for interfitting in the other pairs of said disc members, each of said members in said pairs having a circular row of bearing apertures cooperating with each other in respective pair for receiving the pivots at one of the ends of the spacer bars for connecting the spacer bars to said device.

2,868,569
GUARD FOR PUNCH PRESS OR THE LIKE
David W. Madden, Oriole Park, Ill.
Application June 29, 1955, Serial No. 518,876
1 Claim. (Cl. 287—54.1)



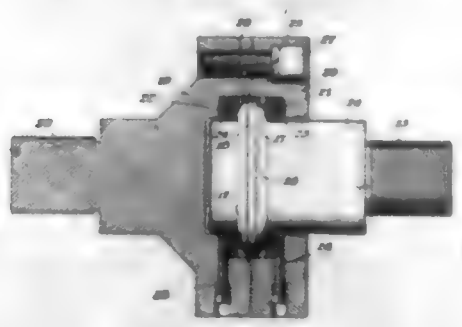
In a connecting joint for a pair of intersecting rod-like elements, one of said elements having a substantially diametral bore therein for receiving the other element therein in intersecting relationship, means for holding the said other element against sliding in said bore yet en-

abling same readily to be adjusted in position endwise of itself comprising a locking clip formed of resilient material, said resilient clip having a central bight contacting the said one element, the material of said bight being reversed on itself at said bight to provide a pair of spaced limbs straddling the said one element and in contact therewith, an aperture in each limb through which the said other element extends, said limbs being arranged to be pressed together to release the said other element for sliding in said bore and said apertures to adjust the position of said other element with respect to said one element, and being arranged to be released whereby said limbs engage said other element for maintaining the position thereof fixed with respect to said rail.

2,868,570
LOW-FRICTION LOAD-TRANSMITTING FLEXIBLE JOINT

Frank F. Hines and John F. McGrath, Jr., Arlington, Mass., assignors to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania

Application December 30, 1955, Serial No. 556,721
6 Claims. (Cl. 287—85)



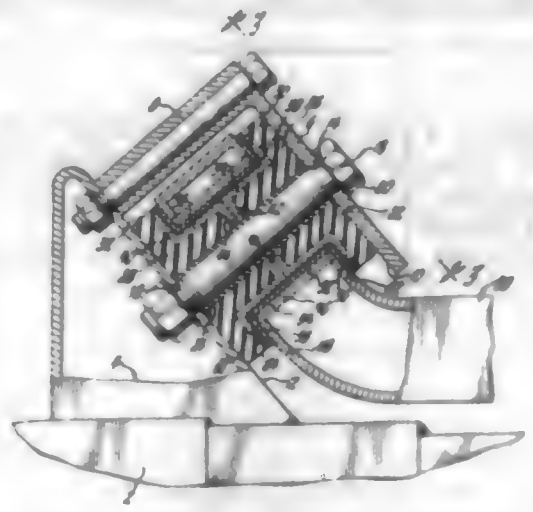
1. A hydrostatically swiveled load-transmitting joint extending in an axial direction comprising, in combination, axially spaced and axially relatively movable load receiving and base members, having means which allow said members to have angular misaligning movement relative to the axial direction, means for providing between the members a completely closed cavity that is contractible in an axially extending direction, and a load-transmitting rubber-like element disposed within and completely filling said cavity and confined therein under the action of axial load, so that the axial component of an applied load is entirely transmitted through said rubber-like element which thereby acts in hydrostatic pressure and thereby resists said contractibility, whereby the hydrostatically loaded rubber-like element allows substantially free angular misaligning movement to occur between said load receiving and base members independently of the magnitude of the applied load and at the same time provides an axially rigid load transmitting joint.

2,868,571
RESILIENT BUSHING

Robert E. Owen, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 18, 1956, Serial No. 559,809
5 Claims. (Cl. 287—85)

1. In combination, a lever arm having a cylindrical portion integral therewith, a resilient bushing assembly disposed in said cylindrical portion and adapted to accommodate swinging movement of said arm, said bushing assembly comprising endwise abutting outer sleeve members, a tubular inner member concentric with said outer sleeve members, a pair of symmetrical resilient annular members disposed between said sleeve members and said tubular member, support means securing said tubular member against axial and rotary movement, and additional sleeve means carried by said cylindrical portion, said last mentioned means being provided with a thin film of Teflon forming a low friction bearing surface coacting

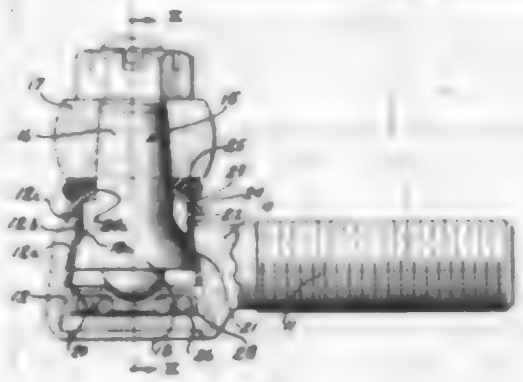


with the outer periphery of each of said outer sleeve members.

2,868,572
PLASTIC LINED BALL JOINT WITH INTEGRAL SEAL

Edward J. Herbenar, Detroit, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application May 31, 1955, Serial No. 511,963
2 Claims. (Cl. 287—90)



1. A joint comprising a housing having a socket therein, a segmental spherical internally facing annular surface in said socket the inner edge of said annular surface defining an aperture, a stud extending into said socket through said aperture, an enlarged head on said stud having a segmental spherical bearing surface complementing said socket annular surface, means urging said stud head toward said socket annular surface, a thin plastic liner positioned between said segmental spherical surfaces and fixed relative to said socket and having an extended lip projecting through and beyond said aperture, an annular disk closely surrounding said stud externally of said housing and movable with said stud during tilting thereof and means urging said disk into sealing contact with said lip, said disk having a segmental spherical contour and being concentric with said segmental spherical surfaces and said lip having a beveled edge for surface contact with said segmental spherical disk, the external surface of said housing adjacent to the aperture being cut away to avoid contact with said disk during movement thereof with said stud.

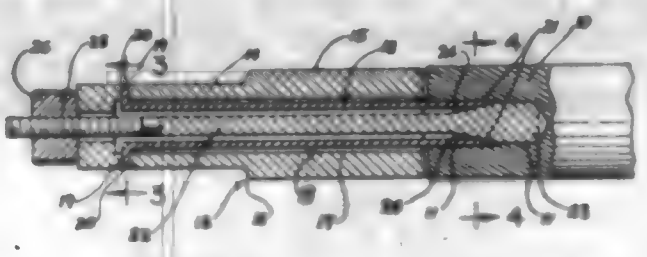
2,868,573
CARBON HOLDER

Phil L. Lingenfelder, Calgary, Alberta, Canada

Application January 5, 1956, Serial No. 557,572
1 Claim. (Cl. 287—119)

In a full floating self-aligning holder for a carbon body member having an opening extending inwardly from an end thereof, a housing arranged in end to end relation with respect to said body member and including first and second sections of different diameters,

there being a longitudinally extending bore in said housing, said bore including a first portion and a second portion of reduced diameter, spaced apart arms extending through the first portion of said bore and each including a beveled inner portion, there being opposed cutouts in the second section of said housing, transverse fingers extending outwardly from said arms and



projecting through said cutouts, a shank extending through said bore and having an enlarged head on its inner end seated in the opening in said carbon body member, said head including a tapered surface engaged by the beveled end portions of said arms, said shank further including an exteriorly threaded portion, and a nut arranged exteriorly of said housing and threadedly engaging the threaded portion of said shank.

2,868,574
SEAL

Charles A. Rich, Jr., Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts

Application September 13, 1957, Serial No. 683,846
9 Claims. (Cl. 288—2)

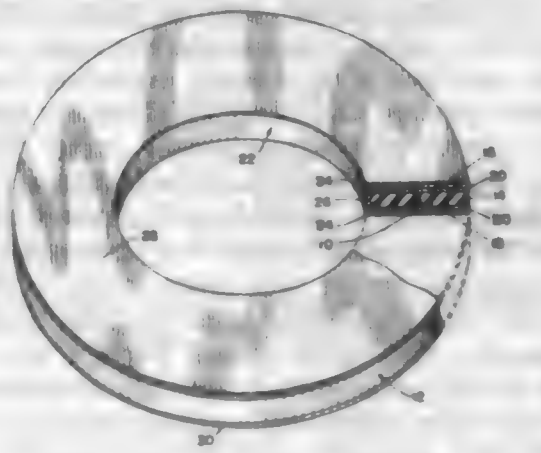


1. A seal formed in one piece of rubber-like material, comprising a tubular main body, a first annular flange extending outwardly from one end of the body at a right angle to the axis of the body, a second annular flange extending outwardly from adjacent the other end of the body at a right angle to the axis of the body, a third annular flange extending from the said one end of the body and constituting a general extension thereof, a fourth annular flange extending from the said other end of the body and being defined by two parallel conical surfaces, the fourth annular flange diverging outwardly in the direction away from the said one end of the body and terminating in an end surface which lies in a plane extending at a right angle to the axis of the body, a fifth flange extending inwardly of the body adjacent the said other end hereof, the fifth flange having an inner conical surface which extends inwardly in the direction of the said other end of the body, a groove formed in the fifth flange on a surface opposite the conical surface thereof, and a garter spring located in the said groove.

2,868,575
GASKET AND METHOD OF MAKING SAME

Stephen Hawxhurst, Glencoe, Ill., assignor to Crane Packing Company, Chicago, Ill., a corporation of Illinois

Application August 16, 1954, Serial No. 450,150
4 Claims. (Cl. 288—16)

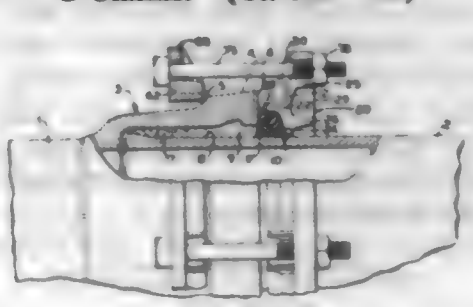


1. A composite gasket construction resistant on all outer sides to the swelling and solvent action of acids and liquid hydrocarbons and which retains its flexibility and sealing properties throughout a temperature range of from —70° F. to 572° F., said gasket construction comprising a central core in the form of an endless body of resilient compressible material and being substantially rectangular in cross section with its four circumferential edges presenting relatively sharp corners, an intermediate jacket substantially U-shaped in cross section and having parallel side walls and surrounding said core on three sides thereof including the outer peripheral side of the core and the two sides adjacent thereto and existing in coextensive face-to-face contact with said three sides, and an outer jacket substantially U-shaped in cross section enclosing said intermediate jacket and core as a unit on three sides thereof including the sides presented by said parallel side walls and the side which includes the inner peripheral side of the core, said outer jacket having its inner surfaces in coextensive face-to-face contact with said inner peripheral side of the core and with the parallel side walls of the intermediate jacket, said intermediate and outer jackets both being formed of polytetrafluoroethylene.

2,868,576
GASKET FOR BELL AND SPIGOT PIPE JOINTS

Roger C. Boughton, Alhambra, Calif.

Original application February 6, 1950, Serial No. 142,675. Divided and this application March 12, 1957, Serial No. 645,482
2 Claims. (Cl. 288—33)



1. An annular gasket of rubber and the like for a bell and spigot pipe joint of the type that includes a gasket engaging spigot ring around the spigot end of one pipe of the joint; said gasket having, in cross sectional contour, an inner corner portion and an outer portion and a radially inwardly facing surface adapted to engage the outer periphery of such spigot end and an axially facing surface adapted to engage the axially facing surface of the bell of such joint, said radially facing surface and said axially facing surface of said gasket joining each other at right angles, said inner corner portion having two sides that

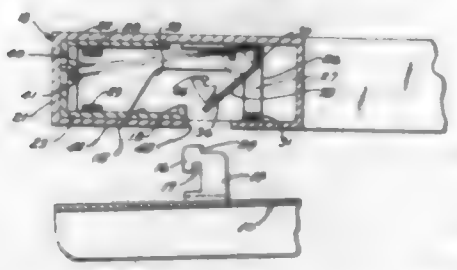
are defined by the portions of said radially inwardly and axially facing surfaces of said gasket extending from their juncture to points intermediate the axial and radial dimensions of said gasket at a side thereof, said outer portion having two sides that are respectively in axial and radial continuation of the radially and axially facing sides of said inner corner portion in directions away from said juncture, said inner corner portion being relatively soft and distortable under pressure and the outer portion between the said two sides thereof extending around said inner corner portion and being substantially harder than said inner corner portion, said inner corner portion and said outer portion, in cross sectional contour, being integrally united along a generally circularly extending line extending between said points and developed about a center positioned within said inner corner portion on a straight line extending from said juncture and substantially bisecting said inner corner portion whereby said two sides of said outer portion and said circularly extending line will define acute angles at said points having their apices directed generally toward said juncture between the radially and axially facing surfaces of said inner corner portion.

2,868,577

LATCH MECHANISM

Anthony E. Zingone, Massapequa, N. Y., assignor, by mesne assignments, to Zylo Corporation, New York, N. Y., a corporation of New York

Application August 1, 1956, Serial No. 601,425
4 Claims. (Cl. 292—99)



1. In a latch mechanism for latching two parts together, a latch casing affixed to one of said parts, a latch member affixed to the other part and insertable in said casing, a keeper member slideable in said casing, a slide member mounted for reciprocatory movement in said casing and having a finger pivotally connected thereto, said keeper member and said latch member having interengageable notch and tongue for latching the said two parts together, cam means carried by said casing and disposed in the path of movement of said finger, means biasing said keeper member and said slide member in one direction and means biasing said keeper member in the other direction relative to said slide member, and said latch member being adapted to engage said finger with the insertion of said latch member in the casing to thereby move the finger against said cam to cam said slide into biased relation whereby the keeper member is biased by said last named means into position for latching engagement with said latching member.

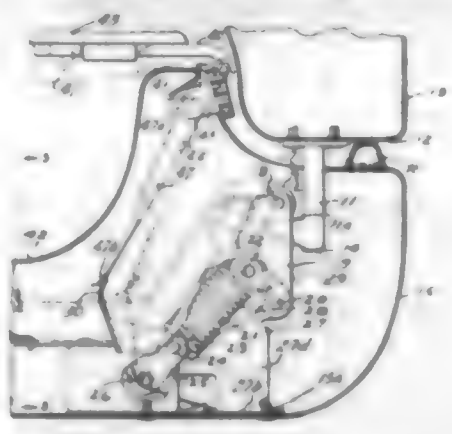
2,868,578

SAFETY RELEASE FOR REFRIGERATOR DOORS

Herbert D. Squire and Rezon N. Brandt, Galesburg, Ill., assignors to Midwest Manufacturing Corporation, Galesburg, Ill., a corporation of Illinois

Application June 26, 1956, Serial No. 593,938
2 Claims. (Cl. 292—223)

2. In combination with a hollow door having a front panel and a back panel spaced therefrom, and a door latch comprising an actuator pivotally mounted on the door between said panels and an over-center toggle spring mechanism disposed between said panels of the door and coupled to said actuator at one side of the latter's pivotal mounting and rearward from said pivotal mounting, said toggle spring mechanism being movable from a door-locking position to a release position upon pivotal movement of said actuator in one direction about its pivotal mounting, the improvement which comprises an extension connected to said actuator and extending therefrom rearward toward the back panel of the door and terminating in a free end which is disposed forward of said back panel at the opposite side of said pivotal mounting for the actuator, and a safety release actuator pivotally supported from the door at said back panel, said safety release actuator having a handle disposed behind



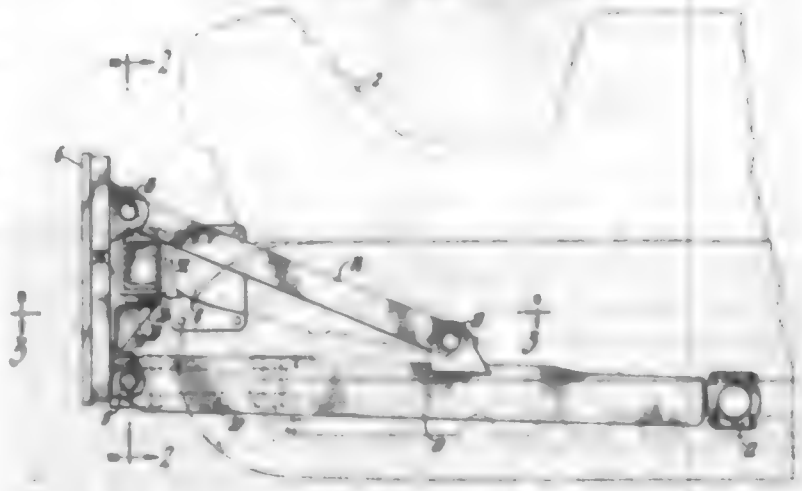
said back panel and an elongated member connected rigidly to said handle and extending forward away from said pivotal mounting for the safety release actuator toward the front panel of the door and terminating in a free end which engages the free end of said extension at the opposite side of said extension from the pivotal mounting for said first-mentioned actuator, said free end of said elongated member of the safety release actuator, upon movement of the handle toward the door, moving toward said toggle spring mechanism and forcing the free end of said extension on said first-mentioned actuator in said one direction to move the latter from its door-locking position to its release position.

2,868,579

PUSH PLATE ASSEMBLY

Anton Z. Panasewicz, Parma, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

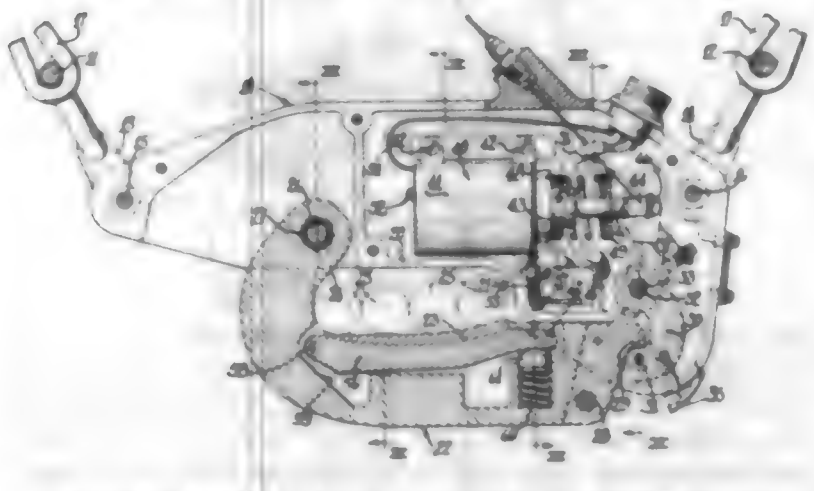
Application November 30, 1956, Serial No. 625,516
10 Claims. (Cl. 293—60)



1. In combination with a vehicle of the type including two spaced tractor frames operatively related for relative oscillatory movement in substantially vertical parallel planes and having an attachment mounted at one end thereof, means for supporting said attachment from said tractor frames whereby said attachment accommodates the relative oscillatory movement between said frames; said means comprising, laterally spaced sockets mounted on said frames, a cross beam extending between said frames and having the ends thereof loosely confined within the respective sockets, a bracket secured to said attach-

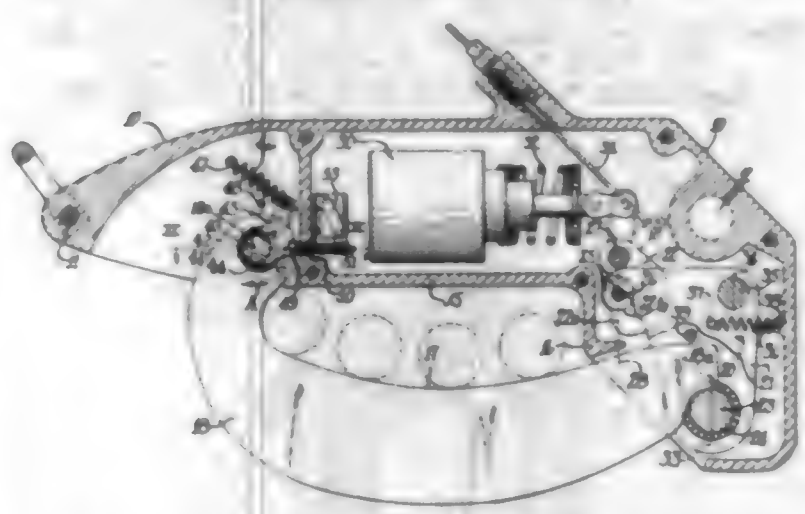
ment, said bracket being loosely mounted about said cross beam, and spaced push beams each having one end pivotally mounted to a tractor frame and the other end secured to said attachment to retain the latter on said cross beam.

2,868,580
CARGO RELEASE HOOK
Howard C. Stevens and John E. Minty, Muskegon, Mich., assignors to Manning, Maxwell & Moore, Inc., Muskegon, Mich., a corporation of New Jersey
Application March 31, 1955, Serial No. 498,351
8 Claims. (Cl. 294—83)



1. A load carrying hook comprising a body member, a hook member pivotally secured by one end to said body member for supporting said load on a portion of said hook member, latch means on said body and said hook for maintaining said hook in load supporting position, said pivotal connection between said hook and said body being positioned above and within the horizontal confines of said portion, and said latch means being positioned at a point at the opposite end of said hook from said pivot and substantially removed from said pivot and said portion whereby the load on said latch is minimized.

2,868,581
CARGO RELEASE HOOK
John E. Minty and Howard C. Stevens, Muskegon, Mich., assignors to Manning, Maxwell & Moore, Inc., Muskegon, Mich., a corporation of New Jersey
Application July 18, 1955, Serial No. 522,740
11 Claims. (Cl. 294—83)



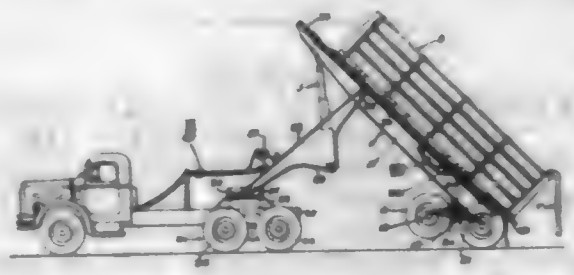
1. A cargo release hook comprising a body member, a horizontal hook member pivotally connected by one of its ends to said body member through a lost motion pin connection cooperating therewith for suspending a cargo on a portion of said hook member, a pivoted trigger means vertically mounted on said body for cooperating with a pivoted dog having a movable member for cooperating with the other end of said hook to maintain said hook in latched load suspending position, a solenoid for releasing said trigger and said dog, and a switch controlling the energization of said solenoid, said switch being mounted adjacent to said pin connection and responsive to horizontal movement in the relative movements and positions of said hook and said lost motion pin to energize said solenoid, and said lost motion connection comprising an eccentrically mounted pivot pin resiliently biased into a position in which the axis of rotation of the hook member thereabout is horizontally spaced from the axis of pivotal movement of said lost motion pin.

2,868,582
MATERIAL HANDLING DEVICE
Paul Joseph Lobell, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 31, 1954, Serial No. 479,084
2 Claims. (Cl. 294—88)



1. A work handling device for use with automatic mechanical arm apparatus and which includes a base member adapted to be secured to and supported by said arm apparatus, a carrier member slidably mounted upon said base member, a work engaging jaw member pivotally mounted upon one end of said carrier and adapted to hold a workpiece to the terminal end of said carrier, work jaw control linkage carried by said slide member and connected to said jaw member, power means on said carrier member biasing said control linkage to retain said jaw member in an open position, piston cylinder means secured to said base member and connected to said carrier for moving said carrier relative to said base member, and stop lug means mounted adjacent the end of said base member and disposed for cooperative impinging engagement with said control linkage for overcoming said biasing means and activating said control linkage to close said jaw member against the terminal end of said carrier.

2,868,583
DUMP TRUCK
Henry C. Harbers, Pasadena, and Donald R. Merchant, Glendale, Calif., assignors to Cook Bros. Equipment Co., Los Angeles, Calif., a corporation of California
Application July 14, 1955, Serial No. 521,972
15 Claims. (Cl. 298—15)



1. A dump truck, including: a front wheel assembly; a rear wheel assembly; a tilt frame separate from the front wheel assembly and pivoted on the rear wheel

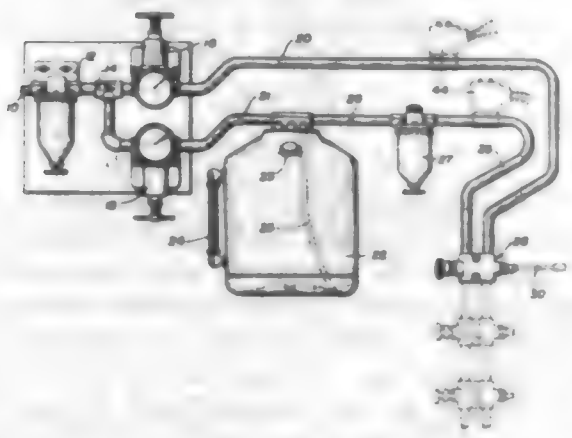
assembly for vertical tilting movement from a substantially horizontal position to a downwardly and rearwardly inclined position; draft means connecting the front wheel assembly to the frame; tilting mechanism connected between the frame and the draft means, and arranged to exert a lifting force on the frame thereby causing operation of the draft means to produce relative approaching movement of said wheel assemblies whereby the frame is swung to said inclined position; a dump body supported for movement longitudinally on the frame to occupy a fore position and an aft position; body moving means including actuator means, for moving the body between said fore and aft positions, said means being connected between the tilt frame and said body; and manually initiated pressure-fluid means for automatically actuating tilting mechanism and body moving means so that when the tilt frame is horizontal the body will be moved to the aft position before the tilting mechanism raises said frame and body.

2,868,584

SPRAY SYSTEM

Delbert G. Faust, Arapahoe County, Colo., assignor to C. A. Norgren Co., Englewood, Colo., a corporation of Colorado

Application June 28, 1954, Serial No. 439,785
4 Claims. (Cl. 299—86)



3. An adjustable, multiple spray system comprising a first conduit for air under an independently controlled pressure, a second conduit for liquid under an independently controlled pressure, spaced mixing means interconnecting said first and second conduits at intervals along their extent for admixing a portion of the flows therethrough, each said mixing means including a body having a fluid passageway therethrough and a separate air passageway therethrough, a lateral bore communicating with the fluid passageway at one end and a fluid tube at the other to provide a small lateral flow of fluid from said fluid passageway, means for varying said lateral bore for varying the fluid flow therethrough, said lateral bore communicating with a fluid tube, a second lateral bore communicating with said air passageway and terminating at about the end of said fluid tube in air and fluid mixing relation, and a nozzle means interconnected with each said mixing means for mixing a portion of air with a variable portion of fluid to form a spray of air and fluid.

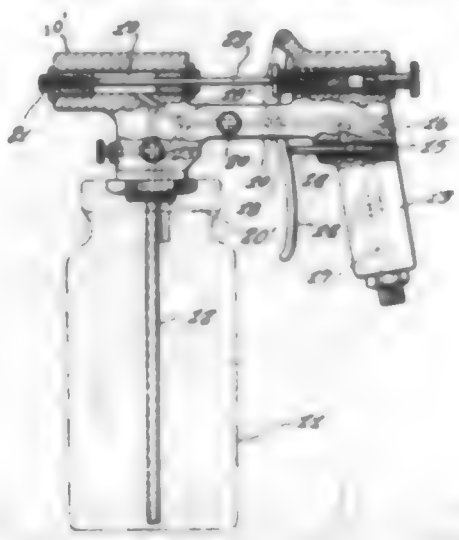
2,868,585

SPRAYING PAINT OR THE LIKE MEDIA BY MEANS OF COMPRESSED AIR

Paul Eser, Wuppertal-Elberfeld, Germany

Application March 11, 1955, Serial No. 493,607
1 Claim. (Cl. 299—86)

A spray gun adapted to engage with the open end of a fluid container comprising, an elongated gun body formed at one end with a raised portion having a mixture receiving chamber whose axis extends parallel to said elongated gun body; a spray nozzle secured forwardly of said raised portion and communicating with said mixture receiving chamber; said elongated gun body having a first passage extending longitudinally therethrough for introducing compressed air into the gun body; valve means mounted in said first passage for regulating the flow of such air; a second passage in said gun body substantially perpendicular to said first passage for permitting the flow of fluid into said gun body; valve means mounted in said second passage for regulating the flow of such fluid; a supply tube connected to said gun body in fluid communication with said second passage and adapted for immersion in a fluid-filled container; said first passage having an angular extension communicating with said second



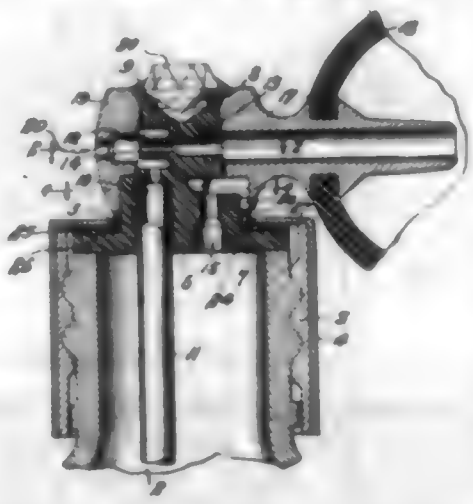
passage and extending into said mixture receiving chamber, said angular extension being disposed at an angle with respect to the axis of said mixture receiving chamber; a pressure tube element connected to said first passage and adapted to extend into the fluid container; a control handle member forming a part of said gun body; a needle valve element extending axially through said receiving chamber into said control handle and having a needle portion normally engaging and closing said spray nozzle; a trigger pivotally secured to said handle and operatively engaging said needle valve, said handle having an air inlet passage therein communicating with said first passage; a valve mounted in said inlet passage, said valve having a stem in operative engagement with said trigger.

2,868,586

ATOMIZER CONSTRUCTION

Santy M. Croce, Hauppauge, N. Y., assignor to Coty, Inc., New York, N. Y., a corporation of Delaware

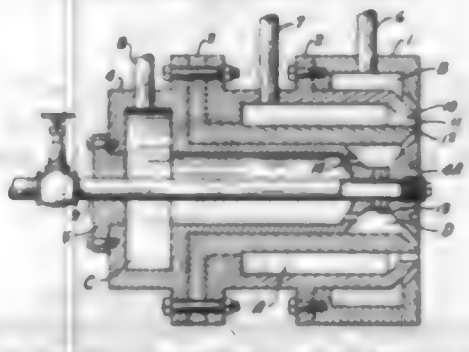
Application November 6, 1956, Serial No. 620,735
6 Claims. (Cl. 299—88)



1. An atomizer for dispensing liquid from a bottle having a neck, said atomizer comprising an atomizer body having dispensing passage means formed therethrough and adapted to be secured to a bottle neck, an air propelling member rotatably surrounding and embracing said body, and means to lock said air propelling member to

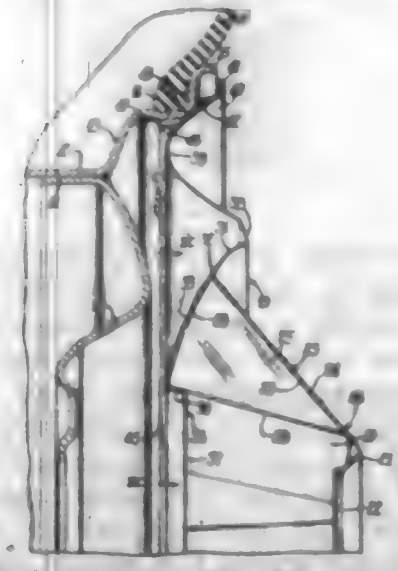
said body against disassembly therefrom, said locking means comprising a resilient crown formed at the top end of said body and a spreader member removably received in said crown and spreading said crown over said air propelling member to lock said air propelling member in its rotating position.

2,868,587
COMMINUTING NOZZLE
William Hegmann, Fort Smith, Ark.
Application February 23, 1955, Serial No. 489,952
2 Claims. (Cl. 299—140)



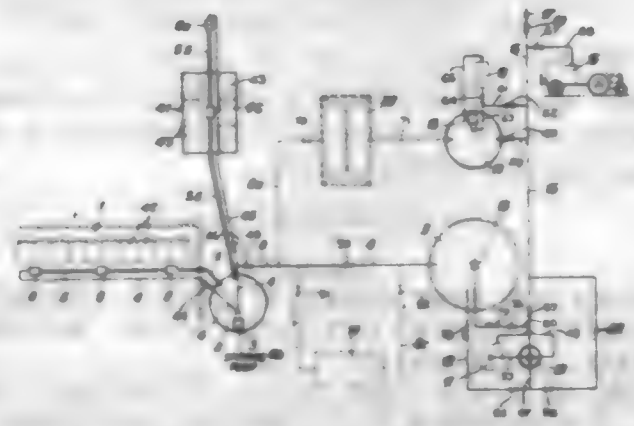
1. A comminuting nozzle comprising a central part having an inwardly conical outer surface, a second part surrounding said central part and having an inwardly conical end surface spaced from said central part outer surface to form an annular orifice, said second part and central part surfaces being equidistant one from the other throughout their length, said second part having an outer cylindrical surface, a third part surrounding said second part and having a cylindrical inner surface spaced from said second part cylindrical surfaces to form a second annular orifice, said cylindrical surfaces being equidistant one from the other throughout their length, said third part having conical outer surface, a fourth part surrounding said third part and having an outwardly conical inner surface spaced from said third part outer surface to form a third annular orifice, said third and fourth parts being equidistant one from the other throughout their length, said orifices being concentric about a single axis, all of said surfaces terminating in a single plane transversely of said axis, said orifices being positioned immediately adjacent each other, said first and third orifices being disposed at equal converging angles to said second annular orifice whereby fluids emanating from said three orifices are caused to intersect simultaneously in a single plane immediately adjacent the outlet of said second annular orifice.

2,868,588
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application June 20, 1955, Serial No. 516,539
12 Claims. (Cl. 301—37)



1. In a wheel cover for disposition at the outer side of a vehicle wheel, a circular cover member having an annular portion thereon, and a crown cover member having a circular side wall interrupted by circumferentially spaced generally radially extending buttress spoke ribs, the edge of said wall and said spoke ribs opposing said annular portion, and means for securing said edge to said annular portion.

2,868,589
ARRANGEMENT FOR REMOVING STABLE DUNG FROM STABLES
Ferdinand Schmidt, deceased, and Walter Eggersgluess, Verden, Aller, Germany; Eva-Marie M. H. Eggersgluess, nee Schmidt, sole heir of said Ferdinand Schmidt
Application May 19, 1955, Serial No. 509,601
13 Claims. (Cl. 302—14)

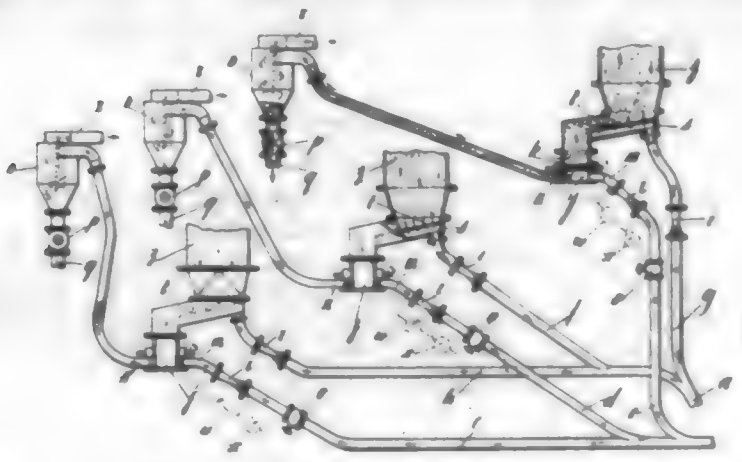


1. An arrangement for removing dung from stables and the like, comprising in combination: a collecting tank, said tank having an inlet near its top and an outlet near its bottom, pipe means connecting said inlet and said outlet, said pipe means being provided with feed openings for receiving dung, pump means capable of circulating stable liquid through said collecting tank and said pipe means, whereby dung entering said pipe means through said feed openings is flushed by said liquid through said inlet into said collecting tank, a storage container, means for conveying the contents of said tank to said storage container, a pipe arranged rotatably along the axis of said storage container, said pipe having a plurality of sections arranged in different axial positions along the axis of said storage container, means associated with said sections of said pipe for connecting said sections with the interior of said storage container, and pump means operatively connected to said pipe and said storage container and constituting therewith a closed fluid circuit for the circulation and mixing of the contents of said storage container.

2,868,590
PNEUMATIC CONVEYORS AND THE LIKE FOR POWDERED AND GRANULAR MATERIALS
Robert William Allen, Hazel Grove, and Alan Wilson Taylor, Heaton Chapel, Stockport, England, assignors to Henry Simon Limited, Stockport, England, a British company
Application March 28, 1957, Serial No. 649,249
Claims priority, application Great Britain April 30, 1956
4 Claims. (Cl. 302—17)

1. A pneumatic conveying system for the conveyance in several separate air ducts of streams of powdered or granular material in which in advance of the positions in which the air mixes with the material, there is provided in each of the several air ducts a convergent-divergent nozzle which at its inlet or upstream end converges rapidly to the nozzle throat which has a cross sectional area so related to the desired mass flow rate through the nozzle that in operation the air velocity through the throat is approximately equal to the velocity of sound in the air at the temperature and pressure existing at the throat, the nozzle diverging from its throat at a small angle (e. g. not more than 12°), the cross sec-

tional area at the delivery or downstream end of the nozzle being equal or substantially equal to that of the air duct, whereby a substantially constant mass flow rate



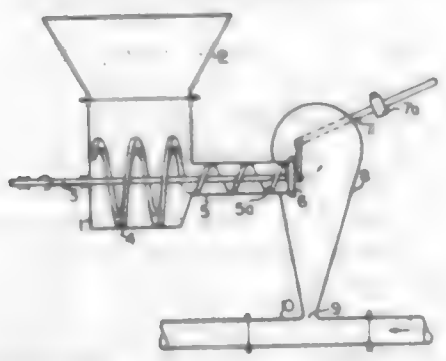
through the several nozzles is obtained notwithstanding variations in the resistances of the materials to the air issuing from the several nozzles.

2,868,591

APPARATUS FOR CONTINUOUSLY FEEDING A MOIST, FINELY DIVIDED SOLID MATERIAL INTO A STREAM OF GAS

Cornelis H. J. Van Herpt, Geleen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands

Application July 11, 1957, Serial No. 671,334
Claims priority, application Netherlands July 11, 1956
1 Claim. (Cl. 302—50)



In an apparatus for continuously feeding a moist, finely divided solid material into a stream of gas: a hopper for a supply of moist, finely divided solid material, a feed compartment in communication with said hopper and adapted to be kept charged with the material from said hopper by a gravity feed, a cylindrical passage leading from said feed compartment, a ribbon conveyor in said feed compartment and in substantial alignment with said cylindrical passage, a screw conveyor in said cylindrical passage, said ribbon conveyor having a larger diameter than said screw conveyor and forming an extension of said screw conveyor, said ribbon conveyor and said screw conveyor being mounted on a common drive shaft, a valve at the discharge end of said cylindrical passage, said valve being operable by pressure of material fed along said passage, and a chamber forming a discharging chute at the discharge end of said cylindrical passage, said chamber being of an inverted drop shape in vertical section, said chamber having an outlet at its lower end connected to a pipe for conducting the stream of gas.

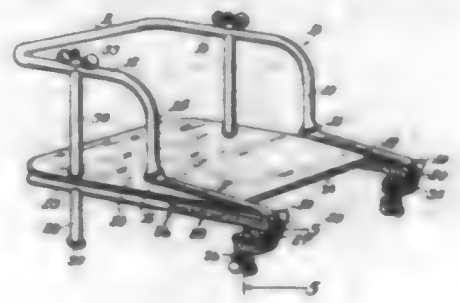
2,868,592

WINDOW SEAT

Warren J. Landus, Chicago, Ill.

Continuation of application Serial No. 707,253, November 1, 1946. This application November 23, 1951, Serial No. 257,681
9 Claims. (Cl. 304—24)

6. A window seat comprising a seat frame having legs for standing on the outer sill portion, a seat board carried on said seat frame, a back and arm frame on said seat frame, integral endwise extensions on said frames continuing forwardly and bent into interfitted nesting pairs of hook-shaped ends to encompass the inner sill



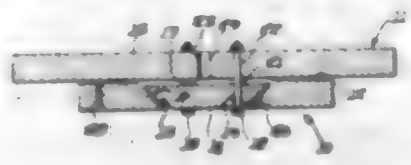
portion, said hook-shaped ends being secured together, at least, by screw-clamp means threaded into each pair of ends for clamping the respective pairs of hooks to the sill.

2,868,593

ROTARY AIR BEARING

Edward M. Jones, Cincinnati, Ohio, assignor to The Baldwin Piano Company, Cincinnati, Ohio, a corporation of Ohio

Application December 14, 1954, Serial No. 475,165
5 Claims. (Cl. 308—9)



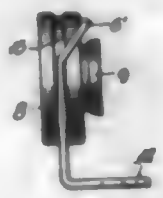
1. An air bearing comprising a stator having an optically flat surface adjacent a spherical concave surface, a plano-convex lens disposed adjacent to the concave surface, and having a spherical surface which matches said spherical concave surface, an optically flat plane parallel disc positioned above said flat stator surface, said lens being connected to said disc, said lens and said disc serving as the rotor of said bearing, a first plurality of capillary tubes supplying air to said spherical concave surface, a second plurality of capillary tubes supplying air to said flat disc surface, said air acting to separate said stator and said rotor, and a passage through one of the rotor members to provide an escape for the air in the space between said disc and said lens.

2,868,594

PILLOW BLOCK

Fayette Leister, New Britain, Conn., assignor to The Fafnir Bearing Company, New Britain, Conn., a corporation of Connecticut

Application November 16, 1955, Serial No. 547,092
2 Claims. (Cl. 308—15)



1. In a pillow block, a base to be secured to a support, said base having an upstanding plate thereon, said upstanding plate having a generally U-shaped slot therein and defining two upright spaced apart legs, said slot in said plate terminating substantially short of said base, an annular bearing part resting in and supported by said slot and having slot means in the outer circumferential surface thereof fitting over the inside edges of said upright spaced apart legs, said legs and slot means serving to hold said annular bearing part against axial movement on said upstanding plate, at least one of said upstanding legs at a point above the point of engagement of said leg

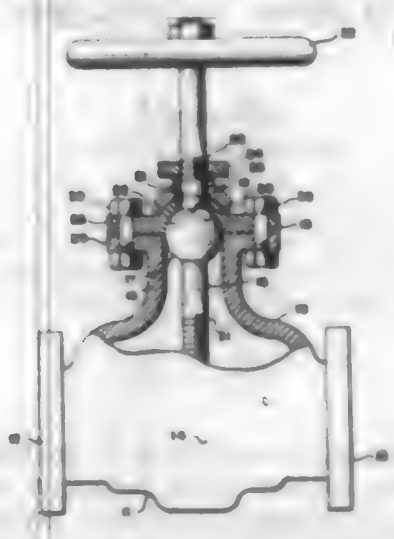
with said slot means being bent over transversely of itself and of said slot means and in the general direction of the axis of said annular bearing part to prevent withdrawal of said annular bearing part from said slot in said upstanding plate.

2,868,595
JOURNAL BOXES
Llewellyn E. Hoyer, Wyckoff, N. J., and Isaac Eugene Cox, Kirkwood, Mo., assignors to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application February 6, 1956, Serial No. 563,672
5 Claims. (Cl. 308—38)



1. In a railway car journal box having a top wall, spaced side walls and a bottom wall and an opening in the rear thereof through which the journal portion of the car axle is to be extended, and wherein said walls of the journal box have front edges lying in a common plane and defining a front opening in the box adapted to be closed by a lid, a separate oil baffle of resilient material mounted on at least the front edge portion of the bottom wall of said journal box, said baffle including a front wall having a rear surface engaging the terminal front edge surface of the bottom wall of said journal box and a top wall having a lower surface engaging a portion of the upper surface of the bottom wall of said journal box inwardly of said front opening, said baffle having a flange free of any surface of said journal box and projected inwardly of the journal box a substantial distance to afford an oil trap of appreciable depth between said flange and the bottom wall of said journal box, the front opening in said journal box being substantially fully disclosed except for the areas thereof occupied by said walls and said flange of said baffle.

2,868,596
VALVE SEAL AND MECHANISM
Edwin D. Rattigan, Chalfont, Pa.; A. Frieda Rattigan, administratrix of said Edwin D. Rattigan, deceased
Application February 4, 1955, Serial No. 486,150
15 Claims. (Cl. 308—187.1)



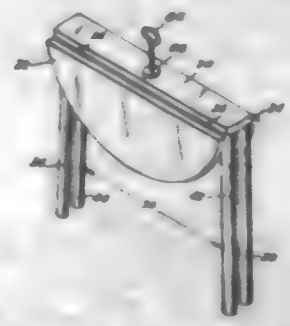
1. A valve having a fluid tight chamber enclosed, at least in part, by a casing, a bonnet fixedly attached thereto having an inwardly concave portion with a centrally located hole therethrough, and a rotatable operating shaft extending through said hole into said chamber and having a diameter appreciably smaller than the diameter of said hole so as to permit oscillation of said shaft within said hole, said shaft having an enlarged portion internally of said casing with the said enlarged portion having a convex surface mating with the said inwardly concave portion of said bonnet, said bonnet having associated with it an external outwardly disposed surface concentric with said hole, and said shaft having concentrically associated with it a surface for mating with said external surface associated with the bonnet, said latter two mating surfaces being so contoured and adapted as to facilitate rotation and oscillation of said operating shaft, and an adjustment nut in screwed assembly with said shaft holding all said mating parts in desired juxtaposition.

2,868,597
EXTENSIBLE LEAF SUPPORT AND LOCK MEANS FOR AN EXTENDABLE TABLE
Jerome L. Morrison, Findlay, Ohio
Application March 25, 1955, Serial No. 496,805
14 Claims. (Cl. 311—55)



1. In an extendable table construction, the combination of: a table frame including interconnected side, end and leg frame members; a table top supported centrally from said side members and provided with a bottom upwardly and outwardly inclined surface spaced from said members; an extension leaf of tapered section receivable between said top and said members in retracted position; leaf-supporting means operable to support said leaf in extended position and including a guide rail on each side member parallel to said inclined surface, an extension arm slidable on said rail and provided with upstanding end portions slidably engaging said table top and leaf respectively, a slide bar on said leaf slidable on said arm and limited in movement relative thereto by selective engagement with said arm end portions, said slide bar having an inner portion engageable with the table top in leaf-extended position; and means to lock the leaf in extended position.

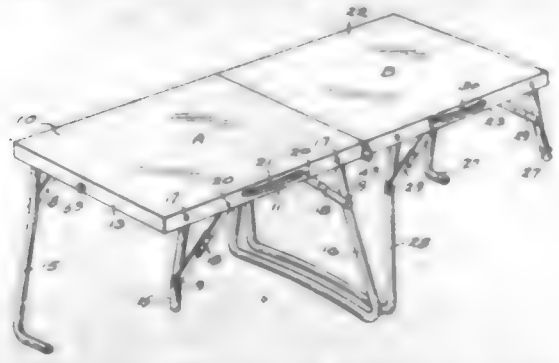
2,868,598
HANDHOLD ACTUATED FOLDABLE TABLE
Robert B. Karoff, New York, N. Y., assignor to Karoff Originals, Ltd., New York, N. Y., a corporation of New York
Application May 21, 1958, Serial No. 736,731
4 Claims. (Cl. 311—62)



1. A handhold actuated foldable table comprising an elongated middle panel, a pair of drop-leaf panels hinged to said middle panel, one on each longitudinal side thereof, a fixed leg support for said table comprising a pair of legs fixed to the middle panel, one at each end thereof, a movable leg support for said table comprising a horizontal member arranged contiguously below and pivoted medially the ends thereof to said middle panel and a pair of legs, one depending from each end of said horizontal member, said movable leg support being movable about

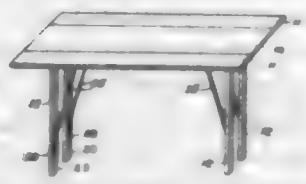
its pivot axis between a folded position lying in a plane within the ambit of said middle panel with said drop-leaf panels then in folded dropped condition and a set-up position lying in a plane crossing said middle panel with the drop-leaf panels then in horizontal set-up condition, the said horizontal member forming the support for said drop-leaf panels in their set-up condition, and a hand-hold fixedly attached to said horizontal member at said pivoted axis and extending above said middle panel and adapted to be grasped for moving said movable leg support from one to the other of its said positions.

2,868,599
PORTABLE FOLDING TABLE
Victor Roggio, Villanova, Pa.
Application December 12, 1957, Serial No. 702,387
3 Claims. (Cl. 311—90)



1. A foldable table comprising a pair of independent table sections each having a unitary sheet metal table top including a skirt extending about and depending therefrom, tubular metal support legs and means securing the latter in underlying relationship to said table top, and hinge means secured to said skirt for pivotally quick-detachably securing said table sections together and positioning said table tops in coplanar end-to-end abutting relation so that they conjointly form a single continuous table top, each of said support legs and securing means therefor being foldable with the confines of the associated skirt close up under the overlying table top, said securing hinge means including a pair of hinges having a common axis disposed in parallel spaced relation to, and directly below, said abutting table top ends, the skirts depending respectively from the abutting ends of the table tops being disposed in downwardly diverging planes, each of said hinges being provided with a pair of hinge parts that are rigidly secured respectively to said diverging skirts and quick-detachably secured to one another, whereby said table sections are separable for serving as independent self-supporting tables, and whereby when said table sections are secured by said hinge means and when said support legs are folded within the associated skirt said table sections are foldable about said hinges into parallel planar relationship with the table top skirts in engagement about their periphery to form a light-weight, portable, and compact unit.

2,868,600
INTERIOR AUTOMOBILE FOLDING TABLE
Nadine Belden, Sacramento, Calif.
Application September 17, 1957, Serial No. 684,511
2 Claims. (Cl. 311—92)



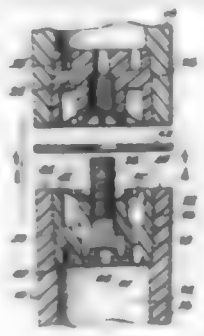
1. The combination with a foldable table leg comprising a substantially rectangular channel consisting of a back, two sides and having its front open, said channel having a longitudinal groove extending the length thereof formed at the free end of each side, said grooves facing each other, a narrow plate inserted in said grooves and extending the length of said channel for closing the same, said plate having a hinge at its top, said channel having a cut away portion to accommodate the hinge and to have the tops of the channel and said plate level for supporting said table, said plate having a longitudinal slot in the lower portion thereof, said plate having a pocket formed by bending the same inwardly at a sharp angle and then outwardly, said slot extending into said pocket; of a brace for holding said leg in the erect position comprising a metal narrow plate having a hinge at its top and an anchor at its lower end, said anchor being adapted to slide in said slot and to rest in said pocket for holding said leg in the erect position.

2,868,601
ARTICLE OF FURNITURE
Earl F. Hamilton, Columbus, Ind., assignor to Hamilton Manufacturing Corporation, Columbus, Ind., a corporation of Indiana
Application October 21, 1957, Serial No. 691,186
7 Claims. (Cl. 311—107)



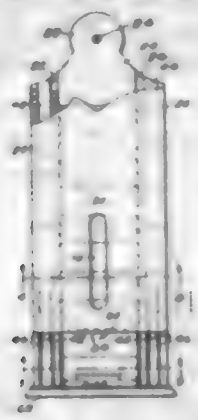
1. In an article of furniture, a panel, a peripheral reinforcement secured to one face of said panel and having a flange which projects from the panel generally flush with the edges of the panel, a covering for the other face of the panel comprising a sheet of flexible material extending around the edge of said flange and obliquely therefrom to the first mentioned panel-face, means spaced inwardly from said flange for affixing the flexible material to the first mentioned panel-face, a frame fitting loosely within said flange and engaging the obliquely extending portions of said flexible material, and means for securing said frame to said panel in such position that it distorts and stretches said obliquely extending portions.

2,868,602
FURNITURE LEG WITH INSERT
Lee Dremer, Lincolnwood, Ill.
Application October 18, 1957, Serial No. 691,035
10 Claims. (Cl. 311—109)



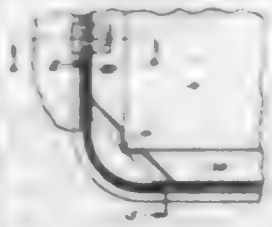
1. A furniture leg for securing to an object and comprising a hollow molded body having a socket formed therein with a frusto-conical interior surface, a molded insert engaged within the socket and having a frusto-conical exterior surface for coaxially and wedgingly mating with said interior surface, elongate ribs formed on one frusto-conical surface extending generally in the direction of the axis of the said body and insert, and flutes on the second surface for engaging the ribs when the insert is within said socket, and the insert having fastening means centrally thereof to enable securement to said object.

2,868,603
CIGARETTE AND MATCH PACK DISPENSER
Walter R. Wilkinson, Syracuse, N. Y.
Application April 1, 1957, Serial No. 650,827
2 Claims. (Cl. 312—42)



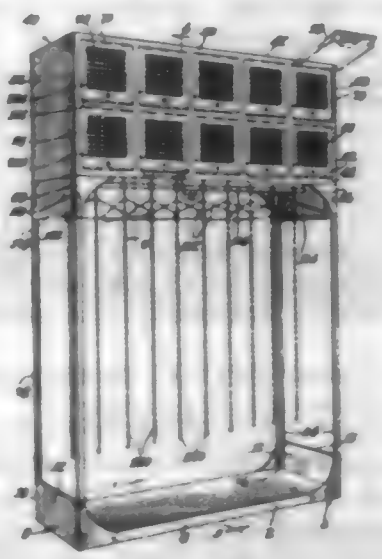
2. A magazine for cigarette and book match packs stacked flat, and edgewise respectively, comprising a rectangular section vertically extending housing comprising front and back panels and connecting side panels, said housing being open at the top, and having a transverse bottom member at the lower end, said housing being open at the front adjacent said bottom member a height less than the thickness of two cigarette packs, and greater than the width of a book match pack, for the removal of a lowermost cigarette pack or an edgewise disposed match pack from said housing, one at a time, said side panels being of a depth to substantially correspond to the width of a pack of cigarettes, and said back and front panels each having at least one vertical groove directly on their inside faces opposite one another and uniformly spaced from one of said side walls, and a removable partition slidably disposed in said groove and extending from the open top to the bottom member, said grooves being so spaced from said one side wall that said partition when in position reduces the width of said housing by the approximate difference between the height of standard and king size packs of cigarettes, and said partition, when in place, being spaced from the adjacent side wall a distance substantially the thickness of a book match pack, whereby to provide a single chute for a stack of standard cigarette packs disposed flat with their longest dimension extending parallel with the plane of the back panel, and a chute for a stack of book match packs stacked edgewise, or a chute for a stack of king size cigarettes disposed flat with their longest dimension extending parallel with the plane of the back panel upon the removal of said partition.

2,868,604
CENTERING CLIP
Willard A. Gibson, Williamsfield, and Don C. Sevey, Abingdon, Ill., assignors to Midwest Manufacturing Corporation, Galesburg, Ill., a corporation of Illinois
Application June 14, 1956, Serial No. 591,445
6 Claims. (Cl. 312—140.1)



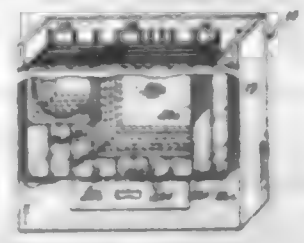
1. A spacer clip comprising a resilient elongated rod-like body having a longitudinally extending arch formed therein intermediate its ends which is offset laterally to one side of the body, said rod-like body at each end having an arm member which extends from the body substantially perpendicular to the plane of said laterally offset arch and which has a hook portion formed on its extremity protruding laterally at the opposite side of said body.

2,868,605
LOCKER WARDROBE
John B. O'Connor, Aurora, Ill., assignor to Lyon Metal Products, Incorporated, Aurora, Ill., a corporation of Illinois
Original application May 21, 1945, Serial No. 594,980, now Patent No. 2,655,424, dated October 13, 1953. Divided and this application May 3, 1951, Serial No. 224,427
1 Claim. (Cl. 312—257)



In a combined locker wardrobe the combination comprising a substantially rectangular base, a post mounted on and extending upwardly from each of the corners of said base, each post being substantially L-shaped in cross section, a frame supported by said posts on the upper ends thereof in spaced relation with said base, flanges formed on each corner of said frame and extending downwardly therefrom and surrounding the outwardly facing sides of said posts, substantially L-shaped retaining members attached to the inner sides of said flange at said corners and covering the inwardly facing sides of the upper portions of said posts, said retaining members extending upwardly beyond the ends of said posts, and a tongue struck from said flanges at each corner of said frame, said tongue extending inwardly toward the associated retaining member to overlie the top of the associated corner post to limit the relative downward movement of the frame with respect to the corner posts.

2,868,606
END TABLE RECORD CABINET
Armos J. Stierna, Minneapolis, Minn.
Application October 24, 1957, Serial No. 692,198
5 Claims. (Cl. 312—293)



1. A record cabinet including front and rear walls and a bottom, the front and rear walls having spaced vertical grooves therein, a plurality of upright partitions extending between the grooves of the front and rear walls and defining record compartments therebetween, each partition comprising a plurality of panels extending between the front and rear walls and engaging each other in edge-to-edge relation, and a plurality of horizontal bottom panels extending between the front and rear walls and extending across a plurality of compartments, said bot-

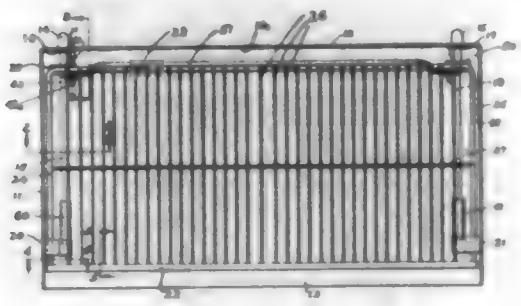
tom panels being selectively emplaceable on the edges of a number of adjacent panels and on the cabinet bottom to support records of various sizes in readily accessible positions adjacent the top of the partitions.

2,868,607

REFRIGERATOR PULLOUT SHELF

Herbert D. Squire, Galesburg, Ill., assignor to Midwest Manufacturing Corporation, Galesburg, Ill., a corporation of Illinois

Application July 30, 1956, Serial No. 601,051
14 Claims. (Cl. 312—332)



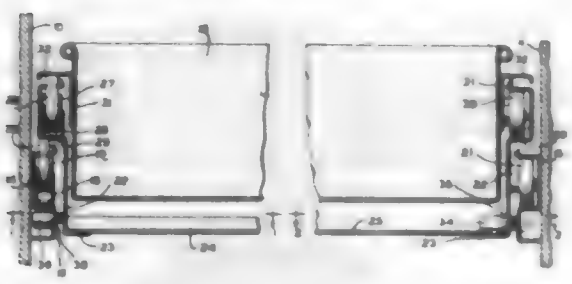
2. In combination on a refrigerator, a pair of guide rails rigidly supported within the refrigerator at opposite sides thereof and extending from front to back, a pair of slides supported individually by said guide rails for sliding movement therealong, each of said slides being formed with a channel which has an open end at its outer side larger than the corresponding guide rail and which receives the corresponding guide rail, a shelf, and means releasably connecting said shelf to said slides to move as a unit therewith, each of said slides being adjustable laterally of the shelf toward and away from the guide rail on which it is mounted.

2,868,608

DRAWER SUSPENSION WITH AUXILIARY ROLLERS

Donald A. Gunn, Kenmore, N. Y., Lawrence R. Dean, Marietta, Ohio, and Wallace R. Senechal, North Tonawanda, N. Y., assignors to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application February 13, 1957, Serial No. 639,931
2 Claims. (Cl. 312—337)



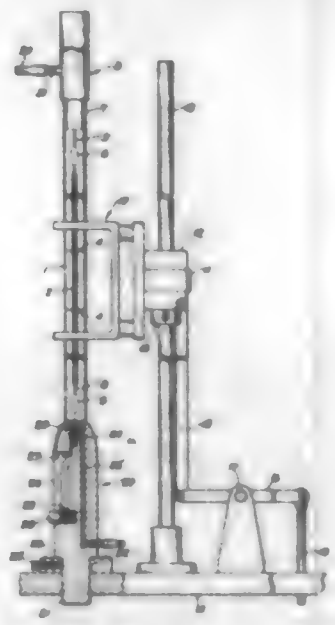
1. A drawer suspension construction having a casing with a drawer compartment, fixed track members disposed along and on opposite sides of said compartment, intermediate track members and drawer track members, said track members interrelated for relative movement by means of rollers, the fixed casing track member and the intermediate track member having adjacent spaced vertical walls, the invention which comprises horizontally disposed rollers on each of said fixed and intermediate track members disposed along their length to contact the adjacent wall of the other track member to maintain the said members in their longitudinal spaced relation as the intermediate track member is moved inwardly and outwardly of the compartment.

2,868,609

METHOD OF SEALING AND GAS FILLING ELECTRIC LAMPS

Victor A. Levand, Lyndhurst, and Emmett H. Wiley, Cleveland, Ohio, assignors to General Electric Company, a corporation of New York

Application May 29, 1956, Serial No. 588,043
4 Claims. (Cl. 316—17)



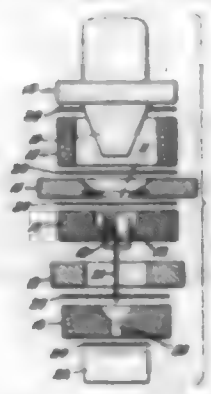
1. The method of sealing and gas filling an electric lamp which comprises threading into an envelope of vitreous material a filament having lead wires secured to the ends thereof with the lead wires at the respective ends of the envelope, introducing a flow of inert gas into one end of the envelope to flush the air therefrom through the other end of the envelope, heating the said other end of the envelope to a plastic condition and compressing it about a portion of the adjacent lead wire to seal said end while maintaining the gas pressure in the envelope at substantially atmospheric, and then heating the said one end of the envelope to a plastic condition and compressing it about a portion of the adjacent lead wire to seal the envelope with the entrapped gas contained therein as the permanent gas filling.

2,868,610

METHOD AND APPARATUS FOR MAKING VACUUM ENCLOSURES

James E. Beggs, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

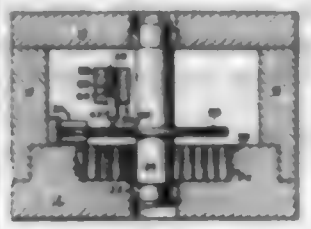
Application October 22, 1954, Serial No. 464,126
8 Claims. (Cl. 316—19)



1. The method of making an electric discharge device having a plurality of electrodes including a coated cathode which method comprises assembling in a stack a plurality of alternately arranged metal members and refractory members to form the device, the metal members forming the terminals of the electrodes of the device, interposing metal shim members between adjacent members, one of said members consisting essentially of a metal selected from the group consisting of titanium, zirconium, hafnium, thorium and alloys of more than one metal of said group and the other of said metal

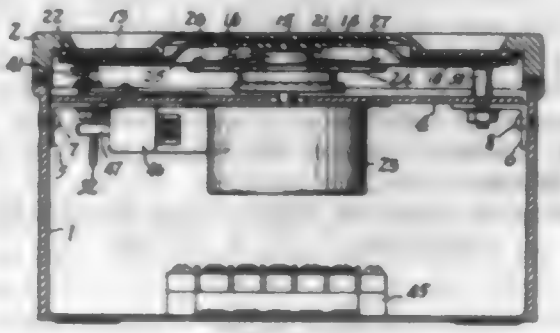
members consisting essentially of a metal selected from a second group consisting of copper, nickel, iron, molybdenum, chromium, platinum, cobalt and all alloys of more than one metal of said second group supporting the stack within a chamber, evacuating the chamber and the device while heating the members to degas the device, activate the cathode, and form an alloy of the metal shims and the metal of the metal members to bond the members together and seal the device, the highest heating temperature being lower than the melting point of any of the individual metal members.

2,868,611
IMPACT ACCELEROMETER
Henry Carleton, Silver Spring, Md.
Application March 23, 1956, Serial No. 573,572
1 Claim. (Cl. 346—7)
[Granted under Title 35, U. S. Code (1952), sec. 266)



An acceleration measuring device compriting in combination: a frame consisting of top and base plates, first and second side walls, and a back wall, said device being arranged so that the acceleration applied thereto is perpendicular to said side walls and in a direction from said second side wall to said first side wall; first and second bearings centrally located in said top and base plates, respectively; a shaft perpendicular to said top and base plates with its end journaled in said bearings; a disc integral with said shaft; an indicating washer made of soft metal centrally located within a recess in said disc; a spring centrally located within a recess in said base plate, said spring surrounding said shaft with one end of said spring attached to said base plate and the other end attached to said shaft, said spring being adapted to be wound by rotation of said disc; an acceleration-sensitive lock holding said disc against the rotational forces exerted by said spring when wound, said lock comprising a pair of parallel projections attached to said first side wall opposite said disc, a pin mounted in said projections with its axis parallel to said shaft, an arm pivoted intermediate its ends about said pin so as to divide said arm into a relatively long end portion and a relatively short end portion, said long end portion of said arm having a projecting cam surface adapted to mate with a matching surface on the periphery of said disc when said disc is in a position such that said spring is wound, said surfaces being disposed at an angle to a radius of said disc, said angle being slightly greater than the friction angle, and a magnet mounted for adjustment in said first side wall adjacent said short end portion of said arm, said magnet being so constructed and arranged in cooperation with said arm that the magnetic forces of said magnet acting through said arm locks said disc in place against the forces of the wound spring until said device experiences a predetermined amount of acceleration, the axis of said arm being in a position substantially perpendicular to the direction of applied acceleration until said device experiences said predetermined amount of acceleration which thereupon causes said large end portion of said arm to swing away from said disc, thereby unlocking said disc for rotation by the wound spring; and an acceleration-measuring element including a cantilever spring having its flat side in a plane which is substantially perpendicular both to said disc and the direction of the applied acceleration, one end of said cantilever spring being attached to said back wall, a weight to which the other end of said cantilever spring is attached, said weight having a bore extending therethrough in a direction parallel to said shaft, a stylus in said bore, and a spring and a screw also in said bore arranged so that said stylus is pressed by said spring against said indicating washer, said weight being located in cooperation with said cantilever spring so that said stylus moves substantially radially away from said shaft under the influence of the applied acceleration; the unlocking of said disc when said device experiences said predetermined amount of acceleration causing said first mentioned spring to rotate said disc while said stylus moves radially under the influence of the applied acceleration to mark a permanent record on said soft metal indicating washer.

2,868,612
RECORDER
Samuel K. Taylor, Cleveland Heights, and Kenneth A. Cool, Shaker Heights, Ohio, assignors to The Service Recorder Company, Cleveland, Ohio, a corporation of Ohio
Application March 19, 1954, Serial No. 417,418
7 Claims. (Cl. 346—123)



1. In a recorder, a stylus, a resilient arm to which said stylus is attached, a mounting member for said arm pivotally secured to a stationary support, a pivotal connection between said arm and mounting member, an electric control motor operative when energized to oscillate said arm about such pivotal connection thereof, clock mechanism including a rotatable support for removably mounting a time record disc in front of and in contact with said stylus, a rotatable transparent disc adapted to overlie the front face of said record disc and thus support the same against the pressure exerted by said stylus on the rear face of the record disc, a driving connection between said clock mechanism and transparent disc for rotating the latter in unison with the record disc, cam means interengaging said rotatable support and the stylus arm mounting member operative to shift the pivotal connection of said arm generally radially as the rotatable support is driven by said clock mechanism to produce a spiral track upon said record disc, a detent adapted to engage a stop portion of said mounting member after a predetermined time period of operation and thus shift said mounting member about its pivotal connection with such stationary support therefor, means for connecting said control motor to be energized responsively to operation of the extrinsic device to be recorded, a limit switch in the energization circuit of said motor, and an actuator for said switch operated by such shifting of said mounting member to open the switch and thereby de-energize said motor at the expiration of such predetermined time period of recorder operation, the engagement of said detent and such stop portion of the mounting member and consequent shifting of the latter to the limit of its pivotal movement stopping further rotation of said rotatable support by said clock mechanism.

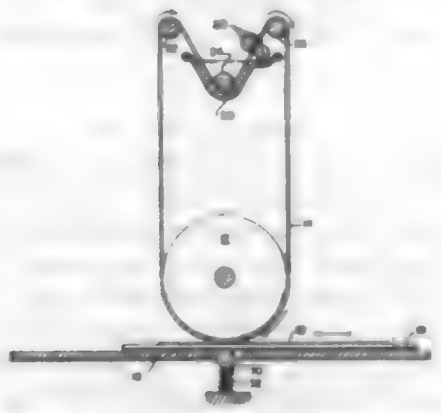
2,868,613
RECORDING APPARATUS
Francis L. Moseley, Pasadena, Calif., assignor to F. L. Moseley Co., Pasadena, Calif., a corporation of California
Application March 1, 1954, Serial No. 413,367
6 Claims. (Cl. 346—139)



6. Apparatus for engaging a recording stylus with a recording medium, comprising means for supporting the stylus in movable relation into and out of contact with the recording medium, toggle means including a manually operated pivotably supported lever and a spring urging the lever in one direction or another as it is moved past an over-center position, whereby the lever of the toggle means provides an over-center action, and lost motion linkage means connecting the lever to the stylus supporting means for moving the stylus supporting means from the lever of the toggle means when the lever is moved beyond predetermined limits of independent movement fixed by the lost motion of the linkage means, the spring of the toggle means urging the stylus through the lost motion linkage against the recording medium when the lever is on one side of its over-center position, movement of the lever against the spring lifting the stylus supporting means for moving the stylus out of contact with the recording medium through the lost motion linkage means, said predetermined limit of independent movement fixed by the lost motion of the linkage means being less than the movement required to move the lever past said over-center position, whereby the stylus can be moved into and out of engagement with the recording medium by the lever without moving the lever of the toggle means over-center.

CHEMICAL

2,868,614
FATTING OF SKINS
Alexis E. Ushakoff, Beverly, Mass., assignor, by mesne assignments, to Nathan W. Levin, New York, N. Y., Alexis E. Ushakoff, Somerville, Mass., and J. B. Hatton, Grand Haven, Mich., as trustees
Application April 28, 1954, Serial No. 426,151
20 Claims. (Cl. 8—94.18)

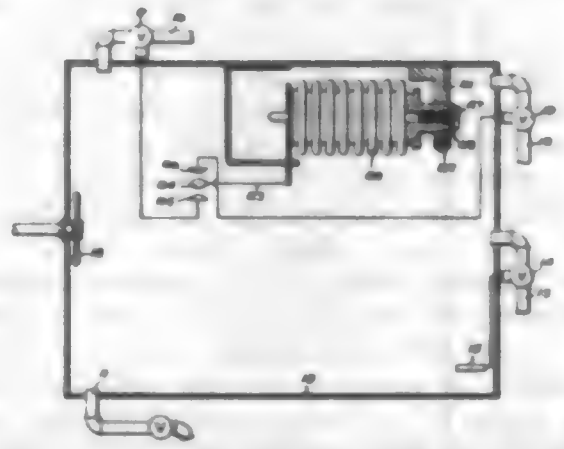


1. The method of fatting skins comprising supporting a skin wet with an inert volatile organic solvent on a porous supporting surface, applying a liquid surface coating of a leather fatting agent to the skin by contacting its unsupported surface with an applicator surface carrying the fatting agent and thereby depositing the fatting agent on the unsupported surface of the skin without depositing fatting agent on the supporting surface, and drying the skin to remove the solvent and to cause said agent to be distributed through the skin.

2,868,615
CONTINUOUS SCOURING AND BLEACHING OF GRAY GOODS
Thomas E. Bell, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application June 28, 1955
Serial No. 518,664
3 Claims. (Cl. 8—111)

1. The continuous process of scouring and bleaching gray, woven, cotton textile goods with a single continuous storage stage which comprises continuously passing said goods wetted out and substantially free from sizes and finishes through an aqueous peroxide bleaching bath containing, by weight, 1.25% to 2.0% H_2O_2, 1.5% to 3.0% silicate of soda having a ratio of $Na_2O:SiO_2$ of 1:2 to 1:4, 0.3% to 0.8% caustic soda, and a water-soluble boron salt equivalent to 0.25% to 2.0% borax, reducing the bleach solution content of the goods to within 75% to 150% by weight of the goods, heating the goods containing the bleach solution in the presence of steam to a temperature between 200° F. and 212° F. and maintaining said goods at a temperature between 180° F. and 212° F. for a period of three-quarters to one and one-half hours such that further treatment is avoided when there remains in the goods only 15% residual hydrogen peroxide of the amount contained therein at the initiation of said heating step, and washing the bleaching solution from said goods.

2,868,616
STEAM STERILIZATION METHOD
Edward J. Poitras, Holliston, Mass.
Application April 14, 1954, Serial No. 423,185
3 Claims. (Cl. 21—56)



1. The method of sterilizing closed collapsible vapor permeable containers charged with liquid, gas and liquid-gas mixture which comprises placing the containers in an autoclave having a vent, supplying steam and gas to the autoclave agitating the autoclave atmosphere during at least a substantial portion of the sterilizing process for complete steam-gas mixing and for total steam-gas contact with the containers, regulating the autoclave steam supply to establish a sterilizing temperature for

a sterilizing time, and regulating the autoclave gas supply and the autoclave vent to establish a substantial balance across the walls of the containers of the partial pressure of the gas in the autoclave with the partial pressure of the gas in the containers.

2,868,617

REMOVING HYDROGEN SULPHIDE FROM GASES

John E. Mills, Twickenham, England, assignor to The Gas Council, London, England, a British body corporate

No Drawing. Application March 2, 1956
Serial No. 568,975
3 Claims. (Cl. 23—2)

1. A process for removing hydrogen sulphide from a gas containing hydrogen sulphide which comprises alternately washing said gas with a solution of a dye base comprising the product obtained by neutralization of the reduction product of a dye salt selected from the group consisting of the azine, thiazine, oxazine and triphenylmethane classes, whereby said dye base reacts with said hydrogen sulphide to produce a readily oxidizable reduction product, and bringing said solution containing said reduction product into contact with oxygen to convert said reduction product back to said dye base.

2,868,618

METHOD OF CONCENTRATING MINERAL VALUES

Fred N. Oberg, Lakeland, Fla., and Ira M. Le Baron, Evanston, Ill., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application July 6, 1953
Serial No. 520,375
4 Claims. (Cl. 23—14.5)

1. In the process of recovering mineral values in concentrated slurry form from leached zone material from the Florida pebble phosphate fields wherein said ore is pulped with water, the steps comprising slurrying the leached zone material, adding to the slurry a dispersant selected from the group of sodium silicate, sodium hexametaphosphate and mixtures thereof, classifying the dispersed slurry and recovering a minus 200 mesh size fraction having a solids content between about 25% and about 35% by weight.

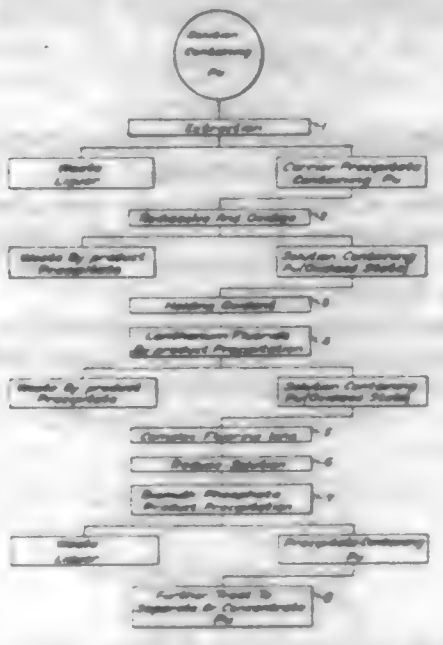
2,868,619

PROCESS FOR THE RECOVERY OF PLUTONIUM

David M. Ritter, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commision

Application October 12, 1944, Serial No. 558,451
8 Claims. (Cl. 23—14.5)

1. In processes for the decontamination and recovery of plutonium values from an aqueous, acidic solution containing the same together with contaminant, comprising selective carrier precipitation of at least a portion of said contaminant from said solution away from said plutonium values by means of precipitation therein of lanthanum fluoride while maintaining the plutonium in an oxidation state greater than four, and removal of the resulting contaminant-containing carrier precipitate from the remaining said solution, the improvement method which comprises combining with said contaminant carrier precipitation and removal, the step of subsequently incorporating in said remaining solution a boron compound chosen from the group consisting of boric acid, sodium metaborate, and borax, to form a soluble complex with fluoride ion consequently present in said remaining solution, and thereafter precipitating said plutonium values from the resultingly-complexed solution by providing therein a sufficient concentration of bismuth ions and phosphate ions to precipitate bismuth phosphate while



maintaining the plutonium in an oxidation state no greater than four.

2,868,620

METHOD OF MAKING PLUTONIUM DIOXIDE

Clifford S. Garner, Redondo Beach, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 9, 1947
Serial No. 753,569
5 Claims. (Cl. 23—14.5)

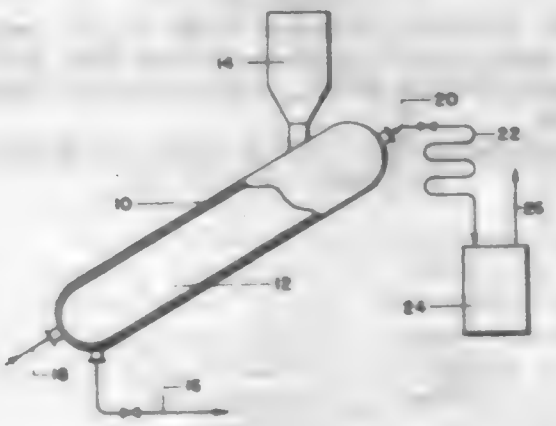
5. The process of converting a plutonium compound selected from the group consisting of plus three plutonium oxalate and plus four plutonium oxalate to substantially pure plutonium dioxide which comprises drying the plutonium oxalate with a stream of warm air, and heating to a temperature within the range from 400° C. to 600° C., passing through the range from 300° C. to the final temperature in about 0.3 hour.

2,868,621

METHOD OF MAKING METAL HALIDES

Albert P. Giraitis, Baton Rouge, La., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

Application August 31, 1953, Serial No. 377,395
2 Claims. (Cl. 23—87)



2. A method of making a readily fused halide of a metal selected from the group consisting of titanium, iron, aluminum, tin, zinc and lead with the halogen content of a corresponding halide of a second metal, which method comprises selecting a second metal halide that becomes fluid at a temperature higher than the desired metal halide, reacting together sulfur trioxide with said selected metal halide and the oxide of a metal selected from the group consisting of titanium, iron, aluminum, tin, zinc and lead, conducting the reaction at a temperature between 200 and 650° C. and at a pressure at which the

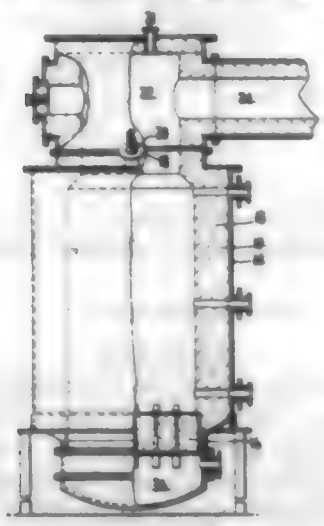
desired halide is fluid and is in a different phase from that of the second metal halide, and physically separating the desired metal halide phase from the reaction mixture.

2,868,622

CHLORINATION OF TITANIFEROUS MATERIALS

Arthur Neville Copnall Bennett and James Dennis Groves, Stockton-on-Tees, England, assignors to British Titan Products Company Limited, Billingham, England, a British company

Application February 13, 1956, Serial No. 564,867
Claims priority, application Great Britain
August 19, 1953
15 Claims. (Cl. 23—87)



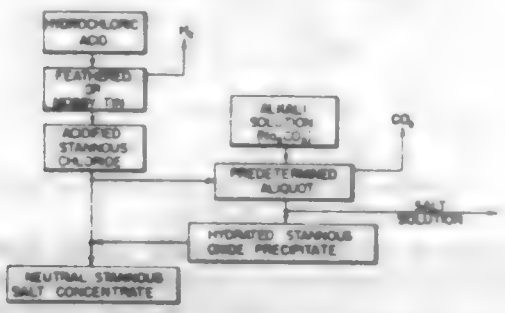
1. In the method of chlorinating titanium bearing materials in a reaction zone whereby heat is evolved and titanium tetrachloride is formed and vaporized, the improvement which comprises conducting said reaction at a rate in excess of the rate at which heat evolved by the reaction is removed from the reaction zone by conduction, radiation, and convection, whereby the temperature of the reaction zone tends to rise, and preventing excessive rise of the temperature of said zone by introducing therein a metal chloride in an unvaporized state, which chloride vaporizes at a temperature above 50° C. and below 800° C., the amount of said chloride so introduced being large enough to effect substantial cooling of the reaction zone.

2,868,623

MANUFACTURE OF NEUTRAL STANNOUS SALTS

Walter A. Vittands, Jamaica Plain, Mass., assignor, by mesne assignments, to Second Bank-State Street Trust Company, Boston, Mass., a Massachusetts banking corporation

Application July 7, 1954, Serial No. 441,754
4 Claims. (Cl. 23—98)



4. In the manufacture of a relatively concentrated, substantially neutral aqueous stannous chloride solution from a concentrated stannous chloride solution having a high free hydrochloric acid content, the steps comprising withdrawing from the acidified solution a predetermined aliquot, adding to said aliquot a water-soluble alkali in an amount sufficient to precipitate the tin component as a hydrated stannous oxide, and adding the freshly precipitated hydrous stannous oxide to the remainder of said solution to react with the free acid and form a substantially neutral aqueous stannous chloride.

2,868,624

STABILIZATION OF SULFUR TRIOXIDE

Kenneth J. Shaver, Stoneham, and Randolph Perry, Jr., Arlington, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application July 8, 1957
Serial No. 670,378
10 Claims. (Cl. 23—174)

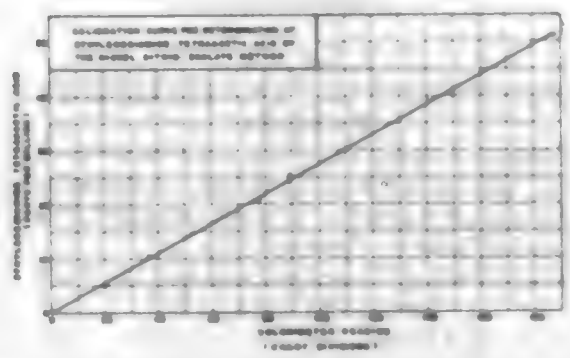
1. A composition of matter comprising liquid sulfur trioxide having had added thereto a minor amount less than about 5 weight percent of a compound selected from the class consisting of sulfonic acids and the ester, amide, and acid halide derivatives thereof.

2,868,625

METHOD OF TRACING THE FLOW OF WATER

Wallace J. Frank, Houston, Tex., assignor, by mesne assignments, to Jersey Production Research Company, Tulsa, Okla., a corporation of Delaware

Application July 22, 1955, Serial No. 523,944
7 Claims. (Cl. 23—230)



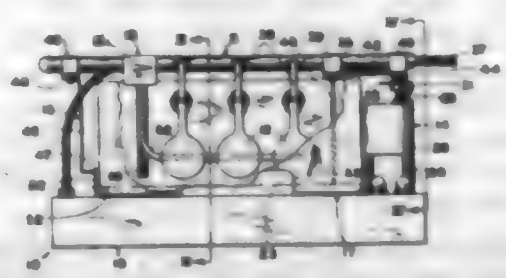
1. The method of tracing the flow of a stream of water which comprises adding to said water at a first point a sufficient amount within the range of about 3 to about 15 parts per million parts of water of a compound selected from the group consisting of ethylenediamine tetra acetic acid and its water soluble salts for detection of said compound, taking samples of said water at a second point remote from the first point and testing said samples for the presence of the organic radical of said compound whereby the presence of said organic radical indicates the arrival of said water containing said compound at said second point.

2,868,626

SEMI-MICRO EVAPORATION APPARATUS

Wade W. Allen, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

Application June 18, 1956, Serial No. 592,127
7 Claims. (Cl. 23—259)



1. Apparatus for simultaneously moving, and withdrawing a gas or vapor from, a plurality of sealed, interconnected containers, comprising: a base member; a housing defining an evacuable chamber; means removably connecting said containers to said housing with said chamber communicating with the interior of said containers, said containers being supported on said housing for movement therewith; a source of vacuum and means

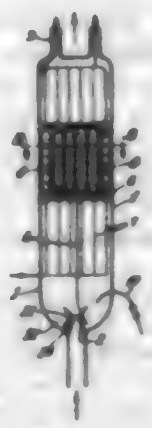
connecting said source to said chamber; a tank supported on said base member; a heat exchange medium within said tank and means for controlling the temperature thereof; means supporting said housing above said tank with said containers being positioned within said tank, said support means including means mounted on said base member for permitting movement of said housing and said containers with respect to said tank through a closed path about an axis substantially perpendicular to said housing; actuating means mounted on said base member and secured to said housing adjacent one end thereof for effecting such movement of said housing and said containers with respect to said tank.

2,868,627

APPARATUS FOR CARBON MONOXIDE HYDROGENATION

Herbert Kölbel and Paul Ackermann, Moers, Germany

Application September 21, 1954, Serial No. 460,999
8 Claims. (Cl. 23—288)



1. A reactor for the hydrogenation of carbon monoxide by a catalyst suspended in a liquid medium, comprising: an upright cylinder; a plurality of shaft conduits mounted in said cylinder to extend upright axially thereof and adapted to contain said catalyst in the liquid medium; a gas inlet to the interior of the cylinder at a level below the bottoms of the shaft conduits; said shaft conduits having their lower ends terminate in said cylinder at a distance above the gas inlet thereto so as to have the gas inlet spaced from the lower ends of said shaft conduits a distance at least as great as the diameter of the cylinder around the shaft conduits and leave a lower reaction space between said lower ends of the shaft conduits and the gas inlet of the same diameter as the portion of the cylinder around the shaft conduits; and the bottom of said lower reaction space being tapered to said gas inlet and said gas inlet also being tapered to provide a single axially directed stream of gas into said lower reaction space, whereby said stream induces circulation within said lower reaction space to feed gas into said shaft conduits uniformly.

2,868,628

STABILIZATION OF BURNER OILS

Joseph A. Chenicek, Beaucville, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application December 5, 1955
Serial No. 550,857
7 Claims. (Cl. 44—66)

1. A hydrocarbon distillate heavier than gasoline normally tending to undergo discoloration in storage containing, as an inhibitor against said discoloration, from about 0.0001% to about 5% by weight of a salt of a dicarboxylic acid having at least 10 carbon atoms and an N-alkyl-1,3-diaminopropane having an alkyl group of at least 12 carbon atoms.

2,868,629

MOTOR FUEL

Weldon G. Annable, Mundelein, and Robert M. Haines, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application November 13, 1956
Serial No. 621,512
12 Claims. (Cl. 44—66)

1. A hydrocarbon motor fuel of the gasoline boiling range containing about 0.005 to 5.0 wt. % of esterified glycoside, said glycoside corresponding to the formula

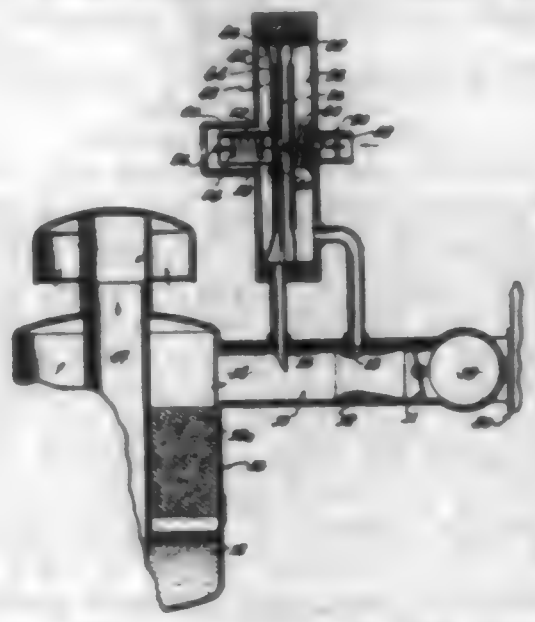
in which x is 1–8, R is from the group consisting of alkyl and alkylaryl radicals containing 1 to 12 carbon atoms, and the glycoside is esterified with one to four molecules of a monobasic aliphatic acid containing from 8 to 24 carbon atoms per molecule.

2,868,630

GASEOUS FUEL FEED SYSTEMS FOR INTERNAL COMBUSTION ENGINES

Roy F. Ensign, Fullerton, Calif., assignor to Ensign Carburetor Company, Huntington Park, Calif., a corporation of California

Original application December 9, 1952, Serial No. 324,986, now Patent No. 2,799,564, dated July 16, 1957. Divided and this application April 22, 1957, Serial No. 654,276
12 Claims. (Cl. 48—184)



1. In gaseous fuel feed systems for internal combustion engines and the like, the combination of an air and mixture passage having an outlet to the engine intake manifold, an air intake and a venturi throat between intake and outlet, a permanent obstruction in the air intake positively imposing a pressure reduction with relation to atmospheric pressure on the air passing therethrough at minimum flow, a gas pressure regulator comprising a pressure regulating valve controlling gas flow from an initial inlet to a delivery chamber, a diaphragm-valve system including said valve and a valve operating diaphragm having one face exposed to fluid pressure in the delivery chamber and the other face exposed to fluid pressure in a reference chamber, the fluid pressure in the delivery chamber exerting a force on said diaphragm tending to move it in a valve closing direction and the fluid pressure in the reference chamber exerting a force on said diaphragm tending to move it in a valve opening direction, means normally applying an additional definite closing force to the valve whereby the valve is normally closed with a definite pressure when fluid pressures on opposite faces of the valve operating diaphragm are equal, a gas delivery passage leading from the delivery chamber to the venturi throat, an auxiliary diaphragm exposed on one face to the ambient atmospheric pressure and on its

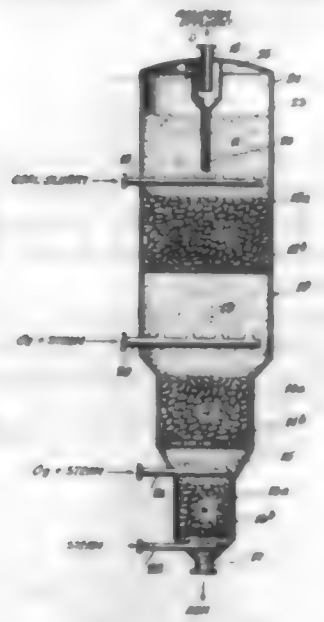
opposite face to the pressure in an auxiliary diaphragm chamber, means applying to the reference chamber and in the air and mixture passage downstream of the air to the auxiliary diaphragm chamber the pressure existent intake obstruction, and means actuated by movement of the auxiliary diaphragm into the auxiliary diaphragm chamber to effectively decrease the valve closing pressure exerted on the valve by the valve closing means.

2,868,631

GASIFICATION PROCESS

Herman N. Woebcke, Emerson, N. J., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey

Application April 21, 1953, Serial No. 350,108
9 Claims. (Cl. 48—206)



1. The process of continuously and completely gasifying finely divided carbonaceous solids wet with water by reaction with a mixture of oxygen and steam, which comprises introducing said solids wet with water into a freely fluidized bed of said solids in a drying zone, passing said solids from said drying zone down through a preheating zone of restrained fluidization wherein top-to-bottom mixing of said solids is impeded and said solids are preheated to an elevated temperature by contact with the hot gaseous products of gasification, passing said solids from said preheating zone to a freely fluidized primary gasification zone wherein a major portion of the carbon in said solids is gasified by reaction with oxygen and steam, passing the partially gasified solids from said primary gasification zone down through a secondary gasification zone of restrained fluidization wherein top-to-bottom mixing of said solids is impeded and substantially all of the carbon remaining in said solids is gasified by reaction with oxygen and steam, and introducing a minor portion of the oxgen and steam required for the gasification into said secondary gasification zone and the remaining major portion thereof into said primary gasification zone.

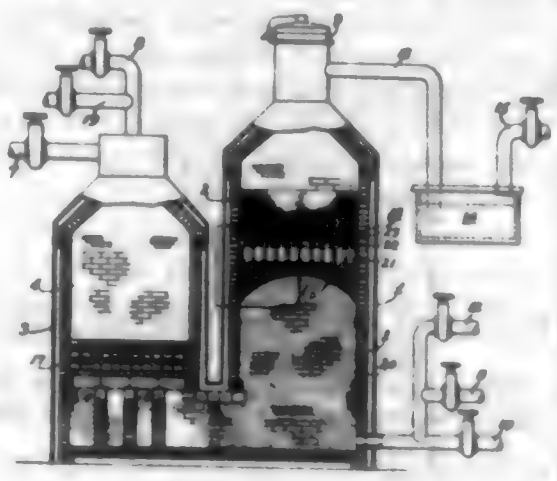
2,868,632

METHOD FOR THE CATALYTIC CONVERSION OF HYDROCARBONS

Charles Gordon Milbourne, Lansdowne, Pa., assignor, by mesne assignments, to The United Gas Improvement Company, Philadelphia, Pa., a corporation of Pennsylvania

Application March 3, 1955, Serial No. 491,985
5 Claims. (Cl. 48—214)

1. In the cyclic catalytic conversion of normally liquid petroleum hydrocarbons into a combustible gas rich in oil gas and having a heating value of at least about 700 B. t. u. per cubic foot (N_2 free basis) comprising, in one part of the cycle, internally heating an enclosed path lined with heat storage refractory material and comprising a catalyst zone by passing hot gases therethrough, and, in another part of the cycle, passing a normally liquid petroleum hydrocarbon through said path and through said catalyst zone wherein conversion takes place, the improvement which comprises preheating said



hydrocarbon to at least cracking temperature before its passage through the catalyst zone by contact with and radiation from the lining of heat storage refractory material having a film of at least one metal selected from the group consisting of nickel and cobalt on substantially all of the exposed surface thereof.

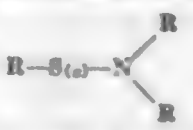
2,868,633

CONTROL OF GRASS GROWTH

Lyle D. Goodhue, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application March 12, 1956
Serial No. 570,692
26 Claims. (Cl. 71—2.3)

1. The method of killing undesirable Bermuda grass which comprises applying to said grass a herbicidal amount of a herbicidal composition of matter containing dissolved in a herbicide solvent an organic compound having the following structural characteristics



wherein (x) is an integer selected from the group of 1 and 2, wherein the R's are selected from the group consisting of alkyl, aryl, alkaryl, aralkyl and cycloalkyl radicals, wherein each of the R's contain at least one and not more than 10 carbon atoms and are not necessarily identical and wherein the R's on the N together therewith can form a heterocyclic ring containing 5–6 atoms selected from the group consisting of carbon, oxygen, and nitrogen atoms, at least three atoms in the ring being carbon atoms.

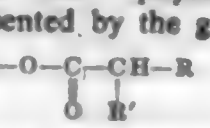
2,868,634

TERPENE PHENOXYACETATE GROWTH REGULATORS

Charles F. Krewson, Abington, and Edward J. Seggese, Upper Darby, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application November 20, 1957
Serial No. 697,751
7 Claims. (Cl. 71—2.6)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The process of killing mesquite comprising contacting the mesquite plant with a phytotoxic concentration of a compound represented by the general formula



wherein A is a terpene radical selected from the group consisting of nopyl, hydronopyl and α-terpinyloxyethyl,

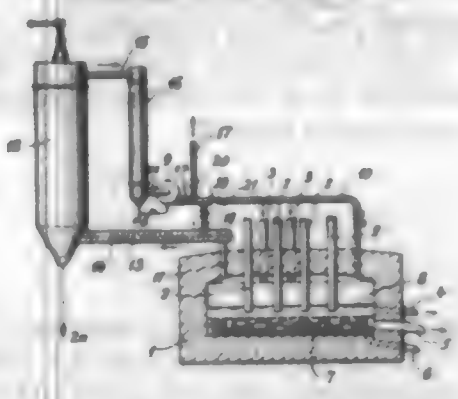
R' is selected from the group consisting of H and CH_3, and R is selected from the group consisting of 4-chlorophenoxy, 2,4,-dichlorophenoxy, 2,4,5-trichlorophenoxy, 2-methyl-4-chlorophenoxy, and 2,4-dichlorophenoxyethyl.

2,868,635

METHOD OF TREATING IRON SULFIDE-CONTAINING ORE OR CONCENTRATES

Sigurd Arthur Aanneröd and Eigil Mostad, Thamshavn, Norway, assignors to Pyror Limited, Hamilton, Bermuda, a Bermudian company

Application December 27, 1956, Serial No. 630,924
Claims priority, application Norway January 2, 1956
9 Claims. (Cl. 75—23)



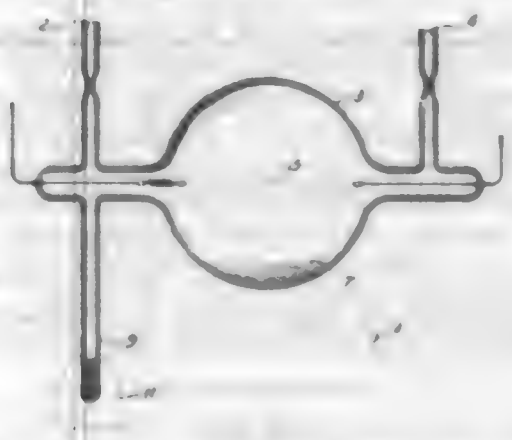
1. A method for the treatment of iron pyrite or other iron-sulfide containing ores or concentrates, comprising the steps of (1) preparing a mixture of iron-sulfide containing material and of iron-oxide containing material without addition of fluxes, and (2) heating the mixture to melting in a closed electrode furnace under the exclusion of oxygen from the outside so as to form (*a*) a slag in which silica and gangue are included together with a smaller amount of iron, and (*b*) a matter which contains the major portion of the iron from said mixture, partly as an iron sulfide containing less than 8 gram equivalents of sulfur per every 7 gram equivalents of iron and partly as ferrous oxide, FeO, which iron compounds form at least a major portion of said matte, said matte being obtained in a reactive form, from which the major portion of the iron content thereof can be dissolved selectively by leaching the matte with diluted sulfuric acid after crushing the same.

2,868,636

PROCESS OF PREPARING URANIUM METAL

Charles H. Prescott, Jr., Berkeley, and Frederick L. Reynolds, San Francisco, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application June 12, 1945, Serial No. 599,869
8 Claims. (Cl. 75—84.1)



1. The process of producing oxygen-free uranium metal comprising contacting iodine vapor derived from a stoichiometric excess of iodine maintained at a temperature of the order of −20° C. to 20° C. with crude uranium in a reaction zone maintained at a temperature in the range of 400° C. to 800° C. and at subatmospheric pressure to produce a vaporous mixture of uranium tetraiodide with said iodine vapor, and simultaneously contacting said vaporous mixture with a tungsten filament heated to bright incandescence and disposed within said zone to form a molten mass of oxygen-free uranium thereon.

2,868,637

VALVE MATERIAL

Leland W. Kirkpatrick, Battle Creek, Mich., assignor to Rich Manufacturing Corporation, Battle Creek, Mich., a corporation of Michigan

No Drawing. Application June 10, 1957
Serial No. 664,506
6 Claims. (Cl. 75—124)

1. An alloy steel having substantially the following composition:

	Percent
Carbon	0.90–1.20
Silicon	0.60–1.00
Manganese	5.00–7.00
Chromium	20.00–22.00
Molybdenum	0.40–0.60
Aluminum	0.75–1.25
Nitrogen	0.20–0.40

The remainder being substantially iron.

2,868,638

PRECIPITATION HARDENABLE, CORROSION RESISTANT, CHROMIUM-NICKEL STAINLESS STEEL ALLOY

Norman S. Mott, Westfield, N. J., assignor to Cooper Alloy Corporation, Hillside, N. J., a corporation of New Jersey

No Drawing. Application February 9, 1956
Serial No. 564,353
9 Claims. (Cl. 75—125)

1. A low cost precipitation hardenable alloy of very high hardness and very high abrasion resistance for use in non-stressed parts not requiring ductility, said alloy consisting essentially of a chromium-nickel stainless steel of the type known generally as 18 and 8, having added thereto molybdenum, silicon and copper, the molybdenum ranging from 3% to 5.0%, the silicon ranging from 2.5% to 4%, and the copper ranging from 2.5 to 4%, the carbon content being less than 0.08%, said alloy being free of beryllium, the said alloy being adapted to be precipitation hardened to a very high degree of hardness by a comparatively low temperature heat treatment.

2,868,639

METALLIC COMPOSITION

Homer S. Gonser, Jr., Rochester, Mich., assignor to Wall Colmonoy Corporation, Detroit, Mich., a corporation of New York

No Drawing. Application October 6, 1955
Serial No. 539,013
5 Claims. (Cl. 75—171)

1. An alloy for hard surfacing composed of 7% to 17% chromium; 1% to 4.5% boron; 1% to 5.5% silicon; 0.10% to 5.5% iron; and 6% to 20% of at least one metal selected from the group consisting of tungsten and molybdenum; 0.05% to 2.5% carbon; the remainder nickel and incidental impurities.

2,868,640

TITANIUM ALLOYS

James Morris Butler, Moseley, Birmingham, England, assignor to The British Non-Ferrous Metals Research Association, London, England, an association of Great Britain

No Drawing. Application January 11, 1955
Serial No. 481,263
7 Claims. (Cl. 75—175.5)

1. An engine component capable of withstanding about 400° C. which is required to have high creep resistance

due to inertia forces and which is made of a titanium base alloy which, apart from iron, nitrogen, oxygen and carbon present in amounts not exceeding 0.25% each, consists essentially of about: 3 to 10% aluminum, 1 to 20% zirconium with at least one metal of the group consisting of silicon, manganese, molybdenum and vanadium present in amounts up to 0.5% in the case of silicon, up to 5% in the case of manganese, up to 5% in the case of molybdenum and up to 5% in the case of vanadium, the creep resistance of the alloy being at least 40 tons per square inch at 400° C.

2,868,641

BEATER SATURATED SHEETS HAVING INCREASED STRENGTH

David A. Feigley, Jr., Lancaster Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application July 20, 1956
Serial No. 599,021
20 Claims. (Cl. 92—21)

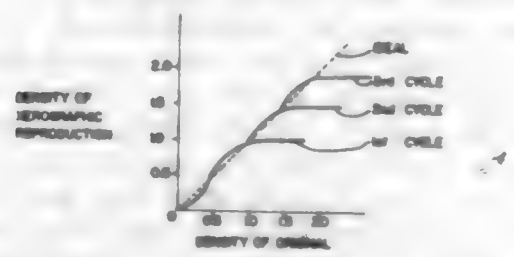
1. The method of increasing the tensile strength of a beater saturated sheet, which method comprises forming a slurry of papermaking fibers in water, depositing a synthetic rubber binder on said fibers to form rubber-coated fibers, adding to the resulting slurry a water-soluble salt of polyacrylic acid, precipitating said polyacrylic acid on said coated fibers, and forming the resulting slurry of coated fibers into a sheet.

2,868,642

ELECTROPHOTOGRAPHIC METHOD

Richard E. Hayford, Pittsford, and Carl B. Kaiser, Rochester, N. Y., assignors to Haloid Xerox Inc., a corporation of New York

Application January 3, 1955, Serial No. 479,268
5 Claims. (Cl. 96—1)



1. The process of producing an electrophotographic reproduction of a pattern of light and shadow to be recorded comprising the steps of applying a uniform electrostatic charge to a photoconductive insulating surface overlying a conductive backing, exposing said surface to a pattern of light and shadow to be reproduced, whereby there is produced on said surface a pattern of electrostatic charges corresponding to the pattern of light and shadow to be reproduced, repeating cyclically at least once the steps of contacting said surface bearing the electrostatic latent image with finely-divided electrostatically-charged powder particles whereby said particles begin to deposit on said surface in accordance with said electrostatic image, removing said particles from contact with said surface while deposition is still substantially incomplete leaving on said surface a lightly visible powder image corresponding to said electrostatic image, applying a uniform electrostatic charge to said surface, exposing said surface to the original pattern of light and shadow, the exposure being made in register with said powder image and for a length of time substantially greater than that necessary for the brightest portion of the original scene to reduce the electrostatic potential of the corresponding portions of said surface to their lowest value, and then at the end of the last cycle contacting said surface again with finely-divided electrostatically-charged powder particles until deposition of said particles is substantially complete, transferring said final powder image from said surface to an image support and fixing said powder image to said support material.

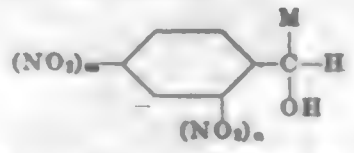
2,868,643

METHOD OF FORMING PHOTOGRAPHIC IMAGES

Jelis De Jonge, Hendrik Jonker, Klaas Jannes Kuening, and Cornelis Johannes Dippel, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application September 18, 1956
Serial No. 610,676
5 Claims. (Cl. 96—48)

1. A method of producing photographic contrasts comprising the steps, selectively exposing a light-sensitive layer containing at least one aromatic compound corresponding to the general formula



wherein n and m each have values selected from 0 and 1 and the sum of $n+m$ equals 1, and M is a radical selected from the group consisting of CN and SO_3H and then applying to said exposed layer a solution consisting of water and a water-soluble mercurous salt to form a latent mercury contrast, and physically developing the mercury contrast by applying to the mercury contrast an aqueous solution of a salt of a noble metal reducible to metal and a reducing agent for said metal so as to deposit said noble metal on said mercury contrast.

2,868,644

TRACER ADDITIVES FOR MIXED FEEDS AND METHOD OF USING THE SAME FOR THE DETECTION AND QUANTITATIVE DETERMINATION OF MICRO-INGREDIENTS IN MIXED FEEDS

Sylvan Eisenberg, San Francisco, Calif.

No Drawing. Application February 7, 1956
Serial No. 563,862
6 Claims. (Cl. 99—2)

1. A method adapted for the detection and quantitative determination of micro-ingredients in mixed feeds comprising introducing discrete particles of material having a colored surface coating into a feed supplement and forming a substantially uniform mixture consisting of known amounts by weight of said material and supplement, forming a second substantially uniform mixture consisting of a known minor amount by weight of said first-mentioned mixture and a known major amount by weight of feed, sampling said second mixture by removing therefrom a given amount by weight, separating by flotation said discrete coated particles within the sample from substantially the balance of said sample by adding to said sample a liquid having a specific gravity intermediate that of said material and those of said feed supplement and said feed, said liquid being such as to not dissolve said coating or said particles, spreading said particles out on a porous absorbent surface against which the color produced by said coating is visible, and washing said coating from said particles onto said surface.

2,868,645

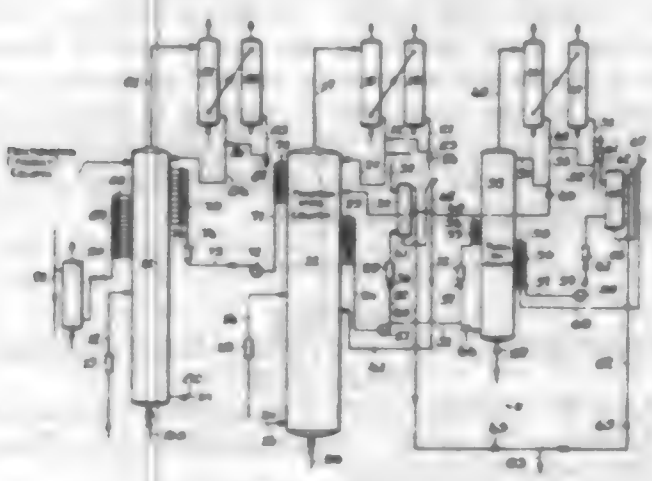
PROCESSES FOR PRODUCING DISTILLED POTABLE ALCOHOLIC LIQUORS

George C. Neureuther, Morton, Ill., assignor to Hiram Walker & Sons, Inc., Peoria, Ill.

Application November 13, 1956, Serial No. 621,557
9 Claims. (Cl. 99—34)

1. The method of continuously producing whiskies of desired characteristics of taste, bouquet and body and of

uniform quality in distillation apparatus which comprises supplying a part of the beer to be distilled to a first fractionating column while supplying heat to said fractionating column thereby vaporizing alcohol and congeners, supplying the remainder of said beer feed to a second fractionating column while supplying heat to said second fractionating column, thereby vaporizing alcohol and light congeners from the fusel oil constituents, conducting the vapors from said second column to a condenser to produce a condensate of said alcohol and light congeners, discharging a portion of such condensate containing light congeners and returning the remainder of the light congeners plus condensed alcohol to said second fractionating column as reflux, removing from said second fractionating column a liquid side stream containing fusel oil constituents, separating fusel oil from said side stream and returning the remaining constituents



of said side stream to said second fractionating column for redistillation therein, removing spent beer from the bottom of said second fractionating column, removing from said second fractionating column at a point intermediate the fusel oil side stream draw-off and the point of return of reflux a liquid of high alcoholic content, feeding said liquid of high alcoholic content from said second fractionating column to said first fractionating column at a point intermediate the beer feed inlet and the head of said first fractionating column, condensing vapors of alcohol and lower boiling congeners distilled from said first fractionating column, refluxing the condensate to the head of said first fractionating column, removing from the first fractionating column at a point lower in the column than the reflux return but above the point of beer feed, a liquid side stream of desired characteristics as a whiskey and removing spent beer from the lower portion of said first fractionating column.

2,868,646
EFFERVESCENT DRINK CONCENTRATE AND METHOD OF MAKING SAME

Abraham Schapiro, Kentfield, Calif., assignor to The Shasta Water Company, San Francisco, Calif., a corporation of California

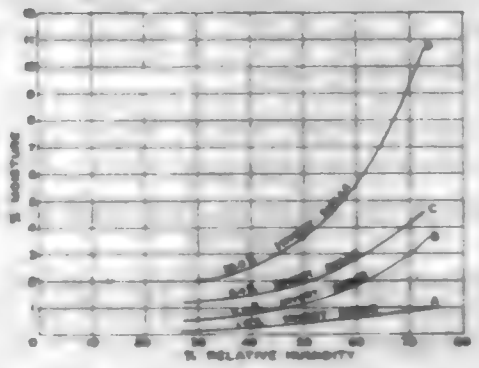
No Drawing. Application July 24, 1953
Serial No. 370,218
36 Claims. (Cl. 99—78)

1. In the method of making a stable, dry, granular beverage concentrate, the steps comprising coating crystals of a sugar of the class consisting of disaccharides, monosaccharides and mixtures thereof and of an edible, water-soluble, low molecular weight food acid with an adherent coating comprising an aqueous dispersion of an edible film-forming material of the class consisting of non-toxic saponins and water-soluble gums, and a monosaccharide, the amount of water in said aqueous dispersion being insufficient to destroy the crystalline character of the sugar and the acid, drying the coated crystals at a temperature below the melting point of the coated crystals to preserve the crystalline structure of the crystals, said drying being continued for a period of time insufficient to destroy the crystals and breaking up the dried product into granules.

2,868,647
PROCESS OF PRODUCING A CANDY COATED CEREAL

Willard L. Vollink, Battle Creek, Mich., assignor to General Foods Corporation, New York, N. Y., a corporation of Delaware

Application September 24, 1953, Serial No. 382,881
15 Claims. (Cl. 99—83)



1. A process for covering cereal bodies with a hard glaze-like coating that does not become sticky when exposed to high relative humidity, comprising the steps of forming an aqueous sugar syrup containing between 60% and 85% soluble solids which consist essentially of sucrose and from 1% to 8% non-sucrose sugar on a dry solids basis, distributing said syrup over the surfaces of the cereal bodies, and then drying the syrup-coated cereal bodies, initially without substantial agitation of said bodies, to a final moisture content of 2–3% at a temperature and time such that the amount of invert sugar formed during drying does not increase the level of non-sucrose sugars in the coating above 8% on a dry solids basis.

2,868,648
PROCESSES OF PRODUCING A BAKED CEREAL PRODUCT

Georg Henning Blomqvist, Goteborg, and Arne Ivar Malm, Agnesberg, Sweden, assignors to P. O. Stokkebyes Kvarnaktiebolag, Goteborg, Sweden

No Drawing. Application March 8, 1954
Serial No. 414,883
5 Claims. (Cl. 99—83)

1. A process of producing a baked cereal product having a long storage life and containing a considerable proportion of oats consisting in incorporating cocoanut oil in a quantity of 0.1–12.0% of the weight of the cereal product substantially homogeneously in said product for retarding the formation of bitter substances in said oats.

2,868,649
METHOD FOR THE PRODUCTION OF BAKER'S YEAST

Sven Olof Rosenqvist, Rotebro, Sweden, assignor to Svenska Jastfabriks Aktiebolaget, Stockholm, Sweden, a corporation of Stockholm

No Drawing. Application December 14, 1955
Serial No. 552,975
3 Claims. (Cl. 99—96)

1. A method for production of propagative baker's yeast consisting essentially of the steps of separating solid yeast from a wort without dilution thereof containing fermented yeast to obtain therefrom in its natural state after fermentation a yeast concentrate, subsequently dehydrating residual wort from said concentrated yeast by filtering it off into cake form, then washing said yeast cake with water at least once, and removing said water through said filtering zone.

2,868,650

PROCESS FOR THE PREPARATION OF A ROLLED MEAT PRODUCT

Chester A. Hammerberg, Des Plaines, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application April 23, 1956
Serial No. 579,762
2 Claims. (Cl. 99—107)

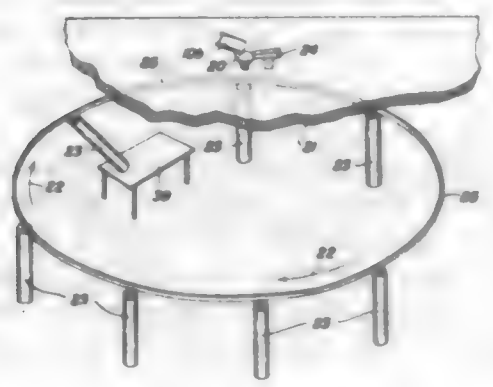
1. A process for the preparation of a rolled meat product which comprises making a multiplicity of cuts on the surfaces of meat, forming said meat in the shape of a roll and after said meat is formed in the shape of a roll, causing the contiguous surfaces of said meat to become intermeshed by the application of pressure to the external periphery of the rolled meat.

2,868,651

PROCESS AND APPARATUS FOR MAKING CHEESE

David H. Manwaring, Rexburg, Idaho, assignor to Nelson-Ricks Creamery Company, Salt Lake City, Utah, a corporation of Utah

Application August 19, 1954, Serial No. 450,985
6 Claims. (Cl. 99—116)



1. In a granular curd process of making cheese, the steps, following the customary making of curds and whey in a vat, of separating the curds and whey; introducing the curds into the upper end of an elongate, vertically disposed, forming tube in a continuously flowing stream; simultaneously flowing a continuous stream of salt into said upper end of the tube, so that the curd and salt commingle as they fall into said tube and form a salted curd column therewithin; and retaining the mixed curd and salt within said tube until formed and knit into a cohesive cheese body.

2,868,652

LIQUID SHORTENING AND METHOD OF MAKING SAME

Frank H. Brock, Decatur, Ill., assignor to A. E. Staley Manufacturing Company, Decatur, Ill., a corporation of Delaware

No Drawing. Application September 17, 1954
Serial No. 456,867
13 Claims. (Cl. 99—118)

1. Liquid shortening consisting essentially of edible triglyceride oil base containing substantially no normally solid triglycerides, a minor amount of at least one member of the group consisting of mono- and diglycerides of fatty acid containing at least 16 carbon atoms and not more than one double bond, and a small percent of free fatty acid containing at least 16 carbon atoms and not more than one double bond, said shortening having a creamy consistency at room temperature with minute crystals of said free fatty acid and of said glyceride suspended therein.

2,868,653

SALAD AND DESSERT TOPPING

Holton W. Diamond, Whiting, Ind., and Eugene L. Powell, Chicago, Ill., assignors, by mesne assignments, to Robert E. Rich, Buffalo, N. Y.

No Drawing. Application December 3, 1954
Serial No. 473,044
5 Claims. (Cl. 99—139)

1. An edible emulsion adapted to be whipped or aerated with an inert non-toxic edible gas to form a firm non-pourable mass by the retention of ingested gas: comprising the essential combination of water; glyceride fat; a relatively minor amount of a cellulose substituted with alkyl groups comprising not more than two carbon atoms and at least part of such groups being methyl; and a relatively minor amount of surfactant selected from the group consisting of complex mixtures of partial esters of fatty acids and hexitol anhydrides derived from sorbitol, complex mixtures of partial esters of fatty acids and sorbitol-derived hexitol anhydrides in which polyoxyethylene chains have been added to the non-esterified hydroxyl groups of the hexitol anhydride, refined complex mixtures resulting from the metathetical reaction of complex glyceride fat with an excess of glycerol, and a mixture of the esters resulting from the direct esterification of fatty acid with polymerized ethylene oxide.

2,868,654

COMPOSITION OF MATTER AND PROCESS THEREFOR

Richard D. Haynes, Creve Coeur, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 18, 1956
Serial No. 585,621
6 Claims. (Cl. 99—143)

1. A complex crystalline material comprising particles having a crystalline nucleus of sodium chloride, the said sodium chloride being surrounded by a phosphate selected from the group consisting of monocalcium phosphate, monosodium phosphate, sodium pyrophosphate, disodium phosphate, trisodium phosphate, sodium acid pyrophosphate, sodium hexametaphosphate, sodium tripolyphosphate, and mixtures thereof.

2,868,655

SALT TABLETS CONTAINING AN ETHYLENE-DIAMINETETRACETIC ACID COMPOUND AND PROCESS OF PRODUCING THE SAME

Kurt Ladenburg, Chappequa, N. Y., assignor to International Salt Company, Inc., Scranton, Pa., a corporation of New Jersey

No Drawing. Application December 31, 1956
Serial No. 631,401
17 Claims. (Cl. 99—143)

1. A process comprising thoroughly admixing sodium chloride and at least about 0.5% of a water-soluble EDTA compound by weight of the sodium chloride with sufficient water to yield a substantially homogeneous paste, drying the paste, grinding the dried mixture into particles at least about 85% of which have a size passing a No. 30 screen, thoroughly admixing about 0.05 to 2.0% of a cohesive agent into the ground mixture, and pressing the resulting mixture into tablets.

2,868,656

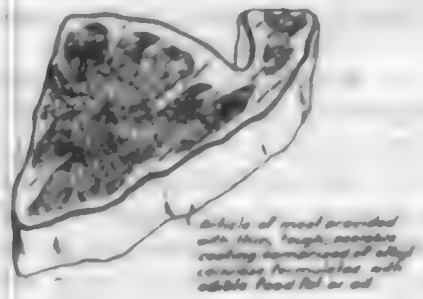
METHOD OF COATING FOOD ARTICLES AND PRODUCT OBTAINED THEREBY

Lorraine E. Patten and Harold C. Kelly, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application December 23, 1957, Serial No. 704,667
18 Claims. (Cl. 99—166)

1. Method for coating articles of food which comprises the steps of (1) applying to the article, while it is

being maintained at a relatively lower temperature, a thin enveloping film of a coating from a composition in molten form composed essentially of (*a*) from 20 to 50 percent by weight of the composition of an ethyl cellulose having an ethoxyl content between about 47.5 and 50 percent by weight and a viscosity between about 6 and 200 centipoises, as determined in a 5 percent by weight solution thereof in an 80:20 mixture, by volume, of toluene and ethanol; (*b*) between about 20 and 65 percent



based on the weight of the composition, of an oleaginous constituent that is composed of an edible oleaginous food material derived from natural sources, any balance being a refined mineral oil having a Saybolt viscosity at 100° F. between about 80 and 400 units; and (c) between about 10 and 25 percent by weight, based on the weight of the composition, of a colorless, odorless, non-toxic plasticizer component which is a solvent for the cellulose ether; and (2) cooling the applied coating on the article to a hardened condition.

2,868,657

SILICONE COATING COMPOSITIONS

Louis M. Sonso, Racine, Wis., assignor to S. C. Johnson & Son, Inc., Racine, Wis.

No Drawing. Application November 15, 1955
Serial No. 547,841
4 Claims. (Cl. 106—10)

1. A surface finish composition consisting essentially of an organopolysiloxane having predominately a combination of substantial amounts of both methyl and ethyl groups attached to the silicon atoms of each organopolysiloxane molecule, said organopolysiloxane having a viscosity of between about 20 and about 15,00 centistokes at 25° C., a liquid organic solvent entirely miscible with said organopolysiloxane having an aniline point between about 50° F. and about 185° F. and a distillation range of between about 190° F. and about 460° F., and a wax in a quantity up to about 10 parts by weight per each part by weight of polysiloxane, the ratio of said solvent to said wax and said polysiloxane being such that the solvent functions as a mutual solvent-dispersant for the polysiloxane and wax permitting said composition to be readily applied to surfaces in thin evenly distributed films.

2,868,658

CERAMIC BODIES

William W. Coffeen, Westfield, N. J., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New York

No Drawing. Application May 11, 1956
Serial No. 584,194
13 Claims. (Cl. 106—65)

1. A ceramic body having low electrical conductance consisting essentially by weight of about 0.03% to about 0.3% of at least one metal oxide selected from the group consisting of iron oxide, nickel oxide, zinc oxide, cobalt oxide, manganese oxide, and copper oxide, about 0.5% to about 50% of bismuth oxide, and the remainder being substantially tin oxide, said composition expressing the analysis of the metal content of said ceramic body expressed in terms of corresponding metal oxides.

2,868,659

HYDRAULIC CEMENT COMPOSITIONS, INGREDIENTS, AND METHODS OF MAKING SAME

Edward W. Scripture, Jr., St. James, Barbados, British West Indies, Stephen W. Benedict, Cleveland Heights, and Paul B. Jacox, Newburg Heights, Ohio, assignors, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application October 26, 1955
Serial No. 543,024
7 Claims. (Cl. 106—90)

1. An hydraulic cement mix consisting essentially of Portland cement, sufficient water to effect hydraulic setting of the cement and produce a workably plastic mix, and from about 0.05% to 1.0% based on the weight of cement, of the solids of a waste sulfite liquor effluent resulting from passing a waste sulfite liquor into intimate contact with activated carbon until between about 5% and 40% of the solids in said liquor have been removed.

2,868,660

INTERIOR PLASTER

Edward M. Lemmon, Franklin Township, Franklin County, Ohio, assignor to James L. Palagrove, Columbus, Ohio

No Drawing. Application April 15, 1957
Serial No. 652,685
4 Claims. (Cl. 106—109)

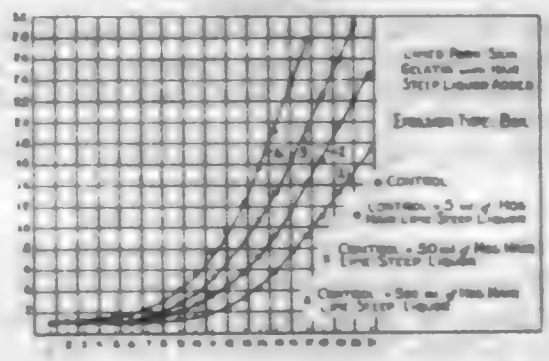
1. A composition of matter consisting of about 60% marble aggregate ground to the size of fine sand, about 27% of hydrated lime, about 12% of Keene cement, about ⅓ of 1% zinc stearate, and about ⅓ of 1% of color.

2,868,661

SENSITIZING PHOTOGRAPHIC GELATIN

Herman L. Tschentke, Chicago, and Clifford B. Streightiff, Dolton, Ill., assignors to Wilson & Co., Inc., a corporation of Delaware

Application August 4, 1954, Serial No. 447,722
10 Claims. (Cl. 106—135)



1. The method of producing photographic gelatins of improved sensitivity from alkaline type cooked pork skin gelatin which comprises steeping hair at a temperature in the range between about 45° F. and about 50° F. at atmospheric pressure for a period of between about 12 and about 81 days in an aqueous mixture of lime in which lime is present in quantities between 0.18% and 6% by weight, the ratio of hair to aqueous lime mixture being by weight between about 1:7 and about 1:8, separating the steeped liquor from the undissolved hair, adding the steep liquor substantially free of suspended solids to a solution of alkaline type cooked pork skin gelatin of a sensitivity normally unsatisfactory for use in photographic emulsions in quantities introducing per pound of said gelatin the steep liquor derived from steeping between about 0.0003 and about 0.5 pound of hair and removing water from the mixture.

2,868,662

PIGMENTED PLASTICS AND METHOD FOR PREPARING THE SAME

Philip H. Ingham, Maplewood, and Arthur Mastrobattista, Basking Ridge, N. J., assignors to Interchemical Corporation, New York, N. Y., a corporation of Ohio

No Drawing. Application February 23, 1954
Serial No. 412,090
11 Claims. (Cl. 106—193)

1. A process for plastic milling of pigments into cellulose acetate which comprises plastic milling a premix of pigment and cellulose acetate with mixture of acetone and water, which mixture is a solvent for cellulose acetate but, the amount of said mixture used being insufficient to completely dissolve the cellulose acetate.

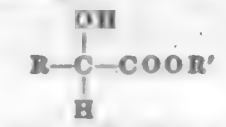
2,868,663

PIGMENTED SYNTHETIC MATERIAL AND A METHOD FOR MAKING THE SAME

Joseph M. Jarmus, East Orange, and Daniel Kaufman, Fords, N. J., and Francis R. Marchetti, New York, N. Y., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application August 29, 1956
Serial No. 606,799
11 Claims. (Cl. 106—193)

1. An internally pigmented polymeric product comprising a macromolecular polymer and dispersed throughout said polymer a hydrous oxide treated titanium dioxide pigment and from 0.2% to 5.0% by weight of said pigment, of an organic compound of an alpha hydroxy acid having the structure



where R is selected from the group consisting of alkyl and aryl radicals and where R′ is selected from the group consisting of hydrogen, ammonium, alkali metals, alkyl and aryl radicals, said treated titanium dioxide pigment having a hydrous oxide of a metal selected from the group consisting of aluminum, titanium, silicon, zirconium and mixtures thereof coated on the surface of said pigment in amount from 0.25% to 10.00% based on the weight of said pigment.

2,868,664

DRY MANNOGALACTAN COMPOSITION

Arthur M. Goldstein, Jackson Heights, N. Y., assignor to Stein, Hall & Co., Inc., New York, N. Y., a corporation of New York

No Drawing. Application May 3, 1954
Serial No. 427,365
5 Claims. (Cl. 106—208)

1. A dry composition which is readily dispersible in water without lumping consisting essentially of a mannogalactan gum, at least about 0.5% by weight of the gum of a sodium borate, and at least about 0.5% by weight of the gum of a water-soluble acid salt selected from the group consisting of monosodium phosphate, aluminum sulfate, and ammonium chloride; said salt being coated with a polyethylene glycol having an average molecular weight of at least about 2,000 and the combined amount of borate and acid salt being no greater than about equal to the amount of gum in the composition.

2,868,665

AN IMPREGNATED CORRUGATED PAPERBOARD, A COMPOSITION THEREFOR, AND A PROCESS OF MAKING SAID COMPOSITION

Albert R. McManus, St. Louis, Mo.

No Drawing. Application March 7, 1957
Serial No. 644,476
6 Claims. (Cl. 106—230)

1. A water resistant and strength imparting impregnating composition for application to corrugated paperboard to increase the column loading strength thereof to at least about 300 percent: said composition consisting essentially of a homogeneous admixture of about 50% refined paraffin and about 50% limed rosin having about 4.5% lime content.

2,868,666

ALUMINUM SOAP WATER-PROOFING COMPOSITION AND PROCESS OF MAKING THE SAME

Joseph Cunder, East Orange, and Francis J. Licata, West Caldwell, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey

No Drawing. Application December 11, 1956
Serial No. 627,555
9 Claims. (Cl. 106—243)

6. A composition of matter comprising a complex of an aluminum soap of a saturated fatty acid having a carbon chain length of from about 8 to 22 carbon atoms and the aluminum salt obtained from the 2-ethylhexyl ester of pentasodium tripolyphosphate, said complex having been obtained by coprecipitating a water-soluble soap of said fatty acid and from ½% to 50% by weight, based on the dry weight of said water-soluble soap, of the 2-ethylhexyl ester of pentasodium tripolyphosphate with a water-soluble aluminum salt, said composition characterized by its increased solubility in hydrocarbon solvents relative to the solubility of aluminum stearate alone and further characterized by said composition forming fluid, concentrated solutions with said hydrocarbon solvents.

2,868,667

METHOD AND COMPOSITION FOR FORMING A POROUS METALLIC COATING

William S. Bowles, Mount Royal, Montreal, Quebec, Canada, assignor to Wall Colmonoy Corporation, Detroit, Mich., a corporation of New York

No Drawing. Application October 12, 1956
Serial No. 615,491
16 Claims. (Cl. 117—22)

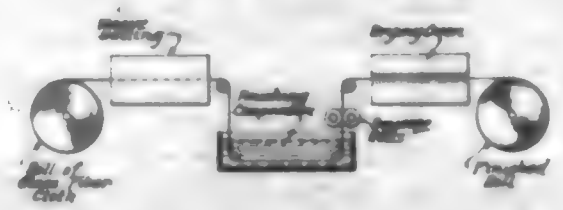
11. Method of forming a porous metallic surface coating comprising the step of spraying upon a surface to be coated a mixture in powder form of a hard alloy of chromium, nickel, and boron and a metal that is relatively soft compared to said alloy, at an elevated temperature at which at least one of said metal and said alloy is plastic but below the melting temperatures of said alloy and said metal, said soft metal being capable of forming a metallurgical bond with said hard alloy at said temperature, thereby to form a wear resistant and machinable cohesive surface coating in which the particles of said hard alloy retain their identity and are metallurgically bonded to said soft metal.

2,868,668

METHOD OF FINISHING A GLASS FIBER TEXTILE CLOTH AND ARTICLE PRODUCED THEREBY

Remus F. Carocelli and Roland K. Gagnon, Manville, R. I., assignors to Owens-Corning Fiberglas Corporation, a corporation of Delaware

Application May 26, 1954, Serial No. 432,617
7 Claims. (Cl. 117—46)



4. The method of finishing a textile cloth of glass fibers to improve the hand and feel thereof, comprising the steps of heating the textile fabric of glass fibers at a temperature and for a time sufficient cleanly to burn off the size from the glass fiber surfaces and to weave set and relax the fibers in the fabric, and then applying plural coatings onto the heat cleaned and weave set

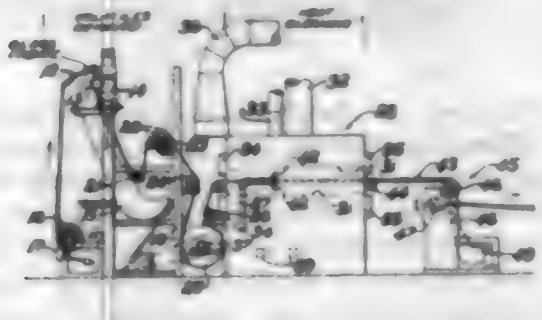
glass fibers of the fabric by first coating the heat cleaned glass fibers of the textile fabric to provide a thin coating on the surfaces thereof of a composition containing a diluent and in which the polymeric solids consist essentially of an acrylic acid ester polymer, heating the coated fibers to drive off the diluent in the coating composition and to set the acrylic acid ester polymer as a thin coating on the glass fiber surfaces, applying a second coating onto the said coated fibers formed of a water repellent selected from the group consisting of a Werner complex compound in which the carboxylato group has more than 10 carbon atoms and a cationic amine compound having an organic group attached directly to the basic nitrogen atom containing more than 10 carbon atoms, and then drying the fibers to drive off the diluent and insolubilize the water repellent on the surfaces of the coated fibers.

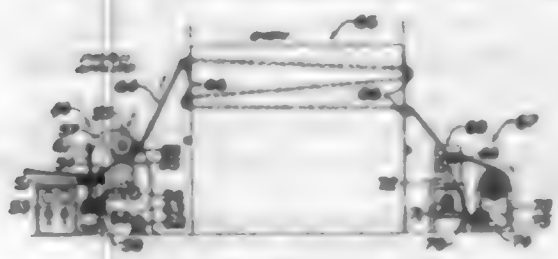
2,868,665

METHOD OF CLEANING AND COATING SIZED GLASS FABRIC

Alfred Marzocchi, Pawtucket, and Remus F. Carosella, Manville, R. I., and Gerald E. Rasmuel, North Attleboro, Mass., assignors to Owens-Corning Fiberglas Corporation, a corporation of Delaware

Application September 2, 1954, Serial No. 453,782
6 Claims. (Cl. 117—46)





1. Method of applying a finish to a fibrous glass fabric having a size thereon comprising a two-stage cleaning step and a finish application step, said two-stage cleaning step comprising advancing said fabric toward a combustion chamber, heating said fabric immediately prior to its reaching said combustion chamber to a temperature of from about 500° to 900° F. to drive off sufficient amount of the size in the form of volatile materials to allow controlled heat cleaning of the fabric in a subsequent step but leaving sufficient amount of size thereon to allow burning of the remaining size to provide complete heat cleaning, and then heating said fabric in a combustion chamber to a temperature of from about 900° to 1300° F. while simultaneously directing a stream of a combustion supporting gas toward the surfaces of said advancing fabric to heat clean and weave set the fabric.

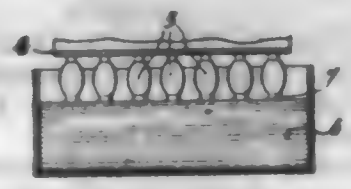
2,868,670

FLASH LAMP COATING PROCESS

Jan Anton Willem van Laar and Cornelis Johannes Victor Apon, Emmasingel, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application January 5, 1955, Serial No. 480,036
Claims priority, application Netherlands
February 13, 1954
3 Claims. (Cl. 117—94)

1. A method of coating the glass bulb of a flash lamp comprising, immersing said glass bulb a single time in a viscous dispersion of thermoplastic synthetic resin particles in a softener to form a protective layer on the exterior surface of said bulb having a thickness of from



0.5 mm. to 1.5 mms., said dispersion having a viscosity between 250 and 1000 poises measured at 20° C. in a Höppler viscometer, and heating the glass bulb to gelatinize said resin dispersion.

2,868,671

PROCESS OF LUBRICATION

John A. Henricks, Baltimore, Md., assignor to Devex Corporation, Lakewood, Ohio, a corporation of Ohio

No Drawing. Application November 14, 1951
Serial No. 256,374
8 Claims. (Cl. 117—97)

5. A method of lubricating metal surfaces of internal combustion engines that are subject to a substantially uniform continuous sliding friction, comprising introducing upon a porous wearing surface a polyhydric alcohol selected from a member of the group consisting of glycerol, glycol, glucose, starch and cellulose, introducing a glass forming acid selected from a member of the group consisting of boric, arsenic and phosphoric upon said wearing surface, and thereafter forming a lubricating film in situ upon said wearing surface.

2,868,672

OXIDATION RESISTANT CARBON AND GRAPHITE BODIES

Neal J. Johnson and John D. Nickerson, Niagara Falls, N. Y., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application March 27, 1956
Serial No. 574,084
4 Claims. (Cl. 117—121)

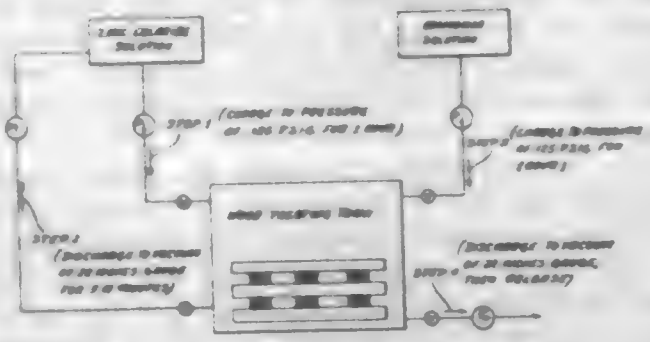
1. A method for rendering carbon and graphite articles oxidation resistant, which method consists in impregnating said carbon and graphite articles with pitch containing a phosphorus-containing organic compound miscible therewith, and then baking the graphite or carbon body to a temperature below 1200° C.

2,868,673

TREATMENT OF MATERIALS

Harlan A. Depew, Glendale, Patrick D. Quinn, St. Louis, and George R. Waitkins, Des Peres, Mo., assignors to American Zinc, Lead & Smelting Company, St. Louis, Mo., a corporation of Maine

Application March 7, 1958, Serial No. 719,916
20 Claims. (Cl. 117—137)



1. The process of treating cellulosic material comprising impregnating the material, in separate steps, with a solution of a water soluble zinc salt and with a reactant which produces, with a portion of said water soluble zinc

salt, zinc hydroxide, and co-precipitating the zinc hydroxide and residual water soluble zinc salt, in the form of water-insoluble basic zinc salt, in situ.

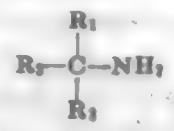
2,868,674

RODENT REPELLENT BINDER CORD

Pranas Jucaitis, Chicago, Ill., assignor, by mesne assignments, to International Harvester Company, Chicago, Ill., a corporation of New Jersey

No Drawing. Application December 23, 1954
Serial No. 477,412
8 Claims. (Cl. 117—138.5)

1. A binder cord having incorporated therein a rodent repelling composition consisting of an amine having between 10 to 18 carbon atoms having the general formula:



where R_1 and R_3 are selected from the group consisting of alkyl radicals, aryl substituted alkyl radicals, and hydrogen, and

R_2 is selected from the group consisting of alkyl radicals and aryl substituted alkyl radicals and substantially a stoichiometric equivalent of an organic acid selected from the group consisting of naphthenic acids, butyric acid and salicylic acid.

2,868,675

PRODUCTION OF NETS, KNITTED FABRICS AND THE LIKE FROM SINGLE-FILAMENT POLYAMIDE THREADS

Sven Olof Birger Ljungbo, Stockholm, Sweden

Application July 20, 1956, Serial No. 599,023
Claims priority, application Sweden July 21, 1955
4 Claims. (Cl. 117—138.8)

1. A process for treating single-filament polyamide threads and nets and knitted fabrics made therefrom to obtain slip-free knots and crossings between the threads, which comprises applying to said threads, nets and knitted fabrics a solution containing an acid capable of dissolving said polyamide, a polyvinyl acetal and an aldehyde selected from the group consisting of formaldehyde, acetaldehyde and butyraldehyde.

2,868,676

PRODUCTION OF NETS, KNITTED FABRICS AND THE LIKE FROM SYNTHETIC RESIN THREADS

Sven Olof Birger Ljungbo, Stockholm, Sweden

Application July 20, 1956, Serial No. 599,024
Claims priority, application Sweden July 21, 1955
6 Claims. (Cl. 117—138.8)

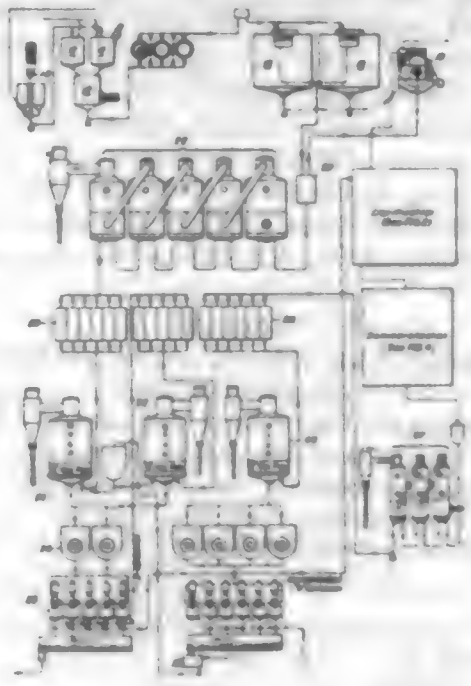
1. A process for treating polyamide threads and nets and knitted fabrics made therefrom with a view to obtain slip-free knots and crossings between the threads, which comprises applying to said threads, nets and knitted fabrics a liquid composition containing at least one solvent for said polyamide, at least one liquid diluent incapable of dissolving the polyamide, and at least one polymer which is miscible with the polyamide and soluble in said solvent but insoluble in water, said solvent having a rate of evaporation which is sufficiently lower than that of said diluent to cause the major portion of the solvent applied to remain on the threads after the diluent has evaporated therefrom, the solvent being used in a proportion which is insufficient, also after evaporation of the diluent, to effect interfusion of the polyamide of the thread and said polymer at normal temperatures, said polyamide threads, nets and knitted fabrics after evaporation of the diluent being subjected to a heat treatment whereby such interfusion is effected in the presence of the remaining solvent.

2,868,677

CLARIFICATION AND DEMINERALIZATION PROCESS FOR B-MOLASSES AND SIMILAR MATERIALS CONTAINING CONCENTRATED IMPURITIES

Ernst W. Kopke, New York, N. Y., assignor to Ultra-Sucro Company, New York, N. Y., a partnership

Application July 30, 1956, Serial No. 600,778
11 Claims. (Cl. 127—46)



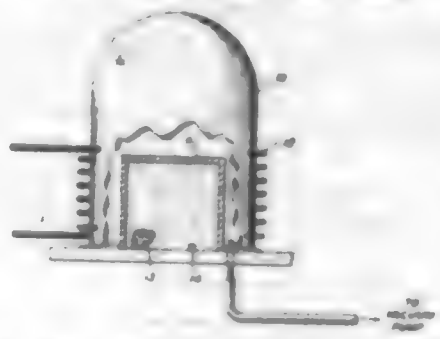
1. The process of clarifying and demineralizing "B" molasses, affination liquors and like sugar bearing solutions which contain a similarly comparatively high percentage of impurities from previous crystallization, comprising removing precipitated and insoluble impurities to clarify the solution, subsequently passing the clarified solution through a bed of low cross-linked high porosity highly ionized resin having the property of adsorbing sugar and by ion-exclusion excluding impurities, collecting the excluded-impurity-containing effluent, rinsing out the sugar by passing water through said resin bed, and collecting the sugar-bearing rinse separately for subsequent extraction of sugar, and maintaining the temperature during the ion-exclusion stage and rising up to at least 180° F.

2,868,678

METHOD OF FORMING LARGE AREA PN JUNCTIONS

William Shockley, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 23, 1955, Serial No. 496,201
5 Claims. (Cl. 148—1.5)



1. A vapor-solid diffusion method for producing a region of altered electrical characteristics in a monocrystalline semiconductive body which extends inwardly from the surface of said body comprising the steps of placing said body into an evacuated and substantially closed system, placing into said system a mass which is large relative to said body and which mass consists essentially of said semiconductive material and a significant impurity, heating said body and said mass to a temperature for causing said significant impurity to vaporize, and maintaining said mass and said body at said temperature

for a time necessary to produce said region, in accordance with which method deposition of significant impurity on the surface of the said body is substantially avoided.

2,868,679

PROCESS AND COMPOSITIONS FOR PRODUCING ALUMINUM SURFACE CONVERSION COATINGS

George H. Pimbley, Inglewood, Calif., assignor to Turco Products, Inc., Los Angeles, Calif., a corporation of California

No Drawing. Application December 5, 1955
Serial No. 550,825
28 Claims. (Cl. 148—6.2)

11. An aqueous acid bath for applying a coating to surfaces of objects of aluminum and its alloys, which comprises as essential active ingredients effective amounts of lithium as a cation, an anion containing an element in group VI–A of the periodic table and a fluorine-containing anion.

2,868,680

METHOD OF PICKLING AND COATING STAINLESS STEEL IN THE SAME BATH

John A. Henricks, Logansport, Ind., assignor to Devex Corporation, Lakewood, Ohio, a corporation of Ohio

No Drawing. Original application March 3, 1952, Serial No. 276,055. Divided and this application May 25, 1956, Serial No. 587,196
10 Claims. (Cl. 148—6.14)

1. The process of pickling and coating stainless steel in the same bath comprising the steps of immersing said work in a 12 to 30 percent acid pickling bath containing about 5 to 100 pounds of sodium chloride and from 1 to 10 pounds per 100 gallons of solution of an activator comprising an alkali salt containing oxygen and sulfur with a valence below six, and removing said work and rinsing in hot water.

2,868,681

FREE-PEELING SUBMERGED ARC WELDING COMPOSITION

Arthur E. Shrubsall, Niagara Falls, N. Y., and Clarence E. Jackson, Berkeley Heights, N. J., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application September 16, 1957
Serial No. 683,958
3 Claims. (Cl. 148—26)

1. A submerged arc welding composition which inhibits the formation of slivers that adhere to the weld deposit when the main body of the solidified fused welding composition has been removed, and which consists of 40% to 45% CaO, 45% to 55% Al_2O_3, 2% to 15% CaF_2, and the remainder up to 5% incidental impurities including silica.

2,868,682

CHROMATE-FLUORIDE TYPE COATING SOLUTIONS AND METHOD OF TREATING METAL SURFACES THEREWITH

Gaillard W. Dell, Detroit, Mich., assignor to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application January 31, 1957
Serial No. 637,350
14 Claims. (Cl. 148—6.16)

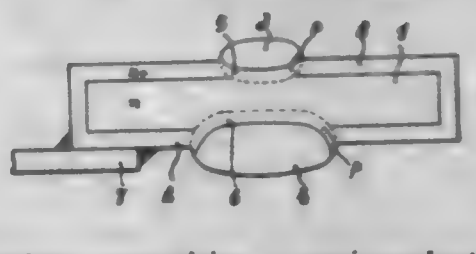
1. An aqueous acidic solution for producing corrosion-resistant and paint-base coatings on metallic surfaces consisting essentially of water, at least one compound containing hexavalent chromium, at least one compound containing the fluoride radical, and at least one condensed phosphate compound which yields the condensed phosphate radical in solution and in which the mole ratio of cationic oxides to anionic oxides is greater than 0 and less than 3, said condensed phosphate compound being present in amounts up to about 0.5% by weight calculated as condensed phosphate of sodium compound.

2,868,683

SEMI-CONDUCTIVE DEVICE

Pieter Johannes Wilhelmus Jochems and Leonard Johan Tummers, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application July 1, 1955, Serial No. 519,577
Claims priority, application Netherlands July 21, 1954
4 Claims. (Cl. 148—33)



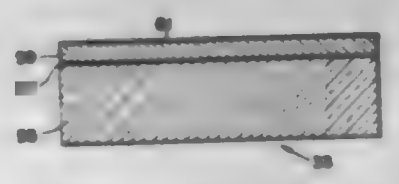
1. A transistor comprising a semi-conductive body of one conductivity type and having a given value of conductivity, the entire exposed surface of said body being of the same type as said one type but having a higher value of conductivity, and a pair of electrode-forming masses fused to opposite surfaces with the higher conductivity of said body and diffused within said body distances greater than the thickness of said previously-formed surface layer of higher conductivity and producing within said body spaced zones of the opposite conductivity type.

2,868,684

DECORATIVE ACOUSTICAL MATERIALS

Dominick Labino, Maumee, Ohio, assignor to L-O-F Glass Fibers Company, Toledo, Ohio, a corporation of Ohio

Application January 3, 1956, Serial No. 556,957
8 Claims. (Cl. 154—45.9)



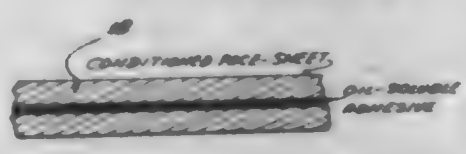
1. As an article of manufacture, a composite product of a non-woven staple glass fiber backing having a facing of a thin flexible mat of glass fibers, said mat comprising an admixture of staple glass fibers of a diameter in the range of 0.3 to 2.0 microns, a length in the range of 1/16 to 1/4 inch, and multi-filament glass strand, and a bonding agent adhering the fibers of the mat to each other at their points of contact and adhering the mat to the backing.

2,868,685

PAPER AND METHOD OF MAKING SAME

Martin L. Downs, Appleton, and Milton G. Schmitt, Kaukauna, Wis., assignors to Thilmany Pulp & Paper Company, Kaukauna, Wis., a corporation of Wisconsin

Application July 26, 1954, Serial No. 445,596
6 Claims. (Cl. 154—138)



1. A paper product resistant to bleeding through of oil-soluble thermoplastic coatings which includes a sheet of cellulosic paper impregnated with an oleophobic and hydrophobic conditioning agent, and a coating of oil soluble, water insoluble thermoplastic material on the conditioned sheet, said paper having a basis weight between 15 and 90 pounds per ream of 3000 square feet, said conditioning agent being a chromium coordination complex of the saturated perfluoromonocarboxylic acids having from 4 to 10 carbon atoms in the molecule, said condi-

tioning agent being present in an amount such that the initial contact angle of oil soluble, water insoluble thermoplastic material exceeds 60 degrees and does not change substantially in the time between 2 minutes and 5 minutes in an oven at 220° F., the amount of said conditioning agent also being such that the porosity of the sheet is not substantially impaired.

5. The method of making a flexible, porous, moisture-resistant laminated cellulosic product which is resistant to bleeding through of oil-soluble, water-insoluble adhesive thermoplastic applied thereto, said method including the steps of impregnating at least one face of a plurality of sheets of a substantially dry, porous, flexible cellulosic material with a sufficient volume of liquid to penetrate into the body of each sheet, said liquid having dispersed therein sufficient material which is capable of being set by heat to form an oleophobic, hydrophobic chromium coordination complex of perfluoromonocarboxylic acids having 4 to 10 carbon atoms to provide each sheet with an amount of said chromium coordination complex such that said sheet will maintain a substantially constant contact angle of more than 60 degrees with an oil-soluble, water-insoluble, adhesive thermoplastic placed in contact with each sheet, when each sheet if tested at a temperature of 220° F. over a period of from 2 to 10 minutes, drying said impregnated sheets by heat to provide said chromium coordination complex, and laminating said impregnated sheets together with an oil-soluble, water-insoluble adhesive thermoplastic which is solid above about 65° F., whereby a moisture-resistant, laminated cellulosic sheet product resistant to bleeding through of said thermoplastic and with substantially unimpaired porosity and flexibility is obtained.

2,868,686

IODINE BROMIDE PREPARATIONS FOR CONTROLLING MICROORGANISMS

Morris V. Shelanski, Atlantic City, N. J., and Murray W. Winicov, Philadelphia, Pa., assignors to West Laboratories, Inc., Long Island City, N. Y., a corporation of New York

No Drawing. Application November 19, 1956
Serial No. 622,783
13 Claims. (Cl. 167—17)

1. A composition for the control of micro-organisms comprising a complex of iodine bromide with a surface active agent selected from the group consisting of anionic alkyl phenyl sulfonates and alkyl naphthyl sulfonates wherein the alkyl group has from 3 to 30 carbon atoms and nonionic polyoxyalkylene condensates, said complex containing 0.1 to 30% of iodine and 0.1 to 20% of bromine based upon the weight of said surface active gent.

13. In compositions for the control of micro-organisms which are complexes of iodine with nonionic and anionic surface active agents, the improvement that comprises substituting for the free iodine in such complexes iodine bromide in an amount to provide 0.1 to 30% of iodine and 0.1 to 20% of bromine based on the weight of said surface active agent, with the proportion of bromine to iodine being within the range from iodine mono-bromide to iodine tri-bromide.

2,868,687

FUNGICIDAL AND BACTERICIDAL COMPOSITIONS

Carleton B. Scott, Pomona, Calif., assignor, by mesne assignments, to Collier Carbon and Chemical Corporation, a corporation of California

No Drawing. Application January 30, 1956
Serial No. 562,035
5 Claims. (Cl. 167—22)

1. The method of preventing and controlling the growth of fungi and bacteria on plant materials which comprises applying thereto an effective fungicidal and bactericidal amount of the product of reaction between substantially equimolecular amounts of dimethyl tetrathiophosphate and perchloromethyl mercaptan at a reaction temperature between about —10° C. and about 60° C., said product being a viscous amber liquid distilling above about 150° C. under 1 millimeter pressure.

2,868,688

STABILIZED PESTICIDAL COMPOSITIONS

Hans A. Benesi, Berkeley, Calif., Yun Pei Sun and Erwin S. Loeffler, Denver, Colo., and Kenneth D. Detling, Orinda, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application October 21, 1953
Serial No. 387,512
16 Claims. (Cl. 167—42)

1. A stable solid, pulverulent biocidal composition comprising as toxicant a polyhalogen-substituted organic compound comprising at least one pair of fused carbocyclic rings having from 3 to 7 ring carbon atoms in each of the rings of said pair and a plurality of atoms of halogen substituted on at least one of said carbocyclic rings, as adjuvant a substantially toxicologically inert pulverulent, solid diluent, said diluent normally having an intrinsic acidity represented by a pK_A less than 0, and an acid-neutralizing agent transfused throughout the composition in an amount at least sufficient to neutralize the intrinsic acidity of said diluent to a value not less than 0 and up to 25% by weight of the said diluent.

2,868,689

PHARMACEUTICAL PREPARATIONS CONTAINING DYCLONINE HYDROCHLORIDE AND CHLOROBUTANOL

Herbert J. Florestano, Sampson F. Jeffries, Clyde E. Osborne, and Max E. Bahler, Indianapolis, Ind., assignors to Allied Laboratories, Inc., Kansas City, Mo., a corporation of Delaware

No Drawing. Application October 9, 1956
Serial No. 614,813
4 Claims. (Cl. 167—52)

1. A preparation having topical anesthetic and antimicrobial action comprising a relatively non-toxic and relatively non-sensitizing aqueous pharmaceutical carrier having incorporated therein from about .1% to 5% of dyclonine hydrochloride and from about .1% to .5% of chlorobutanol.

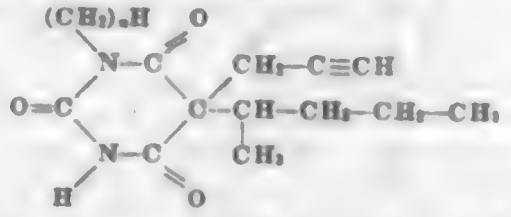
2,868,690

PROPARGYL BARBITURATES

Gustav J. Martin, Philadelphia, Soureo Avakian, Oreland, and Andrew E. Gal, Philadelphia, Pa., assignors to The National Drug Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application February 19, 1957
Serial No. 641,036
5 Claims. (Cl. 167—52)

1. A compound of the formula



wherein *n* is an integer from 0 to 1, both inclusive.

5. A composition consisting essentially of (1), a compound of claim 1, (2) allylbenzylacetamide.

2,868,691

SELF-PROPELLING COMPOSITIONS FOR INHALATION THERAPY CONTAINING A SALT OF ISOPROTERENOL OR EPINEPHRINE

Irving Porush and George L. Mahon, Los Angeles, Calif., assignors to Riker Laboratories, Inc., Los Angeles, Calif., a corporation of Delaware

No Drawing. Application March 21, 1956
Serial No. 572,788
15 Claims. (Cl. 167—54)

1. A self-propelling pharmaceutical composition capable of providing a medicament in aerosol form suitable for inhalation therapy, comprising as the medicament a water-soluble acid-addition salt of a bronchodilator amine selected from the class consisting of isoproterenol and epinephrine, said medicament comprising between about 0.1% and 2% of the composition, as a cosolvent for said medicament, an aqueous ethanol mixture in an amount comprising between about 20% to 40% of the composition, the water in said cosolvent comprising between about 1.5% and 2% of the total composition, and as a liquefied non-toxic propellant component a halogenated lower alkane containing at least 1 fluorine atom and not more than 2 carbon atoms and having a vapor pressure of between about 20 and 65 pounds per square inch gauge at 70°-F., said liquefied propellant component comprising substantially the remainder of the composition.

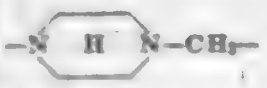
2,868,691

ANTHELMINTIC POLYMETHYLENEPIPERAZINE AND METHOD OF USING SAME

Frederick L. Bach, Jr., and Redginal I. Hewitt, Pearl River, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 16, 1956
Serial No. 585,160
6 Claims. (Cl. 167—55)

1. A therapeutic composition useful in the treatment of helminths in dosage unit form comprising from 0.1 g. to 10.00 g. of a polymethylenepiperazine of the following unit structure



per dosage unit and an edible carrier.

2,868,693

PEPTIC ULCER-TREATING COMPOSITIONS CONTAINING GLUTAMINE

William Shive and Joanne M. Ravel, Austin, Tex.

No Drawing. Application July 16, 1956
Serial No. 597,893
2 Claims. (Cl. 167—55)

1. The method of treating peptic ulcers in humans which comprises introducing into the stomach of the person suffering from said ulcers at least 0.20 grams of glutamine per day, and less than the amount which incites toxicity manifestations.

2,868,694

SYNTHESIS OF 1,2-DEHYDRO STEROID BY CYLINDROCARPON RADICICOLA OR FUSARIUM JAVANICUM

Josef Fried, New Brunswick, and Richard W. Thoma, Somerville, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application July 18, 1955
Serial No. 522,849
8 Claims. (Cl. 195—51)

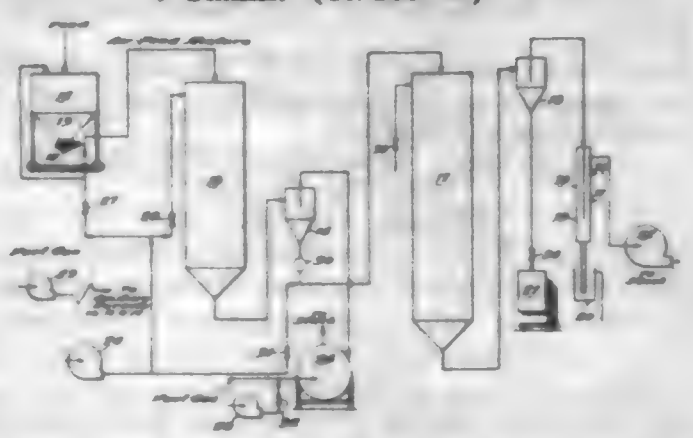
1. A process which comprises subjecting a steroid selected from the group consisting of Δ^4-pregnene-17α,21-diol-3,20-dione and 21-esters thereof to the action of the enzymes of fungi selected from the genera consisting of Cylindrocarpon and Fusarium in an aqueous medium containing assimilable sources of carbon and nitrogen, and recovering the 1,2-dehydrosteroid formed from the medium.

2,868,695

PROCESS FOR PREPARING A CARBONACEOUS MATERIAL

Frederick L. Shea, Jr., Arlington Heights, Ill., assignor to Great Lakes Carbon Corporation, New York, N. Y., a corporation of Delaware

Application April 18, 1955, Serial No. 502,122
9 Claims. (Cl. 202—9)



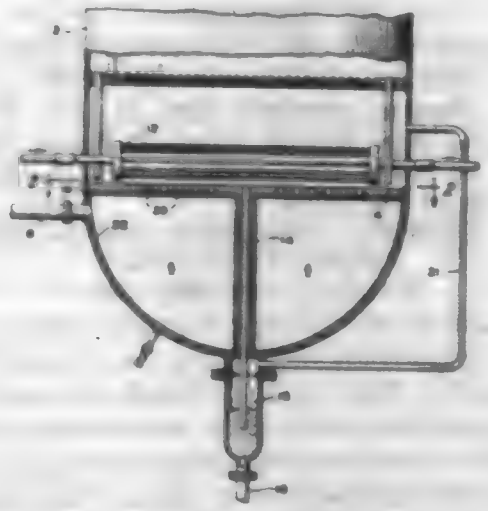
1. A three-stage process for preparing a carbonaceous material from finely divided bituminous particles having a particle size of 75% —100 mesh and which are normally solid at ordinary temperatures and capable of becoming plastic and expanding on heating which comprises, in the first-stage, flash-calcining the particles at a temperature between about 1150° to about 2000° F. in a gas stream containing oxygen in an amount between about 2.0 and about 4.0 standard cu. ft./lb. of bituminous particles so that at least 10% of the evolved combustible volatile matter remains unburned, the particles being heated at a rate in excess of 2000° F. (particle surface temperatures) per second; in the second stage, separating the solid expanded first-stage product from vaporous products at a temperature not less than that at which substantially all of said vaporous products remain in the vaporous state; and in the third stage, heating the solid particles from the second stage to remove residual volatile matter remaining on the surfaces of the particles to render them wettable, the final expanded product having a bulk density of less than about 25 lbs./cu. ft.

2,868,696

DISTILLATION OF HEAT SENSITIVE COMPOUNDS

Bradley Skinner, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application August 18, 1952, Serial No. 305,060
8 Claims. (Cl. 202—39)



3. In the distillation of a mixture of compounds containing at least one heat sensitive compound, said distillation being effected in a distillation zone comprising a multiplicity of individual zones and a bottom vapor-liquid contacting zone, the process which comprises pass-

ing a diluent gas through the bottom of said vapor-liquid contacting zone of said distillation zone to drive substantially all of the mixture upward, vaporizing a major portion of said mixture by heat supplied by indirect heat exchange immediately above the lower portion of said vapor-liquid contacting zone, and collecting unvaporized material at the bottom of said vapor-liquid contacting zone.

2,868,697

FOAM CONTROL IN THE DISTILLATION OF CYCLOPENTADIENYL MANGANESE TRICARBONYL

J. Byron Bingeman and Arthur F. Limper, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 14, 1958
Serial No. 721,365
1 Claim. (Cl. 202—40)

In a process for the separation and recovery of a cyclopentadienyl manganese tricarbonyl compound from mixtures containing said cyclopentadienyl manganese tricarbonyl compound and cyclopentadienyl hydrocarbon comprising distilling said mixture under conditions whereby the overhead stream comprises a mixture of cyclopentadiene hydrocarbon and said cyclopentadienyl manganese tricarbonyl, said cyclopentadienyl manganese tricarbonyl being present in from about 20 to about 90 weight percent of said overhead stream, the bottoms stream containing the major portion of said cyclopentadienyl manganese tricarbonyl and being essentially free of cyclopentadiene hydrocarbon.

2,868,698

MANUFACTURE OF CYCLOPENTADIENYL MANGANESE TRICARBONYL COMPOUNDS

Hoyt J. Cragg, Baton Rouge, La., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 24, 1957
Serial No. 673,765
2 Claims. (Cl. 202—46)

1. In a process for producing cyclopentadienyl manganese tricarbonyl compounds in which a cyclopentadiene compound is reacted with an alkali metal, the reaction product is thereafter reacted with a manganous salt and the product of the latter reaction is then reacted with carbon monoxide, in the presence of a solvent, the improvement comprising steam distilling said cyclopentadienyl manganese tricarbonyl compound in the presence of from about 1–10 percent by weight, based on the weight of said tricarbonyl compound, of a distillation aid selected from the group consisting of alkali metal phosphates, silicates, carbonates and borates.

2,868,699

PREPARATION OF CYCLOPENTADIENYL MANGANESE COMPOUNDS

Jerome E. Brown, Detroit, Earl G. De Witt, Royal Oak, Mich., and Hymin Shapiro, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 24, 1957
Serial No. 673,768
1 Claim. (Cl. 202—46)

In a process for producing cyclopentadienyl manganese tricarbonyl compounds in which a cyclopentadiene compound is reacted with an alkali metal, the reaction product is thereafter reacted with a manganous salt and the product of the latter reaction is then reacted with carbon monoxide in the presence of a solvent, the improvement comprising steam distilling said cyclopentadienyl manganese tricarbonyl compound in the presence of from about 0.01 to about 10 parts per part of said cyclopentadienyl manganese tricarbonyl compound of a hydrocarbon liquid having at least 12 carbon atoms.

2,868,700

MANUFACTURE OF CYCLOPENTADIENYL MANGANESE CARBONYL COMPOUNDS

Jerome E. Brown, Detroit, and Earl G. De Witt, Royal Oak, Mich., and Hymin Shapiro, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 24, 1957
Serial No. 673,764
5 Claims. (Cl. 202—56)

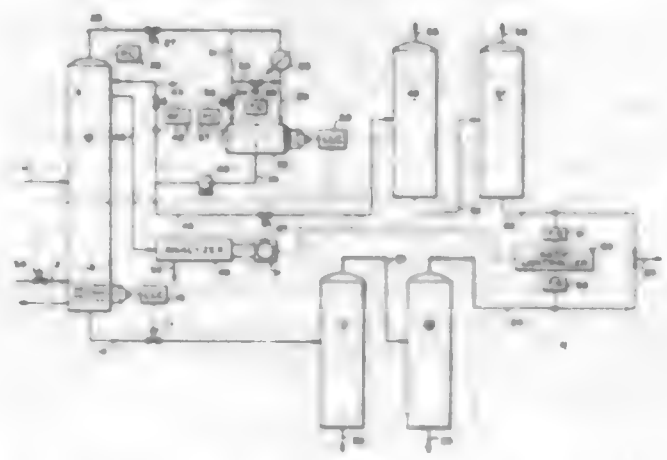
1. In a process for producing a cyclopentadienyl manganese tricarbonyl compound wherein an alkali metal cyclopentadienyl compound is reacted with a manganese compound, and this reaction product is thereafter reacted with carbon monoxide, the improvement comprising distilling said cyclopentadienyl manganese tricarbonyl compound from the by-product formed during said reactions while maintaining said by-product in a fluid state in an aromatic hydrocarbon suspending agent having a boiling point of from about 20 to about 100° C. above the boiling point of said cyclopentadienyl manganese tricarbonyl compound.

2,868,701

FLUID SEPARATION CONTROL

Donald E. Berger, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application April 2, 1956, Serial No. 575,396
14 Claims. (Cl. 202—160)



1. The method of separating from a fluid mixture containing three constituents having different boiling points a fluid containing a greater percent of the intermediately boiling constituent than does the mixture which comprises passing such a fluid mixture to a first fractionation zone, removing first overhead and kettle streams from said first zone, each of said first streams containing a portion of the intermediately boiling constituent, passing at least a portion of said first overhead stream to a second fractionation zone, removing a second kettle stream from said second zone, passing at least a portion of said first kettle stream to a third fractionation zone, removing a second overhead stream from said third zone, and controlling the operation of said first zone so that the ratio of the volume of said second kettle stream to the volume of said second overhead stream remains constant.

2,868,702

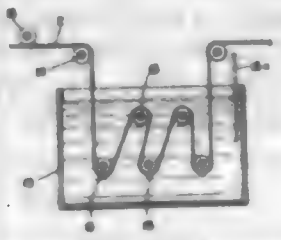
METHOD OF FORMING A DIELECTRIC OXIDE FILM ON A METAL STRIP

Joseph B. Brennan, Cleveland, Ohio; Helen E. Brennan, executrix of the estate of said Joseph B. Brennan, deceased

Application November 4, 1952, Serial No. 318,618
3 Claims. (Cl. 204—28)

2. A method of forming a dielectric oxide film on the surface of a metal strip which comprises thermally oxidizing the surface of the metal at a temperature between 212° F. and below the melting point of the metal to form thereon an oxide film relatively thick as compared

with the film formed by exposure to air at normal room temperature, and thereafter electro-forming a dielectric



oxide film on the metal surface beneath said thermally-produced oxide film to produce a unitary continuous oxide film having a high dielectric strength.

2,868,703

CELL FEED MATERIAL FOR THE PRODUCTION OF TITANIUM

Eugene Wainer, Cleveland Heights, Ohio, assignor, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey

Application November 8, 1954, Serial No. 467,581
2 Claims. (Cl. 204—64)



1. As an improved cell feed material for the electrolytic recovery of titanium, a composition of matter in which the titanium content is greater than 89% by weight and comprising two phases: a first phase constituting the major portion of the composition and consisting of alpha titanium containing an amount of carbon and oxygen corresponding to an amount sufficient to saturate titanium present in the liquid state while the improved cell feed material is being produced from titanium monoxide and titanium carbide in a process in which at least one of said starting materials is present in the molten state and containing small amounts of titanium carbide as a second phase; in a relative proportion insufficient to lower the titanium content of the two phases to below 89% titanium by weight.

2,868,704

PRODUCTION OF LOWER VALENT HALIDES OF Ta, Nb, Ti and V

Stuart Sherman Carlton, Parma, Ohio, assignor, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey

No Drawing. Application November 30, 1954
Serial No. 472,255
10 Claims. (Cl. 204—64)

2. The method of recovering electrolytically a polyvalent transition metal of the group consisting of titanium, niobium, tantalum and vanadium which comprises: fusing at least one halide salt of the group consisting of alkali metal halides and alkaline earth metal halides introducing into the resulting fused salt mass a carbide of the transition metal in solid form, thereafter introducing into the mass a simple halide of the polyvalent transition metal in gaseous form thereby effecting a reaction between the simple halide and the carbide in the fused salt medium, recovering the resulting transition metal halide containing fused salt bath in which the transition metal is present in a lower valence form than the valence it exhibited in the gaseous simple halide, separating any unreacted solid carbide from the fused salt reaction product and recovering the transition metal as a cathode deposit and the simple halide as a gas evolved at an anode by passing an electrolyzing current between an anode and a cathode and through said separated fused salt reaction product.

2,868,705

ART OF ELECTROLYTICALLY TREATING METAL TO CLEAN, LEVEL, SMOOTH, POLISH AND/OR PROTECT THE SURFACES THEREOF

John J. Baier, Manhasset, and Elmer Wodetzky, Freeport, N. Y.

Application January 19, 1955, Serial No. 482,832
4 Claims. (Cl. 204—140.5)

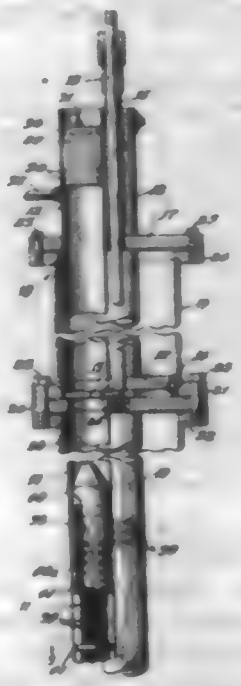
1. An electrolyte for use in anodically treating metal surfaces, consisting essentially of phosphoric acid and chromic acid and containing 0.7 to 2.7% by weight of sulfuric acid and 0.004 to 0.014% of hydrofluoric acid.

2,868,706

DEVICE FOR CHARGING OR DISCHARGING

Samuel Untermyer, Downers Grove, and Ernest Hutter, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application April 12, 1954, Serial No. 422,701
3 Claims. (Cl. 204—193.2)



1. In combination, three parallel tubes having their axes intersecting a plane normal thereto at three points lying in a circle, one point being spaced about 90 degrees from the other two, the other two points being spaced about 180 degrees from one another, said tubes being adapted to contain a first pressure fluid for treating objects therein, three parallel tubular extensions aligned with the tubes in spaced relationship thereto, a casing having a first end member attached to the ends of the tubes adjacent the extensions and a second end member attached to portions of the extensions spaced from the said ends thereof, a valve disk rotatably mounted in the casing at the first end member on an axis normal to said plane and passing through the center of said circle, the valve disk having an opening alignable with each tube upon appropriate rotation of the valve disk, removable plugs positioned in the ends of the extensions remote from the tubes, a regulating rod for the valve disk having one end secured thereto and projecting through the said second end member of the casing and beyond the ends of the extensions containing the removable plugs, a sleeve secured to the said second end member of the casing and projecting outwardly of the casing, the regulating rod

being journaled in the sleeve, fluid lines connected to the extensions between the removable plugs and the said second end member of the casing, a drain line connectable with the fluid lines, whereby in one position of the valve disk the opening lies on the diametrically opposite side of the circle from the said one point so that the valve disk blocks off all the tubes from the extensions, in three other positions the opening is successively aligned with each tube so as to let it discharge an object therefrom by the first pressure fluid into the associated extension when the fluid line connected with said associated extension is connected to the drain line, and the plug is removed from the associated extension to permit removal of the object therefrom after the valve disk is angularly shifted to shut off the tube from its associated extension, and a pressure line connectable with the fluid line on the said associated extension for supplying thereto a second pressure buid whereby a new object to be treated in the said tube may be placed in the said associated extension and forced into the said tube by the second pressure fluid coming through the fluid lines from said pressure line after the removable plug is replaced and the valve disk is angularly shifted to align its opening with the said tube.

2,868,707

PROCESS OF MAKING A NEUTRONIC REACTOR FUEL ELEMENT COMPOSITION

Henry Ward Alter, Danville, Calif., and John K. Davidson, Richard S. Miller, and Jack L. Mewherter, Schenectady, N. Y., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 4, 1957
Serial No. 663,552
1 Claim. (Cl. 204—193.2)

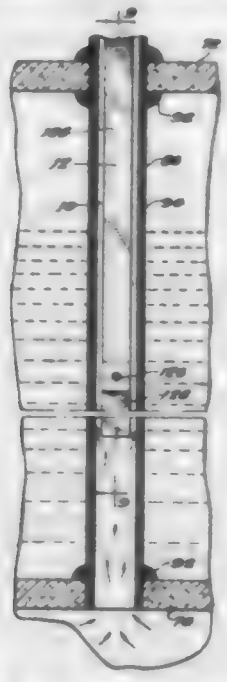
A process for making a solid solution of PuO_2 in UO_2 which comprises precipitating ammonium diuranate-hydrated plutonium dioxide from an aqueous nitric acid solution containing hexavalent uranium ions and tetravalent plutonium ions by means of ammonium hydroxide, filtering off the precipitate, washing the precipitate with acetone, drying the precipitate and calcining the dried precipitate at a temperature within a range of 600–1000° C. for at least one hour.

2,868,708

NEUTRONIC REACTOR

Harcourt C. Vernon, Wilmington, Del., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application November 2, 1945, Serial No. 626,381
5 Claims. (Cl. 204—193.2)



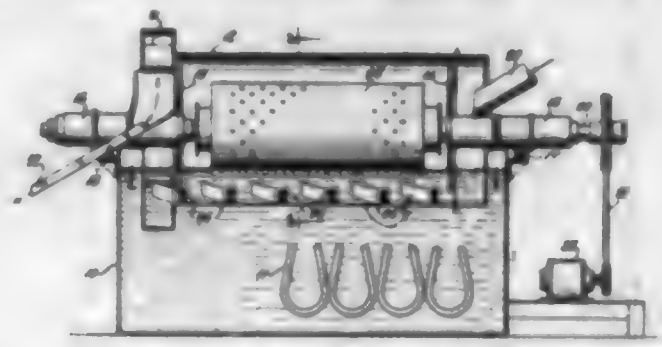
1. A neutronic reactor comprising, in combination, a chamber, a mass of liquid neutron moderator material disposed therein, means defining spaced vertical fluid-tight channels extending therethrough, a closure plate affixed to the top of each of the channels, said plate including depending support means, a plurality of spaced members attached at their upper extremities to the support means including material fissionable by neutrons of thermal energy, and means to circulate a fluid coolant through the channels.

2,868,709

FEED DEVICE FOR CONTINUOUS PLATING BARREL

Richard Geoffrey Bikales, Bayside, N. Y., assignor to Metal and Thermit Corporation, Woodbridge Township, Middlesex County, N. J., a corporation of New Jersey

Application November 13, 1957, Serial No. 696,198
3 Claims. (Cl. 204—201)



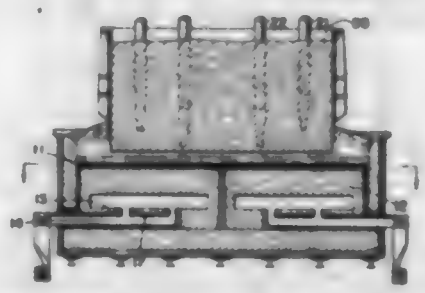
1. In a plating machine especially adapted for chromium plating from a chromic acid type solution comprising a tank adapted to hold the plating solution at a predetermined solution level therein, a horizontal rotatable metallic barrel adapted to be partly immersed in said solution and with which work articles therein may make electrical contact and one end of said barrel adapted to receive work articles to be plated and the other end to discharge said articles, the combination of means adapted to move work pieces longitudinally of said barrel comprising a plurality of plates arranged on edge in a longitudinal row on the inside wall of said barrel with each plate angularly disposed in the same direction to the longitudinal line of said row of plates and each plate disposed relative to the other plates so that any plane at right angles to the longitudinal axis of said cylinder between the leading edge of one end plate and the trailing edge of the other end plate will intersect at least one plate.

2,868,710

DEVICE FOR SUPPLYING CURRENT TO THE BOTTOM OF ELECTROLYTIC FURNACES

Pio Pontremoli, Milan, Italy, assignor to Montecatini Società Generale per l'Industria Mineraria e Chimica, Milan, Italy, a corporation of Italy

Application November 18, 1954, Serial No. 468,120
Claims priority, application Italy November 17, 1952
5 Claims. (Cl. 204—243)



1. A molten bath furnace for igneous electrolysis of aluminum, comprising a cathodic bottom portion supporting the molten bath and a consumable anode above the bottom portion, the bottom portion comprising a block of carbonaceous material having a horizontal top surface

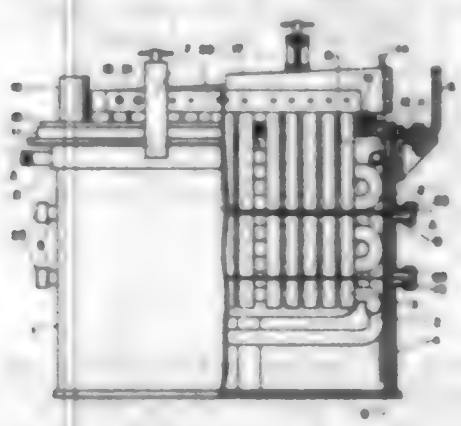
for contact with the aluminum and having a bottom surface and lateral side surfaces, a cathode conductor of metal fully embedded in said material and extending parallel to said top surface, a bus bar of metal laterally extending from the outside through one of said side surfaces to within said block and being located beneath said cathode conductor and adjacent to said bottom surface in parallel and spaced relation to said conductor, the bus bar being enclosed in the carbonaceous block at its upper face, the lower face of the bar being exposed along the bottom surface of the block, and connecting means joining said bus bar with said cathode conductor within said bottom portion and extending upwardly between said bar and conductor in spaced relation from the ends of said conductor, said connecting means being integrally formed with said bus bar and conductor, whereby the conductor is supported by the bus bar and the current from said bus bar is uniformly distributed from said cathode conductor through said carbonaceous material to said top surface.

2,868,711

ELECTROLYTIC CELL

Errol H. Karr, Tacoma, Wash., assignor to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

Application August 10, 1955, Serial No. 527,546
6 Claims. (Cl. 204—274)



1. An electrolytic cell comprising a tank for electrolyte, laterally spaced cathode elements within said tank, an anode in the form of a plurality of relatively thin metal strips extending vertically downwardly into said tank between said spaced cathode elements, means for rigidly supporting said anode strips at their upper end, and means provided at the lower end of said anode strips for minimizing lateral movement of said strips and thus preventing contact thereof with said cathode elements, said last-mentioned means comprising a pair of horizontally disposed insulating rods, means loosely supporting said rods in continuous contact with said strips and yieldingly urging them against opposite sides of said strips while permitting them limited lateral movement in response to forces against said strips.

2,868,712

COMPOSITE ANODE ASSEMBLY FOR USE IN ELECTROLYTIC CELLS

Charles Deprez, Uccle-Brussels, Belgium, assignor to Solvay & Cie, Brussels, Belgium, a Belgian company

Application June 2, 1954, Serial No. 433,880
Claims priority, application Belgium June 4, 1953
9 Claims. (Cl. 204—288)

1. A composite anode assembly for use in an electrolytic cell adapted to be positioned opposite the cathode of the cell comprising, in combination, a plurality of thin rectangular graphite plates each having a first elongated end edge face forming the active anodic surface of the plate and adapted to be disposed opposite the cathode of the cell in face to face spaced parallel relationship therewith, side edge portions merging with each end of said end edge face at right angles thereto, and a second elongated end edge face on the portion of the plate remote from said first end edge face, a carrier frame formed from a plurality of spaced parallel bars engaging the side edge portions of said rectangular graphite plates at right angles thereto with the plates in parallel spaced-apart relationship, and adjustably tightenable tie rods interconnecting the parallel bars to hold the interposed graphite plates removably in said spaced-apart parallel relationship, said plates being slidable relatively to said bars upon loosening of said tie rods, the portion of each plate provided with said first end edge face projecting beyond the assembled parallel bars with said end edge faces of all of said plates lying substantially in a common plane adapted to be disposed in parallel relationship with respect to said cathode when the anode assembly is mounted in the electrolytic cell, each plate being formed from at least two plate elements lying in a common plane in edge-abutting relationship with the second end edge



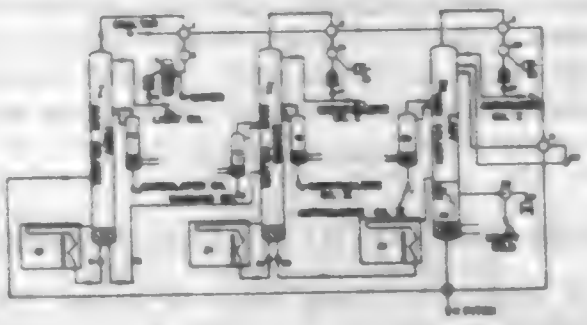
face of the element providing the active anodic surface in engagement with the second end edge face of the adjacent element while both elements have their side edge portions in engagement with said parallel bars, means holding the plate elements of each plate in removable interengaged relationship, and the elements of each plate being movable in their respective planes relatively to the parallel bars in the direction of said active anodic surface as the plate element providing the active anodic surface is consumed, and said bars being adapted to accommodate a fresh plate element in coplanar relationship with the plate elements of each plate as the plate progresses in the direction of said active anodic surface, the fresh plate element being adapted to be placed in edge-abutting relationship and removably interengaged with the end edge face of the plate element of each plate most remote from said anodic surface.

2,868,713

CONTINUOUS DISTILLATION OF COAL TAR

Heinrich Ratte, Frankfurt am Main, and Julius Geller, Bad Homburg vor der Hohe, Germany, assignors to Rütgerswerke-Aktiengesellschaft, Frankfurt am Main, Germany

Application August 2, 1954, Serial No. 447,182
Claims priority, application Germany May 14, 1949
4 Claims. (Cl. 208—42)



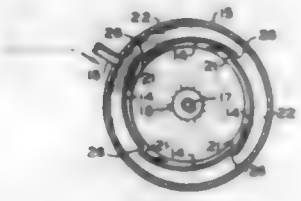
1. A process for the continuous rectification of coal tar to sharply cut fractions and to enriched individual components of the coal tar, said fractions and components having, under a pressure of 40 mm. Hg, boiling points up to 350° C., which comprises a combination of the following steps: (*a*) introducing the coal tar for stepwise fractionation into a plurality of main fractionat-

ing steps having a head zone, a middle rectifying stripping zone and a sump zone and following each other in series, whereby the crude coal tar is introduced into said middle zone of the first main fractionating step, in which water and low boiling oils are driven off, and which is operated under an absolute pressure of about 760 to 1100 mm., at a head temperature of about 80 to 140° C., and a sump temperature of about 280 to 320° C., and the temperature is gradually increased and the pressure is gradually decreased in the subsequent main fractionating steps in the direction of the last main fractionating step which is operated under an absolute pressure of 10 to 100 mm. Hg, a head temperature of about 150 to 260° C. and a sump temperature of about 320–380° C., and each main fractionating step has branched off therefrom at least one side fractionating step for further fractionating parts of the tar branched off from said main steps; (*b*) subjecting sump liquid accumulating from each main fractionation step, with the exception of the last main fractionating step, to non-destructive indirect heating in a step consisting of continuous forced circulation through a tube furnace and continuous separation into vaporous and liquid ingredients upon its return to the sump zone of the same main fractionating step under expansion and partial evaporation, in order to mainly supply to the process the heat required for said sharp fractionation; (*c*) passing sump liquid from the sump zone of each main fractionation step, with the exception of the last-but one main fractionation step, into the rectifying stripping zone of the succeeding main fractionating step and (*d*) continuously discharging the products thus separated by fractionation.

2,868,714
APPARATUS AND METHOD FOR FLASH EVAPORATING OILS

Forrest E. Gilmore, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application May 2, 1955, Serial No. 505,173
22 Claims. (Cl. 208—48)



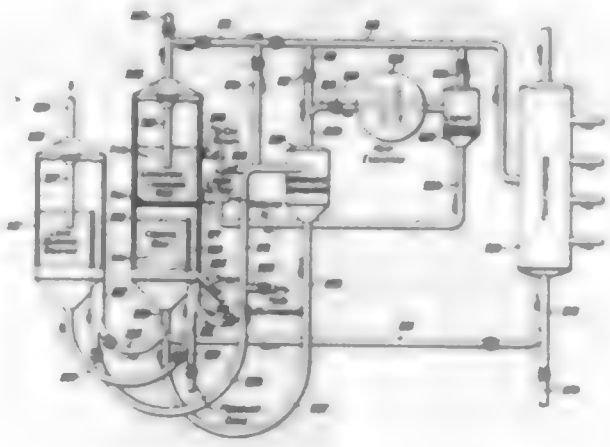
7. A method for flash vaporizing a difficultly vaporizable hot oil comprising introducing steam tangentially into a vaporizing zone through the entire vertical side wall length thereof in such a manner as to form a layer of steam of high concentration flowing around the inner surface of said side wall, spraying hot oil to be flash vaporized in a direction from the axis of said zone toward said layer of steam adjacent said wall whereby the oil spray contacts steam of progressively higher concentration as the sprayed oil approaches the wall of said zone and removing steam containing oil vapors from said zone.

2,868,715
PROCESS AND APPARATUS FOR CONVERSION OF HYDROCARBON OILS

Charles E. Jahnig, Red Bank, James W. Brown, Elizabeth, and Homer Z. Martin, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application August 25, 1953, Serial No. 376,338
5 Claims. (Cl. 208—55)

1. The process of upgrading hydrocarbon oil of wide boiling range which comprises rapidly feeding a stream of coke particles at a temperature between 1000 and 1400° F. through a transfer line, injecting the feed into said stream to substantially volatilize its constituents boiling within and below the gas oil range within a short time so as to avoid substantial cracking of said constituents, whereby higher boiling non-solid constituents are substantially deposited on said coke particles, separating the volatilized constituents from the coke particles, feeding the deposit bearing coke particles to a coking zone, adding preheated coke particles which are substantially free of non-solid deposits and at a temperature of at least 1000° F. to said zone, fluidizing all said particles in said zone for an average residence time of 0.5 to 30 minutes and an average temperature of 850° to 1100° F. in the coking zone to convert at least a portion of the oil deposits to vapor products, catalytically cracking said vapor products and passing at least a portion of the cracked products formed thereby through the transfer line with the coke and feed to assist in vaporizing said feed, removing the spent coke from said coking zone, stripping occluded vapors therefrom, passing the stripped coke to a burner, and contacting said coke with air in said burner to reheat it.



4. A process of coking and cracking viscous hydrocarbon oil which comprises coking said oil in a coking zone containing inert particles and thereafter catalytically cracking the volatile coker products of said oil in quick succession without condensation of the coker products, withdrawing the gaseous and entrained liquid products from said cracking operation to a flash zone, introducing fresh oil feed and hot catalytically inert particles at 1000° to 1400° F. into said flash zone with said products, separating the flashed vapors thus produced from the solids, fractionating said vapors, returning the bottoms therefrom to the coking zone, and recycling the inert particles to the coking zone.

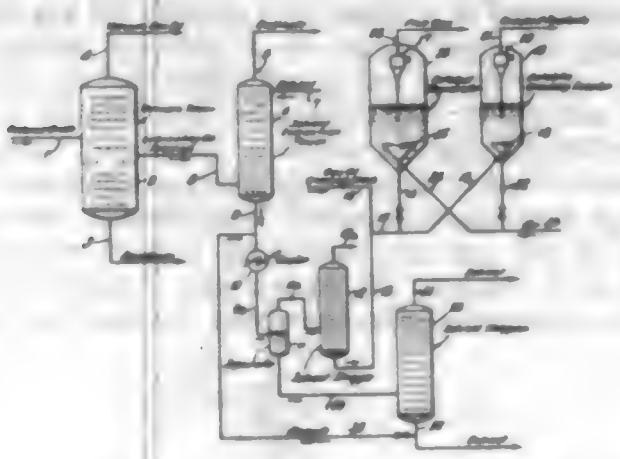
2,868,716
CRACKING FEED FROM LUBRICATING OIL STOCK

William C. Moyer, Port Arthur, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application January 16, 1956, Serial No. 559,231
2 Claims. (Cl. 208—87)

1. The process that comprises distilling a crude oil fraction to separate a lubricating oil fraction having a viscosity above about 55 Saybolt Universal seconds at 210° F., subjecting said lubricating oil fraction to solvent extraction in the presence of furfural at a tower bottom temperature of about 100 to 200° F. and at a solvent rate of about 0.75 to 4.0 volumes of solvent per volume of oil to separate a lubricating oil fraction of increased viscosity index as raffinate and an extract mix comprising furfural and dissolved extract, cooling said extract mix to a temperature of about 10 to 100° F. below the temperature of said solvent extraction such that an oil phase having a carbon residue when freed of solvent of less than 1.0 weight percent and secondary extract mix phases are formed, separating said oil phase, separating dissolved

solvent from said separated oil phase and charging at least a portion of said solvent free separated oil to a



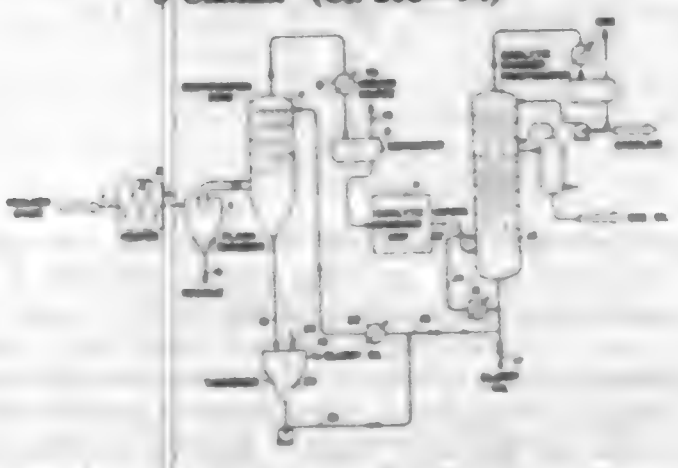
catalytic cracking process to effect conversion of said solvent free separated oil to lower boiling products.

2,868,717

PRODUCTION OF GASOLINE BY CATALYTIC CRACKING

Elmond L. Claridge, Houston, Tex., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application November 19, 1956, Serial No. 623,256
3 Claims. (Cl. 208—94)



1. In the production of gasoline from petroleum residues by catalytic cracking, the improved process which comprises in combination the steps of heating petroleum residue to flashing temperature, flashing the heated petroleum residue in a zone of reduced pressure thereby liberating flashed petroleum vapors, passing said vapors up through a rectification zone in countercurrent contact with a slurry of finely divided cracking catalyst in liquid oil produced as hereinafter specified, withdrawing a slurry from said rectification zone as a product of the process, condensing the vapors after said contact in a separate condensing zone, catalytically cracking the resulting condensate, passing the vapors from the catalytic cracking at essentially the cracking temperature to a fractionation zone at an inlet thereto, withdrawing slurry oil from the bottom of said fractionation zone, cooling a first part of said withdrawn slurry oil and returning said cooled first part back to said fractionation zone at a point above said inlet thereby to desuperheat the catalytically cracked vapor feed entering said fractionation zone, and passing another part of said withdrawn slurry oil to the above said rectification zone to provide said slurry of finely divided cracking catalyst in liquid oil whereby the vapors of the catalytic cracking feed are contacted with the catalyst in the slurry oil prior to removing the latter from the system in said product of the process and at the same time hydrocarbons in the slurry oil which are present due to the use of a slurry oil to effect desuperheating are vaporized by the said vapors of the catalytic cracking feed in said rectification zone and passed with said feed to the catalytic cracking zone.

2,868,718

PRECONDITIONING OF HYDROFORMING CATALYSTS

Walker F. Johnston, Jr., La Marque, Tex., assignor to The American Oil Company

No Drawing. Application November 29, 1954
Serial No. 471,906
3 Claims. (Cl. 208—138)

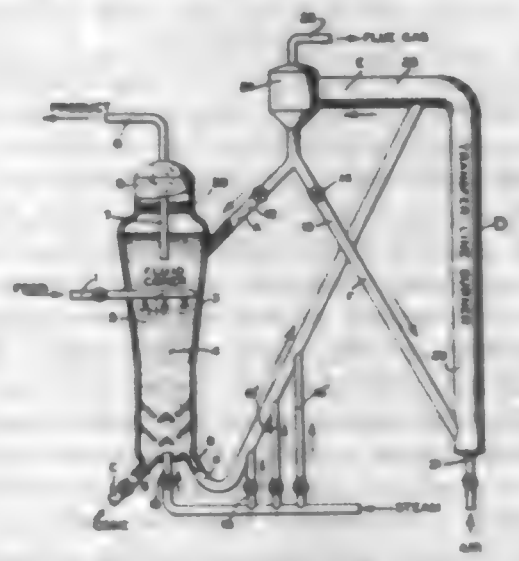
1. In a method for hydroforming a naphthenic petroleum naphtha containing above about 50 percent naphthenes and above about 70 percent naphthenes and aromatics in the presence of an alumina-supported platinum catalyst at a hydroforming temperature between about 850 and 1000° F. and obtaining therefrom a gasoline having an F–1 octane number above about 90, in which operation the activity of said catalyst ordinarily declines at a rate greater than about 2 F–1 units per 100 hours, the improvement which comprises preconditioning said catalyst prior to said hydroforming operation by exposing said catalyst when fully active to contact under hydroforming conditions with a paraffinic petroleum naphtha containing above about 30 percent paraffins and less than about 50 percent naphthenes for a period of time between about 10 and 200 hours, whereby the rate of decline in activity of the said catalyst in the ensuing hydroforming operation is reduced to less than about 1 F–1 octane unit per 100 hours.

2,868,719

FLUID COKING PROCESS USING TRANSFER-LINE BURNER

Homer Z. Martin, Cranford, and Charles E. Jahnig, Red Bank, N. J., and John W. Herrmann, Woodside, N. Y., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application January 6, 1954, Serial No. 402,474
4 Claims. (Cl. 208—157)



1. A method of coking hydrocarbon oils which comprises the steps of contacting hydrocarbon oils with fluidized particulate solids at coking conditions in a coking zone to produce vaporous reaction products and carbonaceous residue which is deposited on said solids, separating and recovering said vaporous reaction products from said coking zone, removing relatively cool solids from said coking zone, admixing said relatively cool solids with substantially vaporous combustion products in the terminal portion of a transfer line heating zone thereby heating the solids, recovering heated solids in a final separation zone from the effluent from said transfer line heating zone circulating at least a portion of said recovered heated solids to the inlet portion of said transfer line heating zone, roughly separating in an initial separation zone in an intermediate portion of said transfer line heating zone further amounts of heated solids from combustion products prior to admixing said relatively cool solids with combustion products, transferring a portion of said heated solids to said coking

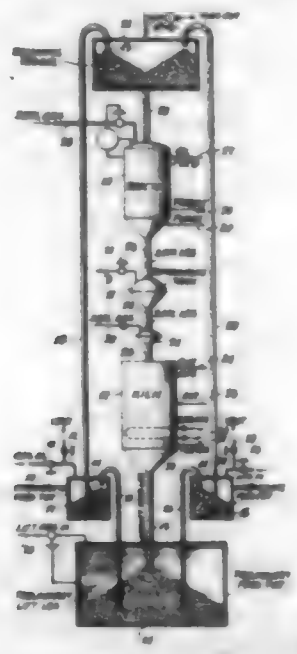
zone to supply heat therto, circulating heated solids from said initial separation zone to the inlet of said transfer line heating zone, admixing therewith a free oxygen-containing gas in combustion supporting amounts and passing the resulting mixture through said transfer line heating zone.

2,868,720

CONTINUOUS HIGH-PRESSURE CONTACTING OF FLUIDS WITH GRANULAR SOLIDS

Frank C. Fahnestock, Manhasset, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application October 7, 1952, Serial No. 313,396
2 Claims. (Cl. 208—173)



1. In a moving bed conversion process in which a granular contact material is gravitated as a substantially compact column through at least one contacting zone where the solids are contacted with a reactant fluid at high temperature, the improved method of controlling the flow rate of the gravitating contact material which comprises: gravitating solids from the bottom of said contacting zone through a laterally-confined passage, discharging the solids from the bottom of said passage into a confined zone, to form a pile of solids on the floor of said zone extending upwardly to cover at least the lower portion of the sidewall of said zone and at least partially block the flow of solids from said passage, discharging solids from said pile through a portion of at least one substantially vertical slot in the side wall of said confined zone onto the top of a pile of solids in a surge zone, the surface of the pile of solids in said surge zone being far enough below the confined zone to permit the solids to flow freely through said slot, gravitating contact material downwardly from the bottom of said surge zone, and varying the distance between the bottom of said passage and the bottom of said confined zone, in order to adjust the flow rate of solids through said slot to the desired flow rate in said contacting zone.

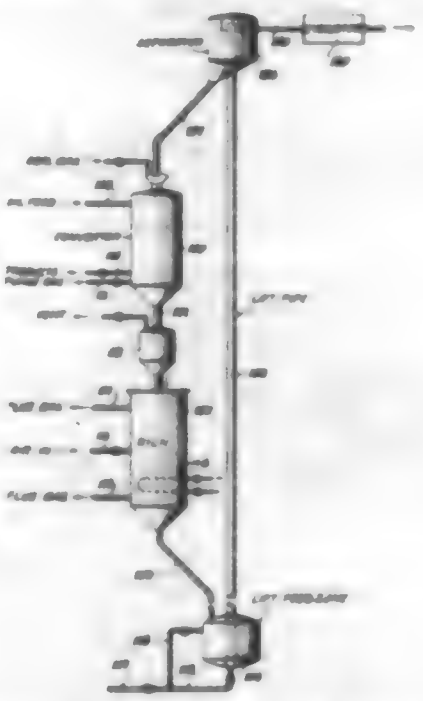
2,868,721

CATALYST TRANSFER IN A CYCLIC HYDROCARBON CONVERSION PROCESS

Eric V. Bergstrom, Short Hills, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application November 17, 1953, Serial No. 392,599
5 Claims. (Cl. 208—174)

1. A method for transferring a granular contact material from a low elevation in one contacting zone to a location from which it may be more conveniently transferred to a substantially higher elevation in a second contacting zone which method comprises, withdrawing the contact material from the lower section of one of the contacting zones and passing it downwardly as a substantially compact gravity feed column to a lift feed region maintained above atmospheric pressure, causing said contact material near the lower end of said column to become suspended in a stream of a suitable lift gas supplied into said lift feed region at a pressure greater than atmospheric pressure and greater than that at the upper end of said gravity feed column but less than the quotient obtained by dividing the weight of the contact material in said gravity feed column by the average horizontal cross-sectional area of said gravity feed column, passing the stream of lift gas and suspended contact material upwardly as a confined lift stream into a separation zone located a substantial distance above the point of contact



material withdrawal from said first contacting zone, effecting separation of lift gas from contact material in said separation zone and sucking the lift gas from said separation zone to maintain it under a substantial vacuum and thereby to aid in lifting the contact material in said lift stream, the length and vertical rise of said lift stream being such and the rate of contact material transfer therein being maintained such that the pressure drop across said lift stream is substantially in excess of the pressure against which contact material would gravitate in said gravity feed column if such pressure were maintained at the lower end thereof and substantially in excess of the vacuum in said separation zone.

2,868,722

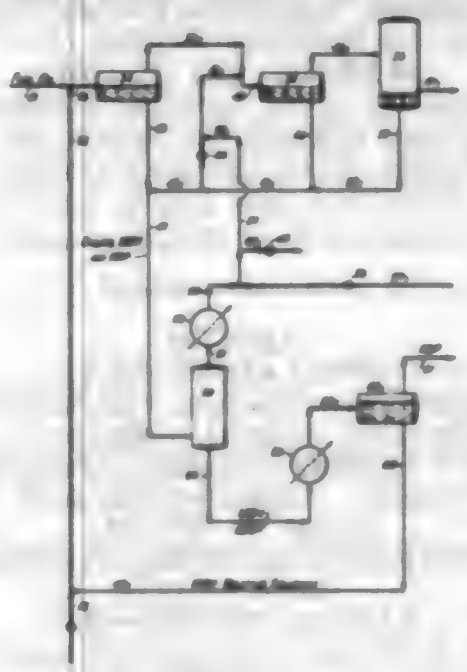
METHOD FOR PRODUCING A STABILIZED CRACKED DISTILLATE FUEL OIL

Frank W. Brooks, Jr., and Claiborne A. Duval, Jr., Beaumont, Tex., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application October 26, 1953, Serial No. 388,385
6 Claims. (Cl. 208—263)

1. A method for producing a stabilized cracked distillate fuel oil having an A. S. T. M. color not darker than 4 after storage in a glass bottle at 100° F. for two months which comprises in a cyclic manner intimately mixing in an extraction zone unstable cracked distillate fuel oil containing contaminants including alkyl phenols and having an A. S. T. M. color darker than 4 after storage in a glass bottle at 100° F. for two months with only one reagent consisting of an aqueous solution containing as its sole essential solute at least about 35 percent by weight of alkali metal hydroxide to obtain a liquid mixture of treated oil, alkali metal salts of extracted acidic organic material and said reagent, stratifying said liquid mixture to obtain an uppermost layer comprising treated distillate fuel oil, an intermediate liquid layer comprising said alkali metal salts of extracted acidic organic material, and a bottom liquid layer comprising said reagent, separately

removing each of said layers, water-washing said treated distillate fuel oil, separating water-washed treated distillate fuel oil from wash water, removing entrained wash water from said treated distillate fuel oil to obtain a stabilized cracked distillate fuel oil product having an A. S. T. M. color which does not become darker than 4



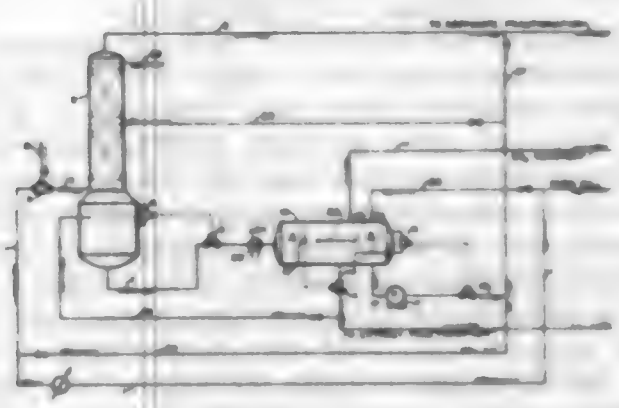
after storage in a glass bottle at 100° F. for two months, returning said separated bottom layer comprising regenerated reagent containing as its sole essential solute alkali metal hydroxide to said extraction zone while maintaining the alkali metal hydroxide content thereof at least about 35 percent by weight, and contacting unstable cracked distillate fuel oil with said separated bottom layer only.

2,868,723

SOLVENT EXTRACTION METHOD AND APPARATUS

Forrest E. Gilmore, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application April 2, 1954, Serial No. 420,578
10 Claims. (Cl. 208—320)



1. A method for the solvent extraction of an oil which comprises in a first zone contacting at a certain pressure said oil with a solvent having a boiling point lower than that of the said oil; separating an extract phase from said zone; in a second zone, the lower portion of which is divided into at least two sections, a flashing section and a raffinate collecting section, and wherein in said flashing section there is maintained a level of extract phase formed therein of depth sufficient to cause overflow into said raffinate collecting section of raffinate phase layer as it forms in said flashing section, subjecting said extract phase to a pressure lower than that of said first zone so as to cause quiescent flash evaporation of sufficient of said solvent from said phase to form a second extract phase and a raffinate phase and separately removing said second extract phase and said raffinate phase from said second zone.

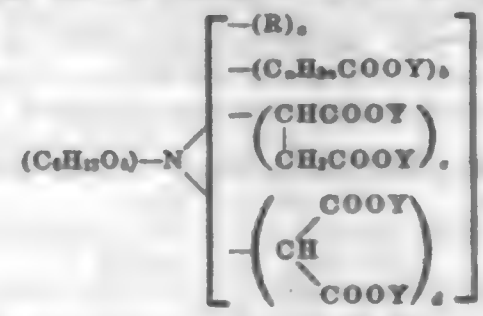
2,868,724

SEQUESTERING PROCESS

John D. Zech, Wilmington, Del., assignor to Atlas Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 12, 1954
Serial No. 410,033
14 Claims. (Cl. 210—58)

1. The process of sequestering polyvalent heavy metal ions having an atomic number greater than 24, which comprises bringing together in solution salts of said heavy metals and a compound containing no more than two carboxyl bearing carbon atoms of the formula



wherein the empirical radical $C_6H_{13}O_5$ represents the hexane pentol residue of a hexityl amine, R is selected from the group consisting of hydrogen, lower alkyl radicals containing 1 to 3 carbon atoms and lower hydroxy alkyl radicals containing 2 to 3 carbon atoms; Y is selected from the group consisting of hydrogen and monovalent alkali metals, and wherein

n is 1 to 2
a is 0 to 1
b is 0 to 2
c is 0 to 1
d is 0 to 1
$a+b+c+d=2$.

2,868,725

PRODUCTION OF MUD-LADEN DRILLING FLUIDS

William L. Owen, Baton Rouge, La., assignor to John U. Barr, New Orleans, La.

No Drawing. Application June 30, 1952
Serial No. 296,491
27 Claims. (Cl. 252—8.5)

1. A mud-laden drilling fluid for oil or gas wells, said fluid exhibiting small water loss during use and being adapted to form on the well wall a relatively thin, tough, substantially impervious coating comprising the product formed of a mixture of a mud base, an aqueous fluid component, and a stable wall-building mud-suspending agent comprising the reaction product of gum dextran and a water-soluble aliphatic aldehyde, said reaction product being a gum dextran-aldehyde complex which is adhered to and enmeshed in and on an inert colloidal absorbent carrier.

2,868,726

DRILLING FLUID

John S. Bruhner and Clarence O. Walker, Houston, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 27, 1957
Serial No. 642,643
29 Claims. (Cl. 252—8.5)

1. An aqueous drilling fluid comprising an alkaline aqueous phase saturated with calcium hydroxide, a water soluble calcium salt which has a solubility in said aqueous phase greater than that of calcium hydroxide dissolved therein to yield a calcium ion concentration in said aqueous phase of at least 200 parts per million by weight, said aqueous phase having a pH not greater than 12.6, and a minor amount in the range of 0.01–10% by

weight based on said fluid of an inorganic water soluble metal compound selected from the group consisting of aluminum-containing, chromium-containing, molybdenum-containing, nickel-containing, cobalt-containing and iron-containing compounds.

2,868,727

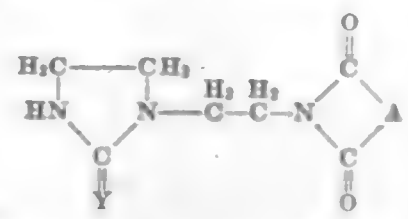
METHOD AND COMPOSITION FOR INHIBITING CORROSION OF METALS

William B. Hughes, Webster Groves, Mo., assignor to Cities Service Research and Development Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application December 12, 1955 Serial No. 552,270

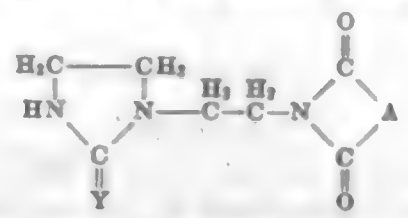
8 Claims. (Cl. 252—8.55)

1. As a new composition of matter, a compound having the formula



wherein Y represents a member of the group consisting of O and S, and A represents a member of the group consisting of C_2H_2, C_2H_4, and C_6H_4.

5. A method of controlling corrosion of metals exposed to the action of corrosive fluids, which comprises introducing into the corrosive fluids a small quantity sufficient to inhibit corrosion of a compound having the formula



wherein Y represents a member of the group consisting of O and S, and A represents a member of the group consisting of C_2H_2, C_2H_4, and C_6H_4, and thereafter causing the corrosive fluids to flow in contact with the metal to be protected.

2,868,728

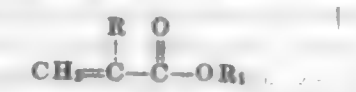
SALTS OF ACRYLAMIDE-ACRYLIC ACID ESTER COPOLYMERS AS GREASE-THICKENING AGENTS

Bruce W. Hotten, Orinda, and Warren Lowe, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application December 30, 1955 Serial No. 556,452

14 Claims. (Cl. 252—33.6)

1. A grease composition comprising a major proportion of an oil of lubricating viscosity and, in an amount sufficient to thicken said oil to the consistency of a grease, an alkali metal salt of a copolymer of (1) an ester of acrylic acid, and (2) an alpha-substituted acrylamide, wherein the mole ratio of (1) to (2) is from 3:1 to 6:1, wherein said alpha substituent is an aliphatic radical having from 1 to 2 carbon atoms, and said ester of acrylic acid is characterized by the formula:



wherein R represents hydrogen and aliphatic radicals containing from 1 to 2 carbon atoms, and R_1 represents an aliphatic radical containing from 10 to 22 carbon atoms.

2,868,729

LUBRICATING OIL THICKENED TO A GREASE WITH AN ANHYDROUS CALCIUM SOAP OF AN ALKENYL SUBSTITUTED SUCCINIC ACID

John Walter Nelson, Lansing, and Joseph A. Verdol, Dolton, Ill., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 26, 1957 Serial No. 642,336

4 Claims. (Cl. 252—39)

1. A lubricating grease including a mineral lubricating base oil and sufficient to thicken the base oil to grease consistency of an anhydrous calcium soap of an alkenyl substituted succinic acid in which the alkenyl substituent contains at least 14 carbon atoms.

2,868,730

INSULATING OILS

James Campbell Wood-Mallock, Macclesfield, and Fred Hughes, Stretford, England, assignors to Manchester Oil Refinery (Holdings) Limited, Manchester, England

No Drawing. Application March 28, 1955 Serial No. 497,391

Claims priority, application Great Britain March 30, 1954

2 Claims. (Cl. 252—63.7)

2. A new insulating transformer oil composition consisting essentially of a mineral transformer oil, and: (*a*) a compound selected from the group consisting of anthranilic acid and o-phenylene diamine in an amount effective to function as a metal deactivator in the transformer oil, and (*b*) a compound selected from the group consisting of phenyl-alpha-naphthylamine and phenyl-beta-naphthylamine in an amount effective to fuction as an anti-oxidant in the transformer oil.

2,868,731

PROCESS OF MAKING NONSOAP DETERGENT BARS AND PRODUCT

Lloyd F. Henderson, Fair Lawn, and Francis E. Carroll, Glen Rock, N. J., assignors to Lever Brothers Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 14, 1954 Serial No. 462,387

9 Claims. (Cl. 252—117)

1. A process for forming a nonsoap detergent bar which comprises mixing from about 11% to about 32% of a water-soluble alkali metal soap of an aliphatic higher fatty acid and a normally solid synthetic organic nonsoap detergent selected from the group consisting of anionic and nonionic synthetic organic nonsoap detergents with an aliphatic carboxylic acid having from about twelve to about twenty-five carbon atoms in an amount to plasticize the detergent at plodding temperature, and adjusting the moisture content of the resulting mixture not to exceed 5% by weight, bringing the mixture to a plodding temperature within the range of 100 to 200° F. so as to render it plastic and workable without liquefying it, and plodding the mixture in this plastic and workable condition to bar form.

2,868,732

COMPOSITIONS OF MATTER FOR CLEANING METAL BODIES

Jean Gabriel Truc, Toulon, France, assignor to Etat Français, Ministere de la Defense Nationale & des Forces Armees, Paris, a society of France

No Drawing. Application May 9, 1955 Serial No. 507,145

Claims priority, application France May 17, 1954

2 Claims. (Cl. 252—136)

1. A composition for cleaning metal bodies consisting essentially of 53% hydrochloric acid of 22° Bé, 2% stannous chloride, 2% polyvinyl alcohol resin, 0.5% antimony oxide and 42.5% bentonite, by weight.

2,868,733
LUMINESCENT MATERIAL

Anna Petronella Maria Cox, Age Hylke Hoekstra, and Pieter Zalm, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application July 9, 1956, Serial No. 596,715
Claims priority, application Netherlands July 8, 1955
3 Claims. (Cl. 252—301.4)

1. A luminescent material consisting essentially of a bismuth-activated, calcium-magnesium silicate in which the atomic ratios of the elements fall within the following range:

$\frac{Ca}{Ca+Mg+Si}$ lies between about 0.2 and 0.3

$\frac{Mg}{Ca+Mg+Si}$ lies between about 0.2 and 0.3

$\frac{Bi}{Ca+Mg+Si}$ lies between about 0.5 and 0.6, and

$\frac{Bi}{Ca+Mg+Si}$ lies between about 0.001 and 0.1

2,868,734
LIQUID DEFOAMING COMPOSITION

Arthur De Castro, Irvington, Charles Herbert Lightfoot, Bloomfield, and Thomas Francis Groll, Jr., Elizabeth, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey

No Drawing. Application February 12, 1953
Serial No. 336,648
10 Claims. (Cl. 252—358)

1. A liquid defoaming agent comprising from about 40% to about 80% by weight of a liquid aliphatic hydrocarbon having a boiling point of at least 150° F., from about 10% to about 30% by weight of an ester of a dihydric alcohol selected from the group consisting of ethylene glycol and polyethylene glycols having a molecular weight of less than about 200 and an aliphatic carboxylic acid having a carbon chain length of from 12 to 22 carbon atoms, from about 5% to about 20% by weight of an ester of a polyethylene glycol having a molecular weight which is greater than about 400 and an aliphatic carboxylic acid having a carbon chain length of from about 12 to 22 carbon atoms, and from about 1% to about 25% by weight of a liquid carboxylic acid composition selected from the group consisting of tall oil, liquid aliphatic carboxylic acids having a carbon chain length of from about 6 to 22 carbon atoms and mixtures thereof, and liquid mixtures of said liquid aliphatic carboxylic acids with solid carboxylic acids having a carbon chain length of from 6 to 22 carbon atoms.

2,868,735
METHOD OF PROCESSING VERMICULITE

John B. Myers, Libby, Mont., assignor to Zonolite Company, Chicago, Ill., a corporation of Montana

Application July 8, 1955, Serial No. 520,752
7 Claims. (Cl. 252—378)

1. In the process of producing exfoliated vermiculite from a micaceous ore, the improvement which comprises mechanically agitating an aqueous slurry of said ore in substantially its as-mined state while said ore still contains its natural moisture content to contemporaneously effect delamination and concentration of said ore and to remove impurities therefrom prior to drying and exfoliating said ore.

2,868,736
PREPARATION OF PHOTOSENSITIVE CRYSTALS

Otto Weinreich, East Orange, N. J., assignor to Tung-Sol Electric Inc., a corporation of Delaware

Application October 18, 1955, Serial No. 541,147
10 Claims. (Cl. 252—501)

10. The method of enhancing photoconductivity of cadmium selenide which comprises vaporizing crystals of cadmium selenide under vacuum and depositing the vaporized cadmium selenide on a plate of molybdenum carrying occluded oxygen.

2,868,737
CATION EXCHANGERS CONTAINING SELENIC ACID GROUPS

Carl Boresch, Leverkusen, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application April 5, 1955
Serial No. 499,537
Claims priority, application Germany April 13, 1954
9 Claims. (Cl. 260—2.2)

1. A process for the production of a cation exchange resin, which comprises reacting selenic acid at an elevated temperature with a cross-linked organic resin selected from the group consisting of (*a*) a cross-linked phenol-aldehyde resin, (*b*) a resinous reaction product of an aromatic hydrocarbon with an alkylene dichloride, and (*c*) copolymers of an aromatic compound containing several vinyl groups with an aromatic monovinyl compound.

2,868,738
PREPARATION OF CATION-EXCHANGE RESINS BY OXIDATION OF VINYLALKOXY SULFIDE POLYMERS

Jesse C. H. Hwa, Levittown, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application March 16, 1956
Serial No. 571,877
17 Claims. (Cl. 260—2.2)

7. A process for preparing cation-exchange resins which comprises reacting an aqueous solution of an agent for oxidizing sulfur to sulfonic acid from the group consisting of hydrogen peroxide, chlorine, sodium hypochlorite, calcium hypochlorite, nitric acid, potassium permanganate, peracetic acid, performic acid and potassium dichromate with an insoluble copolymer of (*a*) 50 to 99.5 mole percent of monoethylenically unsaturated molecules comprising at least one mole percent of an organic sulfide having the formula

$$CH_2=C(R)—S—R'—O—R''$$

in which R is a member of the class consisting of a hydrogen atom and a methyl group, R′ is a member of the class consisting of methylene, ethylidene and isopropylidene groups, and R″ is an alkyl group; and (*b*) 0.5 to 50 mole percent of a polyethylenically unsaturated copolymerizable compound in which the points of unsaturation are in non-conjugated relationship.

2,868,739
PROCESS FOR PRODUCING CELLULAR POLYURETHANE RESINS

Günther Nischk and Wilhelm Bunge, Leverkusen, and Otto Bayer, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application March 24, 1954
Serial No. 418,476
Claims priority, application Germany March 26, 1953
2 Claims. (Cl. 260—2.5)

1. A process for the production of a porous product of low density which comprises reacting an organic diisocyanate with a polyester, the reactive groups of which are

predominantly terminal carboxyl groups, said polyester being prepared by condensing (*a*) a hydroxyl-group-containing polyester having an acid number of not more than about 2.5 and prepared by the esterification of a polycarboxylic acid with a monomeric polyhydric alcohol, and (*b*) a member of the group consisting of dicarboxylic acids and anhydrides thereof.

2,868,740

METHOD OF COPOLYMERIZING ACRYLIC OR METHACRYLIC ACID WITH PROTEINACEOUS MATERIAL AND PRODUCT OBTAINED

Stewart B. Luce, La Grange, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application March 25, 1954
Serial No. 418,767
10 Claims. (Cl. 260—8)

1. A composition of matter produced by the polymerization of a proteinaceous material selected from the group consisting of stick, glue, protein hydrolyzate, gelatin, blood, soya protein, casein, chicken feathers, and hoof meal in the presence of water and a peroxide catalyst with a compound selected from the group consisting of acrylic acid, methacrylic acid, and mixtures of said acids.

2,868,741

WATER BASE STENCIL DUPLICATING INK

Thomas Seal Chambers, Chicago, and Robert Thompson Florence, Park Ridge, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois

No Drawing. Application January 30, 1952
Serial No. 269,118
11 Claims. (Cl. 260—17)

1. A water base stencil duplicating ink comprising water as the major diluent, a tinctorial agent present in an amount sufficient to provide legibility to the copy, more than 1 percent by weight of a water soluble high molecular weight organic substance constituted with groupings selected from the group consisting of hydroxy and amino groups and dissolved in the aqueous medium to provide an adherent base upon drying and to body the ink composition, said water soluble high molecular weight organic substance being present in an amount to provide a viscosity to the ink composition corresponding to 35–150 seconds as measured by a Stormer viscosimeter under a 200 gram load at 20° C. with center baffle and with a thermometer well, and from 5–35 percent by weight of a water insoluble resinous compound dispersed in the water solution of the water soluble high molecular weight substance and selected from the group consisting of polyvinyl acetate, polyvinyl chloride, vinyl acetate-vinyl chloride copolymer, polyvinyl acetal, polyvinylidene chloride, vinylidene chloride-vinyl acetate copolymer, polyvinylidene chloride-vinyl acetate copolymer, polyvinylidene chloride-vinyl chloride copolymer, vinylidene chloride-alkyl acrylate copolymer in which the alkyl group contains from 1–4 carbon atoms, polyalkyl acrylates in which the alkyl group contains from 1–4 carbon atoms, polystyrene, polybutylene, polyethylene, polytetrafluoroethylene, rosin, butadiene-acrylonitrile copolymer, butadiene-styrene copolymer, rubber hydrochloride and chlorinated rubber.

2,868,742

CORROSIVE RESISTANT POLYETHYLENE EMULSIONS

Robert R. Burnham, Eggertsville, N. Y., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application April 16, 1956
Serial No. 578,201
2 Claims. (Cl. 260—17)

1. Corrosive resistant comprising an emulsion having an oil phase containing 4.8 to 7.5 parts of polyethylene, 0.15 to 0.35 parts of an emulsion stabilizer and water repellent comprising an oil soluble salt of a long chain fatty acid containing 10 to 18 carbon atoms, and having a metallic radical of the group consisting of aluminum and zirconyl, a solvent for the polyethylene in the oil phase, and wax; an aqueous phase containing 4.5 to 8.0 parts of a water soluble dissociable salt of the group consisting of lower fatty acids containing 2 to 4 carbon atoms, ammonium substituted carbonic acid and hydrochloric acid, said acids having a metallic radical of the group consisting of aluminum and zirconyl, 1.7 to 2.3 parts of an emulsifying agent consisting of hydroxy ethyl cellulose, and 3.9 to 6.5 parts of a dispersing agent for the hydroxy ethyl cellulose selected from the group consisting of sodium 2-ethylhexyl sulfate and sodium lauryl sulfate.

2,868,743

METHOD OF IMPROVING COLOR IN PHENOL-ALDEHYDE RESINS BY ADDING A REDUCING SUGAR THERETO AND PRODUCT OBTAINED

David A. Feigley, Jr., Lancaster Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application March 9, 1956
Serial No. 570,424
19 Claims. (Cl. 260—17.2)

1. The method of improving color of cured phenolic resins while preserving the normal physical properties of such resins, which comprises incorporating in a curable phenol-aldehyde composition an additive consisting essentially of reducing sugar in the range of about 2%–7% by weight based on the weight of total phenol-aldehyde solids and curing resulting mixture.

2,868,744

CELLULOSE CONTAINING POLYMERIC MATERIALS AND METHOD OF PRODUCING THE SAME

Howard J. White, Jr., and David M. Cates, Princeton, N. J., assignors to Textile Research Institute, Princeton, N. J., a corporation of New Jersey

No Drawing. Application April 7, 1953
Serial No. 347,388
12 Claims. (Cl. 260—17.4)

1. A product comprising an intimate mixture of an in situ hydrolyzed cellulose ester and a substantially unhydrolyzed hydrophobic fiber and film forming polymer selected from the group consisting of acrylonitrile polymers and vinyl chloride polymers.

2,868,745

VINYL CHLORIDE RESIN STABILIZED WITH THREE COMPONENT STABILIZER

Chrysosthenis M. Canarios, East Cleveland, Ohio, assignor to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application January 16, 1957
Serial No. 634,429
2 Claims. (Cl. 260—23)

1. A heat stable polyvinyl chloride resinous composition comprising vinyl chloride resin and from 0.5 to 10 parts of a stabilizer per 100 parts of resin, said stabilizer essentially consisting of from 0.5 to 30% of 3,6-endomethylene - delta - 4 - tetrahydrophthalic anhydride by weight, from 0.1 to 10% of 4,4'-thiobis-(6-tertiary-m-cresol) by weight, and the balance of the stabilizer being a metallic soap selected from metal salts of aliphatic and cyclo-aliphatic organic acids, the metal portion of said salts being selected from the group consisting of tin, lead, zirconium, mercury, cadmium, zinc, magnesium, barium, strontium and calcium, and the organic acid portion of said salts being selected from the group consisting of palmitic, stearic, 2-ethyl hexoic, lauric, linoleic, oleic, ricinoleic, naphthenic, tall oil, rosin oil and rosin acids.

2,868,746

FURFURAL-ALCOHOL-THIOPHENE RESIN COMPOSITIONS

Raymond M. Frey, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware

No Drawing. Application November 4, 1955
Serial No. 545,109
8 Claims. (Cl. 260—23.5)

1. The method of preparing a thermosetting resinous composition including the steps of admixing from 3:1 to 3:2 proportions by weight of furfuryl alcohol and thiophene respectively with diethyl sulfate, heating said mixture until an exothermic reaction takes place, on subsidence of said exothermic reaction polymerizing by heating, forming said mixture to a desired shape and finally curing said shaped mixture to a thermosetting state.

2,868,747

FURAN RESIN COMPOSITIONS INCLUDING TALL OIL AND AN AROMATIC ALDEHYDE

Raymond M. Frey, Hales Corners, Wis., assignor to McGraw-Edison Company, a corporation of Delaware

No Drawing. Application November 4, 1955
Serial No. 545,110
9 Claims. (Cl. 260—23.5)

1. A method of preparing a thermosetting resin including the steps of admixing from 1 to 3 parts of a furan compound selected from the group consisting of furfural and furfuryl alcohol, 1 to 2 parts tall oil, and 1 to 2 parts of an aromatic aldehyde, in the presence of diethyl sulfate as a catalyst, heating the mixture until thickened by resinification, and heat curing the thickened mixture to a thermosetting state.

2,868,748

EMULSIONS OF ACRYLIC POLYMERS

Charles Frazier, Yonkers, N. Y., and James H. Fortune, Springdale, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 23, 1955
Serial No. 536,301
12 Claims. (Cl. 260—27)

7. The method of making a freeze-thaw and mechanically stable emulsion by copolymerizing at least three different monoethylenically unsaturated polymerizable monomers which comprises reacting at least two compounds selected from the group consisting of styrene, ring-substituted monomethylstyrene, and dimethylstyrene, alkyl acrylates and methacrylates containing from 1–4 carbon atoms in the alkyl group, vinyl esters of saturated acids having 1–3 carbon atoms, and acrylonitrile, with a polymerizable acid selected from the group consisting of acrylic and methacrylic acids, said acid being present in amounts of between 0.5% and 10% by weight based on the total weight of the monomers, the other monomers being present in amounts of at least 5% by weight based on the total weight of the monomers, at a temperature from about 80° C. to reflux in an aqueous phase in the presence of a three-component emulsifier system comprising essentially (*a*) an alkyl-substituted phenolic ether-ethylene oxide condensation product, (*b*) an alkali metal salt of disproportionated rosin acids, and (*c*) an alkyl ester of sodium sulfosuccinic acid, each emulsifier being present in substantially equal weight percentages of between about 0.5% and 1.5% based on the total weight of monomers present, adding catalyst to the aqueous phase from a time preceding addition of the monomer phase at such a rate as the addition thereof will extend beyond the addition of acid monomer phase and adjusting the pH of the reaction product to greater than pH 7.

2,868,749

PAVING COMPOSITION CONTAINING SYNTHETIC RUBBERY POLYMER

James K. Hagg, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application November 16, 1953
Serial No. 392,493
3 Claims. (Cl. 260—28.5)

1. A bituminous paving composition comprising a bituminous paving material mineral aggregate and a synthetic rubbery copolymer of a conjugated diene and a vinyl aromatic compound, said copolymer having a Mooney value of at least 50 and said paving composition being produced by (A) mixing molten bituminous paving material and mineral aggregate at a temperature substantially above the boiling point of water and (B) adding a latex of said copolymer to the hot bituminous paving material-aggregate mixture with continued mixing and heating, whereby the water content of said latex is essentially immediately flashed off and the copolymer is essentially immediately homogeneously combined with said mixture to provide a paving composition which is particularly durable under flexing conditions.

2,868,750

STABLE ORGANOSILOXANE-TITANATE COMPOSITION CONTAINING NITRO COMPOUND

John W. Gilkey, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application September 28, 1956
Serial No. 612,885
10 Claims. (Cl. 260—29.1)

1. As a composition of matter, a mixture comprising (1) 15 to 50 percent by weight of a titanium compound from the group consisting of compounds of the general formula $Ti(OR)_4$ and aliphatic hydrocarbon soluble partial hydrolyzates thereof wherein R is selected from the group consisting of aliphatic hydrocarbon radicals of less than 13 carbon atoms and hydroxylated aliphatic hydrocarbon radicals of less than 13 carbon atoms and containing less than 4 OH groups; (2) 5 to 70 percent by weight of a polysiloxane copolymer composed of $(CH_3)_3SiO_{\frac{1}{2}}$ units and SiO_2 units in such proportion that the ratio of CH_3 units to Si atoms is in the range 1.0:1 to 2.4:1; and (3) 15 to 80 percent by weight of a polysiloxane of the unit formula

$$R'_nSiO_{\frac{4-n}{2}}$$

where each R' is a radical selected from the group consisting of alkyl and alkenyl radicals of less than 4 carbon atoms and monocyclic aryl radicals and *n* has an average value of 2.0 to 2.9, each Si atom in said polysiloxane (3) having at least one of the defined hydrocarbon radicals attached thereto, (4) from .0002 mol to 0.1 mol per ounce of total mixture of a nitrogen containing compound wherein the only functional groups present are $-NO_2$ groups, said compounds being selected from the group consisting of nitro-methane, nitro-ethane, nitro-propane and nitro-benzene, and (5) an organic solvent.

2,868,751

METHOD OF CURING SILICONE WATER REPELLENTS WITH CYCLOPENTADIENYL TRANSITION ELEMENT CATALYSTS AND AQUEOUS COMPOSITIONS OF SAME

Gordon C. Johnson, Hollis, and Maurice H. Jellinek, Williamsville, N. Y., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application January 18, 1956
Serial No. 559,768
14 Claims. (Cl. 260—29.2)

1. The method for curing organic solvent-soluble silicone water repellents selected from the group consisting

of lower alkyl polysiloxanes and lower alkyl tris(2-methoxyethoxy) silanes which comprises mixing a bis-cyclopentadienyl compound of a *d* orbital transition element selected from the group consisting of the *d* orbital transition elements of group IVB of the Periodic Table of the Elements, iron, and cobalt with said silicone water repellent, said bis-cyclopentadienyl compound being added in an amount sufficient to give a concentration of from 0.1 to 10 percent by weight of the contained resin solids in the water repellent of the transition element present in said bis-cyclopentadienyl compound.

2,868,752

STABLE EMULSION CONTAINING AN ACRYLATE, ACRYLIC ACID, AND AN ACRYLONITRILE

Charles Frazier, Yonkers, N. Y., and James H. Fortune, Springdale, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 23, 1955
Serial No. 536,303
9 Claims. (Cl. 260—29.6)

1. A thermoplastic freeze-thaw and mechanically stable tripolymer emulsion composition having a pH greater than 7 comprising the reaction product of (1) from about 1% to 10% based on the total weight of the monomer content of an alkali metal salt of a sulfated fatty acid emulsifier wherein said acid contains from 10 to 16 carbon atoms, containing as sole monomers (2) an α-unsaturated polymerizable monocarboxylic acid monomer having the general formula:

$$R^1—C=C—COOH$$
$$\quad\quad R^2 \quad R^1$$

wherein R^1 and R^2 are substituents selected from the group consisting of hydrogen, alkyl radicals of 1 and 2 carbon atoms, halogen, and amino groups and R^3 is selected from the group consisting of hydrogen, alkyl radicals having 1 and 2 carbon atoms, halogen, an amino group, hydroxy and amino alkyl of 1 and 2 carbon atoms, and the total number of halogen, hydroxy and amino substituents is no greater than 1, in amounts of from about 0.5% to 10% by weight based on the total weight of the monomer content, (3) a monomer selected from the group consisting of acrylonitrile and methacrylonitrile an amount of from about 5% to 55% by weight, (4) an ester selected from the group consisting of alkyl acrylates and alkyl methacrylates wherein the alkyl group has from 1 to 4 carbon atoms, in amounts of from about 35% to about 94.5% by weight, said amounts being based on the total weight of the monomer content, and (5) a polymerization catalyst.

2,868,753

HYDRAULIC CEMENT COMPOSITIONS CONTAINING ACRYLAMIDE-ACRYLIC ACID COPOLYMERS AND METHOD OF MAKING SAME

Russell L. Morgan, Riverside, and Edwin R. Kolodny, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 3, 1956
Serial No. 595,581
5 Claims. (Cl. 260—29.6)

1. A cement composition of reduced fluid loss characteristics comprising an aqueous hydraulic cement slurry and, as a fluid loss-reducing agent therefor, about 0.3% to 5% on the dry weight of the cement of an alkali metal salt of a copolymer of from 90 to 70 mol percent of acrylamide and 10 to 30 mol percent of acrylic acid having a molecular weight of at least 150,000 and not less than that of a copolymer obtained by reacting a mixture of 88 grams of acrylamide and 12 grams of acrylic acid with 0.25 gram of ammonium persulfate in 900 grams of water at about 70°–80° C. for 4 hours.

2,868,754

STABLE LATEX COMPOSITION COMPRISING CARBOXYL-CONTAINING ELASTOMER AND ALKALI/METAL/ALUMINATE OR THE LIKE AS WATER-SOLUBLE CURING AGENT

Gorman E. Ellbeck, Elyria, and Elmer R. Urig, Lorain, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application June 29, 1955
Serial No. 518,956
5 Claims. (Cl. 260—29.7)

1. A stable latex composition adapted to form readily vulcanized films and coatings and for impregnation of paper and textiles, said composition comprising a latex of a carboxyl-containing elastomeric polymer prepared by the polymerization in acidic aqueous emulsion of a mixture of monomeric materials containing about 45 to 94% by weight of butadiene-1,3, about 1 to 30% by weight of an olefinically unsaturated carboxylic acid containing a terminal vinylidene group, and about 5 to 50% by weight of another vinylidene monomer, said polymer containing from 0.01 to 0.20 chemical equivalent by weight of combined carboxyl groups per 100 parts by weight of polymer, which latex is adjusted to a pH of about 7.5 to 11 and to which is added, after polymerization and as a curing agent for said polymer, an alkali metal aluminate in an amount sufficient to provide from about 0.05 to 5 parts by weight of said aluminate for each 100 parts by weight of said carboxyl-containing elastomeric polymer.

2,868,755

SYNTHETIC LATEX CONTAINING A VINYL EMULSIFYING AGENT AND PROCESS OF PREPARATION

Avrom I. Medalia, Newton, Mass.

No Drawing. Application January 14, 1958
Serial No. 708,744
17 Claims. (Cl. 260—29.7)

1. A synthetic latex comprising a colloidal aqueous suspension of a copolymer of 1,3-butadiene, styrene and a vinyl emulsifying agent, comprising a water soluble soap of an acid selected from the group consisting of p-styrylundecanoic acid, 10-acrylamidostearic acid, p-acrylylphenylundecanoic acid, 10-acryloxystearic acid and 12-acryloxystearic acid.

2,868,756

ACRYLONITRILE-CONTAINING TERPOLYMERS, COMPOSITION THEREOF, AND TEXTILES MADE THEREFROM

Andrew T. Walter, South Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application July 27, 1954
Serial No. 446,161
8 Claims. (Cl. 260—32.4)

1. An acetonitrile-soluble terpolymer containing in the molecule between around 60% and around 75% of acrylonitrile, between around 10% and around 30% of vinyl chloride, and between around 5% and around 20% of vinylidene chloride, the sum of the copolymerized monomers being 100%, said terpolymer having a specific viscosity within the range between around 0.1 and 0.6.

2,868,757

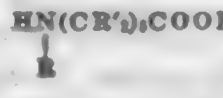
PROCESS OF INCORPORATING COLLOIDAL CARBON IN POLYCAPROAMIDE

Norman Kendall Jellinger Symons, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 21, 1954
Serial No. 444,911
2 Claims. (Cl. 260—37)

1. A process for preparing polycaproamide compositions containing 0.5 to 5 weight percent of well-dispersed

finely divided carbon which comprises: dispersing a disperse phase, consisting essentially of colloidal carbon having a discrete particle size of less than 500 millimicrons in a fluid continuous phase consisting essentially of (1) water, comprising 10 to 50 weight percent of said continuous phase (2) polycaproamide-forming monomer selected from the group consisting of compounds of general formula



wherein R, R′ and R″ are selected from the group consisting of hydrogen and monovalent hydrocarbon of 1 to 6 carbon atoms, and each R′ except at most one is hydrogen, and lactams of said compounds, and (3) at least 5 percent, based on the weight of said carbon, of a dispersing agent selected from the group consisting of the aryl sulfonic acid/formaldehyde condensation products and the alkali metal salts of lignin sulfonic acid, to obtain a fluid dispersion, having a specific conductance of less than 2.3×10^{-9} mho/cm. and consisting essentially of said carbon, water, monomer and dispersing agent; and heating said dispersion at a temperature of 160 to 300° C. with removal of volatiles until polycaproamide having an inherent viscosity in the range of 0.4 to 2 is obtained.

2,868,758

METHOD OF IMPROVING SOIL

Edgar B. Baker, Richmond, Calif., assignor to Stauffer Chemical Company, a corporation of Delaware

No Drawing. Application December 2, 1953
Serial No. 395,849

3 Claims. (Cl. 260—41)

1. The method of improving soil comprising adding to the soil a treating agent consisting essentially of from about 10 to about 95% by weight of a compound selected from the group consisting of the sulfate, nitrate and chloride salts of aluminum and iron, the balance of said composition being an organic soil stabilizing compound selected from the group consisting of a vinyl acetate-maleic acid copolymer having a molecular weight of at least 5,000; hydrolized polyacrylonitrile; carboxymethyl cellulose; lignin sulfonates; carboxymethylated pine sawdust; carboxymethylated redwood sawdust and ground redwood bark from which the phenolic materials have been extracted.

2,868,759

COMPOSITION COMPRISING METALLIC SHOT AND SYNTHETIC RESINOUS BINDER

Xavier Béchu, Chambery, France, assignor to l'Aluminium Français, Paris, France, a corporation of France

No Drawing. Application January 4, 1955
Serial No. 479,845

Claims priority, application France January 14, 1954

2 Claims. (Cl. 260—41)

1. A novel composition comprising, shot of a mesh size within the range of 16–45 of a metallic substance selected from the group consisting of bronzes, zinc, aluminum and alloys of aluminum, and a bonding material which adheres to the metallic substance and selected from the group consisting of polystyrene and polyvinyl chloride-acetate; said metallic substance constituting about 20% to about 40% by volume of the composition when polystyrene is the bonding agent, and 20% to about 61% when polyvinyl chloride-acetate is the bonding agent, the said metallic substance and bonding material being intimately commingled into a homogeneous mixture.

2,868,760

METHACRYLATE RESIN COMPOSITION AND METHOD OF MAKING SAME

Dimitrios N. Staicopoulos, Drexel Hill, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 20, 1956
Serial No. 629,454

7 Claims. (Cl. 260—41)

1. A liquid coating composition comprising (A) a copolymer of methyl methacrylate and glycidyl methacrylate having a methyl methacrylate:glycidyl methacrylate weight ratio of from 80 : 20 to 98 : 2, and a solvent for said copolymer, (B) a phosphate from the group consisting of monohydric and dihydric alkyl phosphates and (C) a saturated aliphatic dicarboxylic acid having from 5 to 20 carbon atoms in which the carboxyl groups are separated by a chain of at least three carbon atoms, the mole ratio of (B) to (C) being from 75 : 25 to 10 : 90 and the total of (B) and (C) amounting to from about 0.5 to 1.0 moles per mole of glycidal methacrylate in (A).

2,868,761

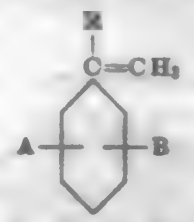
COMPOSITIONS COMPRISING POLYMERIZATION PRODUCTS OF VINYL AROMATIC COMPOUNDS AND NAPHTHENIC ACID ESTERS OF POLYMERIC POLYHYDRIC ALCOHOLS

Samuel E. Jolly, Ridley Park, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application November 27, 1953
Serial No. 394,983

3 Claims. (Cl. 260—45.5)

1. A new composition of matter comprising products of polymerization of a mixture of (1) naphthenic acid esters of glyceryl polyethers of polyhydric phenols, said polyethers having alternate aliphatic chains and aromatic radicals united through ether oxygen, said polyethers containing 3 to 20 hydroxyl groups per molecule with (2) a vinyl aromatic compound having the following formula:



where R is selected from the group consisting of hydrogen, methyl, and ethyl radicals, A is selected from the group consisting of hydrogen, halogen, and alkyl radicals having 1 to 3 carbon atoms inclusive, and B is also selected from the latter group, said composition having higher melting point and greater resistance to water and alkali than said esters.

2,868,762

MIXTURES OF POLYETHYLENES HAVING DIFFERENT MELT VISCOSITIES AND PROCESS OF PREPARING SAME

William George Oakes, Northwich, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application December 14, 1954
Serial No. 475,287
Claims priority, application Great Britain
December 21, 1953
4 Claims. (Cl. 260—45.5)

1. A homogeneous polythene composition characterized by being extrudable at high pressures and high rates of shear with a minimum of power, said composition consisting essentially of a blended mixture of a first polyethylene in an amount from 25% to 75% by weight and having a melt viscosity less than 0.2 and a second polyethylene in an amount from 75% to 25% by weight and having a melt viscosity greater than 200 and where

the ratio of the melt viscosity of said second polyethylene to the melt viscosity of said first polyethylene is at least 100,000 to 1.

2,868,763

POLYVINYL CHLORIDE AND VINYL CHLORIDE-ALKYL ACRYLATE COPOLYMER BLEND

Charles W. Montgomery, Baton Rouge, La., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

Application August 1, 1955, Serial No. 525,528
4 Claims. (Cl. 260—45.5)

1. A polymeric composition having high flow characteristics at normal processing temperatures consisting essentially of polyvinyl chloride and a copolymer of vinyl chloride and an alkyl substituted acrylate in which the alkyl group contains between 2 and 16 carbon atoms and in which said copolymer consists essentially of from 1 to 50 percent by weight of said acrylate and from about 99 to 50 percent by weight of vinyl chloride, the acrylate being present in the blend in a concentration of less than 25 percent by weight of the weight of the total polymeric composition.

2,868,764

POLYCHLOROPRENE ELASTOMERS

Sylvain M. Hirsty, Louisville, Ky., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 14, 1956
Serial No. 622,006
4 Claims. (Cl. 260—45.8)

1. A process for stabilizing polychloroprene against thermal and oxidative deterioration, which comprises incorporating therein, based on the weight of the polychloroprene, from 0.005% to 0.015% of phenothiazine and from 0.005% to 0.5% of an organic phosphite of the formula $(RO)_3P$ in which R stands for radicals of the group consisting of alkyl radicals and aralkyl radicals containing a single benzene ring, said radicals containing 4 to 16 carbon atoms.

2,868,765

POLYVINYL CHLORIDE WITH ALKALI METAL PHOSPHATE AND ORGANOTIN SALT

Albert J. Haefner and Charles W. Montgomery, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 6, 1955
Serial No. 520,356
1 Claim. (Cl. 260—45.75)

A highly heat stable vinyl chloride polymer which is compatible with aryl phosphate plasticizers comprising an intimate mixture of a vinyl chloride polymer containing at least 90% vinyl chloride units, any remaining units being composed of copolymerizable monomers containing a $CH_2{=}C{<}$ group, from 0.001 to 0.070 weight percent of an alkali metal phosphate as a heat stabilizer, and from 0.1 to 10 weight percent of a tin-containing stabilizer selected from the group consisting of a dibutyltin dilaurate, dibutyltin diacetate and dibutyltin maleate, said weight percent being based on weight of said polymer.

2,868,766

PHENYLMETHYLSILOXANE DIPHENYLSILOXANE COPOLYMERS

Oscar K. Johannson, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application July 8, 1955
Serial No. 520,923
2 Claims. (Cl. 260—46.5)

2. A solid copolymer consisting essentially of from 40 to 90 mol percent diphenylsiloxane, from 10 to 60 mol percent phenylmethylsiloxane and from 0 to 10 mol percent siloxane of the formula PhRSiO in which R is an aliphatic hydrocarbon radical of 2 carbon atoms.

2,868,767

CURING OF EPOXY RESINS

Henry A. Cyba, Chicago, and Ralph B. Thompson, Hinsdale, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application December 28, 1956
Serial No. 629,487
10 Claims. (Cl. 260—47)

1. A method of curing an epoxy resin formed by the reaction of a dihydric phenol and a 1,2-epoxy compound selected from the group consisting of epichlorhydrin and polyglycidyl ethers of ethylene glycol, propylene glycol, trimethylene glycol, diethylene glycol, triethyene glycol, glycerol and dipropylene glycol, which comprises heating said resin in admixture with a curing agent comprising the condensation product of an N,N-dialkyl-alkanolamine with a substance selected from the group consisting of (1) polycarboxylic acid, (2) anhydride thereof, (3) ester thereof, and (4) the reaction product of a terpene hydrocarbon having the formula $C_{10}H_{16}$ and a boiling point ranging from about 150° to about 185° C. and a compound selected from the group consisting of an alpha, beta-unsaturated polycarboxylic acid, anhydride and ester thereof, said condensation product being formed by effecting the condensation at a temperature of from about 80° to about 200° C. and using a total of acid and potential acid groups of from about 0.5 to about 2 equivalents thereof per equivalent of total amino and hydroxyl groups.

2,868,768

PROCESS FOR THE PREPARATION OF CONDENSATION PRODUCTS

Wolfgang Förster, Hamburg, Germany, assignor to Reichhold Chemicals, Inc., Detroit, Mich.

No Drawing. Application September 13, 1955
Serial No. 534,168
3 Claims. (Cl. 260—59)

1. A process for the preparation of hardenable epoxy carboxylic acid condensation products, characterized by the fact that a polyvalent polynuclear phenol, wherein about 34–50% of its hydroxyls have been etherified by heating with haloacetic acid in alkaline medium, is reacted with an epihalogen hydrin in an amount equivalent to the free hydroxyls, in alkaline solution, the said polynuclear polyvalent phenol being formed by heating a member of the group consisting of phenol and cresols with formaldehyde and an acidic catalyst for several hours at reflux temperature.

2,868,769

CONDENSATION OF P-MONOAMINOMETHYLBENZOIC ACID AND EPSILON-CAPROLACTAM

Bruce Graham, Los Altos, Calif., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 16, 1954
Serial No. 450,261
1 Claim. (Cl. 260—78)

A moldable condensation product characterized by having a relatively high resistivity to water, heat and light of substantially equal molar proportions of p-monoamino methylbenzoic acid and ε-caprolactam, said p-monoaminomethylbenzoic acid and said ε-caprolactam being condensed at a temperature between about 200°–300° C. under pressure and in an inert atmosphere in the presence of water.

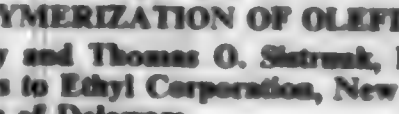
2,868,770

POLYAMIDES OF PARA-AMINOPHENYL ALIPHATIC ACIDS

Samuel C. Temin, Cleveland, Ohio, assignor to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application December 16, 1954
Serial No. 475,809
19 Claims. (Cl. 260—78)

11. A linear polyamide suitable for the production of shaped articles which yields on hydrolysis a product consisting essentially of acids having the formula



wherein Y is a radical selected from the group consisting of branched chain alkylene radicals having two to six carbon atoms and unbranched chain alkylene radicals having three to six carbon atoms.

2,868,771

POLYMERIZATION OF OLEFINS

Richard L. Ray and Thomas O. Sietzmk, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 17, 1956
Serial No. 598,226
6 Claims. (Cl. 260—94.9)

1. A process for the polymerization of a hydrocarbon olefin selected from the group consisting of ethylene and propylene to produce a predominantly solid polymer comprising polymerizing said olefin at a temperature of between about 0° and about 250° C., and at a pressure up to about 250 atmospheres in the presence of a catalyst comprising a metal of Group III–A of the Mendeleev Periodic Table, a halide of a metal selected from the group consisting of Groups IV–B, V–B and VI–B of the Mendeleev Periodic Table, and from about 0.001 to about 0.1 mole of a catalyst adjuvant material selected from the group consisting of molecular oxygen and peroxides per mole of said halide, said Mendeleev Periodic Table corresponding to the table on pages 392 and 393 of the Handbook of Chemistry and Physics, 36th edition, Chemical Rubber Publishing Company.

2,868,772

POLYMERIZATION OF OLEFINS

Richard L. Ray and Thomas O. Sietzmk, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 17, 1956
Serial No. 598,229
4 Claims. (Cl. 260—94.9)

1. A process for the polymerization of hydrocarbon olefins selected from the group consisting of ethylene and propylene comprising polymerizing said olefin at a temperature between about 0 and about 250° C., and at a pressure up to 250 atmospheres in the presence of a catalyst comprising a tetraorganometallic compound of a metal selected from the group consisting of germanium, tin and lead and in which said organo group is selected from the group consisting of alkyl and aryl groups, a halide of a metal selected from the group consisting of metals of Groups IV–B, V–B and VI–B of the Mendeleev Periodic Table corresponding to the table given on pages 392 and 393 of the Handbook of Chemistry and Physics, 36th edition, Chemical Rubber Publishing Company, and a catalyst adjuvant material selected from the group consisting of molecular oxygen and peroxides, said catalyst adjuvant material being present in from about 0.001 to about 0.1 mole per mole of said halide.

2,868,773

PROCESS OF INSOLUBILIZING PROTEINS

Bernard H. Kress, Lafayette Hill, Pa., assignor to Quaker Chemical Products Corporation, Conshohocken, Pa., a corporation of Pennsylvania

No Drawing. Application May 15, 1956
Serial No. 584,895
6 Claims. (Cl. 260—112)

1. The process of insolubilizing protein from an aqueous solution thereof which comprises treating said protein with a water-soluble acetal polymeric condensation product made by reacting an aliphatic aldehyde containing not more than 8 carbon atoms and a polyoxyalkylene glycol containing 2 to 4 alkylene radicals, in the presence of an acid catalyst at a temperature of at least 150° F.

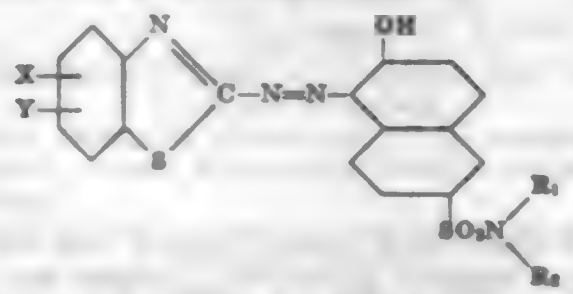
2,868,774

METALLIZABLE AZO DYES PREPARED FROM AMINO-BENZOTHIAZOLE DERIVATIVES AND β-NAPHTHOL DERIVATIVES

James M. Straley and John G. Fisher, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 15, 1957
Serial No. 652,690
13 Claims. (Cl. 260—146)

1. As a composition of matter, the azo compounds selected from the group consisting of monoazo compounds and their metal complexes containing a metal selected from the group consisting of chromium, cobalt, copper, iron, manganese, nickel and vanadium, said monoazo compounds having the structural formula:



wherein X and Y are selected from the group consisting of hydrogen, bromine, nitro, alkoxy, alkylsulfonyl, alkoxyalkoxy, thiocyano and monohydroxyalkyl, and R_1 and R_2 are selected from the group consisting of hydrogen, monohydroxyalkyl, alkyl, cyanoalkyl, alkoxyalkyl, β,γ-dihydroxypropyl, trimethylolmethyl, β-chloroethyl, carboxyalkyl and heterocyclic morpholide ring containing the amino nitrogen atom and R_1 and R_2 and wherein the terms alkyl and alkoxy refer to lower alkyl and lower alkoxy.

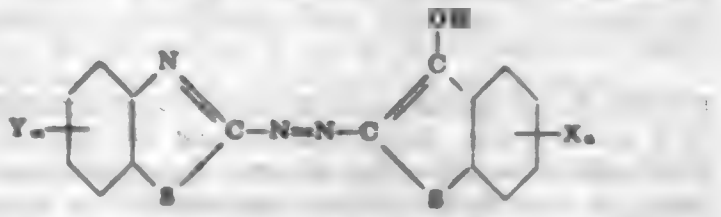
2,868,775

METALLIZABLE AZO DYES PREPARED FROM BENZOTHIAZOLES AND HYDROXY-THIANAPHTHENES

James M. Straley and Ralph R. Giles, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 15, 1957
Serial No. 652,701
13 Claims. (Cl. 260—146)

1. As a composition of matter, the azo compounds selected from the group consisting of the monoazo compounds and their metal complexes containing a metal selected from the group consisting of chromium, cobalt, copper, iron, manganese, nickel and vanadium, said monoazo compounds having the structural formula:



wherein Y is a substituent radical selected from the group

consisting of lower alkyl containing 1 to 4 carbon atoms, nitro, halogen, alkoxy containing 1 to 4 carbon atoms, thiocyano, hydroxyalkyl containing 1 to 4 carbon atoms, alkylsulfonyl containing 1 to 4 carbon atoms, hydroxyalkylthio containing 1 to 4 carbon atoms, cyanoalkylthio containing 1 to 4 carbon atoms, acetamido, haloalkyl containing 1 to 4 carbon atoms, cyanoalkylsulfonyl containing 1 to 4 carbon atoms and alkylthio containing 1 to 4 carbon atoms, X is a substituent radical selected from the group consisting of halogen, lower alkyl containing 1 to 4 carbon atoms and alkoxy containing 1 to 4 carbon atoms, *m* is an integer from 0 to 2 and *n* is an integer from 0 to 3.

2,868,776

CHROMIUM-CONTAINING AZO DYESTUFFS

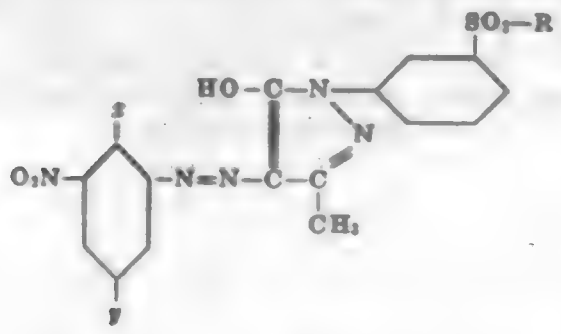
Hans Ruckstuhl, Basel, Switzerland, assignor to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application May 9, 1957
Serial No. 658,017

Claims priority, application Switzerland May 26, 1955

6 Claims. (Cl. 260—147)

1. Chromium-containing azo dyestuffs which, in their metal-free state, correspond to the general formula



wherein *x* stands for a member selected from the group consisting of hydroxy and methoxy, *y* stands for a member selected from the group consisting of chlorine and methyl, and R represents the radical of a member selected from the class consisting of primary butyl and amyl amines containing two hydroxy groups and secondary lower alkyl amines carrying one hydroxy group in each alkyl group.

2,868,777

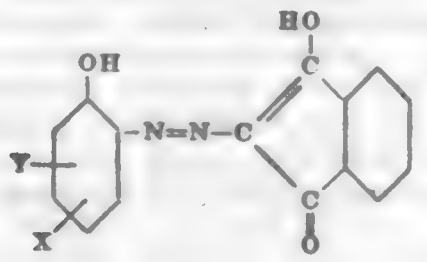
O,O'-DIHYDROXYAZO DYESTUFFS AND THEIR METAL COMPLEX COMPOUNDS

Edgar Enders, Leverkusen-Bayerwerk, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application February 8, 1956
Serial No. 564,124

6 Claims. (Cl. 260—149)

1. A dyestuff selected from the group consisting of monoazo dyestuffs corresponding to the following formula



wherein X is a member selected from the group consisting of a sulfonamide, methylsulfone and ethylsulfone radicals, and Y is a member selected from the group consisting of hydrogen, chlorine, and methyl; the chromium complex thereof and the cobalt complex thereof.

2,868,778

PROCESS FOR EXTRACTING HEMICELLULOSE FROM CORN COARSE FIBER

Stanley A. Watson, Forest Park, and Carl B. Williams, Chicago, Ill., assignors to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application April 21, 1954
Serial No. 424,778
6 Claims. (Cl. 260—209)

1. A process for obtaining hemicellulose from corn coarse fiber which comprises extracting the fiber with an aqueous suspension of calcium hydroxide, the amount of calcium hydroxide being sufficient to maintain the pH of the system above about 10.5 during the extraction and separating the extract from the residue and recovering the hemicellulose from the extract.

2,868,779

PROCESS FOR THE PURIFICATION OF STREPTOMYCIN

Charles R. Bartels, Westfield, Wilbur L. Bryan, Belle Mead, and Bernard Berk, Westfield, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application August 28, 1956
Serial No. 606,546
11 Claims. (Cl. 260—210)

1. A process for purifying streptomycin, which comprises adsorbing a whole streptomycin-containing broth on a first cation exchange resin, eluting the adsorbed streptomycin therefrom, adding to the eluate an alkaline-earth-metal sequestering agent in quantity at least sufficient to sequester the alkaline-earth-metal ions, adsorbing the streptomycin from the resulting solution on a second cation exchange resin, and then eluting a purified streptomycin from said second cation exchange resin.

2,868,780

PREPARATION OF STARCH ESTERS

William H. Minkema, La Grange, Ill., assignor to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application April 23, 1957
Serial No. 654,465
7 Claims. (Cl. 260—233.5)

1. A process for preparing polysaccharide esters of organic acids which comprises heating a mixture of a polysaccharide and a salt of an organic acid having a moisture content within the range of about 5 to about 20 percent of moisture at a temperature within the range of about 85° C. to about 140° C. with concomitant removal of a nitrogen containing compound from the group consisting of ammonia and amine, and moisture; said salt being from the group consisting of ammonium and N-substituted ammonium salts of organic acids non-volatile under the conditions set forth and mixtures thereof.

2,868,781

CARBOHYDRATE ESTERS OF CARBOXYLIC ACIDS AND METHODS OF PREPARING SAME

Van R. Gaertner and Edward L. Doerr, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 23, 1956
Serial No. 579,719
18 Claims. (Cl. 260—234)

7. A method of preparing biscarbohydrate esters of dicarboxylic acids which comprises heating and reacting a lower hydrocarbon diester of an aliphatic dicarboxylic acid in the presence of a basic catalyst with a carbohydrate which is a saccharide containing no more than two saccharide units selected from the group consisting of ketoses, sugar alcohols, disaccharides, and the glycosides of aldoses and ketoses.

2,868,782

POLYHYDRO-2-AZIRIDINO-1,4-NAPHTHOQUINONES

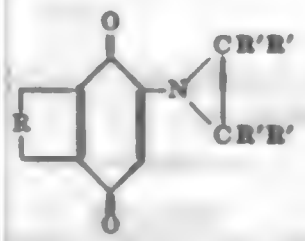
Walter Gauss, Siegfried Petersen, and Gerhard Domagk, Leverkusen, Germany, assignors to Schenley Industries, Inc., a corporation of Delaware

No Drawing. Application April 15, 1957
Serial No. 653,048

Claims priority, application Germany April 14, 1956

2 Claims. (Cl. 260—239)

1. As a new composition of matter, a polyhydro-2-alkyleneimino-1,4-naphthoquinone represented by the formula:



wherein R is a divalent radical selected from the group consisting of:

—$CH_2.CH_2.CH_2.CH_2$—
—$CH{=}CH.CH_2.CH_2$—
—$CH_2.CH{=}CH.CH_2$—



and R' is selected from the group consisting of hydrogen and methyl.

2,868,783

11-OXYGENATED-17α,21-DIHYDROXY-4-PREGNEN-20-ONES AND THE 21-ESTERS THEREOF

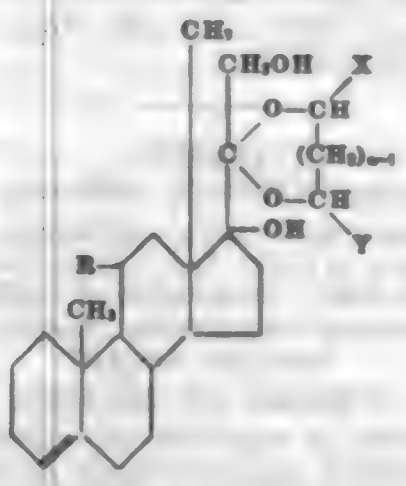
Arthur R. Hanze, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application April 14, 1953
Serial No. 728,074

18 Claims. (Cl. 260—239.55)

1. 11-oxygenated-17α,21-dihydroxy-4-pregnen-20-one and the 21-acylates thereof, wherein the 11-oxygen substituent is selected from the group consisting of keto and β-hydroxy, and the acyl group is that of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

8. 11-oxygenated-17α,21-dihydroxy-4-pregnen-20-one 20-alkylene ketal of the formula:



wherein R is selected from the group consisting of keto and β-hydroxy, X and Y are selected from the group consisting of hydrogen, methyl, and ethyl groups, and *n* is a whole number from one to three, inclusive.

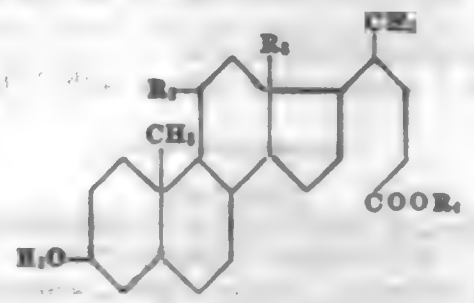
2,868,784

PROCESS FOR THE MANUFACTURE OF STEROIDS

Leopold Ruzicka and Oscar Jeger, Zurich, Switzerland, assignors to Ciba Pharmaceutical Products Inc., Summit, N. J.,

No Drawing. Application October 3, 1955
Serial No. 538,272
Claims priority, application Switzerland October 8, 1954
12 Claims. (Cl. 260—239.57)

1. A compound selected from the group consisting of those having the general formula



wherein R_1 is a member selected from the group consisting of a lower alkyl carbonyl radical and hydrogen, R_2 is a member selected from the group consisting of a hydrogen atom and a hydroxyl group, R_3 a member selected from the group consisting of a nitrile group, a free carboxyl group, an esterified and a lactonized carboxyl group and R_4 is a member selected from the group consisting of hydrogen and a lower alkyl group with the proviso that when R_2 is hydrogen the 11:12-position is unsaturated.

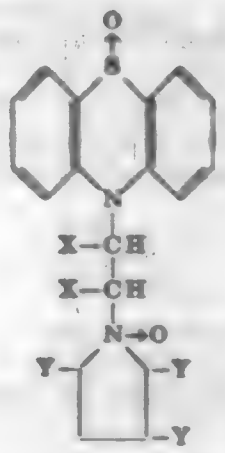
2,868,785

10-(3-PYRROLIDYLALKYL) DERIVATIVES OF PHENOTHIAZINE

Douglas A. Shepherd, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 14, 1956
Serial No. 621,989
4 Claims. (Cl. 260—243)

3. Compounds having the following general structural formula:



wherein X is selected from the group consisting of hydrogen and lower-alkyl and Y is selected from the group consisting of hydrogen and methyl, and the pharmacologically acceptable acid addition salts thereof.

2,868,786

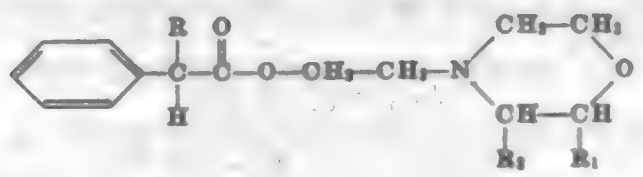
ESTERS OF PHENYL ACETIC ACIDS AND A PROCESS OF MAKING SAME

Harm Siemer and Fritz Kurzen, Konstanz, and Adolf Doppstadt, Litzelstetten, near Konstanz, Germany, assignors to Ravensberg G. m. b. H., Chemische Fabrik, Konstanz, Germany, a corporation of Germany

No Drawing. Application December 21, 1955
Serial No. 554,389
Claims priority, application Germany December 27, 1954
5 Claims. (Cl. 260—247.2)

5. The compounds selected from the group consisting of esters of phenyl acetic acids with tetrahydro-1,4-

oxazine-N-ethanol compounds and their acid addition salts, said esters corresponding to the formula



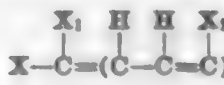
wherein
R indicates a lower alkyl radical with 1 to 5 carbon atoms;
R_1 indicates a phenyl radical; and
R_2 indicates a lower alkyl radical with 1 to 5 carbon atoms.

2,868,787
PROCESS OF PREPARING N-BROMINATED HALOGEN COMPOUNDS
Laurene O. Paterson, Adrian, Mich., assignor to Drug Research, Inc., Adrian, Mich., a corporation of Michigan
No Drawing. Application August 6, 1956
Serial No. 602,466
4 Claims. (Cl. 260—248)

1. A process for preparing N-brominated halogen compounds which comprises treating an N-chlorinated compound selected from the group consisting of N,N-dichloro-5-lower alkyl substituted hydantoins, N-chloro succinimide, N-chlorinated cyanuric acids, N-chlorinated melamines, and N-chlorinated-3a,6a-lower alkyl substituted glycolurils with at least about 0.5 equivalent of an inorganic bromide selected from the group consisting of sodium bromide, potassium bromide, calcium bromide and mixtures thereof, per mole of N-chlorinated compound.

2,868,788
POLYHALOCYCLOALKENIC DERIVATIVES OF DIALKENYL MELAMINES
John P. Luvisi, Park Ridge, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application May 28, 1957
Serial No. 662,819
14 Claims. (Cl. 260—249.6)

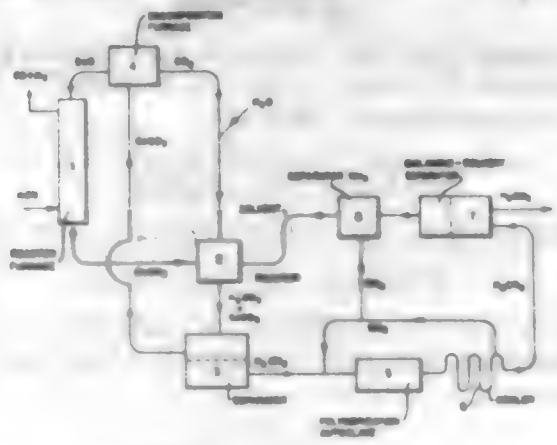
1. A process which comprises reacting dialkenyl melamine at a temperature of from about 50° to about 300° C. with polyhaloalkadiene of the formula



wherein *n* is an integer of from 1 to about 6 and the X's are independently selected from the group consisting of hydrogen and halogen, at least 2 of the X's being halogen.

2,868,789
METHOD OF MAKING MELAMINE
Armand Jean Courtier, Meudon, France, assignor to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey, Paris, France
Application July 7, 1955, Serial No. 520,594
Claims priority, application France July 9, 1954
10 Claims. (Cl. 260—249.7)

1. In a process for making melamine wherein HCN is reacted with CaO in a first step to form $CaCN_2$, CO, and H_2, in a second step $CaCN_2$ is reacted with CO_2 and H_2O to form $CaCO_3$ and H_2CN_2, and in a third step the H_2CN_2 is polymerized to form melamine, the steps which comprise carrying out the second and third steps in an organic solvent miscible with water, separating the melamine from the solvent and returning the solvent to the second step, adding the H_2O to the second step as a vapor, adding the CO_2 and the water to the second step simultaneously, decomposing the $CaCO_3$ from the second step to form CaO and CO_2 and returning the CaO to



the first step, and returning the CO_2 from the decomposition to the second step.

2,868,790
MANUFACTURE OF BARBITURIC COMPOUNDS
Arne Elof Brandstrom, Uppsala, Sweden, assignor to Aktiebolaget Pharmacia, Uppsala, Sweden, a Swedish company
No Drawing. Application February 6, 1956
Serial No. 563,444
Claims priority, application Sweden February 15, 1955
2 Claims. (Cl. 260—257)

1. 1 - methyl-5-neopentyl-5-bromoallylbarbituric acid and its alkali metal salts.

2,868,791
PROCESS FOR THE PRODUCTION OF SUBSTITUTED PIPERAZINES
Arthur B. Steele, Pittsburgh, Pa., assignor to Union Carbide Corporation, a corporation of New York
No Drawing. Application October 19, 1954
Serial No. 463,330
11 Claims. (Cl. 260—268)

1. A process for the production of N,N'-disubstituted piperazines which comprises heating a reaction mixture comprising carbon dioxide and a saturated lower aliphatic secondary amine containing at least one 2-hydroxyethyl group to an elevated temperature in the range of 110° C. to 200° C. under a superatmospheric pressure of from 150 to 1000 pounds per square inch absolute.

2,868,792
NEW QUINUCLIDINE DERIVATIVES
Cyril A. Grob, Basel, Switzerland, assignor to Ciba Pharmaceutical Products Inc., Summit, N. J.
No Drawing. Application October 5, 1955
Serial No. 538,790
Claims priority, application Switzerland October 8, 1954
4 Claims. (Cl. 260—293)

2. 4-cyano-quinuclidine.

2,868,793
PURIFICATION OF PIPERIDINES
William H. Rieger and Leroy A. Springman, Indianapolis, Ind., assignors to Reilly Tar & Chemical Corporation, Indianapolis, Ind., a corporation of Indiana
No Drawing. Application March 5, 1956
Serial No. 569,245
5 Claims. (Cl. 260—293)

1. The process of separating piperidines from unhydrogenated pyridines which comprises reacting a mixture comprising a piperidine and an unhydrogenated pyridine with carbonic acid to form a solid piperidine carbonate, separating the solid piperidine carbonate from the reaction mixture, and recovering the piperidine from its carbonate.

2,868,794

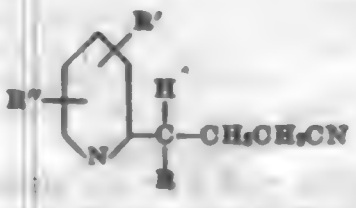
PROCESS OF PREPARING CYANOPYRIDYL-ALKANES

Francis E. Cislak, Indianapolis, Ind., assignor to Reilly Tar & Chemical Corporation, Indianapolis, Ind., a corporation of Indiana

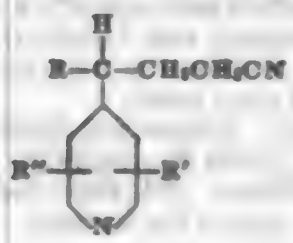
No Drawing. Application February 17, 1958
Serial No. 715,530

6 Claims. (Cl. 260—294.9)

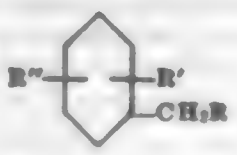
1. The process of preparing compounds of the class consisting of cyanopyridylalkanes having the following general formulae:



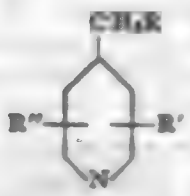
and



wherein R′ and R″ are selected from the group consisting of hydrogen and lower alkyl and R is a member of the class consisting of hydrogen and the radical $-(CH_2)_nCN$ where n is a small integer of from 1 to 4 which comprises heating, in the presence of an alkali metal catalyst, acrylonitrile and a picoline selected from the group of compounds having the formulae:



and



wherein R, R′, and R″ have the same values as hereinbefore designated.

2,868,795

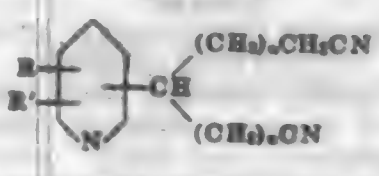
PYRIDYL DICYANOALKANES AND PROCESS

Francis E. Cislak, Indianapolis, Ind., assignor to Reilly Tar & Chemical Corporation, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application February 17, 1958
Serial No. 715,531

7 Claims. (Cl. 260—294.9)

1. Compounds of the class consisting of dicyanopyridylalkanes having the following general formula:



wherein R and R′ are selected from the group consisting of hydrogen and lower alkyl and n is a small integer selected from 1 to 4 inclusive.

2,868,796

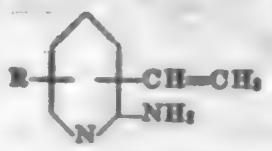
AMINO-VINYLPYRIDINES AND PROCESS OF MAKING THEM

Francis E. Cislak, Indianapolis, Ind., assignor to Reilly Tar & Chemical Corporation, Indianapolis, Ind., a corporation of Indiana

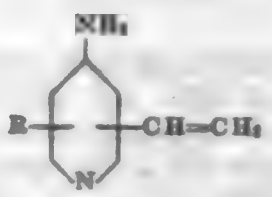
No Drawing. Application June 20, 1957
Serial No. 667,053

8 Claims. (Cl. 260—296)

1. A compound of the class consisting of 2-amino-vinylpyridines and 4-amino-vinylpyridines having the general formulae:



and



where R is selected from the group consisting of hydrogen and lower alkyl.

2,868,797

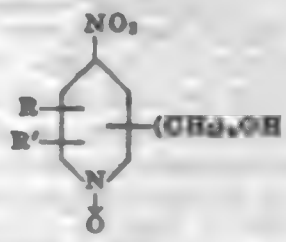
4-NITROPYRIDINE-ALKANOL, N-OXIDES

Francis E. Cislak, Indianapolis, Ind., assignor to Reilly Tar & Chemical Corperation, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application May 9, 1958
Serial No. 734,117

7 Claims. (Cl. 260—297)

1. 4-nitropyridine-alkanol, N-oxides having the following general formula:



where n is an integer selected from the group consisting of 1, 2, and 3, and R and R′ are selected from the class consisting of hydrogen and lower normal alkyl.

2,868,798

ZINC HALIDE COMPLEXES OF 2-MERCAPTO- AND 2,2′-DITHIOBIS-BENZOTHIAZOLE

Clifton L. Kehr, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 9, 1958
Serial No. 707,871

5 Claims. (Cl. 260—299)

1. A process for the preparation of a zinc halide coordination complex selected from the group consisting of a 2-mercaptobenzothiazole:zinc halide complex and a 2,2′-dithiobisbenzothiazole:zinc halide complex which comprises mixing a zinc halide selected from the group consisting of zinc chloride, zinc bromide and zinc iodide with at least a stoichiometric quantity of an organic compound selected from the group consisting of 2-mercaptobenzothiazole and 2,2′-dithiobisbenzothiazole, under abrading conditions of agitation in an inert organic liquid medium, at a temperature of from about 25 to 140° C. and recovering the resulting complex.

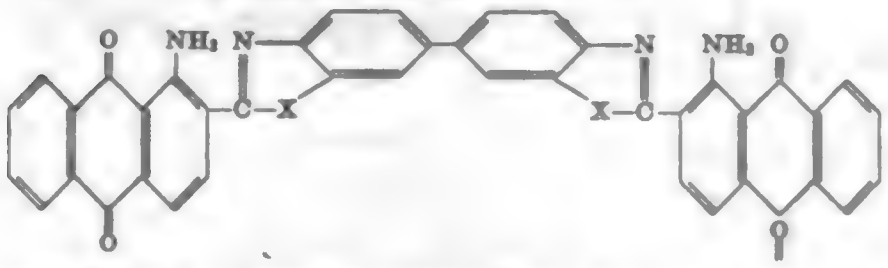
2,868,799

CERTAIN SUBSTITUTED BIS-ANTHRAQUINONYL BIBENZOTHIAZOLE AND BIBENZOXAZOLE DYES AND PROCESS

Rütger Neeff, Leverkusen-Bayerwerk, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application September 5, 1956
Serial No. 607,998
Claims priority, application Germany September 7, 1955
5 Claims. (Cl. 260—303)

5. A novel dyestuff of the formula



wherein X is a member selected from the group consisting of oxygen and sulfur and wherein at least on anthraquinone molecule is substituted at least once by a member selected from the group consisting of chlorine and acrylamino groups.

2,868,800

6-ETHOXYBENZOTHIAZOLE-2-SULFONAMIDE

Jerome Korman, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application October 13, 1954
Serial No. 462,113
1 Claim. (Cl. 260—306.6)

6-ethoxybenzothiazole-2-sulfonamide.

2,868,801

PREPARATION OF SUBSTITUTED OXAZOLIDONES

Arthur B. Steele, Ossining, N. Y., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application November 6, 1956
Serial No. 620,592
12 Claims. (Cl. 260—307)

1. A process for the production of substituted oxazolidones which comprises reacting an aliphatic secondary amine containing at least one 2-hydroxypropyl group and carbon dioxide at an elevated temperature in the range of from 120° C. to 175° C. under a superatmospheric pressure in the range of from 175 to 700 pounds per square inch absolute.

2,868,802

2-(γ-TERT-BUTYL-O,O'-DIMETHYL-PHENYL-METHYL)-IMIDAZOLINE AND SALTS

Albrecht Hueni, Basel, Switzerland, assignor to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application June 11, 1957
Serial No. 664,909
Claims priority, application Switzerland July 10, 1956
2 Claims. (Cl. 260—309.6)

1. A member selected from the group consisting of 2-(para-tertiary butyl-ortho:ortho'-dimethyl-phenyl-methyl)-imidazoline and its pharmaceutically acceptable acid addition salts.

2,868,803

NEW PYRAZOLES AND METHOD OF PREPARING SAME

Jean Druey, Riehen, and Paul Schmidt, Therwil, Switzerland, assignors to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application February 4, 1957
Serial No. 637,898
Claims priority, application Switzerland February 10, 1956
8 Claims. (Cl. 260—310)

6. Alkyl esters of 3-amino-pyrazole-4-carboxylic acid.

2,868,804

BETAINE ASCORBATE

Paul Lafumas and Jacques Cerezat, Choisy-le-Roi, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

No Drawing. Application May 31, 1957
Serial No. 662,579
Claims priority, application France June 15, 1956
1 Claim. (Cl. 260—343.7)

As a new composition of matter betaine ascorbate.

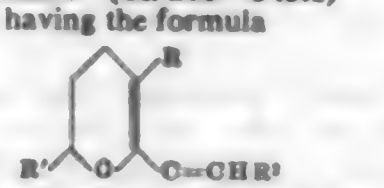
2,868,805

2-ALKENYL AND 2-ALKYNYL DERIVATIVES OF 5,6-DIHYDRO-4H PYRANS

Glen E. Arth, Cranford, and Lewis H. Sarett, Princeton, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

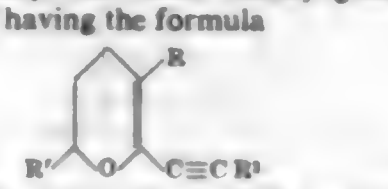
No Drawing. Application October 2, 1953
Serial No. 383,923
6 Claims. (Cl. 260—345.1)

1. A compound having the formula



and polymers thereof, wherein R and R' are members of the group consisting of hydrogen and lower alkyl radicals and R^2 is a member of the group consisting of hydrogen, lower alkyl and lower alkoxy groups.

6. A compound having the formula



wherein R and R' are members of the group consisting of hydrogen and lower alkyl radicals and R^2 is a member of the group consisting of hydrogen, lower alkyl and lower alkoxy radicals.

2,868,806

PROCESS FOR THE PURIFICATION OF ALKYLENE OXIDES

Andrew A. Holzschuh, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 12, 1957
Serial No. 695,533
4 Claims. (Cl. 260—348)

1. A process for removing chlorine-containing, unsaturated impurities from crude lower alkylene oxides containing up to 8 carbon atoms comprising, as essential sequential steps (1) contacting the alkylene oxide with a molar excess of bromine while said crude alkylene oxide is being maintained at a temperature of from about 0° C. to about 30° C., (2) distilling the bromine treated product of step (1) to recover the purified alkylene oxide product.

2,868,807

PROCESS FOR THE PURIFICATION OF ALKYLENE OXIDES

Andrew A. Holzschuh, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 12, 1957
Serial No. 695,513
5 Claims. (Cl. 260—348)

1. A process for removing chlorine-containing unsat-

urated impurities from crude lower alkylene oxides containing up to 8 carbon atoms comprising, as essential sequential steps (1) cooling the impurity-containing alkylene oxide to a temperature beneath about 0° C., (2) contacting the chilled alkylene oxide with a molar excess of ozone while said crude alkylene oxide is being maintained at a temperature of not over 0° C., (3) distilling the ozone treated product of step (1) to recover the purified alkylene oxide product.

2,868,805

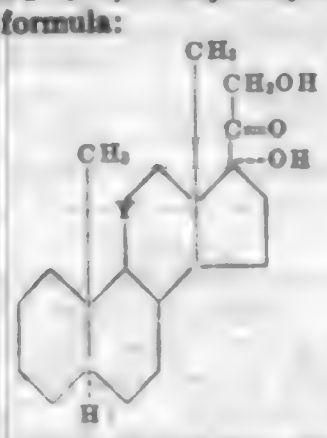
11-OXYGENATED 17α,21-DIHYDROXYALLOPREGNAN-20-ONE AND ESTERS THEREOF

John C. Babcock, Portage Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application April 14, 1958
Serial No. 728,046

21 Claims. (Cl. 260—397.1)

1. 11-oxygenated 17α,21-dihydroxyallopregnan-20-one of the following formula:



wherein Y is a member selected from the group consisting of the carbonyl radical and the β-hydroxymethylene radical; and the 21-acylates thereof wherein the acyl radical is that of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

15. 11-keto-17(20)allopregnen-21-oic acid and the lower alkyl esters thereof.

2,868,809

19-NORTESTOSTERONE PHENYL ALKANOATES

Robert A. Donia, Kalamazoo Township, Kalamazoo County, and Arnold C. Ott, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 12, 1954
Serial No. 449,502

7 Claims. (Cl. 260—397.4)

1. A compound selected from the group consisting of 19-nortestosterone 17-phenylalkanoate wherein the alkanoate biradical contains from two to three carbon atoms, inclusive, and the 3-enol acylate thereof wherein an acylate radical is of the formula AcO, Ac being the acyl radical of a hydrocarbon monocarboxylic acid containing from two to nine carbon atoms, inclusive.

2,868,810

EPIPREGNANOLONE - BENZOPHENONE ADDUCT AND METHODS FOR PRODUCING AND UTILIZING SAME

Kekhusroo R. Bharucha, Toronto, Ontario, Canada, assignor to Canada Packers, Limited, Toronto, Ontario, Canada

No Drawing. Application November 29, 1956
Serial No. 624,971

18 Claims. (Cl. 260—397.4)

1. An adduct of benzophenone and epipregnanolone.

2,868,811

3β-ACYLOXY - 17β - HYDROXY - 17α - ETHYNYL-5-ANDROSTENES AND ANDROSTANES AND THEIR PREPARATION

Raymond O. Clinton, North Greenbush Township, and Arthur L. Beyler, Albany, N. Y., assignors to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application July 21, 1955
Serial No. 523,626

17 Claims. (Cl. 260—397.5)

1. A compound selected from the group consisting of 3β-acyloxy-17β-hydroxy-17α-ethynylandrostanes and 3β-acyloxy-17β-hydroxy-17α-ethynyl-5-androstenes wherein the acyl group is a member of the group consisting of alkanoyl radicals having from 3 to about 10 carbon atoms and carboxy-alkanoyl radicals having from 4 to 6 carbon atoms.

2,868,812

MANUFACTURE OF FATTY ACID MONOESTERS OF GLYCEROL MONOSULFURIC ACID AND SALTS THEREOF

Frederick William Gray, Belleville, N. J., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application February 9, 1955
Serial No. 487,209

9 Claims. (Cl. 260—400)

2. A process for making a detergent composition intermediate, which, on neutralization in an aqueous medium with a solution of caustic soda, will yield a water soluble detergent salt composition analyzing at least 45 percent active detergent ingredient on a dry composition solids basis, and less than eleven parts ether soluble material per 100 parts active detergent ingredient, which process comprises reacting one molecular proportion of coconut oil with a mixture of two molecular proportions of glycerol trisulfuric acid and from 4.0 to 4.8 molecular proportions of sulfuric acid monohydrate, at a temperature between 36° C. and 65° C.

2,868,813

PROCESS FOR ESTER PRODUCTION BY CARBONYLATION

Robert Y. Heisler, Fishkill, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application September 17, 1954
Serial No. 456,865

12 Claims. (Cl. 260—410.9)

1. In a process for forming a lower alkyl ester of a carboxylic acid having $n+1$ carbon atoms by reacting a monoolefinic aliphatic hydrocarbon of n carbon atoms, n being an integer between 2 and 20, with carbon monoxide and a lower alkanol in the presence of cobalt carbonylation catalyst at a pressure above 1000 p. s. i. g. and temperature of 250–500° F., the improvement which comprises forming said reaction mixture with an organic substance having pK_a between 3 and 10 selected from the group consisting of carboxylic acids having a benzenoid nucleus and lower alkyl esters thereof, the amount of said organic substance being a minor fraction of said reaction mixture.

2,868,814

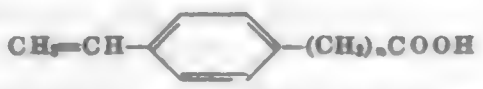
COMPOSITION OF MATTER

Avrom I. Medalia, Belmont, and Harold H. Freedman, Brookline, Mass., assignors to General Latex & Chemical Corporation, Cambridge, Mass., a corporation of Massachusetts

No Drawing. Application November 2, 1953
Serial No. 389,870

5 Claims. (Cl. 260—413)

1. Compounds of structure



where *n* can be from 4 to 16 and the salts and esters of such compounds.

2,868,815

TREATMENT OF POLY-UNSATURATED FATTY ACIDS

William S. Baldwin, St. Paul, Don E. Floyd, Robbinsdale, and Raymond F. Paschke, Anoka, Minn., assignors to General Mills, Inc., a corporation of Delaware

No Drawing. Application May 7, 1956
Serial No. 582,933

3 Claims. (Cl. 260—413)

1. Process of aromatizing a linoleic acid compound which comprises heating a compound selected from the group consisting of linoleic acid and its esters to about 270° C. in the presence of a noble metal active hydrogen transfer catalyst to produce a mixture of aromatic ortho-substituted di-alkyl monocarboxylic acids which are characterized by having a strong infrared adsorption band in the 13.3μ region.

2,868,816

PROCESS FOR THE PREPARATION OF CYCLOPENTADIENYL MANGANESE TRICARBONYL COMPOUNDS

Harris E. Petree, Baton Rouge, La., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 8, 1956
Serial No. 621,000

8 Claims. (Cl. 260—429)

1. A process which comprises reacting a dicyclopentadienyl manganese hydrocarbon compound with carbon monoxide in the presence of hydrogen with the ratio of the partial pressure of carbon monoxide to hydrogen varying from about 100:1 to about 1:100.

2,868,817

PLUTONIUM-CUPFERRON COMPLEX AND METHOD OF REMOVING PLUTONIUM FROM SOLUTION

Herbert A. Potratz, Boulder, Colo., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application November 30, 1944
Serial No. 565,991

9 Claims. (Cl. 260—429.1)

1. The method of separating plutonium from fission products present in neutron irradiated uranium which comprises forming an acidic aqueous solution of plutonium containing fission products, reacting the plutonium with cupferron and removing the plutonium cupferride.

2,868,818

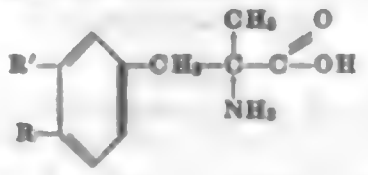
ALPHA METHYL PHENYLALANINES

Karl Pfister III, Westfield, and Gustav A. Stein, Plainfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

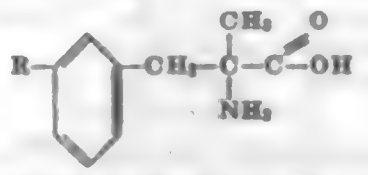
No Drawing. Application December 15, 1953
Serial No. 398,418

6 Claims. (Cl. 260—519)

1. A compound selected from the group consisting of compounds having the formulas



and



wherein R is selected from the group consisting of hydroxy, alkoxy and acyloxy radicals having a carbon chain length of from 1 to 4 carbon atoms, and R′ is selected from the group consisting of hydrogen, hydroxy, alkoxy and acyloxy radicals having a carbon chain length of from 1 to 4 carbon atoms; and salts thereof.

2,868,819

ORGANOTIN COMPOUNDS AND PROCESS OF PREPARATION

Elliott L. Weinberg, Long Island City, N. Y., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application January 18, 1954
Serial No. 404,885

26 Claims. (Cl. 260—429.7)

1. A process of preparing a sulfur-containing organotin compound which comprises: (1) esterifying B moles of a dibasic acid compound selected from the group consisting of dibasic acids of formula HOOCR′COOH and their anhydrides with A moles of a hydroxy compound of formula ROH; (2) reacting the reaction products of (1) with C moles of an organotin oxide of formula R''_3SnO; (3) and reacting the reaction product of (2) with D moles of a mercaptan selected from the class consisting of alkylmercaptans and monocarbocyclicarylmercaptans; wherein R and R″ are monovalent hydrocarbon radicals, R′ is a divalent hydrocarbon radical

$$\frac{A}{B}$$

is within the range of ½ to 1

$$\frac{D}{B}$$

is within the range of .2 to 2; and C has a value of between

$$\frac{2B-A+D}{2} \text{ to } \frac{2B-A}{2}$$

14. As a composition of matter the reaction product of the process of claim 1.

2,868,820

PREPARATION OF HEXAORGANODISTANNOXANE AND TRIORGANOTIN HYDROXIDE

Siegfried Nitzsche and Rudolf Riedle, Burghausen, Oberbayern, Germany, assignors to Wacker Chemie G. m. b. H., Munich, Germany

No Drawing. Application May 2, 1955
Serial No. 505,509
Claims priority, application Germany May 8, 1954
8 Claims. (Cl. 260—429.7)

1. In the method for the preparation of triorganotin hydroxide and hexaorganodistannoxane by the saponifi-

cation of an organotin halide mixture comprising tetraorganotin and triorganotin halide, the organic radicals attached to tin being selected from the group consisting of alkyl radicals of from 1 to 12 inclusive carbon atoms and aryl radicals of from 6 to 10 inclusive carbon atoms, the improvement which comprises (1) separating the insoluble precipitate from the saponification product, (2) separating a fraction containing any unsaponified triorganotin halide and tetraorganotin from the liquid portion of the saponification product, (3) contacting the aforesaid insoluble precipitate with HCl and separating the organotin chlorides thereby produced, (4) mixing said organotin chlorides with the aforesaid unsaponified triorganotin halide-tetraorganotin fraction and heating the mixture at a temperature of from 150° to 240° C., (5) saponifying the reaction product from (4), and (6) separating a product selected from the group consisting of triorganotin hydroxide and hexaorganodistannoxane.

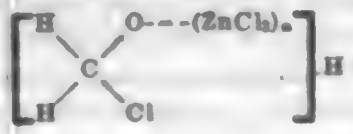
2,868,831

PREPARATION OF p-XYLYLENE DIHALIDES

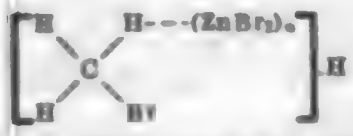
Rudolf Lotz, Klingenberg (Main), Germany, assignor to Vereinigte Glanzstoff-Fabriken A. G., Wuppertal-Elberfeld, Germany

No Drawing. Application January 17, 1955
Serial No. 482,377
Claims priority, application Germany January 20, 1954
5 Claims. (Cl. 260—429.9)

2. The method of preparing an organic zinc compound selected from the class consisting of



and



wherein $n = \frac{1}{2}$–¾, which comprises introducing the corresponding hydrogen halide into a suspension of a compound selected from the class consisting of formaldehyde and paraformaldehyde, and the corresponding zinc halide, at a temperature gradually raised from about 20 to about 65° C., and recovering the organic zinc compound obtained at the bottom of the stratified suspension.

2,868,832

CHEMICAL PROCESS

Edwin L. Mattison, Newark, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 31, 1955
Serial No. 544,866
3 Claims. (Cl. 260—437)

1. In the process of reacting ethyl chloride with NaPb alloy wherein the tetraethyl lead and ethyl chloride are recovered by steam distillation of the reaction mass, the step of preventing agglomeration of the residual lead particles by intimately incorporating into the reaction mass prior to the introduction of water into the reaction mass to effect steam distillation from 0.02% to 0.35% of sulfur, based on the weight of the NaPb alloy.

2,868,833

ALKYLATION CATALYST

Herman D. Kluge and Fred W. Moore, Fishkill, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 29, 1954
Serial No. 471,920
5 Claims. (Cl. 260—448)

1. A compound of the general formula $AlCl_3.RSO_3$, wherein RSO_3 stands for a hydrocarbyl sulfonic acid residue, said compound being suitable for homogeneous blending into an alkylation reaction mixture as a catalyst therefor.

2,868,824

POLYMERIC ORGANOSILOXANES

Loren A. Haluska, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application August 9, 1956
Serial No. 603,174
4 Claims. (Cl. 260—448.2)

1. A polymeric organosiloxane having the unit formula

$$O_{\frac{3-m}{2}}SiR'O(R'O)_nR'SiO_{\frac{3-m}{2}}$$

in which R is selected from the group consisting of saturated hydrocarbon radicals, aromatic hydrocarbon radicals, halogenated saturated hydrocarbon radicals and halogenated aromatic hydrocarbon radicals, R′ is an alkylene radical of at least 2 carbon atoms, m has an average value from 0 to 2, and n has a value of at last 1.

2,868,825

BICYCLOHEPTENYLETHYLDIETHOXY SILANE

Donald L. Bailey, Snyder, and William T. Black, Buffalo, N. Y., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application October 31, 1955
Serial No. 544,036
1 Claim. (Cl. 260—448.8)

The chemical compound bicyclo-2·2·1-hept-5-enyl-2-ethyldiethoxysilane.

2,868,826

CYCLOHEXENYLETHYLDIETHOXYSILANE

Donald L. Bailey, Snyder, and William T. Black, Buffalo, N. Y., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application October 31, 1955
Serial No. 544,037
1 Claim. (Cl. 260—448.8)

The chemical compound cyclohexen-3-yl-1-ethyl diethoxysilane.

2,868,827

PROCESS FOR PRODUCING TRIORGANO-PHOSPHATES

Michael J. O'Connor, Euclid, Ohio, and William K. Detweiler, Westfield, N. J., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application September 6, 1956
Serial No. 608,192
6 Claims. (Cl. 260—461)

1. A process for producing triorgano-phosphates that are represented by the formula, $(R''O)_3PO$ wherein R″O is a group selected from the group consisting of phenoxy groups containing from 0 to 3 alkyl substituents, said alkyl substituents containing from 1 to 4 carbon atoms, and R CH_2O groups wherein R′ is an alkyl group containing from 3 to 12 carbon atoms, which comprises forming a mixture of an organic hydroxyl compound selected from the group consisting of alcohols that are represented by the formula, $R'CH_2OH$, and phenols containing from 0 to 3 alkyl substituents, said alkyl substituents containing from 1 to 4 carbon atoms, phosphorus oxychloride and a catalytic amount of titanium tetrachloride, said catalytic amount being at least 0.01% of the combined weights of said organic hydroxyl compound, phosphorus oxychloride and titanium tetrachloride and heating the mixture to cause the organic hydroxyl compound and the phosphorus oxychloride to react to produce a triorgano-phosphate that is represented by the formula $(R''O)_3PO$.

2,868,828

METHOD OF REMOVING LACTONITRILE FROM AQUEOUS MIXTURES

Richard H. Gill, Calvert City, Ky., and Harold H. Radke and Carl H. Kotheimer, Bay Village, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application November 19, 1956, Serial No. 623,115
9 Claims. (Cl. 260—465.6)

1. A method for removing lactonitrile from aqueous media comprising decomposing lactonitrile to HCN and acetaldehyde under alkaline conditions at a temperature of from about 100 to about 300° F., removing the lactonitrile decomposition products substantially as rapidly as they are formed and passing vapors of the decomposition products into an aqueous acid medium having a pH below about 3.2 to retard the recombination of the acetaldehyde and HCN.

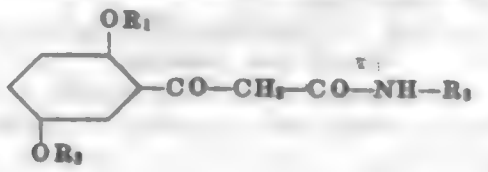
2,868,829

COLOUR PHOTOGRAPHY

Dennis Peter Ayres and Douglas James Fry, Ilford, England, assignors to Ilford Limited, Ilford, England, a British company

No Drawing. Application January 16, 1956
Serial No. 559,101
Claims priority, application Great Britain January 29, 1955
6 Claims. (Cl. 260—471)

1. A colour-coupler of the general formula:



where R_1 and R_2 are each an alkyl group containing up to 4 carbon atoms and R_3 is selected from the class consisting of phenyl, alkyl phenyl, aralkyl phenyl, aryl phenyl, alkoxy phenyl, aryloxy phenyl, carboxyl phenyl, alkoxy carbonyl phenyl, dialkylamino alkoxy carbonyl phenyl, sulphonamido phenyl, nitro phenyl, and alkylthio phenyl.

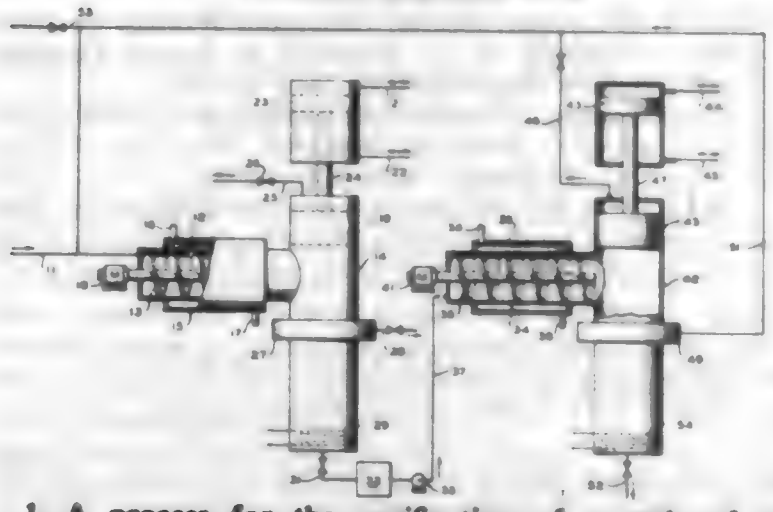
3. 2:5-dimethoxybenzoylacet-p-ethoxycarbonyl anilide.

2,868,830

SEPARATION BY CRYSTALLIZATION

John A. Weedman, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application October 18, 1954, Serial No. 462,828
10 Claims. (Cl. 260—475)



1. A process for the purification of crystals of an organic compound purifiable by fractional crystallization which process comprises moving said crystals and associated impurities toward one end of a first elongated zone as a compact mass; melting a portion of said crystals at the downstream end portion of said first elongated zone; compacting said crystals in said zone without substantial reflux of melt from the downstream end of said zone into said crystal mass; chilling liquid material from the downstream end of said first elongated zone so as to form crystals of at least a portion of one constituent of said mixture at a temperature higher than the temperature of the crystal material in said first zone; introducing said newly formed crystals into a second elongated zone; moving said crystals toward one end of said zone as a compact mass; melting at least a portion of said crystals in the downstream end portion of said second zone; displacing a portion of the resulting melt countercurrently through a portion of said crystal mass so as to displace occluded impurities therefrom; removing said displaced materials from an upstream portion of said second zone; and removing a purified product from the downstream portion of said second zone.

2,868,831

ALKYL METHYLENEPHENYLVALERATE

Charles H. McKeever, Meadowbrook, and Louis R. Freimiller, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

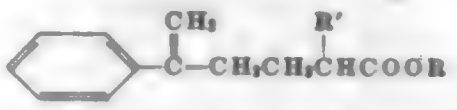
No Drawing. Application January 10, 1956
Serial No. 558,203
18 Claims. (Cl. 260—476)

1. As a new composition of matter, the compound having the formula

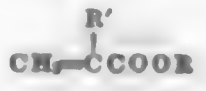


in which R′ is a member of the class consisting of a hydrogen atom and a methyl group and R is a member of the class consisting of a hydrogen atom and an alkyl group of not over eighteen carbon atoms.

9. A method for the preparation of a compound having the formula



in which R′ is a member of the class consisting of a hydrogen atom and a methyl group and R is a member of the class consisting of a hydrogen atom and an alkyl group of not over eighteen carbon atoms, which comprises bringing together at a reacting temperature and pressure in the range of about 200° to 450° C. and about 400 to 4000 p. s. i. g. α-methylstyrene with the compound



2,868,832

METHOD OF REMOVING ACIDS FROM AQUEOUS SOLUTIONS WITH PHOSPHATE SALTS OF QUATERNARY AMMONIUM ANION EXCHANGE RESINS

Frank C. Taylor, Jr., and Hilmer L. Aamoth, Bay City, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 23, 1957
Serial No. 661,025
5 Claims. (Cl. 260—499)

1. A method of removing a water-soluble acid from an aqueous solution of a non-ionized water-soluble organic solute, which method comprises bringing an aqueous solution containing at least one non-ionized water-soluble organic compound and a water-soluble acid having an ionization constant greater than 4.8×10^{-13} at 25° C. as solutes into contact with particles of at least one phosphate salt form of an insoluble resinous quaternary ammonium anion exchange resin selected from the group consisting of the divalent phosphate salt form and the trivalent phosphate salt form of said anion exchange resin, and separating the solution from the anion exchange resin.

2,868,833

ALIPHATIC DIAMINES AND SALTS THEREOF

Joseph Lester Szabo, Drexel Hill, and William F. Bruce, Havertown, Pa., assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Original application August 26, 1952, Serial No. 306,514, now Patent No. 2,739,981, dated March 27, 1956. Divided and this application January 18, 1956, Serial No. 559,770

2 Claims. (Cl. 260—501)

1. As new compounds, the water-soluble lower aliphatic acid-addition salts of N,N'-bis-(3,5,5-trimethylhexyl)-ethylenediamine.

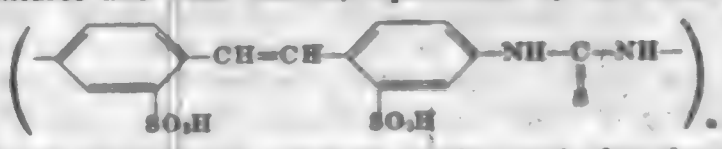
2,868,834

MANUFACTURE OF NEW POLYTHIOUREAS

Robert Neher, Binningen, Switzerland, assignor to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application January 25, 1956
Serial No. 561,341
Claims priority, application Switzerland February 1, 1955
1 Claim. (Cl. 260—506)

A member of the group consisting of polythioureas, mixtures and salts thereof, represented by the formula:



wherein *n* represents a whole number such that the molecular weight is within the range from about 10^4 to about 10^6, and in which any terminal phenyl radical is bound to a free amino group.

2,868,835

REFINING MINERAL OIL MATERIALS

James L. Jezl, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application November 10, 1953, Serial No. 391,303
17 Claims. (Cl. 260—514)

1. Method for refining petroleum naphthenic acids which comprises: contacting such naphthenic acids with a phthalic acid acylating agent at a temperature within the approximate range from 200° F. to 500° F.

2,868,836

2,4-DIHYDROXY-3-METHYLPHENYLGLYOXYLIC ACID AND DERIVATIVES THEREOF

Edward A. Kaczka, Union, N. J., John W. Richter, Wilmington, Del., and Clifford H. Shunk, Scotch Plains, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application April 19, 1956
Serial No. 579,131
2 Claims. (Cl. 260—521)

1. A compound from the group consisting of 2,4-dihydroxy-3-methylphenylglyoxylic acid, its lower alkyl esters, and its alkali metal salts.

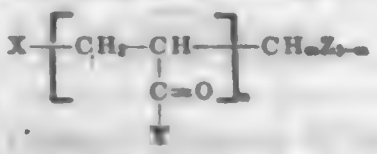
2,868,837

TELOMERS

Peter D. Bartlett and Robert G. Roth, La Marque, Tex., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 4, 1955
Serial No. 499,241
12 Claims. (Cl. 260—537)

1. Compounds having the formula



wherein X is chosen from the group consisting of hydrogen and the halogens, Y is chosen from the group consisting of NH_2, OH, and OM, where M is a cation chosen from the group consisting of the alkali metals and ammonium, Z is a halogen, *n* is an integer from 2 to 30, and *m* may vary from 0 to 2 inclusive.

2,868,838

PRODUCTION OF THE DIPOTASSIUM SALT OF A DINITROCYCLIC KETONE

Henry Feuer, West Lafayette, Ind., and James W. Shepherd, Butler, Pa., assignors to Purdue Research Foundation, Lafayette, Ind., a corporation of Indiana

No Drawing. Application June 28, 1957
Serial No. 668,628
12 Claims. (Cl. 260—586)

1. A process for the production of the dipotassium salt of an α,α'-dinitrocycloaliphatic ketone which comprises reacting a cyclic ketone with an alkyl nitrate in the presence of a potassium t-alkoxide in an inert alcohol-free medium.

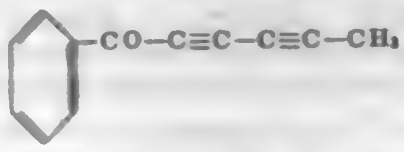
2,868,839

1-OXO-1-PHENYL-HEXA-2,4-DIYNE AND ITS INTERMEDIATE AND PROCESS FOR THE PRODUCTION OF SAID COMPOUNDS

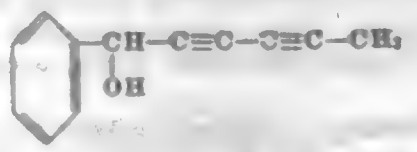
Kaneo Imai, Ichikawa-Shi, Nobukazu Ikeda, Bunkyo-Ku, Kichiro Tanaka, Asagaya, Suginami-Ku, and Shinichi Sugawara, Nakano-Ku, Tokyo-To, Japan, assignors to Sankyo Company Ltd., Tokyo-To, Japan

No Drawing. Application November 28, 1956
Serial No. 623,294
Claims priority, application Japan December 1, 1955
4 Claims. (Cl. 260—592)

1. 1-oxo-1-phenyl-hexa-2,4-diyne having the formula



3. 1-hydroxy-1-phenyl-hexa-2,4-diyne having the formula



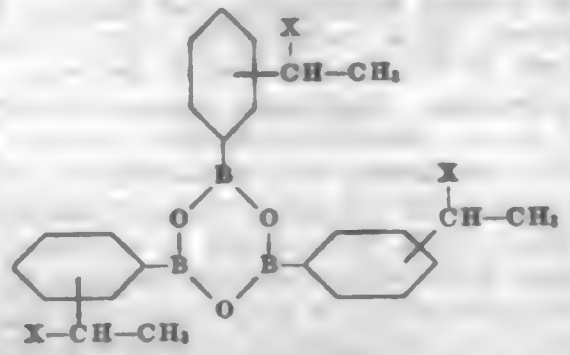
2,868,840

α-HALOGENO-ETHYLPHENYL BOROXOLES AND METHOD OF PREPARATION

Arthur K. Hoffmann, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 6, 1957
Serial No. 682,313
10 Claims. (Cl. 260—606.5)

1. A compound represented by the general formula



where X represents a halogen selected from the class consisting of chlorine and bromine.

2,868,841

PURIFYING 2,2'-THIOBIS(POLYHALOPHENOLS)

William A. Garlette, Jr., Brentwood, Mo., and Kenneth L. Godfrey, St. Albans, W. Va., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 31, 1956
Serial No. 588,233
2 Claims. (Cl. 260—609)

1. In the process of preparing phenol sulfides by heating a polyhalogenated phenol in which the halogen is selected from a group consisting of chlorine and bromine containing one ortho position free and halogen in at least the ortho and para position with a sulfur halide the halogen of which is selected from a group consisting of chlorine and bromine in an organic solvent inert to the reactants in the presence of aluminum chloride within the range of 2.5–15 pounds per pound mole of halophenol, the steps which comprise admixing mineral acid with the crude reaction mixture and filtering the acidified reaction mixture.

2,868,842

HYDROPEROXIDATION PROCESS

Rex D. Closson, Northville, and Waldo B. Ligett, Pontiac, Mich., and Alfred J. Kolka, Pittsburgh, Pa., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Original application March 1, 1954, Serial No. 413,482. Divided and this application February 28, 1958, Serial No. 718,117
3 Claims. (Cl. 260—610)

1. A process for the hydroperoxidation of 1,2,3,4-tetrahydronaphthalene containing at least 2 ethyl groups in the 1 and 4 positions wherein not more than 3 hydrogens in said 1 and 4 positions are replaced by said ethyl groups, comprising passing oxygen through an emulsion of said 1,2,3,4-tetrahydronaphthalene compound in water.

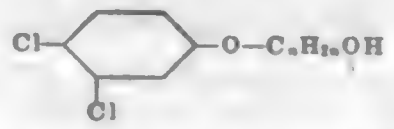
2,868,843

3,4-DICHLOROPHENOXYALKANOLS

Clarence L. Moyle, Clare, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 31, 1956
Serial No. 588,256
3 Claims. (Cl. 260—613)

1. 3,4-dichlorophenoxyalkanols having the formula



wherein n is an integer from 2 to 3, inclusive.

2,868,844

SELECTIVE NITRATION PROCESS

Thomas H. Coffield, Birmingham, and Margaret E. Griffing, Detroit, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application January 22, 1957
Serial No. 635,122
4 Claims. (Cl. 260—622)

1. The process of preparing 4-nitro-2,6-dialkyl phenols in which each alkyl group is branched on its alpha carbon atom, which comprises nitrating the corresponding 2,6-dialkyl phenol with 30 to 70 percent nitric acid at a temperature ranging from about 0 to about 40° C., the reaction being carried out in an inert liquid hydrocarbon solvent.

2,868,845

PREPARATION OF 2-MENTHENE-1-OL

Robert L. Webb, Jacksonville, Fla., assignor to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application April 25, 1955
Serial No. 503,783
5 Claims. (Cl. 260—631)

1. The process of preparing 2-menthene-1-ol which comprises treating α-terpinene with not more than one mole of HCl to form a monohydrohalide, and hydrolyzing the resulting chloride with water in the presence of a basic compound, said basic material being present in an amount sufficient to neutralize HCl formed during the hydrolysis.

2,868,846

PREPARATION OF 2,2,2-TRIFLUOROETHANOL

Francis E. Lawlor, Wyndmoor, and Milton Braid and Bernard Loev, Philadelphia, Pa., assignors to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

No Drawing. Application January 5, 1956
Serial No. 557,432
17 Claims. (Cl. 260—633)

1. A process for the preparation of 2,2,2-trifluoroethanol that comprises heating 2,2,2-trifluoroethyl chloride to a temperature in the range of from about 175 to about 300° C. with a solvent selected from the group consisting of water and an alcohol that is reasonably stable against decomposition under the reaction conditions employed, the reaction medium being maintained for the most part at a pH between 3 and 10.

2,868,847

HYDROGENATION OF MONO- AND DISACCHARIDES TO POLYOLS

Gertrude Gilman Boyers, Flushing, N. Y., assignor to Engelhard Industries, Inc., a corporation of New Jersey

No Drawing. Application October 5, 1956
Serial No. 614,082
10 Claims. (Cl. 260—635)

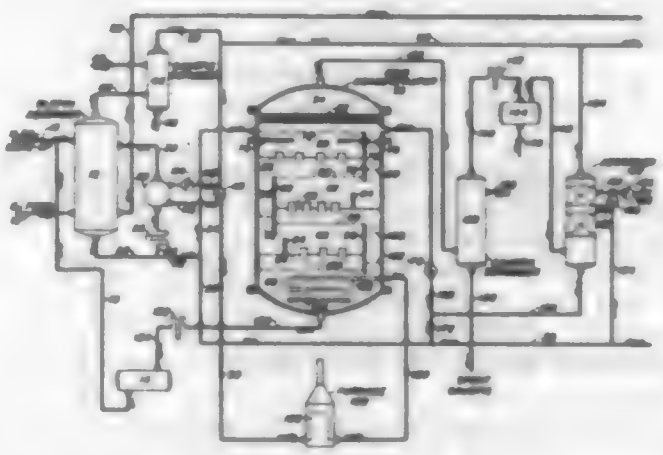
1. A process for the production of a polyhydric alcohol which comprises treating a solution of a compound selected from the group consisting of mono- and disaccharides with hydrogen at superatmospheric pressure and a temperature in the range of about 50 to 400° C., in the presence of a catalyst selected from the group consisting of ruthenium and a compound thereof.

2,868,848

MANUFACTURE OF ALIPHATIC ALCOHOLS

Harvey Hennig, Crystal Lake, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application August 19, 1955, Serial No. 529,505
4 Claims. (Cl. 260—639)



1. The process of preparing isopropyl alcohol from a propane-propylene hydrocarbon mixture containing about 25 mol percent of propylene and about 75 mol per-

cent of propane comprising contacting said hydrocarbon mixture with a sufficient amount of sulfuric acid having a concentration of at least about 75% by weight of sulfuric acid under conditions to convert said propylene to isopropylene sulfate in an absorber zone, separating propane from said absorber zone, separating a reaction mixture of sulfuric acid and isopropyl sulfate from said absorber zone, separately heating said propane to a temperature of 600° to 1100° F. under non-cracking conditions, subjecting said reaction mixture to dilution with water to produce isopropyl alcohol therein, subjecting said isopropyl alcohol-sulfuric acid reaction mixture to contacting with said preheated propane to release said isopropyl alcohol in a series of contacting zones maintained at about atmospheric pressure, the first zone being at a temperature of about 230–240° F. to raise the acid concentration to about 36 weight percent, the second zone being at a temperature of about 240 to 250° F. to raise the acid concentration to about 44 weight percent, the third zone being at a temperature of about 285 to 290° F. to raise the acid concentration to about 60 weight percent and the fourth zone being at a temperature of about 365 to 370° F. to raise the acid concentration to about 75 weight percent, recovering isopropyl alcohol from said first zone for purification and concentrated sulfuric acid from said last zone being substantially free of absorbed propylene.

2,868,849

PURIFICATION OF METHANOL

Harry S. Leach, Texas City, and Billy M. Eldred, La Marque, Tex., assignors of one-half to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware, and one-half to Heyden Newport Chemical Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application October 24, 1956
Serial No. 617,942
2 Claims. (Cl. 260—643)

1. In a process for the purification of crude synthetic methanol which consists of treating said methanol with sulfuric acid and potassium permanganate, neutralizing the acid present with sodium hydroxide, filtering to remove any solids and distilling the methanol filtrate obtained to produce a purified methanol distillate, the improvement which comprises adding a minor amount of an alkali metal hydroxide to said methanol distillate whereby the permanganate time of said purified methanol is significantly lengthened, said minor amount being in the range from about 5 to about 40 parts by weight per million parts by weight of said methanol distillate.

2,868,850

METHOD FOR THE SYNTHESIS OF BROMO-1-CHLORO-4-BUTANE

Marcel Servigne, Sceaux, Etienne Szarvasi, La Celle Saint-Cloud, and Liliane Neuvy, Paris, France, assignors to l'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude, Paris, France

No Drawing. Application April 2, 1956
Serial No. 575,359

Claims priority, application France April 4, 1955

8 Claims. (Cl. 260—652)

1. A process for the manufacture of bromo-1-chloro-4-butane, comprising passing gaseous hydrochloric acid through boiling tetrahydrofuran to form raw delta-chlorobutanol, then adding bromine to a mixture of said raw delta-chlorobutanol and phosphorus, the temperature of said mixture being held during the addition of bromine under 30° C.

2,868,851

STABILIZATION OF CHLORINATED HYDROCARBONS WITH ACETYLENIC ETHERS

Maxwell J. Skeeters, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application July 26, 1954
Serial No. 445,922
10 Claims. (Cl. 260—652.5)

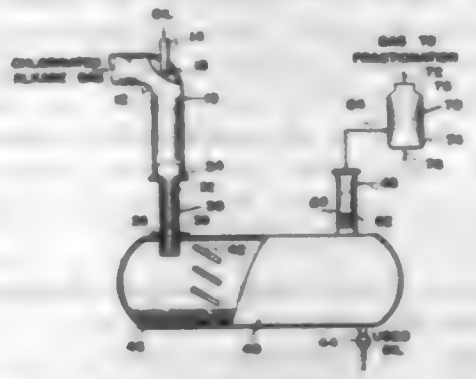
1. A composition of matter comprising a lower molecular weight chlorinated hydrocarbon and a stabilizing amount of an acetylenic ether selected from the group consisting of hydrocarbon acetylenic ethers, halohydrocarbon acetylenic ethers and hydroxy hydrocarbon acetylenic ethers.

2,868,852

OIL SCRUBBER

Clarence M. Neher and Harry E. O'Connell, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

Application October 25, 1956, Serial No. 618,219
3 Claims. (Cl. 260—660)



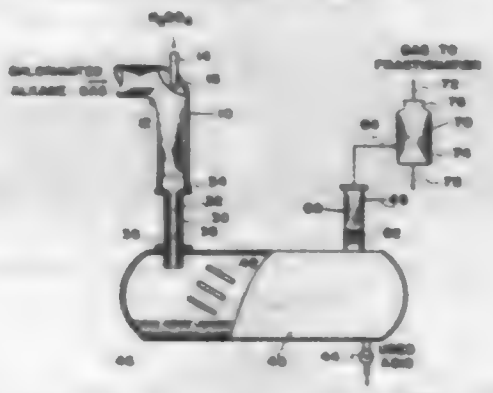
1. In a thermal alkane chlorination process in which the gaseous reaction product is contaminated with finely divided carbon, the improvement comprising intimately contacting said gaseous product with a paraffin hydrocarbon oil by simultaneously passing said gaseous product and oil through a contactnig zone having a restricted cross sectional area whereby the fluid is subjected to a pressure reduction of at least 1.8 p. s. i., and thereafter separating the gaseous product from the oil containing the carbon.

2,868,853

ACID SCRUBBER

Clarence M. Neher and Harry E. O'Connell, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

Application October 25, 1956, Serial No. 618,220
3 Claims. (Cl. 260—660)



1. In a thermal alkane chlorination process in which the gaseous reaction product is contaminated with finely divided carbon and water, the improvement comprising intimately contacting said gaseous product with liquid concentrated sulfuric acid by simultaneously passing said gaseous product and sulfuric acid through a contacting zone having a restricted cross sectional area whereby the fluid is subjected to a pressure reduction of at least 1.8 p. s. i., and thereafter separating the gaseous product from the sulphuric acid containing the carbon and water.

2,868,854

HF—BF_3 ISOMERIZATION OF POLY-SECONDARY ALKYLBENZENES

Arthur P. Lien, Highland, Ind., and David A. McCaulay, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Original application October 30, 1953, Serial No. 389,328. Divided and this application June 8, 1956, Serial No. 590,104

11 Claims. (Cl. 260—668)

1. An isomerization process which comprises (1) contacting, under substantially anhydrous conditions and in the substantial absence of reactive hydrocarbons, poly-secondary alkylbenzene containing at least 2 secondary alkyl groups, which groups are selected from the class consisting of isopropyl and secondary butyl, with (*a*) (i) at least sufficient liquid HF to form a distinct acid phase and (*a*) (ii) with at least one mole of BF_3 per mole of poly-secondary alkylbenzene charged, at a temperature at set out in the annexed schedule for a time such that the poly-secondary alkylbenzene charged is isomerized substantially to the meta-oriented isomer and substantially no disproportionation reactions occur, and (2) removing HF and BF_3 under conditions to substantially avoid rearrangement reactions and (3) recovering from the hydrocarbon reaction product a poly-secondary alkylbenzene fraction comprising substantially the meta-oriented isomer of the poly-secondary alkylbenzene charged, wherein the relationship of the type of poly-secondary alkylbenzene charged and the temperature of contacting is set out in the annexed schedule:

Poly-secondary alkylbenzene charged:	Temperature, ° C.
I. Ortho di-, para di-, mixtures thereof, and mixtures of meta di- and a substantial amount of at least one other isomer of di-	lower than −30
II. A mixture of I and at least a substantial amount of benzene	−30 to −5
III. A tri-isomer other than the 1,3,5-tri-isomer and mixtures of the 1,3,5-tri-isomer and a substantial amount of at least one other isomer of tri-	0 to +30

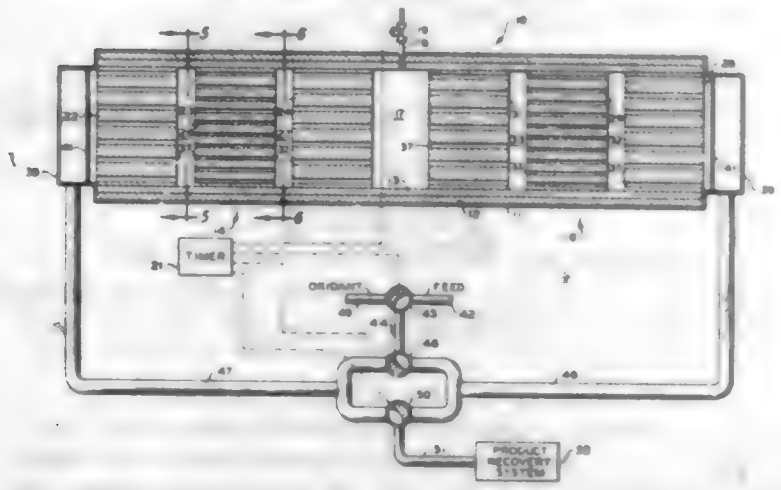
2,868,855

CONVERSION OF HYDROCARBONS

John W. Begley, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application October 18, 1954, Serial No. 462,836

6 Claims. (Cl. 260—679)



1. A regenerative furnace which comprises, in combination, an elongated shell; at least three regenerative masses disposed in said shell, said masses having passageways extending therethrough substantially parallel to the longitudinal axis of said shell and said masses being spaced apart and thereby forming chambers in said shell between said masses, which chambers are open to fluid flow only through said masses, so as to provide means for redistributing gases flowing therethrough; a combustion chamber formed of refractory insulating material communicating with the passageways of at least one of said regenerative masses; means for supplying fuel to said combustion chamber; and means for passing air and material to be converted through the passageways of said regenerative masses.

6. A process for converting hydrocarbons which comprises passing air through a first refractory checkerwork into a combustion zone; introducing fuel gas into said combustion zone, thereby forming a combustible mixture; burning said combustible mixture; passing the resulting combustion products into a second refractory checkerwork; transferring heat from said combustion products to said second refractory checkerwork; increasing the rate of heat transfer in a central portion of said second refractory checkerwork; terminating the supply of air and fuel gas; passing hydrocarbon feed into said second refractory checkerwork; transferring heat from said second refractory checkerwork to said hydrocarbon feed; increasing the rate of heat transfer in a central portion of said second refractory checkerwork; passing the resulting reaction products from said second refractory checkerwork into and through said first refractory checkerwork, thereby quenching said products to a temperature at which they are comparatively stable; and removing said reaction products from said first refractory checkerwork.

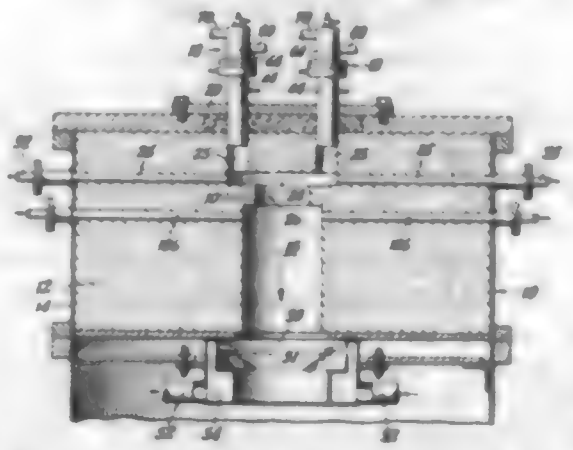
2,868,856

PROCESS AND APPARATUS FOR PARTIAL OXIDATION OF HYDROCARBONS

Arlan B. Hale, St. Albans, and Stanton E. Parrish, South Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of Delaware

Application June 21, 1955, Serial No. 516,936

6 Claims. (Cl. 260—679)



1. A hot gas mixer and reactor system for the partial oxidation of hydrocarbons comprising, in combination, a reactor member having an internal combustion passage therein, said internal combustion passage having an inlet end and a discharge end; a relatively flat ignition chamber communicating with the inlet end of said internal combustion passage, said ignition chamber having a substantially shallower depth than width and being defined by walls including an inlet end wall and a discharge end wall, said discharge end wall having an opening communicating with said internal combustion passage; at least one mixer mounted in said reactor member and constructed and arranged to discharge a mixture of oxidant and hydrocarbon at a near sonic velocity into said ignition chamber through the inlet end wall and against the discharge end wall thereof; at least one flame-holding ignition burner means positioned in said reactor member to discharge laterally toward and adjacent to the communicating opening of the discharge end wall of said ignition chamber a firm high-velocity flame to ignite and maintain ignition of said oxidant and hydrocarbon mixture in the vicinity of the juncture of said ignition cham-

ber and said internal combustion passage; quenching means positioned at the discharge end of said internal combustion passage for quenching the hot products of combustion produced in said passage; and means for collecting said quenched products of combustion and separating the components thereof.

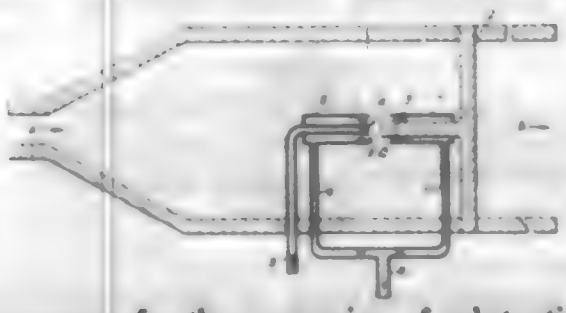
5. The process for the partial oxidation of hydrocarbons which comprises providing preheated streams of fluid hydrocarbon and oxidant, mixing said preheated streams to form a mixture stream, flowing at least one such mixture stream at substantially sonic velocity and impinging such stream against a flat surface in an ignition zone, thereby effecting an abrupt angular change of direction and turbulent flow of such stream after impingement, flowing such stream from the ignition zone through an elongated reaction zone for reaction therein, providing at least one flame-holding ignition burner capable of providing a firm high-velocity flame, directing said flame holder flame into said mixture stream at a point adjacent said abrupt angular change of direction to ignite and maintain ignition of said mixture stream, quenching the hot products of reaction leaving said reaction zone, and collecting said quenched reaction products and separating the components thereof.

2,868,857

COMBUSTION CHAMBERS

Alfred Harold Howland, Edward Morgan Hughes, Hugh Ford, and Nolan Peter William Moore, London, England, assignors to National Research Development Corporation, London, England, a British company

Application September 1, 1955, Serial No. 531,976
Claims priority, application Great Britain September 3, 1954
11 Claims. (Cl. 260—679)



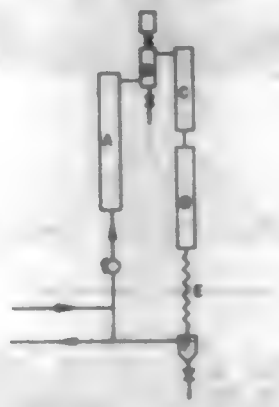
1. Apparatus for the conversion of substantially saturated hydrocarbons to unsaturated hydrocarbons comprising an elongated combustion chamber, means for introducing a premixed combustion mixture at a high rate of flow into one end of the combustion chamber for passage through the combustion chamber, and a flame stabilizing device disposed within said combustion chamber in the path of the combustion mixture flowing therethrough, said flame stabilizing device comprising a nozzle for introduction of fuel into said combustion chamber parallel to the longitudinal axis thereof, an obstructing element disposed in the fuel path from said nozzle and distributor means for supplying molecular oxygen to the vicinity of said obstructing element.

2,868,858

PROCESS FOR OBTAINING OLEFINES DIRECTLY FROM ALPHA, BETA-UNSATURATED ALDEHYDES

Clito Capitani, Milan, and Elso Mugnaini, Novara, Italy, assignors to Società Rhodiatoce S. p. A., a corporation of Italy

Application December 15, 1955, Serial No. 553,365
Claims priority, application Italy December 17, 1954
6 Claims. (Cl. 260—682)



1. The process of preparing an olefine from an alpha, beta-unsaturated aldehyde of the type

$$R-CH=\underset{\displaystyle R}{\overset{\displaystyle |}{C}}-CHO$$

wherein R represents hydrogen, alkyl and aryl, which comprises treating an aldehyde of said type in the vapor phase and at atmospheric pressure with hydrogen, in the presence of a hydrogenation catalyst selected from the group consisting of reduced copper silicate and oxide admixed with a dehydrating agent selected from the group consisting of alumina, silica, thorium oxide, tin dioxide, inorganic sulfates, sulfates of organic amines, zinc chloride, aluminum silicate, graphite, aluminum phosphates, phosphorus pentoxide, boric anhydride, sulfuric acid and sulfonic acids.

2,868,859

CURING NATURAL RUBBER LATEX WITH A PEROXIDE

Geoffrey Stott, Harlow, England

No Drawing. Application June 9, 1954
Serial No. 435,631
Claims priority, application Great Britain June 12, 1953
3 Claims. (Cl. 260—773)

1. The process of vulcanizing an aqueous dispersion of natural rubber comprising the steps of reacting said dispersion with ditertiary butyl peroxide under superatmospheric pressure at a temperature ranging between 140° C. to 170° C. for a period extending between two to thirty minutes, whereby cross-linking occurs between the rubber molecules of said dispersion, said ditertiary butyl peroxide being employed within the range of 1% to 5% based on the weight of the total solids of said rubber dispersion.

ELECTRICAL

2,868,860

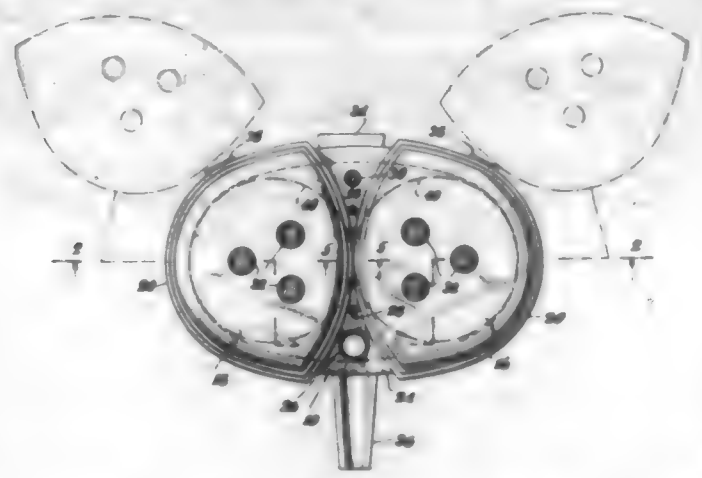
FURNACE FOR STEEL PRODUCTION

Kjeld Foyn, Oslo, and Einar Gorrtzka, Smestad, Oslo, Norway, assignors to Elektrokemisk A-S, Oslo, Norway, a corporation of Norway

Application August 8, 1955, Serial No. 527,038
Claims priority, application Norway September 22, 1954
7 Claims. (Cl. 13—9)

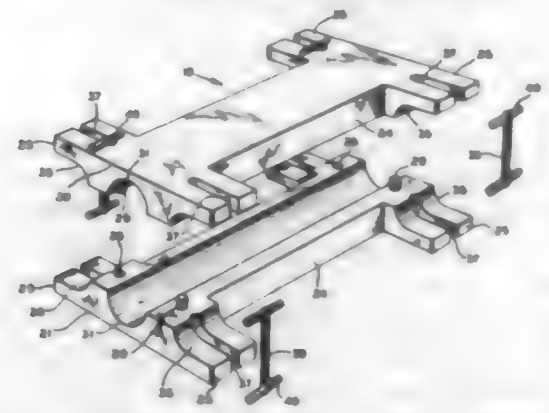
1. An electric furnace comprising an elongated pot, a bridge across the pot, a plurality of removable covers for the pot resting on the sides of the pot and such bridge, said covers covering openings large enough to admit the insertion through them of masses of scrap steel, means in addition to said openings for introducing molten pig iron into the furnace, a fixed roof between the removable covers, a curved bottom for the pot, so that molten metal in the pot will tend to collect toward

the center of the pot below such fixed roof, and a group



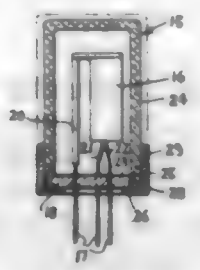
of electrodes extending through each of the removable covers.

2,868,861
MULTIPLEX TERMINAL SPREADER
Harold A. Bither, Portland, Oreg.
Application December 13, 1954, Serial No. 474,722
3 Claims. (Cl. 174—43)



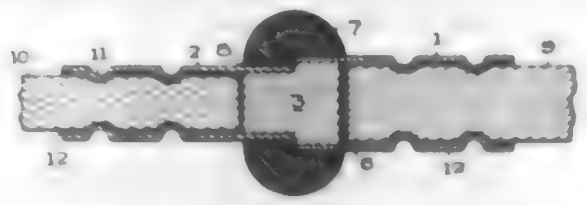
2. A terminal spreader for use in connecting branch wires to a plurality of continuous power supply conductors suspended in a compact group with a supporting messenger cable comprising an elongated insulator body having a longitudinal bore therethrough to receive said messenger cable for supporting the spreader, lateral arms on both ends of said body projecting outwardly therefrom on opposite sides thereof, outward facing grooves in the outer ends of said arms parallel with said bore for holding a pair of said continuous conductors in spaced relation of said body in the interval between said arms for connection of said branch wires, said body being split longitudinally in a plane through said bore and said arms to divide said body into two identical mating body halves, and means for securing said body halves together in mating relation about said messenger cable.

2,868,862
SEALED CASINGS FOR CRYSTAL ELEMENTS
Jan E. Petri, Pomfret, Conn., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application October 12, 1953, Serial No. 385,583
3 Claims. (Cl. 174—50.57)



1. A device of the character described comprising a crystal affective by atmospheric conditions and having at least one lead connected thereto, an open end glass housing enclosing said crystal, and a glass base sealing the open end of said glass housing and carrying leads which are attached to the leads connected to the crystal, the peripheral edges of said open end of the housing and the base being shaped to have intimate contact with each other, one of said interfitting peripheral edges being provided with a flat bevel and the other thereof being provided with a rounded surface adapted to engage said flat bevel and to form a continuous line of contact therewith with an open space between said edges to the outer side of said line of contact, said base being relatively irremovably affixed to the open end of said housing by a substantially moisture-resistant cement disposed within the space between the adjacent peripheral edges externally of said line of contact therebetween, said cement being formed of a composition containing a controlled amount of the polymer of diethylene glycol and maleic acid cross-linked with diallyl phthalate having added thereto an amount of hydrophobic plasticizer compatible therewith over a wide range of temperatures, said line of contact forming a barrier whereby said cement is prevented from access to the interior of said housing and a casing of a metal alloy having a low melting point of approximately 135° C. in intimate engagement with and enclosing said housing and base in the area of the cement to prevent moisture and atmosphere from gaining access to said cement.

2,868,863
ALUMINUM TO COPPER CONNECTION
Lloyd A. Cook, Opportunity, Wash., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware
Application January 5, 1954, Serial No. 402,287
25 Claims. (Cl. 174—94)

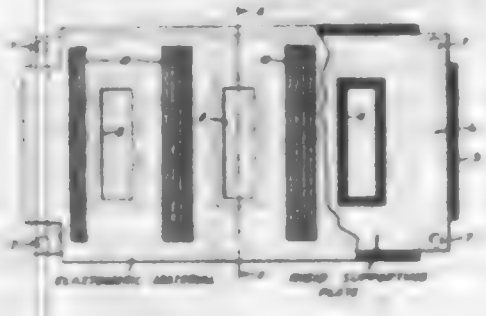


13. An electrical connection for aluminum and copper conductors comprising an aluminum conductor, a copper conductor, and a connector composed of an open-ended tubular aluminum member adapted to receive therein said aluminum conductor, an open-ended tubular copper member adapted to receive therein said copper conductor, said members being attached together in current carrying relationship, an insert provided within said members which separates the interior spaces defined by said members from passage of moisture therethrough and from contact of the conductors to be received therein, and an adherent, stable, moisture-resistant and non-conducting layer provided on the external surface of said member and covering at least the exposed surface area where the members are in closest relationship, one end of said aluminum conductor being positioned within said aluminum member and affixed thereto and one end of said copper conductor being positioned within said copper member and affixed thereto.

2,868,864
ENCLOSED BUS BAR ELECTRIC POWER DISTRIBUTION APPARATUS
Robert G. Page, New Britain, Conn., assignor to General Electric Company, a corporation of New York
Application January 2, 1953, Serial No. 329,263
3 Claims. (Cl. 174—99)

1. Enclosed bus bar electric power distribution apparatus comprising an elongated enclosure of generally rectangular cross-section, a plurality of electric power

bus bars in said enclosure, means supporting said bus bars in parallel spaced-apart relation in said enclosure including a plurality of longitudinally spaced insulators, each of said insulators comprising a generally rectangular body of elastomeric insulation material and a plate of relatively rigid high strength material embedded therein, said plate being generally rectangular in outline and having its corner portions projecting out of said body of elastomeric material, an aperture in each of said corner portions of said plate, means fixedly mounting said plate to said enclosure transversely thereof including fastening means passing through said corner apertures, said body



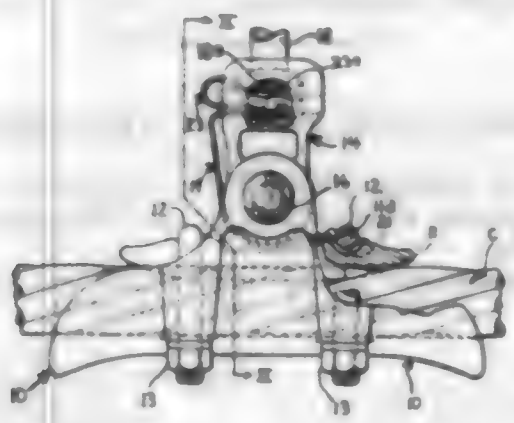
of elastomeric material having a plurality of relatively large apertures generally centrally thereof, said bus bars passing through said apertures respectively, said plate also having a plurality of relatively large apertures generally centrally thereof corresponding to said apertures in said body but larger than said body apertures, and said elastomeric body fitting relatively closely within the interior of said enclosure, whereby said bus bars are securely supported against movement due to high short-circuit current forces, and said insulator also serves as a stop to prevent air flow through said enclosure past said insulator.

2,868,865

SHUNT FOR POWER LINE CLAMPS

Nils L. Nilsson and Samuel J. Spurgeon, Birmingham, Ala., assignors to Anderson Brass Works, a corporation of Alabama

Application August 8, 1955, Serial No. 526,891
2 Claims. (Cl. 174—148)



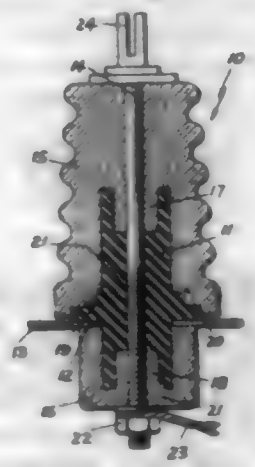
1. In combination, a line clamp of the kind having a first section connected to and suspended from an insulated rod together with a second section pivotally connected to the first section by a cross pin, means urging the rod away from said cross pin, said means comprising a spring clip, a length of conducting material having one end engaged between the clip and the first section of the clamp, a portion of the conducting material connected to said end extending outwardly of the clip and passing between the cross pin and the second section of the clamp, and means electrically connecting the end of said portion of the conducting material to the second section of the clamp at a position thereon laterally removed from the cross pin.

2,868,866

LEAD-IN BUSHINGS

Frank J. Corey, Belmont, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application August 4, 1955, Serial No. 526,349
3 Claims. (Cl. 174—153)



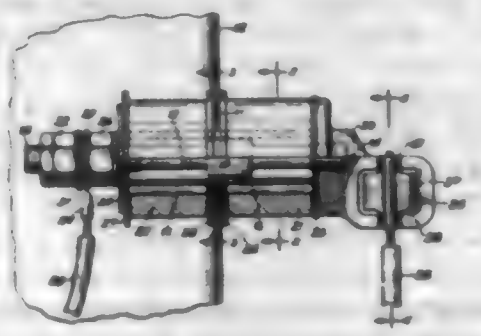
1. A lead-in bushing comprising a member of resilient insulating material having a passage extending longitudinally therethrough, an electric conductor having a diameter greater than the normal contracted diameter of said passage forced through said passage without exceeding the elastic limits of said material, an outer shell of insulating material having an interior surface complementing the shape and fitting closely with an exterior surface of said resilient member when said member is in its normally unexpanded state, a portion of said said inner surface of said outer shell forming a U-shaped protrusion and a portion of said outer surface of said member forming a suitable receptacle for accepting said U-shaped protrunion, and means for compressing said outer shell against said member.

2,868,867

INSULATING BUSHING

Lester C. McCullough, Zanesville, Ohio, assignor to McGraw-Edison Company, a corporation of Delaware

Application December 26, 1956, Serial No. 638,563
3 Claims. (Cl. 174—153)



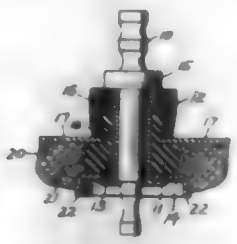
1. In combination, an electrical apparatus having a metallic casing, said casing having a noncircular aperture through a wall thereof, a conducting stud extending through said aperture and having a noncircular portion intermediate its ends complementary to said noncircular aperture, whereby said stud is locked against rotation, first and second insulating tubes circumjacent said stud and disposed against the interior and exterior respectively of said wall, means engaging said stud external of said casing adapted to bear against said second insulating tube, gasket means between said last-named means and said second insulating tube, gasket means between said second insulating tube and the exterior of said wall, insulating means between said noncircular portion of said stud and the edges of said wall defining said noncircular aperture, and means adapted to bear against said first insulating tube and engaging the end of said stud interior of said casing, both of said means engaging the ends of said stud maintaining said insulating tubes in abutting relation to the walls of said casing.

2,868,868

LEAD-IN BUSHINGS

Frank J. Corey, Belmont, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application April 26, 1957, Serial No. 655,220
3 Claims. (Cl. 174—153)



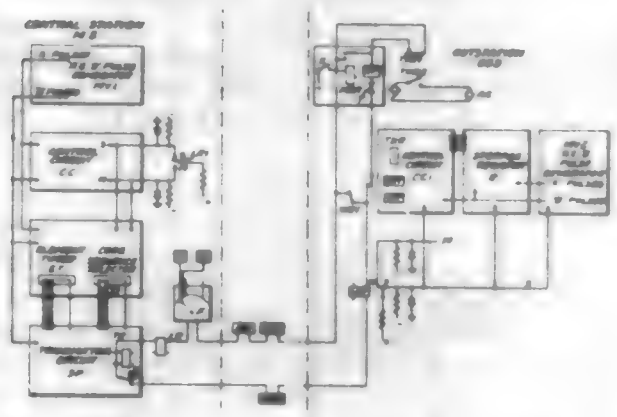
1. A lead-in bushing mounted in an opening in a conductive case comprising a member of two resilient insulating parts one on either side of the case one fitting in an opening in the other, each having a passage extending longitudinally therethrough, an eyelet dimensioned for interference fit with said passage, an electrical conductor dimensioned for force fit in said eyelet and formed with a shoulder near one end, and a cup-shaped washer of insulating material mount 1 at the inner end of said bushing, said eyelet being crimped against the shoulder formed on the conductor and outward against the outer resilient insulating member, to fasten said bushing, said conductor and said washer together in the opening in the conductive case.

2,868,869

PARTY LINE ELECTRICAL COMMUNICATION SYSTEMS

Raymond C. P. Hinton, Teaneck, and Frederick William Warden, Westwood, N. J., assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application July 18, 1955, Serial No. 522,654
16 Claims. (Cl. 178—2)



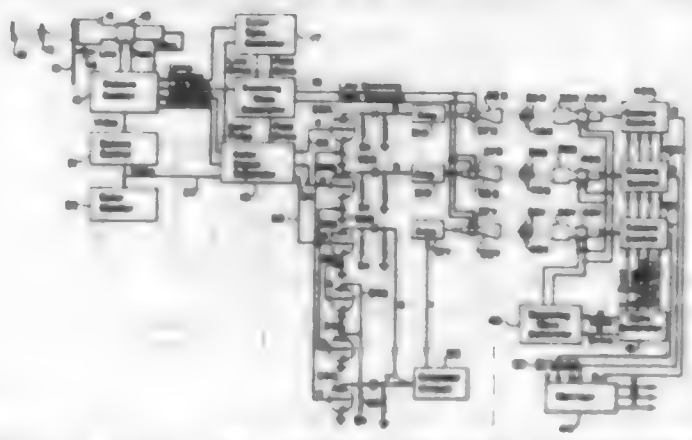
16. A telegraph system comprising a central station including means for separately generating trains of timing pulses 180° out of phase, a plurality of outstations associated with a party line extending to said central station each of said outstations being allotted a distinctive code calling signal consisting of a plurality of equal length mark and space elements, means at said central station for successively transmitting said code calling signals over said party line, means at said central station for inserting before each said code calling signal a further signal of longer duration than the overall duration of said mark and space elements, means at each outstation for receiving said code calling signals, a generator of two interlaced trains of pulses at each outstation responsive to said signal of longer duration for initiating the operation of said last-mentioned means, means at each outstation adapted for actuation when the respective outstation is in a condition requiring it to communicate with said central station, and means at each outstation joinly responsive to the receipt of the code calling signal of that outstation and to the actuation of said last-mentioned means for automatically establishing a signalling channel between said outstation and said central station.

2,868,870

COLOR TELEVISION SIGNAL CONVERSION SYSTEM

Peter C. Goldmark, New Canaan, Conn., assignor to Columbia Broadcasting System, Inc., New York, N. Y., a corporation of New York

Application August 19, 1953, Serial No. 375,219
16 Claims. (Cl. 178—5.2)



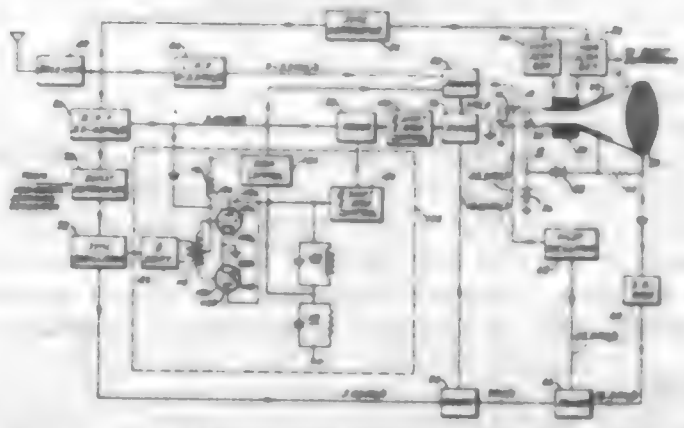
1. Apparatus for developing color television signals which comprises a sequential color pickup camera for developing a sequential color video signal of which successive portions represent different color components of an object field, signal reproducing means including at least one cathode-ray tube for reproducing from said color video signal images corresponding to said successive portions in sequence, a plurality of pickup scanning devices associated with said signal reproducing means for producing video signals from said images, switching means presenting images representing different color components to different scanning devices to thereby develop respective video signals representing different color components, and means supplying portions of said sequential color video signal representing a plurality of different color components to at least said one cathode-ray tube to produce sequentially thereon images corresponding to different color components, one of said scanning devices responding to the images on said one cathode-ray tube to develop a corresponding video signal representing a plurality of color components.

2,868,871

RECEIVER COLOR PRIMARY TRANSFORMATION SYSTEM

George D. Doland, Philadelphia, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application April 21, 1953, Serial No. 350,089
10 Claims. (Cl. 178—5.4)



7. A color television receiving system for a color video wave comprising a first signal component having an extended bandwidth and definitive of the brightness of the elements of a televised image and comprising a second signal component in the form of a modulated subcarrier

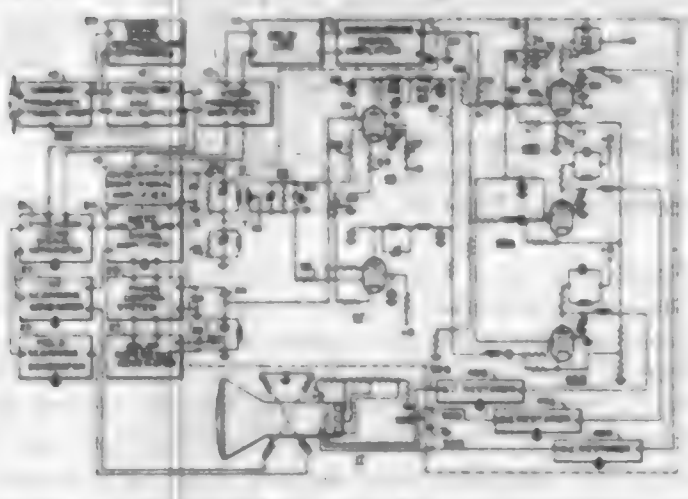
defining with said first component the chromaticity of said elements, the image information contained in said video color wave being established in terms of a given primary color system; said receiving system comprising means for modifying said color video wave thereby to establish said image information in terms of a primary color system different from the said given primary color system, said latter means comprising means for deriving from said color video wave a first wave definitive of the brightness of said image elements, means for deriving from said color video wave a second wave in the form of a subcarrier having phase and amplitude variations indicative of two chromaticity aspects of the colors of said image elements, two modulation elements having input and output electrodes, means for supplying said second component of said color video wave in the same phase sense to said input electrodes, means for supplying a reference signal having the frequency of said last mentioned second component in phase opposition to said input electrodes, said output electrodes being connected in common, a first network constituting a load impedance for low frequency signals, a second network constituting a load impedance for signals having a frequency equal to the frequency of said last mentioned second component, means coupling said first and second networks to said common connected output electrodes thereby to produce simultaneously a low frequency component signal and a subcarrier component signal, said last mentioned component signals having variations as determined by variations of said second component of said color video wave and said reference signal supplied to said input electrodes, means coupled to said first network for deriving said low frequency component signal and for combining the same with the said first signal component of said color video wave thereby to produce a modified low frequency component signal, and means coupled to said second network for deriving said subcarrier component signal and for combining the same with said second wave thereby to produce a modified subcarrier wave.

2,868,872

MATRIXING APPARATUS FOR COLOR-SIGNAL TRANSLATING SYSTEM

Walter C. Espenlaub, Great Neck, and Bernard D. Loughlin, Lynbrook, N. Y., assignors to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois

Application October 6, 1953, Serial No. 384,488
4 Claims. (Cl. 178—5.4)



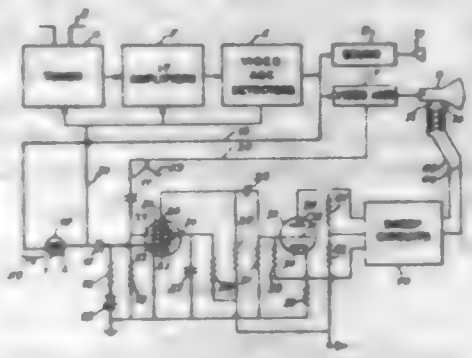
1. In a color-television receiver, a matrixing apparatus responsive to a supplied modulated subcarrier wave signal for developing another modulated subcarrier wave signal having a desired modulation component at a predetermined phase comprising: circuit means for supplying a subcarrier wave signal having wide-band and narrow-band modulation components, both comprising double-side-band modulation within a narrow band and said wide-band component comprising single-side-band modulation within the remainder of its band; a first network responsive to said supplied signal and having a wide pass band for developing a subcarrier wave signal modulated by said wide-band component; a second network responsive to said supplied signal and having a narrow pass band for developing a subcarrier wave signal modulated by said narrow-band component; and means intercoupling said networks for combining proportions of said developed subcarrier signals having said wide-band component at a predetermined phase and a modulation component representative of said narrow-band component at said predetermined phase to derive a subcarrier wave signal having a desired modulation component at said predetemined phase.

2,868,873

SIGNAL SEPARATOR CIRCUIT FOR TELEVISION RECEIVERS

Frank G. Splitt, Chicago, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware

Application February 24, 1954, Serial No. 412,176
2 Claims. (Cl. 178—7.3)



1. In a television receiver having amplifier stages for amplifying the received signal, a video detector coupled to the output of said amplifier stages, a video amplifier coupled to the output of said video detector, automatic gain control means connected to vary the gain of said amplifier stages inversely with respect to the amplitude of the received signal, and a synchronization separator for recovering the synchronization signal portion from the remainder of the received signal, said synchronization separator including a signal translating device having a pair of control electrodes, the improvement which comprises: first coupling means coupling the output of the video amplifier to one of said control electrodes of said signal translating device in the synchronization separator for passing from the video amplifier to said one control electrode a signal of one sign; second coupling means coupling the output of the video detector to the other of said control electrodes for passing from the video detector a signal of the opposite sign, and means including a gate in said second coupling means for blocking said last-mentioned signal from said other control electrode except when the amplitude of said last-mentioned signal exceeds the gating level of the gate; and means coupling said automatic gain control means to the gate to control the gating level of the gate in accordance with the amplitude of the received signal so as to block signals having an amplitude not in excess of the amplitude of the synchronization signal portion of the received signal.

2,868,874

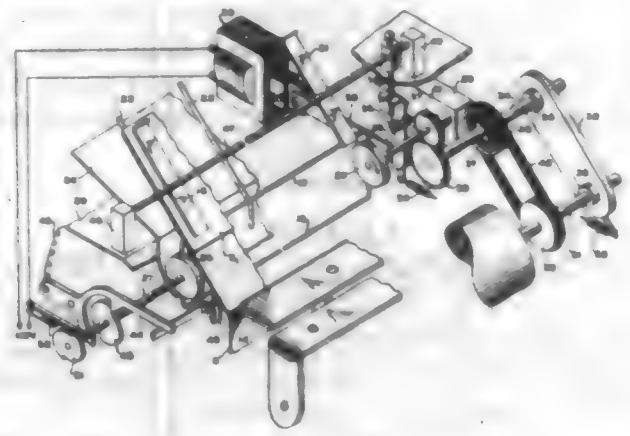
MESSAGE ACCUMULATOR AND STACKER

Ernest W. Hewitt, Stamford, Conn., and James J. Krakusky, Ridgewood, N. Y., assignors to The Western Union Telegraph Company, New York, N. Y., a corporation of New York

Application May 24, 1955, Serial No. 510,898
18 Claims. (Cl. 178—42)

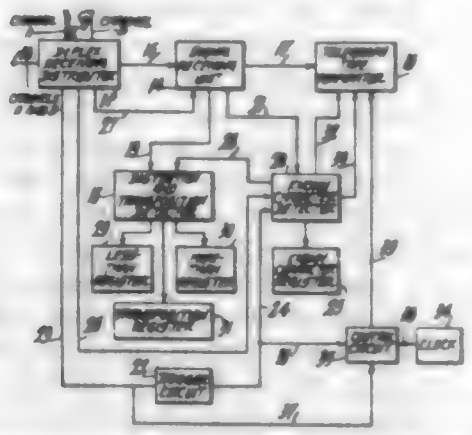
12. In a device of the character described wherein a continuous strip is fed to a sheet stacking means, strip cutting means located in the path of travel of said strip,

said cutting means being selectively operated to sever the strip into individual sheets of random lengths, sheet stacking means located adjacent said cutting means, said sheet stacking means comprising sheet raising means including a pair of spaced parallel rods disposed one above the other between which successive sheets are passed as the strip is cut by the cutting means, guide means



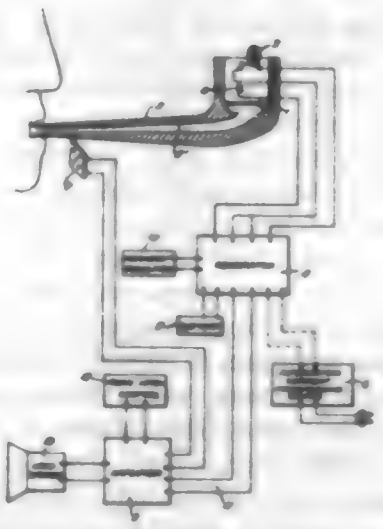
located to receive said sheets as they pass through said parallel rods, means responsive to operation of said cutting means to rotate said raising means through an angle of substantially 180 degrees as the trailing edge of a sheet reaches said parallel rods to raise said trailing edge whereby a following sheet fed between said parallel rods is received between said guide means and the preceding sheet.

2,868,875
SIGNAL DISTORTION MEASURING SYSTEM
Nicholas Di Santi and Arthur E. Canfora, Brooklyn, and Anthony Liguori, Huntington Station, N. Y., assignors to Radio Corporation of America, a corporation of Delaware
Application May 25, 1956, Serial No. 587,396
29 Claims. (Cl. 178—69)



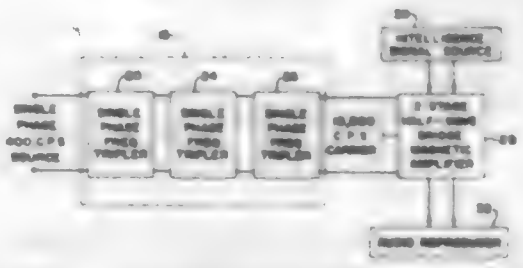
9. A circuit arrangement for measuring the distortion of a signal received over the transmission path of a telegraph communication system, said signal consisting of coded characters including the same number of elements, comprising a signal receiving unit, a recording device of the type which records the intelligence presented thereto on a permanent record and in which said record is advanced therethrough following each operation of said device, said receiving unit producing a first voltage in response to characters having a predetermined ratio of elements of one nature to elements of another nature, said receiving unit producing a second voltage in response to characters wherein the ratio of elements of one nature to elements of another nature is larger than said predetermined ratio, said receiving unit producing a third voltage in response to characters wherein the ratio of elements of one nature to elements of another nature is smaller than said predetermined ratio, a less-than register, a more-than register, means responsive to said third voltage for enabling said less-than register and blocking the operation of said more-than register, means responsive to said second voltage for enabling said more-than register and blocking the operation of said less-than register, means responsive to said first voltage for blocking the operation of both of said registers, and means for operating said device in response to the characters wherein the ratio of elements of one nature to elements of another nature is other than said predetermined ratio to record on said record the arrangement of elements therein.

2,868,876
VOCAL DEVICE
Ruggero Tecchiosi, Milan, Italy
Application June 20, 1952, Serial No. 294,574
Claims priority, application Italy June 23, 1951
7 Claims. (Cl. 179—1)



1. A device enabling persons lacking vocal chords to generate articulated audible sounds comprising in combination, an elongated member having the shape of a smoking pipe and formed with a tubular air passage along the length thereof, said air passage having a substantially wider diameter in the bowl portion of said pipe-shaped elongated member than in the stem portion thereof, one end of said member adapted for insertion into a person's mouth; vibratable means arranged in the bowl portion of said pipe shaped member and closing said air passage for setting up air vibrations therein; and a generator for vibrating said vibratable means at a constant predetermined frequency.

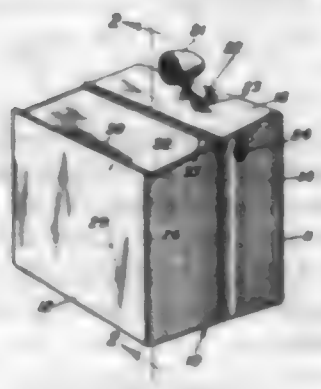
2,868,877
ALL-MAGNETIC AUDIO AMPLIFIER SYSTEM
Edward T. Hooper, Jr., Hyattsville, Md., and Joseph J. Suozzi, Morristown, N. J., assignors to the United States of America as represented by the Secretary of the Navy
Application June 18, 1956, Serial No. 592,223
18 Claims. (Cl. 179—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A magnetic audio amplifier system comprising a magnetic power supply providing a high-frequency carrier signal, a pair of cascaded half-wave magnetic amplifier stages connected to receive said carrier signal as the operating potential therefor, the stages of said magnetic amplifier being connected to pass current of alternate half-cycles of said carrier signal to thus appear as an alternating current load to said power supply, an intelligence

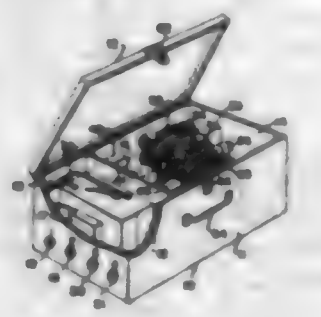
signal source connected to modulate the carrier signal in said magnetic amplifier in accordance with the intelligence signal, and an intelligence reproducer connected to receive the output from the second of said cascaded stages to produce amplified reproductions of the intelligence signal.

2,868,878
PORTABLE LECTERN
Harry A. Proulo, Zanesville, Ohio
Application July 9, 1956, Serial No. 596,756
6 Claims. (Cl. 179—1)



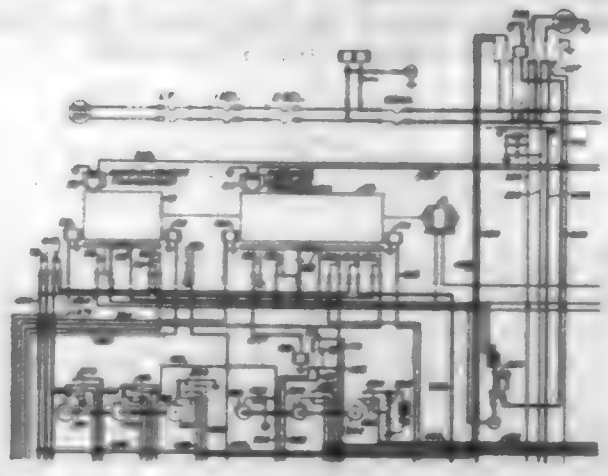
1. A portable lectern comprising a base section having a lower wall, side walls, front and rear walls, said front wall extending above said rear wall, a plate connecting said front and rear walls, a second section having a lower wall, side walls, front and rear walls, said front wall extending above said rear wall, said front wall being of the same height as the rear wall of the base section, said last named walls being hinged along their upper edges whereby said second section forms an extension of the base section to provide a rectilinear traveling case, and a plate member closing the open end of the second section.

2,868,879
PLUG-IN PORTABLE TELEPHONE SYSTEM
Martin Berman, Laurelton, and Lester C. Pine, Bellerose, N. Y.
Application March 29, 1957, Serial No. 649,412
4 Claims. (Cl. 179—1)



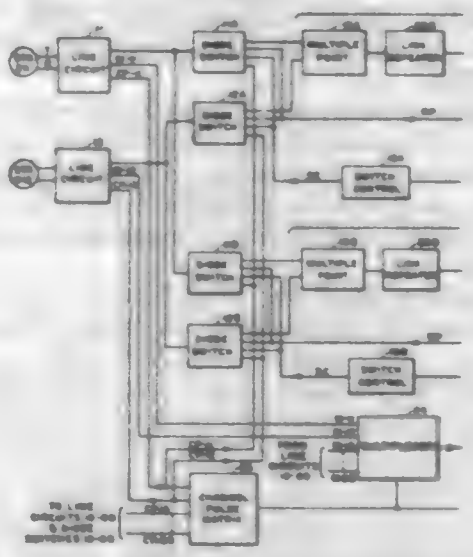
1. A portable telephone system as a unit adapted to be connected and disconnected into a telephone line comprising a central box having therein a battery source, an induction coil in the box, a plurality of multi-wire cables with quick connecting members in the box as interexchange bell ringing and talking circuits including the battery source with the induction coil and the connecting members, a plurality of sockets mounted in a wall of the box, the set of multi-wire cables having terminal cooperating connecting members on the respective ends thereof and adapted to fit the respective sockets, and telephone sets in the box and having connecting members engageable with the connecting members on the opposite ends of the cables, each of said telephone sets having a bell with a selector switch and a push button switch for ringing a bell at the selected station together with a hand set and a switch adapted to be operated by the hand set, whereby the telephone system may be completely assembled by making quick connections, the entire system being adapted to be housed in the box for portable purposes.

2,868,880
REMOTE CONTROL OF TELEPHONE ANSWERING AND MESSAGE RECORDING FACILITIES IN A TELEPHONE STATION
Arnold J. Celentano, Bronx, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 7, 1957, Serial No. 638,843
11 Claims. (Cl. 179—6)



1. A telephone system comprising a station provided with an automatic telephone answering and message recording device, said device including means for recording, reproducing and obliterating a message from a calling party, a telephone line connected to said device, means responsive to a signal transmitted over a first conductor of said line for conditioning said recording means to record a message, first means responsive to a signal transmitted over a second conductor of said line for conditioning said reproducing means to reproduce said message, second means responsive to said signal transmitted over said second conductor within a predetermined time interval after the reproduction of said recorded message has been terminated for conditioning said obliterating means to obliterate said message.

2,868,881
ELECTRONIC TELEPHONE SYSTEM
Robert B. Trousdale, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application May 10, 1955, Serial No. 507,321
12 Claims. (Cl. 179—15)



1. In a telephone system, a plurality of lines, a link, a speech transmission transformer associated with said link, said transformer having individual windings for each of said lines, means including at least one unidirectional conducting device for connecting each line to one of said

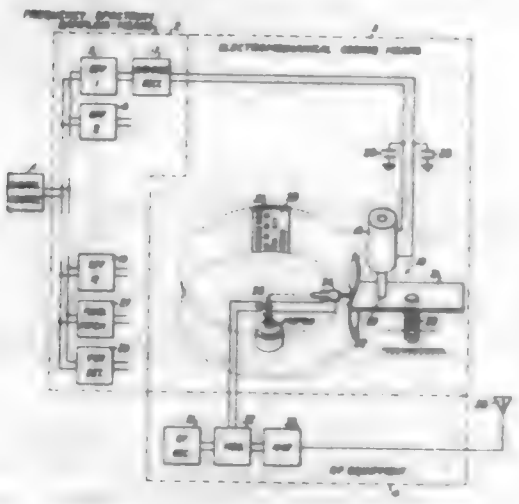
transformer windings, and means including said link for selectively rendering conductive the unidirectional conducting devices connected to calling and called ones of said lines, thereby to permit speech transmission between said calling and called lines through said selected unidirectional conducting devices and said speech transmission transformer.

2,868,882

COMMUNICATION SYSTEM

Michael J. Di Toro, Bloomfield, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application January 12, 1953, Serial No. 330,855
25 Claims. (Cl. 179—15.55)



1. In a wideband transmitting system, a source of wideband frequency signals, compression means arranged in a predetermined manner to divide the frequency spectrum of said frequency signals into a plurality of sub-band frequencies, detector means for detecting the presence of quasi-periodic frequencies in said frequency signals, and coding means including means responsive to the signal energy present in each of said sub-band frequencies and the output of said detector means to represent each amplitude of the signal energy at given instances of time in each of said sub-band frequencies and at the output of said detector means as a multiple digit code pulse group and means to time interleave said code pulse groups of each of said sub-band frequencies and said detector means to provide a train of code pulse groups capable of being decoded for reproduction of said frequency signals.

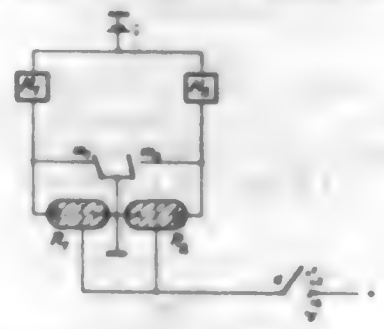
2,868,883

ELECTRONIC STOP CONTROL FOR SWITCHES HAVING A MOTOR COMPRISING TWO DRIVE MAGNETS

Hans-Joachim Jabczynski, Berlin-Zehlendorf, Gerd Tiesler, Berlin-Charlottenburg, Hans-Joachim Lurk, Berlin-Siemensstadt, and Konstantin Schröder, Berlin-Staaken, Germany, assignors to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a corporation of Germany

Application April 10, 1952, Serial No. 281,626
Claims priority, application Germany May 5, 1951
10 Claims. (Cl. 179—18)

1. In a switch for use in an automatic telephone system, having a shaft carrying wipers including a private wiper and having a drive motor for said shaft comprising two drive magnets and control contacts therefor for causing said drive magnets to operate alternately so as to rotate said shaft to advance said wipers with respect to stationary bank contacts, one of said drive magnets and control contact coacting therewith being, during the rotation of said shaft operated while the other drive magnet and control contact respectively coacting therewith are ineffective; a stop control device for stopping rotation of said shaft by said drive magnets responsive to engagement of a desired bank contact by said private wiper, said stop control device comprising a stop control discharge tube, circuit means for causing said tube to become conductive at the instant when said private wiper establishes engagement with a desired bank contact, and



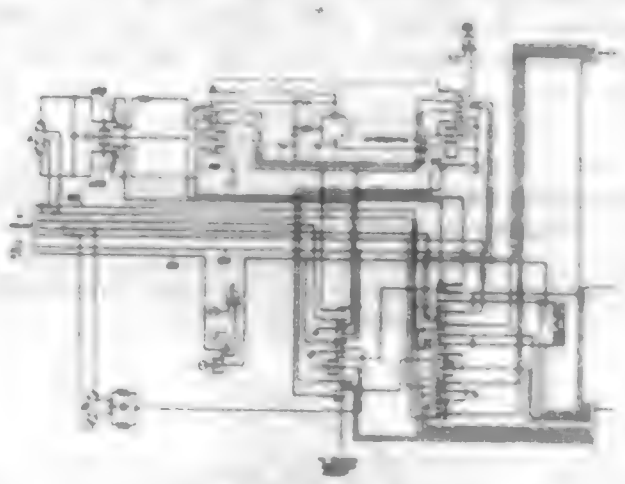
control circuit means including the discharge path of said tube for bridging the control contact associated with and coacting with the drive magnet which is at that instant ineffective so as to energize such drive magnet while the other drive magnet is energized, the joint energization of said drive magnets being effective to stop further rotation of said shaft.

2,868,884

TOLL SWITCHING TELEPHONE SYSTEM

John W. Gooderham, La Jolla, Calif., Edward Jacobitti, Newark, N. J., Oscar Myers, Mount Vernon, N. Y., and Frank F. Shipley, Tenafly, and Walter B. Strickler, East Orange, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 6, 1952, Serial No. 286,267
104 Claims. (Cl. 179—18)



1. In a telephone system, incoming trunks, outgoing trunks, switches operable to interconnect said trunks, a plurality of senders, means for connecting any one of said incoming trunks with an idle one of said senders, means in said selected sender to register the digits of a desired call designation pulsed over the connected incoming trunk, a plurality of decoders, connector means responsive to the registration of certain of the digits of the call designation for connecting an idle one of said decoders with said selected sender, a plurality of translators, means responsive to the seizure of an idle decoder to connect one of said translators therewith and therethrough to said selected sender, means for transmitting items of information concerning the destination of the desired call including said certain digits from said sender to said translator, means in said translator for translating said items of information into items of directive information for enabling the establishment of the desired call, a plurality of control devices for controlling said switches and said selected sender in the establishment of said call, means for connecting an idle one of said devices with said selected decoder, and means for transmitting said items of directive information to said device.

18. In a telephone call-routing system, decoder means

having a plurality of translators connectable therewith, means to use a particular one of said translators incident to routing every call, means for seizing selectively another translator on certain calls, and means for using the translation of said other translator to route said certain calls.

88. In a telephone system, incoming trunks, outgoing trunks divided into groups which may serve as different routes to destinations, signaling trunks, switches operable to connect incoming trunks with outgoing trunks or with signaling trunks, a plurality of senders, means for connecting any one of said incoming trunks with an idle one of said senders, means in said selected sender to register the digits of a desired call designation pulsed over the connected incoming trunk, a plurality of translators, means for connecting any one of said translators with said selected sender, means for transmitting items of information concerning the destination of the desired call including certain of said digits from said sender to said translator, means in said translator for translating said items of information into items of directive information for enabling the operation of said switches and said sender to establish a connection to the desired destination, means operated responsive to one of the items of directive information to indicate that there is a choice of routes to the desired destination, means under the control of said indicating means to vary the operation of said translator to provide the necessary directive information to control the establishment of the connection over an outgoing trunk of a route of the choice, a control device responsive to said latter directive information for controlling said switches and said sender in the establishment of the desired connection, transfer means operable to cancel any one or more of the route choices during periods of heavy traffic, and means under the control of said transfer means to direct said control device for controlling said switches in the establishment of a connection from the connected incoming trunk to an idle signaling trunk.

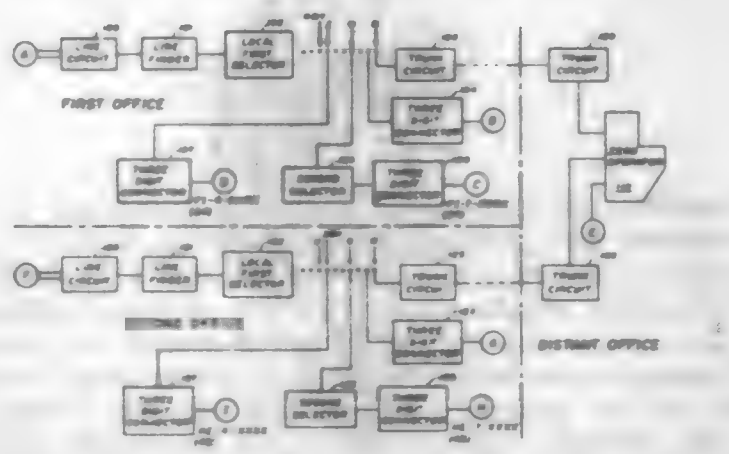
100. In a telephone system in which the offices are located in a plurality of numbering areas, trunks incoming to a switching point in one of said areas, a group of trunks outgoing from said switching point and extending to a second point in the same area, a group of trunks outgoing from said first switching point and extending to a switching point in another area which may serve as an alternate route to said second point, switches operable to connect said incoming trunks with an idle trunk of either of said outgoing groups, a plurality of senders, means for connecting any one of said incoming trunks with an idle one of said senders, means in said selected sender to register the digits of a desired call designation pulsed over the connected incoming trunk, said designation comprising an office code and a line number, means in said selected sender to pulse out digits over a connection established to an outgoing trunk, a plurality of translators, means for connecting any one of said translators with said selected sender, means for transmitting items of information concerning the destination of the desired call including said certain digits from said sender to said translator, means in said translator for translating said items of information into items of directive information for enabling the operation of said switches and said sender to establish a connection to the desired destination, means to register one of the items of directive information, means under the control of said last-mentioned register if no trunk is available in said first group of trunks to reoperate said translator to provide the necessary directive information to control the establishment of the connection over an idle trunk of said second group, means responsive to an item of said latter directive information for registering in said sender the code number of the numbering area in which said first switching point is located, and means to cause said sender to transmit the pulses of said code number.

2,868,885

LOCAL FIRST SELECTOR CIRCUIT

William W. Pharis, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application April 22, 1954, Serial No. 424,846
12 Claims. (Cl. 179—18)



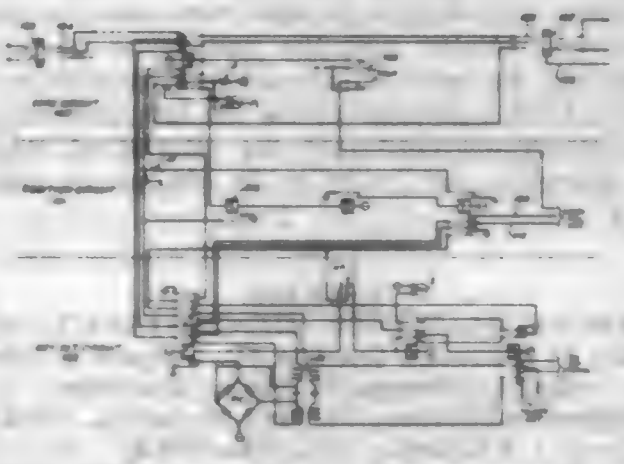
1. In a telephone system, a calling subscriber line, a called subscriber line, means for seizing said called subscriber line under the influence of a seven digit number transmitted from the calling station, said last named means including a local selector switch comprising one set of brushes which carry the conversation conductors, an auxiliary set of brushes, means for moving said first set of brushes in a primary and a secondary direction and for moving said auxiliary brushes over an associated bank of contacts simultaneously with said primary motion, means for selectively marking various terminals in said associated bank of contacts, means for causing said switch to return to normal when driven in its primary direction to a first predetermined level having one of said markings, means for causing said switch to return to normal a second time when driven in its primary direction to a second level having another of said markings and means for causing said switch to return to normal a third time when driven again in its primary direction to said second level.

2,868,886

TOLL TELEPHONE CIRCUITS

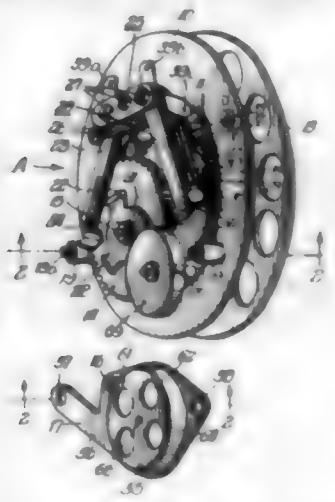
Sewell W. Allison, West Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 2, 1954, Serial No. 472,689
11 Claims. (Cl. 179—27)



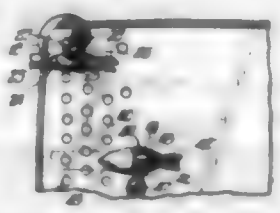
1. In a telephone system, a first operator's position in one telephone building, cord circuits at said first position, a first trunk circuit appearing in a jack at said first position, other operator positions in the same telephone building, cord circuits at said other positions, other trunk circuits appearing in jacks at said other positions, a set of trunk conductors connecting said one telephone building with a distant office, and means for alternatively connecting said trunk conductors with said first trunk circuit or said other trunk circuits, responsive to the connection of one of said cord circuits with one of said jacks.

2,868,887
DIAL GOVERNOR MOUNTING ARRANGEMENT
Leonard J. Grenbel, Galion, Ohio, assignor to North Electric Company, a corporation of Ohio
Application October 11, 1954, Serial No. 461,389
3 Claims. (Cl. 179—90)



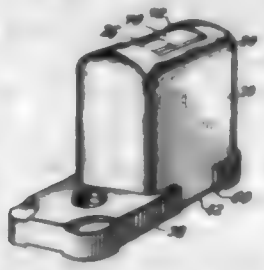
1. A telephone dial mechanism comprising a base member; a governor shoe assembly; a bracket mounted substantially parallel to said base member and spaced from said base member by said governor shoe assembly; a housing embossed on said bracket adapted to receive said governor shoe assembly; and means associated with said governor assembly supported between said bracket and said base member for supporting said governor shoe assembly within said housing.

2,868,888
BASE FOR TELEPHONE SUBSTATION SET
Lloyd Bender, Galion, Ohio, assignor to North Electric Company, a corporation of Ohio
Application April 18, 1955, Serial No. 502,073
6 Claims. (Cl. 179—100)



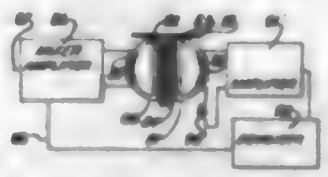
1. A telephone substation set comprising a base member, a conductor-carrying cord, an aperture in said base member, and at least one foot member having an oblique passageway with respect to said base member attached to said base member with the passageway of said foot member and the aperture of said base member in registration to form a passageway for the introduction of said conductor-carrying cord into the interior of said telephone substation set at an angle oblique to said base member.

2,868,889
ELECTROMAGNETIC HEAD STRUCTURE
Wesley V. Patterson, Chicago, Ill., assignor to John J. Kelly, Minneapolis, Minn., as trustee
Application February 24, 1953, Serial No. 338,524
6 Claims. (Cl. 179—100.2)



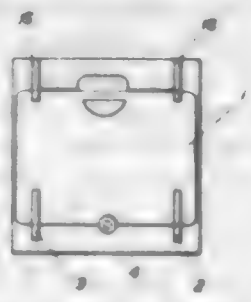
1. An interchangeable mass-production electro-magnetic head structure for transducing signals by flux linkage between a multiple-turn coil and a relatively moving elongated magnetizable record, said head comprising a minute split core consisting of a cooperating pair of generally lengthwise extending mating sections of single-thickness strip-like magnetic material, the material of said sections being of uniform magnetic characteristics and said sections having optically smooth, flat confronting pole surface and butt surfaces adjacent opposite ends thereof and arranged with said butt surfaces in bread, flush, intimate core metal-to-core metal contact and defining an open-ended magnetic loop having a single, uniform, non-magnetic series gap therein, said sections having cooperating, outwardly facing record-engaging surfaces spaced apart by said gap, said gap having its loopwise direction generally parallel to the movement direction between said core and said record, with said confronting pole surfaces constituting gap walls the widthwise direction of which is generally normal to the plane of said loop, uniform-thickness spacing means of incompressible, non-magnetic material disposed between and in flush, intimate surface contact with said confronting pole surfaces to maintain a predetermined uniform spacing for said gap, a multiple-turn coil closely coupled around an intermediate strip portion of at least one of said core sections, and supporting structure interconnecting and fixing the spatial arrangement of the various parts of said head in assembled operative uniform relation.

2,868,890
NON-LINEAR MAGNETIC RECORDING COMPENSATION
Marvin Camras, Chicago, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois
Application September 4, 1953, Serial No. 378,571
1 Claim. (Cl. 179—100.2)



Magnetic recording apparatus comprising means for receiving an input signal to be recorded, means for producing a magnetic signal flux for recording on a record medium, means for sensing the recorded flux on the record medium, amplifier means connected to said receiving means and to said sensing means for controlling said flux producing means in accordance with the summation of the signal from said input means and the output from said sensing means to tend to produce a linear recording on the record medium.

2,868,891
MAGNETIC RECORDING DEVICE
Arthur Edward Brewster, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application September 21, 1953, Serial No. 381,440
14 Claims. (Cl. 179—100.2)



1. Equipment for the recording, storage and reproduction of electric signals comprising a recording medium,

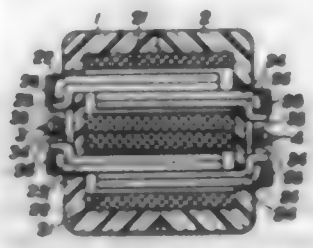
recording and/or reproducing means, drive and guide means for drawing said medium past the recording and/or reproducing means, a single recording medium storage container of slightly greater width than the width of said medium, an operating position for said container and means for automatically ejecting the container into an out-of-operation position, said ejecting means being under the control of predetermined said signals.

2,868,892

GRAMOPHONE PICK-UPS

Maurice James Keohane, Caterham, England

Application October 22, 1954, Serial No. 463,940
5 Claims. (Cl. 179—100.41)



1. An electric pick-up comprising a two part moulding, the parts abutting face to face and each part having recesses extending from its abutting face, a pair of coils and a permanent magnet fitting and positioned by the recesses in the moulding with their axes parallel, laminated cores inserted through openings in the moulding into said coils, one lamination in each coil being bent at one end to lock the remaining laminations in position at that end and another lamination being bent at the other end to lock the remaining laminations in position at that other end, two other laminations projecting beyond the locking laminations at one end and two further laminations projecting beyond the locking lamination at the other end, a resiliently mounted armature extending from said permanent magnet towards said cores, and a stamping on each outer face of the moulding secured to the moulding and clamping the resilient mounting of the armature and the laminations of the cores in position.

2,868,893

DUAL NEEDLE PHONOGRAPH PICK-UP

Herman Cornelis Lalesse, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application March 9, 1955, Serial No. 493,220
Claims priority, application Netherlands March 10, 1954
2 Claims. (Cl. 179—100.41)



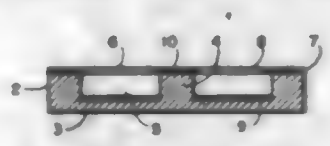
1. A phonograph pick-up comprising at least two selectively operative and spaced tracking needles, a resilient needle holder for each tracking needle, a common transducer, a V-shaped armature connecting both needle holders to said common transducer, and means for externally damping undesired resonance vibrations of said needle holders including an element constituted of damping material directly intercoupling said resilient needle holders.

2,868,894

MINIATURE CONDENSER MICROPHONE

Theodore J. Schultz, Santa Monica, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application September 14, 1955, Serial No. 534,413
5 Claims. (Cl. 179—111)



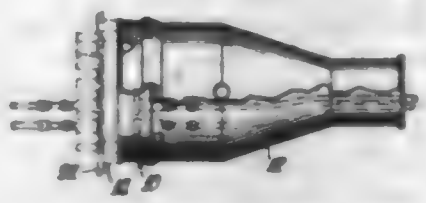
1. A condenser microphone comprising, in combination, a hollow, cylindrical cavity member, said member consisting of a base portion and a circular wall section extending therefrom, a fine wire gauze closing said cavity member and secured to the top of said wall section, said fine wire gauze acting as one electrode of said condenser microphone, an insulating washer positioned on top of said fine wire gauze, said washer having a diameter corresponding to that of said cylindrical cavity member and a width substantially equal to the thickness of said circular wall section, and a plastic diaphragm secured to said washer so as to have its peripheral edge stationary when said diaphragm is set into vibration in response to the impingement thereon of external pressure waves, and an electrically conductive coating applied to that surface of said diaphragm which is remote from said fine wire gauze, said conducting surface acting as the second electrode of said condenser microphone.

2,868,895

INSULATING COVER FOR PRESSURIZED PANEL

George Theodore Schwamb, Greenwich, Conn., assignor to Barnsdy Corporation, a corporation of New York

Application September 4, 1953, Serial No. 378,647
2 Claims. (Cl. 174—138)



1. An insulating cover for mounting over a plurality of electrical connections, comprising an annular, substantially rigid frame member, having a central opening for mounting over the electrical connections, a peripherally formed shoulder at one end, and a flange at the other end provided with means for affixing the flange to a support for the cover, and an insulating boot for covering said connections, having a circular opening forming a neck at one end, said neck extending over said frame shoulder and tightly gripping said frame between said flange and said shoulder.

2,868,896

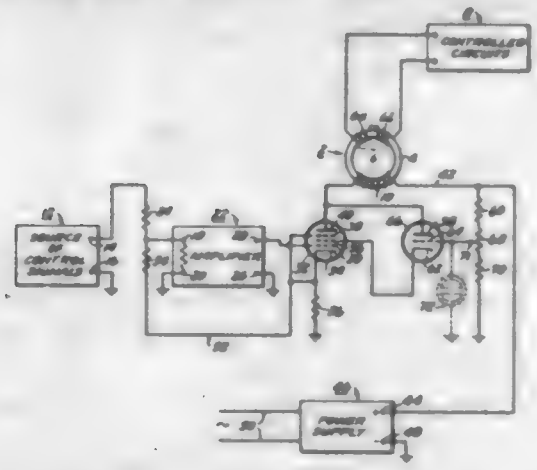
AMPLIFIER-ELECTRICAL CONTROL SYSTEM

William D. Gabor, Norwalk, and Joseph L. Stahovec, Springdale, Conn., assignors to C. G. S. Laboratories, Inc., Stamford, Conn.

Application March 4, 1953, Serial No. 340,352
14 Claims. (Cl. 179—171)

1. Apparatus for producing a control current corresponding to a control potential comprising an amplifier connectible to a source of control signals and having input and output circuits, a multi-element vacuum tube having an anode, a cathode, a control electrode, and a screen grid, means coupling an output circuit of said amplifier to said control electrode, an anode-cathode energizing circuit for said tube including a source of direct voltage, current-utilizing means connected in

series with said energizing circuit and said tube, a screen-grid energizing circuit coupled from said anode-cathode circuit to said screen grid, said screen-grid circuit being effectively in series with said current-utilizing



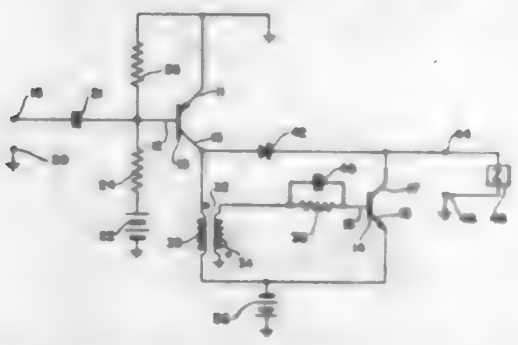
means, whereby both the screen and plate currents of said tube pass through said current-utilizing means, and negative feedback circuit means responsive to the total of both said screen and plate currents of said tube and being coupled to an input circuit of said amplifier.

2,868,897

LOW OUTPUT IMPEDANCE SEMICONDUCTOR AMPLIFIER

Douglas J. Hamilton, Santa Monica, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application October 30, 1956, Serial No. 619,918
7 Claims. (Cl. 179—171)



2. A pulse amplifier comprising a first transistor including a first input and a first output circuit, a second transistor including a second input and a second output circuit, signal input means connected to said first input circuit, circuit means connected between said first output circuit and said second input circuit for controlling the current flow through said second transistor inversely with the current flow through said first transistor, output terminals coupled to said second output circuit, said second output circuit presenting a low impedance across said terminals when said first device is in a nonconducting state, a gating element connected between said first output circuit and said terminals for impressing an output signal from said first transistor across said output terminals and for isolating said first output circuit from said second output circuit when said first transistor is in a nonconducting state.

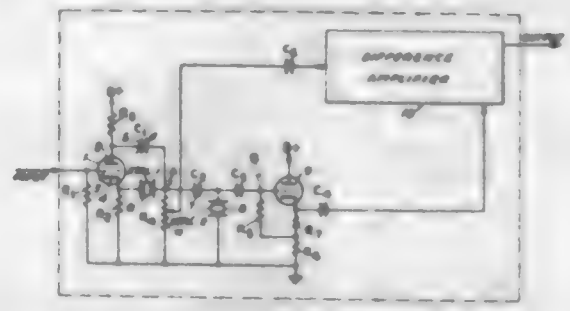
2,868,898

CRYSTAL FILTER CIRCUIT

Stephen Phanos, Long Island City, N. Y., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application November 29, 1956, Serial No. 626,798
7 Claims. (Cl. 179—171)

2. A filter circuit comprising first and second crystals having the same fundamental resonant frequency but different spurious resonant frequencies, an electron discharge device having at least a cathode, a control electrode and an anode, means coupling to said control electrode a source of signals of plural frequencies including given signals of the same frequencies as the frequencies of a band pass region centered about said fundamental resonant frequency, means coupling said cathode to the input of said first crystal, capacitor means coupling the



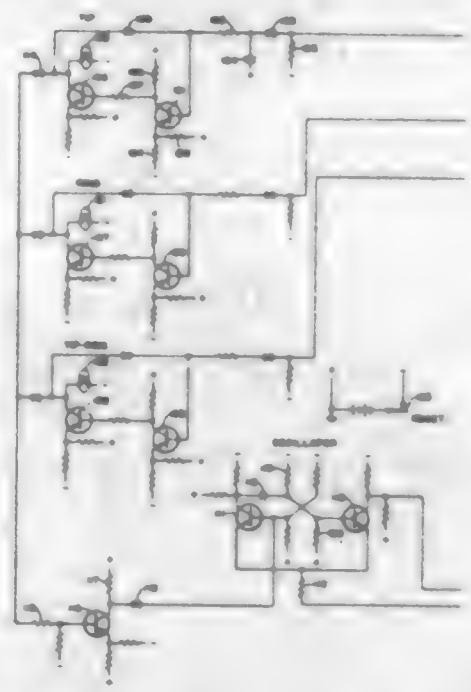
said anode to the output of said first crystal to obtain a first signal output containing said given signals and the spurious resonant frequencies passed by said first crystal, means coupling said first signal output to said second crystal to shunt out said given signals and to obtain a second signal output containing said spurious resonant frequencies only, subtracting means and means coupling said first and second signal outputs to said subtracting means to obtain as the output thereof said given signals only.

2,868,899

TELEPHONE SYSTEM SUBSCRIBER LINE INSULATION TESTING CIRCUIT

Edward R. Schmidt, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

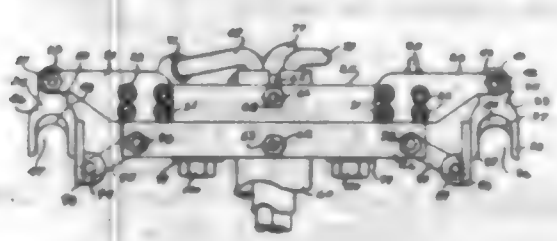
Application June 19, 1957, Serial No. 666,590
10 Claims. (Cl. 179—175.2)



1. In a telephone system, a subscriber line subject to a plurality of fault conditions, a testing circuit comprising a plurality of transistor trigger circuits, one for each of said fault conditions, each of said trigger circuits having first and second stable states of operation, an input circuit and an output circuit for each trigger circuit, stepping means for connecting the input circuit of each trigger circuit to said line in turn, means responsive to the connection of the input circuit of each trigger circuit to said line when the respective one of said faults exists on said line for triggering that trigger circuit to its second operated condition, means responsive to the operation of any one of said trigger circuits to its second operated condition for terminating the operation of said stepping means, and

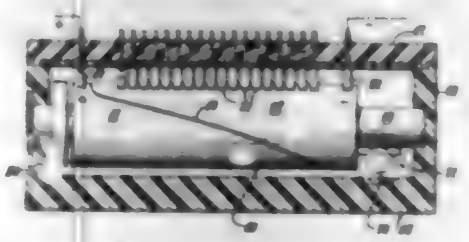
indicating means connected in the output circuit of each trigger circuit for indicating the operated condition of that trigger circuit.

2,868,900
TROLLEY WIRE SLIDE, COLLECTOR OR SHOE
George K. McKee, Cincinnati, Ohio
Application October 10, 1952, Serial No. 314,185
8 Claims. (Cl. 191—57)



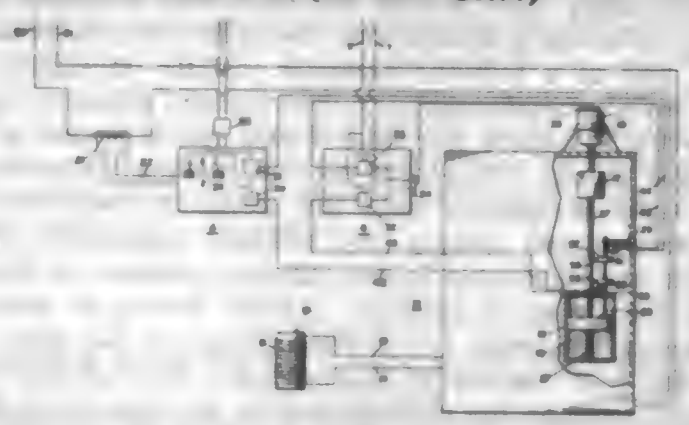
1. In a two trolley wire electric current collecting slide the combination of a supporting plate, mounting brackets carried by said supporting plate adjacent its ends, a contact shoe carried by the brackets beyond the supporting plate each for sliding engagement with the upper surface of a trolley wire, a cable from each contact shoe passing through an aperture centrally of the plate, said mounting brackets for the contact shoes including a pivot so that said shoes may be oscillated relative to their brackets, said electric cables depending below the plate and to be downwardly angularly disposed in a direction transversely of the trolley wires, means associated with said supporting plate for effecting simultaneous oscillation of the contact shoes, including a second plate associated with the supporting plate for movement relative to one another, said second plate having a central aperture through which the cables pass and said plates being movable by the cables when downwardly angularly disposed, means connecting said second plate and contact shoes so that movement of said plates relative to one another oscillates the contact shoes, and means limiting the movement of said plates relative to one another and the oscillation of the contact shoes.

2,868,901
INTERVALOMETER
William L. Hawks, Whittier, and Ernest G. Patrick, South Gate, Calif., assignors to The Delron Company, Inc., South Gate, Calif., a corporation of Nevada
Application June 20, 1955, Serial No. 516,646
2 Claims. (Cl. 200—8)



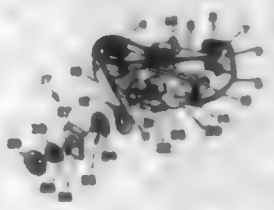
1. An intervalometer comprising a generally cylindrical rotor, the surface of said rotor being divided into two adjacent electrically-conductive areas insulated from each other, a boundary portion between said areas extending helically of said rotor, a plurality of fixed contactors engaging said rotor in position to pass sequentially over said helical boundary as said rotor rotates, spring means urging said rotor to rotate, latch means having a plunger engaging an element fixed to said rotor, a cylinder, a piston in said cylinder and connected to said plunger and a shear pin holding said piston in one position, and means for applying gas pressure to said piston to shear said pin and move said plunger to apply an accelerating torque to said rotor, then disengage itself from said element and release said rotor to the action of said spring means.

2,868,902
INDUCTION HEATER CONTROL
Daniel F. Mika, Willoughby, and Donald A. Daugherty, Euclid, Ohio, assignors to Precision Metalsmiths, Inc.
Application March 19, 1958, Serial No. 722,515
1 Claim. (Cl. 219—10.77)



In an induction heater activated by electric potential supplied by conductors connected to a variable frequency changer the improvement which comprises, a winding disposed within the field of magnetic influence of one of said conductors, an electric responsive device connected to said winding, said device having a responsive range, said device having maximum and minimum adjustable contacts in said range to form a two way switch, one side of said switch being closable when the current induced in said coil reaches a preselected maximum and the other side being closable at a preselected minimum, said changer including control means selectively operable to increase and decrease the output of said changer, said control means including a reversible electric motor, said control means also including a mercury bath and a plunger axially shiftable into and out of said bath, said plunger being operatively connected to said motor, said motor being operable to cause said axial shifting of the plunger, said motor having first and second input connections for driving the motor in opposite directions, maximum condition circuit means connecting said switch maximum contact to said first motor input connection, and minimum condition circuit means connecting the switch minimum contact to said second motor input connection, each of said circuit means including first and second relays series connected to activate the motor, the first relay being activated by closing of the connected side of the two way switch and the second relay being activated by the closing of the first, said motor being operable in one direction in response to impulses received through said maximum condition circuit means, said motor being operable in the other direction in response to impulses received from said minimum condition circuit means, each of said condition circuits including a limit switch, and limit switch activation means connected to said plunger and operatively engageable with one of the limit switches upon reaching a preselected maximum extremity of movement and operably engageable with the other of the limit switches upon reaching a preselected minimum extremity of movement.

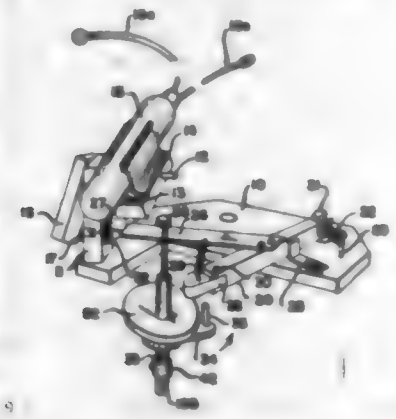
2,868,903
CONTACT ASSEMBLY LOCKING MEANS
John Filko, Chicago, Ill.
Application October 25, 1956, Serial No. 618,221
2 Claims. (Cl. 200—38)



1. A distributor contact assembly comprising a base plate adapted to be mounted on a distributor plate, a

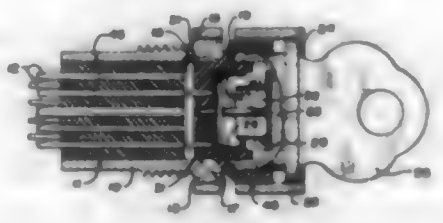
contact arm pivotally mounted on said plate, an insulated member fixed to said plate, a spring having its inner end fixed to the contact arm, and means for securing the outer free end of the spring to the insulated member, said last named means comprising a rivet-like member comprising a protruding stem having its outer end threaded, said stem including a smooth part inwardly of said threaded part and of a reduced diameter, collars on said rivet-like member and impinging the insulated member therebetween, the outer free end of said spring having a slot formed therein engageable with the reduced diameter of the stem to initially hold the spring to the rivet-like member, a split locking ring arranged outwardly of the spring and receivable in the reduced diameter to further hold the spring in position, a plate having an opening receiving the stem, an inturned flange on the plate extending over the top of the insulated member and said spring, a nut on the threaded end of the stem for locking the parts in assembled position, said plate and flange preventing shiftable movement of the spring and split member upon tightening of the nut.

2,868,904
SWITCH OPERATING MEANS
Clarence W. Smits, St. Clair Shores, Mich., assignor to Dihydrol Company, Detroit, Mich.
Application August 7, 1957, Serial No. 676,789
1 Claim. (Cl. 200—32)



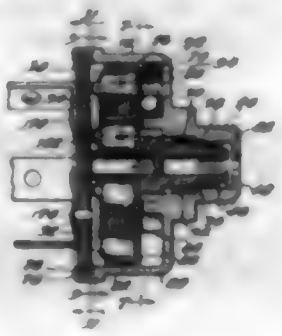
A combination of a water meter, register, and switch between them, such switch controlling a circuit for a pump for proportionately feeding water treatment fluid into the waterline passing by the meter, with such switch having circuit opening and closing mechanism including a mercury tube holder, a rock shaft on which the holder is mounted, a counter weight for biasing the holder to one end of the rocking limit thereof, a rocker attached to said shaft and having a lower stepped edge interrupted by a shoulder, a rocker arm, a rocker arm spring part carried by the rocker arm and yieldingly pressing up against said edge, and a spring for said rocker arm for biasing it in one direction, operating means for operatively connecting the shaft of the water meter to the shaft of the register above it and spaced from the meter by the switch casing, and for operatively connecting the meter shaft to said mechanism whereby rotation of the meter shaft, operating through such means, will rotate the register shaft and also will rock the rocker arm of the mechanism within the switch casing which likewise contains such operating means, such operating means comprising a shaft, couplers on its lower and upper ends for operatively coupling the shaft of the means to the water meter shaft and to a gear on the lower end of the register shaft, an operating arm journalled on said shaft between the ends of such shaft and having at its outer end a pin thereon, such pin being adapted to engage the rocker arm and move it for opening and closing the pump circuit controlled by such switch, the operating means further including a pinion on such shaft above the arm of the means, a compound gear also above said arm and journalled on it to one side of said shaft and having a lower gear part meshing with said pinion and an upper gear part rotating with the lower gear part, the lower gear part being larger in diameter than the upper gear part, a large disc above said arm having a central hole in which said shaft freely rotates, and having at its outer edge a downwardly extending flange formed with an internal gear concentric with the shaft and pinion and meshing with the upper gear part of the compound gear, and means for mounting said disc stationary on the switch casing located between the meter and the register and which contains the switch.

2,868,905
ELECTRIC LOCKS
Louis C. Meyer, Morrison, Colo.
Application March 15, 1957, Serial No. 646,433
6 Claims. (Cl. 200—42)



1. A key-operated circuit-closing switch comprising a lock barrel, a cylindrical insulating core disposed within said barrel and having one end thereof disposed inwardly of the corresponding end of said barrel providing a key block-receiving socket, said end of said core having a plurality of electrical contacts lying in a common plane, an electric circuit including two of said contacts, and a key including an insulated block movable in said socket axially of said core, cooperating guide means on said barrel and said block for confining the latter to axial movement in said socket, and conductor means carried by said block and adapted to bridge said two contacts upon the axial movement of the block within said socket.

2,868,906
KEY OPERATED SWITCH
John Edgar Sorung, Northfield, Ill., assignor to Indak Manufacturing Corporation, a corporation of Illinois
Application June 29, 1956, Serial No. 594,919
5 Claims. (Cl. 200—44)



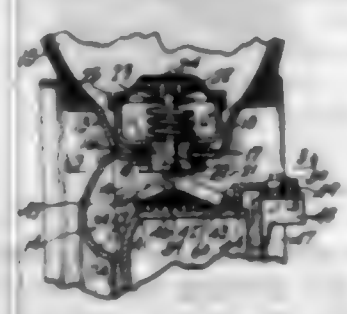
1. In a switch, the combination comprising a rotor, an insulating plate spaced rearwardly from said rotor, inner and outer thin plate-like fixed contacts mounted on the front of said plate and having respective portions extending along concentric spaced inner and outer circular paths, said contacts having additional portions disposed between said circular paths, terminal elements extending through said plate and engaging said additional portions, a movable contact carried by said rotor and having inner and outer rearwardly extending projections engageable with said fixed contacts and movable along said inner and outer paths, and a bridge portion on said movable contact extending between said projections and spaced from said fixed contacts to afford clearance for said terminal elements.

2,868,907
TIRE PRESSURE INDICATING DEVICE
Mitchell C. Wyczesany, Chicago, Ill.
Application March 7, 1958, Serial No. 719,790
3 Claims. (Cl. 200—61.25)



1. In a vehicle having a wheel, and a tire having a valve stem and inflatable by air under pressure mounted upon said wheel, a hollow open-ended tubular member carried by said wheel, a cap closing one of the open ends of said member, a plug closing the other of the open ends of said member, a deflatable and inflatable sac positioned within said tubular member adjacent said plug, a nipple in said plug and having one end in communication with the interior of said sac and the portion adjacent the other end exteriorly of said plug, a flexible tube connecting the other end of said nipple to said valve stem, a piston interposed between said sac and said cap and slidable within said tubular member and bearing against said sac, a lever extending transversely into the portion of said tubular member between said piston and said cap and connected intermediate its ends to said tubular member for swinging movement, one end of said lever being within said tubular member and connected to said piston for movement with the latter, the other end of said lever when said sac is fully inflated being inwardly of and spaced from the adjacent side of said wheel, said lever being swingable from the aforesaid position to a position in which the other end of said lever is contiguous to said adjacent wheel side upon sliding movement of said piston toward said plug responsive to deflation of said sac, the other end of said lever when in the position contiguous to said adjacent wheel side being adapted to contact a fixed contact carried by said vehicle.

2,868,908
LOW PRESSURE INDICATOR FOR AUTOMOTIVE VEHICLE TIRES
Andrew Robinson, Oakland, Calif.
Application July 11, 1958, Serial No. 747,932
6 Claims. (Cl. 200—61.25)



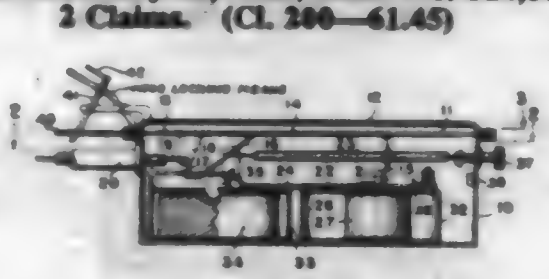
1. A low-pressure indicator for automotive vehicle tires, in combination; a wheel having a tire rim having a web, a brake drum and a cooperative brake member, a pressure-responsive element mounted in each of three equiangularly spaced locations on said web and each having a plunger projecting through the web, switch control means comprising a switch control ring slidable axially on said brake drum and including means cooperative between said ring and said brake drum for advancing said ring, said plungers being cooperatively related to said means cooperative, springs cooperative between the brake drum and said switch control means normally urging retraction of said ring, said pressure-responsive element including spring means for retracting the plunger for retraction of the ring by said springs when the existent pressure on the element drops below a predetermined value, and projecting the plunger through the existent pressure higher than said predetermined value for operation of said means cooperative for advancing said ring, and a switch and a circuit therefor, said switch being mounted on said cooperative brake member and having means cooperative with said ring for braking circuit when said ring is advanced and completing circuit when said ring is retracted.

2,868,909
FEELER UNIT FOR CONTROL OF TRAVELING MACHINES
Ronald M. Guntert and Wilbur F. Earley, Stockton, Calif., assignors to Guntert & Zimmerman Const. Div., Inc., Stockton, Calif., a corporation of California
Original application November 5, 1956, Serial No. 620,498. Divided and this application July 7, 1958, Serial No. 747,948
5 Claims. (Cl. 200—61.44)



1. A feeler unit for engagement with a grade wire arranged to control the actuation of the operational-movement control mechanism of a traveling machine and which mechanism includes actuating circuits having switches therein, said unit comprising a mounting member arranged to be mounted in a rigid position on the machine, a shank projecting laterally out from the member, a housing mounted at its inner end on the outer end of the shank, a probe finger projecting from within the housing and having a longitudinal slot outwardly of the housing to extend across and receive the grade wire with a running fit, means pivoting the finger intermediate its ends in the housing, and means mounting said switches in the housing on opposite sides of the finger inwardly of the pivot thereof, said switches each including an actuating element normally engaging the adjacent face of the finger.

2,868,918
SAFETY IGNITION SWITCH FOR ENGINE IGNITION SYSTEMS
William G. Crites, Danville, Ill.
Application July 28, 1955, Serial No. 524,869
2 Claims. (Cl. 200—61.45)



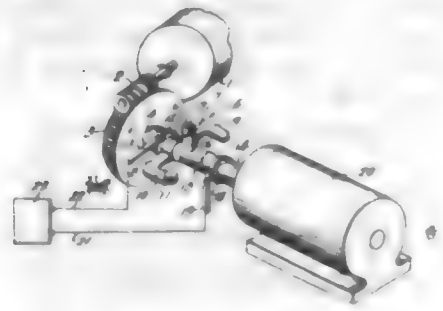
1. A switch-box having a pair of terminals for connection in an operating circuit such as an engine ignition system, electrical contacts at the inner ends of said terminals, a connector strip for connecting said contacts to complete the circuit, means in said box for resiliently breaking said connection, trigger means in said box for making and holding said connection, means for resetting the trigger means, said resetting means having a portion extending through the wall of the box for manual setting from the outside, said portion comprising a wire, a slidable plate in said box to which said wire is

connected, having cut out portions for lightness and to form an ear and a resilient tongue, for cocking said connection making trigger means and moving the trigger portion temporarily out of the way of the cocking portion respectively, and laterally shiftable weight means in said box cooperating with said trigger means, upon tilting or receiving a shock, to release said trigger means to break said connection.

2,868,911
SPEED AND ACCELERATION RESPONSIVE DEVICE

Donald Allen Wilhelmson, Lawrence Park Township, Erie County, Pa., assignor to General Electric Company, a corporation of New York

Application May 9, 1956, Serial No. 583,661
7 Claims. (Cl. 200—61.46)

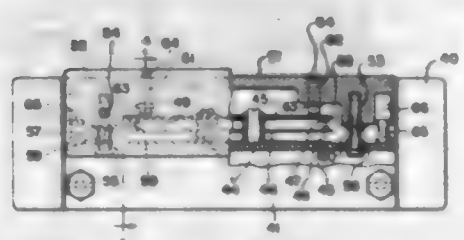


7. In a speed and acceleration-responsive device, the combination comprising a first shaft driven by the machine whose speed is to be regulated, a first contact carried by said first shaft, a second shaft spaced from and in axial alignment with said first shaft, a synchronous motor for driving said second shaft, a friction collar mounted on said second shaft, a second contact carried by said collar, said first and said second contacts describing upon rotation the same circular path whereby an underspeed condition of said first shaft effects engagement of said contacts, said friction collar being arranged to slip about said second shaft at speeds of said machine other than the constant speed of said synchronous motor to maintain firm contact engagement.

2,868,912
CONTROL KEY OPERATION FROM SORTING RACKS

Pascal Spurlino, Roger S. Hull, and Earl E. Rupel, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland (incorporated in 1926)

Application November 15, 1955, Serial No. 546,948
8 Claims. (Cl. 200—61.59)

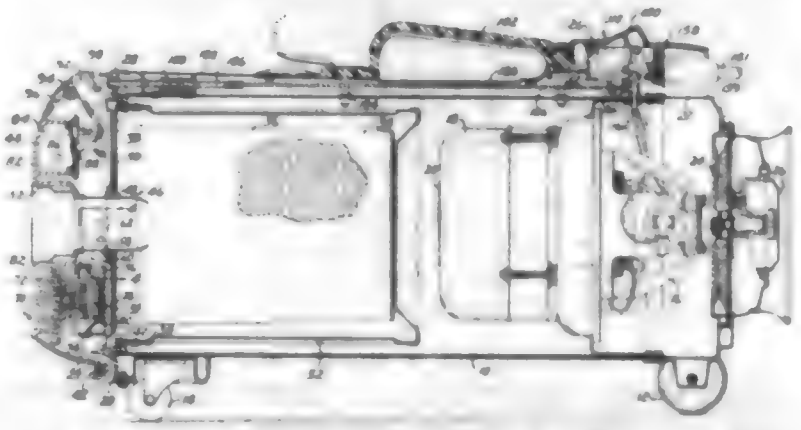


1. In a machine of the class described, the combination of a switch having a plurality of pairs of contacts, a floating member, a plurality of switch-closing means on the floating member normally engaging the switch, said floating member being universally movable to cause the means to close at least one pair of said contacts, a sorting compartment, and a bracket for supporting the switch in the mouth of the sorting compartment.

2,868,913
AUTOMATIC VACUUM CLEANERS

Allen P. Cawl, Noroton Heights, Conn., assignor to Electrolux Corporation, Old Greenwich, Conn., a corporation of Delaware

Application February 29, 1956, Serial No. 568,458
7 Claims. (Cl. 200—67)

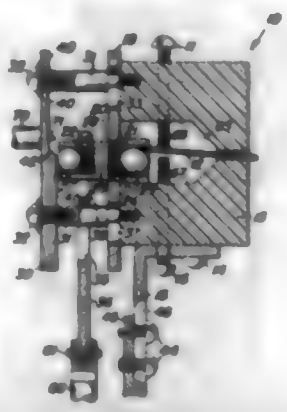


3. In an electric switching device, a switch case formed with a seat spaced inwardly from opposite sides of said case, said seat having an elongated slot therethrough, a toggle switch mounted in said seat and having a pivoted arm extending downwardly through said slot, a U-shaped actuating member within said case having legs extending vertically on either side of said switch and seat, a cross member joining the lower ends of said legs and engaging the lower end of said pivoted arm, a semi-cylindrical pin extending outwardly from the upper portion of each of said legs and pivotally received in recesses in opposite sides of said case for pivotally mounting said U-shaped member, a manually movable element having a sliding connection with the upper ends of said legs above said switch for maintaining said upper ends in spaced relationship and with said pins in said recesses, and a semi-cylindrical pin extending outwardly from each side of said element and mating with the aforesaid pins in said recesses, said element being pivotal to pivot said U-shaped member and said switch arm.

2,868,914
SNAP-ACTION ELECTRIC SWITCH

Francis L. Gleason, Hornell, N. Y.

Application April 23, 1956, Serial No. 580,023
4 Claims. (Cl. 200—68)



1. An electric switch comprising a pair of terminals, a contact plate for bridging said terminals intermediate the ends of said plate to make an electric circuit between said terminals, a support on which said plate is rockably mounted adjacent one end of said plate, a second support, one of said supports being reciprocable relative to the other support and parallel thereto, a ball mounted on said second support in position to engage the end of said contact plate remote from its pivot, and spring means for yieldingly holding said ball in engagement with said remote end of said contact plate, a member secured to said first support, a second ball aligned generally with the first-named ball, said member having a cam surface inclined to the direction of movement of the movable

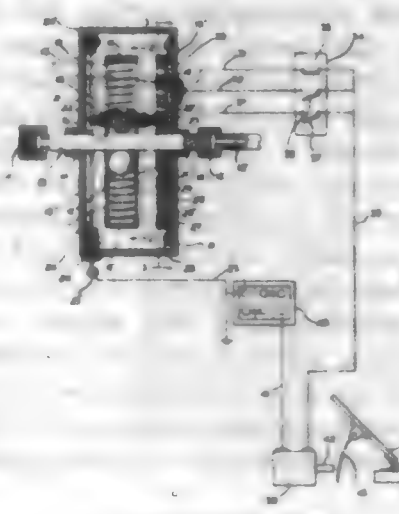
support and on which said second ball rides during movement of said movable support, and spring means for yieldingly holding said second ball in engagement with said member, whereby said balls and spring means act to snap said plate about its pivot in a direction opposite to the direction in which said movable support moves to make or break contact instantaneously with said terminals as said end of said plate travels over the top of said first-named ball in the movement of said movable support.

2,868,915
WINDOW ALARM DEVICE
Alfonso S. Lopez, Queens Village, N. Y.
Application June 27, 1957, Serial No. 668,529
3 Claims. (Cl. 200—61.72)



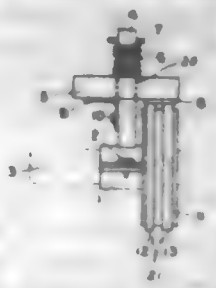
1. An alarm device for a window including relatively slidable first and second sashes, to signal movement of one of said sashes relative to the other, comprising: a stationary support mountable upon the first sash, means swingably mounted upon said support for movement toward and away from the second sash, a coil spring tensioned to bias said first means toward the second sash, a spacer movably carried by the first means and engaging, in one position to which it is moved, against the second sash to hold the first means against movement toward the second sash, said spacer being movable from said position thereof responsive to relative movement of the sashes to free the first means for movement toward the second sash, and terminals carried by the first means and said support respectively and contacting to permit closing of an alarm circuit therethrough on movement of the first means toward the second sash, the first means including an angular member one leg of which is pivoted upon said support with the other leg projecting toward the second sash and carrying said spacer, said first means further including a support plate mounted upon said other leg for adjustment toward and away from the second sash and carrying the spacer, said spacer comprising a U-shaped yoke the bight of which is adapted to engage said second sash with the legs of the yoke being pivotally connected to the support plate, the first means further including a connecting bolt for connecting the support plate to the other leg of said member, said other member and support plate having registering longitudinal slots through which the bolt extends to effect relative adjustments of the support plate and said other leg, a wing nut carried by the bolt for binding the support plate and said other leg against relative movement in selected positions to which the support plate is shifted, an element carried by the connecting bolt for movement therewith within the slots, and a contractile spring connected between the bight of the yoke and said element for normally biasing the yoke out of its position engaging the second sash, said contractile spring, in the second sash-engaging position of the yoke, being on dead center with said coil spring exerting a pressure against the angular member tending to maintain the yoke in frictional engagement with the second sash when the contractile spring is on dead center.

2,868,916
SIGNALLING DEVICE FOR AUTOMOTIVE VEHICLES
Joseph A. Neuworth and Robert H. Wearing, Milwaukee, Wis.
Application January 5, 1956, Serial No. 557,591
3 Claims. (Cl. 200—80)



1. In a device for indicating a predetermined speed of an automotive vehicle, a governor assembly having a housing, a rotatable governor member journalled in said housing adapted for driving connection with a vehicle part responsive to the speed of the vehicle, an electrical contact plate mounted in and insulated from said housing and disposed in a plane perpendicular to the axis of said rotatable governor member, an insulating disc mounted on the opposite side of said governor member in a plane parallel to said contact plate, said governor member having a pair of opposed radially extending guide units thereon each having weight members yieldably mounted therein for outward movement in response to the centrifugal force caused by rotation of said governor member, one of said weight members having two brushes yieldably mounted thereon and projecting toward opposite sides thereof for engaging said contact plate and said insulating disc respectively, said brushes being electrically connected together and insulated from said governor member, said insulating disc having a plurality of concentric, radially spaced contact rings imbedden in and flush with its inner face, a plurality of switches each electrically connected on one side with one of said contact rings, the switches, insulating disc, brushes and contact plate being adapted for connection to an electric circuit means connecting the opposite sides of said switches and the contact plate in said governor assembly, thereby to selectively energize the assembly at a speed predetermined by selective closing of said switches.

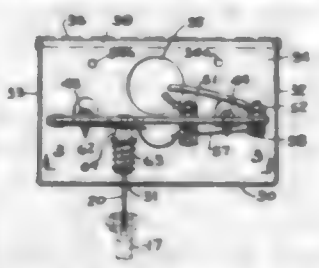
2,868,917
ROTATIONAL SPEED RESPONSIVE DEVICE
Helmut Maerker, Santa Monica, Calif.
Application January 8, 1958, Serial No. 707,730
3 Claims. (Cl. 200—80)



1. A rotational speed responsive device for a machine having a rotatable shaft, said device comprising: a support member perpendicularly connected to and rotatable with said shaft; a compression spring mounted on said

support member and having one end thereof connected to said support member adjacent the end of said support member most remote from said shaft; a centrally apertured weight member slidably mounted on said shaft and abutting a second end of said compression spring whereby said weight member will move in a perpendicular direction away from said shaft, against the inwardly radially biasing action of said compression spring, due to centrifugal force acting on said weight member when said shaft is rotatably accelerating; and means responsive to the position of said weight member, said means including fixed support means having a circular convex exterior concentrically encircling said rotatable shaft and radially spaced outwardly therefrom a predetermined distance, slip-ring switch means circularly connected to said circular convex exterior of said fixed support means for engaging, parallel to said rotatable shaft, said weight member when in a predetermined position radially spaced outwardly from said shaft by said predetermined distance corresponding to a predetermined compression of said spring and a predetermined minimum rotational speed of said rotatable shaft.

2,868,918
ELECTRIC SWITCH
Michael Colette, Detroit, Mich., assignor to William G. Mason and Alfred L. May, both of Detroit, Mich.
Application March 16, 1956, Serial No. 571,993
3 Claims. (Cl. 200—84)



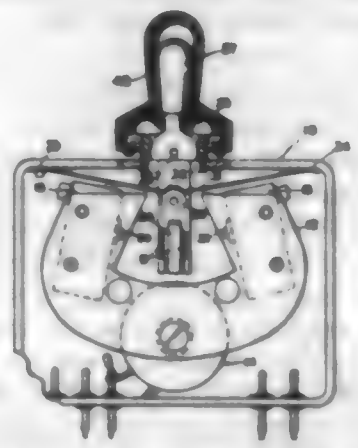
1. In a sump pump including a pump, an electric motor for driving said pump, and a float actuated by the liquid to be pumped; an electric switch device controlling current to said motor and actuated by said float, said switch device comprising a steel casing adapted to be mounted on said pump to enclose fully the entire switch device, and having a removable cover, a switch assembly removably mounted within said casing, said assembly comprising a single one-piece shelf made of insulating material and removably mounted within said casing at a distance from the walls thereof, two terminals provided on said shelf and adapted to receive ends of electric wires carrying current to said motor, a spring element normally connecting said terminals, a snap action mechanism adapted, when actuated, to bend said spring element and to disconnect said terminals, and a spring-pressed piece adapted to actuate said mechanism, said piece being connected to the float and being made, at least in part, of insulating material.

2,868,919
OVERLOAD WARNING DEVICE FOR FORK LIFT TRUCKS
Frank Gavin Harvey, Montreal, Quebec, Canada, assignor to Canadian Lift Truck Company Limited
Application April 15, 1957, Serial No. 652,807
5 Claims. (Cl. 200—85)



1. An overload warning apparatus for cantilever-type lift trucks having a body frame, a load lifting fork on the front end of said body frame, a front axle mounted on said body frame adjacent said lifting fork and wheels mounted on said front axle, a rear axle resiliently suspended from said frame and wheels mounted on said rear axle, said front axle serving as a fulcrum when a load is applied to said lifting fork; said apparatus comprising a switch contact member mounted on said rear axle, circuit means between said switch contact member and an electrical warning device mounted on said frame, a lever arm separate from said rear axle suspension and supported for pivotal movement about a fixed axis on said rear axle at a point spaced from said switch contact member and having one end spaced from said pivot point and adjustably contacting said body frame with the other end also spaced from said pivot point and guided in aligned relationship with said switch contact member, means normally urging said aligned lever end towards said switch contact member, whereby raising of the rear portion of said frame about said front axle fulcrum by a load applied to said lifting fork is adapted to cause said aligned lever arm end to contact with said switch contact member activating said warning device.

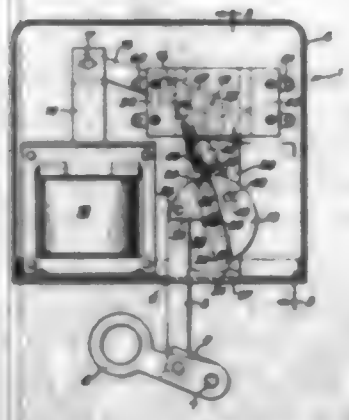
2,868,920
SWITCH
William W. Mumford, Park Ridge, and Albert J. Newland, Glen Rock, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application August 1, 1955, Serial No. 525,421
1 Claim. (Cl. 200—87)



A switch comprising a casing, a lever having end portions, means intermediate the end portions to pivotally mount the lever in said casing, said lever including one of said end portions positioned externally of said casing to provide an operating handle for the lever, an armature positioned interiorly of the casing and carried by the other end portion of said lever, a bowed spring member secured at one end to said casing and having a detent portion intermediate the ends thereof, roller means normally bearing on said detent portion and carried by said lever at a position intermediate the pivotal mounting means and the other end portion of said lever, said roller means stressing said spring member as the lever is displaced from normal position so that said spring member continually urges the lever to return to the normal position, switch means including a pair of switch devices selectively actuated when said lever is displaced a predetermined amount, said lever being manually operable at said handle in such a manner that the other end portion of the lever may be displaceable from the normal position in one sense to actuate one of said switch devices and in an opposite sense to actuate another of said switch devices, a U-shaped magnetic member having opposite arm portions and an excitation winding energized upon the aforesaid actuating of any one of said switch devices, the armature carried by said other end portion of said lever being arranged to cooperate with one arm portion of said magnetic member upon displacement of the lever

in said one sense and with the other arm portion of said magnetic member upon displacement of the lever in said opposite sense so that said magnetic member thereby maintains said lever in a displaced position, and the bowed spring member biases said lever from said displaced position to said normal position upon deenergization of said excitation winding.

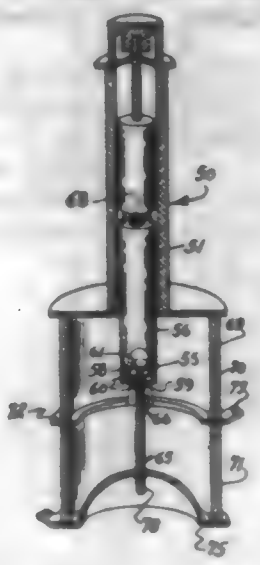
2,868,921
SWITCH ACTUATOR
Max Rigert, West Allis, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application September 19, 1955, Serial No. 537,359
8 Claims. (Cl. 200—87)



1. A switch actuator comprising, a solenoid coil having a reciprocable plunger therein, a shaft, linkage means interconnecting said plunger and said shaft for converting alternate reciprocations of said plunger into alternate oscillations of said shaft between predetermined angular limits, an oscillator rotatable about the axis of said shaft, actuating lever means fixed on said shaft and in engagement with said linkage means and said oscillator for oscillating the latter about said shaft axis in response to intermittent energizations and de-energizations of said solenoid coil, spring means interposed between said transfer means and said actuating lever means for storing energy while said oscillator moves from one position and for releasing that energy when said oscillator substantially reaches its other position, selector switch means adapted to close and open the circuit to said solenoid coil in accordance with the change of oscillator angular positions, transfer means actuable by said oscillator for operating said selector switch means and for positioning said plunger, and power output means interconnected with said oscillator.

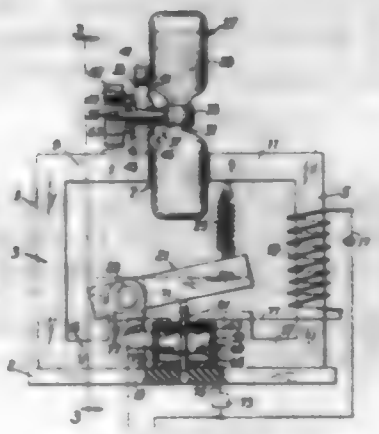
2,868,922
VACUUM SWITCH
Radford P. Leonard, Santa Barbara, Calif., assignor to Penta Laboratories, Inc., Santa Barbara, Calif., a corporation of California
Application January 14, 1957, Serial No. 634,043
8 Claims. (Cl. 200—87)

1. An electromagnetically actuated circuit breaker movable to first and second conditions of electrical conductivity within a chamber sealed to atmosphere comprising, within the chamber, a conductive member having one terminal end projecting exteriorly of said chamber, a conductive shaft having one terminal end projecting exteriorly of said chamber, a two element armature means mounted on said shaft with a first element slidably movable on said shaft to make and break electrical contact with said conductive member, said first element electrically connected to said shaft, said first element movable to a first position in electrical contact with said conductive member to render an electrical circuit between said shaft and said conductive member and to a second position out of electrical contact with said conductive member, means to normally force said first element of said armature means to one of said two positions in spaced relation to said second element, the two elements of said armature means formed of magnetizable material



whereby when said armature means is subjected to magnetic flux the two elements of said armature means become magnetized and said first element is magnetically moved closer toward said second element into the other of said two positions.

2,868,923
TIMING DEVICE
Henry David Epstein, Boston, Mass., assignor to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts
Application May 8, 1957, Serial No. 657,802
8 Claims. (Cl. 200—87)



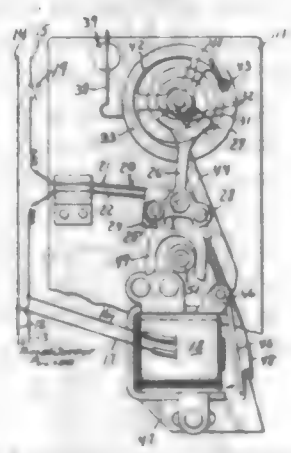
7. A timing device comprising a base, an electromagnet having a core loop mounted on said base in vertical position, said loop having a gap in the upper part thereof, a time-measuring double-chambered hourglass member containing fluent magnetic material, means mounting said hourglass member for rotation on an axis located above the loop and in position to be rotated so that either one of the chambers of the hourglass member may extend down into the gap with the other above the gap for flow of the fluent magnetic material from the upper of the chambers into the lower of the chambers, the reluctance of the core loop being reduced as the fluent magnetic material flows into the lower chamber, said loop having a second gap, and a magnetic armature mounted for movement between a retracted position relative to said second gap and a position bridging said second gap, said armature being biased toward its retracted position, a magnetizing coil for the core loop, a magnetizing coil circuit, and a switch in said circuit operable by said armature.

2,868,924

TIME BASE MECHANISM

John E. Hewitt, Louis F. Schmidt, and David G. Gardner, Lansing, Mich., assignors to Abrams Instrument Corporation, Lansing, Mich., a corporation of Michigan

Application June 26, 1956, Serial No. 593,987
3 Claims. (Cl. 200—90)



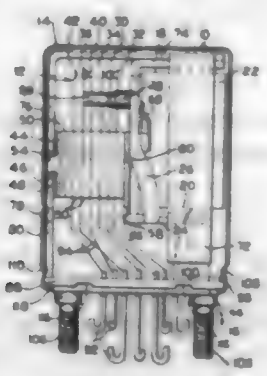
1. A time base mechanism, including parallel spaced apart mounting plates, a shaft journaled between said plates, a balance wheel secured to said shaft, a hair spring anchored to one of said plates at its one end and connected to said shaft at its other end, an impulse pin on said balance wheel, an impulse arm movable to and fro between said plates and engageable with said pin to turn said wheel and store energy in said spring, said spring releasing its energy to effect an oscillating motion of said shaft and wheel, means for moving said arm in a timed relation to the movement of said balance wheel in such wise as to engage said arm with said pin at a predetermined point in the movement of said wheel in each cycle of oscillation thereof for the storing of additional energy in said spring, and spring detent means between said mounting plates and said balance wheel effective substantially at said point in the movement of said wheel, said spring detent means comprising a leaf spring anchored in one of said mounting plates and a flat on said shaft engageable by said leaf spring.

2,868,925

ELECTROMAGNETIC RELAY

Oliver H. Grotelueschen, Wesley D. Henry, and Arthur R. Brinkruff, Logansport, Ind., assignors to Essex Wire Corporation

Application June 3, 1958, Serial No. 739,528
5 Claims. (Cl. 200—104)



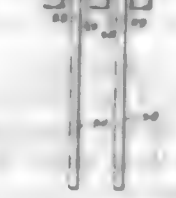
1. In an electromagnetic relay of the type having a magnetic core carrying a coil attached to one branch of an L-shaped magnetic frame and two contact spring pile-up assemblies mounted upon the other branch of the frame for operation by a movable armature, the combination of a header terminal assembly and a supporting bracket having two like legs extending in the same direction at substantially right angles from opposite edges of one end of a base portion and having a third leg extending from the edge of the opposite end of the base portion in substantially the same direction as said two legs but at right angles to their major planes; the free ends of said legs of the bracket being secured to the terminal header assembly; said one branch of the frame being secured to the base portion of the bracket, each of said contact spring pile-up assemblies including a clamp plate having a projecting arm; said projecting arms being secured to opposite edges of the third leg of the bracket.

2,868,926

SWITCH

Charles E. Pollard, Jr., Hoboken, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 25, 1957, Serial No. 667,914
7 Claims. (Cl. 200—112)



1. A mercury switch unit having a housing, a tubular member extending through one end of said housing, the housed end of said member being flared, an armature reed comprising a looped end, a portion of said looped end being secured to the outer surface of said flared end so that a substantial length of said looped end extends into said flared end, a pool of mercury within said flared end, contact means disposed about the other end of said armature reed, and energizing means for moving said armature reed with respect to said contact means, whereby a highly reliable, resiliently mounted, effectively damped armature reed assembly is provided.

2,868,927

SOLENOID INTERRUPTER

Joseph D. Wood, Wayne, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

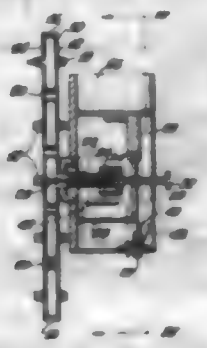
Application May 3, 1956, Serial No. 582,415
3 Claims. (Cl. 200—144)

1. An interrupting chamber adapted to interrupt an arc drawn between a pair of disengaging contacts; said interrupting chamber comprising a plurality of spaced iron plates, a corresponding plurality of spaced insulating plates, and a corresponding plurality of pairs of protruding ears; each of said pair of protruding ears extends through one of said corresponding insulating plates to be electrically connected to one another and to be positioned on opposite sides of said corresponding insulating plate and in spaced relationship with one another along the plane of said insulating plate; said iron plates being positioned in substantially parallel plane relationship with said insulating plates and in arcing relationship with one of said protruding ears of each insulating plate adjacent to said iron plate; said iron plates being further positioned to transfer arcs between said contacts to said protruding ears to impart a solenoid shape to said arcs.

2,868,928
TEMPERATURE CONTROL DEVICES

Charles K. Strobel, Pittsburgh, and Guy F. Conner, West Mifflin, Pa., assignors to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

Application July 2, 1957, Serial No. 669,640
5 Claims. (Cl. 200—140)

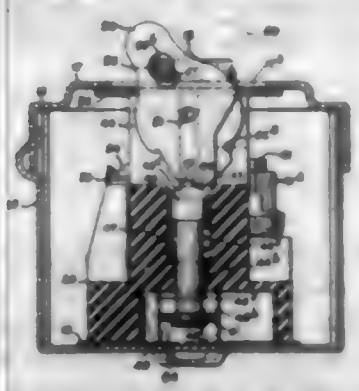


1. In a temperature control device, a closed container for thermally expansible fluid having a pair of side walls, one of said side walls having an aperture therein, said side walls being of thin sheet material and spaced in proximate relation to each other forming a thin elongated reservoir substantially rectangular in cross-section, and an expansible and contractible element secured at one end to said one side wall adjacent said aperture and subject to volumetric changes in the fluid, the opposite end of said element being movable upon expansion and contraction of said element upon said changes, said element having a small cross-sectional area perpendicular to the direction of said movement relative to the distance between said ends thereof to produce a relatively large longitudinal movement upon expansion and contraction of the fluid.

2,868,929
ELECTRIC SWITCHES OF THE CAM-LEVER-OPERATED TYPE

Martha F. Koenig, Milwaukee, Wis., assignor to Cutler, Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application March 5, 1956, Serial No. 569,601
8 Claims. (Cl. 200—153)

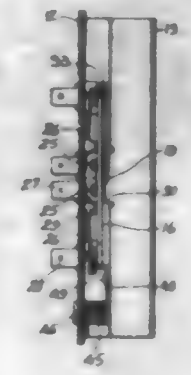


1. A manually operated switch for making and breaking at least thirty amperes alternating current electric circuits, comprising a molded insulating base block having a recess formed in the inner surface thereof and having a pedestal projecting from the outer surface thereof, said pedestal having a passage extending therethrough and opening into said recess, plural electric terminals on the base block, plural stationary contacts on the base block, the terminals and the contacts being joined for electric conduction and held in fixed position relatively to the base block, a plunger reciprocatable within the base block passage and extending into said inner recess, a spring interposed between an annular wall portion of said passage and an enlarged outer end portion of said plunger for normally biasing the latter toward its outer extreme position, a molded insulating cam-type handle pivotally supported upon the base block pedestal and having a cam portion thereof engageable with the enlarged outer end portion of said plunger to cause movement thereof in the opposite direction against said bias, and a bridging contactor tiltably attached to the inner end of the plunger within the base block recess for movement into and out of engagement with the stationary contacts upon movement of the handle in opposite directions respectively.

2,868,930
SLIDER SWITCH

John M. Pistey, Fairfield, and Paul F. Strubel, Milford, Conn., assignors to General Electric Company, a corporation of New York

Application January 31, 1957, Serial No. 637,419
9 Claims. (Cl. 200—153)

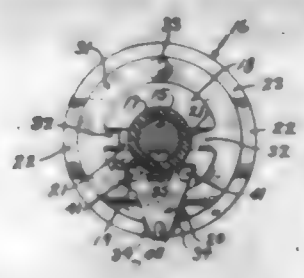


1. A slider switch comprising a housing, an elongated slot in a first wall of the housing, an insulating slider located in the housing, a rod connected to an edge of the slider and extending outwardly through the slot to be manually operated, movable and fixed contacts supported in the housing, each contact having a wire terminal that extends through and is supported in a second wall of the housing for making connections in an electrical circuit, said second wall extending perpendicularly to said first wall, the innermost portions of the contact terminals bearing against a side face of the slider to guide the slider in its movement as it operates upon the movable switch contacts, at least one of the movable contacts comprising a cantilever spring blade with a camming section that is adapted to be engaged and disengaged by the said side face of the slider.

2,868,931
VARIABLE RESISTANCE CONTROL

William F. Dehn, Wauwatosa, and Clarence R. Dickinson, Greendale, Wis., assignors to Allen-Bradley Company, Milwaukee, Wis., a corporation of Wisconsin

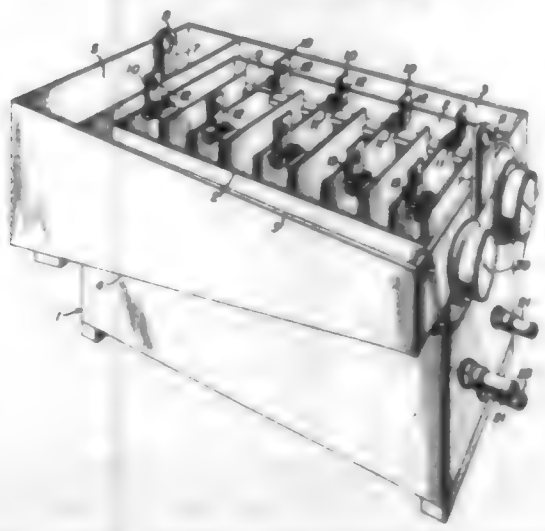
Application June 11, 1956, Serial No. 590,427
7 Claims. (Cl. 201—55)



1. In a variable resistance apparatus having an arcuate resistance track and a rotatable operating shaft concentric with the track, the combination of a contact brush in engagement with the resistance track that is rotatable with the shaft and has a pair of radially extending outwardly converging side surfaces together with a back surface sloping radially outwardly away from the base; a brush biasing spring rotatable with said shaft having a pair of radially extending outwardly converging retaining surfaces complementary to the side surfaces of said brush between which said brush is disposed to be housed by and rotated with said spring; and a brush urging portion for said spring bearing upon the sloping back of said brush to thereby urge the brush against the resistance

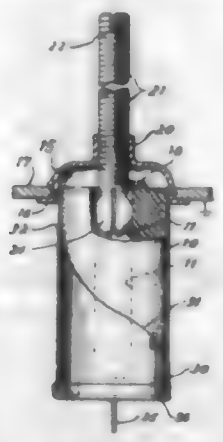
track and radially outward as said shaft, spring and brush are rotated to firmly retain the brush between said retaining surfaces.

2,868,932
DUMMY LOAD RESISTOR
John A. Schonhoff, Long Green, and William J. Borkowski, Baltimore, Md., assignors to Maryland Shipbuilding and Drydock Company, Baltimore, Md., a corporation of Maryland
Application September 19, 1956, Serial No. 610,739
4 Claims. (Cl. 201—57)



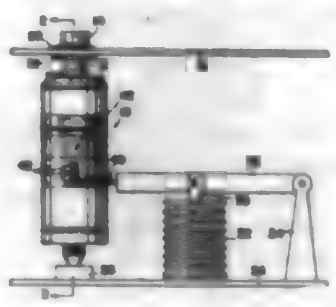
1. A dummy load resistor comprising a container, weirs on either side thereof, electrodes in the container, an ingress pipe at the bottom of the container for a water solution, a valve in said pipe, two ingress pipes on either side of the container for fresh water, valve means regulating the flow from the fresh water pipes, said fresh water pipes being positioned above the first-mentioned pipe, apertures in said pipes over the portions thereof within the container, a baffle with apertures therein located above the bottom of the container and between the pipe for the solution and the fresh water pipes, a connection line between the fresh water and solution pipes, and a valve in said connection line permitting mixing of the solution and the fresh water before the discharge of said pipes into the container.

2,868,933
VARIABLE RESISTOR
Fred E. Singelman, Palatine, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application November 4, 1957, Serial No. 694,213
6 Claims. (Cl. 201—62)



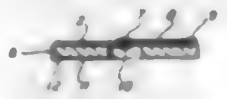
1. A variable resistor comprising a body of resistance material having a bore therein, a slider supported at one end of the body and having a contact portion disposed in said bore with limited contact with the wall thereof, and a highly conductive coating on the other side of said resistance body which completely covers the body at one end and gradually decreases in coverage toward the other end.

2,868,934
PRECISION RESISTANCE DEVICES
Leonard E. Aske, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application April 22, 1954, Serial No. 424,934
3 Claims. (Cl. 201—63)



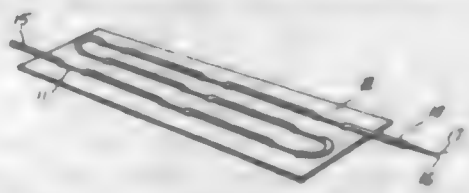
1. A precision resistance device of the class described comprising a support, a plurality of insulative washers mounted coaxially on said support so that the end faces of adjacent washers abut one another, a conductive film on said end faces of said washers, resistance wire wound about substantially the entire outer periphery of said washers, the sum of the outer radius of one of said washers, plus the radial thickness of the resistance wire wound on said one of said washers being equal to the respective sums of the outer radius of the other of said washers plus the radial thickness of the resistance wire wound on said other of said washers, said resistance wire having ends abutting said conductive films on said end faces, metal spacer means abutting the end faces of said plurality of discs, terminal means abutting said spacer means, means insulating said spacer means and said terminal means from said support, and means holding said washers, spacer means, and terminal means tightly together.

2,868,935
THERMOSENSITIVE RESISTANCE ELEMENT
Glenn N. Howatt, Metuchen, N. J., assignor to Gulton Industries, Inc., Metuchen, N. J., a corporation of New Jersey
Application November 25, 1957, Serial No. 698,413
12 Claims. (Cl. 201—63)



1. A resistance element comprising in combination a thin insulating wafer, containing an opening of substantial size, a thin heat-cured film formed from a powdered insulating material characterized after firing by a high temperature coefficient of resistance, suspended in a thermoplastic binder, said film covering said opening and thermally bonded to at least a portion of one surface of said wafer, and electrodes coupled to opposite surfaces of said film.

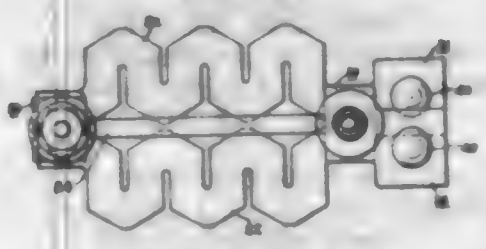
2,868,936
HEATING PANEL
Wallace R. Francis, Milford, Conn., assignor to General Electric Company, a corporation of New York
Application April 1, 1957, Serial No. 649,953
5 Claims. (Cl. 201—69)



1. A mullion heater comprising an insulating panel having a flexible heater wire mounted in a series of slots,

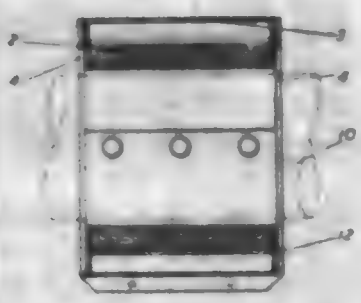
each slot having a narrow central gap and an enlarged portion at each end, the enlarged portions being of a size larger than the diameter of the heater wire while the narrow gap is smaller than the diameter of the wire, whereby an intermediate portion of the wire may be forced through the slot until it is confined at spaced points in the enlarged portions of the slot.

2,868,937
GRID-TYPE RESISTANCE UNITS
Allan P. Charbonneau, Wauwatosa, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Continuation of abandoned application Serial No. 506,802, May 9, 1955. This application February 12, 1958, Serial No. 714,927
2 Claims. (Cl. 201—63)



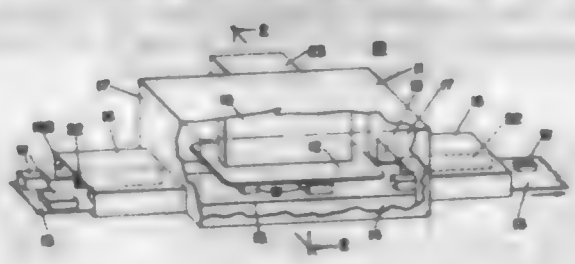
1. Connector terminal means for a grid-type resistor unit comprising a multiplicity of like, one-piece, punched sheet metal resistor grids and a multiplicity of insulating spacers stacked in predetermined relationship upon parallel support rods so that the adjacent grids are arranged in zigzag fashion in electrically conductive relationship with each other to form a series conducting path, a plurality of wiring terminal connectors each comprising an elongated, one-piece, flat, punched sheet metal member including an integral, intermediate strap portion electrically connected directly with one or more of said grid lugs at one end only of said sheet metal member, a wiring terminal lug portion formed integrally with and extending laterally from one end of each of said metal members in a direction away from the strap portion thereof, said lugs being formed to permit accommodation of the wiring terminal connector member upon the support rods with the strap portion extending therebetween, said one of said lugs being held in electrically conducting relationship to a resistor grid, and the other lug of said pair being supported against rotation about the first of said rods and in insulated relationship to all of the resistor grids.

2,868,938
INDUCTORS FOR HEATING TUBES OR CYLINDERS
Robert Harry Barfield and Maurice Gordon Gibbs, Watford, England, assignors to Wild-Barfield Electric Furnaces Limited, Watford, England
Application September 18, 1956, Serial No. 608,786
Claims priority, application Great Britain September 15, 1955
4 Claims. (Cl. 219—10.49)



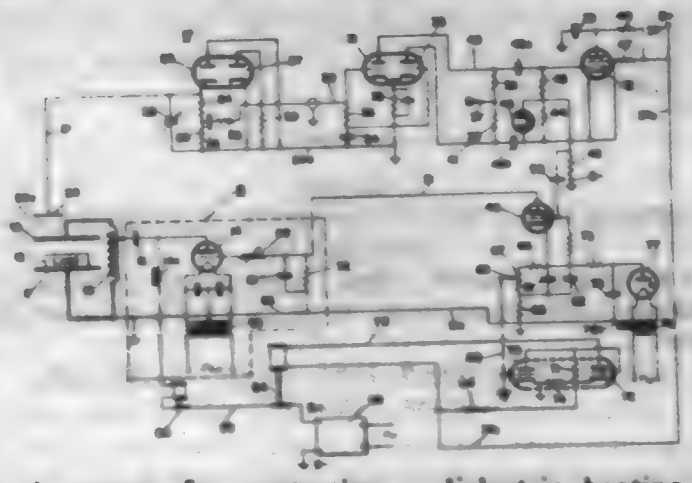
1. A low frequency induction heating cuff for cylinders, comprising an inner cylindrical tube slightly larger in diameter than the cylinder to be heated and surround the cylinder to allow a slight clearance therebetween and including means to prevent it becoming heated inductively, a primary winding wound on this inner tube, and an outer casing of mild steel surrounding the winding and provided with end plates clampable on the cylinder, this outer casing with the end plates being composed of magnetic material and forming with the surface of the cylinder a closed magnetic circuit, the outer casing having a longitudinal slot and the end plates having radial slots to prevent them becoming heated inductively.

2,868,939
SUPPRESSION OF RADIATION FROM DIELECTRIC HEATING APPLICATORS
Robert V. Pound, Arlington, Mass., assignor to Chemetron Corporation, a corporation of Delaware
Application January 16, 1956, Serial No. 559,147
14 Claims. (Cl. 219—10.55)



1. Dielectric heating apparatus comprising spaced heating electrodes, an electrically conductive shielding housing for confining therein the high-frequency electric field produced between said electrodes, said housing having a wall opening for a work path extending to the field space between said electrodes, an electrically conductive vestibule extending from said housing and about said work path, said vestibule serving as a waveguide having a cut-off frequency materially higher than the frequency of said heating field, and lossy material disposed within and throughout a substantial length of said vestibule and in a position in substantial coincidence with the location of at least one of the electric field vectors of substantial magnitude corresponding with excitation modes of said vestibule, said lossy material having characteristics for dissipating high-frequency energy within the pass-band of the waveguide vestibule.

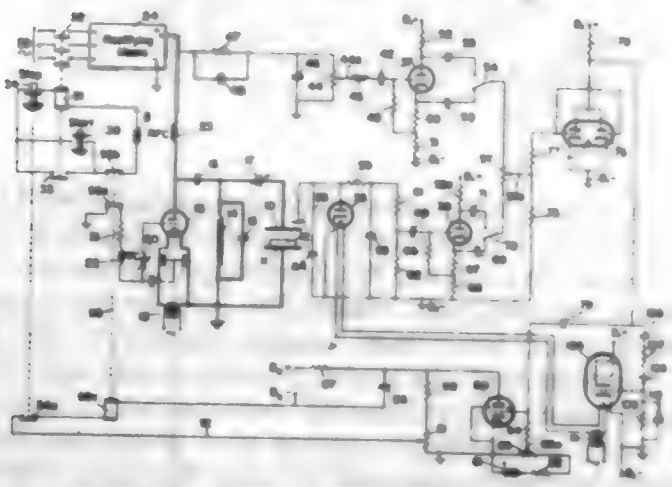
2,868,940
ELECTRONIC ARC-SUPPRESSOR
Sheldon V. Jennings, New Albany, Ind., and Sidney C. Smith, Louisville, Ky., assignors to Chemetron Corporation, a corporation of Delaware
Application November 4, 1955, Serial No. 544,856
11 Claims. (Cl. 219—10.77)



1. A system for protecting a dielectric heating system and its electronic discharge means from effects of arcing and incipient arcing between the heating electrodes of said heating system, comprising sensing means electrically connected to the heating electrodes and responsive to the voltage between the electrodes for producing an output signal which changes concurrently with change in the voltage between said electrodes, a rate-

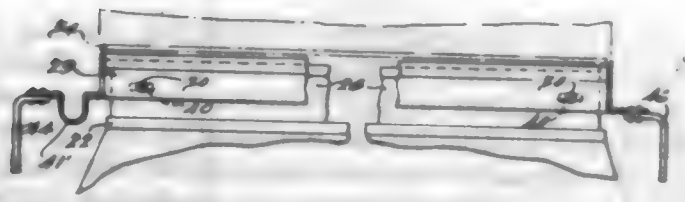
responsive amplifier of the normally balanced output type and having separate input circuits to separate stages thereof, time-delay means in one only of said input circuits, circuit-means for applying said output signal to said input circuits, said time-delay means in response to an abnormal rate of change of said output signal delaying application to said one stage of said changed output signal to produce an output from said rate-responsive amplifier of large magnitude, and means responsive to said output from said rate-responsive amplifier for disabling said electronic discharge means to interrupt the supply of high-frequency power to said heating electrodes.

2,868,941
ELECTRONIC ARC-SUPPRESSOR
Willard H. Hickok, Louisville, Ky., assignor to Chemetron Corporation, a corporation of Delaware
Application March 11, 1958, Serial No. 720,698
9 Claims. (Cl. 219—10.77)



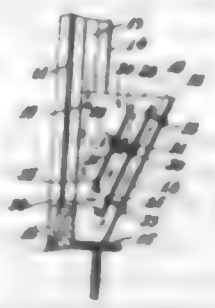
7. A protective system for a high-frequency heating system which includes heating electrodes for a load, an oscillator supplying high-frequency power through a power output circuit to said heating means, and a direct current power supply circuit for said oscillator having rectifying means energized by alternating current for supplying direct current to said oscillator, comprising a balancing circuit including a potentiometer, means for applying to said balancing circuit signals derived from said direct current power supply circuit, said means including a capacitor and an amplifier, means for applying a second signal to said balancing circuit representative of voltage variations at said heating electrodes, said last-named means including a rectifier and an amplifier, means for adjusting the relative amplitudes of said signals applied to said potentiometer so that said signals during steady state conditions balance each other, and means responsive to unbalanced signals from said potentiometer for interrupting the supply of high-frequency power to said heating electrodes.

2,868,942
APPARATUS FOR FORMING LAMINATED MATERIAL
Fred Lyijynen, Detroit, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application May 9, 1956, Serial No. 583,839
6 Claims. (Cl. 219—19)



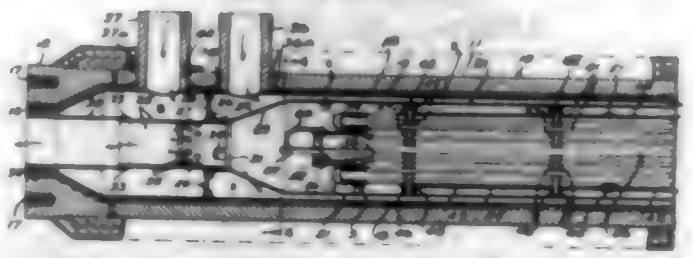
1. Apparatus for bonding a plurality of layers of materials at a predetermined location comprising first and second press members, power means connected to said press members for accommodating pressure engagement therebetween, die means carried by one of said press members including a combined heating and die element of a generally inverted U-shaped configuration having a contact surface in the bite portion thereof adapted to engage said layers at said predetermined location to effect a bond therebetween, an electrical transformer having a high voltage low current primary winding and a low voltage high current secondary winding, switch means operatively connected with one of said windings for controlling operation of said transformer, and circuit means connecting the secondary winding of said transformer with said combined heating and die element to effect instantaneous heating thereof.

2,868,943
WINDOW HEATER
Maurice G. Steele, Rome, N. Y.
Application December 6, 1955, Serial No. 551,332
5 Claims. (Cl. 219—34)



1. In an apparatus for heating and deflecting a stream of cold air falling from the inside surface of an outside window of a room, the combination comprising a horizontally extending upwardly and outwardly inclined panel, a window frame, a window stool, means for securing said panel to said window frame for enclosing the lower end of said window to form a substantially airtight trough, a deflecting guide plate arranged between said panel and said window, and an elongated heating element disposed in the space between said panel and said plate, whereby the cold air from the window will be heated and deflected upwardly beyond the upper end of said panel into the room, and a second guide plate between said heating element and said panel for additionally guiding said air past said heating element, the lower edges of said plates having offset inwardly extending flanges for preventing excessive downward radiation from said heating element.

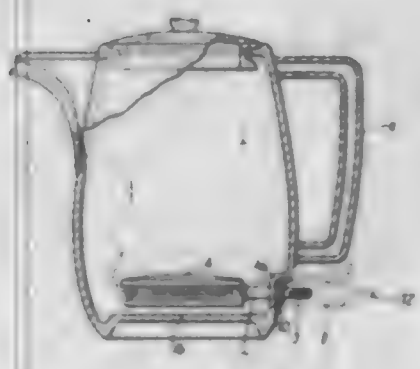
2,868,944
ELECTRIC FLUID HEATER
Eugene C. Koch, Richmond Hill, N. Y., and Kelvin J. Ray, Ramsey, N. J., assignors to Foster Wheeler Corporation, New York, N. Y., a corporation of New York
Application June 12, 1957, Serial No. 665,292
13 Claims. (Cl. 219—38)



1. A fluid heater of the class described, comprising a shell, a plurality of electrical heating elements disposed in said shell, means for supporting said elements in spaced parallel relationship to each other and electrically insulating said elements from each other and from the shell, each of said elements comprising a first tube and a second tube of smaller diameter than said first tube, said second tube arranged in coaxial relationship with

said first tube and spaced from the latter to provide an annular passage between the inner surface of said first tube and the outer surface of said second tube, an electrical input means connected to a source of electrical current and to a first of said heating elements for delivering electrical current to the latter, said heating elements being connected together to provide series flow of electric current, an electrical ground means in said shell connected to a last of said heating elements to complete the electric circuit through the resistance elements, said electrical input means and said ground means being electrically insulated from said shell, a fluid inlet means for passing fluid to be heated into said shell, baffle means for directing flow of fluid to be heated into one end of said second tube and into the annular passage formed between the first and second tubes of each of said heating elements, and fluid outlet means communicating with the other end of said second tube and said passage between the first and second tube of each of the heating elements to receive heated fluid from the latter.

2,868,945
ELECTRICALLY HEATED BOILING WATER POT
Fumio Taniguchi, Ueno-Machi, Tajimi City, Gifu Prefecture, Japan
Application August 27, 1957, Serial No. 680,571
Claims priority, application Japan September 13, 1956
3 Claims. (Cl. 219—44)



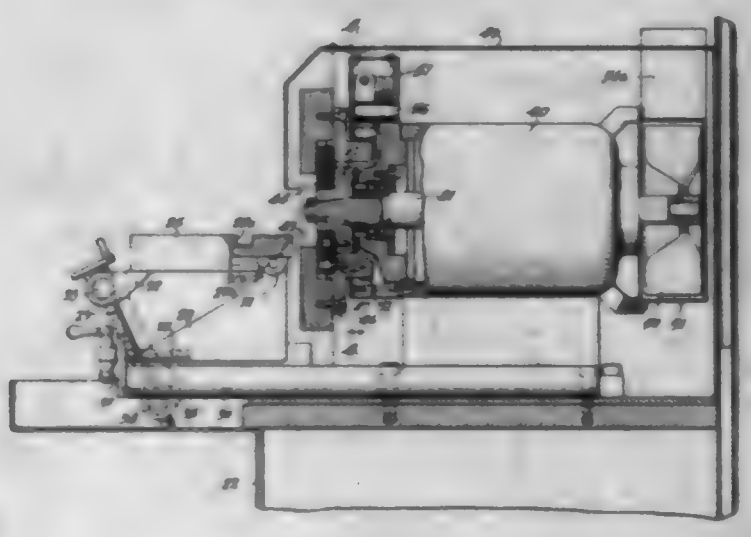
1. An electrically heatable pot comprising a bottom and a side wall, two insulating supporting sleeves mounted in side-by-side relationship in said side wall adjacent said bottom and substantially parallel thereto, said supporting sleeves projecting into the pot and having internal threads at each of their ends, an insulator plate having a circumferential groove, two threaded bolts mounting said insulator plate on the inwardly projecting threaded ends of said supporting sleeves, the insulator plate being adjacent and parallel to the bottom of the pot, a resistance wire heating element arranged in said circumferential groove and attached with its respective ends to said bolts, and two studs screwed into the other internally threaded ends of the support sleeves and adapted to receive a mating electric plug.

2,868,946
ELECTRICAL HEATING ELEMENTS
Matthias Stephenson, Sale, England, assignor to Thomas French & Sons Limited, a British company
Application January 12, 1956, Serial No. 558,803
4 Claims. (Cl. 219—46)

1. An electrical heating element comprising a flexible narrow fabric woven from a yarn having electrically insulated properties, two plies in said fabric, binder warps between said plies, said binder warps being woven-in alternately with said plies to form insulating cross-over portions, and a wire weft, the successive picks of said wire weft being separated by cross-over portions of said binder warps and each terminating at both its ends a substantial distance inwardly from the edges of said plies whereby no wire weft is exposed.



2,868,947
SPARK MACHINING APPARATUS
Everard M. Williams and Cecil Paul Porterfield, Pittsburgh, Pa., assignors to Firth Stirling Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application April 20, 1956, Serial No. 579,623
2 Claims. (Cl. 219—69)

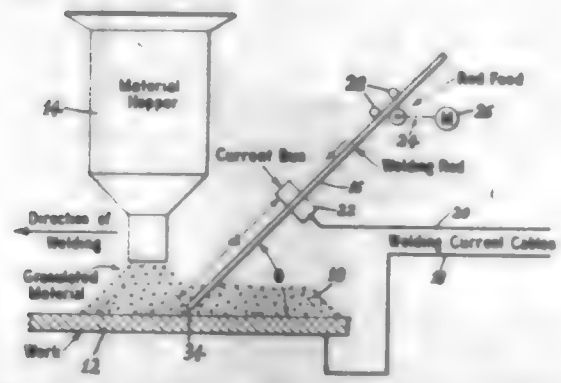


1. For use with an apparatus for performing a spark machining operation on a workpiece including an electrical circuit for applying to the workpiece short time-spaced spark-discharges and further including a motor and means for supporting the workpiece with respect to said motor; the combination comprising an electrode wheel of conducting material having in the face thereof adapted for disposition in juxtaposed relation to the workpiece a plurality of similarly pitched interlaced spiral grooves for the reception of semisolid dielectric material therein when the dielectric material is applied to said wheel face, an electrically conducting mounting disk detachably supporting said wheel and having intimate interface engagement therewith, means for non-rotatively mounting said wheel disk in insulated non-rotative relation upon said motor for rotation thereby, and means connecting said wheel into the spark machining circuit of the apparatus, said last mentioned means including said disk, a slip ring of electrically conductive bearing material fixed in coaxial relation to said wheel upon said disk and electrically connected thereto, and further including a fixed contactor engaging said slip ring and a multiple conductor line connected to said fixed contactor for connecting the same into the spark machining circuit.

2,868,948
METAL ARC WELDING

Watt W. Webb, Boston, Mass., assignor to Union Carbide Corporation, a corporation of New York

Application January 26, 1954, Serial No. 406,298
7 Claims. (Cl. 219—73)

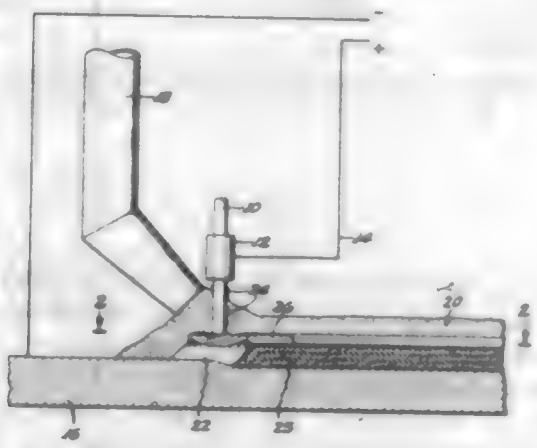


1. Metal arc welding process which comprises applying an arc potential of at least 50 volts between fusible metal work and a rod contact tube the end of which is spaced a substantial distance away from the work surface, feeding a fusible metal rod through said tube toward the work at a speed of at least 50 feet per minute, supplying welding current at such potential so that the current density in such rod is at least 300,000 amperes per square inch, fusing the end of said rod and the adjacent work, and raising the temperature of the portion of the rod between such tube and the end of the rod by resistance heating, the maximum value of such temperature being just below that at which complete and simultaneous fusion of the full length of such portion of the rod occurs.

2,868,949
SUBMERGED ELECTRIC ARC WELDING PROCESS

Hoyt H. Todd, Whittier, Calif., assignor to Western Carbide Corporation, North Hollywood, Calif., a corporation of California

Application April 25, 1956, Serial No. 580,657
11 Claims. (Cl. 219—73)

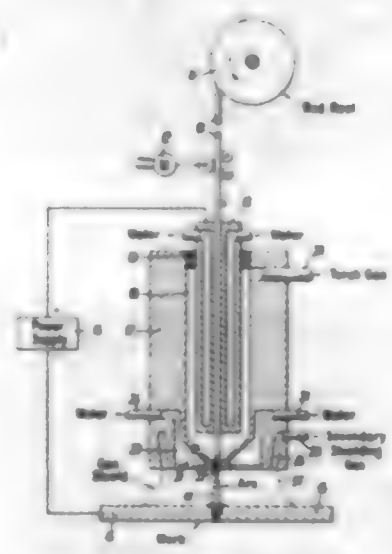


1. A method of applying to a base metal a metal layer of a composition having a magnetic content and a nonmagnetic alloy metal content, characterized by the steps of: placing at least a part of the length of a welding rod in an electric circuit for deposition of the metal of the rod on the base metal by an electric arc, said welding rod comprising a portion of the content of said composition, less than all of the magnetic content and less than all of the nonmagnetic alloy content; finely dividing the remaining nonmagnetic alloy content to form particles; finely dividing the remaining magnetic content to form particles; bonding the nonmagnetic alloy particles and the magnetic particles together to form magnetically responsive clusters of particles; mixing said magnetically responsive clusters of particles with granulated fusible flux material substantially free of substances capable of evolving large amounts of gas at welding temperatures; depositing a layer of the mixture of clusters and fusible flux material on the base metal; creating an arc between the welding rod and the base metal inside said layer to cause the clusters in the layer to be magnetically attracted to the welding rod to form a coating thereon, to cause the metal of the clusters together with the metal of the welding rod to form a molten metal pool at the arc on the base metal, to cause the fusible flux content of the layer to form a molten blanket protecting the arc and the molten metal from the atmosphere; and feeding said welding rod with adhering clusters thereon to the arc while causing relative movement between the welding rod and the base metal with the molten blanket retarding the cooling rate of the deposited metal.

2,868,950
ELECTRIC METAL-ARC PROCESS AND APPARATUS

Robert M. Gage, Indianapolis, Ind., assignor to Union Carbide Corporation, a corporation of New York

Application November 13, 1956, Serial No. 621,878
4 Claims. (Cl. 219—74)



1. Process which comprises drawing a high-pressure arc between the end of an elongated fusible metal electrode and a workpiece, constricting and wall-stabilizing such arc with a nozzle having an orifice through which said arc passes, feeding a suitable arc gas through said orifice with such arc in the direction of said workpiece, melting such end of the electrode into discrete molten droplets which pass with such arc and gas through said orifice from which they are discharged toward said workpiece, and feeding said electrode toward such arc as the end thereof is so melted.

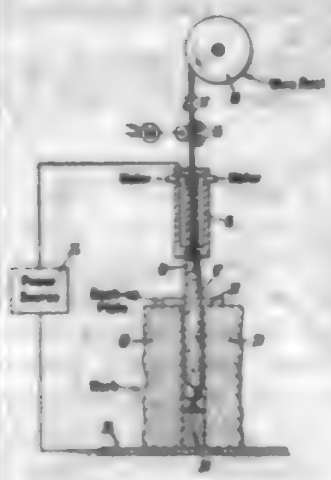
2,868,951
VERTICAL WELDING WITH CONSUMABLE GUIDE TUBE

Harry I. Shrubsall, Scotch Plains, N. J., assignor to Union Carbide Corporation, a corporation of New York

Application March 15, 1957, Serial No. 646,285
3 Claims. (Cl. 219—74)

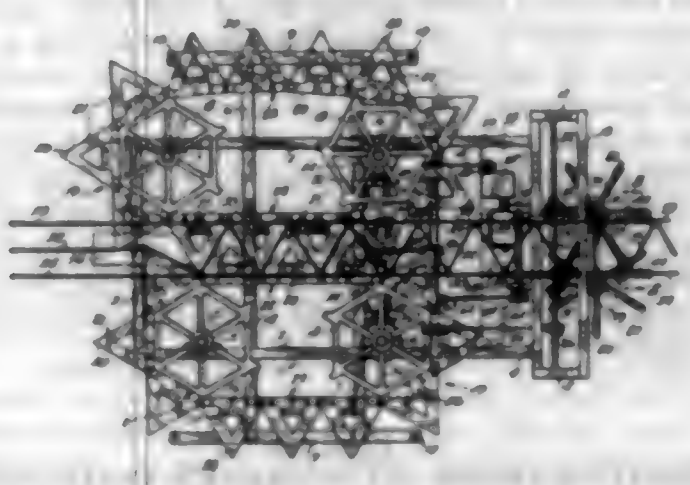
1. Method of electric arc welding which comprises positioning the members to be welded with their edges in parallel spaced relation, positioning in the space between said edges a stationary consumable guide tube having an external coating to insulate it from the weldment and act as a fluxing agent for the weld puddle, positioning restraining members against the outside surfaces of the weldment to form a cavity enclosing said guide tube, passing a consumable welding wire through one end of the guide tube until it emerges at the other end thereof, striking an arc between the emerged end of the welding wire and the adjacent end of at least one of said edges, progressively consuming said guide tube with the wire to

form a weld puddle in said cavity between said edges and between said restraining members, the extent of weld



metal laid down continuing to increase as metal from the wire and tube is added to the weld puddle.

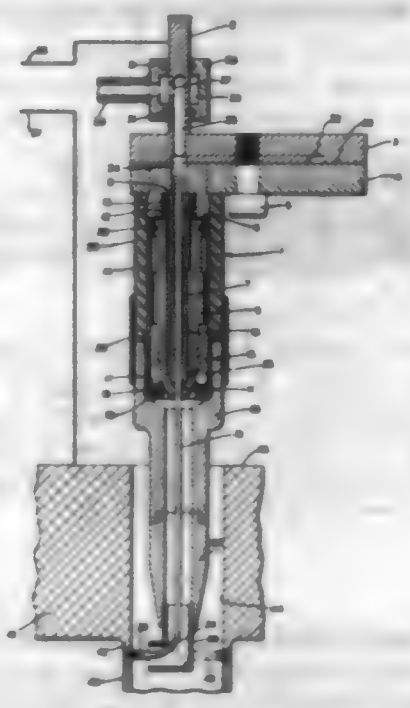
2,868,952
MACHINE FOR FABRICATING METAL STRUCTURE
William E. Schulte and Alfred E. Sorensen, Minneapolis, Minn.
Application March 13, 1956, Serial No. 571,314
7 Claims. (Cl. 219—87)



1. In a machine for making fabricated metal structures, a pair of cooperating forming devices adapted to receive an elongated metallic rod therebetween, each of said forming devices comprising a plurality of tooth-like die elements, means pivotally connecting the die elements of each of said forming devices together to provide endless chains, die elements of each chain thereof intermeshing with cooperating die elements of the other chain thereof, and means for imparting movement to said forming devices to cause said intermeshing die elements to travel in a common feeding direction, engagement of said rod by the intermeshing die elements causing said rod to be bent into generally zig-zag form progressively from one end to the other thereof.

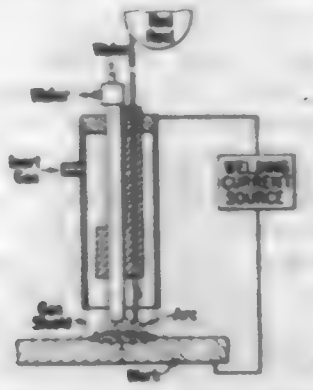
2,868,953
ROTATABLE ARC WELDING TOOL
Raymond Gardner, Jr., Massillon, Ohio, assignor to The Griscom-Russell Company, Massillon, Ohio, a corporation of Delaware
Application March 28, 1957, Serial No. 649,186
8 Claims. (Cl. 219—125)

1. A rotatable arc welding tool including a rotatable spindle, a collet means, means mounting the collet means on the spindle for rotation therewith, means for adjusting the location of the axis of the collet means with respect to the spindle to various selected adjusted concentric and eccentric positions, a welding electrode extending axially of and clamped in various positions of axial adjustment by the collet means, tubular insulating sleeve means through which the electrode extends having nozzle means, the electrode having a tip located adjacent and exteriorly spaced from the nozzle means, and means



for supplying arc shielding gas to said nozzle through said insulating sleeve means during rotation of the collet means with the spindle.

2,868,954
GAS SHIELDED MULTI-ARC WELDING
George M. Skinner and Donald W. Reth, Kenmore, N. Y., assignors to Union Carbide Corporation, a corporation of New York
Application January 10, 1955, Serial No. 480,722
13 Claims. (Cl. 219—130)

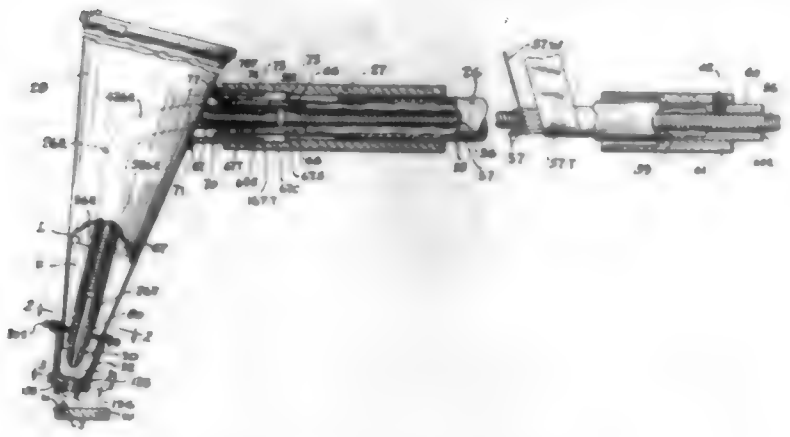


1. Method of gas shielded arc welding with tandem non-consumable and consumable electrodes shielded by a common stream of gas, which comprises alternately striking arcs between said respective electrodes and a workpiece, and moving said tandem electrodes and shielding gas stream along a line of weld.

2,868,955
WELDING APPARATUS
Turner G. Brubeck, Jr., El Cerrito, Calif., assignor to The American Brake Shoe Company, Wilmington, Del., and New York, N. Y., a corporation of Delaware
Original application December 9, 1953, Serial No. 397,181, now Patent No. 2,767,302, dated October 16, 1956. Divided and this application February 16, 1955, Serial No. 490,673
8 Claims. (Cl. 219—130)

1. In a welding apparatus, a hopper for containing magnetizable welding flux and having a discharge opening slightly larger than the welding wire that is to be used, means including a welding tip disposed within said hopper in aligned axially spaced relation to said discharge opening and through which a welding wire may be advanced through the space between said tip and said opening to magnetically attract and thereafter carry a coating of

such magnetizable flux due to the flow of welding current through said welding wire, and to be thereafter fed with its coating of flux through said opening to an extended welding position, said tip being formed of magnetizable material and being magnetized to form north and south



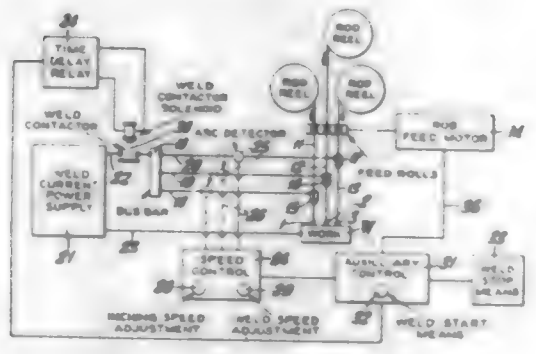
poles spaced longitudinally of and adjacent to the path of the welding wire to magnetize the end portions of such a wire within and outwardly of said opening to prevent undesired flow of such magnetizable flux from said opening and prevent shedding of such flux from the projecting end of the welding wire when the welding circuit is broken.

2,868,956

MULTI-ARC WELDING

Roscoe R. Lobosco, Fanwood, N. J., assignor to Union Carbide Corporation, a corporation of New York

Application April 4, 1956, Serial No. 576,028
14 Claims. (Cl. 219—137)



1. Electric multi-arc welding which comprises establishing parallel arcs between a workpiece and a plurality of electrodes; and energizing such arcs from a common power source connected to all of said electrodes and to such workpiece, respectively; such common power source having an arched volt-ampere characteristic in the usable welding current range of such arcs, in which such electrodes are fed toward such workpiece at different speeds.

2,868,957

METHOD OF INCREASING THE CARBON CONTENT OF DEPOSITS OF IRON-BASE ALLOYS MADE FROM FILLED TUBES

Arthur T. Cape, Los Angeles, Calif., assignor to Coast Metals, Inc., Little Ferry, N. J., a corporation of Delaware

No Drawing. Application October 2, 1956
Serial No. 613,378
4 Claims. (Cl. 219—146)

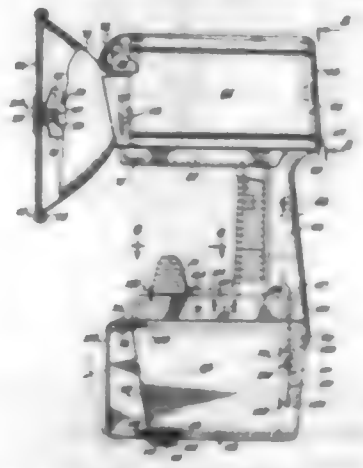
1. A weld rod comprising a steel tube, a filler for said tube comprising ingredients for forming a weld deposit of a hard-facing iron-base alloy, when the filled tube is melted, and including silica in amounts sufficient to prevent substantial loss of carbon in the deposit.

2,868,958

PHOTOGRAPHIC FLASH APPARATUS

William E. Bounds, Hermosa Beach, Calif., assignor to Linelite Corporation, Los Angeles, Calif., a corporation of California

Application October 7, 1954, Serial No. 460,966
9 Claims. (Cl. 240—1.3)



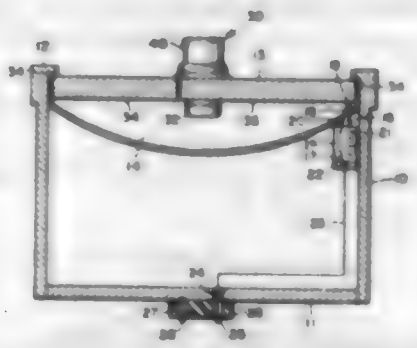
2. In a flash unit for synchronous operation with a camera, the combination of: a housing having a lower forwardly directed longitudinal portion, an upper forwardly directed longitudinal portion spaced above said lower portion, and an upright handle portion interconnecting said two longitudinal portions; a concave reflector mounted on the forward end of said upper housing portion; an electric discharge lamp mounted centrally in said reflector; a circuit for energizing said lamp, including battery means in said lower housing portion and a main capacitor in said upper housing portion, the interior of said lower housing portion being accessible through one end thereof to receive said battery means; and pointed spring contact members mounted in the other end of said housing portion to cooperate with the terminals of said battery means to complete said circuit, the points of said contacts being directed towards said one end to be encountered by battery terminals when the battery means is inserted through said one end.

2,868,959

MOISTURE-PROOF ILLUMINATED INSTRUMENT

Alfred M. Mayo, Palos Verdes Estates, Harold L. Walpole, Redondo Beach, and James P. Nolan, Malibu, Calif., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application June 29, 1955, Serial No. 519,013
3 Claims. (Cl. 240—2.1)



1. An illuminated instrument comprising a hollow hermetically sealed housing, a transparent cover closing one end of said housing and having a transverse opening extending therethrough, a light fixture secured in said opening, a dish-shaped dial mounted in said housing and having a concave face positioned adjacent said cover, said fixture having a hollow cup-shaped portion formed integral with the inner face of the cover and projecting beyond the cover toward said dial, said cup-shaped portion having a circumferential translucent ring-shaped light emitting surface portion adjacent the inner surface of said cover, the remaining central surface of the cup-

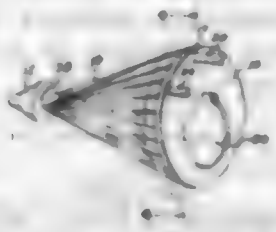
shaped portion extending beyond said cover being substantially opaque, said light fixture including a metal ring bonded to the outside surface of the cover and a cup-shaped metal member capable of supporting a light bulb, a plurality of electrical conductors each of which comprises a thin narrow band-like layer of metallic substance having fusible characteristics and being deposited on the inner surface of said cover in essentially co-linear relationship, means for connecting each of said conductors to a source of electrical energy, each of said conductors having an inner end electrically connected to a corresponding part of said fixture and extending radially outward from said fixture, one of said conductors having a portion extending completely around the outer circumferential surface of said cover, said one conductor portion being fused when subjected to heat to thereby become bonded to the inner surface of said housing to hermetically seal said cover to the housing.

2,868,960

INSTRUMENT DIAL ILLUMINATOR

Arthur V. Appel and Robert E. Lewis, Chicago, Ill., assignors to the United States of America as represented by the Secretary of the Air Force

Application February 7, 1956, Serial No. 564,095
2 Claims. (Cl. 240—2.1)



1. A lighting system for illuminating instrument dials comprising a source of light positioned behind said dials, flexible, plastic light conductors of long, narrow, ribbon-like formation fanned out from said light source, a continuous light receiving surface on said light conductors for receiving light from said light source comprising stacked ends of said light conductors having surface to surface contact, dispersed forward ends on said light conductors, means for receiving light from said forward dispersed ends and diffusing and transmitting it for illuminating said dials, said means comprising a light conducting face plate, a peripheral prism edge on said face plate so angled as to receive light from said light conductors and diffuse it throughout said plate, said plate being provided with openings, edge surfaces in said plate surrounding said openings for transmitting light and illuminating selected portions of said dials.

2,868,961

SEALED BEAM HEADLIGHT MOUNTING

Norbert P. Worden, Detroit, Mich., assignor to C. M. Hall Lamp Co., Detroit, Mich., a corporation of Michigan

Application April 20, 1955, Serial No. 502,680
6 Claims. (Cl. 240—41.5)



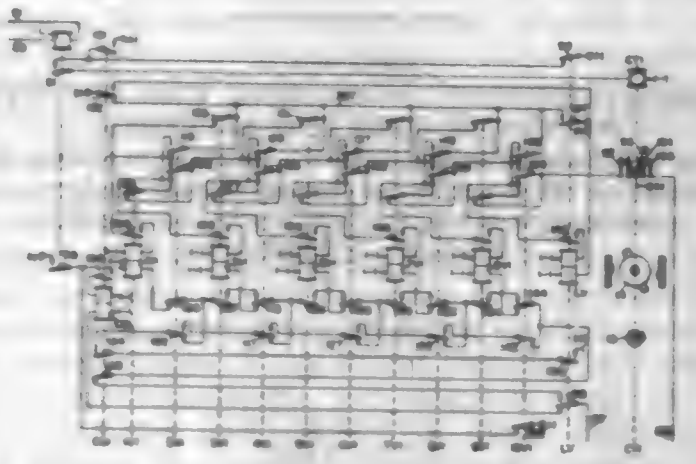
1. In a lamp assembly, a body, a mounting ring movably seated in said body and having an external annular lip, means including said lip for retaining said mounting ring in said body, a lamp unit seated in said mounting ring, a bezel having a circular cylindrical surface portion and a lip engaging said lamp unit, and a plurality of spring clips mounted on said bezel and having hook portions engageable with said external annular lip on said mounting ring, said bezel securing said lamp unit to said mounting ring, said spring clips serving as the sole means for securing said bezel to said mounting ring so that said bezel can be separated from said mounting ring by disengaging said clips.

2,868,962

CODE COMMUNICATION SYSTEMS

Nelson B. Coley, Thomas J. Judge, and Reginald F. Albrighton, Rochester, N. Y., assignors to General Railway Signal Company, Rochester, N. Y.

Application February 27, 1953, Serial No. 339,398
19 Claims. (Cl. 246—5)



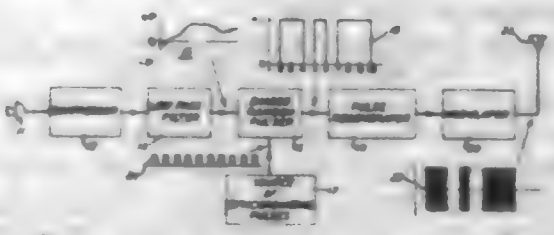
1. A normally at rest code communication system for the communication of control codes from a transmitting station to a receiving station comprising in combination, code determining means at the transmitting station for the selection of respective codes for transmission, code transmitting apparatus at the transmitting station effective in response to said code determining means to transmit a selected control code in the form of a succession of selected code elements, code receiving means at the receiving station having a bank of stepping relays operable to picked up and dropped away conditions and operable to count with one relay per step a predetermined number of steps, circuit means effective for distinctively conditioning said stepping relay by selectively actuating or not actuating said relays subsequent to the respective associated steps being taken in accordance with the character of code element received, and signalling means at the receiving station actuated in accordance with the picked up or dropped away condition of said stepping relays after the stepping has been completed upon the reception of a code.

2,868,963

PULSE PROBABILITY MODULATION SYSTEM

Brockway McMillan, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 20, 1954, Serial No. 451,107
3 Claims. (Cl. 250—6)



1. In a pulse probability modulation system, a source of signals, means for compressing said signals to have

a predetermined peak value, means for limiting the frequency of said signals to a predetermined maximum frequency, means for sampling the compressed limited signal at a rate which is at least five times said maximum frequency, and random quantization means responsive to said source of signals and independent of the random quality of said signals for selecting one of two possible output states in each sampling interval, said random means being biased toward selecting one of said two states with a probability of approximately

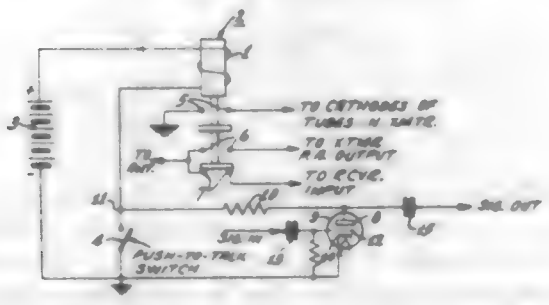
$$\tfrac{1}{2}\left(1+\frac{1}{P}y\right)$$

and being biased toward selecting the other state with a probability of approximately

$$\frac{1}{2}\left(1-\frac{1}{P}y\right)$$

where P is said predetermined peak value and y is the amplitude of said compressed limited signal.

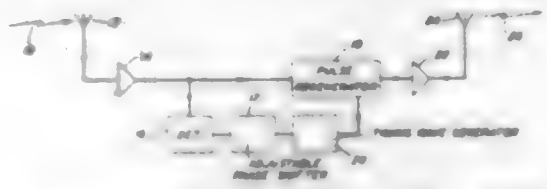
2,868,964
RADIOTELEPHONE SWITCHING CIRCUIT WITH RECEIVER SQUELCH CONTROL
Harry F. Mohr, Flushing, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application June 21, 1955, Serial No. 516,834
3 Claims. (Cl. 250—13)



1. In a transceiver, a changeover relay having a winding and having its contacts so constructed, arranged, and connected that when such relay is energized the transmitter portion of the transceiver is enabled and when such relay is deenergized the receiver portion of the transceiver is enabled; a signal amplifier in said receiver portion biased to conduct in response to the application of a positive unidirectional potential to one of its electrodes and to be cut off in response to the removal of said positive potential from said one electrode, a unidirectional power supply having a positive terminal and a negative terminal; a connection extending from said positive terminal through said relay winding to said one electrode, a pair of switch contacts one connected to said negative terminal and the other connected to said one electrode, and means for closing said contacts, thereby to energize said relay and to also remove positive potential from said one electrode by connecting said one electrode through said contacts to said negative terminal.

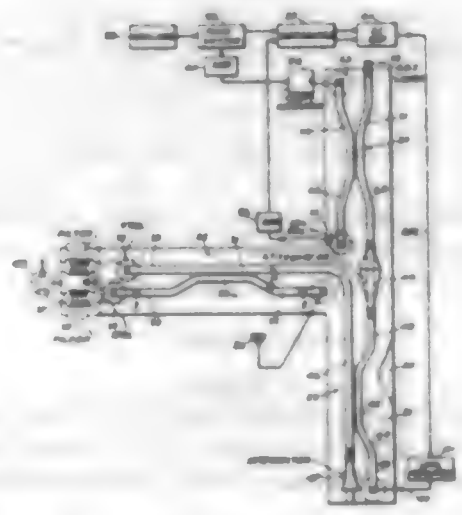
2,868,965
PULSE MODULATION REGENERATIVE REPEATERS
Owen E. De Lange, Rumson, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 11, 1953, Serial No. 397,553
3 Claims. (Cl. 250—15)

1. A pulse regenerating circuit for regenerating the pulses of a pulse modulation system, said circuit including in combination, means for receiving the pulses of said modulation system, two similar transmission paths, means for dividing the energy of said received pulses into two substantially equal portions and directing said energy portions into said two similar transmission paths, respectively, each of said transmission paths including in coupled relation to said path a diode means, the diode means of said two transmission paths being substantially identical with respect to their electrical characteristics, back-biasing means connected to each of said diode means said back-biasing means being adjusted to render both diodes conductive at substantially the half amplitude and thus conductive over a predetermined major portion of each received pulse, additional pulsed biasing means connected to at least one of said diode means to render one of said diode means conductive over a substantially



different portion of each received pulse than the other of said diode means during the occurrence of pulses of said additional biasing means, means for synchronizing the pulses of said last stated means with said received modulation system pulses and means for recombining said energies in opposition after passage through their respective transmission paths whereby a regenerated pulse representing the difference between said recombined energies is obtained at the output of said recombining means whenever a received modulation system pulse is substantially coincident in time with a pulse of said additional pulsed biasing means.

2,868,966
RADIO FREQUENCY RADIO RECEIVER WITH LINE-ABOVE-GROUND DIRECTIONAL COUPLERS AND AUTOMATIC FREQUENCY CONTROL
Maurice Ardiet, Clifton, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application March 26, 1953, Serial No. 344,748
1 Claim. (Cl. 250—20)



In a receiver, a planar conductor, a first parallel conductor section comprising first and second line conductors and means supporting said line conductors in dielectrically spaced, substantially parallel relation with respect to the plane of said planar conductor whereby each line conductor provides in conjunction with said planar conductor a radio frequency transmission path, said line conductors being disposed throughout a given length in close parallel spaced relation to each other so that each line conductor of said given section lies well within the electromagnetic field of the transmission path of the other, detector means coupled to each of said first and second line conductors at one end of said parallel section, a source of radio frequency signals coupled to the remaining end of said second line conductor, an amplifier, means coupling the outputs of the detector means to said am-

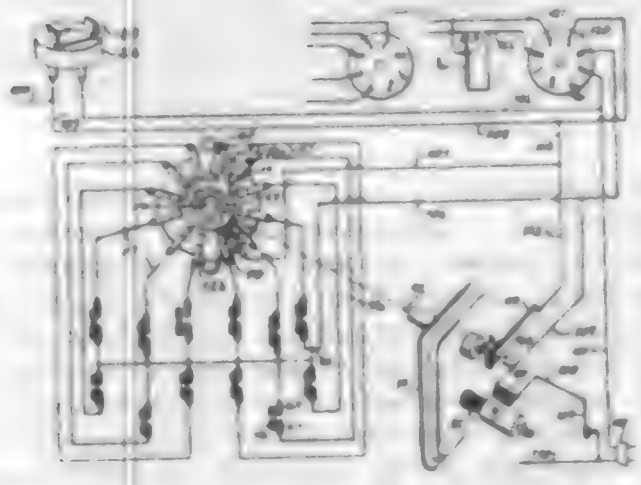
plifier, a local oscillator, a second parallel line conductor section disposed in dielectrically spaced relation to said planar conductor, one of the line conductors of said second section being connected to said local oscillator and the other line conductor of said second section being coupled to the first conductor of said first section, the remaining end of each of the line conductors of said second section being provided with an attenuator, and further including an automatic frequency control circuit having a third parallel line conductor section disposed in dielectrically spaced relation to said planar conductor, a cavity resonator, means coupling one end of one of the line conductors of said third section to said cavity resonator, said third section having a pair of leads, one for each line conductor thereof, a detector, one of said leads being coupled to said detector and the other of said leads being coupled to the line conductor of said second section to which said local oscillator is coupled, an oscillator, a discriminator, a phase shifter coupling the output of said oscillator to said discriminator and to said cavity resonator to provide a reference signal for said discriminator and to modulate the resonant frequency of said cavity resonator, means coupling the output of said detector to said discriminator to derive a control voltage from said discriminator, and means coupling said control voltage to said local oscillator to control the frequency of said local oscillator.

2,868,967

REMOTE CONTROL TUNER

Rocco Poppa, Oak Park, and John L. Hoellerich, Wilmette, Ill., assignors to Admiral Corporation, Chicago, Ill., a corporation of Delaware

Application June 15, 1956, Serial No. 591,629
6 Claims. (Cl. 250—20)



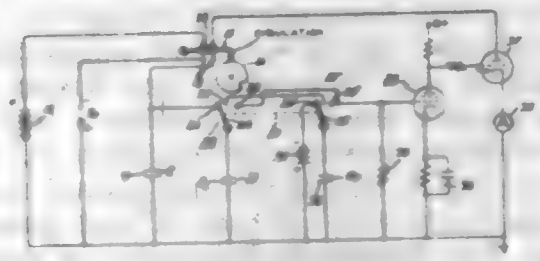
5. A motor driven operating mechanism for driving the selector means on a television tuner wherein said tuner has a rotary shaft which is rotated to different positions to enable any one of a plurality of television stations to be selected comprising a switch means connected to and operable by said rotary shaft, a motor coupled to said shaft, a source of electrical current for operating said motor, circuit connections between said current source and said motor which include said switch means, said switch means being arranged to selectively open the motor circuit when said tuner shaft arrives at a position for any predetermined television station, and shunt switch means connected to said current source in parallel with said first switch means to energize and start said motor independent of said first switch means and independent of the rotational position of said shaft after the motor has been stopped by said first switch means, said first switch means being independent of said shunt switch means so that operation of said shunt switch means does not affect the setting of said first switch means, said shunt switch means being provided with an operating means in alignment with said tuner shaft, said tuner shaft being hollow, and a rod extending through said shaft and operable from the end of the shaft to close said shunt switch means.

2,868,968

LOGARITHMIC TRANSLATING CIRCUIT

Theodore A. Rich, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application February 2, 1953, Serial No. 334,393
9 Claims. (Cl. 250—27)



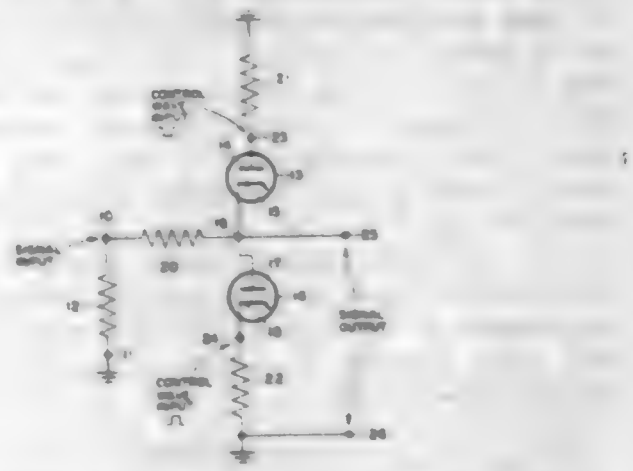
2. A logarithmic tramlating circuit including in combination a first energy storage device including at least a first capacitor having a relatively large capacitance, periodic means for charging said first energy storage device including said capacitor to a selected potential level, a second energy storage device including at least a second capacitor having a comparatively small capacitance relative to said first capacitor, a pair of input terminals adapted to be supplied with a source of energy to be compared, an output circuit responsive to a predetermined level of potential, switching means for cyclically coupling said second energy storage device including said capacitor in circuit relationship with said first energy storage device including said capacitor to reduce the potential level thereon incrementally along an exponential characteristic and alternately to couple said second energy storage device including said capacitor in circuit relationship with said input terminals and the input of said output circuit, said switching means operating at a frequency substantially greater than the frequency of operation of the periodic means for charging the first energy storage device including said capacitor.

2,868,969

DIODE SHUNT GATING CIRCUIT

Clarence F. Imuis, Oxnard, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application April 22, 1953, Serial No. 358,538
1 Claim. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A precise gating circuit for controlling the passage of an input signal in accordance with an applied control wave of substantially rectangular configuration, the said gating action occurring at precisely-determined instants of time regardless of the polarity and magnitude of the said input signal, said circuit comprising a resistive impedance, a pair of diodes, means for applying said input signal through said impedance to the anode of one of said

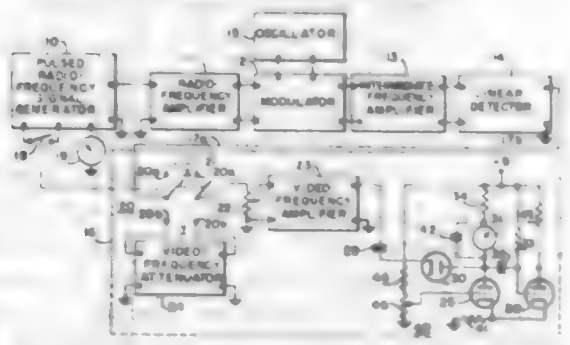
diodes and to the cathode of the other of said diodes, a pair of equivalent resistors each of which is of a substantially lower value than that of said impedance, means connecting the cathode of said one diode to ground through one of said resistors, means connecting the anode of said other diode to ground through the remaining one of said resistors, and means for concurrently applying to the cathode of said one diode and to the anode of said other diode a control wave of substantially rectangular configuration and of bidirectional polarity which is effective to simultaneously render both said diodes electrically nonconductive during one excursion of polarity of said control wave, said control wave being independent of said input signal and having an equal amplitude in each direction of polarity at least as great as the maximum peak-to-peak amplitude of the input signal as applied to said diodes, said control wave acting to preclude conductivity of both of said diodes during the period of its application in its said one excursion of polarity.

2,868,970

SIGNAL-TO-NOISE RESPONSIVE SYSTEM

Robert K. Aitken, Port Washington, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois

Application October 27, 1953, Serial No. 388,519
2 Claims. (Cl. 250—27)



1. A signal-to-noise responsive system comprising: first circuit means including switching means having a first operation position for enabling said first circuit means to supply a noise signal having a predetermined average power; second circuit means including signal-attenuating circuit means and said switching means having a second operating position for enabling said second circuit means to supply a signal comprising attenuated components of said noise signal and periodic-pulse components of adjustable power having intervals of predetermined duration between pulses; and a triggered recurrent-pulse generator selectively coupled to said first circuit means and having a first trigger rate representative of said average noise-signal power or to said second circuit means and having a second trigger rate representative of said average power of said periodic-pulse and noise components during said pulse intervals, said generator being nonresponsive to said noise signal during intervals having a predetermined duration which is substantially equal to that of said intervals between said pulses, and said second trigger rate being adjustable to substantial equality with said first rate in response to adjustment of said average periodic-pulse power during said pulse intervals to provide a predetermined signal-to-noise power ratio.

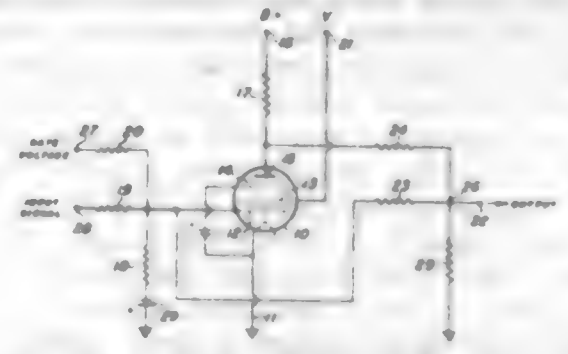
2,868,971

ELECTRONIC GATE CIRCUIT

Carl R. Wischmeyer, Houston, Tex., assignor, by mesne assignments, to Jersey Production Research Company, Tulsa, Okla., a corporation of Delaware

Application June 9, 1954, Serial No. 435,442
3 Claims. (Cl. 250—27)

3. In an electronic gating circuit: an electron tube having at least a cathode electrode, a plate electrode, and a control grid; means for applying a negative bias voltage to said control grid; means for coupling an input signal to said control grid; means for applying a positive gating voltage to said control grid, the application of said input and positive gating voltages being adapted to produce a phase-opposed voltage at said plate electrode; first resistance means connected to said control grid through which said input and gating voltages are conducted, second re-



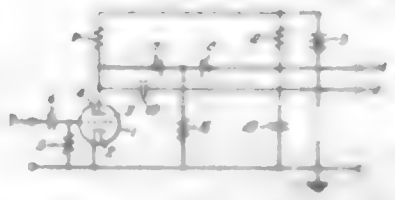
sistance connected to said plate electrode through which said phase-opposed voltage is conducted, said first resistance means and second resistance means being joined together at the output of said electronic gating circuit, the value of said first resistance means and the value of said second resistance means being so chosen that the applied gating voltage and phase-opposed voltage produced by said applied gating voltage cancel one another.

2,868,972

WAVE AMPLIFYING AND GENERATING CIRCUIT

Peter G. Smee, North Syracuse, N. Y., assignor to General Electric Company, a corporation of New York

Application January 5, 1955, Serial No. 479,913
2 Claims. (Cl. 250—27)



1. In combination, a source of unidirectional potential, a resistance and a capacitance connected in series across said source, another resistance and a unilaterally conducting device connected in series in the order recited from the end of said capacitance remote from said one resistance to the other end of said capacitance, said unilaterally conducting device being poled conductive whereby the potential at said other end of said capacitance has a value dependent on the magnitude of said resistances, means for periodically biasing said unilaterally conducting device nonconductive, said means including another unilaterally conducting device having one electrode connected to the junction of said other resistance and said one unilaterally conducting device and being poled to permit current flow to said other resistance in the same direction as said one unilaterally conducting device, means for periodically varying the potential of the other electrode of said other unilaterally conducting device from a potential which renders said other device nonconductive to another potential which renders said other device conductive and said one device nonconductive.

2,868,973

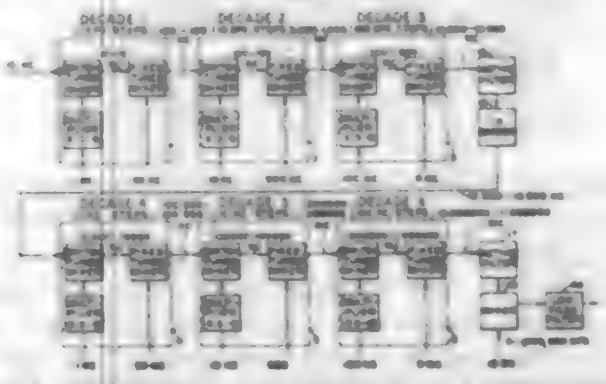
DECADE FREQUENCY GENERATOR

Garold K. Jensen, Pinecrest, Va., and James E. McGeogh, Silver Spring, Md., assignors to the United States of America as represented by the Secretary of the Navy

Application June 17, 1953, Serial No. 362,428
5 Claims. (Cl. 250—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a frequency generator, a signal generator for providing a standard signal, means connected to said

signal generator and responsive to said standard signal for providing a group of signals, a plurality of mixers connected in cascade, means for applying a first and second signal of said group of signals to the first of said plurality of mixers, means for applying each signal of the remaining group of signals to a respective one of the remaining plurality of mixers, a phase discriminator for providing a direct current signal, a frequency oscillator, means for connecting the output of the last of said



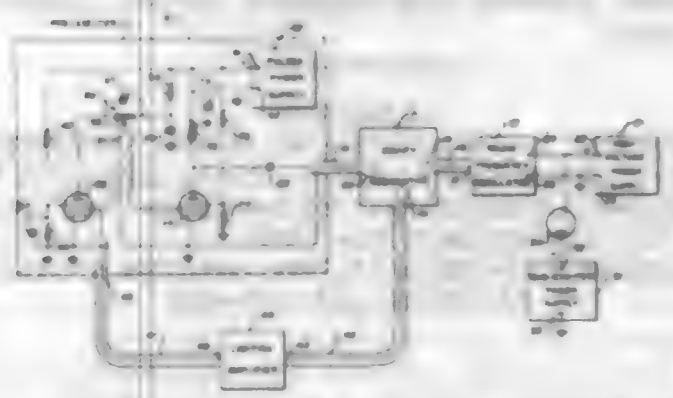
plurality of mixers to the phase discriminator, means for coupling the output of said frequency oscillator to said phase discriminator, means connected between the output of said phase discriminator and said frequency oscillator for substantially eliminating alternating current signals in the output of the phase discriminator and for controlling the frequency of said frequency oscillator in dependency on the magnitude of said direct current signal, an output circuit, and means for connecting said output circuit to the frequency oscillator.

2,868,974

RESONANT CAVITY EXCITATION SYSTEM

William R. Baker and Quentin A. Kerns, Berkeley, and Jack Riedel, San Pablo, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 26, 1954, Serial No. 419,124
3 Claims. (Cl. 250—36)



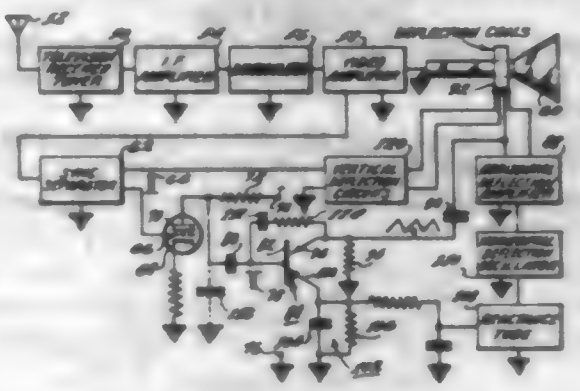
1. In a system for exciting a cavity resonator, the combination comprising a cavity resonator having a predetermined resonant frequency, a high-frequency oscillator coupled to said cavity resonator and adapted to oscillate at said resonant frequency, means coupled to said oscillator for establishing a base level of excitation at said cavity resonator, a power amplifier having an input and an output, means coupled between said cavity resonator and said input for driving said amplifier in response to excitation of said cavity resonator at said base level, means coupled between said output and said cavity resonator for applying a medium value of voltage to the latter at said resonant frequency to increase the excitation of said resonator to an intermediate level, said amplifier being turned off subsequent to the attainment of the intermediate level of excitation in said resonator, and second means connected to said oscillator for establishing a high value of excitation at said cavity resonator while simultaneously disabling said first means, said second means being turned on upon the attainment of said intermediate level of excitation in said cavity.

2,868,975

PHASE COMPARISON SYSTEM

Bernard Harris, Bronx, and Albert Macovski, Massapequa, N. Y., assignors to Radio Corporation of America, a corporation of Delaware

Application April 1, 1954, Serial No. 420,240
9 Claims. (Cl. 250—36)



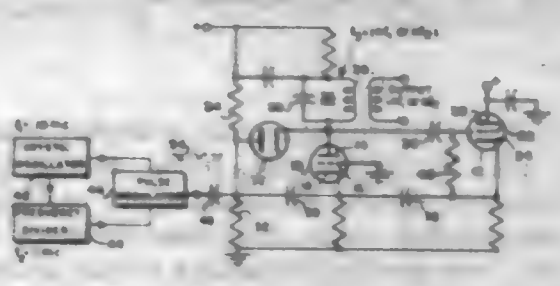
1. In an electrical system including a first source of signals and a second source of signals independent of said first signal source, apparatus for detecting the conditional difference in phase between the signals from said two sources comprising the combination of: a semiconductor amplifier device having a base electrode and a first and a second operating electrodes cooperatively associated therewith; means for applying said first source signals between said base electrode and the first of said operating electrodes, said first source taken with said applying means exhibiting a predetermined driving impedance value and characteristic as viewed from said base electrode; means for capacitively coupling said second source of signals between said first and second operating electrodes; means coupled with said operating electrodes for developing an indicating voltage in response to current flow between said operating electrodes, said indicating voltage representing the phase relation between the signals delivered by said first and second source of signals; and a balancing impedance means exclusive of said indicating voltage developing means connected between said second operating electrode and said base electrode, the electrical characteristics of said balancing impedance being substantially identical to said base driving impedance.

2,868,976

SPECTRUM GENERATOR

Alwin Halmel, Little Silver, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application December 21, 1954, Serial No. 476,859
1 Claim. (Cl. 250—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A spectrum generator comprising a first oscillator operating at a first frequency, a second oscillator controlled by said first oscillator operating at a second frequency that is a subharmonic of the first frequency, a pulse modulator connected to said first and second oscillators and having an output having a repetition frequency equal to the frequency of said first oscillator upon which is superposed the frequency of said second oscillator, a main oscillator operating at a frequency higher than each of said first and second oscillators, and means including said pulse modulator for periodically quenching said main oscillator whereby in the frequency spectrum of the out-

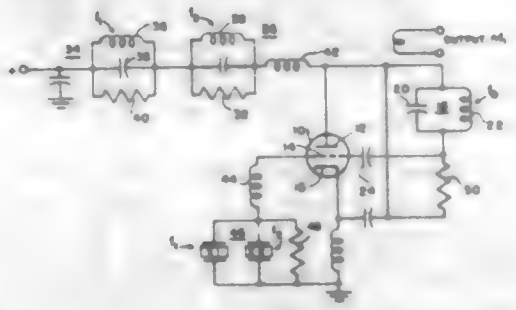
put of said main oscillator the harmonics of the first frequency will have a higher amplitude than the harmonics of said second frequency.

2,868,977

CRYSTAL CONTROLLED SPECTRUM GENERATOR

Alwin Hahnel, Little Silver, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application December 21, 1954, Serial No. 476,860
5 Claims. (Cl. 250—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



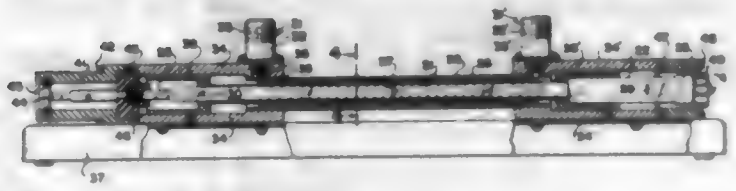
5. A frequency spectrum generator comprising an oscillator having an input and an output circuit and operable at a first frequency, means connected in the output and the input circuits of said oscillator to simultaneously cause the generation of a second and third frequency in said oscillator, the second frequency being substantially a sub-harmonic of said first frequency and the third frequency being a sub-harmonic of said second frequency and means associated with said last named means for determining the relative amplitudes of the energy of said second and third frequencies whereby the output of said oscillator will contain harmonics of said second and third frequencies having a ruler-like amplitude distribution.

2,868,978

TEST APPARATUS

Joseph W. Kearney, East Williston, N. Y., and Warren H. Spencer, Minneapolis, Minn., assignors, by mesne assignments, to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application September 4, 1956, Serial No. 607,834
8 Claims. (Cl. 250—36)



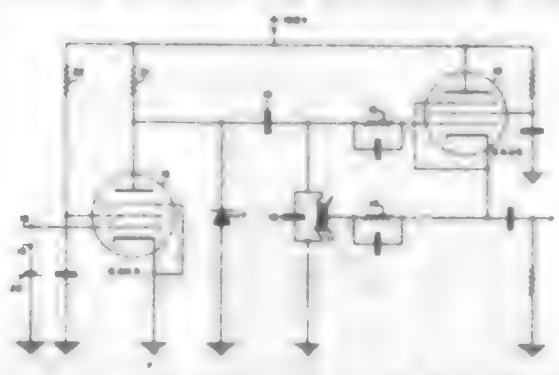
1. A broadband microwave noise generator which comprises a gas discharge tube noise source having a slender elongated section of substantially uniform diameter, an ungrounded single conductor helix of uniform diameter and turn spacing forming a helical transmission line and positioned to encircle said slender elongated section in closely adjacent relationship and extending therealong a length large compared to the diameter thereof, the distance around one turn of the helix being not greater than approximately a half wavelength at the highest frequency in the operating range of the noise generator and the extended length of the conductor forming the helix being at least approximately a half wavelength at the lowest frequency in the said operating range, whereby tight coupling and substantial impedance match between the gas discharge in said tube and said helical line may be obtained, and a helical-to-coaxial transmission line transition at one end of said helical line.

2,868,979

VARIABLE REACTANCE TUBE CIRCUIT

Garold K. Jensen, Alexandria, Va., and James E. McGeogh, Silver Spring, Md., assignors to the United States of America as represented by the Secretary of the Navy

Application October 31, 1956, Serial No. 619,647
6 Claims. (Cl. 250—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



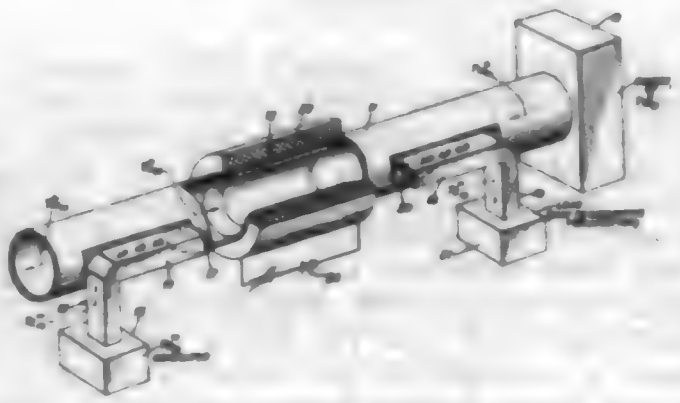
1. Apparatus for producing a controllable frequency signal, comprising an oscillator having a reactive frequency determinative element, a secondary reactive element, a unilateral energy flow variable resistance device having anode and cathode elements, said device being connected in series with said secondary reactive element operative to control the energy flow in said secondary reactive element, means connecting said device and said secondary reactive element across at least part of said reactive frequency determinative element, and a unilateral energy flow impedance device, said unilateral energy flow impedance device having anode and cathode elements, the anode element thereof being directly connected to the cathode element of the variable resistance device and the cathode element being directly connected to the anode element of the variable resistance device whereby the unilateral energy flow impedance device becomes conductive whenever the potential of the anode of the variable resistance device becomes negative with respect to the cathode of the variable resistance device to effectively maintain said secondary reactive element in the circuit.

2,868,980

FREQUENCY CHANGER AND WAVE AMPLIFIER

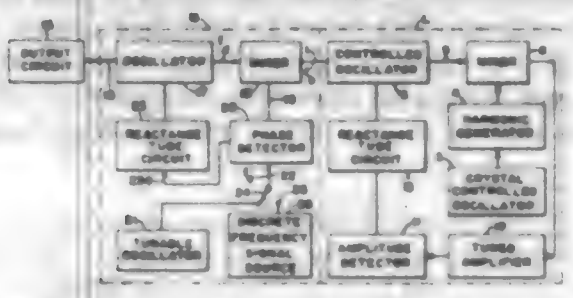
George C. Southworth, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 13, 1956, Serial No. 628,184
10 Claims. (Cl. 250—36)



7. In an electromagnetic wave transmission system a length of wave guiding transmission line, an element of gyromagnetic material disposed in said line, means for magnetically biasing said element, a source of transverse electric waves directively coupled to said line on one side of said element for propagating transverse electric waves toward said element, and a source of transverse magnetic waves directively coupled to said line on the other side of said element for propagating transverse magnetic waves toward said element.

2,868,981
SIGNAL PROCESSING ARRANGEMENT
John P. Costas, Fayetteville, N. Y., assignor to General Electric Company, a corporation of New York
Application March 15, 1957, Serial No. 646,430
10 Claims. (Cl. 250—36)



1. In combination, a source of a signal of highly stabilized frequency f_a means responsive to said f frequency signal for providing at least to signals f_a and f_c of substantially the same high stability but of different frequency, a controllable source of a signal of frequency f_b, means for multiplying said signals of frequency f_a and f_c with said signal of frequency f_b to derive a resultant signal of frequency dependent upon the multiplication products f_b-f_a and f_c-f_b, means for amplitude detecting said resultant signal, and means responsive to said amplitude detected resultant signal for controlling the frequency f_b of said signal from said controllable oscillator to be

$$\frac{f_a+f_c}{2}$$

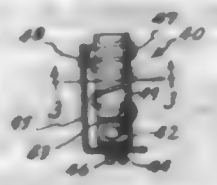
2,868,982
VERY HIGH FREQUENCY TUNER
Reuben C. Carlson, River Grove, Ill., assignor to Admiral Corporation, Chicago, Ill., a corperation of Delaware
Application February 23, 1954, Serial No. 411,718
13 Claims. (Cl. 250—40)



1. A V. H. F. tuner having a chassis forming a cradle for supporting a rotor member, said rotor member being rotatably mounted on said chassis and comprising a shaft member extending longitudinally through said chassis, a rigid end disk member secured to said shaft member, a resilient flexible end disk member secured to said shaft member in spaced relation to said rigid end disk member, each of said end disk members having a plurality of openings therein spaced apart around the shaft and closed at the periphery of the disk, a second rigid disk member secured to said shaft intermediate said end disk members, said second rigid disk member having a plurality of openings therein which are spaced apart around the shaft and which are open at the periphery of the disk, and a plurality of rotor contact blocks having reduced opposite ends which are received in said openings in the end disks, said rotor contact blocks between their ends being seated in said slots in the second rigid dink member.

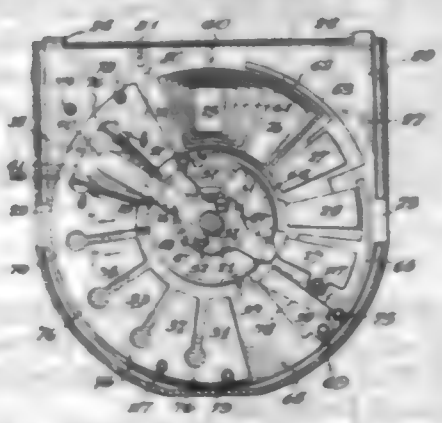
2,868,983
ULTRA-HIGH FREQUENCY STRUCTURES
Arthur Lee Ketchum, Park Ridge, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application May 5, 1954, Serial No. 427,737
4 Claims. (Cl. 250—40)

1. A resonant structure for ultra-high frequency signals comprising a hollow elongated ceramic form having a high dielectric constant, a first capacitor electrode positioned at one end only and outside of said ceramic form, a second capacitor electrode consisting of a movable core inside said form, a portion of said ceramic form as the dielectric between said first and second electrodes,



coil means supported upon said ceramic form beyond said first capacitor electrode and dielectric means having a low power factor compared to the power factor of said ceramic core being interposed between said coil means and said ceramic form to separate said coil means from said ceramic form by a predetermined distance.

2,868,984
CAPACITIVE CONTACTOR TUNER FOR VERY HIGH RADIO AND TELEVISION FREQUENCIES
Louis E. Coutermash, Norwalk, and Francis G. Mason, Weston, Conn., assignors to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois
Application February 28, 1955, Serial No. 490,854
6 Claims. (Cl. 250—40)

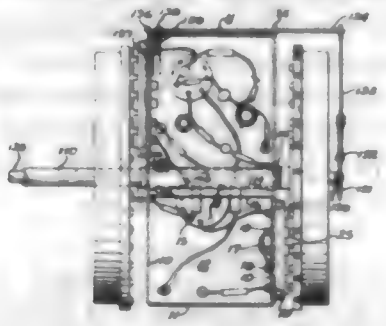


5. A tuner for a plurality of high frequency channels, said tuner comprising a flat insulating plate having an aperture therethrough, a thin metal disc-like ring adherent to said plate around said aperture, a thin insulating coating over said ring, a tuning element rotatable in said aperture and having a metal disc-like element overlying said ring and capacitively coupled thereto, a metal radial arm connected to said disc-like element, a metal slider on the outer end of said arm and movable therewith along one surface of said plate in a circular path, a plurality of thin metal plate-like angularly spaced segmental electrodes adherent to said plate along said circular path and constituting channel electrodes corresponding sequentially to the high frequency channels to be covered, a thin insulating coating over said electrodes, said slider being movable into capacitive coupling relation with each of said electrodes in turn, an inductance coil connecting said electrodes sequentially in series and comprising a plurality of conductive ribbons adherent to said plate and extending between the successive electrodes, one of said ribbons being a spiral coil element connected between two of said electrodes, and a tracking vane pivotally mounted on said plate adjacent said spiral coil for varying the inductance thereof.

2,868,985
DUAL DISC TURRET TUNER WITH CHASSIS CENTRALLY DISPOSED BETWEEN DISCS
Reuben C. Carlson, River Grove, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application August 15, 1955, Serial No. 528,262
13 Claims. (Cl. 250—40)

1. A television tuner comprising support means rotatable about an axis of rotation and including a pair of

insulation supports spaced apart along said axis of rotation, tuning circuit components carried by said support means, a metal chassis positioned in the space between said insulation supports, fixed circuit components carried by the chassis, a first set of switch contacts carried by the chassis and facing outward in one direction at one side of the chassis in confronting relation to one of said insulation supports, a first plurality of switch contacts carried by said one insulation support and positioned to engage the contacts of said first set selectively depending upon the position to which said support means is turned, a second set of switch contacts carried by the chassis



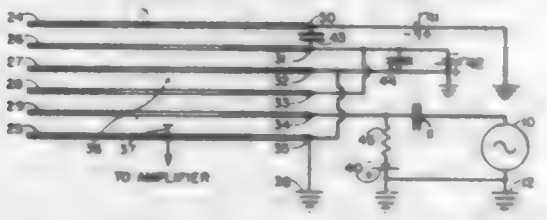
and facing outward in the opposite direction at the opposite side of the chassis in confronting relation to the other of said insulation supports, a second plurality of switch contacts carried by said other insulation support and positioned to engage the contacts of said second set selectively depending upon the position to which said support means is turned, connections from said fixed circuit components to said first and second sets of switch contacts, and connections from said tuning circuit components to said first and second plurality of switch contacts.

2,868,986

ION RESONANCE MASS SPECTROMETER

Keith P. Lanneau and Lloyd H. Lane, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 8, 1954, Serial No. 435,160
5 Claims. (Cl. 250—41.9)



1. A mass analyzing instrument including an analyzer chamber, means for ionizing samples of matter introduced into said chamber, means for producing a magnetic field across said analyzer chamber, means for producing a concentrated alternating electric field gradient normal to said magnetic field across substantially only an asymmetrically disposed elemental region of said analyzer chamber, said alternating electric field having a frequency of alternation corresponding to the natural frequency of ions possessing a certain mass whereby such ions may be accelerated in spiral paths, means for collecting the ions thus accelerated, and means for removing ions having an undesired natural frequency from the region of said crossed magnetic and alternating electric fields.

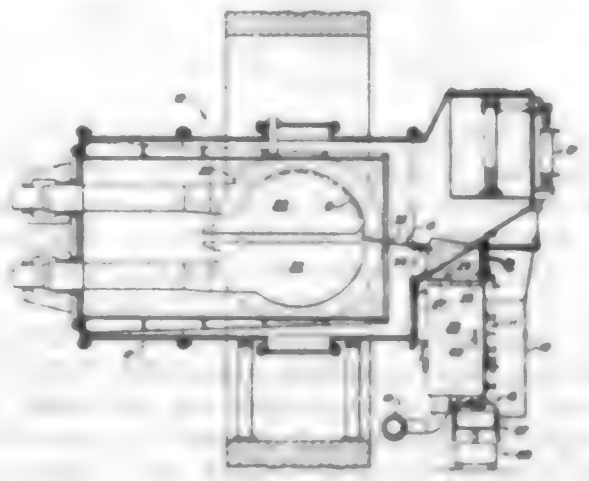
2,868,987

LIQUID TARGET

William W. Salsig, Jr., and Marvin D. Martin, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application January 3, 1952, Serial No. 264,724
10 Claims. (Cl. 250—43)

1. In a liquid target assembly for a particle accelerator the combination comprising, piping means formed in a closed loop and adapted to extend into a beam of particles from a particle accelerator, said piping means having liquid inlet and outlet ports, a drain lock chamber communicating with the liquid outlet port of said piping means and having an aperture therein for draining said piping means, closure means connected to said drain lock chamber and movable between open and closed positions relative to the aperture in said drain lock chamber, and a drain tank having an inlet tube thereon and being movable with respect to said drain lock chamber and piping



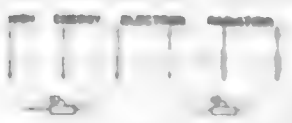
means, said drain tank inlet tube having a removable cap thereon and being formed to be inserted in the aperture in said drain lock chamber, said closure means engaging the inlet tube of said drain tank when same is inserted in the aperture in said drain tank and uncapping said tube upon insertion thereof to provide communication between said piping means and said drain tank and recapping said tube upon retraction thereof whereby the interior of said drain tank is open only to communicate with said piping means and is closed to external atmosphere.

2,868,988

METHOD OF REDUCING TRANSIENT REVERSE CURRENT

William Miller, Alexandria, Va., assignor to the United States of America as represented by the Secretary of the Navy

Application December 22, 1955, Serial No. 554,903
2 Claims. (Cl. 250—49.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. The method of reducing transient reverse currents of a semi-conductor diode which comprises bombarding said semi-conductor diode with 2 m. e. v. electrons that pass completely through the diode for a period of approximately 75 seconds with a current of 0.5 μa./cm.^{2}.

2,868,989

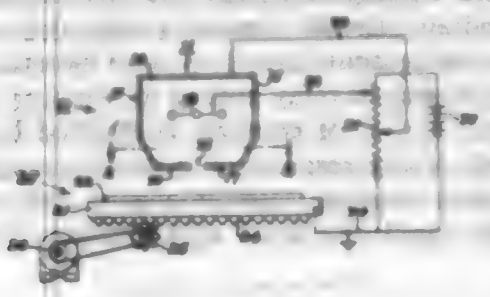
ELECTROSTATIC CHARGING METHOD AND DEVICE

Alfred C. Haacke, Rochester, N. Y., assignor to Haloid Xerox Inc., Rochester, N. Y., a corporation of New York

Application January 3, 1956, Serial No. 556,930
5 Claims. (Cl. 250—49.5)

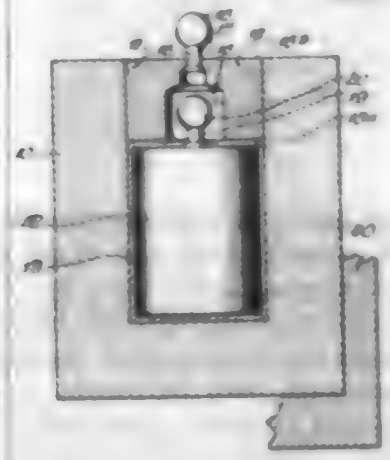
4. A method of depositing uniform charge density increments on a surface comprising creating ions in air adjacent to a surface to be charged, and applying an intense directionalized electric field between said created ions and

said surface to be charged to cause ion impingement at the surface along perpendiculars to the surface and



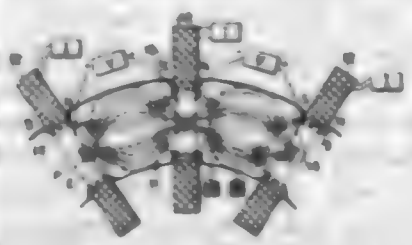
charge deposition on the surface substantially independent of charge variations existing at the surface.

2,868,990
NEUTRON SOURCE
William A. Reardon, Park Forest, David H. Lennox, Chicago, and Robert G. Nobles, Lemont, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application December 12, 1955, Serial No. 552,668
4 Claims. (Cl. 250—84.5)



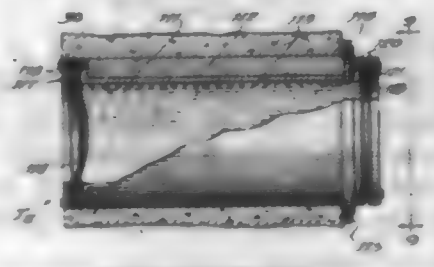
1. A neutron source comprising, in combination, a solid mass of beryllium having a cylindrical recess extending therein from one surface thereof, a cylinder composed at least partially of antimony-124 slidably disposed within the cylindrical recess, a fluid-tight aluminum casing disposed about the antimony cylinder, a beryllium plug slidably disposed in the recess to completely enclose the antimony cylinder in beryllium, said beryllium plug having a recess adjacent to the antimony cylinder, and a stud attached to the antimony cylinder protruding into the recess of the plug.

2,868,991
HIGH ENERGY GASEOUS PLASMA CONTAINMENT DEVICE
Vernal Josephson, Palos Verdes Estates, Calif., and Jay E. Hammel, Los Alamos, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application October 8, 1957, Serial No. 689,010
3 Claims. (Cl. 250—84.5)



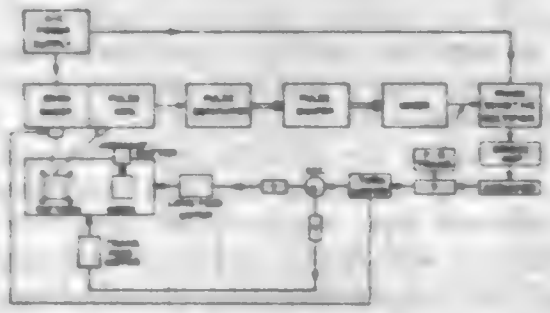
1. A device for producing neutrons comprising a hollow torus, a plurality of flat hollow electromagnets surrounding said torus and being circumferentially spaced one from another, an annular electrode in said torus supported in the plane of each electromagnet, means for energizing said electromagnets in like polarity sense to create continuous magnetic lines of force in said torus, means for impressing potentials of opposite polarity on each adjacent pair of electrodes, and means for producing a pure deuterium atmosphere at a pressure of between 10 and 100 microns in said torus.

2,868,992
REACTOR VIEWING APPARATUS
George S. Monk, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application February 12, 1945, Serial No. 577,381
9 Claims. (Cl. 250—108)



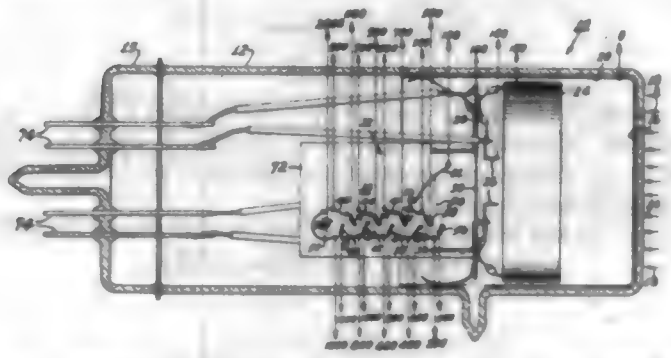
1. A radiation absorbing optical system for viewing radioactive objects comprising a viewing tube flanged at each end, a lens at one flanged end of said tube, said lens being made of a polymerized organic material selected from the group consisting of methyl methacrylate, styrene, cyclohexyl methacrylate and mixtures thereof, means for maintaining said lens in liquid-tight contact with said flanged end of the tube, a radiation absorbent light transparent solid member at the opposite flanged end of said tube, means for maintaining said transparent member in liquid-tight contact with said opposite flanged end of the tube, a transparent aqueous liquid within said tube, a shield surrounding said tube between said flanges, said shield having outside dimensions at least equal to those of the flanges and comprising a gamma ray absorbing material.

2,868,993
APPARATUS FOR REPRODUCING A PATTERN OUTLINE
Robert L. Henry, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Co., Cincinnati, Ohio, a corporation of Ohio
Application August 7, 1953, Serial No. 372,827
31 Claims. (Cl. 250—202)



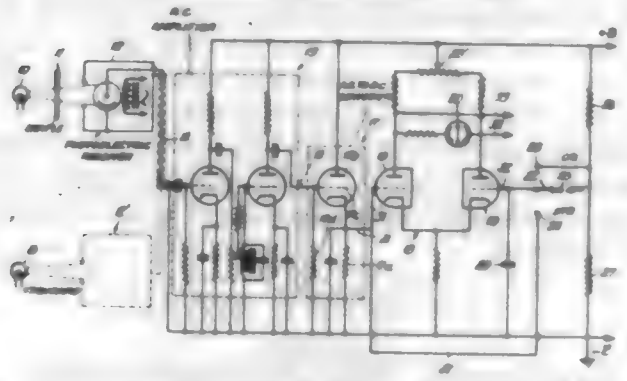
1. An apparatus for automatically reproducing the shape of a line on a pattern comprising a cathode ray tube, means for causing the electron beam of said tube to be swept back and forth along a predetermined path to form a moving light spot on the screen of said tube, means for projecting the image of the light spot on said pattern, power operated means for effecting relative movement between said cathode ray tube and said pattern, light-sensitive means for producing an electrical impulse each time the image crosses the line, and means controlled by the phase relationship of said impulses for controlling said power operated means to keep the path of the image centered on the line.

2,868,934
ELECTRON MULTIPLIER
Robert H. Anderson, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application October 24, 1955, Serial No. 542,233
8 Claims. (Cl. 250—207)



1. An electron multiplier comprising a plurality of electron-emitting dynodes and a non-emissive auxiliary electrode adjacent to and in advance of each dynode and constituting, in effect, a continuation of the surface thereof, and means connected to each auxiliary electrode for applying a separate potential thereto.

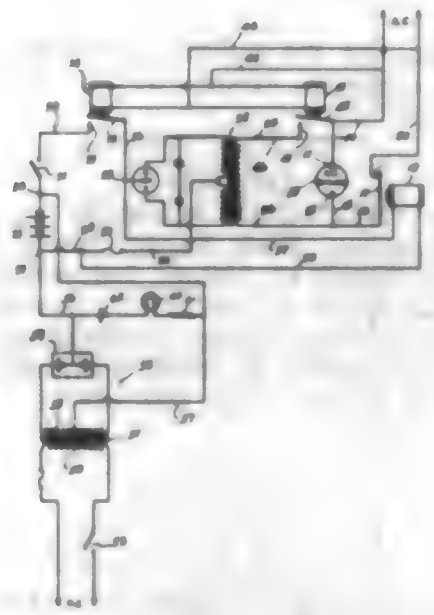
2,868,995
NULL INDICATING PHOTOMETER
Lawrence C. Kelsey, Chicago, and Stanton H. Petry, Arlington Heights, Ill., assignors to W. M. Welch Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application May 20, 1955, Serial No. 509,775
6 Claims. (Cl. 250—210)



1. A photometric system to indicate variations in external received light from a desired standard light value comprising, an external light source to emit a beam of variable value, a standard light source to emit a beam of standard value, a photoelectric receiver unit arranged to be photoelectrically energized, in common and non-currently, by said external light and by said standard light, thereby to originate respective signal and standard voltages, an amplifier having a grounded terminal and supplied by said receiver unit and adapted to provide unidirectional voltages the magnitude of which are functions respectively of the voltages applied by said receiver unit, and a bridge device having grid controlled electric valves in adjacent legs, circuit means commonly connecting the grids of said electric valves to said amplifier including a switch for disconnecting one grid from said amplifier, and a capacitor connected between said one grid and ground, which switch in closed position connects said one grid to said amplifier for charging said capacitor and in the open position disconnects said one grid from said amplifier whereby the voltage applied to said one grid is determined by the charge on said capacitor.

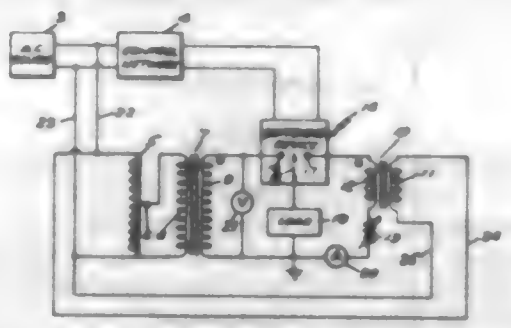
2,868,996
POWER SUBSTITUTION CIRCUIT
Harold Eugene McCord, Bremerton, Wash.
Application May 10, 1957, Serial No. 658,356
1 Claim. (Cl. 307—64)

A power supply substitution circuit comprising a source of alternating current, a pair of load terminals, a battery, an alternating current inverter, a relay having its winding connected to said source, a pair of contacts controlled by said relay and closing responsive to the de-energization of said winding, circuit means connecting said load terminals to the output circuit of said inverter through said contacts, a second relay having its winding connected to said source, a pair of contacts controlled by said second relay and closing responsive to the de-energization of said last-named winding, circuit means connecting the battery to the input circuit of said inverter through said



last-named pair of contacts, a third relay having its winding connected in parallel with the input circuit of the inverter, a pair of contacts controlled by said third relay and opening responsive to energization of said last-named winding, and means connecting said last-named contacts in circuit between said load terminals and said source of alternating current, whereby said load terminals are isolated from said alternating current source responsive to the connection of the battery to the input circuit of the inverter.

2,868,997
SWITCHING CIRCUITS
Walter Bert Mitchell, Natick, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application May 13, 1958, Serial No. 734,951
11 Claims. (Cl. 307—75)



11. A relay switching circuit including, in combination, a source of alternating excitation; a first supply means connected to said source for providing a high output voltage at a low current having alternating positive and negative half cycles; a second supply means connected to said source for providing a low output voltage at a high current having alternating positive and negative half cycles in phase with said first output voltage; a plurality of diode rectifiers; relay means comprising a coil connected to said excitation source, a plurality of output contacts; a first quantity of said output contacts connected to a first group of said diode rectifiers, a second quantity of output contacts connected to a second group of said diode rectifiers, and a center contact connected to said second supply means; a plurality of impedance means

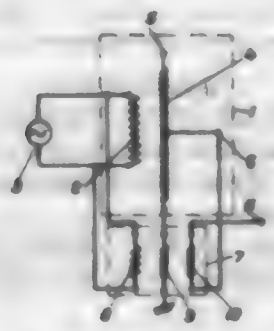
connected between said first supply means and said output contacts; means connected to said coil for adjusting the phase of said alternating excitation to such coil whereby said center contact is alternately connected to said first quantity of output contacts during the said positive malf cycles and to said second quantity of output contacts during said negative half cycles; beans for adjusting the value of said high curent being supplied from said second supply means; and means for adjusting the value of said high voltage from said first supply means.

2,868,958

HIGH VOLTAGE POWER TRANSMISSIONS

Emil Stenkvist, Ludvika, Sweden, assignor to Allmanna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a Swedish corporation

Application March 27, 1956, Serial No. 574,217
Claims priority, application Sweden March 30, 1955
1 Claim. (Cl. 307—83)



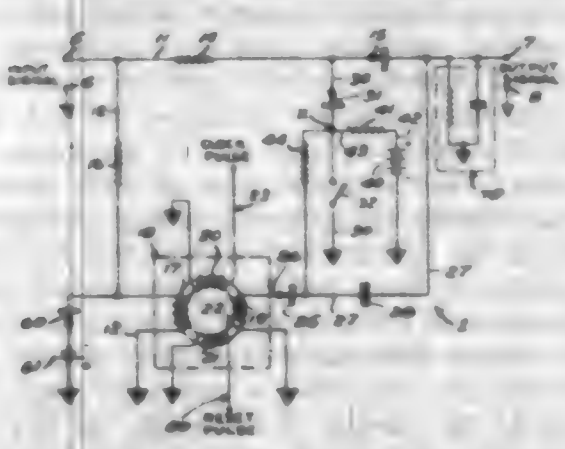
A transformer device for high tension transmitting systems, comprising a main transformer having a primary winding and a secondary winding with a tapping, means for connecting said secondary winding to a high tension transmitting line, a terminal for a local power consumption network, an additional transformer having a primary winding connected in parallel with the primary winding of the said main transformer and having a second winding in series with the said secondary winding of the main transformer on the low tension side and having a third winding which is inserted in a counteracting manner between the tapping on the secondary winding of the main transformer and the terminal for the local power consumption network.

2,868,999

"EXCLUSIVE OR" GATE

Alan R. Garfinkel, Forest Hills, and Stanley Oken, Utica, N. Y., assignors to The Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware

Application April 24, 1957, Serial No. 655,439
6 Claims. (Cl. 307—88)



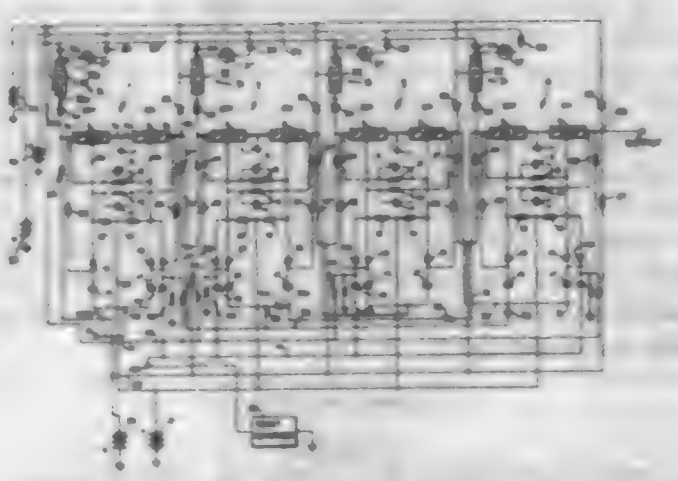
1. A signal gating system having a pair of input terminals and a pair of output terminals and comprising a circuit including two branch circuits, the first branch circuit including a first resistor and a first unidirectional device connected in series between one input and one output terminal, the second branch circuit being connected across said pair of input terminals, a magnetic core of a material having a substantially square loop characteristic, an input winding, a clock winding, a reset winding, an output winding, said windings being disposed on said magnetic core, the said output winding being wound in opposite sense to the said input winding, said input winding being included in the second branch circuit, a second unidirectional device, said output winding being connected in series with said second unidirectional device, said series combination of said output winding and said second unidirectional device being connected across said pair of output terminals, said clock winding being adapted to receive pulsating signals and sensed to induce a flux in said magnetic core in opposition to the flux induced by the said input winding, said reset winding being also adapted to receive pulsating signals, said reset winding being sensed to induce a flux in said magnetic core which is opposite to the flux induced by the said clock winding, a shunting branch circuit connected to said first branch circuit at the junction between said first resistor and said first unidirectional device, said shunting branch including a third unidirectional device and a switch in series connection, a D. C. voltage source, a second resistor connected in series with said D. C. voltage source, the series combination of the said second resistor and the said D. C. voltage source being connected to said shunting circuit at the junction between said third unidirectional device and said switch and a third resistor connected between the junction of said third unidirectional device and said switch in said shunting branch and the junction of the said second unidirectional device and said output terminals, said first and third unidirectional devices being poled away from the said first resistor and said second unidirectional device being poled away from said output winding.

2,869,000

MODIFIED BINARY COUNTER CIRCUIT

George D. Bruce, Wappingers Falls, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application September 30, 1954, Serial No. 459,384
4 Claims. (Cl. 307—88.5)



1. An electronic counter comprising at least one binary trigger stage including two alternately conducting translating devices, a common input terminal, means including separate capacitors connecting said common input terminal and the respective translating devices; means effective to switch said devices from one conducting condition to the alternate condition in response to input signal pulses of a predetermined polarity, and an output terminal whose potential is controlled by the conducting condition of one of said devices; a latch stage comprising a counting translating device, a transmitting translating device, two input terminals, an output terminals, means connecting the respective input terminals and the translating devices, and means cross-connecting the outputs and inputs of the translating devices so that the devices are alternately conducting;

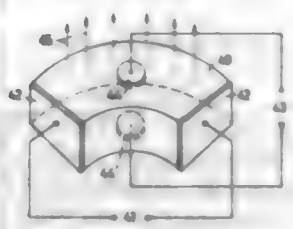
means connecting the output terminal of the trigger stage to the input terminal of the transmitting translating device of the latch stage; and means for establishing at an integer other than a power of two the number of input pulses required to produce an output pulse at said latch stage output terminal, said establishing means comprising a diode in said trigger stage connected between the common input terminal thereof and one of the capacitors and poled to pass signal pulses of said predetermined polarity, means including a resistor connecting the counting translating device in the latch stage and the junction of the diode and its associated capacitor, said last-named connecting means being effective when said counting device is in one only of its states of conductivity to bias the diode so as to block input signals entering said one trigger stage, and a connection between the common input terminal of said one trigger stage and the input terminal of the counting translating device in the latch stage, said connection being effective to transmit an input signal blocked from said one trigger stage to the latch stage where it is effective to switch the latch stage and produce an output signal there.

2,869,001

SEMICONDUCTOR DEVICES OF NON-LINEAR CURRENT-VOLTAGE CHARACTERISTIC

Heinrich Welker, Erlangen, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Erlangen, Germany, a corporation of Germany

Application March 17, 1955, Serial No. 495,007
Claims priority, application Germany March 18, 1954
8 Claims. (Cl. 307—88.5)



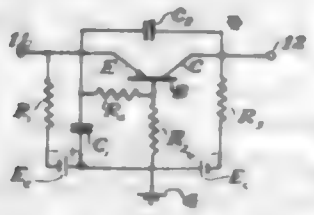
2. An electric semiconductor device of non-linear current-voltage characteristic, comprising a substantially intrinsic semiconductor member having an outer peripheral surface of a substantially uniform curvature, two terminal electrodes mounted on said member and spaced from each other for passing through said member an electric current to be controlled, means for producing a magnetic field in said member, said member being oriented relative to said magnetic field so that the plane of said curvature is substantially perpendicular to the direction of said magnetic field.

2,869,002

TRANSISTOR FREQUENCY DIVIDERS

Jacob George Sperling, Great Neck, New York, assignor to Emerson Radio & Phonograph Corporation, Jersey City, N. J., a corporation of New York

Application May 25, 1955, Serial No. 511,072
6 Claims. (Cl. 307—88.5)



1. A pulse frequency divider circuit for deriving from an input pulse wave of predetermined pulse repetition frequency, an output pulse wave of smaller pulse repetition frequency, comprising a transistor having a base, a collector and an emitter, a common ground terminal, a base resistor connected between said base and said common ground terminal, an input circuit coupled between said ground and said emitter and including an input terminal connected to said emitter, a timing capacitor coupled between said emitter and said ground, and a source of bias voltage and an input resistor series coupled between said emitter and ground, an output circuit coupled between said collector and ground and including an output terminal coupled to said collector and a source of collector voltage and an output resistor series coupled between said collector and ground, and a further capacitor directly coupling said emitter to said collector, the timing constants of the circuits of said capacitors being proportioned to disable said transistor for an interval following an input portion of said input pulse wave which interval is larger than the periodicity of said input pulse wave.

2,869,003

CORROSION RATE METERING SYSTEM

Glenn A. Marsh and Edward Schaschl, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application July 25, 1957, Serial No. 674,164
7 Claims. (Cl. 307—95)



1. An apparatus for investigating the current density-corrosion rate relationship to determine the minimum current density required for maximum efficiency in a cathodically-protected, metallic structure exposed to an electrolytic environment which comprises a specimen holder for retaining a pair of metallic specimens in contact with the corrosive environment, said specimens being substantially identical in composition with the metallic structure and comprising a corrosion-resistant metallic specimen serially connected to a corrosion-susceptible metallic specimen and providing an intermediate junction, said corrosion-resistant specimen being ensheathed with a protective, corrosion-resistant covering; a plurality of electrical conductors electrically insulated each from the other, comprising a first electrical conductor electrically connected to one terminal extremity of said pair of specimens, a second electrical conductor connected to the other terminal extremity of said pair of specimens, and a third electrical conductor connected to said intermediate junction formed by said pair of specimens; means for measuring the corrosion rate of said unprotected specimen electrically connected to said specimens whereby changes in the resistance of said corrosion-susceptible specimen resulting from the corrosion thereof is correlated with corrosion rate of said specimen; and a cathodic protection circuit electrically connected serially to one of said conductors comprising a source of direct current power, means for varying the intensity of the current flow from said power source, whereby a variable current density can be applied to said unprotected specimen, a means for metering the flow of current in said cathodic protection circuit and means for connecting said power source, said means for varying the intensity of current flow and said meter means in series with one of said conductors.

2,869,004

PULSE GENERATING ELECTRICAL CIRCUIT ARRANGEMENTS

William S. Melville, Rugby, England, assignor to The British Thomson-Houston Company Limited, a British company

Application October 10, 1955, Serial No. 539,586
Claims priority, application Great Britain December 17, 1954
18 Claims. (Cl. 307—106)



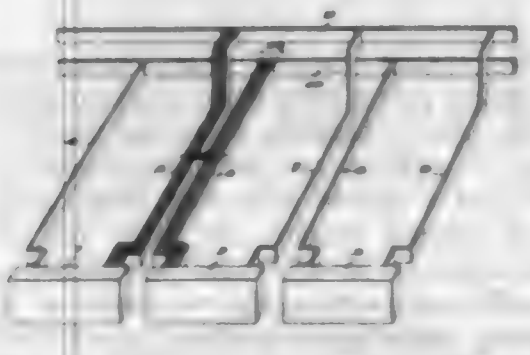
17. In combination, a source of undulating energy having a first and second terminal, a signal shaping network having a first and a second input terminal and output terminals, said signal shaping network comprising cascaded saturable core transformers, a load circuit coupled to said output terminals, and means for intermittently applying signals from said source to said input terminals comprising a serially connected saturable inductance and a capacitance connected between said first terminal of said source and said first input terminal, means coupling said second terminal of said source to said second input terminal, and means for intermittently connecting said first terminal of said source directly to the junction between said saturable inductance and said capacitance.

2,869,005

HEAVY CURRENT CONTACT CONVERTER SYSTEMS

Armand Brandt, Wettingen, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint stock company

Application June 11, 1956, Serial No. 590,601
Claims priority, application Switzerland June 23, 1955
2 Claims. (Cl. 307—147)



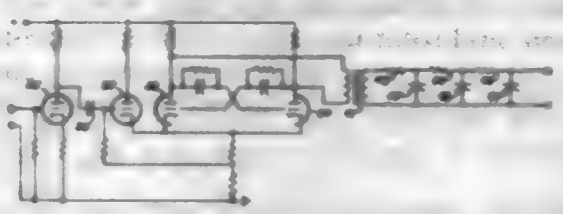
1. In a heavy current contact converter power system having a plurality of contact converters electrically connected in parallel across positive and negative direct current collector mains, the invention wherein each of said contact converters has at least one first conductor bar connected to the positive main and at least one second conductor bar connected to the negative main, said second conductor bar being parallel to and spaced from said first conductor bar, said converters being arranged with their conductor bars mutually parallel and lying substantially in the same plane, the first bar of each converter being adjacent the second bar of the next adjacent converter and spaced therefrom over a greater portion of its length by a distance less than the spacing between the first and second bars of each converter, whereby reverse short-circuiting currents flowing in the conductor bars upon occurrence of a fault in one of the converters will be inductively attenuated by the magnetic linkages from the conductor bars of the properly functioning converters.

2,869,006

PHASE SENSITIVE RECTIFIER

John W. Gray, Pleasantville, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application June 21, 1956, Serial No. 592,841
11 Claims. (Cl. 307—149)



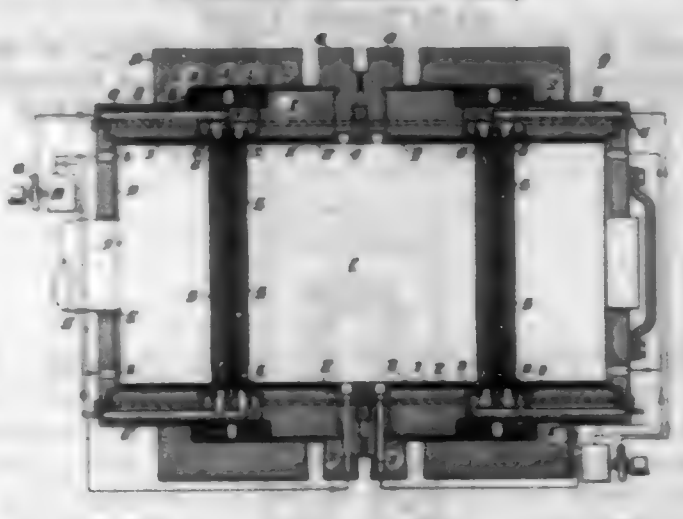
11. Control apparatus comprising, a first source of alternating voltage having either a first phase or a second phase depending upon the sense of a condition, said second phase being displaced one hundred and eighty degrees from said first phase, the magnitude of said alternating voltage being indicative of the magnitude of said condition, a second source of alternating voltage of one half the frequency of said first source and each peak value of which coincides approximately in time with a peak value of the voltage of said first source, an impedance having a nonlinear voltage-current characteristic corresponding qualitatively to the equation $i=ke^a$, where k is a constant and a is an odd integer greater than one, and means for connecting said first source, said second source, and said impedance in series with a load device.

2,869,007

UNIPOLAR GENERATOR AIR GAP SCAVENGING

William L. Ringland, West Allis, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application November 5, 1956, Serial No. 620,587
4 Claims. (Cl. 310—178)



1. A unipolar generator comprising a rotatable armature member having spaced current collector portions, an annular stationary field member including electrically conductive sleeves cooperating with said armature to form an air gap therebetween, said sleeves having current collector portions radially aligned with said armature current collector portions, means circulating an electrically conductive liquid metal to and from current collector portions of said air gap between said armature current collector portions and said sleeve current collector portions for conducting current therebetween, and means continuously scavenging liquid metal from said air gap other than said current collector portions thereof.

2,869,008

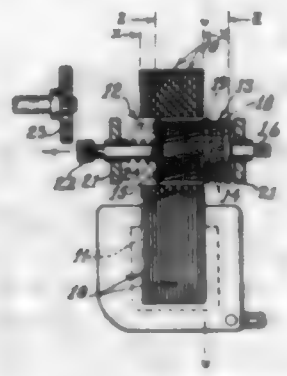
INDUCTION MOTOR ARMATURE CONTROL

Victor Carlsen, Chicago, Ill., assignor to Molon Motors and Coil Corporation, Chicago, Ill., a corporation of Illinois

Application May 8, 1957, Serial No. 657,813
6 Claims. (Cl. 310—209)

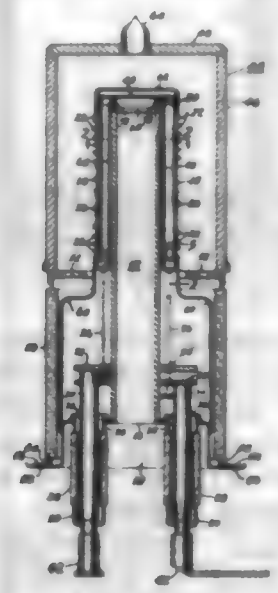
6. In an induction motor of the squirrel-cage variety having an energizing winding and field stator with a

rotor bore of given axial length, and a squirrel-cage inductive rotor of given length mounted to rotate in said bore and to shift axially a substantial distance from a non-running position with substantial portions thereof axially displaced outside of said bore, to a running position with said outside portions substantially in said bore as a result of magnetic attraction into the bore when said winding is energized, said rotor inducing reactive, torque-producing currents from the stator field, improvements comprising, namely: the provision of conductive control means on



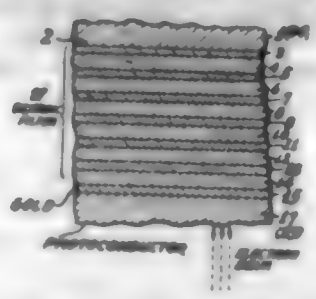
said rotor located at one side of the magnetic center along the rotative axis thereof so as to lie a substantial distance beyond the magnetic center of said bore in said outward direction and condition of displacement of the rotor, whereby to momentarily reduce the force of the inward axial movement of the rotor on magnetic attraction as aforesaid by short-circuiting some of said induced current in the rotor at a particular location along the axial extent thereof corresponding to the location of said conductive means.

2,869,009
ELECTRON TUBE
Merrald B. Shrader, Mount Joy, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application April 26, 1956, Serial No. 580,919
6 Claims. (Cl. 313—39)



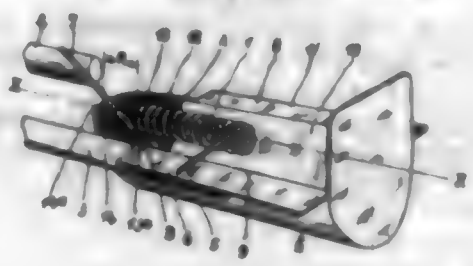
1. An electron tube comprising an anode, a control electrode comprising a support member mounted adjacent to said anode and at least two vanes extending longitudinally along the outer surface of said member and projecting outward therefrom and forming at least one longitudinal channel along said member open toward said anode, at least one elongated filament extending within and along said channel in spaced relation to the sides of said channel, and an elongated channel-shape shield extending within and along said channel in spaced relation to and between the sides thereof and said filament, said shield having an orientation corresponding to the orientation of said channel and being electrically connected to said filament.

2,869,010
INTERFERENCE TYPE OPTICAL FILTERS UTILIZING CALCIUM FLUORIDE
Sidney Gray, Somerville, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 28, 1955, Serial No. 504,502
10 Claims. (Cl. 313—65)



2. A photosensitive device comprising a film of a photosensitive material superimposed upon an interference light filter, said filter comprising alternate strata of a high refractive index material and a low refractive index material, each of said strata being approximately a whole number of quarter wavelengths of green light in effective optical thickness, said low index material being calcium fluoride.

2,869,011
ELECTRIC INCANDESCENT LAMP FOR MOTOR-CAR LIGHTING
Leo Henricus Verbeek, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 28, 1955, Serial No. 491,164
Claims priority, application Netherlands March 2, 1954
4 Claims. (Cl. 313—113)

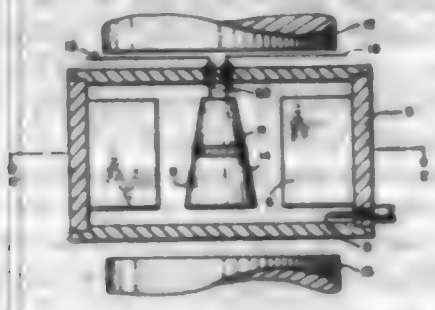


1. A lamp mount for an automobile incandescent lamp comprising a first pole wire, a screen connected to said first pole wire, a filament extending along the longitudinal axis of said screen and surrounded partly by said screen, and a second pole wire having one end of said filament secured thereto, the inner end surface of said screen adjacent to said pole wires having a dull black non-reflecting portion, the remainder of said inner surface having reflecting properties, a relatively linear extremity on said one end of said filament wherein the distance between said extremity and the adjacent part of said screen is more than 0.5 mm.

2,869,012
THERMIONIC DEVICE
Rudolf A. Müller, Munich, Germany, assignor to the United States of America as represented by the Secretary of the Army
Application October 10, 1955, Serial No. 539,707
2 Claims. (Cl. 313—157)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An electronic discharge device comprising a cathode whose contour presents a surface of revolution, an anode surrounding said cathode, the opposing surface of said cathode and anode bounding an interaction space therebetween in which the distance from the cathode to the anode progressively increases along the cathode axis, an annular zone of high emission on said cathode covering only a portion of the area thereof said zone being spaced from the plane of greatest interaction space, the

remaining area of the cathode embraced by the anode having a low emission characteristic, means to create



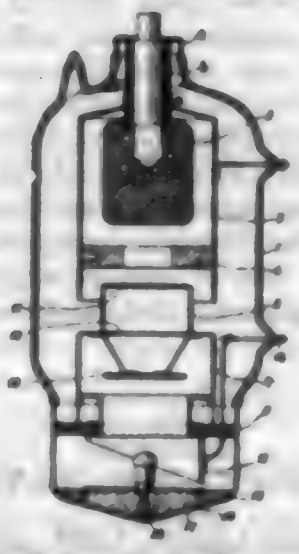
an electric field between cathode and anode and a magnet whose poles embrace said interaction space.

2,869,013

ELECTRIC DISCHARGE TUBE

Johannes Gijsbertus Wilhelm Mulder, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 22, 1954, Serial No. 476,959
Claims priority, application Netherlands January 6, 1954
5 Claims. (Cl. 313—170)



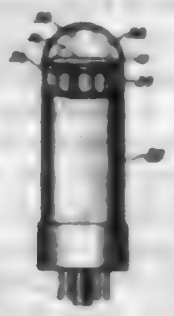
1. An electric discharge device comprising a liquid cathode; a main anode; and a cylindrical auxiliary anode located between said cathode and said main anode and having an edge proximal to said cathode arranged so that one portion of said edge is closer to said cathode than another portion of said edge whereby an auxiliary arc between said cathode and said auxiliary anode will burn quietly at high and low vapor pressures in said electric discharge device.

2,869,014

GETTER STRUCTURE

Herbert E. Natalis, Rahway, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application December 23, 1954, Serial No. 477,177
3 Claims. (Cl. 313—181)



1. In an electron tube, an envelope, a getter structure within said envelope and comprising a hollow ring-shaped container having a trough portion and a flash directing portion, said trough portion having getter material therein, said flash directing portion having a smaller extent than said trough portion and including a pair of opposing walls in relatively close proximity defining an annularly shaped outlet passage converging from said trough portion substantially in the shape of a surface of a truncated portion of a cone, said envelope including a relatively small area portion at the vertex of said cone whereby portions of said getter flash passing through said passage are directed toward said relatively small area portion.

2,869,015

METHOD OF FABRICATING A GRID ELECTRODE

Alfred R. Bolz, Lutherville, Md., assignor to American Telephone and Telegraph Company, a corporation of New York

Application July 1, 1955, Serial No. 519,328
9 Claims. (Cl. 313—350)



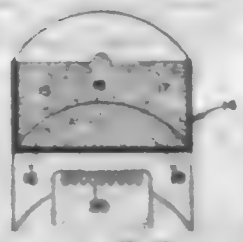
5. A composite electron discharge grid assembly comprising a support member, a thin wire of fusible material wound about said support in continuously contacting relation therewith defining positioning means on said support, and a helix of grid wire wound about said support in successively interposed relation with adjacent turns of said thin fusible material, each turn of the helix contacting adjacent turns of the fusible material.

2,869,016

PICKUP TUBES

William Gerald Shepherd, St. Paul, Minn., assignor to Bendix Aviation Corporation, Eatontown, N. J., a corporation of Delaware

Application August 2, 1956, Serial No. 601,726
1 Claim. (Cl. 313—339)



A cathode for an electron discharge device requiring a pencil-like beam of electrons from said cathode, said cathode comprising a cylindrical body having a side wall, a bottom wall and a top wall, a circular opening in said top wall concentric with said side wall and small relative to said top wall, a coating of cathode emissive material on said bottom and side walls, and a heater for said cathode said bottom and side walls being of a material having good electron emissive characteristics, and said top wall being of titanium and having relatively poor electron emissive characteristics.

2,869,017

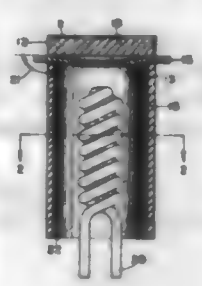
THERMIONIC DISPENSER CATHODE

Roberto Levi, New York, N. Y., assignor to North American Philips Company, Inc., a corporation of Delaware

Application October 24, 1956, Serial No. 618,072
4 Claims. (Cl. 313—346)

2. A thermionic dispenser cathode comprising a hollow, substantially cylindrical, open-ended, support member constituted of a metal selected from the group consisting of molybdenum and tantalum, a substantially circular, solid, disc-like member welded to and closing off substantially completely one end of said support member, said disc-like member also being constituted of a metal selected from the group consisting of molybdenum and tantalum, a heater within said support member, a metal body containing pores and consisting principally of tung-

sten welded to the outer surface of said disc-like member, and an alkaline earth metal composition in the pores of said tungsten body and adapted to cooperate therewith when heated to generate electrons, said disc-like member having an outer diameter greater than the outer diameter of said support member and at which the distance between the rim of said disc-like member and the inner surface



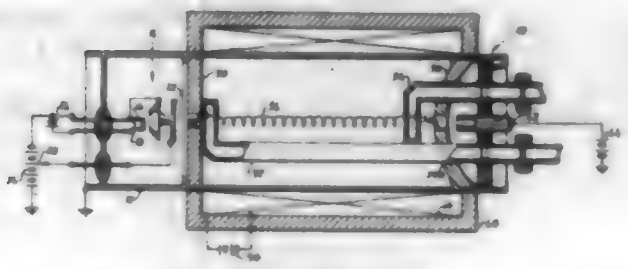
of said support member is of the order of the migration length of evaporation products from said cooperating alkaline earth metal composition and said tungsten body on said disc-like member at the operating temperature of the cathode, whereby said evaporation products are prevented from entering within the support member and thereby increasing the heater-cathode-leakage current.

2,869,018

TRAVELING WAVE TUBE

George R. Brewer, Palos Verdes Estates, and Samuel Sensiper, Los Angeles, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application May 2, 1955, Serial No. 505,085
7 Claims. (Cl. 315—3.5)



7. In a traveling-wave tube having an electron gun for projecting an electron stream through a slow-wave structure, a magnetic focusing circuit for focusing the electron stream as it is projected through the slow-wave structure, said magnetic circuit comprising: solenoid means disposed about the slow-wave structure, said solenoid means being wound to provide a predetermined axial magnetic field strength at the output end of the slow-wave structure greater than that at the input end thereof; magnetic shielding means disposed outside of said solenoid means; and a pole piece disposed at each end of said solenoid means at the input and the output ends of the slow-wave structure, said pole pieces being shaped to produce an axial magnetic field through the stream increasing smoothly and continuously along the stream at a rate to prevent the interception of a substantial number of the electrons of the stream by the slow-wave structure while maintaining the diameter of the stream at a value to yield optimum interaction between the stream and the slow-wave structure, at least one of said pole pieces at the ends of said slow-wave structure being convex as viewed from the electron gun end of said tube.

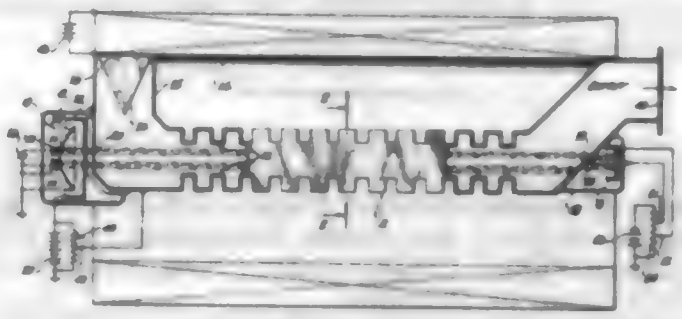
2,869,019

REFLEX SPACE-HARMONIC OSCILLATOR

Dean Allen Watkins, Menlo Park, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application July 7, 1955, Serial No. 520,589
5 Claims. (Cl. 315—3.5)

4. A microwave oscillator comprising a slow-wave structure having a constant periodicity and capable of propagating electromagnetic waves at velocities substantially less than the velocity of light along a path; means including a cathode and disposed at one end of said slow-wave structure for producing a hollow cylindrical electron stream; means for directing said electron stream at a predetermined velocity along said path through said slow-wave structure commencing at said one end; means disposed at the other end of said slow-wave structure for reversing the direction of flow of said electron stream back towards said one end of said slow-wave structure and for simultaneously accelerating the electrons of said



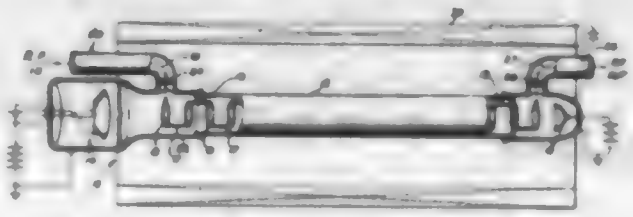
stream radially outwards, whereby the direction of flow of said electron stream, upon reaching said one end, is reversed by being repelled by said cathode and directed towards said other end of said slow-wave structure in a phase to reinforce the modulations of the electron stream traversing along said path for the first time, thereby to produce microwave oscillations having a frequency dependent upon said periodicity and said predetermined velocity; and means disposed concentrically about said path at said other end of said slow-wave structure for intercepting and collecting said electron stream reversed by said cathode.

2,869,020

COAXIAL COUPLING FOR TRAVELING-WAVE TUBES

Samuel Sensiper, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application September 2, 1955, Serial No. 532,323
4 Claims. (Cl. 315—3.5)



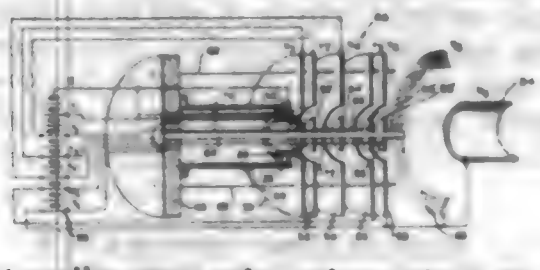
1. A broadband traveling-wave tube comprising a contrawound slow-wave structure having a first transverse circular member and a first linear longitudinal member coupled thereto at a point on the periphery of said first circular member; coaxial coupling means for coupling microwave energy from a transmission line to said slow-wave structure comprising: a coaxial transmission line; a junction for said line; a first and second point on the first circular member of the contrawound slow-wave structure which are disposed symmetrically on the periphery of said first circular member with respect to the point at which the first longitudinal member is attached thereto; a first and a second coaxial transmission line, said first coaxial transmission line being coupled between said first point and said junction, said second transmission line being coupled between said second point and said junction in a manner to feed said slow-wave structure at a point not directly opposite said first longitudinal member while nevertheless providing means for feeding said slow-wave structure in a manner such that currents from said first and second transmission lines in said first longitudinal member are in phase.

2,869,021

LOW NOISE TRAVELING-WAVE TUBE

Malcolm R. Currie, Beverly Hills, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application December 28, 1956, Serial No. 631,130
4 Claims. (Cl. 315—3.5)



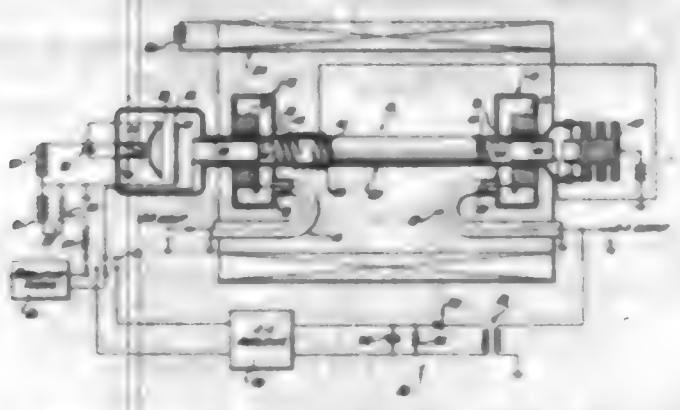
1. In a traveling-wave tube, a low-noise hollow beam electron gun comprising: a mounting baseplate extending across the electron gun end of said traveling-wave tube substantially in a plane perpendicular to the axis thereof; an annular cathode having an axial passageway and supported symmetrically with respect to said axis on said baseplate; an inner rigid dielectric supporting rod attached to said baseplate and extending axially along said traveling-wave tube from the electron gun end thereof through and beyond said passageway in said annular cathode; a plurality of outer dielectric supporting rods spaced about the periphery of said cathode and attached to said baseplate; a plurality of beam-forming and accelerating electrodes disposed perpendicularly to said axis, each comprising an outer annular member for surrounding said hollow beam and a circular inner member disposed within said hollow beam, said outer annular member being supported by said outer supporting rods, and said inner members being supported coplanarly by said inner dielectric supporting rod; and a plurality of electrical conductor means connecting each of said inner members to respective ones of said outer members, each of said conductor means being connected to one of said inner members and extending along said inner supporting rod through said baseplate and thence to an associated outer member, said inner members being thus supported on said inner rod in a manner such that said hollow beam passes between respective associated members of each electrode without interference or interception thereby, whereby an exceedingly low-noise hollow electron beam is produced.

2,869,022

TRAVELING-WAVE TUBE GAIN CONTROL

George R. Brewer, Palos Verdes Estates, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application November 22, 1954, Serial No. 470,205
6 Claims. (Cl. 315—3.6)



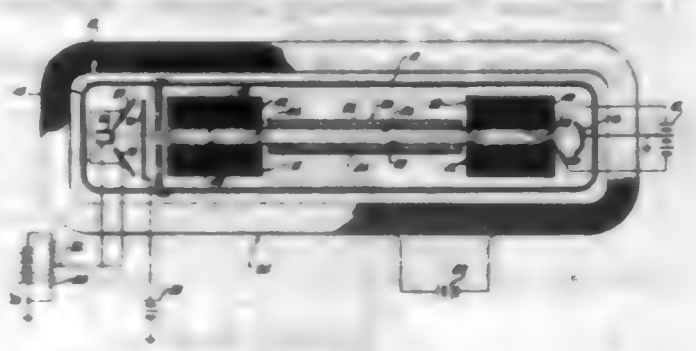
1. A traveling-wave tube amplifier comprising an electron gun for producing an electron stream, means for directing said stream along a predetermined path, a collector electrode disposed opposite said electron gun to intercept the stream electrons, an input helix disposed about said path adjacent said electron gun for propagating an electromagnetic wave at a predetermined velocity, said predetermined velocity being small in comparison to the velocity of light, a principal helix substantially longer than and contrawound with respect to and disposed between said input helix and said collector electrode for propagating said wave at substantially the same velocity as said predetermined velocity, means for maintaining said principal helix at a direct-current potential to produce maximum amplification of said wave, and means for maintaining said input helix within such a direct-current potential range as to produce a maximum change in the ratio of the output signal voltage to the input signal voltage in response to variations of the direct-current potential applied to said input helix.

2,869,023

MICROWAVE AMPLIFIER TUBE

George R. Brewer, Palos Verdes Estates, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application July 18, 1955, Serial No. 522,775
6 Claims. (Cl. 315—3.6)



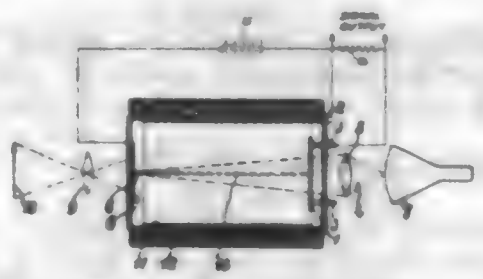
1. In a microwave amplifier having means for producing an electron beam, and means for directing said electron beam along a predetermined path, apparatus for modulating said electron beam with an electromagnetic signal wave, said apparatus comprising: means for producing a magnetic field through said electron beam transverse to said predetermined path, and means including a rectangular waveguide partially filled with dielectric material for propagating said signal wave transversely across a portion of said path at a velocity substantially equal to the velocity of the electrons of said beam, the electric field vector of said wave being normal to said predetermined path and said magnetic field whereby both transverse and longitudinal velocity components representative of said signal wave are imparted to the electrons of said beam.

2,869,024

TELEVISION PICK-UP TUBE

Hajo Bruining, Jan Carel Francken and Pieter Schagen, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application April 22, 1954, Serial No. 425,010
Claims priority, application Netherlands May 13, 1953
2 Claims. (Cl. 315—10)



1. A system comprising a television camera tube including an elongated housing having transparent end portions, a photo-electric cathode within said housing adjacent one of said transparent end portions, a substantially transparent electron-image-establishing electrode adjacent the other of said transparent end portions and ex-

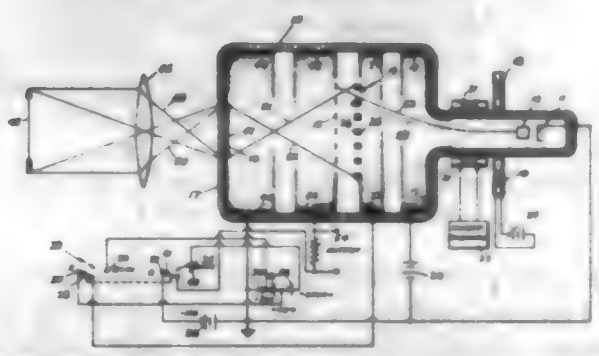
tending substantially in the same direction as the photo-electric cathode, first optical means for imaging on the side of said photo-electric cathode adjacent said one transparent end portion and through said one transparent end portion an external object to be televised to produce a corresponding electron image, flying spot scanning means adjacent the other transparent end portion of said housing, second optical means for projecting an image of said flying spot through said other transparent end portion and through said substantially transparent electron-image-establishing electrode and onto the side of said photo-electric cathode facing said electron-image-establishing electrode whereby said photo-electric cathode may be light-scanned from a direction substantially orthogonal to its surface, and electron optical means for projecting the electrons produced at said photo-electric cathode onto said electron-image-establishing electrode.

2,869,025

STORAGE CAMERAS

Rudolf C. Hergenrother, West Newton, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application January 28, 1955, Serial No. 484,662
5 Claims. (Cl. 315—11)



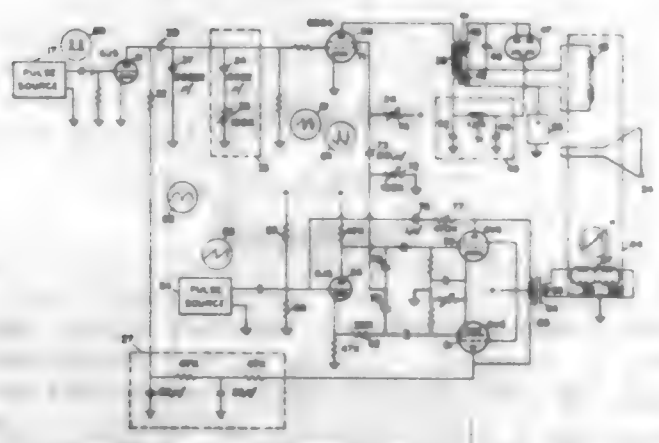
1. In an electronic charge storage photoelectric device, a perforated storage screen having an electrically conductive side and a dielectric side of photoconductive material, means to produce a charge pattern on said dielectric side in accordance with a received light image comprising a transparent conductor in a plane parallel to said screen and between said storage screen and the light source and a second screen in a plane parallel to the first screen and on the conductive side, and means providing an electron beam to scan said storage screen from the conductive side to produce a voltage proportional to the charge on discrete areas of the storage screen comprising an electron gun and acceleration electrodes on the conductive side of said storage screen.

2,869,026

CATHODE RAY SWEEP CORRECTION SYSTEM

Emil Sanford, Clifton, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

Application January 2, 1952, Serial No. 264,511
13 Claims. (Cl. 315—24)



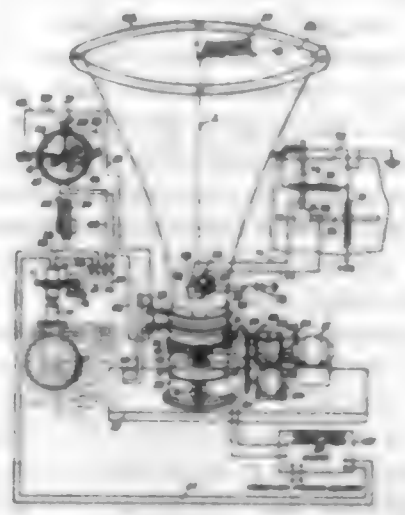
13. A circuit for straightening the vertical lines in televised images that would otherwise be bent toward the center of the images comprising, in combination, a source of correction voltage waves of field scanning frequency, the waves having a generally parabolic shape with peaks occurring at the top and bottom of each field, a horizontal driver tube having control electrodes, an electromagnetic deflection circuit coupled to the output of said driver tube, circuits for coupling said source of parabolic waves to a control electrode of said driver tube, a source of waves suitable for controlling the current flowing through said driver tube and circuits for coupling said latter source to a control electrode of said driver tube.

2,869,027

SIGNALLING APPARATUS

Bertram M. Harrison, Wellesley Hills, Mass., assignor, by mesne assignments, to Raytheon Manufacturing Company, a corporation of Delaware

Original application June 26, 1942, Serial No. 448,669, now Patent No. 2,724,099, dated November 15, 1955. Divided and this application March 18, 1955, Serial No. 495,227
8 Claims. (Cl. 315—24)



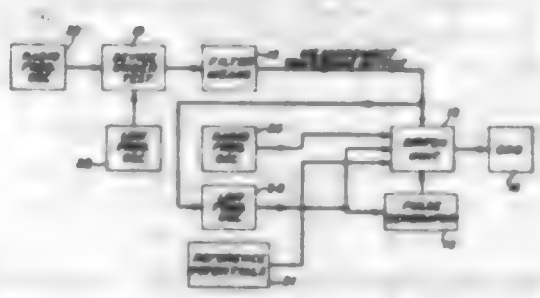
1. A cathode ray tube system comprising an electron source, a fluorescent target, means for directing a beam of electrons from said electron source toward said target, a first deflection means adapted to be connected to a signal source for continuously orienting said beam at a position on said target in accordance with a signal from said signal source, and a second movable deflection means for deflecting said beam along predetermined paths about said oriented position on said target.

2,869,028

OSCILLOSCOPIC DISPLAY METHOD OR MEANS

Henry G. Follingstad, Westfield, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

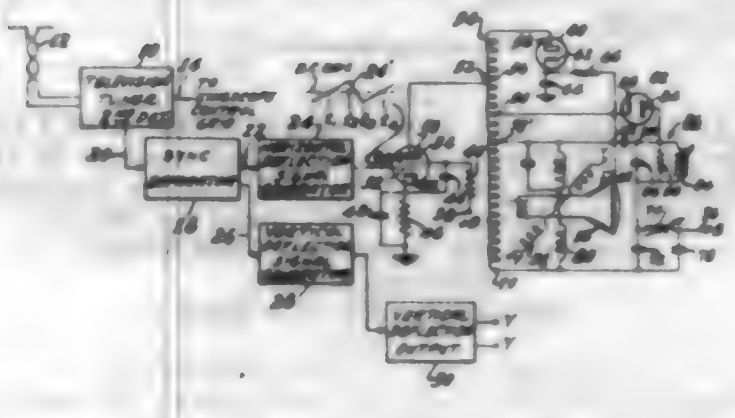
Application September 21, 1956, Serial No. 611,319
13 Claims. (Cl. 315—26)



1. In combination with an oscilloscope having a set of horizontal sweep input terminals and a set of vertical sweep input terminals, apparatus for providing a simultaneous display of reference waveforms and measure-

ment waveforms from a first source comprising a second source of signals the frequency of which is equal to the fundamental of said measurement waveforms, a third source of signals the frequency of which is greater than said fundamental, a source of reference potentials, and means responsive to said signals from said second source for connecting said first source and said second source to respective ones of said sets of terminals during at least one predetermined portion of each cycle of said signal from said second source and for connecting said third source and said source of reference potentials to respective ones of said sets of terminals during at least one other predetermined portion of each cycle of said signal from said second source.

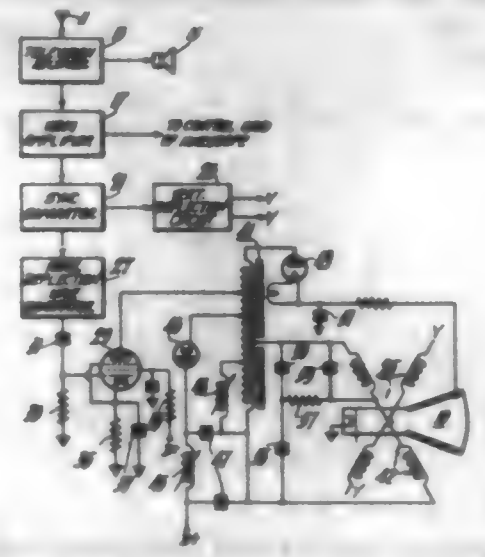
2,869,029
CATHODE RAY BEAM DEFLECTION APPARATUS
Leonard Dietch, Pennsauken, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 1, 1954, Serial No. 420,380
4 Claims. (Cl. 315—27)



1. In reaction scanning apparatus which includes a deflection winding circuit, an electron discharge device for producing a deflection voltage waveform of predetermined frequency, transformer means coupled operatively between such discharge device and winding circuit for causing a deflection current to flow in such winding and a damper tube device in shunt with such winding circuit, such winding circuit having a natural resonant frequency higher than such deflection frequency and being inherently subject to parasitic oscillations of a substantially higher frequency than such resonant frequency, and means for substantially suppressing such parasitic oscillation, comprising a tuned circuit having a resonant frequency substantially equal to said parasitic oscillation frequency and operatively connected in series with such damper tube device in such manner as to be rendered oscillatory by conduction of such damper tube device, and means coupling said tuned circuit to said winding circuit for applying the oscillations of said tuned circuit to such winding in such phase as to cancel such parasitic oscillations.

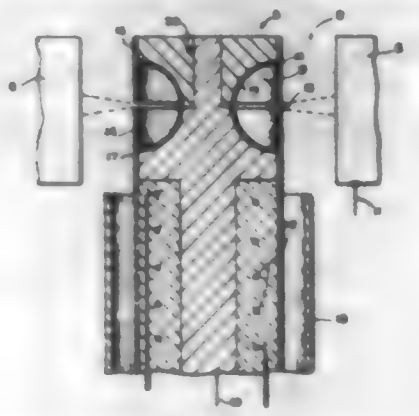
2,869,030
DEFLECTION CIRCUITS
Minas Deranian, Hartford, Conn., and Bernard V. Vonderschmitt, Colwick, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application May 3, 1954, Serial No. 427,282
6 Claims. (Cl. 315—27)

5. In a cathode ray tube deflection circuit, the combination comprising a deflection wave transformer, a deflection winding having two serially connected sections, means for connecting said deflection winding across a winding of said deflection wave transformer, and means for minimizing ringing in said sections of said deflection winding comprising a pair of capacitors of substantially equal capacity connected in series across said transformer winding and a direct current connection between the



junction of said capacitors and the junction of said sections of said deflection winding.

2,869,031
CATHODE
Herbert Brett, Fair Haven, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application March 1, 1955, Serial No. 491,554
5 Claims. (Cl. 315—39.51)
(Granted under Title 35, U. S. Code (1952), sec. 266)

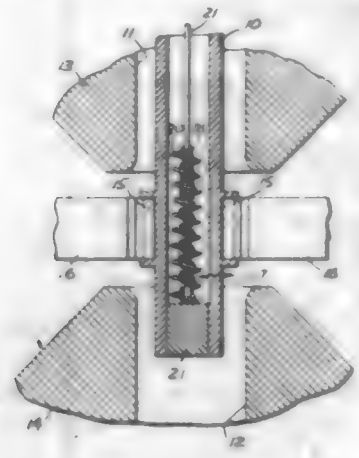


1. In a magnetron having a substantially annular anode, including a plurality of cavity resonators disposed to present their output opening inwardly, a cathode disposed in said anode comprising a cylindrical body of high work function metal, an annular chamber within and extending circumferentially around said cathode, said chamber having a thin outer wall, a coating of low work function electron emissive material on the wall of said chamber, and a slit opening outwardly from said chamber in the plane of said anode and extending circumferentially around said chamber and means to heat the cathode to the emissive temperature of said emissive material.

2,869,832
NONINDUCTIVE CATHODE HEATERS
John L. Turner, Needham, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application April 29, 1957, Serial No. 655,815
2 Claims. (Cl. 315—39.51)

1. An electron discharge device of the magnetron type comprising a cathode structure, an anode structure incorporating a cavity resonator spaced from said cathode structure, and means adjacent said cathode and anode structures for establishing magnetic field in a direction transverse to the discharge path therebetween, said cathode structure including a conductive sleeve provided with an electron emissive coating, and a heater comprising

two oppositely wound conductive heating coils, a conductive input means, said heating coils coaxially mounted one within the other inside said cathode sleeve, a first



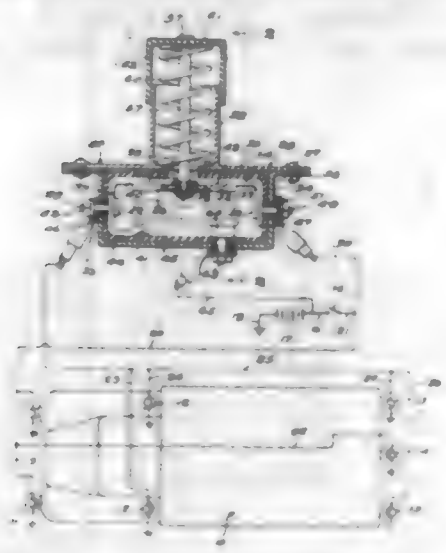
pair of adjacent ends of said coils connected to said input means, the other pair of adjacent ends of said coils connected to said conductive sleeve, thereby connecting said coils in parallel between said sleeve and said input means.

2,869,033

COURTESY SWITCH SIGNAL

George Cherefko, Old Bridge, N. J.

Application June 12, 1958, Serial No. 741,670
2 Claims. (Cl. 315—83)



1. In a vehicle having a pair of lighting circuits, a rear pair of lights in one of said circuits, an intermediate pair of lights in said one circuit, a front pair of lights in the other of said circuits, an intermediate rear light in said other circuit, a main light switch connected to both circuits and to a power source, a second switch including a pair of contacts connected to said one circuit between said switch and said rear and intermediate pair of lights, a spring pressed bridging member normally engaging said pair of contacts, a second pair of contacts spaced from said first pair of contacts, one of said second pair of contacts being integral with one member of said first pair of contacts, a conductor connecting the other member of said pair of contacts to said other circuit between said first switch and said source, movement of said bridging member into engagement with said second pair of contacts effecting closing of said second circuit.

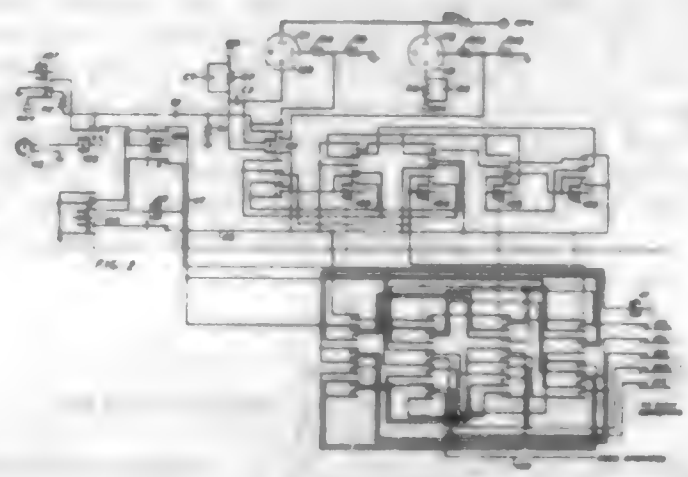
2,869,034

PULSE COUNTING DEVICE

Quinton W. Simkins, Chatham Township, Morris County, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 19, 1953, Serial No. 343,285
5 Claims. (Cl. 315—84.5)

1. In a pulse counting arrangement, a pulsing relay responsive to each pulse to be counted, two gas-filled tubes, each tube having an input circuit and an output circuit, means under the control of said pulsing relay to activate said input circuits, a pulse dividing relay



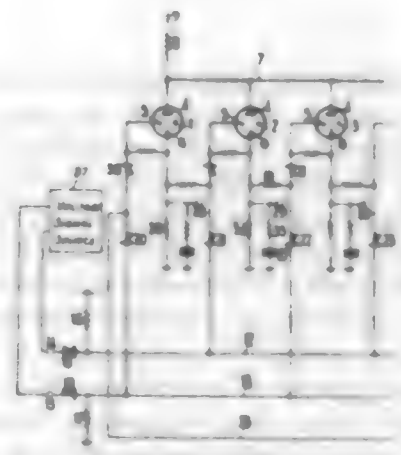
in the output circuit of one of said tubes, and means under the control of said pulse dividing relay to render said tubes alternately responsive to the activation of said input circuits.

2,869,035

ELECTRICAL GAS DISCHARGE TUBE CIRCUITS

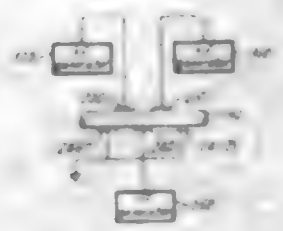
John Henry Beesley, Coventry, England, assignor to The General Electric Company Limited, London, England

Application February 4, 1955, Serial No. 486,237
Claims priority, application Great Britain February 5, 1954
19 Claims. (Cl. 315—84.5)



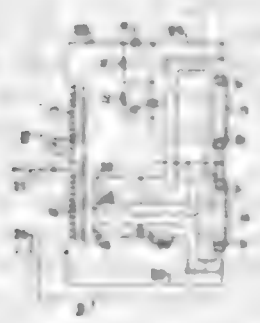
1. An electric circuit comprising a plurality of gas discharge tubes which each has an anode, a cathode and a striker electrode, a small plurality of input leads, means to apply voltage signals, each of a predetermined value, to the input leads in a particular sequence so that such a voltage signal occurs on only one input lead at a time, and a plurality of gating circuits which connect the gas tubes in a chain for sequential striking in response to voltage signals of the predetermined value occurring in the particular sequence on the input leads, each gating circuit coupling a different pair of adjacent gas tubes in a chain and having a first input connected to the first gas tube of its associated pair, a second input connected to one of the input leads and an output connected to the striker electrode of the second gas tube of its associated pair, adjacent gating circuits in the chain having their second input connected to different ones of the said input leads and each gating circuit enabling the second gas tube of its associated pair to be rendered conducting in response to a voltage signal of the predetermined value on the associated input lead only if the first gas tube of the pair is conducting.

2,869,036
GLOW DISCHARGE DEVICES
Douglas C. Engelbart, Berkeley, Calif., assignor to Digital Techniques, Inc., Berkeley, Calif., a corporation of California
Application May 29, 1956, Serial No. 588,021
17 Claims. (Cl. 315—84.6)



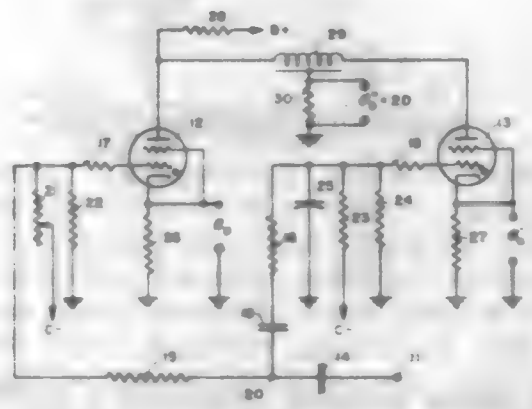
1. A glow discharge quench gate comprising: a glow discharge channel containing an ionizable gas and first and second energizing electrodes adjacent said channel; means for selectively applying high frequency energizing potentials to said energizing electrodes; a pair of reference electrodes connected to a low impedance for said energizing potential, each of said reference pair of electrodes being positioned adjacent said channel and in cooperative relation with a respective one of said energizing electrodes; a quench electrode adjacent said channel, positioned between said pair of reference electrodes and in cooperative relation with both of said energizing electrodes; and means for selectively applying a quenching potential to said quench electrode.

2,869,037
FLUORESCENT LAMP BALLAST
Wesley W. Brooks and Charles E. Strecker, Danville, Ill., assignors to General Electric Company, a corporation of New York
Application June 7, 1957, Serial No. 664,416
11 Claims. (Cl. 315—97)



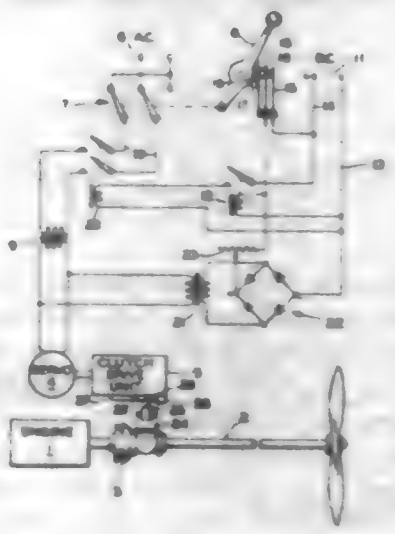
10. Ballast apparatus for starting and operating high wattage fluorescent lamps comprising a high reactance transformer including a shell type magnetic core having an elongated central core leg and a pair of elongated yoke core legs defining coil receiving windows with said central core leg, a primary winding and a secondary winding arranged on side-by-side portions of said central core leg within said windows, a capacitor connected in a series with said secondary winding for connection in series with a fluorescent lamp across said primary winding, a plurality of heating windings arranged on said central core leg in the region of said primary winding for supplying voltage to the cathodes of a fluorescent lamp, and said central core leg having a pair of spaced transverse slots forming bridged-gaps in the magnetic circuit of said secondary winding, one of said bridged-gaps being no more than 20% of the length of said secondary winding away from said primary winding and the other bridged-gap being no less than 30% of the length of said secondary winding away from said primary winding.

2,869,038
THYRATRON VARIABLE-WIDTH-PULSE GENERATOR
Henry L. McCord, San Pedro, Calif.
Application June 30, 1955, Serial No. 519,287
20 Claims. (Cl. 315—230)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A variable width pulse generator comprising a concentrated delay line, a switching circuit connected to one end of said delay line, another switching circuit connected to the other end of said delay line, each of said circuits having control means for controlling the operation and conduction of said circuits, and means for selectively actuating each of said control means in timed relation.

2,869,039
AUTOMATIC POWER CONTROL SYSTEM
John G. Dwyer, Westfield, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application July 2, 1953, Serial No. 365,659
1 Claim. (Cl. 317—13)

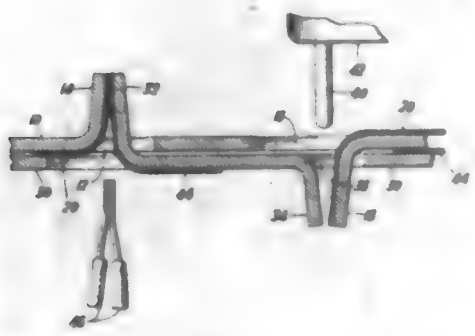


An electric power control system comprising a motor, an alternating current source for energizing said motor, a first switch connected between said alternating current source and said motor, a first relay for operating said first switch, a direct current source, a second switch connecting said first relay to said direct current source, a second relay for operating said second switch, means connected between said direct current line and said second relay for momentarily energizing said second relay to energize said first relay and operate said first switch, a holding circuit for energizing said first and second relays including a rectifier connected between said alternating current source and said second relay, said rectifier being responsive to voltage variations of said alternating current source so that a reduction in alternating current source voltage deenergizes said first and second relays and said first switch opens to deenergize said motor.

2,869,040
SOLDER-DIPPED STAMPED WIRING

Marion J. Pifer, Williamsville, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application January 11, 1954, Serial No. 403,378
4 Claims. (Cl. 317—101)

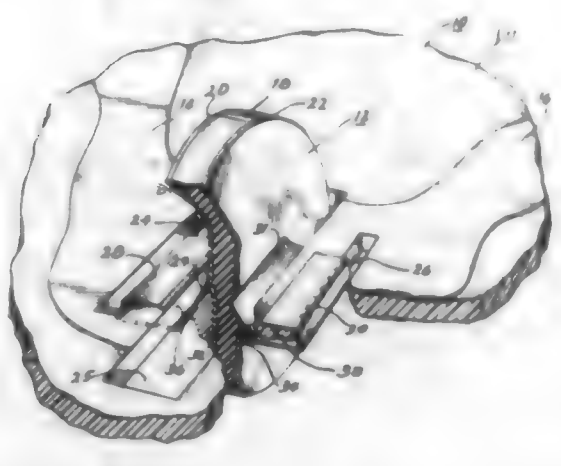


1. A chassis assembly comprising a number of juxtaposed bases each with at least one opening therein and a tongue extending from a wall of said opening toward the other wall and inclined with respect to the plane of the base with the opening in one base in communication with the opening in another base, the tongue of one base extending through an opening in another base, with the tongues associated with the communicating openings inclined toward each other and with their free ends approaching each other, and a conductor supported by its associated base and at least on one of the tongues, with the conductor on that face of the tongue which is directed toward the other tongue.

2,869,041
MOUNTING MEANS

Rinaldo E. De Cola, Park Ridge, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware

Application November 8, 1956, Serial No. 621,083
6 Claims. (Cl. 317—101)

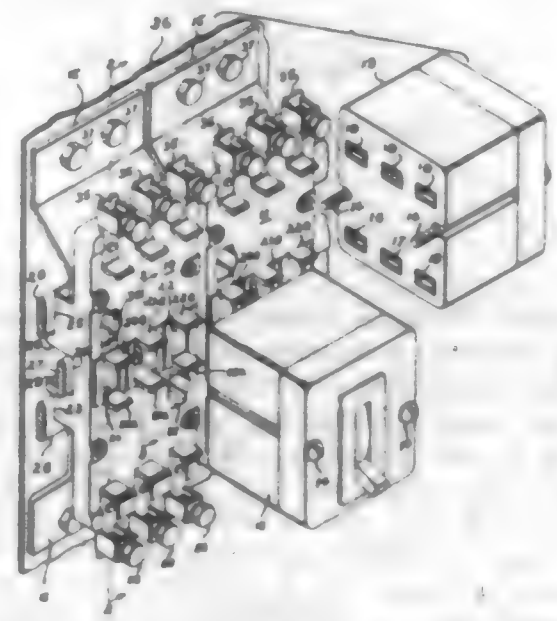


1. Means for mounting an element on a printed wiring board having at least one aperture therein, said element having terminals comprised of metallic areas coated thereon, first conductive flexible supporting means having a first end securely mounted in the board near one side of said aperture and having the other end thereof extend generally towards the normal projection of the center of said aperture, second conductive supporting means having a first end mounted securely in the board near the other side of said aperture and having the other end thereof extend generally towards the normal projection of the center of said aperture, said element being positioned in said aperture and between said extending ends of said conductive supporting means, and metallic joints between each of the extending ends of said conductive supporting means and a metallic area of said element.

2,869,042
PANELBOARD CONSTRUCTION

Albert H. Veitch, Plainville, and Charles Bangert, Jr., New Britain, Conn., assignors to General Electric Company, a corporation of New York

Application May 28, 1954, Serial No. 431,826
3 Claims. (Cl. 317—119)



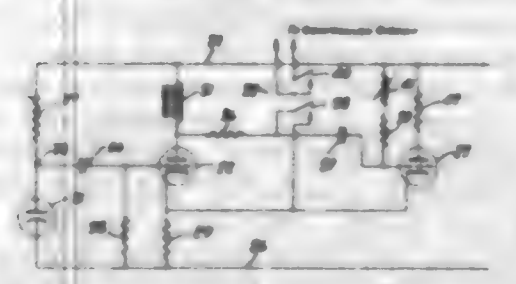
1. A multiphase electric panelboard assembly comprising at least two mounting bases of rigid molded insulating material, each of said insulating bases having a plurality of transversely extending parallel connector strap recesses in the front thereof and a plurality of longitudinally extending parallel bus bar supporting surfaces on the back thereof extending generally at right angles to said recesses, said insulating bases each having integral ridge-like portions thereof extending between each pair of adjacent bus bar supporting surfaces, an aperture extending from each of said recesses to a different one of said supporting surfaces respectively, an electrical connecting strap positioned in each of said recesses and having a pair of integral contact portions in side-by-side relation transversely of said base, said pairs of contact portions being aligned centrally on said base in a direction generally at right angles to said transversely extending recesses, a plurality of power supply bus bars each having a surface extending in contact with one of said supporting surfaces at the back of each of said bases, said bases being disposed in side-by-side relation with said supporting surfaces thereof in alignment and said bus bars bridging and interconnecting said bases, said connecting straps each including a portion overlying a shoulder portion of said base in one of said recesses and a portion extending over said aperture in said recess, means electrically and mechanically connecting each of said connecting straps to a respective one of said bus bars through said aperture whereby said connecting straps and said bus bars are rigidly interconnected and said base is held therebetween, said connecting means all being accessible for insertion and removal from said front of each of said bases, common supporting means for all of said bases and said bus bars, a plurality of electric circuit breakers each having at least one plug-in type electric connector adjacent one end thereof, said circuit breakers being supported in pairs with the circuit breakers of each pair extending in end-to-end substantially abutting relation on one of said bases and with the said plug-in connectors thereof in engagement with said contact portions of a predetermined one of said connecting straps, and means engaging a front portion of said circuit breakers and retaining said circuit breakers on said insulating bases respectively in connected engagement with said contact portions.

2,869,043
INTERLOCK MOUNT FOR SWITCH
Ross E. Locher, San Marino, Calif., assignor to Zinsco Electrical Products, Los Angeles, Calif., a corporation of California
Application December 9, 1954, Serial No. 474,141
8 Claims. (Cl. 317—119)



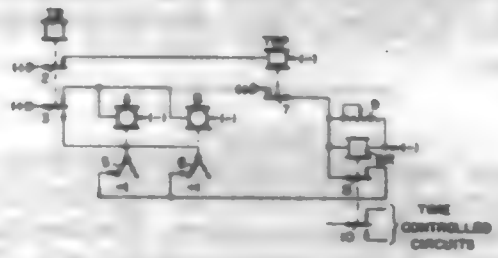
8. A case for an interlocking switch mount comprising two shells and means for rigidly joining said shells together at a plurality of locations, said joined shells forming an enclosed volume adapted to contain a switch mechanism, said shells having corresponding recesses therein positioned remote from any of said plurality of joining means, with said recesses forming a slot when said shells are joined together, said slot having a generally T-shaped cross section and an open end and side for slidingly receiving a member, and a bead extending into and partially obstructing said slot, said bead being spaced from said open end of said slot for engaging the member after entry and spreading said shells apart.

2,869,044
PHOTOELECTRIC SWITCHING SYSTEM
Glenn L. Horwege, Los Altos, Daniel T. Trojak, East Palo Alto, and Charles W. Jobbins, Menlo Park, Calif., assignors, by direct and mesne assignments, to said Glenn L. Horwege
Application May 10, 1955, Serial No. 507,448
2 Claims. (Cl. 317—130)



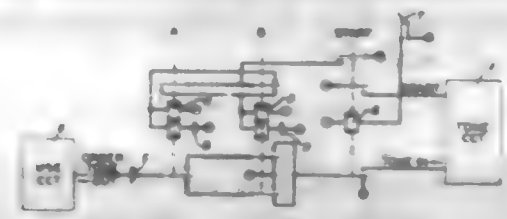
1. A photoelectric system comprising first and second voltage supply lines, first and second tubes, each having at least plate, grid and cathode elements, a relay means having a coil and plurality of contacts, said coil connected in the plate circuit of the first tube, serially connected resistance and capacitance elements connected between the plate of the first tube and the grid of the second tube, resistance means connected between the grid of the second tube and the first supply line serving to bias said tube whereby the same is normally conducting, a resistor and photoeletcric means connected between the supply lines, a capacitor serving to couple the grid of the first tube to the common junction of the resistor and photoelectric means, said last resistor having a value whereby said first tube is normally non-conductive and said last capacitor serving to make said first tube insensitive to gradual changes in illumination, one set of said relay contacts connected between the cathode lead of said second tube and the grid capacitor, said relay contacts closing to cut off said second tube when the first tube is rendered conducting in response to a sudden change in illumination, said bias resistor and capacitor serving to form a delay circuit which maintains the second tube cut-off for a predetermined time.

2,869,045
BEAT FREQUENCY TIMER
Eric P. Stephenson, Leaside, Ontario, Canada
Application July 28, 1954, Serial No. 446,224
5 Claims. (Cl. 317—135)



1. In a timing organization, a device at times operable to mark the initiation of a timing operation, two mechanically resonant type electromagnetic oscillators having corresponding normally energized starting positions and each having normally closed contacts momentarily opened during particular portions of each cyclic operation, said oscillators having natural resonant frequencies of oscillation differing by a predetermined amount, controlling circuit means responsive to the operation of said device for deenergizing and initiating said two oscillators into operation, and circuit means including said contacts connected in multiple and energized from an external source of energy subject to the operated positions of said contacts alternatively and being distinctively responsive to a coincidental opening of said contacts on both said oscillators a predetermined time after both said oscillators have been initiated dependent upon the difference in frequencies of said oscillators.

2,869,046
SIGNALING SYSTEMS
Richard P. Boyer, Jr., Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware
Application April 17, 1956, Serial No. 578,822
2 Claims. (Cl. 317—141)



1. In a telecommunication system wherein audible signals are transmitted over telecommunication channels and wherein timing means are provided responsive to the seizure of a telecommunication channel to transmit over said channel a code signal denoting the successful seizure thereof, the tone signaling relay network operative to apply a code signal to the channel comprising, a source of tone signal, a start relay, a relay A, a relay B, means for energizing said start relay, an energizing circuit for said relay A including operated contacts of said start relay in series with normal contacts of said relay B, capacitor means connected in the energizing circuit of relay A to cause said relay A to be slow to operate and slow to release, an energizing circuit for said relay B including operated contacts of both said start relay and said relay A, capacitor means connected in the energizing circuit of relay B to cause said relay B to be slow to operate, a first circuit for applying tone to the signal channel from said source of tone signal including normal contacts of both said relays A and B together with operated contacts of said start relay, and a second circuit for applying tone to the signal channel from said tone source including operated contacts of both of said relays A and B together with said start relay, whereby the tone from the tone source is originally applied to the channel when only said start relay is operated and said relays A and B are not

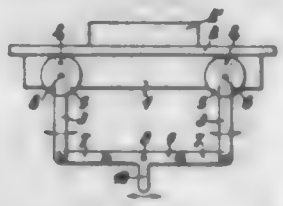
operated and disconnected from the channel when only said start relay and said relay A are operated while said relay B is not yet operated, and whereby said tone is reapplied when all of said relays are operated and said tone is again disconnected when said relay A is restored and said relay B together with said start relay only remain operated.

2,869,047

PERMANENT MAGNET HOLDING DEVICE AND MECHANICAL DETACHING COMBINATION

Jan Smit and Adriaan Rademakers, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application April 13, 1954, Serial No. 422,880
Claims priority, application Netherlands April 27, 1953
4 Claims. (Cl. 317—159)



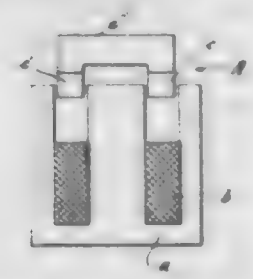
1. A mechanical device for separating a workpiece from a pole face of a magnetic body comprising a lever arm rotatably attached to at least one side surface of said magnetic body for moving one end of said lever arm in a direction relative to the surface of said pole face, a roller rotatably attached at a point through the center thereof on said one end of said lever arm for initially engaging without pressure the surface of the workpiece adjacent to the pole face of said magnetic body, the point of attachment of said lever arm being nearer to said workpiece than the point of attachment of said roller, said lever arm upon movement describing at least a partial circular movement around the point of attachment of said roller whereby the roller exerts pressure on said workpiece and the latter is separated from the magnetic body by rolling engagement of the roller with said workpiece.

2,869,048

ELECTROMAGNETIC DEVICE

Gabriel Reed, London, England, assignor to Ultra Electric, Inc., Wilmington, Del., a corporation of Delaware

Application May 18, 1953, Serial No. 355,424
Claims priority, application Great Britain May 22, 1952
3 Claims. (Cl. 317—165)



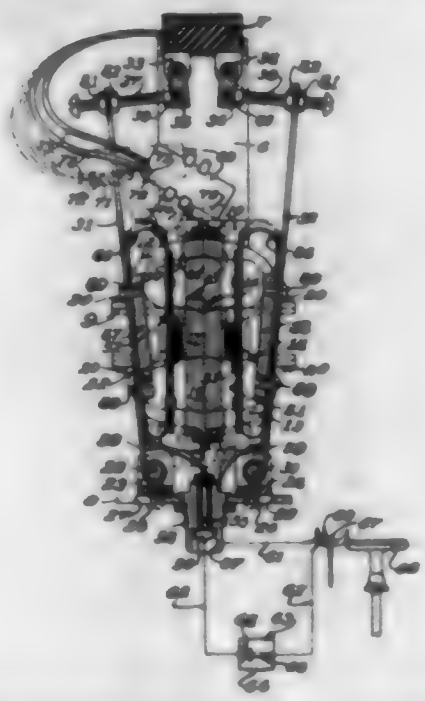
1. An electromagnetic device comprising a stator member having a core and at least one pole face of magnetic material, an armature member of magnetic material mounted for parallel movement in spaced relationship with respect to said pole face, said movement being such that the perpendicular distance across the air-gap between juxtaposed faces of said pole face and said armature member remains constant throughout its movement while the overlapping area of said juxtaposed faces changes with said movement, and a winding for energizing one of said members operatively supported thereon, characterized by one of said juxtaposed faces having a triangular shape in the plane parallel to the other face and disposed such that upon movement the overlapping area of said juxtaposed faces increases at a greater than linear rate as the armature moves into overlapping relation with respect to said pole face.

2,869,049

ELECTROMAGNETIC CONTROL DEVICE

Gerald E. Dietz and Adolph J. Hilgert, Milwaukee, Wis., assignors to Base Inc., Milwaukee, Wis., a corporation of Wisconsin

Application April 13, 1954, Serial No. 422,927
17 Claims. (Cl. 317—166)



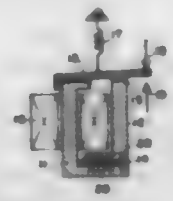
1. In an electromagnetic device: a magnetic core having opposite end portions and an intermediate permanently magnetized cylindrical section, said section having like polarity at its ends and having an oppositely polarized intermediate portion; and a magnetically permeable frame substantially completely surrounding said core to prevent substantial leakage of magnetic flux therebeyond and having spaced portions in flux-conducting engagement with the end portions of said core, said frame also having an intermediate portion having a cylindrical inner surface of reduced diameter coaxially surrounding and axially coextensive with said permanently magnetized core section to provide therewith a radial air gap, said permanently magnetized core section establishing magnetic flux flow through said core and frame and across said air gap, the polarity of said permanently magnetized core section and the disposition thereof within the cylindrical inner surface portion of the frame causing substantially all of the flux produced by said core section to flow in said air gap.

2,869,050

MAGNETIC CIRCUITS

Arend Thomas van Urk and Johannes Meyer Cluwen, Eindhoven, Netherlands, assignors, by mesne assignments to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

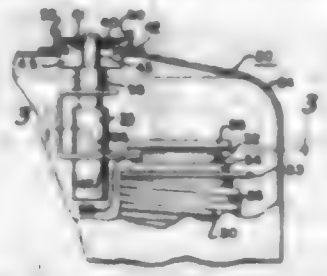
Continuation of applications Serial Nos. 264,980 and 264,981, January 4, 1952. This application June 28, 1956, Serial No. 592,573.
13 Claims. (Cl. 317—171)



2. An electromagnetic device comprising a closed magnetic circuit including an air-gap and a ferromagnetic core, a coil surrounding said core and producing lines

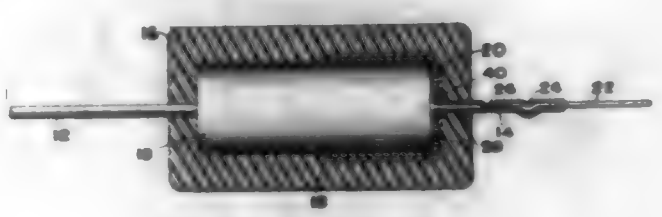
of force therein when energized and which traverse the air-gap, said core having an elongated portion of a given width wherein the lines of force produced by said coil extend substantially in the longitudinal direction thereof and substantially at right angles to the width, and a thin flat permanent magnet having end surfaces, a length dimension in the plane of one of said end surfaces and a thickness dimension at right angles to the plane of said one end surface and consisting essentially of a material having a coercive field strength of at least 750 oersteds, the thickness dimension of said magnet being substantially smaller than its length dimension and substantially smaller than the width of said elongated core portion, said magnet being magnetized in the direction of its thickness producting poles on its end surfaces, said magnet being mounted within the elongated core portion with its length dimension extending substantially in the longitudinal direction of the elongated core portion and with its thickness direction extending substantially in the width direction of the elongated core portion, whereby the poles of the magnet extend substantially in the direction of the lines of force in said elongated core portion and portions of the elongated core portion extend alongside the magnet and the overall reluctance to the lines of force produced by said coil is minimized, said permanent magnet also producing lines of force which traverse the air-gap.

2,869,051
ELECTRIC REGULATOR
Thomas C. Heath, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 22, 1954, Serial No. 457,762
2 Claims. (Cl. 317—177)



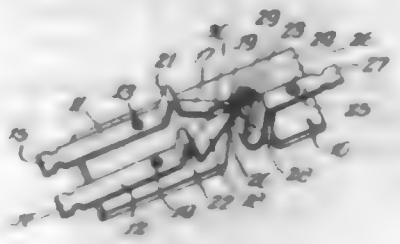
1. In a regulator for controlling the output of a generator in a battery charging circuit, comprising; in combination, a base, a cover for said base providing an enclosed chamber, an electromagnetic assembly secured to said base and disposed within said chamber, said assembly including; a cylindrical core, a winding adapted to induce a magnetic flux in said core, an armature normally spaced from said core and adapted to be attracted by the flux induced therein by said windings, a variable reluctance magnetic shunt assembly sealingly carried by and pivotally mounted on said cover and having a portion spaced relative to said electromagnetic assembly for providing a magnetic shunt path including the cover and base for varying the effective attracting flux of said core on said armature, said portion of said shunt assembly including a metal part disposed within said chamber and having a curved end arranged to partially encircle said cylindrical core, said metal part being pivotally supported for swinging movement in a plane normal to the longitudinal axis of said core and being movable with a lever that forms another portion of said shunt assembly positioned exteriorly of said regulator cover for providing a vernier adjustment for said regulator when the position of said first mentioned portion relative to the side of said cylindrical core and windings is varied, and an indicator member on said cover having a pair of upstanding stop lugs joined by a serrated portion, a portion of said lever extending between said stop lugs and having a projection cooperating with said serrated portion for holding said lever in adjusted position.

2,869,052
MOLDED CAPACITORS
Odvar A. Ness and Kermit N. Lambert, Williamstown, Mass., assignors to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application March 1, 1954, Serial No. 413,150
6 Claims. (Cl. 317—230)



1. A capacitor comprising an impregnated capacitor section having at least two electrodes, said section being substantially fully encased in a jacket of resinous material, a tubular rivet of the type having a through passageway extending through and being partially embedded in said resinous material, said rivet having an enlarged head mechanically bonded to one electrode, and an external lead wire compressionally bonded to the interior surface of the outwardly projecting end of said tubular rivet and sealing the passageway through the rivet.

2,869,053
TRANSISTOR UNIT
William A. Schaper, Phoenix, Ariz., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application May 22, 1953, Serial No. 356,637
12 Claims. (Cl. 317—235)

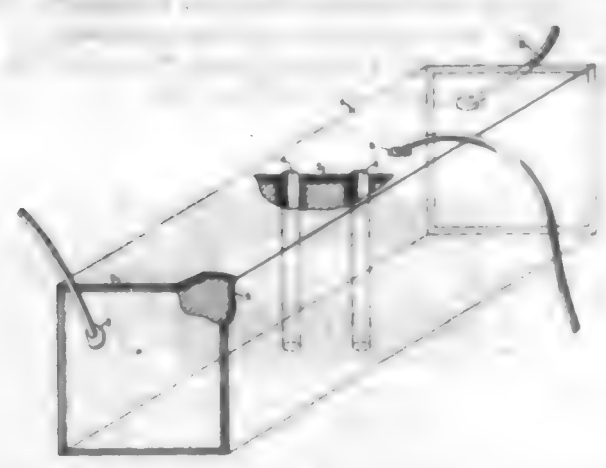


1. A circuit element including in combination, a flat insulating base member having a pair of ends, a pair of electrically conductive strips mounted in spaced mutually insulated relation on said base and extending along said base from one end thereof toward the other, said strips having a pair of points formed at the respective extremities thereof remote from said one end of said base and said points being spaced one from the other by a selected amount, a third electrically conductive strip mounted on said base spaced and insulated from said pair of strips and extending along said base with an extremity facing said points at the extremities of said pair of strips, and a semi-conductive member having one surface affixed to said extremity of said third strip and having another surface in contact with said points at the extremities of said pair of strips.

2,869,054
UNIPOLAR TRANSISTOR
Gardiner L. Tucker, Gresham, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 9, 1956, Serial No. 621,268
8 Claims. (Cl. 317—235)

1. A semiconductor device comprising a semiconductor body of one conductivity type, first and second ohmic contacts in spaced relationship attached to said semiconductor body, at least one aperture in said body so located as to be in the carrier transit path between said first and second ohmic contacts, a continuous sur-

face region of said semiconductor body having a conductivity type opposite to said body and forming one



continuous P–N junction therewith and a third ohmic contact attached to said surface region.

2,869,055

FIELD EFFECT TRANSISTOR

Robert N. Noyce, Los Altos, Calif., assignor to Beckman Instruments, Inc., Fullerton, Calif., a corporation of California

Application September 20, 1957, Serial No. 685,305
8 Claims. (Cl. 317—235)



1. A field effect transistor comprising a channel region, source and drain connections, and at least one gate, said transistor having an effective channel of substantially uniform width.

2,869,056

SEMI-CONDUCTOR DEVICE AND METHOD OF MAKING

Wilhelmus Antonius Roovers, Eindhoven, and Otto Louis Van Steenis, deceased, late of Eindhoven, Netherlands, by Joris Daniel Heijligers, executor, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application May 10, 1954, Serial No. 428,509
Claims priority, application Netherlands May 13, 1953
7 Claims. (Cl. 317—236)



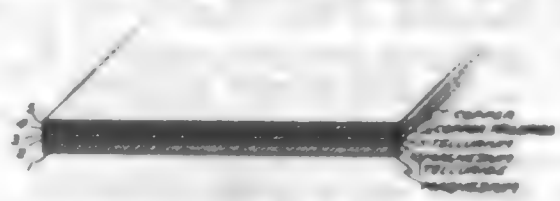
2. An electrode system comprising an all-glass envelope, a first metal lead sealed in one end of said envelope, a second metal lead sealed in the other end of said envelope, said first lead having a portion within the envelope of greater diameter than the portion thereof sealed to the envelope, a semi-conductive member having a diameter less than that of said portion of greater diameter and mounted on said first lead and within the envelope, an electrode secured to said second lead and coupled to said semi-conductive member, and cooling means associated with said first lead.

2,869,057

ELECTRIC CURRENT RECTIFIER

David F. Allison, Fort Lee, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application May 2, 1955, Serial No. 505,197
6 Claims. (Cl. 317—237)



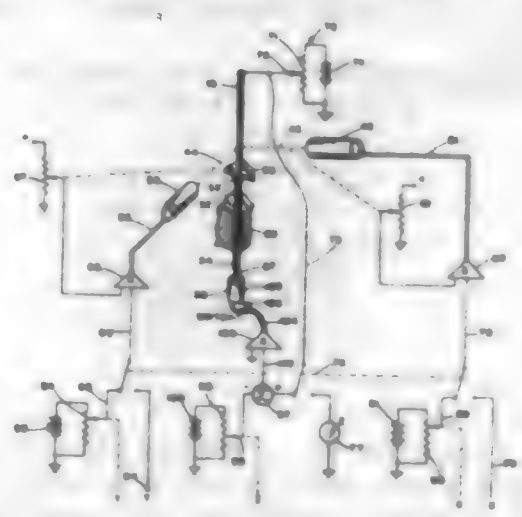
1. An electric current rectifier comprising a layer of magnesium, a layer of tellurium, a layer of magnesium telluride interposed between and in intimate contact with the interfaces of said layers of magnesium and tellurium, and a layer of conductive material, the interface portion of said tellurium and said conductive layer comprising a telluride of said conductive material.

2,869,058

SERVOSYSTEM FUNCTION GENERATOR

William L. Poland, Bethel, Conn., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas

Application May 6, 1955, Serial No. 506,540
15 Claims. (Cl. 318—28)



12. In a function generator, the combination comprising a base, a flexible member for defining a cam surface having edge portions secured to said base, a plurality of surface adjusting screws threaded in said base in a two-coordinate array for adjustably displacing said member, a cam follower for contacting a point on said surface, means associated with said follower for generating a signal proportional to the displacement of said surface at said point, adjustable means for providing a signal proportional to a desired displacement of said surface at said point, and screwdriving means including a servomotor responsive to the difference between said signals for selectively adjusting said screws until the desired displacement is obtained.

2,869,059

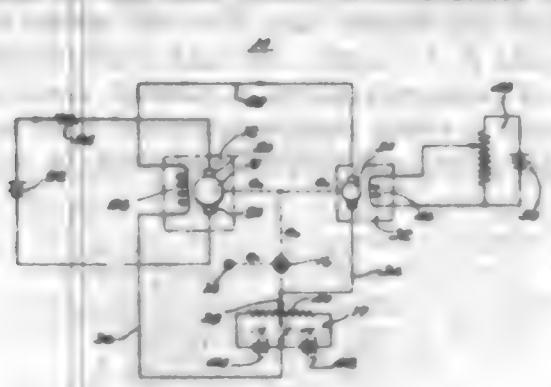
FOLLOW-UP CONTROL SYSTEMS

Donald C. McDonald, Mount Prospect, Ill., assignor, by mesne assignments, to Cook Electric Company, Chicago, Ill., a corporation of Delaware

Application December 13, 1954, Serial No. 474,649
14 Claims. (Cl. 318—32)

1. A position control system comprising an output motor means having an armature winding and an independently energizable field means, controlling means capable of assuming a plurality of related contiguous positions, means for sensing the instantaneous relative positions of said

motor means and said controlling means to provide voltages seriatim in said field means in accordance with said



instantaneous relative positions, and means for providing limited current to said armature winding.

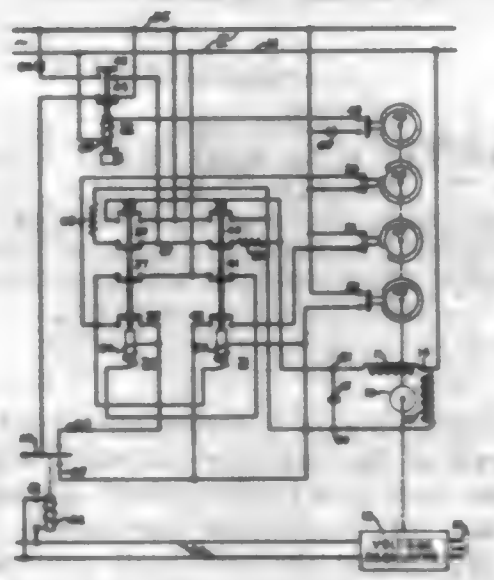
2,869,060
ICE MAKER AND TIMER
Thomas B. Chace, Winnetka, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application April 2, 1956, Serial No. 575,623
7 Claims. (Cl. 318—37)



1. In a timer, at least two alternately operable thermal elements, a shaft for performing a work operation, spaced ratchets on said shaft for rotating the same, a separate pawl lever for each ratchet freely mounted on said shaft, each pawl lever having a pawl thereon engageable with said ratchet for driving the same in one direction, said thermal elements each having a casing containing a fusible thermally expansible material and a power member extensible with respect to said casing upon predetermined rises in temperature and having engagement with said pawl lever for pivoting the same to effect engagement of said pawl with said ratchet, an individual spring connected with each pawl lever and biasing said pawl levers into engagement with said power members, for returning said members upon cooling of said thermal elements, electrically energizable heating means for said thermal elements for heating the same to effect the extensible movement of said power members, and means actuated by rotational movement of said shaft for alternately energizing said heating means to effect extensible movement of one power member and retractable movement of the other power member and to thereby effect rotation of said shaft at a substantially average constant speed.

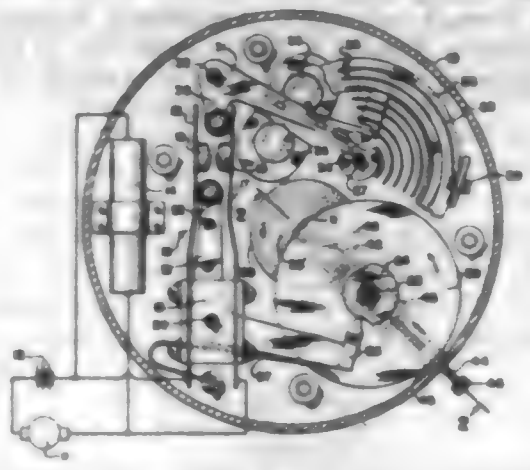
2,869,061
MOTOR CONTROL SYSTEM
Harold E. Pinney, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application July 26, 1957, Serial No. 674,459
5 Claims. (Cl. 318—212)

1. A motor control system comprising a motor having a pair of serially connected windings connected in parallel with a capacitor, a supply circuit, the junction of said windings being connected to one side of said circuit, means for selectively connecting opposite sides of said capacitor to the other side of said circuit, and means for applying a direct potential across said windings for a predetermined time after the disconnection of said windings from said other side of said circuit comprising rectifier means and contact means simultaneously connecting said rectifier means between the other side of said circuit and both sides of said capacitor for said



predetermined time, and between said other side of said circuit and one side of said capacitor when said one side of said capacitor is connected to said other side of said circuit by said selective connecting means.

2,869,062
MOTOR SPEED GOVERNOR
Arthur W. Haydon, Milford, Conn., assignor to Consolidated Electronics Industries Corporation, Waterbury, Conn., a corporation of Delaware
Application December 17, 1956, Serial No. 628,712
6 Claims. (Cl. 318—311)



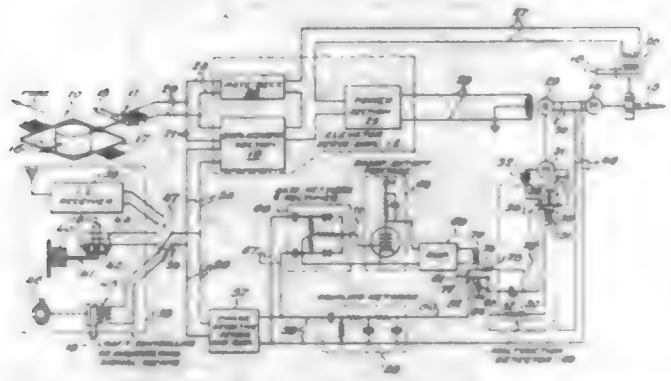
1. In a motor speed governor for controlling the speed of an electric motor and of the type including an electric circuit for supplying sufficient current to the motor to tend to cause the motor to operate at a speed above a predetermined value, a pair of switch contacts in said circuit for opening and closing said circuit, motor driven means acting on said contacts and a mechanical constant speed device acting on said contacts and operable in combination with said motor driven means to effect closure of said contacts at intervals determined by said constant speed device and for durations determined by the instantaneous relative positions of said motor driven means and said constant speed device, the improvement in said motor driven means comprising a drive member driven by said motor in fixed predetermined relation to the speed thereof, switch actuating means for acting on said switch contacts and adjustable transmission means for adjustably relating the speeds of said switch actuating means and said drive member whereby the governed speed of said motor may be adjusted to different constant values.

2,869,063

CONTROL SYSTEMS FOR DIRIGIBLE CRAFT

John J. Hess, Jr., Garden City, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application June 10, 1954, Serial No. 435,803
16 Claims. (Cl. 318—489)



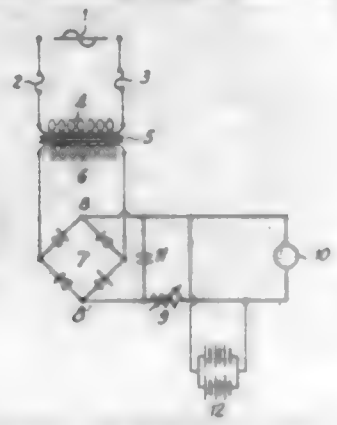
1. The combination in a servomotor control system for dirigible craft of the character normally functioning to maintain the craft at a predetermined reference attitude about an axis, of, a reversible servomotor operable to move the craft about the axis, craft controlling means providing an operating signal for the servomotor to modify effectively the normal reference provided by the system, means providing a signal in accordance with the output of the servomotor, means for detecting malfunction of the system comprising a band pass filter receiver for the signal of said output signal means, means for comparing the signals of said craft controlling means and output signal means in opposed relation, and a monitor for the system operated by said receiver.

2,869,064

APPARATUS AND METHOD FOR ENHANCING THE CHARACTERISTICS OF DRY CELL BATTERIES

Fernand Portail, Paris, France, assignor to Societe Anonyme: Compagnie Industrielle des Piles Electriques Cipel, a French company, Argenteuil, France

Application August 3, 1953, Serial No. 372,062
Claims priority, application France August 30, 1949
14 Claims. (Cl. 320—3)



1. A process for enhancing the characteristics of a dry cell battery of the type including ammonia salts comprising the step of subjecting said battery before any loss of its original capacity to the action of direct current flowing through said battery in the direction opposed to the normal flow of current from said battery when connected alone to an external load, thereby to reduce the internal resistance of the battery.

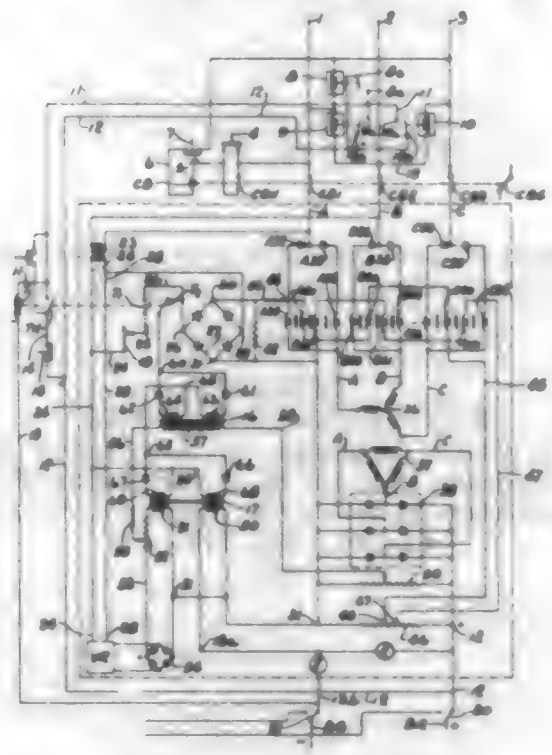
2,869,065

VOLTAGE AND CURRENT BATTERY CHARGING AND DISCHARGING CONTROL CIRCUITS

Richard C. Hitchcock, Indiana, and Edgar V. Weir, Butler, Pa., assignors to Syntron Company, Homer City, Pa., a corporation of Delaware

Application March 7, 1958, Serial No. 719,876
11 Claims. (Cl. 320—18)

1. A battery control circuit comprising an A. C. supply line connected to a rectifier with its D. C. output connected to a multicell battery which in turn is connected to a load, a saturable reactor having a first, a second and a third coil means, said first coil means interposed between said A. C. supply and said rectifier, said second coil means connected across a selected portion of said D. C. output, a bridge rectifier energized from an isolated A. C., the third coil means connected in series with



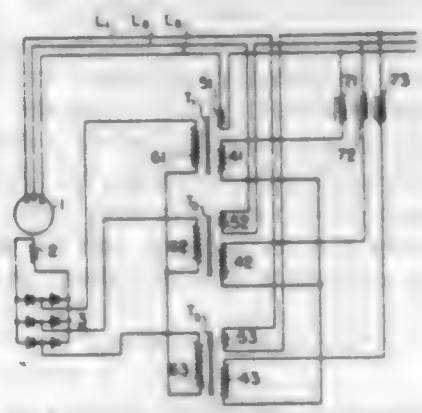
said bridge rectifier and a selected portion of said D. C. output, a magnetic amplifier means having reference and control means, said control means interposed between said isolated A. C. and said bridge rectifier, a voltage regulator connected to said isolated A. C. and supplying a second bridge rectifier, said reference means connected to the D. C. output of said second bridge rectifier and a selected portion of said D. C. output.

2,869,066

VOLTAGE REGULATOR FOR SYNCHRONOUS MACHINES

Karlheinz Lutz, Nurnberg, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a German corporation

Application January 7, 1955, Serial No. 480,567
Claims priority, application Germany March 23, 1954
11 Claims. (Cl. 322—25)



1. With a synchronous alternator having an alternating-current output circuit and having direct-current field excitation means, the combination of a voltage regulating system comprising a rectifier connected to said field means to supply excitation thereto, a transformer having a secondary winding connected with said rectifier and having two primary windings, one of said primary windings being series connected in said output circuit to provide a load-dependent component of excitation, reactive impedance means series connected with said other primary winding across said output circuit for providing said other winding with a load-independent component of

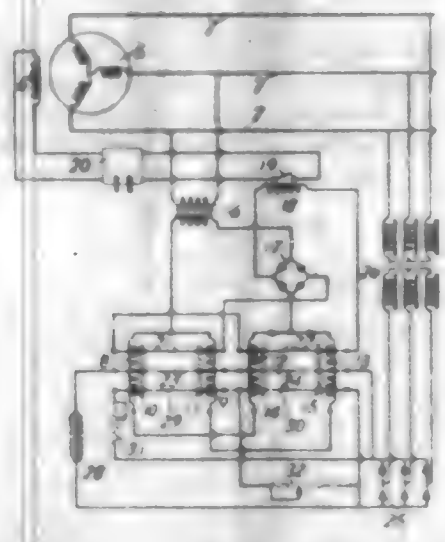
excitation, said impedance means having a wattless power between 0.4 and 7 times the no-load excitation power of said alternator.

2,869,067

PROTECTIVE APPARATUS FOR ELECTRIC CURRENT DISTRIBUTING SYSTEMS

Eric Ernest Robinson, North Wembley, England, assignor to Rotax Limited, London, England

Application March 8, 1957, Serial No. 644,936
Claims priority, application Great Britain March 13, 1956
4 Claims. (Cl. 322—36)



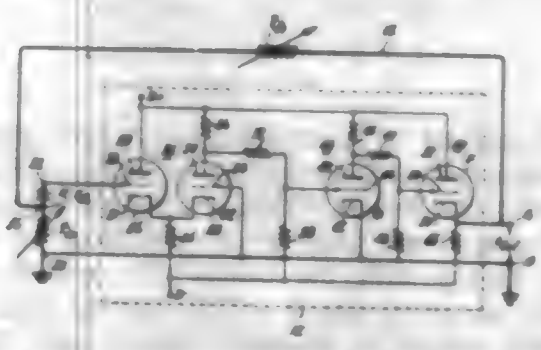
1. Protective apparatus for interrupting the supply of electric current from a generator to a distributing system in the event of the voltage or current in the distributing system rising or falling above or below predetermined limits, comprising in combination a switch for controlling the field current of the generator to put the latter into and out of action dependent on conditions in the distributing system, an electromagnet arranged to actuate the switch and provided with an operating winding, and a pair of transductors interconnected in series and connected to the electromagnet winding for controlling energisation of the latter, the transductors being provided respectively with oppositely acting direct current control windings for receiving a reference current, and with additional oppositely acting direct current control windings for receiving current which is variable with voltage or current changes in the distributing system.

2,869,068

REFERENCE VOLTAGE SOURCE

Francis J. Mercerf, Jr., Syracuse, N. Y., and Douglas R. Maure, Pasadena, Calif., assignors to General Electric Company, a corporation of New York

Application March 1, 1957, Serial No. 643,416
5 Claims. (Cl. 323—22)



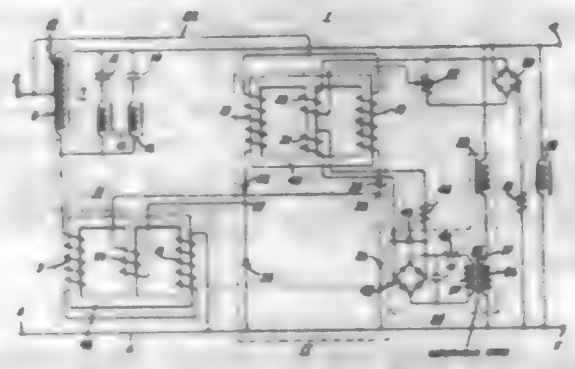
1. A reference voltage source including direct current amplifying means having a pair of input terminals for receiving a control voltage and a pair of output terminals for supplying the reference voltage, said amplying means having at least one amplifying current conducting device with a control element for controlling the conduction of said amplifying device connected to one input terminal, input impedance means and a standard source of unidirectional voltage connected between the input terminals in such a manner that said standard source is connected to said control element, and a feedback impedance connected from the junction point between said input impedance and said standard source to one of said output terminals.

2,869,069

VOLTAGE STABILIZER AND REFERENCE CIRCUIT THEREFOR

Floyd H. Wright, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York

Application November 20, 1953, Serial No. 393,436
11 Claims. (Cl. 323—66)



1. A voltage stabilizer circuit comprising an input circuit adapted to be connected to a source of alternating current the voltage of which is to be stabilized, an output circuit for supplying a stabilized alternating current voltage, variable impedance means interconnecting said input and output circuits, said variable impedance means having a control element for varying the impedance thereof, a magnetic amplifier having its output connected to energize said variable impedance means control element, said magnetic amplifier having two control windings, one of said control windings being directly connected to said output circuit and energized solely by said stabilized voltage, and a reference source of substantially constant voltage, the other of said control windings being connected for energization from said reference source, said control windings being wound to provide bucking voltages whereby a signal proportional to the difference between the voltage of said output circuit and the voltage output of said reference source is applied to said variable impedance control element thereby to vary the impedance thereof whereby said output circuit voltage is stabilized.

2,869,070

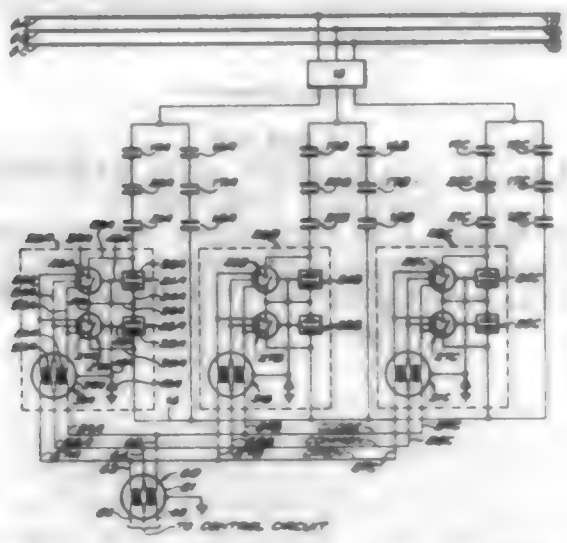
ARRANGEMENT FOR VARYING KILOVAR OUTPUT OF CAPACITOR BANK IN STEPS

Peter M. Minder, Basel, Switzerland, assignor to McGraw-Edison Company, a corporation of Delaware

Application November 10, 1955, Serial No. 546,132
16 Claims. (Cl. 323—122)

1. In combination with a polyphase alternating current electrical power system, a capacitor bank having a plurality of phase groups each comprising a plurality of parallel branches of serially arranged capacitors adapted to be connected to one of the phase conductors of said polyphase system and in shunt to said system, one of the branches in each of the phase groups including an impedance element in series with the capacitors of said one of said branches, the capacitors of said one branch being normally energized in series with said element and the electrical impedance of said element being sufficiently greater than the combined impedance of the capacitors in series therewith that said capacitors of said one branch normally supply only a relatively small magnitude of leading current to said power system, each said one branch also including a short circuiting switch connected in parallel with said element and adapted upon closure to short

circuit said element and upon opening to remove the short circuit, and means for operating said electrical switches in all of the phase groups substantially simul-



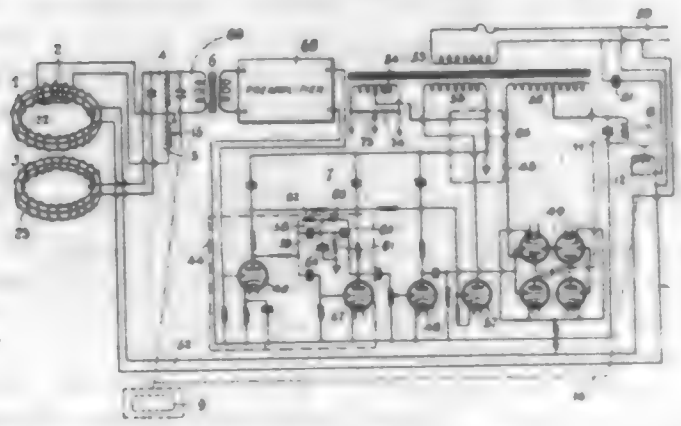
taneously whereby the leading current supplied by the capacitors of said one branch is increased in all of said phase groups.

2,869,071

APPARATUS FOR MEASURING ELECTRICAL CONDUCTIVITY OF FLUIDS

Gerald L. Esterson, Baltimore, Md.

Application October 29, 1956, Serial No. 618,760
12 Claims. (Cl. 324—30)



1. Apparatus for measuring the electrical conductivity of a fluid comprising a non-magnetic mounting plate, an exciter winding, supported on said mounting plate, a current transformer having a winding also supported on the said mounting plate, a reference voltage winding inductively coupled to said exciter winding and magnetically threaded by the magnetic lines of force threading both said exciter winding and said current transformer winding, an amplifier system having input and output circuits, means connecting said reference voltage winding and said current transformer winding with said input circuit, a power phase detector circuit connected with the output of said amplifier, a balancing potentiometer disposed in said connections between said windings and the input circuit to said amplifier, and means controlled by said power phase detector circuit for controlling the operation of said balancing potentiometer according to the mutual effect of the magnetic fields of said windings.

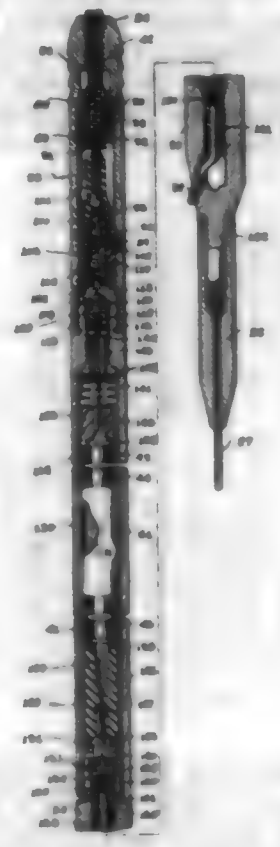
2,869,072

DEVICE FOR EXPLORING FERROMAGNETIC STRUCTURE IN WELL BORES

William R. Gieske, Fullerton, Calif., assignor to The Ford Alexander Corporation, Whittier, Calif., a corporation of California

Application September 17, 1953, Serial No. 380,803
8 Claims. (Cl. 324—34)

1. In a device of the character described to detect changes in configuration of ferromagnetic structure in a well bore, the combination of: means to provide a magnetic field for movement through the well bore, said means having upper and lower opposite poles oriented longitudinally of the well bore; and a signal circuit including upper and lower coils in longitudinal alignment with said poles and positioned above and below said upper and lower poles, respectively, to respond to changes in



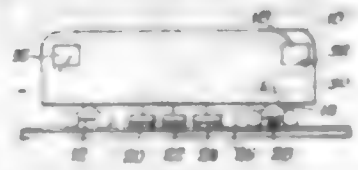
the two halves, respectively, of the magnetic field as the magnetic field varies in response to changes in the surrounding ferromagnetic structure in the course of the movement of the magnetic field through the well bore, said two coils being oppositely wound and being connected in series so that opposite changes in linkage of the magnetic field with the two coils will be additive in their effect with respect to generation of current in the circuit of the two coils.

2,869,073

METHOD AND APPARATUS FOR DISTINGUISHING HARMLESS SURFACE FLAWS FROM DANGEROUS FISSURES IN MAGNETIZABLE BODIES

Chester W. McKee, Homewood, and Richard W. McKee, Highland Park, Ill., assignors, by mesne assignments, to Teleweld, Inc., a corporation of Idaho

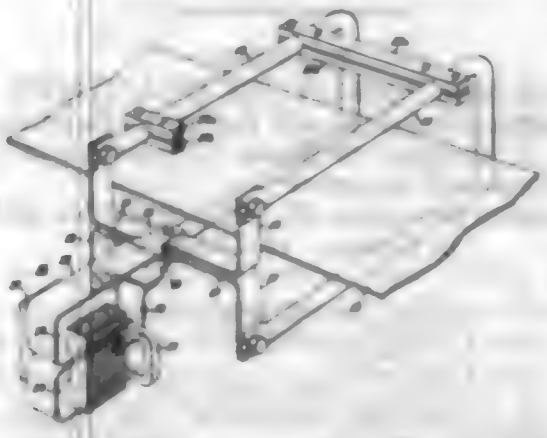
Application March 9, 1953, Serial No. 340,944
4 Claims. (Cl. 324—37)



1. The method of operating that type of apparatus for segregating internal fissures from harmless surface defects in magnetizable objects which equipment includes (*a*) a magnet having one pole positioned close to the magnetizable object with the other pole spaced vertically thereabove so as to create a flux field of lines of force leaving the object at an acute angle, said field being formed by flux moving from the first pole through a portion of the object and then outwardly through its surface and the field to the other pole; (*b*) a flux-responsive means sufficiently short so that in moving through said flux field adjacent the surface of the object and distorted by an internal fissure major changes in flux density will generate in a lead to the flux-responsive means potentials of opposite polarity; (*c*) signal-producing means appre-

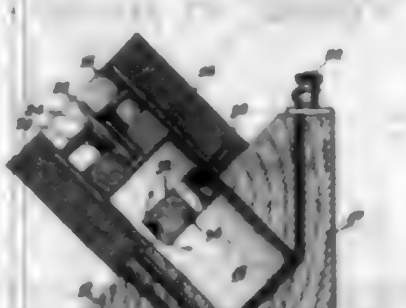
hendible by the human senses and capable of distinguishing between signals of opposite polarity; and (*d*) means for rendering the apparatus responsive to signals of just one polarity, which comprises the steps of magnetizing the objects so that surface flux fields affected by internal fissures will have characteristically different flux patterns from those from surface defects, of moving the flux-responsive means through these fields and determining the polarity of the major potential received from a flux field modified by a known internal fissure, and of setting the apparatus to render apprehendible signals of that polarity and that polarity only.

2,869,074
SINGLE-TURN COIL FOR METAL DETECTOR
Charles W. Clapp, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application October 26, 1953, Serial No. 388,195
6 Claims. (Cl. 324—41)



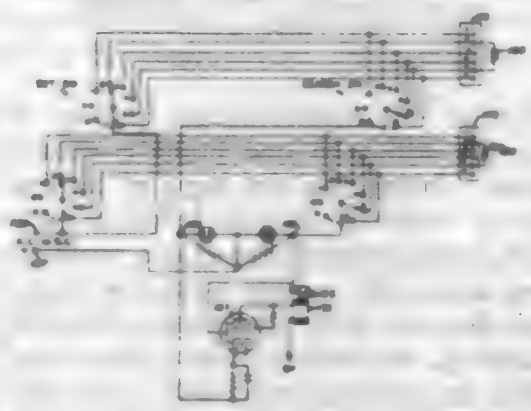
3. A detecting head assembly for a metal detecting apparatus comprising a pair of spaced-apart single-turn coils connected in electrical series circuit relationship, an impedance-matching transformer having the secondary winding thereof operatively coupled across said single-turn coils and having the primary winding thereof operatively connected to a source of electric energy for inducing electric current flow through said single-turn coils to produce an inspection field thereabout, and a pair of step-up transformers each having the primary winding thereof connected across a respective single-turn coil and the secondary windings thereof interconnected for deriving an electric output signal indicative of the change in inductance of either one or both of said single-turn coils by reason of the appearance of a foreign metallic particle in the inspection fields thereof.

2,869,075
MAGNET CALIBRATING STABILIZER
James R. Ireland, Indianapolis, Ind., assignor to Thomas & Skinner, Inc., a corporation of Indiana
Application April 2, 1953, Serial No. 346,379
4 Claims. (Cl. 324—42)



4. A device for demagnetiing a permanent magnet to a predetermined magnetic strength, comprising a fixture to receive a magnetized permanent magnet inserted axially therein, a demagnetizing coil and circuit to subject the received magnet to a demagnetizing field, a test circuit containing a test coil responsive to the magnet field during insertion movement of the magnet with respect to the fixture and responsive to changes in the field of the received magnet, a fluxmeter in the test circuit, said test coil being exposed to the demagnetizing field, and a compensating inductance magnetically linked to the demagnetizing coil circuit to create in the test circuit a voltage offsetting the voltage induced in the test coil by the demagnetizing geld, said inductance being a variable mutual inductance between the demagnetizing circuit and the test circuit and being substantially isolated from the field of the received magnet, whereby said fluxmeter indicates the field strength of the magnet and is not directly affected by the demagnetizing field.

2,869,076
APPARATUS FOR TESTING A PLURALITY OF CIRCUITS
Kenneth P. Evans, Glen Burnie, Md., and Henry E. Ivester and John M. J. Turrini, Winston-Salem, N. C., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application August 22, 1955, Serial No. 529,626
4 Claims. (Cl. 324—51)



1. Apparatus for testing a plurality of conductors of a multiple conductor network for electrical defects, which comprises a reference network including a plurality of conductors corresponding to the conductors of the network under test and presenting a perfect network with which the network under test is to be compared, a pair of set switches, a pair of search switches, each of said switches being of the stepping type including a plurality of individual contacts, a movable brush and stepping means operable to move the brush into successive positions so that the individual contacts are engaged successively by the brush, a first of said set switches being designed so that its brush electrically engages in a predetermined sequence each of the end points of the conductors under test and a first of said search switches being designed so that its brush electrically engages successively each of the end points of said last mentioned conductors at each position of the brush of said first set switch, the second set switch operating concurrently with said first set switch so that its brush electrically engages successively in said predetermined sequence each of the end points of the reference conductors corresponding to the conductors under test and the second search switch operating concurrently with said first search switch so that its brush electrically engages successively each of the corresponding end points of the reference conductors at each position of the brush of said second set switch, means for energizing the stepping means of said switches, an electrical balancing bridge having a first pair of balancing arms of fixed impedance and a second pair of balancing arms, the brushes of the switches being connected electrically to the bridge in a manner such that the electrical circuit at any time between the brushes of the first set switch and the first search switch is connected in one of the second pair of balancing arms and the electrical circuit at any time between the brushes of the second set switch

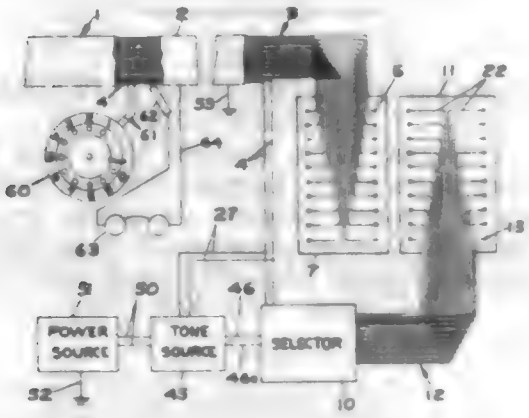
and the second search switch is connected in the other of said second pair of balancing arms, bridge energizing means connected across one diagonal of the bridge, and detecting means connected across the other diagonal of the bridge for detecting an unbalanced condition caused by an electrical defect in the network under test.

2,869,077

METHOD AND MEANS FOR IDENTIFYING WIRE-PAIRS

Emory V. Houk, Grand Rapids, Mich.

Application March 29, 1954, Serial No. 419,357
13 Claims. (Cl. 324—66)



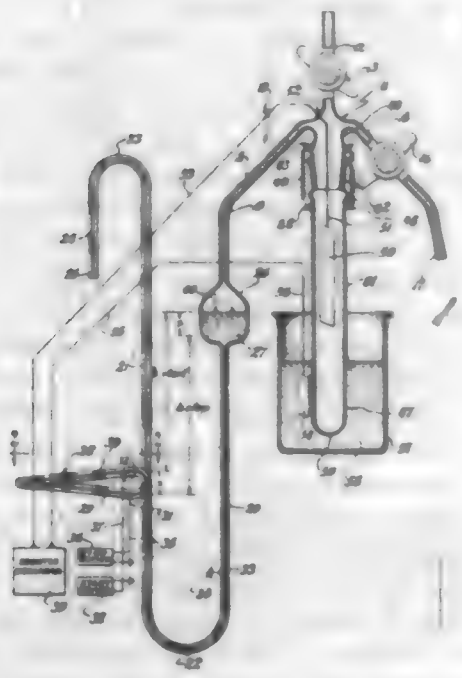
8. The method of identifying by number wires in a multi-wire cable which at one point is connected to a terminal panel, comprising the steps of causing an electrical signal to originate at said terminal panel and to pass through predetermined wires, and probing the wires at a point on said cable remote from said panel in order to determine through which wires said electrical signal is being transmitted, the improvement comprising: individually selecting in non-sequential order the wires through which said electrical signal is transmitted said selecting being accomplished by means of an automatic selector; and controlling the operation of said selector by means located at said remote point where said wires are being probed.

2,869,078

FLUID METERING APPARATUS

Wallace H. Coulter and Joseph R. Coulter, Jr., Chicago, Ill., assignors, by direct and mesne assignments, to Coulter Electronics, Inc., Chicago, Ill., a corporation of Illinois

Application May 9, 1956, Serial No. 583,850
18 Claims. (Cl. 324—71)



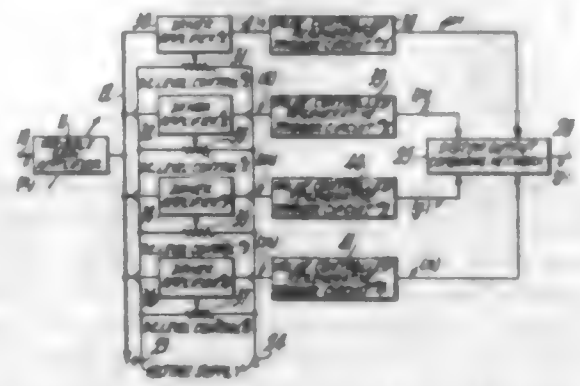
1. Fluid metering apparatus for starting and regulating flow of a suspension containing particles past the scanning means of a detecting system for studying said particles, said apparatus comprising a multi-branched hollow member having one branch closed at its free end and an inlet to the interior thereof adjacent said free end, a combination syphon and manometer comprising a vertically arranged mercury column having a first section connected to a second branch of said hollow member and a second section connected at one end thereof with said first section in a return formation with the second section opening to the atmosphere, said second section having a substantially horizontal section connected therewith spaced above said one end thereof, and means for causing an unbalanced substantially uniform pressure condition in the apparatus which causes the mercury to extend from a level in the first section to a point in the second section spaced below said horizontal section and the branches to be filled with suspension up to said level, the mercury thereafter receding from said level and traversing said horizontal section to cause a predetermined volume of suspension to flow through said inlet.

2,869,079

SIGNAL AMPLITUDE QUANTIZER

Robert Staffin, Metuchen, and Robert D. Lohman, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application December 19, 1956, Serial No. 629,385
12 Claims. (Cl. 332—11)



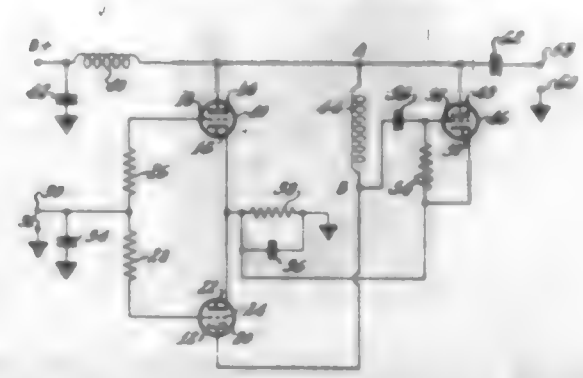
1. A quantizing system comprising a plurality of value-controlled Schmitt trigger circuits each having a single input, means connecting the inputs of all of said trigger circuits in electrically parallel relation, means coupling an input signal to be quantized to the inputs of said trigger circuits through a single-ended coupling, means enabling said trigger circuits to respectively change their states of conduction at different values of input signal, and means for combining the outputs of all of said trigger circuits to form a quantized system output signal.

2,869,080

MODULATOR-OSCILLATOR CIRCUIT

Bernard B. Byer, Philadelphia, Pa., assignor to Tele-Dynamics Inc., a corporation of Pennsylvania

Application September 28, 1955, Serial No. 537,088
5 Claims. (Cl. 332—28)



1. In a frequency modulation system, an oscillator electron discharge device associated with a tuned circuit including an inductive element, a phase shifting means including a pair of reactance modulator tubes, each of said

tubes having an anode, a cathode and a control grid, means coupling said anodes to opposite ends of said inductive element, each of said tubes providing a capacitive effect across said tuned circuit, means for producing a bias potential inversely proportional to the current in said oscillator electron discharge device, means for applying said bias potential to said modulator tubes to bias said control grids negative with respect to said cathodes, and means for applying modulating signal to said control grids.

2,869,081

HIGH POWER BROADBAND WAVEGUIDE SWITCH

Wallis L. Teeter, San Diego, Calif.

Application May 11, 1955, Serial No. 507,753
5 Claims. (Cl. 333—7)
(Granted under Title 35, U. S. Code (1952), sec. 266)



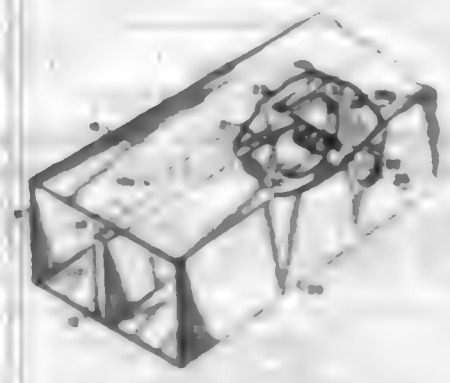
1. A broadband high speed high power waveguide switch comprising a plurality of serially arranged non-resonant waveguide sections each having two non-resonant outlets, one outlet being connected to the next successive section, the other outlet forming a non-resonant energy output, said switch having an energy input for energizing said outlets and having means for sequentially energizing individually one of each said section's two outlets by interrupting the flow of energy serially through said sections and reflecting said energy to each of said energy outputs to be energized, said means comprising a high speed driven shaft having at least one vane connected thereto, said vane passing through each of said sections between said two outlets.

2,869,082

MICROWAVE TRANSITION ELEMENTS

Richard I. Harrison, Mineola, N. Y., and Lefler McKee, Mountain View, Calif., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts

Application February 15, 1956, Serial No. 565,589
14 Claims. (Cl. 333—21)



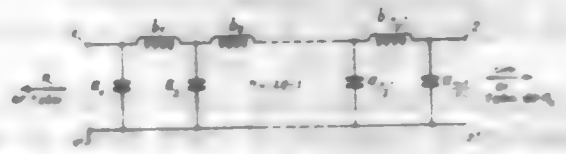
1. In combination, a ridged waveguide, the waveguide ridge having first and second ridge walls and a cut out portion, the boundary wall of said portion describing an open curved path extending between said first and second walls, said ridged guide being further provided with an orifice communicating between the outer and inner surfaces of the ridged guide; and a helical waveguide extending through said orifice into said cut out portion, one end of said helical guide being positioned within said cut out portion, said helical guide being provided with an extension element coupling said one end to said first ridge wall.

2,869,083

ELECTRIC DELAY NETWORK

Mardiros Dickran Indjoudjian, Vincennes, France

Application December 13, 1954, Serial No. 474,949
Claims priority, application France December 22, 1953
6 Claims. (Cl. 333—29)



1. A ladder type delay network with a delay time τ substantially independent of frequency, having input and output terminals for insertion between an alternating current signal source of internal resistance R_1 and an infinite output impedance, said network comprising an odd total number n of series inductances and shunt condensers, wherein the successive values of the elements of said network starting from said input terminals are given by the development of the expression

$$\frac{\left(1+\frac{p}{n}\right)^n+\left(1-\frac{p}{n}\right)^n}{\left(1+\frac{p}{n}\right)^n-\left(1-\frac{p}{n}\right)^n}$$

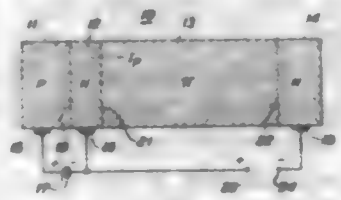
into a continuous fraction with respect to the variable p, the values of the capacities of the condensers being equal to the coefficients of p of an odd rank of said development divided by $\omega_0 R_1$, where ω_0 equals $1/\tau$, and the values of the inductances being equal to the coefficients of p of an even rank of said development multiplied by R_1/ω_0.

2,869,084

NEGATIVE RESISTANCE SEMICONDUCTIVE DEVICE

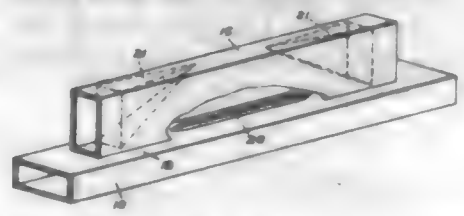
William Shockley, Los Altos, Calif., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application July 20, 1956, Serial No. 599,235
8 Claims. (Cl. 333—80)



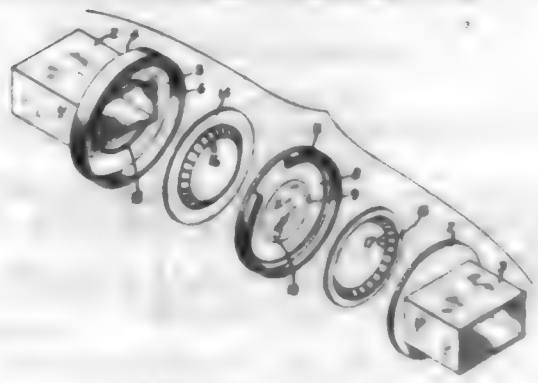
1. In combination, a semiconductive body having an active portion intermediate between two end regions, a pair of electrode connections, a different one to each of the end regions, across which there is applied an alternating voltage, means associated with one of the end regions for introducing therefrom into the active portion of the body a current primarily only of charge carriers of one sign and of amplitude which remains constant despite variations in the voltage across said pair of electrode connections, means associated with the other of the end regions for introducing therefrom into the active portion of the body a current of charge carriers primarily only of the sign opposite that of the first-mentioned charge carriers and of amplitude which varies inversely with variations in the voltage across said pair of electrodes whereby a negative resistance is developed across said pair of electrodes.

2,869,885
SELECTIVE ABSORBERS
Wilbur L. Pritchard, Watertown, Mass., and Amasa Pratt, Sherman Oaks, Calif., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application January 19, 1954, Serial No. 404,828
2 Claims. (Cl. 333—98)



1. In a selective absorber for radio frequency energy, the combination of a section of wave guide of uniform cross section dimensioned to propagate energy at a desired frequency in a first mode and a second mode, a second section of a wave guide dimensioned to propagate radio frequency energy at the desired frequency in the first mode but not in the second mode, and means to couple energy propagated in the first section of wave guide in the second mode but not that propagated in the first mode from the first section of wave guide into the second section of wave guide comprising a wall common to both wave guides and perpendicular to the electrical vector of energy propagating in the first wave guide and parallel to the electrical vector of energy propagated in said second wave guide, and a slot formed in this common wall.

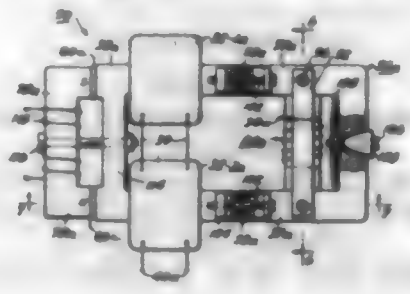
2,869,886
WINDOW ASSEMBLY
Truman P. Curtis, Scotia, N. Y., and Charles H. Brunswick, Scranton, Pa., assignors to General Electric Company, a corporation of New York
Application April 20, 1954, Serial No. 424,355
8 Claims. (Cl. 333—98)



1. A terminating wave guide structure for hermetically sealing a wave guide output comprising a rectangular wave guide section, a conductive cup-shaped flange secured to and extending longitudinally beyond an end of said wave guide section, a conductive cup-shaped frame disposed in said flange and sealed only at the rim thereof to the rim of said flange, a dielectric window sealed in said frame and having a diameter greater than the smaller diameter of said wave guide section, said flange and said end of said wave guide section including a counterbore greater in diameter than said window, and compressed conductive resilient means between said flange and said frame about said window, whereby a short uniform conduction current path is effected from said wave guide section to said frame.

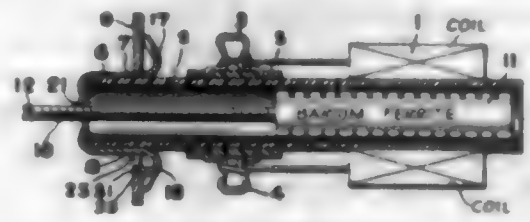
2,869,887
MAGNETIC APPARATUS
Carl G. Sontheimer, Riverside, Conn., assignor to C. G. S. Laboratories, Inc., Stamford, Conn., a corporation of Connecticut
Application April 23, 1954, Serial No. 425,244
30 Claims. (Cl. 336—30)

4. A temperature-compensated electrically-variable inductor comprising a signal core portion of ferromagnetic ceramic material, a signal winding on said signal core portion, a control core portion of ferromagnetic material having two parts magnetically coupled to at least two spaced points on said signal core portion, a control winding coupled to said signal core portion and arranged to induce a magnetic control flux in a control flux path passing through said control core portion and through said signal core portion between said two spaced points, a ferromagnetic shunting element extending at least par-



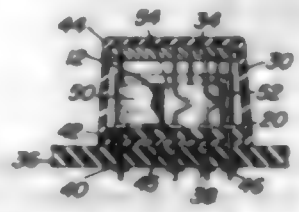
tially between said two parts of the control core portion thereby providing a shunt path to shunt some of the control flux away from said signal core portion, a high reluctance area interrupting said shunt path, and a temperature-responsive structure arranged to decrease the reluctance of said area with increasing temperature, whereby more of said control flux is shunted away from said signal core portion with increasing temperature.

2,869,888
VARIABLE INDUCTOR
Norton Cushman, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application March 4, 1954, Serial No. 414,822
2 Claims. (Cl. 336—110)



2. A variable inductor comprising a coil having a self-inductance, turns of said coil producing a field longitudinal to said coil by alternating current in said coil, a body of barium ferrite disposed in said coil and variably positionable axially of said coil, said body being permanently premagnetized throughout its length in a direction perpendicular to the axis of said coil and means to move said body relative to said coil to vary said self-inductance.

2,869,889
TRANSDUCER UNIT
Herbert J. Haenpel, Philadelphia, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application April 29, 1953, Serial No. 351,781
11 Claims. (Cl. 336—192)



11. In combination, a sub-assembly including a ring type magnetic core having a central axis and a plurality of windings thereon, a plurality of electrically conductive pins disposed around the outer peripheral edge of the core and electrically connected to the windings, said pins projecting from the core, a casing enclosing the sub-as-

sembly and having a layer of penetrable electrically non-conductive substance on an inner surface thereof, one end of each of said pins being imbedded in the layer to hold the same from movement relative to the core, and electrically non-conductive means coacting with said casing engaging the opposite ends of each one of the pins.

2,869,090

JACK CONNECTOR FOR PRINTED WIRING

Bengt J. Johanson, Des Plaines, Ill., assignor to Cinch Manufacturing Corporation, Chicago, Ill., a corporation of Illinois

Application June 29, 1955, Serial No. 518,821
1 Claim. (Cl. 339—17)



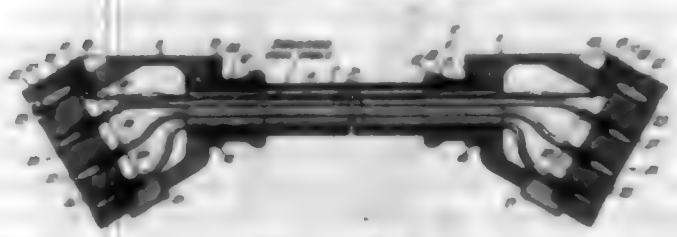
An assembly comprising an insulating panel having apertures therethrough, printed conductors carried by one surface of said panel and terminating adjacent said apertures, a socket device adapted for use in connector jack apparatus, said socket device having a hollow metal shell, an insulating block mounted within said shell, a metal prong-receiving member mounted in said block and being adapted to receive the prong of a connector plug, said shell being adapted to receive in engagement the metal outer jacket of such a plug, and a metal bracket carried by said shell adjacent one end thereof and being equipped with at least two tongues, said tongues extending through said apertures in said panel and electrically connected to the conductors carried thereby.

2,869,091

JUMPER FOR INTERCONNECTING POWER CONTROL CONDUCTORS OF RAILWAY DIESEL UNITS AND THE LIKE

Preston O. Roberds, Chicago, Ill., assignor to Equipment Research Corporation, Chicago, Ill., a corporation of Illinois

Application March 8, 1955, Serial No. 492,904
2 Claims. (Cl. 339—29)



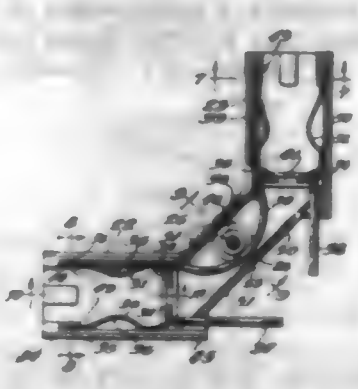
1. A power control jumper for interconnecting power control receptacles on adjacent ends of railway diesel power units and the like comprising, in combination, a pair of jumper heads of insulating material at the ends of a flexible insulating tube, a bolting ring at the outer end of each jumper head, an insulating face piece secured to each bolting ring, a plurality of contacts carried by each face piece; each of said contacts comprising a contact sleeve extending into its face piece from the exposed side and having a radially inwardly extending flange at its inner end, a terminal member extending into the face piece from the opposite side and telescoped over the inner end of said contact sleeve and having a longitudinally extending aperture therethrough the inner end of which is threaded, and a screw having a head bearing against said flange and engaging said threads and placing said face piece in compression between said contact sleeve and said terminal member; a plurality of flexible conductors in said insulating sleeve interconnecting said contacts by being secured in the outer end of the aperture of the respective terminal member, and a flexible tension member extending through said insulating tube and interconnecting said bolting rings, there being slack in said conductors whereby force applied endwise to said heads is resisted solely by said tension member and no tension stress is applied to said conductors.

2,869,092

LAMP HOLDER

Edwin G. Goddard, Lombard, Ill.

Application November 4, 1954, Serial No. 466,910
1 Claim. (Cl. 339—57)



An angle lamp holder comprising a shell having two end portions and a central portion, the axes of said end portions being disposed at a given angle to each other, and the angle between the axis of one end portion and the axis of said central portion being substantially equal to the angle between the axis of the other of said end portions and the axis of said central portion, and an interior contact and an exterior contact disposed in each of said end portions, said interior contacts in each instance being located interiorly of the axis of said given angle, and said exterior contacts in each instance being located exteriorly of the axes of said given angle, said shell being provided with openings formed in said central portion and directly behind each of said exterior contacts and in substantial alignment therewith whereby a lead from each of said exterior contacts may be brought directly out of said end portion and in a straight line, the arrangement providing a space disposed adjacent the exterior side of said central portion and between said openings in which space said leads may be disposed and accommodated.

2,869,093

CURRENT TAP

George B. Bennuder, Oaklawn, R. I., assignor to General Electric Company, a corporation of New York

Application April 25, 1956, Serial No. 580,568
2 Claims. (Cl. 339—59)



2. A triple tap comprising a body of insulating material having three pairs of plug prong-receiving openings, one pair of openings being at one end of the body and the other two pairs being on opposing sides of the body where they are offset from each other, and a pair of narrow electrical contact strips encased in the body in edgewise, side-by-side relationship, each contact strip being formed transversely into an S-shaped portion and a longitudinally extending U-shaped portion merging with one end of the S-shaped portion, the opposite end of the S-shaped portion having an extension serving as the terminal end for connection with an electrical conductor,

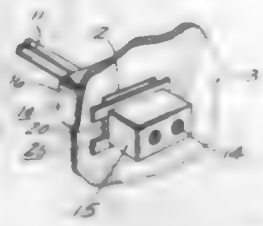
the S-shaped portion of each contact having two arms and a central section that are all parallel to each other, the two arms and the bends in each S-shaped portion being longitudinally slotted and located within the said offset plug prong-receiving openings, the central section being embedded in the body material, the U-shaped portions of the contact strips being located within the end plug prong-receiving openings.

2,869,094

ADJUSTABLE PANEL MOUNTING FOR CORD CONNECTOR

Wallace R. Francis, Milford, Conn., assignor to General Electric Company, a corporation of New York

Application May 1, 1957, Serial No. 656,234
2 Claims. (Cl. 339—59)



1. In combination with a thin panel member having an opening therethrough, an electrical connector of resilient material that is adapted to be adjustably mounted in the opening, the connector comprising a front portion and an enlarged abutment portion, these portions being separated by a central section having the least cross-section, two of the opposite sides of the said section being substantially parallel, and a central recess formed in both of the two parallel sides, a rigid U-shaped clip member of flat construction having a pair of parallel arms, an inwardly-facing locking tongue on each arm near the mid-height, so that when the clip is made to straddle the reduced central section of the body the locking tongues will compress the resilient body material until they become confined in the said recesses where they are hidden from view, the parallel end portions of the arms serving to guide the clip onto the body, the said opening in the panel being slightly larger than the cross-section of the front portion of the connector so that the position of the connector in the opening may be adjusted by an amount that is determined by the size of the central section, the width of the section being substantially equal to the thickness of the panel plus the thickness of the clip member.

2,869,895

ELECTRICAL CONNECTOR WITH POSITIONING RIBS

Samuel L. Arson, Glendale, Calif., assignor to Cannon Electric Company, Los Angeles, Calif., a corporation of California

Application October 25, 1954, Serial No. 464,368
5 Claims. (Cl. 339—61)



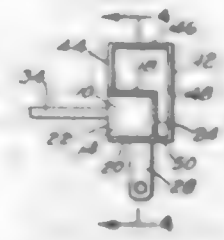
3. Electric connector comprising a pair of connector members and a plurality of resilient members for maintaining the connector members in interengagement against relative lateral movement, one of said connector members being a socket, the other of said connector members being a plug adapted to mate within the socket; the socket comprising a body of insulating material, a housing around and extending forwardly of the socket body to receive the plug, and a plurality of electrical contacts in the body; the plug comprising a body of insulating material, a plurality of electrical contacts in the plug body for engagement with the contacts respectively of the socket to complete a circuit when the plug is engaged in the socket, and a shell embracing the body, the shell having a plurality of elongate slots formed therein spaced circumferentially around the shell and disposed generally parallel to the axis of the connector; the resilient members being elongate and spaced circumferentially around the plug body and disposed generally parallel to the axis of the connector and extending radially from one of said connector members through said slots respectively and into resilient engagement with the other connector member.

2,869,896

FINGER PULL WALL PLUG

Daniel B. Miller, Providence, R. I., assignor to Miller Electric Co., Pawtucket, R. I., a corporation of Rhode Island

Application November 26, 1957, Serial No. 698,966
2 Claims. (Cl. 339—62)



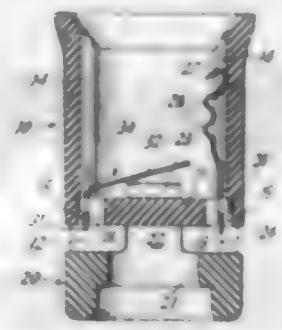
1. A wall plug having a rectangular molded plastic body with top, bottom and side faces, a pair of contact blades projecting from the bottom face of said body, a pair of lead wires electrically connected respectively to said blades within said body and projecting from a side face of said body, and a finger loop consisting of a flexible band having one end attached to a side face of said body at the bottom edge thereof, the other end of said band being attached to said body at the junction of the top and opposite side face thereof.

2,869,897

ELECTRICAL LAMP SOCKET

Simon Stuart, Bronx, N. Y.

Application July 3, 1957, Serial No. 669,896
4 Claims. (Cl. 339—69)



1. A lamp socket comprising, in combination, a substantially cylindrical socket body having a base formed with a pair of substantially diametrically opposite apertures communicating with grooves extending along the inner surface of said socket, and formed with a groove extending diametrically of its undersurface and communicating with said apertures; a first contact in the form of a relatively elongated metal strip having an enlarged head formed with insulation piercing barbs, said first contact extending upwardly through one of said apertures with its head in said base groove and limiting upward movement of said first contact, said first contact extending diametrically of said base and spaced from the upper surface thereof to engage the center contact of a threaded lamp base; a second contact adapted to engage the side contact of the threaded lamp base and including a relatively narrow second strip of conductive

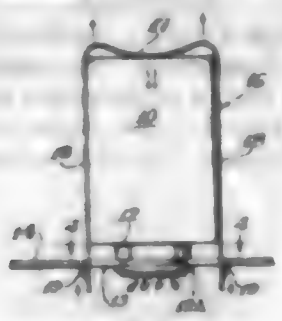
metal extending through the other aperture and longitudinally of one of the grooves in the inner surface of the cylindrical wall of said socket body, said second strip having transverse undulations intermediate its ends engageable with the threads of the lamp base and the undulated portion of said second strip being bowed inwardly from said wall, and having an enlarged head in said base groove limiting upward movement of said second contact and formed with conductor piercing barbs; whereby a lamp bulb may be mounted in said socket by non-rotational movement axially into said socket to flatten said second strip toward said wall; said second strip having a radially and axially inwardly directed hook on its outer end engageable with the threads of the lamp base to prevent removal of the lamp bulb from said socket except by an unscrewing rotation of the lamp bulb; the barbs on the two heads being offset laterally of said groove to engage different conductors of a two-conductor cable in said base groove, said base having a pair of diametrically opposite arcuate openings intermediate said apertures; and a socket cap having a circular wall and a pair of diametrically opposite arcuate cross-section fingers extending longitudinally from said wall for insertion through said arcuate openings; the free ends of said fingers having ribs on the inner surfaces thereof engageable with the upper surface of the socket base; the distance of said ribs from said cap wall being such that, when said ribs are engaged over the upper surface of said socket base, said cap wall will firmly press the conductors of such cord in said groove onto said barbs.

2,869,098

STRAP TYPE INSTRUMENT MOUNTING

Hans Sauer, Chicago, Ill., assignor to Comar Electric Company, Chicago, Ill., a corporation of Illinois

Application July 25, 1955, Serial No. 524,236
1 Claim. (Cl. 339—75)



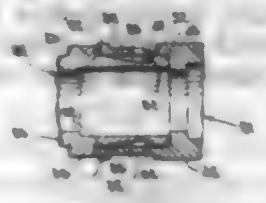
In combination, an instrument member having at least two opposite side-walls which are substantially flat and an adjoining bottom portion provided with plug-in mounting means cooperable with matching plug-in means located in a long slot in a mounting panel, said slot being longer than said matching plug-in means so as to leave a passage between each of the opposite sides of said matching plug-in means and a confronting edge of said slot; and removable hold-down means in the form of a U-shaped strap of flat springy metal having its bight bowed inwardly and having the free ends of its legs sprung somewhat outwardly, each leg having a substantially flat latching lug struck outwardly therefrom and extending back in a direction toward the bight to form opposite latching tabs, said legs being spaced apart a distance only slightly greater than the distance between said opposite flat side-walls of the instrument member and said tabs being located relative to said bowed bight and the length of said instrument member such that when said instrument member is disposed on said panel by the mounting means aforesaid, said strap can be pressed down upon the instrument member with said bowed portion pressing against the upper end thereof and said legs substantially hugging said opposite side-walls thereof, and said tabs sprung outwardly of the lugs to latch beneath said free edges of the slot, whereby the instrument member is secured in mounted position and also prevented from twisting by the flat strap legs hugging said oppoite side-walls thereof, and said legs are quickly and easily insertable in said passages.

2,869,099

MEANS FOR INTERLOCKING ELECTRICAL CONNECTOR CASINGS

Samuel C. Robinson, New Albany, Ind., assignor to Robinson Machine Works, Inc., New Albany, Ind., a corporation of Indiana

Application October 5, 1955, Serial No. 538,696
2 Claims. (Cl. 339—91)



1. In an electrical connector assembly of the type described including a plug unit adapted to be mated with a receptacle unit: a casing enclosing said plug unit and terminating at one end in a cylindrical mating portion; a casing enclosing said receptacle unit and terminating at one end in a cylindrical mating portion having a peripheral diameter slidably fitting the internal diameter surfaces of the cylindrical mating portion aforesaid of the plug casing; and means provided on the mating end portion of the plug casing in combination with means provided on the mating end portion of the receptacle casing for positively interlocking said casings in mated disposition, said means comprising: a series of circularly spaced resilient finger segments each defined by a U-shaped opening formed in the periphery of said mating portion of the plug casing, each finger segment terminating at its free end in an angularly bent inwardly projecting extremity; a series of circularly spaced recesses formed in the periphery of said mating portion of the receptacle casing, the number of recesses being twice the number of finger segments aforesaid; a radial shoulder at one end of each recess formed by an increase in depth and width of the recess beginning at the opposite end thereof; and a series of circularly spaced lands produced by said recesses in the periphery of the mating portion of the receptacle casing, the narrowest portion of each land being located between a pair of said shoulders.

2,869,100

ANODE CONNECTOR

Glenn T. Adams, Mount Prospect, Ill., assignor to Mayfair Molded Products Corporation, Franklin Park, Ill., a corporation of Illinois

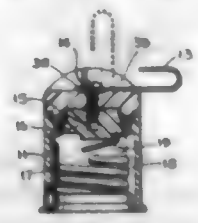
Application November 23, 1956, Serial No. 623,934
3 Claims. (Cl. 339—97)



1. In a connector for electrically connecting an insulated flexible conductor with an electrode socket of a cathode ray tube, the combination of a clip member of resilient spring wire having a return bend at one end and divergent leg portions at the other end thereof, said clip member lying at one side of and at one end of said flexible conductor with the divergent leg portions of said clip projecting beyond said one end of said conductor, a fastener substantially encircling said conductor be-

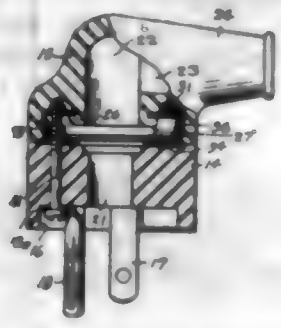
tween said one end of the latter and said return bend of said clip, said fastener having opposed edge portions extending lengthwise at said one side of said flexible conductor at said one end thereof, said edge portions having the lengthwise edges thereof extending inwardly of said flexible conductor and displacing the insulation of the same for securing the portions of said clip between said return bend and said divergent leg portions between said edge portions of said fastener and said flexible conductor.

2,869,101
PIN-TYPE LAMPHOLDER
George B. Benander, Oaklawn, R. I., assignor to General Electric Company, a corporation of New York
Application March 29, 1956, Serial No. 574,841
5 Claims. (Cl. 339—99)



1. A lampholder comprising a lamp base-receiving portion containing contacts adapted for making electrical connection with a lamp, the terminal end of each contact being pointed to pierce the insulation of a conductor and extending through the base of the lampholder and fixed thereto, a rotary cap of a width less than the spacing between the contact terminals and pivotally mounted on the exterior of the base about an axis between the said terminal ends, and a side post extending along the outer side of the pointed terminal end of each contact, a tongue and notch formation between the said cap and side post so as to lock the cap over the terminals to hold the conductors in place, and a diagonal groove on the outer side of the cap having a hook member attached in the bottom thereof and extending transversely through the side opening of the groove so that the hook member may serve as a wrench to increase the ease of turning the cap, while the hook member may be bent at a right angle so that the lampholder is capable of being suspended from a suitable supporting member.

2,869,102
ADJUSTABLE CORD TAKE-OFF FOR ATTACHMENT PLUGS
Harvey Hubbell, Jr., Long Hill, Conn., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn., a corporation of Connecticut
Application November 26, 1956, Serial No. 624,257
3 Claims. (Cl. 339—101)



1. In an electrical device of the character described, a body member and an end member of insulating material, contacts mounted in the body member for engagement with the contacts of a cooperating plug-in device, peripheral flange provided with a plurality of peripherally spaced openings, a second plate secured to the other member having a lateral lug adapted to seat in any one of said openings in the cupped plate and another lug opposite the first lug engaging the flange to retain the first lug in said opening, and means connecting the body means for connecting lead wires to said first contacts, said end member provided with a longitudinal passage for passage of said wires and a lateral extension provided with a passage for the wires leading to the first passage at an angle thereto, and means for securing the end member on one end of the body member with said extension located in any one of a plurality of different angular positions about the axis of the body member comprising a cupped plate mounted in one of the members having a member to prevent separation of said plates.

2,869,103
METAL-BEARING PASTE AND ALUMINUM CONNECTION CONTAINING THE SAME
Franklin H. Wells, Harrisburg, Pa., assignor to AMP Incorporated, a corporation of New Jersey
Application June 2, 1953, Serial No. 359,201
5 Claims. (Cl. 339—115)



4. A crimped electrical connection comprising an electrical connector having a cylindrical portion made of an electrically conductive metal, said cylindrical portion containing a body of a paste comprising a finely divided nickel powder dispersed in an unctuous medium, said nickel powder comprising 25% to 90% by weight of said paste, and an aluminum conductor positioned in said body of paste within said cylindrical portion of said connector, said cylindrical portion being crimped to said aluminum conductor through said body of paste.

2,869,104
ELECTRON TUBE LEAD ADAPTER
Horace C. Pleak, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application July 2, 1956, Serial No. 595,411
3 Claims. (Cl. 339—145)

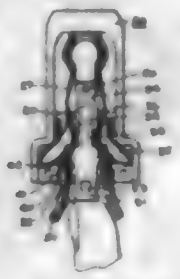


1. An adapter for electric components having an array of circularly arranged leads projecting from its base, said adapter comprising a member having a plane face with bores in a circular array extending entirely through the member and perpendicular to said face, said member being stepped on the end thereof opposed to the plane face, with the bores leading through treads of the stepped face, one of said treads being substantially along a diameter of the circular array of bores and provided with slots at the ends, which slots extend parallel with the said diameter.

2,869,105
FLUORESCENT LAMPHOLDER WITH SCREWLESS TERMINALS
John M. Pixley, Fairfield, Conn., assignor to General Electric Company, a corporation of New York
Application November 21, 1955, Serial No. 548,161
4 Claims. (Cl. 339—174)

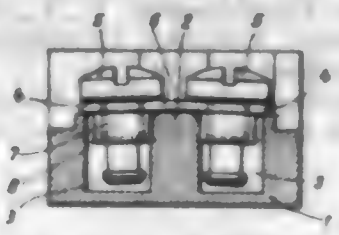
1. A wiring device comprising a hollow housing of insulating material supporting a similar pair of movable contact strips in flatwise relation to each other, an insulating partition of the housing separating the two contact strips along the length thereof and also serving as

a guide for a manually-operated plunger which extends through an opening in the bottom wall of the housing, the plunger having side extensions at its inner end that hold the plunger from being removed through the bottom wall of the housing and also spread the lower ends of the two contacts apart when the plunger is forced into the housing, a lead wire-receiving opening in said bottom wall on the outer side of the lower end of each contact, and a separate spring locking tongue adjacent the lower end of each contact strip, each tongue being anchored at



one end in the housing so that the free end of the tongue is in spaced relation with the adjacent contact when the plunger is in its outer position, the free end of the tongue also being directed at an acute angle toward its respective contact and away from the nearest wire-receiving opening to assist in guiding the lead wires into the device, whereby a lead wire may be inserted between each locking tongue and its related contact strip and the plunger pressed into the housing to spread the contacts apart and force the lead wires against the free ends of the locking tongues.

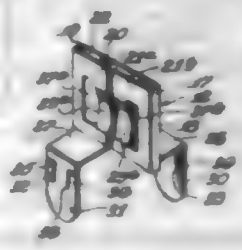
2,869,106
METHOD FOR FASTENING A CONNECTION TERMINAL IN AN INSULATING BLOCK
Sune Sigurd Sixten Hasselholm, Hagersten, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application May 12, 1955, Serial No. 507,956
4 Claims. (Cl. 339—198)



1. A terminal block compriting, in combination, an insulated block housing including a base portion having an upper surface defining at least a pair of terminal receiving openings, a ridge between said pair of openings, said ridge extending above the level of said upper surface of said base; a connecting terminal comprising a conductor strip having a plurality of perpendicularly extending terminal clamping sleeves supported in said housing above said ridge with said sleeves disposed within said openings, each of said pair of sleeves having opposed securement means engaged with said base portion between said openings as opposite sides of said ridge.

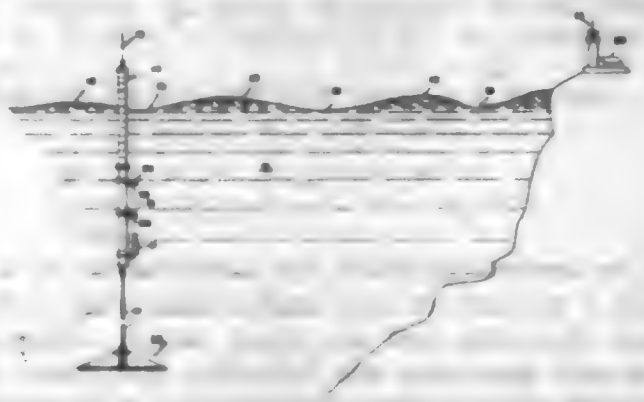
2,869,107
MOUNTING AND CONTACT MEMBER
William J. Engel, Chicago, Ill., assignor to Cinch Manufacturing Corporation, Chicago, Ill., a corporation of Illinois
Application October 29, 1956, Serial No. 618,753
1 Claim. (Cl. 339—220)

In a structure of the character described, a printed wire board having a first pair of substantially parallel openings therethrough and a second pair of substantially parallel openings therethrough, a first and a second mounting and contact member, each of said contact members having a socket body comprising end and side walls defining a socket adapted to receive the mounting tongue of a socket component therein, said socket body abutting said board and having a substantially greater dimensional width than that of such a mounting tongue to afford selective positioning of the tongue therein, gripper members provided by one of said walls for resiliently engaging a mounting tongue inserted into the socket therefor,



a pair of laterally extending legs for each of said socket bodies, one extending from each side wall thereof, said legs being spaced above the lowermost edge of the socket body and being equipped at the outer ends thereof with depending attaching tabs extending through said openings, and each of said tabs being equipped with means for securing the socket body to said board.

2,869,108
SONIC RADIO LINK WAVE HEIGHT METER
Louis E. Smith, Jr., La Mesa, Calif.
Application December 9, 1949, Serial No. 132,187
3 Claims. (Cl. 340—2)
(Granted under Title 35, U. S. Code (1952), sec. 266)

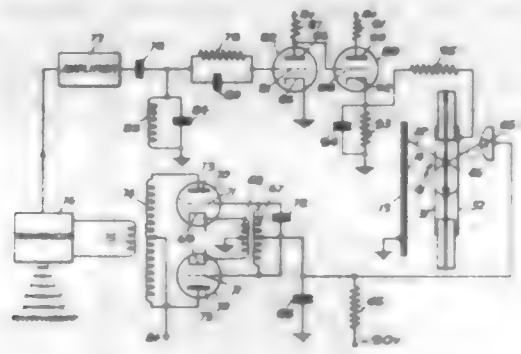


3. Apparatus for measuring vertical distances relative to mean height of surface waves in a body of water comprising an elongated vertically disposed buoy, means for damping the vertical oscillations of the buoy caused by rise and fall of the waves thereabout, said means including a sea anchor suspended from said buoy above the bottom of said body of water and below the influence of surface waves, vertically directed sonar range finding means fixed to said buoy at a predetermined distance from said mean wave height for measuring time intervals indicative of the vertical distances to be measured, and radio means broadcasting from the apparatus a signal indicative of said time intervals.

2,869,109
DEPTH SOUNDING DEVICES
Robert A. Frykland, Dedham, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application April 24, 1953, Serial No. 350,788
1 Claim. (Cl. 340—3)

An indicator comprising a record medium, a recording member comprising a stylus assembly having a first portion adapted to be drawn across said medium for recording purposes and a second portion electrically connected to the first portion used as a keying contact, an oscillator keyed by said keying contact, a transducer connected to the output of said oscillator, and a detector connected to the output of said transducer and having

its output connected to said stylus assembly, said oscillator, detector and keying contacts forming a regenera-



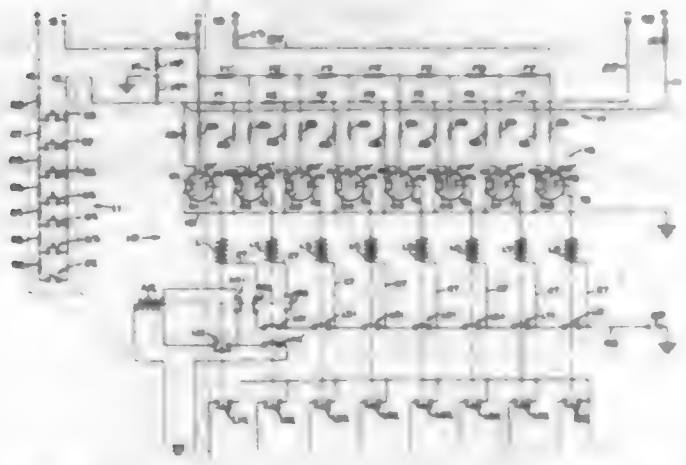
tive loop for intensifying said keying action of said keying contacts.

2,869,110

REMOTE CONTROL APPARATUS

Elmer K. Wagner, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill., a corporation of Illinois

Application August 9, 1954, Serial No. 448,538
12 Claims. (Cl. 340—172)



3. In control apparatus, the combination of, a power supply, a plurality of load control tubes each having two output electrodes and an output circuit connected between said electrodes and including said power supply, a plurality of load relays corresponding in number to said tubes and respectively connected in the different output circuits of the latter in series with one of said electrodes thereof for energization of each relay when the output circuit of the corresponding tube is completed and the tube is conditioned for conduction, each of said relays having normally closed contacts in the output circuits of an end one of said series of tubes and all tubes in the series between such end tube and the tube corresponding to the relay whereby the output circuit of each tube is interrupted by conduction of any of the tubes located between such tube and the other end tube of the series and energization of the associated relay, and selectively operable biasing means in addition to said normally closed relay contacts for conditioning a selected one of said tubes for conduction while the other tubes are biased non-conductively.

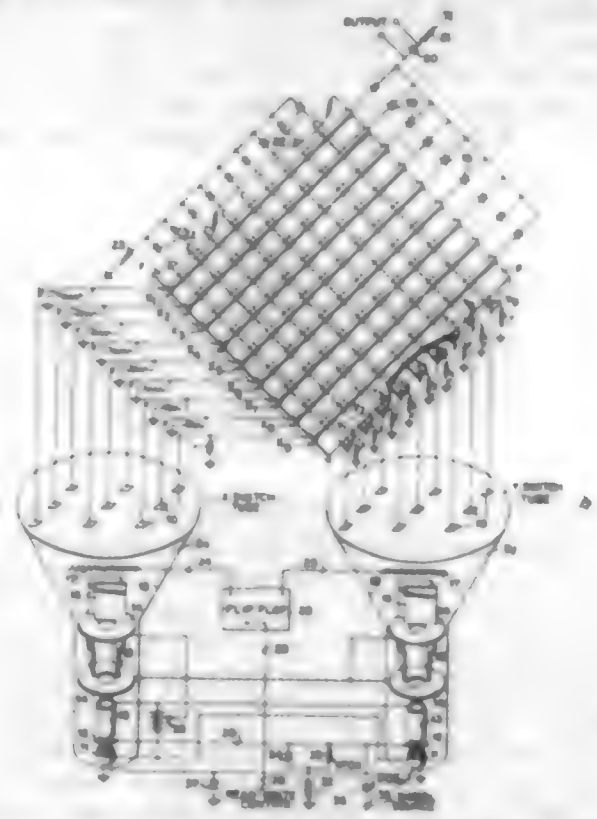
2,869,111

ELECTRON BEAM SWITCH TUBE OPERATION OF A FERROELECTRIC MATRIX

Donald R. Young, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application November 17, 1953, Serial No. 392,615
11 Claims. (Cl. 340—173)

1. A switch tube system adapted to selectively apply a positive or a negative potential to selected ones of a plurality of channels and comprising an evacuated envelope having mounted therein means for producing an electron beam, a control grid, means for deflecting said beam along a path, a collector grid, a plurality of separate mutually spaced conductive secondary electron emissive target electrodes directly connected to a corresponding one of said channels, means for biasing said control grid to cut off, means for selectively varying the polarity of



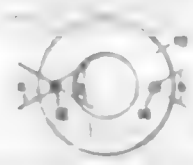
said collector grid with respect to said target electrodes, and means for overcoming said control grid bias for intervals when said beam is deflected to a selected one of said target electrodes to cause said target electrode and the associated channel connected thereto to assume the potential selectively maintained on said collector grid.

2,869,112

COINCIDENCE FLUX MEMORY SYSTEM

Lloyd P. Hunter, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application November 10, 1955, Serial No. 546,180
15 Claims. (Cl. 340—174)



1. A magnetic core memory device comprising a magnetic circuit capable of assuming stable remanence conditions and having a first and second portion thereof divided into parallel flux paths, a first input winding for one flux path of said first portion, a second input winding for the other flux path of said first portion, and an output winding for that part of said second portion having the greater flux path length.

2,869,113

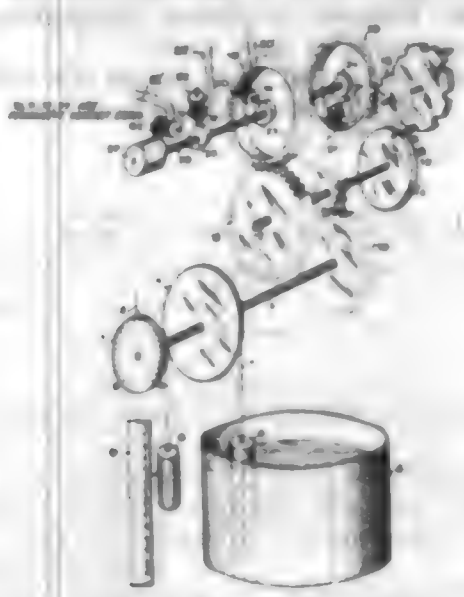
REMOTE METERING SYSTEM

Gaston Reymondenq and Paul Ouvrard, Dougres, France, assignors to Antar Petroles de l'Atlantique, Paris, France

Application January 28, 1955, Serial No. 484,729
Claims priority, application France May 7, 1954
1 Claim. (Cl. 340—206)

In an electric telemetering system for transmitting to a distance the indications of a measuring instrument having a digital scale by means of periodic timing pulses and a plurality of time spaced indicating pulses therebetween, each of which latter is indicative of the instantaneous value of variable digits units representing the measure to

be transmitted; a voltage generator device comprising a rotatable shaft, a plurality of axially spaced disc shaped magnetically permeable devices mounted on said shaft to rotate therewith, each device having a spiral shaped peripheral portion terminating in a radial step, a permanent magnet pickup associated with each device and positioned in such radial relationship therewith that a voltage pulse



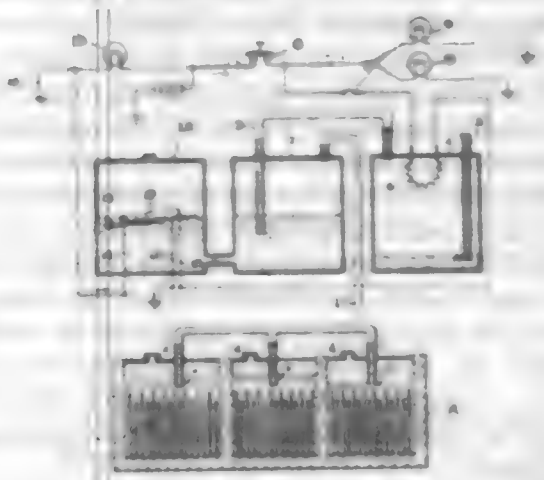
is created in the pickup as said step passes the latter, one of said pickups being stationary and the other pickups being movable around their associated devices along a circular path concentric to said shaft at a speed to produce said periodic timing pulses in said stationary pickup and said indicating pulses in said movable pickups, and means for adjusting the angular position of each movable pickup in accordance with the digital units to be indicated.

2,869,114

AUTOMATIC PROCESS AND APPARATUS FOR INDICATING THE NECESSITY OF READJUSTING THE LEVEL OF THE ELECTROLYTE IN ACCUMULATORS OF AUTOMOTIVE VEHICLES

Ralpho Rezende Decourt, Rio de Janeiro, Brazil

Application September 18, 1956, Serial No. 610,573
Claims priority, application Brazil November 29, 1955
5 Claims. (Cl. 340—249)



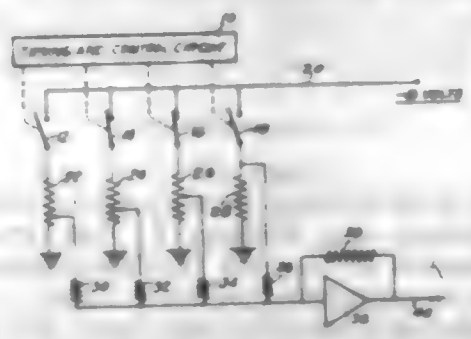
1. Apparatus for indicating the necessity for readjusting the level of the electrolyte in the cells of a battery of an automotive vehicle, comprising, in combination, a first chamber containing an electrically insulating, viscous, non-volatile liquid, a second chamber containing an electrically, insulating, viscous, non-volatile liquid, means for connecting said chambers at their respective lower portions, whereby said respective liquids will mix and seek the same level in each of said chambers, said first chamber being hermetically sealed, said second chamber being open at a portion thereof to the atmosphere, a manifold having a plurality of branch pipes extending therefrom, each of said branch pipes extending into one of the cells of the battery and terminating below the electrolyte level at the insulating plates thereof and a tube connecting said first chamber thereto, whereby the pressure on the liquid in said first chamber is greater than atmospheric pressure by the pressure exerted by said electrolyte thereby causing a slight difference in the levels of the liquids in said first and second chambers, a third chamber containing an electrically insulating, viscous, and non-volatile liquid, means for connecting the air space of said third chamber with said liquid of said first chamber, a tube extending from the atmosphere into the liquid of the third chamber, a first electrical circuit and a second electrical circuit, said second circuit including an alarm lamp, said first circuit including a braking switch and an electrical heating resistor in series therewith, a floater switch means positioned on the surface of said liquid in said second chamber for closing said first circuit and then said second circuit, said electrical heating resistor being positioned in said third chamber, whereby, upon actuating the braking switch, the resistor heats the air in the third chamber and the air, on cooling, will cause air to flow from the atmosphere into the third chamber thereby causing the cool air to be injected into the first chamber and thence into the second chamber if the electrolyte levels in the cells are high enough or thence out of the branch pipe if any cell in which the electrolyte level is not high enough thus causing the floater switch means to close the second circuit and cause the alarm lamp to glow.

2,869,115

DIRECT CURRENT TO DIGITAL CODING AND DECODING SYSTEM

Henry Doeleman and Robert B. Bonney, Los Angeles, Calif., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

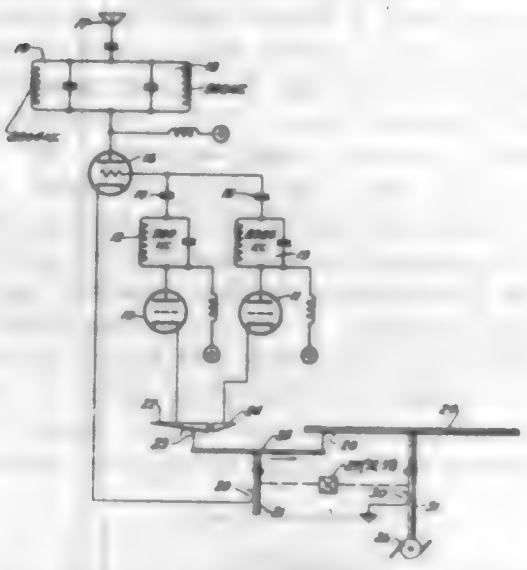
Application March 23, 1953, Serial No. 343,888
2 Claims. (Cl. 340—347)



1. In an analogue to digital coding system, a pulse counter, a plurality of switches having open and closed positions and controlled by said counter, a source of D. C. supply voltage, a plurality of ratio resistance networks having predetermined resistance ratios and equal in number to the number of switches controlled by said counter, means for connecting each of said ratio resistance networks through an associated switch of said plurality of switches to said supply voltage source, means for summing the output voltages of said ratio resistance networks, a source of input signal voltage, error voltage generating means for comparing the sum of said output voltages with the voltage on said source of input signal voltage and to generate an error voltage having an amplitude and sign depending upon the relative difference between said input and output voltages, said error voltage generating means including a chopper effective to periodically clamp said error voltage to a point of constant potential and thereby develop an output wave of alternating polarity, counter control means actuated by said error voltage for directing said counter to count in a direction tending to reduce said error voltage to zero, said counter control means including at least one coincidence circuit effective to pass only those portions of the output wave developed by said chopper which extend

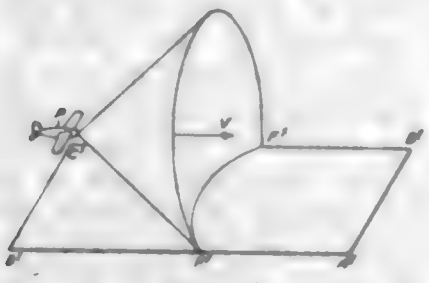
in one particular direction of polarity, and means for sampling said switches to produce a pulse code corresponding to the position of said switches.

2,869,116
AUTOMATIC KEYER FOR LIFEBOAT RADIO EQUIPMENT
John William Butterworth, Paterson, N. J., assignor to Mackay Radio and Telegraph Company, New York, N. Y., a corporation of Delaware
Application January 28, 1954, Serial No. 406,765
20 Claims. (Cl. 340—356)



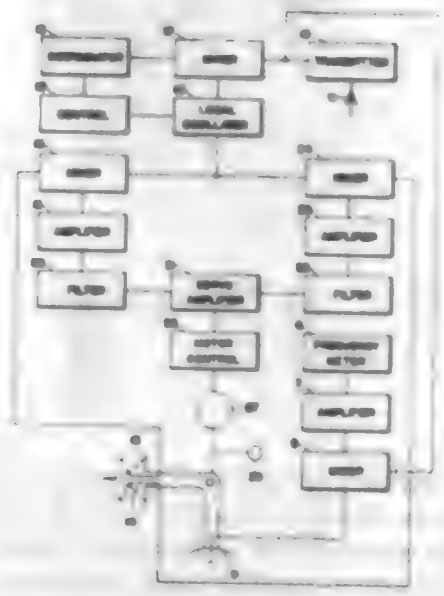
1. An automatic radio transmitter for recurrently and cyclically transmitting successive coded messages, comprising a plurality of carrier frequency sources, an automatic keying device in the form of a rotary commutator having contact segments arranged in a spiral array, a shiftable switch member, means to operate said member in interlocked timed relation with said commutator to scan said segments successively and cyclically, said member also having an element for connecting the scanned segments in correlated sequence with a selected one of said sources.

2,869,117
COURSE AND SPEED INDICATING SYSTEM
France B. Berger and William J. Tull, Pleasantville, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York
Application September 18, 1948, Serial No. 49,926
21 Claims. (Cl. 343—9)



1. A navigation system adapted to be mounted on a vehicle for navigating the vehicle relative to the earth's surface comprising, linear antenna array means producing a conical beam of radiation, means for so mounting said antenna array means on said vehicle that the axis of said conical beam is in a plane which is substantially parallel to the axis of said vehicle, the directivity pattern of said conical beam illuminating the earth's surface over a hyperbolic area which is wide in the direction along the hyperbolic curve and narrow in a direction normal thereto, means on said vehicle for radiating microwave energy from said vehicle towards the earth's surface for reflection thereby, means including said antenna array means for receiving said reflected signal, and means for determining the frequency difference between the energy radiated from said vehicle and said reflected signal to indicate the speed of said vehicle.

2,869,118
NAVIGATION SYSTEM
William J. Tull and Frank N. Gillette, Pleasantville, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York
Application May 20, 1947, Serial No. 749,184
19 Claims. (Cl. 343—9)

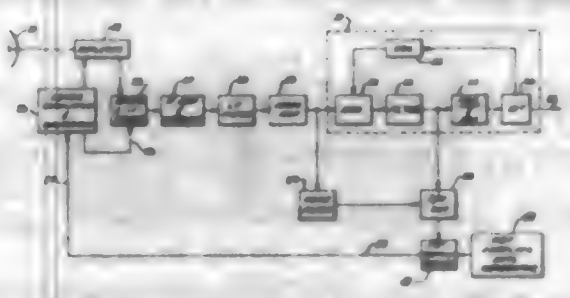


8. In a navigation system, a transmitter, an antenna connected thereto for transmitting the signal generated by said transmitter, means for receiving transmitted signals reflected from a first direction, means for receiving transmitted signals reflected from a second direction, means for beating the signals received from said first direction with a portion of the signal wave generated by said transmitter to produce a first spectrum of beat frequencies, a local oscillator, means for beating a portion of the signal wave generated by said local oscillator with said first beat frequency spectrum to produce a second beat frequency spectrum, filter means for discriminating against all but a portion of said second beat frequency spectrum, means for beating the signal wave received from said second direction with a portion of the signal wave generated by said transmitter to produce a third spectrum of beat frequencies, means for beating a portion of the signal wave generated by said local oscillator with said third beat frequency spectrum to produce a fourth beat frequency spectrum, filter means for discriminating against all but a portion of said fourth beat frequency spectrum, and means operative by the energy outputs of said first and second mentioned filters for controlling the frequency of the signal wave generated by said local oscillator and for indicating speed, and further means operative by a comparison of the relative outputs, of said first and second mentioned filters for indicating direction of travel.

2,869,119
PULSE RADAR TRANSMITTER-RECEIVER
Arden H. Fredrick, Mount Kisco, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application September 27, 1955, Serial No. 536,867
5 Claims. (Cl. 343—17.1)

1. A pulse radar transmitter-receiver comprising, means for generating and transmitting pulse signals, means for receiving echo signals thereof, means for periodically varying the pulse repetition frequency of said generated and transmitted pulse signals, means for sampling the signal-to-noise ratio of said received echo signals, and means operated by the relative signal-to-noise

ratio of received echo signals at different pulse repetition frequencies for adjusting said generating means to pro-



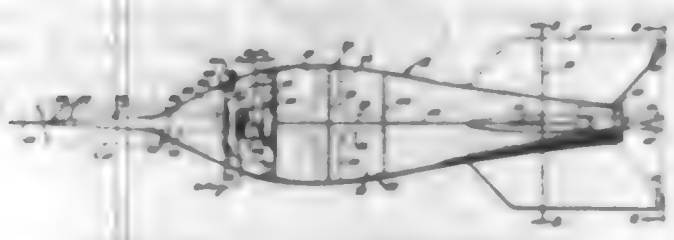
duce pulse signals having a pulse repetition frequency yielding received echo signals having the highest signal-to-noise ratio.

2,869,120

TOW TARGET HAVING COMBUSTION SIGNAL MEANS

Orson R. Lohnaugh and William E. Thornton, Los Angeles, and Charles A. Smith, Reseda, Calif., assignors to Del Mar Engineering Laboratories, Los Angeles, Calif., a corporation

Application September 17, 1956, Serial No. 610,066
8 Claims. (Cl. 343—18)



1. An aerial tow target comprising a hollow thin-walled rigid body member having a low drag aerodynamic configuration, the walls of said body member being formed of a non-metallic material permeable by radar waves; means defining a plurality of normally intersecting planes interiorly of said body member and having a metallic surface for reflecting exteriorly propagated radar waves; a rearwardly directed flare magazine mounted to the trailing end of said body member; a plurality of rearwardly directed flares mounted in said magazine; a radio receiver carried within said body member, said radio receiver developing an output signal in response to a received signal from a remote source; and means for igniting said flares in sequence, including means responsive to said output signal of the radio receiver, whereby said flares are ignited in response to the received signal from the remote source.

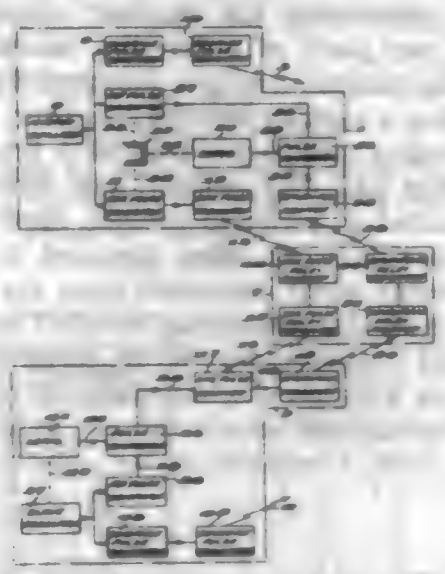
2,869,121

SYNCHRONIZATION SYSTEM

Milton J. Mimneman, Baltimore, Md., and Arthur S. Westneat, Jr., Franklin Township, N. J., assignors to The Martin Company, a corporation of Maryland

Application September 18, 1950, Serial No. 185,448
5 Claims. (Cl. 343—103)

1. A synchronization system for use between a master station and a slave station comprising a primary timing source at said master station having a predetermined cycle time length, means controlled by said timing source for transmitting a synchronizing signal from said master station to said slave station at a predetermined time in said cycle, said signal being transmitted over a path having a variable time length, and means controlled by said synchronizing signal and said timing source for determining the actual round-trip time length of said path and responsive to an increase or decrease in said round-trip time length to cause succeeding synchronizing signals to be transmitted respectively earlier or later in said cycle by an amount equal to substantially half of said variation in time length, whereby to maintain the



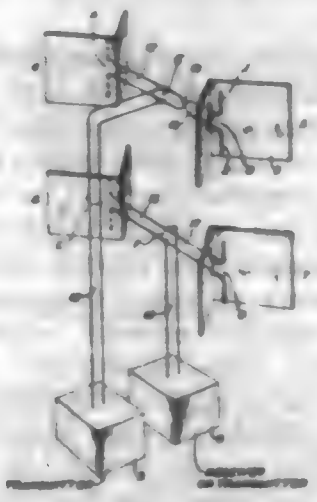
time of reception of said synchronizing signals at said slave station at a substantially constant point in said cycle.

2,869,122

ANTENNA ARRAY

Wallace C. Babcock, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 31, 1954, Serial No. 478,953
10 Claims. (Cl. 343—205)



1. In combination, two horizontal antenna arrays located close together and adapted to operate simultaneously at closely spaced frequencies, each of said arrays including two similar unidirectional antennas with negligibly low mutual coupling positioned for operation in different directions, a radio transmitter connected to each of said antennas in one of said arrays, and a radio device connected to each of said antennas in the other of said arrays, the spacing between one antenna in one of said arrays and one antenna in the other of said arrays being approximately equal to the spacing between the other antennas, the spacing between the one antenna in one array and the other antenna in the other array being approximately equal to the spacing between the remaining antennas, the antennas in one of said arrays being connected in phase with each other, and the antennas in the other of said arrays being connected 180 degrees out of phase with each other.

2,869,123

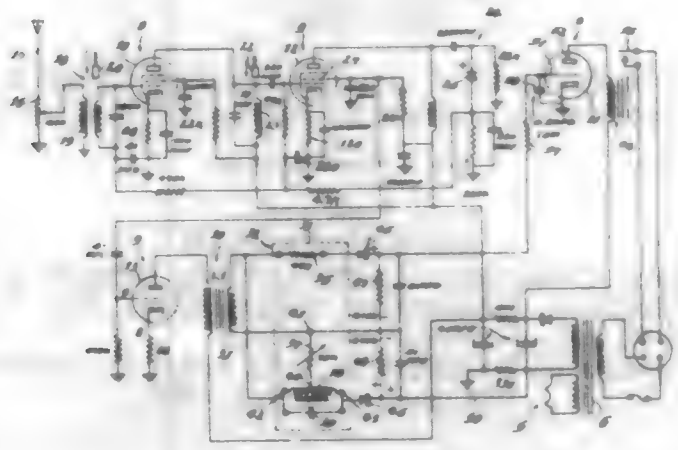
HIGHLY DISCRIMINATING RADIO FREQUENCY RECEIVER

Richard Goldstein, Des Plaines, Ill., assignor to Perma-Power Company, Chicago, Ill., a corporation of Illinois

Application November 8, 1954, Serial No. 467,313
5 Claims. (Cl. 343—225)

1. In combination, a substantially fixed frequency radio receiver including radio-frequency, detector and audio-

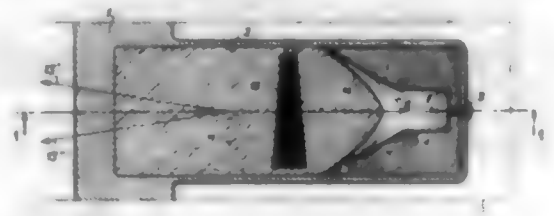
frequency stages adapted to receive a substantially fixed carrier modulated by a fixed audio-frequency signal, means for impressing the receiver output currents in parallel on two parts of a decoding means, one part of said decoding means forming a substantially pure resistive load including a rectifier and load resistor, the other part of said decoding means consisting of a bridge-T network and a rectifier and load resistor, said two load resistors being connected in series to provide opposed potentials, said bridged-T network being designed to suppress said signal frequency when impressed upon the input thereof, a power supply for providing rectified current to said receiver, said power supply having positive and negative terminals, an electron discharge device having cathode, control electrode and anode for use as a relay tube, a connection from a terminal of the power supply to said



anode, a connection from a negative terminal of said power supply through said two load resistors in series to the control electrode, a connection between said cathode and a point on said power supply which is somewhat positive to said negative terminal on said power supply, said decoding means providing substantially no net positive output potential to the control electrode of the relay tube in the absence of signal frequency currents at the input of the bridged-T network, said control electrode of the relay tube being maintained normally negative to the cathode to keep the relay tube cut off, said decoding means providing a net positive potential when signal frequency is applied to the input of the decoding means whereby said relay tube has current passing therethrough from cathode to anode, and a load controlled by the current passing from cathode to anode of said relay tube.

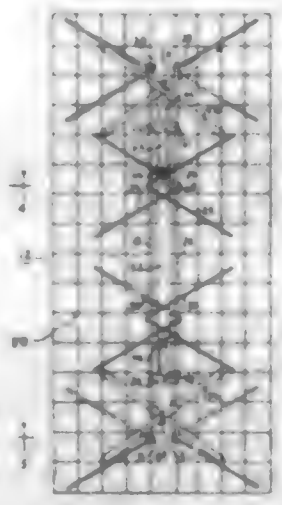
2,869,124
LOBE-SCANNING MICROWAVE ANTENNA
Pierre G. Marié, Paris, France
Application November 15, 1954, Serial No. 468,958
Claims priority, application France November 19, 1953
3 Claims. (Cl. 343—783)

2. A microwave lobe scanning antenna comprising in combination a sectoral horn having an axis and flared and parallel metallic faces with respect to said axis, the plane of opening which is oblique with respect to the parallel faces whereby the horn has long and short parallel faces, a first dielectric substance sheet filling the space between the plane of opening and the long parallel metallic face of the horn, said sheet constituting a layer of decreasing thickness spread on said metallic face, a second dielectric substance sheet, embedded in the first dielectric substance sheet, having a great refractive index which varies with a magnetic field applied thereto and conforming, in cross-



section, to the shape of an isosceles trapezium the angle of which, that is formed by the non parallel sides, is small and the height of which is perpendicular to the axis of the horn, and means to generate and apply parallel to said height a variable magnetic field.

2,869,125
DOUBLET ANTENNA ARRAY WITH ALTERNATE ARMS MOUNTED IN RESPECTIVE PLANES, PARALLEL TO COMMON REFLECTOR
Irvine H. Bouchard, South Bend, Ind.
Application August 27, 1956, Serial No. 606,387
4 Claims. (Cl. 343—808)

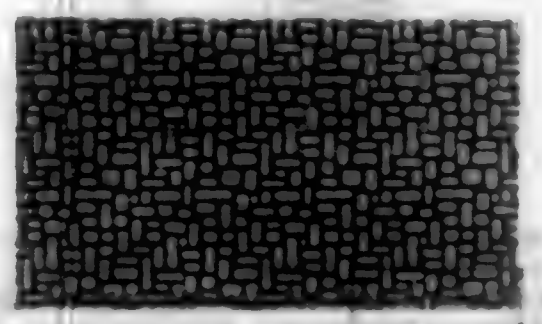


1. An antenna for a television receiver, comprising a screen-like reflector, two spaced insulating members having two opposed surfaces parallel to said reflector and being arranged one above the other in front of said screen, a means for adjustably connecting said members to said screen in spaced relation thereto, vertical grooves on opposed surfaces of said members, a bar secured in corresponding grooves of said members, a V-shaped element at each end of said bar extending outwardly parallel to said reflector in the direction of the nearest direction of the nearest vertical edge thereof, and two V-shaped elements positioned on said bar intermediate of said end elements of said last mentioned bar and extending parallel to said reflector in the direction of the extending outwardly parallel to said reflector in the shaped element at each end of said last mentioned bar vertical edge thereof, two V-shaped elements positioned on said bar intermediate of said end elements and extending parallel to said reflector in the direction of the farthest vertical edge of said reflector, a second bar secured in the other corresponding grooves of said members, a V-farthest vertical edge of said reflector.

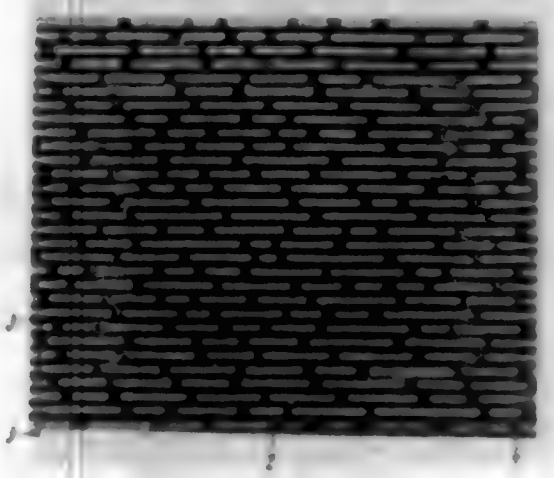
DESIGNS

JANUARY 13, 1959

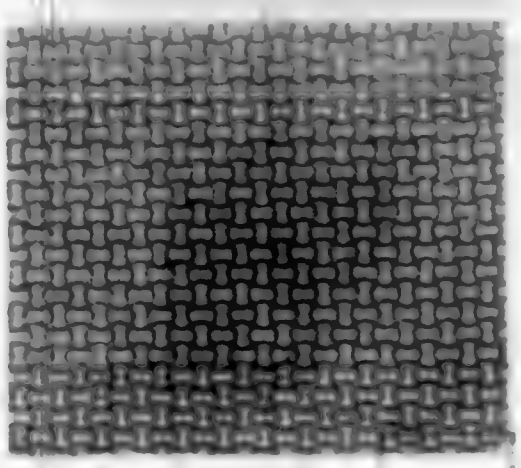
184,247
BREATHABLE POLYMER COATED FABRIC
Howard L. Amberson, Madison, Wis., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 5, 1958, Serial No. 49,502
Term of patent 14 years
(Cl. D92—1)



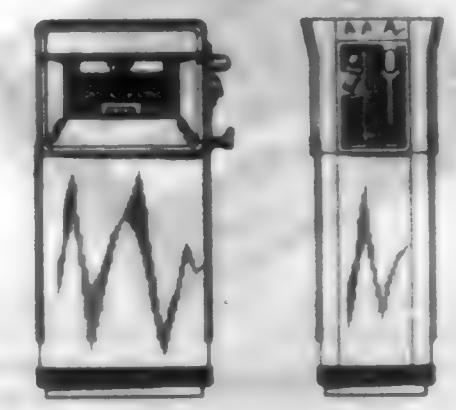
184,248
BREATHABLE POLYMER COATED FABRIC
Howard L. Amberson, Madison, Wis., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 5, 1958, Serial No. 49,504
Term of patent 14 years
(Cl. D92—1)



184,249
BREATHABLE POLYMER COATED FABRIC
Howard L. Amberson, Madison, Wis., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 5, 1958, Serial No. 49,505
Term of patent 14 years
(Cl. D92—1)



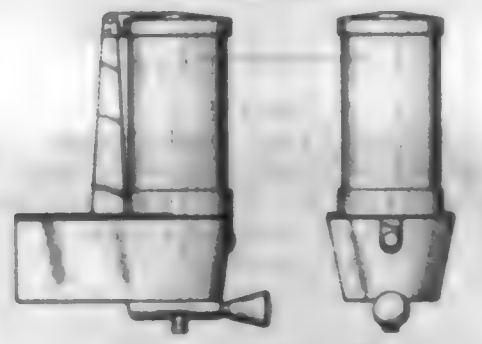
184,250
GASOLINE PUMP
Benjamin G. Bowden, Short Hills, N. J.
Application November 25, 1957, Serial No. 48,649
Term of patent 14 years
(Cl. D52—2)



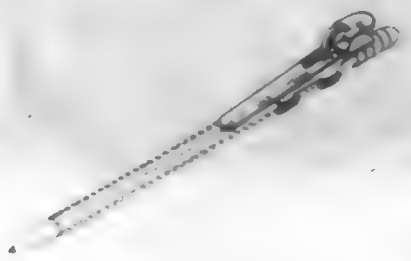
184,251
CHRISTMAS ORNAMENT, OR SIMILAR ARTICLE
Jack Barnbaum, Newton, Mass., assignor to Bradford Novelty Co., Inc., Cambridge, Mass, a corporation
Application April 16, 1958, Serial No. 50,492
Term of patent 14 years
(Cl. D29—1)



184,252
LIQUID SOAP DISPENSER
Harold W. Darr, Minneapolis, Minn., assignor to Harold B. Shapira, St. Paul, Minn.
Application June 19, 1958, Serial No. 51,430
Term of patent 14 years
(Cl. D4—3)



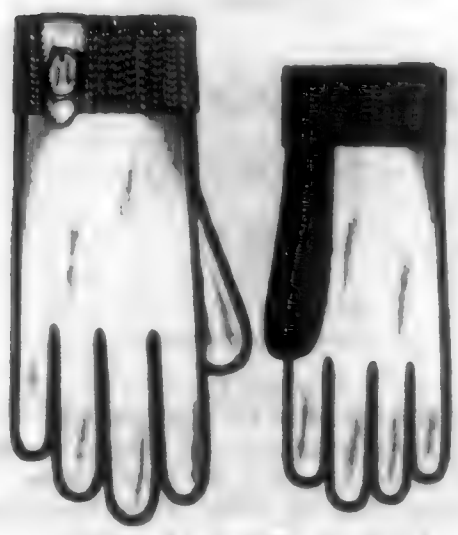
184,253
PENCIL CLIP
Nan D. Denison, Des Moines, Iowa
Application January 16, 1958, Serial No. 49,269
Term of patent 7 years
(Cl. D74—1)



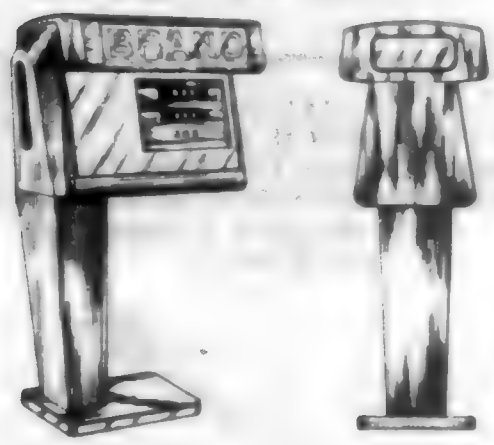
184,254
DICTATION TRANSCRIBING MACHINE OR SIMILAR ARTICLE
Gordon W. Florian, Fairfield, Conn., assignor to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York
Application October 7, 1957, Serial No. 47,989
Term of patent 14 years
(Cl. D26—14)



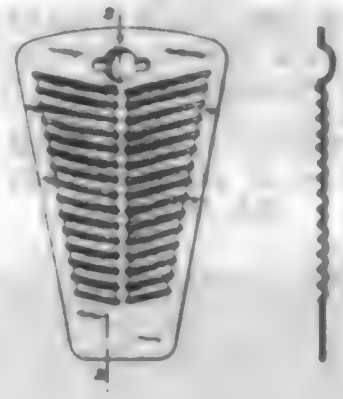
184,255
GLOVE
Julius A. Higier, Johnstown, N. Y.
Application March 26, 1958, Serial No. 50,197
Term of patent 7 years
(Cl. D3—11)



184,256
MOTOR FUEL DISPENSER
Guilbert M. Hunt, Willowick, Ohio
Application April 25, 1958, Serial No. 50,615
Term of patent 14 years
(Cl. D52—2)



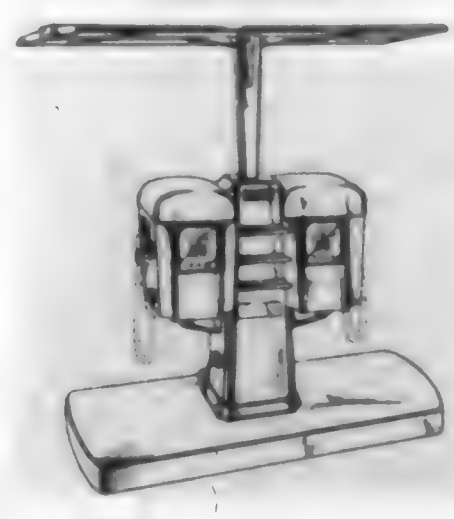
184,257
WASHBOARD
Maude L. E. Irwin, Hayward, Calif.
Application August 19, 1957, Serial No. 47,435
Term of patent 14 years
(Cl. D49—1)



184,258
BREATHABLE POLYMER COATED FABRIC
Jack D. Kahney, Mishawaka, Ind., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application January 23, 1958, Serial No. 49,361
Term of patent 14 years
(Cl. D92—1)



184,259
SERVICE STATION ISLAND
William F. Leppin, Jamaica, N. Y.
Application June 2, 1958, Serial No. 51,158
Term of patent 14 years
(Cl. D52—2)



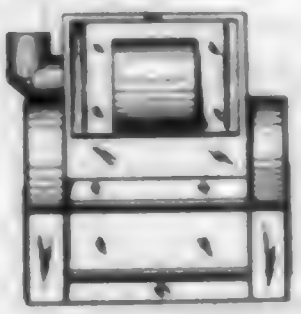
184,260
TABLE TOP
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application April 2, 1957, Serial No. 45,533
Term of patent 14 years
(Cl. D33—14)



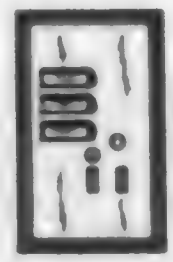
184,261
TABLE
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application April 11, 1957, Serial No. 45,693
Term of patent 14 years
(Cl. D33—14)



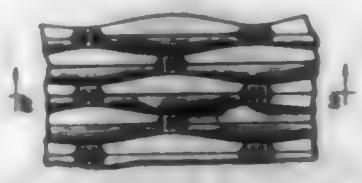
184,262
ETCHING MACHINE
Charles S. Martz, Aurora, Mo., assignor to The Taeope Company, Aurora, Mo., a partnership
Application September 30, 1957, Serial No. 47,922
Term of patent 14 years
(Cl. D55—1)



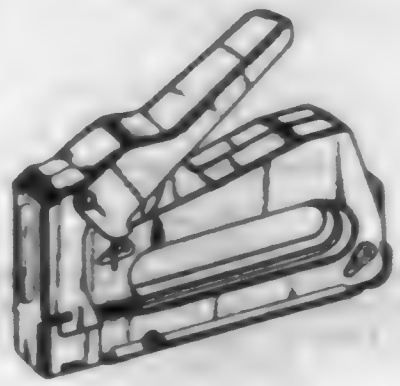
184,263
COVER PLATE FOR COMBINED LIGHTING FIXTURE AND RECEPTACLE
Anthony A. McCarthy, Dayton, Ohio, assignor to The Nu Nite Lite Co., Dayton Ohio, a corporation of Ohio
Application January 22, 1958, Serial No. 49,353
Term of patent 14 years
(Cl. D26—13)



184,264
EMBOSSED METAL SHEET MATERIAL
Robert F. Nelson, Plainfield, N. J., assignor to Modern Engraving and Machine Company, Hillside, N. J., a corporation of New Jersey
Application August 13, 1957, Serial No. 47,356
Term of patent 14 years
(Cl. D54—2)



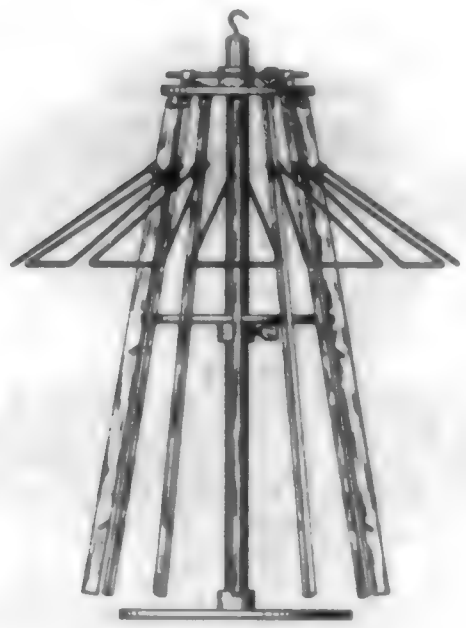
184,265
TACKER OR SIMILAR ARTICLE
Henry Rutkin, Bayside, N. Y., assignor to Swingline, Inc., Long Island City, N. Y., a corporation of New York
Application February 10, 1958, Serial No. 49,578
Term of patent 14 years
(Cl. D74—1)



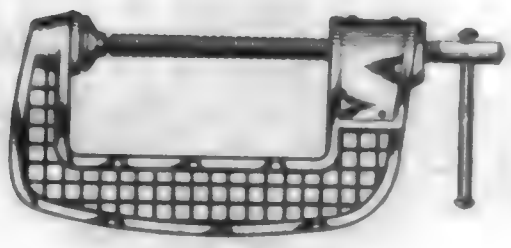
184,266
PLASTIC SHEET MATERIAL OR SIMILAR ARTICLE
Arno H. Scheiding, Rowayton, Conn., assignor to L. E. Carpenter & Company, Inc., Wharton, N. J., a corporation of New Jersey
Application November 27, 1957, Serial No. 48,689
Term of patent 14 years
(Cl. D87—3)



184,267
DRYER FOR SKIRTS OR THE LIKE
Vernard H. Terral, De Kalb, Tex.
Application September 13, 1957, Serial No. 47,737
Term of patent 14 years
(Cl. D49—1)



184,268
C CLAMP
Hugh W. Vogt, Northbrook, Ill.
Application March 31, 1958, Serial No. 50,229
Term of patent 14 years
(Cl. D93—4)



184,269
BROOCH OR SIMILAR ARTICLE
Oliver A. Williamson, Kerrville, Tex.
Application April 11, 1957, Serial No. 45,685
Term of patent 7 years
(Cl. D45—19)



184,270
WATCH CASE
Adolph Winkler, Jamaica Estates, N. Y., assignor to Hilton Watch Co., New York, N. Y., a corporation of New York
Application December 16, 1957, Serial No. 48,923
Term of patent 14 years
(Cl. D42—8)



184,271
FISH LURE
Conrad Wood, El Dorado, Ark., assignor to James Heddon's Sons, Dowagiac, Mich., a corporation of Michigan
Application February 10, 1958, Serial No. 49,561
Term of patent 14 years
(Cl. D31—4)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 13TH DAY OF JANUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Budd, Joseph H., to Textron, Inc. Chain saw for cutting brush and small trees. Re. 24,588, 1-13-59, Cl. 143—32.

Davis, Ariel E. Electric switchboards. Re. 24,586, 1-13-59, Cl. 200—16.

Smith, Douglas. Bimetallic coupling for flanged pipe elements. Re. 24,589, 1-13-59, Cl. 285—187.

Textron, Inc.: *See*—
Budd, Joseph H. Re. 24,588.

Thaden, Herbert V., to Thaden Molding Corp. Reclining chair. Re. 24,587, 1-13-59, Cl. 155—152.

Thaden Molding Corp.: *See*—
Thaden, Herbert V. Re. 24,587.

LIST OF PLANT PATENTEES

Armstrong Nurseries, Inc.: *See*—
Swim, Herbert C. 1,796.

Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,797, 1-13-59, Cl. 47—61.

Boerner, Eugene S., to Jackson & Perkins Co. Chrysanthemum plant. 1,798, 1-13-59, Cl. 47—60.

Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,799, 1-13-59, Cl. 47—61.

Hastie, Carlisle N., Jr. Camellia plant. 1,800, 1-13-59, Cl. 47—60.

Jackson & Perkins Co.: *See*—
Boerner, Eugene S. 1,797.
Boerner, Eugene S. 1,798.
Boerner, Eugene S. 1,799.

Kojakanian, Alexander, ½ to Aram Kojakanian. Peach tree. 1,795, 1-13-59, Cl. 47—62.

Kojakanian, Aram: *See*—
Kojakanian, Alexander. 1,795.

Swim, Herbert C., to Armstrong Nurseries, Inc. Rose plant. 1,796, 1-13-59, Cl. 47—61.

LIST OF DESIGN PATENTEES

Amberson, Howard L., to United States Rubber Co. Breathable polymer coated fabric. 184,247, 1-13-59, Cl. D92—1.

Amberson, Howard L., to United States Rubber Co. Breathable polymer coated fabric. 184,248, 1-13-59, Cl. D92—1.

Amberson, Howard L., to United States Rubber Co. Breathable polymer coated fabric. 184,249, 1-13-59, Cl. D92—1.

Bowden, Benjamin G. Gasoline pump. 184,250, 1-13-59, Cl. D52—2.

Bradford Novelty Co., Inc.: *See*—
Burnbaum, Jack. 184,251.

Burnbaum, Jack, to Bradford Novelty Co., Inc. Christmas ornament, or similar article. 184,251, 1-13-59, Cl. D29—1.

Carpenter, L. E., & Co., Inc.: *See*—
Scheiding, Arno H. 184,266.

Darr, Harold W., to H. B. Shapira. Liquid soap dispenser. 184,252, 1-13-59, Cl. D4—3.

Denison, Nan D. Pencil clip. 184,253, 1-13-59, Cl. D74—1.

Dictaphone Corp.: *See*—
Florian, Gordon W. 184,254.

Florian, Gordon W., to Dictaphone Corp. Dictation transcribing machine or similar article. 184,254, 1-13-59, Cl. D26—14.

Heddon's, James, Sons: *See*—
Wood, Conrad. 184,271.

Higier, Julius A. Glove. 184,255, 1-13-59, Cl. D3—11.

Hilton Watch Co.: *See*—
Winkler, Adolph. 184,270.

Hunt, Guilbert M. Motor fuel dispenser. 184,256, 1-13-59, Cl. D52—2.

Irwin, Maude L. E. Washboard. 184,257, 1-13-59, Cl. D49—1.

Kahney, Jack D., to United States Rubber Co. Breathable polymer coated fabric. 184,258, 1-13-59, Cl. D92—1.

Leppin, William F. Service station island. 184,259, 1-13-59, Cl. D52—2.

Lubberts, John J., and L. J. Mulder, to Tomlinson of High Point. Table top. 184,260, 1-13-59, Cl. D32—14.

Lubberts, John J., and L. J. Mulder, to Tomlinson of High Point. Table. 184,261, 1-13-59, Cl. D32—14.

Martz, Charles S., to Tasope Co. Etching machine. 184,262, 1-13-59, Cl. D35—1.

McCarthy, Anthony A., to The Nu Nite Lite Co. Cover plate for combined lighting fixture and receptacle. 184,263, 1-13-59, Cl. D26—13.

Modern Engraving and Machine Co.: *See*—
Nelson, Robert F. 184,264.

Mulder, Lambert J.: *See*—
Lubberts, John J., and Mulder. 184,260.
Lubberts, John J., and Mulder. 184,261.

Nelson, Robert F., to Modern Engraving and Machine Co. Embossed metal sheet material. 184,264, 1-13-59, Cl. D54—2.

Nu Nite Lite Co., The: *See*—
McCarthy, Anthony A. 184,263.

Ruskin, Henry, to Swingline, Inc. Tacker or similar article. 184,265, 1-13-59, Cl. D74—1.

Scheiding, Arno H., to L. E. Carpenter & Co., Inc. Plastic sheet material or similar article. 184,266, 1-13-59, Cl. D87—3.

Shapira, Harold B.: *See*—
Darr, Harold W. 184,252.

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Ruskin, Henry. 184,265.

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Terral, Vernard H. Dryer for skirts or the like. 184,267, 1-13-59, Cl. D49—1.

Tomlinson of High Point: *See*—
Lubberts, John J., and Mulder. 184,260.
Lubberts, John J., and Mulder. 184,261.

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Amberson, Howard L. 184,247.
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Williamson, Oliver A. Broach or similar article. 184,269, 1-13-59, Cl. D45—19.

Winkler, Adolph, to Hilton Watch Co. Watch case. 184,270, 1-13-59, Cl. D42—3.

Wood, Conrad, to James Heddon's Sons. Fish lure. 184,271, 1-13-59, Cl. D31—4.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 13TH DAY OF JANUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

A. B. C. Specialty Co.: *See*—
Walker, Richard E. 2,868,204.
ACF Industries, Inc.: *See*—
Dement, James F., Benson, and Niemeyer. 2,867,915.
AMP Inc.: *See*—
Wells, Franklin H. 2,869,103.
Aamoth, Hilmer L.: *See*—
Taylor, Frank C., Jr., and Aamoth. 2,868,832.
Aannerud, Sigurd A., and E. Mostad, to Pyror Ltd. Method of treating iron sulfide-containing ore or concentrates. 2,868,635, 1–13–59, Cl. 75—23.
Abberley, Maurice W., S. T. Parker, and A. G. Ellis. Turning machines. 2,867,885, 1–13–59, Cl. 25—24.
Abel, William T.: *See*—
Beale, Alvin F., Jr., Eilers, and Abel. 2,868,294.
Abrams Instrument Corp.: *See*—
Hewitt, John E., Schmidt, and Gardner. 2,868,924.
Abramson, Ralph J.: *See*—
Klipp, Jerome M., and Abramson. 2,868,557.
Ackermann, Paul: *See*—
Kölbel, Herbert, and Ackermann. 2,868,627.
Acme Steel Co.: *See*—
Hall, Marchand B. 2,868,238.
Pachter, John J. 2,868,048.
Acrometal Products, Inc.: *See*—
Aiken, Percy. 2,867,854.
Adams, Ernest F.: *See*—
Foncannon, John L., and Adams. 2,868,092.
Adams, Glenn T., to Mayfair Molded Products Corp. Anode connector. 2,869,100, 1–13–59, Cl. 339—97.
Adams, Wayne P. Hay rake. 2,867,966, 1–13–59, Cl. 56—384.
Addressograph-Multigraph Corp.: *See*—
Hampton, William J. 2,868,121.
Gollwitzer, Walter T. 2,868,115.
Hueber, Carl J. 2,868,120.
Adel, Alf F.: *See*—
De Cola, Rinaldo E., Carlson, and Adel. 2,868,156.
Adjustable Stair & Mfg. Co.: *See*—
Xanten, Elmer F. 2,867,855.
Adlerwerke vorm. Heinrich Kleyer Akt.: *See*—
Nitschke, Bruno. 2,868,345.
Admiral Corp.: *See*—
Burrise, Andrew H. 2,868,484.
Calcut, Robert C. 2,868,489.
Carlson, Reuben C. 2,868,982.
Carlson, Reuben C. 2,868,985.
De Cola, Rinaldo E. 2,869,041.
De Cola, Rinaldo E., Carlson, and Adel. 2,868,156.
Gagnon, George A. 2,867,810.
Ketchum, Arthur L. 2,868,983.
Morton, Evans T. 2,867,842.
Morton, Evans T., and Weinrich. 2,867,993.
Poppa, Rocco, and Hoellerich. 2,868,967.
Singelman, Fred E. 2,868,933.
Splitt, Frank G. 2,868,873.
Vistain, James E., Jr. 2,868,545.
Vistain, James E., Jr. 2,868,547.
Aerojet-General Corp.: *See*—
Argyle, Sidney C. 2,868,066.
Aeroquip Corp.: *See*—
Elsner, Edwin C., and Preta. 2,867,876.
Agronomists' Research Corp.: *See*—
Fletcher, Lawrence W. 2,867,944.
Aiken, Percy, to Acrometal Products, Inc. Bridging strut. 2,867,854, 1–13–59, Cl. 20—9.
Aircraft Armaments, Inc.: *See*—
Webb, William A., and Jacobson. 2,867,863.
Aitken, Robert K., to Hazeltine Research, Inc. Signal-to-noise responsive system. 2,868,970, 1–13–59, Cl. 250—27.
Akerman, Karl A. L., and K. E. Sundström, to Beckman Instruments, Inc. Spectrophotometer. 2,868,060, 1–13–59, Cl. 88—14.
Akt. Brown, Boveri & Cie: *See*—
Brandt, Armand. 2,869,005.
Aktiebolaget Bahco: *See*—
Karlsson, Helge J., and Axelsson. 2,868,224.
Aktiebolaget Bonthron & Ewing: *See*—
Wenander, Harald S. 2,867,974.
Aktiebolaget Pharmacia: *See*—
Brandstrom, Arne E. 2,868,790.
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Hill, Lester E. 2,867,894.
Albrecht, Warren F., to General Electric Co. Photoflash lamp. 2,868,003, 1–13–59, Cl. 67—31.
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Coley, Nelson B., Judge, and Albrighton. 2,868,962.
Allen-Bradley Co.: *See*—
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Allen, Lawrence E.: *See*—
Oberholtz, Lester E., and Allen. 2,868,027.
Allen, Lawrence E., to Allis-Chalmers Mfg. Co. Header mounting for harvester threshers. 2,867,958, 1–13–59, Cl. 56—21.
Allen, Robert W., and A. W. Taylor, to Henry Simon, Ltd. Pneumatic conveyors and the like for powdered and granular materials. 2,868,590, 1–13–59, Cl. 302—17.
Allen, Wade W., to The Upjohn Co. Semi-micro evaporation apparatus. 2,868,626, 1–13–59, Cl. 23—259.
Allied Laboratories, Inc.: *See*—
Florestano, Herbert J., Jeffries, Osborne, and Bahler. 2,868,689.
Allied Steel and Conveyors, Inc.: *See*—
Harrison, Homer S. 2,868,352.
Harrison, Homer S. 2,868,354.
Allis, George S., to International Harvester Co. Hydraulic ram mountings for earth moving machines. 2,867,922, 1–13–59, Cl. 37—144.
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Harrer, Paul H. 2,868,113.
Oberholtz, Lester E., and Allen. 2,868,027.
Ringland, William L. 2,869,007.
Allison, David F., to International Telephone and Telegraph Corp. Electric current rectifier. 2,869,057, 1–13–59, Cl. 317—237.
Allison, Sewell W., to Bell Telephone Laboratories, Inc. Toll telephone circuits. 2,868,886, 1–13–59, Cl. 179—27.
Allmanna Svenska Elektriska Aktiebolaget: *See*—
Forwald, Haakon. 2,868,030.
Stenkvist, Emil. 2,868,998.
Alperin, Morton: *See*—
Borsook, Mannie E., and Alperin. 2,868,374.
Alter, Henry W., J. K. Davidson, R. S. Miller, and J. L. Mewherter, to United States of America, Atomic Energy Commission. Process of making a neutronic reactor fuel element composition. 2,868,707, 1–13–59, Cl. 204—193.2.
Altman, Hugo A. Apparatus for building up and hard-surfacing cylindrical rollers. 2,868,165, 1–13–59, Cl. 118—620.
Ambrette, Paul. Apparatus for deaerating alimentary paste, dough and like substances. 2,868,144, 1–13–59, Cl. 107—31.
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Westlin, Karl L. 2,868,320.
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Anderson, Wilbur G., Jr. 2,868,433.
American Brake Shoe Co.: *See*—
Hoyer, Llewellyn E., and Cox. 2,868,595.
American Brake Shoe Co., The: *See*—
Brashear, Turner G., Jr. 2,868,985.
American Cyanamid Co.: *See*—
Bach, Frederick L., Jr., and Hewitt. 2,868,892.
Frazier, Charles, and Fortune. 2,868,748.
Frazier, Charles, and Fortune. 2,868,752.
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Morgan, Russell L., and Kolodny. 2,868,753.
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American Home Products Corp.: *See*—
Szabo, Joseph L., and Bruce. 2,868,833.
American-Marietta Co.: *See*—
Scripture, Edward W., Jr., Benedict, and Jacox. 2,868,659.
American Metal Products Co.: *See*—
Flint, Hyland C. 2,868,276.
American Oil Co., The: *See*—
Johnston, Walter F., Jr. 2,868,718.
American Optical Co.: *See*—
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O'Brien, Brian, Jr., and O'Brien, Sr. 2,868,070.
Petri, Jan E. 2,868,362.
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Scott, James G., Freeman, and Houston. 2,868,507.
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Ampex Corp.: *See*—
Selsted, Walter T. 2,868,470.
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Holderreed, Francis L., and Sullivan. 2,867,972.
Anaconda Copper Mining Co.: *See*—
Holderreed, Francis L., and Sullivan. 2,867,972.
Anderson Brass Works: *See*—
Nilsson, Nils L., and Spurgeon. 2,868,865.
Anderson, Ernest L. Ventilating window structure. 2,867,860, 1–13–59, Cl. 20—52.2.
Anderson, Orin M., and W. A. Ferrari, to Pak-Mor Mfg. Co. Refuse handling vehicle. 2,868,398, 1–13–59, Cl. 214—82.

Anderson, Richard P.: *See*—
Lit, Harry B., and Anderson. 2,868,159.
Anderson, Robert H., to Radio Corp. of America. Electron multiplier. 2,868,994, 1-13-59, Cl. 250—207.
Anderson, Robert J., to United States of America, Air Force. Vent line centrifuge. 2,868,324, 1-13-59, Cl. 183—77.
Anderson, Wilbur G., Jr., to American Box Board Co. Handle receptacle. 2,868,433, 1-13-59, Cl. 229—52.
Andersson, Ture E., to Vibro-Plus Corp. Roller vibrator. 2,868,094, 1-13-59, Cl. 94—48.
Andresen, Arne O., and F. A. Reinhart. Descaling apparatus for forging ingots. 2,867,893, 1-13-59, Cl. 29—81.
Angell, Frank J. Artist's paint tube rack. 2,867,928, 1-13-59, Cl. 41—4.
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Annable, Weldon G., and W. L. Jacobs, to The Pure Oil Co. Contacting apparatus. 2,868,524, 1-13-59, Cl. 261—111.
Annable, Weldon G., and R. M. Haines, to The Pure Oil Co. Motor fuel. 2,868,629, 1-13-59, Cl. 44—66.
Anstett, Edgar P. Driven type fastener. 2,867,807, 1-13-59, Cl. 1—56.
Anstett, Edgar P. Sheet metal nail tapered opposite the drawn penetrating end. 2,868,057, 1-13-59, Cl. 85—30.
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Appel, Arthur V., and R. R. Lewis, to United States of America, Air Force. Instrument dial illuminator. 2,868,966, 1-13-59, Cl. 240—2.1.
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Archer, Alva I.: *See*—
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Arditi, Maurice, to International Telephone and Telegraph Corp. Radio frequency radio receiver with line-above-ground directional couplers and automatic frequency control. 2,868,966, 1-13-59, Cl. 250—20.
Argyle, Sidney C., to Aerojet-General Corp. Optical rectifier. 2,868,066, 1-13-59, Cl. 88—16.8.
Armacost, Wilbur H., to Combustion Engineering, Inc. Power plant with separately fired reheater. 2,867,983, 1-13-59, Cl. 60—73.
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Armour Research Foundation of Illinois Institute of Technology: *See*—
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Armstrong Cork Co.: *See*—
Feigley, David A., Jr. 2,868,641.
Feigley, David A., Jr. 2,868,743.
Armstrong Siddeley Motors Ltd.: *See*—
Reutt, Zigmund. 2,868,441.
Arras, Damiano. Hose connector with axially sliding locking sleeve. 2,868,564, 1-13-59, Cl. 285—243.
Arson, Samuel L., to Cannon Electric Co. Electrical connector with positioning ribs. 2,868,085, 1-13-59, Cl. 339—61.
Arth, Glen E., and L. H. Sarett, to Merck & Co., Inc. 2-alkenyl and 2-alkynyl derivatives of 3,6-dihydro-4H pyrans. 2,868,805, 1-13-59, Cl. 260—345.1.
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Ashe, Leonard R., to Minneapolis-Honeywell Regulator Co. Precision resistance devices. 2,868,934, 1-13-59, Cl. 201—63.
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Atlas Press Co.: *See*—
Cole, Clayton K. 2,868,034.
Attinello, John S. Aircraft high lift supercirculation system using supersonic blowing. 2,868,480, 1-13-59, Cl. 244—42.
Augery, Jean, and F. Boulmet, to Societe Anonyme dite: "La Charfa." Paper-gumming machines. 2,868,157, 1-13-59, Cl. 118—8.
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Sproul, Nolte V. 2,868,343.
Avakian, Souren: *See*—
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Avellone, Giuseppe R., and R. A. Chapellier, to Combustion Engineering, Inc. Automatic coupling or latching mechanism. 2,868,551, 1-13-59, Cl. 279—76.
Averna, Joseph, 25% to S. B. Leavin and 25% to W. H. Leavin. Applicators. 2,867,829, 1-13-59, Cl. 15—133.
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Ayres, Dennis P., and J. Douglas, to Ilford Ltd. Colour photography. 2,868,829, 1-13-59, Cl. 260—471.
Babcock, John C., to The Upjohn Co. 11-oxygenated 17α,21-dihydroxyallopregnan-20-one and esters thereof. 2,868,808, 1-13-59, Cl. 260—397.1.
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Bailey, Donald L., and W. T. Black, to Union Carbide Corp. Bicycloheptenylethyldiethoxy silane. 2,868,825, 1-13-59, Cl. 260—448.8.
Bailey, Donald L., and W. T. Black, to Union Carbide Corp. Cyclohexenylethyldiethoxysilane. 2,868,826, 1-13-59, Cl. 260—448.8.
Bailey, George J., Jr. Model railroad car coupler. 2,868,393, 1-13-59, Cl. 213—75.
Baker, Edgar B., to Stauffer Chemical Co. Method of improving soil. 2,868,758, 1-13-59, Cl. 260—41.
Baker, Hugh J., & Co.: *See*—
Robinson, Howard A. 2,868,487.
Baker, William E., Q. A. Kerns, and J. Riedel, to United States of America, Atomic Energy Commission. Resonant cavity excitation system. 2,868,974, 1-13-59, Cl. 250—36.
Bakos, Joseph A., R. E. McGuire, and R. J. Kensel, to R. Wallace & Sons Mfg. Co. Method of making a one piece solid handle knife. 2,868,042, 1-13-59, Cl. 76—104.
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Barcroft, Stanley, to The Minister of Supply, in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland. Gyroscopic apparatus. 2,868,022, 1-13-59, Cl. 74—5.4.
Bardons & Oliver, Inc.: *See*—
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Barfield, Robert H., and M. G. Gibbs, to Wild-Barfield Electric Furnaces Ltd. Inductors for heating tubes or cylinders. 2,868,938, 1-13-59, Cl. 219—10.49.
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Barrett, Robert D., to International Harvester Co. Swingable and resiliently mounted tractor seat. 2,868,773, 1-13-59, Cl. 155—51.
Bartels, Charles R., W. L. Bryan, and R. Berk, to Olin Mathieson Chemical Corp. Process for the purification of streptomycin. 2,868,779, 1-13-59, Cl. 260—210.
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Bauer, Edwin W., to International Business Machines Corp. Magnetic core half adder. 2,868,451, 1-13-59, Cl. 235—61.
Baxter, Edna F. Method of making decorative material. 2,867,890, 1-13-59, Cl. 28—72.
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Bayer, Otto: *See*—
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Beach, John M. Container. 2,868,368, 1-13-59, Cl. 206—46.
Beale, Alvin F., Jr., L. H. Eilers, and W. T. Abel, to The Dow Chemical Co. Well cementing. 2,868,294, 1-13-59, Cl. 166—29.
Beard, Richard B., to Minneapolis-Honeywell Regulator Co. Temperature measuring apparatus. 2,868,017, 1-13-59, Cl. 73—368.2.
Berhtler, Hans C., to Rodney Hunt Machine Co. Evaporator. 2,868,279, 1-13-59, Cl. 159—6.
Bâcha, Xavier, to L'Aluminium Francais. Composition comprising metallic shot and synthetic resinous binder. 2,868,759, 1-13-59 Cl. 260—41.
Beckman Instruments, Inc.: *See*—
Åherman, Karl A. L., and Sundström. 2,869,060.
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Foncannon, John L., and Adams. 2,868,092.
Beesley, John H., to The General Electric Co. Ltd. Electrical gas discharge tube circuits. 2,869,035, 1-13-59, Cl. 315—84.5.
Beggs, James E., to General Electric Co. Method and apparatus for making vacuum enclosures. 2,868,610, 1-13-59, Cl. 316—19.
Begler, John W., to Phillips Petroleum Co. Conversion of hydrocarbons. 2,868,855, 1-13-59, Cl. 260—679.

Belerle, Gottfried H. Self adjusting trousers hanger. 2,868,425, 1–13–59, Cl. 223—95.

Belden, Nadine. Interior automobile folding table. 2,868,600, 1–13–59, Cl. 311—92.

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Bell, Thomas E., to E. I. du Pont de Nemours and Co. Continuous scouring and bleaching of gray goods. 2,868,615, 1–13–59, Cl. 8—111.

Bellicardi, Francesco, to Soc. per Az. Edoardo Weber-Fabbrica Italiana Carburatori. Carburetting apparatus for internal combustion engines. 2,868,185, 1–13–59, Cl. 123—180.

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Benander, George B., to General Electric Co. Current tap. 2,869,093, 1–13–59, Cl. 339—59.

Benander, George B., to General Electric Co. Pin-type lampholder. 2,869,101, 1–13–59, Cl. 339—99.

Bender, Lloyd, to North Electric Co. Base for telephone substation set. 2,868,888, 1–13–59, Cl. 179—100.

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Benesi, Hans A., Y. P. Sun, E. S. Loeffler, and K. D. Detling, to Shell Development Co. Stabilized pesticidal compositions. 2,868,688, 1–13–59, Cl. 167—42.

Benink, Christian J. M., and R. Reeber, to G. M. Pfaff, A.-G. Double needle sewing machine. 2,868,152, 1–13–59, Cl. 112—221.

Bennett, Arthur N. C., and J. D. Groves, to British Titan Products Co. Ltd. Chlorination of titaniferous materials. 2,868,622, 1–13–59, Cl. 23—87.

Bennett, Robert H. Rotary plug valve. 2,868,176, 1–13–59, Cl. 121—46.5.

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Druey, Jean, and Schmidt. 2,868,803.
Grob, Cyril A. 2,868,792.
Hueni, Albrecht. 2,868,802.
Neher, Robert. 2,868,834.
Ruzicka, Leopold, and Jeger. 2,868,784.
Ciesluk, Edward J., to Kent-Moore Organization, Inc. Apparatus for removing carbon from the combustion chamber of an internal combustion engine. 2,867,930, 1–13–59, Cl. 51—8.
Cihak, Frank A. Adjustable chuck work stops. 2,868,552, 1–13–59, Cl. 279—123.
Cinch Mfg. Corp.: *See*—
Engel, William J. 2,869,107.
Johansson, Bengt J. 2,869,090.
Cincinnati Milling Machine Co., The: *See*—
Henry, Robert L. 2,868,993.
Morgan, John M., Jr. 2,868,087.
Cislak, Francis E., to Reilly Tar & Chemical Corp. Process of preparing cyanopyridylalkanes. 2,868,794, 1–13–59, Cl. 260—294.9.
Cislak, Francis E., to Reilly Tar & Chemical Corp. Pyridyl dicyanoalkanes and process. 2,868,795, 1–13–59, Cl. 260—294.9.
Cislak, Francis E., to Reilly Tar & Chemical Corp. Aminovinylpyridines and process of making them. 2,868,796, 1–13–59, Cl. 260—296.
Cislak, Francis E., to Reilly Tar & Chemical Corp. 4-nitropyridine-alkanol, N-oxides. 2,868,797, 1–13–59, Cl. 260—297.
Cities Service Research and Development Co.: *See*—
Hughes, William B. 2,868,727.
Clapp, Charles W., to General Electric Co. Single-turn coil for metal detector. 2,869,074, 1–13–59, Cl. 324—41.
Claridge, Elmond L., to Shell Development Co. Production of gasoline by catalytic cracking. 2,868,717, 1–13–59, Cl. 208—94.
Clark, Clarence A. Milking and weighing apparatus. 2,868,167, 1–13–59, Cl. 119—14.05.
Clark, Jane B.: *See*—
Clark, John. 2,868,133.
Clark, John, deceased, by J. B. and M. S. L. Clark, and H. MacMurchy, executrices, to J. B. Clark. Centrifugal pumps. 2,868,133, 1–13–59, Cl. 103—87.
Clark, Margaret S. L.: *See*—
Clark, John. 2,868,133.
Clarke, John S., and R. S. Collinson, to Joseph Lucas (Industries) Ltd. Combustion chambers for jet-propulsion engines, gas turbines or the like. 2,867,982, 1–13–59, Cl. 60—39.60.
Clarke, Otto A., and R. W. Dickson, to United States Steel Corp. Rail end grinder. 2,867,951, 1–13–59, Cl. 51—56.
Cleveland Pneumatic Industries, Inc.: *See*—
Jungles, Robert N. 2,868,536.
Westcott, William B., Jr. 2,868,482.
Cleveland Vibrator Co., The: *See*—
Thomas, John W. 2,868,357.
Clinical Research Foundation: *See*—
Borsook, Mannie E., and Alperin. 2,868,374.
Clinton, Raymond O., and A. L. Beyler, to Sterling Drug Inc. 3β-acyloxy-17β-hydroxy-17α-ethynyl-5-androstenes and androstanes and their preparation. 2,868,811, 1–13–59, Cl. 260—397.5.
Closson, Rex D., W. B. Ligett, and A. J. Kolka, to Ethyl Corp. Hydroperoxidation process. 2,868,842, 1–13–59, Cl. 260—610.
Cloud, John M.: *See*—
Cloud, Pryor G. and J. M. 2,868,501.
Cloud, Pryor G. and J. M., to Life Time Products Corp. Portable fluid-pressure-actuated jack. 2,868,501, 1–13–59, Cl. 254—93.
Cluwen, Johannes M.: *See*—
Van Urk, Arend T., and Cluwen. 2,869,050.
Coast Metals, Inc.: *See*—
Cape, Arthur T. 2,868,957.
Coffeen, William W., to Metal & Thermit Corp. Ceramic bodies. 2,868,658, 1–13–59, Cl. 106—65.
Coffield, Thomas H., and M. E. Griffing, to Ethyl Corp. Selective nitration process. 2,868,844, 1–13–59, Cl. 260—622.
Coffman, Robert S., to Black, Sivalls & Bryson, Inc. Safety pressure relief device. 2,868,412, 1–13–59, Cl. 220—89.
Coggeshall, Norman D., to Gulf Research & Development Co. Multiple-column chromatographic apparatus. 2,868,011, 1–13–59, Cl. 73—23.
Cole, Clayton K., to Atlas Press Co. Lawnmower handle construction. 2,868,034, 1–13–59, Cl. 74—487.
Colette, Michael, to W. G. Mason and A. L. May. Electric switch. 2,868,918, 1–13–59, Cl. 200—84.
Coley, Nelson B., T. J. Judge, and R. F. Albrighton, to General Railway Signal Co. Code communication systems. 2,868,962, 1–13–59, Cl. 246—5.
Colgate-Palmolive Co.: *See*—
Gray, Frederick W. 2,868,812.
Collier Carbon and Chemical Corp.: *See*—
Scott, Carleton B. 2,868,687.
Collier, William H.: *See*—
Rotsler, Ross W., Hickman, and Collier. 2,868,227.
Collinson, Eric S.: *See*—
Clarke, John S., and Collinson. 2,867,982.
Columbia Broadcasting System, Inc.: *See*—
Goldmark, Peter C. 2,868,870.
Comar Electric Co.: *See*—
Sauer, Hans. 2,869,098.
Combustion Engineering, Inc.: *See*—
Armacost, Wilbur H. 2,867,983.
Avellone, Giuseppe R., and Chapellier. 2,868,551.
Bogot, Alexander, and Gandsey. 2,868,462.
Commonwealth Engineering Co. of Ohio, The: *See*—
Toulmin, Harry A., Jr. 2,868,008.
Cone Automatic Machine Co. Inc.: *See*—
Miller, Carroll B. 2,868,032.
Conner, Guy F.: *See*—
Strobel, Charles K., and Conner. 2,868,928.
Consolidated Electronics Industries Corp.: *See*—
Haydon, Arthur W. 2,869,062.
Container Corp. of America: *See*—
Hamilton, Joseph P. 2,868,430.
Shanahan, Curtis M. 2,868,429.

Continental Can Co., Inc.: *See*—
Bergstrom, Harold A. 2,868,428.
Henchert, John. 2,868,410.

Cook Bros. Equipment Co.: *See*—
Harbers, Henry C., and Merchant. 2,868,583.

Cook Electric Co.: *See*—
McDonald, Donald C. 2,869,069.

Cook, Lloyd A., to Kaiser Aluminum & Chemical Corp. Aluminum to copper connection. 2,868,863, 1-13-59, Cl. 174—94.

Cookingham, Owen C.: *See*—
Browne, Harold L., Cookingham, and Pendleton. 2,867,843.

Cool, Kenneth A.: *See*—
Taylor, Samuel K., and Cool. 2,868,612.

Cooper Alloy Corp.: *See*—
Mott, Norman S. 2,868,638.

Corbin, Douglas T. Tire chain applying tool with position signaling means. 2,868,052, 1-13-59, Cl. 81—15.8.

Corby, John C., Jr., and D. C. Trimble, to E. I. du Pont de Nemours and Co. Mixer. 2,868,518, 1-13-59, Cl. 259—8.

Corey, Frank J., to Raytheon Mfg. Co. Lead-in bushings. 2,868,866, 1-13-59, Cl. 174—153.

Corey, Frank J., to Raytheon Mfg. Co. Lead-in bushings. 2,868,868, 1-13-59, Cl. 174—153.

Corn Products Refining Co.: *See*—
Minkema, William H. 2,868,780.
Watson, Stanley A., and Williams. 2,868,778.

Cornelius, George W., to Holley Carburetor Co. Fuel shut-off apparatus. 2,868,182, 1-13-59, Cl. 123—97.

Cory Corp.: *See*—
Peters, Herbert W. 2,868,178.

Costas, John P., to General Electric Co. Signal processing arrangement. 2,868,981, 1-13-59, Cl. 250—36.

Coty, Inc.: *See*—
Croce, Santy M. 2,868,586.

Coulter Electronics, Inc.: *See*—
Coulter, Wallace H. and J. R., Jr. 2,869,078.

Coulter, Joseph R., Jr.: *See*—
Coulter, Wallace H. and J. R., Jr. 2,869,078.

Coulter & McKenzie Machine Co., Inc., The: *See*—
Lewis, Thomas R., Jr. 2,868,474.
Lewis, Thomas R., Jr., and Zaverucha. 2,868,268.

Coulter, Wallace H. and J. R., Jr., to Coulter Electronics, Inc. Fluid metering apparatus. 2,869,078, 1-13-59, Cl. 324—71.

Courtier, Armand J., to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Method of making melamine. 2,868,780, 1-13-59, Cl. 260—249.7.

Contermash, Louis R., and F. G. Mason, to Aladdin Industries, Inc. Capacitive contactor tuner for very high radio and television frequencies. 2,868,934, 1-13-59, Cl. 250—40.

Cowan, David M. Extensible water supply means for a rock drill. 2,868,508, 1-13-59, Cl. 255—49.

Cox, Anna P. M., A. H. Hoekstra, and F. Zalm, to North American Philips Co., Inc. Luminescent material. 2,868,733 1-13-59, Cl. 252—301.4.

Cox, Imaat E.: *See*—
Hoyer, Llewellyn E., and Cox. 2,868,895.

Cragg, Hoyt J., to Ethyl Corp. Manufacture of cyclopentadienyl manganese tricarbonyl compounds. 2,868,696, 1-13-59, Cl. 202—46.

Craig, Burnie J. Door lock abutment. 2,867,937, 1-13-59, Cl. 16—85.

Crane Co.: *See*—
Hansen, George E., and Carr. 2,868,460.

Crane Packing Co.: *See*—
Hawxhurst, Stephen. 2,868,575.

Crawford, Harry E., to E. I. du Pont de Nemours and Co. Process for preparing relief images. 2,868,124, 1-13-59, Cl. 101—401.1.

Creamer, Helen G. Surgical bust pad. 2,867,818, 1-13-59, Cl. 3—36.

Creamery Package Mfg. Co., The: *See*—
Wakeman, Alden H. 2,867,994.
Wakeman, Alden H. 2,868,383.

Crimboli, Alfred P. Circular window construction. 2,868,281, 1-13-59, Cl. 160—92.

Crites, Orr E. Clothes line hanger device. 2,868,388, 1-13-59, Cl. 211—119.1.

Crites, William G. Safety ignition switch for engine ignition systems. 2,868,910, 1-13-59, Cl. 200—61.45.

Croce, Santy M., to Coty, Inc. Atomizer construction. 2,868,586, 1-13-59, Cl. 299—58.

Crompton & Knowles Corp.: *See*—
Cederlund, Albert, and Kimmel. 2,868,235.
Foster, Herbert V., and Johnston. 2,868,232.
Nims, Philip A. 2,868,234.

Crompton & Knowles Loom Works: *See*—
Robb, Walter T. 2,868,231.

Croucher, Antony H. Clutches, brakes and the like. 2,868,342, 1-13-59, Cl. 192—103.

Crow, Anthony W.: *See*—
Feller, Arthur G., and Crow. 2,868,422.

Crown Cork & Seal Co., Inc.: *See*—
Henechen, Edgar, and Lyman. 2,868,343.

Crown Zellerbach Corp.: *See*—
Painter, Jack L. 2,868,431.

Cudini, Roger G., to Moynahan Bronze Co. Panel construction and assembly. 2,867,858, 1-13-59, Cl. 20—11.

Cumberland Case Co.: *See*—
Robinson, Charles T. 2,868,222.

Cunder, Joseph, and F. J. Licata, to Napco Chemical Co. Aluminum soap water-proofing composition and process of making the same. 2,868,606, 1-13-59, Cl. 106—243.

Cundiff, Winston H., and D. J. Donaldson, to Kaiser Aluminum & Chemical Corp. Heating apparatus and method. 2,868,523, 1-13-59, Cl. 261—77.

Currie, Courtland B., and R. S. Loveland, to Minneapolis-Honeywell Regulator Co. Combination valve control. 2,868,457, 1-13-59, Cl. 236—48.

Currie, Malcolm R., to Hughes Aircraft Co. Low noise traveling-wave tube. 2,869,021, 1-13-59, Cl. 315—3.5.

Curtis, Truman P., and C. H. Brunswick, to General Electric Co. Window assembly. 2,869,096, 1-13-59, Cl. 338—98.

Curtiss-Wright Corp.: *See*—
Moulton, Lloyd J. 2,868,184.

Cushman, Norton, to Sprague Electric Co. Variable inductor. 2,869,088, 1-13-59, Cl. 336—110.

Cutler-Hammer, Inc.: *See*—
Charbonneau, Allan P. 2,868,937.
Kearney, Joseph W., and Spencer. 2,868,978.
Koenig, Martin F. 2,868,929.

Cutler, Norman, to Royal Factories, Inc. Name and number sign. 2,867,926, 1-13-59, Cl. 40—140.

Cyba, Henry A., and R. B. Thompson, to Universal Oil Products Co. Curing of epoxy resins. 2,868,767, 1-13-59, Cl. 260—47.

Czelusniak, Edmund J., and F. R. Bellivean. Device for applying preformed sinkers to fishlines. 2,867,899, 1-13-59, Cl. 1—187.

Dahlgren, Harold P. Lithographic offset press plate dampening device. 2,868,118, 1-13-59, Cl. 101—147.

Dannen, Charles, to The Deg Corp. Prosthetic genital devices. 2,868,192, 1-13-59, Cl. 128—79.

Daugherty, Donald A.: *See*—
Mika, Daniel F., and Daugherty. 2,868,902.

Dausch, Erwin, to SKF Kugellagerfabriken G. m. b. H. Drafting mechanism for spinning machines. 2,867,852, 1-13-59, Cl. 19—135.

Davidson, James P.: *See*—
Renard, Roland E., Thorpe, and Davidson. 2,868,873.

Davidson, John K.: *See*—
Alter, Henry W., Davidson, Miller, and Mewherter. 2,868,707.

Davis, James F. Coffee maker. 2,868,108, 1-13-59, Cl. 99—282.

Davis, Walter M.: *See*—
Sargent, Neil A., and Davis. 2,868,280.

Davison, Lawrence L. Cable clamp. 2,867,875, 1-13-59, Cl. 24—133.

Dawson, Horace: *See*—
Kritchever, Mathew F. 2,867,912.

Dean, Charles A. Under-reamers. 2,868,516, 1-13-59, Cl. 255—76.

Dean, Lawrence R.: *See*—
Gunn, Donald A., Dean, and Senechal. 2,868,606.

De Angelis, Armand, to American Optical Co. Ophthalmic mountings. 2,868,074, 1-13-59, Cl. 88—47.

De Castro, Arthur, C. H. Lighthipe, and T. F. Groll, Jr., to Napco Chemical Co. Liquid defoaming composition. 2,868,734, 1-13-59, Cl. 252—358.

Deckel, Hans: *See*—
Gebele, Kurt. 2,868,095.

Decker, Edmond L., to Southern Car and Mfg. Co. Valve actuating mechanism. 2,868,496, 1-13-59, Cl. 251—147.

De Cola, Rinaldo E., R. C. Carlson, and A. F. Adel, to Admiral Corp. Sonic wave generator. 2,868,156, 1-13-59, Cl. 116—137.

De Cola, Rinaldo E., to Admiral Corp. Mounting means. 2,869,041, 1-13-59, Cl. 317—101.

Decourt, Ralphe R. Automatic process and apparatus for indicating the necessity of readjusting the level of the electrolyte in accumulators of automotive vehicles. 2,869,114, 1-13-59, Cl. 340—249.

Deere & Co.: *See*—
Peak, Charles B. 2,867,959.

Deg Corp., The: *See*—
Dannen, Charles. 2,868,192.

Deha, William F., and C. R. Dickinson, to Allen-Bradley Co. Variable resistance control. 2,868,031, 1-13-59, Cl. 201—55.

De Jonge, Jelis, H. Jonker, K. J. Koening, and C. J. Dippel, to North American Philips Co., Inc. Method of forming photographic images. 2,868,643, 1-13-59, Cl. 96—48.

De Lange, Owen E., to Bell Telephone Laboratories, Inc. Pulse modulation regenerative repeaters. 2,868,865, 1-13-59, Cl. 250—15.

Dell, Gailland W., to Parker Rust Proof Co. Chromate-fluoride type coating solutions and method of treating metal surfaces therewith. 2,868,682, 1-13-59, Cl. 148—6.16.

Del Mar Engineering Laboratories: *See*—
Loimaugh, Orson B., Thornton, and Smith. 2,869,120.

Delron Co., Inc., The: *See*—
Hawks, William L., and Patrick. 2,868,901.

De Luc, Jerome. Weeding tool. 2,868,503, 1-13-59, Cl. 254—132.

Del Vecchio, Deno. Apparatus for controlling backwater in sewage lines. 2,868,380, 1-13-59, Cl. 210—111.

Dement, James F., H. H. J. Benson, Jr., and E. H. Niemayer, to ACF Industries, Inc. Instrument tilt simulator for non-flying aircraft trainer. 2,867,918, 1-13-59, Cl. 35—12.

Denoyer-Geppert Co.: *See*—
Miller, William S. 2,867,918.

Depew, Harlan A., P. D. Quinn, and G. R. Waitkins, to American Zinc, Lead & Smelting Co. Treatment of materials. 2,868,672, 1-13-59, Cl. 117—137.

Depreq, Charles, to Solvay & Cie. Composite anode assembly for use in electrolytic cells. 2,868,712, 1-13-59, Cl. 204—288.

Deranian, Minas, and B. V. Vonderschmitt, to Radio Corp. of America. Deflection circuits. 2,869,030, 1-13-59, Cl. 315—27.

Derringe, Bloddie L.: *See*—
Jamison, Will B., and Derringe. 2,868,526.

Designaware Industries, Inc.: *See*—
Brink, Raymond J., and Buelow. 2,867,859.
Desvaux, Jacques, and F. Berthet. Driving or extracting piles or like members. 2,867,984, 1-13-59, Cl. 61—73.
Detling, Kenneth D.: *See*—
Benesi, Hans A., Sun, Loeffler, and Detling. 2,868,688.
Detweiler, William K.: *See*—
O'Connor, Michael J., and Detweiler. 2,868,827.
Devex Corp.: *See*—
Henricks, John A. 2,868,671.
Henricks, John A. 2,868,680.
Dewas, Raymond. Weft feeders for weaving looms with continuous feed. 2,868,233, 1-13-59, Cl. 139—123.
De Witt, Earl G.: *See*—
Brown, Jerome E., De Witt, and Shapiro. 2,868,699.
Brown, Jerome E., De Witt, and Shapiro. 2,868,700.
Diamond Alkali Co.: *See*—
Skeeters, Maxwell J. 2,868,851.
Diamond, Holton W., and H. L. Powell, to R. E. Rich. Salad and dessert topping. 2,868,653, 1-13-59, Cl. 99—139.
Dick, A. B., Co.: *See*—
Chambers, Thomas S., and Florence. 2,868,741.
Dickinson, Clarence R.: *See*—
Dehn, William F., and Dickinson. 2,868,931.
Dickson, Ralph W.: *See*—
Clarke, Otto A., and Dickson. 2,867,951.
Dietch, Leonard, to Radio Corp. of America. Cathode ray beam deflection apparatus. 2,869,029, 1-13-59, Cl. 315—27.
Dietrich, Howard H., to General Motors Corp. Degasser. 2,868,521, 1-13-59, Cl. 261—41.
Dietz, Gerald E., and A. J. Hilgert, to Basa Inc. Electromagnetic control device. 2,869,049, 1-13-59, Cl. 317—166.
Digital Techniques, Inc.: *See*—
Engelbart, Douglas C. 2,869,036.
Dihydrol Co.: *See*—
Smits, Clarence W. 2,868,904.
Dippel, Cornelis J.: *See*—
De Jonge, Jelis, Jonker, Kuening, and Dippel. 2,868,643.
Di Santi, Nicholas, A. E. Canfora, and A. Liguori, to Radio Corp. of America. Signal distortion measuring system. 2,868,875, 1-13-59, Cl. 178—69.
Di Toro, Michael J., to International Telephone and Telegraph Corp. Communication system. 2,868,882, 1-13-59, Cl. 179—15.55.
Dodge, Milton, ½ to A. Okrend. Infant feeding device. 2,868,202, 1-13-59, Cl. 128—252.
Doeleman, Henry, and R. B. Bonney, to United States of America, Navy. Direct current to digital coding and decoding system. 2,869,115, 1-13-59, Cl. 340—347.
Doerr, Edward L.: *See*—
Gaertner, Van R., and Doerr. 2,868,781.
Doland, George D., to Philco Corp. Receiver color primary transformation system. 2,868,871, 1-13-59, Cl. 178—5.4.
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Guckel, Gerhart A. 2,868,241.
Dole Valve Co., The: *See*—
Chace, Thomas B. 2,869,060.
Modes, Edward E. 2,868,459.
Dolza, John, to General Motors Corp. Combustion chamber for internal combustion engine. 2,868,181, 1-13-59, Cl. 123—32.
Dolza, John, to General Motors Corp. Refrigerating apparatus. 2,868,443, 1-13-59, Cl. 230—186.
Dom, George R. Shotgun shell case neck reziner. 2,868,058 1-13-59, Cl. 86—23.
Domagk, Gerhard: *See*—
Gauss, Walter, Petersen, and Domagk. 2,868,782.
Donaldson, Donald J.: *See*—
Cundiff, Winston H., and Donaldson. 2,868,528.
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Donia, Robert A., and A. C. Ott, to The Upjohn Co. 19-nortestosterone phenyl alkanoates. 2,868,809, 1-13-59, Cl. 260—397.4.
Donkin, William H., to Godfrey Holmes (Plastics) Ltd. Storage containers for detonators. 2,868,360, 1-13-59, Cl. 206—3.
Donnelley, R. R., & Sons Co.: *See*—
Kolodziej, Edwin S. 2,868,541.
Koons, George I., Boule, and Swanson. 2,868,539.
Doppstadt, Adolf: *See*—
Siemer, Harm, Kurzen, and Doppstadt. 2,868,786.
Dougherty, Leo P. Apparatus for notching the edges of addressograph plates. 2,868,088, 1-13-59, Cl. 90—16.
Dougherty, Leo P. Address plate sensing device. 2,868,452, 1-13-59, Cl. 235—61.11.
Douglas, James: *See*—
Ayres, Dennis P., and Douglas. 2,868,829.
Dow Chemical Co., The: *See*—
Beale, Alvin F., Jr., Eilers, and Abel. 2,868,294.
Holzschuh, Andrew A. 2,868,806.
Holzschuh, Andrew A. 2,868,807.
Moyle, Clarence L. 2,868,843.
Patten, Lorraine E., and Kelly. 2,868,656.
Taylor, Frank C., Jr., and Aamoth. 2,868,832.
Dow Corning Corp.: *See*—
Browne, Harold L., Cookingham, and Pendleton. 2,867,843.
Gilkey, John W. 2,868,750.
Haluska, Loren A. 2,868,824.
Johannson, Oscar K. 2,868,766.
Downs, Lester W. Oar locks. 2,867,822, 1-13-59, Cl. 9—24.
Downs, Martin L., and M. G. Schmitt, to Thilmany Pulp & Paper Co. Paper and method of making same. 2,868,685, 1-13-59, Cl. 154—138.
Drager, Otto H.: *See*—
Stampe, Gerhard K. E. H. 2,868,196.
Draper, Luther O., Shade Co.: *See*—
Pidgeon, Luther A. 2,868,285.
Drew, Howard E., A. L. Warden, and E. A. Brodeur, Jr., to United States Rubber Co. Method of making slip-finish flock coated rubber article. 2,867,849, 1-13-59, Cl. 18—58.6.
Dreyfus, Asher, Jr. Display rack clip. 2,868,385, 1-13-59, Cl. 211—71.
Drezner, Lee. Furniture leg with insert. 2,868,602, 1-13-59, Cl. 311—109.
Druey, Jean, and P. Schmidt, to Ciba Pharmaceutical Products Inc. New pyrazoles and method of preparing same. 2,868,803, 1-13-59, Cl. 260—310.
Drug Research, Inc.: *See*—
Paterson, Laurene O. 2,868,787.
Dube, Oscar J. Shoe counters. 2,867,920, 1-13-59, Cl. 36—68.
Du Bois, Arthur J. Quick acting precision milling and grinding vise. 2,868,091, 1-13-59 Cl. 90—60.
Du Bois, Robert C., to Minneapolis-Honeywell Regulator Co. Ring balance for measuring pressure differences. 2,868,018, 1-13-59, Cl. 73—405.
Du Breuil, Robert A. Toy airplane. 2,867,941, 1-13-59, Cl. 46—79.
Duff, Jack E., to The Hoover Co. Convertible suction cleaners. 2,867,833, 1-13-59, Cl. 15—323.
Duff, Jack E., to The Hoover Co. Air actuated cleaning tool. 2,867,836, 1-13-59, Cl. 15—404.
Duggan, Terence O'D.: *See*—
Walker, William J. and R. M., Duggan, and Archer. 2,868,448.
Dumbauld, George K.: *See*—
Brooks, Fred A., Jr., Binkley, Dumbauld, and Perry. 2,868,295.
Du Mont, Allen B., Laboratories, Inc.: *See*—
Sanford, Emil. 2,869,026.
Dumore Co., The: *See*—
McCullough, David S. 2,868,090.
Dunn, Samuel G. Starting bar for horse racing. 2,868,168, 1-13-59, Cl. 119—15.5.
Dupke, Werner, to Kurt Korber & Co. K. G. Cigarette making machines. 2,868,210, 1-13-59, Cl. 131—66.
Du Pont de Nemours, E. I., and Co.: *See*—
Bell, Thomas E. 2,868,615.
Corby, John C., Jr., and Trimble. 2,868,518.
Crawford, Harry E. 2,868,124.
Hirsty, Sylvain M. 2,868,764.
Kehr, Clifton L. 2,868,758.
Mattison, Edwin L. 2,868,822.
Stalcopoulos, Dimitrios N. 2,868,760.
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Dupre, Henry P., W. Reischer, and R. G. Wallenhorst, to Burndy Corp. Hot stick tool with extension handles. 2,868,051, 1-13-59, Cl. 81—15.
Duval, Claiborne A., Jr.: *See*—
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Fedorchak, William J., Early, and Johnesee. 2,868,061.
Eastman Kodak Co.: *See*—
Straley, James M., and Fisher. 2,868,774.
Straley, James M., and Giles. 2,868,775.
Eastwood-Nealley Corp.: *See*—
Webb, Nelson W. 2,868,369.
Eaton Mfg. Co.: *See*—
Russell, Robert C. 2,868,001.
Ebershoff, Kenneth L.: *See*—
Finehout, Lyman J., Ebershoff, and Overman. 2,868,026.
Eckelman, Paul F.: *See*—
Bruce, George D., and Eckelman. 2,868,465.
Eckhardt, Homer D.: *See*—
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Edmonds, Harvey A., and W. S. Gilbert, to Structural Clay Products Research Foundation. Pallet conveying apparatus. 2,868,349, 1-13-59, Cl. 198—21.
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Schmidt, Ferdinand, and Eggersglüess. 2,868,589.
Schmidt, Ferdinand, deceased, and W. Eggersglüess; E.-M. H. Eggersglüess, nee Schmidt, sole heir of said F. Schmidt. Arrangement for removing stable dung from stables. 2,868,589, 1-13-59, Cl. 302—14.
Eggersglüess, Walter: *See*—
Schmidt, Ferdinand, and Eggersglüess. 2,868,589.
Eichenberg, Robert, and R. S. Burns, to G. A. Butler. Plug valve. 2,868,221, 1-13-59, Cl. 137—246.12.
Eilbeck, Gorman E., and E. R. Urig, to The B. F. Goodrich Co. Stable latex composition comprising carboxyl-containing elastomer and alkali/metal/aluminate or the like as water-soluble curing agent. 2,868,754, 1-13-59, Cl. 260—29.7.
Eilers, Louis H.: *See*—
Beale, Alvin F., Jr., Eilers, and Abel. 2,868,294.
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Cawl, Allen P. 2,868,913.
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Ellerbeck, Grant C., to Friden, Inc. Mechanism for the accumulation of products around a fixed decimal. 2,868,453, 1-13-59, Cl. 235—63.
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Abberley, Maurice W., Parker, and Ellis. 2,867,885.
Ellis, Charles L. Wire tying machine. 2,868,230, 1-13-59, Cl. 140—43.6.

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Elsner, Edwin C., and E. Prete, Jr., to Aeroquip Corp. Buckle. 2,867,876, 1-13-59, Cl. 24—168.
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Empire Brushes, Inc.: See—
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Ensign Carburetor Co.: See—
Ensign, Roy F. 2,868,630.
Ensign, Roy F., to Ensign Carburetor Co. Gaseous fuel feed systems for internal combustion engines. 2,868,630, 1-13-59, Cl. 48—184.
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Poppe, George W. 2,868,436.
Ernst, Earl A. Sacking device. 2,868,945, 1-13-59, Cl. 141—248.
Erwin, Ransome W., to Salt Water Control, Inc. Emulsion treater. 2,868,312, 1-13-59, Cl. 183—2.7.
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Siegrist, Rudolf. 2,868,381.
Espenlaub, Walter C., and B. D. Loughlin, to Hazeltine Research, Inc. Matrixing apparatus for color-signal translating system. 2,868,872, 1-13-59, Cl. 178—5.4.
Esser, Paul. Spraying paint or the like media by means of compressed air. 2,866,585, 1-13-59, Cl. 299—186.
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Lanneau, Keith P., and Lane. 2,868,986.
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Esterson, Gerald L. Apparatus for measuring electrical conductivity of fluids. 2,869,071, 1-13-59, Cl. 324—30.
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Ethyl Corp.: See—
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Brown, Jerome E., De Witt, and Shapiro. 2,868,700.
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Coffield, Thomas H., and Griffing. 2,868,844.
Cragg, Hoyt J. 2,868,698.
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Haefner, Albert J., and Montgomery. 2,868,765.
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Neher, Clarence M., and O'Connell. 2,868,853.
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Ray, Richard L., and Sistrunk. 2,868,722.
Evans, Kenneth P., H. E. Ivester, and J. M. J. Turrini, to Western Electric Co., Inc. Apparatus for testing a plurality of circuits. 2,869,076, 1-13-59, Cl. 324—51.
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Makowski, Jerzy. 2,867,991.
Fairey Aviation Co. Ltd., The: See—
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Faisandier, Jacques. Double circuit hydraulic distributer. 2,868,217, 1-13-59, Cl. 137—112.
Falge, Robert N., to General Motors Corp. Projection lamp aiming. 2,867,910, 1-13-59, Cl. 33—186.
Fall, Wilfrid, to Pullman-Standard Car Mfg. Co. Ventilating arrangement for passenger vehicles. 2,868,101, 1-13-59, Cl. 98—10.
Fancher, Paul J. Combination cover and enclosure for Christmas trees and other displays. 2,868,255, 1-13-59, Cl. 150—52.
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Faucher, Andrew J. Apparatus for drying and humidifying materials. 2,867,913, 1-13-59, Cl. 34—46.
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Feigley, David A., Jr., to Armstrong Cork Co. Beater saturated sheets having increased strength. 2,868,641, 1-13-59, Cl. 92—21.
Feigley, David A., Jr., to Armstrong Cork Co. Method of improving color in phenol-aldehyde resins by adding a reducing sugar thereto and product obtained. 2,868,743, 1-13-59, Cl. 260—17.2.
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Feiti, Rudolph, to Waldes Kohinoor, Inc. Slide fastener manufacture by a cutting and punching operation. 2,868,288, 1-13-59, Cl. 164—14.
Feller, Arthur G., and A. W. Crow. Captive closure. 2,868,422, 1-13-59, Cl. 222—521.
Felton, William. Cutting devices for cutting continuous lengths of yarn or thread. 2,868,290, 1-13-59, Cl. 164—53.
Ferguson, Richard, to The Terrell Machine Co. Bobbin inspecting device. 2,868,372, 1-13-59, Cl. 209—72.
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Filko, John. Contact assembly locking means. 2,868,903, 1-13-59, Cl. 200—30.
Finehout, Lyman J., K. L. Ebershoff, and J. H. Overman, to P. R. Mallory & Co. Inc. Intermittent driving mechanism. 2,868,026, 1-13-59, Cl. 74—125.
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Follingstad, Henry G., to Bell Telephone Laboratories, Inc. Oscilloscopic display method or means. 2,869,028, 1-13-59, Cl. 315—26.
Foncannon, John L., and E. F. Adams, to Beech Aircraft Corp. Contour sensing control for machine tools. 2,868,092, 1-13-59, Cl. 90—62.
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Forslund, Johan R. Pressure fluid servomotor. 2,868,175, 1-13-59, Cl. 121—46.
Förster, Wolfgang, to Reichhold Chemicals, Inc. Process for the preparation of condensation products. 2,868,768, 1-13-59, Cl. 260—59.
Fortier, Laurent. Loading attachment for tractors. 2,868,390, 1-13-59, Cl. 214—140.
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Frazier, Charles, and Fortune. 2,868,752.
Forwald, Haakon, to Allmanna Svenska Elektriska Aktiebolaget. Device for transforming a rotary movement to a linear movement. 2,868,030, 1-13-59, Cl. 74—424.8.
Foster, Herbert V., and D. Johnston, to Crompton & Knowles Corp. Jacquard mechanism for loom. 2,868,232, 1-13-59, Cl. 139—59.
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Fowler, George L. Erasure shield for manifold copies. 2,868,347, 1–13–59, Cl. 197—181.

Fox, Homer M., to Phillips Petroleum Co. Rocket motor. 2,868,127, 1–13–59. Cl. 102—49.

Foyn, Kjeld, and E. Gornitzka, to Elektrokemisk A-S. Furnace for steel production. 2,868,860, 1–13–59, Cl. 13—9.

Francis, Louis. Adjustable cleaning implement. 2,867,831, 1–13–59, Cl. 15—234.

Francis, Wallace R., to General Electric Co. Heating panel. 2,868,936, 1–13–59, Cl. 201—69.

Francis, Wallace R., to General Electric Co. Adjustable panel mounting for cord connector. 2,869,094, 1–13–59, Cl. 339—59.

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Weiss, Richard. 2,868,099.

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Franz, Raymond A., to Monsanto Chemical Co. Acetylene solvent. 2,868,328, 1–13–59, Cl. 183—115.

Frazier, Charles, and J. H. Fortune, to American Cyanamid Co. Emulsions of acrylic polymers. 2,868,748, 1–13–59, Cl. 260—27.

Frazier, Charles, and J. H. Fortune, to American Cyanamid Co. Stable emulsion containing an acrylate, an acrylic acid, and an acrylonitrile. 2,868,752, 1–13–59, Cl. 260—29.6.

Fredrick, Arden H., to General Precision Laboratory Inc. Pulse radar transmitter-receiver. 2,869,119, 1–13–59, Cl. 343—17.1.

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Frey, Raymond M., to McGraw-Edison Co. Furfural-alcohol-thiophene resin compositions. 2,868,746, 1–13–59, Cl. 260—23.5.

Frey, Raymond M., to McGraw-Edison Co. Furan resin compositions including tall oil and an aromatic aldehyde. 2,868,747, 1–13–59, Cl. 260—23.5.

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Fried, Joseph W. Chamfering and deburring tool. 2,868,045, 1–13–59, Cl. 77—73.5.

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Friend, Lindsay C. Support device for garment hangers. 2,868,389, 1–13–59, Cl. 211—123.

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Fuchs, Francis J., Jr., to Western Electric Co., Inc. Mandrel for use in twisting rectangular tubing. 2,868,266, 1–13–59, Cl. 153—63.

Gabor, William D., and J. L. Stahovec, to C. G. S. Laboratories, Inc. Amplifier-electrical control system. 2,868,896, 1–13–59, Cl. 179—171.

Gabriel, Daniel. Aspirating needle hub. 2,868,201, 1–13–59, Cl. 128—221.

Gaddis, Gene T., to Minneapolis-Honeywell Regulator Co. Steam heating control system. 2,868,461, 1–13–59, Cl. 237—9.

Gaertner, Van R., and E. L. Doerr, to Monsanto Chemical Co. Carbohydrate esters of carboxylic acids and methods of preparing same. 2,868,781, 1–13–59, Cl. 260—234.

Gage, Robert M., to Union Carbide Corp. Electric metal-arc process and apparatus. 2,868,950, 1–13–59, Cl. 219—74.

Gagnon, George A., to Admiral Corp. Electronic component attaching head. 2,867,810, 1–13–59, Cl. 1—220.

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Galos, Louis. Can opener. 2,868,409, 1–13–59, Cl. 220—52.

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Gardner, Raymond, Jr., to The Griscom-Russell Co. Rotatable arc welding tool. 2,868,953, 1–13–59, Cl. 219—125.

Garfinkel, Alan R., and S. Oken, to Sperry Rand Corp., Ford Instrument Co. Div. "Exclusive or" gate. 2,868,999, 1–13–59, Cl. 307—88.

Garland, Robert J., to Carrier Corp. Heat exchanger construction. 2,868,515, 1–13–59, Cl. 257—262.20.

Garlette, William A., Jr., and K. L. Godfrey, to Monsanto Chemical Co. Purifying 2,2'-thiobis (polyhalophenols). 2,868,841, 1–13–59, Cl. 260—609.

Garner, Clifford S., to United States of America, Atomic Energy Commission. Method of making plutonium dioxide. 2,868,620, 1–13–59, Cl. 23—14.5.

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Gebele, Kurt, to H. and F. W. Deckel. Photographic camera construction. 2,868,095, 1–13–59, Cl. 95—10.

Geffcken, Walter, and H. Schroeder, to Jenaer Glaswerk Schott & Gen. Polariser for producing uniformly polarized light with aid of interference polarizers and phase retarders. 2,868,076, 1–13–59, Cl. 88—65.

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Trousdale, Robert B. 2,868,881.

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Benander, George B. 2,869,101.
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Costas, John P. 2,868,981.
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Letteron, Henry A. 2,868,269.
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General Foods Corp.: *See*—
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General Latex & Chemical Corp.: *See*—
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General Mills, Inc.: *See*—
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General Motors Corp.: *See*—
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Reinertson, Donald R. 2,868,135.
Schaefer, Carl F., and Schwartzwalder. 2,867,883.
Vosler, Edward J., and Schultz. 2,867,898.
Young, Roger M. 2,868,323.

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Berger, France B., and Tull. 2,869,117.
Frederick, Arden H. 2,869,119.
Gray, John W. 2,869 006.
Tull, William J., and Gillette. 2,869,113.

General Railway Signal Co.: *See*—
Coley, Nelson B., Judge, and Albrighton. 2,868,962.
Phelps, Stuart M. 2,868,534.

George, Lloyd E. Artificial fingers. 2,867,819, 1–13–59, Cl. 3—12.6.

Gerber, Rudolph J., to R. K., A. J., and A. M. Bernstein. Portable linoleum measuring and cutting device. 2,867,907, 1–13–59, Cl 33—130.
Getreideflocken A. G.: *See*—
Fischer, Walter. 2,868,435.
Gewecke, Theodore H., to Baxter Laboratories, Inc. Flashback indicator. 2,868,200, 1–13–59, Cl. 128—214.
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Barfield, Robert H., and Gibbs. 2,868,938.
Gibson, Willard A., and D. C. Sevey, to Midwest Mfg. Corp. Centering clip. 2,868,604, 1–13–59, Cl. 312—140.1.
Glenger, Edwin R., Jr.: *See*—
Miller, Wilbur A., and Glenger. 2,867,847.
Gleske, William R., to The Ford Alexander Corp. Device for exploring ferromagnetic structure in well bores. 2,869,072, 1–13–59, Cl. 324—34.
Gilbert, William S.: *See*—
Edmonds, Harvey A., and Gilbert. 2,868,547.
Giles, Ralph R.: *See*—
Straley, James M., and Giles. 2,868,775.
Gilkey, John W., to Dow Corning Corp. Stable organosiloxane-titanate composition containing nitro compound. 2,868,750, 1–13–59, Cl. 260—29.1.
Gill, Richard H., H. H. Radke, and C. H. Kotheimer, to The B. F. Goodrich Co. Method of removing lactonitrile from aqueous mixtures. 2,868,828, 1–13–59, Cl. 260—465.6.
Gillette, Frank N.: *See*—
Tull, William J., and Gillette. 2,869,118.
Gilmore, Forrest E., to Phillips Petroleum Co. Recovery of hydrocarbons from gases. 2,868,326, 1–13–59, Cl. 183—115.
Gilmore, Forrest E., to Phillips Petroleum Co. Apparatus and method for flash evaporating oils. 2,868,714, 1–13–59, Cl. 208—48.
Gilmore, Forrest E., to Phillips Petroleum Co. Solvent extraction method and apparatus. 2,868,723, 1–13–59, Cl. 208—320.
Gioia, Michael C.: *See*—
Weiskopf, Edwin C., and Gioia. 2,868,072.
Giraitis, Albert P., to Ethyl Corp. Method of making metal halides. 2,868,621, 1–13–59, Cl. 23—87.
Gist, Fred M. Casing scratcher. 2,868,296, 1–13–59, Cl. 166—173.
Gist, Fred M. Well bore scratcher. 2,868,298, 1–13–59, Cl. 166—173.
Githens, Earl R., to Cabinet Top Industries. Corner construction and method of forming same. 2,867,864, 1–13–59, Cl. 20—92.
Gleason, Francis L. Snap-action electric switch. 2,868,914, 1–13–59, Cl. 200—68.
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Webb, Robert L. 2,868,845.
Goddard Edwin G. Lamp holder. 2,869,062, 1–13–59, Cl. 339—57.
Godfrey, Kenneth L.: *See*—
Garlette, William A., Jr., and Godfrey. 2,868,841.
Goff, John C., M. B. Goldberg, and A. J. Sondheimer, to United States of America, Navy. Electrolytically controlled delay device. 2,868,126, 1–13–59, Cl. 102—16.
Gold, Archie, to United States of America, Air Force. Self-registering overload mechanism. 2,868,000, 1–13–59, Cl. 64—29.
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Goff, John C., Goldberg, and Sondheimer. 2,868,126.
Goldmark, Peter C., to Columbia Broadcasting System, Inc. Color television signal conversion system. 2,868,870, 1–13–59, Cl. 178—5.2.
Goldstein, Arthur M., to Stein, Hall & Co., Inc. Dry mannogalactan composition. 2,868,664, 1–13–59, Cl. 106—208.
Goldstein, Richard, to Perma-Power Co. Highly discriminating radio frequency receiver. 2,869,123, 1–13–59, Cl. 343—225.
Gollwitzer, Walter T., to Addressograph-Multigraph Corp. Printing machines. 2,868,115, 1–13–59, Cl. 101—2.
Gonser, Homer S., Jr., to Wall Colmonoy Corp. Metallic composition. 2,868,639, 1–13–59, Cl. 75—171.
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Gonski, Joseph, to Goodman Mfg. Co. Adjustable continuous mining machine of the boring type. 2,868,530, 1–13–59, Cl. 262—7.
Gonski, Joseph, to Goodman Mfg. Co. Adjustable cusp cutter for boring type continuous mining machine. 2,868,531, 1–13–59, Cl. 262—7.
Goodall, Charles and M. Rotary raking wheel. 2,867,965, 1–13–59, Cl. 56—377.
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Goodall, Charles and M. 2,867,965.
Gonderham, John W., E. Jacobitti, O. Myers, F. F. Shipley, and W. Strickler, to Bell Telephone Laboratories, Inc. Toll switching telephone system. 2,868,884, 1–13–59, Cl. 179—18.
Goodhue, Lyle D., to Phillips Petroleum Co. Control of grass growth. 2,868,633, 1–13–59, Cl. 71—2.3.
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Goodrich, B. F., Co., The: *See*—
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Gill, Richard H., Radke, and Kotheimer. 2,868,828.
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Hammshire, William J., and Lepore. 2,868,439.
Gordon, Seymour. Adjustable gauge attachment holder for sewing machines. 2,868,153, 1–13–59, Cl. 112—257.
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Gorton, George, Machine Co.: *See*—
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Gotaas, Harold B., and W. J. Oswald, to The Regents of the University of California. Process of photosynthetic conversion of organic waste by algal-bacterial symbiosis. 2,867,945, 1–13–59, Cl. 47—58.
Graham, Bruce, to Ethyl Corp. Condensation of P-monoaminomethyl-benzoic acid and epsilon-caprolactam. 2,868,769, 1–13–59, Cl. 260—78.
Graham, Clifford P., to Texsteam Corp. High-pressure valve assembly. 2,868,497, 1–13–59, Cl. 251—172.
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Gray, James A. 2,867,820.
Gray, James A. 2,868,493.
Gray, Frederick W., to Colgate-Palmolive Co. Manufacture of fatty acid monoesters of glycerol monosulfuric acid and salts thereof. 2,868,812, 1–13–59, Cl. 260—400.
Gray, G. A., Co., The: *See*—
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Gray, James A., to A. Gray. Submerged flushing device. 2,867,820, 1–13–59, Cl. 4—41.
Gray, James A., to A. Gray. Flushing device. 2,868,493, 1–13–59, Cl. 251—49.
Gray, John W., to General Precision Laboratory Inc. Phase sensitive rectifier. 2,869,006, 1–13–59, Cl. 307—149.
Gray, Sidney, to Radio Corp. of America. Interference type optical filters utilizing calcium fluoride. 2,869,010, 1–13–59, Cl. 313—65.
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Greeley, Kenneth J. Device for opening containers. 2,868,408, 1–13–59, Cl. 220—52.
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Greene, William L., to Rogers, Taliaferro & Lamb, Architects. Chimney structure. 2,868,107, 1–13–59, Cl. 98—58.
Greller, Nelson P., and W. E. Graybeal. Conveyor. 2,868,394, 1–13–59, Cl. 214—11.
Greshel, Leonard J., to North Electric Co. Dial governor mounting arrangement. 2,868,887, 1–13–59, Cl. 179—90.
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Gardner, Raymond, Jr. 2,868,953.
Griswold, David E., to D. G. Griswold. Fueling and defueling system. 2,868,226, 1–13–59, Cl. 137—561.
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Griswold, David E. 2,868,226.
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Grover, Donald P., to United States of America, Army. Retractable firing pin. 2,868,081, 1–13–59, Cl. 89—135.
Groves, Erny W., ½ to W. Tom. Power driven hair clipper. 2,867,902, 1–13–59, Cl. 30—200.
Groves, Howard T. Step ladder. 2,868,426, 1–13–59, Cl. 228—31.
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Guckel, Gerhart A., to James Dole Engineering Co. Product metering and container filling apparatus. 2,868,241, 1–13–59, Cl. 141—134.
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Gulf Research & Development Co.: *See*—
Coggeshall, Norman D. 2,868,011.
Gulley, Ronald A., T. R. Harvey, and C. M. Schreiber, to Olin Mathieson Chemical Corp. Ammunition. 2,868,130, 1–13–59, Cl. 102—92.5.
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Gunderson, Allen D., to George Gorton Machine Co. Tracer controlled powered feed milling machines. 2,868,086, 1–13–59, Cl. 90—13.
Gunn, Donald A., L. R. Dean, and W. R. Senechal, to Sperry Rand Corp. Drawer suspension with auxiliary rollers. 2,868,608, 1–13–59, Cl. 312—337.
Guntert, Ronald M., and W. F. Earley, to Guntert & Zimmerman Const. Div., Inc. Feeler unit for control of traveling machines. 2,868,909, 1–13–59, Cl. 200—61.44.
Guntert & Zimmerman Const. Div., Inc.: *See*—
Guntert, Ronald M., and Earley. 2,868,909.
Gurley, Glenn W. Self dressing fairlead. 2,868,505, 1–13–59, Cl. 254—190.
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Haacke, Alfred C., to Haloid Xerox Inc. Electrostatic charging method and device. 2,868,989, 1–13–59, Cl. 250—49.5.
Haaff, George W., to Link-Belt Co. Caterpillar type drive for conveyor chain. 2,868,356, 1–13–59, Cl. 198—203.
Habicht, William H.: *See*—
Kearns, Charles M., Jr., and Habicht. 2,868,494.
Haefner, Albert J., and C. W. Montgomery to Ethyl Corp. Polyvinyl chloride with alkali metal phosphate and organotin salt. 2,868,765, 1–13–59, Cl. 260—45.75.

Haendler & Natermann, o. H. G.: *See*—
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Hahnel, Alwin, to United States of America, Army. Spectrum generator. 2,868,976, 1–13–59, Cl. 250—36.

Hahnel, Alwin, to United States of America, Army. Crystal controlled spectrum generator. 2,868,977, 1–13–59, Cl. 250—36.

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Annable, Weldon G., and Haines. 2,868,629.

Hale, Arlan B., and S. E. Parrish, to Union Carbide Corp. Process and apparatus for partial oxidation of hydrocarbons. 2,868,856, 1–13–59, Cl. 260—679.

Haley, Bernard W., to Hillside Laboratory. Optical device for testing absorption. 2,868,062, 1–13–59, Cl. 88—14.

Hall, C. M., Lamp Co.: *See*—
Worden, Norbert P. 2,868,961.

Hall, Keith W., to Baldwin-Lima-Hamilton Corp. Press for molding powdered material. 2,867,844, 1–13–59, Cl. 18—16.5.

Hall, Marchand B., to Acme Steel Co. Shearing and gripping device for binding tools. 2,868,238, 1–13–59, Cl. 140—93.2.

Hall, Newton L. Ball mill with load dispersion bar. 2,868,463, 1–13–59, Cl. 241—184.

Hallmann, Johan P. H., to North American Philips Co., Inc. Apparatus for magnetic recording and reproduction. 2,868,544, 1–13–59, Cl. 274—4.

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Hayford, Richard E., and Kaiser. 2,868,642.

Haltof, Henry: *See*—
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Hamilton, Douglas J., to Hughes Aircraft Co. Low output impedance semiconductor amplifier. 2,868,897, 1–13–59, Cl. 179—171.

Hamilton, Earl F., to Hamilton Mfg. Corp. Article of furniture. 2,868,601, 1–13–59, Cl. 311—107.

Hamilton, Joseph P., to Container Corp. of America. Stacking paperboard tray. 2,868,430, 1–13–59, Cl. 229—34.

Hamilton Mfg. Corp.: *See*—
Hamilton, Earl F. 2,868,601.

Hammel, Jay E.: *See*—
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Hammer, Herbert, to Meteor A.-G. Ring coiling machine. 2,868,466, 1–13–59, Cl. 242—4.

Hammerberg, Chester A., to Armour and Co. Process for the preparation of a rolled meat product. 2,868,650, 1–13–59, Cl. 99—107.

Hampel, Herbert J., to Burroughs Corp. Transducer unit. 2,869 089, 1–13–59, Cl. 336—192.

Hampshire, William J., and R. R. Lepore, to Goodyear Aircraft Corp. Plastic axial-flow compressor for gas turbines. 2,868,439, 1–13–59, Cl. 230—122.

Hampton, William J., to Addressograph-Multigraph Corp. Printing machines. 2,868,121, 1–13–59, Cl. 101—336.

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Hanington, Charles A. Spurt shield for can openers. 2,867,900, 1–13–59, Cl. 30—16.

Hanninen, Ida. Wall sponge. 2,867,832, 1–13–59, Cl. 15—244.

Hansen, George E., and E. W. Carr, to Crane Co. Temperature and pressure relief valve assembly. 2,868,460, 1–13–59, Cl. 236—92.

Hanze, Arthur R., to The Upjohn Co. 11-oxygenated-17a,21-dihydroxy-4-pregnen-20-ones and the 21-esters thereof. 2,868,783, 1–13–59, Cl. 260—239.55.

Harbers, Henry C., and D. R. Merchant, to Cook Bros. Equipment Co. Dump truck. 2,868,583, 1–13–59, Cl. 298—15.

Harbor, William H., to The National Cash Register Co. Item counter control mechanism for accounting machines. 2,868,446, 1–13–59, Cl. 235—60.

Haropulos, John T. Capacitive step level indicator for conductive liquids. 2,868,015, 1–13–59, Cl. 73—304.

Harrer, Paul H., to Allis-Chalmers Mfg. Co. Automatic belt clutch for conveyer drive. 2,868,113, 1–13–59, Cl. 100—5.

Harris, Bernard, and A. Macovski, to Radio Corp. of America. Phase comparison system. 2,868,975, 1–13–59, Cl. 250—36.

Harrison, Bertram M., to Raytheon Mfg. Co. Signalling apparatus. 2,869,027, 1–13–59, Cl. 315—24.

Harrison, Homer S., to Allied Steel and Conveyors, Inc. Television tube settling conveyor. 2,868,352, 1–13–59, Cl. 198—137.

Harrison, Homer S., to Allied Steel and Conveyors, Inc. Trolley conveyor incorporating automatic load transfer. 2,868,354, 1–13–59, Cl. 198—177.

Harrison, Richard I., and L. McKee, to Sylvania Electric Products Inc. Microwave transition elements. 2,869,082, 1–13–59, Cl. 333—21.

Harshaw Chemical Co., The: *See*—
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Harvey, Frank G., to Canadian Lift Truck Co. Ltd. Overload warning device for fork lift trucks. 2,868,919, 1–13–59, Cl. 200—85.

Harvey, Stefan J. Shock absorber. 2,868,537, 1–13–59, Cl. 267—64.

Harvey, Thabus R.: *See*—
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Harwood, Gordon M.: *See*—
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Hasselbohm, Sune S. S., to Telefonaktiebolaget L M Ericsson. Method for fastening a connection terminal in an insulating block. 2,869,106, 1–13–59, Cl. 339—198.

Hatch, Herman R. Steel mail box support for steel post. 2,868,488, 1–13–59, Cl. 248—149.

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Havens, Elwood L., to Silver Seal Products Co. Valve spring spacer. 2,868,188, 1–13–59, Cl. 123—188.

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Hawks, William L., and E. G. Patrick, to The Deltron Co., Inc. Intervalometer. 2,868,901, 1–13–59, Cl. 200—8.

Hawxhurst, Stephen, to Crane Packing Co. Gasket and method of making same. 2,868,575, 1–13–59, Cl. 288—16.

Haydon, Arthur W., to Consolidated Electronics Industries Corp. Motor speed governor. 2,869,062, 1–13–59, Cl. 318—311.

Hayford, Richard E., and C. B. Kaiser, to Haloid Xerox Inc. Electrophotographic method. 2,868,642, 1–13–59, Cl. 96—1.

Haynes, Richard D., to Monsanto Chemical Co. Composition of matter and process therefor. 2,868,654, 1–13–59, Cl. 99—143.

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Espenlaub, Walter C., and Loughlin. 2,868,872.

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Hegmann, William. Comminuting nozzle. 2,868,587, 1–13–59, Cl. 299—140.

Hegmann, William G. Material thrower or impactor. 2,868,351, 1–13–59, Cl. 198—128.

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Roovers, Wilhelmus A., and Van Steenis. 2,869,056.

Heilbrun, Harold. Corn harvesting attachments for grain combines. 2,867,961, 1–13–59, Cl. 56—119.

Heimbuch, Elmer F., to Brummer Steel Co. Face seal means. 2,868,562, 1–13–59, Cl. 288—3.

Heisler, Robert Y., to The Texas Co. Process for ester production by carbonylation. 2,868,813, 1–13–59, Cl. 260—410.9.

Heibing, Clarence H., and M. Barlowe, to Pittsburgh Plate Glass Co. Level control. 2,868,396, 1–13–59, Cl. 214—18.2.

Helser, Ray B., to Flores, Inc. Display device. 2,868,364, 1–13–59, Cl. 206—45.2.

Helton, James T. Cuff shaper. 2,868,424, 1–13–59, Cl. 223—53.

Hemstreet, Harold S., and H. D. Eckhardt, to Link Aviation, Inc. Decimal to binary translator. 2,868,450, 1–13–59, Cl. 235—61.

Henchert, John, to Continental Can Co., Inc. Paint can and cover. 2,868,410, 1–13–59, Cl. 220—60.

Henderson, Lloyd F., and F. E. Carroll, to Lever Bros. Co. Process of making nonsoap detergent bars and product. 2,868,731, 1–13–59, Cl. 252—117.

Henkel, Joseph F., to Cameraflex Corp. Moving picture camera for photographing two objects simultaneously. 2,868,064, 1–13–59, Cl. 88—16.

Hennig, Harvey, to The Pure Oil Co. Manufacture of aliphatic alcohols. 2,868,848, 1–13–59, Cl. 260—639.

Henricks, John A., to Devex Corp. Process of lubrication. 2,868,671, 1–13–59, Cl. 117—97.

Henricks, John A., to Devex Corp. Method of pickling and coating stainless steel in the same bath. 2,868,680, 1–13–59, Cl. 148—6.14.

Henry, Robert L., to The Cincinnati Milling Machine Co. Apparatus for reproducing a pattern outline. 2,868,992, 1–13–59, Cl. 250—202.

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Hergenrother, Rudolf C., to Raytheon Mfg. Co. Strobe cameras. 2,869,025, 1–13–59, Cl. 315—11.

Herr Equipment Corp., The: *See*—
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Herr, Richard F., to The Herr Equipment Corp. Guide apparatus. 2,868,340, 1–13–59, Cl. 276—2.6.

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Martin, Homer E., Jahnig, and Herrmann. 2,868,719.

Hess, George R. Safety support for ladders. 2,868,427, 1–13–59, Cl. 228—64.

Hess, John J., Jr., to Sperry Rand Corp. Control systems for dirigible craft. 2,869,063, 1–13–59, Cl. 318—489.

Hewitt, Ernest W., and J. J. Krakusky, to The Western Union Telegraph Co. Message accumulator and stacker. 2,868,874, 1–13–59, Cl. 178—42.

Hewitt, John E., L. F. Schmidt, and D. G. Gardner, to Abrams Instrument Corp. Time base mechanism. 2,868,924, 1–13–59, Cl. 200—90.

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Bach, Frederick L., Jr., and Hewitt. 2,868,692.

Heyden Newport Chemical Corp.: *See*—
Leach, Harry S., and Eldred. 2,868,849.

Heym, Lothar S. Constant velocity coupling. 2,867,995, 1–13–59, Cl. 64—7.

Hickey, John L., and W. G. Wallace, to General Motors Corp. Transmission control systems. 2,868,036, 1–13–59, Cl. 74—734.

Hickman, John P.: *See*—
Rotzler, Ross W., Hickman, and Collier. 2,868,327.

Hickok, Willard H., to Chemetron Corp. Electronic arc-suppressor. 2,868,941, 1–13–59, Cl. 219—10.77.

Hilgert, Adolph J.: *See*—
Dietz, Gerald E., and Hilgert. 2,869,049.

Hill, Lester E., to Aladdin Industries, Inc. Magnetically enclosed coil. 2,867,894, 1–13–59, Cl. 29—155.56.

Hilliard, Perley A. Machine for coating candy centers. 2,868,158, 1–13–59, Cl. 118—24.

Hillside Laboratory: *See*—
Haley, Bernard W. 2,868,062.
Hindmarch, Thomas. Torsionally resilient mounting. 2,868,037, 1–13–59, Cl. 74—785.
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Powlachill, John W., Hine, and Howard. 2,868,400.
Hines Flask Co., The: *See*—
Hines, Russell J. 2,867,870.
Hines, Frank F., and J. F. McGrath, Jr., to Baldwin-Lima-Hamilton Corp. Low-friction load-transmitting flexible joint. 2,868,570, 1–13–59, Cl. 287—85.
Hines, Russell J., to The Hines Flask Co. Method and apparatus for making sand molds for castings. 2,867,870, 1–13–59, Cl. 22—129.
Hinson, Jay B. Cigarette extinguisher and ash receptacle unit. 2,868,213, 1–13–59, Cl. 131—237.
Hinton, Raymond C. P., and F. W. Warden, to International Standard Electric Corp. Party line electrical communication systems. 2,868,869, 1–13–59, Cl. 178—2.
Hirsty, Sylvain M., to E. I. du Pont de Nemours and Co. Polychloroprene elastomers. 2,868,764, 1–13–59, Cl. 260—45.8.
Hitchcock, John H., to Morgan Construction Co. Shear. 2,868,292, 1–13–59, Cl. 164—66.
Hitchcock, Richard C., and E. V. Weir, to Syntron Co. Voltage and current battery charging and discharging control circuits. 2,869,065, 1–13–59, Cl. 320—18.
Hodler, Fritz. Venting device for die casting machines. 2,867,869, 1–13–59, Cl. 22—73.
Hodson, Peter, and S. Holm. Mounting sinusoidal fin elements in heat exchange envelope. 2,868,514, 1–13–59, Cl. 257—245.
Hoekstra, Age H.: *See*—
Cox, Anna P. M., Hoekstra, and Zalm. 2,868,732.
Hoellerich, John L.: *See*—
Peppa, Rocco, and Hoellerich. 2,868,967.
Hoffman, Herbert N., and S. P. Brickett, to General Electric Co. Close-coupled rotor assembly with thrust-transmitting flexible coupling for turbine-gear unit. 2,867,990, 1–13–59, Cl. 64—9.
Hoffmann, Arthur K., to American Cyanamid Co. o-halogeno-ethylphenyl borozoles and method of preparation. 2,868,840, 1–13–59, Cl. 260—606.5.
Hoffmeister, Erich. Drilling or grinding tools, more particularly for dental purposes. 2,867,904, 1–13–59, Cl. 32—26.
Hoisington, Richard L., to Burroughs Corp. Tape reeling apparatus. 2,868,473, 1–13–59, Cl. 242—72.
Holbrook, John A., to Morgan Construction Co. Wire-drawing block. 2,868,359, 1–13–59, Cl. 205—20.
Holderreed, Francis L., and R. R. Sullivan to Anaconda Copper Mining Co., now by change of name to The Anaconda Co. Submerged flame evaporator. 2,867,972, 1–13–59, Cl. 159—16.
Holl, James W. F. Torque actuated vehicle brake. 2,868,337, 1–13–59, Cl. 188—140.
Holley Carburetor Co.: *See*—
Cornelius, George W. 2,868,182.
Hollyday, James H., to Sperry Rand Corp. Plunger control means. 2,868,114, 1–13–59, Cl. 100—19.
Holm, Sven: *See*—
Hodson, Peter, and Holm. 2,868,514.
Holmboe, Lawrence S., Sr. Concrete form U-clamp. 2,868,250, 1–13–59, Cl. 144—291.
Holmes, Godfrey, (Plastics) Ltd.: *See*—
Donkin, William H. 2,868,360.
Holmechuh, Andrew A., to The Dow Chemical Co. Process for the purification of alkylene oxides. 2,868,806, 1–13–59, Cl. 260—348.
Holmechuh, Andrew A., to The Dow Chemical Co. Process for the purification of alkylene oxides. 2,868,807, 1–13–59, Cl. 260—348.
Homeyer, Arthur C.: *See*—
Lum, Walter O. 2,868,223.
Honholt, Knud A., and J. T. Walker. Combination ridge capping and ventilator for use on structures with pitched roofs: 2,868,104, 1–13–59, Cl. 98—42.
Hooper, Edward T., Jr., and J. J. Suconi, to United States of America, Navy. All-magnetic audio amplifier system. 2,868,877, 1–13–59, Cl. 179—1.
Hoover Co., The: *See*—
Duff, Jack E. 2,867,833.
Duff, Jack E. 2,867,836.
Ripple, Melvin H. 2,867,825.
Hoppe, Otto F., and H. R. Ruhr, to United Shoe Machinery Corp. Welt shoe sewing machines. 2,868,148, 1–13–59, Cl. 112—46.
Horizons Titanium Corp.: *See*—
Carlton, Stuart S. 2,868,704.
Walmer, Eugene. 2,868,703.
Horn, Henry M., to United Aircraft Corp. Propeller pitch control system. 2,868,304, 1–13–59, Cl. 170—160.2.
Horst, Paul V. Combined calf and foal puller and hoist. 2,868,207, 1–13–59, Cl. 128—352.
Horton, Richard C., W. H. Miller, and W. K. Lydic, to Owens-Corning Fiberglas Corp. Process for manufacture of coated filamentary material. 2,867,891, 1–13–59, Cl. 28—73.
Horwege, Glenn L., D. T. Trojak, and C. W. Jobbins, to said G. L. Horwege. Photoelectric switching system. 2,869,044, 1–13–59, Cl. 317—130.
Hotten, Bruce W., and W. Lowe, to California Research Corp. Salts of acrylamide-acrylic acid ester copolymers as grease-thickening agents. 2,868,728, 1–13–59, Cl. 252—33.6.
Houk, Emory V. Method and means for identifying wirepairs. 2,869,077, 1–13–59, Cl. 324—66.
Houston, Reese T.: *See*—
Scott, James G., Freeman, and Houston. 2,868,507.
Houth, Joseph W., to United Merchants and Manufacturers, Inc. Resin pre-treatment of plisse fabrics. 2,867,892, 1–13–59, Cl. 28—74.
Hovlid, Norman G. Aquarium aerating device. 2,868,525, 1–13–59, Cl. 261—121.
Howard, George E.: *See*—
Powlachill, John W., Hine, and Howard. 2,868,400.
Howard, Thomas P., to Pneumatic Scale Corp., Ltd. Packaging machine. 2,868,375, 1–13–59, Cl. 209—121.
Howatt, Glenn N., to Gulton Industries, Inc. Thermosensitive resistance element. 2,868,935, 1–13–59, Cl. 201—63.
Howell, William, and R. M. Scriver, to Mallory-Sharon Metals Corp. Titanium scrap recovery and electrode manufacture. 2,867,895, 1–13–59, Cl. 29—184.
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Howland, Alfred H., E. M. Hughes, H. Ford, and N. P. W. Moore, to National Research Development Corp. Combustion chambers. 2,868,857, 1–13–59, Cl. 260—679.
Hoyer, Llewellyn E., and I. E. Cox, to American Brake Shoe Co. Journal boxes. 2,868,595, 1–13–59, Cl. 308—38.
Hubbell, Harvey, Inc.: *See*—
Hubbell, Harvey, Jr. 2,869,102.
Hubbell, Harvey, Jr., to Harvey Hubbell, Inc. Adjustable cord take-off for attachment plugs. 2,869,102, 1–13–59, Cl. 339—101.
Huber, Matthew W., to The New York Air Brake Co. Pump. 2,867,976, 1–13–59, Cl. 60—52.
Hudson, Charles H. Cannula. 2,868,199, 1–13–59, Cl. 128—206.
Hueber, Carl J., to Addressograph-Multigraph Corp. Printing machines. 2,868,120, 1–13–59, Cl. 101—336.
Huenl, Albrecht, to Ciba Pharmaceutical Products, Inc. 2 - (γ - tert - butyl - O,O' - dimethyl - phenyl - methyl)-imidazoline and salts. 2,868,802, 1–13–59, Cl. 260—309.6.
Hugg, James K., to The Firestone Tire & Rubber Co. Paving composition containing synthetic rubbery polymer. 2,868,749, 1–13–59, Cl. 260—28.5.
Hughes Aircraft Co.: *See*—
Brewer, George R. 2,869,022.
Brewer, George R. 2,869,023.
Brewer, George R., and Sensiper. 2,869,018.
Currie, Malcolm R. 2,869,021.
Hamilton, Douglas J. 2,868,897.
Sensiper, Samuel. 2,869,020.
Watkins, Dean A. 2,869,019.
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Howland, Alfred H., Hughes, Ford, and Moore. 2,868,857.
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Wood-Mallock, James C., and Hughes. 2,868,730.
Hughes, William B., to Cities Service Research and Development Co. Method and composition for inhibiting corrosion of metals. 2,868,727, 1–13–59, Cl. 252—8.55.
Hull, Roger S.: *See*—
Spurlino, Pascal, Hull, and Rupel. 2,868,912.
Hunt, Rodney, Machine Co.: *See*—
Bechtler, Hans C. 2,868,279.
Hunter, Lloyd P., to International Business Machines Corp. Coincidence flux memory system. 2,869,112, 1–13–59, Cl. 340—174.
Hunziker, Charles E. Spraying means. 2,868,379, 1–13–59, Cl. 210—91.
Hutter, Ernest: *See*—
Untermyer, Samuel, and Hutter. 2,868,706.
Hwa, Jesse C. H., to Rohm & Haas Co. Preparation of cation-exchange resins by oxidation of vinylalkoxy sulfide polymers. 2,868,738, 1–13–59, Cl. 260—2.2.
Hydrocarbon Research, Inc.: *See*—
Woebcke, Herman N. 2,868,631.
I-T-E Circuit Breaker Co.: *See*—
Berchtold, Max. 2,867,981.
Caswell, Arthur S. 2,868,330.
Wood, Joseph D. 2,868,927.
Ikeda, Nobukazu: *See*—
Imai, Kaneo, Ikeda, Tanaka, and Sugawara. 2,868,839.
Ilford Ltd.: *See*—
Ayres, Dennis P., and Douglas. 2,868,829.
Illinois Tool Works: *See*—
O'Connor, John B. 2,867,824.
Poupitch, Ougljesa J. 2,868,256.
Poupitch, Ougljesa J. 2,868,486.
Imai, Kaneo, N. Ikeda, K. Tanaka, and S. Sugawara, to Sankyo Co. Ltd. 1-oxo-1-phenyl-hexa-2,4-diyne and its intermediate and process for the production of said compounds. 2,868,839, 1–13–59, Cl. 260—592.
Imperial Chemical Industries Ltd.: *See*—
Oakes, William G. 2,868,762.
Indak Mfg. Corp.: *See*—
Soreng, John E. 2,868,906.
Indjoudjian, Mardiros D. Electric delay network. 2,869,083, 1–13–59, Cl. 333—29.
Industrial Plastic Fabricators, Inc.: *See*—
Kaminsky, Stanley J. 2,868,499.
Industrial Rayon Corp.: *See*—
Temin, Samuel C. 2,868,770.
Ingersoll Milling Machine Co., The: *See*—
Wagner, Elmer K. 2,869,110.
Ingham, Philip H., and A. Mastrobattista, to Interchemical Corp. Pigmented plastics and method for preparing the same. 2,868,662, 1–13–59, Cl. 106—193.
Innis, Clarence F., to United States of America, Navy. Diode shunt gating circuit. 2,868,969, 1–13–59, Cl. 250—27.
In-Sink-Erator Mfg. Co.: *See*—
Wieczorek, Eugene E. 2,868,465.
Institutional Industries, Inc.: *See*—
Mine, William E. 2,868,275.

Interchemical Corp.: *See*—
Ingham, Philip H., and Mastrobattista. 2,868,662.
International Business Machines Corp.: *See*—
Bauer, Edwin W. 2,868,451.
Bruce, George D. 2,869,000.
Bruce, George D., and Eckelman. 2,868,455.
Hunter, Lloyd P. 2,869,112.
Tucker, Gardiner L. 2,869,054.
Young, Donald R. 2,869,111.
International Harvester Co.: *See*—
Allin, George S. 2,867,922.
Barrett, Robert D. 2,868,273.
Jucaitis, Pranas. 2,868,674.
Lee, Fred A. 2,868,310.
International Latex Corp.: *See*—
Miller, Wilbur A., and Glenger. 2,867,847.
International Salt Co., Inc.: *See*—
Ladenburg, Kurt. 2,868,655.
International Standard Electric Corp.: *See*—
Brewster, Arthur E. 2,868,891.
Hinton, Raymond C. P., and Warden. 2,868,869.
Thomson, Bernard, and Swift. 2,867,947.
Wright, Esmond P. G., and Rice. 2,868,447.
International Telephone and Telegraph Corp.: *See*—
Allison, David F. 2,869,057.
Arditi, Maurice. 2,868,966.
Di Toro, Michael J. 2,868,882.
Jacobs, Bernard. 2,867,899.
Phanos, Stephen. 2,868,898.

Ireland, James R., to Thomas & Skinner, Inc. Magnet calibrating stabilizer. 2,869,075, 1–13–59, Cl. 324—42.
Ivester, Henry E.: *See*—
Evans, Kenneth P., Ivester, and Turrini. 2,869,076.

Jabczynski, Hans-Joachim, G. Tiesler, H. Lurk, and K. Schröder, to Siemens & Halske Akt. Electronic stop control for switches having a motor comprising two drive magnets. 2,868,883, 1–13–59, Cl. 179—18.
Jackson, Clarence E.: *See*—
Shrubsall, Arthur E., and Jackson. 2,868,681.
Jacobitti, Edward: *See*—
Gooderham, John W., Jacobitti, Myers, Shipley, and Strickler. 2,868,884.
Jacobs, Bernard, to International Telephone and Telegraph Corp. Method of soldering germanium diodes. 2,867,899. 1–13–59, Cl. 29—494.
Jacobs, William L.: *See*—
Annable, Weldon G., and Jacobs. 2,868,524.
Jacobson, Joel M.: *See*—
Webb, William A., and Jacobson. 2,867,863.
Jacox, Paul B.: *See*—
Scripture, Edward W., Jr., Benedict, and Jacox. 2,868,659.
Jahill Co.: *See*—
Wood, Sidney R. 2,868,147.
Jahnig, Charles E.: *See*—
Martin, Homer Z., Jahnig, and Herrmann. 2,868,719.

Jahnig, Charles E., J. W. Brown, and H. Z. Martin, to Esso Research and Engineering Co. Process and apparatus for conversion of hydrocarbon oils. 2,868,715, 1–13–59, Cl. 208—55.
James, Henry A., ½ to J. M. Blanton. Toy. 2,868,137. 1–13–59, Cl. 104—73.
Jamison, Carmel R.: *See*—
Patterson, Helen E., and Jamison. 2,868,423.

Jamison, Will B., and B. L. Derringe, to Bituminous Coal Research, Inc. Mining equipment having cutting rotors adaptable to varying conditions. 2,868,326, 1–13–59. Cl. 262—7.

Jarmus, Joseph M., D. Kaufman, and F. R. Marchetti, to National Lead Co. Pigmented synthetic material and a method for making the same. 2,868,663, 1–13–59. Cl. 106—193.
Jarrett, William J., to United States of America, Army. Noise reducer for gun. 2,868,078, 1–13–59, Cl. 89—14.
Jarvis Mfg., Inc.: *See*—
Keightley, George M. 2,867,932.

Jedrziewski, Chester M., to United Aircraft Corp. Propeller auxiliary power control. 2,868,303, 1–13–59, Cl. 170—160.2.
Jeffrey Mfg. Co., The: *See*—
Kindig, Arnie J. 2,868,367.
Jeffries, Sampson F.: *See*—
Florestano, Herbert J., Jeffries, Osborne, and Bahler. 2,868,689.
Jeger, Oscar: *See*—
Ruzicka, Leopold, and Jeger. 2,868,784.
Jellinek, Maurice H.: *See*—
Johnson, Gordon C., and Jellinek. 2,868,751.
Jenaer Glaswerk Schott & Gen.: *See*—
Geffcken, Walter, and Schroeder. 2,868,076.

Jennings, Sheldon V., and S. C. Smith, to Chemetron Corp. Electronic arc-suppressor. 2,868,940, 1–13–59, Cl. 219—10.77.
Jensen, Garold K., and J. E. McGeogh, to United States of America, Navy. Decade frequency generator. 2,868,973. 1–13–59, Cl. 250—36.
Jensen, Garold K., and J. E. McGeogh, to United States of America, Navy. Variable reactance tube circuit. 2,868,979. 1–13–59, Cl. 250—36.
Jersey Production Research Co.: *See*—
Brooks, Fred A., Jr., Brinkley, Dumbauld, and Perry. 2,868,295.
Frank, Wallace J. 2,868,625.
Lamberson, Jack L., Jr. 2,868,297.
Payne, John B. 2,868,296.
Tullos, Frank N. 2,868,311.
Williams, Philip S. 2,868,509.
Wischmeyer, Carl R. 2,868,971.

Jesl, James L., to Sun Oil Co. Refining mineral oil materials. 2,868,835, 1–13–59, Cl. 260—514.
Jobbins, Charles W.: *See*—
Horwege, Glenn L., Trojak, and Jobbins. 2,869,044.
Jochems, Pieter J. W., and L. J. Tummers, to North American Philips Co., Inc. Semi-conductive device. 2,868,683, 1–13–59, Cl. 148—33.
Joerren, Ernest A., and R. E. Scott, to Specialties Development Corp. Explosion suppression system. 2,868,300, 1–13–59, Cl. 169—4.
Johannson, Oscar K., to Dow Corning Corp. Phenylmethylsiloxane diphenylsiloxane copolymers. 2,868,768, 1–13–59, Cl. 260—46.5.
Johanson, Bengt J., to Cinch Mfg. Corp. Jack connector for printed wiring. 2,869,090, 1–13–59, Cl. 339—17.
Johnesee, James W.: *See*—
Fedorchak, William J., Barly, and Johnesee. 2,868,061.
Johnson, Gordon C., and M. H. Jellinek, to Union Carbide Corp. Method of curing silicone water repellents with cyclopentadienyl transition element catalyst and aqueous compositions of same. 2,868,751, 1–13–59, Cl. 260—29.2.
Johnson, Herbert, and G. F. C. Burke, to United Shoe Machinery Corp. Apparatus for applying stripes of thermoplastic cements to flat blanks. 2,868,161, 1–13–59, Cl. 118—202.
Johnson, Neal J., and J. D. Nickerson, to Union Carbide Corp. Oxidation resistant carbon and graphite bodies. 2,868,672, 1–13–59, Cl. 117—121.
Johnson, S. C., & Son, Inc.: *See*—
Sesso, Louis M. 2,868,657.
Johnson, Thomas H., R. M. Kane, and J. Q. Tabor, Jr., to United States of America, Navy. Flare device. 2,868,129, 1–13–59, Cl. 102—87.
Johnson, Virgil L.: *See*—
Schriever, Arnold A., and Johnson. 2,868,169.
Johnson, William S. Textile dyeing apparatus. 2,868,006, 1–13–59, Cl. 68—184.
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Foster, Herbert V., and Johnston. 2,868,232.
Johnston, Walter F., Jr., to The American Oil Co. Preconditioning of hydroforming catalysts. 2,868,718, 1–13–59, Cl. 208—138.
Jolly, Samuel E., to Sun Oil Co. Compositions comprising polymerization products of vinyl aromatic compounds and naphthenic acid esters of polymeric polyhydric alcohols. 2,868,761, 1–13–59, Cl. 260—45.5.
Jones, Edward M., to The Baldwin Piano Co. Rotary air bearing. 2,868,593, 1–13–59, Cl. 308—9.
Jones, Everett E., to Fairchild Engine and Airplane Corp. Articulated die. 2,868,264, 1–13–59, Cl. 153—51.
Jones, Forest E. Paper cup handle. 2,868,434, 1–13–59, Cl. 229—52.
Jones, Robert T., to John T. Riddell Inc. Chin strap for helmet. 2,867,811, 1–13–59, Cl. 2—3.
Jonker, Hendrik: *See*—
De Jonge, Jelle Jonker, Kuening, and Dippel. 2,868,643.
Jorgensen, Gordon L. and I. A. Motor operated nut runner provided with magazine storage means. 2,868,053, 1–13–59, Cl. 81—57.
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Jorgensen, Gordon L. and I. A. 2,868,053.
Josephson, Vernal, and J. E. Hammel, to United States of America, Atomic Energy Commission. High energy gaseous plasma containment device. 2,868,991, 1–13–59, Cl. 250—84.5.
Joy Mfg. Co.: *See*—
Barrett, James L. 2,868,511.
Jucaitis, Pranas, to International Harvester Co. Rodent repellent binder cord. 2,868,674, 1–13–59, Cl. 117—138.5.
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Coley, Nelson B., Judge, and Albrighton. 2,868,962.
Juhasz, Steve. Foot massaging device. 2,868,191, 1–13–59, Cl. 128—60.
Jungles, Robert N., to Cleveland Pneumatic Industries, Inc. Constant load metering device. 2,868,536, 1–13–59, Cl. 267—64.

Kaczka, Edward A., J. W. Richter, and C. H. Shunk, to Merck & Co., Inc. 2,4-dihydroxy-3-methylphenylglyoxylic acid and derivatives thereof. 2,868,836, 1–13–59, Cl. 260—521.
Kadosch, Marcel, J. Le Foll, F. M. L. Maunoury, and J. Bertin, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. System for control of air flow over an aircraft wing. 2,868,479, 1–13–59, Cl. 244—42.
Kaiser Aluminum & Chemical Corp.: *See*—
Cook, Lloyd A. 2,868,863.
Cundiff, Winston H., and Donaldson. 2,868,523.
Kaiser, Carl B.: *See*—
Hayford, Richard E., and Kaiser. 2,868,642.
Kaiser, Rudolf. Shut-off cock with annular piston sealing means for the ball plug. 2,868,498, 1–13–59, Cl. 251—172.
Kamborian, Jacob S.: *See*—
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Weiss, Thomas A. 2,868,420.
Kaminsky, Stanley J., to Industrial Plastic Fabricators, Inc. Plug type valve. 2,868,499, 1–13–59, Cl. 251—314.
Kamp, Hans, to Olympia Werke A. G. Typewriter carbon paper ribbon feeding device. 2,868,348, 1–13–59, Cl. 197—151.
Kane, Ernest M.: *See*—
Johnson, Thomas H., Kane, and Tabor. 2,868,129.
Karb, Enoch J.: *See*—
MacLeod, David E., and Karb. 2,867,957.
Karlsson, Helge J., and S. S. Axelsson, to Aktiebolaget Baheo. Control valves for an appliance burning a gaseous fuel. 2,868,224, 1–13–59, Cl. 137—495.
Karoff Originals, Ltd.: *See*—
Karoff, Robert B. 2,868,598.
Karoff, Robert B., to Karoff Originals, Ltd. Handhold actuated foldable table. 2,868,598, 1–13–59, Cl. 311—62.

Karr, Errol H., to Pennsalt Chemicals Corp. Electrolytic cell. 2,868,711, 1–13–59, Cl. 204—274.

Kaszynski, Frank J., to J. S. Kamberian. Control valve for adhesive dispensing apparatus. 2,868,418, 1–13–59, Cl. 222—373.

Kaufman, Daniel: *See*—
Jarmus, Joseph M., Kaufman, and Marchetti. 2,868,063.

Kautz, Harry P.: *See*—
Meisel, George M., and Kautz. 2,868,276.

Kaye, Jeanne. Maternity garment. 2,867,817, 1–13–59, Cl. 2—211.

Kearney, Joseph W., and W. H. Spencer, to Cutler-Hammer, Inc. Test apparatus. 2,868,978, 1–13–59, Cl. 250—36.

Kearns, Charles M., Jr., and W. H. Habicht, to United Aircraft Corp. Anti-vibrating solenoid valve. 2,868,494, 1–13–59, Cl. 251—64.

Kearns, Myra S. Pocket calendar device with punch means. 2,868,293, 1–13–59, Cl. 164—85.

Keboe, Thomas J. Coffee makers. 2,868,110, 1–13–59, Cl. 99—299.

Kehr, Clifton L., to E. I. du Pont de Nemours and Co. Zinc halide complexes of 2-mercapto- and 2,2'-dithiobis-benzothiazole. 2,868,798, 1–13–59, Cl. 260—289.

Keightley, George M., to Jarvis Mfg., Inc. Automatic choke for shotguns. 2,867,932, 1–13–59, Cl. 42—79.

Keller, Karl L. Precision parallel gauge. 2,867,909, 1–13–59, Cl. 33—162.

Kellett, Eric, and L. W. Chambers, to The Birmingham Small Arms Co. Ltd. Die-casting machines. 2,867,868, 1–13–59, Cl. 22—68.

Kelly, George M., to Kingston Products Corp. Tank type vacuum cleaner. 2,867,834, 1–13–59, Cl. 15—327.

Kelly, George M., to Kingston Products Corp. Canister-type vacuum cleaner. 2,868,321, 1–13–59, Cl. 183—37.

Kelly, Harold C.: *See*—
Patten, Lorraine E., and Kelly. 2,868,656.

Kelly, John J.: *See*—
Patterson, Wesley V. 2,868,889.

Kelsey, Lawrence C., and S. H. Petry, to W. M. Welch Mfg. Co. Null indicating photometer. 2,868,995, 1–13–59, Cl. 250—210.

Kennerty, Thomas H. Attachment for saw grinding machines. 2,867,953, 1–13–59, Cl. 51—168.

Kensel, Raymond J.: *See*—
Baker, Joseph A., McGuire, and Kensel. 2,868,042.

Kent-Moore Organization, Inc.: *See*—
Cieslak, Edward J. 2,867,950.

Keohane, Maurice J. Gramophone pick-ups. 2,868,892, 1–13–59, Cl. 179—100.41.

Kerce, Woodrow. Insignia assemblies. 2,867,924, 1–13–59, Cl. 40—1.5.

Kerman, Ernest. Filling cap for use with valved fountain pen. 2,868,172, 1–13–59, Cl. 120—46.

Kerns, Quentin A.: *See*—
Baker, William R., Kerns, and Riedel. 2,868,974.

Kesselman, Jacob. Holder for milk cartons or the like. 2,868,411, 1–13–59, Cl. 220—85.

Ketchum, Arthur L., to Admiral Corp. Ultra-high frequency structures. 2,868,963, 1–13–59, Cl. 250—40.

Key, Laurence M. Tiller boat or leveling drag. 2,868,306, 1–13–59, Cl. 172—209.

Kiehl, Henry G. H., to Church-Craft Pictures, Inc. Box viewer. 2,868,071, 1–13–59, Cl. 88—39.

Kimmel, William R.: *See*—
Cederlund, Albert, and Kimmel. 2,868,235.

Kindig, Arnie J., to The Jeffrey Mfg. Co. Grease seal. 2,868,567, 1–13–59, Cl. 286—11.

King, Carl G., to Rotaprint Ltd. Control means for printing or duplicating machines. 2,868,455, 1–13–59, Cl. 235—132.

King, Norman: *See*—
Barnett, Bartow B., and King. 2,868,335.

Kingston Products Corp.: *See*—
Kelly, George M. 2,867,834.
Kelly, George M. 2,868,321.

Kirk, William A., and J. A. Brown, to Sperry Rand Corp. Shear bar mounting means to provide a curved cutting edge. 2,868,253, 1–13–59, Cl. 146—117.

Kirkpatrick, Leland W., to Rich Mfg. Corp. Valve material. 2,868,637, 1–13–59, Cl. 75—124.

Kirschenbaum, Samuel. Moistening devices. 2,868,244, 1–13–59, Cl. 141—128.

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Klamp, Paul, to Mechanical Handling Systems, Inc. Power and free conveyor system. 2,868,139, 1–13–59, Cl. 104—55.

Klein, Andrew J., to McGraw-Edison Co. Tool for tapering conduit or pipe ends. 2,868,065, 1–13–59, Cl. 90—12.

Klein, Dietrich J., to Warwick Mfg. Corp. Tape recorder. 2,868,471, 1–13–59, Cl. 242—55.12.

Klipp, Jerome M., and E. J. Abramson. Disposable shopper's cart. 2,868,557, 1–13–59, Cl. 280—47.13.

Kluge, Herman D., and F. W. Moore, to The Texas Co. Alkylation catalyst. 2,868,823, 1–13–59, Cl. 260—448.

Knain, Wendell M., to General Electric Co. Endless belt paint applicator. 2,868,162, 1–13–59, Cl. 118—219.

Knopf, Kenneth K. Prime mover of the gas turbine type. 2,867,980, 1–13–59, Cl. 60—39.37.

Knutson, Harold and H. G. Power ventilator for roofs. 2,868,105, 1–13–59, Cl. 98—43.

Knutson, Harold and H. G. Roof ventilator. 2,868,106, 1–13–59, Cl. 98—43.

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Knutson, Harold and H. G. 2,868,105.
Knutson, Harold and H. G. 2,868,106.

Kobe, Roger D., to Northrup, King & Co. Method of forming seed starters. 2,867,946, 1–13–59, Cl. 47—58.

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Koenig, Martin F., to Cutler-Hammer, Inc. Electric switches of the cam-lever operated type. 2,868,929, 1–13–59, Cl. 200—153.

Kölbel, Herbert, and P. Ackermann. Apparatus for carbon monoxide hydrogenation. 2,868,627, 1–13–59, Cl. 23—288.

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Kolodziej, Edwin S., to R. R. Donnelley & Sons Co. Apparatus for improved control of paper web position. 2,868,541, 1–13–59, Cl. 271—2.6.

Kookogey, Frederic F. Collapsible packing case. 2,868,406, 1–13–59, Cl. 220—7.

Koons, George L., G. P. Boule, and K. E. Swanson, to R. R. Donnelley & Sons Co. Method of and apparatus for forming signatures. 2,868,539, 1–13–59, Cl. 270—41.

Kopke, Ernst W., to Ultra-Sucro Co. Clarification and demineralization process for B-molasses and similar materials containing concentrated impurities. 2,868,677, 1–13–59, Cl. 127—46.

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Kosatka, Thomas O., to Victor Mfg. & Gasket Co. Cartridge type seal for rotary shafts. 2,868,566, 1–13–59, Cl. 286—7.

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Mayer, Mayer, Jr., and Kotter. 2,867,950.

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Martin, William J., and Kraus. 2,868,123.

Krauss, Carl. Roll-about stand for fans and similar appliances. 2,868,558, 1–13–59, Cl. 280—47.13.

Kreft, Lena J., 10% to A. Tashjian. Emergency splint compress. 2,868,193, 1–13–59, Cl. 128—89.

Krees, Bernard H., to Quaker Chemical Products Corp. Process of insolubilizing proteins. 2,868,773, 1–13–59, Cl. 260—112.

Krewson, Charles F., and E. J. Saggese, to United States of America, Agriculture. Terpene phenoxyacetate growth regulators. 2,868,634, 1–13–59, Cl. 71—2.6.

Kritchever, Mathew F., 25% to H. Dawson. Method for the decontamination of metal foils. 2,857,912, 1–13–59, Cl. 34—1.

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Krueger, Rudolph E. Anti-icing control system. 2,868,483, 1–13–59, Cl. 244—134.

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Lademburg, Kurt, to International Salt Co., Inc. Salt tablets containing an ethylenediamine-tetracetic acid compound and process of producing the same. 2,868,055, 1–13–59, Cl. 99—148.

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Lake, Francis G., to American Cyanamid Co. Agitator shaft assembly. 2,867,997, 1–13–59, Cl. 64—1.

Lalesse, Herman C., to North American Philips Co., Inc. Dual needle phonograph pick-up. 2,868,893, 1–13–59, Cl. 179—100.41.

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Lamberson, Jack L., Jr., to Jersey Production Research Co. Packer. 2,868,297, 1–13–59, Cl. 166—121.

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Lane, Lloyd H.: *See*—
Lanneau, Keith P., and Lane. 2,868,066.

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Lapeyre, Fernand S. and J. M., to The Peelers Co. Shrimp metering devices. 2,868,014, 1–13–59, Cl. 73—223.
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Lapeyre, Fernand S. and J. M. 2,868,014.
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Larkin, Sam. Wire bending apparatus. 2,868,237, 1–13–59, Cl. 140—71.
Larson, Charles O. Eye bolt and washer means preventing displacement of the free end of the eye. 2,867,874, 1–13–59, Cl. 24—115.
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La Torre, Albert J. Blind fastener having expansible coil spring head. 2,868,056, 1–13–59, Cl. 85—2.4.
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Leach, Harry S., and B. M. Eldred, ¼ to Monsanto Chemical Co., and ¾ to Heyden Newport Chemical Corp. Purification of methanol. 2,868,849, 1–13–59, Cl. 260—643.
Leavin, Samuel B.: *See*—
Aversa, Joseph. 2,867,829.
Leavin, William H.: *See*—
Aversa, Joseph. 2,867,829.
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Oberg, Fred N., and Le Baron. 2,868,618.
Lebourg, Maurice P., to Schlumberger Well Surveying Corp. Flowmeter. 2,868,012, 1–13–59, Cl. 73—155.
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Lee, Fred A., to International Harvester Co. Motor vehicle fender locking means. 2,868,310, 1–13–59, Cl. 180—89.
Lee, Koung-Shin. Graphical instrument. 2,867,906, 1–13–59, Cl. 33—93.
Lee, Royal. Variable speed transmissions. 2,868,039, 1–3–59, Cl. 74—798.
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Weiss, Edward L. 2,868,063.
Le Foll, Jean: *See*—
Kadoech, Marcel, Le Foll, Maunoury, and Bertin. 2,868,479.
Legman, Nathan. Closure and support for container. 2,868,417, 1–13–59, Cl. 222—180.
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Letteron, Henry A., to General Electric Co. Process of treating sheet material and product resulting therefrom. 2,868,269, 1–13–59, Cl. 154—2.6.
Leussler, Wayne E., L. E. Wood, and A. P. Teal, to Black, Sivalls & Bryson, Inc. Apparatus for separating fluids. 2,868,313, 1–13–59, Cl. 183—2.7.
Leussler, Wayne E., L. E. Wood, and A. P. Teal, to Black, Sivalls & Bryson, Inc. Apparatus for separating fluids. 2,868,314, 1–13–59, Cl. 183—2.7.
Levand, Victor A., and E. H. Wiley, to General Electric Co. Method of sealing and gas filling electric lamps. 2,868,609, 1–13–59, Cl. 316—17.
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Levy, Jack M. Hair bands. 2,868,214, 1–13–59, Cl. 132—46.
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Lewis, Robert E.: *See*—
Appel, Arthur V., and Lewis. 2,868,960.
Lewis, Thomas E., Jr., and V. A. Zaveruha, to The Coulter & McKenzie Machine Co., Inc. Coil-forming machine with generator controlled spindle positioning means. 2,868,268, 1–13–59, Cl. 153—67.
Lewis, Thomas E., Jr., to The Coulter & McKenzie Machine Co., Inc. Multiple speed coiler. 2,868,474, 1–13–59, Cl. 242—83.
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Lighthipe, Charles H.: *See*—
De Castro, Arthur, Lighthipe, and Groll. 2,868,734.
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Di Santi, Nicholas, Canfora, and Liguori. 2,868,875.
Limelite Corp.: *See*—
Bounds, William E. 2,868,958.
Limper, Arthur F.: *See*—
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Lindgren, Edwin G. Portable structure. 2,867,853, 1–13–59, Cl. 20—1.6.
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Hemstreet, Harold S., and Eckhardt. 2,868,450.
Link-Belt Co.: *See*—
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Neiman, Abram, and Lipschutz. 2,868,007.
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Lit, Harry B., and R. P. Anderson, to General Electric Co. Wire coating apparatus. 2,868,159, 1–13–59, Cl. 118—125.
Little, Thomas E. Fish holding implement. 2,867,937, 1–13–59, Cl. 43—53.5.
Ljungbo, Sven O. B. Production of nets, knitted fabrics and the like from single-filament polyamide threads. 2,868,675, 1–13–59, Cl. 117—138.8.
Ljungbo, Sven O. B. Production of nets, knitted fabrics and the like from synthetic resin threads. 2,868,676, 1–13–59, Cl. 117—138.8.
Loboseo, Roscoe R., to Union Carbide Corp. Multi-arc welding. 2,868,956, 1–13–59, Cl. 219—137.
Locher, Ross E., to Zinsco Electrical Products. Interlock mount for switch. 2,869,043, 1–13–59, Cl. 317—119.
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Loev, Bernard: *See*—
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Mason, Hal F., and Long. 2,868,283.
Mason, Hal F., and Long. 2,868,284.
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Lopez, Rene. Casing for camera. 2,868,998, 1–13–59, Cl. 95—11.5.
Lotz, Otto, to The Babcock & Wilcox Co. Fuel burning apparatus. 2,868,179, 1–13–59, Cl. 122—235.
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Louis, Claus, K. Sieber, and F.-K. Koch. Heading machine having an additional punch stroke effective at the forward position of the header slide. 2,867,823, 1–13–59, Cl. 10—12.
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Luce, Stewart B., to Swift & Co. Method of copolymerizing acrylic or methacrylic acid with proteinaceous material and product obtained. 2,868,740, 1–13–59, Cl. 260—8.
Lucien, René, and J.-P. M. Legros, to Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M. Anti-skid mechanism for master cylinder operated brake. 2,868,338, 1–13–59, Cl. 188—181.
Lucks, Gustav E. Valve construction. 2,868,219, 1–13–59, Cl. 137—197.
Lum, Walter O., to Arthur C. Homeyer. Valves. 2,868,223, 1–13–59, Cl. 137—454.6.
Lundquist, Richard C., to Goodman Mfg. Co. Pusher plate means for boring type mining machine. 2,868,529, 1–13–59, 262—7.
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Harris, Bernard, and Macovski. 2,868,975.
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Madden, Homer W. Double tier can conveyor. 2,868,350, 1-13-59, Cl. 198—35.
Maerker, Helmut. Rotational speed responsive device. 2,868,917, 1-13-59, Cl. 200—80.
Magnus, Finn H. Fish lure. 2,867,934, 1-13-59, Cl. 43—42.35.
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Makowski, Jerzy, to Fairchild Engine and Airplane Corp. Invertible evaporater. 2,867,991, 1-13-59, Cl. 62—169.
Mallory, Marion. Steam engine. 2,867,975, 1-13-59, Cl. 60—27.
Mallory, P. R., & Co. Inc.: *See*—
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Wood-Mallock, James C., and Hughes. 2,868,730.
Mannesmann-Meer Engineering and Construction Co.: *See*—
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Manoheim, Richard J., to W. A. Sheaffer Pen Co. Writing instrument. 2,868,173, 1-13-59, Cl. 120—47.
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Marcotte, Oswald J. Cigarette maker. 2,868,209, 1-13-59, Cl. 131—58.
Marié, Pierre G. Lobe-scanning microwave antenna. 2,869,124. 1-13-59. Cl. 343—783.
Marquis, Donald P., and O. S. French, to Thompson Products, Inc. Wedge biased means for making a joint socket in the side of a tube. 2,868,263, 1-13-59, Cl. 153—21.
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Martin Co., The: *See*—
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Martin, Homer Z., C. E. Jahnig, and J. W. Herrmann, to Esso Research and Engineering Co. Fluid coking process using transfer-line burner. 2,868,719, 1-13-59, Cl. 208—157.
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Mason, Hal F., and A. E. Long. Venetian blind slat and clip. 2,868,283, 1-13-59, Cl. 160—173.
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Mason, William G.: *See*—
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Ingham, Philip H., and Mastrobattista. 2,868,662.
Mattes, Alan P. Folding box. 2,868,404, 1-13-59, Cl. 217—14.
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Mattingly, Ralph J. and J. J. 2,868,403.
Mattingly, Ralph J. and J. J. Can labeler. 2,868,403, 1-13-59, Cl. 216—58.
Mattison, Edwin L., to E. I. du Pont de Nemours and Co. Chemical process. 2,868,822, 1-13-59, Cl. 260—437.
Maunoury, Francois M. L.: *See*—
Kadoech, Marcel, Le Foll, Maunoury, and Bertin. 2,868,479.
Maure, Douglas R.: *See*—
Morceri, Francis J., Jr., and Maure. 2,869,068.
Mauthe, Friedrich, G. m. b. H.: *See*—
Bertsch, Hans, and Stein. 2,867,971.
Mayer, Mayer, Jr., and J. I. Kotter, to United States of America, Agriculture. Fiber cleaner. 2,867,850, 1-13-59, Cl. 19—58.
Mayfair Molded Products Corp.: *See*—
Adams, Glenn T. 2,869,100.
Maye, Alfred M., H. L. Walpole, and J. P. Nolan, to United States of America, Navy. Moisture-proof illuminated instrument. 2,868,959, 1-13-59, Cl. 240—2.1.
McCann, Keith, to Goodman Mfg. Co. Troughing roller assembly for belt conveyor. 2,868,355, 1-13-59, Cl. 198—192.
McCarthy, Robert T. Panel construction. 2,867,857, 1-13-59, Cl. 20—15.
McCaulay, David A.: *See*—
Lien, Arthur P., and McCaulay. 2,868,854.
McCloughy, Thomas. Rocket control. 2,868,478, 1-13-59, Cl. 244—14.
McCord, Harold E. Power substitution circuit. 2,868,996, 1-13-59, Cl. 307—64.
McCord, Henry L. Thyratron variable-width-pulse generator. 2,869,038, 1-13-59, Cl. 315—230.
McCrone, Harold W., to Yankee Engineering Co., Inc. Locking device for clothes hangers. 2,868,390, 1-13-59, Cl. 211—124.
McCullough, David S., to The Dumore Co. Attachment for internal keyway cutting and slotting. 2,868,090, 1-13-59, Cl. 90—39.
McCullough, Lester C., to McGraw-Edison Co. Insulating bushing. 2,868,867, 1-13-59, Cl. 174—153.
McDonald, Donald C., to Cook Electric Co. Follow-up control systems. 2,869,059, 1-13-59, Cl. 318—32.
McFaul, Claude, Corp.: *See*—
McFaul, Claude F. 2,868,362.
McFaul, Claude F., to Claude McFaul Corp. Combination matchbook and throw-away ashtray. 2,868,362, 1-13-59, Cl. 206—38.
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Jensen, Garold K., and McGeogh. 2,868,973.
Jensen, Garold K., and McGeogh. 2,868,979.
McGlamery, Roger M., to Phillips Petroleum Co. Heat-stress cracking resistance of thermoplastic filamentous articles. 2,867,848, 1-13-59, Cl. 18—47.5.
McGrath, John F., Jr.: *See*—
Hines, Frank F., and McGrath. 2,868,570.
McGraw-Edison Co.: *See*—
Frey, Raymond M. 2,868,746.
Frey, Raymond M. 2,868,747.
Klein, Andrew J. 2,868,085.
McCullough, Lester C. 2,868,867.
Minder, Peter M. 2,869,070.
Rigert, Max. 2,868,921.
McGuff, Thomas J., to United Aircraft Corp. Water separator de-icing control. 2,867,989, 1-13-59, Cl. 62—150.
McGuffey, James W., to Tranter Mfg., Inc. Condenser cooling in mobile refrigeration unit. 2,867,992, 1-13-59, Cl. 62—241.
McGuire, Robert E.: *See*—
Bakos, Joseph A., McGuire, and Kensel. 2,868,042.
McKee, Chester W. and R. W., to Teleweld, Inc. Method and apparatus for distinguishing harmless surface flaws from dangerous fissures in magnetizable bodies. 2,869,073, 1-13-59, Cl. 324—37.
McKee, George K. Trolley wire slide, collector or shoe. 2,868,900, 1-13-59, Cl. 191—57.
McKee, Lefler: *See*—
Harrison, Richard L., and McKee. 2,869,082.
McKee, Richard W.: *See*—
McKee, Chester W. and R. W. 2,869,073.
McKeever, Charles H., and L. R. Freimiller, to Rohm & Haas Co. Alkyl methylenephenylvalerate. 2,868,831, 1-13-59, Cl. 260—476.
McMahan, Kenton D. Tire truing machines. 2,868,291, 1-13-59, Cl. 164—61.
McMahan, Kenton D. Multi-stage centrifugal blowers, compressors and the like. 2,868,440, 1-13-59, Cl. 230—130.
McManus, Albert R. Impregnated corrugated paperboard, a composition therefor and a process of making said composition. 2,868,665, 1-13-59, Cl. 106—230.
McMillan, Brockway, to Bell Telephone Laboratories, Inc. Pulse probability modulation system. 2,868,963, 1-13-59, Cl. 250—6.
McMinn, Robert E.: *See*—
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McOrily, Joseph, to Edwin L. Wiegand Co. Filling apparatus. 2,867,955, 1-13-59, Cl. 53—239.
McQuillen, John L. Tread and flange reducer. 2,868,054, 1-13-59, Cl. 82—36.
Meacham, Douglas G. Dental wedge. 2,867,905, 1-13-59, Cl. 32—63
Mearns, William B. Fish lures. 2,867,935, 1-13-59, Cl. 43—42.35.
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Klamp, Paul. 2,868,139.
Mechem, Maurice R. Combination toothbrush and dentifrice carrier. 2,868,215, 1-13-59, Cl. 132—84.

Medalia, Avrom I. Synthetic latex containing a vinyl emulsifying agent and process of preparation. 2,868,755, 1–13–59, Cl. 260—29.7.

Medalia, Avrom I., and H. H. Freedman, to General Latex & Chemical Corp. Composition of matter. 2,868,814, 1–13–59, Cl. 260—413.

Meisel, George M., and H. P. Kautz, to The Mine & Smelter Supply Co. Heavy media separator. 2,868,376, 1–13–59, Cl. 209—172.5.

Melgaard, Oscar C., to Wright Mfg. Co. Mounting structure for air conditioning apparatus. 2,868,102, 1–13–59, Cl. 98—39.

Melpar, Inc.: *See*—
Vossen, Bernd. 2,868,413.

Melville, William S., to The British Thomson-Houston Co. Ltd. Pulse generating electrical circuit arrangements. 2,869,004, 1–13–59, Cl. 307—108.

Merchant, Donald R.: *See*—
Harbers, Henry C., and Merchant. 2,868,583.

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Arth, Glen E., and Sarett. 2,868,805.
Kaczka, Edward A., Richter, and Shunk. 2,868,836.
Pfister, Karl, III, and Stein. 2,868,818.

Measen-Jaschin, G. A.: *See*—
Maas, Friedrich J., and Schedling. 2,868,317.

Metal and Thermit Corp.: *See*—
Bikales, Richard G. 2,868,709.
Coffeen, William W. 2,868,658.
Weinberg, Elliott L. 2,868,819.

Metals & Controls Corp.: *See*—
Epstein, Henry D. 2,868,923.

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Hammer, Herbert. 2,868,466.

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Mewherter, Jack L.: *See*—
Alter, Henry W., Davidson, Miller, and Mewherter. 2,868,707.

Meyer, Cyril G. Row crop attachment for combines. 2,867,962, 1–13–59, Cl. 56—158.

Meyer, Edward J. Gun mount assembly. 2,868,080, 1–13–59, Cl. 89—37.

Meyer, Hans-Joachim K., to Ampatco Laboratories Corp. Slaving mechanism for gyros. 2,868,024, 1–13–59, Cl. 74—5.47.

Meyer, Henry A. Process and apparatus for finishing metal and products resulting therefrom. 2,867,949, 1–13–59, Cl. 51—5.

Meyer, Louis C. Electric locks. 2,868,905, 1–13–59, Cl. 200—42.

Meyer, Roelf J., to North American Philips Co., Inc. Hot-gas reciprocating apparatus. 2,867,973, 1–13–59, Cl. 60—24.

Meyers, Harold A.: *See*—
Rosen, Mac, and Meyers. 2,868,073.

Midwest Mfg. Corp.: *See*—
Gibson, Willard A., and Sevey. 2,868,604.
Squire, Herbert D. 2,867,839.
Squire, Herbert D. 2,867,862.
Squire, Herbert D. 2,868,607.
Squire, Herbert D., and Brandt. 2,868,578.
Weinrich, Walter H., Mudd, and Noecker. 2,867,995.

Mieg, Peter. Fencing game. 2,868,542, 1–13–59, Cl. 273—1.

Mika, Daniel F., and D. A. Daugherty, to Precision Metalsmith, Inc. Induction heater control. 2,868,902, 1–13–59, Cl. 200—10.77.

Milbourne, Charles G., to The Unied Gas Improvement Co. Method for the catalytic conversion of hydrocarbons. 2,868,632, 1–13–59, Cl. 48—214.

Miles, John H., Jr. Golfing hand grip. 2,867,814, 1–13–59, Cl. 2—20.

Miller, Carroll E., to Cone Automatic Machine Co. Inc. Indexing mechanism. 2,868,032, 1–13–59, Cl. 74—436.

Miller, Charles J., to Charles Justin Miller. Combination back-rests and bag structures. 2,868,274, 1–13–59, Cl. 155—154.

Miller, Charles Justin: *See*—
Miller, Charles J. 2,868,274.

Miller, Daniel B., to Miller Electric Co. Finger pull wall plug. 2,869,096, 1–13–59, Cl. 339—62.

Miller Electric Co.: *See*—
Miller, Daniel B. 2,869,096.

Miller, Russell L., to Bill Jack Scientific Instrument Co. Aviator's helmet. 2,867,813, 1–13–59, Cl. 2—6.

Miller, Wilbur A., and E. B. Glenger, Jr., to International Latex Corp. Forms for manufacture of deposited latex articles. 2,867,847, 1–13–59, Cl. 18—41.

Miller, William, to United States of America, Navy. Method of reducing transient reverse current. 2,868,988, 1–13–59, Cl. 250—49.5.

Miller, William H.: *See*—
Horton, Richard C., Miller, and Lydic. 2,867,891.

Miller, William S., to Denoyer-Geppert Co. Bracket means for displaying globes, maps, and the like from wall rails. 2,867,918, 1–13–59, Cl. 35—40.

Mills, John E., to The Gas Council. Removing hydrogen sulphide from gases. 2,868,617, 1–13–59, Cl. 23—2.

Minder, Peter M., to McGraw-Edison Co. Arrangement for varying kilovar output of capacitor bank in steps. 2,869,070, 1–13–59, Cl. 323—122.

Mine & Smelter Supply Co., The: *See*—
Meisel, George M., and Kautz. 2,868,376.

Minister of Supply, in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland, The: *See*—
Barcroft, Stanley. 2,868,022.

Minkema, William H., to Corn Products Refining Co. Preparation of starch esters. 2,868,780, 1–13–59, Cl. 260—233.5.

Minneapolis-Honeywell Regulator Co.: *See*—
Aske, Leonard E. 2,868,934.
Beard, Richard B. 2,868,017.
Bonnell, Charles R. 2,868,023.
Currie, Courtland B., and Loveland. 2,868,457.
Du Bois, Robert C. 2,868,018.
Gaddis, Gene T. 2,868,461.
Moore, Warren, Jr. 2,868,458.

Minneman, Milton J., and A. S. Westneat, Jr., to The Martin Co. Synchronization system. 2,869,121, 1–13–59, Cl. 343—108.

Minty, John E.: *See*—
Stevens, Howard C., and Minty. 2,868,580.

Minty, John E., to Manning, Maxwell & Moore, Inc. Non-fouling winch. 2,868,504, 1–13–59, Cl. 254—150.

Minty, John E., and H. C. Stevens, to Manning, Maxwell & Moore, Inc. Cargo release hook. 2,868,581, 1–13–59, Cl. 294—83.

Mitchell, John E., Co.: *See*—
Mitchell, Orville, and Freeman. 2,867,851.

Mitchell, Orville, and W. P. Freeman, Jr., to John E. Mitchell Co. Apparatus for humidifying seed cotton. 2,867,851, 1–13–59, Cl. 19—66.

Mitchell, Walter B., to Raytheon Mfg. Co. Switching circuits. 2,868,997, 1–13–59, Cl. 307—75.

Mize, William E., to Institutional Industries, Inc. Removable foot rest. 2,868,275, 1–13–59, Cl. 155—165.

Modes, Edward E., to The Dole Valve Co. Vacuum control devices. 2,868,459, 1–13–59, Cl. 236—87.

Mohr, Harry F., to Radio Corp. of America. Radiotelephone switching circuit with receiver squelch control. 2,868,964, 1–13–59, Cl. 250—13.

Molitor, Zeno F. Hot and cold air baseboard register. 2,868,103, 1–13–59, Cl. 98—40.

Molon Motors and Coil Corp.: *See*—
Carlsen, Victor. 2,869,008.

Monahan, Frederick A., to General Dynamics Corp. Method and apparatus for chemically boring metallic material. 2,867,929, 1–13–59, Cl. 41—9.

Miller, Richard S.: *See*—
Alter, Henry W., Davidson, Miller, and Mewherter. 2,868,707.

Monk, George S., to United States of America, Atomic Energy Commission. Reactor viewing apparatus. 2,868,962, 1–13–59, Cl. 250—108.

Monsanto Chemical Co.: *See*—
Burland, Peter D., and Roth. 2,868,837.
Franz, Raymond A. 2,868,328.
Gaertner, Van R., and Doerr. 2,868,781.
Garlette, William A., Jr., and Godfrey. 2,868,841.
Haynes, Richard D. 2,868,654.
Leach, Harry S., and Eldred. 2,868,849.
Rotzler, Ross W., Hickman, and Collier. 2,868,327.
Sargent, Neil A., and Davis. 2,868,280.
Shaver, Kenneth J., and Perry. 2,868,624.

Montecatini Societa Generale per l'Industria Mineraria e Chimica: *See*—
Pontremoli, Pio. 2,868,710.

Montgomery, Charles W.: *See*—
Haefner, Albert J., and Montgomery. 2,868,765.

Montgomery, Charles W., to Ethyl Corp. Polyvinyl chloride and vinyl chloride-alkyl acrylate copolymer blend. 2,868,763, 1–13–59, Cl. 260—45.5.

Moore, Fred W.: *See*—
Kluge, Herman D., and Moore. 2,868,823.

Moore, Nada. Clip-on hair pin tray. 2,867,882, 1–13–59, Cl. 24—253.

Moore, Nolan P. W.: *See*—
Howland, Alfred H., Hughes, Ford, and Moore. 2,868,857.

Moore, Warren, Jr., to Minneapolis-Honeywell Regulator Co. Electrical control apparatus. 2,868,458, 1–13–59, Cl. 236—69.

Mercerf, Francis J., Jr., and D. R. Maure, to General Electric Co. Reference voltage source. 2,869,068, 1–13–59, Cl. 323—22.

Morgan Construction Co.: *See*—
Hitchcock, John H. 2,868,292.
Holbrook, John A. 2,868,359.
Murrah, Edmund S. 2,867,906.
Rich, Charles A., Jr. 2,868,574.

Morgan, John M., Jr., to The Cincinnati Milling Machine Co. Tracing apparatus. 2,868,087, 1–13–59, Cl. 90—13.5.

Morgan, Russell L., and E. R. Kolodny, to American Cyanamid Co. Hydraulic cement compositions containing acrylamide-acrylic acid copolymers and method of making same. 2,868,753, 1–13–59, Cl. 260—29.6.

Morgren, C. A., Co.: *See*—
Faust, Delbert G. 2,868,584.

Morin, Louis H. Jam-freeing slider for separable fasteners. 2,867,881, 1–13–59, Cl. 24—205.15.

Moro, Antonio, to S. p. A. Fratelli Borletti. Means for adjusting the stroke of the feed dog in sewing-machines. 2,868,150, 1–13–59, Cl. 112—210.

Morrison, Jerome L. Extensible leaf support and lock means for an extendable table. 2,868,597, 1–13–59, Cl. 311—55.

Morton, Evans T., to Admiral Corp. Hinge structure for containers. 2,867,842, 1–13–59, Cl. 16—189.

Morton, Evans T., and W. H. Weinrich, to Admiral Corp. Dehumidifier. 2,867,993, 1–13–59, Cl. 62—297.

Moseley, F. L., Co.: *See*—
Moseley, Francis L. 2,868,618.

Moseley, Francis L., to F. L. Moseley Co. Recording apparatus. 2,868,613, 1–13–59, Cl. 346—139.

Moseley, Karl W., to W. M. Sprinkman Corp. Homogenizer. 2,868,516, 1–13–59, Cl. 259—4.

Mostad, Eigil: *See*—
Aannerud, Sigurd A., and Mostad. 2,868,635.

Motorola, Inc.: *See*—
Schaper, William A. 2,869,053.

Mott, Norman S., to Cooper Alloy Corp. Precipitation hardenable, corrosion resistant, chromium-nickel stainless steel alloy. 2,868,638, 1–13–59, Cl. 75—125.
Moulton, Lloyd J., to Curtiss-Wright Corp. Engine load limiting controls. 2,868,184, 1–13–59, Cl. 123—140.
Moyer, William C., to The Texas Co. Cracking feed from lubricating oil stock. 2,868,716, 1–13–59, Cl. 208—87.
Moyle, Clarence L., to The Dow Chemical Co. 2,4-dichlorophenoxyalkanols. 2,868,843, 1–13–59, Cl. 260—613.
Moynahan Bronze Co.: *See*—
Cudini, Roger G. 2,867,856.
Mudd, Kenneth C.: *See*—
Weinrich, Walter H., Mudd, and Noecker. 2,867,995.
Mudon, Thomas J. Control system for accelerator. 2,868,035, 1–13–59, Cl. 74—513.
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Capitani, Clito, and Mugnaini. 2,868,858.
Mulder, Harry: *See*—
Powers, Robert P., Mulder, and Fordyce. 2,868,260.
Mulder, Johannes G. W., to North American Philips Co., Inc. Electric discharge tube. 2,869,013, 1–13–59, Cl. 313—170.
Mullen, James W., II, to Experiment Inc. Apparatus for igniting fuels. 2,867,979, 1–13–59, Cl. 60—35.6.
Müller, Rudolf A., to United States of America, Army. Thermionic device. 2,869,012, 1–13–59, Cl. 313—157.
Mumford, William W., and A. J. Newland, to Bendix Aviation Corp. Switch. 2,868,920, 1–13–59, Cl. 200—87.
Murphy, Marion D. Ventilated block wall. 2,868,010, 1–13–59, Cl. 72—127.
Murrah, Edmund S., to Morgan Construction Co. Apparatus for measuring sheared lengths. 2,867,908, 1–13–59, Cl. 33—141.
Murray, Alan E. Form-fitting footwear. 2,868,197, 1–13–59, Cl. 128—153.
Murray Co. of Texas, Inc., The: *See*—
Schumb, Martin T. 2,868,031.
Murrell, Harvey S. Tapered tube forming and applying mechanism. 2,867,956, 1–13–59, Cl. 53—296.
Myers, John B., to Zonolite Co. Method of processing vermiculite. 2,868,735, 1–13–59, Cl. 252—378.
Myers, Oscar: *See*—
Gooderham, John W., Jacobitti, Myers, Shipley, and Strickler. 2,868,884.
Nagle, Perry L. Pump. 2,868,124, 1–13–59, Cl. 103—108.
Namiotka, Edmund. Circular saw filer. 2,868,041, 1–13–59, Cl. 76—31.
Napier, D., & Son Ltd.: *See*—
Chamberlin, Reginald H. D. 2,868,040.
Nappa, Raul R. Heels for footwear. 2,867,919, 1–13–59, Cl. 36—24.5.
Natalis, Herbert E., to Radio Corp. of America. Getter structure. 2,869,014, 1–13–59, Cl. 313—181.
National Biscuit Co.: *See*—
Griner, Arthur J. 2,868,141.
National Can Corp.: *See*—
Renard, Roland E., Thorpe, and Davidson. 2,868,373.
National Cash Register Co., The: *See*—
Harbor, William H. 2,868,446.
Spartino, Pascal, Hull, and Rupel. 2,868,912.
National Drug Co., The: *See*—
Martin, Gustav J., Avakian, and Gal. 2,868,690.
National Foam System, Inc.: *See*—
Wiedorn, Paul H. 2,868,201.
National Lead Co.: *See*—
Jarmus, Joseph M., Kaufman, and Marchetti. 2,868,663.
National Lock Co.: *See*—
Peterson, Raymond C. 2,867,840.
National Research Council: *See*—
Puddington, Ira E. 2,868,384.
National Research Development Corp.: *See*—
Howland, Alfred H., Hughes, Ford, and Moore. 2,868,857.
National Vendors, Inc.: *See*—
Pryor, Harry H. 2,868,414.
Neeff, Rütger, to Farbenfabriken Bayer Akt. Certain substituted bis-anthraquinonyl bibenzothiazole and bibenzoxazole dyes and process. 2,868,790, 1–13–59, Cl. 260—302.
Neher, Clarence M., and H. E. O'Connell, to Ethyl Corp. Oil scrubber. 2,868,852, 1–13–59, Cl. 260—660.
Neher, Clarence M., and H. E. O'Connell, to Ethyl Corp. Acid scrubber. 2,868,853, 1–13–59, Cl. 260—660.
Neher, Robert, to Ciba Pharmaceutical Products Inc. Manufacture of new polythioureas. 2,868,834, 1–13–59, Cl. 260—506.
Neiman, Abram, and P. Lipschutz; said Lipschutz assor. to said Neiman. Anti-theft device. 2,868,007, 1–13–59, Cl. 70—252.
Nelson, Amlaug B. Self-closing funnel for bottles, jars and the like. 2,868,246, 1–13–59, Cl. 141—286.
Nelson, John W., and J. A. Verdol, to Sinclair Refining Co. Lubricating oil thickened to a grease with an anhydrous calcium soap of an alkenyl substituted succinic acid. 2,868,729, 1–13–59, Cl. 252—39.
Nelson-Ricks Creamery Co.: *See*—
Manwaring, David H. 2,868,651.
Ness, Odvar A., and K. N. Lambert, to Sprague Electric Co. Molded capacitors. 2,869,052, 1–13–59, Cl. 317—230.
Nestle, Alfred C., to The Texas Co. Determination of fluid movement in bore holes. 2,868,506, 1–13–59, Cl. 255—1.8.
Neubert, Max: *See*—
Richter, Willy, and Neubert. 2,868,211.
Neureuther, George C., to Hiram Walker & Sons, Inc. Processes for producing distilled potable alcoholic liquors. 2,868,645, 1–13–59, Cl. 99—34.
Neuvy, Liliane: *See*—
Servigne, Marcel, Smarvasi, and Neuvy. 2,868,850.
Newworth, Joseph A., and E. H. Wearing. Signalling device for automotive vehicles. 2,868,916, 1–13–59, Cl. 200—80.
Newland, Albert J.: *See*—
Mumford, William W., and Newland. 2,868,920.
New York Air Brake Co., The: *See*—
Huber, Matthew W. 2,867,976.
Nickerson, John D.: *See*—
Johnson, Neal J., and Nickerson. 2,868,672.
Nicolls, Wilfrid E. W., to C. A. V. Ltd. Filters. 2,868,3[illegible], 1–13–59, Cl. 210—323.
Nielsen, Carl T. Adjustable hinge. 2,867,838, 1–13–59, Cl. 16—131.
Niemeyer, Edward H.: *See*—
Dement, James F., Benson, and Niemeyer. 2,867,915.
Niemeyer, Edward J. Trap for animals. 2,867,938, 1–13–59, Cl. 43—63.
Nieup, Casimer M. Thumb-operated trigger safety. 2,867,930, 1–13–59, Cl. 42—70.
Nilsson, Hans R., to Svenska Rotor Maskiner Aktiebolag. Rotary device. 2,868,442, 1–13–59, Cl. 230—143.
Nilsson, Nils L., and S. J. Spurgeon, to Anderson Brass Works. Shunt for power line clamps. 2,868,865, 1–13–59, Cl. 174—140.
Nims, Philip A., to Crompton & Knowles Corp. Picking mechanism for loom. 2,868,234, 1–13–59, Cl. 139—147.
Nischk, Gunther, W. Bunge, and O. Bayer, to Farbenfabriken Bayer Akt. Process for producing cellular polyurethane resins. 2,868,739, 1–13–59, Cl. 260—2.5.
Nitschke, Bruno, to Adlerwerke vorm. Heinrich Kleyer Akt. Device for adjusting the striking force of the type bars of electric typewriters. 2,868,345, 1–13–59, Cl. 197—17.
Nitzsche, Siegfried, and R. Riedle, to Wacker Chemie G. m. b. H. Preparation of hexaorganodistannoxane and triorganotin hydroxide. 2,868,820, 1–13–59, Cl. 260—429.7.
Nobles, Robert G.: *See*—
Reardon, William A., Lennox, and Nobles. 2,868,[illegible].
Noecker, Duane S.: *See*—
Weinrich, Walter H., Mudd, and Noecker. 2,867,995.
Nolan, James P.: *See*—
Mayo, Alfred M., Walpole, and Nolan. 2,[illegible].
Nopco Chemical Co.: *See*—
Cunder, Joseph, and Licata. 2,868,666.
De Castro, Arthur, Lighthipe, and Groll. 2,868,734.
North American Philips Co., Inc.: *See*—
Bruining, Haje, Franchen, and Schagen. 2,869,024.
Cox, Anna P. M., Hoekstra, and Zalm. 2,868,733.
De Jonge, Jelis, Jonker, Kuening, and Dippel. 2,868,[illegible].
Groenhuis, Harm. 2,868,437.
Hallmann, Johan P. H. 2,868,544.
Laleese, Herman C. 2,868,893.
Levi, Roberto. 2,869,017.
Meyer, Roelf J. 2,867,973.
Mulder, Johannes G. W. 2,869,013.
Reevers, Wilhelmus A., and Van Steenis. 2,869,056.
Seur, Christiaan J. 2,868,100.
Smit, Jan, and Rademakers. 2,869,047.
Van der Ster, Johannes. 2,867,985.
Van Laar, Jan A. W., and Apon. 2,868,670.
Van Urk, Arend T., and Cluwen. 2,869,050.
Verbeek, Leo H. 2,869,011.
North Electric Co.: *See*—
Bender, Lloyd. 2,868,888.
Grenbel, Leonard J. 2,868,887.
Northrup, King & Co.: *See*—
Kobs, Roger D. 2,867,946.
Noyce, Robert N., to Beckman Instruments, Inc. Field effect transistor. 2,869,055, 1–13–59, Cl. 317—235.
Nu-Tone, Inc.: *See*—
Spear, Walter A. 2,868,025.
Nutting, Robert G., and R. F. Windstrup, to United States of America, Army. Drop lock bolt for gun. 2,868,062, 1–13–59, Cl. 89—190.
Oakes, William G., to Imperial Chemical Industries Ltd. Mixtures of polyethylenes having different melt viscosities and process of preparing same. 2,868,762, 1–13–59, Cl. 260—45.5.
Oberg, Fred N., and I. M. Le Baron, to United States of America, Atomic Energy Commission. Method of concentrating mineral values. 2,868,618, 1–13–59, Cl. 23—14.5.
Oberholtz, Lester E., and L. E. Allen, to Allis-Chalmers Mfg. Co. Variable speed change mechanism. 2,868,027, 1–13–59, Cl. 74—230.17.
O'Brien, Brian: *See*—
O'Brien, Brian, Jr. and B. O'Brien. 2,868,070.
O'Brien, Brian, Jr., and B. O'Brien, to American Optical Co. Optical printing apparatus. 2,868,070, 1–13–59, Cl. 88—24.
O'Connell, Harry E.: *See*—
Neher, Clarence M., and O'Connell. 2,868,852.
Neher, Clarence M., and O'Connell. 2,868,853.
O'Connor, John E., to Illinois Tool Works. Method for making sheet material split-ring lock washers. 2,867,824, 1–13–59, Cl. 10—86.
O'Connor, John B., to Lyon Metal Products, Inc. Locker wardrobe. 2,868,605, 1–13–59, Cl. 312—257.
O'Connor, Michael J., and W. K. Detweiler, to Union Carbide Corp. Process for producing triorgano-phosphates. 2,868,827, 1–13–59, Cl. 260—461.
Oddo, Rocco R.: *See*—
Loew, Harold L., Oddo, and Ruben. 2,868,415.
Odermann, Donald P. Drapery heading. 2,868,286, 1–13–59, Cl. 160—348.
O'Hanlon, Elsa A. Slider pull. 2,867,880, 1–13–59, Cl. 24—205.15.
Oken, Stanley: *See*—
Garfinkel, Alan R., and Oken. 2,868,999.
Okrend, Abe: *See*—
Dodge, Milton. 2,868,202.
Olin Mathieson Chemical Corp.: *See*—
Bartels, Charles R., Bryan, and Berk. 2,868,778.
Fried, Josef, and Thoma. 2,868,694.
Gulley, Ronald A., Harvey, and Schreiber. 2,868,[illegible].

Olson, Elmer, and D. D. Stoltman, to General Motors Corp. Dual carburetor control system. 2,868,520, 1–13–59, Cl. 261—23.

Olympia Werke A. G.: *See*—
Kamp, Hans. 2,868,346.

O'Neil, William E. Carburetor. 2,868,522, 1–13–59, Cl. 261—50.

Oram, Norman. Machine dial control. 2,868,154, 1–13–59, Cl. 116—115.5.

Orenda Engines Ltd.: *See*—
Lasarowicz, Gustaw. 2,868,389.

Orr, Stanley C., and D. E. Kropp, to Pfaudler Permutit Inc. Heat exchanger. 2,868,513, 1–13–59, Cl. 257—236.

Osborne, Clyde E.: *See*—
Florestano, Herbert J., Jeffries, Osborne, and Bahler. 2,868,689.

Oster, Stanley M.: *See*—
Wilson, Louis D., Oster, and Ash. 2,868,340.

Oswald, William J.: *See*—
Gotaas, Harold B., and Oswald. 2,867,945.

Ott, Arnold C.: *See*—
Donia, Robert A., and Ott. 2,868,809.

Otto, Carl. Coke oven. 2,868,277, 1–13–59, Cl. 158—7.5.

Ouvrard, Paul: *See*—
Reymonenq, Gaston, and Ouvrard. 2,869,118.

Overman, James H.: *See*—
Finehout, Lyman J., Ebershoff, and Overman. 2,868,026.

Owen, Robert E., to General Motors Corp. Resilient bushing. 2,868,571, 1–13–59, Cl. 287—85.

Owen, William L., to J. U. Barr. Production of mud-laden drilling fluids. 2,868,725, 1–13–59, Cl. 252—8.5.

Owens-Corning Fiberglas Corp.: *See*—
Caroselli, Remus F., and Gagnon. 2,868,668.
Horton, Richard C., Miller, and Lydic. 2,867,891.
Marzocchi, Alfred, Caroselli, and Rammel. 2,868,669.
Russell, Robert G. 2,868,358.

Owens-Illinois Glass Co.: *See*—
Fedorchak, William J., Early, and Johnesee. 2,868,061.
Zimmerman, George. 2,867,948.

P. O. Stokkebyes Kvarnaktiebolag: *See*—
Blomqvist, Georg H., and Malm. 2,868,648.

Pachter, John J., to Acme Steel Co. Strap sealing tool. 2,868,048, 1–13–59, Cl. 81—9.1.

Page, Robert G., to General Electric Co. Enclosed bus bar electric power distribution apparatus. 2,868,864, 1–13–59, Cl. 174—99.

Paige, Richard E. Convertible receptacle for shipping and display. 2,868,365, 1–13–59, Cl. 206—43.

Painter, Jack L., to Crown Zellerbach Corp. Boxes. 2,868,431, 1–13–59, Cl. 229—51.

Pak-Mor Mfg. Co.: *See*—
Anderson, Orin M., and Ferrari. 2,868,398.

Palsgrove, James L.: *See*—
Lemmon, Edward M. 2,868,660.

Panasewicz, Anton Z., to General Motors Corp. Push plate assembly. 2,868,579, 1–13–59, Cl. 293—60.

Panhard, Paul, to Societe Anonyme des Anciens Etablissements Panhard et Levassor. Brake assembly. 2,868,335, 1–13–59, Cl. 188—72.

Paper Mate Mfg. Co.: *See*—
Spatz, Walter B. 2,868,170.

Parker, Ernest V. Fluid delivery apparatus. 2,868,131, 1–13–59, Cl. 103—41.

Parker, Frederick W. Toggle containing jaw crusher. 2,868,464, 1–13–59, Cl. 241—285.

Parker Hannifin Corp.: *See*—
Stephens, William T. 2,868,227.

Parker Rust Proof Co.: *See*—
Dell, Gaillard W. 2,868,682.

Parker, Samuel T.: *See*—
Abberley, Maurice W., Parker, and Ellis. 2,867,885.

Parrish, Stanton E.: *See*—
Hale, Arlan B., and Parrish. 2,868,856.

Paschke, Raymond F.: *See*—
Baldwin, William S., Floyd, and Paschke. 2,868,815.

Paterson, Laurene O., to Drug Research, Inc. Process of preparing N-brominated halogen compounds. 2,868,787, 1–13–59, Cl. 260—248.

Patrick, Ernest G.: *See*—
Hawks, William L., and Patrick. 2,868,901.

Patten, Lorraine E., and H. C. Kelley, to The Dow Chemical Co. Method of coating food articles and product obtained thereby. 2,868,656, 1–13–59, Cl. 99—166.

Patterson, Helen E., and C. R. Jamison. Dressmaker's tool and method of using same. 2,868,423, 1–13–59, Cl. 223—42.

Patterson, Wesley V., to J. J. Kelly, as trustee. Electromagnetic head structure. 2,868,889, 1–13–59, Cl. 179—100.2.

Paulsen, Hans C., to United Shoe Machinery Corp. Machines for applying heated thermoplastic adhesives. 2,868,160, 1–13–59, Cl. 118—202.

Payne, John B., to Jersey Production Research Co. Dual screen assembly. 2,868,296, 1–13–59, Cl. 160—119.

Peak, Charles B., to Deere & Co. Hitch device for trailing break-back mower. 2,867,959, 1–13–59, Cl. 56—25.

Pedersen, Ragnar K. Portable reciprocating power saw. 2,868,248, 1–13–59, Cl. 143—68.

Peelers Co., The: *See*—
Lapeyre, Fernand S., and J. M. 2,868,014.

Pendleton, Donn W.: *See*—
Browne, Harold L., Cookingham, and Pendleton. 2,867,843.

Pennsalt Chemicals Corp.: *See*—
Karr, Errol H. 2,868,711.
Lawlor, Francis E., Braid, and Loev. 2,868,846.

Penta Laboratories, Inc.: *See*—
Leonard, Radford P. 2,868,922.

Perkins, William A., E. W. Grinnell, and C. F. Schadt, to United States of America, Army. Collection of airborne material by electrostatic precipitation. 2,868,318, 1–13–59, Cl. 183—7.

Perma-Power Co.: *See*—
Goldstein, Richard. 2,869,123.

Perry, Douglas: *See*—
Brooks, Fred A., Jr., Binkley, Dumbauld, and Perry. 2,868,293.

Perry, J. H. Tape dispenser. 2,868,402, 1–13–59, Cl. 216—29.

Perry, Mark J., and S. H. Capps. Fifth wheel slide mount. 2,868,560, 1–13–59, Cl. 280—407.

Perry, Randolph, Jr.: *See*—
Shaver, Kenneth J., and Perry. 2,868,624.

Peters, Herbert W., to Cory Corp. Automatically regulated liquid heater. 2,868,178, 1–13–59, Cl. 122—32.

Peters & Russell, Inc.: *See*—
Russell, Linus E. 2,868,228.
Russell, Linus E. 2,868,229.

Petersen, Siegfried: *See*
Gauss, Walter, Petersen, and Domagk. 2,868,782.

Petersen, Ulric K. Ventilator. 2,868,108, 1–13–59, Cl. [illegible]—115.

Peterson, Adolphe C. Dual system propulsion means. 2,867,978, 1–13–59, Cl. 60—35.6.

Peterson, Adolphe C. Auxiliary rotor air foil means. 2,868,302, 1–13–59, Cl. 170—135.4.

Peterson, Raymond C., to National Lock Co. Hinge. 2,867,840, 1–13–59, Cl. 16—168.

Petree, Harris E., to Ethyl Corp. Process for the preparation of cyclopentadienyl manganese tricarbonyl compounds. 2,868,816, 1–13–59, Cl. 260—429.

Petri, Jan E., to American Optical Co. Sealed casings for crystal elements. 2,868,862, 1–13–59, Cl. 174—50.51.

Petry, Stanton H.: *See*—
Kelsey, Lawrence C., and Petry. 2,868,993.

Pfaff, G. M., A.-G.: *See*—
Benink, Christian J. M., and Reeber. 2,868,152.
Wins, Karl. 2,868,149.
Wins, Karl. 2,868,151.

Pfaudler Permutit Inc.: *See*—
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Pfister, Karl, III, and G. A. Stein, to Merck & Co., Inc. Alpha methyl phenylalanines. 2,868,818, 1–13–59, Cl. 260—519.

Phanos, Stephen, to International Telephone and Telegraph Corp. Crystal filter circuit. 2,868,898, 1–13–59, Cl. 179—171.

Pharis, William W., to General Dynamics Corp. Local first selector circuit. 2,868,885, 1–13–59, Cl. 179—18.

Phelps, Edward I. Oil drip collector for vehicle. 2,868,329, 1–13–59, Cl. 184—106.

Phelps, Stuart M., to General Railway Signal Co. Weight detector for railway cars. 2,868,534, 1–13–59, Cl. 265—63.

Philco Corp.: *See*—
Doland, George D. 2,868,871.
Pratt, George W. 2,868,533.

Phillips, Edwin D. Polishing pad and method of making the same. 2,867,954, 1–13–59, Cl. 51—195.

Phillips Petroleum Co.: *See*—
Begley, John W. 2,868,853.
Berger, Donald E. 2,868,701.
Fox, Homer M. 2,868,127.
Gilmore, Forrest E. 2,868,326.
Gilmore, Forrest E. 2,868,714.
Gilmore, Forrest E. 2,868,723.
Goodhue, Lyle D. 2,868,633.
McGlamery, Roger M. 2,867,348.
Skinner, Bradley. 2,868,696.
Weedman, John A. 2,868,830.
Wigham, William E., Lane, and Wilson. 2,868,225.

Phillips, Stanley D., to United States of America, Air Force. Hydraulic position indicator. 2,868,155, 1–13–59, Cl. 116—124.

Pickles, Joseph, to Ferro Stamping Co. Positioning device. 2,868,271, 1–13–59, Cl. 135—14.

Pidgeon, Luther A., to Luther O. Draper Shade Co. Picture projection screen and support. 2,868,285, 1–13–59, Cl. 160—323.

Pifer, Marion J., to Sylvania Electric Products Inc. Solder-dipped stamped wiring. 2,869,040, 1–13–59, Cl. 317—101.

Pilson, Joseph E. Double-paneled louver jalousie structure. 2,867,861, 1–13–59, Cl. 20—62.

Pimbley, George H., to Turco Products, Inc. Process and compositions for producing aluminum surface conversion coatings. 2,868,679, 1–13–59, Cl. 148—6.2.

Pine, Lester C.: *See*—
Berman, Martin, and Pine. 2,868,879.

Pinney, Harold E., to General Electric Co. Motor control system. 2,869,061, 1–13–59, Cl. 318—212.

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Stokes, William S. 2,868,230.

Pirelli Societa per Azioni: *See*—
Emanueli, Luigi. 2,867,897.

Platey, John M., and P. F. Strubel, to General Electric Co. Slider switch. 2,868,930, 1–13–59, Cl. 200—153.

Platey, John M., to General Electric Co. Fluorescent lamp-holder with screwless terminals. 2,869,108, 1–13–59, Cl. 339—174.

Pitton, Robert A. Soap dishes. 2,867,940, 1–13–59, Cl. 45—28.

Pittsburgh Plate Glass Co.: *See*—
Helbing, Clarence H., and Barlowe. 2,868,396.

Plastic Binding Corp.: *See*—
Rowley, George A. 2,867,846.

Platt, Stephen A. Wire coiling machine with rotating mandrel and coiling tools. 2,868,267, 1–13–59, Cl. 153—64.

Pleak, Horace C., to Sylvania Electric Products Inc. Electron tube lead adapter. 2,869,104, 1-13-59, Cl. 339—145.
Plomb Tool Co., The: *See*—
Radcliffe, Charles A. 2,868,049.
Pneumatic Scale Corp., Ltd.: *See*—
Howard, Thomas P. 2,868,375.
Poffenberger, Glenn L. Boom structure. 2,868,292, 1-13-59, Cl. 212—8.
Poitras, Edward J. Steam sterilization method. 2,868,816, 1-13-59, Cl. 21—56.
Poland, William L., to Schlumberger Well Surveying Corp. Servosystem function generator. 2,869,058, 1-13-59, Cl. 318—28.
Polaroid Corp.: *See*—
Ryan, William H., and Walworth. 2,868,077.
Pollard, Charles E., Jr., to Bell Telephone Laboratories, Inc. Switch. 2,868,926, 1-13-59, Cl. 200—112.
Pontremoli, Pio, to Montecatini Societa Generale per l'Industria Mineraria e Chimica. Device for supplying current to the bottom of electrolytic furnaces. 2,868,710, 1-13-59, Cl. 204—243.
Poole, Joseph D. and S. O. Baby supporter and exerciser. 2,868,272, 1-13-59, Cl. 155—17.
Poole, Susan O.: *See*—
Poole, Joseph D. and S. O. 2,868,272.
Poppa, Rocco, and J. L. Hoellerich, to Admiral Corp. Remote control tuner. 2,868,967, 1-13-59, Cl. 250—20.
Poppe, George W., to Equitable Paper Bag Co., Inc. Paper bag with locking element having concealed ends. 2,868,436, 1-13-59, Cl. 229—77.
Portail, Fernand, to Societe Anonyme: Campagnie Industrielle des Piles Electriques Cipel. Apparatus and method for enhancing the characteristics of dry cell batteries. 2,869,064, 1-13-59, Cl. 320—2.
Porterfield, Cecil P.: *See*—
Williams, Everard M., and Porterfield. 2,868,947.
Porush, Irving, and G. L. Maison, to Riker Laboratories, Inc. Self-propelling compositions for inhalation therapy containing a salt of isoproterenol or epinephrine. 2,868,691, 1-13-59, Cl. 167—54.
Potratz, Herbert A., to United States of America, Atomic Energy Commission. Plutonium-cupferron complex and method of removing plutonium from solution. 2,868,817, 1-13-59, Cl. 260—429.1.
Pound, Robert V., to Chemetron Corp. Suppression of radiation from dielectric heating applicators. 2,868,939, 1-13-59, Cl. 219—10.55.
Pospitch, Ongijona J., to Illinois Tool Works. Helically formed resilient lock washer with inner nut engaging and outer work engaging teeth. 2,868,256, 1-13-59, Cl. 151—33.
Pospitch, Ongijona J., to Illinois Tool Works. Sheet metal clip. 2,868,486, 1-13-59, Cl. 248—68.
Powell, Eugene L.: *See*
Diamond, Helten W., and Powell. 2,868,653.
Powers, Robert P., to The Firestone Tire & Rubber Co. Rim. 2,868,259, 1-13-59, Cl. 152—381.
Powers, Robert P., H. Mulder, and D. Fordyce, Jr., to The Firestone Tire & Rubber Co. Wheel construction. 2,868,260, 1-13-59, Cl. 152—396.
Powers, Robert P., to The Firestone Tire & Rubber Co. Tubeless tire and rim therefor. 2,868,261, 1-13-59, Cl. 152—396.
Powers, Robert P., to The Firestone Tire & Rubber Co. Tubeless tire and rim therefor. 2,868,258, 1-13-59, Cl. 152—362.
Powischill, John W., E. W. Hine, II, and G. R. Howard, to Proctor & Schwartz, Inc. Method for feeding bulk material to plural supply locations. 2,868,400, 1-13-59, Cl. 214—152.
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Pritchard, Wilbur L., and Pratt. 2,869,085.
Pratt, George W., to Philco Corp. Method of minimizing heat induced stress in glass-walled articles provided with metal inserts. 2,868,535, 1-13-59, Cl. 263—2.
Precision Metalsmiths, Inc.: *See*—
Mika, Daniel F., and Daugherty. 2,868,902.
Prescott, Charles H., Jr., and F. L. Reynolds, to United States of America, Atomic Energy Commission. Process of preparing uranium metal. 2,868,636, 1-13-59, Cl. 75—84.1.
Prestressing, Inc.: *See*—
Brandt, Fred H. 2,867,884.
Prete, Ernest, Jr.: *See*—
Elsner, Edwin C., and Prete. 2,867,876.
Price, Carl R. Beam clip and suspension device. 2,868,490, 1-13-59, Cl. 249—228.
Pritchard, Wilbur L., and A. Pratt, to Raytheon Mfg. Co. Selective absorbers. 2,869,085, 1-13-59, Cl. 333—98.
Proctor & Schwartz, Inc.: *See*—
Powischill, John W., Hine, and Howard. 2,868,400.
Pronio, Harry A. Portable lectern. 2,868,878, 1-13-59, Cl. 179—1.
Pryor, Harry H., to National Vendors, Inc. Vending machine. 2,868,414, 1-13-59, Cl. 221—188.
Pyror Ltd.: *See*—
Aannerud, Sigurd A., and Mostad. 2,868,635.
Puckett, Junius O.: *See*—
Taylor, Richard G., and Puckett. 2,868,249.
Puddington, Ira E., to National Research Council. Apparatus for settling fluid suspensions. 2,868,384, 1-13-59, Cl. 210—521.
Pullman-Standard Car Mfg. Co.: *See*—
Fall, Wilfrid. 2,868,101.
Shaver, Raymond M.: 2,868,140.
Purdue Research Foundation: *See*—
Fewer, Henry, and Shepherd. 2,868,838.
Purdue University: *See*—
Hawkins, George A. 2,868,079.
Pure Oil Co., The: *See*—
Annable, Weldon G., and Haines. 2,868,526.
Annable, Weldon G., and Jacobs. 2,868,524.
Hennig, Harvey. 2,868,848.
Marsh, Glenn A., and Schaschl. 2,869,003.
Quaker Chemical Products Corp.: *See*—
Kress, Bernard H. 2,868,773.
Quinn, Edward, to United Shoe Machinery Corp. Shoe counter handling mechanisms. 2,868,164, 1-13-59, Cl. 118—421.
Quinn, Patrick D.: *See*—
Depew, Harlan A., Quinn, and Waitkins. 2,868,673.
Radcliffe, Charles A., to The Plomb Tool Co. Wire stripper. 2,868,049, 1-13-59, Cl. 81—9.5.
Rademakers, Adriaan: *See*—
Smit, Jan, and Rademakers. 2,869,047.
Radio Corp. of America: *See*—
Anderson, Robert H. 2,868,994.
Deranian, Minas, and Vonderschmitt. 2,869,030.
Dietch, Leonard. 2,869,029.
Di Santi, Nicholas, Canfora, and Liguori. 2,868,875.
Gray, Sidney. 2,869,010.
Harris, Bernard, and Macovski. 2,868,975.
Mohr, Harry F. 2,868,964.
Natalis, Herbert E. 2,869,014.
Shrader, Merrald B. 2,869,009.
Staffin, Robert, and Lohman. 2,869,079.
Radke, Harold H.: *See*—
Gill, Richard H., Radke, and Kotheimer. 2,868,828.
Rammel, Gerald E.: *See*—
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Ramsey, Thomas D., to United States of America, Navy. Hermetically sealed primer. 2,868,128, 1-13-59, Cl. 102—86.5.
Ratcliffe, Edward B., to Angelstone Ltd. Mould. 2,867,887, 1-13-59, Cl. 25—119.
Ratte, Heinrich, and J. Geller, to Rutgerswerke-Akt. Continuous distillation of coal tar. 2,868,713, 1-13-59, Cl. 208—42.
Rattigan, A. Frieda: *See*—
Rattigan, Edwin D. 2,868,596.
Rattigan, Edwin D., deceased: A. F. Rattigan, administratrix. Valve seal and mechanism. 2,868,596, 1-13-59, Cl. 308—187.1.
Ravel, Joanne M.: *See*—
Shive, William, and Ravel. 2,868,693.
Ravensberg G. m. b. H., Chemische Fabrik: *See*—
Siemer, Harm, Kursen, and Doppstadt. 2,868,786.
Ray, Kelvin J.: *See*—
Koch, Eugene C., and Ray. 2,868,944.
Ray, Richard L., and T. O. Sistrunk, to Ethyl Corp. Polymerization of olefins. 2,868,722, 1-13-59, Cl. 260—94.9.
Ray, Richard L., and T. O. Sistrunk, to Ethyl Corp. Polymerization of olefins. 2,868,771, 1-13-59, Cl. 260—94.9.
Ray, William A., to General Controls Co. Adjustable time delay valve. 2,868,029, 1-13-59, Cl. 74—424.8.
Raytheon Mfg. Co.: *See*—
Corey, Frank J. 2,868,866.
Corey, Frank J. 2,868,868.
Fryklund, Robert A. 2,869,109.
Harrison, Bertram M. 2,869,027.
Hergenrother, Rudolf C. 2,869,025.
Mitchell, Walter B. 2,868,997.
Pritchard, Wilbur L., and Pratt. 2,869,085.
Turner, John L. 2,869,032.
Reardon, William A., D. H. Lennox, and R. G. Nobles, to United States of America, Atomic Energy Commission. Neutron source. 2,868,990, 1-13-59, Cl. 250—84.5.
Redfearn, Howard O. Means for recapping tires. 2,868,237, 1-13-59, Cl. 152—187.
Reeber, Rudolf: *See*—
Benink, Christian J. M., and Reeber. 2,868,152.
Reed, Gabriel, to Ultra Electric, Inc. Electromagnetic device. 2,869,048, 1-13-59, Cl. 317—165.
Reeves, Herbert M., to Geo. D. Roper Corp. Adjustable broiler mechanism. 2,868,190, 1-13-59, Cl. 126—41.
Reggio, Ferdinando C. Engine fuel-air ratio control. 2,868,183, 1-13-59, Cl. 123—119.
Rehn, Karl-Heinz, to Barmer Maschinenfabrik Akt. Yarn accumulating member. 2,867,968, 1-13-59, Cl. 57—58.65.
Reichhold Chemicals, Inc.: *See*—
Förster, Wolfgang. 2,868,768.
Reilly Tar & Chemical Corp.: *See*—
Cislak, Francis E. 2,868,794.
Cislak, Francis E. 2,868,795.
Cislak, Francis E. 2,868,796.
Cislak, Francis E. 2,868,797.
Rieger, William H., and Springman. 2,868,793.
Reinertson, Donald R., to General Motors Corp. Fuel pump with pulsator. 2,868,135, 1-13-59, Cl. 103—150.
Reinhart, Forrest A.: *See*—
Andresen, Arne O., and Reinhart. 2,867,893.
Reischer, Walter: *See*—
Dupre, Henry P., Reischer, and Wallenhorst. 2,868,051.
Remington Rand Inc.: *See*—
Wilson, Louis D., Oster, and Ash. 2,868,340
Renard, Roland E., W. R. Thorpe, and J. P. Davidson, to National Can Corp. Discharge mechanism for can-testing machine. 2,868,373, 1-13-59, Cl. 209—74.
Research Corp.: *See*—
Seamans, Robert C., Jr., Whitaker, Wilkins, and Wingate. 2,868,481.
Reutt, Zigmund, to Armstrong Siddeley Motors Ltd. Plastic blades, particularly for a compressor rotor of a gas turbine engine. 2,868,441, 1-13-59, Cl. 230—134.
Reymonenq, Gaston, and P. Ouvrard, to Antar Petroles de l'Atlantique. Remote metering system. 2,869,113, 1-13-59, Cl. 340—206.
Reynolds, Frederick L.: *See*—
Prescott, Charles H., Jr., and Reynolds. 2,868,636.

Rice, Joseph : *See*—
Wright, Esmond P. G., and Rice. 2,868,447.
Rich, Charles A., Jr., to Morgan Construction Co. Seal. 2,868,574, 1–13–59, Cl. 288—2.
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Kirkpatrick, Leland W. 2,868,637.
Rich, Robert E. : *See*—
Diamond, Holton W., and Powell. 2,868,653.
Rich, Theodore A., to General Electric Co. Logarithmic translating circuit. 2,868,968, 1–13–59, Cl. 250—27.
Richards, John M. Apparatus for testing eyes. 2,868,068, 1–13–59, Cl. 88—20.
Richter, John W. : *See*—
Kaczka, Edward A., Richter, and Shunk. 2,868,836.
Richter, Rudolf. Flyers for roving machines. 2,867,970, 1–13–59, Cl. 57—115.
Richter, Willy, and M. Neubert, to Kurt Korber & Co. K. G. Tobacco rod making machines. 2,868,211, 1–13–59, Cl. 131—66.
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Jones, Robert T. 2,867,811.
Rieckman, Werner. Combination ice and roller skates. 2,868,553, 1–13–59, Cl. 280—7.13.
Riedel, Jack : *See*—
Baker, William R., Kerns, and Riedel. 2,868,974.
Riedle, Rudolf : *See*—
Nitzsche, Siegfried, and Riedle. 2,868,820.
Rieger, William H., and L. A. Springman, to Reilly Tar & Chemical Corp. Purification of piperidines. 2,868,793, 1–13–59, Cl. 260—293.
Rigert, Max, to McGraw-Edison Co. Switch actuator. 2,868,921, 1–13–59, Cl. 200—87.
Riker Laboratories, Inc. : *See*—
Porush, Irving, and Maison. , 2,868,691.
Ring, William. Tandem wheel roller skate. 2,868,554, 1–13–59, Cl. 280—11.26.
Ringland, William L., to Allis-Chalmers Mfg. Co. Unipolar generator air gap scavenging. 2,869,007, 1–13–59, Cl. 310—178.
Ripple, Melvin H., to The Hoover Co. Driving connection for floor polishers. 2,867,825, 1–13–59, Cl. 15—49.
Ritter, David M., to United States of America, Atomic Energy Commission. Process for the recovery of plutonium. 2,868,619, 1–13–59, Cl. 23—14.5.
Rittershofer, Egon, to N. Laing. Tank-pump. 2,868,132, 1–13–59, Cl. 103—87.
Ritzerfeld, Gerhard : *See*—
Ritzerfeld, Wilhelm and G. 2,868,116.
Ritzerfeld, Wilhelm and G. 2,868,117.
Ritzerfeld, Wilhelm and G. Apparatus for printing spaced text portions adjacent each other. 2,868,116, 1–13–59, Cl. 101—132.5.
Ritzerfeld, Wilhelm and G. Rotary duplicating apparatus. 2,868,117, 1–13–59, Cl. 101—132.5.
Rivers, Richard D., to American Air Filter Co., Inc. Electrostatic air filter cell with conductively striped filter web. 2,868,319, 1–13–59, Cl. 183—7.
Robards, Preston O., to Equipment Research Corp. Jumper for interconnecting power control conductors of railway diesel units and the like. 2,869,091, 1–13–59, Cl. 339—29.
Robb, Walter Y., to Crompton & Knowles Loom Works. Pile fabric loom and pile wire therefor. 2,868,231, 1–13–59, Cl. 139—46.
Robbins, Maurice A., Jr., to General Aniline & Film Corp. Film spool holding device for cameras. 2,868,472, 1–13–59, Cl. 242—71.
Robbins, Ollice C. Portable horizontal drill. 2,868,043, 1–13–59, Cl. 77—7.
Roberts, William E. Tree limb shaking device. 2,867,964, 1–13–59, Cl. 56—328.
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Strobel, Charles K., and Conner. 2,868,928.
Robertson, James M., to The Texas Co. Method and apparatus for determining, and for maintaining constant, the proportions of a flowing fluid mixture. 2,868,216, 1–13–59, Cl. 137—9.
Robinson, Andrew. Low pressure indicator for automotive vehicle tires. 2,868,908, 1–13–59, Cl. 200—61.25.
Robinson, Charles T., to Cumberland Case Co. Double action automatic watering valve. 2,868,222, 1–13–59, Cl. 137—408.
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Chaffee, Walter C., and Robinson. 2,868,044.
Robinson, Eric E., to Rotax Ltd. Protective apparatus for electric current distributing systems. 2,869,087, 1–13–59, Cl. 322—36.
Robinson, Howard A., to Hugh J. Baker & Co. Pallet. 2,868,487, 1–13–59, Cl. 248—120.
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Robinson, Samuel C. 2,869,099.
Robinson, Samuel C., to Robinson Machine Works, Inc. Means for interlocking electrical connector casings. 2,869,099, 1–13–59, Cl. 339—91.
Roeber, Henry W., to Sylvania Electric Products Inc. Tube transfer mechanism. 2,868,240, 1–13–59, Cl. 141—65.
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Lewis, Dartrey. 2,868,467.
Rogers, Taliaferro & Lamb, Architects : *See*—
Greene, William L. 2,868,107.
Rogge, Bernhard, to United States of America, Army. Method of assembling a delay parachute bomb. 2,868,125, 1–13–59, Cl. 102—4.
Roggio, Victor. Portable folding table. 2,868,599, 1–13–59, Cl. 311—90.
Rohbogner, Alois, to Haendler & Natermann, o. H. G. Bottle cap mounting apparatus. 2,867,957, 1–13–59, Cl. 53—296.
Rohm & Haas Co. : *See*—
Hwa, Jesse C. H. 2,868,738.
McKeever, Charles H., and Freimiller. 2,868,831.
Roof, Richard L., to Sylvania Electric Products Inc. Turntable post friction finger. 2,868,546, 1–13–59, Cl. 274—10.
Roovers, Wilhelmus A., and O. L. Van Steenis, deceased (by J. D. Heijligers, executor), to North American Philips Co., Inc. Semi-conductor device and method of making. 2,869,056, 1–13–59, Cl. 317—236.
Roper, Geo. D., Corp. : *See*—
Reeves, Herbert M. 2,868,190.
Rose, Jean-Paul : *See*—
Bianchi, Guiseppina, and Rose. 2,868,561.
Rosen, Mac, and H. A. Meyers. Fastening means for mounting replaceable ornaments on spectacles. 2,868,073, 1–13–59, Cl. 88—41.
Rosenqvist, Sven O., to Svenska Jastfabrika Aktiebolaget. Method for the production of baker's yeast. 2,868,649, 1–13–59, Cl. 99—96.
Rossett, Benjamin. Adjustable headwear. 2,867,816, 1–13–59, Cl. 2—197.
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King, Carl G. 2,868,456.
Rotax Ltd. : *See*—
Robinson, Eric E. 2,869,067.
Roth, Donald W. : *See*—
Skinner, George M., and Roth. 2,868,954.
Roth, Herman P., and C. F. Lombard, to United Tanks, Inc. Retaining means for helmets and face masks. 2,867,812, 1–13–59, Cl. 2—6.
Roth, Robert G. : *See*—
Burland, Peter D., and Roth. 2,868,837.
Rothfjell, Rolf E. Camera for the photographing of objects with known extension length. 2,868,096, 1–13–59, Cl. 95—11.
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Van Sittert, Paul R. 2,867,906.
Rotzler, Ross W., J. P. Hickman, and W. H. Collier, to Monsanto Chemical Co. Acetylene recovery process. 2,868,327, 1–13–59, Cl. 183—115.
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Royal Factories, Inc. : *See*—
Cutler, Norman. 2,867,926.
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Burgess, Charles R. 2,868,309.
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Loew, Harold L., Oddo, and Ruben. 2,868,415.
Rucker, Herbert. Portable clothes drying rack. 2,868,287, 1–13–59, Cl. 211—96.
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Ruge, Arthur C., to Baldwin-Lima-Hamilton Corp. Motion load weighing system. 2,868,535, 1–13–59, Cl. 265—71.
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Hoppe, Otto F., and Ruhr. 2,868,148.
Runde, Kenneth R. Washing and drying machines. 2,868,004, 1–13–59, Cl. 68—12.
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Russell, Linus E., to Peters & Russell, Inc. Exhaust deflector. 2,868,229, 1–13–59, Cl. 138—46.5.
Russell, Robert C., to Eaton Mfg. Co. Bidirectional slip coupling. 2,868,001, 1–13–59, Cl. 64—30.
Russell, Robert G., to Owens-Corning Fiberglas Corp. Apparatus for longitudinally feeding a multifilament, continuous strand. 2,868,358, 1–13–59, Cl. 203—183.
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Ratte, Heinrich, and Geller. 2,868,712.
Rutland, David F., and J. C. Barclay, to Friden, Inc. Multiplying mechanism for accumulating products around a fixed decimal. 2,868,454, 1–13–59, Cl. 235—62.
Ruzicka, Leopold, and O. Jeger, to Ciba Pharmaceutical Products Inc. Process for the manufacture of steroids. 2,868,784, 1–13–59, Cl. 260—239.59.
Ryan, Claire S., and R. S. Lane. Can opener and radiant energy sterilizer. 2,867,865, 1–13–59, Cl. 21—102.
Ryan, William H., and V. K. Walworth, to Polaroid Corp. Film stock for dichroic dye images. 2,868,077, 1–13–59, Cl. 88—65.
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Dausch, Erwin. 2,867,852.
S. p. A. Fratelli Borletti : *See*—
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Saad, Albert A. One-piece self-closing container. 2,868,284, 1–13–59, Cl. 150—.5.
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Krewson, Charles F., and Saggese. 2,868,634.
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Salsig, William W., Jr., and M. D. Martin, to United States of America, Atomic Energy Commission. Liquid target. 2,868,987, 1–13–59, Cl. 250—43.
Salt Water Control, Inc. : *See*—
Erwin, Ransome W. 2,868,312.
Sampietro, Achilles C. : *See*—
Gammon, Howard M., and Sampietro. 2,868,438.
Sandoz A. G. : *See*—
Ruckstuhl, Hans. 2,868,776.
Sanford, Emil, to Allen B. Du Mont Laboratories, Inc. Cathode ray sweep correction system. 2,869,026, 1–13–59, Cl. 315—24.
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Imai, Kaneo, Ikeda, Tanaka, Sugawara. 2,868,819.
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Sargent, Neil A., and W. M. Davis, to Monsanto Chemical Co. Method for producing aerogels. 2,868,290, 1–13–59, Cl. 159—47.
Sauer, Hans, to Comar Electric Co. Strap type instrument mounting. 2,869,098, 1–13–59, Cl. 339—75.

Sauer, Herman C., to United States Rubber Co. Apparatus for molding and curing belts. 2,867,845, 1-13-59, Cl. 18—17.
Scavetto, Samuel M. Curtain tieback device. 2,867,873, 1-13-59, Cl. 24—73.
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Schaper, William A., to Motorola, Inc. Transistor unit. 2,869,053, 1-13-59, Cl. 317—235.
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Poland, William L. 2,869,058.
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Schmidt, Louis F.: *See*—
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Schoenberger, Philip J. Cigarette holder. 2,868,212, 1-13-59, Cl. 131—174.
Schonhoff, John A., and W. J. Borkowski, to Maryland Shipbuilding and Drydock Co. Dummy load resistor. 2,868,932, 1-13-59, Cl. 201—57.
Schott, Gaylord A. Attachment for spray containers. 2,868,421, 1-13-59, Cl. 222—473.
Schow, Charles C. Traction controlling means. 2,868,538, 1-13-59, Cl. 267—67.
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Schulte, William E., and A. E. Sorensen. Machine for fabricating metal structure. 2,868,052, 1-13-59, Cl. 219—67.
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Schultz, Theodore J., to United States of America, Navy. Miniature condenser microphone. 2,868,894, 1-13-59, Cl. 179—111.
Schumb, Martin T., to The Murray Co. of Texas, Inc. Speed reducer with detachable drive motor. 2,868,031, 1-13-59, Cl. 74—425.
Schwamb, George T., to Burndy Corp. Insulating cover for pressurized panel. 2,868,895, 1-13-59, Cl. 174—138.
Schwartz, Sol. Protective covers for photographic transparencies. 2,867,927, 1-13-59, Cl. 40—158.
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Schwegler, Roy F., to J. I. Case Co. Two-way plow. 2,868,307, 1-13-59, Cl. 172—225.
Schwimmer, Paul W. Remotely located supply system and apparatus for a camera. 2,868,087, 1-13-59, Cl. 88—17.
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Scott, Carleton B., to Collier Carbon and Chemical Corp. Fungicidal and bactericidal compositions. 2,868,687, 1-13-59, Cl. 167—22.
Scott, James G., R. A. Freeman, and R. T. Houston, to American Percussion Tool Co. Well drilling equipment. 2,868,507, 1-13-59, Cl. 255—4.6.
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Scripture, Edward W., Jr., S. W. Benedict, and P. B. Jacot, to American-Marietta Co. Hydraulic cement compositions, ingredients, and methods of making same. 2,868,659, 1-13-59, Cl. 106—90.
Scriver, Richard M.: *See*—
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Sease, Will S., to Chicago Pneumatic Tool Co. Jet nozzle protector. 2,868,512, 1-13-59, Cl. 255—314.
Second Bank-State Street Trust Co.: *See*—
Vittands, Walter A. 2,868,623.
Sedgfield, Hugh B., and W. F. Luttrelle, to The Sperry Gyroscope Co. Ltd. Gyroscopic apparatus. 2,868,021, 1-13-59, Cl. 74—5.4.
Seeberg, George B., and H. R. Bargren, to Sundstrand Machine Tool Co. Milling machine. 2,868,089, 1-13-59, Cl. 90—21.
Seisted, Walter T., to Ampex Corp. Magnetic tape apparatus. 2,868,470, 1-13-59, Cl. 242—55.12.
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Servigne, Marcel, E. Szarvasi, and L. Neuvy, to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude. Method for the synthesis of bromo-1-chloro-4-butane. 2,868,850, 1-13-59, Cl. 260—652.
Sesso, Louis M., to S. C. Johnson & Son, Inc. Silicone coating compositions. 2,868,657, 1-13-59, Cl. 106—10.
Sesr, Christiaan J., to North American Philips Co., Inc. Camera comprising a pick-up tube and a lens objective with a variable effective aperture ratio. 2,868,100, 1-13-59, Cl. 95—64.
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Shanahan, Curtis M., to Container Corp. of America. Paperboard tray. 2,868,429, 1-13-59, Cl. 229—30.
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Brown, Jerome E., De Witt, and Shapiro. 2,868,673.
Brown, Jerome E., De Witt, and Shapiro. 2,868,699.
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Shaver, Kenneth J., and R. Perry, Jr., to Monsanto Chemical Co. Stabilization of sulfur trioxide. 2,868,624, 1-13-59, Cl. 23—174.
Shaver, Raymond M., to Pullman Standard Car Mfg. Co. Stake pocket construction. 2,868,140, 1-13-59, Cl. 105—390.
Shea, Frederick L., Jr., to Great Lakes Carbon Corp. Process for preparing a carbonaceous material. 2,868,695, 1-13-59, Cl. 202—9.
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Claridge, Elmond L. 2,868,717.
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Shelly, Jacob M., to Shelly Brothers, Inc. Liquid molding machine. 2,868,242, 1-13-59, Cl. 141—137.
Shephard, Harry D., Jr., to Foundry Services Inc. Hot-top for ingot mold. 2,867,871, 1-13-59, Cl. 22—147.
Shepherd, Douglas A., to The Upjohn Co. 10-(2-pyrrolidyl-alkyl) derivatives of phenothiazine. 2,868,785, 1-13-59, Cl. 260—243.
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Shields, Wendell H. Vending machine. 2,868,344, 1-13-59, Cl. 194—10.
Shiffman, Jerome. Display containers. 2,868,366, 1-13-59, Cl. 206—45.2.
Shiffman, Jerome. Display containers. 2,868,367, 1-13-59, Cl. 206—45.2.
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Shive, William, and J. M. Ravel. Peptic ulcer-treating compositions containing glutamine. 2,868,693, 1-13-59, Cl. 167—55.
Shockley, William, to Bell Telephone Laboratories, Inc. Method of forming large area PN junctions. 2,868,678, 1-13-59, Cl. 148—1.5.
Shockley, William, to Bell Telephone Laboratories, Inc. Negative resistance semiconductive device. 2,869,084, 1-13-59, Cl. 333—80.
Shrader, Merrald B., to Radio Corp. of America. Electron tube. 2,869,009, 1-13-59, Cl. 313—39.
Shrubsall, Arthur E., and C. E. Jackson, to Union Carbide Corp. Free-peeling submerged arc welding composition. 2,868,981, 1-13-59, Cl. 148—26.
Shrubsall, Harry I., to Union Carbide Corp. Vertical welding with consumable guide tube. 2,868,951, 1-13-59, Cl. 219—74.
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Shutt, Paul E., to Bendix Aviation Corp. Selector valve with snubbing action. 2,868,174, 1-13-59, Cl. 121—40.
Sides, Harold I. Display and bin container for small, packaged articles such as groceries and the like. 2,868,391, 1-13-59, Cl. 211—181.
Sieber, Karl: *See*—
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Siemens & Halske Akt.: *See*—
Jabczynski, Hans-Joachim, Tiesler, Lurk, and Schröder. 2,868,883.

Siemens-Schuckertwerke Akt.: *See*—
Lutz, Karlheinz. 2,869,066.
Welker, Heinrich. 2,869,001.

Siemer, Harm, F. Kurzen, and A. Doppstadt, to Ravensberg G. m. b. H., Chemische Fabrik. Esters of phenyl acetic acids and a process of making same. 2,868,786, 1-13-59, Cl. 260—247.2.

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Stiles, Harry L., and Thome. 2,867,960.

Silver Seal Products Co.: *See*—
, Havens, Elwood L. 2,868,188.

Simkins, Quinton W., to Bell Telephone Laboratories, Inc. Pulse counting device. 2,869,034, 1-13-59, Cl. 315—84.5.

Simon, Henry, Ltd.: *See*—
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Simos, Anthony. Audio frequency controlled fountain. 2,868,053, 1-13-59, Cl. 84—464.

Sinclair Refining Co.: *See*—
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Singelman, Fred E., to Admiral Corp. Variable resistor. 2,868,933, 1-13-59, Cl. 201—62.

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Ray, Richard L., and Sistrunk. 2,868,722.
Ray, Richard L., and Sistrunk. 2,868,771.

Skeeters, Maxwell J., to Diamond Alkali Co. Stabilization of chlorinated hydrocarbons with acetylenic ethers. 2,868,851, 1-13-59, Cl. 260—632.5.

Skinner, Bradley, to Phillips Petroleum Co. Distillation of heat sensitive compounds. 2,868,696, 1-13-59, Cl. 202—39.

Skinner, George M., and D. W. Roth, to Union Carbide Corp. Gas shielded multi-arc welding. 2,868,954, 1-13-59, Cl. 219—130.

Smee, Peter G., to General Electric Co. Wave amplifying and generating circuit. 2,868,972, 1-13-59, Cl. 250—27.

Smit, Jan, and A. Rademakers, to North American Philips Co., Inc. Permanent magnet holding device and mechanical detaching combination. 2,869,047, 1-13-59, Cl. 317—159.

Smith, Charles A.: *See*—
Loimaugh, Orson B., Thornton, and Smith. 2,869,120.

Smith, Clarence J., to W. F. and John Barnes Co. Apparatus for making wire articles. 2,868,236, 1-13-59, Cl. 140—71.

Smith, Clarence J., to W. F. and John Barnes Co. Can storage apparatus. 2,868,395, 1-13-59, Cl. 214—16.

Smith, Edgar L.: *See*—
Smith, Harold G. 2,868,416.

Smith, Harold G., ½ to E. L. Smith. Apparatus for dispensing and warming liquids. 2,868,416, 1-13-59, Cl. 222—146.

Smith, Louis E., Jr. Sonic radio link wave height meter. 2,869,108, 1-13-59, Cl. 340—2.

Smith, Sidney C.: *See*—
Jennings, Sheldon V., and Smith. 2,868,940.

Smits, Clarence W., to Dihydrol Co. Switch operating means. 2,868,904, 1-13-59, Cl. 200—32.

Snoy, Joseph B., to Borg-Warner Corp. Double acting clutch. 2,868,341, 1-13-59, Cl. 192—87.

Soc. per Az. Edoardo Weber-Fabbrica Italiana Carburatori: *See*—
Bellicardi, Francesco. 2,868,185.

Societa Rhodiatoce S. p. A.: *See*—
Capitani, Clito, and Magnaini. 2,868,858.

Societe Anonyme: Compagnie Industrielle des Piles Electriques Cipel: *See*—
Portail, Fernand. 2,869,064.

Societe Anonyme des Anciens Etablissements Panhard et Levassor: *See*—
Panhard, Paul. 2,868,335.

Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey: *See*—
Courtier, Armand J. 2,868,789.

Societe Anonyme dite: "La Charfa": *See*—
Augery, Jean, and Bouisset. 2,868,157.

Societe des Acieries de Longwy (Societe Anonyme): *See*—
Burstlein, Eugene M. 2,868,378.

Societe des Usines Chimiques Rhone-Poulenc: *See*—
Lafumas, Paul, and Ceresat. 2,868,804.

Societe d'Etudes, de Gestion et d'Exploitation de Brevets, S. E. G. E. B., J. Branche & Cie: *See*—
Bianchi, Guiseppina, and Rose. 2,868,561.

Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M.: *See*—
Lucien, René, and Legros. 2,868,338.

Societe Nationale d'Etude et de Construction de Moteurs d'Aviation: *See*—
Kadosch, Marcel, Le Foll, Maunoury, and Bertin. 2,868,479.

Socony Mobil Oil Co., Inc.: *See*—
Bergstrom, Eric V. 2,868,721.
Brooks, Frank W., Jr., and Duval. 2,868,722.
Fahnestock, Frank C. 2,868,720.

Solvay & Cie: *See*—
Depres, Charles. 2,868,712.

Sondheimer, Allen J.: *See*—
Goff, John C. and M. B., and Sondheimer. 2,868,126.

Sontheimer, Carl G., to C. G. S. Laboratories, Inc. Magnetic apparatus. 2,869,087, 1-13-59, Cl. 336—30.

Soreng, John E., to Indak Mfg. Corp. Key operated switch. 2,868,906, 1-13-59, Cl. 200—44.

Sorensen, Alfred E.: *See*—
Schulte, William E., and Sorensen. 2,868,952.

Southern Car and Mfg. Co.: *See*—
Decker, Edmond L. 2,868,496.

Southworth, George C., to Bell Telephone Laboratories, Inc. Frequency changer and wave amplifier. 2,868,980, 1-13-59, Cl. 250—36.

Spatz, Walter B., to Paper Mate Mfg. Co. Retractable mechanism of pinch yoke type. 2,868,170, 1-13-59, Cl. 120—42.03.

Spear, Walter A., to Nu-Tone, Inc. Kitchen power unit. 2,868,025, 1-13-59, Cl. 74—16.

Special Equipment Co.: *See*—
Thompson, Clarence R. 2,868,251.

Specialties Development Corp.: *See*—
Joerren, Ernest A., and Scott. 2,868,300.

Sperling, Jacob G., to Emerson Radio & Phonograph Corp. Transistor frequency dividers. 2,869,002, 1-13-59, Cl. 307—88.5.

Sperry Gyroscope Co. Ltd., The: *See*—
Sedgfield, Hugh B., and Luttrelle. 2,868,021.

Sperry Rand Corp.: *See*—
Gunn, Donald A., Dean, and Senechal. 2,868,606.
Hess, John J., Jr. 2,869,063.
Hollyday, James H. 2,868,114.
Kirk, William A., and Brown. 2,868,253.

Sperry Rand Corp., Ford Instrument Co. Division: *See*—
Garfinkel, Alan R., and Okea. 2,868,999.

Spiitt, Frank G., to Admiral Corp. Signal separator circuit for television receivers. 2,868,873, 1-13-59, Cl. 178—7.3.

Sprague Electric Co.: *See*—
Cushman, Norton. 2,869,088.
Ness, Odvar A., and Lambert. 2,869,052.

Springman, Leroy A.: *See*—
Rieger, William H., and Springman. 2,868,793.

Sprinkman, W. M., Corp.: *See*—
Moseley, Karl W. 2,868,516.

Sproul, Nolte V., to Automatic Steel Products, Inc. Centrifugal clutch construction. 2,868,343, 1-13-59, Cl. 192—105.

Spurgeon, Samuel J.: *See*—
Nilsson, Nils L., and Spurgeon. 2,868,865.

Spurlino, Pascal, R. S. Hull, and E. H. Rupel, to The National Cash Register Co. Control key operation from sorting racks. 2,868,912, 1-13-59, Cl. 200—61.39.

Squire, Herbert D., to Midwest Mfg. Corp. Door hinge. 2,867,839, 1-13-59, Cl. 16—166.

Squire, Herbert D., to Midwest Mfg. Corp. Refrigerator door gasket. 2,867,862, 1-13-59, Cl. 20—69.

Squire, Herbert D., and R. N. Brandt, to Midwest Mfg. Corp. Safety release for refrigerator doors. 2,868,578, 1-13-59, Cl. 292—223.

Squire, Herbert D., to Midwest Mfg. Corp. Refrigerator pull-out shelf. 2,868,607, 1-13-59, Cl. 312—332.

Staffa, Robert, and R. D. Lohman, to Radio Corp of America. Signal amplitude quantizer. 2,869,079, 1-13-59, Cl. 332—11.

Stahovec, Joseph L.: *See*—
Gabor, William D., and Stahovec. 2,868,896.

Staicopoulos, Dimitrios N., to E. I. du Pont de Nemours and Co. Methacrylate resin composition and method of making same. 2,868,760, 1-13-59, Cl. 260—41.

Staley, A. E., Mfg. Co.: *See*—
Brock, Frank H. 2,868,652.

Staller, Karel J., and E. F. Svec, to Flexigrip Inc. Slider for slide fasteners. 2,867,877, 1-13-59, Cl. 24—201.

Stamicarbon N. V.: *See*—
Van Herpt, Cornelis H. J. 2,868,591.

Stampe, Gerhard K. E. H., to Otto H. Drager. Dust filter mask. 2,868,196, 1-13-59, Cl. 128—146.

Standard Oil Co.: *See*—
Lien, Arthur P., and McCaulay. 2,868,854.

Starnes, Earl W. Apparatus for making yarn. 2,867,967, 1-13-59, Cl. 57—36.

Stauffer Chemical Co.: *See*—
Baker, Edgar B. 2,868,758.

Stauffer, Ralph J. Turbulent air-intake device for carburetors. 2,868,322, 1-13-59, Cl. 183—48.

Steed, Robert F. Liquid level gauge. 2,868,016, 1-13-59, Cl. 73—322.

Steele, Arthur B., to Union Carbide Corp. Process for the production of substituted piperazines. 2,868,791, 1-13-59, Cl. 260—268.

Steele, Arthur B., to Union Carbide Corp. Preparation of substituted oxazolidones. 2,868,801, 1-13-59, Cl. 260—307.

Steele, Maurice G. Deodorant dispenser. 2,867,866, 1-13-59, Cl. 21—126.

Steele, Maurice G. Window heater. 2,868,943, 1-13-59, Cl. 219—34.

Stein, Ernst: *See*—
Bertsch, Hans, and Stein. 2,867,971.

Stein, Gustav A.: *See*—
Pfister, Karl, III, and Stein. 2,868,818.

Stein, Hall & Co., Inc.: *See*—
Goldstein, Arthur M. 2,868,664.

Steinkvist, Emil, to Allmanna Svenska Elektriska Aktiebolaget. High voltage power transmissions. 2,868,998, 1-13-59, Cl. 307—83.

Stephens, William T., to Parker Hannifin Corp. Valve controlled unit for hydraulic motors. 2,868,227, 1-13-59, Cl. 137—622.

Stephenson, Eric P. Beat frequency timer. 2,869,045, 1-13-59, Cl. 317—135.

Stephenson, Matthias, to Thomas French & Sons Ltd. Electrical heating elements. 2,868,946, 1-13-59, Cl. 219—46.

Sterling Drug Inc.: *See*—
Clinton, Raymond O., and Beyler. 2,868,811.

Stern, Jerome J., and D. D. Whyte, to Whyte Mfg. Co., Inc. Spool. 2,868,475, 1-13-59, Cl. 242—118.4.

Stevens, Howard C.: *See*—
Minty, John E., and Stevens. 2,868,581.

Stevens, Howard C., and J. E. Minty, to Manning, Maxwell & Moore, Inc. Cargo release hook 2,868,580, 1-13-59, Cl. 294—83.

Stierna, Arnos J. End table record cabinet. 2,868,606, 1-13-59, Cl. 312—293.

Stiles, Harry L., and N. T. Thome, to Silex Co. Lawn trimmer and edger with wheel adjusting means. 2,867,960, 1-13-59, Cl. 56—25.4.

Stoermer, Frederick G. Intra luminal vein stripper. 2,868,206, 1-13-59, Cl. 128—303.

Stokes, William S., to Pipeline Coating & Engineering Co., Inc. Means to support and insulate pipelines. 2,868,230, 1-13-59, Cl. 138—65.

Stoltman, Donald D.: *See*—
Olson, Elmer, and Stoltman. 2,868,520.

Stookey, Byron O. Fish lure. 2,867,932, 1-13-59, Cl. 43—42.02.

Stott, Geoffrey. Curing natural rubber latex with a peroxide. 2,868,859, 1-13-59, Cl. 260—772.

Strahmann, Hans. Apparatus for making bread and pastry dough. 2,868,143, 1-13-59, Cl. 107—30.

Straley, James M., and J. G. Fisher, to Eastman Kodak Co. Metallizable azo dyes prepared from aminobenzothiazole derivatives and β-naphthol derivatives. 2,868,774, 1-13-59, Cl. 260—146.

Straley, James M., and R. R. Giles, to Eastman Kodak Co. Metallizable azo dyes prepared from benzothiazoles and hydroxy-thianaphthenes. 2,868,775, 1-13-59, Cl. 260—146.

Straussler, Nicholas P. S. Pneumatic tires. 2,868,262, 1-13-59, Cl. 152—401.

Strecker, Charles E.: *See*—
Brooks, Wesley W., and Strecker. 2,869,037.

Streightif, Clifford B.: *See*—
Tscheutke, Herman L., and Streightif. 2,868,661.

Strickler, Walter B.: *See*—
Gooderham, John W., Jacobitti, Myers, Shipley, and Strickler. 2,868,884.

Strobel, Charles K., and G. F. Conner, to Robertshaw-Fulton Controls Co. Temperature control devices. 2,868,928, 1-13-59, Cl. 200—140.

Strubel, Paul F.: *See*—
Pixley, John M., and Strubel. 2,868,930.

Structural Clay Products Research Foundation: *See*—
Edmonds, Harvey A., and Gilbert. 2,868,349.

Stuart, Simon. Electrical lamp socket. 2,869,097, 1-13-59, Cl. 339—89.

Sturges, Hiram A.: *See*—
Biewald, Robert R. 2,868,308.

Suderow, George E., to United States of America, Army. Releasable pivoted clamp for joining internally flanged structural members. 2,868,365, 1-13-59, Cl. 285—308.

Sud Est Aviation Societe Nationale de Constructions Aeronautiques: *See*—
Brun de Saint Hippolyte, Georges, and Sessanc. 2,868,334.

Sugawara, Shinichi: *See*—
Imai, Kanee, Ikeda, Tanaka, and Sugawara. 2,868,839.

Sullivan, James F. Carpet reeling apparatus. 2,868,469, 1-13-59, Cl. 242—55.

Sullivan, Robert E.: *See*—
Holderreed, Francis L., and Sullivan. 2,867,972.

Summerhayes, Harry R., Jr., to General Electric Co. Steel mill optical width gage. 2,868,059, 1-13-59, Cl. 88—14.

Sun Oil Co.: *See*—
Jezl, James L. 2,868,835.
Jolly, Samuel E. 2,868,761.

Sun, Yun P.: *See*—
Benesi, Hans A., Sun, Loeffler, and Detling. 2,868,688.

Sundback, Gideon, to Talon, Inc. Slide actuated closure. 2,867,878, 1-13-59, Cl. 24—205.

Sundstrand Machine Tool Co.: *See*—
Seeberg, George R., and Bergren. 2,868,089.

Sundström, Karl E.: *See*—
Akerman, Karl A. L., and Sundström. 2,868,060.

Suozzi, Joseph J.: *See*—
Hooper, Edward T., Jr., and Suozzi. 2,868,877.

Surratt, Beatbee C. Power tiller for orchards. 2,868,305, 1-13-59, Cl. 172—47.

Svec, Emil F.: *See*—
Staller, Karil J., and Svec. 2,867,877.

Svenska Jastfabriks Aktiebolaget: *See*—
Rosenqvist, Sven O. 2,868,649.

Svenska Roter Maskiner Aktiebolag: *See*—
Nilsson, Hans R. 2,868,442.

Sviraskis, Becalelis. Magnetic separater. 2,868,377, 1-13-59, Cl. 209—219.

Swanson, Kermit E.: *See*—
Koons, George L., Beebe, and Swanson. 2,868,539.

Swift & Co.: *See*—
Lace, Stewart B. 2,868,740.

Swift, Eric W.: *See*—
Thomson, Bernard, and Swift. 2,867,947.

Sylvania Electric Products Inc.: *See*—
Harrison, Richard L., and McKee. 2,869,082.
Pifer, Marion J. 2,869,040.
Pleak, Horace C. 2,869,104.
Roeber, Henry W. 2,868,240.
Roof, Richard L. 2,868,546.

Symons, Norman K. J., to E. I. du Pont de Nemours and Co. Process of incorporating colloidal carbon in polycaproamide. 2,868,757, 1-13-59, Cl. 260—37.

Syntron Co.: *See*—
Hitchcock, Richard C., and Weir. 2,869,085.

Szabo, Joseph L., and W. F. Bruce, to American Home Products Corp. Aliphatic and alicyclic diamines and salts thereof. 2,868,833, 1-13-59, Cl. 260—501.

Szarvasi, Etienne: *See*—
Servigne, Marcel, Szarvasi, and Neuvy. 2,868,850.

T. I. (Group Services) Ltd.: *See*—
Woodcock, John W. 2,868,407.

Tabor, John Q., Jr.: *See*—
Johnson, Thomas H., Kane, and Tabor. 2,868,129.

Talmadge, Howard A., to United Aircraft Corp. Clamp. 2,867,883, 1-13-59, Cl. 24—279.

Talon, Inc.: *See*—
Sundback, Gideon. 2,867,878.

Tanaka, Kiichiro: *See*—
Imai, Kanee, Ikeda, Tanaka, and Sugawara. 2,868,839.

Taniguchi, Fumio. Electrically heated boiling water pot. 2,868,945, 1-13-59, Cl. 219—44.

Tashjian, Aram: *See*—
Kreft, Leon J. 2,868,193.

Taylor, Alan W.: *See*—
Allen, Robert W., and Taylor. 2,868,390.

Taylor, Frank C., Jr., and H. L. Aamoth, to The Dow Chemical Co. Method of removing acids from aqueous solutions with phosphate salts of quaternary ammonium anion exchange resins. 2,868,832, 1-13-59, Cl. 260—499.

Taylor, Richard G., and J. O. Puckett. Woodworking apparatus. 2,868,249, 1-13-59, Cl. 144—91.

Taylor, Samuel K., and K. A. Cool, to The Service Recorder Co. Recorder. 2,868,612, 1-13-59, Cl. 346—123.

Teal, Alvin P.: *See*—
Leuszler, Wayne E., Wood, and Teal. 2,868,313.
Leuszler, Wayne E., Wood, and Teal. 2,868,314.

Technicon International Ltd.: *See*—
Weiskopf, Edwin C., and Gioia. 2,868,072.

Teeple, Frank A., Jr., to Atlantic Steel Co. Bale tie. 2,867,872, 1-13-59, Cl. 24—26.

Teeter, Wallis L. High power broadband waveguide switch. 2,869,081, 1-13-59, Cl. 333—7.

Tele-Dynamics Inc.: *See*—
Byer, Bernard B. 2,869,080.

Telefonaktiebolaget L M Ericsson: *See*—
Hasselbohm, Sune S. S. 2,869,106.

Teleweld, Inc.: *See*—
McKee, Chester W. and R. W. 2,869,073.

Temin, Samuel C., to Industrial Rayon Corp. Polyamides of para-aminophenyl aliphatic acids. 2,868,770, 1-13-59, Cl. 260—78.

Terrell, Charles E. Fluid measuring apparatus and valve embodied therein. 2,868,013, 1-13-59, Cl. 73—213.

Terrell Machine Co., The: *See*—
Ferguson, Richard. 2,868,372.

Texas Co., The: *See*—
Brukner, John S., and Walker. 2,868,726.
Childs, Emerson. 2,868,218.
Heisler, Robert Y. 2,868,813.
Kluge, Herman D., and Moore. 2,868,823.
Moyer, William C. 2,868,716.
Nestle, Alfred C. 2,868,506.
Robertson, James M. 2,868,216.

Texsteam Corp.: *See*—
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Textile Research Institute: *See*—
White, Howard J., Jr., and Cates. 2,868,744.

Thilmany Pulp & Paper Co.: *See*—
Downs, Martin L., and Schmitt. 2,868,685.

Thoma, Richard W.: *See*—
Fried, Josef, and Thoma. 2,868,694.

Thomas, John W., to The Cleveland Vibrator Co. Vibrating means for material conveyor. 2,868,357, 1-13-59, Cl. 198—220.

Thomas & Skinner, Inc.: *See*—
Ireland, James R. 2,869,075.

Thome, Nicholas T.: *See*—
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Thompson, Clarence R., to Special Equipment Co. Freestone pitter. 2,868,251, 1-13-59, Cl. 146—28.

Thompson Products, Inc.: *See*—
Gammon, Howard M., and Sampietro. 2,868,438.
Herbenar, Edward J. 2,868,572.
Marquis, Donald P., and French. 2,868,263.

Thompson, Wirt L., Jr. Molded fabric and brassiere construction and method of making the same. 2,867,889, 1-13-59, Cl. 28—72.

Thomson, Bernard, and R. W. Swift, to International Standard Electric Corp. Glass to metal seals. 2,867,947, 1-13-59, Cl. 49—81.

Thornton, William E.: *See*—
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Thorpe, Lawrence R. Display package. 2,868,371, 1-13-59, Cl. 206—79.

Thorpe, William R.: *See*—
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Thoreson, Matthew T., and L. J. Lauler, to Fairbanks, Morse & Co. Batch weigher. 2,868,491, 1-13-59, Cl. 249—14.

Thunstrom, John F., to Foster Wheeler Corp. Heat exchange apparatus. 2,868,180, 1-13-59, Cl. 122—478.

Thurman, Astor L., and D. Hancke, to Mannesmann-Meer Engineering and Construction Co. Rolling mill kickout apparatus. 2,868,348, 1-13-59, Cl. 196—21.

Tichy, William C. Anti-colic nursing device. 2,868,203, 1-13-59, Cl. 128—252.

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Jabczynski, Hans-Joachim, Tiesler, Lurk, and Schröder. 2,868,883.

Time, Inc.: *See*—
Faeber, Harry W. 2,868,122.

Tingley, Loyal H., Jr. Clothes treating liquid-dispenser for automatic washing machines. 2,868,006, 1-13-59, Cl. 68—207.

Tocci, Louis G. Dry material mixing machine. 2,868,519, 1-13-59, Cl. 259—57.

Todd, Hoyt H., to Western Carbide Corp. Submerged electric arc welding process. 2,868,949, 1-13-59, Cl. 219—73.

Tom, Wade: *See*—
Groves, Ermy W. 2,867,902.

Tomchak, Joseph A. Tire defroster, cleaner and dryer. 2,867,914, 1-13-59, Cl. 34—104.

Tondreau, Albert W., to Warner Bros. Pictures, Inc. Stereoscopic camera system. 2,868,065, 1-13-59, Cl. 88—16.6.

Tote-Cart Co.: *See*—
Cauthon, Jack. 2,868,336.
Toulmin, Harry A., Jr., to The Commonwealth Engineering Co. of Ohio. Building brick. 2,868,008, 1–13–59, Cl. 72—36.
Tranter Mfg., Inc.: *See*—
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Trépaud, Georges. Process to demineralise or to concentrate the saline solutions by freezing said solutions. 2,867,956, 1–13–59, Cl. 62—58.
Trimble, David C.: *See*—
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Trojak, Daniel T.: *See*—
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Trousdale, Robert B., to General Dynamics Corp. Electronic telephone system. 2,868,881, 1–13–59, Cl. 179—15.
Truc, Jean G., to Etat Francais, Ministere de la Defense Nationale & des Forces Armees. Compositions of matter for cleaning metal bodies. 2,868,732, 1–13–59, Cl. 252—136.
Trutneff, Vladimir N. Sanitary talcum duster. 2,867,828, 1–13–59, Cl. 15—131.1.
Tschentke, Herman L., and C. B. Streightiff, to Wilson & Co., Inc. Sensitising photographic gelatin. 2,868,661, 1–13–59, Cl. 106—135.
Tucker, Gardiner L., to International Business Machines Corp. Unipolar transistor. 2,869,054, 1–13–59, Cl. 317—235.
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Tull, William J., and F. N. Gillette, to General Precision Laboratory Inc. Navigation system. 2,869,118, 1–13–59, Cl. 343—9.
Tullos, Frank N., to Jersey Production Research Co. Acoustic impedance logging. 2,868,311, 1–13–59, Cl. 181—.5
Tummers, Leonard J.: *See*—
Jochems, Pieter J. W., and Tummers. 2,868,683.
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Ultra Electric, Inc.: *See*—
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Bailey, Donald L., and Black. 2,868,826.
Burnham, Robert R. 2,868,742.
Gage, Robert M. 2,868,950.
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Johnson, Gordon C., and Jellinek. 2,868,751.
Johnson, Neal J., and Nickerson. 2,868,672.
Lobosco, Roscoe R. 2,868,956.
O'Connor, Michael J., and Detweiler. 2,868,827.
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Unipress Co., Inc., The: *See*—
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Jedrziewski, Chester M. 2,868,303.
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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

January 13, 1959 Volume 738 Number 2

TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116: Trademark Act of July 5, 1946

Reg. No. 262,745 (STRIDE RITE AND DESIGN), La Londe & Clarke, Inc., Boots and shoes; **Reg. No. 261,811** (THE STRIDE RITE SHOE), Green Shoe Manufacturing Co., Shoes; **Reg. No. 406,965** (STRIDE RITE), same; **Reg. No. 322,008** (STRIDE RITE FIRSTIE), same; filed Nov. 12, 1958, D. C. Mass. (Boston), Doc. 58/1100–A, *Green Shoe Manufacturing Co. v. National Shoes, Inc.*

Reg. No. 290,383 (15K), Singer Manufacturing Co., Sewing machines, their parts and attachments; **Reg. No. 377,115** (SINGER), same; **Reg. No. 561,237**, same, Thermoplastic material in the form of sheets and strips, filed Nov. 26, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 19232, *Singer Manufacturing Co. v. Sewing Machine Sales Corp. et al.*

Reg. No. 326,478 (FOODLAND AND DESIGN), Foodland, Inc., republished by Clover Farm Stores Corp., Canned salmon, canned fruits and vegetables, mustard, chili powder, etc.; **Reg. No. 326,525** (FOODLAND), Foodland, Inc., Wheat flour, coffee, evaporated milk, tomato catsup, etc.; **Reg. No. 614,555**, same, Canned foods—namely, fruits, vegetables, fruit juices, etc.; **Reg. No. 513,614**, same, Clover Farm Stores Corporation, Toilet paper, paper napkins, etc.; **Reg. No. 519,195**, same, Clothes pins; **Reg. No. 522,655**, same, Paper spoons, paper forks, wooden forks, etc., **Reg. No. 512,143**, same, Lye, laundry bleaching solution, etc.; **Reg. No. 522,646**, same, Paper plates, paper cups, and wooden plates; **Reg. No. 555,591**, same, Nonalcoholic, noncereal, maltless carbonated beverages sold as soft drinks, etc., filed Aug. 23, 1957, D. C., E. D. Mich. (Detroit), Doc. 17058, *Foodland, Inc. v. Francis Foodland.* Consent judgment for plaintiffs Nov. 19, 1958.

Reg. No. 326,522. (See Reg. No. 326,478.)

Reg. No. 357,933 (SPEED-WALL), The Glidden Co., Ready mixed paint; **Reg. No. 644,052** (SPRED), same, Paints, semi-paste paint bases, etc.; **Reg. No. 635,422** (SPREAD-TONE), Rich-Coat Enamel & Varnish Corp., Rubberized satin finish, filed Oct. 9, 1958, D. C., S. D. Ind. (Indianapolis), Doc. 58c261, *The Glidden Co. v. Rich-Coat Enamel & Varnish Corp. et al.*

Reg. No. 261,811. (See Reg. No. 262,745.)

Reg. No. 381,210 ('HI-TEMP'), Rockbestos Products Corp., Insulated low resistance electric lead wires and cables, filed Sept. 13, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. C–15881, *Rockbestos Products Corp. v. Hi-Temp Wires, Inc.* Stipulation of dismissal Nov. 25, 1958.

Reg. No. 496,556. (See Reg. No. 262,745.)

Reg. No. 438,356 (MORPUL), Morpul, Inc., Men's hosiery; **Reg. No. 634,114**, same, filed Nov. 21, 1958, D. C., W. D. N. C. (Statesville), Doc. 287, *Morpul, Inc. v. Arrow Trade Mark, Inc.* Final consent judgment; trademarks held valid; defendants enjoined Nov. 24, 1958.

Reg. No. 512,142. (See Reg. No. 326,478.)

Reg. No. 513,614. (See Reg. No. 326,478.)

Reg. No. 519,195. (See Reg. No. 326,478.)

Reg. No. 522,646. (See Reg. No. 326,478.)

Reg. No. 522,655. (See Reg. No. 326,478.)

Reg. No. 522,008. (See Reg. No. 262,745.)

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	10, 890
Date of oldest new application	April 20, 1958
Date of oldest amended application	July 1, 1958

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 13, 15, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	6-1-58	8-26-58
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 35, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	4-20-58	7-1-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	6-3-58	8-1-58
Renewals (All Classes)	10-28-58	11-24-58
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Applications Filed During the Month of November 1958—1,625

Registrations Issued	309—No. 672,344 to No. 672,652
Renewals Issued	53

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $3.75 additional; single copies, 20 cents each.

Reg. No. 541,647 (SCOTCH LADDIE), John R. MacGregor Lead Co., Paint; **Reg. No. 652,297**, same, **filed** Oct. 22, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. C–19107, *John R. MacGregor Lead Co.* v. *Purity Paint Products Corp.* Consent decree; injunction issued Nov. 25, 1958.

Reg. No. 555,966. (See Reg. No. 326,478.)

Reg. No. 577,135. (See Reg. No. 290,333.)

Reg. No. 582,337. (See Reg. No. 290,333.)

Reg. No. 614,558. (See Reg. No. 326,478.)

Reg. No. 624,114. (See Reg. No. 423,456.)

Reg. No. 635,421. (See Reg. No. 357,983.)

Reg. No. 643,161 (STACK-O-MATIC), Nu-Dell Plastics Corp., Plastic self-sorting silverware and cutlery trays, **filed** Nov. 25, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c2057, *Nu-Dell Plastics Corp.* v. *Steinway Drug Co.*

Reg. No. 644,668. (See Reg. No. 357,983.)

Reg. No. 652,297. (See Reg. No. 541,647.)

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 2.101 to 2.105.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 32,777. J. Rudolph, Inc., New York, N. Y. Filed June 27, 1957.

Glovette Suede

Applicant disclaims the word "Suede" apart from the mark as shown.

For Leather Sold Only in Finished Handbags.

First use May 28, 1957.

SN 34,318. F. H. Woodruff & Sons, Inc., Milford, Conn. Filed July 24, 1957.

GREENLEA

For Lawn Grass Seed Mixture.

First use on about Apr. 1, 1956.

SN 34,822. Surpass Leather Company, Philadelphia, Pa. Filed Aug. 1, 1957.

GROTTO

For Shoe Leather.

First use June 13, 1957.

SN 36,863. Diamond Gardner Corporation, New York, N. Y., by change of name from The Diamond Match Company, New York, N. Y. Filed Sept. 9, 1957.



The drawing is lined for the colors red and blue. No claim of exclusive right is made to "Hickory Flavor-Chips" as used on the goods.

For Woodchips for Smoking and Flavoring Charcoal Broiled Foods.

First use Aug. 16, 1957.

SN 39,945. Chapman Water Sports Equipment Co., Costa Mesa, Calif. Filed Nov. 1, 1957.

Zephyrfoam

For Cellular Foam Plastic Material Used in Water Ski and Swim Aids.

First use Sept. 9, 1957.

SN 41,104. Lynnville Seed Co., Lynnville, Iowa. Filed Nov. 21, 1957.



The drawing is lined for green and blue.

For Grass Seed, Soybean Seed, Seed Oats, and Other Seed Grain.

First use July 1, 1938.

SN 44,296. National Sawdust Co., Inc., Brooklyn, N. Y. Filed Jan. 20, 1958.

KATGO

For Litter for Cat Boxes and the Like.

First use Sept. 27, 1956.

SN 44,814. Geilich Tanning Company, Taunton, Mass. Filed Jan. 28, 1958.

CAMBI-DOODLE

Owner of Reg. Nos. 572,465 and 638,618.

For Leather.

First use in August 1957.

SN 46,246. North American Asbestos Corporation, Chicago, Ill. Filed Feb. 21, 1958.

NORAMITE

For Crocidolite and Amosite Asbestos Products for Reinforcement of Plastics—Namely, Prepared Fibers, Rovings, Ropes, Yarns, Fabrics, Mats, and Paper.

First use Jan. 28, 1958.

SN 49,008. New England Kennel Supply Co., Inc., Cambridge, Mass. Filed Apr. 3, 1958.

NEET

For Sanitary Absorbent Box Litter for Dogs and Cats.
First use July 29, 1955.

SN 49,914. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed Apr. 18, 1958.

TEFLON

Owner of Reg. Nos. 418,698, 623,605, and others.
For Films or Sheets Made From Polymers of Fluorinated Hydrocarbons for Use in Packaging Applications, in Electrical and Non-Electrical Insulation, as Protective Liners for Containers and Equipment, in Tapes, in Machinery Parts, in Covering, Coating, and Packing Substances, in Hose and Piping, and for General Use in the Industrial Arts.
First use on or before Mar. 14, 1958.

SN 50,149. Central Fuel Corporation, Chicago, Ill. Filed Apr. 22, 1958.

KENTUCKY MAID

Applicant asserts exclusive rights in the word "Kentucky" only in connection with the word "Maid" as shown in the drawing.
For Coal.
First use Jan. 25, 1941.

SN 50,396. The O. M. Scott & Sons Company, Marysville, Ohio. Filed Apr. 25, 1958.

PLAY

For Lawn and Grass Seed.
First use Nov. 8, 1957.

SN 50,399. Sears, Roebuck and Co., Chicago, Ill. Filed Apr. 25, 1958.

DB DAVID BRADLEY

For Baby Chicks, Pullets, Turkey Poults, Guinea Keets, Cockerels, Ducklings, Goslings, Game Birds (Namely, Pheasants, Quail, Chukar, Partridge).
First use on or about July 12, 1956.

SN 50,776. Continental-Diamond Fibre Corporation, Newark, Del. Filed May 1, 1958.

Di-Clad

For Sheets, Rods, Tubes, Tapes, and Strips Made From Resinous Film, Impregnated Fabrics or Impregnated Paper to Which Metal Is Adhered or Included Therein, for Use in the Industrial Arts.
First use Feb. 27, 1958.

SN 51,471. Lawn & Grass Seeds, Inc., Buffalo, N. Y. Filed May 12, 1958.

Hill 'n Dale

For Lawn and Grass Seed.
First use Aug. 17, 1957.

SN 51,528. Whitney Seed Company, Inc., Buffalo, N. Y. Filed May 12, 1958.

Outdoor Living

For Lawn and Grass Seed.
First use Dec. 5, 1957.

SN 51,529. Whitney Seed Company, Inc., Buffalo, N. Y. Filed May 12, 1958.

Fun & Frolic

For Lawn and Grass Seed.
First use Dec. 5, 1957.

SN 51,790. Halo Sales Corporation, San Francisco, Calif. Filed May 16, 1958.

PRONTO

For Wafers for the Quick Starting of Fires.
First use Apr. 17, 1958.

SN 52,363. Union Carbide Corporation, New York, N. Y. Filed May 26, 1958.

UNION CARBIDE

Owner of Reg. Nos. 119,405 and 543,460.
For Synthetic Textile Fibers.
First use Nov. 7, 1957.

SN 52,423. The Pillsbury Company, Minneapolis, Minn., by change of name from Pillsbury Mills, Inc., Minneapolis, Minn. Filed May 27, 1958.

MAXI-LAY QUEENS

For Baby Chicks.
First use Mar. 28, 1958.

SN 52,687. The Char-Clean Company, Oklahoma City, Okla. Filed June 2, 1958.

BAG-O-FIRE

For Charcoal.
First use Apr. 1, 1958.

SN 53,565. American Colloid Company, Skokie, Ill. Filed June 16, 1958.

SCOT BOND

For Bentonite.
First use May 12, 1958.

SN 54,287. Bechik Products Inc., St. Paul, Minn. Filed June 26, 1958.

FIBERFLUFF

For Padding or Insulating Material in Sheet Roll Form for Use in Overstuffed Furniture, Cushions, Mattresses, Box Springs and the Like.
First use on or about June 1, 1958.

Class 2—Receptacles

SN 29,010. Brooks Machine Products Co., Unadilla, N. Y. Filed Apr. 29, 1957.

jiffy

For Frame-Type Holder and Handle for Use With Milk, Fruit Juice, and Similar Cartons.
First use Dec. 21, 1956.

SN 51,357. M. O. & J. F. Albert and Company, Inc., d. b. a. Normandie Cups, Alexandria, Va. Filed May 9, 1958.

NORMANDIE

For Paper Cups.
First use Jan. 1, 1955.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 42,270. David Bronstein, d. b. a. Marlnd Company, Toronto, Ontario, Canada. Filed Dec. 12, 1957.

EXECUDEX

For Wallets of Plastic or Leather.
First use in 1953.

SN 45,675. Bernard Cahn Co., Inc., New York, N. Y. Filed Feb. 11, 1958.

TELL-TALE

For Billfolds, Purses, and Handbags.
First use May 1, 1957.

SN 53,127. Continental-Vogue Luggage Company, d. b. a. Vogue of California, San Francisco, Calif. Filed June 9, 1958.

SPACE-LITE

For Luggage.
First use on or about July 8, 1957.
Subj. to Intf. with SN 53,637.

SN 53,637. Oshkosh Trunks and Luggage, Oshkosh, Wis. Filed June 16, 1958.

SPACEFLIGHT

For Hand Luggage.
First use Nov. 21, 1957.
Subj. to Intf. with SN 53,127.

SN 53,643. Proven Products, Inc., Evanston, Ill. Filed June 16, 1958.

PAMPER-PET

For Animal Beds and Mattresses.
First use Feb. 16, 1956.

Class 5—Adhesives

SN 41,528. L. W. Ferdinand & Co., Inc., Newton Lower Falls, Mass. Filed Nov. 29, 1957.

FERDICO

For Linoleum Cement, Plywood Glue, Liquid Marine Glue, and Linoleum Paste.
First use Jan. 1, 1924.

Class 6—Chemicals and Chemical Compositions

SN 3,776. Sun Chemical Corporation, Long Island City, N. Y. Filed Mar. 2, 1956.

A. E. DISPERSED BLACK

The words "Black" and "Dispersed" are disclaimed apart from the mark as shown.
For Air Entraining Dispersing and Coloring Agent for Addition to Concrete Mixtures.
First use January 1946.

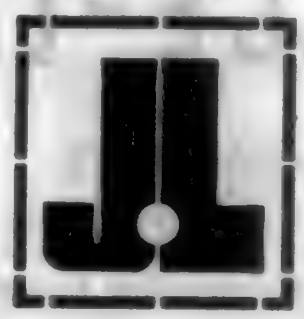
SN 41,178. Magnaflux Corporation, Chicago, Ill. Filed Nov. 22, 1957.

BONDCHECK

For Testing Fluid, Specifically a Material for Use in Locating Subsurface Discontinuities in Fabricated Materials.
First use Oct. 24, 1957.

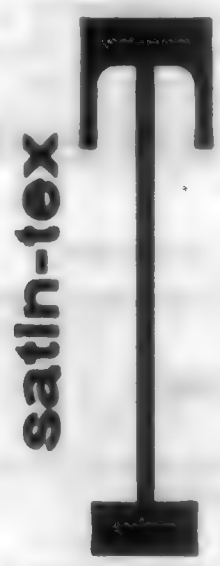
Class 7—Cordage

SN 38,054. Jones & Laughlin Steel Corporation, Pittsburgh, Pa. Filed Sept. 30, 1957.



Ownership of Reg. Nos. 500,168 and 500,169.
For Wire Rope.
First use about Aug. 5, 1956.

SN 47,910. Texlon Corporation, Dallas, Tex. Filed Mar. 17, 1958.



For Ribbon for Gift Wrapping and Tying.
First use Feb. 1, 1958.

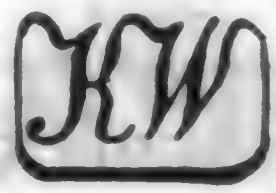
SN 51,332. Dare Products, Incorporated, Battle Creek, Mich. Filed May 9, 1958.

SEA-GOIN'

For Rope in the Form of Tiller Cord, and Also Rewind Starter Ropes.
First use May 18, 1956, on rewind starter ropes.

Class 8—Smokers' Articles, Not Including Tobacco Products

SN 39,168. Karl Wieden K. G., Solingen-Ohligs, Germany. Filed Oct. 18, 1957.



Owner of German Reg. No. 636,164, dated Mar. 24, 1953.
For Cigar, Cigarette, Pipe, Pocket and Table Lighters and Accessories and Spare Parts Therefor.

SN 47,485. B. Barling & Sons Limited, London, England. Filed Mar. 11, 1958. Sec. 2(f).



For Tobacco Pipes, Cigar and Cigarette Holders.
First use in the year 1889; in commerce in May 1924.

SN 47,486. B. Barling & Sons Limited, London, England. Filed Mar. 11, 1958. Sec. 2(f).

BARLING'S MAKE

For Tobacco Pipes, Cigar and Cigarette Holders.
First use in the year 1889; in commerce in May 1924.

SN 47,487. B. Barling & Sons Limited, London, England. Filed Mar. 11, 1958.

FOSSIL

For Tobacco Pipes, Cigar and Cigarette Holders.
First use 1924; in commerce May 1924.

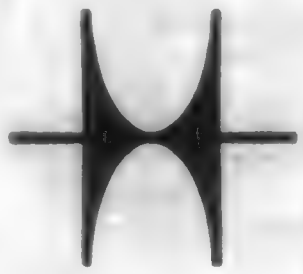
SN 51,748. Joseph E. Seeman, Los Angeles, Calif. Filed May 15, 1958.

STARFIRE

For Cigarette Lighters.
First use Jan. 8, 1958.

Class 9—Explosives, Firearms, Equipments, and Projectiles

SN 28,514. Hamilton Watch Company, Lancaster, Pa. Filed Apr. 19, 1957.



For Timer Type Fuses.
First use Apr. 17, 1957.

SN 57,269. The High Standard Manufacturing Corporation, Hamden, Conn. Filed Aug. 13, 1958.

SUPERMATIC TROPHY

Owner of Reg. No. 566,919.
For Pistols and Parts Therefor.
First use on or about Feb. 8, 1958.

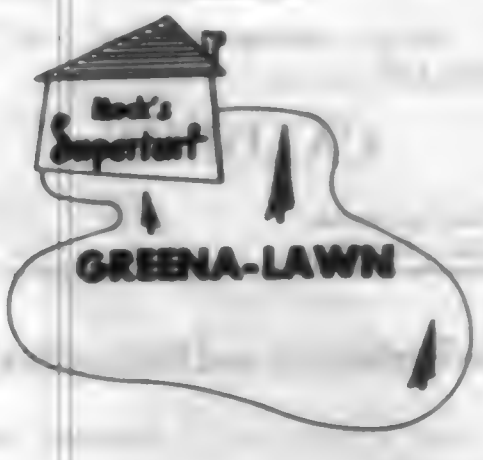
Class 10 — Fertilizers

SN 41,869. Virginia Smelting Company, West Norfolk, Va. Filed Dec. 5, 1957.

sprayrite

Owner of Reg. No. 207,776.
For Plant Growth Stimulants.
First use Oct. 2, 1957.

SN 56,156. Mock Seed Company, Pittsburgh, Pa. Filed July 28, 1958.



The words "Fast Acting" and "Liquid Lawn Food" are disclaimed. The diagonal lines shown in the drawing are not used to indicate color. Owner of Reg. Nos. 556,409, 553,536, and 643,452.
For Chemical Fertilizer.
First use May 1, 1958.

SN 56,847. W. R. Grace & Co., New York, N. Y. Filed Aug. 8, 1958.

HI-FLO

For Superphosphates for Use as Fertilizers.
First use June 27, 1958.

Class 12 — Construction Materials

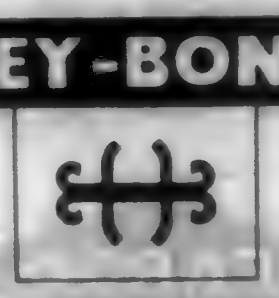
SN 26,702. Isocyanate Products, Inc., New Castle, Del. Filed Mar. 22, 1957.

ISOFOAM

For Construction Materials, Such as Insulation in Homes, Refrigerators of All Kinds, Vehicles, in the Manufacture of Plywood, Airplane Wings and Other Parts, Railroad Cars and the Like, Said Construction Materials Being Derived From Solid or Foamed-in-Place, Expansible or Flexible Resins Involving Polyisocyanates, Polyurethanes and Other Polymers and Said Materials.
First use Apr. 15, 1954.

SN 27,457. Charles Kepler Brown, Jr., Verona, N. J. Filed Apr. 4, 1957.

KEY-BOND



The representation of the clip is disclaimed.
For Metal Clips for Aligning and Reinforcing Masonry Walls Formed of Block Units of Brick, Tile, Plastic, and Cement Walls.
First use Nov. 28, 1955.

SN 33,958. Food Machinery and Chemical Corporation, San Jose, Calif. Filed July 18, 1957.

form-crete

For Metal Forms for Molding Concrete.
First use Sept. 26, 1955.

SN 36,313. Johnson & Johnson, New Brunswick, N. J., assignee of Permacel-Le Page's Inc., New Brunswick, N. J., by change of name from Permacel Tape Corporation, New Brunswick, N. J. Filed Aug. 27, 1957.

PERMACEL

Owner of Reg. Nos. 388,238, 642,428, and others.
For Resin Repair Kit for Repairing Automobile Bodies and Like Surfaces.
First use May 1957.

SN 39,757. Stran-Steel Corporation, Ecorse, Mich. Filed Oct. 29, 1957.

STRAN-MASTER

Owner of Reg. Nos. 367,793, 662,440, and others.
For Readily Erectable Buildings, Knock-Down Buildings, Portable Buildings, and Prefabricated Buildings.
First use Sept. 19, 1957.

SN 39,821. Mechanical Steel Tubing Corp., Bronx, N. Y. Filed Oct. 30, 1957.

ALUM-A-STIX

For Outdoor Mats.
First use Sept. 20, 1957.

SN 41,473. Parker Metal Products Co., Chicago, Ill. Filed Nov. 27, 1957.

WONDER FILL

For Plastic Cement and Filler for Dents, Holes, and Repairs.
First use Dec. 15, 1956.

SN 43,240. Dean Cut-Rate Floor Covering Company, Inc., Newark, N. J. Filed Dec. 31, 1957.

DURA-FLOOR

For Resilient Tile, Including Asphalt Composition.
First use Apr. 15, 1953.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 40,180. Fargo Mfg. Company, Inc., Poughkeepsie, N. Y. Filed Nov. 5, 1957.

FARGO

Owner of Reg. No. 508,215.
For Wire Connectors.
First use on or about Sept. 27, 1947.

SN 41,968. W. R. Ames Company, San Francisco, Calif. Filed Dec. 9, 1957.

ABC

For Complete Irrigation Systems, Irrigation Pipe, Pipe Couplers, Fittings, and Valves.
First use July 1, 1951.

Class 15—Oils and Greases

SN 41,043. Petroleum Distributing Company, Houston, Tex. Filed Nov. 20, 1957. Sec. 2(f).

KANT-GALL
A Jimmy Gray product

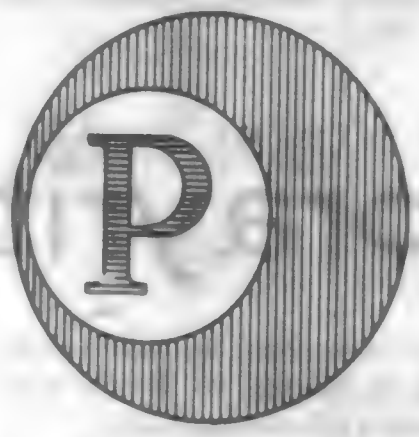
The mark includes the words "Jimmy Gray" which are respectively the nickname and surname of a living person whose written consent has been obtained.
For Tool Joint Compound—Namely, a Mixture of Petroleum Greases and Oils With Metallic Zinc Used as a Lubricant on the Threaded Ends of Drill Pipe and the Like.
First use on or about Jan. 1, 1952.

SN 41,044. Petroleum Distributing Company, Houston, Tex. Filed Nov. 20, 1957. Sec. 2(f).

LONG-LIFE
A Jimmy Gray product

The mark includes the words "Jimmy Gray" which are respectively the nickname and surname of a living person whose written consent has been obtained. Owner of Reg. No. 417,050.
For Tool Joint Compound—Namely, a Mixture of Petroleum Greases and Oils With Metallic Lead Used as a Lubricant on the Threaded Ends of Drill Pipe and the Like.
First use on or about Jan. 1, 1952.

SN 49,966. Pacific Supply Cooperative, Walla Walla, Wash. Filed Apr. 18, 1958.



The drawing is lined for red and blue, however, no claim to color is made.
For Fuel Oils, Gasoline, Kerosene, Lubricating Oils and Greases.
First use Nov. 13, 1957.

SN 53,200. Sinclair Refining Company, New York, N. Y. Filed June 9, 1958.

CALDRON

For Lubricating Grease.
First use Mar. 13, 1958.

Class 16—Protective and Decorative Coatings

SN 26,247. Cook & Dunn Paint Corporation, Newark, N. J. Filed Mar. 15, 1957.

C & D

Owner of Reg. No. 303,796.
For Paint in Paste and Ready Mixed Form, Enamel, Enamel Under Coat.
First use June 15, 1939.

SN 40,067. Mantrose Corporation, Brooklyn, N. Y. Filed Nov. 4, 1957.

ALCEL

For Ingredients for Shellacs and Varnishes.
First use Apr. 22, 1957, on shellacs.

SN 43,018. Farwell, Ozmun, Kirk & Company, St. Paul, Minn. Filed Dec. 26, 1957.

Gilt Edge

For Paints and Varnishes.
First use Jan. 15, 1898.

SN 47,517. The Polymer Corporation, Reading, Pa. Filed Mar. 11, 1958.

CORVEL

For Fusion Bond Finishes in the Form of Solid Finely Divided Coating Materials for Application by Fusion Coating Processes.
First use Feb. 14, 1958.

Class 17—Tobacco Products

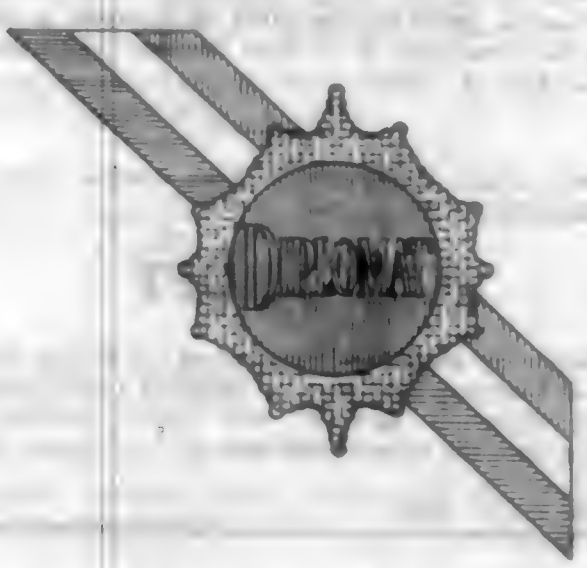
SN 46,522. Cuesta, Rey & Company, Tampa, Fla. Filed Jan. 30, 1958.

SALVADOR RODRIGUEZ



For Cigars.
First use 1882.

SN 51,650. North American Cigarette Manufacturers, Inc., New York, N. Y. Filed May 14, 1958.



The drawing is lined for red, blue, and gold.
For Cigarettes.
First use May 7, 1958.

Class 18—Medicines and Pharmaceutical Preparations

SN 43,809. Barry Laboratories, Inc., Detroit, Mich. Filed Jan. 13, 1958.

PRO-SORB

For Vehicle for Injectable Medication Which Promotes the Slow, Balanced Release of Therapeutically Active Substances Until Required by the Body.
First use Dec. 18, 1957.

SN 46,967. Pascal Company, Inc., Seattle, Wash. Filed Mar. 3, 1958.

RACORD

For Cotton Dressing, Medicated by Saturating the Same With a Solution of Racemic Epinephrine Hydrochloride and for Use as a Hemostat or in the Control of Capillary Bleeding and the Shrinkage of Gingival Tissue in Dental Operations.
First use on or about Feb. 4, 1957.

SN 56,406. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 31, 1958.

STABLETS

For Vitamin Preparation.
First use Apr. 14, 1958.

SN 56,761. Ciba Pharmaceutical Products Inc., Summit, N. J. Filed Aug. 7, 1958.

TRASENTINE-PA

Owner of Reg. No. 396,673.
For Antispasmodic.
First use Aug. 1, 1958.

SN 56,782. George I. Martin, d. b. a. Martin's Drug Store, Tallahassee, Fla. Filed Aug. 7, 1958. Sec. 2(f).

MARTIN'S THROAT MOP

For Medicinal Preparation Used To Relieve Irritation and Reduce Inflammation of the Throat in Hoarseness, Coughs, and Sore Throats.
First use Sept. 15, 1936.

SN 56,806. Summers Laboratories, Inc., Ambler, Pa. Filed Aug. 7, 1958.

PETRASUM

For Water Absorbable Ointment Base.
First use Apr. 30, 1958.

SN 56,824. Wilbur Royster Adams, d. b. a. Carolina Beach Drug Company, Carolina Beach, N. C. Filed Aug. 8, 1958.

STINGO

For Medicinal Preparation for the Relief of Sting and to Help Prevent Swelling of Insect Bites and Stings.
First use 1956.

SN 56,872. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Aug. 8, 1958.

KENALOG

For Steroid Preparations.
First use June 16, 1958.

SN 56,873. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Aug. 8, 1958.

MYCONEF

For Steroid-Antibiotic Preparations.
First use Apr. 28, 1958.

SN 57,164. Pharmaceuticals, Incorporated, New York, N. Y. Filed Aug. 13, 1958.

BANARIN

For Anti-Histamine Cold Capsule With Vitamins.
First use June 10, 1958.

SN 57,179. American Cyanamid Company, New York, N. Y. Filed Aug. 14, 1958.

DERAVET

Owner of Reg. No. 419,774.
For Antibiotic Feed Supplement.
First use July 21, 1958.

SN 57,180. American Cyanamid Company, New York, N. Y. Filed Aug. 14, 1958.

VETNAC

For Antibiotic-Vitamin-Mineral Veterinary Formula.
First use July 21, 1958.

SN 57,303. The Upjohn Company, Kalamazoo, Mich. Filed Aug. 15, 1958.

SOLU-MEDROL

Owner of Reg. Nos. 657,022, 536,618, and others.
For Medicinal Hormone Preparation.
First use Apr. 2, 1958.

SN 57,304. The Upjohn Company, Kalamazoo, Mich. Filed Aug. 15, 1958.

PREDEF

Owner of Reg. No. 662,148.
For Veterinary Medicinal Hormone Preparation.
First use Apr. 21, 1958.

SN 57,346. Deseret Pharmaceutical Company, Inc., Salt Lake City, Utah. Filed Aug. 18, 1958.

INTRON

For Pharmaceutical Tablets and, More Particularly, a Hematinic Concentrate Containing Vitamins and Other Dietary Factors.
First use July 15, 1958.

SN 57,438. R. J. Strasenburgh Company, Rochester, N. Y. Filed Aug. 18, 1958.

IONEPHRIN

For Pharmaceutical Preparation Having Anti-Asthmatic Properties.
First use Mar. 17, 1958.

SN 57,793. Whitmel H. Gibson, Jourdanton, Tex. Filed Aug. 25, 1958.

PEER-EYE

For Veterinary Eye Solution.
First use Jan. 5, 1958.

SN 57,884. Curtis Laboratories, Inc., Kansas City, Kans. Filed Aug. 26, 1958.

VITAMADE

For Veterinary Medicine Described as: a Parenteral Solution of Vitamins A, D and E, for Use in Animals, To Aid in Correcting and/or Treating Disease Conditions Ascribed to or Associated With Deficiencies of These Vitamins.
First use Aug. 9, 1954.

SN 57,886. Curtis Laboratories, Inc., Kansas City, Kans. Filed Aug. 26, 1958.

TOHOL

For Veterinary Medicine Described as: a Mixture of High Molecular Weight Aliphatic Alcohols in Special Solvent for the Reduction of Foam in Frothy Bloat of Ruminants.
First use Dec. 8, 1953.

SN 57,887. Curtis Laboratories, Inc., Kansas City, Kans. Filed Aug. 26, 1958.

SOLIDOL

For Veterinary Medicine Described as: an Inorganic Form of Iodine, in Palatable Solution, for Oral Medication of Animals.
First use May 14, 1947.

SN 57,888. Curtis Laboratories, Inc., Kansas City, Kans. Filed Aug. 26, 1958.

STIMUZOL

For Veterinary Medicine Described as: a Parenteral Solution for Powerful Stimulation of the Respiratory or Vasomotor Centers or of the Cerebral Cortex.
First use Sept. 5, 1952.

SN 57,889. Curtis Laboratories, Inc., Kansas City, Kans. Filed Aug. 26, 1958.

ARSOLYTE

For Veterinary Medicine Described as: a Mixture of Arsenic, Electrolytes and Trace Elements, With or Without Added Vitamins, for Administration to Animals in Drinking Water in the Treatment of Various Disease Conditions.
First use Feb. 18, 1955.

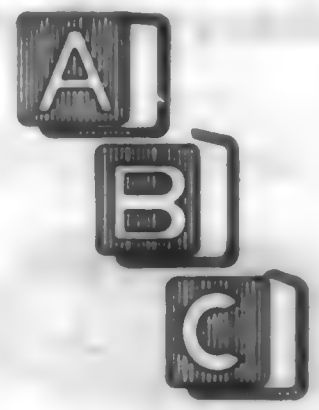
SN 57,890. Curtis Laboratories, Inc., Kansas City, Kans. Filed Aug. 26, 1958.

SULF-I-PUFF

For Veterinary Medicine Described as: a Finely Powdered Mixture of Sulfonamides With or Without Local Anesthetic, Antibiotic, Coloring Material and Other Antiseptic for Insufflation Into the Eyes of Animals for Treatment of Infections.
First use Feb. 7, 1952.

Class 19—Vehicles

SN 38,792. The Bada Company, Pasadena, Calif. Filed Oct. 14, 1957.



The drawing is lined for red, but color is not an essential feature of the mark.
For Wheel Balancing Weights for Vehicle Wheels.
First use Nov. 8, 1956.

SN 49,507. Lone Star Boat Company, Grand Prairie, Tex. Filed Apr. 11, 1958.

CAREFREEDOM

For Boats and Trailers.
First use Sept. 15, 1957.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 18,958. I-T-E Circuit Breaker Company, Philadelphia, Pa. Filed Nov. 8, 1956.

ET

Owner of Reg. Nos. 533,091, 565,852, and others.
For Molded Case Circuit Breakers.
First use in 1933.

SN 32,293. Curtis Lighting, Inc., Chicago, Ill. Filed June 20, 1957.

RAPIDJUST

For Brackets for Mounting Electric Lighting Fixtures.
First use Mar. 1, 1957.

SN 40,191. Superlite Manufacturing Corp., St. Louis, Mo. Filed Nov. 6, 1957.

SUPERLITE

For Fluorescent Lighting Fixtures.
First use Mar. 1, 1955.

SN 40,736. American Lava Corporation, Chattanooga, Tenn. Filed Nov. 15, 1957.

STA-CAP

For Ceramic Dielectric Material.
First use June 30, 1955.

SN 43,220. Bowers Battery and Spark Plug Co., Reading, Pa. Filed Dec. 31, 1957.

FLITEPOW'R

For Electric Storage Battery for Automotive Equipment.
First use Dec. 11, 1957.

SN 47,909. Syncro Machine Company, Perth Amboy, N. J. Filed Mar. 17, 1958.

SYNCRO
RESISTONEAL

For Electric Resistance Type Strand Heat Treating Machine.
First use October 1955.

SN 47,933. Bilet Products, Inc., Detroit, Mich. Filed Mar. 18, 1958.

BILET

For Bicycle Accessories of an Electrical Nature—Namely and Including, Electrical Batteries, Electric Bells, Horns, Flashlights and Holders, Generator Sets and Parts Therefor, Light Bulbs, Lamps and Parts Therefor.
First use on or about June 28, 1958.

Class 22—Games, Toys, and Sporting Goods

SN 25,524. Crayetta Brothers, Inc., East McKeesport, Pa. Filed Mar. 5, 1957.

QUICK-EASE

For Binders for Water Skis and Parts Thereof.
First use on or about Jan. 21, 1957.

SN 27,912. United States Rubber Company, New York, N. Y. Filed Apr. 10, 1957.

U. S. 444

For Golf Balls.
First use Apr. 26, 1929.

SN 30,012. Charles Fogarty, d. b. a. Helen of Toy, Brooklyn, N. Y. Filed May 14, 1957.

TASK FORCE

For Illustrated Board and Movable Playing Pieces for Playing a Game of Military Strategy.
First use Feb. 10, 1957.

SN 32,713. John Wagner & Sons Inc., Hatboro, Pa. Filed June 26, 1957.

Zanzi

For Game Board and Pieces Including Dice Adapted To Be Used for Many Dice Games—Namely, Poker Dice, Rotation, Under and Over Seven, Two Dice Klondike and Liar Dice.
First use June 10, 1957.

SN 34,736. Plough, Inc., Memphis, Tenn. Filed July 31, 1957.

INDIAN BAY

For Fishing Tackle—Namely, Fish Hooks, Floats, Leader Material, Furnished Line, Bait Casting Lines, Spinners, Minnow Bucket Dip Nets, Popping Bugs, Nylon Jigs and Lures, Snap Swivels, Sinker Assortments, and Stringers.
First use January 1949.

SN 46,168. Nervin P. Smith, d. b. a. Smith Enterprises, Miami, Fla. Filed Feb. 19, 1958.

ACE 10

For Game Board, Playing Cards, and Dice for Playing a Card Game.
First use Dec. 12, 1957.

SN 47,576. Gotham Industries, Inc., New York, N. Y. Filed Mar. 12, 1958.

DREAM GIRL

For Toy Tureen Sets, Tea Sets, and Dinner Sets Comprising Complete Table Service—Namely, Soup, Tea and Dinner Pieces, Cutlery, Crockery, Linen, and Decorative Pieces.
First use Jan. 17, 1958.

SN 47,577. Gotham Industries, Inc., New York, N. Y. Filed Mar. 12, 1958.

LITTLE COQUETTE

For Toy Tea Sets Comprising Complete Table Service—Namely, Tea Service Pieces, Cutlery, Crockery, Linen, and Decorative Pieces.
First use Jan. 17, 1958.

SN 48,525. Peppermint Princess Products, West Sacramento, Calif. Filed Mar. 26, 1958.

THE PEPPERMINT PRINCESS

For Kits Containing Dressed Dolls and Doll Accessories.
First use Mar. 5, 1958.

SN 48,969. Crestwood Wood Products, Inc., Brooklyn, N. Y. Filed Apr. 3, 1958.

LANCER

For Arrow Heads.
First use Feb. 4, 1958.

SN 49,716. Tempco Quilters, Inc., Seattle, Wash. Filed Apr. 15, 1958.

TEMPCO

For Outdoor Apparel—Namely, Sleeping Bags.
First use on or about Nov. 25, 1957.

SN 50,018. The Buckeye Cellulose Corporation, d. b. a. Bait 'N Fish, Cincinnati, Ohio. Filed Apr. 21, 1958.

BAIT 'N FISH

For Fish Attractor in Pellet and Cake Form for Use in Trap, Pole and Trotline Fishing by Seeding the Water To Attract Fish.
First use Mar. 28, 1958.

SN 50,485. Hassenfeld Bros., Inc., Central Falls, R. I. Filed Apr. 28, 1958.

FROSTY-FREEZ

For Toy Kit for Making Ice Cream and the Like, Comprising a Combination Freezer and Dispenser, Cups and Spoons, and Packaged Mixes.
First use on or about Mar. 14, 1958.

SN 50,486. Hassenfeld Bros., Inc., Central Falls, R. I. Filed Apr. 28, 1958.

POLICE PATROL

For Playing Cards, Movable Pieces and Spinners for Playing a Game.
First use on or about Feb. 25, 1958.

SN 50,628. The Linen Thread Co., Inc., New York, N. Y. Filed Apr. 29, 1958.

ELTEE

Owner of Reg. No. 638,274.
For Netting for Fishing.
First use Nov. 4, 1957.

SN 50,800. Allan Herschell Company, Inc., North Tonawanda, N. Y. Filed May 1, 1958.

SKY FIGHTER

For Park and Carnival Amusement Ride of the Roundabout Type.
First use on or about Dec. 1, 1949.

SN 51,125. Greene Enterprises, Inc., Oklahoma City, Okla. Filed May 6, 1958.

DEPTH-O-MATIC

For Fishing Floats.
First use Apr. 1, 1957.

SN 51,306. The Almer Tool Company, Detroit, Mich. Filed May 9, 1958.

SHUR-GAF

For Gaffs for Use in Fishing.
First use Oct. 15, 1957.

SN 51,452. Hassenfeld Bros., Inc., Central Falls, R. I. Filed May 12, 1958.

DAFFY DROPS

For Children's Paint Set.
First use on or about Apr. 22, 1958.

SN 51,454. Herald Miniatures Limited, London, England. Filed May 12, 1958.

Swoppets

For Toy Model Figurines.
First use Feb. 24, 1958; in commerce Mar. 10, 1958.

SN 52,671. Ashaway Products, Inc., Ashaway, R. I. Filed June 2, 1958.

VANTAGE

For Racket String—Namely, for Tennis, Badminton and the Like.
First use on or about May 21, 1958.

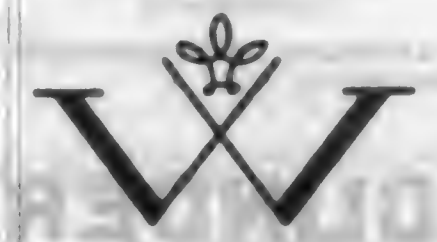
Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 31,291. Wallace Silversmiths, Inc., Wallingford, Conn. Filed June 3, 1957.

BEACON

For Stainless Steel Flatware—i. e., Knives, Forks, and Spoons.
First use in 1944.

SN 32,868. Wallace Silversmiths, Inc., Wallingford, Conn. Filed June 28, 1957.



For Stainless Steel Flatware, i. e., Knives, Forks, and Spoons.
First use Nov. 21, 1956.

SN 33,854. Hydro Push Company, Seattle, Wash., assignee of R. & G. Mfg. Co., Eugene, Oreg. Filed Oct. 14, 1957.

HYDRO-PUSH

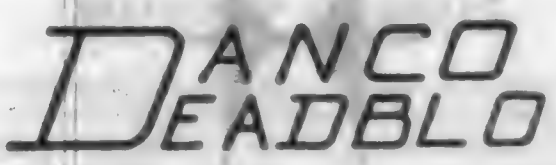
For Hydraulically Operated Unloaders for Trucks, Freight Cars, Etc.
First use in January 1956.

SN 41,282. The Joyce-Cridland Company, Dayton, Ohio. Filed Nov. 25, 1957.

JOYCE LIFTMASTER

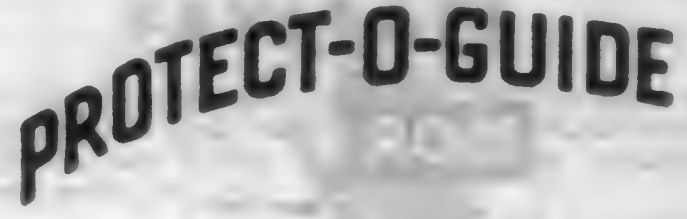
Owner of Reg. Nos. 510,587, 551,262, and 622,181.
For Hydraulic Jacks Not Mounted on Wheels or Casters (Portable by Hand).
First use Aug. 20, 1935.

SN 41,518. The Danielson Manufacturing Company, Windham, Conn. Filed Nov. 29, 1957.



For Hammers.
First use in November 1951.

SN 42,310. Rival Manufacturing Company, Kansas City, Mo. Filed Dec. 12, 1957.



For Food Holding Devices for Food Slicing Machines.
First use Nov. 19, 1957.

SN 42,910. Peters & Russell, Inc., Springfield, Ohio. Filed Dec. 23, 1957.

SEA MASTER

For Liquid Pumps.
First use Mar. 19, 1957.

SN 42,911. Peters & Russell, Inc., Springfield, Ohio. Filed Dec. 23, 1957.

SEA SPRITE

For Liquid Pumps.
First use Mar. 19, 1957.

SN 42,912. Peters & Russell, Inc., Springfield, Ohio. Filed Dec. 23, 1957.

SEASCOUT

For Liquid Pumps.
First use Mar. 19, 1957.

SN 42,913. Peters & Russell, Inc., Springfield, Ohio. Filed Dec. 23, 1957.

HUSKY

For Liquid Pumps.
First use Mar. 19, 1957.

SN 42,914. Peters & Russell, Inc., Springfield, Ohio. Filed Dec. 23, 1957.

SEA MATE

For Liquid Pumps.
First use Mar. 19, 1957.

SN 43,344. Joel Salzburg, Port Washington, N. Y. Filed Jan. 2, 1958.



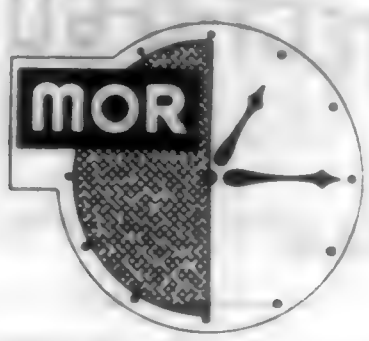
For Power Lawn Mowers.
First use Nov. 18, 1957.

SN 44,383. Foster & Allen, Inc., Garwood, N. J. Filed Jan. 21, 1958.

VERSA CUTTER

The word "Cutter" is disclaimed apart from the mark as shown.
For Machines for Cutting Plastic Extrusions.
First use Oct. 19, 1954.

SN 44,552. Moore's Time-Saving Equipment, Inc., Elkhart, Ind. Filed Jan. 23, 1958.



The drawing is lined for orange.

For Hydraulic Personnel Lift Equipment Adapted To Be Mounted on Vehicles, and Parts of Such Equipment: Rug Rolling Machines and Parts, Industrial Web or Sheet Rolling Machines and Parts, and Air Compressors.

First use June 1, 1956.

SN 45,782. Borg-Warner Corporation, Chicago, Ill. Filed Feb. 13, 1958.

BJ-PB

Owner of Reg. Nos. 561,506, 586,495, and others.

For Oil Well Tools and Apparatus Made of Rubber Composition, Metal and Combinations of Rubber Composition and Metal—Namely, Pipe Protectors, Connectors, and Stabilizers; Crown Block, Traveling Block and Swivel Bumpers; Mud Guns and Mud Gun Nozzles; Wipers; and Equipment for Use in the Installation of Wipers and Protectors.

First use Feb. 2, 1956.

SN 46,246. The Sandy Hill Iron & Brass Works, Hudson Falls, N. Y. Filed Feb. 20, 1958.

ROLA-REEL

For Machine for Forming on an Arbor, Rolls From Strips of Web Material.

First use Oct. 7, 1957.

SN 48,223. Aktiebolaget Separator, Stockholm Tull, Sweden. Filed Mar. 24, 1958.

CLARIFIXATOR

Owner of Swedish Reg. No. 83,459, dated Oct. 11, 1957.

For Machines for the Dairy and Milk Industry—Namely, Centrifugal Separators, Purifiers, Clarifiers, Homogenizing Machines, Heat Exchangers, and Shaft Gearing and Couplings.

SN 48,941. Sperry Rand Corporation, New Holland, Pa. Filed Apr. 2, 1958.

HAYMOBILE NEW HOLLAND

For Farm Machinery—Namely, Hay Balers.

First use Mar. 5, 1958.

SN 58,549. Lord Manufacturing Company, Erie, Pa. Filed Sept. 8, 1958.

FLEX-BOLT

For Vibration Mountings.

First use September 1958.

SN 58,589. Southwest Products Co., Monrovia, Calif. Filed Sept. 8, 1958.

DIFLON

For Bearings.

First use June 26, 1958.

SN 58,905. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Sept. 8, 1958.

DESERT STAR

For Tableware, Including Knives, Forks, and Spoons.

First use Aug. 12, 1958.

SN 58,936. Norval K. Morey, d. b. a. Morbark Portable Debarker Company, Winn, Mich. Filed Sept. 15, 1958.

MORBARK

For Log Debarking Machines.

First use in September 1957.

SN 58,984. Aktiebolaget Bolinder-Munktell, Eskilstuna, Sweden. Filed Sept. 16, 1958.

BOLINDER'S

Owner of Swedish Reg. No. 43,908, dated July 22, 1924.

For Stationary Motors and Marine Motors as Well as Spare Parts for Stationary Motors and Marine Motors.

Class 26—Measuring and Scientific Appliances

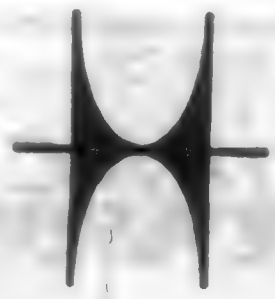
SN 4,539. Wayne Gustafson, d. b. a. Ben Gustafson & Son Mfg. Co., Moorhead, Minn. Filed Mar. 14, 1956.

mist-o-matic

For Enclosed Seed Treating Apparatus for Uniformly Coating Measured Quantities of Seeds To Improve Germination Qualities of the Seed When Planted and To Prevent Rust.

First use Mar. 1, 1954.

SN 21,430. Hamilton Watch Company, Lancaster, Pa. Filed Dec. 21, 1956.



For Hole Gauges.

First use Dec. 10, 1956.

SN 31,544. Coen Company, San Francisco, Calif. Filed June 7, 1957.

FYR-MONITOR

For Packaged Flame Failure Control and Programming System Comprising a Flame Detection Relay and a Synchronized Timer as Applied to Industrial Boiler-Burner Installations.
First use on or about Nov. 15, 1956.

SN 37,439. Lufkin Rule Company, Saginaw, Mich. Filed Sept. 18, 1957.

966

For Folding Rules.
First use March 1937.

SN 37,440. Lufkin Rule Company, Saginaw, Mich. Filed Sept. 18, 1957.

066

For Folding Rules.
First use March 1937.

SN 37,796. Felix M. Mendelson, San Francisco, Calif. Filed Sept. 25, 1957.

HAMILTON

For Binoculars.
First use in March 1951.

SN 42,144. Keeler Optical Products, Ltd., London, England. Filed Dec. 10, 1957. Sec. 2(f).

KEELER

For Optical Apparatus and Instruments—Namely, Ophthalmoscopes, Retinoscopes, Otoscopes, Photometers, Chick Sexing Instruments, Magnifying Spectacles and Stereoscopes, Spectacles, Eyeglasses and Frames Therefor, Lenses, and Parts and Fittings Therefor.
First use in December 1931; in commerce in December 1946.

SN 42,520. Mount Sopris Instrument Corporation, Boulder, Colo. Filed Dec. 16, 1957.

MS

For Geophysical, Geochemical, Medical and Laboratory Instruments and Accessories Therefor—Namely, Gamma Radiation Logging Equipment of the Geiger and Scintillation Types, Recorders, Radiation Counters, Fluorimeters, Magnetic Susceptibility Meters, Spectrometers, and Laboratory Ball Mills.
First use Mar. 31, 1955.

SN 42,521. Mount Sopris Instrument Corporation, Boulder, Colo. Filed Dec. 16, 1957.

MOUNT SOPRIS

For Geophysical, Geochemical, Medical and Laboratory Instruments and Accessories Therefor—Namely, Gamma Radiation Logging Equipment of the Geiger and Scintillation Types, Recorders, Radiation Counters, Fluorimeters, Magnetic Susceptibility Meters, Spectrometers, and Laboratory Ball Mills.
First use Mar. 31, 1955.

SN 42,965. Scully Signal Company, Melrose, Mass. Filed Dec. 20, 1957.

FAYLSAFE

For Monitored Electrical Control Systems, Including Self-Checking Liquid Level Alarm Devices, Pilot Flame Monitoring Devices and Various Other Boiler Control Mechanisms.
First use Mar. 21, 1956.

SN 43,788. Tell-Tronics Products, Inc., Memphis, Tenn. Filed Jan. 10, 1958.

TAT'L-TELL

For Specially Constructed Electrical Cables With Thermistors Incorporated Therein at Spaced Intervals Which Are Adapted To Be Suspended in a Mass of Grain or Like Materials in Storage, Said Cables Constituting the Sensing Means of Grain (and Like Material) Temperature Monitoring Systems.
First use in or about December 1955.

SN 44,136. Traffic House, Inc., Marshall, Mich. Filed Jan. 16, 1958. Sec. 2(f).

SPEED-WATCH

Owner of Reg. No. 575,409.
For Instruments and Parts Thereof for Measuring the Speed of Automotive Vehicles.
First use in October 1950.

SN 47,541. Winckler & Co., Naka-Ku, Yokohama, Japan. Filed Mar. 11, 1958.

HIALEAH

For Binoculars and Opera Glasses.
First use May 22, 1956; in commerce May 22, 1956.

SN 49,632. The Triplett Electrical Instrument Co., Bluffton, Ohio. Filed Apr. 14, 1958.

BAR-RING

For Electrical Measuring Instruments—e. g., Voltmeters, Ammeters, and Millimeters.
First use Mar. 7, 1958.

SN 51,462. The Mastic Tile Corporation of America, Newburgh, N. Y. Filed May 12, 1958.

TILE-O-METER

For Ruler for Measuring Tile.
First use Mar. 13, 1958.

Class 27—Horological Instruments

SN 35,403. Marshall Watch Corporation, New York, N. Y. Filed July 16, 1958.

OVIVO

For Watches, Clocks, and Cases and Parts Therefor.
First use June 17, 1958.

Class 28—Jewelry and Precious-Metal Ware

SN 55,516. Prochain, Inc., Providence, R. I. Filed July 17, 1958.

PURELYTE

For Ornamental Jewelry Chain.
First use Oct. 24, 1956.

SN 56,203. Trifari, Krussman & Fishel, Inc., New York, N. Y. Filed July 28, 1958.



Owner of Reg. Nos. 413,507, 612,161, and others.
For Costume Jewelry.
First use 1939.

SN 56,262. Joseph H. Meyer Bros., Brooklyn, N. Y. Filed July 29, 1958.

GEMETTES

For Necklaces and Earrings.
First use December 1954.

Class 29—Brooms, Brushes, and Dusters

SN 44,030. Antoine Francois Regis Peyron, Paris, France. Filed Jan. 15, 1958.

HELICAP

Priority is claimed on French Reg. No. 468,721, dated Dec. 5, 1957 (Seine); Natl. Inst. No. 101,628.
For Hair Brushes.

SN 49,448. David Linzer & Sons, Inc., New York, N. Y. Filed Apr. 10, 1958.

JETTIP

For Paint Brushes.
First use Mar. 25, 1958.

SN 50,204. American-Marietta Company (O-Cedar Division), Chicago, Ill. Filed Apr. 23, 1958.

CEDAR-CREST

For Mops, Refill Heads for Mops, and Brooms.
First use Mar. 24, 1958.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 38,229. Rheem Manufacturing Company, Richmond, Calif. Filed Aug. 26, 1957. Sec. 2(f).

SEIDELHUBER

For Water Heaters and Tanks Therefor.
First use Jan. 23, 1946.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 40,990. The Alan Packing & Rubber Company, Cleveland, Ohio. Filed Nov. 20, 1957.



For Industrial Packings, Gaskets, Seals, Molded Rubber Seal Ring Products and Molded Rubber Mechanical Packing Products Such as Seal Rings.
First use in June 1948.

SN 40,991. The Alan Packing & Rubber Company, Cleveland, Ohio. Filed Nov. 20, 1957.



No claim is made to the words "Packings" and "Lubricants" apart from the mark as shown.
For Mechanical Packings.
First use in May 1957.

Class 36—Musical Instruments and Supplies

SN 51,571. Maurice Lipsky Music Co., Inc., New York, N. Y. Filed May 13, 1958.



For Musical Instruments—Namely, Trumpets, Cornets, Trombones, Clarinets and Saxophones, Guitars, Banjos, Mandolins and Ukes, French Horns, Baritone Horns, Sousaphones, Mellophones, Alto Horns, Piston Bugles, Oboes, Bassoons, Alto Clarinets, Base Clarinets, Flutes, and Piccolos.
First use Mar. 15, 1957.

Class 37 — Paper and Stationery

SN 23,503. Pairotto Manmen Hitsu Kabushiki Kaisha, d. b. a. Pilot Pen & Co. Ltd., Chuo-ku, Tokyo-to, Japan. Filed Jan. 30, 1957.

PILOT

For Pens, Pen Nibs, Pen Holders, Pen Holding Trays, Fountain Pens, Desk Sets, Not Including Pencils, Ink Cases, Letter Openers, and Desk and Table Calendars.
First use January 1926; in commerce January 1926.

SN 36,104. Photostat Corporation, Providence, R. I. Filed Aug. 23, 1957.

PHOTOSTAT

Owner of Reg. No. 121,876.
For Stationery Items—Namely, Pencils, Ball Point Pens and Erasers, Printing Paper, Lithographic Paper Plates, Stencil Plates, Blotting Paper, and Masking Sheets for Offset Duplicators.
First use in January 1953 on printing paper.

SN 37,244. Eagle Pencil Company, New York, N. Y. Filed Sept. 16, 1957.

SEMAPHORE

For Leads for Mechanical Pencils, and Mechanical Pencils.
First use Feb. 1, 1937.

SN 37,765. Ames Safety Envelope Company, Somerville, Mass. Filed Sept. 23, 1957.

SNAP-IT

For Snap Fastener Envelopes.
First use July 16, 1957.

SN 40,140. Paper Mate Manufacturing Company, Culver City, Calif. Filed Nov. 5, 1957.

PURSE MATE

Owner of Reg. Nos. 546,296, 565,961, and 595,952.
For Ball Point Pens.
First use Oct. 11, 1957.

SN 40,141. Paper Mate Manufacturing Company, Culver City, Calif. Filed Nov. 5, 1957.

CLASS MATE

For Ball Point Pens.
First use July 17, 1957.

SN 40,142. Paper Mate Manufacturing Company, Culver City, Calif. Filed Nov. 5, 1957.

POCKET MATE

Owner of Reg. Nos. 546,296, 565,961, and 595,952.
For Ball Point Pens.
First use Oct. 11, 1957.

SN 41,352. Belford Company, Inc., New York, N. Y. Filed Nov. 26, 1957.

SELLEBRITY

For Combined Easel and Looseleaf Binder.
First use Nov. 8, 1957.

SN 41,923. N. V. Maandblad Succes, The Hague, Netherlands. Filed Dec. 6, 1957.



Owner of Dutch Reg. No. 110,767, dated Nov. 27, 1951.
For Diaries.

SN 42,439. Charles Bruning Company, Inc., Chicago, Ill. Filed Dec. 16, 1957.

WHITE STAR

For Translucent Paper Particularly Adapted for Use in Making Originals From Which Good Copies Can Be Made by a Diazo Process.
First use Nov. 6, 1957.

SN 42,895. Leo G. Mueller, d. b. a. Criterion Leathersmiths, Sharon, Mass. Filed Dec. 23, 1957.

LEATHERAMIC

For Bookmarks, Folders, Match Book Covers, Scissor and Letter Opener Sheaths, Easel Back Picture Frames and Letter Openers Made Wholly or in Part of Leather.
First use in May 1957.

SN 52,523. H. P. Smith Paper Company, Chicago, Ill. Filed May 28, 1958.

SUPER 20 BELOW

Owner of Reg. No. 567,499.
For Polyethylene Coated Paper To Be Used as Freener Paper.
First use Apr. 20, 1956.

SN 52,594. Wing Pen Corporation, Kenilworth, N. J. Filed May 29, 1958.

WING-FLOW

For Pen Points.
First use on or about June 15, 1947.

SN 52,909. W. A. Sheaffer Pen Company, Fort Madison, Iowa. Filed June 4, 1958.

SKRIPSERT

Owner of Reg. Nos. 537,955 and 142,760.
For Fountain Pens.
First use Jan. 24, 1958.

SN 53,397. The Dow Chemical Company, Midland, Mich. Filed June 12, 1958.

TRYCITE

For Plastic Film for Use as Wrapping Material.
First use May 16, 1958.

SN 53,891. Marilyn S. Caldwell, d. b. a. Maircards, Watertown, Conn. Filed June 19, 1958.

MAIRCARDS

For Notecards.
First use July 17, 1957.

Class 38 — Prints and Publications

SN 46,963. Master Calendar of Greater Los Angeles, Inc., San Marino, Calif. Filed Mar. 3, 1958.

MC

For Looseleaf Booklet Containing Tabulation of Social and Other Events.
First use Jan. 22, 1958.

SN 48,042. New York Herald Tribune Inc., New York, N. Y. Filed Mar. 19, 1958.

Along Madison Avenue With Kaselow

For Syndicated Newspaper Column or Section.
First use Oct. 15, 1957.

SN 48,271. General Foods Corporation, White Plains, N. Y. Filed Mar. 24, 1958.

ATGEL
GF

For Bulletins Published From Time to Time.
First use on or about Mar. 12, 1958.

SN 49,298. RKO Teleradio Pictures, Inc., New York, N. Y. Filed Apr. 8, 1958.

RKO
RADIO
PICTURES

Owner of Reg. No. 353,827.
For Exposed Motion Picture Film.
First use Aug. 13, 1935.

SN 50,912. The National Research Bureau, Inc., Chicago, Ill. Filed May 2, 1958. Sec. 2(f).

THE WORKING PRESS OF THE NATION

For Directories Issued From Time to Time.
First use in 1951.

SN 51,411. Arwell, Inc., Waukegan, Ill. Filed May 12, 1958.

GRAIN-O-GRAM

For Newsletter Issued Periodically.
First use May 8, 1957.

SN 52,142. New York Herald Tribune Inc., New York, N. Y. Filed May 22, 1958.

MAN TO WATCH

For Syndicated Newspaper Column or Feature.
First use Oct. 15, 1957.

SN 52,472. Chicago Tribune-New York News Syndicate, Inc., New York, N. Y. Filed May 28, 1958.

DONDI

For Series of Cartoons.
First use Sept. 26, 1955.

SN 52,473. Chicago Tribune-New York News Syndicate, Inc., New York, N. Y. Filed May 28, 1958.

RICK O'SHAY

For Series of Cartoons.
First use Apr. 27, 1958.

SN 53,810. Money Guide, Inc., New York, N. Y. Filed June 18, 1958.

MONEY
GUIDE

For Periodical.
First use May 15, 1958.

SN 53,959. The S. H. Smith Co., Indianapolis, Ind. Filed June 20, 1958.

THE WOOD WORKER
VENEERS AND PLYWOOD

Owner of Reg. Nos. 534,425 and 541,099.
For Periodical Trade Publications.
First use Apr. 29, 1958.

SN 54,146. The Cortez Herald, Cortez, Colo. Filed June 24, 1958.

THE CORTEZ HERALD

For Weekly Newspaper.
First use in 1908.

Class 39 — Clothing

SN 26,197. Peter Pan Foundations, Inc., New York, N. Y. Filed Mar. 14, 1957.

OVER X

Owner of Reg. No. 649,773.
For Girdles.
First use Feb. 13, 1957.

SN 26,199. Peter Pan Foundations, Inc., New York, N. Y. Filed Mar. 14, 1957.

LITTLE XTRA

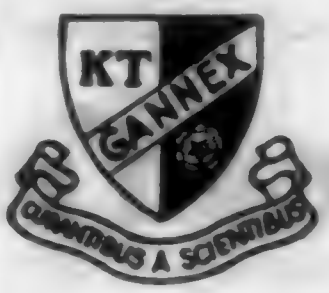
Owner of Reg. No. 641,444.
For Girdles.
First use Feb. 13, 1957.

SN 27,961. Mannequin Shoes, Inc., New York, N. Y. Filed Apr. 11, 1957.



Owner of Reg. No. 362,506.
For Ladies', Misses', and Children's Shoes Made of Leather, Fabric, and Combinations Thereof.
First use Feb. 1, 1957.

SN 28,947. Kagan Textiles Limited, Elland, England. Filed Apr. 26, 1957.



The English translation of the Latin inscription "Curantibus a Scientibus" is "To those who care from those who know."
For Articles of Clothing—Namely, Motor Cycling Coats, Motor Cycling Suits, Children's Coats (With Hood), Children's Coats (With Collar), Industrial Jackets, Ladies' Jackets, Duffle Coats, Overcoats, and Raincoats.
First use May 1, 1956; in commerce May 1, 1956.

SN 30,806. Modern Globe, Inc., Pawtucket, R. I. Filed May 27, 1957.

PUFFS

For Women's Pajamas and Undergarments—Namely, Vests, Tights, and Undersuits.
First use on or about Jan. 1, 1938.
Subj. to Intf. with SN 26,261.

SN 31,662. Huntley Knitting Mills, Inc., Charlotte, N. C., by change of name from Huntley Hosiery Company, Inc., Charlotte, N. C. Filed June 10, 1957.

DAINTI

For Sweaters.
First use May 31, 1957.

SN 35,541. Terry Footwear Corporation, New York, N. Y. Filed Aug. 14, 1957.

Cromwell

For Slippers.
First use Aug. 5, 1957.

SN 36,261. Tryion Underwear Co., Inc., New York, N. Y. Filed Aug. 26, 1957.

PUFFIES

For Ladies' and Children's Panties.
First use in February 1957.
Subj. to Intf. with SN 30,806.

SN 39,002. Morris Miller, d. b. a. Miller Art Mfg. Co., New York, N. Y. Filed Oct. 16, 1957.



For Combined Shirt and Pantie for Children.
First use Sept. 21, 1948.

SN 40,884. Safeway Stores, Incorporated, Oakland, Calif. Filed Nov. 18, 1957. Sec. 2(f).

TRULY FINE

For Women's Hosiery.
First use in March 1952.

SN 41,775. Peter Pan Foundations, Inc., New York, N. Y. Filed Dec. 4, 1957.

DATE LINE

For Brassieres.
First use Nov. 6, 1957.

SN 42,373. General Sportwear Co., Inc., Ellenville, N. Y. Filed Dec. 13, 1957.

Miss 'N' Sis

For Girls' and Ladies' Sportswear—Namely, Slacks, Shorts, Pedal Pushers, Boxer Longies, Boxer Shorts, Shirts, Halters, Dungarees, Skirts, Jamaica Shorts and Coordinate Sets, Consisting of Slacks, Shorts, Blouse, Pedal Pushers and Tight Fitting Outer Pants or Trousers, Frequently Referred to in the Trade as Slim Jims, Capri and/or Toreador Pants.
First use Dec. 1, 1956.

SN 42,909. Peter Pan Foundations, Inc., New York, N. Y. Filed Dec. 23, 1957.

UPSTAGE

For Brassieres.
First use Nov. 20, 1957.

SN 46,383. Vaisey-Bristol Shoe Company, Incorporated, Monett, Mo. Filed Feb. 21, 1958.

LADS BY BRISTOL

For Shoes for Boys.
First use on or about Aug. 2, 1957.

SN 48,216. Wayne Knitting Mills, Fort Wayne, Ind. Filed Mar. 21, 1958.

Comfees

For Foot Socks.
First use Aug. 12, 1957.

SN 48,841. Eddie Jacobs, Ltd., Baltimore, Md. Filed Apr. 1, 1958.

RELAXMANSHIP

For Men's, Women's, and Children's Clothing—Namely, Men's Suits, Topcoats, Hats, Neckwear, Shirts, Sport Coats, Trousers, Belts, Shoes, Hosiery, Sweaters, Overcoats, Walking Shorts, and Swim Trunks; Women's and Children's Suits, Topcoats, Blouses, Shirts, Hats, Scarves, Skirts, Hosiery, Sportscoats and Dresses, Slacks, Walking Shorts, Swimming Suits, Belts, Shoes, Sweaters, and Overcoats.
First use Jan. 21, 1958.

SN 48,842. Eddie Jacobs, Ltd., Baltimore, Md. Filed Apr. 1, 1958.

THE ANGULAR LOOK

For Men's, Women's, and Children's Clothing—Namely, Men's Suits, Topcoats, Hats, Neckwear, Shirts, Sport Coats, Trousers, Belts, Shoes, Hosiery, Sweaters, Overcoats, Walking Shorts, and Swim Trunks; Women's and Children's Suits, Topcoats, Blouses, Shirts, Hats, Scarves, Skirts, Hosiery, Sportscoats and Dresses, Slacks, Walking Shorts, Swimming Suits, Belts, Shoes, Sweaters, and Overcoats.
First use Jan. 21, 1958.

SN 49,320. Carrie Walker, Inc., New Bedford, Mass. Filed Apr. 8, 1958.

Lily Lynn

For Women's Blouses and Dresses and Sportswear—Namely, Dresses, Skirts, Blouses, Slacks, and Coats.
First use Feb. 1, 1958.

SN 49,454. National Hosiery Mills, Inc., Indianapolis, Ind. Filed Apr. 10, 1958.

Appointment

Owner of Reg. No. 364,739.
For Ladies' Hosiery.
First use Nov. 1, 1957.

SN 49,864. Melville Shoe Corporation, New York, N. Y. Filed Apr. 17, 1958.

COMFORTOPS

For Men's and Boys' Hosiery.
First use Mar. 24, 1958.

SN 49,865. Mr. Fred, Inc., New Bedford, Mass. Filed Apr. 17, 1958.

mr fred

The drawing is lined for red.
For Dresses.
First use about Mar. 1, 1958.

SN 51,218. Picture Frocks, Inc., New York, N. Y. Filed May 7, 1958.

Nina Marie

For Maternity Dresses.
First use Jan. 15, 1958.

SN 51,461. F. Jacobson & Sons, Inc., New York, N. Y. Filed May 12, 1958.

CAREEZE

For Men's Wearing Apparel—Namely, Dress, Negligee, and Sport Shirts.
First use Apr. 25, 1958.

SN 52,599. Shelley Knitting Mills, Inc., Philadelphia, Pa. Filed May 29, 1958.

WEE WUNDER

For Combination Baby Bunting and Snow Suit.
First use Jan. 6, 1958.

SN 52,637. Belk Stores Services, Inc., Charlotte, N. C. Filed May 23, 1958.

baby Belk

For Infants' Wear—Namely, Diapers, Panties, Booties and Shoes, Socks, Shirts, Underwear, and Gowns.
First use Mar. 17, 1958.

SN 52,640. Jean Iris Corp., New York, N. Y. Filed May 22, 1958.

Relaxees

For Ladies' Dusters, Housecoats, Lounging Pajamas, and Bed Jackets.
First use Mar. 6, 1958.

SN 53,036. Fay T. Leiter, d. b. a. Kathy's Cottons, North Hollywood, Calif. Filed June 6, 1958.

Kathy's Cottons

No claim is made to the word "Cottons" except as used in conjunction with the other features of the mark.
For Women's and Misses' Dresses, Slips, Petticoats, Bras, Pantaloons, Knee Pantalets, Skirts, Blouses and Shoes and Men's Sport Shirts.
First use Feb. 1, 1949.

SN 53,282. Natalie Simonoff, d. b. a. Naymor, Long Beach, N. Y. Filed June 10, 1958.

Naymor

For Lingerie—Namely, Slips, Petticoats, Panties, Nightgowns, Bathrobes, Lounging Gowns, Brassieres, Girdles, and Corsolettes.
First use in 1948.

SN 54,123. Atlas Underwear Corporation, Piqua, Ohio. Filed June 24, 1958.

Atlas A

Owner of Reg. Nos. 388,506, 605,282, and others.
For Men's and Boys' Underwear and Hosiery.
First use Dec. 18, 1957.

SN 54,442. Tru-Stitch Moccasin Corporation, New York, N. Y. Filed June 27, 1958.

Super Sioux Mox

Owner of Reg. No. 560,657.
For Women's, Misses', and Children's Shoes, Slippers, and Moccasins Made of Leather, Fabric or Compositions or Combinations Thereof.
First use in 1952.

SN 54,615. Harrison Brothers, Inc., New York, N. Y. Filed July 1, 1958.

VESTMORIAL

For Vestment Garments for Churches.
First use June 4, 1958.

SN 54,644. Style Vogues, Inc., New York, N. Y. Filed July 1, 1958.

International Traveler

For Misses' and Ladies' Dresses.
First use Jan. 6, 1958.

SN 54,694. The May Department Stores Company, St. Louis, Mo. Filed July 2, 1958.

DORETTE

Owner of Reg. No. 225,719.
For Women's, Misses', and Children's Sweaters, Blouses, Skirts, Hosiery, Shoes; Women's Hats; Women's and Children's Underwear of Knitted and Textile Fabrics.
First use in March 1922.

SN 54,790. Smoler Bros., Inc., Chicago, Ill. Filed July 3, 1958.

BEA COMFY

For Women's Clothing—Namely, Robes, Housecoats, and Dusters.
First use in February 1958.

SN 55,060. Hortex Manufacturing Co., Inc., El Paso, Tex. Filed July 10, 1958.

WEARLON

For Boys' Slacks, Jeans, Overalls, Overall Union Suits, Boxer Longies, and Dungarees.
First use in February 1958.

Class 40—Fancy Goods, Furnishings, and Notions

SN 47,834. Howard H. Born, d. b. a. B & S Products Co., New York, N. Y. Filed Mar. 17, 1958.

PARLIAMENT

For Combs.
First use March 1955.

SN 50,787. Gaylord Products, Incorporated, Chicago, Ill. Filed May 1, 1958.

MERVIN

Owner of Reg. No. 437,203.
For Non-Electrical Hair Wavers, Hair Curlers, Curl Clips, Wave Clips, and Hair Pins.
First use July 15, 1932.

SN 51,892. Gaylord Products, Incorporated, Chicago, Ill. Filed May 19, 1958.

LADY MERVIN

Owner of Reg. No. 437,203.
For Non-Electrical Hair Wavers, Hair Curlers, Curl Clips, Wave Clips, and Hairpins.
First use Jan. 10, 1955.

SN 51,974. California Forms, Inc., Culver City, Calif. Filed May 20, 1958.

MOLDED MIST

For Bust Pads.
First use Apr. 15, 1958.

SN 52,030. Azur Jewelry, Inc., New York, N. Y. Filed May 21, 1958.

AZUR

For Buttons and Ornaments for Shoes, Belts, and Handbags.
First use December 1954.

SN 53,338. Koh-I-Noor, Spojené Kovoprůmyslové Závody, Národní Podnik, Prague-Vrsovice, Czechoslovakia. Filed June 11, 1958.

DRESSKING

Owner of Czechoslovakian Reg. No. 104,417, dated Feb. 4, 1913.
For Closures and Fasteners for Wearing Apparel Made From Non-Precious Metals and/or From Plastics—Namely, Buttons, Snap Fasteners, Buckles, Hook and Eye Fasteners, Shoe Rings; Crochet Hooks and Crochet Needles; Hand Knitting and Netting Needles; Mending and Darning Needles; Needles for Hand Sewing; Bodkins; Thimbles; Combs; Collar Studs; Pins and Clips Made From Non-Precious Metals and/or Plastics—Namely, Safety Pins, Hairpins, Scarf Pins, Bobby Pins; Barrettes, and Hair Grips.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 38,604. H. Freeman & Son, Inc., Philadelphia, Pa. Filed Oct. 9, 1957.

MANSART

For Fabric Sold Only in Finished Apparel—Namely, Men's Suits, Coats, Trousers, and Overcoats.
First use Sept. 4, 1957.

SN 45,274. Piedmont Cotton Mills, East Point, Ga. Filed Feb. 4, 1958.

MYSTIC

Owner of Reg. No. 389,909.
For Duck, Canvas, and Industrial Fabrics, Both Coated and Uncoated, for Making Tents, Awnings, Hunting and Fishing Jackets and Trousers, Shower Curtains, and the Like.
First use May 18, 1948.

SN 45,594. National Automotive Fibres, Inc., Detroit, Mich. Filed Feb. 10, 1958.

ACRINYL

For Textile Rugs and Carpets.
First use Feb. 2, 1958.

SN 45,743. McCampbell & Company, Inc., New York, N. Y. Filed Feb. 12, 1958.

YACHTEX

For Water-Repellent, Mildew-Resistant Finish, Which Applicant Applies to Its Army Duck.
First use Nov. 15, 1957.

SN 46,171. J. P. Stevens & Co., Inc., New York, N. Y. Filed Feb. 19, 1958.

STEVENSET

Owner of Reg. Nos. 511,773, 653,182, and others.
For Piece Goods of Wool, Synthetic Fibers and Combinations Thereof, Which Fabrics Have Stability, Shrink Resistance, and Retention of Finish.
First use Jan. 11, 1958.

SN 52,102. Dan River Mills, Incorporated, Danville, Va. Filed May 22, 1958.

DAN FAIR

Owner of Reg. Nos. 435,234 and 629,619.
For Cotton Piece Goods.
First use May 7, 1958.

SN 52,486. The Flintkote Company, New York, N. Y. Filed May 28, 1958.

YELLOW JACKET

For Glass Cloth.
First use Jan. 24, 1957.

SN 55,914. Fieldcrest Mills, Inc., Spray, N. C. Filed July 24, 1958.

ULTIMO

For Textile Rugs and Carpeting.
First use June 9, 1958.

SN 55,938. Mrs. Lillian O. Miley, d. b. a. Miley Drapery Work Shop, Fremont, Ohio. Filed July 24, 1958.

MILE-E-LINER

For Drapery or Curtain Liner.
First use Mar. 20, 1958.

Class 43—Thread and Yarn

SN 36,945. Union des Fabricants Longfibre (UFAL), Paris, France. Filed Aug. 23, 1957.



Applicant disclaims the term "Longfibre" apart from the mark. Owner of French Reg. No. 448,456/50,181, dated Jan. 12, 1955 (Seine); Natl. Inst. No. 50,181.
For Thread.

SN 48,003. Bemanit Mills, Inc., New York, N. Y. Filed Mar. 19, 1958.

BEMBELINE

Owner of Reg. Nos. 208,809 and 590,505.
For Thread and Yarn of Artificial Origin.
First use on or about Feb. 28, 1958.

SN 52,397. The Duplan Corporation, Winston-Salem, N. C. Filed May 27, 1958.

TEKNEEK

Owner of Reg. No. 580,057.
For Natural and Synthetic Yarns, Including Specifically Nylon Yarn.
First use Apr. 30, 1958.

SN 55,356. J. P. Stevens & Co., Inc., New York, N. Y. Filed June 18, 1958.

"VELVET-SPUN"

For Yarn Composed of Synthetic Fibers.
First use Feb. 14, 1958.

Class 44—Dental, Medical, and Surgical Appliances

SN 40,913. Hard-Parker Company, Inc., Danbury, Conn. Filed Nov. 19, 1957. Sec. 2(f).

It's Sharp

For Surgical Knives and Blades.
First use in or about October 1930.

SN 49,689. The Eska Company, Inc., Dubuque, Iowa. Filed Apr. 15, 1958.

Slimline

For Motor Driven Vibrator Machines for Massage, Exercising and Reducing Purposes.
First use Mar. 14, 1958.
Subj. to Intf. with SN 51,825.

SN 51,824. Sibco Products Company, Inc., Newark, N. J. Filed May 16, 1958.

CUDDLE UP

For Vibrating Cushions or Pillows for Massaging Purposes.
First use December 1957.

SN 51,825. Sibco Products Company, Inc., Newark, N. J. Filed May 16, 1958.

Slimliner

For Vibrating Tables for Massaging, Exercising and Reducing.
First use October 1956.
Subj. to Intf. with SN 49,689.

Class 45—Soft Drinks and Carbonated Waters

SN 41,394. C. A. Peeler, d. b. a. Cheerwine Bottling Company, Salisbury, N. C. Filed Nov. 26, 1957.

BLUE MOON

For Carbonated Soft Drinks.
First use Nov. 4, 1957.

SN 41,436. Baird Beverage Company, Incorporated, South River, N. J. Filed Nov. 27, 1957.



For Bottled Carbonated Soft Drinks.
First use Apr. 23, 1957.

SN 53,480. Continental Specialties Co., Inc., Cicero, Ill. Filed June 13, 1958.

BERRY HILL

For Syrups and Concentrates for Making Soft Drinks.
First use May 20, 1958.

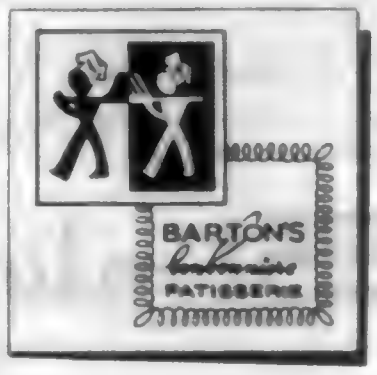
SN 59,440. Charles A. Meyerowich, d. b.a. Wise-Up Company of America, Stapleton, N. Y. Filed Sept. 2, 1958.



For Soft Drinks and Sirups, and Extracts for Making the Same.
First use June 2, 1937.

Class 46—Foods and Ingredients of Foods

SN 19,564. Barton's Candy Corporation, Brooklyn, N. Y. Filed Nov. 20, 1956.



Applicant disclaims the descriptive wording "Bonbonniere Patisserie" apart from the mark as shown. "Bonbonniere" is translated as "sweetmeat box"; "Patisserie" as "pastry" or "pastry shop." Owner of Reg. Nos. 528,007 and 542,871.

For Continental Cookies, Petit Fours, Continental Swirls, Honey Cake, Chocolate Macaroons, Plain Macaroons, Nut Sponge Cake, Hamantaschen, Fruit Cake, Dredel Cookies, Pecan Pastry Squares, Pecan Kichlach, Seven Layer Cake, Chocolate Mochal Roll, Taighlach and Toasties.

First use June 30, 1954.

SN 20,643. Martin McKasty, Jr., Yaphank, N. Y. Filed Dec. 7, 1956.



The words "Long Island" and "Potatoes" are disclaimed. The drawing is lined for the color red.

For Fresh Potatoes.

First use Aug. 16, 1956.

SN 25,553. Marshall & Co. (Aberdeen) Ltd., Great Yarmouth, England, and Aberdeen, Scotland. Filed Mar. 5, 1957. Sec. 2(f).

MARSHALL'S

For Canned Fish.

First use 1888; in commerce 1888.

Subj. to Intf. with SN 321,026.

SN 43,751. G-W Food Products Corporation, Mendon, Mich. Filed Jan. 10, 1958.

G★W

For Frozen Pizza Pies and Fillings of a Meat and Vegetable Nature Therefor.

First use Mar. 6, 1956.

SN 58,377. Highland Sales Company, Denver, Colo. Filed May 5, 1958. Sec. 2(f).

SAVERY SAVORY

For Canned Mushrooms and Mushrooms in Their Natural State.

First use Jan. 30, 1953.

SN 55,859. Bush Bros. & Co., Inc., Dandridge, Tenn. Filed July 23, 1958.

SOUTHERN GEM

For Canned Vegetables.

First use 1946.

SN 56,134. Icco-Cheese Company, Inc., Brooklyn, N. Y. Filed July 28, 1958.

BREAD-EMS

For Flavored Bread Crumbs.

First use May 21, 1958.

SN 59,438. Portner's Home Bakery Inc., Margate City, N. J. Filed Aug. 27, 1958.



The portrait is that of Mrs. Rose Portner, consent of record. No claim is made to the word "Famous" or the representation of the cinnamon buns, apart from the mark as shown.

For Individual Buttered Cinnamon Buns.

First use on or about June 27, 1951.

Class 47—Wines

SN 46,627. Julius Meinl Aktiengesellschaft, Vienna, Austria. Filed Feb. 26, 1958.



Owner of Austrian Reg. No. 37,546, dated Oct. 8, 1957.

For Wines.

Class 48 — Malt Beverages and Liquors

SN 48,506. Storz Brewing Co., Omaha, Nebr. Filed Mar. 26, 1958. Sec. 2(f) as to "Storz."



The drawing is lined for red and gold, however, no claim is made to color. Owner of Reg. Nos. 333,001, 599,173, and others.

For Beer.

First use May 21, 1948; in 1936 as to "Storz."

SN 50,367. Lone Star Brewing Co., San Antonio, Tex. Filed Apr. 25, 1958.



Applicant claims no exclusive rights in "Beer" as the name of the goods identified herein.

For Beer.

First use Feb. 1, 1940.

Class 49 — Distilled Alcoholic Liquors

SN 28,366. Mercedes Weinbrennereien Grüny & Mayer, d. b. a. Mercedes Weinbrennereien, Stuttgart-Feuerbach, Germany. Filed Apr. 17, 1957.



Owner of German Reg. No. 614,123, dated Nov. 22, 1951.

For Brandies, Arrac, Rum, Vodka, Gin, Aquavit, and Liqueurs.

First use in 1923; in commerce in November 1949.

SN 42,448. Continental Distilling Corporation, Philadelphia, Pa. Filed Dec. 16, 1957.

WINGATE

For Whisky.

First use Sept. 7, 1934.

SN 46,061. London & Company, Inc., Elizabeth, N. J. Filed Feb. 18, 1958.

QUINE ROCK

For Rock and Rye With Quinine.

First use Feb. 3, 1958.

SN 46,626. Julius Meinl Aktiengesellschaft, Vienna, Austria, Filed Feb. 26, 1958.



Owner of Austrian Reg. No. 37,546, dated Oct. 8, 1957.

For Liqueur, Whiskey, Brandy.

SN 46,642. Mar-Salle Chicago Co., Chicago, Ill. Filed Mar. 28, 1958.

CACTUS JACK

For Vodka.

First use Mar. 19, 1958.

SN 49,005. Merchants Distilling Corporation, Terre Haute, Ind. Filed Apr. 8, 1958.

CHAIN STORE

For Whiskey.

First use Mar. 18, 1958.

SN 49,522. Schenley International Corporation, New York, N. Y. Filed Apr. 11, 1958.

Canadian North

Applicant asserts exclusive rights in the word "Canadian" only in combination with the word "North" as shown in the drawing.

For Blended Canadian Whisky.

First use Mar. 13, 1958.

SN 50,320. Schenley Industries, Inc., New York, N. Y. Filed Apr. 24, 1958.

SAMOVAR MARTINI

Applicant claims no exclusive rights in "Martini" as the name of the goods identified herein. Owner of Reg. No. 379,647.

For Prepared Vodka Martini Cocktail.

First use Apr. 8, 1958.

SN 50,632. J. & G. Mackinnon & Co., Limited, London, England. Filed Apr. 29, 1958. Sec. 2(f).

MACKINNON'S

For Scotch Whisky.

First use in 1936; in commerce in 1936.

SN 53,361. James Robertson Company, Los Angeles, Calif. Filed June 11, 1958.

SPECIAL OCCASION

For Canadian Whisky.

First use May 16, 1958.

Class 50—Merchandise Not Otherwise Classified

SN 16,498. St. Louis Metalcrafts, Inc., St. Louis, Mo. Filed Sept. 26, 1956.

ANTIOCH

For Metal Articles for Communion Services—Namely, Communion Trays, Bread Trays, and Communion Cups.
First use June 19, 1956.

SN 43,717. Florence War, Paterson, N. J. Filed Jan. 9, 1958.

CUPID-RICE

For Colored Rice, for Use at Weddings, Parades, Parties, or Other Celebrations, Where the Throwing of Rice, and the Like, Is Used, However, Said Rice in This Form Is Not Edible.
First use Dec. 1, 1957.

Class 51—Cosmetics and Toilet Preparations

SN 31,758. General Products, Chicago, Ill. Filed June 11, 1957. Sec. 2(f).

Sta Set

For Spray Preparation for Setting Hair.
First use May 29, 1952.

Class 52—Detergents and Soaps

SN 27,288. Fairmark Manufacturing Company, Chicago, Ill. Filed Apr. 1, 1957.

HI-NAP

For Concentrated Liquid Detergent in Capsule Form for Use on Rugs, Car and Furniture Upholstery, and for Wool, Cotton, and Synthetic Materials.
First use Mar. 4, 1957.

SN 34,628. Pennsalt Chemicals Corporation, Philadelphia, Pa. Filed July 30, 1957.

DREME

For Industrial and Commercial Cleaner and Detergent Sold in Bulk Only and Not for Retail Distribution.
First use May 13, 1952.

SN 38,157. Pennsalt Chemicals Corporation, Philadelphia, Pa. Filed Oct. 1, 1957.

DELCHEM

For Industrial and Household Cleaner and Detergent Compositions.
First use in September 1949.

SN 50,166. L-J Enterprises, Inc., Boulder, Colo. Filed Apr. 22, 1958.

CLOUD 9

For General Chemical Cleaning Preparation for Use on Upholstering, Draperies, Carpets, Venetian Blinds, Painted Walls, Clothing, Auto Finish, Chrome and Glass, Auto Interiors, and Other Uses.
First use Mar. 19, 1958.

SN 50,360. Foster-Milburn Company, Buffalo, N. Y. Filed Apr. 25, 1958.

SEBULEX

Owner of Reg. No. 640,926.
For Therapeutic Liquid Shampoo.
First use Apr. 18, 1958.

SN 50,404. Sears, Roebuck and Co., Chicago, Ill. Filed Apr. 25, 1958.

DB DAVID BRADLEY

For Egg Washing Compound.
First use on or about July 18, 1956.

SN 50,585. Yadro Chemical Company, Milwaukee, Wis. Filed Apr. 28, 1958.

SWURL IT

For Toilet Bowl and Trap and Automobile Radiator Cleaner.
First use Aug. 19, 1954.

SN 50,593. Acqua Lina Manufacturing Co., Inc., Brooklyn, N. Y. Filed Apr. 29, 1958.

ACQUA LINA

Owner of Reg. Nos. 234,849 and 594,082.
For All Purpose Detergent for Household Use.
First use Mar. 26, 1958.

SN 51,682. Alconox, Inc., New York, N. Y. Filed S. R. May 15, 1958; Am. P. R. Nov. 19, 1958.

ALCOJET

For Cleaning and Detergent Compound for Laboratory Washing Machines and Other Mechanical Washers.
First use Aug. 12, 1955.

SN 53,088. West Chemical Products, Inc., Long Island City, N. Y. Filed June 6, 1958.

EQUIDINE

For Detergent Germicide, in Liquid Form.
First use May 8, 1958.

SN 53,573. Harry Benet, d. b. a. Ramel Products, Cincinnati, Ohio. Filed June 16, 1958.

RAMEL

For Medicated Soap.
First use on or about Dec. 1, 1950.

SN 54,022. Dome Chemicals, Inc., New York, N. Y. Filed June 23, 1958.

SOY-DOME

Owner of Reg. No. 353,764.
For Soapless Cleanser for Cleansing Hands, Hair, Scalp, and Skin.
First use in October 1957.

SN 54,509. Solvit Chemical Company, Inc., Madison, Wis. Filed June 30, 1958.

SOLVIT

For Cleaning Compound for Floors, Woodwork, Tiles, Linoleum, Refrigerators, and Similar Household Use.
First use May 15, 1935.

SN 54,592. Yale Chemical Company, Nashville, Tenn. Filed June 30, 1958.

DS Pline

Owner of Reg. No. 560,280.
For Cleaner for Stainless Steel and Glass.
First use June 4, 1958.

SN 54,895. Brian Scott Products & Mfg. Co., Inc., Detroit, Mich. Filed July 7, 1958.

FORMULA 409

For Detergents for Removing Grease.
First use on or about Sept. 30, 1957.

SN 58,419. Walter G. Gies, d. b. a. Walter G. Gies Company, Crownsville, Md. Filed Sept. 5, 1958. Sec. 2(f).

JIFFY

Owner of Reg. No. 373,629.
For Liquid Cleaner for Cleaning Typewriter Type and Metallic or Rubber Rollers.
First use in May 1926.

SERVICE MARKS

Class 103 — Construction and Repair

SN 30,258. New York Supply & Inspection Co. Inc., New York, N. Y. Filed Oct. 21, 1957.



For Electrical Services, Chiefly the Submetering of Electric Current and the Overseeing of the Functioning of Electrical Distribution Systems.
First use Apr. 20, 1956.

Class 105 — Transportation and Storage

SN 30,595. American Shippers, Inc., Los Angeles, Calif. Filed Apr. 29, 1958.



No claim is made to the word "System" apart from the mark as shown.
For Storing, Packing, and Shipping of Packages by Air Freight.
First use Apr. 7, 1958.

SN 52,488. The Greyhound Corporation, Chicago, Ill. Filed May 28, 1958.

SCENICRUISER

For Motor Bus Transportation of Passengers.
First use Jan. 1, 1957.

CERTIFICATION MARKS

Class A — Goods

SN 24,669. American Machine & Foundry Company, New York, N. Y. Filed Feb. 19, 1957.



The mark certifies that the goods are made in accordance with the terms of patents owned and licensed by applicant.

For Tobacco Products.

First use Dec. 4, 1956.

Class B — Services

SN 680,650. Certified Cold Fur Storage Association, Kansas City, Mo. Filed Jan. 28, 1955. Sec. 2(f).



The mark certifies that storage is in vaults which meet standards set by applicant.

For Cold Storage of Furs and Fabrics.

First use during January 1947.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

672,344. GAHNA. Loewengart & Company. SN 700,739. Pub. 10–28–58. Filed 12–28–55.

672,345. RICE. Surpass Leather Company. SN 29,972. Pub. 10–28–58. Filed 5–18–57.

672,346. HER MAJESTY AND DESIGN. M. Wallace Horton, d. b. a. Horton Chinchilla Enterprises. SN 45,804. Pub. 10–28–58. Filed 2–13–58.

672,347. BABCOCK AND DESIGN. Babcock Poultry Farm, Inc. SN 46,696. Pub. 10–28–58. Filed 3–27–58.

672,348. TOPPER AND DESIGN. Wight Nurseries, Inc. SN 49,646. Pub. 10–28–58. Filed 4–14–58.

Class 2 — Receptacles

672,349. SANAP. John Leslie Jones. SN 22,548. Pub. 10–28–58. Filed 1–14–57.

672,350. HIDE-AWAY. Leo Fremont, d. b. a. Fremont Bags. SN 25,416. Pub. 10–28–58. Filed 3–4–57.

672,351. ANSTR-PAK. Irwin, Neisler and Co. SN 28,600. Pub. 10–28–58. Filed 4–22–57.

672,352. TUCKAWAY CUP PPP. Wilbert J. Gahm. SN 35,174. Pub. 10–28–58. Filed 8–8–57.

672,353. JL WARE AND DESIGN. Jones & Laughlin Steel Corporation. SN 25,052. Pub. 10–28–58. Filed 9–30–57.

672,354. CREAM-O-SERVE AND DESIGN. Stephen Lipka. SN 42,504. Pub. 10–28–58. Filed 12–16–57.

672,355. GOLD TONE AND DESIGN. Daniel Silverman, d. b. a. Jamaco Metal Products Company. SN 43,274. Pub. 6–12–58. Filed 12–31–57.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

672,356. BAGS BY DOMINIC. Pallazio, Inc. SN 47,513. Pub. 10–28–58. Filed 3–11–58.

Class 5 — Adhesives

672,357. CHEMCOR. International Minerals & Chemical Corporation. SN 37,574. Pub. 10–28–58. Filed 9–20–57.

672,358. 372. Great American Industries, Inc. SN 48,838. Pub. 10–28–58. Filed 4–1–58.

672,359. LEPAGE'S. Johnson & Johnson, assignee of Le Page's Inc. SN 48,852. Pub. 10–28–58. Filed 4–1–58.

Class 6 — Chemicals and Chemical Compositions

672,360. LA FRANCE. General Foods Corporation. SN 33,235. Pub. 10–28–58. Filed 7–8–57.

672,361. ETHYLAN. Robinson-Wagner Co., Inc. SN 23,753. Pub. 10–28–58. Filed 7–15–57.

672,362. HALOID XEROX AND DESIGN. Haloid Xerox Inc., by change of name from The Haloid Company. SN 42,182. Pub. 10–28–58. Filed 12–10–57.

672,363. DEOREX. The Upjohn Company. SN 43,856. Pub. 10–28–58. Filed 1–2–58.

672,364. ACTI-DIONE BR. The Upjohn Company. SN 43,640. Pub. 10–28–58. Filed 1–8–58.

672,365. CYANAMID AND DESIGN. American Cyanamid Company. SN 44,483. Pub. 10–28–58. Filed 1–22–58.

672,366. FG AND DESIGN. Foster Grant Co., Inc. SN 45,553. Pub. 10–28–58. Filed 2–10–58.

672,367. HT 440. Miles Laboratories, Inc. SN 48,493. Pub. 10–28–58. Filed 3–26–58.

672,368. FIRE-GEL. Bostwick Laboratories, Inc. SN 48,539. Pub. 10–28–58. Filed 3–27–58.

672,369. HEMOTONE. Royal Bond, Inc. SN 48,585. Pub. 10–28–58. Filed 3–27–58.

Class 7 — Cordage

672,370. ROCHESTER. Rochester Ropes, Inc. SN 43,705. Pub. 10–28–58. Filed 1–9–58.

Class 10 — Fertilizers

672,371. GRO-RITE. Bandini Fertilizer Company. SN 38,333. Pub. 10–28–58. Filed 10–4–57.

Class 11 — Inks and Inking Materials

672,372. DUET. Peerless Imperial Co. Inc. SN 44,483. Pub. 10–28–58. Filed 1–22–58.

Class 12 — Construction Materials

672,373. FORM-A-LITE OF NORTHBRIDGE. Form-A-Lite, Inc. SN 27,428. Pub. 10–28–58. Filed 4–3–57.

672,374. STORMPROOF. Bethlehem Steel Company. SN 28,098. Pub. 10–28–58. Filed 4–15–57.

672,375. T & T LOK AND DESIGN. Lok-Products Co. SN 22,321. Pub. 10–28–58. Filed 6–20–57.

672,376. TRU LINE. William H. Kenney, d. b. a. National Concrete Forms Co. SN 34,291. Pub. 10–28–58. Filed 7–24–57.

672,377. KOCHCORE. Kochten Plywood & Veneer Co., Inc SN 38,544. Pub. 10–28–58. Filed 10–8–57.

672,378. KOCHBOARD. Kochton Plywood & Veneer Co., Inc. SN 38,545. Pub. 10–28–58. Filed 10–8–57.

672,379. TUBE STRUT. Tube-Strut Corp. SN 41,952. Pub. 10–28–58. Filed 12–6–57.

672,380. PAX WIN AND DESIGN. Frank Paxton Lumber Company. SN 42,530. Pub. 10–28–58. Filed 12–16–57.

672,381. ACCENT. Wood Conversion Company. SN 46,176. Pub. 10–28–58. Filed 2–19–58.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

672,382. PIGGYBAK ETC. AND DESIGN. The Pollak Steel Company. SN 47,516. Pub. 10–28–58. Filed 3–11–58.

672,383. PORTCO. Portco Corporation. SN 40,514. Pub. 10–28–58. Filed 4–11–58.

Class 14 — Metals and Metal Castings and Forgings

672,384. H. Hamilton Watch Company. SN 28,140. Pub. 10–14–58. Filed 4–15–57.

672,385. STEWART. Stewart-Warner Corporation. SN 46,253. Pub. 10–28–58. Filed 2–20–58.

Class 15 — Oils and Greases

672,386. "LE PRO." The Watson-Stillman Company. SN 33,930. Pub. 10–28–58. Filed 7–17–57.

672,387. PERMAWICK. Fluidwick Company, Inc. SN 38,815. Pub. 10–28–58. Filed 10–14–57.

672,388. CARB MASTER. Rust Master Chemical Corporation. SN 44,430. Pub. 10–28–58. Filed 1–22–58.

672,389. KENDALL AND DESIGN. Kendall Refining Company. SN 45,395. Pub. 10–28–58. Filed 2–6–58.

672,390. BARDAHL. Bardahl Manufacturing Corporation. SN 45,445. Pub. 10–28–58. Filed 2–7–58.

Class 16 — Protective and Decorative Coatings

672,391. NUBELON. The Glidden Company. SN 54,225. Pub. 10–28–58. Filed 6–25–58.

672,392. NU-PON. The Glidden Company. SN 54,226. Pub. 10–28–58. Filed 6–25–58.

672,393. NUBELITE. The Glidden Company. SN 54,517. Pub. 10–28–58. Filed 6–30–58.

672,394. BARRIER AND DESIGN. National Chemical Corporation. SN 54,544. Pub. 10–28–58. Filed 6–30–58.

672,395. SILLERS. Benjamin Moore & Co., assignee of Sillers Paint and Varnish Co. SN 54,566. Pub. 10–28–58. Filed 6–30–58.

672,396. SILLERS PAINTS, ETC. AND DESIGN. Benjamin Moore & Co., assignee of Sillers Paint and Varnish Co. SN 54,567. Pub. 10–28–58. Filed 6–30–58.

672,397. TC. The Tapecoat Company. SN 54,650. Pub. 10–28–58. Filed 7–1–58.

672,398. SUNBEAM. Sunbeam Corporation. SN 54,715. Pub. 10–28–58. Filed 7–2–58.

Class 18 — Medicines and Pharmaceutical Preparations

672,399. VI-TYKE. American Cyanamid Company. SN 13,897. Pub. 10–28–58. Filed 10–23–57.

672,400. TRIBIOCYL. Bristol Laboratories Inc. SN 23,286. Pub. 10–28–58. Filed 1–28–57.

672,401. ISO-ASPIRIN. International Latex Corporation. SN 32,068. Pub. 10–28–58. Filed 6–17–57.

672,402. PANPLEX. The Upjohn Company. SN 41,328. Pub. 10–28–58. Filed 11–25–57.

672,403. ALFA-PRONAL. Lucien F. Harnist, d. b. a. Dr. Harnist's Company. SN 42,477. Pub. 10–28–58. Filed 12–16–57.

672,404. TETRA-DELTA. The Upjohn Company. SN 44,050. Pub. 10–28–58. Filed 1–15–58.

672,405. ALUMIL. Rehcis Company, Inc. SN 47,142. Pub. 10–28–58. Filed 3–5–58.

672,406. MEPEV. Harry Benet, d. b. a. Dara Products. SN 47,826. Pub. 10–28–58. Filed 3–17–58.

672,407. CLANTIS. Harry Benet, d. b. a. Dara Products. SN 47,829. Pub. 10–28–58. Filed 3–17–58.

672,408. ANEVRAL. The Chemdrug Corporation. SN 47,938. Pub. 10–28–58. Filed 3–18–58.

672,409. NEBRALIN. The Wander Company, d. b. a. Smith-Dorsey. SN 49,227. Pub. 10–28–58. Filed 4–7–58.

672,410. ISORILONE. Les Laboratoires Francais de Chimiotherapie. SN 51,199. Pub. 10–28–58. Filed 5–7–58.

672,411. TENTONE. American Cyanamid Company. SN 51,308. Pub. 10–28–58. Filed 5–9–58.

672,412. DONDRYL. American Home Products Corporation. SN 51,309. Pub. 10–28–58. Filed 5–9–58.

672,413. FERROJECT. Abbott Laboratories. SN 51,401. Pub. 10–28–58. Filed 5–12–58.

672,414. AMPERONE. Kremers-Urban Company. SN 51,466. Pub. 10–28–58. Filed 5–12–58.

672,415. HANDASED. Handag. SN 51,631. Pub. 10–28–58. Filed 5–14–58.

672,416. SISTRAMOL. Schering Corporation. SN 51,746. Pub. 10–28–58. Filed 5–15–58.

672,417. ORIMUNE. American Cyanamid Company. SN 52,457. Pub. 10–28–58. Filed 5–28–58.

672,418. DEVEXIN. American Cyanamid Company. SN 52,458. Pub. 10–28–58. Filed 5–28–58.

672,419. COMMUNITY. Community Blood Bank of the Kansas City Area, Inc. SN 52,476. Pub. 10–28–58. Filed 5–28–58.

672,420. CORPHOS. Crookes-Barnes Laboratories, Inc. SN 52,560. Pub. 10–28–58. Filed 5–29–58.

672,421. REAL GONE. Ernest Braun, d. b. a. Ernest Braun Research. SN 53,111. Pub. 10–28–58. Filed 6–9–58.

672,422. SCALAGIN. Ciba Limited. SN 53,118. Pub. 10–28–58. Filed 6–9–58.

Class 19 — Vehicles

672,423. RADIO LINE. Radio Steel & Mfg. Co. SN 22,027. Pub. 10–28–58. Filed 1–2–57.

672,424. CAROLINE. Broadway Salvage Co. SN 38,896. Pub. 10–28–58. Filed 10–15–57.

672,425. THE GENERAL TIRE N AND DESIGN. The General Tire & Rubber Company. SN 39,870. Pub. 10–28–58. Filed 10–31–57.

Class 20 — Linoleum and Oiled Cloth

672,426. DEAN CUT-RATE AND DESIGN. Dean Cut-Rate Floor Covering Company, Inc. SN 43,496. Pub. 10–28–58. Filed 1–6–58.

Class 21 — Electrical Apparatus, Machines, and Supplies

672,427. BULOVA. Bulova Research & Development Laboratories, Inc. SN 25,312. Pub. 10–28–58. Filed 3–1–57.

672,428. TRANCEL. Excel Trading Corporation. SN 45,787. Pub. 10–28–58. Filed 2–13–58.

672,429. DIGIMOTOR. G. H. Leland, Inc. SN 45,887. Pub. 10–28–58. Filed 2–14–58.

672,430. PAXOLIN. The Micanite & Insulators Company Limited. SN 45,897. Pub. 10–28–58. Filed 2–14–58.

672,431. BIG BERTHA. Hoffman Electronics Corporation. SN 45,973. Pub. 10–28–58. Filed 2–17–58.

672,432. RENCREST AND DESIGN. Reynolds Industries, Incorporated. SN 46,014. Pub. 10–28–58. Filed 2–17–58.

672,433. SANDOZ. Sandoz, Inc. SN 46,020. Pub. 10–28–58. Filed 2–17–58.

672,434. VIBRISTOR. Vibration Research Laboratories, Inc. SN 46,036. Pub. 10–28–58. Filed 2–17–58.

672,435. ZENITH. Zenith Radio Corporation (Delaware corporation), by merger from Zenith Radio Corporation (Illinois corporation). SN 46,263. Pub. 10–28–58. Filed 2–20–58.

672,436. R. C. B. Rockland Country Battery Company, Inc. SN 48,871. Pub. 10–28–58. Filed 4–1–58.

672,437. STA-FUL. The Electric Auto-Lite Company. SN 49,141. Pub. 10–28–58. Filed 4–7–58.

672,438. SPIR-O-LINE AND DESIGN. Prodelin Inc. SN 49,187. Pub. 10–28–58. Filed 4–7–58.

Class 22 — Games, Toys, and Sporting Goods

672,439. AQUA-LUNG. La Spirotechnique, S. A. SN 22,448. Pub. 10–28–58. Filed 1–11–57.

672,440. MAGIC-AIRE. Feld Plastics Mfg. Corp. SN 37,153. Pub. 10–28–58. Filed 9–13–57.

672,441. BLIK ILLINOIS AND DESIGN. European Ski Mfg. Co. SN 39,325. Pub. 10–28–58. Filed 10–22–57.

672,442. E-Z-JUST. Elmer Ellwood Phillips, d. b. a. Phil-Ley's. SN 44,645. Pub. 10–28–58. Filed 1–24–58.

672,443. THERMO-TRED. Arco Swimpools, Inc. SN 44,660. Pub. 10–28–58. Filed 1–27–58.

672,444. SURVIVAL. Frederick C. Gantnier, d. b. a. Pete Gardner Enterprises. SN 45,160. Pub. 10–28–58. Filed 2–3–58.

672,445. NORTH STAR FLY. Lester M. Davis, d. b. a. Les Davis Fishing Tackle Co. SN 45,538. Pub. 10–28–58. Filed 2–10–58.

672,446. AQUA DOLL BY ASTER. Aster Flower Co. SN 46,400. Pub. 10–28–58. Filed 2–24–58.

672,447. "JAMMA TOY." Sterling Doll Co., Inc. SN 47,081. Pub. 10–28–58. Filed 3–4–58.

672,448. PLAYFUL ACTION. Louis Greenberg & Sons, Inc. SN 47,497. Pub. 10–28–58. Filed 3–11–58.

672,449. MISSILITE. Narmco Canoles Co. SN 48,192. Pub. 10–28–58. Filed 3–21–58.

672,450. SPORTAIR. Carson Glove Company. SN 48,541. Pub. 10–28–58. Filed 3–27–58.

672,451. MERRYCYCLE. Jill Gym Co., Inc. SN 48,676. Pub. 10–28–58. Filed 3–21–58.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

672,452. BRIDGEPORT. The Bridgeport Machines, Inc. SN 35,978. Pub. 10–28–58. Filed 8–22–57.

672,453. PIN-MONEY. Leeds Sweets Products, Inc. SN 36,903. Pub. 10–28–58. Filed 9–9–57.

672,454. MASTERLINE GISHOLT ETC. AND DESIGN. Gisholt Machine Company. SN 40,047. Pub. 10–28–58. Filed 11–4–57.

672,455. MASTERLINE. Gisholt Machine Company. SN 41,092. Pub. 10–28–58. Filed 11–21–57.

672,456. KING. Geo. W. King Limited. SN 41,758. Pub. 10–28–58. Filed 12–4–57.

672,457. COLORTONE. The International Silver Company. SN 50,705. Pub. 10–28–58. Filed 4–30–58.

672,458. CUEV-LOK. Schwitzer Corporation. SN 50,837. Pub. 10–28–58. Filed 5–1–58.

672,459. COORDINATOR AND DESIGN. Hicks Machine, Inc. SN 53,616. Pub. 10–28–58. Filed 6–16–58.

672,460. GUH AND CIRCLE DESIGN. Firma Gottlieb Gühring. SN 53,704. Pub. 10–28–58. Filed 6–17–58.

672,461. EVE TIDE. Imperial Knife Associated Companies, Inc. SN 53,874. Pub. 10–28–58. Filed 6–19–58.

672,462. SPRAY-MO-FAT. Robert F. Riegel, d. b. a. Riegel & Son Elevator. SN 53,907. Pub. 10–28–58. Filed 6–19–58.

672,463. NURS ETTE. K & K Manufacturing, Inc. SN 54,530. Pub. 10–28–58. Filed 6–30–58.

672,464. THINIT. E. Merris Manufacturing Co. SN 54,542. Pub. 10–28–58. Filed 6–30–58.

672,465. AXELSON ETC. AND DESIGN. U. S. Industries, Inc. SN 54,654. Pub. 10–28–58. Filed 7–1–58.

672,466. PANTHER. Sherman Products, Inc. SN 54,711. Pub. 10–28–58. Filed 7–2–58.

672,467. SPIRALMATIC. The Cincinnati Milling Machine Co. SN 54,820. Pub. 10–28–58. Filed 7–7–58.

672,468. INFISPEED. Cincinnati Lathe & Tool Co. SN 54,821. Pub. 10–28–58. Filed 7–7–58.

Class 26 — Measuring and Scientific Appliances

672,469. VDO. VDO Tachometer Werke Adolf Schindling G. m. b. H. SN 27,473 Pub. 10–28–58. Filed 4–8–57.

672,470. EXICON. Philco Corporation. SN 30,520. Pub. 4–22–58. Filed 5–22–57.

672,471. MASTERLINE GISHOLT ETC. AND DESIGN. Gisholt Machine Company. SN 40,048. Pub. 10–28–58. Filed 11–4–57.

672,472. MASTERLINE. Gisholt Machine Company. SN 41,091. Pub. 10–28–58. Filed 11–21–57.

672,473. LARGOR. Meopta, Narodni Podnik. SN 42,707. Pub. 10–28–58. Filed 12–19–57.

672,474. MAXIMATUS. Meopta, Narodni Podnik. SN 42,710. Pub. 10–28–58. Filed 12–19–57.

672,475. WILL. Will Corporation. SN 43,482. Pub. 10–28–58. Filed 1–6–58.

672,476. SPACEMASTER. David P. Bushnell. SN 47,727. Pub. 10–28–58. Filed 3–14–58.

672,477. GOLDEN CROWN AND DESIGN. General Electric Company. SN 48,982. Pub. 10–28–58. Filed 4–3–58.

672,478. DATASYNC AND DESIGN. Berndt-Bach, Incorporated. SN 49,037. Pub. 10–28–58. Filed 4–4–58.

672,479. COPYTRON. Charles Bruning Company, Inc. SN 49,118. Pub. 10–28–58. Filed 4–7–58.

672,480. TRICON. Mueller Welt Contact Lenses, Inc. SN 49,176. Pub. 10–28–58. Filed 4–7–58.

672,481. THERMOTEST. Societe Rhodiaceta. SN 49,238. Pub. 10–28–58. Filed 3–26–58.

672,482. CONDUCHECK. Air Reduction Company, Incorporated. SN 49,341. Pub. 10–28–58. Filed 4–9–58.

672,483. BUTTERICK. The Butterick Company, Inc. SN 49,413. Pub. 10–28–58. Filed 4–10–58.

672,484. PRESSUREGRAPH. Electro Products Laboratories, Inc. SN 49,562. Pub. 10–28–58. Filed 4–14–58.

672,485. MULTIDATA. Flight Research Incorporated. SN 49,566. Pub. 10–28–58. Filed 4–14–58.

Class 27 — Horological Instruments

672,486. CINY. Societe Anonyme Aubry Freres Montres Ciny. SN 43,500. Pub. 10–28–58. Filed 12–9–57.

672,487. SPEEDMASTER. Norman M. Morris Corporation. SN 47,594. Pub. 10–28–58. Filed 3–12–58.

Class 28 — Jewelry and Precious-Metal Ware

672,488. ENCHANTED BEAUTY. Paul F. Rothstein. SN 48,569. Pub. 10–28–58. Filed 2–25–58.

672,489. MATISSE AND DESIGN. Matisse Limited. SN 48,631. Pub. 10–28–58. Filed 2–26–58.

Class 29 — Brooms, Brushes, and Dusters

672,490. SOAPY MITT. Wesley A. Smith. SN 43,349. Pub. 10–28–58. Filed 1–2–58.

Class 31—Filters and Refrigerators

672,491. FISH FILE. Traulsen & Co. Inc. SN 49,465. Pub. 10–14–58. Filed 4–10–58.

672,492. PERMA-DRY. Permanent Filter Corporation. SN 53,725. Pub. 10–28–58. Filed 6–17–58.

Class 32—Furniture and Upholstery

672,493. COCHRANE AND DESIGN. Cochrane Furniture Company, Inc. SN 27,187. Pub. 10–28–58. Filed 3–29–57.

672,494. VANDERBILT. Simmons Company. SN 54,899. Pub. 10–28–58. Filed 7–7–58.

672,495. TRIG-O-MATIC. The Mode Craft Company, Inc. SN 54,955. Pub. 10–28–58. Filed 7–8–58.

Class 34—Heating, Lighting, and Ventilating Apparatus

672,496. ATMOS-PAK. Air Conditioning Engineers Inc. SN 35,075. Pub. 10–28–58. Filed 8–7–57.

672,497. KEROGAS. S. F. Appliances Limited. SN 50,107. Pub. 10–28–58. Filed 4–21–58.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

672,498. VICTOCOR MOTOR SEAL AND DESIGN. Victor Manufacturing & Gasket Co. SN 38,246. Pub. 10–28–58. Filed 10–2–57.

672,499. TORNADO. Trelleborgs Gummifabriks Aktiebolag. SN 38,397. Pub. 10–28–58. Filed 10–4–57.

Class 37—Paper and Stationery

672,500. ZIPPO. Russell W. Tallman, d. b. a. Zippo Bar-Charts. SN 22,984. Pub. 10–28–58. Filed 1–22–57.

672,501. THERMO-GUARD AND DESIGN. Sentinel Bag & Paper Company, Inc. SN 24,203. Pub. 10–28–58. Filed S. R. 2–11–57. Am. P. R. 8–13–58.

672,502. STARBRITE. Saxon Paper Corporation. SN 26,728. Pub. 10–28–58. Filed 3–22–57.

672,503. SPEEDRY. Speedry Products, Inc. SN 28,199. Pub. 10–28–58. Filed 4–15–57.

672,504. CILCOLOR. Conte, Societa Anonyme. SN 34,592. Pub. 10–28–58. Filed 7–30–57.

672,505. ATTRACT-ALL AND DESIGN. Robert D. Dilley, d. b. a. Dilley Manufacturing Company. SN 47,741. Pub. 10–28–58. Filed 3–14–58.

672,506. CORRU-WRAP. Sherman Paper Products Corporation. SN 47,899. Pub. 10–28–58. Filed 3–17–58.

672,507. WHIZ-TAG. James A. Taylor. SN 49,015. Pub. 10–28–58. Filed 4–3–58.

672,508. PLAYTIME. Binney & Smith Inc. SN 49,411. Pub. 10–28–58. Filed 4–10–58.

Class 38—Prints and Publications

672,509. STANDARD. Funk & Wagnalls Company. SN 24,154. Pub. 10–28–58. Filed 2–11–57.

672,510. SUCCESS UNLIMITED. W. Clement Stone, assignee of Godfrey-Stone International Publications, Inc. SN 32,489. Pub. 10–28–58. Filed 6–24–57.

672,511. DIAL-A-TALE. Lee-Bert Incorporated. SN 36,592. Pub. 10–28–58. Filed 9–3–57.

672,512. ASTRONAUTICS. American Rocket Society and American Interplanetary Society, Inc. SN 36,684. Pub. 10–28–58. Filed 9–5–57.

672,513. CLAIMS SERVICE INDEX AND DESIGN. Robert L. Griffith, d. b. a. Mercedes Publishing Company. SN 38,455. Pub. 10–28–58. Filed 10–7–57.

672,514. PORTFOLIO OF WESTERN ADVERTISING ART. Western Advertising. SN 39,764. Pub. 10–28–58. Filed 10–29–57.

672,515. TRANS-FOLIA. Trans-Folia Gesellschaft fur Transparentdruck mit beschraenkter Haftung. SN 41,410. Pub. 10–28–58. Filed 11–26–57.

672,516. PRECISION METAL MOLDING. The Industrial Publishing Corporation. SN 45,324. Pub. 10–28–58. Filed 2–5–58.

672,517. FINGERS OF FORTUNE. Betti Yerxa Ogden. SN 46,154. Pub. 10–28–58. Filed 2–19–58.

672,518. CITY HALL. John F. Dille Co. SN 46,918. Pub. 10–28–58. Filed 3–3–58.

672,519. DRAGLINE. International Minerals & Chemical Corporation. SN 47,388. Pub. 10–28–58. Filed 3–10–58.

672,520. "COVERS DIXIE LIKE THE DEW." Atlanta Newspapers, Inc. SN 47,819. Pub. 10–28–58. Filed 3–17–58.

672,521. PROFILE OF A CITY. Betti Yerxa Ogden. SN 48,322. Pub. 10–28–58. Filed 3–24–58.

672,522. THE CALIFOREGON NEWS. California-Oregon Television, Inc. SN 48,899. Pub. 10–28–58. Filed 4–2–58.

672,523. CLOSER THAN WE THINK. Chicago Tribune-New York News Syndicate, Inc. SN 48,901. Pub. 10–28–58. Filed 4–2–58.

672,524. HOLIDAY BAZAAR. Alfred de Martini. SN 48,973. Pub. 10–28–58. Filed 4–3–58.

672,525. SPACE-AGE. Columbia Publications, Inc. SN 49,420. Pub. 10–28–58. Filed 4–10–58.

672,526. ARTIA AND DESIGN. Artia, Podnik Zahranicniho Obchodu pro Dovoz a Vyvoz Kulturnich Statku. SN 50,427. Pub. 10–28–58. Filed 3–31–58.

672,527. ARTIA AND DESIGN. Artia, Podnik Zahranicniho Obchodu pro Dovoz a Vyvoz Kulturnich Statku. SN 50,428. Pub. 10–28–58. Filed 3–31–58.

672,528. ARTIA. Artia, Podnik Zahranicniho Obchodu pro Dovoz a Vyvoz Kulturnich Statku. SN 50,429. Pub. 10–28–58. Filed 3–31–58.

Class 39—Clothing

672,529. ADJUST-O-WAVE & SLEEP NET. The L. Mayer Company. SN 7,030. Pub. 10–28–58. Filed 4–24–56.

672,530. FORBES-HILL OF NEW ENGLAND. Abe Lucas, d. b. a. Lucas Clothing Company. SN 8,139. Pub. 10–28–58. Filed 5–11–56.

672,531. PLAYTEX ILLUSION. International Latex Corporation. SN 13,371. Pub. 10–28–58. Filed 8–3–56.

672,532. EEZEE'S AND DESIGN. W. R. Neufeld, d. b. a. Orthopedic Shoe Clinic. SN 30,351. Pub. 10–28–58. Filed 5–20–57.

672,533. FLOW MOLD. The Scholl Mfg. Co., Inc. SN 32,779. Pub. 10–28–58. Filed 6–27–57.

672,534. JUBIL-EEZ AND DESIGN. Lester Pincus Shoe Corporation. SN 33,501. Pub. 10–28–58. Filed 7–10–57.

672,535. DRI-A-PON. Dri-A-Pon Company, Incorporated. SN 35,338. Pub. 10–28–58. Filed 8–12–57.

672,536. GAIT-TRAINERS. William Lilenfeld, Inc. SN 35,869. Pub. 10–28–58. Filed 8–20–57.

672,537. BELZANO. The Joseph & Feiss Company. SN 36,449. Pub. 10–28–58. Filed 8–29–57.

672,538. PLATIA. The Joseph & Feiss Company. SN 36,450. Pub. 10–28–58. Filed 8–29–57.

672,539. FIRENZE. The Joseph & Feiss Company. SN 36,452. Pub. 10–28–58. Filed 8–29–57.

672,540. VOGUE. Wayne Knitting Mills. SN 38,315. Pub. 10–28–58. Filed 10–3–57.

672,541. WHITE SHIELD. General Shoe Corporation. SN 38,452. Pub. 10–28–58. Filed 10–7–57.

672,542. ADAGIO. General Shoe Corporation. SN 38,453. Pub. 10–28–58. Filed 10–7–57.

672,543. NYLCOT. Sun Valley Manufacturing Co. SN 39,918. Pub. 10–28–58. Filed 10–31–57.

672,544. SKULLGARD. Mine Safety Appliances Company. SN 41,557. Pub. 10–28–58. Filed 11–29–57.

672,545. MR. TALL. The Euro Shirt Company, Inc. SN 42,460. Pub. 10–28–58. Filed 12–16–57.

672,546. PAC-JAC. Jacob Silin. SN 42,664. Pub. 10–28–58. Filed 12–18–57.

672,547. PERFECTION. The House of Perfection, Inc. SN 44,092. Pub. 10–28–58. Filed 1–16–58.

672,548. TRAVEL-AIRE. Superba Cravats, Inc. SN 44,128. Pub. 10–28–58. Filed 1–16–58.

672,549. HILL BROS. "HEAD FOR THE HILLS." American Shoe Co., Inc., d. b. a. Hill Bros. SN 44,583. Pub. 10–28–58. Filed 1–24–58.

672,550. KISSLENE. André Lepoutre & Cie S. A. SN 44,627. Pub. 10–28–58. Filed 1–24–58.

672,551. PARA-VINL. Gro-Cord Rubber Company. SN 45,320. Pub. 10–28–58. Filed 2–5–58.

672,552. CROWNING GLORY. Eastern Seaboard Plastics, Inc. SN 45,381. Pub. 10–28–58. Filed 2–6–58.

672,553. BELTIARA. Carol B. Sullivan. SN 45,421. Pub. 10–28–58. Filed 2–6–58.

672,554. CLAYMORE. Claymore, Incorporated. SN 45,451. Pub. 10–28–58. Filed 2–7–58.

672,555. WAVE-GARD. International Latex Corporation. SN 45,481. Pub. 10–28–58. Filed 2–7–58.

672,556. JARARD. Rielly Company, Inc. SN 45,494. Pub. 10–28–58. Filed 2–7–58.

672,557. NITE MAGIC. Rudo Sunwear, Inc. SN 45,614. Pub. 10–28–58. Filed 2–10–58.

672,558. PRINCE DE GALLES. Freins Originals, Inc. SN 46,435. Pub. 10–28–58. Filed 3–18–58.

672,559. TALENT. Jack L. Inselman & Company. SN 46,550. Pub. 10–28–58. Filed 2–23–58.

672,560. CORDEX. Mavest Inc. SN 47,307. Pub. 10–28–58. Filed 3–11–58.

672,561. COMFEES. Jordan Manufacturing Corp. SN 48,080. Pub. 10–28–58. Filed 3–19–58.

672,562. MERCURY. Mercury, Ltd. SN 48,643. Pub. 10–28–58. Filed 3–28–58.

672,563. JEALOSIE. Venus Foundation Garments, Inc. SN 49,019. Pub. 10–28–58. Filed 4–3–58.

672,564. MOURSE. Roger Gernet. SN 49,154. Pub. 10–28–58. Filed 4–7–58.

672,565. VIGNETTES. Allied Stores Corporation. SN 49,542. Pub. 10–28–58. Filed 4–14–58.

672,566. GEORGETOWN. Freeman Shoe Corporation. SN 49,569. Pub. 10–28–58. Filed 4–14–58.

672,567. COTSMOOR. Cotsmoor, Limited. SN 49,682. Pub. 10–28–58. Filed 4–15–58.

672,568. SUITIME. Suitime, Inc. SN 49,715. Pub. 10–28–58. Filed 4–15–58.

672,569. "BELLE-BOTTOMS." Sue Brett, Inc. SN 49,815. Pub. 10–28–58. Filed 4–17–58.

672,570. SLIM-EASE. Sue Brett, Inc. SN 49,816. Pub. 10–28–58. Filed 4–17–58.

672,571. BRA-S-LETTE. Lady Marlene Brassiere Corp. SN 49,858. Pub. 10–28–58. Filed 4–17–58.

672,572. MARGARET JERROLD. Margaret Jerrold Inc. SN 49,943. Pub. 10–28–58. Filed 4–18–58.

Class 40—Fancy Goods, Furnishings, and Notions

672,573. VELOK. American Velcro, Inc. SN 47,224. Pub. 10–28–58. Filed 3–7–58.

672,574. MAJORETTE. Scolding Locks Corporation. SN 50,395. Pub. 10–28–58. Filed 4–25–58.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

672,575. TAI PING. Hong Kong Carpet Manufacturers, Ltd. SN 29,906. Pub. 10–28–58. Filed 5–13–57.

672,576. V. Velveray Corporation. SN 34,194. Pub. 10–28–58. Filed 7–22–57.

672,577. GLAZE-SET. Apex Knitted Fabrics, Inc. SN 36,042. Pub. 10–28–58. Filed S. R. 8–23–57. Am. P. R. 4–22–58.

672,578. VELVELASTIC. J. W. Wood Elastic Web Company. SN 42,258. Pub. 8–19–58. Filed 12–11–57.

672,579. DEAN CUT-RATE AND DESIGN. Dean Cut-Rate Floor Covering Company, Inc. SN 43,245. Pub. 10–28–58. Filed 12–31–57.

672,580. ETERNALTONES. United Merchants and Manufacturers, Inc. SN 48,931. Pub. 10–28–58. Filed 4–2–58.

Class 44—Dental, Medical, and Surgical Appliances

672,581. JOALENE. Joa Co. SN 32,252. Pub. 10–28–58. Filed 6–19–57.

672,582. PRESTON. J. A. Preston Corporation. SN 39,410. Pub. 10–28–58. Filed 10–23–57.

672,583. VIGILINERS. Estelle M. Opolony. SN 46,562. Pub. 10–28–58. Filed 2–25–58.

672,584. VIBRAWAY. R. G. Barry Corporation. SN 47,490. Pub. 10–28–58. Filed 3–11–58.

672,585. FOAMOTION. House of Foam. SN 47,501. Pub. 10–28–58. Filed 3–11–58.

672,586. DESIGN OF PINWHEEL WITH ARROWS. Muller & Schmidt Pfeilringwerk. SN 47,595. Pub. 10–28–58. Filed 3–12–58.

672,587. PROFILE. Profile Slenderizing Salons. SN 47,606. Pub. 10–28–58. Filed 3–12–58.

672,588. VERNI-TROL. Air Reduction Company, Incorporated. SN 47,707. Pub. 10–28–58. Filed 3–14–58.

672,589. IDR. I. D. Russell. SN 47,897. Pub. 10–28–58. Filed 3–17–58.

Class 45—Soft Drinks and Carbonated Waters

672,590. WESTBROOK AND DESIGN. Westbrook Industries, Inc. SN 38,514. Pub. 10–28–58. Filed 10–7–57.

672,591. 3 V. Three V Company. SN 40,891. Pub. 10–28–58. Filed 11–18–57.

Class 46—Foods and Ingredients of Foods

672,592. BIG VALUE. Carolina Coffee Company. SN 688,126. Pub. 4–10–56. Filed 5–24–55.

672,593. TOPSY'S. R & H Frozen Meats, Inc., d. b. a. Topsy's Dog Food Co. SN 25,379. Pub. 10–28–58. Filed 3–1–57.

672,594. LINDEN FARMS. Century Food Markets Company, d. b. a. Century, Century Food Stores, Inc., and Cooks. SN 26,325. Pub. 10–28–58. Filed 3–18–57.

672,595. HOOD AND DESIGN. H. P. Hood & Sons, Inc., d. b. a. H. P. Hood & Sons. SN 42,983. Pub. 10–28–58. Filed 12–24–57.

672,596. PLAINS OF ABRAHAM. James R. Wilson, d. b. a. Valentine Honey Packers. SN 44,236. Pub. 10–28–58. Filed 1–17–58.

672,597. LAC-MIX. Safeway Stores, Incorporated. SN 45,210. Pub. 11–4–58. Filed 2–3–58.

672,598. WELCH'S. James O. Welch Company. SN 45,505. Pub. 10–28–58. Filed 2–7–58.

672,599. BUCK. Wilco Produce Company. SN 46,386. Pub. 10–28–58. Filed 2–21–58.

672,600. RAM. Wilco Produce Company. SN 46,387. Pub. 10–28–58. Filed 2–21–58.

672,601. TASTY BIRD FARMS. The Joe O. Frank Company. SN 46,434. Pub. 10–28–58. Filed 2–24–58.

672,602. OLD COUNTRY AND DESIGN. Carl Gastmeyer, Inc. SN 47,638. Pub. 10–28–58. Filed 3–13–58.

672,603. BORDEN'S. The Borden Company. SN 50,680. Pub. 10–28–58. Filed 4–30–58.

672,604. BLUE STAR AND DESIGN. Blue Star Foods, Inc. SN 51,320. Pub. 10–28–58. Filed 5–9–58.

672,605. FAIRLANE. Avon Frosted Foods, Inc. SN 51,542. Pub. 10–28–58. Filed 5–13–58.

672,606. FEARN. Fearn Foods Inc. SN 51,886. Pub. 10–28–58. Filed 5–19–58.

Class 47—Wines

672,607. CARBONE. McKesson & Robbins, Incorporated. SN 22,698. Pub. 10–28–58. Filed 1–16–57.

672,608. LUXARDO. Priv. Fabbrica Maraschino "Excelsior" Girolamo Luxardo S. p. A. SN 36,807. Pub. 10–28–58. Filed 9–6–57.

672,609. FIRE BIRD. California Wine Association. SN 48,141. Pub. 10–28–58. Filed 6–21–58.

Class 48—Malt Beverages and Liquors

672,610. O'KEEFE AND DESIGN. O'Keefe Brewing Company Limited. SN 19,799. Pub. 10–28–58. Filed 11–23–56.

672,611. O'KEEFE AND DESIGN. O'Keefe Brewing Company Limited. SN 19,800. Pub. 10–28–58. Filed 11–23–56.

672,612. STUDENT PRINCE. Konigsbacher Brauerei Aktiengesellschaft, vorm. Joseph Thillmann. SN 30,025. Pub. 8–26–58. Filed 5–14–57.

672,613. MOLSON. Molson's Brewery Limited. SN 47,393. Pub. 10–28–58. Filed 3–12–58.

Class 49—Distilled Alcoholic Liquors

672,614. OLD BARTON. Barton Distilling Company. SN 20,692. Pub. 10–28–58. Filed 12–10–56.

672,615. PRINCE NICOLAS. James Robertson Company. SN 30,948. Pub. 8–26–58. Filed 5–28–57.

672,616. SCOTTISH MAJESTY. Schenley Distillers, Inc., assignee of Par & Tilford Distillers Corporation. SN 38,379. Pub. 10–28–58. Filed 10–4–57.

672,617. OLD GIBRALTAR. Thrifty Drug Stores Co. Inc. SN 38,398. Pub. 10–28–58. Filed 10–4–57.

672,618. SCHENLEY ENGLISH. Schenley Industries, Inc. SN 40,085. Pub. 10–28–58. Filed 11–4–57.

672,619. USHER'S. J. & G. Stewart Limited. SN 44,218. Pub. 10–28–58. Filed 1–17–58.

672,620. GREEN STRIPE. J. & G. Stewart Limited. SN 44,219. Pub. 10–28–58. Filed 1–17–58.

Class 50—Merchandise Not Otherwise Classified

672,621. STICK-LERS. Austen Display, Inc. SN 46,272 Pub. 10–28–58. Filed 2–21–58.

Class 51—Cosmetics and Toilet Preparations

672,622. SHAI SKIN-TRETE. George A. Duffy, trustee for Barbara Gowen Duffy, d. b. a. Rosal Laboratories Limited. SN 14,949. Pub. 10–28–58. Filed 8–31–56.

672,623. SHAI. George A. Duffy, trustee for Barbara Gowen Duffy, d. b. a. Rosal Laboratories Limited and Rosal. SN 16,189. Pub. 10–28–58. Filed 9–24–56.

672,624. LEONID DE LESCINSKIS. Leonid de Lescinskis. SN 20,361. Pub. 10–28–58. Filed 12–4–56.

672,625. PRO-CYS-KERA. Pro-Cys-Kera Laboratories, Inc. SN 44,977. Pub. 10–28–58. Filed 1–30–58.

Class 52—Detergents and Soaps

672,626. PINE-SOL. Dumas Milner Corporation, by change of name from Milner Products Company. SN 15,209. Pub. 10–28–58. Filed 9–6–56.

672,627. JET. Airosol Company, Inc. SN 26,233. Pub. 3–4–58. Filed 3–15–57.

672,628. JABON FLORES DEL CAMPO AND DESIGN. Perfumeria Floralia, S. A. SN 36,017. Pub. 10–28–58. Filed 8–22–57.

672,629. TERGISYL. Lehn & Fink Products Corporation. SN 47,590. Pub. 10–28–58. Filed 3–12–58.

672,630. WILCLEAN. Wilco Company. SN 48,887. Pub. 10–28–58. Filed 4–1–58.

672,631. D H C—DELIGHTFUL HOUSE CLEANER AND DESIGN. Delightful House Cleaner. SN 52,642. Pub. 10–28–58. Filed 5–23–58.

672,632. VALPRO. Valley Products Company. SN 53,680. Pub. 10–28–58. Filed 6–16–58.

Service Marks

Class 100—Miscellaneous

672,633. BI-RITE. General Grocer Company. SN 17,215. COLLECTIVE MARK. Pub. 10–28–58. Filed 10–10–56.

Class 101—Advertising and Business

672,634. PAPS PACK AND DESIGN. Costis J. Paps. SN 35,201. Pub. 10–28–58. Filed 8–8–57.

Class 102—Insurance and Financial

672,635. SHARIN PROFIT AND DESIGN. The Kroger Co. SN 25,345. Pub. 10–28–58. Filed 3–5–57.

672,636. DESIGN OF BUFFALO. Protective Fire and Casualty Company. SN 42,307. Pub. 10–28–58. Filed 12–12–57.

Class 104—Communication

672,637. DESIGN OF GROTESQUE HUMAN. WHAS, Inc. SN 43,901. Pub. 10–28–58. Filed 1–13–58.

Class 106—Material Treatment

672,638. MINUTE MAN. Everett R. Knox, d. b. a. Minute Man Photo Service. SN 24,783. Pub. 10–28–58. Filed 2–20–57.

Class 107—Education and Entertainment

672,639. OBC AND DESIGN. Outboard Boating Club of America. SN 47,887. Pub. 10–28–58. Filed 3–17–58.

Certification Marks

Class A—Goods

672,640. BELGIAN LINEN AND SHIELD DESIGN. Association Nationale des Tisseurs de Lin. SN 5,077. Pub. 10–28–58. Filed 3–23–56.

672,641. FAMILY RATED AND DESIGN. Pennsylvania Natural Gas Men's Association. SN 46,004. Pub. 10–28–58. Filed 2–17–58.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 6—Chemicals and Chemical Compositions

672,642. Vordie L. Rainey, d. b. a. Rainey's Insecticide Co., Ripley, Miss. SN 40,878. Filed P. R. 11–6–57. Am. S. R. 11–20–58.

RAINEY'S

For Chemical Preparation for Killing Roaches, Water Bugs, Ants, Lice, Fleas, and Mites.
First use June 1, 1941.

Class 11—Inks and Inking Materials

672,643. Kee Lox Manufacturing Company, Rochester, N. Y. SN 21,818. Filed P. R. 12–26–56. Am. S. R. 11–5–58.

Better Brand

For Carbon Paper and Typewriter Ribbons.
First use about Mar. 9, 1939, on carbon paper.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

672,644. T. D. Williamson, Inc., Tulsa, Okla. SN 15,929. Filed P. R. 9–19–56. Am. S. R. 11–19–58.

WEDGE-LOCK

For Pipe Plugs.
First use Aug. 23, 1956.

Class 21—Electrical Apparatus, Machines, and Supplies

672,645. All American Mfg. Co., Los Angeles, Calif. SN 34,108. Filed 7–22–57.

CHAR-LIGHTER

For Electric Resistance-Type Igniter for Charcoal.
First use June 1, 1955.

Class 28—Jewelry and Precious-Metal Ware

672,646. Swank, Inc., Attleboro, Mass. SN 57,171. Filed 8–13–58.

GRIP-TITE

For Men's Jewelry—Namely, Tie Clips.
First use 1951.

Class 38—Prints and Publications

672,647. Georgia Builder Publications, Inc., College Park, Ga., assignee of B. E. Robuck, Inc., College Park, Ga. SN 26,389. Filed P. R. 3–18–57. Am. S. R. 11–4–58.

GEORGIA BUILDER

For Monthly Publication.
First use Feb. 14, 1957.

672,648. William W. Hobart, d. b. a. Hobart Press and The Southlander, Corona, Calif. SN 47,381. Filed P. R. 3–10–58. Am. S. R. 11–13–58.

THE SOUTHLANDER DAIRYMAN AND RANCHER

For Monthly Dairy and Ranching Magazine.
First use Oct. 1, 1956.

Class 39—Clothing

672,649. Munsingwear, Inc., d. b. a. Hollywood V-Ette-Vassarette, Minneapolis, Minn., assignee of Hollywood-Maxwell Co., Los Angeles, Calif. SN 29,071. Filed P. R. 4–29–57. Am. S. R. 11–10–58.

-TUTU-

For Foundation Garments—Namely, Combination Brassieres and Girdles.
First use Mar. 26, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

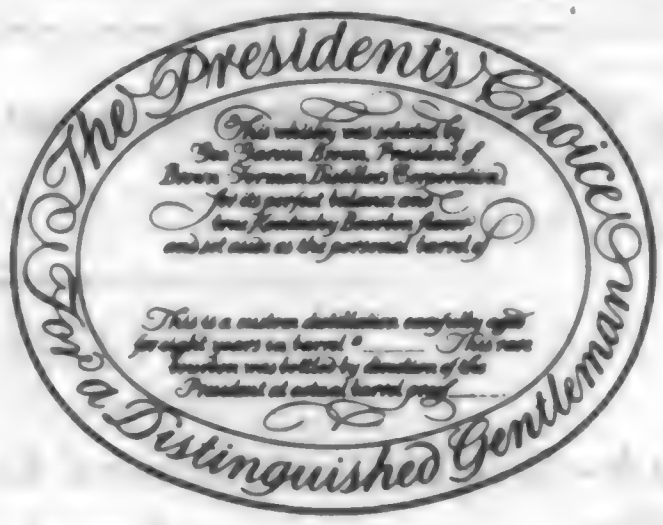
672,650. Grossman & Weissman, Inc., New York, N. Y. SN 50,792. Filed P. R. 5–1–58. Am. S. R. 10–22–58.

Dish Dryer

For Dish Toweling.
First use July 1, 1957.

Class 49—Distilled Alcoholic Liquors

672,651. Brown-Forman Distillers Corporation, Louisville, Ky. SN 28,488. Filed P. R. 4–19–57. Am. S. R. 11–17–58.



For Bourbon Whisky.
First use Apr. 12, 1957.

672,652. Old Grantian Company Limited, London, England. SN 49,381. Filed P. R. 4–9–58. Am. S. R. 11–12–58.



Owner of British Reg. No. 769,477, dated Sept. 23, 1957; and U. S. Reg. No. 637,566.
For Scotch Whisky.

TRADEMARK REGISTRATIONS RENEWED

15,801. CHAMPION AND DESIGN. Cl. 46. 8–21–1888.
123,500. RS EACH WITHIN A CIRCLE. Cl. 28. 11–12–18.
123,917. KUMSI-KUMSA. Cl. 42. 12–17–18.
123,946. NATIONAL. Cl. 6. 12–24–18.
123,983. SILVANITE. Cl. 14. 12–31–18.
124,940. DRIFTED SNOW. Cl. 46. 3–25–19.
356,184. QUINS. Cl. 39. 4–19–38.
358,761. LOTURA. Cl. 37. 7–26–38.
358,765. QUINS AND DESIGN. Cl. 39. 7–26–38.
358,766. QUINTUPLETS. Cl. 39. 7–26–38.
359,194. RUST-O-VAC. Cl. 6. 8–9–38.
360,012. CUDDLES AND TUCKIE. Cl. 38. 9–6–38.
360,923. OLD MISSION AND DESIGN. Cl. 49. 10–4–38.
361,336. GREGONE. Cl. 51. 10–11–38.
361,440. A BEAR FOR WEAR. Cl. 15. 10–18–38.
361,584. METROPOLITAN MISSY DRESSES. Cl. 39. 10–25–38.
361,747. HORSE'S HEAD AND HORSE SHOE. Cl. 49. 11–1–38.
361,772. HT CO IN DESIGN SHAPE. Cl. 23. 11–1–38.
361,777. ALMA DE ESPANA. Cl. 52. 11–1–38.
361,817. PORTELVATOR. Cl. 23. 11–1–38.
361,824. CHATELAINE. Cl. 42. 11–1–38.
361,989. BOLDOFLORINE. Cl. 18. 11–8–38.
362,051. ZIZZ AND DESIGN. Cl. 6. 11–8–38.
362,230. M–D AND DESIGN. Cl. 16. 11–15–38.
362,256. NELDEN. Cl. 39. 11–15–38.
362,685. POT OF GOLD AND REPRESENTATION OF FEMALE ETC. Cl. 46. 11–29–38.
363,012. ASBESTOPRENE. Cl. 35. 12–6–38.
363,099. TISSUELIN. Cl. 42. 12–13–38.
363,224. NUPRO. Cl. 6. 12–13–38.
363,265. MODERN MAID FOOD PRODUCTS AND DESIGN. Cl. 46. 12–20–38.
363,358. M D AND DESIGN. Cl. 14. 12–20–38.
363,365. FORTA. Cl. 26. 12–20–38.
363,480. NUPRO. Cl. 46. 12–27–38.
363,751. EXTRA DRY. Cl. 48. 1–3–39.
364,044. TRI-WEAR IN DOUBLE TRIANGLE. Cl. 39. 1–17–39.
364,606. OX-O-PRIME AND HEAD OF OX. Cl. 16. 2–7–39.
364,607. OX-O-SPAR AND HEAD OF OX. Cl. 16. 2–7–39.
364,616. METONE. Cl. 52. 2–7–39.
364,625. REPRESENTATION OF BEEHIVE. Cl. 14. 2–7–39.
364,626. REPRESENTATION OF COVERED WAGON. Cl. 14. 2–7–39.
364,700. CHADWICK'S AND DESIGN. Cl. 43. 2–14–39.
365,061. COMBEX. Cl. 18. 2–21–39.
365,218. TAKE HOME PACK. Cl. 2. 2–28–39.
365,343. COOLIGAN. Cl. 42. 3–7–39.
365,554. BLUE RIBBON AND REPRESENTATION OF RIBBON. Cl. 4. 3–14–39.

363,688. MYSTICOTE. Cl. 16. 3-14-39.
365,718. JACK & JILL. Cl. 38. 3-14-39.
365,895. ALLENRU. Cl. 18. 3-21-39.
366,432. HALE. Cl. 16. 4-11-39.
366,482. AMPOLITE. Cl. 52. 4-11-39.
366,634. CONTEMPORA AND DESIGN. Cl. 3. 4-25-39.
366,661. DRIFTED SNOW. Cl. 46. 4-25-39.
366,744. LUCKY STRIKE AND DESIGN. Cl. 17. 4-25-39.

TRADEMARK REGISTRATIONS CANCELED

Section 7(d)

[illegible]. CREAM. Cl. 46. 3-6-28.
[illegible]. EVERKEEN J. P. H. CO. Cl. 16. 6-7-55.
613,826. VM THE RECORDED VOICE OF MUSIC AND DESIGN. Cl. 21. 10-11-55.
632,893. PORCELITE. Cl. 2. 10-15-57.
667,447. THE LOU-ART LINE. Cl. 38. 9-23-58.

Section 8

375,279. "BAL-ZIP." Cl. 39. 2-13-40.
389,273. HARMONY-THREE. Cl. 39. 7-29-41.
420,156. KNOLLWOOD. Cl. 46. 3-26-46.

The following registrations issued Nov. 25, 1952

567,038. ARMSTRONG CORK CO. AND DESIGN. Cl. 12.
567,039. "LIFT" BY NEATFORM. Cl. 39.
567,044. SUNDIAL MARK TWAIN AND DESIGN. Cl. 39.
567,046. KOMFORT KING FULL FLOATING ACTION. Cl. 32.
567,048. SAF-VUE. Cl. 6.
567,055. TRI-OOMPHS. Cl. 39.
567,057. BUNNY LAMB. Cl. 39.
567,059. ATHLETA. Cl. 18.
567,060. SUR-ANA. Cl. 39.
567,062. CUR-O-DAN C. RUSSELL AND DESIGN. Cl. 18.
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183,503. FLAVILLA. Cl. 46. 4-29-24.
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655,074. RECEPTION STICKS. Cl. 46. 11-26-57.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

55,938. LIGHT CRUST AND DESIGN. Cl. 46. 8–21–06. The Burrus Mill & Elevator Company. Burrus Mills, Incorporated, Dallas, Tex. Amended to appear:



365,723. BELLOWS. Cl. 49. 3–14–39. Bellows & Company, Inc. National Distillers and Chemical Corporation, also doing business as National Distillers Products Co., Richmond, Va. Amended: In the statement, column 1, line 7, "Scotch" is deleted.

376,775. DIESEL AND DESIGN. Cl. 19. 4–9–40. Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany. Amended to appear:



517,411. MASTER-MIXED AND DESIGN. Cl. 12. 11–8–49. Sears, Roebuck and Co., Chicago, Ill. Amended to appear:

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522,570. MASTER-MIXED AND DESIGN. Cl. 12. 3–21–50. Sears, Roebuck and Co., Chicago, Ill. Amended to appear:

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538,696. RAYTHEON AND DESIGN. Cl. 26. 5–13–52. Raytheon Manufacturing Company, Newton, Mass. Amended to appear:



565,444. MASTER-MIXED AND DESIGN. Cl. 4. 10–21–52. Sears, Roebuck and Co., Chicago, Ill. Amended to appear:

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580,672. NOPCO AND DESIGN. Cl. 18. 10–6–53. Nopco Chemical Company, Harrison, N. J. Amended to appear.

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666,992. SEALOMATIC. Cl. 2. 9–16–58. C. & J. Clark Limited, Street, England. Corrected: In the certificate, column 2, line 3, after "fibres" *and cardboard and boards made from vegetable fibre all in the form of sheets or sectional parts for making such containers* is inserted.

667,474. FAN. Cl. 39. 9–23–58. Model Brassiere Corp., Cortland, N. Y. Corrected: In the certificate, column 2, line 3, "1954" should be deleted and *1934* should be inserted.

668,803. TWO TEMP AND DESIGN. Cl. 34. 10–21–58. Ruud Manufacturing Company, Kalamazoo, Mich. Corrected: In the certificate, column 1, line 1 "Rudd" should be deleted and *Ruud* should be inserted.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(e), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

290,876. PERMITE. Cl. 16. Aluminum Industries, Inc. 1–19–32. New Cert. Sec. 7(e), to Permiteco, Inc., Dayton, Ohio, 1–13–59.

535,929. PRAKTIFLEX. Cl. 26. Arnold Blank. 1–9–51. New Cert. Sec. 7(e), to Standard Camera Corporation, New York, N. Y., 1–13–59.

553,299. PRAKTICA. Cl. 26. Ercona Camera Corporation. 2–26–52. New Cert. Sec. 7(e), to Standard Camera Corporation, New York, N. Y., 1–13–59.

561,085. SILA-GLAZE. Cl. 4. Trade Winds, Inc. 7–8–52. New Cert. Sec. 7(e), to Essex Ceramics Corporation, Cedar Grove, N. J., 1–13–59.

596,382. K W AND DESIGN. Cl. 26. Ocean Photo Supply Co., Inc. 10–5–54. New Cert. Sec. 7(e), to Standard Camera Corporation, New York, N. Y., 1–13–59.

602,900. POROLOY. Cl. 14. Turbo Products, Inc. 3–8–55. New Cert. Sec. 7(e), to Bendix Aviation Corporation, Detroit, Mich., 1–13–59.

638,690. POROMESH AND DESIGN. Cl. 14. Poroloy Equipment, Inc. 12–18–56. New Cert. Sec. 7(e), to Bendix Aviation Corporation, Detroit, Mich., 1–13–59.

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General Tire & Rubber Co., The, Akron, Ohio. 672,425, pub. 10–28–58. Cl. 19.
Georgia Builder Publications Inc., from B. E. Rebuck, Inc., College Park, Ga. 672,647. Cl. 38.
Gernet, Roger, Zurich, Switzerland. 672,564, pub. 10–28–58. Cl. 39.
Gisholt Machine Co., Madison, Wis. 672,454–5, pub. 10–28–58. Cl. 23.
Gisholt Machine Co., Madison, Wis. 672,471–2, pub. 10–28–58. Cl. 26.
Glidden Co., The, Cleveland, Ohio. 672,391–3, pub. 10–28–58. Cl. 16.
Godfrey-Stone International Publications, Inc. : *See*—
Stone, W. Clement.
Goyescas Corp., New York, N. Y. 361,777, ren. 11–1–58. Cl. 52.
Greenbaum, J., Tanning Co., Chicago, Ill. 567,143, canc. Cl. 39.
Greenberg, Louis, & Sons, Inc., New York, N. Y. 672,448, pub. 10–28–58. Cl. 22.
Gregory and House, Inc., Cleveland, Ohio. 567,217, canc. Cl. 101.
Griffith, Robert L., d. b. a. Mercedes Publishing Co., North Hollywood, Calif. 672,513, pub. 10–28–58. Cl. 38.
Gro-Cord Rubber Co., Lima, Ohio. 672,551, pub. 10–28–58. Cl. 39.
Grossman & Weissman, Inc., New York, N. Y. 672,650. Cl. 42.
Gross-Sydney Inc., to American Bleached Goods Co., Inc., New York, N. Y. 363,099, ren. 12–13–58. Cl. 42.
H. and G. Research Laboratories, Inc. : *See*—
Celia, Paul J.
H. H. C. Dods Proprietary Ltd., d. b. a. Staley & Staley, Brunswick, near Melbourne, Victoria, Australia. 567,137, canc. Cl. 39.
Hahn, William, & Co., Washington, D. C. 364,044, ren. 1–17–59. Cl. 39.
Haloid Co., The : *See*—
Haloid Xerox Inc.
Haloid Xerox Inc., by change of name from The Haloid Co., Rochester, N. Y. 672,362, pub. 10–28–58. Cl. 6.
Hamilton Tool Co., The, Hamilton, Ohio. 361,772, ren. 11–1–58. Cl. 23.
Hamilton Tool Co., The, Hamilton, Ohio. 361,817, ren. 11–1–58. Cl. 23.
Hamilton Watch Co., Lancaster, Pa. 672,384, pub. 10–14–58. Cl. 14.
Handag, Zurich, Switzerland. 672,415, pub. 10–28–58. Cl. 18.
Harnist, Lucien F., d. b. a. Dr. Harnist's Co., Rio de Janeiro, Brazil. 672,403, pub. 10–28–58. Cl. 18.
Heinrich Pharmacal Co. : *See*—
Pfeiffer, S., Mfg. Co.
Hicks Machine, Inc., Walpole, N. H. 672,459, pub. 10–28–58. Cl. 23.

Hill Bros.: *See*—
American Shoe Co., Inc.
Hobart Press and The Southlander: *See*—
Hobart, William W.
Hobart, William W., d. b. a. Hobart Press and The Southlander, Corona, Calif. 672,648. Cl. 38.
Hoffman Electronics Corp., Los Angeles, Calif. 672,431, pub. 10–28–58. Cl. 21.
Hollywood-Maxwell Co.: *See*—
Munsingwear, Inc.
Hollywood V-Ette-Vassarette: *See*—
Munsingwear, Inc.
Hong Kong Carpet Manufacturers, Ltd., Hong Kong. 672,575, pub. 10–28–58. Cl. 42.
Hood, H. P., & Sons: *See*—
Hood, H. P., & Sons, Inc.
Hood, H. P., & Sons, Inc., d. b. a. H. P. Hood & Sons, Boston, Mass. 672,595, pub. 10–28–58. Cl. 46.
Horton, M. Wallace, d. b. a. Horton Chinchilla Enterprises, North Hollywood, Calif. 672,346, pub. 10–28–58. Cl. 1.
Horton Chinchilla Enterprises: *See*—
Horton, M. Wallace.
House of Foam, Columbus, Ohio. 672,585, pub. 10–28–58. Cl. 44.
House of Perfection, Inc., The, New York, N. Y. 672,547, pub. 10–28–58. Cl. 39.
Imperial Knife Associated Companies, Inc., Providence, R. I. 672,461, pub. 10–28–58. Cl. 23.
Industrial Publishing Corp., The, Cleveland, Ohio. 672,516, pub. 10–28–58. Cl. 38.
Industrial Soap Co., St. Louis, Mo. 364,616, canc. Cl. 52.
Inland Container Corp.: *See*—
Detroit Paper Products Corp.
Inselman, Jack L., & Co., Philadelphia, Pa. 672,559, pub. 10–28–58. Cl. 39.
International Latex Corp., Dover, Del. 672,401, pub. 10–28–58. Cl. 18.
International Latex Corp., Dover, Del. 672,531, pub. 10–28–58. Cl. 39.
International Latex Corp., Dover, Del. 672,555, pub. 10–28–58. Cl. 39.
International Metal Polish Co., Inc., Indianapolis, Ind. 365,554, ren. 3–14–59. Cl. 4.
International Minerals & Chemical Corp., Chicago, Ill. 672,357, pub. 10–28–58. Cl. 5.
International Minerals & Chemical Corp., Chicago, Ill. 672,519, pub. 10–28–58. Cl. 28.
International Shoe Co., St. Louis, Mo. 567,044, canc. Cl. 39.
International Silver Co., The, Meriden, Conn. 672,457, pub. 10–28–58. Cl. 23.
Irwin, Neisler and Co., Decatur, Ill. 672,351, pub. 10–28–58. Cl. 2.
Jameco Metal Products Co.: *See*—
Silverman, Daniel.
Jerrold, Margaret, Inc., New York, N. Y. 672,572, pub. 10–28–58. Cl. 39.
Jill Gym Co., Inc., Fort Worth, Tex. 672,451, pub. 10–28–58. Cl. 22.
Jon Co., Lake Wales, Fla. 672,581, pub. 10–28–58. Cl. 44.
Jones, John L., Pasadena, Calif. 672,349, pub. 10–28–58. Cl. 2.
Johnson & Johnson, New Brunswick, N. J., from Le Page's Inc., Gloucester, Mass. 672,350, pub. 10–28–58. Cl. 5.
Johnson & Phillips Ltd., Charlton, London, England. 567,170, Canc. Cl. 21
Jones & Laughlin Steel Corp., Pittsburgh, Pa. 672,353, pub. 10–28–58. Cl. 2.
Jordan Mfg. Corp., New York, N. Y. 672,561, pub. 10–28–58. Cl. 39.
Joseph & Feiss Co., The, Cleveland, Ohio. 672,587–9, pub. 10–28–58. Cl. 39.
K & K Mfg., Inc., Minneapolis, Minn. 672,462, pub. 10–28–58. Cl. 23.
Karen Sue Togs, Inc., Cleveland, Ohio. 567,126, canc. Cl. 39.
Kaylon Inc., New York, N. Y. 567,070, canc. Cl. 39.
Kee Lox Mfg. Co., Rochester, N. Y. 672,643 Cl. 11.
Kendall Refining Co., The, Bradford, Pa. 672,389, pub. 10–28–58 Cl. 15.
Keaney, William H., d. b. a. National Concrete Forms Co., West Englewood, N. J. 672,378, pub. 10–28–58. Cl. 12.
King, Geo. W., Ltd., Stevenage, England. 672,456, pub. 10–28–58. Cl. 23.
Knox, Everett R., d. b. a. Minute Man Photo Service, Lexington, Mass. 672,638, pub. 10–28–58. Cl. 106.
Kochton Plywood & Veneer Co., Inc., Chicago, Ill. 672,377–8, pub 10–28–58. Cl. 12.
Konigsbacher Brauerei Aktiengesellschaft, vorm. Joseph Thillmann, Koblenz (Rhine), Germany. 672,612, pub. 8–26–58. Cl. 48.
Kremers-Urban Co., Milwaukee, Wis. 672,414, pub. 10–28–58. Cl. 18.
Kroger Co., The, Cincinnati, Ohio. 672,635, pub. 10–28–58. Cl. 102.
Lady Marlene Brassiere Corp., New York, N. Y. 672,571, pub. 10–28–58. Cl. 39.
La Spirotechnique, S. A., Paris, France. 672,439, pub. 10–28–58. Cl. 22.
Lee-Bert Inc., Saginaw, Mich. 672,511, pub. 10–28–58. Cl. 28.
Leeds Sweets Products, Inc., Chicago, Ill. 672,453, pub. 10–28–58. Cl. 23.
Lehman Bros. Corp., Jersey City, N. J. 364,606, ren. 2–7–59. Cl. 16.
Lehman Bros. Corp., Jersey City, N. J. 364,607, ren. 2–7–59. Cl. 16.
Lehn & Fink Products Corp., Bloomfield, N. J. 567,132, canc. Cl. 51.
Lehn & Fink Products Corp., Bloomfield, N. J. 672,629, pub. 10–28–58. Cl. 52.
Leland, G. H., Inc., Dayton, Ohio. 672,429, pub. 10–28–58. Cl. 21.
Le Page's Inc.: *See*—
Johnson & Johnson.
Lepoutre, Andre, & Cie S. A., Roubaix, Nord, France. 672,550, pub. 10–28–58. Cl. 39.
Le Roi Hosiery Co. Inc., New York, N. Y. 567,265, canc. Cl. 39.
Les Laboratoires Francais de Chimiotherapie, Paris, France. 672,410, pub. 10–28–58. Cl. 18.
Lido Toy Corp., New York, N. Y. 567,248, canc. Cl. 22.
Liebmann Breweries, Inc., Brooklyn, N. Y. 363,751, ren. 1–6–59. Cl. 48.
Lilenfeld, William, Inc., Brooklyn, N. Y. 672,536, pub. 10–28–58. Cl. 39.
Lipka, Stephen, Melbourne, Fla. 672,354, pub. 10–28–58. Cl. 2.
Loewengart & Co., New York, N. Y. 672,344, pub. 10–28–58. Cl. 1.
Lok-Products Co., Los Angeles, Calif. 672,375, pub. 10–28–58. Cl. 12.
Lowi, Lee, Asbury Park, N. J. 567,259, canc. Cl. 8.
Lucas, Abe, d. b. a. Lucas Clothing Co., Chicago, Ill. 672,530, pub. 10–28–58. Cl. 39.
Lucas Clothing Co.: *See*—
Lucas, Abe.
Lugo S. A., Montevideo, Uruguay. 567,151, canc. Cl. 3.
Macy, R. H., & Co., Inc., New York, N. Y. 361,824, ren. 11–1–58. Cl. 42.
Malina, Gerald, d. b. a. Skincare Products, New York, N. Y. 567,235, canc. Cl. 51.
Mallinson, H. R., & Co. Inc., to Triplex National Corp., New York, N. Y. 123,917, ren. 12–17–58. Cl. 42.
Marinette Knitting Mills, Marinette, Wis. 567,057, canc. Cl. 39.
Matinee Ltd., Los Angeles, Calif. 672,489, pub. 10–28–58. Cl. 28.
Mavest Inc., New York, N. Y. 672,560, pub. 10–28–58. Cl. 39.
Mayer, L., Co., The, Chicago, Ill. 672,529, pub. 10–28–58. Cl. 39.
McKesson & Robbins, Inc., New York, N. Y. 672,607, pub. 10–28–58. Cl. 47.
Meopta, Narodni Podnik, Prerov, Czechoslovakia. 672,473–4, pub. 10–28–58. Cl. 26.
Mercedes Publishing Co.: *See*—
Griffith, Robert I.
Mercury, Ltd., New York, N. Y. 672,562, pub. 10–28–58. Cl. 39.
Metals Disintegrating Co., Inc., Union, N. J. 362,230, ren. 11–18–58. Cl. 16.
Metals Disintegrating Co., Inc., Union, N. J. 362,358, ren. 12–20–58. Cl. 14.
Metheny's Supply House, Paragould, Ark. 567,240, canc. Cl. 51.
Micanite & Insulators Co. Ltd., The, London, England. 672,430, pub. 10–28–58. Cl. 21.
Miller Industries: *See*—
Miller, Pearl W.
Miller, Pearl W., d. b. a. Miller Industries, Glenview, Ill. 567,169, canc. Cl. 39.
Milner Products Co.: *See*—
Dumas Milner Corp.
Miles Laboratories, Inc., Elkhart, Ind. 672,367, pub. 10–28–58. Cl. 6.
Mine Safety Appliances Co., Pittsburgh, Pa. 672,544, pub. 10–28–58. Cl. 39.
Minute Man Photo Service: *See*—
Knox, Everett R.
Miron Mills, Inc., Clinton, Mass. 567,206, canc. Cl. 42.
Mode Craft Co., Inc., The, Brooklyn, N. Y. 672,495, pub. 10–28–58. Cl. 32.
Model Brassiere Corp., Cortland, N. Y. 667,474, cor. Cl. 39.
Modern Maid Food Products Co.: *See*—
Modern Maid Food Products.
Modern Maid Food Products, Brooklyn, to Modern Maid Food Products Co., Jamaica, N. Y. 363,265, ren. 12–20–58. Cl. 46.
Mohawk Motor Lines, Inc., Nashville, Tenn. 567,270, canc. Cl. 105.
Mohawk Motor Lines, Inc., Nashville, Tenn. 567,271, canc. Cl. 105.
Moirs Ltd., Halifax, Nova Scotia, Canada. 362,685, ren. 11–29–58. Cl. 46.
Molson's Brewery Ltd., Montreal, Quebec, Canada. 672,613, pub. 10–28–58. Cl. 48.
Moore, Benjamin, & Co., New York, N. Y., from Sillers Paint and Varnish Co., Los Angeles, Calif. 672,395–6, pub. 10–28–58. Cl. 16.
Moramarco, A., d. b. a. California Mission Vintage Co., Los Angeles, Calif., to Schenley Industries, Inc., New York, N. Y., Fresno, Calif., and Wilmington, Del. 360,923, ren. 10–4–58. Cl. 49.
Morris, R., Mfg. Co., Detroit, Mich. 672,464, pub. 10–28–58. Cl. 23.
Morris, Norman M., Corp., New York, N. Y. 672,487, pub. 10–28–58. Cl. 27.
Mueller Welt Contact Lenses, Inc., Chicago, Ill. 672,480, pub. 10–28–58. Cl. 26.
Muller & Schmidt Pfeilringwerk, Solingen, Germany. 672,586, pub. 10–28–58. Cl. 44.
Munsingwear, Inc., d. b. a. Hollywood V-Ette-Vassarette, Minneapolis, Minn., from Hollywood-Maxwell Co., Los Angeles, Calif. 672,649. Cl. 39.
Narmco Canolon Co., Costa Mesa, Calif. 672,449, pub. 10–28–58. Cl. 22.
National Aniline & Chemical Co., Inc., to Allied Chemical Corp., New York, N. Y. 123,946, ren. 12–24–58. Cl. 6.
National Chemical Corp., Newton, Mass. 672,394, pub. 10–28–58. Cl. 16.

National Concrete Forms Co.: *See*—
Kenney, William H.
National Distillers and Chemical Corp.: *See*—
Bellows & Co., Inc.
National Distillers Products Co.: *See*—
Bellows & Co., Inc.
National Rayon Dyeing Co., Inc., Newark, N. J. 567,108, canc. Cl. 43.
Neatform Co. Inc., The, New York, N. Y. 567,089, canc. Cl. 39.
Nelson, James, Ltd.: *See*—
Raab-Meyerhoff, M. H., Co., Inc.
Neufeld, W. B., d. b. a. Orthopedic Shoe Clinic, Woodhaven, N. Y. 672,532, pub. 10–28–58. Cl. 39.
New York Condensed Milk Co., to The Borden Co., New York, N. Y. 15,801, ren. 8–21–58. Cl. 46.
Nopco Chemical Co., Harrison, N. J. 580,672. Am. 7(d). Cl. 18.
Ocean Photo Supply Co., Inc., to Standard Camera Corp., New York, N. Y. 596,382, new cert. Cl. 26.
O-Cedar of Canada Ltd., Toronto, Ontario, Canada. 567,231, canc. Cl. 29.
Ogden, Betti Y., Clearwater, Fla. 672,517, pub. 10–28–58. Cl. 38.
O'Keefe Brewing Co. Ltd., Toronto, Ontario, Canada. 672,610–11, pub. 10–28–58. Cl. 48.
Old Grantian Co. Ltd., London, England. 672,652. Cl. 49.
Olson, Le Roy, Co., San Francisco, Calif. 567,237, canc. Cl. 12.
Oomphies, Inc., New York, N. Y. 567,055, canc. Cl. 39.
Opolony, Estelle M., Des Plaines, Ill. 672,583, pub. 10–28–58. Cl. 44.
Orthopedic Shoe Clinic: *See*—
Neufeld, W. B.
Outboard Boating Club of America, Chicago, Ill. 672,639, pub. 10–28–58. Cl. 107.
Palizzio, Inc., New York, N. Y. 672,356, pub. 10–28–58. Cl. 3.
Pape, Cotis J., Chicago, Ill. 672,634, pub. 10–28–58. Cl. 101.
Park & Tilford Distillers Corp.: *See*—
Schenley Distillers, Inc.
Parke, Davis & Co., Detroit, Mich. 365,061, ren. 2–21–59. Cl. 18.
Paxton, Frank, Lumber Co., Kansas City, Mo. 672,380, pub. 10–28–58. Cl. 12.
Peerless Imperial Co. Inc., Newark, N. J. 672,372, pub. 10–28–58. Cl. 11.
Penick & Ford, Ltd., Inc., New York, N. Y. 363,224, canc. Cl. 6.
Penick & Ford, Ltd., Inc., New York, N. Y. 363,480, ren. 12–27–58. Cl. 46.
Penn State Mills, Inc.: *See*—
Blossom Products Corp.
Pennsylvania Natural Gas Men's Association, Pittsburgh, Pa. 672,641, pub. 10–28–58. Cl. A.
Perfumeria Floralia, S. A., Madrid, Spain. 672,628, pub. 10–28–58. Cl. 52.
Permanent Filter Corp., Los Angeles, Calif. 672,492, pub. 10–28–58. Cl. 31.
Permiteco, Inc.: *See*—
Aluminum Industries, Inc.
Pfeiffer Co., The: *See*—
Pfeiffer, S., Mfg. Co.
Pfeiffer, S., Mfg. Co., d. b. a. Heinrich Pharmacal Co., to The Pfeiffer Co., St. Louis, Mo. 361,336, ren. 10–11–58. Cl. 51.
Philco Corp., Philadelphia, Pa. 672,470, pub. 4–22–58. Cl. 26.
Phil-Ley's: *See*—
Phillips, Elmer E.
Phillips, Elmer E., d. b. a. Phil-Ley's, Buffalo, N. Y. 672,442, pub. 10–28–58. Cl. 22.
Pincus, Lester, Shoe Corp., New York, N. Y. 672,534, pub. 10–28–58. Cl. 39.
Plastic Products Co., Inc., Dallas, Tex. 567,261, canc. Cl. 3.
Pollak Steel Co., The, Cincinnati, Ohio. 672,382, pub. 10–28–58. Cl. 13.
Poroloy Equipment, Inc., to Bendix Aviation Corp., Detroit, Mich. 638,690, new cert. Cl. 14.
Portco Corp., Portland, Oreg. 672,383, pub. 10–28–58. Cl. 13.
Portland Die & Stamping Co.: *See*—
Siverson, Harry E.
Preston, J. A., Corp., New York, N. Y. 672,582, pub. 10–28–58. Cl. 44.
Pritzlaff, John, Hardware Co., Milwaukee, Wis. 606,924, canc. Cl. 16.
Priv. Fabrica Maraschino "Excelsior" Girolamo Luxardo S. p. A., Torreglia, Padova, Italy. 672,608, pub. 10–28–58. Cl. 47.
Pro-Cyn-Kera Laboratories, Inc., Crystal Lake, Ill. 672,625, pub. 10–28–58. Cl. 51.
Prodelin Inc., Kearny, N. J. 672,438, pub. 10–28–58. Cl. 21.
Profile Slenderizing Salons, Bergenfield, N. J. 672,587, pub. 10–28–58. Cl. 44.
Protective Fire and Casualty Co., Seward, Nebr. 672,636, pub. 10–28–58. Cl. 102.
R & H Frozen Meats, Inc., d. b. a. Topsy's Dog Food Co., Creve Coeur, Mo. 672,593, pub. 10–28–58. Cl. 46.
Raab-Meyerhoff, M. H., Co., Inc., to James Nelson, Ltd., Philadelphia, Pa., to James Nelson Ltd., Nelson, England. 362,256, ren. 11–15–58. Cl. 39.
Radio Steel & Mfg. Co., Chicago, Ill. 672,423, pub. 10–28–58. Cl. 19.
Rainey, Vordia L., d. b. a. Rainey's Insecticide Co., Ripley, Miss. 672,642. Cl. 6.
Rainey's Insecticide Co.: *See*—
Rainey, Vordia L.
Raytheon Mfg. Co., Newton, Mass. 558,696. Am. 7(d). Cl. 26.
Razete, Phyllis L., d. b. a. Cincinnati Electronics Co., Cincinnati, Ohio. 567,146, canc. Cl. 21.
Ralphs Engineering Co. Ltd., The, Leicester, England. 567,068, canc. Cl. 23.
Rath, William C., & Sons, New York, N. Y. 414,823, canc. Cl. 1.
Reconstruction Finance Corp.: *See*—
Blossom Products Corp.
Rehels Co., Inc., Berkeley Heights, N. J. 672,405, pub. 10–28–58. Cl. 18.
Reynolds Industries, Inc., Santa Monica, Calif. 672,432, pub. 10–28–58. Cl. 21.
Rialto Packing Co.: *See*—
Boyd, J. C.
Riegel, Robert F., d. b. a. Riegel & Son Elevator, Woodington, Ohio. 672,462, pub. 10–28–58. Cl. 23.
Riegel & Son Elevator: *See*—
Riegel, Robert F.
Rielly Co., Inc., New York, N. Y. 672,556, pub. 10–28–58. Cl. 39.
Robertson, James, Co., Los Angeles, Calif. 672,615, pub. 8–26–58. Cl. 49.
Robinson-Wagner Co., Inc., New York, N. Y. 672,361, pub. 10–28–58. Cl. 6.
Robuck, B. B., Inc.: *See*—
Georgia Builder Publications Inc.
Rochester Ropes, Inc., Culpeper, Va. 672,370, pub. 10–28–58. Cl. 7.
Rockland Country Battery Co., Inc., Haverstraw, N. Y. 672,436, pub. 10–28–58. Cl. 21.
Rosal Laboratories Ltd.: *See*—
Duffy, George A.
Royal Bond, Inc., St. Louis, Mo. 672,369, pub. 10–28–58. Cl. 6.
Rothstein, Paul F., Philadelphia, Pa. 672,488, pub. 10–28–58. Cl. 28.
Rudo Sunwear, Inc., Philadelphia, Pa. 672,557, pub. 10–28–58. Cl. 39.
Russell, I. D., Vernon, Tex. 672,589, pub. 10–28–58. Cl. 44.
Rust Master Chemical Corp., Cambridge, Mass. 672,388, pub. 10–28–58. Cl. 15.
Rust-O-Vac Co.: *See*—
Searles, Robert M.
Ruud Mfg. Co., Kalamazoo, Mich. 668,803, cor. Cl. 34.
Russell, Clabe, Fort Worth, Tex. 567,062, canc. Cl. 18.
S. F. Appliances Ltd., Paterson, N. J. 672,497, pub. 10–28–58. Cl. 34.
Safeway Stores, Inc., Oakland, Calif. 672,597, pub. 11–4–58. Cl. 46.
Sandor, Inc., New York, N. Y. 672,433, pub. 10–28–58. Cl. 21.
Sanson Hosiery Mills, Inc., Philadelphia, Pa. 567,091, canc. Cl. 39.
Saxon Paper Corp., New York, N. Y. 672,502, pub. 10–28–58. Cl. 37.
Schenley Distillers, Inc., from Park & Tilford Distillers Corp., New York, N. Y. 672,616, pub. 10–28–58. Cl. 49.
Schenley Industries, Inc.: *See*—
Moramarco, A.
Schenley Industries, Inc., New York, N. Y. 672,618, pub. 10–28–58. Cl. 49.
Schering Corp., Bloomfield, N. J. 672,416, pub. 10–28–58. Cl. 18.
Scholl Mfg. Co., Inc., The, Chicago, Ill. 672,533, pub. 10–28–58. Cl. 39.
Schwitzer Corp., Indianapolis, Ind. 672,458, pub. 10–28–58. Cl. 23.
Scolding Locks Corp., Appleton, Wis. 672,574, pub. 10–28–58. Cl. 40.
Screentite Door Co., Oakland, Calif. 567,262, canc. Cl. 12.
Scripps-Howard Radio, Inc., d. b. a. Television Station News, Cincinnati and Cleveland, Ohio. 567,211, canc. Cl. 101.
Searles, Robert M., d. b. a. Rust-O-Vac Co., Philadelphia, Pa., to Robert M. Searles, Manchester, N. H. 359,194, ren. 8–9–58. Cl. 6.
Sears, Roebuck and Co., Chicago, Ill. 517,411. Am. 7(d). Cl. 12.
Sears, Roebuck and Co., Chicago, Ill. 522,570. Am. 7(d). Cl. 12.
Sears, Roebuck and Co., Chicago, Ill. 565,444. Am. 7(d). Cl. 4.
Semler, R. B., Inc., now by merger the J. B. Williams Co., New Canaan, Conn. 567,128, canc. Cl. 52.
Sentinel Bag & Paper Co., Inc., Brooklyn, N. Y. 672,501, pub. 10–28–58. Cl. 37.
Sherman Paper Products Corp., Newton, Mass. 672,506, pub. 10–28–58. Cl. 37.
Sherman Products, Inc., Royal Oak, Mich. 672,466, pub. 10–28–58. Cl. 23.
Shoreland Dress Co.: *See*—
Steiner, Louis K.
Silin, Jacob, Philadelphia, Pa. 672,546, pub. 10–28–58. Cl. 39.
Sillers Paint and Varnish Co.: *See*—
Moore, Benjamin, & Co.
Silverman, Daniel, d. b. a. Jameco Metal Products Co., New York, N. Y. 672,355, pub. 8–12–58. Cl. 2.
Simmons Co., New York, N. Y. 672,494, pub. 10–28–58. Cl. 32.
Siverson, Harry E., d. b. a. Portland Die & Stamping Co., Portland, Oreg. 567,267, canc. Cl. 13.
Skincare Products: *See*—
Maline, Gerald.
Smith Furniture Mfg Co., Waco, Tex. 567,046, canc. Cl. 32.
Smith, Wesley A., Des Moines, Iowa. 672,490, pub. 10–28–58. Cl. 29.
Societe Anonyme Aubry Freres Montres Ciny, Le Noirmont, Switzerland. 672,486, pub. 10–28–58. Cl. 27.
Societe Rhodiaceta, Paris, France. 672,481, pub. 10–28–58. Cl. 26.

South Bend Lathe Works, South Bend, Ind. 567,130, canc. Cl. 12.
Speedry Products, Inc., Richmond Hill, N. Y. 672,503, pub. 10–28–58. Cl. 37.
Sperry Flour Co., San Francisco, Calif., to General Mills, Inc., Minneapolis, Minn. 124,940, ren. 3–25–59. Cl. 46.
Staley & Staley: *See*—
Dods, H. H. C., Proprietary Ltd.
Standard Camera Corp.: *See*—
Blank, Arnold.
Ercona Camera Corp.
Ocean Photo Supply Co., Inc.
Stearns, Frederick, & Co., Detroit, Mich. 183,503, canc. Cl. 46.
Steiner, Louis K., d. b. a. Shoreland Dress Co., Miami, Fla. 567,116, canc. Cl. 39.
Sterling Doll Co., Inc., New York, N. Y. 672,447, pub. 10–28–58. Cl. 22.
Stewart, J. & G., Ltd., Edinburgh, Scotland. 672,619–20, pub. 10–28–58. Cl. 49.
Stewart-Warner Corp., Chicago, Ill. 672,385, pub. 10–28–58. Cl. 14.
Stitzel-Weller Distillery: *See*—
Stitzel-Weller Distillery, Inc.
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Stix, Baer and Fuller Co., St. Louis, Mo. 366,634, ren. 4–25–59. Cl. 3.
Stock's Candies, Inc., Cleveland Heights, Ohio. 655,074, canc. Cl. 46.
Stoll, Robert, to Robert Stoll, Inc., New York, N. Y. 123,500, ren. 11–12–58. Cl. 28.
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Stoll, Robert.
Stone, W. Clement, from, Godfrey-Stone International Publications, Inc., Chicago, Ill. 672,510, pub. 10–28–58. Cl. 38.
Suittime, Inc., New York, N. Y. 672,568, pub. 10–28–58. Cl. 39.
Sullivan, Carol B., New York, N. Y. 672,553, pub. 10–28–58. Cl. 39.
Sullivan, Ray, to Bikini Blanket Co., Inc., San Francisco, Calif. 567,107, canc. Cl. 39.
Sun Valley Mfg. Co., Boston, Mass. 672,543, pub. 10–28–58. Cl. 39.
Sunbeam Corp., Chicago, Ill. 672,398, pub. 10–28–58. Cl. 16.
Sunfilm Corp., The, Atlanta, Ga. 567,257, canc. Cl. 6.
Superba Cravats, Inc., Rochester, N. Y. 672,548, pub. 10–28–58. Cl. 39.
Supreme Pants Co. Inc., New York, N. Y. 567,196, canc. Cl. 39.
Surpass Leather Co., Philadelphia, Pa. 672,345, pub. 10–28–58, Cl. 1.
Swank, Inc., Attleboro, Mass. 672,646. Cl. 28.
Tallman, Russell, W., d. b. a. Zippo Bar-charts, Jewell, Iowa. 672,500, pub. 10–28–58. Cl. 37.
Tapecoat Co., The, Evanston, Ill. 627,397, pub. 10–28–58. Cl. 16.
Taylor, James A., Memphis, Tenn. 672,507, pub. 10–28–58. Cl. 37.
Television Station News: *See*—
Scripps-Howard Radio, Inc.
Telecoin Corp., New York, N. Y. 567,080, canc. Cl. 21.
Three V Co., St. Louis, Mo. 672,591, pub. 10–28–58. Cl. 45.
Thrifty Drug Stores Co. Inc., Los Angeles, Calif. 672,617, pub. 10–28–58. Cl. 49.
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R & H Frozen Meats, Inc.
Trade Winds, Inc., to Essex Ceramics Corp., Cedar Grove, N. J. 561,085. new cert. Cl. 4.
Trading Co., "Ee-Ee-Ee," Voorburg, Netherlands. 567,242, canc. Cl. 24.
Trans-Folia Gesellschaft fur Transparentdruck mit Beschraenkter Haftung, Berlin-Lichterfelde, Germany. 672,515, pub. 10–28–58. Cl. 38.
Traulsen & Co. Inc., Flushing, N. Y. 672,491, pub. 10–14–58. Cl. 31.
Trelleborgs Gummifabriks Aktiebolag, Trelleborg, Sweden. 672,499. pub. 10–28–58. Cl. 35.
Triplex National Corp.: *See*—
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Tube-Strut Corp., Los Angeles, Calif. 672,379, pub. 10–28–58. Cl. 12.
Tuners Supply Co., Somerville, Mass. 366,432, ren. 4–11–59. Cl. 16.
Turbo Products, Inc., to Bendix Aviation Corp., Detroit, Mich. 602,900, new cert. Cl. 14.
United Merchants and Manufacturers, Inc., New York, N. Y. 567,214. canc. Cl. 106.
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U. S. Industries, Inc., Los Angeles, Calif. 672,465, pub. 10–28–58. Cl. 23.
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United States Smelting Refining and Mining Co., Boston, Mass. 364,626, ren. 2–7–59. Cl. 14.
Upjohn Co., The, Kalamazoo, Mich. 672,363–4, pub. 10–28–58. Cl. 6.
Upjohn Co., The, Kalamazoo, Mich. 672,402, pub. 10–28–58. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 672,404, pub. 10–28–58, Cl. 18.
V D O Tachometer Werke Adolf Schindling G. m. b. H., Frankfurt am Main, Germany. 672,469, pub. 10–28–58. Cl. 26.
V-M Corp., Benton Harbor, Mich. 613,826, canc. Cl. 21.
Valley Products Co., Memphis, Tenn. 672,632, pub. 10–28–58. Cl. 52.
Velveray Corp., Clifton, N. J. 672,576, pub. 10–28–58. Cl. 42.
Venus Foundation Garments, Inc., Chicago, Ill. 672,563, pub. 10–28–58. Cl. 39.
Vibration Research Laboratories, Inc., Tuckahoe, N. Y. 672,434, pub. 10–28–58. Cl. 21.
Victor Mfg. & Gasket Co., Chicago, Ill. 363,012, ren. 12–6–58. Cl. 35.
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Vo-Gel Products, Inc., Annapolis, Md. 567,131, canc. Cl. 18.
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Walker, Hiram, & Sons, Inc., Detroit, Mich., and Peoria, Ill. 567,144, canc. Cl. 18.
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Ward Wicker Ware, Inc., Philadelphia, Pa. 567,085, canc. Cl. 32.
Watson-Stillman Co., The, St. Louis, Mo. 672,386, pub. 10–28–58. Cl. 15.
Waxed Silicone Products, Inc., Miami, Fla. 567,230, canc. Cl. 4.
Wayne Knitting Mills, Fort Wayne, Ind. 672,540, pub. 10–28–58. Cl. 39.
Webster, William A., Co., The, Memphis, Tenn. 567,064, canc. Cl. 18.
Welch, James O., Co., Cambridge, Mass. 672,598, pub. 10–28–58. Cl. 46.
Westbrook Industries, Inc., Long Island City, N. Y. 672,590, pub. 10–28–58. Cl. 45.
Western Advertising, San Francisco, Calif. 672,514, pub. 10–28–58. Cl. 38.
Whas, Inc., Louisville, Ky. 672,637, pub. 10–28–58. Cl. 104.
Wiesen, Max, & Sons Co., Inc., New York, N. Y. 361,584, ren. 10–25–58. Cl. 39.
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Wilco Co., Los Angeles, Calif. 672,630, pub. 10–28–58. Cl. 52.
Wilco Produce Co., Blythe, Calif. 672,599–600, pub. 10–28–58. Cl. 46.
Will Corp., Rochester, N. Y. 672,475, pub. 10–28–58. Cl. 26.
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Wilson, A. L., Chemical Co., Kearny, N. J. 567,136, canc. Cl. 52.
Wilson, James R., d. b. a. Walentine Honey Packers, St. Valentin, Quebec, Canada. 672,596, pub. 10–28–58. Cl. 46.
Wolper, Marshall L., Chicago, Ill. 567,145, canc. Cl. 39.
Wood Conversion Co., St. Paul, Minn. 672,381, pub. 10–28–58. Cl. 12.
Wood, J. W., Elastic Web Co., Stoughton, Mass. 672,578, pub. 9–19–58. Cl. 42.
Zenith Radio Corp., by merger from Zenith Radio Corp., Chicago, Ill. 672,435, pub. 10–28–58. Cl. 21.
Ziff-Davis Publishing Co., Chicago, Ill. 567,224, canc. Cl. 38.
Zippo Bar-charts: *See*—
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U. S. GOVERNMENT PRINTING OFFICE: 0——1959

PATENTS

NOTICES

Disclaimer

2,815,349.—*Claude Rimington*, London, *Alexander Lawson*, Southgate, London, *Charles E. Searle*, Englefield Green, and *Harold Victor Morley*, London, England. CERTAIN SUBSTITUTED THIOGLYCOLONES. Patent dated Dec. 2, 1957. Disclaimer filed Dec. 18, 1958, by the assignee, *National Research Development Corporation*.

Hereby disclaims all of the terminal portion of the term of said patent subsequent to Mar. 2, 1971.

Adjudicated Patent

(D. C. Pa.) Krause and Fiffung Patent No. 2,746,477 (137—218), for a vacuum breaker, *Held* not infringed. *Spoolman Company* v. *Hoos Valve Company*, 166 F. Supp. 877; 118 USPQ 536.

New Applications Received During November 1958

Patents	5,969
Designs	346
Plant Pats	1
Reissues	23
Total	6,348

Issue

Patents	1,319	No. 2,869,126	to No.	2,870,444, incl.
Designs	25	No. 184,272	to No.	184,296, incl.
Plant Pats	3	No. 1,801	to No.	1,803, incl.
Reissues	4	No. 24,590	to No.	24,593, incl.
Total	1,351			

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1958

Total number of pending applications (excluding Designs)	201,598
Total number of pending Design applications	6,983
Total number of applications awaiting action (excluding Designs)	84,136
Total number of Design applications awaiting action	3,121
Date of oldest new application	Dec. 6, 1957
Date of oldest amended application	Dec. 3, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 42, 46, 50, 58, 59, 60, 62, 65.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
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1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders; Harrows and Diggers; Plows.	4-7-58	4-10-58
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	3-26-58	2-10-58
3. (VII) MARMELSTEIN, N., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	4-2-58	3-26-58
4. (VI) FALLER, E. A. (SCHULZ, H. O., acting), Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	4-21-58	4-23-58
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminuters; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	2-11-58	1-15-58
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8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	4-9-58	3-18-58
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19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	4-4-58	4-1-58
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22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	3-17-58	3-20-58
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24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	6-24-58	7-2-58
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DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	6-13-58	6-15-58
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34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	5-1-58	5-9-58
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39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	5-5-58	6-13-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5-1-58	4-25-58
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60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	5-1-58	5-1-58
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Railway Mail Delivery; Feeding of Indefinite Lengths	4-1-58	4-1-58
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*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1959, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,268,540 to 2,271,509, inclusive
Plant Patents ..... Numbers 499 to 501, inclusive

REISSUES

JANUARY 20, 1959

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

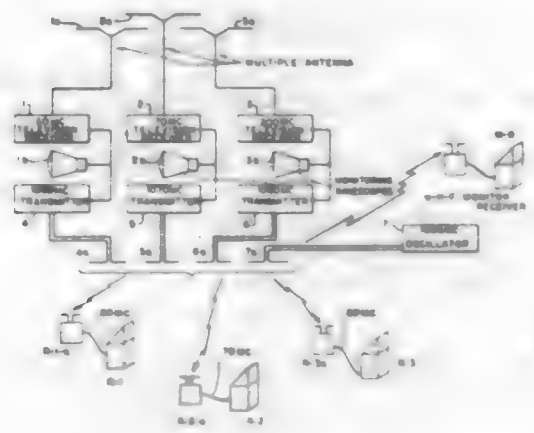
24,590

TELEVISION DISTRIBUTION SYSTEM

Louis W. Parker, Oyster Bay Cove, N. Y.

Original No. 2,831,105, dated April 15, 1958, Serial No. 280,927, April 7, 1952. Application for reissue June 27, 1958, Serial No. 745,230

17 Claims. (Cl. 250—15)



1. In combination, a building and a system of television reception for the building comprising all of the following: a plurality of master receivers of good selectivity one for each television channel to be received, the television channel received by each of said master receivers including both sound and picture signal components, a plurality of local receivers having poorer selectivity than said master receivers and located at various places in the building, transmitters modulated by the output of the master receivers for rebroadcasting their outputs on channels more widely spaced than some of the original channels, and means for altering the ratio of sound to picture signal components in each of said television channels whereby the ratio of sound to picture components is *different* [higher] in said rebroadcast outputs than it is in the channels received by said master receivers.

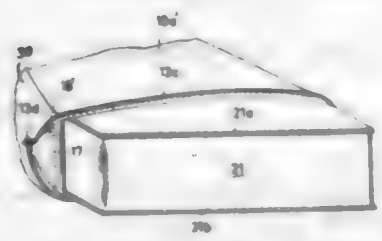
24,591

MATTRESS COVER AND METHOD OF MAKING SAME

Louis Schwartz, Hewlett, N. Y.

Original No. 2,838,772, dated June 17, 1958, Serial No. 585,515, May 17, 1956. Application for reissue October 8, 1958, Serial No. 766,152

10 Claims. (Cl. 5—354)



1. A cover for a mattress or the like, comprising a substantially prismatic integral body with an upper and a lower panel, a front panel, a rear panel and two side panels defining two front box corners and two rear box corners with said upper and lower panels, each of said front corners being provided with a triangular front flap consisting of two registering, triangular flap halves each integrally extending from both said upper and lower panels, each front flap having a base along the common edge of said front panel and a respectively adjacent side panel and having its apex directed backwardly along the respective side panel, each front flap registering with and being concealed by a triangular area of said respective side panel, each of said rear corners being formed of a triangular rear flap having a base along the common edge of said rear panel and a respectively adjacent side panel and extending inwardly from its base, said front panel having an entrance slot extending from one front corner to the other and onto said side panels toward the apices of said triangular areas, the base of each front flap being accessible through said slot.

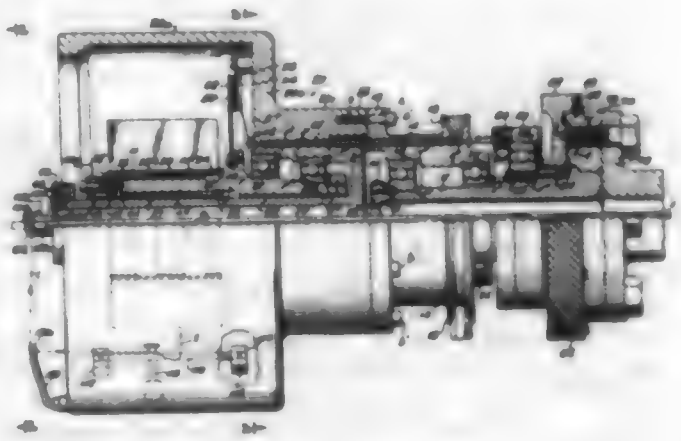
24,592

APPARATUS FOR SERVING A STRAND ON A TRAVELLING CORE

Dean L. Williams, Rome, N. Y., assignor to Rome Cable Corporation, Rome, N. Y., a corporation of New York

Original No. 2,807,129, dated September 24, 1957, Serial No. 429,299, May 12, 1954. Application for reissue February 24, 1958, Serial No. 717,284

19 Claims. (Cl. 57—18)



1. Apparatus for serving a strand onto and around a travelling core which comprises, a first fixed hollow shaft, a second hollow shaft separate from said first shaft and disposed in front of said first shaft and in axial alignment with said first shaft, a flyer fixed to said second shaft and having a cup-shaped portion extending around, and in spaced relation to, said second shaft, rotatable means supported on said first shaft, means interconnecting said second shaft and flyer with said rotatable means for rotation with said rotatable means, a sleeve surrounding said second shaft, and means disposed between said sleeve and said flyer for spacing said sleeve from said second shaft and mounting said sleeve for rotation around said second shaft.

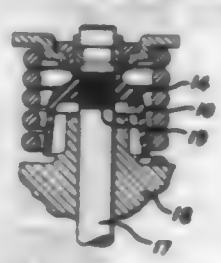
24,593
VALVE STEM SEAL

Denny D. Duesenberg, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Original No. 2,843,102, dated July 15, 1958, Serial No. 718,067, February 27, 1958. Application for reissue August 21, 1958, Serial No. 756,497

14 Claims. (Cl. 123—188)

1. An internal combustion engine comprising a poppet valve and an elastomer seal, an opening in said seal for accommodating the valve stem, a plurality of serrations on said stem and in said seal opening whereby the seal



is secured to said stem by the interlocking engagement of the serrations of said valve seal and valve stem.

PLANT PATENTS

GRANTED JANUARY 20, 1959

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,501
CAMELLIA PLANT

Vernon R. James, Aptos, Calif.

Application June 3, 1958, Serial No. 739,644

1 Claim. (Cl. 47—60)

A new and distinct variety of camellia plant, substantially as shown and described, characterized particularly by its floriferousness, the distinctive pink coloring of the bloom, the large size of the bloom, its hardiness to cold weather, and its vigorous strong growth.

1,502
POINSETTIA PLANT

Paul Ecke, Encinitas, Calif.

Application April 28, 1958, Serial No. 731,556

1 Claim. (Cl. 47—60)

A new and distinct variety of poinsettia plant, substantially as illustrated and described, characterized by a central inflorescence and an involucre of a large number of prolately-ovate-acuminate bracts of predominantly a pale greenish tint of creamy white color and of substantially greater width than known varieties, the bracts radiating on relatively short petioles from the inflorescence and the side edges of individual bracts overlapping the side edges of the next adjacent bracts in wreath-like relation.

1,503
ROSE PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application June 3, 1958, Serial No. 739,643

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by the unique combination of a great number of leaflets, unusually heavy thorns, flowers of a larger size than those of "Demure" (Plant Patent No. 1,065) but having equally good keeping qualities, and a distinctive Thulite Pink general color tonality of the flowers, lightly overcast with Rose Pink.

PATENTS

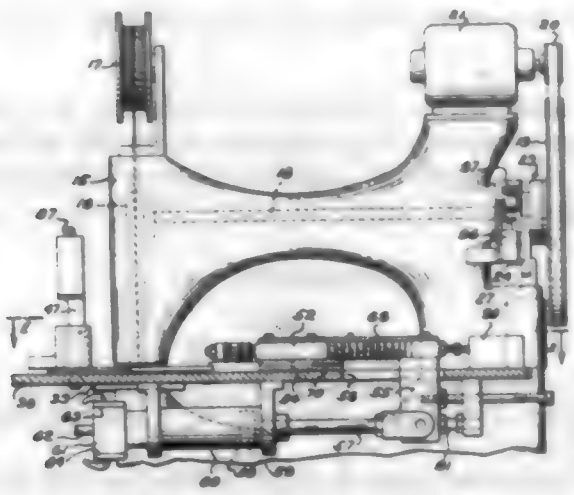
GRANTED JANUARY 20, 1959

GENERAL AND MECHANICAL

2,869,126
MACHINE FOR STITCHING TERMINALS ONTO CARDS

Joel R. Johnson, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application January 30, 1957, Serial No. 637,284
2 Claims. (Cl. 1—92)



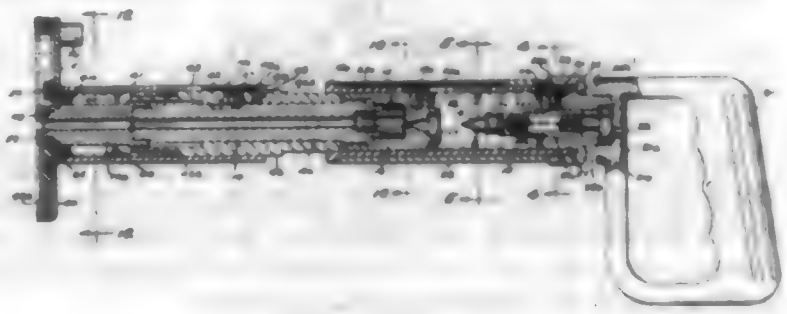
1. In a machine for stitching terminals to a card, a reciprocable stitching head, a drive for said stitching head, a clutch for connecting the drive to said stitching head, a card holder mounted for guiding a card through a predetermined path relative to the stitching head, power means for moving said holder in one direction from a loading position to an initial operative position and for moving said holder in a reverse direction to said loading position, means including a manually actuated switch for effecting the actuation of the power means to move the holder to said initial operative position, means responsive to the movement of the holder to the initial operative position for effecting the actuation of the power means to move the card holder in the reverse direction, pawl and ratchet means for stopping the card holder in different positions during its movement in the reverse direction, clutch actuating means, means operable in response to movement of said card holder to said initial operative position for rendering said clutch actuating means operative to connect the drive to said stitching head, means responsive to the actuation of said stitching head for actuating said pawl and ratchet means to effect a step by step feeding movement of the holder, and means operable in response to movement of said card holder to said loading position for rendering said clutch actuating means inoperative.

2,869,127
TOOL FOR DRIVING POWDER-ACTUATED FASTENERS

Jesse E. Williams, Bay Village, Ohio, assignor, by mesne assignments, to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application September 1, 1951, Serial No. 244,845
26 Claims. (Cl. 1—106)

6. A tool for driving a powder-actuated fastener comprising a barrel having breech and muzzle ends, means to hold a fastener and an explosive charge with a primer in the breech end of said barrel wherein said means includes a cylindrical breech block having a longitudinal bore offset from its longitudinal axis, a cylindrical housing having a bore surrounding said block and arranged for limited helical movement relative thereto, a cylindrical firing pin carrier mounted in said housing bore and arranged for limited movement relative to said housing, said firing pin carrier having a longitudinal bore offset from its longitudinal axis, a firing pin mounted rearward of said breech block in said firing pin carrier bore for limited longitudinal relative movement, a resilient means normally biasing said firing pin toward said primer, an operator actuatable member connected to said carrier for longitudinally

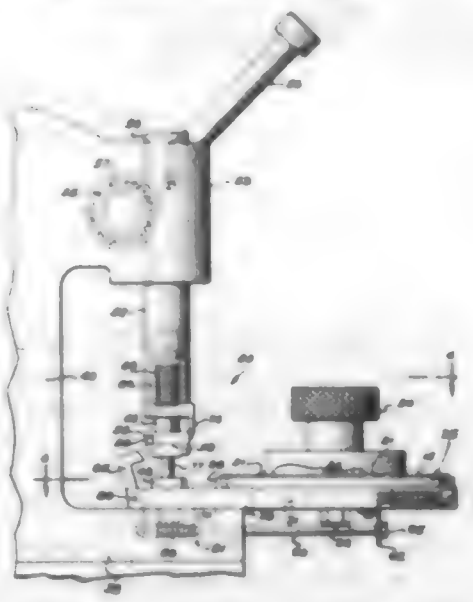


moving said carrier relative to said breech block and for moving said firing pin either to a registering position with said firing pin coaxial with said breech block bore or to a non-registering, non-coaxial position, and means operatively connecting said housing, said carrier and said breech block so that said firing pin is longitudinally movable from a normal safety position with said firing pin spaced from said breech block to a ready-to-fire position with said firing pin in said breech block bore to a firing position with said firing pin engaging said primer.

2,869,128
DEVICE FOR INSERTING L-SHAPED TERMINALS INTO PRINTED CIRCUIT BOARDS

Lester O. Reichelt, Downers Grove, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application March 6, 1957, Serial No. 644,257
9 Claims. (Cl. 1—1)



1. In a device for inserting dual-legged terminals into printed circuit boards, a head having an aperture for receiving one leg of the terminal and having a groove disposed transversely of the aperture for receiving the other leg of the terminal, a carrier for supporting a circuit

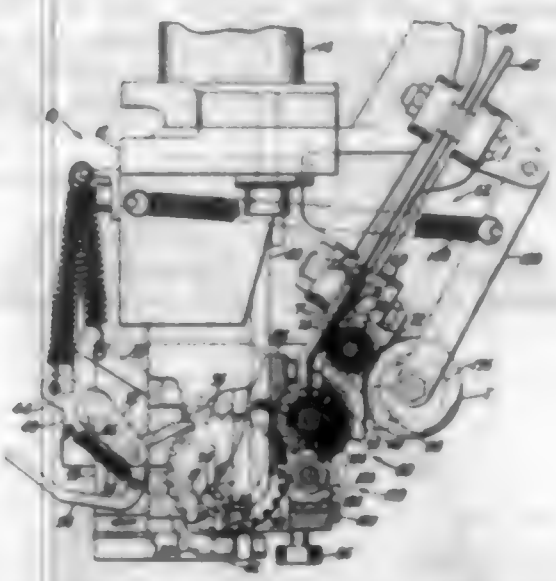
board, mounting means for supporting the head for movement along a path parallel to the groove therein and for supporting the carrier for movement parallel to the aperture in the head to an operative position to dispose the circuit board in a predetermined position for receiving the other leg of the terminal, means for actuating the head to drive the other leg of the terminal into the circuit board, means for latching the head at the end of its driving stroke to prevent the head from being retracted before the terminal is withdrawn therefrom, and means for releasing the latching means to permit the head to be retracted.

2,869,129

COMPONENT INSERTING MACHINES HAVING IMPROVED FEED CONTROL

Chester E. Rogers, Jr., Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application June 12, 1957, Serial No. 665,335
8 Claims. (Cl. 1—2)



1. In a machine for mounting coaxial lead components, a head including means for forming and inserting the leads of successive components, and mechanism actuatable by said head for feeding and indexing the successive components to be mounted with respect to said means, said mechanism including means operative throughout the length of the leads of the successive components to straighten and maintain the leads in substantially parallel relation during their feeding to enable them to be engaged in uniformly similar manner by the forming and inserting means.

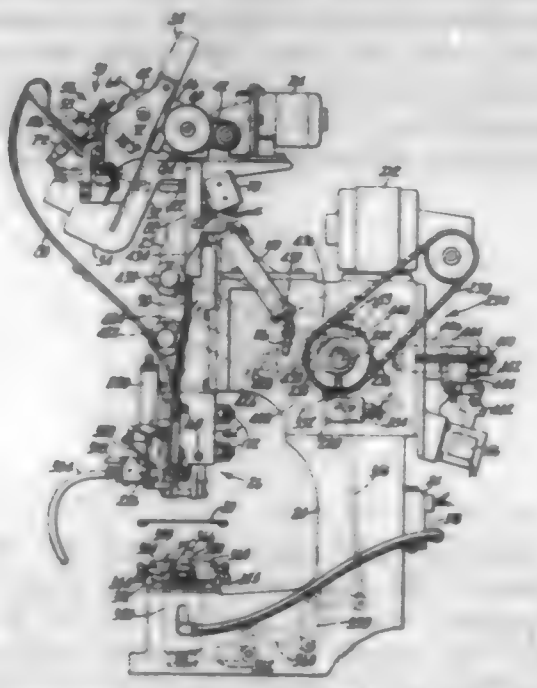
2,869,130

MECHANISMS FOR FEEDING ELECTRONIC COMPONENTS AND THE LIKE

Albert E. Newton, Beverly, Milton H. Roske, Boxford, and John E. Walsh, Beverly, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application February 3, 1958, Serial No. 712,821
10 Claims. (Cl. 1—3)

1. A machine for successively mounting in a work piece electrical components of the type having terminations projecting from corresponding surfaces thereof which comprises a reciprocable inserter, a plurality of independently movable carriers, said carriers being of substantially similar shape and respectively adapted to receive, hold, and release individual, similarly positioned components, means for loading the carriers successively at a receiving zone adjacent to a supply of the components, mechanism for circulating the carriers in sequence over a closed path in which they are confined, said path including said receiving zone and a release zone adjacent to the operating path of the inserter, means adjacent to the release zone for transferring from successive carriers therein the components to be mounted by the inserter, and means for operating said carrier circulating mechanism alternately with operations of the loading means and the transfer means.

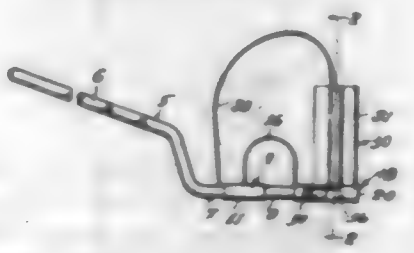


2,869,131

GLAZIER'S POINT DRIVER

Chester K. Judd, Jr., Bristol, Conn., assignor to The Fletcher-Terry Company, Forestville, Conn., a corporation of Connecticut

Application November 28, 1955, Serial No. 549,251
5 Claims. (Cl. 1—44)



1. A glazier's point driver including a carrier member, a wire frame having a handle portion and a pair of parallel prongs extending forwardly therefrom and having their free end portions slidable in said carrier member, an anchoring member extending across said prongs inwardly of their free ends and secured to said prongs, said carrier member having an elongated passage extending therethrough and a hole therein communicating with said passage, a driver secured to the anchoring member and extending into said passage to a point adjacent said hole, means for retaining a stack of points in vertical position and in said hole with the bottom point of the stack resting upon the bottom of said passage, a spring anchored on one of said members and having a free end portion in engagement with an abutment on the other member, and a separate inverted U-shaped spring having one leg secured to one of said members and the other leg engaging the top of the stack of points for forcing it downwardly into said hole.

2,869,132

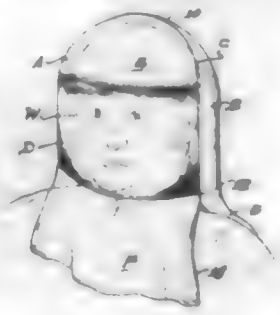
PROTECTIVE HOOD

Ronald B. Drummond, Capistrano Beach, Calif.

Application May 17, 1956, Serial No. 585,560
1 Claim. (Cl. 2—4)

A full vision head protective device capable of being worn and slept in that envelops at least the head of the wearer with a substantial portion thereof being out of contact therewith, including: a one-piece rear cloth section defined by a first upper portion having a convex curved upper edge, and a lower portion that flares out-

wardly to serve as a first protective flap; a three-piece forward section comprising a second upper cloth portion having a convex curved upper edge, a lower portion that flares outwardly to serve as a second protective flap, and a resilient pest impervious screen intermediately disposed between said second upper portion and said second flap; a reinforced seam of appreciable rigidity joining the adjacent edges of said first and second



upper portions; and means bonding the side edges of said screen to the complementary side edges of said first upper portion, with the rigidity of said seam and the resiliency and length of said screen cooperating to induce and sustain at least a part of the upper portion of said first and second sections out of contact with the wearer's head and the entire screen out of contact with the face.

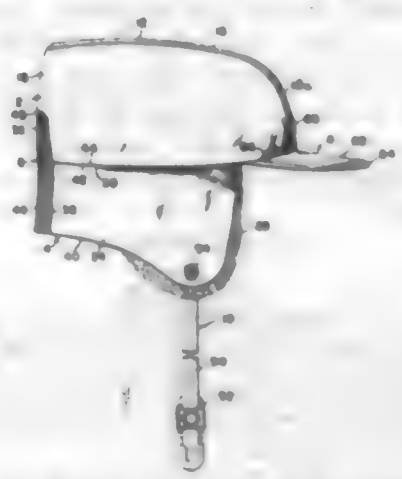
2,869,133
UNDERWATER HOOD
David W. Garbellano, Berkeley, Calif.
Application June 1, 1956, Serial No. 588,843
7 Claims. (Cl. 2—68)



1. A protective form-fitting hood suitable for underwater wear adapted to substantially enclose the head of its wearer and fabricated from unicellular neoprene foam rubber having a substantially water impervious structure of said neoprene rubber on the external surface only as distinguished from the skin-less internal surface of said unicellular foam rubber.

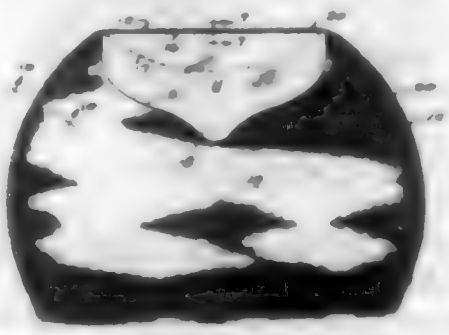
2,869,134
ADJUSTABLE HEADWEAR
Morris J. Milstein, Richmond, Va.
Application April 17, 1957, Serial No. 653,708
3 Claims. (Cl. 2—172)

2. A cap of the convertible lapel type comprising a visor, a head portion, a lapel portion including two separated earflap sections depending from said head portion, a band fixed to the base of said head portion, the bottom edge of said band coinciding with the lower edge of said head portion, said lapel portion being foldable upwardly about said lower edge to fit against the head portion, a cutaway section defined by vertically extending edges in the rear of the head portion, said section extending from said lower edge part way up the back of the head portion, said band extending from one vertically extending edge of said cutaway section around the cap to the opposite vertically extending edge of said cutaway section, a lining which conforms in shape to said head portion and includes a rear cutaway section as aforesaid, rear vertical edges on said earflap sections, said rear edges being spaced apart from one another defining a



cutaway section in said lapel portion beneath said cutaway section of said head portion, and an elastic web portion fixed across said cutaway sections, the cap being adjustable to a plurality of head sizes when worn with the lapel portion either in an up or down position.

2,869,135
SANITARY HEAD COVERING
Gilbert B. Wagenfeld, Philadelphia, Pa.
Application September 12, 1956, Serial No. 609,380
7 Claims. (Cl. 2—174)



1. In an article of wearing apparel, a disposable headdress of the type used by cooks, waitresses and the like for sanitary purposes comprising a one-piece sheet material crown having a marginal portion adapted to extend high across the top of the wearer's head, downwardly on both sides thereof behind the wearer's ears and then low across the back of the wearer's head, a one-piece sheet material peak including a base panel adapted to extend high across the top of the wearer's head and forwardly from the proximate area of said crown, and an ornamental face panel adapted to extend across the wearer's head upright upon the fore portion of said base panel, an elastic cord extending about the peripheral edge of said crown, stitching securing together said elastic cord and crown for contracting the latter to form a suitable head opening, and means securing together said crown and base panel of the peak.

2,869,136
DISPOSABLE ALL-WEATHER HAT
Wensan Wang, Tokyo, Japan
Application November 9, 1956, Serial No. 621,406
2 Claims. (Cl. 2—177)

1. A disposable all-weather hat comprising a cone-shaped cover, said cover embodying a plurality of rigid flat segments arranged in side by side relation, means connecting the adjacent sides of said segments for folding movement relative to each other, a tab arranged in face to face abutting relation with respect to the under face of each of said segments, each of said tabs being

spaced from the edges of the adjacent segment and having a part fixedly attached to the under face of said adjacent segment and having the remaining part unsecured and movable from the face to face abutting position to a position outwardly of the under face of said adjacent segment, the portion inwardly of the free end of each of said remaining parts being folded back upon itself to form a loop, and an endless expandable band extending through all of said loops and connecting together all of said tabs.



2,869,137

ADJUSTABLE CAPS AND LIKE STRUCTURES

Louis Scherz, Wilkes-Barre, Pa., assignor to The American Pad & Textile Co., Greenfield, Ohio, a corporation of Ohio

Application April 27, 1955, Serial No. 504,247
3 Claims. (Cl. 2—197)



1. An adjustable cap or like structure having a flexible crown member with a slit at its rear extending upwardly from the rim of the crown member, a flap member of flexible material secured to the crown member at one side of the slit and extending across the slit and underlying the crown member at the opposite side of the slit, a flexible sweat band within and secured along the rim of the crown member so that the sweat band may be turned upwards inside the crown member, said sweat band having one end adjacent the slit and an extension at the other end of the sweat band projecting across the slit, a loop portion secured to the said one end of the sweat band and located between the sweat band and crown member when the latter is in upwardly turned position and effective for providing a sleeve in which said extension can slide between said crown member and the said one end of the sweat band, a first fastener piece secured to said flap member, and a fastener structure including a plurality of second fastener pieces secured to the said crown member adjacent said other end of the sweat band for selective cooperation with said first fastener piece, the said first fastener piece and the said fastener structure being so located relative to the rim of the crown member that when the sweat band is turned upward and inside of the crown member said first fastener piece and the fastener structure are positioned between the sweat band and the crown member, whereby the increased thicknesses of the loop and sweat band extension and of the fastener piece and fastener structure are located at opposite sides of the slit from one another.

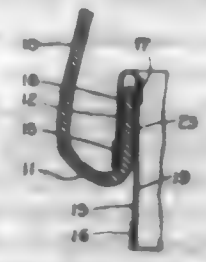
2,869,138

TROUSER LEG SUPPORTING DEVICE

Harry N. Haskoff, North Miami, Fla.

Application December 9, 1955, Serial No. 552,157
2 Claims. (Cl. 2—311)

1. A device for supporting the lower end portion of a trouser leg in bloused raised position upon a leg, said device comprising an elastic tubular body of one diameter throughout its length, said body being divided by narrow end and intermediate circumferential woven elastic straps into a leg engaging part and a trouser engaging part adapted to overlie the upper end portion only of the leg engaging part to form an annular pocket, the end strap of the leg engaging part being secured to the



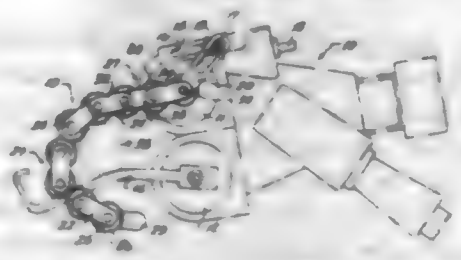
outer surface of said tubular body, the other end strap and said intermediate strap being secured to the inner surface of said tubular body, and said trouser engaging part, when folded on the leg engaging part adjacent the intermediate strap, disposing the end strap of said trouser engaging part on the now exposed surface of said trouser engaging part.

2,869,139

LINKAGE

Ralph S. Mosher, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application September 7, 1956, Serial No. 608,589
6 Claims. (Cl. 3—12)



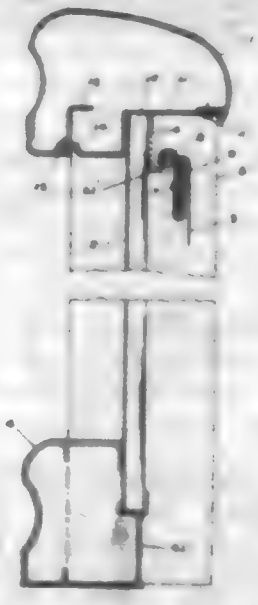
1. A linkage comprising a main link member, means for securing said main link member in a fixed position, a series of link members connected pivotally one to the other and to said main link member, each of said link members comprising a link bar, a pair of gears affixed to said link bar, a plurality of teeth around at least a portion of the periphery of each of said gears, each pair of said gears operatively engaging an associated pair of gears, and driving means engaging said pairs of gears.

2,869,140

PORTABLE BAPTISTRY

Martin F. Wiedemann, Jr., Muscatine, Iowa

Application June 4, 1956, Serial No. 589,259
4 Claims. (Cl. 4—1)



1. A rectangular baptistry comprising a housing having four corner posts and united thereto an ornamental

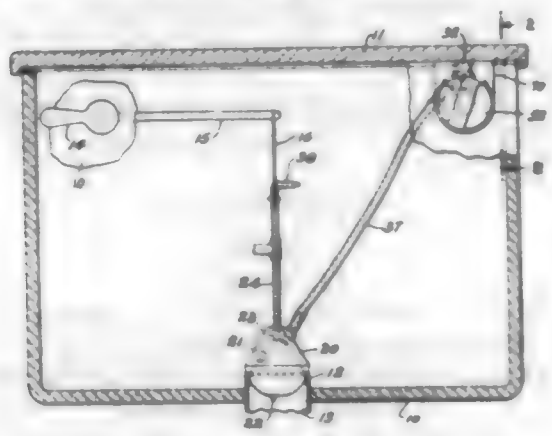
top rail and a foot rail, corrugated sheet-metal side and end plates united to the top and foot rails by a press fit into longitudinal channels therein, a hooked flange united to and depending from the top rail, a rectangular open-top waterproof fabric tank, and means to secure the upper edge of the sides and ends of the tank to the hooked flange and with the bottom of the tank extending down to the floor level.

2,869,141

VALVE FOR LIQUID RESERVOIRS AND PARTICULARLY FOR WATER CLOSETS WITH WATER CONTROL MEANS

Royal G. Koch, Farmingdale, and Howard O. Spaulding, Hempstead, N. Y.

Application April 5, 1955, Serial No. 499,288
22 Claims. (Cl. 4—56)



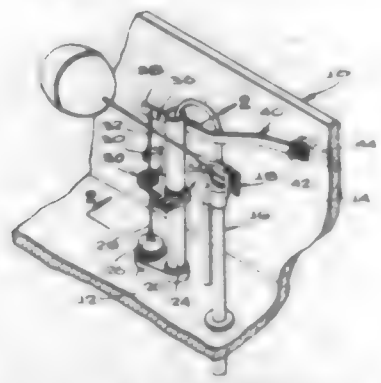
1. A valve mechanism for a reservoir having walls such as a water closet having valve opening means comprising valve means including at least a discharge valve having a chamber therein and an opening into the chamber at the bottom thereof, and means carried by the discharge valve to which a valve opening means is adapted to be connected; a vent valve including a fixed member and a movable member having at least two different positions, one of said members having a port and the other member having an opening cooperating with the port at least at one position thereby providing a different venting condition at each position, means carried by the vent valve to secure the vent valve to the wall of a reservoir and on the outside of a reservoir, a rigid tube means connected with the vent valve and having a length and form to extend with an end within the reservoir, and a connection between the upper end of the chamber and the end of the rigid tube means of the vent valve including a flexible tube.

2,869,142

FLUSH TANK BALL VALVE STEM GUIDE

Charles V. Huck, Paso Robles, Calif.

Application August 31, 1956, Serial No. 607,353
3 Claims. (Cl. 4—57)



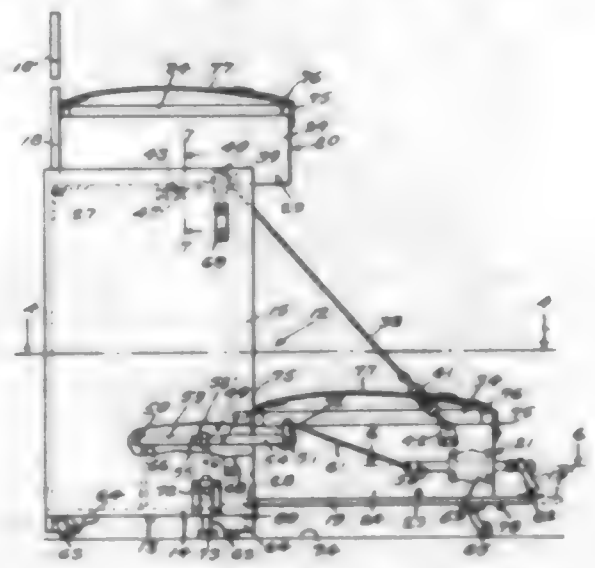
1. In flush tank mechanism involving an upstanding overflow pipe, a flush valve seat at one side of the overflow pipe, a ball valve seatable in said seat and having a fixed upstanding valve stem having an eye on its upper end for connection to an operating lever of the mechanism, a valve stem guide consisting of a horizontal plate bracket having clamp means on one end thereof embracing the overflow pipe and having a circular opening at its other end larger in diameter than and receiving a part of the valve stem below said eye, a relatively short tubular guide sleeve engaged in said opening for vertical movement relative to the bracket between elevated and depressed positions, lateral stop flanges on the upper and lower ends of the guide sleeve for severally engaging the bracket in elevated and depressed positioned of the guide sleeve, said guide sleeve having a vertical bore therethrough which the valve stem is slidably engaged with its eye above and directly engageable with the upper end of the guide sleeve when the guide sleeve is in an elevated position and extends above the bracket and the guide stem is depressed incidental to subsidence of the ball valve toward said seat from an elevated unseated position so as to depress the guide sleeve to a depressed position wherein the valve sleeve extends below the bracket in a position to guide the valve stem in a following elevation of the valve stem incidental to unseating of the ball valve.

2,869,143

CABINET WITH FOLDING BED STRUCTURE

George L. Eder, Denver, Colo., assignor of one-half to Bernard J. Carroll and Felicitas M. Carroll, Denver, Colo., joint tenants

Application May 29, 1957, Serial No. 662,375
2 Claims. (Cl. 5—2)



1. A cabinet with folding bed structure comprising a cabinet including a bottom, end walls, rear wall, front wall and top wall, means hingedly connecting the top wall to the rear wall, means hingedly connecting the front wall to the bottom, an upper bed secured to said top wall and extending downwardly therefrom, a lower bed secured to said front wall and disposed on the inner side thereof and between the front wall and said upper bed when the cabinet is closed, said front wall being swingable outwardly and downwardly to position the lower bed in an extended position outwardly of the cabinet, said top wall being swingable upwardly to an open position for swinging said upper bed to an extended horizontal position in the upper part and above the cabinet, and counterbalancing means connecting the upper and lower beds for causing said beds to swing simultaneously between extended and closed positions and for causing the weight of the lower bed and front wall, when in extended positions, to support the upper bed in an extended position.

2,869,144

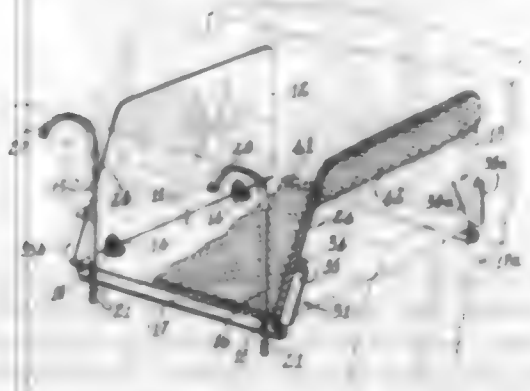
AUTOMOBILE ACCESSORY

Bernard Schiffman, New York, N. Y.

Application September 8, 1953, Serial No. 378,778
13 Claims. (Cl. 5—94)

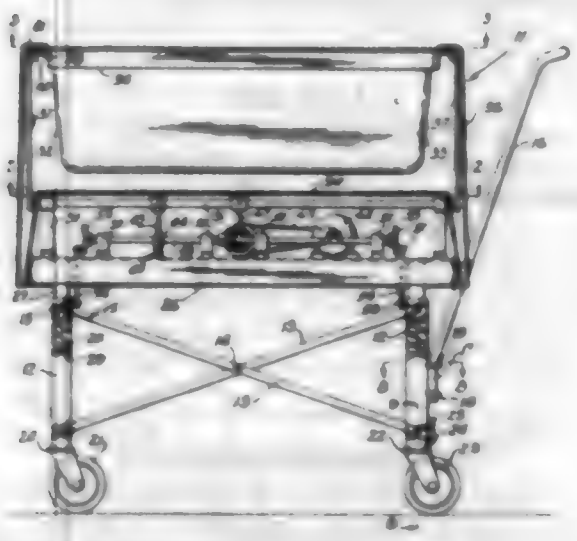
1. An automobile accessory adaptable for use as a crib and play area, said accessory comprising a base mem-

ber, side members mounted on opposite sides of said base member and movable with respect to said base member from a position substantially coextensive with said base member to a position above and substantially perpendicular to said base member, locking means to hold said side members perpendicular to said base member, suspending means extendable above said base member from one end of said base member and adapted to engage the upright portion of the front seat of an automobile, a depending member adjacent the other end of said base member



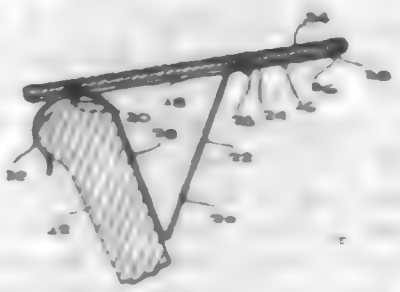
extending below said base member, a stop extending from each of said side members and abutting said depending member when said base member and said side member are coextensive, said locking means comprising two arms substantially perpendicular to each other, one of said arms being mounted to rotate only about its own axis on said base member, the other of said arms being rotatable only about the axis of said mounted arm, a slot in said stop and a closure for said slot whereby said rotatable arm may be retained in said slot when said side member is substantially perpendicular to said base member.

2,869,145
COMBINATION CRADLE, BASSINET AND BUGGY
Arthur C. Gregory, Grenada, Miss.
Application July 31, 1956, Serial No. 601,223
2 Claims. (Cl. 5—109)



2. In a cradle, a generally rectangular base, vertical legs at the corners of said base, respective supporting wheels journaled to the lower ends of said legs, a table, depending means on said table slidably engageable with said vertical legs to guide the table for vertical reciprocation with respect to said base, spring means cushioning vertical movement of the table with respect to said legs, a bassinet, respective depending arms at the opposite ends of said bassinet, transverse hinge loops at the top ends of said arms, cooperating hinge loops on the ends of said bassinet, removable transverse hinge pins engaged through the hinge loops on the arms and on the ends of the bassinet, a longitudinal horizontal shaft journaled to said table, means rigidly connecting the lower ends of the arms to said shaft to support said bassinet on said table for oscillation about the longitudinal horizontal axis of the shaft, oppositely extending arms on said longitudinal shaft extending adjacent said table, cushioning springs secured to the ends of said last named arms and engaging said table, a transverse shaft journaled on said table, drive means on the table, means for at times drivingly coupling said drive means to said transverse shaft, respective longitudinal shafts journaled on the opposite side marginal portions of said table and extending adjacent said base, respective crank linkages coupling the ends of said last named longitudinal shafts to said legs and being formed and arranged to at times reciprocate said table vertically responsive to energization of the drive means, and crank means formed and arranged to couple said transverse shaft to said first named longitudinal shaft and being formed and arranged to at other times oscillate said first named longitudinal shaft responsive to the energization of the drive means.

2,869,146
AUTOMOBILE SEAT ATTACHMENT FOR DOGS
Ollie M. Allison, Colton, Calif.
Application January 3, 1958, Serial No. 707,022
1 Claim. (Cl. 5—118)



In combination with a back rest of an automotive vehicle seat structure, which back rest has a front and back wall and a top wall; an animal support attachment for dogs and other quadruped pets comprising a support plate having a flat upper surface having a removable friction covering superimposed thereon and on which an animal can sit or stand, said support plate having a bottom surface and having a front and a rear end, a pair of one-piece unitary mounting bars secured to the bottom surface of the plate and depending therefrom in parallel longitudinally extending and laterally spaced-apart relation, each of said mounting bars including a straight first leg portion having an upper end secured to the bottom surface of the plate adjacent to and spaced rearwardly from the front end of the plate, said leg portion extending downwardly and rearwardly from the plate, a second leg portion integral with the lower end of the first leg portion and extending upwardly and rearwardly therefrom and being disposed at an acute angle thereto, said second leg portion having a flat rear face resting against the front wall of the back rest and extending upwardly toward the top wall and terminating at the top wall, an arcuate hook portion integral with the upper end of the second leg portion and removably fitted over the top wall of the back rest and extending down over the upper end of the back wall of the back rest, said hook portion being fastened intermediate its ends to the bottom surface of the plate adjacent the rear end thereof, and locating the rear end portion of the plate directly above the top wall with the edge of the rear end being disposed substantially above the rear wall of the back rest, said first leg portion of the bars being longer in length than the second leg portion and supporting the plate at an angle inclined from the horizontal and extending

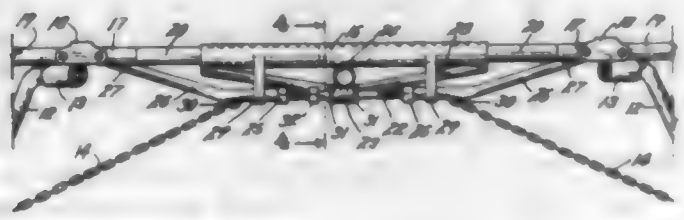
upwardly and forwardly of the back rest with the major portion of the plate projecting beyond the front wall of the back rest.

2,869,147

TENSION ADJUSTMENTS FOR TRAMPOLINS

Robert M. Fenner and Donald E. Hamilton, Denver, Colo.

Application May 16, 1956, Serial No. 585,344
6 Claims. (Cl. 5—202)



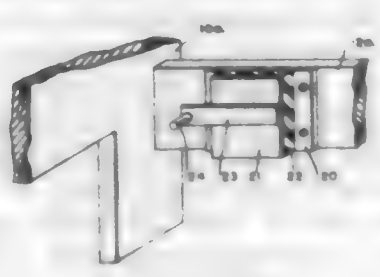
1. An expansible trampolin bed-supporting frame comprising: four L-shaped corner members; supporting means mounted on and extending downwardly from and diagonally of each corner member for supporting the latter from a floor; two tubular end frame members; two tubular side frame members, one extremity of each corner member telescopically engaging in one of the side tubular members, and the other extremity of each corner member telescopically engaging in one of the end tubular members; an end expansible means supported from and parallel to each of said two tubular end frame members, each end expansible means being connected at its extremities with the two adjacent corner members; and a side expansible means supported from and parallel to each of said two tubular side frame members, each side expansible means being hingedly connected at its extremities with the two adjacent corner members so that actuation of said two end expansible means will act to vary the width of said frame and actuation of said side expansible means will act to vary the length of said supporting frame.

2,869,148

FURNITURE CONSTRUCTION

Abraham Lincoln Freedlander, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio

Application July 26, 1951, Serial No. 238,618
1 Claim. (Cl. 5—210)



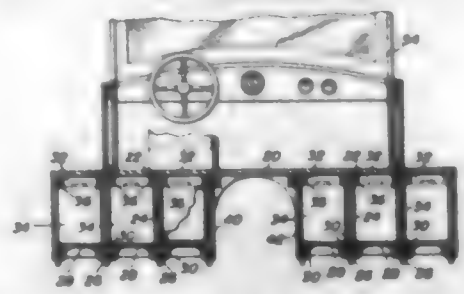
In a bed including end members and a pair of side rails for supporting a spring and mattress; the improvement which consists of providing resilient means attached to each end of said side rails for supporting and cushioning said spring and mattress, said means comprising spaced members and a rubber member bonded thereto and mounted in vertical shear therebetween, one of said spaced members secured to said side rail, and the other member providing a resilient and vibration absorbing support for said spring and mattress, and a horizontal arm fastened to and extending beyond said other member and lying parallel to the plane thereof, said arm having means secured thereto for supporting said spring.

2,869,149

BOAT HULL STRUCTURE INCLUDING PLURAL AIR TANK CHAMBERS

John B. O'Bannon, Pampa, Tex., assignor of forty percent to Bruce L. Parker, Pampa, Tex.

Original application October 29, 1952, Serial No. 317,433, now Patent No. 2,720,662, dated October 18, 1955. Divided and this application August 1, 1955, Serial No. 525,582
1 Claim. (Cl. 9—3)



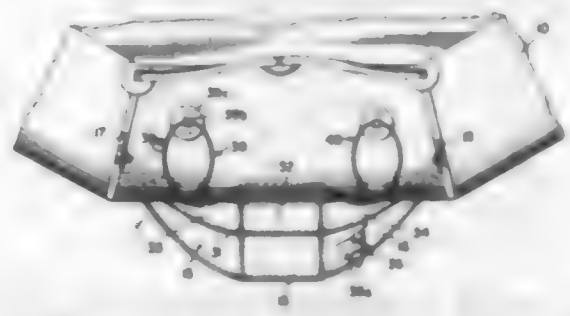
A boat hull of inverted U-shape in cross-section comprising a deck, two series of vertical wall members depending from said deck and extending longitudinally of said hull in laterally spaced relation in each series, said series being spaced apart at opposite sides of the longitudinal center of said deck to provide a space between the series open to water, a plurality of elongated horizontal bottom platforms fitted between the wall members of each series and forming therewith and with said deck two series of side-by-side longitudinal compartments at opposite sides of said hull, means closing the ends of the compartments including doors in one end thereof hinged for opening, buoyant hollow members fixed on said platforms and disposed in rows longitudinally along the platforms, means slidably connecting the platforms to said wall members for removal and replacement out of and into the compartments together with the buoyant members fixed thereon when said doors are opened, said means including longitudinal bottom rails on said wall members and in opposite sides of the compartments and on which said platforms slidably rest, and longitudinal hold-down rails on said side wall members at opposite sides of the compartments overlying and frictionally engaging the buoyant members to hold the same down and thereby hold the platforms on said bottom rails.

2,869,150

RAFT-BOARDING AID

Charles E. Maahart, Miami, Fla.

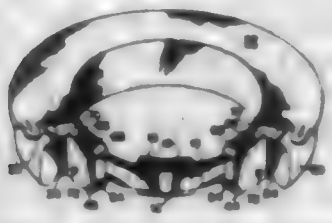
Application November 26, 1957, Serial No. 699,869
14 Claims. (Cl. 9—11)



1. The combination with an inflatable life raft of the type having as a sidewall structure a pair of inflated endless tubular members one of which is superposed upon the other, with an intermediate deck secured sealingly to the side wall structure along the line of tangential juncture of the members, a boarding aid in the form of a suspended shelf structure which comprises a substantially rigid plate member, and a pair of wing portions each in the form of a flexible web each extending from a respective side edge of the plate member, the outer ends of the wing portions being secured to the raft at respective points along the line of juncture at the outside of the raft, said shelf structure when weighted being disposed adjacent to the bottom

of the lower inflated member with the flexible wing portions in face to face contact with the curvature of the inflated member.

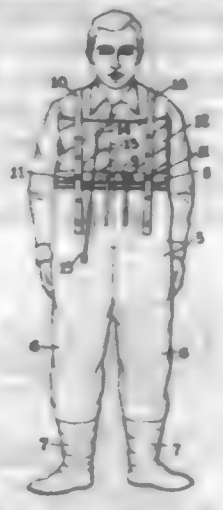
2,869,151
BUOYANT BELT
Lyle S. Johnson, Seattle, Wash.
Application August 20, 1956, Serial No. 605,139
4 Claims. (Cl. 9—17)



1. A buoyant belt for use in the water, comprising: a waist belt, made of firm material, having a buckle end and a tongue end of waist belt width and an intermediate portion widened out to form a backing for a buoyant chamber; a backing pad for said buckle; a facing for said pad consisting of resilient sheet material; a cover, for a buoyant chamber, formed as a continuation of said widened belt portion and having two longitudinal folding lines; a buoyant chamber formed of gas-impervious flexible sheet material and having a low pressure gas storage chamber of a length in excess of one-half the length of said waist belt and a high pressure gas storage unit at each end of said low pressure chamber, each of which chambers is capable of storing sufficient gas, at high pressure, to effectively inflate the low pressure chamber; said high pressure chambers formed as part of said low pressure chamber and separated therefrom by uni-directional flow valves; means for operating said valves exteriorly of said belt assembly; means normally disposed to prevent accidental opening of said valves; a valved filling opening for each high pressure chamber; said buoyant chamber cover and widened belt portion forming a protective cover for two sides and the top of said chamber when it is deflated and forming a cover for one side and the top when the chamber is inflated; said low pressure chamber being secured to the widened portion of the belt and to the portion of the cover between the two folding lines of said cover; firm-walled pressure confining housings for the high pressure chambers; said low pressure chamber formed with a cross-section conforming substantially to two oval-shaped units joined together on one of the vertical sides of each and with the tangent portions removed; reinforcement for the curved portions of the tangent sides to maintain the twin-oval shape and pre-form the folding lines of the chamber material when it is deflated.

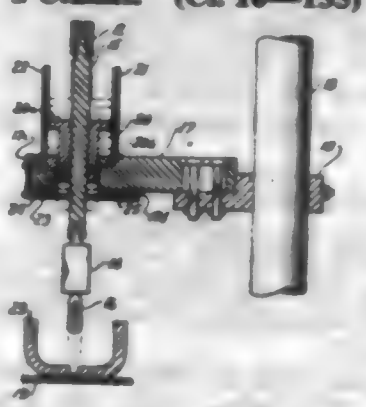
2,869,152
INFLATABLE WADER GARMENT
Leon L. Anderson, Burley, Idaho
Application February 10, 1956, Serial No. 564,652
1 Claim. (Cl. 9—20)

A wader garment to enclose a portion of the human body, comprising legs and a waist portion integral therewith and including a waist band to substantially embrace the body, an inflatible relatively flat sack secured at its lower edge to the inner surface of said waist band and being of a width substantially equal to the distance between said waist band and the armpit of the wearer, said sack conforming to the chest and back portions of said body, means secured to said sack for inflating the same, and supporting suspenders secured at their ends to the outer surface of said waist band at the front and rear thereof whereby to extend over the shoulders of the wearer in close engagement with the outer surface of said sack to maintain the relative flatness of the sack and to hold the latter tight against the body and with said



upper edges adaped to engage in the armpits of the wearer.

2,869,153
RETRACTABLE TAP FEED MECHANISM OPERATIVE UPON UNDUE AXIAL FORCE ON THE SPINDLE
Louis E. Capek and R. T. Van Campen, Bangor, Mich.
Application March 1, 1955, Serial No. 491,252
2 Claims. (Cl. 10—135)

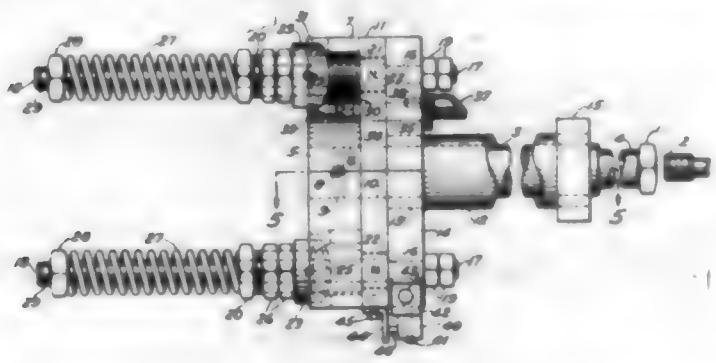


1. In combination for threading the bore in a work piece; a vertically movable spindle; means operable to rotate the spindle; a lead screw carried by the spindle and adapted to receive a tap; a tap received by said lead screw and operable when rotated to thread the bore in the work piece; a lead screw nut received on the lead screw; a holder adapted to seat against the lead screw nut as the lead screw is moved towards the work, thereby holding the tap in position to begin tapping operations; scissors members pivotally mounted on the holder to anchor the nut against lifting movement in relation to the work; means defining camming surfaces between the scissors members and the nut to break engagement therebetween when the nut is subjected to excessive lifting movement; a movable element; and means defining camming surfaces interconnecting the movable element and the scissors members, respectively, to actuate the same as the movable element moves, thereby allowing free bodily movement of the lead screw, tap, and nut away from the work to change the work piece, the holder having a vertically extending portion defining ways conformed to receive the nut and hold the same against rotation in all vertical positions of the spindle.

2,869,154
PUSHER MEANS FOR FEEDING ARTICLES RELATIVE TO A THREADING SPINDLE INCLUDING MOTOR CONTROL MEANS RESPONSIVE TO FAILURE OF THE PUSHER MEANS TO ADVANCE
Glenn S. Williams, Myerstown, Pa., assignor to Bethlehem Steel Company, a corporation of Pennsylvania
Application August 7, 1956, Serial No. 602,555
4 Claims. (Cl. 10—139)

1. In a safety mechanism for a tapping machine, electrically driven power means for said machine, a series

of parallel adjacent cross-members of which the foremost cross-member is operatively connected to the power means, spring-pressed means normally holding the cross-members together, a pusher for advancing a workpiece, said pusher being mounted on the rearmost cross-member and extending freely forward through the other cross-members, means for limiting the maximum separation of said rearmost cross-member from an intermediate cross-member, a pin carried by the foremost cross-member,



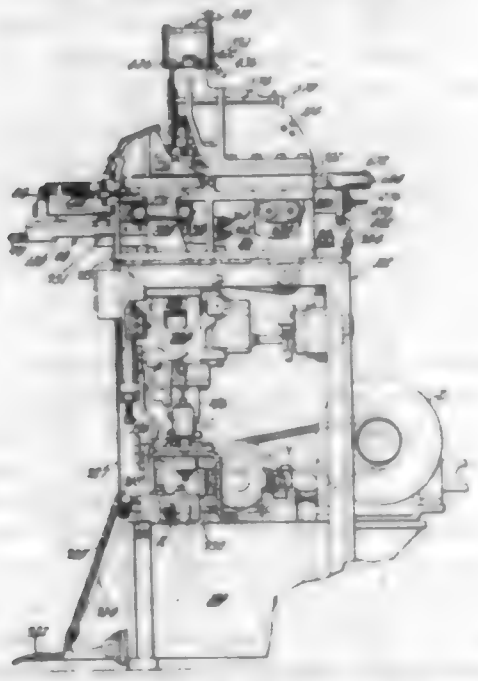
rotary latch means in which the pin is normally engaged on said rearmost cross-member said latch means being adapted to be disengaged from the adjacent cross-member upon withdrawal of the pin from the latch means when the pusher encounters excessive resistance during motion of the foremost cross-member, and switch means mounted on one of said cross-members and actuated by the movement of an adjacent cross-member to disconnect the power means from its current source.

2,869,155

HEEL AND SHANK LASTING MACHINES

Sidney J. Finn, Beverly, Mass., assignor to United Shoe Machinery Corporation, Boston, Mass., a corporation of New Jersey

Application May 5, 1955, Serial No. 506,133
87 Claims. (Cl. 12—8.5)



23. In a machine for lasting shoes, a support for a shoe to be lasted, a pair of shank wiping units located, respectively, on each side of the support and mounted for advancing movement toward the shank portions of the opposite sides of a shoe on the support, each of said shank wiping units comprising a wiper carrier, a plurality of articulated shank wiping elements supported on the carrier and contiguously arranged to provide a substantially continuous and uninterrupted wiping surface, a control member associated with the carrier and movable relatively thereto for varying the positions of said wiping elements to change the contour of said wiping surface, power-operated means for effecting movement of the control member relatively to the carrier prior to movement of the carrier toward the shank portion of the shoe, and means movable with the control member and engageable with the curved part of the shank portion of the shoe to limit movement of the control member and thereby to determine the contour of the wiping surface in accordance with the size of the shoe being lasted.

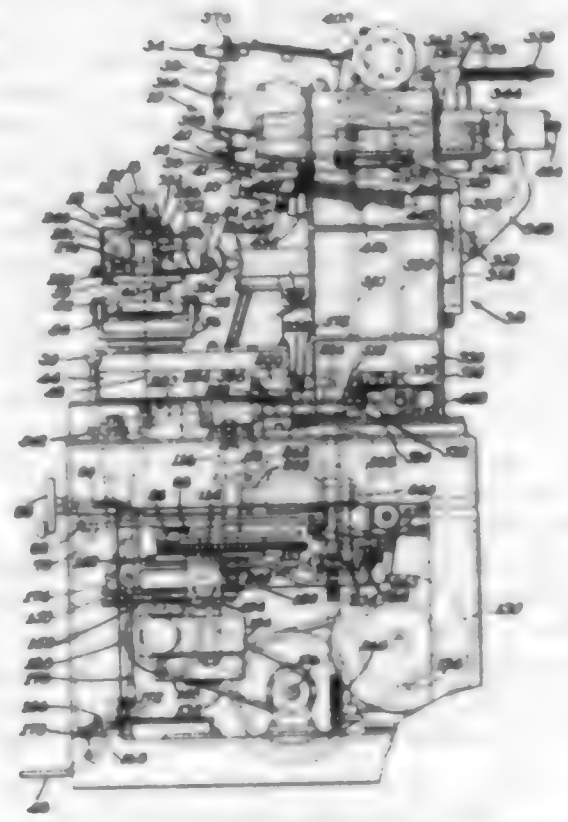
25. In a machine for lasting shoes, a support for a shoe to be lasted, a pair of heel seat wipers, an abutment member for engaging the heel seat portion of the insole of a shoe on the support to determine the heightwise position of the heel seat of the shoe relatively to said wipers, said abutment being mounted for movement in a direction extending heightwise of the shoe from an inoperative position, remote from the shoe, to an operative position for engagement with the shoe, and a retarder finger associated with said abutment and movable therewith heightwise of the shoe toward a position for engagement with the insole, said retarder finger being mounted for yielding movement heightwise of the shoe relatively to said abutment in response to pressure exerted thereon by the insole during a relative movement of the abutment and support prior to engagement of the abutment with the insole.

2,869,156

ROUGH ROUNDING MACHINES

Ernest W. Stacey, deceased, late of Beverly, Mass., by Helen M. Stacey, executrix, Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application January 17, 1956, Serial No. 559,654
47 Claims. (Cl. 12—17.2)



19. In a rough rounding machine having a jack for a lasted shoe, a cutter head mounted for advancing movement into engagement with the shoe and for retractive movement into an inoperative position, driving means for imparting a cycle of relative movement to said jack and cutter head to cause the periphery of the shoe to be progressively presented to said cutter head, cutter head operating means for moving said head in opposite directions into and out of engagement with the shoe and comprising controlling means movable between cutter head advancing and retracting positions, said controlling means being biased toward and disposed normally in its cutter head advancing position, locking means for holding said cutter head in its inoperative position, operator controlled means for disengaging said locking means from said cutter head to permit its advance into engagement with the shoe, mechanism actuated by said driving means at

the end of each cycle of its operation for setting said controlling means in its cutter head retracting position to cause the return of said cutter head to its inoperative position, and means operated in response to engaging movement of said locking means with said head and cooperating with said mechanism to permit said controlling means to return into its cutter head advancing position whereby said cutter head is biased against said locking means.

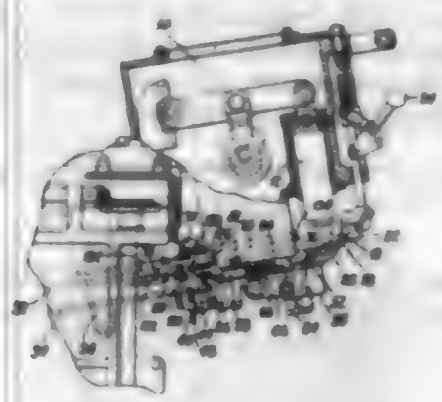
42. In a jack for a lasted shoe, a fixed rest for supporting the forepart of the last, a jack pin for supporting the heel part of the last and mounted for movement toward and away from said rest at a constant level with respect thereto, a heel abutment mounted for movement toward and away from said rest in a direction inclined to said level whereby the height of said abutment with respect to said jack pin is varied simultaneously with its adjustment toward and away from said rest, and means for urging said jack pin toward said abutment to cause the last to be secured upon the jack.

2,869,157

ROUGH ROUNDING MACHINES

John S. Lyness, Nahant, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application April 23, 1956, Serial No. 580,099
9 Claims. (Cl. 12—85)



1. In a rough rounding machine in which a tool head and a shoe are moved relatively to each other progressively to transfer the point of operation of the tool head on the shoe about the periphery of its sole, means for relatively positioning the tool head and shoe to control the sole edge extension formed by the rounding cut, said means comprising a gage and a guide, said guide being mounted upon said head for movement toward and away from the shoe and being biased into engagement therewith whereby said guide is positioned relatively to said gage under the control of the shoe, means for preventing movement of said guide away from the shoe throughout a predetermined stage of the rounding cut, and means for advancing said guide toward the shoe into a predetermined position during said stage.

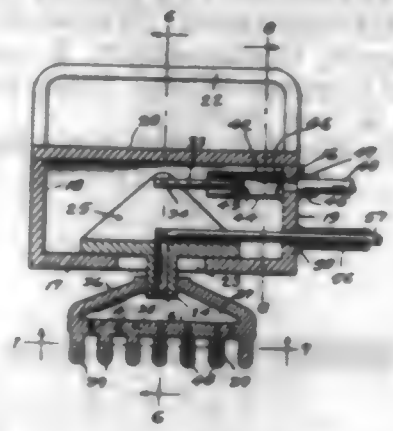
2,869,158

SHAMPOOING AND MASSAGING DEVICE

Letha L. Sivells, Fulton, Tex.

Application October 25, 1956, Serial No. 618,306
1 Claim. (Cl. 15—22)

A combined shampooing and massaging apparatus comprising a housing having a slot formed in the bottom thereof, a slide member having beveled edges in said housing, guide members for said slide member, said guide member having edges beveled oppositely to the edges of said slide member, a tubular stud depending from the lower edge of said slide member and projecting through said slot in the bottom of said housing, a fountain massaging member fixed to said stud, said massaging member having a chamber connected with said housing through said hollow stud, said massaging member having discharge openings through which liquid discharges, a pair of spaced triangular plates secured to said slide, a first rod connected at one end between said plates, mechanism including a second reciprocable rod connected between said plates for reciprocating said slide, a pump cylinder parallel with said slide member and fixed at one end of said housing, a tubular liquid supply line fixed at one end



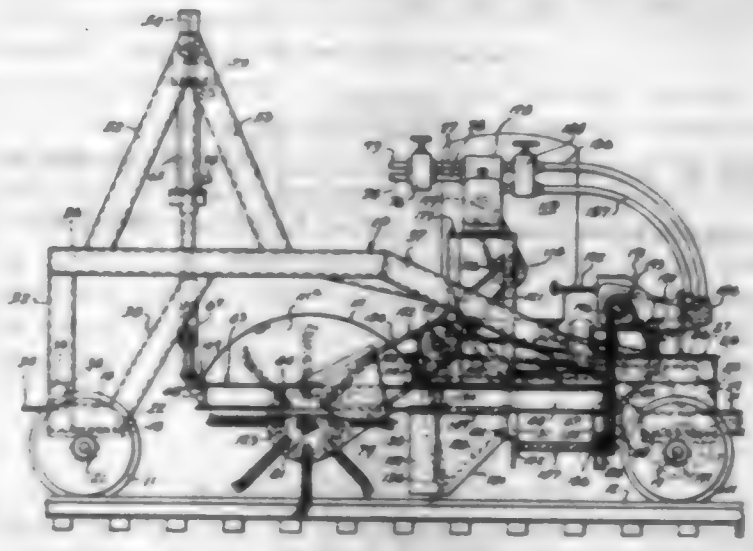
of said housing and communicating with said one end of said cylinder, an outwardly closing check valve between said cylinder and said supply line, said cylinder having a discharge opening adjacent said one end, a piston slidable in said cylinder, and a connection between said first rod and said piston for transmitting movement of said slide member to said piston operating said piston and massaging member simultaneously.

2,869,159

RAILROAD TRACK SWEEPER

Royce Kershaw, Montgomery, Ala., assignor to Kershaw Manufacturing Co., Inc., a corporation of Alabama

Application February 9, 1955, Serial No. 487,691
5 Claims. (Cl. 15—55)



1. In a railroad track sweeper, a vehicle frame adapted for movement along the rails of a track and having an upwardly and rearwardly extending portion, a longitudinally extending broom frame mounted for pivotal movement relative to and adjacent the forward end of the vehicle frame and extending rearwardly thereof beneath said upwardly and rearwardly extending portion, power means pivotally connecting said broom frame to said upwardly and rearwardly extending portion for raising and lowering the rear end of said broom frame, a transverse rotary broom mounted adjacent the rear end of said broom frame, said broom frame and said rotary broom extending laterally and outwardly of said vehicle frame and said broom being in position to sweep up loose materials between and alongside the rails and throw the same forward, a transverse conveyor mounted on the broom frame forwardly of said broom, a transverse plate pivotally mounted at its upper end to the broom frame between said conveyor and the broom in position to de-

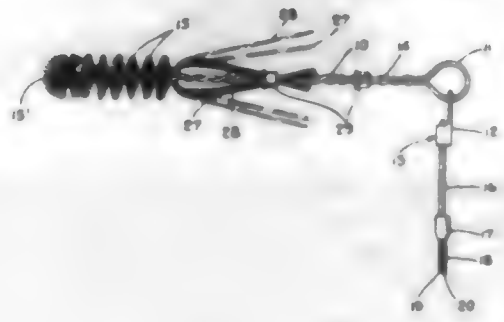
flect the material swept up by the broom onto the conveyor, said transverse plate extending beyond the lateral edges of the rails and having cut out portions adjacent its lower edge for receiving said rails, and means to adjust the elevation of the lower edge of said transverse plate.

2,869,160

MULTIPLE ELEMENT CLEANING DEVICE FOR HYPODERMIC SYRINGES

Charles E. Murcott, Massapequa, N. Y., assignor to General Medical Equipment Corp., Valley Stream, N. Y., a corporation of New York

Application March 22, 1956, Serial No. 573,186
1 Claim. (Cl. 15—105)



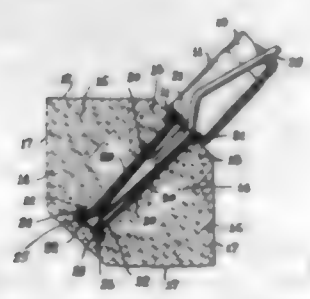
A cleaning device for hypodermic syringes of the character described, comprising an elongated twisted rod having a loop end and a spiral brush end portion, the brush end comprising bristles retained on the rod within the twists thereof, a pair of nylon stylets fixed within the twist of said rod adjacent and inwardly of the brush end portion, a ferrule slidable upon the rod engaging end portions of said stylets in retaining the same in collapsed position upon the rod, and one stylet being of different diameter than the other.

2,869,161

SELF-WRINGING MOP

Virgil K. Cooper, Encino, Calif., assignor of one-half to Ernst L. Weber, Burbank, Calif.

Application January 25, 1954, Serial No. 405,789
9 Claims. (Cl. 15—119)



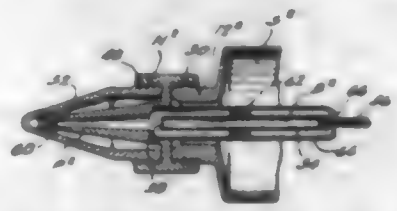
9. A self-wringing mop which includes: a mop element comprising a pair of spongy pads disposed in side-by-side relationship and having front portions which are outwardly tapered away from a common edge portion, a supporting plate attached to the back of each of said pads and spaced away from said common edge portion; means mounting said supporting plates for relative pivotal movement from an operating position in which said plates are adjacent each other and between said pads, to a wringing position in which said pads are compressed between said plates; a mop handle; means rigidly attaching one of said plates transversely across the bottom of said handle; and an arm attached to the other of said plates for moving said plates between operating and wringing positions.

2,869,162

COMBINATION FOUNTAIN PEN AND BRUSH

Arthur Dritz, Brooklyn, N. Y., assignor to John Dritz & Sons, New York, N. Y., a partnership

Application September 9, 1954, Serial No. 454,896
3 Claims. (Cl. 15—124)



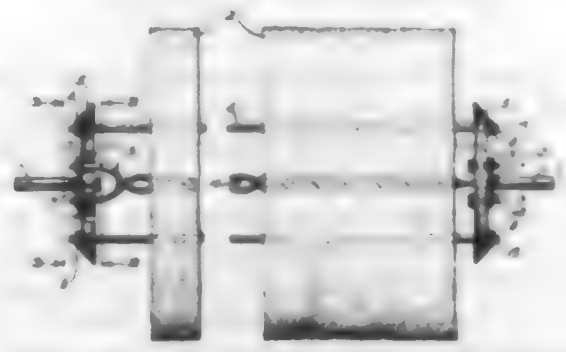
1. A marking implement capable of both pen and brush use comprising a container for a marking fluid supply and provided with an open neck, a nipple for the container neck provided at its outer end with a pen structure and provided bodily with a flow duct, the flow duct intercommunicating the container with the pen structure for the outward pen-use flow of the marking fluid, a brush having a tubular stem attached interiorly to said nipple, the tubular stem being in open communication with the marking fluid supply in the container for receiving and retaining a part of the supply and being in open communication with said duct, mating means on said neck and nipple for reversibly attaching and detaching the nipple to said neck whereby in one attached position the pen structure is on the outside for pen use and in another attached position the brush is on the outside for marking brush use, said nipple being provided with a part serving as a finger-hold for the brush when the nipple is detached from the container, the brush with its tubular supply being thereby useable as a marking brush.

2,869,163

ROTARY BRUSHES

Edison Young, West Springfield, Mass.

Application December 28, 1955, Serial No. 555,901
3 Claims. (Cl. 15—179)



1. A rotary brush assembly comprising a pair of end plates, each end plate having, an axle means, a support for said axle means, means for affixing said axle means to said support, and means for securing said support to said end plate, said support and said end plate being circular and said support being smaller than said end plate, bristles, a twisted pair of means for holding said bristles, means for removably fastening said twisted pair to said end plates through openings in said supports.

2,869,164

WINDSHIELD WIPER MOTOR CONTROL DEVICE

Leonard C. Neufeld, Des Moines, Iowa, assignor to The Delman Company, Cookeville, Tenn., a corporation of Tennessee

Application July 12, 1954, Serial No. 442,745
3 Claims. (Cl. 15—250.4)

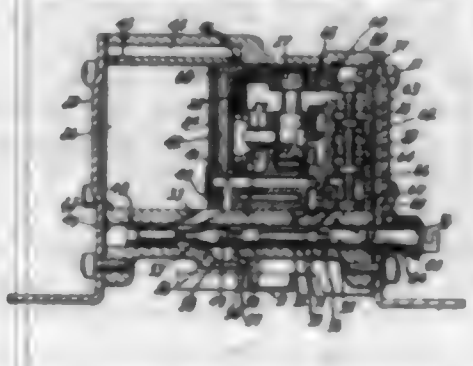
1. For use with a vehicle having a windshield wiping unit including a wiper, a power unit for operating said wiper having a reciprocally movable control member, and a windshield washer assembly including a nozzle and a pump unit for supplying fluid under pressure to said

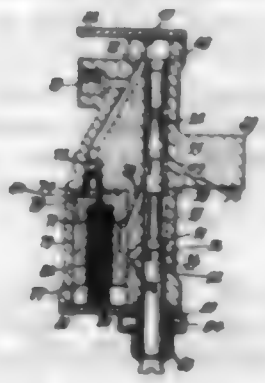
nozzle, a pivoted actuating member connected to the power unit and engaging said control member, a first actuating means for said pivoted member connected to the pump unit and being responsive to pump unit operation for moving said pivoted member to operate said power unit control member, said first actuating means being connected to the pivoted member through a first lost motion connection, a second manual actuating means



independent of said first actuating means and connected to said pivoted member through a second lost motion connection for moving said pivoted member to operate said power unit control member, the said lost motion connections of the two said actuating means with the pivoted member permitting independent operation of the power unit control member by said actuating means, and means for biasing said pivoted member against movement in the power unit operating direction.

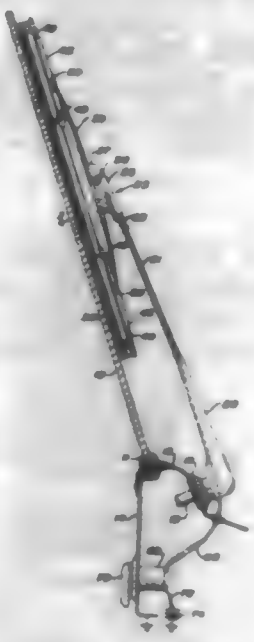
2,869,165
WINDSHIELD CLEANING APPARATUS
Lawrence C. Dermond, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 6, 1956, Serial No. 589,754
14 Claims. (Cl. 15—250.4)





1. A windshield cleaning system including in combination, a fluid pressure operated motor and washer pump combination including means connecting the motor and the pump, a windshield wiper motor and actuator assembly comprising, a housing having a bore therein, a movable member disposed within said bore capable of fluid pressure actuation in both directions, reversing valve means for maintaining said member in a state of continuous movement and manual control valve means for interrupting operation of said reversing valve means so as to park said movable member, and valve means controlled by said manual control valve means for effecting simultaneous operation of said motor and washer pump combination and said wiper motor.

2,869,166
HEATING OR DEICING UNIT FOR GLAZED WINDOWS
William C. Eaves, Lakewood, Ohio
Application April 12, 1956, Serial No. 577,689
2 Claims. (Cl. 15—250.5)



1. A combined windshield cleaner and deicing apparatus including a metal bar of channel-shaped configuration supporting a flexible windshield cleaning blade adapted to conform to the curved surface of said windshield, a coating of non-conductive material on the inner surface of the channeled area of the metal bar, a coating of current conducting material of comparatively high resistance bonded to said coating of non-conductive material, said non-conductive coating bonded to the inside surface of said channel member and extending short of one end of said channel member to provide an area at said end which is free from said non-conductive coating, said conductive coating being bonded to said non-conductive coating and extending to said one end of said channel member and bonded to said free area on the end of said channel member, an insulating bushing carried by the metal bar at a zone spaced from the region of contact of the metal bar with the current conducting material, and a current conductor extending through the bushing and connected to the layer of current conducting material for supplying electrical energy to the layer of current conducting material from a current source, the metal bar forming a part of the return circuit for the current conducting material to the current source.

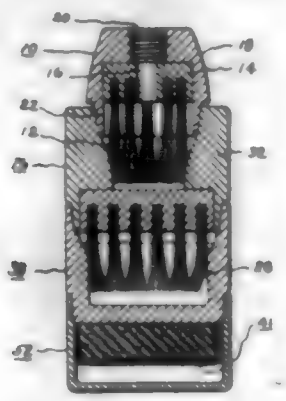
2,869,167
WINDSHIELD CLEANER
Raymond A. Deibel, Cheektowaga, and Martin Bitzer, Kenmore, N. Y., assignors to Trico Products Corporation, Buffalo, N. Y.
Application July 22, 1955, Serial No. 523,883
8 Claims. (Cl. 15—253)



1. A windshield cleaner comprising a wiper, actuating means therefor operable to oscillate the wiper across a frontal area and down on a crest and lateral area of an associated windshield, and load-modifying means operatively free of said actuating means during movement of the wiper on such frontal area and automatically engageable by said actuating means only during down movement on such crest and lateral area to store up spring

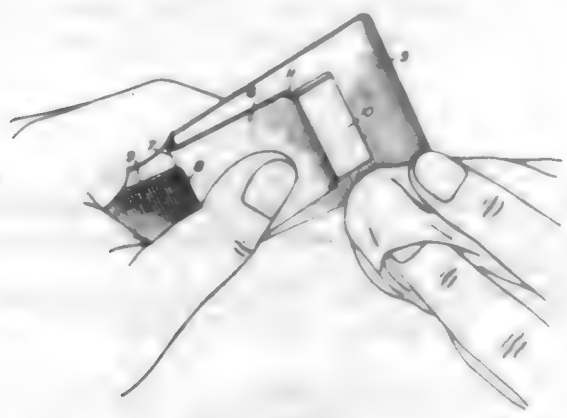
energy for subsequent expenditure during up movement on such crest and lateral area thereby to compensate for the differential torque loads on the crest and lateral areas relative to the normal torque load on the frontal area.

2,869,168
SHOE POLISHING KIT
Alphonse A. Morneault, Cambridge, Mass.
Application August 8, 1955, Serial No. 526,985
2 Claims. (Cl. 15—258)



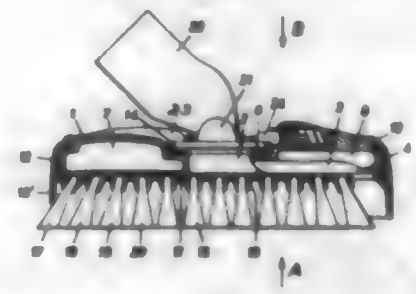
1. In a shoe polishing kit, in combination, a dauber brush having forwardly extending bristles, the body of said dauber brush being centrally apertured to provide communication from the rear of said brush to said bristles, a collar disposed exteriorly of said bristles and extending forwardly of the base thereof, said collar being disposed in close proximity to said bristles all around the perimeter thereof, the rearward apertured portion of said double brush being internally threaded for cooperation with a shoe paste container; and a polishing brush having forwardly extending bristles, the rearward portion of said polishing brush being socketed and dimensioned to receive the outer surface of the collar of said dauber brush in nested mechanically engaged relation, said socket tapering inwardly in forward direction to receive snugly the bristles of the dauber brush.

2,869,169
BELT HOLDER
Robert E. Porter, Odessa, Tex.
Application October 23, 1957, Serial No. 691,833
2 Claims. (Cl. 15—268)



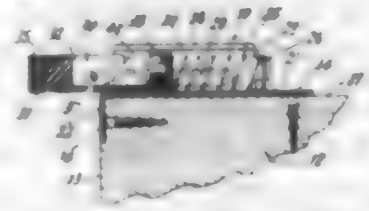
1. For use in masking a belt web and exposing a metal tab thereon for polishing the tab, a belt holder comprising a U-shaped plate having substantially flat upper and lower legs, a bight portion interconnecting said legs and having a lateral slot formed therethrough of sufficient dimensions for a belt web to be disposed therein, said upper leg being shorter than the lower leg and having a straight free edge for engagement with the edge of the metal belt tab, said bight portion being resilient so that when the belt is positioned in said holder, the web may be clamped between said legs, the free corners of said upper leg being bent toward said lower leg for providing a guide for the belt web.

2,869,170
VACUUM CLEANER ATTACHMENT
Hans Wenzl, Wildbergerhutte, Bezirk Koln, Germany
Application June 26, 1953, Serial No. 364,335
Claims priority, application Germany May 5, 1953
3 Claims. (Cl. 15—399)



1. A vacuum cleaner attachment for mounting on the end of a tubular handle operating also as a suction connection, comprising a brush body of substantial dimension in the direction of the forward and backward movement of the attachment in operation, a hollow swinging joint positioned at approximately the center of said body, a hollow handle attaching means mounted on said swinging joint, said joint being constructed and arranged whereby said handle attaching means may swing about a horizontal axis at right angles to said direction of movement, said joint securing said body to said handle attaching means, a narrow aperture in the bottom surface of said body along only one of the edges of said body lying generally at right angles to said direction of movement, a main suction passage through said body from said narrow aperture to said hollow swinging joint, the lower surface of said body being provided with closely arranged tufts of bristles covering its entire lower surface, the tufts of bristles at the central portion of said body extending generally vertically and the bristle tufts at the outer edges of said body being slanted progressively outward toward the edge of said body to present a broad base to resist rocking of the attachment relative to the surface being cleaned, the row of bristles adjacent said narrow aperture being at such an angle as to extend substantially beneath a vertical projection of said aperture so that in forward motion it will raise dirt from the surface being cleaned, a downwardly extending peripheral collar surrounding said body, the lower edge of said collar bearing on the outermost row of bristles at substantially their midlength to effectively block the spaces between said bristle tufts against flow of air therethrough for the major portion of the periphery of said body, said collar at said suction aperture being spaced from said outermost row of bristles to form a narrow suction passage between said collar and said outermost row of bristles as an extension of said main suction passage.

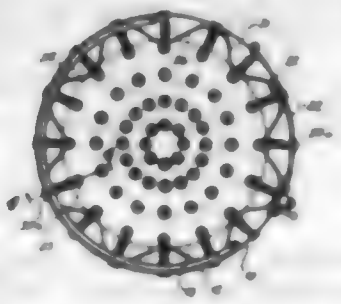
2,869,171
DOOR CHECK FOR SLIDING DOORS
Mark Levine, Bethpage, N. Y., assignor to Grant Pulley & Hardware Corporation, Flushing, N. Y., a corporation
Application December 12, 1956, Serial No. 627,772
10 Claims. (Cl. 16—83)



10. A door check, for sliding doors and the like, comprising, in combination, a fixed member formed with a vertical slot and a horizontal slot extending rearwardly from the lower end of said vertical slot; an inertia element extending transversely through the juncture of said

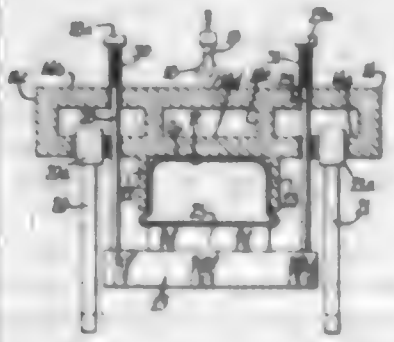
slots; a movable member slidably engaged with said fixed member for movement parallel to said horizontal slot and having vertical wall means formed with an inner end surface sloping upwardly and outwardly from said horizontal slot and then vertically, said end surface being engaged with said inertia element whereby, when said movable member is moved inwardly slowly, said inertia element will travel along said horizontal slot, and, when said movable member is moved inwardly abruptly, said inertia element will move along said vertical slot and said sloping surface of said vertical wall means to engage the vertical surface to arrest inward movement of said movable member; means biasing said movable member outwardly relative to said fixed member; and means limiting outward movement of said movable member comprising said inertia element and a stop on said bumper inwardly of said inertia element.

2,869,172
POULTRY PROCESSING EQUIPMENT
Flournoy Corey, Frederick C. Corey, and Robert D. Pitts, Cedar Rapids, Iowa, assignors to Pickwick Company, Cedar Rapids, Iowa, a corporation of Iowa
Application July 8, 1955, Serial No. 520,681
4 Claims. (Cl. 17—11.1)



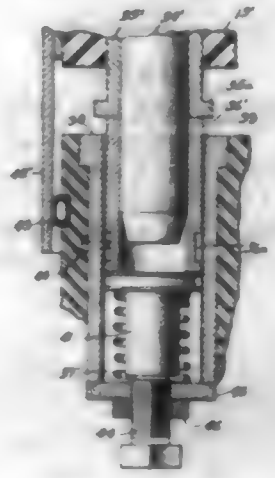
1. A poultry picking machine comprising an upwardly disposed casing, a rotatable disc adjacent one end of said casing, disc rotating means operatively connected to said disc for supporting and rotating the same, a plurality of resilient picking members mounted on and extending from a major portion of said disc toward the interior of said casing, and a poultry retarding means comprising a loosely-held strip mounted on and secured to the inner wall of said casing.

2,869,173
SAFETY DEVICE FOR DIAPHRAGM ACTUATED MEANS
Carroll H. Van Hartesveldt, Birmingham, Mich., and Charles S. Davidson, Toledo, Ohio; said Davidson assignor, by mesne assignments, to said Van Hartesveldt
Application June 11, 1956, Serial No. 590,740
1 Claim. (Cl. 18—16)



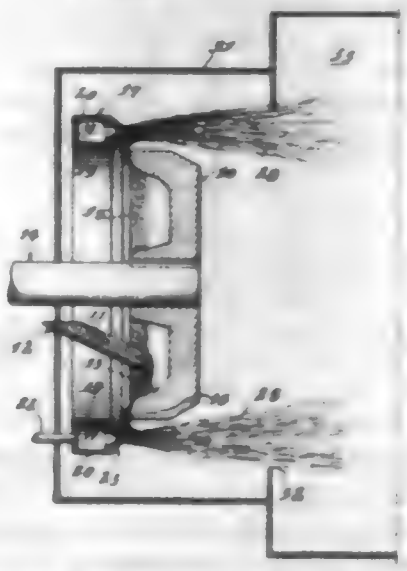
A molding press comprising a lower fixed mold defining member, a vertically movable carriage above the lower member having a recess therein defined by side walls and a top wall, an upper platen mounting a cooperating mold-defining member movable in and out of said recess, a resilient bag within the recess between the top wall and the upper platen, a source of fluid under pressure connected to the bag to selectively expand the bag and urge the upper platen out of the recess, means selectively moving the carriage toward and away from the fixed member, whereby a substantial amount of working space may be provided between said members, and resilient means mounted on the carriage normally carrying the platen in said recess, said resilient means being yieldable to expansion of said bag by fluid pressure so as to permit the bag to expand, carrying the upper platen, beyond the side walls and thus rupture rather than forcing the platen into the normal working space between the members.

2,869,174
MOLDING PRESS GUIDE SYSTEM
Carroll H. Van Hartesveldt, Birmingham, Mich.
Application June 27, 1956, Serial No. 594,210
7 Claims. (Cl. 18—16)



1. A molding press comprising first and second mold defining members movable selectively into open and closed positions, said members having cavity-defining rigid molding walls and contiguous peripherally disposed rigid face portions, fluid pressure actuated means urging said members toward closed position, guide pins mounted in the face portions of said first member, guide pin sleeves receiving said guide pins and mounted on the face portions of said second member, and resilient means on said second member urging said sleeves away from said second member and toward said pins to align the members before the members are moved to closed position, said resilient means being yieldable to said fluid pressure actuated means to permit the same to close the mold members.

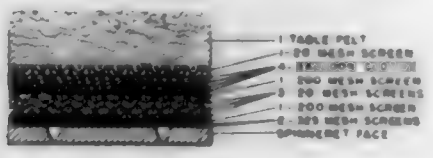
2,869,175
FIBERIZING STEAM RING
John A. Ebbinghouse, Rolling Hills, Calif., assignor to American Rock Wool Corp., Wabash, Ind., a corporation of Indiana
Application September 3, 1957, Serial No. 681,516
3 Claims. (Cl. 18—2.5)



1. Apparatus for converting molten slag into fibers comprising a cup-shaped distributing rotor, means for

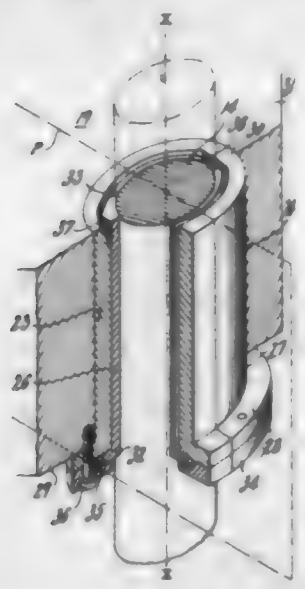
rapidly rotating said distributing rotor about a horizontal axis, means for feeding the molten slag onto the inner surface of said rotor as the latter is rapidly rotated whereby the molten slag is centrifugally ejected over the peripheral edge of the rotor in a substantially vertical plane, and a fiberizing steam ring spaced axially and radially outward from the peripheral edge of the rotor, said steam ring comprising an annular steam chest having an end wall provided with outer converging surfaces disposed at an angle of approximately 45° to the vertical, the forward constricted end of said end wall having a plurality of small, uniformly spaced and circumferentially arranged orifices for discharging jets of steam in an annular pattern about the circumference of the rotor and normal to the path of travel of the molten slag leaving the peripheral edge of the rotor to intercept and fiberize the centrifugally ejected molten fiber-forming material.

2,869,176
SPINNERET PACK
Arthur A. Wright, Waynesboro, Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application August 13, 1951, Serial No. 241,613
1 Claim. (Cl. 18—8)



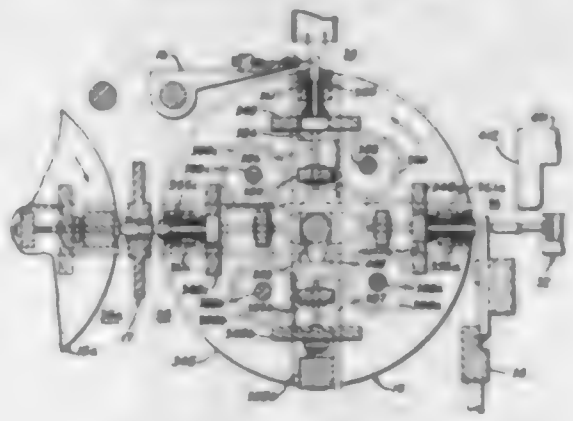
A filtering and extrusion device for dry-spinning comprising in combination a spinneret having an inner smooth face and a plurality of orifices, the orifices being of uniform shape and size and each orifice having an area between about 0.0019 and 0.0063 sq. mm., a rigid fine screen of several hundred mesh in contact with the inside smooth face of the spinneret, adjacent and upstream of said fine screen a coarse screen of about 20 mesh and adjacent said coarse screen a balloon cloth filter.

2,869,177
GUIDES FOR RECIPROCABLE PLATENS
Herbert F. Jurgeleit, Oceanside, N. Y., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application August 10, 1955, Serial No. 527,583
12 Claims. (Cl. 18—17)



1. In a mechanism, a thermally expansible and contractible element having a bore extending therethrough, a column extending through said bore, a guide interposed between said column and said element, said guide comprising spaced inner and outer means having portions slidably engageable with each other to prevent relative movement therebetween substantially in the direction of the axis of said column, said outer means being rigidly secured in said bore, and said inner means engaging said column, and each of said inner and outer means having perimetrically spaced, mating plane surfaces for permitting relative movement therebetween in a direction substantially perpendicular to the axis of said column, to accurately and automatically compensate for the thermal expansion and contraction of said element occurring in said perpendicular direction relative to said column.

2,869,178
MACHINE FOR MAKING HARD-SHELL GELATINE CAPSULES
Alfred W. Kath, Cleveland, Ohio, assignor, by mesne assignments, to R. P. Scherer Corporation, Detroit, Mich., a corporation of Michigan
Application December 7, 1953, Serial No. 396,502
7 Claims. (Cl. 18—25)

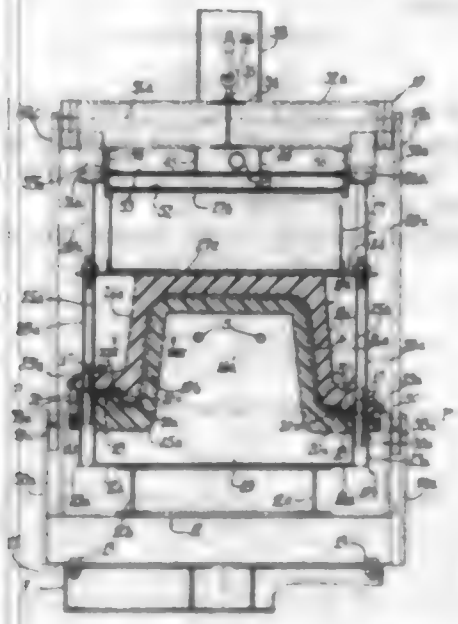


2. In a machine for making hard gelatin capsules wherein a succession of pin bars, each provided with a group of pins, is adapted to be moved into and out of dipping position and then through a drying kiln to a stripping station, an indexing turret unit mechanism having four separate identical collet holding units spaced 90° apart, openable and closeable collets in said collet holding units and means for introducing capsule portions into said collets to subject them to finishing operations and for ejecting them therefrom, and means for turning the indexing turret unit mechanism through successive 90° angles and cutting said capsule portions to length and joining them with interfitting capsule portions simultaneously fabricated by said machine during indexing movements.

2,869,179
MOLD CONSTRUCTION
Carroll H. Van Hartesveldt, Birmingham, Mich.
Application March 25, 1955, Serial No. 496,889
4 Claims. (Cl. 18—34)

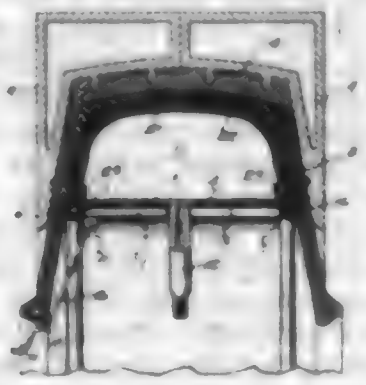
1. Molding apparatus for forming a generally bowed article comprising male and female mold members of lightweight hardened plastic cooperating to define a die cavity having rigid molding walls and having the shape of said article, said members engaging along contiguous peripherally disposed rigid face portions, female reinforcing elements embedded in the female mold member and having a generally arcuate shape conforming with the contour of the die cavity, male reinforcing elements embedded in and extending across the male mold member to be aligned with opposed female reinforcing elements at said contiguous face portions, guide pins mounted on one of said members and secured to the reinforcing elements thereof at said contiguous face portions, guide pin sleeves receiving said guide pins and mounted in the other of said members and secured to the reinforcing elements thereof at said contiguous face portions, whereby opposed reinforcing elements are interconnected for mutual support, a cut-off bar carried by one of said mold members and rigidly connected to the reinforcing

elements thereof, and a metal cavity lining carried by the other of said mold members rigidly connected to the reinforcing elements thereof and presenting an edge for



close running relation to said cut-off bar to sharply define cavity molding wall limits adjacent said face portions.

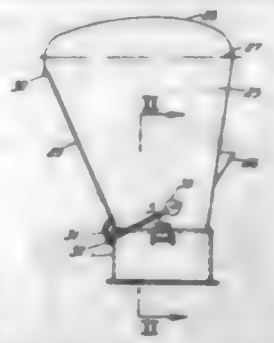
2,869,180
DEVICE FOR CURING TIRE CASINGS
Anthony T. Fussero and James R. Maddox, Oakland, Calif.
Application October 24, 1955, Serial No. 542,140
2 Claims. (Cl. 18—45)



1. In a device for curing tire casing in a heated matrix, a curing rim, a resiliently compressible liner surrounding said curing rim on its outer periphery, edges of said liner extending over the opposite respective edges of said rim, and being adapted to be pressed between said edges of said rim and the sides of the tire casing by said matrix for sealing a chamber between said liner and the inner periphery of said tire casing, and means for admitting an inflating medium under pressure into the chamber, the outer periphery of said curing rim being flat and cylindrical, a plurality of locating hook elements hinged to the inside of said curing rim and being adjacent one edge thereof, and selectively engageable hook dents on each of said hook elements engageable with the adjacent bead of the tire casing for locating the said rim in said tire casing at a predetermined distance from said bead.

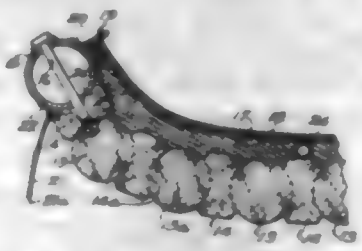
2,869,181
APPARATUS FOR CLEANING WOOL
Edward Portanger, Levin, New Zealand
Application April 4, 1955, Serial No. 498,892
Claims priority, application New Zealand April 12, 1954
3 Claims. (Cl. 19—85)

1. An apparatus for cleaning wool comprising a housing defining at the lower part thereof a cleaning chamber and at the upper part thereof a receiving chamber, a rotary beating means supported by the housing and rotatable within the cleaning chamber to cause a draught of air to flow within the cleaning chamber, coacting means in the cleaning chamber cooperating with the rotary beating means to clean the wool, an inlet in the housing for introducing uncleaned wool into the cleaning chamber, an outlet in the said housing for cleaned wool, a further outlet for the waste from the said cleaning chamber, the upper part of the housing defining the receiving chamber having a transverse dimension materially greater than the arc of rotation of the rotary beating means and that part of the housing defining the cleaning chamber so that when



the beating means rotates, the uncleaned wool will be carried over the co-acting means by the beating means to separate the waste from the wool with the wool thrown upwardly into the receiving chamber and rotated in the receiving chamber on the draught of air in a direction reverse to the direction of rotation of the said beating means thereby maintaining the cleaned wool floating and rotating in the receiving chamber for a longer period of time than dirty or partially cleaned wool, which sinks more rapidly and is thus subjected to a more sustained cleaning action.

2,869,182
ROOF OR WALL CONSTRUCTION
Walter S. White, Jr., Palm Desert, Calif.
Application March 15, 1955, Serial No. 494,329
11 Claims. (Cl. 20—4)

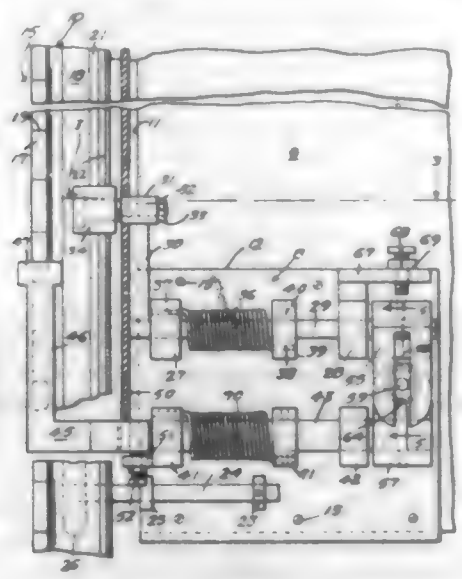


1. In a roof or wall construction for buildings: a series of elongate members placed in side-by-side relationship to form a roof or wall having a weather side and a sheltered side, adjacent members having interfitting parts permitting relative longitudinal angular movement of adjacent members with respect to each other about their interfitting parts prior to the members being secured; the interfitting parts of each member being symmetrical with respect to a plane parallel to the corresponding elemental part of the roof or wall formed by that member whereby a convex or concave configuration to the roof or wall may be provided without requiring reversal of the members.

2,869,183
SAFETY CATCH FOR VERTICALLY SLIDING DOORS
William O. Smith, Freeport, Tex.
Application April 14, 1958, Serial No. 728,436
7 Claims. (Cl. 20—19)

1. In combination with a vertically sliding door or closure, a flexible element for raising, lowering and supporting the door, an upright guide track disposed adjacent a side edge of the door and a guidewheel carried by the door and movably engaging in said track; a safety latch to prevent dropping of the door due to breakage or release of said flexible element, comprising a toothed

latch bar fixed to said guide track and having a toothed edge projecting outwardly from a front side of the track, a latching pawl for releasably engaging between teeth of said latch bar, a shaft to which the latching pawl is secured, bearings associated with the door in which the shaft is journaled, a lever arm fixed to the shaft and to which said flexible element is connected for connecting the flexible element to the door, the pull of the flexible element against the lever acting to turn the shaft to rock said pawl in a direction for urging and holding the pawl in a released position out of engagement with



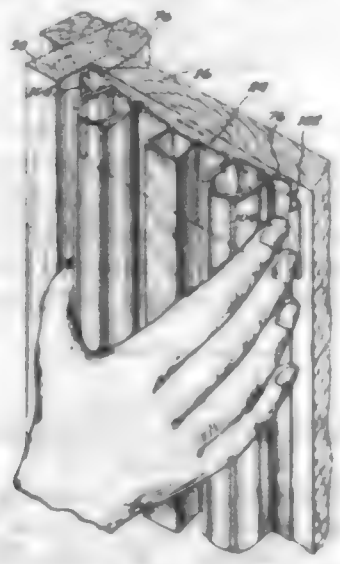
the latch bar teeth, a first spring associated with said shaft and urging the pawl toward the latch bar and into a latching position, a second spring acting, when compressed, with said first spring for urging the pawl toward a latching position, means carried by the door and engaging a stationary part carried by the guide track for exerting a variable pressure against said second spring for varying the pressure of the second spring depending upon the position of the door relative to a fully opened and a fully closed position, the combined power of said springs being less than the power exerted on the lever by said flexible element when the flexible element is taut.

2,869,184

CLIP FOR COMBINATION WEATHERSTRIP AND SASH BALANCE

William H. Zegers, Flossmoor, Ill., assignor to Zegers, Inc., Chicago, Ill., a corporation of Illinois

Application April 3, 1957, Serial No. 650,436
7 Claims. (Cl. 20—52)



2. A window structure for a window frame including spaced jambs, a sill and head sections, said window structure comprising a pair of sash balance units having relatively thin laterally extending side edges, a vertically movable sash secured between said balances, and spaced hooked elements for releasably securing said balances to the respective jambs of the window frame, said hooked elements each comprising a length of relatively flat material having hooked ends, means for fixing said elements to said jambs in a substantially horizontal position, said edges of said units being received within the hooked ends of said elements.

2,869,185

DRIP RAIL ASSEMBLY FOR WINDOW

Robert B. Farnon, Louisville, and Stanley E. Rose, Lyndon, Ky., assignors to General Electric Company, a corporation of New York

Application May 29, 1957, Serial No. 662,499
1 Claim. (Cl. 20—70)



A drip rail assembly for collecting and disposing of condensate formed on the inside of a window comprising means for supporting said assembly on a window sill, an upwardly extending flange in sealing engagement with the lower portion of said window, a trough portion disposed on the room side of said flange and extending below said window for collecting moisture falling therefrom, a longitudinal section disposed substantially below said flange of generally channel-shaped cross section with said open portion of said section exposed to the outside, at least one baffle assembled in the open portion of said channel-shaped section, said baffle being angled inwardly from its extremities toward the web of said channel-shaped section and cooperating with said channel-shaped section to form a horizontally extending air passage with its ends exposed to the outside, said angled portion of said baffle causing said passage to gradually reduce in cross sectional area from the ends thereof to a point of minimum cross sectional area intermediate the ends whereby air currents flowing from one end of said passage to said other end produce a pressure drop in said passage at said point of minimum cross sectional area and a drain passage connecting said trough portion with said air passage only at said point of said minimum cross sectional area whereby water is drawn from said trough by said reduced pressure in said passage at said point of minimum cross sectional area and discharged to the outside with air currents flowing through said passage.

2,869,186

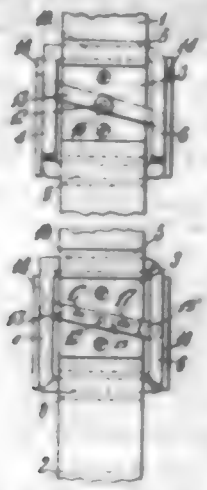
CLAMP FOR JOINING STOUT PLANKS AND TIMBERS, MORE PARTICULARLY FOR USE IN CONCRETE SHUTTERING

Gösta Julius Axell, Linkoping, Sweden

Application December 12, 1955, Serial No. 552,537
Claims priority, application Sweden December 15, 1954
6 Claims. (Cl. 20—92)

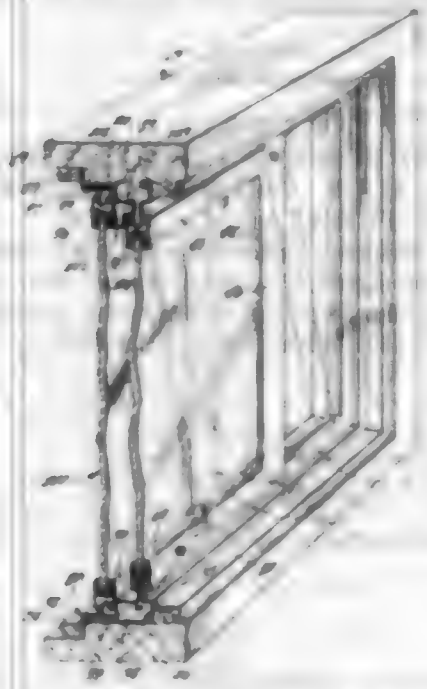
1. In a clamp for securing together face to face two timbers or the like having plane faces in contact with each other comprising a strap member to be secured to a face opposite to the contact face of one of said timbers, a stirrup member hinged to the strap member and including two side portions and a cross member to embrace the two timbers and to engage a face opposite to the contact face of the other of said timbers the com-

bination therewith of a double-ended lever centrally pivoted on the strap member, the two sides of the stirrup member each having a surface adapted to be engaged



by one of the respective ends of the lever and the two surfaces being inclined in opposite directions in relation to the contact faces whereby rotation of the lever in one direction causes the clamp to press the timbers together.

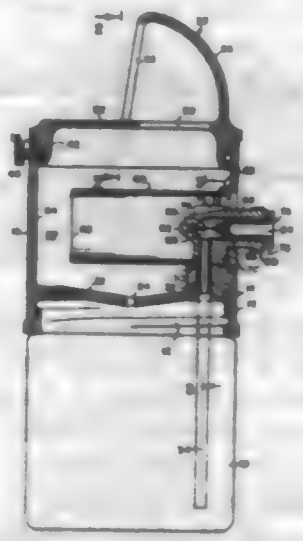
2,869,187
SLIDING TYPE WINDOW CONSTRUCTION
Louis Liebman and Emanuel Gray, Long Island City, N. Y.
Application May 13, 1953, Serial No. 354,804
1 Claim. (Cl. 20—52.2)



A window construction comprising an outer frame body, a metal frame fixed within the outer frame body, said metal frame having hollow rail formations, an inner window element slidable along the rail formations, retaining members secured within the metal frame, an outer window element fixed to the retaining members, each of said retaining members having a flange portion for securement of the retaining members to the metal frame and having rolled portions, said inner window element having frame pieces with inwardly rolled edges frictionally and resiliently engageable with both sides of said rail formations and one of the said edges being engageable with one of the flange portions of the retaining members.

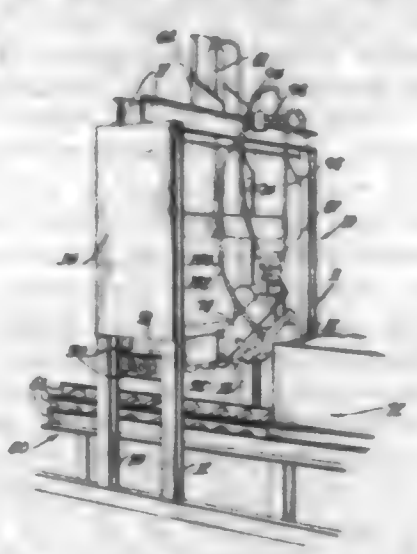
2,869,188
MEDICINAL INHALANT ATOMIZATION
Leon Robert Cameto, Oakland, Calif., assignor to Minto, Gen Equipment Co., Oakland, Calif., a corporation of California
Application June 6, 1950, Serial No. 166,362
3 Claims. (Cl. 21—117)

3. A device for atomizing and mixing a medicinal liquid with a breathable gas comprising: a first nozzle having a cylindrical, open-ended bore, a supply of liquid at atmospheric pressure, and means connecting said liquid supply with the inlet end of said bore for conducting said liquid to said inlet end, a second nozle including a hollow, cylindrical tube of smaller outside diameter than the inside diameter of said bore projecting into said bore through said inlet end and terminating in an open discharge end a predetermined fixed distance short of the discharge end of said bore, said tube being formed to a constant cross section from a point spaced rearwardly of said inlet end of said bore to said discharge end of said tube and concentric with said bore for forming an annular space adjacent said inlet end of said bore, a



supply of gas under pressure greater than atmospheric, and means connecting said gas supply and said tube for conducting said gas through said tube in the direction of said discharge end thereof, whereby exit of said gas from said discharge end of said tube aspirates said liquid through said annular space in the form of a hollow, cylindrical tube of liquid and atomizes said liquid, by expansion of said gas at said discharge end, into droplets the large majority of which are of very small particles size and thoroughly mixed with said gas, and a tertiary, hollow tubular nozzle concentric with said first nozzle and with the latter firing toward one open end of said tertiary nozzle, the other end of said tertiary nozzle being open to ambient atmosphere.

2,869,189
HELICOID STRIKE-OFF DEVICE FOR VARIABLE HEIGHT FLASKS
Howard C. Pirsig, Racine, Wis., assignor to Belle City Malleable Iron Company, a corporation of Wisconsin
Application December 16, 1957, Serial No. 703,018
22 Claims. (Cl. 22—9)



22. A strike-off device for striking excess material from the top of a flask comprising; a support, a normally horizontally extending strike-off member movably positioned on said support and adapted to be moved into strike-off

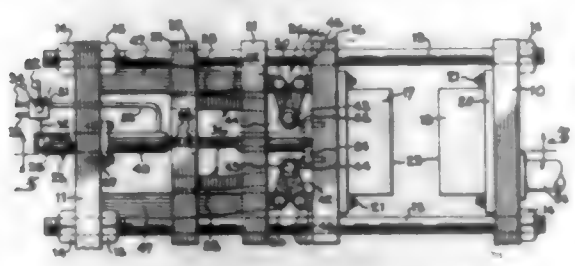
relation with respect to a flask positioned beneath said strike-off member, and power actuated means connected to said strike-off member and including means responsive to different height flasks moving into position beneath said strike-off member for actuating said power means for moving and maintaining said strike-off member in operative relation with respect to said different flasks.

2,869,190

TWO-STAGE POWER APPARATUS

H Bruce Schofield, Cincinnati, Ohio

Application April 18, 1956, Serial No. 578,918
14 Claims. (Cl. 22—68)



1. A two-stage power apparatus comprising, a movable machine element, a fluid pressure power cylinder having a piston rod which is shiftable in forward and reverse directions, a hydraulic coupling cylinder, said coupling cylinder including a piston and a normally closed by-pass system communicating with the cylinder at opposite sides of the piston, the said coupling cylinder and piston being relatively connected to the movable element and piston rod of the power cylinder, said coupling cylinder and piston providing a direct driving connection between the piston rod and movable element during a first stage of motion of the piston rod, means for opening said by-pass system at a limit of first stage motion of the piston rod and movable element, thereby providing relative movement of the piston and coupling cylinder and allowing the piston rod to advance relative to the movable element, a second stage driving connection interposed between the piston rod and movable element providing a reduction driving connection therebetween, said second stage driving connection shifting the movable element at a reduced rate in proportion to the rate of piston rod motion, thereby shifting the movable element at a slower rate under higher pressure toward a final position.

2,869,191

COMPOSITION COMPRISING SAND, PHENOLIC RESIN AND ANHYDROUS SODIUM CARBONATE, METHOD OF MAKING AND REFRACTORY ARTICLE PRODUCED

Ronald H. Cooper, Clare, and Gerald M. Corbett, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application September 26, 1956, Serial No. 612,287
14 Claims. (Cl. 22—147)

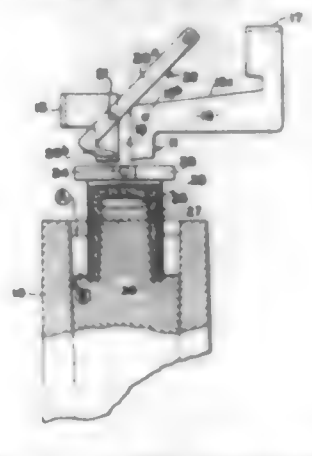
1. Composition for the fabrication of porous refractory structures which consists of a preponderant proportion of relatively coarse sand; between about 3 and 10 percent by weight, based on the weight of the composition, of an aqueous phenolic resin liquid binder that is catalyzed with from 10 to 25 percent by weight, based on the weight of the resin in the composition, of an active powdered magnesium oxide catalyst having an initial setting time of less than about six hours, said resin being a phenol-formaldehyde condensation product that has a greater than 1:1 mole ratio of formaldehyde to phenol, respectively, a solids content of at least about 50 percent by weight, a pH between about 5 and 9 and a viscosity at 77° F. of between about 100 and 1000 centipoises; and between about 10 and 25 percent by weight, based on the weight of the resin in the composition, of anhydrous sodium carbonate.

2,869,192

VACUUM HOT TOP FOR INGOT MOLD

Ellsworth P. Bythrow, Cleveland, Ohio

Application August 8, 1957, Serial No. 677,038
9 Claims. (Cl. 22—147)



1. A hot top for use at the upper end of a mold filled with molten metal and comprising a closed chamber having at least its inner surface formed of refractory material and capable of holding a vacuum, the bottom of said chamber including a passageway and means closing said passageway fusible at the temperature of the molten metal in said mold.

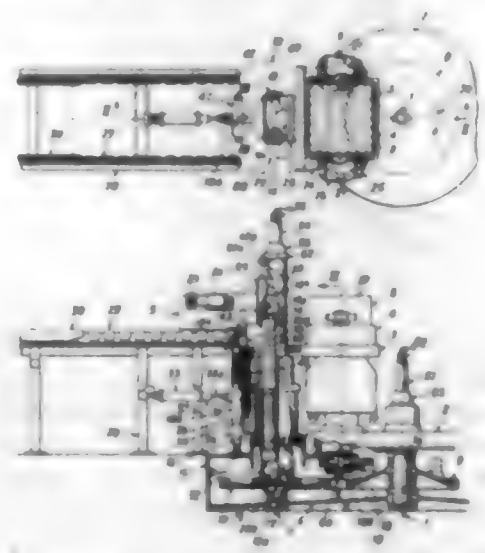
3. The method of applying vacuum to the upper central portion of molten metal in an open-top mold comprising partially submerging in said metal a closed container having a vacuum therein, and thereafter establishing communication between the interior of said container and said molten metal.

2,869,193

ATTACHMENT FOR MOULDING MACHINES WITH MECHANICALLY DRIVEN INTERMITTENTLY ROTATING TURNTABLE

Erwin Bührer, Schaffhausen, Switzerland

Application April 20, 1954, Serial No. 424,445
Claims priority, application Switzerland January 12, 1954
19 Claims. (Cl. 22—21)



1. A mechanism for handling mould boxes in connection with a moulding machine having an intermittently rotatable turntable which carries at least two pattern means and which is operatively connected to drive means; first and second grip means disposed at spaced locations adjacent said turntable for respective swivel movement relative to said turntable and each adapted to support a respective mould box, means operatively interconnecting said drive means with said grip means for actuating the latter in timed relation to the rotation of said turntable, to thereby successively cause engagement of said first grip means with one box, swivel said first grip means to a position above one of said pattern means on said turntable, and deposit said one box on said turntable prior to initiation of moulding operation, while said second grip means is actuated for engagement with

another box in contact with the other pattern means upon completion of moulding operation thereon to remove said other box from said other pattern means and for deposit of said other box remote from said turntable, a rotary column supporting said second grip means, a first gear operatively connected to said column, said drive means including a drive gear operatively connected with said first gear, and a second gear meshing with said first gear, said drive gear meshing with said second gear.

2,869,194

AUTO-HARDENING PHENOL-FORMALDEHYDE COMPOSITION AND METHOD OF PREPARING SHELL MOLDS THEREFROM

Ronald H. Cooper, Clare, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application September 26, 1956, Serial No. 612,283
21 Claims. (Cl. 22—193)

1. Composition which comprises between about 2 and 60 percent by weight, based on the weight of the composition, of an aqueous phenolic liquid resin, said resin being an aqueous phenol-formaldehyde liquid resin that has a greater than 1:1 mole ratio of formaldehyde to phenol, a solids content of at least 50 percent by weight, a pH between 5 and 9 and a viscosity at 77° F. between about 100 and 1,000 centipoises; between about 40 and 98 percent by weight, based on the weight of the composition, of an inert filler material; and between about 1 and 35 percent by weight, based on the total weight of resin in said composition, of a catalyst selected from the group consisting of powdered magnesium oxide having a setting time of less than about 6 hours, aqueous slurried magnesium oxychloride, aqueous slurried magnesium oxysulfate, and mixtures thereof.

2,869,195

SHELL MOLDING COMPOSITION CONTAINING FATTY ALKYLOL AMIDE CONDENSATE, INERT FILLER AND A PHENOLIC RESIN AND METHOD OF MAKING MOLD

Ronald H. Cooper, Clare, and James A. Kelly, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application September 26, 1956, Serial No. 612,285
11 Claims. (Cl. 22—193)

1. Composition for the fabrication of shell molds and the like structures which comprises a preponderant proportion of sand; a binding minor quality in excess of about 3 percent by weight, based on the weight of the composition, of an aqueous phenol liquid resin binder which is a phenol-formaldehyde condensation product that has a greater than 1:1 mole ratio of formaldehyde to phenol, respectively, a solids content of at least about 50 percent by weight, a pH between 5 and 9 and a viscosity at 77° F. between about 100 and 1000 centipoises, said resin binder being catalyzed with an active powdered magnesium oxide that has an initial setting time of less than about 6 hours in an amount in said composition between about 10 and 25 percent by weight, based on the weight of the resin in the composition, and a quantity between about 2 and 25 percent by weight, based on the weight of the resin in the composition, of a non-ionic fatty alkylol amide condensate surface active material that is the condensation product of about one mole of a fatty acid containing from about 10 to about 18 carbon atoms in its molecule with about two moles of diethanol amine, said condensation product being a complex mixture of free diethanol amine, fatty acid-alkanol amine salt, fatty acid amide, and fatty acid-amine condensate.

2,869,196

REFRACTORY COMPOSITION CONTAINING SLAG, SAND, MAGNESIUM OXIDE, AND AQUEOUS PHENOLIC RESIN, METHOD OF MAKING AND PRODUCT OBTAINED

Ronald H. Cooper, Clare, and Gerald M. Corbett, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application September 26, 1956, Serial No. 612,288
13 Claims. (Cl. 22—193)

1. Composition for the fabrication of porous refractory structures which comprises a preponderant proportion of between about 96 and 90 percent by weight, based on the weight of the composition, of a filler material that consists of a quantity of a particulated, finely divided blast furnace slag in the amount of at least about 10 percent by weight, based on the weight of the composition, any balance of said filler material being relatively coarse sand; and a binding minor proportion of from 4 to 10 percent by weight, based on the weight of the composition, of an aqueous phenolic liquid thermosetting resin, said resin being a phenol-formaldehyde condensation product that has a greater than 1:1 mole ratio of formaldehyde to phenol, respectively, a solids content of at least about 50 percent by weight, a pH between about 5 and 9 and a viscosity at 77° F. between about 100 and 1000 centipoises.

2,869,197

PROCESS OF CASTING METAL ON GLASS FIBER MAT

Walter M. Patterson, Freeport, and William G. Conner and Richard B. Shaw, Tarentum, Pa., assignors to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania

No Drawing. Application November 30, 1954
Serial No. 472,222
4 Claims. (Cl. 22—200)

1. The process of casting a molten metal in an ingot mold to form an ingot free from surface imperfections which impair the working of the ingot into strip, comprising in combination, the steps of, depositing a mass of relatively loosely compacted fiber glass having a viscosity of not less than 100 poises at 2275° F. and a density of between 2½ to 4 pounds per cubic foot over the bottom of the mold in an amount ranging from 2 to 7 pounds per ton of metal to be poured to form a substantial layer therein, the fibers of the fiber glass having a diameter not greater than 0.005 inch, and pouring the molten metal into the mass of fiber glass to fill the mold and float the fiber glass on the surface of the poured metal, the fiber glass absorbing the splashing and spattering of the molten metal as the metal is poured therethrough to prevent scabbing of the walls of the mold, the molten metal rendering the fiber glass fluid adjacent the surface of the metal as the mold is filled whereby the fluid glass wets the walls of the mold as the metal and floating fiber glass rise therein to form a thin layer of glass on the surface of the mold and provide a good surface on the ingot as the metal solidifies in the mold.

2,869,198

PISTOL BELT CLIP

Merton L. Clevett, Jr., East Natick, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application August 17, 1955, Serial No. 529,087
3 Claims. (Cl. 24—3)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A clip for pistol belts and the like comprising a substantially U-shaped member of resilient material, one leg of said member being longer than the other and having its free end bent to intercept the plane of the shorter leg, said U-shaped member having a pair of substantially aligned slots, one in the free end of the longer leg and

the other in the bight of the U-shaped member, a bolt slidably mounted in the slots of the U-shaped member, said bolt having one end portion bent toward the longer



leg for snapping over a wall of the slot therein to releasably hold the bolt against opening movement, and a stop lug on the bolt for limiting its inward movement.

2,869,199

HOLDER FOR READY-MADE FOUR-IN-HAND TIE

Nils A. Ellin, Warren, R. I.

Application August 17, 1956, Serial No. 604,764
5 Claims. (Cl. 24—49)



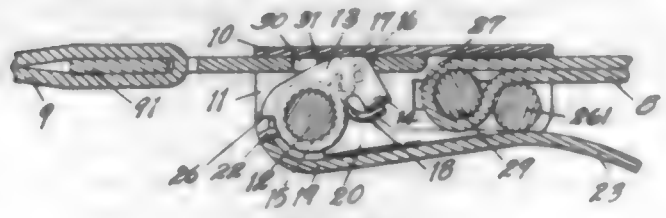
1. A fastening device for detachably mounting ready-made neckties, said device comprising a V-shaped clamp element consisting of a first wall for upward insertion between the rear folds of the knotted portion of the necktie and a second wall extending from said first wall in angular disposition thereto and adapted to extend rearwardly and upwardly of the tie knotted portion whereby said walls may be clamped together to securely grip the tie knot, said second wall having an inwardly extending pin for penetration of the tie knot when said second wall is moved to clamping position, and oppositely disposed laterally extending portions carried by said clamp element for detachably engaging a shirt collar.

2,869,200

QUICKLY RELEASABLE BUCKLE DEVICE

Harold P. Phillips and Leslie W. Cook, Hastings, Mich., assignors to Hastings Manufacturing Company, Hastings, Mich.

Application June 25, 1956, Serial No. 593,496
6 Claims. (Cl. 24—78)



1. A quickly releasable buckle device comprising a base plate provided with outwardly projecting flanges on its longitudinal edges, a pivot mounted in a fixed position on and extending between the flanges adjacent their front ends in spaced relation to the base plate, said base plate having an outwardly projecting lug at the rear of said pivot, laterally spaced catch jaws pivotally mounted on said pivot and connected by a cross piece disposed at the rear of the pivot, a coil spring arranged on said pivot with one end engaged with said lug and the other with said jaw cross piece and acting to bias the jaws rearwardly into supported engagement with the base plate, a jaw release lever provided with ears pivotally engaged with said pivot, a second coil spring arranged on said pivot with one end engaged with said lug on said base plate and the other with said lever and acting to bias it to retracted position, said lever having a rearwardly turned flange at its pivoted end, said jaws and flange having coacting tappet portions which are engaged to release the jaws when the lever is actuated but which are substantially spaced when the lever is in fully retracted position, said lever being of such width that the major portion thereof lies between the base plate flanges when the lever is in retracted position, the lever being provided with a finger piece projecting beyond the rear ends of the flanges, and a coacting coupling member of flat section provided with openings positioned to be automatically engaged by said catch jaws when the coupling member is thrust against the jaws while in supported relation to said base plate, said coupling member being slotted to receive said lug on said base plate.

2,869,201

ATTACHING DEVICE

Harry O. Wolff, Lakewood, Ohio

Application May 24, 1954, Serial No. 431,773
2 Claims. (Cl. 24—81)



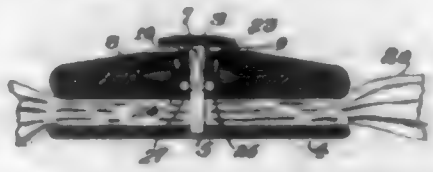
1. A clip adapted to be mounted upon a rail which has first and second spaced parallel boundary portions, said clip comprising a substantially flat body portion upon which is mounted an article receiving member, said body portion having at one end an integrally formed reversely extending recessed portion for engagement with the first portion of a rail, the opposite end of said body portion having a substantially right angle extension provided with a reversely folded part, said right angle extension being adapted to extend across the second portion of the rail with the end of said reversely folded part of the extension engaging the rear side of the rail to thereby clamp the body portion of the clip against said rail, a tongue member formed centrally in said body portion adjacent the right angle extension, and having a free end adjacent the second boundary portion of the said tongue member being reversely bent to extend outwardly of the plane of said body portion and the free end thereof being adapted to engage the second portion of the rail.

2,869,202

DIAPER BUTTON

Marshall F. Buckingham, Ferndale, Mich.

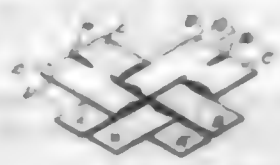
Application April 21, 1955, Serial No. 502,985
1 Claim. (Cl. 24—110)



A diaper button comprising a separable plastic top having an upper surface and a plastic disk bottom each composed of disk-like circular members with substantially flat upper and lower surfaces of substantially the

same diameter and each having coplanar confronting faces, said top having embedded therein a metallic central casing, said casing being entirely embedded in said plastic top and extending from the substantially flat upper surface to the flat lower surface thereof, said casing being provided with a tapered hollow passage and forming openings of different diameters at the top and bottom portions of the same, a flange on said casing at the top portion of said passage and a collar seated on said flange, a flange at the bottom portion of said passage, said flanges being co-planar with said top upper surface and with said top confronting face and forming a part of said central casing, said flanges forming the extremities of the tapered hollow passageway of said casing whereby said passageway is entirely enclosed on its sides by said plastic top in which it is embedded, said bottom having a shaft, a groove and a pointed end on said shaft, a release button having a shaft provided with a central bore and spaced flanges adjacent the end of said shaft, said release button central bore having a closed end, said closed end forming a stop for the pointed end on said shaft of said bottom whereby to prevent said pointed end from protruding beyond the upper surface of said plastic top when the parts are in interengaging position with said shaft occupying said central bore, balls supported by said spaced flanges and the walls of said central casing, a coiled spring surrounding said shaft, one of the ends of said spring bearing against one of said spaced flanges on the opposite side thereof from said balls, and the other of said spring ends bearing against said collar, said central casing having a circular disk shaped side portion substantially spaced equally from said passage openings, said disk spaced side portion serving to anchor said casing within said plastic top.

2,869,203
LEATHER-COVERED BUTTON AND METHOD OF MANUFACTURE
Henry M. Dugan, Hingham, and James J. Dugan, Milton, Mass.
Application October 18, 1957, Serial No. 691,088
6 Claims. (Cl. 24—113)



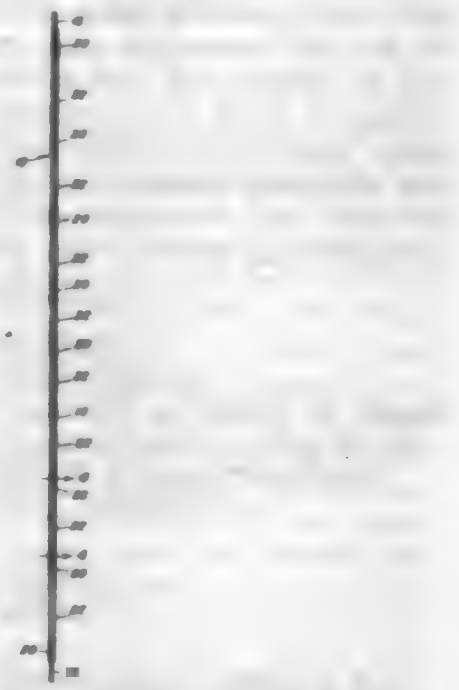
1. A button, comprising in combination a disc-like core of fibrous material having an envelope of leather elements comprised of a pair of identical leather pieces slitted to form legs and tabs, said legs being in lapped arrangement to simulate a braiding on one face of said core, said tabs and free ends of said legs being folded over generally radially and being contiguous with the other face of said core, and a fastening ring having a plurality of prongs passing through said tabs and free ends and being embedded in said core.

2,869,204
SHOELACE RETAINING CLAMP
William M. Mopps, Miami, Fla.
Application October 10, 1955, Serial No. 539,301
7 Claims. (Cl. 24—117)



1. A clamping device whereby to securely maintain shoelaces in a predetermined degree of tightness with respect to a shoe, comprising a slide device that is slidable jointly upon those ends of a shoelace that extend above a laced shoe, the slide device being chambered and cut away to form passages for the shoelace ends, the said passages being shaped to provide opposed wedge surfaces over which the shoelace slides, a clamping spring disposed within the chamber at a right angle to the wedge surfaces and with the spring upwardly bowed and being biased in a direction to simultaneously bind the shoelaces against the wedge surfaces, means connected to the spring device intermediate its ends whereby to additionally bow the spring in a direction away from the wedge surfaces to permit of a freely sliding movement of the slide device with respect to the shoelaces, the free ends of the shoelaces being fixedly anchored to the clamping device whereby to form finger engaging loops that serve to force the slide to clamping position.

2,869,245
EXTENSIBLE SHOE LACE
Raimund Kacowski, Magog, Quebec, Canada
Application November 19, 1956, Serial No. 622,924
4 Claims. (Cl. 24—143)



1. A shoe lace comprising an elastic center cord, a covering on said cord, means securing the ends of said covering to said cord with the intermediate part of said covering freely movable with respect to said cord, portions of said covering being more easily extensible than other portions thereof, said more easily extensible portions being shorter at the center of the covering and gradually increasing in length towards the ends thereof, said other portions being of an equal length along the covering.

2,869,286
SAFETY PIN
Joseph Yeglinski, Greenfield, Mass.
Continuation of application Serial No. 582,844, May 4, 1956. This application June 26, 1958, Serial No. 745,239
1 Claim. (Cl. 24—156)

A safety pin having a hollow head, said head having substantially flat sides, the upper top portion of the head having a curved shape, a V-shaped flange for preventing slipping of said pin extending beneath one edge of the said head, said head having a recessed portion in the lower part thereof, said V-shaped flange being proximate thereto, an arm assembly secured to the inside of said hollow head, said arm assembly consisting of a fixed, relatively immovable longitudinal arm and a relatively movable longitudinal arm, said arms defining a plane and being made of a unitary structure and having there-

between a helical spring, said helical spring being at an angle to the plane of the said longitudinal arms so as to enable the movable arm to contact the said V-shaped flange when in both a closed and open position, said immovable arm being anchored in the hollow head by means of a locking block, said locking block being fitted into an opening in the bottom of said hollow head, said immovable arm having a main portion and a curved portion at its upper end for maintaining the hollow head



rigid, said curved portion being substantially aligned with the inner contours of said hollow head, one portion of said curved portion being parallel to the main portion of the said immovable arm, a stud mounted proximate and in contact with said parallel portion of said curved portion, a spring circumscribing said curved portion and under stress between said stud and said locking block, and a gripping abutment on said head whereby said hollow head may be pulled away from said movable arm to enable said movable arm to be in an open position.

2,869,207

SLIDE FASTENER

Joseph D. Bernstein, Denver, Colo., assignor to Beverly Development Corporation, a corporation of Colorado

Application January 20, 1956, Serial No. 560,373
5 Claims. (Cl. 24—201)



1. A continuous strip fastener including a pair of substantially-rigid torsionally-elastic strips having connectible confronting faces, a tongue outstanding from the confronting face of one strip and a tongue-receiving channel in the confronting face of the other strip, said tongue being tapered and having a slot in one side at its base, said channel having a lip at its entrance at the side adjacent to the tongue slot and being adapted to be lockingly inserted into the slot when the strips are engaged with the tongue in the channel, the thickness of the tongue at its base at the slot being substantially the same as the width of the channel entrance at the lip and the taper of the tongue being such as to reduce its thickness beyond the slot to a thickness no greater than the width of the channel entrance at the lip, and the width of the channel beyond the entrance being sufficiently greater than the thickness of the tongue whereby to permit the tongue when inserted into the channel to shift and move the lip into and out of engagement with the slot when the strips are interrelatively rotated about their longitudinal axes.

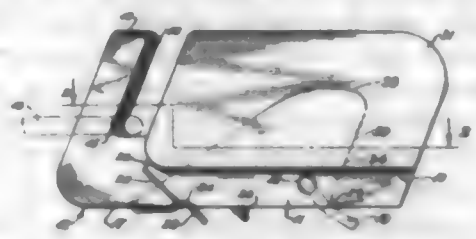
2,869,208

QUICK RELEASE MECHANISM

Vincent I. Meier, Port Washington, N. Y., assignor to the United States of America as represented by the Secretary of the Navy

Application November 17, 1953, Serial No. 392,781
4 Claims. (Cl. 24—230)

1. A quick release mechanism for a pair of joined members under tension comprising a body and a segment cut therefrom to provide a cavity, said segment being retainable in said cavity to completely fill the same and being separable from said body, the periphery of said segment comprising first and second contiguous portions meeting at a junction and adapted to be in contact with the wall of said cavity, and a pivot point adjacent said second portion, the distance from said junction to said pivot point being no greater than the distance from any point on the periphery of said first portion to said pivot



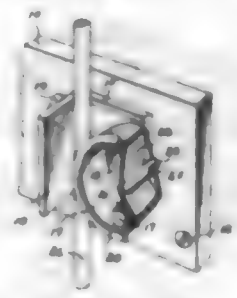
point, and the distance from any point on said second portion to said pivot point being no greater than said first mentioned distance; a first of said members connected to said body; a second of said members connected to said segment and permanently secured thereto; a latch pivotally securing said segment within said cavity; and means for simultaneously releasing said latch and for pivoting said segment within said cavity about said pivot point whereby said segment, upon pivoting, may separate from said body to release said members.

2,869,235

ROD HOLDING DEVICE

Joe Kautzky, Fort Dodge, Iowa

Application July 31, 1957, Serial No. 675,456
6 Claims. (Cl. 24—249)



1. In a rod holder, a base, a vertical shoulder ledge on said base, a substantially one-half wheel rotatably eccentrically mounted on said base and at one side of said shoulder ledge; said one-half wheel having substantially a one-half circular rim portion, a continuous flexible resilient belt band having a portion of its length embracing said circular rim portion of said one-half wheel and its other portion extending between the two ends of said circular rim portion in substantially a straight line when not distorted, and a post on said base engageable by that portion of said belt band that extends between the two ends of the said circular rim when said one-half wheel is rotated in a direction away from said ledge shoulder.

2,869,210

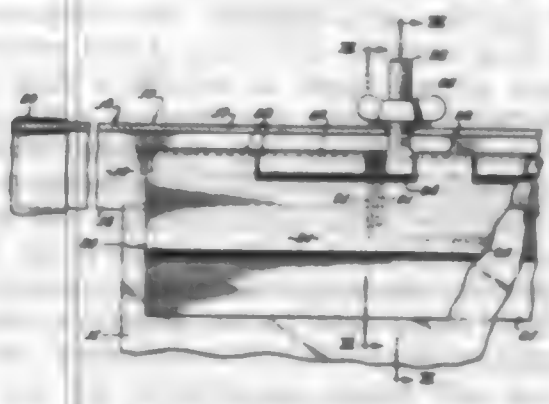
FRICTION-TYPE BINDER

Oscar Kain Schneider, South Gate, Calif., assignor, by mesne assignments, to Plan Hold Corporation, South Gate, Calif., a corporation of California

Application April 18, 1955, Serial No. 502,059
1 Claim. (Cl. 24—251)

A friction-type binder for loose paper sheets comprising, in combination: an elongated support member of channel-section including spaced parallel longitudinal walls of uniform section and having parallel longitudinal edges lying in a plane normal to said walls, a longitudinal web connecting said walls and defining therewith a longitudinally extending recess, said web having an opening therethrough; a sheet-gripping means movably

mounted in said recess and including a pair of angle-section gripping members provided with converging jaw portions exterior to said recess and converging wedge portions provided with exterior surfaces cooperably engaged with said longitudinal edges; each of said gripping members having adjacent hinge sections which are interleaved and are provided within said recess at longitudinal edges of said wedge portions, certain of said adjacent hinge sections defining an enlarged spaced therebetween; a bolt having an apertured head positioned in said enlarged space and having a threaded shank passing through said opening in said web; an elongated hinge



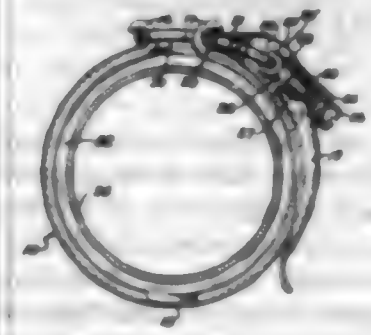
pin extending longitudinally through said hinge sections and apertured bolt head for pivotally interconnecting said gripping members and bolt within the recess; a spring positioned on said hinge pin in said enlarged space and having diverging spring portions which bear against the internal surfaces of said gripping members to urge said wedge portions into cooperable engagement with said longitudinal edges on the longitudinal walls of said support member, and a nut cooperable with said bolt shank and web for moving said bolt and gripping members in said recess to urge said jaw portions into and out of sheet-gripping positions.

2,869,211

ADJUSTABLE TOGGLE-TYPE CONNECTING ASSEMBLIES

Joseph S. Kessler and Walter Ebert, Kenosha, Wis., assignors to Ladish Co., Cudahy, Wis., a corporation of Wisconsin

Application October 15, 1956, Serial No. 616,020
2 Claims. (Cl. 24—270)



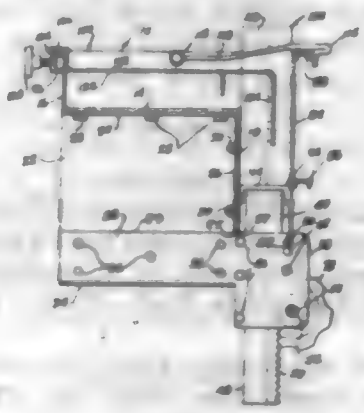
1. A toggle type connecting assembly for a clamping band having a pair of relatively movable juxtaposed end portions to be drawn and held together, comprising a hook on one of said end portions projecting away from its end portion, a bail having spaced side portions, a clamping handle having spaced side flanges within said side portions of the bail, said flanges having alined elongated openings and said handle having one end formed with a nose pivotally engaged with the other of said end portions of the band, a tubular bearing member extending transversely between said handle flanges and having a central stem positioned between the flanges and projecting in the general direction of the longitudinal axis of the handle, the spaced side portions of the bail having inwardly bent trunnions at one end extending from the outside through said alined apertures of the handle flanges and pivotally engaged in the ends of said transverse bearing member, said bail having a closed end engageable with said hook, a lug on said handle, and a screw projecting from the central stem of said bearing member and engaged with said lug for adjusting the bearing member toward and away from the nose portion of the handle to vary the effective length of the bail.

2,869,212

APPARATUS FOR PRODUCING CONCRETE STAIR STEPS

Arthur A. Hart, Springfield, Mo.

Application May 21, 1954, Serial No. 431,476
2 Claims. (Cl. 25—118)



2. In apparatus for casting a concrete tread and riser unit, a horizontal longitudinally elongated base plate having rear and front longitudinal edges, a top surface, and opposite ends, an upstanding rear flange on and extending along said rear edge, a depending front flange on and extending along said front edge, said depending front flange having a lower edge, a pair of vertical end plates located beneath the base plate behind said front flange and secured to the base plate and the front flange in spaced relation to each other lengthwise of the base plate, bracket means mounted on said end plates having heads projecting forwardly beyond said front flange, journal means on said heads, a horizontal shaft extending between and having ends journaled in said journal means, vertical slideways on said heads, vertical rack bars slidably engaged in said slideways and having upper ends, a horizontal element extending between and secured at opposite ends to the upper ends of the rack bars, a removable vertical longitudinally elongated front panel having upper and lower edges, means on said heads supportably engaging the lower edge of the front panel and spacing the front panel forwardly from the base plate front flange, said horizontal element being positioned between and slidably engaged with the base plate front flange and said front panel, said rack bars having vertical racks thereon, spaced pinions fixed on said shaft in mesh with said pinions, and means for rotating said shaft in opposite directions to raise and lower said horizontal element relative to said base plate, and releasable clamping block means mounted on the base plate front flange and engaged with said shaft for locking the shaft against rotation from a selected rotated position.

2,869,213

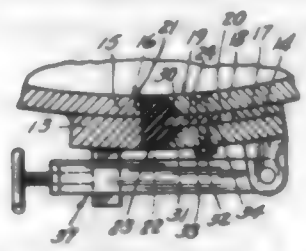
GASKET SEALED CONCRETE PIPE FORM

Richard C. Longfellow, Elk River, Minn., assignor to The Cretex Companies, Inc., Elk River, Minn., a corporation of Minnesota

Application December 2, 1955, Serial No. 550,685
4 Claims. (Cl. 25—127)

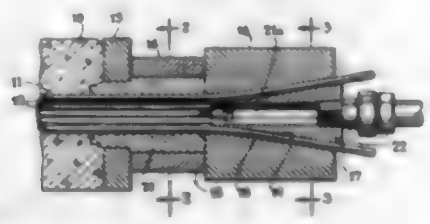
1. In a concrete form, an elongated split annular form member defining adjoining relatively movable lateral edges with a seam therebetween, one of said lateral edges having a longitudinally-extended outwardly opening slot formed therein which faces the other edge, a gasket comprising a resilient head portion extending generally the

length of the form and disposed between said edges and an integral anchoring tongue disposed in said slot, means for anchoring said gasket to said form member, and lock-



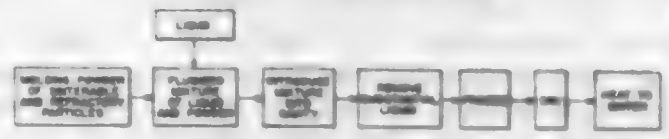
ing means for holding said lateral edges in closed relationship with said resilient gasket head compressed therebetween in sealing relationship with said edges, whereby to prevent any leakage along the length of said seam.

2,869,214
GROUTING OF REINFORCEMENTS IN POST-TENSIONED CONCRETE STRUCTURES
Myers Van Buren, Haworth, N. J., assignor to Raymond International Inc., New York, N. Y., a corporation of New Jersey
Continuation of application Serial No. 367,332, July 10, 1953. This application May 16, 1957, Serial No. 660,736
1 Claim. (Cl. 25—154)



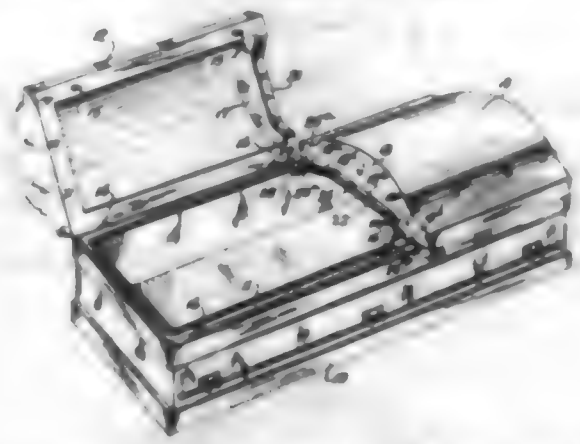
In the stressing of elongated porous concrete members by the use of a group of wires and the like extending through a cavity of small diameter and considerable length through the concrete member, said wires being so positioned in said cavity as to provide free space in the cavity along the wires and throughout their length, a method for grout bonding the wires while same are held in place under tension in said cavity, which comprises first forcing grout in an initially fluid condition having a high water-cement ratio of from about .85 to about .30 into the free space along said wires and between and around the wires until the entire cavity, including said free space along the wires, is filled with grout from end to end of the elongated concrete member with each of said wires along its peripheral extent substantially surrounded by and in contact with said grout, preventing the escape of the grout from the ends of said cavity and applying sufficiently high pressure of at least about 50 p. s. i. to said grout to force water from the grout deeply into the porous walls of the cavity along the length thereof into the concrete while retaining in the cavity the cement content of the grout, and then maintaining the grout throughout the cavity under high pressure for at least from about 1 to about 3 minutes while forcing additional grout into the cavity to compensate for the water passed off into the concrete, thereby lowering the water-cement ratio of the grout in the cavity to make the grout firm throughout the cavity from one end of the concrete member to the other and thus providing a firm plug-like means of grout throughout the cavity with the peripheral surfaces of the wires along their lengths being embedded in and bonded to said grout, said plug-like means having a lower water-cement ratio, and having a low shrinkage factor during setting and, when set around the wires, a high bonding strength and a high compressive strength.

2,869,215
MOLDING METHOD
Robert S. Smith, Merchantville, N. J.
Application June 20, 1955, Serial No. 516,475
2 Claims. (Cl. 25—156)



1. In the method of making a permanent mold, the steps which comprise: admixing a powdered molding material which includes relatively small particles capable of sintering at a relatively low temperature and relatively large particles refractory at said relatively low temperature with a liquid to provide a fluidized mixture, introducing separate quantities of said liquid and molding material mixture into respective cavities specifically configured to form said quantities in the shapes of complementary mold parts, freezing said quantities of liquid and molding material mixture to set the same in said shapes, removing said frozen quantities from said cavities, fitting said frozen quantities together in their complementary relation evaporating the frozen liquid from said frozen quantities to dry the molding material in said shapes, beating said dried molding material sufficiently to sinter said relatively small particles and thereby form rigid bodies in said shapes, and separating said rigid bodies from each other.

2,869,216
CASKET SEALING CONSTRUCTION
John S. Overland, James T. Hill, and Victor H. Seger, Chicago, Ill., assignors to F. H. Hill Company, Inc., Cleveland, Ohio, a corporation of Ohio
Application May 24, 1957, Serial No. 661,477
13 Claims. (Cl. 27—17)



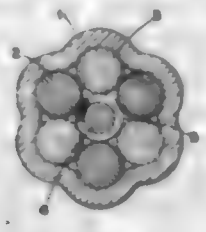
1. In a casket of the type having a body provided on its upper marginal edge with sealing means, separate top lid sections hinged to said body at the rear longitudinal side thereof and covering when closed the head and foot portions of said body, sealing means extending around said upper marginal edge of said body and engageable by said top lid sections when closed, and cooperating means carried by said top lid sections and said body at the front side thereof for drawing said lid sections into sealing engagement with said sealing means; a combined transverse seal and support at the adjacent ends of said lid sections when the latter are in closed position and comprising a bridge separate from said sections and extending transversely of the body and of a width to underlie the adjacent ends of both of said lid sections, means operatively connecting said bridge to one of said lid sections to have limited floating or self-adapting movement relative to said lid sections, and a sealing gasket carried by said bridge on the upper side thereof and engaging said lid sections when closed and of a length such as to extend beyond the opposite ends of said bridge and sealingly engaged said sealing means on the upper marginal edge of said body.

2,869,217

METHOD FOR ASSEMBLING TRAVELLING WAVE TUBES

Clarence L. Saunders, Astoria, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application February 14, 1957, Serial No. 640,218
6 Claims. (Cl. 29—25.14)



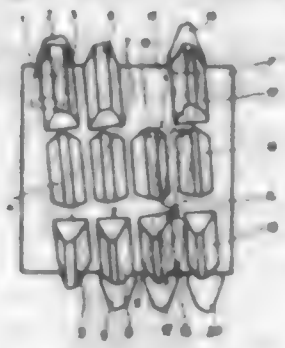
1. A method for mounting a helix structure into a hollow member which comprises the steps of winding said structure upon a mandrel; securing a plurality of separate support rods and spacer rods to said structure to form a bundle about said mandrel; inserting said bundle-carrying mandrel within said member; shrinking said member peripherally about said bundle; and removing said spacer rods and said mandrel from said member.

2,869,218

CUTTER

Wolfram P. G. Lindner, Stefansbecke, Uber Gevelsberg, Germany

Application March 1, 1955, Serial No. 491,467
Claims priority, application Germany March 12, 1954
2 Claims. (Cl. 29—103)



1. A hob having its teeth arranged along at least one helix, in which the teeth arranged along one and the same helix are subdivided into groups and in which some of said groups comprises roughing teeth and one of said groups comprises finishing teeth, each tooth of one and the same group being substantially evenly spaced from an adjacent tooth of the group, and the first tooth of each group being spaced from the last tooth of the preceding group by a distance substantially equalling from one to five times the distance between two adjacent teeth of one and the same group, the arrangement being such that the depth of the teeth of one and the same group which comprises roughing teeth only increases from tooth to tooth in cutting sequence thereof and that the first tooth of each group has a lower depth than the last tooth of the preceding group.

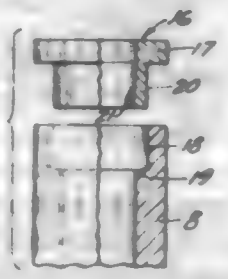
2,869,219

METHOD OF MAKING HINGES HAVING LOCKED-IN BUSHINGS

Bert A. Quinn, St. Paul, Minn., assignor to Ideal Brass Works, Inc., St. Paul, Minn., a corporation of Minnesota

Application May 2, 1955, Serial No. 505,165
3 Claims. (Cl. 29—149.5)

1. The method of making a hinge plate having a substantially cylindrical hinge pin bearing which comprises, forming on a flat sheet metal blank having a flat integral knuckle member, a longitudinally extending shoulder and an adjoining plane surface defining a recess extending along a margin of said knuckle member, said recess having greater depth along said shoulder than along its outer longitudinal side; bending the flat knuckle member to form a hollow, substantially cylindrical knuckle and a knuckle recess the diameter of which is larger adjacent to said shoulder than at the outer side of said recess; inserting in telescoping relation to said knuckle recess a pre-formed annular bushing having a substantially conical interior surface tapering to an inner diameter smaller than the inner diameter of said cylindrical knuckle, said bushing having a substantially cylindrical outer surface for contact with the surface of said knuckle recess; and forcibly expanding said bushing to form a substantially cylindrical interior surface and a substantially conical exterior surface thereon interlocking with said knuckle recess.

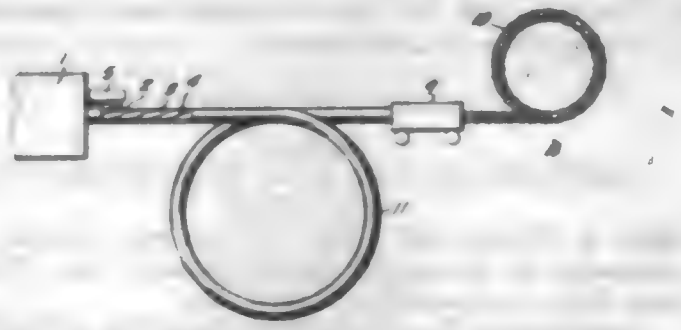


2,869,220

PROCESS AND ARRANGEMENT FOR THE PRODUCTION OF CABLES AND CONDUCTORS HAVING A CORRUGATED SHEATHING, MORE ESPECIALLY A METAL SHEATHING

Ulrich Raydt and Karl Heinz Habne, Osnabruck, Germany, assignors to Osnabrücker Kupfer- und Drahtwerk, Osnabruck, Germany

Application June 21, 1954, Serial No. 438,196
Claims priority, application Germany June 29, 1953
4 Claims. (Cl. 29—155.5)



1. The process of producing metal sheathed cable comprising the steps of extruding a metal sheath loosely about a cable, feeding the loosely sheathed cable to a corrugating machine at a constant speed, and corrugating said sheathing to bring the troughs into snug engagement with said cable, the proportioning of the length of the troughs to the height of the crests of the corrugations being such that the speed of cable and sheathing to and from the corrugation step of the process is the same whereby the assemblage is formed without longitudinal relative movement between the cable and the sheathing.

2,869,221

METHOD OF PRODUCING VALVE HOUSINGS

Walter Stepmann, Beiecke, Germany, assignor to Stahl-Armaturen G. m. b. H., Beiecke (Mohne), Germany

Application October 20, 1953, Serial No. 387,273
Claims priority, application Germany October 21, 1952
2 Claims. (Cl. 29—157.1)

1. Method of producing valve housings of the type described, consisting in forging a half valve seat and two shell-shaped housing half sections with longitudinal edges and one of the housing half sections having a half valve seat integral therewith, welding said first-mentioned half valve seat in the housing half section which does not have

the half seat as a part thereof, the welding of said first-mentioned half valve seat being such that its upper surface lies in the same plane as the upper surface of the integral half valve seat when said edges are joined, fitting the two housing half sections together with the two half



seats in abutting relationship and welding the joint therebetween, with the abutting ends of the half valve seats in a plane at right angles to the longitudinal axis of the sections and welding the longitudinal edges of the housing to form seams.

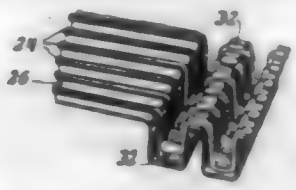
2,869,222

REFRIGERATING APPARATUS

Charles C. Whistler, Jr., Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 12, 1955, Serial No. 533,736

6 Claims. (Cl. 29—157.3)



5. A heat exchanger fin subassembly comprising a plurality of parallel wires, and heat fusible web material holding said wires in spaced parallel relationship, said material and said wires having transversely extending corrugations formed therein.

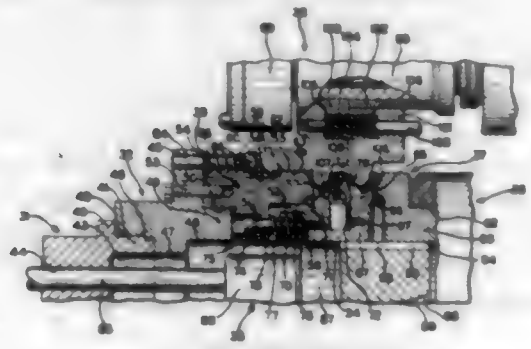
2,869,223

METHOD OF FORMING MULTI-GROOVE PULLEYS

Robert J. Killian and Glenn M. Brown, Canton, Ohio, assignors to Automatic Steel Products, Inc., Wilmington, Del., a corporation of Delaware

Application March 30, 1955. Serial No. 497,880

5 Claims. (Cl. 29—159)



1. The method of roller forming a series of parallel axially spaced grooves in a contiguous hollow cylindrical flange wall of a cup-shaped pulley blank, said flange wall having circumferentially continuous inner and outer sides and a uniform axial length and an open end, and each of said grooves having two inwardly extending side walls and minimum diameter; including the steps of rotating the cup-shaped pulley blank, substantially simultaneously applying radial pressure to a series of axially spaced parallel portions of the outer side of the flange wall with a first roll means to form a series of parallel axially spaced rough pulley grooves at said portions, then substantially simultaneously applying radial pressure to said outer side portions with a second roll means to form said rough pulley grooves into finished pulley grooves, applying axial pressure to the flange wall during the periods while said radial pressures are applied, supporting portions of the inner side of the flange wall simultaneously substantially entirely around the inner circumference of the flange wall at each of the side walls of each of the grooves including portions radially outward of the groove minimum diameters during at least a portion of the period when said radial pressure is applied by said first roll means, maintaining said circumferential support after it has been established until the completion of the groove-forming operation including the period between the forming of the rough and finished grooves and the period of forming the finished grooves, confining said flange wall open end during the period when said radial and axial pressures are being applied by the first and second roll means, forming said flange wall open end during the latter portion of the forming of the finished grooves, radially confining and forming the outer side flange wall portions immediately adjacent the grooves which are not at said open end during the latter portion of the forming of the finished grooves, and moving at least a portion of said support radially inwardly free of said inner side of the flange wall after the grooves have been formed so that the pulley blank having said formed grooves can be removed from said support.

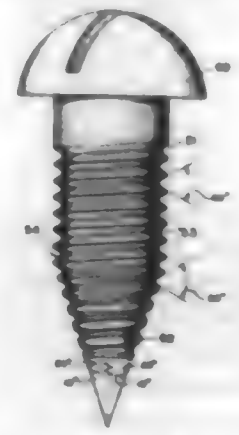
2,869,224

SEATING TOOL FOR WIRE COIL SCREW THREAD INSERTS

John O. Forster, Harrison, N. Y., assignor to Heli-Coil Corporation, Danbury, Conn., a corporation of Delaware

Application January 5, 1955, Serial No. 480,051

2 Claims. (Cl. 29—240.5)



1. A screw thread member to be seated in an inner screw thread of substantially V-shaped cross-section formed by a wire coil screw thread insert having a grip end and lining the tapped hole of a boss or nut, said member comprising a cylindrical portion, a tapered free end adjoining said cylindrical portion, and means on the other end of the portion to apply a torque about said cylinder axis thereof, said cylindrical portion and said taper being provided with a continued thread groove of constant pitch, the major part of said thread groove on said cylindrical portion fitting the inner thread formed by said insert coil for which said tool is destined, the thread groove portion on said taper and at least one adjacent groove convolution on said cylindrical portion having an included angle and a width of its root somewhat larger than said major part of said thread groove on said cylindrical portion, the root diameters of said groove in said taper being located on a conical surface including with said axis an angle between 10 and 25 degrees, the angle included between the outside of said taper and said axis being about 5 degrees larger than the aforementioned angle, and the ultimate end of said taper being adapted to engage into said grip end.

2,869,225
BOLT AND BEARING PULLER AND POSITIONING TOOL

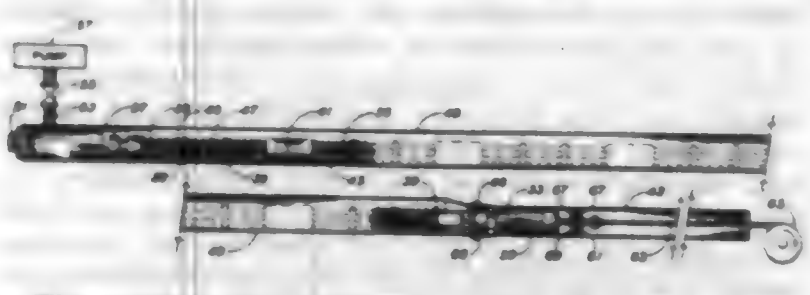
Alfred H. Ahrens, Goodland, Kans.
Application October 27, 1954, Serial No. 465,832
1 Claim. (Cl. 29—256)



A tool of the class described, comprising a gear housing, a tubular open-ended body secured at one of its ends to said gear housing extending at right angles with respect thereto, gearing mounted within said gear housing, one of said gears having a threaded bore disposed axially thereof, a threaded shaft operating in said threaded bore, a supporting rod disposed within said tubular body extending substantially the length of said body, said supporting rod extending through said gear housing, the ends of said supporting rod extending laterally, the end of said rod above said housing engaging the upper end of said threaded shaft, a tubular bearing disposed on the other laterally extended end of said threaded rod in which said threaded shaft operates, a gripping head including jaws mounted on said bearing, said jaws adapted to fit within a bearing to be pulled in gripping relation therewith, means for expanding said jaws, and mechanism for effecting rotation of said gearing and hence linear movement of said threaded shaft, forcing said tubular housing against an object supporting a bearing being pulled, simultaneously drawing said gripping head and bearing toward said tubular housing, removing said bearing from the opening in which it is held.

2,869,226
CABLE ASSEMBLY METHOD AND APPARATUS

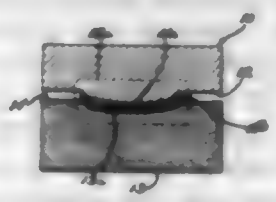
Glenn A. Scharman, Whittier, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application March 24, 1954, Serial No. 418,401
1 Claim. (Cl. 29—421)



The method for encasing a series of flexibly interconnected seismic detector units within a flexible water-impervious covering comprising placing said interconnected units within a first pressure vessel having a closed end and an open end, placing said flexible covering within a second pressure vessel having an interior diameter greater than the relaxed exterior diameter of said flexible covering, securing one end of said flexible covering to the open end of said first pressure vessel in a fluid-tight connection and in communication with the interior thereof, securing the other end of said flexible covering to the inner walls of said second pressure vessel with a fluid-tight connection, providing a vent from the interior of said second pressure vessel to the atmosphere, attaching a piston element to an end of said interconnected units and placing said interconnected units within said first pressure vessel with said piston element adjacent the open end thereof, slidably engaging said piston element within the said one end of said flexible covering, placing the interior of said first pressure vessel and the interior of the said flexible covering within said second pressure vessel under superatmospheric pressure to expand said flexible covering, creating a pressure differential between said first pressure vessel and the interior of said flexible covering to force said piston element into said flexible covering, maintaining the pressure differential between said first pressure vessel and the interior of said flexible covering to cause said piston element together with said interconnected units to be forced through substantially the entire length of the interior of said flexible covering, releasing the pressure from said first pressure vessel and from the interior of said flexible covering to retract said flexible covering around the circumference of said interconnected units, detaching the said one end of said flexible covering from the said first pressure vessel, removing said flexible covering with the interconnected units enclosed therein from the said second pressure vessel, detaching the said piston element from the end of said interconnected units, securing the ends of said flexible covering to the corresponding ends of said interconnected units.

2,869,227
PROCESS OF COATING AND HOT WORKING OF METALS

Samuel W. Bradstreet, Oak Park, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois
Application July 1, 1955, Serial No. 519,346
18 Claims. (Cl. 29—424)



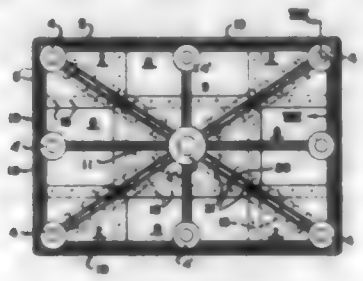
1. A process which comprises directing a high temperature flame at the working face of a metal working die and injecting into said flame particulated alumina to coat said face, heating a workpiece to metal working temperatures, and applying the working face of the die to said piece to form the same.

2,869,228
METHOD OF MAKING A COMPOSITE STRUCTURE

George E. Martin, Wheeling, W. Va., assignor to Wheeling Steel Corporation, Wheeling, W. Va., a corporation of Delaware
Application September 6, 1955, Serial No. 532,683
5 Claims. (Cl. 29—428)

1. A method of making a composite structure of selected size and shape out of two die-formed cooperative elements formed on the same dies for a range of sizes and shapes of the composite structure comprising forming two blanks to size so that when assembled in opposed relationship to form the composite structure of selected size and shape the blanks overlap, die-forming first a portion of each blank and thereafter another portion with the die-formed portions merging to form elements with

cooperative die-formed portions extending to the overlapping parts thereof, overlapping the elements with said



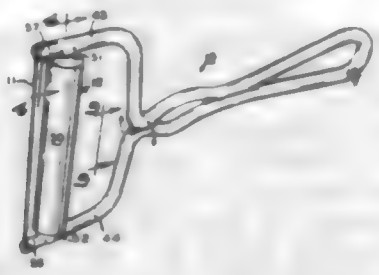
cooperative die-formed portions interfitting and fastening together the thus overlapped elements.

2,869,229
HOLDER FOR HAIR TRIMMING BLADE
Thomas H. Hightower, Birmingham, Ala.
Application May 31, 1957, Serial No. 662,794
3 Claims. (Cl. 30—30)



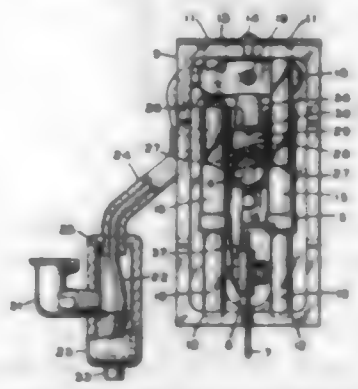
1. In a holder for a hair trimming blade having gauge members on both sides thereof to determine the depth of cut made by the blade, a handle for the holder, a transverse member attached to said handle for engaging the underside of the blade at a position rearwardly of the gauge members on the underside of the blade, an outwardly projecting support member on each end of said transverse member extending forwardly of the forward edge of the transverse member for engaging and supporting the end edges of the blade forwardly of the transverse member, an elongated guard member having inwardly extending projections adjacent the ends thereof adjustably connected to the outwardly projecting members, said guard member extending substantially parallel to the cutting edge of the blade in spaced relation to the transverse member and adapted for supporting the gauge members on the underside of the blade and spacing the cutting edge from the guard member whereby hair being cut by said cutting edge is received between the blade and the guard member and is removed through the space between the transverse and the guard members, a cover member adapted to engage the side of the blade opposite the transverse member, and means holding said cover member in engagement with said trimming blade.

2,869,230
CUTTER FOR SLICING CHEESE OR THE LIKE
Norman P. Uebel, Bellevue, Ky.
Application December 20, 1956, Serial No. 629,515
4 Claims. (Cl. 30—116)



1. A slice cutter for cheese and the like comprising a cutter and a resilient unitary frame, said frame having a handle portion and a pair of harp-forming arm portions, the handle portion of said frame having a curved end portion from which longitudinal portions extend into co-operative abutment adjacent respectively to each of the pair of harp-forming arm portions, one of said longitudinal portions having a depression therein to co-operatively receive an abutting portion of the other longitudinal portion urged thereagainst by their resiliency, the cutter member spanning the space between and being secured to said harp arm portions in spaced relation to said handle portion, the cutter being loaded in tension and the harp arms being stressed by the cutter to urge the co-operatively abutting portions of the longitudinal handle portions more firmly together.

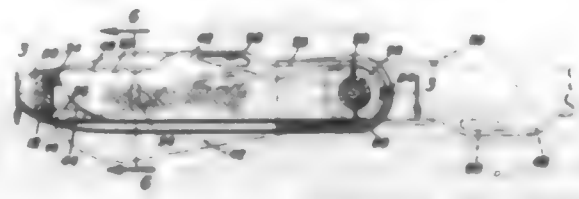
2,869,231
LUBRICATING SYSTEM FOR CLOTH CUTTING MACHINE
John B. Gury, Jr., Richmond Heights, Mo.
Application February 25, 1957, Serial No. 642,169
10 Claims. (Cl. 30—123)



1. A lubricating system for bearings, comprising, a reservoir for the lubricant, a fixed pad, a wick carrying lubricant from said reservoir to said pad, a reciprocating element including bearings and a lubricant receiver, the fixed pad being located adjacent one end of travel of said reciprocating element, a pad in the receiver engaging the fixed pad intermittently to transfer lubricant to said receiver pad, and ducts from said receiver to said bearings

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2,869,232
COMBINATION KNIFE AND SLITTING TOOL
Stanley E. Kivela, Fond du Lac, Wis.
Application June 21, 1957, Serial No. 667,251
7 Claims. (Cl. 30—161)



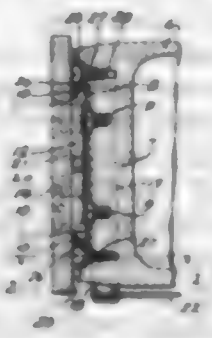
5. In an appliance that is convertible from a slitting tool to a knife, said appliance comprising a frame having sides with a space between the sides, a spindle attached to said sides and extending across said space near one end of said frame, a blade that has a cutting edge and a longitudinal edge generally coextensive with the cutting edge, means mounting said blade on said spindle for pivotal movement into and from said space between the sides of said frame, means for resiliently urging said blade to a closed position within said space, a lock extending across said space between said sides and adapted to contact the second mentioned edge of said blade to hold said blade in selected pivotal positions by moving said lock to selected positions with respect to the ends of said frame, and means mounting said lock for adjustment on said sides of said frame so that said lock can occupy one of a number of positions all of which are held by the force applied by said resilient means tending to pivot said blade into the space between said sides of said frame.

2,869,233
BLADE HOLDERS
Edward T. Mahoney, Milwaukee, Wis.
Application March 7, 1956, Serial No. 570,113
1 Claim. (Cl. 30—162)



A blade holder including a body portion and an integral handle portion, said portions formed of two like sheet elements adhesively secured together throughout the handle portion and along one edge of the body portion and having registering longitudinal slots adjacent said edge longer than and for guiding the reenforced back of a single edged razor blade slidably held between said sheet elements in their unsecured portion for movement in the sliding area between a protruding position and a retracted position of the blade with respect to said holder, registering slots in the body portion of said sheet elements disposed at an angle to said longitudinal slots and adjacent the opposite edge of said body portion clear of said razor blade sliding area, a double-headed clamping button having a head connecting portion slidable and in said second mentioned slots, the heads of said button being spaced closely against said sheet elements to press them together, so as to wedge portions of the sheet elements against the sides of the razor blade in either of its positions when the button is moved in the direction of the blade to clamp said blade firmly against sliding from its position.

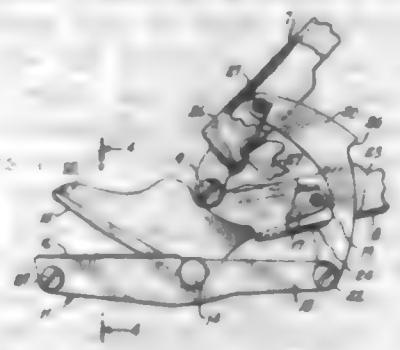
2,869,234
HAIR CLIPPER HAVING A SHIFTABLE SHEAR PLATE
Matthew G. Andis, Racine, Wis., assignor to Andis Clipper Co., Racine, Wis., a corporation of Wisconsin
Application August 26, 1957, Serial No. 680,186
7 Claims. (Cl. 30—201)



1. The combination in a hair clipper having a shiftable shear plate, of a carriage for the shear plate and a slideway along which the carriage is movable, means for adjustably imposing frictional drag between the carriage and slideway, and means for overcoming said frictional drag for shifting said plate notwithstanding said drag.

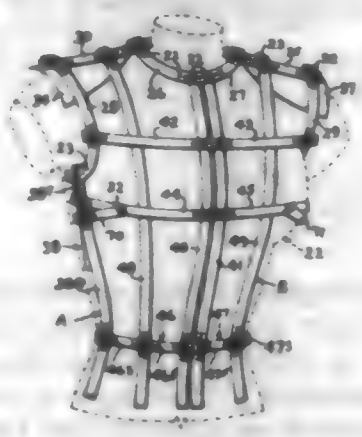
2,869,235
HAND SHEAR FOR CUTTING PLASTIC LAMINATE
Karl J. Klenk, Chadds Ford, Pa.
Application August 20, 1958, Serial No. 756,203
4 Claims. (Cl. 30—252)

1. Hand shear for cutting hard brittle material comprising companion upper and lower blades pivotally connected intermediate their ends, with cutting edges forward of the pivotal connection and leverage extensions rearward of said pivotal connection, a pair of hand levers above and rearwardly of said blades, said hand levers being pivotally connected at their forward ends at a point above the pivotal connection of the blades, said rearward leverage extension of the upper blade being pivotally connected with the lower hand lever and a push link



pivotally connected with said upper hand lever and with the rearward leverage extension of the lower blade.

2,869,236
DRESSMAKER'S PATTERN GAUGE
Edna M. Franklin, Oklahoma City, Okla.
Application March 11, 1957, Serial No. 645,336
7 Claims. (Cl. 33—2)



1. A dressmaker's pattern gauge comprising right and left front and back sections adapted to be adjustably assembled and fitted to the body of a person, including: four flat neck strips transversely curved arcuately and adapted to encircle the neck line and be connected in end overlapping relation at the center front and back and on opposing sides of the neck; two pairs of flat arm-hole strips transversely curved arcuately and adjustably connected in end overlapping relation above and below the shoulder and adapted to encircle the arms at the sleeve attaching position; two pairs of elongated flat shoulder strips adapted to be flatly connected at one end in parallel relation to said neck strips on opposite sides of the neck and extended outwardly and adjustably connected to the upper ends of the respective said arm-hole strips; two pairs of elongated flat center strips adapted to be connected to the respective center front and back of said neck strips in depending parallel relation, said center strips adapted to extend downwardly beyond the waist line; two pairs of elongated flat side strips adapted to be adjustably connected in depending parallel relation to the depending ends of the respective said pairs of arm-hole strips on opposing sides of a person, said pairs of side strips adapted to extend downward below the waist line, the forward one of each of said pairs of side strips being divided intermediate its ends and adjustably connected in overlapping relation for defining the measurement of an under-arm dart; two pairs of elongated flat arm to arm strips, each of said pairs of arm to arm strips longitudinally arranged in end overlapping adjustable relation and adapted to be extended across the front and back arm to arm line and connected at the respective ends thereof to the respective arcuate arm-hole strips intermediate the ends of the latter; two pairs of elongated flat bust line strips, each pair of said pairs of bust line strips longitudinally arranged in end overlapping adjustable relation and adapted to be extended across the respective

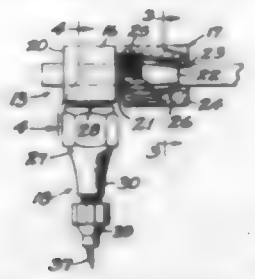
front and back bust line and connected at the respective ends thereof to the respective adjacent ones of said parallel side strips at a point in relatively close spaced relation to the depending ends of said arcuate arm-hole strips; and two pairs of elongated flat waist line strips, each of said pairs of waist line strips longitudinally arranged in end overlapping adjustable relation and adapted to surround the respective front and back waist line, and be connected at the respective ends thereof to the respective adjacent ones of said parallel side strips, said neck strips and said arm-hole strips and forming with the respective said pairs of parallel strips a pattern skeleton adapted to encompass the body and be separated at the respective center front, back and sides for forming right and left front and back pattern gauging sections.

2,869,237

TRAMMEL BAR COMPASS

Joseph M. Berge, San Clemente, Calif.

Application September 17, 1956, Serial No. 610,311
1 Claim. (Cl. 33—27)



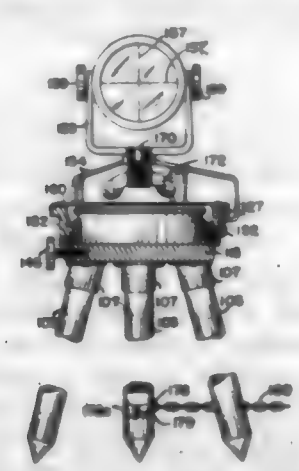
In a scribing compass of the trammel bar type: a trammel bar; and a pair of point carrying units attached to respective ends of said bar, at least one of said point carrying units including a slider body of polyamide material slidably mounted on said bar and having externally threaded collet jaws for clamping it to the bar in any selected position of adjustment thereon, and a metallic collet nut threaded onto said jaws for constricting the same into said clamping engagement; and a point holding chuck unit attached to said slider body, said chuck unit including a coupler neck integral with said slider body and projecting at right angles to the axis of said collet jaws, a metallic coupler nut threaded onto said coupler neck; a chuck body of polyamide material received in said coupler nut and having an inner end in the form of a head in abutting relation to the end of said coupler neck and adapted to be locked thereto by tightening said coupler nut, and a point holding chuck on the outer end of said chuck unit.

2,869,238

FOOTBALL POSITION INDICATOR

John Joseph Sterling, Springfield, Ohio

Application March 30, 1953, Serial No. 345,649
3 Claims. (Cl. 33—46)



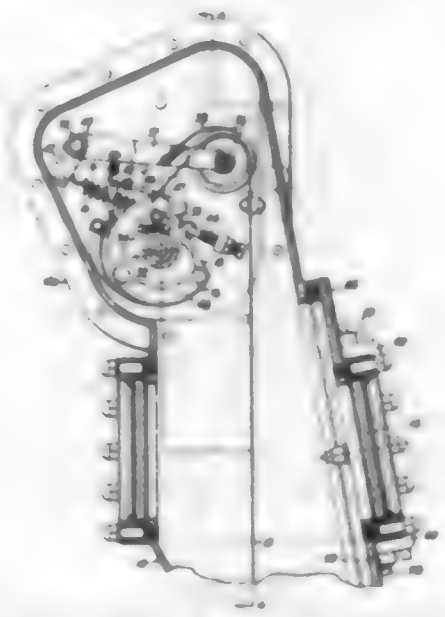
1. The combination of a football yardage measurer in the form of a linear element with means for determining the position of a football relative to the yardage measurer, said means being secured to one end of the yardage measurer and including a sighting device and magnetic means responsive to the magnetic field of the earth to indicate a fixed direction, the sighting device being mounted for rotation relative to said magnetic means and to be oriented relative to said magnetic means to extend perpendicularly to said yardage measurer.

2,869,239

TANK GAUGING APPARATUS

Peter C. Jurs, Oakland, and Joseph P. Van Overveen, Lafayette, Calif., and Robert Wilson Blake, Chicago, Ill., assignors to Speed and Jurs Co., Berkeley, Calif., a corporation of California

Application February 24, 1955, Serial No. 490,184
7 Claims. (Cl. 33—126.6)



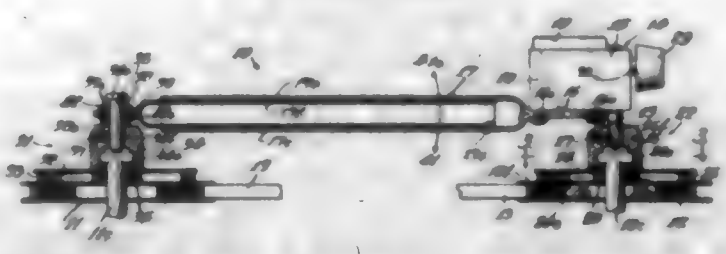
3. In tank gauging apparatus, an elongated flexible element adapted to extend downwardly into a tank, a weight attached to the lower end of said element, a reel upon which the element is wound whereby upon turning the reel the element is raised or lowered, a shaft upon which the reel is journalled, ratchet drive means connecting the reel and the shaft and serving to permit relative rotation between the reel and the shaft in one direction, a friction brake drum rotatable with said reel, braking means engaging said brake drum including an element wrapped about the drum and having its one end secured to a fixed anchorage and its other end movable to tighten the same about the drum, and means operatively connected to the movable end of the braking element to move the braking element into engagement with the brake drum responsive to stoppage of downward movement of the weight during lowering of the same.

2,869,240

TAPE FOOTAGE INDICATOR

George B. Shields, Racine, Wis., assignor to Webster Electric Company, Racine, Wis., a corporation of Delaware

Application November 25, 1953, Serial No. 394,381
4 Claims. (Cl. 33—127)



1. The combination of a pair of spools rotatable about spaced axes in order to transfer a recording medium between the spools, a registering means including a register

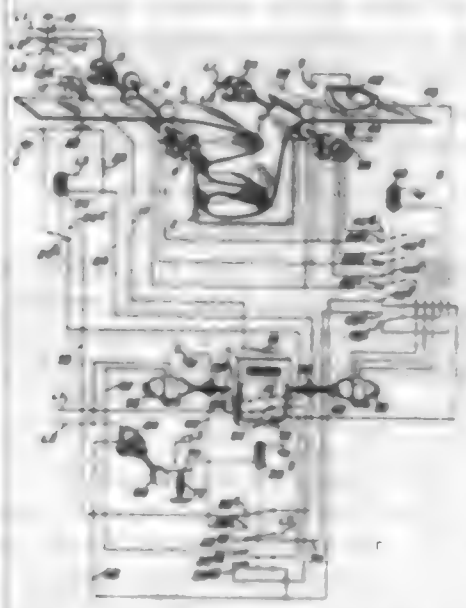
driving element adapted to be driven at a rate related to the rate of rotation of the first of said spools, spool supporting means for each of said spools, means for movably supporting said registering means in proximity to said first spool with the driving element operatively connected for rotation simultaneously with said first spool, said last named means including an arm having structure mounted thereon at a point remote from said registering means, and means for mounting said structure on the second of said spools to permit pivotal movement of the arm with respect to said structure about an axis remote from and parallel to the axis of rotation of said first spool.

2,869,241

APPARATUS FOR MEASURING THE LENGTH OF STRIP

Frank A. Witt, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

Application April 17, 1956, Serial No. 578,652
7 Claims. (Cl. 33—136)



1. Apparatus for measuring the length of moving strip between two spaced points comprising means for measuring the length of strip passing the first of said points, means for measuring the difference between the amount of strip passing the second point and the amount passing the first point, means adjacent the first point for applying a mark to the strip, means starting the first measuring means in operation when said mark is being applied, means adjacent the second point for detecting the mark on the strip as it passes thereby, means controlled by said detecting means for starting the second named measuring means in operation when said mark is detected, and means for periodically stopping operation of said measuring means for recalibration of said measuring apparatus.

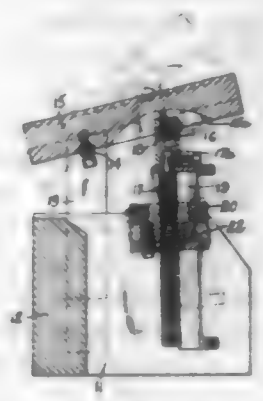
2,869,242

SINE GAGE

Walter M. Dwyer, Hamden, Conn., assignor to The Greist Manufacturing Company, New Haven, Conn., a corporation of Connecticut

Application February 7, 1956, Serial No. 563,904
3 Claims. (Cl. 33—174)

1. An angle-measuring device comprising a frame, a work-supporting member pivotally mounted in said frame, a screw-threaded member pivoted at one end to the underside of the work-supporting member at a point spaced from said pivot position, a circular nut threaded to the free end of said screw-threaded member for elevating and lowering the work-supporting member, a circumferential collar within which said nut is rotatably supported, spaced, laterally directed trunnions for pivotally mounting said collar in the frame, a cage secured to the screw-threaded member and adapted for movement with said member on manual rotation of said circular nut, said cage including a vertical scale disposed in spaced relation to the screw threaded member and adjacent an edge



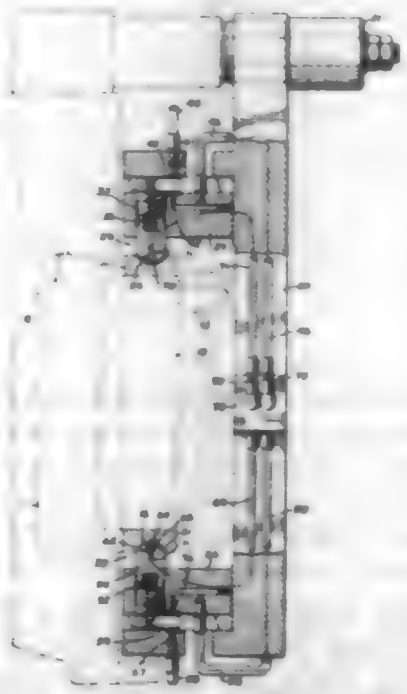
of said circular nut, whereby the degree of angular elevation of the work-supporting member may be determined.

2,869,243

GAGING APPARATUS

Elwood L. Byrkett and Harry D. Kiefaber, Dayton, Ohio, assignors to The Sheffield Corporation, Dayton, Ohio, a corporation of Delaware

Application January 15, 1957, Serial No. 634,226
12 Claims. (Cl. 33—178)



6. Gaging apparatus comprising a body, a gaging contact movably supported by said body for positioning engagement with the work to be gaged, first gaging means of relatively low amplification cooperating between said contact and said body responsive to the relative positions thereof, limit means cooperating between said contact and said body, and second gaging means of relatively high amplification including means carried by said contact for cooperation with the work and responsive to dimensions beyond the limited movement of the gaging contact.

2,869,244

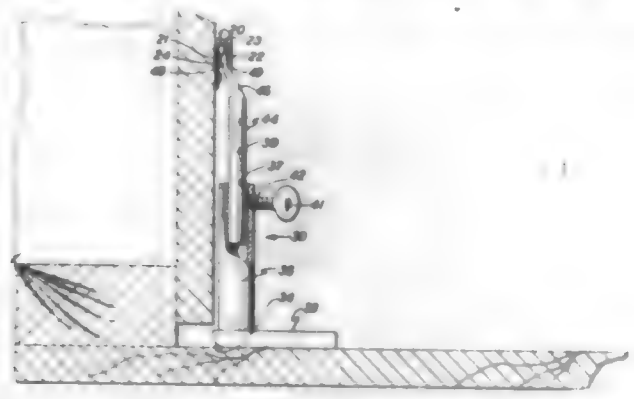
ADJUSTABLE SUPPORT FIXTURE

Steven R. Dipert, La Puente, Calif.

Application August 26, 1957, Serial No. 680,168
2 Claims. (Cl. 33—180)

1. An adjustable support fixture for locating channel shaped trim strips comprising a base having a vertically curving front side wall, a hollow post extending upwardly from the base from an off-center location near the curved side wall, a gauge rod slidably mounted in the post, means for selectively fixing the gauge rod in the post, an upper arm slanting outwardly and upwardly from the gauge rod, a substantially vertical blade portion at the upper end

of the arm adapted to extend into the channel of said trim strips, and a horizontal shelf on the blade portion



near its juncture with the arm, the shelf being adapted for registry with a lower edge of the trim strip.

2,869,245

HINGE BUTT LOCATING GAUGE

Hugo W. Bork, Chicago, Ill., assignor to Skil Corporation, Chicago, Ill., a corporation of Delaware

Application July 2, 1957, Serial No. 669,635
9 Claims. (Cl. 33—197)



1. In a hinge butt locating gauge, a group of three spaced tool guiding frame members, each of said frame members having adjustable means for regulating the size of a hinge butt recess to be cut, spacing members connecting said frame members to hold said frame members in accurately spaced preselected relationship, and an adjustable top stop member including a lip and a rigid bar which, when in adjusted position, abuts the adjustable means of one of said outer frame members to space said frame members a predetermined distance from one end of said door.

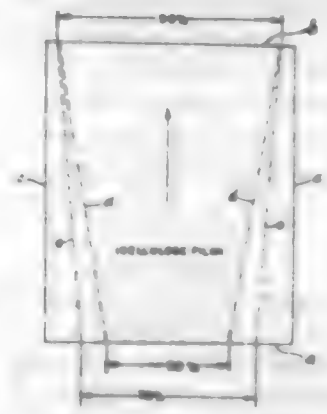
2,869,246

PROCESS FOR DRYING SHEET MATERIAL WITH AIR

Walter Buschmann and Walter Bühren, Wuppertal-Barmen, Germany, assignors to J. P. Bemberg Aktiengesellschaft, Wuppertal-Oberbarmen, Germany

Application April 25, 1956, Serial No. 580,638
Claims priority, application Germany April 26, 1955
3 Claims. (Cl. 34—23)

1. In a process for drying an elongated, thin, flexible cellulose film of substantial width in which a cellulose film is passed longitudinally in a path around a plurality of cylindrical rollers and dried by directing heated air upon said film, said heated air being blown through a plurality of slot-shaped vents successively positioned adjacent each of said rollers and disposed transversely with respect to the path of said film, the improvement which comprises: directing heated air in a first portion of said drying process through successive vents onto the entire width of said cellulose film until substantially all surface water content of said film has been removed; thereafter directing the heated air in an intermediate portion of said drying process through successive vents onto a cen-



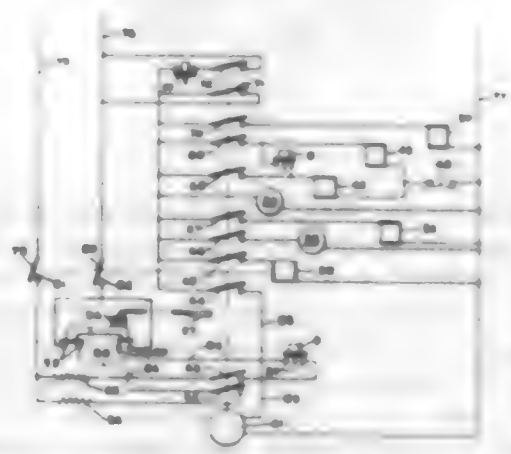
tral area increasing constantly from within a limit of about 50% to 70% of the width of said film at the beginning of said intermediate portion to about 90% of the width of said film at the end of said intermediate portion, and after said intermediate portion again directing heated air over the entire width of said cellulose film.

2,869,247

CONTROL SYSTEM FOR CLOTHES DRYERS

Matt F. Metzger, Jeffersonville, Ind., assignor to General Electric Company, a corporation of New York

Application January 16, 1958, Serial No. 709,296
4 Claims. (Cl. 34—45)



1. Clothes drying apparatus for tumbling clothes throughout a drying cycle comprising clothes tumbling means; electrical heating means; a control system comprising thermostatic means responsive to the temperature within said apparatus, said thermostatic means being movable to a normal position in response to decreases in temperature and to a tripped position in response to increases in temperature; a sequence control mechanism including a timer and switch means operated by said timer for controlling the operations of said apparatus and said timer; means operable by said switch means for operating said tumbling means; a first energizing circuit for said timer; said thermostatic means in said normal position opening said first circuit to de-energize said timer and in said tripped position completing said first circuit to re-start said timer; control means operated by said timer for controlling said heating means jointly with said thermostatic means to effect the energization of said heating means when said thermostatic means are in said normal position; said switch means operating to effect the de-energization of said heating means upon the last of a pre-determined number of trips of said thermostatic means and energizing said timer independently of the operation of said thermostatic means thereby to provide a period of tumbling without heat and ultimately shutting off said apparatus; and a second energizing circuit for said timer including

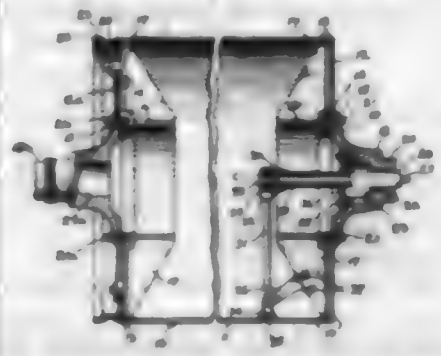
one of said timer operated switches and a manually operated switch in series relation and each having a closed position and an open position; said thermostatic means, when in said normal position, enabling closing of said second circuit; said timer being arranged to close said second circuit timer operated switch during its operation in response to the next to last of said pre-determined number of trips of said thermostatic means whereby said timer, when said manually operated switch is closed, continues operation without regard to starting of the last heating operation and therefore starts the unheated tumbling period prior to said last thermostatic means trip.

2,869,248

CONDENSATE REMOVAL CONTROL FOR PAPER MACHINE DRYERS

Edgar J. Justus, Beloit, Wis., assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin

Application October 17, 1955, Serial No. 540,903
5 Claims. (Cl. 34—54)



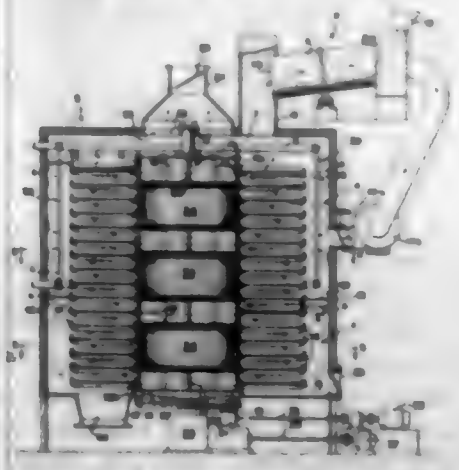
1. A device for controlling the flow of steam through a dryer drum in a paper machine, comprising a separator connected to the drum for drawing off steam and condensate therefrom, said separator maintaining a condensate level therein, a conduit connected to said separator above the condensate level for drawing off steam therefrom, a valve in said conduit in control of flow of steam therethrough, and means in said conduit responsive to flow rate of steam in the conduit in control of said valve to selectively move the valve toward closed position in response to an increase in the flow rate of steam in the conduit and move the valve toward open position in response to a decrease in the flow rate of steam in the conduit.

2,869,249

APPARATUS FOR DRYING AND SIMULTANEOUSLY COOLING WHITE SUGAR COMING FROM A DRIER

Heinrich Kamp, Krefeld-Uerdingen, Germany, assignor to Buttner-Werke Aktiengesellschaft, Krefeld-Uerdingen, Germany

Application December 6, 1955, Serial No. 551,431
Claims priority, application Germany December 7, 1954
14 Claims. (Cl. 34—65)



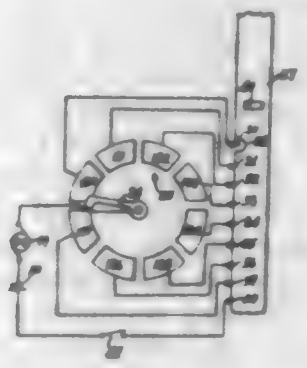
1. A device for drying and cooling white sugar, coming from a centrifuger, comprising a preliminary rotatable drier having a chamber into which the sugar mass is delivered and having a receiving opening at one end portion and a discharge opening at its other end portion; a secondary drier including a housing having an air ingress opening and a controllable air egress opening therein, a closed charging passage means connecting the discharge end of said preliminary drier to said secondary drier adjacent its air egress opening for delivering a charge of sugar to said secondary drier; a closed air conduit connecting the receiving end of said preliminary drier with an intermediate point of said secondary drier at a point remote from its said charging passage to establish a substantially closed air circuit between the said driers; a heating means in the secondary drier and disposed in the path of said circulating air between the connection of said conduit with said secondary drier and the said controlled egress opening and said passage means; and an air-forcing means positioned to force air from said secondary drier through said charging passage and said preliminary drier counter to the passage of the sugar mass therethrough and to return said air to said intermediate and cooler portion of said secondary drier.

2,869,250

INFORMATION INDICATING DEVICES

Murray M. Schiffman, New York, N. Y.

Application July 13, 1956, Serial No. 597,795
6 Claims. (Cl. 35—9)



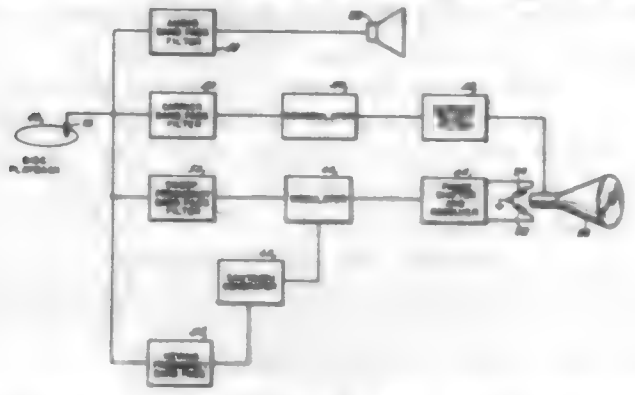
1. In an information-indicating device, the combination of a member having an endless periphery, mounted for movement so that such periphery moves about the area it encompasses, a stationary commutator structure comprising a plurality of electrically conductive segments, arranged spaced in a formation substantially concentric with said periphery, an electrically conductive contact arm moving with said member, in contact with at most two successive segments while it is in motion, an electric motor with means arranged to move said member in the manner mentioned when such motor is actuated, a source of electrical energy, a plurality of spaced fixed electrically conductive contact points, one for each of said segments, an electrically conductive selector element having a cut-out, movably positioned whereby any one of said contact points is encompassed by said cut-out and spaced therefrom while all remaining contact points are in contact with said selector element; the segments of the commutator being electrically connected to said contact points respectively; said motor and energy source as a group, being in electrical series connection; such group having end terminals; the said selector element being electrically connected to one of the terminals of said group and the contact arm being electrically connected to the other of said terminals, whereby the motor will be deactuated when the contact arm reaches and contacts only the commutator segment connected to the contact point at said cut-out; a first means set by said selector element, indicating different indicia at each position of said element when a contact point is encompassed by the cut-out respectively and a second means set by the mentioned member, indicating indicia at each stopped position of said member upon deactuation of the motor; the last mentioned indicated indicia being related to the indicia indicated by the first means due to the positioning of the said selector element.

2,869,251

METHOD AND APPARATUS FOR RECORDING AND REPRODUCING A VIDEO DISPLAY AND ITS AUDIO COUNTERPART

Howard E. Chubb, San Diego, Calif.

Application July 19, 1954, Serial No. 444,487
2 Claims. (Cl. 35—10.4)
(Granted under Title 35, U. S. Code (1952), sec. 266)



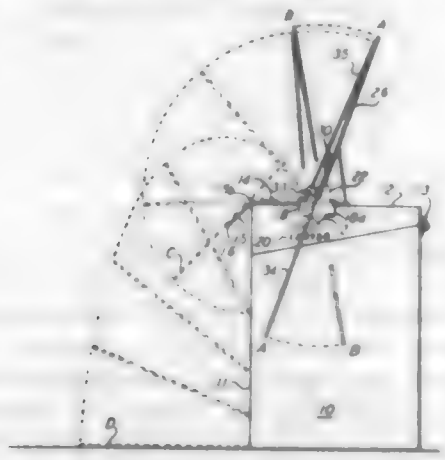
2. Apparatus for reproducing the visual and audio presentations of an electronic scanning system comprising a recording having a plurality of individual signals applied thereto in composite form, one of said signals being a replica of the audio signals in said system, a second signal being a replica of the video supply of said system, a third signal being a constant amplitude A. C. signal at the sweep frequency of said system, a fourth signal being a pulse train at the repetition rate of the sweep of said system, means for separating said composite signal into separate signals corresponding to the individual recorded signals, means for reproducing the audio presentation from said audio signal, a display device having deflection elements and an intensity control, means for applying the video signal to said intensity control, means for generating a sawtooth signal having the same frequency as the repetition rate of said fourth signal, means for modulating said constant amplitude A. C. signal with said sawtooth signal to provide a sweep voltage corresponding to one phase of the sweep voltages in said system, means for developing multi-phase sweep voltages from said modulated single phase sweep voltage means for shifting the phase of said sweep voltages, and means for applying said sweep voltages to the deflection elements of said display device.

2,869,252

TACHISTOSCOPE

Robert T. Casey, Southington, Conn.

Application July 30, 1956, Serial No. 600,984
9 Claims. (Cl. 35—35)



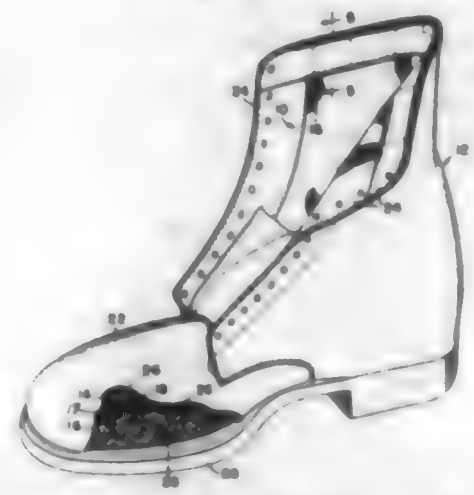
1. A tachistoscope comprising a base having a flat top with a straight edge peripheral portion, a supporting member mounted on said top of said base and adjustable toward and away from said straight edge portion, a generally rectangular card-holder pivotally mounted on said support and adapted to support an information-bearing card substantially upright thereon with its bottom edge parallel to said straight edge and spaced a short distance therefrom, one side of said card being hidden with respect to the view of a user observing from the direction of said straight edge, and manually operable means for tipping said card about its bottom edge toward said straight edge to a point where it becomes over-balanced and falls in a direction toward said straight edge and strikes and rotates further in said direction about said straight edge so as to briefly expose said hidden side of said card to said user.

2,869,253

MOISTURE ABSORBENT AND SELF-VENTILATING FOOTWEAR

Louis Sachs, Baltimore, Md.

Application April 7, 1955, Serial No. 499,801
6 Claims. (Cl. 36—3)



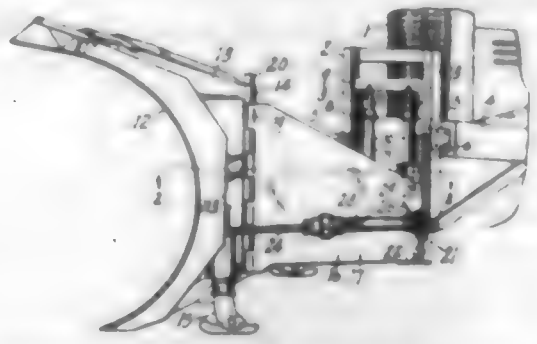
1. In a shoe having a sole and an upper secured thereto, a liner for said upper including a porous inner sheet and a plurality of strips of the natural interlaced fibers of the luffa plant interposed between said sheet and said upper, said strips extending in a direction toward the open top edge of said upper and being spaced apart transversely to form channels therebetween, said channels providing for the flow of warm air from the foot of the wearer upwardly therethorugh to thereby ventilate the shoes, said luffa strips being operable to expand in accordance with the amount of moisture absorbed thereby so as to increase the depth of said channels and hence permit a greater air flow.

2,869,254

SNOW PLOW MOUNT FOR A RADIALLY SWINGABLE SNOW PLOW

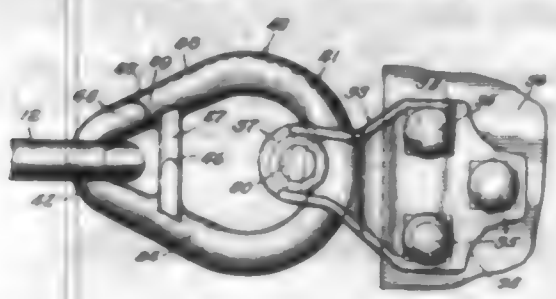
Warren Daniel Weeks, Kalamazoo, Mich., assignor to Root Spring Scraper Company, Kalamazoo, Mich., a corporation of Michigan

Application April 29, 1954, Serial No. 426,348
4 Claims. (Cl. 37—42)



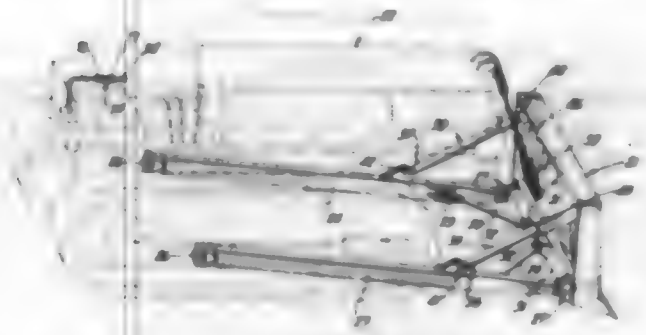
4. A mounting frame for attaching a snow plow to a vehicle comprising a plate folded along its mid-portion to provide upright rearwardly diverging sides, the folded edge of said plate being formed into hollow tubular shape and being cut away at longitudinally spaced points to form spaced hinge knuckles whereby coacting hinge knuckles on a plow blade may be fitted between the knuckles on the plate and swingably retained in place by a hinge pin extending axially through the several knuckles, an upright back frame connecting the rear edges of said plate, and mounting means on said back frame for connecting said mounting frame to a vehicle.

2,869,255
CONNECTION FOR AN EXCAVATING BUCKET
John W. Page, Chicago, Ill., assignor to Page Engineering Company, a corporation of Illinois
Application September 29, 1954, Serial No. 459,105
1 Claim. (Cl. 37—135)



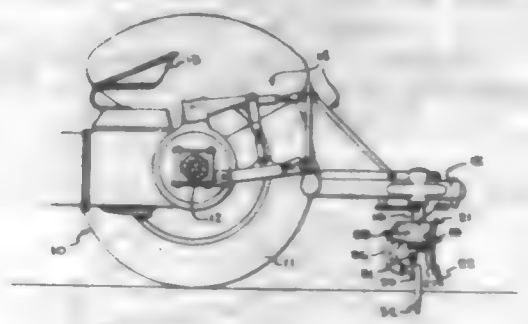
A device for connecting a pull line to an excavating bucket, comprising: a hitch plate having a base portion secured directly to the front of the bucket and having a generally forwardly extending clevis portion including a pin and outwardly projecting spaced rounded nose portions supporting the pin, said clevis portion being in fixed position to be forced into the ground when the bucket is dropped on its front portion for digging; a pulling chain extending between the pull line and the clevis portion; and a connecting link coupling the chain to the pin of said clevis portion, said link having a generally annular portion passing about the pin and between said spaced nose portions, said annular portion having a radius of curvature substantially greater than that of the pin and said rounded noses being spaced apart a distance to permit free lateral movement of said annular portion over either nose portion without binding to a position laterally out of normal pulling position so that the tubular portion may pass laterally over either rounded nose avoiding breakage of the link upon dropping the bucket thereupon.

2,869,256
BULLDOZER BLADE TILTING DEVICE
Alfred R. Pereira, Walnut Creek, Calif.
Application November 8, 1954, Serial No. 467,255
4 Claims. (Cl. 37—144)



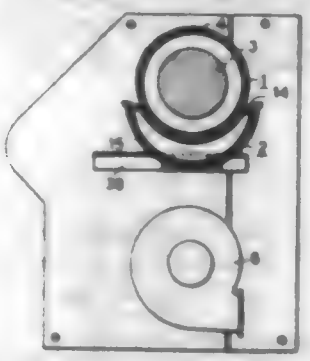
1. In a buldozer assembly of the type described having a pair of extended side arms with a grading blade pivotally mounted at the extended ends of such arms, the combination comprising a pair of telescopically extensible units, each of said units having a threaded rod pivotally secured at one end to one of said side arms and an internally threaded sleeve engaging said rod with an extended end rotatably and pivotally secured to said blade, and an electric motor mounted on said blade with a mechanical coupling extended between the drive shaft of said motor and said sleeve of at least one of said units to control the length and provide an in-line force along said unit between said side arm and blade; said mechanical coupling comprising a speed reducing gear head, the output shaft of said motor coupled to said gear head and providing input power to said gear head, a driving sprocket attached to the output shaft of said gear head, and a driving chain engaging the teeth on said driving sprocket and likewise the teeth on a power recipient sprocket formed for mounting on the rotatable sleeve of at least one of the extensible units.

2,869,257
EARTH WORKING MACHINE
Damazas Brankly, Gilbertville, Pa.
Application February 24, 1958, Serial No. 716,926
3 Claims. (Cl. 37—145)



1. In an earth working machine, a tractor, a horizontally disposed beam positioned rearwardly of the tractor and adjustably connected thereto, a vertically disposed post depending from said beam, a horizontally disposed brace secured to the lower end of said post, ears extending upwardly from said brace, a curved blade secured to said ears, said blade including a main body portion and a lower ground-engaging portion, a plurality of L-shaped lugs secured to said blade, a horizontally disposed base secured to said lugs, bearing members depending from said base, a movable bar having a plurality of bearing pieces on its upper end, a rod extending through said bearing pieces and bearing members, a plurality of spaced parallel teeth having their upper ends secured to said bar, a pair of spaced apart bearings secured to each end of said bar, a pin extending through each pair of last named bearings, a movable bracket connected to each pin, a pair of spaced apart housings secured at the ends of the blade and base, a screw member connected to each housing for engagement with the bracket, and a manually operable handle connected to each screw member.

2,869,258
ARRANGEMENT IN CALENDERS
Olof Holger Petterson, Bromma, Sweden
Application April 21, 1955, Serial No. 502,944
1 Claim. (Cl. 38—56)



In a machine of the character described, a sealed chest including a substantially semi-cylindrical ironer shoe and a substantially semi-cylindrical bottom spaced therefrom and having substantially the same radius of curvature as the ironer shoe, parallel end walls arranged perpendicularly to the longitudinal axis of the ironer shoe and bottom closing the chest, means to introduced a heating medium into the chest to heat the same, a roll resting in and rotatable with respect to the ironer shoe, means connecting the roll with a source of power, a plurality of spaced apart transverse partitions arranged within the chest in parallelism to the end walls, weld means securing the partitions to the ironer shoe and to the semi-cylindrical bottom whereby the bottom deforms with the partitions due to temperature changes, a heat insulating cover means on the bottom of the sealed chest, and each of said partitions being provided with at least one passage adjacent the

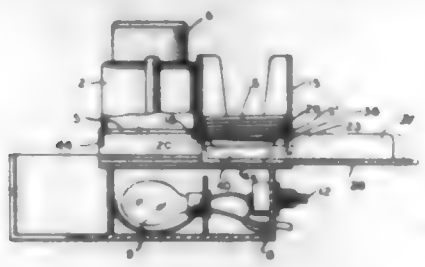
ironer shoe to allow the heating medium to flow into the compartments within the chest defined by adjacent partitions.

2,869,259
CLOTHES SUPPORTING ATTACHMENT FOR IRONING BOARDS
Augusta F. Hipp, Portland, Oreg.
Application May 25, 1956, Serial No. 587,308
4 Claims. (Cl. 38—106)



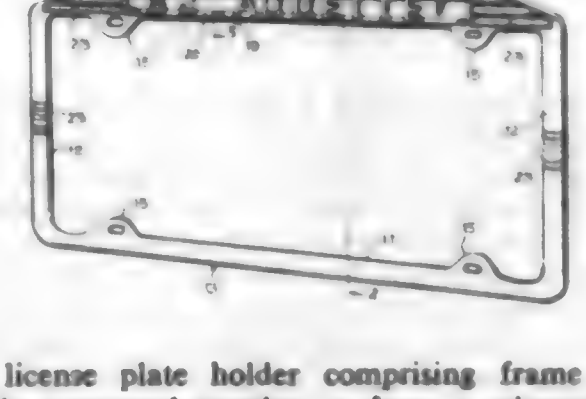
1. An attachment for use in connection with an ironing board having means for supporting it above the floor, said attachment comprising a mounting plate adapted to be secured against the lower side of said board, a pair of bearing supports carried by said mounting plate, a pair of arms disposed substantially parallel to the edges of said board, each of said arms having a right-angled axle portion adjacent one end thereof, said axle portions being pivoted respectively in said bearings beneath said plate and offset transversely from each other in the same horizontal plane, said axle portions having coextensive portions at the ends thereof remote from said arms, whereby said arms may be pivoted through substantially 180 degrees to extend horizontally in either direction from said bearings, each of said axle portions having an elongated right-angled stop projection at the end thereof remote from said arm and operable to engage said plate to support the associated arm in either of said horizontal positions and of greater length than the offset between said axle portions, said stop projection being offset intermediate its free end and the end thereof secured to said axle portion whereby to bridge the axle portion of the other arm, and a pliable apron extending beneath said board and releasably attached at its opposite edges to said arms.

2,869,260
APPARATUS FOR PHOTOGRAPHIC SLIDE VIEWING
Richard G. Rideout, Cambridge, Mass.
Application July 18, 1956, Serial No. 598,635
7 Claims. (Cl. 40—78)



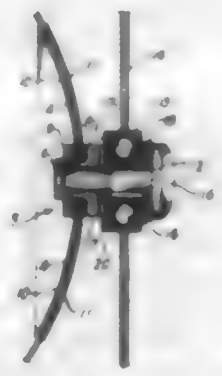
1. A photographic slide viewer comprising an enclosure body having a base recessed at one side to define a slide guideway, optical viewing means mounted at the upper side of the enclosure body, a slide aperture for registering a slide with the field of view of the optical viewing means, a light source mounted in the base of the enclosure body to illuminate the slide, slide receiver means for locating a vertical stack of photographic slides at one side of the enclosure body immediately above the said slide guideway, a reciprocating slide carrier slidably supported at the underside of the slide receiver for movement into and out of the said guideway, stationary lug means mounted on said enclosure base for supporting a bottom slide in the said stack in a forwardly tilted position and pusher bar means located centrally of the carrier for advancing a bottom slide and simultaneously positioning the slide in a rearwardly tilted position in which it is caused to pass through the guideway into register with the slide aperture and optical viewing means.

2,869,261
FRAMES FOR VEHICLE LICENSE PLATES OR THE LIKE
Benjamin J. Audette, Los Angeles, Calif.
Application May 28, 1954, Serial No. 431,117
1 Claim. (Cl. 40—125)



A license plate holder comprising frame bars integrally connected together to form a substantially rectangular frame, one of said frame bars having an enlarged area extending longitudinally with respect thereto and having formed in said area intermediate the ends thereof, a longitudinally extending mounting strip with said strip in substantially the same vertical plane with respect to said frame bars, indicia bearing members of a height greater than the width of said strip and of a lesser height than said enlarged area and recessed on one side to frictionally receive said strip so that the face of said members are contained within said area in a projected plane with respect to the vertical plane of said frame bars, said area having formed therein longitudinally extending grooves on opposite sides of said strip, said members having gripping fingers for projecting into said grooves, said fingers being of a width equal to the depth of said grooves so that when projected therein, said members will be in facial abutment with said strip.

2,869,262
WHEEL-SUPPORTED ADVERTIZING SIGNS
Charles D. Lucas, San Francisco, Calif.
Application June 3, 1957, Serial No. 663,121
3 Claims. (Cl. 40—129)

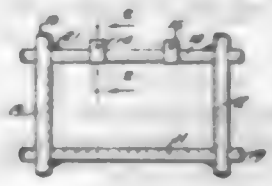


1. In an advertizing attachment for an automobile wheel having a hub cap with an axial hole therein, an anchoring means comprising an outer and an inner disc disposed on opposite sides of the hub cap and having central apertures registering with and co-extensive with the hole in the hub cap, a hollow, internally threaded, bolt extending through the apertures and the hole and having a head bearing on the outer disc, and a nut threaded on the bolt to bear on the inner disc and operable for tightening the discs upon the cap, the inside of the hollow bolt being unobstructed to serve as an anchoring means for a threaded attachment.

2,869,263
DISPLAY FRAME HAVING DETACHABLE INTERLOCKING JOINTS

Warren A. Dillen, Jeffersontown, Ky., assignor to Reynolds Metals Company, Richmond, Va., a corporation of Delaware

Application February 14, 1957, Serial No. 640,293
7 Claims. (Cl. 40—155)

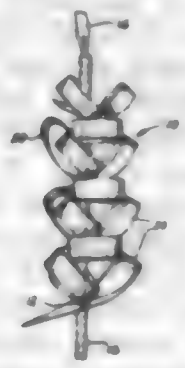


1. A frame for mounting a flat article and comprising in combination, a plurality of interconnected tubular frame members, each having an inwardly facing slot for receiving an edge of said article, at least one of said members having apertures through which two of said members project and being displaceable along said projecting members, and means integral with said projecting members for locking said displaceable member thereto.

2,869,264
DECORATIVE BOW AND METHOD OF MAKING THE SAME

Albert E. Saimi, Detroit, Mich.

Application November 14, 1955, Serial No. 546,516
6 Claims. (Cl. 41—10)

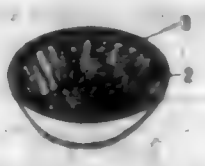


1. A decorative bow comprising an elongated central supporting member and a plurality of individual ribbon loops supported on said member, said ribbon loops being formed from a spiral coil of a length of flexible ribbon having aligned apertures in the superpositioned turns of the coil receiving said member, the turns of ribbon of the coil being removed from the coil and spread out along said member to provide the individual ribbon loops.

2,869,265
METHOD OF MAKING UTILITY AND DECORATIVE ARTICLE OF STAINLESS STEEL

Gunnar Klein, Halden, Norway

Application February 5, 1957, Serial No. 638,346
1 Claim. (Cl. 41—26)

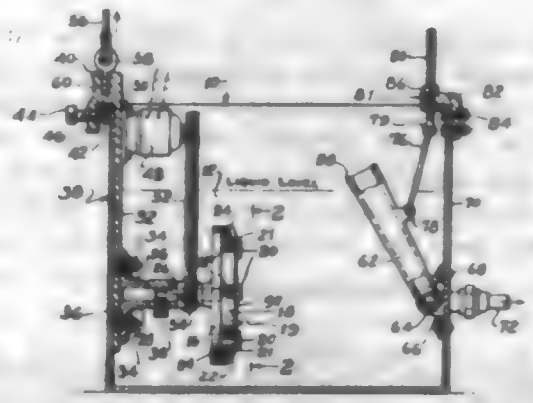


Method of making utility and decorative articles of metals, such as saucers, trays etc., comprising grinding the surface of a blank of stainless steel, forming the blank into the desired shape, sandblasting the marginal area of the ground parts of the surface, covering the ground and sandblasted surface with enamel, drying the enamel, brushing away the enamel from the parts of the surface which on the finished article are to be bare metal, fusing the enamel by heating the article in an oven, cooling the article to room temperature and polishing the bare surfaces of the article.

2,869,266
METHOD FOR REMOVING METAL FROM THE SURFACE OF A METAL OBJECT

Fairbanks C. Hirdler, Jr., Los Angeles, Calif., assignor to Turco Products, Inc., Los Angeles, Calif., a corporation of California

Application October 4, 1954, Serial No. 460,075
3 Claims. (Cl. 41—42)

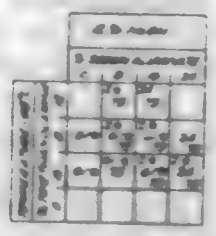


1. A process of etching a surface of a metal work piece with a metal dissolving solution, comprising masking a portion of said surface with a resist substantially less soluble in said solution than said metal, and dissolving metal from the unmasked portion of said surface and substantially uniformly undercutting the periphery of said resist, by completely immersing said surface in said solution and continuously rotating said surface immersed in said solution in a plane at a substantial angle to the horizontal and on an axis transverse to said surface, to prevent the entrapment under the resist of gases liberated by the action of said solution on the metal work piece surface.

2,869,267
METHOD OF ETCHING ALUMINUM AND ALUMINUM ALLOYS

Emmette R. Holman, Pasadena, Calif., assignor to Turco Products, Inc., Los Angeles, Calif., a corporation of California

Application February 28, 1957, Serial No. 643,045
18 Claims. (Cl. 41—42)



1. A process for producing a chemically etched surface on an aluminum article, which comprises treating said article in an alkaline etching bath containing as essential active ingredients an alkali metal hydroxide and triethanolamine.

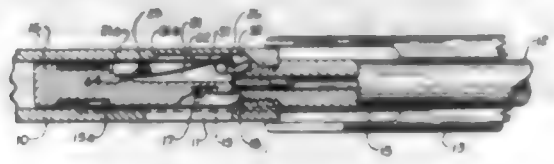
2,869,268
SPRING EJECTOR MEANS

Harry H. Sefried II and Erik J. Gunnerson, New Haven, Conn., assignors of one-half to Sears, Roebuck and Co., Chicago, Ill., a corporation of Illinois, and one-half to The High Standard Manufacturing Corporation, Hamden, Conn., a corporation of Connecticut

Application September 7, 1955, Serial No. 532,848
7 Claims. (Cl. 42—25)

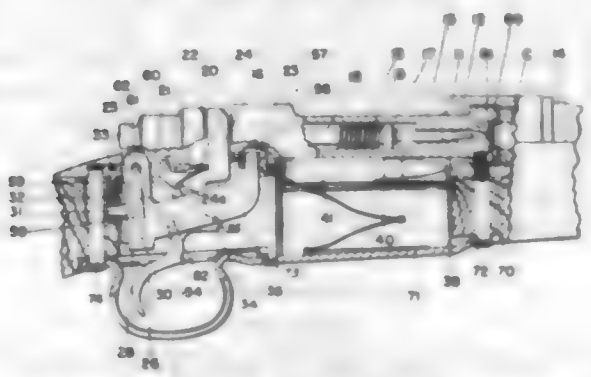
1. In a firearm, a receiver, a bolt reciprocably movable in the receiver and having a forward face against which the head of a cartridge is adapted to be held, an ejector mounted on the bolt and secured against substan-

tial relative movement longitudinally thereof, said ejector having a nose portion extending forwardly of the bolt face and exerting a resilient force substantially continuously against the head of a cartridge positioned on the bolt face while the cartridge is being chambered and extracted, the surface of said nose portion in contact with the cartridge normally lying at an angle with respect to the bolt face



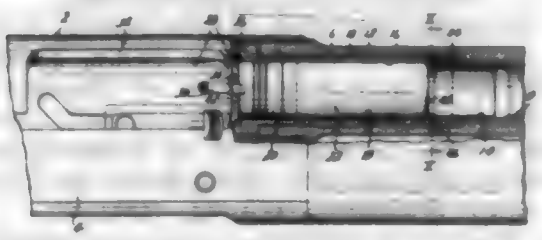
such that it will hold the cartridge in position on the bolt face, and means for bodily shifting the nose portion of said ejector angularly with respect to said cartridge whereby the angle formed between the cartridge contacting surface of said nose portion and said bolt face is changed such that the force exerted by the said ejector on the cartridge will eject the cartridge from the receiver.

2,869,269
SAFETY MECHANISM FOR FIREARMS
Wilfrid J. Couture, deceased, late of New Haven, Conn., by Clara M. Couture, administratrix, New Haven, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation
Application June 2, 1955, Serial No. 512,686
1 Claim. (Cl. 42—70)



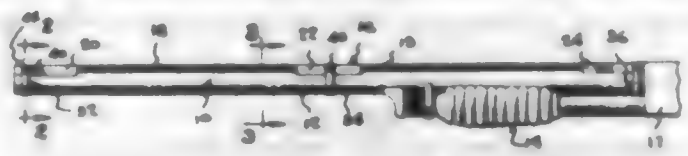
In a bolt action firearm including a bolt, a slidable firing pin, a trigger and a receiver, a safety device pivotally mounted upon the receiver, said device comprising a metallic, U-shaped member formed with a locking lug and a stop, said lug and said stop being directly engageable with the bolt and with the trigger respectively for locking the bolt and for blocking the operation of the trigger, said safety device being rotatable to a first position wherein the bolt and the trigger are both locked, said safety device being rotatable to a second position wherein the trigger only is locked and leaf spring means mounted upon the safety device and cooperating with the receiver for locking the safety device selectively in either of said two positions.

2,869,270
SHOTGUN CHAMBER WITH CUTTING EDGE
Ernest P. Simmons, Kansas City, Kans.
Application April 3, 1957, Serial No. 650,413
6 Claims. (Cl. 42—76)



1. A shotgun chamber member for use with a shell having a foldable casing, the forward end portion of said casing being folded inwardly to close said shell and unfolded outwardly to its full open length by the firing thereof, said chamber member having a bore formed therein for receiving said shell with the base of said shell at the rearward end of said chamber, said bore having a peripheral cutting edge formed concentrically therein of smaller internal diameter than the external diameter of said casing, said cutting edge being spaced from the rearward end of said chamber a distance substantially greater than the closed length of said shell but less than the open length of said shell, whereby when said shell is fired, the casing thereof will be extended forwardly past said cutting edge and expanded thereagainst by the gases of explosion, and the forward end portion of said casing will be severed by said cutting edge.

2,869,271
REMOVABLE VENTILATED RIB FOR SHOTGUNS
Richard J. Berg, Milwaukee, Wis.
Application June 21, 1957, Serial No. 667,135
1 Claim. (Cl. 42—76)

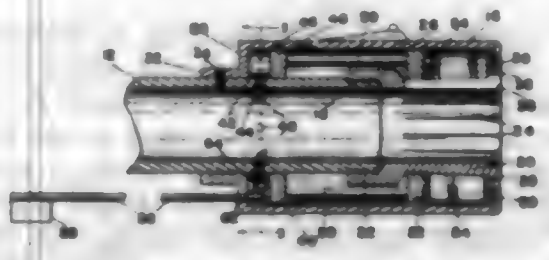


A ventilated rib for a shotgun barrel comprising an elongated rib member adapted to extend in overlying relation to the barrel, in a position spaced vertically upwardly from the top surface of the barrel; forward, intermediate, and rear spacer blocks integral with the underside of the rib member, the forward and rear blocks extending fully to the opposite extremities of the rib member and the intermediate block being disposed substantially medially between opposite ends of the rib member, said blocks being of elongated formation and having shallowly, transversely concaved undersides complementing the curvature of the top surface of the barrel; and clamps carried by the respective spacer blocks, each clamp including an arcuate intermediate portion constituting a continuation of the arc of the transversely concave under surface of the associated block, whereby said under surface may extend over part of the circumference of the barrel with the intermediate portion of the clamp extending through the remaining part of the barrel circumference, straight end portions extending upwardly from the intermediate portions of the clamps along opposite sides of the associated block, and screws extending through the end portions and threadedly engaged in the opposite side surfaces of the associated block, the blocks projecting longitudinally of the rib member in opposite directions from their associated clamps, the transverse concavity of the undersides of the blocks being continuous over the full length of the blocks, each clamp being connected to its associated block by a pair of said screws, the screws of each clamp being coaxially aligned transversely of the clamp, the end portions of each clamp lying in face-to-face contact with the adjacent side surface of the block connected thereto, fully from the bottom edge of the block to the top surface of the rib member.

2,869,272
GAS-OPERATED AUTOMATIC SHOTGUN CHOKE
Eugene F. Coyle, Hartford, S. Dak.
Application July 18, 1956, Serial No. 598,674
4 Claims. (Cl. 42—79)

1. A choke comprising a gun barrel with an externally threaded forward end and having circumferentially spaced radially disposed openings extended therethrough and spaced rearwardly from the forward end, a collar threaded on the forward end of the gun barrel, said collar having a sleeve with a tapering outer surface ex-

tended forwardly therefrom, the sleeve having radially disposed slots extended therethrough providing fingers and the diameter of the sleeve gradually enlarging from the collar to the forward end, a cylindrical casing surrounding the collar and sleeve and extended from a point spaced rearwardly from the radially disposed openings through the gun barrel to a plane corresponding with the extended ends of the fingers, the rearward end of the casing having an annular web therein and the web extending from the casing to the outer surface of the gun barrel



providing a closure, a piston ring in the casing, slidably mounted on the gun barrel, and positioned forwardly of the radially disposed openings through the gun barrel, said web having a collar extended rearwardly therefrom and said collar being secured to the gun barrel for mounting the casing on the gun barrel, and means actuated by the piston ring for contracting the fingers of the sleeve, the piston ring being driven forwardly by pressure of gases of combustion passing through the radially disposed openings of the gun barrel.

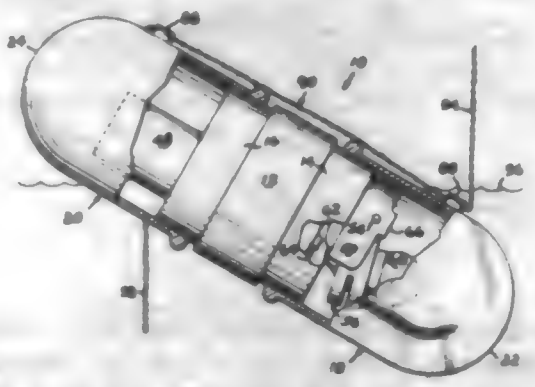
2,869,273
SPEAR GUN
John H. Theriburn, Napa, Calif.
Application September 9, 1955, Serial No. 533,267
2 Claims. (Cl. 43—6)



1. A spear gun for propelling a spear, comprising an elongated body having a spear guide extending transversely from one end thereof and resilient means affixed thereto adapted to engage a spear disposed parallel to said body for propelling same through said guide, a spear socket secured to said body adjacent the end opposite said guide, said socket having an opening therethrough axially of said gun body with a shoulder thereabout adapted to receive a spear butt in limited engagement, a trigger pivotally mounted within said body and having an arm extending therefrom, a deep inverted channel shaped release member pivotally mounted at one end thereof and slidably engaging said trigger arm at the other end thereof for pivoting into and out of registry with said socket and adapted to engage a spear butt at a peripheral groove therein, and a spring maintaining said release member normally in registry with said socket for retaining a spear therein.

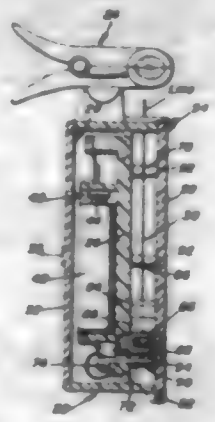
2,869,274
FISHING FLOAT
William Seigle, Dallas, Tex.
Application May 22, 1957, Serial No. 660,977
3 Claims. (Cl. 43—17)

1. An illuminating fishing float, comprising: a tubate body; tubular cap means adapted to be closely received by the respective ends of said body to effect a water tight seal, each of said cap means having a semi-spherical closed end, said body having an annular recess in its bore; a split sleeve of resilient material carried by the recess in said body, that portion of said split sleeve opposite the split forming a chord subtending an arc of the recess in said body; a battery holder frictionally carried for longitudinal adjustment between the chord of said split sleeve and the inner wall of said body; a battery frictionally carried by said holder; a bulb carrier pivotally mounted on said holder adjacent the terminal



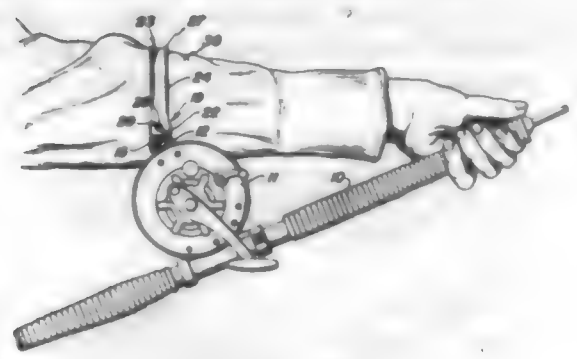
end of said battery; lugs integrally carried by said battery holder for limiting the pivoting movement of said bulb carrier; a light bulb threadedly supported by said bulb carrier in a manner to gravitationally swing into and out of circuit making contact with the terminal of said battery when the float is tilted longitudinally; and bulb carrier stabilizing means carried by the holder for frictionally stabilizing the bulb carrier while the bulb is in circuit making contact with the battery terminal.

2,869,275
FISHING LINE SIGNAL DEVICE
Meyer Levin, Johnstown, Pa.
Application May 29, 1957, Serial No. 662,435
8 Claims. (Cl. 43—17)



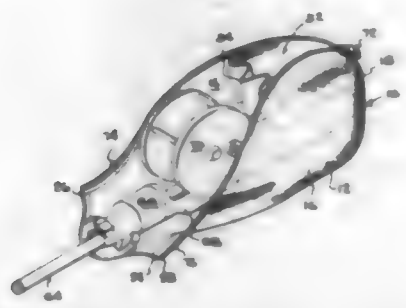
1. A pocket-size alarm device for readily removable attachment to a fishing rod comprising a hollow case having quick-releasable means whereby said case may be detachably mounted on a fishing-rod, said case being equipped with a bite signal, either visual or audible, batteries and a switch operatively connected to one another, said switch having cooperating stationary and movable contact elements, said case also having a passageway for a limited portion of a fishing line, said contact elements being located in a lower portion of said passageway, a part of said portion of said line being situated beneath, touching and being releasably cooperable with said movable contact element, fixed line guide means confined in said passageway adjacent to but in a plane above the plane of said switch and over which said portion of the line is slidably trained to condition and maintain said portion of the line in a readily responsive state of minimal and easily trippable tension, whereby when a strike is had and the baited end of the line is pulled, the added tension thus exerted on the overall line tautens and lifts that part of the line which is situated beneath the movable contact element, closes the circuit and brings said signal quickly into play.

2,869,276
FISHING REEL BRACE ATTACHMENT
Oscar A. Hagen, Mariposa, Calif.
Application March 27, 1958, Serial No. 724,294
2 Claims. (Cl. 43—25)



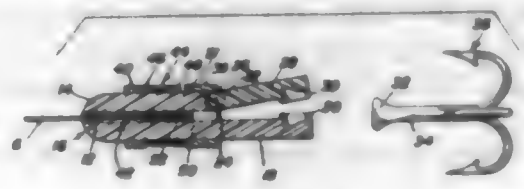
1. In a device of the character described, a fishing rod, a reel connected to said rod, a pair of spaced parallel lugs extending from said reel and said lugs being provided with registering apertures, a hollow tube positioned between said lugs, a headed pin extending through said apertures and through said tube, a bracket arranged adjacent the outer surface of one of said lugs and said bracket including a main portion provided with an opening for the projection therethrough of said pin, a flange on one side of the bracket, there being a vertically disposed slot in the upper portion of the bracket, a U-shaped brace including first and second spaced apart legs and a web extending between said legs, there being an opening in said first leg, and a securing element extending through the opening in said first leg and through the slot in said bracket.

2,869,277
ATTACHMENT FOR A FISHING ROD REEL
Donald E. Breithaupt, Shiprock, N. Mex.
Application May 17, 1957, Serial No. 659,803
2 Claims. (Cl. 43—26)



1. A protective cover for a fishing rod reel mounted on a fishing rod handle, said cover being formed of flexible material, said cover having a substantially rectangular cross-sectional configuration and including a pair of oppositely disposed open and closed ends, a bottom wall portion, a pair of laterally spaced side wall portions, and a pair of longitudinally extending laterally spaced panel portions extending, respectively, from said side wall portions to form an opening in one side of said cover, said side wall portions being disposed in vertically spaced relation relative to said bottom wall portion, said panel portions having confronting adjacent edges, closure means for releasably connecting said confronting edges of said panels together, a resilient split washer for engagement around said rod adjacent said handle, means connecting said washer within said open end of said cover to close the same, the upper ends of said side walls converging downwardly towards said open end of said cover, and said cover having pocket means disposed therein adjacent said closed end thereof.

2,869,278
FISHHOOK RELEASE
Nolan L. Cook, Lathrop, Calif.
Application May 28, 1957, Serial No. 662,089
3 Claims. (Cl. 43—42.08)



1. In combination, a fishing line, a fishhook having a shank with a hook at one end and enlarged attaching and retaining head at one end, and means for separably coupling the headed end of said shank to the fishing line comprising a rigid elongated body having a bore extending axially therethrough, a portion of said line extending slidably through said bore, the trailing end portion of said body having a fixed jaw on one side and a pivoted relatively movable jaw opposed thereto and on a diametrically opposite side, said jaws having grips releasably engageable with the head on said shank, a slidably movable collar normally embracing said jaws and adapted to close said jaws, a second collar carried by said body, a coil spring embracing the body and bearing at its ends against said collars, the opposed surfaces of said jaws being provided with duplicate recesses conjointly providing a socket, said socket being adapted to releasably accommodate the head on said shank, said movable collar having a cross member fixed thereon providing an anchor, and said line being attached to said anchor.

2,869,279
FISHING LURE
Yarl Pretorius, Cleveland, Ohio
Application May 18, 1956, Serial No. 585,805
5 Claims. (Cl. 43—42.06)

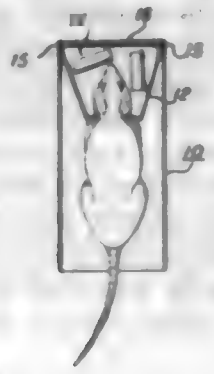


1. In a fishing lure of the class described, in combination, a natural bait simulating member constituting a flexible, relatively thin walled elongated closed casing, said casing being provided with an opening for inserting a fish attractive substance, said casing further being provided with a plurality of openings covered by flexible flaps which are normally closed and which facilitate gradual distribution of said substance during use of the lure, and means including a fish hook to connect the lure to a fishing line.

2,869,288
DISPOSABLE TRAP
Robert E. Dobratz, Plantsville, Conn.
Application August 7, 1957, Serial No. 676,834
5 Claims. (Cl. 43—77)

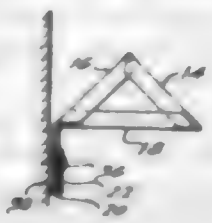
1. A trap for rodents comprising an enclosure having a single opening therein adapted to admit said rodents, and a one-piece generally U-shaped trapping member within said enclosure comprising two opposed portions

terminating in opposed inwardly directed trapping jaws, said opposed portions being biased toward each other to urge said jaws toward each other, and a holding member



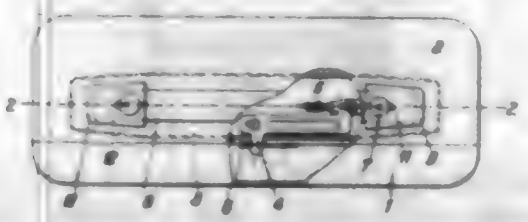
adapted normally to hold said jaws in spaced apart relation against said bias, said element comprising material edible to said rodents.

2,869,281
ANT TRAP
Edward C. Teuscher, St. Petersburg, Fla.
Application November 7, 1956, Serial No. 620,934
2 Claims. (Cl. 43—131)



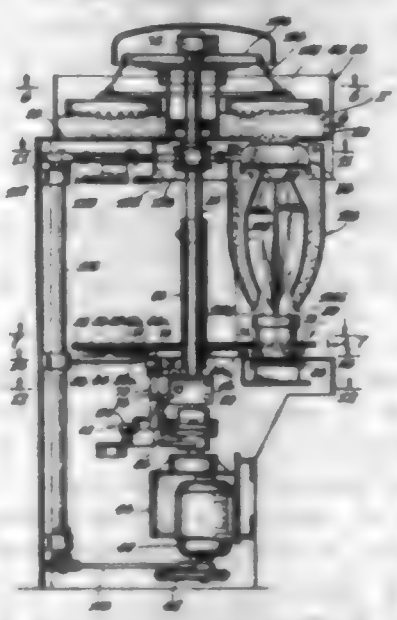
1. An ant trap comprising a single sheet shaped and formed to provide three imperforate triangularly arranged flat inner surfaces arranged as the side surfaces of a three-sided prism, said surfaces being formed with narrow flanges thereon which extend inwardly from each end thereof to partially close the ends of said prism and define openings through which ants may enter said ant trap, said ant trap being selectively disposable in three positions, in each of which a different one of said flat inner surfaces functions as a floor adapted to receive a suitable poison material, and in each of said three positions, two of said narrow flanges being adapted to co-operate to retain said poison material on said floor.

2,869,282
SNAP LOCK FOR PORTABLE TYPEWRITER CASES OR LIKE RECEPTACLES
Erich Neumann, Bielefeld, Germany
Application August 15, 1956, Serial No. 604,193
Claims priority, application Germany August 19, 1955
3 Claims. (Cl. 45—68.2)



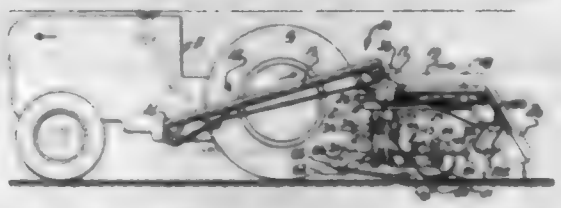
1. In combination with a portable receptacle having a carrying handle and a closable lid, an internal lock structure for releasably securing the lid in a closed position comprising a slidable bar member located adjacent the outer edge of the receptacle body, a hook formed on said member extending outwardly beyond the said outer edge and registering with an aperture in the lid to be yieldingly engaged by an aperture lip during lid closing to seat behind the lip and hold the lid in closed position, a tension spring urging the said member in a direction to maintain the hook in seated condition, a lock release element secured to the said bar and piercing an elongated slot formed in the body, the carrying handle embracing said lock release element at one end thereof and being displaceable under the weight of the receptacle when carried to force the release element and associated bar member in a direction to reinforce the urging of the said tension spring.

2,869,283
PLANT POTTING MACHINE
Bruno Krause, Mannheim, Germany
Application October 17, 1955, Serial No. 540,687
9 Claims. (Cl. 47—1)



1. A plant-potting machine comprising an annular track extending substantially in a horizontal plane, a shaker table arranged along said track and including a pot-supporting surface lying substantially in said horizontal plane, a conveyor movable about said annular track and carrying a plurality of pots at circumferentially-spaced positions about said annular track, means operatively connected to said conveyor for intermittently indexing said conveyor to advance successive pots onto said shaker table, feed means above said shaker table and adapted to deliver a charge of fill to successive containers on said shaker table, and means for actuating said feed means in the intervals between indexing of said conveyor.

2,869,284
PAPER DEPOSITING DEVICE FOR VINEYARDS, ORCHARDS AND THE LIKE
George H. Abernathy and Lloyd H. Lamouria, Davis, Calif., assignors to The Regents of the University of California, Berkeley, Calif.
Application August 23, 1957, Serial No. 679,943
14 Claims. (Cl. 47—9)



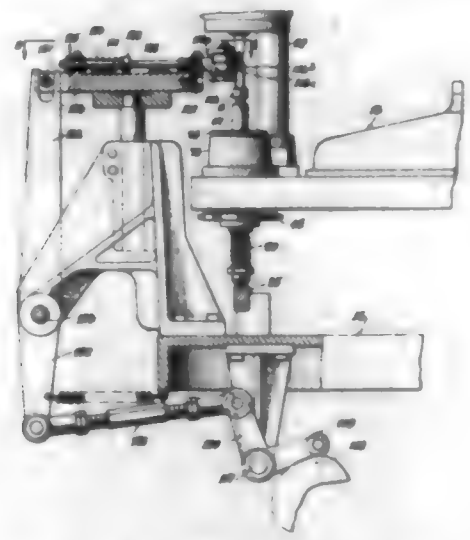
1. A device for laying a strip of paper on the ground, comprising a vehicle having a frame; paper-roll supporting means carried by said frame with the axis of the roll perpendicular to the direction of travel of the vehicle, said supporting means holding said roll for free rotation; a serrated blade supported movably by said frame; and means for impelling said blade down to the ground for shearing from said roll the paper laid therefrom at any desired time while said vehicle is moving, whereby the paper is pierced at a number of parts by the serrated blade and each piece is widened, so as to sever the paper even when the paper is being laid over soft yieldable soil.

2,869,285

APPARATUS FOR SHAPING GLASS ARTICLES

Louis C. Kahle, Teaneck, N. J., assignor to Kahle Engineering Company, North Bergen, N. J., a copartnership

Application July 30, 1952, Serial No. 301,721
13 Claims. (Cl. 49—7)



1. In a glass shaping machine having a horizontal rotatable turret to present cylindrical glass tubes to a plurality of stations and to reshape the glass tubes into articles having intermediate their ends a reduced intermediate zone of accurately predetermined internal dimension integral at one end thereof with an enlarged portion having tapering walls of accurately predetermined internal dimensions and integral at the opposite end thereof with an additional enlarged portion, article shaping means comprising the combination of a chuck carried by the turret having a glass tube retaining passageway, a mandrel holder carried by the turret and spaced beneath and in alignment with said passageway to support a mandrel for engaging a glass tube retained by said chuck in the passageway, a mandrel mounted vertically in said holder having an upper portion of relatively small cross section corresponding to the internal dimensions of the intermediate zone of the glass article and a flaring lower portion corresponding to the internal dimensions of said first enlarged portion of the glass article, means to move the mandrel holder upwardly to a position at which the mandrel is spaced a predetermined distance from the glass tube walls, means adjacent to said turret to heat the glass tube intermediate its ends whereby its intermediate portion necks in and its lower portion flows onto the lower portion of the mandrel, and shaping means adapted to engage the tube at its heated intermediate necked-in portion to force the intermediate portion against the upper portions of the mandrel to thereby form the intermediate zone of the article with predetermined internal dimensions in accordance with the mandrel shape and with predetermined wall thickness determined by the spacing between the shaping means and the mandrel.

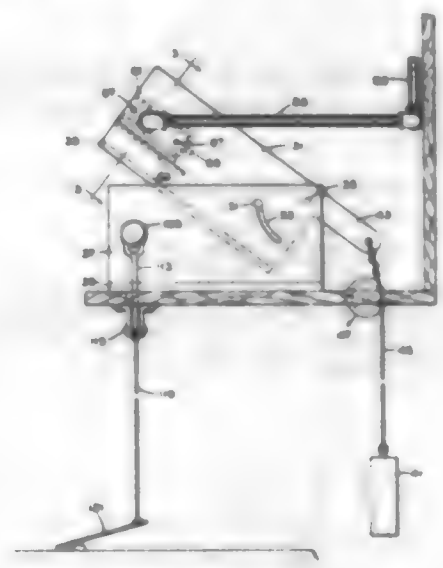
2,869,286

APPARATUS FOR FORMING TUBULAR STRUCTURES IN GLASSWARE

Melvin Z. Mullen, Rochester, N. Y., assignor of one-third to Jack G. Lubelle, Henrietta, and one-third to Lew C. Silverman, Rochester, N. Y.

Application October 28, 1955, Serial No. 543,381
9 Claims. (Cl. 49—7)

1. Apparatus for forming a glass tube extending across the interior of a hollow glass article between two spaced walls thereof said tube being open throughout its length, said apparatus including a main work holder, an adapter mounted in said main work holder and encompassing at least a substantial part of the glass article to be operated upon, said adapter and work holder having alined apertures opposite those points on the walls of the glass article where the tube is to be formed, a plunger holder, a pair of plungers carried by said plunger holder and longitudinally alined with each other on opposite sides of said work holder, said work holder and plunger holder being mounted for relative movement with respect to each other from a position in which said plungers are longitudinally alined with said apertures to a position offset from said apertures, both of said plungers being tubular, a pair of heating flame nozzles alined with and directed toward each other and spaced from each other, said work holder and flame nozzles being mounted for relative movement with respect to each other from a position in which said



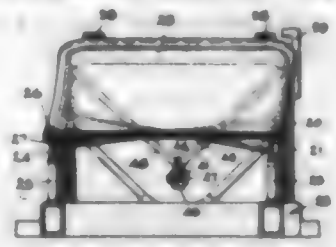
nozzles are offset from said apertures to a position in which said nozzles are alined with said apertures so that flames therefrom may enter said apertures and impinge upon a glass article held in said adapter, to soften those portions of the walls thereof which are opposite said apertures, means for moving said plungers longitudinally toward each other when they are alined with said apertures to deform the softened walls inwardly to make tubular extensions meeting each other with an approximately central partition formed by the inner ends of the two tubular extensions produced respectively by the two plungers, and a push rod movable longitudinally through said tubular plungers to form an opening through said partition.

2,869,287

METHOD OF BENDING GLASS SHEETS

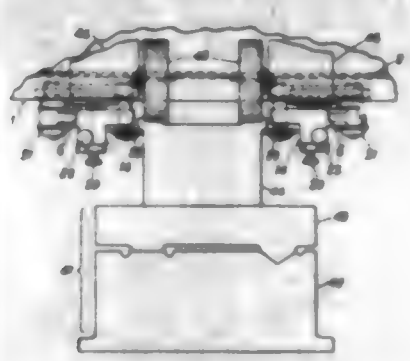
William P. Bamford, Maumee, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio

Application March 15, 1954, Serial No. 416,178
3 Claims. (Cl. 49—84)



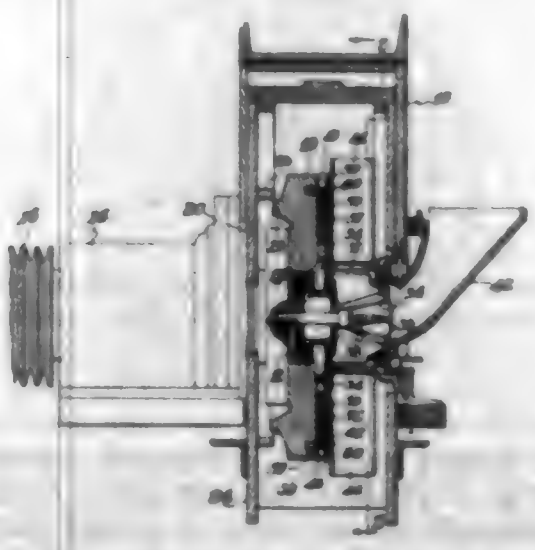
1. A method of producing pattern-cut bent glass sheets having greater resistance to edge breakage, which comprises supporting a pattern-cut flat sheet of glass in position to be bent relative to a ring-type mold having a relatively narrow substantially continuous shaping surface of substantially the same outline as the sheet but of a relatively smaller size, bending the glass sheet while at bending temperature to cause it to conform to the curvature of the mold around but inwardly of its pepriphery and with the marginal edge portions of the sheet projecting beyond said mold and free from contact therewith, and cooling the bent sheet while on said mold to place the marginal edge portions thereof in compression.

2,869,285
SLIDEWAY GRINDING MACHINE
Otto Bretscher, Gerlafingen, Switzerland, assignor to Gesellschaft der Ludw. von Roll'schen Eisenwerke A. G., Gerlafingen, Switzerland, a Swiss company
Application March 17, 1955, Serial No. 494,835
Claims priority, application Switzerland March 20, 1954
4 Claims. (Cl. 51—3)



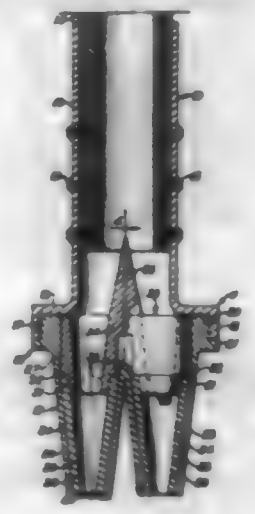
1. In a slideway grinding machine having first and second grinding means for simultaneously grinding both upper and lower surfaces of a workpiece and equipped with a workpiece table movable relative to said grinding means; a horizontal support means extending above and across said workpiece table, first and second guideways provided on said support means and arranged in planes forming an angle to each other, means for slidably supporting said first grinding means along said first guideways, power driven means in driving connection with said second grinding means, said second guideways being located on the underface of said support means, horizontally movable slide means extending into said second guideways and supporting said power driven means, vertical slide means displaceably arranged on said horizontally movable slide means, said power driven means and said second grinding means being operatively connected with and displaceable by said vertical slide means relative to said horizontally movable slide means, means for actuating said vertical slide means, and means for operating said horizontally movable slide means independently of said vertical slide means, whereby said second grinding means may be moved along said second guideways via said horizontal slide means and may be vertically adjusted in position to said workpiece and said first grinding means by said vertical slide means.

2,869,289
REVERSIBLE CENTRIFUGAL BLASTING METHOD AND APPARATUS
Charles M. Goesard, Hagerstown, Md., assignor to Pangborn Corporation, Hagerstown, Md., a corporation of Maryland
Application January 24, 1957, Serial No. 636,838
8 Claims. (Cl. 51—9)



1. An abrasive throwing vane comprising an elongated base adapted to be connected to a centrifugal throwing wheel, a blade connected to said base, said blade extending the entire length of said base and having an extension which extends beyond the corresponding end of said base, said blade being defined by two generally flat throwing surfaces, one on each side, said throwing surfaces being inwardly inclined toward each other from a relatively wide edge of said blade at the end of said extension to a relatively narrow edge at the opposite end of said blade, the longitudinal edge of said blade remote from said base being provided with a pair of oppositely-extending lateral flanges extending along the length of said blade, said flanges defining a flat longitudinal blade edge tapering from a relatively wide end coincident with the relatively wide edge of said blade at the end of said extension to a relatively narrow end coincident with the relatively narrow edge at the opposite end of said blade.

2,869,290
DUAL ABRASIVE BLAST NOZZLE
Ray A. Stokes, Norfolk, Va.
Application August 27, 1956, Serial No. 606,233
5 Claims. (Cl. 51—11)

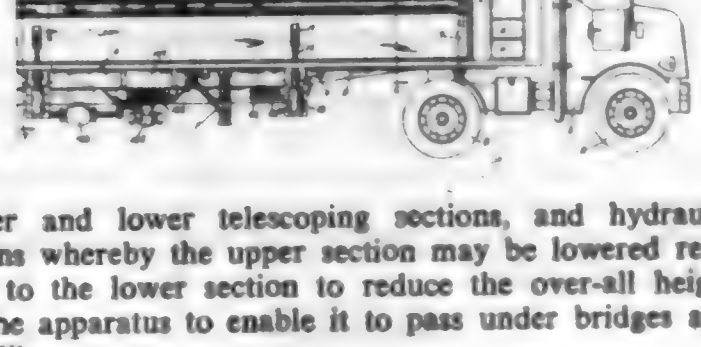


1. A dual abrasive blast nozzle comprising an elongated hollow body, means to secure a flexible conduit to said body at one end thereof, said body terminating at the opposite end in an enlarged head of generally oval shape, a longitudinally extending marginal flange on said head providing an axially opening recess of generally oval cross section, a nozzle member comprising a generally oval base portion seated in said recess and removably secured to said head, a pair of spaced substantially parallel hollow nozzle tips extending axially from said base portion, relatively hard, removable, tapered metal liners in said tips, a cavity in said base portion of generally oval cross section and communicating with said tips and an abrasive flow dividing insert of relatively hard metal seated in said cavity, said insert having spaced, tapered, substantially parallel projections seated in the inner ends of said liners, shoulders on said projections engaging the inner ends of said liners, tapered bores in said insert and projections in axial alignment with said tips and a tapered partition integral with said insert and projecting from the wall between said bores into said body to divide and direct the flow of abrasive from said conduit substantially equally between said tips.

2,869,291
SHOT BLASTING MACHINES
Robert A. Clay, Dallas, Tex., assignor to Michael Abraham, Dallas, Tex.
Application May 3, 1955, Serial No. 505,577
15 Claims. (Cl. 51—14)

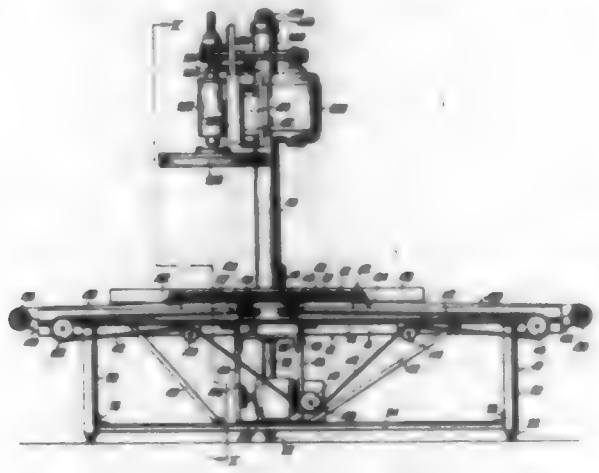
1. Portable self-contained shot blasting apparatus comprising a tractor and semi-trailer, a cabinet carried by said semi-trailer to enclose the article being treated,

a blasting unit mounted on said cabinet, and means on said semi-trailer for collecting the spent shot and returning it to said blasting unit, said means comprising an elevator having a collapsible housing made up of



upper and lower telescoping sections, and hydraulic means whereby the upper section may be lowered relative to the lower section to reduce the over-all height of the apparatus to enable it to pass under bridges and the like.

2,869,292
PRECISION GRINDING MACHINE
Ira Louis Klugman, Kansas City, Mo.
Application May 29, 1957, Serial No. 662,478
5 Claims. (Cl. 51—122)



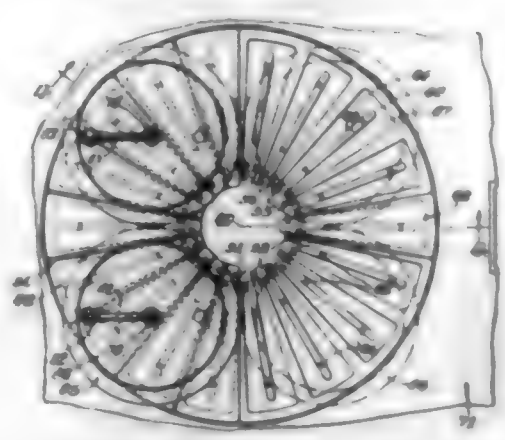
1. In a machine for precision grinding large workpieces, base structure including a generally horizontal, elongated bed and a pair of spaced, elongated, upright posts adjacent opposite sides of the bed; a workpiece supporting carriage; a pair of elongated, spaced, parallel, horizontal rails on the bed and extending longitudinally thereof between the posts; a pair of elongated, spaced, parallel, opposed, cross sectionally L-shaped elements on the carriage each having a horizontally extending leg portion slidably resting on a corresponding rail, and a vertically depending leg portion extending along the side of a corresponding rail remote from the other rail; an elongated, rail-engaging bar for each element respectively, carried by the latter between the vertically depending leg portion thereof and the corresponding rail and mounted for shifting movement toward and away from said last-mentioned leg portion; a plurality of horizontal bearing plungers for each bar respectively, there being an inwardly extending, horizontal bore for each plunger respectively in the vertically depending portion of the corresponding element, each plunger being reciprocably received in its bore; spring means yieldably biasing each plunger respectively inwardly into bearing engagement with the corresponding bar for maintaining the latter in tight sliding engagement with the side of the corresponding rail; a member spanning the distance between the posts; means mounting the member on the posts for vertical reciprocatory movement longitudinally of the posts; a vertical, tool carrying shaft; means rotatably mounting the shaft on the member; a grinding tool on the lower end of the shaft adapted for engagement with a workpiece on the carriage; a prime mover operably coupled with the shaft for rotating the latter; means mounting the prime mover on the member; structure for shifting the member vertically, and thereby the prime mover, shaft and tool; and structure for controllably reciprocating the carriage.

2,869,293
MOUNTING FOR PIPE END ABRADERS
Posy A. Howard, Tulsa, Okla.
Application December 19, 1956, Serial No. 629,311
5 Claims. (Cl. 51—241)



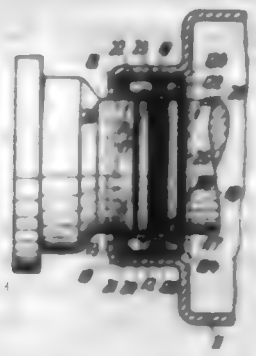
1. A mounting for a pipe end abrader, comprising in combination a spindle, means for mounting said spindle coaxially in a pipe with an end of said spindle protruding from the end of the pipe to be abraded, a collar mounted for rotation and axial sliding movement on said end of said spindle, a pair of radially outwardly extending clevis arms on said collar, a member having a web and a flange perpendicular to each other, means mounting the web between said arms for rotation relative to said arms about a first axis perpendicular to and passing through the web and spaced from the axis of the collar, a supporting plate for supporting an abrading device, and means mounting the supporting plate on the side of the flange opposite the web for rotation relative to the flange about a second axis perpendicular to said first axis.

2,869,294
LAPPING MACHINE
Stephen A. Boettcher, Evanston, and Jack C. Page, Palatine, Ill., assignors to Abrading Systems Company, Skokie, Ill., a corporation of Illinois
Application July 2, 1957, Serial No. 669,517
7 Claims. (Cl. 51—266)



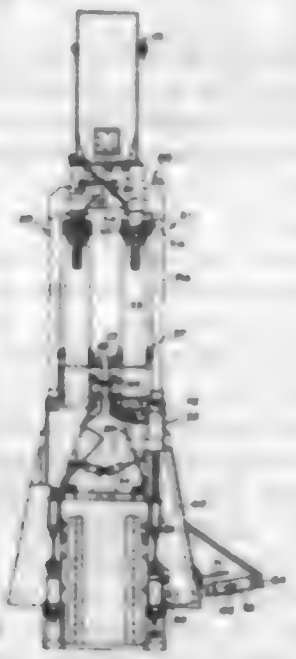
7. In a lapping machine, a rotatable planar lapping plate having a plurality of loop-shaped passageways formed internally of said plate, a central cooling fluid supply passage and a discharge passage, said first named passageways being connected in parallel across said supply passage and discharge passage.

2,869,295
METHOD OF FORMING GROOVES ON A SHAFT
Willy R. Naumann, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart, Unterturkheim, Germany
Original application June 4, 1954, Serial No. 434,496. Divided and this application November 21, 1955, Serial No. 552,683
Claims priority, application Germany July 7, 1953
3 Claims. (Cl. 51—289)



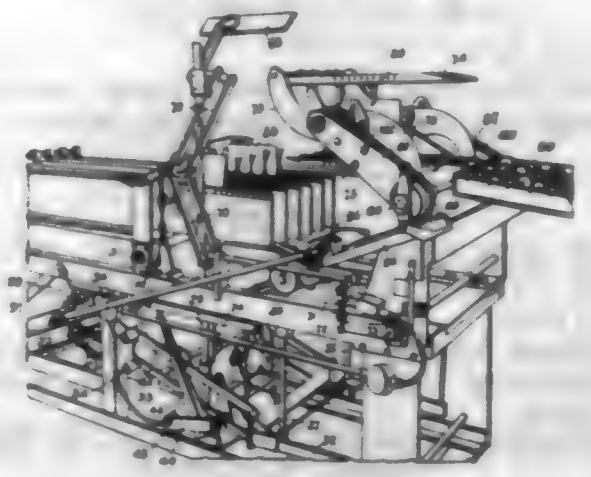
1. The method of providing a rotary shaft having a finished surface with closely adjacent helical grooves over a portion of the finished surface thereof, said helical grooves constituting minute return passages for fluid leaking past annular sealing means cooperating with said shaft during rotation of the latter and having a predetermined depth of less than 0.02 inch, preferably only .001 to .003 inch, by means of a grooving device having an axis of rotation, such as a grinding wheel or a polishing wheel provided with abrasive powder, comprising the steps of cutting said grooves of depth of less than 0.02 inch into said shaft by means of said grooving device by simultaneously rotating the latter about said axis which is spaced from and inclined to the axis of said shaft while rotating said shaft about its own axis.

2,869,296
TWO-STAGE BAGGING MACHINE
Earl R. Overman, deceased, late of Wabash, Ind., by Mary B. Overman, executrix, Wabash, Ind.
Application July 31, 1956, Serial No. 601,323
20 Claims. (Cl. 53—24)



12. The method of packing resilient, compressible material which comprises the step of providing a container which is solidly closed except at one end, establishing a mass of such material which mass has a vertical dimension and two horizontal dimensions, one of said horizontal dimensions increasing progressively from the top toward the bottom of said mass, compressing said mass in such a manner as to render said one horizontal dimension substantially uniform from the top to the bottom of said mass, then exerting pressure on the top of said mass to compress the mass and reduce its vertical dimension while maintaining the original compression of such mass, thereafter introducing such mass into said container, through the open end thereof, by exerting pressure on said mass in the direction of the other of said horizontal dimensions, whereby re-expansion of such mass in the directions of such compression thereof, is opposed by solid walls of said container, and thereafter closing said one end of said container.

2,869,297
METHOD AND APPARATUS FOR CASING MERCHANDISE
Clifford H. Neer, Pikesville, Md., assignor to Maryland Engineering Company, Pikesville, Md., a copartnership consisting of William F. McBride and Ruth D. S. McBride
Application January 31, 1955, Serial No. 485,059
21 Claims. (Cl. 53—26)

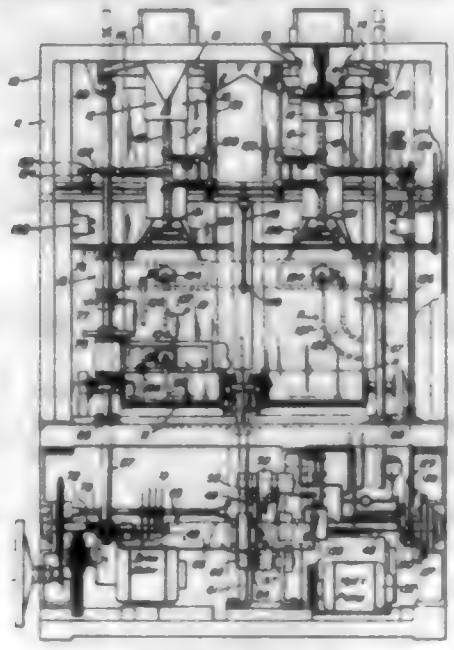


1. The method of filling receptacles which consists in positioning an empty receptacle in inverted substantially horizontal position with the open top arranged to receive articles to be packed and with the closed bottom maintained in a substantially horizontal plane over the open top of the receptacle, assembling articles to be packed in a multiplicity of aligned substantially horizontal rows of substantially the same heights, horizontally moving the horizontal rows of articles into assembled position below the open top of the receptacle moving a restraining abutment into contact with the exterior of the bottom of the receptacle, elevating the aligned articles while maintaining the row assembly thereof simultaneously through the open top of the inverted receptacle for loading the receptacle removing the restraining abutment from the exterior of the bottom of the receptacle, and subsequently reversing the position of the loaded receptacle.

2,869,298
AUTOMATIC PACKAGING MACHINE
Walter R. Zweyer, Maywood, N. J., assignor, by mesne assignments, to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts
Application January 15, 1954, Serial No. 404,242
17 Claims. (Cl. 53—51)

1. In a packaging machine wherein a tube is formed from web material, and a clamp is reciprocated to transversely grip, seal and draw out a substantially vertical direction, a package length of tube during which drawing out the material to be packaged is charged into the partially formed package, in combination, means for closing said clamp upon the tube to grip and seal the tube, means for then moving said clamp downwardly in drawing-out direction for a distance greater than the predetermined package length, means for opening said clamp before full movement thereof in drawing-out direction, and a stop brake for engaging the material of the tube rearwardly of the formed tube to stop movement thereof, and means operative in response to a marker on the package being

drawn out for simultaneously operating said clamp opening means to release the clamping hold on the tube and



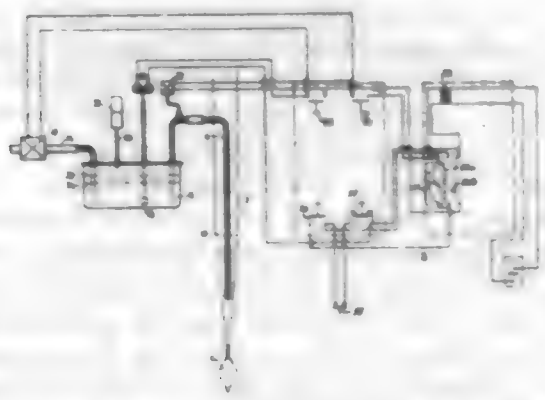
cause said stop brake to grip the material rearwardly of the formed tube and prevent movement thereof.

2,869,299

DEVICE FOR CONTINUOUS FILLING OF PACKAGES WITH A LIQUID DURING THEIR MANUFACTURE

Harry Sigurd Valdemar Järund, Lund, Sweden, assignor to Hermorian Limited, Toronto, Canada, a company of Canada

Application September 27, 1954, Serial No. 458,645
7 Claims. (Cl. 53—63)



1. A device for continuous supply of liquid material to packages during the continuous manufacture of the same by periodically transversely pressing together and sealing a travelling tube of flexible material, the distances between successive sealings being substantially equal, comprising a supply line for the liquid material extending down into said tube, a levelling tank provided in said supply line outside of said tube, the upper portion of said levelling tank above the level of the liquid material therein being in communication with the surrounding atmosphere and a control device actuated by pressure variations and disposed in the lower portion of said levelling tank below the level of the liquid material therein for regulating the supply of liquid material to said levelling tank at substantially the same rate as liquid material is fed from said tank to the packages under manufacture.

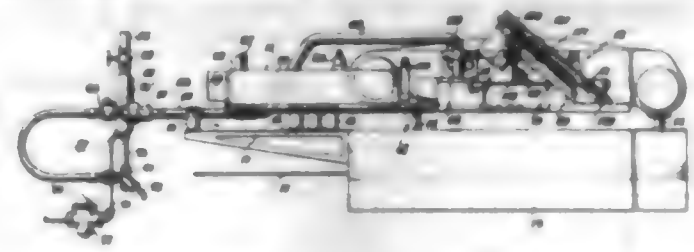
2,869,300

MACHINE FOR ASEPTICALLY SEALING CONTAINERS

Harry E. Stover, Lancaster, Ohio, assignor to Anchor Hocking Glass Corporation, Lancaster, Ohio, a corporation of Delaware

Application November 5, 1954, Serial No. 467,881
15 Claims. (Cl. 53—88)

1. In a machine for aseptic sealing, the combination of a conveyor for transporting containers past a sealing station, first means for directing steam into the head space of said containers for a substantial distance prior to their reaching the sealing station, second means for directing a mixture of steam and air into the head space of the container during the final portion of its movement to the sealing station, means for delivering caps to the sealing station, means for directing a mixture of steam and air into



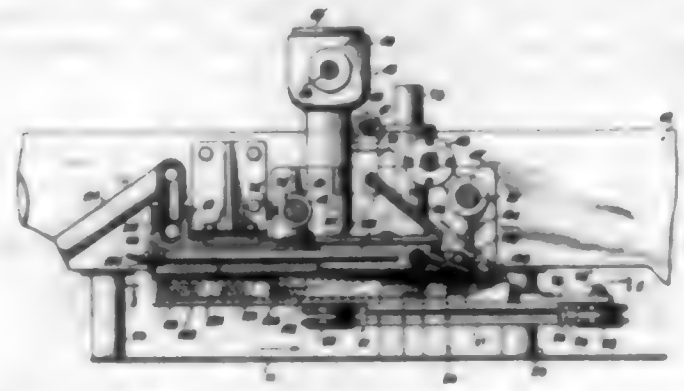
the interior of the caps for a substantial distance prior to their reaching the sealing station, means for superheating said steam and air mixture applied to said head space and to said closure to a temperature above 350° F. so that it will sterilize said head space and the interior of said closures, and means for sealing the closures on the containers while the head space is filled with the steam and air mixture.

2,869,301

MACHINE FOR HERMETICALLY SEALING GLASS CONTAINERS

Harry E. Stover, Lancaster, Ohio, assignor to Anchor Hocking Glass Corporation, Lancaster, Ohio, a corporation of Delaware

Application December 9, 1953, Serial No. 397,223
17 Claims. (Cl. 53—110)



11. In a sealing machine the combination of a conveyor for moving containers to be sealed through the machine; a canopy extending longitudinally over the conveyor having a longitudinal concavity covered with a sieve-like member to direct a cloud of steam about the upper ends of the containers; an applicator for applying caps to the moving containers including a support for retaining a closure in inclined position so that the lower edge thereof will be engaged by the rim of a moving container, an expandable fork adapted to wipe the closure onto the rim of the container and a pressure member for forcing the closure down on the container; auxiliary steam supplying means for supplying steam at the upper end of the container at the time the closure is applied to it; and container stabilizing means for holding the container upright during the cap applying operation including side belts, means for positioning said side belts toward and away from each other to accommodate different diameters of containers and means for raising and lowering said side belts to accommodate different heights of containers.

2,869,302

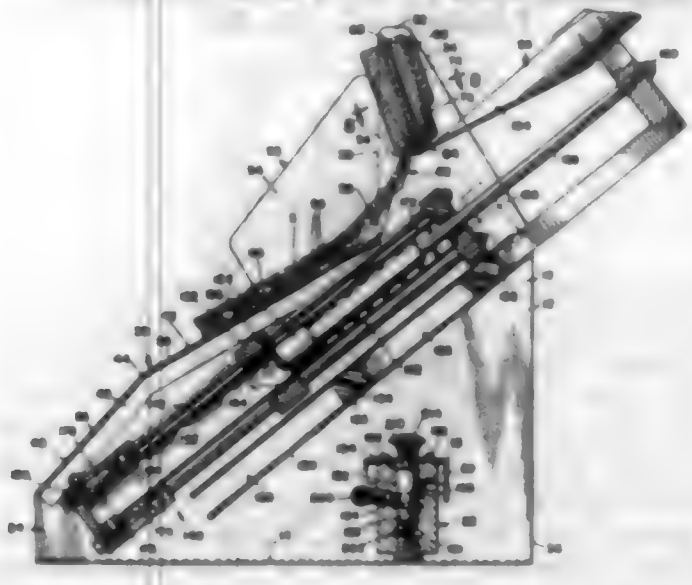
APPARATUS FOR PACKAGING FLAT FLEXIBLE ARTICLES

Robert F. Scott, Terre Haute, Ind.

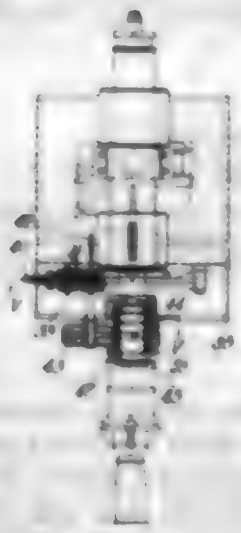
Application December 26, 1956, Serial No. 630,676
17 Claims. (Cl. 53—255)

1. In an apparatus for facilitating insertion of flat flexible articles into open-ended envelopes having top

and bottom sides with the upper region of the top side overlapping the upper edge of the bottom side and of substantially the same size and configuration as the articles, in combination means providing a shelf surface adapted to underlie the overlapping portions of the upper sides of the envelopes in said stack and support the same, means for clamping said overlapping portions together and against said shelf surface, a reciprocable arbor including a trailing ingress section, an intermediate section and a leading egress and envelope-spreading section arranged in substantial alignment with each other and with the normal plane of the lowermost envelope in the stack, said arbor being movable between a normal advanced position wherein said egress section is disposed within the mouth of said lowermost envelope in spreading relation with respect to the sides thereof and a retracted position wherein the leading edge of the latter section clears the free edge of the bottom side of said lowermost envelope, and means for reciprocating said arbor.

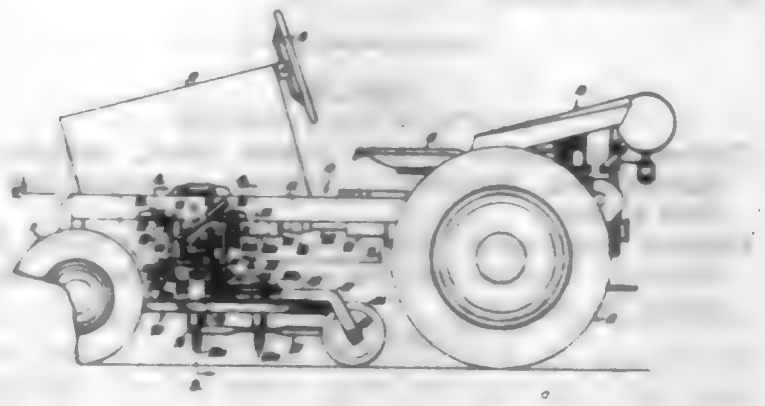


2,869,303
CLOSURE OF BOTTLES, JARS AND LIKE CONTAINERS
Paul Emery Clift, Rugby, England, assignor to Thomas Hunter Limited, Rugby, England
Application February 6, 1956, Serial No. 563,798
Claims priority, application Great Britain February 7, 1955
7 Claims. (Cl. 53—331)



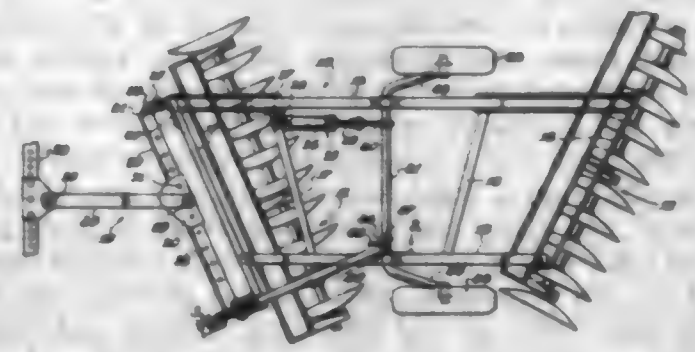
1. Apparatus for closing a container having a thread formed about its mouth by pressing a skirted cap over the container mouth whilst the skirt is deformed by means of a closing head to engage tightly the respective elements of the thread, comprising a rotatably mounted closing head, a support below the head for a container to be sealed, means for effecting relative vertical reciprocation between the support and head, and guide means carried by the head to rotate therewith adapted, when brought into horizontal and circumferential register with complementary guide means formed on a container positioned on the support, to engage the complementary guide means automatically and thereby constrain the head against rotation relative to the container, in which cam mechanism is provided for effecting said reciprocation, and a rotary drive connection is provided for rotating the head, the drive connection incorporating torque-limiting means.

2,869,304
COMBINED TRACTOR AND POWER MOWER
Richard R. Colburn, Johnson County, Kans.
Application March 15, 1956, Serial No. 571,676
10 Claims. (Cl. 56—25.4)



1. In a power operated mower of the character described a carriage including a chassis, front and rear wheels supporting said chassis, power drive means mounted on said chassis and connected with at least one of said wheels for propelling said carriage, a power take-off on said power drive means, a normally substantially horizontal mower housing positioned beneath said chassis between said front and rear wheels, at least one horizontal rotary cutting blade mounted within said housing, suspension means connecting said housing to said chassis and mounting said housing for simultaneous pivotal movement relative said chassis about two intersecting substantially horizontal axes at right angles with one another, ground engaging means carried by said housing and supporting said housing at points remote from the intersection of said axes whereby to follow the ground contours and cause movement of said housing about said axes as said carriage advances, and a flexible drive connection between said power take-off and said blade.

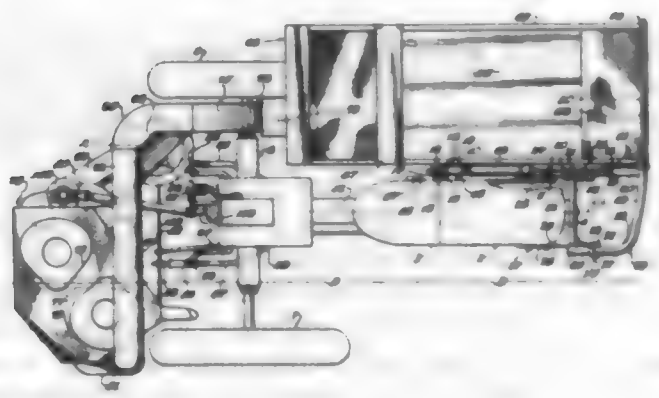
2,869,305
WHEEL CONTROLLED HARROW
Donald A. Murray, Stockton, Calif., assignor to International Harvester Company, Chicago, Ill., a corporation of New Jersey
Application December 12, 1957, Serial No. 702,294
6 Claims. (Cl. 55—73)



1. In an implement including a tool-carrying frame and a longitudinally extending hitch frame pivotally connected at its rear end to the tool frame on a transverse axis for vertical swinging relative thereto, a wheel-carrying crank axle mounted on the tool frame and vertically

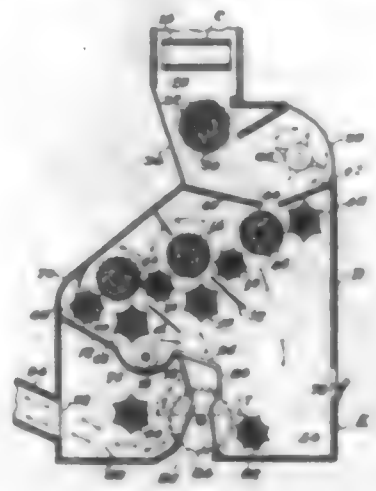
swingable relative thereto to move the tool frame between operating and transport positions, an arm affixed to said crank axle and rockable upon swinging said axle, a guide member on the tool frame adjacent said hitch frame having means serving as a vertically extending slot therein, a longitudinally extending bar operatively connected at its rear end to said arm and at its forward end to said hitch frame and slidably receivable in said slot for longitudinal shifting therein in response to raising and lowering the tool frame, said slot serving to accommodate vertical movement of said bar and vertical swinging of said hitch frame in the operating position of the implement, the forward end of said bar having an enlarged portion adapted to fill said slot when the implement is raised to transport position and prevent vertical pivoting of the hitch frame.

2,869,306
COTTON HARVESTER
Clarence R. Hagen, Grand Rapids, Mich., assignor to International Harvester Company, a corporation of New Jersey
Original application September 30, 1954, Serial No. 459,475. Divided and this application March 1, 1957, Serial No. 643,364
3 Claims. (Cl. 56—14)



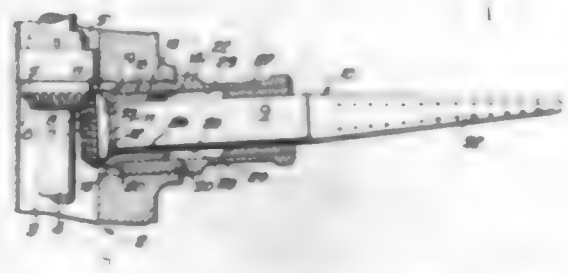
1. In a cotton receptacle mounting for a tractor having a longitudinal portion and a transverse rear portion with widely spaced wheels, a frame structure adapted for attachment to said tractor and having members arranged to provide a receptacle receiving space at one side of said longitudinal portion of said tractor and ahead of said transverse rear portion; said structure including an extension positioned at a level above the tractor and extending transversely thereof from the plane of one side of the longitudinal portion of the tractor to a point outwardly of the wheel at that side of the tractor; a receptacle positioned within said space and having spaced sides generally paralleling said plane and forward and rear sides and a bottom interconnecting said sides and having a width greater than the transverse distance between said one wheel and the adjacent side of the tractor; said receptacle having a forward upper end portion pivoted on said extension for swinging movement in an arc paralleling said plane; said receptacle having its bottom normally positioned below the level of the tops of said rear wheels and having its rear side in partial fore and aft alignment with said one wheel and sloping upwardly and rearwardly from a point forwardly of said one wheel to an upper end above and rearwardly of the forward part of said one wheel to accommodate upward swinging movement of said receptacle; and a cotton picking unit disposed rearwardly of said transverse portion and incorporating a conveyor duct extending upwardly and forwardly therefrom over said transverse portion, and said receptacle having an inlet duct connected to said upper end of said rear side of said receptacle and telescoping over said conveyor duct; and means movably supporting said cotton picking unit from the tractor for up and down swinging movement to permit telescoping of said conveyor duct into said inlet duct of the basket for blowing crops thereinto and for withdrawing said conveyor duct from said inlet duct to accommodate swinging of said receptacle for dumping.

2,869,307
COTTON HARVESTING AND CLEANING MACHINE
Francis M. Wagnon, Borger, Tex.
Application April 29, 1955, Serial No. 504,834
9 Claims. (Cl. 56—30)



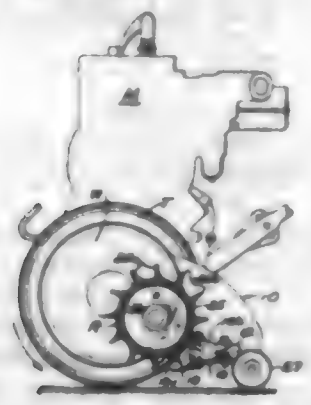
1. For use with a cotton combine including a picking means, a cleaning and ginning means, and cotton collecting and baling means, an improved cleaning means comprising an inclosure having an inlet opening in a top portion thereof, a cleaning saw below said opening, a doffing brush operatively associated with said saw adjacent one side thereof, a rotary stripper adjacent an opposite and bottom portion of said saw, at least one additional cleaning saw, rotary stripper and doffing brush spaced downwardly and laterally of said first mentioned saw and adjacent said rotary stripper, and a ginning means in said inclosure below said cleaning saws.

2,869,308
COTTON PICKER SPINDLE MOUNTING
Fred W. Barbknecht, Palos Heights, Ill., assignor to International Harvester Company, Chicago, Ill., a corporation of New Jersey
Application March 8, 1957, Serial No. 644,797
8 Claims. (Cl. 56—50)



1. A cotton picker spindle mounting comprising a picker bar, a drive shaft rotatably mounted therein, a driving bevel gear connected thereto for rotation thereby, a holder mounted on the bar and extending angularly therefrom, bearing means in the holder, a cotton picker spindle having a shank journalled in said bearing means, a driven bevel gear connected to said shank and disposed in mating relation with said driving bevel gear, said bearing means presenting a conical bearing surface proximate to said driven bevel gear, and means operatively associated with said driven bevel gear and presenting a conical surface in complementary engagement with said conical bearing surface for positioning and holding said driven gear in mating relation with respect to said driving gear.

2,869,309
REEL-TYPE MOWER
Donald O. Benson, Minneapolis, Minn., assignor to Toro Manufacturing Corporation, Minneapolis, Minn., a corporation of Minnesota
Application December 27, 1956, Serial No. 630,886
6 Claims. (Cl. 56—249)



1. In reel-type mowers, a wheeled frame, a rotary cutter reel mounted for driving on said frame and having a multiplicity of circumferentially spaced, helically and longitudinally extending cutting blades, each of said blades having a longitudinally extending cutting edge and an adjacent forward face which faces in the direction of rotation, a stationary, substantially straight bed knife below said reel having a narrow forward cutting edge disposed transversely of the mower and being constructed of thin, relatively hard material such as steel, mechanism for adjusting the relative vertical relation between said cutting reel and said bed knife and permissive of "tightening" adjustment to cause said reel-cutting blades to successively scrape against the cutting edge of said bed knife and said reel-cutting blades having at least their outermost, longitudinally extending portions constructed of relatively soft material contrasted with said bed knife whereby upon tightening the relationship between said bed knife and successive reel-cutting blades, abrasive wear of said softer blades against said bed knife will automatically provide in operation, an excellent shearing fit between said parts with self-sharpening of said reel-blades.

2,869,310
EXTRUDED CUTTER REELS FOR MOWERS AND THE LIKE
Donald O. Benson, Minneapolis, Minn., assignor to Toro Manufacturing Corporation of Minnesota, Minneapolis, Minn., a corporation of Minnesota
Application March 28, 1955, Serial No. 497,083
5 Claims. (Cl. 56—294)



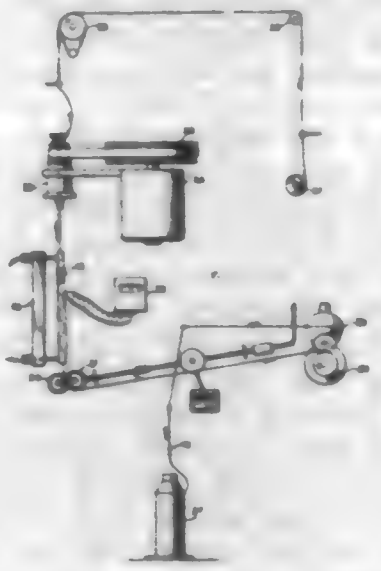
1. In lawn mower construction an integrally formed cutter reel member comprising an elongated cylindrical hub extending substantially the full length of said member and a multiplicity of integrally formed, gently spiralled, longitudinal blades emanating from said hub throughout substantially their entire length and forming a closed structure with said hub, said blades having longitudinal cutting edges and leading faces adjacent thereto, the longitudinal edges of said blades generating in revolution of said member, a cylindrical figure which is substantially coaxial with said cylindrical hub and wherein the leading faces of said blades form forwardly directed acute angles with radii of said cylinder passing through the lines of juncture thereof with said cylindrical hub whereby with said closed blade and hub construction forward blower action upon the grass to be cut is substantially eliminated and distortion of the cutting edges from the striking of an obstacle does not substantially affect shearing fit with the bed knife of the mower.

2,869,311
BLADE FOR ROTARY LAWN MOWER
John T. Beeston, Jr., Des Moines, Iowa, assignor to Frontier Development Company, Des Moines, Iowa, a corporation of Iowa
Application November 14, 1956, Serial No. 622,874
9 Claims. (Cl. 56—295)



1. A replaceable blade for a power driven rotary type lawn mower, comprising a bar adapted for operable attachment to said mower so as to rotate in a horizontal plane about a central axis, a leading and trailing edge on one end portion of said bar, an elongated blade retaining arm integral at one end with said leading edge and disposed in parallel spaced relationship thereto, a blade holder slidably embraceably disposed on said retaining arm, and a cutting blade removably mounted in said blade holder.

2,869,312
YARN HEATING APPARATUS
Pieter van Dijk, Velp, Netherlands, assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application January 30, 1956, Serial No. 562,337
Claims priority, application Netherlands February 11, 1955
11 Claims. (Cl. 57—34)

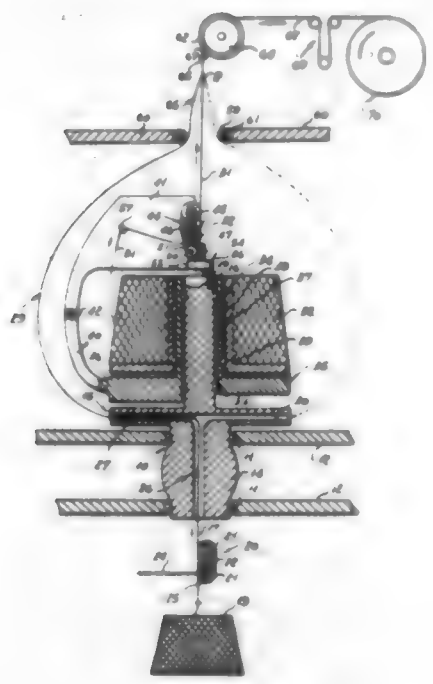


3. In a thermoplastic yarn curling apparatus including a twisting device, the improvement comprising an elongated body having a longitudinal opening presenting a smooth inner surface, the diameter of said opening being not substantially greater than the diameter of the yarn to be curled, means for heating said elongated body, and means for passing thermoplastic yarn longitudinally through said opening in contact with substantially all portions of said inner surface while imparting twist and vibration thereto with said twisting device.

2,869,313
METHOD OF AND APPARATUS FOR PLYING STRANDS

Alfred W. Vibber, Ridgewood, N. J.

Application November 17, 1954, Serial No. 469,481
16 Claims. (Cl. 57—58.3)



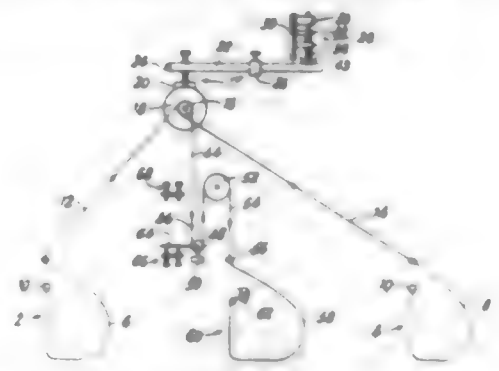
2. The method of twisting together two strands to form a two-ply cord comprising: feeding a first strand in the direction of its length, rotating a portion of the first strand in the form of a free-flying balloon by a rotating shaft contacting the balloon at a first end thereof, forming the apex of the balloon at the opposite, second end thereof by a first guide member, inwardly compressing the balloon intermediate the apex and the shaft and near the apex by a second, annular, balloon guiding member to form the part of the balloon at the second guiding member generally into a frustum of a cone of substantial apex angle, feeding a second strand under tension from a package located within the balloon of the first strand generally axially through the second balloon guiding member and into contact with the first strand at a plying zone located intermediate the apex of the balloon and the second balloon guiding member, and taking up the plied cord beyond the plying zone.

15. Apparatus for twisting together two strands to form a two-ply cord comprising: a source of supply of a first strand, a rotatable shaft engaging the strand and rotating it in the form of a balloon having an apex remote from the shaft, annular guiding means receiving and markedly locally constricting the balloon at a location near its apex but substantially spaced therefrom so that the strand in the zone from the guiding means to the apex of the balloon generates a generally cone-shaped figure of substantial apex angle, a support carrying a let-off strand package for a second strand within the balloon, means for feeding the first strand axially into the shaft, then into the end of the balloon engaged by the shaft, and then through the balloon in the direction from the shaft to the apex of the balloon, means for feeding the second strand from its package toward the apex of the balloon and through the annular guiding means substantially along the axis of such means whereby the two strands meet and are plied together in a zone located between the apex of the balloon and the annular balloon guiding means, and means beyond the apex of the balloon for taking-up the plied cord, the means for feeding the second strand being so constructed and arranged as to feed said second strand at a controlled variable speed.

2,869,314
TWISTING SPINDLE BALLOON CONTROL

Alfred W. Vibber, Ridgewood, N. J.

Application October 21, 1952, Serial No. 315,871
19 Claims. (Cl. 57—58.55)

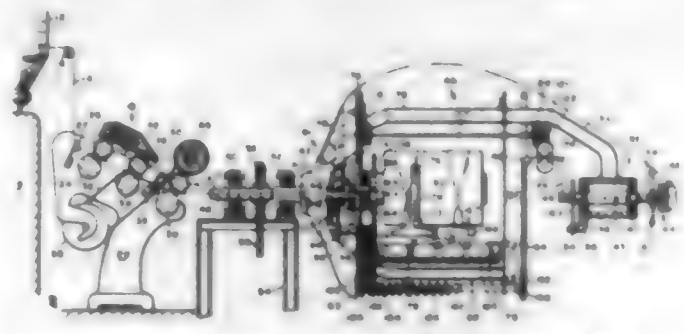


16. Apparatus for twisting elongated flexible material which comprises a twisting spindle having rotatable means creating and maintaining a balloon of such material, and a guiding eye for the apex of the balloon spaced from said rotatable means, a first means for feeding the material into the balloon, a second means for feeding the material from the balloon, means positioned outside the balloon and between the eye and the respective feeding means for forming a supply of material of variable length in tension transmitting communication with the balloon, means applying a fixed tension on the material in the variable length supply over the entire range of length variation of the variable supply, the first and second feeding means operating to feed the strand at a substantially fixed speed ratio relative to each other over the intermediate part of the range of variation of the variable supply, and means operated by the variable length supply for varying the relative speeds of the first and second feeding means adjacent the ends of such range of variation so as to maintain the length of the variable supply of material within predetermined limits.

2,869,315
SPINNING APPARATUS

Norman E. Klein, Pendleton, S. C., assignor to Deering Milliken Research Corporation, Pendleton, S. C., a corporation of Delaware

Application July 19, 1954, Serial No. 444,245
18 Claims. (Cl. 57—58.84)



1. Improved apparatus for spinning comprising in combination a drafting frame, a spindle, said spindle being rotatably supported intermediate its two ends and said spindle having an orifice in the wall thereof and a lengthwise passage leading from one of the unsupported ends of said spindle into communication with said orifice, said spindle being so positioned with respect to said drafting frame that a strand of material from said frame may be passed directly into said passage in said unsupported end of said spindle to thereby permit the strand to be freely rotated between said spindle and said drafting frame so that the strand is immediately twisted as it issues from said drafting frame by the rotation of said spindle, a support member floatingly mounted on said spindle and stabilized against rotation therewith, strand collecting means mounted on said support member, strand guide means carried by said support member and positioned

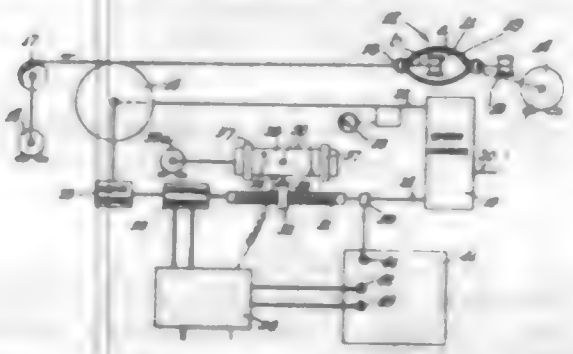
on the extended axis of said spindle, and balloon driving means carried by said spindle adjacent said orifice whereby when a strand of material is passed from said drafting frame through said passage, out said orifice into engagement with said driving means, through said guide means and to said collecting means, the strand is revolved in the form of a balloon about said support member when said spindle is rotated.

2,869,316

TWISTED CONDUCTORS AND CABLES AND METHOD AND APPARATUS FOR MAKING THE SAME

Joseph C. Lilly, Plainfield, Conn., assignor to The Plastic Wire & Cable Corporation, Jewett City, Conn., a corporation of Connecticut

Application March 12, 1957, Serial No. 645,599
14 Claims. (Cl. 57—93)



2. The method of forming a cable including a plurality of juxtaposed twisted pairs of twisted conductors comprising the steps of twisting the conductors of each pair to form twists therein, continuously and at random varying the lengths of said twists, and positioning a plurality of said twisted pairs of conductors in side-by-side relation, the continuous and random variation of the twists in adjacent pairs causing the conductors to be transposed and in non-inductive relation whereby inductive disturbances in the cable are prevented.

13. In a machine for forming twisted pairs of wire having twisting means for twisting a pair of wires together, means driving the twisting means at a fixed speed, a capstan for drawing the wires through the twisting means, and a variable speed drive for driving the capstan, the improvement wherein there is provided means comprising a rotatable shaft connected to the variable speed drive to adjust the speed thereof, means for continuously rotating said shaft to vary the variable speed drive, and means including electrically controlled reversing means connected to said shaft, a screw driven with said rotating member, a nut movable on the screw and having a control switch thereon connected to the reversing means, and a motor driven cam adjacent the screw and having a plurality of actuators thereon adapted to be positioned in the path of movement of said control switch to operate said switch at random to actuate the reversing mechanism for reversing the rotation of said shaft at random to continuously increase and decrease the speed of the capstan with respect to the fixed speed of the twisting means whereby the wires are drawn through the twisting means with increasing and decreasing speed to vary the length of each successive twist in said wires.

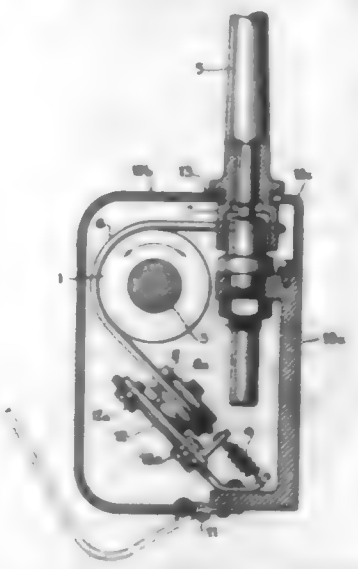
2,869,317

SPINDLE DRIVING MECHANISM

Hans Schurr and Hans Stahlecker, Sussen, Germany, assignors to Württembergische Spindelfabrik G. m. b. H., Sussen, Germany, a limited liability company of Germany

Application May 7, 1956, Serial No. 583,233
Claims priority, application Germany August 9, 1955
15 Claims. (Cl. 57—105)

1. A driving mechanism for the spindles of spinning, twisting and like machines, which machines include a framework carrying spaced rows of upstanding spindles, said driving mechanism including a drive shaft extending along the framework and disposed at the outer, readily accessible side of one of the rows of spindles, a drive pulley driven by said drive shaft and positioned alongside one of said spindles at said outer readily accessible side thereof, an idler pulley disposed adjacent said drive pulley at said outer side of the last mentioned spindle, a guide pulley disposed in offset position with



respect to said first mentioned pulleys, and an endless belt having looped portions adjacent its opposite extremities, one of which looped portions engages and partially encircles said spindle, the other of said looped portions engaging and partially encircling said guide pulley, said belt having oppositely traveling portions intermediate said looped portions, one of which oppositely traveling portions engages and partially encircles said drive pulley, and the other of which intermediate oppositely traveling portions engages and partially encircles said idler pulley.

ERRATUM

For Class 57—140 see:
Patent No. 2,869,967

2,869,318

VOLUMINOUS YARN

Hans R. Stucki, Summit, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application June 8, 1954
Serial No. 435,357
4 Claims. (Cl. 57—157)

1. Process for the production of voluminous yarn from yarn having a basis of cellulose acetate having an acetyl value of at least about 60% by weight, which comprises twisting and untwisting the yarn, and heating the yarn to a temperature of between about 150° and 260° C. for a period of about at least 5 seconds and at least 0.5 second, respectively, to set the crimp therein, the time and temperature of heating being sufficient to change the original diffuse X-ray diffraction pattern to a sharp pattern and being sufficient to produce a product which retains its crimp when immersed in boiling water and then removed and dried.

2,869,319

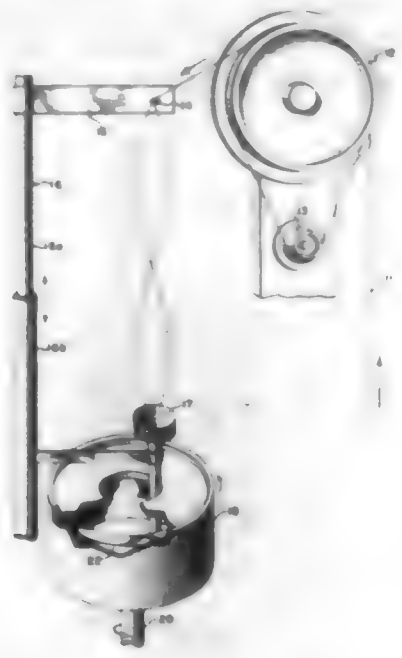
BUCKET PROCESS FOR NOVELTY REGENERATED CELLULOSE YARN

Thomas Edgar Mitchell, Chattanooga, Tenn., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application October 28, 1954, Serial No. 465,313
3 Claims. (Cl. 57—157)

1. In the viscose process for producing a cake of crinkled, nubby, continuous filament, regenerated cellu-

lose yarn, wherein a freshly-formed nubby yarn is led over guide means through a traversing funnel guide into a rotating bucket, to form a cake therein, said funnel guide being located eccentric to the axis of said rotating



bucket, the improvement which comprises maintaining the ballooning condition between said guide means and said funnel guide constant throughout the formation of the cake.

2,869,320

HYPERGOLIC FUEL AND ITS METHOD OF USE IN DEVELOPING THRUST

Joe M. Burton, Waco, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application July 6, 1954
Serial No. 441,624
4 Claims. (Cl. 60—35.4)

2. In the method for developing thrust by the combustion of bipropellant components in a combustion chamber of a reaction motor the steps comprising separately and simultaneously injecting a stream of an oxidant component and a stream of a fuel component into contact with each other in the combustion chamber of said motor, in such proportions as to produce spontaneous ignition, said fuel component consisting essentially of between 70 and 80 percent by volume of pyrrole and between 30 and 20 percent by volume of pyridine.

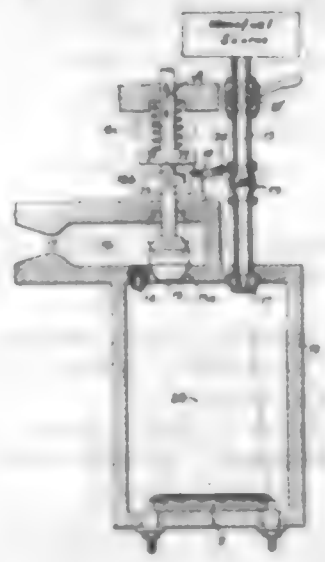
2,869,321

FUEL REACTION CHAMBERS

Douglas Francis Welch, Thurlaston, near Rugby, and Kenneth Barrington Randall, Coventry, England, assignors to The British Thomson-Houston Company Limited, a British company

Application January 29, 1954, Serial No. 407,123
Claims priority, application Great Britain February 5, 1953
7 Claims. (Cl. 60—39.28)

1. Apparatus for the production of a flow of gaseous working fluid for a prime mover by the decomposition of a monofuel comprising a reaction chamber, heating means in said chamber, a source of monofuel, a monofuel inlet supply conduit leading into said chamber from said source, an exhaust conduit leading from said chamber, exhaust valve means located in said exhaust conduit, means biasing said exhaust valve means toward closed position, said exhaust valve means being opened in response to predetermined fluid pressure developed in said reaction chamber by decomposition of monofuel supplied thereto, a fuel supply regulating valve in said inlet supply conduit, and means connecting said exhaust valve means to said fuel supply regulating valve to open said latter valve responsive to opening of said exhaust valve means, whereby to increase the supply of monofuel to said cham-



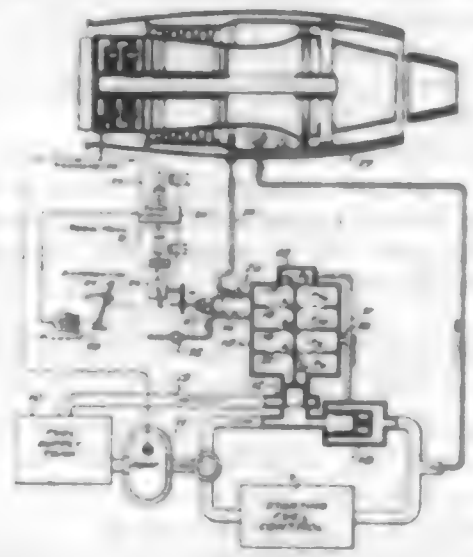
ber when said exhaust valve means opens in response to the attainment of the predetermined pressure therein.

2,869,322

FUEL CONTROL SYSTEM FOR GAS TURBINE ENGINES UNDER STEADY-STATE OPERATING CONDITIONS

Donald L. Rankin, Garden City, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application February 18, 1954, Serial No. 413,355
6 Claims. (Cl. 60—39.28)
(Filed under Rule 47(b) and 35 U. S. C. 118)



1. A fuel control system for a gas turbine engine of the type having means driven by the engine for supplying combustion air thereto at a pressure proportional to its speed of operation, including a fuel pump, a fuel flow conduit connected to said pump for delivering fuel to the engine, a variable area orifice metering device in said fuel conduit providing a fluid pressure drop across the orifice thereof that is proportional to the fuel flow therethrough, means for regulating the input flow of fuel to the device comprising a fuel bypass valve between the pump and device including a plurality of flexible diaphragms dividing the interior of said regulating means into a plurality of compartments, a common link interconnecting the diaphragms of said regulating means and connected to control the fuel bypass valve, a first of said compartments being connected to said fuel conduit on the input side of the metering device for receiving fuel from the pump at a first pressure, a second of said compartments being connected to said fuel conduit on the output side of the metering device for receiving fuel from the pump at a second pressure, an air flow conduit having an open end and an end connected to the engine to re-

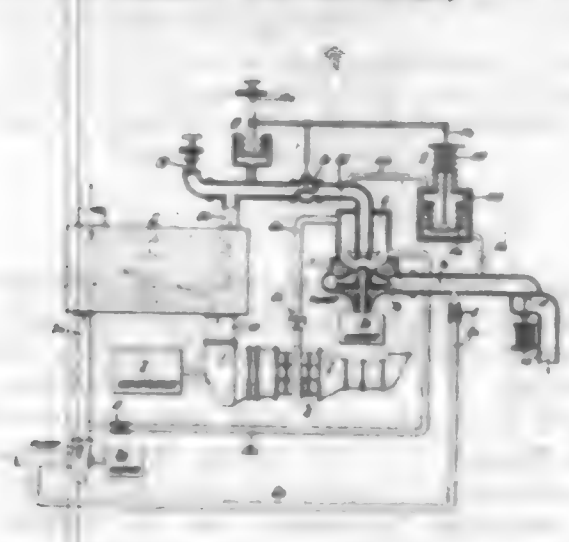
ceive air at the pressure of the combustion air of the engine, an adjustable valve in said air flow conduit for dropping the pressure therein, a third of said compartments being connected to said air flow conduit on the input side of said air flow valve for receiving air at a third pressure, a fourth of said compartments being connected to said air flow conduit on the output side of said air flow valve for receiving air at a fourth pressure less than the pressure on the input side of the air flow valve, the respective areas of the diaphragms of said regulating means being such that the fluid pressure differential across the metering device provides a force for driving the common link in one direction and the air pressure differential across said air flow valve provides an equal and opposite force in the other direction to normally maintain the link in a balanced condition, differential means with two inputs and an output for adjusting said air flow valve to change the pressure drop in said air flow conduit, a manually settable lever operatively connected to said differential means providing one of the inputs thereto, and means providing the other of the inputs to said differential means operable in accordance with the speed of operation of the engine.

2,869,323

GAS TURBINE POWER PLANT WITH STEAM INJECTION

Francis H. Van Nest, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application January 2, 1957, Serial No. 632,220
8 Claims. (Cl. 60—39.55)



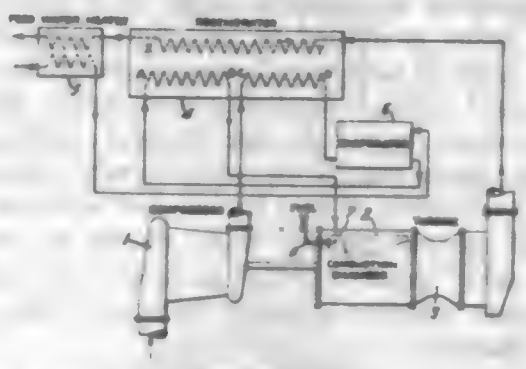
1. In a gas turbine powerplant operating on a steam injection cycle and comprising an expansion turbine, a compressor driven by the expansion turbine and supplying motive fluid for the expansion turbine cycle, a combustion chamber for heating the motive fluid discharged from the compressor, said heated motive fluid being expanded in the expansion turbine to produce mechanical energy, and means for producing steam for injection into the combustion system, the combination of a water separator connected to remove entrained water from the steam whereby only dry steam can reach the combustion chamber, and a centrifugal purging pump continuously driven and connected to pump a small quantity of liquid supplied to keep the pump primed at all times, said pump being connected to remove any water separated from the steam by the separator, a restricted first discharge conduit whereby a small quantity of water may be discharged by the pump, a second pump discharge conduit of larger capacity than said first discharge conduit, and pressure relief valve means connected in communication with the pump and said first discharge conduit and arranged to admit water to said second discharge conduit when the rate of delivery of water from the pump exceeds the capacity of said first discharge conduit.

2,869,324

GAS TURBINE POWER-PLANT CYCLE WITH WATER EVAPORATION

William R. Foote, Ballston Lake, N. Y., assignor to General Electric Company, a corporation of New York

Application November 26, 1956, Serial No. 624,340
4 Claims. (Cl. 60—39.59)



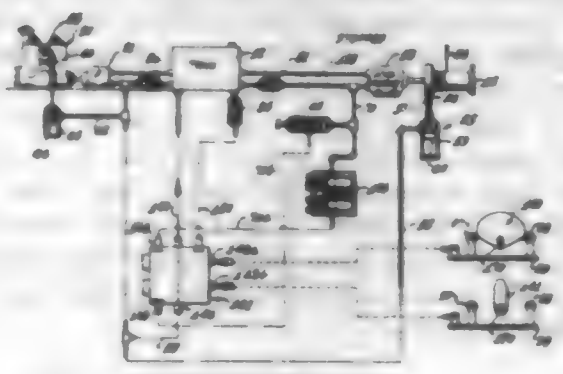
2. A gas turbine powerplant comprising a turbine, a combustion system, a compressor compressing air to form the motive fluid which is expanded in the turbine, a first heat exchanger connected to utilize the heat of the exhaust gases of the turbine, means for conducting the compressed air to the heat exchanger so as to pass it in heat exchanging relationship with the exhaust gases from the turbine, an evaporator, means for conveying the compressed air from the first heat exchanger to the evaporator, means for injecting water into the compressed air in the evaporator so as to vaporize the injected water to form an air-water vapor mixture, means for conducting the mixture to the combustion system so as to supply heat to the mixture by burning fuel therein, and means to conduct the resulting heated mixture to the gas turbine for expansion in the gas turbine.

2,869,325

HYDRAULIC DRIVE SYSTEM FOR PORTABLE BUILDERS HOIST

Max Samuely, Los Angeles, Calif., assignor to Tubular Structures Corporation of America, Los Angeles, Calif., a corporation of California

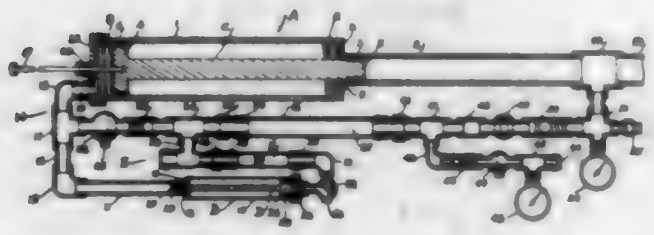
Application April 25, 1955, Serial No. 503,681
13 Claims. (Cl. 60—53)



1. In a power hoisting system a hydraulic transmission comprising: a source of pressurized fluid; a reservoir; a hydraulic motor-pump having a fluid connection and being adapted to be driven in one direction to deliver mechanical power when supplied with pressurized fluid at said fluid connection and to deliver pressurized fluid at said connection when mechanically power driven in the opposite direction; conduit means connected between said source, reservoir, and said fluid connection in said motor-pump to provide flow paths from said source to said motor-pump and from the latter to said reservoir; first valve means interposed in said conduit means and having three operative positions, to wit, a "stop" position in which said fluid connection is absolutely blocked, an "up" position in which said source is communicated with said fluid connection in said motor-pump, and a "down" position in which said fluid connection in said

motor-pump is communicated with said reservoir; second valve means interposed in said conduit means and movable to a "reduced speed" position to partially open said conduit means to permit restricted flow of fluid through said fluid connection in said motor-pump; and an actuator mechanically linked to said two valve means, said actuator being movable in either direction from a central position to opposite limits of a given path, said actuator being so linked to said first valve means as to hold the same in said "stop" position when in said central position and move said first valve means to said "up" position when moved to one of said limits, and move said first valve means to said "down" position when moved to the other of said limits, said actuator also being so linked to said second valve means as to move the same to said "reduced speed" position upon initial movement of said actuator in either direction from said central position thereof.

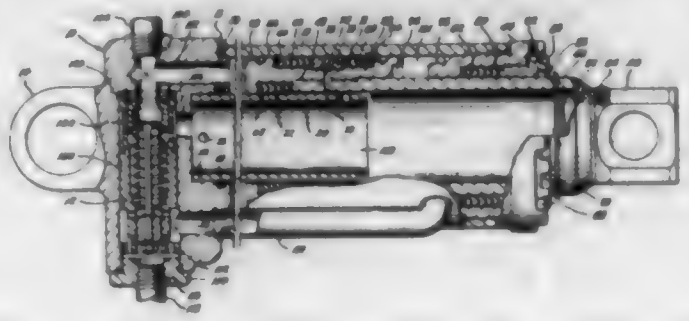
2,869,326
PORTABLE COMPOUND PRESSURE BOOSTER
Robert E. Wallace, Sr., Smithfield, Ohio
Application July 13, 1955, Serial No. 521,717
6 Claims. (Cl. 60—54.5)



1. In a hydraulic pressure booster, in combination, a pair of spaced differential cylinders having differential pistons mounted therein, a conduit connecting the inlet end of the first of said pair of cylinders and the outlet end of the second of said pair of cylinders, means forming a connection between the outlet end of the first named cylinder and a device to be pressurized, a fluid supply line connecting the said conduit with said means, an inlet connection on said fluid supply line for attachment to a source of fluid supply, a check valve in said fluid supply line between said inlet and said conduit preventing flow of fluid from the conduit to the iinlet, a valve in said fluid supply line between said check valvé and conduit controlling flow of fluid from the said inlet to the said conduit and exhausting fluid from the conduit, a second check valve in said fluid supply line between said inlet and the said means preventing flow of fluid from said means to said inlet, a second fluid supply line from said inlet connection to the inlet of said second named cylinder, and a valve in said latter fluid supply line selectively admitting fluid to said second named cylinder and exhausting fluid therefrom.

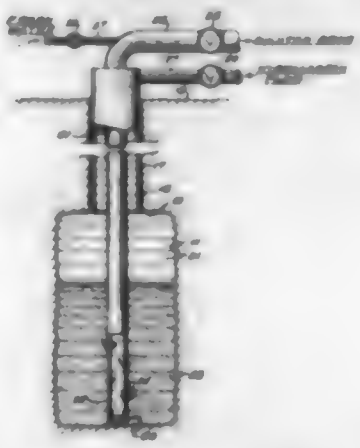
2,869,327
HYDRAULICALLY OPERATED POWER MECHANISM
William D. Symmank, Houston, Tex., assignor to Crown Engineering Corporation, Houston, Tex., a corporation of Texas
Application July 22, 1957, Serial No. 673,283
8 Claims. (Cl. 60—97)

1. In hydraulic power mechanism the combination with first and second expansible power chambers and an expansible retracting chamber arranged to be retracted upon expansion and to be expanded upon retraction of said power chambers, of means forming a passageway in communication with said chambers, means responsive to the pressure of fluid in said first chamber for closing the passageway at a point between said source and said second chamber and said retracting chamber when the pressure in said first chamber falls below a predetermined pressure and for closing the passageway between said power chambers and said retracting chamber when the



pressure in said first chamber exceeds said predetermined pressure.

2,869,328
METHOD AND APPARATUS FOR OPERATING UNDERGROUND STORAGE CAVERNS
Robert M. Gibson, Sour Lake, and Karl C. ten Brink and Austen M. Shook, Houston, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
Application October 12, 1953, Serial No. 385,590
7 Claims. (Cl. 61—.5)

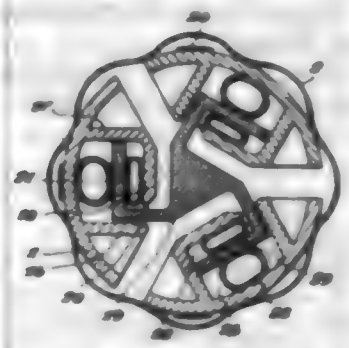


1. In a method for operating an underground storage cavern wherein the flow into said cavern of the fluid to be stored is accompanied by the displacement of a stream of a highly concentrated solution of solute in liquid at a relatively high temperature out of said cavern through a conduit having an inlet in said cavern and a section at a relatively low temperature in which solute normally precipitates out of solution and accumulates on the walls of said conduit, the improvement which comprises introducing a flowing stream of diluting liquid into said conduit at a point between said inlet and said section to reduce the concentration of solute in said solution and thereby substantially prevent solute from precipitating out of solution at said relatively low temperature, whereby to prevent clogging of said conduit by precipitated solute.

2,869,329
EXPANSIBLE MANDREL
André Paul Jourdain, Embourg-lez-Liege, Belgium, assignor to Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme, Liege, Belgium
Application January 12, 1954, Serial No. 403,571
Claims priority, application France December 14, 1953
14 Claims. (Cl. 61—79)

1. An expansible mandrel responsive to driving means for sinking tubes into the ground, comprising an inner core structure including a longitudinally extending central member having its upper end adapted to be subjected to a driving force applied by said driving means and an enlarged base including an upper face and mechanically secured to said central member for receiving the driving forces transmitted by the central member, individual longitudinal sectors arranged around said inner core structure

and having their upper ends adapted to be subjected to the driving force from said driving means and their lower ends arranged to rest on the upper face of said enlarged base in operative driving position, first radial guide means on said inner core structure, second radial guide means provided on each of the sectors and each cooperating with the first guide means for radially guiding the sectors with respect to the inner core structure while prohibiting rela-



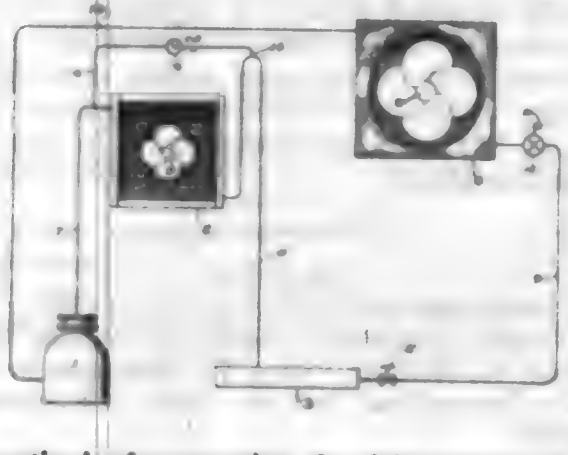
tive axial movement of the sectors with respect to the latter, elastic means between each of the sectors and the central member and tending to move the sectors towards the central member in order to contract the mandrel, and fluid pressure means between each of the sectors and the central member in order to cause the mandrel to expand against the action of the elastic means with fluid pressure applied in the pressure means.

2,869,330

MEANS AND METHOD FOR CONTROLLING HIGH SIDE PRESSURE IN HEAT TRANSFER SYSTEMS OF THE COMPRESSION TYPE

Daniel E. Kramer, Trenton, N. J., assignor to Mercer Engineering Co., Trenton, N. J., a co-partnership

Application March 8, 1955, Serial No. 492,886
9 Claims. (Cl. 62—117)



7. A method of preventing the fall below a predetermined minimum of high side pressure in a compression type heat exchange system having a circuit including compressor, condenser, receiver and evaporator, which method comprises the steps of providing an up-rising column of liquid at the condenser outlet, restraining the downward pressure of the column when the high side pressure of the system is above the predetermined minimum, and interrupting said restraint upon drop of the high side pressure to the said minimum.

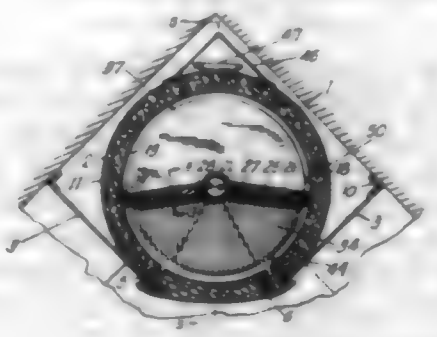
2,869,331

REFRIGERATOR WITH FREEZING AND NORMAL COOLING COMPARTMENTS

Raymond E. Koon, Scottville, Mich.

Application September 12, 1955, Serial No. 533,631
10 Claims. (Cl. 62—207)

1. A refrigerator comprising a cylindrical insulated body having insulated top and bottom end walls and a door opening in the front of the body closed by an insulated door, a cabinet enclosing and supporting said body and having side walls extending at right angles to each other and tangent to said body and open at the bottom to the front of the cabinet through openings formed in the lower portion of the cabinet, said side walls and said body forming a flue at the rear of the cabinet, a hollow column rotatably mounted in an upright position centrally of said body and having a non-heat conducting portion extending through the top wall of the body, an insulating partition carried by said column within said body and having angularly spaced seals along its edges slidably engaged with the inner cylindrical wall and inner end walls of the body, shelves secured to said column and partition on opposite sides of said partition to rotate with said column within said body, evaporators secured to the shelves on one side of said partition and to at least one of the shelves on the



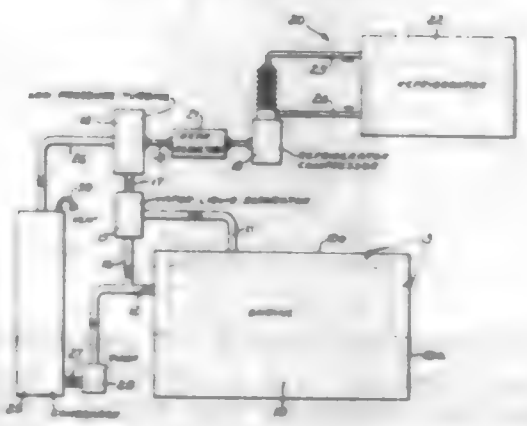
other side of the partition, refrigerant conduits carried within said column and connected to said evaporators, a compressor positioned in the upper end of said cabinet, a condenser positioned in said flue and connected to said compressor, said conduits extending through said non-heat conducting portion of said column and having flexible sections connected to said compressor and said condenser, coacting stops on said partition and the wall of said body limiting rotation of the partition to less than a complete revolution and control means connected to regulate operation of said compressor and said evaporators to maintain different temperatures in said body on opposite sides of said partition.

2,869,332

REFRIGERATOR DRIVE UTILIZING WASTE HEAT

Philip B. Keller, Los Angeles, Calif., assignor to Robert T. Collier, Los Angeles, Calif.

Application September 13, 1954, Serial No. 455,480
1 Claim. (Cl. 62—238)



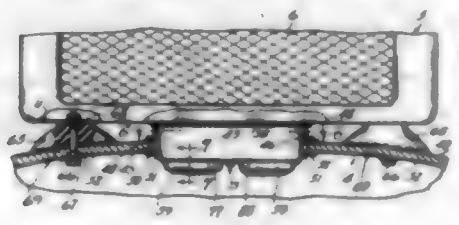
In a refrigerator apparatus, the combination of: a heat-producing system having a coolant jacket; a coolant inlet and a coolant outlet in said jacket; a refrigerator having a refrigerant compressor; a turbine operatively connected with said compressor, said turbine having a vapor inlet and an exhaust; means connecting said coolant outlet to said vapor inlet; a condenser disposed to receive and condense the vapor from said turbine exhaust; conduit means connecting said condenser to said coolant inlet; and pump means in said conduit means to return condensed liquid to said coolant jacket.

2,869,333

AIR CONDITIONER FOR AUTOMOTIVE VEHICLES AND CONTROLS THEREFOR

James C. Holby and Robert L. Westrum, Minneapolis, Minn., assignors to D. W. Ovan & Sons, Inc., Minneapolis, Minn., a corporation of Minnesota

Application August 1, 1956, Serial No. 601,536
4 Claims. (Cl. 62—239)



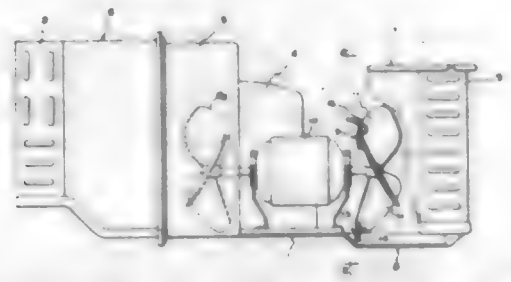
4. In an air conditioning device for automotive vehicles, a housing including a base frame, means for anchoring said base frame to the top surface of a vehicle passenger compartment roof, said means comprising a plurality of resilient feet adapted to conform to the contour of said top surface and anchoring screws extending downwardly through said feet and adapted to project through spaced openings in said roof, said air conditioner including, an evaporator, a blower, and a motor for said blower supported on said base frame within the housing, a short tubular head secured to the base frame and extending downwardly therefrom, said tubular head being adapted to project downwardly through an opening in said roof and defining a conditioned air delivery passage to said compartment and a return air passage therefrom, conduit means within said housing connecting said air delivery passage to one side of said evaporator and connecting said return passage to the opposite side of said evaporator, said blower defining a portion of said conduit means, and control means for said motor and including manually operated control elements mounted on the projected end of said head and control connections extending into said housing to said motor from the interior of said head.

2,869,334

ROOM AIR CONDITIONER CONDENSATE DISPOSAL MEANS

Leonard W. Atchison, Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application September 21, 1956, Serial No. 611,101
1 Claim. (Cl. 62—280)



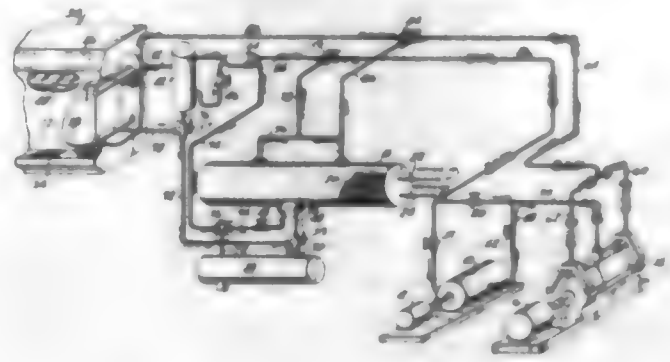
In an air conditioning unit of the type having a compressor, an evaporator and a condenser connected in refrigerant flow relationship for cooling an enclosure, the combination comprising a fan rotatably mounted in said unit for circulating a stream of air through said unit, a sump for collecting condensate water from said evaporator, said sump having at least a portion thereof positioned underneath said fan, a plurality of resilient members each having one end rigidly attached to a blade of said fan with the other end lying adjacent the periphery of said fan blade, said free ends of said resilient members being forced outwardly from the periphery of said fan by centrifugal force during the rotation of said fan, said outwardly forced ends dipping into said condensate water in said sump and beating said water into fine droplets whereby said condensate water is carried off in said air stream, the free ends of said resilient members assuming a position adjacent the periphery of said fan and entirely free from said condensate water when said fan is not rotating.

2,869,335

AIR CONDITIONING AND HEATING SYSTEMS

Robert G. Werden, Jenkintown, Pa., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application June 27, 1955, Serial No. 517,971
5 Claims. (Cl. 62—324)



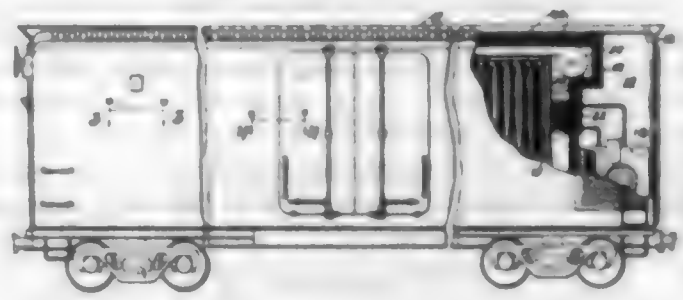
1. A reversible refrigerating system utilizing a volatile refrigerant for heating or cooling a conditioning medium comprising a first heat-exchanger and means for supplying outside air thereto; a second heat-exchanger and means for supplying the conditioning medium thereto; compression means for said volatile refrigerant; means connecting said heat-exchangers and compression means in a closed refrigerant circuit; means for serially directing the refrigerant from said compression means through said heat-exchangers, first through said first heat-exchanger when cooling said conditioning medium or first through said second heat-exchanger when heating said conditioning medium; means for expanding the refrigerant in the second heat-exchanger of the series; and means for operating said compression means on single stage compression when said conditioning medium is being cooled and on compound compression in heating said conditioning medium.

2,869,336

REFRIGERATING APPARATUS

John M. Smidl, Wheaton, Corless B. Nelson, Chicago, and Swen W. Neilson, Lyons, Ill., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 15, 1955, Serial No. 528,253
3 Claims. (Cl. 62—405)



1. In a refrigerated car, means forming a lading storage space having a wall structure comprising an outer metallic sheet, an intermediate metallic sheet, insulation between said outer sheet and said intermediate sheet, an inner sheet adjacent said intermediate sheet and forming with said intermediate sheet an air passage for receiving refrigerated air for cooling said storage space, means including an evaporator for refrigerating air, and means including a fan for circulating said rferigerated air in thermal exchange relationship with said evaporator and thereafter through said air passage, said insulation comprising a rigid slab of foamed polystyrene laminated with

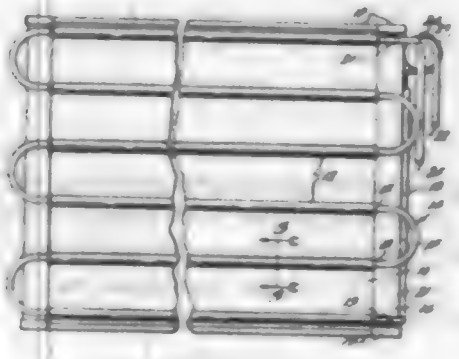
polyisocyanate foam type insulation, said polyisocyanate foam type insulation being bonded to said outer metallic sheet, to said insulating slab and to said intermediate metallic sheet so as to form a composite barrier of insulation between said outer and intermediate sheets.

2,869,337

REFRIGERATION EVAPORATOR WITH CLINCH-TYPE PLATES

William A. Collins, Dowagiac, Mich., assignor to Rudy Manufacturing Company, Dowagiac, Mich., a corporation of Michigan

Application August 6, 1953, Serial No. 372,758
11 Claims. (Cl. 62—516)



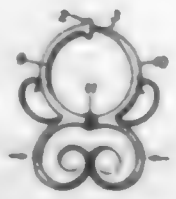
2. An evaporator formed from two continuous sinuously formed tubes having straight portions joined by oppositely disposed loop ends, two plates, each having channel portions receiving the straight portions of the formed tube mated therewith and clinched thereabout, end members selected to space said plates a desired distance apart to form a closed assembly of desired capacity, a cross-connecting tube of sinuous form interconnecting the two formed tubes which are clinched respectively to the spaced plates, and a clip for retaining the sinuously formed cross-connecting tube against the adjacent end members.

2,869,338

EARRING HAVING TWO ENGAGING SPRING BIASED PARTS

Jorgen Holst Norgaard and Erika Charlotte Norgaard, nee Weissenberg, Caracas, Venezuela, said Erika Charlotte Norgaard assignor to said Jorgen Holst Norgaard

Application November 5, 1953, Serial No. 390,326
1 Claim. (Cl. 63—12)



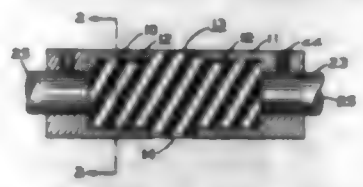
An ear-ring adapted to pierce the ear of the wearer comprising first and second E-shaped members each having rigid arcuate upper legs and resilient arcuate lower legs, a disc secured to the upper end of said upper leg of one of said members perpendicular thereto, the upper end of the other of said upper legs being tapered to a point, said members being disposed with the legs facing each other and having a pivot for pivotally securing the center legs of the said E-shaped members one to the other, the lower ends of said resilient arcuate lower legs resiliently abutting one another to bias said pointed end of said other upper member into engagement with said disc, said upper legs being rotatable about said pivot upon said lower legs being compressed one toward the other to space said point from said disc.

2,869,339

FLEXIBLE COUPLING AND METHOD OF MAKING SAME

Robert T. Drake, Parma, Ohio, assignor, by mesne assignments, to Clevite Harris Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application December 7, 1956, Serial No. 626,877
5 Claims. (Cl. 64—11)



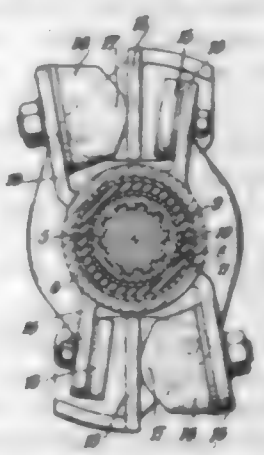
1. In a flexible coupling for transmitting a given amount of force, a first and a second hollow end fitting each having a given internal diameter; a substantially solid bar of distortable, resilient, rubber-like material having a first and a second end portion, the OD of the first end of said bar in its undistorted condition being greater than the ID of said first hollow fitting, and the OD of the second end of said bar in its undistorted condition being greater than the ID of said second hollow end fitting; the first and second end portions of said resilient, rubber-like bar being forced, respectively, into said first and second hollow end fittings for assembling the end fittings thereon and establishing a central portion of said substantially solid resilient bar free from contact with either of said end fittings, the first and second end portions of said resilient bar being severely distorted in their assembled condition, the amount of distortion of said substantially solid rubber-like material and its resiliency being such that its tendency to expand from its distorted condition establishes high frictional forces between its OD and the ID of the said end fittings sufficient to hold said distorted end portions fixed with respect to said end fittings as said coupling device transmits said given forces from one end fitting to the other.

2,869,340

SHAFT ASSEMBLIES

Frederick Richard Saberton, Leicester, England, assignor to Metalastik Limited, Leicester, England

Application June 20, 1957, Serial No. 666,862
Claims priority, application Great Britain July 16, 1956
4 Claims. (Cl. 64—11)



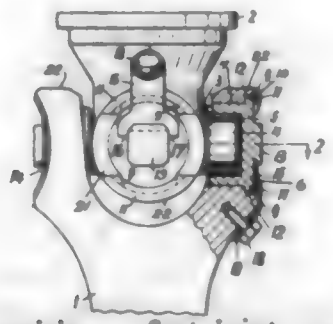
1. A shaft assembly comprising a pair of concentric shafts nested one within the other, a sleeve of rubber-like material therebetween, said sleeve being provided to transmit drive from one shaft to the other with a certain torsional flexibility and being the only support between the shafts, a pair of diametrically opposed radial members carried by one of the shafts and at least a pair of rubber-like blocks carried by the other shaft to be on the same side of the diametrical plane through said radial members, at least one buffer block of each pair being angularly spaced from the radial member with which it engages to transmit said drive when said torsional flexibility is exceeded.

2,869,341

JOINT, IN PARTICULAR UNIVERSAL JOINT

Josef Guambs, Stuttgart-Wangen, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany

Application December 5, 1955, Serial No. 551,164
Claims priority, application Germany December 14, 1954
6 Claims. (Cl. 64—17)



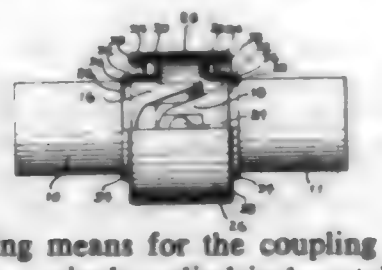
4. A joint comprising a first joint member, a second joint member, a joint bolt member connecting said first joint member and said second joint member with one another for universal movement thereof, bearing cups arranged in said joint members for supporting said joint bolt member therein, locking means in the form of a bayonet lock for axially securing said bearing cups in said joint members, said bearing cups including a polygonal projection at one end thereof, a locking element in the form of a locking plate extending radially at said one end of said bearing cup and being provided with a recess adapted for partially embracing said polygonal projection and means for detachably connecting said locking plate to said joint member.

2,869,342

SEALING MEANS

George B. Stillwagon, Jr., Dayton, Ohio, assignor of one-half to Kenneth G. Fraser, Dayton, Ohio

Application May 14, 1954, Serial No. 429,759
3 Claims. (Cl. 64—32)



1. In a sealing means for the coupling members of a universal joint, a single cylindrical metallic sleeve surrounding said joint and of larger diameter than the coupling members of said joint, a pair of pliable annular sleeve members bridging the gap between the ends of said sleeve and the coupling members of said joint and supporting said sleeve in floating relation to said joint, said pliable members arching internally of said sleeve and being of substantially U-shaped cross-section such that one surface of each pliable member contacts both the exterior surface of a coupling member and the interior surface of said metallic sleeve, a compressible metallic ring securing one end of each pliable member to the exterior surface of one of said coupling members, and an expansible ring securing the other end of each of said pliable members to the inner surface of each end of said cylindrical sleeve.

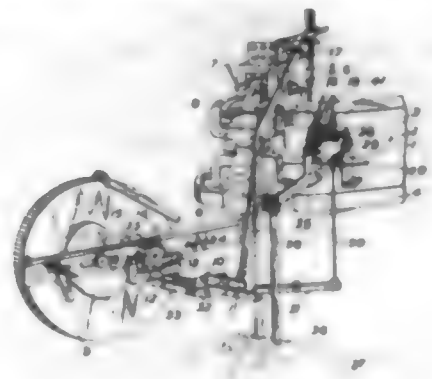
2,869,343

KNITTING MACHINE

Ralph Norman Toone, Burton Joyce, England, assignor to B. Toone (Nottingham) Limited

Application December 18, 1953, Serial No. 399,875
Claims priority, application Great Britain February 26, 1953
11 Claims. (Cl. 66—134)

1. The combination in a circular knitting machine of a yarn feeder, means for causing yarn from the feeder to knit and not to knit in each of certain courses, a binder inside the needle circle adjacent the feeder appropriate to receive the yarn when not knitting, a cutter blade which is in a plane substantially perpendicular to the direction of reciprocation of the needles and is closely over the immediate rear of the hook of a needle partly



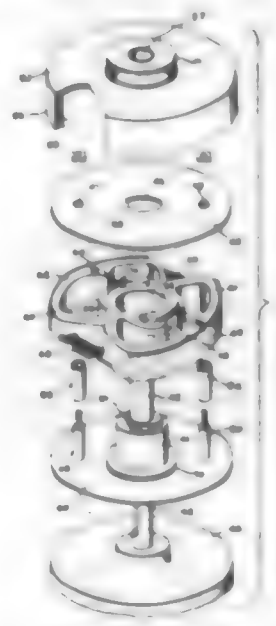
raised at a location just after knock over appropriately for engaging that end of the non-knitting yarn nearest the fabric, and means operating in timed relation with the change from knitting to non-knitting of the yarn for operating the cutter to cut the non-knitting yarn when said end becomes disposed at said location.

2,869,344

CENTRIFUGAL CLUTCH FOR CLOTHES WASHING MACHINE

John Bochan, Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application March 6, 1957, Serial No. 644,381
10 Claims. (Cl. 68—12)



1. In a clothes washing machine having a tub, a spin extractor basket in said tub, washing means in said basket, water supply means feeding into said tub, a drive motor for driving selectively said washing means and said basket to produce washing and extracting operations, means including a stepping clutch connecting said washing means and said basket to said motor, said clutch having two steps in at least one direction of rotation of its input member and progressing from the first step to the second step upon the stopping of said motor between rotations in said one direction, said clutch being ineffective to transmit torque in said first step and being effective to transmit torque in said second step, a pump driven by said motor and arranged to pump water from said tub into said basket when driven in said one direction, means responsive to the accumulation of a predetermined amount of water in said tub for shutting off said water supply means and for currently energizing said motor to rotate in said one direction, whereby the filling of the tub is terminated and the water is pumped into said basket with-

out said washing means being driven, and control means for temporarily de-energizing said motor after the water is pumped into said basket, thereby to cause said clutch to progress to said second step, and for then energizing said motor to rotate again in said one direction whereby said washing means is driven in said basket for the washing operation.

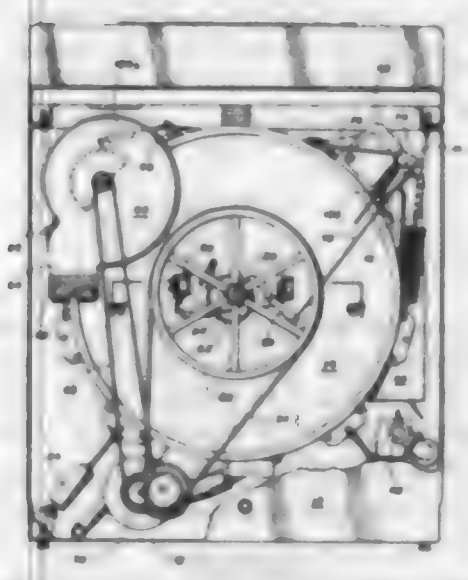
3. A stepping clutch having a no drive step and a drive step in at least one direction of rotation of its input shaft, said clutch comprising an output drum, a plurality of clutch weights disposed within said drum and rotatable with respect to said input shaft, said clutch weights being normally out of engagement with said output drum, drive means for driving said weights from said input shaft, whereby said weights move outwardly toward drum under centrifugal force, said drive means retaining said weights out of engagement with said drum during the first rotary operation of said shaft in said one direction, whereby said clutch is ineffective to transmit driving torque, and said drive means allowing said weights to engage said output drum upon the second rotary operation of said shaft in said one direction after a decrease in the speed of said shaft sufficient to release said weights from the effect of centrifugal force, whereby said clutch is effective to transmit torque.

2,869,345

COMBINATION WASHER AND DRYER

Donald M. Strathearn and Harold H. Jennings, Cincinnati, Ohio, assignors, by mesne assignments, to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application January 18, 1955, Serial No. 482,541
8 Claims. (Cl. 68—19)



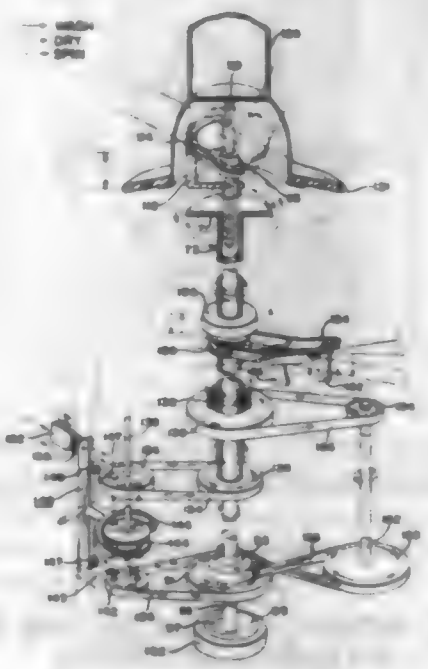
5. In a combination washer and dryer, having a rotatable clothes containing cylinder mounted for rotation in a tub where a tumble action washing and centrifugal extraction of washing fluid occurs, a resilient support and damping mechanism for said tub and cylinder unit allowing limited movement of said tub and cylinder unit, an air circulating flue on said tub having a flared downwardly directed opening of width comparable to said limited movement, and a heating element fixedly positioned under said flared opening in said air circulating flue whereby a portion of said flared opening is always above said heating element at all positions afforded by said limited movement and air heated by said heating element is carried into said flue for circulation into said tub and cylinder for drying clothes carried therein.

2,869,346

DOMESTIC APPLIANCE FOR WASHING, DRYING AND FLUFFING CLOTHES

Byron L. Bracken, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 2, 1955, Serial No. 532,236
6 Claims. (Cl. 68—19)



5. A washing machine including an upright centrifuging tub having a top opening, a coaxial first upright member rotatably mounted beneath the tub, an upright bearing between said member and said tub for rotatably mounting said tub upon said member, an agitator within said tub provided with a second upright member having an upright slidable nonrelatively rotatable connection with said tub, said second upright member having a portion extending above said bearing, one of said upright members being provided with an inclined bearing above said upright bearing and the bottom of the tub, the other of said upright members being provided with a first arm above said upright bearing and the bottom of the tub, a movable arm rotatably mounted on said inclined bearing above said upright bearing, a pivotal connection between said arms located above said upright bearing and the bottom of said tub, said arms and inclined bearing and pivotal connection being located substantially within said agitator, and means for rotating said coaxial first upright member relative to said tub to reciprocate said agitator up and down relative to said tub, and means for rotating said coaxial first upright member and said tub in opposite directions at different speeds.

2,869,347

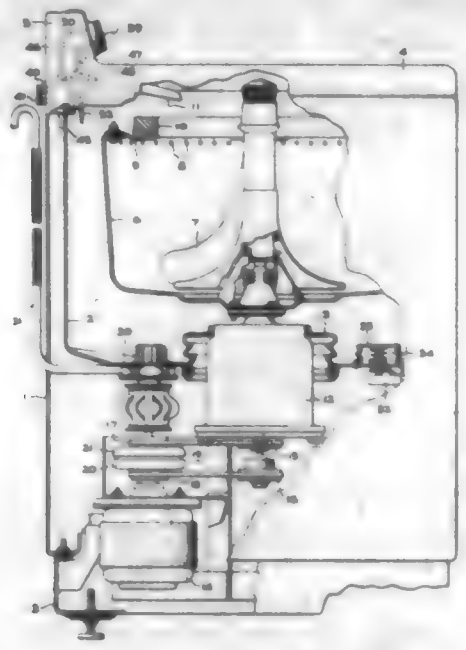
VARIABLE FILL CONTROL FOR AUTOMATIC WASHER

Walter E. Gray, Jr., Erie, Pa., and Kenneth A. Larkin, Los Angeles, Calif., assignors to General Electric Company, a corporation of New York

Application September 14, 1955, Serial No. 534,251
5 Claims. (Cl. 68—207)

4. In a clothes washing machine having a tub, a basket mounted within said tub, means for spinning said basket, and at least one electro-responsive water supply valve; a variable fill control comprising a switch operated in response to the amount of water in said tub to close said supply valve when said amount of water reaches a predetermined value, a conduit for carrying water from said valve into said basket, and means including adjustable valve means connected on the downstream side of said supply valve for diverting into said tub an amount of water proportional to the amount of water introduced into said basket, the adjustment of said valve means varying

the proportion between the amounts of water supplied to said tub and said basket, thereby to provide for filling



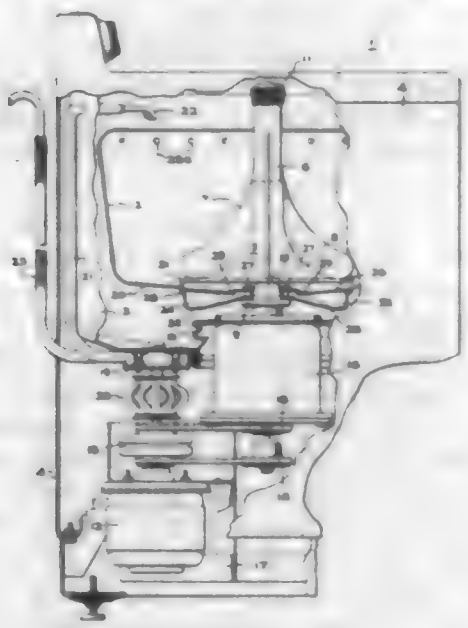
said basket to different levels before said switch closes said valve.

2,869,348

SEDIMENT REMOVAL MEANS FOR CLOTHES WASHING MACHINE

Winston L. Shelton, Jeffersontown, Ky., assignor to General Electric Company, a corporation of New York

Application November 14, 1955, Serial No. 546,740
4 Claims. (Cl. 68—208)



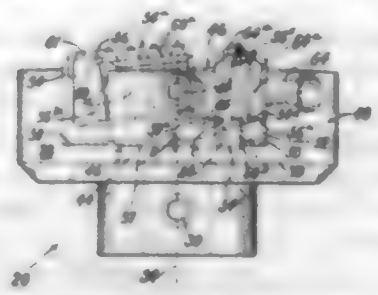
1. In a clothes washer, a substantially imperforate clothes basket, an imperforate tub enclosing said basket, an agitator disposed within said basket having a center post and an outwardly flared skirt on said center post, means supporting and driving said agitator with an oscillatory motion on the axis of said center post thereby to wash clothes in said basket, said oscillatory motion creating only limited turbulence under said agitator skirt whereby insoluble soil particles collect thereunder, means on said basket forming an enclosed soil trapping chamber under said agitator skirt, a plurality of perforations in the roof of said chamber for conducting said soil particles from said basket into said trapping chamber in a flow of liquid, and discharge means in the bottom of said chamber for discharging the liquid and said soil particles from said chamber into said tub during the washing operation, said discharge means having a smaller flow capacity than said perforations and controlling the rate of the soil carrying liquid flow from said basket into said tub, and means for returning the liquid discharged into said tub back to said basket.

2,869,349

OUTSOLE ROUGHING MACHINES

Alfred S. Mellor, Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application June 5, 1956, Serial No. 589,418
9 Claims. (Cl. 69—6.5)



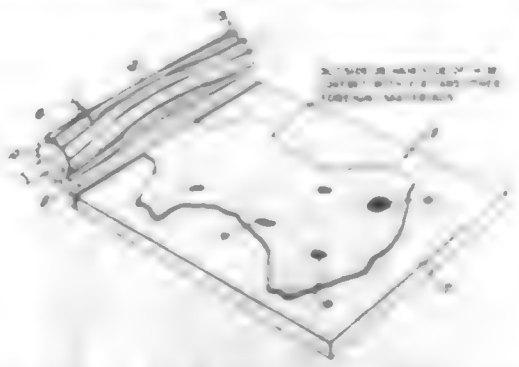
1. An end mill roughing tool rotatable in one direction about an axis and comprising a plurality of presser surfaces which face generally lengthwise of said axis and are spaced circumferentially about said axis and which are adapted to bear against a shoe part presented thereto, and rows of conical teeth which are arranged adjacent to and, with relation to the directions of movement of said presser surfaces, behind said surfaces and which project respectively uniform distances axially beyond the presser surfaces and are adapted to roughen said shoe part.

2,869,350

METHOD OF REMOVING DIRT AND MANURE FROM FRESH HIDES

Henry W. Bode, Milwaukee, Wis., assignor to The Chas. H. Stehling Company, Milwaukee, Wis., a corporation of Wisconsin

Application July 5, 1957, Serial No. 670,266
3 Claims. (Cl. 69—21)



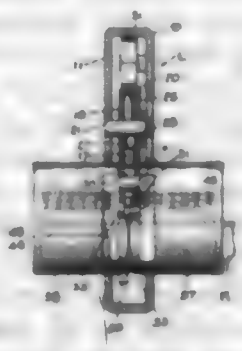
1. In the process of tanning leather, the characterizing steps of simultaneously putting out a fresh, green unsalted hide just as it is when first skinned off a carcass and removing manure therefrom; immediately thereafter fleshing the hide; and then salting the hide.

2,869,351

LOCK UTILIZING INTERLOCKING CYLINDERS

Henry D. Rolph, Dusseldorf, Germany, assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut

Application July 9, 1953, Serial No. 367,016
9 Claims. (Cl. 70—134)



9. In a lock of the class described, a case having opposed sides each of which is formed with an opening, a

key operated cylinder adapted to fit endwise against each side of said case in overlapping relation to the opening in that side, a cam on each cylinder entered into said case through the opening overlapped by that cylinder, means extending between said cylinders within said case and through which each cylinder holds the opposed cylinder whereby to secure both cylinders to said case, said cams being normally positioned relatively to the sides of said case to obstruct removal of said cylinders away from said case, and the key operation of each cylinder moving the cam on that cylinder out of obstructing position.

2,869,352

LOCK FOR BICYCLES AND THE LIKE

Gustav Naujokat, Wetter, Westphalia, Germany, assignor to Firma Wilhelm Schroeder, Wetter, Westphalia, Germany

Application August 6, 1956, Serial No. 602,284
Claims priority, application Germany May 15, 1956
6 Claims. (Cl. 70—227)



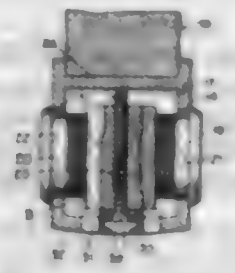
1. Bicycle lock with bar capable of swinging between the spokes, comprising a rotatable disc integral with the said bar and movable by means of a key provided with bitting having a slot perpendicular to the key shank, a casing accommodating said disc, a tumbler movable by means of the key against spring action and capable of obstructing rotation of said disc when the bar is at either end of its swing, and a strike channel attachable to one member of the fork of a bicycle to receive the free end of the bar in locked position.

2,869,353

LOCK SECURING MEANS

William B. Imhoff, Jr., Springdale, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut

Application August 23, 1954, Serial No. 451,575
8 Claims. (Cl. 70—370)



1. In a lock of the class described, a lock case adapted for insertion into an opening formed in the edge of a door, a pair of lock cylinders secured to said case for movement integrally therewith as a part of said case with one of said cylinders traversing an opening in one face of the door and the other cylinder traversing an opening in the other face of the door, threaded means on said lock case in position to coact with the door when the case is in the door edge opening for pressing the lock case in a direction outwardly of the door, and said threaded means by pressing the case bringing said cylinders against edge surfaces of the openings they traverse whereby to fix the position of the case relatively to the door.

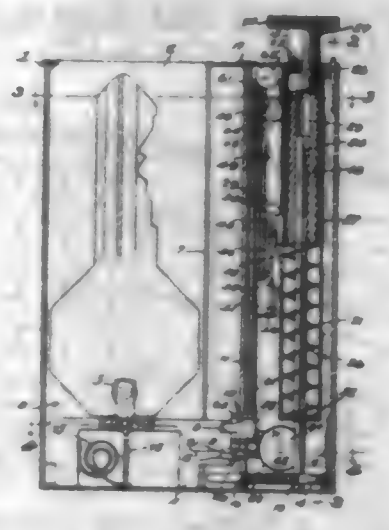
2,869,354

KEY HOLDING DEVICE

Walter Henry Huntley, Ben Lomond, Calif.

Application November 3, 1953, Serial No. 390,066
6 Claims. (Cl. 70—456)

1. A key container comprising a case having compartments, a slidable block in each compartment, a carrier mounted for slidable movement adjacent the blocks, a lug on the carrier adapted to engage a selected block, means for elevating the selected block comprising a plunger mounted for reciprocation in the case, a flexible



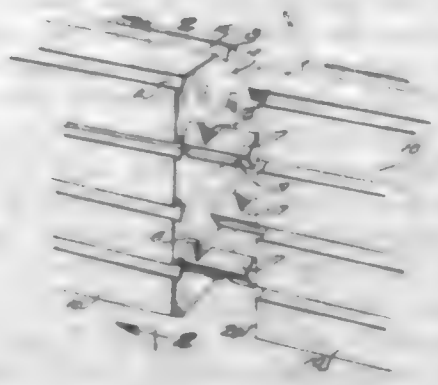
element connecting the carrier with the plunger whereby downward movement of the plunger through the flexible element moves the block and carries it upwardly in the case, and means for returning the carrier and the block to normal position within the case.

2,869,355

WALL CONSTRUCTION

Earl Truman Bowlden, Oroville, Calif.

Application November 6, 1956, Serial No. 620,752
1 Claim. (Cl. 72—33)



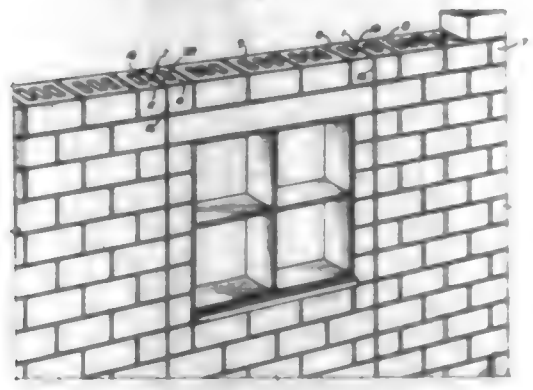
In a building wall construction, a plurality of superimposed beams, said beams being arranged in separate groups which are spaced from each other; said beams having V-shaped slots in each edge thereof, said beams also having enlarged V-shaped key retaining grooves positioned in surfaces thereof; the slots in the adjacent beams being arranged in opposed aligned relation with respect to each other and coacting to define spaces; the grooves in contiguous blocks being arranged in facing aligned relation with respect to each other so as to define chambers which are rectangular in cross section, said chambers being spaced inwardly from the sides of said beams and communicating with said slots; said slots and grooves being arranged so that an imaginary plane extending between meeting faces of the beams will bisect the spaces and chambers; a plurality of keys arranged in staggered formation with respect to each other, said keys being rectangular in cross section and having transversely disposed V-shaped slots spaced inwardly from the ends thereof, said keys being positioned in said grooves, the ends of the keys extended from ends of the beams in alternate fashion, and concrete studs positioned between ends of the beams and having the keys embedded therein, the slots in the keys being arranged in offset staggered relation with respect to each other.

2,869,356

CONTROL JOINT FOR BUILDING BLOCKS

George W. Kulhavy, Leawood, Kans., and Richard L. Coleman, Kansas City, Mo., assignors to The Carter-Waters Corporation, Kansas City, Mo., a corporation of Missouri

Application August 23, 1955, Serial No. 530,128
1 Claim. (Cl. 72—107)



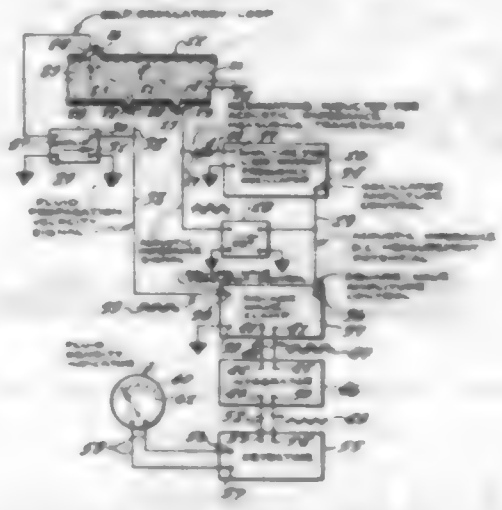
A control joint in a building wall structure composed of a plurality of preformed masonry blocks disposed in a plurality of superimposed horizontal courses with the blocks therein secured to adjacent blocks by mortar joints, said wall structure including two wall portions each of which has a substantially flat planar end surface extending for the height of the wall structure and being defined by the flat end faces of the blocks of the associated wall portion, said end surfaces being spaced from one another and defining a continuous vertical seam extending for the height of the wall structure, each of said end surfaces having a continuous vertically extending rectangular channel formed therein at the center of the width of said end surfaces and extending throughout the height of the wall structure, the channels in the end surface of one of said wall portions at one side of the seam being in opposed relation to the channel in the end surface of the other of said wall portions at the opposite side of the seam, each of said continuous channels having a pair of opposed side walls and a back wall, each of said side and back walls being substantially flat and planar, a joint member formed of rubber-like material and including an elongated substantially flat body portion having oppositely facing side faces, said body portion being of a length to extend for the height of the wall structure and of a thickness when initially unstressed greater than the spacing of the end surfaces of the wall portions defining the vertical seam whereby said side faces of the joint member are in tight frictional engagement with said end surfaces throughout the height of the wall portions, said joint member being of a hardness to remain erect and still yield to pressure of said wall portions whereby said side faces of the body portion substantially conform to the portions of each of the end surfaces of the wall portions engaged therewith and said body portion is compressed to a thickness substantially corresponding to the width of the mortar joints between adjacent blocks in the wall structure whereby said body portion is maintained in compression and the frictional engagement between said wall portions and the body portion resists relative lateral movement of the wall portions, and flanges of rubber-like material formed integral with the body portion and extending outwardly substantially normally therefrom at approximately midway of the width of the body portion, said flanges being of greater thickness than said body portion and having oppositely facing side surfaces and outer end edges extending substantially normally to said last mentioned side surfaces, said flanges extending oppositely into said vertical continuous channels in the end surfaces of the wall portions, the side surfaces of each of said flanges being in tight frictional engagement with the adjacent side walls of the associated channels and conforming thereto, and said outer end edges of said flanges being spaced from the back walls of the associated channels whereby the flanges form keys with the wall portions which in cooperation with the frictional engagement of the end surfaces of the wall portions with the side faces of the body member restrain the wall portions from relative lateral movement whereby the wall portions may expand and contract without cracking the wall structure.

2,869,357

CONTINUOUSLY INDICATING ELECTRO-ACOUSTIC DENSITOMETER

Jack Kritz, Flushing, N. Y.

Application June 17, 1954, Serial No. 437,360
18 Claims. (Cl. 73—32)



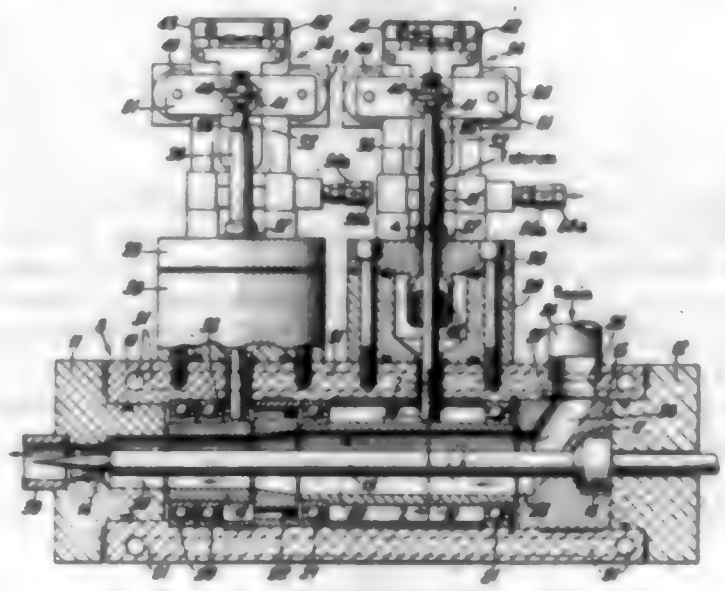
1. A densitometer of the class described, comprising: a fluid medium of which the density is to be measured: electroacoustic means for measuring the acoustic impedance of said fluid and producing an electrical quantity proportional to the impedance; second electroacoustic means for measuring the velocity of acoustic propagation in the fluid modifying means connected to said first mentioned means and the second means for removing from said electrical quantity a factor proportional to the propagation velocity of acoustic waves in said fluid medium; and means for deriving a density indication from said modifying means.

2,869,358

APPARATUS FOR MEASURING VISCOSITY

Charles G. Heisig, Ann Arbor, Mich., assignor to Union Carbide Corporation, a corporation of New York

Application February 21, 1957, Serial No. 641,647
5 Claims. (Cl. 73—60)



1. Apparatus for measuring continuously the viscosity of fluid in a continuous stream at a given rate of shear, comprising a casing having a chamber therein, a power-operated rotary cylindrical member extending axially through the chamber and being rotated at a predetermined constant speed, a cylindrical sleeve surrounding

said member in concentric, outwardly spaced relation thereto so as to define therewith an axially extending passageway of a predetermined radial dimension, said casing having inlet and outlet means connected with opposite ends of said passageway for passing said stream through said passageway, means mounting said sleeve for at least a limited turning movement in response to the torque applied thereto by the viscous forces developed in the fluid in said passageway under the rotating action of said rotary member, said sleeve having an outwardly projecting abutment, a fulcrumed lever extending radially through the casing into said chamber and having a free end in position to be engaged by said abutment for limiting movement of said sleeve, and means measuring the moment exerted on said sleeve by said lever for establishing the shear stress in said fluid at the known rate of shear.

2,869,359

INSTRUMENT FOR MEASURING THE MOISTURE AND TEMPERATURE OF SOIL

Alfredo M. Ollernann, Buenos Aires, Argentina, assignor of one-half to Maura Luise Herzfeld, nee Dahlem, Washington, D. C.

Application August 18, 1953, Serial No. 375,822
5 Claims. (Cl. 73—73)



1. In a soil testing apparatus; first and second moisture sensitive resistance cells connected in series with a first terminal leading to said first cell, a second terminal leading to said second cell, and a third terminal leading from between said cells, said first cell being sealed in an environment having a predetermined conductivity relative to the conductivity of the soil to be tested, a potentiometer having a movable tap and having one end connected to said first terminal, a switch having two contacts and an arm movable therebetween, said arm being connected to the other end of said potentiometer, one of said contacts being connected to said second terminal, a rheostat connected between the other of said contacts and said third terminal, and means for detecting the point of balance of the bridge connected between said third terminal and the said movable tap of said potentiometer.

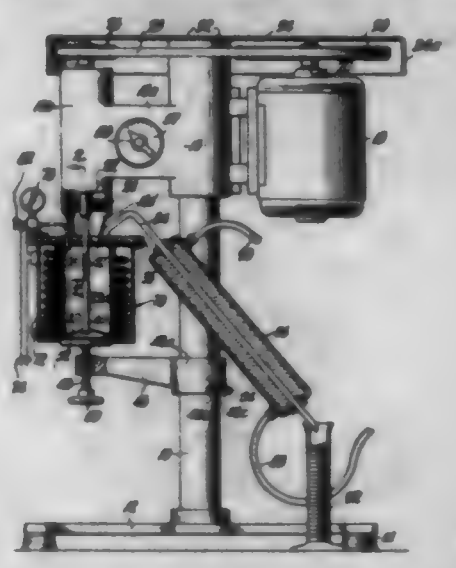
2,869,360

METHOD OF AND APPARATUS FOR TREATING MATERIALS

Frederick W. Stein, Atchison, Kans.

Original application August 4, 1954, Serial No. 447,877, now Patent No. 2,843,169, dated July 15, 1958. Divided and this application June 23, 1955, Serial No. 517,483
9 Claims. (Cl. 73—76)

1. In a device for testing the moisture content of grain or a like moisture-containing material, a cup for receiving the material to be tested, a cover for the cup detachably connected thereto to close the open top of the cup, a stationary support for said cover, a vertical power-driven shaft journaled in said support and extending downwardly through said cover with its lower portion received in said cup, a milling blade on said lower portion of the shaft, said cover containing an aperture offset from said shaft, a vapor discharge duct outside said cup having one end communicating with the interior of said cup via said



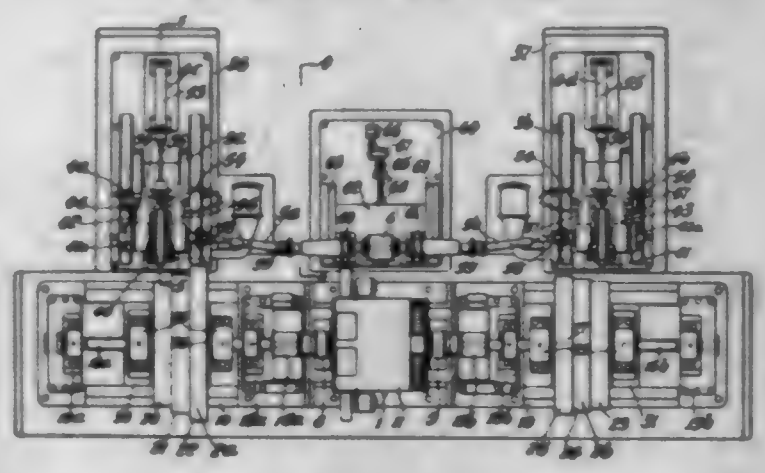
aperture, said cover being effective to hermetically seal said cup against the escape of moisture except through said duct, and means for cooling a portion of said duct.

2,869,361

METHOD AND APPARATUS FOR TESTING TIRES, BELTS OR THE LIKE

Ernest Frederick Powell, Wylde Green, and Harold John Lawton, Almondbury, England, assignors, by mesne assignments, to Dunlop Tire and Rubber Corporation, Buffalo, N. Y., a corporation of New York

Application June 16, 1955, Serial No. 514,622
Claims priority, application Great Britain June 11, 1954
18 Claims. (Cl. 73—146)



1. A method of measuring the power loss of a tire and for producing and measuring the torque simultaneously transmitted thereby comprising loading a tire into contact with the outer peripheral surface of a drum, driving the tire and the drum by means of a common motor and at different peripheral speeds whereby slip takes place therebetween, measuring the torque supplied by the motor in order to ascertain the tire power loss, measuring the speed of rotation of the tire and measuring the torque transmitted from the tire back to the motor in order to ascertain the torque transmitted thereby.

2,869,362

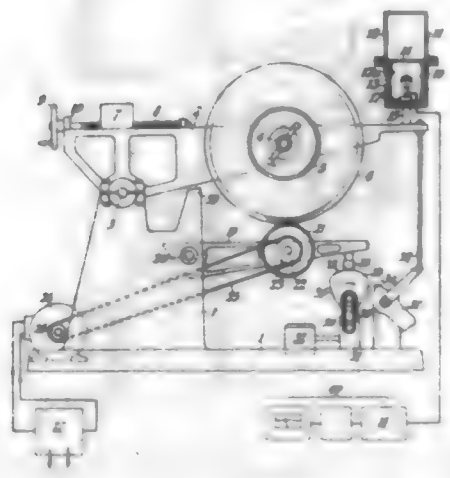
MACHINES FOR TESTING PNEUMATIC TIRES

Sidney Walter Gough, Sutton Coldfield, and James Anthony Morgan, Ward End, Birmingham, England, assignors, by mesne assignments, to Dunlop Tire and Rubber Corporation, Buffalo, N. Y., a corporation of New York

Application July 6, 1955, Serial No. 520,292
Claims priority, application Great Britain July 8, 1954
6 Claims. (Cl. 73—146)

1. Apparatus for detecting and indicating "tire thump" comprising a rotatably mounted support for a tire cas-

ing, a loaded rigid beam engaging and moving with said rotatably mounted support, a rotatable drum having a hard smooth outer surface engageable with the thread of a tire casing mounted on said support, an acoustic box mechanically connected to the beam, a microphone



within the box to detect "tire thump" sounds transmitted by the beam to the box and generated by movements arising from rotation of the casing in engagement with the drum surface, and an indicating unit responsive to the said sounds and including an amplifier and a circuit for indicating the thump effect.

2,869,363

BOTTOM HOLE WEIGHT INDICATOR

Marion A. Garrison, South Pasadena, Calif., assignor, by mesne assignments, to Johnston Testers, Inc., Houston, Tex., a corporation of Texas

Application February 28, 1955, Serial No. 491,028
4 Claims. (Cl. 73—151)



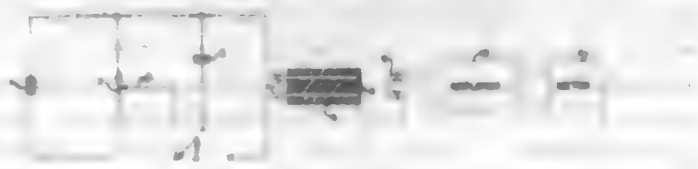
1. In a bottom hole weight indicator, a pair of telescopic members including complementary portions forming a pressure chamber adapted to be filled with a substantially incompressible fluid and having a volume dependent upon the relative positions of said members, pressure indicating means including a pressure-sensitive device mounted on one of said members and in fluid communication with said pressure chamber, there being a passage in at least one of said members extending between an end portion of one of said members and an opposite end portion of the other of said members, and means for connecting the aforesaid end portions of said members to a well string and to a well tool, respectively.

2,869,364

APPARATUS AND METHOD FOR NON-DESTRUCTIVE TESTING OF INITIATORS

Irving Kabik, Hyattsville, Md., and James N. Ayres, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Navy

Application January 27, 1953, Serial No. 333,628
3 Claims. (Cl. 73—167)
(Granted under Title 35, U. S. Code (1952), sec. 266)



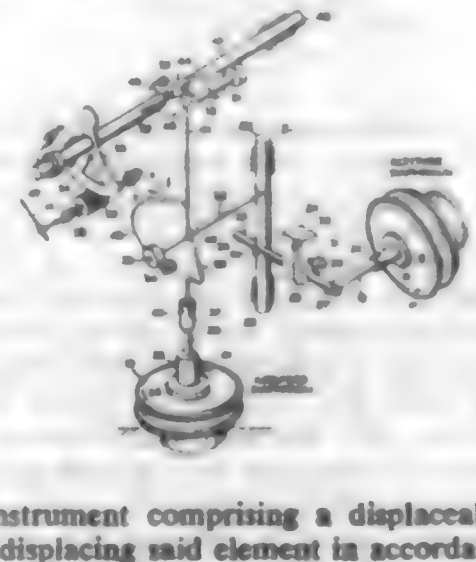
2. An apparatus for the non-destructive testing of initiators comprising, in combination, a circuit including a source of electrical energy, a potentiometer connected across said source, a condenser in said circuit chargeable by said source through said potentiometer to a charge level below that normally required for firing the initiator to be tested, means for connecting an initiator across said condenser whereby a discharge path is formed through the initiator, and means spatially displaced relative to the connected initiator for detecting and indicating the magnitude of the energy radiated by the conductive path of the initiator.

2,869,365

INSTRUMENT MOVEMENT CORRECTION MEANS

Harry G. Anastasia, Paramus, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application January 3, 1955, Serial No. 479,370
2 Claims. (Cl. 73—181)



1. An instrument comprising a displaceable element, means for displacing said element in accordance with the magnitude of a condition, an indicator, a rotatable shaft coupled to said indicator, an arm extending laterally from said shaft, a flexible member having an end fixed to the shaft and an end connected to the arm and having a cam surface in engagement with said displaceable element, and means for providing indicator movement as a desired function of the displacement of said element comprising means for altering the rotational position of said arm relative to said shaft whereby to vary the flexure of said flexible member.

2,869,366

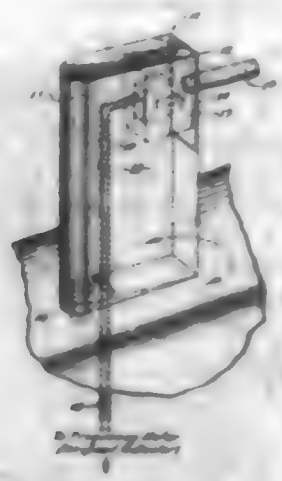
VORTEX FREQUENCY AIRSPEED INDICATOR

Arthur Nitikman, Inglewood, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application March 21, 1955, Serial No. 495,624
1 Claim. (Cl. 73—181)

An airspeed indicator comprising: a generally air foil shaped member adapted to project into an airstream, said member being pivotally mounted adjacent the leading edge

thereof to swing said member into the direction of said airstream, said member having a streamlined leading edge to separate said airstream and generate vortices, said member having sharp corners at the trailing edge thereof to discharge said vortices, sound conducting means



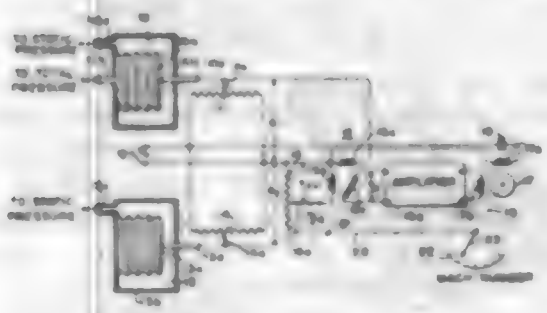
mounted aft of said trailing edge rearwardly of said member and projecting into free space in the region of said vortices, a microphone in said member, said sound conducting means being conductively connected to directly transmit the sound produced thereon by said vortices to said microphone.

2,869,367

FORCE-RATIO-RESPONSIVE SYSTEM

David W. Moore, Pacific Palisades, Calif., assignor to Servomechanisms, Inc., a corporation of New York

Application May 31, 1955, Serial No. 511,974
4 Claims. (Cl. 73—182)



1. A system for developing an effect representative of the ratio of two forces comprising: a synchro having a pair of electrically spaced exciting windings and a rotor winding; means for developing first and second electrical signals individually varying with said forces; circuits for individually applying said electrical signals to said exciting windings; servo means responsive to the signal developed in said rotor winding for adjusting the same to reduce said signal therein substantially to zero, the position of said rotor winding being representative of said ratio; and a resistance voltage divider connected to be excited by one of said electrical signals, said voltage divider having an adjustable contact, said contact being connected to its associated synchro winding, said contact being connected to be adjusted by said rotor winding and said voltage divider having a resistance-displacement characteristic proportioned to linearize said ratio representation.

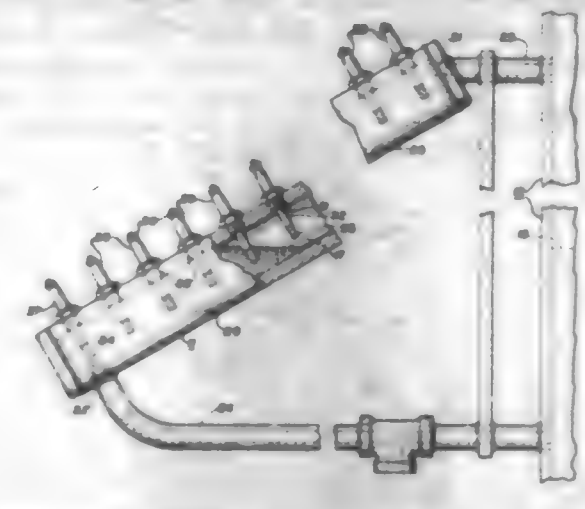
2,869,368

ELECTRICAL WATER GAUGE

John Rowland Brown, Cleveland, Ohio, assignor to The Reliance Gauge Column Company, a corporation of Ohio

Application August 5, 1955, Serial No. 526,640
9 Claims. (Cl. 73—304)

1. A liquid level gauge comprising, a liquid tube and an electrical circuit, said liquid tube having first and second fluid connections, means for connecting said first and second fluid connections to provide an interface in the tube between first and second fluids in accordance with the liquid level to be measured, said first and second fluids having relatively low and high resistivity, respectively, common terminal means in said tube, and a longitudinal row of electrical indicator probes insulatively extending through the wall of said tube, said electrical circuit including two voltage terminals, a first plurality of indicator lamps and a second plurality of indicator lamps with each plurality equal in number to the number of said indicator probes and with a lamp in each plurality corresponding to one of said indicator probes, circuit ele-



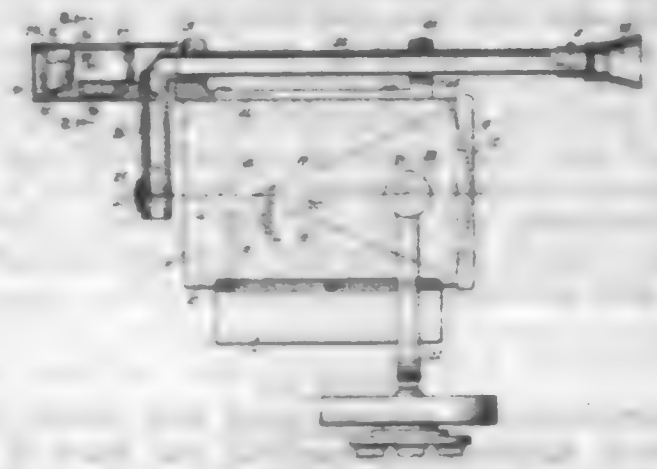
ment means for impressing a voltage on each of said indicator probes relative to said common terminal means from said voltage terminals to pass current between said common terminal means and those indicator probes immersed in said first liquid, circuit means including said circuit element means for effecting illumination of selected lamps of said first plurality in accordance with the immersion in said first fluid of the corresponding indicator probes, and circuit means including said circuit element means for effecting illumination of selected lamps of said second plurality in accordance with the immersion in said second fluid of the corresponding indicator probes.

2,869,369

OPTICAL PYROMETER

Sabert N. Howell, Huntington, N. Y., assignor to Servo Corporation of America, New Hyde Park, N. Y., a corporation of New York

Application December 1, 1955, Serial No. 550,356
8 Claims. (Cl. 73—355)



1. Electrically responsive radiation pyrometer, comprising an elongated housing, an electrically responsive heat-sensitive element within said housing, collecting optics carried by said housing and focusing collected heat energy on said element, said optics having an axis extending out one end of said housing, and visual-sighting optics including a periscope having a relatively small pick-up element on said optical axis, said periscope having a sighting element carried by said housing on an axis parallel to said optical axis, the field of view of said collecting optics being coaxially aligned with the field of view of said visual-sighting optics, an electrical indicator

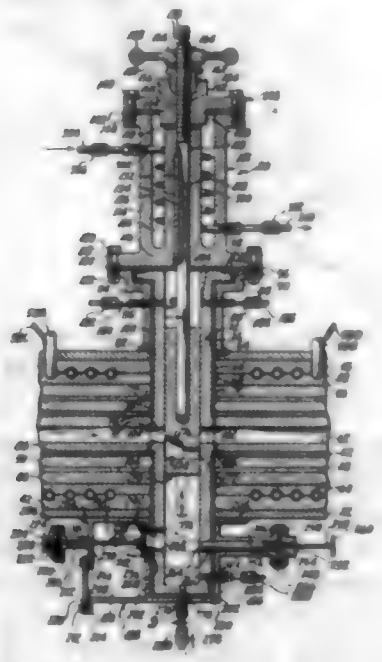
responsive to the output of said heat-sensitive element, and means optically displaying the reading of said indicating element in the field observed when looking into said sighting element.

2,869,370

COMBINED VALVE AND MOLTEN METAL SAMPLING DEVICE

George A. Pagonis, San Jose, Calif., assignor, by mesne assignments, to Light Metals Research Laboratory, Inc., San Jose, Calif., a corporation of California

Application September 13, 1956, Serial No. 609,583
15 Claims. (Cl. 73—422)



1. In combination, a valve guide and a valve mounted for reciprocation therein and being entirely contained therein, said guide comprising an elongated substantially hollow body member having a pair of opposed open and closed ends, an inlet port and an outlet port disposed intermediate said ends, and a closure member for said open end; said valve having a continuous passage formed therein and extending transversely therethrough and having an inlet side and an outlet side, said inlet side having a greater transverse area than said outlet side; means connected with said valve and extending through said closure member for actuation to effect reciprocation of said valve to its closed position or its open position wherein said inlet port, said inlet side, said outlet port and said outlet side are in open communication with each other; and said means being operable to move said valve relative to said guide to effect sealing of said outlet side of said valve against an adjacent portion of said guide while leaving a portion of said inlet side in open communication with said inlet port thereby forming a cavity to receive and retain material flowing through said inlet port and partially open said inlet side.

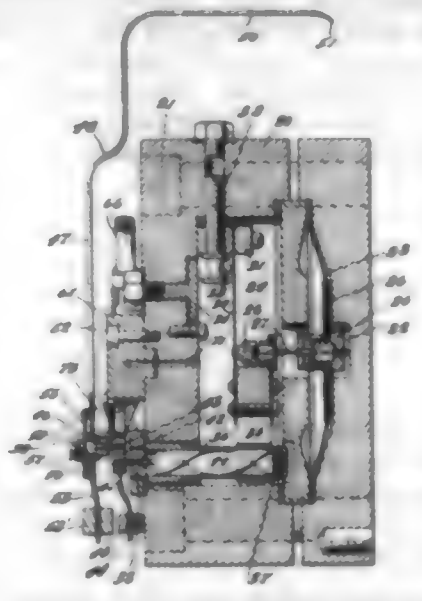
2,869,371

COMPENSATING MECHANISM FOR INDICATOR

Walter J. Kinderman, Philadelphia, and James W. Williams, 3rd, Lansdale, Pa., assignors to Yarnall-Waring Company, Philadelphia, Pa., a corporation of Pennsylvania

Application June 6, 1955, Serial No. 513,281
7 Claims. (Cl. 73—432)

1. In an indicator, a rotatable primary indicator shaft turning on the shaft axis responsive to a primary variable, a crank arm mounted on the primary indicator shaft and turning in an arc about the shaft axis, a pointer pivoted to the crank arm and turning on a crank pin pivot having an axis parallel to the shaft axis, the pointer turning with turning of the primary indicator shaft, a compensating element pivoted to the pointer on a pivot axis parallel to the shaft axis, and means for adjusting the relative position of one of the shaft axes, the crank pin axis and the pivot axis to one of the others in response to an independent variable, the pivot axis lying between the shaft axis and the crank pin axis throughout the range of adjustment.

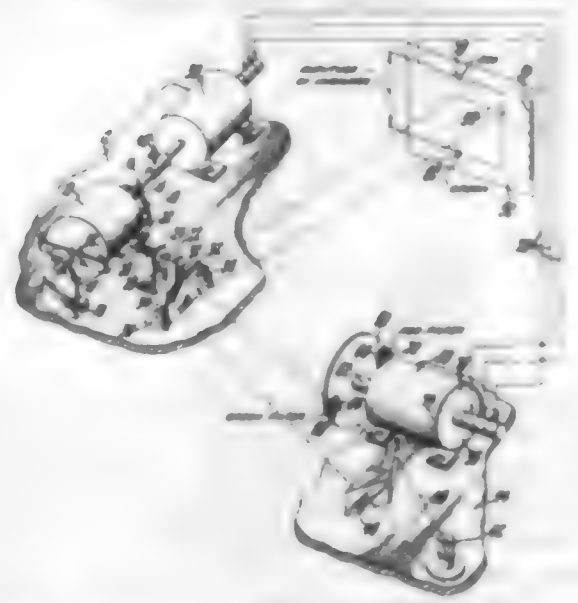


2,869,372

BALANCING MACHINE

Kosmo E. Silvonen, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 3, 1953, Serial No. 396,844
3 Claims. (Cl. 73—460)



3. Means for measuring the amount of unbalance in a rotating workpiece comprising, a pivotally mounted reflector, means for projecting a band of parallel light rays onto said reflector, a screen disposed remote from said reflector to receive said band, said reflector being operatively interconnected with said workpiece to move in response to vibrations in said workpiece to produce a light pattern on said screen having a size proportional to the magnitude of unbalance in said workpiece, a shutter wheel having the periphery thereof disposed in front of said reflector for intercepting only a limited portion of said band and allowing the remaining portions of said band to be continuously reflected onto said screen, said periphery having a first aperture with a filter of one color therein and a second aperture diametrically opposite thereto with a filter of another color therein, said shutter wheel being synchronously driven with said workpiece with said first aperture producing a first series of light flashes of said color and said second aperture producing a second series of light flashes of said second color, said flashes of light being directed onto said reflector and reflected onto said screen to produce a bright spot of said

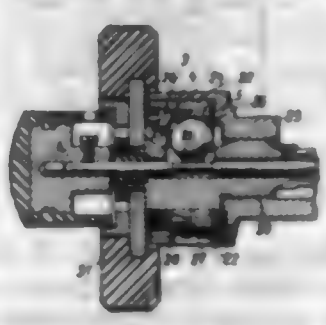
first color and a bright spot of said second color immediately adjacent said light pattern, calibrated means for adjusting the phase of said shutter wheel relative to said workpiece whereby said colored spots will move relative to said pattern.

2,869,373

COARSE AND FINE MOVEMENT FOR OPTICAL INSTRUMENTS, ESPECIALLY MICROSCOPES

Otto August Karl Erbe, Karl Hartwig, and August Rakebrandt, Gottingen, Nether-Saxonia, Germany, assignors, by mesne assignments, to Carl Zeiss, Heidenheim on the Brenz, Wurttemberg, Germany

Application March 30, 1954, Serial No. 419,676
Claims priority, application Germany April 11, 1953
5 Claims. (Cl. 74—10.52)



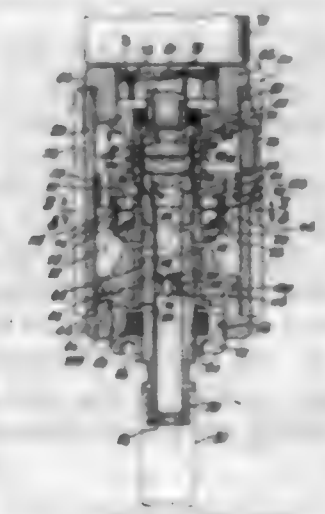
1. In a coaxial coarse and fine movement for optical instruments with precision adjustment, especially for microscopes having a fine movement shaft and a coarse movement shaft, as well as a ball friction means, whose fine movement shaft is situated in said coarse movement shaft, and in which with said shafts said ball friction means is arranged and in which the coarse movement shaft is fashioned as a ball cage for the balls of said ball friction means, means to avoid play of the balls in said coarse movement shaft and means to avoid back lash between the coarse movement shaft and the fine movement shaft, said means to avoid back lash between the coarse movement shaft and the fine movement shaft being displaceable parallel to the fine movement shaft, stationary means to prevent said slidable means from turning.

2,869,374

MECHANICAL HAMMER

Joseph Morris, Los Angeles, Calif.

Application March 5, 1956, Serial No. 569,440
19 Claims. (Cl. 74—22)



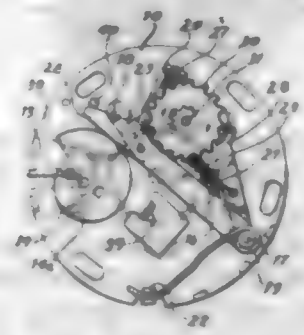
1. In a rotary hammer, the combination of: two cam members relatively rotatable about and relatively reciprocable along an axis and respectively provided with cam surfaces thereon, said cam surfaces facing each other and extending generally transversely of said axis, each of said cam surfaces being provided therein with circumferentially spaced cavities having substantially flat bottom walls and having side walls substantially perpendicular to said bottom walls, said cavities in one of said cam surfaces being cylindrical and said cavities in the other of said cam surfaces being elongated and radially oriented; balls respectively disposed in and projecting from said cylindrical cavities in said one cam surface; and rollers respectively disposed in and projecting from said elongated cavities in said other cam surface and engageable with said balls in said cylindrical cavities in said one cam surface so as to produce relative reciprocation of said cam members in response to relative rotation thereof.

2,869,375

STEP-BY-STEP RATCHET DRIVE

Melvin R. Lewis, Elmhurst, Ill., assignor, by mesne assignments, to Controls Company of America, Schiller Park, Ill., a corporation of Delaware

Application July 25, 1955, Serial No. 524,013
5 Claims. (Cl. 74—125)



1. In a step-by-step ratchet drive, a tolling cam, means for driving said cam, a support, a lever pivoted on said support and having a follower adapted to engage the periphery of said cam, a ratchet having a series of peripheral teeth, a feed pawl pivoted to said lever and having an extremity engageable with said ratchet teeth, a detent arm pivoted to said support and adapted to engage said ratchet teeth, the shape of said teeth and the position of said detent arm in relation thereto affording a camming action on said detent arm to disengage the same from a respective tooth when said ratchet is caused to be rotated with an overpowering force in a reverse direction, spring means connecting said pawl and detent arm and biasing said pawl and detent arm into engagement with said ratchet teeth, other spring means normally urging said lever in a direction to cause said follower to engage said cam periphery whereby said lever is actuated, and means for permitting manual rotation of said ratchet in a direction opposite to the normal driven direction of rotation, comprising an auxiliary arm extending in angular relation to said feed pawl from a point near the pivotal axis thereof, and an abutment on said support adapted to be engaged by said auxiliary arm, said ratchet when caused to be rotated in a reverse direction first camming said detent arm out of engagement with a respective tooth and thereafter moving said feed pawl and said arm in a direction to effect engagement of said auxiliary arm with said abutment, such engagement effecting a rocking of said pawl out of engagement with a respective tooth of said ratchet and freeing said ratchet for step-by-step rotation in a reverse direction.

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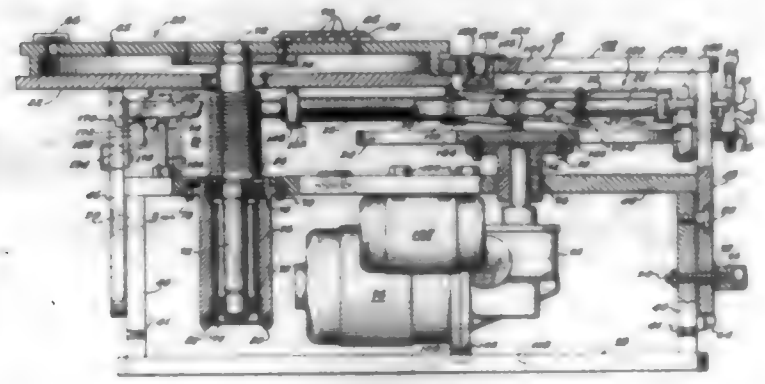
ROTARY TEST TABLE

Ralph E. Brown and Herbert N. Stautz, Los Angeles, Calif., assignors to Genisco, Incorporated, Los Angeles, Calif., a corporation

Application May 16, 1956, Serial No. 585,262
16 Claims. (Cl. 74—200)

1. In a variable speed device of the character described, the combination of: a rotary drive disc; a rotary driven disc, said two discs facing each other and being axially offset from each other in spaced parallel planes and fixed against axial movement towards each other; a carriage movable between said planes along a path radially of both of said discs; rotary transmission means on said carriage,

said rotary transmission means being tiltable between an idle position out of contact with both discs and an operating position with two axially spaced circumferential surface portions of the rotary transmission means in rolling contact with the two discs, respectively, to transmit rotation from the drive disc to the driven disc, the axis of tilt of said transmission means being free to move



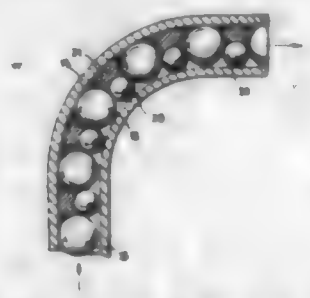
laterally of the planes of the two discs to permit self-adjustment of the transmission means for equalized pressure against the two discs; and means to shift said carriage along said path for different rates of rotation of said driven disc and to tilt said rotary transmission means to its idle position and to its normal operative position selectively.

2,869,377

DEVICES FOR THE TRANSMISSION OF MOVEMENTS

Marius Cornelis Pieterse, Voorschoten, Netherlands

Application September 13, 1954, Serial No. 455,648
6 Claims. (Cl. 74—216.3)



1. A device for the transmission of movement, comprising a fixed guide tube having a series of pushing members therein movable therealong, said tube having a bend and the pushing members in said bend comprising circular rolling bodies, the circular cross-section of a first group of said bodies in the bend having a diameter substantially the same as the complementary inner dimension of said tube but with sufficient clearance to allow the last-mentioned bodies to move, the circular cross-section of a second group of bodies in said bend having a substantially smaller diameter, the successive larger diameter bodies being separated by the smaller diameter bodies, a driving member movable with respect to said tube for applying a force along the axis of said tube to the first member of said series, and a driven member arranged to be moved along said axis by the last member of said series.

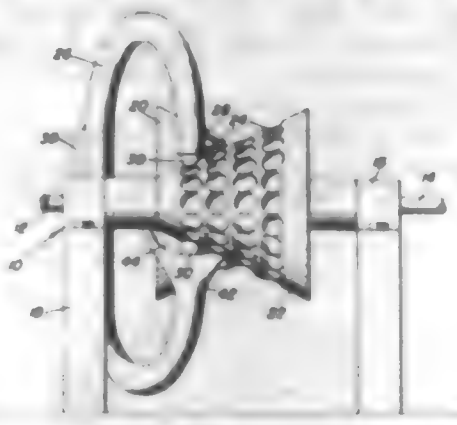
2,869,378

VARIABLE SPEED DRIVE MECHANISM

Andrew P. Fischer, Modesto, Calif.

Application January 9, 1956, Serial No. 558,020
4 Claims. (Cl. 74—216.3)

1. A power transmitting device comprising a driving and driven shaft arranged in spaced parallel relation, a frusto-conical member on each shaft with the major diameter of one member disposed in alignment with the minor diameter of the other member whereby the adjacent peripheral surfaces are parallel to each other, and positive means interconnecting said members for transmitting power without slippage, said means being adapted for movement along the space formed by the adjacent peripheral surfaces of said frusto-conical members and further adapted to swivel about an axis perpendicular to and laterally spaced from the axis of rotation of the shafts and the path of movement of the positive interconnecting means for varying the ratio of the speed of rotation of the driven shaft in relation to the speed of



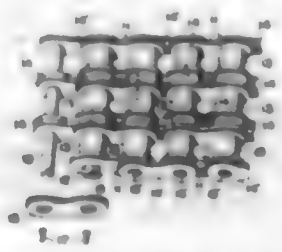
rotation of the driving shaft, each of said frusto-conical members having longitudinally spaced parallel rows of circumferentially arranged indentations of substantially semi-spherical shape, said interconnecting means including a plurality of ball members, and a tubular guide for said ball members for guiding the ball members into said indentations with a portion of the ball members being disposed in the indentations in each frusto-conical member for positively interconnecting said frusto-conical members.

2,869,379

CHAIN SIDEPLATE CONSTRUCTION

Brinton Weiser, Milwaukee, Wis., assignor to Chain Belt Company, Milwaukee, Wis., a corporation of Wisconsin

Application August 4, 1954, Serial No. 447,775
8 Claims. (Cl. 74—245)



1. A connection between a pin spacer plate and a pin in a multiple strand roller chain comprising a plate having an ovoid aperture near one end of the plate with its narrower end pointing toward the center of the plate and a pin of circular cross section extending through the aperture, said pin having a diameter greater than the smaller transverse dimensions of the aperture as formed in the plate, whereby the pin is principally gripped so as to be forced toward the larger end of the aperture and confined so that the pin when assembled in an adjacent plate having slightly greater or less pitch is more readily accommodated without severe binding against the outer end of the aperture.

2,869,380

CHAIN LINK BEARING MEANS

Alexis W. Lemmon, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio

Application March 23, 1956, Serial No. 573,395
2 Claims. (Cl. 74—245)

1. An integral chain link having longitudinally extending side bars laterally spaced from each other for the reception therebetween of the teeth of a chain sproc-

ket, the opposite longitudinally extending edges of each of the chain link side bars comprising bearing surfaces for supporting the link on the sprocket, and laterally



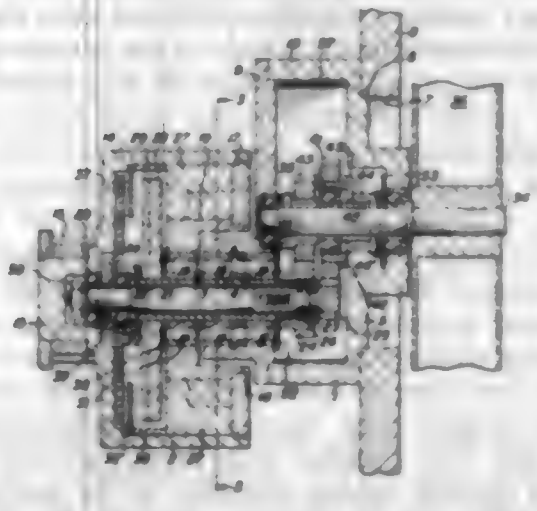
extending flanges on each of said longitudinally extending edges reinforcing the bearing surfaces, said flanges on the opposite edges of each side bar extending to opposite sides of the side bar.

2,869,381

MULTIPLE CLUTCH DRIVE MECHANISM

Jasper S. Chandler, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application July 26, 1957, Serial No. 674,538
9 Claims. (Cl. 74—330)



1. In a web wind-up mechanism, the combination of: a stationary member; a sleeve rotatably supported by said member; a first disk secured to said sleeve; a rotatable housing enclosing said disk and adapted to be rotated at a substantially constant angular velocity; an annular baffle mounted within said housing to form adjacent cavities containing oil, said first disk extending into one of said cavities to develop a torque upon rotation of said housing; a permanent magnet carried by said housing and adapted to cooperate with said first disk to develop additional torque resulting from the magnetic coupling therebetween; a spindle coaxial with and rotatably supported by said sleeve; a second disk secured to said spindle and extending into the other of said cavities to develop a torque upon rotation of said housing; and means for connecting said spindle to said sleeve when the angular velocity of said sleeve falls below a predetermined value whereby the torque developed by said second disk is added to the torque developed by said first disk.

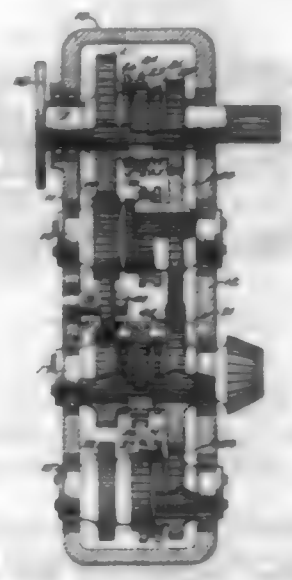
2,869,382

GEAR TYPE POWER TRANSMISSION AND CONTROLS THEREFOR

Joseph G. Klecker, Peoria, Yale M. Miller, Morton, Alfred W. Sieving, Peoria, and John R. Rediger, Secor, Ill., assignors to Caterpillar Tractor Co., Peoria, Ill., a corporation of California

Application March 21, 1955, Serial No. 495,706
7 Claims. (Cl. 74—360)

1. A transmission comprising input and output shafts, a first countershaft, a second countershaft, a first-speed power train of constant-mesh gears comprising a low-range input gear on the input shaft, a first speed-change gear on the first countershaft, and a forward output gear on the output shaft, a second-speed power train of constant-mesh gears comprising a high-range input gear on the input shaft, a second speed-change gear in conjunction with a second-speed drive gear on the second countershaft, and the forward output gear, a third-speed power train of constant-mesh gears comprising the high-



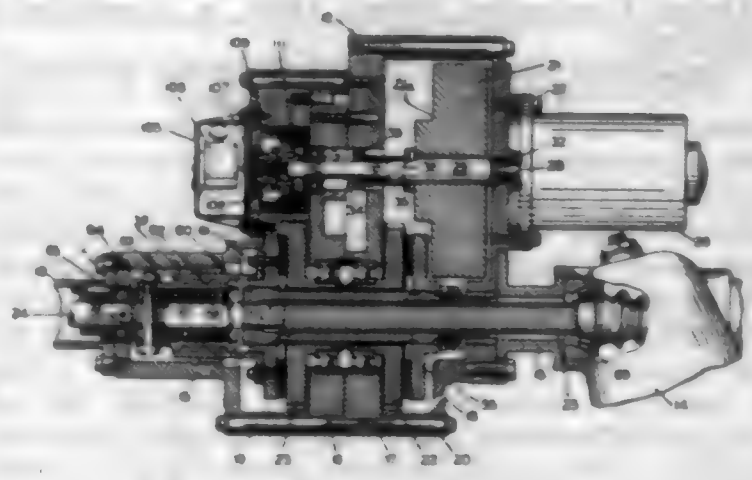
range input gear, a third speed-change gear on the first countershaft in conjunction with the first speed-change gear, and the forward output gear, and means to include selectively the first, the second, and the third speed-change gears in the respective power trains.

2,869,383

POWER STEERING ASSEMBLY

Edward G. Rapp, Lyndhurst, and Charles H. Castle, Eastlake, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application August 31, 1953, Serial No. 377,350
5 Claims. (Cl. 74—388)



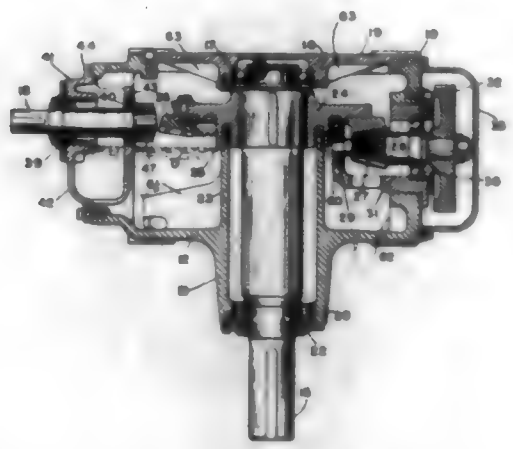
4. A power steering assembly for turning the wheels of a vehicle, comprising a power motor drivingly connected to a heavy flywheel, speed reduction gear transmission means connecting said flywheel to oppositely rotating drive gears, said transmission including an overrunning clutch between said flywheel and said speed reduction gear transmission means to permit said drive gears to operate at speeds in excess of the speed imposed upon them by the motor without turning said flywheel, and clutch means axially movable upon relative rotation between a steering shaft and a second shaft connected to the vehicle wheels to drivingly connect one or the other of said drive gears to said second shaft said overrunning clutch comprising a coil of wire frictionally engaging said flywheel shaft and a sleeve of a drive pinion mounted thereon.

2,869,384

SPEED REDUCER

Walter P. Schmitter, Wauwatosa, Wis., assignor to The Falk Corporation, Milwaukee, Wis., a corporation of Wisconsin

Application August 24, 1951, Serial No. 243,516
8 Claims. (Cl. 74—428)



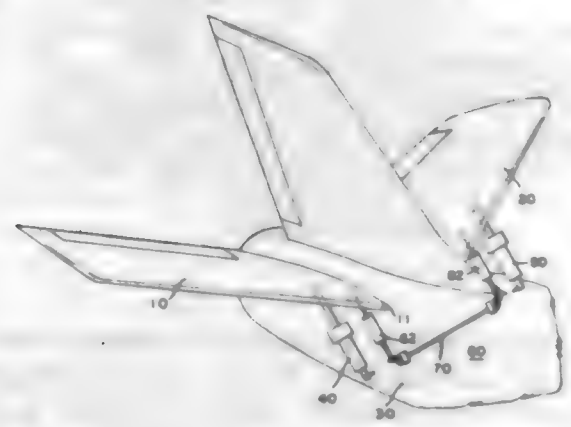
1. A speed reducer comprising the combination of a housing, driving and driven shafts journalled therein at right angles to each other, a gear fixed to said driven shaft to drive the same, a pinion meshing with said gear, a shaft supporting said pinion and axially withdrawable from said housing, and driving means between said driving shaft and said pinion shaft, said driving means comprising gears at one side of said housing readily replaceable to vary the speed ratio between said driving and driven shafts and speed reduction gearing at another side of said housing, said driven shaft and said first named gear being arranged for axial withdrawal as a unit from said housing.

2,869,385

MEANS FOR INTERCONNECTING CONTROL SURFACES

Howard M. Geyer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 2, 1953, Serial No. 389,730
3 Claims. (Cl. 74—424.8)



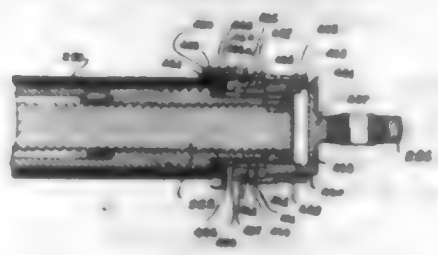
1. The combination with a pair of movable elements and a pair of independent actuators for effecting movement of said elements, of means for effecting synchronous movement of said elements upon operation of their respective actuators comprising, a non-rotatable member operatively connected to each element, a rotatable member operatively engaging each non-rotatable member such that upon movement of said elements said rotatable members will rotate, and torque transmitting means interconnecting said rotatable members to mechanically synchronize movement of said elements.

2,869,386

ADJUSTABLE END FITTING FOR MECHANICAL ACTUATOR

Vaino A. Hoover, Los Angeles, Calif.

Original application April 4, 1953, Serial No. 348,741. Divided and this application August 12, 1957, Serial No. 677,679
3 Claims. (Cl. 74—424.8)



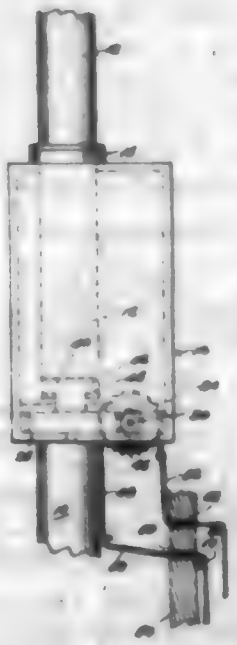
1. An adjustable end fitting for use in a mechanical actuator which comprises: a first member attached to said actuator and having a cylindrical portion with threads of a given direction on the periphery thereof; a plurality of axially directed keyways disposed in the periphery of said first member; a second member adapted to connect to the driven device and having a cylindrical portion with external threads having a direction different than the direction of said first-mentioned threads on the periphery thereof; a bore in the cylindrical portion of said second member having axially extending radial projections adapted to engage said keyways and thereby prevent relative rotation of said members, but allow axial movement therebetween; a connecting nut having a portion of its bore threaded to engage the threads of said first member and another portion of the bore threaded to engage the threads of said second member whereby, upon rotation, said nut moves axially with respect to said first member in a different direction than its axial movement with respect to said second member thus varying the relative axial positioning of said first member with respect to said second member; an annular groove disposed in the periphery of said connecting nut; an axially directed slot disposed across said annular groove; and locking means connected to said first member and having a lug disposed in said annular groove and an axial projection disposed in said slot, said locking means being axially movable for a limited distance when released, but axially immovable when locked.

2,869,387

TELEVISION AERIAL MAST TURNER

Russell Lee Louden, Dayton, Ohio

Application August 15, 1952, Serial No. 304,547
1 Claim. (Cl. 74—425)



Means for supporting and rotating a vertical television antenna mast having a key slot in the lower end thereof

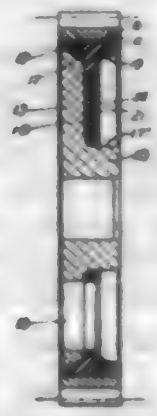
comprising a housing including an upper wall having an opening for snugly receiving said mast therethrough, a horizontally positioned worm gear mounted in the lower end portion of said housing, a key centrally affixed to said gear and extending upwardly therefrom to engage in said key slot, a horizontally extending shaft journalled in said housing, a worm affixed to said shaft and enmeshed with said gear, a sprocket affixed to said shaft, a drive chain enmeshed with said sprocket, and a cable attached to each end of said chain.

2,869,388

GEAR WHEELS

Oscar Charles Kreis, Wiesbaden, Germany, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 26, 1954, Serial No. 445,897
Claims priority, application Germany July 24, 1953
1 Claim. (Cl. 74—443)



A gear wheel having a rim and a hub, said rim being of annular formation and having an inner peripheral surface extending between the opposite ends thereof, said hub having first and second radially spaced outer peripheral surfaces and a radial end surface extending between said peripheral surfaces of said hub, a resilient member secured between said inner peripheral surface of said rim and outer peripheral surfaces of said hub and to said radial end surface of said hub, said resilient member being formed to extend axially substantially from end to end of said rim and radially inwardly from said rim to said outer peripheral surfaces of said hub and across said radial end surface of said hub, and a plate having outer peripheral and end surfaces corresponding to the first one of said outer peripheral and said end surfaces of said hub and disposed oppositely with respect to and spaced axially from said first of said peripheral and end surfaces of said hub and secured to said resilient member in spaced relation to said rim and extending to the second of said outer peripheral surfaces of said hub for more uniformly distributing the load applied to said resilient member when said resilient member is stressed by relative movement of said hub and said rim.

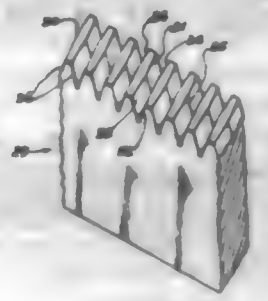
2,869,389

RACK GEAR WITH IMPROVED METHOD OF MAKING

Lawrence Proefke, Detroit, Mich.

Application December 27, 1954, Serial No. 477,748
1 Claim. (Cl. 74—462)

A rack gear comprising an elongated body substantially rectangular in cross section and a series of longitudinally spaced teeth of crown shape in vertical cross-section, each tooth including on each side thereof a pair of ground plane surfaces, arranged at an obtuse angle to each other, and with a plane surface on one side of a tooth towards one end being parallel to a diametrically opposite surface of an adjacent tooth at its opposite end, said teeth being formed as segments of a pair of intersecting spirals of the same but opposite lead ground into said body, said angularly related surfaces on each side



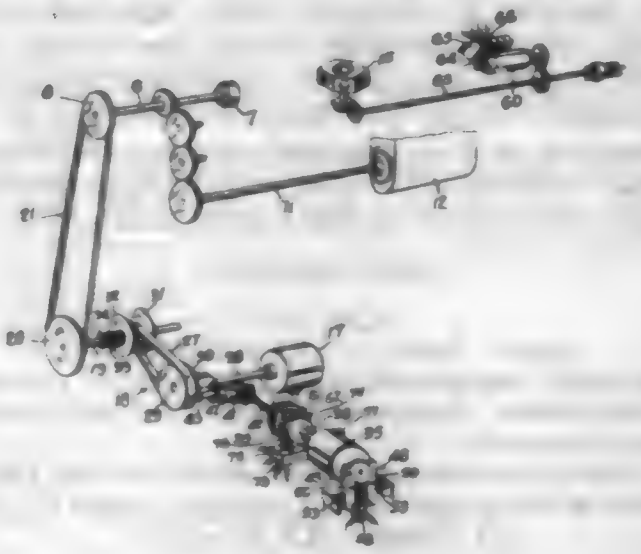
of a gear tooth defining central ridges upon opposite sides of each tooth.

2,869,390

AUTOMATIC DRIVE SPEED CONTROL

Lorenz Albert Leifer, Madison, Wis., assignor to Giddoit Machine Company, Madison, Wis., a corporation of Wisconsin

Application January 4, 1954, Serial No. 401,974
4 Claims. (Cl. 74—472)



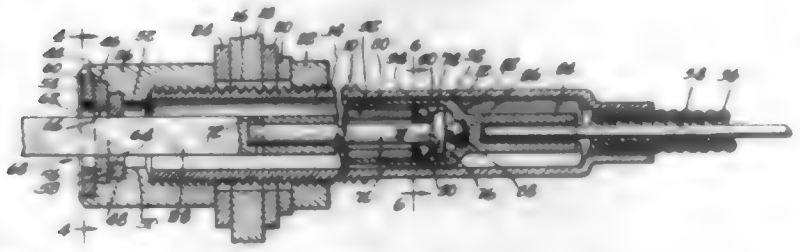
1. An automatic drive speed control for use in driving cyclically operating machines and the like where shifting of speeds is desired without interruptions of drive torque and where a wide range of infinite pre-selected adjustment in speed is desired, comprising a variable speed belt drive, and means providing a pre-selected automatic shifting of speed control of said belt drive for repeat cycle operation, said last named means comprising a reversible electric control motor, power circuit means to selectively drive said motor in either forward or reverse direction and adapted to be actuated under the automatic control of the cyclic operation of the machine being driven, speed reduction means connected to said control motor by a universal coupling and to a shift member of said variable speed belt drive by a threaded output nut drive to increase or decrease the speed output of the belt drive depending upon the direction of operation of said control motor, a cam control means driven by said speed reduction means and having a rotatable disc upon which a pair of stops are adjustably mounted at positions for determining the fast and slow speed settings for said variable speed belt drive, a pair of limit switches disposed for actuation by corresponding stops on said disc and connected in the power circuit of said control motor to open the same when actuated by a stop, brake means automatically applicable to stop said motor upon opening of said motor circuit, and means adapted to be responsive to the cycling of the machine being driven and by-passing said limit switch to close said motor circuit and release said brake to effect shifting of said belt drive to the opposite pre-selected stop position.

2,869,391

ROTARY LOCKING CONTROL

Walter Brock, Chicago, Ill., assignor to Arens Controls, Inc., Evanston, Ill., a corporation of Illinois

Application July 2, 1954, Serial No. 440,987
9 Claims. (Cl. 74—503)



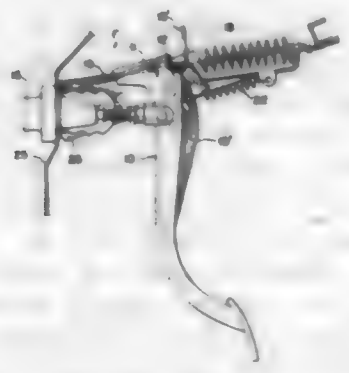
1. A control mechanism comprising frame means, an operating member of non-circular cross-section longitudinally reciprocable with respect to said frame means and adapted to be connected to a device to be controlled, control means operably connected to said operating member for effecting its actuation and locking means carried from said frame means for locking engagement with said operating member, said locking means including a pair of adjustably mounted apertured members having non-circular apertures receiving said operating member and in one position of adjustment being sufficiently aligned to allow substantially unrestricted longitudinal movement of said operating member, and means for relatively eccentrically rotating said apertured members to effect misalignment of said apertured members to effect substantially balanced gripping of said operating member on opposite sides thereof by said locking members.

2,869,392

FOOT PEDAL ARRANGEMENT

Josef Müller, Stuttgart-Riedenberg, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany

Application August 9, 1956, Serial No. 603,120
Claims priority, application Germany August 13, 1955
11 Claims. (Cl. 74—512)



1. An arrangement for foot levers, especially for motor vehicles comprising a foot lever, means forming a knife edge secured to the vehicle body, rounded channel-like support means secured to said lever for supporting the same on said knife edge, and spring means connected to said lever for urging the same to the normal rest position thereof, said spring means including two springs, and one of said springs exerting an increasing moment on said lever in the direction of actuation thereof with an increasing actuating stroke of said lever.

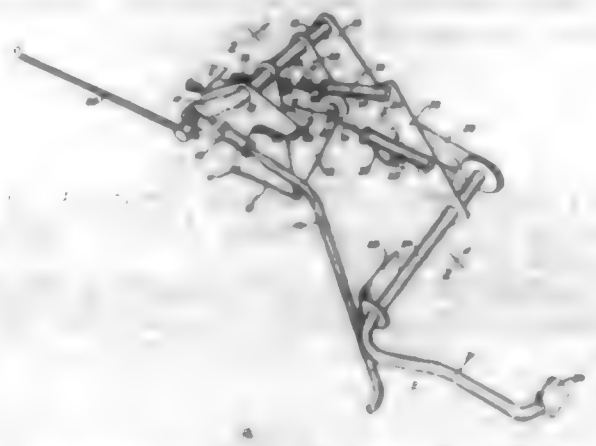
2,869,393

VEHICLE ACCELERATOR LINKAGE

Joseph D. Hutchison, Allen Park, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application January 18, 1957, Serial No. 635,036
5 Claims. (Cl. 74—516)

1. Accelerator linkage for controlling the carburetor for a motor vehicle from a manually operable pedal, comprising a rotatably mounted actuating shaft operatively connected to said pedal, a rotatably mounted actuated shaft spaced from said actuating shaft and adapted to be operatively connected to said carburetor, an actuating lever mounted upon said actuating shaft, an actuated lever mounted upon said actuated shaft, a first link interconnecting said levers and incorporating a lost motion connection in said interconnection, a second link interconnecting said levers and also incorporating therein a lost motion connection, said second link being connected to said actuating lever at a point spaced farther from the actuating shaft than the connection between said first link and said actuating lever, and said second link being connected to said actuated lever at a point spaced nearer said actuated shaft than the point of connection between said first link and said actuated lever.

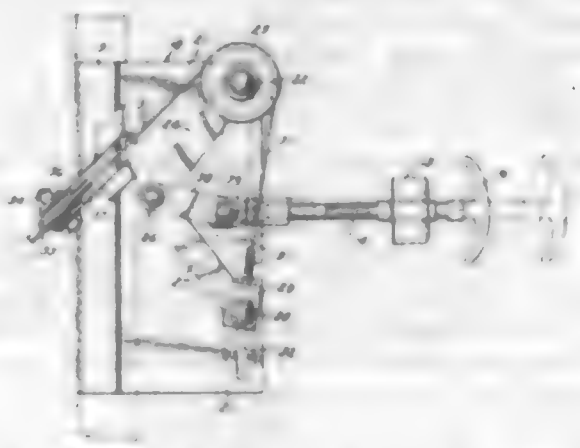


2,869,394

BRAKE ACTUATING MECHANISM FOR MOTOR VEHICLE

Frank J. Koehl, Pontiac, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application November 19, 1956, Serial No. 622,971
3 Claims. (Cl. 74—520)



1. Mechanism for actuating the brakes of a motor vehicle, comprising a supporting bracket rigidly mounted upon said vehicle, toggle linkage including a pair of pivotally interconnected toggle links mounted upon said supporting bracket, means pivotally connecting one of said links to said bracket on a fixed axis, means slidably connecting the other of said links to said bracket for sliding movement toward and away from said fixed axis along a predetermined path, the fixed axis formed by the pivotal connection between said one toggle link and said bracket substantially intersecting the axis of the predetermined path of movement of the opposite end of the other of said toggle links, a grooved pulley pivotally mounted on said fixed axis, a flexible cable reeved over said pulley and operatively connected to said vehicle brakes, the opposite end of said cable being connected to said other link for movement toward and away from said pulley as said other link moves along said predetermined path, and manually operable means connected to said toggle linkage and movable in a path generally

at right angles to said predetermined path to apply and release said brakes through said toggle linkage and interconnected cable.

2,869,395

ROTARY SWITCH DETENT SPRING

Kenneth C. Allison, Crystal Lake, and William L. Hoehn, Chicago, Ill.

Application September 27, 1955, Serial No. 536,959
9 Claims. (Cl. 74—527)



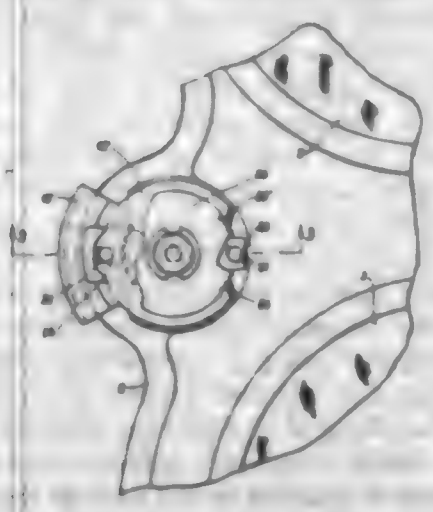
1. An indexing mechanism for switches comprising a mounting plate having a shaft journalled therein, a plurality of indexing means formed in said plate circularly of said shaft, an index spring formed of flat spring stock to provide a hub portion through which said index spring is fixed to said shaft, a pair of arms projecting in opposite directions from said hub portion, a slot extending circumferentially of said shaft through an arc of approximately 180 degrees defined by the edge portions of segments forming continuations of said arms, and the edge portion of a bridge section connecting the ends of said segments remote from said arms, and the inner edge portions of the hub portions and said arms facing said segments and forming continuations of said edge portions of said segments, each of said segments presenting a convexly curved outer edge portion, said bridge section having its outer edge portion at an abruptly shorter radial distance from the shaft than the outer edge of said segments and being offset axially from the plane of the hub portion, and means on said bridge section engageable with said indexing means and offset axially from the plane of the bridge portion in the direction said bridge portion is offset axially from the plane of the hub portion.

2,869,396

HOLDING MEANS FOR CAMERA SHUTTER SETTING KNOBS

Reinhold Heidecke, Hermann Bretthauer and Joachim Mädge, Braunschweig, Germany, assignors to Franke & Heidecke, Fabrik Photographischer Präzisions-Apparate, Braunschweig, Germany, a German firm

Application June 5, 1953, Serial No. 359,832
Claims priority, application Germany June 9, 1952
5 Claims. (Cl. 74—528)



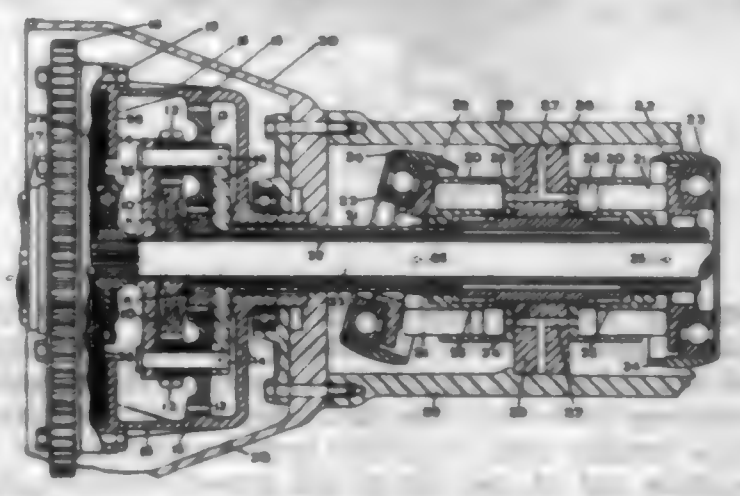
1. A photographic shutter adjusting assembly including a setting knob, a latch operating member normally projecting radially beyond the periphery of the knob and mounted for movement approximately radially with respect to said knob so that the outer end of said operating member may be pressed radially inwardly toward the knob by a finger simultaneously engaging the knob to turn the same, and latching means normally holding said knob against turning movement, said latching means including a ratchet wheel fixed relative to said knob and locking teeth on said operating member adapted to engage with said ratchet wheel, the teeth of said ratchet wheel having approximately triangular shape and said locking teeth each having a side which is approximately parallel to the side of a ratchet tooth with which it engages, said operating member adapted to release said latching means when said operating member is pressed radially inwardly.

2,869,397

HYDRO-MECHANICAL VARIABLE SPEED TRANSMISSION GEARING

John H. Weaving, Knowle, and Duncan J. K. Stuart, Birmingham, England, assignors to The Austin Motor Company Limited, Birmingham, England

Application April 3, 1956, Serial No. 575,800
Claims priority, application Great Britain April 4, 1955
3 Claims. (Cl. 74—687)



1. A hydro-mechanical variable speed gearing between an input shaft connected to an engine and an output shaft comprising in combination a hydrostatic drive unit, a mechanical change speed gear of the epicyclic type and a clutch between the input and output shafts, said hydrostatic drive unit being adjustable so that at two values in the overall speed ratio range there is no pumping of fluid in the hydrostatic drive unit and the engine work is transmitted wholly by the epicyclic gearing, and means for engaging the clutch at a third value in the speed ratio range normally corresponding to a 1:1 speed ratio condition to drive said output shaft directly by said input shaft with the hydrostatic unit being thereby completely unloaded and mechanically locked up.

2,869,398

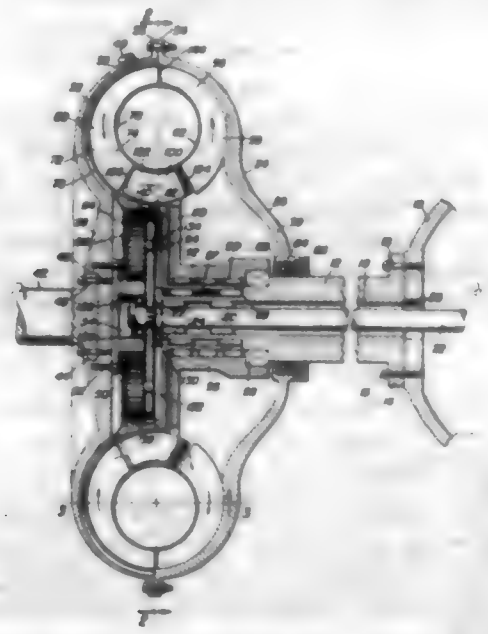
HYDRAULIC AND PLANETARY GEAR TRANSMISSION

Perl Edward De Ford, Twin Falls, Idaho, assignor of twenty-five percent to Reed Goold and twenty-five percent to Emerson Tolman, both of Twin Falls, Idaho

Application January 30, 1958, Serial No. 712,220
2 Claims. (Cl. 74—688)

1. A power transmission assembly comprising coaxially aligned, spaced drive and reactor shafts, said driveshaft being rotatable and having a casing fixed to that end adjacent said reactor shaft, said casing being of a width greater than the spacing between said shaft so as to enclose one end of the reactor shaft, means journalling said casing upon said reactor shaft, said reactor shaft having a longitudinal bore therethrough and being rigidly fixed to prevent rotation thereof, an output shaft projecting through and journalled in said reactor shaft, and including an inner end portion extending beyond the reactor shaft, a sun gear on the inner side of said casing in alignment with said driveshaft and having a recess therein receiving said inner end of the output shaft, bear-

ing means journalling said inner end of the output shaft within said sun gear, a generally cylindrical drum having a web portion and an annular flange provided with internal ring gear teeth, a hub on said web portion projecting laterally therefrom on the side opposite said flange, said hub surrounding and being journalled upon the inner end of said reactor shaft with said flange surrounding said sun gear, a carrier fixed to said inner end of the output shaft between said web portion of the drum and said sun gear, a plurality of planetary gears rotatably



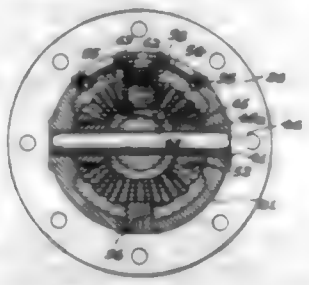
journalled on said carrier and meshing with said sun and ring gears, a sleeve surrounding and journalled upon said hub and having an outer end projecting therebeyond, a one-way brake coupling said outer end of the sleeve to said reactor shaft, a radially projecting hub affixed to the inner end of said sleeve and provided with a plurality of reactor blades peripherally thereof, pump blades fixed to said casing adjacent said reactor blades, and runner blades fixed to said drum adjacent said pump and reactor blades.

2,869,399

DIFFERENTIAL TRANSMISSION

Everett G. Miles, Rockford, Ill.

Application December 11, 1957, Serial No. 702,206
3 Claims. (Cl. 74—711)



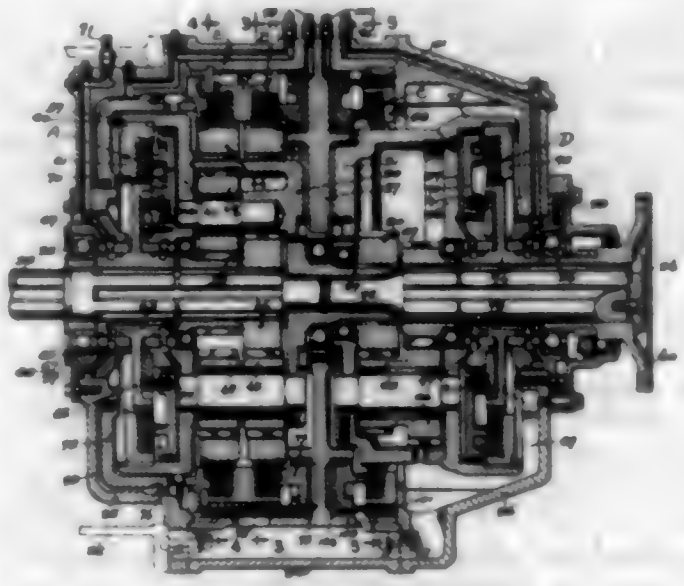
1. A differential transmission for connecting a drive shaft to a pair of driven shafts comprising, a differential housing defining a housing chamber therein, a differential case rotatably mounted in said housing chamber, a pair of differential side gears axially spaced apart and rotatably mounted in said case and adapted for connection to said driven shafts, said case and side gears defining an enclosed case chamber sealed from said housing chamber, a plurality of differential pinions mounted in said case between said side gears and each meshing with said side gears, the space between said side gears being open to provide free communication between opposite sides of the differential pinions, a ring gear mounted on said case, a drive pinion mounted on said housing and meshing with said ring gear to rotate said case, a lubricating oil in said housing chamber for lubricating said drive gear and ring gear, a lubricant completely filling said differential case and having a viscosity which is high as compared to the viscosity of the lubricating oil in said housing chamber, said lubricant in said case being sufficiently viscous so that it does not flow freely into and out of the inter-tooth spaces on the differential pinions and side gears and thus impedes rotation therebetween sufficiently to transmit an appreciably greater torque from the drive pinion to which ever of the side gears rotates at the lower speed, and means for applying pressure on the lubricant in said differential case sufficient to cause the lubricant to flow rapidly into the intertooth spaces in said side gears and said differential pinion gears whereby to maintain the intertooth spaces in the gears filled with the highly viscous lubricant.

2,869,400

VARIABLE SPEED POWER TRANSMISSION MECHANISM FOR USE WITH HYDRAULIC DRIVES

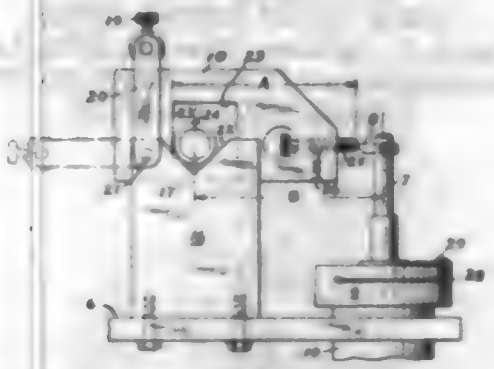
Robert S. Langdon, Seattle, Wash., assignor to Western Gear Works, Seattle, Wash., a corporation of Washington

Application May 24, 1954, Serial No. 431,982
2 Claims. (Cl. 74—765)



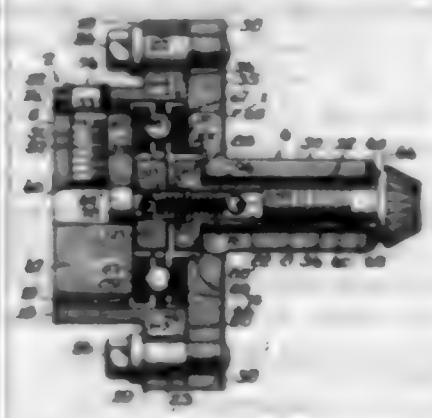
1. In a transmission, the combination of coaxial input and output shafts, a first carrier associated with the input shaft and journaled for rotation about the center of the latter as an axis, a driven gear coaxial with the carrier and direct-driven thereby, a forward-drive planetary gear set and a reverse-drive planetary gear set each including a sun gear fast to the input shaft, each having a respective annular gear, and each having its planet gears carried by the carrier, a respective normally inactive means for each of said planetary gear sets operative when activated to arrest the rotation of the related annular gear, normally inactive means operative when activated to establish a direct driving couple from the input shaft to the carrier, a second carrier associated with the output shaft and journaled for rotation about an axis coinciding with the first carrier, a step-gear carried by said second carrier with the smaller gear thereof in mesh with said driven gear and having its larger gear in mesh with a drive gear fast to the output shaft, normally inactive means operative when activated to arrest the rotation of said second carrier, normally inactive means operative when activated to couple the second carrier directly to the output shaft, said normally inactive means including, in each instance, a respective annular piston activated by pressure fluid and working in a direction endwise to the axis of said shafts within a related cylinder which is in surrounding concentric relation to the axis of the shafts, and a selector valve operative by movement to each of six operating positions to establish communication from a source of pressure fluid simultaneously with a respective pair of said normally inactive means, each pair being different, one means of each pair being associated with the first carrier and the other means of each pair being associated with the second carrier.

2,869,401
GAUGE FOR BORING TOOLS
Frederick A. Wagner and Fred A. Wagner, Livermore, Calif.
Original application November 21, 1955, Serial No. 548,007. Divided and this application January 14, 1958, Serial No. 708,866
6 Claims. (Cl. 77—4)



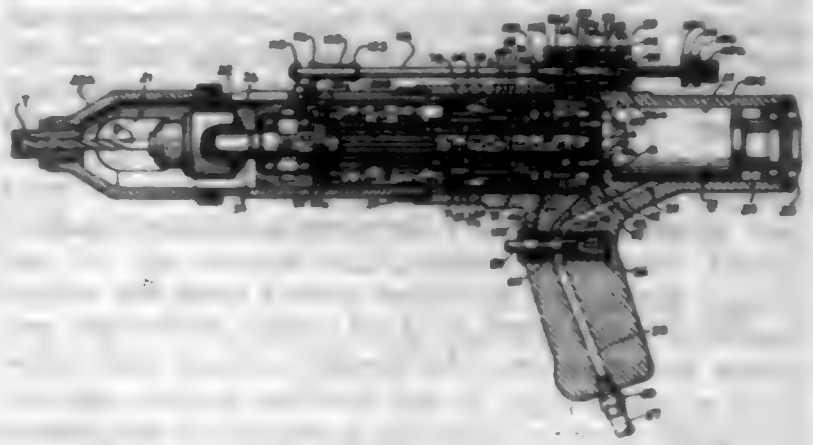
1. A gauge for setting a boring tool in a boring bar to cut a diameter to fit a given shaft which comprises, a member with a V notch having the apex of the V a distance from the axis of the boring bar and adapted to receive the shaft, a gauge plate with two edges spaced the same distance, one edge for contact with the shaft while the other edge acts as a stop for the cutting end of the boring tool to be set.

2,869,402
DEEP DRILLING ATTACHMENT
William S. Bunnell, Chicago, Ill., assignor to Boyar-Schultz Corporation, Chicago, Ill., a corporation of Illinois
Application September 30, 1954, Serial No. 459,287
1 Claim. (Cl. 77—32.3)



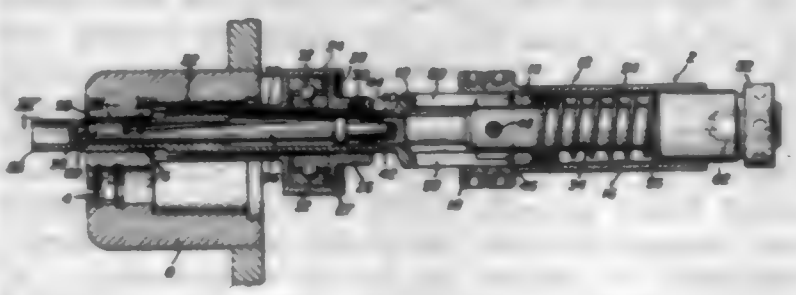
Machine tool apparatus for use in drilling machinable material by relative rotary and axial chip breaking movement between a drill member and a member to be drilled, said apparatus including a housing having laterally shiftable housing sections, means for locking said sections into any one of a number of relative adjusted positions thereof, one of said sections having a bore extending therethrough, a rotatable holder journalled in one end of said bore for holding one of said members, the other housing section closing off the other end of said bore and defining a space between said holder and said other housing section, a rotatable drive shaft journalled in said latter housing section, a coupling in said space for coupling the rotary movement of said shaft to said holder, a bore extending through said coupling, a tension spring in said bore anchored at one end to said holder and at the other end to said drive shaft, and means in said space for imparting an axial chip breaking motion to said holder comprising an annular bearing surface on the inner end of said holder, a bearing ring member engaging the end face of said latter housing section, and a bearing carrying cage sandwiched between said bearing surface and ring member, said cage having axially projecting bearings which ride in circular races in the opposing faces of said annular bearing surface and ring member, one of said races constituting an axial cam surface for reciprocating said holder, and said cage and said bearing ring member being shiftable laterally with respect to the axis of rotation of said drive shaft to maintain the cage and ring member coaxial of said holder for any one of a number of relative adjusted positions of the axes of rotation of said shaft and holder.

2,869,403
POWER OPERATED TOOL WITH FLUID PRESSURE ACTUATED POSITIVE FEED
John H. Bent, North Hollywood, Calif., assignor to Gardner-Denver Company, Quincy, Ill., a corporation of Delaware
Application December 6, 1956, Serial No. 626,776
9 Claims. (Cl. 77—34.4)



1. A pressure fluid actuated tool comprising, in combination, a spindle for mounting a cutting element, means for supporting the spindle for longitudinal and rotational movement, a drive shaft, a pressure fluid actuated motor for rotating said shaft, a feed screw non-rotatably coupled to said drive shaft and to said spindle for drivingly connecting the same, a feed screw sleeve and drive means therefor interposed between said drive shaft and said feed screw for positively effecting longitudinal movement of said screw and spindle with respect to said drive shaft, said drive means including a first terminal gear fixed to said drive shaft, a second terminal gear fixed to said sleeve, and two planetary gear trains interposed between said terminal gears and including a unitary carrier rotatably mounting the planetary gears of both of said gear trains, and means for alternatively restraining rotation of the ring gear of one of said gear trains and of said carrier so as to effect rotation of said sleeve at rates faster and slower, respectively, than the rate of rotation of said feed screw to feed and return said spindle.

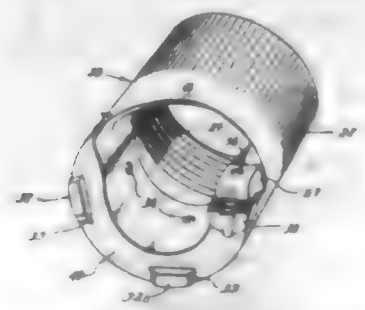
2,869,484
CUTTING TOOL
Robert F. Coudrac, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application November 30, 1955, Serial No. 549,929
2 Claims. (Cl. 77—58)



1. Apparatus for cutting an internal circumferential groove in the wall of an opening in a workpiece which comprises an open end tubular housing, an elongated open end tubular stop member fixedly mounted around one end of said housing with a portion thereof projecting longitudinally of said housing, an abutment member

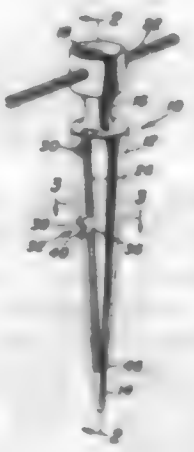
supported on said housing intermediate its ends for axial movement therewith adapted to bear against said workpiece adjacent said opening, a plunger mounted for reciprocal movement within said housing and said stop member, said plunger extending along substantially the full length of said housing and said stop member with a portion thereof projecting outwardly and longitudinally of said stop member away from said housing, the longitudinal axis of said plunger coinciding with the longitudinal axis of said housing, stop member and abutment member, the end of the projecting portion of said plunger having a diameter greater than the inside diameter of said stop member, spring means on said plunger for urging the same axially of said housing in the direction toward said greater diameter end, a spline connection securing said housing to said plunger, the end of said plunger remote from its projecting portion being tapered in the direction away from said projecting end, said housing having a transverse opening through the wall thereof adjacent its end remote from said stop member, said housing including a non-symmetrically thicker portion in the plane of said opening, said non-symmetrically thicker portion of said housing having a pair of spaced flutes on the periphery thereof radially spaced from said opening, the tapered end of said plunger having a longitudinal groove along the surface thereof, a cutter slidingly fitted in said groove and projecting therefrom into said opening whereby axial movement of said plunger in one direction projects said cutter radially outward and axial movement of said plunger in the opposite direction withdraws said cutter radially inward, the cutting edge of said cutter extending in a plane substantially parallel with the longitudinal axis of said housing and being curved about a radius extending normal to the longitudinal axis of said housing.

2,869,405
TREPANNING HEAD
Duane M. Wolfe, Oklahoma City, Okla., assignor to American Iron & Machine Works Company, Inc., Oklahoma City, Okla., a corporation of Delaware
Application June 5, 1957, Serial No. 663,801
5 Claims. (Cl. 77—69)



1. In a trepanning head comprising an annular body, one end of said body being of varying axial extent to expose a transverse section thereof, a bit disposed adjacent said transverse section, the bit extending axially of said body beyond the portion of maximum axial extent of said end of said body, and means for holding said bit to said body, the improvement according to which the corner at the junction of said transverse section and the portion of the end of said body of greatest axial extent is cut out to provide a bit socket, one side of said socket facing generally axially to support a bit against axial pressure, the other side of said seat facing generally tangentially to support the bit against tangential, i. e. rotational pressure, one of said sides of the bit socket having a V-shaped recess to support the bit against radial pressure, the axis of said recess extending substantially perpendicular to the radius of said body, said bit having adjacent sides shaped correlative to said flat and recessed sides of said socket and being disposed therein, said bit holding means comprising means to clamp said bit against the said tangential pressure supporting face of the bit socket, said side of said bit correlative to said flat side of said socket being in direct contact therewith, the portion of said socket forming said flat side thereof being integral with said annular body.

2,869,406
HOLE DE-BURRING TOOL
Edward A. Belmont, Granada Hills, Calif.
Application August 7, 1956, Serial No. 602,614
1 Claim. (Cl. 77—73.5)

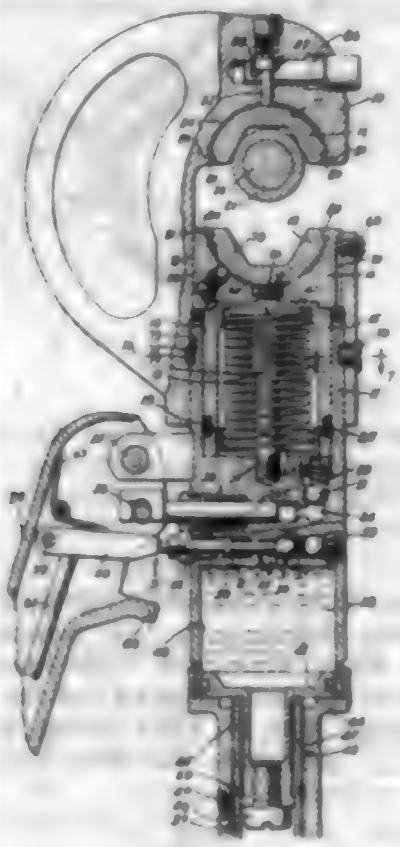


A de-burring tool comprising an elongated solid shank portion tapered from end-to-end thereof for wedging in a hole in a piece of metal and having a longitudinal groove in one side thereof and a smooth opposite side, a tool longitudinally slidably mounted in said groove and having a pair of cutter blade portions extending out of said groove and forming a V-shaped cutter notch for straddling the edge of a hole, said groove and smooth side of the shank coacting when the shank portion is wedged into a hole with said notch straddling the edge of a hole to slide the tool in the groove and cam the tool toward the edge of a hole to wedge the notch against the edge of a hole, a screw in one end of said groove limiting sliding of said tool in one direction, the other end of said groove being closed to limit sliding of the tool in the opposite direction and a transverse handle on one end of the shank for rotating the shank portion in a hole to revolve the tool around a hole.

2,869,407
PORTABLE METAL WORKING TOOL
Edwin C. Swanson, Rockford, Ill., assignor to Greenlee Bros. & Co., Rockford, Ill., a corporation of Illinois
Application October 15, 1954, Serial No. 462,443
5 Claims. (Cl. 81—15)

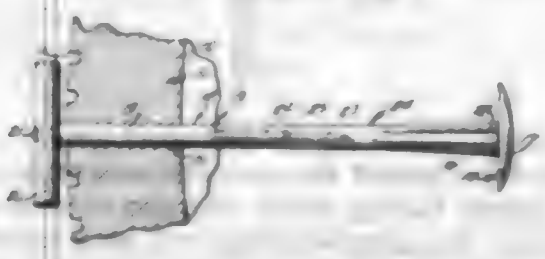
1. In a portable metal working tool, the combination of, a body having a cylindrical end portion and a ram reciprocable therein, a die carried by the outer end of said ram and reciprocable therewith, a head telescoping with said body end portion and carrying a second die, selectively operable means on said body for advancing said ram and said first die thereon axially toward said second die to clamp work between the dies, and an axial pressure sustaining connection between the telescoping parts of said head and said body permitting free rotation of the two in opposite directions relative to each other while preventing relative axial displacement, said connection comprising axially facing annular shoulders on said head and said body defining opposite sides of annular grooves opening inwardly toward and registering with each other, a split ring seated in said grooves and having flat axially facing surfaces abutting said shoulders, the groove on said body having a depth radially at least as large as the radial thickness of said ring to permit contraction of the latter within the periphery of the body,

and a spreader member carried by said head and movable between the circumferentially facing ends of said ring to



expand the latter radially beyond the periphery of said body and radially into said groove in the head.

2,869,408
TOOL FOR INSERTING PLUGS IN TIRE PUNCTURES
Walter Badowski, Roxbury, Mass.
Application March 26, 1957, Serial No. 648,547
1 Claim. (Cl. 81—15.7)



In a tire repair tool, a body member including a shank comprising a first portion of cylindrical shape, a handle arranged transversely with respect to an end of the cylindrical portion of the shank and secured thereto, said shank further including a second portion of smaller diameter than said first portion and said second portion being threaded externally, a third portion extending from said second portion and said third portion tapering to a point, a holder having one end portion of cylindrical shape and of the same external diameter as the first portion of said shank and including a threaded inner socket for threadedly receiving the second portion of said shank, there being a bore in said holder for receiving the tapered third portion of the shank, the other end of said holder being provided with a plurality of spaced apart slots defining spring fingers therebetween for receiving therebetween the stem of a cap.

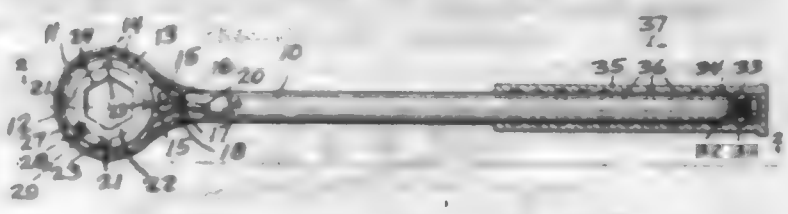
2,869,409
SLIDABLE JAW WRENCH WITH WORM LATCHING MEANS
John E. Swanstrom, Wade Hampton Connell, Joseph Fennimore Cooper, Jr., and Swan Elmer Swanson, Duluth, Minn., assignors to Diamond Calk Horseshoe Company, Duluth, Minn., a corporation of Minnesota
Application April 22, 1957, Serial No. 654,211
4 Claims. (Cl. 81—165)

3. A wrench comprising a head provided with a fixed jaw, a second jaw slidable in said head and having a rack thereon, a worm rotatably mounted in said head in driving engagement with said rack, and a plate slidably supported by said head, said plate having locking means pro-



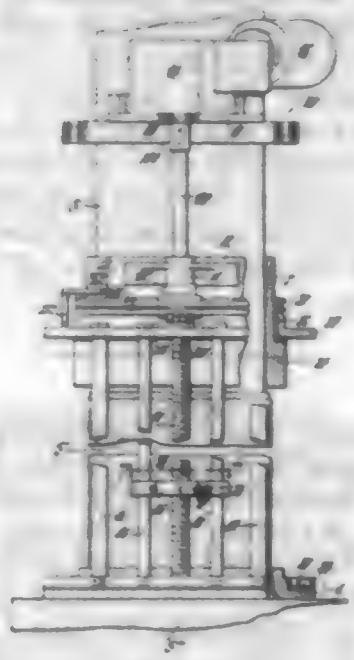
jecting out of the plane of the plate, said plate being slidable substantially radially of the axis of the worm between worm engaging and locking position and unlocking position.

2,869,410
REVERSIBLE RATCHET WRENCH WITH HANDLE EXTENSION MEANS
William K. Prichard, Sioux City, Iowa
Application August 30, 1956, Serial No. 607,168
1 Claim. (Cl. 81—177)



A reversible ratchet wrench comprising a head member, a handle member, and a socket unit, a substantial part of said socket unit being received within said head member; a handle extension member slidably engaging the outer end of said handle member, means for locking said extension member to said handle member in selected positions, including spring urged ball members positioned in said handle member, annular grooves in said handle extension member for receiving said balls, said grooves being spaced along said handle member.

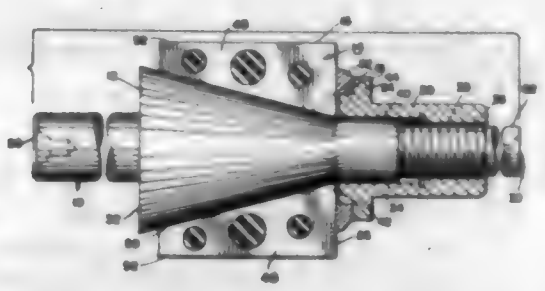
2,869,411
TURNING APPARATUS
Athanase J. Duprat, Chicopee, Mass., assignor to R. F. Perkins & Son, Inc., Chicopee, Mass., a corporation
Application October 19, 1956, Serial No. 617,123
2 Claims. (Cl. 82—4)



1. Turning apparatus for releasably securing to an elongated vertically disposed stationary shaft above a

lower portion thereof and for turning an elongated journal of said shaft above said lower portion comprising in combination, lower and upper sectionalized annular guide rings for releasably securing to an elongated vertically extending stationary shaft below and above an elongated journal of said shaft disposed above a lower portion thereof, a cage including lower and upper sectionalized annulus members rotatable on said lower and upper guide rings and a group of elongated rods circumferentially spaced about said annulus members having lower and upper ends secured therein, an elongated vertically disposed feed screw between a pair of said rods having lower and upper ends rotatable in said annulus members, a holder for a journal turning tool reciprocable up and down on said pair of rods and being in threaded engagement with said feed screw, rotating means for releasably securing to a vertically disposed shaft above said upper guide ring, driving connections between said rotating means and said upper annulus member, and engageable means carried by the upper end of said feed screw and said upper annulus member arranged for intermittent engagement in rotation of said upper annulus member for intermittent rotation of said feed screw to rotate said tool holder.

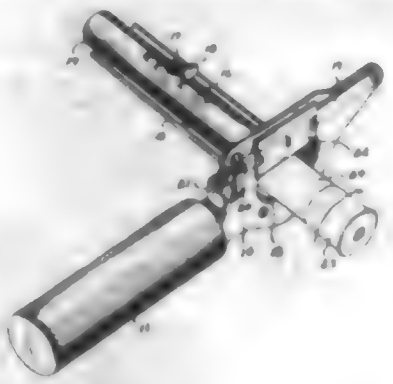
2,869,412
BUSHING
Mathias Joseph Simon, Chicago, Ill.
Application February 19, 1957, Serial No. 641,163
9 Claims. (Cl. 82—44)



2. An expanding arbor bushing supporting a hollow body on a lathe or the like, comprising an arbor adapted to be secured at each end upon a lathe, a camming structure disposed on said arbor coaxially thereof, said camming structure having a peripheral surface tapering conically, a bushing comprising a body of elastic material and having an exterior surface of cylindrical form and a predetermined diameter when the elastic material is in normal inert condition, said bushing having therein a conical bore tapered at an angle to the axis of said exterior surface substantially corresponding to the angle of taper of said conical surface and snugly fitting said camming structure in coaxial relationship, a plurality of wedge-shaped blades embedded in said elastic material bushing in circularly-spaced radial disposition with their opposite longitudinal edges respectively concentric with said conical bore and said exterior surface of said bushing, and means adapted to drive said bushing axially over said camming structure whereby to expand said bushing at a uniform rate for uniform edgewise engagement of said blades with the interior surface of the hollow body to be held thereby.

2,869,413
CARTRIDGE CASE TRIMMING DEVICE
Leonard A. Anderson, Royal, Iowa
Application December 28, 1956, Serial No. 631,318
6 Claims. (Cl. 86—24)

1. In a cartridge trimmer, a base portion, a trough on said base portion, a shaft rod slidably supported in said trough adapted to extend into the open end of a cartridge case, a means for locking said shaft rod against sliding movement in said trough, an arm lever having one end pivoted to said base portion, and a razor blade detachably secured to said arm lever, adapted to engage a cartridge case at a point where it is supported by said



shaft rod and trim the same when the cartridge case is manually rotated around said shaft rod.

2,869,414
STRIP-ADAPTOR FOR SPECTROPHOTOMETERS
Dale M. Schulz, Indianapolis, Ind., assignor to The James Whitcomb Riley Memorial Association, Indianapolis, Ind., a non-profit association of Indiana
Application May 12, 1954, Serial No. 429,225
2 Claims. (Cl. 88—14)

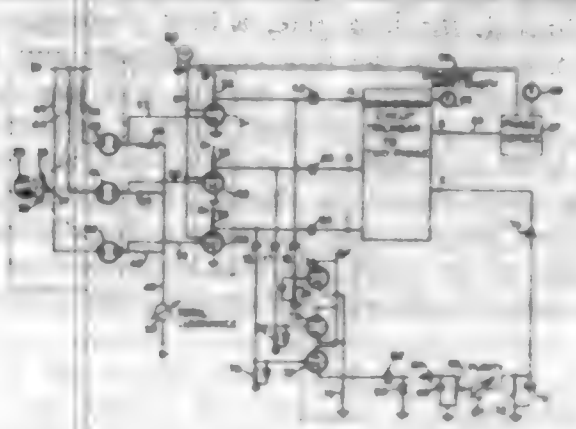


1. A strip adapter for spectrophotometers, comprising a strip-carrier having means adapting it to be removably received in the sample-holding well of a spectrophotometer to project in fixed position across the spectrophotometer's light-beam which is directed toward a photoelectric cell, said strip-carrier having (*a*) as its main carrying part a plug insertable into and removable from the well of the spectrophotometer and (*b*) a fixed guide-plate located in the spectrophotometer well and along which a strip may be moved across said light-beam and (*c*) means for holding said strip in adjusted position, which guide-plate has a light-metering window in said light-beam and is opaque to the passage of light save at that window, in which strip adapter there is a scale for measuring the position of the strip with respect to the window, said plug being split into two segments with said scale and said guide-plate both fixed upon the same segment of said split plug.

2,869,415
COLOR MEASURING CIRCUIT
Morton Kaye, South Norwalk, Conn., assignor, by mesne assignments, to The Perkin-Elmer Corporation, Norwalk, Conn., a corporation of New York
Application November 15, 1954, Serial No. 468,693
3 Claims. (Cl. 88—14)

1. An electrical color measuring circuit comprising means for producing an electrical signal proportional to each of the primary colors contained in the color to be measured, a source of alternating current voltage, a plurality of modulating means energized by said voltage source and each connected to receive a primary color

signal for producing an A. C. signal proportional to a primary color, electromagnetic means having a stator connected to receive said modulated signals at equidistant points about its circumference, said means including an



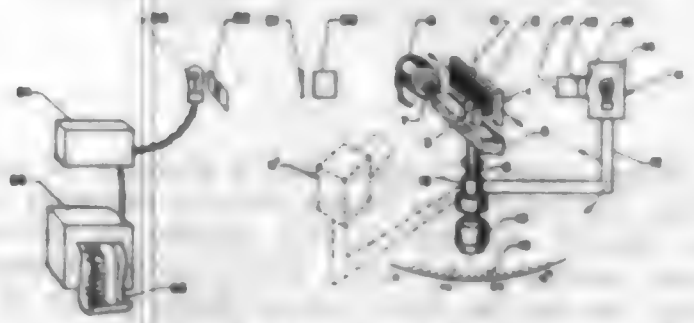
adjustable rotor in magnetic flux linkage with the resultant magnetic field of said stator, whereby the position of said rotor which produces maximum signal is indicative of the hue of said color to be measured.

2,869,416

OPTICAL FABRIC ANALYZER

Donald F. Nieman, Charlottesville, Va., and William L. Hart, Dalton, Pa., assignors to Institute of Textile Technology, Charlottesville, Va., a corporation of Virginia

Application April 14, 1955, Serial No. 501,324
10 Claims. (Cl. 88—14)



1. Apparatus for analyzing woven fabric by detecting variations in the intensity of light transmitted through or reflected from elemental areas of the fabric, which apparatus comprises a specimen carriage, means for mounting said carriage for rotation about an axis, a frame for plane mounting of a fabric specimen to be analyzed, means for movably mounting said frame on said carriage such that the axis of rotation of the carriage always lies in the specimen plane and the frame moves on the carriage radially of the carriage axis, specimen illuminating means mounted for revolution through an arc of more than 180° about the axis of rotation of the carriage, said illuminating means including a light source and a first optical system for projectihg light onto the area of the specimen frame in which the carriage axis lies, a first light sensitive means and a second optical system adapted to project on said light sensitive means light emanating by transmission through or reflection from an elemental area of the specimen frame in which the carriage axis lies, and means responsive to said light sensitive means for detecting the variations in intensity of the light projected thereon.

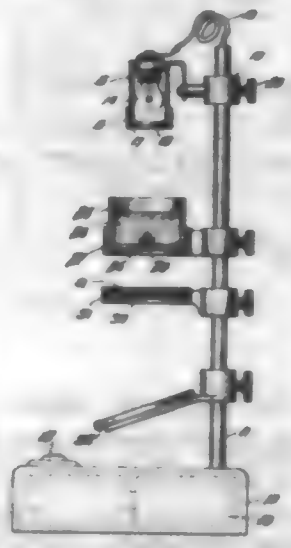
2,869,417

REFRACTOMETERS

Roy M. Allen, Verona, N. J., assignor to R. P. Cargille Laboratories, Inc., New York, N. Y., a corporation of New York

Application January 9, 1956, Serial No. 557,914
1 Claim. (Cl. 88—14)

Vertically disposed optical apparatus for use with transparent crystalline material, comprising a point source of projection illumination, and means to energize the same; a housing for the illumination source, said housing having an opening in the optical axis of the illumination source; means removably associated with the housing at its opening to support light-polarizing means over said opening; an immersion cell with transparent bottom adapted for retaining liquid of known refractive index, and means to support the cell adjustably in the optical



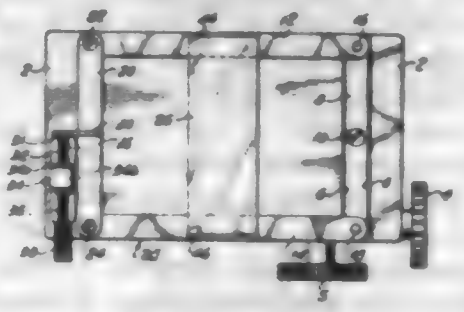
axis of the illumination source; a vertically adjustable ground glass screen located in said axis beyond the cell in the projection direction to receive a projected image of a specimen of crystalline material in the cell; a mirror also located similarly in said axis and beyond the screen to reflect images projected onto the screen; and removable light-polarizing means supported by the ground glass screen in the optical axis of the illumination source.

2,869,418

PLATE HOLDING MICROPHOTOMETER ATTACHMENT

Carl P. Miller, Poughkeepsie, and Allan Jamieson, Beacon, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

Application March 8, 1956, Serial No. 570,308
4 Claims. (Cl. 88—14)



1. A photographic plate holding attachment for a microphotometer capable of projecting a linear light beam comprising a carriage having a slot therein, a plate holding frame having one side mounted for pivotal movement within the slot in said carriage, adjustment means for the precise pivotal movement of said frame, means to move said carriage laterally relative to said linear light beam, and means to move said carriage longitudinally relative to said linear light beam.

2,869,419

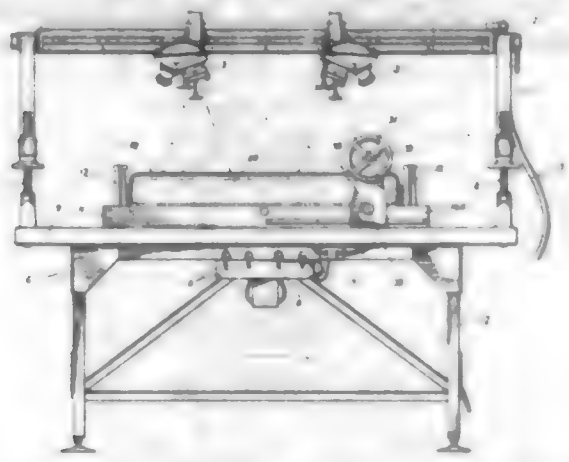
ORTHOPHOTOSCOPE

Russell K. Bean, Vienna, Va., assignor to the United States of America as represented by the Secretary of the Interior

Application August 28, 1956, Serial No. 606,788
12 Claims. (Cl. 88—24)
(Granted under Title 35, U. S. Code (1952), sec. 266)

12. A photogrammetric device for producing orthographic reconstituted photographs comprising in combination a pair of projectors adapted to project a pair of

stereoscopically related transparencies of the object to be photographed, a film supporting platen upon which said transparencies are projected to produce a stereoscopic image which is an optical model of the object, a screen covering said platen having a slit therein for



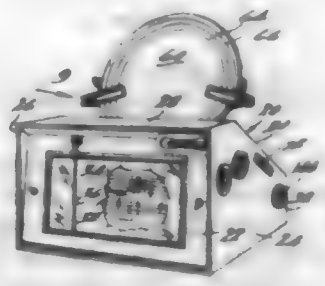
passage of light therethrough, means for progressively moving said screen in predetermined directions parallel to the plane of said platen and means for displacing said platen and screen at right angles to said plane whereby said slit may be kept in register with the surface of said optical model.

2,869,420

DEVICE FOR DISPLAYING MOVING INFORMATION

Fred G. Thannhauser, Royal Oak, Mich.

Application September 13, 1956, Serial No. 609,677
5 Claims. (Cl. 88—27)



1. A device for displaying moving information on a stationary screen comprising a housing, a screen carried by said housing, guide and support means carried by said housing and extending outwardly therefrom, a light source disposed in said housing, a lens mounted adjacent said light source to accommodate the projection of said moving information on said screen, a circular film disc carried and positioned by said guide and support means and having a portion extending into said housing between said light source and said lens, and drive means frictionally engaging said film disc and adapted to selectively move said disc at a plurality of predetermined speeds.

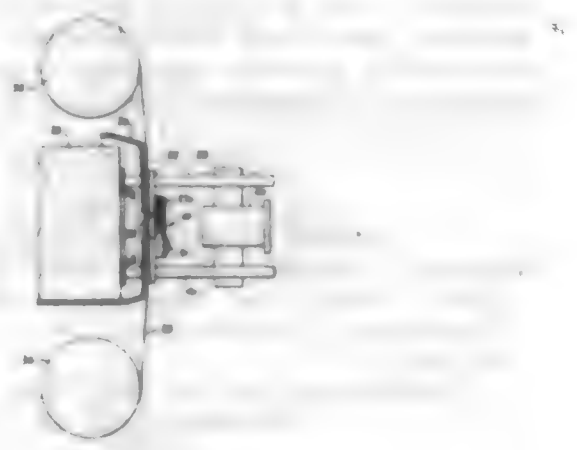
2,869,421

STILL PICTURE ATTACHMENT FOR MOVING PICTURE PROJECTORS

Ivan Pokolic, Karlovac, Yugoslavia

Application July 30, 1957, Serial No. 675,170
1 Claim. (Cl. 88—28)

In combination with a motion picture projector of the type having a film gate and a focusing lens member mounted outwardly of said gate, an attachment for quickly converting same to stereopticon usage, comprising, a housing adapted to be mounted directly on the film gate over the projection opening thereof, the housing having bounding side walls and spaced front and rear walls defining a recessed rear compartment and a vertically extending channel between the front and rear walls, said channel being closed at the bottom and along one side and open at the top and along the other side, the front and rear walls having aligned openings therethrough positioned at the optical axis of the film gate, the side walls having laterally extending mounting ears adapted to seat against the film gate, said ears having mounting holes therein to receive mounting screws passed through the film gate, a heat absorbing window slidably mounted in the rear compartment and movable between a first position, in register with the rear wall opening, and a second position, clear of said wall opening, the front wall having a rearwardly extending flange along the open side of the channel, the said flange being spaced from the rear wall to define a slot starting at the lower edge of the front and rear wall openings and extending upwardly thereof, leaving the channel side below



the flange completely open, and a plurality of transparency holding frames having laterally extending handles, slidably mounted in said channel in vertically stacked arrangement, with their handles extending through the slot, the frame resting on the bottom of the channel being movable sideways through said open channel side below the flange, the frames resting on the bottom frame being movable vertically of said channel and slot, only, the spacing of the stacked frames being such that one of the framed transparencies will be aligned with the optical axis of the projector and the housing wall openings when two or more frames are stacked in the channel.

2,869,422

MULTIFOCAL LENS HAVING A LOCALLY VARIABLE POWER

Bernard Cretin-Maitenaz, Joinville-le-Pont, France, assignor to Societe en commandite simple et en nom collectif à l'egard de Gerants, dite: Societe Industrielle et Commerciale des Ouvriers Lunetiers (Cottet, Poichet, Tagnon & Cie), Paris, France

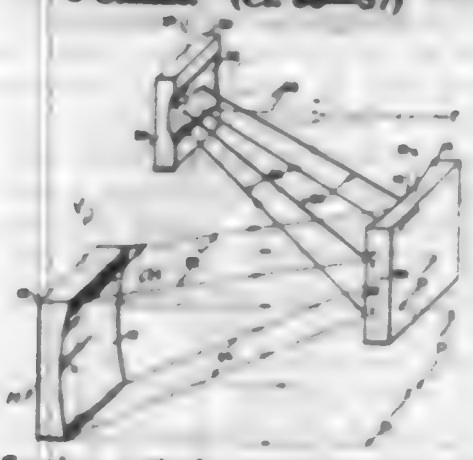
Application November 23, 1954, Serial No. 470,755
Claims priority, application France November 25, 1953
2 Claims. (Cl. 88—54)



1. A multifocal lens of continuously varying focal power having one of its faces shaped in a surface with its medial curve extending across the lens and said medial

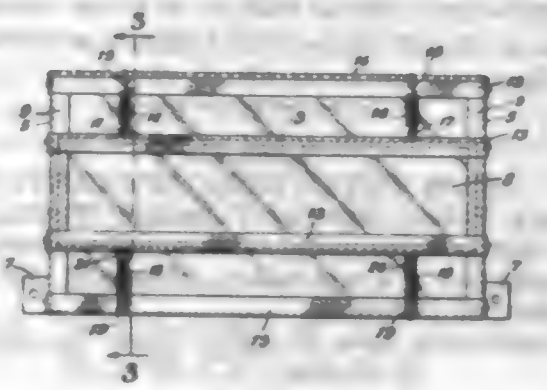
curve having a continuously varying radius of curvature, the laterally disposed portions of the surface for a substantial distance on each side of said medial curve being substantially spherical in shape, the said substantially spherical surface of said laterally disposed portions being that of a generatrix curve which is a circular arc having a constant radius of substantially the same radius as the minimum radius of said medial curve, said generatrix curve moving along said medial curve and intersecting it orthogonally at all points but lying successively in planes inclined at different angles to the tangent of said medial curve at each successive point along said medial curve, the plane of the generatrix curve at each point on the medial curve being inclined relative to the tangent to the medial curve at said point at an angle of which the sine is the radius of the generatrix curve over the radius of curvature of the medial curve at said point so that a line normal to the plane of said generatrix curve at the center of said curve passes in each instance through the instantaneous center of curvature of the medial curve at said point, the surface thus defined having spherical curvature at each point along said medial curve and substantially spherical curvature for a substantial distance on each side of said medial curve and providing a lens surface of continuously varying power.

2,869,423
REFLECTIVE OPTICAL SYSTEMS
Legare W. Hoge and Ralph L. Pendley, Athens, Ga.
Application May 3, 1954, Serial No. 427,221
6 Claims. (Cl. 88—57)



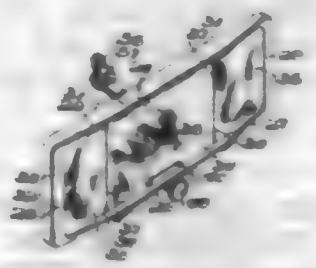
1. In a reflective optical system formed of a plurality of cylindrically shaped concave reflecting surfaces, first means for intercepting all of a group of incoming light rays and reflecting all of them with the rays parallel in one axis and converging in the other axis forming a converging pattern of light, second reflecting means receiving said pattern of light and reflecting same with the parallel incoming rays assuming convergence and with the converging incoming rays reflected in the same degree of convergence, the focal length of said first means being greater than the total of the focal length of said second means plus the separation thereof and positioned so that the uninterrupted focal point of said first means is beyond the focal point of said second means, thereby forming a pattern of light having different degrees of convergence and a third reflecting element positioned to receive all the incoming pattern of light to converge all converging rays while bringing them to a common distant focal point, said last named means being an optical element with the optical axes thereof corresponding to respective optical axes of said first and second means, said means also being positioned and located with the optical focal lengths thereof to receive converging rays from said first means in one optical axis thereof by the way of said second means to bring same to a focal point and to receive rays of different convergence from said second means to being same to the identical focal point, thereby converge said differently converging rays to a common focal point.

2,869,424
REFLECTIVE WARNING DEVICE
Richard B. Hammer, Chicago, Ill.
Application February 24, 1956, Serial No. 567,513
4 Claims. (Cl. 88—61)



1. A self-actuated vehicular warning device adapted to be operated by the movement of the vehicle on which it is mounted including a support structure adapted to be secured to a vehicle, a reflector member having a reflecting surface, at least one barrier member having a non-reflective surface overlying a portion of the reflecting surface, yielding means for suspending one of the members from the support structure, said yielding means permitting a range of generally parallel movement of one member with respect to the other and to the support structure in response to vehicle induced movement of the support structure, means for securing the other of said members to the support structure, said non-reflective surface overlying a portion of the reflecting surface at a position within the range of movement of the members permitted by the yielding suspending means to thereby furnish alternate bursts of reflected light emanating from that portion of the reflector which appears from behind the non-reflective surface.

2,869,425
REAR VIEW MIRROR FOR VEHICLES
Henry Kershaw, Belleville, N. J.
Application October 29, 1953, Serial No. 389,828
2 Claims. (Cl. 88—87)



1. A rear view mirror comprising a casing having walls and ends defining a mirror receiving chamber, said chamber having a relatively wide central portion and gradually narrowing end portions which taper toward said ends of the casing, said casing having an opening in one wall thereof to expose the mirror held within said chamber, an intermediate mirror section positioned within said relatively wide central chamber portion and shiftable bodily forwardly and rearwardly therein, end mirror sections disposed within the gradually narrowing end chamber portions and pivotally connected with the intermediate mirror section and swinging about their outer ends to selected angularly adjusted positions, resilient cushioning elements arranged between the ends of the casing and

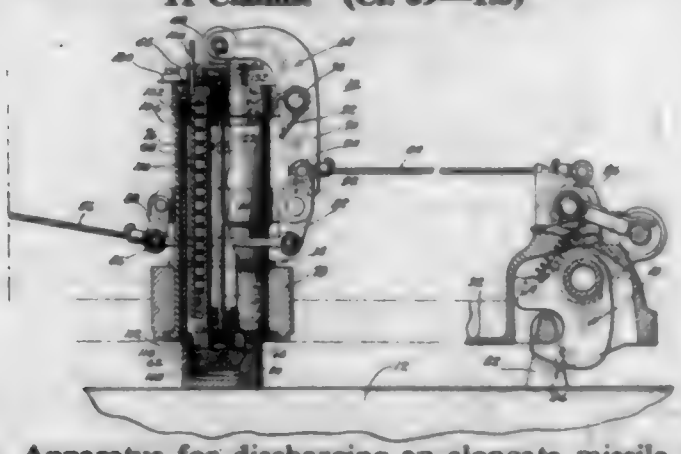
the outer ends of the end mirror sections and being compressed, and direct operating means connected with said intermediate mirror section and operable from the exterior of the casing to shift the intermediate mirror section forwardly and rearwardly, said cushioning elements yielding during the forward and rearward movement of the intermediate mirror section to allow the end mirror sections to adjust themselves laterally somewhat within said casing.

2,869,426

MASS DEPLOYING APPARATUS

Wallace J. Wilkie, Superior Township, Washtenaw County, Mich., assignor, by mesne assignments, to Avco Manufacturing Corporation, Stratford, Conn., a corporation of Delaware

Application June 10, 1955, Serial No. 514,528
11 Claims. (Cl. 89—1.5)



2. Apparatus for discharging an elongate missile from an aircraft comprising spaced retaining hook means releasably securing said missile adjacent to said aircraft, means normally urging said hook means to a release position, ejection means mounted in said aircraft intermediate said hook means for forcefully ejecting said missile from said position adjacent the aircraft, said ejection means comprising an open-ended housing, a longitudinally extensible sealed unitary cylindrical enclosure freely contained within said housing, one end of said enclosure extending through the open end of said housing and abutting said missile, explosive means within said enclosure, control means engageable by the other end of said enclosure, means limiting the extension of said other end of the enclosure, spring means in said housing compressed by said initial motion to eject said sealed unitary enclosure following release of said hook means, and latch means maintaining said hook means in the missile retaining position and released by said control means, the initial motion of said extensible enclosure following ignition of said explosive means actuating said control means to operate said latch means and release said hook means.

2,869,427

MACHINE AND METHOD FOR PRODUCING TAPERED GEARS

Leonard O. Carlsen, Rochester, William C. Critchley, Brighton, and Charles F. Magee, Rochester, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York

Application August 6, 1953, Serial No. 372,623
20 Claims. (Cl. 90—3)

1. A machine for generating gears comprising a movable carrier, a tool support and a rotatable work spindle of which one is mounted on the carrier, the tool support and the work spindle being relatively movable in a direction depthwise of the gear teeth to be produced, and a generating train connecting the work spindle and the carrier for relative rolling generating motion, characterized in that there is a means to operate said train alternately in opposite directions with a dwell at an intermediate point between the beginning and the mid-point of the motion in one direction, and means to relatively move the tool support and work spindle into nearly full depth position during said dwell and to complete said relative movement into full depth position at the end of said motion in one direction.



7. The method of cutting a gear by a rolling generating motion in which the work is first cut during a generating roll in one direction and then is finished cut during the return roll, with a small relative infeed of the cutter and work after the first cut, characterized by an infeed to the full depth of said first cut during a dwell in the generating roll in said one direction at a point intermediate the beginning and the mid-point of said roll.

2,869,428

LUBRICANT DRAIN FOR MACHINE TOOL LUBRICATING SYSTEM

Edwin Percy Ormsby, Lamartine, Wis., assignor to Giddings & Lewis Machine Tool Company, Fond du Lac, Wis., a corporation of Wisconsin

Application September 4, 1956, Serial No. 607,951
10 Claims. (Cl. 90—11)

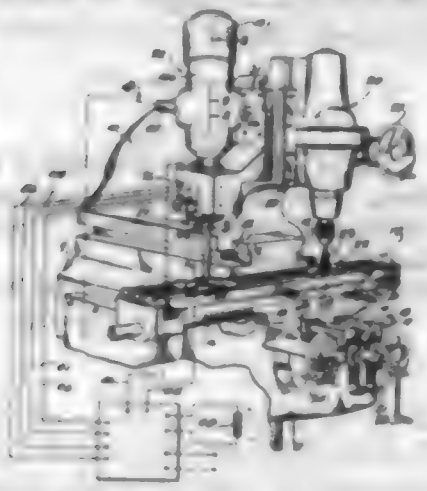


7. A lubricant-coolant fluid drain device for use on a machine tool having a horizontally disposed base, an upright column on the base, a spindle headstock supported on the column for vertical adjustment and a fluid circulating system including a fluid reservoir located in the base, and a pump for continuously pumping the fluid from the reservoir into the headstock, said fluid drain device comprising, in combination, an outwardly opening channel extending the length of the column and having its lower end opening into the reservoir in the base, a pair of resilient tubes extending along the open side of said channel and diametrically disposed between the channel sidewalls, means for pressurizing said tubes so that they sealingly abut each other and the channel sidewalls for preventing the escape of fluid from within the drain tube thus formed between the channel and the pressurized tubes, and a streamlined nozzle extending outwardly from said headstock and into sliding and sealing engagement between said tubes for conducting fluid out of the headstock and into said drain tube at all vertical adjustments of the headstock on the column, said nozzle being substantially diamond-shaped in cross section and having peripheral shoulder surfaces for sealingly engaging said pressurized tubes whereby the fluid flows from the headstock into the reservoir without leakage thereof from the drain device.

2,869,429
PATTERN CONTROLLED MACHINE TOOL

Theodore A. Wetzel, Milwaukee, Wis., assignor to Kearney & Trecker Corporation, West Allis, Wis., a corporation of Wisconsin

Application October 16, 1952, Serial No. 315,034
9 Claims. (Cl. 90—13.5)

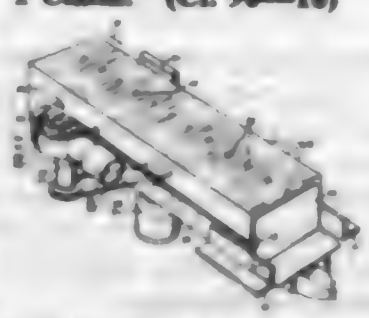


1. In a pattern controlled machine tool, a base, a source of power, a drive wheel connected to be rotated by said source of power, a sphere in contact with the periphery of said drive wheel to be rotated by it, a pair of power take-off wheels rotatably mounted with their axes of rotation in fixed relationship and their peripheries in contact with said sphere to be rotated by it, a pattern and work supporting table movably mounted on said base and connected to be driven in its path of movement by one of said power take-off wheels as it is rotated by said sphere, a spindle head mounted on said base for movement in a direction transverse to the movement of said table and connected to be driven in its path of movement by the other of said power take-off wheels as it is rotated by said sphere, a cutter rotatably carried by said spindle head in position to engage the work, and a tracer mounted on said spindle head in position to contact said pattern and connected to steer said drive wheel for varying the position of its axis of rotation in accordance with the dictates of the pattern to correspondingly vary the axis of rotation of said sphere and thereby vary the speed of said power take-off wheels in a definite relationship, whereby the rate of movement of said table and spindle head will be varied accordingly, to cause the cutter to reproduce the pattern in the work.

2,869,430
MACHINE FOR MILLING SLOTS IN FANFOLD PAPER TOWELS

Louis H. Morin, Bronx, N. Y., assignor to West Chemical Products Inc., a corporation of New York

Application March 14, 1955, Serial No. 494,035
1 Claim. (Cl. 90—16)

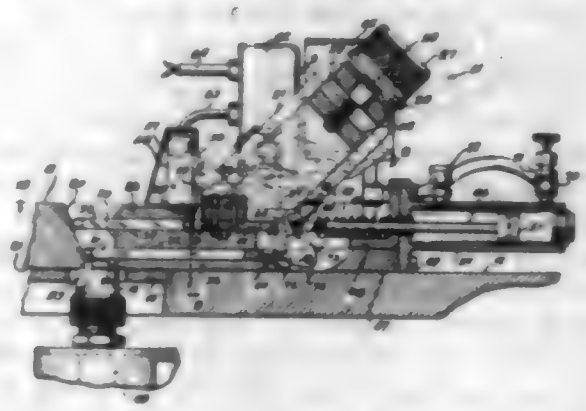


In machines for forming and delivering fanfold paper towel bundles to an elongated delivery bed, a milling attachment for milling slots in one edge portion of the bundles automatically fed along said bed, said bed including spaced side bundle guide rails, said attachment comprising a fixed frame on said bed, a frame unit comprising vertical and cross-frame members movable on said fixed frame, means on said fixed frame operatively engaging said vertical member in transversely adjusting said frame unit with respect to the bed, a cutter housing vertically adjustable on the vertical member of said unit, an electric motor in spaced relationship to said housing and vertically adjustable on said cross-frame member axially of the motor shaft, the housing including, at one end, a hollow casing, a shaft rotatably mounted in the housing and having a multiple blade cutter operating in the casing and spaced above one side guide rail to operatively engage one side of said towel bundle to form a milled slot in said side of the bundles, the casing of said housing being open in the direction facing the towel bundles, means coupled with the casing for exhausting particles removed from the towel bundles in forming the slot therein, means providing a drive connection between the cutter shaft and the shaft of said motor, and means protruding beyond the other side guide rail for backing-up the side of the towel bundles opposed to and in alinement with the respect to said cutter so as to place the bundles under pressure.

2,869,431
CONTROLLABLE APPARATUS FOR RADIUS CUTTERS

Albert F. Hartwig, University City, Mo., assignor to McDonnell Aircraft Corporation, St. Louis, Mo., a corporation of Maryland

Application June 13, 1955, Serial No. 514,929
9 Claims. (Cl. 90—19)



2. Apparatus for guiding a variable bevel angle surface of a form block past a radius cutting element having a radius cutting contour, said apparatus comprising a first form block contour reader mounted for longitudinal movement, said reader including aligned companion feeler parts having lost-motion connection for relative movement therebetween and resilient means associated with said feeler parts to extend said lost motion connection, a second form block contour reader including a follower feeler adjacent said first contour reader, a cam device connected to said first contour reader and pivoted adjacent said follower feeler, said cam device having a cam lobe adapted to be in binding engagement with said follower feeler to frictionally retain said first contour reader, said first contour reader adjusts longitudinally when the engagement of said second reader senses a variation in the form block bevel angle to thereby allow said feeler parts to be extended, said resilient means and controllable booster means operatively connected to cause said longitudinal movement of said companion feeler parts of said first contour reader, and means actuated by the relative movement of said feeler parts to cause said booster means to overpower said binding engagement and project said first reader.

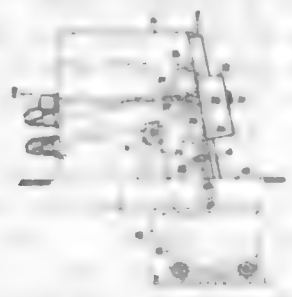
2,869,432
HOT MACHINING OF METAL INGOTS

Herbert Sedlaczek, Aachen, and Oskar Waldrich, Siegen, Westphalia, Germany

Application June 28, 1954, Serial No. 439,724
Claims priority, application Germany July 4, 1953
6 Claims. (Cl. 90—43)

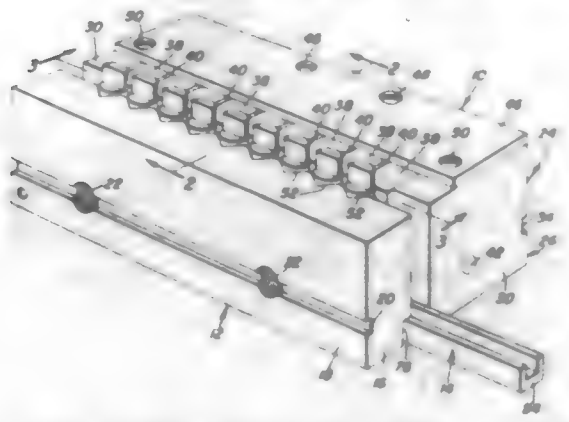
1. A machine for planing a hot ingot comprising a pair of supporting columns, a guide on each column at

an angle not exceeding 30° from the vertical, means adjustable on the said columns for supporting an ingot with one face parallel to said guides and its dead head uppermost, a cross beam slidably mounted on said guides, a guide on said cross beam parallel with said one face of



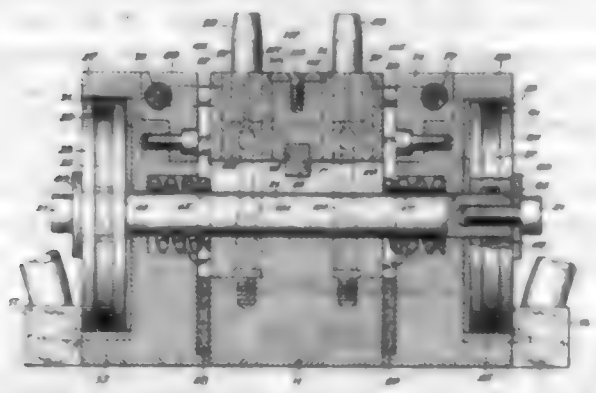
an ingot when carried by said supporting means, at least one toolholder movable on said last mentioned guide, and means for reciprocating said cross beam on its guides, whereby a tool mounted in said tool holder may be moved along said face of an ingot supported in the machine.

2,869,433
LOADING MAGAZINE FOR A WORK HOLDING FIXTURE
Aldege L. Dery, Pine Meadow, Conn.
Application April 25, 1957, Serial No. 655,090
5 Claims. (Cl. 90—59)



1. A work holding fixture assembly comprising a pair of opposed relatively movable jaws, one of said jaws including a plurality of longitudinally spaced individual jaw members, the other of said jaws having a lower recessed area, an elongated loading magazine seated between said jaws and partially disposed in said recessed area free of said other jaw, means on said loading magazine for engaging individual work pieces and retaining same in alignment with said individual jaw members.

2,869,434
HYDRAULIC VISE
James L. Fish, Chicago, and John H. Fish, Hillside, Ill.
Application April 15, 1957, Serial No. 653,019
14 Claims. (Cl. 90—60)



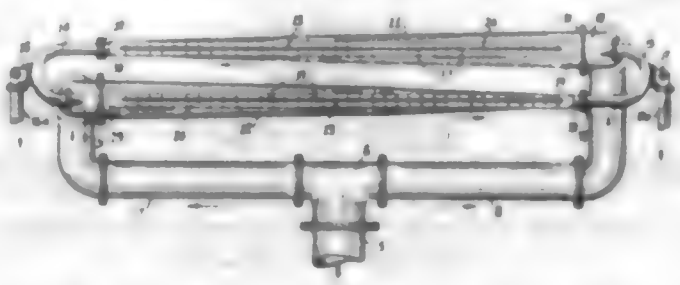
1. An hydraulically actuated vise for holding a plurality of work pieces in position including in combination, a supporting base member, a supporting rod supported on said base member and extending outwardly from opposite sides thereof, a pair of pistons positioned one at each end of said rod, a pair of jaw members supported on said rod and having recesses receiving said pistons, means to supply and withdraw a hydraulic fluid under pressure into the portion of each recess closed by said pistons and thereby to cause said jaw members to move inwardly and outwardly relative to said supporting base member, and a supporting member positioned on said base member and arranged to position work pieces for clamping by said movable jaw members.

2,869,435
PROCESS AND PRODUCT
Seymour Sands, New Castle, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application January 3, 1956, Serial No. 557,096
10 Claims. (Cl. 92—3)



1. A process of suspending a fibrous material in an essentially aqueous medium which comprises coating the said fibrous material with a gelatinous reaction product of a water-soluble salt of a long chain aliphatic sulfate and a water-soluble salt of a long chain aliphatic quaternary ammonium compound, the said gelatinous reaction product being formed by gently combining substantially equimolecular proportions of the said sulfate and said quaternary ammonium compound in the presence of water, and thereafter drying the said fibrous material bearing the said gelatinous reaction product and dropping the said dried, coated fibrous material upon the agitated surface of the said aqueous medium.

2,869,436
STOCK CROSS-FLOW DISTRIBUTION
Alexander Eric Stewart, Lachine, Quebec, Canada, assignor to Dominion Engineering Works Limited, Montreal, Quebec, Canada
Application June 7, 1957, Serial No. 664,406
13 Claims. (Cl. 92—44)

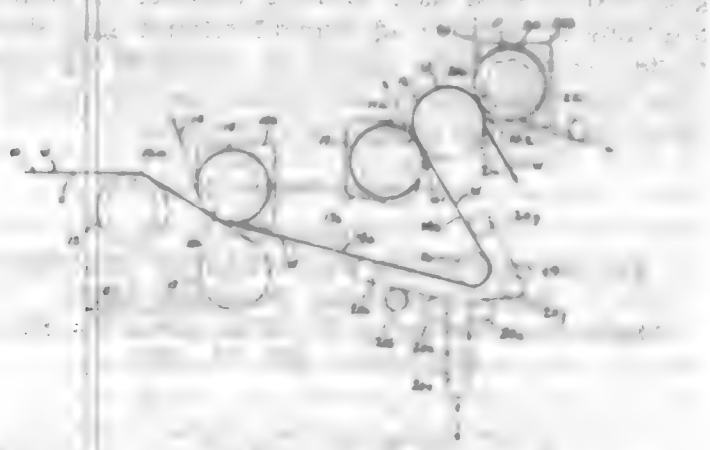


1. Stock feeding means of the character described comprising conical counter-flow stock feed passages directed across the width of a paper machine, the large end of one conical feed passage being adjacent the small end of the other conical feed passage, the said stock feed passages having discharge slots extending throughout their length, and outlet means disposed at the small ends of each said stock feed passages.

2,869,437
PAPER MACHINE PRESS SECTION
Lloyd Hornbostel, Edward D. Beachler, and Donald A. Ely, Beloit, Wis., assignors to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application September 15, 1955, Serial No. 534,442
21 Claims. (Cl. 92—49)

1. In a paper machine, a looped felt, a suction roll within the loop of said felt with a suction area covered

by the felt, a supporting member having a foraminous surface carrying a wet web thereon and urging the web against the felt covered suction area, means guiding said



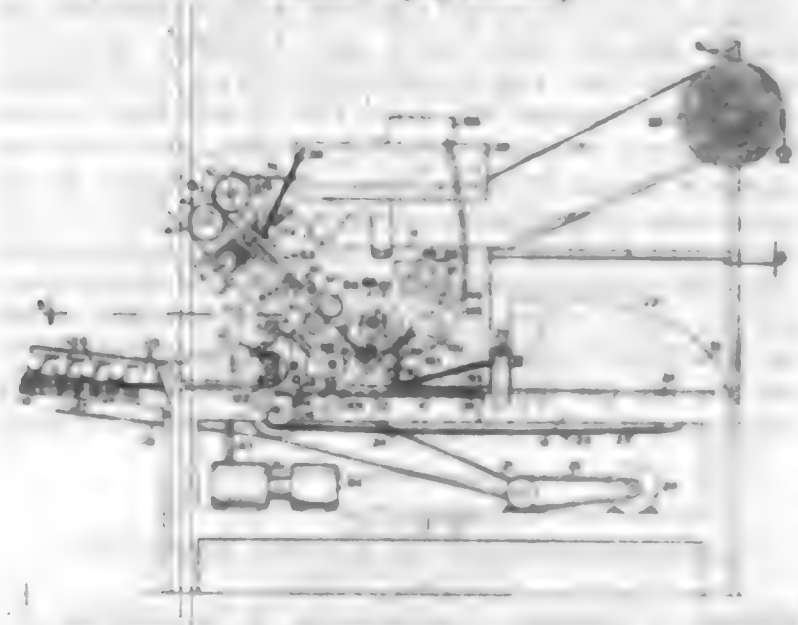
felt away from the suction area in a downwardly inclined plane, and a save-all pan interposed between the suction roll and the felt in close running relation to the suction area on the offrunning side thereof.

2,869,438

MACHINE FOR ATTACHING HANDLES TO CARTONS

William M. Watson, Portland, Oreg., assignor, by mesne assignments, to Paper Strap, Inc., Portland, Oreg., a corporation of Oregon

Application September 20, 1954, Serial No. 457,236
5 Claims. (Cl. 93—36)



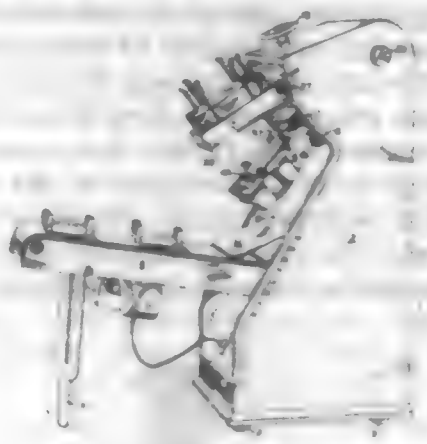
1. In a machine for attaching strap handles onto rectangular carton blanks, means for feeding a carton blank through the machine at a predetermined speed with the leading edge of the blank extending at right angles to the direction of movement thereof, means for feeding strap comprising a pair of continuously driven draw rolls revolving at a predetermined speed for drawing strap from a supply of the same, means mounting one of said rolls for movement toward and away from the other whereby said one roll may be moved toward said other roll to engage said strap therebetween and cause the same to be withdrawn and said one roll may be moved away from said other roll to terminate withdrawal of said strap from the supply thereof, means normally biasing said one roll away from said other roll, motor means operatively connected to said one roll adapted upon actuation to move said one roll into pressurable engagement with said other roll, normally open switch means operatively arranged in the path of travel of said carton blank and adapted to be closed during the traverse of said carton blank therepast, and circuit means operatively connecting said switch means to said motor means for actuating the same during closure of said switch means whereby a length of strap dependent on the width of the blank will be drawn from said supply.

2,869,439

CARTON SETTING UP MACHINE

William H. Wilcox, Stockton, Calif., assignor to Fibreboard Paper Products Corporation, a corporation of Delaware

Application December 9, 1954, Serial No. 474,181
32 Claims. (Cl. 93—49)



10. A machine for setting up a carton blank of the type having a bottom panel, a first pair of opposite walls hingedly connected to said bottom panel each of which is formed with a lock forming cut adjacent each end thereof providing a deflectable wall portion adjacent such end, and a second pair of opposite walls hingedly connected to said bottom panel and extending transversely with respect to said first pair of walls, each of said second pair of walls having a hingedly connected end flap adjacent each end thereof having a locking tab adapted to be received in an opening formed at each lock forming cut when the deflectable wall portion adjacent such cut is deflected outwardly; comprising hopper means to hold said carton blanks, former means for setting up said carton blanks, means for moving one of said means relative the other, transfer means to transfer blanks from said hopper means to said former means, said former means having a first pair of opposite side members, each of said side members having portions adapted to accommodate deflectable wall portions of the first pair of carton walls when said wall portions are deflected to provide the tab receiving openings in each of said first pair of carton walls, a second pair of opposite side members extending transversely with respect to said first pair of opposite side members cooperable with said second pair of opposite carton walls, means for moving said side members upwardly for folding said carton walls upwardly adjacent said side members to effect setting up of all of said carton walls and bending of said end flaps adjacent said first pair of side members, a pair of deflecting fingers adjacent each of said first pair of side members cooperable with said accommodating portions of such side members, means movably supporting each of said fingers adjacent one end thereof for movement over and across the top of the side member, and means for moving said fingers to cause the opposite ends thereof to cooperate with said accommodating portions to deflect said deflectable carton wall portions into said accommodating portions to form said tab receiving openings.

2,869,440

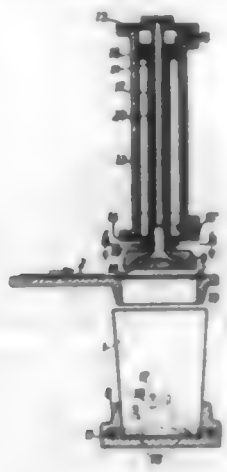
METHOD OF AND APPARATUS FOR MAKING POLYGONAL CONTAINERS OF PAPER, CARDBOARD OR THE LIKE

Hans Zerlin and Heinz Michaelis, Dusseldorf, Germany, assignors to Jagen-Werke Akt.-Ges., Dusseldorf, Germany

Application July 19, 1955, Serial No. 522,986
11 Claims. (Cl. 93—55.1)

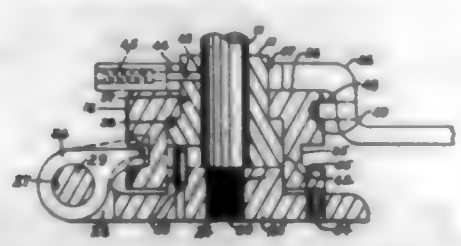
1. Apparatus for producing tapered, polygonal containers from paper, cardboard or like carton forming material comprising cup-shaped supporting means for supporting an open ended downwardly tapered container

body portion with the larger end exposed, said supporting means having a tapered wall structure bracing the smaller end of a container means defining a forming channel supported in spaced relation to and in alignment with the exposed end, said forming channel having surfaces for supporting a closure blank, said forming channel having a downwardly and inwardly tapered mouth and straight walls having interior dimensions substantially corresponding to the interior dimensions of the smaller end of the body, said closure blank having flange-forming portions and triangular shaped corner portions between the flanges, a plunger means having face dimensions substantially corresponding to the dimensions of the smaller end of the body and mounting means for the plunger means in alignment with the forming channel and container body portion whereby movement of the plunger means toward



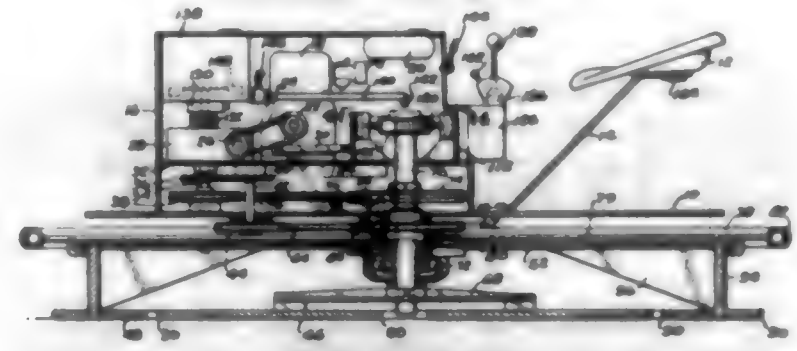
the body forces a closure blank through the forming channel to partially erect a flange and corner structure thereon and continued movement of the plunger means forces the partially erected blank into the container body portion to progressively engage the flange and corner structure of the blank with the braced interior of the body, the tapered wall structure of the supporting means extending axially of the body a distance substantially in excess of the axial extent of the flange and corner structure, and said plunger means having a length of movement such as to move the blank to a position substantially flush with the smaller end of the body whereby the flange and corner structure of the blank are pressed into conforming engagement with the braced interior of the smaller end of the body by the cooperation of the plunger with the tapered wall structure of the supporting means.

2,869,441
ROTARY TROWELING MACHINE
Ralph G. Barnes, Davenport, Iowa, assignor to Master Vibrator Company, Dayton, Ohio, a corporation of Ohio
Application July 18, 1955, Serial No. 522,772
7 Claims. (Cl. 94—45)



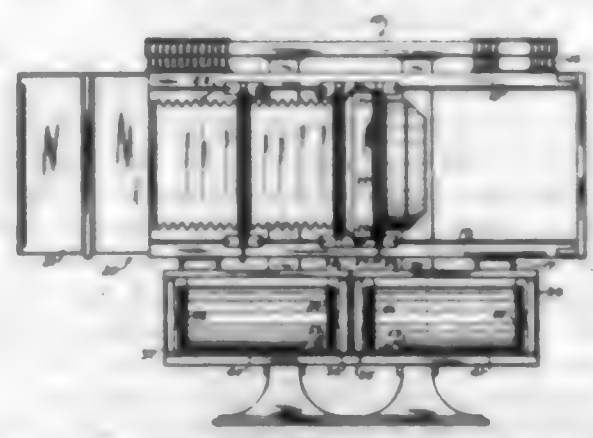
4. A troweling or like machine, including a rotary drive shaft, a base plate mounted on said shaft in a plane normal to the shaft and rotatable therewith, a bushing member slidably and rotatably mounted on said shaft, cooperating means on said base plate and said bushing member interengaging for resolving a rotary motion of said member into a longitudinal movement thereof, a sleeve supported on and longitudinally movable with said bushing member having means connected to prevent rotation thereof relative said shaft, a manually operable lever connected to said bushing member for rotation thereof, means on said lever and said sleeve interengageable to hold said bushing member in selected set positions of rotative adjustment relative said shaft, and blade carrying arms adjustably mounted on said base plate and connected to said sleeve for adjustment thereof by longitudinal motion of said sleeve.

2,869,442
FLOATING AND TROWELING MACHINE
John M. Mischer, Dearborn, Mich.
Application November 29, 1956, Serial No. 625,185
10 Claims. (Cl. 94—45)



9. A combined floating and troweling machine for finishing plastic floors comprising a frame having a horizontal supporting platform, means on said platform for supporting an operator, a vertically extending sleeve journalled for rotation on said platform, a shaft extending upwardly through said sleeve and rotatably supported therein, the lower end of said sleeve having fixed thereon a troweling member, the lower end of said shaft having fixed thereon a second troweling member, said troweling members having finishing faces generally aligned in the same plane perpendicular to the axis of rotation of said sleeve and shaft, a motor on said frame, means interconnecting said motor with said sleeve and shaft to rotate the sleeve and shaft in opposite directions and means on said frame for tilting said shaft within said sleeve to thereby tilt the finishing face of one of the troweling members out of the plane of the other traveling member.

2,869,443
APPARATUS FOR SELECTING PRINTING CHARACTERS
William C. Huebner, Mamaroneck, N. Y., assignor, by mesne assignments, to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application June 27, 1952, Serial No. 296,005
4 Claims. (Cl. 95—4.5)



1. In an apparatus for preselecting printing characters corresponding to a line of type, a plurality of manually actuated means each representative of one of the characters to be reproduced, a pair of rotatable members, a separate set of signal producing means associated with each of said members with the number of means in each set corresponding to the number of manually actuated means, means for selectively connecting the signal pro-

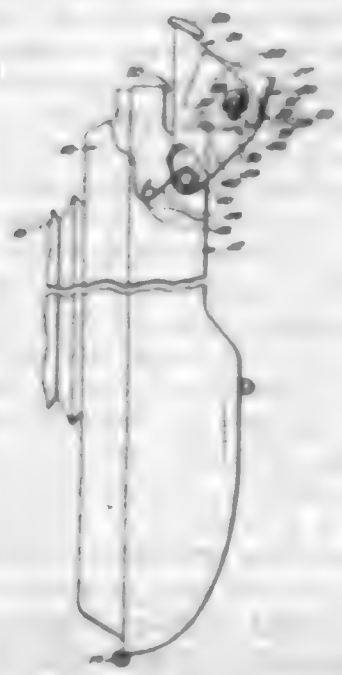
ducing means of either set to said manually actuated means for producing a signal on the corresponding rotatable member when a manually actuated means is operated, means to produce step-by-step rotation of that rotatable member associated with the operating set of signal producing means in timed relationship with the operation of a manually operable means so that each signal is spaced circumferentially on a rotatable member from the previously impressed signal, separate sets of signal sensing means adjacent each of said rotatable members selectively operatively connectable with means controlling reproduction of printing characters, means for rendering operative the set of sensing means associated with one of said rotatable members when the set of signal producing means for the other of said members is rendered operative, means for effecting relative rotation between said sensing means and the rotatable member on which signals have been previously impressed including means to change said step-by-step rotation of the latter to a continuous rotative movement, whereby the signals on the latter corresponding to a line of type are successively sensed and effect sequential operation of the means controlling reproduction of the corresponding printing characters while the other of said rotatable members is being provided with signals representative of the characters in the next line of type, the means for rotating said rotatable members comprising a common prime mover and a friction drive operatively connected to said rotatable members to produce rotation thereof, means sequentially momentarily preventing rotation of a rotatable member during signal producing operations in correlation to said operations, and means to render the last mentioned means inoperative thereby providing continuous rotation of the rotatable member during signal sensing.

2,869,444

PHOTOGRAPHIC APPARATUS

Richard R. Wareham, Marblehead, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application November 12, 1957, Serial No. 695,768
17 Claims. (Cl. 95—13)



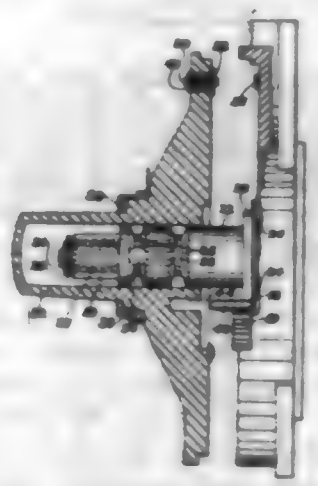
1. In a photographic apparatus wherein photosensitive sheet materials are processed, said apparatus having an aperture formed therein, from which aperture portions of said sheet materials may be withdrawn, the combination with said apparatus of a sheet-severing means comprising a yoke-like element including a cutter bar having a longitudinal edge for severing portions of said sheet materials extending through said aperture, and at least two arms appended to opposite end portions of said bar, said arms being coaxially mounted on said apparatus adjacent said aperture for pivotal movement between a first position wherein said element covers said aperture and a displaced position wherein said element is to one side of said aperture, a lever mounted on said apparatus adjacent at least one of said arms for pivotal movement about an axis disposed substantially parallel to and adjacent the axis of said arms, one of said lever and said one arm including an engagement portion having a shoulder-shaped surface, said surface being movable with said one of said lever and said one arm in a first arc about said pivotal axis of said one of said lever and said one arm, the other of said lever and said one arm including an engagement member attached thereto and being movable therewith in a second arc about said pivotal axis of said other of said lever and said one arm, said first arc of movement intersecting said second arc of movement at a point at which that one of said engagement member and said shoulder-shaped surface attached to said lever obstructs the arcuate movement of the other one of said engagement member and said shoulder-shaped surface, at said point said yoke-like element being thereby locked in said first position wherein said portion of sheet materials may be drawn against and severed by said longitudinal edge, said obstruction being releasable by pivotal movement of said lever.

2,869,445

CAMERA TURRET INDEXING MECHANISM

William A. Martin, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application January 30, 1957, Serial No. 637,172
13 Claims. (Cl. 95—45)



1. In a camera having a light-transmitting opening, the combination of: a stud member carried by said camera; an annular cam element rotatably mounted on said stud, said cam element having axially spaced annular grooves connected by a plurality of axially extending peripheral grooves; a retaining element carried by said stud and axially spaced from said cam element; resilient means carried by said stud and interposed between said retaining element and said cam element; a cylindrical sleeve encircling said resilient means and having an axial length shorter than the axial distance between said retaining element and said cam element to permit axial movement of said cam element on said stud; a turret disposed on said stud and carrying a plurality of objectives; ball means carried by said turret complementary to and slidably receivable by said grooves whereby said turret is axially movable on said stud from an operative picture taking position with one of said objectives in registration with said light-transmitting opening to an inoperative position with said turret withdrawn from said camera, and rotatably movable on said stud in said inoperative position for selectively positioning said turret in said operative picture taking position with another one of said objectives in registration with said light-transmitting opening, said cam element when said turret is in said operative picture taking position

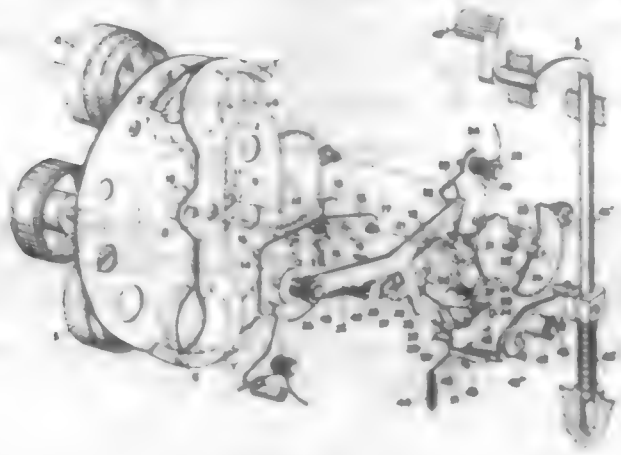
having a plane passing through the center of one of said annular grooves misaligned a predetermined axial distance from a plane passing through the center of said ball means; and locking means secured to said cam element adapted to be moved into a "locked" position causing said cam element to be turned on said stud with said ball means axially urging said cam element said predetermined axial distance against the bias of said resilient means causing said turret to be urged against said camera.

2,869,446

SHUTTER DEVICE FOR CAMERAS PROVIDED WITH TWO OR MORE OBJECTIVES

Lorenzo Franceschini, Firenze, Italy, assignor to Officine Galileo Societa per Azioni, Firenze, Italy, an Italian corporation

Application February 24, 1955, Serial No. 490,292
Claims priority, application Italy August 19, 1954
6 Claims. (Cl. 95—62)



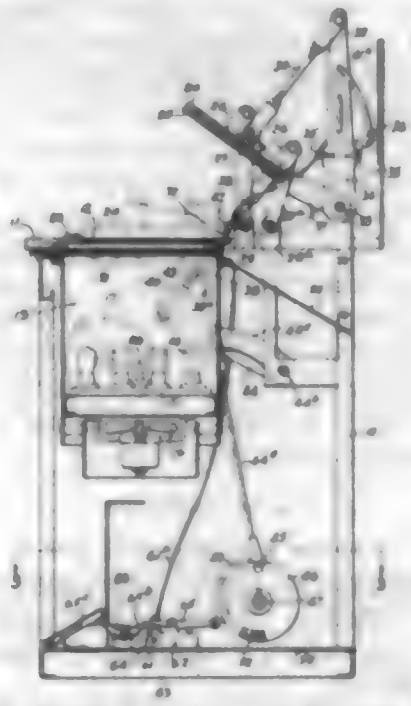
1. A camera device having at least two objectives, a stationary bearing, a single shutter device mounted on said bearing for said objectives, a pin projecting from said bearing, said shutter device including a pair of leaves pivotally mounted on the pin for movement toward and away from each other for closing and opening said objectives, respectively, said leaves being normally in closed position and having elongated slots, mechanism for controlling the movement of said shutter leaves including a pair of leaf-actuating members pivotally mounted on the bearing closely spaced from the shutter leaves, pins carried by the leaf-actuating members interlocked with the slots in the leaves, said members having overlapping ends, the end of one of said actuating members having an elongated slot, a post on the end of the other actuating member extending into said latter elongated slot whereby upon movement of said one actuating member the pin on said one actuating member pivots its leaf in one direction while the other actuating member, its pin and other leaf are simultaneously moved in the opposite direction, a pivoted forked member connected to one of said leaf actuating members, said forked member having a sloped profiled end, an elongated resilient arm member pivotally mounted on the bearing at one end, being disposed parallel to said forked member and being closely spaced therefrom, said arm member having a first projection extending radially in one direction in normal contact with the sloped end of the forked member, a second projection on the arm member extending radially in the opposite direction, a spring on the bearing urging said arm member around its pivot in one direction, manually actuated means for opening said shutter leaves including a pivoted arm having a bearing surface normally in contact with said second projection on the arm member whereby the arm member is moved in an opposite direction carrying the first projection thereon over the surface of the sloped end of the forked member thereby deflecting said arm member out of its original plane and thereby moving said first projection over said sloped end and into interlocking engagement therewith, means for breaking the connection between said second projection and said pivoted arm, said spring moving said pivoted arm member, interlocked pivoted forked member, associated leaf-actuating members and shutter leaves to shutter opening position upon the breaking of said connection, means for holding said arm member and forked member in shutter opening position including a pivoted abutment on the bearing and a connection between said abutment and the pivoted lever, means for breaking said latter connection, and means for retracting the parts to shutter closing position upon the breaking of the latter connection.

2,869,447

PHOTOGRAPHIC PRINTING MACHINE

Carl E. Young Berg, Los Angeles, Calif.

Application September 17, 1953, Serial No. 380,678
2 Claims. (Cl. 95—73)



1. An automatic photo printer as described, comprising in combination, a frame providing a work table having a light well, a light in said well, means for supporting a negative at the top of said well, a sheet supporting window over said means, a pressure plate for said window, a rotary drive shaft having a crank and a cam wheel, rod means connected between said crank and said pressure plate for raising and lowering said plate, long and short, respectively, swingable front and rear link means connecting said pressure plate to pivots at the rear part of said frame, said rear link means having a loose connection with said pressure plate, whereby said pressure plate when raised is shifted to a rearward inclined position and the front edge of said plate is first to break contact with the window surface and the rearward movement of the plate takes place only after the rear edge thereof has left the window surface, vacuum supply means, said pressure plate having a plurality of transverse ducts, a conduit system connecting said ducts to said vacuum supply means, a valve for said conduit system actuated by said cam wheel when said pressure plate has reached uppermost position whereby a printed sheet is lifted from said window and released from said plate when at rearmost position as said shaft is rotated.

2,869,448

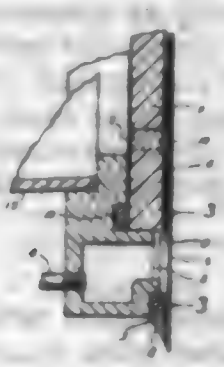
BACKING PLATE FOR A PHOTOLITHOGRAPHIC CHASE

Roger F. Bang, Houston, Tex.

Application February 18, 1957, Serial No. 640,653
3 Claims. (Cl. 95—76)

1. In a backing plate for use in a chase of a photo composing machine for lithograph plate production, a

sheet of transparent rigid plastic, a flexible sheet of thin transparent plastic sheeting of the same dimensions as the rigid sheet anchored at its margins to the margins



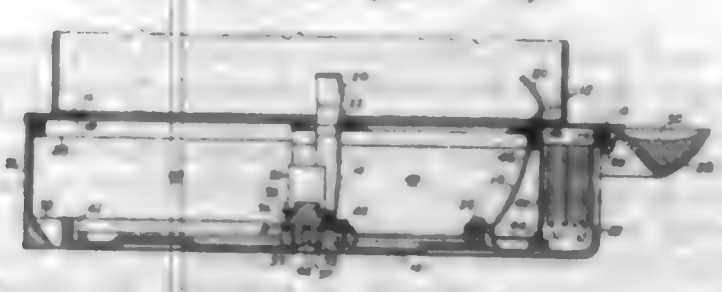
of the rigid sheet and on the side of the rigid sheet abutting the negative to be reproduced and a plurality of air escape ports through said rigid sheet inside of said anchored margins.

2,869,449

AIR DIFFUSING DEVICE

Otto A. Laben, La Crosse, Wis., assignor to The Trane Company, La Crosse, Wis., a corporation of Wisconsin

Application November 26, 1954, Serial No. 471,272
2 Claims. (Cl. 98—40)



1. A diffuser for delivering air into a conditioned space comprising a hollow body having a bottom wall, side walls and an open side opposite and substantially parallel to said bottom wall, said open side being adapted to be secured to an air supply conduit in the conditioned space, said hollow body having interior walls extending upwardly from the bottom wall and inwardly from the side walls and dividing said hollow body into a first chamber and a second chamber with a valve opening between the first chamber and the second chamber, a plurality of horizontally facing air discharge orifices in the side wall of said first chamber, a plurality of downwardly facing air discharge orifices in the bottom wall of the second chamber, an arcuate valve member rotatably mounted in said hollow body with its periphery in sliding contact with said interior walls, said arcuate valve member having one edge in sliding engagement with said bottom wall and a second edge substantially in the plane of said open side, and adapted to sealingly engage the end of an air supply conduit, said arcuate valve member being adjustable to close the valve opening to the first chamber of the body or the second chamber of the body.

2,869,450

AIR REGISTER OF THE WALL TYPE

Robert L. Leigh, Grand Rapids, Mich., assignor to Air Control Products, Inc., Coopersville, Mich.

Application June 6, 1955, Serial No. 513,390
5 Claims. (Cl. 98—108)

1. A wall register comprising a rear wall having a forwardly projecting top flange, end walls with upright rear edges, horizontal top edges, short upright front edges and rearwardly stepped intermediate front edges between said upright front and top edges and having inwardly projecting flanges at their rear, top and front and intermediate edges, the rear wall being removably secured to the flanges on the rear edges of the end walls with the flange on its upper edge spaced upwardly relative to the upper ends of the end walls, a front wall removably secured to the upright front flanges of said end walls and having rearwardly then upwardly inclined top flanges, a face member detachably secured to the intermediate front flanges of said end walls and having a downwardly angled lower edge seating against the top of said front wall and the rearwardly turned flange thereon and having a rearwardly projecting top portion disposed between the top flange of the rear wall and the top flanges of the end walls, down-



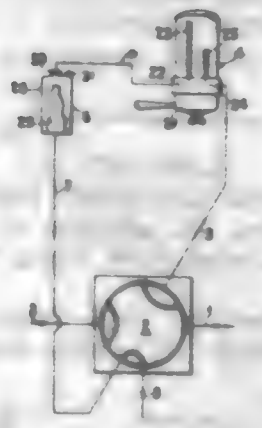
wardly and rearwardly inclined screws connecting said face member to the upwardly inclined flange on said front wall, said face member having an intermediate outwardly curved outlet portion provided with a longitudinal series of vertically disposed slot-like outlet openings, brackets mounted on said face member to project rearwardly therefrom, and a damper curved to correspond substantially to the curvature of said outlet portion of said front wall and having downwardly projecting arms pivotally mounted on said brackets.

2,869,451

APPLIANCE FOR PREPARING HOT BEVERAGES

Wilhelm Brandl, Zurich, Switzerland

Application February 2, 1955, Serial No. 485,768
Claims priority, application Switzerland February 11, 1954
1 Claim. (Cl. 99—302)



An appliance for preparing hot beverages by the infusion of substances of the group consisting of coffee and tea and substitutes thereof with boiling water comprising in combination: a cylinder having a base plate with a bore therethrough, a pan having a filter sieve therein for the substance to be infused supported by said base plate under said cylinder and in communication with said cylinder through said bore, a discharge opening in said pan, an external source of boiling water, conduit means leading directly into said cylinder and by-passing said pan and sieve and adapted for connection with said source for filling said cylinder with boiling water, a separate external source of fluid under pressure, hydraulically controlled air displacer means including an expansible and contractible bellows member operatively associated with said cylinder for causing air under pressure to be introduced into said cylinder, separate conduit means in communication with said bellows member and adapted for connection with said separate external source of fluid under pressure for actuating said air displacer

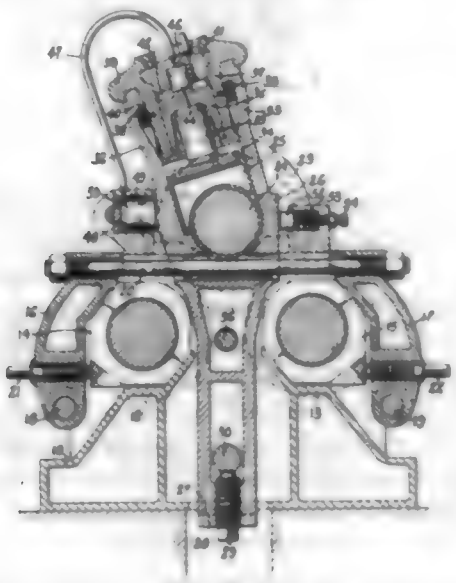
means, and a multi-way control valve arranged between both said conduit means and their respective associated external sources adapted to selectively connect said sources with their respective conduit means, whereby said cylinder may be first filled with plain boiling water and then air under pressure introduced thereinto to force said water through said bore into said pan and finally out said discharge opening as prepared beverage.

2,869,452

CANE MILLS

Philip V. Tippet, Ansonia, Conn., assignor to Farrel-Birmingham Company, Incorporated, Ansonia, Conn., a corporation of Connecticut

Application October 18, 1954, Serial No. 462,736
11 Claims. (Cl. 100—165)



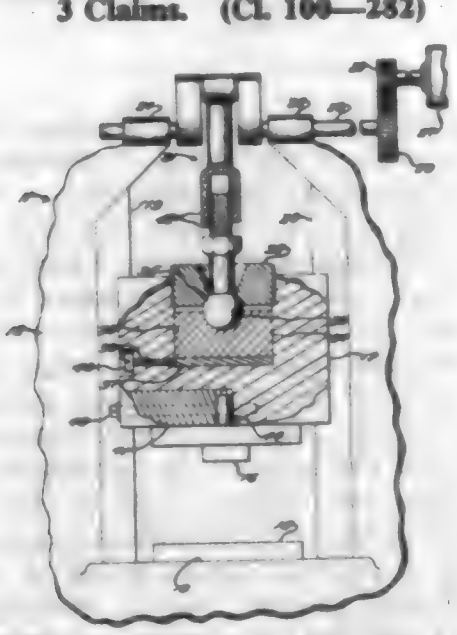
1. A cane mill having a cane roll and a bagasse roll, and housings in which the ends of said rolls are mounted, a top roll, and housings in which said top roll is mounted, said last-named housings being mounted for lateral movement relatively to the first housings, said top roll being mounted for rising and falling movement relatively to its housings, and means responsive to said last-named movement to effect lateral movement of the top roll housings.

2,869,453

OVERLOAD RELEASE DEVICES

James A. Horn, Lyons, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application January 31, 1955, Serial No. 485,252
3 Claims. (Cl. 100—282)



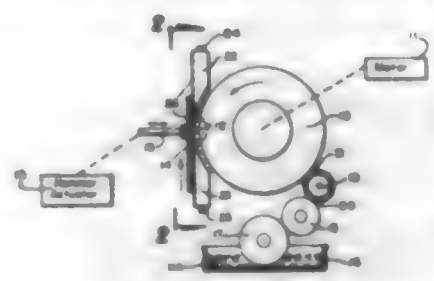
1. In an overload release device for a machine having a stock fabricating tool driven by an actuating means, a ram for holding the tool, said ram having a recess therein, a fusible thrust member positioned in the recess in the ram, a connecting rod driven by the actuating means and secured in the recess in the ram to transmit force from the connecting rod through the fusible thrust member to the ram, said ram having an aperture aligned with the fusible thrust member therein for permitting the thrust member to be melted and drained from the recess to relieve jamming pressure in the event that the tool becomes jammed in the stock, and means for plugging the aperture to prevent cold flow of the fusible member.

2,869,454

INKING SYSTEM FOR HIGH SPEED PRINTERS

Albert Peter Lang, Philadelphia, Pa., assignor to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application April 11, 1956, Serial No. 577,572
24 Claims. (Cl. 101—93)



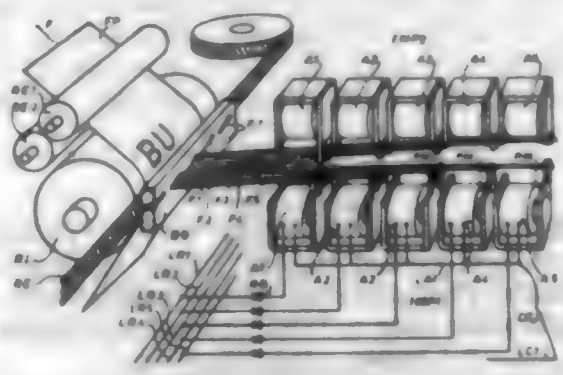
1. In a printer, a substantially cylindrical type wheel having a plurality of individual characters spaced from one another in a row on the periphery thereof, selectively actuated hammer means disposed adjacent said characters, means for passing a print receiving medium between said hammer means and said characters, and means for supporting said medium in spaced relation to said characters comprising a plurality of elongated thin spacers disposed substantially tangent to and in spaced relation to the periphery of said type wheel, said elongated thin spacers having a diameter less than the spacing between adjacent ones of said individual characters, said plurality of thin spacers being in spaced substantially parallel relation to one another and being disposed substantially transverse to the axis of said type wheel at positions between said individual characters respectively.

2,869,455

ELECTROMECHANIZED ACTUATING MEANS IN WIRE PRINTING MACHINES

Knut Andreas Knutsen, Paris, France, assignor to Compagnie des Machines Bull, Paris, France, a French body corporate

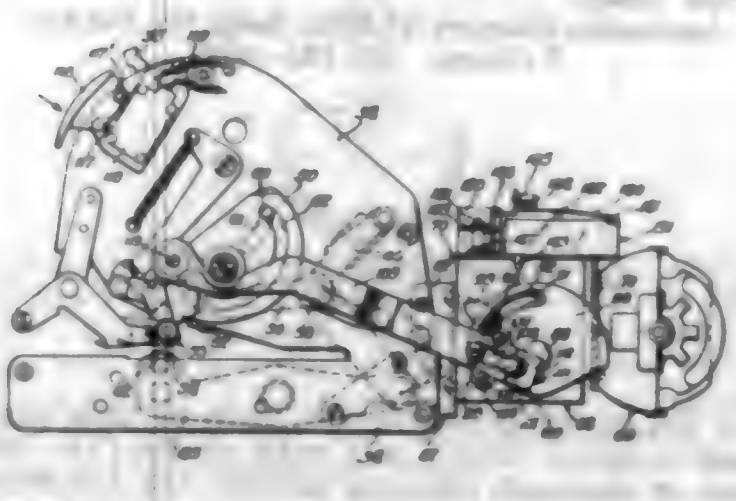
Application December 12, 1956, Serial No. 627,885
Claims priority, application France December 12, 1955
8 Claims. (Cl. 101—93)



1. Printing machine for the printing of a character by printing a number of dots which together form the character, comprising a plurality of actuating members, a plurality of printing members each adapted to be actuated by a corresponding one of said actuating members when said actuating member is energized, an emitter comprising a number of emitter elements each adapted to emit from one pole of a source of electricity a series of

impulses timed to correspond to the printing of a determined character, a selectively operated contact common to said plurality of actuating members and connected on the one hand to said plurality of actuating members and on the other hand to a corresponding one of said emitter elements, a cyclic operated commutator comprising a number of contact studs, each contact stud being connected to a corresponding one of said actuating members, said commutator being adapted to connect successively, in synchronism with the emission of said series of impulses from said emitter, each of said contact studs to the other pole of said source, and means for closing said common contact during said emission to print in succession dots of a selected character.

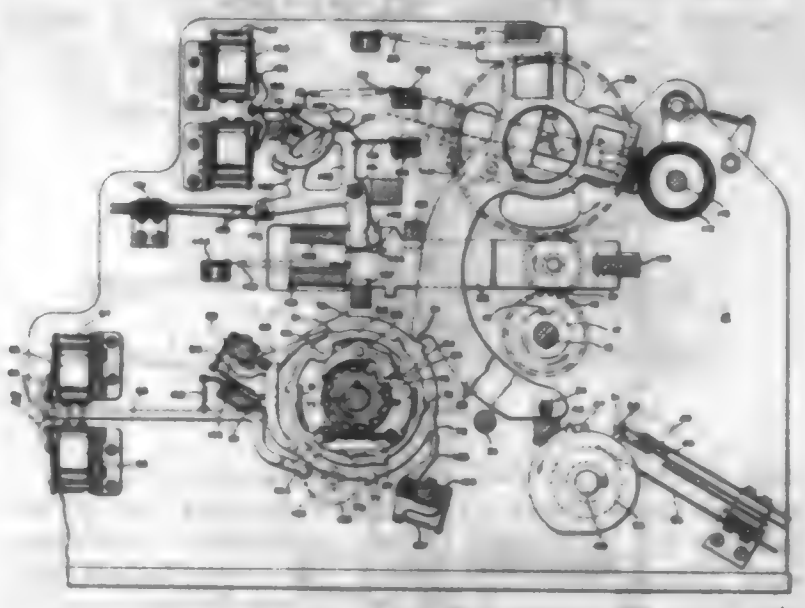
2,869,456
MOTOR OPERATED CHECKWRITER
Alfred E. Little, Gary, Ind., assignor to Theodore B. Hirschberg, Jr., Chicago, Ill.
Application May 14, 1956, Serial No. 584,488
8 Claims. (Cl. 101—95)



1. In a motor operated checkwriter, printing mechanism compriting an operating cam having a normal position and turnable therefrom in one direction for effecting a printing operation and turnable in the opposite direction to normal position upon completion of the printing operation, an electric motor, means providing permanent driving connection between said cam and said motor compriting a speed reducer having an input shaft and an output shaft with a positive drive therebetween, a stud secured to said output shaft eccentric thereto, a link assembly pivoted at one end to said cam and having at its other end a lengthwise slot receiving said stud, the latter being disposed to contact said link assembly at one end of said slot and turn said cam in said one direction and to contact said link assembly at the other end of said slot and turn said cam in said opposite direction to its said normal position, incident to turning of said output shaft through one operating cycle comprising approximately one revolution thereof, said stud remaining in contact with said link assembly at said other end of said slot upon completion of an operating cycle of said output shaft, and means for energizing said motor and then automatically deenergizing it and stopping said input shaft thereby stopping said output shaft upon completion of one operating cycle of the latter.

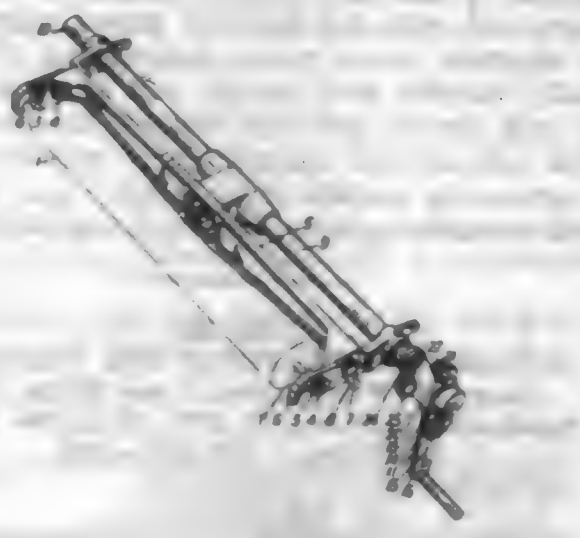
2,869,457
ROTARY PRINTING MEANS
Walter Griffin Paige, Norwalk, Conn., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application December 21, 1954, Serial No. 476,803
9 Claims. (Cl. 101—96)

1. In a machine of the class described, a rotatable type wheel, continuously operating driving means for rotating said wheel, said driving means including a gear loosely fitted to an oversized keyway of a driving sleeve so as to be operatively connected to said sleeve with a predetermined amount of backlash, a platen disposed for cooperation with said type wheel, and pivotal means for supporting said wheel in continuous engagement with said driving means, said pivotal means being actuable to swing said wheel in planetary relation to said driving



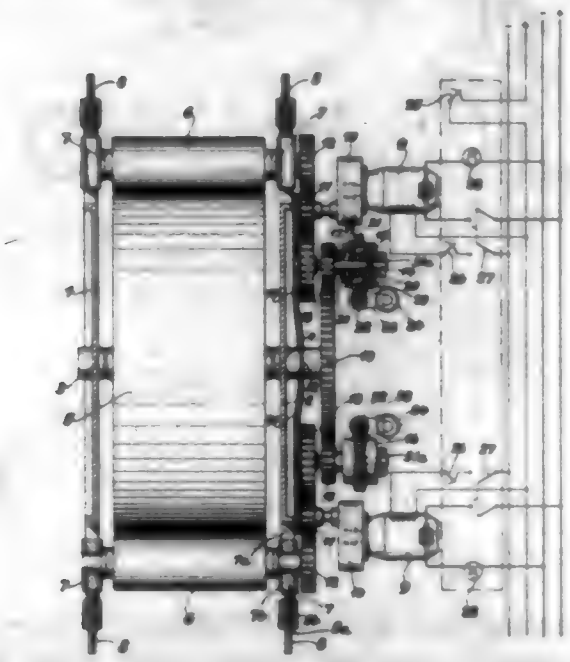
means and against said platen, said planetary movement imparting a counter rotational torque to said wheel in excess of the normal torque imparted by said driving means, whereby said backlash is absorbed by the planetary movement of the said wheel towards the platen so as to be taken up by said driving means when the planetary movement of said wheel is limited by said platen.

2,869,458
DUPLICATING MACHINES
Albert G. R. Gates, London, England, assignor to Gestetner Limited, London, England, a British company
Application February 1, 1956, Serial No. 561,903
Claims priority, application Great Britain December 13, 1955
11 Claims. (Cl. 101—247)



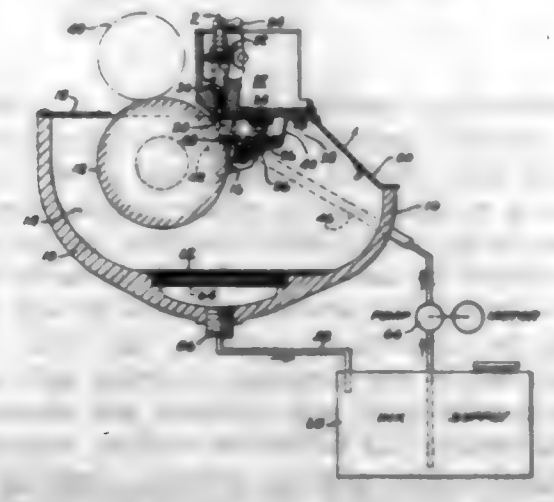
1. A duplicating machine comprising a cylinder, a rotatably mounted support, a pressure roller carried by said support and movable towards and away from said cylinder so as to apply and to release printing pressure, a torsion bar one of whose ends is secured to the support, means for subjecting said torsion bar to an initial torsion, means for adjusting the amount of initial torsion applied, and means for periodically rotating said other end of said torsion bar in one direction to bring said pressure roller into contact with said cylinder and thereafter to subject said torsion bar further to torsion, whereby said pressure roller exerts printing pressure, and for subsequently rotating said other end of said torsion bar in the other direction to release said printing pressure and thereafter to move said pressure roller away from said cylinder.

2,869,459
DRIVE FOR PRINTING ROLLERS OF PRINTING MACHINES
Hans P. Böhme, Krefeld, Germany, assignor to Joh. Kleinewefers Sohne, Krefeld, Germany
Application April 21, 1954, Serial No. 424,700
Claims priority, application Germany April 24, 1953
7 Claims. (Cl. 101—248)



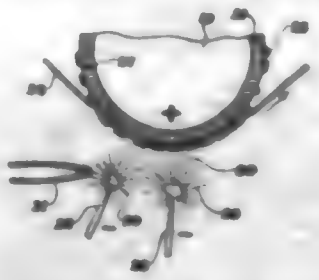
1. In a drive for printing machines for printing upon fabrics, which are provided with a mechanical rapport mechanism for maintaining a desired operative relationship between the driven printing rollers, the combination of: a first rotatable printing roller, a second rotatable printing roller, first transmission means drivingly connected to said first printing roller, second transmission means drivingly connected to said second printing roller, a pair of individually variable drive motors respectively drivingly connected with said first and said second transmission means, a rotatable cylinder for supporting the fabric to be printed on, a central gear drivingly connected to said cylinder, a pair of additional transmission means respectively drivingly connecting said central gear with each of said individually variable drive motors and thereby also with said first and second printing rollers, and adjusting motor means independent of said individually variable drive motors and drivingly connected with said central gear and thereby also with said rotatable cylinder and said additional transmission means for varying the position of said central gear and thereby of said rotatable cylinder relative to said printing rollers.

2,869,460
ROTARY LETTERPRESS INK FOUNTAIN
Emory W. Worthington, Pound Ridge, N. Y.
Application February 27, 1957, Serial No. 642,904
8 Claims. (Cl. 101—366)



1. A rotary letterpress ink fountain including in combination, a fountain roller rotatably mounted and driven within a housing to feed ink to a rotary printing member, a pair of spaced blades cooperating with the surface of the fountain roller and resiliently pressed towards it, the blade last cooperating with the surface of the rotating ink roller being positioned above the other blade, means for closing the space between the two blades to form, with the surface of the roller, an ink-retaining cavity, an overflow outlet from the cavity above the level of the engagement of the lower blade with the roller surface, means for supplying ink to the cavity in excess of the amount of ink transferred from the ink roller to the rotary printing member so that there is a continuous overflow through the outlet, a screened drain in the housing near its bottom and pump means for circulating ink from the screened drain to the ink-supply means for the cavity.

2,869,461
ELECTROPRINTING FROM A RAISED RESIST PATTERN
James G. Jarvis, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application February 27, 1956, Serial No. 568,029
5 Claims. (Cl. 101—426)

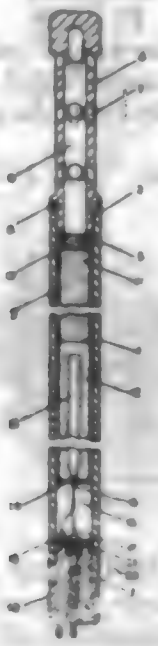


1. The method of producing an image on tissue paper which comprises forming on a metal support a two tone image of electrically insulating material with a thickness between .0002 and .002 inch, bringing a sheet of tissue paper of thickness between .0002 and .003 inch into contact with the tops of the material, simultaneously establishing an electrical potential difference across the paper and material with a potential less than breakdown potential of the material and greater than ¼ of said breakdown potential to draw the tissue paper into contact with the bare metal support area between the areas of the material and passing charged particles of ink near the front of the tissue paper to be attracted to the areas thereof in front of said bare metal areas.

2,869,462
BLASTING DEVICE
Samuel Henry Davidson, Largs, David Anchievole Love, Troon, and Hugh Thomas William, Saltcoats, Scotland, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
Application April 4, 1955, Serial No. 498,942
5 Claims. (Cl. 102—25)

1. A blasting device comprising an elongated, rigid container having a bore therein, a ported venting head communicating with one end of said bore, an annular cutting edge adjacent said one bore end generally facing in the direction of the opposite end thereof, said cutting edge being concentric with said bore and of a diameter less than the diameter of said bore, a package comprising a charge of non-detonating gas-producing composition capable of self-sustained and self-propagating gas-producing reaction in response to local heating and a safety igniter positioned to initiate said charge, a plug of slightly deformable material carried by one end of said package, said plug having a frusto-conical surface of substantial extent for engagement with said cutting edge, said bore having a package receiving portion of minimum diameter therein extending from said cutting edge toward the opposite end thereof, said package being in-

sertable plug end foremost into said bore through the opposite end thereof into a position wherein the frusto-conical surface of said plug is in engagement with said cutting edge, said package having a diameter substantially equal to the minimum diameter of said bore portion so as to be retained in said portion by friction, and a gas-tight firing head detachably secured to said container and



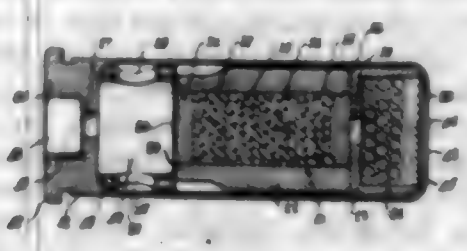
closing the opposite end of said bore so that upon an increase in pressure in said bore as a result of the initiation of said charge escape of such increased pressure from said bore will be prevented by said firing head and by the engagement of the frusto-conical surface of said plug with said cutting edge until sufficient pressure is built up in said bore to shear said plug.

2,869,463

DELAYED FIRING CARTRIDGE

James T. McKnight, Los Angeles, Calif., assignor to Bermite Powder Company, Saugus, Calif., a corporation of California

Application March 26, 1956, Serial No. 573,684
4 Claims. (Cl. 102—39)



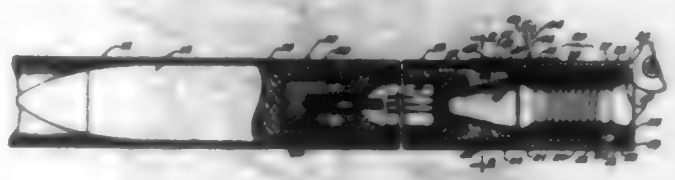
1. A delayed firing cartridge which includes: an elongated tubular imperforate side walled case having a firing end with a relatively heavy wall and an exterior recess, and a discharge end with a relatively large opening; a closure disc closing said discharge end; a primer mounted in said recess in the exterior of said firing end and communicating with the interior of said case through an opening in said firing end; a cylindrical spacer disposed coaxially within said case and enclosing an empty chamber adjacent said firing end; a propellant cup in the discharge end of said case, said propellant cup having one end opening to said closure disc and having a relatively small opening toward the firing end; a propellant charge in said propellant cup; a delay tube for containing a time delay train extending between said spacer and said propellant cup; a support screen between said spacer and said delay tube; and a delay train comprised of a first fire layer of powder, a succession of layers of slow burning powder, and an afterfire layer of powder, each of said layers having an axial length less than its diameter, and each having been consolidated under a pressure of between 20,000 and 50,000 pounds per square inch.

2,869,464

FRICTION TYPE FUSE DEVICE

Julius G. Villepigue, Inglewood, and Edgar Schmued, Los Angeles, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application October 11, 1954, Serial No. 461,350
7 Claims. (Cl. 102—49)



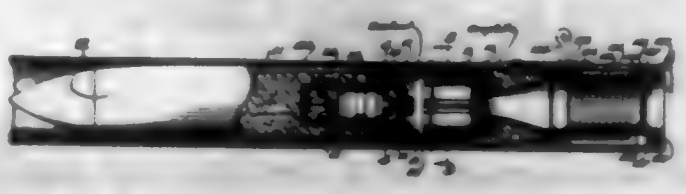
1. In the combination which includes a rocket body having an explosive charge and a combustion chamber containing a propellant charge, and means for spinning said rocket about the longitudinal axis thereof prior to launching; a composite fuse comprising a percussion element positioned in said combustion chamber, a spring actuated firing pin aligned with said percussion element and operable to percuss said percussion element, centrifugally releasable restraining means holding said firing pin in cocked position to percuss said percussion element when said rocket is spun to release the same, a heat responsive detonator for said explosive charge, a cylinder coaxially mounted to rotate on the spin axis of said rocket body, said cylinder being longitudinally movable along said spin axis in accordance with forces produced when said rocket is decelerated subsequent to launching thereof, a friction member communicating with said detonator and mounted on one end of said cylinder to be rotated around said spin axis thereby, a friction surface opposite said friction member to be contacted thereby when said cylinder is longitudinally moved by deceleration of said rocket, whereby said friction member is rotated around said friction surface to generate sufficient heat to detonate said detonator to explode said explosive charge.

2,869,465

ROCKET FUSE

Julius G. Villepigue, Inglewood, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application April 26, 1954, Serial No. 425,596
17 Claims. (Cl. 102—70.2)



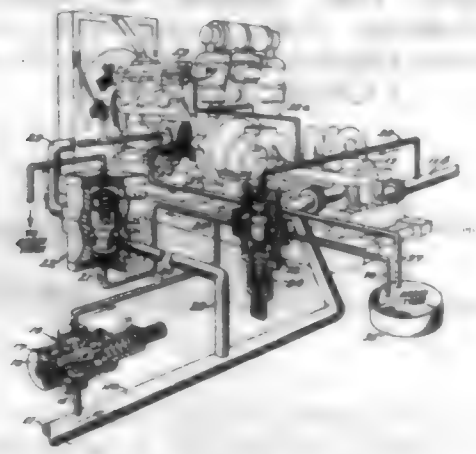
1. A rocket comprising an elongated tubular casing containing an explosive charge and a charge control device including a source of electrical energy therefor, a detonator for said charge, a normally inoperative impact operable switch connected in series with said energy source, an acceleration operable switch, and thermally actuated means operative over a predetermined period of time after launching of said rocket connected in series with said energy source and said acceleration operable switch for rendering said impact operable switch operative said latter means being positioned to close said impact operable switch to detonate said warhead after a predetermined additional time interval has elapsed.

2,869,466

REMOTE CONTROL FOR PIPELINE PUMPING ENGINES

Ross V. Osterhout, Fort Worth, Tex., and William C. Shrier, Peoria, Ill., assignors to Caterpillar Tractor Co., Peoria, Ill., a corporation of California

Application August 3, 1955, Serial No. 526,282
2 Claims. (Cl. 103—27)



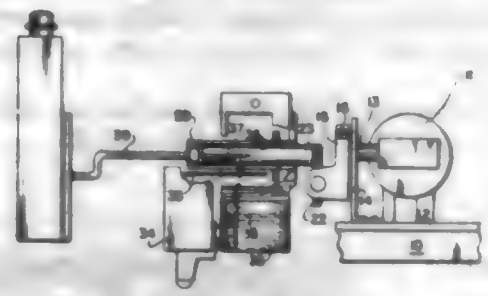
1. Starting means for a series of slave engines actuating pumps spaced throughout the length of a fluid transmission line which comprises a fluid driven starting motor on each slave engine to be started, a master engine in advance of those to be started, a conduit communicating between the transmission line in advance of each slave engine and the starting motor thereof whereby fluid in the tranmission line may be employed to drive the starting motor and start the slave engine, a normally closed pressure actuated starting valve in said conduit, a second conduit communicating between the transmission line and the pressure actuated valve, and an initiator valve in said second conduit responsive to pressure in the transmission line to admit fluid pressure to the pressure actuated valve to open it and permit flow of transmission line pressure to the starting motor, whereby variations of the speed of the master engine and its pump will effect starting of the other engines.

2,869,467

LIQUID PROPORTIONING PUMP

Alexander S. Limpert and Robin J. Limpert, Bay Shore, N. Y.

Application May 15, 1956, Serial No. 585,100
12 Claims. (Cl. 103—37)



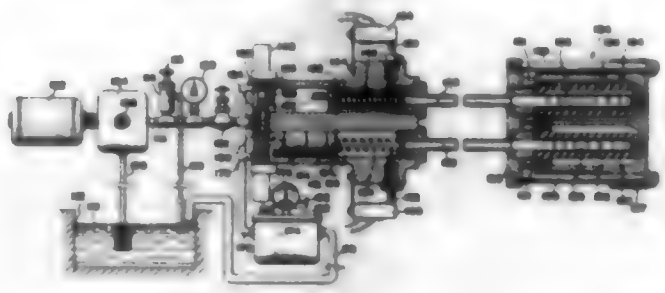
1. A pumping system for feeding liquid at a predetermined rate comprising an oil reservoir, a first pump having a cylinder and piston, said cylinder being fixedly mounted in said reservoir, a motor providing a rotating shaft, mechanical coupling means interconnecting the motor shaft and piston to apply a reciprocating and rotating motion to said piston whereby oil from the reservoir is pumped by the action of the rotating reciprocating piston, a second pump including a diaphragm chamber, said chamber including a flexible diaphragm, an inlet port and an outlet port, first valve means and second valve means located within said diaphragm chamber, a pivotally mounted arm adjacent said coupling means, cam means secured to said motor shaft to oscillate said arm, means interconnecting said first and second valves, plunger means contacting said arm and said first valve means whereby said oscillating arm periodically opens and closes said first and second valve means, tube means connecting said cylinder and the outer surface of said diaphragm whereby the action of said first pump periodically flexes said diaphragm and an oil regulating cylinder interposed in said tube means.

2,869,468

PUMPS

Lindsay H. Browne, Westport, Conn.

Continuation of application Serial No. 265,769, January 10, 1952. This application July 14, 1958, Serial No. 748,539
5 Claims. (Cl. 103—44)



1. Pumping means comprising a pair of expandible and contractible members, means providing with said members individual chambers of which said members form wall portions, inlet and outlet valves controlling flow to and from said chambers, and means for supplying liquid to said members on their sides opposite their chambers for expanding them and for releasing liquid therefrom for their contraction, the last named means comprising a positive pump supplying a continuous substantially uniform flow of liquid, a movable valve comprising a pair of spaced connected pistons, a chamber mounting said valve and having a pair of ports located to be covered by said pistons, one port communicating with each of said members, the spacings of said pistons and ports being such that during each movement of the valve one port alone is uncovered, then both ports are simultaneously uncovered, and then the other port alone is uncovered, means for cyclically operating the valve, and connections for delivery of liquid from said pump through the valve and ports to said members, said valve and its operating means effecting a cycle of flow wherein said continuous substantially uniform flow of liquid from the pump is delivered successively to said members individually, when said ports are respectively individually uncovered by their pistons, with delivery thereof simultaneously to both members, when both of said ports are uncovered, between said deliveries to the members individually, the foregoing operation being such that the liquid is supplied at a substantially constant uninterrupted total rate to said members to effect a total volumetric displacement of said members due to their expansions which is substantially constant throughout a complete cycle of operation.

2,869,469

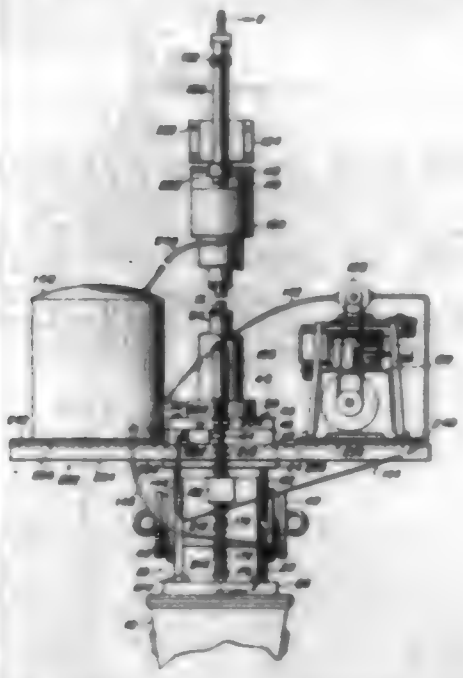
HYDRAULIC PUMPING JACK FOR OIL WELLS

Gorman S. Williams, Laramie, Wyo.; Mary Jo Williams, executrix of said Gorman S. Williams, deceased, assignor to herself individually

Application March 31, 1954, Serial No. 420,060
18 Claims. (Cl. 103—46)

1. In a cased well having a casing head supporting well tubing from which a polish rod projects, the combination comprising: a hollow base supported on the casing head and having a fluid-receiving chamber therewithin connected directly to the well tubing with the polish rod projecting vertically through said chamber; a discharge line connected to said chamber; a vertical cylinder mounted on top of said base concentrically about the

projecting end of the polish rod; a common wall closing the lower end of said cylinder and the top of said chamber with the polish rod sealingly extending through said wall; a piston in said cylinder; means connecting said piston to the polish rod for lifting the latter by upward



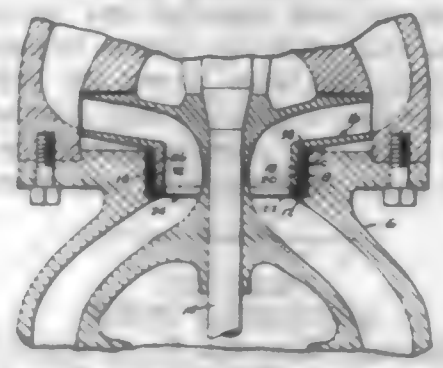
movement of said piston; means for supplying fluid under pressure to said cylinder beneath said piston to lift the polish rod; and means operable by movements of the polish rod for alternately establishing and relieving the pressure of said fluid.

2,869,470
FREE PUMP SYSTEM WITH REVERSE FLOW
Clarence J. Coberly, San Marino, Calif., assignor to Kobe, Inc., Huntington Park, Calif., a corporation of California
Application February 10, 1955, Serial No. 487,303
14 Claims. (Cl. 103—46)



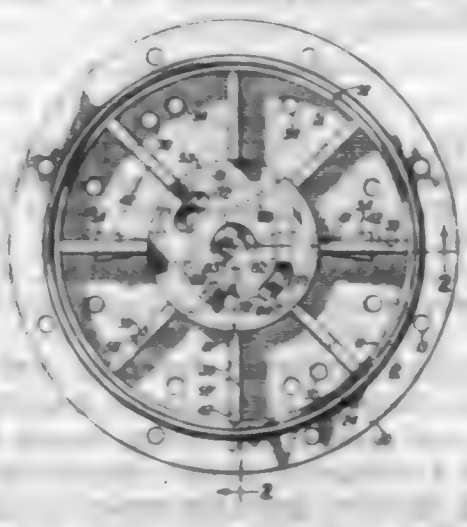
1. In a fluid-operated free pump system, the combination of: a supply tubing and a production tubing set in a well, said production tubing having a housing at the lower end thereof with which said supply tubing communicates; a free pump unit, including a fluid-operated pump, movable through said production tubing into said housing, said pump being operable in said housing by operating fluid under pressure supplied thereto through said supply tubing to pump fluid from the well into said production tubing, and said pump unit having a downwardly-facing area which is in communication with said supply tubing when said pump unit is in said housing so that said pump unit is biased upwardly in said housing by operating fluid under pressure in said supply tubing; and means for latching said pump unit in said housing against upward movement therein by said upward bias.

2,869,471
IMPELLER PUMP, SEAL AND WEAR RING
Robert D. Copeland, Pecos, Tex.
Application February 1, 1957, Serial No. 637,779
1 Claim. (Cl. 103—111)



A combined wear and sealing ring for a rotary pump having a bowl having a side wall and an axial opening, a ring seat surrounding said opening comprising said side wall and an annular shoulder projecting into said opening, an impeller having an axial tubular neck positioned concentrically in and spaced from said opening, said neck having an end facing and axially spaced from said shoulder and an outer orifice facing and spaced from said side wall, said shoulder and said side wall defining a ring seat, said ring comprising a solid annular compressible and non-metallic body to be seated in said seat, said ring having a laterally outward side to engage said side wall and a laterally inwardly projecting flange to rest upon said shoulder, said body having a radially inward side to be rotatably engaged with the outer surface of the neck with said end of the neck bearing upon said flange, with the ring body under compression, said ring further comprising an outer rigid relatively thin annular shell surrounding and conformably engaged with and fixedly secured to said compressible body, said shell being axially coextensive with said compressible body and having a laterally inwardly projecting annular flange coextensive with the body flange, said shell to be interposed between said body and the side wall of the opening and said shell flange to be interposed between said shoulder and the body flange.

2,869,472
FLUID PUMP OR MOTOR
Philip Hartmann, Racine, Wis., assignor to Hartmann Manufacturing Company, Racine, Wis., a corporation of Wisconsin
Application May 14, 1956, Serial No. 584,710
7 Claims. (Cl. 103—123)



1. A fluid pump or motor comprising a housing having an interior circular chamber and a fluid inlet and a fluid

outlet in communication with said chamber, a rotor rotatably mounted in said housing and disposed in said chamber, a rotor vane rigidly attached to said rotor and projecting from the circumference thereof, a shaft attached to one face of said rotor and extending axially therefrom through said housing, two spaced apart bearings in said housing for rotatably mounting said shaft in said housing, said rotor having a fluid passage on each side of said vane in separate communication with said chamber and said housing inlet and outlet, sliding vanes mounted in said housing and circumferentially spaced around said chamber, means connected to said vanes for moving the latter across the rotational path of said rotor for fluid sealing off said chamber, each said sliding vanes having an opening therein for the movement of said rotor vane through said opening.

2,869,473

METERING PUMP

William H. Kreamer, Roanoke, Va., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application March 15, 1954, Serial No. 416,269
1 Claim. (Cl. 103—126)



A metering gear pump for pumping viscous fluids comprising a pair of pump side plates, a pair of meshing gears mounted between said side plates, each of said gears having cut-away portions between the teeth thereof whereby chambers of substantial volume are formed at the point of full meshing engagement of the teeth of the gears, a housing plate secured between the side plates and closely embracing the major portion of the peripheries of said gears, said housing plate and said side plates cooperating to form a suction chamber on one side of the centerline of said gears and a pressure chamber on the other side of the centerline of said gears, an intake for viscous fluid extending through a first one of said side plates and communicating with said suction chamber, an output port in the other of said side plates communicating with said pressure chamber, and a circular indentation in the inner wall of said first one of said side plates, said indentation encompassing an area aligned with the intake, the chambers formed at the point of complete meshing engagement of the gear teeth and the suction chamber.

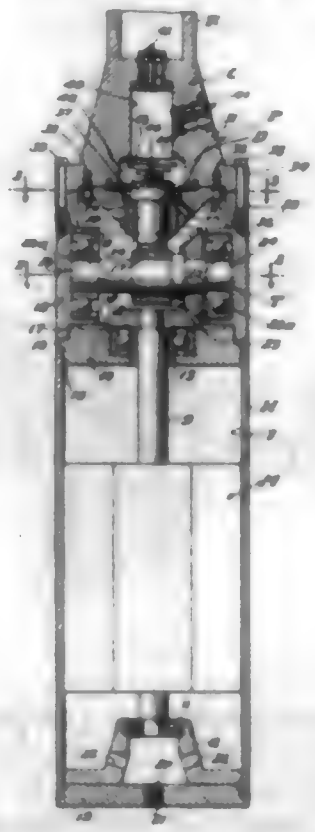
2,869,474

DIAPHRAGM PISTON PUMP

Friedrich Wilhelm Pleuger and Johann Christian Grober, Hamburg, Germany, assignors, by mesne assignments, to Friedrich Wilhelm Pleuger, Hamburg, Germany

Application March 29, 1955, Serial No. 497,628
Claims priority, application Germany July 24, 1954
11 Claims. (Cl. 103—152)

1. Submersible equipment for deep well pumping, comprising a motor, a pump, and a housing enclosing said motor and pump, said pump having a pumping chamber and a continuous flexible diaphragm separating the pumping chamber from the motor, a piston and a cylinder therefor, said piston operating in contact with the diaphragm, said piston being driven by said motor and adapted on the pressure stroke to deflect said diaphragm in the direction of the pumping chamber, and support means closely surrounding said piston adjacent the diaphragm, said support means extending laterally from the piston in position to underlie the diaphragm, said support means and piston being constructed and



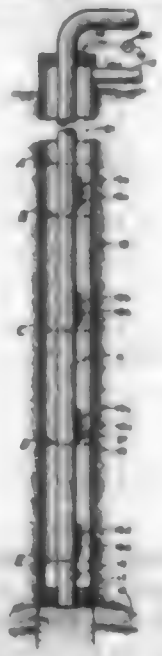
arranged to cooperate in contacting and supporting said diaphragm over substantially its entire area during pump operation, said support means including a ring of resilient material immediately surrounding said piston and extending slightly beyond the rest of the support means toward the diaphragm.

2,869,475

CONTROL SYSTEM

Roy A. Bobo, Bellaire, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

Application December 21, 1951, Serial No. 262,873
14 Claims. (Cl. 103—233)



1. In combination, a well having a casing and tubing mounted therein, a metal housing secured to said tubing, a diaphragm mounted in said housing and dividing it into two diaphragm chambers, means for effecting communication between one chamber and the interior of said tubing, means for effecting communication between said other chamber and the interspace between said tubing and said casing, a member of magnetic material, linkage connecting said member to diaphragm so that said mem-

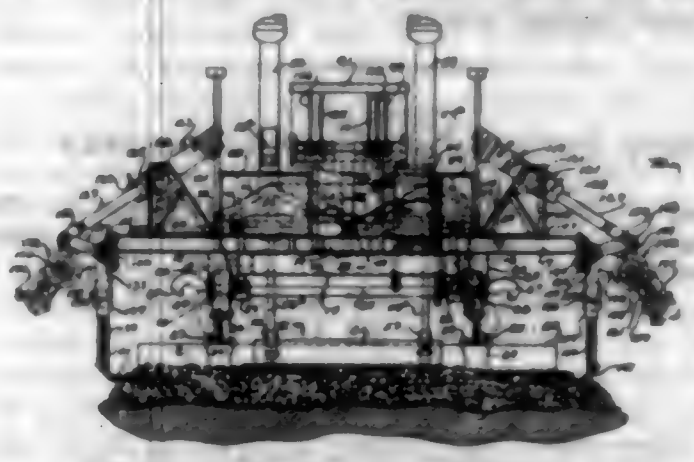
ber moves in response to movement of said diaphragm, a fluid tight housing secured to said tubing, a switch mounted therein, an actuating member for said switch pivotally mounted in said last-mentioned housing, and a magnetic element carried by said actuating member arranged to follow the movement of said magnetic member and thereby open or close said switch responsive to movement of said diaphragm.

2,869,476

RAILROAD TRACK RAISING AND BALLAST TAMPING APPARATUS

Royce Gideon Kershaw, Montgomery, Ala., assignor to Kershaw Manufacturing Company, Inc., Montgomery, Ala., a corporation of Alabama

Application March 29, 1954, Serial No. 419,346
3 Claims. (Cl. 104—12)



1. In apparatus for tamping ballast under the end of a crosstie on a railroad track, a vehicle adapted to run on the rails of the track, a frame on said vehicle extending parallel to the longitudinal axis of the crosstie generally to the ends of the crosstie, a reciprocable fluid pressure means having relatively movable parts one of which is mounted on said frame and extends in a direction generally parallel to the longitudinal axis of the crosstie, a tamping tool on an end of said frame embodying an arm mounted for pivotal movement on a horizontal axis extending parallel to the rails and a tamping member secured to the lower end of said arm and extending inwardly under an end of the crosstie in ballast tamping position, said tamping arm extending downwardly outside the end of the crosstie and being mounted for pivotal movement in the same vertical plane as the longitudinal axis of the crosstie, and means connecting the extending end of the other of the relatively movable parts of said fluid pressure means to the pivotal connection of said tamping arm whereby upon reciprocation of said fluid pressure means the tamping member moves inwardly and outwardly of the end of the crosstie in a generally parallel relation to the longitudinal axis of the crosstie.

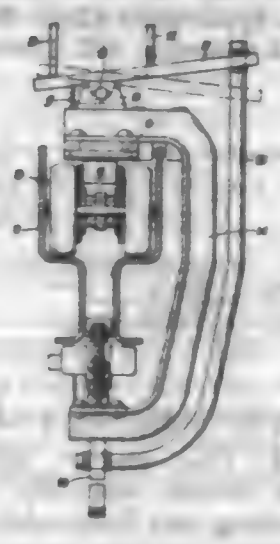
2,869,477

CONVEYOR SYSTEMS

Arthur Thomas Charles Burrows, Stevenage, England, assignor to Geo. W. King Limited, Stevenage, England, a British company

Application January 23, 1957, Serial No. 635,692
7 Claims. (Cl. 104—89)

1. A load carrier for a conveyor system in which system stops are arranged in one of two positions adjacent an intended path of travel for the load carrier; said load carrier comprising a body for movement along said path, a load supporting member coupled to said body and displaceable between different positions in response to the association of a load therewith, a pivot on said body to occupy a position generally intermediate said two positions with the load carrier positioned in said path, a lever fulcrumed on said pivot with arms extending to opposite sides of the pivot, and means coupling said lever to said load supporting member so that movements of the load supporting member are transferred to said lever



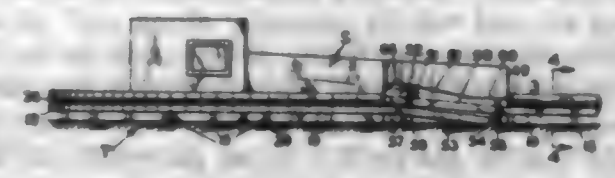
which is thereby pivoted whereby one of said arms is moved into position to engage a stop in one of said positions.

2,869,478

DOG TRACK LURE MECHANISM

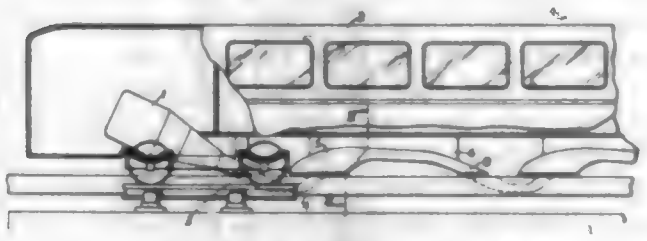
Ivan J. White, Portland, Oreg.

Application November 9, 1956, Serial No. 621,240
1 Claim. (Cl. 104—131)



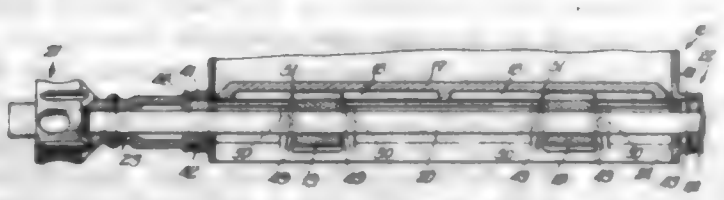
A lure receiving and hiding station for lures used on oval dog race tracks of the type having an encompassing lure supporting track wherein the lure is of the electrically propelled type and the track is of the type having electrical conductors thereon which supply electrical energy to the lures for propelling the same around the track comprising a closed housing, a side track fixedly disposed within said housing and arranged in longitudinally aligned tangential relation with a straight portion of said lure supporting track adjacent a curved end portion of said lure track, said side track extending upwardly at an inclined angle from said straight portion of said lure supporting track for assisting in stopping said lure and for returning said lure by gravity to said lure track, a switch track located intermediate said side track and said lure track, said switch track comprising a first section of track having one end thereof pivoted to said side track on a horizontal axis transverse to said side track and a second section of track having one end thereof pivoted to the curved portion of said lure track on a horizontal axis transverse to said lure track, a cross member extending between and pivotally connected to the other end of said first named track section and the other end of said second named track section, control means connected to said cross member for selectively aligning said first named track section and said second named track section of said switch with said side track and said lure track respectively, and adjustable braking means adjacent said side track to retard the movement of a lure thereover, said adjustable braking means comprising an elongated brake member arranged in spaced substantially parallel relation beneath said side track, transverse means pivotally supporting the end of said brake means adjacent said lure track and hand adjustable means connected to said brake for varying the spacing between said side track and the end of said brake member opposite said pivotal supporting means.

2,869,479
PROPULSION OF VEHICLES
Philip Hutchinson, Ruislip, Middlesex, England
Application May 12, 1954, Serial No. 429,332
Claims priority, application Great Britain May 14, 1953
12 Claims. (Cl. 104—155)



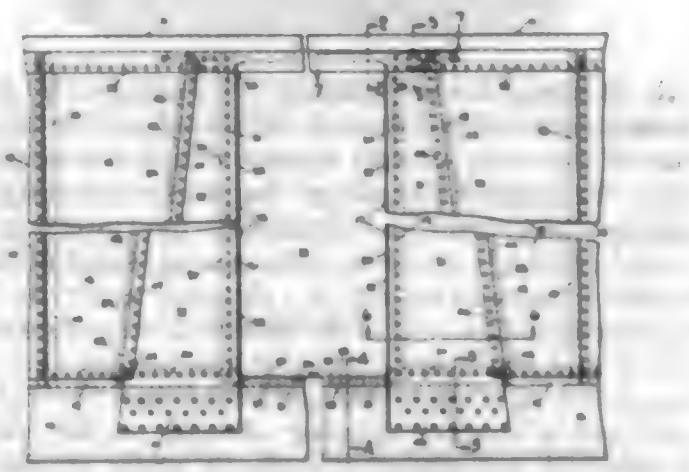
1. In a system for propelling a vehicle assembly along a track having rail means, gas-producing means mounted on the vehicle assembly; a plurality of track ducts deployed along and fixed with respect to the track and each comprising an inlet facing at an angle to the length of the track in one direction with respect to said vehicle assembly, an outlet spaced from said inlet longitudinally of the track and facing at an angle to the length of the track in said one and the same direction with respect to said vehicle assembly, and an intervening portion connecting said inlet to said outlet; means mounted on said vehicle assembly for discharging gas from said gas-producing means in jet form into the inlets of successive track ducts as said vehicle assembly travels along said track rail means; and vehicle duct means mounted on said vehicle assembly, extending longitudinally of the direction of travel of said vehicle assembly along said track, and comprising inlet means facing at an angle to the length of the track in the direction opposite to said one direction with respect to said vehicle assembly whereby to register with and receive gas jet flow from successive track duct outlets as the vehicle assembly travels along said track, outlet means spaced from said inlet means longitudinally of the track and also facing at an angle to the length of the track in the direction opposite to said one direction with respect to said vehicle assembly whereby to register with and deliver gas jet flow to successive track duct inlets as the vehicle assembly travels along said track, and intervening duct portion means connecting said inlet means to said outlet means.

2,869,480
OPERATING MECHANISM FOR CLOSURE MEMBER OF A DISCHARGE OUTLET ASSEMBLY
William F. Batho, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill., a corporation of Illinois
Original application March 20, 1950, Serial No. 150,662, now Patent No. 2,690,137, dated September 28, 1954. Divided and this application January 4, 1954, Serial No. 402,087
7 Claims. (Cl. 105—253)



1. A hopper discharge opening closure structure for use in a railroad car or the like having an opening providing for the downward discharge of lading and comprising, in combination, a frame having side walls and end walls forming a discharge opening, one of the end walls being slotted and having a part extending below the slot, runways on and extending inwardly of said side walls, a gate slidable on said runways and extending through said slot; means for moving said gate including interengaging rack and pinion means on said gate and frame respectively, and a shaft disposed outwardly of said part of said one end wall below the slot and non-rotatably mounting said pinion means; an annular bearing on each side wall in which said shaft is journaled, a bearing and stop member at each end of said shaft each including a hub bearing portion rotatable within the associated annular bearing and a stop collar integral with said bearing portion and outwardly of and adjacent to the associated annular bearing, and securing means between said bearing and stop members and said shaft, one of said bearing and stop members having an operating head secured to said shaft and the other of said bearing and stop members being secured to said shaft by a headless pin extending through the hub of said other bearing and stop member and said shaft within the associated annular bearing and the movement of said headless pin being limited by the inner surface of the associated annular bearing.

2,869,481
SIDE CONSTRUCTIONS FOR RAILWAY FREIGHT CARS
Wilfred A. Beauchamp, Chicago, Ill., assignor to The Youngstown Steel Door Company, Cleveland, Ohio, a corporation of Ohio
Application July 2, 1953, Serial No. 365,728
16 Claims. (Cl. 105—409)

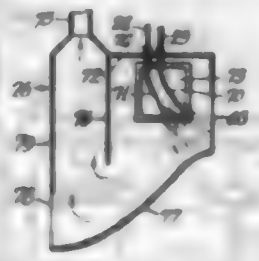


8. In a railway box car having a side construction embodying a side sill provided with an upstanding flange, a reinforcing member secured to said side sill, a side plate, and intermediate posts and sheathing extending between and secured to the side sill and side plate, metallic door posts extending between and secured to the side sill, side plate, and sheathing and defining the sides of a door opening formed in the side construction, each of said door posts comprising a vertical angular member disposed contiguous with the door opening and a plate member wider than said angular member extending between and secured to the side sill and side plate, said angular member being secured to and along one marginal portion of said plate member and extending between the side sill and side plate, the opposite marginal portion of said plate member having an angular vertically inclined section extending therealong, said section and said angular member converging from the side sill to the side plate, said angular section terminating at the side sill, the lower portion of said angular section being separated from said plate member and disposed inwardly of said upstanding flange of said side sill and being secured to said side sill, said plate member extending downwardly below said angular section in overlapping relation with and being secured to said upstanding flange of said side sill and said reinforcing member, said angular member extending into the door opening at said side sill and extending along and secured to said side sill in said door opening.

2,869,482
DUSTING METHOD AND EQUIPMENT

Charles William Britcher, Glen Ridge, N. J., assignor, by mesne assignments, to Wm. Walter Frankel, Charles William Britcher and Herbert Cole, New York, N. Y., trustees

Application February 3, 1953, Serial No. 334,915
3 Claims. (Cl. 107—9)

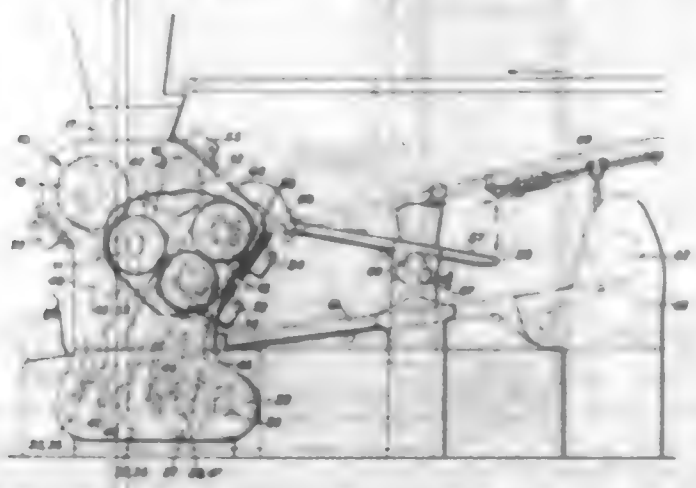


1. In a bread rounder of the type comprising a casing and a rotor therein, means for effecting dusting of dough pieces at said rounder, said means comprising a housing laterally of and against said rounder with a port communicating through said casing with the rotor therein, one or more inlet pipes through the top of said housing for entraining dry dusting powder, pneumatically to set up a cloud of powder in the housing and delivering thence to the dough pieces passing through the rounder, and further dusting the dough pieces upon discharge through said port into the housing, a duct spaced from the rounder, a partition extending downward from the top of said housing between said duct and said inlet pipes, and means for applying suction to said duct, said housing having a port for discharge of the rounded and dusted dough pieces therefrom and serving for admission of air under suction.

2,869,483
TREATMENT OF EDIBLE PLASTIC MATERIAL

Joseph Francis Naylor, Newton-le-Willows, England, assignor to T. & T. Vicars Limited, Newton-le-Willows, England, a British company

Application July 22, 1954, Serial No. 445,063
Claims priority, application Great Britain July 25, 1953
5 Claims. (Cl. 107—12)

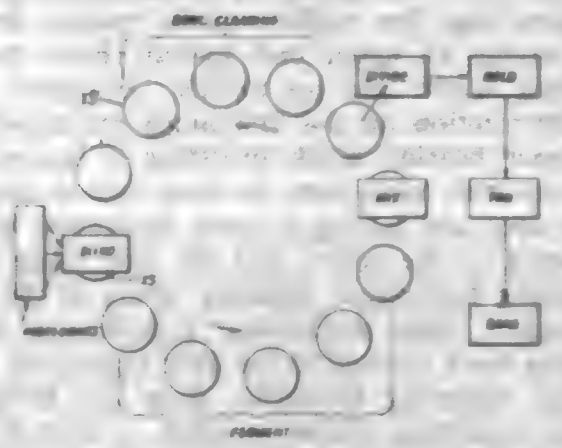


1. An apparatus for sheeting edible plastic material such as dough, comprising a frame, at least four rollers journalled on parallel axes in said frame and bounding by the mutually opposed portions of their peripheral surfaces a compression space; a first and a second of said rollers diagonally opposed across said compression space, a third one of said rollers spaced both from said first roller and from said second roller to provide between itself and said first roller an inlet gap for admission of the plastic material and between itself and said second roller an outlet gap for delivery from said compression space of a sheet of the material, and a fourth one of said rollers adjustable to a non-delivery position closely proximate to both said first and second rollers and to a delivery position spaced from said first roller to provide therebetween a further outlet gap for delivery from said compression space of another sheet of the material; feed means for feeding the plastic material to said inlet gap, and driving means adapted to rotate said first and second rollers in the same direction and said third roller in the opposite direction whereby to urge the material received from said feed means into said compression space, said driving means being further adapted to rotate said fourth roller in the same direction as said first and second rollers when in said non-delivery position and in the same direction as said third roller when in said delivery position.

2,869,484
BAKING PROCESS

Curtis J. Patterson, Kansas City, Mo., assignor to C. J. Patterson Company, a corporation of Missouri

Application August 23, 1957, Serial No. 680,377
7 Claims. (Cl. 107—54)

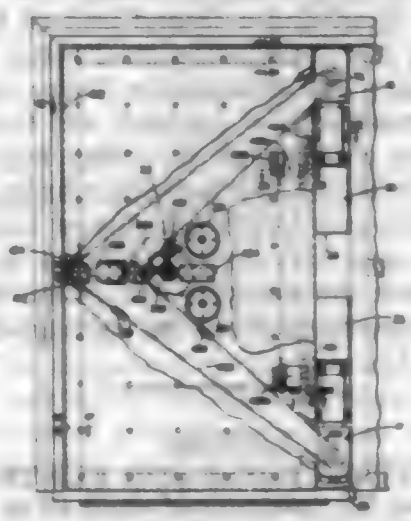


1. A leavened dough preparing process comprising stirring and blending together dough ingredients composed of solids and liquids, discontinuing the blending while the ingredients are in a wet pasty form, immediately setting aside the blended ingredients for a time and under only self-induced temperature conditions sufficient for the substantially full development of the gluten and flavor to form a glutinized dough mass, and then mixing the glutinized dough mass by mechanical stirring to work it into a dough texture ready for dividing into baking units.

2,869,485
VAULT DOOR CONSTRUCTION

Charles U. Deaton, Kirkwood, Mo., and Carl D. Graber, Orrville, Ohio, assignors to Diebold, Incorporated, Canton, Ohio, a corporation of Ohio

Application August 3, 1954, Serial No. 447,544
30 Claims. (Cl. 109—61)



1. Co-acting door frame and door construction for a vault and the like, including door frame members engirdling an opening, a door dimensioned for fitting in the opening, the door frame members including opposite side members, one of the frame side members being a door supporting frame member and the other frame side member being a door engaging and disengaging frame

member, the door having a hinge side and a swinging side; a first hinge mechanism and a second hinge mechanism each operatively interposed between the hinge side of the door and the door supporting frame member, the door frame members and the door having front faces, and the first hinge mechanism including a first lower bearing block secured to the door supporting frame member and extending forwardly from the front face of the door supporting frame member, a first upper bearing block secured to the hinge side of the door and extending above the first lower bearing block forwardly from the front face of the hinge side of the door, a first hinge pin and first bearing means operatively mounting the first hinge pin in the first lower bearing block, the first hinge pin having a vertical longitudinal axis spaced forwardly of the front face of the door supporting frame member, and the first bearing means operatively mounting the first hinge pin in the first lower bearing block including thrust bearing means and first radial bearing means, the first hinge pin having an upper end spaced above the first lower bearing block and an axially horizontal roller mounted for rotation on the first hinge pin upper end, the first upper bearing block including a bearing pad extending forwardly away from the front face of the hinge side of the door and having a lower horizontal bearing face supported on the roller, and the first hinge mechanism including first means resisting tilting of the door, and the second hinge mechanism including a second upper bearing block secured to the door supporting frame member and extending forwardly from the front face of the door supporting frame member, a second lower bearing block secured to the hinge side of the door and extending below the second upper bearing block forwardly from the front face of the hinge side of the door, a second hinge pin and second bearing means operatively mounting the second hinge pin in the second upper bearing block, the second hinge pin having a vertical longitudinal axis spaced forwardly of the front face of the door supporting frame member, and the second bearing means operatively mounting the second hinge pin in the second upper bearing block including second radial bearing means, and the second hinge mechanism including second means resisting tilting of the door; each hinge mechanism including a push-pull rectilinear thrust mechanism having a connection with its hinge pin and a connection with its door secured bearing block, whereby operation of the hinge push-pull rectilinear thrust mechanisms moves the hinge side of the door towards and away from the frame on the axially horizontal roller on the first hinge pin upper end; a first unit of a door and frame engaging and disengaging mechanism mounted on the swinging side of the door, and a second unit of the door and frame engaging and disengaging mechanism mounted on the door engaging and disengaging frame side member, the first and second units of the door and frame engaging and disengaging mechanism including engageable and disengageable parts, the first unit constituting a separable anchor and push-pull rectilinear thrust mechanism including means operative to engage and disengage the parts and to move the swinging side of the door towards and away from the frame when the parts are engaged.

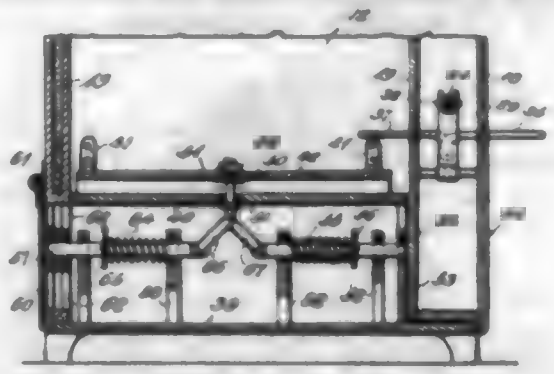
2,869,486

SAFETY CONSTRUCTIONS FOR REFRIGERATORS

Joe Scites, Toler, Ky., assignor of one-half to Ida Tuggle, Portsmouth, Va.

Application July 2, 1957, Serial No. 669,579
3 Claims. (Cl. 109—63.5)

1. In a refrigerator having a top, a bottom, side walls, a rear wall, a front wall, and an outwardly opening main door in said front wall, the provision of safety means for said refrigerator, said means comprising a horizontal partition mounted in said refrigerator in spaced relation to said bottom, a platform hinged at one of its edges to one of said side walls immediately above said partition, said rear wall having an opening therein, an emergency door for said opening hinged at its upper edge to the outer face of said rear wall, a pair of dogs mounted in said refrigerator below said partition, spring means normally holding said dogs in retracted position, and means operable by downward movement of said platform for extending said dogs whereby one of said dogs abuts said emergency door to open the same and the other of said dogs abuts the main door to prevent the closing thereof.

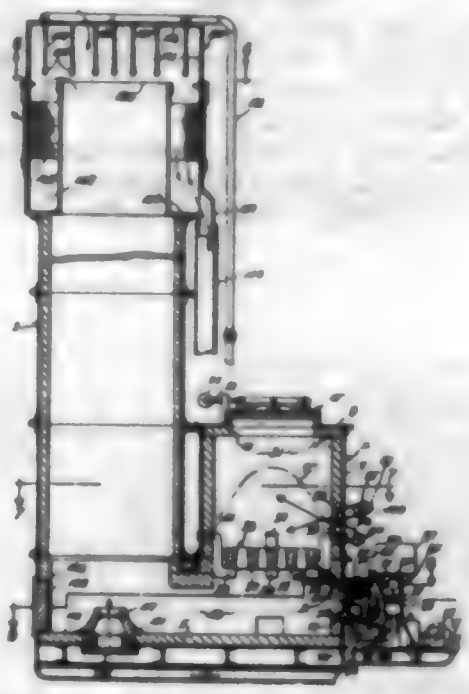


2,869,487

INCINERATORS

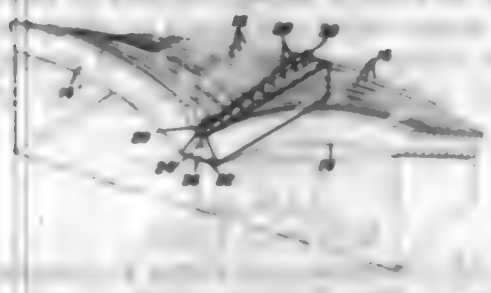
Ralston M. Sherman, Glastonbury, Conn., assignor to The Silent Glow Oil Burner Corporation, Hartford, Conn., a corporation of Connecticut

Application August 25, 1955, Serial No. 530,510
14 Claims. (Cl. 110—8)



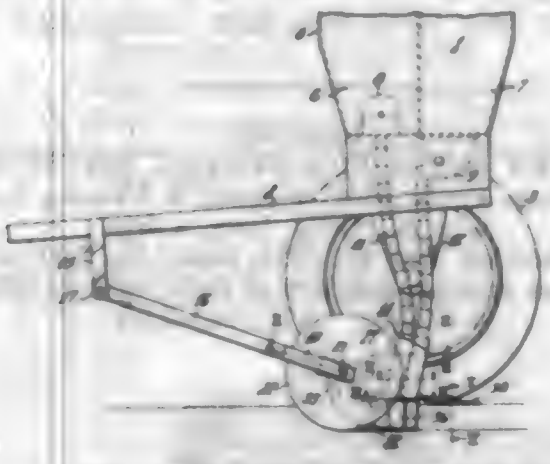
1. An incinerator having a charging chamber for the material to be incinerated, a grate at the lower portion of said chamber for supporting such material, means for admitting air to the portion of said chamber above said grate for supporting burning of said material and discharge of combustion products downward through said grate to the space beneath said grate, a stack, a tunnel connecting such space to the lower portion of said stack constructed to discharge combustion products tangentially into said stack for causing them to whirl while ascending said stack for promoting combustion therein, said charging chamber, stack and tunnel together forming a combustion chamber in all of which enumerated portions thereof said material or combustible products evolved therefrom may be burned, and means for projecting a flame of burning mixture of fluid fuel and combustion air through said space beneath said grate in proximity to and across the under side of said grate into said tunnel.

2,869,488
DUAL ARCH
Joseph J. Posey, Donora, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application August 29, 1956, Serial No. 606,887
2 Claims. (Cl. 110—99)



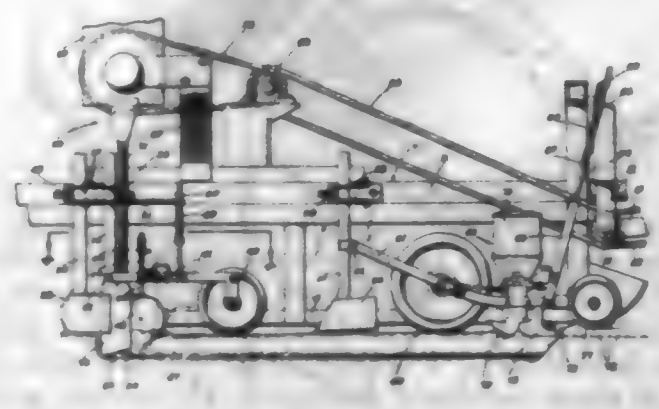
1. A structure comprising two sprung arches arranged side by side in transverse relationship and having a plurality of rings, a skewback for the outer end of each ring, the skewbacks for each arch decreasing in elevation from one end to the other, a center skew for supporting the inner ends of said rings, said skew sloping upwardly with its lower end opposite the higher ends of the skewbacks, said skew having a substantially triangular cross-section at its lower end merging into a substantially trapezoidal cross-section at its upper end, said trapezoidal section being wider at the top than at its bottom, and means for supporting the lower end of said skew.

2,869,489
GRAIN DRILL DUAL FEED BOOT STRUCTURE WITH SEPARATING DEVICE
August G. Buhr, La Crosse, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application July 6, 1953, Serial No. 366,240
3 Claims. (Cl. 111—80)



1. In a mobile seed planter having a soil working tool for opening a furrow and a mechanism for depositing seed and fertilizer materials along opposite sides, respectively, of said furrow; said tool comprising a disk positioned for rotation on a horizontal axis disposed in oblique relation to the direction of travel to form a single, generally V-shaped furrow, and a runner element extending rearwardly and laterally from the central portion of said furrow so as to widen the bottom part of the latter; and said seed and fertilizer depositing mechanism comprising a boot structure disposed rearwardly of said disk axis and having a pair of downwardly extending passages for conveying seed and fertilizer, respectively, one of said passages terminating in proximity to one side of said widened furrow adjacent said runner element and the other of said passages terminating forwardly of said one passage to deposit one of the seed and fertilizer materials into the furrow in front of and substantially in line with a deposit of the other of said materials in said furrow, and means mounted on said material conveying structure between the terminal portions of said passages in diagonal relation with said furrow, said means extending downward to the bottom of said furrow and presenting a surface portion engageable with the material deposited by said other passage so as to deflect said last mentioned material toward the other side of said furrow.

2,869,490
FERTILIZER DRILL AND SEED PLANTING IMPLEMENT
Henry Huber and Isaac Craven, Walnut Grove, Calif., assignors to Albert Jongeneel, Walnut Grove, Calif.
Application March 15, 1954, Serial No. 416,085
2 Claims. (Cl. 111—88)



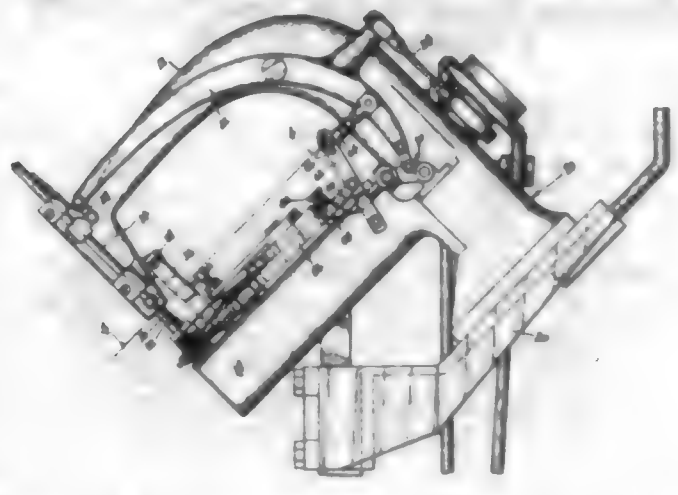
1. A seed planting machine comprising a frame structure supported for movement along the ground, a fertilizer distributing unit on the frame structure, said unit including a furrow digging shoe into which the fertilizer is fed so as to deposit such fertilizer into the bottom of the furrow, means to then deflect dirt into the furrow to partially fill the same, and a compacting wheel to then compact the deflected dirt in the furrow, a dirt leveling and deflecting blade supported by the frame structure in position to engage the dirt in the furrow rearwardly of the compacting wheel, a ground compacting wheel to engage the dirt in the furrow after the blade has acted thereon, and a seed planting unit supported from the frame structure rearwardly of said last named compacting wheel.

2,869,491
ATTACHMENT FOR PLANTERS AND THE LIKE
John W. Orendorff, Canton, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application October 18, 1954, Serial No. 462,838
1 Claim. (Cl. 111—86)



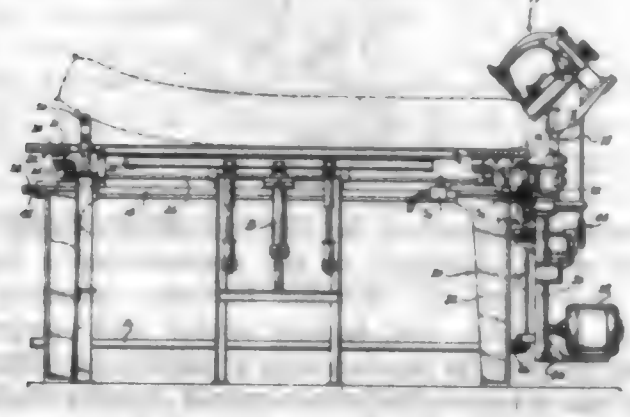
In a mobile planter or the like including a hopper for material to be dispensed to the ground and a furrow opener unit vertically movable between operating and transport positions, said furrow opener unit comprising an earth penetrating portion and a portion providing an outlet at the base of the furrow opener for the discharge of said material to the furrow formed thereby, an arm pivotally mounted on the furrow opener unit, a gate supported by said arm and movable by gravity into a position to cover said discharge outlet when the furrow opener unit is lifted from the ground, and an actuator member affixed to said arm adapted to engage and scrape the ground during forward movement of the planter to hold the gate open with respect to said outlet.

2,869,492
FEEDING AND GUIDING MECHANISM FOR SEWING MACHINES
Howard H. Seavert, Kenosha, Wis., assignor to Simmons Company, New York, N. Y., a corporation of Delaware
Application October 14, 1957, Serial No. 689,968
5 Claims. (Cl. 112—3)



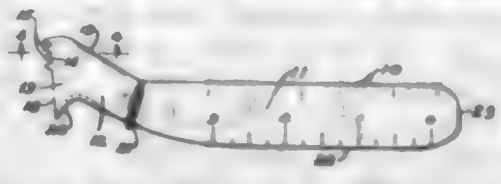
1. In a sewing machine, mechanism for guiding the edges of two superposed layers of sheet material into the sewing machine in proper registry with the machine needle, comprising a probing head insertable between said edges, said probing head being mounted on said machine for reciprocation in front of said machine needle generally in the plane of movement of said edges through the machine and at right angles to the direction of said movement, said reciprocation being such as to alternately thrust said probing head more deeply between said layers and to withdraw on the return stroke, said probing head having on opposite sides thereof means adapted to engage said layers on the return stroke to draw the same sidewardly into the path of the machine needle, means for applying pressure to the outside faces of said layers to maintain the engagement of the probing head therewith, and drive means connected to said probing head for imparting said reciprocation thereto.

2,869,453
APPARATUS FOR CLOSING MATTRESSES
Howard H. Seavert, Kenosha, Wis., assignor to Simmons Company, New York, N. Y., a corporation of Delaware
Application October 14, 1957, Serial No. 689,969
2 Claims. (Cl. 112—3)



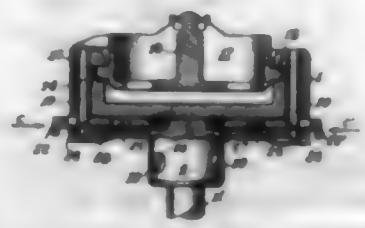
1. A mattress closing table comprising a supporting understructure, a table top supported thereon for supporting a mattress to be closed, a sewing machine head disposed above the level of said table top and movably mounted on said table to traverse a fixed path about the periphery of said table to sew a continuous closure seam around a mattress reposed thereon, elongated lifting members in said table top along two adjacent sides thereof, power-operated lifting means associated with each of said lifting members for elevating the same above the level of said table top, control means mounted on said table in position to be actuated by the passage of the sewing machine as it traverses the periphery of the table, said control means being connected to said power-operated lifting means to control the application of power thereto, said control means being positioned to effect the elevation of each said lifting member while said sewing machine traverses the side of said table opposite said lifting member.

2,869,454
SEWING TOOL
Alice M. Anderson and Elmer E. Anderson, Two Harbors, Minn.
Application November 5, 1956, Serial No. 620,250
3 Claims. (Cl. 112—203)



1. An accessory tool for use in manipulating fabric being sewed on a sewing machine, comprising an elongated handle, a head secured to one end of the handle and being constructed of stiff plate material, the head having an outer edge portion and a lower surface, said edge portion having teeth formed at one end thereof for manipulating fabric when the tool is manually oscillated, and the edge portion having a smooth edge at the other end thereof for guiding the fabric into position for engagement by the teeth, and said head having a plurality of notches in the lower surface thereof to facilitate folding the fabric in a desired position by placing the notched surface of the head against the fabric and the bed of the sewing machine, after the fabric has been manipulated by the teeth.

2,869,455
ROTARY HOOK FOR SEWING MACHINES
Luigi Bono, Pavia, Italy, assignor to Vittorio Necchi S. p. A., Pavia, Italy, a firm
Application May 10, 1955, Serial No. 507,367
Claims priority, application Italy April 2, 1955
4 Claims. (Cl. 112—230)



1. For use in a sewing machine, in combination, a rotary hook having an open top and having a side wall extending at least partly about the axis of rotation of said rotary hook and formed with a pair of angularly spaced bores extending downwardly from the top face of said side wall substantially parallel to the axis of rotation of said rotary hook; a retaining ring engaging said top face of said rotary hook for cooperating with the latter to retain a bobbin case holder; a pair of pins respectively fixed to said ring and extending downwardly therefrom respectively into said bores of said rotary hook, so that said pins connect said ring to said hook for rotation therewith; releasable catch means formed in part by bottom free end portions of said pins and carried in part by said rotary hook for releasably retaining said ring against said top face of said rotary hook; and spring means carried by said rotary hook and engaging at least one of said pins for urging said ring upwardly away from said top face of said rotary hook when said catch means is released.

2,869,496
BOBBIN SUPPORTING DEVICE

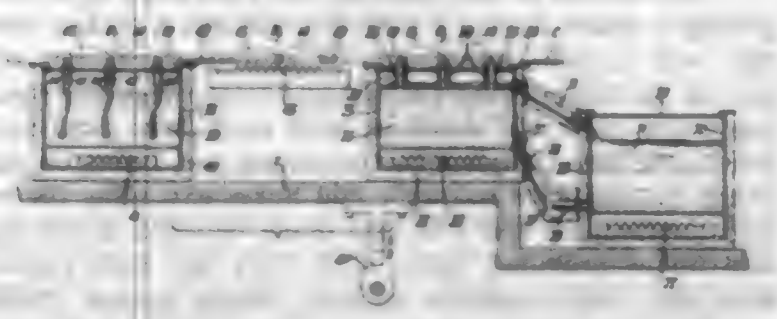
Hermann Adam, Bielefeld, Germany
Application December 13, 1955, Serial No. 552,880
Claims priority, application Germany December 17, 1954
7 Claims. (Cl. 112—231)



1. In a sewing machine having a bobbin mounted in a bobbin case, a bobbin supporting device of the type having a flap pivotally supported on a base proximate the lower peripheral portion of the bobbin case for pivotal movement relative thereto, said flap carrying a bobbin case retainer, means supporting said bobbin case retainer on said flap in nested relationship with said flap centrally of said retainer intermediate said flap and said bobbin case, said retainer and said flap presenting spherical surfaces defining an adjustable joint therebetween, and connecting means presenting at one end a shoulder portion freely seated rearwardly of said flap and at the other end a portion extending freely through said flap and having firm engagement with said retainer to provide for sliding engagement between said spherical surfaces and supporting said retainer upon said flap in a manner permitting accurate seating of said retainer on the adjacent surface of said bobbin case.

2,869,497
SOLDERING MACHINE

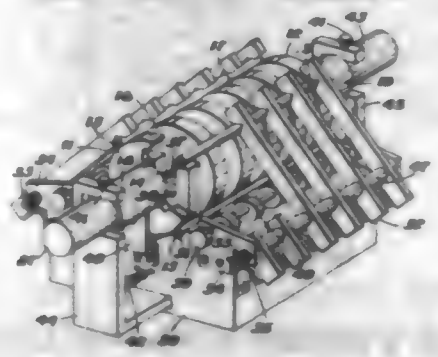
William L. Lehner, Snyder, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application January 11, 1954, Serial No. 403,171
4 Claims. (Cl. 113—59)



3. In a device for applying solder to a preselected portion of the lower surface area of an article comprising the combination of an article conveyor means for moving an article into a given fixed soldering position with the lower surface area of the article exposed, a vertically positioned hollow member terminating at its upper end in an open mouth spout portion having an overflow lip, means for mounting said hollow member beneath the article conveyor and in spaced relationship therewith, a reservoir of molten solder, means for providing a substantially continuous flow of solder during the soldering interval from said solder reservoir through the hollow portion of said member in sufficient quantity to flow over the overflow lip, means for returning the solder overflow to said reservoir, and means for reducing the spaced relationship between the article and the upper end of said hollow member during a soldering interval, to bring the portion of the lower surface of the article to be soldered adjacent the spout portion of said hollow member for engagement with overflow solder.

2,869,498
SOLDERING JIG FOR MECHANICAL FILTERS

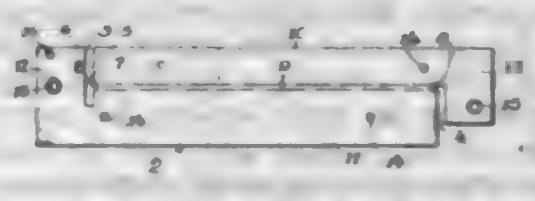
William E. Whittington, North Hollywood, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application November 4, 1957, Serial No. 694,323
1 Claim. (Cl. 113—99)



A jig for assembling electromechanical filters of the type that have a plurality of parallel spaced discs of uniform diameter coupled together at their peripheries by coupling wires and that have end wires connected to end active discs, said jig comprising a V block having a pair of plane intersecting surfaces, a V-shaped notch in each of said surfaces parallel to the intersection thereof, said notches for accurately positioning ones of said coupling wires so that arcuate sections thereof protrude above said surfaces, said wires when placed in said notches being spaced apart such that they can support said parallel spaced discs by contacting the peripheries thereof, a plurality of spaced parallel arms rotatably mounted on each side of said V block, each of said arms having a notch for positioning ones of said coupling wires traverse the peripheries of said discs, means for constantly urging said arms inward, a plurality of end wire holders, each of said holders having a bore for slidably receiving one of said end wires, a bracket secured to each end of said V block for securing said end wire holder so that the bore thereof is aligned with the axes of said discs, and means for constantly urging outward wires that have been inserted within said holder.

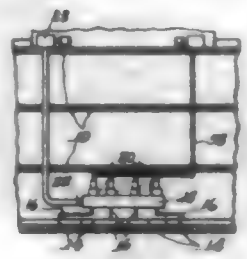
2,869,459
METHOD OF FORMING DRAWER SLIDE

Fred H. Arndt, Prospect Heights, Ill., assignor to Garden City Plating & Manufacturing Co., a corporation of Illinois
Application March 3, 1955, Serial No. 491,997
3 Claims. (Cl. 113—116)



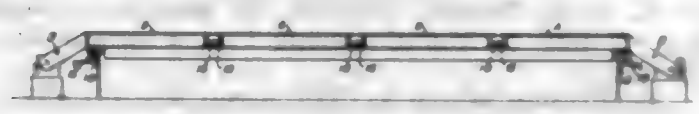
1. A method of forming a pair of mating drawer slide channels from a flat rectangular strip which comprises the steps of simultaneously punching said strip to form a plurality of apertures and a pair of slits, said slits being at opposite end portions of said strip and extending in opposite directions, then parting said strip along a line intersecting said slits to form separate blanks, and finally forming the edges of said separate blanks, said forming operation comprising a first step of bending the longitudinal edge portion of one blank into three angular sections with the section adjacent the body portion of the blank extending at an angle of approximately 45 degrees from said body portion, and a final step of bending said three angular sections as a unit through an angle of approximately 90 degrees to position said section adjacent the body portion of the blank at an angle of approximately 45 degrees in the opposite direction relative to said body portion.

2,869,500
HYDRAULIC VALVE CONTROL FOR BILGE DISCHARGE
Ernest J. Svenson, Rockford, Ill.
Continuation of application Serial No. 106,197, July 22, 1949. This application November 21, 1956, Serial No. 623,611
9 Claims. (Cl. 114—183)



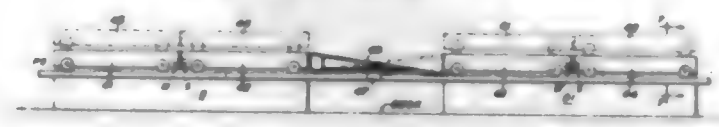
1. In a ship, a plurality of relatively inaccessible bilge compartments, a manifold, means for maintaining a predetermined pressure in said manifold, means including a plurality of valves each interconnecting one of said bilge compartments and said manifold to control the egress and ingress of water from and to said bilge compartments, a plurality of valve actuators mounted on said manifold and each mechanically linked to one of said valves, each of said valve actuators being operable by hydraulic fluid under pressure, a source of hydraulic fluid, means for applying pressure to said hydraulic fluid, means including valve means connecting each of said actuators to said pressure applying means, a plurality of remote control means connected to said pressure applying means and each including a valve remote from said valve actuators and pressure sensitive means adjacent each valve actuator for operating said valve actuators and a hydraulic line linking each of said pressure sensitive means and one of said remote control valves for selectively applying pressure to said pressure sensitive means whereby to operate said valve actuators from a remote location in said ship.

2,869,501
WATER-TIGHT HATCH COVER
Gustave Stransky, New York, N. Y.
Application February 12, 1953, Serial No. 336,502
22 Claims. (Cl. 114—202)



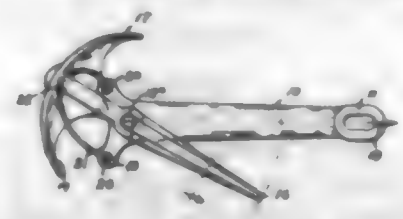
17. In a water tight hatch cover arrangement for vessels and for cooperation with vertical side and end walls delimiting a hatch opening, a plurality of cover sections, means mounting the cover sections for movement relative to the opening to open and close the same and said mounting means including means permitting at least partial movement in the plane of the opening, each cover section including vertical side and end walls, the side walls of all the sections and the end walls of the sections adjacent each end of the opening being displaced laterally of the side and end walls that delimit the opening, a peripheral seal for the opening comprising a sealing bar means carried by the first mentioned side and end walls and including an upper planar sealing surface extending laterally of the said first mentioned walls at an angle to the axis of the opening and slanting downwardly and outwardly from the opening, a cooperable compressible gasket strip means carried by the side walls of each cover section and the end walls of the sections adjacent the ends of the opening and overlying said upper sealing surface in closed position of the sections, said strip means including a sealing surface extending laterally of the wall means of the cover sections in uncompressed condition at approximately the same angle to the axis of the opening as the said upper sealing surface of the sealing bar and said sealing surface of the strip means having an extent such as to be compressibly engageable with a substantial area of the upper sealing surface of the sealing bar when the covers are closed so as to provide a face to face peripheral seal between the surfaces.

2,869,502
HATCH COVERS FOR SHIPS
Gustave Stransky, New York, N. Y.
Application February 27, 1953, Serial No. 339,303
13 Claims. (Cl. 114—202)



1. In a hatch cover arrangement, means defining at least two spaced hatch openings, track means along opposite sides of each opening, at least two cover sections for each opening, said sections having flat tops, roller means on each section supporting the same on the track means for rolling movement therealong and movable switch means mounted between the openings including means engageable by the roller means for selectively switching the sections rolled from over one opening to a stowed position on the flat tops of sections overlying the other opening.

2,869,503
FOLDING ANCHOR
Charles A. Winslow, Oakland, Calif.
Application June 19, 1956, Serial No. 592,321
3 Claims. (Cl. 114—208)

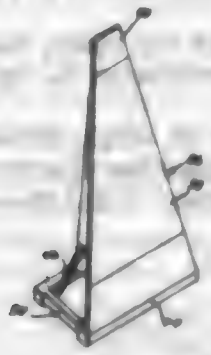


1. An anchor of the stockless flat twin fluke type comprising a shank having a forward end and a forked after end with a cable attachment at said forward end, said pair of flat flukes being pointed and joined together forming a one piece flat structure with each fluke fixed relative to the other, a pivot bar mounting said flukes on said shank at said after end with said flukes extending toward said forward end and with said shank between said flukes, said flukes provided below said pivot bar with parallel sides and with relatively narrow, widely spaced crowns on their after outside edges, said lower end of said flukes and said crowns substantially outweighing the portion of the flukes between said spaced crowns and above said pivot, said fluke points and said spaced crowns on the bottom or after end of said fluke points simultaneously engaging the ground when in operative position, said flukes being caused to rotate down when drawn horizontally by said cable attachement to an angle of approximately 35° from the center line of said forked shank, said flukes being caused to lie parallel with said shank when said cable attachment raises said anchor in a vertical position.

2,869,504
EMERGENCY ROAD SENTINEL
Franklin T. Andrews and Norman E. Hunton, Fullerton, Calif.
Application April 24, 1956, Serial No. 580,233
7 Claims. (Cl. 116—63)

1. An emergency road sentinel for use by motorists as a traffic warning device, comprising: a base; a warn-

ing panel hingedly connected to said base to swing relative to the base between a flat position for stowage and an upper warning position; a longitudinal flap hingedly mounted on said panel to swing relatively thereto about an axis longitudinally thereof to a position at an angle



thereto for supporting contact at its lower end with said base; and securing means mounted on said base and extensible upwardly therefrom into engagement with said flap when the flap is at said angle thereby to hold the warning panel at its upper warning position.

2,869,505

CONTROL CENTER

Vernon R. Kessler and William A. La Grange, Syracuse, N. Y., assignors to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Application December 16, 1955, Serial No. 553,502
11 Claims. (Cl. 116—124)



1. As a new article of manufacture a control center comprising a first rotatable operator, a second rotatable operator, at least one reciprocatingly actuated operator disposed rearwardly of said first and second rotatable operators, at least one of said rotatable operators carrying indicia, a transparent cover member disposed before the operators, said transparent cover member also having indicia to coact with the indicia on at least one rotatable operator to visually indicate degrees of angular disposition of the rotatable operator.

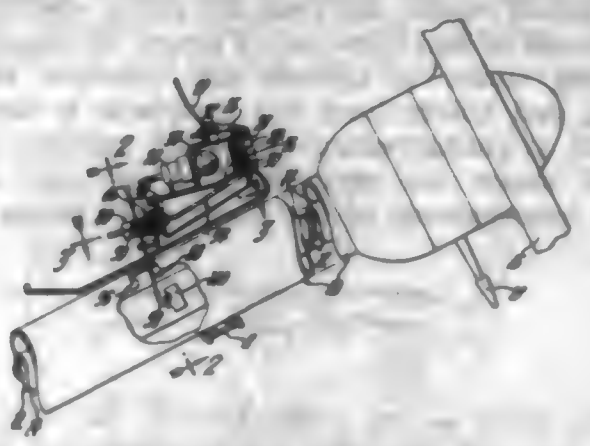
2,869,506

TRANSMISSION CONTROL INDICATOR MECHANISM

Francis H. Grady, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 29, 1957, Serial No. 674,722
4 Claims. (Cl. 116—124)

1. In combination, an instrument panel for a vehicle, a steering column, a transmission control rotatably supported by the steering column, a dial housing mounted on the instrument panel and having legends thereon corresponding to the transmission settings of the transmission control, an indicator member supported by the dial housing for movement relative to the legends, and



an adjustable clamp and pivot connection between the indicator member and the transmission control.

2,869,507

STREAMER MOUNT FOR FLAGSTAFFS

Wayne L. Boyer, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Army

Application January 29, 1958, Serial No. 712,850
1 Claim. (Cl. 116—173)
(Granted under Title 35, U. S. Code (1952), sec. 266)



The combination with a flagstaff including an upper end; of a streamer mount for said flagstaff, said mount comprising a flat member having a free outer edge, means mounting said member on said flagstaff in the region of said upper end with said outer edge of said member disposed radially outwardly of said flagstaff, said member being formed with a circumferential series of spaced holes therethrough, a plurality of streamer supports, means securing said supports to said flat member in the region of said outer edge and in spaced relation to each other and to said flagstaff, each streamer support being in the nature of a snap hook, each streamer support including an upper end formed to provide a comparatively small minor bight extending through one of said holes and pivotally engaging said edge of said mount and hanging vertically therefrom in all positions of said flagstaff, each streamer support having a lower end formed as a larger major bight, said major bight having a substantially straight bottom web, which is horizontally disposed in all positions of said flagstaff and said web being of sufficient length to support a plurality of streamers thereon in horizontal alignment.

2,869,508

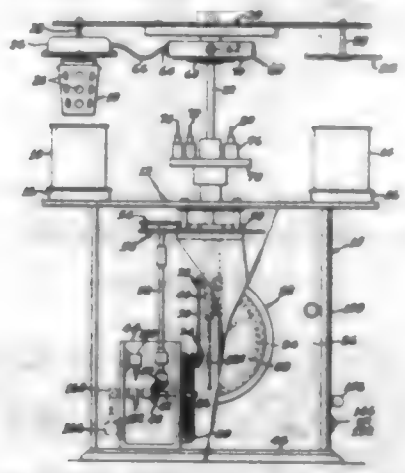
AUTOMATIC IMMERSION APPARATUS

Milton H. Pelavin, Queens, N. Y., assignor to Technicon International Ltd., Chauncey, N. Y., a corporation of New York

Application May 9, 1955, Serial No. 506,862
11 Claims. (Cl. 118—10)

1. In automatic immersion apparatus, comprising a conveyor movable up and down and laterally for trans-

ferring a material holder from one to another of laterally arranged receptacles, means for actuating said conveyor, time-control means, and electrical means operable under the control of said time-control means for operating said actuating means to operate said conveyor for transferring said holder from one receptacle to another receptacle at predetermined times; and auxiliary time-free control means for operating said conveyor actuating means independently of said time-control means to move



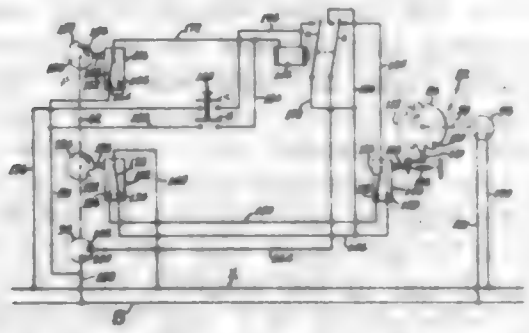
said conveyor to a raised position for raising the material holder out of the receptacles, respectively, independently of the operation of said time-control means, said auxiliary control means comprising manually operable means and electric-relay means operable under the control of said manually operable means to control the energization of said electrical means for operating said conveyor, said manually operable means being ineffective to prevent the lowering of said conveyor under the control of the time controlled means.

2,869,509

AUTOMATIC IMMERSION APPARATUS

Joseph J. Woods, New York, N. Y., assignor to Technicon International Ltd., Chauncey, N. Y., a corporation of New York

Application September 14, 1955, Serial No. 534,255
6 Claims. (Cl. 118—10)



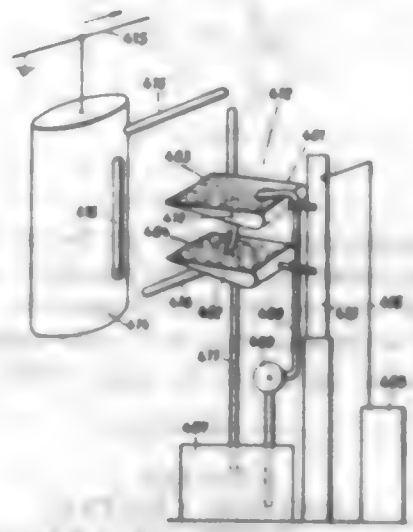
1. In automatic immersion apparatus, comprising a conveyor movable up and down and laterally for transferring a material holders from one to another of laterally arranged receptacles, means for actuating said conveyor, time-control means, and means operable under the control of said time-control means for operating said actuating means to operate said conveyor for transferring said holder from one receptacle to another receptacle at predetermined times; time-free control means for controlling the operation of said conveyor actuating means, independently of said time-control means, to move said conveyor independently of said time controlled means to a raised position for raising the material holder out of the receptacles, respectively, and to move said conveyor downwardly independently of said time controlled means to lower the material holder into the receptacles, respectively, independently of the operation of said time-control means, said time-free control means including switch means operable to releasably prevent operation of said conveyor under the control of said time-control means, following the raising thereof under the control of said time-free control means.

2,869,510

ELECTROSTATIC COATING APPARATUS UTILIZING OVERFLOW MEANS TO FACILITATE CONSTANT LEVEL

Otto Renner, Frankfurt am Main, Germany, assignor to Licentia Patent-Verwaltungs G. m. b. H., Hamburg, Germany

Application July 29, 1953, Serial No. 371,083
Claims priority, application Germany July 29, 1952
18 Claims. (Cl. 118—626)



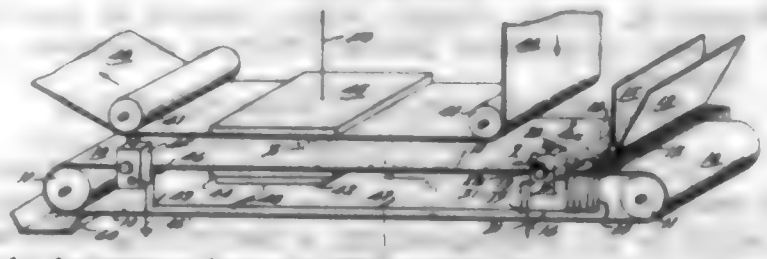
1. Electrostatic spraying apparatus comprising, in combination, supporting means; a plurality of containers mounted one above the other on said supporting means, each container having an opening partly surrounded by a spray edge; means for supplying liquid to the top container and including a pump, a collecting receptacle underneath the lowermost container, and conduit means connecting the inlet of said pump with said collecting receptacle; means for maintaining liquid at a constant level in each container and including an overflow means in each container for maintaining the level of the liquid in the container constant and corresponding to the level of the respective spray edge, overflow conduit means connecting the overflow means of each container with the next lower container, and the overflow means of the lowermost container with said collecting receptacle, and a conduit means connecting said pump with the uppermost container; conductor means opposite said spray edges and containers and spaced from the same and adapted to support objects to be sprayed and to move them past the containers; a source of high voltage connected to said spray edges and to said conductor means; and spray control means for accelerating and directing spray to said conductor means.

2,869,511

APPARATUS FOR PROPELLING PARTICULATE MATTER

Robert C. Dickey, Mount Clemens, Frederick P. Hauck, Detroit, and Hugh M. Archer, Dearborn, Mich., assignors to Michigan Abrasive Company, Detroit, Mich., a corporation of Michigan

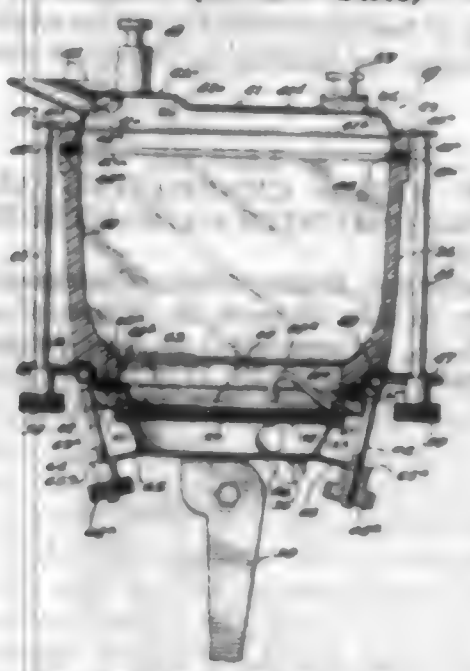
Application October 27, 1954, Serial No. 464,934
6 Claims. (Cl. 118—638)



1. Apparatus for propelling particulate matter onto a traveling web member having an adhesive coated under

surface from a traveling belt-like member which travels below the traveling web member and which carries the particulate matter on an upper surface thereof, the upper surface of said belt-like member facing and lying proximate the adhesive coated surface of the web member, comprising a pair of spaced-apart field electrodes one of which is at a high voltage relative to the other for establishing an electrostatic field therebetween, first means for moving a first one of the members between said electrodes and through said field and closer to said high-voltage electrode than to said other one of said electrodes, second means for moving the other one of the members between said electrodes and through said field and closer to said other one of said electrodes than to said high-voltage electrode, and conditioning means for increasing the effective propelling potential gradient within said field comprising a metallic conditioning electrode structure disposed outside of said field and in direct electrical and mechanical engagement with said first member for controlling the potential of said first member, and means for maintaining said conditioning electrode at substantially the same potential as said high voltage electrode.

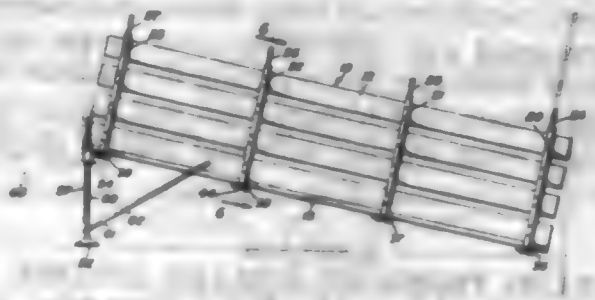
2,869,512
MILKER
Thomas W. Merritt, St. Charles, and Chester A. Thomas, Lake Forest, Ill., assignors to Babson Bros. Co., a corporation of Illinois
Original application June 24, 1955, Serial No. 517,842. Divided and this application December 16, 1957, Serial No. 703,146
7 Claims. (Cl. 119—14.46)



1. A lid of the character described for a milker, including: an upwardly extending arcuate forward wall portion; a flat top portion; and a plurality of nipples defining milk passageways adapted to be connected to the milk tubes of a plurality of teat cup assemblies, secured to and extending from said arcuate portion and tangent to said top portion.

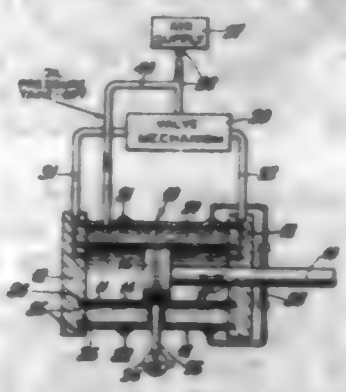
2,869,513
PORTABLE LIVESTOCK LOADING CHUTE
Embry L. Luckett, Wichita Falls, Tex.
Application January 8, 1957, Serial No. 633,027
4 Claims. (Cl. 119—82)

1. In a livestock chute, a pair of sides, a bottom, said sides having frame members with ends protruding below the lower edges of said sides, support members extending transversely across said bottom and having ears at the extremities thereof, and means separably securing said ears to the lower extremities of said members in order to separably connect said members to said bottom, frames, each frame having sides and a cross member rigidly fixed thereto with said sides inserted between the sides of said chute and attached thereto, and said cross members of the frames constituting structural supports for said chute, a floor for an upper chute mounted on said cross members, selective height adjusting means connected to one end of said bottom of said chute for



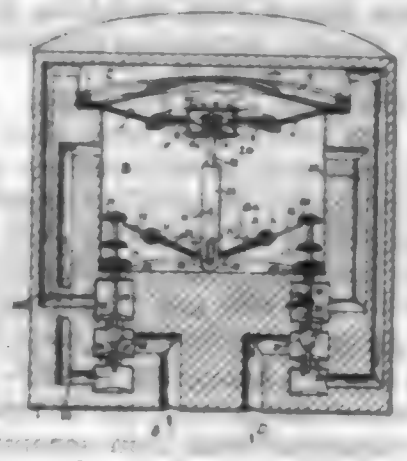
elevating said end of said chute, and a safety device operatively connected between said elevating means and said chute in order to hold said chute in the selected elevated position.

2,869,514
AIR CYLINDER
Norman Glass, Stamford, Conn.
Application July 26, 1956, Serial No. 600,276
2 Claims. (Cl. 121—1)



1. A reciprocating air engine comprising a cylinder of porous material, a piston reciprocably movable therein, an outer shell surrounding the cylinder, a pair of end plates disposed respectively at opposite ends of said cylinder in abutting and sealing relation with the ends of said cylinder and said shell, thereby defining an enclosed annular lubricant reservoir space between said shell and said cylinder wall, an air supply line gas-tightly connected to said end plates for supplying compressed air to said cylinder, valve means for directing said air supply alternatingly on each side of the piston, and a pressure take-off line in communication with said lubricant reservoir space and connected with said air supply line for equalizing pressure between a portion of said cylinder and said lubricating space.

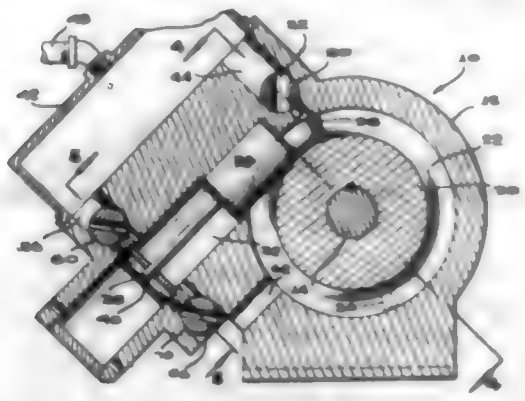
2,869,515
FLUID METERING DEVICE
Hans Platzer, Frankfurt am Main, Germany
Application January 15, 1957, Serial No. 634,213
Claims priority, application Germany January 17, 1956
15 Claims. (Cl. 121—48)



2. A fluid metering device comprising, in combination: a measuring chamber, valve means for regulating the flow

of a fluid into and out of said chamber, at least one measuring diaphragm in said chamber adapted to be displaced by a fluid entering said chamber, a control diaphragm connected with said measuring diaphragm, change-over means for said valve means, and transmission means connected with said change-over means and with said control diaphragm for reversing the position of said valve means upon displacement with said measuring diaphragm and while moving with said control diaphragm.

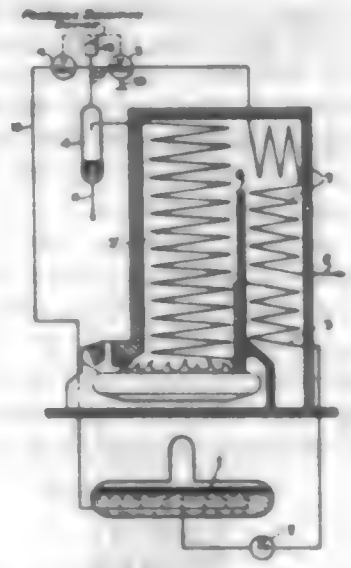
2,869,516
FLUID PRESSURE ROTARY ENGINE
John H. Heiman, Jr., Kansas City, Mo.
Application May 9, 1958, Serial No. 734,180
5 Claims. (Cl. 121—73)



5. In a fluid pressure rotary engine, a closed chest, a shaft to be rotated mounted in said chest, at least two rotors arranged in end to end relation secured to said shaft for rotation therewith, each of said rotors being provided with a groove extending completely about the periphery thereof, a piston bridging each groove and carried by the adjacent rotor, a cylindrical piston chamber within said chest and arranged tangentially with respect to each of said grooves and having part of one end in communication with said groove, a double piston working within each of said chambers, a manifold within said chest and spaced from said piston chambers, an inlet into said manifold for introducing fluid pressure into said manifold, a first passageway connecting said manifold to each of said grooves, a second passageway connecting said manifold to each of said piston chambers intermediate the ends thereof, an outlet from each of said grooves, a first rotary valve in each of said first passageways for controlling the flow of fluid pressure from said manifold to the adjacent groove, and a second rotary valve in each of said second passageways for controlling the flow of fluid pressure from said manifold to each side of one of said pistons in the adjacent piston chamber.

2,869,517
ONCE THROUGH STEAM GENERATING PLANT
Arthur Lieberherr, Winterthur, Switzerland, assignor to Sulzer Freres, Societe Anonyme, Winterthur, Switzerland, a corporation of Switzerland
Application June 4, 1954, Serial No. 434,616
Claims priority, application Switzerland September 26, 1953
10 Claims. (Cl. 122—406)

1. A forced flow steam generating plant of the once through type, comprising, in combination, a feed water reservoir, a combustion chamber, a steam generating tube system adapted to be heated by heat produced in said combustion chamber, a feed water pump connected with said reservoir and with said tube system for pumping feed water from the former into the latter, a superheater, a steam conduit connecting said tube system with said superheater, a steam and water separator interposed in said steam conduit, said separator having a water outlet for removing the separated water from the plant, a first valve interposed in said steam conduit between said separator and said superheater, actuating means connected with said first valve for varying the degree of opening of said first valve and for closing said first valve during the heating-up period of the plant, a return conduit connected with said steam conduit between said first valve and said separator and connected with said reservoir for returning operating fluid to said



reservoir during heating up of the plant, a second valve in said return conduit, actuating means connected with said second valve for varying the degree of opening of said second valve and for closing said second valve during normal operation of the plant, and means for shielding said superheater from flame radiation and preventing burning of said superheater when no steam flows therethrough during the heating-up period of the plant.

2,869,518
RADIANT VAPOR GENERATING AND SUPERHEATING UNIT WITH RADIANT SUPERHEATER PLATENS
Herbert Seidl and August Mogk, Oberhausen, Germany, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application October 28, 1954, Serial No. 465,336
5 Claims. (Cl. 122—478)



1. In a high pressure vapor generating and superheating unit, a cyclone furnace forming at least a part of a high temperature combustion zone, upright walls forming a vertically attenuated radiation gas pass receiving combustion gases generated in the cyclone furnace, upright widely spaced platens of radiant vapor superheating tubes vertically disposed within the gas pass, vapor generating tubes directly receiving heat from the gases generated in the cyclone furnace and having parts included within a wall of the gas pass normal to the planes of the platens,

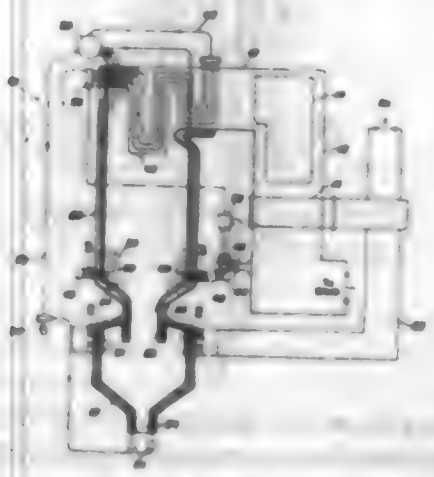
rows of radiant superheater wall tubes lining the remaining wall portions of the gas pass, a vapor and liquid drum directly communicating with the upper ends of the vapor generating tubes and disposed at a vertically intermediate position relative to the height of the gas pass, headers at the lower part of the unit directly connecting with the vapor generating wall tubes, means connecting the outlets of the vapor generating tubes to the inlets of said superheater tubes, and downcomer means establishing communication between the water space of the drum and headers, some of said platens of radiant superheater tubes extending through the gas pass having means thereon for supporting other radiant superheater platens.

2,869,519

METHOD OF OPERATING A WASTLINE VAPOR GENERATOR

Wilbert W. Schroedter, Long Island, and Elno M. Powell, Chappaqua, N. Y., assignors to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application September 7, 1955, Serial No. 532,877
3 Claims. (Cl. 122—478)



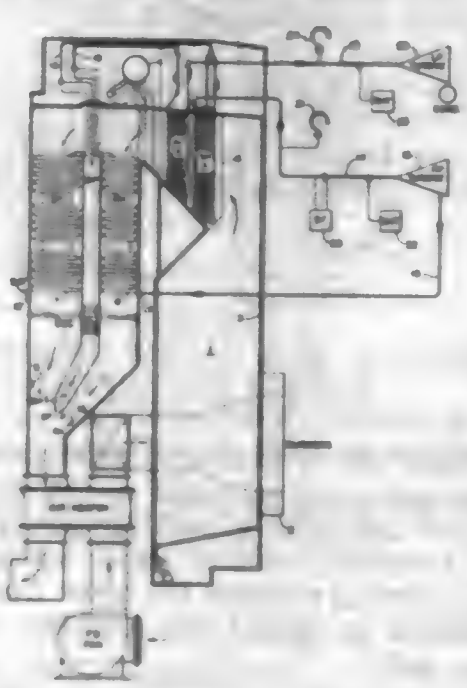
1. In a vapor generator comprising a furnace having a cyclone combustion portion and a radiant portion in coaxial relation, with a restricted centrally disposed combustion gas outlet of the cyclone combustion portion leading directly into the radiant portion which has its combustion gas outlet remote from said cyclone combustion portion, the inner surface of the walls of said radiant portion being lined with vapor generating tubes, and a vapor heater subjected to the combustion gases that pass through said radiant furnace portion, the method of operation comprising injecting a slag forming fuel and air tangentially into said cyclone portion so as to create a whirling mass, burning said fuel within said cyclone portion and creating a temperature sufficient to melt the slag therein with a major portion of the molten slag being separated from the combustion gases by centrifugal force and with the combustion gases together with minor amounts of molten slag passing through the restricted centrally disposed outlet of the cyclone portion into the radiant portion spiralling about the axis thereof, introducing cooled combustion gases into this gas stream adjacent the location of the introduction thereof into the radiant furnace portion and in a direction counter-current thereto and at the outer region thereof thereby surrounding the stream of gases issuing from the cyclone furnace portion with a barrier of cool counter-rotating gases, introducing sufficient of these cooled gases at maximum load to sufficiently cool molten slag particles entering the radiant furnace portion to maintain the walls of the radiant portion of the furnace substantially free of molten slag deposits and entraining these cooled slag particles in the gas stream passing through the radiant furnace portion so that they are carried therewith through said radiant furnace portion and regulatingly increasing the introduction of these gases as the load decreases so as to maintain the vapor temperature leaving the vapor heater substantially constant over a predetermined load range.

2,869,520

VAPOR GENERATING AND SUPERHEATING OPERATION

William L. Paulson, Jr., Ridgewood, N. J., assignor to Bailey Meter Company, a corporation of Delaware

Application August 24, 1953, Serial No. 375,963
5 Claims. (Cl. 122—479)



1. Apparatus for controlling the operation of a vapor generating and superheating unit of the type having a convection vapor superheater and a convection vapor reheater disposed respectively in divided and separate parallel structurally defined gas flow passages from a common combustion space and having a controllable structurally defined gas by-pass around the said parallel heating passages, including in combination, damper throttling means for the superheater passage, damper throttling means for the reheater passage, damper throttling means for the by-pass, means continuously determining reheat final total temperature, means continuously determining reheat final total temperature, means continuously ascertaining an index of load upon the unit, first control means responsive to both the superheat final total temperature and the reheat final total temperature determining means and producing a control effect representative of the total of the two temperatures, means arranged to position the by-pass damper means conjointly responsive to said first control means and said load index means, a second control means responsive to both the superheat final total temperature and the reheat final total temperature determining means and producing a second control effect representative of the difference of the two temperatures, and means selectively responsive to said second control effect arranged to throttle the damper of the superheat passage or of the reheat passage whichever temperature is higher while leaving the opposite damper open.

2,869,521

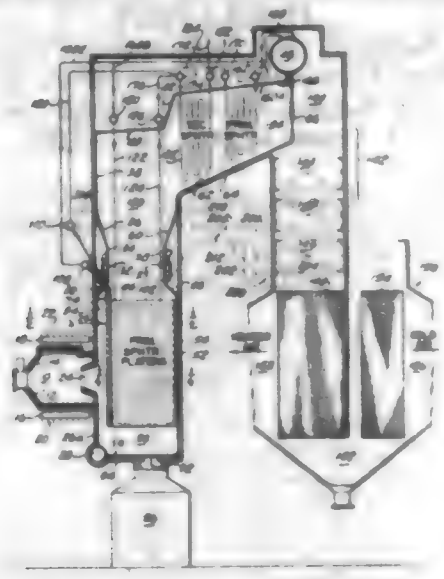
APPARATUS FOR GENERATING AND SUPERHEATING STEAM

Ralph M. Hardgrove, North Canton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application March 16, 1955, Serial No. 494,740
8 Claims. (Cl. 122—481)

7. Apparatus for generating and superheating high pressure vapor comprising walls defining a furnace having an outlet for discharge of hot gaseous products of combustion therefrom, means for cooling the walls of said

furnace including vapor generating tubes therein, burner means for introducing ash-containing fuel and combustion air into a portion of said furnace remote from said hot gaseous product outlet for combustion of the fuel at temperatures above the fusion temperature of the ash, a target wall at one side of said furnace opposite said



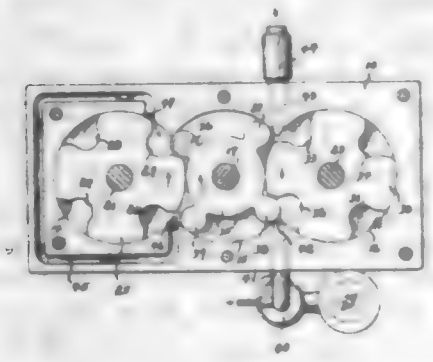
burner means and in impinging relationship to the hot combustion gases and entrained molten ash particles discharged from the outlet of said furnace, said target wall including refractory covered vapor superheating tubes, and means forming a molten ash outlet from said furnace and positioned in molten ash receiving relationship to said target wall.

2,869,522

INTERNAL COMBUSTION ROTARY ENGINE

Dale F. Marean, Inglewood, Calif.

Application April 18, 1956, Serial No. 579,036
3 Claims. (Cl. 123—12)



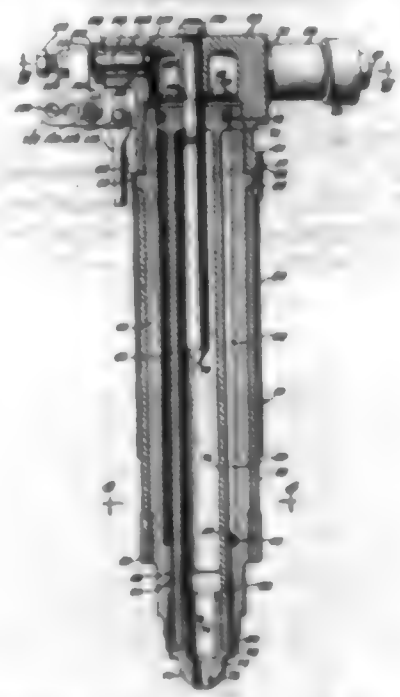
3. In a rotary combustion engine, a housing, a center well in said housing, a second well in said housing communicating with one side of said center well, a third well in said housing communicating with the other side of said center well, a shaft rotatably mounted in each of said wells, a rotor on the shaft rotatably mounted in said center well, four lugs on said rotor, a shaft rotatably mounted in said second well, a rotor having four notches and on said last mentioned shaft, a shaft rotatably mounted in the third well, a rotor having four notches and on said last mentioned shaft, a fuel inlet manifold adapted to be in communication with a source of fuel, communicating at one side point where said center and second wells communicate with each other, an exhaust outlet manifold communicating at the other side point where said center and second wells communicate with each other, a conduit having its entrance end communicating with one side point where said center and third wells communicate with each other and its exit end communicating with the other side of said third well just prior to where it communicates at that side with said center well; said entrance end of said conduit being on the same side as said fuel inlet manifold, a fuel firing means communicating with said center well near the exit end of said conduit, and a means for operatively connecting said shafts together for holding the lugs of the rotor in said center well in mesh with the notches in said other two rotors.

2,869,523

EJECTOR RELEASE MECHANISM FOR AUXILIARY FUEL TANKS, AND THE LIKE

David W. Murphy, Torrance, Calif., assignor to Pacific Aviation Corporation, Los Angeles, Calif., a corporation

Application February 3, 1954, Serial No. 407,991
1 Claim. (Cl. 123—24)



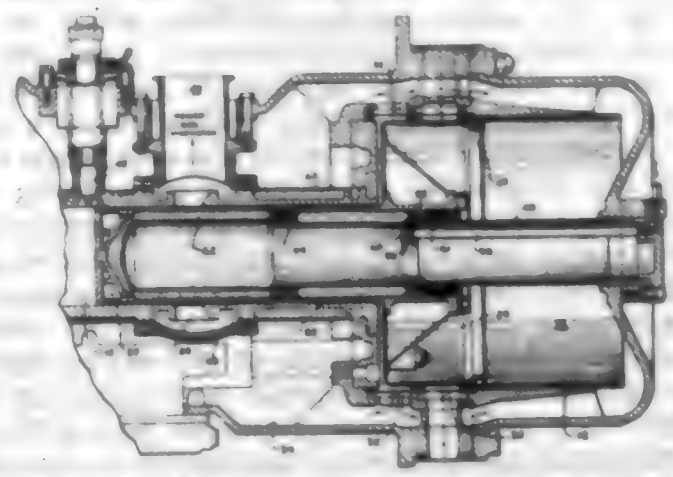
In a combination for ejecting a body from an aircraft: a power cylinder for communication with a source of high pressure actuating fluid, said power cylinder having an outer open end; a power piston mounted in said cylinder for limited outward movement to exert thrust against said body, said piston being of tubular construction to provide a passage therethrough for the escape of fluid from the interior of said cylinder; and a stationary longitudinal valve member carried by said cylinder and extending into the tubular piston to normally close said passage, said stationary valve member being short relative to the range of movement of said piston to open said passage for escape of said fluid before the piston reaches its outer limit position.

2,869,524

FREE PISTON ENGINE

Hans G. Spier, Hamilton, Ohio, assignor to Baldwin-Lima-Hamilton Corporation, Hamilton, Ohio, a corporation of Pennsylvania

Application December 11, 1957, Serial No. 702,824
2 Claims. (Cl. 123—46)



1. In a free piston power gas generator, the combination of a frame, aligned power, compressor and bounce

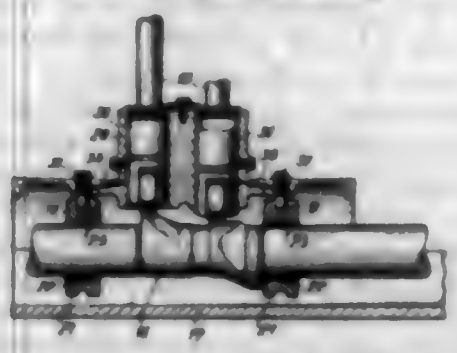
cylinders carried by said frame, connected power and compressor pistons working in said cylinders, said power piston having a series of peripheral sealing grooves extending from its firing end, said peripheral sealing grooves increasing in cross-sectional area in the direction of gas leakage and having rear walls disposed at least 90° from the axis of the piston, a body of insulation disposed within said power piston radially opposite to said peripheral sealing grooves, and means carried by said frame to support at least the grooved portion of said power piston entirely out of contact with its respective cylinder.

2,869,525

VALVE CONTROLLED INTERNAL COMBUSTION ENGINE

Johann Keylwert, Koln-Kalk, and Karl-Heinz Trouiseck, Bruhl-Vochem, Germany, assignors to Klöckner-Humboldt Deutz Aktiengesellschaft, Koln, Germany

Application November 19, 1956, Serial No. 623,182
Claims priority, application Germany November 26, 1955
7 Claims. (Cl. 123—90)



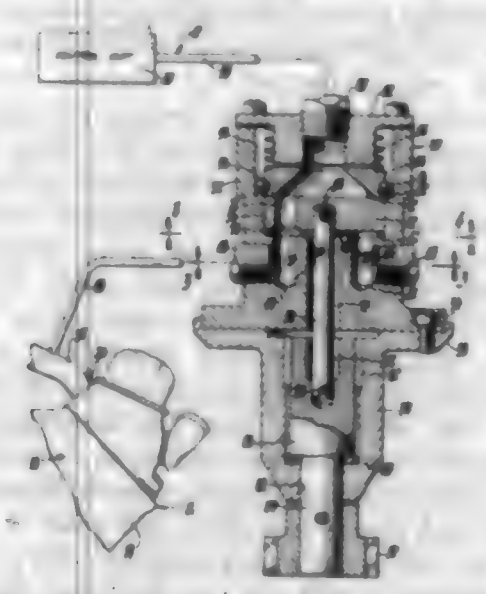
1. An internal combustion engine with inlet and outlet valves for controlling the same, which comprises in combination: a cylinder block having a machined upper surface serving as reference surface, a plurality of bushings resting on said reference surface and forming a plurality of serially arranged cylinders, said cylinder block being provided with laterally projecting supporting means having the upper surface thereof machined flush with said reference surface, a cam shaft, a plurality of supporting sockets carried by said projecting supporting means and supporting said cam shaft, said supporting sockets being divided along a surface flush with said reference plane, and valve actuating means operable by said cam shaft for actuating said valves.

2,869,526

VALVE MEANS

John Dolza, Fenton, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 29, 1956, Serial No. 594,738
6 Claims. (Cl. 123—119)



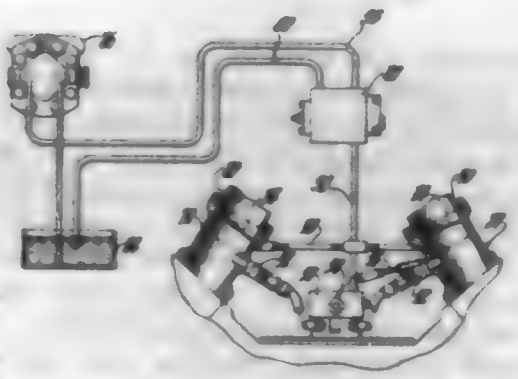
1. In an engine having a plurality of cylinders and intake passages for charging said cylinders and an injection system for injecting metered quantities of fuel into said passages, a sampling valve comprising a stationary housing having a passage extending axially therethrough with portions of different diameters separated by a shoulder, a plurality of sampling chambers adapted to be interconnected with said intake passages and disposed around said axial passage, said chambers forming a series of circumferentially spaced openings in said shoulder, a rotor having one side thereof supported by said shoulder and being driven by said engine in timed relation to the operation thereof, a pressure chamber disposed on the other side of said rotor and being operatively interconnected with a control unit in said injection system, said rotor including a passage for intermittently interconnecting said sampling chambers with said pressure chamber to produce a resultant signal therein proportional to the flow through said intake passages and being effective to actuate said control unit in response thereto.

2,869,527

CHARGE FORMING MEANS FOR AN INTERNAL COMBUSTION ENGINE

Ronald C. Groves, Grandville, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 12, 1956, Serial No. 597,456
15 Claims. (Cl. 123—119)



1. A fuel injection system for an internal combustion engine comprising a fuel pump having an outlet for discharging fuel therefrom, said outlet being adapted to be interconnected with a fuel distributor for distributing equal increments of fuel to the engine cylinders, a fixed restriction interconnected with said outlet for by-passing a portion of the fuel from said outlet for return to the source of fuel, a variable restriction disposed in parallel with said fixed restriction for by-passing an additional amount of fuel to said source, said last mentioned restriction being responsive to the pressure differential across said restrictions for varying the resistance of said second restriction in proportion thereto.

2,869,535

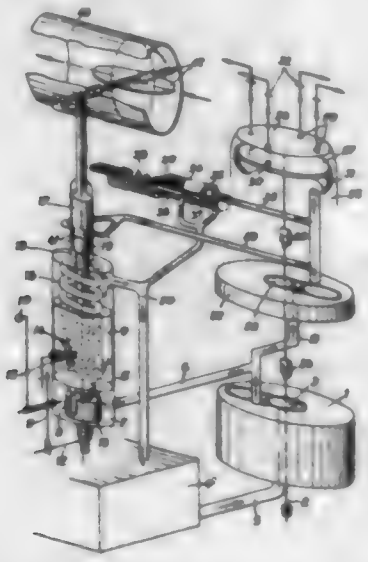
FUEL FEED DEVICE FOR INTERNAL COMBUSTION ENGINES

Jean Edouard Tuscher, Valence, France, assignor to Sebem S. A., Neuchatel, Switzerland, a corporation of Switzerland

Application April 1, 1955, Serial No. 498,691
Claims priority, application Switzerland April 28, 1954
13 Claims. (Cl. 123—140)

1. A fuel feed device for an internal combustion engine having an air intake, said device comprising a first positive displacement pump for pumping fuel and driven by the engine, a second pressure positive displacement pump connected to said first pump and driven by said first pump and to which fuel is pumped by said first pump, a pressure chamber connected to said second pump into which fuel is pumped by said second pump, means associated with said pressure chamber for distributing fuel

to the points in the engine where it is burned, a governor having a cylinder with a discharge opening therein discharging to a collecting point, a spring loaded piston in said cylinder having an opening therein adjustable from outside of said device, said opening connecting the parts of said cylinder on either side of said piston, a piston rod attached to said piston, said cylinder having a constriction therein on one side of said piston and said piston rod having a piston valve thereon slidable in said constriction for admitting fuel from said constriction into said cylinder, said cylinder discharge opening being between said piston and said constriction, said first pump



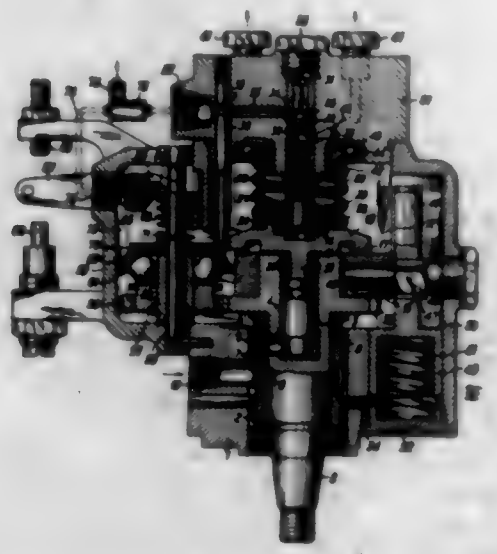
also connected to said cylinder on the other side of said piston for pumping fuel to said cylinder, a first control circuit leading from said pressure chamber and comprising a control cylinder having a discharge port therein discharging to the collecting point and a spring loaded control piston therein for covering and uncovering said port under the influence of pressure of fuel from said chamber, and a second control circuit leading from said pressure chamber and opening into said constriction, said piston valve on said piston rod covering and uncovering the opening of the second control circuit into said constriction under the influence of the pressure of fuel from said first pump.

2,869,529

INJECTION PUMP ASSEMBLY

Berthold Oxenfart and Ulrich Aldinger, Stuttgart, Germany, assignors to Robert Bosch G. m. b. H., Stuttgart, Germany

Application September 7, 1955, Serial No. 532,959
Claims priority, application Germany September 11, 1954
12 Claims. (Cl. 123—140)



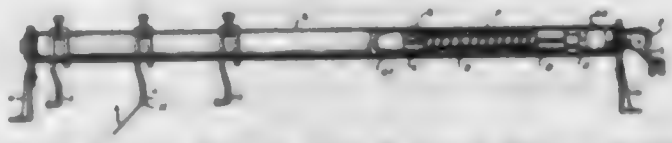
1. In a pump, in combination, support means; a drive shaft turnably carried by said support means and being formed with an axially extending bore which acts as the cylinder of the pump; a piston slidable in said bore; and transmission means cooperating with said drive shaft and piston for reciprocating the latter in said bore during rotation of said drive shaft.

2,869,530

EMERGENCY FUEL STOP FOR DIESEL ENGINES

Everette Ilas Wilkanck, Oklahoma City, Okla.

Application May 1, 1957, Serial No. 656,454
3 Claims. (Cl. 123—140)



1. A fuel-control shaft for diesel engines comprising an elongate hollow tube, a rod element extending into said tube and from one end thereof, said rod element being rotatable, at least within limits, with respect to said tube, means on the projecting end of said rod element for connection to a governor so as to be rotated thereby, means on said tube for actuating the fuel-control means of a diesel engine, a releasable coupling contained within said tube having a first part secured to said rod and a second cooperating part secured to said tube, said first and second parts having a releasable interconnection with one another to permit rotation of the shaft by said rod, and operator-controlled means having a lost-motion connection to said shaft for rotating said shaft independently of said rod, the releasable coupling permitting rotation of the shaft by said operator-controlled means relative to said rod element.

2,869,531

STARTER FOR OUTBOARD MOTORS

Knut Iwan Cederwaerk, Soina, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden

Application February 9, 1955, Serial No. 487,844
Claims priority, application Sweden February 12, 1954
14 Claims. (Cl. 123—179)

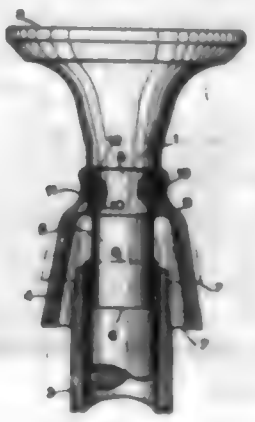


1. A starter for an outboard motor having a flywheel, such starter comprising a stationary part including a stud, structure mounted for rotation on said stud, said rotatable structure including a drum having a cord wound thereon, one or more pawls carried by said structure and pivotally movable with respect thereto, an element connected to the flywheel which is adapted to be engaged by said pawl or pawls, a guide member, means for mounting said guide member in frictional engagement with said stationary part, said guide member having a part disposed between said element and said rotatable structure at the vicinity of said pawl or pawls, means including said guide member for guiding said pawl or pawls into engagement with said element for imparting rotating movement to the flywheel when said cord is unwound from said drum to effect rotation of said structure, said last-mentioned guiding means being effective to cause said pawl or pawls to turn about their pivotal axes during movement thereof toward said element, and means including said pawl or pawls for overcoming the frictional engagement of said guide member on said stationary part and effecting movement of said guide member after said pawl or pawls are in engagement with said element connected to the flywheel.

2,869,532
EXHAUST VALVE FOR INTERNAL-COMBUSTION ENGINES

André Sourdillon, Saint-Cloud, France, assignor to Societe Anonyme de Vehicules Industriels et d'Equipements Mecaniques (Saviem-Lrs), Paris, France, a company of France

Application June 27, 1957, Serial No. 668,385
Claims priority, application France June 30, 1956
1 Claim. (Cl. 123—188)



An exhaust valve for internal combustion engines having a valve head on a valve stem sliding in a guide, an annular shoulder on the portion of said stem normally situated in the guide, said stem being of reduced diameter above said shoulder extending above the end of the guide, said shoulder passing out of the guide when the valve head is in its fully lifted position, and a concave cup fixed to said stem with its concave side disposed towards and surrounding the guide, said shoulder being situated within said cup and the end of said guide being situated within said cup when the valve is in its fully lifted position.

2,869,533
BALL THROWING APPARATUS

Irwin Cohn, Leominster, Mass.

Application December 4, 1956, Serial No. 626,102
24 Claims. (Cl. 124—26)



1. A ball throwing apparatus comprising a chamber having a discharge end through which a ball may be discharged, said chamber being formed with an opening, and means for discharging the ball from said chamber, said means comprising a pivoted lever adapted to pass through said opening in the chamber for engagement with the ball, spring means for activating the lever into position for striking the ball to discharge the latter from said chamber, releasable catch means engaging the lever to retain the lever in a cocked position tensioning said spring means, and means for disengaging the catch from the lever, said means comprising an inflatable bellows member adapted to move the catch when the bellows member is inflated, a flexible hose connected at one end to the bellows member, and an air bulb connected to the opposite end of the hose.

2,869,534
GRINDING CHAIN TOOL

Andreas Stihl, Neustadt, near Waiblingen, Germany

Application September 6, 1957, Serial No. 682,403
Claims priority, application Germany September 11, 1956
8 Claims. (Cl. 125—21)

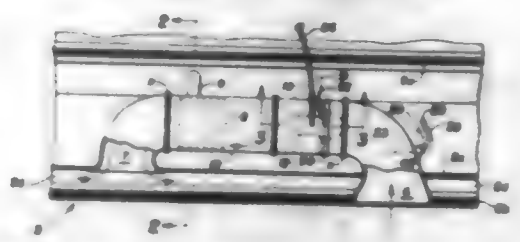


1. In combination in a grinding chain tool for grinding rock and the like: two lateral link rows each comprising a plurality of spaced chain links, an intermediate link row interposed between said lateral link rows, a plurality of pivot means respectively pivotally connecting each link of said intermediate row with two adjacent and in transverse direction of said chain tool aligned links of said lateral rows, each of said links extending in the direction of movement of said chain tool and each of the links of said lateral rows being provided with a cutout having a bottom portion and two oppositely located side portions, and a plurality of grinding elements respectively fitted in said cutouts and fixedly connected to said links while resting against the side portions of the respective cutout, each grinding element in the cutouts of said lateral rows of links having an outwardly directed portion extending beyond the bottom portion of the respective cutout and in a direction away from the latter.

2,869,535
AIRCRAFT HEATING SYSTEM

Theodore H. Horrell, Greencastle, Pa., assignor to Fairchild Engine and Airplane Corporation, a corporation of Maryland

Application May 12, 1954, Serial No. 429,223
7 Claims. (Cl. 126—110)



5. In an aircraft, a duct having a ram air inlet, switch means associated with said ram air inlet actuated in accordance with ram air flow, a power driven blower disposed in said duct, a blower motor for driving said blower, adjustable pitch blades on said blower, a blade motor for actuating the pitch of said blades, and control means connecting said switch means and said motors whereby when said switch means is actuated, said power driven blower motor is shut off and said blades are rotated by said blade motor to positions in which they open said duct.

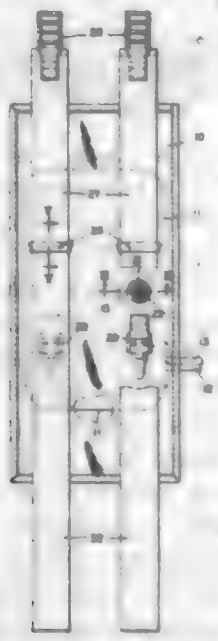
2,869,536
SELF-APPLICABLE SPHYGMOMANOMETER

Irving A. Speelman, Brooklyn, N. Y., assignor to Propper Manufacturing Company, Inc., Long Island City, N. Y.

Application December 3, 1957, Serial No. 700,430
1 Claim. (Cl. 128—2.05)

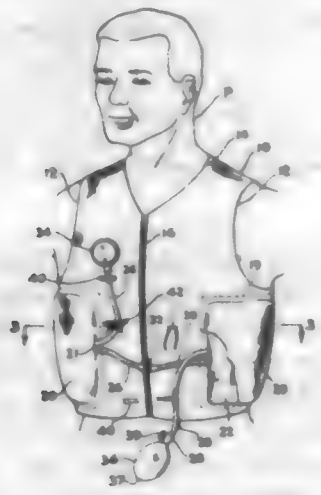
A self-applicable sphygmomanometer which comprises, in combination, a constriction cuff having an inflatable portion, a stethoscope diaphragm fixed to said cuff, a pair of straps for securing said cuff in operative position about a portion of the human body, first fastenter means for securing one end of each of said straps to said cuff, each of said first fastener means including a first fitting fixed to said cuff and a second cooperative fitting secured to the end portion of the associated strap, adjustable fastener means for fastening said cuff to another portion of each of said straps, each of said adjust-

able fastener means comprising a fitting secured to said cuff, each of said straps passing through its associated adjustable fastener fitting, inflating means for inflating and deflating said inflatable portion, means for operatively connecting said inflating means with said inflatable



portion, manometer means for indicating the pressure in said inflatable portion, means for operatively connecting said manometer means with said inflatable portion, stethoscope listening means, and means operatively connecting said stethoscope listening means with said stethoscope diaphragm.

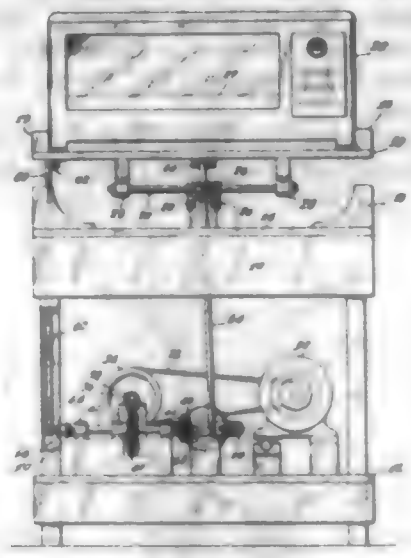
2,869,537
PNEUMATIC PRESSURE RESPIRATORY VEST
John Jen-chu Chu, Salem, Oreg.
Application June 14, 1957, Serial No. 665,830
2 Claims. (Cl. 128—27)



1. A device for assisting natural respiration in a pulmonary emphysematous patient comprising a flexible vest, pockets inside of said vest in opposite lower side portions thereof, said pockets being closed at their top edges and having restricted openings at their front edges in the outside of the vest, inflatable air bags insertable into and removable from said pockets through said openings, and tubes from the respective bags extending through said openings and detachably connected together exteriorly of the vest.

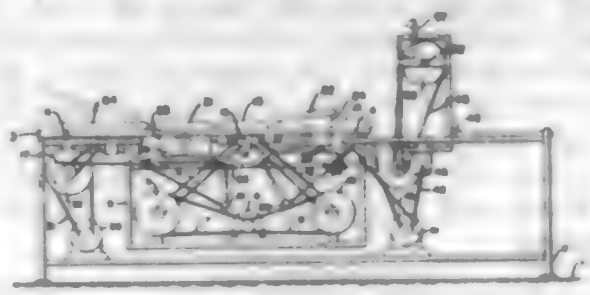
2,869,538
OSCILLATING BED
James H. Hawk, Indianapolis, Ind.
Application May 24, 1954, Serial No. 431,644
8 Claims. (Cl. 128—29)

1. A rocking-bed device, comprising a pair of crossed tilt shafts, a fixed bearing support supporting one tilt shaft, the second tilt shaft being supported in proximate crossed relation on said one tilt shaft, means to support a bed on said second tilt shaft, a main drive shaft, a cross drive shaft, cranks on said drive shafts, and pitman rods respectively connecting said cranks to the bed-supporting



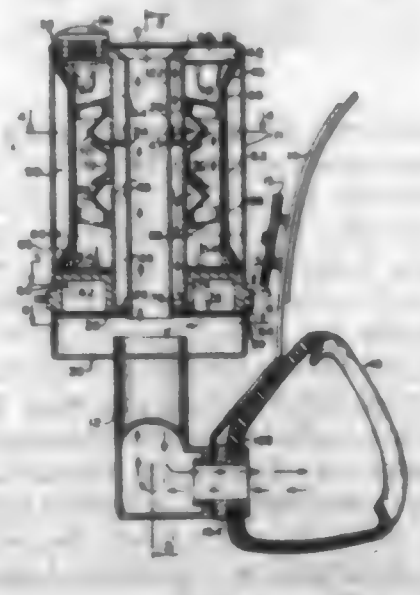
means to rock the bed about the two tilt shafts, and means to drive the drive shafts.

2,869,539
SLENDERIZING MACHINE
Daniel T. Mosse, Pittsburgh, Pa.
Application January 30, 1956, Serial No. 562,146
7 Claims. (Cl. 128—33)



7. A machine for slenderizing the human body by passively exercising the muscles thereof, comprising a stationary framework, support means therein having horizontal tracks, a carriage mounted on said tracks, a body contacting pad mounted on said carriage, and electric motor means for reciprocating said carriage in a horizontal plane, said support means including parallel linkage means for adjusting the height of said tracks and pad.

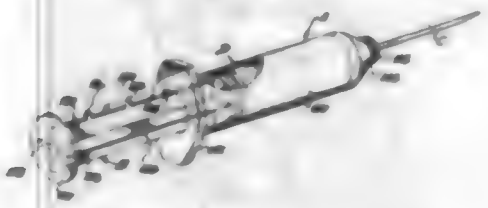
2,869,540
ANESTHETIC VAPORIZER APPARATUS
Forrest D. Hamm, Madison, Wis., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application November 8, 1955, Serial No. 545,734
11 Claims. (Cl. 128—188)



1. An anesthetic vaporizer comprising a substantially cylindrical vaporizing chamber adapted to hold a pre-

determined supply of volatile liquid anesthetic therein, means for passing a carrier gas through said chamber to form a gaseous mixture with the volatilized anesthetic, a cylindrical wick in said chamber, said wick being spaced inwardly from the side walls of said chamber and arranged such that only the ends thereof are immersible in said liquid in any position of said vaporizer to effectively render the central portion thereof non-immersible, said wick having at least at its lower end a radially extending portion extending outwardly substantially to the cylindrical sidewall of said chamber, and means defining a confined space in said chamber substantially limiting the contact of said carrier gas to said non-immersible portion of said wick.

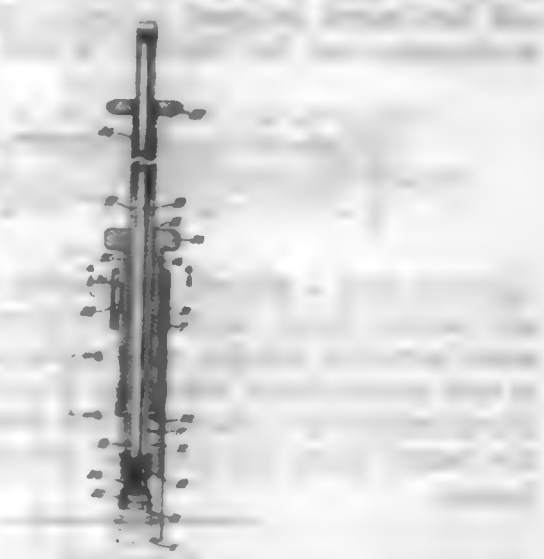
2,869,541
SYRINGE STRUCTURE
Norman D. Heimer and Fred H. Easton, Long Beach, Calif.
Application January 13, 1956, Serial No. 558,971
4 Claims. (Cl. 128—218)



1. A syringe capable of containing a plurality of liquid doses which automatically signals to the user's sense of touch when a dose of predetermined volume has been discharged therefrom, including: an elongate barrel adapted to hold said doses; tubular means mounted on one end of said barrel through which each of said doses can be discharged from said barrel; a piston slidably mounted in said barrel; an elongate member affixed to said piston and extending outwardly from the end of said barrel opposite that on which said tubular means is mounted, with the transverse cross section of said member being such that at least one longitudinally extending recess is defined in said member; and a plurality of longitudinally spaced stops supported on said member that project outwardly a sufficient distance therefrom to permit each of said stops to strike the end of said barrel opposite that on which said tubular means is mounted when said elongate member is moved in a liquid discharging direction, with each of said stops being formed of a sufficiently resilient material that when each of said stops is sequentially positioned adjacent said end of said barrel opposite that on which said tubular means is mounted said stop can be bent by manual application of pressure thereon to be substantially disposed in said recess to permit said elongate member and piston to move further into said barrel.

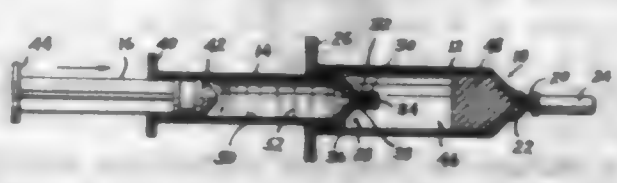
2,869,542
UNIVERSAL ASPIRATING SYRINGE FOR LONG AND SHORT CARTRIDGES
Leo A. Orsten, Los Angeles, and George G. Simor, Beverly Hills, Calif.
Application February 1, 1957, Serial No. 637,650
9 Claims. (Cl. 128—218)

7. An aspirating hypodermic syringe, comprising: a body having an open cartridge chamber, a hollow open end, and a hypodermic needle end; a hypodermic needle attached with respect to said hypodermic needle end; an eccentric radial groove on the inside diameter of said open end of said body; said cartridge chamber being cooperable for receiving long and short cartridges; longitudinally slidable, hollow lock bushing means cooperable for adjustably locking a cartridge within said cartridge chamber, said lock bushing means having an open end and an enlarged head opposite said open end; a plunger cooperable for aspirating and injecting; a slidable hollow sleeve mounted within said lock bushing means and with said plunger being slidably mounted within said sleeve; a chuck cooperable for engaging the piston of a



cartridge, said lock bushing means having a groove on the outside diameter thereof; a bearing mounted between said groove of said lock bushing means and said eccentric radial groove, said bearing being cooperable for frictionally locking said lock bushing means; gripping means affixed with respect to said body.

2,869,543
INJECTOR
Karl A. Ratcliff and William A. Dorrance, Des Moines, Iowa, assignors to Iowa Cooperative Association, doing business as Diamond Laboratories, Des Moines, Iowa, a corporation of Iowa
Application August 23, 1957, Serial No. 679,869
5 Claims. (Cl. 128—218)

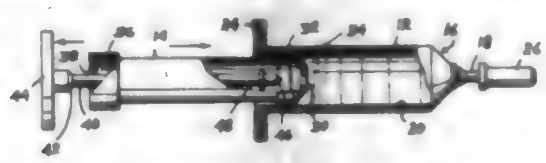


3. An injector device for administering a medicament, comprising a first and second cylindrical barrel in telescopic relationship, said second barrel being movable within the first, each barrel having a reduced outlet end with such end for said second barrel being disposed within said first barrel, a removable cap for each respective outlet end, each barrel defining a chamber for storage of separate parts of a medicament to be administered, a plunger in said second barrel movable to compress the contents thereof sufficient to eject the cap therefrom into said first barrel and thus ejecting the contents of said second barrel into said first barrel for admixture with the contents of said first barrel, and said second barrel serving as a plunger movable in said first barrel to eject the admixed contents of both barrels through the outlet end of said first barrel.

2,869,544
INJECTOR
Karl A. Ratcliff and William A. Dorrance, Des Moines, Iowa, assignors to Iowa Cooperative Association, doing business as Diamond Laboratories, Des Moines, Iowa, a corporation of Iowa
Application October 30, 1957, Serial No. 693,356
4 Claims. (Cl. 128—220)

1. An injector device for administering a medicament, comprising first and second cylindrical barrels in telescopic relationship, said second barrel being movable longitudinally within the first, said first barrel provided with an outlet end, said second barrel provided with open-

ings on respective opposite ends with one of said openings being an outlet disposed within said first barrel, closure means in said second barrel for selectively simultaneously opening and closing said openings therein, each barrel defining a separate chamber with the chamber in said first barrel designed to hold a supply of a powde. medicament and the chamber in said second barrel de-



signed to hold a diluent, the opening of the openings in said second barrel causing said diluent to become admixed with said powder, and the closure of said openings in said second barrel imparting to said second barrel the characteristics of a plunger which when forced into said first barrel ejects the admixed solution from the outlet therein.

2,869,545
PACKAGE
Harry D. Forsyth, Lynchburg, Va., assignor to C. B. Fleet Company, Incorporated, Lynchburg, Va., a corporation of Virginia
Application April 11, 1957, Serial No. 652,248
5 Claims. (Cl. 128—232)



1. A package for medicinal preparations comprising, a container of flexible material for the preparation to permit compressing to expel the preparation, an elongated applicator of material having some elasticity projecting from the container and having an aperture in its end, a coating of lubricant on the outer surface of said applicator and a removable elongated sheath having a closed end fitting over the applicator with the edge of its open end in sealing contact with the surface of said applicator inwardly of the lubricated area to seal off the lubricated area; said sheath having an inwardly projecting stud fitting into the aperture in said applicator in sealing relation to form a primary closure for said container.

2,869,546
VAGINAL APPLICATOR
Edward B. Cantor, Sherman Oaks, Calif.
Application November 12, 1957, Serial No. 695,928
4 Claims. (Cl. 128—261)



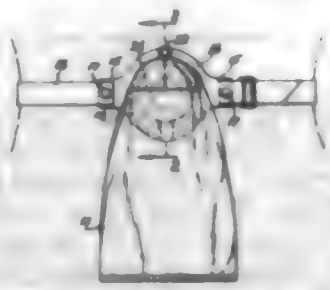
1. In a vaginal applicator, a cylinder having a bore, a plunger slidable therein, a nozzle including a bulbed head and a reduced neck portion for detachable coupling to the forward end of the cylinder, said cylinder having a bore in which is defined a medicament chamber, said nozzle having an axial passage for communication with said chamber at the forward end of the cylinder, a bell mouth at the forward end of said axial passage, for cupping reception of a normally positioned cervix, and a plurality of radial outlet passages radiating from said axial passage at the junction between said bulbed head and said neck portion of the nozzle, in equidistantly circumferentially spaced relation to one another, for discharge against an eccentrically displaced cervix.

2,869,547
COLOSTOMY IRRIGATOR
Richard Hayward Yohe, Salem, Ill.
Application August 26, 1954, Serial No. 452,294
4 Claims. (Cl. 128—283)



1. A colostomy irrigator comprising in combination, a tubular receptacle of downwardly substantially tapered formation and having an open upper receiving end and an open lower discharge end and having at least one flat body engaging side wall, a body engaging opening in said flat side wall adjacent the upper receiving end of said receptacle, a smooth surfaced wall opposite said body engaging opening, a removable transparent cover member inserted into the upper end of said receptacle to form a seal against escape of gas, air, moisture and liquid, said cover member having an opening in its top surface and flushing means for said receptacle connected to said cover through said opening.

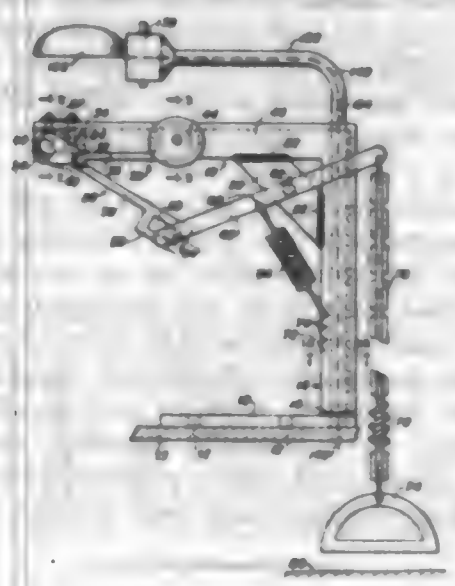
2,869,548
COLOSTOMY DEVICE
James H. Mason, Willow Grove, Pa.
Application August 16, 1955, Serial No. 528,680
8 Claims. (Cl. 128—283)



1. In a colostomy device, the combination comprising an annular disc adapted to be pressed against a human body in surrounding relationship to the colostomy, a tubular neck extending longitudinally outwardly from said disc, a flange extending laterally outwardly from an outer portion of said tubular neck, a second annular disc mounted in position surrounding said neck and provided with securing means for attachment of a belt, a flexible bag having an open end portion detachably secured about said neck at a position longitudinally outward from said

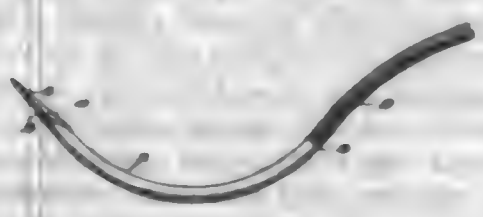
second disc, means for holding said flexible bag detachably clamped at said position, an annular thin protective disc of flexible material underlying the face of said first disc in position to protect the body from direct contact with said first disc, said protective disc also having a longitudinally extending flange outwardly directed within the neck portion of said first annular disc, a wire framework projection extending longitudinally outwardly from the outer end of said tubular neck in position to hold open the upper end of said flexible bag when clamped about said neck, and a plurality of downwardly extending grooved passageways formed in the outer face of said laterally outwardly extending flange in inwardly depressed relationship to said face.

2,869,549
DE-BEAKING DEVICES
Jesse W. Lochmiller, Whittier, Calif.
Application April 27, 1956, Serial No. 581,865
7 Claims. (Cl. 128—305)



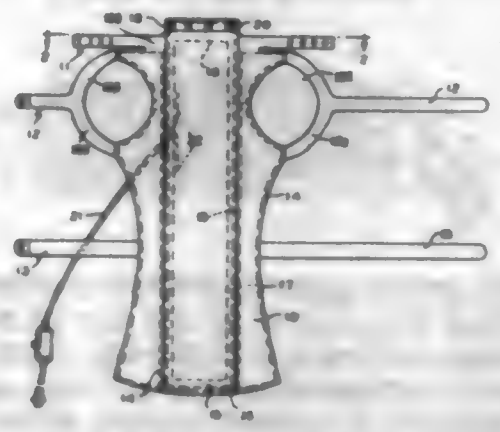
7. In a de-beaker: a frame adapted to be attached to a support; a clipping device comprising a pair of members pivoted intermediate the ends thereof, there being a pair of blades at one side of the pivot, and a pair of handles at the opposite side of said pivot, said blades having contoured oppositely arranged cutting edges; means removably securing one of the handles to said frame; foot engageable means connected to the other handle for actuating said handle, the connecting means including yielding means and said foot engageable means being adapted to be limited in its movement to close said blades by engagement with a fixed element; yielding means urging the clipping device in the opening direction; means for limiting opening movement of said clipping device; and gauge means engageable by the tip of the beak of a bird to limit insertion of said beak between said blades.

2,869,550
SURGICAL NEEDLE
Leonard D. Kurtz, Woodmere, N. Y., assignor to J. A. Dubnauel & Son, Inc., Queens Village, N. Y., a company
Application January 4, 1956, Serial No. 557,326
3 Claims. (Cl. 128—339)



2. In a device of the class disclosed, a curved surgical needle having a point, said point formed by a pair of substantially flat surfaces angularly related and disposed on the inner and outer curved surfaces of the needle to form a single cutting edge and an angle of slope at the point, the angle of slope and the sharpness angle formed by the intersecting surfaces of the cutting edge lying within the range of 10 to 60°.

2,869,551
ELECTRICAL THERAPEUTIC JACKET
Douglas G. Chandler, Santa Rosa, Calif.
Application January 28, 1957, Serial No. 636,602
3 Claims. (Cl. 128—379)

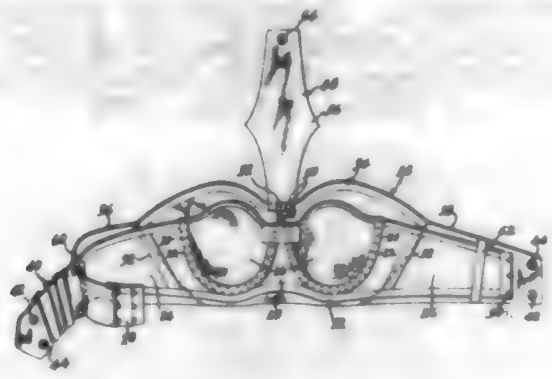


1. A therapeutic jacket-like appliance for supplying heat treatment to the spinal column areas of humans from the base of the skull downward while maintaining firm contact therewith, said appliance comprising in combination a pad formed by opposed and substantially duplicate plies of flexible material of a length to overlie at least the major portion of the spinal column from the base of the skull downward, means securing said plies together while leaving a central and substantially longitudinally coextensive spinal area-overlying pocket therebetween of at least spinal column width, said pocket being closed at its lower end and providing a top opening, closure means for the top pocket opening, an electrical heating element removably positionable in said pocket and comprising a relatively stiff plate-form body, the length and width of said heating element approximating corresponding pocket dimensions, said pad providing at its upper end a narrowed rear neck area-overlying portion, a wider upper back area-overlying portion and subjacent mid and lower back area-overlying portions, said upper back area-overlying portion providing opposite arm-receiving side recesses adjacent the neck area, said recesses terminating in upper and lower tabs, connectable torso encompassing tie means secured to and extending outwardly from opposite margins of each of the neck, waist and upper back overlying portions of said pad, the last mentioned tie means being Y-shaped, and the opposed branches of the latter secured to said upper and lower tabs to combine with said recesses to provide arm-receiving holes whereby to cooperate with the stiff heating member and the other tie means to prevent longitudinal shifting of the pad when worn.

2,869,552
SUN BRA
Samuel H. Smith, Sherman Oaks, Calif., assignor to Jantzen Inc., Portland, Oreg., a corporation of Nevada
Application November 14, 1955, Serial No. 546,461
1 Claim. (Cl. 128—456)

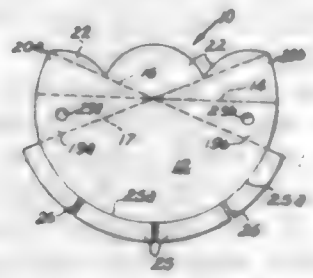
A cover for a strapless brassiere having a pair of breast cups operatively connected to one another and a pair of band portions operatively connected to said breast cups and adapted to extend around a wearer and to be releasably connected to each other to hold said brassiere on the wearer, said cover comprising a central portion adapted to overlie said breast cups and a pair of band portions extending away from opposite ends of said central portion and adapted to be releasably connected to each other and to overlie said brassiere band portions

whereby to conceal said brassiere, a flap secured to said central portion and extending transversely thereof, said flap being adapted to extend around and encircle said central portion and said brassiere in the area of the operative connection of said breast cups to one another, and means on said flap for releasably holding the latter in said encircling relation whereby to releasably secure



said central portion against substantial movement relative to said breast cups, a loop secured to each of said cover band portions, each of said loops being adapted to permit insertion of a corresponding brassiere band portion therethrough whereby to prevent relative lateral movement therebetween and to permit relative longitudinal movement therebetween.

2,869,553
DISPOSABLE BRASSIERE
Nici D'Or, Union City, N. J.
Application July 18, 1957, Serial No. 670,963
4 Claims. (Cl. 128—505)



1. A brassiere comprising, in combination, a blank of flexible sheet material having a segmental circular main body portion, a diametrical chord symmetrical with said main body portion defining a first fold line, a pair of diametrical chords symmetrically arranged one at each side of said first fold line defining second and third fold lines, said first fold line defining first and second pairs of sectors with said second and third fold lines, an adhesive band fastening means associated with the inside surface of said main body portion for securing said brassiere in enclosing engagement with the breast, radially outwardly extending first tabs integral with said main body portion, said tabs being coated with adhesive for securement to the body surrounding the breasts, said first tabs being concentric with said main body portion, said first pair of sectors being outermost of said second pair of sectors and partially defining the outermost limit of said main body portion, said second pair of sectors being intermediate said main body portion and said first pair of sectors, second tabs extending outwardly from said first pair of sectors for enclosing the upper portions of the breast, an opening in each one of said second pair of sectors, and adhesive carried by the inside surface of said main body portion engaging with the outside surface of said first pair of sectors through said openings in response to the folding of said outer surfaces of said first and second pair of sectors into engagement with each other about the respective fold lines to receive the parts in predetermined relationship, and to provide a central nipple covering by forming the centralmost part of said second tabs into a cuplike covering.

2,869,554
BRASSIERE
John V. Hollar, Fairfield, Conn., assignor to The La Resista Corset Company, Bridgeport, Conn., a corporation of Connecticut
Application October 22, 1956, Serial No. 617,309
2 Claims. (Cl. 128—498)



1. In a brassiere, a pair of bust-receiving pockets, a pair of elastic side sections respectively connected at their forward edges to the outer edges of said pockets, and back strap sections connected to the rearward edges of said side sections, each side section comprising a single piece of one-way stretch material having a main portion, co-extensive with the side section and arranged to stretch horizontally, and an auxiliary portion, of substantially less area than said main portion, folded downwardly in superimposed relation upon the upper part of said main portion along a downwardly and outwardly inclined fold line constituting the upper edge of the side section and disposed diagonally of the stretch direction of said material, whereby the stretch direction of said auxiliary portion is diagonal relative to the horizontal stretch direction of said main portion, the side edges of said auxiliary portion being in register with the side edges of said main portion, and the lower edge of said auxiliary portion being parallel to its stretch direction and extending diagonally across said main portion intermediate the upper and lower edges of said main portion.

2,869,555
GIRDLE
John V. Hollar, Fairfield, Conn., assignor to The La Resista Corset Company, Bridgeport, Conn., a corporation of Connecticut
Application July 25, 1955, Serial No. 524,171
1 Claim. (Cl. 128—533)



In a girdle or the like, panel stay means comprising a pair of flexible layers superimposed one on the other, first and second stays interposed between said layers, each of elongated flexible strip form and of substantially hairpin shape, having a loop end and side legs, said second stay being relatively narrower than said first stay to interengage within the latter, said stays being arranged in interengaged reversely opposite relation with their loop ends constituting the opposed ends of an elongated loop, and with the side legs of said first stay in outwardly contiguous parallel spaced relation to the respective side legs of said second stay, first, second and third seams securing said layers together, said first seam extending in parallel contiguous relation continuously along the entire outer edge of said first stay, said second seam extending in parallel contiguous relation continuously along the entire inner and outer edges of said first and second stays, and

said third seam extending in parallel contiguous relation continuously along the entire inner edge of said second stay, whereby the portions of said layers between said first and second seams constitute a tubular channel encasing said first stay, and the portions of said layers between said second and third seams constitute a tubular channel encasing said second stay, the respective ends of said first and third seams being spaced from said second seam a distance at least equal to the width dimension of the side legs of said stays, whereby the ends of said channels are open contiguous to the ends of said side legs and the latter are free to move through said open ends to permit said stays to have relative telescoping movement as compressive forces are applied and released with respect to their opposed loop ends.

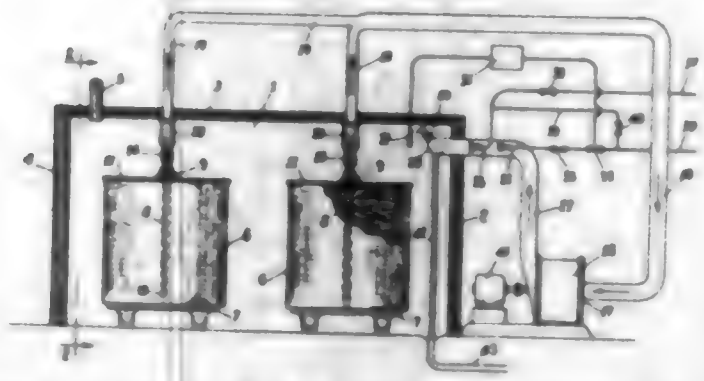
2,869,556

APPARATUS FOR CONDITIONING TOBACCO

Lorne A. Rowell, Lachine, Quebec, Canada, assignor to Imperial Tobacco Company of Canada Limited, Montreal, Quebec, Canada

Original application February 1, 1956, Serial No. 562,887. Divided and this application March 19, 1957, Serial No. 647,021

6 Claims. (Cl. 131—135)



1. Apparatus for the conditioning of compressed tobacco comprising an insulated chamber, means to support a block of compressed tobacco within said chamber, a hollow perforated probe insertable in the block of tobacco, an air discharge header in said chamber, an air outlet from said chamber, a fan connected on its discharge side with said discharge header and on its inlet side with said air outlet from the chamber, a flexible cover resting on and sealing a portion of the block of tobacco, said flexible cover being secured to said probe by a flexible sleeve allowing vertical displacement of said flexible cover with respect to said probe, a flexible coupling joining the said probe and the air outlet on said chamber, means to inject steam and water into the discharge side of said fan to said header to condition the air discharge from said header to said chamber, said fan on its inlet side setting up a pressure differential between the said hollow probe and the said chamber to effect a flow of conditioned air from the chamber through the tobacco in layers between the tobacco support means and said flexible cover.

2,869,557

TOBACCO

Claude Edward Teague, Jr., Winston-Salem, N. C., assignor to R. J. Reynolds Tobacco Company, Winston-Salem, N. C., a corporation of New Jersey

No Drawing. Application September 29, 1955 Serial No. 537,587

4 Claims. (Cl. 131—144)

1. A process for improving tobacco for smoking purposes which comprises treating a living tobacco plant prior to harvesting with an essentially nonvolatile additive whereby said additive is incorporated into the living tobacco and becomes an integral, essentially nonvolatile part thereof, said additive in its incorporated form being capable upon burning of the tobacco of liberating a monocarboxylic organic flavoring acid having from 3 to 8 carbon atoms selected from the group consisting of aliphatic acids and alicyclic acids.

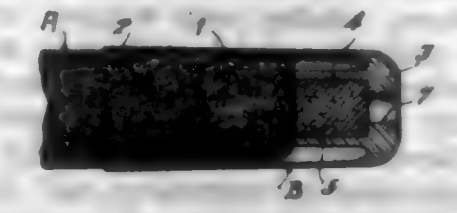
2,869,558

CIGAR HAVING A TIP OR MOUTHPIECE

Edward L. Redford, Elizabeth, N. J.

Application May 6, 1957, Serial No. 657,417

2 Claims. (Cl. 131—187)



1. A mouthpiece for a cigar comprising an elongated hollow one-piece molded body having a thin resilient highly flexible but self-sustaining wall of moisture resistant material open and shaped at one end to fit snugly over the butt end of a cigar and having a portion at its other end curvedly integrally merging into a relatively non-yieldable end wall having a draft aperture, said end wall having a hollow boss including a wall projecting integrally and inwardly from said end wall and forming a recess opening at one end into said hollow body and communicating at its other end with said draft aperture, said boss terminating a substantial distance from said open end of the hollow body with its wall spaced from and approximately parallel to said thin resilient wall of said body and adapted to abut the extremity of a cigar as the hollow body is fitted over the butt end of the cigar so that the portion of the thin flexible wall of the hollow body that is juxtaposed to said wall of the boss may be deformed or pressed inwardly by the teeth of the smoker against said wall of the boss to provide a secure bite on the mouthpiece, said wall of the boss being resilient but resistant to material deformation or collapse under pressure of the bite and said end wall preventing the mouthpiece from slipping between the teeth.

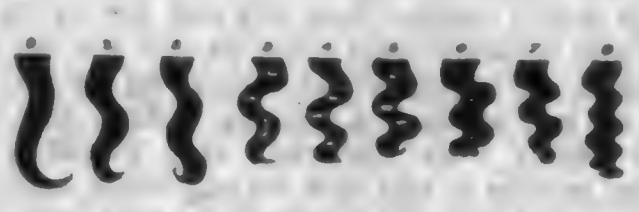
2,869,559

NON-VOLATILE MERCAPTAN AND HYDROXYAMINE IMPREGNATED END WRAP AND METHOD OF USE

Robert S. Moore, Wyoming, Ohio, assignor to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio

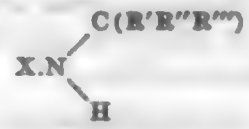
Application October 7, 1957, Serial No. 688,682

12 Claims. (Cl. 132—7)



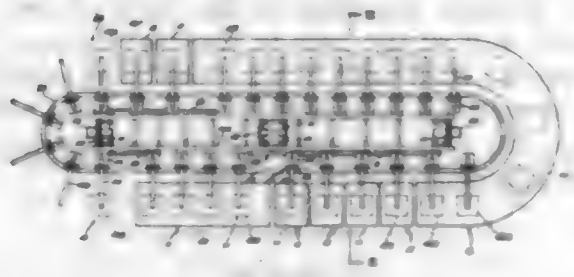
7. The method of imparting a wave to hair without the use of heat which comprises the steps of forming the hair into tresses, wrapping about each tress a permeable, pliable sheet containing from about 2% to about 10% moisture, said sheet being impregnated with a substantially non-volatile, water-soluble, keratin-reducing composition, said composition containing a mercaptan selected from the group consisting of mercapto-acetic acid, mercapto-propionic acid, mercapto-butyric acid, mercapto-caproic acid and water-soluble salts of these distributed throughout said sheet in an amount equivalent to from about .003 to about .020 gram of thioglycolic acid per square inch of said sheet and a substantially non-

volatile hydroxyamine alkaline material, said hydroxyamine having the formula



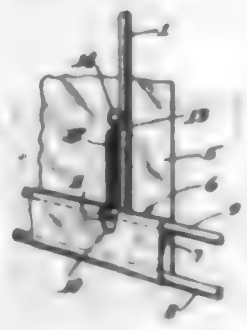
wherein X is selected from the group consisting of hydrogen and alkylol radicals containing 1 to 3 carbon atoms, R′ and R″ are each selected from the group consisting of hydrogen, alkyl radicals containing 1 to 3 carbon atoms and alkylol radicals containing 1 to 3 carbon atoms and R‴ is an alkylol radical containing 1 to 3 carbon atoms, winding each wrapped tress about a curler, said moisture range in said sheet resulting in a lack of messiness during use, saturating each tress with water whereby said keratin-reducing composition is dissolved and thereafter neutralizing the action on the hair of said keratin-reducing composition, said alkaline material being sufficient to maintain said composition within a pH range of 8.5 to 10 when said composition is in solution and in contact with the hair, the concentration of said mercaptan and said alkaline material in said sheet being adjusted to obtain a hair wave during a given time of application without damage to the hair by having the concentration of mercaptan in the higher portion of said thioglycolic acid range for a lower pH within said pH range and having the concentration of mercaptan in the lower portion of said thioglycolic acid range for a higher pH within said pH range.

2,869,568
PROCESSING MACHINE
Victor Finston, Chicago, Ill., assignor to The Meaker Company, Chicago, Ill., a corporation of Illinois
Application September 27, 1955, Serial No. 536,866
17 Claims. (Cl. 134—70)



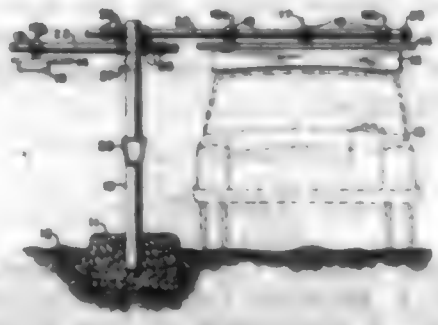
1. In a processing machine, an elongated processing tank, a framework adjacent said tank, an elongated first rail having a horizontal bearing surface extending along said tank and supported by said framework, a second elongated rail supported by said framework and having a vertical bearing surface below said horizontal bearing surface and extending along said tank, work carriers disposed in spaced relation along said tank and having first rollers with horizontal axes riding on said first rail bearing surface and having second rollers with vertical axes riding on said second rail bearing surface, said work carriers having work supporting arms extending into overlying relation to said tank for supporting work units in series in said tank, the weight of the work units being supported by means of said first rollers and the turning moments exerted on the work carriers by the work units being resisted by engagement of said second rollers with said second rail, a lower horizontally extending conveyor extending along said tank and mounted on said framework for horizontal movement and having pusher lugs carried thereby for engaging respective work carriers upon forward advance of the lower conveyor to advance the work carriers, lower conveyor drive means for advancing said lower conveyor, an elevator frame mounted for vertical movement on said framework and having an elevator rail with an end portion extending adjacent an end portion of said tank, elevator drive means for raising and lowering said elevator frame to move said elevator rail between an upper and a lower position, said work carriers having third rollers for overlying said elevator rail in lower position of the elevator rail and for support by said elevator rail in upper position thereof, an upper horizontally extending conveyor mounted on said framework for horizontal movement and having a lug for engaging a work carrier supported on said elevator rail in upper position thereof, upper conveyor drive means for advancing said upper conveyor to move a work carrier along said elevator rail in upper position thereof to move a work unit carried by the work carrier between a position longitudinally beyond said end portion of said tank and a position overlying said end portion of said tank, and control means operatively connected to said upper and lower conveyor drive means and to said elevator drive means for advancing carriers into, through and out of said tank.

2,869,561
BUILDING STRUCTURE
Tom S. Harkness, London, England
Application November 13, 1956, Serial No. 621,963
Claims priority, application Great Britain March 6, 1956
5 Claims. (Cl. 135—1)



1. In a transportable type building structure, a supporting framework including horizontal base frame members, a flexible synthetic plastic covering sheet overlying the framework and having its edges passing underneath the base frame members into the building structure, said edges of the covering sheet being formed into sleeves, battens extending through the sleeves, and a plurality of spring coupling members connected at one end through holes in the sleeves to the battens for drawing the covering sheet taut over the framework.

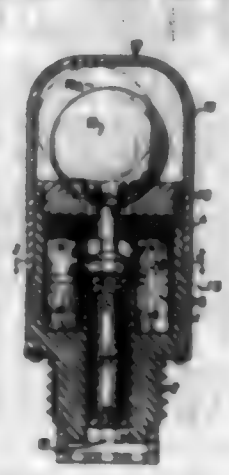
2,869,563
AUTOMOBILE WINDSHIELD WEATHER PROTECTOR
John P. Francis, Haverhill, Mass.
Application March 5, 1957, Serial No. 644,850
1 Claim. (Cl. 135—5)



An automobile windshield weather protector adapted for erection and use in a drive-in parking area such as a drive-in theatre comprising, a supporting post, a horizontally mounted supporting arm adjustable vertically and also axially relative to the longitudinal axis of said supporting arm, said supporting arm extending laterally across and just above the roof top of an automobile from the said supporting post, cross bores on said supporting

post for adjustably supporting the said horizontal supporting arm for said vertical and longitudinally axial adjustment therefrom, an awning supported from the said horizontal supporting arm in proximity to the roof top and the upper windshield area of said automobile and adjustably movable thereto in spaced apart or free frictional engagement with the said roof top upon said vertical and longitudinally axial adjustment of said horizontal supporting arm in the alignment of said awning, and a separable freely suspended lateral rain sealing member adjustably supported from the said vertically and angularly adjustable awning and adapted to freely and frictionally engage the forward lateral portion of the roof top in providing a rain sealing engagement between the said adjustable spaced apart awning and the said lateral portion of the roof top of said automobile upon the movable alignment of said awning.

2,869,563
QUASI-ELASTIC MAGNETIC DEVICE
Emile Robert Schoengrun, Paris, France
Application December 12, 1952, Serial No. 325,509
Claims priority, application France July 18, 1952
6 Claims. (Cl. 137—43)



1. A quasi-elastic device for exerting on a member of a mechanism, which member is displaceable in two opposite directions in a limited determinate path, an effort tending to displace said member in one of said directions towards one limit of said path, said device comprising a supporting member provided with a bore, a permanent magnet bar in said bore adapted to be axially movable with said displaceable member, and a fixed permanent magnet bar mounted in said support so as to have one of its ends adjacent to and between the ends of said movable magnet bar for all positions thereof, said end of the fixed magnet bar having a polarity tending to attract one of the poles and to repulse the other pole of said movable magnet bar in the direction of said effort.

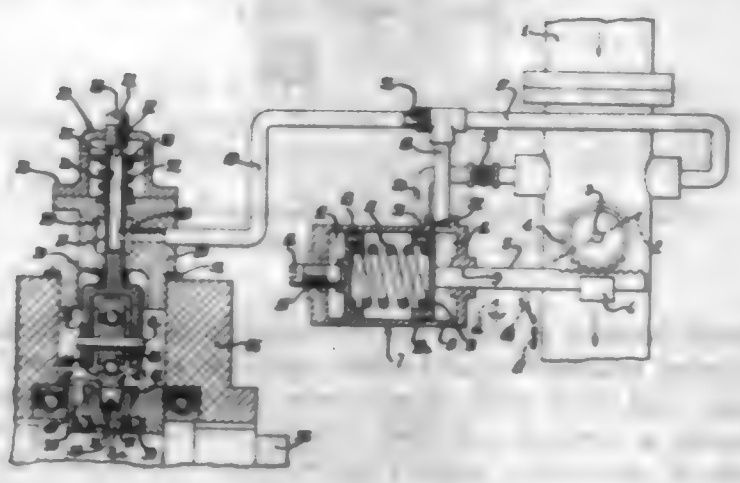
2,869,564
GOVERNOR VALVE ASSEMBLY
Darrell E. Royer, Vandalia, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 18, 1954, Serial No. 435,897
6 Claims. (Cl. 137—48)

1. A governor assembly including in combination, a rotatable structure containing a quantity of fluid medium which forms a ring during rotation of said structure, a pair of relatively movable elements supported by said rotatable structure with the axes of said elements parallel to the axis of rotation of said structure, a member attached to one of said elements at a point spaced from the axis of rotation of said structure so as to be movable outwardly in response to the thrust of centrifugal force for effecting movement of said one element, inertia means carried by said member and positioned in said fluid medium ring, resilient means connected to said member for opposing outward movement thereof under the urge of centrifugal force or inertia forces, and means for



adjusting the position of the inertia means relative to said member.

2,869,565
MECHANICAL-PNEUMATIC TURBINE CONTROL
Robert Cliborn, Cleveland, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application July 13, 1953, Serial No. 367,602
5 Claims. (Cl. 137—58)

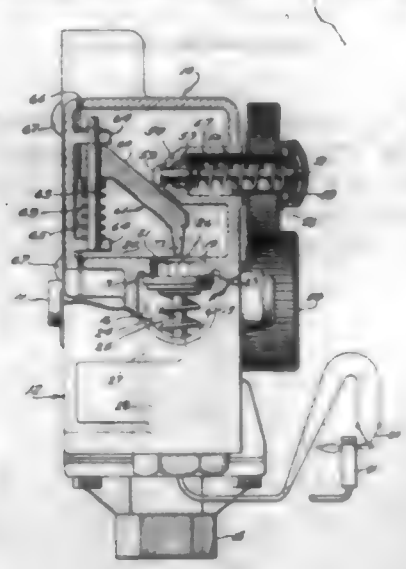


4. An overspeed control for a fluid motor having a motor fluid conduit supplying motive fluid thereto, a throttle in said conduit for controlling flow of said fluid to said motor, said overspeed control comprising fluid pressure responsive throttle actuating motor means connected to said throttle for closing the throttle to reduce the speed of said motor upon the introduction of fluid under pressure to said actuating motor means, control fluid conduit means connecting said actuating motor means to the motor fluid conduit at a point upstream of said throttle, vent means in said control fluid conduit, means automatically closing said vent means in response to a predetermined speed of said motor whereby pressure is permitted to build up in said control fluid conduit and in said actuating motor means to close said throttle, and holding means actuated by fluid pressure only in said control fluid conduit and operated by movement of said actuating motor means to throttle closed condition to retain said actuating means in throttle closing position after an overspeed condition has resulted in closure of said throttle by said actuating motor means.

2,869,566
SAFETY SHUT-OFF GAS VALVE
Joseph M. Algino and Julius S. Slimak, Chicago, Ill., assignors to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application June 18, 1956, Serial No. 591,887
4 Claims. (Cl. 137—66)

1. In a safety shut-off valve for gas burners and the like, a valve body having a valve chamber therein, a

port leading through and end wall of said chamber, an inlet into said chamber, an outlet chamber on the downstream side of said port, an outlet from said valve body, valve means in said outlet chamber for controlling the flow of gas through said outlet, an axially movable valve in said first mentioned chamber, spring means biasing said axially movable valve into engagement with said port, a magnet in said first mentioned chamber energized by thermal electric current, an armature connected with said axially movable valve and engageable with said magnet for holding said axially movable valve open upon energization thereof, a reset member guided for axial movement in a direction perpendicular to the axis of movement of said axially movable valve and having a reset button on the outside of said valve body and having a follower end portion movable within said outlet chamber, a gas cock knob for operating said valve means and normally preventing depressible movement of said reset button except when said valve means is in a predeter-



mined position to admit gas through said outlet, a thermal element mounted in said outlet chamber and arranged to open and close said valve means, said thermal element having a thermal sensitive portion projecting from one side of said valve body, a temperature adjustment knob projecting from the opposite side of said valve body and operatively connected with said thermal element in direct axial alignment therewith, to vary the effective temperature range of operation of said thermal element and a slide within said outlet chamber and slidably guided for movement in a direction parallel to the axis of axial movement of said axially movable valve, said slide having an inclined camming face engageable by the follower end portion of said reset member and moved by engagement of said follower end portion with said camming face upon depressible movement of said reset member to exert an opening force on said axially movable valve in alignment with the axis of axial movement thereof said gas cock knob and reset button being on the same side of said valve body as said temperature adjustment knob.

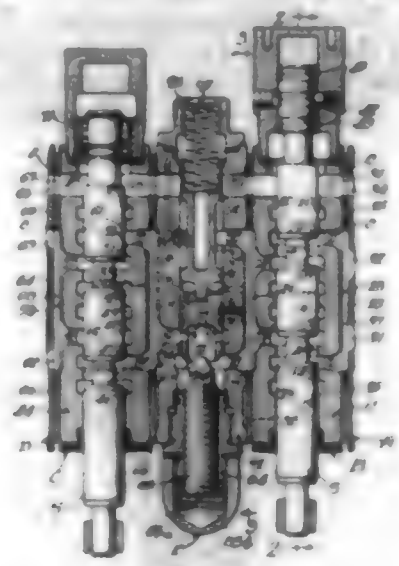
2,869,567

FLOW CONTROLLER UNIT FOR STACK VALVE

Floyd E. Carlson, Rockford, Ill., assignor to Sundstrand Machine Tool Co., a corporation of Illinois

Application February 13, 1956, Serial No. 564,931
4 Claims. (Cl. 137—117)

1. In a multiple unit valve stack having a plurality of interchangeable valve units mounted in side-by-side relationship with each unit having a main flow path therethrough including an inlet at one side of the valve unit adapted to communicate with a source of fluid under pressure and an outlet at the opposite side of the valve unit with the inlets of succeeding units being in register with the outlets of preceding units, each of said valve units also having a separate bypassageway extending therethrough with the bypassageways in adjacent units being in register, in combination therewith a flow controller unit mounted between two adjacent valve units for delivering a reduced constant volume of fluid to the main flow path in valve units downstream therefrom comprising, a valve body having opposed sides fitting in abutting relationship between the adjacent valve units, a longitudinal bore formed in the valve body, an inlet chamber formed in one side of the valve body in register with the outlet from the preceding valve unit, an outlet chamber formed in the opposed side of the valve body in register with the inlet to the succeeding valve unit, an inlet port leading from the inlet chamber to said bore, an outlet port leading from said bore to the outlet chamber, means in the bore forming a passageway connecting the inlet and outlet ports and having an orifice restricting the flow of fluid through the valve body and creating a pressure drop between fluid in the inlet chamber and fluid in the outlet chamber, a flow divider passage leading from the inlet chamber to the bore to divert fluid



from the inlet chamber, a bypass extending through the valve body from one of said opposed sides to the other and in register with the bypassageways in adjacent valve units, a valve member in said bore for controlling communication between said flow divider passage and said bypass, a sensing passage leading from the inlet chamber to said bore for supplying fluid urging said valve member to positions establishing communication between the flow divider passage and the bypass, and a sensing passage leading from the outlet chamber to the bore for supplying fluid urging the valve member to a position blocking communication between the flow divider passage and the by-pass, whereby the pressure differential across the valve body is sensed for controlling the position of the valve member so as to provide a predetermined constant volume of fluid to valve units located downstream from the flow controller unit which is less than the volume of flow from valve units located upstream from the flow controller unit.

2,869,568

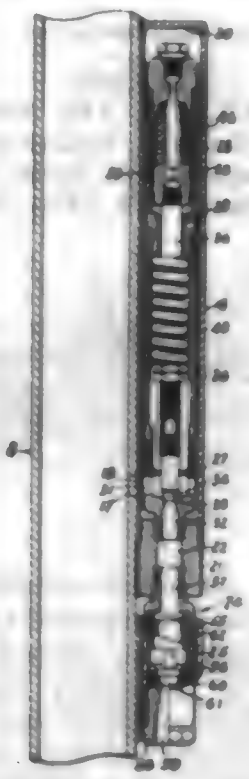
GAS LIFT VALVE

John H. McCarvell and Willis C. Carlisle, Houston, Tex.

Application June 18, 1953, Serial No. 362,488
3 Claims. (Cl. 137—155)

1. In a well flow valve, the combination with a tubular housing closed at its ends and mountable on a well pipe, said housing having a gas discharge opening in the wall thereof adapted for communication with the interior of the well pipe, and an axially disposed gas inlet passage in the lower end thereof, a valve unit enclosed within said housing, said valve unit comprising a tubular casing closed at its ends and having an internal partition member defining therein a lower valve chamber and an upper bellows chamber, outlet ports in the wall of the valve chamber communicating with the interior of the housing, an axial

inlet port means in the lower end of the valve chamber connected into said gas inlet passage, a valve member reciprocable in the valve chamber to open and close said port means, a stem connected to said valve member and extending slidably through said partition member into said bellows chamber, spring means mounted in said valve chamber in compression between said partition member and said stem to resiliently bias said valve member toward



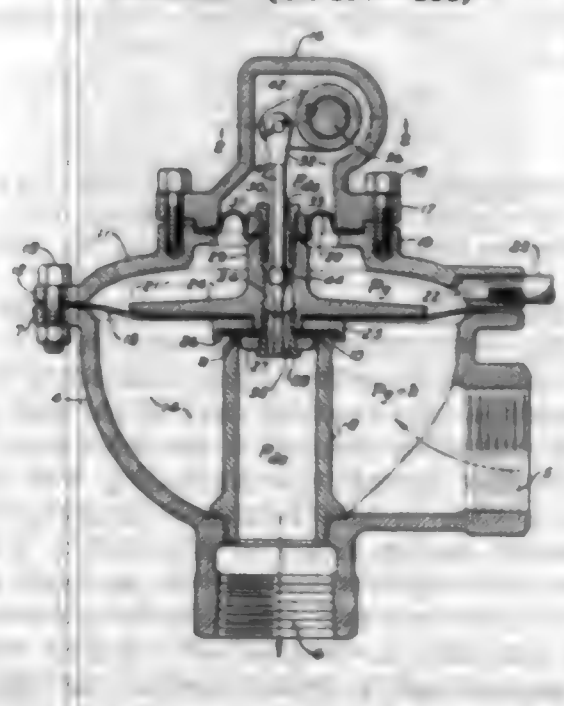
the position closing said port means, a hollow bellows member charged to the ambient atmospheric pressure existing when said unit is assembled mounted in said bellows chamber to resiliently connect the upper end of said stem to said casing, and openings in the wall of said bellows chamber above the partition member providing communication between the interior of the bellows chamber and the interior of said housing.

2,869,569

AUTOMATIC DUMP VALVE SYSTEMS

Garman O. Kimmell, Oklahoma City, Okla.

Application November 23, 1953, Serial No. 393,731
2 Claims. (Cl. 137—188)



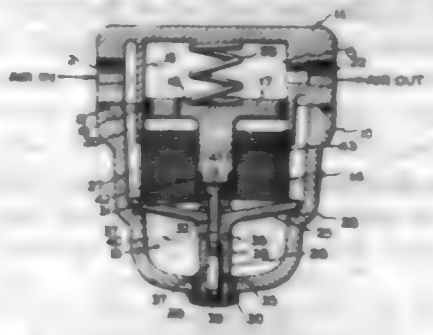
1. In a system for automatically controlling the head of liquid in a vessel containing both liquid and gas under pressure, the vessel having means for supplying liquid thereto and a discharge line for conveying liquid therefrom, the combination with the discharge line of a dump valve structure connected thereto and controlling the flow of liquid therefrom, said dump valve structure consisting essentially of a housing having an inlet conduit and a discharge conduit of the overflow type provided with a rather sharp circular rim constituting a seat for a valve, a valve plug assembly having a disk adapted to rest upon the seat when the valve is closed and having a depending piston integral therewith and adapted to project into the discharge conduit when the valve is closed or partly opened and be completely withdrawn from the discharge conduit when the valve is fully opened, two vertically spaced diaphragms having their outer margins connected to the housing and their inner margins connected to the valve plug assembly to form three chambers in the housing, namely, a lower main flow chamber, an intermediate gas equalizing chamber and an upper downstream equalizing chamber, means for subjecting the main flow chamber to the pressure of the inlet conduit, means for subjecting the gas equalizing chamber to the pressure of the gas space above the liquid level of the vessel to be controlled, and means for subjecting the downstream equalizing chamber to the pressure of the discharge conduit, and physical means such as a weight or the like for exerting a balancing force on the valve plug assembly corresponding to the head of liquid desired to be maintained in the vessel, the arrangement being such that there is no violent movement of the valve plug assembly as its disk moves to leave or come to rest upon said seat.

2,869,570

AIR LINE AUTOMATIC DRAIN VALVE

Dewey L. Wilkerson, Denver, Colo., assignor to Wilkerson Corporation, Englewood, Colo., a corporation of Colorado

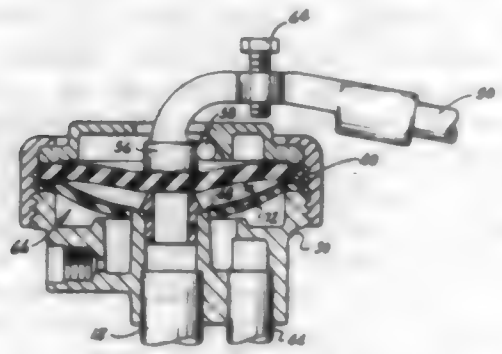
Application October 1, 1954, Serial No. 459,699
10 Claims. (Cl. 137—204)



1. A compressed air line drain valve comprising a casing having therein an air inlet, an air outlet, and a wall separating the casing into an air expansion chamber in communication with the air inlet and an air discharge chamber in communication with the air outlet, said wall being movable in response to service air pressure reduction in the air discharge chamber to open full air flow communication between the air inlet and the air outlet, means biasing said wall to a position preventing full air flow communication between the air inlet and the air outlet under conditions other than a service reduction of air pressure in the air discharge chamber, a partition in the air expansion chamber spaced above the casing bottom to provide in conjunction therewith a sump beneath the partition, said partition having a dished upper face providing a moisture collecting bottom for the air expansion chamber and having further a depending stem extending through the sump and projecting through the sump bottom externally of the casing in fluid tight sealed engagement with the sump bottom, said stem having an axial drain bore open to the atmosphere through the external end of the stem and open to the air expansion chamber at substantially the low point of the dished moisture collecting face of said partition, a pair of axially spaced drain passages through the stem in the sump establishing communication between the stem bore and the sump, valve means reciprocable in the stem bore for alternate control of said drain passages, and an operating

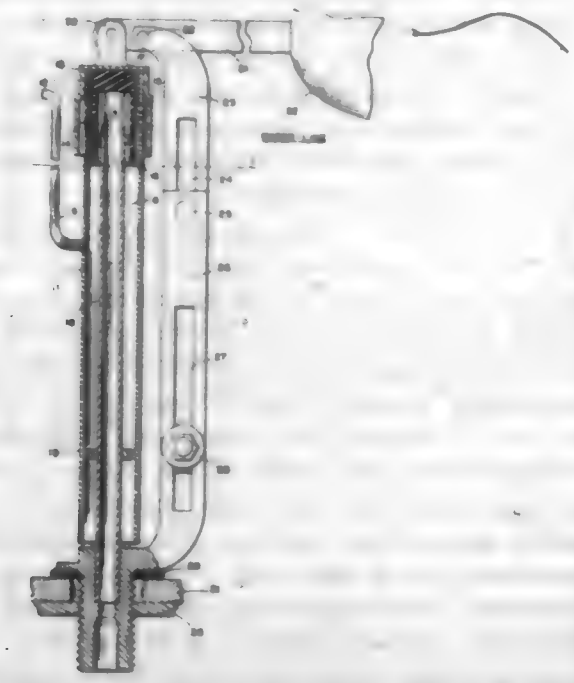
connection between said movable wall and the valve means for actuating the latter in response to movement of the wall.

2,869,571
BALL COCK
Clarence A. Price and William L. Rupp, Ann Arbor, Mich., assignors, by mesne assignments, to Hoover Ball & Bearing Co., Ann Arbor, Mich., a corporation of Michigan
Application January 2, 1957, Serial No. 632,174
6 Claims. (Cl. 137—215)



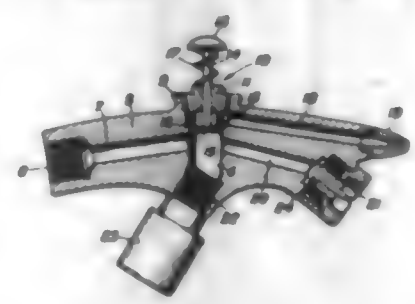
1. A ball cock comprising an upright standpipe, a valve casing including a bowl, an annular top wall for said bowl and a union nut for securing said top wall and bowl together, said bowl being mounted on said standpipe with the open end of the latter extending into said bowl, a diaphragm held between the lip of said bowl and said annular top wall in spaced relation to the open upper end of said standpipe, said diaphragm acting when depressed to close the open end of said standpipe, said annular top wall having a groove in its under surface normal to a radius of the opening in the annular top wall, and a one-piece lever having a horizontal portion adapted to be attached at its free end to a float arm and having a vertical portion extending downwardly through said opening in the annular top wall into engagement with said diaphragm, said vertical portion having horizontal trunnions seated in said groove about which said lever can pivot for depressing and releasing said diaphragm respectively on raising and lowering of the free end of said lever.

2,869,572
BALL COCK VALVE WITH FLOATING, INVERTED CUP, SEALING MEMBER
Julius E. Person, Garden Grove, Calif.
Application July 28, 1955, Serial No. 524,860
3 Claims. (Cl. 137—218)



1. A ball cock valve comprising an open-ended water inlet conduit, restriction means on the periphery of said conduit, a filler pipe concentrically around said conduit and spaced from said restriction means, a cap portion fixed on said pipe extending above the open end of said conduit, a free floating elastomeric, inverted cup member between said conduit and said cap portion and having a skirt depending between said pipe and said restriction, and float controlled means connected to said cap portion, said cap portion adapted to exert force on said cup member for sealing said cup member on said conduit.

2,869,573
COMBINATION AIR NOZZLE
Alton B. Stafford, Vanceburg, Ky.
Application June 3, 1955, Serial No. 513,041
2 Claims. (Cl. 137—223)

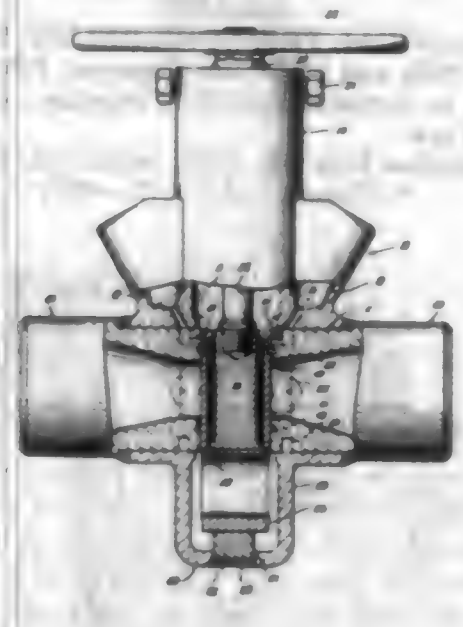


1. A combination air nozzle comprising an elongated body having front, rear and intermediate portions, a transverse bore in said intermediate portion extending entirely through said body, an air supply passage in said rear portion having continuous direct and unrestricted communication at its forward end with said transverse bore and adapted at its rear end for connection to a source of air under pressure, a pair of longitudinal air delivery passages in said front portion opening upon the front end of the latter and with their rear ends communicating directly with said transverse bore, said transverse bore being of greater cross sectional area than those of said supply and delivery passages, the forward end of one of said delivery passages having a jet nozzle therein, a manually operable spring closed valve assembly disposed in one end of said transverse bore and controlling the communication of the latter with the air delivery passage of said jet nozzle, the other of said air delivery passages having continuous and unobstructed communication at its rear end with said transverse bore and having a valved tire valve chuck at its forward end, an air delivery fitting mounted in the other end of said transverse bore and having direct, continuous and unobstructed communication with the latter.

2,869,574
AUTOMATIC LUBRICATED GATE VALVE
Alexander S. Volpin, Miami Beach, Fla.
Application December 23, 1953, Serial No. 399,973
2 Claims. (Cl. 137—246.12)

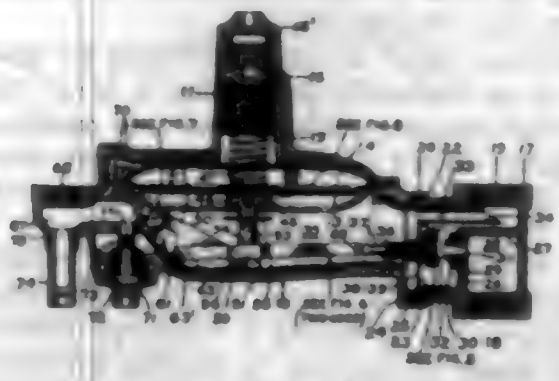
1. A gate valve, comprising, a unitary body including a main body portion and a neck portion integral with the main body portion, a gate chamber in the main body portion, a stem-receiving bore in the neck portion, oppositely extending openings in the main body portion forming a flow passage communicating with the gate chamber, a stem in said bore and extending into the gate chamber, sealing means in said bore to seal about said stem, a through-conduit gate in said gate chamber secured to said stem, said gate being of segmented construction including in longitudinally spaced relation a closure portion and a ported portion for respectively closing and opening said flow passage, each of said portions being circular and slightly smaller in diameter than said openings whereby said portions may be separately inserted through said openings into the interior of said body for assembly therein into said gate, and separately fabricated flow nozzles inserted into said

openings and secured therein with their inner ends defining annular gate seats positioned for slidable sealing engagement by the adjacent end faces of said gate, sealing areas about the opposed surfaces of the gate seats and gate faces, sealing material reservoirs formed within the side walls of said main body portion on opposite sides of said gate chamber, said reservoirs extending at an angle convergent to the vertical axis of the body



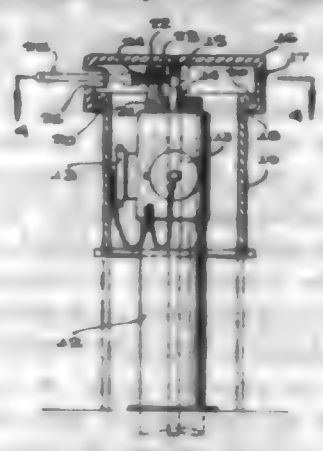
and having their outer ends opening to the exterior of the body, channels providing communication between the inner ends of said reservoirs and the adjacent sealing areas, means closing the outer ends of said reservoirs, means to admit line pressure into the outer portions of said reservoirs from the interior of the gate chamber, and barrier means in each reservoir movable therein toward said channels in response to said line pressure.

2,869,575
FLUID PRESSURE REGULATOR
Francis G. Hutchens, Anderson, Ind.
Application June 9, 1954, Serial No. 435,438
1 Claim. (Cl. 137—251)



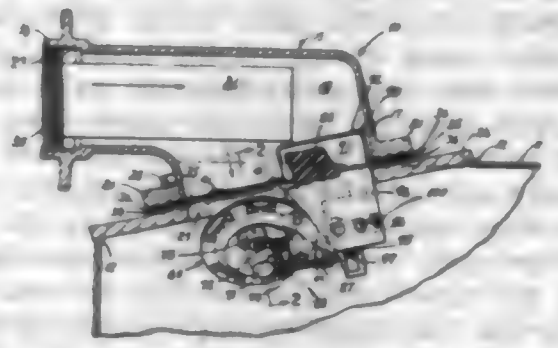
A pressure displaceable gravity operated fluid seal for use with a pressure regulating valve comprising, a housing in communication with a source of pressure fluid, a mercury cup removably supported in the bottom wall of said housing, a mercury well tube mounted in said cup, a mercury seal tube of less diameter than said first tube and having one end disposed therein in spaced relation to the bottom thereof, the opposite end of said mercury seal tube being in communication with a mercury well which through said first and second tubes is in communication with the fluid chamber within said housing, a vent opening to said mercury well and a volume of mercury disposed within the said tubes operative to support normal pressures within said housing chamber but capable of being discharged from the tubes upon excessive pressure in said chamber, and a mercury salvage cup removably engaged with the bottom wall of said housing and being in communication with said mercury well.

2,869,576
KEY-OPERATED FIRE HYDRANT
William C. Kennedy, Chicago, Ill.
Application March 7, 1958, Serial No. 719,794
2 Claims. (Cl. 137—296)



1. In combination, a vertical hydrant having an axial rotatable valve shaft projecting from its top end and having manually removable caps mounted on its upper portion, a generally circular skirt member secured to the top end of said valve shaft, said skirt member being formed with an aperture, a plurality of inwardly directed lugs on the rim of said skirt member, a cover sleeve surrounding said hydrant and being vertically movable thereon, said sleeve being of sufficient height to cover the upper portion of said hydrant, outwardly projecting lugs on the top portion of said sleeve engageable over said first-named lugs, said skirt member being rotatable to at times disengage the first-named lugs from the second-named lugs to release said cover sleeve, whereby to allow the sleeve to descend and expose said caps, a closure flap hinged to the inside wall of said skirt member and normally overlying said aperture, and a projection on said flap engageable between the pair of adjacent lugs on the top portion of the sleeve in the position of said flap overlying said aperture for preventing relative rotation of said skirt member and said cover sleeve.

2,869,577
FLUID QUANTITY CONTROL
Gordon T. Koehler, Dayton, Ohio, assignor to Koehler Aircraft Products Company, Dayton, Ohio, a corporation of Ohio
Application May 6, 1957, Serial No. 657,100
2 Claims. (Cl. 137—414)



1. In a liquid level control valve for defining the maximum liquid level to be established through an opening in a top wall of a vented receptacle by a high delivery rate source of liquid to fill said receptacle with minimum liquid loss through the air vent of the receptacle, the combination of an inlet housing received on said receptacle over said wall opening and including a portion extending above the level of said top wall and defining an inlet passageway for connection with the fluid delivery source, a valve supporting plate received on said receptacle below said housing, a valve body supported by said plate in depending relation within said receptacle and including means defining an inlet in communication with the interior of said housing to receive the entire flow of fluid from said source and a fluid outlet in communication with the interior of said receptacle, a float-operated

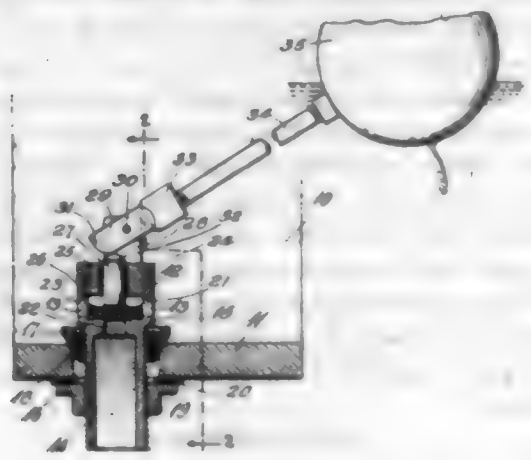
pilot valve received in said body, inlet valve means received in said body and controlled by said pilot valve to close said inlet to the further entry of liquid from said source, said plate having a float opening therethrough, an inverted cup-like float shield carried by said plate over said opening and extending into said inlet housing to define a float chamber projecting upwardly into said inlet passageway, means connecting said float chamber to the interior of said receptacle to receive liquid therefrom according to the liquid level in said receptacle, a float received within said chamber and operably connected with said pilot valve to effect operation thereof in response to the liquid level within said chamber, and said shield being proportioned to extend to a level within said inlet passageway substantially higher than the level of said top wall to provide space in said float chamber above the top of the interior of said receptacle in order to provide for complete filling of said receptacle before operation of said pilot valve by said float.

2,869,578

VALVE DEVICE FOR TOILET FLUSH TANKS

Thomas E. Crockett, Corpus Christi, Tex.

Application December 4, 1956, Serial No. 626,261
1 Claim. (Cl. 137—444)



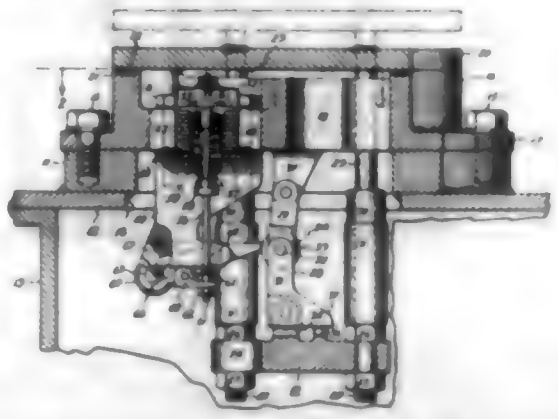
A float operated valve device for toilet flush tanks comprising, a valve casing which is vertically arranged and extends through an opening in the bottom of the flush tank and having its upper end projecting above the bottom, the lower end of the valve casing being adapted for connection with a water supply pipe, means to securely mount the valve casing upon said bottom, said valve casing having its top open, a substantially horizontal web mounted within the valve casing near and spaced from the top of the valve casing, said web having an opening formed therein, said web extending outwardly and laterally beyond said opening, said valve casing being provided in its side above the web with outlet openings, a disc valve freely movably mounted within the valve casing above the web and extending laterally and outwardly beyond the opening in the web and extending in close proximity to the side of the casing to be guided in its movement by said side, said disc valve having a vertical dimension less than the vertical dimension of said outlet openings, said disc valve being adapted to cover the opening in the web and to only partly cover the openings in the side of the casing, a cap having screw-threaded engagement with the top of the casing to be removed therefrom, said cap having a vertical opening formed therein, a movable vertical plunger removably mounted within the vertical opening of the cap and having its lower end arranged to contact with the top of the disc valve and free from connection therewith and having its upper end extending above the cap and provided with an inclined surface, spaced vertical knuckles arranged above the cap and rigidly secured thereto, a float operated lever device, a horizontal pin pivotally connecting the float operated lever device so that such device may swing vertically with relation to the cap, said device being rigidly connected with the cap when the device is moved horizontally to thereby turn the cap with relation to the casing, the free end of the lever device being arranged to contact with the upper inclined face of the upper end of the plunger and free from connection therewith.

2,869,579

MECHANICAL PRESSURE RELIEF DEVICE

Stanley H. Wilk and Raymond Curzone, Pittsfield, Mass., assignors to General Electric Company, a corporation of New York

Application May 10, 1956, Serial No. 584,015
9 Claims. (Cl. 137—467)



1. A pressure relief device for covering an aperture in the wall of an enclosure comprising a cover releasably covering said aperture externally of said enclosure, web means rigidly affixed to said wall extending across said aperture, tie means inside of said enclosure, stud means extending between said tie means and said cover through said web means, toggle means extending between said tie means and said web means, release means, pressure responsive means for providing a movement to said release means in response to variable pressure within said enclosure, and means for releasably preventing collapse of said toggle means comprising a pivoted arm extending between the knee of said toggle means and said release means, said pivoted arm contacting said knee so that toggle collapsing forces on said toggle at said knee provide a moment on said pivoted arm which is releasably restrained by said release means.

2. A pressure relief device for covering an aperture in the wall of an enclosure comprising a cover releasably covering said aperture externally of said enclosure, web means rigidly affixed to the wall extending across said aperture, tie means inside of said enclosure, stud means extending between said tie means and said cover through said web means, toggle means extending between said tie means and said web means, shaft means, pressure responsive means for providing a rotational movement to said shaft means in response to variable pressure within said enclosure, said shaft mean having a non-circular portion, and mean for releasably preventing collapse of said toggle means comprising a pivoted arm extending between the knee of said toggle means and said non-circular portion of said shaft means, said pivoted arm contacting said knee so that toggle collapsing forces on said toggle at said knee provide a moment on said arm, said moment being restrained by said non-circular portion only at predetermined angular displacements thereof.

2,869,580

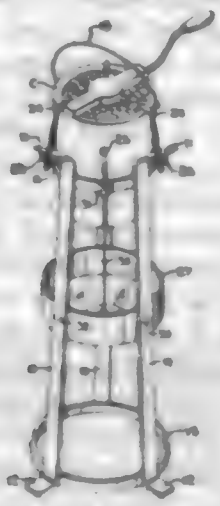
ICE CREAM CHURN STAND

Reece W. Almond, Stanfield, N. C.

Application August 3, 1954, Serial No. 447,479
2 Claims. (Cl. 137—571)

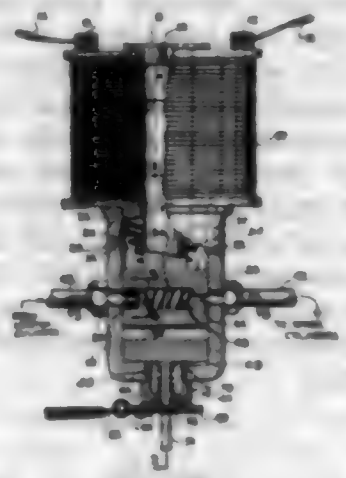
1. A stand for supporting an ice cream churn having an upwardly and outwardly tapering circular wall provided with an overflow opening therein, said stand com-

prising a plurality of circularly spaced upwardly converging legs joined together adjacent their lower ends, an adjustable split ring secured to the inner surfaces of said legs adjacent their upper ends, said split ring having a trough formed in its inner surface and adapted to be positioned in vertical alinement with said overflow open-



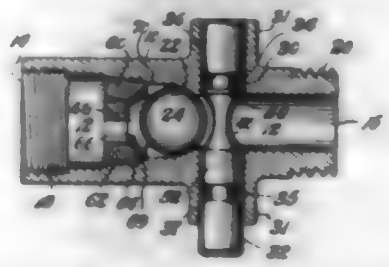
ing in said churn, an overflow basin of a greater diameter than said split ring disposed beneath said split ring, said basin being fixedly secured to said legs and serving as a medial brace for the legs, and adjustable hooks mounted on the upper ends of said legs for adjustably clamping the churn in the split ring.

2,869,581
IGNITION BRAKE LOCK
Horacio E. Perez, Valhalla, N. Y.
Application August 30, 1956, Serial No. 607,152
1 Claim. (Cl. 137—598)



A control valve for hydraulic brake systems comprising a hollow housing having a bottom wall with an opening therein, said housing being open at the top, a solenoid winding mounted on the top of the housing, said solenoid winding having a bore therethrough communicating with the interior of the housing, a plunger slidably mounted in the bore and housing and being attractable to one extreme position upon energization of the solenoid winding and being normally spring-biased to the other extreme position upon deenergization of the solenoid winding, said housing having outlet and inlet ports on opposite sides thereof, said plunger including a head slidable in the housing and having spaced transverse bores, one bore being adapted to register with the outlet and inlet ports in said one extreme position of the plunger, said other bore being adapted to register with the outlet and inlet ports in the other extreme position of the plunger, check valve means in said other bore arranged to permit flow of fluid only in a direction from the inlet port to the outlet port, and means to move the plunger to said one position against said spring biasing even when the solenoid winding is deenergized including a plug in the opening in the bottom wall of the housing, said plug having an axial opening, a stem slidable in said axial opening and shiftable against the head of the plunger to move the plunger to said one extreme position, a removable lock pin normally holding the stem retracted against movement in a direction to move the plunger to said one position, and a spring sleeved around the stem inside the housing tensioned to move the stem in said direction.

2,869,582
SHUT-OFF VALVES
Lee Skipwith, Jr., St. Petersburg, Fla., assignor to Sprayers & Nozzles, Inc., St. Petersburg, Fla., a corporation of Florida
Application July 26, 1954, Serial No. 445,691
1 Claim. (Cl. 137—614.19)

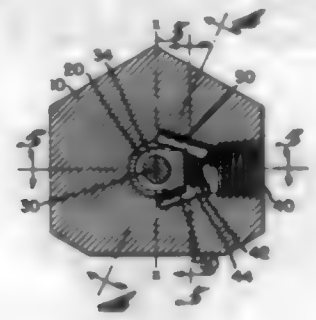


A shut-off valve assembly comprising a valve housing provided with a longitudinal fluid passage having inlet and outlet ends, a first valve seat provided intermediate the ends of said passage and facing the inlet end thereof, a bushing-like insert provided in the inlet end portion of the passage in spaced relation from said first valve seat, a second valve seat provided in said insert and facing the first valve seat, a valve ball movably positioned in said passage between the first and second valve seats and selectively engageable therewith under pressure of fluid in said passage whereby to prevent fluid flow selectively in opposite directions, said housing being provided with a transverse bore intersecting the outlet end portion of said passage adjacent the first valve seat, and a cylindrical plunger reciprocable in said bore and projectable selectively at opposite ends therefrom whereby the plunger may be manually slid between closed valve and open valve positions, an intermediate portion of said plunger being annularly recessed and providing a concave cam member substantially complemental to the surface of said valve ball, the recessed portion of said plunger affording clearance for said valve ball to permit engagement of the valve ball within the first valve seat when the plunger is in the closed valve position, and said cam member being engageable with the valve ball to disengage the latter from the first valve seat when the plunger is slid to the open valve position, said plunger being formed with annular grooves adjacent opposite ends of said cam member, and sealing rings mounted in said grooves, said sealing rings frictionally engaging the wall of said bore and constituting means for frictionally retaining the plunger in a pre-selected position.

2,869,583
SPOOL VALVE
Donald E. Beckett and William N. Beckett, Wilmington, Ohio, assignors to Beckett-Harcum Co., Wilmington, Ohio, a corporation of Ohio
Application May 24, 1955, Serial No. 510,686
9 Claims. (Cl. 137—625.42)

3. A valve comprising a body having a longitudinal piston bore extending therethrough, and a plurality of annular ports in laterally spaced relationship disposed along and in open communication with said piston bore, said ports each having an outer peripheral wall uniformly spaced from the axis of the piston bore, a valve member slidable in said bore and including pistons for covering and uncovering certain of said ports as the valve member moves lengthwise within the bore, the valve body being

drilled from the exterior thereof inwardly to provide a primary hole having an inner terminus remote from but in line with one of the ports aforesaid, said bore being extended beyond said inner terminus by a pair of secondary drilled holes divergently directed from said terminus towards opposite ends of a diameter of said one port, the secondary holes each having a blind end portion meeting and intersecting the outer peripheral wall of the port at locations near the outer ends of said diameter, the valve body material between the divergent holes being removed to provide a connecting slot which includes the inner terminus of the primary hole and adjacent portions



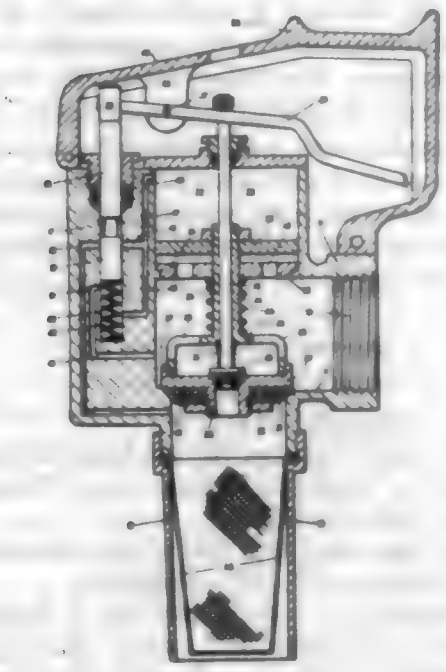
of the divergent holes, and a throat connecting the blind end portions of the secondary holes, said connecting slot having a base apertured at the throat aforesaid, the aperture of the base forming part of the throat, and the throat extending through the peripheral wall of the port, thereby to place the slot in fluid communication with the port by way of said throat, the width of the throat being equal to the width of the port, and the throat terminating wholly within the limits of the port between the blind ends of the divergent bores, the diameter of each of said divergent bores being of the order of twice the width of the throat.

2,869,584

MEANS FOR OPERATING LIQUID SUPPLY VALVES

John Marion Gordon, Cremorne, near Sydney, New South Wales, Australia, assignor to Gilbert & Barker Manufacturing Company (Australia) Pty. Limited, Alexandria, near Sydney, New South Wales, Australia

Application May 12, 1954, Serial No. 429,303
Claims priority, application Australia May 19, 1953
10 Claims. (Cl. 137—630)



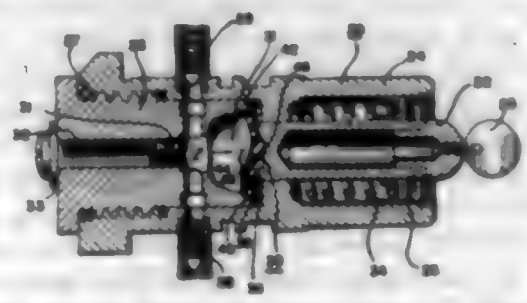
5. A valve structure, comprising, in combination, a casing having a valve chamber and inlet and outlet means in communication therewith; main valve means and pilot valve means in said valve chamber of said casing for controlling the flow of fluid from said inlet means through said valve chamber of said casing and to said outlet means, said main valve means being movable between a closed position and an open position wherein fluid may flow through said valve chamber of said casing at a first rate and said pilot valve means being movable between a closed position and an open position wherein fluid may flow through said valve chamber of said casing at a second rate smaller than said first rate; and operating means connected to both of said valve means for moving the same between their respective positions, said operating means being movable from a closed position wherein both of said valve means are in their respective closed positions to an intermediate position wherein said pilot valve means is in said open position thereof and said main valve means in said closed position thereof and from there to an open position wherein said main valve means is in said open position thereof, said operating means including a cylinder portion formed with said casing and having one end in communication with said valve chamber thereof, a piston connected to said main valve means and slidably arranged in said cylinder portion, conduit means in said casing for placing the other end of said cylinder portion in communication with said valve chamber and said outlet means of said casing, servo-valve means cooperating with said conduit means for controlling the flow of fluid therethrough biasing means for biasing said main valve means toward said closed position thereof, and manually operable actuating means operatively connected to said pilot valve means for moving the same between said positions thereof and operatively connected to said servo-valve means for controlling the flow of fluid through said conduit means so that when said operating means is in said closed position thereof said other end of said cylinder portion is in communication only with said valve chamber of said casing so that the fluid pressure prevailing therein acts on both sides of said piston with equal forces thereby allowing said biasing means to maintain said main valve means in said closed position thereof and so that when said operating means is in said open position thereof said other end of said cylinder portion is in communication only with said outlet means so that the fluid pressure prevailing within said valve chamber acts on the side of said piston nearest said valve chamber with a force greater than the force with which the fluid pressure prevailing in said outlet means acts on the other side of said piston and moves said main valve means to said open position thereof against the force of said biasing means.

2,869,585

FLEXIBLE DIAPHRAGM

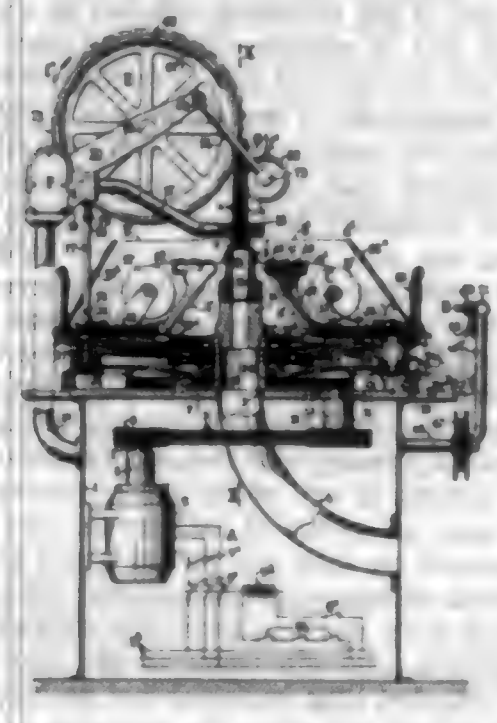
Max P. Baker, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 15, 1954, Serial No. 410,405
4 Claims. (Cl. 137—793)



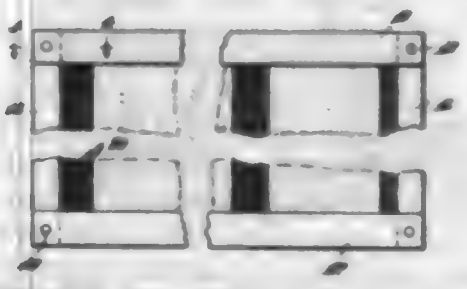
1. In a pump having an elastomeric diaphragm, a frusto-conically shaped spring metal annulus surrounding a central portion of the diaphragm and having at least one surface coextensively bonded to the peripheral portions of elastomeric material forming said diaphragm and movable therewith and constantly resisting movement of said diaphragm from a normal position.

2,869,586
CIRCULAR LOOM
Marcel Marie Pierre Jasienski, Issy-Les-Moulineaux, France, assignor to Compagnie Française Otherme, Paris, France, a French body corporate
Application April 9, 1956, Serial No. 576,895
Claims priority, application France April 13, 1955
2 Claims. (Cl. 139—13)



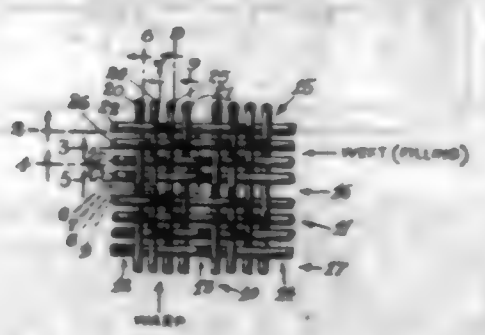
1. In a circular loom for weaving a tubular fabric, in combination; a frame; a fixed support on the latter; provided on said support an annular slide concentric with a fixed central axis; provided on said slide shuttles in the form of sector gears movable along said slide in such manner that they are capable of rotary movement about said central axis; driving gears journalled in said support for rotation about their respective axes which are at the same radial distance from said central axis to which they are parallel, these driving gears being disposed in such manner that each of said sector gears is at every instant in mesh by its gear teeth with at least one of said driving gears; provided on said support and said frame driving means for rotating the driving gears and, through the medium of the latter, rotating the sector gears about said central axis; a rotatable grooved pulley adapted to pull on and if desired receive the woven tubular fabric and a driving device connecting said pulley to one of said driving gears so that the rotation of this pulley is proportionate to that of the shuttles, said driving device comprising a speed reversing mechanism permitting a pull to be exerted on said woven tubular fabric by the pulley irrespective of the direction of rotation of the shuttles.

2,869,587
REED FRAME
Clayton E. Schmidt, New Bedford, Mass., assignor to Schmidt Mfg. Co., New Bedford, Mass., a corporation of Massachusetts
Application May 31, 1956, Serial No. 588,318
3 Claims. (Cl. 139—192)



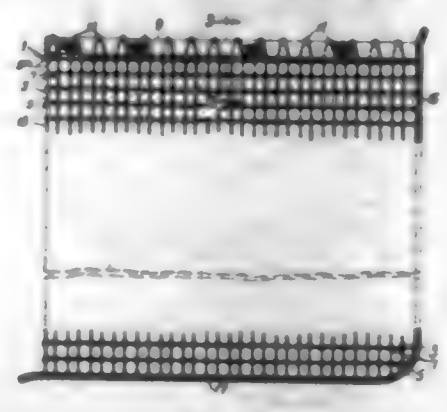
1. A loom reed having a substantially rectangular frame including vertically spaced pairs of transversely spaced, parallel bars at the top and bottom, and a series of dent wires disposed within the frame with their ends located respectively between the transversely spaced bars at the top and bottom, characterized in that the dent wires are joined at their ends to the frame exclusively by a resilient matrix filling the spaces between the bars and the dent wires.

2,869,588
WOVEN FABRIC
Harold W. Schwab, Brooklyn, N. Y., assignor to H. W. Schwab Textile Corp., New York, N. Y., a corporation of New York
Application December 19, 1955, Serial No. 553,986
3 Claims. (Cl. 139—383)



1. A woven fabric having regularly recurring tightly woven groups spaced apart along the warp, as well as along the weft, each group comprising at least two warp threads and two weft threads interwoven in a 1 x 1 simple basket or mat weave and also comprising an adjoining warp edge thread on each of two sides of each group and an adjoining weft edge thread on each of the other two sides, each of the adjoining threads interwoven with transverse threads in a two up, two down weave.

2,869,589
WOVEN WEBS
Ray P. Perry, La Due, Mo., assignor to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri
Application August 9, 1957, Serial No. 677,321
6 Claims. (Cl. 139—383)

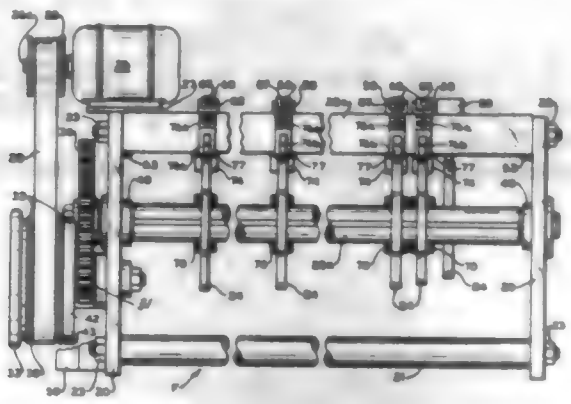


1. Woven open-mesh fabric for making draw closure bags or the like, said fabric having warp yarns spaced transversely of the fabric and filling yarns spaced lengthwise of the fabric and being characterized in that a continuous draw closure member is woven into the fabric at one edge thereof and lying outward of the outermost warp yarn of the fabric, loops of the filling yarn extending out beyond the outermost warp yarn and surrounding the draw closure member.

2,869,590
WIRE BENDING MACHINES
Joseph H. Hoern, Saginaw, Mich., assignor to Saginaw Wire Products Inc., Saginaw, Mich.
Application January 20, 1955, Serial No. 482,940
7 Claims. (Cl. 140—71)

1. In a wire bending machine, a frame, slide housings and dies mounted thereon in generally opposite relation

a spaced distance apart, means for holding a wire between said housings and dies, die bar slides in said housings, cams for controlling the slides, bell crank members supported adjacent each of said cams, each bell crank member having a roller on one end riding on the cam associated therewith, an elongated bar forming the opposite end of each bell crank member pivotally mounted on the other portion of the bell crank member of which



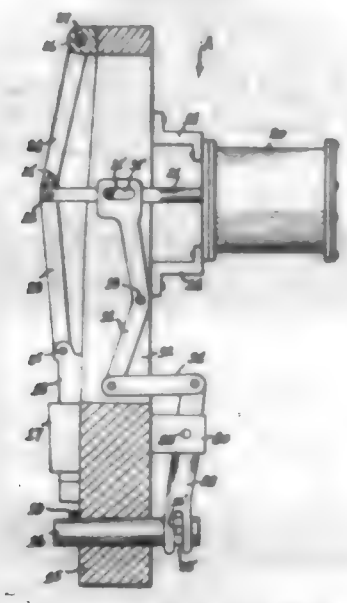
it is a part, said bars being of such cross sectional dimension relative to their length as to possess a limited flexibility, a roller pin in each slide adapted to be engaged by the outer end of one of said bars, a spring pressed pin holding the outer end of each bar in engagement with one of said roller pins, and means driving said cams to thereby pivot said bell crank member and actuate said slides toward said dies.

2,869,591

APPARATUS ADAPTED FOR THE BENDING OF WIRE STRIP MATERIAL AND THE LIKE

Sam Larkin, Belle Harbor, N. Y.

Application June 22, 1956, Serial No. 593,238
1 Claim. (Cl. 140—71)



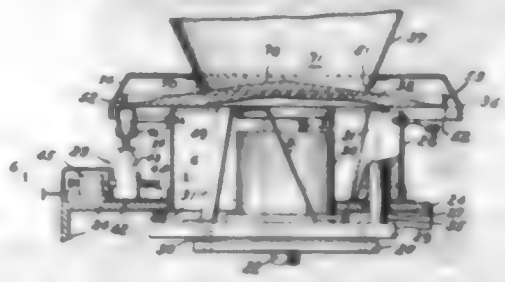
In an apparatus adapted for bending wire, a frame, a mandrel in initial rest position, having a portion thereof projecting from the frame; said mandrel being movably mounted on the frame whereby it is shiftable to retract substantially to the plane of the frame it projects from in its initial position, a die part mounted on the frame for movement thereon towards and away from the said projecting part of the mandrel whereby a wire placed between said projecting part of the mandrel and said die part will be contacted by both of them when said die part is moved toward said projecting mandrel part while the mandrel is in its initial rest position; said mandrel and die part constituting a bending means for the wire; said die part being away from said projecting part of the mandrel when said mandrel is in its initial rest position, an operating member mounted for reciprocatory-like movement on the frame, a first linkage means for shifting the die part associated with said operating member and die part; said first linkage means comprising a pair of links; one end of each of such links being pivotally connected to the operating member; the other end of one of said links being pivotally connected to the die part; the other end of the other of said links being pivotally connected to the frame; the last mentioned link being slidable at one of its pivotal connections; said links being in alignment at a time between a commencement and end of travel of the operating member in each direction respectively and in angular relation at each commencement and end of travel of said operating member in each direction respectively, a second linkage means for shifting the mandrel associated with said operating member and the mandrel; said second linkage means comprising a first lever swingably mounted intermediate its ends on the frame; one end of such first lever being pivotally associated with the mandrel, a second lever swingably mounted intermediate its ends on the frame; one end of such second lever being pivotally associated with the operating member; the other ends of said levers being pivotally linked and a last motion means interposed in said second linkage means; said lost motion means constituting a pin serving as one of the pivotal connections away from the axes of swing of said levers, and one of the parts connected by such pin, having a slot along the line of movement of the operating member; said pin extending through such slot and fitted for slidable movement along said slot; said pin being at one end of said slot when the mandrel is at its initial rest position and at the other end of said slot when the said pair of links are in alignment, whereby on movement of the operating member in one direction, during the first part of such movement, said operating member will operate the first linkage means whereupon the die part will be moved towards the projecting part of the mandrel and the lost motion means will maintain the second linkage means at rest and during the remainder of such movement of the operating member in said one direction, said operating member will operate the first linkage means whereupon the die part will be moved away from said projecting part of the mandrel and said operating member will operate the second linkage means whereupon the mandrel will be retracted and then, upon movement of said operating member in the opposite direction, during the first part of such movement in such opposite direction, the operating member will operate the first linkage means whereby the die part will be moved towards the mandrel and the operating member will operate the second linkage means whereby the mandrel will return to initial rest position and during the remainder of said movement of the operating member in such opposite direction, said operating member will operate the first linkage means whereby the die part will move away from the mandrel and the lost motion means will maintain the second linkage means at rest.

2,869,592

MEASURING AND DISPENSER DEVICE

Herman A. Krueger, Detroit, Mich.

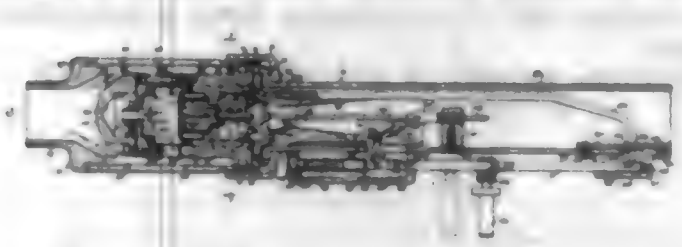
Application December 15, 1955, Serial No. 553,219
14 Claims. (Cl. 141—160)



1. A device for measuring and dispensing accurate amounts of aggregate such as dry powder comprising an annular platen, having a crowned central portion,

means for axially and angularly vibrating said platen for spirally traveling aggregate thereon, and an upstanding peripheral rim on said platen having at least one aggregate escape slot, a circuit powering said vibrating means, a normally open first switch in said circuit for closing said circuit to initiate vibration, and a timer operated normally closed second switch in said circuit for opening said circuit to terminate vibration; said first switch being adapted to be closed when a container is properly located to receive the aggregate from said platen and said second switch being adapted to be opened after a time duration measured by said timer co-ordinated with the adjusted amplitude of vibration of said vibrating means so as to deliver a measured amount of aggregate to a container.

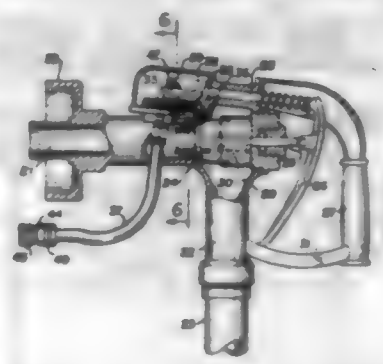
2,869,593
AUTOMATIC SHUT-OFF VALVE
Clifford V. Zieg, Fort Wayne, Ind.
Application September 19, 1955, Serial No. 534,921
11 Claims. (Cl. 141—208)



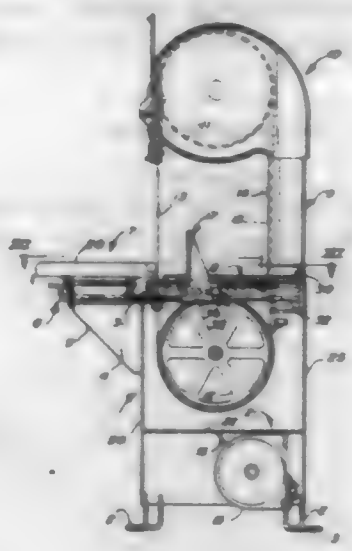
1. In an automatic shut-off valve mechanism for a nozzle, the combination of means, including a spout, having inlet and discharge ends, and a vacuum creating Venturi nozzle defining a conduit for the liquid being dispensed, a valve mounted for movement between open and closed positions with respect to said conduit, resilient means connected to said valve to urge it toward open position, a fluid motor operatively connected with said valve, separate means for supplying air at atmospheric pressure and vacuum created by said Venturi nozzle to said fluid motor in a direction to close said valve in opposition to said yieldable means, a conduit having an opening disposed adjacent the discharge end of said spout, and connected with said vacuum supplying means for dissipating the vacuum when said conduit opening is uncovered by liquid, said Venturi nozzle serving to build up said vacuum when said conduit opening is closed by liquid to cause said fluid motor to close the valve, the improvement comprising means for latching the valve in a closed position and actuator means operable by the insertion of said spout into a container for disabling said latching means, said actuator means operable to close said valve when the spout is removed from the container.

2,869,594
LOADING ASSEMBLIES FOR USE IN FILLING DIESEL LOCOMOTIVE FUEL TANKS
Andrew N. Biggard, Denver, Frank A. Robinson, Wheatridge, and John P. Spiess, Denver, Colo.
Application January 10, 1958, Serial No. 708,228
3 Claims. (Cl. 141—209)

1. A fuel loading assembly for a diesel locomotive comprising: a fuel tank; a tank filling hose; a tank filler tube opening through the top of said tank at each side thereof; a removable check valve closing each filler tube; a vent nipple communicating through the wall of said tank at the desired maximum liquid level therein; a vent tube extending outwardly from each side of said vent nipple to a terminal adjacent each of the said tank filler tubes; an inwardly opening check valve closing the outer extremity of each vent tube; an automatic shut-off nozzle on the extremity of said tank filling hose; means for connecting said nozzle with one of said tank filler tubes after the removal of the removable check valve therefrom; a shut-off valve in said nozzle; means urging said shut-off valve to a seat to stop the flow through said nozzle; a vacuum chamber in said nozzle; means for allowing said shut-off valve to be urged to its seat in consequence of the creation of a vacuum in said vacuum chamber; an air tube extending from said vacuum chamber and acting to admit air to the latter to prevent the formation of a vacuum therein; check valve opening means on said air tube; and means for detachably connecting said air tube to the outer extremity of either one of said vent tubes so that the opening means will open the check valve in the outer extremity of that vent tube to place the latter in communication with said vacuum chamber to allow air to flow to said chamber until the liquid level in said tank rises above said vent nipple.

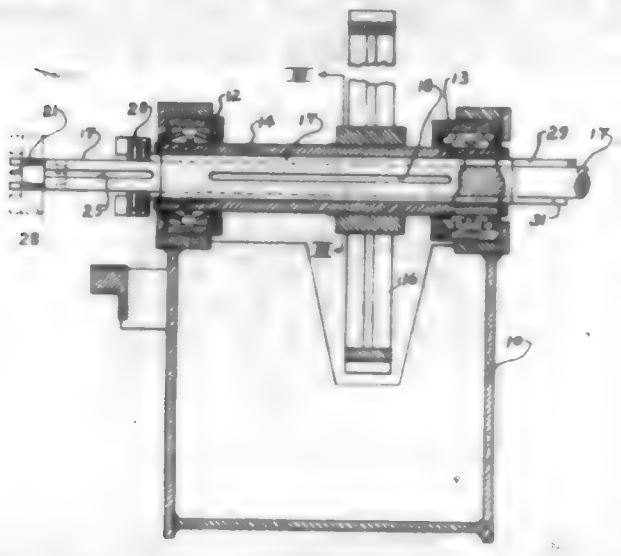


2,869,595
TABLE FOR BAND SAWS
James D. Brown, Toledo, Ohio, assignor, by mesne assignments, to Toledo Scale Corporation, Toledo, Ohio, a corporation of Ohio
Original application January 27, 1955, Serial No. 484,369, now Patent No. 2,814,318, dated November 26, 1957. Divided and this application December 21, 1955, Serial No. 554,511
4 Claims. (Cl. 143—132)



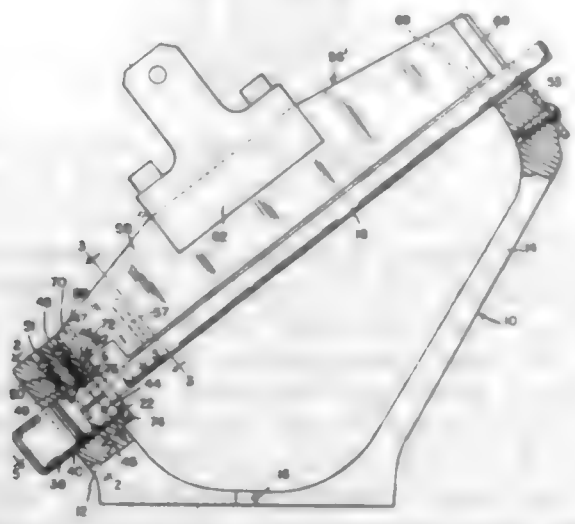
1. In a meat cutting band saw, in combination, a base, a table support that comprises a channel member having two upstanding sides and that is carried by the base, a stationary table carried by the table support above said upstanding sides, a stop member adjustably attached to the table support for selective movement in a path which generally is parallel to the plane of the table, a finger attached to the underneath side of the table and engaging a portion of the table support for holding down one side of the table, the horizontal position of the table being determined by engagement of the finger with the stop member, and means for holding down the other side of the table after its horizontal position has been determined by engagement of the finger with the stop member.

2,869,596
VENEER LATHE
James T. Latimer, Birmingham, Ala., assignor to Jackson Industries, Inc., a corporation of Alabama
Application October 18, 1956, Serial No. 616,696
3 Claims. (Cl. 144—209)



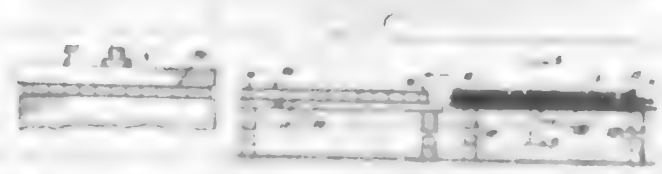
1. In a veneer lathe, a relatively small work engaging chuck, a rotary axially movable spindle for said chuck, a relatively larger work engaging chuck mounted for rotation with said spindle and movable longitudinally thereof, means to rotate both of said chucks in unison, a thrust bearing assembly connected on one side to the spindle and movable axially therewith, a relatively fixed hydraulic cylinder having a piston rod in axial alignment with the spindle and connected to the other side of the thrust bearing assembly, whereby to move the relatively small work engaging chuck into and out of the work engaging position, a second relatively fixed hydraulic cylinder in axial alignment with said first mentioned hydraulic cylinder and having a piston rod in axial alignment with the relatively larger work engaging chuck, and connecting means including a second thrust bearing assembly between said last mentioned piston rod and said relatively larger work engaging chuck to move said chuck into and out of work engaging position, said spindle passing through said second thrust bearing and being freely slidable therein.

2,869,597
ARROW FLETCHING FIXTURE
Alfred W. Lozon, Marine City, Mich.
Application April 22, 1957, Serial No. 654,224
2 Claims. (Cl. 144—289)



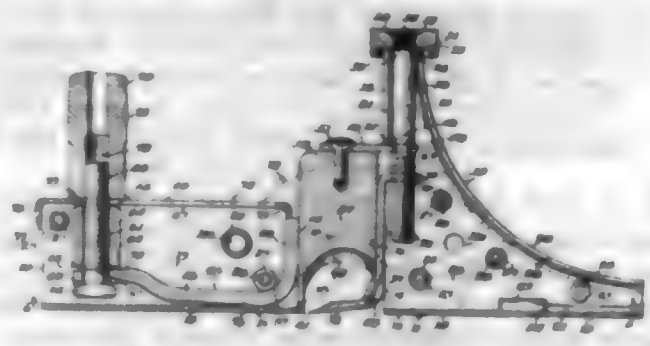
1. An arrow fletching fixture comprising a frame for supporting the shaft of an arrow, means for rotating the arrow shaft about its axis including a nock holder rotatably supported on said frame and engageable with the nock of the arrow shaft for rotation of the arrow shaft as a unit with said nock holder, and means for releasably holding said nock holder in a plurality of different rotative positions including a first series of recesses in the outer surface of said nock holder arranged in equally spaced relation about the axis of rotation of said nock holder, detent means carried by said frame in position to engage said recesses in succession upon rotation of said nock holder, a second series of recesses in the outer surface of said nock holder arranged in equally spaced relation about the axis of rotation of said nock holder, said second series of recesses being spaced axially of said nock holder from said first series of recesses, second detent means carried by said frame in position to engage the recesses of said second series in succession upon rotation of said nock holder, the number of recesses in said second series being different from the number of recesses in said first series, and means associated with each detent means for selectively rendering the latter operative and inoperatively.

2,869,598
METHOD OF MANUFACTURING SOLID CORE FLUSH DOORS
Robert F. Loetscher, Dubuque, Iowa, assignor to Farley & Loetscher Mfg. Co., Dubuque, Iowa, a corporation of Iowa
Application October 28, 1954, Serial No. 465,379
4 Claims. (Cl. 144—309)



3. The method of building a door which comprises assembling in a horizontal plane, a plurality of separate blocks of uniform thickness and width in a plurality of parallel lines of equal length, placing a veneer door face, coated with adhesive, in register with the assembly of core blocks, immediately below but spaced from them with the glue face upward, then simultaneously moving the assembly of blocks and the veneer laterally, successively releasing the blocks, causing them to fall by gravity onto and rest upon the veneer face until all the blocks are supported by the veneer face, then simultaneously applying to the upper faces of all the blocks an adhesive coated door face and then compressing the assembly to cause the adhesive to set, whereby the blocks are each permanently attached to the opposed door faces.

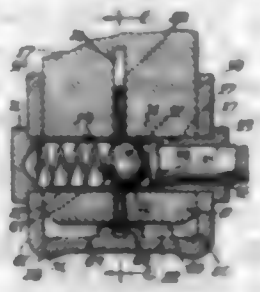
2,869,599
WOODWORKER'S HAND PLANE
George H. Palm, Chicago, Ill.
Application May 23, 1955, Serial No. 510,418
8 Claims. (Cl. 145—14)



1. In a hand plane, the combination of an elongated U-shaped body member, said elongated body member comprising similarly formed side wall stampings, each of said stampings formed with a notch substantially dividing the side members into front and rear portions, each of said front and rear portions formed with downwardly

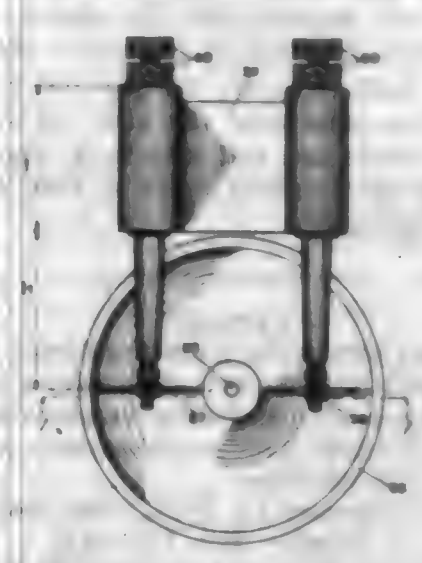
extending lugs, front and rear similarly formed plate-like bottom stampings for forming bottom wall members and provided with holes complementally formed to receive the downwardly extending lugs of the side walls for affixing said bottom stampings to said side members, a copper brazing compound at the junction between the bottom stampings and the side walls for integrally affixing said members together whereby the side walls are integrally affixed to the bottom wall members forming a substantially U-shaped body member, so that, upon removal of said excess metal of the depending lugs and the laterally extending portion of the bottom wall members, the bottom wall of the plane and the side walls thereof are completed.

2,869,600
SAW STRUCTURE AND BLADE MOUNT THEREFOR
Raymond C. Dreier, Chicago, Ill., assignor to Dreier Brothers, Inc., Chicago, Ill., a corporation of Illinois
Application December 31, 1956, Serial No. 631,538
16 Claims. (Cl. 145—33)



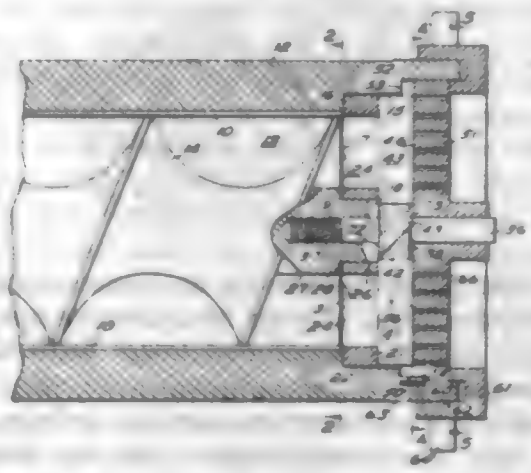
1. In a saw structure, a saw frame adapted to provide a mounting for a saw blade having a transversely extending opening therethrough adjacent an end thereof, said frame having a slot therein for receiving such end of a saw blade and having also a passage extending transversely through said slot for alignment with the opening in such saw blade, a locking member within said passage and being normally in general alignment with said slot for receipt within the opening in such saw blade, yieldable means within said passage for urging said locking member in one longitudinal direction therein and into the normal position of general alignment with said slot, and means within said passage for moving said locking member in the opposite longitudinal direction against the force of said yieldable means to afford movement of a saw blade into and out of said slot.

2,869,601
MEAT MINCING MACHINE
Albert Krötz, Stuttgart, Germany
Application March 29, 1954, Serial No. 419,528
Claims priority, application Germany March 28, 1953
3 Claims. (Cl. 146—67)



1. A machine of the type described comprising a cutter assembly adapted to be used in combination with a rotary meat trough, said assembly comprising a shaft and a sleeve rotatably carried thereabout, said shaft and sleeve being rotatably mounted adjacent one end only thereof in a bearing member, drive means associated with said shaft and sleeve for causing relative rotation thereof, the end of said shaft opposite said bearing member extending beyond said sleeve, cutter supporting means on the above end of said shaft and on the adjacent end of said sleeve, said supporting means being spaced from each other, and cutters carried by at least one of said cutter supporting means.

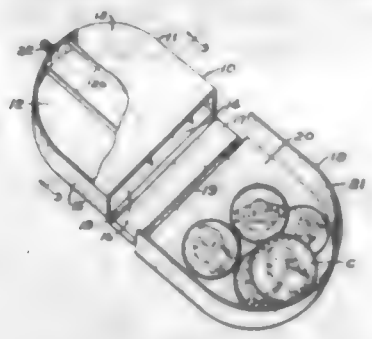
2,869,602
MEAT GRINDER
Theodore N. Rathjen, Oakland, Calif.
Application October 28, 1955, Serial No. 543,392
1 Claim. (Cl. 146—189)



A meat grinder comprising a substantially cylindrical hollow body having a hollow bore and an axially disposed feed screw mounted therein, a front and a rear perforated plate each having a forward and rearward face, and a cutter member mounted therebetween, said feed screw including a forwardly disposed hub portion having an internally threaded axial bore therein, one end portion of said body having a plurality of successive increased bores, the innermost bore being internally threaded for at least half its overall length there being a reduced circumferential shoulder closely adjacent the innermost threads, an outermost bore being smooth and of greater diameter than the said innermost bore terminating in a circumferential shoulder parallel to said first mentioned shoulder and including front plate locking means therein, said means comprising a locking pin axially disposed in said smooth bore, the rear plate having a central hub receiving aperture therein for mounting said plate on said hub portion of the feed screw and a plurality of relativcly large apertures therein, the adjacent peripheral edge portions of the apertures being chamfered so as to substantially define a knife edge thereon, the cutter member being disposed in said innermost bore and having a centrally disposed flat sided aperture therein and a plurality of obliquely disposed blade elements radiating outwardly therefrom, each blade having a pair of flat parallel side portions and a pair of flat parallel end portions, each of said cutter end portions being in face to face contact with the outer face of said rear plate and the inner face of said front plate, the front plate being disposed in said outermost bore parallel to said rear plate and cutter member and having a plurality of rings of small concentrically disposed spaced apertures and a centrally disposed shaft receiving aperture therein, said plate having a locking pin receiving groove in its peripheral surface, said blades being of a length so as to overlie the apertures in said rear plate and the outermost concentric ring of apertures in said front plate, an axially disposed supporting and aligning shaft having a threaded portion disposed at one end and a square shank cutter supporting portion disposed medially of said threaded end portion and the terminal end of the

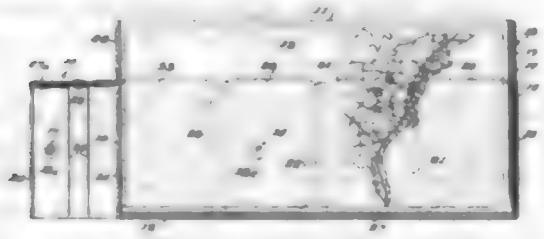
shaft, and being threadedly engaged in said threaded aperture in the feed screw, the cutter member being mounted on said square portion of the shaft and the front plate mounted in parallel abutting relationship therewith, said cylindrical body portion having exterior threads thereon and a locking ring member having a threaded interior surface engaging said body and a flange portion engaging the outer forward face of said front-plate locking the entire assembly in place.

2,859,603
COIN PURSE
Howard W. Conley, Detroit Lakes, Minn.
Application July 30, 1956, Serial No. 600,796
6 Claims. (Cl. 150—37)



6. A coin purse comprising enclosure means defining a relatively flat coin-carrying compartment having closely spaced and opposed upper and lower walls and a side-wall interconnecting the peripheries of the upper and lower walls, said enclosure means also defining an access opening into the compartment, and an elongate and stiff but transversely yieldable projection secured in said compartment to one of the opposed walls and extending across the compartment in spaced relation with one of the opposed walls whereby to engage the coins and urge the same toward one of the opposed walls to restrict movement and rattling of the coins.

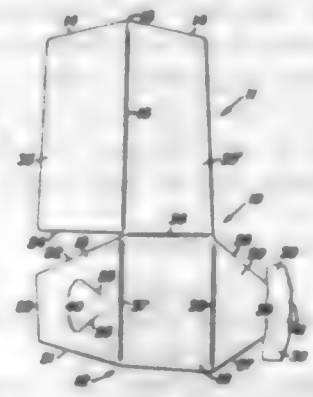
2,869,644
MAP HOLDER AND PROTECTOR
William E. Fitzsimmons, Silver Spring, Md.
Application June 26, 1956, Serial No. 593,869
7 Claims. (Cl. 150—39)



1. A map holder and protector formed of first, second and third panels, the first and second panels being connected along their bottom edges and upright edges and also having connections parallel to the upright edges for defining a plurality of pockets for receiving folded maps, the third panel being connected to the second panel along the top edge and one upright edge of the third panel for providing a large pocket open at an upright edge of the panels for receiving a map unfolded for inspection, said third panel being transparent for visibility of the working area of said unfolded map, whereby folded maps in said plurality of pockets stiffen the working map.

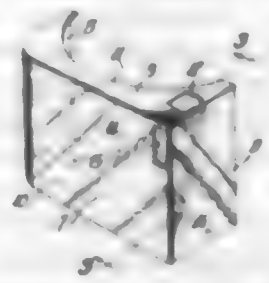
2,869,605
SPECTACLE CASE
Robert G. de Weese, Rochester, N. Y., assignor, by mesne assignments, to Textron Inc., Providence, R. I., a corporation of Rhode Island
Application April 5, 1956, Serial No. 576,305
9 Claims. (Cl. 150—52)

1. A spectacle case comprising a first section and a second section, said first section being folded along a longitudinal line to form two side walls of said case, one of which overlies the other, said second section being folded along two parallel, spaced longitudinally-extending lines to provide a central portion and two wings, said central portion and one of the side walls of said first section being joined together at one end of each, said sections being otherwise disconnected, said sections being folded on



each other along the line of juncture of said central portion and said one side wall to form the bottom of said case and so that said central portion overlies said one side wall, said two wings being folded over the other side wall of said first section whereby said second section surrounds said first section, and means for securing said wings together to hold the case in its folded condition.

2,869,646
COVER FOR TELEPHONE EXCHANGE APPARATUS
Jennings Dennis Deltz, South Charleston, W. Va.
Application January 16, 1957, Serial No. 634,543
1 Claim. (Cl. 150—52)

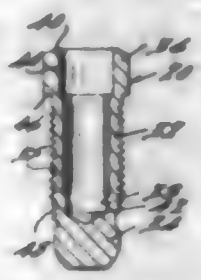


A cover for apparatus parts employed in telephone exchanges wherein the parts to be protected have a cover plate having an upward projection thereon and the parts are secured by anchor bolts depending from said plate comprising, a box-like structure of resilient shape-retaining material having a rectangular front panel, rectangular side panels, a top panel having a concave rear edge providing an annular ledge to seat upon said plate about the periphery thereof, said top panel having an opening to receive said projection from said plate, and a bottom panel having a convex rear edge providing a shelf projecting rearwardly beyond said side panels, said bottom panel having openings therein to receive the lower ends of said anchor bolts, whereby the top and bottom panels may be flexed to pass over the ends of the projection and the anchor bolts and will snap back when released to surround the projection and bolts to hold the cover in place on the apparatus.

2,869,687
HOLLOW-ADJUSTING SCREW HAVING RADIALLY PROJECTING THREAD LOCKING PORTIONS
Adolf A. Widmann, Grosse Pointe Farms, Mich., assignor to National Machine Products Company, Utica, Mich., a corporation of Michigan
Application February 14, 1956, Serial No. 565,392
2 Claims. (Cl. 151—14)

1. A self-locking prevailing torque-type screw adapted for adjustable mounting in a mating member having an aperture provided with an internal thread of uniform

pitch diameter, said screw comprising a substantially cylindrical, elongated, resilient body portion hardened to spring temper, a solid bearing portion of substantial area integral with the leading end of said body portion, and an enlarged, non-circular, wrench-engageable head portion integral with the trailing end of said body portion, said body portion and said head portion defining a bore extending through said head portion and into said body portion and terminating in spaced relationship with respect to said bearing portion with the diameter of the bore in said head portion being greater than the diameter of the bore in said body portion, an uninterrupted external thread on said body portion, the length of said external thread on said body portion being at least twice



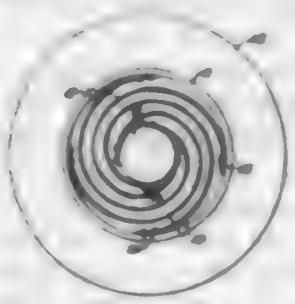
the external diameter of said body portion whereby said screw may be adjusted longitudinally relative to said mating member, portions of the wall of said body portion intermediate said bearing portion and said head portion projecting abruptly radially outwardly in a plurality of angularly spaced zones to form a plurality of angularly spaced locking lobes extending for the major portion of the length of said external thread, the pitch line of the portions of said external thread on said locking lobes lying on a cylinder concentric with the screw axis and of a diameter greater than the diameter of the pitch line of the remaining portions of the thread and the diameter of the pitch line of the mating internal thread, said head portion and said remaining portions of said external thread being substantially undistorted.

2,869,608

SPRING WHEEL

John M. Chamberlin, Texas City, Tex., and George A. McElroy, La Grange, Ill., assignor to Palm-Roy, Inc., La Grange, Ill., a corporation of Illinois

Application November 9, 1955, Serial No. 545,955
3 Claims. (Cl. 152—86)



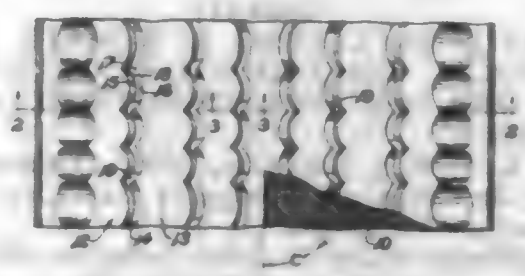
1. A spring wheel comprising a hub, an annular rim concentric with and spaced from the hub, and a plurality of spring elements connecting the hub and the rim, each of the spring elements including a flat strip of spring material mounted with its width parallel to the axis of the hub and rim, one end of the strip being rigidly secured to the hub and extending tangentially therefrom and the other end of the strip lying flat against the inner surface of the rim and being rigidly secured thereto, the strip between its ends being bent through a total angle exceeding 90°, each of the spring strips having at least one radially extending guide thereon intermediate its ends and having at least one opening therein intermediate its ends slidably receiving a guide on an adjacent strip to limit relative axial movement of the strips.

2,869,609

PNEUMATIC TIRE TREADS

William F. Billingsley, Silver Lake, and James K. Balzhiser, Cuyahoga Falls, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application June 3, 1954, Serial No. 434,108
13 Claims. (Cl. 152—209)



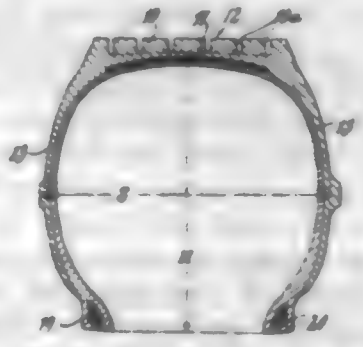
1. A tire having a rubber tread portion comprising a plurality of laterally-spaced circumferentially-extending tread elements constituting ribs with grooves therebetween, at least some of said ribs having a sidewall thereof provided with circumferentially-spaced portions extending laterally therefrom towards the adjacent rib or the opposite side of an intervening groove and approximately into contact with the sidewall of said adjacent rib adjacent to the ground-engaging surface of the latter rib, the greatest lateral extent of said portions being adjacent the ground-engaging surface of the ribs and one of the adjacent rib sidewalls on opposite sides of an intervening groove being relieved on an incline in the region of each projecting portion so that the bottom of the groove is not narrowed by said projecting portions.

2,869,610

HIGH-SPEED TIRE

Seymour Lippmann, Detroit, and Martin Berger, Oak Park, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application March 4, 1955, Serial No. 492,191
2 Claims. (Cl. 152—330)



1. A pneumatic tire having a tread, an undertread and sidewalls of a vulcanized rubber stock, four body plies of a cord fabric of a moisture resistant material, a breaker ply of cord fabric of a moisture resistant material forming the outermost reinforcing ply in the crown region of the tire, said materials being selected from the group including linear polyamides and linear polymeric ethylene terephthalates, and spaced annular bead wire bundles to which the body plies are anchored, said tread having a tread radius of between 100 and 200% of the tire section when the tire is mounted on a rim and inflated, the overall thickness of the tread and undertread at the crown of the tire being from between .33 to .50 inch and the undertread being of a maximum thickness at the crown of the tire of not greater than .070 inch and a minimum thickness sufficient to completely cover the breaker ply, the tread having anti-skid grooves formed in the surface thereof, said grooves having a minimum depth of .30 inch, the individual cords of the cord fabric of the body plies and the breaker having a stretch at 10 pounds load of not greater than 10%, the cords of the body plies and the breaker extending at a crown angle of between 25° and

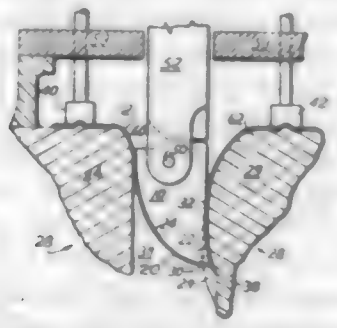
34° when the tire is uninflated, the space between adjacent cords of the breaker ply being between one and three times the width of the individual cords thereof, the height of said tire from the beads thereof to the bases of the anti-skid grooves being not less than the tire section when the tire is uninflated.

2,869,611

APPARATUS INCLUDING A FEMALE DIE RECEIVING A RECIPROCATING ARTICULATED MALE DIE FOR STRETCH-FORMING HOLLOW BLADES

Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan

Application March 18, 1955, Serial No. 495,202
2 Claims. (Cl. 153—32)



1. Apparatus for stretch-forming a hollow fluid turning blade for compressors, turbines and the like, from a blade blank, comprising a male die supported on a movable ram and having a part thereof articulated for movement transverse to the plane of its stroke, said male die having different slopes on its opposite sides resulting in a lateral force toward the side of lesser slope in working against said blade blank, a die means having a recess for receiving said male die thereinto, said die means having a female die on at least one side of said recess for receiving a blank thereover and of a die surface length corresponding to substantially the entire length of one face of said blade from the nose to the trailing edge thereof for forming said face to the preselected blade contours throughout substantially its chordwise length, said male die being receivable freely in said recess and remaining free of pressure forming contact with the bottom thereof at the end of its stroke, said male die being advanced against said blade blank yieldingly supported across said recess for movement of said blank by said male die into said recess and with articulated movement of said male die laterally of the direction of said ram movement to form said blank against said female die primarily by stretch-forming thereover, means to restrain the movement of said blank into said recess to cause stretch-forming thereof on said male and female dies with resulting production of substantially the final blade contours for the upper and lower blade surfaces of said blade leaving said formed blade substantially free of pressure-induced internal stress.

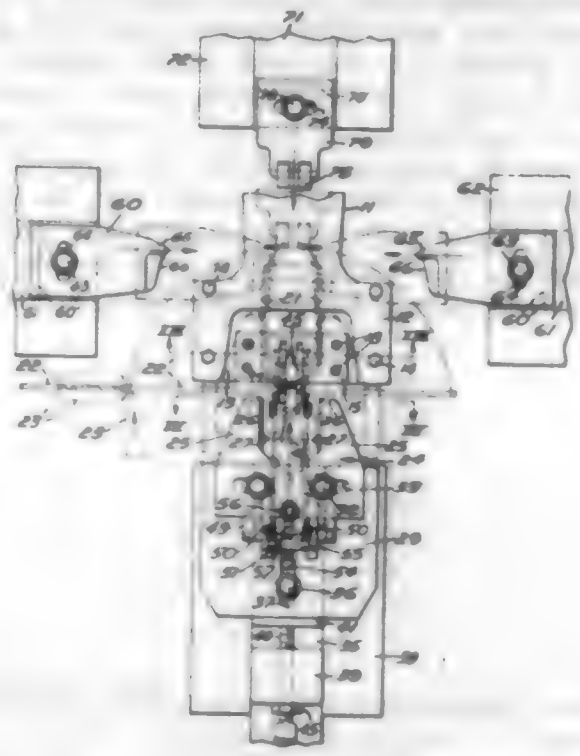
2,869,612

BENDING MACHINE TO FORM WIRE ARTICLES CONTAINING AN OFFSET

John C. Bertram, Mayville, N. Y., assignor to Bertram Wire Products, Inc., Buffalo, N. Y.

Application November 1, 1956, Serial No. 619,854
7 Claims. (Cl. 153—34)

1. In a device for forming a wire article having a portion offset from a plane and formed with a bend therein, first die means having a face portion shaped to provide the plan view curvature of such wire article portion, first forming tool means movable toward said first die means to initially bend a length of wire around said face portion in said plane, second die means positioned on one side of said plane and shaped to provide the curvature of such bend, third die means positioned on said one side of said plane on opposite sides of said second die means and shaped to provide the desired offset curvature on opposite sides of such bend, second forming tool means



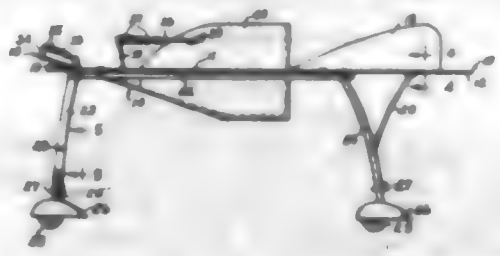
movable into engagement with such wire on the opposite side of said plane and on opposite sides of said second die means to draw such wire out of said plane and against said second and third die means, and means for so moving said second forming tool means.

2,869,613

BABY WALKER

Lawrance Eugene Parker, Joliet, Ill.

Application September 10, 1957, Serial No. 683,874
2 Claims. (Cl. 155—22)



1. In a baby walker, a horizontally disposed frame including a first pair of spaced parallel portions, a rear portion extending between the rear ends of said first portions, an inclined base including a curved front end portion terminating in pointed ends and said pointed ends extending over the first portions of said frame, the rear portion of said base being cut away to provide space for the projection therethrough of a baby's legs, a seat portion integral with the rear of said base intermediate of the space provided by the cutaway portion of said base, spaced parallel vertically disposed side walls secured to the inner surfaces of said first portions, horizontally disposed rods secured to the undersurface of said frame, front legs depending from the front of said rods and secured thereto, a brace extending between said front legs, rear legs depending from the rear of said rods, braces extending between said frame and said rear legs, and caster wheels connected to the lower ends of said legs.

2,869,614

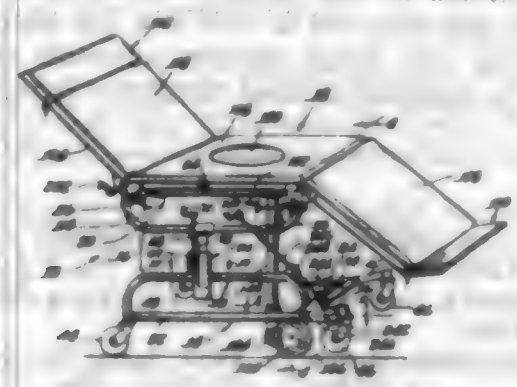
COMBINATION WHEEL CHAIR AND STRETCHER

Floyd B. Wamsley, Glendora, Calif.

Application May 25, 1955, Serial No. 511,846
10 Claims. (Cl. 155—30)

1. A combination wheel chair and stretcher including vertically disposed elevating means, a base connected at

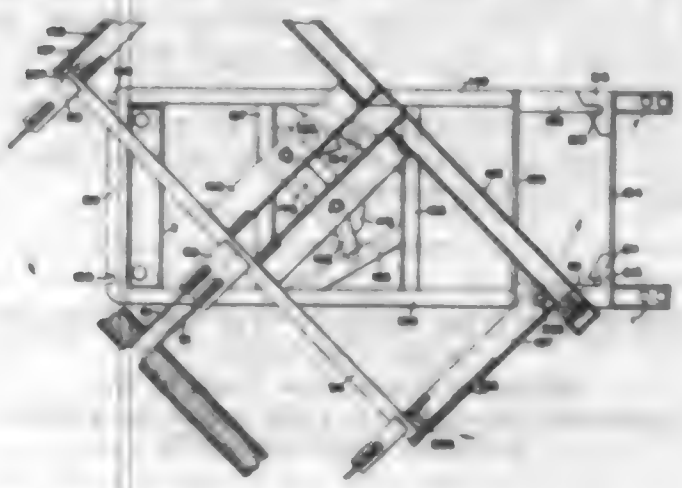
one side to and extending laterally from said elevating means and having an opposite free edge, a support attached at the corresponding side to said elevating means



and extending laterally therefrom over said base and having an opposite free edge, and locomotive means carried by said base and said support whereby the combination may be moved by an operator resting thereon.

2,869,615
VEHICLE SEAT
Dwight Edwin Austin, Kent, Ohio
Original application March 27, 1953, Serial No. 344,988, now Patent No. 2,760,559, dated August 28, 1956. Divided and this application July 23, 1956, Serial No. 599,595

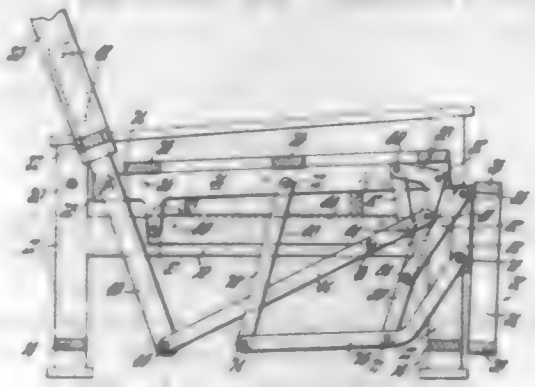
4 Claims. (Cl. 155—97)



1. A vehicle seat mounted on an upper base, a lower base on which the upper base is rotatable, two links each pivoted at one of its ends to the centerline of one of said bases equidistant from the ends thereof and also equidistant from the actual center thereof, said links extending in opposite directions from said centerline of that base with their opposite ends pivotally fastened to the centerline of the other base equidistant from the front and rear thereof, each link being formed of two end sections with spring means tending to hold the links at a neutral length and each link being extensible to a greater length and compressible to a shorter length, the two bases being provided with means for locking the upper base against rotation about the lower base.

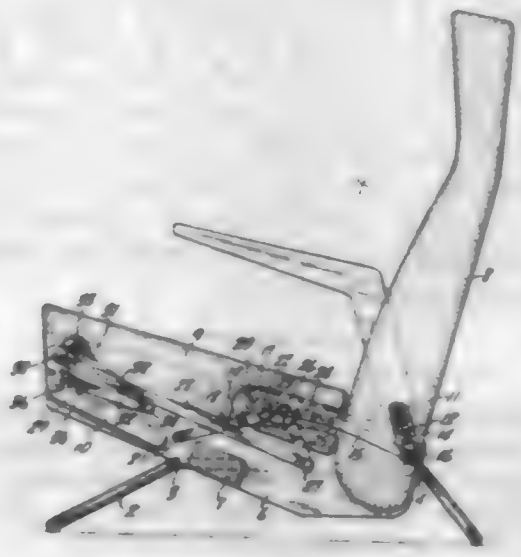
2,869,616
RECLINING CHAIR MECHANISM
Adelard J. Belisle, South Hadley Falls, Mass.
Application October 10, 1956, Serial No. 615,180
4 Claims. (Cl. 155—106)

4. In a reclining chair consisting of a base and seat and back rest and leg rest, the improvement in a unitary mechanism combinable with the reclining chair components and comprising, a primary propeller pivotally connected with the back rest, a secondary propeller pivotally connected with the seat and said primary propeller, a supporting link pivotally connected with said secondary propeller and the base, a control link pivotally connected with the seat, a primary elevator pivotally connected with said control link and the leg rest, and a secondary elevator pivotally connected with said secondary propeller and the leg rest, all adapted and arranged whereby as



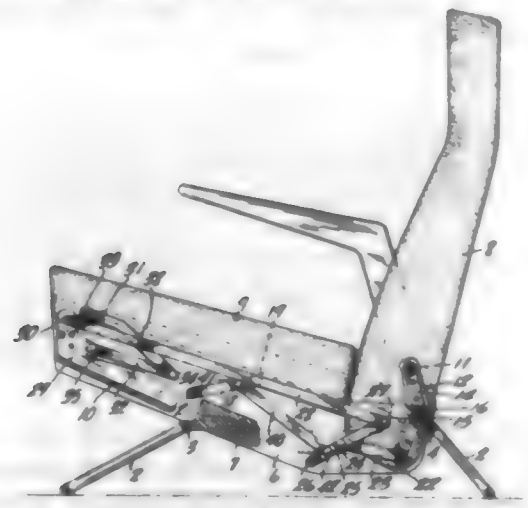
the back rest is reclined relative to the base movement of the leg rest is effected through the movement of said propellers relative to the seat coordinated with the movement of said elevators relative to said propellers.

2,869,617
RECLINING CHAIRS
Friidtjof F. Schliephacke, Berlin-Schmargendorf, Germany, assignor to Anton Lorenz, Boynton Beach, Fla.
Application June 18, 1957, Serial No. 666,309
3 Claims. (Cl. 155—106)



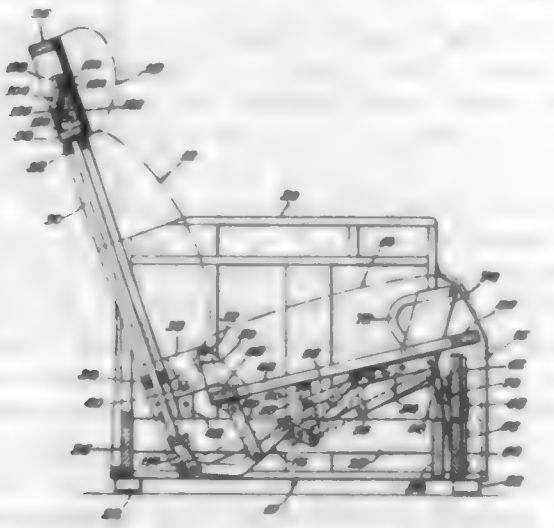
1. A reclining chair comprising a base unit having opposed, spaced side frames, a backrest located between said side frames and pivotally mounted on said side frames, a seat located between said side frames and pivotally connected to said backrest at a point below the point where said backrest is mounted on said side frames, whereby said seat is moved forwardly when said backrest is tilted backwardly on said side frames, a lever pivotally connected to said seat and to an opposed side frame, the pivotal connection of said lever to said seat being at an intermediate point of said lever, said lever swinging forwardly and supporting and guiding said seat as it moves forwardly, a leg rest mounted to swing on the forward end of said seat, said leg rest being normally located beneath said seat between said side frames, and means operated by said lever during the forward swinging movement thereof to swing said leg rest downwardly, forwardly and upwardly to a position in advance of said seat, said means including a second lever pivotally connected to said seat, and a link connecting said first lever to said second lever, one end of said link being connected to an arm of said first lever extending oppositely from the pivotal connection of said lever to said side frame, and the other end of said link being connected to an intermediate point on said second lever.

2,869,618
RECLINING CHAIRS
Fridtjof F. Schliephacke, Berlin-Schmargendorf, Germany, assignor to Anton Lorenz, Boynton Beach, Fla.
Application July 5, 1957, Serial No. 670,004
6 Claims. (Cl. 155—106)



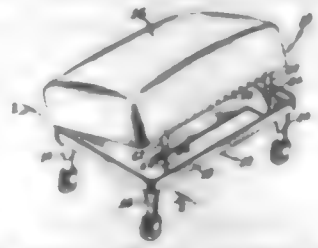
1. A reclining chair comprising a base unit having opposed, spaced side frames, a backrest located between said side frames and movably mounted thereon, a seat located between said side frames and operatively connected to said backrest and movable therewith, a guide link pivotally connected to said seat and pivotally mounted on an opposed side frame, said guide link supporting and guiding said seat as it moves with respect to said side frames, a leg rest mounted to swing on the forward end of said seat, and means operatively connected to said backrest to swing said leg rest to a position in advance of said seat when said backrest is tilted backwardly, with respect to said side frames, said means including a leg rest actuating lever pivotally connected to said leg rest, a connecting lever pivotally connected to said actuating lever and pivotally mounted on an opposed side frame, and a connecting link pivotally connected to said guide link and to said connecting lever.

2,869,619
HEAD REST FOR RECLINING CHAIR
John S. Petersen and Ray H. Blecker, Kenosha, Wis., assignors to Simmons Company, Kenosha, Wis.
Application April 15, 1955, Serial No. 501,664
1 Claim. (Cl. 155—107)



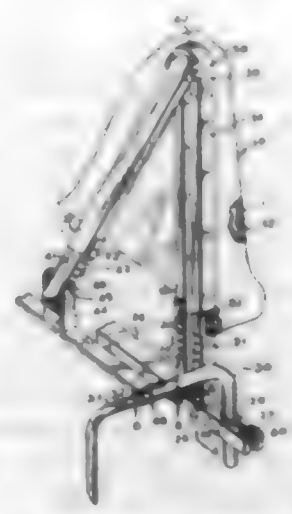
A reclining chair comprising a normally stationary supporting frame, a back pivoted to said frame for movement from normally upright sitting position to a reclining lounging position, a seat movably supported in its forward portion on said frame and pivoted at its rear to said back for upward movement of its rear end as the back reclines, a head rest movably supported on said back at the upper end thereof for movement toward and away from said back generally in the plane thereof, a thrust member connected to said head rest and extending downwardly through said back to the lower end thereof, an arm pivoted to said frame beneath said seat and extending rearwardly from its pivot and being movably connected to said thrust member, and a link connected to said seat and to said arm for lifting said arm and moving said thrust member upwardly through said back as the latter is reclined thereby to extend said head rest.

2,869,620
ADJUSTABLE OTTOMAN
Harold Gleitsman, New Rochelle, N. Y., assignor to Gleitsman's, Inc., Long Island, N. Y., a corporation of New York
Application March 14, 1957, Serial No. 646,040
6 Claims. (Cl. 155—169)



4. An ottoman comprising a base member mounted by a plurality of legs, a seat pivotally mounted on said base member for movement from a seat-defining disposition thereof to adjusted angular leg-rest defining disposition thereof raised above said seat-defining disposition, an upright U-shaped member mounted for pivotal movement on said base member, an inverted U-shaped member mounted in adjustable telescoping relation by said first mentioned member to releasably retain said seat in said angular dispositions thereof, and means for releasably retaining said second member in adjusted telescoping relation on said first member.

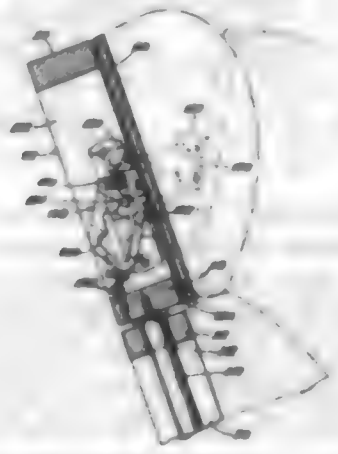
2,869,621
ADJUSTABLE HEADREST FOR TRAIN SEATS AND THE LIKE
Raymond Zukor, New York, N. Y.
Application November 5, 1956, Serial No. 620,340
7 Claims. (Cl. 155—177)



1. A headrest comprising a resilient pillow, said pillow being secured to a first hollow leg by a plurality of snap fasteners, a first core adjustably positionable in said leg and securable by a clip having a pair of protruding pegs, another hollow leg pivotally attached to a bracket secured to the first leg, another core adjustably positionable in said other leg and securable thereto by another clip having a pair of protruding pegs, said cores being pivotally attached at outer ends thereof to a pair of transversely disposed bars, a curved hollow clasp member adjustably positionable in a collar mounted in an aperture in one of said bars near the end thereof, said end being split into two spaced sections connected by clip means, said clasp member having one end secured to the other

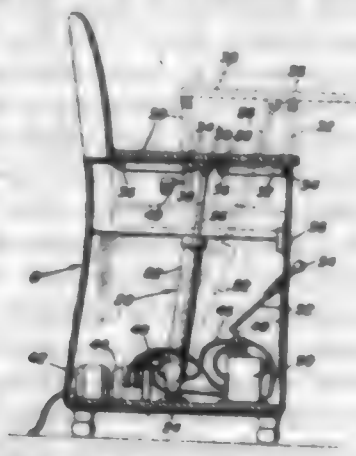
of said bars, and a curved core member adjustably secured in said clasp member by a pronged member attached to the end of said clasp member and said other bar.

2,869,622
ADJUSTABLE HEAD REST
John S. Petersen and Ray H. Blecker, Kenosha, Wis., assignors to Simmons Company, a corporation of Delaware
Original application April 15, 1955, Serial No. 501,664. Divided and this application December 23, 1957, Serial No. 704,548
1 Claim. (Cl. 155—177)



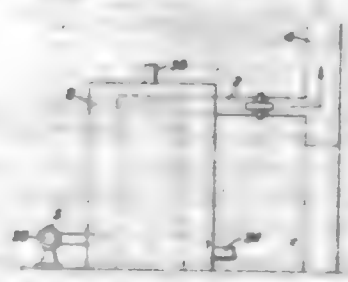
A head rest for the back of a reclining chair or the like comprising a pillow part pivoted at its lower end to a support secured to the chair back, a spring connected between the pillow part and said support for normally maintaining said pillow part in an extreme rearward position on said support, a pin on said support and a ratchet pivoted to said pillow part and having shoulders engageable by gravity with said pin for maintaining said pillow part at various positions forwardly of said extreme rearward position against the force of said spring, means on said ratchet for preventing disengagement thereof from said pin and for limiting forward movement of said pillow part against said spring to an extreme forward position beyond the forwardmost sustained position determined by said shoulders, the force of said spring and the distribution of mass of said ratchet member relative to the line of action of the force exerted thereon by the pillow part being such that when said pillow part is abruptly released from said extreme forward position, the spring returns it to said extreme rearward position without re-engagement of said shoulders and pin.

2,869,623
CHAIR WITH LIFTABLE ARM RESTS
Peter Poulin, Los Angeles, Calif.
Application June 3, 1957, Serial No. 663,100
4 Claims. (Cl. 155—198)



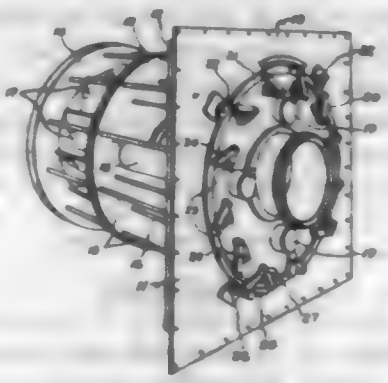
1. In an armchair construction, a base, a back rest, seat means and a hollow arm construction, said arm construction being provided on its upper portion with a horizontal arm rest, a motor driven jack mounted in the hollow portion of said arm, an operating connection between the jack and the central underneath portion of the arm rest, a first link on one side of said operating connection, said link being hinged at its forward end to said base and having its rearward end hingedly attached to the intermediate underneath portion of said arm rest adjacent the central portion of the arm rest, and a second link having its forward end portion hingedly connected to said base and its rearward end portion hingedly connected to the rearward end portion of said arm rest.

2,869,624
FURNACE DRAFT CONTROLS
Curry Ora Walper and Harry J. Sehl, Kitchener, Ontario, Canada
Application March 30, 1956, Serial No. 575,049
8 Claims. (Cl. 158—1)



1. A furnace comprising, a combustion chamber, means for continuously supplying a forced air combustion mixture to said combustion chamber for continuous burning therein, means for passing a medium to be heated in heat transfer relation to the flame in said combustion chamber during the firing cycle, means forming an egress passageway from said combustion chamber, and power operated means in said passageway for periodically, at a predetermined frequency of a multiplicity of cycles per minute, blocking and unblocking almost the entire flow of combusted products through said passageway, the frequency being of sufficient duration to retard the flow of combustion gases through the vent egress and to coincidentally expand the flame of the burner into close proximity to the heat transfer means and of insufficient duration to interrupt the continuous flow of the combustion mixture into the combustion chamber.

2,869,625
REGISTER
Ake O. Hogberg, Worcester, and Alan C. Neilson, Greenfield, Mass., assignors to Riley Stoker Corporation, Worcester, Mass., a corporation of Massachusetts
Application March 18, 1954, Serial No. 417,184
2 Claims. (Cl. 158—1.5)



1. A register comprising air vanes arranged to form an enclosure, control rods each connected at one end to a vane for the actuation thereof, the other ends of the rods being arranged in a circle, an annular positioning ring concentric with the rod circle means for rotating the ring about its center, a series of links each pivotly connected at one end to the ring, a series of actuating arms each fixedly connected at one end to a control rod, the other end of each link being pivotly connected to the other end of an arm, each control rod and the pivotal connection of its respective linkage to the positioning ring being

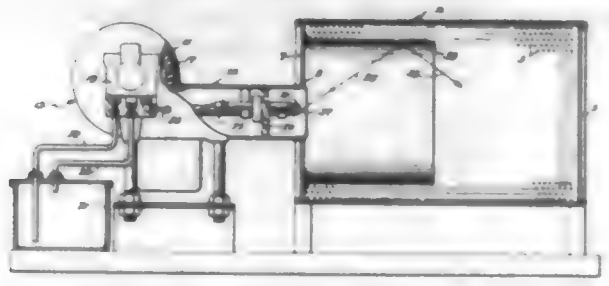
on a line radial of the ring when the vane is in its intermediate position, the annular positioning ring being larger than the rod circle and lying outside the rod circle, whereby the vanes may be moved through 180° from closed position to closed position.

2,869,626

FLUID FUEL BURNING APPARATUS

Ralston M. Sherman, Glastonbury, Conn., assignor to The Silent Glow Oil Burner Corporation, Hartford, Conn., a corporation of Connecticut

Application June 28, 1954, Serial No. 439,653
5 Claims. (Cl. 158—4)



1. Oil burning apparatus having a drum-like combustion chamber comprising opposite end walls and a lateral wall of thin heat refractory metal, at least the lateral wall of the wall portions constituted by such wall and one end wall being formed with a multitude of small perforations, each having a transverse cross-sectional area not exceeding approximately 0.018 square inch which are so spaced as to present approximately from 0.05 to 0.14 square inch of total transverse cross-sectional area per square inch of perforated surface, constituting substantially the sole means for discharge of combustion products from said chamber, and an air blast tube and an associated oil atomizing nozzle and ignition means for discharging into said chamber through its opposite end wall toward its other end wall an ignited mixture of atomized oil and air for producing therein a flame at the end of said chamber adjacent said nozzle for heating the perforated wall portions to incandescence, the air of said mixture constituting substantially the only air admitted to said chamber, the chamber at its end adjacent the nozzle having imperforate means for receiving said ignited mixture and discharging flame therebeyond toward a part of said chamber having such perforations in its said lateral wall, the last mentioned means presenting an interior surface so shaped and positioned as laterally to surround the flame and be contacted and heated to incandescence thereby and deflect the flame inwardly toward the axial line of said chamber to cause flame discharged from such means to be of such pattern that it is continuously in out-of-contacting relation with said lateral wall and the end wall of said chamber opposite said nozzle, the flame pattern that would be produced in absence of said last mentioned means being such that the flame would contact a perforated portion of said lateral wall.

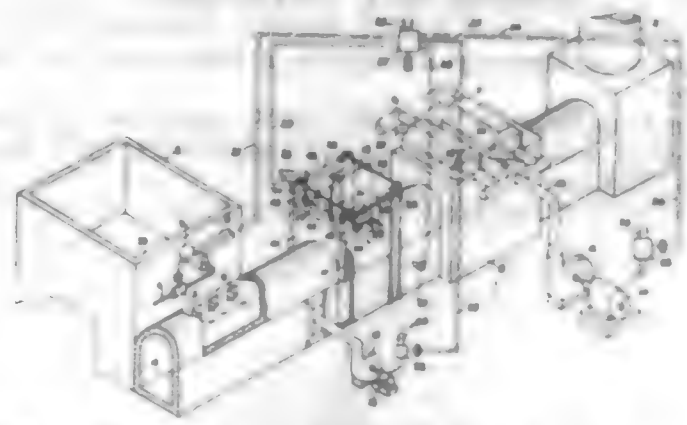
2,869,627

RECUPERATIVE FURNACES

William A. Morton, Mount Lebanon and Alfred Augustine, Dormont, Pa.

Application March 14, 1955, Serial No. 493,892
8 Claims. (Cl. 158—4.5)

1. In an industrial furnace having burner means arranged to deliver fluid fuel for combustion in the furnace, a stack, a flue system for the hot products of combustion leading from said furnace to the stack, a recuperator arranged between the furnace and the stack in the path of the hot products of combustion flowing from the furnace through said flue system, means effective between the furnace and the recuperator for tempering the hot products of combustion flowing in the flue system, an electrically driven blower for propelling combustion air through said recuperator, a duct for delivering preheated combustion air from the recuperator to said furnace, a thermal shield normally sustained in withdrawn position in said flue at a point between said furnace and said recuperator, an air inlet having a valve



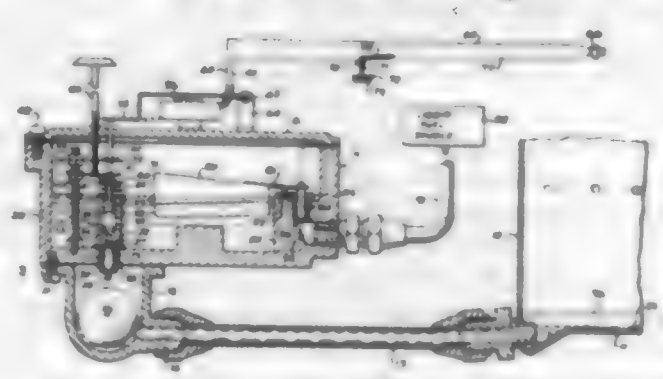
normally positioned to obstruct flow of air from the outer atmosphere into said flue system at a point between said furnace and said recuperator, means for moving said thermal shield from withdrawn position and for opening said air valve from flow-obstructing position, and means responsive to an excessive temperature in said flue system for actuating said last-mentioned means.

2,869,628

SAFETY FEED CONTROL FOR LIQUID FUEL

Jack C. Kuykendall, Charlotte, N. C.

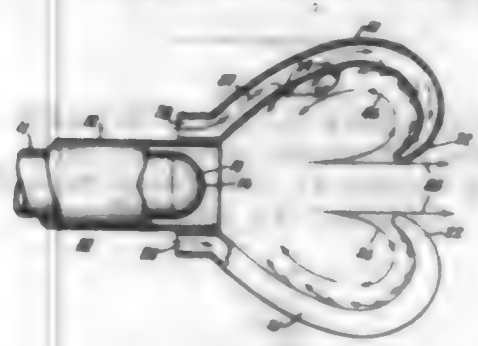
Application August 11, 1954, Serial No. 449,192
1 Claim. (Cl. 158—38)



In a feed system for a liquid fuel burner having a primary float chamber, means for delivering fuel into the primary float chamber, and means for maintaining the fuel in the primary float chamber on a predetermined level; the combination therewith of a burner, a secondary float chamber disposed beneath the primary float chamber and having its bottom wall portion disposed on substantially the same level as the bottom of said burner, conduit means extending from the lower portion of the secondary float chamber to the lower portion of said burner, a valve mechanism disposed in said primary float chamber above the secondary float chamber, a float loosely disposed in the secondary float chamber, said valve mechanism including a housing having a vertically extending bore in its lower portion and being constricted adjacent the upper portion of said bore to form a valve seat, an elongated safety valve member loosely disposed in said bore, means closing the lower end of said bore, said valve member having a reduced stem portion slidably penetrating said closure means and projecting downwardly beyond the closure means and normally being spaced above said float and out of engagement therewith, at least one passageway establishing communication between the bore and the secondary float chamber, means for metering fuel from the primary float chamber through said constriction and thence through the bore and passageway into the secondary chamber whereby, upon a given amount of fuel being present in the burner and the secondary float chamber, the float is elevated thereby to engage the stem

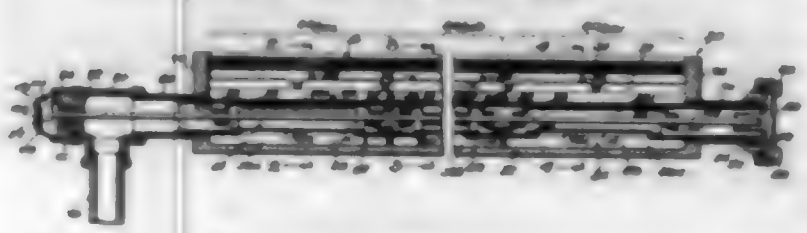
portion of the safety valve and to move the safety valve upwardly into engagement with the valve seat to prevent additional fuel from entering the secondary float chamber.

2,869,629
BURNER ASSEMBLY
Anthony J. Nerad, Alplaus, N. Y., assignor to General Electric Company, a corporation of New York
Application December 8, 1955, Serial No. 551,935
3 Claims. (Cl. 158—73)



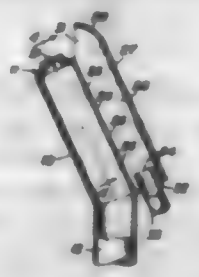
1. A burner assembly comprising a hollow, substantially cylindrical casing having an inlet and an outlet, a fuel tube spaced coaxially within said cylindrical casing, a closed outlet end on said tube, said closed end having a central aperture therein and spaced inwardly from the outlet of said cylindrical casing whereby a fuel air stream is ejected from said outlet for ignition thereof, a hollow strip member positioned adjacent the outlet of said cylinder to extend therefrom in a general radial and axial direction and curving inwardly toward the longitudinal axis of said cylindrical casing to form a lip surface facing the outlet of said casing, said lip surface intercepting a portion of the burning fuel air mixture for redirection along the lip surface to the casing outlet, said hollow strip members defining an air passage therein, and a plurality of louvres on the said lip surface to provide a vortical air stream for the redirected portion of the burning fuel air mixture.

2,869,630
GAS BURNER WITH SELECTIVE FLAME DISTRIBUTION
John H. Flynn, New Rochelle, N. Y.
Application April 28, 1954, Serial No. 426,141
7 Claims. (Cl. 158—105)



1. A gas burner having provision for selective flame distribution along its extent, comprising an elongate, generally tubular burner casing having side and end walls defining a longitudinal channel, a slot comprising a burner port formed in one side wall and extending substantially the full length thereof in communication with said channel, transverse partitions in said channel dividing the same into sections, said partitions and end walls being provided with axially aligned apertures, separable closure means at each end of said burner casing, said means being tubular and being secured in the respective end wall apertures in said casing to form a gas-tight fit therewith, a separable tubular gas conduit extending completely through said longitudinal channel and into the tubular closure means at each end of said casing, said conduit being received in close fitting telescoping relation within said closure means at each of its ends and forming a close sliding fit with said aligned partition apertures intermediate its ends, one of said end closure means having provision for supplying fuel gas to said conduit, said conduit having an outlet port formed in each of said channel sections, and valve means comprising a single control member extending through said conduit into supporting engagement with each of said end closure means, said control member having port-closing means disposed within said conduit adjacent each of said conduit outlet ports, respectively, which are movable simultaneously by said member into selected positions in which different single and combined conduit ports are opened and closed to said channel sections to provide selective flame distribution, said control member projecting through one of said closure members and provided with sealing means thereat to prevent escape of gas but permitting manual adjustment of said control member externally of said burner casing.

2,869,631
GAS BURNER ASSEMBLY
John S. Zink, Tulsa, Okla., assignor to John Zink Company, Tulsa, Okla., a corporation of Delaware
Application March 28, 1956, Serial No. 574,471
5 Claims. (Cl. 158—115)

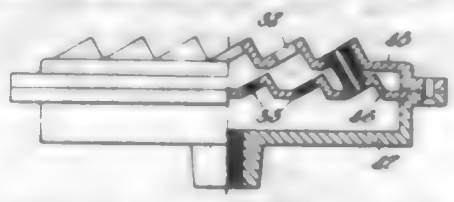


1. A gas burner assembly providing a pilot for operation at elevations above grade levels and exposed to weather conditions and wind currents from different directions comprising, an elongated cylindrical burner head with its axis disposed at an acute angle with respect to a vertical position, means for guiding a gaseous fuel mixture under pressure into a lower end of said head, a tip portion at the upper end of the burner head having a discharge opening therein for the escape of a major portion of the fuel mixture in a direction along the axis of the burner head, an elongated hood member U-shaped in transverse cross section with its legs connected to circumferentially spaced portions of the periphery of the burner head to provide a chamber along the length of the burner head closed along sides thereof, said burner head having a plurality of weep ports spaced lengthwise therealong for the discharge of a minor portion of the fuel mixture therethrough into said chamber, said hood member terminating adjacent said tip portion and having an open upper end, an arcuate wall formation on the upper end of said hood member extending beyond the tip portion and converging towards the axis of said discharge opening, said hood member having an open lower end defined by the periphery of the burner head and the legs of the hood member, and a pipe extending into a lower end of the hood member partially closing the area between the periphery of the burner head and the hood member.

2,869,632
PRESSURE GAS BURNERS
Paul Bornkessel, Essen, Germany, assignor, by mesne assignments, to Paul Bornkessel, Essen, Germany
Application February 9, 1953, Serial No. 335,750
5 Claims. (Cl. 158—116)

1. In a multi-flame pressure gas burner, more particularly for industrial purposes, the combination of a casing provided with a plurality of circular openings in one of its walls, a partition within the casing disposed opposite of and substantially parallel to said casing wall containing the circular openings, said partition being provided with

bores coordinated to said circular openings and lying in axial alignment therewith, each of said bores having a double nozzle tightly inserted therein from the side directed towards the circular openings of the burner casing and extending with its free end into the associated openings of the casing, each of said double nozzles comprising a central duct extending up to the end of the nozzle and a small annular duct surrounding the central duct up to its end and communicating therewith by means of small bores provided in the wall of the central duct at a substantial distance from its outer end, said partition dividing said casing into two chambers, the one of which containing said circular wall openings and said double nozzles and serving as a chamber for compressed air to be supplied thereto, the other chamber serving as a chamber for compressed gas and being provided with means for supplying a gas-air-mixture under high pressure thereto, said circular wall openings of the burner casing embracing the outer ends of said double nozzles with a small annular orifice therebetween and forming the flame



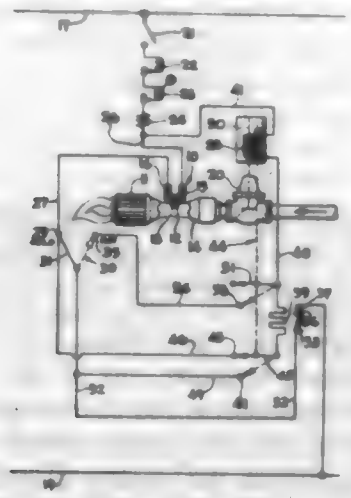
holes of the burner casing, each flame hole thus comprising a central hole for supply of the flame with high pressure gas-air-mixture, a small coaxial inner annular slit surrounding the central hole and serving for the supply of the flame with low pressure gas-air-mixture, and a coaxial outer annular slit for supply of the flame with secondary compressed air by means of a cylindrical air stream surrounding the low pressure flame, said double nozzles comprising an outer sleeve-like nozzle tube provided at its end adjacent to the partition with an internal flange surrounding the inner nozzle tube, the latter being provided at its inner end with an external thread and with an external flange fitting into said outer nozzle tube, said external thread of the inner tube extending through the internal flange of the outer tube and into said partition of the burner casing, and said external flange of the inner tube overlying the internal flange of the outer tube when the external thread of the inner tube is screwed into the bore of the partition for clamping the tubes together to the partition of the burner casing with sealing clamping pressure.

2,369,633

PILOTLESS IGNITION DEVICE AND SYSTEM FOR THE SAFE IGNITION OF GASES AND VAPORS

Willard Arthur Schaaf, Coloma, and Lewis Edward Simes II, Lawrence, Mich., assignors, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware

Application July 18, 1955, Serial No. 522,559
11 Claims. (Cl. 158—128)



1. In a safety gas burner ignition system including a gas burner, a gas burner valve on the supply side of said burner, a solenoid energizable to open said valve, an energizing circuit for said solenoid, and a parallel energizing circuit having two normally engaged arcing contacts in the gas stream through said gas burner, bimetal means for separating said contacts, to effect an arc, said contacts being connected across the energizing circuit and shorting said solenoid out of the energizing circuit when in their normally engaged position and separating by heating said bimetal means by the heat of the short circuit to effect an arc and effect the energization of said solenoid to open said burner valve.

2,369,634

AUTOMOBILE WINDOW SCREEN

Laureo P. Bourgoin, Amesbury, Mass.

Application October 23, 1956, Serial No. 617,723
1 Claim. (Cl. 160—40)



In an automobile window screen unit, a pair of frame members, interengaging guide flanges secured to the inner sides of the frame members slidably interconnecting said frame members at their inner sides for adjustment parallel to each other, each frame member comprising rigid marginal elements of U shape cross section, spaced groups of inturned serrations on the inner edges of said marginal elements, said groups being in staggered opposing coplanar relationship with respect to each other, respective foraminous screen panels having their marginal portions clampingly received in said marginal U-shaped elements between said opposing groups of serrations, respective outwardly projecting resilient strip elements disposed around the outer portions of the frame members, the resilient strip element at the top of the frame members having a convexly curved edge and the resilient strip element at the bottom of the frame members having a concavely curved edge, spaced integral finger members on the strip elements disposed adjacent the edges of the frame members, and respective pairs of convergent opposed prongs on the edges of the frame members embedded in said finger members.

2,369,635

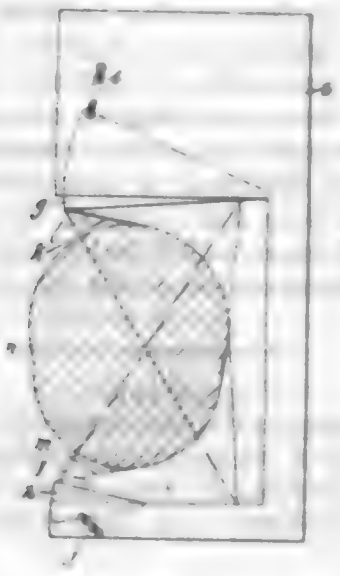
AIRCRAFT HANGAR DOORS

Kenneth Hamilton Cubitt and James William Leonard, London, England, assignors to The Educational Supply Association Limited, London, England

Application June 13, 1957, Serial No. 665,425
2 Claims. (Cl. 160—118)

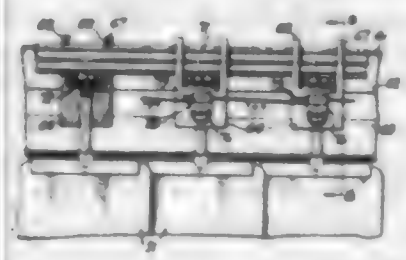
1. In a door closure for an aircraft hangar of the kind referred to with which is associated gap closing means comprising a pair of frames slidable in parallel planes closely adjacent to the adjacent edges of adjacent door sections, the provision of a notch in each frame in which are disposed in partly overlapping relationship a pair of flexible membranes of generally triangular form, one edge of each of which membranes faces outwards of said notch and stretching means coacting with each pair of flexible members tending to stretch said membranes into flat form, the arrangement being such that as the frames are moved towards each other and towards the respective sides of an aircraft fuselage resting across the hangar

threshold, the upper and lower portions of said outwardly facing edges of the respective membranes on each



panel will wrap around the corresponding contacted parts of the fuselage surface so as substantially to close the gap around said surface.

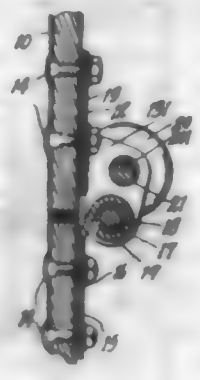
2,869,636
VERTICAL VENETIAN BLIND
Karl A. Klenz, San Anselmo, Calif.
Application February 8, 1955, Serial No. 486,828
4 Claims. (Cl. 160—168)



1. In a vertical Venetian blind, an elongated horizontal support member, a plurality of mounting blocks slidably carried by said support member for longitudinal movement relative to said support member, a horizontal toothed shaft rotatably carried by said support member, means slidably connecting said blocks to said shaft for movement longitudinally of the shaft, a vertical shaft rotatably mounted in each of said blocks and rotatable about an axis at right angles to the axis of rotation of said toothed shaft, a vertical slat carried by each of said vertical shafts, a bevel gear connected to each of said vertical shafts and underlying the toothed shaft, each of said bevel gears being inclined from the horizontal so that only a predetermined number of teeth engage the toothed shaft whereby upon rotation of said toothed shaft said bevel gears and the vertical slats connected thereto will be rotated.

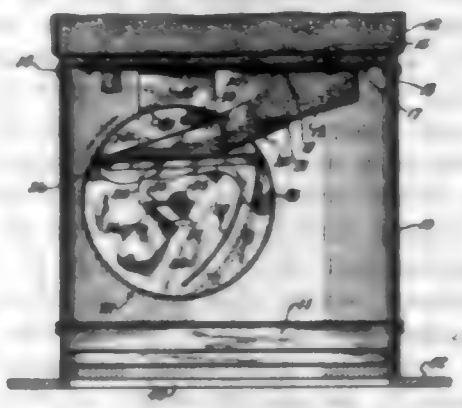
2,869,637
UPWARDLY ACTING DOOR ASSEMBLY
Clifford A. Schacht, Jr., Hartford City, Ind., assignor to Overhead Door Corporation, Hartford City, Ind.
Application April 25, 1955, Serial No. 503,767
3 Claims. (Cl. 160—201)

3. The combination in an upwardly acting door assembly including a track comprising an upright section, a horizontal section and a curved intermediate section merging into said upright and horizontal sections, and a door comprising a plurality of panels, of a first hinge member mounted on the inner side of the lower edge of the upper panel of a pair of adjacent panels considered from the relative position of the panels when the door is closed, said first hinge member having a pintle thereon disposed in inwardly spaced relation to the plane of the inner side of the upper panel and in the plane of the lower edge thereof, a second hinge member mounted on the inner side of the lower panel and provided with a knuckle engaging the said pintle of the first hinge mem-



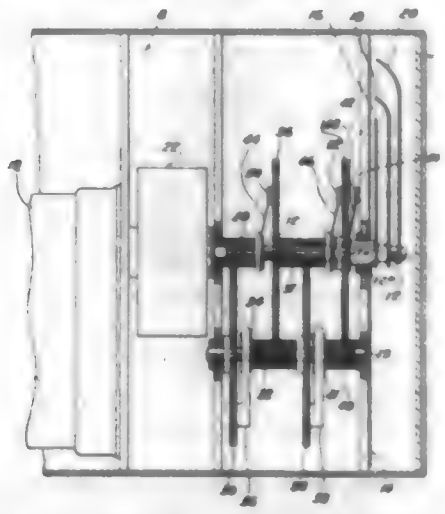
ber, and a track roller mounted on said first hinge member with its axis substantially above and inwardly spaced relative to said pintle whereby the upper edge of the lower panel of the pair is not substantially projected above the path of the lower edge of the upper panel as the track roller traverses the curved intermediate track section onto the horizontal track section, and vice versa.

2,869,638
AUTOMATIC FEEDER FOR VERTEBRATA
Donald L. Sullivan, Oshkosh, Wis.
Application April 2, 1956, Serial No. 575,519
7 Claims. (Cl. 161—10)



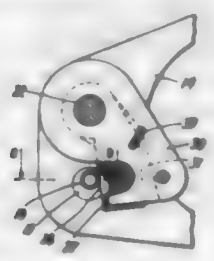
1. An automatic batch feeding device for Vertebrata and the like, comprising a feed hopper, a rotary bucket mounted therebelow on a horizontal axis and formed with a feed batch-receiving pocket opening through a peripheral portion of the bucket, a feed batch chute depending from the hopper to register with the pocket of the rotary bucket when the latter is positioned with the pocket opening adjacent the top of the circular path of travel of the bucket, a gate pivotally connected with the chute and operated by movement of the bucket to control the flow of feed from the chute into the bucket pocket, said gate being movable from a chute opening position to a chute closing position, the contents of the bucket pocket being discharged and disbursed when the bucket is turned toward a reverse position to direct the pocket opening downwardly, and clock mechanism releasably engageable with the bucket to turn it one revolution in a predetermined time period, said mechanism being temporarily disengageable from the bucket following loading of the pocket whereby gravity will cause rapid movement of the bucket to its pocket discharging position where it remains until it is subsequently engaged by the clock mechanism for positive rotation to the pocket loading position.

2,869,639
STOP CLOCK RESET MECHANISM
John J. Ambrozaitis, Waterbury, Conn., assignor, by mesne assignments, to Consolidated Electronics Industries Corp., Jackson, Mich., a corporation of Delaware
Application July 8, 1954, Serial No. 442,061
4 Claims. (Cl. 161—15)



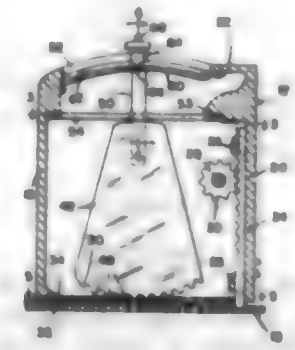
1. A reset mechanism for a stop clock comprising a reversible motor, two pointer shafts, means operatively connecting one pointer shaft to said motor, one of said pointer shafts being hollow and having the other pointer shaft positioned concentrically therein, a gear assembly mounted on each of said pointer shafts, a dial face plate having an aperture therein, one end of each of said pointer shafts projecting through said aperture, a pointer mounted on said one end of each of said pointer shafts and in front of said dial face plate, a secondary shaft spaced from said pointer shafts, a pinion and gear assembly mounted on said secondary shaft and operatively connected to said gear assemblies of both of said pointer shafts, at least one locking element for each of said pointer shafts, a reset arm operatively attached to each of said pointer shafts and so constructed and arranged that when said pointer shafts rotate in one direction said reset arms pass over said locking elements and when said pointer shafts rotate in an opposite direction said reset arms engage said locking elements to rotate said pointers together and return them only so far as their starting positions where they are in effect in locked condition, against further movement, by the locking elements, said operative connection between said pinion and gear assembly on said secondary shaft and the gear assembly on one of said pointer shafts including a friction member mounted to engage the face of a gear of said pinion and gear assembly and said last mentioned gear assembly, and means to provide lost motion between said motor and the pointer shaft to which the motor is operatively connected when said motor is operating against said locked condition of the pointers.

2,869,640
TRAVELLING WIRE COIL CUTTER
Stephen A. Platt, Grand Haven, Mich.
Application April 5, 1954, Serial No. 421,015
10 Claims. (Cl. 164—43)



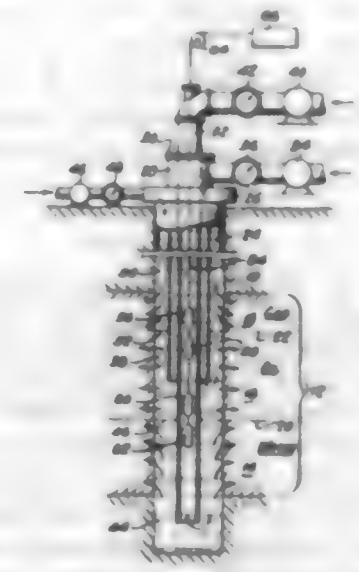
1. A cutter for a wire coil which travels lengthwise while rotating about its axis, said cutter including a support for transversely supporting one side of the coil, a reciprocating blade having a sharp edge, and means for advancing said blade with an initial force which is insufficient to deform or cut said coil but is sufficient to cause said edge to feel its way between the coil's convolutions at said opposite side which force then increases so as to advance said edge through the coil to said supported side and cause said edge to cut said coil at said supported side thereof, said means comprising an element having means for moving it to advance said blade with said increased cutting force, means for interconnecting said element and blade with a lost motion therebetween, and an elastic means resisting said lost motion with said initial force.

2,869,641
APPARATUS FOR PUNCHING CARDS
Ross A. Miesel, Detroit, Mich.
Application October 22, 1956, Serial No. 617,367
7 Claims. (Cl. 164—111)



1. Apparatus for punching cards comprising a base having a series of aligned spaced recesses therein, a support mounted for movement toward and away from said base, and a punch member carried by said support, said punch member having an arcuate series of spaced projections respectively registrable with said recesses, said punch member being rockable relative to said support to different positions of adjustment, a different projection extending into the corresponding recess in each position of adjustment of said punch member upon movement of said support toward said base to punch a hole in a card supported on said base in overlying relation to said recesses.

2,869,642
METHOD OF TREATING SUBSURFACE FORMATIONS
Alexander S. McKay, Bellaire, Tex., and Edmond F. Egan, New Orleans, La., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
Application September 14, 1954, Serial No. 456,002
9 Claims. (Cl. 166—4)



1. The method of rendering more uniform the permeability of the sections including too permeable sections and lesser permeable sections making up a predetermined

formation traversed by an uncased well bore hole, each of said sections having upper and lower boundaries, which comprises pumping a first stream of treating fluid into said bore hole to a depth approximately opposite the section into which it is desired to inject said fluid, said fluid being selected from the group consisting of acidizing fluids and plugging agent fluids having the property of changing the permeability of said section, simultaneously pumping second and third streams of fluid of a different character into said bore hole above and below the first-named fluid thereby producing interfaces between the body of the first-named fluid and the said second and third fluids respectively, locating said interfaces and controlling the pumping rates of the three fluid streams so as to maintain said interfaces substantially opposite the upper and lower boundaries of said section, then changing the depth of the point of introduction of said treating fluid while simultaneously introducing said second and third fluids respectively above and below the treating fluid to establish interfaces at new locations to alter the permeability of another section and repeating said steps to thereby decrease the permeabilities of the too permeable sections while increaisng the permeabilities of the lesser permeable sections so that the permeabilities of the formation sections will be rendered more uniform.

2,869,643

TREATMENT OF OIL AND GAS WELLS

Albert G. Schuessler and Charles B. Swain, Oklahoma City, Okla., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application March 25, 1957
Serial No. 647,955
6 Claims. (Cl. 166—42)

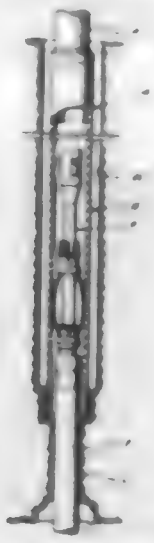
1. In a method of improving the permeability of oil or gas bearing subterranean formations by hydraulic fracture, the improvement which comprises: slowly forcing into the formation a mineral oil having dissolved therein a composition comprising an alkali salt of sulfated sperm oil as the major active ingredient and lead petroleum sulfonate as a minor ingredient; allowing the treating fluid to remain in contact with the formation for a period of time; reversing the flow of the treating fluid for removal of water as a low viscosity water-in-oil emulsion from the formation; pumping a fracturing fluid into the formation; and applying pressure to said fracturing fluid whereby to fracture the formation.

2,869,644

WASHOVER TOOL FOR USE IN WELLS

Cicero C. Brown, Houston, Tex.

Application May 31, 1955, Serial No. 512,197
7 Claims. (Cl. 166—103)



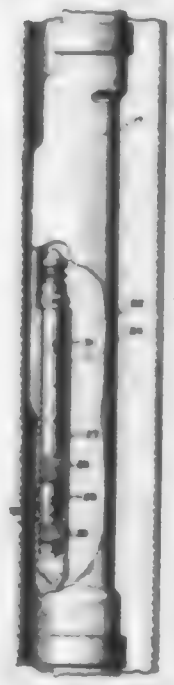
1. A washover tool for use in a well to release objects stuck therein, comprising, an elongate washover pipe having a bore adapted to receive an object stuck in a well as the washover pipe is worked downwardly about the object, a tubular mandrel movably disposed axially of said bore and connectible to said object, slip support means slidably mounted on the mandrel and having frictional engagement with the bore wall of the washover pipe, radially movable wedge slips mounted on the slip support means, slip expander means mounted on the mandrel expandibly engageable with the slips in response to relative axial movement toward each other of the slips and the expander means to move said slips into wedging engagement with said washover pipe whereby to secure the washover pipe against upward movement relative latch means carried by the slip support means and operable upon manipulation of the washover pipe to releasably position the slips below the point of wedging engagement with the slip expander means, and releasable means carried by the washover pipe arranged to initially hold said slips in wedged engagement between the slip expander means and the washover pipe to thereby initially anchor the mandrel to the washover pipe.

2,869,645

APPARATUS FOR CONTROLLING THE FLOW OF FLUIDS IN A MULTI-STRATA WELL

Richard O. Chamberlain, Cuyana, and Charles E. Wakefield, Jr., Bakersfield, Calif., assignors to Richfield Oil Corporation, Los Angeles, Calif., a corporation of Delaware

Application December 8, 1954, Serial No. 473,782
4 Claims. (Cl. 166—185)



2. An apparatus for controlling the flow of fluid between a plurality of vertically spaced formations and a pipe string within a well bore which comprises a pipe string in the well, packing means forming seals between the pipe string and the well at a plurality of vertically spaced points in the well to segregate a plurality of formations, a laterally enlarged tubing section in the pipe string between said packing means and adjacent each of a plurality of said formations, a flow control member socket in said laterally enlarged sections, said sockets being in communication with the bore of said pipe string and having an opening communicating externally of said pipe string and with the adjacent formation, a flow control member having an internal bore and removably disposed in each of the plurality of flow control member sockets, said flow control members being adapted to be removed and inserted in said flow control member sockets by a well tool insertable into said pipe string, said sockets being laterally offset from the vertical axis of the pipe string sufficient to permit the raising and lowering of said flow control members through the pipe string and past flow control member sockets in overlying enlarged sections, a first opening in said flow control mem-

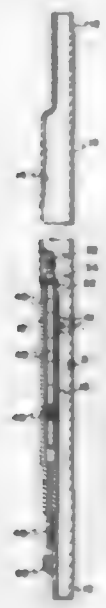
bers communicating with the bore of the respective flow control member and the bore of said pipe string, a second opening in said flow control members displaced from said first opening and communicating with the bore of its respective flow control member and the opening in its flow control member socket communicating externally of said pipe string and with the adjacent formation, flow preventing means disposed between the respective flow control member sockets and flow control members intermediate the first and second openings in the flow control members, a removable member positioned in the bore of the respective flow control members between the said first and second openings and having a restricted orifice of predetermined size smaller than the bore of its respective flow control member to provide a desired rate of flow between the pipe string and the respective formations, and means to sealingly separate the internal portion of the flow control member sockets communicating with said second openings from fluid communication with the bore of said pipe string except through said orifice members.

2,869,646

FLOW CONTROL APPARATUS

Richard O. Chamberlain, Cayama, and Charles E. Wakefield, Jr., Bakersfield, Calif., assignors to Richfield Oil Corporation, Los Angeles, Calif., a corporation of Delaware

Application February 18, 1955, Serial No. 489,246
3 Claims. (Cl. 166—185)



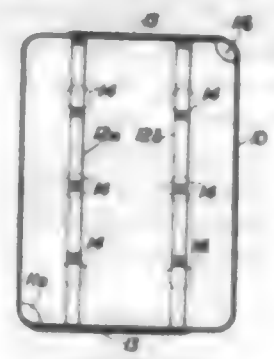
1. Apparatus of the type described comprising a pipe section having a through bore and having a laterally enlarged portion intermediate the ends of said section, a tubular valve seat in said laterally enlarged section, said valve seat being in communication at an upper portion with the bore of said pipe section and having an opening in a lower end portion communicating externally of said pipe section, a flow-restrictive bored valve means removably disposed in said valve seat, said valve means being adapted to be removed and inserted in said valve seat by a well tool insertable into said pipe section, said valve means, valve seat and laterally enlarged portion of said pipe section being proportioned to enable the valve means to pass through said pipe section bore, an opening in an upper portion of said valve means communicating with the bore of said valve means and the bore of said pipe section, an opening in a lower portion of said valve means communicating with the bore of said valve means and the opening in a lower portion of said valve seat, flow preventing means disposed between the valve seat and valve means intermediate the upper and lower openings in the valve means, means to sealingly separate the valve seat below said flow preventing means from direct communication with the bore of said pipe section and a check valve means external of said pipe section and communicating with the opening in a lower end portion of said valve seat, said check valve means adapted to permit flow through said tubular valve means and through said opening in the lower portion of said valve seat.

2,869,647

MEANS FOR DETECTING AND SUPPRESSING EXPLOSIONS

Anders Mathisen, London, England, assignor of one-half to Graviner Manufacturing Company Limited and one-half to The Wilkinson Sword Company Limited, both of London, England, companies of Great Britain

Application April 6, 1954, Serial No. 421,302
Claims priority, application Great Britain April 9, 1953
5 Claims. (Cl. 169—4)



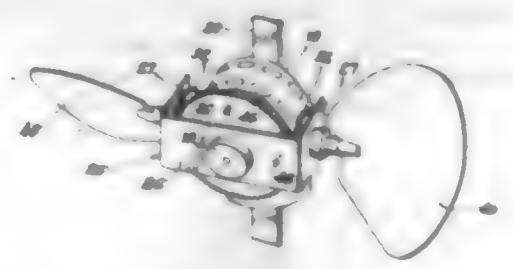
1. Explosion suppression apparatus, comprising a photo-multiplier adapted to produce an electric signal when exposed to the illumination from an incipient explosion, amplifying means connected to said photo-multiplier for producing an amplified current from said signal, and a liquid suppressant distributor having a frangible liquid containing portion, said distributor having electrically ignitable explosive means electrically connected to said amplifying means and adapted to be ignited by said amplified current for shattering said container and projecting the liquid at an initial velocity in excess of 150 feet per second.

2,869,648

VENTILATING FAN WITH REVERSIBLE PITCH BLADE

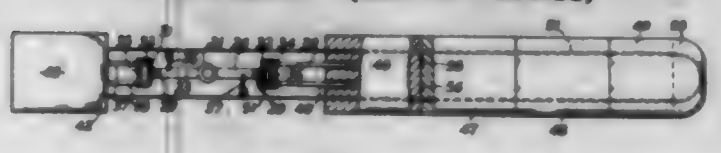
Hadley C. Pihl, Hinsdale, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York

Application August 9, 1956, Serial No. 603,078
1 Claim. (Cl. 170—160.1)



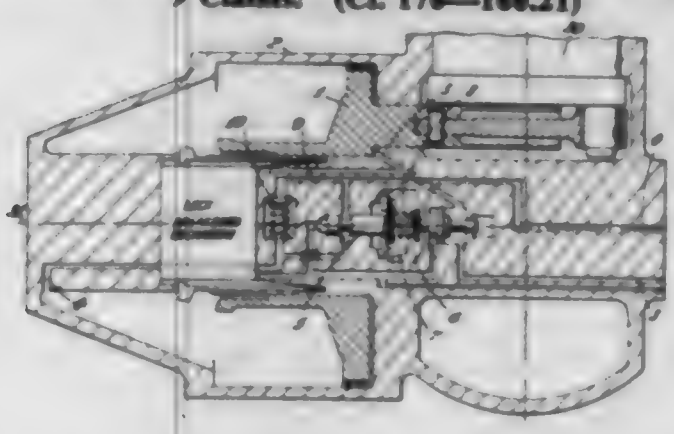
In a device especially suitable for use as a ventilating fan, the combination with a reversible motor having a drive shaft, of a U-shaped spider rotatably mounted on said drive shaft, said spider having a pair of opposed arm portions joined by an intermediate web portion, a propeller blade rotatably carried by each of said arm portions, each blade having a propeller shaft extending through an arm portion and a propeller gear disposed on each propeller shaft between the arm portion and motor, a drive gear fixed to said drive shaft between the motor and said web portion and drivingly engaging said propeller gears, and mutually engageable stop members disposed respectively on the outer face of the drive gear and on the inner face of said web portion, whereby the spider may be driven in reverse directions.

2,869,649
HELICOPTER ROTOR
Horst Dieter Lux, Brighton, England, assignor to Murdo Mackenzie
Application April 7, 1953, Serial No. 347,235
15 Claims. (Cl. 170—160.11)



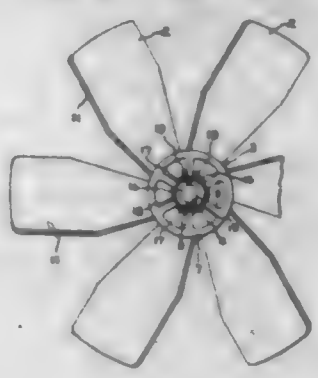
1. A rotor for helicopters and the like, comprising a plurality of counterbalanced blades rotatable about a central axis, each of said blades being subdivided into a plurality of separate sections including a root section, a tip section and an intermediate section, means connecting said sections and constructed and arranged with relation to said sections to enable said sections of each blade to be moved from an aligned abutting condition into a longitudinally spaced relation and then rearranged in superimposed relation with said intermediate section located between said tip and root sections, and to enable said rearranged sections to move from said superimposed relation back into longitudinal alignment with the opposed ends of such sections in abutting engagement, said connecting means including rigid means supporting the root section of each blade for slidable movement radially of said central axis, and constructed and arranged relative to such root section to prevent angular displacement of the latter relative thereto, and including detachably engageable locking means on the opposed ends of adjacent sections of each blade and interengageable during the movement of such sections from said superimposed relation to said longitudinal alignment to prevent relative angular displacement of such aligned sections under twisting forces.

2,869,650
PITCH LOCK VALVE FOR HYDRAULIC VARIABLE PITCH PROPELLERS
Leonard Gaskell Fairhurst and Ellis Danvers, Gloucester, England, assignors to Rotol Limited, Gloucester, England, a British company
Application May 3, 1956, Serial No. 582,486
Claims priority, application Great Britain May 5, 1955
9 Claims. (Cl. 170—160.21)



1. A variable pitch propeller comprising an hydraulic double acting pitch change motor actuable by hydraulic fluid under pressure to adjust the pitch of the propeller, coarse pitch fluid conduit means for leading hydraulic fluid under pressure to said pitch change motor to actuate the motor in the sense to adjust the propeller towards coarse pitch, fine pitch fluid conduit means for leading hydraulic fluid under pressure to said pitch change motor to actuate the motor in the sense to adjust the pitch of the propeller towards fine pitch, a normally open lock valve in said coarse pitch fluid conduit meant, closing means operatively connected with said lock valve for closing the lock valve in response to the attainment of a propeller speed in excess of a predetermined value, a by-pass conduit by-passing the lock valve, a non-return valve in said by-pass conduit, which non-return valve is arranged to close when the pressure on the pitch change motor side of the non-return valve exceeds that on the other side of the non-return valve, and adjusting means responsive to the difference between the pressure in the fine pitch fluid conduit means and drain pressure, said adjusting means being operatively connected to adjust said closing means to cause said closing means to close the lock valve at a propeller speed below the normal maximum propeller speed when said pressure difference falls below a predetermined value.

2,869,651
MOUNTING ARRANGEMENT FOR PROPELLER TYPE FAN
Stanley E. Ross, Lyndon, Ky., assignor to General Electric Company, a corporation of New York
Application June 25, 1957, Serial No. 667,940
1 Claim. (Cl. 170—173)

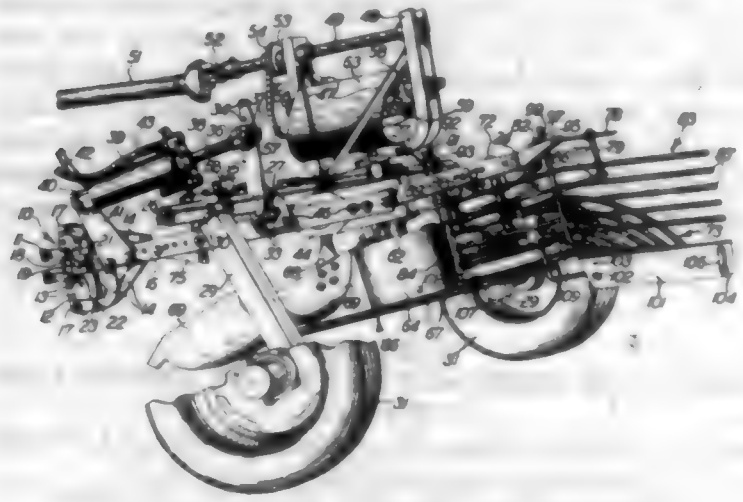


A fan comprising a hub having inner and outer cylindrical portions connected by a plurality of supporting ribs, a plurality of fan blades extending radially outward from said outer cylindrical portion and connected to said outer cylindrical portion with the leading edge of each blade opposite a supporting rib, a rotary drive shaft having a flat extending from the end thereof a distance along said shaft, said inner cylindrical portion arranged to fit loosely on said shaft and having a mating flat portion therein, a single cylindrical extension integral with and protruding axially from said inner cylindrical portion and also containing said mating flat portion therein, said cylindrical extension being divided into a plurality of sections by slots extending longitudinally from the end of said cylindrical extension toward said inner cylindrical portion so that each of said sections is integrally connected at one end with said inner cylindrical portion, said sections being resiliently movable in a direction normal to the axis of said hub to reduce the inner diameter of said cylindrical extension, and spring clip means for applying a pressure to the outer periphery of said cylindrical extension whereby said sections are moved into engagement with said shaft to prevent axial movement of said fan thereon.

2,869,652
ROOT CROP HARVESTER
Harry E. Kline and Stig O. Vifot, Racine, Wis., assignors to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application September 19, 1955, Serial No. 534,973
4 Claims. (Cl. 171—115)

1. In a potato crop harvester of the type mobile on the ground along a row of planted potatoes, the combination of a mobile harvester frame, a shovel attached to said frame and depending therefrom, a spinner rotatably mounted on said frame and including a plurality of spaced apart tines disposed in a plane slightly inclined upwardly to the rear with respect to the direction of harvester movement and disposed to extend immediately behind said shovel for receiving potatoes and their vines therefrom, and a roller mounted on said

harvester with the axis thereof disposed substantially radial to the axis of rotation of said spinner and par-



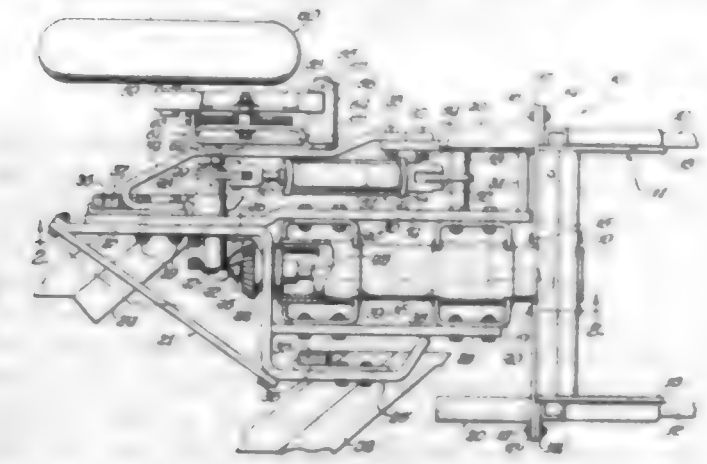
allel to the plane of rotation of said tines to said roller being in rolling contact with the latter.

2,869,653

GAUGE WHEEL FOR TWO-WAY PLOW

Hiram P. Smith, Chicago, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application November 14, 1955, Serial No. 546,684
7 Claims. (Cl. 172—212)



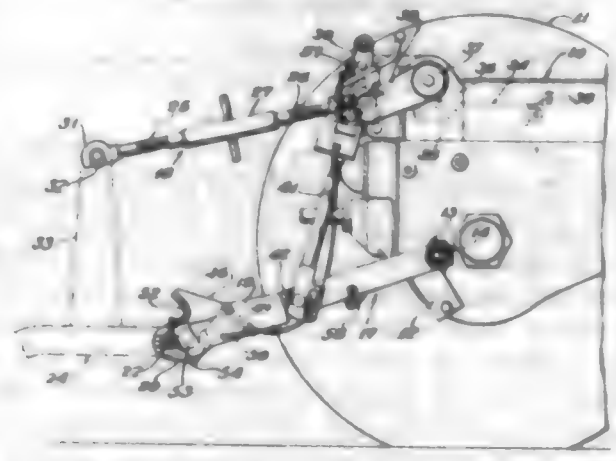
1. In a two-way plow including a tool-carrying frame movable between alternate operating positions for left and right hand plowing, a gauge wheel, and means for mounting said gauge wheel on the tool-carrying frame for movement to alternate positions corresponding to the positions of the tool-carrying frame, comprising a horizontal rockable axle mounted on said frame, a downwardly extending wheel-supporting arm mounted on said axle, said arm being vertically adjustable about the axis of said axle to vary the position of the wheel with respect to said tool-carrying frame, and means for adjusting said arm including a shaft on the frame parallel to said axle, a downwardly extending arm on said shaft, power operated means for rocking said shaft, means pivotally connecting said shaft arm to said axle arm at a location spaced from the respective axes of said axle and shaft, whereby power for rocking said shaft arm is transmitted to said axle arm to swing the latter to vertically move the wheel, means operable independently of said power operated means for varying the distance from the axis of said axle of the means pivotally connecting said shaft arm to said axle arm, whereby the vertical movement of the gauge wheel relative to the tool-carrying frame is varied, and means for adjusting the means pivotally connecting said shaft arm to said axle arm from a location adjacent the end of said shaft arm, where the greatest lever arm is provided for swinging said axle arm to a location substantially in alignment with the axis of said axle, where rocking of the shaft arm is ineffective to swing the wheel-carrying axle arm.

2,869,654

FAST HITCH FOR 3-POINT HITCH

Gordon L. Hershman, Chicago, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application October 5, 1956, Serial No. 614,304
6 Claims. (Cl. 172—272)



1. An implement attaching apparatus for a tractor including a draft link pivotally connected to the tractor and extending rearwardly therefrom and lift means connected to said link for vertically moving the latter to selected positions, said link having a forwardly opening recess therein adapted to receive a hitch element on the implement for transmitting draft thereto, a member pivoted on said draft link having a rearwardly opening recess therein above the recess in said link in the normal operating position of said member and terminating in an abutting wall engageable by said element upon backing the tractor to the implement, said member being swingable downwardly relative to said link to a position with said recesses in substantially horizontal alignment and in communication whereby said element is shifted to the recess in the draft link upon forward movement of the tractor, and means biasing said member to return to its normal operating position.

ERRATUM

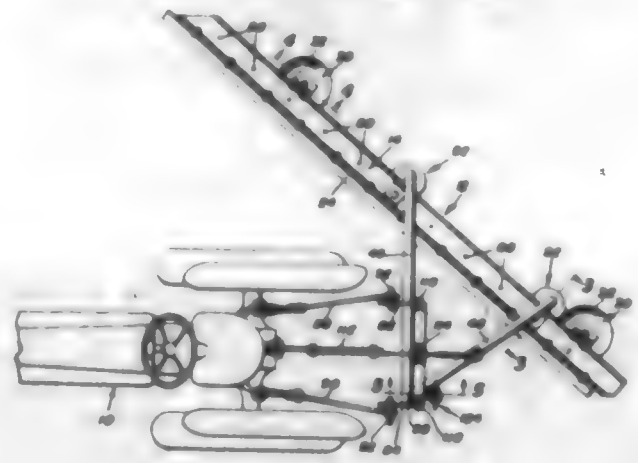
For Class 172–328 see:
Patent No. 2,869,305

2,869,655

TREE HOE

Charles E. Baggott and Franz A. Ulrich, Wauchula, Fla.

Application July 10, 1956, Serial No. 596,914
2 Claims. (Cl. 172—387)



2. A hoe attachment for a tractor for working ground beneath overhanging branches of trees, said hoe attachment comprising an elongated frame member, skids secured to said frame member for supporting said frame relative to the ground, said frame member having a forward edge, a scraper blade secured to said frame member and extending along said forward edge, support means carried by said frame member for securing said

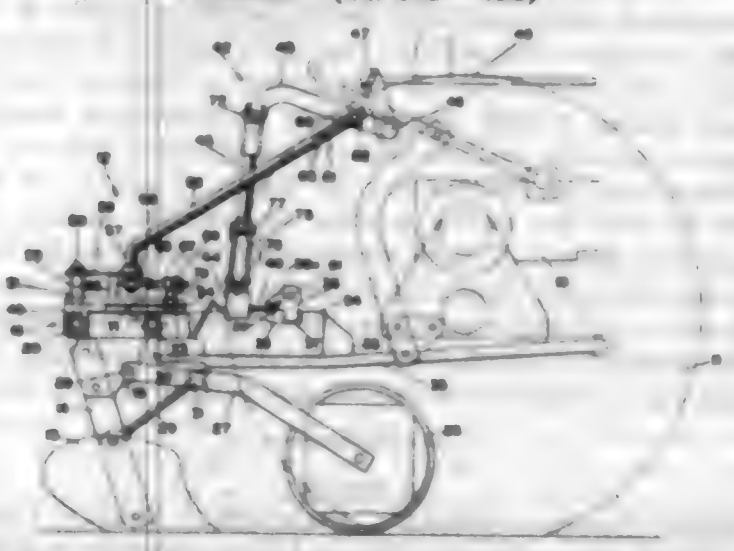
frame member to a tractor hitch, said frame member being in the form of a structural section having a forward vertical flange, a rear vertical flange and a horizontal web, said skids being secured to said rear flange, said blade being secured to said forward flange, said support means being secured to said web, said support means comprising a pair of support arms connected together in a V-arrangement, a hitch adapter assembly on said support arms, and connecting means releasably securing said support arms to said frame member, said connecting means including an inverted channel member seated in the under part of said structural member and releasably secured to said web.

2,869,656

CONTROL APPARATUS FOR AGRICULTURAL IMPLEMENT

Wylie A. Mason, Jr., Memphis, Tenn., assignor to International Harvester Company, a corporation of New Jersey

Application October 18, 1954, Serial No. 462,837
4 Claims. (Cl. 172—458)



1. The combination with a tractor of an implement connected to the tractor in draft-receiving relation for vertical movement relative thereto between operating and transport positions, comprising a tool-supporting frame, a tool mounted on said frame for lateral shifting relative thereto in a substantially straight line between two positions, lift means on the tractor, linkage connecting said lift means to the implement for raising and lowering the latter, motion transmitting means carried by said frame and operatively connected to said tool to laterally shift the latter upon actuation of said motion transmitting means, said motion transmitting means comprising a horizontal link pivotally mounted on said frame, means operatively connecting said link to said tool for shifting the latter in opposite directions in response to swinging said link in opposite directions, and a longitudinally movable actuating member pivotally connected between said lift means and said link and adapted to exert thrust rearwardly for shifting the latter and said tool upon operation of said lift means to raise the implement, the spacing between the connection of the actuating member to the lift means and the connection thereof to the implement through said link at the initiation of the lifting operation being decreased during lifting of the implement to effect said rearward thrust.

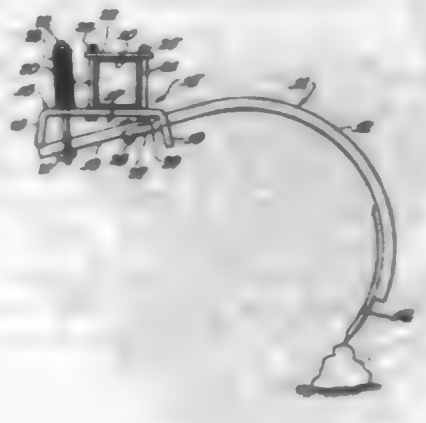
2,869,657

CULTIVATOR CLAMP

Clifford B. Harrop, Ancaster, Ontario, Canada, assignor to International Harvester Company, a corporation of New Jersey

Application July 12, 1954, Serial No. 442,623
6 Claims. (Cl. 172—710)

1. Mounting mechanism for attaching a tool shank to a traveling support, comprising a bracket secured to the support having longitudinally spaced forward and rearward transversely extending depending flanges, the rear flange having an opening therein conforming generally to the shape of the shank to slidably receive the latter and confine it against substantial vertical and lateral movement therein, the forward flange having an open end recess therein to receive the forward end of



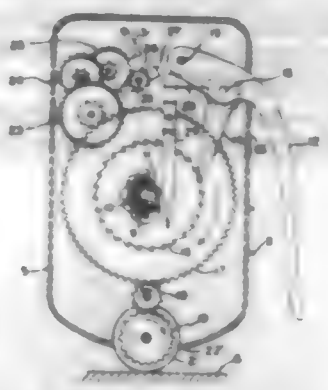
the shank and confine it against lateral movement while accommodating swinging thereof in a vertical plane about a pivot provided by the opening in the rear flange, means yieldably connecting the shank to the bracket to resist the swinging thereof, and a stop member secured to the shank between said flanges and engageable with one of them to prevent displacement of the shank from the bracket.

2,869,658

TRACTOR FOR CONTROLLING MOVEMENT OF THE HUMAN HAND

Wesley B. Drevitson, Alexandria, Va.

Application March 15, 1955, Serial No. 494,589
3 Claims. (Cl. 180—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



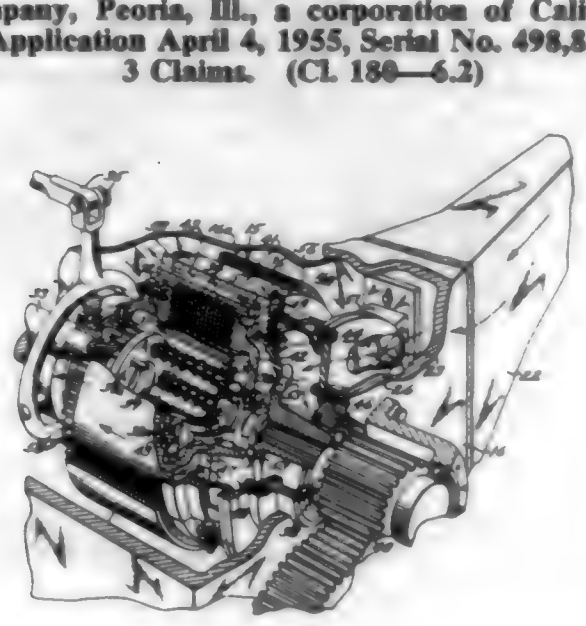
1. A manual, self-contained, self-propelled hand tractor for controlling hand movement along a surface, said tractor being of small size, whereby it may be gripped in the fist of an operator, said tractor comprising an outer casing, said casing having a bottom, said tractor comprising traction wheel means extending below said bottom whereby said wheel means can rest on said surface with said casing extending upwardly therefrom, a spring motor, means supporting said motor inside said casing, gearing mounted inside said casing connecting said motor and wheel means, whereby said motor can drive said wheel means, speed control means inside said casing for controlling the speed at which said motor drives said wheel means, said motor comprising a ratchet, a pawl operable for moving said ratchet to wind said motor, and a manually operable member connected to said pawl and capable of movement to operate said pawl, said member having a portion extending outwardly of an edge of said casing and adapted for said movement by said fist.

2,869,659

AIR COOLING FOR TRACTOR STEERING MECHANISM

Roy E. Mayo, Peoria, Ill., assignor to Caterpillar Tractor Company, Peoria, Ill., a corporation of California

Application April 4, 1955, Serial No. 498,838
3 Claims. (Cl. 180—6.2)



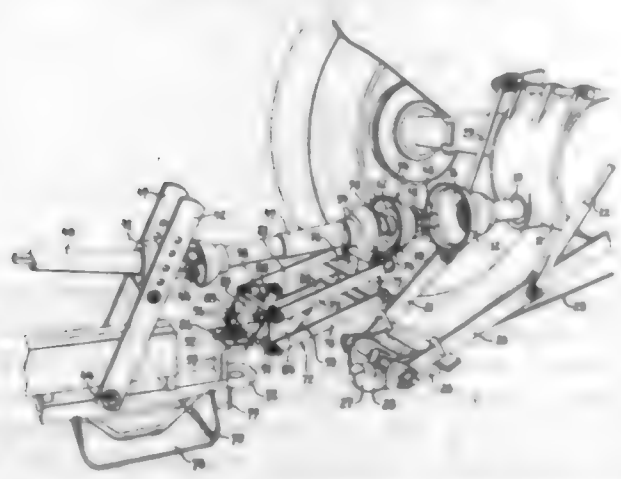
1. A tractor frame comprising a housing and transversely spaced forwardly extending hollow beam members for support of an engine, said housing containing drive mechanism and friction steering clutches in separate compartments, each clutch comprising a driving member and a driven member associated with said drive mechanism, said beam members being connected to said housing directly adjacent the clutch compartments, friction brake means associated with each driven member, passages formed in the body of each steering clutch, and a shroud associated with each clutch and joined with each hollow beam whereby air is conducted from the beams through the clutch to cool the areas adjacent the brake means.

2,869,660

AUTOMATIC COUPLING FOR POWER SHAFTS ON COUPLED VEHICLES

William G. Miller and Leonard M. Krause, Toronto, Ontario, Canada, assignors to Massey-Ferguson Inc., a corporation of Maryland

Application November 30, 1956, Serial No. 625,336
15 Claims. (Cl. 180—14)



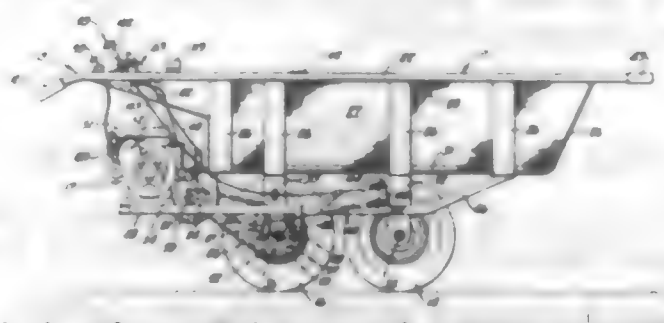
15. In combination, a tractor having a power take-off shaft extending rearwardly therefrom, including a first coupling member, an elevationally positionable latch element carried by said tractor, an implement having a latch element adjacent its forward end and adapted to be engaged by said positionable latch element for moving said implement between raised and lowered positions, a telescopic power shaft carried by said implement and having a front end extending in a forward direction in respect to normal implement travel, a second coupling member carried by said shaft front end adapted to engage said first coupling member so as to be driven thereby, linkage means secured to said implement and said power shaft for selectively holding the latter in a predetermined vertical and forward position in respect to said implement and permitting relative lateral swinging between said implement and said shaft front end.

2,869,661

SELF-PROPELLED TANDEM WHEELED CARRIER

Carmel G. Fernandez, Hayward, Calif.

Application January 31, 1956, Serial No. 562,384
4 Claims. (Cl. 180—19)



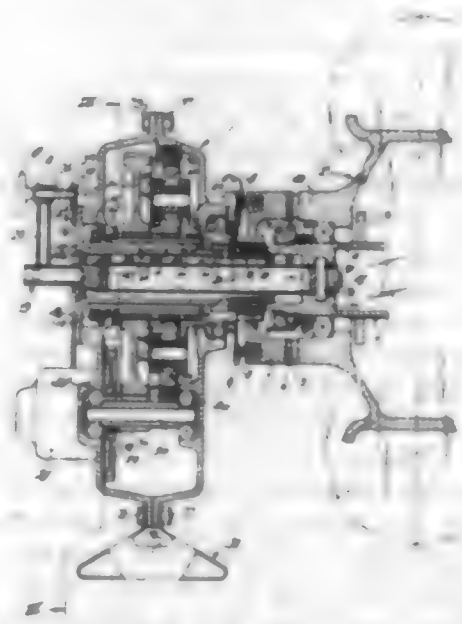
4. A self-propelled transporting device comprising, an elongated load-supporting frame having a handle at one end, a pair of wheels each having a central longitudinal plane and journalled on said frame in tandem relation, said planes of said wheels being positioned in laterally spaced parallel vertical relation on opposite sides of the longitudinal plane carrying the center of gravity of said device with the lateral spacing between the central longitudinal planes of said wheels being less than the tread width of said wheels and being longitudinally spaced apart by a distance less than the diameter of said wheels, and motor means on said frame having an operative connection to one of said wheels for driving said device.

2,869,662

DETACHABLE WHEEL ASSEMBLY DRIVE UNIT

Alfred L. Koup, Stepney Depot, Conn., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

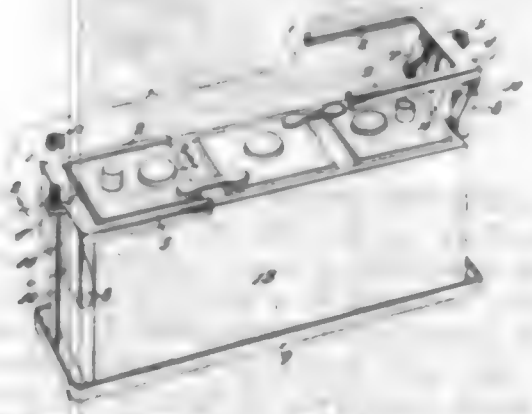
Application February 14, 1956, Serial No. 565,520
7 Claims. (Cl. 180—55)



1. In combination, a wheel assembly and a detachable drive means therefor comprising an axle having an axial bore therein, cam means carried in said axial bore in said axle, bearing means carried by said axle, wheel means carried by said bearing means for rotation about said axle and provided with coupling teeth thereon, a casing, tubular sleeve means operatively connected to said casing and being rotatable relative thereto, motor means carried by said casing, reduction gearing means carried within said casing and being drivingly connected to said motor means, carrier means operatively connected to said reduction gearing means and rotatably driven thereby, plate means car-

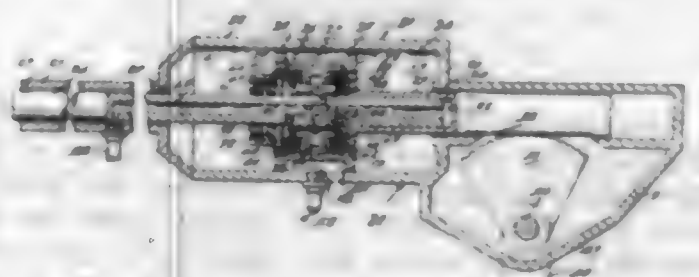
ried by said carrier means for rotation therewith and provided with coupling teeth thereon adapted to coact with said coupling teeth on said wheel means, and cam follower means carried by said tubular sleeve means and being cooperable with said cam means in said axial bore for effecting attachment of said casing to said axle and establishing engagement of said coupling teeth to thereby provide a positive driving connection between said drive unit and said wheel assembly.

2,869,663
SHOES FOR HOLD-DOWN MECHANISM FOR STORAGE BATTERIES
Harry J. McDevitt, Hatboro, Pa.
Application August 10, 1956, Serial No. 603,357
4 Claims. (Cl. 180—68.5)



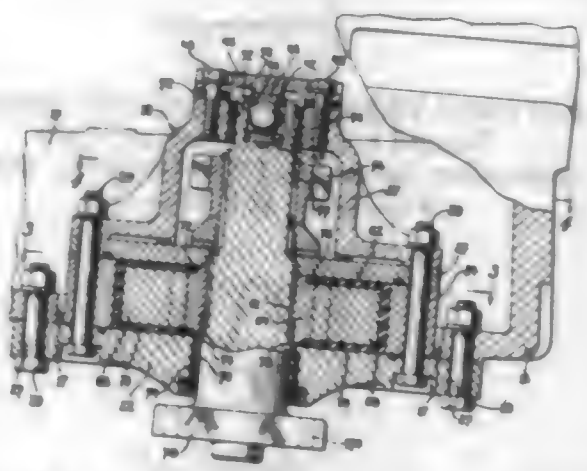
1. Hold-down clamping mechanism for storage batteries, comprising a pair of molded, flexible, plastic shoes of insulating material at opposite ends of a storage battery case, each having a body portion with laterally spaced, forwardly projecting side angles, each having a depending member at its outer end with a cam portion on its inner face to contact a wall of the battery case, the contact of the cam portion with the case being at an acute angle with said side angles, in combination with a battery support, and clamping rods connected with said support, said shoes having holes to receive said clamping rods, and said rods being provided above the shoes with nuts, said shoes when angularly disposed above the end portions of the case and moved downwardly causing the cam portions to contact the end walls of the case and rock the shoes to bring the side angles flat on the top of the case and align the holes with the rods.

2,869,664
HYDRAULIC POWER ACTUATOR
Raymond E. Utter, Detroit, Mich.
Application April 27, 1955, Serial No. 504,315
8 Claims. (Cl. 180—79.2)



8. In a vehicular steering system for turning the turnable vehicle wheels relative to the vehicle frame having a pitman arm swingably attached to said vehicle frame, manually operable means for swinging said pitman arm, pivoted wheel spindles attached to said frame, a pitman idler arm pivotably attached to said frame, and a linkage system adapted to transmit movement of said pitman arm to said wheel spindles; a hydraulic actuator forming a part of said linkage system, said actuator comprising a housing having a fluid receiving chamber, a hydraulic fluid power source adapted to supply fluid under pressure to said chamber, a piston assembly movably disposed within said chamber including a piston rod having one end thereof extending through one end wall of said chamber, said piston rod end having a rack section thereon, a gear sector operatively engaged with said rack section, means fixedly connecting said gear sector to said pitman idler arm, means pivotally connecting said gear sector and pitman idler arm to said housing for pivotal movement relative thereto and for bodily shiftable movement therewith, and valve spool means within said piston assembly, said valve spool means being mounted on a movable support rod having one end thereof projecting through the other end wall of said chamber, said one end of the support rod being connected to said pitman arm for selective movement thereby, whereby said valve spool means is displaceable relative to said piston assembly to direct hydraulic fluid under pressure to one side or the other side of said piston assembly to create a force effective to cause movement thereof in one direction or the other, said force being opposed by a force created by said hydraulic fluid under pressure acting on the end wall of the chamber on the side of the piston to which said hydraulic fluid under pressure is being directed, said piston moving force acting through a lever arm equal to the distance between the pivot axis of said pitman idler arm and the point of engagement of said gear sector and rack section, said opposing force acting through the length of said pitman idler arm, the resultant force couple differential causing said housing to be bodily shifted in the direction of movement of said piston assembly, the movement of said housing being transmitted through said linkage system to said wheel spindles to change the direction of movement of said wheels, and coacting means carried by said piston assembly and support rod effective to limit the relative movement of the valve spool means to the piston assembly, said last mentioned means being effective to provide a mechanical driving connection between said pitman arm and said housing in the event of hydraulic power source failure.

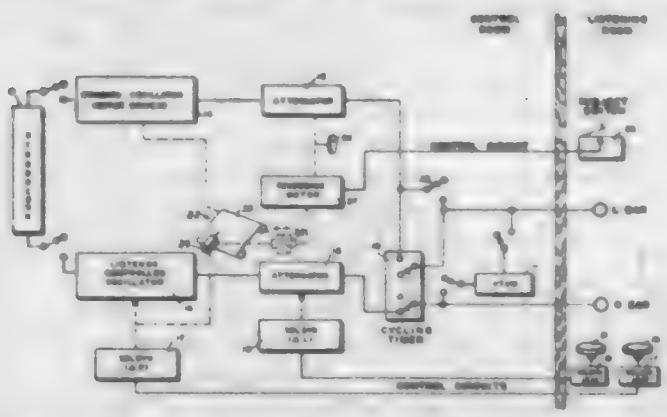
2,869,665
STEERING MECHANISM
Henry E. Beck, Racine, Wis., assignor to Massey-Ferguson Inc., a corporation of Maryland
Application August 19, 1955, Serial No. 529,398
2 Claims. (Cl. 180—79.2)



1. A steering gear assembly for a tractor comprising, in combination, an apertured frame plate, a short spindle journaled in said aperture, an inverted cup-shaped housing spaced above said plate and receiving the upper end of said spindle, a thrust bearing disposed between said spindle upper end and the top of said housing so as to permit the spindle to bear the weight of said tractor, an annular member sandwiched in said space between said frame plate and said housing to define an annular hydraulic motor chamber, a pair of piston vanes secured to said spindle for rotation in said chamber, said vanes and said chamber defining a pair of double-acting hy-

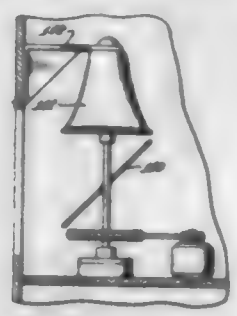
draulic motors, a pinion secured to said spindle for rotation in said housing, a steering shaft coupled to said pinion for rotation of said spindle, and a valve responsive to rotation of said shaft and being in fluid communication with said hydraulic motors for causing fluid under pressure to be admitted to said motors so as to rotate the vanes, and thus rotate the spindle, in the same direction as said steering shaft turns said pinion.

2,869,666
AUTOMATICALLY RECORDING PITCH MATCHING EQUIPMENT
John C. Webster, San Diego, Calif.
Application June 9, 1954, Serial No. 435,654
4 Claims. (Cl. 181—.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



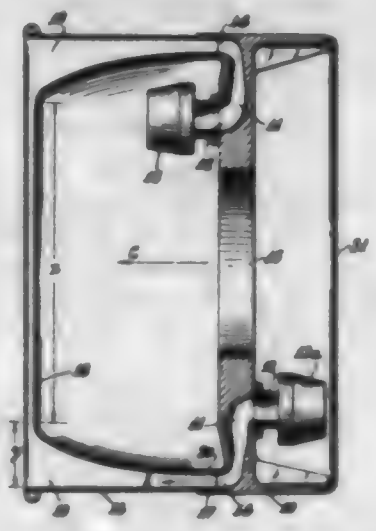
1. The method of producing a continuous and running record of pitch matches between the two ears of a subject under test consisting of the steps of presenting one-second and two-second tones respectively to the ears of the subject alternately, shifting the frequency of the one-second tone continuously upward whereby the frequency appears to the subject to be increased in predetermined increments between successive presentations thereof and independently of the subject, moving recording paper under a pen in response to the one-second tone frequency shift, adjusting the frequency of the two-second tone under control of the subject to maintain the two alternating tones matched in pitch in accordance with the hearing sensitivity of the subject, moving a recording pen in response to the two-second tone frequency shift, thereby producing a record trace of the two frequencies to provide a permanent record of the pitch matches for each of the step variations therein.

2,869,667
ROTATABLE TREMULANT SOUND PRODUCER
Donald J. Leslie, Pasadena, Calif.
Application January 3, 1956, Serial No. 556,893
8 Claims. (Cl. 181—27)



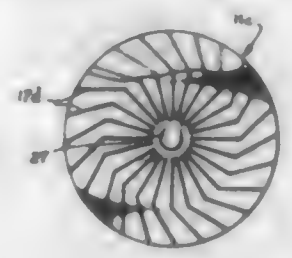
8. In apparatus for producing tremolo: a pair of speakers; means supporting the speakers in opposed spaced relationship; and a member between the speakers and rotatable about an axis transverse to both speakers, said member comprising a pair of horn elements having inlet openings facing outwardly in opposite directions at said axis and registering with the speakers, said horn elements having outlet openings located on opposite sides of the axis and located substantially in a common orbit.

2,869,668
PLURAL DRIVE LOUDSPEAKER
Sidney E. Levy, White Plains, N. Y., assignor of one-half to Arthur Blumenfeld, New York, N. Y.
Application January 23, 1957, Serial No. 635,630
7 Claims. (Cl. 181—27)



1. A loudspeaker system for amplifying the sound emanating from a plurality of separate driver units, comprising a plurality of sound conducting and expanding channels arranged in a plate-like member, each of said sound channels being connected at its inner end to a driver unit and extending outwardly therefrom, a common sound passageway or horn in the general form of an annulus into the throat of which the sound channels merge in a confluent manner, said driver units being mounted on at least one face of said plate-like member at a point intermediate the center and periphery thereof, said sound conducting passages being formed within said member and extending outwardly from the driver units to the periphery of said member where they merge into the annular horn, and the dimension of each of said sound channels diminishing in a plane perpendicular to the plane of the plate-like member and expanding in the plane of the member as the passages extend outwardly to the periphery thereof.

2,869,669
ACOUSTIC APPARATUS
Donald James Leslie, Pasadena, Calif.
Application July 1, 1957, Serial No. 669,191
4 Claims. (Cl. 181—27)



1. In apparatus for modifying sound: a rotary horn device including opposed walls, and a plurality of generally radial partitions extending between said walls to form a plurality of sound cells spaced about the axis of the device, and having inlet openings at their inner ends and outlet openings directed outwardly at the periphery of said horn device between said opposed walls; the arcuate extent between adjacent openings being substantially less than the arcuate extent of the outlet openings, whereby no vibratory swell or periodic change in amplitude is produced by rotation of the horn device; the partitions at the outlet openings being non-radial; the direction of deviation from radial being uniform for all of the partitions; a non-rotary sound source communicating with said inlet openings; means for rotating said horn device about its axis; and means operable independently of the horn device rotation and rotatable about

the axis of rotation of the horn device and having a sound opening successively in communication with the opening of the sound cells for adding tremolo to the sound.

2,869,670

INTAKE SILENCER

Carl S. Hoffman, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application October 1, 1956, Serial No. 613,134
1 Claim. (Cl. 181—35)



An intake silencer for internal combustion engines and the like and comprising a casing having spaced inner and outer walls, said walls being axially spaced to provide an inlet chamber and an inlet, and having axially opposed circumferential shoulders by which a screen portion in the form of a perforated band may be engaged, said inner wall of said casing having an outlet and being axially depressed around said outlet and within said inner wall to provide an annular recess in said inner wall, said outlet forming an extension of the engine inlet to which the silencer is to be attached and having direct communication with said inlet chamber, said outer wall being formed to provide a depression extending across said outlet and overlapping said annular recess; spacing lugs formed inwardly within said depression and said inner wall respectively; spacers for coaction with said spacing lugs; threaded studs for rigidly clamping said inner and outer walls in the axial relation established by said spacers and coincidentally for fastening the silencer in place; sound absorbing material in opposed relation in said recess and in said depression for absorbing sound emanating from said outlet, said outer wall being formed radially inwardly of said shoulders to provide a peripheral baffle around said depression and extending toward said inner wall recess and partly across said inlet chamber for baffling sound emanating from said outlet, said inner and outer walls and said baffle being axially spaced, radially outwardly of said outlet, to provide a substantially unobstructed and radially inwardly directed passage from the atmosphere through said inlet and said inlet chamber and toward said outlet whereby a free diametral flow space is provided.

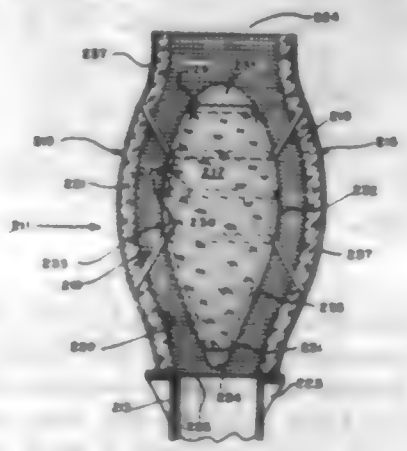
2,869,671

GAS TURBINE MUFFLER

Karl E. Schlachter, Annapolis, and Edward M. Herrmann, Round Bay, Md., assignors to the United States of America as represented by the Secretary of the Navy

Application August 31, 1953, Serial No. 377,742
2 Claims. (Cl. 181—50)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A muffler for exhaust gas noise suppression comprising a tubular substantially egg-shaped outer member formed of an imperforate outer wall, a perforate inner wall arranged in spaced parallel relation with said outer wall and a layer of sound-absorbing material between said walls, a substantially egg-shaped splitter mounted entirely within the tubular member in spaced parallel relation with the perforate inner wall thereof, a plurality of uniformly-spaced airfoil type struts mounting the splitter within the tubular member, said splitter being streamlined of substantially the same curvature as that of the perforate inner wall of the tubular member to thereby



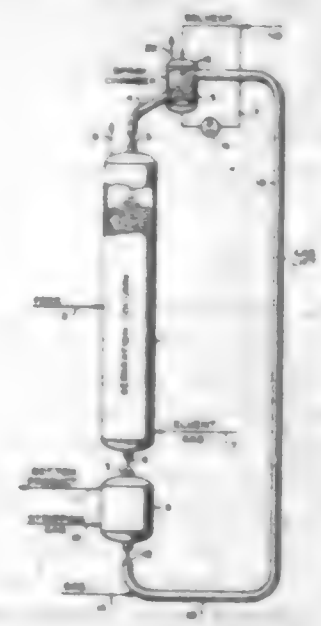
provide substantially streamline flow of exhaust gas between the inner wall of the tubular member and the outer surface of the splitter, said splitter including a relatively small nose section located at the inlet end of the muffler, a relatively large septum located within the tubular member near the outlet end thereof in spaced relation to the nose section of the splitter, an outer perforate wall between the nose section and the septum and forming therewith a volume for the reception of sound absorbing material, and sound absorbing material filling said volume.

2,869,672

CONTINUOUS GAS ABSORPTION PROCESS AND APPARATUS

Robert A. Findlay, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application September 6, 1957, Serial No. 682,466
6 Claims. (Cl. 183—2)



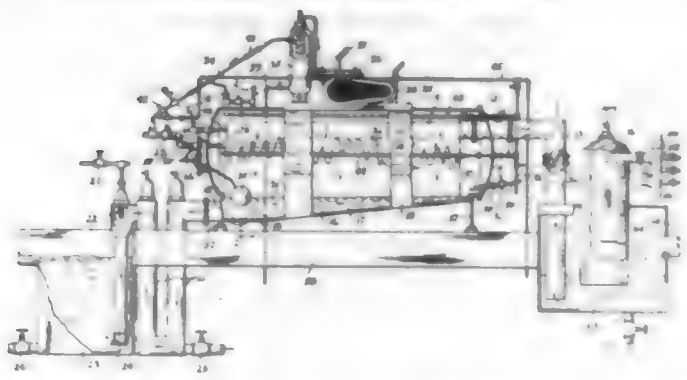
1. A separation method comprising introducing a feed mixture comprising a plurality of components in vapor phase to a countercurrent moving stream of an eluent gas and spheres coated with a liquid absorbent having a greater affinity for at least one of said components than for another of said components, removing eluent gas along with components having lesser affinity for said absorbent from one end of said column and removing said spheres coated with said absorbent and having absorbed therein said component of greater affinity from the other end of said column.

2,869,673

MUD DEGASSER

Ransome W. Erwin, Fort Worth, Tex., assignor to Salt Water Control, Inc., Fort Worth, Tex., a corporation of Texas

Application January 25, 1955, Serial No. 483,944
12 Claims. (Cl. 183—2.5)



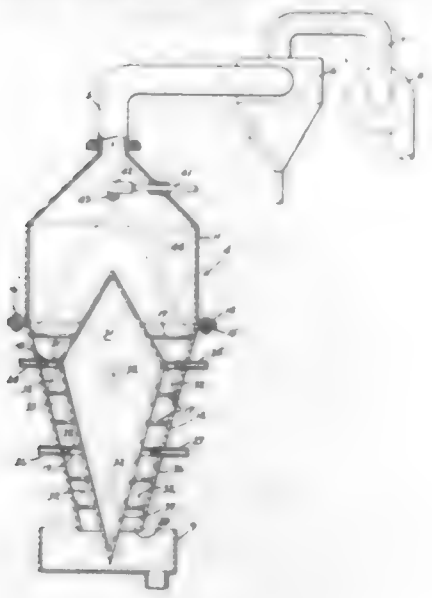
1. In a drilling mud de-gassing system, the combination of a mud de-gasser vacuum tank having a mud cascading means therein comprising inclined plates sloping downwardly toward the sides of the tank, and having a mud inlet conduit at one end and a mud outlet conduit at the other, trough means within the vacuum tank connected at one end to said mud inlet for supplying mud to the cascading plates, means for causing the flow of mud into, through and out of the mud de-gasser tank, comprising a jet nozzle discharging mud into the outlet conduit beyond the mud de-gasser; the improvement comprising means for regulating the vacuum imposed on the mud de-gasser tank comprising a manually controlled throttle valve provided in said mud intake conduit.

2,869,674

LIQUID AND GAS SEPARATOR

Charles D. Vandenburgh, Charlestown, Md., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application May 13, 1955, Serial No. 508,229
5 Claims. (Cl. 183—2.5)



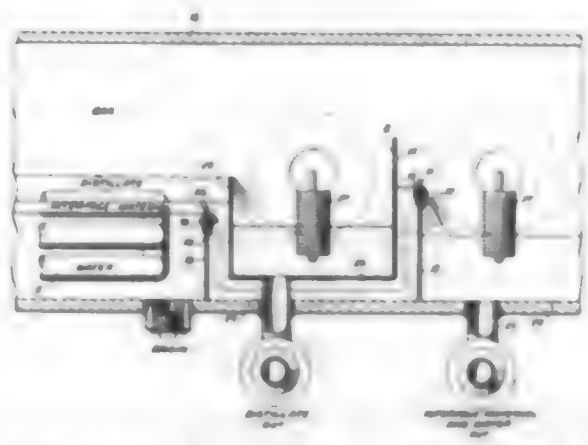
1. Apparatus for separating a gaseous material from a liquid comprising a chamber having a lower truncated section which decreases in cross section at progressively lower levels, at least one element supported within said lower section along the interior wall surface thereof, said element extending in an approximately horizontal plane to provide a continuous drainage surface over which liquid may drip from an upper portion of the wall portion thereof to a lower surface, means disposed circumferentially and horizontally along said lower section and below said element for discharging a gas at high velocity in a direction away from the inner wall surface and through the path of the dripping liquid, nozzle means mounted in said chamber above said member for discharging a hollow conical stream of liquid onto a portion of the inner wall surface located above said drainage surface, a member supported within the lower section in uniformly spaced relation with said inner wall surface to provide a narrow region between said member and the wall surface within which said gas and liquid are mixed, and suction means connected at the top of the chamber for withdrawing gaseous materials therefrom.

2,869,675

METHODS AND MEANS FOR THE LOW TEMPERATURE SEPARATION OF HIGH PRESSURE WELL STREAMS

Robert W. Coggins, Tulsa, Okla., assignor to National Tank Company, Tulsa, Okla., a corporation of Nevada

Application July 5, 1956, Serial No. 595,914
7 Claims. (Cl. 183—2.7)



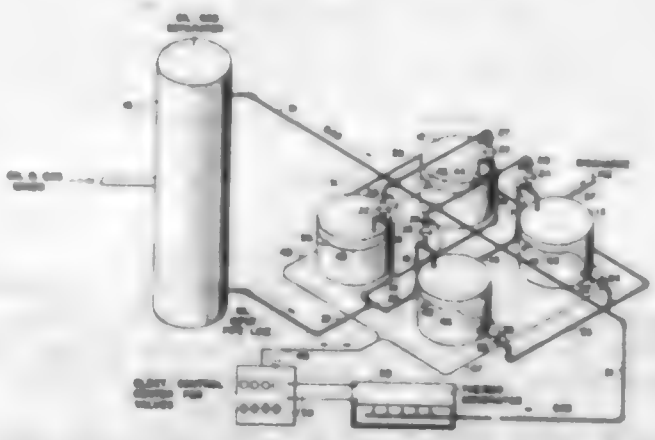
1. The method of low temperature separation of high pressure well streams including the steps of; flowing the well stream through a temperature reduction step to precipitate water and liquid hydrocarbons therefrom; introducing the chilled stream into a separation zone wherein the stream stratifies in superposed gaseous, liquid hydrocarbon, foreign matter, and water layers; maintaining the water layer at a minimum height; withdrawing gas from the gaseous layer; skimming liquid hydrocarbons from the liquid hydrocarbon layer; flowing water and the foreign matter between the water and the liquid hydrocarbon layer in a U-tube path while maintaining the water layer of minimum thickness; and separately withdrawing the water and foreign matter from the end of the U-tube path at an elevation above the layer of foreign matter between the water and liquid hydrocarbon layers.

2,869,676

ELECTRO-PNEUMATIC TANK SWITCHER

Edward B. Lagucki, Houston, Tex., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application January 7, 1957, Serial No. 632,708
4 Claims. (Cl. 183—2.7)



1. An automatic system for separating an oil field production fluid comprising oil and gas into its individual

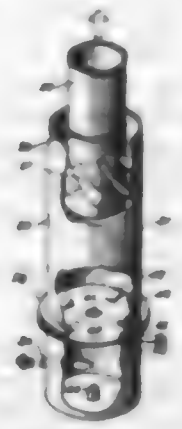
components and selectively controlling the flow of oil into a multiple tank battery while utilizing at least a portion of the gas as a source of power for said system, said system comprising separator means for separating oil and gas from a well production fluid, at least two storage tanks, oil discharge means from said separator in communication with an intake line to each of said tanks, pressure-operated inlet valve means in each of said intake lines, a gas supply line in communication between said separator means and each of said pressure-operated inlet valve means, electrically-actuated pilot valve means in said gas supply line adjacent each of said pressure-operated inlet valve means, circuit means including selector switch means for successively energizing each of said pilot valve means, a power source comprising a thermo-generator for supplying electric power to said circuit means, gas-burning means positioned adjacent said thermo-power generator for heating said generator, and conduit means in communication between said separator and said gas burning means for supplying gas thereto.

2,869,677

DUNLAB TUBE SEPARATORS AND COOLANT MEANS THEREFOR

John I. Yellott, New York, N. Y., and Peter R. Bradley, Elizabeth, N. J., assignors to Bituminous Coal Research, Inc., Washington, D. C., a corporation of Delaware

Original application November 23, 1951, Serial No. 257,702. Divided and this application February 14, 1955, Serial No. 488,076
2 Claims. (Cl. 183—5)



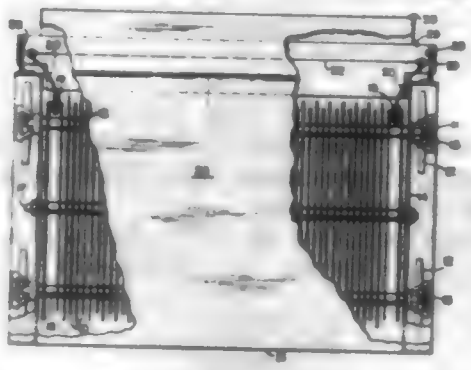
1. A pressure-sustaining, reverse flow, vortical whirl separator of the character described for high temperature use, and particularly adapted for the continuous pneumatic removal and simultaneous quenching of incandescent, incompletely burned combustible particles, and combustion residues, comprising a bottomed body section, a whirl-imparting dirty gas entrant means an axial, reverse flow, cleaned gas return means, a separated solids pneumatic blowdown means, and a separate vortical whirl-imparting coolant gas entrant means located adjacent to and upstream of the blowdown means, whereby when a heated, incandescent particle-bearing, pressurized gas stream is introduced into the separator through the first said entrant means, and a pressurized coolant gas stream is introduced into the separator through the second said entrant means, the particulate material is centrifugally separated from the heated carrier stream and projected into and quenched by the coolant gas stream, the cleaned heated carrier gas is discharged from the separator through the cleaned gas return means, and the separated and quenched particles are continuously pneumatically removed from the separator through the pneumatic blowdown means in a blowdown stream of the said coolant gas.

2,869,678

ELECTROSTATIC PRECIPITATORS

John W. Roberts, Norwood, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 11, 1956, Serial No. 584,251
4 Claims. (Cl. 183—7)



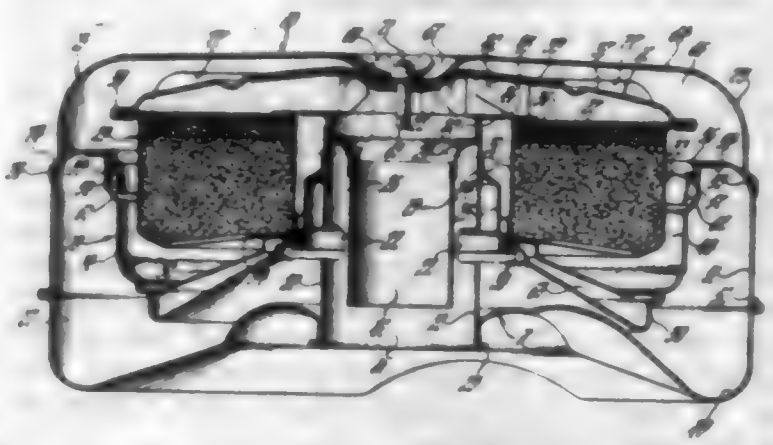
1. An electrostatic precipitator comprising a plurality of spaced-apart, parallel, charge and ground collector plates, and structural end plates, the end charge plates being adjacent said structural end plates, the plates next adjacent said end charge plates being charge plates, the charge and ground plates between said next adjacent charge plates being alternately arranged, ionizer wire supporting members between and attached to said end and next adjacent charge plates, ionizer wire supporting arms of spring metal attached to said members, and ionizer wires attached at their ends to said arms.

2,869,679

CLEANER SILENCER ASSEMBLY

John D. McMichael, Swartz Creek, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application October 29, 1956, Serial No. 618,841
1 Claim. (Cl. 183—15)



A cleaner silencer assembly comprising wall means formed to provide an annular filter chamber opening outwardly in one direction, said wall means including an outer side wall and an inner side wall and a lower wall embracing said annular filter chamber, annular filter means disposed in said filter chamber and spaced from said outer side wall and said lower wall to provide an annular inlet leading to said filter means, an oil sump at the lower extremity of said filter chamber and beneath said filter means, and an annular trap formed in said outer side wall and communicating with said annular inlet throughout the extent of said annular inlet, said annular trap being formed within said outer side wall to provide an annular chamber and inlet and outlet opening means at one side and at the lower extremity of said annular chamber and communicating with said annular inlet, said outer side wall being formed to provide interrupted side wall means having axially spaced edges forming said inlet and said outlet opening means and overlapping side wall means forming said annular chamber, said interrupted side wall means being substantially aligned and having the same curvatures and providing a relatively linear air

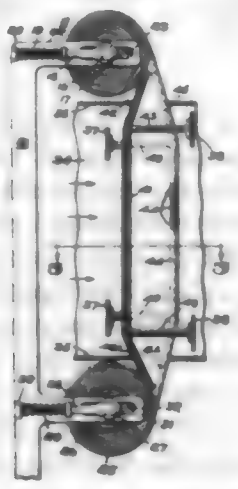
flow passage at one side of said trap and leading to said filter means, the axial spacing between said edges of said interrupted side wall means forming said inlet and outlet opening means being less than the width and axial length of said annular chamber, thereby tending to provide a fluid flow restriction between said annular inlet and said annular trap.

2,869,680

GAS FILTER MATS

Arnold C. Fields, Medfield, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 30, 1957, Serial No. 687,325
10 Claims. (Cl. 183—62)



1. A filter comprising a roll of fibrous mat, said mat being folded in a plurality of spaced-apart pleats at the inner side thereof and in a plurality of spaced-apart pleats at the outer side thereof, there being a first plurality of passages between said pleats at said inner side and a second plurality of passages between said pleats at said outer side, means for supporting said roll for rotation, and means for unfolding said mat in a zig-zag outline when it leaves said roll when said roll is rotated in a direction to unroil said mat, said means comprising a first plurality of V-shaped guide fingers at said inner side of said mat, said fingers having their diverging ends in said passages of said first plurality, and a second plurality of V-shaped guide fingers at said outer side of said mat, said fingers of said second plurality of fingers having their diverging ends in said passages of said second plurality of passages, said fingers of said first plurality of fingers being slanted towards said fingers of said second plurality of fingers, and said fingers of said second plurality of fingers being slanted towards said fingers of said first plurality of fingers.

2,869,681

LUBRICATION MARKERS

John A. Gnandt, Cleveland, and Edward A. Kay, Garfield Heights, Ohio, assignors to Harris-Intertype Corporation, Cleveland, Ohio, a corporation of Delaware

Application September 26, 1955, Serial No. 536,378
2 Claims. (Cl. 184—105)



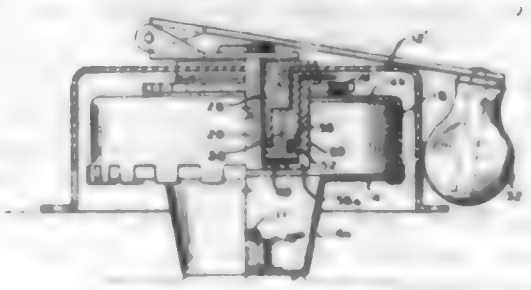
1. A nylon lubrication marker comprising a tubular cylindrical body portion constructed to grip externally a tubular lubricant conductor of a given diameter or to grip internally a lubricant conductor of a greater diameter, said marker having an integral viewable head portion comprising a flange of selected geometrical form and of selected color, the shape and color of said flange being chosen in accordance with predetermined codes to indicate both the character of lubricant and the frequency of lubrication best suited to the part to which the marker is attached.

2,869,682

MOTOR STARTING APPARATUS

Floyd O. De Millar, Framingham, Mass., assignor to The Radian Corporation, Boston, Mass., a corporation of Massachusetts

Application April 12, 1957, Serial No. 652,491
12 Claims. (Cl. 185—41)



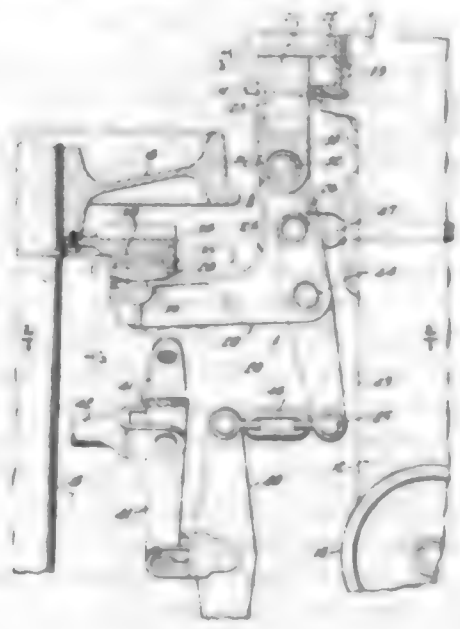
1. A starting device for a motor having a rotatable shaft portion, said device comprising a spring rotor unit, a stationary housing overlying the spring rotor unit, a spring winding mechanism operatively connected to the rotor unit, said rotor unit including a cylindrical spring casing solidly secured to said rotatable shaft portion, a spring member having one end anchored to the peripheral surface of the spring casing and coiled upon itself around the spring casing and defining a central opening within said spring casing, said spring winding mechanism including a winding drum located within said central opening, an operating handle connected to the winding drum and extending externally to the stationery housing, means for producing an axial displacement of the winding drum when the operating handle is turned, means for releasably attaching a free end of the spring with said winding drum, and mechanism responsive to axial movement of the winding drum for holding the casing in engagement with the stationary housing for a limited period while the spring is mounted around the drum.

2,869,683

RAILWAY BRAKE MECHANISM

Charles R. Busch, Orange, N. J., assignor to Buffalo Brake Beam Company, a corporation of New York

Application November 10, 1955, Serial No. 546,120
3 Claims. (Cl. 188—59)



1. In a brake mechanism for a car wheel of a railway truck, a member rigid with said car wheel and presenting a brake surface, a brake head lever having a shoe for brake engagement with said brake surface, means pivotal-

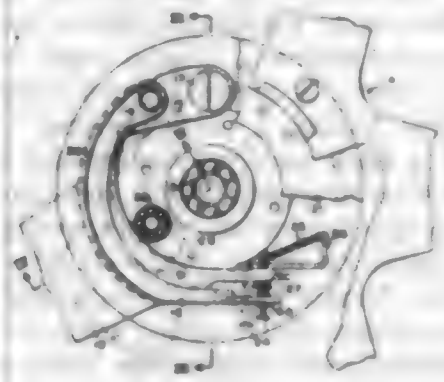
ly supporting said brake head lever for substantially horizontal angular movement about an upright axis, and means for moving said brake head lever about said axis into braking position in relation to said brake surface, said means including a lost-motion connection on said truck permitting said lever to move angularly away from braking position when braking power is released, said upright axis being tilted from the vertical, the plane of the center of gravity of the combined brake head lever and brake shoe at right angles to said axis having a tangent therein to the circle of said center of gravity about said axis as a center sloping downward and away from the brake surface when the lever is in braking position, whereby said brake head lever is urged by gravity away from braking position, and is moved away from braking position at least by the vibration engendered by the movement of the railway truck along its tracks when braking power is released.

2,869,684

TAPE FEEDING SYSTEM

Robert R. Tarbuck, West Chester, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application August 5, 1954, Serial No. 447,990
5 Claims. (Cl. 188—78)



1. A braking system for a rotational member comprising, an arm pivotally mounted for rotation about the axis of said rotational member and relative to said rotational member, a roller on said arm, and braking means for said rotational member, said braking means including a drum fixed to said rotational member and also including a compound element having a plurality of levers, one of said levers being pivotally mounted about a fixed axis and having a cam track eccentric to and in the same plane as the path of movement of said roller when said arm is rotated, another of said levers being pivotally connected to the first mentioned lever and interposed between said lever and the drum, compressive resilient means interposed between and connected to the levers, the above mentioned roller riding on the cam track of the first mentioned lever and motivating said lever toward the drum in response to the rotation of the arm in a specified direction, the operative connections between the levers and the resilient means being such that the motivating force is transmitted from the first mentioned lever to the second mentioned lever primarily through the resilient means so as to cause the application of a gradually increasing braking force to the drum by the second mentioned lever.

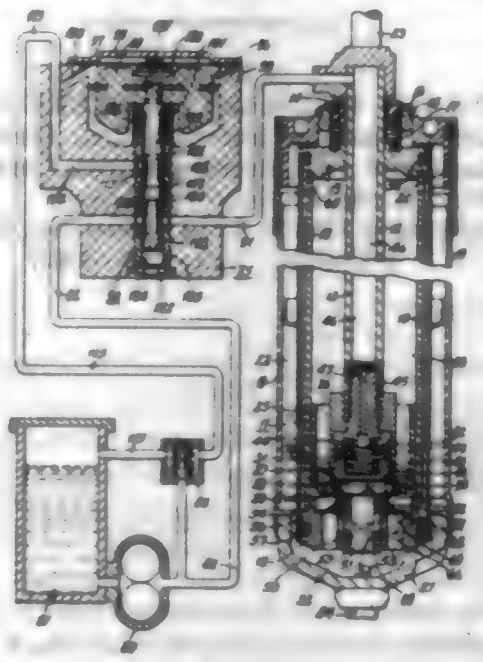
2,869,685

INERTIA CONTROLLED SHOCK ABSORBER SYSTEM

Mearick Funkhouser and Harold E. Schultze, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 11, 1955, Serial No. 500,462
8 Claims. (Cl. 188—87)

1. A shock absorbing system for use on motor vehicles to damp relative movements between the axle and the body of the vehicle, comprising in combination, a movement damping apparatus disposed between the car axle and body of a vehicle and including an energy absorbing mechanism including resistance valve means resiliently held on its seat operable to effect energy absorption upon relative movement between the car axle and body on either compression or rebound stroke of the movement damping apparatus, a source of fluid pressure operably connected with said energy absorbing mechanism to apply fluid pressure to said valve means to retain it on its seat resiliently to vary the energy absorption effective-



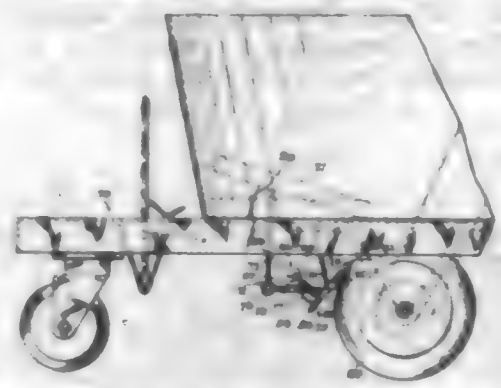
ness of the energy absorbing mechanism, and a fluid flow control means responsive to car body movement having fluid damping means utilizing said pressure fluid to retard movement of the control means to control the fluid pressure from said source to said valve means to vary the resistance of said valve means and thereby the energy absorption effectiveness of the said energy absorbing mechanism in damped relation to the movement of the car body from a rest position.

2,869,686

HAND OPERATED TOY CAR

Samuel R. Glanz, West Hempstead, N. Y.

Application March 1, 1956, Serial No. 568,962
1 Claim. (Cl. 188—189)



In a toy car, the combination with a chassis and a pair of road traction wheels supported on the chassis, of braking mechanism including an articulated lever pivotally mounted on the chassis adjacent each road wheel, a brake shoe carried by each lever movable into and out of braking engagement with its respective road wheel, each brake shoe being pivotally connected to a fixed portion of the chassis, a seat pivotally mounted on the chassis, said seat being connected to one end of each articulated lever whereby movement of said seat in one direction sets the braking mechanism and movement thereof in the opposite direction releases the braking mechanism, a spring interposed between the seat and chassis for urging said seat in a direction to set the braking mechanism, and means for adjusting the length of throw of each shoe inward toward its respective wheel, said adjusting means including a spring interposed between the other end of each said articulated lever and one end of the

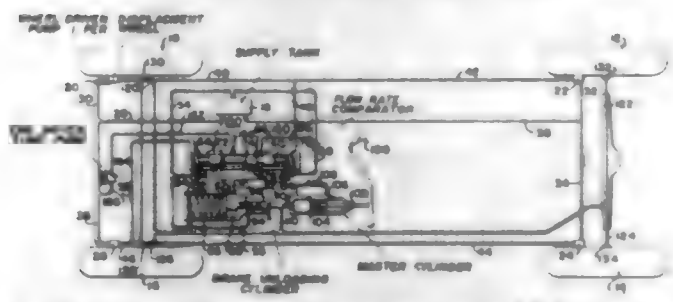
shoe for urging the shoe toward the respective wheel, a tubular threaded housing fixed on said other end of each said lever, a screw member threaded in said housing and bearing against the brake shoe between the last-named spring and the pivotal connection of the shoe to said other end of each said lever, and a nut on said screw member for actuating the same whereby to counteract the action of the seat-actuated spring and to hold the shoe away from the wheel.

2,869,687

ANTI-SKID HYDRAULIC BRAKE SYSTEM

Paul T. Keim, Vandalia, and Robert C. Treseder, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 7, 1954, Serial No. 428,224
5 Claims. (Cl. 188—181)



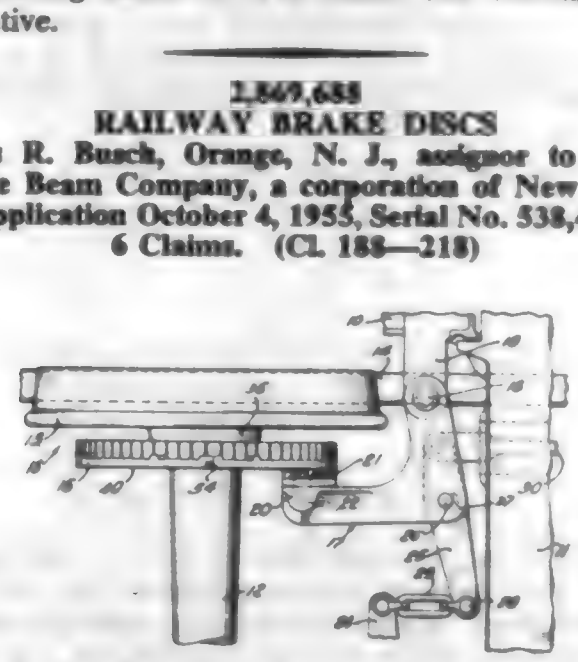
1. Brake mechanism for a motor vehicle having a plurality of wheels, including in combination, a fluid pressure operated brake for each wheel, a braking system for applying fluid under pressure concurrently to each wheel brake, a fluid pressure system including a fixed displacement pump driven by each wheel, means connecting the pumps on each side of said vehicle in parallel, means for relieving the pressure in said braking system for rendering said braking system inoperative, and means operatively connected to said pressure relieving means and responsive to the absence of flow from any one of said fixed displacement pumps as caused by locking of any one vehicle wheel during braking for positively actuating said pressure relieving means so as to render said braking system inoperative.

2,869,688

RAILWAY BRAKE DISCS

Charles R. Busch, Orange, N. J., assignor to Buffalo Brake Beam Company, a corporation of New York

Application October 4, 1955, Serial No. 538,407
6 Claims. (Cl. 188—218)



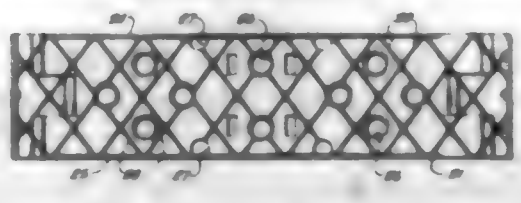
1. A brake disc for a car wheel of a railway car truck, said brake disc having a central hole permitting a wheel axle to pass therethrough and having a hub by which the disc may be removably mounted for rotation with the car wheel with one face of the disc confronting the car wheel and with the part of said disc radially outwardly beyond the hub of said disc axially spaced from the car wheel, said disc comprising a series of complemental, duplicate and interchangeable sections joined and removably secured together into a single disc unit, said disc sections being substantially in the form of sectors with substantially radial edges, said sections being joined together edge to edge and conjointly presenting on the other face of the disc a continuous flat annular friction brake surface, the adjoining portions along each joint overlapping across the regions of said friction brake surface to cause one of the sections along each joint to support the other adjoining section along the latter joint against braking pressure applied to said brake surface, said disc being free from any means of support or any means of interconnecting the sections of the disc except that provided by its hub when mounted for rotation with the car wheel and that provided by the overlapping portions of the disc sections along their joints.

2,869,689

RAILROAD BRAKE SHOES

Rosser L. Wilson, Mahwah, N. J., assignor to American Brake Shoe Company, New York, N. Y., a corporation of Delaware

Application August 10, 1956, Serial No. 603,402
5 Claims. (Cl. 188—251)



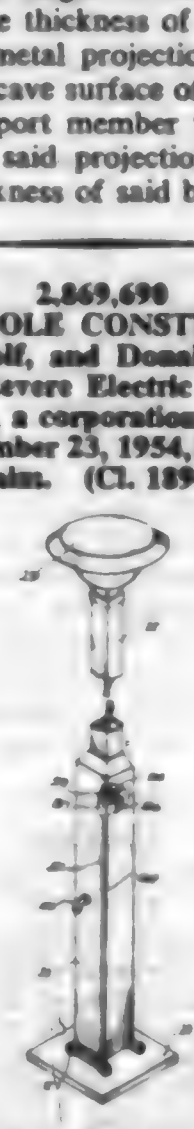
1. In a railroad brake shoe of the type comprising a composition body supported upon a metal back which is adapted to be mounted upon a brake head, said brake shoe body having a predetermined length, width, and thickness and having a predetermined curvature along said length, a back structure comprising a metal support member having a length, width and curvature approximately corresponding to the length, width and curvature of said composition body; and a plurality of intersecting diagonal ribs formed integrally with said metal support member and projecting from the concave surface thereof for interlocking said composition body and said metal support member, the height of said ribs being substantially smaller than the thickness of said body; and a plurality of individual metal projections affixed to and extending from the concave surface of said support member to interlock said support member with said composition body, the height of said projections being substantially smaller than the thickness of said body.

2,869,690

LIGHT POLE CONSTRUCTION

Alva B. Winters, Golf, and Donald K. Holst, Chicago, Ill., assignors to Revere Electric Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application December 23, 1954, Serial No. 477,371
1 Claim. (Cl. 189—28)



The combination with a footing and service piping fixedly installed therein and extending upwardly at least

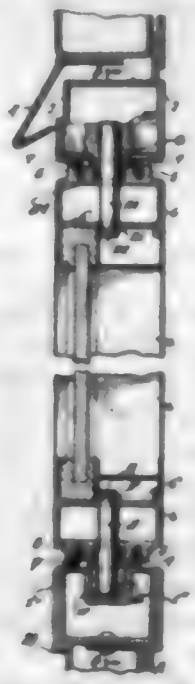
one foot from the upper surface of the footing, of an electric lighting standard of substantial height comprising a tubular upper portion and an open-sided channel-shaped lower portion, said upper tubular portion being integral with and supported entirely by the channel-shaped lower portion, a U-shaped bolting flange secured to the lower end of said lower portion and attaching the standard to said footing and encompassing the service piping, said lower portion and flange adapting said standard for sideward movement in the erect position to encompass said piping, and a removable cover closing the open side of said lower portion to conceal said piping.

2,869,691

PIVOTED WINDOW STRUCTURE

Lyon D. Evans and Norman J. Hebert, Louisville, Ky., assignors to Reynolds Metals Company, Richmond, Va., a corporation of Delaware

Application April 27, 1954, Serial No. 425,946
4 Claims. (Cl. 189—69)



1. A pivoted window construction, comprising a frame having sill, jamb and head hollow members each of unitary extruded aluminum, the jamb and head frame members being box-shape in transverse section with the inner area in each case having a central longitudinal slot facing inwardly and bounded by opposed flanges, a rectangular sash member of extruded aluminum and box-like in transverse section and having at each of its sides, and at top and bottom, two outwardly projected spaced ribs, the said ribs being adapted to be brought into register with the jamb and head flanges, each rib being longitudinally apertured, a sealing strip of flexible material in each aperture, the sealing strip in each case extending substantially from corner to corner of the sash, and means pivoting the sash at top and bottom to the head and sill, being a bearing block held between and by the flanges of the head and a bearing block at the top of the sash between the spaced ribs thereof, and a pivot pin passing through the bearing blocks and into the sash at its top, the sill being formed at its top area with a wall defining a channel, a bearing block in said channel and a pivot pin passing through the bearing block and upwardly into the sash, a bearing block being carried by the bottom of the sash between its two spaced ribs and receiving said last named pivot pin.

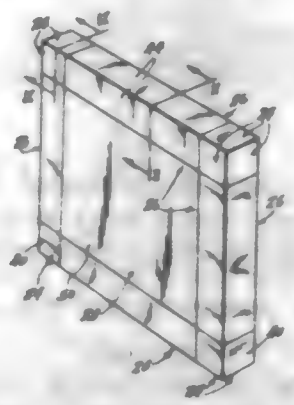
2,869,692

INTERLOCKING BUILDING ASSEMBLY

Thomas G. Hassett, West Hamilton Beach, N. Y.

Application July 23, 1954, Serial No. 445,217
6 Claims. (Cl. 189—34)

1. A building unit comprising a plurality of tie bars adapted to extend along the several sides of the unit, coupling blocks at the several corners of the unit interengaging with said tie bars, means releasably locking the tie bars and coupling blocks against relative separation, a panel member circumscribed by the tie bars, retainer means on the tie bars adapted to lock the panel member in engagement with the tie bars, and key means on the blocks for holding the retainer means upon the tie bars, each of said coupling blocks being of substantially cubical



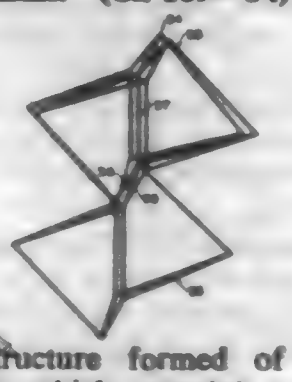
formation and having undercut edges defining projections on the several faces of the block, each tie bar including at opposite ends thereof extending jaws adapted to engage the undercut sides of an adjacent projection, said first-named means comprising a spring clip of U-shaped formation adapted to straddle the extending jaws of each pair of extending jaws to hold said jaws releasably interengaged with the projection embraced therebetween.

2,869,693

RETICULAR STRUCTURE

Donald Wood, New York, N. Y., assignor to Hill Cross Company, Inc., New York, N. Y., a corporation of New York

Application April 24, 1958, Serial No. 730,675
9 Claims. (Cl. 189—34)



1. A reticular structure formed of interconnected structural modules, in which a module comprises a base structure of generally hexagonal outline, and two tripod structures extending in opposite directions from said base structure, said tripod structures comprising rectilinear tripod elements joined at their outer ends and engaged at their base ends with alternate apices of said base structure, the elements of the respective tripod structures being engaged with different apices of said base structure.

2,869,694

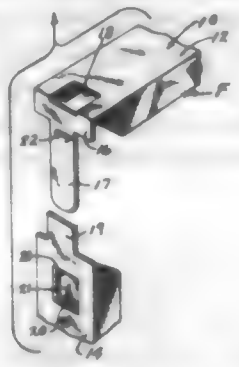
FRAME CONSTRUCTION FOR FILTER UNITS

Raymond J. Breckheimer, Milwaukee, Wis., assignor to Air Filter Corporation, Milwaukee, Wis., a corporation of Milwaukee

Application June 19, 1957, Serial No. 666,612
3 Claims. (Cl. 189—36)

1. A filtering unit comprising a marginal frame including top, bottom and side rails and means for securing the terminals of adjacent rails in rigid locked engagement including an elongated brace tongue carried by one rail and extending at right angles thereto, the other adjacent rail being provided with spaced transversely extending slits for receiving said brace tongue, said tongue being in facial contact with the last mentioned rail, and a short lock tongue on said last mentioned rail, and said first

mentioned rail having an opening adjacent to the base of the elongated brace tongue for the reception of the



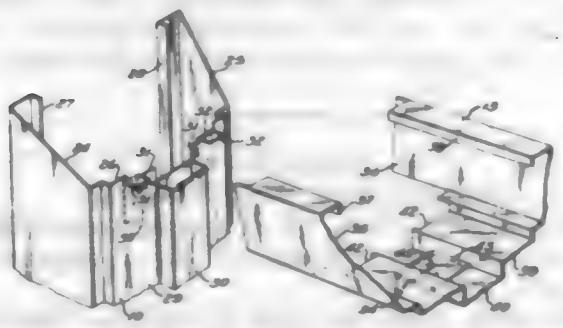
short lock tongue when the elongated brace tongue is in said slits, said short tongue being bent back upon itself through the opening into facial contact with said first rail.

2,869,695

KNOCK-DOWN DOOR FRAME

Theodore Z. Herr, Warren, and Charles W. Caldwell, Cortland, Ohio, assignors to The American Welding & Manufacturing Company, Warren, Ohio, a corporation of Ohio

Application January 17, 1956, Serial No. 559,601
3 Claims. (Cl. 189—46)



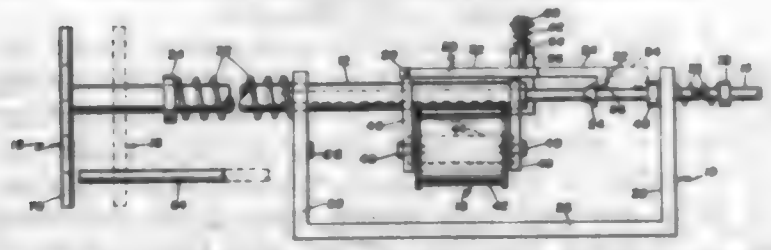
1. A knock-down sheet metal frame for a door comprising a jamb member and a header member, each of said members having a generally channel shaped body including a web and substantially parallel flanges projecting from the sides thereof, the flanges at one end of the header member interfittingly engaged with corresponding flanges at the upper end of said jamb member, the webs of each of said members having a longitudinally extending inner step and outer steps at the sides of the inner step and projecting beyond the end of the inner step, each of the projecting ends of the outer steps of one of said members having a flat wall and an edge engaging, respectively, with an edge and a flat wall of similar projecting ends of the other said member and each of the outer steps of one of said members having a flange projecting laterally from its end and interfitting with the opposed step of the other member, and the inner step of said other member having a flange projecting laterally from its end and interfitting with the opposed inner step of said one member.

2,869,696

SINGLE PEDAL THROTTLE AND BRAKE CONTROL FOR VEHICLES

Arlie D. Hill, San Diego, Calif.

Application August 2, 1954, Serial No. 446,994
12 Claims. (Cl. 192—3)



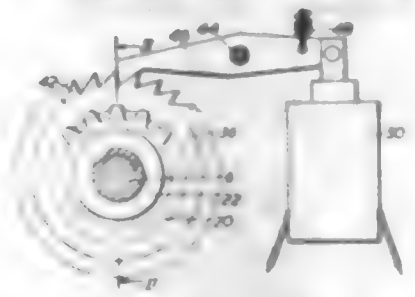
1. A single pedal throttle and brake control for vehicles, comprising a rigid frame, an elongated actuating tube axially slidably mounted in said frame and having a foot pedal fixed thereto, a rod for connection to a throttle, said rod being axially slidably mounted within said tube and said frame, a latching member pivotally mounted on said tube and extending longitudinally over said rod, a latching cone fixed on said rod, actuating means operatively connected to said foot pedal for urging said latch member into engagement with said latching cone whereby said tube and said rod are movable in unison in one direction, and brake actuating means operatively engageable by said foot pedal.

2,869,697

POWER TRANSMISSION CLUTCH

Colin S. R. Marshall, Salford, England, assignor to Tillman Langley Limited, Redhill Aerodrome, England

Application August 15, 1955, Serial No. 528,300
Claims priority, application Great Britain August 18, 1954
4 Claims. (Cl. 192—17)



1. A clutch comprising a driving member, a driven member and a control member, said three members being independently rotatable about a common axis, said control member being movable axially relatively to said driven member, and said driving member being movable axially relatively to said control member, cooperating axially-facing cam surfaces on said driven member and said control member, first spring means urging said cam surfaces into interengagement, means for arresting rotation of said control member, cooperating driving teeth on said driving member and driven member, stop means limiting axial movement of said driving member relatively to said control member in the direction to cause disengagement of said driving teeth, second spring means urging said driving member relatively to said control member towards said stop means, and means imposing resistance to rotation of said driven member in at least one direction, whereby, upon rotation of said driving member opposite to said one direction and upon application of said arresting means to said control member, said cam surfaces will move said control member axially, said second spring means will carry said driving teeth clear out of interengagement, and said driven member will cease rotation until release of said arresting means, whereupon said first spring means will return said driving teeth into interengagement.

2,869,698

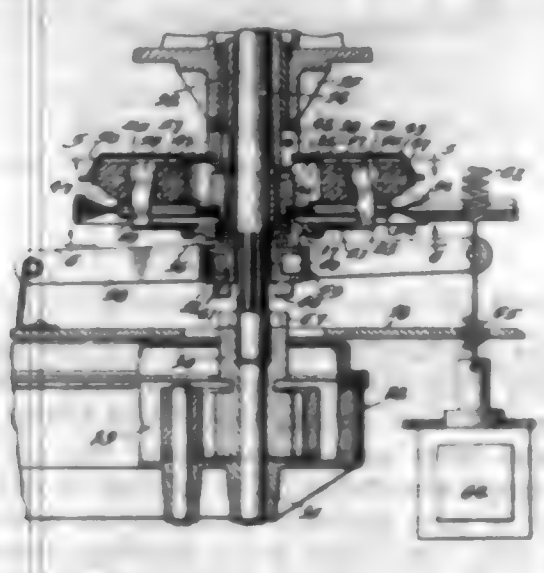
DRIVE MECHANISM

George D. Coulee, Franklin Park, Ill., assignor to General Electric Company, a corporation of New York

Application August 26, 1955, Serial No. 530,803
10 Claims. (Cl. 192—48)

5. In a drive mechanism, a first shaft to be rotated, a second shaft to be rotated, said shafts being concentric, a driven clutch element secured to said first shaft, a driving clutch element rotatably carried on said second shaft in fixed axially spaced relation to said driven clutch element, a plurality of arcuate drive shoes carried by said driving element each of said drive shoes having a friction surface for frictional driving engagement with said driven element, means for pivotally mounting each said drive shoe for swinging movement into engagement with said driven element upon rotation of said driving element, a third shaft concentric with and below said

second-named shaft, means for rotating said third shaft, clutch means between said second and third shafts and including a member axially slidable relative to said second shaft for transmitting rotation of said third shaft to said second shaft upon movement of said slidable member in the direction of said third shaft, a control member in continuous freely rotatable engagement with said last-named clutch means, camming means on each of said drive shoes, camming means extending from said control member into operative association with said drive



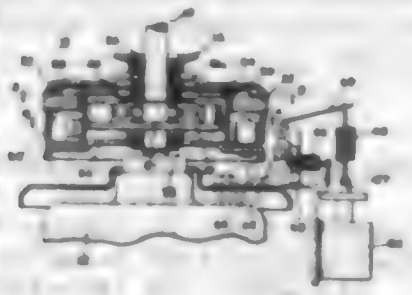
shoe camming means, the respective camming means being such that upon movement of said last-named clutch means and its associated control member toward said third shaft said drive shoes are urged into rotation away from engagement with said driven member to interrupt the driving engagement of said drive shoes therewith, while the said clutch means between said second and third shafts is actuated to drivingly connect said shafts, and means for axially moving said last-named clutch means and associated control member in a desired direction.

2,869,699

TWO SPEED DRIVE

John Bochan, Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application December 12, 1956, Serial No. 627,817
8 Claims. (Cl. 192—48)



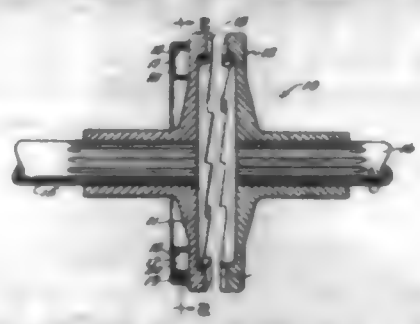
1. A two-speed clutch and governor mechanism comprising an input shaft, an output member, an intermediate rotatable drive member, means for clutching said input shaft to said intermediate member upon the rotation of said shaft, coupling means for selectively coupling said output member to said intermediate member thereby to drive said output member at the speed of said input shaft, means for rendering said coupling means inoperative, and governor means for driving said output member at a predetermined reduced speed lower than input shaft speed when said coupling means are rendered inoperative, said governor means comprising speed responsive clutch means normally clutching said output member to said intermediate member but ineffective to accelerate said output member above said predetermined reduced speed, whereby said governor means prevent said output member from being driven above said predetermined reduced speed when said coupling means are inoperative.

2,869,700

POSITIVE CLUTCH WITH DAMPING ARRANGEMENT

George W. Bowden, Beverly, Mass., assignor to General Electric Company, a corporation of New York

Application November 19, 1954, Serial No. 469,875
4 Claims. (Cl. 192—67)



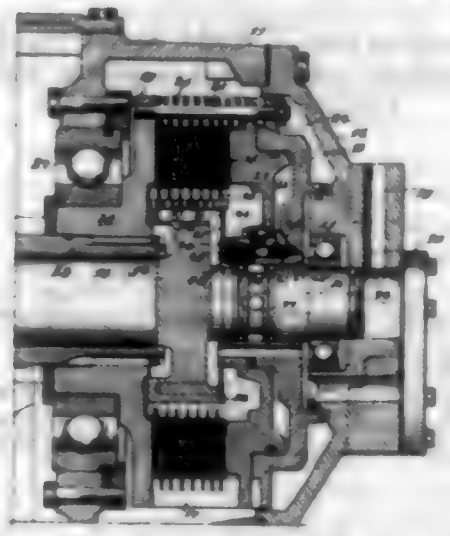
1. In an engine starter mechanism, a clutch device comprising a starter clutch dog having teeth thereon adapted to engage similar mating teeth on an engine clutch dog, walls forming a plurality of arcuate chambers, means for causing said walls to rotate with said starter clutch dog, and a quantity of mobile substance partially filling each of said arcuate chambers, at least one of said walls being rigidly secured in the peripheral path of said mobile substance so as to be capable of absorbing kinetic energy by impact therefrom when said starter clutch dog is rapidly decelerated relative to said mobile substance.

2,869,781

OIL PRESSURE ACTUATED CLUTCH

Edward C. Yokel, Racine, Wis., assignor to Twin Disc Clutch Company, Racine, Wis., a corporation of Wisconsin

Application April 26, 1954, Serial No. 425,454
8 Claims. (Cl. 192—85)



1. An oil pressure actuated clutch comprising a plurality of annular friction plates movable between released and engaged positions, a cylinder, a piston shiftable in the cylinder to engage the plates, means for continuously supplying oil under relatively low and high pressures to the cylinder in the released and engaged positions respectively of the piston, means for conducting a portion of the pressure oil to the inner edges of the friction plates when out of contact for flow between the respective opposed surfaces thereof, and means responsive to a predetermined oil pressure in the cylinder acting to shift the piston to engaged position for interrupting flow through the conducting means.

2,869,782

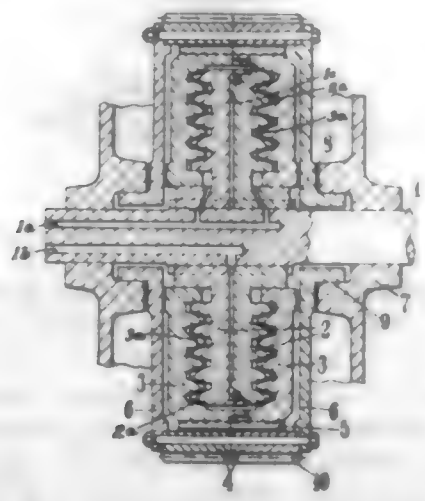
FLUID PRESSURE OPERATED FRICTION CLUTCH

Thomas Hindmarch, Chesham, England

Application December 5, 1955, Serial No. 551,139
Claims priority, application Great Britain December 8, 1954
3 Claims. (Cl. 192—85)

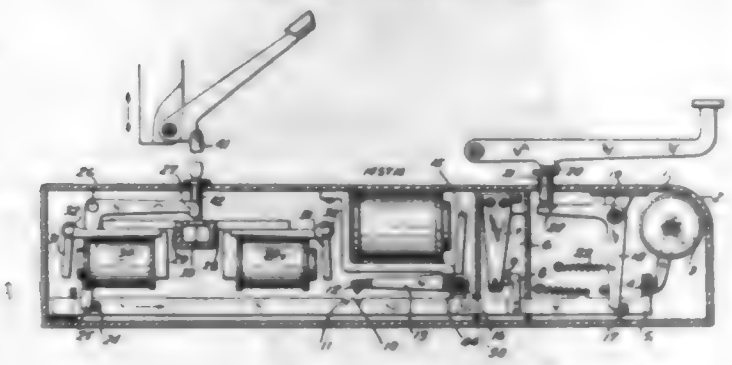
1. In a fluid pressure operated friction clutch device, a shaft, at least one disc-like axially movable clutch

member mounted upon the shaft for rotation therewith, a hollow member freely rotatable on said shaft surrounding said clutch member, complemental interengaging faces on said members, means to introduce fluid under pressure within said hollow member for moving said movable member longitudinally of said shaft to interengage the faces of the said members, an outer cylindrical drum-like



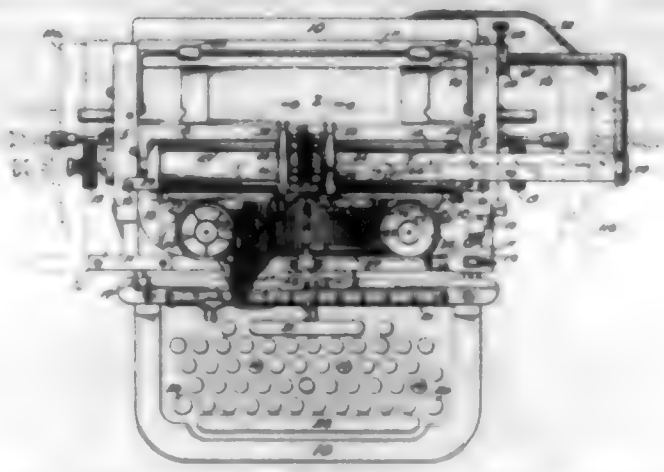
member enclosing said movable and hollow members, a fixed casing, means journalling the drum-like member to the casing coaxially of the shaft and for free rotation relative to the shaft and drive means between said hollow member and said drum-like member comprising abutments on said hollow member and said drum like member.

2,869,703
TYPE KEY BLOCKING MECHANISM
Martin Hebel, Hechendorf am Pilsensee, Upper Bavaria, Germany, assignor to Max Grundig, Furth, Bavaria, Germany
Application June 7, 1954, Serial No. 434,893
Claims priority, application Germany June 8, 1953
17 Claims. (Cl. 197—13)



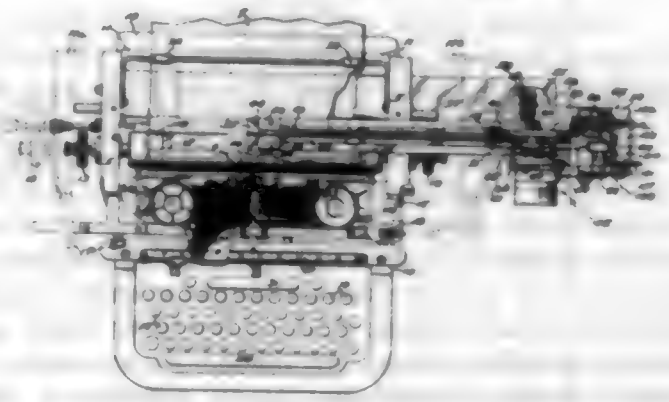
1. In an electrical mechanism of the character described, in combination, a control member movable between an inoperative and an operative position; an operating key movable between inoperative position and operative position and tending to assume said inoperative position; connecting means connecting said key to said control member only during movement of said key from said inoperative to said operative position for moving said control member to said operative position thereof; electrical circuit means including co-operating contacts movable between open and closed positions and moved from one of said positions into the other by movement of said control member from inoperative into operative position; a locking member movable between an inoperative position and an operative position holding said control member in operative position; and electromagnetic actuating means for moving said locking member from inoperative into operative position, said electromagnetic actuating means being operated by said control member upon movement thereof from inoperative into operative position so that said locking member holds said control member in said operative position while the associated key returns to its inoperative position.

2,869,704
RIBBON SUPPLY APPARATUS FOR REVERSE IMAGE TYPING
Eugene H. Gates, Jr., Clinton, Conn.
Application January 11, 1954, Serial No. 403,386
18 Claims. (Cl. 197—151)



1. The combination in a typewriting machine having a stationary body frame, a rotatable paper feeding platen, carriage structure bearing said platen having a range of horizontal letter spacing movement and conveying said platen lengthwise therewith in relation to said frame and at least in part shiftable vertically in relation to said frame, with type heads and a printing station receptive thereto at the front of said platen in fixed relation to said frame, of accessory apparatus for delivering a reverse image transfer tape to and through said printing station without impeding entrance or exit of work paper with respect to the machine comprising, a unit of tape delivering apparatus including guide means arranged to direct said tape in a course of feeding travel that traverses said printing station, connections operably relating said unit to at least a section of said carriage that is vertically shiftable in relation to said frame in a manner to cause said unit to perform rising and falling bodily movement in accordance with vertical shifting movement of said platen, an anchorage abutment stationed in relation to said body frame beyond said range of letter spacing carriage movement in the direction of said movement, and an elongate arm for orienting said unit having one end constrainingly coupled thereto and extending lengthwise of and above said platen and having its other end connected to and supported by said anchorage abutment in a manner permitting up and down movement of the first said end of said arm in unison with vertical shifting of said carriage structure.

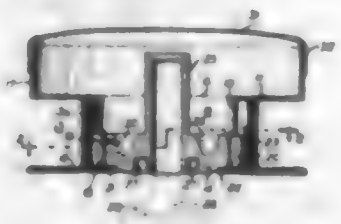
2,869,705
OUTBOARD RIBBON SUPPLY APPARATUS FOR TYPEWRITERS
Eugene H. Gates, Jr., Clinton, Conn.
Application July 5, 1957, Serial No. 670,211
12 Claims. (Cl. 197—151)



1. Accessory apparatus for progressively delivering reverse image transfer tape at the printing station of a typewriting machine between the platen and the striking type heads without blocking the entrance of flat sheets of work paper when inserted edgewise downward into said ma-

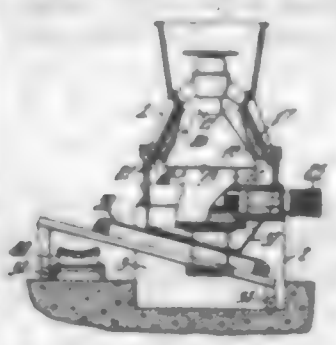
chine directly at the rear of the platen comprising in combination with the platen, a unit of tape storing and impelling mechanism stationed in endwise outboard relation to the letter spacing range of platen movement, tape looping structure localized at the printing station of the machine constructed and arranged to guide tape in a partially circular path around said platen at said printing station, and tape supporting ways extending between said outboard unit and said tape looping structure and extending along and proximate said platen, whereby the tape is guided in predetermined paths isolated from the platen throughout the distance separating said unit from the printing station of the machine without blocking entrance of flat sheets of work papers to be inserted edgewise downward into the machine directly at the rear of the platen.

2,869,706
COMBINED RIBBON SPOOL AND RE-INKER
John W. H. Bishop, Essex, Conn.
Application February 20, 1957, Serial No. 641,305
10 Claims. (Cl. 197—171)



1. A device of the character described, comprising a ribbon spool including a hollow hub and a pair of axially spaced flanges extending outwardly from the hub providing a ribbon receiving channel, the hub being closed at its bottom and open at its top and having a bleed opening through its side wall, an annulus of absorbent material engaging over the bleed opening in contact with the periphery of the hub and an annular wall extending upwardly beyond the upper flange and providing with the hollow hub an ink reservoir.

2,869,707
MEANS FOR CONVEYING CRUSHED MATERIAL FROM A GYRATORY CRUSHER
Louis M. Andersen, West Allis, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application June 11, 1956, Serial No. 590,719
6 Claims. (Cl. 198—56)



1. In means for conveying crushed material from a gyratory crusher supported in an upright position on foundation structure, said crusher having a shell and a vertically positioned main shaft assembly at least partly within said shell, said shell having an inner wall surface defining a substantially annular discharge opening around said shaft assembly, the improvement comprising a first and second conveyer passing directly beneath said discharge opening, an upper surface of said first and second conveyers being above the lower end of said main shaft assembly, said first and second conveyers being arranged with one on each side of said main shaft assembly and in generally parallel alignment with each other, and a pair of chutes, one of said chutes positioned to connect one half of said discharge opening to one of said first and second conveyers and the other of said chutes positioned to connect the other half of said opening to the other of said conveyers, each of said chutes having discharge flow directing walls with at least a portion of an outer wall of said chutes being sloped downwardly and inwardly toward said shaft assembly to direct the discharge flow in converging streams onto said conveyers.

2,869,708
BALE CONVEYER
Clifford A. Nesseth, Brimley, Mich.
Application August 18, 1955, Serial No. 529,291
2 Claims. (Cl. 198—158)

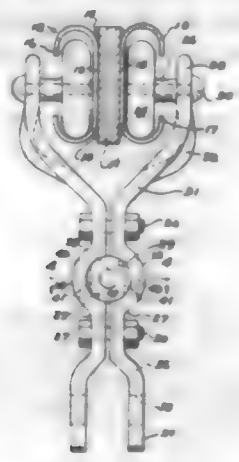


1. A vertical device for elevating hay bales or the like comprising a lower pulley, an upper pulley disposed over said lower pulley, means mounting said pulleys for rotation on spaced parallel axes and in substantially the same vertical plane, an endless member trained around said pulleys and having a forward outer reach and a rearward inner reach, a lifting arm, means pivotally connecting said lifting arm to said endless member, means for driving one of said pulleys and said endless member whereby said lifting arm moves upwardly on said outer reach and downwardly on said inner reach, means for constraining said lifting arm to extend generally perpendicular to said endless number when the arm is moving upwardly, and until it passes beyond a given point of said upper pulley, an abutment supported adjacent said upper pulley for engagement by said lifting arm after it has passed said given point for deflecting said lifting arm forwardly and downwardly as it travels around said upper pulley from said outer to said inner reach, said lifting arm hanging downwardly and generally parallel to said inner reach as it moves downwardly on the inner reach, and means adjacent the bottom of the conveyor to swing said lifting arm forwardly and upwardly from said parallel extension to said perpendicular extension as the lifting arm moves from said inner to said outer reach.

2,869,709
CONVEYOR CONSTRUCTION
Donald D. Zebley, Detroit, Mich., assignor of one-half to Herman A. Sperlich, Highland Park, Mich.
Application April 1, 1957, Serial No. 649,837
2 Claims. (Cl. 198—177)

1. In a conveyor movably mounted upon an overhead track and including a series of aligned short cable elements; enlarged cylindrical buttons secured on the ends of said cable elements, a pair of opposed upright load carrying bracket plates depending from said track, opposed central transverse portions of said plates being curved outwardly defining a horizontally elongated cylindrical recess receiving therein a pair of buttons and their asso-

ciated cable elements, interlocking projections and recesses formed in said buttons and curved portions, and fastening means interconnecting said plates above and below said curved portions, said interlocking projections and



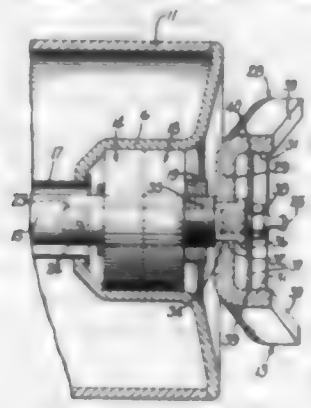
recesses including upright slots formed in the outer surfaces of each button, there being a series of upright slits formed through said curved portions defining therebetween inwardly projecting keys nested within the button slots.

2,869,710

IDLER ROLLER ANCHORING DEVICE

Edward C. Stewart, Aurora, Ill., assignor to Barber-Greene Company, Aurora, Ill., a corporation of Illinois

Application May 21, 1957, Serial No. 660,654
7 Claims. (Cl. 198—192)



1. In a trough-type roller assembly and hanger structure including horizontal and inclined rollers each supported on fixedly mounted shafts, the improvement of said hanger structure including vertically upwardly extending generally U-shaped arms opening generally axially of the axes of the shafts including upwardly converging flange extensions, the bottom of the U-shaped arm having a vertically upwardly facing edge surface supporting one end of one of said fixedly mounted shafts, wedge plate means disposed between said converging flange extensions cooperable therewith, said wedge plate means and said flange extensions including confronting converging surface areas in abutting engagement preventing one end of the trough-type roller assembly from lifting off of the U-shaped arms, and detachable means for maintaining the wedge-plate means in assembly with said one end of one of said fixedly mounted shafts.

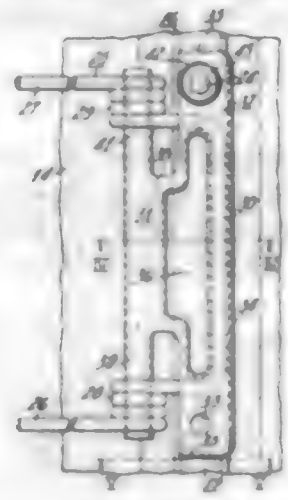
2,869,711

MEANS FOR MOUNTING PICKUP FINGERS ON DRAPER CONVEYER

Charles J. Scranton, La Porte, Ind., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application November 20, 1953, Serial No. 393,276
3 Claims. (Cl. 198—198)

1. In combination in a windrow pickup device comprising a longitudinally extending endless conveyer having transversely extending slats vulcanized to the outer surface of said endless conveyer, and a spring tooth member having a pair of transversely spaced coaxial coils and tangentially extending fingers, each of said slats including a coextensive transversely extending channel member having its legs imbedded in said slat with the outer web surface thereof being flush with the outer surface of said slat, a securing element for said tooth member comprising a body portion provided with a pair of transversely spaced apart apertures positioned on opposite sides of a depressed central portion, means passing through said apertures for attaching said body portion to said outer web surface, said central portion being depressed an amount slightly less than the wire diameter of said tooth member, said body portion being provided with a transversely extending turned over portion extending inwardly



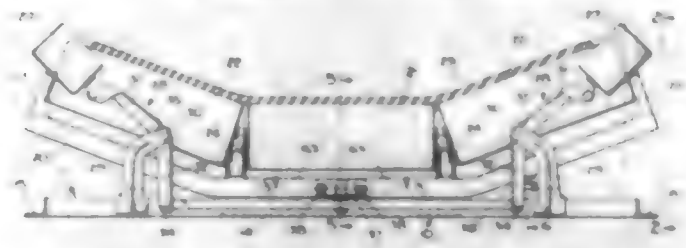
a distance slightly less than the wire diameter of said tooth member, said turned over portion extending parallel to and in longitudinally spaced relation to said central portion a distance substantially equal to said wire diameter to provide a transversely extending trough, said depressed portion including a longitudinally extending portion, a pair of transversely extending arms on opposite sides of said longitudinally extending portion and received within said coils in supporting relation thereto, said coils being provided with a transversely extending connecting portion seated in said trough and clamped by said retaining element against said outer web surface with said coils supported on said arms in longitudinally spaced relation to said slat and in outwardly spaced relation to said conveyer.

2,869,712

CONVEYOR BELT IDLER

Arnie J. Kindig, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio

Application September 29, 1955, Serial No. 537,327
10 Claims. (Cl. 198—202)



1. A training troughing idler for a conveyor belt comprising a support extending transversely of the belt, idler roll means on the support engaging the underside of the belt to maintain it in a normal run centrally disposed with respect to the idler, said support being mounted on a base for oscillatory movement about a vertical axis, belt guiding rolls supported on the base and disposed one adjacent each edge of the belt, each of the guiding rolls being positioned beyond the normal run of the belt whereby the belt is adapted to engage one or the other of the guiding rolls only when it moves to a position laterally of said normal run, each of the guiding rolls being mounted on a pivoted lever, the ends of said levers

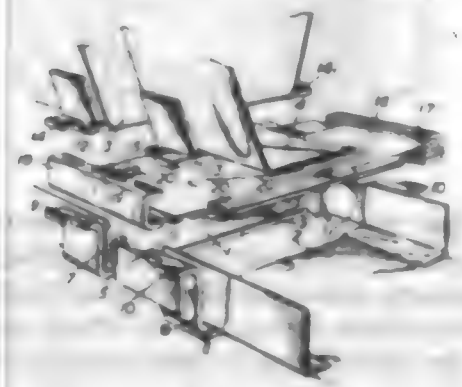
being pivotally connected to the ends of a push rod, said push rod being linked to the support for adjustment thereof and the idler roll means under control of the guiding rolls to center the belt on the idler in said normal run.

2,869,713

SCRAPER CHAIN CONVEYOR STRUCTURES

Angus W. Duncan, Worcester, England, assignor to The Mining Engineering Company Limited, Worcester, England

Application November 1, 1954, Serial No. 466,147
Claims priority, application Great Britain November 2, 1953
4 Claims. (Cl. 198—204)



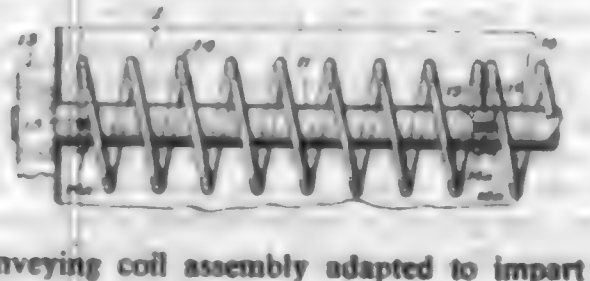
1. A locking member for a scraper chain conveyor structure including a series of upper and lower trough sections having projecting locking lugs at each end and adapted to be locked together with said sections end to end, comprising an independent member in the form of a plate formed to overlie the joint between an adjacent pair of lower trough sections and underlie the joint between an adjacent pair of upper trough sections to form a seal beneath said latter joint, the said independent member being provided at each end with locking means for embracing said lugs of adjacent trough sections and by which the said upper sections are locked to said lower sections and to each other.

2,869,714

CONVEYOR CONSTRUCTION

Ralph E. Williams, River Forest, Ill., assignor to B. F. Gump Co., Cicero, Ill., a corporation of Illinois

Original application January 23, 1956, Serial No. 560,786. Divided and this application November 29, 1956, Serial No. 625,058
1 Claim. (Cl. 198—213)



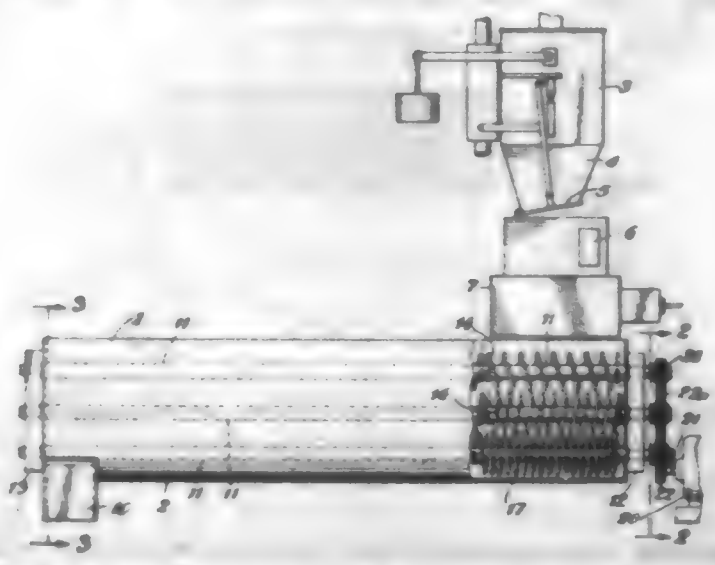
A conveying coil assembly adapted to impart a generally linear motion to granular and other discrete particles along a generally horizontal predetermined path including a generally horizontal shaft, means for rotating the shaft, and a spiral coil structure concentrically surrounding the shaft, the spiral coil structure including a plurality of coil sections of limited axial length and equal diameter, each such section being secured to the shaft only at its ends by radial end portions secured to the shaft and generally perpendicular thereto whereby a continuous spiral is provided, the radial end portions of adjacent coil sections being themselves adjacent and generally parallel to thereby form a minimum radial obstruction to the movement of material along the shaft, the pitch of the coils being so selected as to form a plurality of closely spaced unbroken spirals adapted to impart a positive translatory impetus to the material along the predetermined path.

2,869,715

CONTINUOUS FEEDER APPARATUS

Ralph E. Williams, La Grange, Ill., assignor to B. F. Gump Co., Chicago, Ill., a corporation of Illinois

Original application January 23, 1956, Serial No. 560,786. Divided and this application April 29, 1957, Serial No. 655,710
14 Claims. (Cl. 198—213)



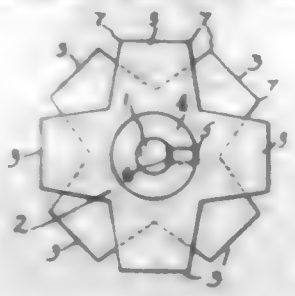
1. In a continuous feeder for powdered or granular material, a longitudinally extending housing having side walls and an end wall and a closed bottom, a plurality of spiral conveyors rotatably mounted in said housing for rotation about generally parallel, longitudinal axes, said spiral conveyors being mounted at different levels within said housing, means for simultaneously rotating said conveyors in a like conveying direction but with different conveying potentials at different levels, and means for feeding material to the conveyors at one end of the housing, the housing having discharge means at the opposite end of the housing.

2,869,716

CONVEYOR BELT IDLER

John P. Vidmar, Hibbing, Minn., assignor to The M. A. Hanna Company, Cleveland, Ohio, a corporation of Ohio

Application January 3, 1957, Serial No. 632,393
3 Claims. (Cl. 198—230)



1. An idler for conveyor belts comprising: an axle adapted to be rotatably mounted below a conveyor belt, a plurality of resiliently deformable members mounted on said axle, and means for restricting the axial movement of said members with respect to said axle, each of said members having thereon a plurality of circumferentially spaced portions extending generally radially from said axle and terminating in flat ends that have corners lying on a cylinder coaxial with said axle, the portions of adjacent members being uniformly circumferentially offset with respect to one another.

2,869,717

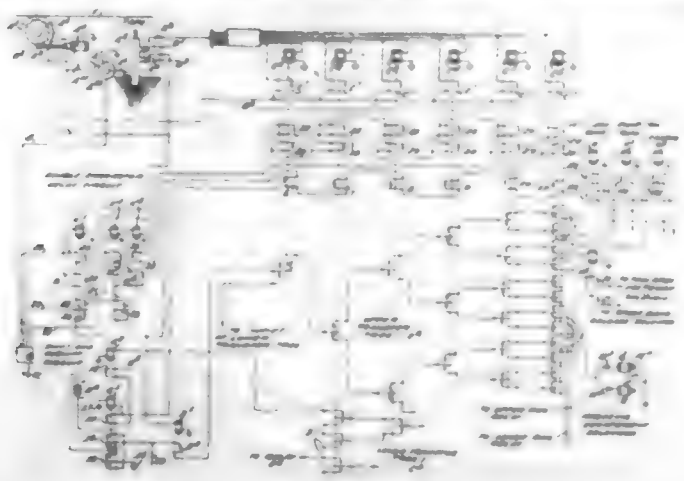
TYPOGRAPHICAL COMPOSING MACHINE

Louis Rossetto, Kings Point, and Victor M. Corrado, Williston Park, N. Y., assignors to Mergenthaler Linotype Company, a corporation of New York

Application June 24, 1953, Serial No. 363,755
10 Claims. (Cl. 199—18)

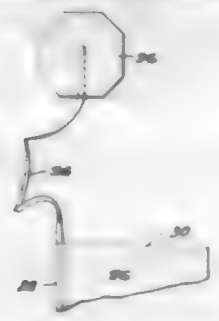
3. In a typographical composing machine adapted for automatic operation, the combination of a magazine con-

taining character bearing elements, a plurality of escapements associated with said magazine and adapted to release individual character bearing elements, a corresponding plurality of electrical solenoids for actuating said escapements directly and by their own power, input code signals to electrically condition a selected solenoid for operation, work circuits in which the electrical solenoids are



included, and a power driven timing generator for pulsing said circuits and having a definite cycle of operation, said timing generator acting during each cycle of operation to send forth an electrical pulse which energizes the work circuit for the selected solenoid at a predetermined time after it has been conditioned by the appropriate input code signal.

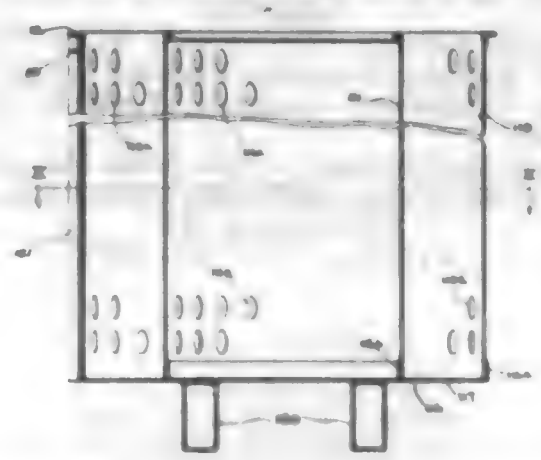
2,869,718
INFUSION BAG
James P. Whelan, Quincy, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts
Application September 14, 1956, Serial No. 610,009
2 Claims. (Cl. 206—.5)



2. An infusion device comprising a bag containing an infusion material, and a handle for the bag including an elongated fibrous strip and a tag, one end of said elongated strip being connected to the bag and the other end to the tag, said tag comprising opposed leaves secured together to provide an open space between their marginal edges, a portion of said elongated strip adjacent the tag being folded upon itself and loosely inserted in said open space to confine the strip within the tag, said tag being detachably secured to a wall of the bag to dispose the tag in close proximity to the bag whereby to avoid tangling of the handles of adjacent bags, said inserted portion being readily withdrawn and extended for use when the tag is detached from said bag wall.

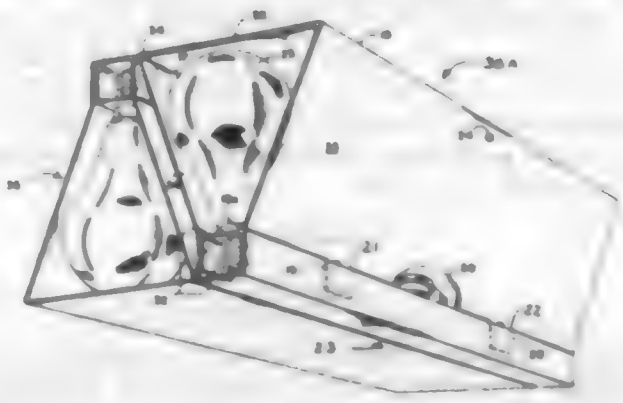
2,869,719
WIRE PROCESSING AND STORAGE CONTAINER
Eber J. Hubbard, Fort Wayne, Ind., assignor to Hubbard Spool Company, Garrett, Ind., a corporation of Illinois
Application August 17, 1955, Serial No. 529,023
1 Claim. (Cl. 206—1)

A processing and storage container for wire or the like comprising a first substantially cylindrical perforate steel drum, a second substantially cylindrical perforate steel drum nested within said first drum, a perforated steel base member rigidly secured to said drums at one end thereof only providing an open-ended annular storage space between said drums, the open end of said first drum having an outwardly extending annular reinforcing flange and the open end of said second drum having an inwardly extending annular reinforcing bead, and transversely



spaced hollow block-like steel support members secured to the bottom of said base for maintaining said base in a position spaced above a supporting surface for cooperation with the lifting forks of a lift truck or the like and to provide for circulation of fluid around material in said storage space.

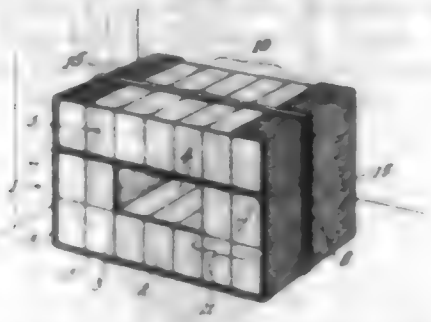
2,869,720
PACKAGE FOR INCANDESCENT LAMPS
James A. Mahoney, Marblehead, Mass.
Application April 12, 1956, Serial No. 577,758
1 Claim. (Cl. 206—65)



A package consisting of an assembly of incandescent lamps and a structure for surrounding the assembly of said lamps, said structure comprising a rectangular, foldable blank having seven parallel transverse fold lines positioned along said blank forming eight rectangular panels, said second, third, fourth, and fifth panels being of equal width, said sixth, seventh, and eighth panels being of equal width the second of said panels being perforated so as to make circular apertures of sufficient diameter and spaced to accommodate and fit snugly the screw bases of said lamps, the eighth panel being extended by wing tabs adapted to engage with transverse slots positioned on the second fold line, the fifth of said folds being an out-fold, all other folds being in-folds, said first, second, third, fourth and fifth panels when infolded at right angles to each other forming a hollow rectangular prismatic enclosure for the base positions of said lamps said bases being screwed into said second panel, said first panel overlapping said fifth panel, said second, sixth, seventh and eighth panels when in-folded forming a hollow isoceles trapezoidal enclosure for the bulb portions of said lamps, and tangential to the sides and tops of said bulbs, the insertion of said tabs in said slots making a complete lamp enclosure, said bases and said bulbs being separately protected, the shorter parallel side of said trapezoidal enclosure being common with and equal in length to the top of said rectangular enclosure, said packages being adapted to be stacked in

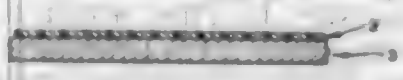
alternate inverted arrangement with the rectangular enclosure of one package being adjacent the trapezoidal enclosure of a contiguous package, the tops and bottoms of said packages being in the same plane.

2,869,721
SINGLE-VOID UNITIZED TRANSPORTABLE PACKAGE
Earl F. Bauner, Parlin, N. J.
Application October 18, 1957, Serial No. 691,875
2 Claims. (Cl. 206—65)



1. A light-weight unitized transportable package of brick comprising a vertically-disposed stack in running relation consisting of a lower layer of seven brick, a second layer of four brick disposed in a manner as to define a centrally-located void while the outer brick thereof are in flush relation with the outer brick of said first layer, a sheet of supporting material disposed over said void and over at least a portion of the brick in said second layer and serving as a support for a third layer, a third layer of seven brick disposed over said second layer and in outside edge flush relation with said other layers, and a band circumscribing the closed periphery of said three-layer package and serving to hold all of said brick together.

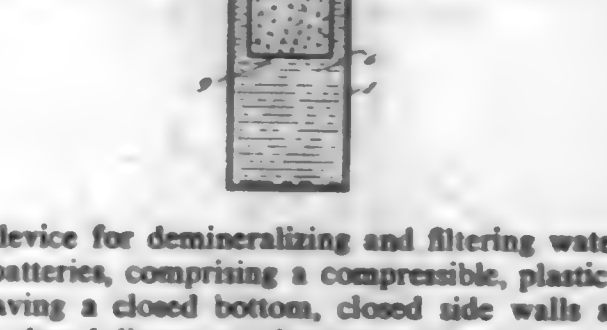
2,869,722
PAPER PRODUCTS HAVING A RELEASE COATING AND METHOD OF PREPARATION THEREOF
Myron P. Marander, Martinez, Felix B. Gockwend, Antioch, and Monroe F. Smith, Walnut Creek, Calif., assignors to Fibreboard Paper Products Corporation, San Francisco, Calif., a corporation of Delaware
Application October 14, 1957, Serial No. 689,805
7 Claims. (Cl. 206—84)



5. A package comprising a paperboard container having a coating on its interior walls of from about 5 to 95 percent by weight of a catalytically polymerized heat-cured silicone resin with release properties, from about 5 to 95 percent by weight of polymeric polyvinyl alcohol carrier, said percents by weight being based upon the weight of silicone resin and carrier in said coating, and a catalyst for said silicone resin present in an amount of between 1 percent and 20 percent of the amount of silicone resin in said coating; and a tacky material within said container.

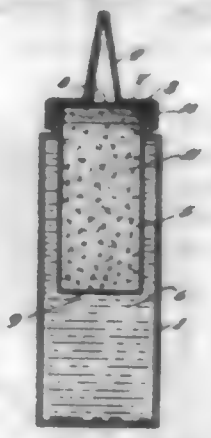
2,869,723
ARTICLE SEPARATOR
Paul Autio, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application October 28, 1954, Serial No. 465,274
7 Claims. (Cl. 209—86)

1. Apparatus for separating properly assembled washers and nut elements from improperly assembled washers and nut elements, comprising a hollow solid of revolution having a plurality of openings of different sizes spaced axially therealong selectively to pass properly assembled and improperly assembled washers and nut elements out of said hollow solid of revolution, each opening having a pair of substantially straight parallel edges extending substantially axially of said hollow solid, all of said openings being of the same dimension axially of said hollow of revolution, said hollow solid of revolution having a generating element thereof substantially vertically below the axis which is inclined slightly to the horizontal for feeding nut elements and washers along



said hollow solid of revolution when the same is rotated about its axis, means for rotating said hollow solid of revolution about its axis to effect such feeding, and scoop means within said hollow solid of revolution adjacent each of said openings for directing properly and improperly assembled nut elements and washers to said openings, said scoop means being substantially flat and extended in the direction of rotation.

2,869,724
DEVICE FOR DEMINERALIZING WATER
Harry J. McDevitt, Hatboro, Pa.
Application June 29, 1955, Serial No. 518,913
2 Claims. (Cl. 210—94)

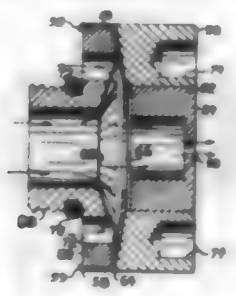


1. A device for demineralizing and filtering water for storage batteries, comprising a compressible, plastic container having a closed bottom, closed side walls and a neck of reduced diameter at its upper end, such upper end being open, a cartridge the upper end of which has a close fit in said neck and containing a mixture of a cation exchanger coupled with a basic anion, said cartridge having closed side walls, an apertured top and an apertured bottom with a filter between said mixture and the top of the cartridge, the top of said cartridge being of greater diameter than its side walls to form an annular flange supported on the upper end of said neck, and a cap in threaded engagement with said neck and having a dispensing spout.

2,869,725
QUICK DRAIN DEVICE
William A. Staats, Ashland, Ohio, assignor to The F. E. Myers & Bro. Co., Ashland, Ohio, a corporation of Ohio
Application March 26, 1956, Serial No. 573,898
4 Claims. (Cl. 210—137)

1. The combination in a water softener, of a tank containing a softening reagent and having hard water inlet and soft water outlet connections, a normally closed drain connection leading from said tank to release water therefrom during the regeneration and subsequent rins-

ing of the reagent, said drain connection comprising a flow control device having a low restriction flow path normally effective and a high restriction flow path which is effective when the first path becomes ineffective, an element in said device movable therein, and means in said device coacting with said movable element and re-



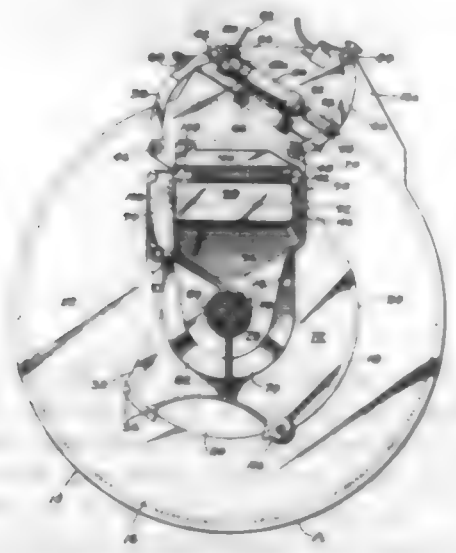
sponsive to a predetermined rate of fluid flow through the device to move said element into position to make said first path ineffective whereby rapid draining of the tank can take place when it is under low pressure but a reduced rate of flow takes place through the tank when it is being rinsed under pressure.

2,869,726

POWER-OPERATED CURB COVER FOR CENTRIFUGAL MACHINES

Joseph Hertrich, deceased, late of Hamilton, Ohio, by Elise Hertrich, executrix, Hamilton, Ohio, assignor to The Western States Machine Company, Hamilton, Ohio, a corporation of Utah

Application July 6, 1954, Serial No. 441,369
8 Claims. (Cl. 210—142)



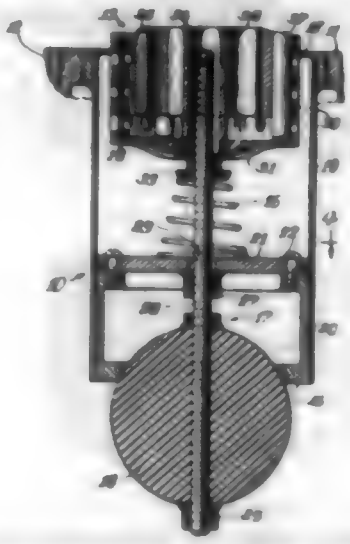
8. In centrifugal apparatus including a rotatable basket, a stationary curb surrounding the basket and having a top opening permitting access to said basket and a loading gate located for delivery of charge material through said opening into the basket, a curb cover movable horizontally from a normal closed position covering said opening to an open position exposing said opening, a portion of said cover forming an upwardly facing trough to catch material falling from said loading gate, said trough underlying said gate when said cover is in its closed position and being displaced from below said gate as said cover is moved to its open position, and mounting means for said cover comprising a pair of links each having a relatively fixed pivot at one end, said fixed pivots being located on a backward extension of said curb cover, the other ends of said links being pivotally connected to said curb cover on opposite sides of said trough and in back of said gate, and the pivots of said links defining substantially a parallelogram.

2,869,727

VALVED FLOOR DRAIN FITTING AND A STRAINER THEREFOR

Elra F. Howe, Chicago, Ill., assignor to Velma Rea Howe, Chicago, Ill.

Application July 13, 1956, Serial No. 597,741
14 Claims. (Cl. 210—429)



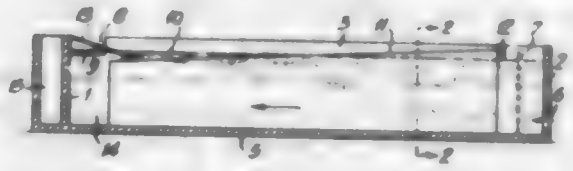
1. A fitting of the character described for use in a floor drain, comprising: a tubular member adapted to be received in a floor drain with the outer end of said member being substantially flush with the floor and the inner end of said member provided with a valve seat; support means extending across said tubular member intermediate its ends; a rod extending axially of said tubular member and freely through said support means; a movable valve element secured to the inner end of the rod; stop means on the rod outwardly of the support means; biasing means extending between the support member and the stop means to urge the rod longitudinally outwardly and seat said valve element on said valve seat; a foraminous member carried on the outer end of the rod and arranged to move the rod longitudinally inwardly when the foraminous member is moved inwardly longitudinally of the tubular member; and catch means associated with the tubular member for releasably holding the foraminous member in a longitudinally inner position with the rod positioned to space said valve element away from the valve seat.

2,869,728

APPARATUS FOR SEPARATING SOLID PARTICLES SUSPENDED IN A LIQUID

Emil Olof Lennart Wallén, Stockholm, Sweden, assignor to Leje & Thurne Aktiebolag, Stockholm, Sweden

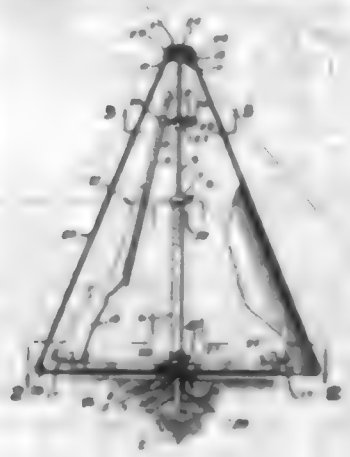
Application February 20, 1956, Serial No. 566,606
Claims priority, application Sweden March 16, 1955
2 Claims. (Cl. 210—526)



1. An apparatus for continuously separating by flotation fibrous material suspended in a liquid comprising, in combination, a stationary separating container adapted to contain a suspension composed of said liquid with said fibrous material suspended therein, an inlet for the suspension in one area of said container, an outlet at an opposite area of said container positioned to establish the upper level of the suspension in said container, whereby said suspension is adapted to flow from said inlet to said outlet with the fibrous material forming a floating layer adjacent said outlet with a lower surface at a second level below said first-named level, a plurality of substantially vertical laterally-spaced partitions dividing the liquid space of the container transversely into a

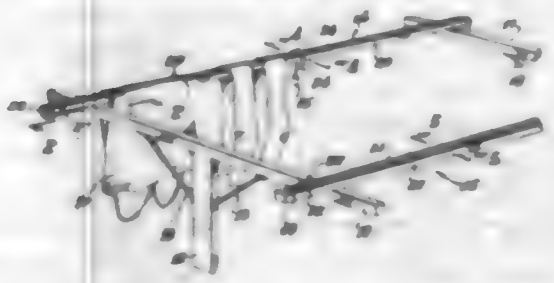
plurality of channels, the upper edges of said partitions adjacent said outlet being at a level below said first-named level but lying substantially adjacent said second level defined by the lower surface of the layer of fibrous material floating on said liquid, whereby said layer is adapted to be forwarded toward said outlet and removed from said liquid without being obstructed by the partitions adjacent said outlet.

2,869,729
GUN RACK
Thomas J. Hayden, Renton, Wash., assignor of one-half to Irby I. Hayden, Seattle, Wash.
Application February 26, 1954, Serial No. 412,820
2 Claims. (Cl. 211—64)



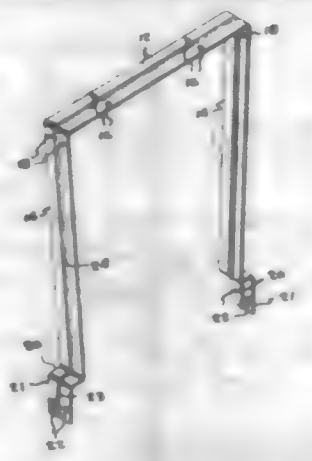
1. In a gun rack, a ground-engaging disc, a ground-engaging shaft depending from said disc, said shaft having an upper end portion traversing said disc and extending thereabove, circumferentially spaced radial ears fixed to said upper end portion and spaced above said disc, radial arms having inner ends pivoted on said ears and outer ends, gun butt receivers on said outer ends, a vertical tubular post having an open upper end and a lower end mounted on said upper end portion of the shaft, said post rising above said ears, and gun barrel holding means on said post and extending above the upper end of the post, said gun barrel holding means comprising a vertical rod supported in the open upper end of said post, and a collar on said rod and having radial arms terminating in gun barrel clips.

2,869,730
CLOTHESLINE
Juan Angel Torriente, Los Angeles, Calif.
Application February 6, 1956, Serial No. 563,616
3 Claims. (Cl. 211—124)



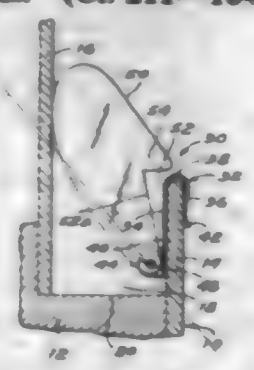
1. In a clothesline, the combination of: a substantially rigid beam adapted for mounting in a horizontal position with an upwardly facing surface, said surface having a groove therein extending the length of said beam; a flexible member disposed along said surface in said groove; resilient means coupling said flexible member to said beam adjacent each end thereof and urging said flexible member into said groove; and a spacer disposed laterally between said surface and said flexible member and movable longitudinally along said beam for lifting said member from said groove.

2,869,731
SELF-STANDING SHELF BRACKET
Milton L. Axelrod, New Haven, Conn.
Application April 26, 1957, Serial No. 655,269
1 Claim. (Cl. 211—148)



In a support for shelves, at least two like, superposed brackets each of which includes a horizontal bight and a pair of downwardly converging legs depending from opposite ends of the bight and formed at their lower ends with laterally outwardly extending portions, said portions being integral at their outer ends with depending extensions, said portions of the upper one of the brackets resting upon the bight of the lower one of the brackets, the extensions of the upper bracket overlying and being affixed to the legs of the lower bracket, said portions of the upper bracket terminating at their outer ends approximately at the respective extremities of the bight, said portions and extensions of each bracket having communicating ribs on their inner surfaces and having communicating grooves on their outer surfaces, the ribs of the upper bracket engaging in the grooves of the lower bracket.

2,869,732
DISPLAY RACK DIVIDER
Daniel M. Ganz, Baldwin, N. Y., assignor of one-half to Harold Mahler, New York, N. Y.
Application April 1, 1955, Serial No. 498,731
5 Claims. (Cl. 211—184)

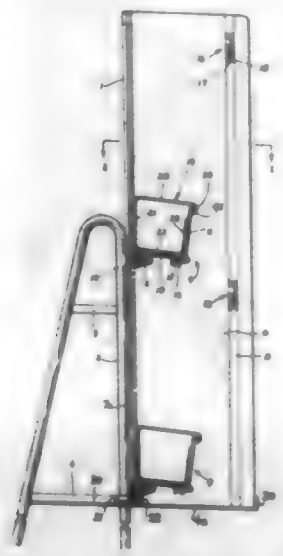


1. In combination with a display rack including front and rear walls spaced apart and in substantial parallelism, said walls defining an elongated trough for receiving side by side stacks each made up of a number of flat elements, an upright divider for said display rack including a downwardly opening metal clip of U-shaped cross-section, said clip having opposed legs engaging over one of said walls, a divider body extending in a plane transverse to said walls, and a pivot on one leg of said clip and operatively connected to said divider body mounting same for adjustment in said plane and into a position straddling said walls and serving as a barrier against interleaving of the elements of the respective stacks.

2,869,733
DIVIDER AND RACK CONSTRUCTION
Henry B. Goodman, New London, Conn.
Application September 19, 1955, Serial No. 535,021
3 Claims. (Cl. 211—184)

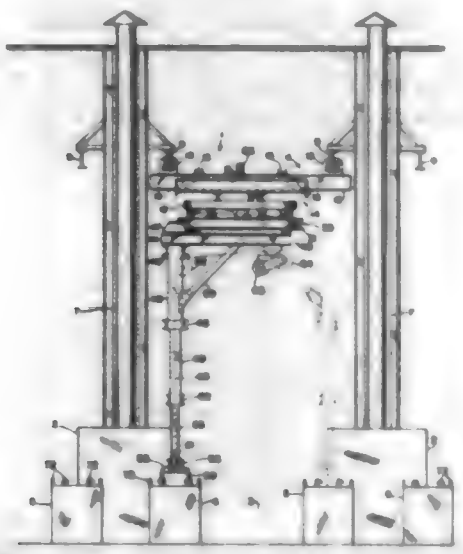
1. In combination with a shelf structure having rear, front and bottom walls and open at its top, a divider

made of a single strip of resilient material and having a top section which engages the front surface of the front wall of the shelf, rear and bottom sections which are a continuation of the top section and lying against the front and upper surfaces of the rear and bottom walls



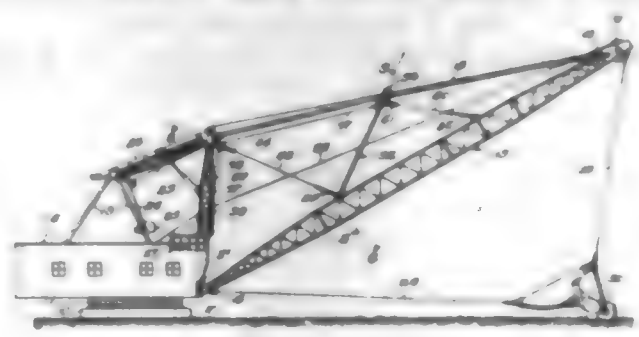
respectively, and a front section extending at substantially right angles from the front of the bottom section causing the top section to bear against the front surface of the front wall with said front section in pressing contact with the inner surface of the front wall.

2,869,734
HOIST UNIT
Adolph W. Ernestus, Whitefish Bay, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application September 12, 1955, Serial No. 533,672
2 Claims. (Cl. 212—21)



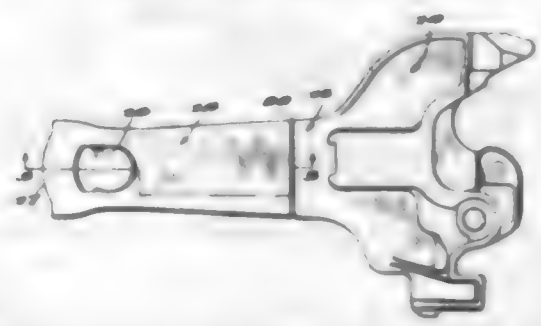
2. Material handling apparatus for use in a manufacturing plant or the like, comprising an overhead crane adapted to move longitudinally of the plant, a plurality of transversely extending rails secured beneath said crane, a transversely movable carriage adapted to ride on said rails, a circular ring secured beneath said carriage, support means secured within said ring and having a bearing secured centrally thereof, a rotatable shaft disposed within said bearing and extending downwardly therefrom, a turntable mounted on the lower portion of said shaft and rotatable therewith; said shaft, support means and ring taking the full load of the turntable; a hoist frame secured to the lower side of the turntable and having a portion extending outwardly of the periphery thereof, a rigid downwardly extending telescoping hoist secured at its upper end to said outwardly extending portion of said frame, said hoist having means disposed on its lower end for engagement with material to be handled, means to telescope said hoist to raise or lower said material during handling, means to rotate said shaft and turntable to revolve said hoist about the axis of the shaft to allow accurate positioning of the material, and means disposed between said ring and said turntable to facilitate turning of the turntable and to relieve said shaft of bending moments during material handling.

2,869,735
TRUSSING FOR BOOMS
John W. Page, Chicago, Ill., assignor to Page Engineering Company, a corporation of Illinois
Application November 29, 1954, Serial No. 471,580
3 Claims. (Cl. 212—144)



2. In a derrick structure having a boom and mast extending in an upwardly direction and boom support lines connected to the mast and end of the boom, a boom stiffening arrangement comprising: a becket staff swingably attached to the boom intermediate its ends and extending upwardly to support said boom support lines intermediate their ends; and flexible tension members, one connecting the upper end of the becket staff with the boom and another connecting the upper end of the becket staff to the upper end of the mast to hold the staff in a predetermined position supporting the boom lines, said another tension member being secured to the mast intermediate its ends and extending from the upper end of the mast to the upper end of the becket staff, said another tension member being mounted to have equal tension throughout its length; and a flexible cable connecting the upper portion of the mast with the lower portion of the becket staff adjacent the attachment of said staff to said boom, said mast, staff, tension members and cable forming truss triangles with the boom having only the boom, staff and mast as compression members for stiffening the boom against vibration.

2,869,736
RAILWAY COUPLER
Harry H. Wolfe, Columbus, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio
Application December 21, 1953, Serial No. 399,298
10 Claims. (Cl. 213—72)



10. A stem member for a two-part draw bar of a railway coupler comprising, an elongated rear stem member having a cavity therein open at one side and open at the front end thereof, a front end surface on said member substantially at right angles to the length thereof, shoulders extending lengthwise of said member along the boundary of said side opening, a segmental cylindrical surface within said member at the rear end of said cavity with substantially parallel surfaces both tangent to said cylindrical surface extending to said shoulders, lugs at the

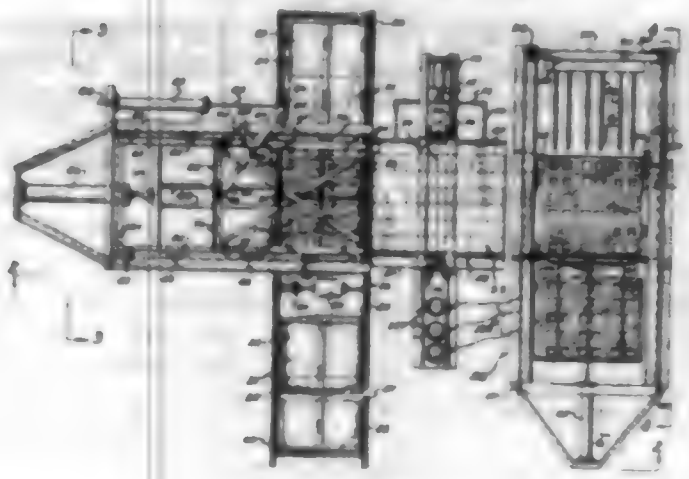
front end of said stem member having substantially parallel inner confronting edges extending to said shoulders, a second segmental cylindrical surface connecting and merging with said inner edges on said lugs, a filler member having portions engaging said shoulders with the filler member closing said side opening, a segmental cylindrical bearing surface on the filler member complementing the segmental cylindrical surface at the rear end of said cavity, and a segmental cylindrical surface on said filler member complementing the segmental cylindrical surface connecting the inner edges on said lugs.

2,869,737

APPARATUS FOR CUBING BUILDING BLOCKS

Paul M. Thomas, Phoenix, Ariz., assignor to Builders Equipment Company, Phoenix, Ariz., a corporation of Arizona

Application July 11, 1955, Serial No. 520,997
6 Claims. (Cl. 214—6)



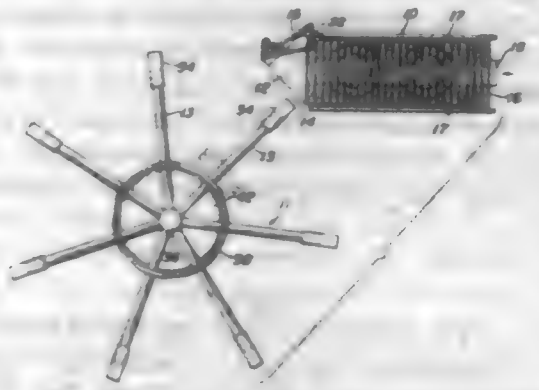
1. In an apparatus for cubing building blocks, a frame, a shuttle frame reciprocable relative to said frame having means to receive drying racks, pallets slidable transversely on said racks having building blocks on the top surfaces thereof, pusher arms slidably mounted on said frame adapted to move transversely of said drying racks at right angles to said shuttle frame movement to push said blocks endwise off of said pallets, a transfer and cuddler unit having a series of horizontally disposed transfer platforms to receive blocks pushed from said pallets, a fixed guide bar on one side of said transfer platforms having a vertical abutment surface parallel to the direction of movement of said blocks as pushed off of said pallets, a transfer pusher member on said frame located above said pusher arms, means for vertically reciprocating said transfer platforms to position said transfer platforms in horizontal alignment with said pallets on said drying racks and in horizontal alignment with said transfer pusher member, a cubing unit located on the opposite side of said transfer unit from said shuttle frame and drying racks including a trap door platform and a rocking trough located in horizontal alignment with said transfer pusher member so that said transfer pusher member may move blocks from said transfer platforms on to said trap door platform and said rocking trough, a vertically reciprocable crosshead on said frame having a series of horizonally disposed tines from said crosshead extending toward and positioned at right angles to said rocking trough adapted to receive blocks turned up vertically by said rocking trough with the cored holes of said blocks being received over said tines, a track extending parallel to said tines located beneath said trap door platform, cube carrying carts traveling on said tracks adapted to be moved from a position under said tines to a position under said trap door platform, means on said frame to vertically lift said carts from said track when said carts are under said trap door platform, means for horizontally shifting said trap door platform to and from said rocking trough and for rocking said trough, and an abutment rail fixed to said frame to restrict movement of blocks on said trap door platform relative to said frame as said trap door platform is withdrawn from under said blocks to deposit said blocks on the cubical stack to be formed.

2,869,738

APPARATUS FOR GATHERING AND SUSPENDING TIED BUNDLES OF WIRE OR THE LIKE IN ALINED GROUPS

John F. Nelson, Concord, Scott D. Warner, Pittsburg, and Robert G. Whitney, Concord, Calif., assignors to United States Steel Corporation, a corporation of New Jersey

Application January 11, 1955, Serial No. 481,054
10 Claims. (Cl. 214—8)



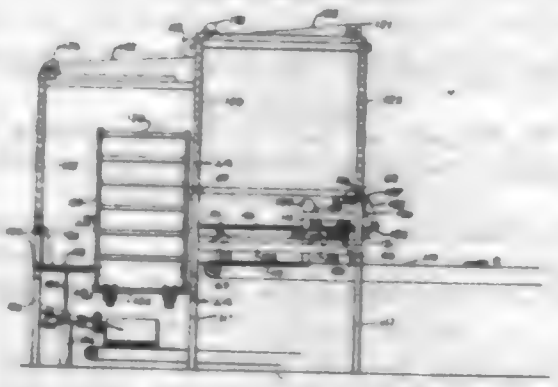
1. The combination with a rotatable spider having its axis substantially vertical and a plurality of substantially horizontally extending radial arms, of a horizontal conveyor adjacent but spaced from said spider and adapted to deliver a succession of annular articles lying flat on one side, a stationary table between the conveyor and spider lying substantially in a common plane with said conveyor and arms and adapted to slidably support said articles during passage from the conveyor to the spider, and article-pushing means mounted for travel forth and back across the table toward and from one of said arms pointing to the table, effective to slide the leading side of an article from the conveyor over the end of said one of said arms, all said arms being of a length affording a space between the end of an arm pointing toward the table and the edge of the table greater than the width of the section through one side of the article, whereby the leading side of an article being pushed across the table toward a spider arm pointing thereto is supported as a cantilever in crossing said space and the trailing side of the article falls downwardly through said space thereby disposing the article suspended in a vertical plane on the arm by engagement of said leading side therewith.

2,869,739

APPARATUS FOR STACKING AND UNSTACKING BUILDING BLOCKS

Robert O. Davis, Adrian, Mich., assignor to Gene Olsen Corporation, Adrian, Mich., a corporation of Michigan

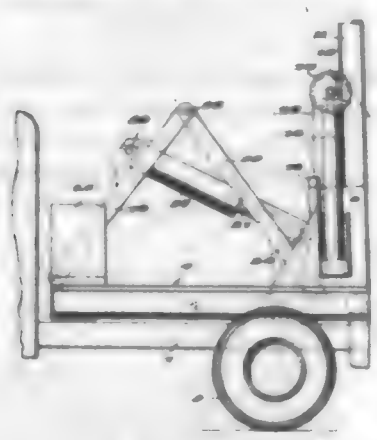
Application November 10, 1954, Serial No. 468,000
9 Claims. (Cl. 214—16.4)



1. Pallet transfer mechanism comprising first and second conveyors; a carrier between said conveyors movable

horizontally at right angles to the first conveyor; a plurality of multi-deck racks removably positioned on said carrier; a first elevator positioned adjacent said first conveyor; a horizontally movable carriage on said elevator, said carriage having a pallet-engaging arm positionable beneath the path of pallets on the first conveyor; a second elevator positioned adjacent said second conveyor; and means for simultaneously moving said elevators; whereby (1) the elevators are caused to ascend until pallets have been transferred from the conveyor to the arm, the transferred pallets are above but spaced laterally from one of the decks on the rack, and the second elevator is slightly below but laterally from said one deck, (2) the carriage is moved laterally so as to push pallets from said one deck onto the second elevator and position the transferred pallets above said one deck, (3) the carriage descends until the transferred pallets are supported entirely on said one deck, (4) the carriage is moved laterally out of vertical registry with the rack, and (5) the elevators descend simultaneously so as to position the arm beneath the path of pallets on the first conveyor and deposit pallets from the second elevator onto the second conveyor.

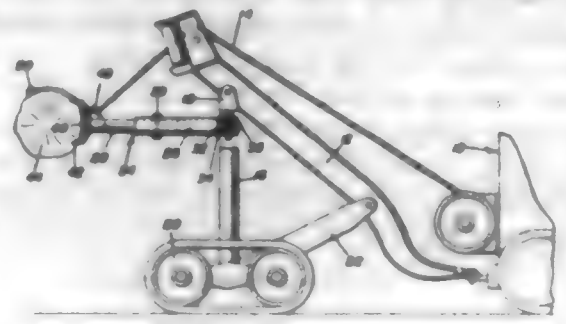
2,869,740
TRANSPORTING EQUIPMENT
George R. Dempster, Knoxville, Tenn.
Application April 10, 1956, Serial No. 577,284
12 Claims. (Cl. 214—75)



1. In transporting equipment, the combination of a base, a carriage mounted on the base for fore and aft movement relative thereto, means on the carriage for lifting a container and supporting the container during said fore and aft movement, and means operatively connected with the carriage and base for moving the carriage fore and aft relative thereto, said means comprising a pair of links pivotally connected together at adjacent ends, means pivotally connecting one of the links at its opposite end to the base, means pivotally connecting the other link at its opposite end to the carriage, and power operating means connected with the respective links spaced from the point of pivotal connection therebetween for causing relative movement between the links to move the carriage.

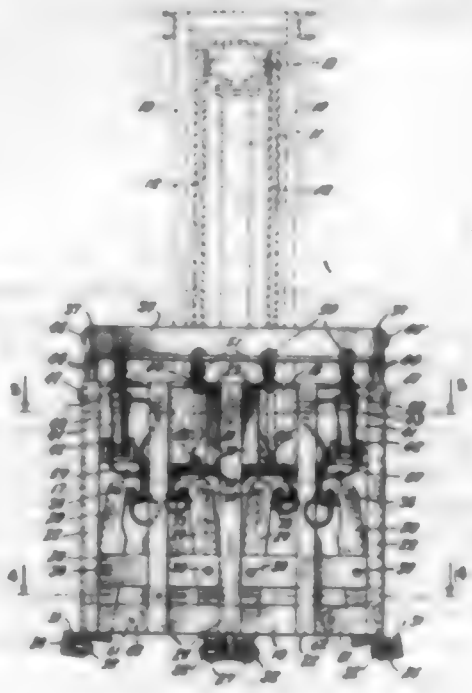
2,869,741
LOG HANDLING ARM ATTACHMENT FOR TRUCKS
Kauno W. Winters and George E. Oja, Astoria, Oreg.
Application December 17, 1957, Serial No. 703,458
1 Claim. (Cl. 214—92)

In a log handling machine, a boom, a hoisting cable trained over said boom for attachment to a log to hoist the same, a boom supporting arch beneath said boom having a top portion provided with a pair of laterally spaced upstanding brackets attached to opposite sides of the boom, a log lifting arm extending forwardly of said top portion, means on one end of said arm rotatable on said top portion between said brackets and attaching said arm to said portion for vertical swinging movement, a rigid log lifting plate on the other end of said arm having log engaging and lifting prongs thereon, and a cable guide



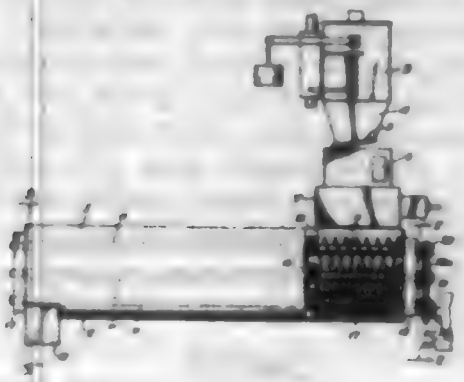
on said arm behind said plate through which said cable is extended to lift said arm when the cable is attached to a log engaged by said prongs.

2,869,742
ATTACHMENTS FOR FORK LIFT TRUCKS
Dean S. Hileman, Denver, Colo., assignor to Denver Brick and Pipe Co., Denver, Colo., a corporation of Colorado
Application October 17, 1957, Serial No. 690,663
4 Claims. (Cl. 214—654)



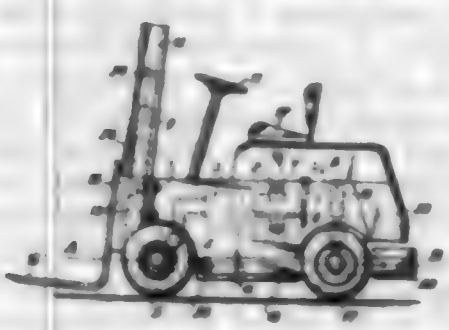
1. A brick handling attachment for fork-lift trucks of the type having an elevatable member comprising: a mounting plate; means for securing said mounting plate to said elevatable member; a substantially rectangular hollow frame; means pivotally mounting said frame upon said mounting plate; a front bearing bar extending horizontally across said frame; a rear bearing bar extending across said frame in parallel relation to said front bearing bar; four pivot shafts mounted in and extending between said bearing bars in horizontal alignment and in spaced-apart relation; an outside grip lever pivotally mounted on each of the two outer shafts; an inside grip lever mounted on each of the inner shafts; two horizontally-positioned hydraulically-expansible devices, there being one hydraulically-expansible device extending between the upper extremity of each outside grip lever to the upper extremity of the adjacent inside grip lever; four parallel gripping jaws, there being an inside gripping jaw mounted on and extending forwardly from the lower extremity of each inside grip lever, and an outside gripping jaw extending forwardly from the lower extremity of each outside grip lever, so that expansion of said expansible devices will cause said inside gripping jaws to move outwardly while said outside gripping jaws move inwardly to simultaneously grip two adjacent stacks of brick.

2,869,743
IMPROVEMENT IN CONTINUOUS FEEDING
Ralph E. Williams, River Forest, Ill., assignor to B. F. Gump Co., Cicero, Ill., a corporation of Illinois
Application January 23, 1956, Serial No. 560,786
3 Claims. (Cl. 214—152)



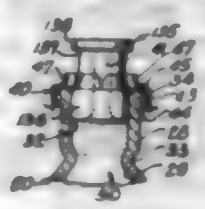
1. The method of converting a batch feed of material into a continuous and uniform stream of material including the steps of feeding material, in batches with time intervals between batches, to form successive piles of material at an established area, conveying material from the lower portion of the piles in the form of a stream extending from said area to a discharge point, displacing material from the pile at a point above said lower portion and depositing at least some of the material so displaced in the path of flow of said stream to thereby form a uniform and continuous stream of material for discharge at the same rate that material is fed to said area in batches.

2,869,744
TILTING ASSEMBLY FOR LIFT TRUCKS
Hans Kagel, Bergisch-Gladbach, Germany, assignor to Vereinigte Westdeutsche Waggonfabriken Aktiengesellschaft, Koln-Deutz, Germany
Application August 20, 1956, Serial No. 605,068
Claims priority, application Germany August 24, 1955
5 Claims. (Cl. 214—672)



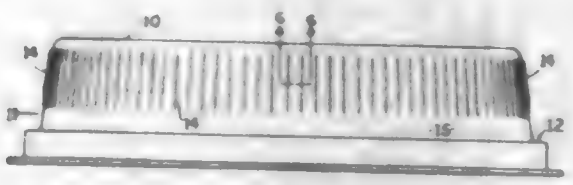
1. In combination in a lift truck having a vehicle body: a first axle with a pair of wheels, said vehicle body being pivotally connected to said first axle so as to be tiltable about the same, an upwardly extending post fixedly connected to said vehicle body near said first pair of wheels, a lifter slide movably mounted on said post and including load-supporting means, a second axle spaced from said first axle in longitudinal direction of said truck and provided with a second pair of wheels, link arm means pivotally linking said rear axle to said vehicle body near said first axle, and fluid operable cylinder piston means linked to said second axle and said vehicle body for selectively tilting said vehicle body about said first axle from a lowered position into a maximum lifted position and vice versa, said link arm means when said vehicle body is in its lowered position forming with the plane passing through the axes of said two axles an angle which is substantially equal to the angle formed by said plane with said link arm means when said vehicle body is in its maximum lifted position.

2,869,745
PLUNGER CLOSURES OF CONTAINERS
Marshall L. Lockhart, Rutherford, N. J., assignor to The Compule Corporation, Rutherford, N. J., a corporation of New Jersey
Application February 5, 1954, Serial No. 408,460
2 Claims. (Cl. 215—6)



1. Plunger closure means for a container having an elongated beaded neck compriting, in combination; a capping ring adapted to be anchored on the end of the beaded neck and having a central hole; and a unitary piston plug of elastic material having a substantially cylindrical piston body slidably to fit snugly in the neck, an elongated thrust post coaxially extending from said body and a transverse head on the outer end of said post; said ring being of bendable metallic material with its hole being substantially circular and said post being substantially circular in cross-section of a diameter somewhat less than the diameter of the hole for ready sliding therethrough, said head and piston bodies being laterally substantially circular and of diameters appreciably larger than the hole, the marginal edge of the hole being substantially radially slit to provide bendable tabs initially turned out to enlarge the hole for ready insertion of the head therethrough, said out-turned tabs being readily returned to a substantially common plane after head insertion for reformation of the circular hole of lesser diameter than the diameters of said piston body and head to form stop means for axial inward and outward sliding of said plug relative to said ring.

2,869,746
BOTTLE CAP
Isaac L. Wilcox, Fulton, N. Y.
Application March 14, 1957, Serial No. 646,086
4 Claims. (Cl. 215—41)

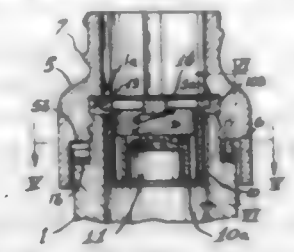


1. A bottle cap of moulded plastic material for application to bottles having an external bead at the top edge thereof, said cap comprising a central discoidal portion for overlying the bottle top, a conical bead encircling skirt depending from the periphery of said discoidal portion, said skirt terminating at its lower edge in an external radial flange, said skirt having a diameter less than the diameter of the bottle bead, said skirt being formed with a multiplicity of circumferentially spaced apart axially extending flutes, said flutes terminating at their lower ends in upwardly spaced relation from said flange to provide an unfluted band at the lower portion of said skirt for engagement with the under side of the bottle bead.

2,869,747
NONREFILLABLE BOTTLE
Joseph A. Patterson, Brave, Pa., assignor to Patterson Patents Products Company, Inc., Irwin, Pa.
Application May 26, 1954, Serial No. 432,530
1 Claim. (Cl. 215—19)

A nonrefillable cap attachment for use on a bottle having a threaded neck portion terminating in a shoulder thereabove and also having a shoulder therebelow with a metal ring supported thereon and fused thereto having

ratchet teeth on its horizontal surface disposed along a circle, said attachment comprising an internally threaded sleeve for screw threading onto said threaded neck portion and having upper and lower internal circular shoulders forming cylindrical well portions, a valve retaining cup having a circular flange extending radially outwardly from its upper mouth portion and seated on the first named shoulder of the bottle neck, a perforated disc supported on said circular flange and clamped thereon by said upper circular shoulder, said valve retaining cup having a radially inwardly extending circular flange on the bottom portion thereof, a one-way cup shaped valve



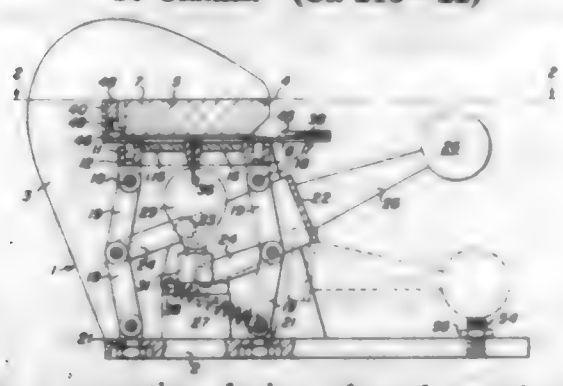
supported in said cup and including a spring biasing the mouth portion of said valve into seating engagement with said last mentioned flange and to the closed position and including a spring retaining element sandwiched between said first mentioned flange and perforated disc, said sleeve having a skirt surrounding and extending downwardly from said ratchet teeth to prevent access thereto and having an angularly disposed leaf element fused in and extending downwardly from said lower shoulder into engagement with said ratchet teeth, whereby as the sleeve is rotated a one-way locking action will take place and all parts of said valve will be locked in place by said sleeve to prevent tampering with the valve.

2,869,748

TRANSPARENCY MOUNTING DEVICE

Hubert Nerwin and Douglass C. Harvey, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application July 5, 1957, Serial No. 670,311
10 Claims. (Cl. 216—22)



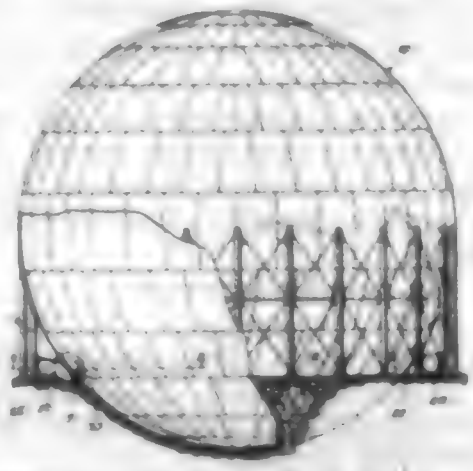
10. In a mounting device adapted to select a transparency or image area from a film strip and to simultaneously sever and tack the selected transparency to the transparency receiving area of a film mount, at least one of which is provided with a pressure sensitive adhesive, the combination of: a support member; a transparent anvil carried by said support member; a guide plate carried by said support member below and in register with said anvil and spaced apart therefrom to form a passageway, said plate further having passage means; film guiding means carried by said guide plate for receiving and guiding a strip of film through said passageway; locating means carried by said guide plate for selectively positioning a film mount in said passageway over said film in one of several possible positions with said transparency receiving area in register with and facing a selected image area; a die platen positioned below and in register with said guide plate and reciprocally movable with respect thereto; a plurality of cutting members formed by said die platen facing said plate and adapted to pass through said passage means of said plate toward said anvil upon reciprocal movement of said die platen, each of said cutting members defining an opening; illuminating means for illuminating said film through said openings; stop means for limiting how far said die platen may be reciprocally moved toward said anvil; and actuating means for reciprocally moving said die platen from a non-mounting position in which said cutting members are out of engagement with said film into a transparency mounting position into engagement with said stop means whereby one of said cutting members urges said film and said film mount against said anvil, said one cutting member further penetrating partly through said mount to simultaneously sever said selected transparency and urge one edge thereof against said film mount with said adhesive therebetween to tack said transparency to said film mount.

2,869,749

PENETRATION STRUCTURE FOR PRESSURE VESSELS

Christian Arne and Leonard P. Zick, Chicago, Ill., assignors to Chicago Bridge & Iron Company, a corporation of Illinois

Application April 27, 1954, Serial No. 425,986
5 Claims. (Cl. 220—1)



3. A penetration structure for providing an access connection through a relatively large opening in the wall of a spheroidal pressure vessel, said vessel having a diameter substantially greater than that of said opening, said structure comprising a reinforcing ring extending from and forming a continuation of the marginal wall portions of the pressure vessel surrounding said opening, a stress resisting flange secured to the inner peripheral edge of said ring, and a spherically shaped access connection secured to said ring adjacent said opening, the line of penetration through said vessel being non-coincident with any radii of the vessel, said access connection comprising a spheroid truncated at opposed poles in a plane normal to the line of penetration, a tubular passageway depending outwardly from said spheroid coaxial with said line of penetration and affixed adjacent the marginal exterior edge of said spheroid, a first bulkhead having an access opening provided therein enclosing the terminal extremity of said tubular passageway, a door hinged to said first bulkhead providing a fluid tight closure for said access opening, a second bulkhead having an access opening provided therein enclosing the marginal interior edge of said spheroid, and a door hinged to said bulkhead providing a fluid tight closure for said access opening.

2,869,750

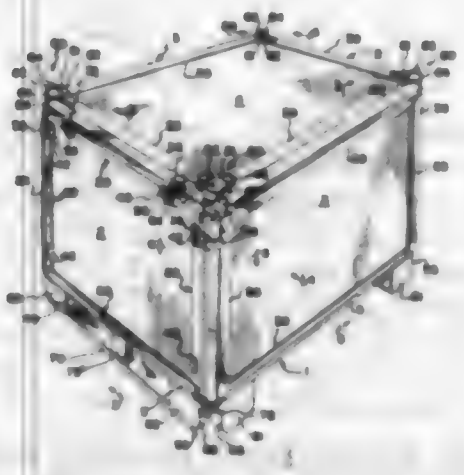
CONTAINER

Dale D. Doerr, Palos Park, and William H. Grip, Chicago, Ill., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

Application October 4, 1955, Serial No. 538,411
9 Claims. (Cl. 220—4)

1. In a cargo container, the combination of bottom, side, end and top members, cam hinge means on the

marginal edges of said bottom member intermediate the corners thereof and providing a space at the point of intersection of adjacent marginal edges, cleat elements mounted within the spaces so formed and secured to the bottom member, each of said cleat elements comprising a member having a plurality of downwardly opening individual pockets, cooperating cam hinge means on the bottom marginal edges of the side and end members releasably engaging the cam hinge means on the marginal edges of the bottom member, means releasably nesting together the adjacent vertical edges of contiguous side and end members in vertical planes coextensive with the top of the said cleat elements, cam means releasably and pivotally securing one marginal edge of the top member to the upper marginal edge of an end member, clip means affixed to the outside surface of said side, end, and top members releasably securing said side and end members together and said top member to an end member, cleat elements secured to the top member adjacent the four corners thereof, each of said last mentioned cleat elements being located in vertical alignment with the contiguous nested side and end members and the cleat element located therebelow, whereby each of said bottom cleat elements can receive in one of said plurality of individual pockets the top cleat element of a similar container when one container is stacked on the other, and skid members affixed to the bottom cleat elements at opposed ends of the container, the ends of said skid members being received in the other of said plurality of downwardly opening pockets in each of said bottom cleat elements such that the bottom surfaces of said skid members are located in substantially the same plane as the bottom surfaces of the cleat elements affixed to said bottom member.



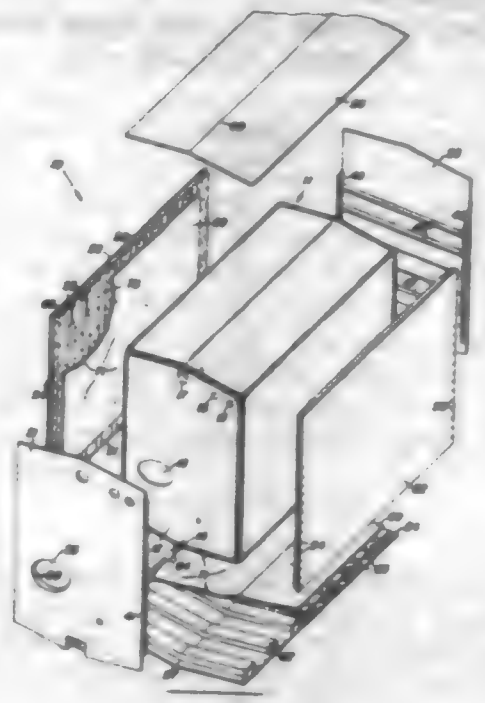
2,869,751

INSULATED STORAGE TANK AND METHOD OF MAKING A STORAGE TANK

Joseph C. Klope and Robert G. Chapman, Rochester, N. Y., assignors to Pfaudler Permutit Inc., Rochester, N. Y., a corporation of New York

Application September 3, 1954, Serial No. 454,083
2 Claims. (Cl. 220—15)

1. An insulated storage tank comprising a substantially rectangular inner shell having a substantially V-shaped bottom, a supporting structure comprising a sheet of mild steel, a plurality of spaced structural members fastened to the upper surface of said sheet, insulating material disposed in the spaces between adjacent structural members, and a sheet of insulating material laid on the top surface of said structural members for prevention of metal to metal contact between said structural members and bottom of said inner shell, and legs for supporting said supoprting structure, said supporting structure being shaped to interfit with the V-shaped bottom of said inner shell for supporting the same and preventing lateral movement thereof, and a plurality of relatively light, non load bearing insulating panels adapted to be



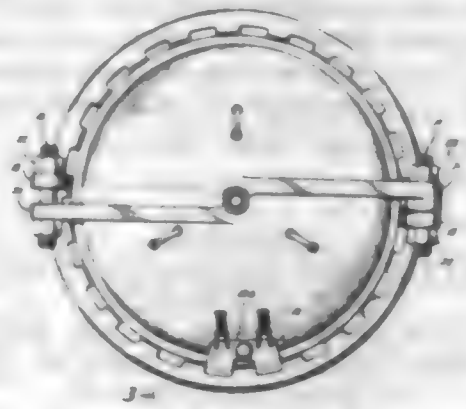
laid against the side and top walls of said inner shell for enclosing and insulating the same.

2,869,752

LOCKING DEVICE FOR CLOSURES

George D. Hall, Houston, Tex., assignor to Thornhill-Craver Co., Inc., Houston, Tex., a corporation of Texas

Application November 16, 1956, Serial No. 622,673
3 Claims. (Cl. 220—40)



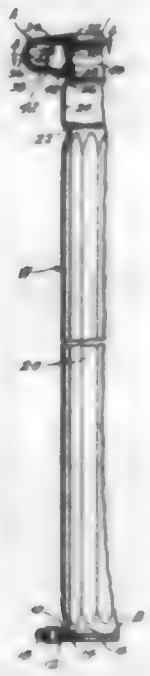
3. In a closure for a vessel having a hub, a blanking plug, a retaining ring positioned over and secured to said hub, a plurality of radial spaced projections carried by the periphery of said plug, a plurality of spaced projections carried within said retaining ring mating with said projections carried by said plug to retain said blanking plug and forming a fluid tight closure, a locking device including, an element having a first leg portion inserted between mating projections and a second leg portion projecting inwardly of the periphery of said blanking plug, a bleeder plug threadably positioned within said blanking plug, a passageway within said bleeder plug communicating with the interior of the vessel and which when the bleeder plug is at least partially retracted from the blanking plug allows pressure to be exhausted from the vessel, and shoulder means on said bleeder plug overlying said second leg portion and retaining said first leg portion between said mating projections until the bleeder plug is at least partially retracted from the blanking plug so that the blanking plug may be removed only after such partial retraction of the bleeder plug.

2,869,753

ANIMAL WATERING TANK

Edward M. Jankowski, Sioux Falls, S. Dak., assignor to Sioux Steel Company, Sioux Falls, S. Dak., a corporation of Delaware

Application November 26, 1956, Serial No. 624,338
3 Claims. (Cl. 220—73)



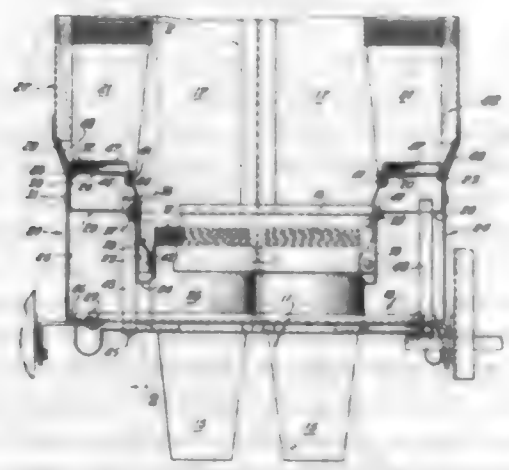
1. A sheet metal tank wall comprising a hollow reinforcing bead along the upper marginal edge of said wall comprising an outwardly directed flange, an inwardly directed flange terminating in a corrugated margin and a web connecting said flanges together, and a bead liner in said bead comprising a bottom web contacting said inwardly directed flange, and inner and outer flanges, said outer flange contacting said web and terminating in an inturned upper edge contacting said outwardly directed flange, and said inner flange terminating in a corrugated margin, the portion of said marginal edge of said tank wall in registry with said bead being bowed outwardly slightly between the upper and lower extremities of said bead and in line contact intermediate the upper and lower extremities of said bead with said corrugated margin of said bead liner.

2,869,754

AUTOMATIC REPLENISHING DEVICE FOR CUP DISPENSERS

Jack J. Booth and William C. Branch, Dallas, Tex.

Application January 9, 1956, Serial No. 558,026
9 Claims. (Cl. 221—11)



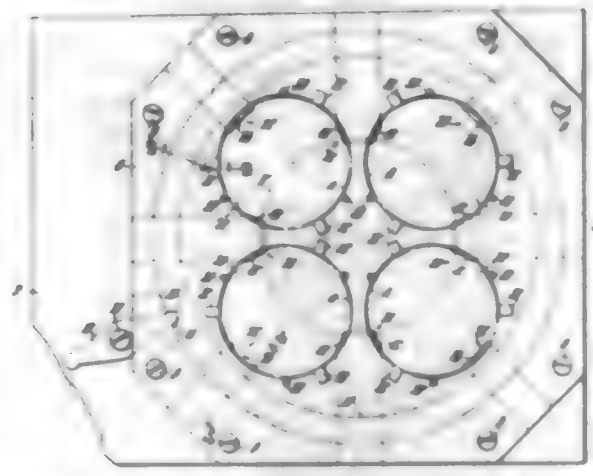
1. In combination with a cup dispenser having a horizontally reciprocable cup release slide, a cup replenishing mechanism comprising a cup delivery magazine containing a column of cups from which cups are singly released by said slide, a cup storage magazine adjacent said delivery magazine containing a column of cups, restraining means normally in frictional contact with the column of cups in said delivery magazine and restraining the column of cups in said storage magazine and means carried by said reciprocable slide adapted to engage said restraining means during each cup releasing action of said slide to move the same out of frictional contact with the column of cups in said delivery magazine, said restraining means being ineffective to restrain the column of cups in said storage magazine when the height of the column of cups in said delivery magazine recedes below a predetermined level.

2,869,755

APPARATUS FOR DISCHARGING SUCCESSIVE ARTICLES FROM A STACK THEREOF

Richard J. Gaudreau, Longmeadow, Mass., assignor to Production Tool & Die Co., Inc., Springfield, Mass., a corporation.

Application February 6, 1956, Serial No. 563,619
1 Claim. (Cl. 221—93)



Apparatus for discharging successive articles simultaneously from plural vertical stacks thereof comprising in combination, a horizontal stationary supporting structure provided with a plurality of separate vertical openings for vertical stacks of articles having vertical axes disposed circumferentially around a central vertical axis, a plurality of pairs of superposed slides, each said pair including an elongated relatively narrow article separating slide having an inner end for engaging and separating a lowermost article from a stack thereof and an elongated relatively narrow article supporting slide having an inner end for engaging and supporting a stack of articles, the said slides for the pairs thereof arranged with the separating slide superposed on the supporting slide, the supporting structure provided with separate horizontal guideways for the pairs of slides arranged whereby the slides of the pairs thereof may reciprocate in a straight line relative to one another between outer positions and extended positions where inner ends thereof are disposed in extended inner article engaging positions in said openings, certain of said guideways arranged for reciprocably guiding the slides therein radially of the axes of each of said openings and other of said guideways disposed between the certain guideways arranged for reciprocably guiding the slides therein radially of said central axis and between adjacent sides of adjacent openings, the inner end of each of the pairs thereof slide in said other guideways being formed to simultaneously engage the adjacent sides of articles in said adjacent openings, a ring-like actuator surrounding said openings and guide means provided in said supporting structure guiding said actuator horizontally for oscillating in opposite operating directions, means for oscillating said actuator in opposite direction, the slides of the pairs thereof being provided with relatively angularly disposed slots extending therethrough, said actuator provided with members disposed in the slots of the slides of the pairs thereof arranged whereby as the actuator is moved in opposite directions the slides of the pairs thereof are simultaneously reciprocated in opposite directions, guide means around each article openings extend-

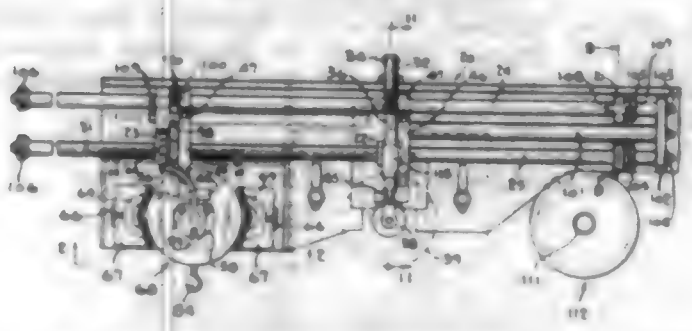
ing upwardly from said supporting structure for guiding a stack of articles, and groups of relatively spaced centering members around each opening for centering articles therein relative to the axis of said opening.

2,869,756

APPARATUS FOR FEEDING AND HANDLING THIN METAL SHEETS

Le Moyne Farnsworth, Racine, Wis., assignor to Automation Machines and Equipment Co., Inc., Milwaukee, Wis., a corporation of Wisconsin

Application August 1, 1955, Serial No. 525,600
9 Claims. (Cl. 221—212)



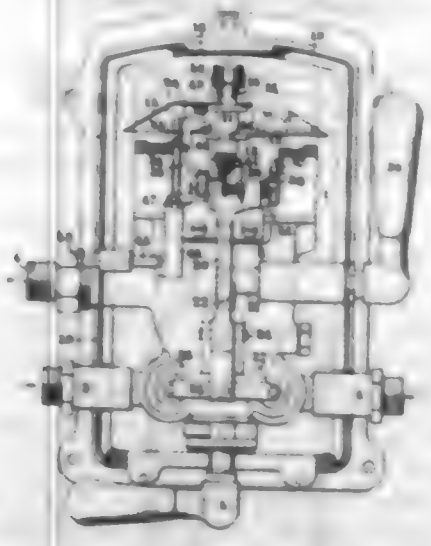
1. In a device for feeding metal sheet material from a stack to a work station, said device having a support for said stack and having a work station at one side of said stack support, gripping jaws, means supporting said jaws for movement from a position over said stack support to a position adjacent said work station, means for causing such movement, a magnetic holding head supported in vertically spaced relationship above said stack support, means other than said magnetic holding head for separating a sheet of metal from said stack, means for elevating the sheet into contact with said magnetic holding head to be temporarily held in elevated position thereby, gripping jaw operating means for causing said gripping jaws to grip said elevated and magnetically held sheet, means for moving said magnetic head out of contact with said gripped sheet, so that it is thereafter held only by the gripping jaws for movement to a position adjacent the work station, and means for synchronizing the operation in timed relationship with one another of said sheet separating means, sheet elevating means, gripping jaw operating means, magnetic head moving means, and moving means for said jaw supporting means.

2,869,757

LIQUID METERING APPARATUS

Yves Lace, Montreuil-sous-Bois, France

Application December 10, 1956, Serial No. 627,335
Claims priority, application France December 19, 1955
4 Claims. (Cl. 222—14)



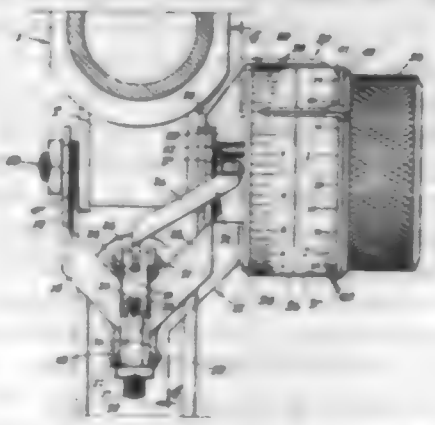
1. A liquid metering apparatus intended more particularly for wetting flour during a bread-making process, which comprises a valve adapted to stop the flow of liquid to be metered, a spring urging said valve to its seated position, a meter for counting the quantity of liquid flowing beyond said valve, a lever adapted to compress said valve spring in its open position, a transverse pin having a flat portion, a catch fulcrumed on said lever and holding said lever in its operative position when the free end of said catch engages said flat portion of said transverse pin, an arm rotating bodily with the transverse pin, a shoe carried by the free end of said arm, a disc, means for rotatably driving said disc from said meter as a function of the liquid output, said flat portion of said transverse pin being disposed vertically when said shoe bears on said disc, a notch formed in said disc to enable said shoe to be released when said disc has attained a predetermined angular position, so that said transverse pin will pivot and said catch will free said lever, whereby said lever will no more hold said valve in its operative position, and means for setting said disc in a predetermined initial angular position before starting the operation of said meter.

2,869,758

CONTROL DEVICE FOR DISPENSING NOZZLES

Donald E. Hawkins, Concord, Ronald S. Hawkins, Turlock, and Fred R. Hawkins, Waterford, Calif.

Application February 8, 1957, Serial No. 639,158
8 Claims. (Cl. 222—29)



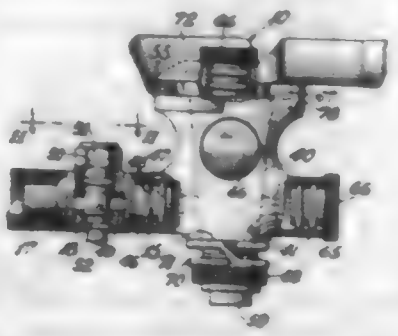
2. In combination, on a dispensing nozzle including a body supporting a hand lever for movement between nozzle closing and opening position, a releasable mechanism operative to hold the hand lever in nozzle opening position, a hand-set timer mounted in connection with the body, the timer including a movable part, and means responsive to movement of such part arranged to cause release of said mechanism to permit return of the hand lever to nozzle closing position; the timer being of spring-clock type and including a rotary case manually wound in one direction to pre-set said timer and self-unwinding in the opposite direction, a peripheral scale on the case, and a pointer fixed relative to the body readable on said scale.

2,869,759

COFFEE MAKING ASSEMBLY

Alfred H. Brundage, Maplewood, N. J.

Application October 17, 1957, Serial No. 690,813
9 Claims. (Cl. 222—48)



1. An assembly for drawing coffee and cream from a coffee urn and cream container and for mixing them in predetermined relative ratios, comprising a faucet casing

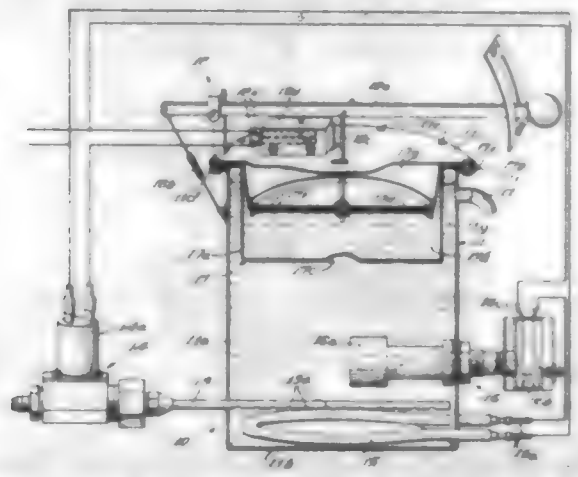
having an axial opening therethrough, and having a pair of diametrically aligned transverse openings therethrough intersecting the axial opening, and having a second pair of diametrically aligned transverse openings therethrough axially spaced from the first mentioned pair of openings and intersecting the axial opening, an arm member extending from the casing aligned with one of said first mentioned pair of diametrically aligned transverse openings and having an opening therethrough aligned with the said one of said first mentioned pair of diametrically aligned transverse openings in the casing and an arm member extending from the casing aligned with one of said second mentioned pair of diametrically aligned transverse openings and having an opening therethrough aligned with the said one of the second mentioned pair of diametrically aligned transverse openings in the casing, one of said arm members adapted to be connected to the coffee urn, the other arm member adapted to be connected to the cream container, a cream regulator bracket secured to the last mentioned arm member, said bracket having an axial opening and having a further opening therethrough perpendicular to said axial opening, a plug rotatably journalled in said perpendicular opening of the bracket, said plug having a single, centrally aligned transverse opening therethrough, in the plane of the axial opening of the bracket when the plug is journalled in the perpendicular opening of the bracket, so that, on turning the plug in the bracket, its transverse opening may be selectively moved into partial or full registry with the axial opening of the bracket or out of registry therewith, to thus regulate the flow of cream through the bracket arm member of the faucet casing to which the bracket is secured, an elongated valve stem proportioned to snugly, rotatably fit within the axial opening of the faucet casing, said valve stem having a vertical discharge opening therethrough and having axially spaced transverse openings intersecting the vertical opening and terminating circumferentially of the stem, the parts being so proportioned that said valve stem will snugly rotatably fit within the axial opening of the casing, and, when so disposed, have the transverse openings thereof aligned with said first and second pairs of diametrically aligned openings in the casing so that, on rotation of the stem in the faucet casing axial opening, the transverse openings of the stem may be selectively positioned in alignment with the arms of the faucet casing to be connected with the coffee urn and cream container, to thus mix coffee and cream in predetermined relative ratios to suit the individual taste.

2,869,760

HOT WATER DISPENSER

Harvey R. Karlen and David C. Eisendrath, Chicago, Ill., assignors to Cory Corporation, a corporation of Delaware

Application June 22, 1956, Serial No. 593,086
16 Claims. (Cl. 222—76)



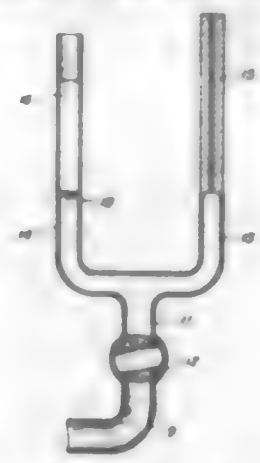
1. A hot liquid dispenser, comprising: a tank having an upper end; an outlet near said upper end; an inlet communicating with the interior of said tank below said upper end; means for heating liquid in said tank; thermostatic means having a sensing element in said tank below said outlet for controlling the heating means; means for effecting and terminating flow of liquid through said inlet and into said tank; and means for withdrawing automatically otherwise than through said outlet a volume of liquid from said tank to lower the level of the liquid adjacent said outlet to below the outlet whenever flow into said tank is terminated.

2,869,761

LIQUID INJECTOR

Earl A. Meyer, Madison, Wis., and Melvin J. Bina, Albuquerque, N. Mex., assignors to Bjorksten Research Laboratories, Inc., Madison, Wis., a corporation of Illinois

Application April 27, 1955, Serial No. 504,226
2 Claims. (Cl. 222—158)



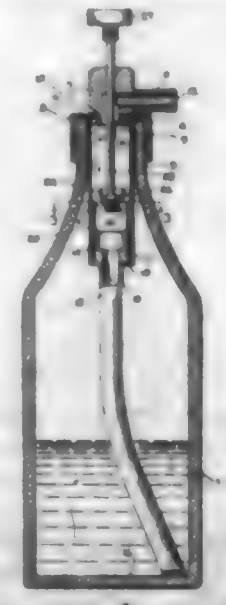
1. Apparatus for dispensing a small amount of liquid and determining the amount dispensed comprising a vessel having three hollow members extending therefrom, one of said members extending to a valve through which liquid is dispensed and the other two members extending upwardly from said vessel, one of said members being a transparent graduated tube having a small bore and the other of said members containing an orifice disposed between an upper portion thereof and a lower portion thereof and below the level of at least a substantial portion of said tube and being small in relation to the internal transverse dimensions of said tube, said upper portion having large internal transverse dimensions in relation to the internal transverse dimensions of said tube.

2,869,762

FLUID DISPENSER

Orville F. Sanders, Chicago, Ill.

Application March 4, 1957, Serial No. 643,645
5 Claims. (Cl. 222—382)



1. In a dispensing pump for use in combination with a container having a neck thereon, a cylinder receivable

through the neck, a dispensing head having a reduced threaded portion received by the cylinder, a cap having a flange directed axially inwardly and receivable between the dispensing head and the cylinder, internal threads on the cap adapted to cooperate with the neck of the container, an intake tube projecting from the lower end of the cylinder, a piston in the cylinder, apertures in the piston, a stem carried by the piston and slidably extending through the dispensing head, a knob on the upper end of the stem, a flexible valve carried by the stem and normally covering the apertures in the piston on the upward stroke of the piston, said valve flexing away from the apertures on the downward stroke of the piston against a fluid in the container.

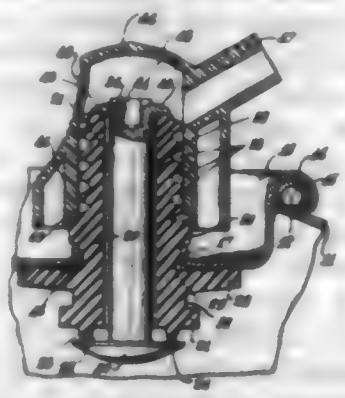
2,869,763
SYRINGE FOR EJECTING PLASTIC MATERIAL
Robert C. Bouvial, Bridgeport, and Walter F. Gryskiewicz, Devon, Conn.
Application April 3, 1957, Serial No. 650,412
3 Claims. (Cl. 222—388)



1. In a syringe for ejecting plastic material, a barrel including a rearward cylindrical part and a forward semi-cylindrical part having a forward open end and an open side, said rearward part being of greater length than said forward part, bearing means carried by the rearward end of said barrel having a bearing passage extending in the axial direction of said barrel, a plunger slidable in said barrel, a stem connected to said plunger and sidable in said passage; a closure head hinged to said forward open end at a point diametrically opposite said open side, an ejection nozzle carried by said head, said head being movable between an open position exposing said open end and a closed position closing said open end, a semi-cylindrical gate member rigidly carried by and movable with said head adapted in the closed position of said head to close said open side and to form with said forward semi-cylindrical barrel part a forward cylindrical continuation of said rearward cylindrical barrel part, and a sleeve member slidably engaged upon said barrel of a length greater than said forward semi-cylindrical barrel part and less than said rearward cylindrical barrel part adapted in a rearwardly moved position to be free of said gate member to permit said head and gate member to move to open position and adapted in a forwardly moved position to entirely overlie said gate member to retain said head and gate member in closed position.

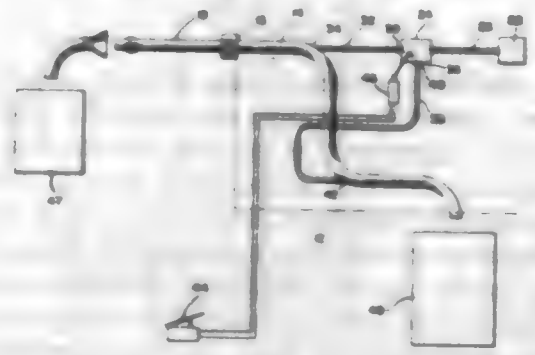
2,869,764
SELF-CLOSING VALVE CONSTRUCTION FOR A PRESSURIZED CONTAINER
Leonard M. Collins, Los Angeles, Calif., assignor to Pressure Dispensers, Inc., Beverly Hills, Calif., a corporation
Application January 17, 1955, Serial No. 482,067
3 Claims. (Cl. 222—394)

1. In a dispensing valve for a pressurized container, the improvement which comprises: a generally cylindrical resilient unitary body member of longitudinal compressibility comprising a grommet portion having an annular groove defined by annular flanges on said resilient body, said flanges retaining said body member mounted in, and said groove in engagement with, an opening in said container, said body member having an elongated portion located outside the container and a portion located inside the container, said elongated portion comprising spaced circumferential grooves therein defining spaced circumferential ribs, thereby defining a bellow-like portion, said body member having a bore therethrough and a valve seat comprising an annular bead projecting axially toward the inside of said container; a rigid valve member having a stem extending slidably through said bore and free for limited lateral movement in relation to said resilient body member to define a passageway between said stem and said bore, said valve member having a head adapted to engage said valve seat, said valve member having at least one generally radial laterally projecting ear member, said ear member being so shaped as to provide a permanent opening from the bore to the exterior of the container, said ear being integral with said stem, in engagement with the



upper end surface of the resilient body, and having a radial dimension greater than the radius of said bore at the outer end thereof, the normal uncompressed length of said resilient body member between said seat and said ear member being greater than the length of said valve member between said head and said ear member; whereby said head is normally held resiliently against said seat and is movable away from said seat upon tilting of said grommet portion of the resilient body and expansive longitudinal force of said compressed body member is exerted only on said valve head and ear member providing a self-closing valve structure.

2,869,765
METHOD OF INSPECTING AND TRIMMING HOSIERY AND APPARATUS THEREFOR
J. T. Laxson, Paducah, Ky., assignor to Marvel Specialty Company, Incorporated, Paducah, Ky., a corporation of Kentucky
Application November 29, 1956, Serial No. 625,118
3 Claims. (Cl. 223—43)



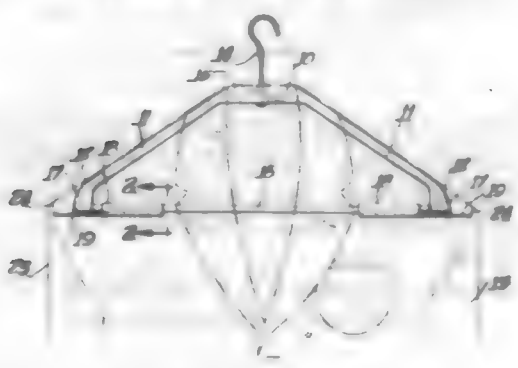
1. The method of inspecting hosiery upon a hollow tubular inspection form having an open end comprising the steps of inducing a flow of air through said form from said open end, placing the toe end of the hosiery within said open end to permit said flow of air to extend the hosiery within said form while maintaining the welt end of the hosiery on the external surface of said form adjacent said open end, reversing the flow of air through said form while maintaining said welt end in the aforementioned position on said form to evert the hosiery and extend said toe end outwardly away from said form, advancing said welt end onto said form away from said open end to bring the end of said hosiery adjacent the open end of said form to thereby locate said hosiery in an inspection position on the external surface of said form, and removing said hosiery from said form by inducing a flow of air through said open end.

2,869,766
SLEEVE EXTENDER
Lowell Buster Sheffer, Los Angeles, Calif.
Application October 18, 1956, Serial No. 616,703
1 Claim. (Cl. 223—74)



A sleeve extender for garments, comprising a pair of bars, resilient means between the bars for normally maintaining the same in separated extended position, and handle means between the bars for retracting the same against the tension of the spring, said resilient means comprising a two-part leaf spring, hingedly connected at its outer ends, said leaf spring fixedly connected to the respective bars at their inner ends and said handle means comprising a pair of rods pivotally connected together adjacent their middle portions, the outer ends of said rods projecting beyond the juxtaposed ends of the bars, said rods slidably connected to the ends of the bars adjacent the juxtaposed outer ends, the inner ends of the rods hingedly connected to the bars, and the hinged connection of the rods to the bars being adjacent the fixed connection of the springs to the bars.

2,869,767
EXTENSION DEVICE FOR GARMENT HANGERS AND THE LIKE
Robert R. Citron, Stockton, Calif.
Application July 2, 1957, Serial No. 669,618
2 Claims. (Cl. 223—88)



1. A garment hanger having a hook, a pair of sloping shoulder supports extending downwardly from said hook and a rung connected at its ends to the lower end portions of said shoulder supports; a pair of opposed elongated extension members mounted on said rung, each of said extension members comprising an elongated securing member encircling the rung and slidably mounted thereon, a pair of opposed disconnected spring-like spreadable elements connected to each securing member and providing therebetween a normally downwardly opening mouth, and an elongated extendable element movably secured in each mouth and extending laterally outwardly from said garment hanger.

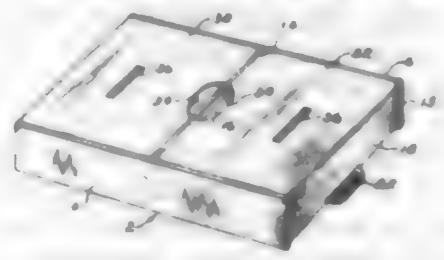
2,869,768
TOY HOLSTER CONSTRUCTION
Charles B. Gainsburgh, Merrick, N. Y.
Application August 13, 1956, Serial No. 603,564
5 Claims. (Cl. 224—2)

5. A hip-type gun holster assembly comprising, in combination, a hip flap, a holster pocket carried by said hip flap having a finger receiving cutout adjacent the upper extremity thereof, said holster pocket being directed outwardly and upwardly relative to said hip flap and defining an acute angle therebetween, and means for adjusting the magnitude of said defined acute angle, said means being further operative to vary the distance between said finger receiving cutout and said hip flap, the bottom of



the holster pocket being secured to the hip flap to provide a flexing point about which the holster pocket is flexed from one adjustment position to another.

2,869,769
CONTAINERS, SUCH AS BOXES, BASKETS AND THE LIKE
Alice Gram Robinson, Washington, D. C.
Application January 30, 1957, Serial No. 637,215
5 Claims. (Cl. 224—46)

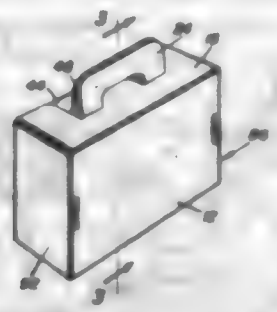


4. A combined box and stand comprising a box part having side walls, end walls and a bottom, said side walls extending beyond the end walls at both ends of the box part, a handle extending outwardly from the box part at each end thereof and being in the plane of the bottom and at the central part thereof, a partition extending transversely of the box part midway between the end walls thereof and having an aperture therein below the upper surface thereof and positioned centrally between the side walls, two cover members each of which is pivoted at its one end between the extending parts of said side walls at one end of the box part and adjacent the upper edges of said side walls, said cover members being movable to closed positions closing the open top of the box and to open positions in which they are in substantially face-to-face abutment with the outer faces of the end walls of the box part to provide supports for the box part, each of said cover members having a recess in the free end edge thereof positioned midway of said free end edge which recesses permit access to the aperture in said partition when the cover members are in closed positions, each of said cover members also having an aperture therein which is so positioned that one of said handle members extends therethrough when the cover members are in open positions.

2,869,770
LUNCHBOX CONSTRUCTION
Helen L. Bass, Chicago, Ill., assignor to Amalgamated Bass Prince Inventions, Incorporated, Chicago, Ill., a corporation of Illinois
Application June 8, 1956, Serial No. 590,153
3 Claims. (Cl. 229—37)

1. A lunchbox construction comprising a generally rectangular box including an integral hingedly disposed cover and end walls, extensions on said end walls extending into said box and dividing said box into a plurality of separate compartments, each of said extensions including a wide compartment covering intermediate flange

and a partition forming ultimate flange, said extensions defining two outer enclosed compartments, said partition



forming ultimate flanges defining a central open compartment.

2,869,771
BOX HANDLE

William R. Bothwell, Marion, Ind., assignor to Federal Paper Board Company, Inc., Bogota, N. J., a corporation of New York

Application April 1, 1957, Serial No. 649,976
9 Claims. (Cl. 229—52)



1. In a folding box which is characterized by a receptacle forming section and a cooperating cover forming section hingedly connected by a bottom side wall and having end and top side walls which are in overlapped relation when the box is closed, said overlapped top side walls having longitudinal slits which are adapted to register with each other, a handle of relatively rigid construction having an elongate bar portion and a bail-like gripping portion extending therefrom, said handle being adapted to be assembled with said box so that it is positioned with the bar portion engaging with the inner surface of the top side wall of the receptacle forming section and with the gripping portion projecting through said registering slits, and said handle having a headed locking member on said bar portion which extends through said slits when the handle is assembled with the box and frictionally engages the edges of the wall material at the slits thereby preventing relative movement between said box sections and said handle.

2,869,772
BAG

Russell J. Williams, Clayton, Mo., assignor to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri

Application March 26, 1956, Serial No. 573,853
7 Claims. (Cl. 229—55)

1. A multi-ply paper bag formed from a length of multi-ply paper tubing and having a front wall and a back wall, the plies of the tubing having the edges thereof which extend lengthwise of the tubing laterally offset, the two edges of each ply being overlapped and secured together by adhesive to form an individual tube having a longitudinal seam, the seams of said individual tubes being laterally offset by reason of the lateral offset of the edges of the plies, and all of the seams being located in the back wall of the length of tubing, said tubing having at least one end thereof a band of reinforcing material extending girthwise of the tubing between two of said individual tubes across the front wall and around into the back wall, the length of said band being less than the girth of said tubing and said band being so positioned in relation to the girth of said tubing as to terminate short of the seam of at least one of said two tubes, said band comprising a plurality of individual patches of reinforcing material pasted in between the plies of the tubing arranged side-

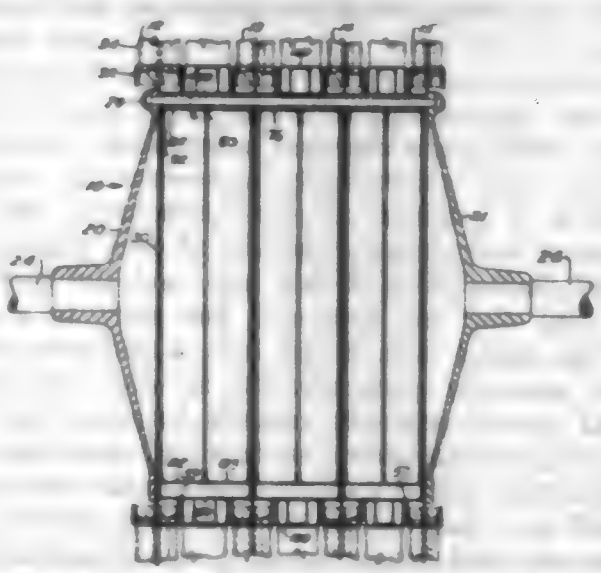


by-side in a row extending transversely of the bag, and the two edges of each ply included in the seam of the respective tube being adhered directly together throughout the entire length of the seam, means anchoring the band between said two tubes, and means securing together portions of said front and back walls of the tubing at said end of the tubing to provide a closure, said band having a portion thereof located within and reinforcing said closure.

2,869,773
BLADED WHEELS OF FABRICATED CONSTRUCTION

Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan

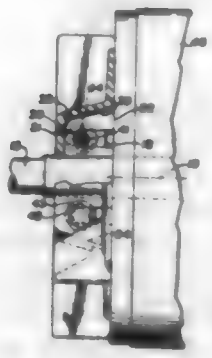
Application October 22, 1954, Serial No. 464,066
4 Claims. (Cl. 230—134)



1. In combination in an axial flow rotor assembly comprising at least two rotor wheels spaced axially, each wheel comprising a sheet metal disk, a plurality of peripherally spaced axial flow blades carried on said disk and projecting outward therefrom with rotor flow passages between said blades for conducting an elastic fluid, said blades being rotatable with said disk at blade tip speeds greater than 400 feet per second developing substantial changes in density and pressure in said fluid flowing through said rotor passages, a rim means of sheet metal construction extending between said blades and from front to rear thereof to sustain said changes in pressure and density, said rim means having a radially inward extending flange, hollow annular spacer means of sheet metal construction positioned between adjacent said wheels, said spacer means including inner and outer generally cylindrical sheet metal walls both extending from one wheel disk to the adjacent such disk, a torque transmitting mem-

ber having portions thereof adjacent and fixed to said walls, and fastening means extending in the general axial direction into said portions and said wheels and through said spacer means fixing said wheels and spacer means together for the transmission of torque from one to the other, said rim flange bearing on said spacer means.

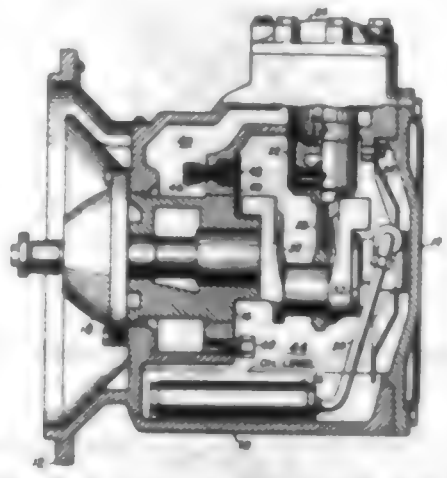
2,869,774
REMOVABLE HUB
Julian K. Smith and Louis A. Kovacs, Cleveland, Ohio, assignors to The Reliance Electric & Engineering Company, a corporation of Ohio
Application August 23, 1955, Serial No. 530,082
6 Claims. (Cl. 230—134)



1. A fan assembly for driving connection to a rotating shaft, comprising, a disc having an axis, fan blades symmetrically disposed about said axis and carried on said disc, a hub having first and second faces with the entire hub fixedly connected at said second face to one side of said disc and coaxial therewith, a shaft aperture coaxial with said hub and said disc and extending through said hub and disc to receive a shaft, said first face on said hub being completely closed except for said shaft aperture and being closed when received on any said shaft, a peripheral surface on said hub smaller than the periphery of said disc, first and second planar sides as part of said peripheral surface and disposed substantially parallel, a longitudinal slot substantially symmetrically disposed relatively to a longitudinal plane containing said axis and disposed substantially parallel to and midway between said planar sides of said hub, said slot extending through said disc and into said hub only to a depth adjacent the closed face of said hub, a transverse slot in said hub generally perpendicular to said longitudinal plane and spaced generally midway between said shaft aperture and said peripheral surface and extending completely through said hub from one planar side to the other, and bolt and nut means extending through said transverse slot and bearing against said planar sides to compress said hub onto any said shaft in a direction perpendicular to said longitudinal slot and said transverse slot communicating with said one side of said disc to receive said bolt and nut means from said one side.

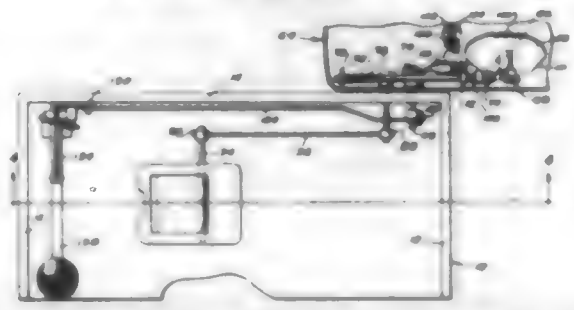
2,869,775
RECIPROCATING COMPRESSOR APPARATUS
Emil T. Neubauer, La Crosse, Wis., assignor to The Trane Company, La Crosse, Wis., a corporation of Wisconsin
Application September 15, 1954, Serial No. 456,190
2 Claims. (Cl. 230—206)

1. A compressor comprising a housing, cylinders in said housing, reciprocating pistons operating in said cylinders, a partition in said housing dividing said housing into a crankcase and a suction chamber, first check valve means in said partition for conducting fluid from the crankcase to the suction chamber, and second check valve means in said partition for conducting fluid from the suction chamber to the crankcase, said first check



valve means having a greater flow area than said second check valve means.

2,869,776
THROUGHWAY FARE COLLECTION DEVICE
Richard L. Care, Rumford, R. I., assignor, by mesne assignments, to Grant Development Company, Providence, R. I., a corporation of Rhode Island
Application March 22, 1955, Serial No. 495,867
6 Claims. (Cl. 232—7)



1. In combination with a fare box having an inspection area and a container mounted therebelow, means for releasing inspected fares to the container, a barrier adapted on occasion selectively to obstruct passage of a depositor past said fare box, said barrier being normally unlocked and movable to permit passage of a depositor therethrough, and means automatically responsive to movement of said barrier for actuating said fare releasing means.

2,869,777
COIN OPERATED DEVICES AND METHOD OF COLLECTING COINS THEREFROM
Barnett Share, Queens Village, N. Y.
Application October 19, 1955, Serial No. 541,338
12 Claims. (Cl. 232—16)



1. A coin collector for coin-controlled apparatus comprising, in combination, a generally upright elongated cylinder having a top opening to receive coins and a coin discharge opening in its side wall; a hollow piston coin receiver slidably mounted in said cylinder and having a

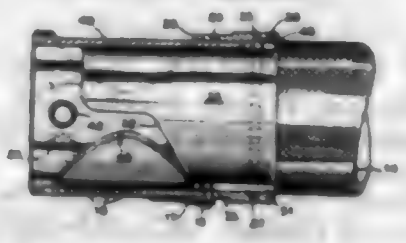
top opening to receive coins, and a coin discharge opening in its side wall registrable with the coin discharge opening in said cylinder; said piston having a coin retaining surface extending laterally thereacross from the lower edge of its coin discharge opening; said piston being biased by gravity to a coin retaining position with its coin discharge opening completely below the corresponding cylinder opening, and with its side wall above its coin discharge opening obstructing the corresponding cylinder opening; said cylinder being open to atmosphere above and below said coin retaining surface; said piston having a substantially air tight sliding fit in said cylinder; and means establishing a connection between the cylinder coin discharge opening and the interior of said piston; whereby, upon connection of a suction device to said cylinder coin discharge opening, a partial vacuum will be established in said cylinder and piston above said coin retaining surface, and said piston will be moved upwardly by atmospheric pressure in said cylinder and piston beneath said coin retaining surface to a coin discharge position in which the two coin discharge openings are in substantially registry.

2,869,778

COIN COLLECTION SYSTEM

Barnett Share, Queens Village, N. Y.

Application March 25, 1957, Serial No. 648,018
9 Claims. (Cl. 232—16)



1. A coin collecting system for coin-controlled apparatus comprising, in combination, a generally upright pipe having a top opening to receive coins; an outer cylinder extending across the lower end of said pipe and having an opening in its side wall substantially congruent with the inner periphery of said pipe, said cylinder being disposed with said opening facing upwardly and in registry with said pipe; an inner cylinder coaxially telescoped in said outer cylinder and oscillatable therein, said inner cylinder having a side wall opening movable into coincident registry with the side wall opening of the outer cylinder; said inner cylinder having a normal security position in which its opening faces downwardly and the imperforate part of its side wall blocks the outer cylinder side wall opening; latch means locking said inner cylinder in such security position; a substantially cylindrical nozzle insertable into said inner cylinder and connected to a source of vacuum; coacting means on said cylinders and said nozzle operable, responsive to such insertion of said nozzle, to release said latch means; and interengaging means on said nozzle and inner cylinder effective, upon turning of said nozzle, to rotate said inner cylinder to a coin receiving position in which said side wall openings are aligned for passage of coins into said inner cylinder for flow into said nozzle due to air flow toward such source of vacuum.

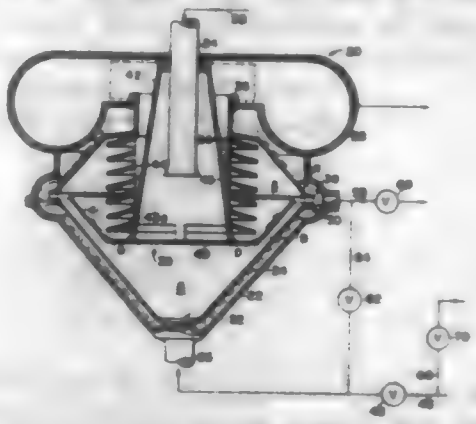
2,869,779

METHOD OF WITHDRAWING A MIXTURE OF FEED LIQUOR AND CARRIER LIQUID FROM A CENTRIFUGE

Hugo H. Geisler, Stelton, N. J., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application April 25, 1955, Serial No. 503,547
4 Claims. (Cl. 233—14)

1. A method of purifying a feed liquor by removing solid suspensions of slightly greater specific gravity therefrom in a centrifuge having peripheral discharge means which comprises, continuously feeding a carrier liquid of greater specific gravity than said feed liquor and suspensions to the centrifuge to immediately form a stratum of carrier liquid adjacent the discharge means thereof; directing said feed liquor to the centrifuge to form a second stratum contiguous to said first stratum of carrier liquid; purifying said feed liquid by centrifugally transferring the suspensions therefrom to the carrier liquid



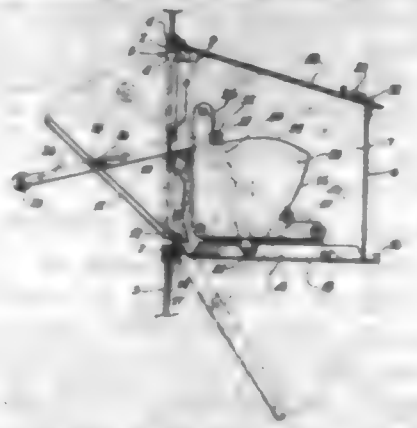
in said first stratum; continuously discharging carrier liquid containing suspensions from the carrier liquid stratum; continuously separately discharging purified feed liquor; and continuously and separately withdrawing an intermixture of feed liquor and carrier liquid at the interface of said strata and recirculating the intermixture withdrawn to be further centrifuged to separate any trapped feed liquor from the recirculated intermixture of carrier liquid and feed liquor to assure a maximum yield of purified feed liquor.

2,869,780

ARTICLE DEPOSITORY

Louis Jensen, London, Ontario, Canada, assignor to Kelco Engineering Limited, London, Ontario, Canada

Application November 22, 1957, Serial No. 698,095
4 Claims. (Cl. 232—44)



1. An article depository comprising rear, side and top walls, a hingedly mounted access door constituting a front wall, a hingedly mounted trap door constituting a bottom wall, a handle having a pair of arms pivotally secured to said access door, a link pivotally connecting each said arm with said trap door, said arms being initially swingable to move said trap door into closed position and thereafter movable to swing said access door into open position, and cam means defining said movements of said arms.

2,869,781

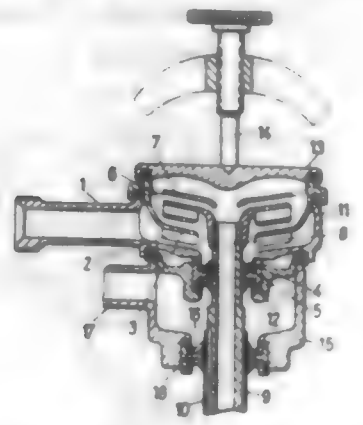
FEED ARRANGEMENT FOR CENTRIFUGAL SEPARATORS

Wilhelm Wilmanns, Oelde, Westphalia, Germany

Application June 1, 1956, Serial No. 588,688
Claims priority, application Germany June 2, 1955
10 Claims. (Cl. 233—45)

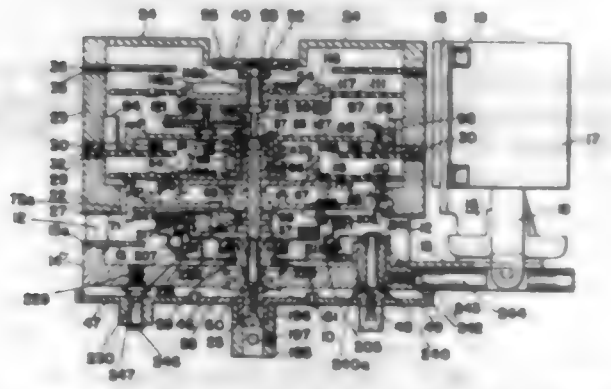
1. In a centrifugal separator having a rotating central spindle defining a liquid inlet conduit, the improvement which comprises a stationary substantially liquid tight

housing surrounding the upper portion of said spindle with the housing interior in liquid communication with said inlet conduit, liquid means for the passage of a liquid into the interior of said housing, a stationary packing seal connected to the lower portion of said housing in sealing engagement with said spindle, a liquid trough



defined in the lower portion of said housing above said packing seal, pump means positioned above said trough for pumping liquid through said housing from said liquid inlet means to said liquid inlet conduit, and means defining a stationary weir connected to said housing and extending between said pump means and said trough.

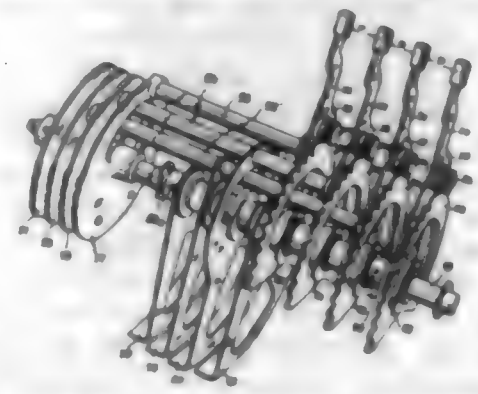
2,869,782
MECHANICAL COUNTER NUMERAL WHEEL RECTIFYING APPARATUS
George H. Leonard, Darien, Conn.
Application June 21, 1954, Serial No. 437,991
31 Claims. (Cl. 235—1)



3. A device for producing rectifying rotation of a rotatable counter member to one of its proper discrete read-out positions comprising, in combination with the counter system which produces rotation of the counter member and with the frame with respect to which the counter member is rotatable, a rectification rotor mounted to have limited rotation with respect to the frame, a slide member having parts slidably engaged by the frame and having a portion which may be moved into contact with the counter system such that when said portion of the slide makes contact with the counter system the counter member will be fixed in a discrete read-out position, said slide being moveable as the rotor is moved by virtue of its coupling to the rotor, such that the rotor acts both to restrict the movement of the slide toward contact with the counter system and to urge its movement toward contact with the counter system.

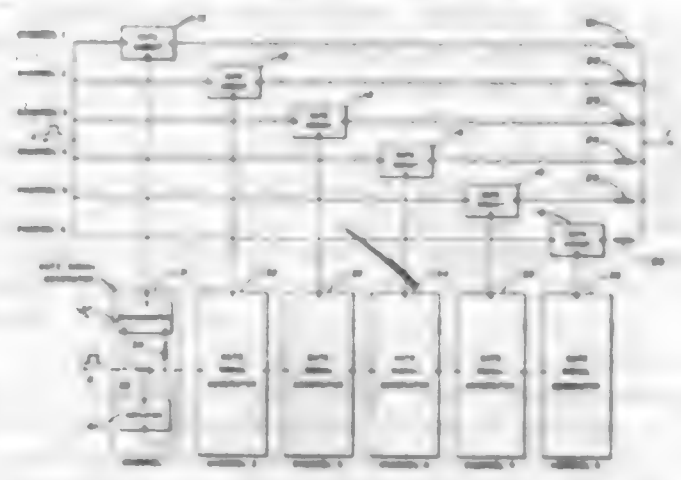
2,869,783
LEVER OPERATED DIFFERENTIAL ACTUATING MECHANISM
Giovanni Barberis, Turin, Italy, assignor to Riv-Officine Di Villar Perosa Società per Azioni, Turin, Italy
Application January 29, 1954, Serial No. 407,027
3 Claims. (Cl. 235—3)

1. In a cash register differential setting and indicating mechanism, a shaft, a plurality of setting levers on said shaft, an equal plurality of indicating drums and printing discs on said shaft associated with the respective setting levers, one of said setting levers and its associated indicating drum and printing disc being keyed to the shaft and the other setting levers and indicating drums and printing discs being rotatable on said shaft, rods parallel to said shaft each fixedly connecting one of the other setting levers to its associated indicating drum and print-



ing disc, thereby rotating the drum and disc on the shaft upon actuation of the associated setting lever, a rotatable toothed sector on said shaft associated with each lever, a shoulder on said sector, a side projection on said lever, and spring means urging the shoulder to adhere to the side projection, thereby causing the sector to follow the lever when a value is set, but whereby the sectors may be zeroized without affecting the associated levers.

2,869,784
MULTIPLIER CIRCUIT
Robert E. Thomas, Walnut Creek, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application July 9, 1953, Serial No. 366,928
8 Claims. (Cl. 235—61)



2. A multiplier circuit comprising a pair of input terminals adapted to receive first and second input pulses, an output terminal, a plurality of resistors connected in parallel between one of said input terminals and said output terminal and said resistors having progressively larger resistance values, and means for applying said first input signal to selected resistors in accordance with the amplitude of said second input signal whereby the resultant signal at said output terminal is proportional to the product of said input signals.

2,869,785
SIGNAL TRANSLATING DEVICE
Francis V. Adams, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 23, 1955, Serial No. 554,993
8 Claims. (Cl. 235—61)

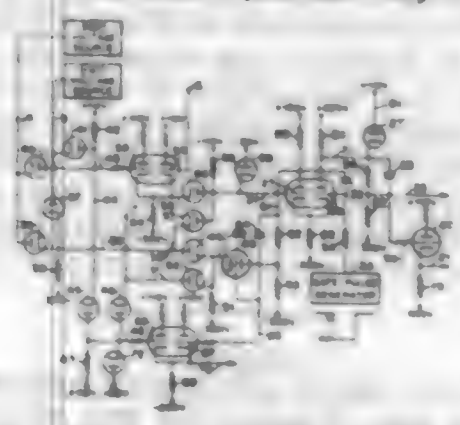
1. A signal translating device comprising, in combination, voltage generating means for generating a voltage having a first, a second or a third value in accordance with a first, a second or a third input condition, a first and a second electron discharge device, each including an

anode, a cathode, and a control electrode, a first and a second output terminal connected to the anodes of said first and said second electron discharge devices respectively, the control electrodes of said first and second electron discharge devices being connected to said voltage generating means, means connected to said voltage generating means for supplying an operating voltage to said first electron discharge device the magnitude of which operating voltage is directly proportional to the voltage generated by said voltage generating means, and means



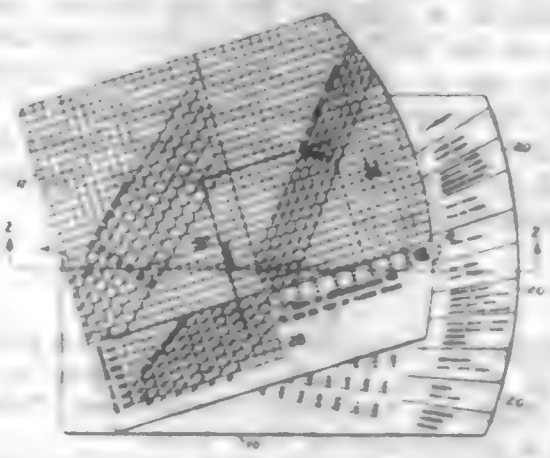
for supplying a substantially constant operating voltage to said second electron discharge device, the parts being proportioned and arranged so that said first electron discharge device supplies an output signal to said first output terminal when and only when the voltage generated by said voltage generating means has said first or said third value and so that said second electron discharge device supplies an output signal to said second output terminal when and only when the voltage generated by said voltage generating means has said second or said third value.

2,869,784
ADDER CIRCUIT
David H. Jacobsohn, Chicago, Ill., and Leslie C. Merrill, Fort Wayne, Ind., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application April 17, 1956, Serial No. 578,856
3 Claims. (Cl. 235—61)



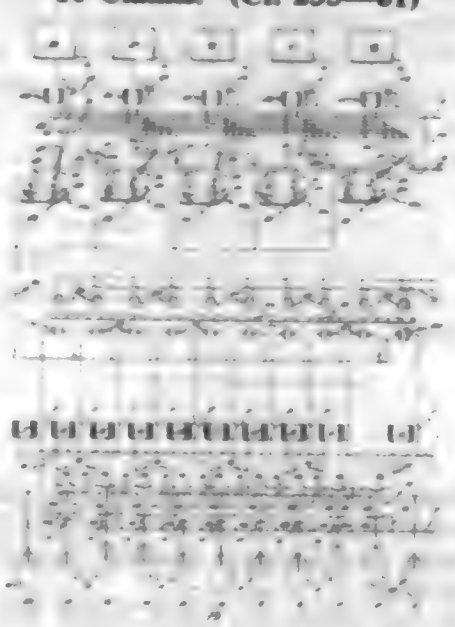
3. In an arithmetic unit provided with a plurality of denominationally ordered stages, each stage comprising an adder circuit having addend, augend, and carry inputs and sum and carry outputs for producing binary signals at said outputs corresponding to the sum of the digits represented by binary signals at said inputs, the improvement comprising: respective bistable circuits in each stage including a first electron tube each stage having cathode, grid, and plate electrodes, cathode, plate and coupling resistors, and a coupling capacitance, said cathode resistor being relatively small and said plate and coupling resistors being relatively large to cause said tube to begin to conduct rapidly but to cut off more slowly upon receipt of an input signal; means for impressing binary digit signals on said addend and augend inputs in each stage to set up binary sum and carry outputs; a second electron tube having an output coupled to said grid and an input coupled to the said carry output; means for simultaneously driving each of said first tubes to the cut off condition by application of a gating pulse irrespective of the output of said second tubes; and means for terminating said pulse to allow respective second tube outputs to determine the operative conditions of the corresponding first tubes; and means coupling respective first tubes to said carry inputs of the next-highest ordered stage.

2,869,787
REFRIGERATION LOAD CALCULATOR
David D. Cordry, La Crosse, Wis., assignor to The Trane Company, La Crosse, Wis., a corporation of Wisconsin
Application May 2, 1956, Serial No. 582,219
1 Claim. (Cl. 235—61)



A calculator for determining the refrigeration requirements of a room comprising a base member, an indexable member, means pivotally mounting said indexable member on said base member, a first scale on said base member and having refrigeration requirements for various types of rooms, a slot in said indexable member uncovering selected portions of said first scale, a second scale of outdoor dry bulb and wet bulb temperatures on said indexable member, a third scale of indoor dry bulb temperature on said indexable member, a fourth scale of indoor relative humidity on said indexable member, said second and third scales having aligned ordinates, said third and fourth scales having aligned abscissas whereby a point on said second scale may be projected parallel to said aligned ordinates to a point on said third scale and then the point on said third scale may be projected parallel to said abscissas to a point on said fourth scale, and ordinates on said fourth scale intersecting said slot whereby the point on said fourth scale may be projected parallel to said lines to a point on said first scale.

2,869,788
LUMBER TALLY SYSTEM
John D. Turner, Deer Park, Wash.
Application June 17, 1957, Serial No. 666,899
10 Claims. (Cl. 235—61)



1. A device for tallying the board feet in a series of boards of lumber, while they are moved by a conveyor

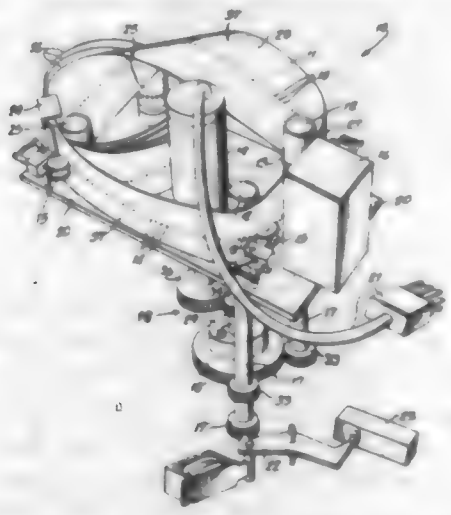
along a definite path, comprising a board length detector, a board width detector, a board thickness detector, an electrical impulse creator operatively connected to one of said detectors operable to create an impulse for each increment of the dimension detected thereby which is the largest increment of that dimension common to all boards being tallied, an impulse multiplier operatively connected to a second detector and to the conveyor to transmit all of the impulses so created once for each increment of the dimension detected by said second detector, which is the largest increment of that dimension common to all boards being tallied, a plurality of impulse counters, a counter directing device operatively connected to the third detector to direct the transmitted impulses to one or another of said impulse counters, according to the particular dimension detected by the third detector and said impulse counters each being calibrated to indicate in additional board feet the number of impulses transmitted to it.

2,869,789

INFORMATION STORAGE APPARATUS

William R. Stewart, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application December 30, 1954, Serial No. 478,841
4 Claims. (Cl. 235—61.11)



2. In combination, an endless tape in the form of a continuous loop containing sine and cosine functions, a first surface of said tape, a second surface of said tape, a 180° twist of said surfaces, a joint at the ends of said surfaces forming said tape into said continuous loop, a medial line dividing said tape, an upper half of said tape containing sin 0 to sin 90 intelligence in the form of perforations through the surfaces of said upper half and extending from one end of said surfaces to the other end of said surfaces, a lower half of said tape containing cos 0 to cos 90 intelligence in the form of perforations through the surfaces of said lower half and extending from one end of said surfaces to the other end of said surfaces, sensing means for reading the sine curve intelligence from said tape, and means for passing said continuous loop across said sensing means to repetitively read said sin 0 to sin 90 intelligence from said upper half and said cos 0 to cos 90 intelligence from said lower half sequentially.

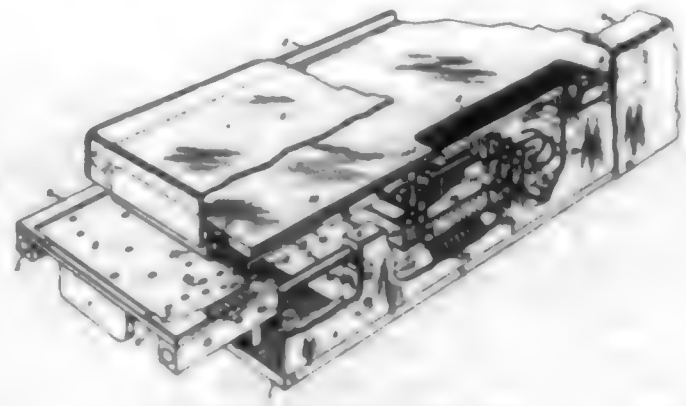
2,869,790

CARD READER DEVICE

Donald F. Radke, East Chatham, N. Y., and Karl W. Fagin, Stockbridge, and Charles E. Marks, Pittsfield, Mass., assignors to General Electric Company, a New York corporation

Application November 16, 1955, Serial No. 547,063
2 Claims. (Cl. 235—61.11)

1. A device for sensing and transmitting to a receiving apparatus information represented by apertures in a record card or the like comprising, in combination, stationary support means; carrier means having a supporting surface for carrying the apertured card, said carrier means being mounted on said stationary support means for movement between an inoperative and an operative position, a plurality of elongated strip-like sensing members arranged parallel and closely adjacent to each other with flat sides substantially normal to the plane of said supporting surface, said sensing members being mounted on said stationary support means for movement relative thereto between a rest position and an operative position, said sensing members in their rest position being arranged side by side with one end of each member adjacent said carrier means and the other end remote therefrom, each sensing member having a feeler portion at said one end adapted during movement of said carrier means from its inoperative toward its operative position



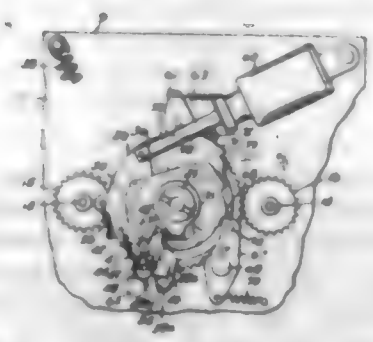
to slide along the surface of the card and to pass through an aperture in the card located in its path, said sensing members being thereafter movable by said carrier means into operative positions corresponding to the relative position of the apertures through which their feeler portions pass; and electrical means associated with said sensing members for differently actuating the receiving apparatus in accordance with the operative positions of said sensing members, said electrical actuating means including contact means movable with each sensing member and a group of stationary strip-shaped contact members arranged with their flat surfaces in a plane parallel to and closely adjacent a respective sensing member, the groups of contacts associated with sensing members which are adjacent each other being displaced from each other along said sensing members, and arranged offset from and substantially in the plane of the adjacent sensing member.

2,869,791

RESETTING MECHANISM FOR REGISTERS

Harvey Noble Bliss, Windsor, and Otto Wild, Jr., West Hartford, Conn., assignors to Veeder-Root Incorporated, Hartford, Conn., a corporation of Connecticut

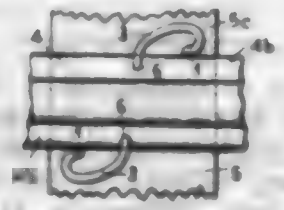
Application June 25, 1957, Serial No. 667,818
11 Claims. (Cl. 235—144)



1. In a register having resetting means, a resetting member engageable with the resetting means, a driving spring for the resetting member, a driving member for engaging and moving the resetting member in a

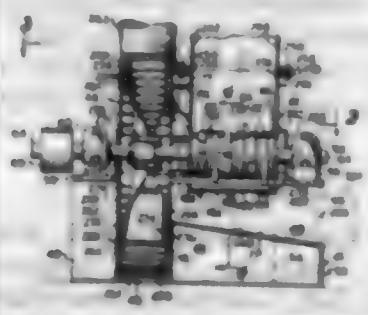
spring loading direction, a latch for holding the driving member in spring loaded position, a manually operable handle, actuating means mounted coaxially with and having a lost motion connection to the driving member, said actuating means being connected to the handle for movement therewith throughout the entire range of movement of the handle, and means on the actuating means for releasing the resetting member from the driving member when the actuating means is moved relative to the driving member in a direction opposite from the spring loading direction.

2,869,792
RAIL FASTENING DEVICE
Hans Hodel, Engelberg, Switzerland
Application December 27, 1954, Serial No. 477,683
Claims priority, application Switzerland January 7, 1954
6 Claims. (Cl. 238—349)



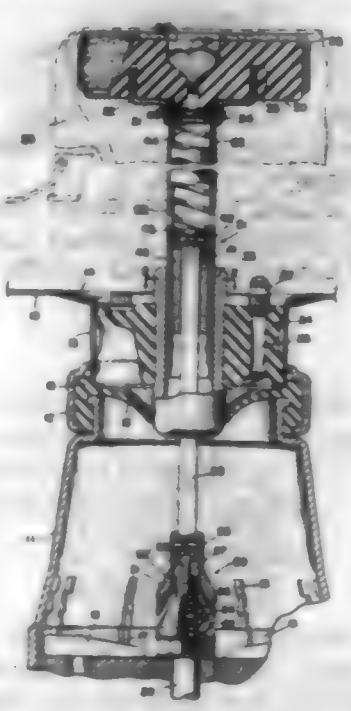
1. A rail supporting and fastening means comprising a sleeper, and a resilient spike to contact a flange of the rail and driven into the sleeper, said spike having an integral spring arm and a sleeper-engaging portion at one end of the spike and at approximately right angles relative to the spring arm, said spike also having a flange engaging portion on the other end of the spike, said sleeper-engaging portion of the spike being anchored in the sleeper immediately adjacent said rail flange near the edge zone of the sleeper, and the spring arm of the spike by means of its flange engaging portion clampedly engaging said rail flange on the approximate longitudinal center line of the sleeper and the flange engaging portion being at approximately right angles to the spring arm of the spike.

2,869,793
MACHINE FOR PUNCHING AND CUTTING OF WOOD
William T. S. Montgomery, Jacksonville, Fla.
Application June 19, 1953, Serial No. 362,798
35 Claims. (Cl. 241—50)



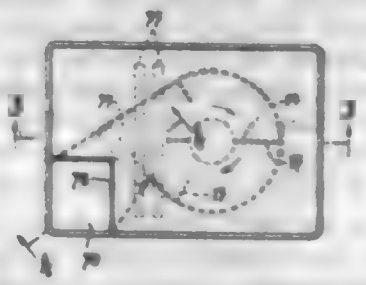
6. Wood reducing apparatus comprising a support, a shaft rotatably mounted on said support, wood breaking members carried by said shaft, a fixed breaker carried by said support in operative relation to said wood breaking members, a channel extending longitudinally beneath said shaft and extending beyond said members, a fan housing, a centrifugal fan in said housing, means connecting one end of said channel to the central portion of said fan housing, the other end of said channel being directly open to the atmosphere, and a plate extending from the side of said channel into close proximity to said members for reducing the flow of air past said shaft, members and fixed breaker into said channel.

2,869,794
DISPOSAL-DRIVEN POT SCOURING DEVICE
Henry J. Modrey, Stamford, Conn.
Application April 3, 1957, Serial No. 650,404
12 Claims. (Cl. 241—101)



11. A scouring assembly comprising, in combination, a power driven garbage disposal device adapted to be attached to a sink for coaction with the drain thereof, said device including a motor having a drive shaft; and a scouring device, said scouring device comprising a drive shaft having two parts slidably telescoped into each other and secured against rotation relative to each other, a scouring head mounted on the free outer end of one part of the drive shaft of the scouring device for rotation in unison with said shaft part, a spring means within said one shaft part biasing the two shaft parts toward a position of maximum axial extension, a support structure supporting said one shaft part rotatable and axially displaceable, said support structure fitting the drain of the sink to close the same, a two-part clutch, one of the clutch parts being secured to the other shaft part of the drive shaft of the scouring device and the other clutch part being attached to the drive shaft of the disposal device, said two clutch parts being adapted to receive one the other in rotation transmitting engagement by axial displacement of said other shaft part toward said other clutch part, and spring means biasing the two clutch members into disengagement.

2,869,795
LOADING PLATFORM FOR GARBAGE DISPOSAL MACHINE
Harry Higer, Detroit, Mich.
Application November 15, 1955, Serial No. 546,946
5 Claims. (Cl. 241—301)



1. In an apparatus of the character described, a structure provided with a vertically extending matter-receiving recess having a rotor operatively arranged therein, a loading platform comprising a horizontally extending table arranged above said recess and having an opening for passage of the matter therethrough, upstanding walls provided along the edges of said platform, an inclined

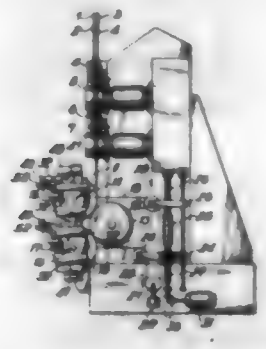
chute leading from the opening in said platform into said recess, and an apron provided in said chute and hinged at its top.

2,869,796

WINDING DEVICE FOR SPOOLING MACHINES, ESPECIALLY FOR SYNTHETIC THREADS

Wilhelm A. König, Karlsruhe-Durlach, Germany, assignor to Industrie-Werke Karlsruhe Aktiengesellschaft, Karlsruhe, Germany

Application August 1, 1955, Serial No. 525,669
Claims priority, application Germany August 4, 1954
8 Claims. (Cl. 242—35.5)



1. In a winding device for spooling machines, the combination of: a plurality of bobbin holders arranged in pairs with the two bobbin holders of each pair mounted one above the other, each of said bobbin holders being adapted selectively to support a bobbin for winding a cop thereon or to release said bobbin to allow removal thereof from the respective bobbin holder, a plurality of driving rollers respectively asociated with each pair of bobbin holders and arranged for frictionally engaging the cops being formed on said bobbins and to rotate the latter with said cops, a plurality of slide means respectively supporting said bobbins, parallel guiding means respectively guiding said slide means for displacement thereof in horizontal direction and perpendicular to the driving axis of the respective driving rollers pertaining to each pair of said bobbin holders, pressing means operatively connected to said slide means for each pair of bobbins for simultaneously acting upon the same to uniformly press the cops respectively supported thereby against the respective driving roller pertaining thereto, and latching means respectively associated with said slide means and operable in response to a movement of said slide means away from said driving roller pertaining thereto into a certain position to lock the respective slide means in a position in which the respective completed cop supported by the slide means pertaining thereto is spaced from the respective cooperating driving roller.

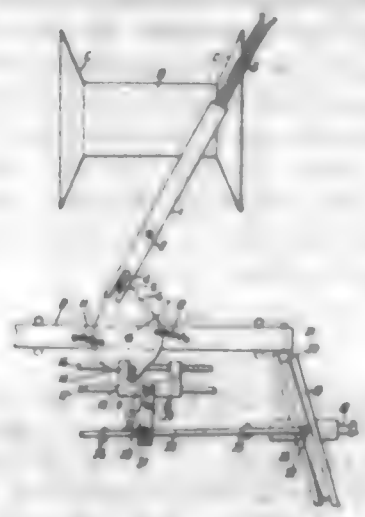
2,869,797

THREAD TRAVERSE

André Clerc, Geneva, Switzerland, assignor to Societe Rhodiaceta, Paris, France, a corporation of France

Application May 14, 1956, Serial No. 584,766
Claims priority, application France June 8, 1955
6 Claims. (Cl. 242—43)

1. Apparatus for winding a thread onto a bobbin having a conical cheek at either end thereof comprising a thread guide adapted to oscillate about a fixed pivot point, an elongated guide slot formed in said thread guide, a reciprocable rod; a member pivotally mounted on the rod, the thread guide being connected to the said member for oscillation thereby at a point remote from the pivot point of said member; means for urging the said member into a predetermined position with respect to the rod; and abutment means adapted to engage the said member after it has been moved by the rod a predetermined distance in either direction from a central position; whereby further movement of the said member by the rod away from the central position causes pivotal movement of the said



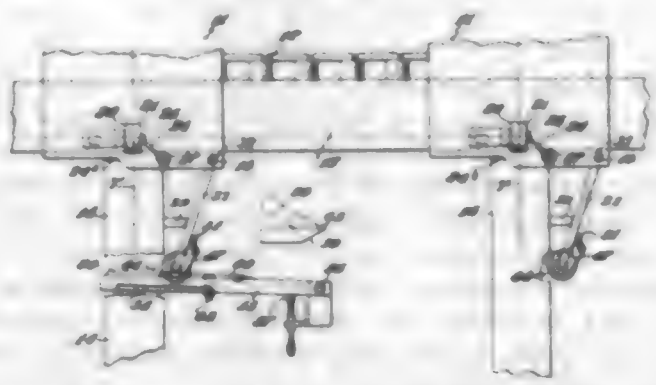
member and hence an increased angular velocity of said thread guide.

2,869,798

SUCCESSIVE SETTING OF TENSIONS ON A MULTIPLE WINDING MACHINE

Samuel L. Abbott, Wilton, N. H., assignor to Abbott Machine Co., Inc., Wilton, N. H., a corporation of New Hampshire

Application December 1, 1953, Serial No. 395,529
19 Claims. (Cl. 242—45)



1. Winding machine including a plurality of yarn winding units each including an adjustably loaded tension device adapted to apply various degrees of tension to the winding yarn in accordance with the loading of the tension device, a tension-setting mechanism adapted to establish the degree of loading of a tension device, and means for causing relative traveling movement between the tension-setting mechanism and the several tension devices such as to associate the tension-setting mechanism with the several tension devices in succession, the tension-setting mechanism being adjustable to establish various degrees of loading of each of the plurality of tension devices.

2,869,799

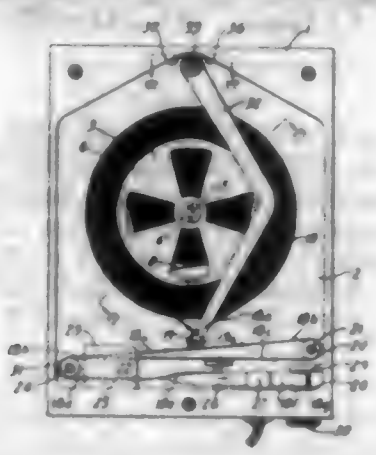
MAGNETIC TAPE TRANSPORT MECHANISM

Jonathan Hunter, Lafayette, Calif., assignor to Marchant Research, Inc., a corporation of California

Application March 24, 1955, Serial No. 496,513
6 Claims. (Cl. 242—55.12)

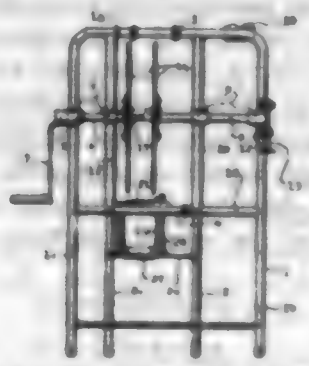
1. In a tape transport comprising a tape, a supply reel and a take-up reel mounted for rotation upon a common pivot, drive means for pulling the supply tape off of the supply reel, a resilient mechanism interconnecting the two reels and operable to cause the take-up reel to follow the rotation of the supply reel; a shock absorber comprising: a supporting member mounted for pivotal movement upon an axis parallel to the axis of rotation of the reels, a roller pivotally mounted on the supporting means for rotation on an axis parallel to the axis of rotation of the reels, the pivot for the roller normally standing in such position that a line passing through the pivots for the supporting member and the roller substantially passes

through the pivot for the reels, said roller being of sufficient width to receive the supply tape and the take-up tape, means to guide the supply tape and the take-up tape in opposite directions from the roller so that rocking



movement of the supporting member and the roller in a direction to relieve tension in the supply tape will eliminate slack in the take-up tape, and resilient means for returning the supporting member and the roller to their normal position.

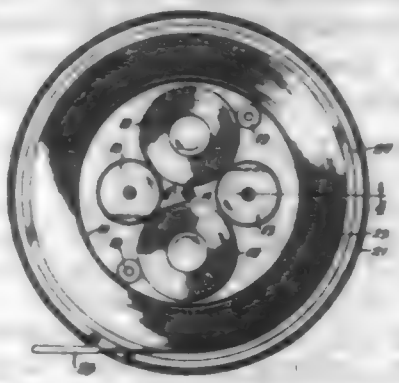
2,869,800
HOSE WINDER
William Paul Eden, Port Arthur, Ontario, Canada
Application January 19, 1955, Serial No. 482,859
9 Claims. (Cl. 242—86)



1. In a hose winding device for winding successive lengths of hose in ribbon-pack rolls and which includes a frame, a rotatable winding drum mounted on said frame, means for rotating said drum, said winding drum comprising a pair of axially aligned shafts one of which is engaged by said rotating means, a pair of spaced confronting disks mounted rigidly one on the inner end of each of said shafts, one of said shafts being slidable axially inwardly toward and outwardly from the inner end of the other shaft whereby said disks may be separated laterally into open roll-removing position, means for preventing the outward movement of said axially slidable shaft, and hose engaging means disposed on the confronting sides of said disks, longitudinal adjustment means on said slidable shaft engageable by said means for preventing the outward movement of said shaft, thereby allowing of varying the inward or closed position of said slidable shaft and the resulting spacing between said pair of confronting disks.

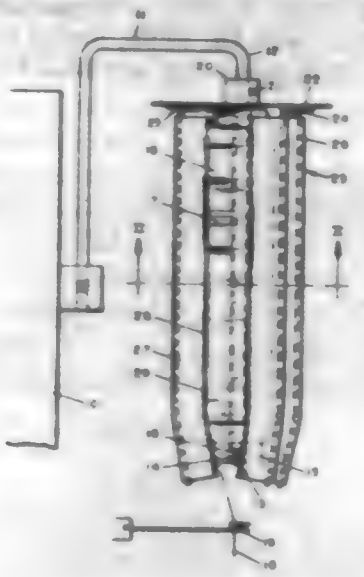
2,869,801
SPRING MOTOR
Edwin E. Foster, Austin, Tex.
Application February 18, 1957, Serial No. 640,923
12 Claims. (Cl. 242—107.3)

1. A spring motor comprising a plurality of take-up drums rotatably mounted in symmetrically spaced relation about a central axis, a plurality of spring strips normally biased to coil themselves into storage coils lying loosely adjacent to the drums, means connecting the ends of the strips to the drums respectively, and means to turn the drums simultaneously about their axes in a direction to backwind the strips from the storage coils onto the drums, each of the storage coils engaging the surface of an adjacent drum which is



moving in the same direction as the surface of the storage coil to roll thereagainst during winding and unwinding and being constrained thereby against rotation around the drum on which it is being wound.

2,869,802
TENSIONING MEANS
James C. Williams, Clemson, S. C., assignor to Deering Milliken Research Corporation, Pendleton, S. C., a corporation of Delaware
Application May 16, 1955, Serial No. 508,559
3 Claims. (Cl. 242—156.1)

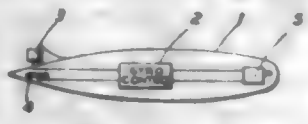


1. Yarn package unwinding apparatus comprising in combination: a yarn package support for holding yarn packages in position for over end yarn delivery; yarn tensioning means including a plurality of blade-like members extending longitudinally at least the length of said package position, spaced circumferentially thereabout, each of said members being formed of textile material the greater part of the width of each being relatively stiff as opposed to its yarn package contacting portion which is frayed to present a multitude of relatively flexible thread ends to engage an end of yarn as it is drawn from the package; and means rigidly supporting the unfrayed edge of each of said blade-like members throughout its length; whereby yarn is positively prevented from kinking or snarling as it is withdrawn from the package.

2,869,803
VEHICLES
James Dwyer McGee, Ealing, London, England, assignor to Electric & Musical Industries Limited, Hayes, England, a British company
Application March 17, 1953, Serial No. 342,799
Claims priority, application Great Britain March 18, 1952
4 Claims. (Cl. 244—14)

1. In a craft of the remotely guided type including: pitch and yaw controls, means responsive to received signals for establishing a desired course for the craft,

gyro-controlled means for operating said pitch and yaw controls to maintain the craft generally on the course established by said signals subject to unavoidable momentary deviations resulting from external forces, and means including a television image pick-up camera carried by said craft for transmitting to a remote control station signals indicative of the position of a target relative to



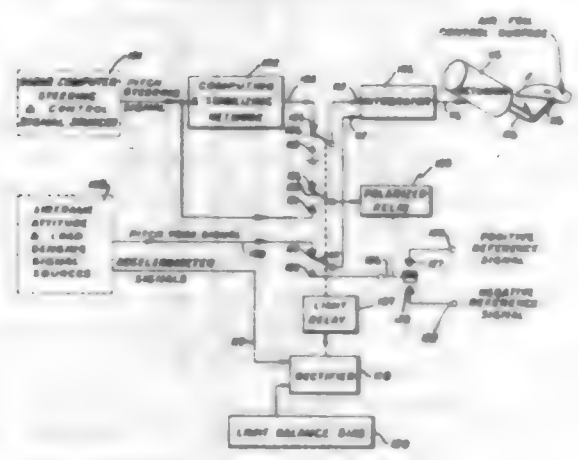
the course of said craft; the improvement which comprises means for shifting the effective image pick-up direction axis of said camera relative to said craft, and means connected to said gyro-controlled means for operating said shifting means to maintain the effective line of sight of said camera directed towards said target during the unavoidable deviations of the craft direction from the course specified by said received signals.

2,869,804

ACCELERATION RESPONSIVE CONTROL SURFACE CONTROL LIMITING SYSTEM FOR AIRCRAFT

George Muinch, Northridge, and Donald K. Crockett, Torrance, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application July 26, 1955, Serial No. 524,412
4 Claims. (Cl. 244—77)



1. An automatic control limiting device for aircraft comprising: control surface actuating means; pitch steering signal means normally connected to said control surface actuating means to automatically operate said actuating means; normally disconnected polarized reference signal means adapted to provide predetermined control signals in response to pitch steering signals; and normally deenergized acceleration signal responsive switching means connected to said control surface actuating means, to said pitch steering signal means, and to said reference signal means, said switching means being energized in response to predetermined values of accleration signals to disconnect said actuating means from said pitch steering signal means and to connect said pitch steering signal means to said polarized reference signal means, and to connect said polarized reference signal means to said actuating means; whereby when said predetermined values of acceleration signals occur said actuating means is disconnected from said pitch steering signal means and connected to said reference signal means to receive selected polarities of said reference signals which are applied to said actuating means in response to signals from said pitch steering signal means, automatic control of said actuating means being thereby arrested for the duration of said predetermined values of said acceleration signals, and reference signal control being substituted.

2,869,805

CONTROL SURFACE

Peter L. Marshall, Columbus, Ohio, assignor to North American Aviation, Inc.

Application June 20, 1956, Serial No. 592,548
5 Claims. (Cl. 244—87)



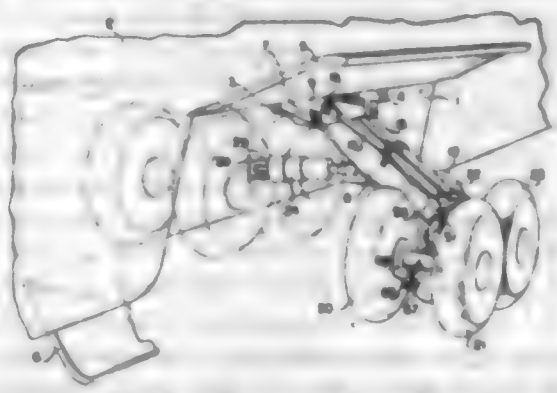
1. An aircraft control surface comprising a forward section of aerodynamic configuration in its leading edge portion, and a plate member of substantially less thickness than said forward section and fixedly connected to and extending rearwardly from said forward section, said forward section having a generally blunt trailing edge located in that chordwise region of said control surface which extends from approximately thirty percent to approximately seventy percent of the chord length thereof and having a surface portion forming a line of joinder with said blunt trailing edge, and said line of joinder being transversely offset from a surface of said plate member a distance equal to at least approximately one-half the thickness of an aerodynamically contoured control surface of equal chord length at the same location in said chordwise region, thereby substantially eliminating aerodynamic buzzing of the control surface during transonic velocity flight.

2,869,806

AIRCRAFT LANDING GEAR

James B. Beach, Van Nuys, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.

Application December 22, 1954, Serial No. 477,051
13 Claims. (Cl. 244—102)



11. A retractable landing gear for aircraft comprising, a pair of wheel supporting parallelogram linkages, a common fulcrum fitting swingably carried by the aircraft for movement about an axis normal to the aircraft longitudinal axis and supportingly engaging both said parallelogram linkages and allowing movement thereof about an axis normal to the axis of rotation of the fulcrum fitting, shock absorbing means connecting directly with said aircraft and with said pair of parallelogram linkages and stabilizing the latter relative to said fulcrum fitting and establishing a fixed path for the movement thereof between a stowed position and an extended position projecting downwardly and outwardly on either side of the aircraft relative to the stowed position, said shock absorbing means providing a fixed length strut for extension and retraction of the gear whereby the path of move-

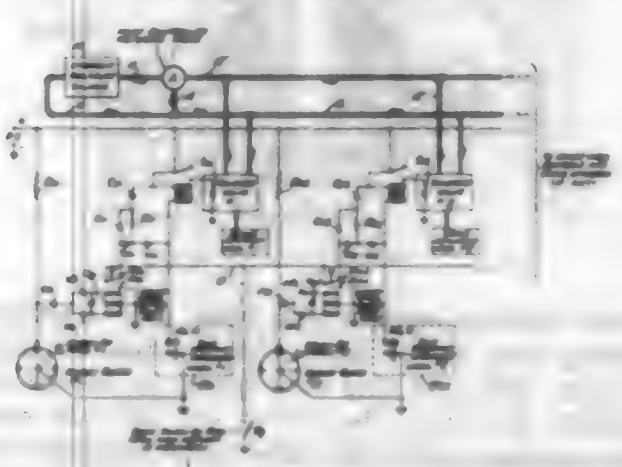
ment of the gear is defined by the geometrical relationship between the shock absorbing means and the parallelogram linkages, and actuating means carried by said aircraft and connecting with said fulcrum fitting for effecting rotation thereof to raise and lower said landing gear.

2,869,887

ANTI-SKID BRAKE CONTROL SYSTEM WITH LOCKED-WHEEL PREVENTION APPARATUS

Francis G. Hyland, Bellevue, and Henry W. Kassel, Seattle, Wash., assignors to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware

Application May 31, 1955, Serial No. 512,096
9 Claims. (Cl. 244—111)



3. An airplane brake control system comprising individual brake actuators for each of a plurality of airplane landing wheels, pilot-controlled means connected to said brake actuators for operating said brake actuators at will; individual skid-preventing means for each such wheel comprising, in combination with each such brake actuator, brake-release means operatively connected to said brake actuator and operable to interrupt pilot-controlled operation of the brake actuator, wheel deceleration sensitive means operatively connected to said brake release means and automatically operating said brake release means in response to material deceleration of the wheel below normal running speed thereof, thereby to interrupt incipient wheel skidding, and locked-wheel preventing means for each such wheel including wheel-speed-actuated control means for operating said brake release means of the wheel automatically in response to substantial stoppage of wheel rotation only during continued rotation of at least one other wheel, said control means for each wheel including a control member, and means, controlled by wheel speed, actuatingly connected to said control member for actuating the same to a first position in response to reduction of associated wheel speed to a predetermined value and to a second position in response to associated wheel rotation above a predetermined speed, said control member being connected to the like control members of the other wheel control means, first means for each wheel operatively connected to the associated wheel brake release means and engageable by the control member in its first position to partially complete an energizing connection to such brake release means, and second means for each wheel engageable by said control member in its second position and having means thereby adapted to complete an energizing connection to the brake release means of any other wheel, said energizing connection so completed including the control member and associated first means engaged thereby of such other wheel, whereby none of the brake release means are operated when the speed of all of said wheels is below said first-mentioned predetermined value.

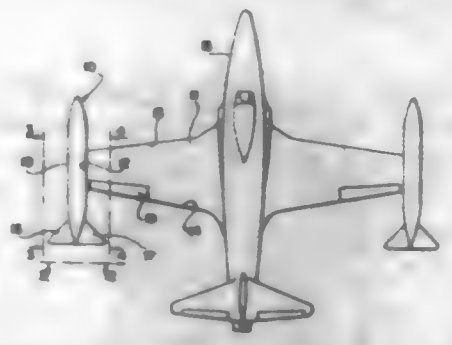
4. The airplane brake control system defined in claim 3, and landing gear actuated squat switch means having one position with the airplane off the ground and an opposite position with the airplane grounded, said squat switch being connected to the control members of all wheel control means and being adapted in the first position of said squat switch to operate the brake release means of all wheels through said control members and associated first means engaged thereby.

2,869,888

VANE STABILIZING WING TIP POD FOR AIRCRAFT

J. Ford Johnston, Burbank, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.

Application August 22, 1955, Serial No. 529,614
3 Claims. (Cl. 244—135)



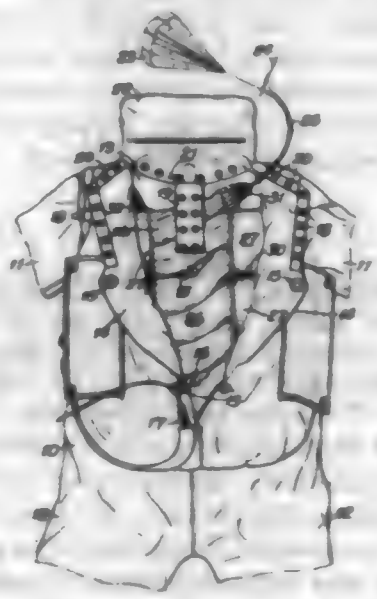
1. In an aircraft having a wing and an aileron swingably carried adjacent the outboard trailing edge thereof, a streamlined tank secured to the tip of the wing, said tank being aligned with the direction of flight for minimum drag and having the ends thereof extending beyond the leading and trailing edges of the wing, a pair of airfoil shaped vanes secured to the aft end of said tank in a substantially coplanar relationship with respect to each other and generally parallel with the plane of the wing, one of said vanes projecting inboard from the wing tip and having a substantial portion thereof directly aft of the aileron and in the wake of the wing, the other of said vanes projecting outboard from the wing tip and in the wake of the tip vortex whereby the pair of vanes cooperate aerodynamically to always provide both static and dynamic stabilizing forces for the wing and tank.

2,869,889

PARACHUTE PACK

James Gregory, Woking, England, assignor to G. Q. Parachute Company Limited, Woking, England, a British company

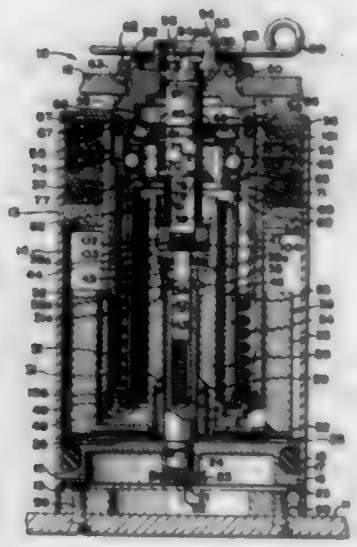
Application June 11, 1956, Serial No. 590,710
Claims priority, application Great Britain June 15, 1955
1 Claims. (Cl. 244—148)



1. A parachute pack comprising a container having a base member, a plurality of open-mouthed pockets with closed sides and having closed ends attached to said base member, said pockets being arranged side-by-side to form two opposing series with the mouths of the pockets in

one series opening towards the mouths of the pockets in the other series, whereby a folded parachute canopy can be stowed in a substantially zigzag manner in the two series of pockets.

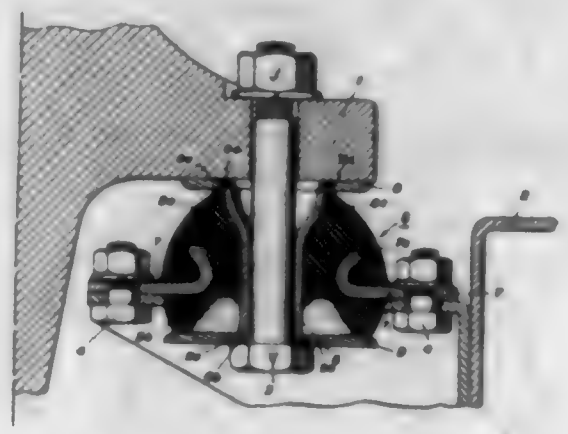
2,869,810
TIME DELAY RELEASING DEVICE FOR A PARACHUTE PACK COVER
George H. Leonard, Darien, Conn., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 5, 1952, Serial No. 307,983
7 Claims. (Cl. 244—150)



7. Inertia actuated apparatus for releasing the cover of a parachute pack a predetermined period of time after launching thereof and comprising, in combination, a parachute pack, a casing secured within said pack, a cover for said pack, and arming wire detachably connected to said apparatus, a member secured to said cover and insertable in said casing, means operatively connected to said member for releasably locking the member in said casing and having a locking position and an unlocked position, normally locked rotatable means including a preloaded spring driven mass and set into operation by the launching of the pack as the arming wire is withdrawn for driving said releasable locking member from the locking position to the unlocked position in response to kinetic energy of said mass suddenly applied thereto, said last named means being operatively connected to said arming wire and rendered effective as the arming wire is withdrawn, and time-delay means operatively connected between said driving means and said releasable locking means whereby the driving means after initiation remains ineffective to drive the locking means until said predetermined period of time has elapsed.

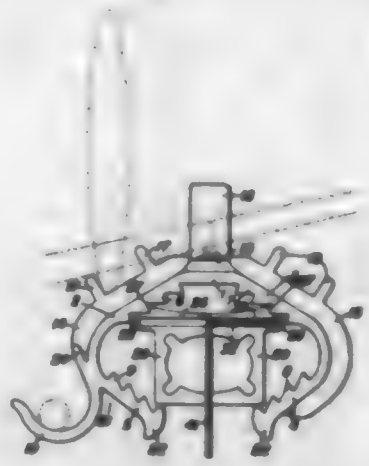
2,869,811
RESILIENT MOUNTINGS
Antonio Boschi, Milan, Italy, assignor to Societa Applicazioni Gomma Antivibranti, Milan, Italy
Application May 19, 1952, Serial No. 288,731
7 Claims. (Cl. 248—9)

1. A resilient support for machines comprising: a rubber ring having a dome-shaped outer surface and supported at a region intermediate its opposite ends by a rigid, concentric, annular plate having an inner portion flared upwardly and outwardly into a frusto-conical shape and embedded in said ring, and a flat outer portion attached to a supporting base; said ring having an annular, peripheral portion extending below said plate; a flat rigid, annular, load-bearing disc, abutting a portion of the supported machine, and a rigid, annular buffer disc attached to said load-bearing disc, in fixed spaced relationship therewith, by a rigid, tubular sleeve passing vertically through the central portion of said ring; said ring being interposed between said discs which are secured by a bolt to the supported machine; said ring and load-bearing disc being so constructed and arranged in relationship with each other that their adjacent surfaces define an intervening angular space which is gradually reduced so



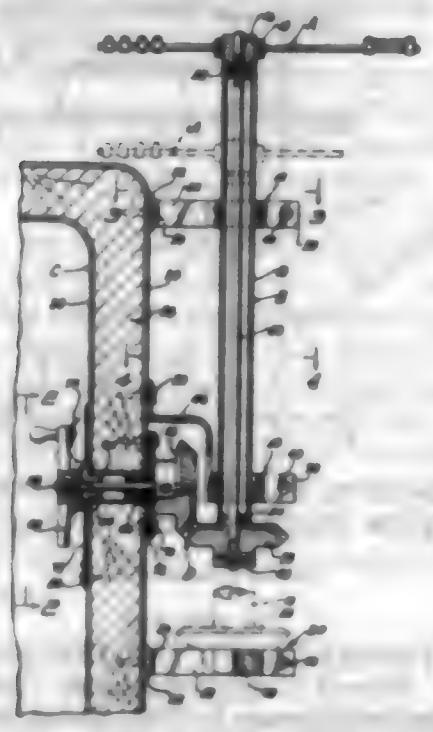
that said surfaces contact each other over a progressively increasing area as the load on said support is increased; said buffer disc and said ring being so constructed and positioned that only the lower end of said peripheral portion contacts said buffer disc under no-load condition, and moves out of said contact when a load of selected weight is applied to said support.

2,869,812
BOAT CLAMP
Lewis E. Hamel, Rochester, N. Y., assignor to Lewis E. Hamel Co., Rochester, N. Y., a corporation of New York
Application June 1, 1955, Serial No. 512,398
1 Claim. (Cl. 248—42)



A one-piece boat clamp formed of hard slightly yieldable material and consisting of a top portion, downwardly diverging gripping arms merging into inwardly extending horizontally disposed retaining arms which are spaced from each other at their inner ends, the inner surfaces of said arms having transverse notches adapted to engage four opposite top and bottom edges of a gunwale, the retaining arms diverging downwardly when in clamping position, a U-shaped rod holder extending upwardly from said top portion, and a separate one-piece adapter formed of hard slightly yieldable material and consisting of a supporting plate having ends engaged with said notches in the diverging gripping arms, said plate having underlying spaced extensions integrally connected thereto, and a pair of spaced depending gripping units carried by said extensions and each having vertical sides with bottom edges engaged with the notches in said retaining arms and circular cut-out sockets on their inner surfaces that are adapted to engage part of a support.

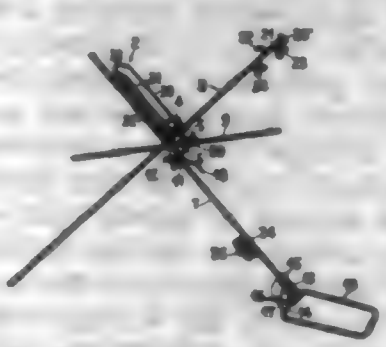
2,869,813
TRAILER ANTENNA ROTOR AND MOUNT
Emanuel Silverman, Oak Park, Mich.
Application December 12, 1955, Serial No. 552,554
7 Claims. (Cl. 248—45)



1. A manually controlled television antenna rotor and mount assembly comprising a house trailer or the like having a roof and a vertical wall, a hollow mast, bracket means mounting said mast to said wall in a generally vertical position, a shaft rotatably mounted in said mast, a shaft supporting member secured to the upper end of said shaft, said member being adapted for supporting an antenna for rotation with said shaft, said mast and shaft being movable as a unit on said bracket means between an up position wherein said member is positioned to locate said antenna a predetermined distance above said trailer roof, and a down position wherein said member is lowered to locate said antenna adjacent said trailer roof, holding means releasably and non-rotatably holding said mast in said up position thereof, said holding means being releasable for moving said mast to said down position, a control shaft rotatably mounted in said vertical wall in a generally horizontal position adjacent the lower end of said mast and in a common vertical plane with said first-mentioned shaft, one end of said control shaft extending within said trailer and carrying a member for manually rotating this shaft, the other end of said control shaft having a bevel gear secured thereto for rotation with this shaft, and a second bevel gear secured to said first-mentioned shaft adjacent the lower end thereof, said bevel gears being interengaged when said mast is in said up position and said second gear becoming disengaged when said mast is moved to said down position and said gears when engaged being adapted to transmit power from said control shaft to said first-mentioned shaft for effecting predetermined rotation of the latter shaft and said shaft supporting member and thereby said antenna.

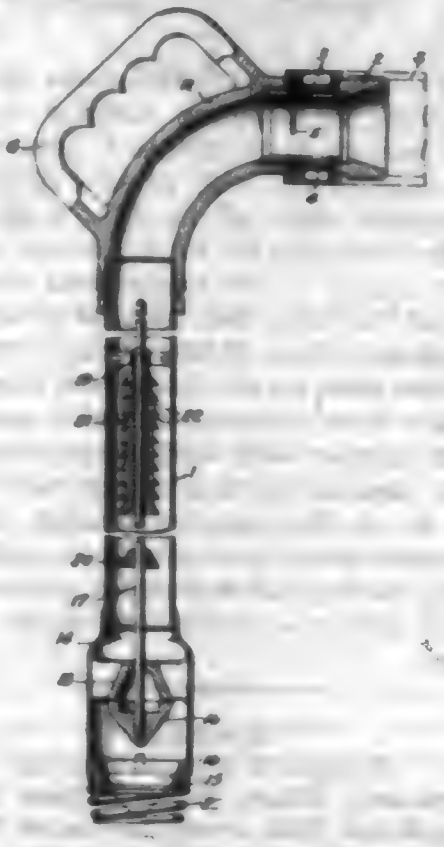
2,869,814
STAND FOR A FISHING ROD
Hans Härtlmann, Wil, Switzerland
Application June 23, 1955, Serial No. 517,612
Claims priority, application Switzerland June 28, 1954
3 Claims. (Cl. 248—48)

1. A stand for a fishing rod comprising in combination, a bracket member, three sleeve members fixed on said bracket member with the axes thereof extending in different directions, three rod-like leg members one for each sleeve member, each rod-like leg member being slidable in its particular sleeve member, means for clamping each of said rod-like leg members in any desired fixed position in its sleeve member, an elongated cage member for holding a fishing rod mounted on said bracket and also attached to one of said sleeve members, said cage member extending in the same general direction as



the axis of the sleeve member to which it is attached whereby any portion of the leg which is fixed in said last mentioned sleeve member extends in the same general direction of said cage member and in the same general direction as a fishing rod held by said cage member.

2,869,815
SUCTION DEVICE FOR THE TRANSFER OF LIQUID FROM ONE CONTAINER TO ANOTHER
Walter Jordan, Braunschweig, Germany, assignor to Luther-Werke, Luther & Jordan, Braunschweig, Germany
Application March 30, 1953, Serial No. 345,753
Claims priority, application Germany May 21, 1952
2 Claims. (Cl. 251—76)



1. In a suction device for the transfer of liquid, such as gasoline, diesel oil, petroleum or the like, from one container to another container, a suction conduit having a suction end, the combination with the suction end of said conduit, of a tubular member connected at one end to and in communication with the suction end and at its opposite end open for the admission of liquid and provided with a conical valve seat, closing means for the open end of the tubular member, a guide stem on the closing means, said closing means having a conical surface portion fitting the conical valve seat at the open end of the tubular member and being provided with expelling means projecting, when the closing means is in closing position on the conical valve seat, out of the open end of the tubular member in a downward direction, resilient safeguarding means provided at the open end of the tubular member and loosely surrounding the projecting ex-

pelling means in a cage-like manner, the safeguarding means being of such strength that un-intended explusive pressure against the expelling means is normally possible only through blow-like compression of the resilient safeguarding means, and means for maintaining the closing means in the open position including a body with a fluid impinging surface facing in the direction of flow rigidly secured to the guide stem, a second body having fluid impinging surfaces mounted on the guide stem so as to be axially shiftable thereon in response to the flowing fluid and positioned above the first mentioned body and adapted to be dropped by gravity upon cessation of flow in a blow-like fashion onto the first mentioned body thereby serving to automatically force the closing means onto the conical valve seat, the arrangement of the closing means and seat being such that when the closing means is forced onto its seat, it is retained thereon in self-locking closing engagement.

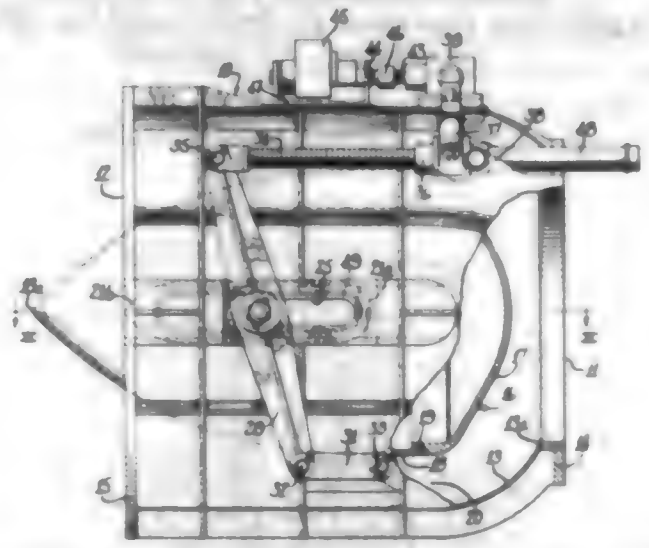
2,869,816
SHUT-OFF DEVICE FOR FLEXIBLE TUBES
Karl Erik Olander, Norrkoping, Sweden
Application May 22, 1956, Serial No. 586,548
Claims priority, application Sweden June 4, 1955
3 Claims. (Cl. 251—6)



1. A shut-off device for flexible tube lines comprising in combination, a mounting adapted to be clamped around the tube so as to expose a portion thereof, the mounting being formed with parallel oblique guide surfaces on opposite sides of the tube, a bell crank lever pivoted to the mounting for turning about an axis extending at right angles to the longitudinal direction of the mounting and the tube, links pivoted to one arm of said lever on opposite sides of the tube, a transverse shaft carried by said links on the side of the tube remote from the bell crank lever, a roller rotatably mounted on said shaft out of contact with said guide surfaces for compressing the exposed portion of the tube by a turning of the lever in one direction, and separate rollers rotatably mounted on said shaft for engaging the guide surfaces of the mounting during said movement, said separate rollers being out of contact with the tube in all positions they may occupy.

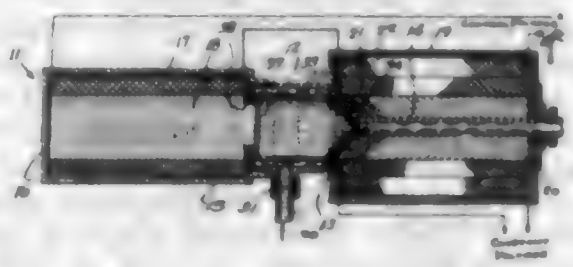
2,869,817
STREAM FLOW VALVE
Lloyd Hornbostel, Beloit, Wis., assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application March 6, 1956, Serial No. 569,752
10 Claims. (Cl. 251—133)

1. A stream flow valve comprising a substantially cylindrical casing adapted to be mounted between spaced conduits, said casing having a reduced portion at the forward end thereof defining an inlet with a valve seat therein, a streamlined plug with streamlined arms intermediate its ends and formed therewith and mounted for longitudinal movement within said casing and coacting with the casing walls and said valve seat to throttle fluid flow therethrough, a plurality of longitudinal slots in said casing walls diametrically opposite each other, guide members mounted in said slots and carried adjacent the inner casing walls and having longitudinal guide slots therein, said arms carried by said plug in slidable engagement with said guide members, a control rod extending transversely through said plug and said arms and in slidable engagement with said guide member slots with its ends extending exteriorly of said casing, and means mounted solely on the exterior of said casing connected to the ends of said control rod for



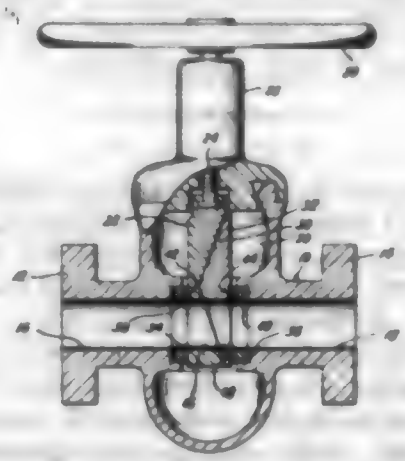
effecting movement of said plug with relation to said valve seat to vary the fluid flow capacity of said valve.

2,869,818
ELECTROMAGNETIC METERING VALVE
Marcel Fleuret, Redlands, Calif.
Application January 3, 1958, Serial No. 707,057
4 Claims. (Cl. 251—137)



1. In a valve of the character described, a hollow main body including an inlet port and an outlet port, a hollow capsule secured in said main body, sealing means between the main body and the capsule to prevent direct flow of fluid from the inlet port to the outlet port, said capsule having a first porous wall portion adjacent said inlet port and a second porous wall portion adjacent said outlet port, granular magnetic sealing material in said capsule, and a magnetizing winding on said body adjacent said second porous wall portion and being formed and arranged to attract said magnetic sealing material into sealing contact with said second porous wall portion when energized.

2,869,819
GATE VALVE
Robert M. Rucker, Houston, Tex., assignor to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application June 25, 1954, Serial No. 439,190
6 Claims. (Cl. 251—199)



1. In a gate valve structure a casing having a flowway therethrough and a chamber intersecting the flowway for

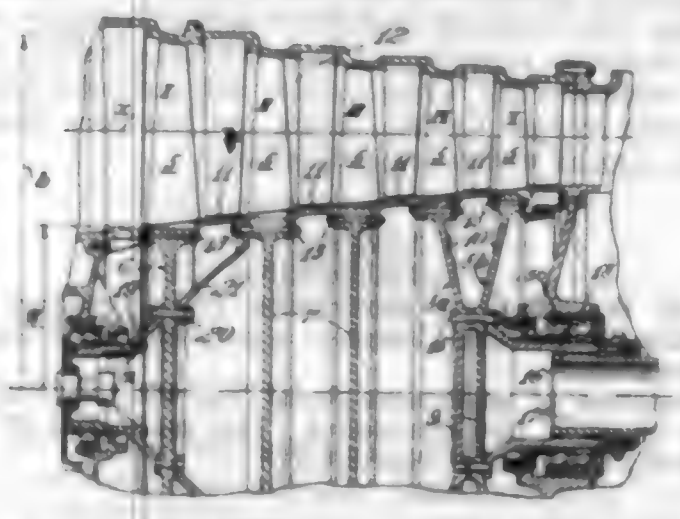
the reception of a valve gate slidably mounted therein for sliding movement transversely of the flowway and including wedgingly engageable elements arranged for relative movement transversely of the flowway to expand the gate in a direction longitudinally of the flowway when the valve is closed, said casing having an internal annular recess opening into said chamber in surrounding relation to said flowway, and seat forming means having a circumferential interference fit with said recess disposed in said recess and extending into the chamber for sealing engagement with one of said elements, said means having at one end an annular end wall, a portion of which is positioned for abutting contact with the bottom of said recess adjacent said flowway, the remainder of said annular end wall spaced radially outwardly of the flowway and sloping away from said bottom and at the other end an end surface shaped for engagement with said one of said gate elements in an annular zone remote from said flowway and to be out of contact with said one of said elements in an annular zone adjacent said flowway when said elements are out of wedging engagement, during wedging action the seat progressively engaging the gate elements.

2,869,818

ROTORS FOR AXIAL FLOW COMPRESSORS OR TURBINES

Francis Charles Ivor Marchant, William James Morley, and Ernest Briggs, Bristol, England, assignors, by mesne assignments, to Bristol Aero-Engines Limited, Bristol, England, a British company

Application April 12, 1952, Serial No. 281,958
Claims priority, application Great Britain April 18, 1951
10 Claims. (Cl. 253—69)



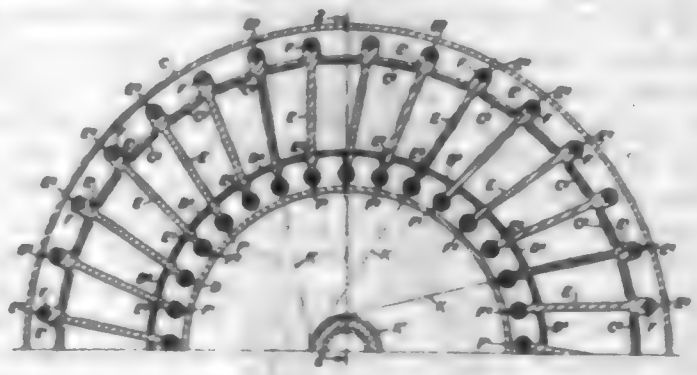
10. In a lightweight rotor for an axial flow rotary power conversion machine, said rotor comprising a plurality of blade carrying discs including at least two end blade carrying discs and means joining said discs together and connected thereto adjacent their rims to form a rigid drum structure; a first frusto-conical disc bolted at an intermediate radius to the side of the end blade carrying disc at the low pressure end of the rotor which forms an end face of said drum structure, said first frusto-conical disc being of a lesser maximum diameter than said low pressure end blade carrying disc, and being carried by said low pressure end blade-carrying disc so as to be concentric therewith and convergent away therefrom; a first stub shaft for said rotor on said first frusto-conical disc at its end of minimum diameter; a second frusto-conical disc bolted to said low pressure end blade carrying disc at said intermediate radius on the side thereof remote from said first frusto-conical disc so as to be concentric with said low pressure end blade carrying disc, said second frusto-conical disc being divergent away from said low pressure end blade carrying disc and being bolted at its end of maximum diameter to said drum structure at the outer periphery of the drum structure; a third frusto-conical disc bolted at an intermediate radius to the side of the end blade carrying disc at the high pressure end of the rotor which forms the other end face of said drum structure, said third frusto-conical disc being of lesser maximum diameter than said high pressure end blade-carrying disc and being carried by said high pressure end blade-carrying disc so as to be concentric therewith and convergent away therefrom; a second stub shaft for said rotor on said third frusto-conical disc at its end of minimum diameter; a blade carrying disc having at least a frusto-conical part bolted to said high pressure end blade carrying disc at said intermediate radius of the high pressure end blade carrying disc on the side thereof remote from said third frusto-conical disc so as to be concentric with said high pressure end blade carrying disc, said frusto-conical part being divergent away from said high pressure end blade carrying disc; and bolts attaching said frusto-conical part at its end of maximum diameter to the outer periphery of said drum structure.

2,869,821

BLADE RING ASSEMBLIES FOR AXIAL FLOW COMPRESSORS OR TURBINES

Frank Bernard Halford, Edgware, and George Frederick Clarke, Stanmore, England, assignors to The De Havilland Engine Company Limited, Edgware, England, a British company

Application December 11, 1953, Serial No. 397,752
11 Claims. (Cl. 253—78)



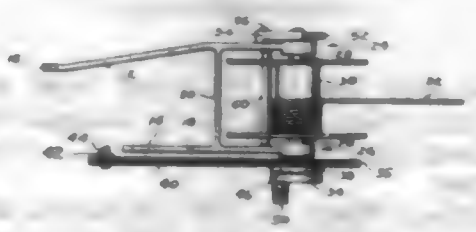
1. A blade ring assembly for an axial flow compressor or turbine comprising concentric outer and inner supporting rings, a circular series of pivot members supported by each of said rings arranged in pairs, one of a pair on each ring, with their pivotal axes parallel with the axis of said rings, and a series of blades each having its longitudinal axis extending angularly to any radial line through the axis of said rings and pivotally connected at its ends to the outer ring and the inner ring, respectively, by one and the other of a pair of said pivot members, said longitudinal axes of the blades being approximately tangential to an imaginary cylinder concentric with the axis of said rings, whereby variations in the relative diameters of the rings and variations in the lengths of the blades due to thermal expansion and contraction are accommodated by limited relative rotation between said rings around their common axis.

2,869,822

LOGGING CABLE HAULBACK APPARATUS

Norval E. Shurtliff, Lowell, Oreg.

Application January 15, 1952, Serial No. 266,509
1 Claim. (Cl. 254—150)



A winch apparatus for use with the power unit of a light weight, manually portable chain saw including a

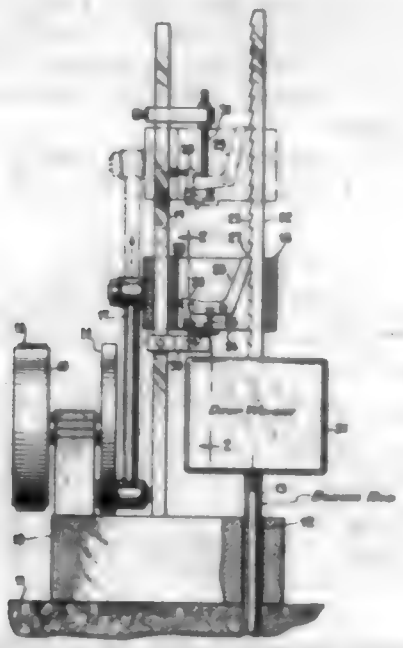
motor, mounting means for detachably securing a saw bar to the power unit in operative relation to the motor, and a drive sprocket for driving a saw chain mounted on said bar; said winch apparatus comprising a frame, a winch spool rotatably mounted on said frame, dogging means on said frame positioned rearwardly of the axis of said spool and pointing forwardly and downwardly beneath said spool for engaging a support and anchoring the winch when in use, means on said frame for attaching the frame to the power unit of a chain saw in place of the saw bar thereof, and drive means on said frame for driving the spool from the saw chain drive sprocket of the power unit to which the frame is attached.

2,869,823

AUTOMATIC DROP MECHANISM FOR BORING

John T. Hazak, New York, N. Y., assignor to Raymond International Inc., New York, N. Y., a corporation of New Jersey

Application March 26, 1957, Serial No. 648,595
3 Claims. (Cl. 255—1)



1. An automatic drop weight mechanism for imparting successive uniform energy impact blows to a boring rod to be driven into the ground for testing purposes which comprises a crosshead assembly, means for mounting said crosshead assembly for vertical reciprocation, means for successively reciprocating said crosshead through a stroke of predetermined, uniform length, means for maintaining said boring rod in position, a lift-rod having a drop weight secured thereto, said crosshead being adapted to maintain said lift rod in position for dropping said drop weight to the top of said boring rod, automatic means for locking said lift-rod relative to said crosshead at the beginning of and during the upstroke of the latter, the means for locking the lift rod being adapted to subject the lift rod to upward acting forces only, and automatic means for releasing the lift-rod from the crosshead when the latter has reached the upper extremity of its stroke, thereby permitting the weight to drop the predetermined distance to the top of the boring rod, said distance being substantially uniform for each successive blow, regardless of how far the boring rod has been driven into the ground with the preceding blow.

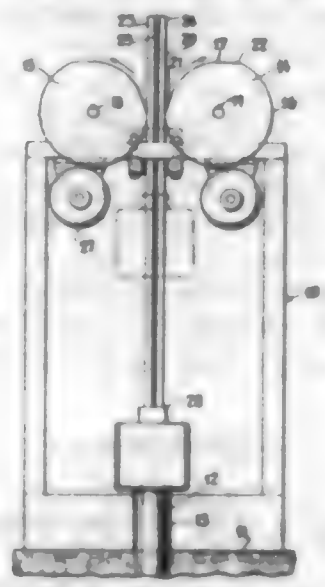
2,869,824

AUTOMATIC DROP WEIGHT FOR BORING

John T. Hazak, New York, N. Y., assignor to Raymond International Inc., New York, N. Y., a corporation of New Jersey

Application March 26, 1957, Serial No. 648,675
1 Claim. (Cl. 255—1)

An automatic drop weight mechanism for imparting successive impact blows to a boring rod to be driven into the ground for test purposes which comprises a pair of spaced apart, rotatably mounted metallic lift sheaves, a lift-rod of uniform thickness throughout its length and having a drop weight secured thereto, said lift-rod being disposed between opposed peripheries of said sheaves, and comprising a pair of longitudinally extending metallic plates with a resilient strip disposed therebetween, means for oppositely rotating said sheaves at a uniform speed, each of said lift sheaves having a raised peripheral portion and a recessed peripheral portion, said raised portions of the sheaves being of predetermined equal



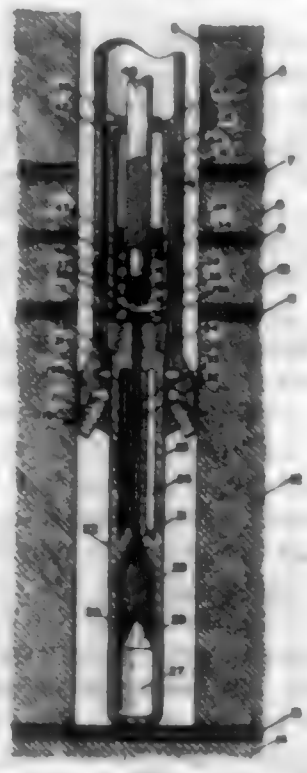
length, said length being equal to the distance which it is desired to raise the lift-rod, and said lift sheaves being adapted to grip the lift-rod during that portion of each rotation when the rod is disposed between their raised peripheral portions, and to release said rod during that portion of each rotation when the rod is disposed between their recessed peripheral portion whereby the drop weight is permitted to drop a predetermined uniform distance to the boring rod for each successive blow, regardless of how far the boring rod has been driven into the ground with the preceding blow.

2,869,825

EARTH BORING

Francis W. Crawford, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

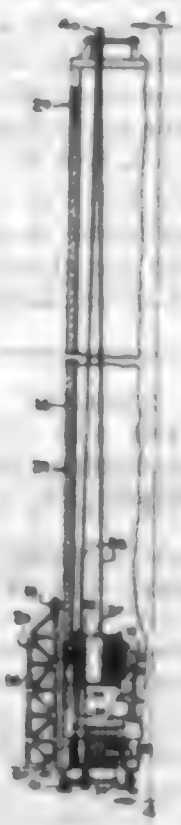
Continuation of application Serial No. 650,165, February 25, 1946, now abandoned. This application October 26, 1953, Serial No. 388,175
15 Claims. (Cl. 255—1.8)



1. During the rotary drilling of a borehole with a rotary bit having a longitudinal passage therethrough,

the steps comprising lowering into said borehole through said bit an explosive charge having a depression provided therein to direct the force of the explosion, raising said bit to a point spaced above said charge, positioning said explosive charge so that said depression will direct the force of said explosive into the earth in the direction of the earth boring, and exploding said charge while so positioned, whereby the force of said explosion has a substantial earth boring effect and other effects are reduced.

2,869,826
ROTARY WELL DRILL FEED
Herbert W. Thornburg, South Milwaukee, Wis., assignor to Bucyrus-Erie Company, South Milwaukee, Wis., a corporation of Delaware
Application August 14, 1953, Serial No. 374,364
5 Claims. (Cl. 255—22)



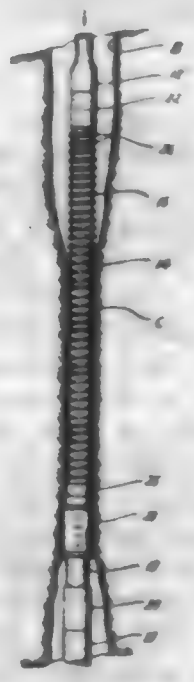
1. In a rotary well-drilling apparatus the combination of: a ground-supported base; a derrick supported by said base; a rotary drill bit adapted to rotate about its vertical axis; a vertical traverse frame; means supporting said vertical traverse frame on said derrick for vertical movement relative thereto; raising and lowering means operatively connected to said vertical traverse frame and to said derrick to raise and lower said frame on said derrick; rotary drive power means supported by said vertical traverse frame for vertical movement therewith; means connecting said drill bit to said rotary-drive power means for rotation and vertical movement therewith; a first motor, supported by said base, having a relatively high force-speed ratio; a second motor, supported by said base, having a relatively low force-speed ratio; first drive means, including a clutch, drivably connected to the first motor and to the raising and lowering means, for power lowering said vertical traverse frame with relatively great force and low speed during drilling; second drive means, including a clutch, drivably connected to the second motor and to the raising and lowering means, for power lowering and power raising said vertical traverse frame to and from its drilling position at relatively high speed; and means, including means common to said drive means, interconnecting said motors for selective operation of said motors either independently or in tandem to power lower said vertical traverse frame.

2,869,827
RETRIEVABLE STABILIZER FOR WELL BORES
De'Orr Cook, Ventura, Calif.
Application June 11, 1956, Serial No. 590,649
6 Claims. (Cl. 255—27)



5. A tool of the character described comprising, in combination, a two-part mandrel provided with clutch teeth and with a rotational connection adapted to be separated upon rotation of one part relative to the other part, a reaming collar provided with clutch teeth and rotationally and slidingly connected to one part, opposed abutments on said one part to engage the collar and limit the sliding movement thereof relative to the mandrel, the clutch teeth being disconnected when the collar is at one limit of its position and connected to rotationally couple the mandrel and collar when the latter is at its other limit of position, a ring collar threadedly connected to the other mandrel part and provided with clutch teeth, and complementary clutch teeth on the reaming collar and engaged with the clutch teeth on the ring collar when the mandrel parts are connected to effect a rotational connection between said collar and the other mandrel part when the first-mentioned clutch teeth are disconnected.

2,869,828
KEYSEAT TOOL
John McClinton, Houston, Tex.
Application May 7, 1956, Serial No. 582,982
7 Claims. (Cl. 255—28)



1. A keyseat tool comprising a tubular body having a tapered, externally threaded end portion, a pipe connection at each end of the body to position the body in a drill

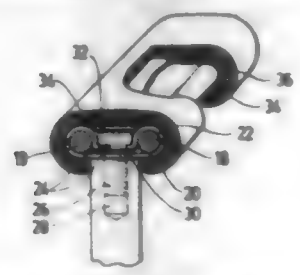
pipe with the smaller end of the taper up, said body having a portion of reduced external diameter below said tapered portion forming abutments on the body at the ends of said reduced portion and a sleeve having annular cutting portions whose external diameter is larger than the maximum external diameter of the body surrounding and movable longitudinally on said reduced portion into and out of engagement with said abutments.

2,869,829

RAILING FOR STAIRWAYS

Sven Folke August Spångberg, Wattholma, Sweden

Application April 7, 1955, Serial No. 499,998
1 Claim. (Cl. 256—65)



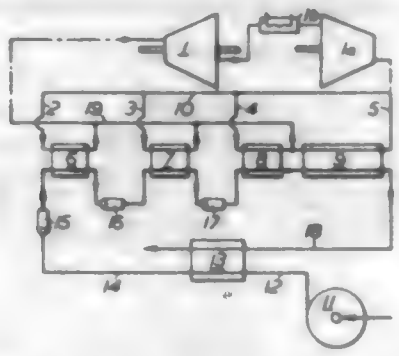
A stairway railing comprising a pair of spaced substantially parallel rail members, spaced clamp collars connecting said rail members and having fastening means associated therewith for engagement with a suitable support, spacing members embracing said rail members between said clamp collars, and a plastic covering member embracing said spacing members and said clamp collars to form a continuous hand railing.

2,869,830

METHOD AND APPARATUS FOR HEATING FLUID

Martin Cox, Farnborough, England, assignor to Power Jets (Research and Development) Limited, London, England, a British company

Application January 22, 1953, Serial No. 332,608
Claims priority, application Great Britain March 5, 1948
8 Claims. (Cl. 257—1)



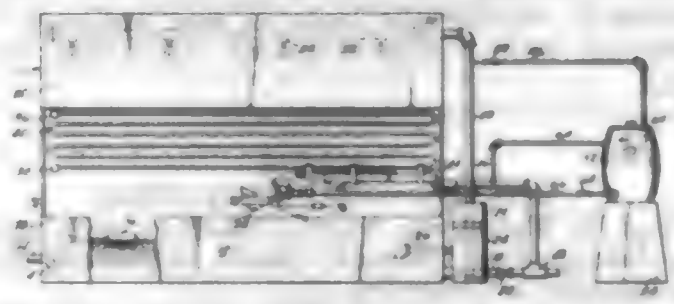
6. Heat exchanging apparatus comprising a plurality of heat exchangers each having structure defining separate concurrent flow paths for two independent fluids and further defining at one end of said concurrent flow paths inlets and at the other end outlets for each of said fluids, a fluid supply manifold connected to the several inlets of one of said concurrent flow paths in each of the several heat exchangers, a fluid discharge manifold connected to the several outlets of the same concurrent flow paths in each of the several heat exchangers, and a plurality of fluid heater means including one for each of said heat exchangers each having a fluid inlet and outlet, there being provided in respect of each aggregate of heat exchanger and heater means a fluid transfer connection between the heater outlet and the inlet of the second of the said concurrent flow paths of the associated heat exchanger, and in respect of each successive pair of aggregates a second fluid transfer connection between the outlet of the second of said concurrent flow paths of the heat exchanger of one aggregate and the inlet of the heater means of the other aggregate.

2,869,831

WATER TREATING APPARATUS

Dale L. Brockelsby, Huntington Park, Calif., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application June 15, 1955, Serial No. 515,637
3 Claims. (Cl. 257—2)



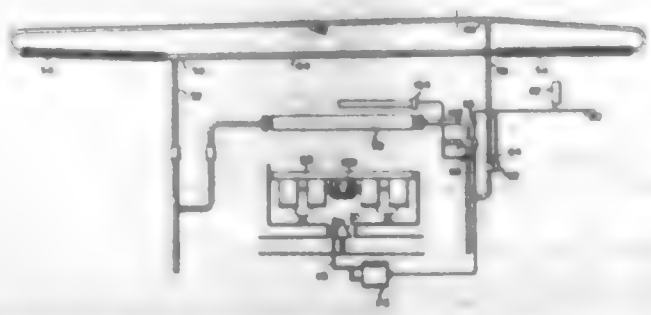
1. In a heat-exchanger having a sump containing a body of water, a bank of tubes for the passage of a refrigerant therethrough, and means for circulating water from said sump over said bank of tubes; water treating means comprising a reservoir for a water treating solution, a pipe line communicating said reservoir with said heat-exchanger sump and terminating in a control valve, means biasing said valve to a normally closed position and means responsive to a flow of water over said bank of tubes for biasing said valve to an open position comprising a half-ball positioned in said water flow and adapted to be filled with the circulating water for overcoming the bias of said valve closing means.

2,869,832

APPARATUS FOR AIR CONDITIONING

John W. McElgin, Philadelphia, Pa., assignor to John J. Nesbitt, Inc., Philadelphia, Pa., a corporation of Pennsylvania

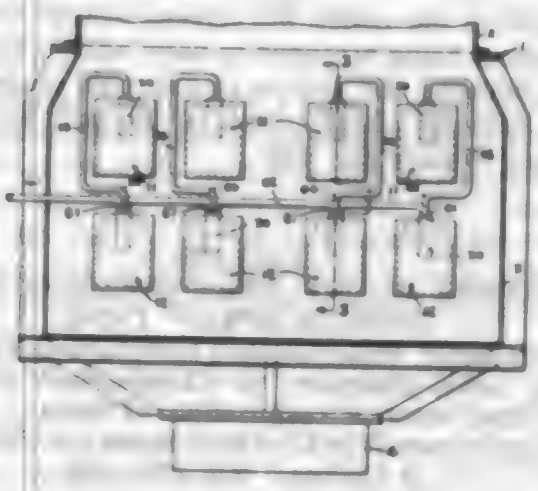
Application February 24, 1956, Serial No. 567,699
2 Claims. (Cl. 257—2)



1. In an air conditioning system for positioning against the wall of a room, the combination of a main heating and ventilating unit having a heat exchange element and a blower, said main unit being positioned against the wall of a room and having both inside and outside air inlets and an air outlet on the top thereof, a damper in said main unit for inversely varying the areas of said air inlets, there being means in the air outlet of said main unit to direct heated air upwardly and outwardly into the room to raise the temperature thereof to a desired level, an elongated auxiliary convector unit longer than said main unit extending laterally from said main unit against the wall of the room and having openings in the top and bottom surfaces thereof, there being means in the openings in the top surface of said convector unit to direct a blanket of heated air vertically upwardly against the wall, a heat exchange element in said convector unit, a common source of a heating medium connected to said heat exchange elements, and a control system comprising a thermostat responsive to the temperature of the room for first shutting off the heating medium to said main unit and then shutting off the heating medium to said convector unit as the room temperature approaches a predetermined level so that the convector unit operates throughout the time that the main unit supplies heat to the room to blanket the wall from loss of heat through

the wall, said system also having means comprising a thermostat in the main heating and ventilating unit downstream from said blower and responsive to the heated air discharged thereby and cooperatively associated with said room thermostat for subsequently controlling said damper after the supply of heating medium to the main and convector heat exchange elements has been shut off to admit more outside air to the room as the temperature of the room increases.

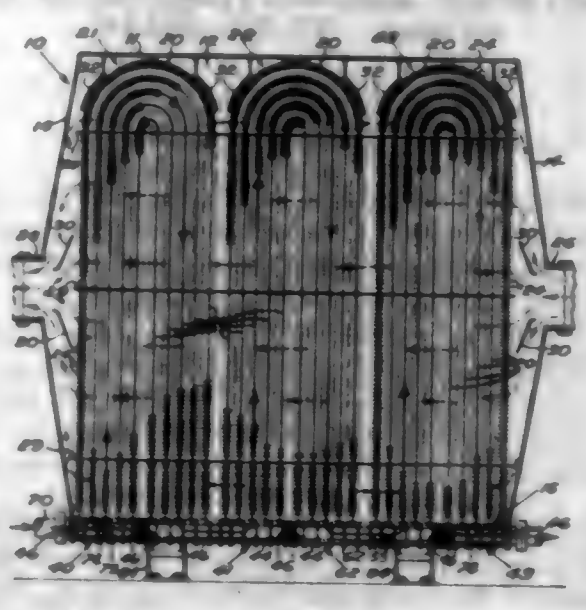
2,869,833
MODULAR HEAT EXCHANGER
David Arenson, Upper Montclair, and George F. Melick, Murray Hill, N. J., assignors to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application April 3, 1957, Serial No. 650,407
9 Claims. (Cl. 257—43)



4. In a non-contacting type heat exchanger including a shell, support heads at each end of said shell forming a vapor space, and said support heads each having a number of openings in alignment with each other, the combination with said support heads of a plurality of discrete and independent tube bundles each having spaced tube sheets at their respective ends adapted to be connected between said support heads in a pair of aligned openings, a plurality of tubes in said tube bundle units connected between said tube sheets, longitudinal support means for each of said tube bundles connected between said support heads, each of said support means terminating relatively close to said support heads to form a clearance space at the ends of said tube bundle units for a limited amount of steam leakage into said support means, each of said support means enclosing a portion of the tubes in its respective tube bundle, means in said support means transversely disposed with respect to said tubes to form air cooling chambers having inlets in communication with said vapor flow space to receive non-condensed steam and non-condensible gases, an outlet for said air cooling chambers, means connected to said outlet for continually removing residual non-condensed steam and non-condensible gases from said air cooling chambers, and the air cooling chambers adjacent the respective ends of said longitudinal support member communicating with the clearance spaces to receive the limited amount of steam leakage therein.

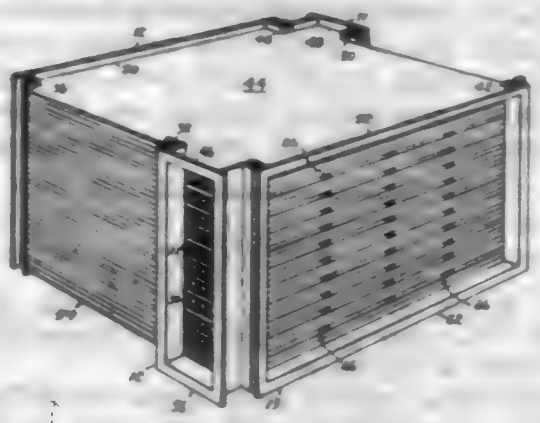
2,869,834
HEAT EXCHANGER
John A. Clark, Jr., Wheaton, Ill., and John J. Fischer, East Stroudsburg, Pa., assignors to The Patterson-Kelley Co., Inc., East Stroudsburg, Pa.
Application April 10, 1956, Serial No. 577,245
2 Claims. (Cl. 257—235)

1. A generally rectangularly shaped heat exchange device particularly adapted to withstand relatively high and low fluid pressures at opposite sides of the heat exchange partitions thereof, said device comprising a single rectangular shaped flat metal tube-sheet of high pressure-resistant form, a plurality of box-shaped bonnets in opposed relation to said tube-sheet and aligned in the direction of the long axis thereof and including a first bonnet and a last bonnet, a system of tubes engaging said tube sheet, stay bolts extending between said tube sheet and said bonnets and engaging said tube sheet at positions intermediate of the positions of entry of said tubes through said tube sheet thereby maintaining said bonnets in high pressure chambers-forming positions, the ends of said tubes at their positions of engagement with said tube sheet being arranged in a pattern of parallel groups of tubes, each of said groups of tubes being arranged closely about the position of one of said stay bolts, and each of said groups of tubes having at least two tubes arranged in close juxtaposition to one of said stay bolts, said



system of tubes comprising a plurality of U-bent tubes mounted upon said tube sheet and having their interiors in open communication with said high pressure chambers and extending from the tube sheet in generally rectangularly bundled form, corresponding ends of the tubes of one of said bundles entering the high pressure chamber of one of said bonnets and the other ends of the tubes of said bundle entering said tube sheet at the high pressure chamber of the next adjacent bonnet, and so on, a single generally rectangular shaped low-pressure resistant casing enclosing all of said tube bundles and accommodating circulation of low pressure fluid through said casing and in heat exchange relation against said tubes, low pressure fluid inlet and outlet connections at opposite ends of said casing, and pluralities of high pressure fluid inlet and outlet connections arranged in rows at the sides of said first and last bonnet respectively.

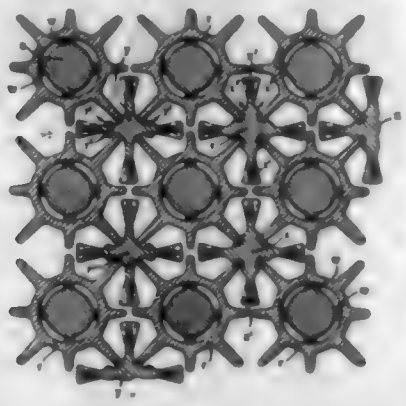
2,869,835
HEAT EXCHANGER
Alan G. Butt, La Crosse, Wis., assignor to The Trane Company, La Crosse, Wis., a corporation of Wisconsin
Application March 11, 1957, Serial No. 645,070
5 Claims. (Cl. 257—245)



1. A heat exchanger for two confined fluids comprising a plurality of envelope components stacked one above

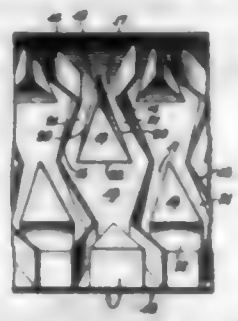
the other and forming passageways for one fluid, members extending between said envelope components along two opposite sides to space said envelope components and to provide a passageway for a second fluid, channel shaped header sides secured to said envelope components, said members extending into and being secured to the channels of said channel shaped header sides and means extending from said envelope components and extending between and being secured to the ends of said header sides to form headers.

2,869,836
TUBULAR HEAT EXCHANGER WITH CORES
André Huet, Paris, France
Application April 22, 1957, Serial No. 654,303
Claims priority, application France May 28, 1956
6 Claims. (Cl. 257—262.14)



1. In a tubular heat-exchanger made of parallel rows of tubes provided with longitudinal fins, cores fitted on the outside of the tubes and between the tubes, said cores being provided with waved fins adapted to be set in between the fins of the tubes.

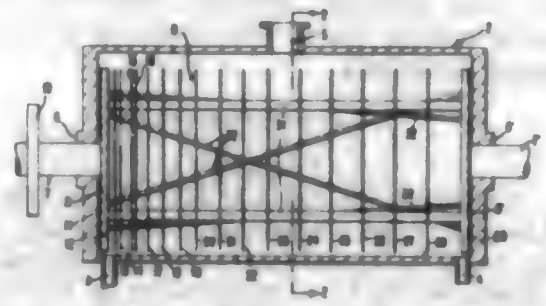
2,869,837
APPARATUS FOR HOMOGENEOUS BLENDING
John Harlan Pickin, Madison, N. J., assignor to Colgate-Palmolive Company, New York, N. Y., a corporation of Delaware
Application July 13, 1956, Serial No. 597,693
3 Claims. (Cl. 259—3)



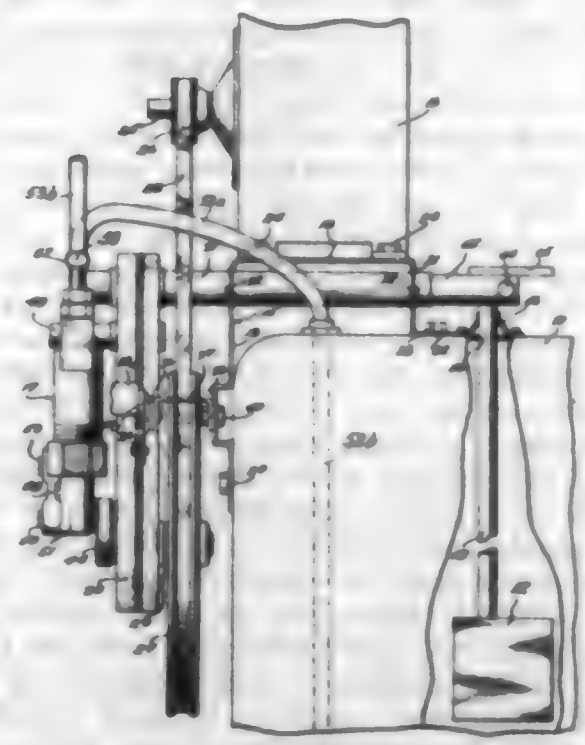
1. An apparatus for continuously blending powdered or granular material varying in particle size and apparent density comprising a rotary drum, means defining a continuous spiral path located around the inner surface of said drum for conveying said material through said drum along a path that is spiral with respect to said drum, and means located in said spiral path for splitting said material into a plurality of streams and for then recombining them at a plurality of points along said spiral path.

2,869,838
AGITATING DEVICE
David F. Ryder, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application April 9, 1956, Serial No. 577,021
6 Claims. (Cl. 259—9)

1. Apparatus comprising a generally cylindrical vessel having an inlet for liquid near one end and an outlet for liquid near the opposite end thereof and an intermediate vent for vapor and, mounted inside along an axis substantially parallel to the cylindrical axis, a multiplicity of screens adapted to rotate and thereby agitate liquid in the vessel, the screens nearest the inlet end of the vessel being arranged in pairs and located with the spacing between the screens of any pair exceeded by the spacing between either screen of the pair and the nearest screen outside the pair.



2,869,839
POWER PLANT ARRANGEMENT FOR MOBILE SPRAY TANK
Desire A. Kiffer, Waterloo, and Lawrence D. Orser, Cedar Falls, Iowa, assignors to Chamberlain Corporation, Waterloo, Iowa, a corporation of Iowa
Application July 17, 1956, Serial No. 598,423
8 Claims. (Cl. 259—39)

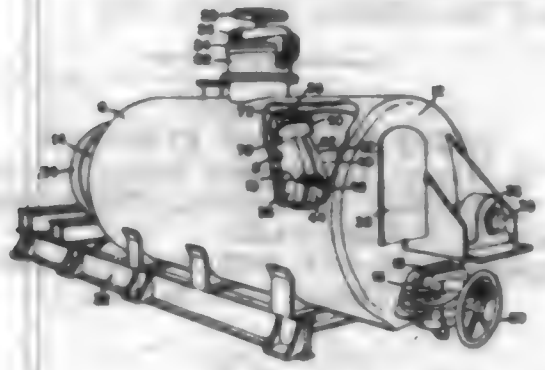


1. In a mobile spraying unit having a spray tank, a pumping assembly for pumping fluid from said tank including an inverted L-shaped mounting plate secured to said tank, said plate including a horizontal leg paralleling the tank top and a vertical leg paralleling a tank side, a prime mover secured to said horizontal leg and having an output drive pulley, said pumping assembly including a pump having an inlet and an outlet adjustably carried by said vertical leg and having a driven pulley, a belt trained over said pulleys, an over-center toggle mechanism connected to said vertical leg and said pump for selectively positioning said pump and driven pulley thereby effecting a clutching and de-clutching action of said driven pulley, a conduit connecting the pump inlet to the tank, and a conduit leading from the pump outlet.

2,869,840
AGITATING APPARATUS

William C. Schmidt, Cincinnati, Ohio, assignor to The Cincinnati Butchers' Supply Company, Cincinnati, Ohio, a corporation of Ohio

Application May 25, 1956, Serial No. 587,382
11 Claims. (Cl. 259—45)

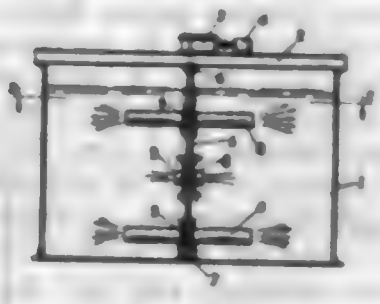


1. An agitator for working a mass of substance within a dry rendering cooker of the type including a cylindrical shell closed at its ends, one end having a closable discharge port therein, and a rotatable shaft extending axially of the shell, said agitator comprising an arm, means at one end of the arm securing said arm to the shaft radially of the shell, and a head at the opposite end of the arm, said head including a skimming edge in close proximity to the shell for dislodging substance adhering to the inside wall of the shell, a deflecting face on the head disposed for directing toward the agitator shaft the substance dislodged from the shell wall by the skimming edge aforesaid, and a propulsion face on the head disposed obliquely to the plane of rotation of the arm, for moving the agitated substance toward the discharge port at one end of the shell.

2,869,841
AGITATOR FOR PULP STOCK TANKS

Ben Cowan, Montreal, Quebec, Canada

Application September 19, 1955, Serial No. 535,204
2 Claims. (Cl. 259—96)

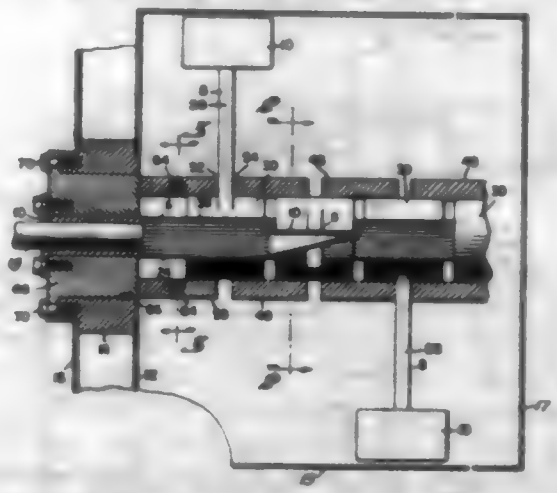


1. In an agitator for pulp stock tanks, in combination, a tank containing the stock to be agitated, a shaft centrally mounted in said tank, means to rotate said shaft at a slow speed, and agitating means mounted on said shaft, said agitating means comprising a pair of open ended tubes connected together in the form of a cross, said pair including a long tube and a short tube, the passageways in said tubes being intercommunicating, stock inlet means comprising the openings in the ends of said short tube and stock outlet means comprising the openings in the ends of said long tube, said stock inlet openings being disposed along an axis at substantially right angles with respect to the axis of the shaft, the said tubes having a small sectional area with respect to the large frictional area of the said tank, permitting the tubes to rotate at a higher speed than the liquid contained within the said tank and a build-up of greater centrifugal pressure in the tubes than outside, inducing a radial flow of liquid through said tubes.

2,869,842
SELF LOCKING AGITATOR ASSEMBLY

William C. Schmidt, Cincinnati, Ohio, assignor to The Cincinnati Butchers' Supply Company, Cincinnati, Ohio, a corporation of Ohio

Application May 31, 1956, Serial No. 588,321
12 Claims. (Cl. 259—109)

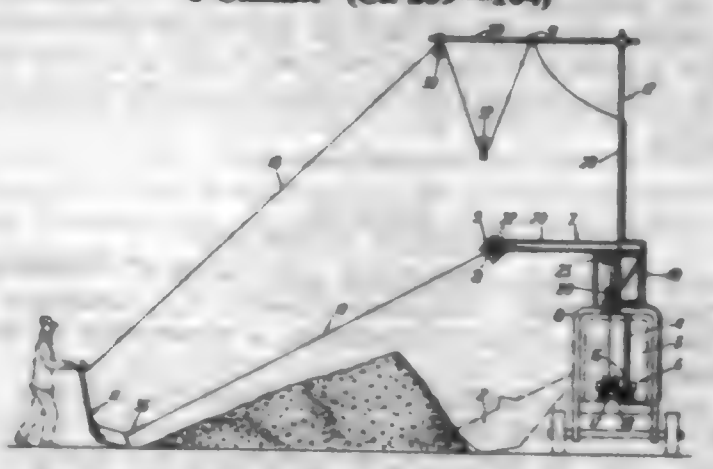


1. An agitating element for detachable application to a shaft polygonal in cross-section, the shaft having facets angularly related to one another, said element comprising an arm including a material-working area, and a hub longer than the axial width of the arm, said hub having an outer wall and being channeled longitudinally to provide an open-ended socket having a throat receptive of the shaft, and interior faces in the socket complementary to and registrable with the shaft facets, and a hub retainer slidably surrounding the shaft, said retainer being in the form of a sleeve embracing the outer wall of the outer ends of the hub and closing the throat of the socket.

2,869,843
MECHANICALLY OPERATED SHOVELS OR SCRAPERS

Paul Bleasey, New Addington, England, assignor to A. B. Mould and Construction Company Limited, New Addington, England

Application May 27, 1957, Serial No. 661,924
Claims priority, application Great Britain June 1, 1956
6 Claims. (Cl. 259—164)



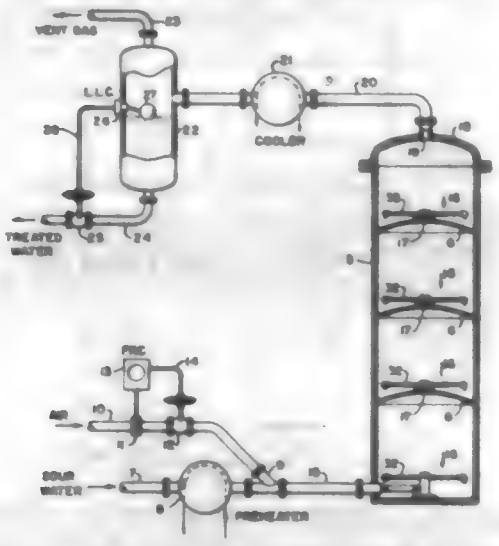
1. In combination with a concrete mixer incorporating a power unit, a cable winch and electro-magnetic clutch assembly mounted on said mixer, means drivingly connecting said power unit and said winch through said clutch, a shovel, a cable connecting said shovel to said winch, an electric generator mounted on said mixer for operating said electromagnetic clutch, means drivingly connecting said power unit to said generator, an electric switch mounted upon said shovel, a mast mounted upon said mixer, guide means for an electric cable carried by said mast, an electric cable connecting said switch in circuit with said generator and electro-magnetic clutch so that the switch controls operation of the clutch, said electric cable being led through said guide means carried by the mast and means for taking up slack in said electric cable.

2,869,844

TREATING LIQUID WITH GAS

Samuel B. Thomas, Long Beach, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application April 16, 1956, Serial No. 578,256
3 Claims. (Cl. 261—21)



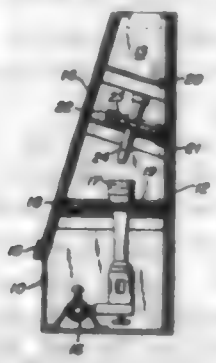
1. Apparatus for the continuous treatment of a liquid with a gas concurrently within a series of contacting stages which comprises: a series of vertically superposed, enclosed contacting chambers each of which is adapted to be substantially filled with a separate pool of liquid and contains near the bottom thereof a distributor having a bottom inlet, said chambers being otherwise empty throughout the major parts of the heights thereof, each said chamber except the uppermost having a sloping roof which is situated wholly beneath the distributor of the next higher chamber and has at the highest part thereof an outlet opening extending over only a minor part of the chamber area and is continuously in upward communication with the inlet of the said higher distributor, said outlet openings being the only passageway interconnecting consecutive chambers of the series, each said distributor including confined duct means extending laterally from the said bottom inlet thereof and having a plurality of discharge openings situated higher than the said bottom inlet and distributed over the chamber area for the discharge of fluid as a plurality of submerged jets, means for supplying said gas and liquid continuously to the distributor inlet of the lowermost chamber, and means for discharging gas and liquid from the uppermost chamber.

2,869,845

CRUCIBLE FURNACE

John D. Selvaggio, Pittsburgh, and Calvin C. Wareham, Penn Township, Allegheny County, Pa., assignors to United States Steel Corporation, a corporation of New Jersey

Application October 21, 1955, Serial No. 542,065
3 Claims. (Cl. 263—2)



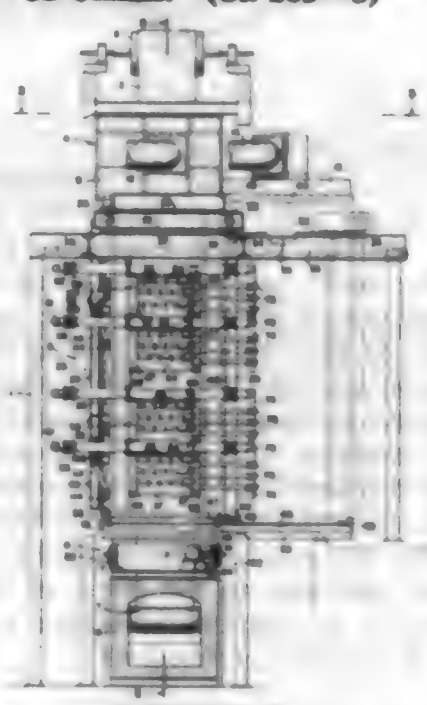
1. A furnace comprising a frame, walls of insulating material supported on said frame, a plurality of Bunsen burners mounted in the lower portion of said frame, means for supplying fuel to said burners, vertically spaced sets of supporting brackets in said frame above said burners, and a crucible rack adapted to be removably supported on either of said sets of brackets, said rack including a rectangular frame and a plurality of blocks of rigid insulating material supported thereon and corresponding with said burners, each of said blocks having an opening adapted to receive the lower portion of an elongated crucible for exposure to a different one of said burners, said blocks being adapted to maintain the upper portions of the crucibles relatively cool.

2,869,846

STRIP HEATING FURNACE

Quentin M. Bloom, Huntingdon Valley, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania

Application May 19, 1955, Serial No. 509,633
12 Claims. (Cl. 263—3)



1. Apparatus for heating strip moving through a vertical path including a stationary structure adjacent to the top of said path and surrounding the strip and having exhaust means leading therefrom, said structure having an extension projecting horizontally to one side of said path at a level substantially equal to the bottom of said structure, exhaust means leading from said extension, a housing adjacent to the bottom of said path and surrounding said strip, a floor extending to one side of said housing at a level substantially equal to the top of said housing and lying beneath the extension of said structure, a pair of seal rolls in said housing and engaging opposite sides of the strip, a U-shaped furnace open at the top and bottom extending vertically between said structure and said housing and filling the space between the two, the legs of the U having vertically spaced burners therein facing the strip to heat the same, means to mount said furnace for horizontal movement, means to move said furnace from a position surrounding the strip and between said structure and housing to a position beyond the edge of the strip and between the extension of said structure and said floor, and a door pivoted to said furnace operative to close the space between the legs of the U when the furnace is in either of said positions.

2,869,847

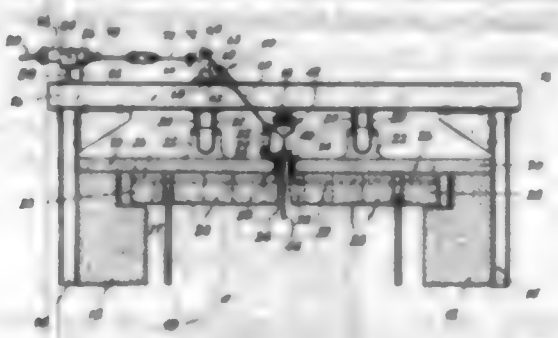
FURNACE SLOT COVER AND OPERATING MECHANISM

Albert J. Boland, Sr., and Albert J. Boland, Jr., Webster Groves, Mo.

Application July 3, 1953, Serial No. 366,036
2 Claims. (Cl. 263—8)

1. In a muffle furnace having a roof slot from end to end: conveyor support means above the roof slot; a con-

veyor to travel along the support means while depending through the slot, said conveyor being provided with a connected cover member moving with said conveyor for closing said slot when the conveyor depends therethrough; an elongated cover plate adapted to fit over the slot when the conveyor is not depending through the slot; means connecting the cover plate with the furnace for movement of the cover plate into position between the



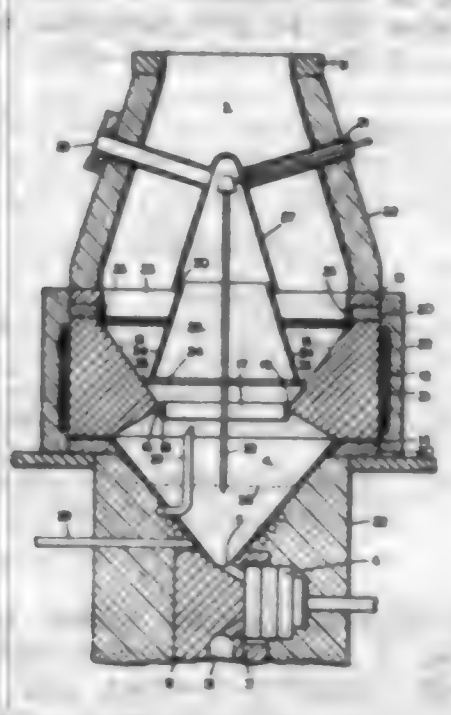
conveyor support means and the furnace to cover the slot, and for movement away from the slot independently of the movement of the conveyor to permit travel of the conveyor along the slot, said means including a stationary hinge connecting one end of the cover plate to the roof; power means, and means connecting the power means and the cover plate to produce the previously described movement of the plate by energizations of the power means.

2,869,848

FILAMENTARY MATERIAL

William Alexander Dickie, London, and James Gordon Napier Drewitt and Harry Edward Bellairs Young, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain

Application March 25, 1955, Serial No. 496,875
Claims priority, application Great Britain April 9, 1954
12 Claims. (Cl. 263—38)



1. Apparatus for melting particles of solid filament-forming material for the melt-spinning thereof into filamentary products, said apparatus comprising a vessel for receiving said particles, said vessel having an internal continuously annular wall surface, a member within said vessel having an external continuously annular surface concentric with said wall surface, said annular surfaces converging downwards towards one another to form a narrow annular slit between them, said slit being narrower than said particles, whereby solid filament-forming material is retained at said slit, and means for supplying heat to said wall surface to melt filament-forming material supplied between said surfaces and retained thereby above said slit.

2,869,849

ROTARY FURNACE

Albert E. J. Folliot, Limay, and Louis-Charles Kenzinger, Albi, Tarn, France, assignors to Ciments Lafarge, Paris, France, a company of France

Application April 11, 1955, Serial No. 500,582
Claims priority, application France May 17, 1954
3 Claims. (Cl. 263—33)



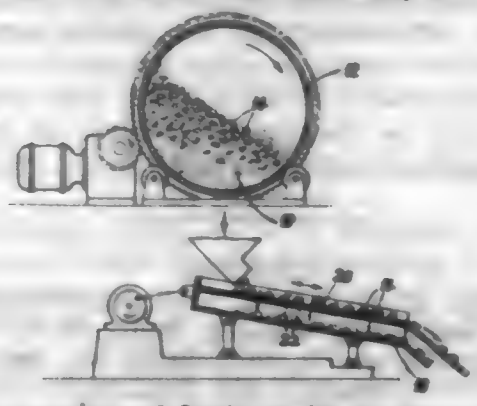
1. A rotary furnace working at high temperature wherein a divided material flows continuously in direct contact and in counter-current with heating gases comprising a cylindrical casing of steel sheet, an internal lining of firebricks and a device for increasing heat exchanges between said gases and said material in a portion of said furnace, wherein said device is provided along the second and the third fourths of the length of said furnace and comprises a cylindrical hollow body coaxial with said casing connected to radial partitions dividing the inner section of the furnace in peripheral channels and one axial conduit, said body and said partitions being formed of sections, made of a refractory material having a high heat transmission characteristic, juxtaposed in the axial direction of the furnace by their faces at right angles thereof and sealed to the adjacent sections; each of said sections comprising radial arms extending on the whole axial length of said section and having at their outer extremity in the circumferential direction a thickness materially equal to the thickness of the bricks of said internal lining and providing at their inner end curved portions forming arch-stones ending laterally by a pair of plane radial surfaces in each of which one groove is provided parallelly to the axis of said furnace, and intermediate members forming other arch-stones for said cylindrical body having a curved section ending laterally by a pair of plane radial surfaces each having one projecting tongue parallel to the axis of said furnace, said tongues engaging in the grooves of a pair of adjacent arms; said arms having a length such that they end just a short distance from said cylindrical casing, their outer ends thus taking the place of a row of bricks in said internal lining, said arms thereby forming part of said lining and being firmly secured to said cylindrical casing, whereby the structure formed by these arms and the intermediate members are arranged so as to take part in the rotative movement of the furnace and retained against any longitudinal displacement.

2,869,858

PREPARATION OF ORE AND METHOD OF HEAT TREATMENT

Fritz O. Wienert, Niagara Falls, N. Y., assignor to Union Carbide Corporation, a corporation of New York

Application March 17, 1954, Serial No. 416,925
2 Claims. (Cl. 263—52)



2. In the reaction of finely divided solid reactants, the method comprising mixing and pelletizing said reactants;

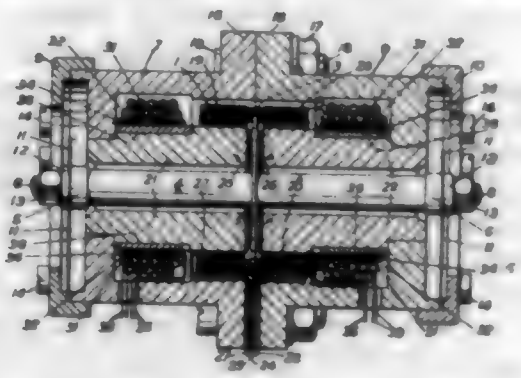
coating the pellets so formed with an abrasion resistant semi-permeable coating; introducing a granular, substantially dust free, material of smaller mesh size than said coated pellets into a rotary furnace; adding said coated pellets into said rotary furnace, simultaneously rotating said rotary furnace and rotating, tumbling and heating the contents of said rotary furnace, whereby stratification of said furnace contents and reaction of the reactant components of said coated pellets are effected, and said coated pellets are supportably cushioned on said granulated material in spaced relation to the bottom surface of said furnace.

2,869,851

APPARATUS ADAPTED TO MEASURE ACCELERATIONS AND INCLINATIONS

Hugh Brougham Sedgfield, London, Marcus Lionel Jofeh, Stonehouse, Gloucester, and Rudolf Albrecht, London, England, assignors to The Sperry Gyroscope Company Limited, Brentford, England, a British company

Application March 22, 1950, Serial No. 151,068
Claims priority, application Great Britain March 28, 1949
5 Claims. (Cl. 264—1)



1. An accelerometer comprising an inertia element including an axially extending member having a radially projecting planar component substantially normal to the axis of the axial member and disposed intermediate the ends thereof, and a double-annulus coil having its respective annuli supported upon opposite sides of said planar component, a casing, means for mounting said inertia element within said casing for movement relative thereto along the axis of said axial member, first magnet means having a portion projecting from said casing and extending between said axial member and one of said coil annuli, second magnet means having a portion projecting from said casing and extending between said axial member and the other of said coil annuli, signal generating means for producing a signal dependent on the displacement of said inertia element from a null position along said axis, said signal generating means including a differential capacitor having one plate mounted on the first magnet means and another plate mounted on the second magnet means, said plates being disposed adjacent to and closely spaced from said planar component and substantially parallel thereto, said planar component serving as the common plate of said capacitor, and means including an amplifier connecting said signal generating means in controlling relation to said double-annulus coil, whereby on displacement of the inertia member from the null position thereof, an electromagnetic force derived from the interaction of said coil and said magnet members is exerted on the inertia member to restore said inertia member to its null position.

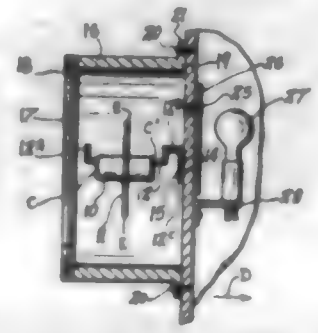
2,869,852

SKID INDICATOR FOR VEHICLES

Bernard H. Wallach, Bronx, N. Y.

Application June 1, 1956, Serial No. 588,695
1 Claim. (Cl. 264—1)

A lateral skid indicator for a forwardly traveling vehicle, comprising a hollow cylindrical casing having means for fastening same to a vehicle, said casing have a transparent face with index markings arranged in a circle thereon and having a wall at its rear end, said wall having an arcuate shaped opening therein, a round shaft supported in the casing by said wall, said shaft having upturned ends, a hollow, massive elongated cylindrical tube, said tube having a smooth inner surface loosely sleeved over the shaft between the upturned ends, with said surface resting on the shaft, said tube having an internal diameter several times greater than the diameter



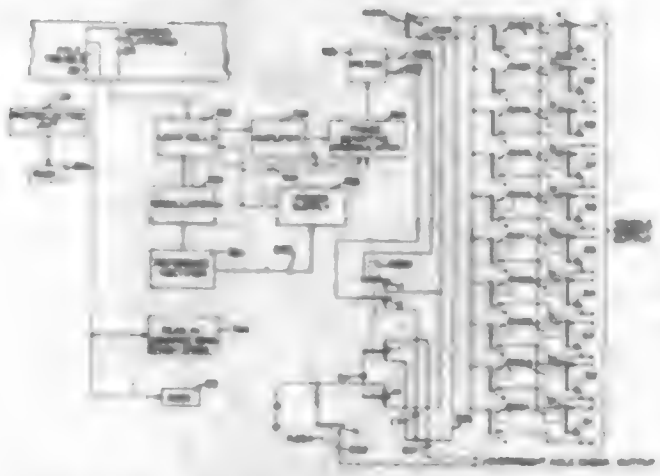
of the shaft so that the tube normally oscillates rapidly with small lateral excursions on the shaft as a pivot during normal travel of the vehicle, and so that the tube slips angularly on said surface through a considerable circumferential distance with respect to the shaft upon the beginning of a sudden lateral acceleration of the vehicle, a pointer of translucent material mounted perpendicularly to said shaft and the axis of the tube to indicate the angular slippage of the tube on the shaft by angular movement of the pointer, and a lamp disposed behind the opening in the wall for illuminating said pointer.

2,869,853

TARE CORRECTION APPARATUS

Francis L. Pratt, Endwell, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

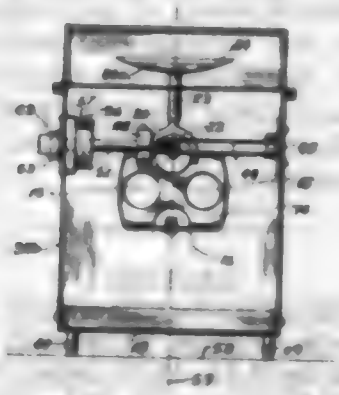
Application July 14, 1954, Serial No. 443,351
6 Claims. (Cl. 265—27)



1. A toll highway recorder system comprising a treadle having an associated switching apparatus which is operated in response to a vehicle axle passing over said treadle, a vehicle axle supporting and weighing apparatus arranged with respect to said treadle so as to provide an axle weight output during the period said switching apparatus is operated, a variable voltage emitting device controlled by said weighing apparatus for providing a voltage output which is proportional to the tare of said weighing apparatus in the absence of said weighing apparatus supporting a vehicle axle and for providing a voltage output which is proportional to a gross weight equal to the sum of the tare of said weighing apparatus and an axle weight applied to said weighing apparatus, photoelectric means for detecting the presence of a vehicle prior to the first axle thereof passing over said treadle, an electrical axle weight representing voltage storage condenser, an electrical tare rep-

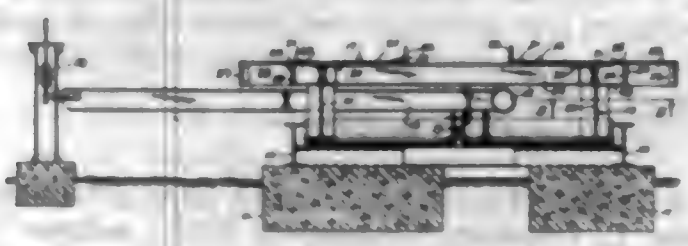
resenting voltage storage condenser, a photoelectric means controlled relay, an electrical circuit for connecting said condensers in series circuit to said voltage emitting device, said axle weight and said tare storage condensers having such an electrical storage capacity ratio as to cause substantially all of a gross weight representing voltage applied from said voltage emitting device to a series circuit combination of the said condensers to be stored in said axle weight storage condenser, and normally closed contacts common to said relay for shunting said axle weight representing voltage storage condenser prior to the detection of a vehicle so that the tare representing voltage is entered into only the tare voltage storage condenser.

2,869,854
BALANCE
Werner Ruefenacht, Salt Lake City, Utah
Application June 29, 1953, Serial No. 364,623
2 Claims. (Cl. 265—49)



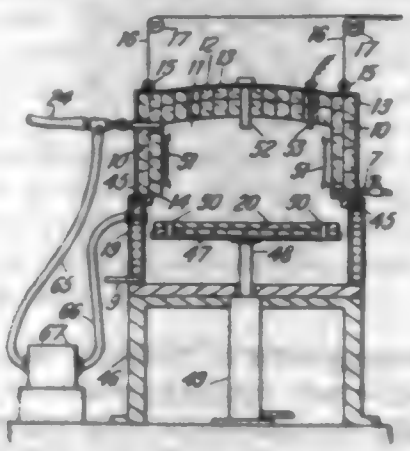
1. A balance comprising a longitudinal, oscillating beam; a fulcrum for said beam; a transverse truss disposed to fixedly support said beam upon said fulcrum; another transverse truss at one end of said beam; a weighing receptacle mounted on the second-mentioned truss; arresting means, including cantilevered leaf springs adapted to normally clamp said beam; a rotatable member; and cam means secured to said rotatable member, and sandwiched between said leaf springs, said cam means being adapted to separate said leaf springs and release said beam when said rotatable member is rotated.

2,869,855
EXTENSIBLE SCALE PLATFORM FOR WEIGHING TRUCKS AND THE LIKE
Leslie R. Murphy, Sacramento, Calif., assignor to L. R. Murphy Scale Company, Sacramento, Calif., a corporation of California
Application June 5, 1957, Serial No. 663,743
6 Claims. (Cl. 265—71)



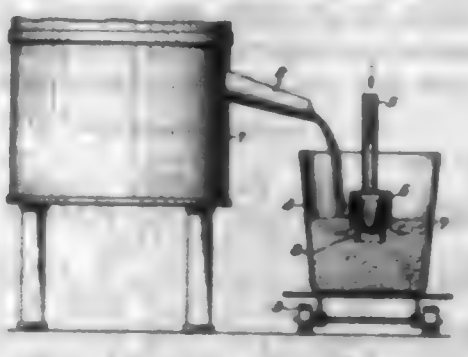
1. A transportable scale comprising a base frame; a weighbridge supported on said base frame by a lever system, said weighbridge having a rigid frame including longitudinal side girders; and a pair of steel plate platforms releasably supported on said weighbridge, spaced apart from each other and overhanging said girders at the sides, the overhanging portion of each platform member having structural means welded to its lower surface and bearing against said weighbridge on one side of a said side girder; each platform also having a plurality of shear plates welded to its lower surface and bearing against the opposite side of said side girder.

2,869,856
FURNACES
Ben Greene, Berkhamsted, England
Application August 30, 1955, Serial No. 531,373
9 Claims. (Cl. 266—5)



1. A furnace comprising separable upper and lower parts, means for imparting relative up and down movement between these parts which upper part is provided with a refractory lining and which lower part comprises an unlined metal wall, a floor for supporting articles to be heated, means for moving the floor in an up and down direction so that in its uppermost position it makes sealing engagement with the lined upper part and in its lowermost position uncovers said metal wall, means for heating the space within said upper part, means for circulating an inert gas through the upper and lower parts of the furnace and means externally of the furnace for cooling the circulated gas.

2,869,857
DEVICE FOR FEEDING AN ADDITIVE TO A MELT
Günter Köpke, and Kurt Ulbricht, Oberhausen-Sterkrade, Germany, assignors to Gutehoffnungshütte Sterkrade Aktiengesellschaft, Oberhausen-Sterkrade, Germany
Application July 21, 1955, Serial No. 523,407
Claims priority, application Germany July 24, 1954
6 Claims. (Cl. 266—34)

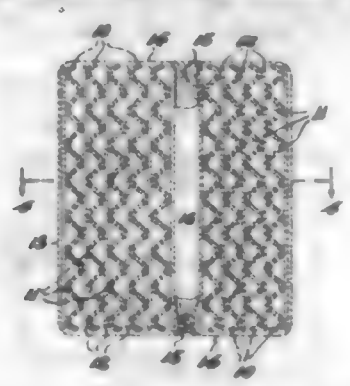


1. A device for feeding an additive into a melt, comprising a chamber member having a closed top and a side wall, a partition dividing the interior of said chamber member into a feed chamber and a vapor escape chamber, said chambers being open at their lower end and communicating with each other at the top of said chamber member, said partition extending downwardly beyond the lower end of said side wall, and inlet means in direct communication with said feed chamber.

2,869,858
VIBRATION AND SHOCK ABSORPTIVE CUSHION ELEMENT
Ralf L. Hartwell, Cranford, N. J., assignor, by mesne assignments, to Metal Textile Corporation, a corporation of Delaware
Application August 1, 1956, Serial No. 601,511
8 Claims. (Cl. 267—1)

1. A load supporting vibration and shock absorbing cushioning body comprising mutually contacting superposed alternated lengths of longitudinally corrugated or

crimped knitted spring wire mesh and flat non-corrugated relatively smooth knitted wire mesh rolled lengthwise into a convolute substantially cylindrical body formation,



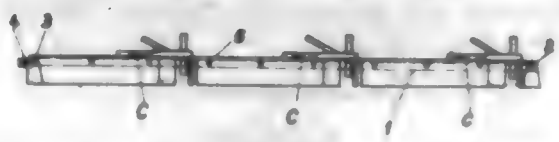
wherein the corrugations or crimps of the former are substantially transversely disposed relative to the axis of the body formation throughout the height thereof.

2,869,859

DEVICE FOR CONTROLLING HATCH-COVERS AND LIKE PANELS ON SHIPS, RAILWAY-CARS AND THE LIKE WITH THE ASSISTANCE OF AN ENDLESS, DRIVEN CHAIN

Gunter Schmidt, Bremen, Germany, assignor to International MacGregor Organization (I. M. G. O.), Casablanca, Morocco, a corporation of Morocco

Application July 23, 1957, Serial No. 673,696
Claims priority, application France August 16, 1956
11 Claims. (Cl. 268—18)



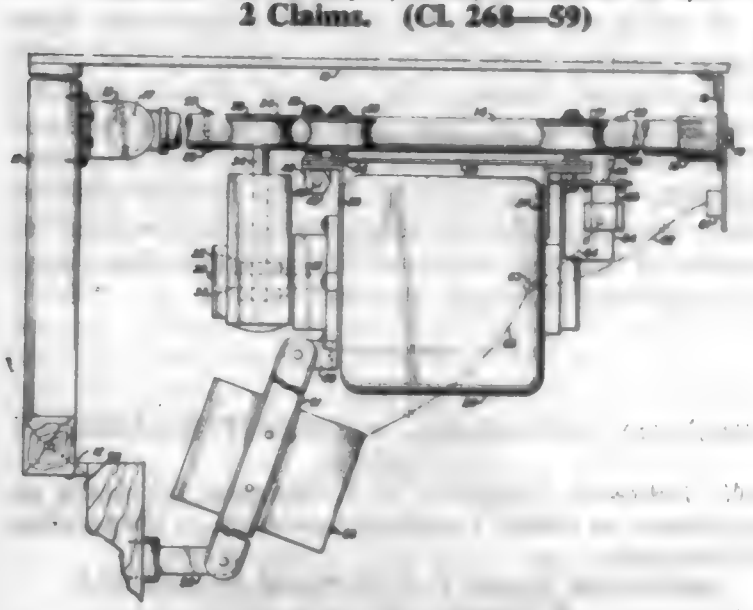
1. Control device ensuring the closing and opening of panels and hatch-cover elements utilized for closing openings such as hatchway of ships, and cars, comprising at least one endless controlled chain means extending along a plurality of hatchways, securing means for detachably and selectively connecting this chain to the hatch-cover elements to be simultaneously controlled and pertaining to at least one of said hatchways and control means for readjusting the connection between the control chain and each of said hatch-cover elements.

2,869,860

CLOSURE OPERATOR AND RADIO CONTROL APPARATUS

Walter A. Jones, Edgewater, N. J., assignor to Edythe Kendall, New York, N. Y.

Application January 6, 1956, Serial No. 557,661
2 Claims. (Cl. 268—59)



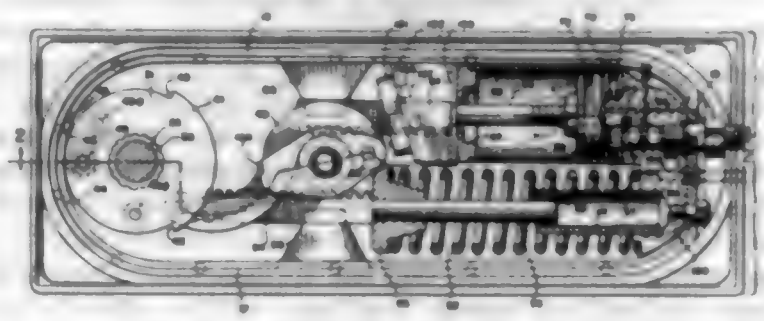
1. A closure operator in combination with an overhead sliding door; comprising a single elongated track mounted above said door and extending in the direction of movement thereof, a carriage mounted on said track for movement therealong, a motor mounted on said carriage, a friction driving wheel carried by said motor and driven thereby, resilient means carried by said motor holding said driving wheel in frictional engagement with said track, link means connecting said carriage and said door adjacent the upper edge of said door, a radio receiver including a control relay mounted on said link means, a power relay for energizing and de-energizing said motor, said power relay being mounted on said carriage, said control relay being operatively electrically connected to said power relay, a motor reversing switch mounted on said carriage, switch operating means engageable by said switch, said switch operating means being mounted on said track at the limits of travel of said carriage in each direction, said switch being electrically operatively connected to said power relay so that upon closing of said control relay in response to a radio signal picked up by said receiver, said power relay will close and will energize said motor to move said carriage and motor along said track to selectively open and close said door, and upon reaching the limits of travel of said carriage said switch operating means will actuate said switch to open said power relay and de-energize said motor and reverse the connections to said motor for movement of said carriage in the opposite direction upon reception of another radio signal by said receiver.

2,869,861

AUTOMATIC DOOR OPERATOR

Martin Carlson, Brookfield, Ill.

Application April 15, 1957, Serial No. 652,941
23 Claims. (Cl. 268—66)



1. In a door operator mechanism of the character described, a casing, a drive gear rotatably supported in said casing and adapted to be selectively rotated in opposite directions, a spindle supported in said casing for rotational movement and being adapted to have a door secured thereto for defining the pivotal axis for opening and closing movement thereof, and a crank pivotally coupled at one end thereof to said drive gear and pivotally coupled at its other end to said spindle, said crank having a compound curvature of generally S-shape and its coupling to said drive gear and spindle being on opposite sides of a plane common to the axes of the gear and spindle.

2,869,862

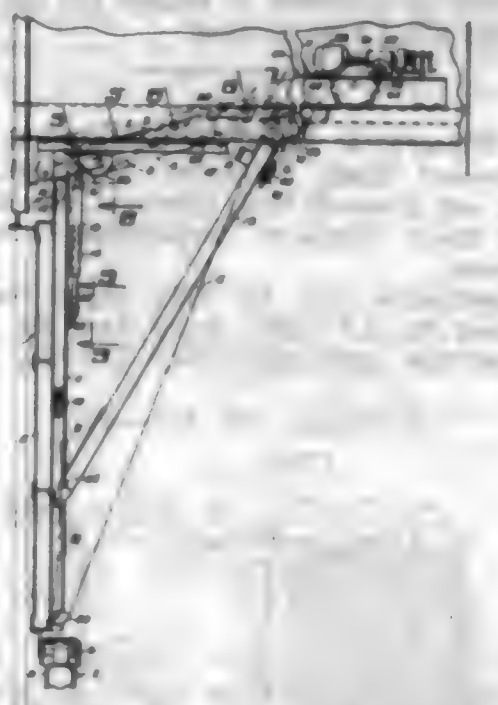
CABLE OPERATED SYSTEM FOR A HINGED DOOR

Thornton L. Urquhart, Farmington, Mich., assignor to Byrne Doors, Inc., Ferndale, Mich., a corporation of Michigan

Application October 5, 1955, Serial No. 538,596
10 Claims. (Cl. 268—74)

1. In a door operating system, a building having an opening, a door for the opening comprising a leaf pivoted at one edge to said building, a track extending transversely of the plane of the opening and the pivotal axis, and means for opening and closing said leaf comprising a brace arm pivotally connected at one end to said leaf at a point spaced from the pivotal axis thereof and guided at the other end by said track for movement lengthwise thereof, a compensating arm pivoted to said building, a

compensator pivoted to said leaf and compensating arm, means for moving the track-guided end of said brace arm along said track in opposite directions to open and close said leaf including a sheave on said brace arm adjacent its track-guided end, sheaves on said track and compensating arm at the side of said first mentioned sheave toward said opening, the sheave on said compensating arm being spaced from the pivotal axis thereof, a drum



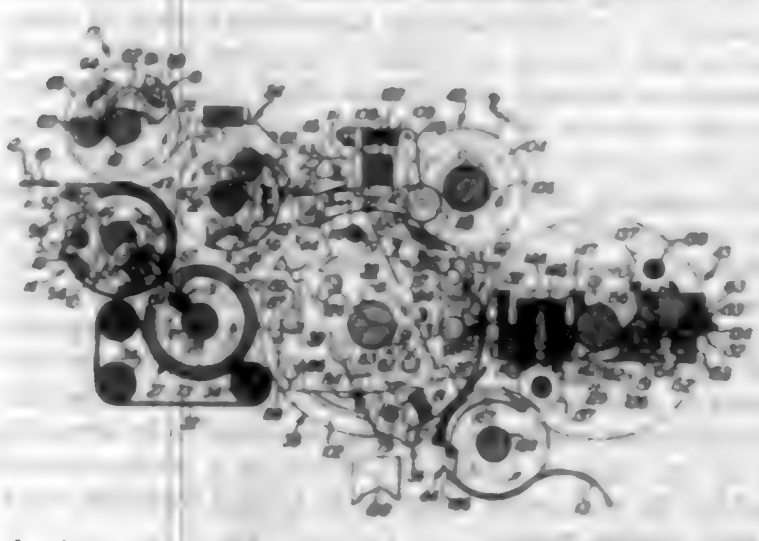
on said building at the opposite side of said first-mentioned sheave in the closed position of said leaf, and a cable having an end portion reeved over said sheave on said brace arm and connected to the edge of said leaf opposite the pivotal edge, said cable having an intermediate portion reeved over said drum, in driving engagement therewith, and a second end portion reeved over the others of said sheaves and connected to the track-guided end of said brace arm.

2,869,863

SIGNATURE STITCHING, FOLDING AND TRIMMING MECHANISM

Anton R. Stobb, Racine, Wis., assignor to Western Printing & Lithographing Co., Racine, Wis., a corporation of Wisconsin

Application May 25, 1956, Serial No. 587,238
14 Claims. (Cl. 270—37)



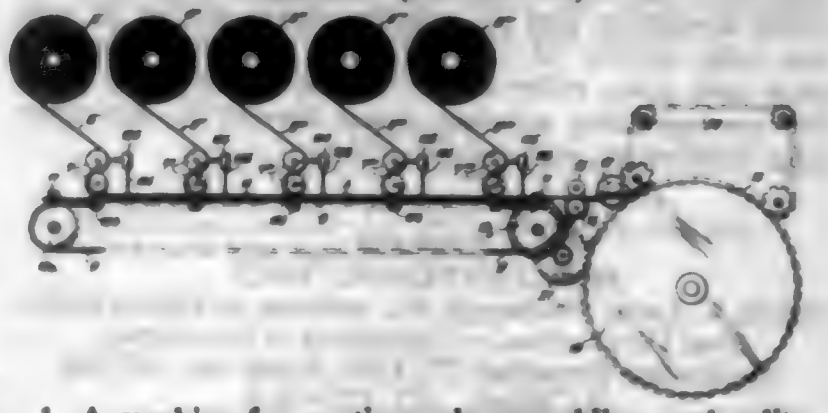
1. A book making machine comprising a series of rotatably mounted members disposed with the axes thereof parallel and with said members in paper transfer communication, paper holding means disposed on certain of said members in rotative synchronization for holding said paper to said certain of said members and for progressively positively transferring said paper between said certain of said members at a uniform speed, a first one of said members including stapling means for stitching together a plurality of sheets constituting said paper, paper folder means on a second one of said members for receiving said paper from said first one of said members and folding said paper, a third one of said members mounted for having said holding means thereof positively receiving said paper from said folder means along the line of fold of said paper and rotating said paper, paper cutting means mounted adjacent said third one of said members and including a circular cutting edge oriented in a position of rolling contact with respect to said third one of said members for trimming the side of said paper while the latter is on said third one of said members, and paper cutting means for trimming the trailing end of said paper while the latter is in continuous movement by being on said third one of said members.

2,869,864

APPARATUS FOR THE ASSEMBLY AND FINISHING OF SETS OF DUPLICATING FORMS

Josef Burgmer, Wuppertal-Barmen, Germany

Application June 18, 1957, Serial No. 664,556
4 Claims. (Cl. 270—52)



1. A machine for continuously assembling a plurality of paper webs each bearing printed impressions or the like which are to be accurately superimposed into an accurately registered manifold form comprising an endless conveyor, including endless traction means having a series of transversely disposed bars connected thereto, guide means operatively associated with said bars for guiding the latter in a substantially straight path of movement within the upper run of said conveyor, reversing rollers for said conveyor at the ends of said guide means, means for continuously feeding the separate paper webs on the moving conveyor in registry, so that the webs form a manifold assembly, said means comprising at least one feed roller for each paper web, means for driving said feed roller, means for connecting said paper web to the individual feed roller in such a manner that the paper web moves synchronously with said feed roller, means cooperating with said feed roller to feed said webs onto said conveyor in registry, the axis of rotation of the feed roller being substantially parallel with the axis of rotation of said reversing rollers, pins extending upwardly above said conveyor bars within the range of said paper webs for penetrating the latter as they are delivered from said rollers to the conveyor bars and for holding said webs fast independently of the tension, and means at one end of said guide means for removing the assembled manifold form from said pins.

2,869,865

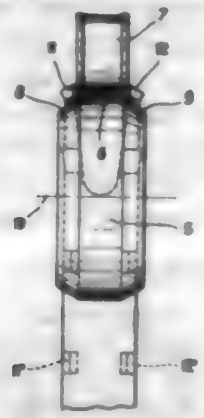
METHOD AND MEANS OF CONVEYING CARRIER STRIPS CARRYING LAYERS TO BE TREATED CHEMICALLY AND/OR PHYSICALLY, ESPECIALLY LAYERS CONSISTING OF LIGHT-SENSITIVE EMULSION, THROUGH AT LEAST ONE TREATING DEVICE

Herbert Lechner, Munich, Germany, assignor to Arnold & Richter K. G., Munich, Germany

Application May 31, 1955, Serial No. 512,826
Claims priority, application Germany May 31, 1954
5 Claims. (Cl. 271—2.3)

1. In a conveyor arrangement for conveying strip material, in combination, a conveyor band made of deform-

able material; gripping means attached to and carried by said conveyor band in the regions of the opposite edge portions of the same and extending upwardly from one face thereof for gripping a strip material; and guide roller means for guiding said conveyor band, operatively connected wtih the same and adapted to engage succesive longitudinal portions of said conveyor band, at least said



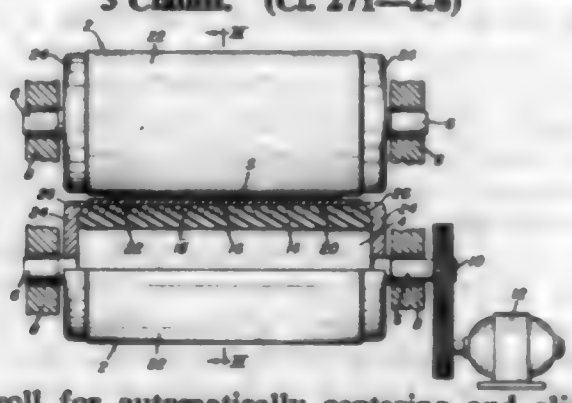
portion of said guide roller means over which one of said opposite edge portions of said conveyor band passes being tapered so that the gripping means carried by said one edge portion of said conveyor band when passing over said guide roller means will be turned away from the corresponding gripping means carried by the other edge portion of said conveyor band.

2,869,866

SELF-CENTERING ROLL

Edwin T. Lorig, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

Application December 27, 1955, Serial No. 555,500
3 Claims. (Cl. 271—2.6)



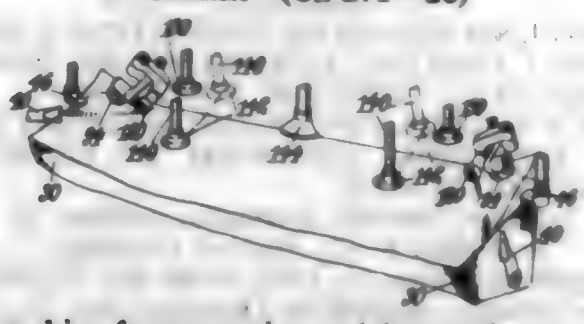
1. A roll for automatically centering and aligning a moving object comprising a generally cylindrical body portion having a plurality of flexible projections on its outer periphery arranged on both sides of a transverse central plane, said projections being inclined radially toward the axis of the roll away from the said transverse central plane, and a thin flexible generally imperforate sleeve surrounding said body portion in close engagement therewith.

2,869,867

SHEET SEPARATING MACHINE

Headley Townsend Backhouse, Nassau, Bahamas, British West Indies

Application December 21, 1954, Serial No. 476,703
Claims priority, application Great Britain March 24, 1954
12 Claims. (Cl. 271—26)



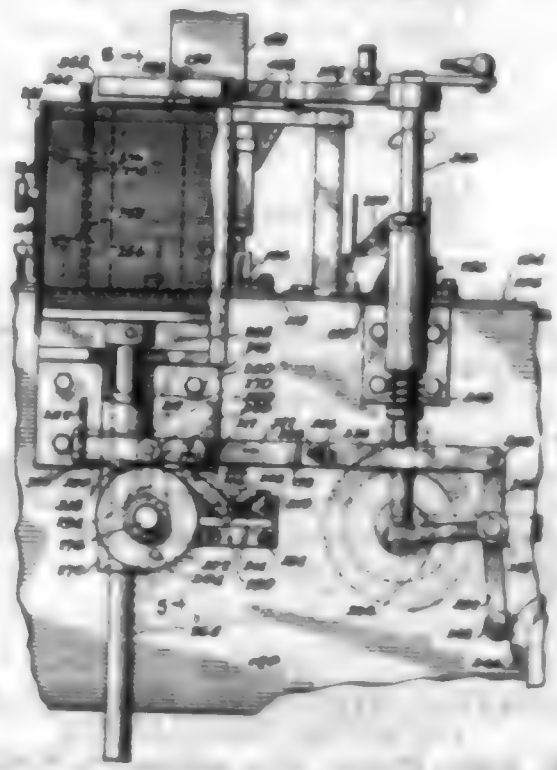
1. A machine for separating and forwarding sheets one by one from the top of a pile comprising sheet holding means above the rear of the pile operative to hold a raised rear edge portion of a sheet stationary above the pile for a pre-set period, a lifting gripper which engages and grips the rear edge portion of the sheet to be separated and means for moving the lifting gripper in a path in which it rises carrying the rear edge portion of the sheet, transfers the edge portion so lifted to the holding means and then moves rearwardly, downwardly and forwardly around the rear edge of the lifted sheet while the edge is held stationary as aforesaid to engage the next sheet beneath the said lifted edge portion.

2,869,563

WRAPPER FEED MECHANISM

George Howard Kraft, Wilmette, Harry W. Grossen, Chicago, and Kenneth Bell, Marengo, Ill., assignors to National Dairy Products Corporation, a corporation of Delaware

Original application June 19, 1951, Serial No. 232,366, now Patent No. 2,790,287, dated April 30, 1957. Divided and this application May 3, 1954, Serial No. 432,713
6 Claims. (Cl. 271—31)



1. In a packaging machine of the class described, a housing for guiding a stack of wrappers, means for feeding wrappers one by one from the top of a wrapper stack in said housing, a platform vertically movable within said housing for vertically movably supporting a stack of wrappers in said housing, a rotatably mounted ratchet wheel, connections between said ratchet wheel and said platform whereby rotation of said ratchet wheel in one direction will effect upward movement of said platform, a pawl normally engaging said ratchet wheel to prevent rotation of said ratchet wheel in the other direction, whereby said platform is normally held against downward movement, a second pawl for engaging and rotating said ratchet wheel in platform elevating direction, and means engageable with the top of a stack of blanks on said platform and connected to said second pawl to cause operative engagement of said second pawl with said ratchet wheel only when the top of the stack of blanks is lowered to a predetermined level by the successive removal of blanks from the stack by said feeding means.

2,869,869

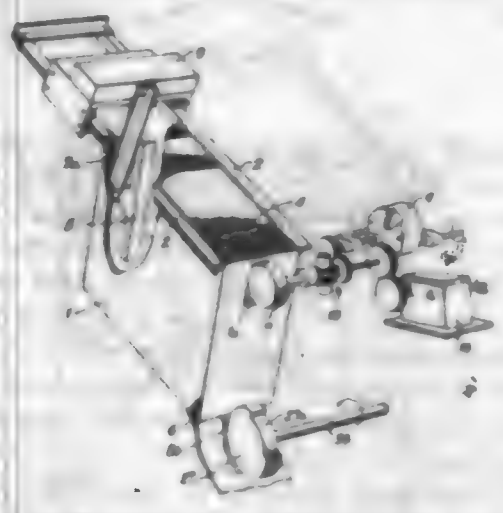
SHEET FEEDING APPARATUS

Charles H. Bauer, Northridge, Calif., assignor, by mesne assignments, to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application May 17, 1955, Serial No. 508,912
2 Claims. (Cl. 271—36)

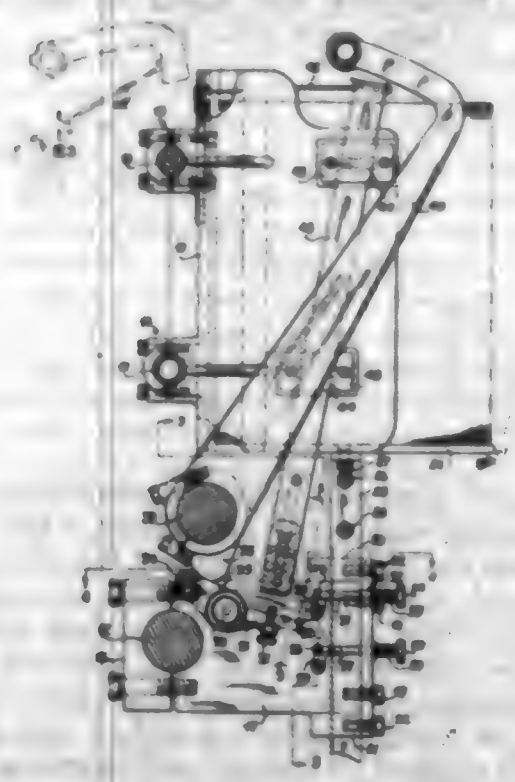
1. A sheet feeding apparatus comprising a hopper for receiving a stack of sheets and including at least three

side members adapted to guide respectively three edges of the sheets in the stack, and an end member adapted to engage the flat surface of the sheet at the discharge end of the stack, one of said side members having a gate opening adjacent said end member extending the full width of the sheet and having a dimension in the direction of sheet thickness greater than the thickness of one sheet and less than the thickness of two sheets, the side of the hopper opposite said one side member being constructed to allow movement of the sheet at the discharge end of the stack away from the gate opening, a starter means in frictional engagement with the sheet at the discharge end



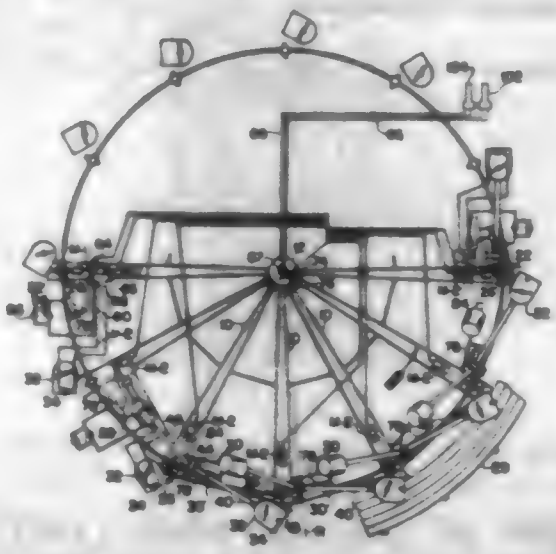
of the stack, and means for driving said starter means at a substantially low rate of speed in a direction to move said end sheet first in the direction away from the gate opening and then in the reverse direction at a similarly low rate of speed toward said opening, said end sheet being then guided by the next adjacent sheet, said low speed reverse movement continuing until the bottom edge of said sheet clears the edges of said opening, and thereafter to move said sheet in said reverse direction at a substantially increased and rapid speed, said starter means being adapted thereby to feed at least a portion of said sheet through said gate opening.

2,869,870
PILE ELEVATOR
Carl H. Heigl, Cleveland, and Victor A. Zagel, Euclid, Ohio, assignors, by mesne assignments, to Macry Company, a corporation of Ohio
Application July 31, 1952, Serial No. 302,022
3 Claims. (Cl. 271—62)



1. In combination, a frame, a hopper plate for supporting a pile of sheets, an upstanding rack operatively connected with said hopper plate and adapted upon endwise travel in said frame to move the hopper plate up or down, ratchet teeth on one side of said rack, means for preventing downward travel of said rack, a driving arm and a driven arm pivoted about a single horizontal axis and extending laterally therefrom, a pawl on said driven arm adapted to engage the toothed side of said rack, means for rocking said driving arm down and up through a predetermined arc during each cycle of the machine, means for limiting the downward movement of said driven arm, an abutment on one of said arms adapted to cause said driving arm to raise said driven arm when the driving arm swings to the upper end of its arc of travel, an upstanding feeler bar slidable endwise in said frame having a laterally extending portion adapted to engage the top of the pile, said bar having a foot riding on said driving arm during the upper portion of its arc of travel and having a second foot adapted to bear upon said driven arm when the driving arm is in the lower part of its arc and to depress said driven arm and cause said pawl to engage beneath the next lower tooth of the rack when descent of the feeler bar to a sufficient extent is permitted by a decreasing pile height.

2,869,871
AMUSEMENT RIDE DEVICE
John E. Mitchell, New Brighton, Pa.
Application January 16, 1957, Serial No. 634,542
12 Claims. (Cl. 272—36)

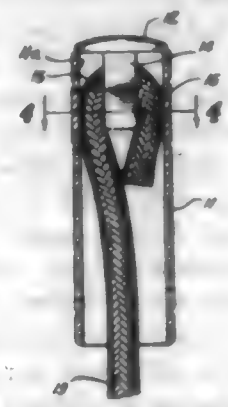


1. In an amusement ride device, a rotor having a passenger carrying car at the periphery to revolve therewith, a tangentially disposed support boom connected at one end to said passenger carrying car at a point so that the passenger faces away from said boom, said boom being tangent to the rotor periphery and having its other end connected to said rotor for up and down swinging movement with respect thereto, and means to raise and lower said boom about its swing connection causing said car to move in a plane tangent to the periphery of the rotor in a direction so as to assume different elevations above said rotor.

2,869,872
ADJUSTABLE HANDLE FOR A ROPE OR THE LIKE
George P. Nissen, Cedar Rapids, Iowa
Application April 4, 1958, Serial No. 726,364
2 Claims. (Cl. 272—75)

1. In a handle adapted to be selectively positioned on a compressible rope, a flexible barrel member, a cap of greater diameter than the inside diameter of said barrel, said cap being adapted to be positioned at one end of said barrel, and a loop positioned on said cap and extending internally of said barrel, said loop having wall portions spaced apart at a distance in excess of the inside diameter of said barrel member, said loop further being of sub-

stantial width, whereby said compressible rope member may be inserted longitudinally of said barrel and through said loop, thence back upon itself, the width of said loop being greater than the inside diameter of said barrel



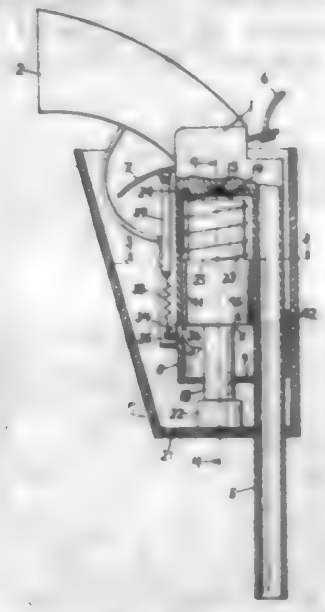
to cause the walls adjacent thereto to be forced outwardly, whereby the wall portion 90 degrees radially therefrom shall be drawn inwardly to wedge said rope against said loop.

2,869,873

TOY PISTOLS

Frank S. Tornabene, Douglaston, N. Y.

Application February 17, 1958, Serial No. 715,642
7 Claims. (Cl. 273—1)



1. A pistol toy comprising a holster, a pistol body insertable in said holster, a pullable trigger projecting from said body, a member guided in said body from and to a definite position, a spring urging said member to move from said position, releasable means moving said member against the urge of said spring to said position, the operation of said means being derived from the insertion of said body in said holster and the release of said means being derived from the lifting of said body from said holster, releasable means arresting said member, the operation of said latter means being derived from the pull of said trigger whereby the length of said member's movement depends on the time between lift of said body and pull of said trigger, and an indicator moved by said member.

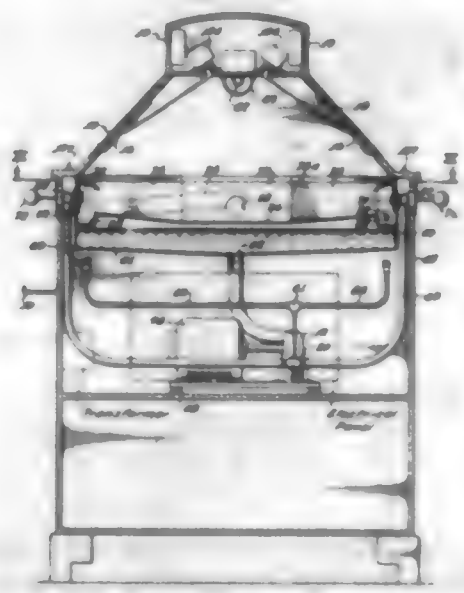
2,869,874

WATER JET AMUSEMENT DEVICE

John T. Berdner, Los Angeles, Calif., assignor to Aquatic Products Corporation, Los Angeles, Calif., a corporation of California

Application May 19, 1955, Serial No. 509,521
10 Claims. (Cl. 273—119)

4. A game apparatus comprising a tank adapted to contain a supply of water, a false bottom overlying the normal water level in said tank to provide a playing surface, a pair of nozzles supported for universal movement over opposite ends of said playing surface, depressed scoring areas at opposite ends of said playing surface, fixed nozzles adjacent said depressed scoring areas and directed oppositely to one another and normal to a line between said scoring areas, return passages opposite said fixed nozzles in communication with said playing surface, pumping means to supply fluid under pressure to said nozzles, first conduit means for supplying said fluid under pressure to the playing nozzles to provide jets for moving the playing piece over said surface and into said scoring areas, second conduit means for supplying said fluid under pressure to the fixed nozzles to provide jets for returning the playing piece from said scoring areas through said return



passages to said playing surface, valve means interrupting the flow of liquid through said first conduit means, control means including a timer for regulating the operation of said valve means and the operation of said pumping means, coin impulse means energizing said control means, and holding means initiated by said coin impulse means for continuing the operation of said control means for a period of time determined by said timer, said control means acting to close said valve prior to de-energizing said pumping and holding means, whereby return of the playing piece to the playing surface at the end of a coin impulsed sequence of operations may be insured.

2,869,875

GOLF PRACTICE GAME

William Steenson, Long Beach, Calif.

Application October 28, 1955, Serial No. 543,313
1 Claim. (Cl. 273—177)

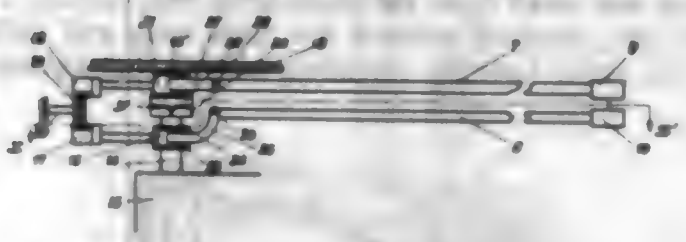


A golf practice game and instructor comprising a first wicket and a second wicket spaced therefrom, a foot pivotally mounted on the lower end of each of the wickets and on a leg thereof, said feet being movable to a position at right angles to the leg of a wicket, a fork pivotally mounted at the outer end of each foot, said fork being adapted to penetrate into the ground or a carpet to hold the wicket in an upright position, a reel on one of said wickets, a cord wrapped on said reel and extending to the other of said wickets, and detachable cord engaging means on the foot of said other wicket to releasably hold said cord.

2,869,876
SOUND RECORDING AND REPRODUCING APPARATUS

Endore Desiré Brasseur, Mont-sur-Marchienne, Belgium, assignor to Ateliers de Constructions Electriques de Charleroi, Brussels, Belgium, a corporation of Belgium

Application November 22, 1955, Serial No. 548,523
Claims priority, application France May 27, 1955
6 Claims. (Cl. 274—10)

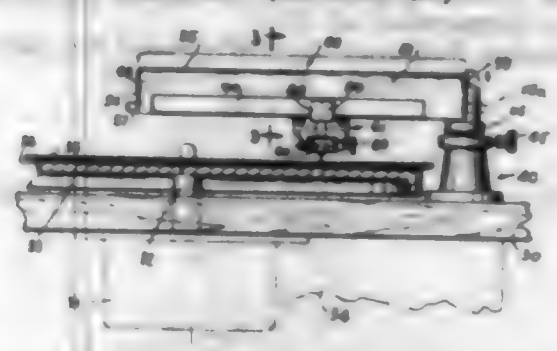


1. A sound recording and reproducing device comprising means for jointly moving two records in parallel confronting relationship step-by-step in a given path, two oppositely facing sonic vibration recording and reproducing heads, one head cooperating with one record and the other head cooperating with the other record, a shaft extending transversely to the plane of the records on the longitudinal center line thereof, a supporting arm for each of the heads mounted on the shaft, and means including a motor for driving the shaft for simultaneously oscillating the two arms in opposite directions between terminal positions so that the heads travel generally transverse to the direction of movement of the records during successive periods in which the records are at rest.

2,869,877
PLAY-BACK SOUND REPRODUCER

George L. Bard, Bronxville, N. Y., assignor to Ortho-Sonic Instruments, Inc., New Rochelle, N. Y., a corporation of New York

Application April 6, 1956, Serial No. 576,733
4 Claims. (Cl. 274—23)



1. In turntable play-back sound-reproducing apparatus, a pick-up tone arm having a pick-up stylus that is adapted to be supported above a record carried by the turntable for movement parallel to a radius and plane of rotation thereof, said tone arm comprising longitudinally disposed carrier means, a carriage supported on said carrier means for substantially frictionless movement longitudinally thereof, said stylus being carried by said carriage and constructed and arranged to be selectively moved between an operative and an inoperative position, a support for rotatably supporting said carrier for rotation about a vertical axis, said support comprising a fixed base, a sleeve carried by said base and arranged for rotatable and vertical movement relative thereto, a post disposed within said sleeve and arranged for rotatable and vertical movement relative thereto, and pivot means connecting said carrier to said post for pivotal movement about a substantially horizontal axis, securing means associated with said base for releasably securing said sleeve in a selective, vertical and rotational position, first index means operatively associated with said post and sleeve for limiting rotational movement of said post relative to said sleeve in one direction and permitting rotational movement thereof in an opposite direction, and second index means operatively associated with said post and said sleeve and said carrier and constructed and arranged to selectively lock said post against rotation relative to said sleeve in both directions when the stylus is moved to said operative position and releasing said post for such rotation when said stylus is moved to said inoperative position.

2,869,878
SOUND MOTION PICTURE FILM

Marvin Camras, Chicago, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois

Application February 9, 1951, Serial No. 210,223
3 Claims. (Cl. 274—41.4)

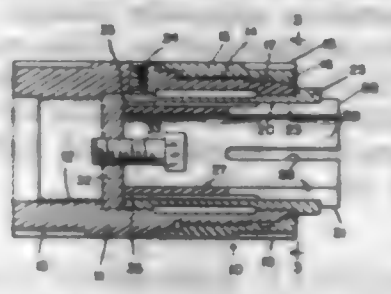


1. A motion picture film comprising a flexible base having a beveled marginal edge and a relatively narrow self-sustaining flexible strip having a surface covered with a relatively uniform dispersion of magnetic particles, said strip being secured to said base along and upon said beveled edge.

2,869,879
COLLET-FIXTURE ASSEMBLY WITH ECCENTRIC ADJUSTMENT

Howard Burton, Northville, Mich., assignor to Air-Matic Products Company, Inc., Southfield Township, Mich., a corporation of Michigan

Application January 28, 1957, Serial No. 636,526
5 Claims. (Cl. 279—6)

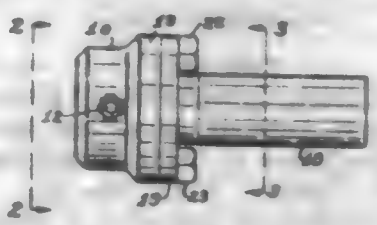


3. A collet-fixture assembly comprising an open-ended tubular external body, an outer open-ended adjusting sleeve received concentrically for adjusting rotation within the open body end, said sleeve having a cylindrical bore eccentric of the axis of rotation of the sleeve, an inner, open-ended object clamping sleeve concentrically received for rotative adjustment within the open end of said adjusting sleeve, said clamping sleeve having a clamping bore eccentric of its axis of rotative adjustment, means to radially clamp an object in said last named bore, and means for releasably securing said adjusting and clamping sleeves together and to said body in a circumferentially adjusted position thereof, comprising coacting mating formations on the sleeves engageable and disengageable upon relative axial sliding movement thereof.

2,869,880
TOOL HOLDER

Frederick H. Smith, Dayton, Ohio

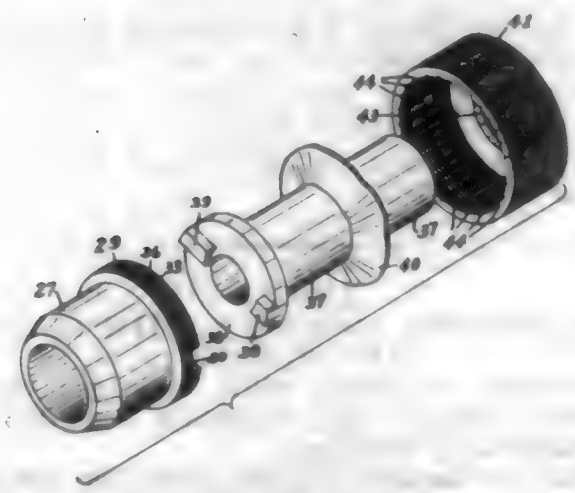
Application June 21, 1957, Serial No. 667,179
5 Claims. (Cl. 279—6)



1. A tool holder including a head member, studs fixedly and rigidly secured to the head member, the

outer ends of the studs being threaded, a shank member having a flange portion provided with holes, two of the sides of each hole being parallel to a radius of the flange portion and the other two sides being normal to said radius, the distance between the sides of each hole being greater than the diameter of the studs, the circumferential spacing of the holes and the studs being equal, a side of the hole that may be in contact with a stud being either parallel or perpendicular to said radius, and nuts threadedly engaging the studs for clamping the flange portion of the shank member to the head member.

2,869,881
ADJUSTABLE FLOATING TOOL HOLDERS
Frederick H. Smith, Dayton, Ohio
Application November 27, 1957, Serial No. 699,390
8 Claims. (Cl. 279—16)



1. In an adjustable floating tool holder, a tool head member secured in adjustable floating relation with a shank member by means of an adjusting collar, a ratchet pin carried by the tool head member and being adapted to engage ratchet grooves formed in the adjusting collar, and a compression spring located between the shank member and the adjusting collar.

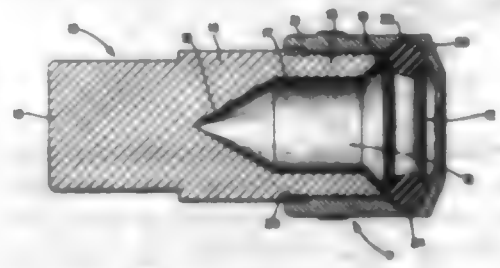
2,869,882
HAND TOOL
Ralph C. Zimmerman, Norwood, Ohio, assignor to Zimmerman Packing Company, Norwood, Ohio, a corporation of Ohio
Application February 15, 1957, Serial No. 640,433
5 Claims. (Cl. 279—23)



1. A hand tool of the class described comprising a handle having a socket inwardly of one of its ends, said socket including a base at its inner end and an outwardly flared portion at its outer end, a spring chuck comprising a base on the socket base and a yieldably displaceable spring arm from said chuck base having its outer end on the flared portion of the socket, and means carried by said one end of the handle securing said spring arm and chuck in the socket with said spring arm yieldably inwardly arched.

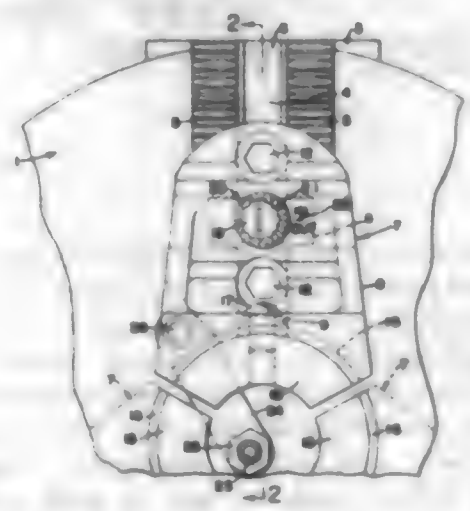
2,869,883
HOLDER CONSTRUCTION
Robert R. Dunbar, Massillon, Ohio
Application December 17, 1956, Serial No. 628,861
15 Claims. (Cl. 279—56)

1. A holder construction including a main body member, the main body member having a longitudinally extending opening formed therein, an end surface on the main body member adjacent said opening, a collar mounted surrounding a portion of the main body member laterally outward of said opening, the collar extending longitudinally away from said main body end surface and having a generally laterally inwardly extending portion normally spaced longitudinally from said end surface, the collar being constructed for selective longitudinal movement of said laterally inwardly extending portion toward and away from the main body end surface, a resilient ring received between the main body end surface and the collar laterally extending portion and having an



inner diameter, movement of the collar laterally extending portion toward the main body end surface compressing the resilient ring therebetween and normally reducing the inner diameter of the ring so that the ring extends into the main body opening to compress the ring against an article having a smaller diameter than said opening received in said opening, and generally conically-shaped abutment centering means having a maximum diameter larger and a minimum diameter smaller than said article received in said main body opening formed within the main body opening and spaced from said end surface for abutting and centering an inner end of said article.

2,869,884
CHUCK
Howard L. Etchell, Walton Hills, Ohio, assignor to Bedford Gear & Machine Products, Inc., Bedford, Ohio, a corporation of Ohio
Application February 21, 1957, Serial No. 641,609
7 Claims. (Cl. 279—123)



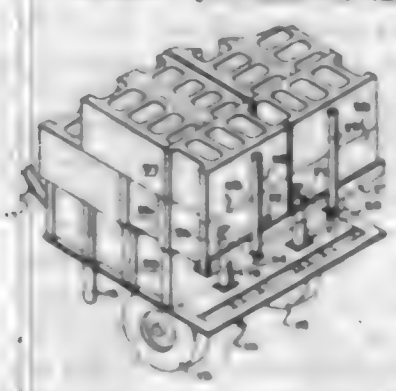
1. A jaw for a chuck comprising a body of generally L-shaped form of which one leg is adapted to be secured in radially extending position on a radially movable master jaw of a chuck and has a hole transversely therethrough and of which the other leg is shaped for engagement with a workpiece responsive to radial movement of the master jaw; an axially extending sleeve rotatable in the hole of such one leg and formed with an eccentrically disposed bore and with a wrench-engaging portion at one end; a master key provided with generally chordwise extending teeth that are adapted to interfit with the teeth of the master jaw and provided with a cylindrical extension that extends into the bore of said sleeve whereby, upon rotation of said sleeve by its wrench-engaging portion, said body and master jaw are relatively radially shifted in infinitesmal increments.

2,869,885
RIGID AXLE MOUNTING
Dewey I. Doyle, Jr., Grand Rapids, Mich., assignor to Doyle Vacuum Cleaner Company, Grand Rapids, Mich., a corporation of Michigan
Application October 15, 1956, Serial No. 615,794
5 Claims. (Cl. 280—47.17)



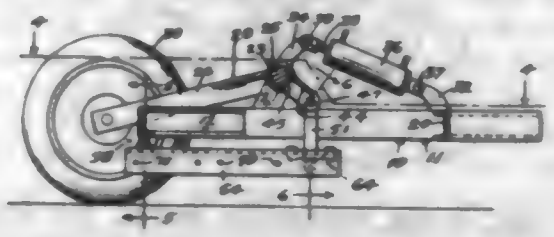
1. In combination with a dolly having a handle thereon with spaced leg members, a rigid axle mounting for each wheel thereon comprising, a support member on the dolly, a recess in said support member receiving one of the leg members of said handle, a wheel adjacent said support member having a central bore therethrough, a headed spindle extending through said bore and said one leg member and secured within said support, and a portion of enlarged diameter on that part of said spindle within said bore and having a length greater than the length of said bore, whereby said portion of enlarged diameter will be clamped between said support member and the head of said spindle, when said bolt is tightened, and form a bearing surface for the wheel.

2,869,886
HAND TRUCK
Ross D. Wardell, Basin, Wyo.
Application January 25, 1957, Serial No. 636,402
1 Claim. (Cl. 280—47.18)



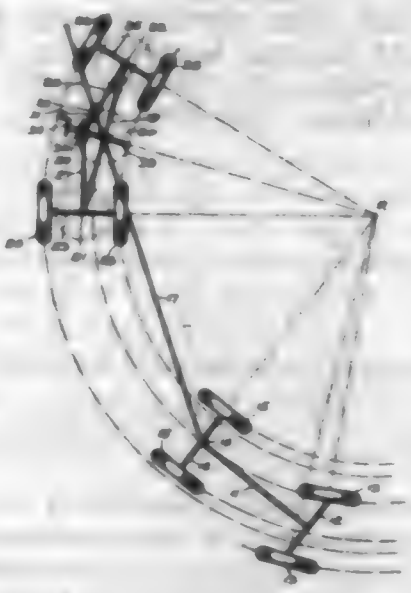
In a hand truck comprising a horizontally disposed platform having a forward end and a rearward end, a pair of laterally spaced wheels positioned below and adjacent the forward end of said platform and rollably supporting the forward end of said platform upon a ground surface, a pair of laterally spaced legs positioned below and adjacent the rearward end of said platform and supporting the rearward end of said platform above said ground surface when said platform is in the horizontal position, and laterally spaced handle bars projecting from and attached to the rearward end of said platform, said platform being tiltable from the horizontal position to a vertical position in which the forward end abuts said ground surface, the improvement consisting in at least two uprights arranged in lateral aligned spaced relation positioned inwardly of and in parallel spaced relation with respect to the forward end of said platform, a ledge positioned above said platform at a level above said uprights and between said uprights and the forward end of said platform and extending parallel to the forward end of said platform and supported by said uprights, and at least a pair of spaced posts positioned intermediate the ends of said ledge and carried by said ledge.

2,869,887
MOBILE TOOL CARRIER
Harold A. Westberg, Salina, Kans., assignor to The Wyatt Manufacturing Co., Inc., Salina, Kans.
Application January 23, 1957, Serial No. 635,636
6 Claims. (Cl. 280—44)



1. A tool carrier comprising a frame, means at one end of said frame for detachably connecting said frame to a traction vehicle, a shaft extending transversely of said frame and journalled thereon, arms depending perpendicularly of said shaft in parallel relation, wheels journalled on the free ends of said arms with their axes in aligned relation, means mounted on said frame and connected to said shaft to rotate said shaft for raising and lowering said frame with respect to the ground, a tool carriage, a hinge structure pivotally securing the rear end portion of said tool carriage directly to the rear end of said frame, and means extending from said shaft to the front end of said carriage for moving said carriage pivotally on said hinge whereby said carriage is maintained in level relation to the supporting ground as said frame is raised and lowered on said wheels.

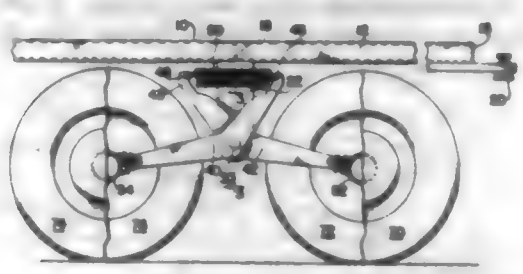
2,869,888
TRAILER WITH STEERABLE TANDEM AXLES
Herbert Berger, Munich, Germany
Application July 17, 1956, Serial No. 598,319
7 Claims. (Cl. 280—81)



1. In a trailer having a frame for pivotal attachment to a draft device, an undercarriage operatively connected at its central portion with said frame for pivotal movement relative thereto, a pair of wheel-carrying axles pivotally connected at their respective mid-portions with said undercarriage at equal distances from the connection of said undercarriage with said frame, a pair of steering rods rigidly secured to said axles, respectively, said steering rods being slidingly and pivotally connected with each other, and joint means slidingly and pivotally connecting

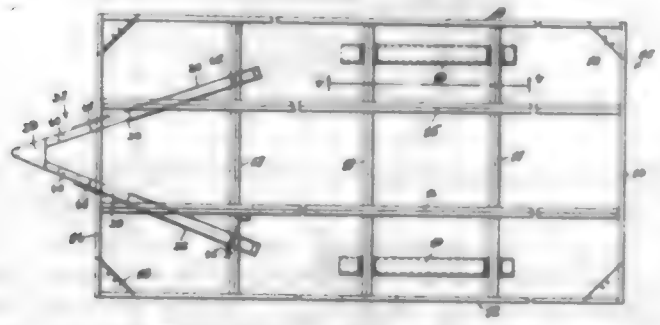
said frame with one of said steering rods at a location spaced from the connection of said one rod with the other rod whereby the wheels of the respective axles traverse substantially the same path.

2,869,889
TENSION SPRING SUPPORTING MEANS FOR TRAILERS
Harry A. Dickison, Renton, Wash.
Application July 23, 1956, Serial No. 599,463
2 Claims. (Cl. 280—104.5)



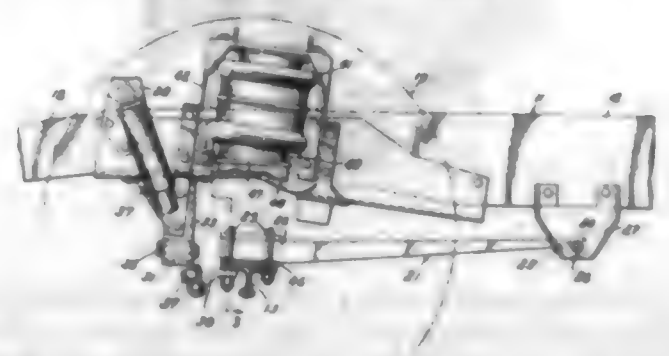
1. A coil spring supporting means for four-wheeled trailers, comprising: a rectangular marginal frame; a pair of coacting suspension arms pivoted intermediate their ends, each arm formed of metal plate and being of uniform thickness throughout and permitting deflection transversely of the trailer; a pivot bolt for each pair of said arms, each pivot bolt being mounted on a longitudinally disposed, depending support member formed of metal plate secured to said frame; said pair of suspension arms disposed in spaced relationship on said pivot bolt, by a disc having a diameter several times the diameter of said bolt disposed between said support member and the inner one of the suspension arms and a spacing washer of similar diameter between the inner and the outer of said suspension arms, said outer suspension arm being secured, as by welding to the head of said bolt; a bearing disposed for rotation on said bolt and adapted to revolvably support said suspension arms; a coil spring operatively engaging the upper ends of each coacting pair of said suspension arms; and means for pivotally securing the lower ends of said arms to transversely disposed wheel-positioning axles.

2,869,890
RUNNING GEAR FOR HOUSES AND THE LIKE
Wilbert O. Benning, South Whitley, Ind.
Application February 29, 1956, Serial No 568,503
6 Claims. (Cl. 280—106.5)



1. In combination, a base frame for a structure comprising boundary elements and bracing elements spanning certain of said boundary elements, a pair of downwardly-opening channel members secured to the lower surface of said frame near one end thereof, said channel members being substantially parallel with and substantially equally and oppositely spaced from the median longitudinal plane of said frame, a pair of wheels, suspension means for each of said wheels, each suspension means including an element snugly receivable in one of said channel members, means for removably securing each of said elements in its respective channel member, a further pair of downwardly-opening channel members secured to the lower surface of said frame near the other end thereof, said further channel members being substantially allochirally arranged relative to said median plane and inclining toward said plane as they approach said last-named frame end, a generally V-shaped tow bar having diverging legs, each of said legs having a portion snugly receivable in one of said further channels, and means for removably securing each of said legs in its respective channel member.

2,869,891
ROLL RESISTING MOTOR VEHICLE WHEEL SUSPENSION
Chester G. Venditty, Dearborn, and Earl L. Fleming, Farmington, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application November 19, 1956, Serial No. 622,972
1 Claim. (Cl. 280—124)

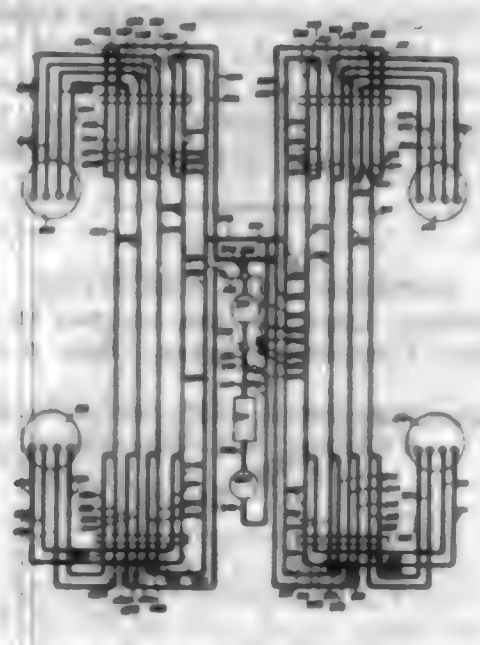


In a wheel suspension for a motor vehicle, a frame having a longitudinally extending side frame rail, a rigid front axle having a lower intermediate portion extending transversely beneath said side frame rail and an upwardly offset outboard end portion, a front road wheel rotatably mounted upon the upwardly offset outboard end portion of the axle, a longitudinally extending steel spring located directly beneath said side frame rail, means pivotally supporting the rearward end of said spring directly beneath said side frame rail, the forward end of said spring terminating adjacent said rigid axle and overlying the lower intermediate portion of said axle, an inverted U-shaped supporting bracket positioned vertically above the outboard end portion of said axle between the vertical plane of said side frame rail and said road wheel, the outboard leg of said supporting bracket being secured to the upwardly offset outboard end portion of said axle adjacent said road wheel and the inboard leg of said supporting bracket having an inwardly extending flange at its lower end positioned between said rigid axle and the forward end of said spring, means clamping said last mentioned flange of the supporting bracket and said spring and axle together, a second bracket extending upwardly and outwardly from said side frame rail and projecting over said supporting bracket, a compression spring supported between said supporting bracket and said second bracket adjacent the outboard side of said side frame rail to resiliently support said vehicle while said longitudinally extending steel spring provides secondary spring means operating under roll conditions.

2,869,892
HYDRAULIC STABILIZING SYSTEM FOR VEHICLES
Edward H. Sahagian, Boston, Mass.
Application May 23, 1957, Serial No. 661,237
6 Claims. (Cl. 280—124)

2. A vehicle in combination with a vehicular stabilizing system, said vehicle embodying a pair of wheels at the front and a pair of wheels at the rear, a frame supported by said wheels, four assemblies each of four control valve hydraulic cylinders and four control valve pistons movable therein, four means one each of which is connected to a said wheel and to the said pistons of a said assembly which pistons are movable in response to movements of said wheels, four other means one each

of which is connected to a said assembly of four said cylinders and to said frame which cylinders are movable in response to movements of said frame, a hydraulic stabilizing cylinder and a piston movable therein, for each said wheel, the first-mentioned four means being connected to four said stabilizing cylinders, and four other means one each of which is connected to said frame and to a said stabilizing cylinder, a hydraulic system of pressure lines and return lines in communication with said four stabilizing cylinders and with said four assemblies of control valve hydraulic cylinders, and pressure generating means supported by said frame in



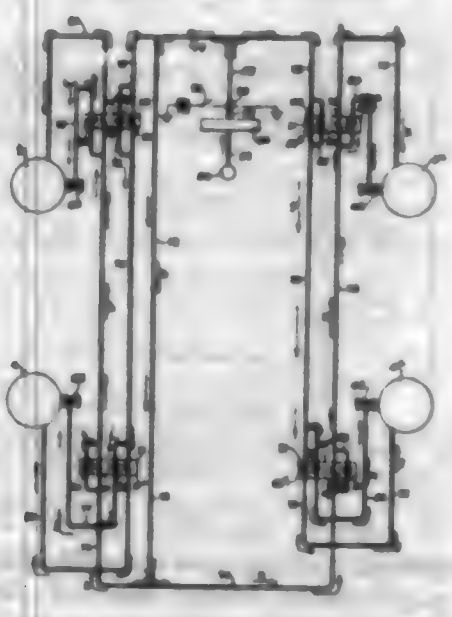
communication with said hydraulic pressure and return lines, said control valve pistons and cylinders normally keeping both said lines closed, said stabilizing pistons and cylinders and said control valve pistons and cylinders being movable relative to each other in response to movements of said wheels or frame of said vehicle to thereby change the positions of said stabilizing cylinders and pistons therefor with relation to each other and the positions of said control valve cylinders and pistons with relation to each other to thereby cause movement thereof from closed to open position or from open to closed position.

2,869,893

STABILIZING MEANS FOR THE AIR SPRINGS OF AN AUTOMOBILE

Edward H. Sahagian, Dorchester, Mass.

Application October 16, 1957, Serial No. 690,554
8 Claims. (Cl. 280—124)



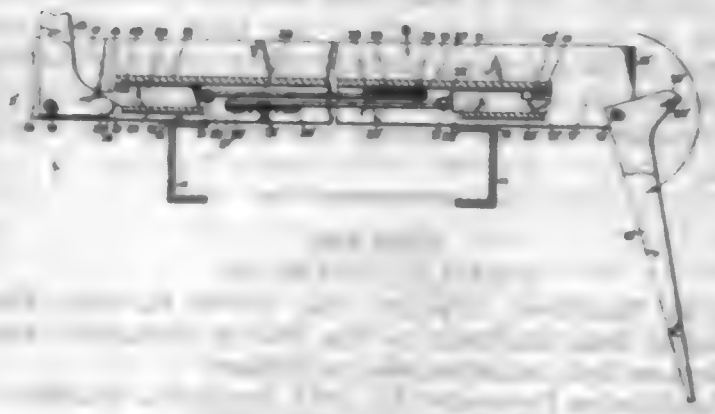
1. Automatic stabilizing means for the air springs of an automobile in which the automobile body is supported on each side by a front and a rear air spring, said stabilizing means comprising a source of air under pressure, a normally closed air release valve for each air spring, each air release valve being constructed to open when air under pressure is delivered thereto thereby to release air from the corresponding air spring, a system of pipes connecting said air source to each air spring and also to each air release valve, a normally closed control valve mechanism located in said system of pipes, said control valve mechanism, when open, being operative to direct air from the air source either to the air chamber of the corresponding air spring or to the air release valve thereof, means rendered operative by the initial downward movement of one side of the automobile body and the rising movement of the other side thereof caused by forces tending to depress one of said sides below its normal position and to elevate the other side above its normal position, to open the control valve mechanism thereby to direct air from the air source into the air chambers of the air springs supporting the side of the automobile body which is subjected to the depressing force and to the air release valves of the air springs supporting the side of the automobile body which is subjected to the elevating force.

2,869,894

DROP STAKES WITH VEE TYPE BUNKS, LOG BUNKS AND OTHER VEHICLES USING STAKES

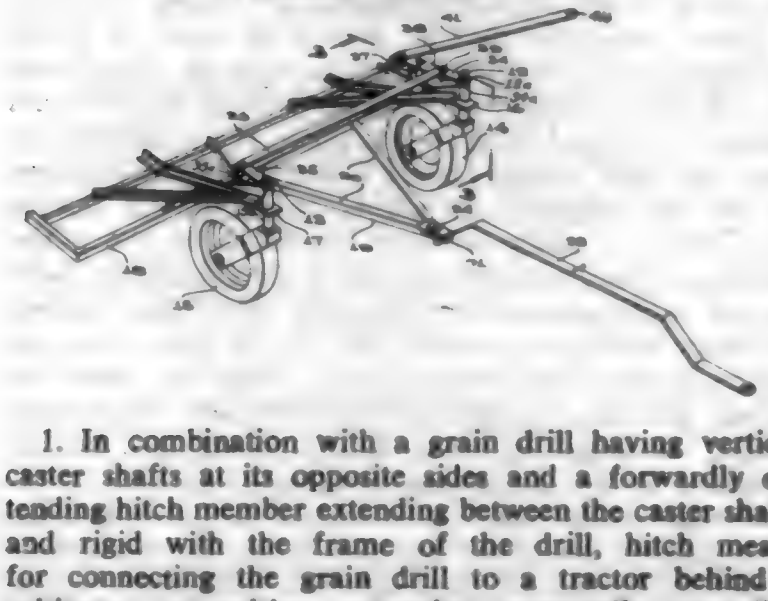
Raymond E. Mesler, Boise, Idaho

Application March 4, 1957, Serial No. 643,789
3 Claims. (Cl. 280—145)



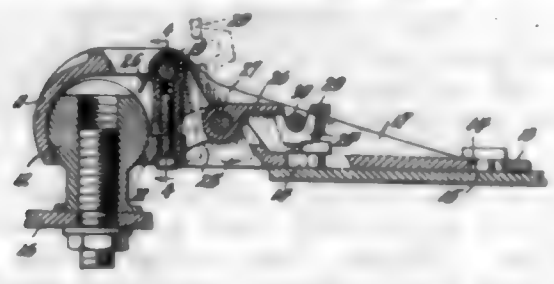
1. A logging bunk comprising an elongated horizontal beam including a pair of spaced parallel walls integrally connected by a horizontal web, said web terminating short of the ends of said beam, a stake positioned between said walls at each end of said beam outwardly of the ends of said web, horizontal pivot means securing each of said stakes to said side walls mounting said stakes for swinging movement from an upstanding position outwardly and downwardly to a depending position with respect to said beam, a toe formed integrally on each of said stakes extending inwardly of said beam with said stakes in upright position, said toe having a downwardly and inwardly sloping upper surface, a base member extending between said side walls at each end of said web in spaced parallel underlying relation to the end portions of said web, a horizontally slidable bolt positioned between said base member and said web at each end thereof, an upwardly and outwardly sloping lower face formed on the outer end portion of said bolt for overlying engagement with the upper surface of said toe with said bolt at the outer end of its sliding movement releasably securing said stake in upright position, a bell crank lever pivotally secured to each end of said beam, a link connecting one end of each of said bell crank levers to the inner end of the respective bolt for sliding said bolt on pivotal movement of said bell crank lever, and spring means extending between said bell crank lever and said beam normally biasing said bell crank lever in a direction to slide said bolt outwardly to stake securing position.

2,869,895
SHORT HITCH STEERING ASSEMBLY
Walter M. Tkachyk and Richard Tkachyk, Scobey, Mont.
Application July 26, 1957, Serial No. 674,425
2 Claims. (Cl. 280—411)



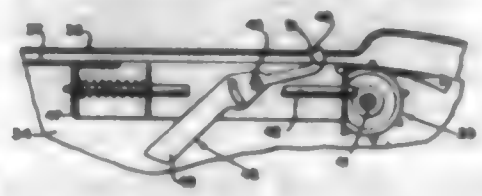
1. In combination with a grain drill having vertical caster shafts at its opposite sides and a forwardly extending hitch member extending between the caster shafts and rigid with the frame of the drill, hitch means for connecting the grain drill to a tractor behind a cultivator comprising respective rearwardly extending steering arms secured to the caster shafts and in parallel relation, a transverse link arm connecting said steering arms, a lever pivoted at its intermediate portion to the grain drill rearwardly adjacent one of the caster shafts, means pivotally and slidably connecting the forward end of the lever to the adjacent steering arm, a link bar pivoted to the rear end of said lever, means for pivotally connecting the link bar to the adjacent side portion of the cultivator, and a hitch link member pivotally connected to the forward end of the hitch member and adapted to be connected to the tractor, whereby turning movement of the cultivator in one direction causes simultaneous reverse turning movement of the caster shafts.

2,869,896
TRAILER COUPLER
Clell R. Matthews, Warsaw, and Raben H. Cole, Fort Wayne, Ind., assignors to The Dalton Foundries, Inc., Warsaw, Ind., a corporation of Indiana
Application December 23, 1957, Serial No. 704,589
2 Claims. (Cl. 280—512)



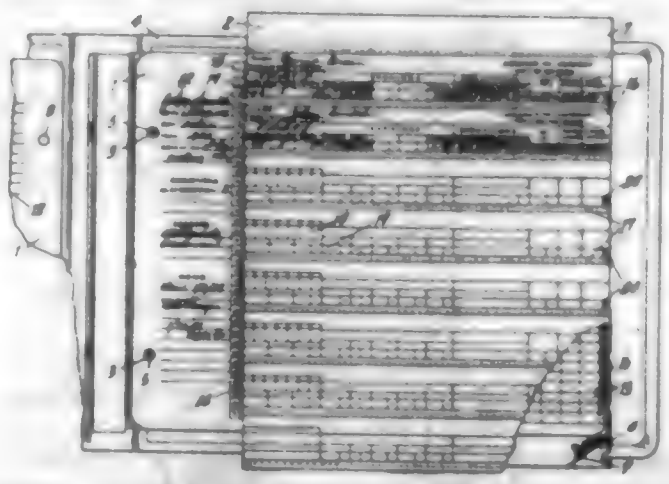
1. A trailer coupler of the ball and socket type comprising a housing having a ball receiving socket in one end thereof and having provision at the other end thereof for attaching said housing to a vehicle, a ball clamp within said housing having one end thereof pivoted transversely of said housing and the other end thereof having a concave shaped ball engaging surface therein substantially concentric with the ball when said surface is against the ball, said clamp being positioned adjacent said socket so that rotation of said other end in one direction about its pivot axis moves said surface toward and against a ball positioned in said socket and retains the ball between said surface and the wall of said socket, spring means tending to pivot said clamp away from the wall of said socket, an operating lever having a cam end and a locking end and being pivoted transversely of said housing adjacent said clamp so that said cam end directly engages said other end of said clamp and urges it and said surface toward and against a ball in said socket when said locking end is rotated in one direction about its pivot axis, said locking end being adapted to be substantially contained within said housing when said cam end has moved said engaging surface against the ball, means locking said locking end within said housing, said ball clamp comprising a pivoted member bifurcated at one end thereof and pivoted transversely of said housing at the other end thereof adjacent said socket, a ball engaging member slidably mounted between the forks of said pivoted member so that said engaging member is movable along said forks, said engaging member having a concave shaped ball retaining surface therein substantially concentric with a ball in said socket when said surface is against the ball, means for adjusting the position of said engaging member along said forks whereby wear of said surface and the ball is compensated for, and wherein said cam end of said operating lever is bifurcated, the two forks thereof engaging said forks of said pivoted member.

2,869,897
AUTOGRAPHIC REGISTER
John T. Davidson, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application February 4, 1955, Serial No. 486,257
5 Claims. (Cl. 282—20)



4. In an autographic register, means for transmitting carbon paper in interleaved relation to record strip fed therethrough and under continuous tension, signal means in said register biased to engage the underside of said carbon paper as it is fed and being retained thereby within the register, the exhaustion of the supply of carbon paper releasing said signal means, and means defining an opening in said register, said signal means being operative under its bias to project into said opening on release thereof.

2,869,898
PAYROLL RECORD AND COMPUTING PAPERS
Monno G. Martin, Pittsburgh, Pa., assignor to The Shaw-Walker Company, Muskegon, Mich.
Application October 14, 1955, Serial No. 540,482
5 Claims. (Cl. 282—27)



4. A set of payroll recording papers comprising a sheet of combined payroll journal and employees' pay pages, said pages being folded one on the other and separably connected at the fold, said pages having registering time and pay data areas marked thereon in vertically spaced transversely extending lines, said journal page having binder openings therein, vertically spaced

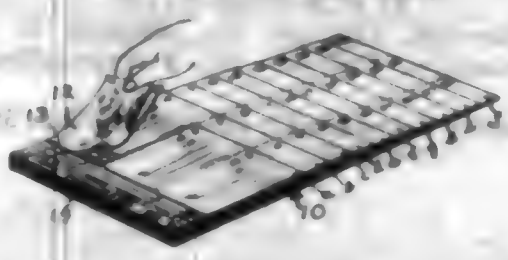
transfer coatings on the back of said employee pay page behind said lines, said pay page being horizontally separably divided into a plurality of individual pay slips each including one of said lines of pay data area and a daily time recording area out of registry with the transfer coating on the back thereof, and a transfer sheet disposed between said pages in facing relation to said journal page and detachably connected to one edge thereof, said pages having openings cut therein along said folded edge and positioned along said lines of pay data area to expose the number of the line on an earning sheet in registry with the lines of pay data area on the pages when a journal sheet is inserted between the pages and against the folded edge thereof.

2,869,899

COMBINATION CHECK AND CASH DISBURSEMENT BOOK

Bessie Benbenset, Brooklyn, N. Y.

Application August 20, 1956, Serial No. 605,029
2 Claims. (Cl. 283—57)



1. A rectangular combination check and cash disbursement book having two short sides and two long sides, comprising a plurality of check stubs in stacked relationship, each of said stubs having the same width as the short sides of the book, the lowermost of said stubs being the longest stub and succeeding superposed ones of said stubs being shorter by substantially identical lengths to leave an outermost portion of each of said stubs uncovered by the following superposed stub, the edges of the stubs opposite to the outermost portions being in registry with one of the short sides of the book, a plurality of lines parallel to the short sides of the book and across the width of said uncovered outermost portions of said stubs for recording check information on each line, a plurality of detachable checks equal in number to the number of said parallel lines attached by a weakened line to the outermost portion of each stub, and a large cash disbursement ledger sheet below the lowermost one of said check information stubs, the ledger sheet having a width several times the length of the short sides of the book but being foldable to be covered by the lowermost check stub when in folded condition, said stub edges and a part of an edge of said ledger sheet in registry therewith being secured together at said one short side of the book, and said ledger sheet having a plurality of parallel lines across its width and in registry with the lines on the check information stubs, whereby the check information stubs and the ledger sheet forms a cash disbursement book and entry of check information on the lines of the stub simultaneously produces a required cash disbursement book entry which may be posted on the registering line of the ledger sheet.

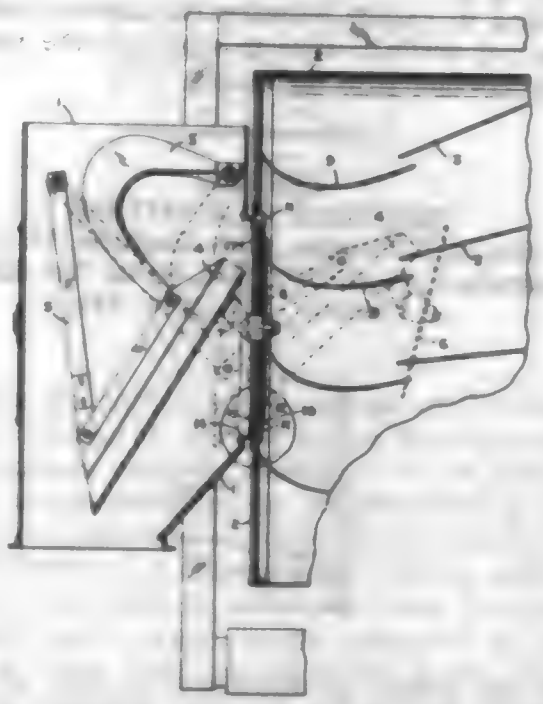
2,869,990

DUST SEAL FOR AN INDUSTRIAL MIXER

Paul S. Heteji, North Plainfield, N. J., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware

Application September 16, 1957, Serial No. 683,992
1 Claim. (Cl. 285—9)

A seal between a rotatable mixing drum having a discharge opening in one end and a non-rotatable housing unit having an opening therein to receive materials discharging from said rotatable drum, a mounting element having an opening therein connected about the periphery of the drum discharge opening, a spacer ring connected about the periphery of the mounting element opening on the side thereof nearest the housing unit, a flat flexible element having an opening therein connected about the periphery of its said opening to the spacer ring so that its outer portion being spaced from the mounting element is free to flex, a hollow cylindrical element connected at one end about the periphery of the housing unit opening and extending laterally in the direction of the flexible element, an inturned circumferential flange formed in the extend-



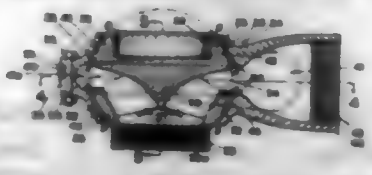
ing end of said cylindrical element in proximate spaced relationship to the outer portion of the flexible element, and circular sealing means connected to said flexible element to sealingly engage said inturned circumferential flange, said circular sealing means comprising a pair of sealing rings connected to opposite sides of a spacer ring and adapted to sealingly engage the inturned circumferential flange therebetween, whereby during rotation of the mixing drum a seal is maintained while the flexible element permits limited irregular axial and radial movements in the mixing drum.

2,869,901

BALL AND SOCKET COUPLING HAVING AIR BEARING MEANS

Waclaw Czwerwinski, Toronto, Ontario, Canada, assignor to Avro Aircraft Limited, Malton, Ontario, Canada, a corporation

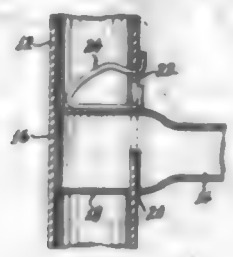
Application August 15, 1957, Serial No. 678,313
3 Claims. (Cl. 285—181)



1. A pipe coupling including a hollow casing, an inner member within the casing, there being freedom of relative movement between the casing and the inner member in all three degrees of angular freedom, the inner member having two convex part-spherical external surfaces of the same radius of curvature, the centres of curvature of the surfaces being coincident and the surfaces lying on opposite sides of a diametral plane of an imaginary sphere having the same centre of curvature and radius as said spherical surfaces, a pipe connection on the inner member, a peripheral nozzle in the inner member intermediate said surfaces and in communication with the pipe connection, two concave part-spherical surfaces in the casing embracing and cooperating with the convex part-

spherical surfaces on the inner member, a passage in the casing intermediate the concave part-spherical surfaces and in communication with the peripheral nozzle, and a pipe connection on the casing in communication with the passage, a clearance being provided between each part-spherical surface on the inner member and the cooperating part-spherical surface on the casing, each clearance decreasing from a maximum adjacent to the peripheral nozzle to a minimum remote from the peripheral nozzle, the clearances during normal operation of the coupling permitting some of the fluid passing into the coupling to escape between the convex and concave part-spherical surfaces thus to maintain the inner member out of contact with the casing.

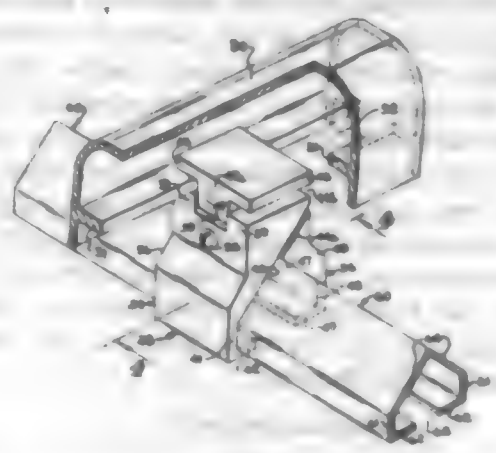
2,869,902
TUBULAR FURNITURE
Harold Gleitsman, New Rochelle, N. Y.
Application August 17, 1955, Serial No. 528,967
2 Claims. (Cl. 287—54)



1. In an article of furniture, a pair of members mutually secured in interlocked relation, one of said members being tubular and being provided in its wall with a closed slit extending longitudinally thereof, the other member having a flattened end complementary to said slit and of a size to permit insertion thereof into said wall slit, said flattened end having a free marginal edge extending longitudinally of said tubular member and an open slot parallel to and spaced inwardly of said marginal edge a distance in excess of the original inner diameter of said tubular member to define a flattened end portion which exceeds said original inner diameter along the extent of said other member, and said flattened end extending through said slit, and said end portion being press fitted into said tubular member with said marginal edge and slot thereof engaged with diametrically opposing inner surface portions of said tubular member, with one of said inner surface portions extending from said slit longitudinally of said tubular member, whereby said end portion creates a resultant stress in the direction of the diameter of said tubular member and normal to the marginal edge and slot of said end portion to securely interlock said members.

2,869,903
CREEL FOR TWISTING AND SIMILAR MACHINES
Woodrow W. Hewitt, Charlotte, N. C., assignor, by mesne assignments, to Parks-Cramer Company, Fitchburg, Mass., a corporation of Massachusetts
Application January 13, 1958, Serial No. 708,545
8 Claims. (Cl. 287—54)

1. In a creel having a laterally extending creel arm provided with a longitudinal guideway, a spindle supporting track, and an attaching means for securing said spindle supporting track to said creel arm, said attaching means comprising a segmental supporting bracket having two mating members collectively defining a passageway between their lower extremities, means on the upper extremities of said members adapted to interlock with said guideway, said spindle supporting track loosely penetrating said passageway and said guideway loosely interengaging with said means on the upper extremities of said members, and means clamping said members together to tightly secure said spindle supporting track within said passageway while tightly securing said means on the upper extremities of said members in interlocked engagement with said guideway.

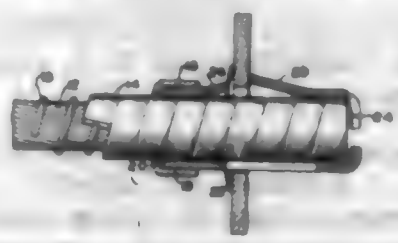


2,869,904
SLACK ADJUSTER
John A. Buvelot, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application February 27, 1956, Serial No. 567,900
3 Claims. (Cl. 287—58)



1. In a brake slack adjuster, a combination of: a frame comprising spaced arms interconnected at their ends and presenting a longitudinally extending slot therebetween, said arms having opposed lateral edges, a unitary fulcrum block assembly disposed within said slot and movable longitudinally thereof, said assembly comprising a fulcrum block having a pair of spaced side walls interconnected at one end thereof by a hub, said side walls being spaced from the arms, said side walls having flanges extending outwardly thereof and being engageable with corresponding lateral edges of the frame arms, a pair of L-shaped retaining plates interposed between the side walls and the frame arms, said plates slidably engaging said frame arms, said plates precluding sliding engagement between said side walls and frame arms, said plates having side elements extending outwardly therefrom and engaging opposite lateral edges of the frame arms, said plates being rigidly secured to said fulcrum block, a pivotal connection at the end of said assembly remote from said hub for connecting an associated brake element to said assembly, and means interconnecting the hub and the adjacent end of the adjuster whereby predetermined movement of the assembly may be affected.

2,869,905
CONDUIT AND FITTING ASSEMBLIES
Otto J. Bratz, Adrian, Mich., assignor to American Chain & Cable Company, Inc., Bridgeport, Conn., a corporation of New York
Application May 11, 1953, Serial No. 353,951
1 Claim. (Cl. 287—78)



A conduit and fitting assembly including a conduit having a relatively hard outer surface, a layer of metal over-

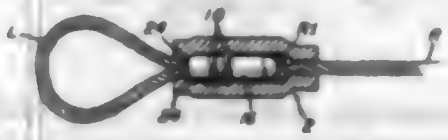
lying part of said conduit, a fitting of relatively hard elastic material having a cylindrical portion overlying at least part of said layer of metal, said cylindrical portion having an interruption to its circumference extending along its length to constrict said layer of metal by elastic bending, a ring of metal having an inwardly extending flange, said ring overlying at least part of said cylindrical portion of the fitting and of the layer of metal openings through said cylindrical portion lying between said ring and said layer of metal, said flange extending inwardly clear of the cylindrical portion of the fitting toward the layer of metal, said ring and layer of metal being softer than the fitting and having portions deformed into said openings through said cylindrical portion and said layer of metal being impacted on the surface of the conduit.

2,869,906

ASSEMBLY FOR CONNECTING PARALLEL ROPE SECTIONS

Frank R. Person, New Haven, Conn., assignor to United States Steel Corporation, a corporation of New Jersey

Application August 31, 1955, Serial No. 531,762
2 Claims. (Cl. 287—78)



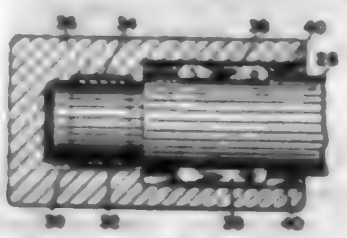
1. An assembly comprising a generally cylindrical body member of swageable material, said body member having an axial opening therethrough with reduced diameter portions at each end, said axial opening having internal annular grooves therein between the reduced diameter portions, a pair of inserts in said axial opening between said reduced diameter portions in close contact with the walls thereof, projections on each of said inserts projecting into said internal annular grooves, each of said inserts being made of softer material than said body member and having a pair of matching generally semi-circular grooves in their inner surface, and two parallel rope sections one received in each of the pair of grooves of each insert with the metal of the inserts extending into the interstices of the rope.

2,869,907

SOCKET AND ROD COUPLING

John Delisa, Worcester, Mass.

Original application July 28, 1956, Serial No. 599,224. Divided and this application April 1, 1958, Serial No. 725,539
5 Claims. (Cl. 287—126)



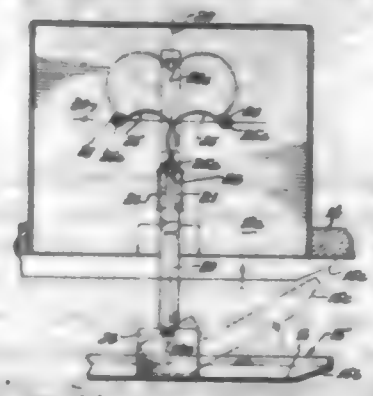
1. A coupling comprising a socket member and a rod to be axially applied thereto and releasably secured therein, said rod having a non-circular rotatively driving portion thereon for entry into the socket member, and a corresponding non-circular rotatively driving portion in the socket for reception thereof whereby the rod or socket member is selectively used to rotatively drive the other, and a ring-like resilient gripping member held in the socket and frictionally gripping the rod when the rotatively driving portions are engaged, the resilient member and the rotatively driving portion of the socket being spaced and the resilient gripping member located in an internal groove adjacent the bottom of the socket, the rotatively driven portion thereof being located adjacent the mouth of the socket.

2,869,908

COVER ATTACHING ASSEMBLY

Harold H. Ford, Claremont, Calif., assignor to Pryne & Co., Inc., Pomona, Calif., a corporation of California

Application August 27, 1956, Serial No. 606,363
5 Claims. (Cl. 292—1)



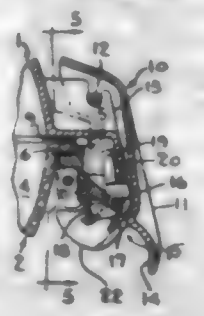
3. Means for attaching to a housing or the like a cover closing an opening at one side of the housing comprising: a body member pivotally connected at its outer end to the cover; means mounting the body member on the housing for sliding movement relative to the housing to carry the cover between a first position closing said opening and a second position in which the cover is spaced from the opening; and spring means connected to the body member at a first point on the spring means and to said housing at a second point on the spring means spaced from the first point, said spring means between said points of connection continually urging the points of connection apart; said mounting means including guide means confining travel of the body member to a linear path located so that the minimum distance between said two points of connection occurs when the body member is intermediate the ends of its travel between said two positions of the cover.

2,869,909

LATCH

Donald W. Harling, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware

Application May 11, 1955, Serial No. 507,612
7 Claims. (Cl. 292—256)



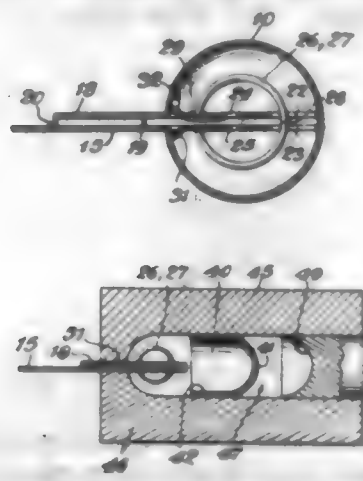
1. In a latch construction, a first member and a second member, a latch having a main body portion pivoted on said first member, a latch element carried by said body portion and pivoted on said body portion for forming with said body portion a toggle and having a toggle action with said body portion for latching said first and second members in sealing relation, and spring means between said latch element and said body portion for urging said latch element against said second member to thereby impart a thrust to said second member and urge said second member into sealing engagement with said first member, and means carried by said latch element for engaging said first member to rock said latch element to releasing position when said body portion is rocked outwardly.

2,869,910
SNAP RING DEVICES
William Thoby Fisher and James Platt, Bristol, England, assignors to Bristol Aircraft Limited, Bristol, England, a British company
Application January 28, 1957, Serial No. 636,622
Claims priority, application Great Britain February 20, 1956
8 Claims. (Cl. 292—256.67)



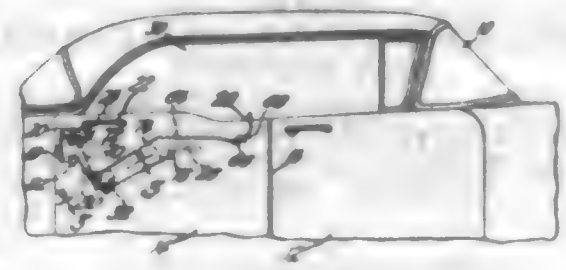
1. A snap ring connection for removably securing together at contiguous cylindrical faces a thin walled tubular member and a further member, said connection comprising a groove formed in and extending around each of the said faces, one of the said grooves being of greater axial width than the other of the said grooves and substantially wholly overlying said other groove in the assembled relation of the members, a split one-piece ring of elastic material capable of being contained wholly within the wider of the said grooves, said ring comprising one peripheral portion wide enough to fit closely within the narrower of the said grooves, and another peripheral portion, wider than the narrower of the said grooves, said wider peripheral portion having a cylindrical face adapted to bear on the cylindrical face of the member formed with the narrower of the said grooves, and means for positively locating one end of said ring in relation to at least one of said members, said one of said members having a straight opening from the exterior of the member into the groove in the member, for checking that said one peripheral portion of the ring is fully entered into the narrower of said grooves.

2,869,911
SELF-LOCKING SHACKLE SEAL
Wallace J. Dickey, St. Charles Township, Kane County, and Kenneth R. McClure, St. Charles, Ill., said Kenneth R. McClure assignor to said Wallace J. Dickey
Application May 31, 1955, Serial No. 512,015
5 Claims. (Cl. 292—324)



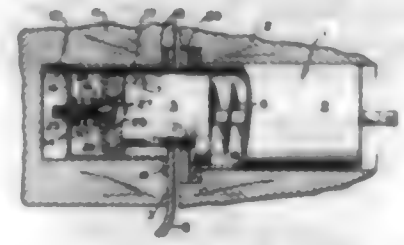
1. A shackle seal comprising a hollow casing having a slot opening into the casing, a metal sealing strip emerging from the casing through only a portion of said slot and having a free end adapted to enter the casing through the remainder of said slot, detent means at said free end of the strip, means anchoring said strip within the casing, split-ring means within the casing for automatically engaging said detent means and thereby locking said free end within the casing upon insertion of said free end to a predetermined depth, said casing being formed of one piece of metal, having a rounded closure form opposite said slot and having a rounded closure form containing said slot, said slot being of size incapable of passing said ring means from the interior to the exterior of the casing, said casing having a plurality of integral wings projecting therefrom, each wing having two layers of metal in contact and two edges at an angle to each other, one edge being a fold for the two layers of metal and the other edge of the wing presenting metal edges of the two layers in continuation of the edges of the casing defining the slot.

2,869,912
CONNECTOR ASSEMBLY FOR A DOOR HANDLE
Bernard J. Becker, Jr., Roseville, and Jean Roger Duclos, St. Clair Shores, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 9, 1955, Serial No. 545,871
4 Claims. (Cl. 292—336.3)



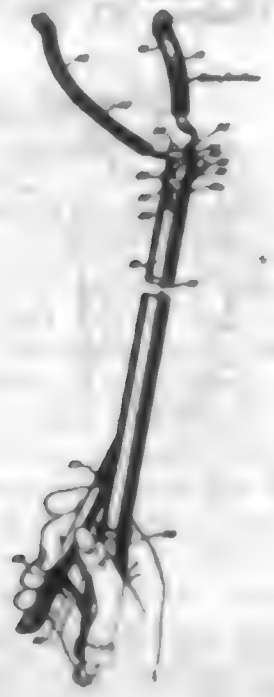
1. In an automobile door having a movable window and a latch mounted in the door outside the plane of said window, inside operating means for said latch, inside locking means for said latch, a connector assembly comprising a frame adapted to be mounted on a panel of the door with arm portions of the frame on opposite sides of the plane in which the window panel lies, a pair of spindles rotatably mounted on the frame and extending between said arm portions and a crank on each end of each spindle, means connecting each crank on the outer end of the spindles to the latch, means connecting the crank on the inner end of one spindle to said operating means, and means connecting the crank on the inner end of the other spindle to said locking means, the cranks being all of the same size and shape.

2,869,913
NOISELESS LOCK UNIT
Ernest L. Schlage, Burlingame, Calif., assignor to Schlage Lock Company, a corporation
Application October 22, 1956, Serial No. 617,456
4 Claims. (Cl. 292—341.12)



1. For use with a door latch unit including a latch bolt, a spring urging said bolt to projected position, and opposed shoulder means for limiting the extent of projection of said latch bolt, the combination of: a strike adapted to be engaged by said latch bolt for retracting said bolt upon closing movement of such door, said strike being provided with an opening adapted to receive said bolt therethrough when such door is closed, a strike box in registration with said opening for receiving said bolt therein, a plate positioned in said box, means mounting said plate below the level of said opening for limited adjustable movement toward and away from said opening, and a stop of yieldable cushion material carried by said plate and adapted to be engaged by said bolt when the latter is projected to substantially its full extent for noiselessly absorbing the impact of said shoulder means.

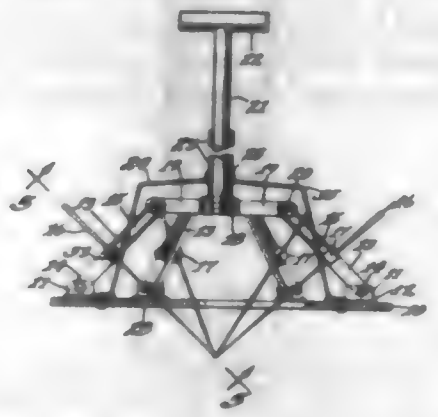
2,869,914
EXTENSION ARM
William R. Yeakley, Jr., Inglewood, Calif.
Application July 10, 1956, Serial No. 597,835
3 Claims. (Cl. 294—22)



1. An extension arm including: an elongated hollow tubular handle having a slotted end portion; a pair of crossed tongs having respective grasping portions extending from diametrically opposite sides of said slotted end portion, and said tongs having respective end portions extending in the opposite direction to said grasping portions through said slotted end portion; a transverse pivot pin extending through the cross-over point of said tongs and through said handle pivotally to mount said tongs at the slotted end of said handle; a brace supported in said handle by said pivot pin and extending longitudinally along the interior of said handle from said pin, said brace having a longitudinal slot therein and having an apertured bent-over end portion remote from said pin extending across the interior of said handle; a pull rod extending along the interior of said handle and through the aperture in the end portion of said brace, said pull rod having a bent-over end portion extending into the longitudinal slot in said brace; linkage means connected between the bent-over end portion of said pull rod and said end portions of said tongs to pivot said tongs about said pin upon longitudinal motion of said pull rod in said handle; a resilient coil spring surrounding said pull rod between the bent-over end portion thereof and the bent-over end portion of said brace; a retainer for said spring mounted on said pull rod to enable said spring to bias said pull rod in the direction of the slotted end portion of the handle; an actuating lever pivotally mounted on the external surface of said handle at the end of said handle remote from said tongs; a disc-like roller; and an actuating bar coupling said lever to said roller; said pull rod having a second bent-over end portion extending through said actuating bar and through said roller, so that actuation of said lever causes said actuating bar to move said roller along the internal surface of the handle in a direction to pull said pull rod against the bias action of said coil spring.

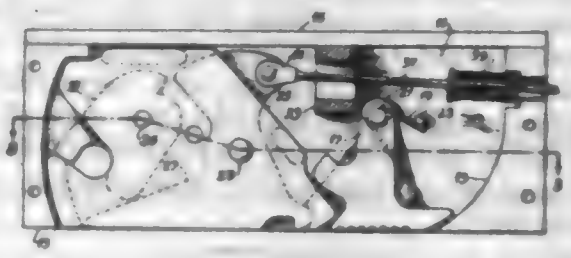
2,869,915
GOLF COURSE DIVOT REPLACING TOOL
George M. Good, Taft, Calif.
Application November 8, 1955, Serial No. 545,627
4 Claims. (Cl. 294—50.6)

1. In a divot repair tool, the combination which comprises a horizontally disposed base plate, said plate having an opening therethrough, inclined radially disposed arms extended upwardly from the base plate, means for pivotally connecting lower ends of the arms to the base plate, a vertically disposed rod extended upwardly from the point in the center of the base plate providing a handle, a spider having radially disposed bars positioned on the



lower end of the rod, means pivotally connecting upper ends of the inclined arms to extended ends of the bars of the spider, tines mounted on the arms and depending therefrom, a sheath slidably mounted on the vertically disposed rod, and means rigidly connecting the sheath to the base plate.

2,869,916
RETRACTABLE HOOK MECHANISM
Charles J. Benson, Philadelphia, Pa.
Application June 30, 1952, Serial No. 296,512
1 Claim. (Cl. 294—83)
(Granted under Title 35, U. S. Code (1952), sec. 266)



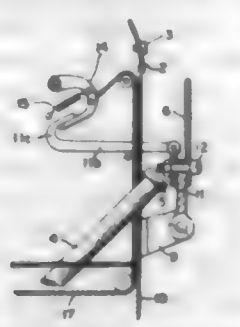
A retractable releasing device comprising load-supporting means adapted to be mounted on a shaft within a frame and to be rotated into extended and retracted position, keeper means rotatable on said load-supporting means into open and closed positions, lever-actuated means on said frame rotatable coaxially with said load-supporting means, said lever-actuated means being rotatable into one position to lock said keeper closed and into a retracted position retracting said keeper and said load-supporting means, latch means rotatable on said frame and adapted to lock said load-supporting means both in extended and retracted positions, a pull-rod attached to rotate said lever-actuated means, a helical compression spring coaxially mounted on said pull-rod, said spring urging said load-supporting means into extended position on release of said latch means, said lever means being adapted to rotate about said shaft in opposition to said helical compression spring, thereby disengaging said keeper means with said load-supporting means in extended position, a spring, said spring bearing on said latch to prevent rotation, stopping means to limit rotation of said load-supporting means in extended position, stopping means to limit rotation of said load-supporting means in retracted position, whereby an object secured on said load-supporting means is positively ejected in a predetermined direction upon retraction of said load-supporting means.

2,869,917
EXTRACTOR
Paul N. Beauchamp, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 20, 1956, Serial No. 629,571
2 Claims. (Cl. 294—92)



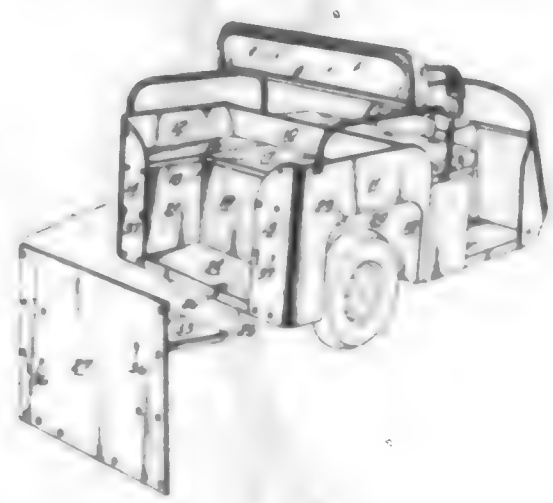
1. In an extractor for removing an electronic tube from a package, a mount, a base plate secured to said mount, said base plate having a plurality of circumferentially spaced apertures extending therethrough and adapted to receive electronic tube terminal pins, each of said apertures having a counterbore of larger diameter than said aperture, said counterbores extending inwardly from the surface of said base plate adjacent said mount and terminating within said plate, a cocking pin extending radially into each of said counterbores adjacent the inner terminus thereof and terminating radially outward from said apertures, an annular washer in each of said counterbores, said washers having an outer diameter less than the diameter of said counterbores and an inner diameter substantially equal to the diameter of said apertures, said washers engaging said cocking pins when said extractor is in an upright position and gripping said terminal pins when said terminal pins are inserted through said apertures and said washers whereby said tube may be extracted from said package with substantially equal distribution of forces on said terminal pins after which said extractor and tube may be inverted to loosen said washers and permit removal of said terminal pins from said extractor.

2,869,918
VEHICLE FILLER TUBE LOCKING BRACKET
Franklin A. Kromer, Pittsburgh, Pa.
Application August 31, 1955, Serial No. 531,663
1 Claim. (Cl. 296—1)



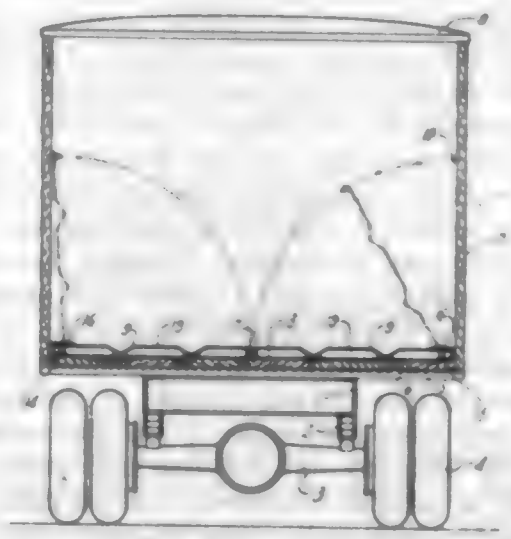
In a motor vehicle having a driver's compartment and a body luggage compartment, the latter including a lid pivotally mounted forwardly of the vehicle and including a vertical rear wall through which a fuel tank filler tube projects and on which is hinged a license plate supporting bracket means including a bracket portion which extends through a hole in said rear wall above said tube projection, in combination, latching means mounted inside said luggage compartment for normally latching said bracket portion, and cable means extending to the driver's compartment and connected to said latching means for unlatching said bracket portion at the will of the driver while seated in the driving compartment.

2,869,919
UTILITY BODIES FOR VEHICLES AND TAIL GATES THEREFOR
Robert D. Von Seggern, Lincoln, Nebr., assignor to Cushman Motor Works, Inc., Lincoln, Nebr., a corporation of Nebraska
Application April 29, 1955, Serial No. 504,830
5 Claims. (Cl. 296—24)



1. A utility body for vehicles comprising front, side and bottom walls defining upper and lower receptacles the top and rear walls of each of which are open, said lower receptacle having a horizontal area less than said upper receptacle, said upper receptacle having a height less than said lower receptacle, a rear tail gate removably secured to the rear of said body to define the rear walls of said upper and lower receptacles, and cover means pivotally connected with said tail gate and complementing the bottom walls of said upper receptacle to define a portion of the bottom of said upper receptacle and the whole of a cover of said lower receptacle.

2,869,920
FLOOR RACKS FOR MEAT TRUCKS
Milton Alfred Torbin, Pittsburgh, Pa.
Application July 27, 1956, Serial No. 600,611
2 Claims. (Cl. 296—24)



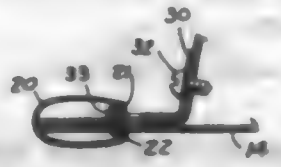
1. A bed for trucks comprising a floor having a sheet metal surface and having floor racks consisting of slotted metal sections in side by side and end to end relation to cover the entire floor of the truck, said panel sections having flanged sides and V grooves of substantially the same depth as said flanged sides constituting chairs for said panels and inverted channels of the height of the flanges of said panel sections secured to the floor of the truck against the side walls thereof to space said sections from said walls, said panel sections being hinged to said inverted channels.

2,869,921

ORNAMENTAL AND PROTECTIVE MOLDING FOR EDGES OF AUTOMOBILE DOORS

Robert Adell, Detroit, Mich., assignor to Franklin Z. Adell and Marvin M. Adell, both of Detroit, Mich.

Application June 6, 1956, Serial No. 589,822
2 Claims. (Cl. 296—44)



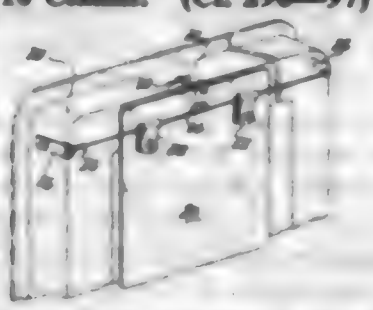
1. In an automobile having a door with a trailing edge and a flange extending transversely of the door on the inner side thereof along said edge, an ornamental and protective molding for at least a portion of said edge, said molding comprising a strip of sheet metal having substantially U-shaped cross-section arranged on the door edge with the center line of the U being parallel to the plane of the door edge with the edges of the strip being bent upon themselves, with the bent edge at least on the inner edge of the molding on the inner side of the door being open to form a hook, a plurality of retaining brackets provided on the inside of the door along said peripheral edge but outside of the molding, each of said brackets having one end secured to the transversely extending flange of the door structure and the other end having a hook provided thereon, said hook reaching inside of the molding and engaging its hook edge for resisting outward movement of said molding and for providing adjustment of position of the molding on the door edge.

2,869,922

SUN SHIELD FOR AUTOMOBILES

Carroll W. Chester, Los Angeles, Calif.

Application October 5, 1956, Serial No. 614,233
10 Claims. (Cl. 296—97)



1. A sun shield for automobiles or the like, adapted to be applied to a glassed door, and comprising a shield piece of less width than the glassed opening of the door, and means for suspending the shield piece at, and holding it against, the inside face of the door, said means including a carrier rigidly attached to the upper part of the shield piece and having a horizontally extending portion adapted to extend outwardly over the inside upper edge of the door with its outer end inward of the outer upper edge of the door and to be held between the upper edge face of the door and the upper part of the door framing when the door is closed, with the shield piece depending from the carrier below the upper inner edge of the door, together with guide means holding the shield piece against the door and holding the horizontally extending portion of the carrier against the upper edge of the door and allowing horizontal sliding adjustment of the shield piece across the inner face of the door.

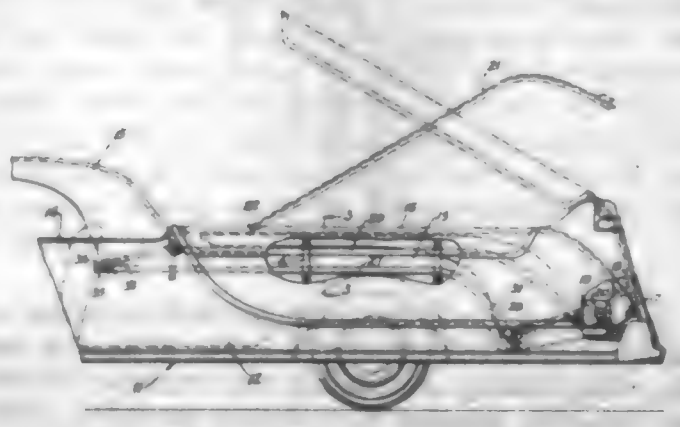
2,869,923

RETRACTABLE HARD TOP CONVERTIBLE

Steven Mulichak, Youngstown, Ohio

Application July 29, 1955, Serial No. 525,141
2 Claims. (Cl. 296—117)

1. In a vehicle body, a rear compartment, a rear deck hinged at its rear end to the rear end of the body on a transverse hinged axis and being arranged to overlie said compartment, said rear deck rotating upwardly to a forwardly and upwardly extending position, a closure door hingedly mounted in said rear deck on a transverse hinge axis located adjacent the forward end of said rear deck, said closure door being movable to an upwardly and rearwardly extending position to allow access to said rear compartment when said rear deck is in lowered closed position, an arcuate rack rigidly secured to said rear deck concentrically with said second-named hinge axis, driving pinion means mounted on said body meshing with said



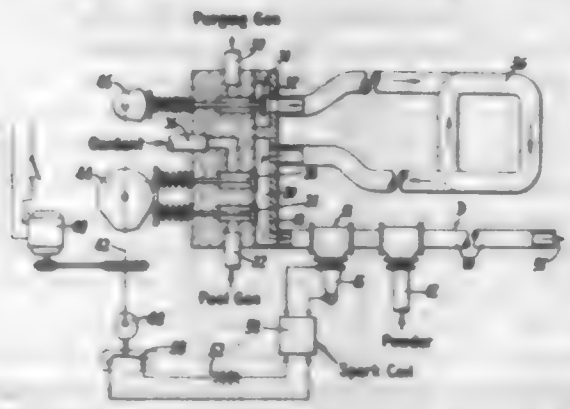
arcuate rack, and means to drive said pinion means to at times elevate said rear deck to an upwardly and forwardly extending open position, a rigid top, guide track means on the body slidably supporting said top for longitudinal movement into and out of said rear compartment, longitudinal rack means on said body vertically spaced from and substantially coextensive in length with said guide track means, pinion means carried by said top and meshing with said longitudinal rack means, and drive means on said top drivingly coupled to said pinion means and being arranged to move said top longitudinally on said guide track means, whereby said top may be at times moved into said rear compartment and may be covered by said rear deck.

2,869,924

APPARATUS FOR UTILIZING DETONATION WAVES

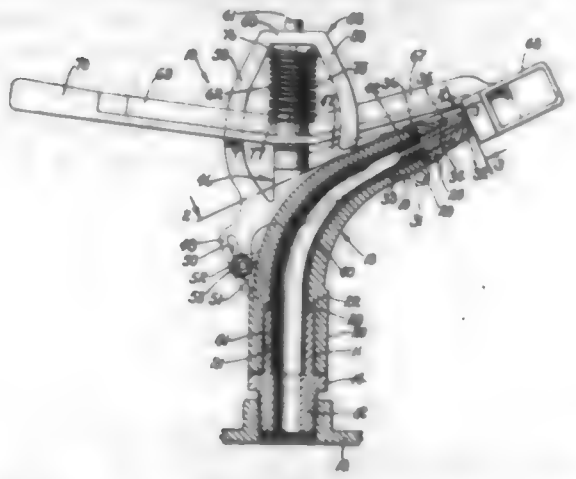
William C. McGill, Speedway, Ind., assignor to Union Carbide Corporation, a corporation of New York

Application March 28, 1955, Serial No. 497,036
6 Claims. (Cl. 299—28.6)



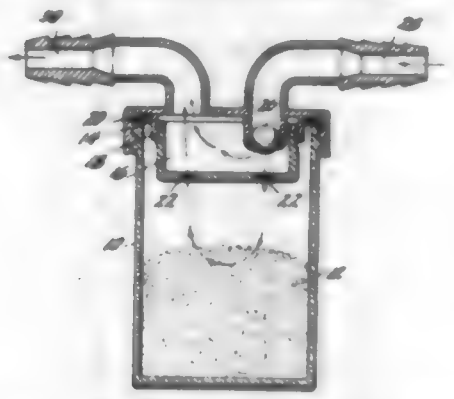
1. In a detonation gun having an elongated barrel, provided with an open end, of length and diameter to permit the formation in a fluid fuel charge of a detonation, a mixing chamber communicating with said barrel having therein fuel and oxidant gas valves and conduit means including a purging gas valve for controlling the supply of a purging gas positioned and arranged to pass a purging gas over said fuel and oxidant valves when said valves are closed; the improvement which comprises providing, between said barrel and at least one of said valve means to be protected, a gas flow resistance conduit of sufficient length to prevent the back surge of combustion gases from said detonation from passing back to said valve means.

2,869,925
SPRINKLER HEAD
Howard M. Crow, Lindsay, Calif.
Application March 19, 1956, Serial No. 572,477
9 Claims. (Cl. 299—64)



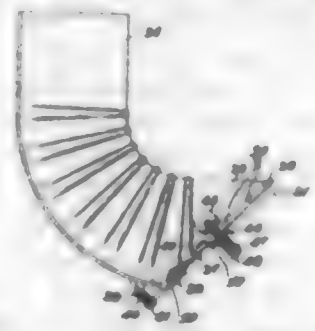
1. In a rotary sprinkler, a tubular fluid coupling member adapted to be connected to a source of fluid, a hollow tubular body having a mounting end rotatably journalled on the coupling member for rotation around a predetermined axis and an end extended transversely outwardly of said axis of rotation, an elongated resiliently flexible and compressible tube extended within the body having an end secured in fluid-tight connection to the coupling member and an end adjacent to the extended end of the body, the tubular body having an inside diameter slightly greater than the outside diameter of the flexible tube and extended substantially coextensively of the tube so that the tube is enclosed and protected by the body, and a fluid nozzle rotatably mounted in the extended end of the body and secured in fluid-tight relation to the end of the tube adjacent to the extended end of the body whereby rotation of the body relative to the coupling member causes rotation of the nozzle in the body.

2,869,926
DEVICE FOR DISSOLVING AND MIXING SOLUBLE SOLID FERTILIZERS IN FLOWING WATER
Bror Axel Lundquist, Stockholm, Sweden
Application December 26, 1956, Serial No. 630,652
1 Claim. (Cl. 299—84)



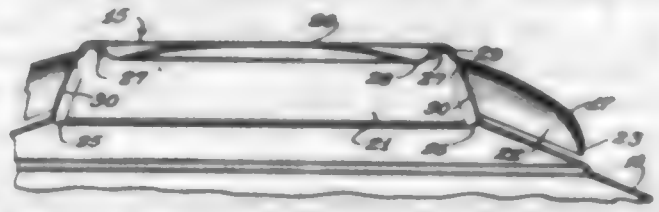
A device for continuously dissolving a granular fertilizer in water so as to provide a permanently saturated solution and mixing said solution in flowing water, comprising a tank holding said fertilizer and receiving water, said tank having an aperture therein, a cover closing said aperture in said tank, a liquid conduit communicating with the interior of said tank in such a way that part of the liquid flow enters the tank at one place of the path of the conduit and returns to the conduit at another place in said path, a liquid flow controlling means adjustably distributing part of the liquid flow into the tank and another part of the liquid flow directly to the outlet of said conduit, said liquid flow controlling means comprising a cup-shaped cap which is screwably fitted to the lower side of said cover and has a slot-shaped opening of enlarging width arranged circularly around its center, a wire gauze covering said slot-shaped opening to prevent undissolved fertilizer from leaving the tank, a feed pipe included in said liquid conduit extending through said cover into the cavity formed between said cap and cover to a point just above said slot-shaped opening, and a discharge pipe included in said liquid conduit being fitted in a hole provided in said cover diametrically opposite said feed pipe.

2,869,927
DOWNSPOUT SPRAY DRAIN
George L. Ayers, La Grange Park, Ill.
Application August 22, 1955, Serial No. 529,722
1 Claim. (Cl. 299—133)



A spray deflector for a liquid carrying conduit comprising a tubular body portion extending laterally of the conduit and having an inlet end in alignment axially of the conduit and facing a flow therein, the other end having edges lying in one plane extending angularly upwardly and outwardly to form a downwardly facing inclined discharge opening, a plate normally abutting said edges and covering said discharge end, laterally opposed brackets on the discharge end of the body portion closely adjacent to the inclined edges thereof, a clamping strap overlying and bridging the covering plate laterally, said strap being of such length that its end portions extend beyond the complemental edges of the clamping plate and in register one with each bracket, spring-pressed means connecting the end portions of the clamping strap one with each bracket, other spring-pressed means carried by the body portion and engaging the covering plate at its perimeter midway between the opposed brackets, said first named spring-pressed means normally holding the covering plate in covering position and collapsing when subjected to a predetermined flow pressure in the conduit to permit pivotal movement of the plate about said engaged perimeter and away from said discharge end, and openings on the abutted edges of the conduit for drainage thereof when the plate is in covering position.

2,869,928
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application December 30, 1952, Serial No. 328,667
10 Claims. (Cl. 301—37)



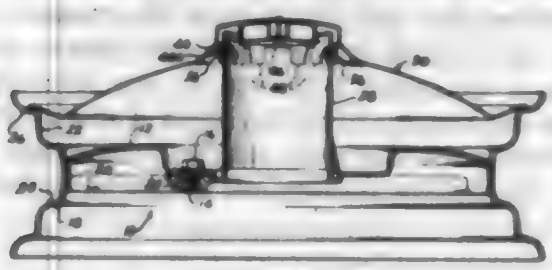
1. In a cover member having a crown including a generally axially extending side wall, said side wall having an opening therethrough, a horn shell member extending from the inside of said side wall outwardly through said opening and having an inner end portion within the opening generally complementary to and engaging opposing edges defining the opening snugly, said horn member having lugs on its inner end portion retainingly engaging said crown side wall laterally beyond said opening.

2,869,929

WHEEL COVER

Edwin P. Hurd, Detroit, Mich., assignor to Hurd Lock & Manufacturing Company, Detroit, Mich., a corporation of Michigan

Application July 6, 1954, Serial No. 441,461
7 Claims. (Cl. 301—37)



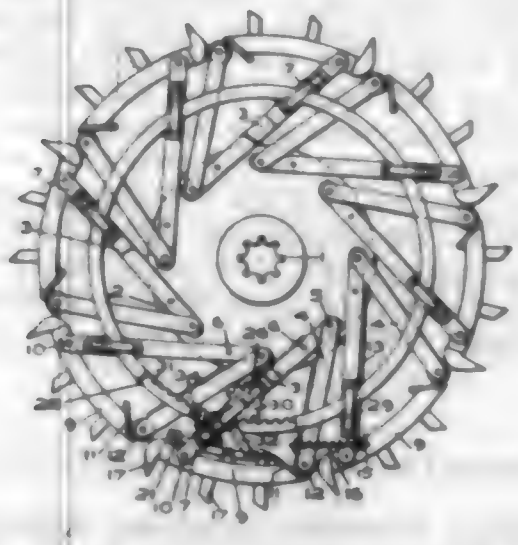
1. In combination, a wheel including a rim part and a central wheel hub part having an annular series of apertures for the reception of wheel mounting bolts, and a wheel cover assembly comprising an annular support member adapted to be secured to said hub part by the mounting bolts, said support member having its inner margin turned axially outwardly with a plurality of spaced radial protrusions formed therein, an annular cover member disposed over the outer surface of the wheel between the rim part and the support member, the inner margin of said cover member engaging the axially outwardly turned portion of the support member and being seated on the radial protrusions, and a bayonet-type cap fastened to said support member and pressing the cover member against said protrusions.

2,869,930

TRACTION WHEEL WITH SEGMENTAL RIM AND RETRACTABLE LUGS

John Ernest McArthur, Dauphin, Manitoba, Canada

Application August 2, 1954, Serial No. 447,184
2 Claims. (Cl. 301—46)



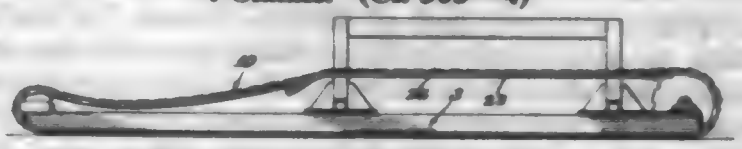
1. In a traction wheel providing a hub plate, a series of spokes fixed to the hub plate, a further series of spokes each having one end pivoted to the hub plate and the free end projecting outward, a rim for the wheel made up of a series of sections, means pivotally attaching the forward ends of each of said sections to a fixed wheel spoke, rollers on the free ends of the pivoted spokes, bolts anchoring the free end of each pivoted spoke to the next rearwardly adjacent fixed spoke, springs on said bolts tensioned by movement of the pivotal spokes towards the fixed spokes, and inclined plates on the free ends of the rim sections adapted to bear against the rollers on the pivoted wheel spokes when pressure of a load on the wheel causes the free ends of the rim sections to bear inwards.

2,869,931

MOVABLE CARRIAGE FOR MOBILE VEHICLES

Glen E. Perkins and George W. Dale, Rock Island, Ill.

Application December 27, 1954, Serial No. 477,798
4 Claims. (Cl. 305—4)



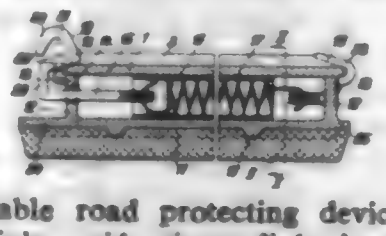
1. A mobile vehicle comprising a vehicle frame, a pair of relatively elongated rigid beams carried by said vehicle frame upon opposite sides thereof, said beams being of greater length than the vehicle frame and extending forwardly and rearwardly beyond said vehicle frame, said beams being in spaced parallel relationship to each other, an endless articulate track movably carried by each beam, each track having an upper and lower pass above and below the beam over which it moves, said beams resting upon the lower passes of the respective passes.

2,869,932

DETACHABLE ROAD PROTECTING DEVICE FOR TRACTORS, TRACKLAYING VEHICLES AND THE LIKE

Kurt Eickweber, Hamburg-Niendorf, Germany

Application April 29, 1954, Serial No. 426,462
Claims priority, application Germany May 13, 1953
5 Claims. (Cl. 305—10)



1. A detachable road protecting device for endless track gripper links, said gripper links having transverse gripper flanges, said endless track links having side edges parallel to the longitudinal center line of said link, a detachable hollow box-like bed part on each gripper link, and attachment means for securing said gripper link to said box-like bed part; comprising, in combination, a transverse groove on said bed part for receiving said transverse gripper flange, a transverse supporting flange parallel to said transverse groove on said bed part for abutting said gripper link, a pair of opposed lateral flanges on said bed part for abutting the side edges of said gripper links, opposed lateral hook-shaped locking members on said lateral flanges extending in a transverse direction and each having an inclined lock portion outside of said bed part and ascending towards its free end for wedge-like engagement with the side edge of said gripper link, at least one of said hook-shaped locking members being movable and having a spring-loaded inner part within said bed part, one of said flanges having a guide opening for receiving and guiding said movable locking member, said movable locking member having an elongated portion on its free end and connected to said inclined lock portion and ascending in a direction substantially perpendicular thereto for initially engaging said gripper link whereby when said road protecting device is pressed against said gripper link, said movable locking member is caused to laterally shift to provide entry of said side edges into said movable locking member and thereby to be engaged in a wedge-like manner.

2,869,933

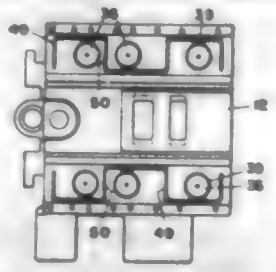
WEIGHT-COMPENSATING MEANS FOR PRECISION-SHIFTED MEMBERS

Walter J. Bissinger, Parsippany, N. J., assignor to Gould & Eberhardt, Incorporated, Irvington, N. J., a corporation of New Jersey

Application May 2, 1955, Serial No. 505,323
10 Claims. (Cl. 308—5)

1. In a machine tool, a supporting frame member hav-

ing horizontally disposed relatively flat bearing surfaces, a relatively massive tool carrier having complementary flat surfaces movable along said bearing surfaces of the frame member, the weight of said carrier normally developing a relatively high coefficient of static friction between the said bearing surfaces inducing a stick-slip condition when the carrier is to be adjusted to a preselected precision located point along said frame member bearing surfaces, means to supply lubricant to said bearing surfaces, and separate means isolated from said lubricating means operative to relieve said bearing surfaces of a portion of the static frictional load of the carrier comprising a shallow but relatively large-in-area recess formed in the bearing surfaces of said carrier and opening toward the bearing surface of said frame member, means independent of the said lubricating means for supplying said recess with a fluid medium under pressure so that a portion of the weight of the tool carrier is borne by the fluid medium and a portion by the remaining bearing surfaces thereof whereby to effect a decrease in the static frictional load on the bearing surfaces of the frame member, means for sealing the joint formed at the margins of said recess and the bearing surfaces of the frame and carrier members to exclude the lubricant supplied to the bearing surfaces and to prevent seepage of the pressure medium from the recess, said sealing means being constructed as to permit lateral movement of the one member along the bearing surface of the other, and means for adjusting the carrier along the bearing surfaces of said frame member while the latter are so relieved of a portion of the static frictional load thereon.

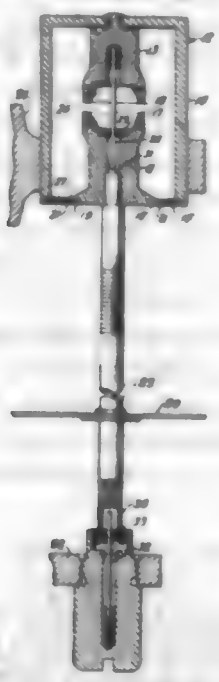


2,869,934

MAGNETIC SUSPENSIONS

James W. Milligan, West Lafayette, and Stanley S. Green, Indianapolis, Ind., assignors, by mesne assignments, to Duncan Electric Company, Inc., a corporation of Indiana

Application June 8, 1953, Serial No. 359,989
24 Claims. (Cl. 308—10)



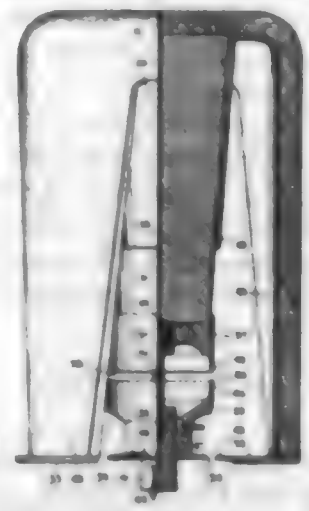
1. A magnetic suspension unit including a rotor rotatable about a given axis and having magnetic material forming an annular axially facing pole face and an annular radially facing pole face, and a stator having magnetic material forming an annular axially facing pole face directly opposing that of the rotor to form an axial gap and an annular radially facing pole face directly opposing the radial pole face of the rotor when the rotor is in one position to form a radial gap; said pole faces being abruptly defined, said magnetic material including some material which is permanently magnetic and forces flux through both gaps to cause attraction between the pole faces, and the magnetic material adjacent to at least one of said pole faces of each gap being in a magnetic state having an incremental permeability as low as 10 to maintain a relatively constant flux between the faces in said gaps in spite of minor changes in relative positioning of the pole faces.

2,869,935

MAGNETIC SUSPENSION

James W. Milligan, West Lafayette, and Stanley S. Green, Indianapolis, Ind., assignors, by mesne assignments, to Duncan Electric Company, Inc., a corporation of Indiana

Application June 8, 1953, Serial No. 359,990
22 Claims. (Cl. 308—10)



1. A magnetic suspension unit including an axial pair of annular poles having narrow faces facing one another in the direction of an axis across a short gap and aligned when centered on the axis, a radial pair of annular poles having narrow faces facing one another radially of said axis across a short gap, and permanent magnet means for energizing said poles to force flux through the gap between them; said poles each being saturated along the path of flux rearwardly of the pole from its face and close to its face to maintain flux through the portion of the adjacent gap field directly between the gap faces and near thereto relatively constant in spite of changing gap length, to approach a net stability gradient in both axial and radial directions.

2,869,936

SUBSTANTIALLY RIGID JOURNALLING DEVICE FOR ROTORS

Klaus Federn, Darmstadt, Germany, assignor to Carl Schenck Maschinenfabrik, G. m. b. H., Darmstadt, Germany, a corporation of Germany

Application November 18, 1957, Serial No. 697,065
Claims priority, application Germany November 21, 1956
10 Claims. (Cl. 308—15)



1. A journalling device for axially elongated rotors subject to elastic bending deformation when rotating at near critical speed and at supercritical speed, comprising a rigid bed structure, a shaft bearing for journalling the

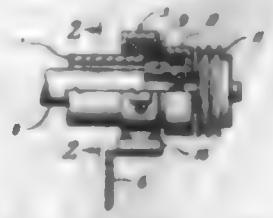
rotor, a plurality of at least four elongated rod members of spring material each rigidly secured at one end to said bearing and at the other end to said bed structure, each of said rod members being rigid to pulling, compressing and bending forces over most of its length but having at least one length-portion of constricted cross section so as to be elastically bendable in said portion; two of said rod members extending in a first geometric plane through the journal axis of said bearing and being inclined toward each other from said bed structure toward said bearing, said two members having their respective longitudinal axes intersect said journal axis at the center point of said bearing; two other ones of said rod members extending in spaced relation to each other in a second geometric plane perpendicular to said journal axis and having their respective axes perpendicular to said first plane, said latter two members having their respective longitudinal axes spaced from said center point at opposite sides respectively of said center point; whereby said bearing is capable of elastically tumbling motion about said center point but is rigidly restrained from any other motion.

2,869,937

PILLOW BLOCK FOR VIBRATORY SHAFTS

Frank E. Hutchison, Houston, Tex.

Application April 16, 1954, Serial No. 423,734
5 Claims. (Cl. 308—26)



1. A pillow block for vibratory shafts, comprising, an annular metallic casing, an annular non-metallic flexible resilient liner concentrically mounted in the casing and having a bore adapted to receive in tight flexible engagement a vibratory housing, the body of said liner having a plurality of circumferentially spaced passages extending longitudinally through the liner body spaced slightly from the wall of said bore and opening through the ends of the liner body exteriorly of the casing.

2,869,938

RAILWAY JOURNAL BOX LID LUG WEAR PLATE ASSEMBLIES

William A. Mills, Reynoldsburg, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio

Application November 2, 1955, Serial No. 544,485
1 Claim. (Cl. 308—47)



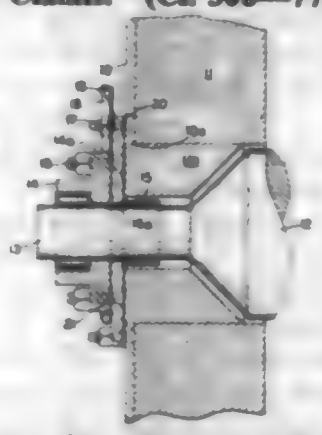
A journal box lid lug structure comprising, a lug having a central portion and end portions, said central portion having a groove in the front extending throughout the length of the central portion providing a downward facing shoulder defining the lower extremity of a front face of the central portion, said central portion of the lug having a groove in the rear extending throughout the length of the central portion providing a downward facing shoulder defining a lower extremity of a rear face of the central portion, outer extremities of said shoulders providing a maximum transverse dimension of the central portion, an inverted generally U-shaped wear plate fitting the profile of said central portion, legs on said wear plate resiliently gripping the lug in areas adjacent said shoulders, an inturned lip on each leg extending throughout the length of the wear plate and said lips being so dimensioned in relation to the grooves that the free edges thereof do not engage the lug within said grooves, a downwardly and outwardly sloping surface on the rear of said central portion extending throughout the length thereof providing an open area for the introduction of a tool to engage the free edge of the associated inturned lip, and each of said end portions having lateral surface areas in abutting relationship with an end of said wear plate.

2,869,939

TEMPERATURE VARYING MEANS

Robert C. Muth and George W. Hegel, Shelbyville, Ind., assignors to General Electric Company, a corporation of New York

Application July 20, 1956, Serial No. 599,211
6 Claims. (Cl. 308—77)



1. A bearing assembly adapted to be mounted on a wall of a furnace and the like for the support of a shaft extending inwardly of the furnace where it will be subjected to heat comprising a bearing, a heat dissipating metal member disposed alongside the bearing and adapted to be located between the bearing and a portion of a shaft subjected to heat; and a hollow metal member mounted on the heat dissipating member in heat conducting relation therewith and extending coaxially thereof and away from the bearing for reception of a shaft to be supported by the bearing; the hollow member having an internal diameter selected to be greater than the outer diameter of the portion of a shaft received therein and so that the hollow member will surround the shaft in closely spaced relation; the hollow member being constructed of material having a thermal conductivity substantially the same as that of the heat dissipating member so that when the assembly is used with a shaft constructed of a material having a thermal conductivity substantially less than that of the hollow member, the hollow member will absorb heat from the shaft primarily by reason of radiation, which heat will be conducted through the sleeve to the heat dissipating member for dissipation, thus substantially reducing the heat transferred to the bearing by the shaft.

2,869,940

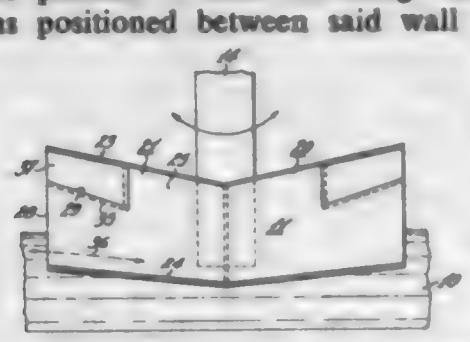
LADLE

George O. Verch, West Allis, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application March 2, 1956, Serial No. 569,155
7 Claims. (Cl. 308—127)

1. A ladle having wall and baffle means partially enclosing a fluid confining space and having edges defining an inlet and an outlet opening, a mounting arm connected to said wall means and projecting outwardly therefrom, said edges further defining a pair of planes intersecting

along a line parallel to said mounting arm, and said baffle means positioned between said wall means sep-



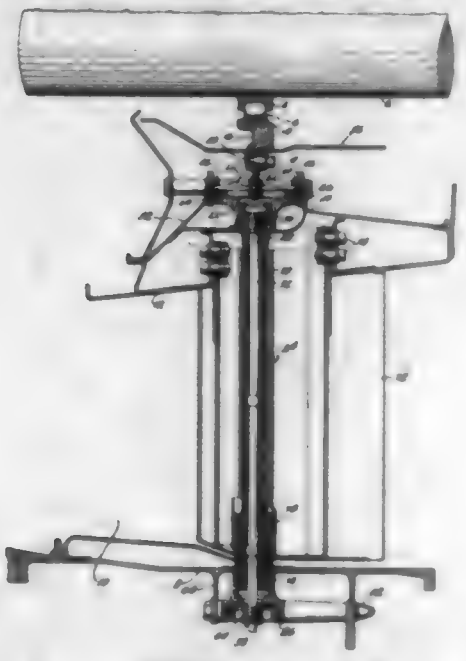
arating said inlet and outlet openings and defining an inlet channel and an outlet channel communicating with said space.

2,869,941

TURBINE BEARING SUPPORT

Edgar C. Shoup, Jr. and Robert W. Dixon, Glastonbury, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application April 29, 1957, Serial No. 655,668
6 Claims. (Cl. 308—184)



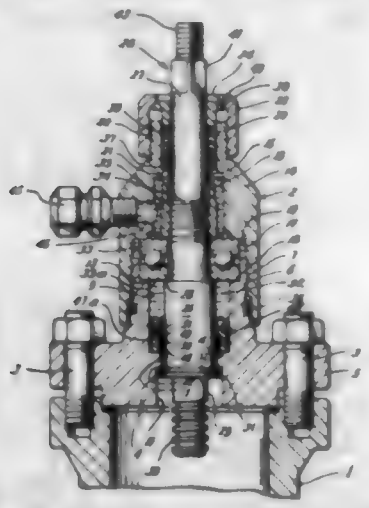
1. In a turbine construction, an annular casing, a bearing housing positioned centrally within the casing in spaced relation thereto, and support rods extending inwardly from said casing to said housing, in combination with a connection between said rods and said housing to limit the radial movement of said housing with respect to each rod, said connection including spring members for resiliently resisting such movement.

2,869,942

STEM AND STUFFING BOX CONSTRUCTION FOR NON-RISING STEM GATE VALVES

Alexander S. Volpin, Miami Beach, Fla.

Application March 19, 1956, Serial No. 572,413
12 Claims. (Cl. 308—187.1)



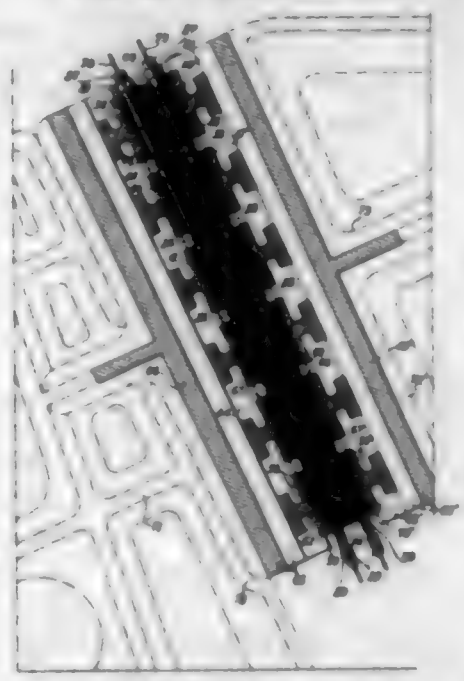
1. A stem and stuffing box construction for non-rising stem gate valves, comprising in combination with a gate valve body, a bonnet member having a generally tubular stuffing box therein, a rotatable gate stem extending axially through said stuffing box, said gate stem comprising coaxial aligned inner and outer cylindrical sections, the inner section being larger in diameter than the outer section, axially spaced-apart inner and outer annular seal means positioned in the stuffing box to seal between the respective stem sections and the surrounding wall portions of the stuffing box, the outer seal means comprising axially compressible packing, the inner seal means comprising a longitudinally slidable barrier seal means, said barrier seal means comprising an annular carrier having resilient O-rings circumferentially seated in its inner and outer peripheries, and a body of a hydraulic sealant interposed in the stuffing box between said inner and outer seal means.

2,869,943

THRUST ROLLING-BEARINGS OF LARGE DIAMETERS

Lew Koosura, Troyes, France

Application April 22, 1952, Serial No. 283,704
Claims priority, application France May 10, 1951
7 Claims. (Cl. 308—235)



1. In a rolling contact bearing of the thrust type, in combination, a large diameter raceway structure, for use with a plurality of anti-friction rolling elements having their axes disposed on a conical surface, said raceway structure comprising an annular beam including a flange and a web, the upper face of said flange being curved defining an endless conical surface forming a portion of said raceway, the flange and web of the beam of said raceway portion having a small thickness and being composed of hard metal, and a second portion connected thereto and composed of light weight metal different from said hard metal and having a thickness and shape sufficient to restrain deformation of said conical raceway under the thrust action of said elements.

2,869,944

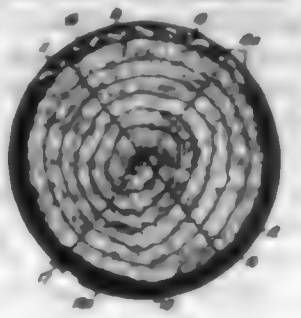
JOURNAL BOX LUBRICATOR PAD

Clarence D. Barton, Kansas City, and Morris A. Case, Parkville, Mo., assignors to Gustin-Bacon Manufacturing Company, a corporation of Missouri

Application November 1, 1955, Serial No. 544,101
5 Claims. (Cl. 308—243)

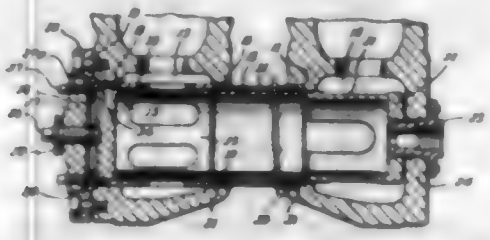
1. A journal box lubricator pad comprising a resilient fibrous mat rolled upon itself to form a cylindrical filler portion, a resilient fibrous mat of greater density than that comprising the said filler portion enclosing at least the major portion of the side wall of said filler portion to provide an outer shell thereon, said outer shell covered with open mesh fabric, the journal contacting portion of said outer shell covered with fabric of more open mesh

than the mesh of the fabric covering the non-journal contacting portion thereof and engaging means extending



through the lubricator pad and engaging both the filler and shell portions thereof.

2,869,945
PUMP
Virdeen R. Mattingly, Houston, Tex.
Application November 17, 1955, Serial No. 547,434
11 Claims. (Cl. 309—3)



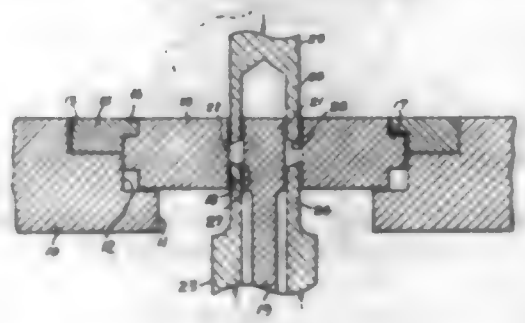
1. In a heavy duty high pressure pump of the type having a body with two spaced apart pump chambers, one of the chambers having an opening with a removable cap therefor, a liner extending between the chambers and communicating therebetween, a rigid means between the liner and body to support the liner against movement away from the body cap, rigid means holding the liner against movement out of the opening, said last-mentioned means including means independent of the liner rigidly securing the cap to the body and adjustable rigid means interposed between the cap and the liner, externally energized packing means for sealing between the exterior wall of the liner and the pump body and located between the chambers, externally energized packing means for sealing the opening and means carried by the cap independent of the cap securing means and externally actuatable for applying mechanical pressure to the two packing means for energizing same.

2,869,946
LIGHT ALLOY PISTON FOR INTERNAL COMBUSTION ENGINES
Gerhard Herrmann, Stuttgart-Bad Cannstatt, Germany, assignor to Mahle Kommanditt-Gesellschaft, Stuttgart-Bad, Cannstatt, Germany
Application January 23, 1957, Serial No. 635,862
3 Claims. (Cl. 309—13)



1. A light metal alloy piston for internal combustion engines comprising an integral one piece piston body having a piston head and an open-ended unslit skirt, pin bosses directly and integrally joined to said skirt with the piston body between the piston head and pin bosses being free from bracing struts, said skirt having a thin wall, tendon-shaped struts extending as chords from the inner ends of said pin bosses to the free end of said skirt, and said struts being directed transversely of said bosses and toward the side thrust surfaces, respectively, of the piston and being separated throughout their lengths from the inner surface of said skirt.

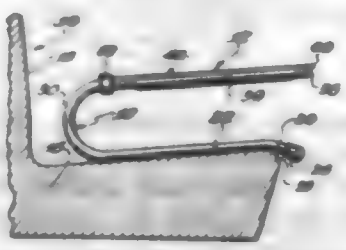
2,869,947
VARIABLE DENSITY ARTICLE AND METHOD OF MAKING
Charles R. Kemper, Dayton, Ohio
Application March 21, 1955, Serial No. 495,678
6 Claims. (Cl. 309—44)



2. As a new article of manufacture, a piston ring made of powdered metal, the outer peripheral portion of said ring being of uniform controlled density and the inner peripheral portion being relatively compacted and high in density, the area between said portions having a graduated density uniting said peripheral portions without lines of separation therebetween.

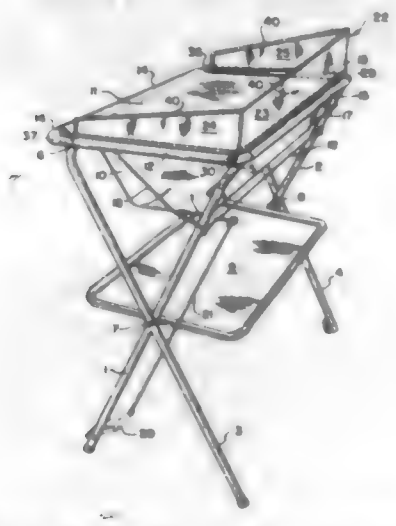
3. A method of making powdered metal rings of varying density including the steps of introducing powdered metal into an annular cavity, applying uniform pressure to the powdered metal through cylindrical punch elements provided with opposed relatively inverted frusto-conical surfaces to provide a ring member having uniform density and formed with frusto-conical projections at either face thereof, and applying cylindrical punch elements having opposed parallel surfaces to the opposite faces of said ring member to further compress the projecting portions thereof to provide an increased density of material to the ring in such portions thereof.

2,869,948
LOW TABLE UNIT
Alphonse W. Hunz, Clearwater, Fla.
Application May 11, 1956, Serial No. 584,372
2 Claims. (Cl. 311—17)



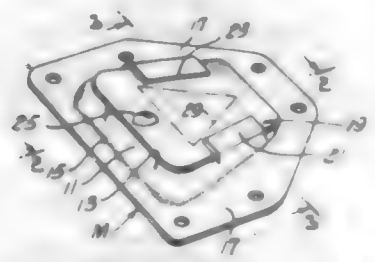
1. A portable table unit comprising in combination, a resilient tubular U-shaped member having opposed side members, a pair of leg members integrally joined to the corresponding ends of the opposed side members of said U-shaped frame, said leg members extending downwardly and forwardly in substantially parallel relation to each other and co-operating to provide a support for said frame, upright studs secured to the opposed side members of said frame, a rectangular planar top member positioned co-extensively over said frame and seated thereon, said top member having downwardly extending means thereon adapted to engage the studs on the side members of said U-shaped frame, thereby to detachably secure the top member to said frame, the resiliency of said frame constantly urging the studs on the side members of said frame into engagement with the downwardly extending means on the top member.

2,869,949
DETACHABLE SAFETY GUARD FOR BATHING TABLE
Jack W. Kennedy, Rochester, and James A. Ransom, Henrietta, N. Y.
Application June 23, 1958, Serial No. 743,574
2 Claims. (Cl. 311—103)



1. An improved screen guard for removal attachment to the table of an infant's bathing device which comprises a rear section and two side sections, the rear section including a metal rear frame having two upright posts and an integral longitudinal member, the end portions of the posts having laterally disposed end connectors extending inwardly for insertion into holes in the table of the device, two side frames each being pivotally connected to a post of the rear frame and each having an end connector extending outwardly for insertion into a hole in the table, and a screen of flexible sheet material mounted over said frames, said screen guard providing protection on three sides of the table and being foldable to a flat position against the table.

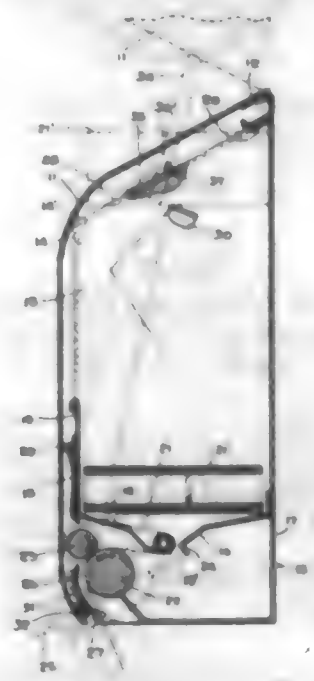
2,869,950
TABLE LEG ASSEMBLY
Egidio A. Boccone, Brooklyn, N. Y.
Application June 19, 1957, Serial No. 666,628
9 Claims. (Cl. 311—112)



1. A leg assembly for a table or the like comprising, in combination, a leg mount adapted to be secured to the bottom of a table, said mount comprising flange means in a common plane for positioning flush against the bottom of a table, a leg receptacle projecting out from said plane within the area bounded by said flange means and having a flat surface, a cap plate fitting against said flat surface, a plurality of metal ears integral with said leg receptacle and folded over said cap plate, and detent means firmly securing said cap plate to said flat surface; and a hollow leg welded at one end thereof to said cap plate.

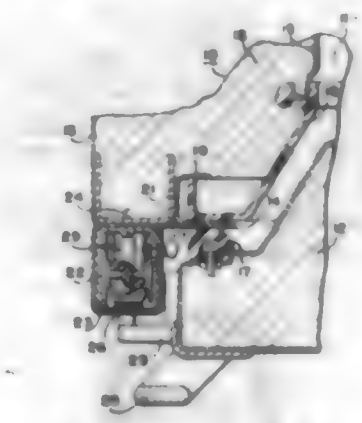
2,869,951
DISPENSING DEVICES FOR FAN-FOLD SHEET MATERIAL
Philip A. Wooster, San Rafael, Calif., assignor to West Chemical Products, Inc., Long Island City, N. Y., a corporation of New York
Application February 20, 1956, Serial No. 566,567
6 Claims. (Cl. 312—39)

1. In a dispensing apparatus for fan-fold sheet material having bin forming means for supporting a fan-fold stack of sheet material along forwardly and rearwardly disposed folded edges thereof, guide means between and substantially equidistant from said folded edges facilitating smooth withdrawal of sheet material from said stack, mechanically driven feed rollers below and forwardly of said guide means for feeding sheet material from the lower front portion of said apparatus, and an upwardly swinging cover normally closing the



front of said apparatus, the improvement that comprises a fixed flange within said apparatus forming the rear support and guide means thereof, and a pivotally mounted part forming the front support and guide means within said apparatus, said pivotally mounted part being movable with respect to said fixed flange and to a position outwardly of the apparatus when said cover is raised providing free access for threading sheet material between said feed rollers.

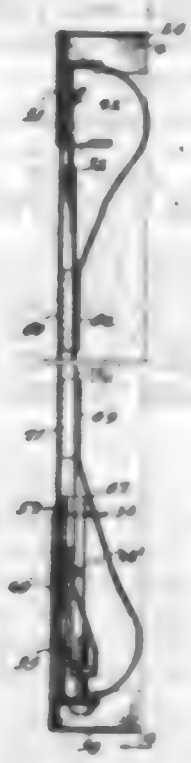
2,869,952
DOOR LATCH
Orson V. Saunders, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 24, 1957, Serial No. 654,790
4 Claims. (Cl. 312—214)



1. A unitary structure comprising in combination, a refrigerator cabinet having main insulated walls defining an open front food storage compartment therein, said cabinet also having non-insulated wall portions directed forwardly of the front of said main compartment walls, said forwardly directed wall portions being substantially flush with the outer surface of said main walls of the cabinet and extending along sides of said compartment front opening in spaced relation thereto whereby to form a recess in the front face of said cabinet having a door jamb adjacent to and extending around the compartment opening, a door for said compartment opening hingedly mounted on said cabinet with at least a portion thereof disposed in said recess inwardly of said non-insulated wall

portions, a latch for said door, said latch including a casing containing a moveable mechanism adapted to receive a striker, said latch casing being mounted within one of said forwardly directed non-insulated wall portions and concealed thereby, said latch casing having a striker reentry opening registering with a striker reentry opening provided in said one forwardly directed non-insulated wall portion on said cabinet, said latch also including a striker stationarily mounted on said door and having a flat diamond shaped end projecting therefrom adapted to be received by said latch mechanism, a resilient gasket extending around said door adapted to engage said door jamb and being concealed from view by said non-insulated forwardly directed cabinet wall portions, said striker being immovable with respect to said door and swingable therewith through said registering striker reentry openings into association with said latch mechanism, said movable latch mechanism including separate opposed individually spring pressed striker gripping rollers, and opposed companion surfaces on opposite edges of said flat diamond shaped end of said striker being simultaneously engageable alternatively by said rollers in the opening and closing movements of said door.

2,869,953
CABINET
Marion E. Miller and John H. Yoder, Goshen, Ind., assignors to Barler Metal Products, Inc., a corperation of Indiana
Application June 10, 1955, Serial No. 514,505
11 Claims. (Cl. 312—263)



1. A cabinet having a back panel interlocked with side panels formed with inwardly directed channels at their front edges, top and bottom panels provided with inwardly directed front flanges extending across the upper and lower ends of the cabinet, means for securing the top and bottom panels to the side panels and for transversely drawing the flanges against the channels including, base plates on the flanges having rearwardly directed teeth provided with inclined faces, recesses at the ends of said channels for receiving the base plates with the teeth extending into the channels, upper and lower fastener plates slidably disposed in said channels, guide flanges on said fastener plates for guiding said plates in the channels, spring members fastened in said channels for urging the fastener plates toward the ends of the channels and the channel faces and having base portions formed as guides, a plurality of elongated inextensible straps, there being one strap in each channel and slidably confined within said base portion guides, means associated with each strap comprising a connection at one end of the strap to said upper fastener plate, a nut carried by the lower end of the strap, a flange on the lower fastener plate provided with an opening, and a bolt extended through the opening and threaded in the nut, and means defining surfaces on said fastener plates engageable with the inclined faces of the teeth to draw the top and bottom panels toward each other and the front flanges against the channels when the bolts are advanced in their respective nuts to draw the fastener plates toward each other.

2,869,954
DOMESTIC APPLIANCE
Keith K. Kesling, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 14, 1956, Serial No. 584,489
4 Claims. (Cl. 312—275)



1. In combination, a kitchen cabinet having a front opening, upper and lower vertically disposed doors closing said opening, a pair of links connecting said lower door and said cabinet, said links being pivoted at opposite ends to said door and cabinet, the distance between pivot points of one of said links being greater than the distance between pivot points of the other of said links whereby said lower door is guided by said links to a substantially horizontal position spaced from and underlying the bottom of said cabinet when said lower door is moved to an open position, means pivotally connecting said upper door and said cabinet, and means connecting said upper and lower doors whereby said doors move together.

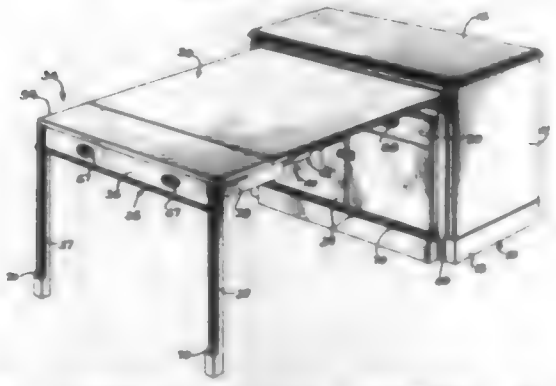
2,869,955
CABINET CONSTRUCTION
Ray M. LaRue, Fairbanks, Alaska
Application February 18, 1957, Serial No. 640,706
3 Claims. (Cl. 312—297)



1. In a cabinet, the combination comprising a rectangular box structure having a bottom platform and side walls and a top wall and a rear wall and a forward face provided with a rectangular opening, two longitudinally grooved

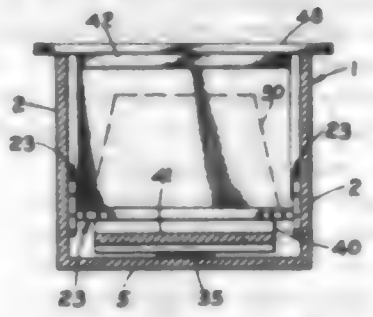
guides one secured along each lateral margin of said opening, a lining of resilient material disposed within the grooves of each said guide, a flexible sliding door for said opening, said door having opposite margins entered into said longitudinally grooved guides, and a plurality of rotatable wheels mounted within said box structure in two curvilinear columns which columns define elliptical curves tangent to the upper extremities of said guides and to said rear wall, said wheels having circumferential grooves whereby each said column of wheels forms a continuation of one of said guides to direct said flexible sliding door across the top of the interior of said box structure and down adjacent the rear wall thereof as said door is slid upward along said grooves to uncover said opening.

2,869,956
EXTENSION COMMODE
Harry B. Gaines, Chicago, Ill., assignor to Saginaw Furniture Shops, Inc., Chicago, Ill., a corporation of Michigan
Application May 13, 1957, Serial No. 659,202
4 Claims. (Cl. 312—297)



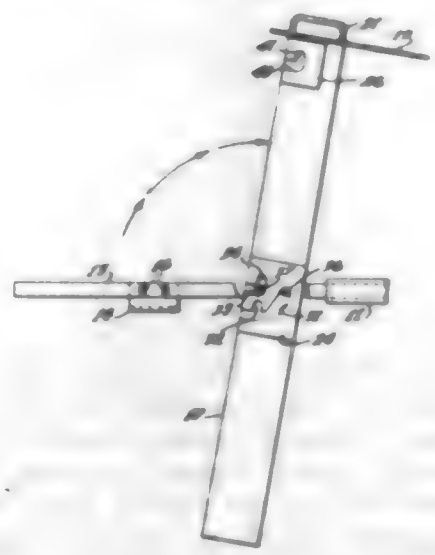
1. An extension commode comprising, in combination, a cabinet including opposed end walls and a front wall having an opening therein, a front table support including a pair of legs and a cross member connected between the legs adapted to close the opening in the front wall, and including a pair of rearwardly projecting horizontal side members adapted to enter said opening upon movement of the table support into closed position with respect to the cabinet, two extensible and retractable slide structures interposed between said side members and the cabinet, a bendable table top secured at its outer end to the front table support, said top including a bendable top surface element normally tending to assume a flat condition and a plurality of spaced transverse slats rigid with the under side of said surface element, the sides of said bendable top surface element extending slightly beyond the ends of said transverse slats, a generally C-shaped compartment in the interior of said cabinet and passing around the upper and lower rear interior corners thereof for receiving said bendable table top when the top is in a retracted condition, and means including a pair of C-shaped tracks secured adjacent the end walls of said cabinet and within said C-shaped compartment for smoothly guiding said bendable table top therearound, each of said tracks having first and second legs formed to give an L-shaped cross-section and being arranged within said compartment such that said first leg is spaced from and substantially parallel to the plane of said bendable table top and said second leg is normal to said plane and extends adjacent to and beyond the side edge of said table top, said second leg having an inwardly extending semi-circular bead formed therein for engagement by the ends of said table top slats for guiding the sides of said bendable table top into and out of said cabinet, said semi-circular bead having a width extending inwardly toward said table top a distance greater than the over-extension of said top surface element beyond the ends of said slats to prevent drag of the sides of said table top as the top is moved between extended and retracted positions.

2,869,957
COMBINATION WORK AND STORAGE UNIT
Vennice E. Mark, East Grand Rapids, Mich.
Application March 11, 1957, Serial No. 645,234
2 Claims. (Cl. 312—298)



2. A piece of furniture having front, back, side walls and a bottom defining a storage chamber open at the top; leg elements supporting said piece of furniture; a cover hingedly secured to said back wall for closing said open top of said storage chamber; a platform having a center portion and a pair of end portions; said portions being hingedly joined whereby said platform is flat when open and U-shaped when closed; said end portions each having a lap at the upper surface thereof at the joint between said end portions and said center portion; the free edge of said lap when said platform is open abutting said center portion; said lap being thinner than said platform for providing a notch in the lower surface of said end portions bounded on one side by an edge of said center portion for receiving the top of the side walls of said housing when said platform is open; the width of said notches being such that said platform clamps against both the inner and outer surfaces of said side walls when said platform is open.

2,869,958
MECHANISM FOR MOUNTING ELECTRICAL UNITS
John Jay Hough, Granada Hills, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force
Application November 28, 1956, Serial No. 624,928
9 Claims. (Cl. 312—323)

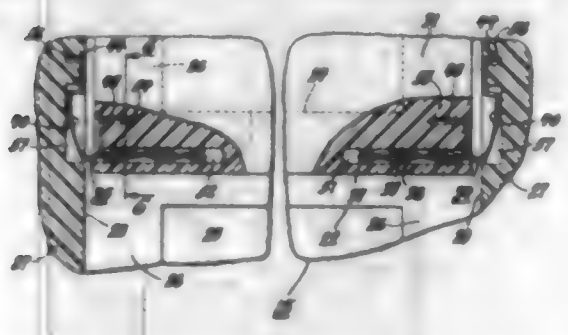


8. A mechanism for mounting, locking and rotating an electrical unit on slidable runners comprising a pair of plates located near the center of gravity of said unit, each plate having grooves therein with certain sections of said grooves parallel with each other, one section of each groove being substantially at right angles to its other section, and a plurality of pins located each in a different one of said grooves, said unit being locked to said runners when said pins are in the ends of said right angle sections of said grooves and rotatable on a pair of said pins when said pins are in the junction between the right angle sections of said grooves.

2,869,959
DOOR MOUNTING

Keith K. Kesling, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 17, 1958, Serial No. 709,533
7 Claims. (Cl. 312—328)

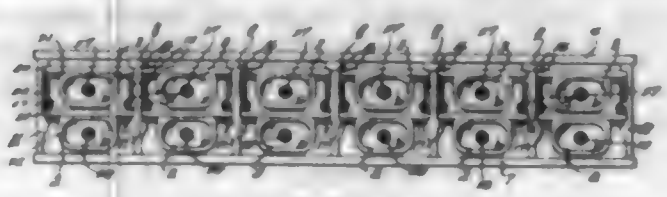


1. In combination, walls defining a compartment provided with an access opening and a door for the opening, means pivotally mounting opposite edges of said door upon opposed sides of said compartment for movement relative thereto, each of said means comprising a one-piece spring element, said elements each including an elongated part bent over and extending along another elongated part thereof, said parts of said elements being disposed substantially in alignment with the axis of movement of said door and having ends projectings therefrom, the end of one elongated part of each of said elements being anchored to said door for movement therewith and the end of the other elongated part of said elements being bent to extend laterally therefrom, said laterally extending end of said other elongated part of said elements being anchored upon the opposed sides of said compartment, said anchoring of the ends of said one-piece spring elements tensioning same to normally bias said door closed, said door being swingable about said elongated parts of said elements to open and close the access opening of said compartment, and the laterally extending end of said other elongated part of said elements being resilient and bearing against said opposed sides of the compartment to hold said door centered with respect to the opening therein.

2,869,960
ELECTRONIC CHASSIS LOCKING ASSEMBLY

Jules Medow, Los Angeles, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force

Application November 29, 1957, Serial No. 699,717
8 Claims. (Cl. 312—333)

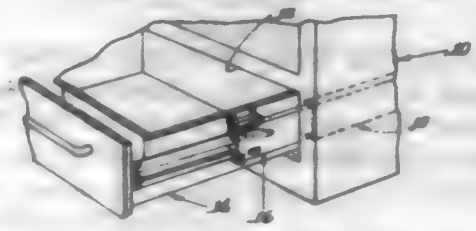


1. An assembly for an electrical chassis comprising a pair of parallel plates, interconnecting partitions between said plates, said partitions being symmetrical about a center line and having upper shoulder portions and lower shoulder portions, a pair of elongated tapered runners mounted on said partitions, one of said tapered runners being movable transversely and the other of said runners being movable longitudinally, means for moving said longitudinally movable runner longitudinally with respect to said transversely movable tapered runner, and a mounting plate for said chassis, said chassis mounting plate being positioned between said tapered runners and certain of said shoulder portions of said partitions.

2,869,961
DRAWER SUSPENSION

John R. Gennerall, Elgin, Ill., assignor to McGraw-Edison Company, a corporation of Delaware

Application August 29, 1955, Serial No. 531,074
6 Claims. (Cl. 312—339)

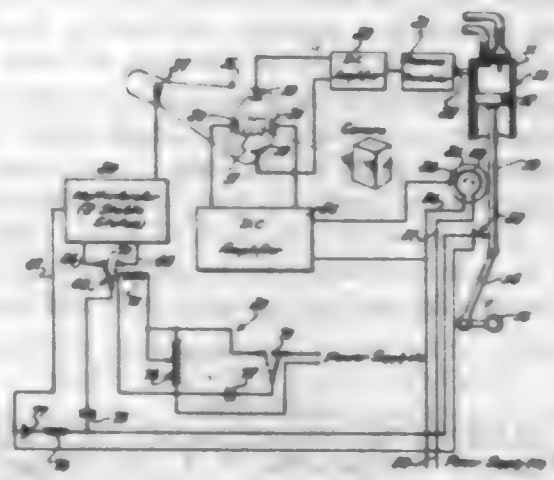


2. A suspension for drawers and the like comprising a stationary member, drawer means movable to and from retracted and extended positions, an intermediate member disposed between and movable relative to said stationary member and said drawer means to and from extended and retracted positions, said intermediate member being supported by said stationary member and supporting said drawer means, means for raising said drawer means above its normal operating level when said drawer means approaches its retracted position, relatively short retaining means on said intermediate member adjacent an outer portion thereof, and relatively short retaining means on said drawer means, movable relative to said relatively short retaining means on said intermediate member, and spaced substantially from its outer end and engageable with said first mentioned retaining means when the drawer means and intermediate member are adjacent said extended positions for retaining the drawer means and intermediate member against lateral separation, said second mentioned retaining means being disengaged from said first mentioned retaining means when the drawer means is in said retracted position.

2,869,962
SELF-SYNCHRONIZING HORSE POWER INDICATOR

Raymond C. Baird, Los Angeles, Calif., assignor to The Flaco Corporation, Ltd., Los Angeles, Calif., a corporation of California

Application April 21, 1952, Serial No. 283,407
15 Claims. (Cl. 346—4)



12. Apparatus for indicating pressures of a mechanism having a cylinder and a piston assembly which reciprocates relative to the cylinder, said apparatus including a body, a member mounted to said body for oscillating movement relative thereto, said member being free for movement into and out of a driven engagement with said reciprocating piston assembly and being adapted when in said engagement to be oscillated by and in accordance with the reciprocation of said piston assembly, an indicator for graphically representing said pressures including indicating means displaced along a first axis in accordance with variations in said pressures and along a second axis in accordance with and in proportion to the oscillating move-

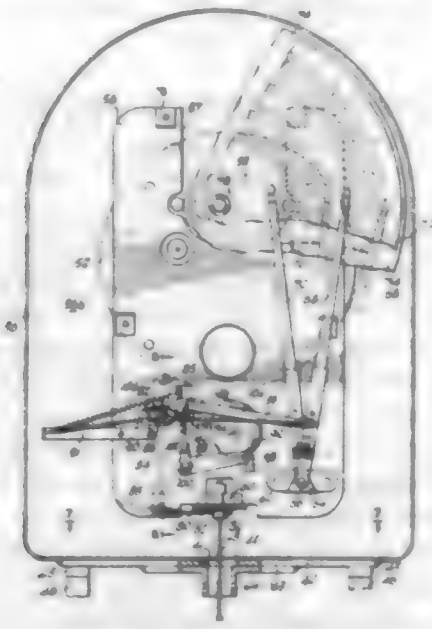
ment of said member by said piston assembly, and control means operable by said member to maintain said displacement of the indicating means along said second axis proportional to the movement of said member.

2,869,963

RATE RECORDER FOR INTEGRATING METERS

Frank S. Brainard, Sr., Hartford, Conn.

Application February 1, 1956, Serial No. 562,738
3 Claims. (Cl. 346—14)



1. A rate recorder for integrating meters of the type having a register including at least one meter driven shaft, said recorder comprising a mounting bracket adapted to be releasably secured about a meter to span the register thereof, a mounting plate having an aperture therein, adjustable means for mounting said plate on said bracket with the center of said aperture aligned with the axis of rotation of a meter driven shaft, a casing enclosing chart driving mechanism, recording means and at least one cam the rotation of which controls movement of a recording means, means on said mounting plate for supporting said casing with the axis of rotation of said cam aligned with the center of said aperture, and coupling means effective when said casing is supported by said means to drive said cam from the meter driven shaft aligned with the center of said aperture, said recording means including a pen arm oscillatable about an axis perpendicular to the axis of rotation of said cam, the means for converting rotation of said cam into oscillation of said pen arm comprising a rock shaft disposed parallel to the axis of rotation of the cam, a cam arm fixed at one end to said shaft and carrying at its other end a cam follower engaging said cam, a multiplying arm fixed at one end to said rock shaft to be oscillated thereby, and a link coupling the multiplying arm with said pen arm.

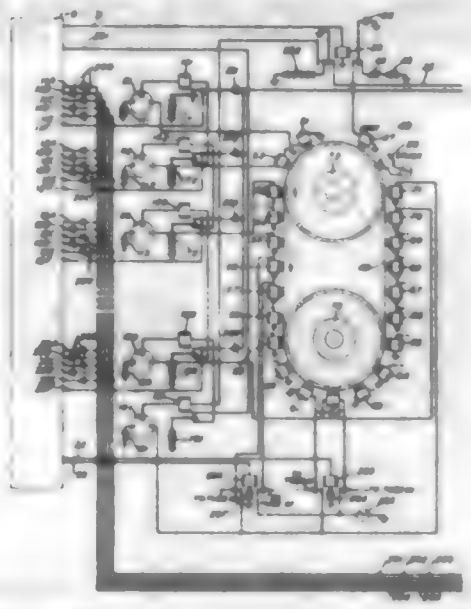
2,869,964

MAGNETIC RECORDING SYSTEM

Doren Mitchell, Martinsville, N. J., and Edward Vroom, Brooklyn, Conn., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 3, 1954, Serial No. 413,784
17 Claims. (Cl. 346—74)

6. A start-stop recording device comprising an input circuit for simultaneously providing sets of coded signals making up an entry and an indication of the number of sets in the entry; a first delay circuit connected to said input circuit for sequentially arranging said sets of coded signals; a second delay circuit connected to and controlled by said first delay circuit for sequentially arranging the coded signals in each of said sets; apparatus for recording said sequentially arranged coded signals; and means responsive to said input circuit in accordance with said indication and associated with said recording ap-



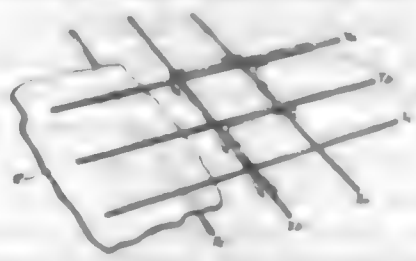
paratus to control said recording apparatus on a start-stop basis.

2,869,965

ELECTRO-SENSITIVE DIGITAL DATA PLOTTER

Dennis D. Willard, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application December 30, 1954, Serial No. 478,840
4 Claims. (Cl. 346—74)



1. In a graph plotting device a combination of an electro-sensitive graph paper sheet, a matrix of marking units on one side of said sheet in close proximity to said sheet, a first conductor in each of said units, a second conductor in each of said units positioned within said first conductor, an insulator separating said conductors, a first set of conducting lines each connecting a group of said first conductors and a second set of conducting lines each connecting a group of said second conductors, said first and second sets of conducting lines being positioned with relation to each other to form said matrix of marking units in a lattice geometry, potential producing means attached to each of said first conducting lines for individually applying a voltage to one and only one line of said first set of conducting lines and means attached to each of said second conducting lines for individually receiving said voltage through one line and only one line from said second set of conducting lines in a single time interval.

2,869,966

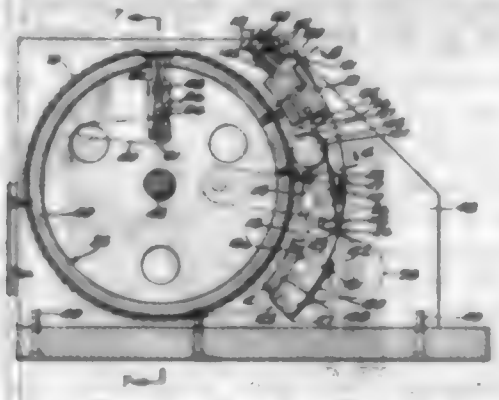
RECORDING SHEET AND MEANS FOR MOUNTING SAME ON A ROTARY DRUM

James M. Cunningham, Encino, Calif., assignor to E. R. Chilcott and Doris C. Chilcott, a co-partnership doing business as Techno Instrument Company, Los Angeles, Calif.

Original application June 6, 1952, Serial No. 292,104, now Patent No. 2,806,757, dated September 17, 1957. Divided and this application August 3, 1955, Serial No. 526,221
18 Claims. (Cl. 346—74)

1. In a device of the character described, the combination of: a rotary drum having a generally cylindrical external surface and a longitudinal peripheral recess; a

magnetic recording medium in the form of a sheet wrapped around said drum with the ends of the sheet overlapping at said recess, said overlapping ends having a plurality of pairs of apertures positioned along the complete length of said overlapping ends, said pairs of apertures overlapping at their outer ends; a plurality of magnetic recording heads mounted in a position contiguous to the external surface of said drum and along its length; means to urge said magnetic recording heads against

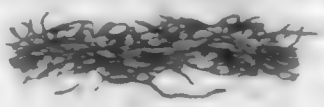


said recording medium; and a plurality of sheet-engaging means carried by said drum and extending outward at said recess into said pairs of apertures respectively, said sheet-engaging means being adapted to retractably expand in said pairs of overlapping apertures to place said sheet under tension, said sheet-engaging means being positioned generally within the cylindrical external surface of said drum and having circumferentially extending flanges to hold said sheet ends on said sheet-engaging member and within said recess.

2,869,967
BULKY YARN

Alvin L. Breen, West Chester, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application August 23, 1957, Serial No. 679,891
8 Claims. (Cl. 57—140)



1. A bulky yarn comprising a plurality of discontinuous fibers twisted together, the fibers being convoluted into coils, loops and whorls at random intervals along their lengths, and the yarn surface exhibiting a multitude of ring-like loops and protruding fiber ends irregularly spaced along the yarn surface.

CHEMICAL

2,869,968
METHOD OF DYEING MIXTURES OF ANIMAL FIBERS AND SYNTHETIC POLYAMIDE FIBERS WITH RESERVATION OF THE LATTER

Ludwig Thummel and Maurice Aeberhardt, Basel, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application March 26, 1953
Serial No. 344,882
Claims priority, application Switzerland March 28, 1952
4 Claims. (Cl. 8—21)

1. A method for dyeing a mixture of animal fibers and synthetic polyamide fibers with reservation of the latter, which comprises dyeing the mixture of animal fibers and sythetic polyamide fibers in an acidic aqueous dyebath containing an acid dyestuff in the presence, in the dyebath, of at least 5 grams to at most 20 grams of salt per liter of dyebath, the said salt yielding anions selected from the group consisting of nitrate, bromine, iodine and thiocyanate anions and cations selected from the group consisting of ammonium, sodium, potassium and zinc cations, water being the sole effective solvent in the dyebath.

2,869,969
FORMALDEHYDE AS AN ASSISTANT IN THE DYEING OF POLYESTER FIBERS AND BLENDS THEREOF AT HIGH TEMPERATURES

Ferdinand Schulze, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 22, 1955
Serial No. 529,893
6 Claims. (Cl. 8—55)

1. The process of dyeing linear glycol-dibasic acid polyester fibers and fabrics made therefrom which comprises subjecting the same in a dyeing bath having a pH between about 4.0 and 5.5 to a temperature of 225° F. to 250° F. in the presence of formaldehyde, said dye bath containing a dispersed dye for the said polyester fibers.

2,869,970
TANNING WITH EPOXY RESINS

Edward M. Filachione and Edward H. Harris, Jr., Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application April 11, 1957
Serial No. 652,324
6 Claims. (Cl. 8—94.33)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process of tanning hides comprising applying to the hides an alkaline solution containing about from 4 to 35% water, a glycidyl polyether of bis-phenol corresponding to the formula



wherein R is a divalent hydrocarbon radical of the formula



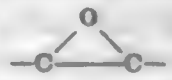
and n is an integer having an average value ranging from 0 to 10, inclusive, as the tanning agent, and an inert, water-miscible organic solvent as a mutual solvent for the said water and said glycidyl polyether, until the hides are tanned.

2,869,971
SHRINKPROOFING TEXTILES WITH VOLATILE POLYAMINES AND EPOXIDES

Thompson J. Coe, Albany, Calif., assignor to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application May 12, 1958
Serial No. 734,798
5 Claims. (Cl. 8—116.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The method of shrinkproofing a textile without significant impairment of its hand which comprises serially exposing the textile to a first agent in the vapor phase and then to a second agent in the vapor phase, to deposit on the textile a total of about from 0.5 to 10% of said agents, based on the weight of the textile, one of said agents being a volatile polyepoxide containing two epoxy



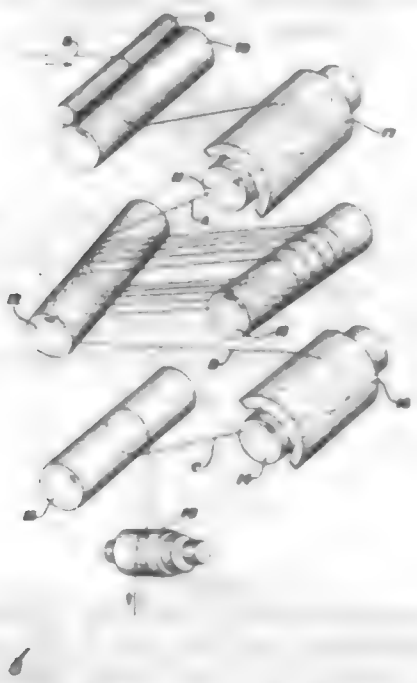
groups per molecule, the other agent being a volatile aliphatic polyamine containing at least two amino groups per molecule.

2,869,972

METHOD OF TREATING YARNS AND FILAMENTS AND PRODUCTS PRODUCED THEREBY

William I. Head, Hubert R. Kirk, and Charles B. Mather, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application December 31, 1952, Serial No. 328,966
3 Claims. (Cl. 8—130.1)



1. The continuous method for increasing the tenacity and elongation and eliminating the hot water shrinkage of dry spun yarn of acrylonitrile polymers containing a major proportion of acrylonitrile and an acrylamide selected from the group consisting of isopropyl acrylamide and N-methyl methacrylamide which comprises conducting the yarn under predetermined non-stretching tension to a roll heated to a temperature of 180° C., passing the yarn for a fraction of a second between said roll and a shoe spaced therefrom and heated to a temperature of 370° C. whereby the yarn without being compressed is heated until it becomes stretchable, stretching the heated yarn 550 to 850% after it leaves the heated roll, conducting the yarn to a second roll heated to a temperature of 210° C. and passing the yarn for a fraction of a second between said roll and a shoe spaced therefrom and heated to a temperature of 320° C. whereby the yarn without being compressed is heated until it becomes relaxable, permitting the yarn to relax before and after contact with said second heated roll to an aggregate amount of from 11 to 20%, maintaining uniform tension on the yarn between the stretching and relaxing steps by passing the yarn around two separate non-heated rolls and winding the relaxed portion of the continuous yarn on a support without stretching tension.

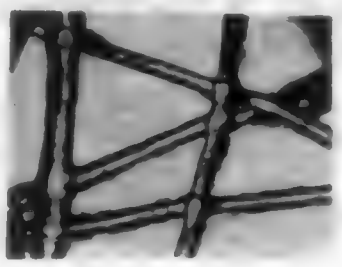
2,869,973

SYNTHETIC PAPER SHEET OF CHEMICALLY BONDED SYNTHETIC POLYMER FIBERS AND PROCESS OF MAKING THE SAME

James K. Hubbard, West Chester, and Franklin H. Koontz, Marcus Hook, Pa., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

Application August 25, 1954, Serial No. 452,022
14 Claims. (Cl. 8—130.1)

1. A synthetic paper sheet composed of a batt consisting essentially of a mass of reticulated molecularly oriented fiber, the said fiber being composed of a fiber-forming linear, synthetic polymer wherein recurring units are linked through amide nitrogen to provide a recurring linkage from the class consisting of a polyamide, a polyurethane, a polyurea and a polysulfonamide, the said recurring linkage being an integral part of the polymer chain, the said fibers being self-bonded only at the points where the fibers intersect each other, the said self-bond having been accomplished by a join-inducing salt, those portions of the fibers between the points of fiber intersection possessing substantially the same physical and chemical characteristics as they possessed prior to the formation of the bonds.



2. A process of making a synthetic paper sheet which comprises applying, to a batt of reticulated molecularly oriented fiber, the said fiber being composed of fiber-forming linear, synthetic polymer wherein recurring units are linked through amide nitrogen, to provide a polymer from the class consisting of a polyamide, a polyurethane, a polyurea and a polysulfonamide, the said recurring amide nitrogen being an integral part of the polymer chain, a solution consisting essentially of a join-inducing salt for said fibers, the said salt being a hydrate-forming salt of an inorganic acid sufficiently soluble in water to yield at least 10% solutions, the said solution being initially at a concentration sufficiently dilute to avoid substantially altering the physical and chemical properties of the fiber structure, heating the said batt bearing the said dilute salt solution until the salt solution becomes concentrated and located substantially only at the points of fiber intersection, and the fibers are self-bonded to each other at their points of intersection, those portions of the fibers between the points of fiber intersection possessing substantially the same physical and chemical characteristics as they possessed prior to the formation of the bonds, the said heating occurring over a period of at least about 30 seconds and at a temperature within a range of from about 90° C. to about 170° C.

2,869,974

PROCESS FOR SHRINKING POLYACRYLONITRILE TEXTILES WITH SPECIFIC CHEMICAL SHRINKING AGENTS

Benjamin Franklin Adams, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 2, 1955
Serial No. 491,797
5 Claims. (Cl. 8—130.1)

1. A process for shrinking textile material inherently capable thereof made from a polymer obtained by polymerizing monomeric material comprising at least 80% acrylonitrile and up to 20% of ethylenically unsaturated monomer copolymerizable with the said acrylonitrile which comprises contacting the said material without dissolving it with a non-aqueous, non-ionic, neutral organic liquid at a temperature from about 60° C. to its boiling point until the textile materials shrink, the said non-aqueous liquid comprising (1) a compound in shrinking concentration selected from the group consisting of ethylene carbonate, trimethylene carbonate, and propylene carbonate, and (2) a glycol solvent for the carbonate compounds which is inert to the acrylonitrile polymer and in which the acrylonitrile polymer is insoluble.

2,869,975

PROCESS FOR SHRINKING AND SETTING POLYACRYLONITRILE TEXTILE FILAMENTS WITH SPECIFIC CHEMICAL SHRINKING AGENTS

Weston Andrew Hare, Staunton, Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 28, 1955
Serial No. 497,439
10 Claims. (Cl. 8—130.1)

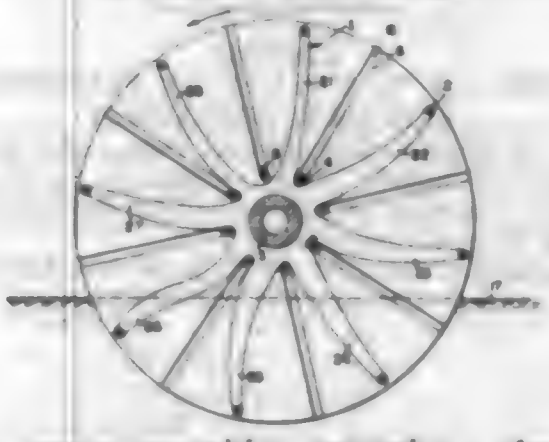
1. A process for shrinking and setting filamentary textile material inherently capable thereof made from a polymer obtained by polymerizing at least 85% acrylonitrile and up to 15% of ethylenically unsaturated monomer copolymerizable with the acrylonitrile, which comprises contacting the said textile material without dissolving it with an aqueous solution at a temperature of from about 75° C. to its boiling point at atmospheric pressure for at least one second until shrinkage takes place, said aqueous solution containing from about 10% to about 40% of a compound selected from the group consisting of ethylene carbonate, propylene carbonate, tri-methylene carbonate, nitromethane, delta-valerolactone and gamma-butyrolactone.

2,869,976

TREATING APPARATUS AND PROCESS

Paul M. Cole, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application April 7, 1953, Serial No. 347,263
20 Claims. (Cl. 8—151)



5. The process comprising supporting a closed wrap of flexible material loosely so as to form it into the pattern of a star in a vertical plane, rotating the wrap about the center of the star, localizing a slack portion of the wrap in one arm of the star, transferring the slack to an adjacent arm of the star, and retransferring the slack to successive arms of the star so that the wrap progresses lengthwise around the star, and applying a treating fluid to the moving material.

20. Rotary apparatus comprising an axle, mounting means perpendicular to and separated by the axle, retaining means for holding a plurality of bars near the periphery of the mounting means and in substantially a circle concentric with the axle, a plurality of bars supported by said retaining means, slot forming guides extending from the periphery of the mounting means to points nearer the axle than said retaining means and another plurality of bars supported by said guides.

2,869,977

PROCESS FOR SPINNING PARTICULATE DISPERSIONS

George A. Richter, Jr., Abington, Pa., and George L. Brown, Moorestown, N. J., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application February 19, 1954
Serial No. 411,562
16 Claims. (Cl. 18—54)

1. A process for preparing self-supporting fibers, filaments, yarns, and films of thermoplastic polymeric materials which comprises forming an aqueous dispersion of particles of a thermoplastic material comprising a water-insoluble copolymer of a mixture of copolymerizable monoethylenically unsaturated monomers comprising at least one polar compound selected from the group consisting of vinyl acetate, acrylonitrile, methacrylonitrile, acrylamide, methacrylamide, esters of acrylic acid, and esters of methacrylic acid, said material having an apparent second order transition temperature of at least about 25° C., being dispersed with an emulsifying agent in stable aqueous dispersion at particle sizes below about two microns, said particles constituting at least 20% by weight of the dispersion, passing said dispersion as a stream through an orifice directly into an aqueous coagulating bath containing 5% to 50% by weight of an alkaline material selected from the group consisting of alkali metal hydroxides and quaternary ammonium hydroxides and having a pH of at least 8, whereby a shaped product is formed in the bath by coagulation of said stream, drawing the shaped product at a substantially constant speed through, and then out of, the bath, washing the shaped product, and heating it in a zone held at a temperature of at least 60° C. for a time sufficient to (1) bring the product above its apparent second order transition temperature but below the temperature at which chemical decomposition occurs, (2) dry said product, and (3) cause coalescence of particles therein.

2,869,978

METHOD OF GAS PURIFICATION UTILIZING AN AMINE SOLUTION AND AN ANTI-CORROSION AGENT

Paul W. Fischer, Whittier, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application September 26, 1955
Serial No. 536,752
8 Claims. (Cl. 23—3)

1. In a process for separating acidic gases of the class consisting of carbon dioxide and hydrogen sulfide from a gas mixture wherein said mixture is contacted with an absorbent comprising an aqueous solution of a compound selected from the class consisting of water-soluble aliphatic amines and alkanolamines which are free from carboxyl and carbonyl groups and which boil above about 212° F., the improvement which consists in adding to said absorbent between about 0.05% and about 0.5% of the product obtained by reacting one part by weight of a water-soluble hydroxy aliphatic dicarboxylic acid having 4 to 5 carbon atoms per molecule with between about 1 and about 2 parts by weight of antimony trihalide and sufficient alkali metal hydroxide to produce a product having a pH of between about 3.0 and 4.5, said reaction being effected in the presence of between about 15 and about 30 parts by weight of water.

2,869,979

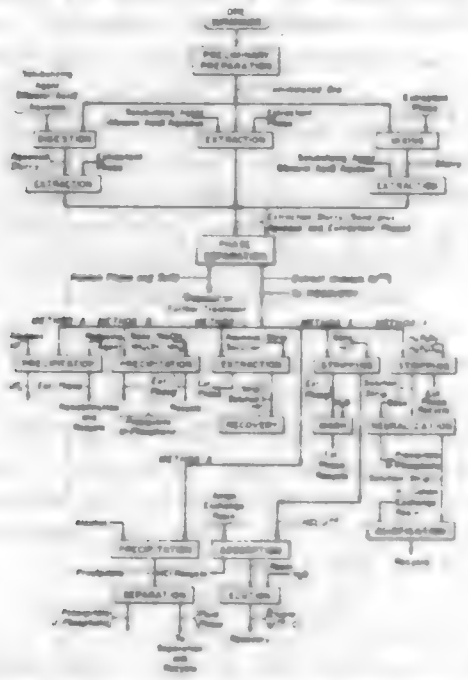
SLURRY SOLVENT EXTRACTION PROCESS FOR THE RECOVERY OF METALS FROM SOLID MATERIALS

Robert R. Grinstead, Concord, Calif., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application August 9, 1955, Serial No. 527,428
27 Claims. (Cl. 23—14.5)

1. In a slurry solvent extraction process for recovering an actinide metal value from solid material, the steps comprising contacting an organic phosphatic extractant phase with an aqueous slurried admixture of said solid

material, whereby said metal values are leached into the aqueous phase of the slurried admixture forming ions



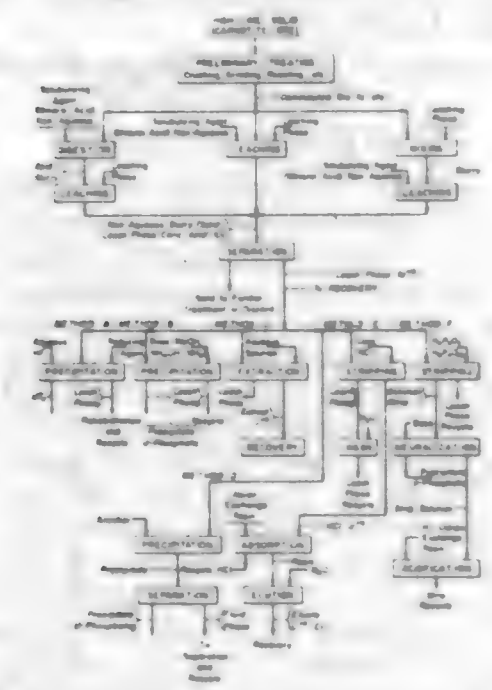
which thenceforth are extracted into said extractant phase.

2,869,980

PROCESS FOR THE RECOVERY OF METALS FROM HIGH-LIME CARNOTITE ORES

Robert R. Grinstead, Concord, Calif., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application August 9, 1955, Serial No. 527,429
26 Claims. (Cl. 23—14.5)



1. The process comprising forming a closed length of flexible material into zig-zag pattern substantially symmetrical about a point, moving the material about the point with a composite motion including rotation about the point and progression within the pattern about the point, the flexible material being slackened at intervals within the pattern and simultaneously exposing the material to a treating fluid.

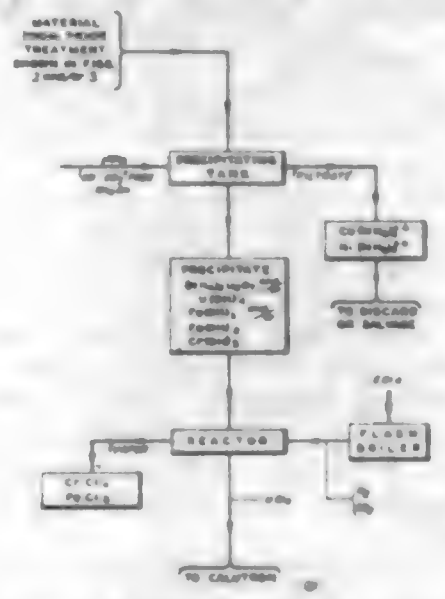
2,869,981

PROCESS FOR THE PURIFICATION OF URANIUM

Sam Rosenfeld, Los Angeles, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application December 8, 1944, Serial No. 567,286
10 Claims. (Cl. 23—14.5)

2. The process of reclaiming uranium values from deposits formed upon the parts of a calutron as a result of the processing of uranium tetrachloride therein comprising washing said parts with an aqueous solvent for the uranium to form a solution containing said uranium values and impurities including dissolved iron, chromium, nickel and copper, treating said solution with ammonia to precipitate the uranium, iron and chromium and leave



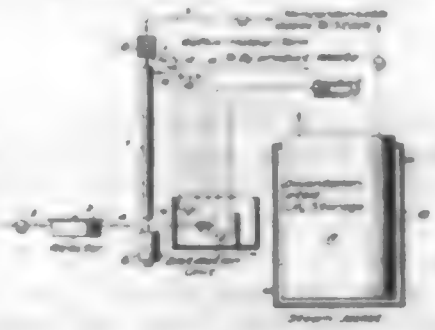
said copper and nickel in solution as ammonia complex ions, and chlorinating said precipitate with carbon tetrachloride at an elevated temperature to convert said uranium into uranium tetrachloride and to volatilize and separate the iron and chromium as chlorides from said uranium tetrachloride.

2,869,982

RECOVERY OF Pu VALUES BY FLUORINATION AND FRACTIONATION

Harrison S. Brown, Oak Ridge, Tenn., and Donald S. Webster, Richland, Wash., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application April 12, 1945, Serial No. 588,059
3 Claims. (Cl. 23—14.5)



3. The process for reacting fluorine with a metallic mass comprising essentially a mixture of uranium and plutonium which comprises heating said mass to a temperature in excess of about 250° C. for a sufficient period to initiate reaction when directly contacted with fluorine, passing fluorine gas under pressure into contact with the heated mass, continuing to apply said heating to an extent adequate for maintaining the reaction, withdrawing reaction products comprising the fluorination products of uranium and plutonium, and subjecting these reaction products to a fractionation treatment in order to obtain a residue containing fluorination products of plutonium.

2,869,983

SEPARATION OF METAL SALTS BY ADSORPTION

Dieter M. Gruen, Downers Grove, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application November 13, 1957
Serial No. 696,341
15 Claims. (Cl. 23—14.5)

1. A process of separating metal mineral acid salts selected from the group consisting of actinide halide,

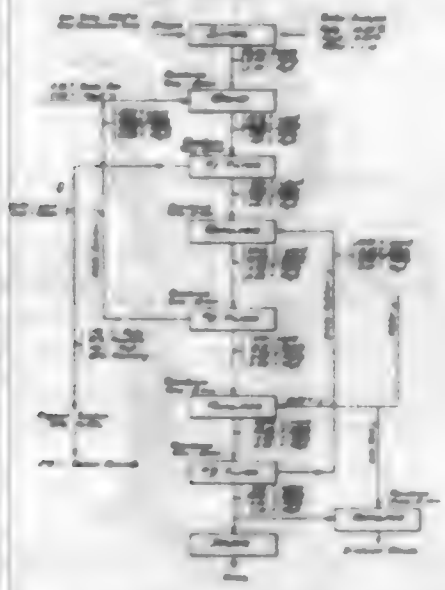
actinide nitrate, copper halide, nickel halide, cobalt halide and iron halide from mixtures containing said salts, comprising dissolving said salts in the anhydrous state in molten alkali metal nitrate; contacting aluminum oxide with the molten solution thus obtained whereby the molten metal salt is adsorbed on the aluminum oxide; and separating the aluminum oxide from the molten alkali metal nitrate solution.

2,869,984

PROCESS FOR THE PRODUCTION OF SODIUM ALUMINATE SOLUTION

Gerald M. Spence, Laramie, Wyo.

Application June 13, 1955, Serial No. 515,103
1 Claim. (Cl. 23—52)



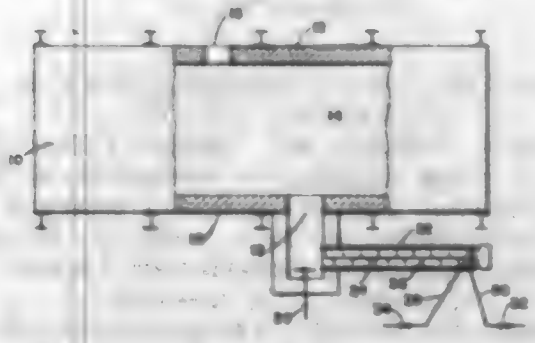
A process of producing a sodium aluminate solution from a sinter material containing sodium aluminate and dicalcium silicate, which process comprises: grinding the sintered material with soda ash and water so as to form an aqueous sodium aluminate solution and solids containing dicalcium silicate, immediately thereafter and before any noticeable hydrolysis of dicalcium silicate occurs rapidly separating said solution from the insoluble material present by filtration, washing the solids separated from said solution by admixing said solids with water and separating said solids from said water by filtration, and recycling said water to said grinding step.

2,869,985

PROCESS FOR PRODUCING ALKALI METAL SILICATES

William T. Gooding, Jr., Painesville, and Robert C. Danison, Olmsted Falls, Ohio, assignors to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

Application October 29, 1954, Serial No. 465,653
6 Claims. (Cl. 23—110)



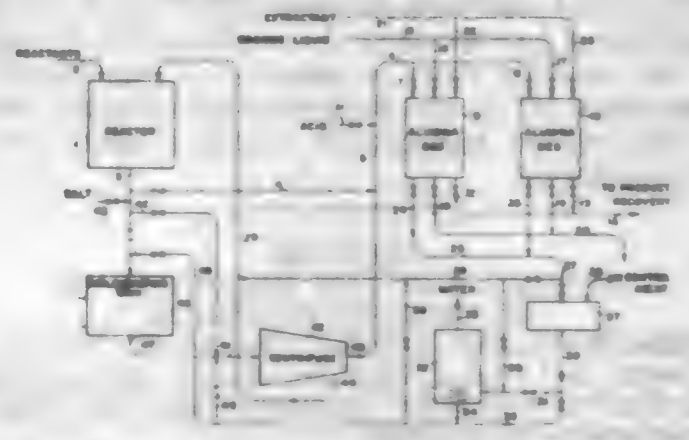
1. A process for forming alkali metal silicate compositions of a given silica:alkali metal oxide ratio, which includes the steps of forming a mixture containing silica, alkali metal carbonate, and liquid alkali metal hydroxide in a concentration of at least about 10%, the ingredients being proportioned to provide said given silica: alkali metal oxide ratio, the quantity of said alkali metal hydroxide being predetermined in relation to the other reactants to provide not more than about 60% of the alkali requirement of the reaction product, subjecting said mixture to agitation at a temperature such that said alkali metal hydroxide is maintained in the liquid state, continuing agitation of said mixture until said mixture assumes the property of a damp-to-substantially dry granular mass, delivering said mass to a furnace wherein said mass is heated to temperature above that at which fusion of the reaction product and substantial completion of the reaction of said ingredients takes place, and recovering the reaction product.

2,869,986

RECOVERY OF TUNGSTIC CATALYSTS

Elmer A. Anderson, El Cerrito, Elton Gordon Foster, Berkeley, Charles M. Gable, El Cerrito, and George C. Hood, Orinda, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application March 31, 1955, Serial No. 498,138
10 Claims. (Cl. 23—148)



1. A process for recovering tungstic compound from aqueous solutions of organic compounds containing the same which comprises intimately contacting said mixture containing said tungstic compound in a dissolved state at a pH not greater than 3 with preformed adsorptive alumina to adsorb said dissolved tungstic compound on the alumina, separating the resulting tungstic compound-containing alumina from the aqueous solution of organic compound and extracting the adsorbed tungstic compound from the alumina.

6. A process for recovering catalyst from the products of tungstic acid-catalyzed oxidation of an organic compound containing tungstic acid in colloidal form together with dissolved tungstic acid which comprises removing the undissolved tungstic acid from the mixture by centrifuging the mixture after agglomeration of the colloidal tungstic acid, passing the remaining mixture containing dissolved tungstic acid and organic oxidation product at a pH of about 1 to 3 through a bed of granular adsorptive alumina to adsorb said dissolved tungstic acid on said alumina, washing the alumina with a solvent for the oxidation product, extracting adsorbed tungstic acid from the alumina with an aqueous solution of a base, water-washing the alumina and again contacting it with tungstic acid-containing mixture to adsorb further amounts of catalyst.

2,869,987

ACTIVATION OF LIME

Hans Horn, Evanston, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application November 15, 1955
Serial No. 547,036
2 Claims. (Cl. 23—186)

1. A process for treating dry by-product lime obtained by reacting calcium carbide with water to produce acetylene and drying the lime resulting therefrom, said dry by-product lime being substantially unreactive with chlorine

when treated therewith in aqueous suspension, which comprises commingling said dry by-product lime with a slurrying and activating medium consisting of water to a solids content between about 5 and about 30% by weight and vigorously agitating the resulting slurry for a period of at least about two minutes, whereby said lime is rendered highly reactive toward chlorine.

2,869,988

ACTIVATION OF LIME

Gunter H. Gloss, Lake Bluff, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application November 15, 1955
Serial No. 547,038
4 Claims. (Cl. 23—186)

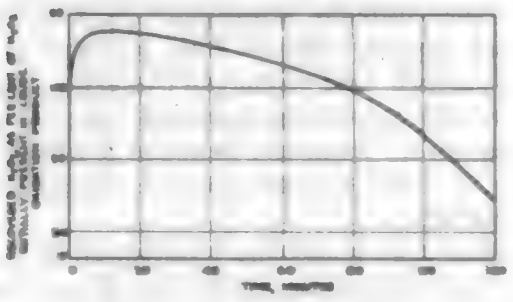
1. A process wherein dry, by-product calcium hydroxide obtained in the production of acetylene by treating calcium carbide with water, which calcium hydroxide is substantially unreactive with chlorine when treated therewith in an aqueous slurry, is commingled with a slurrying and activating medium consisting of water to a solids level between about 5 and about 30% by weight, and the resulting slurry is heated to a temperature between about 50° C. and the boiling point thereof, whereby said calcium hydroxide is rendered highly reactive toward chlorine.

2,869,989

METHOD FOR THE RECOVERY OF HYDROGEN PEROXIDE

William R. Keeler, Berkeley, Donald R. Douslin, El Cerrito, and Carl H. Deal, Jr., Orinda, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application April 23, 1952, Serial No. 283,934
9 Claims. (Cl. 23—207)



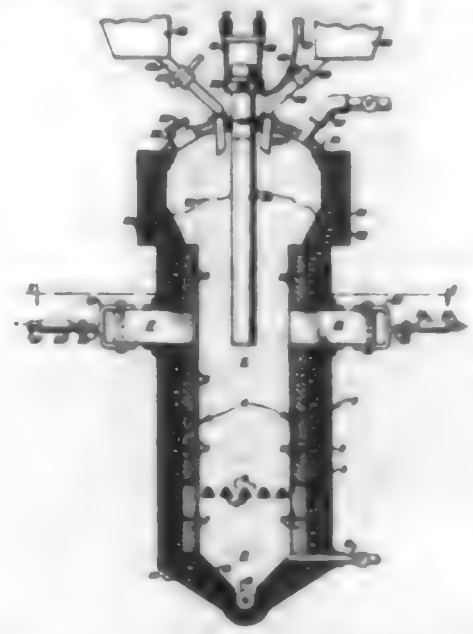
1. A process for recovering an aqueous solution of hydrogen peroxide from a crude product of partial oxidation of a lower secondary aliphatic alcohol, said product containing hydrogen peroxide, unconsumed lower secondary aliphatic alcohol, corresponding ketone, and small but appreciable amounts of other oxygenated organic materials, said other oxygenated organic materials including combined per-oxygen in amounts ranging from about 5% to about 50% of the total amount of active oxygen contained in said product and the total content of active oxygen being at least about 5% by weight of the product, which process comprises introducing an aqueous stream of said product into an upper portion of a fractionating column comprising a stripping zone wherein there is maintained an absolute pressure within the range of from about 400 to about 700 millimeters of mercury so that a liquid portion of the aqueous stream flows downwardly through the stripping zone in substantial vapor-liquid equilibria with ascending vapors evolved therefrom under constant conditions of refluxing and reboiling, continuously withdrawing a vaporous mixture of the lower secondary aliphatic alcohol, the corresponding ketone, and water overhead from said zone, continuously withdrawing aqueous solution of hydrogen peroxide from a bottom part of said zone, and adjusting the rates of introduction of feed to said zone and the rates of withdrawal of said vaporous mixture and said aqueous solution from said zone so as to provide a substantially constant residence time within the stripping zone of the descending liquid portion of the feed of from about 10 to not over 80 minutes.

2,869,990

PROCESS OF PRODUCING CARBIDES

Louis Burgess, Jersey City, N. J., assignor to Sam Tour and Murray Burgess and Eddie Burgess Beitler, executors of said Louis Burgess, deceased

Application April 2, 1956, Serial No. 575,567
9 Claims. (Cl. 23—208)



1. Process for the continuous production of carbides of those metallic and metaloid elements which form carbides by electric furnace reduction of the corresponding oxides with carbon, which comprises forming a charge composed of briquetted masses in which said oxide is disseminated in the form of particles throughout a continuous supporting structure of coke carbon, said carbon being present in said masses in excess of that required for reduction of said oxide with formation of carbon monoxide, and for reaction with the said element with formation of the carbide thereof, maintaining a body of such masses within a space defined by a refractory setting, heating such body by passage of electric current through said body from electrodes in contact with said body to a temperature at which reduction proceeds with formation of carbon monoxide in gas phase and residual masses of coke carbon containing said carbide disseminated therein, adding fresh masses to said body at the top thereof and removing residual masses in solid form from the bottom thereof.

2,869,991

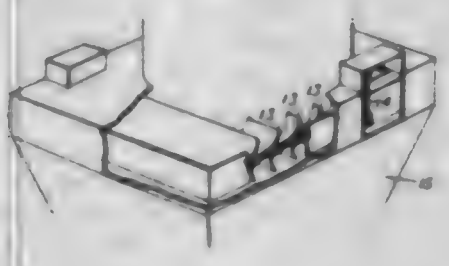
APPARATUS INCORPORATING A VIBRATING GRATE

Norman Henry Williams and Charles Trevor Hawkes, London, England, assignors to Humphreys & Glasgow Limited, London, England, a British company

Application August 23, 1954, Serial No. 451,631
Claims priority, application Great Britain August 27, 1953
12 Claims. (Cl. 23—284)

1. Apparatus for providing a bottom support for a bed of solids to be contacted with a fluid which apparatus comprises a hopper, a frame mounted on the bottom of said hopper for reciprocal movement laterally of said hopper, a plurality of profiled members immovably secured in mutually parallel relationship across said frame each of said profiled members being profiled to provide a lower, generally flat, grate bar and an upper limited-support slat, surmounting said grate bar the portion of said

profiled member constituting said grate bar being inclined to the horizontal at an angle less than, and the portion of said profiled member constituting said limited support slat being inclined to the horizontal at an angle greater than, the natural angle of repose after they have been vibrated of the solids to be supported, said profiled members being spaced apart a distance which is sufficient to allow said solids to fall onto said grate bars and which



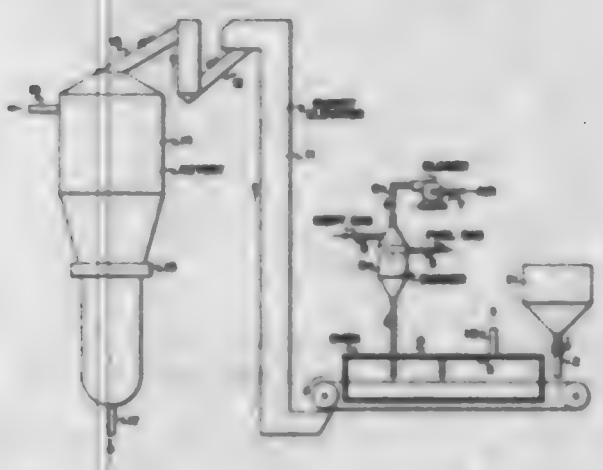
is insufficient to allow said solids a free passage between the grate bars while the grate bars are stationary, and said limited support slat having a vertical height of from distance between the profiled members to the distance between said grate bars, and vibrator means for vibrating the frame and the profiled members relative to said hopper at a frequency within the range required to induce passage of said solids between the grate bars.

2,869,992

PRELIMINARY HEATING OF FLUID COKE BRIQUETTES

James W. Brown, Mountainside, and Edward A. Destremps, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application January 2, 1957, Serial No. 632,207
4 Claims. (Cl. 44—10)



1. A process for heat hardening briquettes of fluid coke with an agglutinating carbonaceous binder substance at temperatures at which the briquettes normally tend to deform and oxidize which comprises the steps of heating the briquettes while in the form of a fixed bed having a depth in the range of about 6 inches to 1 foot for a time interval in the range of 10 to 60 minutes with an oxygen-containing gas at a temperature of 400° to 1100° F. and having an oxygen content in the range of about 2 to 10 volume percent, the amount of oxygen-containing gas utilized being in the range of about 5 to 5000 s. c. f./cu. ft. briquettes; cooling the thus treated briquettes to a temperature in the range of about 400° to 700° F. for a time interval of 5 to 20 minutes whereby internal stresses are removed and heating the briquettes while in the form of a downward, moving bed to a temperature in the range of 1400° to 2000° F. by countercurrent contact with hot inert gases.

2,869,993

ANTIKNOCK MIXTURES

Raymond G. Lyben, Detroit, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 31, 1955
Serial No. 512,288
7 Claims. (Cl. 44—69)

1. An organolead antiknock fluid consisting essentially of an organolead antiknock agent and halohydrocarbon wherein at least one mole percent of halogen in the scavenger is present in the form of alkyl-aryl-halomethane compounds having 8 to 14 carbon atoms and 1 to 4 halogens, in which the halogen has an atomic weight of 35–81 and is bonded to a non-aromatic carbon atom which is alpha to a doubly-bonded nuclear carbon and is also alpha to a hydrogen-bearing carbon atom; the total amount of said halohydrocarbon scavenger being in the range of 0.1–4.0 theories based on the amount of organolead compound present and the total amount of said alkyl-aryl-halomethane compound being in the range of 0.01–1.5 theories based on the amount of organolead compound present; a theory being that amount of scavenger which provides two atoms of halogen for every lead atom present in said fluid.

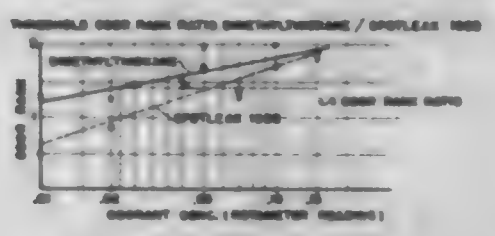
4. The petroleum hydrocarbon fuel of the gasoline boiling range containing the composition of claim 1 in amount such that the lead content is between 0.02 and 13.2 grams of lead per gallon of fuel.

2,869,994

FUEL GAS COMPOSITION CONTAINING ODORANT

Ashley D. Nevers and Edward M. Fettes, Levittown, Pa.; said Nevers assignor to Pennsalt Chemicals Corporation, a corporation of Pennsylvania, and said Fettes assignor to Thiokol Chemical Corporation, Trenton, N. J., a corporation of Delaware

Application August 21, 1956, Serial No. 605,415
15 Claims. (Cl. 48—195)



1. The composition comprising a member of the group consisting of natural gas, mixtures of natural gas and manufactured gas, coke oven gas and liquefied petroleum gas and at least 0.04 pounds dialkyl p-thioxane per million cubic feet of the said gas, the alkyl substituents of the said dialkyl p-thioxane being limited from 1 to 3 carbon atoms.

8. The process of odorizing a member of the group consisting of natural gas, mixtures of natural and manufactured gas, coke oven gas and liquefied petroleum gas comprising introducing an odor perceptible quantity of dialkyl p-thioxane into the said gas, the alkyl substituents of the said dialkyl p-thioxane being limited from 1 to 3 carbon atoms.

2,869,995

STABILIZATION OF FUELS CONTAINING TETRAETHYL LEAD

Josef M. Michel and Karl F. Hager, Fort Bliss, Tex., assignors to the United States of America as represented by the Secretary of the Army

No Drawing. Application July 18, 1950
Serial No. 174,567
28 Claims. (Cl. 52—.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

22. A fuel consisting essentially of gasoline, tetraethyl lead and from 0.05% to an amount below 1% of an

added compound selected from the group consisting of an organic compound having the general formula

$$R_1—SO_2—NH—R_2—COOH$$

in which R_1 is an alkyl radical of from 5 to 18 carbon atoms and R_2 is a lower aliphatic radical of the general formula C_nH_{2n} where n is a small positive integer, and the salts of said organic compound taken from the group consisting of sodium, potassium, ammonium, hydrazine, cyclohexylamine, methylamine, ethylamine and mixtures thereof.

2,869,996

LIQUID FERTILIZER

Donald E. Vierling, Pittsburgh, Pa.

No Drawing. Application October 2, 1956
Serial No. 613,372
2 Claims. (Cl. 71—29)

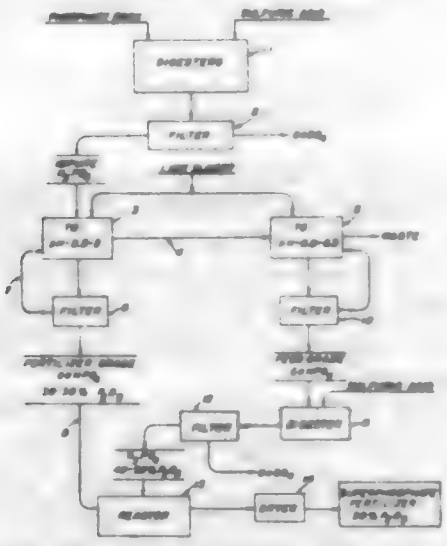
1. A substantially complete aqueous solution for assisting plant growth consisting essentially of the acid H_3PO_4; the bases KOH and NH_4OH; the salts K_2HPO_4, K_3PO_4, $(NH_4)_2HPO_4$, $NH_4H_2PO_4$, KH_2PO_4, $(NH_4)_4P_4O_{12}$ and KNH_4HPO_4; and the organic chemical $CO(NH_2)_2$; said acid, bases, salts and organic chemical being present in amounts corresponding to the equilibrium ratio as established by the nitrogen, phosphorus pentoxide and potassium oxide content, whereby the resultant solution contains the ions H^+, PO_4^{---}, K^+, OH^- and NH_4^+ in equilibrium with said acid, bases salts and organic chemical at a selected temperature and pressure, the nitrogen (N), phosphorous pentoxide (P_2O_5) and potassium oxide (K_2O) each being present in amounts ranging between approximately 1% and approximately 45% by weight.

2,869,997

PRODUCTION OF CONCENTRATED SUPERPHOSPHATE FERTILIZERS

Sydney Atkin, Springfield, N. J., assignor to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware

Application September 12, 1955, Serial No. 533,717
2 Claims. (Cl. 71—40)



1. A method for the production of concentrated superphosphate fertilizer which comprises adding lime to aqueous phosphoric acid in a quantity sufficient to precipitate from about 20% to about 50% of the P_2O_5 as dicalcium phosphate, separating the resulting precipitate, adding lime to the remaining phosphoric acid until a pH of about 4.8–6.3 is attained and thereby producing a precipitate of more highly purified dicalcium phosphate, separating the second precipitate, digesting a quantity of the second precipitate approximately equal in dicalcium phosphate content to that of the first precipitate with sulfuric acid of a strength such as to produce directly an aqueous phosphoric acid of about 40–50% P_2O_5 content, and reacting the phosphoric acid so obtained with said first precipitate to produce a superphosphate fertilizer.

2,869,998

LIQUID FERTILIZER

Donald E. Vierling, Pittsburgh, Pa.

No Drawing. Application October 2, 1956
Serial No. 613,371
2 Claims. (Cl. 71—50)

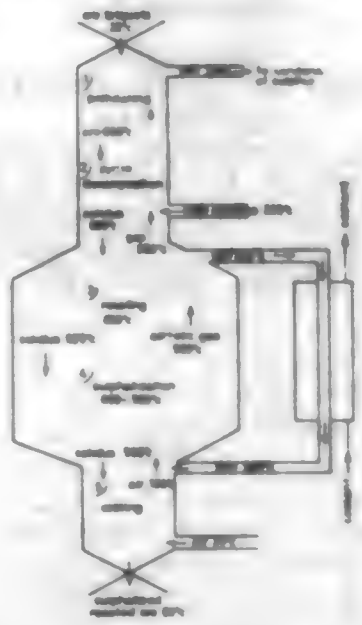
1. A substantially complete aqueous solution for assisting plant growth consisting essentially of the acids H_3PO_4 and HNO_3; the bases KOH and NH_4OH; and the salts K_2HPO_4, K_3PO_4, $(NH_4)_2HPO_4$, $NH_4H_2PO_4$, KNH_4HPO_4, KNO_3, NH_4NO_3, KH_2PO_4 and $(NH_4)_4P_4O_{12}$; said acids, bases and salts being present in amounts corresponding to the equilibrium ratio as established by the nitrogen, phosphorous pentoxide and potassium oxide content, whereby the resultant solution contains the ions H^+, PO_4^{---}, K^+, OH^-, NO_3^- and NH_4^+ in equilibrium with said acids, bases and salts at a selected temperature and pressure; the nitrogen (N), phosphorous pentoxide (P_2O_5) and potassium oxide (K_2O) each being present in amounts ranging between approximately 1% and approximately 30% by weight.

2,869,999

PROCESS FOR THE PRODUCTION OF SULPHUR, METAL OXIDES AND METAL SULPHATES

Terkel Rosenqvist, Trondheim, Norway

Application February 25, 1957, Serial No. 642,280
Claims priority, application Norway March 7, 1956
4 Claims. (Cl. 75—6)



1. A process of treating heavy metal sulphide ores to produce sulphur, metal oxides and metal sulphates, comprising introducing the ore into the upper portion of a treating zone for downward movement through the same, roasting the ore with air at an intermediate region in the zone, distilling off pyritic sulphur from the ore at a region above the roasting region, and introducing a reducing gas directly into the treating zone at a region between the roasting and distillation regions to reduce the sulphur dioxide formed by roasting the ore and to utilize the heat of reaction in the reduction of the sulphur dioxide to distill off the sulphur formed in the reduction.

3,870,804

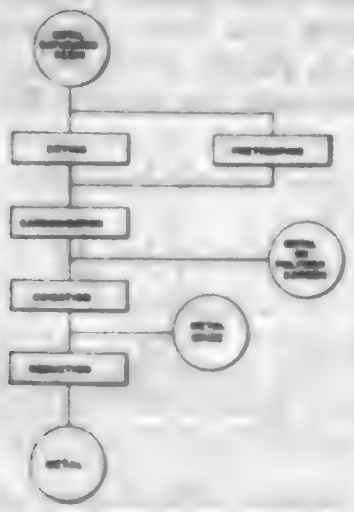
FINELY DIVIDED METAL-CONTAINING SUBSTANCES AND PROCESS FOR THE PREPARATION THEREOF

John W. Ryznar, La Grange Park, Ill., assignor to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

Application October 5, 1954, Serial No. 460,428
14 Claims. (Cl. 75—0.5)

1. A process of producing a metal dispersed on finely divided carbon particles which comprises preheating a metal salt of a partially cross-linked cation exchange

resin below its decomposition temperature at a temperature and for a period of time such that the resin salt



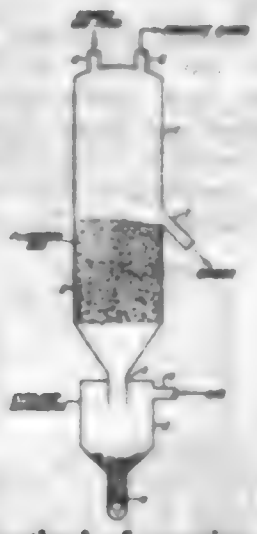
does not disintegrate to an ash when carbonized, and then carbonizing said salt in an inert atmosphere.

2,870,001

METHOD OF FLUIDIZATION

Gino P. Ginati, New Kensington, and Axel R. Johnson, Pittsburgh, Pa., assignors to Texas Gulf Sulphur Company, New York, N. Y., a corporation of Texas

Application June 26, 1952, Serial No. 295,746
5 Claims. (Cl. 75—9)



1. In a fluid bed method of reacting a gas and an ore, the steps comprising providing said bed in a shaft freely open to a downwardly extending continuation of substantially smaller cross sectional area that is freely open to a receiving chamber, continuously passing gas reactive with said ore into said continuation at a velocity therein to maintain said bed in said shaft but by the resultant decreased velocity upon entering the shaft to fluidize the bed, continuously feeding to said bed ore disintegrable by heat in the form of lumps too large to be fluidized and supplying heat in the bed to disintegrate such lumps into particles of fluidizable size, any oversize ore as it reaches said continuation falling freely through it, against the upflow of said gas therein, into said chamber, withdrawing oversize material from said chamber, withdrawing treated ore of fluidizable size from the upper end of said bed, and withdrawing gases from the bed.

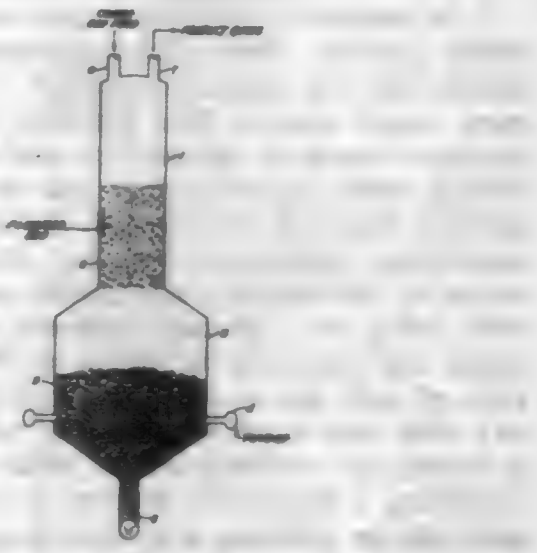
2,870,002

METHOD OF FLUIDIZATION

Axel R. Johnson, Pittsburgh, Pa., assignor to Texas Gulf Sulphur Company, New York, N. Y., a corporation of Texas

Application June 26, 1952, Serial No. 295,776
5 Claims. (Cl. 75—9)

1. In a fluidized bed method of reacting a gas and an ore, the steps comprising establishing said bed in a shaft the lower end of which opens freely into a chamber of substantially larger cross sectional area, continuously feeding to said bed ore disintegrable by reaction in the form of lumps too large to be fluidized and by reaction disintegrating such lumps into particles of fluidizable size, continuously passing said gas into said chamber at a velocity such relative to the cross sectional area of said shaft that the increased gas velocity in the shaft fluidizes



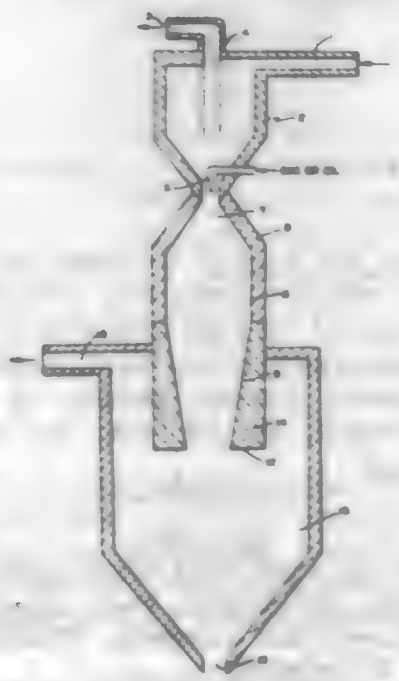
disintegrated ore in said bed while permitting slow discharge of oversize material and of cinder into said chamber, discharging material from said chamber at a rate such as to maintain therein a substantially quiescent body thereof the upper surface of which is spaced from the lower, freely open end of said shaft, supplying heat in said bed, and withdrawing gases from said shaft above said bed.

2,870,003

METHOD OF CONVERTING HEMATITE TO MAGNETITE

Patrick E. Cavanagh, Oakville, Ontario, Canada, assignor to Ontario Research Foundation, Toronto, Ontario, Canada

Application June 17, 1957, Serial No. 666,059
6 Claims. (Cl. 75—34)



1. The method of converting hematite at least partially to magnetite which comprises crushing the hematite to at least 150 mesh, feeding the crushed hematite downwardly into a downwardly directed reducing flame concurrently so as to entrain the crushed hematite in the flame, passing the products of combustion with entrained dust into a separating zone, and permitting the solid particles to settle, while removing the gaseous products of combustion separately therefrom.

2,870,004

METHOD OF PRODUCING NODULAR CAST IRON

James W. Estes, New Brunswick, and Grant E. Spangler, Plainfield, N. J., assignors to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application February 7, 1955
Serial No. 486,714
5 Claims. (Cl. 75—51)

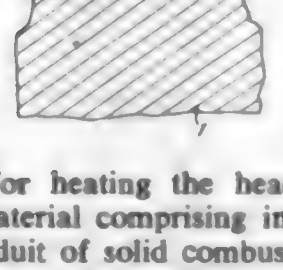
1. A method for producing cast iron containing compacted graphite which comprises establishing a bath of molten cast iron composition which if cast without treatment would contain flake graphite; continuously introducing a stream of an inert gas and a mixture of finely divided solid calcium carbide and elemental magnesium particles into said bath beneath the surface thereof; said magnesium particles constituting about 5–15% of the weight of said mixture; said carbide and magnesium particles being of a fineness sufficient to pass a 20-mesh screen and incapable of passing a 200-mesh screen; the ratio of said gas to said solid mixture being about ¼ to 2 cubic feet of gas per pound of mixture; and promptly casting the resulting treated metal to obtain a casting containing a substantial amount of compacted graphite, said mixture effecting a product improvement which is significantly greater than the sum of the improvement that would be obtained by treatment with the same amount of said calcium carbide alone plus the improvement that would be obtained by treatment with the same amount of said elemental magnesium alone.

2,870,005

PROCESS FOR HEATING THE HEAD OF AN INGOT OF MOLTEN FERROUS MATERIAL

Kurt O. R. Gebhard, Brooklyn, Pretoria, Transvaal, Union of South Africa, assignor to South African Iron and Steel Industrial Corporation Limited, Pretoria, Transvaal, Union of South Africa

Application June 27, 1956, Serial No. 594,201
Claims priority, application Union of South Africa July 6, 1955
7 Claims. (Cl. 75—60)



1. A process for heating the head of an ingot of molten ferrous material comprising introducing into the head a metal conduit of solid combustible material having an exothermic reaction heat substantially greater than that of the ferrous material, passing an oxidizing gas through the conduit, and oxidizing the conduit in the head of the ingot.

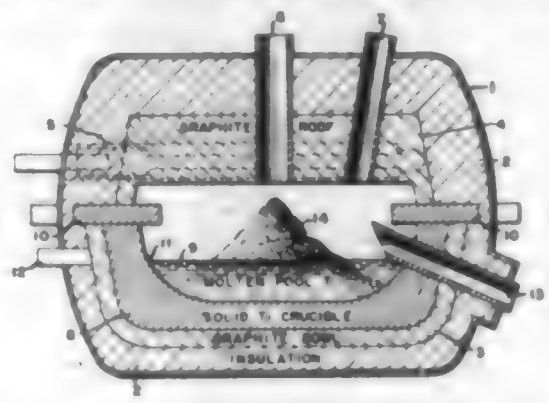
2,870,006

PROCESS FOR MELTING METALS

John L. Morning, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application October 20, 1955, Serial No. 541,708
4 Claims. (Cl. 75—84)

1. In a process of melting with radiant heat from a hot surface as the sole heat source, said melting being accomplished by applying said radiant heat to a charge of metal particles situated below said surface in a crucible of metal which is maintained in the solid state by external cooling, an improvement minimizing the melting of the crucible at the beach line area where the crucible contacts the surface of the pool of molten metal formed by melting comprising shading the beach line area to minimize radiant heat transfer thereto, adding the charge of metal particles at a rate sufficient to maintain a pile of metal particles large enough to absorb a major portion of the radiant heat being transmitted to both said pile and said pool, thereby preventing appreciable superheat in said pool until the melting step is substantially



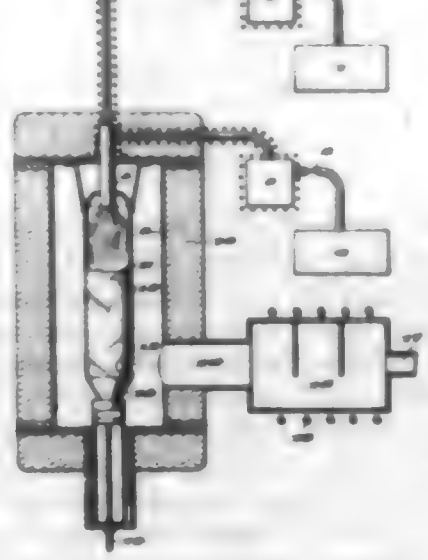
completed, said addition of metal being continued at said rate until the complete charge is introduced into the crucible, sustaining the application of heat and superheating the molten pool in a period of time which is substantially less than the time required for melting, and then removing the molten metal from the crucible.

2,870,007

PROCESS FOR THE PRODUCTION OF METALS BY REDUCTION OF THEIR COMPOUNDS IN THE VAPOR PHASE

Alfred Boettcher, Hanau am Main, and Paul Himmelstein, Frankfurt am Main, Germany, assignors to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany

Application March 3, 1955, Serial No. 491,938
Claims priority, application Germany July 17, 1952
3 Claims. (Cl. 75—84.5)



1. In a process for the production of titanium by reduction of halides thereof in the vapor phase, the steps which comprise introducing the titanium halide to be reduced in the vapor phase and sodium as a reducing metal therefor in the vapor phase into a reaction chamber in constricted directed concentric streams from concentrically disposed nozzles, the velocity of the reactant introduced through the inner nozzle being at least 10% greater than that of the reaction component introduced through the outer nozzle, while avoiding the formation of a liquid phase of such reactants, the titanium halide to be reduced being a halide whose absolute heat of formation per halogen ion is not greater than 70 kcal./mol., the quantity of the sodium introduced being at least 2 milligrams per second per mm.^{2} reducing metal nozzle cross-section and the quantity by weight of titanium halide to be reduced introduced per second per mm.^{2}

total nozzle cross-section is 6 to 20 times the quantity by weight of sodium introduced, igniting such streams to form a continuously burning directed restricted flame in which the titanium halide reduces to titanium and the sodium is converted to its halide, and impinging said flame upon a collecting surface maintained below the boiling point of titanium and above the boiling point of the sodium halide produced in such flame to collect the titanium produced.

2,870,003

ZINC-ALUMINIUM ALLOYS AND THE METHOD FOR PRODUCING SAME

Willi Neu, Saarbrucken, Saarland, assignor to Main Alloy Company Establishment (Mace), Vaduz, Liechtenstein

No Drawing. Application November 15, 1955
Serial No. 547,045
Claims priority, application Great Britain November 18, 1954
5 Claims. (Cl. 75—141)

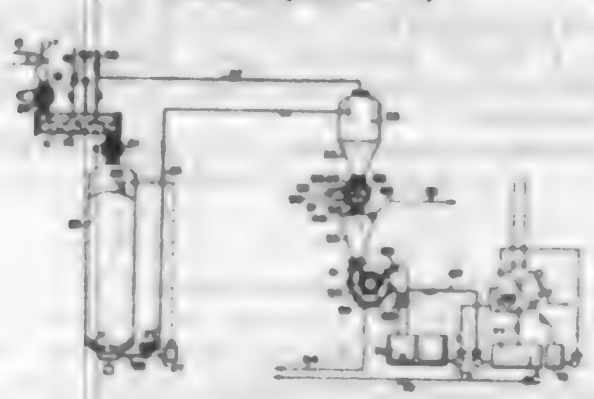
2. An alloy consisting essentially of aluminium at least 20%; silicon from 0.15% to 16%; beryllium from 0.005% to 10%; zinc at least 28%; copper from 0.05% to 6%, iron 0% to 3.5% and not including lead save as an impurity.

2,870,009

METHOD AND APPARATUS FOR THE SEPARATION OF LIQUIDS FROM CELLULOSIC PULP

Johan C. F. C. Richter, Karlstad, Sweden, assignor to Aktiebolaget Kamyr, Karlstad, Sweden, a Swedish company

Application June 8, 1956, Serial No. 590,218
Claims priority, application Sweden June 15, 1955
1 Claim. (Cl. 92—7)



A method of separating liquids from pulp formed out of cellulosic material which is continuously transferred from a preheating vessel to a pressure digester under a relatively high pressure and then to a separating tank under a relatively low pressure, said method comprising: evaporating a portion of the liquids contained in the pulp when the latter is in the separating tank; conveying substantially all of the gases produced by said evaporation back to the preheating vessel; mechanically discharging the pulp from the separating tank to a receiving zone so as to maintain no appreciable pulp level within the separating tank; and the mechanical discharge of pulp from said separating tank being effected independently of the pressure in the separating tank and the pressure in the receiving zone.

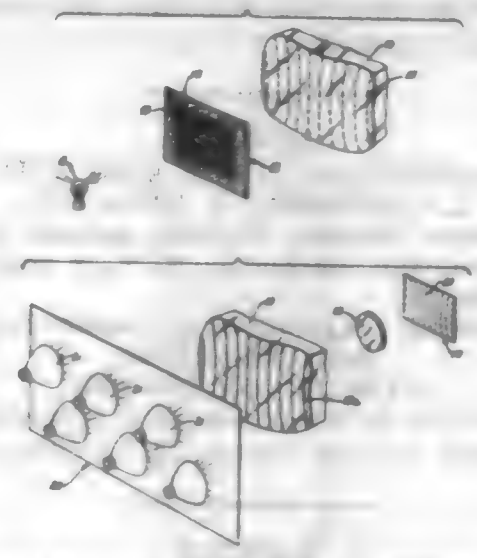
2,870,010

METHOD OF MANUFACTURING ELECTRICAL APPARATUS

Meier Sadowsky, Elkins Park, and Stuart L. Parsons, Gwynedd Valley, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application February 4, 1954, Serial No. 408,219
8 Claims. (Cl. 96—35)

1. The method of forming an optical mask for use in producing a screen structure on the concave interior surface of a curved cathode ray tube faceplate, said method comprising the steps of: subjecting a substantial replica of said faceplate provided with a light diffusing surface on its concave side to illumination by light transmitted to said replica from its convex side along diverging paths through the translucent portions of a preexisting plane-surfaced mask having alternate translucent and opaque portions, thereby to form on said diffusing sur-



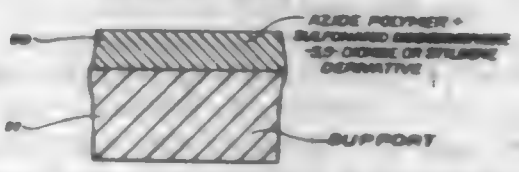
face an illumination pattern corresponding to said translucent portions of said preexisting mask; forming a real, focused image of said pattern on a plane surface disposed on the concave side of said replica and spaced therefrom; and forming on said plane surface a record of said image which constitutes an optical mask whose opacity varies in accordance with the variations in brightness of said image.

2,870,011

PHOTOSENSITIZATION OF VINYLAZIDOPHTHALATE POLYMERS

Earl M. Robertson and James A. Van Allan, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application January 18, 1957, Serial No. 634,899
7 Claims. (Cl. 96—91)



1. A light-sensitive photomechanical resist composition comprising a mixture of a vinylazidohydrogenphthalate polymer and as a sensitizing agent a member of the class consisting of (1) a dibenzothiophene-5,5-dioxide disulfonic acid salt, and (2) a compound having the general structure



wherein R represents a member of the class consisting of amino, triazinylamino, acyl and acylamido groups, R' represents a member of the class consisting of triazinylamino, styryl, acyl and acylamido groups, *n* represents a positive integer of from 1 to 2, and M represents an alkali metal.

2,870,012

MICRODISPERSIONS OF PHOTOGRAPHIC COLOR COUPLERS

Leopold Godowsky and Jerome J. Dunne, Westport, Conn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application December 23, 1955
Serial No. 554,926
5 Claims. (Cl. 96—97)

1. The method of making a dispersion in gelatin of a water-insoluble color coupler capable of coupling with

the oxidation product of a primary aromatic amino developing agent and containing at least one carboxyl group, which comprises dissolving said carboxyl-containing coupler in a water-miscible solvent for said coupler, then adding water and a dispersing agent to the solution of coupler and water-miscible solvent until said coupler is precipitated as a dispersion, removing said water-miscible solvent from said dispersion, and incorporating the dispersion in gelatin.

2,870,013

HARDENING OF GELATIN WITH 2,3 DIHYDROXY DIOXANE

Roy A. Jeffreys, Harrow, England, assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 29, 1956
Serial No. 624,968
3 Claims. (Cl. 96—100)

1. An aqueous gelatin composition comprising a solution of gelatin in water containing 2,3-dihydroxydioxan.

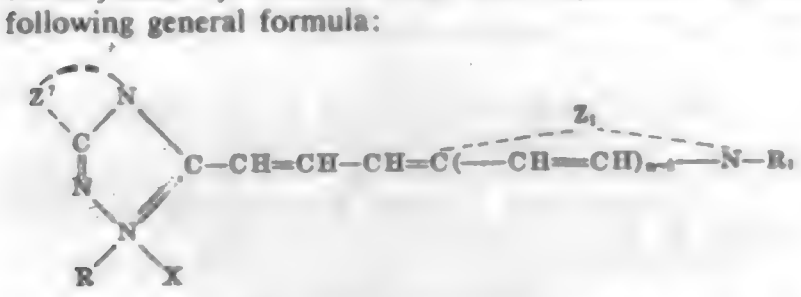
2,870,014

CYANINES FROM TRIAZOLO BASES

Leslie G. S. Brooker and Earl J. Van Lare, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application January 9, 1957
Serial No. 633,184
11 Claims. (Cl. 96—106)

1. A photographic silver halide emulsion containing a carbocyanine dye selected from those represented by the following general formula:



wherein R and R_1 each represents an alkyl group, X represents an acid radical, *n* represents a positive integer of from 1 to 2, Z represents the non-metallic atoms necessary to complete a heterocyclic nucleus of the benzothiazole series, and Z_1 represents the non-metallic atoms necessary to complete a heterocyclic nucleus containing from five to six atoms in the herterocyclic ring.

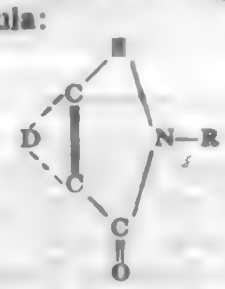
2,870,015

STABILIZED PHOTOGRAPHIC SILVER HALIDE EMULSIONS

Charles F. H. Allen and John J. Sagura, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application March 8, 1957
Serial No. 644,733
11 Claims. (Cl. 96—109)

1. A photographic silver halide emulsion containing a compound selected from those represented by the following general formula:



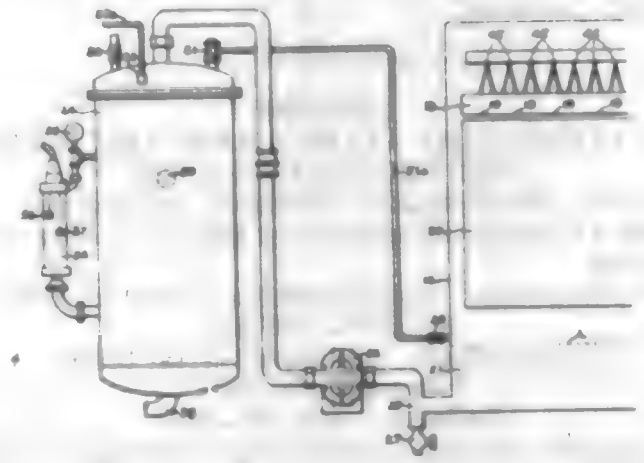
wherein R represents a member selected from the group consisting of a hydrogen atom, an alkyl group, a benzothiazyl group, a benzoxazyl group, and a pyridyl group and D represents the non-metallic atoms necessary to complete a benzene ring.

2,870,016

METHOD AND APPARATUS FOR PREPARING BEVERAGES

Carl L. Day, Frederick E. Fauth, and Wilmer D. Regnier, Baltimore, Md., assignors to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York

Application November 12, 1954, Serial No. 468,416
10 Claims. (Cl. 99—79)



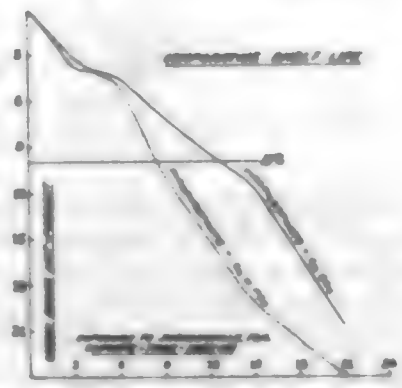
1. The method of preparing a beverage mixture of carbonated water and syrup suitable for filling into containers comprising the steps of: mixing syrup and uncarbonated water at normal temperature in an atmosphere of carbon dioxide at low pressure above atmospheric pressure, cooling the mixture of syrup and water in the atmosphere of carbon dioxide at low pressure so as to precarbonate the mixture, and then subjecting the precarbonated mixture to an atmosphere of carbon dioxide at high pressure for completion of the carbonation of the mixture.

2,870,017

PYROPHOSPHATE BAKING POWDERS

William E. Barch, Stamford, Conn., assignor to Standard Brands Incorporated, New York, N. Y., a corporation of Delaware

Application November 30, 1956, Serial No. 625,528
9 Claims. (Cl. 99—95)



1. A baking powder comprising a baking carbonate and material capable of reacting therewith to liberate carbon dioxide said material consisting essentially of an alkali metal acid pyrophosphate and calcium sulfate.

2,870,018

DIATHERMAL TENDERIZING OF MEAT

Beverly E. Williams, San Mateo, Calif., assignor, by mesne assignments, to Hodges Research and Development Company, New York, N. Y., a corporation of California

No Drawing. Application November 9, 1953
Serial No. 391,147
4 Claims. (Cl. 99—107)

1. The method of accelerating the completion of rigor mortis in freshly slaughtered beef which comprises the steps of internally heating said beef diathermally to about 105° F. and diathermally maintaining said internal temperature in said beef for approximately three and one-half minutes.

2,870,019

THERAPEUTIC COMPOSITION

Curtis E. Meyer, Galesburg, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application September 16, 1954
Serial No. 456,637
7 Claims. (Cl. 99—123)

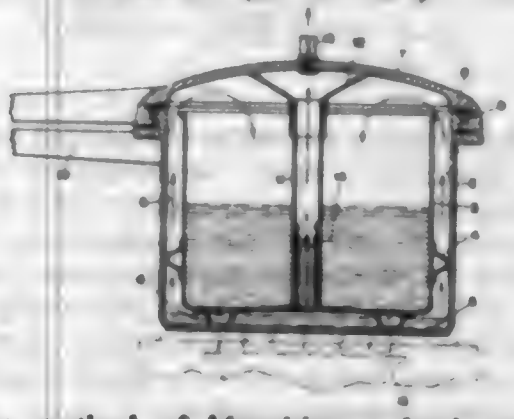
1. A therapeutic fat product suitable for oral and intravenous use comprising a metabolizable, non-toxic, fixed oil and a sugar in an aqueous vehicle with a minor proportion of an ethylene oxide-polypropylene glycol condensation product as an essential emulsifier capable of imparting physical stability to the emulsion without causing excessive toxicity.

2,870,020

METHOD OF BLANCHING FOOD PRODUCTS

Carlyle Martin Ashley, Fayetteville, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Application November 14, 1951, Serial No. 256,315
4 Claims. (Cl. 99—154)



1. In the method of blanching a food product the steps which consist in placing the food product in a first space, forming steam in a second space separate from the first space, passing the steam so formed downwardly over the food product to heat the food product thereby forming condensate thereon and dissolving nutrients from said food product in said condensate, collecting in the lower portion of the first space during the heating operation condensate having dissolved nutrients therein, a second portion of the condensate remaining on the food product, discontinuing the heating operation, reducing the pressure in the first space to evaporate the second portion of condensate on the food product to cool the food product and simultaneously to cause the collected condensate having the dissolved nutrients in the first space to boil and pass upwardly and be distributed over the food product to be retained by the food product restoring a substantial portion of the nutrient content.

2,870,021

STABILIZATION OF ORGANIC COMPOUNDS

William K. T. Gleim, Inland Lake, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application July 18, 1955
Serial No. 522,841
6 Claims. (Cl. 99—163)

6. Gasoline tending to deteriorate containing from about 0.01% to about 1% by weight of the condensation products of di(methallyloxy)hydroquinone and hydroquinone.

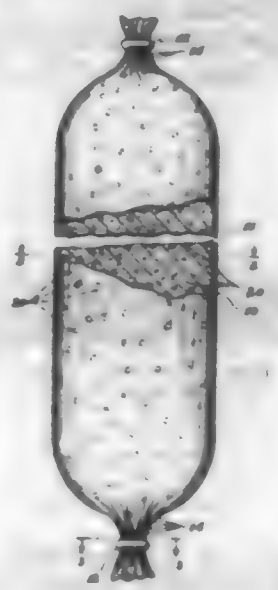
2,870,022

DOUGH MIX PACKAGE

Harry R. Anderson, Cresskill, Salvatore Esposito, Cliffside Park, and Joseph A. Rossi, Ridgefield, N. J.; said Anderson assignor to said Esposito and said Rossi

Application July 22, 1954, Serial No. 445,014
2 Claims. (Cl. 99—172)

1. A cookie dough mix package for subjection to deep-freeze temperatures and alternate periods of thawing, said package comprising a plastic tube of moisture and air-impervious, flexible material forming a skin of the package, a frozen dough filling the tube, both ends of the tube being tightly gathered, two metal rings, one clamped at each end of the package around the tightly gathered end of the package and holding the gathers so tightly clamped that there is a hermetic seal provided by the clamping force for each end of the package, the dough completely filling the package and being packed into the



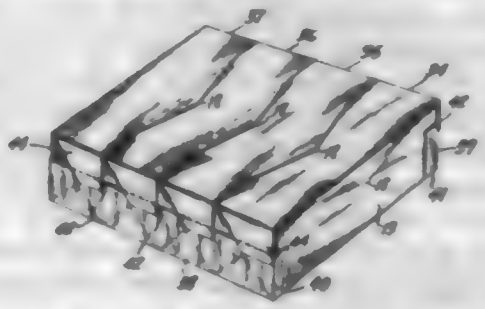
gathers at both ends of the package inward from the location of each clamping ring, and the dough containing all of the ingredients for a baked cookie including the necessary liquid ingredients, said tube being made of polyethylene film which expands and contracts with change in volume of the dough mix due to changes in temperature, and leaves the skin of the package pliable to prevent splitting and to facilitate slicing of the package into thin cookie blanks with the dough in a frozen condition.

2,870,023

ENWRAPMENTS FOR PLASTIC AND LIKE SUBSTANCES

Clarence W. Vogt, Norwalk, Conn.

Application July 5, 1951, Serial No. 235,289
7 Claims. (Cl. 99—179)



4. A composite package formed of a plurality of juxtaposed, unitary parallelepipedal packages, each of which contains a product and is formed of a relatively flexible enwrapment comprising portions forming sides, bottoms, ends and top, the portion forming the top comprising inner and outer layers, the edge of the outer layer having a flap formed therealong and projecting beyond the side of the unitary package, said flaps being adhered to the outer layer of the top portion of the next contiguous enwrapment, a length of plastic tape extending across the combined width of the juxtaposed unitary packages and adhesively bonded thereto, of width extending upward from the lower edges of said packages but spaced from the upper edges thereof, the enwrapment of each individual package having an end fold extending from its top downward covering and bonded to the end of the package above the upper edge of the end tape therebelow, each of the enwrapments having adhered thereto a reinforcement formed of relatively stiff material forming a bottom and ends on the inside of each enwrapment, the

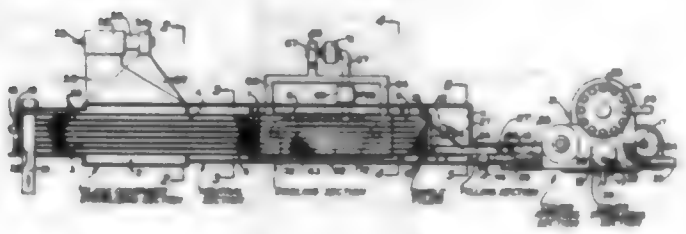
width of each enwrapment in the direction of the reinforcement being such as to prevent overlapping of the end folded portions of the top and bottom portions.

2,870,824

PRESERVING PRODUCTS IN SEALED CONTAINERS

William McK. Martin, San Mateo, Calif., assignor to James Dole Engineering Co., San Francisco, Calif., a corporation of Nevada

Application December 16, 1954, Serial No. 475,615
7 Claims. (Cl. 99—182)



5. In the canning of food products with open mouth glass containers which when heated are subject to cracking upon being filled with a cooled product and wherein the containers are continuously moved in upright position through an enclosed system which includes an enclosed container sterilizing zone heated to a temperature substantially in excess of 212° F. for effecting sterilization of the containers and an enclosed sterile filling zone following said container sterilizing zone in which said sterilized containers are filled with a presterilized cooled food product, the method of minimizing cracking of glass from thermal shock which might otherwise result from the cooled product contacting the same which comprises prior to the time said glass containers enter said filling zone effecting both reduction in temperature of the containers and transfer of heat between portions of the containers of unequal temperature by providing an enclosed conditioning passageway between and communicating with said sterilizing and filling zones, moving said containers through said passageway and into said filling zone with the containers upright and their open mouths positioned uppermost, and providing in said passageway a gaseous sterile cooling medium in direct contact with said glass introduced into said passageway from a source exterior thereto and which is continuously maintained in said passageway to maintain sterile conditions therein and to give rapid cooling with reduction in temperature of said glass to below that at which breakage due to thermal shock upon contact with cool product is substantially eliminated.

2,870,825

PREVENTING STRUVITE FORMATION IN THERMALLY TREATED SEAFOODS

Carl R. Fellers, Amherst, Mass., and Walter A. Zachowski, Beaufort, S. C., assignors to Blue Channel Corporation, Port Royal, S. C., a corporation of Maryland

No Drawing. Application April 24, 1957
Serial No. 654,666
6 Claims. (Cl. 99—188)

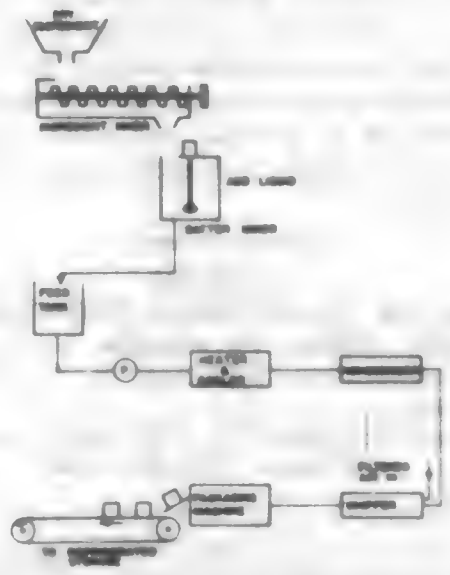
1. The method of preventing objectionable struvite formation in the thermal treatment and canning of seafoods which are subject to the accumulation of struvite crystals after such processing, which consists of introducing into the can with the seafood and water a struvite crystal-preventing substance consisting of aluminum sulfate in amount from about 0.025% to about 0.2% by weight of aluminum sulfate $Al_2(SO_4)_3.18H_2O$ based upon the combined weight of the seafood and water in the can.

2,870,826

PROCESS FOR MAKING A REFRIGERATED BATTER

Harold M. Keller, St. Paul, Minn., and Roderick Gerald Beck, Idaho Falls, Idaho, assignors to General Mills, Inc., a corporation of Delaware

Application March 17, 1958, Serial No. 722,366
7 Claims. (Cl. 99—192)



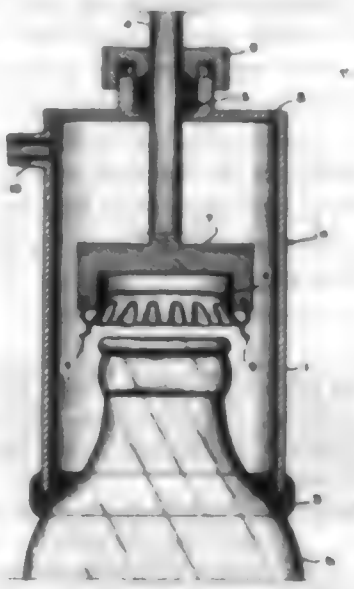
1. Process of making a stable refrigerated batter which comprises preparing a batter; subjecting the batter to a stabilization treatment at a temperature within the approximate range of 145–185° F. for a period within the range of 10 seconds to 30 minutes, the longer time period being employed at the lower temperature; and cooling the batter to a temperature above the freezing point thereof but below 145° F. and below 120° F. in the event that the batter contains leavening ingredients.

2,870,827

PROCESS FOR STABILIZING MILK AND SIMILAR PRODUCTS

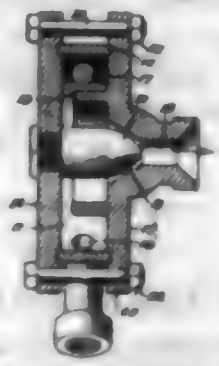
Manuel Romero, Montevideo, Uruguay, assignor to Stabil Internacional S. A., a corporation of Uruguay

Application April 5, 1954, Serial No. 421,848
18 Claims. (Cl. 99—212)



1. A process for the stabilization of a liquid selected from the group consisting of milk, cream, a liquid cream product and a liquid milk product comprising heating said liquid to a temperature below its boiling point at normal pressure, placing said heated liquid in its final container, exposing said liquid to a vacuum to remove the gases therein until ebullition occurs and maintaining said vacuum until the gases present in said liquid are substantially completely removed, hermetically closing said container under said vacuum conditions and heating the container and its contents to a sufficient temperature for a sufficient time to assure sterilization of said contents.

2,870,028
METHOD OF COOKING ANIMAL AND VEGETABLE MATERIALS
Lindson P. Anderson, Chicago, and Kristian Schultz, deceased, late of Chicago, Ill., by Margaret F. Schultz, executrix, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
Application September 14, 1953, Serial No. 379,882
7 Claims. (Cl. 99—216)



1. The method of treating solid animal and vegetable materials with steam, characterized by the steps of continuously pumping an aqueous slurry of the subdivided, solid material to be treated into the outer portion of an annular raceway having curved outer and inner walls defining a closed circuit, continuously driving the newly introduced portions of said slurry around said raceway circuit by the introduction of at least one jet of steam into said raceway while heating the solid particles of material therein by direct contact with the steam, said steam jet without being deflected and without any substantial reduction in its velocity impinging directly upon said newly introduced slurry portions, and continuously removing previously circulated and heated portions of said slurry from the inner portion of the raceway, said outer and inner walls remaining stationary during said method steps.

2,870,029
EYEGLASS CLEANER
Henry J. Sobolenki, South Bend, Ind.
Application May 24, 1957, Serial No. 661,536
3 Claims. (Cl. 106—5)

1. A composition for cleaning eyeglasses and the like, consisting essentially of a mixture of about eighty-one percent (81%) paraffin wax, three and one half percent (3½%) rouge containing principally ferric oxide, and fifteen and one half percent (15½%) cornstarch, said rouge and starch being thoroughly dispersed in said wax.

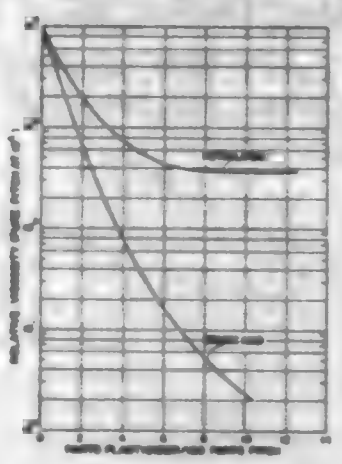
2,870,030
HIGH-INDEX GLASS ELEMENTS
Norman H. Stradley, St. Paul, and Warren R. Beck, Mahtomedi, Minn., assignors to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware
No Drawing. Application July 18, 1955
Serial No. 522,843
9 Claims. (Cl. 106—47)

1. Transparent glass beads resistant to attack by acids and having a diameter not exceeding 10 mils, said beads being formed from a glass characterized by having a refractive index of at least 2.2 and essentially consisting of a metal oxide combination meeting the compotition requirements of the following table wherein amounts are specified in weight percent:

Bi_2O_3	70–99
TiO_2	0–30
$Bi_2O_3+TiO_2$	80–100
ZnO	0–15
Alkaline earth oxides	0–20
Strong glassformers	0–10

said alkaline earth oxides being selected from the group consisting of BaO, MgO, CaO, and SrO, and said strong glassformers being selected from the group consisting of B_2O_3, SiO_2, P_2O_5, and GeO_2.

2,870,031
GRAPHITE EXTRUSIONS
Theodore M. Benziger, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application May 15, 1957, Serial No. 659,443
1 Claim. (Cl. 106—56)



A method for making a carbonaceous mixture readily extrudable, comprising mixing 130 parts by weight of coal-tar pitch, petroleum coke, carbon black, benzene, and a fatty acid in which the coal-tar pitch is present in at least 22 parts, the benzene is present in approximately 30 parts, and the fatty acid is present in at least about 2 parts, stirring a mixture of said carbon black, fatty acid and benzene at a temperature of 70° C. until the mixture is smooth, adding said petroleum coke and continuing the mixing until the batch returns to a dispersed "wet" state, applying a vacuum to said mixture to remove the benzene, mixing the remainder of the batch for about one-half hour, again applying a vacuum and continuing the mixing for about 15 minutes, chilling the mixture by mixing-in crushed Dry Ice, and allowing said mixture to chill to a hard, brittle state, and crushing said hard mixture to 3/8 in. maximum particle size.

2,870,032
REFRACTORY GUNNING COMPOSITION AND METHOD OF PRODUCING THE SAME
Louis J. Jacobs, Chicago, Ill., assignor to The S. Obermayer Co., Chicago, Ill., a corporation of Ohio
No Drawing. Application June 11, 1956
Serial No. 590,378
12 Claims. (Cl. 106—67)

1. A refractory composition consisting essentially of between about 40% and about 78% by weight of coarse grains of refractory clay, between about 10% and about 35% by weight of fine grains of refractory clay, between about 15% and about 35% by weight of bond clay, up to about 0.5% by weight of wetting agent, and a small amount of water, and wherein each coarse grain has a primary coating of moistened bond clay and an exterior coating of dry bond clay and said fine grains.

2,870,033
ADHESIVE COMPOSITIONS
James G. Lander, Cincinnati, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
No Drawing. Application March 19, 1954
Serial No. 417,507
11 Claims. (Cl. 106—82)

1. An adhesive silicate composition characterized by strong adherence to cellulosic materials and substantial non-adherence to heated metal surfaces, said composition consisting of a major proportion of an aqueous adhesive

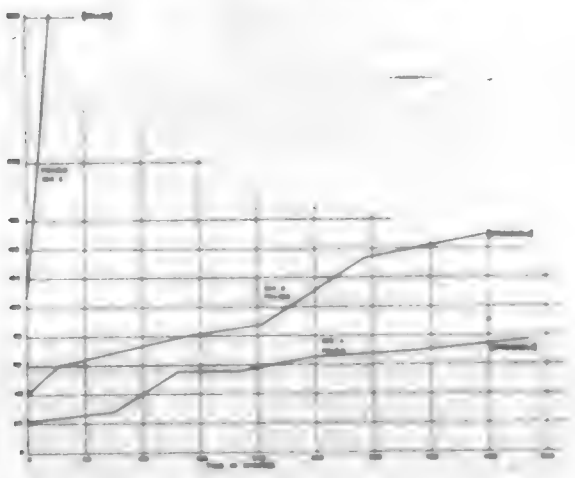
silicate solution having a solids content of 35–45% and an $Na_2O:SiO_2$ ratio of 1:2.5–4 and including in the minor proportion, about 3 to 10% urea, and about 0.1 to 3% of a fatty oil, sufficient in amount to impart non-adherence of said adhesive silicate glass to heated metal surfaces.

2,870,034

LAMINATING ADHESIVE AND METHOD OF PRODUCING THE SAME

Norman J. Sheeran, Seattle, Wash., assignor to American-Marietta Company, Chicago, Ill., a corporation of Illinois

Application April 1, 1957, Serial No. 649,758
8 Claims. (Cl. 106—124)



1. The method of making a high speed, heat settable glue for paper-to-paper and paper-to-wood laminating, comprising: forming an aqueous mixture of a substantially undenatured spray dried soluble blood and china clay in which the clay varies between about 30% and about 90% of the weight of the blood solids, and the water varies between about 110% and about 250% of the weight of the blood solids; stirring said mixture to uniform consistency while simultaneously abating foaming; adjusting the pH of said mixture, by the addition of an alkaline material selected from the group consisting of sodium silicate, sodium hydroxide, and trisodium phosphate and mixtures thereof, to between about 8 and about 10.3 to produce a glue having a protracted pot-life; and maintaining the glue temperature at approximate room temperature at all times until spread between lamina to be bonded.

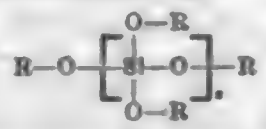
2,870,035

COATING COMPOSITION AND PROCESS OF PREPARATION

Lyman S. Allen, Gloucester, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 6, 1954
Serial No. 428,131
17 Claims. (Cl. 106—192)

1. A coating composition containing a film-forming material dissolved in an organic liquid and a flatting amount of solid particles of a silica flatting agent consisting essentially of the hydrophilic to partially hydrophobic but non-organophilic reaction product of (1) an amorphous, hydrophilic, water-insoluble silica material containing a thousand and more of silanol groups and having an acid number above 0.2 and (2) from 2 to 25% by weight, based on the dry silica material, of an organic silicate having the structural formula:



where R is selected from the group consisting of alkyl and alkoxy radicals and x is an integer from 1 to 20.

2,870,036

ASPHALT-BASE MASTIC

Joe William Stewart, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York

No Drawing. Application April 2, 1956
Serial No. 575,320
7 Claims. (Cl. 106—269)

1. A non-aqueous composition for sealing joints between glass coated articles comprising asphalt and ammonium salt and a metal higher fatty-acid soap in an amount by weight of 2% to 6% of said salt and 1% to 3% of said soap.

2,870,037

PROCESS FOR TREATING GRASS

Sherman Converse, Aiken, S. C., assignor to Graniteville Company, Graniteville, S. C., a corporation of South Carolina

No Drawing. Application April 10, 1958
Serial No. 727,553
11 Claims. (Cl. 117—3)

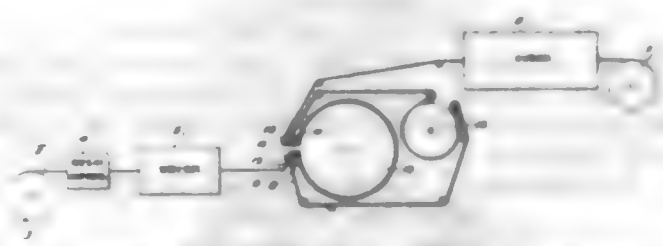
4. A process for treating discolored grass to impart a permanent color thereto and provide protection from deterioration until the treated grass is replaced by new growth, said process comprising applying to the discolored grass a pigmented, aqueous dispersion of a film-forming, water-insoluble, resinous binder wherein the ratio of binder solids to pigment solids is in the range of from about 0.75:1 to 3.0:1; said aqueous dispersion having a solids content consisting essentially of from about 39% to 76% resinous binder solids, from about 56% to 22% pigment solids; from about 0% to 5% thickening agent and from about 0% to 5% wetting and dispersing agent, all of said percentages being expressed in terms of weight.

2,870,038

METHOD FOR IMPARTING DURABLE LUSTERIZED FINISH TO FABRIC

William Ralph MacIntyre, Wilmington, Del., assignor to Joseph Bancroft & Sons Company, Wilmington, Del., a corporation of Delaware

Application October 18, 1954, Serial No. 462,831
4 Claims. (Cl. 117—11)



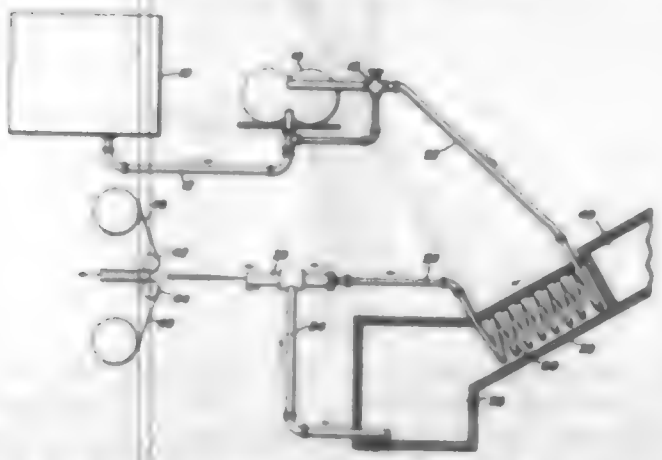
1. A method for imparting a durable lusterized surface finish effect to fabric comprising impregnating the fabric with an aqueous solution of an impregnant capable of setting to fix the finish effect upon heating of the impregnated fabric, drying the fabric to a moisture content of from 2% to 18% feeding the thus dried moist fabric to a carrier blanket, while carrying from 2% to 18% moisture, and with the blanket acting to maintain the fabric in pressure contact with a drying drum, the contact pressure being from 3.5 ounces to 3 pounds per square inch and the drum temperature being from 230° F. to 300° F., to thereby impart a lusterized surface finish effect without substantial setting of the impregnant, and thereafter heating the fabric to set the impregnant and thereby fix the lusterized surface finish effect.

2,870,039

METHOD AND APPARATUS FOR COATING A SURFACE WITH LIGHT WEIGHT AGGREGATE

Robert W. McReynolds, New Orleans, La., assignor of fifty percent to Augustine Richard Moulin, New Orleans, La.

Application August 31, 1953, Serial No. 377,363
2 Claims. (Cl. 117—28)



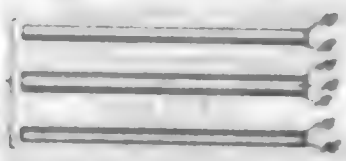
1. A method for coating a surface with particles of a light weight aggregate comprising the steps of heating a solution of water soluble, thermo-setting resin, heating said aggregate, said first heating being carried out by passing said aggregate past said solution to heat said solution, spraying said solution on a stream of aggregate to coat the particles of said aggregate while permitting the water vapor released upon contact of said solution and said aggregate to prevent ignition of volatile elements and to prevent flash-setting of the resin, projecting said coated aggregate against a surface at atmospheric conditions while polymerization is taking place to form an insulating section of desired thickness.

2,870,040

COATED MANIFOLDING SHEETS AND METHOD OF MAKING THEM

Edwin R. Gill, Jr., Millerton, N. Y.

Application August 6, 1957, Serial No. 676,642
12 Claims. (Cl. 117—36)



1. In a transfer copying system, an original sheet provided with a uniform coating of an acidified solution of an alkali metal gallate dried thereon and a copy sheet provided with a gelatinous coating of an iron lactate salt, said sheets being arranged with the coated surfaces in contiguous relationship.

2,870,041

PROCESS FOR PREVENTING ALDEHYDE ODORS

Howard M. Weeldle, James F. Cotton, and Richard E. Hudson, Jr., West Point, Ga., assignors to West Point Manufacturing Company, West Point, Ga., a corporation of Georgia

No Drawing. Application June 2, 1958
Serial No. 738,919
10 Claims. (Cl. 117—62)

1. In a process for treating filamentary or sheet material with an aldehyde resin involving the steps of applying said resin to the material followed by curing, the improvement whereby aldehyde odors are effectively prevented, said improvement comprising the steps of impregnating said material with a compound supplying the HSO_3^- ion, at any stage in the treatment of said material from application of said resin until after curing thereof, and thereafter drying the material at elevated temperature in the presence of said ion, the amount of compound utilized being sufficient to react with all free and potentially free aldehyde in said material and varying between 0.01 mol and 1.0 mol per mol of aldehyde in the resin, when said compound is applied after curing, and being at least one mol per mol of aldehyde in the resin when said compound is applied prior to curing.

2,870,042

FLAME RESISTANT ORGANIC TEXTILES AND METHOD OF PRODUCTION

Leon H. Chance, George L. Drake, Jr., and Wilson A. Reeves, New Orleans, La., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Original application June 5, 1956, Serial No. 589,561. Divided and this application April 24, 1957, Serial No. 661,986
15 Claims. (Cl. 117—136)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process for rendering a hydrophilic organic fibrous material flame-resistant which comprises impregnating said fibrous material with a homogeneous aqueous liquid mixture containing a 1-aziridinyl compound selected from the group consisting of tris (1-aziridinyl) phosphine oxide and tris (1-aziridinyl) phosphine sulfide and an alcohol of the formula $R(OH)_x$ where x is an integer of at least 2 and R is selected from the group consisting of unsubstituted and amino-substituted alkyl radicals, the proportions of 1-aziridinyl compound and alcohol being such that from 1 to 2 alcoholic —OH groups are present for each 1-aziridinyl group, and heating the impregnated material to a temperature of about from 100° to 170° C. to produce a flame-resistant polymer in and on the fibers of the material.

2,870,043

PRINTABLE POLYETHYLENE FILM

Leon E. Wolinski, Buffalo, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 3, 1954
Serial No. 434,324
2 Claims. (Cl. 117—138.8)

1. Polyethylene film the surfaces of which have uniformly distributed thereon a composition comprising essentially from 0.4 to 3.0 milligrams, per square foot of film surface, of dimethyl silicone oil having a viscosity no greater than 1000 centistokes measured at 38° C., and from 0.8 to 2.5 milligrams, per square foot of film surface, of a water-soluble alkyl aryl polyglycol ether of the formula:

$$R—O—(CH_2CH_2O)_x—H$$

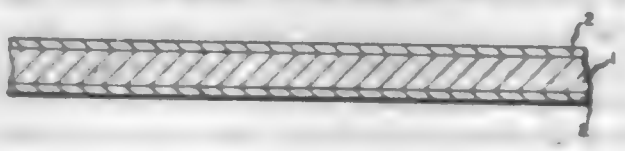
wherein R is a benzene ring substituted at least once by a member of the group consisting of alkyl and cycloalkyl radicals having at least 4 carbon atoms and mixtures thereof, and x is an integer from 6 to 25 inclusive.

2,870,044

COATED POLYMERIC THERMOPLASTIC DIELECTRIC FILM

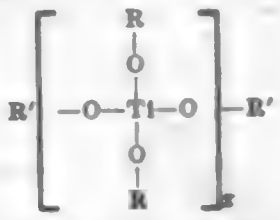
Philip Strubing Blatz, Buffalo, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application March 27, 1956, Serial No. 574,082
6 Claims. (Cl. 117—138.8)



1. A polymeric thermoplastic dielectric base film having an adherent continuous cured coating consisting es-

sentially of (A) a resinous compound selected from the group consisting of (1) phenol-formaldehyde resins, and (2) alkyd resins prepared from the interreaction of a polybasic carboxylic acid and a polyhydric alcohol, and at least 35% by weight, based on the total weight of reactants, of at least one member of the group consisting of fatty acids containing at least 8 carbon atoms and fatty oils, said alkyd resins having an unreacted hydroxyl content corresponding to at least 3% by weight of the polyhydric alcohol, and (B) a titanium organic compound having the formula:



where R is a member of the group consisting of alkyl radicals and acyl radicals of the formula R″C=O, where R″ is alkyl, R′ is an alkyl radical containing from 1 to 8 carbon atoms, and x is an integer from 2 to 10.

2,870,045

IMPREGNATED SYNTHETIC FIBER SEWING THREAD AND METHOD OF MAKING SAME

Howard D. Corkum, Willimantic, Conn., assignor to The American Thread Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application December 17, 1956
Serial No. 628,555
10 Claims. (Cl. 117—138.8)

1. The method of treating synthetic fiber sewing thread comprising the steps of melting together at 160° F. 12.5 parts by weight of petroleum jelly, 9.5 parts by weight of butyl stearate, 8.0 parts by weight of oleic acid, and 2.5 parts by weight of triethanolamine, stirring the mixture to a clear amber liquid, adding 63.5 parts by weight of water slowly while maintaining the temperature of the mixture at 160° F., adding and mixing therewith 4.0 parts by weight of a 60% aqueous dispersion of tetrafluoroethylene resin solids, and then impregnating said thread with such mixture and drying the treated thread at about 248–284° F. for 10 to 20 seconds.

2,870,046

ELECTRICAL CURRENT RECTIFIER

Robert L. Van Asselt and Carl V. Gerdes, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 4, 1955
Serial No. 486,285
4 Claims. (Cl. 117—200)

1. An electrical current rectifier comprising a compact mass of discrete portions of an oxide and a sulfide of titanium in intimate contact with each other.

2,870,047

WELDING RODS AND METHOD OF MAKING SAME

Leland M. Kee, Baltimore, Md., assignor by mesne assignments, to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

Application May 5, 1954, Serial No. 427,889
23 Claims. (Cl. 117—202)

13. A method of preparing a coated welding rod having a minimum of cracks and other defects which comprises incorporating a polymeric water-soluble polyelectrolyte having a molecular weight of at least 10,000 and containing a substantially linear continuous carbon chain derived by the polymerization of an aliphatic unsaturated group into a welding rod coating composition containing water thereby increasing the mobility of said composition for extrusion and reducing shrinkage thereof on drying, extruding said welding rod coating composition over a



metallic core wire, to form a green, coated, welding rod, and baking said green, coated, welding rod to remove water therefrom.

2,870,048

DEENAMELING PROCESS

Clarence Woerther, Evanston, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application October 30, 1956
Serial No. 619,103
11 Claims. (Cl. 134—29)

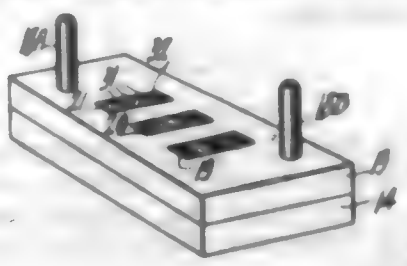
1. In the process of deenameling metal which comprises submerging enameled metal ware in a concentrated aqueous solution of sodium hydroxide, said solution having an elevated superatmospheric temperature, removing the metal from the solution when substantially free of enamel, and washing the metal with an aqueous medium, the improvement which comprises employing an aluminum fluoride-containing substance in said aqueous solution of sodium hydroxide, whereby the time required for deenameling is substantially shortened.

2,870,043

SEMICONDUCTOR DEVICES AND METHOD OF MAKING SAME

Charles W. Mueller, Princeton, and Ralph L. Sherwood, Mercerville, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application July 16, 1956, Serial No. 598,189
10 Claims. (Cl. 148—1.5)



1. In the fabrication of rectifying junctions by the introduction of vaporized conductivity type-determining impurities into monocrystalline semiconductor wafers, the improvement comprising stacking said wafers in a well in a jig, said wafers substantially filling said well, inserting within said stack in said well at least one source wafer heavily doped with a conductivity type-determining impurity material, and heating said jig in a non-oxidizing atmosphere so that said conductivity type-determining impurity is emitted by said source wafer and diffuses into the surfaces of said monocrystalline wafers to form a rectifying junction at a pre-determined depth.

2,870,850
SEMICONDUCTOR DEVICES AND METHODS OF MAKING SAME
Charles W. Mueller, Princeton, and Jane M. Printon, Rutherford, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application June 25, 1957, Serial No. 667,916
17 Claims. (Cl. 148—1.5)

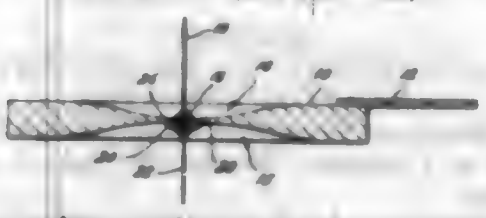


1. In the fabrication of rectifying junctions by the introduction of a vaporized conductivity type-determining substance into semiconductor wafers, the improvement comprising exposing said wafers to the vapors emitted by powdered semiconductive material which has been alloyed with up to 10 percent by weight of said type-determining substance, and heating said wafers and said powdered alloy material so that said vaporized type-determining substance diffuses into said wafers and forms a rectifying junction at a predetermined depth.

2,870,851
METHOD OF HEAT TREATING ALUMINUM BRONZE ALLOY AND PRODUCT THEREOF
John F. Klement, Milwaukee, Wis., assignor to Ampco Metal, Inc., Milwaukee, Wis., a corporation of Wisconsin
No Drawing. Application February 21, 1957
Serial No. 641,457
5 Claims. (Cl. 148—21.92)

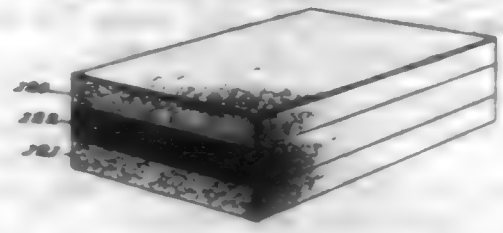
1. A method of increasing the modulus of elasticity of an aluminum bronze alloy having from 3% to 20% aluminum and having a beta constituent in the metallographic structure, which comprises heating the alloy to a temperature of over 1050° F., cooling the alloy at a rate of 500° F. to 1000° F. per minute per two inch section to a temperature below 400° F., and reheating the alloy with at least one increment of temperature to a temperature in the range of 850° F. to 950° F., said alloy being held at the temperature of the increment and at the temperature in the range of 850 to 950° F. for a sufficient period of time to obtain the gamma$_2$ constituent in the range of about 30% to 70% by weight of the alloy and thereby produce a substantial increase in the modulus of elasticity.

2,870,852
SEMICONDUCTIVE DEVICE AND METHOD FOR THE FABRICATION THEREOF
Albert D. Rittmann, Huntingdon Valley, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application May 18, 1956, Serial No. 585,670
10 Claims. (Cl. 148—33)



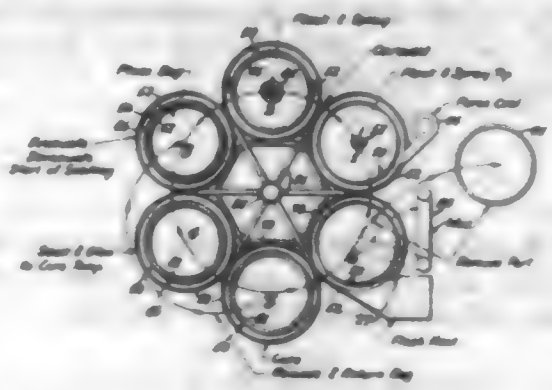
1. As the emitter region of a semiconductive device, a body of semiconductive material having a thickness of less than 0.01 mil and containing an average concentration of ionized activator impurity atoms of greater than about 10^{19} atoms per cubic centimeter.

2,870,853
CUSHION PADS
Henri Marc, Cincinnati, Ohio, assignor to The American Pad & Textile Company, Greenfield, Ohio, a corporation of Ohio
Original application March 26, 1951, Serial No. 217,439, now Patent No. 2,742,951, dated April 24, 1956. Divided and this application August 15, 1955, Serial No. 528,338
1 Claim. (Cl. 154—54)



An elastically compressible cushion pad comprised of a plurality of layers, each layer being a felted mass of individually kinked fibers of synthetic polymer material, said fibers having stretched portions and random unilateral relaxation of the stretched condition at random points thereof, and bonding materially locally uniting said fibers at points of contacts thereof throughout the mass, each said layer being further characterized in having the fibers individually under initial stress in the layer and thereby exhibiting the effect of a pre-compression of 25 to 200 pounds per square inch between the upper and lower surfaces of the layer during the bonding of the fibers therein, the lower layer being comprised of fibers having a diameter of about 15 mils and the upper layer being comprised of fibers having a diameter of 2 to 10 mils; and bonding material connecting surface-exposed fibers of adjacent layers together to provide a unitary structure.

2,870,854
METHOD AND APPARATUS FOR FABRICATING HOLLOW BODIES AND SHEETS OF PLASTIC MATERIAL
Homer Ames, Manhattan Beach, and Edward T. Strickland, Playa del Rey, Calif., assignors to Pantasote Aviation Corporation, Los Angeles, Calif., a corporation
Application August 5, 1954, Serial No. 448,064
13 Claims. (Cl. 154—83)



10. In an apparatus of the character described for forming hollow bodies of a material that is at least partially a plastic, the combination of: conveyor means, a series of molds on said conveyor means to be carried thereby to a series of stations in sequence for a cycle of operation; means to rotate said mold at some of said stations early in said sequence at rates to cause material to cling to the inner surfaces on the molds by centrifugal force; means at one of said earlier stations to direct at least one stream of plastic material into the rotating molds for deposit on the inner surfaces of the molds thereby forming layers of the configuration of the desired hollow bodies, means to position bags in the molds at one station and to remove the bags at a later station; means for connecting the positioned bags to the molds in a fluid-tight manner to form sealed spaces around the bags enclosing said layers; means to evacuate said spaces

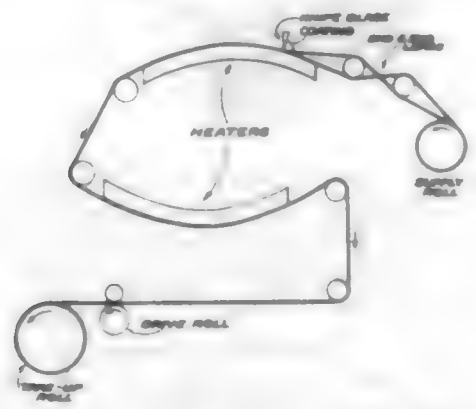
to remove gaseous fluids from said layers; and means to expand the connected bags by fluid pressure to place the layers under pressure for a curing period.

2,870,055

PROCESS FOR FORMING WEFTLESS RIBBON

Charles H. Coney and William L. Rumgay, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application November 14, 1955, Serial No. 546,350
3 Claims. (Cl. 154—92)



2. A process for forming a weftless ribbon comprising bonding together the yarn of a warp consisting of parallel yarns of cellulose acetate to form a self-supporting web, by means of a coating comprising 15–20 percent cellulose acetate butyrate, 46–64 percent toluene and 10–20 percent ethanol by weight and drying at elevated temperatures under tension.

2,870,056

FUNGICIDAL COMPOSITIONS COMPRISING THE MONO-PHENYLHYDRAZONES OF α-DIKETONES, α-KETOALDEHYDES, AND α-HYDROXYKETONES

Ernest G. Jaworski, Florissant, Mo., and Dexter B. Sharp, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 21, 1954
Serial No. 457,560
11 Claims. (Cl. 167—30)

1. A fungicidal composition comprising water, an emulsifying agent, and the mono-phenylhydrazone of a carbonylic compound selected from the class consisting of α-diketones of the formula

$$\begin{matrix} RC{=}O \\ | \\ R'C{=}O \end{matrix}$$

in which R and R′ are selected from the class consisting of alkyl and aryl radicals containing from 1 to 8 carbon atoms; α-ketoaldehydes of the formula

$$\begin{matrix} YC{=}O \\ | \\ HC{=}O \end{matrix}$$

in which Y is selected from the class consisting of alkyl and aryl radicals containing from 1 to 16 carbon atoms; glyoxal; α-hydroxy ketones of the formula

$$\begin{matrix} Z{-}C{=}O \\ | \\ Z'{-}CHOH \end{matrix}$$

in which Z is selected from the class consisting of alkyl and aryl radicals containing from 1 to 8 carbon atoms and Z′ is selected from the class consisting of Z and hydrogen; and α-hydroxyaldehydes of the formula

$$\begin{matrix} T{-}CHOH \\ | \\ H{-}C{=}O \end{matrix}$$

in which T is selected from the class consisting of hydrogen and alkyl and aryl radicals containing from 1 to 16 carbon atoms.

2,870,057

4- OR 5-INDANYL N-METHYL CARBAMATE

Robert J. Hartle, Gibsonia, and Helen I. Thayer, Pittsburgh, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application November 26, 1957
Serial No. 698,904
7 Claims. (Cl. 167—30)

1. A carbamate ester selected from the group consisting of 4-indanyl N-methylcarbamate and 5-indanyl N-methylcarbamate.

2,870,058

FUNGICIDE-OIL FORMULATIONS

Donald J. Loder, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 2, 1955
Serial No. 550,748
3 Claims. (Cl. 167—42)

3. A readily redispersible fungicidal composition obtained by shear milling a finely divided fungicidally active dithiocarbamate in a non-solvent, water-immiscible organic liquid selected from the group consisting of deodorized kerosene, mixed isoparaffins in the boiling range of from 250°–650° F. and white oils having a viscosity of from 50–350 S. U. S. at 100° F., whereby a highly stable, homogeneous dispersion of discrete deagglomerated particles of said fungicidally active compound of average size less than 5 microns is produced.

2,870,059

PROCESS OF MOLDING DITHIOCARBAMATE SLURRIES WHICH CONTAIN GUAR GUM

Mortimer P. Williams, Houston, and Carroll T. Kirchner, Pasadena, Tex., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 15, 1956
Serial No. 604,088
3 Claims. (Cl. 167—42)

1. In a process for forming shapes of a dithiocarbamate, the steps comprising adding 0.25 to 5 percent by weight based on the weight of dithiocarbamate of guar gum to an aqueous slurry of the dithiocarbamate, removing excess water, and forming the mixture into shapes.

2,870,060

STABLE ENCAPSULATED SOLUTION OF A SALT OF A DIALKYL SULFOSUCCINATE

Hugh D. Bryan, Evansville, Ind., assignor to Mead Johnson & Company, Evansville, Ind., a corporation of Indiana

No Drawing. Application February 7, 1956
Serial No. 563,837
8 Claims. (Cl. 167—56)

1. A capsule comprising a shell of soft gelatin containing a liquid which consists essentially of a liquid polyethylene glycol having an average molecular weight of from about 200 to 600 having dissolved therein between about 5 and 40 percent by weight of an alkali metal including ammonium salt of a dialkyl sulfosuccinate.

2,870,061

CONCENTRATES OF DIALKYL SULFOSUCCINATES

John A. Huggins, Evansville, Ind., assignor to Mead Johnson & Company, Evansville, Ind., a corporation of Indiana

No Drawing. Application November 8, 1956
Serial No. 621,005
10 Claims. (Cl. 167—56)

1. A composition comprising a haze-free solution of from 20 to 50 weight percent of a nontoxic salt of a dialkyl sulfosuccinate wherein each of said alkyl groups

contains from 5 to 10 carbon atoms, from 5 to 12.5 weight percent of a nontoxic polyhydroxy alcohol containing up to three carbon atoms, and from 37.5 to 75 weight percent of a polyethylene glycol having a molecular weight of from 200 to 600.

2,870,862

GELATIN COMPOSITION FOR CAPSULES

John P. Stanley and Clayton W. Bradley, Detroit, Mich., assignors to R. P. Scherer Corporation, Detroit, Mich., a corporation of Michigan

No Drawing. Application April 27, 1956
Serial No. 580,997
6 Claims. (Cl. 167—83)

1. A composition for encapsulating hygroscopic chemicals comprising gelatin, plasticizer and water, the ratio of water to gelatin ranging from 0.70 to 0.74, said gelatin being prepared from acid-treated bone precursor and having a viscosity of 15 to 30 millipoises and a Bloom strength in excess of 125 grams.

2,870,863

X-RAY CONTRAST COMPOSITION COMPRISING SUBSTANTIALLY AMYLOSE-FREE AMYLOPECTIN IN AQUEOUS SOLUTION OF CONTRAST AGENT

George B. De La Mater, St. Johns, Mo., assignor to Mallinckrodt Chemical Works, St. Louis, Mo., a corporation of Missouri

No Drawing. Application July 5, 1955
Serial No. 520,127
5 Claims. (Cl. 167—95)

1. A roentgenographic preparation comprising an aqueous solution of a water-soluble X-ray contrast agent and as a viscosity-increasing agent an amylopectin substantially free from amylose, said solution having a viscosity greater than approximately 6 centipoises.

2,870,864

PENICILLIN PROCESS

Eli Seifter and George A. Richardson, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application July 25, 1956
Serial No. 599,929
3 Claims. (Cl. 195—36)

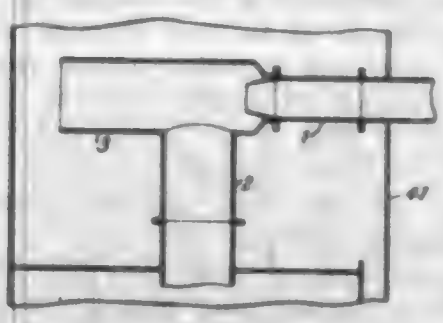
1. A method for the production of penicillins which comprises adding a penicillin producing mold and an N,N'-bis(oxyacetyl)-β,β'-diaminodiethyl disulfide to an aqueous nutrient medium, maintaining the resulting inoculated medium at 23 to 26° C. under aerobic conditions for at least 2 days, and recovering resulting oxypenicillins from the medium.

2,870,865

PROCESS AND APPARATUS FOR DISTILLATION

Charles Duncan Mitchell, New Oscott, England, assignor to Dunlop Rubber Company Limited, London, England, a British company

Application July 11, 1955, Serial No. 521,321
Claims priority, application Great Britain July 15, 1954
11 Claims. (Cl. 202—46)



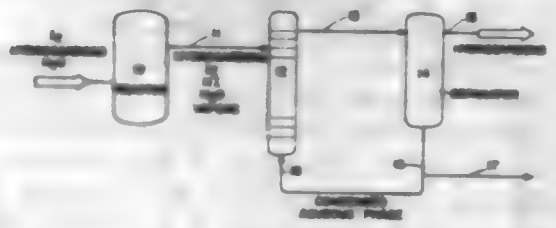
1. A process for stripping residual monomers from crude polymers which comprises subjecting the crude polymer to the counter flow of steam in a distillation column maintained under reduced pressure, mixing part of the total steam required for stripping with the crude polymer entering the system to form a foam, conducting the resulting foam to a chamber at the top of the distillation column, mixing said foam with substantially the whole of the vapors from said column and projecting the resulting mixture onto an internal surface of said chamber.

2,870,866

CONDENSATION AND SEPARATION PROCESS

Gino J. Pierotti, El Cerrito, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application August 1, 1956, Serial No. 601,570
2 Claims. (Cl. 202—57)



1. In the process of separating iodine and hydrogen iodide from an aqueous mixture comprising water, elemental iodine and hydrogen iodide, wherein iodine and major proportions of hydrogen iodide are fractionally distilled and water and minor proportions of hydrogen iodide remain as a bottoms product, the improvement comprising conducting the distillation in the presence of more than about 50% by weight, based on the aqueous mixture, of phosphoric acid whereby the proportion of iodine and hydrogen iodide relative to water in the overhead distillation fraction is substantially increased.

2,870,867

PROCESS FOR FLUORIDE DETECTION

Bertil B. Baker and Joseph D. Morrison, Birmingham, Ala., assignors to Southern Research Institute, a corporation of Alabama

Application March 19, 1956, Serial No. 572,329
6 Claims. (Cl. 204—1)

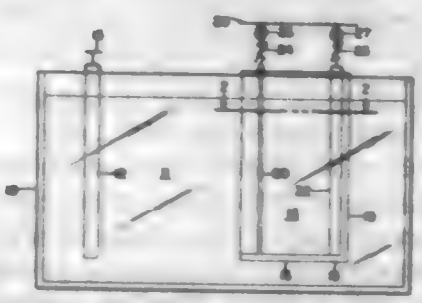
1. A process for detecting fluoride ions in an electrolytic solution which comprises introducing the fluoride into an electrolytic cell having an anode of aluminum, an electrolyte in the form of a dilute acid solution substantially free of interfering anions and a cathode of a material which produces a potential of such a sign and magnitude in the electrolyte used that its combination with the aluminum anode potential results in a cell which operates spontaneously, and maintaining instantaneous current readings of said cell.

2,870,868

ELECTROFORMED SCREENS

Glenn R. Schaer, Columbus, Ohio, assignor, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware

Application January 30, 1956, Serial No. 562,151
6 Claims. (Cl. 204—11)



1. A process for electroforming screens in an electrolytic cell having an anode and primary and secondary cathodes with the primary cathode between the anode

and secondary cathode and having a plurality of holes therethrough, comprising non-adherently electroplating a layer of screen material on said primary cathode maintaining the ratio of primary cathode current to secondary cathode current substantially no greater than the ratio of solid area to hole area of the primary cathode, maintaining the potential difference between the anode and the secondary cathode greater than between the anode and the primary cathode, and mechanically removing said layer from said cathode as an entity.

2,870,069

BATH FOR ELECTROPLATING NICKEL

Barnet D. Ostrow, North Bellmore, and Fred L. Nobel, North Valley Stream, N. Y.

No Drawing. Application November 13, 1956
Serial No. 621,529
5 Claims. (Cl. 204—49)

1. In an acid nickel plating bath containing nickel sulfate, nickel chloride and boric acid, the improvement which comprises adding to said bath a mixture of a soluble and stable substance consisting of the reaction product of a polyalkylene amine, wherein the alkylene group has from 1 to 6 carbon atoms and 2 to 10 alkylene groups, with a compound taken from the class consisting of (*a*) compounds having the formula X—R—CHO wherein R represents an unsaturated group taken from the class consisting of alkylene groups having 1 to 6 carbon atoms, phenyl and naphthyl radicals having hydrocarbon substituents having 1 to 2 carbon atoms, and X represents 0 to 3 substituents taken from the class consisting of halogens, amino, H and OH, and (*b*) compounds comprising unsaturated esters of lower fatty acids wherein said acids have 1 to 6 carbon atoms, together with a sulfonic product of a material taken from the class consisting of benzene, toluene and naphthalene having from 1 to 3 sulfonic groups of the formula $—SO_2R$ wherein R represents a substituent taken from the class consisting of OH, NH, NH_2, H and alkali metal.

2,870,070

ELECTRODEPOSITION OF TIN AND ELECTROLYTE THEREFOR

Richard F. Higgs and Charles J. Owen, Pittsburgh, Pa., assignors to United States Steel Corporation, a corporation of New Jersey

No Drawing. Application July 17, 1957
Serial No. 672,381
2 Claims. (Cl. 204—54)

1. As an electrolyte for tin plating, a water solution containing from 30 to 80 g./l. of sulfamic acid, from 15 to 50 g./l. of stannous ions, and from .2 to 10 g./l. of an addition agent selected from the group consisting of diethyl, trimethyl, tetramethyl dihydroquinoline, dihydroxydiphenylsulfone, bisparahydroxyphenyl propane, and dihydroxybenzophenone.

2,870,071

ELECTROLYTIC PRODUCTION OF TITANIUM TETRAHALIDES

Walter Juda, Lexington, and Mary C. Cretella, Lawrence, Mass., assignors to Ionics, Incorporated, Cambridge, Mass., a corporation of Massachusetts

Application October 30, 1953, Serial No. 389,284
12 Claims. (Cl. 204—61)

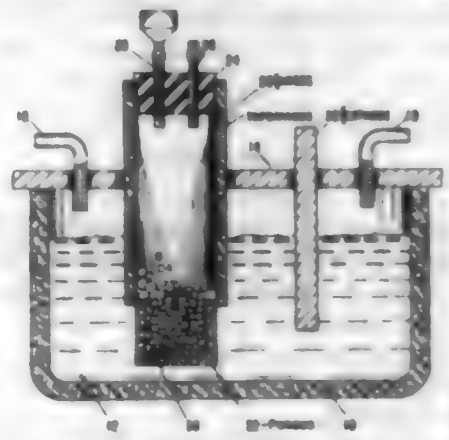
1. In the method of producing titanium tetrahalides of the group consisting of chlorides, bromides and iodides, the steps of electrolyzing a fused bath of separated anode and cathode compartments of the salts of the group consisting of the alkali halides, alkaline earth halides, and mixtures thereof, said halides comprising the group consisting of chlorides, bromides, and iodides, using as the anode electrode compacted pulverized titanium carbide containing material, said anode electrode being at least partially submerged in said fused salt bath thereby causing gaseous titanium tetrahalides to form at the anode and at the same time the pure metal of said halides at the cathode, and collecting and condensing the vapors of said titanium tetrahalides from the upper portion of said anode compartment.

2,870,072

PREPARATION OF FUSED SALT ELECTROLYTES

Menahem Merlub-Sobel, Cleveland, Ohio, assignor, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey

Application July 19, 1955, Serial No. 522,954
2 Claims. (Cl. 204—64)



1. A process of preparing a fused salt composition adapted to be electrolyzed which comprises: providing a refractory vessel; establishing a fused salt bath consisting essentially of at least one halide from the group consisting of alkali metal halides and alkaline earth metal halides; providing a container adapted to contain material to be chlorinated and consisting of a tubular element confining the material to be chlorinated within a solid tubular upper portion and a porous lower portion; charging into said container an oxygen-containing compound of an element other than the alkali metals and alkaline earth metals and selected from the group of elements forming chlorides which cannot be recovered from aqueous solutions in substantially undecomposed and unhydrolyzed form and whose chlorides are miscible in fused alkali halide melts, alkaline earth halide melts and molten mixtures of alkali halide and alkaline earth halides; immersing said container in said fused salt bath so that the porous portion of the container is beneath the surface of the bath; passing a chlorinating gas into the upper portion of said charge-filled container, thereby forming a chloride of the element whose oxygen-containing compound constituted the charge; and recovering said chloride in said molten bath by passage of said chloride through the pores of said porous portion of the charge-confining container and directly into the surrounding molten bath.

2. An electrolytic apparatus comprising a refractory vessel adapted to contain a molten salt electrolyte and having a cover to enclose the contents of the vessel; means for heating the contents so as to maintain it in molten form; a hollow tubular anode element adapted to contain solid material to be chlorinated, said element being mounted so as to pass through said cover and having an upper end extending above said cover and a lower end adapted to extend into the molten contents of the vessel; a plug in the upper end of said tube; a first means extending through said plug for admitting a chlorinating gas into said tubular element; a second means extending through said plug for introducing a charge of solid material to be chlorinated into said tubular element; a porous plug disposed within the lower end of said tubular element so as to support a charge of material to be chlorinated in said tubular element and to permit the egress of chlorinated reaction products

from said tubular element directly into the molten contents of the vessel; whereby a fused salt composition may be formed from which the element which is chlorinated may be recovered by a fused salt electrolysis.

2,870,073
PREPARATION OF THE REFRACTORY METALS BY FUSED SALT ELECTROLYSIS

Menahem Merlub-Sobel and Milton J. Arneff, Cleveland, and Jack L. Sorkin, Cleveland Heights, Ohio, assignors, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey

No Drawing. Application November 8, 1955
Serial No. 545,775
12 Claims. (Cl. 204—64)

1. The process of preparing an anhydrous chloride of a metal of the group consisting of vanadium, niobium, tantalum, zirconium, hafnium, chromium, molybdenum and tungsten, which comprises: preparing a fused salt melt consisting of at least one alkali metal halide, adding to the melt a compound of said metal selected from the oxygen containing compounds of said metal which decompose to yield an oxide of said metal in said melt, and chlorinating said freshly formed metal oxide contained in the resulting melt by admitting an externally produced chlorinating agent into the melt wherein it converts the freshly formed oxide into an anhydrous chloride of the metal.

2,870,074
ELECTROLYSIS OF ALKALI METAL CHLORIDE BRINE

Joseph Parker, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

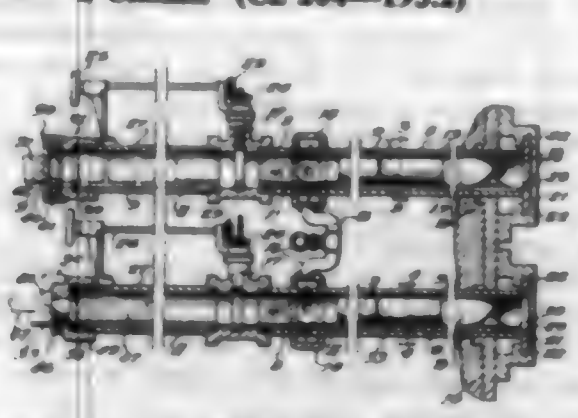
No Drawing. Application June 21, 1955
Serial No. 517,090
2 Claims. (Cl. 204—98)

2. The method of electrolyzing an alkali metal chloride brine which comprises passing an electric current between an anode and a cathode through an alkali metal chloride brine solution, said anode comprising a carbon member impregnated with an alkali metal silicate.

2,870,075
NUCLEAR REACTOR UNLOADING APPARATUS

Miles C. Leverett, Oak Ridge, Tenn., and John P. Howe, Richland, Wash., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 3, 1945, Serial No. 580,783
2 Claims. (Cl. 204—193.2)

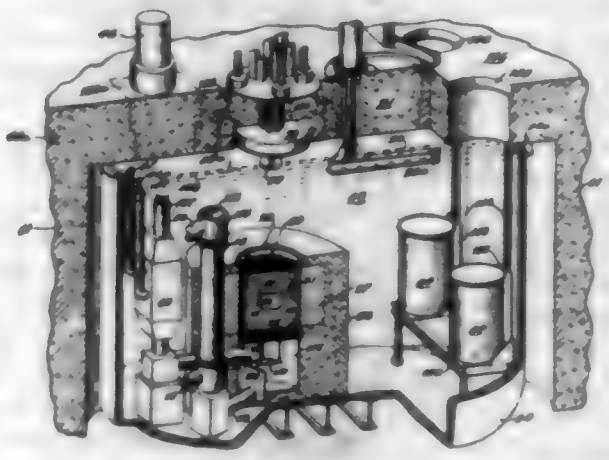


1. A device for radiation treating bodies within a neutronic reactor comprising, in combination, a tube traversing said reactor having at least two ribs on its lower surface for supporting the bodies, means to circulate a fluid coolant through said tube including seals at both ends of the tube, and a ribbon-like extractor member insertable into the tube in the space between the ribs and adapted to slide under the bodies, thereby raising said bodies and forming a slideway for removing them from the reactor.

2,870,076
METHOD AND APPARATUS FOR IMPROVING PERFORMANCE OF A FAST REACTOR

Leonard J. Koch, Clarendon Hills, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application July 31, 1956, Serial No. 601,331
4 Claims. (Cl. 204—193.2)

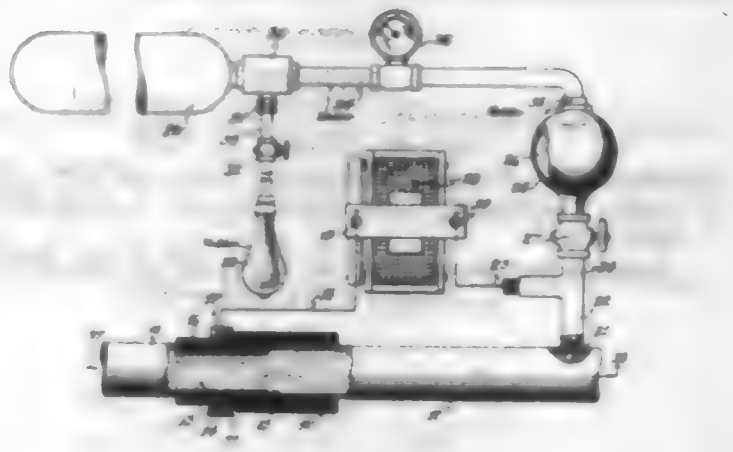


1. In a fast neutronic reactor having an active portion comprising material fissionable by neutrons, fertile material convertible to a fissionable isotope responsive to neutron irradiation, and a reflector surrounding said materials, the improvement in the active portion comprising a core constructed of fertile material, fissionable material constructed around said core, and additional fertile material constructed around said fissionable material.

2,870,077
CELLS FOR ELECTRO-CHEMICAL MEASUREMENTS

Jack Kushner, Hicksville, N. Y., assignor, by mesne assignments, to H. Z. Corporation, Ridgewood, N. J., a corporation of New Jersey

Application August 14, 1953, Serial No. 374,349
5 Claims. (Cl. 204—195)

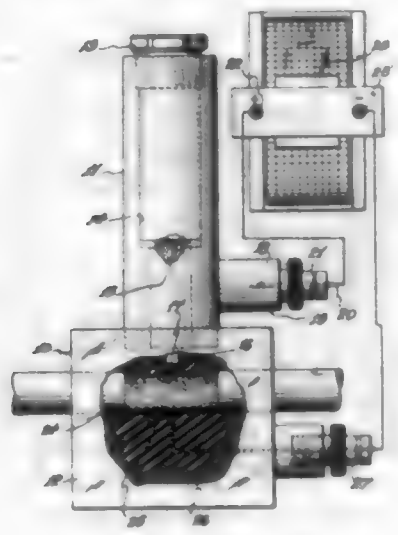


1. A cell suitable for making continuous electrochemical measurements on liquids flowing therethrough which comprises, in combination, straight tubular means providing continuously substantially unobstructed flow for said liquids to be measured, means at the end of said means providing for the introduction and discharge of liquids, a noble metal electrode comprising a thin coating on a zone of the inner surface of said tubular means, means for establishing electrical contact with said coating, a half cell having a reservoir for an electrolyte, said reservoir communicating with said tubular means through a restricted flow passage, means for establishing electrical contact with said half-cell, and means for applying a substantially constant pressure capable of maintaining substantially constant flow of the electrolyte into said tubular means.

2,870,078
CELLS FOR ELECTRO-CHEMICAL MEASUREMENTS

John W. Hood, Ridgewood, N. J., assignor to H. Z. Corporation, Ridgewood, N. J., a corporation of New Jersey

Application August 14, 1953, Serial No. 374,410
3 Claims. (Cl. 204—195)

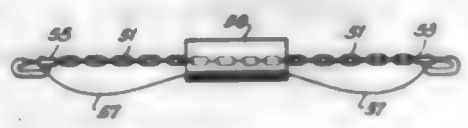


1. A cell for use in making electro-chemical measurements of liquids such as raw sewage and slurries continuously flowing therethrough, comprising an electrically non-conductive body having a continuous straight-through bore, straight tubular means for providing continuously substantially unobstructed flow for said liquids through said bore, means at the end of said means providing for the introduction and discharge of said liquids, a noble metal electrode flushly recessed in a portion of said bore, an aperture perpendicular to said bore containing a porous plug, the surface of the plug being flush with the surface of said bore, half-cell means providing a half-cell and salt bridge providing electrical communication between said half-cell and said porous plug, said salt bridge having an elongated reservoir for an electrolyte in axial alinement with said aperture; and electrical measuring means connected to said metal electrode and said half-cell.

2,870,079
CATHODIC PROTECTION OF METAL STRUCTURES

Richard H. McCall, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application November 16, 1954, Serial No. 469,226
2 Claims. (Cl. 204—197)



1. An anode unit for cathodically protecting from corrosion a structure of ferrous metal located in water, said unit comprising an anode body, said anode body being composed of metal selected from a group consisting of aluminum, magnesium, zinc and alloy mixtures thereof; an elongated chain being composed of ferrous metal having a part thereof integrally cast within said anode body and extending from opposite sides of said anode body as a flexible supporting member, each of the opposite ends of said chain carrying a snap-hook coupling member for connecting said anode unit to an adjoining member, said snap-hook coupling member being composed of metal having a continuous layer of bronze brazed thereon; an elongated conductor wire co-extensively extending the length of said chain in substantial parallel relationship thereto and having a part thereof integrally cast within said anode body, each of the opposite ends of said conductor wire being brazed to said snap-hook coupling member adjacent thereto, said conductor wire being composed of metal selected from the group consisting of aluminum, copper and silver.

2,870,080
ASPHALT PLASTISOLS AND PROCESS FOR THEIR PREPARATION

John C. Illman, El Cerrito, and Harry J. Sommer, Lafayette, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

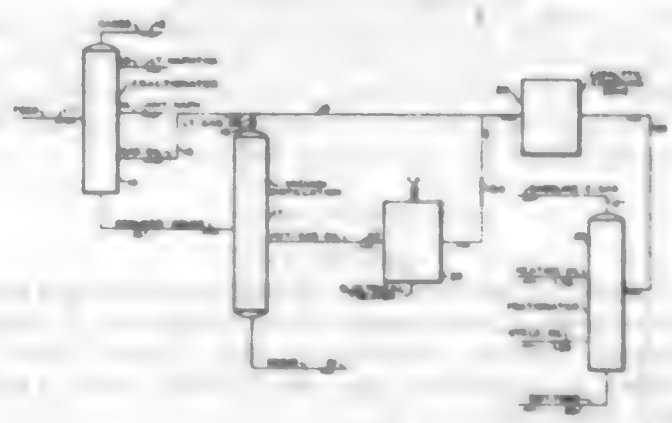
No Drawing. Application November 9, 1953
Serial No. 391,126
12 Claims. (Cl. 208—23)

1. A process of forming a bituminous plastisol which comprises washing pulverulent bituminous material having an average particle size between about 0.5 micron and about 200 microns with normal heptane for a period and at a temperature sufficient to superficially remove maltenes from the surface thereof and subsequently suspending the washed product in a petroleum fraction in the lubricating oil range, said oil having an aromatic hydrocarbon content from about 15% to about 60% and having a viscosity between about 100 SUS at 100° F. and about 300 SUS at 210° F., the composition so prepared comprising 40–60% by weight of suspended asphalt particles and 60–40% by weight of the suspending oil.

2,870,081
REMOVAL OF METAL CONTAMINANTS FROM HYDROCARBON LIQUIDS AND IMPROVED HYDROCARBON CONVERSION PROCESS

Frederick E. Frey, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application April 11, 1955, Serial No. 500,469
10 Claims. (Cl. 208—88)



1. A process for the conversion of a virgin topped crude which comprises removing metal-containing contaminants from the oil during its treatment and before it is subjected to a cracking operation which comprises vacuum distilling said topped crude to recover as a product a heavy vacuum gas oil, subjecting the heavy gas oil to a high potential direct voltage electrical field in the approximate range of 15,000–30,000 volts per centimeter sufficient to reduce the metals content thereof and then subjecting the substantially metals-free heavy gas oil to a catalytic cracking operation under conditions adapted to crack said oil into useful products.

2,870,082
SILICA-ALUMINA CRACKING CATALYST AND METHOD

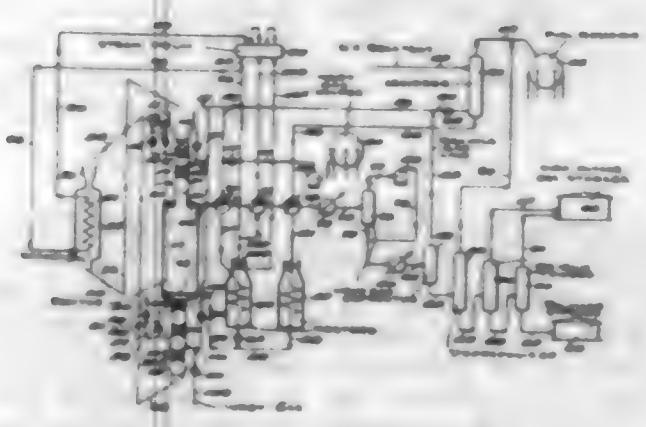
Robert P. Sieg, Berkeley, and George R. Barber, Novato, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application December 3, 1954, Serial No. 472,818
15 Claims. (Cl. 208—120)

8. In a process for the catalytic conversion of a hydrocarbon feed, the step comprising contacting said feed at

temperatures between about 800 and 1200° F. with a particle-form, heterogeneous catalyst comprised of from about 10 to 75% by weight of a coprecipitated silica-alumina component dispersed throughout a predominantly silica matrix, said silica-alumina component having an alumina content of from about 20 to 60% by weight and having been introduced into the catalyst in a hydrous state, the catalyst having a total alumina content of from about 5 to 20% by weight.

2,870,083
HIGH PRESSURE REFORMING WITH LOWERED HYDROGEN PARTIAL PRESSURE
Kenneth M. Elliott, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application November 9, 1953, Serial No. 391,895
5 Claims. (Cl. 208—135)



2. A method of reforming a hydrocarbon reactant which comprises introducing particle-form solid reforming catalyst of the second class comprising at least one metal of the platinum group and at least one of alumina and silica into a reforming zone under a total reforming zone pressure of about 200 to about 1200 p. s. i. a. and a hydrogen partial pressure greater than about 150 to about 650 p. s. i. and maintained at a temperature of about 800° to about 1050° F., introducing a hydrocarbon reactant into said reforming zone, introducing a recycle gas containing about 10 to about 75 mol percent hydrogen into said reforming zone to provide a hydrogen partial pressure greater than about 150 to about 650 p. s. i., and introducing a fluid inert under reforming conditions existing in said reforming zone into said reforming zone in amount sufficient to reduce the aforesaid hydrogen partial pressure therein to not greater than about 150 to about 650 p. s. i.

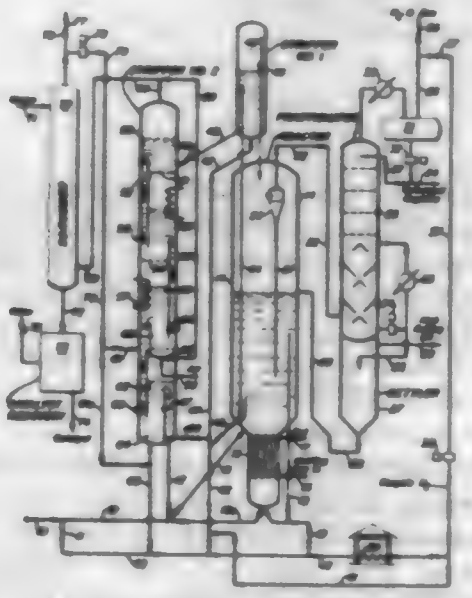
2,870,084
PROCESS OF AROMATIZING A NAPHTHA WITH AN ALUMINA-CHROMIA-PLATINUM CATALYST
Harold A. Strecker, Bedford, and Harrison M. Stine, Lyndhurst, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application October 8, 1952
Serial No. 313,786
2 Claims. (Cl. 208—136)

1. A process for catalytically reforming petroleum naphtha which comprises contacting said naphtha at a temperature in the range of about 800 to 1200° F. at a total pressure of about 0 to 100 p. s. i. g. at a hydrogen partial pressure of about 10 to 80 p. s. i. absolute with a co-precipitated alumina-chromia catalyst having 70 to 82 mol percent alumina, having 30 to 18 mol percent chromia, and containing as a third component an oxide selected from the group consisting of platinum oxide and palladium oxide in the proportions of about 0.001 to 1.0 mol percent based on the weight of the catalyst.

2,870,085
PROCESS FOR REGENERATING PLATINUM CATALYST IN A REFORMING PROCESS
Robert M. Love, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
No Drawing. Application May 12, 1954
Serial No. 429,367
3 Claims. (Cl. 208—140)

1. A regenerative reforming process consisting of the steps of passing a charge mixture consisting of vaporized naphthenic hydrocarbon boiling within the range between 150 and 500° F. and hydrogen at an inlet temperature in the range of 850 to 1000° F. into contact with a fixed bed of platinum catalyst in a reaction zone to reform at least a portion of the hydrocarbon in the charge mixture, continuing the flow of the charge mixture over the platinum catalyst until said catalyst has been at least partially deactivated by the deposit of carbonaceous material thereon, discontinuing the flow of the charge mixture into the reaction zone and continuing to flow hydrogen containing gases into the reaction zone to displace the feed hydrocarbon from the reaction zone and immediately thereafter passing flue gas previously scrubbed with caustic and containing no more than 2% carbon oxides over said catalyst to displace the components of the charge mixture therefrom, thereafter introducing flue gas which has not been scrubbed with caustic into said reaction zone and admixing controlled amounts of air with said flue gas to cause combustion in the catalyst bed with a combustion flame front in the bed not over 1100° F. until the carbonaceous material has been burned from said bed, thereafter passing flue gas previously scrubbed with caustic into said reaction zone to displace the components of the combustion supporting mixture of flue gas and oxygen from said zone, thereafter contacting the bed with gas containing free hydrogen at an elevated temperature sufficient to cool said catalyst to said inlet temperature of about 850° to about 1000° F. and thereafter introducing a charge mixture consisting of vaporized naphthenic hydrocarbon and hydrogen at a temperature within the range of 850 to 1000° F. into the reaction zone into contact with said activated catalyst to reform at least a portion of said hydrocarbon.

2,870,086
FLUID PLATINUM CATALYST HYDROFORMING SYSTEM
Marvin Den Herder, Chicago, Ill., and Russell V. Malo, Munster, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application November 26, 1954, Serial No. 471,284
5 Claims. (Cl. 208—148)



1. In a fluid platinum-on-alumina hydroforming system wherein a small amount of catalyst is withdrawn

from the reactor, stripped with hydrogen, stripped with inert gas, regenerated by combustion of carbonaceous deposits, treated by contact with a gas having an oxygen partial pressure greater than .4 atmosphere at a temperature of about 900 to 1100° F. long enough to substantially restore its activity, reduced in a separate reducing zone and returned to the reactor, a hydrogen stream being separated from reactor effluent and recycled with naphtha charge to the system, the improved method of operation which comprises introducing into a scrubbing zone both regeneration gases and gases from the reducing zone and scrubbing both gases with water for removing catalyst particles, water, SO_2 and other impurities therefrom, recovering catalyst from the scrubbing water, venting a part of the scrubbed gases from the system whereby recycled hydrogen is not contaminated with water produced in the regeneration and reduction steps, and employing another part of the scrubbed gases for stripping catalyst introduced into the reducing zone whereby introduction of moisture into the hydroforming zone is minimized, catalyst losses are substantially avoided and regeneration gases may be passed through a pressure reduction valve without substantial erosion.

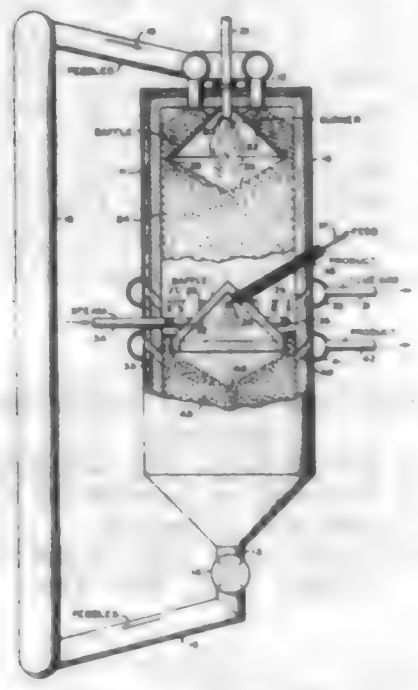
2,870,087

CRACKING PROCESS

Forrest E. Gilmore, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Original application September 24, 1951, Serial No. 248,040, now Patent No. 2,760,851, dated August 28, 1956. Divided and this application July 2, 1956, Serial No. 595,458

10 Claims. (Cl. 208—166)



1. In a process for the pyrolysis of hydrocarbons comprising heating refractory particulate solids and then contacting hydrocarbons to be pyrolyzed with said heated solids, the improvement in heating said solids which comprises introducing said solids into a heat exchange zone so as to form therein a mass of solids having an exposed upper surface disposed below the upper end of said heat exchange zone; gravitating said solids through said heat exchange zone; introducing a combustible fuel into the upper end portion of said heat exchange zone; burning said fuel and directing the accompanying flame onto said upper surface of said mass of solids; contacting said solids with resulting hot combustion gases in concurrent flow; withdrawing said combustion gases from said heat exchange zone; and withdrawing resulting heated solids from said heat exchange zone.

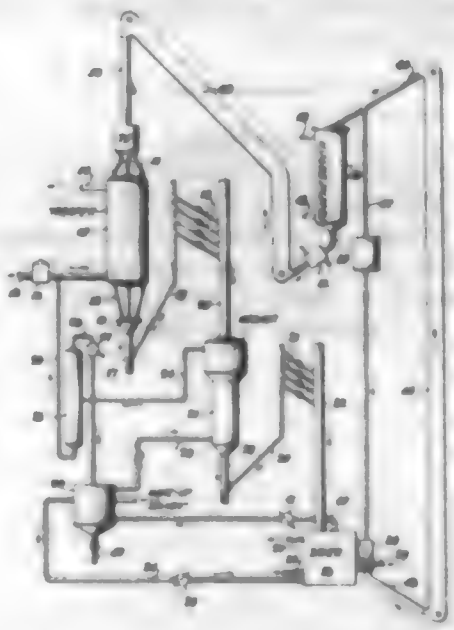
2,870,088

ADSORBENT DRYING PROCESS AND APPARATUS

Eric V. Bergstrom, Short Hills, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application July 11, 1955, Serial No. 521,693

2 Claims. (Cl. 208—305)



1. In a continuous process for the decolorization of a liquid mineral oil by means of a granular adsorbent clay wherein the oil is countercurrently contacted with the adsorbent clay in a treating zone to effect the decolorization and the adsorbed color bodies are then burned from the adsorbent clay in a regeneration zone, the improved method of conditioning the adsorbent clay between treating and regeneration zones to prevent excessive loss of oil by burning in the regeneration step, which comprises: removing a stream of used adsorbent clay bearing the color bodies and admixed with mineral oil from the treating zone and passing said stream into a confined washing zone, maintaining an accumulation of petroleum naphtha boiling within the range about 100° F. to 400° F. exterior to said washing zone at a temperature below 300° F. and below the initial boiling point of said naphtha; passing naphtha from said accumulation into said washing zone and through the adsorbent clay therein to remove said oil from said adsorbent clay and to cool said adsorbent clay to a temperature below 300° F.; removing the naphtha with dissolved oil from said washing zone and passing said naphtha with dissolved oil to a separation zone; separating oil and naphtha in said separation zone and returning the oil to said treating zone; passing naphtha from said separation zone back to said accumulation; passing washed adsorbent clay admixed with naphtha from said washing zone into a confined drying zone; removing a stream of naphtha from said accumulation and heating said stream to a temperature sufficient to vaporize the naphtha; passing said vaporized naphtha into the lower section of said drying zone and upwardly therethrough at a rate sufficient to cause the adsorbent clay in the drying zone to exist as a fluidized solids bed; supplying sufficient heat to said bed to maintain the temperature of the bed above 300° F. and above the end boiling point of said naphtha whereby said adsorbent clay will be heated to a temperature of at least 300° F. and liquid naphtha on said adsorbent will vaporize and be removed from said adsorbent clay by upwardly flowing naphtha vapor; removing naphtha vapor from said drying zone and condensing said vapor to a liquid; returning said condensed vapor to said accumulation of naphtha; removing adsorbent clay freed of liquid naphtha and at a temperature of at least 300° F. from said drying zone; subjecting said adsorbent clay after removal to a stream of superheated steam at a temperature of at least 300° F.

to purge naphtha vapors from the adsorbent clay; passing said steam and naphtha vapors after the purging action back into said drying zone to be removed with the naphtha vapors from said zone; passing the adsorbent clay after purging to the regeneration zone; and maintaining the moisture content of the adsorbent clay at all times below 4.5 percent by weight of the clay.

2,870,089

OPEN GEAR LUBRICANTS

John F. McGrogan, Medford Lakes, N. J., assignor to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

Application October 29, 1956, Serial No. 618,949
15 Claims. (Cl. 252—22)

7. A lubrication grease having extreme pressure properties consisting essentially of a major amount of a partially oxidized liquid residual asphalt and a minor amount, sufficient to thicken said asphalt, of the reaction products formed in said asphalt of hydrogenated marine fatty acids and sodium hydroxide, together with graphite and a methyl ester of lard oil, in minor but in sufficient amounts to impart extreme pressure properties to the thickened asphalt.

2,870,090

METHOD OF GREASE MANUFACTURE COMPRISING SHEARING

Herbert J. Pitman, Groves, and William E. Jordan, Jr. and Gordon S. Bright, Port Arthur, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application June 25, 1956
Serial No. 593,380
6 Claims. (Cl. 252—41)

1. The method of grease manufacture which comprises cooling a mixture of lithium hydroxy fatty acid soap and oleaginous liquid in grease-forming proportions to a temperature below its phase transition temperature range and then subjecting the said grease mixture to a limited amount of shearing, represented by an amount of work below about 1000 foot pounds per pound of finished grease, by passing the said cooled grease mixture through a shear valve with a pressure drop of about 15–200 p. s. i. across said valve, with substantially no additional working of the grease during the finishing process.

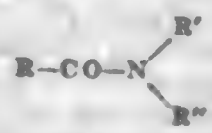
2,870,091

DETERGENT COMPOSITION

William F. Tomlinson, Clarendon Hills, Ill., assignor to The Stepan Chemical Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application September 1, 1955
Serial No. 532,115
2 Claims. (Cl. 252—137)

1. A liquid detergent composition capable of retaining relatively large amounts of inorganic detergent materials in stable aqueous solution consisting essentially of (*a*) diethanolamide of pelargonic acid; (*b*) higher fatty acid alkylolamide having the formula:



wherein R—CO— is a fatty acyl radical of 10 to 14 carbon atoms, R′ is H or a hydroxyalkyl group of up to 5 carbon atoms and R″ is a hydroxyalkyl group of up to 5 carbon atoms; (*c*) alkali metal tripolyphosphate; and (*d*) an alkali in an amount sufficient to give a solution of the mixture, in ordinary concentrations for laundering, a pH of 8.8 to 10.7 and sufficient alkalinity to be compatible with the existence of the tripolyphosphate wholly as a non-acid normal alkali metal tripolyphosphate; the concentrations of the ingredients being:

1–10 weight percent of (*a*)
3–20 weight percent of (*b*)
4–12 weight percent of (*c*) plus (*d*)
Remainder water

with the weight ratio of (*c*):(*d*) being 1:20 to 20:1.

2,870,092

POLYPHOSPHATE COMPOSITIONS CONTAINING TALLOW METHYL TAURIDE AND 2-MERCAPTOTHIAZOLINE

Edgar E. Ruff, Bergenfield, N. J., assignor to Lever Brothers Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 9, 1956
Serial No. 557,853
10 Claims. (Cl. 252—137)

1. A spray-dried detergent composition comprising from about 20% to about 50% of an alkali metal tripolyphosphate which in aqueous solution tarnishes German silver, from about 5% to about 15% total of at least one organic nonsoap detergent other than an alkali metal tallow methyl tauride selected from the group consisting of organic anionic nonsoap detergents and organic nonionic nonsoap detergents, from about 10% to about 20% of an alkali metal carbonate, about 10% of an alakli metal silicate, from about 0.03% to about 0.06% of 2-mercaptothiazoline based on the weight of tripolyphosphate, and from about 1.4% to about 8.6% of an alkali metal tallow methyl tauride based on the weight of the tripolyphosphate; the amounts of said thiazoline and tauride being sufficient to inhibit the tarnishing and the components of the composition being expressed by weight at the time of mixing thereof and prior to spray drying.

2,870,093

POLYPHOSPHATE COMPOSITIONS CONTAINING COCO-β-ALANINE AND 2-MERCAPTOTHIAZOLINE

Edgar E. Ruff, Bergenfield, N. J., assignor to Lever Brothers Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 9, 1956
Serial No. 557,863
13 Claims. (Cl. 252—137)

1. A spray-dried detergent composition comprising from about 20% to about 50% of an alkali metal tripolyphosphate which in aqueous solution tarnishes German silver, from about 5% to about 15% total of at least one organic nonsoap detergent selected from the group consisting of organic anionic nonsoap detergents and organic nonionic nonsoap detergents, from about 10% to about 20% of an alkali metal carbonate, about 10% of an alkali metal silicate, from about 0.03% to about 0.06% of 2-mercaptothiazoline based on the weight of tripolyphosphate, and about 0.8% of an alkali metal coco-β-alanine based on the weight of tripolyphosphate; the amounts of said thiazoline and alanine being sufficient to inhibit the tarnishing and the components of the composition being expressed by weight at the time of mixing thereof and prior to spray-drying.

2,870,094

PHOTOGRAPHIC FILM CLEANING SOLUTIONS

John A. Cathcart, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application September 28, 1955
Serial No. 537,272
1 Claim. (Cl. 252—171)

A method of cleaning photographic film comprising wiping the surface of the film with a cleaning member

moistened with methylchloroform containing from 1% to 5% by weight of dihydropyran, whereby grease and dirt are removed from the film without damage to the film base or to the photographic emulsion layer, and reaction between the methylchloroform and any aluminum parts with which it comes in contact is inhibited.

2,870,095

LIQUID GELLING AGENT

Arthur F. Ratzer, Chatham, N. J., and David Levin, Philadelphia, Pa., assignors to Baker Industries, Inc., a corporation of Delaware

No Drawing. Application December 29, 1953 Serial No. 401,086 6 Claims. (Cl. 252—316)

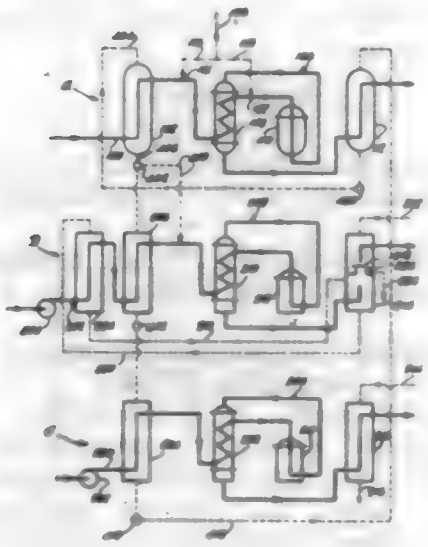
1. A novel liquid gelling agent for liquid hydrocarbons consisting essentially of a solid, finely-divided, metal salt of a fatty acid containing at least 8 carbon atoms, suspended in the monomethyl ether of ethylene glycol, said metal being a member selected from the class consisting of alkali-metal, alkaline-earth metal, magnesium, aluminum and zinc metals, said metal salt comprising about 20% to 25% by weight of the composition.

2,870,096

PROCESS OF CONVERTING CARBON MONOXIDE INTO A MIXTURE OF CARBON DIOXIDE AND HYDROGEN

Friedrich Baumann, Leuna, Kreis Merseburg, Germany

Application May 17, 1955, Serial No. 509,874 3 Claims. (Cl. 252—373)



2. In the process of converting carbon monoxide into a mixture of carbon dioxide and hydrogen; the steps of saturating in a humidifying stage of a high superatmospheric pressure converting system a first predetermined quantity per unit time of carbon monoxide with hot water, partly transforming water discharged at a reduced temperature from said humidifying stage into steam, feeding the untransformed remainder of said last-named water into a further humidifying stage of a reduced superatmospheric pressure converting system for saturating a second predetermined quantity per unit time of carbon monoxide with hot water so as to obtain a mixture of said second quantity of carbon monoxide and water, adding said steam to said carbon monoxide-water mixture, pumping water discharged at a still more reduced temperature from said further humidifying stage of said reduced pressure converting system into another humidifying stage of a partially converting system operating at approximately atmospheric pressure for saturating a third quantity per unit time of carbon monoxide with water, pumping the water discharged at a relatively low temperature from said other humidifying stage of said partially converting system into a dehumidifying stage of said high pressure converting system for contact therein with the respective formed carbon dioxide-hydrogen mixture to condense and remove moisture from the same, and returning the resultant hot water discharged from said dehumidifying stage to said humidifying stage of said high pressure converting system for reuse therein as the hot water for saturating said first quantity of carbon monoxide.

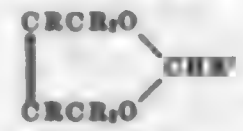
2,870,897

PROCESS FOR THE PREPARATION OF POLYMERIC ACETALS

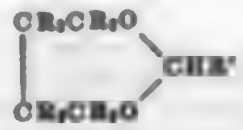
Dexter Brayton Pattison, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 1, 1955 Serial No. 519,662 9 Claims. (Cl. 260—2)

1. The process of preparing linear polymers of controllable molecular weight, said polymers containing acetal linkages, which process requires reacting, in the presence of an acid catalyst, a 7-membered cyclic acetal taken from the group consisting of



and



where R is taken from the group consisting of H and CH_3 and R′ is taken from the group consisting of H, C_1–C_4 alkyl and phenyl, with an organic compound having 2 to 6 groups taken from the group consisting of alcoholic hydroxyl and —SH, at least one mole of cyclic acetal being present for each of said groups, the molecular weight of said polymer being increased when the relative amount of said cyclic acetal is increased.

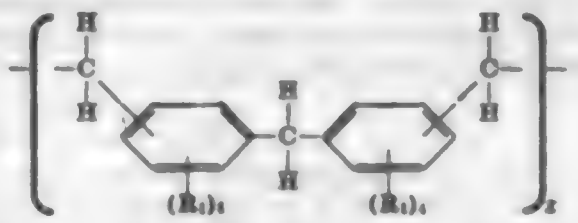
2,870,098

PROCESS FOR PREPARING RESINS OF POLYSUBSTITUTED BENZENES

Robert W. Martin, Lafayette, and Fred E. Condo, El Cerrito, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application January 23, 1956 Serial No. 560,864 3 Claims. (Cl. 260—2)

1. A process for preparing polymers having reoccurring units of the structure



wherein the R_1's are saturated aliphatic radicals of 1 to 4 carbon atoms per alkyl group and x is greater than 1, which comprises reacting a bis(chloromethyl)tetra-alkyl benzene of 1 to 4 saturated aliphatic carbon atoms per alkyl group with a tetra-alkyl benzene of 1 to 4 saturated aliphatic carbon atoms, the process being conducted at a temperature ranging from 100° C. to 250° C. in the presence of an inert solvent boiling between 100° C. and 250° C., the reactants being present in a ratio of about 1:1.

2,870,099

PRODUCTION OF POLYMERS OF EPOXIDE COMPOUNDS

Edward T. Borrows, Bowdon, and David G. Stewart, Flixton, Manchester, England, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 2, 1956
Serial No. 563,154
Claims priority, application Great Britain
February 4, 1955
14 Claims. (Cl. 260—2)

1. A process for the production of a polymer of an epoxide compound which comprises polymerizing a vic-epoxy hydrocarbon free of unsaturation other than aromatic unsaturation at about 0 to 200° C. in the presence of about 0.1 to 2% by weight of a catalyst of the formula $Me(OR)_x$, wherein Me is a metal selected from the group consisting of the metals in groups II and III of the periodic table, OR is an alkoxy radical, and x is the valency of the metal Me.

2,870,100

PRODUCTION OF POLYMERS OF EPOXIDE COMPOUNDS

David G. Stewart, Flixton, Manchester, Dhafir Y. Waddan, Manchester, and Edward T. Borrows, Bowdon, England, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 2, 1956
Serial No. 563,156
Claims priority, application Great Britain
February 4, 1955
14 Claims. (Cl. 260—2)

1. A process for the production of a polymer of an epoxide compound which comprises polymerizing a vic epoxy-substituted hydrocarbon free from other than aromatic unsaturation at about 0 to 200° C. in the presence of about 0.1 to 2%, by weight, of a catalyst of the formula $MeRR^1_x$ wherein Me is a metal selected from groups II and III of the periodic table, R is a hydrocarbon radical having from 1 to 10 carbon atoms, each R^1 is a member of the class consisting of a hydrogen atom, a halogen atom, a hydrocarbon radical of 1 to 10 carbon atoms, an alkoxy radical and a secondary amino radical and x is the valency of the metal Me minus one.

2,870,101

RESIN DERIVED FROM POLYHYDRIC ALCOHOL, FATTY OIL, BENZENE TRIBASIC ACID AND CERTAIN GLYCOLS

Richard E. Van Strien, Griffith, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application December 16, 1955
Serial No. 553,408
9 Claims. (Cl. 260—22)

1. A process for making an oil-modified alkyd resin which comprises (I) reacting in an inert atmosphere and in the presence of an alcoholysis catalyst a polyhydric alcohol and a member from the class consisting of vegetable oils, fish oil and fatty acids having at least 10 carbon atoms in relative amounts such that essentially only one hydroxyl group in said alcohol remains unreacted, at a temperature between about 300° F. and 500° F. for a time such that the desired methanol compatibility is reached, (II) reacting in essentially equi-molar amounts the product of (I) and an acidic material selected from the class consisting of trimesic acid, hemimellitic acid, trimellitic acid and trimellitic anhydride to form a product containing essentially two unreacted carboxyl groups on the acid molecule, at a temperature between about 400° F. and 500° F. until a single homogeneous solution is obtained and (III) reacting the product of (II) with an alcohol selected from the class consisting of ethylene glycol, diethylene glycol, pentaerythritol and bis-hydroxyethyl isophthalate, wherein said alcohol is charged in an amount from about 5 to about 20 mole percent in excess of stoichiometric requirement, at a temperature between about 400° F. and 500° F. for the time necessary to obtain the desired viscosity and the desired acid number.

2,870,141

POLYALKYLENE OXIDE RESINS

David Gordon Stewart, Epsom, England, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application October 5, 1956
Serial No. 614,084
Claims priority, application Great Britain
October 10, 1955
16 Claims. (Cl. 260—2)

1. A process for polymerizing a vic-epoxy hydrocarbon free of unsaturation other than aromatic unsaturation comprising reacting said hydrocarbons at a temperature from about 0° C. to about 300° C. in the presence of a complex polymerization catalyst of the formula $[M_1(R_1)(R_2)_a(R_3)_b(R_4)_c(R_5)_d](M_2)_y$ wherein M_1 and M_2 are different metals in which M_1 is a metal selected from groups II and III of the periodic table, M_2 is a metal selected from groups I, II and III of the periodic table, R_1 is selected from the group consisting of alkyl and alkoxy, R_2 is alkyl, R_3 is alkoxy, R_4 is a halogen, R_5 is hydrogen, and the sum of the integers $a+b+c+d$ is a number from 2 to 4 and y is a positive whole number.

2,870,183

CHLOROSULFONATED POLYETHYLENE COMPOSITION CONTAINING SULFURIZED TALL OIL

Eric O. Ridgway, Scotch Plains, and Newell A. Perry, Hamilton Square, N. J., assignors to Ridbo Laboratories, Inc., Trenton, N. J., a corporation of New Jersey

No Drawing. Application July 31, 1953
Serial No. 371,785
2 Claims. (Cl. 260—23)

1. A rubber composition adapted to be worked to a desired shape comprising chlorosulfonated polyethylene and the thermal reaction product of tall oil and sulfur, the sulfur in said reaction product being about 1% to 25% by weight based on the weight of the tall oil and the amount of said reaction product being from about 1% to 50% by weight of the chlorosulfonated polyethylene.

2,870,184

CHLOROPRENE RUBBER COMPOSITION CONTAINING A TALL OIL-SULPHUR REACTION PRODUCT

Eric O. Ridgway, Scotch Plains, N. J., assignor to Ridbo Laboratories, Inc., Trenton, N. J., a corporation of New Jersey

No Drawing. Application July 31, 1953
Serial No. 371,787
5 Claims. (Cl. 260—23.7)

1. A synthetic rubber composition adapted to be worked to a desired shape, said composition comprising a chloroprene rubber having an ML-4 viscosity at 212° F. in the range measurable by the Mooney method and the thermal reaction product of tall oil with from about 1 to 25%

of sulfur based on the weight of the tall oil, the amount of said reaction product being from about 2 to 25% by weight of the chloroprene.

2,870,105

NITRILE RUBBER COMPOSITIONS CONTAINING SULFURIZED TALL OIL

Eric O. Ridgway, Scotch Plains, and Newell A. Perry, Hamilton Square, N. J., assignors to Ridbo Laboratories, Inc., Trenton, N. J., a corporation of New Jersey

No Drawing. Application July 31, 1953
Serial No. 371,789

3 Claims. (Cl. 260—23.7)

1. A rubber composition comprising a butadiene-acrylonitrile rubber and the thermal reaction product of tall oil and sulfur, the sulfur in the reaction product being about 1% to 25% by weight based on the weight of the tall oil and the amount of said reaction product being from about 2% to about 25% by weight of the nitrile rubber.

2,870,106

CHLOROPRENE RUBBER COMPOSITIONS CONTAINING SULFURIZED TALL OIL

Eric O. Ridgway, Scotch Plains, and Newell A. Perry, Hamilton Square, N. J., assignors to Ridbo Laboratories, Inc., Trenton, N. J., a corporation of New Jersey

No Drawing. Application July 31, 1953
Serial No. 371,790

3 Claims. (Cl. 260—23.7)

1. A rubber composition comprising a chloroprene polymer having a viscosity higher than that measurable by the Mooney method and the thermal reaction product of tall oil and sulfur, the sulfur in the reaction product being about 1% to 25% by weight based on the weight of the tall oil, and the amount of said reaction product being from about 30% to about 100% by weight of the chloroprene polymer.

2,870,107

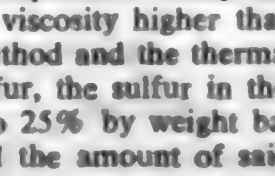
SYNTHETIC RUBBER COMPOSITION CONTAINING ROSIN ACID AND DITHIOCARBAMATE ACCELERATING AGENT AND METHOD OF PRODUCING SAME

William B. Reynolds and Paul G. Carpenter, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application September 18, 1953
Serial No. 381,123

15 Claims. (Cl. 260—27)

1. A vulcanizable composition comprising 100 parts by weight of a rubbery butadiene-styrene copolymer, from 15 to 200 parts by weight of a rosin acid, and from 0.05 to 5 parts by weight of a compound represented by the formula



wherein each R is selected from the group consisting of hydrogen, alkyl, cycloalkyl and aryl groups, and radicals which, together with nitrogen, constitute saturated carbon-nitrogen and carbon-nitrogen-oxygen rings having 6 members of which at least 4 members are carbon atoms and not more than one member is nitrogen, not more than one R being hydrogen, and R′ is an alkyl radical having not more than 16 carbon atoms, the total number of carbon atoms in the R groups not exceeding 20.

2,870,108

NOVEL SILICA PRODUCTS AND SILICONE RUBBER CONTAINING SAME COATED SILICA AEROGEL, SILICONE RUBBER REINFORCED THEREWITH AND METHOD OF MAKING

Ralph F. Nickerson, Marblehead, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 6, 1954
Serial No. 428,115

22 Claims. (Cl. 260—29.1)

1. A process of producing improved silica aerogels which comprises comminuting in an air attrition mill hydrophilic silica aerogel particles having an acid number between 0.3 and 3, a surface area between 100 and 600 square meters per gram, a bulk density of 2 to 8 pounds per cubic foot and an ultimate particle size between about 5 and 40 millimicrons and concurrently spraying said particles with droplets containing tetraethyl orthosilicate, said silicate being applied in amounts of about 3 to 20% by weight, based on the dry silica aerogel particles, whereby silica aerogels are obtained which are hydrophilic to partially hydrophobic but non-organophilic, said comminuting step being carried out in an atmosphere of air at a temperature between about 110 and 200° C. until said aerogel particles have an aggregate particle size between 0.01 and 15 microns.

2,870,109

COATED SILICA AEROGEL, SILICONE RUBBER REINFORCED THEREWITH AND METHOD OF MAKING

Ralph F. Nickerson, Marblehead, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 6, 1954
Serial No. 428,116

16 Claims. (Cl. 260—29.1)

1. Silica aerogel particles having an acid number of 0.1 and higher but below 0.8 and a coating of a dimethyl silicone oil prepared by the acid hydrolysis of dimethyldichlorosilane, said particles being further characterized in that they are partially to completely hydrophobic and contain from 1 to 20% by weight of said oil, based on the silica aerogel.

2,870,110

POROUS COMPOSITION CONTAINING A PHENOL-ALDEHYDE RESIN, METHOD OF PREPARATION, AND ARTICLE FABRICATED THEREFROM

Ronald H. Cooper, Clare, and Leland C. Johnson, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application September 26, 1956, Serial No. 612,290

12 Claims. (Cl. 260—29.3)

1. Composition for the fabrication of porous media which comprises (A) a preponderant proportion of between about 75 and about 90 percent by weight, based on the weight of the composition, of an inert filler material that consists of a lesser share of between about 5 and 25 percent by weight, based on the weight of the composition, of (1) a pulverulent filling material selected from the group consisting of graphite powder, silica powder and mixtures thereof, with the balance being (2) a relatively coarse particulate aggregate filler selected from the group consisting of calcined petroleum coke, expanded powerhouse slag, relatively coarse sand and mixtures thereof; and (B) a binding minor proportion of between about 25 and about 10 per cent by weight, based on the weight of the composition, of an active powdered magnesium oxide catalyzed aqueous phenolic liquid thermosetting resin binder, said binder containing up to about 25 percent by weight, based on the weight of the composition

of the phenolic liquid resin catalyst catalyzed with between about 5 and 25 percent by weight, based on the weight of the resin in the composition, of said active magnesium oxide powder that has an initial setting time of less than about 6 hours; said resin being a phenol-formaldehyde condensation product that has a greater than 1:1 mole ratio of formaldehyde to phenol, respectively, a solids content of at least about 50 percent by weight, a pH between about 5 and 9, and a viscosity at 77° F. between about 100 and 1000 centipoises.

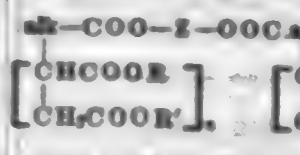
2,870,111

VINYL CHLORIDE POLYMERS PLASTICIZED WITH POLYCARBOXYLATES

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 7, 1956
Serial No. 563,851
3 Claims. (Cl. 260—31.8)

1. A resinous composition comprising polyvinyl chloride plasticized with a polycarboxylate having the formula



in which alk denotes an acyclic hydrocarbon radical of from 9 to 23 carbon atoms containing a single ethylenically unsaturated double bond as the only unsaturation therein and having a valence of $n+1$, Z is selected from the class consisting of alkylene radicals of from 2 to 4 carbon atoms, alkyleneoxyalkylene radicals of from 4 to 6 carbon atoms and polyalkyleneoxyalkylene radicals of from 6 to 9 carbon atoms, R and R' are alkyl radicals of from 1 to 6 carbon atoms and n is an integer of from 1 to 3.

2,870,112

CROSS-LINKED POLYESTERS OF DICYCLOPENTADIENE DICARBOXYLIC ACIDS

Joseph Kern Mertzweiller, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application March 1, 1956
Serial No. 568,940
12 Claims. (Cl. 260—33.6)

1. A process for preparing polyester resins useful in varnishes which comprises heating 0.75 to 1.2 moles of a dicarboxylic acid selected from the group consisting of dicyclopentadiene dicarboxylic acid, dimethyldicyclopentadiene dicarboxylic acid, methyldicyclopentadiene dicarboxylic acid, and the di- and tetrahydrogenated derivatives thereof, with one mole of a C_2–C_{12} glycol at a temperature between about 325° to 400° F., contacting the resinous polyester product thus formed with 5 to 30 weight percent, based on the total modified resin, of a cross linking agent selected from the group consisting of organic diisocyanates, organic diisothiocyanates, and mixtures thereof, at a temperature between about 265° to 325° F., and recovering a hard, modified polyester resin product.

2,870,113

METHOD FOR PRODUCING FINELY DIVIDED SOLID 1-OLEFIN POLYMER

Rufus V. Jones, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application April 6, 1955
Serial No. 499,768
9 Claims. (Cl. 260—34.2)

1. A method for producing a finely divided solid polymer of an aliphatic 1-olefin having up to and including 8 carbon atoms per molecule which comprises, dissolving said polymer in a normally liquid solvent selected from the group consisting of benzene, alkyl-substituted benzenes, naphthenes, hydrogenated naphthalenes, paraffins, carbon tetrachloride and tetrachloroethane, cooling the resulting solution to produce a solid precipitate of said polymer in said solvent, separating said precipitate from said solvent to produce a polymer swollen with said solvent, passing said solvent-swollen polymer into a dispersing medium selected from the group consisting of alcohols, ketones, and ethers, said dispersing medium being a normally liquid organic material which is miscible with said solvent but in which said polymer is substantially insoluble, and comminuting said polymer in the presence of said dispersing medium.

2,870,114

SOLID ISOCYANATE MODIFIED POLYETHYLENE ADIPATE DISPERSED IN LIQUID ISOCYANATE MODIFIED POLYETHYLENE ADIPATE

Ronald Horace Shrimpton, Perry Barr, and Harry Graham Mitchell, Harborne, Birmingham, England, assignors to Dunlop Rubber Company Limited, London, England, a British company

No Drawing. Application February 21, 1955
Serial No. 489,744
Claims priority, application Great Britain February 27, 1954
5 Claims. (Cl. 260—45.4)

1. A composition for the production of rubbery solids which comprises particles of a solid reaction product of polyethylene adipate and naphthalene diisocyanate cross-linked by a member of the group consisting of water and a glycol to form a finely divided solid, said solid being dispersed in a liquid reaction product of polyethylene adipate with naphthalene diisocyanate in an amount equal to between 10% and 150% by weight of the solid crumb and a cross-linking agent of the group consisting of water and a glycol for said polyethylene adipate and said naphthalene diisocyanate.

2,870,115

COMPOSITION OF VINYL CHLORIDE HOMOPOLYMER AND CHLOROPRENE HOMOPOLYMER AND METHOD OF MAKING SAME

Juel P. Schroeder, Springfield, N. J., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application October 14, 1953
Serial No. 386,123
2 Claims. (Cl. 260—45.5)

1. Process consisting of admixing an aqueous emulsion of a vinyl chloride homopolymer with an aqueous chloroprene homopolymer latex thereby obtaining an emulsion containing two parts by weight vinyl chloride homopolymer per one part by weight chloroprene homopolymer on a solids basis, adding thereto as aqueous emulsions a stabilizer for the vinyl chloride homopolymer and an antioxidant for the chloroprene homopolymer, coagulating the resultant emulsion and recovering the coagulant.

2,870,116

COATING COMPOSITION COMPRISING A VINYL HALIDE POLYMER AND AN ALDEHYDE-REACTED POLYMER OF ACRYLAMIDE AND METALLIC SURFACE COATED THEREWITH

Henry A. Vogel and Harold G. Bittle, Gibsonia, Pa., assignors to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania

No Drawing. Application January 19, 1956
Serial No. 560,072
10 Claims. (Cl. 260—45.5)

1. A heat hardenable resinous composition comprising a polymer of a vinyl halide, and an interpolymer of an

acrylamide with at least one other monomer having a $CH_2=C<$ group, said interpolymer being characterized by having amido hydrogen atoms replaced by the structure

$$-ROR_1$$

wherein R is a saturated lower aliphatic hydrocarbon radical, and R_1 is a member of the class consisting of hydrogen and lower alkyl radicals.

2,870,117

COATING COMPOSITION COMPRISING AN EPOXY RESIN AND AN ALDEHYDE-REACTED POLYMER OF ACRYLAMIDE AND METALLIC SURFACE COATED THEREWITH

Henry A. Vogel and Harold G. Bittle, Gibsonia, and Roger M. Christenson, Richland Township, Pa., assignors to Pittsburgh Plate Glass Company

No Drawing. Application January 19, 1956
Serial No. 560,073

11 Claims. (Cl. 260—45.5)

1. A heat hardenable resinous composition comprising a polyglycidyl ether of a polyhydric compound, and an interpolymer of an acrylamide with at least one other monomer having a $CH_2=C<$ group, said interpolymer being characterized by having amido hydrogen atoms replaced by the structure

$$-ROR_1$$

wherein R is a saturated lower aliphatic hydrocarbon radical, and R_1 is a member of the class consisting of hydrogen and lower alkyl radicals.

2,870,118

PROCESS FOR POLYMERIZING ETHYLENIC ORGANIC COMPOUNDS WITH REDOX SYSTEM CATALYSTS IN THE PRESENCE OF BETAINE DERIVATIVES

Erich Bäder, Hanau (Main), and Otto Schweitzer, Kronigstein (Taunus), Germany, assignors to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany

No Drawing. Application February 21, 1956
Serial No. 566,778

Claims priority, application Germany February 22, 1955

7 Claims. (Cl. 260—45.5)

1. In the preparation of a polymer by catalytic polymerization of a polymerizable mass comprising at least one polymerizable compound containing a $>C=CH_2$ group with a catalytic amount of a Redox system catalyst containing at least one peroxide compound and at least one organic sulfur containing compound selected from the group consisting of sulfinic acid compounds, α-oxysulfones, thioethers and mercaptans, the step which comprises conducting the polymerization of said mass in the presence of a catalytic amount of a betaine derivative which is soluble in said polymerizable compound and which is of the formula

$$\left[R''-\overset{\overset{R'}{|}}{\underset{\underset{R'''}{|}}{N}}-(CH_2)_n-COOR'''' \right] X$$

wherein R′, R″, R‴ represent a radical selected from the group consisting of alkyl and aryl radicals, R⁗ represents a radical selected from the group consisting of hydrogen, alkyl and aryl radicals, *n* is an integer from 1 to 4 and X is an inorganic acidic anion.

2,870,119

POLYVINYL CHLORIDE AND ALKYL TIN MERCAPTOALCOHOL MONOCARBOXYLIC ACID ESTERS

William E. Leistner, Brooklyn, and Arthur C. Hecker, Richmond Hill, N. Y., assignors to Argus Chemical Laboratory, Inc., a corporation of New York

No Drawing. Application July 21, 1954
Serial No. 444,902

6 Claims. (Cl. 260—45.75)

1. A stabilized chlorine-containing resin selected from the group consisting of polyvinyl chloride and a copolymer of vinyl chloride and vinyl acetate which comprises from 0.1 to 10 percent by weight of a compound corresponding to the formula

$$R_n-Sn-X_{4-n}$$

wherein R stands for an alkyl radical, X for a radical of an ester of a mercapto alcohol having from 2–4 carbon atoms with an acid selected from the group consisting of a saturated monobasic aliphatic acid containing from 6–12 carbon atoms and tetrahydroabietic acid, and *n* for an integral number from 1–3, and wherein the S atom of the mercapto alcohol is directly linked to tin.

2,870,120

PRODUCTION OF VINYL SILOXANE POTTING COMPOUNDS

Milton Yusem, Chicago, Ill., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

No Drawing. Application May 31, 1956
Serial No. 585,575

1 Claim. (Cl. 260—46.5)

The method of preparing a potting compound which contains silicon-bonded vinyl radicals and silicon-bonded vinyl monovalent hydrocarbon radicals comprising the steps of mixing dimethyl dichlorosilane and vinyl methyl dichlorosilane in weight proportions of approximately 50 to 1 with a substantially equal volume of dioxane to form a solution of the dichlorosilanes, hydrolyzing the solution of dichlorosilanes by the dropwise addition of a 1:2 by volume ratio of water:dioxane over a period of several hours to produce a solution containing 2 mol percent vinyl methyl siloxane, removing the solvent and excess water, equilibrating or condensing the solution containing 2 mol percent vinyl methyl siloxane at room temperature with an equal volume of 60% sulfuric acid and agitating for upwardly of two hours to produce a viscous yet pourable silicone oil, dissolving the equilibrated silicone oil in toluene to provide a toluene solution, washing the solution to remove acid, adding acetone to the washed solution to precipitate low molecular weight silicone oil, removing acetone by heating at a temperature of around 170° C. at low pressure until a silicone oil having a viscosity of approximately 8000 centipoises at room temperature is produced and then thermo-setting the silicone oil with a 0.9 percent of benzoyl peroxide catalyst at about 80° C. for approximately 3 hours.

2,870,121

PENTAERYTHRITOL-ACROLEIN REACTION PRODUCTS AND METHOD OF PRODUCING SAME

William M. Kraft, Verona, N. J., assignor to Heyden Newport Chemical Corporation, a corporation of Delaware

No Drawing. Application December 12, 1955
Serial No. 552,393

7 Claims. (Cl. 260—67)

5. A stable, neutral product resulting from the reaction of pentaerythritol and 1–2 moles of acrolein per mole of

pentaerythritol in the presence of an acidic condensation catalyst selected from the group consisting of p-toluenesulfonic acid, oxalic acid, boron trifluoride, and phosphorous acid, and the subsequent neutralization of the acidic condensation catalyst with a neutralizing compound selected from the group consisting of choline, benzyl trimethyl ammonium hydroxide, and mixtures thereof to produce a mixture of pentaerythritol-acrolein condensation product and the reaction product of the acidic condensation catalyst with the neutralizing compound.

2,870,122

MODIFIED AMINOPLAST RESIN COMPLEXES AND PROCESSES FOR PRODUCING THEM

Lucien Sellet, Saddle River, N. J., assignor to Jacques Wolf & Co., a corporation of New Jersey

No Drawing. Application November 14, 1952 Serial No. 321,491

11 Claims. (Cl. 260—69)

1. A process for the production of water-soluble modified aminoplast resin complex comprising reacting dicyandiamide with a water-soluble carboxylic acid at a temperature in the range of 70° C. to 120° C. for a time period in the range of ½ to 5 hours, the molar ratio between the dicyandiamide and the acid being in the range of 1:1 to 1:4, to form a first stage reaction product, mixing the first stage reaction product with formaldehyde in a molar ratio between 2 to 5 moles of formaldehyde per mole of dicyandiamide used in the first stage reaction and heat reacting the first stage reaction product with formaldehyde in the presence of water in a second stage reaction to form a second stage reaction product, and heat reacting the second stage reaction produce in a third stage reaction with a water-soluble salt selected from the group consisting of an aluminum acetate having the formula $Al(OH)_2(CH_3COO).\frac{1}{2}H_3BO_3$, aluminum formo acetate having the formula

$$Al(OH)(OOCH)(OOCCH_3)$$

aluminum formate, basic chrome sulfate, chrome alum having the formula $Cr_2(SO_4)_3K_2SO_4-24H_2)$, zirconium sulfate, basic zirconium sulfate, zirconium chloride, basic zirconium chloride, zirconium acetate, copper acetate, copper sulfate, copper chloride, iron formate, iron sulfate, iron chloride, zinc acetate, zinc chloride, zinc sulfate and zinc formate, the formaldehyde being added solely in the second stage reaction.

2,870,123

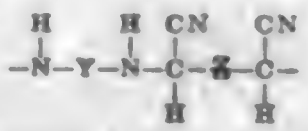
POLYMERIC AMINONITRILES

George L. Wesp, Englewood, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 22, 1954 Serial No. 477,110

12 Claims. (Cl. 260—72)

1. A polymeric aminonitrile characterized by containing in the polymer chain recurring units having the formula



wherein Y comprises a chain of at least 3 atoms at least the majority of which and the terminal members of which are carbon atoms, and -Z- is selected from the group consisting of a single bond joining the C atoms to which it is attached and a divalent hydrocarbon radical.

2,870,124

PROCESS FOR PRODUCING SYNTHETIC LINEAR CONDENSATION COPOLYESTERS USING AN ALKYLENE CARBONATE

George E. Ham, Decatur, Ala., assignor to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware

No Drawing. Application June 1, 1953 Serial No. 358,985

20 Claims. (Cl. 260—75)

1. A process for making synthetic linear condensation copolyesters comprising forming a mixture comprising (A) at least two dicarboxylic acids selected from the group consisting of saturated aliphatic dicarboxylic acids and aromatic dicarboxylic acids which when having side chains thereon, all of said side chains are saturated, (B) a glycol, and (C) a monomeric alkylene carbonate containing from 2 to 8 carbon atoms in the alkylene group, said components being present in the mixture in a molar ratio of 1 to 4 moles of (A):up to 5.9 moles of (B):0.1 to 6 moles of (C), heating and reacting said mixture at a temperature in the range of 80° to 300° C. until solution of the mixture occurs, and thereafter continuing the heating at a temperature sufficient to maintain the reaction mass in a molten state until a copolyester is produced.

2,870,125

EPOXIDIZED POLYETHYLENICALLY UNSATURATED POLYCARBOXYLIC ACIDS, DERIVATIVES THEREOF AND METHOD FOR PRODUCING THE SAME

George B. Payne and Curtis W. Smith, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 8, 1953 Serial No. 397,012

11 Claims. (Cl. 260—78.3)

1. An epoxy-substituted compound of the group consisting of C_{18} to C_{30} open-chain polyethylenically unsaturated polycarboxylic acids having from 2 to 4 carboxyl groups and from 2 to 4 ethylenic groups and having at least one of the ethylenic groups in the acid moiety of the molecule at least one carbon atom but not more than 6 carbon atoms removed from a carboxyl group, converted to an epoxy group, and their acid chlorides, esters of these acids and hydrocarbon monohydric alcohols containing up to 12 carbon atoms, salts of these acids and cobalt, iron, manganese, lead, aluminum, nickel, iron, tin and vanadium, unsubstituted amides of these acids and the N-lower alkyl and N-lower alkenyl amides of these acids, the aforedescribed acids before exopidization being obtainable by the reaction of approximately 1 mol of a cyclic peroxide with from about 1 to 2 mols of a compound containing a conjugated system of double bonds in the presence of iron and a reducing agent.

6. A polymer of a compound defined in claim 1 obtained by heating the compound in the presence of an amine curing agent.

2,870,126

PROCESS FOR PREPARING FIBER-FORMING POLYTHIOLESTERS BY INTERFACIAL CONDENSATION POLYMERIZATION

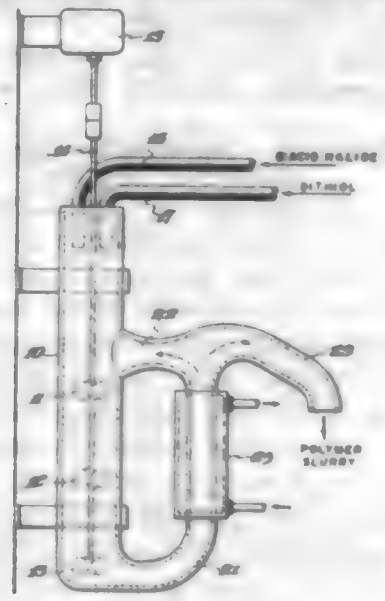
Wilbur A. Murphey, Camden, S. C., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application July 8, 1953, Serial No. 366,689

9 Claims. (Cl. 260—78.5)

1. A process for preparing fiber-forming polythiolesters which comprises mixing at −10° to +60° C. a water-immiscible phase containing a diacyl halide of a dicarboxylic acid with an aqueous solution of a salt from an organic dithiol and at least an equivalent amount of an acid acceptor, and continuing the mixing with suit-

able agitation to produce an emulsion of fine particle size until an interphase condensation polymerization has



taken place with formation of finely divided polythiolester suitable for spinning into fibers without further polymerization.

2,870,127

PROCESS FOR PRODUCING SYNTHETIC LINEAR AROMATIC SULFUR-CONTAINING CONDENSATION POLYESTERS AND PRODUCTS THEREOF

George E. Ham, Decatur, Ala., assignor to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware

No Drawing. Application December 13, 1954
Serial No. 474,985
16 Claims. (Cl. 260—78.4)

1. In the manufacture of synthetic linear condensation sulfur-containing polyesters the steps comprising, forming a mixture of an aromatic dicarboxylic acid and a compound selected from the group consisting of ethylene sulfite and propylene sulfite, said components being present in the mixture in a molar ratio of one mole of acid to 1 to 9 moles of the compound, heating and reacting said mixture at a temperature in the range of 90° to 160° C. until no more sulfur dioxide is evolved, and thereafter continuing the heating at a temperature sufficient to maintain the reaction mass in a molten state until a sulfur-containing polyester is produced.

2,870,128

CROSS-LINKED ESTERS OF MALEIC ANHYDRIDES-STYRENE COPOLYMER AND METHOD FOR PREPARATION

John C. Sellers, Nixon, N. J., assignor to Johnson & Johnson, a corporation of New Jersey

No Drawing. Application September 16, 1953
Serial No. 380,593
5 Claims. (Cl. 260—78.5)

1. An adhesive composition adapted to stick to unprimed polyvinylchloride resin film to provide an adhesive layer surface which is characterized by tenacious adhesion to other objects including human skin but relatively little adhesion to itself, whereby upon contact of two portions of the adhesive surface they will not adhere to each other to such an extent that upon their separation from each other there is disruption of the adhesive mass and undue deformation of the film backing, said composition comprising an ester of a copolymer of maleic anhydride and a vinyl compound selected from the group consisting of styrene and vinyl toluene copolymerized in approximately equimolecular proportions, the copolymer having an intrinsic viscosity in the approximate range of 0.2 to 2.0 as measured in cyclohexanone at 30° C., at least 70% of the potential carboxyl groups present in the anhydride groups in said copolymer being esterified with an aliphatic primary monohydric saturated alcohol having 6 to 16 carbon atoms, said ester having been heated in the presence of added peroxide polymerization catalyst to provide a gel content in the range of 10 to 100% by weight, the plasticity of said composition being not greater than about 4.0 mm. and the cold flow of said composition being not greater than 2.5 inches, said gel content being 100 minus the percent of the adhesive composition which is removed from 0.4 gram of the adhesive composition by mixing it with 100 cc. of benzene, allowing the mixture to stand without stirring for 48 hours at 30° C., then filtering the mixture through a stainless steel wire screen of 100 mesh and separating the residue from 25 cc. of the filtrate by evaporating this filtrate to dryness at 100° C., said plasticity being the height of a cylindrical pellet of the composition weighing 2.0 grams and having an initial diameter of 16 mm. placed on a parallel plate plastometer and maintained at 100° F. under a load of 5000 grams measured at the end of a 14 minute period, said cold flow being measured by sticking a ball of the adhesive weighing 3.0 grams against a vertical glass plate and measuring the downward flow thereof at room temperature at the end of a 24 hour period.

2,870,129

WATER VAPOR PERMEABLE RESINS

Frederic C. Merriam, Somerville, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application November 30, 1953, Serial No. 394,988
14 Claims. (Cl. 260—86.1)

1. A film forming water-insoluble, water vapor permeable, resinous copolymer of at least one member of the group consisting of acrylic acid, methacrylic acid, and acrylamide and an ester of an acid selected from the group consisting of acrylic acid and methacrylic acid with a saturated alkoxy monohydroxy alcohol in which the alkoxy group has from 1 to 8 carbon atoms and the remaining alcohol portion has from 2 to 4 carbon atoms, the ester component constituting from 30 to 70 mol percent of the copolymer, said copolymer not containing more than 60 mol percent of methacrylic components.

2,870,130

ETHYLENE POLYMERS

James M. Davison, Charleston, and John F. Erdmann, St. Albans, W. Va., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application January 4, 1956
Serial No. 557,233
4 Claims. (Cl. 260—94.9)

1. A process for producing solid polyethylene resins having a density between about 0.915 and about 0.94 gram per cc. and a carbonyl content between about 0.2 and about 0.8 carbonyl group per 1000 carbon atoms, which comprises heating a mixture of ethylene and an aliphatic ketone, said mixture containing from about 0.05 to about 5 moles of aliphatic ketone per 100 moles of ethylene, at a temperature between about 90° C. and about 350° C. under an ethylene pressure above 1500 atmospheres in the presence of a free-radical catalyst, said aliphatic ketone having from 3 to 11 carbon atoms.

2,870,131

HIGH DENSITY POLYETHYLENE BY HIGH PRESSURE POLYMERIZATION WITH HYDROGEN AND AZO CATALYST

James E. Guillet and Harry W. Coover, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application June 12, 1956
Serial No. 590,811
5 Claims. (Cl. 260—94.9)

1. The method of polymerizing ethylene to form an improved solid ethylene homopolymer having an aver-

age molecular weight of at least 20,000, a density above 0.930 and a stiffness of at least 25,000 p. s. i. which comprises polymerizing ethylene at a temperature of 80–180° C. and a pressure of 10,000–50,000 p. s. i. in the presence of an azo catalyst for ethylene polymerization and from 0.01 to 5% by weight of hydrogen based on said ethylene.

2,870,132

LOW VISCOSITY SULFURIZED TALL OIL AND PROCESS FOR MAKING THE SAME

Carroll B. Hall, Pennington, Newell A. Perry, Hamilton Square, and Max F. Zuilig, Princeton, N. J., assignors to Ridbo Laboratories, Inc., Trenton, N. J., a corporation of New Jersey

No Drawing. Application January 22, 1957
Serial No. 635,131
4 Claims. (Cl. 260—97.5)

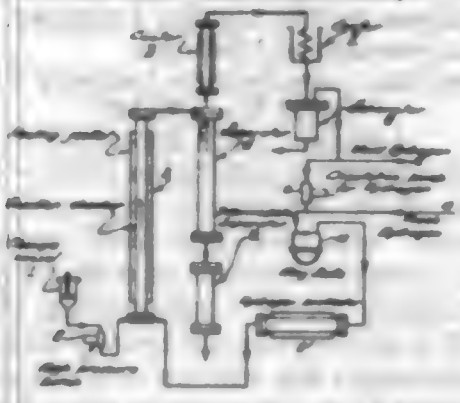
1. As a composition of matter, sulfurized tall oil containing 3 to 15% sulfur based on the weight of the tall oil which is substantially free of unreacted sulfur and which has a viscosity of less than 20,000 centipoises at room temperature.

2,870,133

PRODUCTION OF PHENOLS BY CATALYTIC HYDROGENATION OF LIGNIN

Johann Giesen, Haldenstein, near Chur, Switzerland, assignor to Investa A.-G., für Forschung und Patentverwertung Luzern, Lucerne, Switzerland

Application October 19, 1954, Serial No. 463,291
Claims priority, application Switzerland November 21, 1953
4 Claims. (Cl. 260—124)



1. The process of decomposing lignin into distillable products containing a substantial amount of phenols, which comprises the steps of mixing the lignin with an xylenol as a liquid dispersing agent and ferrosulfate as a hydrogenation catalyst to form a thin paste, continuously feeding this paste under high pressure to the inlet end of a reaction chamber maintained at a temperature of above 250° C. and a pressure of above 300 atmospheres, while continuously delivering to the inlet end of the reaction chamber hydrogen under high pressure, whereby the mixture of paste and hydrogen passes continuously through said reaction chamber and said paste and said hydrogen are reacted to decompose the lignin into distillable products, separating the liquid portions from the gases immediately after the reacted mixture is discharged from the outlet of the reaction chamber, and distilling the liquid portions to obtain the distillable lignin decomposition products therefrom.

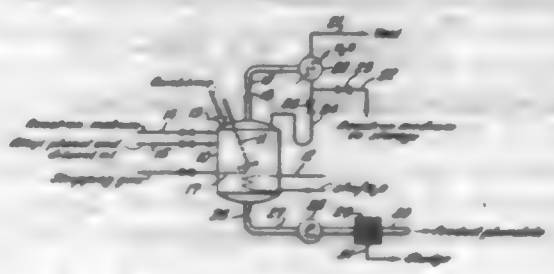
2,870,134

PREPARATION OF CALCIUM PHENOLATES AND SULFURIZED DERIVATIVES THEREOF

Herman D. Kluge, Fishkill, N. Y., and Kenneth Drake, Portland, Maine, assignors to The Texas Company, New York, N. Y., a corporation of Delaware

Application December 12, 1956, Serial No. 627,953
18 Claims. (Cl. 260—137)

1. In a process for production of calcium phenolate and sulfurized calcium phenolate wherein a liquid reaction medium is used and the reactants include an oil-soluble phenol and at least one equivalent of pulverulent calcium oxide per equivalent of the phenol, the improvement which comprises: using as the reaction medium a monohydric alcohol having atmospheric boiling point between about 173° and about 340° F.; forming a mixture



of said reaction medium and at least the calcium oxide reactant; and maintaining said mixture at temperature above the atmospheric boiling point of said reaction medium and between about 225° and about 450° F. for a period of at least about an hour, thereby activating calcium oxide for reaction with the phenol.

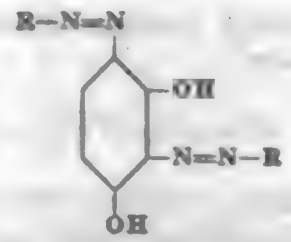
2,870,135

METALLIFEROUS POLYAZO DYESTUFFS

Otto Senn, Arlesheim, Basel, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application January 17, 1955
Serial No. 482,436
Claims priority, application Switzerland January 22, 1954
6 Claims. (Cl. 260—145)

1. A metal complex compound selected from the group consisting of copper and nickel complex compounds of polyazo dyestuffs which correspond in the metal-free state to the formula



wherein one R stands for the radical of a diazo compound of an aminoazo dyestuff, obtained by the coupling of a member selected from the group consisting of a diazomonoazo, a diazodisazo and a diazotrisazo compound, each of the said compounds containing as components aromatic radicals selected from the group consisting of radicals of the benzene, naphthalene, diphenyl, stilbene, pyrazolone and benzthiazole series, and including in the ortho-position to the diazo group a substituent selected from the group consisting of hydroxy, methoxy and carboxy, with a member selected from the group consisting of a 1-amino-8-hydroxynaphthalene-monosulfonic acid and a 1-amino-8-hydroxynaphthalene-disulfonic acid in the 7-position, and the other R stands for a member selected from the group consisting of radicals of diazo and diazomonoazo compounds, each of the said compounds containing as components aromatic radicals selected from the group consisting of radicals of the benzene and naphthalene series, and including in the ortho-position to the diazo group a substituent selected from the group consisting of hydroxy, methoxy and carboxy.

2,870,136

POLYAZO-DYESTUFFS

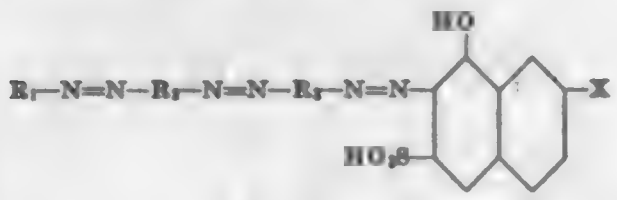
Walter Hanhart, Riehen, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application April 7, 1955
Serial No. 500,014

Claims priority, application Switzerland April 14, 1954

7 Claims. (Cl. 260—173)

1. A polyazo-dyestuff of the formula



in which R_1 represents a benzene radical containing in para-position to the azo linkage a hydroxyl group and in ortho-position to the latter group a carboxylic acid group, R_2 represents a benzene radical bound in para-position to the azo linkages, R_3 represents a benzene radical bound in para-position to the azo linkages and containing in ortho-position to the azo-linkage bound to the naphthalene nucleous a hydroxyl group, and X represents a member selected from the groups consisting of a primary amino group and an acetylamino group.

2,870,137

WATER-INSOLUBLE MONOAZO DYESTUFFS

Ernest Merian, Bottmingen, near Basel, Bruno J. R. Nicolaus, Basel, and Walter Wehrli, Riehen, Switzerland, assignors to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application April 22, 1957
Serial No. 654,078

Claims priority, application Switzerland April 27, 1956

7 Claims. (Cl. 260—207)

1. A water-insoluble monoazo dyestuff which corresponds to the formula

$$R_1—O—CO—HN—Ph_1—N=N—Ph_2—O—R_2$$

wherein Ph_1 represents a member selected from the group consisting of phenyl, hydroxyphenyl, methylphenyl, ethylphenyl, methoxyphenyl, ethoxyphenyl, methylsulfonylphenyl, methylaminosulfonylphenyl, ethylaminosulfonylphenyl, hydroxyethylaminosulfonylphenyl, methoxypropylaminosulfonylphenyl and aminosulfonylphenyl, Ph_2 represents a member selected from the group consisting of phenyl, hydroxyphenyl, methylphenyl, ethylphenyl, methoxyphenyl, ethoxyphenyl, alkanoylaminophenyl containing less than 6 carbon atoms in the alkanoyl group, and alkylsulfonylaminophenyl containing less than 5 carbon atoms in the alkyl group, R_1 represents a member selected from the group consisting of alkyl containing less than 9 carbon atoms, hydroxyalkyl containing less than 4 carbon atoms, alkoxyalkyl containing altogether less than 6 carbon atoms, dimethylaminoethyl, mononuclear aryl, mononuclear aryloxyethyl, morpholylethyl, benzyl and phenylethyl, and R_2 represents a member selected from the group consisting of cyanoethyl, alkyl containing less than 5 carbon atoms, alkanoyl containing less than 5 carbon atoms, alkoxyalkanoyl containing less than 7 carbon atoms and mononuclear arylcarbonyl, and wherein the groups $R_1—O—CO—HN—$ and $—O—R_2$ are in para-position to the $—N=N—$ group.

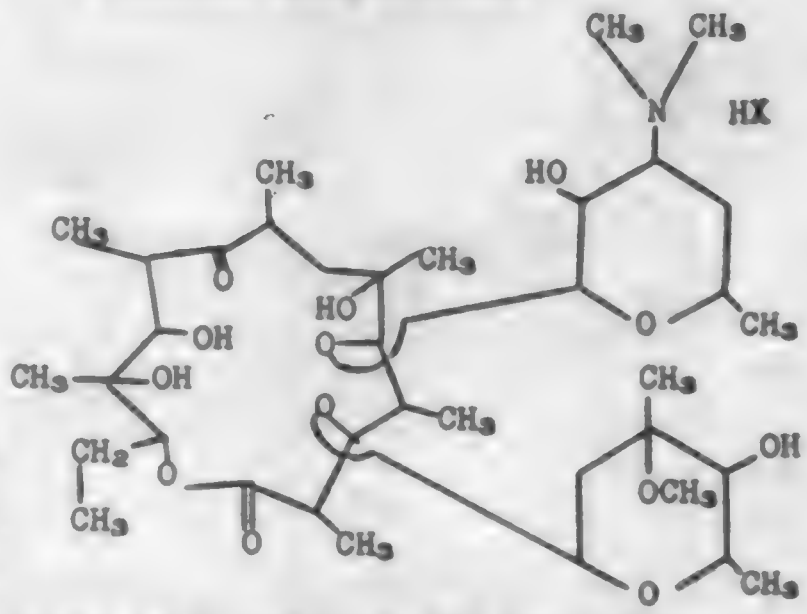
2,870,138

ERYTHROMYCIN SALTS

Maxton F. Murray, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 13, 1953
Serial No. 374,115
3 Claims. (Cl. 260—210)

1. A compound having the formula:



wherein HX is selected from the group consisting of 3-phenylsalicylic acid and 5-phenylsalicylic acid.

2,870,139

PURIFICATION OF D(—)GALACTAMINE

Fred Kagan, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 21, 1955
Serial No. 489,740
4 Claims. (Cl. 260—211)

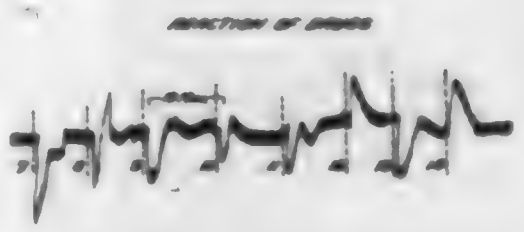
1. In a process for the separation of D(—)galactamine from other amine derivatives prepared by reacting D(+)galactose with hydrogen and ammonia in the presence of a catalyst, the steps of contacting an aqueous solution containing the D(—)galactamine and amine derivatives with a cation-exchange resin, fractionally eluting the cation-exchange resin with an acid solution to obtain a fraction rich in D(—)galactamine and a fraction rich in other amine derivatives, and contacting the fraction rich in D(—)galactamine with an anion-exchange resin to produce D(—)galactamine.

2,870,140

THERAPEUTIC AGENTS DERIVED FROM RAUWOLFIA SERPENTINA

Marvin R. Thompson and Robert E. Thompson, Fairfield County, Conn.

Application July 21, 1953, Serial No. 369,352
8 Claims. (Cl. 260—236.5)



1. A process for preparing a sedative principle of *Rauwolfia serpentina* substantially free of convulsive vasodepressor activity,. comprising contacting the crude

drug with water, separating the resulting extract from the residue of said drug, mixing said extract with an organic solvent selected from the group consisting of acetone and alcohols containing less than 3 carbon atoms to produce an organic solvent mixture containing at least 25% by volume of said organic solvent to precipitate said sedative principle and to substantially free said sedative principle from convulsive vasodepressor activity, and separating said precipitate from the supernatant liquid.

3. A process for preparing a sedative principle of *Rauwolfia serpentina* substantially free of convulsive vasodepressor activity, comprising mixing the crude drug with an organic solvent selected from the group consisting of acetone and alcohols containing less than 3 carbon atoms, separating the resulting solvent extract from the residue of said drug, contacting said residue with water to obtain an extract of said sedative principle substantially free from convulsive vasodepressor activity, and separating said extract from said residue.

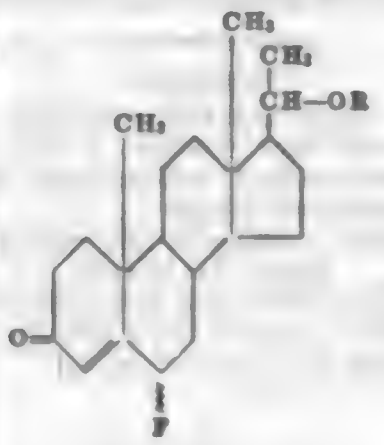
2,870,141

6-FLUORO-20-HYDROXY-4-PREGNEN-3-ONES AND THE 20-ACYLATES THEREOF

J. Allan Campbell, Kalamazoo, John C. Babcock, Portage Township, Kalamazoo County, and John A. Hogg, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application June 9, 1958
Serial No. 740,554
19 Claims. (Cl. 260—239.5)

1. A 6-fluoro compound of the formula:



wherein R is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

19. 6-fluoro-3-(N-pyrrolidinyl)-3,5-pregnadien-20-one.

2,870,142

PROCESS FOR THE PARTIAL REMOVAL OF OXO GROUPS

Albert Wettstein and Ludwig Ehmann, Basel, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application November 2, 1954
Serial No. 466,432
Claims priority, application Switzerland November 13, 1953
4 Claims. (Cl. 260—239.55)

1. In a process for the partial removal of oxo groups from a member selected from the group consisting of cholenic acids, cholanic acids, their esters, cholenes and spirostanes wherein a member of the group consisting of 11,12-diketo derivatives of said compounds, the enols and enolates thereof is heated with a member of the group consisting of hydrazine and derivatives thereof in the presence of a basic alkali compound, the improvement which comprises employing a temperature at which nitrogen is evolved and which does not exceed 160° C.

2,870,143

PROCESS FOR CONVERSION OF STEROIDAL SAPOGENINS TO PSEUDOSAPOGENINS

Monroe E. Wall, Oreland, and Samuel Serota, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application January 22, 1958
Serial No. 710,585
8 Claims. (Cl. 260—239.55)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process for converting a steroidal sapogenin to its pseudosapogenin comprising heating said sapogenin in acetic anhydride containing about 0.1 to 1.0% by volume of acetic acid, at temperatures in the range of about 160 to 180° C., until the isomerization of the sapogenin to its pseudo form is substantially complete.

2,870,144

3-FURFURYLIDENE-AMINO-1,2,4-TRIAZOLE AND PROCESS FOR PRODUCING SAME

Werner Schäfer, Koln-Stammheim, Richard Wegler, Leverkusen, and Ludwig Ese, Koln-Mulheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application November 18, 1957
Serial No. 696,507
Claims priority, application Germany December 17, 1956
1 Claim. (Cl. 260—240)

3-furfurylidene-amino-1.2.4-triazole.

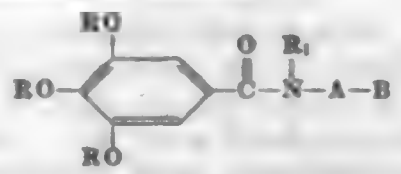
2,870,145

THERAPEUTIC AGENTS

Yvon Gaston Perron, East Syracuse, N. Y., assignor to Bristol Laboratories Inc., Syracuse, N. Y., a corporation of New York

No Drawing. Application September 9, 1955
Serial No. 533,507
6 Claims. (Cl. 260—247.2)

1. A member selected from the group consisting of a free base and the non-toxic acid addition salts thereof, said free base having the formula



wherein R is lower alkyl; R_1 is a member selected from the group consisting of hydrogen, lower alkyl and benzyl; A is a member selected from the group consisting of bivalent, saturated, acyclic hydrocarbon radicals containing from two to six carbon atoms inclusive and B is a member selected from the group consisting of piperidino, morpholino, 2,6-dimethyl-morpholino, N'-(lower alkyl)-substituted-piperazino, pyrrolidino, pipecolino, di-(lower)alkyl-amino, dibenzylamino and N-benzyl-N-(lower)alkylamino.

2,870,146

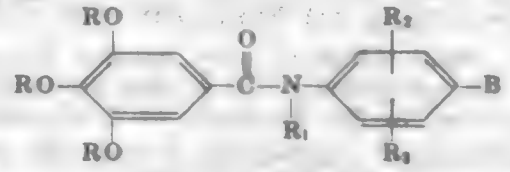
THERAPEUTIC AGENTS

Yvon Gaston Perron, De Witt, N. Y., assignor to Bristol Laboratories Inc., East Syracuse, N. Y., a corporation of New York

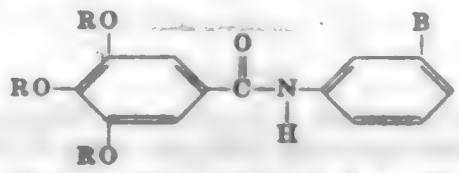
No Drawing. Application February 10, 1958
Serial No. 714,049
8 Claims. (Cl. 260—247.2)

1. A compound selected from the group consisting of a free base and the nontoxic acid addition salts thereof,

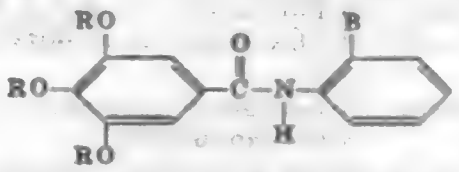
said free base having a formula selected from the group consisting of



wherein R represents lower alkyl, R_1 is a member selected from the group consisting of hydrogen, (lower) alkyl, benzyl, phenethyl and cinnamyl, R_2 and R_3 are members selected from the group consisting of hydrogen, chloro, bromo, iodo, (lower) alkyl and nitro and B is a member selected from the group consisting of di(lower) alkylamino, piperidino, morpholino, thiomorpholino, 2,6 - dimethylmorpholino, N'(lower)alkyl - piperazino, pyrrolidino and pipecolino; and



wherein R is lower alkyl and B represents di(lower)alkylamino; and



where R represents lower alkyl and B represents di-(lower) alkylamino.

6. 4'-morpholino-3,4,5-trimethoxybenzanilide.

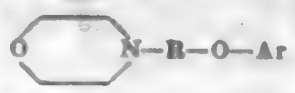
2,870,147

MORPHOLINE ETHERS

Howard B. Wright and Marjorie B. Moore, Waukegan, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application November 29, 1954
Serial No. 471,927
12 Claims. (Cl. 260—247.5)

1. A compound selected from the class consisting of compounds having the general formula



wherein R is a divalent lower saturated aliphatic hydrocarbon group having at least 2 carbon atoms in the carbon chain, and Ar is a group selected from the class consisting of a phenylaminophenyl group and a lower alkyl substituted phenylaminophenyl group, and the salts thereof.

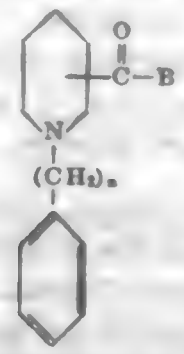
2,870,148

HETEROCYCLIC AMIDES OF N ARALKYL PIPERIDINE CARBOXYLIC ACIDS

Joseph Sam, De Witt, N. Y., assignor to Bristol Laboratories Inc., Syracuse, N. Y., a corporation of New York

No Drawing. Application January 23, 1957
Serial No. 635,616
6 Claims. (Cl. 260—247.5)

1. A compound selected from the group consisting of a free base and non-toxic acid addition salts thereof, said free base having the formula



wherein *n* is an integer from to three inclusive and B is a member selected from the group consisting of morpholino, 2,6-dimethyl-morpholino, piperidino, pipecolino and pyrrolidino.

2,870,149

MORPHOLINE ETHERS IV

Howard B. Wright and Marjorie B. Moore, Waukegan, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application November 29, 1954
Serial No. 471,904
4 Claims. (Cl. 260—247.7)

1. The ω-N-morpholino-lower alkylene cyclohexylphenyl ether wherein the said alkylene group has at least 2 carbon atoms in the carbon chain.

2,870,150

MORPHOLINE ETHERS

Howard B. Wright and Marjorie B. Moore, Waukegan, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application November 29, 1954
Serial No. 471,925
15 Claims. (Cl. 260—247.7)

1. A compound selected from the class consisting of compounds having the general formula



wherein R is a divalent lower saturated aliphatic hydrocarbon group having at least 2 carbon atoms in the carbon chain, and Ar is a group selected from the class consisting of a phenylphenyl, and an N-morpholino lower alkylene substituted phenylphenyl, and the salts thereof.

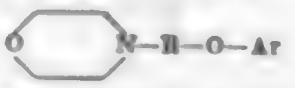
2,870,151

MORPHOLINE ETHERS

Howard B. Wright and Marjorie B. Moore, Waukegan, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application November 29, 1954
Serial No. 471,928
15 Claims. (Cl. 260—247.7)

1. A compound selected from the class consisting of compounds having the general formula



wherein R is a divalent lower saturated aliphatic hydrocarbon group having at least 2 carbon atoms in the carbon chain, and Ar is a group selected from the class consisting of a lower alkoxy phenyl group, a lower alkenyl substituted lower alkoxy phenyl group, a lower alkyl substituted lower alkoxy phenyl group, and a halogen substituted lower alkoxy phenyl group wherein the alkoxy group has between two and seven carbon atoms inclusive, and the salts thereof.

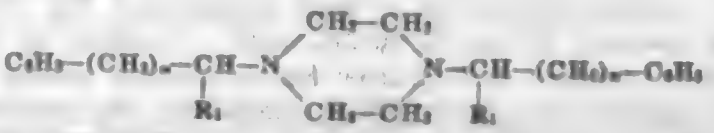
2,870,152

PIPERAZINE DERIVATIVES AND THE PRODUCTION THEREOF

Ludwig Schusteritz, Moorrege, and Viktor Wolf, Hamburg, Germany, assignors to Nordmark-Werke Gesellschaft mit beschränkter Haftung, Hamburg, Germany

No Drawing. Application July 17, 1957
Serial No. 672,368
Claims priority, application Germany July 26, 1956
8 Claims. (Cl. 260—268)

7. The hydrochloride of a piperazine compound of the formula



wherein R_1 indicates an alkyl radical with 1 to 8 carbon atoms, and *n* represents an integer from 0 to 6.

2,870,153

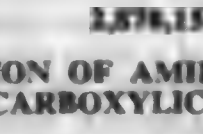
QUATERNARIES OF PYRIDYL AND QUINOLYL PROPIONITRILES

Samuel Allen Heininger, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 12, 1956
Serial No. 590,816

12 Claims. (Cl. 260—286)

1. A quaternary ammonium salt of the formula



wherein An is the anion of a strong acid, and R≡N is a radical selected from the class consisting of pyridinium, 3-picolinium, 4-picolinium, 3,4-lutidinium, 3,5-lutidinium, 3,4,5-trimethylpyridinium, 4-ethylpyridinium, 3-isopropylpyridinium, 3,4,5-triisopropylpyridinium, 4-n-hexylpyridinium, isoquinolinium, 4-methylisoquinolinium and 6-propylisoquinolinium.

6. 2-(2-cyanoethyl)isoquinolinium chloride.

2,870,154

CATALYST DEHYDROGENATION PROCESS

Emory W. Pitzer, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application August 2, 1956
Serial No. 601,624

14 Claims. (Cl. 260—290)

1. A method of dehydrogenating a compound from the group consisting of monoolefins, alkylpyridines and alkyl aromatics which comprise passing the vapors of said compound into contact with a catalyst consisting essentially of 10.0 to 60.0 percent by weight potassium fluoride, 89.8 to 35.0 percent by weight iron fluoride and 0.2 to 5.0 percent by weight chromium fluoride.

2,870,155

PURIFICATION OF AMIDES OF PYRIDINE CARBOXYLIC ACIDS

Robert S. Aries, New York, N. Y.

No Drawing. Application December 30, 1955
Serial No. 556,453

5 Claims. (Cl. 260—294.9)

1. Process for the preparation of a pyridine carboxylic acid nitrile of high purity from an impure pyridine carcarboxylic acid amide which comprises vaporizing the amide in a stream of an inert gas, passing the vapors over a dehydration catalyst selected from the group consisting of silica gel, alumina gel and mixtures thereof at a temperature between about 250° C. and 550° C., and recovering the nitrile by condensation.

3. Process for the preparation of nicotinic acid amide of high purity from a crude amidation melt comprising nicotinamide and niacin which comprises vaporizing said melt in a stream of an inert gas, passing the vapors over a dehydration catalyst selected from the group consisting of silica gel, alumina gel, and mixtures thereof at a temperature between about 250° C. and 550° C., condensing the nicotinic acid nitrile formed, hydrolyzing said nitrile to the amide, and recovering the amide.

2,870,156

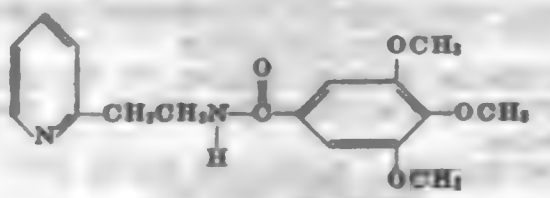
N-PYRIDYLETHYL-3,4,5 TRIMETHOXY-BENZAMIDE

Yvon Gaston Perron, De Witt, N. Y., and Joseph Sam, Camden, S. C., assignors to Bristol Laboratories Inc., East Syracuse, N. Y., a corporation of New York

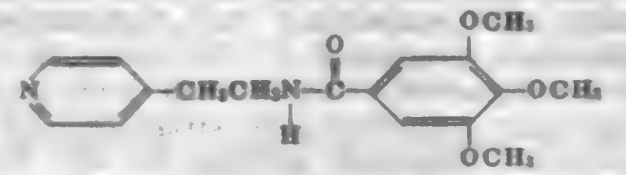
No Drawing. Application March 3, 1958
Serial No. 718,399

5 Claims. (Cl. 260—295)

1. A member selected from the group consisting of a free base having the formula



nontoxic acid addition salts thereof, a free base having the formula



and nontoxic acid addition salts thereof.

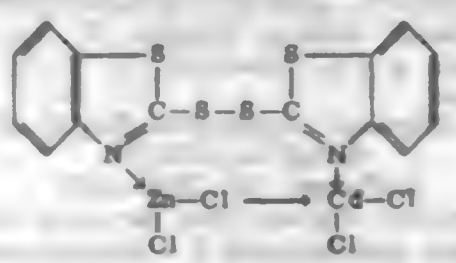
2,870,157

2,2'-DITHIOBISBENZOTHIAZOLE AND 2-MERCAPTOBENZOTHIAZOLE $ZnCl_2$ AND $CdCl_2$ COMPLEXES

Ernest Csendes, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

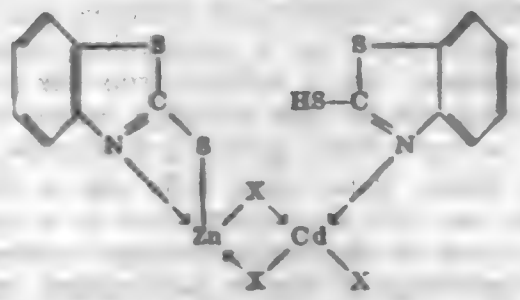
No Drawing. Application July 26, 1957
Serial No. 674,313
4 Claims. (Cl. 260—299)

1. A compound taken from the group consisting of



(I)

and



(II)

wherein X is a member selected from the group consisting of chlorine, bromine and iodine.

2,870,158

PROCESS FOR THE PREPARATION OF THIAZOLES

Friedrich Asinger and Max Thiel, Leuna, Lothar Schröder, Halle, and Gerhard Reckling, Spergau, Germany, assignors to VEB Leuna-Werke "Walter Ulbricht," Leuna, Germany

No Drawing. Application October 10, 1957
Serial No. 689,266
Claims priority, application Germany December 19, 1956
9 Claims. (Cl. 260—302)

7. A process for the preparation of a thiazole which comprises reacting a thiazoline having one double bonded nitrogen to carbon linkage in the ring and at least one singly bonded carbon atom which carries at least one hydrogen atom with an oxidizing agent, selected

from the class consisting of alkali metal chromates, alkali metal dichromates, alkali metal permanganates, inorganic cupric salts, inorganic ferric salts, and alkali metal ferricyanides, at a temperature within the range of about 50°–125° C., and in a weakly acid medium until said oxidizing agent is substantially reduced, and recovering said thiazole by distillation.

2,870,159

HYDROGENATED 2-(1-NAPHTHYLAMINO)-OXAZOLINES

Barry M. Bloom, Jackson Heights, N. Y., assignor to Chas. Pfizer & Co., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application July 8, 1957
Serial No. 670,371
6 Claims. (Cl. 260—307)

1. A compound selected from the group consisting of substituted and unsubstituted 2-(1,2,3,4-tetrahydro-1-naphthylamino) - oxazolines, 2 - (1,2,3,4,5,6,7,8 - octahydro-1-naphthylamino)-oxazoline and 2-(1,2,3,4,5,6,7,8,9,10-decahydro-1-naphthylamino)-oxazoline, and their pharmaceutically acceptable acid addition salts wherein; (*a*) each substituent on a substituted naphthyl ring is selected from the group consisting of alkyl, alkoxy and thioalkyl groups each containing up to four carbon atoms and chlorine, bromine and iodine, there being from one to three such substituents; (*b*) each substituent on a substituted methylene group of the oxazoline ring is selected from the group consisting of one to four carbon atom alkyl groups, there being a total of from one to eight carbon atoms in such substituents.

2,870,160

2(BENZOFURANYL AMINO)- AND 2(THIANAPHTHENYL AMINO) OXAZOLINES

Barry M. Bloom, Jackson Heights, N. Y., assignor to Chas. Pfizer & Co., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application July 8, 1957
Serial No. 670,372
6 Claims. (Cl. 260—307)

1. A compound selected from the group consisting of substituted and unsubstituted 2 - (benzofuranylamino)-oxazolines, 2-(thianaphthenylamino)-oxazolines and their pharmaceutically acceptable acid addition salts wherein; (*a*) each substituent on a substituted benzofuranyl and thianaphthenyl ring is selected from the group consisting of alkyl, alkoxy and thioalkyl groups each containing up to four carbon atoms, and chlorine, bromine and iodine atoms, there being from one to three such substituents, and (*b*) each substituent on a substituted methylene group of the oxazoline ring is selected from the group consisting of one to four carbon atom alkyl groups, there being a total of from one to eight carbon atoms in such substituents.

2,870,161

2-(1-INDANYL AMINO)-OXAZOLINES

Barry M. Bloom, Jackson Heights, N. Y., assignor to Chas. Pfizer & Co., New York, N. Y., a corporation of Delaware

No Drawing. Application July 8, 1957
Serial No. 670,373
6 Claims. (Cl. 260—307)

1. A compound selected from the group consisting of substituted and unsubstituted 2-(1-indanylamino)-oxazolines and their pharmaceutically acceptable acid addition salts wherein; (*a*) the substituents on a substituted indanyl ring are selected from the group consisting of one to three alkyl, alkoxy and thioalkyl groups each containing up to four carbon atoms, and one to three chlorine, bromine and iodine atoms and, (*b*) each substituent on a substituted methylene group of the oxazoline ring is selected from the group consisting of alkyl groups each containing one to four carbon atoms, there being a total of from one to eight carbon atoms in such substituents.

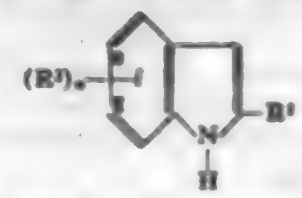
2,870,162

PRODUCTION OF CERTAIN TRYPTAMINES AND COMPOUNDS PRODUCED IN THE PROCESS

Merrill E. Speeter and William C. Anthony, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

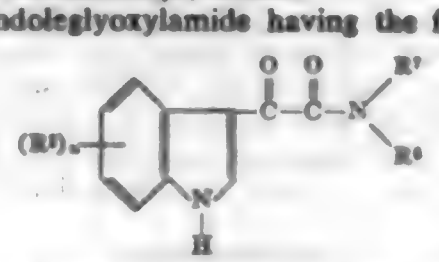
No Drawing. Application April 28, 1954
Serial No. 426,301
26 Claims. (Cl. 260—319)

12. In a process for the preparation of 3-(2-aminoethyl)-indoles including acid addition salts thereof, the steps of mixing an indole having the formula:



wherein R^1 is selected from the group consisting of hydrogen, aryl, aralkyl, and lower-alkyl, *n* is an integer from zero to four, and R^2 is selected from the group consisting of carboxy, cyano, dialkylamino, lower-carbalkoxy, halogen, lower-alkyl, aryl, aralkyl, aryloxy, a lower-alkoxy, a benzyloxy, and an acyloxy radical wherein the acyl substituent is from an organic carboxylic acid, and a fused arylene radical, with an oxalyl halide to produce a 3-indoleglyoxylyl halide, reacting the 3-indoleglyoxylyl halide with a compound selected from the group consisting of a primary amine, secondary amine, and ammonia to produce a 3-indoleglyoxylamide, and reducing the 3-indoleglyoxylamide with lithium aluminum hydride to prepare a 3-(2-aminoethyl)-indole.

26. A 3-indoleglyoxylamide having the formula:



wherein *n* is an integer from one to four, R^2 is a radical containing not more than 15 carbon atoms and is selected from the group consisting of a lower-alkoxy, a benzyloxy, and an acyloxy radical wherein the acyl substituent is from a hydrocarbonecarboxylic acid containing from one to eight carbon atoms, inclusive, R^6 and R^7 are selected from the group consisting of hydrogen, benzyl, and a lower-alkyl radical containing from one to eight carbon atoms, inclusive, and additional members of this series wherein R^6 and R^7 together with —N< form a heterocyclic radical selected from the group consisting of morpholino and piperidino.

2,870,163

CONVERSION OF ORGANIC SULFIDES TO SULFONES

Horace R. Davis, Cedar Grove, and David P. Sorensen, Bloomfield, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application December 12, 1956
Serial No. 627,745
19 Claims. (Cl. 260—327)

1. In a process for the oxidation of a sulfide containing a



group in the presence of an inorganic oxide of nitrogen compound as an oxidizing agent; the improvement which

comprises conducting said oxidation in the presence of osmium tetroxide as a catalyst to produce a sulfone as a product of the process.

7. The process of claim 1 wherein the sulfide is thioxane.

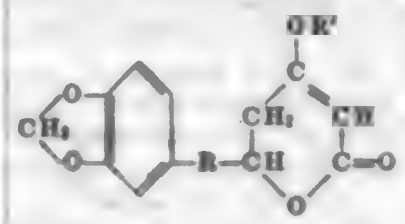
2,870,164

PROCESS FOR MAKING 4,1-METHYSTICIN AND 4,1-DIHYDROMETHYSTICIN

Marie W. Klohs, Northridge, and Fred Keller and Robert E. Williams, Los Angeles, Calif., assignors to Riker Laboratories, Inc., Los Angeles, Calif., a corporation of Delaware

No Drawing. Application September 19, 1956
Serial No. 610,717
6 Claims. (Cl. 260—340.5)

1. The process for producing a racemic chemical compound represented by the formula:



wherein R is a member of the group consisting of —CH=CH— and —CH_2—CH_2— and R' is a lower alkyl group, which comprises condensing 3,4-methylenedioxycinnamaldehyde and an alkyl-gamma-halo-beta-alkoxy crotonate.

2,870,165

PROCESS FOR RECOVERING FLAVONOIDS FROM BARK

Herbert L. Hergert, Shelton, Wash., assignor to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

No Drawing. Application June 20, 1956
Serial No. 592,495
8 Claims. (Cl. 260—345.2)

1. The process for recovering crystalline myricetin from lodgepole pine bark which comprises extracting a mixture of flavonoids including myricetin from lodgepole pine bark, dissolving the mixture of flavonoids in an oxygenated solvent of the group consisting of ethyl ether, acetone, methyl ethyl ketone, and ethyl acetate, selectively crystallizing myricetin from the solvent in the presence of the remaining dissolved flavonoids, and recovering crystalline myricetin from the solvent.

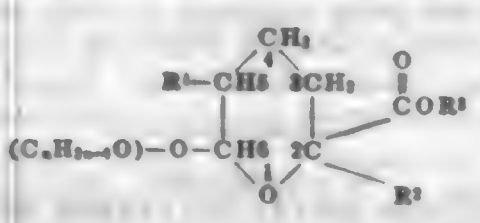
2,870,166

6-EPOXYALKYL ETHERS OF ALIPHATIC TETRAHYDROPYRAN-2-CARBOXYLATES

Donald G. Kubler, South Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application October 23, 1957
Serial No. 691,796
3 Claims. (Cl. 260—345.8)

1. Compounds characterized by the general formula:



wherein R^1 and R^2 each represent members selected from the group consisting of hydrogen and lower alkyl radicals; R^3 represents a member selected from the group consisting of alkyl and alkenyl groups containing up to 20 carbon atoms and the group ($C_nH_{2n-1}O$) represents a 2,3-epoxyalkyl group containing from 3 through 8 carbon atoms.

2,870,167

PREPARATION OF α-CHLOROGLUTARIC ANHYDRIDE

Arthur Francis Kirby, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 28, 1956
Serial No. 631,034
3 Claims. (Cl. 260—345.9)

3. A process for the production of α-chloroglutaric anhydride which comprises reacting chlorine and glutaric anhydride at a temperature between about 75 and about 160° C. and in the presence of a catalyst selected from the group consisting of phosphorus, phosphorus halides, phosphorus oxyhalides, phosphorus oxygen acids, and phosphorus oxides.

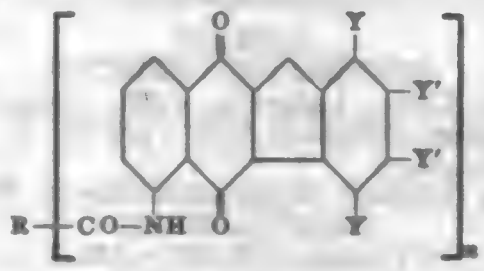
2,870,168

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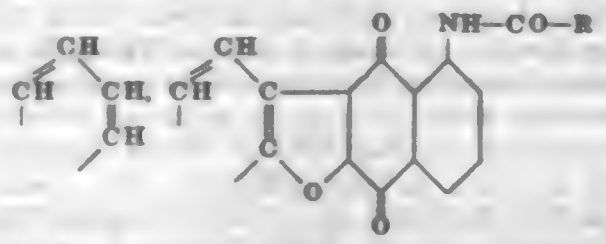
David I. Randall, New Vernon, and Wilhelm Schmidt-Nickels, Little York, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 30, 1955
Serial No. 556,414
6 Claims. (Cl. 260—346.2)

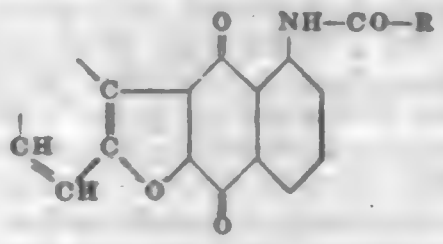
1. Compounds having the formula



wherein one pair Y—Y' is hydrogen, the other pair Y—Y' is selected from the group consisting of



and



and R is the aromatic radical, bonded to the carbon atom of a carboxylic group, of an acid selected from the group consisting of benzoic, o- and p-chlorobenzoic, p-phenylbenzoic, cinnamic, phthalic, terephthalic acids, p,p'-diphenyldicarboxylic, naphthalene 1- and 2-carboxylic and 1,5- and 1,4-dicarboxylic, anthracene-2-carboxylic, anthraquinone-2-carboxylic, thiophene carboxylic, and furane carboxylic acids.

2,870,169

ETHERS OF THE FURAN SERIES

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application November 30, 1955
Serial No. 550,238
4 Claims. (Cl. 260—347.8)

1. An ether selected from the class consisting of 2-(dichlorophenoxymethyl)furan, 2-(dichlorophenoxymethyl)tetrahydrofuran, and bis(tetrahydrofurfuryloxy)-chlorobenzene.

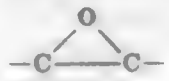
2,870,170

ESTERS OF EPOXY-SUBSTITUTED POLYCARBOXYLIC ACIDS AND EPOXY-SUBSTITUTED ALCOHOLS

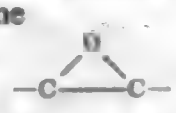
George B. Payne and Curtis W. Smith, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 8, 1953
Serial No. 397,011
5 Claims. (Cl. 260—348)

5. An ester of an open chain aliphatic ethylenically unsaturated



group containing polycarboxylic acid having at least 18 carbon atoms, said acid having from 2 to 3 carboxyl groups and at least one



group separated from said carboxyl groups by at least one carbon atom, with a



group containing alkanol of at least 3 carbon atoms.

2,870,171

EPOXIDATION PROCESS

Charles M. Gable, Lafayette, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application May 21, 1956
Serial No. 585,923
5 Claims. (Cl. 260—348.5)

1. In a process for reacting an ethylenic compound with hydrogen peroxide under the catalytic influence a member of the group consisting of tungstic acid heteropolytungstic acid and salts of said acids at about 0° to about 80° C. using about ¼ to about 1 mole of hydrogen peroxide per mole of ethylenic unsaturation to be epoxidized and not more than about 75 moles of water per mole of ethylenic compound, the improvement which comprises passing said reactants in the liquid phase into contact with said catalyst deposited on a solid inorganic adsorbent carrier having a porosity greater than 30% on a void-free basis, an average pore diameter of 20 to about 200 Angstrom units, and a surface area of at least ten square meters per gram, thereafter contacting the reaction mixture with said solid adsorbent carrier whereby tungstic acid in solution is adsorbed thereon, and periodically reversing the flow of reaction mixture through said carrier whereby the thus adsorbed tungstic acid on said carrier as at least a portion of the catalyst for said reaction.

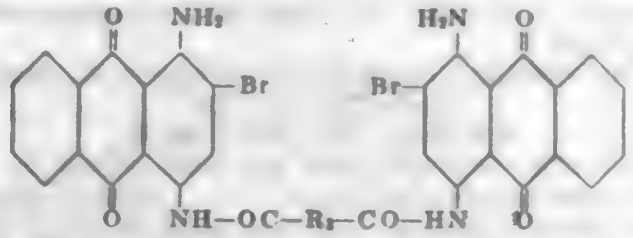
2,870,172

PIGMENT DYESTUFFS OF THE ANTHRAQUINONE SERIES

Wolfgang Schoenauer, Riehen, Switzerland, assignor to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application November 13, 1956
Serial No. 621,548
Claims priority, application Switzerland November 18, 1955
7 Claims. (Cl. 260—368)

1. A pigment dyestuff of the anthraquinone series which corresponds to the formula



wherein R_3 stands for a member selected from the group consisting of the single carbon linkage, the bivalent methylene radical, a bivalent tetramethylene radical and a bivalent phenylene radical.

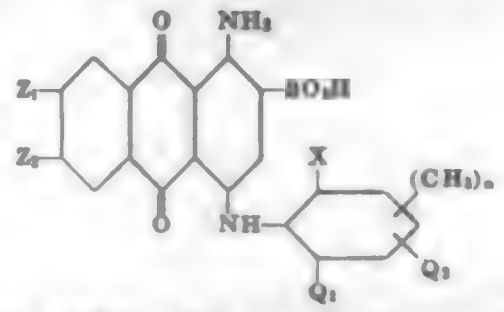
2,870,173

ANTHRAQUINONE DYESTUFFS

Peter Hindermann, Batterie, Basel, Hans Peter Kölliker, Basel, and Peter Trautzl, Binningen, Basel-Land, Switzerland, assignors to J. R. Geigy A.-G., Basel, Switzerland, a Swiss firm

No Drawing. Application November 25, 1957
Serial No. 698,394
Claims priority, application Switzerland December 28, 1956
7 Claims. (Cl. 260—373)

1. The anthraquinone dyestuff having the general formula:



wherein one of Q_1 and Q_2 represents a member selected from the group consisting of phenyloxy, phenylthio and naphthyloxy radicals and the other represents a member selected from the group consisting of hydrogen and lower alkyl radicals, X represents a lower alkyl radical, Z_1 and Z_2 each represent a member selected from the group consisting of hydrogen and halogen, n is one of the numerals 0 to 2, and wherein Q_1 is always different from hydrogen.

2,870,174

CYCLOPENTANOPHENANTHRENE DERIVATIVES AND METHOD FOR THE PRODUCTION THEREOF

Carl Djerassi, Birmingham, Mich.

No Drawing. Application June 2, 1955
Serial No. 512,869
Claims priority, application Mexico June 18, 1954
10 Claims. (Cl. 260—397.4)

1. A method for the preparation of the lower fatty acid acylate of 6-iodo-$\Delta^{4,17(20)}$-pregnadiene-20-ol-3-one which comprises reacting the di-lower fatty acid acylate of $\Delta^{3,5,17(20)}$-pregnatriene-3,20-diol with N-iodosuccinimide at a temperature below 30° C.

2,870,175

NEW CYCLOSTEROIDS

Aurelio Romeo, Rome, Italy, assignor to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application May 15, 1958
Serial No. 735,377
Claims priority, application Switzerland May 27, 1957
3 Claims. (Cl. 260—397.5)

1. A member of the group consisting of Δ^5-3:5-cycloandrostene the 17- position of which is substituted by a member of the group consisting of —H(—β—OH) and —R(—β—OH) in which R stands for a lower aliphatic hydrocarbon radical and the esters thereof.

2,870,176

PREPARATION OF STIGMASTEROL MATERIAL

Max H. Stern and Orris D. Hawks, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application October 7, 1954
Serial No. 461,010
8 Claims. (Cl. 260—397.25)

1. In the preparation of stigmasterol material, the process which comprises dissolving a concentrate of phy-

tosterol material containing more than about 15% and less than about 90% by weight of stigmasterol material in a non-polar solvent, preparing a phytosterol material composition containing about 90% by weight of stigmasterol material by successive selective recrystallizations of said phytosterol material from said non-polar solvent under substantially anhydrous conditions from solutions of phytosterol material in said non-polar solvent at concentrations of 5% to 35% by weight of phytosterol material, dissolving the resulting recrystallized phytosterol material composition in a polar solvent and thereafter selectively crystallizing therefrom a phytosterol material concentrate further enhanced in a stigmasterol material.

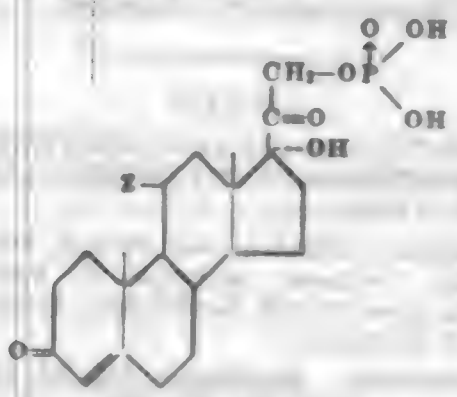
2,870,177

Δ^4-11-OXYGENATED-PREGNENE-17α,21-DIOL-3,20-DIONE 21-PHOSPHATE AND SALTS THEREOF

John P. Coubere, Cranston, R. I., and Karl Pfister III, Westfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application August 4, 1954
Serial No. 447,912
17 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of compounds having the structural formula



wherein Z is a radical selected from the group which consists of keto and hydroxy radicals, and alkali metal, alkaline earth metal, ammonium and amine salts thereof.

2,870,178

CHEMICAL COMPOUNDS AND PROCESSES OF PREPARING SAME

Edward W. Tristram, Cranford, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Original application August 5, 1955, Serial No. 526,774, now Patent No. 2,837,542, dated June 3, 1958. Divided and this application October 22, 1956, Serial No. 617,209
1 Claim. (Cl. 260—397.45)

The process which comprises reacting 1-pregnene-17α,21-diol-3,11,20-trione-21-acetate with bromine and dimethylformamide in the presence of lithium chloride to form 1,4-pregnadiene-17α,21-diol-3,11,20-trione-21-acetate.

2,870,179

HYDROGENATION OF PHOSPHATIDES

Giovanni Jaciai, Milan, Italy, assignor to American Lecithin Co., Inc., Woodside, N. Y., a corporation of Ohio

No Drawing. Application August 10, 1954
Serial No. 449,826
21 Claims. (Cl. 260—403)

4. A process of treating phosphatides which comprises subjecting them to hydrogenation at 75 to 80° C. at 50 to 150 atmospheres in the presence of finely powdered nickel and platinum as a catalyst.

2,870,180

PROCESS FOR THE PREPARATION OF HYDROCARBON MANGANESE CARBONYL COMPOUNDS

John Kozikowski and Melvin L. Larson, Royal Oak, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application October 13, 1955
Serial No. 540,348
4 Claims. (Cl. 260—429)

1. A process for the preparation of hydrocarbon cyclomatic manganese tricarbonyl compounds having the general formula

$$RMn(CO)_3$$

wherein R is a cyclomatic hydrocarbon radical having from 5 to 17 carbon atoms which embodies a group of 5 carbons having the general configuration found in cyclopentadiene, said compounds being further characterized in that the cyclomatic hydrocarbon radical is bonded to the manganese by carbon-to-manganese bonds through the carbons comprising the cyclopentadienyl-group configuration, said process comprising reacting a manganese compound having the general formula

$$RMnR'$$

wherein R and R' have the composition defined for R above with a metal carbonylic compound having the general formula

$$M_a(CO)_bX_cR_dH_f$$

wherein M is a metal having an atomic number of from 23 to 79, selected from groups I–B, V–B, VI–B, VII–B, and VIII, X is a halogen having an atomic number of from 9 to 53, R is as defined above, *a* is a number from 1 to 4 inclusive, *b* is a number from 1 to 11 inclusive, *c* has a numerical value of from 0 to 3 inclusive, *d* has a numerical value of from 0 to 1 inclusive, *f* has a numerical value of from 0 to 2 inclusive, and the sum $a+b+c+d+f$ has a value of from 3 to 15 inclusive said process being conducted at temperature below the decomposition temperature of said metal carbonylic compound.

2,870,181

WATER SOLUBLE ORGANOTITANIUM COMPOUNDS AND PROCESS OF PREPARATION

Comer Drake Shacklett, Roselle, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 17, 1954
Serial No. 411,028
16 Claims. (Cl. 260—429.5)

1. A water-soluble organo-titanium compound comprising the reaction product of one mol of an ortho titanate of the formula $Ti(OR)_4$ wherein R is an alkyl radical of 1 to 8 carbon atoms, with ½ to 4 mols of a saturated aliphatic carboxylic acid of 2 to 6 carbon atoms containing only carbon, hydrogen and oxygen atoms and having a hydroxy group in the alpha-position thereof, which organotitanium compound is soluble in water to the extent of at least 500 grams per liter of solution.

2,870,182

ORGANIC DERIVATIVES OF TETRAVALENT TIN

William E. Leistner, Brooklyn, and Arthur C. Hecker, Richmond Hill, N. Y., assignors to Argus Chemical Laboratory, Inc., a corporation of New York

No Drawing. Application May 14, 1952
Serial No. 287,805
3 Claims. (Cl. 260—429.7)

1. As a new compound, a product corresponding to the formula

$$R_a—Sn—X_{4-a}$$

wherein R stands for an alkyl radical, X for a radical of an ester of a mercapto alcohol having from 2–4 car-

bon atoms with an acid selected from the group consisting of a saturated monobasic aliphatic acid containing from 6–20 carbon atoms and tetrahydroabietic acid, and *n* for an integral number from 1–3, and wherein the sulfur of the mercapto alcohol is connected to the tin.

2,870,183

ORGANO-CHROMIUM COMPOUNDS

John C. Brantley, Snyder, N. Y., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application September 23, 1953
Serial No. 381,964
3 Claims. (Cl. 260—438)

1. An organo-chromium compound consisting of chromium and, as the organic component, organic hydrocarbon residues selected from the group consisting of cyclopentadienyl and indenyl, the organic residues and the atoms of chromium in said compound being in the ratio of 2:1.

2,870,184

PROCESS FOR MAKING POLY 2-ETHYLBUTOXY-SILOXANES

James R. Wright, El Cerrito, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application September 30, 1954, Serial No. 459,448
3 Claims. (Cl. 260—448.8)

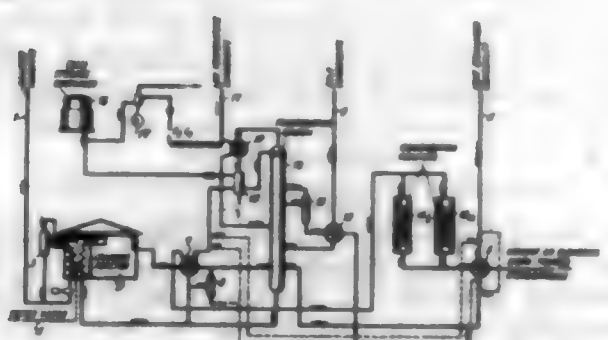
1. A process for preparing improved mixed polyalkoxypolysiloxanes which comprises reacting 2-ethyl butanol with a silicon tetrahalide to form a mixture of alkoxyhalosilanes, the molar ratio of alcohol to silicon tetrahalide being 2.5 : 1 to 3.5 : 1, removing hydrogen halide formed in the reaction, reacting said mixture of alkoxyhalosilanes with water in the presence of picoline, said water being in amounts sufficient to hydrolyze the halogen of the alkoxyhalosiloxanes and said picoline being in amounts sufficient to neutralize the halogen of the alkoxyhalosilanes, and separating the polyalkoxypolysiloxane mixture and liquid picoline hydrohalide salt formed in the reaction.

2,870,185

WORKING UP OF PRODUCTS FROM THE CATALYTIC HYDROGENATION OF CARBON MONOXIDE

Friedrich Schaur, Oberhausen-Sterkrade, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany, and Lurgi Gesellschaft für Warmetechnik m. b. H., Frankfurt am Main, Germany, a corporation of Germany

Application March 3, 1954, Serial No. 413,810
Claims priority, application Germany March 5, 1953
9 Claims. (Cl. 260—450)



1. Process for the operation of a thermal cracking reactor, a fractionating column and a hot reforming unit for the processing of synthesis products from catalytic carbon monoxide hydrogenation into gasoline and diesel oil which comprises separating the reaction products from said synthesis, i. e., liquid primary synthesis products into higher boiling primary synthesis products and lower boiling primary synthesis products, said latter product including the heat exchanger condensate, the cold condensate and the low temperature condensate passing the higher boiling primary synthesis products through the cracking reactor, passing the cracked product from the cracking reactor to the fractionating column, passing the lower boiling primary synthesis products to the fractionating column, separating gasoline and diesel oil range hydrocarbons in the fractionating column, passing the gasoline range hydrocarbons in indirect heat exchange contact with the cracked product coming from the cracking reactor and thereafter through the hot reforming unit and recovering gasoline from the hot reforming unit and diesel oil from the fractionating column.

2,870,186

DIMETHYL-(MONOCHLOROTOLYL)-PHOSPHATE

Harold D. Orloff, Detroit, and Francis X. Markley, Ferndale, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 22, 1954
Serial No. 477,139
1 Claim. (Cl. 260—461)

Dimethyl-(monochlorotolyl)-phosphate.

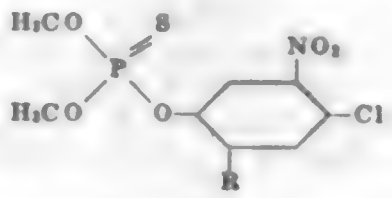
2,870,187

O,O-DIMETHYL-O-(4-CHLORO-3-NITROPHENYL)-THIOPHOSPHORIC ACID ESTERS AND THEIR PREPARATION

Gerhard Schrader, Opladen, and Rudolf Mersch, Köln-Stammheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application July 27, 1956
Serial No. 600,388
Claims priority, application Germany July 29, 1955
3 Claims. (Cl. 260—461)

1. A thiophosphoric acid ester of the following general formula



in which R stands for a member selected from the group consisting of hydrogen and chlorine.

2,870,188

PROCESS FOR THE MANUFACTURE OF PANTOTHENIC ACID 4'-PHOSPHATE AND ITS SALTS

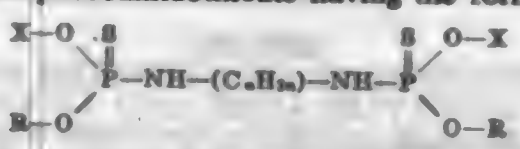
Frank Ratcliffe Atherton, Welwyn Garden City, England, assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application September 27, 1956
Serial No. 612,357
Claims priority, application Great Britain
October 3, 1955
6 Claims. (Cl. 260—461)

1. A process for the manufacture of pantothenic acid-4'-phosphate which comprises treating pantothenonitrile with about an equimolar proportion of phenyl phosphorodichloridate in excess tertiary base in the cold at first and then warming, hydrolysing the phosphorylation product by heating with alkaline earth metal hydroxide and converting the salt thus obtained with an acidic agent to pantothenic acid-4'-phosphate.

2,870,189
BIS-PHOSPHOROAMIDOTHIOATES
Ethyl H. Blair, Harold R. Slagh, and Edgar C. Britton, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application October 5, 1956
Serial No. 614,057
6 Claims. (Cl. 260—461)

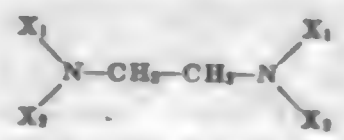
1. A phosphoroamidothioate having the formula



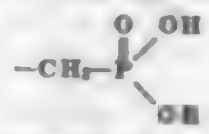
in which R represents lower alkyl, X represents a member of the group consisting of the halophenyl and 2-halo-4-loweralkylphenyl radicals and *n* represents one of the integers 2 and 3, said halogen being selected from the group consisting of chlorine and bromine.

2,870,190
PHOSPHONATE COMPOUNDS
Bill E. Burgert and Henry Tolkmith, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application July 3, 1957
Serial No. 669,718
5 Claims. (Cl. 260—461)

1. A phosphonate compound corresponding to the general formula

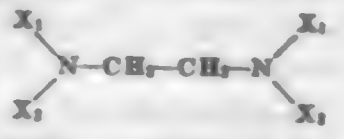


wherein X_1 represents a member of the group consisting of X_2 and hydrogen and X_2 represents

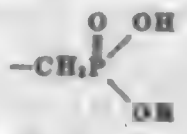


wherein R is a lower alkyl radical.

5. A method of preparing a compound corresponding to the general formula



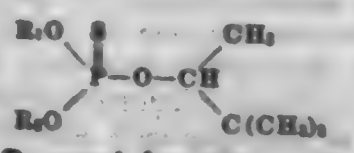
wherein X_1 represents a member of the group consisting of X_2 and hydrogen and X_2 represents



wherein R is a lower alkyl radical which comprises reacting together one molecular proportion of ethylenediamine and at least two molecular portions of each of formaldehyde and an O,O-di (lower alkyl) phosphite.

2,870,191
THIOPHOSPHORIC ACID ESTERS AND PROCESS FOR THEIR MANUFACTURE
Gerhard Schrader, Wuppertal-Cronenberg, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application November 27, 1957
Serial No. 699,178
Claims priority, application Germany December 21, 1956
3 Claims. (Cl. 260—461)

1. Thionophosphoric acid esters of the following formula



wherein R_1 and R_2 stand for alkyl radicals having 1 to 4 carbon atoms.

2,870,192
TRICRESYLPHOSPHATE PROCESS
Kurt P. Bonstedt, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware
No Drawing. Application December 30, 1957
Serial No. 705,780
10 Claims. (Cl. 260—461)

1. A method of making tricresylphosphate comprising contacting substantially anhydrous cresylic acid and substantially anhydrous phosphorus oxychloride in at least a 3:1 mole ratio in the presence of an anhydrous condensation catalyst, heating the reaction mixture until about 90 to 96% completion of the reaction occurs, adding to said mixture about 3 to 12% by weight of fresh cresylic acid based on the weight of cresylic acid originally present, continuing heating until the completion of the reaction and recovering tricresylphosphate from said mixture.

2,870,193
MAKING ALPHA-CHLOROACRYLIC COMPOUNDS
Maxwell A. Pollack, Morris Plains, N. J.
No Drawing. Application March 15, 1957
Serial No. 646,216
6 Claims. (Cl. 260—465.7)

1. In making an alpha-chloroacrylic compound, the method which comprises heating a mixture consisting essentially of the corresponding alpha-beta-dichloropropionic compound and concentrated sulfuric acid to a temperature within the range 60°–200° C., this heating causing liberation of hydrogen chloride and the formation of the alpha-chloroacrylic compound, and distilling from the reaction mixture, without substantial reflux, the hydrogen chloride and alpha-chloroacrylic compound as formed and at a temperature within the said range.

2,870,194
PROCESS FOR PREPARING 2,2'-BIARYLDICARBOXYLIC ACIDS
Philip S. Bailey, Austin, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
No Drawing. Application May 14, 1956
Serial No. 584,428
9 Claims. (Cl. 260—469)

8. A process for preparing methyl 2'-formyl-2-biphenylcarboxylate which comprises the step of refluxing a methanol solution of 3,8-dimethoxy-4,5,6,7-dibenzo-1,2-dioxacyclooctane under non-acidic conditions.

2,870,195
ALKYL BETA-ALKOXYPROPIONATES
Samuel Allen Heininger and Milton Kosmin, Dayton, Ohio, assignors to Monsanto Chemical Company, a corporation of Delaware
No Drawing. Application April 20, 1955
Serial No. 502,753
6 Claims. (Cl. 260—484)

1. An alkyl β-alkoxypropionate wherein each alkyl radical and each alkoxy radical is a branched chain of from 8 to 18 carbon atoms.

2,870,196
METHOD OF PREPARING 2,3-DICARBOMETHOXY-1,3-BUTADIENE
Arthur L. Barney, Deerhurst, and Halsey B. Stevenson, McDaniel Heights, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application January 5, 1954
Serial No. 402,410
4 Claims. (Cl. 260—485)

1. Process for the preparation of 2,3-dicarbomethoxy-1,3-butadiene wherein dimethyl 1-cyclohexene-1,2-dicarboxylate is pyrolyzed by heating the same to a tempera-

ture within the range from 500° C. to 1000° C. and the 2,3-dicarbomethoxy-1,3-butadiene is separated from the pyrolysis products.

2,870,197

4,4'-DISUBSTITUTED-C_{40}-CAROTENOIDS AND THEIR PREPARATION

Otto Isler, Basel, Herbert Lindlar, Reinach, Basel-Land, Marc Montavon and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche, Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application December 15, 1955
Serial No. 553,217
Claims priority, application Switzerland
December 24, 1954
14 Claims. (Cl. 260—488)

1. All-trans-4,4'-di-R-β-carotene, wherein R represents a member selected from the group consisting of hydroxy and lower alkanoyloxy.

2,870,198

PRODUCTION OF CHOLINE SALTS

Howard C. Klein, Brooklyn, N. Y., and Walter Anthony Di Salvo, North Arlington, and Roland Kapp, Newark, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey

No Drawing. Application March 22, 1954
Serial No. 417,972
9 Claims. (Cl. 260—501)

1. A process for preparing a crystalline anhydrous salt of choline having a purity of at least 99% which comprises the steps of (1) reacting at least one mol of ethylene oxide with one mol of trimethylamine in an aqueous alcoholic solution containing one mol of water for each mol of said trimethylamine, the alcohol which is employed containing from 1 to 4 carbon atoms and being water-miscible, (2) admixing the resulting choline contained in the reaction mixture with at least one mol of an acid for each mol of said choline thereby forming a salt of said choline, (3) crystallizing out of said reaction mixture said choline salt, and (4) recovering said crystalline anhydrous choline salt.

2,870,199

GENTISIC ACID PURIFICATION

Milton L. Clemens, Jr., Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application October 1, 1956
Serial No. 612,988
3 Claims. (Cl. 260—521)

1. The process of purifying crude gentisic acid which has yellow coloration due to the presence of contaminating amounts of 2,5-dihydroxy terephthalic acid, which comprises preparing an aqueous sodium hydroxide solution of said crude gentisic acid, providing a reducing environment in said aqueous solution by incorporating a small amount of zinc dust, treating aqueous solution as aforesaid containing crude gentisic acid with acetic anhydride and with agitation, while holding the temperature thereof at about 10–12° C., whereby the gentisic acid is converted into a monoacetate derivative, subjecting the liquid containing the sodium salt of the gentisic acid monoacetate to treatment with a decolorizing carbon, then filtering the liquid containing said sodium salt of gentisic acid monoacetate to remove the decolorizing carbon therefrom, treating the separated gentisic acid monoacetate sodium salt solution with inorganic acid at a solution temperature below 20° C. to produce a slurry of insoluble gentisic acid monoacetate, having a pH of about 2, then separating the gentisic acid monoacetate from the slurry to obtain a cake thereof, boiling the cake with an aqueous solution of an inorganic acid in the presence of decolorizing charcoal to liberate the gentisic acid from the monoacetate, subjecting the slurry resulting from the steps just referred to to a separatory treatment whereby the decolorizing charcoal is removed, and then cooling the clarified liquid to cause crystallization therefrom of purified gentisic acid crystals, further washing and then drying said purified gentisic acid.

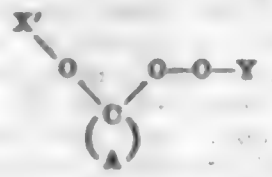
2,870,200

PRODUCTION OF UNSATURATED POLYCARBOXYLIC ACIDS AND ESTERS

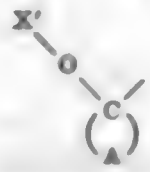
Morris S. Kharasch and Walter Nudenberg, Chicago, Ill., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application May 24, 1954
Serial No. 432,026
9 Claims. (Cl. 260—533)

1. A process of producing a compound of the group consisting of diethylenic polycarboxylic acids and esters thereof, which comprises treating a cyclic peroxide compound having 4 to 10 carbon atoms in the primary ring, of the formula



wherein A is a radical having a divalent chain of 3 to 9 carbon atoms, X' is a radical of the group consisting of hydrogen, and acyclic hydrocarbon and aromatic radicals of not more than 12 carbon atoms, and Y is a member of the group consisting of the hydrogen atom and the



radicals in which X' and A are radicals as above defined, with a conjugated diene of 4 to 18 carbon atoms per molecule, an inorganic acid and a redox reducing agent at about −15° to about 50° C.

2,870,201

SYNTHESIS OF AMINO ACIDS

Maxwell A. Pollack, Morris Plains, N. J.

No Drawing. Application April 4, 1955
Serial No. 499,225
2 Claims. (Cl. 260—534)

1. In making lysine by heating 1 mole of vinyl allyl ether at a temperature of about 150°–300° C., continuing the heating at the said temperature until allylacetaldehyde is produced, hydrobrominating the resulting allylacetaldehyde $CH_2{=}CH{-}CH_2{-}CH_2{-}CHO$ to form a saturated bromoaldehyde, mixing the said bromoaldehyde with at least a stoichiometric proportion of hydrogen cyanide to give a bromocyanohydrin, mixing therewith at least stoichiometric proportions of ammonium and carbonate ions, maintaining contact of the bromocyanohydrin with the said ions until the bromocyanohydrin is changed to the corresponding bromohydantoin, mixing the bromohydantoin with at least the stoichiometric proportion of ammonia until the bromine of the bromohydantoin is replaced by the amino group NH_2, and heating the resulting aminohydantoin in contact with water to cause hydrolysis of the aminohydantoin to lysine, the improvement which comprises effecting the said hydrobromination by reacting the allylacetaldehyde with at least approximately the stoichiometric proportion of hydrogen bromide in contact with an oxidizing agent selected from the group consisting of oxygen and organic peroxy compounds until the combination between the unsaturated aldehyde and

the hydrogen bromide is substantially complete, the hydrobromination under these conditions causing the bromine to become attached to the terminal carbon atom originally joined to two hydrogens and the hydrogen of the hydrogen bromide to become attached to the carbon atom adjacent to the said terminal carbon atom, to give 5-bromovaleraldehyde.

2,870,202

METHOD FOR THE OBTENTION OF CALCIUM TARTRATE

Elso Petrich, Maipu-Mendoza, Argentina

No Drawing. Application January 17, 1956
Serial No. 559,515
6 Claims. (Cl. 260—536)

1. A method of producing calcium tartrate comprising the steps of adding lime leach to a mass of untreated acidic fermentation residue obtained in the manufacture of wine and containing potassium tartrate so as to neutralize said mass and to form soluble neutral potassium tartrate therein; also adding to said mass a soluble calcium salt in a quantity sufficient to transform the soluble tartrates into crystallized calcium tartrate thereby forming a reaction mass; agitating said reaction mass until said calcium tartrate crystals have grown to a predetermined size, said predetermined size of said calcium tartrate crystals being so chosen as to permit separation by wet classification of said crystals from the remainder of the mass; and subjecting the mass containing said calcium tartrate crystals of predetermined size to wet classification thereby recovering said crystallized calcium tartrate.

2,870,203

CHLOROFORM EXTRACTION PROCESS FOR IMPROVING RECOVERY OF ADIPIC ACID

Alexander Davenport Cyphers, Jr., Charleston, W. Va., and Alfred Arthur Gruber, Orange, Tex., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application May 19, 1955, Serial No. 509,492
3 Claims. (Cl. 260—537)

1. The process which comprises extracting, with chloroform, crude aqueous adipic acid produced by oxidation of a member of the class consisting of cyclohexane and cyclohexanone with molecular oxygen in the liquid phase, said aqueous adipic acid containing succinic acid and glutaric acid, formed in the said oxidation, which keep the said adipic acid in solution, and interfere with the crystallization of adipic acid therefrom, until said products of the said oxidation which interfere with the said crystallization are removed by the chloroform, and aqueous adipic acid having a lower content of such interfering materials is obtained.

2,870,204

PREPARATION OF PHOSPHONOTHIOIC DICHLORIDES, TETRACHLOROPHOSPHORANES, AND PHOSPHONIC DICHLORIDES

Hans Z. Lecher, Plainfield, and Ruth A. Greenwood, Somerville, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 25, 1955
Serial No. 496,948
19 Claims. (Cl. 260—543)

1. A process which comprises chlorinating the reaction product of P_4S_{10} with a large excess of a compound R—H containing as the desired and major reactive constituents a compound of the formula $(RPS_2)_2$, in which R is the residue of a compound selected from the group consisting of olefins, monocyclic hydrocarbons having a single double bond, aromatic hydrocarbons and ethers of monocyclic, monohydric phenols.

2,870,205

SUBSTITUTED UREAS

David J. Beaver, Richmond Heights, and Paul J. Stoffel, St. Louis, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application October 18, 1956
Serial No. 616,592
6 Claims. (Cl. 260—553)

1. Compounds of the structure



where $X_nC_6H_{5-n}$ is a halogen substituted phenyl radical free of substituents ortho to the nitrogen atom, where X is a halogen atom and where *n* is a whole number from 2 to 3, inclusive.

2,870,206

PREPARATION OF BENZOPHENONE-AZINE

Robert Meyer, Tassin-la-Demi-Lune, and Daniel Pillon, Lyon, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a corporation of France

No Drawing. Application November 29, 1957
Serial No. 699,532
Claims priority, application France December 1, 1956
9 Claims. (Cl. 260—566)

3. A process for the preparation of benzophenone-azine which comprises reacting benzophenone-imine with oxygen-containing gas in a proportion of at least 1 mol of oxygen for each 4 mols of benzophenone-imine in the presence of a catalytically effective amount of cuprous chloride and at a temperature which is at all times below the decomposition temperature of benzophenone-azine, and in the presence of a diluent in the form of a solvent chosen from the group consisting of benzophenone, pyridine, toluene and dioxan.

2,870,207

SECONDARY ALIPHATIC AMINES CONTAINING TERTIARY CARBON ATOMS

Warren D. Niederhauser, Huntsville, Ala., and Edward Broderick, Branford, Conn., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application January 29, 1957
Serial No. 636,849
16 Claims. (Cl. 260—583)

1. As a new composition of matter, the secondary amine having the formula



in which R is a member from the class consisting of alkyl and alkenyl groups of 12 to 24 carbon atoms and R' is a member from the class consisting of alkyl and alkenyl groups of 12 to 24 carbon atoms, said R group having a carbinyl carbon atom attached directly to the amino nitrogen atom and said R' group having at least one carbinyl carbon atom no one of which is closer than gamma with respect to the amino nitrogen atom.

2,870,208

UNSATURATED CYCLIC KETONES

Waldemar Guex, Bottmingen, Basel-Land, and Gottlieb Ryser, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

Application September 12, 1956, Serial No. 609,360
Claims priority, application Switzerland September 22, 1955
3 Claims. (Cl. 260—586)

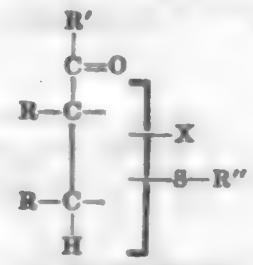
1. 4 - (2 - methyl - 5 - isopropenyl - 1 - cyclopenten-1-yl)-2-butanone substituted solely by an allyl radical on a carbon atom adjacent the oxo group.

2,870,209
KETONE PRODUCTS

Samuel Allen Heininger and Gail H. Birum, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 21, 1957
Serial No. 641,492
15 Claims. (Cl. 260—590)

1. Thio-substituted haloalkyl ketones of the formula



where each R is selected from hydrogen and hydrocarbon radicals free of aliphatic unsaturation and containing from 1 to 6 carbon atoms, provided that at least one R is hydrogen, R′ is a hydrocarbon radical free of aliphatic unsaturation and containing from 1 to 6 carbon atoms, X represents a halogen atom, and R″ is an aromatic radical attached to the sulfur atom by a nuclear carbon atom and selected from the class consisting of hydrocarbon radicals and halogenated hydrocarbon radicals, said radicals being free of aliphatic unsaturation and containing up to 12 carbon atoms.

2,870,210
6,10,12-TRIMETHYL-5,9-TRIDECADIEN-2-ONE

Joseph Donald Surmatis, Pompton Plains, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application December 7, 1954
Serial No. 473,725
1 Claim. (Cl. 260—593)

6,10,12-trimethyl-5,9-tridecadien-2-one.

2,870,211
PRODUCTION OF HALOFLUOROACETONE HYDRATE

Charles B. Miller and Cyril Woolf, Morristown, N. J., assignors to Allied Chemical Corporation, a corporation of New York

No Drawing. Application December 15, 1954
Serial No. 475,568
3 Claims. (Cl. 260—593)

1. The process for obtaining $CClF_2.CO.CClF_2.2\frac{1}{2}H_2O$ from a liquor containing $CClF_2.CO.CClF_2$ and water constituents which comprises heating the liquor to distill therefrom volatile constituents which boil below about 106° C. at atmospheric pressure to form a liquid solution boiling constantly at about 106° C., and thereafter recovering $CClF_2.CO.CClF_2.2\frac{1}{2}H_2O$ of said heating operation.

2,870,212
METHOD FOR THE PRODUCTION OF DICARBONYLPOLYENES

Herbert Lindlar, Reinach, Basel-Land, and Marc Montavon and Rudolf Rüegg, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application March 22, 1957
Serial No. 647,738
Claims priority, application Switzerland April 4, 1956
12 Claims. (Cl. 260—593)

1. A process for the production of dicarbonylpolyenes which comprises reacting an alkali metal salt of a nitronic acid selected from the group consisting of lower aliphatic nitronic acid and alicyclic nitronic acid with a dihalogenated aliphatic hydrocarbon containing at least three multiple bonds and wherein there is a double bond in the α,β-position to each halogen.

2,870,213
DIFLUOROCHLOROACETALDEHYDE AND PROCESS

Cyril Woolf, Morristown, N. J., assignor to Allied Chemical Corporation, a corporation of New York

No Drawing. Application May 20, 1957
Serial No. 660,070
5 Claims. (Cl. 260—601)

1. The process for making $CClF_2.CHO$ which comprises subjecting gaseous $CClF_2.COCl$ to the action of a reactive quantity of hydrogen while maintaining temperature substantially in the range of 110–210° C., and while in the presence of palladium-activated carbon catalyst; and recovering $CClF_2.CHO$ from the resulting reaction product.

5. Difluorochloroacetaldehyde, $CClF_2.CHO$.

2,870,214
PREPARATION OF ALDEHYDES FROM DIOLS BY A DEHYDRATION REARRANGEMENT REACTION

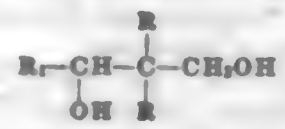
Milton A. Perry and Ralph E. De Bask, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application May 17, 1957
Serial No. 659,758
8 Claims. (Cl. 260—603)

1. A process for preparing an aldehyde represented by the following general formula:



wherein each R represents an alkyl group containing from 1 to 4 carbon atoms and R_1 represents a member selected from the group consisting of an atom of hydrogen and an alkyl group containing from 1 to 4 carbon atoms, which comprises passing a 2,2-dialkyl-1,3-diol represented by the following formula:



wherein R and R_1 are as above defined, over a dehydration catalyst selected from the group consisting of a phosphoric acid catalyst, a trialkyl phosphate catalyst wherein each alkyl group contains from 1 to 4 carbon atoms and a mixed catalyst of phosphoric acid and said trialkyl phosphate, at a temperature of from 100° to 500° C. and separating the said aldehyde from the effluent mixture.

2,870,215
DISPROPORTIONATION OF ORGANIC SULFOXIDES

Horace R. Davis, Jr., Cedar Grove, and David P. Sorensen, Bloomfield, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application February 21, 1956
Serial No. 566,762
12 Claims. (Cl. 260—607)

5. A process which comprises disproportionating and oxidizing an organic sulfoxide in the presence of osmium tetroxide as a catalyst to produce a sulfone as a product of the process.

2,870,216
DISPROPORTIONATION OF ORGANIC SULFOXIDES

David P. Sorensen, Bloomfield, and Horace R. Davis, Cedar Grove, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application December 12, 1956
Serial No. 627,746
19 Claims. (Cl. 260—607)

1. A process which comprises disproportionating and

oxidizing an organic sulfoxide in the presence of osmium tetroxide and an inorganic oxide of nitrogen compound to produce a sulfone.

2,870,217

PROCESS FOR PRODUCING LOW MOLECULAR WEIGHT PROPYLENE POLYMERS

William G. Toland, Jr., San Rafael, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application March 14, 1955
Serial No. 494,230
3 Claims. (Cl. 260—614)

1. In a process for producing propylene polymers by contacting propylene in a contacting zone at temperatures in the range 400° F. to 600° F. and pressures sufficient to maintain water in liquid phase with a catalyst consisting of a dilute aqueous solution of a mineral acid, the improvement which comprises producing selectively propylene dimer and trimer polymers by maintaining the concentration of said catalyst in said zone in the range of from about 0.05 mole percent to 10 mole percent based on the quantity of water present in said zone, maintaining at least one mole of water per mole of propylene in said zone, forming in said zone an organic phase comprising diisopropyl ether, isopropyl alcohol, and essentially only the dimer and trimer polymers of propylene, forming in said zone an aqueous phase comprising said catalyst isopropyl alcohol and diisopropyl ether, and recovering said organic phase.

2,870,218

METHOD OF PREPARING 2,2,2-TRIFLUOROETHYL VINYL ETHER

Palmer W. Townsend, Florham Park, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application August 15, 1955
Serial No. 528,552
6 Claims. (Cl. 260—614)

1. The method for the preparation of 2,2,2-trifluoroethyl vinyl ether which comprises passing the vapor of di-(2,2,2-trifluoroethyl) acetaldehyde acetal upwardly through a catalyst bed comprising an acid-activated clay in finely divided form, while maintaining said acetal at an elevated temperature, and delivering said acetal at a rate effective to maintain said catalyst bed in a fluidized state.

2,870,219

DIFLUOROVINYL METHYL ETHER

Cyril Woolf, Morristown, N. J., assignor to Allied Chemical Corporation, a corporation of New York

No Drawing. Application May 20, 1957
Serial No. 660,085
5 Claims. (Cl. 260—614)

1. The process for making 2-difluorovinyl methyl ether which comprises subjecting $CClF_2.CHO$ to the action of methanol while maintaining temperature below about 60° C. thereby to form $CClF_2.CH(OH).O.CH_3$ and recovering the latter from the resulting reaction mass; subjecting said $CClF_2.CH(OH).O.CH_3$ to the action of thionyl chloride at temperature below about 60° C. while in an inert liquid diluent in quantity sufficient to provide a readily agitatable reaction mass and while in the presence of an organic nitrogen amino base non-reactive with the aldehyde methylate and capable of reacting with released HCl to form the base hydrochloride thereby to produce $CClF_2.CHCl.O.CH_3$, recovering $CClF_2.CHCl.O.CH_3$ from the resulting reaction mass; subjecting said

$$CClF_2.CHCl.O.CH_3$$

to the action of metallic zinc while in a liquid reaction medium and in quantity sufficient to convert said $CClF_2.CHCl.O.CH_3$ to $CF_2=CH.O.CH_3$, and recovering $CF_2=CH.O.CH_3$ from the resulting reaction mass.

3. Difluorochloroacetaldehyde methylate,

$$CClF_2.CH(OH).O.CH_3$$

4. Difluorodichloroethyl methyl ether,

$$CClF_2.CHCl.O.CH_3$$

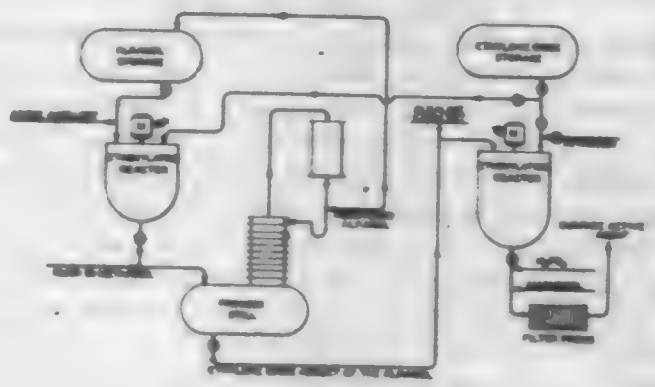
5. Difluorovinyl methyl ether, $CF_2=CH.O.CH_3$.

2,870,220

PRODUCTION OF NONIONIC SURFACE ACTIVE AGENTS

Clare A. Carter, Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York

Application August 11, 1953, Serial No. 373,670
6 Claims. (Cl. 260—615)



1. The process which comprises in a first stage passing ethylene oxide into a secondary alkanol having 10 to 17 carbon atoms, held at a temperature within the range from 0° C. to 80° C. in the presence of an acidic catalyst of the class consisting of the Friedel-Crafts type catalysts, sulfuric acid and phosphoric acid, until between 0.2 mol. and 4 mols of the ethylene oxide have reacted per mol of the alcohol, neutralizing the resultant reaction mixture, removing unreacted alkanol, and in a second stage reacting the residual mixture of monoalkyl ethers of the mono- and polyethylene glycols with ethylene oxide in the presence of an alkali metal alcoholate of a monoalkyl ether of at least one polyethylene glycol until a total of between 4 and 20 mols of ethylene oxide have reacted per mol of the alkanol reacted in the first stage.

2,870,221

PRODUCTION OF 1:1:3-TRIALKOXYPROP-2-ENE

Reginald Harold Hall, Sutton, and Archibald Robert Graham, Richmond, England, assignors to The Distillers Company Limited, Edinburgh, Scotland, a British company

No Drawing. Application December 29, 1954
Serial No. 478,516
Claims priority, application Great Britain
January 13, 1954
9 Claims. (Cl. 260—615)

1. A process for the production of a 1:1:3-trialkoxyprop-2-ene which comprises reacting at an elevated temperature a 1:1:3-trialkoxy-2-chloro-propane with an alkali metal alkoxide of 4 to 8 carbon atoms in solution in an alkanol of 4 to 8 carbon atoms, the alkoxide and the alkanol each having a straight chain of at least 3 carbon atoms, wherein the product resulting from the reaction is treated with sufficient water to hydrolyze any excess alkoxide and to form an aqueous phase containing the formed alkali metal halide in solution and an alkanol phase, and recovering the 1:1:3-trialkoxyprop-2-ene from the alkanol phase.

2,870,222

POLYMERS OF 2-DIFLUOROVINYL METHYL ETHER

Joseph Gordon and Cyril Woolf, Morristown, N. J., assignors to Allied Chemical Corporation, a corporation of New York

No Drawing. Application May 20, 1957
Serial No. 660,069
2 Claims. (Cl. 260—615)

1. Polymeric 2-difluorovinyl methyl ether having molecular weight of from 1,000 to 10,000.

2,870,223

EXTRACTION PROCESSES

Edwin Thomas Webb, Torwoodlee, Hatch End, England, and John Robert Seemuller, Maisons-Laffitte, France, assignors to Societe Anonyme Union Francaise Commerciale et Industrielle, Casablanca, Morocco, a corporation of Morocco

Application April 11, 1955, Serial No. 500,608
Claims priority, application Great Britain April 13, 1954
7 Claims. (Cl. 260—637)

1. A process of extracting a constituent from a stock liquid with a solvent in which the stock to be treated flows through a system comprising a number of successive stages, each stage utilizing a separate batch of said solvent, said batches being of progressively lower concentration in the constituent to be extracted, the stock being introduced into a first stage where the concentration of said constituent in said solvent is maximum and being withdrawn from a last stage in which said concentration is minimum, said stock being mixed with said solvent in a separate mixing zone in each stage to enrich said solvent and then separated from the enriched solvent and led to the next stage, fresh stock being added to the first stage and impoverished stock being withdrawn from the last stage, while the separated solvent of each stage is recycled within the same stage until its concentration of constituent has attained a predetermined value, the introduction of said stock into said first stage and the flow of said stock and solvent in all said stages being simultaneously interrupted when said predetermined concentration value is attained in said first stage, the solvent of said first stage being then withdrawn and replaced by fresh solvent, after which the flow of said stock and solvent is resumed, said stock being then introduced into the one of said stages which followed said first stage and said treated stock being withdrawn from said first stage, which becomes the last stage through which the stock flows, the ratio by volume of solvent to stock in the mixing zone of each stage being kept substantially greater than the overall ratio by volume of solvent withdrawn from the system to stock withdrawn from the system.

2,870,224

PRODUCTION OF 1,1-DIFLUORO-1,2,2-TRICHLOROETHANE

Otto Scherer, Frankfurt am Main, Germany, assignor to Farbwerke Hoechst Aktiengesellschaft vormals Meister & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application June 5, 1956
Serial No. 589,381
5 Claims. (Cl. 260—653.7)

1. A process for the production of 1,1-difluoro-1,2,2-trichloroethane which comprises reacting hydrogen fluoride with pentachloroethane in the presence of between about 0.5 and about 5 weight percent of chlorine based on the weight of pentachloroethane and an antimony halide, said halide being selected from the group consisting of fluorine and chlorine, at a temperature above 110° C., venting the hydrogen chloride formed during the reaction and recovering 1,1-difluoro-1,2,2-trichloroethane as a product of the process.

2,870,225

1,2-DICHLOROETHANE

Stone D. Cooley and Frank B. Marcotte, Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application December 29, 1954
Serial No. 478,486
8 Claims. (Cl. 260—662)

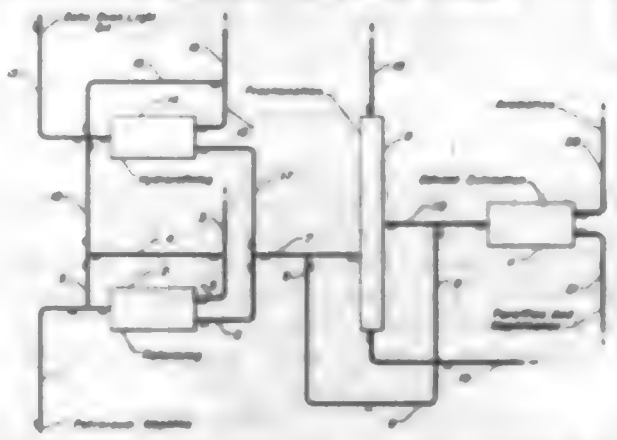
1. Process for the chlorination of the ethylene in a mixture produced by the cracking of an alkane and containing at least 12.5% by volume of ethylene, which comprises reacting, in the vapor phase, said mixture at an elevated temperature above 225° C. and below the temperature at which substantial degradation of the reactants or products is favored with a mixture of chlorine and oxygen in the presence of a catalyst for the additive chlorination of ethylene comprising activated bauxite to produce 1,2-dichloroethane, the amount of oxygen in the reaction mixture being above 1% by volume.

2,870,226

PRODUCTION AND RECOVERY OF AROMATIC HYDROCARBONS

Richard M. Deanesly, Hinsdale, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

Application March 19, 1956, Serial No. 572,260
4 Claims. (Cl. 260—668)



1. A combination process for the production and recovery of aromatic hydrocarbons which comprises subjecting a petroleum fraction boiling in the gasoline range to reforming under conditions to yield a net production of hydrogen, separating from the effluent products a hydrogen fraction and a liquid fraction, subjecting coke oven light oil derived from coal and containing non-hydrocarbon impurities to hydrorefining in the presence of a portion of said hydrogen fraction to remove said impurities, separating from the effluent products a gaseous fraction and a liquid fraction, combining the last mentioned liquid fraction with the first mentioned liquid fraction, and subjecting the mixture to solvent extraction to separate an aromatic hydrocarbon fraction, and recovering said aromatic hydrocarbon fraction.

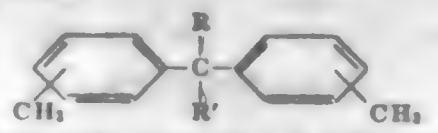
2,870,227

NOVEL DITOLYL ALKANES AND PROCESS FOR PREPARING THE SAME

John C. Petropoulos, Norwalk, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

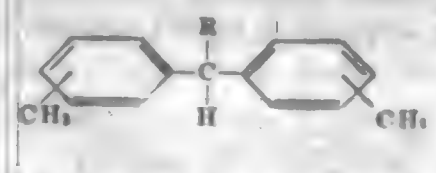
No Drawing. Application November 21, 1956
Serial No. 623,557
6 Claims. (Cl. 260—668)

1. A process for the preparation of a hydrocarbon having the formula:



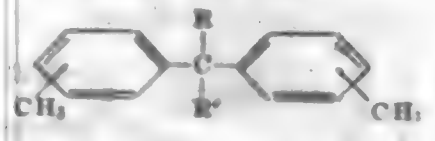
wherein R is an alkyl group having from 1 to 4 carbon atoms and R' is an alkyl group having from 2 to 4 car-

bon atoms comprising reacting a compound having the formula:



with a monolefin having two to four carbon atoms.

4. A compound having the general formula



wherein R is an alkyl group having from 1 to 4 carbon atoms and R' is an alkyl group having from 2 to 4 carbon atoms.

2,870,228

DEHYDROGENATION OF HYDROCARBONS

Warren E. Armstrong, Lafayette, and Carroll Z. Morgan, Alameda, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 24, 1956
Serial No. 630,076

14 Claims. (Cl. 260—669)

1. A process for the dehydrogenation of a hydrocarbon selected from the group consisting of n-butylene and ethyl benzene which comprises contacting said hydrocarbon in the presence of 2–30 mols of steam per mol of hydrocarbon under dehydrogenation conditions with a catalyst consisting of at least 35% of an iron oxide having a degree of oxidation from Fe_3O_4 to Fe_2O_3, the total oxide calculated as Fe_2O_3, potassium carbonate in an amount equivalent to at least 6% of K_2O, 0.2 to 9% of phosphate radicals as a phosphate of a metal selected from the group consisting of alkali metals and alkaline earth metals, and any remainder consisting of an oxide of a heavy metal selected from the group consisting of Cr, Mn, Bi, W, Mo and Ce, the percentages being by weight of the total of the recited components of the catalyst.

2,870,229

PRODUCTION OF META-DIISOPROPYL BENZENE

Adrianus de Keizer, Christiaan P. van Dijk, and Arthur A. Gips, Amsterdam, Netherlands, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 1, 1956
Serial No. 619,687

Claims priority, application Netherlands
November 30, 1955

3 Claims. (Cl. 260—671)

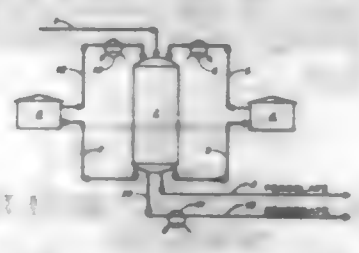
1. A process for the production of meta-diisopropyl benzene which comprises contacting a compound selected from the group consisting of benezene and cumene with propylene in the presence of silica-alumina cracking type catalyst at a temperature in the range between 160° and 250° C. and at a liquid hourly space velocity between 0.1 and 4 v./v./hr., the higher space velocities being employed only at the higher temperatures in the defined range, to produce a total product mixture containing less than 10% ortho-diisopropyl benzene and recovering from said product mixture by fractional distillation a meta-diisopropyl benzene fraction containing less than 10% ortho-diisopropyl benzene.

2,870,230

ADSORPTION SEPARATION PROCESS

John W. Scott, Jr., Ross, Harrison M. Lavender, Jr., San Anselmo, and William J. Rossi, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application July 27, 1956, Serial No. 600,493
1 Claim. (Cl. 260—674)



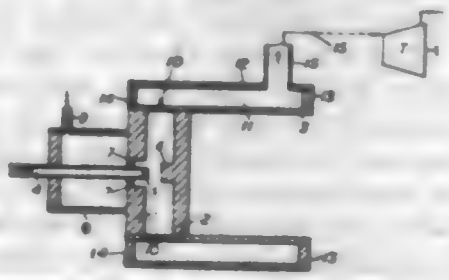
A method for separating liquid feed mixtures containing a minor proportion of aromatic components into product percolate and desorbate streams of reduced and enhanced aromatic content, respectively, as compared with that of the feed mixture, which comprises passing the liquid feed mixture through a bed of solid, regenerated adsorbent at a temperature below about 100° F. while recovering from the bed a product percolate stream of reduced aromatic content; thereafter regenerating the adsorbent bed by the practice of successive heating and cooling steps, the heating step comprising passing a hot strippant liquid through the bed at a temperature about 200° F. while segregating within the system the effluent streams obtained during the initial and mid-portions of the heating step and withdrawing from the system as a product desorbate stream of enhanced aromatic content the effluent obtained from the bed during the final portion of the heating step, and the cooling step comprising cooling the bed to a temperature below about 100° F. by passing therethrough a coolant liquid while segregating within the system the effluent obtained from the bed during said cooling step, said hot strippant liquid having an aromatic content intermediate that of the feed mixture and the desorbate and consisting of a composite of the effluent obtained during the first portion of the cooling step and a mid-portion of the heating step, and said coolant liquid having an aromatic content intermediate between that of the feed and the percolate and consisting of a composite of the effluent obtained during the initial portion of the heating step and the second, remaining portion of the cooling step; and continuing the cycle of operation by resuming passage of the liquid feed mixture through the regenerated bed at the termination of the cooling step; said process being characterized by the fact that essentially no stock of composition intermediate the percolate and desorbate streams leaves the system.

2,870,231

PRODUCTION OF UNSATURATED HYDROCARBONS

Edward Morgan Hughes, Alfred Harold Howland, and Pieter Grootenhuis, London, England, assignors to National Research Development Corporation, London, England, a British company

Application August 29, 1955, Serial No. 530,942
Claims priority, application Great Britain
September 3, 1954
5 Claims. (Cl. 260—679)



1. A process for the conversion of substantially saturated hydrocarbons to substantially unsaturated hydro-

carbons which comprises introducing the saturated hydrocarbon into a closed combustion chamber in the form of a jet, forming a thin sheet of radially moving hydrocarbon within the combustion chamber by impinging said jet upon an obstructing element disposed within said chamber, separately introducing molecular oxygen into said combustion chamber annularly of said jet, effecting a partial combustion of said hydrocarbon, withdrawing the combustion products from said combustion chamber and quenching them.

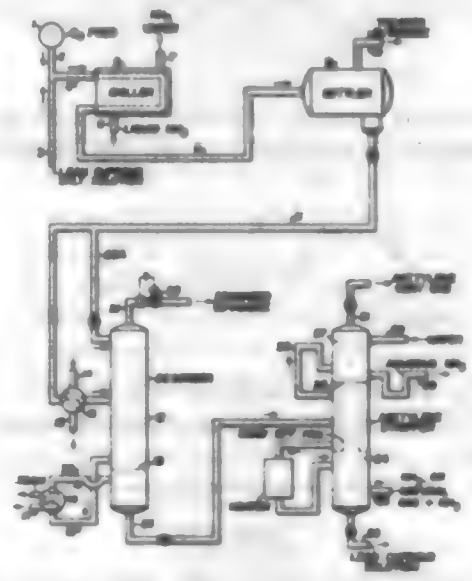
2,870,232

ACETYLENE REMOVAL FROM DIOLEFIN STREAMS

Samuel Winfield Wilson and Stephen John Bodnar, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 14, 1955, Serial No. 553,020
6 Claims. (Cl. 260—681.5)

1. In a prewashing operation wherein acetylenic compounds are removed from a diolefin-rich stream by extraction of said streams in an extraction zone with an aqueous ammoniacal copper salt solution to form an extract containing said acetylenic compounds and a minor amount of said diolefins, and wherein said extract is stripped in a stripping zone to recover acetylenes, the improvement which comprises prewashing said stream with a copper ammonium acetate solution containing at



least 15 moles of ammonium acetate, in excess of that required to maintain the copper salt in solution, per mole of acetylenes in said stream.

ELECTRICAL

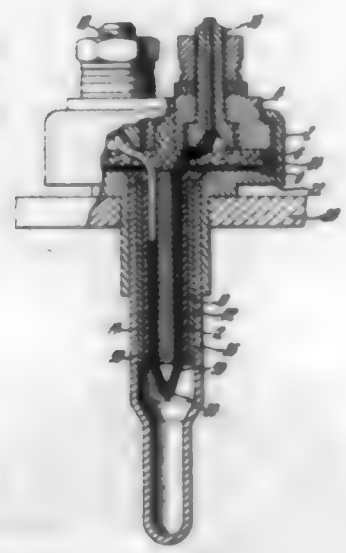
2,870,233

THERMOCOUPLE

Richard L. Comer, Grand Blanc, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 11, 1957, Serial No. 639,384

11 Claims. (Cl. 136—4)



1. A thermocouple comprising a metal tube containing a tightly packed powdered insulating material, a pair of metal wires extending through said insulating material, the upper ends of said wires being electrically connected to terminals and the lower ends of said wires being joined together externally of said insulating material to form a heat sensitive junction, and a thin, continuous heat and corrosion resistant coating of vitreous material on the exposed portions of said wires external of said insulating material and on those portions of said wires within said insulating material.

2,870,234

ALKALINE STORAGE CELLS WITH CADMIUM TYPE NEGATIVE ELECTRODES

Joseph D. Moulton, West Orange, N. J., assignor to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware

No Drawing. Application July 11, 1957
Serial No. 671,146
7 Claims. (Cl. 136—24)

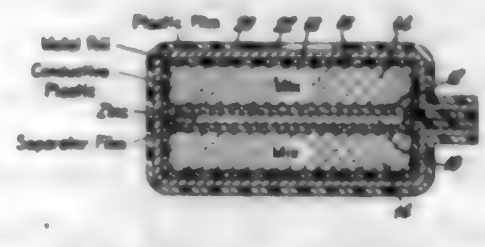
1. A negative electrode for alkaline storage cells comprising an intimate mixture of cadmium active material and of polyvinylpyrrolidone as an addition agent in an amount effective to increase substantially the life of the electrode.

2,870,235

CATHODIC ENVELOPE CELL

Daniel G. Soltis, Cleveland, Ohio, assignor to Union Carbide Corporation, a corporation of New York

Application April 9, 1956, Serial No. 577,070
15 Claims. (Cl. 136—111)

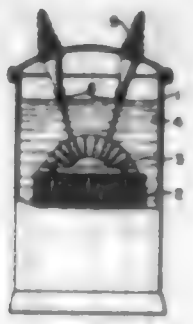


1. A substantially flat unit cell comprising a consumable metal anode; electrolyte-wet depolarizer mix on both sides of said anode; a flexible, moisture impervious cathode collector in contact with said depolarizer mix; and a flexible, moisture impervious non-conductive envelope enclosing said cell, contact to said cathode collector being made through a perforation in said envelope, and a conductor attached to said anode extending outwardly of said envelope for contact to said anode, said collector being marginally sealed to said envelope and overlapping portions thereof being sealed to themselves, thus forming a moisture impervious closure for said cell, the emergent portion of said conductor being sealed in said closure to prevent escape of moisture therefrom.

2,870,236
ELECTRICAL DEVICES CONTAINING ALKYL β-ALKOXYPROPIONATES

Samuel Allen Heininger, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application March 21, 1957, Serial No. 647,710
6 Claims. (Cl. 174—17)



1. Electrical apparatus comprising, in combination, metallic conducting elements disposed in spaced relationship to each other and adapted during operation of the apparatus to have a difference in electrical potential therebetween and, interposed between said elements for insulating one from the other, a liquid dielectric medium comprising an alkyl β-alkoxypropionate of the formula

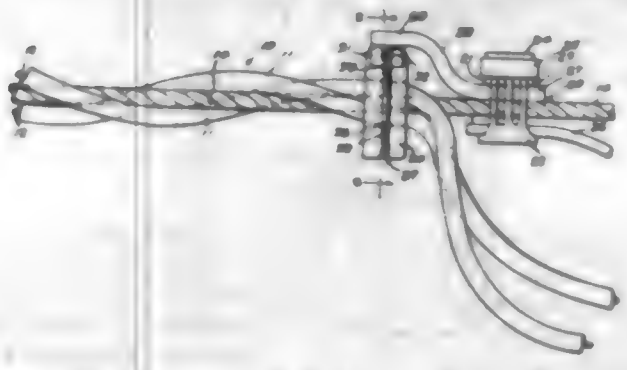
$$R—O—CH_2CH_2COOR'$$

wherein R and R' are branched chain alkyl radicals of from 8 to 18 carbon atoms.

2,870,237
MULTIPLE CONDUCTOR SERVICE CABLE INSULATOR

Charles L. Wilkins and Ruth Y. Wilkins, Akron, Colo.

Application April 8, 1958, Serial No. 727,228
1 Claim. (Cl. 174—41)



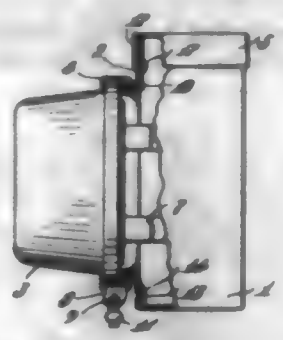
In an insulator for multiple service cables including a plurality of insulated conductive wires intertwined about a non-insulated non-conducting supporting cable, said insulator comprising a clamping ring adapted to be clamped about said supporting cable, an offset supporting member clamped to said non-insulated supporting cable by said clamping ring, an arcuate flange having apertures at its end secured to said offset member, a torus shaped insulator having an annular external groove seated in said arcuate flange and a wire seated in said groove having its ends extending through said apertures and reverted to hold said insulator and said flange in related assembly, said wires and said supporting cable extending through the opening in said insulator.

2,870,238
METER BOX COVER LOCK

Flavius E. Davis, Manchester, N. H., assignor to Anchor Manufacturing Company, Boston, Mass., a corporation of Massachusetts

Application April 24, 1957, Serial No. 654,797
6 Claims. (Cl. 174—50)

1. Apparatus of the character referred to comprising a meter box, a box cover having a meter opening to receive a meter, said box having rearwardly facing abutments on opposite sides of said opening and said cover having edgewise movement transversely of the axis of the meter in opposite directions and having parts engaging behind said abutments by movement edgewise in one direction to dispose one part behind one abutment, then swinging the cover inwardly until the other part is inside the plane of the other abutment, and then moving the cover edgewise in the other direction to dispose the other part behind the other abutment in a closed position in which the

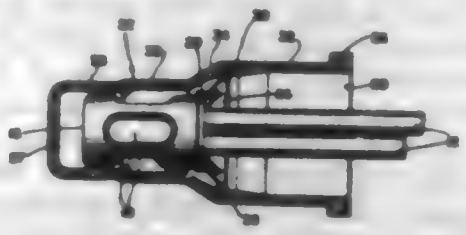


parts are disposed behind the two abutments respectively, the dimension of the cover lengthwise of said movement being less than the corresponding dimension of the box by at least the width of said other abutment so that in said swinging the cover can clear said other abutment, and stop means movably mounted on the inside of the cover to prevent said movement in the first direction, said stop means being inaccessible after a meter is inserted, whereby the cover cannot be removed past said abutments without removing the meter.

2,870,239
ELECTRICAL CONNECTOR

George Ustin, Verona, N. J., assignor to Buchanan Electrical Products Corporation, Hillside, N. J., a corporation of New Jersey

Application February 14, 1955, Serial No. 487,860
1 Claim. (Cl. 174—87)



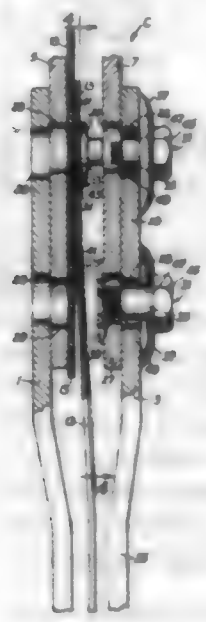
An insulating cover for an assembly of a splice cap and electrical conductors, said splice cap having an external flange at the end thereof remote from the ends of said conductors, said flange being of greater diameter than the remainder of said splice cap, said cover comprising a tubular body of rigid insulating material having an open end and a closed end and an internal annular circumferentially continuous recess spaced from said closed end, and a separate retaining ring of spring metal having an external annular circumferentially continuous flange permanently seated in said recess, thus holding said ring captive in predetermined position in said body, said ring further having a plurality of resilient circumferentially separate, inwardly extending projections extending toward the axis of said body from the external flange of said ring and inclined toward said closed end, said projections having free inner ends defining an opening farther from said open end than said last-mentioned external flange and farther from said closed end than the axial length of said cap, said opening normally of smaller diameter than the external flange of said cap, so that as said cap passes through said opening toward said closed end it will engage said projections and expand said opening to permit said cap to pass completely therethrough after which said projections will return to their normal positions and said opening to its normal size and force tending to move said cap through said opening toward said open end will

tend to deform said projections toward said open end to contract said opening thus to prevent said cap from passing through said opening toward said open end.

2,870,240
BUS DUCTS

Henry M. Stieglitz, St. Louis, Mo., assignor to Frank Adam Electric Company, St. Louis, Mo., a corporation of Missouri

Application December 1, 1952, Serial No. 323,429
1 Claim. (Cl. 174—88)



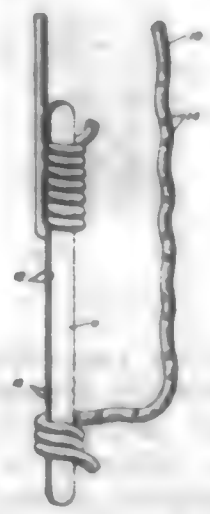
In a run of bus bars which are fastened together at apertured overlapping end portions thereof; a fastener combination comprising a formed nut, jam bolt and resilient dished washer; the formed nut having a non-circular head accommodated outwardly of a bus bar and an interiorly threaded sleeve received within an aperture of a bus bar; said bolt having a non-circular head accommodated outwardly of a bus bar and a stud portion projecting from its head and at least in part received within an aperture of a bus bar, and a threaded portion; projecting from said stud portion and screwed within the sleeve of said nut; said dished washer having a predetermined thickness in its collapsed and unstressed conditions; said bus bars being of predetermined thickness; said sleeve portion of the nut and stud portion of the bolt having a predetermined combined length greater than the combined thickness of bus bars and dished washer in its collapsed condition but less than the combined thickness of the bus bars and dished washer in its unstressed condition, the bolt and nut being threaded together so that the stud of the bolt axially engages the sleeve of the nut, thereby to produce a predetermined stress in the washer without collapse of the washer, and the aperture of at least one bus bar being larger than the diameter of that part of the fastener received therein, thereby to permit a relative movement between a pair of fastened bars while the washer maintains pressure at their overlapping faces.

2,870,241
METAL CONNECTION

Warren P. Mason, West Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application January 20, 1954, Serial No. 405,147
4 Claims. (Cl. 174—94)

1. A wrapped electrical connection comprising in combination a pair of terminal elements, one said terminal element comprising at least two longitudinal surfaces which meet at an abrupt edge, the second of said terminal elements comprising a tight coil of wire surrounding said one terminal element in a plurality of turns, and contact areas between said turns and said one terminal edge comprising sheared, mating depressions in both said one terminal edge and in said turns, means for maintaining the majority of the fibers of said turns under high tension to produce a sustained contacting pressure of between five and ten thousand pounds per square inch between said turns and said one terminal edge at said

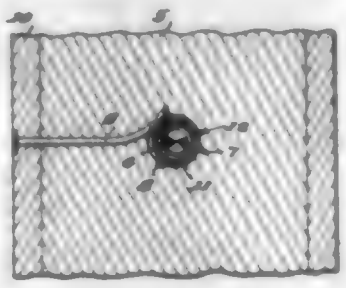


contact areas for a period of at least a month, a thin layer of metal of between two hundredths of a mil and two mils thick interposed intimately between said one terminal edge and said turns at said contact areas, said layer characterized by an activation energy into at least one of said terminal elements which is less than 40 kilocalories per mole, and a limiting shearing stress approximating at least five thousand pounds per square inch.

2,870,242
CONDUIT PROTECTING SHEATH

Edward D. Wilkerson, Orange, N. J.

Application May 13, 1954, Serial No. 429,496
3 Claims. (Cl. 174—135)



1. The combination of a wall having a bore therethrough and an electrical conductor extending through said bore, and a hard metal sheath capable of turning away a nail driven thereagainst and surrounding the conductor in the bore to prevent the driving of nails into said conductor, said sheath comprising a tubular sleeve having an inside diameter large enough to embrace the conductor and an outside diameter for engaging with retaining friction in said bore, and said sleeve also having a side opening extending full length thereof through which the conductor is laterally mountable prior to insertion of the sleeve in the bore and also being resilient and self retaining in said bore.

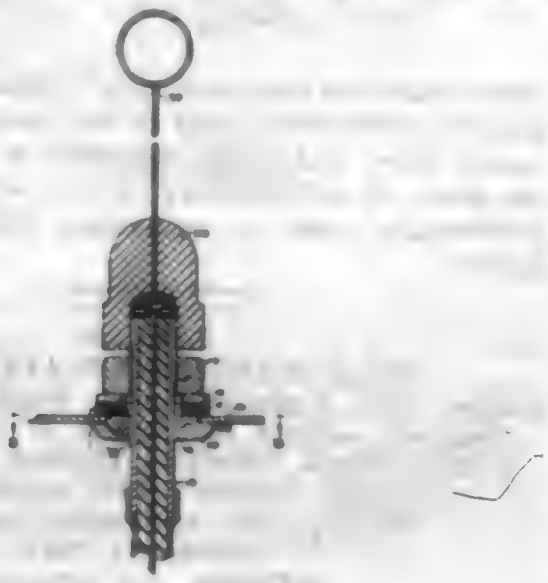
2,870,243
MOUNTING DEVICE FOR MOBILE ANTENNA

Jack L. Stewart, Ashtabula, and Milton R. Friedberg and Arthur A. Finke, Cleveland, Ohio, assignors to The Antenna Specialties Co., a corporation of Ohio

Application August 26, 1954, Serial No. 452,402
4 Claims. (Cl. 174—153)

1. An antenna and mounting for automotive vehicles, comprising, a mounting device including a stud member and a tail piece member axially aligned and having a common passageway longitudinally therethrough, an an-

chor means located intermediate said stud member and tail piece member adapted to secure said mounting device in an opening through a panel with the stud member projecting on one side thereof and the tail piece member on the other side, said anchor means including a disc, the size of said disc determining the opening size to be provided in the panel, said disc therefor interfitting said opening and serving as locating means for said mounting device, an elongated bar on the tail piece side of said disc, said elongated bar being longer than the diameter of said disc and thereby providing project-



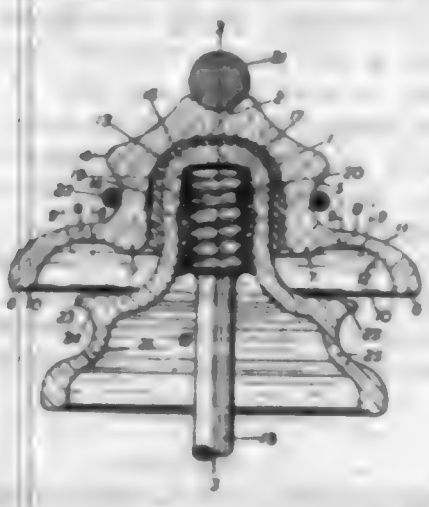
ing interference anchor ends to engage one side of the panel, means carried by said stud member to engage the panel member on the side opposite said elongated bar and grip the panel to secure the mounting device, a coaxial cable secured to said tail piece, said coaxial cable having a central conductor member passing through said common passageway to a terminal accessible at the end of said stud member, and antenna means secured to said stud and electrically connected to said terminal, whereby said mounting may be inserted into a blind hole with a toggle action, or inserted through an opening from the side opposite the position of the antenna.

2,870,244

GLASS INSULATOR ASSEMBLY UNITS

Philip E. Jellyman, Eccleston, St. Helens, England, Hamish Fraser Macintosh, Brora, Sutherland, Scotland, and John E. Wilcock, St. Helens, England, assignors to Pilkington Brothers Limited, Liverpool, England, a company of Great Britain

Application June 21, 1955, Serial No. 516,948
6 Claims. (Cl. 174—165)



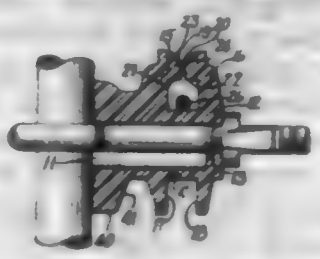
1. An insulator assembly unit comprising a glass insulator, a lower shed and a mounting pin characterised in that the glass insulator comprises a hollow head, a skirt having a radial portion emanating from the base of the head, an annular zone in the radial portion of the skirt adapted to prevent the propagation of a fracture initiated in the part of the skirt below the zone, through the zone upwards to the head, and the lower shed compries a hollow head located within the head of the insulator and a skirt emanating radially from the head of the lower shed, the upper surface of the skirt emanating in an outward and then downward direction to form firstly an annular ledge positioned beneath the said annular zone at a level just below the level of the bottom edge of the insulator skirt, and then an external arcuate annular cavity opening under the said ledge adapted to deflect outwardly missiles shot at the head of the insulator when the assembly is fixed in position from ground level.

2,870,245

ELECTRICAL INSULATOR

Elmer K. Malme, St. Charles, Ill.

Application November 30, 1956, Serial No. 625,330
5 Claims. (Cl. 174—175)



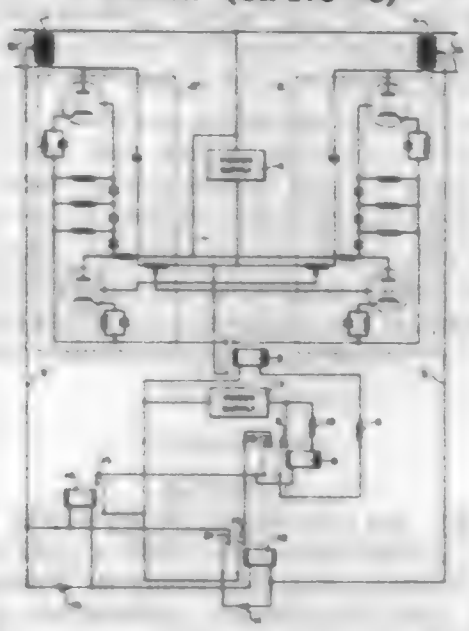
1. A high potential insulator of molded plastic having at least some flexibility, said insulator comprising a hub, a pair of spaced externally extending thin wall portions to form a spool with the hub, said wall portions having spaced faces and being provided with a pair of opposed jaws, said jaws extending inwardly of said walls and being spaced substantially less than the diameter of a conductor to be supported by the insulator, said hub portion having an axial insulator mounting bore, said insulator being adapted to be pressed against a support with some mounting means such as a bolt or nail passing through the insulator bore and supporting the insulator, said hub having one end face sloping to form a wedge surface with the orientation being directed so that axial compression of the insulator will result in forcing the jaws closer.

2,870,246

TWO WAY FACSIMILE REPEATER

Frederick G. Halliden, Bellerose, N. Y., and Marshall J. McCann, Long Beach, Calif., assignors to The Western Union Telegraph Company, New York, N. Y., a corporation of New York

Application January 29, 1954, Serial No. 406,963
7 Claims. (Cl. 178—5)



1. A bi-directional non-simultaneous transmission line repeater for facsimile signals which contain direct current function signals, comprising a pair of reciprocal unidirectional facsimile amplifiers coupled into the said line, reversing relay means controllingly connected to the said

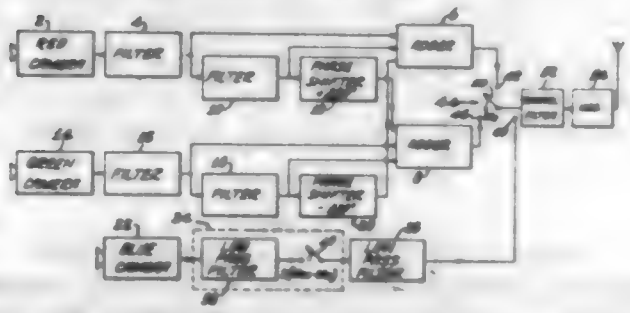
amplifiers for alternative actuation thereof, vacuum tube means responsive to the potential of an incoming portion of the said transmission line to effect changes of vacuum tube space current, a plate circuit relay controlled by the said space current to apply alternative direct potentials to an outgoing portion of the said transmission line, artificial line termination means, line relay means responsive to direct current flow in said outgoing portion of the said transmission line for operatively connecting the artificial line termination to the said incoming portion of the transmission line, slow-to-release relay means operable by coaction of said plate circuit relay and said line relay means to actuate said reversing relay means and having holding contacts thereon releasable by a further coaction of said plate circuit relay and said line relay means, and power supply means for energizing the said repeater, whereby outgoing line conductance is effective to impose incoming line artificial termination, and incoming line positive polarity is effective to impose outgoing line positive polarity, and only together are effective to initiate amplifier direction reversal, and outgoing line conductance alone is effective to maintain said direction reversal, and incoming line negative polarity is effective to impose outgoing line negative polarity, and discontinuities of relatively short duration of outgoing line current and of incoming line potential are ineffective to influence said reversing relay.

2,870,247

CROSS TALK ELIMINATING APPARATUS IN A TIME DIVISION MULTIPLEX SYSTEM

William H. Cherry, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application May 8, 1950, Serial No. 160,664
27 Claims. (Cl. 178—5.2)



25. A color television transmitter for transmitting, in a channel having a given frequency pass band, a composite signal representative of a plurality of colors of an object including: means for deriving a plurality of signals each representing one of said object colors; means for effectively modulating a sampling wave with substantially equal frequency bands of said signals, the frequency bands of all of said signals extending up to at least the lower frequency of a cross-talk region, said cross-talk region comprising those of said signals having such frequencies that the modulation of said sampling wave by them produces fewer side bands within said pass band than there are individual color representative signals; and means for effectively limiting the frequency spectrum of one of said signals to a maximum frequency no higher than the lower frequency of said cross-talk region.

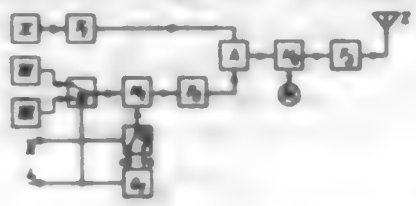
2,870,248

MULTIPLEX TRANSMISSION SYSTEM FOR THE TRANSMISSION OF THREE SIGNALS

Josue Jean Philippe Valeton, Frederik Willem de Vrijer, and Kees Teer, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 22, 1953, Serial No. 399,762
Claims priority, application Netherlands January 2, 1953
7 Claims. (Cl. 178—5.2)

1. A multiplex transmission system for line-scanned image signals, comprising a source for producing a modulated carrier wave having a given bandwidth, a source of an auxiliary carrier wave, two sources of modulation signals each having a bandwidth less than said given bandwidth, means connected to modulate said auxiliary carrier wave with said modulation signals alternately at the line-scanning frequency of said image signals, said auxiliary



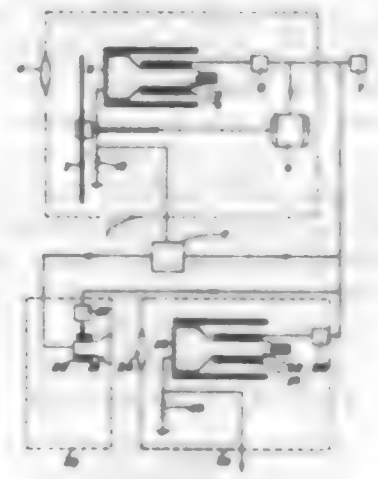
carrier wave and the modulations thereon being within the modulated frequency range of said first-named modulated carrier wave, and means connected to shift periodically the phase of said auxiliary carrier wave by an amount substantially equal to $n\pi$ radians where n is an odd number.

2,870,249

COLOUR TELEVISION APPARATUS

Ivanhoe John Penfound James, South Ealing, London, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a British company

Application October 7, 1953, Serial No. 384,543
Claims priority, application Great Britain October 11, 1952
8 Claims. (Cl. 178—5.4)



1. Apparatus for converting colour television signals of the field sequential type into colour television signals of a different type, comprising a signal storage medium, means for intermittently gating the signals of the field sequential type to said storage medium during fields of one colour to store signal elements of said colour in said storage medium with spaces between stored elements, means for intermittently gating the signals of the field sequential type to said storage medium during fields of a different colour to store signal elements of said different colour in said storage medium with spaces between the stored elements, said gating means being predetermined to position the stored elements of said first colour in said medium between the stored elements of said different colour, and means for reproducing signals from said storage medium, to derive colour television signals of the kind in which each field comprises intercalated signal elements representing different colour components.

2,870,250

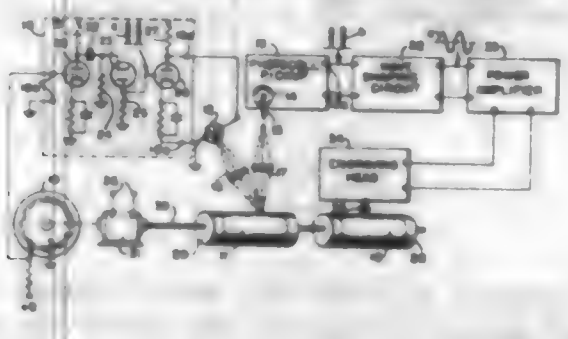
PHOTOELECTRIC PICK-UP SYSTEM FOR ENGRAVING MACHINES

John A. Boyajean, Huntington, N. Y., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware

Application September 28, 1953, Serial No. 382,822
2 Claims. (Cl. 178—7.1)

1. In a photoelectric engraving machine for producing on a plate from an image sheet a screened relief pattern

suitable for image reproduction by printing processes, a photoelectric pick-up system for periodically scanning an image to develop an image signal comprising: a light source for illuminating successive predetermined elemental areas of an image to be scanned; a photoelectric device exposed to the illuminated elemental areas of said image in succession and having an output circuit for developing an image signal; and electric circuit means coupled to said photoelectric device and effective to limit

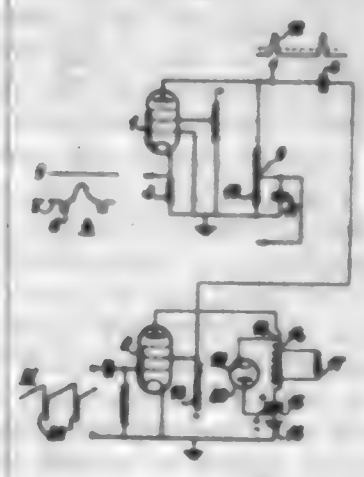


the developed image signal to a series of sampling pulses of a duration equal to a small fraction of the period required to scan one of said elemental areas, said electric circuit means including a sinusoidal signal input circuit, means for clipping the peaks of an input signal, means for amplifying said clipped peaks to develop periodic pulses synchronous with said sampling pulses, whereby the effect of image motion during scanning is substantially eliminated.

2,870,251
CIRCUIT ARRANGEMENT FOR USE IN TELEVISION RECEIVERS

Peter Johannes Hubertus Janssen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application September 30, 1955, Serial No. 537,866
Claims priority, application Netherlands October 8, 1954
2 Claims. (Cl. 178—7.5)



1. An automatic gain control circuit for use in a television receiver, comprising a source of video signals having a recurrent reference-voltage level, a first electron tube having a control electrode and an output electrode, means connected to bias said tube normally beyond its cut-off point, means connected to apply said video signals to said control electrode with a polarity tending to render said tube conductive, a deflection circuit comprising a second tube having a control electrode, a screen grid and an output electrode, a source of a deflection signal connected to said last-named control electrode, said deflection signal containing recurrent pulses substantially in synchronism with said recurrent reference voltage level, a deflection output circuit coupled to said output electrode, a source of operating voltage for said screen grid, a resistor connected between said source of voltage and said screen grid, said screen grid being unbypassed so that the current flow in said second tube causes recurrent pulses to occur at said screen grid substantially in synchronism with said recurrent reference-voltage level, means connected to apply said last-named pulses to the output electrode of said first tube with a polarity and amplitude so that said first tube can become conductive only during the occurrences of said last-named pulses, and means connected to derive an automatic gain control voltage from the current flow in said first tube.

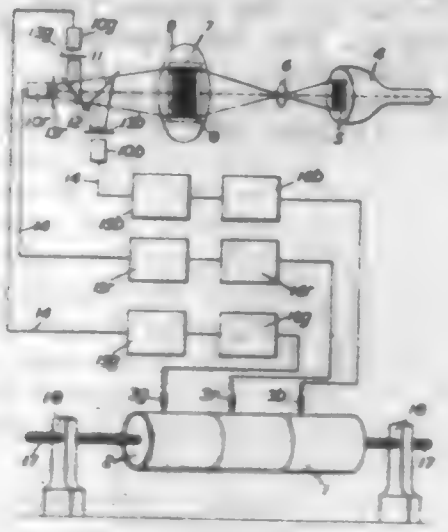
2,870,252

WITHDRAWN

2,870,253
PRODUCTION OF PRINTING SURFACES

John Fothergill Crosfield and Gordon Stanley James Allen, London, England, assignors to J. F. Crosfield Limited, London, England, a British company

Application July 26, 1954, Serial No. 445,736
Claims priority, application Great Britain August 11, 1953
9 Claims. (Cl. 178—6.6)

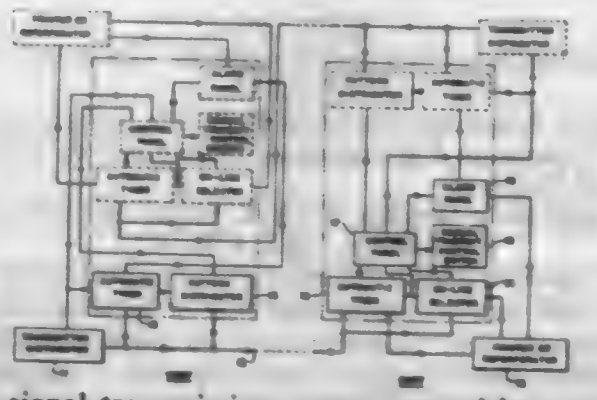


1. A method of producing a printing surface on plates formed of a rigid electrically-conducting backing and a surface layer of non-flammable, heat-removable, partially electrically-conducting material permanently attached thereto, which method comprises passing an electric discharge transversely through said partially electrically-conducting layer in regularly recurring pulses, scanning the surface of said layer with said electric discharge and varying a parameter controlling said electric discharge during the scanning to effect removal of varying amounts of the surface material of said layer to different depths at different points to form a plurality of small depressed areas having different depths, and limiting said discharge to a value less than that required to perforate said layer.

2,870,254
TELEGRAPH SYSTEM

Ransom D. Slayton, Lombard, and Raymond R. Smeesaert, Chicago, Ill., assignors to Teletype Corporation, Chicago, Ill., a corporation of Delaware

Application June 28, 1955, Serial No. 518,526
8 Claims. (Cl. 178—69)



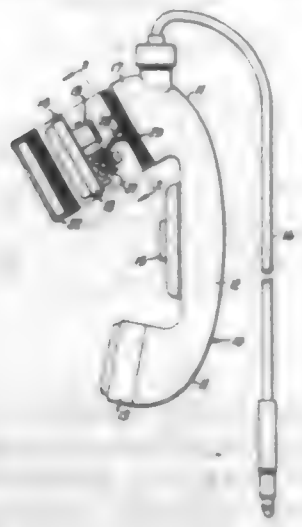
1. A signal transmission system comprising a plurality of stations, message sending means and message receiv-

ing means at each of said stations, a signal channel interconnecting said stations, each of said stations having pattern code signal sending means responsive to cessation of message transmission for automatically inserting and transmitting pattern code signals comprising one or the other of a complementary pair of permutation code signals on said channel in response to predetermined channel conditions, receiving means for receiving said one or the other of said pattern code signals transmitted over said channel, said receiving means comprising sets of reading elements corresponding to said pattern code signals, control means at said stations effective to control said stations in accordance with the setting of said reading elements in response to the pattern code signal impressed on said channel, and alarm means to indicate the condition of said channel.

2,870,255
MICROPHONE ASSEMBLY

Charles Douglas Jenkins, Jr., San Francisco, and Harry Ashland Greene, Jr., San Carlos, Calif., assignors to Remler Company, Ltd., San Francisco, Calif., a corporation of California

Application January 11, 1954, Serial No. 403,224
3 Claims. (Cl. 179—1)



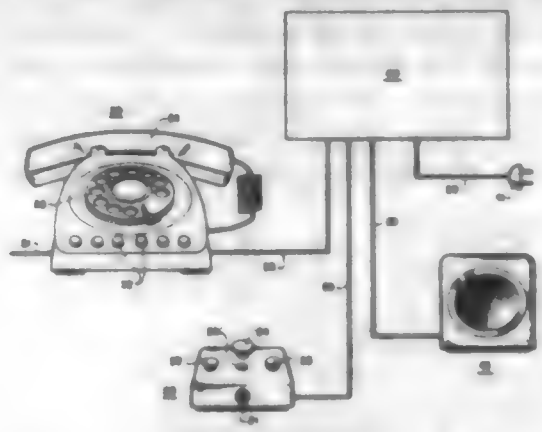
1. In a microphone assembly for use as a replacement unit for a carbon microphone mounted in a housing having a relatively shallow circular recess with voltage supply and outlet terminals provided in the housing, the microphone assembly comprising a body adapted to fit in said recess, a microphone element having a wide frequency response mounted on one portion of the bottom side of said body, a transistorized audio frequency amplifier mounted on another portion on the bottom side of said body, said microphone element and said amplifier being of a size to fit within said recess, the amplifier having input and output terminals, the input terminals being connected to the microphone element and the output terminals being adapted to be connected to said supply and outlet terminals, and means adapted to secure the body to the housing.

2,870,256
UNIVERSAL LOUDSPEAKING TELEPHONE SYSTEM

Edward S. Peterson, Elmwood Park, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application October 5, 1956, Serial No. 614,221
7 Claims. (Cl. 179—1)

1. A loudspeaking telephone system comprising a subscriber line and a subset carrying a handset including a transmitter and receiver and including transmission equipment only as required for telephone communication by means of said handset, said system also comprising a microphone and an amplifier therefor, a speaker and an amplifier therefor, control means, including a manual switch, for selectively causing either said handset or said microphone, speaker and amplifier to be effec-



tively connected to said line, and a cabinet separate from said subset for adapting the subset for use in a loudspeaking telephone system, said cabinet housing both said microphone and said manual switch.

2,870,257
ELECTRICAL SIGNAL TRANSMISSION

Walter Hoestke, Stuttgart, Germany, assignor to Firma Böhow Entwicklungen Kommanditgesellschaft, Stuttgart, Germany

Application July 23, 1956, Serial No. 599,412
Claims priority, application Germany July 23, 1955
10 Claims. (Cl. 179—1.5)



3. In a system for the transmission and reception of information by electrical signals, in combination, a transmitting station including first recording means for recording the electrical signals containing the information to be transmitted in a first frequency range, first reproducing and modulating means for reproducing and modulating said recorded signals, a first oscillator for producing constant frequency signals, first mixing means for mixing said reproduced and modulated signals with said constant frequency signals to transpose said reproduced and modulated signals to a second frequency range, second recording means for recording said transposed signals, second reproducing and modulating means for reproducing and further modulating said transposed signals and means adapted to transmit said further modulated signals; and at least one receiving station including first recording and demodulating means for recording and demodulating said transmitted frequency signals to provide said transposed frequency signals, reproducing means for reproducing said transposed frequency signals, a second oscillator for producing second constant frequency signals equal to said first produced constant frequency signals, second mixing means for mixing said transposed signals with said second constant frequency signals for retransposing said transmitted signals back to said first frequency range, second recording and demodulating means for recording and demodulating said retransposed signals, and reproducing means for reproducing said recorded and demodulated signals to provide the information transmitted by said electrical signals.

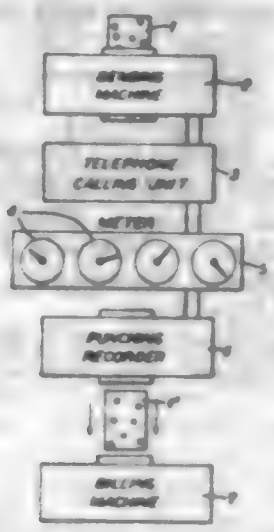
2,870,258
AUTOMATIC METER READING SYSTEM

Curtis M. Cooper, Binghamton, N. Y.

Application December 5, 1956, Serial No. 626,438
3 Claims. (Cl. 179—2)

1. In an automatic meter reading system for reading customers meters of utility companies, the combination of

a punch card operated sending machine having circuits adapted to be energized thru contacts at the punched holes in the card, storage units simultaneously operated by said circuits and held in cocked position for temporarily retaining the telephone number indicated by the card, a dial telephone system, successive switches for releasing the individual storage units in the proper order for dialing the customer's number, electrical pick-up contacts at the meters corresponding to the digits of the meter dials, reading hands on said dials, electrical wipers



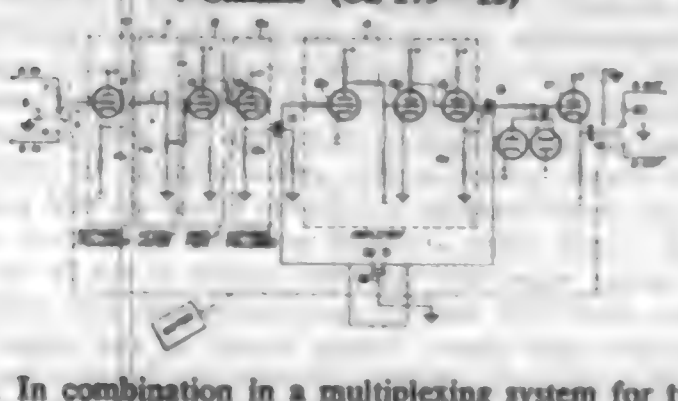
adapted to sweep over said pick-up contacts and send out a series of short uniform electrical impulses corresponding to the numbers indicated by the meter reading hands, a punch card receiving machine having step-by-step mechanisms for receiving and temporarily storing the meter reading indicated by said series of short electrical impulses, and a card punching mechanism operated by the simultaneous release of said receiving storage mechanism, whereby the customer's card is punched according to the reading indicated at the meter.

2,870,259

SYNCHRONOUS CLAMPING

Bevitt J. Norris, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation

Application October 21, 1955, Serial No. 541,994
7 Claims. (Cl. 179—15)



7. In combination in a multiplexing system for transmitting separate signals, a high gain amplifier having input and output coupling condensers, two cathode followers coupled to said condensers respectively, multiplex switches operatively coupled to the cathode followers respectively, and a grounding switch synchronously coupled to said multiplex switches for grounding each condenser after each signal transmission.

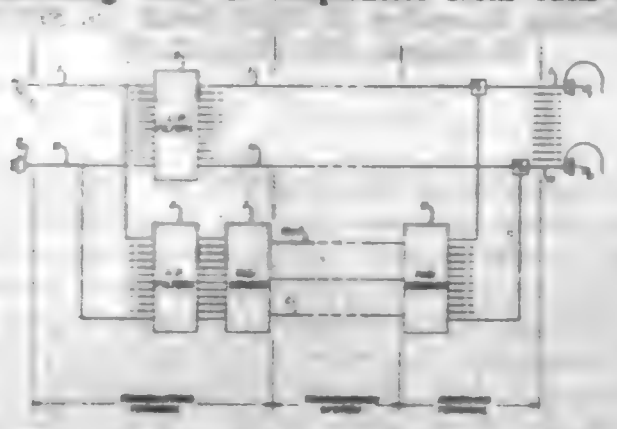
2,870,260

SPEECH INTERPOLATION COMMUNICATION SYSTEM

Richard Guenther, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 4, 1955, Serial No. 544,855
1 Claim. (Cl. 179—15)

A speech transmission system comprising a transmitting terminal with N incoming lines, a receiving terminal with N outgoing lines, C transmitting channels connecting the two said terminals, C being greater than N, each of said C channels having a frequency response less than the bandwidth of any speech signal on one of said lines, low pass filter means connected to each of said incoming lines for transmitting an intelligible band of frequencies from each of said speech signals, means including a different one of said C transmitting channels connecting the output of each of said low pass filter means to one of said outgoing lines, high pass filter means connected to each of said incoming lines for transmitting the remaining band of frequencies from each of said



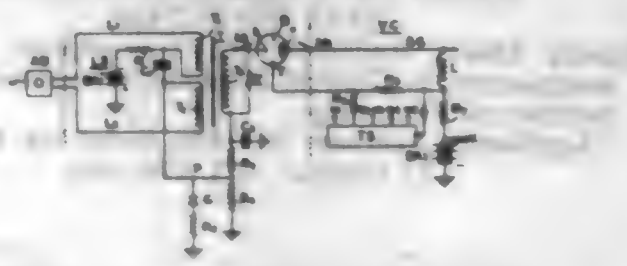
speech signals, talk spurt interleaving means responsive to the presence of signal energy on said incoming lines, means connecting the input of said interleaving means to the output of said high pass filter means, C—N of said transmitting channels connecting the output of said interleaving means to said receiving terminal, said C—N transmitting channels being fewer in number than said N incoming lines, means in said receiving terminal for restoring said interleaved talk spurts to their respective signal component sequences, and means combining said restored talk spurt components with their respective low frequency components.

2,870,261

ARRANGEMENT OF SUBSCRIBERS' CIRCUITS IN ELECTRONIC TELEPHONE EXCHANGES

Johannes Theodorus Antonius van Lottum, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application June 21, 1956, Serial No. 592,843
Claims priority, application Netherlands July 30, 1955
3 Claims. (Cl. 179—18)



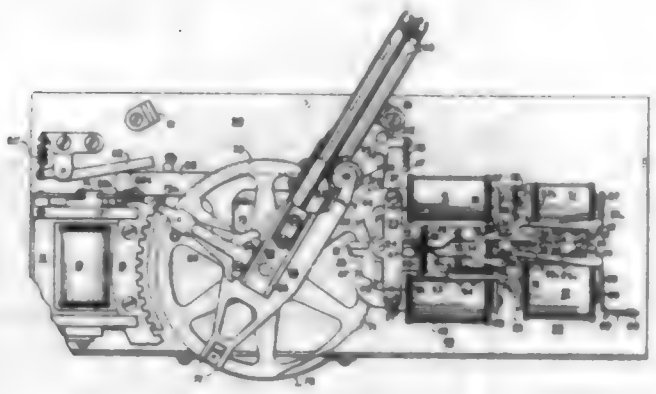
1. A subscriber's circuit for an electronic telephone exchange, comprising a transformer having a plurality of windings, a subscriber's line having conductors connected to at least one of said windings, a first direct-voltage source connected to said line, a first multiplex point, a second direct-voltage source, a resistance, means connecting said resistance in series with another of said windings between said multiplex point and a terminal of said second source, a plurality of connecting circuits each having a multiplex point and an impedance connected between the multiplex point thereof and the remaining terminal of said second source, electronic connecting means connected between said first multiplex point and the multiplex points of said connecting circuits, a rectifier and a resistor connected in parallel combination, and means connecting said parallel combination jointly in the current paths of both of said direct-voltage sources,

said first direct-voltage source being polarized in the current-passing direction of said rectifier, and said second direct-voltage source being polarized in the blocking direction of said rectifier.

2,870,262
CONTROL MECHANISM FOR TWO MOTION FLAT-TYPE SWITCHES

Hans Sengebusch, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application December 17, 1953, Serial No. 398,755
16 Claims. (Cl. 179—27.52)

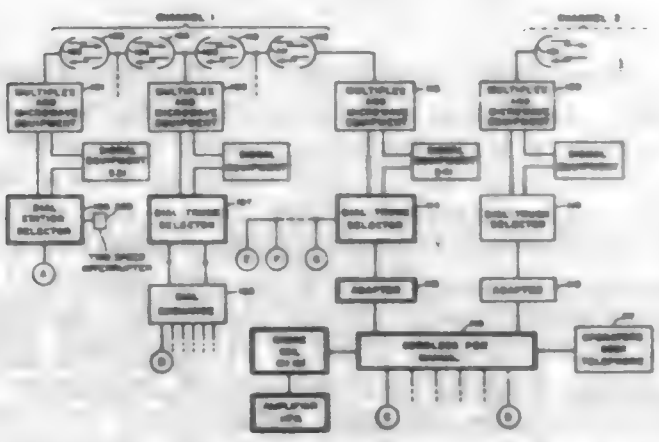


1. In a control mechanism for electric switching apparatus, a rotatable shaft, a rotatable armature having poles rigidly mounted on said shaft, electromagnet means for successively rotating a plurality of magnetic fields to rotate said armature and thereby rotate said shaft, a pinion gear rigidly mounted on said shaft, a rotatable member having gear teeth thereon, said gear teeth engaged with said pinion gear whereby the rotation of said shaft is transmitted to said rotatable member, a star wheel rigidly mounted on said shaft, a first and a second arresting dog, said dogs operable to engage the points of said star wheel as said shaft and said star wheel are rotated, and means for operating said arresting dogs to thereby control the rotation of said shaft whereby the rotation of said rotatable member is controlled.

2,870,263
RADIO OR CARRIER TERMINAL DIAL SELECTOR

George Elliott, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application February 25, 1955, Serial No. 490,581
17 Claims. (Cl. 179—41)

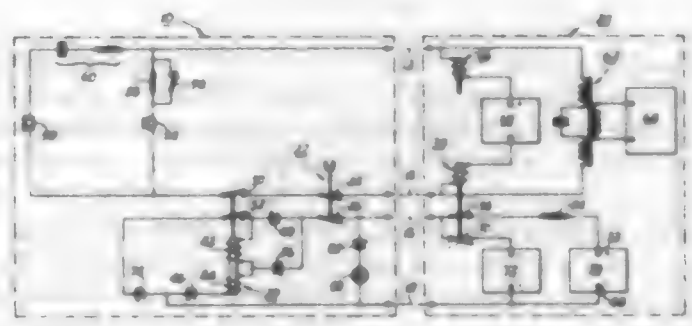


1. In a telephone system, the combination comprising; means for providing at least one voice channel, said voice channel comprising a plurality of stations, each of said stations including interrupter means normally operative at a first rate of speed for providing electrical currents which are indicative of busy conditions, means for transmitting digit indications over said channel to each of said stations, means operative simultaneously at each of said stations for registering a designation of one of said stations responsive to the receipt of said digit indications, and means selectively responsive to said registration at one of said stations for changing the rate of speed of said interrupter means at only said one station to provide ringing current at said one station, whereby said interrupters furnish ringing current at said one station and busy tone at each of the remainder of said stations.

2,870,264
CONTROL APPARATUS FOR REMOTE DICTATION SYSTEMS

Douglas E. Taylor, Westport, Lloyd R. Jones, Stepney Depot, and William F. Mitchell, Fairfield, Conn., assignors to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York

Application September 26, 1957, Serial No. 686,467
11 Claims. (Cl. 179—100.1)

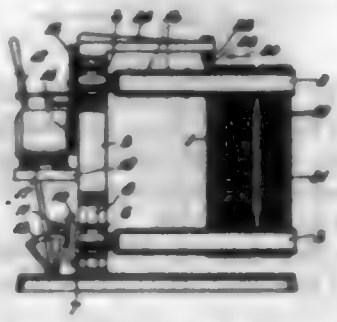


1. In a remotely-operated dictation system of the type which includes centrally-located recording and control apparatus wherein a recording head is arranged for relative travelling movement with respect to a moving record, apparatus comprising, in combination, a plurality of remote dictator's instruments each including a transducer, a communication circuit for connecting said transducers to said recording and control apparatus, control means for each of said instruments and adapted when actuated to connect the respective transducer to said communication circuit, power supply means adapted to produce first and second outputs of different character, said power supply means being arranged normally to produce said first output when said dictation system is not in use, a control circuit for each of said instruments and adapted to connect said power supply means to the respective control means, said control circuit having first and second circuit conditions and normally being in said first condition when the respective instrument is not in use, on-off switch means for each of said instruments and arranged when placed in "on" position to connect said control circuit to said power supply means, said control circuit being arranged when in said first condition to actuate said control means when said power supply means produces a signal of said first character but not to actuate said control means when a signal of said second character is produced, operating means responsive to the completion of said communication circuit to one of said transducers and arranged to change said power supply output from said first character to said second character, and means responsive to the actuation of said control means for changing said control circuit from said first condition to said second condition, said control circuit being arranged when in said second condition to maintain said control means actuated by said second output of said power supply means.

2,870,265
MAGNETIC RECORDING DEVICE

Roelof Vermeulen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 1, 1952, Serial No. 312,530
Claims priority, application Netherlands November 14, 1951
2 Claims. (Cl. 179—100.2)

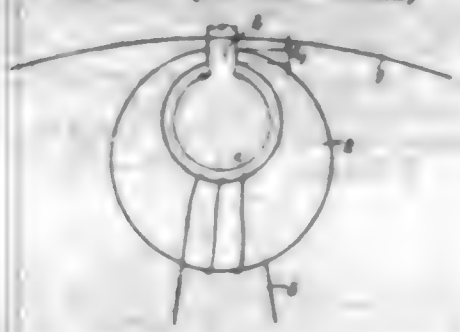


1. A magnetic recording device comprising a record constituted by an endless carrier belt having a helical magnetic path thereon, means for driving said belt including a roller engaging the inner surface of said belt, said belt having an inner circumference substantially greater than the outer circumference of said roller, guide means formed on the outer surface of said roller, and complementary guide means formed on the inner surface of said belt in cooperative relation with said first-mentioned guide means whereby rotation of said roller effects axial displacement of said belt relative to said roller, and a transducer head cooperatively positioned with respect to said helical path on said belt.

2,870,266
ANNULAR MAGNET HEAD OF THE KIND COMPRISING A SOLID CORE FOR MAGNETIC RECORDING AND REPRODUCTION

Willem Klaas Westmijze, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 29, 1953, Serial No. 389,044
Claims priority, application Netherlands November 11, 1952
3 Claims. (Cl. 179—100.2)



1. An annular magnetic head for recording on or reproducing from a magnetic record, signals having a given maximum frequency, said head comprising a solid core of magnetic material having an inner circumference and defining a non-magnetic gap, the product of the height of said gap and the length of said inner circumference being less than a constant equal to

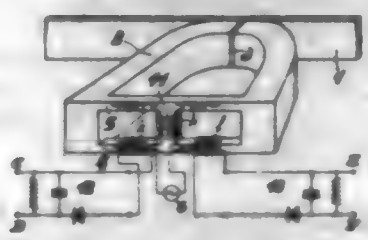
$$w\sqrt{\frac{2\rho\tau}{\mu_0\omega_{max}}}$$

wherein w designates the width of the gap, μ_0 a physical constant equal to the permeability of vacuum in the unit system used, μ the permeability and τ the specific resistance of the material of said core, and ω_{max} said maximum frequency, said height having a value exceeding 0.1 mm. and said length having a value exceeding ten times the value of said height, whereby the reluctance of the core material is lower than the reluctance of said gap even at said maximum frequency.

2,870,267
ARRANGEMENT FOR SCANNING AND REPRODUCING MAGNETIC FIELDS

Simon Duinker and Willem Klaas Westmijze, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application May 28, 1954, Serial No. 433,248
Claims priority, application Netherlands June 6, 1953
11 Claims. (Cl. 179—100.2)

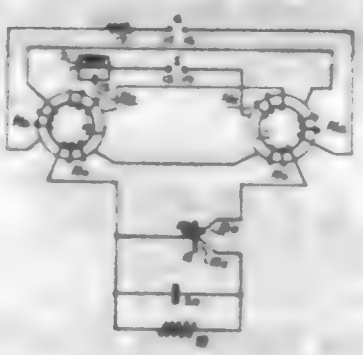


1. Apparatus for scanning and reproducing magnetic fields, comprising a magnetic member having first and second magnetic portions, said first portion having polar extremities defining a gap, said second portion comprising a magnetic material having a non-linear polarization characteristic and comprising two substantially magnetically identical parallel branches, said first and second portions defining a first magnetic path and said two branches defining a second substantially closed magnetic path, a winding coupled to said branches for generating in said substantially closed path alternating fluxes which are balanced with respect to the magnetic path through said first portion, a source of alternating current of given frequency coupled to said winding and having an intensity driving the material of said parallel branches into the non-linear part of its polarization characteristic, means for producing in said substantially closed path a direct current flux which is balanced with respect to the said path through said first portion, and a signal output winding coupled to one of said portions.

2,870,268
TRANSISTOR CONTROLLED LOW LEVEL MAGNETIC AMPLIFIER

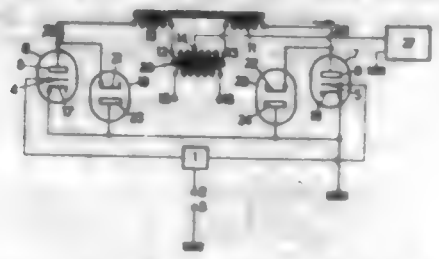
Michel Manoon, New York, N. Y., assignor of forty percent to George A. Rubinow, New York, N. Y., and sixty percent to Magnetic Precision Controls Inc., New York, N. Y., a corporation of New York

Application October 12, 1953, Serial No. 385,580
7 Claims. (Cl. 179—171)



1. A magnetic amplifier comprising, in combination, a first and a second core, a first winding on each of said cores, a source of alternating current connected across said first windings, a second winding on each of said cores, a source of control current connected across said second windings, a third winding on each of said cores, said second windings and said third windings being relatively interconnected in a sense opposite to that of said first windings, thereby giving rise to a second-harmonic output in said third windings, and circuit means for improving the linearity of said output, said circuit means comprising transistor means having an input circuit connected in series with said third windings, said transistor means further having an output circuit composed solely of passive impedance elements and including a load.

2,870,269
ELECTRONIC AMPLIFIERS
Roger Charbonnier, Meudon-Bellevue, France, assignor to Rochar Electronique
Application January 3, 1955, Serial No. 479,570
Claims priority, application France January 6, 1954
16 Claims. (Cl. 179—171)



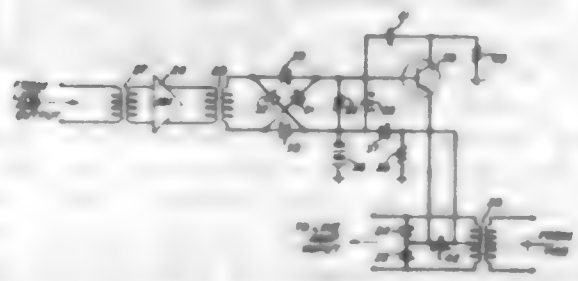
1. A low frequency electronic amplifier for amplifying an input signal comprising in the last stage thereof at least one pair of electronic amplifying tubes symmetrically connected between ground and a voltage source for operation on the all-or-nothing principle, each of said tubes comprising an anode, a cathode, and a control element consisting of at least one electrode positioned between said anode and cathode, means for alternately causing one of said amplifying tubes to become conductive and the other non-conductive, said means comprising means for supplying to said control elements an alternating signal having a frequency several times higher than the highest frequency range of said input signal in such manner that the alternating signal supplied to one control element of each pair is opposite to the alternating signal being simultaneously supplied to the other control element, separate electro-magnetic means for transiently storing energy in the anode circuits of each of said tubes, said energy storing means being coupled together in aiding relationship, and a diode connected in parallel with each of said amplifying tubes, with the cathode of the diode connected to the anode of said amplifying tube, said diodes alternately by-passing current derived from said stored energy about said amplifying tubes during intervals when no current is circulating through either amplifying tube.

2,870,270
MAGNETIC REPRODUCING SYSTEMS
Kenzo Nagai, Sendai, and Saburo Uemura, Kitatama-Gun, Tokyo, Japan
Application February 2, 1955, Serial No. 485,712
Claims priority, application Japan February 8, 1954
4 Claims. (Cl. 179—100.2)



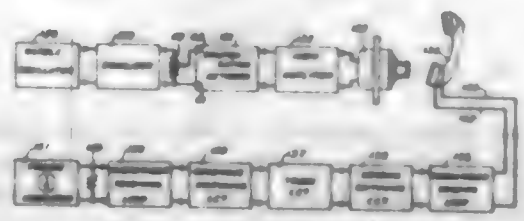
1. In a magnetic reproducing system utilizing a magnetic medium, apparatus comprising an oscillator for producing a high frequency alternating current, a magnetic reproducing head, a core member of said magnetic head having a portion forming an air gap adjacent which the recorded magnetic medium passes, a first pair of cores each having a small cross sectional area compared with that of the portion forming the air gap, a permanent magnet forming a pair of direct current magnetic paths each including said cores, said cores being symmetrically disposed with respect to said core member so that resultant direct current magnetic fluxes cancel each other in said air gap, a second pair of cores each being positioned opposite to each of the first cores, a pair of high frequency inductance coils each being wound on one of said second cores, capacitors in parallel with said high frequency inductance coils forming a pair of tuning circuits, and a pair of electrical circuits each being connected to said tuning circuits and operatively associated with said oscillator to detect a tuning deviation of said tuning circuits with respect to said high frequency alternating current in accordance with signals recorded on the magnetic medium, the outputs of said electrical circuits being connected so as to produce a voltage corresponding to the sums of the inductance variations of said high frequency inductance coils.

2,870,271
AUTOMATIC TRANSMISSION REGULATION
Claude I. L. Cronburg, Jr., Lynnfield, and Clyde S. Yeutter, North Andover, Mass., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 11, 1956, Serial No. 615,392
7 Claims. (Cl. 179—171.9)



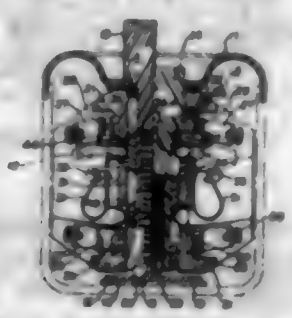
7. In combination, a source of A.-C. signals, a rectifier, and a load connected in tandem transmission relation and an arrangement for increasing the effective time constant of the load input circuit without the use of a large shunt condenser which comprises, in the path between said rectifier and said load, a transistor having its base electrode directly coupled to said rectifier and its emitter electrode directly coupled to said load, a capacitor connected between the collector and base electrodes of said transistor, and a resistance connected between the collector electrode of said transistor and a point of reference potential, said rectifier being poled to provide a forward emitter bias for said transistor.

2,870,272
LOUDNESS TRANSMISSION TESTING SYSTEM
Norman R. Stryker, East Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 5, 1954, Serial No. 460,379
8 Claims. (Cl. 179—175.1)



1. A system for measuring the speech sound loudness transmission characteristics of apparatus, comprising a source of an electrical loudness testing signal covering a frequency range comprising 300 to 3300 cycles per second, an electro-acoustic converter coupled to said source to convert said electrical loudness testing signal to an acoustic loudness testing signal having an intensity level versus frequency curve of the same shape as the voltage versus frequency curve of said electrical loudness testing signal, a conditioned telephone transmitter, and means for disposing said conditioned telephone transmitter in the same spatial relationship with said electroacoustic converter as the average spatial relationship that exists between a telephone transmitter in actual service and the mouth of a caller.

2,870,273
ELECTRICAL SWITCHING MECHANISM
Charles W. Merchant, Mentor, Ohio, assignor to The Euclid Electric & Manufacturing Co., a corporation of Ohio
Application September 24, 1956, Serial No. 611,627
12 Claims. (Cl. 200—5)



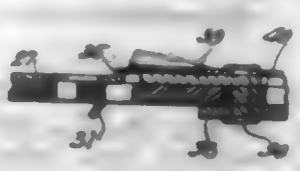
1. An electrical switching device comprising in combination a plurality of fixed contact elements, a plurality of movable contact elements, a bridging member carrying said movable contact elements and adapted to conduct electrical current therebetween, said bridging member having cam-follower portions extending therefrom and spaced from each other along said bridging member, resilient means operatively engaging said bridging member to urge said movable contact members toward and into contact with said fixed contact members and simultaneously to urge said cam-follower portions toward a reference plane spaced beyond a substantially parallel plane passing through the contact surfaces of said fixed contact elements, and a camming member slidable in said reference plane, said camming member having spaced camming surfaces slidably engageable by said cam-follower portions, respectively, said camming surfaces being spaced and arranged relative to each other and to said cam-follower portions as to cammingly move said cam-follower portions away from said reference plane in sequence upon movement of the camming surfaces in the same direction whereby said movable contact elements are moved away from said fixed contact elements, respectively, in a corresponding sequence.

2,870,274
ELECTRICAL WAFER SWITCHES
Edwin P. Thies, Hollywood, Calif., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois
Application May 26, 1955, Serial No. 511,227
4 Claims. (Cl. 200—11)



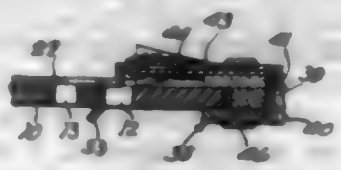
1. A television wafer switch of the character described comprising a plurality of switch plates each having a flat surface and arranged spacedly about an arc, a stator member of insulation material with a face area and an interior rim extending therefrom, the stator face area securing each of said plates in said arc in a plane, a collector segment secured with said stator member, a switching unit for establishing electrical connection selectively between said plates and said segment consisting of an essentially U-shaped spring with opposed sides pressed against said segment and said plates, the width of said swtiching unit being greater than the spacing between adjacent forward portions of said switch plates that project inwardly of the switch for containing the switching unit with respect to the plates, and a rotor carrying said switching unit, a plurality of legs extending from said rotor and engaging the interior rim of said stator member to rotatably support said rotor therewithin, the width of said rotor legs being greater than the spacing between adjacent forward plate portions, whereby said rotor with said switching unit is captivated in the switch between said segment and the said plates in fully operative condition to provide a unitary wafer switch.

2,870,275
ELECTRICAL SWITCH
John R. Geiser, Barrington, Ill., assignor to Oak Mfg. Co., Cook County, Ill., a corporation of Illinois
Application April 8, 1957, Serial No. 651,407
5 Claims. (Cl. 200—11)



1. A rotary switch comprising a flat plate of insulation having a rotor aperture therethrough, a plurality of stationary contacts disposed on said insulating plate in a circular pattern around said aperture, said stationary contacts having active contact portions extending radially toward the aperture and being spaced at predetermined angular distances, means for maintaining the active contact portions of the stationary contacts in offset relation with respect to the insulating plate, a rotor construction disposed in said aperture, the stationary contacts having the active portions tapered to a knife edge at the innermost parts nearest the rotor, said rotor construction including superposed rotor contact members, one contact member being flat and immediately adjacent the insulating plate, the other contact member having radially extending jaws, said two contact members cooperating so that a jaw is disposed opposite a corresponding part of the flat contact member and means for mounting all of said contacts so that all active portions of the stationary contacts are symmetrically disposed with respect to the two rotor contact members so that the stationary contacts may have the active portions thereof gripped between two rotor contact members, the active stationary contact portions resting upon said flat rotor member and the other rotor contact member having the jaws disposed over said active stationary contact portions, the contact jaws on the other rotor member being curled so that the radial edges of each jaw are bent away from the active stationary contact portions and the intermediate portion of the jaw presses against the active portion of the stationary contact.

2,870,276
ROTARY ELECTRIC SWITCH
John R. Geiser, Barrington, Ill., assignor to Oak Mfg. Co., Cook County, Ill., a corporation of Illinois
Application April 8, 1957, Serial No. 651,531
5 Claims. (Cl. 200—11)



1. A rotary switch comprising a flat plate of insulation having a rotor aperture therethrough, a plurality of stationary contacts disposed on said insulating plate in a circular pattern around said aperture, said stationary contacts having active contact portions extending radially toward the aperture and being spaced at predetermined angular distances, means for maintaining the active contact portions of the stationary contacts in offset relation with respect to the insulating plate, a rotor construction

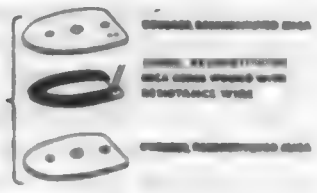
disposed in said aperture, the stationary contacts having the active portions tapered to a knife edge at the innermost parts nearest the rotor, said rotor construction including superposed rotor contact members of similar construction, each member having radially extending jaws, said two rotor contact members being oriented to form cooperating jaw pairs and the contact jaws being curled so that the radial edges of each jaw are bent away from the cooperating jaw, and means for mounting all of said contacts so that all active portions of the stationary contcts are symmetrically disposed with respect to the two rotor contact members so that the stationary contacts may have the active portions thereof gripped between a pair of rotor contact jaws.

2,870,277

RECONSTITUTED MICA HEATING ELEMENT

Larry J. Carter, Arden, N. C., assignor to Farnam Manufacturing Company, Inc., Asheville, N. C., a corporation of North Carolina

Application March 7, 1957, Serial No. 644,662
4 Claims. (Cl. 200—19)



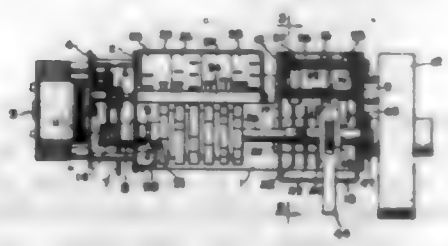
1. A method for manufacturing an embedded electric element comprising the steps of substantially drying sheets of uncured reconstituted mica, shaping the dried sheets into the required form, disposing an electrically conductive element between two of said sheets, and subjecting the assembly to a temperature of at least 250° C., while applying a pressure of at least 100 p. s. i. for at least ten minutes to cure and bond the sheets and thereby seal said conductive element in airtight engagement therewith.

2,870,278

TIMING MECHANISM FOR CONDUCTING A SELECTED ONE OF A PLURALITY OF SEQUENCES OF OPERATION

Winston L. Shelton, Jeffersontown, and Gresham N. Jennings, Louisville, Ky., assignors to General Electric Company, a corporation of New York

Application December 3, 1957, Serial No. 700,360
5 Claims. (Cl. 200—38)



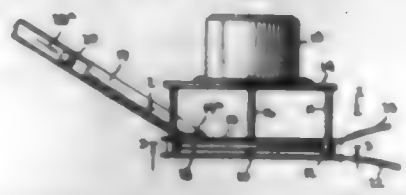
1. In a timing mechanism for conducting a selected one of a plurality of sequences of apparatus operations, the combination comprising a framework, a rotatable main shaft mounted on said framework, a timing motor for driving said main shaft, a plurality of interrupted gears of the same diameter positioned on said main shaft, each gear corresponding to a different sequence of operations, a cam shaft mounted on said framework parallel to said main shaft and having cam means for controlling switches in the circuits of the apparatus to be operated, a full gear on said cam shaft axially movable relative to said interrupted gears, and means for moving said full gear into selective engagement with any one of said interrupted gears.

2,870,279

BALL-OPERATED COUNTING DEVICE

David Cohn, Brooklyn, N. Y., assignor to T. Cohn Incorporated, Brooklyn, N. Y., a corporation of New York

Application October 26, 1956, Serial No. 618,572
12 Claims. (Cl. 200—61.11)



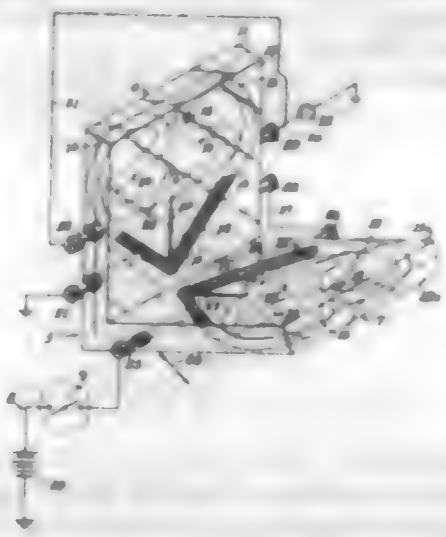
1. A counting device comprising first and second opposing and parallel plates, said device having an entrance for a ball into the space between said plates and an exit for a ball out of the space between said plates, a third plate mounted between said first and second plates and being turnable about a transverse axis, means continuously turning said third plate, said third plate being adapted to normally block said ball from movement from said entrance to said space between said first and second plates, said third plate having a ball receptor adapted to register with the entrance and to thereby receive the ball in one turned position of said third plate, said third plate being then adapted to carry said ball between said first and second plates, said third plate having a further turned position in which said ball receptor registers with the exit for removal of said ball from the space between said first and second plates, and ball-sensing means positioned along the path of movement of said ball between said first and second plates, said ball-sensing means including opposed and spaced members, the distance between said members being normally less than the diameter of said ball, at least one of said members being movable toward and away from the other, said ball being adapted to slide frictionally between said members to establish contact therebetween and to move them apart.

2,870,280

AUTOMOTIVE SAFETY SWITCH

Henry D. Kraus, Los Angeles, Calif.

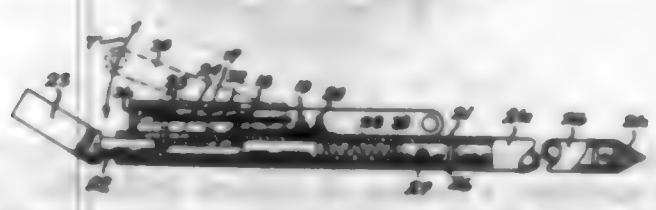
Application December 9, 1957, Serial No. 701,616
13 Claims. (Cl. 200—61.52)



1. An automotive safety switch comprising a dielectric housing formed to have two plane, relatively angularly offset parts, each part having a closed passage formed with a mercury-holding portion and a mercury-trapping portion, a pair of electric terminals entering each holding portion and bridged by a quantity of mercury in said holding portion, an ignition circuit connected in series with said pairs of terminals, and a bleed passage connection between each mercury-trapping portion and its respective mercury-holding portion to slowly return mercury from the former to the latter portion after displacement of mercury from the latter to the former

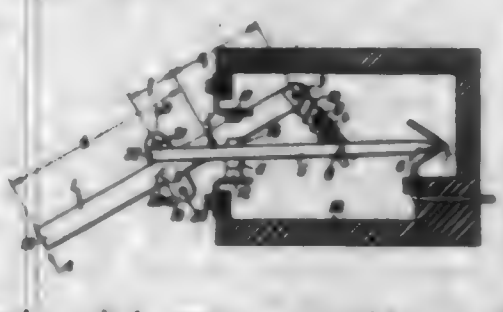
portion, the mercury-holding portions each comprising two legs angularly disposed to each other connected to the mercury-trapping portion.

2,870,251
BURGLAR ALARM
Francis E. Mitchell, Walla Walla, Wash.
Application May 27, 1957, Serial No. 661,825
6 Claims. (Cl. 200—61.93)



4. An alarm actuator comprising a pair of telescopically united rigid tubular members; means limiting relative telescopic movement of said members within predetermined limits and precluding relative axial rotation therebetween; a pair of electrically cooperable make-and-break contact points on said actuator, one supported on one member and insulated from both members and the other contact supported upon the other member; said contacts having means for breaking contact when said members are disposed midway their limits of movement, and for making contact with each other when said members approach their limits of movement in either direction; and resilient means biasing said members toward one said limit of movement.

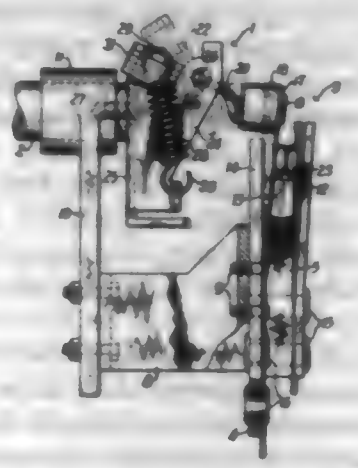
2,870,282
TOGGLE SWITCH SYSTEM
Helmut Brand, Hameln, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application June 12, 1956, Serial No. 590,902
Claims priority, application Germany June 15, 1955
7 Claims. (Cl. 200—67)



1. A toggle switch system comprising a plurality of contact elements, lever means for making and breaking contact between said elements, spring means exerting an active force on said lever means for effecting the switching of said lever means, and a reactive force in opposite direction to said active force and means for transmitting the reactive force of said spring means to said lever means to increase contact pressure between the latter and said contact elements.

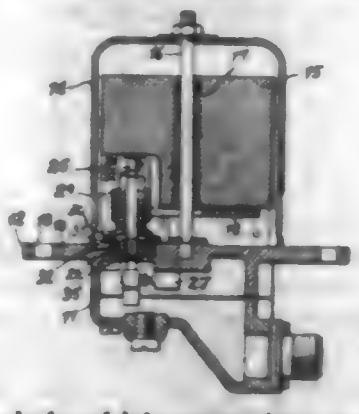
2,870,283
CENTRIFUGALLY ACTUATED SWITCH
William A. Haines, Troy, Ohio, assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application February 21, 1957, Serial No. 641,663
5 Claims. (Cl. 200—80)

1. A switch mechanism adapted to be mounted adjacent a rapidly moving centrifugal actuating member, which comprises a mounting means adapted to be mounted adjacent the actuating member and having at least two spaced surfaces to one side of the mounting means, said surfaces lying in substantially parallel planes and being electrically insulated from each other, a pair of leaf springs secured one to each of said parallel surfaces and in an unstressed condition lying adjacent the respective surfaces for substantially the entire length of the leaf spring and having an overlapping contact portion adapted to make



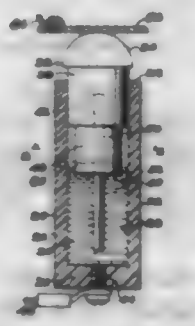
and break a circuit, and means on the innermost of said leaf springs to be operatively engaged and disengaged by said actuating member.

2,870,284
EXPLOSION-PROOF FLOAT SWITCH FOR FUEL SUPPLY TANKS FOR AIRCRAFT
John V. Oliveau, Greenwich, Conn., assignor to The Aerotec Corporation, Greenwich, Conn., a corporation of Connecticut
Application October 31, 1956, Serial No. 619,472
7 Claims. (Cl. 200—84)



1. A float switch which comprises a switch chamber, a bearing in a wall of said chamber, said bearing having a bearing surface of spherical curvature terminating in a pair of parallel planes symmetrical with the center of said sphere, an operating lever extending through said bearing and having a journal of spherical curvature mounted in said bearing and fitting said bearing with flame quenching clearance, a metallic bellows sealed to said wall about said bearing and to said operating lever, a switch mechanism in said switch chamber in position to be actuated by said operating lever upon tilting in said bearing and a float mechanism mounted to act on the rod outside said switch chamber to tilt said rod.

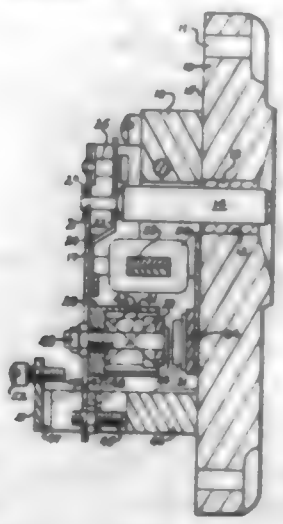
2,870,285
SWITCHING DEVICE
George H. Rufle, New York, N. Y.
Application February 25, 1955, Serial No. 490,593
9 Claims. (Cl. 200—87)



1. A switching device comprising first and second terminal means, a housing defining a chamber, conductive

liquid disposed in said chamber and connected electrically to said second terminal means, movable circuit closing means supported by said conductive liquid so as to be upwardly biased by said liquid into contact engagement normally with said first terminal means to close said circuit of said switching device, said movable circuit closing means being inherently electrically conductive, whereby, upon movement of a circuit opening element between said circuit closing means and said first terminal means, said switching device circuit is opened, and wherein said conductive liquid is mercury, said movable circuit closing means comprising a body of insulating material floatable on said mercury liquid so as to be biased upwardly thereby, rod means extending through said body from top to bottom, and extending downwardly therebeyond, to maintain electrical contact with said liquid mercury, while the upper end of said rod means is constructed and arranged for forming electrical contact with said first terminal means when free from insulating means therebetween, and displaced fluid controlling receiving means for receiving mercury displaced upon depression of said floatable body.

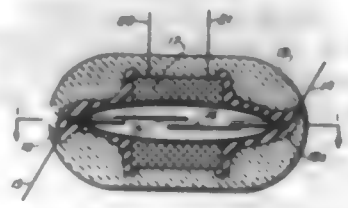
2,870,286
ELECTRIC SWITCH
Elmer C. Slaughter, Piqua, Ohio, assignor to The Piqua Machine & Manufacturing Company, Piqua, Ohio, a corporation of Ohio
Application March 30, 1955, Serial No. 497,995
8 Claims. (Cl. 200—87)



1. A magnetic holding switch, including a mounting plate, a contact arm in substantially parallel relation to said plate and having one end connected to said plate, the other end of said arm being movable toward and from said plate, permanent magnet means mounted on said plate and comprising oppositely disposed spaced apart magnetic faces, the said other end of said arm being received between said faces and moving into and out of the respective magnetic fields thereof during motion toward and from said plate, a contact means on said arm between the ends thereof, other and mating contact means on said plate, said contact means being engaged by biasing of said arm to one of said magnetic faces, and electric surge responsive means on said mounting plate energized upon engagement of said contact means and applying a variable force for holding said contacts engaged.

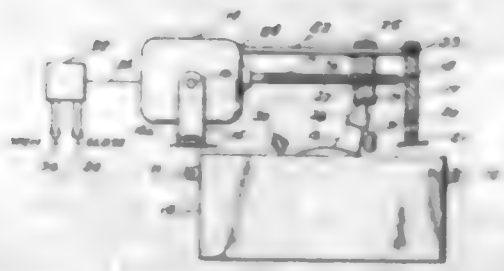
2,870,287
ELECTRICAL DEVICE
Howard E. Corbitt, Monrovia, Ralph M. Hill, Jr., Azusa, and David H. Bozarth, Downey, Calif., assignors to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio
Application February 13, 1956, Serial No. 565,000
5 Claims. (Cl. 200—87)

1. An encapsulated relay switch comprising an elongated enclosed envelope, a pair of electrically conducting magnetic reed contacts supported within the envelope in overlapping but normally non-contacting relationship so that application of a magnetic field to the reeds causes them to contact each other, a pair of electrical leads passing through the envelope and in electrical contact



with the respective reeds, a coil around the exterior of the envelope, a coating of resilient rubber-like material adherent to the portions of the envelope at which the leads pass through, and a potting substance around the envelope, coil and rubber-like material.

2,870,288
MOTOR OPERATED CIRCUIT BREAKERS
Frederick G. Schmidt, Haverford, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa.
Application June 23, 1955, Serial No. 517,521
10 Claims. (Cl. 200—92)

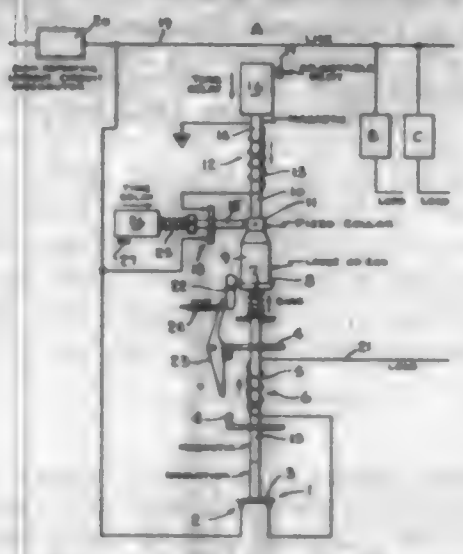


1. A mechanism for operating a pivotally mounted member between two extreme positions; means associated with said pivotally mounted member to prevent motion of said pivotally mounted member beyond either of said two extreme positions; said mechanism comprising a reversible motor removably connected in direct driving engagement to said pivotally mounted member to move said pivotally mounted member toward its first extreme position responsive to rotation in a first direction and to move said pivotally mounted member towards said second extreme position responsive to rotation in a second direction; said reversible motor being constructed to deliver a maximum torque which is insufficient to cause breakage of said pivotally mounted member or said means to prevent motion of said pivotally mounted member beyond said two extreme positions, said reversible motor having its rotation stopped by said means preventing motion of said pivotally mounted member beyond either of said two extreme positions when said pivotally mounted member moves into either of said two extreme positions, and switching means to de-energize an electrical power source causing rotation of said reversible motor which are responsive to the position of said pivotally mounted member.

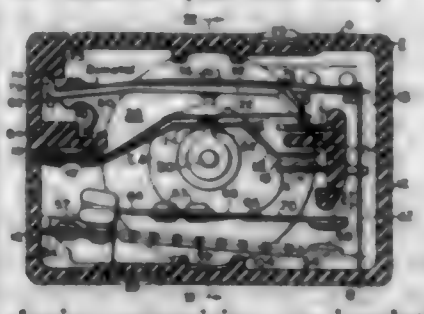
2,870,289
CIRCUIT INTERRUPTER
William D. Kyle, Jr., Milwaukee, Wis., assignor to McGraw Edison Company, a corporation of Delaware
Application June 24, 1954, Serial No. 438,915
9 Claims. (Cl. 200—97)

1. A circuit interrupter comprising switch means, electromagnetic means responsive to overload for opening said switch means, and electromagnetic reclosing means including delay means, said reclosing means being responsive to voltage variations and its delay period being inversely related to the voltage imposed on said circuit interrupter

during closing, the delay period being independent of preceding closely spaced opening operations, and independent of the magnitude of the immediately preceding overload.



2,870,290
WIRING DEVICE
Owen L. Taylor, Easton, and Clarence M. Smith, Trumbull, Conn., assignors to The Bryant Electric Company, Bridgeport, Conn., a corporation of Connecticut
Application January 3, 1956, Serial No. 556,953
19 Claims. (Cl. 200—113)



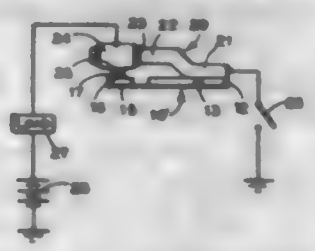
1. A wiring device comprising, an insulating support, an elongated thermal bimetal element having one of its ends rigidly secured to said support so that its other end is movable with respect thereto, a contact mounted on said support and located adjacent the other end of said bimetal element, an elongated resilient member having one end mechanically connected to said bimetal element at a point spaced from said one end to be movable therewith, said resilient member located in a plane approximately parallel to said bimetal element, said resilient member having its other end supported by said support to permit pivotable movement thereof generally laterally of said bimetal element, mechanical means movably mounted on said support for actuating said resilient portion to move said other end of said bimetal element into engagement with said contact, and movable a further amount to stress said resilient portion selected amounts to bias said bimetal element into engagement with said contact with various contacting pressures, said bimetal element and said contact being located in an electrical circuit which is adapted to be connected to a source of electrical energy so that a current flows therethrough in response to which said bimetal element becomes heated, and said bimetal element being constructed to move away from said contact when heated an amount sufficient to overcome the bias of said resilient portion so that said circuit is interrupted and said bimetal element cools.

2,870,291
SNAP ACTION DEVICE
James W. Welsh, Summit, N. J., assignor, by mesne assignments, to Hoda Corporation, Great Neck, N. Y., a corporation of New York
Application June 6, 1957, Serial No. 663,925
8 Claims. (Cl. 200—113)

1. A snap action vane comprising a substantially flat piece of a single resilient metal having a relatively elongated closed-end slot extending along and adjacent an edge thereof to divide the vane into a main body section and a strip separated from said body section by said slot and integral with the body section at each end, with the strip having a cross-sectional area only a fraction of that of the body section; said body section having a pair of substantially rectilinear deformations therein extending toward a central area of the body section; the inner ends of the deformations terminating short of each other to leave said central area free of deformation; whereby, upon heating of said vane, the strip will expand relative to the body section to induce bending stresses in the body section with the bending stresses directed by said deformations.



2,870,292
SNAP ACTION DEVICE
James W. Welsh, Summit, N. J., assignor, by mesne assignments, to Hoda Corporation, Great Neck, N. Y., a corporation of New York
Application June 6, 1957, Serial No. 663,928
7 Claims. (Cl. 200—113)



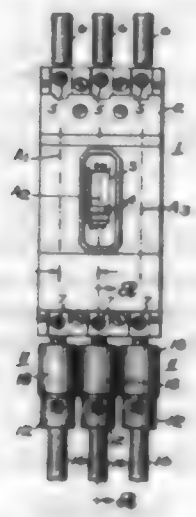
2. An electric switch comprising, in combination, a snap action vane in the form of a substantially flat piece of a single resilient metal of relatively high electrical resistance having a single relatively elongated closed-end slot extending along and adjacent one edge thereof to divide the vane into a main body section and a strip separated from said body section by said slot and integral with the body section at each end, with the strip having a cross-sectional area only a fraction of that of the body section; said body section having a pair of substantially rectilinear deformations therein extending toward a central area of the body section, the inner ends of the deformations terminating short of each other to leave said central area free of deformation; said deformations determining the direction of an initial bending line about which the vane is bent to a V-shape; said strip having an offset area substantially centrally thereof foreshortening said strip to bend the body section to a stress-deformed position about a line substantially normal to the strip and at an angle to said initial bending line vane mounting means fixedly secured to one of said areas; a first contact fixed relative to said mounting means; and a second contact electrically and mechanically secured to the other of said areas, said second contact being pressed against said first contact in said stress-deformed position of said body section; said contacts forming part of an electric heating circuit including said strip and body section whereby, upon energization of said heating circuit, the flow of electric current through said vane will effect differential expansion of said strip relative to said body section to elongate said strip to progressively flatten said body section and, after predetermined flattening of said body section, the vane will snap to a position bent about said initial bending line to snap said contacts apart to open the heating circuit; said strip, upon cooling, stressing said body section to eventually snap to said stress-deformed position to snap said contacts together under pressure to reclose said heating circuit.

2,870,293

AUTOMATIC CIRCUIT INTERRUPTER INTEGRATED WITH CURRENT-LIMITING FUSES

William S. Edsall, Boston, Mass., assignor to The Chase-Shawmut Company, Newburyport, Mass.

Application October 31, 1957, Serial No. 693,627
5 Claims. (Cl. 200—114)



1. In combination a multipolar switching device, a frame structure supporting the constituent parts of said switching device, a plurality of cable connectors supported by said frame structure each in alignment with one pole of said switching device and each comprising a clamping plate and a set-screw, and a plurality of fuses arranged substantially beyond said frame structure in a plane generally parallel thereto each in alignment with one pole of said switching device, each of said plurality of fuses comprising a casing, a pair of terminal elements closing both ends of said casing, fusible means inside of said casing conductively interconnecting said pair of terminal elements, a male connector on one of said pair of terminal elements projecting into one of said plurality of cable connectors on said frame structure, and a female cable connector on the other of said pair of terminal elements.

2,870,294

THERMOSTATIC SWITCH

John R. Vander Pyl, Attleboro, Edward P. Jastram, Reboboth, Joseph L. McMorrow, West Bridgewater, and James E. Shockroo, Norton, Mass., assignors to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts

Application May 22, 1957, Serial No. 660,879
11 Claims. (Cl. 200—128)



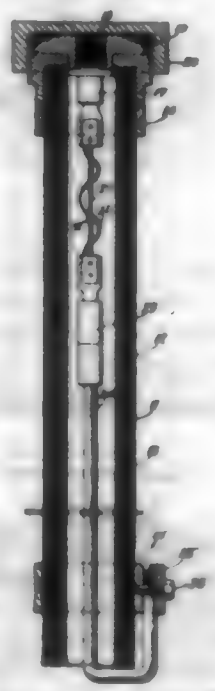
1. A thermostatic switch comprising contacts which are relatively movable to open and close a circuit, a snap-acting thermostatic plate supporting one of the contacts and having a nondevelopable portion responsible for its snap action, the plate and both contacts being in series connection in said circuit when the contacts are closed, and an arc control grid so located relative to said nondevelopable portion and at least one of said contacts that any arc struck therebetween is deflected by the grid from said nondevelopable portion of the plate.

2,870,295

REFUSIBLE FUSEHOLDER

Arthur H. Haroldson and Hubert L. Cox, Newark, Del., assignors to Continental-Diamond Fibre Corporation, Newark, Del., a corporation of Delaware

Application April 24, 1957, Serial No. 654,897
9 Claims. (Cl. 200—131)



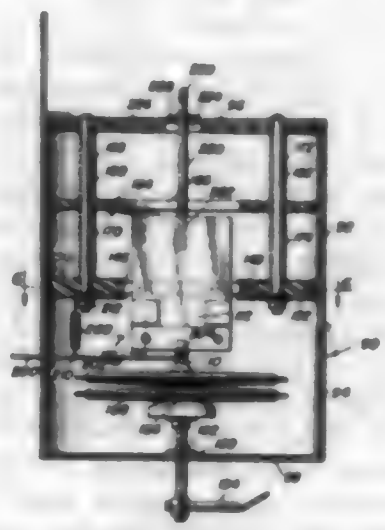
1. A conduit adapted to contain a fuse in a current interrupting device comprising an inner tubular liner of vulcanized fiber, a sleeve for said liner comprising inorganic fibers impregnated and bonded together with an epoxy resin, and an adhesive material disposed between said liner and said sleeve by which said liner is bonded to said sleeve comprising a phenolaldehyde resin which upon heating is capable of being converted to the infusible, insoluble state, and a vinyl polymer selected from the group consisting of a polyvinyl acetal, a partially hydrolyzed polyvinyl acetate, and a copolymer of polyvinyl alcohol and polyvinyl acetate.

2,870,296

AUTOMATIC FIRE ALARM

Jesse F. Heal, Coffeyville, Kans.

Application November 4, 1957, Serial No. 694,162
7 Claims. (Cl. 200—140)



7. For use in a fire alarm, an actuation device automatically responsive to the presence of heat comprising a housing, a contact block having contacts thereon, a bellows in said housing pivotally connected to said contact block, contact strips mounted in said housing, said contact strips being engageable by said contacts, and an adjusting member threadedly engaged in said housing engaging said bellows to position said bellows, a pair of spaced guide blocks in said housing, slides slidably engaged in said guide blocks, said slides carrying said con-

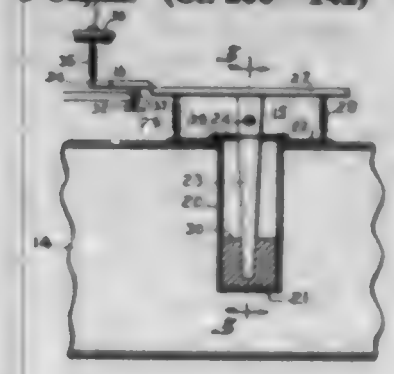
tact strips, said contact block, said guide blocks and slides being formed of an electrically insulative material, said contact strips being embedded in said slides, springs engaging said slides and said housing urging said slides towards said contact block, a rod secured to said contact block extending upwardly therefrom and outwardly through said casing, and stop means on said rod for limiting the position of said contact block, a lever extending outwardly of said housing and having an end connected to said contact block, spring means in said housing normally urging said contact block to a lowered position, and a fulcrum for said lever in said housing.

2,870,297

TRIP THERMOSTATS HAVING SHARP REFERENCE TEMPERATURES

Alfred A. Markson, Mount Lebanon, Pa., assignor to Hagan Chemicals & Controls, Inc., Pittsburgh, Pa., a corporation of Pennsylvania

Application June 24, 1957, Serial No. 667,373
1 Claim. (Cl. 200—142)



A thermostatic device comprising an elongate hollow member, a pivotally supported member extending into the hollow member, means yieldingly urging said pivotally supported member to a central position, said urging means comprising a keeper member secured to the pivotally supported member and having yielding means connected thereto for urging the same and the pivotally supported member to said central position, a thermal element in said hollow member in which the free end of said pivotally supported member is submerged, said thermal element comprising a substantially pure, solid substance having a sharp melting point, and a signal mechanism operatively connected to and maintained in a predetermined position by said pivotally supported member while the thermal element is solid, said signal mechanism comprising a latch member that engages the keeper member and is provided with means for rocking the keeper and the pivotally supported member when the thermal element melts, and actuating the signal mechanism to another position.

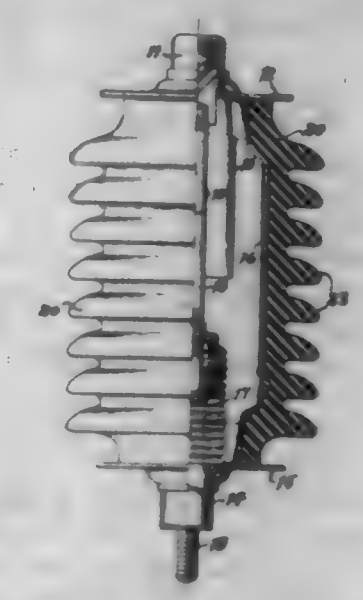
2,870,298

ENCAPSULATED VACUUM INSULATED CIRCUIT BREAKER

Henry H. Schwager, Portland, Oreg., assignor to Schwager-Wood Corporation, Portland, Oreg., a corporation of Oregon

Application August 27, 1956, Serial No. 606,265
2 Claims. (Cl. 200—144)

1. In a circuit interrupting switch for high voltage power transmission lines, the combination of an evacuated cylindrical envelope of glass, coextending terminal supporting metallic caps secured at the ends of said envelope by housekeeper seals, an annular line terminal forming flange carried by each of said metallic caps disposed axially outward beyond said seals and extending in planes transverse to the axis of said envelope, a stationary circuit controlling contact supported within said envelope by one of said metallic caps, a relatively movable circuit controlling contact supported by and extending through the other of said metallic caps; and a rigid member of an insulating compound cast over said envelope between said terminal forming annular flanges operating as a weather protective encapsulation for said envelope and as a



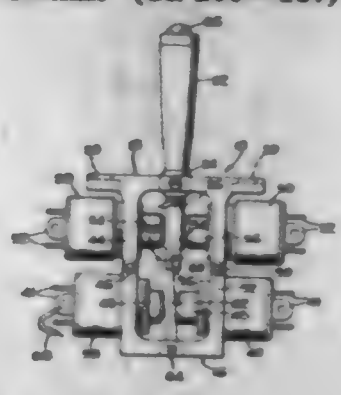
reinforcing stress and strain sustaining support for the line terminal forming annular flanges carried by said metallic caps.

2,870,299

MULTIPLE POSITION SWITCH WITH BUILT IN MEMORY

George W. Cox, Venice, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application February 28, 1955, Serial No. 490,791
3 Claims. (Cl. 200—167)



1. A double throw switch with built-in memory comprising a body; a handle pivotally mounted in the body; a pair of opposed, spring loaded switches mounted in the body, each of which is in biased engagement with and actuated by said handle; means interconnected to said handle; at least one spring loaded switch mounted in the body that is in biased engagement with and actuated by said means; and an indicator lamp actuated by said one switch to indicate operation of one of the pair of opposed switches.

2,870,300

PRESSURE EQUALIZING HERMETICALLY SEALING BOOT

Milton Morse, Bronx, N. Y.

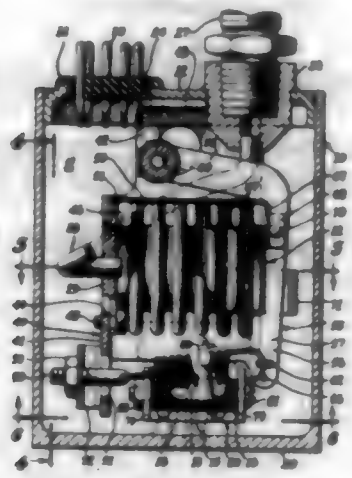
Application May 20, 1957, Serial No. 660,236
3 Claims. (Cl. 200—168)



1. A venting sealing device for use in enclosing an opening in a planar surface comprising: a resilient boot element and a bracket element; said boot element in-

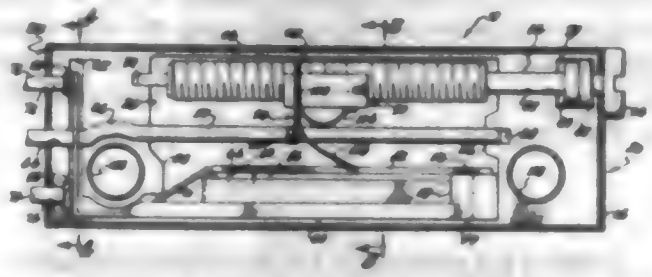
cluding a hollow planar member having an opening therein, and a hollow dome member formed integrally with said planar member, the hollow portion of which communicates with said opening; said dome member including a wall, the plane of which is disposed substantially perpendicular to the plane of said opening and having a bore disposed therein, the axis of which is perpendicular to the plane of said wall; said bracket element being disposed within said dome member and including a stud engaged within said bore to substantially seal the same during such period as the dome member is in relatively undistorted condition, movement of said bracket in a direction towards said opening serving to distort the shape of said bore and allow the equalization of an atmospheric pressure differential on either side of said bore.

2,870,301
PRESSURE RESPONSIVE RESISTOR
William A. Tikanen, Reseda, Calif., assignor to Genisco, Inc., Los Angeles, Calif., a corporation
Application August 26, 1953, Serial No. 376,636
10 Claims. (Cl. 201—48)



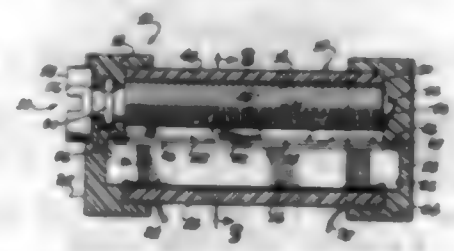
1. A device to measure fluid pressure comprising: a base; an assembly including a corrugated bellows mounted at one end on said base and free at the other end; restricting means included in said assembly and attached to said base, said restricting means being connected to said bellows along a first particular side of the bellows to restrict the longitudinal expansion and contraction of the bellows along that particular side, the opposite side of the bellows being free to expand and contract whereby the free end of the bellows moves arcuately about a particular axis at the restricted side of the bellows in response to pressure changes; detecting means including a responsive member entirely supported by the said assembly and rigidly disposed against the free end of the bellows and coupled to said restricting means for arcuate movement relative to said assembly with the free end of the bellows about the particular axis; a coil spring included in said assembly, said coil spring being fixedly anchored relative to the base at one end and operatively coupled at its other end to the responsive member to exert force against the responsive member in a direction for pressing the responsive member against the free end of the bellows and for opposing the expansion of the bellows to obtain an accurate sensing of the movement of the bellows; and counterbalance means operatively coupled to said responsive member at the end of the responsive member opposite to said spring and cooperative with said spring in exerting forces on said responsive member for maintaining dynamic equilibrium of said responsive member with respect to acceleration moments about said particular axis in the plane of arcuate movement.

2,870,302
POTENTIOMETERS
Marian E. Bourns, Marvin E. Harrison, Edward J. Goeppinger, and Donald L. Gaa, Riverside, Calif.; said Harrison, Goeppinger, and Gaa, assignors to Bourns Laboratories, Inc.
Application November 7, 1955, Serial No. 545,232
14 Claims. (Cl. 201—62)



1. A potentiometer which comprises: two housing sections positioned together so as to define a complete housing having front and rear ends having an elongated cavity formed therein, said cavity having front and rear ends adjacent to said front and rear ends of said housing; means formed in said sections for holding a shaft between the front and rear ends of said elongated cavity, said means extending to the front end of said housing; a shaft held by said means for holding a shaft, said shaft extending from said front end of said housing to the rear end of said cavity, said shaft including a screw head formed thereon adjacent to said front end of said housing and a threaded portion within said cavity; means formed in said sections for holding a wire within the center portion of said cavity between said front and said rear ends of said cavity, said means for holding the wire extending to the rear end of said housing; a wire held by said means for holding a wire, said wire extending from said front end of said cavity past said rear end of said cavity out through the back end of said housing; a resistance element held within said cavity; a movable member positioned against the side of said shaft adjacent to said wire, said movable member including threaded means engaging part of said shaft; resilient spring contact means attached to said movable member, said contact means being in electrical communication with said wire and said resistance element, said movable member being held against said shaft by the action of said resilient contact means; and terminal means extending from said housing connected to the ends of said resistance member.

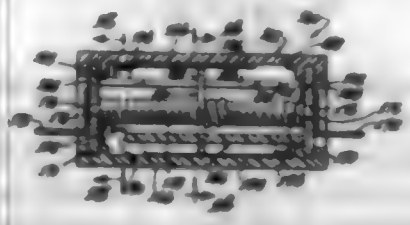
2,870,303
VARIABLE RESISTOR
Edward D. O'Brian, Anaheim, Calif., assignor to Bourns Laboratories, Inc.
Application December 3, 1956, Serial No. 625,683
3 Claims. (Cl. 201—62)



1. A variable resistor comprising, in combination, a housing having an enclosed cavity provided therein, a resistance element mounted on said housing within said cavity, a rotatable leadscrew journaled on said housing and extending through said cavity parallel to said resistance element, a pair of shoulders on said housing disposed on opposite sides of said resistance element and parallel thereto, a conductive strip mounted on at least one of said shoulders, a contact member slidably supported on said shoulders and having means engaging the thread of said leadscrew whereby said contact mem-

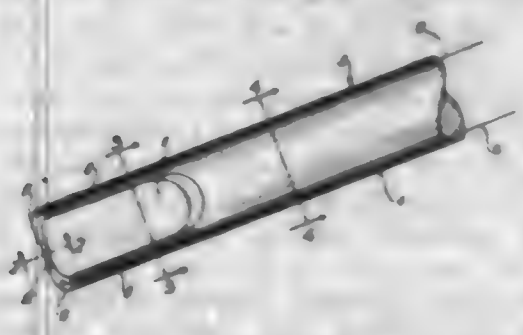
ber is moved lengthwise of said resistance element when the leadscrew is rotated, said contact member making a sliding electrical connection between said resistance element and said conductive strip, and terminal means connected to said conductive strip and to said resistance element.

2,870,304
ADJUSTABLE ELECTRICAL RESISTOR
Edward D. O'Brian, Anaheim, Calif., assignor to Bourns Laboratories, Inc., Riverside, Calif., a corporation of California
Application March 1, 1957, Serial No. 643,358
3 Claims. (Cl. 201—62)



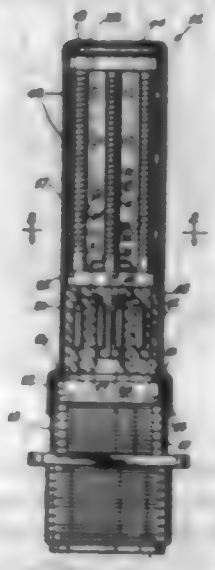
1. An adjustable electrical instrument which includes: first and second aligned terminal means insulated from one another; threaded shaft attached to said first terminal means so as to extend therefrom in alignment with said terminal means; end caps rotatably mounted on each of said terminal means; a cylindrical housing secured to said end caps so as to be capable of rotation therewith; a cylindrical resistance element positioned within said housing so as to extend along the length thereof; a non-conductive post having a threaded opening formed in the interior thereof positioned so that the threads within said opening engage the threads of said threaded shaft; shaft means carried by said end cap so as to extend parallel to said post means, said shaft means engaging said post means so as to cause rotation thereof during rotation of said housing; contact means carried by said post means, said contact means including means resiliently engaging said resistance element and said shaft means; means including resilient brush means engaging one end of said resistance element and resiliently bearing against one of said terminal means; and means including brush means resiliently bearing against the other of said terminal means electrically connected to said shaft means.

2,870,305
CONSTRUCTIONS FOR ANEMOMETERS OF THE HOT WIRE TYPE
Sung-Ching Ling, Iowa City, Iowa
Application April 4, 1955, Serial No. 498,818
9 Claims. (Cl. 201—63)



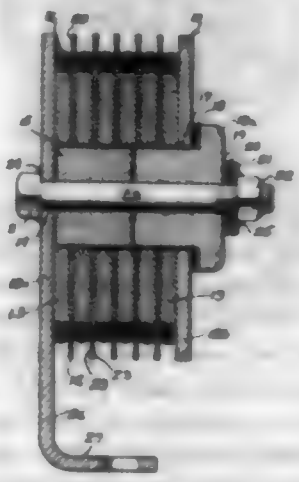
1. A construction for anemometers of the hot wire type comprising a hot sensing element arranged to be immersed in a fluid to be tested to determine the rate of flow of the fluid and having faces converging at an acute angle to each other, to be pointed in a direction opposite to the direction of flow of the fluid under test and including a supporting body of material constituting a nonconductor of electrical current, and a tenuous film of metallic material constituting a good conductor of electrical current and having a relatively high temperature coefficient of electrical resistance, extending over at least a portion of the surface of said body and rigidly attached to said surface, the film having its outer surface exposed to direct engagement by the fluid under test, means for supporting said body, and electrical conductors connected with said film at spaced points thereon for conducting an electrical current to and from said film to heat the same.

2,870,306
WIDE RANGE ELECTRICAL HUMIDITY-SENSING UNIT
Carlton E. Ohlheiser, Silver Spring, Md., assignor to American Instrument Company, Inc., Silver Spring, Md.
Application May 15, 1956, Serial No. 585,059
9 Claims. (Cl. 201—63)



1. An electrical humidity-sensing unit comprising a base having a pair of terminals, a pair of parallel spaced supports mounted on said base, a plurality of rod members of insulating material rigidly secured in spaced parallel relation between said supports, respective pairs of bifilar conductors wound on said rod members, hygroscopic coatings of humidity-sensitive resistance material on said rod members in contact with the bifilar conductors, said bifilar conductors and coatings being formed and arranged so that the conductors and coatings on the different rod members define humidity-responsive resistors having different characteristics, means interconnecting said bifilar conductors and terminals, an apertured housing secured to said base and surrounding said supports, and resilient means engaged between said housing and said supports.

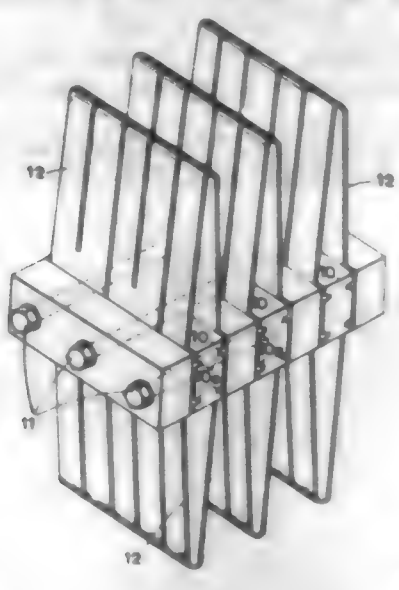
2,870,307
WEATHERPROOF RESISTOR
Alvin R. Milliken and Melvin S. Hook, La Salle, Ill., assignors to Electrical Utilities Company, La Salle, Ill., a corporation of Illinois
Application September 4, 1957, Serial No. 681,952
11 Claims. (Cl. 201—68)



4. In an electrical resistance structure, a series of axially spaced elements each with a peripheral surface to be

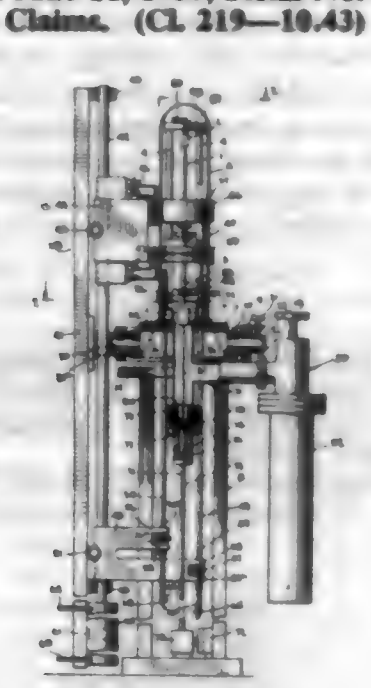
confined from the surrounding atmosphere, and means including an elastic rubber-like ring sealingly encompassing said surface.

2,870,308
RESISTANCE GRIDS
Leonard Satchwell, Theule-sur-Mer, France
Application May 23, 1956, Serial No. 586,836
Claims priority, application Great Britain May 24, 1955
5 Claims. (Cl. 201—69)



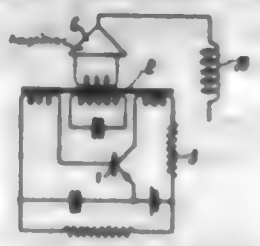
1. A grid resistance comprising a series of individual plates each folded transversely substantially midway of its length to U-form to provide two adjacent free edges, a separating block embraced by the adjacent free edges of each plate, insulating blocks assembled with the series of plates and separating blocks, and reinforcing rods holding the assembly together.

2,870,309
ZONE PURIFICATION DEVICE
Emil R. Capita, North Bergen, N. J.
Application June 11, 1957, Serial No. 665,094
12 Claims. (Cl. 219—10.43)



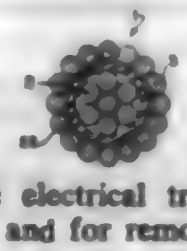
1. A zone purification device for refining an elongated solid metallic body comprising the combination of an airtight enclosure adapted to contain an elongated specimen of the solid metallic body, a transformer including a primary coil outside said airtight enclosure and a secondary heating coil within said airtight enclosure adapted to encircle closely a portion of the specimen, and said primary coil and said secondary coil connected to a common movable support means whereby the secondary coil may be moved along the specimen while maintaining a fixed position relative to said primary coil.

2,870,310
INDICATOR CIRCUIT ARRANGEMENT
Adrianus Johannes Wilhelmus Marie van Overbeek, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application December 12, 1955, Serial No. 552,595
Claims priority, application Netherlands December 13, 1954
9 Claims. (Cl. 219—10.77)



1. A circuit arrangement comprising a transistor having emitter and base electrodes defining an input electrode system and a collector electrode defining with one of said electrodes an output electrode system, means for producing electrical oscillations comprising a feedback circuit intercoupling said output electrode system and said input electrode system in a manner to produce a positive feedback, means for deriving an output signal from said output electrode system, said transistor undergoing variations in collector current in response to radiations impinging thereon, means for impinging radiations on said transistor, means connected between said collector electrode and one of the electrodes of said input electrode system for providing an instantaneous emitter-collector voltage drop approaching zero thereby to limit the amplitude of said oscillations and to produce an output signal having an amplitude which varies substantially solely in accordance with the intensity of said impinging radiations, and utilization means responsive to said output signal amplitude and coupled to said output electrode system.

2,870,311
ELECTRICAL CONDUCTOR AND SYSTEM
Eugene W. Greenfield and Ludwig F. Rochmann, Spokane, Wash., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation
Application December 19, 1955, Serial No. 553,757
10 Claims. (Cl. 219—19)

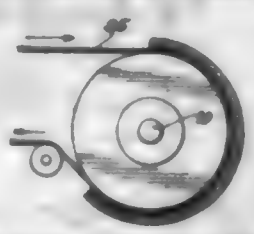


1. A dual purpose electrical transmission cable for conducting electricity and for removing ice incrustations from the outer surface of said cable comprising an inner conductor, a layer of poorly conducting material closely surrounding said inner conductor and an outer conductor closely surrounding said layer of poorly conducting material, said layer of poorly conducting material having a thickness less than the thickness of said conductor layers, said outer conductor having a conductance of greater than ⅓ and less than ⅔ the total conductance of the cable, said outer conductor adapted to have passed therethrough a low voltage high amperage current thereby heating said conductor for melting the ice incrustations therefrom.

2,870,312
FIXER FOR ELECTROSTATIC PHOTOGRAPHY
John C. Westervelt, Tulsa, Okla., assignor, by mesne assignments, to Century Geophysical Corporation, Tulsa, Okla., a corporation of Delaware
Application March 18, 1957, Serial No. 646,668
1 Claim. (Cl. 219—19)

In combination with an elongated paper sheet carrying electrophotographic images defined by toner powder

distributed non-uniformly over one surface thereof, said toner powder having an optimum fusion temperature and said paper having a characteristic charring temperature somewhat higher than said fusion temperature, apparatus for fixing said images on said sheet comprising a cylindrical drum having a homogeneous film of electrically resistive material uniformly deposited over its outer surface, electrical contact means at the respective peripheral edges of said film for feeding electric current uniformly therethrough, thermostat means carried within the drum

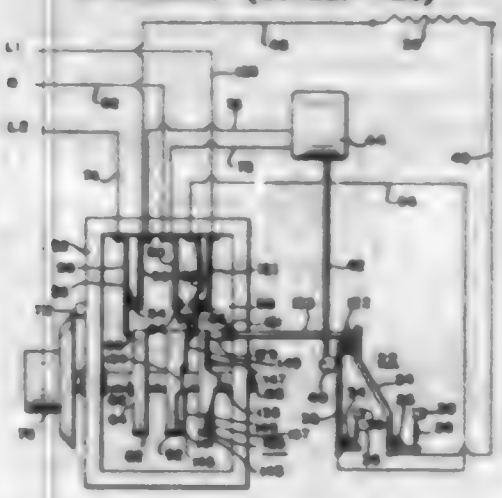


closely adjacent the inner side of said film, circuit means interconnecting said thermostat means and said film for controlling the quantity of electric current through said film to maintain its temperature above said fusion temperature and below said charring temperature, and means for advancing said sheet progressively relative to the outer surface of said drum, said drum being disposed with its outer surface in contact with the other surface of said sheet and being mounted to revolve as said sheet is advanced.

2,870,313
DOMESTIC APPLIANCE

Francis H. McCormick, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 18, 1954, Serial No. 430,551
10 Claims. (Cl. 219—20)



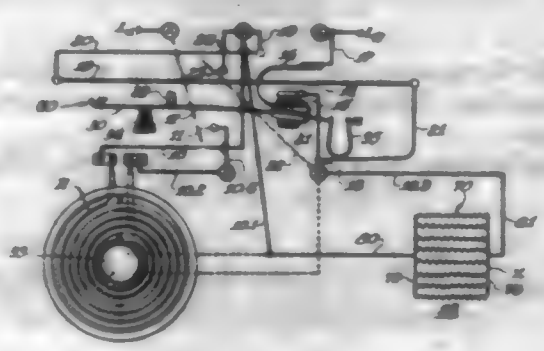
1. An electrical system including electrical heating means for heating a substance, a first circuit having means for obtaining a high rate of energy conversion from said heating means, a second circuit having means for obtaining a lower rate of energy conversion from said heating means, an adjustable infinite heat switch means connected in controlling relationship with said second circuit for providing an infinitely adjustable control superimposed upon said lower rate of energy conversion of said heating means, and temperature responsive means responsive to predetermined conditions of said same substance for changing the effective energization from the first circuit to the second circuit, said temperature responsive means having additional means responsive to other predetermined conditions of said same substance for substantially deenergizing said heating means.

2,870,314
CONTROL DEVICE

Nicholas Miller, Chicago, Ill., assignor to General Electric Company, a corporation of New York

Application April 4, 1956, Serial No. 576,211
15 Claims. (Cl. 219—20)

13. Means for controlling the energy periods of a heating element of the resistance wire type in relation to the temperature of an object in heat exchange relation therewith, comprising an electric circuit including terminal means for connecting said heating element to an external source of electrical energy, switch means in said circuit for interrupting or completing said circuit, an electrical conductor of minute cross sectional area, yieldable means for supporting said conductor at its respective ends to place the same under tension, means for connecting said conductor by way of said switch means into said heating element circuit to receive electrical energy concomitantly with said heating element, said conductor being of such material that it expands upon increase in temperature accompanying passage of electrical energy therethrough, means responsive to the expansion and contraction of said conductor as it heats and cools with the passage of, or interruption of, electrical energy therethrough to operate said switch means between open and closed circuit

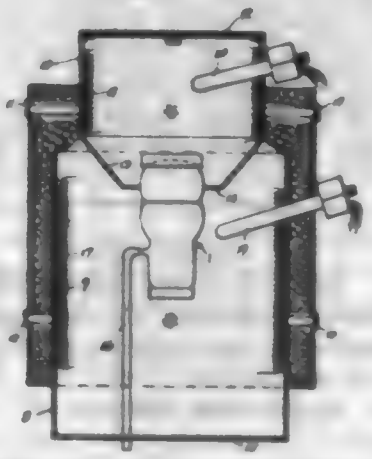


positions respectively, resistance means arranged for disposition in heat exchange relation to said object, said resistance means including a plurality of individual resistors mutually electrically connected in parallel and respectively having a temperature-resistance coefficient whereby change in temperature of said resistors produce a measurable change in the resistance thereof, means for insulatedly housing said resistors, said housing being formed of material having high thermal conductivity, means for resiliently urging said housing into direct heat transfer relationship with an object being heated by said heating element, and an electric control circuit including said resistance means and said electrical conductor to establish the quantity of flow of electrical energy through said conductor and the resultant rate of heating thereof as a function of the temperature of said resistor housing means and the resistance means incorporated therein.

2,870,315
APPARATUS FOR FORMING CATHODES

Kenneth L. Lindsay, Van Wert, Ohio, assignor to International Telephone and Telegraph Corporation

Application January 18, 1954, Serial No. 404,699
1 Claim. (Cl. 219—35)



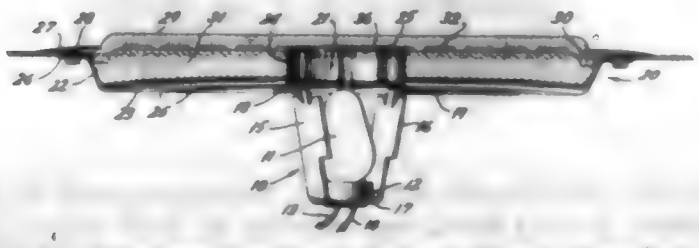
Apparatus for use in forming a photosensitive cathode on an end face plate of a tube, said apparatus comprising: an upper heating chamber having a closed upper end and having radiant heat generating elements disposed

therein arranged to heat said upper chamber to a first elevated temperature; a lower heating chamber having its upper end joined to the lower end of said upper heating chamber and having an opening formed in its lower end for admitting said tube to the interior of said upper and lower chambers, said lower chamber having radiant heat generating elements disposed therein arranged to heat said lower chamber to a second elevated temperature higher than said first elevated temperature in said upper chamber; and a baffle member separating said upper and lower chambers and having a central opening formed therethrough communicating with said upper and lower chambers and arranged to support said tube therein with said face plate disposed in said upper chamber and the remainder thereof disposed in said lower chamber.

2,870,316
HEATERS

Harry D. Ferguson, Jr., Ambler, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application May 18, 1956, Serial No. 585,902
14 Claims. (Cl. 219—37)

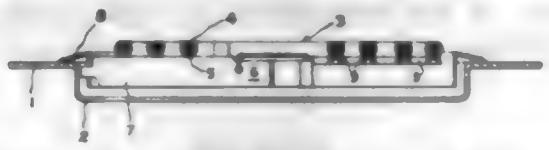


1. In a plate-type heater: a heater plate; a heating element adjacent the plate; an electrical lamp; and heat insulator means for holding the heating element against the plate, said insulator means having the general form of a frame around the lamp.

2,870,317
ELECTRIC SURFACE HEATING UNIT

Walter E. Lewis, Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application December 19, 1957, Serial No. 703,868
1 Claim. (Cl. 219—37)



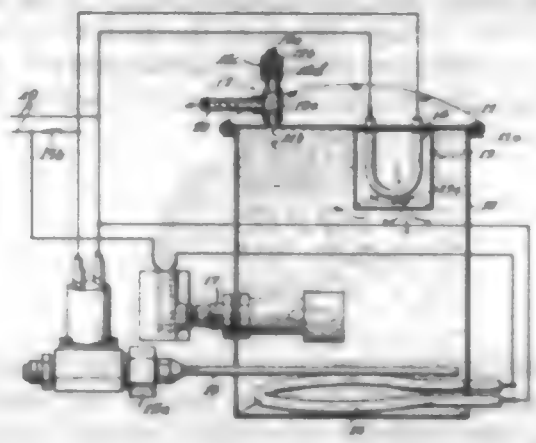
An electric surface heating unit comprising a heating element including a resistance heater enclosed within a generally tubular metal sheath, said heating element being coiled in flat spiral configuration so that its top surface forms a horizontally disposed support for cooking utensils and the like, a supporting grid for said heating element, and an elongated strip of sheet metal of U-shaped configuration welded to the bottom surface of said tubular sheath with the two leg portions thereof projecting downwardly so as to form heat radiating fins extending along substantially the entire length of said tubular sheath.

2,870,318
HOT WATER HEATER

Harvey R. Karlen, Chicago, Ill., assignor to Cory Corporation, a corporation of Delaware

Continuation of application Serial No. 590,852, June 12, 1956. This application January 8, 1958, Serial No. 707,832
6 Claims. (Cl. 219—38)

1. A drip-proof liquid heater comprising: a closed tank having a top; an open outlet through the tank at the top; means for effecting liquid flow into the tank; means for heating liquid in the tank; and means for lowering the liquid level in the tank to below the outlet when liquid flow therethrough is discontinued, including an enclosure, passage means communicating between the interior of the enclosure and the interior of the tank below said outlet to allow a quantity of liquid to be disposed with said enclosure, and heating means associated with said enclosure operable concurrently with said means for

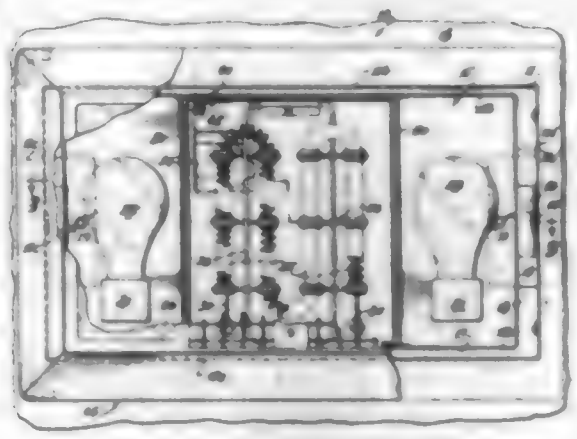


effecting liquid flow to vaporize the liquid in said enclosure during liquid flow through the tank, and to be deenergized upon discontinuance of flow causing a pressure to exist in said enclosure which is lower than the pressure in the tank at the passage means to induce flow of liquid thereinto from the liquid in the tank.

2,870,319
COMBINED HEATING AND VENTILATING UNIT

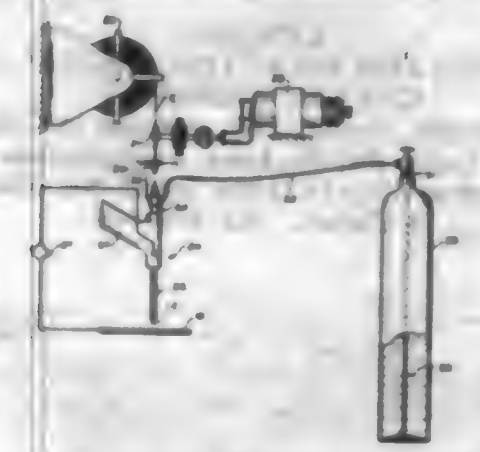
Harold H. Ford, Claremont, Calif., assignor to Emerson-Pryne Company, a corporation of Delaware

Application August 21, 1957, Serial No. 679,410
10 Claims. (Cl. 219—39)



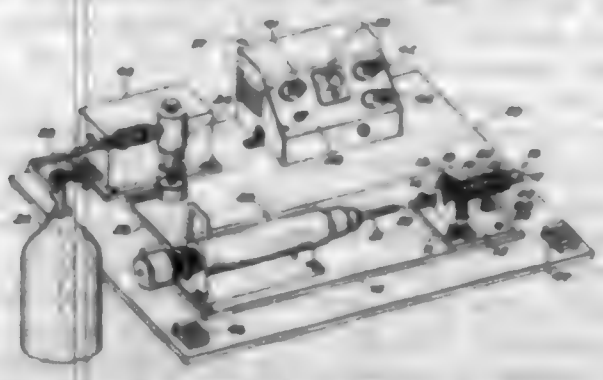
1. A ceiling heater unit comprising: a housing of rectangular outline having side and end walls, a top wall, and an opening in its lower side; an inner shell of rectangular outline insertable through said opening and located inside the housing, said shell having top, side and end walls spaced respectively from the top, side and end walls of the housing; an electrical heating element mounted within the inner shell adjacent said opening in the housing; and a cover over the opening in the housing having a centrally located grille under the heating element to permit air to pass through the cover at said central portion of the opening, said cover being spaced from the housing walls to admit air into the housing around the edges of the cover; and a blower mounted on the top wall of the shell above the heating element with its intake in communication with the interior space between top walls of the housing and the shell; said shell defining passage means wholly within the shell for receiving air from said blower and directing said air downwardly over the heating element and out of the central portion of said opening in the housing; and end walls of the shell and housing defining between them air inlet passages receiving air from end marginal portions of said opening in the housing and directing the air into said interior space.

2,870,320
ELECTRIC ARC WELDING
Howard Hume Mathews, Mountain Lakes, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application May 27, 1955, Serial No. 511,657
8 Claims. (Cl. 219—74)



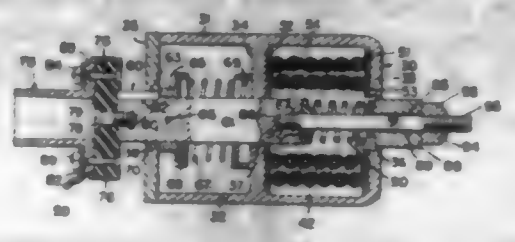
1. In a method of gas shielded arc welding in which a consumable electrode is continuously fed to the welding arc through a contact tube which supplies welding current to said electrode adjacent the arc end thereof, the improvement which comprises flowing an arc shielding agent under super-atmospheric pressure in liquid phase to the vicinity of the arc, expanding said shielding agent from liquid to gaseous phase while in heat exchange relationship with the arc end of said contact tube in order to cool the same, and passing said gas around said arc to shield the same from the ambient atmosphere.

2,870,321
WELDING DEVICE TO ATTACH TRANSDUCER WIRES TO MECHANICAL FILTERS
John Yasumura, Tujunga, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application March 21, 1957, Serial No. 647,587
6 Claims. (Cl. 219—97)



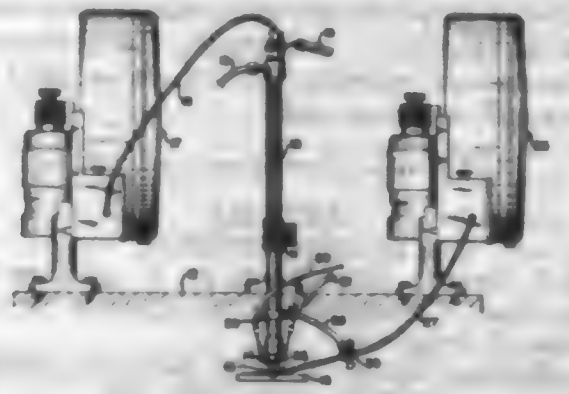
1. An automatic positioning and welding machine for attaching a first electrically conductive work piece to a second electrically conductive work piece comprising, a base plate, a first work-holding member attached to said base plate and electrically insulated therefrom, a plunger actuating cylinder mechanism attached to said base plate and electrically insulated therefrom, said mechanism being space separated from and in substantially axial alignment with said first work-holding member, a second work-holding member attached to said actuating cylinder mechanism and electrically connected thereto, said second work holding member including means to hold said second work piece in axial aligned slidable engagement therewith while maintaining consistently uniform electrical contact therebetween, a welding machine, the output terminals of said welding machine connected respectively to said actuated plunger and said first work-holding member, and sequential switching means to control the operation of said actuating cylinder and to control the energization of said welding machine such that a predetermined sequence of arcing, melting, and impacting is realized to firmly join said first and second work pieces held respectively in said first and second work-holding members.

2,870,322
STUD WELDING GUN
Samuel O. Jones, Newport News, Va., assignor to Newport News Shipbuilding and Dry Dock Company, Newport News, Va., a corporation of Virginia
Application December 27, 1957, Serial No. 705,618
9 Claims. (Cl. 219—98)



1. A stud welding gun which comprises a handle means, a frame secured to said handle means, a solenoid coil supported by said frame, plunger means reciprocably supported by said frame and being composed of a substantially nonmagnetic substance, resilient means normally urging said plunger means to an outermost position, core means mounted on said plunger and being composed of a magnetic substance, a stud chuck secured to one end of said plunger means, and means for energizing said coil and said chuck to urge said core means and said plunger means outwardly of said frame and establish welding current to said chuck.

2,870,323
ARC WELDING
Edward H. Roper, Riverside, Conn., and Cornelius J. Sullivan, Somerville, N. J., assignors to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application June 15, 1954, Serial No. 436,858
9 Claims. (Cl. 219—137)

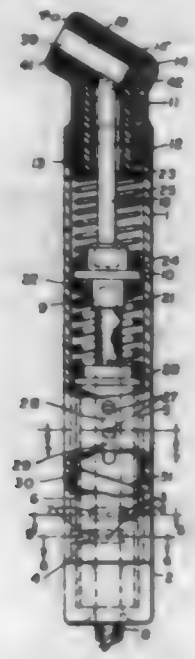


1. A method of depositing metals and metal alloys on a workpiece to form a weld, overlay or the like of desired alloy composition which comprises establishing an arc between the workpiece and a consumable wire electrode to form a puddle of molten metal on said workpiece, said electrode wire being of a readily drawable composition composed of at least one of the elements making up the desired alloy composition but substantially free of any such element which will volatilize at the temperature of the arc, continuously feeding said electrode wire into the arc, supplying an inert gas to surround the arc to shield it, the weld puddle and the adjacent portions of the workpiece from the ambient atmosphere, and continuously feeding an auxiliary wire to said weld puddle, said auxiliary wire being of a readily drawable composition composed of at least one element selected from the elements making up the desired alloy composition.

2,870,324
ELECTRIC WELDING HANDLE
Samuel Albert, Philadelphia, Pa.
Application March 15, 1957, Serial No. 646,410
6 Claims. (Cl. 219—143)

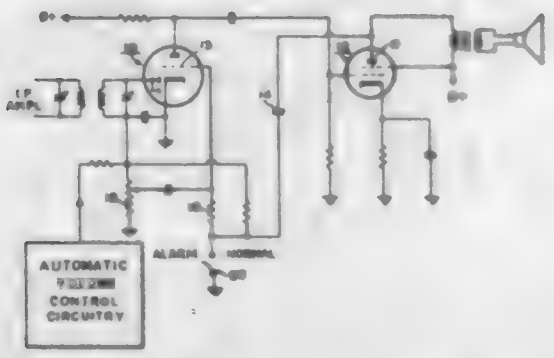
1. In an electric welding handle a tubular casing, a tube movably attached to said casing circumferentially rotatable in relation to said casing, a member movably

attached to said casing above said tube longitudinally displaceable in relation to said casing, a cam formed in the top of said tube and the bottom of said member, a spring pressing said member against said tube, a head on top of said casing, said head having formed therein an electrode passage and a longitudinal passage, one end of said longitudinal passage opening into said electrode passage and the other end opening into said tubular casing, a rod on top of said member extending into said longi-



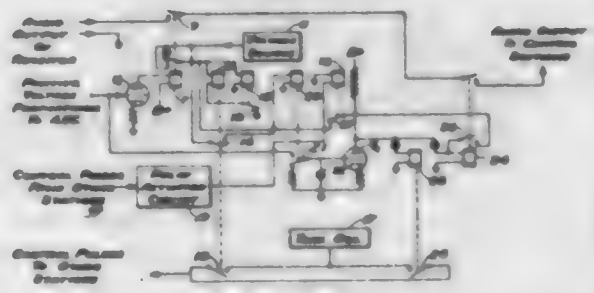
tudinal passage whereby upon the rotation of the tube in relation to said casing the cams coact and longitudinally displace the member in relation to said casing against the pressure of said spring forcing said rod against an electrode end placed in said electrode passage locking said electrode end in place and upon the reverse rotation of the tube in relation to said casing the pressure of said spring forces said member back to its original position, unlocking said electrode end.

2,870,325
ALARM SYSTEM
Richard B. Sanger, Glen Rock, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application March 29, 1957, Serial No. 649,560
2 Claims. (Cl. 250—2)



1. A radio having two cascaded tubes, each said tube having an input electrode and an output electrode; a non-switchable regenerative feedback link from the output electrode of said second tube to the input electrode of said first tube, said link comprising a capacitance; an automatic volume control circuit which produces a voltage when a carrier wave is received; means to bias said first tube to cutoff, said means including a connection between said automatic volume control circuit and said input electrode of said first tube whereby when said carrier wave is received said automatic volume control circuit cuts off said first tube to mute said radio, and when said carrier wave is interrupted said radio is awakened, and said link feeds back a signal which is regenerative and causes said radio to produce audible oscillations, thereby warning of carrier wave absence; and means to simultaneously disable said feedback link and said bias means bypassing said bias signal and said regenerative signal around said first tube, said means comprising a switch.

2,870,326
DEVICE FOR SELECTING SIGNAL OF GREATEST ENERGY
Everett L. Sterner, Dallas, Tex., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application May 14, 1956, Serial No. 584,801
4 Claims. (Cl. 250—6)

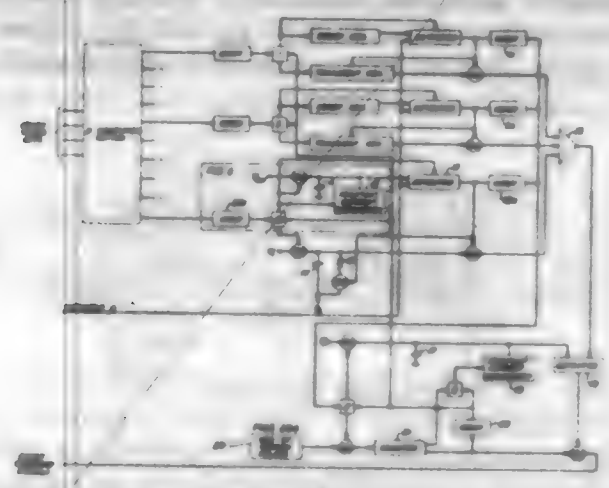


1. A selection system for selecting the signal having the greatest energy level from a plurality of individual signals at a plurality of remote stations and connecting said selected signal to a control station including at each remote station means for receiving signals having intelligence thereon, a positive voltage proportional to the automatic volume control signal of the receiver, a voltage source, a timing means, a source of distinctive control signals, means interconnecting said remote stations and said control station, pulse-generating means for generating pulses spaced in proportion to said positive voltage, means including said voltage source for energizing said timing means responsive to said positive voltage, a first means for applying said control signals to said interconnecting means and substantially simultaneously connecting said positive voltage to said pulse-generating means, said first means controlled by said timing means, a second means for connecting said control signals to said interconnecting means, said second means controlled by said pulse-generating means, said timing means controlling said first means to subetantially simultaneously disconnect said control signals from said interconnecting means and remove said positive voltage from said pulse-generating means, said pulse-generating means producing pulses at a subsequent time determined by said positive voltage, means responsive to said pulse for connecting the respective received signals to the control station, and means responsive to said control signals to disconnect the received signals from said control station whereby only the remote station generating its control signal latest in time connects its received signal to the control station.

2,870,327
ELECTRONIC PROBABILITY CIRCUIT
Walter H. MacWilliams, Jr., Summit, and Robert C. Winans, Chatham, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 3, 1953, Serial No. 340,862
17 Claims. (Cl. 250—27)

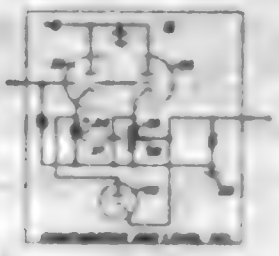
14. An electronic probability circuit comprising means for providing first and second electrical pulses of short duration and random occurrence, a utilization circuit, a gating circuit connected between said random pulse providing means and said utilization circuit, adjustable circuit means for providing a direct current probability voltage, timing circuit means including a capacitor for providing a standard decaying voltage following an initiating signal, means energized by said first pulse to apply

an initiating signal to said timing circuit means, and signal comparison means for changing the state of said



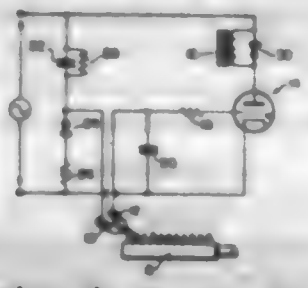
gating circuit when said decaying voltage reaches a predetermined value relative to said probability voltage.

2,870,325
PROPORTIONAL AMPLITUDE DISCRIMINATOR
Richard C. Pomeroy, Quakertown, Pa., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 12, 1953, Serial No. 361,233
1 Claim. (Cl. 250—27)



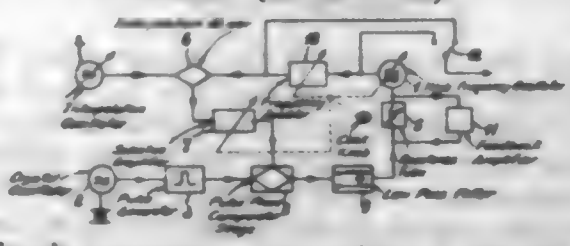
A circuit comprising a pair of triode vacuum tubes, a potentiometer comprising an adjustable contacting arm and a resistive element, the element being shunted by a capacitor, the element and capacitor having an appreciable time constant and being connected between a first cathode and ground, a fixed resistor connecting the second cathode to ground, a second fixed resistor connecting both control electrodes to ground, a diode vacuum tube, the diode anode being connected to the second triode cathode, the diode cathode being connected to the adjustable contacting arm and to an output terminal whereby when a train of pulses is impressed across the second resistor to render the triodes conductive the capacitor will accumulate a charge continuously representative of the average amplitude of a number of the pulses last received and subsequent pulses will produce output pulses only if they exceed that portion of the average corresponding to the potentiometer setting.

2,870,329
FLAME SENSING CIRCUIT
Fred B. Aubert, Wellesley, Mass.
Application March 30, 1956, Serial No. 575,141
3 Claims. (Cl. 250—27)



3. A flame sensing circuit comprising an electronic tube having a plate circuit including means responsive to a plate current and having a control electrode, a condenser connecting with said control electrode for biasing said control electrode at a level permitting conduction of said tube during half cycles of applied alternating voltage when the plate is positive, a control circuit for generating pulses of instantaneous phase and magnitude such that when applied directly to said control electrode conduction of said tube does not occur but the peak values of said pulses being above said level, and a flame sensing circuit connecting said control circuit with said condenser, said flame sensing circuit including means forming a path through a flame having rectifying characteristics whereby through rectification of said pulses said condenser is maintained charged at said level in normal operation.

2,870,330
HIGH FREQUENCY OSCILLATOR CONTROL CIRCUIT ARRANGEMENT
Gaston Salmet, Courbevoie (Seine), France, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 18, 1953, Serial No. 337,592
Claims priority, application France February 21, 1952
6 Claims. (Cl. 250—36)

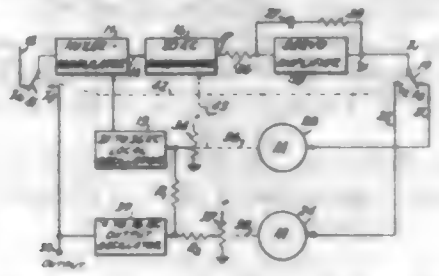


1. A circuit arrangement comprising a high-frequency oscillator which is tunable in coarse frequency steps and in smaller frequency interpolation steps, means for producing stabilizing pulses, an interpolation oscillator, control voltage generating means comprising a first mixing stage, a selective amplifier tunable to a plurality of harmonics of the stabilizing pulse frequency and having an input coupled to the output of said first mixing stage, a second mixing stage being normally in the inoperative condition and having an input coupled to the output of said amplifier, a low-pass filter having an input coupled to the output of said second mixing stage, means for applying the high-frequency voltage from said high-frequency oscillator to an input of said first mixing stage, means for applying the voltage from said interpolation oscillator to another input of said first mixing stage whereby said last-mentioned voltage is mixed with said high-frequency voltage to produce a beat voltage at the output of said first mixing stage, means for applying the stabilizing pulses from said stabilizing pulse producing means to another input of said second mixing stage whereby said second mixing stage is periodically released during the occurrences of said stabilizing pulses, and search voltage generating means comprising frequency controlling means having an output circuit coupled to said high-frequency oscillator and having an input circuit, means for coupling the output of said low-pass filter to the input circuit of said frequency controlling means, and positive feedback producing means coupled from the output circuit to the input circuit of said frequency controlling means whereby the frequency of said high-frequency oscillator is varied throughout a frequency range corresponding to substantially one coarse frequency step, said search voltage generating means being operative only in the absence of stabilization of said high-frequency oscillator.

2,870,331
AUTOMATIC SIGNAL FREQUENCY TRACKER
John W. Gray, Pleasantville, and Earl G. Newsom, Thornwood, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York
Application July 17, 1953, Serial No. 368,792
13 Claims. (Cl. 250—36)

1. An automatic signal frequency tracker comprising, a signal input circuit on which there is adapted to be

impressed a band of signal frequencies variable over a range of frequency, a first adjustable oscillator the frequency of whose signal output depends on the amplitude of potential impressed thereon, a second adjustable oscillator the frequency of whose signal output depends on the potential impressed thereon, a first potentiometer having a potential impressed thereacross and a movable contact connected to impress the potential applied thereto to said first adjustable oscillator, a second potentiometer having a potential impressed thereacross and a movable contact, a potential divider connected between the movable contacts of said first and second potentiometers, means for impressing the potential existing across a portion of said potential divider on said second oscillator



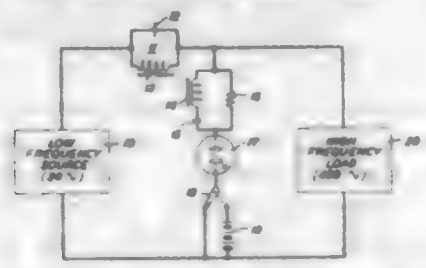
to control the frequency of the output signal thereof, a mixer having the output of said first oscillator impressed thereon, switch means for alternately connecting said mixer to said signal input circuit and to the output of said second oscillator, a fixed frequency discriminator having its input coupled to the output of said mixer producing a control signal when the output of said mixer departs from said fixed frequency, a first motor coupled to position the movable contact of said first potentiometer, a second motor coupled to position the movable contact of said second potentiometer and switch means for alternately imposing said control signal on said first and second motors, said second mentioned switch means being interlocked for simultaneous actuation with said first mentioned switch means.

2,870,332

OSCILLATION GENERATOR

John K. Mills, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 15, 1956, Serial No. 622,471
13 Claims. (Cl. 250—36)



1. In an oscillation generator for producing a signal of a first frequency from a signal of a second frequency substantially less than said first frequency, a source of signals of said second frequency, a tank circuit tuned to said first frequency connected to said source of signals, and a series combination of an inductor, a capacitor and a symmetrical gas discharge tube connected to said tank circuit.

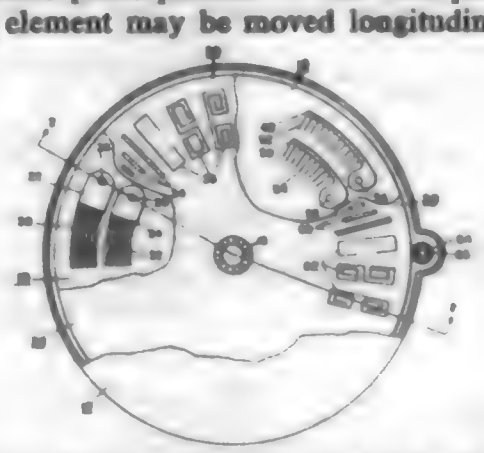
2,870,333

SELECTABLE LONG LINES ON ROTATABLE DISC TUNED BY SHADING ELEMENTS ON ANOTHER DISC

Matthew W. Slate, New York, N. Y., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

Application December 24, 1954, Serial No. 477,521
2 Claims. (Cl. 250—40)

1. In a high frequency tuning device, a transmission line comprising a pair of conductors supported in juxtaposition in a plane, each conductor having a solid portion and a plurality of integral, fine conductors closely spaced extending angularly therefrom in said plane, and a relatively movable conductive shading element unit lying in another plane parallel to said first plane so that the shading element may be moved longitudinally above



said transmission line conductors, said shading element unit comprising a plurality of capacitive and inductive elements, said inductive elements including portions wound in the same direction and portions wound in the opposite direction.

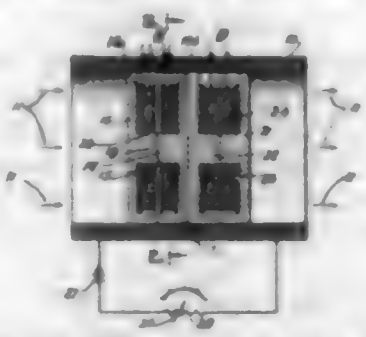
2,870,334

PLURAL SECTION MAGNETICALLY VARIABLE INDUCTOR WITH FREQUENCY TRACKED SYSTEMS

George B. Crofts, La Verne, Calif.

Original application January 13, 1956, Serial No. 558,978, now Patent No. 2,786,940, dated March 26, 1957. Divided and this application December 6, 1956, Serial No. 626,654

5 Claims. (Cl. 250—40)



1. An adjustable inductance device of the kind having a plurality of saturatable core reactor units arranged to have their inductance varied simultaneously by variation of a magnetic field passing therethrough characterized in that each unit is provided with at least one high frequency winding for connection to a corresponding high frequency circuit, and with each winding substantially completely enclosed within a respective magnetic casing of high frequency iron whereby the windings of said units are substantially shielded from each other with respect to interaction between their respective electromagnetic fields, means including a single magnetizing winding surrounding all said units and of non-uniform magnetizing power to subject said units to respectively different steady magnetic field intensities and thereby to track in a predetermined relation the inductance variations of said units over a predetermined frequency band, and means to adjust said steady field intensities simultaneously so as to vary simultaneously the inductance of all said units while preserving said tracked relation.

2,870,335

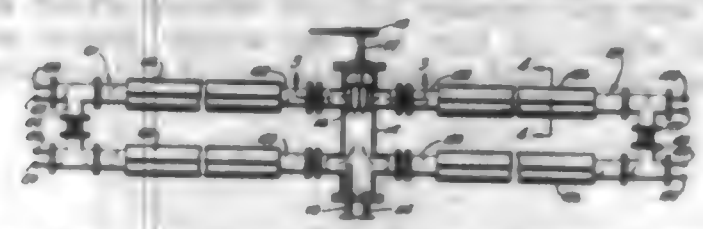
APPARATUS FOR PHOTOCHEMICAL CHLORINATION REACTIONS

Harold M. Pitt, Torrance, Calif., assignor to Stauffer Chemical Company, a corporation of Delaware

Application September 11, 1956, Serial No. 609,295
2 Claims. (Cl. 250—43)

1. A reactor consisting essentially of a pair of substantially parallel elongated transparent tubes, cooling

means extending longitudinally within each tube, actinic light sources cooperatively adjacent the outer surface of said tubes, a third tube connecting said pair of tubes at one end thereof, a fourth tube connecting said pair of tubes at their other end, a multi-vane centrifugal pump rotor in said fourth tube for circulating liquid through one of said



pair of tubes and then through said third tube and then through the other of said pair of tubes and back to said fourth tube, means for introducing a make-up stream of reactants into the circulating liquid issuing from said other tube into the fourth tube, and means for withdrawing a stream of the liquid as a product carrying stream from the end of the fourth tube.

2,870,336

METHOD OF AND APPARATUS FOR GAUGING THE DIMENSIONS OF OBJECTS OF IRREGULAR CONTOUR

Henry F. Fountain, Madison, and William L. Tancred, Wethersfield, Conn., assignors to Sturrup, Incorporated, Middletown, Conn., a corporation of Connecticut

Application February 17, 1955, Serial No. 488,866
17 Claims. (Cl. 250—53)



1. An apparatus for gauging the dimensions of an object of irregular contour comprising, a source of penetrating radiations, means for directing a beam of said radiations in a predetermined path, a detector located in the path of said beam, means for supporting an object formed with a portion having irregularly varying dimensions at different points measured in the same direction for the passage of the beam therethrough in said direction in the gauging of said dimensions, and a monitor supported in the path of said beam for the passage of the beam therethrough simultaneously with its passage through the object and having a portion located in a predetermined opposed position with relation to said object in the direction of the line of the beam the dimensions of which, at different points, measured in the direction of the line of the beam, varying in inverse relation to the dimensions of said portion of the object under test at corresponding opposed points and, the dimension of which portion at each point therein in the direction of the line of the beam added to the dimension of the object at each opposed point in said direction is always equal to a constant sum if the object is a perfect object.

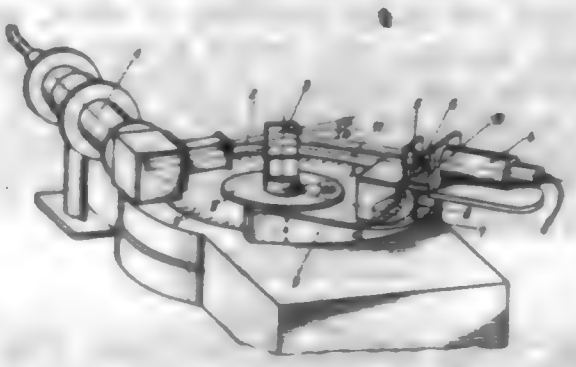
2,870,337

X-RAY DIFFRACTION SYSTEM

Hans Neff, Erlangen, Germany, assignor to Siemens-Reiniger-Werke Aktiengesellschaft, Erlangen, Germany, a corporation of Germany

Application April 8, 1955, Serial No. 500,051
Claims priority, application Germany April 9, 1954
5 Claims. (Cl. 250—53)

1. In apparatus serving for the diffraction of X-rays on specimen and for taking the diffraction spectrum thereof and comprising a source of X-rays, a rotatable base for a specimen, means for measuring the intensity of the X-rays emitted from the source of X-rays and diffracted by the specimen, a second rotatable base for the measuring means, said second rotatable base being coaxial with the first rotatable base and being adapted to be turned through twice the angle by which the specimen is turned during the taking of the diffraction spectrum; a diaphragm with variable aperture for regulating the in-



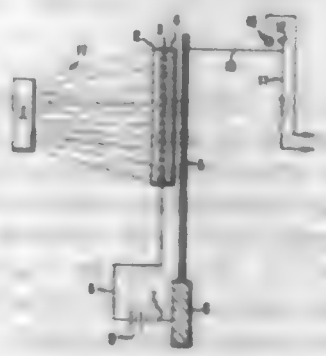
tensity of the X-rays diffracted through the specimen and impinging upon the measuring means, cam means, and means for adjusting the aperture of the diaphragm by said cam means in dependence upon the angle through which the second rotatable base is turned, in such a way that variations of the diffraction intensity due to factors varying with the diffraction angle are compensated, if the second rotatable base has been turned through twice the angle through which the first rotatable base has been turned.

2,870,338

PHOTODIELECTRIC DEVICE AND PROCESS

Joseph L. Gillson, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application July 26, 1956, Serial No. 600,285
14 Claims. (Cl. 250—83.3)



1. Apparatus for converting the energy of incident electromagnetic radiation of a wave-length of less than about 7,700 A. to mechanical energy which comprises: a first, fixed, electrically-conductive member; a second, at least partially movable, electrically-conductive member, the second and first members isolated from each other to prevent the passage of current therebetween; a dielectric positioned between said first and second members accessible to said incident electromagnetic radiation, the dielectric possessing a dielectric constant variable with changes in the electromagnetic radiation; and means for impressing an electrical potential between said first and second members; the second member moving when (1) an electrical potential is impressed between it and the first member and (2) change occurs in the incident electromagnetic radiation, thereby converting energy of the incident radiation to mechanical energy.

2,870,339

FABRICATION OF NEUTRON SOURCES

John H. Birden, Dayton, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 11, 1956
Serial No. 558,597
4 Claims. (Cl. 250—84.5)

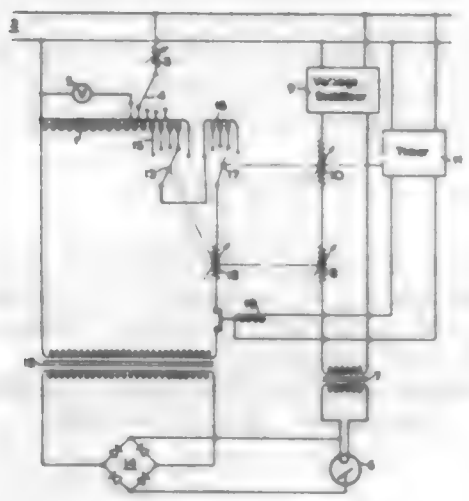
1. A method for preparing a source of neutrons comprising the steps of inserting in a container a quantity of polonium-210, coating boron powder with a material chosen from the group consisting of silver, platinum, and nickel, inserting said coated powder in said container, sealing said container to prevent escape of the enclosed material, and heating said container to a temperature above substantially 450° C. for a selected time interval to effect chemical combination of said polonium with said coating material.

2,870,340

X-RAY TUBE VOLTAGE CONTROL CIRCUIT

Jacobus Fransen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 2, 1955, Serial No. 544,514
Claims priority, application Netherlands November 3, 1954
5 Claims. (Cl. 250—103)



1. An X-ray tube voltage control circuit, compriting an X-ray tube having an anode and a cathode, a source of power supply, transformer means having a variable transformation ratio and being coupled between said supply source and said anode and cathode of said tube, a selective member for varying the transformation ratio of said transformer means, variable impedance means having an impedance regulating member, said impedance means being interposed in the supply circuit of the anode between said supply source and said tube, and means for coupling said regulating member to said selective member, said impedance means at a first given position of said selector and regulating member having a value rendering the total voltage drop resulting from the load on the X-ray tube equal to that occurring at a second given position of said selector and regulating member.

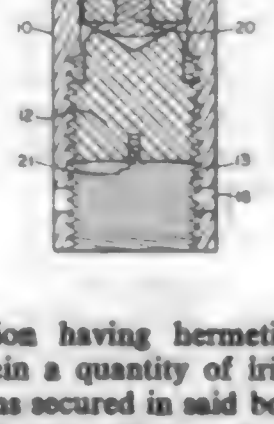
2,870,341

RADIOGRAPHY SOURCE

John C. Pennock, Marblehead, Mass., assignor to Tracerlab, Inc., Boston, Mass., a corporation of Massachusetts

Application November 13, 1953, Serial No. 391,980
1 Claim. (Cl. 250—106)

A radiography source comprising a cylindrical capsule container formed of magnetic material having a bore of one diameter extending from one end for a portion of the length of the container and an opening of smaller diameter than said bore coaxial with said bore extending for the remaining portion of the length of said container, a generally cylindrical capsule formed of aluminum having an enlarged portion of substantially the diameter of said bore and a straight portion of a diameter substantially the diameter of said opening assembled with said container with said enlarged portion disposed within said bore and said straight portion projecting through said opening exteriorly of said container,



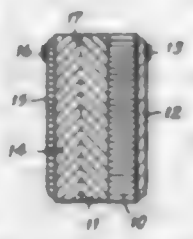
said straight portion having hermetically and permanently sealed therein a quantity of iridium, and removable retaining means secured in said bore in contact with said enlarged portion of said capsule separably securing said capsule and container together whereby said capsule may be removed from said container and subjected to neutron bombardment to render the therein enclosed iridium radioactive while the aluminum remains safely non-radioactive.

2,870,342

DEVICES FOR AMPLIFYING OR CONVERTING RADIATION

Cyril Hubert Walker, Rugby, and Maurice George Clarke, Church Lawford, near Rugby, England, assignors to The British Thomson-Houston Company Limited, London, England, a British company

Application May 21, 1956, Serial No. 586,122
Claims priority, application Great Britain May 26, 1955
1 Claim. (Cl. 250—213)



A radiation-converting device comprising a sheet of insulating material of high specific inductive capacity selected from the group consisting of poly-crystalline barium titanate and titanium dioxide, a first layer located on one face of said sheet consisting of a powdered material capable of producing in response to radiation of a range of wave lengths incident upon it a change in electric conductivity when said material is subjected to a varying electric stress, said powdered material being dispersed in a low melting point glass, a first conducting electrode located on the face of said first layer remote from said sheet, said electrode being transmissible of a radiation to be incident upon said first layer, a second layer on the other face of said sheet consisting of a powdered material capable of emitting visible radiation in response to a change in electric stress to which it is subjected, said last-mentioned powdered material being dispersed in a low melting point glass, and a second electrode capable of transmitting visible radiations located adjacent to said second layer.

2,870,343
RADIATION COMPARISON SYSTEMS
Marcel J. E. Golay, Rumson, N. J., assignor to The Perkin-Elmer Corporation, Norwalk, Conn., a corporation of New York
Application November 12, 1954, Serial No. 468,388
7 Claims. (Cl. 250—220)



1. A radiation comparison system comprising means for generating two beams of radiation, means for alternately directing said beams on a common path, means for periodically blocking said common path, one of said two last-named means being operative at the frequency "3*f*" for equal cyclic alternations and the other of said means being operative at the frequency "2*f*," but for unequal cyclic alternations having a ratio of two to one, radiation-sensitive means positioned to receive said beams for producing a signal as a function of the instantaneous intensity thereof, and a demodulator arranged to receive said radiation intensity signal and adapted to produce a signal commensurate with the "*f*" frequency component of its input, whereby the output of said demodulator is an optimal measure of the difference between the radiation intensity of said two beams.

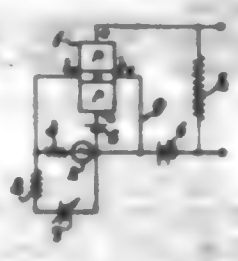
2,870,344
SEMICONDUCTOR DEVICES
Walter H. Brattain, Chatham, and Charles G. B. Garrett, Morristown, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 16, 1953, Serial No. 386,580
21 Claims. (Cl. 307—885)



1. A signal translating device comprising a body of semiconductive material selected from the groups consisting of germanium and silicon, a substantially ohmic connection to said body, a rectifying connection to said body, and means comprising said body, an electrolyte and an electrode in said electrolyte defining a primary cell, said electrolyte defining a rectifying junction with said body.

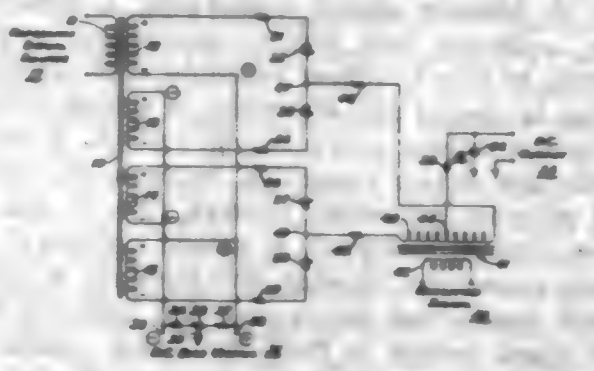
2,870,345
AMPLIFICATION CONTROL OF A TRANSISTOR
Adrianus Johannes Wilhelmus Marie van Overbeek, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application January 3, 1955, Serial No. 479,586
Claims priority, application Netherlands February 2, 1954
8 Claims. (Cl. 307—88.5)

1. A circuit arrangement comprising a transistor having a conductivity zone, an emitter electrode, a collector electrode and a plurality of base electrodes in contact with said zone, means for applying an input signal voltage between said emitter electrode and one of said base electrodes, means for connecting another of said base electrodes to said emitter electrode, said connecting means having a low impedance at signal frequencies, a source of control voltage, means for connecting said source of control voltage to said base electrodes whereby a part of said zone is biased in the forward direction with respect to said emitter electrode and the amplification



factor of said transistor is controlled by shifting said part of said zone from one base electrode to another base electrode thereby varying the signal amplitude operative in said part, and means for deriving an output voltage from said collector electrode.

2,870,346
PULSE STRETCHING PHASE DETECTOR
Warren Orvel Ender, Brookings, S. Dak., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application June 11, 1956, Serial No. 590,675
2 Claims. (Cl. 307—88.5)

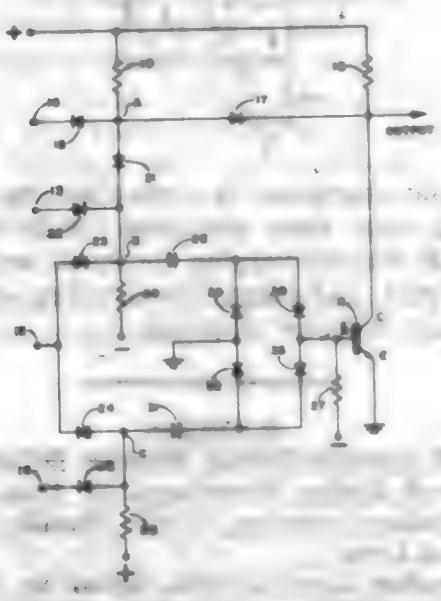


1. A phase comparator that has a high output impedance when no input signals are received, comprising a reference voltage transformer, and a signal transformer, said reference voltage transformer having a primary, and first, second, third, and fourth substantially identical secondaries, each secondary having a positive end and a negative end induced at one instant, a first pair of equal-valued resistors with one having an end connected to the positive end of the first secondary and the other having an end connected to the negative end of the second secondary, a pair of diodes connected in series with the same polarity between the other ends of said first pair of resistors, a second pair of equal-valued resistors with one having an end connected to the positive end of the third secondary and the other having an end connected to the negative end of the fourth secondary, a second pair of diodes connected in series with the same polarity between the other ends of said second pair of resistors, with said second pair of diodes connected oppositely from said first pair of diodes with respect to the instantaneous polarities of said secondaries, a direct-current biasing source with a positive potential side and a negative potential side, said negative side being connected to said positive end of said second secondary and said negative end of said third secondary, and said positive side being connected to said negative end of the first secondary and said positive end of the fourth secondary, so that said diodes are normally biased below cutoff, said signal transformer having a center-tapped secondary, another resistor connected at one end to a point between said first pair of diodes and connected at its other end to one side of said center-tapped secondary, a further resistor connected at one end to the opposite side of said center-tapped secondary and connected at its other end to a point between said second pair of diodes, and an integrating circuit connected serially to the center tap to provide the output of said phase comparator.

2,870,347
BISTABLE TRANSISTOR CIRCUIT

Alan Kimble Jensen, Kenvil, N. J., assignor to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware

Application September 24, 1956, Serial No. 611,689
2 Claims. (Cl. 307—88.5)



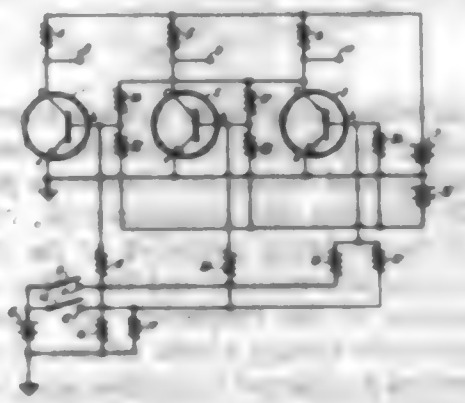
1. A bistable circuit comprising a transistor having base, collector and emitter electrodes, a plurality of sources of direct current potential each respectively connected to one of said electrodes, a voltage divider including a first resistor and a second resistor, a first unilateral conducting device connected between said first and second resistors connected between two of said sources of direct current potential, a second unilateral conducting device connected between one terminal of said first unilateral conducting device and said collector electrode, a first signal source, a third unilateral conducting device connected between said one terminal of said first unilateral conducting device and said first signal source, a source of repetitive pulses, a fourth unilateral conducting device connected between said source of repetitive pulses and the other terminal of said first unilateral conducting device, a condenser having one terminal connected to the other terminal of said first unilateral conducting device, a fifth unilateral conducting device connected between the other terminal of said condenser and said base electrode, a sixth unilateral conducting device connected between the other terminal of said condenser and a third one of said sources of direct current potential, a second signal source and a seventh unilateral conducting device connected between the other terminal of said first unilateral conducting device and said second signal source whereby signals from one of said signal sources set said transistor to a continuous conductive state and signals from the other of said signal sources set said transistor to a non-conductive state.

2,870,348
SYSTEM FOR SELECTIVELY ENERGIZING ONE OF THREE CIRCUITS RESPONSIVE TO VARIATION OF TWO CONDITIONS

Shih C. Chao, Palo Alto, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application December 16, 1957, Serial No. 702,842
5 Claims. (Cl. 307—88.5)

1. Logical apparatus comprising first, second, and third variable-conductivity electrical devices each having two principal terminals and a third terminal for controlling the conductivity between said principal terminals, a source of operating voltage for said devices, three resistors each connected in series with a principal terminal of a respective one of said devices, thereby forming three branch circuits each including one of said resistors and the two principal terminals of one of said devices, means connecting said three branch circuits in parallel across said source of operating voltage, first and second input terminals for receiving electric signals, coupling means for transmitting electric signals from said first input terminal to the third terminals of said first and third devices and for transmitting electric signals from said second input terminal to the third terminals of said second and third devices, means biasing said first device to be nonconductive in the absence of a received signal at said first input terminal, means biasing said second device to be nonconductive in the absence of a received signal at

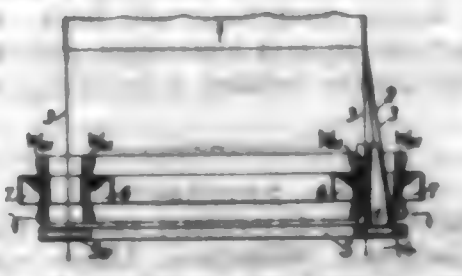


said second input terminal, means biasing said third device to be nonconductive in the absence of received signals at both of said input terminals simultaneously, and feedback means rendering both of said first and second devices nonconductive when said third device is conductive, whereby only said first device becomes conductive responsive to a signal received only at said first input terminal, only said second device becomes conductive responsive to a signal received only at said second input terminal, and only said third device becomes conductive responsive to signals received simultaneously at both of said input terminals.

2,870,349
ELECTROMAGNETIC DRIVE FOR BODIES TO BE MOVED IN PREGIVEN PATHS, ESPECIALLY SHUTTLES OF CIRCULAR LOOMS

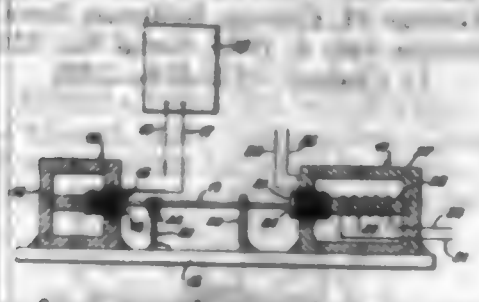
Heinz Rosenberg and Heinrich Deschmann, Vienna, Austria, assignors to Österreichische Textilmaschinenfabrik G. Josephy's Erben, Huttengelände, Linz (Danube), Upper Austria, Austria, a corporation of Austria

Application January 17, 1955, Serial No. 482,328
Claims priority, application Austria January 19, 1954
17 Claims. (Cl. 310—13)



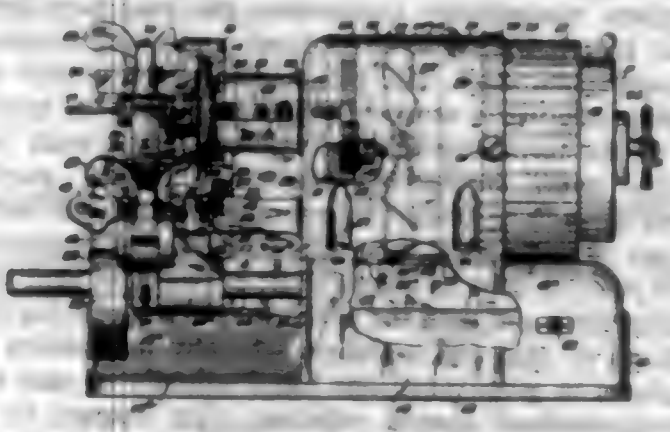
1. An electromagnetic synchronous drive for moving at least one body having at least one current path at a predetermined speed along a predetermined path, characterized by primary means comprising at least one ferromagnetic part and operable to produce at least two elementary magnetic travelling fields having predetermined velocities and adapted to induce in at least one current path of each of said bodies at least two currents the amounts of the frequencies of which are related to the actual speed of said body and are equal to one another when said body is moving at said predetermined speed.

2,870,350
SIGNAL CONVERTOR
Robert W. Olsen, Dallas, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
Application April 10, 1953, Serial No. 347,893
4 Claims. (Cl. 310—27)



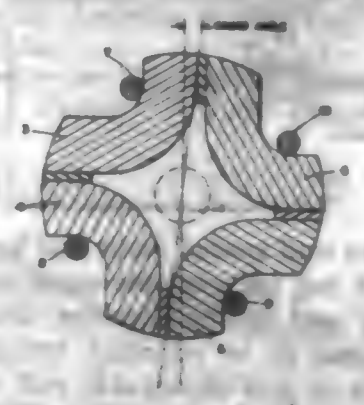
1. A device for converting small direct current signals into corresponding alternating current signals that comprises a cylindrical conductor coil, means to reciprocate said conductor coil in an axial direction, at a constant rate and at a constant amplitude, means forming a low hysteresis flux path into one end of said cylindrical coil, and outward through said cylindrical coil, and returning to the point of origin, and means to apply said small direct current signals to create flux in said path.

2,870,351
COMBINED MACHINE FRAME AND MOTOR MOUNTING
David W. Orchard, Willoughby, Ohio, assignor to The National Key Company, Cleveland, Ohio, a corporation of Ohio
Original application June 11, 1954, Serial No. 435,968, now Patent No. 2,809,566, dated October 15, 1957. Divided and this application July 12, 1957, Serial No. 671,592
2 Claims. (Cl. 310—59)



1. In a combined machine frame and motor mounting, a frame having walls and provided with a base adapted to rest on a support, said frame being hollow so as to have a passage therein for a flow of cooling air therethrough, said frame having an opening in a wall thereof for connecting one end of said passage with atmosphere, socket means on said frame in communication with said passage at another point of the latter, a work shaft rotatably mounted on said frame and having a power input end extending into said passage, an electric motor having a housing and an armature shaft and being mounted on said frame by engagement of one end of said housing in said socket means, the other end of said housing extending from said socket means in a projecting relation thereto, gear means located in said passage and drivingly connecting said armature shaft with the power input end of said work shaft, and air impelling means driven by said motor and located in said passage and within said frame for causing the flow of air therethrough, cooperating portions of said motor housing and socket means forming another atmosphere connection for said passage such that the air traversing said passage is directed in heat-exchange relation to said motor, said housing having axial passages in the peripheral portion thereof and disposed in an annular group extending around and along the housing for forming said other atmosphere connection, the ends of said axial passages at one end of said annular group being in communication with said passage of said frame and the ends of said axial passages at the other end of said annular group being open to atmosphere.

2,870,352
MOTOR FOR ELECTRIC MOTOR
Jacob V. Williford, Costa Mesa, Calif.
Application August 3, 1956, Serial No. 601,868
10 Claims. (Cl. 310—162)



1. A synchronous motor rotor having a shaft and four salient poles, each pole comprising a pair of substantially thick spaced magnetic plates arranged generally parallel to the rotor axis, the plate on one side of each pole being magnetically integrally connected to an adjacent plate on an adjacent pole by a substantially arcuate plate having its concave surface facing outwardly, a squirrel cage winding on the rotor comprising a pair of axially spaced disks of electrically conductive material on the shaft and connected together by groups of conductor bars, said groups of bars being located one group in each concavity of the outwardly facing arcuate plates, each said group of bars being disposed nearer one respective adjacent pole than the other respective adjacent pole.

2,870,353
HIGH ALTITUDE BRUSH
Eric I. Shobert II, St. Marys, Pa., assignor to Stackpole Carbon Company, St. Marys, Pa., a corporation of Pennsylvania
Application April 9, 1956, Serial No. 577,136
4 Claims. (Cl. 310—228)

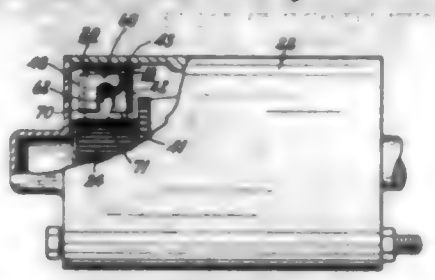


1. A dynamoelectric brush having at one end a contact face adapted to engage a rotating current-collecting ring, the brush comprising a carbon body provided with a plurality of substantially parallel openings extending from said face toward the opposite end of the brush, and an adjuvant filling the openings, said openings being spaced apart in a direction across the width of the brush and being inclined in that direction; whereby, as the brush wears away, the areas of contact of said adjuvant with the current collecting ring will move across the ring.

2,870,354
DYNAMO ELECTRIC MACHINE
John E. Antonidis, Anderson, Merrill E. Dray, Marion, and Robert A. Ulm, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 2, 1956, Serial No. 575,631
6 Claims. (Cl. 310—247)

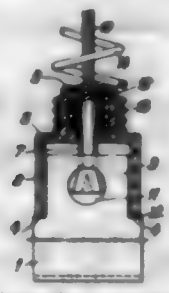
1. A brush holder for holding a brush in contact with a commutator in a dynamoelectric machine having a tubular frame, comprising; an L-shaped member having

a flat wall and an arcuately curved wall portion at right angles to the flat wall, a strip member having a pair of spaced walls, a curved web interconnecting the spaced walls and a pair of flanges oppositely extending from said spaced walls secured to said flat wall so one edge of said strip member is juxtaposed to the curved portion of said L-shaped member, a raised portion in said curved wall extending centrally between the spaced walls, a pair of slots in each of said spaced walls, extending in said spaced walls from an open end to a closed end adjacent the curved portion of said L-shaped member, a spring



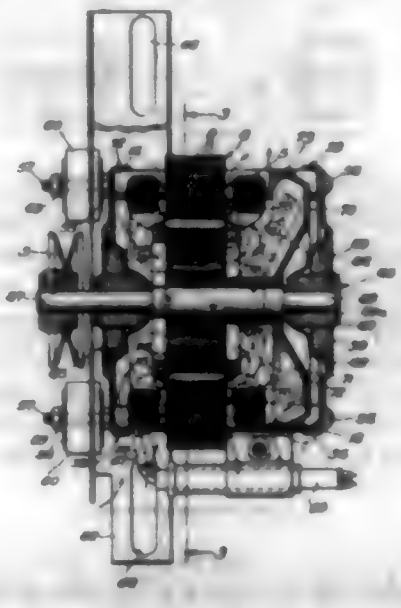
disposed between said spaced walls and positioned by said raised portion, a lug adjacent the open ends of said slots for maintaining said spring between said spaced walls, and a brush sized to be received between said spaced walls and having an end engageable with said spring, said brush having a portion thereof comprising a quantity of fine metallic strands promiscuously disposed throughout said brush with the strands being oriented substantially parallel with the brush's major axis, and a pigtail welded to the end of said brush that is in engagement with said spring.

2,870,355
ELECTRICAL BRUSH ARRANGEMENT
Fritz Rohrbach, Oberursel (Taunus), Germany, assignor to Vorwerk & Co., Wuppertal-Barmen, Germany
Application June 26, 1956, Serial No. 594,053
Claims priority, application Germany June 29, 1955
10 Claims. (Cl. 310—247)



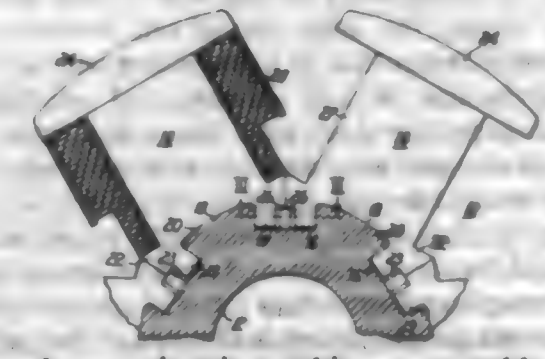
1. In an electrical brush arrangement for use with a rotating commutator or the like, in combination, an electrically insulated holding member having an abutment portion and a recessed portion; elongated brush means movably mounted on said abutment portion of said insulated holding member and having a first free end portion adapted to contact the rotating commutator and a second free end portion spaced from said recessed portion of said holding member and shoulder means between said end portions, said abutment portion of said holding member being normally spaced from said first free end portion of said brush means and engaging said shoulder means; a first spring engaging said holding member for normally urging said holding member and said brush means towards the rotating commutator so that said first free end portion of said brush contacts the rotating commutator and said abutment portion of said holding member is spaced therefrom whereby said abutment portion of said insulated holding member is urged into contact with the rotating commutator when said first free end portion of said brush means is worn away by the action of the commutator; and a second spring connecting said brush means with said holding member for normally urging said brush means away from the commutator and said second free end portion thereof towards said recessed portion of said holding member so that said brush means is moved by said second spring away from the commutator and into said recessed portion when said first free end portion and said shoulder means are worn off and the abutment portion of the holding member contacts the commutator.

2,870,356
ELECTRIC MOTOR STRUCTURE
George M. Gibson, Bellevue, Iowa
Application July 8, 1955, Serial No. 520,792
11 Claims. (Cl. 310—258)



1. An electric motor comprising, in combination, a stator stack having an armature core therethrough, and end plates to flank said stack and including armature shaft bearings, an armature shaft rotatably carried in said bearings, an armature mounted upon said shaft, an air circulating fan carried by said shaft in a predetermined spaced relation with respect to said armature, and cooperative positioning means carried by said stator stack and said end plates respectively comprising pin members having similar external peripheral contours and being connected with said stator stack, said pin members having their ends extending oppositely outwardly with respect to the opposite sides of the stack respectively, said end plates each being provided with outwardly projecting curved portions formed thereon to bodily engage given peripheral surface portions of said pins at each side of the stator respectively and to position said armature shaft centrally of said stator armature core and with the plates in contact with the outer end faces of said pin members whereby to position said end plates in given positions longitudinally of said shaft in predetermined spaced relations with respect to said armature and fan units, with at least one of said end plates providing baffle means adjacent said stator for directing fan circulated air into given channels for cooling said motor structure.

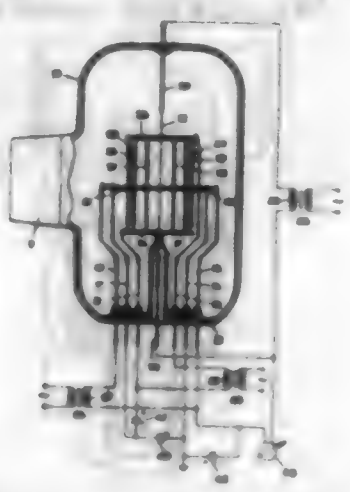
2,870,357
DYNAMOELECTRIC MACHINE
Howard L. Vandenberg, Cincinnati, Ohio, and Peter M. Karsten, Boston, Mass., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application November 30, 1955, Serial No. 550,884
8 Claims. (Cl. 310—269)



1. In a dynamoelectric machine, a rotatable core having a plurality of circumferentially spaced longitudinally

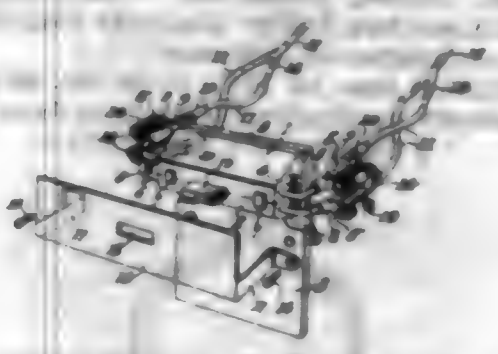
extending dovetail projections, adjacent projections defining therebetween slots having substantially parallel sides, poles mounted on said projections, the inner portion of said poles having radially extending members spaced apart to define therebetween a dovetail slot for receiving said dovetail projection to mount said poles on said core.

2,870,358
IONIZATION MANOMETER
Hasso Moesta, Koln-Weidenpesch, Germany
Application December 26, 1957, Serial No. 705,406
Claims priority, application Germany December 31, 1956
5 Claims. (Cl. 313—7)



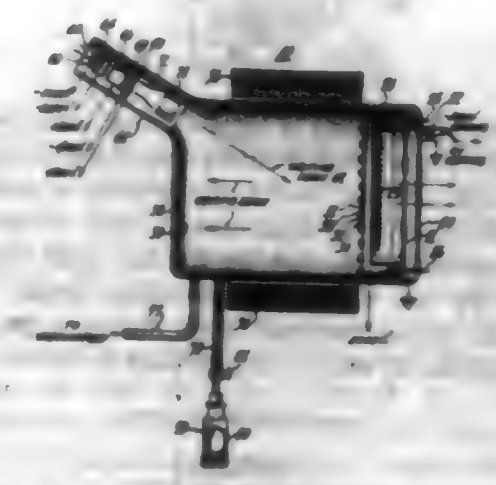
1. An ionization manometer comprising a rectilinear wire as a collector electrode, a cylindrical grid which is arranged concentrically to the collector electrode and which is built up from a plurality of wires which extend between two rings along generatrices of the grid cylinder, a circular wire cathode outside the grid cylinder and concentric thereto, and a screen electrode outside the cathode and concentric thereto.

2,870,359
FLASHBACK SHIELD
Stanley M. Segal, Springfield, Va.
Application January 31, 1957, Serial No. 637,582
1 Claim. (Cl. 313—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



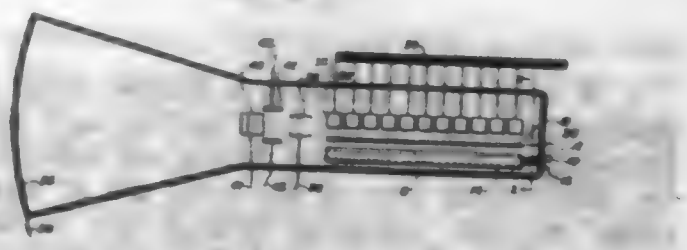
In a carbon electrode device including a source of electrical energy, positive and negative electrodes, a fluid-cooled head supporting the positive electrode with the electrode protruding from the forward wall of the head, tube means for conducting circulating cooling fluid and electrical energy to the fluid-cooled head and the positive electrode, terminal means attached to the tube means for the introduction of electrical energy from the source and support means for the fluid-cooled head, the improvement comprising a relatively planar shield located between the negative electrode and the fluid-cooled head proximate and substantially parallel to but spaced from the forward wall of the head, the shield being of electrically conducting sheet material having an opening of the same configuration but slightly larger than the positive electrode and disposed relative to the positive electrode with that electrode extending through but spaced from the shield, the shield being dimensioned to extend beyond the bounding edges of the head and having connecting means connected to the terminal means for supporting the shield on the head and for the introduction of electrical energy to the shield in parallel with the positive electrode whereby electrical energy flowing from said negative electrode toward the positive electrode will impinge only on the positive electrode or the shield.

2,870,360
ELECTRON STORAGE DEVICE
Max Knoll, Princeton, N. J., and Paul Rudnick, Fort Wayne, Ind., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application January 15, 1954, Serial No. 404,332
6 Claims. (Cl. 313—68)



1. An electron storage device comprising an electron gun for producing a beam of electrons along a path, an electrically conductive target electrode mounted transversely of said path, a layer of insulating material on said target electrode, and a polymerized film formed on the said layer of insulating material.

2,870,361
ELECTRONIC DEVICE
William R. Aiken, Los Altos, Calif., assignor, by mesne assignments, to Kaiser Industries Corporation, a corporation of Nevada
Application October 27, 1955, Serial No. 543,682
18 Claims. (Cl. 313—77)



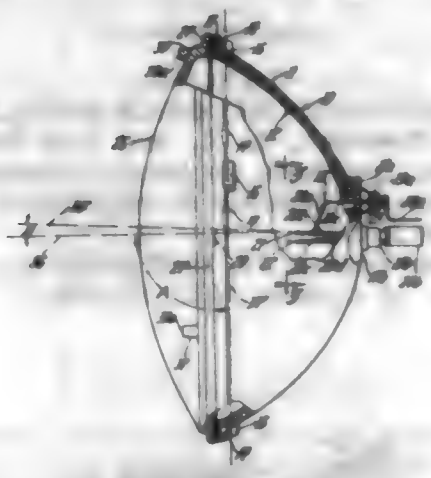
3. An electron discharge device comprising a target, an electron emitter source means for emitting a sheet beam of electrons along a path in a direction which is substantially parallel to said target, a beam shaping member extending substantially coextensively with said source means and disposed in the path of said beam whereby the electrons directed therethrough are formed into a series of shaped electron streams, a plurality of deflection members, each deflection member being preassigned for use in selecting an associated different one of the shaped streams, and means for energizing said deflection members selectively to effect deflection of the corresponding ones of said streams from said path and into registration with said target.

2,870,362

PRE-AIMED LIGHT PROJECTOR

Charles F. Arnold and Edward N. Cole, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 15, 1955, Serial No. 515,684
11 Claims. (Cl. 313—113)



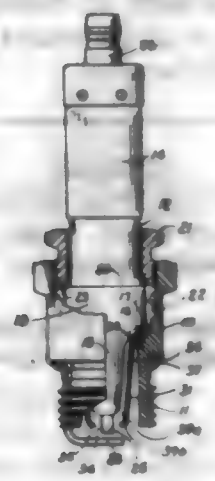
1. A lamp comprising a light source, and optical means adjacent the source for transmitting light rays emanating from the light source, said lamp having a desired optical axis coinciding with a mechanical axis of the lamp and an actual optical axis, defined by the light rays displaced therefrom by an unknown deviation angle, and direction defining means on said lamp having a predetermined angular relation to said actual optical axis.

2,870,363

SPARK PLUG

Albin Anderson, Rockford, Ill.

Application August 11, 1955, Serial No. 527,754
4 Claims. (Cl. 313—143)



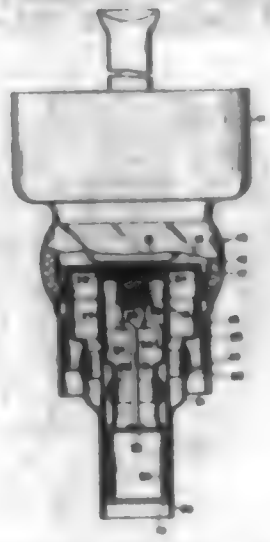
1. A spark plug including a hollow metal body, an insulator mounted in said body and having a tip portion extending in spaced relation thereto and defining a chamber therebetween open at the lower end of said body, a center electrode extending through said insulator and projecting below the lower end of the tip portion, a second electrode on said body defining a spark gap with the center electrode, a tubular baffle member mounted in said body inwardly of the lower end thereof and extending downwardly in said chamber in spaced relation to the insulator tip and to the plug body and terminating at its lower end at a point between the lower end of the insulator tip and the spark gap, the lower end of said tubular member extending into closely spaced adjacency to said center electrode defining a restricted opening therebetween sufficient to prevent arcing between the center electrode and the baffle member, said baffle member having a plurality of annularly spaced apertures therein spaced above the lower end of said insulator, said baffle member extending in spaced relation to said body between the lower end thereof and said apertures and defining a flow passage therebetween which is large as compared to said restricted opening to permit the flow of combustible gas upwardly between the baffle and the plug body.

2,870,364

ELECTRON DISCHARGE DEVICE

Howard D. Doolittle, Stamford, Eugene J. Nalll, New Canaan, and Behram H. Wadia, Darien, Conn., assignors to Machlett Laboratories, Incorporated, Springdale, Conn., a corporation of Connecticut

Application November 21, 1955, Serial No. 548,172
3 Claims. (Cl. 313—178)



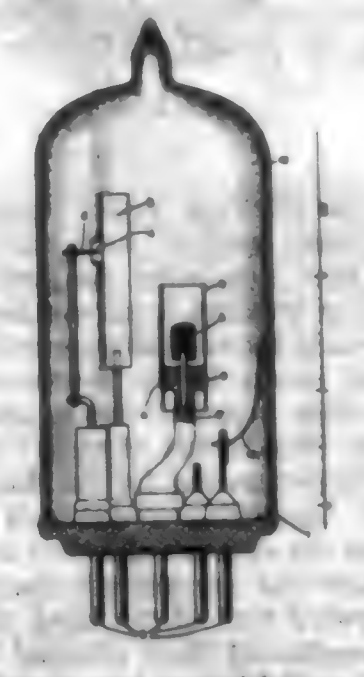
1. A cathode structure for electron tubes, said structure comprising a disclike emitter formed entirely of a selected electron emissive material, supporting means for the emitter comprising a tubular conductive member having one end connected directly to the peripheral portion of the emitter, the conductive member being in part a getter material which is characterized by its tendency to alloy with material of the type selected for the emitter at tube operating temperatures and which is itself operable to getter gases at relatively high temperatures, said getter material being located out of bodily engagement with the emitter to prevent alloying therewith.

2,870,365

GLOW-DISCHARGE TUBE

Simon Mari Froews, Eindhoven, Netherlands, assignor to North American Philips Company Inc., New York, N. Y., a corporation of Delaware

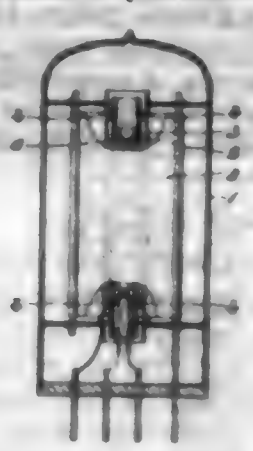
Application June 10, 1957, Serial No. 664,750
Claims priority, application Netherlands June 22, 1956
2 Claims. (Cl. 313—197)



1. A glow-discharge tube comprising an envelope filled with an ionizable gaseous medium, an anode electrode, a plate-like cathode electrode having an aperture therein and an outwardly extending flange-like rim surrounding

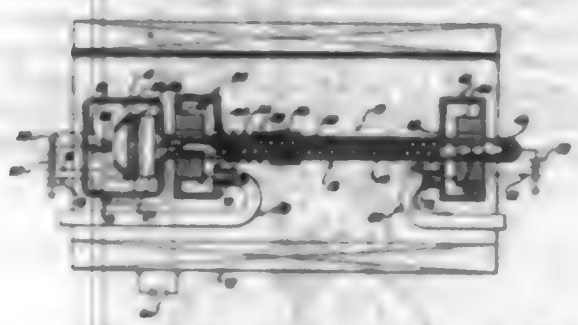
said aperture on the side of the cathode remote from the anode, and an auxiliary electrode extending into the aperture in the cathode through said rim-like flange.

2,870,366
ELECTRIC DISCHARGE TUBE OF THE KIND COMPRISING A CATHODE OF THE INDIRECTLY HEATED TYPE
Hendrikus Johannes Marie van Tol, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application October 1, 1952, Serial No. 312,592
Claims priority, application Netherlands October 13, 1951
2 Claims. (Cl. 313—337)



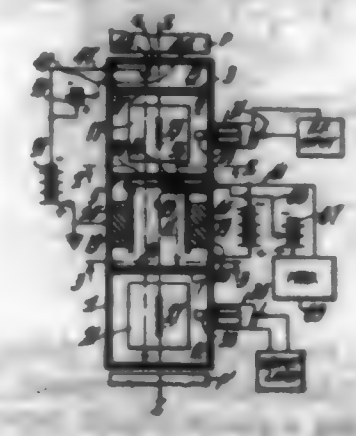
1. An electric discharge device comprising an indirectly heated cathode assembly capable of withstanding high voltages, said cathode assembly comprising a heating filament, an electrically insulating cylinder enclosing and supporting said filament at at least one point, and an activated cathode sleeve enclosing said cylinder and substantially spaced therefrom, said cathode sleeve having re-entrant portions in engagement with said cylinder only at points at which the filament is spaced from said cylinder for supporting said cathode sleeve.

2,870,367
LOW-NOISE MICROWAVE TUBE
Thomas E. Everhart, Santa Monica, and Charles K. Birdsall, Menlo Park, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application August 1, 1955, Serial No. 525,663
8 Claims. (Cl. 315—3.6)



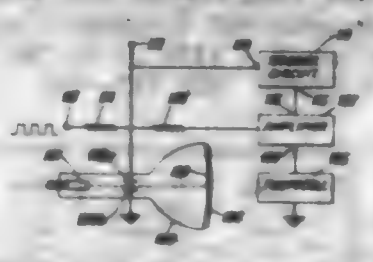
3. In a traveling-wave tube having a principal slow-wave structure and an electron gun for projecting an electron stream through the principal slow-wave structure, an auxiliary slow-wave structure disposed about the stream between the principal slow-wave structure and the electron gun immediately adjacent to the principal slow-wave structure to be electromagnetically coupled thereto and being of such a length relative to that of the principal slow-wave structure that the two slow-wave structures electromagnetically constitute one slow-wave structure with a direct-current discontinuity between the two slow-wave structures, means for reflecting undesired electromagnetic noise wave energy towards the electron gun from the end of said auxiliary slow-wave structure opposite the electron gun, and means for selectively attenuating said electromagnetic waves propagated only toward the electron gun along said auxiliary slow-wave structure.

2,870,368
ELECTRON BEAM TUBES
Carmen Louis Cuccia, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 14, 1953, Serial No. 367,941
17 Claims. (Cl. 315—5.49)



1. An electron beam tube including three electrode structures, each adapted to be energized to establish a radio frequency electric field transverse to a predetermined axis of the tube, means for projecting a first beam of electrons parallel to said axis and through the field of at least one but not more than two of said electrode structures, means for projecting a second beam of electrons parallel to said axis and through the fields of at least two of said electrode structures including an electrode structure traversed by said first beam and one not traversed by said first beam, and means for establishing a constant magnetic field through all of said structures parallel to said axis.

2,870,369
CATHODE RAY TUBE COUNTING DEVICE
William F. Schreiber, North Hollywood, Calif., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application February 28, 1955, Serial No. 490,750
7 Claims. (Cl. 315—10)



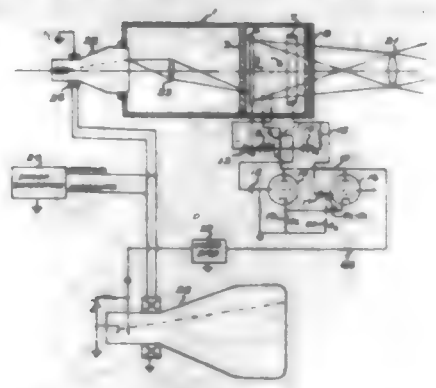
1. In combination, a cathode ray tube provided with electron beam generating means, deflection plates for deflecting said beam along a given path, and a luminescent screen for visually displaying the path of the deflected beam; an optical mask covering a portion of said screen and extending along the beam deflection path, said mask being provided with a plurality of like sections which extend along corresponding segments of the beam deflection path, each section having a light transmission characteristic at which one section subarea exhibits substantially no light attenuation while all other subareas exhibit appreciable light attenuation; means coupled to the deflection plates to position said beam successively in a like plurality of discrete positions, each position being within a corresponding segment of the deflection path; a photoelectric cell responsive to the light transmitted through each mask section to produce a control voltage proportioned to the transmitted light; and means to supply said control voltage to said deflection plates in a direction at which the beam positions are confined to the portions of deflection path segments which correspond to the unattenuated section subareas.

2,870,370

PHOTOTHERMIONIC SPECTRUM CONVERTER

Max Garbuny, Pittsburgh, Pa., and Robert C. Ohlmann, Albany, Calif., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force

Application March 26, 1957, Serial No. 648,753
2 Claims. (Cl. 315—10)



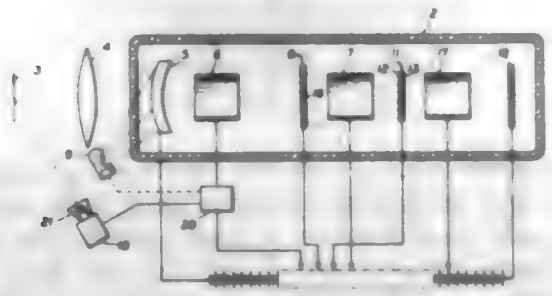
1. Apparatus for converting a thermal image into a representative video signal comprising: an image converter tube having a photocathode; means for forming a thermal image on said photocathode; means for scanning said photocathode with an elemental area of light for the liberation of photoelectrons from the elemental areas of the photocathode in succession; means separating those of said liberated photoelectrons having velocities above a predetermined level from those having velocities below said level, said predetermined level being such that photoelectrons having velocities above said level are derived from those photocathode electrons of sufficient energy that the photoemission thereof is a direct function of temperature; means for collecting the photoelectrons of higher velocity and producing a first voltage proportional to the resulting current; means for collecting the photoelectrons of lower velocity and producing a second voltage proportional to the resulting current; and means for subtracting said second voltage from said first voltage to produce said video signal.

2,870,371

RADIATION TRANSLATING DEVICE

Philo T. Farnsworth, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation

Application March 3, 1954, Serial No. 413,748
1 Claim. (Cl. 315—11)



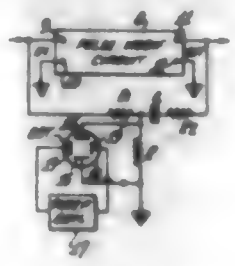
A system for viewing objects comprising a stroboscopic light which may be trained on a viewed object for reflected radiation images of said object of short duration, an image-to-image tube comprising a photoelectric cathode responsive to said reflected images for producing corresponding electron images, a storage electrode spaced from said photo-electric cathode for storing said electron images for a predetermined period of time, an accelerating electrode positioned between said photoelectric cathode and said storage electrode in the path of said electron images and coupled to a source of accelerating potential, a lamp positioned instantaneously and uniformly to illuminate all of said photo-electric cathode for flooding said storage electrode with low velocity photoelectrons which are modulated in accordance with the stored images thereon to produce secondary electron images, a phosphor screen responsive to said secondary electron images for reproducing instantaneously all elements of said electron images into corresponding light images, and a signal generator operatively coupled to said accelerating electrode and to both said light and said lamp, said signal generator being arranged alternately to operate said light and said lamp for producing correspondingly said electron images and flooding photoelectrons so that said photo-cathode produces electron images only during reception of a reflected image, said signal generator being arranged to remove said accelerating voltage from said accelerating electrode during illumination of said photo-cathode by said lamp.

2,870,372

PULSE COMPARISON DISPLAY SYSTEM

James S. Harris, Old Greenwich, Conn., assignor to Radio Corporation of America, a corporation of Delaware

Application October 1, 1953, Serial No. 383,570
10 Claims. (Cl. 315—26)



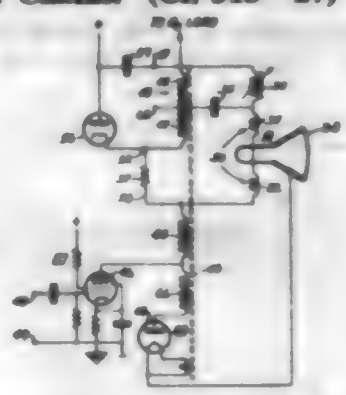
1. A pulse comparison display system comprising, a first pulse source and a second pulse source, a common resistor, means to apply waves from said first pulse source to said resistor, a capacitor, means to apply waves from said second pulse source thru said capacitor to said resistor, said capacitor and said resistor constituting a differentiating circuit, a cathode ray oscilloscope, and means to apply the voltage developed across said common resistor to the input terminals of said oscilloscope.

2,870,373

DEFLECTION SYSTEMS

Forrest Edward Brooks, Fort Washington, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application February 13, 1956, Serial No. 565,128
7 Claims. (Cl. 315—27)



1. A deflection system for deflecting the electron beam of a cathode ray television image reproducing tube comprising a beam deflecting winding associated with said tube, a direct current energized deflection wave translating device, a deflection wave output transformer comprising one winding portion having one terminal connected to said deflection wave translating device and having another winding portion, a resistance element interconnecting said winding portions, means to pass energizing direct current through said resistance element, said one winding portion and said translating device, means to connect said beam deflecting winding across said resistance element and said other winding portion for direct current flow, and means including a capacitor connecting said beam deflecting winding across at least a part of said other winding portion of said transformer

for alternating current flow, said capacitor having a capacitance at which in conjunction with the inductance of said beam deflecting winding there is formed a circuit resonant at a frequency substantially below the frequency of the translated deflecting wave.

2,870,374
MICROWAVE ELECTRON DISCHARGE TUBES
George Papp, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation
Application May 26, 1954, Serial No. 432,370
11 Claims. (Cl. 315—39)



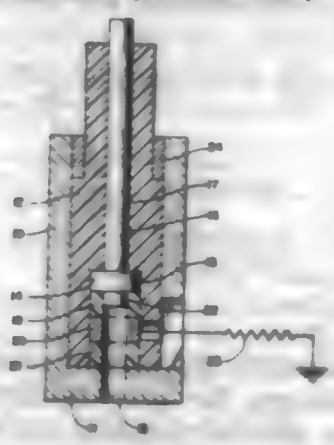
1. An electron discharge device for use in the utilization of microwave frequency signals comprising signal input and signal output channels arranged respectively for signal propagation in the same direction, said input channel being constituted by an elongated coaxial line having inner and outer conductors, the inner conductor serving as a cathode and emitting electrons throughout its length, the outer conductor being radially perforated therethrough throughout its length, the output channel being constituted by a second elongated coaxial line having inner and outer conductors supported in spaced coaxial relation to the first-mentioned coaxial line, the inner conductor of said second line being radially perforated throughout its length to provide paths for electron flow from said first line, the outer conductor of said second line serving as an anode throughout its length so that the microwave signal voltage applied to said input channel is propagated in said first coaxial line and modulates said electrons emitted from said cathode in every axially successive incremental section thereof thereby providing axially incremental signals in said second coaxial line which add in phase to provide an amplified signal in said output channel.

2,870,375
CAVITY-RESONATOR MAGNETRON
Jan Verweel, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 6, 1955, Serial No. 513,445
Claims priority, application Netherlands June 21, 1954
2 Claims. (Cl. 315—39.51)



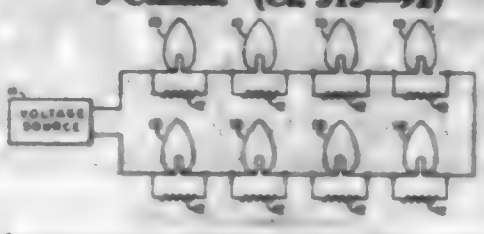
1. A cavity resonator magnetron comprising a cylindrical cathode electrode; a rising-sun anode electrode having an end space; an axial support for said cathode; a conductive annular ring surrounding said cathode electrode in said end space and having an inner diameter substantially equal to the inner diameter of said anode electrode; and a radial extension extending from said ring and conductively attached to said anode electrode.

2,870,376
ELECTRICAL APPARATUS
Tullio Tognola, Sidney, N. Y., assignor to Bendix Aviation Corporation, Sidney, N. Y., a corporation of Delaware
Application September 30, 1955, Serial No. 537,679
13 Claims. (Cl. 315—59)



1. A spark gap device comprising two spaced electrodes, a third electrode interposed between said two first-named electrodes and spaced in spark gap relation from each of them, and a resistance connected in circuit with said third electrode, said third electrode being annular and the spark gaps between said third electrode and each of said two first-named electrodes being in direct communication with each other through said third electrode.

2,870,377
MEANS FOR DETECTING THE DEFECTIVE ELEMENT IN A SERIES CONNECTION
Glenn S. Ovrevik, Washington, D. C.
Application May 18, 1954, Serial No. 430,537
3 Claims. (Cl. 315—92)



1. An improved multiple element electrical system adapted for simultaneous energization by an electrical energy source comprising a plurality of low impedance filamentary lamp elements connected in series, each of said low impedance elements having a predetermined normal operation current requirement, the number of elements in said plurality being appropriate with respect to the output voltage of said electrical energy source to meet said normal operation current requirement; each of said low impedance filamentary elements having a visually perceptible luminosity during normal operation; a plurality of heat signaling means equal in number to the first said plurality, each of said heat signaling means having a respective heat dissipation surface area associated therewith, each of said heat signaling means connected in parallel with a different element in said plurality of low impedance elements, each of said heat signaling means having an impedance substantially greater than the total impedance of said series connected low impedance elements such that the remaining nondefective elements are maintained current conductive and below visually perceptible luminosity and are characterized by the absence of significant external thermal activity when the current path through at least one of said series connected elements is interrupted to render said element defective, each of said heat signaling means having a heat dissipation characteristic such that a temperature rise occurs on said surface area of the heat signaling means associated with a defective element, said temperature rise producing a touch perceptible temperature difference with respect to any of said remaining nondefective elements.

2,870,378
APPARATUS FOR STARTING AND OPERATING GASEOUS DISCHARGE DEVICES

Fred W. Abrahams, Chicago, Ill., assignor to Advance Transformer Co., Chicago, Ill., a corporation of Illinois

Application December 28, 1954, Serial No. 477,989
13 Claims. (Cl. 315—97)

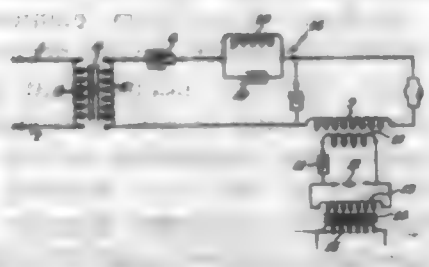


1. Apparatus for igniting and thereafter providing the operating voltages for gaseous discharge devices which comprises: a pair of gaseous discharge devices one of which has a condenser shunting the same and the discharge devices being connected in series so that they will ignite in sequence by virtue of said condenser, a source of A. C. power of voltage less than that required to ignite either discharge device, a transformer having an elongate iron core, a primary winding on the core at one end thereof and connected across the source, a high leakage reactance secondary winding mounted at the other end of the core, a shunt separating the primary winding and the high leakage reactance secondary winding to provide the high leakage reactance during operation, the secondary and primary windings being in autotransformer relationship and connected across the two gaseous discharge devices in series, and a capacitive circuit connected across the primary winding for power factor correction, said capacitive circuit comprising a second condenser and a second secondary winding mounted on said transformer core and closely coupled to the primary winding, the capacitive circuit being in parallel with a loop including the first mentioned secondary winding combined with said gaseous discharge devices.

2,870,379
OPERATING CIRCUIT FOR COMPACT TYPE ARC LAMPS

Lester F. Bird, Newark, N. J., assignor to Engelhard Industries, Inc., Newark, N. J., a corporation of New Jersey

Application August 13, 1958, Serial No. 754,734
3 Claims. (Cl. 315—174)

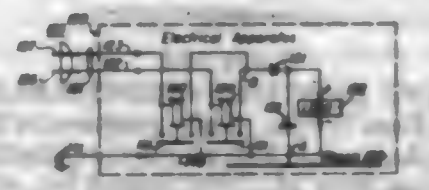


1. A light pulse producing system for compact type arc lamps, comprising in combination a transformer having mounted thereon a primary input coil and a secondary inductive coil in spaced relation to each other with a magnetic shunt between the coils, a compact type arc lamp containing an ionizable atmosphere, leads connecting the lamp to the secondary coil, a capacitor in one of the leads in series with the lamp, the capacitor having a volt ampere rating greater than the lamp, a tuned trap in one of said leads in series with the capacitor and lamp, said trap comprising a parallel system of an inductive coil and capacitor, said combination being a light pulse producing system characterized by light flashes having a duration of up to two-thirds the time of one-half cycle.

2,870,380
POWER SUPPLY SYSTEMS

Henrique A. F. Rocha, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application October 22, 1956, Serial No. 617,612
10 Claims. (Cl. 317—17)

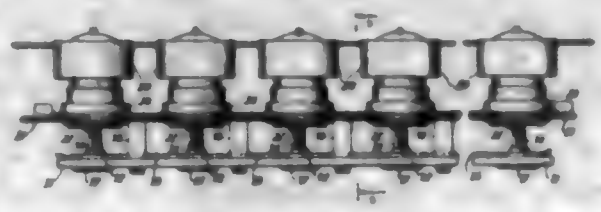


1. In combination, an A.-C. supply provided with two conductors that are respectively grounded and ungrounded, two leads, means for completing random selective connections between said two conductors and said two leads, said ungrounded conductor being connected to either one of said leads at random, electrical apparatus adapted to be operated with only one polarity and provided with two terminals, a connection between one of said terminals and ground potential, and relay means responsive to the connection of said ungrounded conductor to either one of said leads for further connecting said one lead to the other of said terminals.

2,870,381
MICRO-WAVE TRANSMISSION NETWORKS

Robert C. Lockwood, Hempstead, N. Y., assignor to Instruments for Industry, Incorporated, Mineola, N. Y., a corporation of New York

Application April 30, 1956, Serial No. 581,476
10 Claims. (Cl. 317—99)

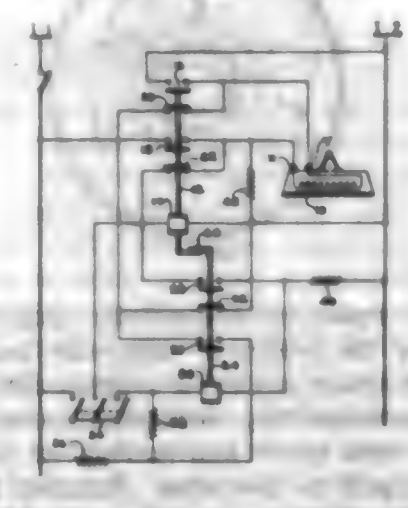


1. A micro-wave transmission network unit, comprising an insulating plate, a series of elongated metallic strips on the surface of said plate, segregated metallic contacts intermediate said strips, and pairs of parallel metallic connectors extending across said contacts and coupling remote ends of said strips and contacts together linearly, the connectors of each pair being closely paralleled to attain maximum mutually inductive coupling therebetween.

2,870,382
METHODS OF AND MEANS FOR CONTROLLING ELECTROMAGNETS

Howard E. Hodgson, Wauwatosa, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application June 23, 1954, Serial No. 438,815
3 Claims. (Cl. 317—123)



1. In combination: a source of electrical power; an electromagnet; a first contactor having first and second

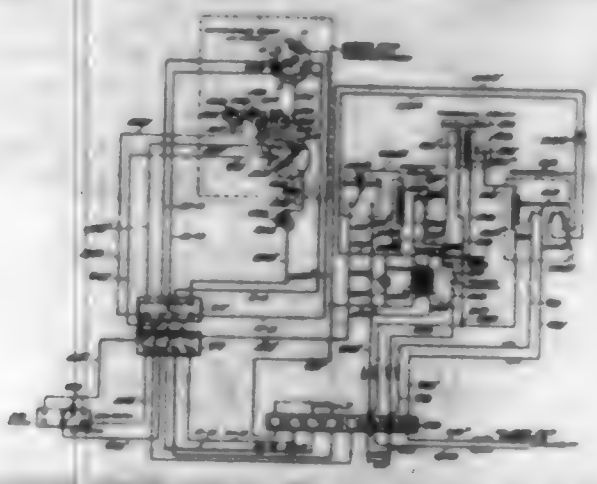
normally open contacts and first and second normally closed contacts; a second contactor having a normally closed contact and first and second normally open contacts; first and second and third resistors; a switch having a first and second terminal; an energizing circuit for said first contactor comprising circuit means extending from one side of said source through said first contactor to the first terminal of said switch; an energizing circuit for said second contactor comprising circuit means extending from said one side of said source through said second contactor to said second terminal of said switch; said switch acting in a first position to connect said first and second terminals to the other side of said source and in a second position to disconnect said first and second terminals from said other side of said source and from one another; a first series circuit extending from said one side of said source to said other side of said source and comprising in order said first normally open contact of said first contactor, the operating winding of said electromagnet, a junction point, said first resistor, said normally closed coptact of said second contactor, said first normally open contact of said second contactor and said second resistor; a second series circuit extending from said one side of said source to said other side of said source and comprising in order said second normally open contact of said second contactor, said first normally closed contact of said first contactor, said junction point and said second normally open contact of said first contactor; said second normally closed contact of said first contactor being connected to bridge said operating winding of said electromagnet, said junction point, said first resistor and said normally closed contact of said second contactor; and said third resistor being connected from said second terminal of said switch to a point in said first series circuit intermediate said first normally open contact of said second contactor and said second resistor; said second contactor being unable to close its normally open contacts or open its normally closed contact, but being able to maintain the same so operated; and means to so operate said contacts of said second contactor when said first contactor is energized.

2,870,383

CONTROL FOR APPARATUS FOR TREATING SMOKESTACK GASES AND LIKE EFFLUENTS

Daniel A. Mazzarella, Towson, Md., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware

Application September 9, 1954, Serial No. 455,880
6 Claims. (Cl. 317—157)



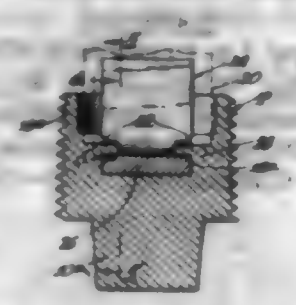
1. In apparatus for controlling a device as a function of prevailing wind conditions, an electric power supply circuit for said device, means for energizing and de-energizing said circuit, a rotor responsive to wind speed and a vane member movable in response to changes in the direction of the wind, a rotatable element inductively coupled to said rotor and movable to different angular positions as a function of wind speed, an electric transmitter circuit for controlling said means, first and second commutators having speed and direction contact segments connected in said transmitter circuit, segment contactors or wipers operable by said element and said vane member, said commutators and wipers being wired in series in a manner such as to effect closure of the transmitter circuit only when the wind is blowing at a velocity less than a selected value and in a given general direction, and means for manually selecting speed ranges having different upper limits.

2,870,364

MAGNETIC PLUG

Thomas E. Brooks, Clarinda, Iowa, assignor to Link Corporation, Clarinda, Iowa, a corporation of Iowa

Original application December 14, 1945, Serial No. 635,040. Divided and this application September 13, 1952, Serial No. 309,500
1 Claim. (Cl. 317—201.5)



In a magnetic plug, a plug body having an inner end and an outer end, said inner end having a first depressed portion and a second depressed portion within said first depressed portion, so that said second depressed portion extends further away from the terminus of said inner end than does said first depressed portion, said second depressed portion having a curved contour of pre-selected shape and size and being of smaller dimension than the dimension of said first depressed portion so that said second depressed portion is surrounded by said first depressed portion, a U-shaped magnet having a curved bight part and two spaced poles extending from said curved bight part, the outer side of said curved part of the magnet being of substantially the same shape and size as the curved contour of said second depressed portion so that the magnet will fit into said second depressed portion at only a single selected attitude, the depth of said second depressed portion and the thickness of the bight of the U-shaped magnet being selected so that, when the magnet is operatively fitted into said second depressed portion, the inner surface of the bight part of the magnet is spaced below the surface of the first depressed portion, and portions of said first depressed portion, located above said inner surface of the bight part of the magnet, being displaced laterally in two opposite locations to provide magnet retainers which enter between said poles of the U-shaped magnet and overlie and engage the inner surface of the bight part of the magnet, to hold the magnet at a pre-selected attitude securely in the plug body with the poles of the U-shaped magnet extending outwardly relative to said first depressed portion of the plug body.

2,870,385

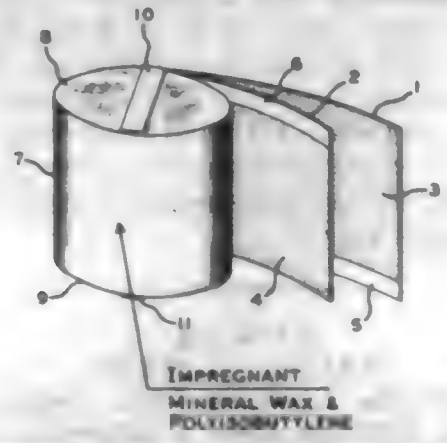
IMPREGNATED ELECTRICAL CAPACITORS

Livingston L. Rice, Walter C. Lamphier, and Paul H. Netherwood, Williamstown, Mass., assignors to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts

Application February 2, 1956, Serial No. 563,134
3 Claims. (Cl. 317—258)

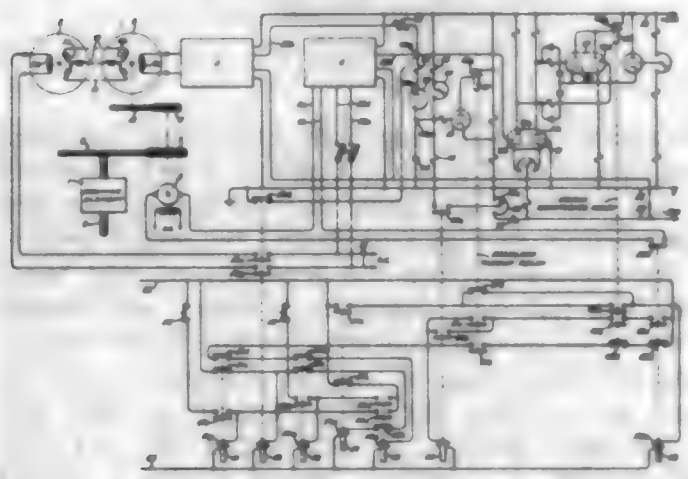
1. A capacitor comprising a pair of metallized electrodes separated by a porous dielectric spacer impregnated with a mixture of an unsaturated linear interpolymer of isobutylene having from about 0.5% to about

10% by weight of diolefins and a microcrystalline mineral wax having a molecular weight of at least 618, said



linear interpolymer constituting from about 50% to about 10% by weight of said mixture.

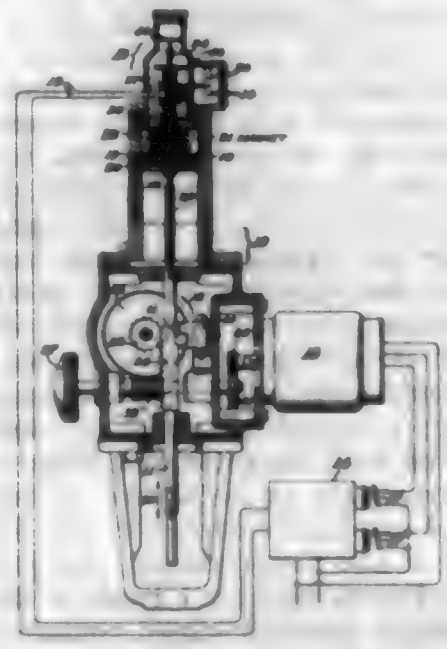
2,870,386
FOLLOW-UP CONTROL SYSTEM
Leroy U. C. Kelling, Waynesboro, Va., assignor to General Electric Company, a corporation of New York
Application October 5, 1955, Serial No. 538,730
9 Claims. (Cl. 318—30)



7. A follow-up control system comprising driving means, control means for said driving means having an output circuit connected to said driving means and an input circuit, a position director, a position indicator mechanically connected to be driven by said driving means and electrically connected between said director and said input circuit for supplying an error voltage to said input circuit to control said driving means to drive said position indicator toward a position of correspondence with said director, means controlled by said error voltage for supplying to said input circuit a bias voltage for producing a false indication of correspondence between said director and indicator to stop said position indicator in a position displaced from correspondence a predetermined amount in one direction only for either direction of initial disagreement and responsive to said false indication for initiating a reduction in said bias voltage, and capacitor means connected with said input circuit for limiting the rate of reduction of said bias voltage to control said motor to drive said indicator from said displaced position to true correspondence at a relatively reduced rate of speed and in the same direction for either direction of said initial disagreement.

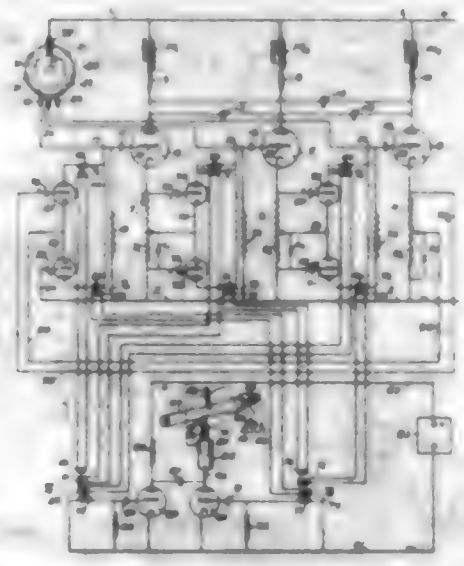
2,870,387
MEASURING AND CONTROLLING SERVO-MOTOR SYSTEM
Warren H. Brand, Blue Bell, and Eugene F. Holben, Ardsley, Pa., assignors to Conoflow Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application March 12, 1957, Serial No. 645,510
13 Claims. (Cl. 318—32)

9. In an apparatus for controlling the movement of a movable member in response to an electric impulse, the combination which comprises a reversible electric motor connected to said movable member, a pair of relays connected to said electric motor, one such relay connected for forward and the other for reverse operation of said motor, a linear differential transformer having a primary and a pair of secondary windings and a movable core intermediate said primary and secondary, a rigid elongated reciprocable rod fixed to said core, helical springs under tension affixed to the ends of said reciprocable rod,



said secondary windings being approximately 180 degrees out of phase with one another, means for connecting said impulse to cause a linearly corresponding shifting movement of said core, an amplifier connected to said secondaries having circuits sensitive to the distinct phases of said secondaries, each such circuit being connected to one of said relays to operate said motor either forward or in reverse, all in response to the magnitude and direction of movement of said core, and means connecting said movable member to one of said springs.

2,870,388
MOTOR CONTROL CIRCUIT
Albert G. Thomas, Butler, Pa., assignor to Industrial Controls Corporation, Chattanooga, Tenn., a corporation of Tennessee
Application June 11, 1957, Serial No. 665,866
24 Claims. (Cl. 318—138)



15. In a step motor system, a step motor having a plurality of phases, means for supplying current to said phases in predetermined order to cause rotation of said motor in one direction, said means also being adapted to supply current to said phases in opposite order to cause rotation of said motor in a direction the reverse of said one direction, brake means for permitting rotation of said motor in said one direction but preventing rotation thereof of more than a partial step in said reverse direction, means

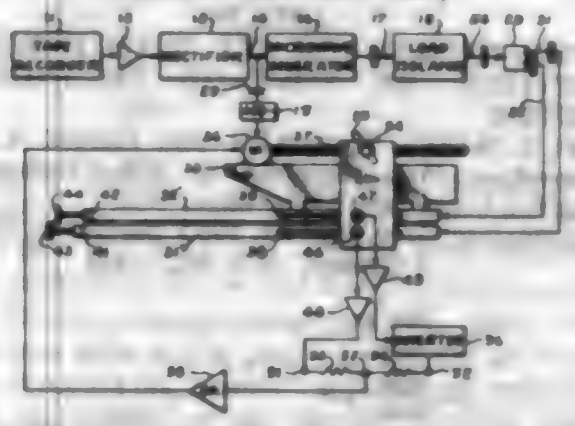
including electromagnetic means for setting said brake means to permit rotation of said motor in said opposite direction and to prevent rotation thereof of more than a partial step in said one direction; said electromagnetic means comprising a rotor having a plurality of poles and an associated stator having a plurality of poles, and winding means for causing magnetization of said stator and rotor poles.

2,870,389

MACHINE PROGRAMMING CONTROL

Julius T. Fraser, Ossining, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application July 19, 1956, Serial No. 598,922
8 Claims. (Cl. 318—162)



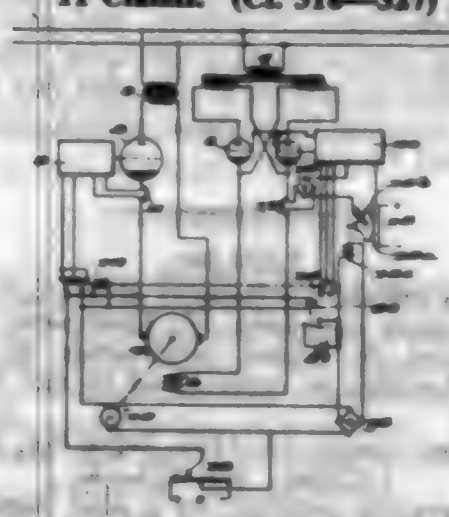
1. A machine programming control for controlling the relative physical displacement of a workpiece and a workpiece engaging tool comprising, means emitting an electrical intelligence signal, a waveguide system adapted to have standing wave energy therein, said standing wave energy having loops and nodes at selected positions in said waveguide system, means actuated by said intelligence signal for determining the positions at said loops and nodes, movable sensing means for sensing a selected electromagnetic field plane of said loop and node pattern distribution, means positioning said sensing means at a point along said waveguide system determined by a selected electromagnetic field plane of the loop and node standing wave pattern distribution, operating means for selectively positioning said work piece engaging tool relative to said work piece, and means for controlling the position of said operating means in accordance with the position of said sensing means.

2,870,390

CONTROL SYSTEM FOR REGULATION OF DIRECT CURRENT MACHINES WITH RECTIFIERS IN ARMATURE AND EXCITER CIRCUITS

Ernst Ludwig, Mannheim-Lindenhof, Germany, assignor to Brown, Boveri & Cie, Aktiengesellschaft, Mannheim, Germany, a joint-stock company

Application May 3, 1955, Serial No. 505,805
Claims priority, application Germany May 8, 1954
11 Claims. (Cl. 318—327)



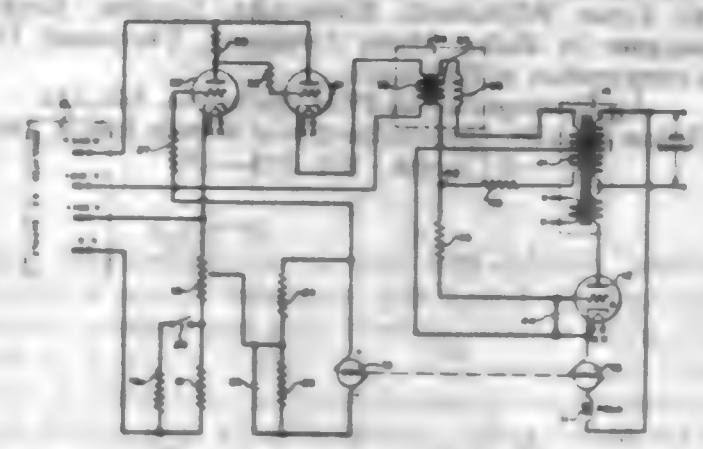
1. In a control arrangement for regulating a direct current dynamo-electric machine having armature and field elements, the combination comprising means providing a first reference quantity of adjustable magnitude, means providing a second quantity proportional to the speed of said machine, means responsive to the difference between said quantities for controlling the current in the armature element of said machine, means providing a third reference quantity of adjustable magnitude, means providing a fourth quantity proportional to the amplitude of the exciter current for the field element of said machine, means responsive to the difference between said third and fourth quantities for controlling said exciter current and means adjusting said third reference quantity in a sense to decrease the same in accordance with an increase in speed of said armature element.

2,870,391

MOTOR SPEED CONTROL

Rawlins E. Parkhiser, Springfield, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

Application September 5, 1956, Serial No. 608,873
3 Claims. (Cl. 318—327)



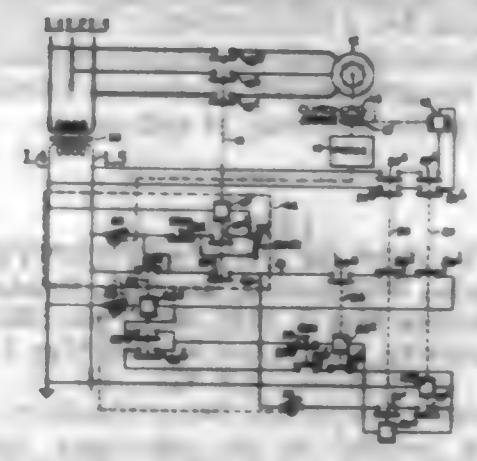
1. In a speed control for a series field electric motor in which the armature and field windings of said motor are connected in series with a gas filled grid controlled rectifier tube across a source of alternating current, and in which an alternating voltage derived from the same alternating current source is applied to the control grid of said tube, the improvement which comprises shifting the phase of the voltage applied to the control grid of said tube by means of a phase shifting network including a saturable reactor having its saturating winding in a cathode follower circuit including a grid controlled vacuum tube which has applied to the grid thereof a signal derived from the speed of rotation of said motor.

2,870,392

ELECTRIC CONTROLLERS FOR MACHINES

Robert N. Eck, Whitefish Bay, and Verne H. Simson, Milwaukee, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application May 13, 1955, Serial No. 508,056
6 Claims. (Cl. 318—470)



1. For controlling the energization of an electric driving motor and its mechanical connection to a machine

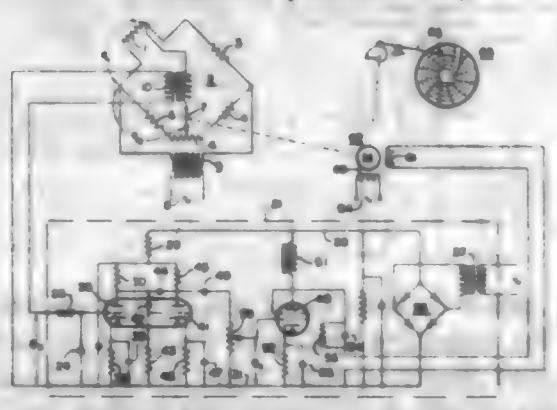
having a movable element, a controller comprising electromagnetic means energizable to complete driving connections between the motor and the movable element of the machine, an electromagnetic contactor energizable to complete energizing connections to the motor, means for completing an energizing circuit for said contactor and including a first switch operable in certain positions of the movable element of the machine to interrupt said energizing circuit, an electromagnetic relay, means responsive to energization of said contactor to complete an energizing circuit for said relay and including a second switch operable in given positions of the movable element of the machine to interrupt the last mentioned energizing circuit, means for completing an energizing circuit for said electromagnetic means whenever said contactor and said relay are both energized, and means responsive to deenergization and drop-out of said relay to maintain the energizing circuit for said contactor regardless of interrupting action of said first switch.

2,870,393

THERMIONIC SERVO-AMPLIFIER SYSTEMS

Cyril Cryer Whitehead, Kidbrooke, London, England, assignor to Bailey Meter Company, Cleveland, Ohio, a corporation of Delaware

Application July 6, 1954, Serial No. 441,316
Claims priority, application Great Britain July 8, 1953
4 Claims. (Cl. 318—29)



1. A thermionic servo amplifier system comprising network means responsive to the condition of a variable adapted to provide an unbalance A.-C. signal voltage variable in amplitude and reversible in phase in respect to an A.-C. energizing source, a two phase electric motor arranged to rebalance said network and having one phase winding energized from said source, an amplifier having at least two amplifying stages and having an input receiving said signal voltage and an output connected to energize the other phase of said motor, one of said amplifying stages including an electronic tube, a D.-C. source of potential for said tube, a coupling circuit interconnecting said stages effective to produce an output from the second stage having a rising frequency-gain characteristic curve, and means to produce a reverse feed-back effect through at least one of said stages to alone produce an output from said second stage having a falling frequency-gain characteristic curve whereby the resultant overall amplifier output has a frequency-gain characteristic curve with a substantial dip, said coupling circuit and said feedback means being relatively adjusted to provide said dip substantially at the frequency of said source.

2,870,394

COMMUTATION OF CONTACT CONVERTERS

Marius Widakowich, Bromma, Sweden

Application May 9, 1955, Serial No. 506,989
Claims priority, application Sweden May 14, 1954
4 Claims. (Cl. 321—49)

1. In a contact converter, the combination of a valve connected in parallel to an inductance between one terminal of a continuous voltage source and a fixed contact of the converter, a second valve connected in parallel to a second inductance between said continuous voltage terminal and a second fixed contact of the converter, the connecting points of said groups of valves and inductances adjacent to said continuous voltage terminal



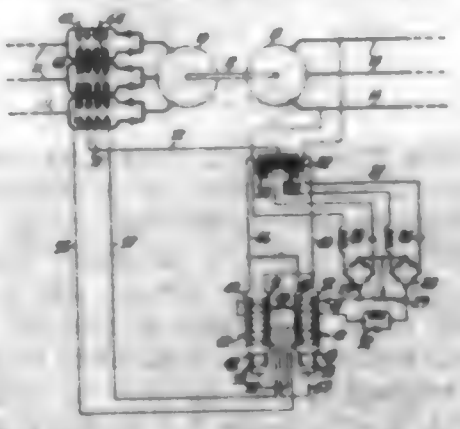
being connected over a capacitance to the other terminal of the continuous voltage source and to a group of two fixed contacts of the converter other than said first mentioned group of fixed contacts.

2,870,395

MOTOR GENERATOR SET WITH FREQUENCY CONTROL BY VOLTAGE TO INDUCTION MOTOR

Herbert J. Reinke, West Allis, and Harold A. Gallatin, Wauwatosa, Wis., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application December 22, 1955, Serial No. 554,783
3 Claims. (Cl. 322—39)



2. In combination, a source of alternating current, an induction motor having its speed variable in response to variation of the voltage supplied to said motor, a generator, means connecting said generator to be driven by said motor, means including a power amplifier having doubler saturating circuits connecting said source to said motor, each of said doubler circuits including a magnetic amplifier having two half wave rectified reactance windings connected to supply alternating current to said motor, said power amplifier having first and second control windings oppositely associated with said reactance windings of each said doubler circuit to vary the saturation of the associated said magnetic amplifier and thereby the impedance to said reactance windings changing the voltage supplied to said motor, an intermediate magnetic amplifier having two full wave self-saturating circuits, separate circuit means connecting the output of said full wave self-saturating circuits individually to separate of said control windings, a detector reversibly sensitive to variations of the frequency of said generator above or below a predetermined frequency, said detector having a direct current output winding associated with said intermediate amplifier to oppositely bias said two self-saturating circuts in response to variation of said generator from a predetermined frequency.

2,870,396

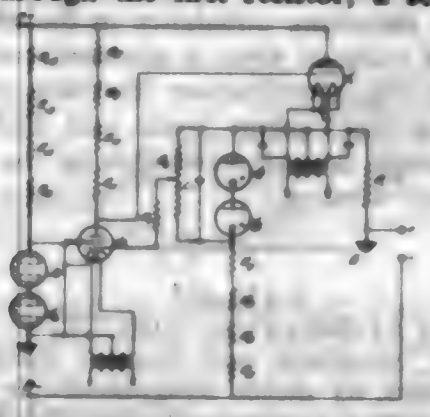
ELECTRONIC CURRENT REGULATOR

Charles H. Jones and John H. Thompson, Pittsburgh, Pa., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application August 14, 1953, Serial No. 376,275
1 Claim. (Cl. 323—4)

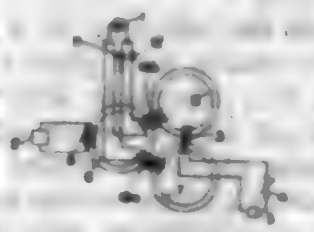
A current regular network for a load circuit having a pair of input terminals said network comprising a high voltage supply source having a positive terminal and a

negative terminal; means connecting one of the input terminals of the load circuit to the negative terminal of the supply source; means connecting the other input terminal of the load circuit to ground; a first electron tube having an anode, a cathode, and a control grid; a first resistor; means connecting the anode of the first electron tube to the positive terminal of the supply source; means connecting the cathode of the first electron tube to ground through the first resistor; a second electron



tube having an anode, a cathode, and a control grid; means coupling the cathode of the first electron tube to the control grid of the second electron tube; means connecting the cathode of the second electron tube to ground; a second resistor; means connecting the anode of the second electron tube to the positive terminal of the supply source through the second resistor; and means also connecting the anode of the second electron tube to the control grid of the first electron tube.

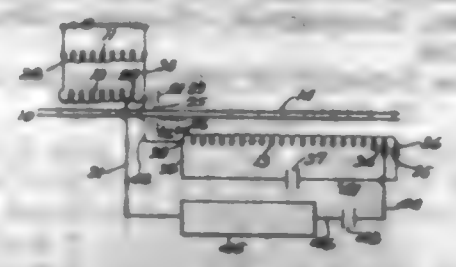
2,870,397
SATURABLE CORE TRANSFORMER
Fred W. Kelley, Jr., Melrose, Mass., assignor to General Electric Company, a corporation of New York
Application October 16, 1956, Serial No. 616,311
9 Claims. (Cl. 323—56)



1. Apparatus for effecting controlled electrical excitation of a load comprising a source of periodically varying voltage, a controlled magnetizable core member and at least one pair of saturable control core members each defining a magnetic flux path, a source of control current, first winding means energized by said control current source and disposed to vary the saturation characteristics of both of said control core members simultaneously responsive to said control current, second winding means linking said controlled core member, rectifier means, third winding means having two portions each linking both said controlled core member and a different one of said control core members and each coupled with said rectifier means to conduct current in but one direction, means coupling said source of periodically varying voltage with one of said second and third winding means, and means coupling the other of said second and third winding means with said load.

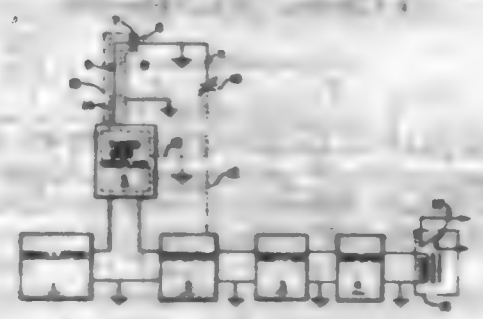
2,870,398
TRANSFORMER FOR STARTING AND OPERATING METALLIC VAPOR DISCHARGE DEVICES
Joseph G. Sola, River Forest, Ill., assignor, by mesne assignments, to Basic Products Corporation, West Milwaukee, Wis., a corporation of Wisconsin
Application May 28, 1957, Serial No. 660,350
8 Claims. (Cl. 323—61)

1. Alternating current power supply means for starting and operating negative resistance discharge devices of the relatively high pressure metallic vapor type from a source of predetermined voltage and frequency comprising a transformer having a core of magnetic material, a primary winding on said core, and adapted for connection to said source, a secondary winding on said core and adapted to be connected in circuit with such negative resistance discharge device of predetermined starting and operating voltages, and a high reluctance magnetic shunt magnetically disposed between said primary and secondary windings, the portions of said core linking said primary and secondary windings being free of any nonmagnetic gaps of significant magnitude, the winding portions of said core having a cross-sectional area such that the flux produced by said primary winding when connected to said source effects a condition of substantial saturation in said winding portions, the ratio of turns of said secondary winding to said primary winding being such that the transformation voltage of said secondary winding at the voltage and frequency of said primary winding is normally insufficient by a substantial amount to start said device, a first capacitor connected across said secondary winding, a second capacitor, and a



winding member associated with said primary winding to develop a voltage therefrom, said second capacitor, said secondary winding and said winding member being connected in a series circuit with each other and being adapted to include in series such negative resistance discharge device, said winding member being connected in said series circuit such that its voltage is opposed to the voltage of said secondary winding therein for providing a predetermined crest factor of current through said device during operation, said first capacitor having a magnitude for developing a voltage principally at the third harmonic frequency of said source which in combination with the fundamental component provides a certain R. M. S. voltage sufficient to start said device in said series circuit and said second capacitor having a value of capacitance relative to the constants of said secondary winding at the frequency of said source to maintain the R. M. S. voltage across said secondary winding substantially greater than turns ratio value but less than said certain voltage and for maintaining the wattage in said device substantially constant at the rated value thereof throughout a rated range of voltage variation of said source.

2,870,399
CAPACITOR CONTROL UNIT
John T. Davidson and Robert D. Georgen, Dayton, and Raymond L. Fortune, Trotwood, Ohio, assignors to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application January 5, 1954, Serial No. 402,358
8 Claims. (Cl. 323—73)



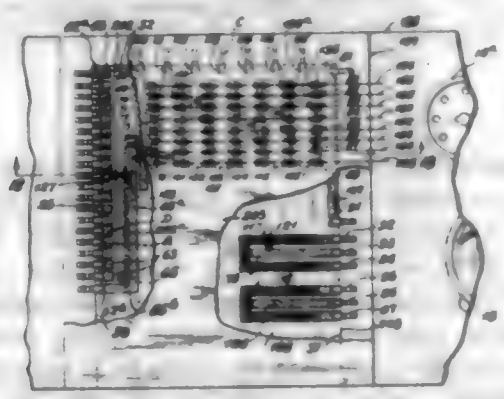
1. In an energizing circuit for a work element having a normally balanced capacitance bridge control circuit,

the output of which is insufficient to energize the work element, means for momentarily and automatically unbalancing said circuit to increase the output thereof to a value sufficient to energize the work element, comprising a sensing head including a parallel plate condenser forming a part of said circuit, a variable capacitor in said circuit to accurately balance said circuit for normal operation, means preventing unintentional unbalancing of said circuit including a pair of concentric shields about a lead to the sensing head, the innermost of which is connected to one plate of said parallel plate condenser, the outermost of which is grounded, and means having spaced metallic spots imprinted thereon progressively advancing through said parallel plate condenser for intentionally unbalancing said circuit by timed disposition of said spots intermediate the plates of parallel plate condenser to thereby alter the reactance of said condenser and unbalance the normally balanced control circuit.

2,870,400
TUBE TESTER

Robert D. Hickok, Jr., Daisy Hill, Ohio, assignor to Cleveland Patents, Incorporated, Cleveland, Ohio, a corporation of Ohio

Application February 11, 1955, Serial No. 487,516
21 Claims. (Cl. 324—22)

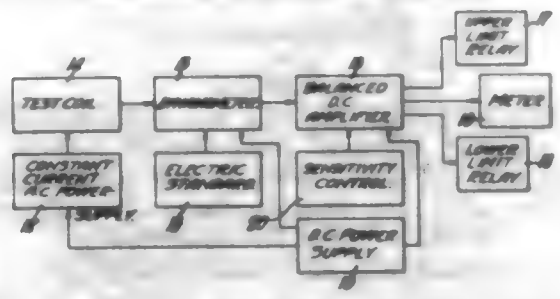


1. In a tube tester, socket means having a plurality of terminals and adapted to receive a tube to be tested, power supply means, an indicator, a support structure having portions defining a channel-like guideway and including first support portions extending along edge portions of the guideway, other support means on said structure and extending in bridging relation to the guideway, circuit means for use in connecting certain of said terminals and said indicator with said power supply means in selected circuits and including switch contacts adjacent said guideway, said contacts comprising a first group of contacts on said first support portions and another group of contacts on said other support means, a control card movable in said guideway, and electrically conductive elements on said card and engageable with contacts of said first group and with contacts of said other group for inclusion in said selected circuits.

2,870,401
APPARATUS FOR TESTING BODIES OF MAGNETIC MATERIAL

Edwin B. Henry, Jr., Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

Application January 6, 1954, Serial No. 402,550
11 Claims. (Cl. 324—34)

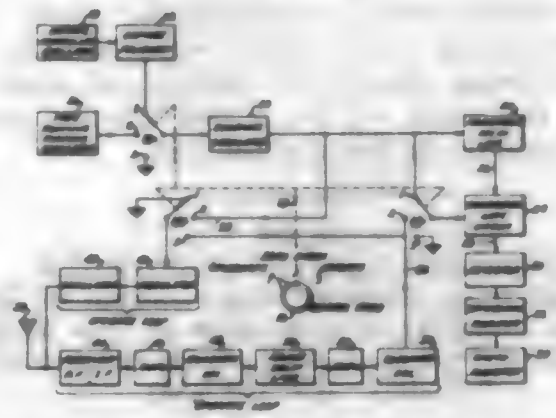


1. In an apparatus for testing bodies of magnetic material, which apparatus includes a single test coil having primary and secondary windings and adapted to receive either a standard body or a test body as a core, a first source of alternating current connected to said primary winding, a second source of alternating current, an electric standard connected to said second source, balancing means connected to said electric standard and to said secondary winding and adapted to balance the phase and amplitude of the voltage outputs therefrom when a standard body is placed in said test coil, and means for indicating unbalance in the phase or amplitude of these voltages when a non-conforming body is placed therein, the combination therewith of a device for maintaining the current from said first source at constant amperage despite variations in the impedance of said primary winding.

2,870,402
CALIBRATION CIRCUIT

James J. Corr, Stratford, and Manuel Sinkel, Camden, N. J., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force

Application September 23, 1955, Serial No. 536,064
4 Claims. (Cl. 324—57)



1. An arrangement for adjusting to a predetermined amount the delay introduced by a given circuit comprising, in combination, first adjustable delay means having an input circuit and an output circuit; generator means for generating a series of pulses spaced from one another said predetermined amount; means including switch means for applying said pulses to said input circuit of said delay means; means for adjusting the delay provided by said delay means to the lowest value at which the pulses applied to its input circuit occur coincident with those available at its output circuit, whereby the delay provided by said delay means is equal to said predetermined amount; a source of second pulses spaced from one another intervals greater than said predetermined amount; means including said switch means for disconnecting said generator means from said input circuit of said delay means and connecting said source thereto; second adjustable delay means in said given circuit; means for applying said second pulses to the input to said given circuit; and means for adjusting the delay introduced by said second delay means to a value such that an output signal from said given circuit occurs in time coincidence with an output pulse from said first delay means.

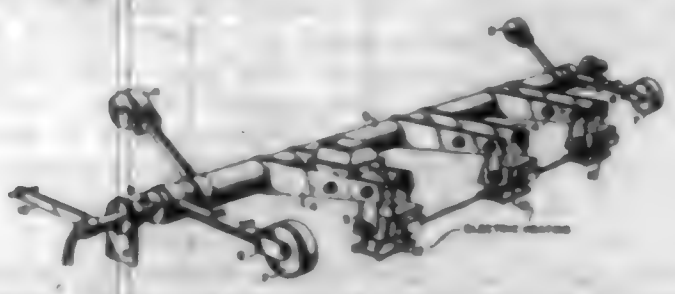
2,870,403
DEVICE FOR DIELECTRICALLY MEASURING THE THICKNESS OF MOVING WEBS OF MATERIAL

Paul Lippke, Neuwied (Rhine), Germany

Application May 6, 1953, Serial No. 353,319
Claims priority, application Germany May 19, 1952
4 Claims. (Cl. 324—61)

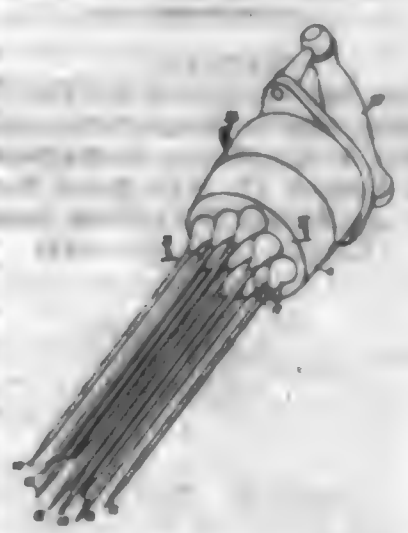
1. In a device for currently ascertaining the thickness of moving webs of material by dielectric measuring having a condenser and means for indicating variations in the dimensions of the gap between the condenser plates and the said web, a rotatable cylinder for guiding a web

of material through the device and forming a movable condenser plate, at least one normally stationary condenser plate above said cylinder at a distance therefrom which is slightly larger than the thickness of the web to be tested, a turnable shaft having its axis parallel to the axis of said cylinder and stretching across the said web of material, bearings for supporting the said shaft, arms extending in pairs from the said shaft, at least one pair of



said arms arranged for carrying said normally stationary condenser plate so as to rest slightly above said web of material, at least one other pair of arms arranged for carrying a distance roller in contact with said rotatable cylinder outside said web of material, and screw means including an eccentric for lengthening and shortening said arms each individually in relation to the said cylinder.

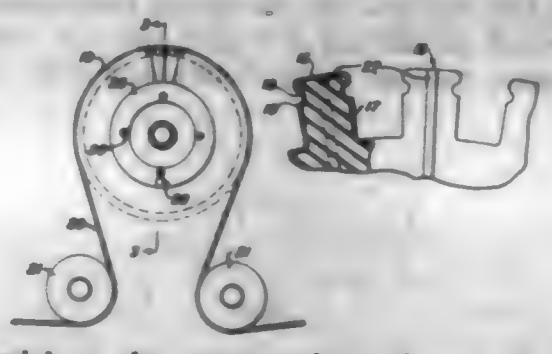
2,870,404
MEASUREMENT OF MOISTURE CONTENT
Thomas Alan Oxley, Iver, England, assignor to Scottish Mechanical Light Industries Limited, Ayr, Scotland, a company of Great Britain
Application October 19, 1955, Serial No. 541,399
Claims priority, application Great Britain October 23, 1954
15 Claims. (Cl. 324—65)



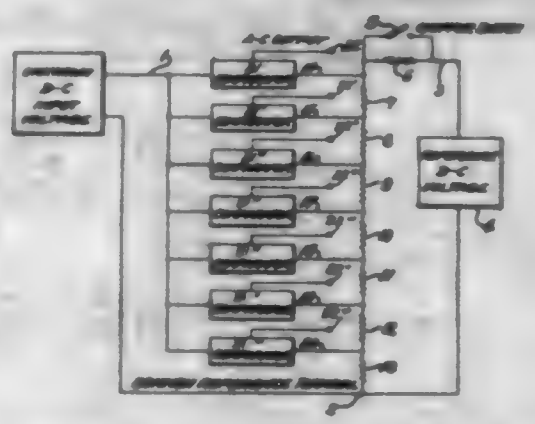
1. Apparatus for use in the measurement of the moisture content of loose or granular material comprising a support, a plurality of pointed rod-like electrodes for insertion into the material carried by said support in fixed parallel relationship in an orderly formation, and means electrically connecting the electrodes into two groups one insulated from the other, adjacent electrodes in any line of electrodes parallel to the sides of the formation appertaining to the two respective groups.

2,870,405
APPARATUS FOR MEASURING MOISTURE IN WEB COATINGS
Robert A. Wright and Archie R. McFadden, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application June 18, 1957, Serial No. 664,778
5 Claims. (Cl. 324—65)

1. Apparatus for measuring the conductivity of a web including a roller the surface of which is in contact with the web, a power source having a pair of terminals, a first brush connected to one of said terminals, a second brush, and a current meter interconnecting said second brush and the remaining terminal, said roller comprising: a central drum having end plates and mounted for rotation about its own axis; a layer of insulating material surrounding said drum, including said end plates, and having a plurality of ribs extending radially therefrom and parallel to the axis of said drum; a layer of conductive material on the outer surface of each of said ribs; a pair of slip rings attached to the respective portions of said insulating material covering said pair of end plates and in sensing engagement with respective ones of said brushes; and strips of conductive material interconnecting each slip ring with the layers of conductive material on alternate ones of said ribs.



2,870,406
DEVICE FOR VOLTAGE MEASUREMENT
Caldwell P. Smith, Bedford, Mass., assignor to the United States of America as represented by the Secretary of the Air Force
Application June 3, 1957, Serial No. 663,316
3 Claims. (Cl. 324—99)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a electrical measurement, an unknown D.-C. input voltage signal, a standard D.-C. reference voltage signal, means for deriving an array of alternating reference voltage signals having mean amplitudes proportional to said standard D.-C. reference voltage signal in precise ratios, and having precise, known ranges of instantaneous amplitudes, means for constraining the instantaneous amplitude ranges of said array of reference voltages to form a contiguous set of amplitude ranges, means for simultaneously comparing said array of alternating reference voltage signals with said unknown input D.-C. voltage signal, and means for automatically determining that reference voltage whose instantaneous amplitude traverses the amplitude level of said unknown input voltage signal, thereby identifying the ratio of amplitude of said unknown input D.-C. voltage signal to said standard D.-C. reference voltage signal within precise limits.

2,870,407
METHOD OF PEAK CURRENT MEASUREMENT
George E. Baker, Albuquerque, N. Mex., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application October 6, 1954, Serial No. 460,779
1 Claim. (Cl. 324—103)

The method of measuring the peak electrical current flowing in a conductor comprising steps of recording an

alternating constant frequency and amplitude signal on a magnetic recording medium to the extent of saturation of the medium, concentrating a portion of the flux of the current carrying conductor into a magnetic path of a defined area, subjecting a portion of the magnetic medium to the flux in said path so as to reduce the amplitude of the signal recorded on the portion of the magnetic medium disposed within said flux path and the portion of said magnetic medium immediately adjacent said flux



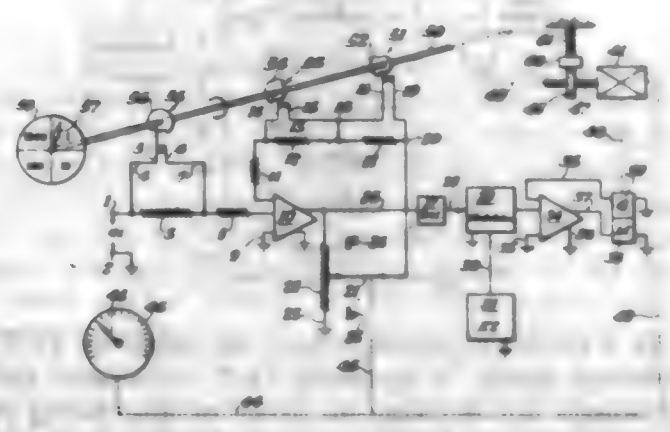
path, playing back the signal recorded on said medium, and comparing the amplitude of the signal from the portion of said magnetic medium immediately adjacent said flux path and the amplitude of the signal from the portion of said magnetic medium within said flux path with the amplitude of the signal from an unerased portion of said magnetic medium to determine the percentage of signal erasure, and thereby obtain the peak value of currents flowing in the conductor.

2,870,408

PRECISE AUTOMATIC MULTIRANGE INDICATING VOLTMETER AND/OR RATIOMETER

Michael J. Draganjac, Etna, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application April 25, 1955, Serial No. 503,764
11 Claims. (Cl. 324—115)



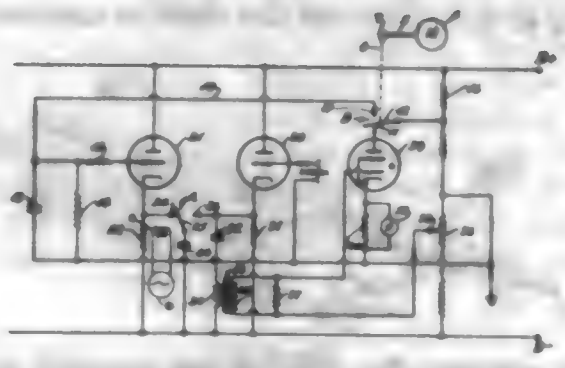
3. Voltage measuring apparatus comprising an input circuit including an amplifier adapted to be connected to a source of voltage to be measured, said amplifier having a control circuit comprising a variable gain control impedance, a plurality of fixed gain control impedances, switching means for sequentially connecting said fixed impedances in said control circuit, a source of reference voltage, voltage comparing means connected to said reference source and said amplifier, a servomotor controlled by said voltage comparing means, differential means including first and second output means and input means actuated by said servomotor, means connecting said first output means to said variable gain control impedance, stop means cooperating with said first output means to limit the range of movement thereof, clutch means for said second output means to prevent movement thereof while said first output means is within the range set by said stop means, means connecting said second output means to actuate said switching means, whereby the range of said apparatus is automatically adjusted in accordance with the magnitude of the voltage to be measured, a first indicator actuated by said first output means, and a second indicator actuated by said second output means.

2,870,409

METER WITH LOGARITHMIC AMPLIFIER

John E. Bigelow, Altamont, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application September 15, 1953, Serial No. 380,889
5 Claims. (Cl. 324—132)



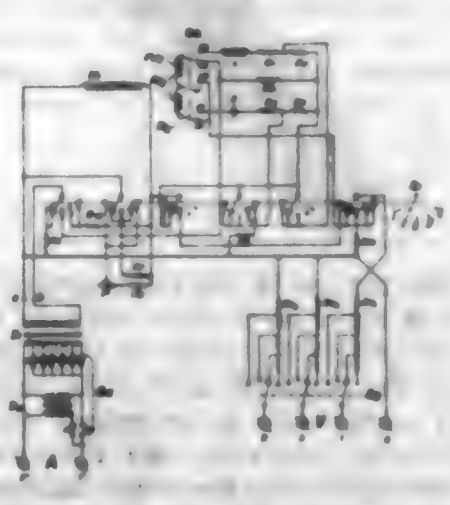
2. A circuit for producing a response which is proportional to the logarithm of a signal of unknown magnitude whereby the magnitude of the unknown signal may be measured, comprising: means having a charge and discharge circuit for producing and storing a first charge which is proportional to the signal of unknown magnitude, means for producing a second charge of known value which decays exponentially, charge storing means alternately coupled to said first charge producing means and to said second charge producing means for periodically comparing the first and second charges, signal producing means responsive to the discharge of said first charge storing means for producing an output signal of constant value, and indicator means for averaging the output signals whereby an indication is obtained which is proportional to the logarithm of the unknown signal.

2,870,418

ELECTRIC MEASURING INSTRUMENT

Fritz Diemer, Mellen, Switzerland, assignor to EMA A.-G., Mellen, Switzerland

Application January 19, 1953, Serial No. 331,841
Claims priority, application Switzerland January 19, 1953
3 Claims. (Cl. 324—141)



1. An electrical A. C. measuring instrument, comprising a meter system including a stationary coil and a rotary coil, an electric oscillating circuit connected to said rotary coil and provided with inductive and capacitive reactances and having first and second connection means, a current circuit for said metering system, said current circuit including a variable resistor for continuously regulating the sensitivity of said metering system, a selector switch provided with at least four contact positions and respective sets of contacts, said current circuit and said stationary coil and said rotary coil being interconnected through one of the said sets of contacts when said selector switch is in a selected position, said current circuit being connected with said first connection means and said second connection means of said oscillating circuit through a second of said sets of contacts when said selector switch

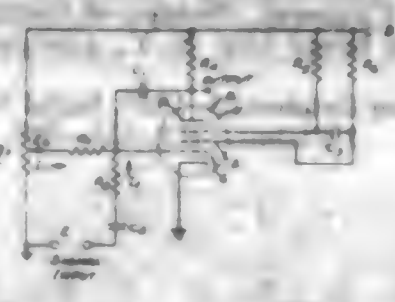
is in a selected position, said variable resistor being connected to said current circuit through at least one of said sets of contacts, and a change-over switch operable in one of its positions to disconnect said second connection means of said oscillating circuit from said rotary coil while simultaneously connecting said second connection means directly to said selector switch and therethrough to said current circuit, said change-over switch being operable in another of its positions to connect said second connection means of said oscillating circuit to said rotary coil, said change-over switch in said one position thereof disconnecting said second connection means of said oscillating circuit from said rotary coil, movement of said selector switch to a first position thereof disconnecting said variable resistor from said current circuit for voltage measurements and indications, movement of said selector switch to a second position thereof disconnecting said variable resistor from said current circuit for current measurements and indications, movement of said selector switch to a third position thereof disconnecting said variable resistor from said current circuit for effective power measurements and indications and while when said change-over switch is in said other position thereof connecting said second connection means of said oscillating circuit to said rotary coil, movement of said selector switch to said third position thereof permitting the phase of current in said rotary coil at the resonance frequency of said oscillating circuit to be shifted by 90° for reactive power measurements and indications, movement of said selector switch to a fourth position thereof connecting said variable resistor to said current circuit and to said coils and with said change-over switch in said one position thereof permitting effective power indication and concurrent continuous regulation of said meter system to bring the last-named indication thereof to a predetermined fixed value, and subsequent movement of said change-over switch to said other position thereof with said selector switch remaining at said fourth position thereof permitting an associated reactive power indication which constitutes a direct measure of power factor.

2,870,411

FREQUENCY MODULATED OSCILLATOR

Thomas C. G. Wagner, Brookdale, Md., assignor, by mesne assignments, to Minneapolis-Honeywell Regulator Company, a corporation of Delaware

Application April 21, 1953, Serial No. 350,035
1 Claim. (Cl. 332—16)



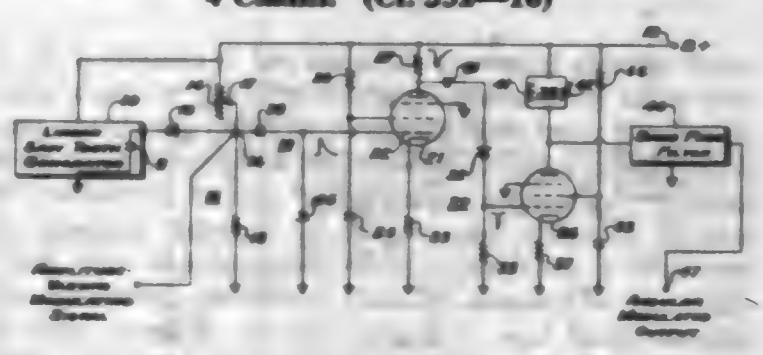
In a frequency modulated signal generating oscillator, a pentode, a plate resistor connected between the plate of said pentode and a direct current supply source, a screen grid dropping resistor connected between the screen grid and said source, a control grid return resistor, a control grid biasing resistor having an adjustable slider, said control grid return resistor being connected between said slider and the control grid of said pentode, a suppressor grid biasing resistor, a coupling capacitor connected between the screen grid and suppressor grid of said pentode, a charging capacitor connected between the plate and control grid of said pentode, means including said grid biasing resistor, said grid return resistor and a source of direct current for charging said charging capacitor whereby to establish a center frequency of oscillation of said oscillator, a signal input resistor and a blocking capacitor serially connected with respect to each other between said control grid and a source of alternating input signals, the other terminal of said source of input signals being connected to a terminal of said control grid biasing resistor, alternating signals from said source being applied through said series connected capacitor and resistor to vary the charging current to said charging capacitor, thereby modulating the oscillation frequency of said oscillator in accordance therewith, and an output means connected to the plate of said pentode.

2,870,412

FREQUENCY MODULATION MEANS INCLUDING PULSE POSITION MODULATION

Howard D. Hern, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application February 20, 1956, Serial No. 566,545
4 Claims. (Cl. 332—16)



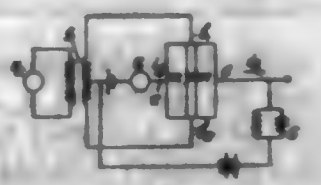
1. Means for phase modulating a carrier signal by means of an amplitude-varying modulating signal, comprising a saw-tooth generator, a resistive voltage divider, a source of direct voltage connected across said voltage divider, an asymmetric conductor connected between said saw-tooth generator and an intermediate point on said voltage divider, said amplitude-varying modulating signal connected to said intermediate point, a differentiating circuit comprising a capacitor and a second asymmetric conductor connected in series across a portion of said divider, with said capacitor connected to said intermediate point and said second asymmetric conductor connected to another point on said divider, said first and second asymmetric conductors having their conduction states abruptly changed when the saw-tooth wave applied to one side of said first asymmetric conductor substantially equals the instantaneous potential at said intermediate point, said differentiating network thereby forming a pulse at the instant that its asymmetric conductor changes its conduction state, and a parallel-resonant circuit tuned to a multiple of said saw-tooth repetition rate operably connected to receive the pulses generated by said differentiating network, whereby the output of said ringing circuit is a phase-modulated carrier signal.

2,870,413

MODULATOR CIRCUIT ARRANGEMENT COMPRISING TRANSISTORS

Johannes Meyer Clawen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 1, 1953, Serial No. 395,545
Claims priority, application Netherlands December 1, 1952
10 Claims. (Cl. 332—31)



1. A circuit-arrangement for intermodulating two electrical signals comprising a transistor provided with an

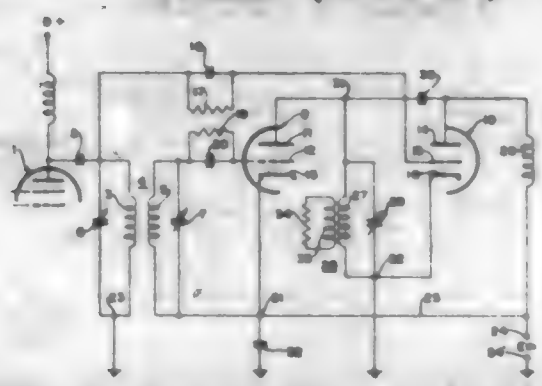
emitter input electrode, two base input electrodes and a collector output electrode, a first signal source including push-pull inductive means to derive two signal components in phase opposition therefrom, means to apply said components respectively to two of said input electrodes, a second signal source, means to apply the signal from said second source to the remaining one of said input electrodes, the amplitude of said two signal components having a ratio value at which the current from the first source which passes through the second source is approximately zero.

2,870,414

SUPPRESSED CARRIER MODULATOR

Cary T. Isley, Jr., Los Angeles, Calif., assignor to The Martin Company, a corporation of Maryland

Application November 7, 1956, Serial No. 620,849
8 Claims. (Cl. 332—44)



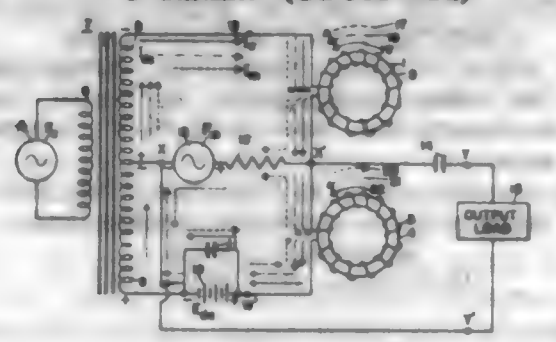
1. Modulation apparatus which comprises, in combination, first and second electron discharge devices each having at least an anode, a grid and a cathode, sources of alternating current potentials having the same predetermined frequency and being substantially in phase quadrature, lumped constant circuits for impressing the potential of one of said sources on the grid of said first device and for impressing the potential of the other of said sources on the grid of the second of said devices, a source of modulating potential, and a load impedance tuned to a frequency twice the said predetermined frequency, said modulating source and said load impedance being connected in the anode circuit of said first device such that that device is conductive during positive excursions of the modulating potential, and said modulating source and load impedance being connected in the anode circuit of said second device such that that device is conductive during negative excursions of the modulating potential.

2,870,415

SATURABLE MAGNETIC MODULATOR

Victor A. Misek, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware

Application June 3, 1955, Serial No. 512,981
3 Claims. (Cl. 332—51)



3. A balanced magnetic modulator, comprising: a carrier signal generator for providing a carrier frequency signal; a transformer having a primary winding coupled to said generator and a secondary winding having a center-tapped terminal; a pair of series-connected coils each surrounding a saturable magnetic core with a common junction terminal between them and an end of one of said coils being connected to an end of said secondary for producing an alternating carrier frequency magnetic flux in said cores; unidirectional bias current means connected in series with said coils and said secondary, an end of said bias means being connected to the other end of said secondary, the other end of said bias means being connected to the other end of said coils, for applying a unidirectional bias magnetic flux through said cores of a magnitude substantially insufficient to saturate said cores; and a modulation signal generator means connected between said junction terminal and said center-tapped terminal.

2,870,416

MAGNETIC MODULATOR

Robert A. Heartz, Utica, N. Y., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Continuation of application Serial No. 344,698, March 26, 1953. This application November 19, 1956, Serial No. 623,005
7 Claims. (Cl. 332—51)



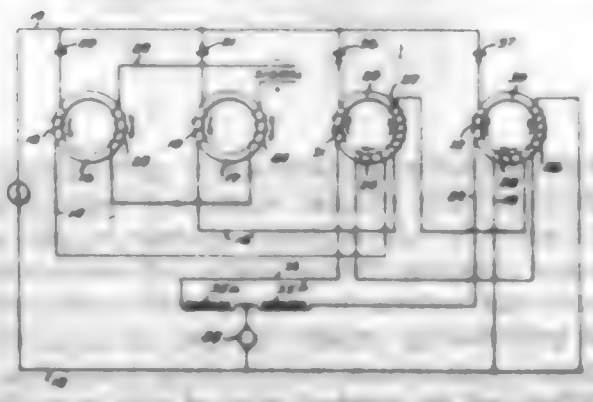
1. A magnetic modulator comprising, a hollow toroidal shaped core, a first winding positioned within said hollow core and wound parallel to the plane of the circumference of said core, a second winding wound around said toroidal shaped core in the form of a toroid, means energizing said first named winding with an alternating current supply, means energizing said second named winding with a direct current signal source, and means including reactance electrically coupled to said direct current signal source and said second named winding, said last named means having a modulated direct current signal impressed on the same.

2,870,417

MAGNETIC AMPLIFIER CIRCUIT

Lothair H. Rowley, Syosset, N. Y., assignor to Ford Instrument Company, Division of Sperry-Rand Corporation, Long Island City, N. Y., a corporation of Delaware

Application October 28, 1957, Serial No. 692,716
3 Claims. (Cl. 323—89)



1. A magnetic amplifier circuit comprising a pair of closed magnetic circuits, a load winding on each magnetic circuit, a source of alternating current, the load windings being connected across the alternating current line in parallel branches, a half-wave rectifier in each branch circuit, the two rectifiers being poled in the same direction, a signal circuit having windings inductively related to the two magnetic circuits and arranged in opposing relation to the responsive load windings, a

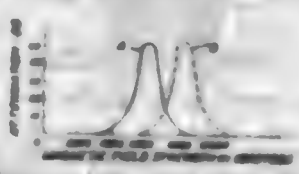
second pair of closed magnetic circuits, a pair of control windings on each of said second pair of closed magnetic circuits, one of the windings of each pair having a relatively greater number of turns than the other winding of the pair, one of the said load windings being connected in series in its parallel branch with the control windings on one of the second pair of closed magnetic circuits having the lesser number of turns and with the control winding on the other of the second pair of closed magnetic circuits having the greater number of turns and the other of said load windings being connected in series in its parallel branch with the control winding on the said one of the second pair of closed magnetic circuits having the greater number of turns and with the control winding on the other of the second pair of closed magnetic circuits having the lesser number of turns, the control windings of each pair being connected in their respective circuits in opposing flux inducing sense, a load winding on each of said second pair of closed magnetic circuits, the two last mentioned load windings being connected across the alternating current line in parallel branches, and half-wave rectifiers in the last mentioned parallel branches poled oppositely to the first mentioned rectifiers.

2,870,418

WAVE GUIDE COMPONENTS CONTROLLED BY FERROMAGNETICALLY RESONANT ELEMENTS

William H. Hewitt, Jr., Mendham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 6, 1952, Serial No. 286,343
18 Claims. (Cl. 333—7)



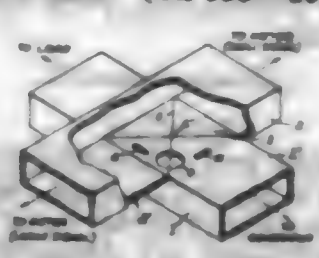
7. In combination, a channel for the transmission of electromagnetic energy, two control elements facing said channel, one of said elements having a critical magnetic field for ferromagnetic resonance, the other having a different attenuation versus magnetic field characteristic, and a variable magnet for inducing a magnetic field in said elements.

2,870,419

ULTRA-HIGH FREQUENCY DIRECTIONAL COUPLING APPARATUS

Henry J. Riblet, Wellesley, Mass.

Application June 12, 1953, Serial No. 361,169
6 Claims. (Cl. 333—10)



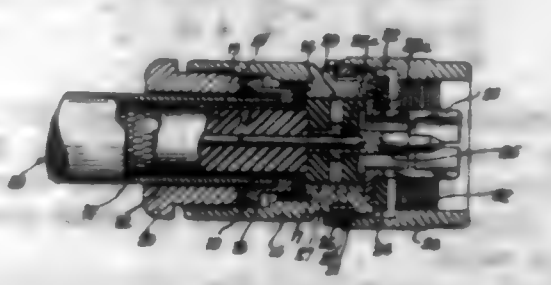
1. Directional coupling apparatus comprising first and second perpendicularly oriented rectangular waveguides having a common broad wall of substantially square configuration, means to couple to said first waveguide longitudinal and transverse magnetic field components together with but to a lesser extent an electric field component of energy transmitted in said second waveguide, said means comprising a principal coupling aperture interconnecting said waveguides through said common wall and disposed toward an end of a diagonal of said square, and subsidiary means to couple primarily magnetic field components of said energy to cancel substantially the effect in said first waveguide of said electric field component of energy coupled through said principal aperture, said subsidiary means comprising a plurality of spaced subsidiary coupling apertures formed in said common wall and interconnecting said waveguides on opposite sides of said diagonal.

2,870,420

ELECTRICAL CONNECTOR FOR COAXIAL CABLE

Joseph V. Malek, Chicago, Ill., assignor to American Phenolic Corporation, Cicero, Ill., a corporation of Illinois

Application April 5, 1955, Serial No. 499,291
4 Claims. (Cl. 333—33)



1. In a connector for use with a coaxial electric transmission cable of the type having a filamentary inner conductor, insulating material overlying such inner conductor, and an outer conductor formed of flexible metallic braid, said connector having a generally cylindrical metallic body member adapted to receive said cable in its rear portion, the improvement which comprises a first centrally apertured insulating element adapted to fit within said body member, means carried by said body member limiting forward movement of said insulating element therewithin, a metallic central contact for said connector of generally cylindrical contour and having a shoulder extending radially outward in a zone axially intermediate the ends of said contact, said contact having also means at its rear end adapted to receive and make electrical contact with the inner conductor of said cable, said shoulder bearing against said insulating element when the front portion of said contact is inserted in the central aperture thereof, a second centrally apertured insulating element adapted to fit over said contact behind said shoulder and within said body member, and clamping means for securing the braid of said cable in intimate contact with the inner surface of said body member, said clamping means being operative in the course of securing said braid to confine said second insulating element and to hold the shoulder of said central contact securely between said first and second insulating elements, thereby fixing said contact against axial and lateral movement within said body member, said first and second insulating elements being formed to terminate substantially flush with the rim of said shoulder, leaving an annular zone between said shoulder and the inner surface of said body member, said annular zone being occupied by a dielectric material of lower dielectric constant than the material from which said first and second elements are formed.

2,870,421

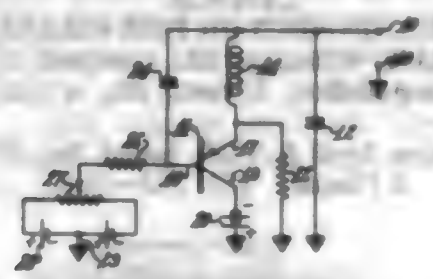
TRANSISTOR REACTANCE CIRCUIT

Hunter C. Goodrich, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application May 3, 1954, Serial No. 427,165
8 Claims. (Cl. 333—80)

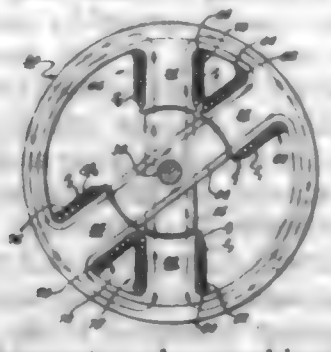
1. In a variable reactance circuit having a pair of external circuit connections and providing a variable reactive component therebetween, the combination comprising a first reactive element, a transistor having base, emitter and collector electrodes, said emitter and collector electrodes defining a current carrying path, said first reactive elements and said current carrying path being connected in series relation between said pair of external circuit connections, a second reactive element of an opposite type connected between said external circuit connections and providing with said first reactive ele-

ment a resonant circuit, means coupling said base electrode with the junction of said first reactive elements and one of said external circuit connections, means for applying a signal voltage to said external circuit connections; bias means connected with said electrodes, and



means connected with said base electrode for applying a variable base electrode current for varying the signal voltage across said current carrying path whereby the reactive component between said external circuit connections is varied.

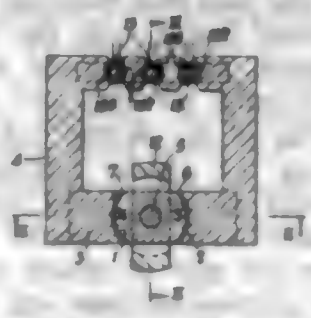
2,870,422
ACCELEROMETER
Philip Gindes and Jerome S. Lion, Los Angeles, Calif., assignors to Genisco, Inc., Los Angeles, Calif., a corporation
Application February 25, 1957, Serial No. 642,204
7 Claims. (Cl. 336—30)



1. In an accelerometer, the combination of an open-ended cylindrical-shaped body portion, a first disc-like resilient member mounted at one end of said body portion and extending across such one end, a second disc-like resilient member mounted at the other end of said body portion and extending across such other end, a shaft secured to said first and second disc-like members and supported thereby for reciprocal rectilinear motion with respect to said body portion along the central longitudinal axis of said body portion, first and second magnetic pole members supported on the internal surface of said body portion in angularly displaced relation and extending substantially radially with respect to the central longitudinal axis of said body portion, first and second winding means respectively supported by said first and second pole members, a first magnetic core member carried by said shaft and movable across the face of said first pole member to vary the reluctance of the magnetic circuit of said first winding means, and a second magnetic core member carried by said shaft and movable across the face of said second pole member to vary the reluctance of the magnetic circuit of said second winding means in the opposite sense to the variation of the reluctance of the magnetic circuit of said first winding means by said first core member.

2,870,423
VARIABLE INDUCTANCE DEVICES
Arthur Bickers, Chelmsford, England, assignor to Marconi's Wireless Telegraph Company Limited, London, England, a British company
Application March 28, 1955, Serial No. 497,294
Claims priority, application Great Britain April 21, 1954
2 Claims. (Cl. 336—110)

1. A variable inductance device comprising a ferromagnetic circuit, said circuit including a permanent magnet arranged as a series element in said circuit and constituting a movable member rotatable therein within an air-gap, a plurality of coils arranged substantially wholly within a plurality of air-gaps in said circuit, and a mag-



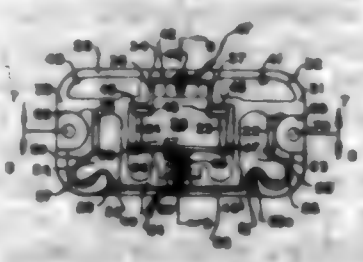
netic screen located adjacent said movable member whereby the leakage field from the permanent magnet is substantially prevented from affecting the inductance of said coils.

2,870,424
ELECTRICAL SOCKET FOR MINIATURE COMPONENTS
Erwin E. Franz, Cranford, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 30, 1954, Serial No. 478,714
8 Claims. (Cl. 339—17)



1. A socket element for connecting electrical components comprising a body member of insulating material having a recess therein, a looped spring member positioned in the recess and having the lower portion thereof out of contact with the side walls and bottom of said recess, said spring member comprising a metallic strip bent back upon itself to provide return bend portions, said return bend portions converging and diverging along their length for facilitating the reception and to insure the embracement of a cooperating member inserted therebetween, the upper portions of said spring member bent back upon themselves in engagement with and extending around said body member away from the recess and terminating in downwardly extending lug portions for securing the socket element to a panel and attachment of electrical conductors.

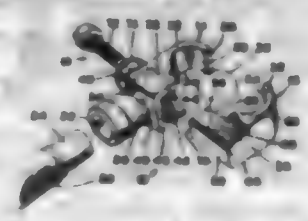
2,870,425
SOCKET PLUG RECEPTACLE
Oscar J. Hall, Kalamazoo, Mich.
Application October 29, 1954, Serial No. 465,468
4 Claims. (Cl. 339—75)



1. A socket plug receptacle of the class described, comprising: a housing; said housing including a pair of side walls integral with a top wall; a pair of aligned transverse slots formed in said top wall adjacent each end thereof and extending therethrough; each of said pair of slots including an inner slot and an outer slot; a conductor bracket mounted in one of said walls and being pro-

vided with a pair of inwardly extending arms; a pair of fixed contacts on said arms disposed to align with the inner slots of said pairs of slots; a movable spring biased means for yieldably biasing a prong of a socket plug into a gripping engagement with either of said fixed contacts; a second conductor bracket mounted in the other of said side walls and having a pair of inwardly extending arms thereon; a substantially U-shaped spring contact carried by each of the arms of said second conductor bracket, said spring contacts being disposed outwardly of said fixed contacts and in alignment with the outer slots of said pairs of slots; said contacts coacting with said slots to form a pair of socket receptacles for double pronged socket plugs.

2,870,426
BATTERY TERMINAL CLAMP
Clarence B. Haegert, Coffeyville, Kans.
Application July 28, 1953, Serial No. 370,792
3 Claims. (Cl. 339—231)



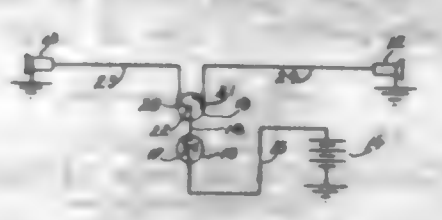
1. A split type battery terminal clamp having a pair of substantially semi-cylindrical jaws having opposed internal surfaces on a radius conforming to that of a standard battery terminal post, the jaws at the adjacent ends of said surfaces being slightly cut away to provide good clamping clearance for undersize posts, means for clamping said jaws around a battery terminal post comprising tapered rectangular, transversely telescoping male and female lugs at one end of said jaws respectively, for guiding and providing sliding electrical contacts between said jaws during clamping, and bolt means for drawing said lugs together into interfitting relation with the jaws fully closed, to form a substantially solid rectangular body, the female lug providing unbroken upper and lower faces coextensive with the upper and lower faces of said jaws, the side faces of said body having the opening through the female lug filled substantially flush by the ends of the male lug, said faces tangentially extending from the outer sides of said jaws, said male lug having shoulder portions extending upwardly and downwardly over the inner edges of the upper and lower walls of the female lug opening in its half of the body, and a cylindrical axial extension at the end of the body opposite said jaws for the reception of a conventional electrical cable.

2,870,427
DEVICE FOR DETECTING AND INDICATING PROXIMITY OF OBJECTS
Wallace E. Frank, Kintnersville, and Frederick F. Ohstrup, Philadelphia, Pa., assignors to W. K. Kellogg Foundation, Battle Creek, Mich., a corporation of Michigan
Application March 11, 1952, Serial No. 276,018
5 Claims. (Cl. 340—16)

1. A portable device for use by the blind to detect the presence and proximity of an object, comprising a high frequency oscillator tuned to a fixed super-audio frequency, a second high frequency oscillator tuned to the same frequency, a cane shaft to be held by the hand of the user, an antenna supported by said shaft and coupled to said second oscillator to vary the frequency thereof according to the proximity of an object, means for mixing the outputs of said oscillators to produce an audio frequency signal whose frequency is determined by the proximity of the object, sound reproducing means capable of producing sound of varying pitch according to its operating frequency, and means for supplying said audio frequency signal to said sound reproducing means, whereby the latter indicates both the presence of the object and its proximity.

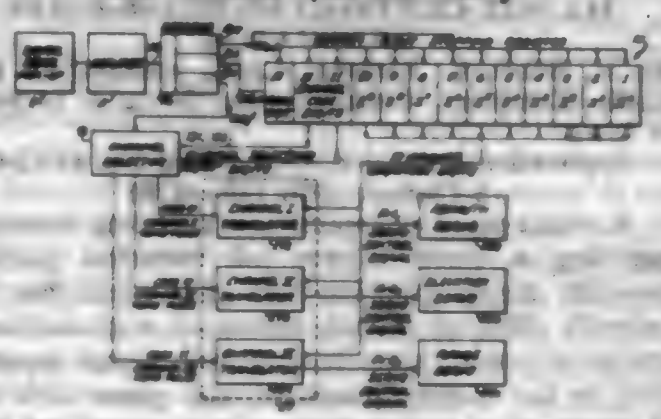


2,870,428
REAR HORN FOR VEHICLES
Richard E. Webster, Detroit, Mich.
Application February 19, 1958, Serial No. 716,211
2 Claims. (Cl. 340—70)



1. In combination with a vehicle having a front horn, a manually operable gearshift means on the vehicle movable into a reverse control position and into additional control positions, a horn located adjacent the rear of the vehicle, a control switch having a contact connected to the rear horn and additionally spaced contacts corresponding to said additional control positions connected in series with said front horn, a movable contact on said control switch joined to said gearshift means and movable in unison therewith for selective engagement with the rear horn contact and said additional contacts respectively, and a normally open horn switch interconnecting a power source with said movable contact, whereby when the gearshift means is in reverse position, the horn button is adapted to activate only the rear horn and in all other positions of the gearshift means is adapted to activate only said front horn.

2,870,425
AUTOMATIC PROGRAM CONTROL SYSTEM
Everett R. Hales, Hawthorne, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application March 27, 1951, Serial No. 217,821
29 Claims. (Cl. 340—147)



1. An automatic programming system for coordinating a plurality of operations which may be expressed, re-

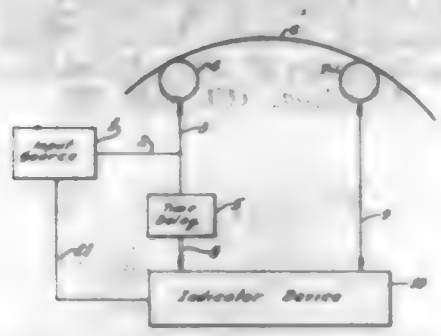
spectively, as individual time functions any point of which may be expressed as an ordinate and an abscissa, comprising a translation device for expressing the magnitudes of the ordinates of discrete sequential points on the respective functions in terms of operative entities of preselected characteristics and time relations symbolizing digit places of digital numbers, said translation device comprising a plurality of units each adapted to store an operative entity corresponding to an individual digit place of a digital number representing a discrete point on one of the functions, utilization devices for giving effect, respectively, to each of the time functions, and means for selectively applying the operative entities in selected digital units at a selected instant to one of said utilization devices.

2,870,430

DISTORTION INDICATOR

Robert D. Hancock, Compton, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application August 9, 1952, Serial No. 303,627
5 Claims. (Cl. 340—149)



1. In a distortion indicator particularly for determining the distortion introduced in complex audio or video signal waveforms by a given recording and reproducing process: a signal source having a single output; a recorder and reproducer assembly to be tested including a recording device, a movable recording medium positioned to receive signals thereon from said recording device, a reproducing device spaced from said recording device positioned in relation to said recording medium to reproduce recorded signals therefrom at a predetermined constant time period later than recorded on said medium; a time delay device; said signal source output connected directly to both the input of said recording device and the input of said time delay device; said time delay device having a delay time equal to the time of transit of said medium from said recording device to said reproducing device; an indicating device having two independent inputs; said indicator inputs being connected respectively to the output of said time delay device and the output of said reproducing device; whereby the original waveform and the recorded and reproduced waveform are simultaneously and synchronously presented to said indicating device for comparison.

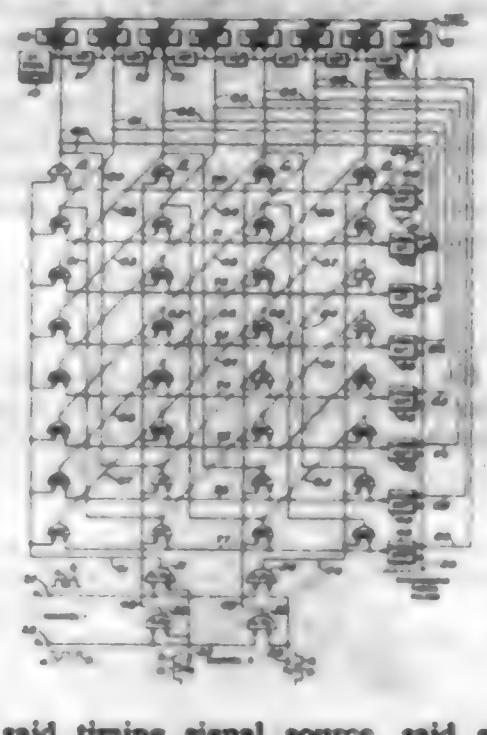
2,870,431

MATRIX-CONTROLLED PHASE-PULSE GENERATOR

Dean F. Babcock, Tarzana, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application January 8, 1957, Serial No. 633,143
8 Claims. (Cl. 340—170)

1. A phase-pulse generator for encoding binary data, comprising a stable source of electrical oscillation, phase-shift means connected to said oscillation source to provide different output phases of said oscillation, a plurality of output gates having their signal inputs connected to the output phases of said phase-shift means, said output gates having their outputs connected in common to provide the output of said generator, said output gates being normally closed to prevent their signal inputs from being provided at their outputs, decision-matrix means for sequentially opening said gates to permit their respective input signals to pass to their outputs, a source of timing signals, shift-register means included with said decision-matrix means and being connected to said timing signal source, said shift-register means storing prior data settings of said decision-matrix means, intelligence-matrix means for resolving said binary data into a sequential signal, outputs of said intelligence-matrix means being connected to the input of said decision matrix to sequentially actuate said output-gates with phase correlation to said binary data.

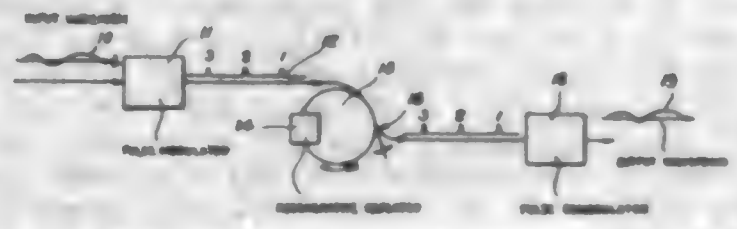


2,870,432

DYNAMIC MEMORY DEVICE USING ELECTRICAL PULSES

Richard Friedrich Josef Filipowsky, Glen Burnie, Md., assignor to Companhia Portugeza Radio Marconi, S. A. R. L., Lisbon, Portugal

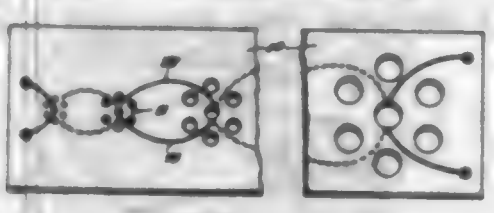
Application May 16, 1956, Serial No. 585,213
Claims priority, application Portugal June 28, 1955
7 Claims. (Cl. 340—173)



1. An electric memory system to store information by modulating electrical pulses and circulating said pulses in a given sequence permanently over one or more closed loops of convenient circulation time, said system comprising means for generating electrical pulses, means for modulating said pulses, said system comprising storage means for circulating said pulses permanently, means for preserving the waveforms of the pulses stored in said storage means, means for marking and identifying the first pulse of any sequence stored in said storage means, switching means for releasing the stored pulse train from said storage means in the correct sequence whenever triggered by an external signal, means for demodulating said modulated pulse sequence, said storage means comprises several closed loop storage devices, said loops being of different lengths and each having a circulation time equal to an integer multiple of the circulation time of the shortest loop, wherein said means for generating electrical pulses produce pulses of extremely short duration compared with their repetition period, said repetition period of the pulses is exactly an integer multiple of the circulation time of the first loop to be used by the pulses plus slightly more

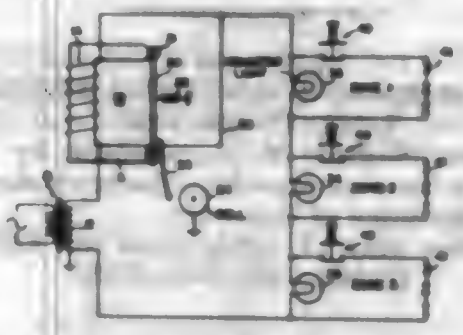
than one maximum modulation interval of a single modulated pulse, comprising means to transfer said pulses from one loop to the next one whenever space has become available in the next one.

2,870,433
STORAGE DEVICES
Anthony W. Simpson, Radcliffe-on-Trent, England, assignor to The Plessey Company Limited, Ilford, England, a British company
Application July 20, 1955, Serial No. 523,343
Claims priority, application Great Britain July 26, 1954
3 Claims. (Cl. 340—174)



2. In a magnetic storage device, a series of at least two spaced cores of ferromagnetic ferrite material which has a square hysteresis loop, said cores being formed on a single sheet of said ferromagnetic ferrite material, each of said cores comprising a portion of said sheet between a substantially circular chain of closely spaced holes and an additional hole substantially centrally located within the circular chain of holes, each of the cores of said series after the first having a larger diameter than the preceding one, and at least two independent conductors threaded through the additional center holes of the cores of said series.

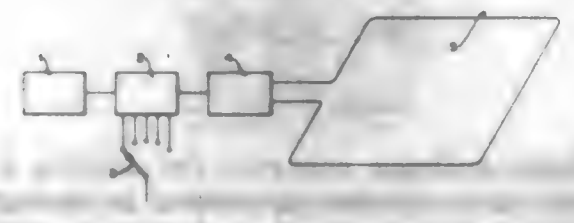
2,870,434
DETECTION AND SIGNALING APPARATUS
George R. Schulze, Hopkins, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application January 18, 1955, Serial No. 482,561
5 Claims. (Cl. 340—227)



1. In a fire detection and alarm system, actuator means having a bell clapper for energizing a bell, a source of power, control circuit means connecting said source of power and said actuator means in series, said control circuit comprising a plurality of indicator lamps each of which is shunted by a series circuit comprising a test switch and a plurality of normally closed temperature responsive means adapted to open upon reaching a predetermined temperature, and another circuit means closed when said clapper engages said bell for shunting said control circuit to connect said actuator directly to said source so that when said control circuit is ineffective to maintain said actuator means energized said clapper will successively engage said bell.

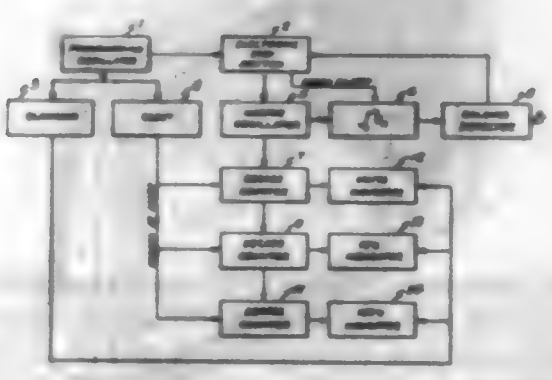
2,870,435
CALLING SYSTEM
Nicolaas Robert de Graaf, Vlaardingen, Netherlands
Application May 23, 1955, Serial No. 510,331
Claims priority, application Netherlands May 26, 1954
7 Claims. (Cl. 340—312)

1. A personal call system for selectively calling a plurality of persons individually in an area comprising, a closed circuit surrounding said area, a transmitter adapted to supply a modulated carrier having a frequency between 20 and 50 kilocycles per second to said circuit, a generator adapted to produce a plurality of low frequencies each characteristic for one of the persons to be called, means for wobbling each of the low frequencies produced by said generator, a selecting device by means of which one of the said low frequencies may be selected, means for molulating said carrier by the wobbled low frequency produced by said generator and



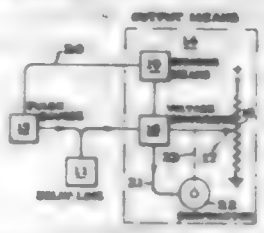
selected by means of said selecting device, and a plurality of portable receivers each adapted to be carried by one of the persons to be called, each receiver comprising means for receiving and detecting the signal supplied to said closed circuit, an electromagnetic oscillating mechanism mechanically tuned to respond to the low frequency characteristic for the individual being called so as to generate an audible signal, and means to supply the detected signal to said electromagnetic oscillating system.

2,870,436
ELECTRONIC ANALOGUE-TO-DIGITAL CONVERTER
Milton L. Kuder, Washington, D. C., assignor to the United States of America as represented by the Secretary of Commerce
Original application January 9, 1953, Serial No. 330,599, now Patent No. 2,761,968, dated September 4, 1956. Divided and this application December 15, 1955, Serial No. 553,399
7 Claims. (Cl. 340—347)



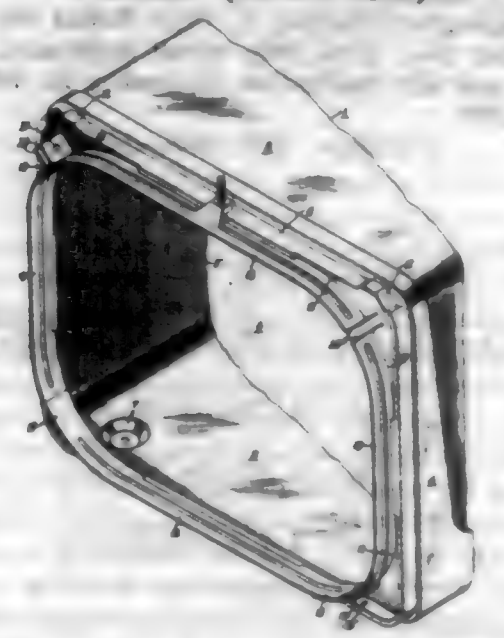
3. An apparatus for converting an analogue voltage into magnitude-related digits, comprising first oscillator means for producing a series of voltage pulses, second oscillator means, switching means responsive to said second oscillator means for initiating operation of said first oscillator means, integrator means for producing a precisely determined voltage which is proportional to the number of voltage pulses supplied by said first oscillator means, detector means for comparing the output of said integrator means with the analogue voltage, said detector means being operable to put out a voltage pulse when said voltages are equal, said switching means being responsive to said last-mentioned voltage pulse to terminate the operation of said first oscillator means, and means for counting the number of pulses produced by said first oscillator means between initiation and termination.

2,870,437
DIGITAL-ANALOGUE CONVERTER
Gordon George Scarrott, Manchester, and Kenneth Charles Johnson, Gatley, Cheadle, England, assignors to Ferranti, Limited, Hollinwood, Lancashire, England, a company of Great Britain
Application November 19, 1956, Serial No. 622,979
Claims priority, application Great Britain November 24, 1955
7 Claims. (Cl. 340—347)



1. A digital-analogue converter for deriving a signal proportional to the number represented by an input train of binary digital current pulses of uniform width and height, the pulse representing the most significant digit coming last, including a two-terminal delay-line device having a delay equal to half the pulse interval T of said pulses and a loss factor of two over each reflection cycle, connections for applying said input train to said terminals, and output means for deriving the voltage across said terminals at a time t^1 approximating to $nT/2$ from the cessation of the application of the train, where n is an odd integer, preferably unity.

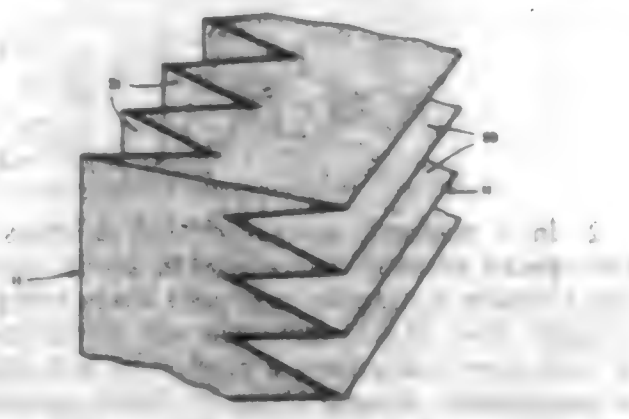
2,870,438
CABINET WITH INTEGRAL TUBE MOUNTING MEANS
Karsten Solheim, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application September 12, 1955, Serial No. 533,617
8 Claims. (Cl. 340—367)



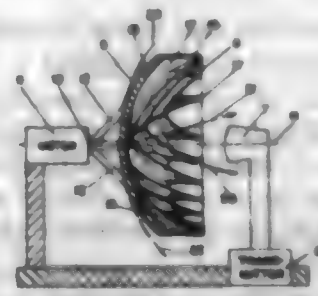
1. A cabinet for electronic devices including cathode-ray tubes, comprising a body portion adapted to house the chassis of an electronic device, one end of said body portion having formed integrally thereon clamping elements matching the configuration of a cathode-ray tube forming a part of the electronic device, said clamping elements including means whereby they may be tightened to hold a cathode-ray tube inserted therein.

2,870,439
MICROWAVE ENERGY ATTENUATING WALL
Harold E. Stinehelfer, Woodside, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a corporation of New York
Application December 29, 1950, Serial No. 203,395
7 Claims. (Cl. 343—18)

1. A device for attenuating microwave energy, comprising a body member composed of insulated material and having a pair of opposite generally plane surfaces each of said surfaces being divided into a like plurality of generally rectangular segments, each of said segments having a lateral edge abutting a lateral edge of another segment, each of said segments comprising a plurality of generally V-shaped substantially parallel serrations, the abutting sides of adjacent serrations meeting at an angle lying within the range of about 20 to 30 degrees and an electrically resistive film coated on the sides of said serrations so that multiple reflections of said microwave from one to the other of the abutting sides of said adjacent serrations will be produced when the device is disposed in the path of said microwave energy, said electrically resistive film having the properties of reflecting and absorbing substantial portions of incident microwave energy, the substantially parallel serrations of each of said segments of each of said surfaces being arranged in a substantially perpendicular direction to the parallel serrations of a segment having a lateral edge abutting the lateral edge thereof, each of said segments of one of said surfaces being arranged opposite a corresponding segment of the other of said surfaces, the parallel serrations of said corresponding segments being arranged in substantially perpendicular directions.



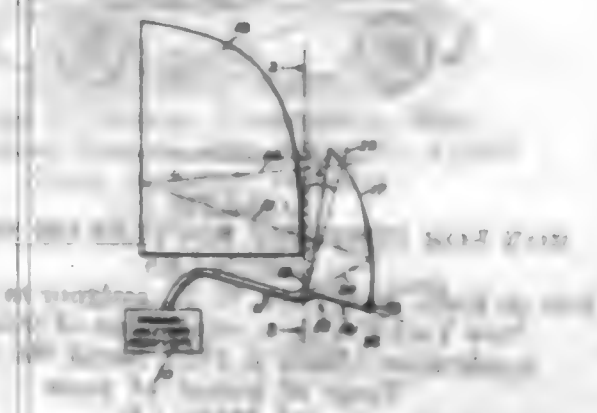
2,870,440
CONICAL SCANNING ANTENNA SYSTEMS AS USED IN RADAR
Jesse L. Butler, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
Application May 13, 1954, Serial No. 429,633
3 Claims. (Cl. 343—755)



1. An antenna system comprising, in combination, a source of plane-polarized electromagnetic energy; a composite lens-reflector comprising a first parabolic reflector having a predetermined central axis, and a second parabolic reflector, disposed in front of said first reflector and having a plurality of wave guide elements each having one dimension less than half of a wave length at the operating frequency and adjacently so disposed in three substantially 120 degree sectors having radiation axes angularly displaced from the first said axis, that each sector provides a grating substantially transparent to said energy in certain diametrically opposed positions while being reflective and relatively opaque to said energy in positions at quadrature with said diametrically opposed positions, thereby permitting the passage of said energy

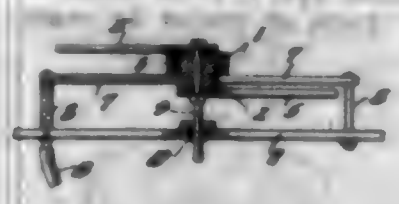
therethrough to said first reflector when in said diametrically opposed positions; means directing said polarized energy towards said lens-reflector; and means producing relative rotation between said second reflector and said polarized energy effecting, thereby, conical scanning of the resultant beam at a frequency three times that of the rotation of said second reflector.

2,870,441
MICROWAVE ANTENNAS
Paul Hines, Waltham, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application October 23, 1952, Serial No. 316,448
5 Claims. (Cl. 343—781)



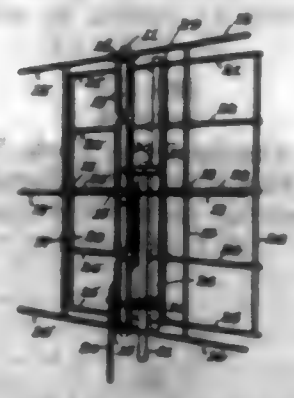
5. A microwave antenna system comprising a wave guide having at its termination a horn, a reflector formed integral with one side wall of the horn the surface of said reflector intersecting the magnetic plane of the radiation along a parabola, said side wall being positioned to make a larger angle with the axis of propagation of the horn than the opposite wall, and a second reflector the surface of which intersects the magnetic plane of the radiation along a straight line positioned at an angle to the directrix of the parabola of the first reflector.

2,870,442
FERROMAGNETIC ANTENNA SYSTEMS
Wladimir J. Polydoroff, Kensington, Md.
Application March 16, 1956, Serial No. 573,713
6 Claims. (Cl. 343—787)



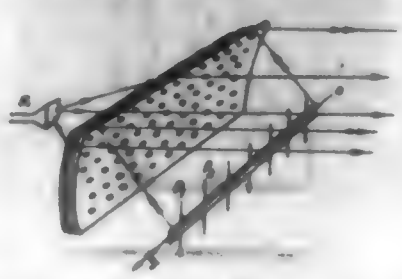
1. A directional antenna system for the reception of electromagnetic radiations having a ferromagnetic core of high permeability in the form of a hollow body of rotation, the axis of said core being in the direction of polarization of said radiations, a search coil around said core, a pair of elongated ferromagnetic bars, each being in the plane perpendicular to said axis, said pair being connected together for rotation by a common shaft protruding through the hollow of said core, the respective inner ends of said elongated bars being connected through the smallest possible airgap to the opposite end portions of said core.

2,870,443
TELEVISION ANTENNA
Leonard J. Lynch, De Kalb, and Harold H. Tiahrech, Evanston, Ill.
Application April 15, 1953, Serial No. 349,012
6 Claims. (Cl. 343—812)



1. An antenna suitable for television use comprising an upright supporting mast, three pairs of substantially horizontal metallic rod elements carried by said mast in insulated relation thereto and to one another and extending from opposite sides of the mast in aligned relationship, the pairs being in evenly vertically spaced substantially coplanar relationship, and a substantially vertical metallic rod element on each side of the mast rigidly interconnecting the three rod elements together at their midpoints but so as to electrically connect the midpoints of the top and bottom rod elements through said vertical rod element while leaving the middle rod element in insulated relationship to the vertical rod element, each pair of aligned horizontal rod elements being electrically cross-connected with the next pair of aligned horizontal rod elements.

2,870,444
RADIATING SYSTEMS
Georges Bronnand, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, a corporation of France
Application November 15, 1955, Serial No. 546,899
Claims priority, application France November 18, 1954
6 Claims. (Cl. 343—909)



4. A radiating system for radiating two ultra high frequency carrier waves having respectively a first frequency and a second frequency lower than said first frequency, comprising in combination: a plurality of parallel spaced metallic plates comprising two end plates, each plate having a concave and a convex side, each side having a focus and a plurality of discrete holes spaced apart from each other and having dimensions smaller than the shortest of said waves; first radiating means positioned at the focus of the convex side of one end plate for radiating the wave having said first frequency; and second radiating means located at the focus of the concave side of the other end plate for radiating said other carrier wave.

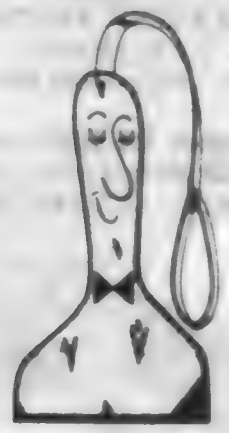
DESIGNS

JANUARY 20, 1959

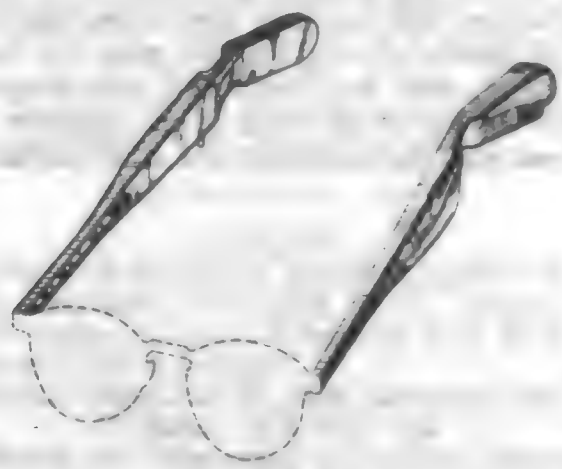
184,272
DRESS
Oleg Cassini, New York, N. Y.
Application August 26, 1958, Serial No. 52,388
Term of patent 3½ years
(Cl. D3—26)



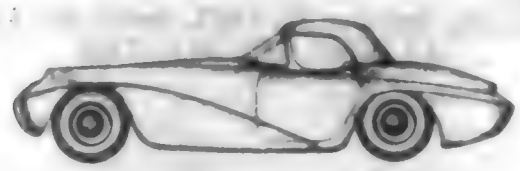
184,273
BEANBAG
William D'Arcy Cayton, Larchmont, N. Y.
Application February 6, 1958, Serial No. 49,530
Term of patent 14 years
(Cl. D34—15)



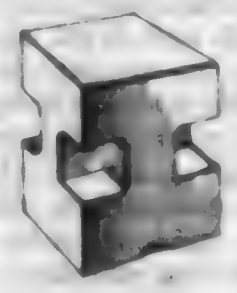
184,274
COMBINED SPECTACLES AND HEARING AID
Harold W. Darr, Minneapolis, Minn., assignor to Maico Electronics, Inc., Minneapolis, Minn., a corporation of Minnesota
Application December 30, 1957, Serial No. 49,061
Term of patent 7 years
(Cl. D57—1)



184,275
AUTOMOBILE
Leslie A. Dawes, Torrance, Calif.
Application May 27, 1957, Serial No. 46,350
Term of patent 7 years
(Cl. D14—3)



184,276
BOX FOR PERFUME BOTTLES OR SIMILAR ARTICLES
Eric de Kolb, New York, N. Y., assignor to Coty, Inc., New York, N. Y., a corporation of Delaware
Application March 4, 1957, Serial No. 45,056
Term of patent 14 years
(Cl. D58—13)



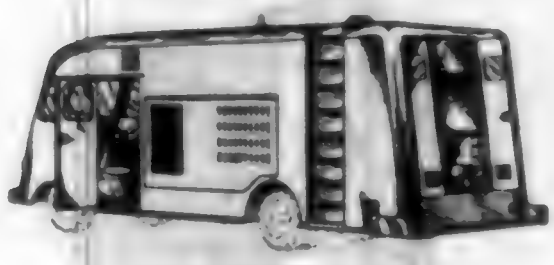
184,277
END COVER FOR A SUCTION CLEANER
Raymond Descarries, Montreal, Quebec, Canada, assignor to Aktiebolaget Electrolux, Stockholm, Sweden, a corporation of Sweden
Application Apr. 1, 1958, Serial No. 50,281
Term of patent 14 years
(Cl. D9—2)



184,278
LATCH PLATE FOR A SUCTION CLEANER
Raymond Descarries, Montreal, Quebec, Canada, assignor to Aktiebolaget Electrolux, Stockholm, Sweden, a corporation of Sweden
Application September 24, 1958, Serial No. 52,746
Term of patent 14 years
(Cl. D9—2)



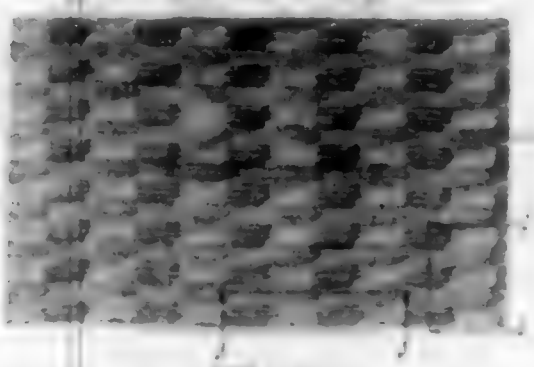
184,279
MOBILE MONITORING UNIT
Elmo T. Evans, La Crescenta, and Warren W. White, Sierra Madre, Calif., assignors to Hycon Mfg. Company, Pasadena, Calif., a corporation of Delaware
Application July 1, 1957, Serial No. 46,782
Term of patent 14 years
(Cl. D14—3)



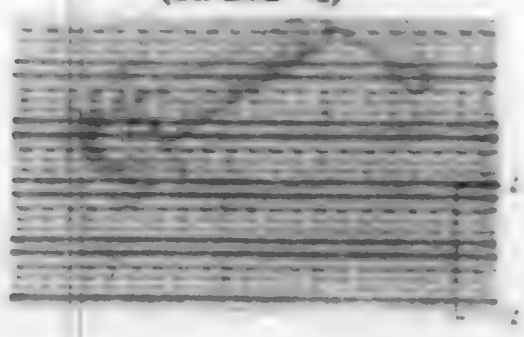
184,280
ADJUSTABLE WRENCH
James E. Ferrara, Youngstown, Ohio
Application June 20, 1956, Serial No. 41,988
Term of patent 14 years
(Cl. D54—16)



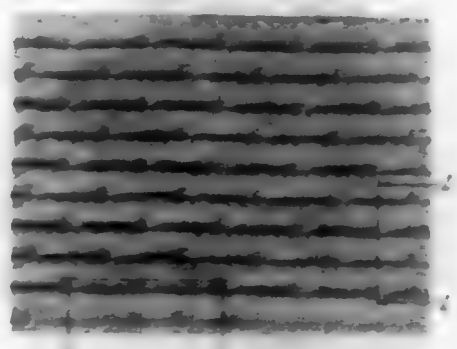
184,281
PUFFED TEXTILE FABRIC
Henry E. Goforth, Wimsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 19, 1958, Serial No. 49,700
Term of patent 14 years
(Cl. D92—1)



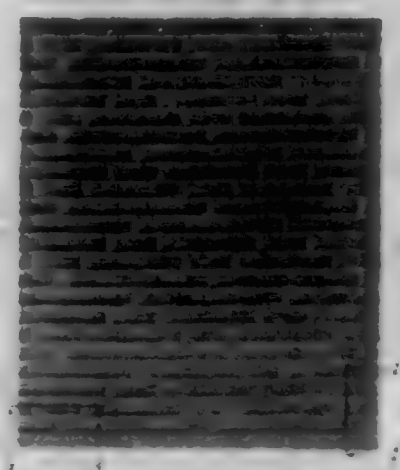
184,282
PUFFED TEXTILE FABRIC
Henry E. Goforth, Wimsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 19, 1958, Serial No. 49,710
Term of patent 14 years
(Cl. D92—1)



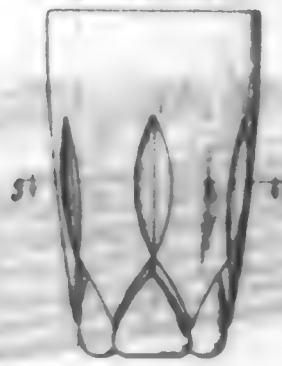
184,283
PUFFED TEXTILE FABRIC
Henry E. Goforth, Wimsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 19, 1958, Serial No. 49,711
Term of patent 14 years
(Cl. D92—1)



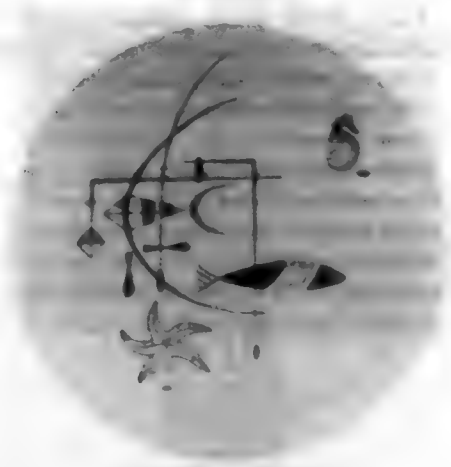
184,284
PUFFED TEXTILE FABRIC
Henry E. Goforth, Wimsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application March 10, 1958, Serial No. 49,970
Term of patent 14 years
(Cl. D92—1)



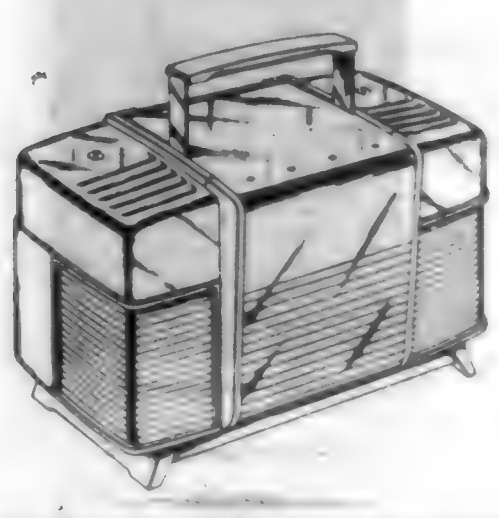
184,285
DRINKING GLASS
Belle Kogan, New York, N. Y., assignor to Owens-Illinois Glass Company, Toledo, Ohio, a corporation of Ohio
Application March 5, 1958, Serial No. 49,915
Term of patent 14 years
(Cl. D36—8)



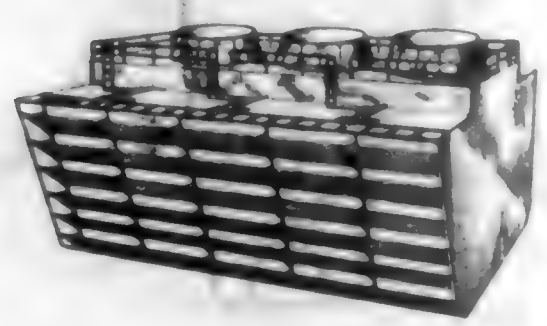
184,286
PLATE OR SIMILAR ARTICLE
Ann F. Landau, Beverly Hills, Calif., assignor to Wallace China Co., Ltd., Los Angeles, Calif., a corporation of California
Application May 26, 1958, Serial No. 51,070
Term of patent 14 years
(Cl. D44—15)



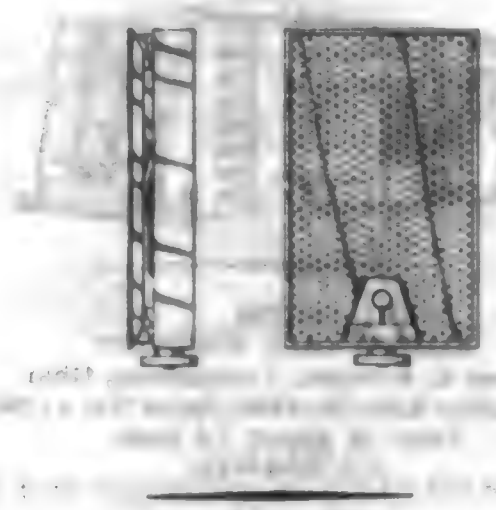
184,287
PHOTOGRAPHIC COPYING APPARATUS OR SIMILAR ARTICLE
Courtney A. Leubner, Milwaukee, Wis., and Karl M. Maiershofer, Norridge, Ill., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application January 27, 1958, Serial No. 49,417
Term of patent 14 years
(Cl. D61—1)



184,288
COOLING TOWER
Leon T. Mart, Mission Township, Johnson County, Kans., assignor to The Marley Company, Kansas City, Mo., a corporation of Delaware
Application April 28, 1958, Serial No. 50,646
Term of patent 14 years
(Cl. D62—4)



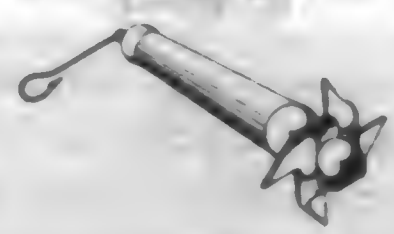
184,289
THERMOSTAT
John S. Mears, Oswego, Oreg.
Application February 24, 1958, Serial No. 49,784
Term of patent 14 years
(Cl. D52—7)



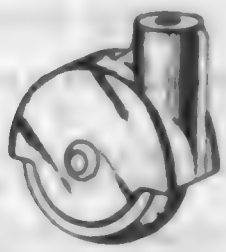
184,290
MEMORIAL LAMP OR SIMILAR ARTICLE
Robert J. Rettman, Pittsburgh, Pa., assignor to Jas. H. Matthews & Co., Pittsburgh, Pa., a corporation of Pennsylvania
Application January 21, 1958, Serial No. 49,338
Term of patent 14 years
(Cl. D48—28)



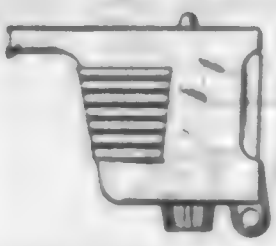
184,291
FISHING LURE
George Paul Ritts and Lillian May Ritts, East Lansing, Mich.
Application August 16, 1957, Serial No. 47,488
Term of patent 14 years
(Cl. D31—4)



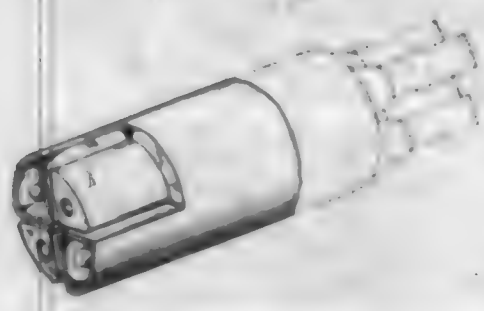
184,292
FURNITURE CASTER
Edward C. Scanlon, West Barrington, R. I.
Application June 3, 1958, Serial No. 51,178
Term of patent 14 years
(Cl. D10—6)



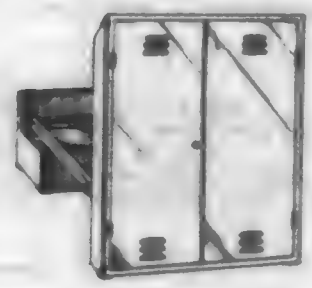
184,293
COMBINED TOY WHISTLE AND FLASHLIGHT
Sidney Schwartz, New York, N. Y.
Application January 31, 1958, Serial No. 49,454
Term of patent 7 years
(Cl. D34—15)



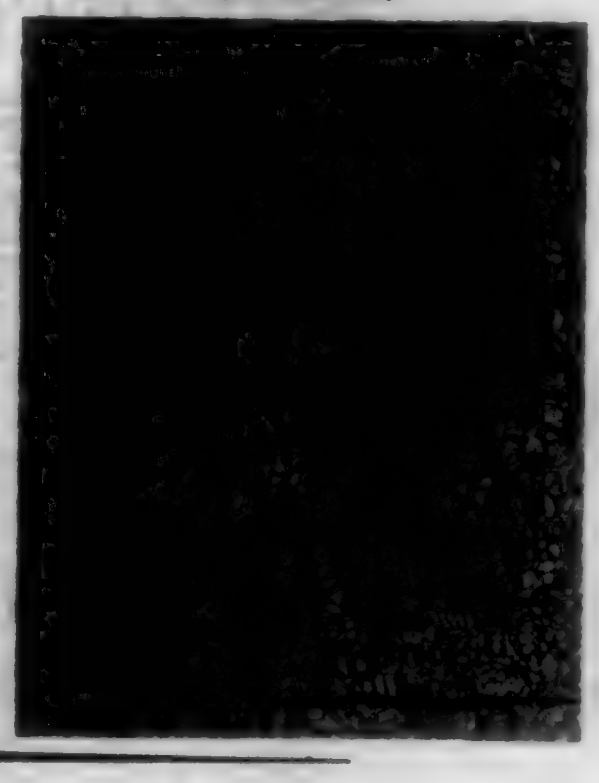
184,294
ELECTRICAL CONNECTOR
Raymond A. Swan, St. Ann, Mo., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application May 23, 1957, Serial No. 46,320
Term of patent 14 years
(Cl. D26—1)



184,295
COMBINED BED AND LOCKER UNIT
Frank S. Wallen, Chicago, Ill., assignor to Superior Sleeprite Corporation, a corporation of Illinois
Application May 21, 1957, Serial No. 46,257
Term of patent 14 years
(Cl. D5—4)



184,296
PLASTIC SHEET MATERIAL
Russel Wright, New York, N. Y.
Application April 15, 1958, Serial No. 50,484
Term of patent 14 years
(Cl. D67—3)





LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 20TH DAY OF JANUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Duesenberg, Denny D., to Ford Motor Co. Valve steam seal. Re. 24,593, 1–20–59, Cl. 123—188.

Ford Motor Co.: *See*—
Duesenberg, Denny D. Re. 24,593.

Parker, Louis W. Television distribution system. Re. 24,590, 1–20–59, Cl. 250—15.

Rome Cable Corp.: *See*—
Williams, Dean L. Re. 24,592.

Schwartz, Louis. Mattress cover and method of making same. Re. 24,591, 1–20–59, Cl. 5—354.

Williams, Dean L., to Rome Cable Corp. Apparatus for serving a strand on a travelling core. Re. 24,592, 1–20–59, Cl. 57—18.

LIST OF PLANT PATENTEES

Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,803, 1–20–59, Cl. 47—61.

Ecke, Paul. Poinsettia plant. 1,802, 1–20–59, Cl. 47—60.

Jackson & Perkins Co.: *See*—
Boerner, Eugene S. 1,803.

James, Vernon R. Camellia plant. 1,801, 1–20–59, Cl. 47—60.

LIST OF DESIGN PATENTEES

Aktiebolaget Electrolux: *See*—
Descarries, Raymond. 184,277.
Descarries, Raymond. 184,278.

Cassini, Oleg. Dress. 184,272, 1–20–59, Cl. D2—26.

Cayton, William D. Beanbag. 184,273, 1–20–59, Cl. D34—15.

Coty, Inc.: *See*—
De Kolb, Eric. 184,276.

Darr, Harold W., to Maico Electronics, Inc. Combined spectacles and hearing aid. 184,274, 1–20–59, Cl. D57—1.

Dawes, Leslie A. Automobile. 184,275, 1–20–59, Cl. D14—3.

De Kolb, Eric, to Coty, Inc. Box for perfume bottles or similar articles. 184,276, 1–20–59, Cl. D58—13.

Descarries, Raymond, to Aktiebolaget Electrolux. End cover for a suction cleaner. 184,277, 1–20–59, Cl. D9—2.

Descarries, Raymond, to Aktiebolaget Electrolux. Latch plate for a suction cleaner. 184,278, 1–20–59, Cl. D9—2.

Evans, Elmo T., and W. W. White, to Hycon Mfg. Co. Mobile monitoring unit. 184,279, 1–20–59, Cl. D14—3.

Fercana, James E. Adjustable wrench. 184,280, 1–20–59, Cl. D54—16.

Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 184,281, 1–20–59, Cl. D92—1.

Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 184,282, 1–20–59, Cl. D92—1.

Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 184,283, 1–20–59, Cl. D92—1.

Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 184,284, 1–20–59, Cl. D92—1.

Hycon Mfg. Co.: *See*—
Evans, Elmo T., and White. 184,279.

Joy Mfg. Co.: *See*—
Swan, Raymond A. 184,294.

Kogan, Belle, to Owens-Illinois Glass Co. Drinking glass. 184,285, 1–20–59, Cl. D36—8.

Landau, Ana F., to Wallace China Co., Ltd. Plate or similar article. 184,286, 1–20–59, Cl. D44—15.

Leubner, Courtney A., and K. M. Malersbofer, to Polaroid Corp. Photographic copying apparatus or similar article. 184,287, 1–20–59, Cl. D61—1.

Maico Electronics, Inc.: *See*—
Darr, Harold W. 184,274.

Malersbofer, Karl M.: *See*—
Leubner, Courtney A., and Malersbofer. 184,287.

Marley Co., The: *See*—
Mart, Leon T. 184,288.

Mart, Leon T., to The Marley Co. Cooling tower. 184,288, 1–20–59, Cl. D62—4.

Matthews, Jas. H., & Co.: *See*—
Rettman, Robert J. 184,290.

Owens-Illinois Glass Co.: *See*—
Kogan, Belle. 184,285.

Polaroid Corp.: *See*—
Leubner, Courtney A., and Malersbofer. 184,287.

Mears, John S. Thermostat. 184,289, 1–20–59, Cl. D52—7.

Rettman, Robert J., to Jas. H. Matthews & Co. Memorial lamp or similar article. 184,290, 1–20–59, Cl. D48—20.

Ritta, George P. and L. M. Fishing lure. 184,291, 1–20–59, Cl. D31—4.

Ritta, Lillian M.: *See*—
Ritta, George P. and L. M. 184,291.

Scanlon, Edward C. Furniture caster. 184,292, 1–20–59, Cl. D10—6.

Schwartz, Sidney. Combined toy whistle and flashlight. 184,293, 1–20–59, Cl. D34—15.

Superior Sleeprite Corp.: *See*—
Wallen, Frank S. 184,295.

Swan, Raymond A., to Joy Mfg. Co. Electrical connector. 184,294, 1–20–59, Cl. D26—1.

United States Rubber Co.: *See*—
Goforth, Henry E. 184,281.
Goforth, Henry E. 184,282.
Goforth, Henry E. 184,283.
Goforth, Henry E. 184,284.

Wallace China Co., Ltd.: *See*—
Landau, Ana F. 184,286.

Wallen, Frank S., to Superior Sleeprite Corp. Combined bed and locker unit. 184,295, 1–20–59, Cl. D6—4.

White, Warren W.: *See*—
Evans, Elmo T., and White. 184,279.

Wright, Russel. Plastic sheet material. 184,296, 1–20–59, Cl. D67—3.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 20TH DAY OF JANUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

A. B. Mould and Construction Co. Ltd.: *See*—
Bleaney, Paul. 2,869,843.

ACF Industries, Inc.: *See*—
Rucker, Robert M. 2,869,819.

Abbott Laboratories: *See*—
Wright, Howard B., and Moore. 2,870,147.
Wright, Howard B., and Moore. 2,870,149.
Wright, Howard B., and Moore. 2,870,150.
Wright, Howard B., and Moore. 2,870,151.

Abbott Machine Co., Inc.: *See*—
Abbott, Samuel L. 2,869,798.

Abbott, Samuel L., to Abbott Machine Co., Inc. Successive setting of tensions on a multiple winding machine. 2,869,798, 1–20–59, Cl. 242—45.

Abernathy, George H., and L. H. Lamouria, to The Regents of the University of California. Paper depositing device for vineyards, orchards, and the like. 2,869,284, 1–20–59, Cl. 47—9.

Abrading Systems Co.: *See*—
Boettcher, Stephen A., and Page. 2,869,294.

Abraham, Michael: *See*—
Clay, Robert A. 2,869,291.

Abrahams, Fred W., to Advance Transformer Co. Apparatus for starting and operating gaseous discharge devices. 2,870,378, 1–20–59, Cl. 315—97.

Adam, Frank, Electric Co.: *See*—
Stieglitz, Henry M. 2,870,240.

Adam, Hermann. Bobbin supporting device. 2,869,496, 1–20–59, Cl. 112—231.

Adams, Benjamin F., Jr., to E. I. du Pont de Nemours and Co. Process for shrinking polyacrylonitrile textiles with specific chemical shrinking agents. 2,869,974, 1–20–59, Cl. 8—130.1.

Adams, Francis V., to International Business Machines Corp. Signal translating device. 2,869,785, 1–20–59, Cl. 235—61.

Adell, Franklin Z.: *See*—
Adell, Robert. 2,869,921.

Adell, Robert, to F. Z. and M. M. Adell. Ornamental and protective molding for edges of automobile doors. 2,869,921, 1–20–59, Cl. 296—44.

Advance Transformer Co.: *See*—
Abrahams, Fred W. 2,870,378.

Aeberhardt, Maurice: *See*—
Thummel, Ludwig, and Aeberhardt. 2,869,968.

Aerojet-General Corp.: *See*—
Corbitt, Howard E., Hill, and Bozarth. 2,870,287.

Aerotec Corp., The: *See*—
Oliveau, John V. 2,870,284.

Ahrens, Alfred H. Bolt and bearing puller and positioning tool. 2,869,225, 1–20–59, Cl. 29—256.

Aiken, William R., to Kaiser Industries Corp. Electronic device. 2,870,361, 1–20–59, Cl. 313—77.

Air Control Products, Inc.: *See*—
Leigh, Robert L. 2,869,450.

Air Filter Corp.: *See*—
Breckheimer, Raymond J. 2,869,694.

Air-Matic Products Co., Inc.: *See*—
Burton, Howard. 2,869,879.

Air Reduction Co., Inc.: *See*—
Estes, James W., and Spangler. 2,870,004.
Hamm, Forrest D. 2,869,540.
Kee, Leland M. 2,870,047.
Mathews, Howard H. 2,870,320.
Purkhiser, Rawlins E. 2,870,391.
Roper, Edward H., and Sullivan. 2,870,323.
Townsend, Palmer W. 2,870,218.

Aktiebolaget Elektrolux: *See*—
Cedermark, Knut I. 2,869,531.

Aktiebolaget Kamyr: *See*—
Richter, Johan C. F. C. 2,870,009.

Albert, Samuel. Electric welding handle. 2,870,324, 1–20–59, Cl. 219—143.

Albrecht, Rudolf: *See*—
Sedgfield, Hugh B., Jofeh, and Albrecht. 2,869,851.

Aldinger, Ulrich: *See*—
Oxenfart, Berthold, and Aldinger. 2,869,529.

Algino, Joseph M., and J. S. Slimak, to The Dole Valve Co. Safety shut-off gas valve. 2,869,566, 1–20–59, Cl. 137—66.

Allegheny Ludlum Steel Corp.: *See*—
Patterson, Walter M., Connor, and Shaw. 2,869,197.

Allen, Charles F. H., and J. J. Sagura, to Eastman Kodak Co. Stabilized photographic silver halide emulsions. 2,870,015, 1–20–59, Cl. 96—109.

Allen, Gordon S. J.: *See*—
Crosfield, John F., and Allen. 2,870,253.

Allen, Lyman S., to Monsanto Chemical Co. Coating composition and process of preparation. 2,870,035, 1–20–59, Cl. 106—192.

Allen, Roy M., to R. P. Cargille Laboratories, Inc. Refractometers. 2,869,417, 1–20–59, Cl. 88—14.

Allied Chemical Corp.: *See*—
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Miller, Charles B., and Woolf. 2,870,211.
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Woolf, Cyril. 2,870,219.

Allis-Chalmers Mfg. Co.: *See*—
Andersen, Louis M. 2,869,707.
Buhr, August G. 2,869,489.
Reinke, Herbert J., and Gallatin. 2,870,395.
Scranton, Charles J. 2,869,711.
Vandenberg, Howard L., and Karsten. 2,870,357.
Verch, George O. 2,869,940.

Allison, Kenneth C., and W. L. Hoehn. Rotary switch detent spring. 2,869,395, 1–20–59, Cl. 74—527.

Allison, Ollie M. Automobile seat attachment for dogs. 2,869,146, 1–20–59, Cl. 5—118.

Almond, Reece W. Ice cream churn stand. 2,869,580, 1–20–59, Cl. 137—571.

Amalgamated Bass Prince Inventions, Inc.: *See*—
Bass, Helen L. 2,869,770.

Ambrozaitis, John J., to Consolidated Electronics Industries Corp. Stop clock reset mechanism. 2,869,639, 1–20–59, Cl. 161—15.

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Wilson, Rosser L. 2,869,689.

American Chain & Cable Co., Inc.: *See*—
Bratz, Otto J. 2,869,905.

American Cyanamid Co.: *See*—
Lecher, Hans Z., and Greenwood. 2,870,204.
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American Enka Corp.: *See*—
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American Instrument Co., Inc.: *See*—
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American Iron & Machine Works Co., Inc.: *See*—
Wolfe, Duane M. 2,869,405.

American Lecithin Co., Inc.: *See*—
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American-Marietta Co.: *See*—
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American Pad & Textile Co., The: *See*—
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American Phenolic Corp.: *See*—
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American Rock Wool Corp.: *See*—
Ebbinghouse, John A. 2,869,175.

American Steel Foundries: *See*—
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American Thread Co., The: *See*—
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American Viscose Corp.: *See*—
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Vandenburgh, Charles D. 2,869,674.

American Welding & Mfg. Co., The: *See*—
Herr, Theodore Z., and Caldwell. 2,869,695.

Amos, Homer, and H. T. Strickland, to Pastushin Aviation Corp. Method and apparatus for fabricating hollow bodies and sheets of plastic material. 2,870,054, 1–20–59, Cl. 154—83.

Ampco Metal, Inc.: *See*—
Klement, John F. 2,870,051.

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Stover, Harry E. 2,869,300.
Stover, Harry E. 2,869,301.

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Davis, Flavius E. 2,870,238.

Andersen, Louis M., to Allis-Chalmers Mfg. Co. Means for conveying crushed material from a gyratory crusher. 2,869,707, 1–20–59, Cl. 198—56.

Anderson, Albin. Spark plug. 2,870,363, 1–20–59, Cl. 313—143.

Anderson, Alice M. and E. E. Sewing tool. 2,869,494, 1–20–59, Cl. 112—203.

Anderson, Elmer A., E. G. Foster, C. M. Gable, and G. C. Hood, to Shell Development Co. Recovery of tungstic catalysts. 2,869,986, 1–20–59, Cl. 23—140.

Anderson, Elmer E.: *See*—
Anderson, Alice M. and E. E. 2,869,494.

Anderson, Harry R., S. Esposito, and J. A. Rossi; said Anderson assor. to said Esposito and said Rossi. Dough mix package. 2,870,022, 1–20–59, Cl. 99—172.

Anderson, Leon L. Inflatible wader garment. 2,869,152, 1–20–59, Cl. 9—20.

Anderson, Leonard A. Cartridge case trimming device. 2,869,413, 1–20–59, Cl. 86—24.

Anderson, Lindson P. ,and K. Schultz, deceased (by M. F. Schultz, executrix), to Armour and Co. Method of cooking animal and vegetable materials. 2,870,028, 1–20–59, Cl. 99—216.

Andis Clipper Co.: *See*—
Andis, Matthew G. 2,869,234.

Andis, Matthew G., to Andis Clipper Co. Hair clipper having a shiftable shear plate. 2,869,234, 1–20–59, Cl. 30—201.

Andrews, Franklin T., and N. E. Huston. Emergency road sentinel. 2,869,504, 1–20–59, Cl. 116—63.

Antenna Specialties Co., The: *See*—
Stewart, Jack L., Friedberg, and Finke. 2,870,243.
Anthony, William C.: *See*—
Speeter, Merrill R., and Anthony. 2,870,162.
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Archer, Hugh M.: *See*—
Dickey, Robert C., Hauck, and Archer. 2,869,511.
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Argus Chemical Laboratory, Inc.: *See*—
Leistner, William E., and Hecker. 2,870,119.
Leistner, William E., and Hecker. 2,870,182.
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Armstrong, Warren E., and C. E. Morgan, to Shell Development Co. Dehydrogenation of hydrocarbons. 2,870,228, 1-20-59, Cl. 260—669.
Arne, Christian, and L. P. Eick, to Chicago Bridge & Iron Co. Penetration structure for pressure vessels. 2,869,749, 1-20-59, Cl. 220—1.
Arnit, Fred H., to Garden City Plating & Mfg. Co. Method of forming drawer slide. 2,869,499, 1-20-59, Cl. 113—116.
Arnoff, Milton J.: *See*—
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Ashley, Carlyle M., to Carrier Corp. Method of blanching food products. 2,870,020, 1-20-59, Cl. 99—154.
Asinger, Friedrich, M. Thiel, L. Schroder, and G. Reckling, to VEB Leuna-Werke "Walter Ulbricht." Process for the preparation of thiazoles. 2,870,158, 1-20-59, Cl. 260—302.
Atchison, Leonard W., to General Electric Co. Room air conditioner condensated disposal means. 2,869,334, 1-20-59, Cl. 62—280.
Ateliers de Constructions Electriques de Charleroi: *See*—
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Atherton, Frank R., to Hoffmann-La Roche Inc. Process for the manufacture of pantothenic acid 4'-phosphate and its salts. 2,870,155, 1-20-59, Cl. 260—461.
Atkin, Sydney, to Chemical Construction Corp. Production of concentrated superphosphate fertilizers. 2,869,997, 1-20-59, Cl. 71—40.
Atlantic Refining Co., The: *See*—
McGrogan, John F. 2,870,089.
Aubert, Fred H. Flame sensing circuit. 2,870,329, 1-20-59, Cl. 250—27.
Audette, Benjamin J. Frames for vehicle license plates or the like. 2,869,261, 1-20-59, Cl. 40—125.
Augustine, Alfred: *See*—
Morton, William A., and Augustine. 2,869,627.
Austin, Dwight E. Vehicle seat. 2,869,615, 1-20-59, Cl. 155—97.
Austin Motor Co. Ltd., The: *See*—
Weaving, John H., and Stuart. 2,869,397.
Autio, Paul, to Illinois Tool Works. Article separator. 2,869,723, 1-20-59, Cl. 209—86.
Automatic Steel Products, Inc.: *See*—
Killian, Robert J., and Brown. 2,869,223.
Automation Machines and Equipment Co., Inc.: *See*—
Farnsworth, Le Moyne. 2,869,756.
Avco Mfg. Corp.: *See*—
Wilkie, Wallace J. 2,869,426.
Avro Aircraft Ltd.: *See*—
Czwerwinski, Waclaw. 2,869,901.
Axell, Gösta J. Clamp for joining stout planks and timbers, more particularly for use in concrete shuttering. 2,869,186, 1-20-59, Cl. 20—92.
Axelrod, Milton L. Self-standing shelf bracket. 2,869,731, 1-20-59, Cl. 211—148.
Ayres, James N.: *See*—
Kabik, Irving, and Ayres. 2,869,364.
Babcock, Dean F., to Collins Radio Co. Matrix-controlled phase-pulse generator. 2,870,431, 1-20-59, Cl. 340—170.
Babcock, John C.: *See*—
Campbell, J. Allan, Babcock, and Hogg. 2,870,141.
Babcock & Wilcox Co., The: *See*—
Hardgrove, Ralph M. 2,869,521.
Seidl, Herbert, and Mogk. 2,869,518.
Babson Bros. Co.: *See*—
Merritt, Thomas W., and Thomas. 2,869,512.
Backhouse, Headley T. Sheet separating machine. 2,869,867, 1-20-59, Cl. 271—26.
Bader, Erich, and O. Schweitzer, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process for polymerizing ethylenic organic compounds with redox system catalysts in the presence of betaine derivatives. 2,870,118, 1-20-59, Cl. 260—45.5.
Badowski, Walter. Tool for inserting plugs in tire punctures. 2,869,408, 1-20-59, Cl. 81—15.7.
Baggott, Charles E., and F. A. Ulrich. Tree hoe. 2,869,655, 1-20-59, Cl. 172—387.
Bailey Meter Co.: *See*—
Paulison, William L., Jr. 2,869,320.
Whitehead, Cyril C. 2,870,302.
Bailey, Philip S., to Esso Research and Engineering Co. Process for preparing 2,2'-biaryldicarboxylic acids. 2,870,194, 1-20-59, Cl. 260—469.
Baird, Raymond C., to The Fluor Corp., Ltd. Self-synchronizing horse power indicator. 2,869,962, 1-20-59, Cl. 346—4.
Baker, Bertail B., and J. D. Morrison, to Southern Research Institute. Process for fluoride detection. 2,870,067, 1-20-59, 204—1.
Baker, George E., to United States of America, Atomic Energy Commission. Method of peak current measurement. 2,870,407, 1-20-59, Cl. 324—103.
Baker Industries, Inc.: *See*—
Ratzer, Arthur F., and Levin. 2,870,093.
Baker, Max P., to General Motors Corp. Flexible diaphragm. 2,869,585, 1-20-59, Cl. 137—792.
Baldwin-Lima-Hamilton Corp.: *See*—
Spier, Hans G. 2,869,324.
Balshiser, James K.: *See*—
Billingsley, William F., and Balshiser. 2,869,809.
Bamford, William P., to Libbey-Owens-Ford Glass Co. Method of bending glass sheets. 2,869,287, 1-20-59, Cl. 49—84.
Bancroft, Joseph, & Sons Co.: *See*—
MacIntyre, William R. 2,870,038.
Bang, Roger F., Backing plate for a photolithographic chase. 2,869,448, 1-20-59, Cl. 95—76.
Barber, George R.: *See*—
Sieg, Robert P., and Barber. 2,870,082.
Barber-Greene Co.: *See*—
Stewart, Edward C. 2,869,710.
Barberis, Giovanni, to Riv. Officine Di Villar Perosa Societa per Azioni. Lever operated differential actuating mechanism. 2,869,783, 1-20-59, Cl. 235—3.
Barbknecht, Fred W., to International Harvester Co. Cotton picker spindle mounting. 2,869,306, 1-20-59, Cl. 56—50.
Barch, William E., to Standard Brands Inc. Pyrophosphate baking powders. 2,870,017, 1-20-59, Cl. 99—95.
Bard, George L., to Ortho-Sonic Instruments, Inc. Play-back sound reproducer. 2,869,877, 1-20-59, Cl. 274—23.
Barler Metal Products, Inc.: *See*—
Miller, Marion E., and Yoder. 2,869,953.
Barnes, Ralph G., to Master Vibrator Co. Rotary troweling machine. 2,869,441, 1-20-59, Cl. 94—45.
Barney, Arthur L., and H. B. Stevenson, to E. I. du Pont de Nemours & Co. Method of preparing 2,3-dicarbomethoxy-1,3-butadiene. 2,870,196, 1-20-59, Cl. 260—485.
Barton, Clarence D., and M. A. Case, to Gustin-Bacon Mfg. Co. Journal box lubricator pad. 2,869,944, 1-20-59, Cl. 308—243.
Basic Products Corp.: *See*—
Sola, Joseph G. 2,870,398.
Bass, Helen L., to Amalgamated Bass Prince Inventions, Inc. Lunchbox construction. 2,869,770, 1-20-59, Cl. 229—27.
Bathe, William F., to Enterprise Railway Equipment Co. Operating mechanism for closure member of a discharge outlet assembly. 2,869,480, 1-20-59, Cl. 105—253.
Bauer, Charles H., to International Business Machines Corp. Sheet feeding apparatus. 2,869,869, 1-20-59, Cl. 271—36.
Baumann, Friedrich. Process of converting carbon monoxide into a mixture of carbon dioxide and hydrogen. 2,870,096, 1-20-59, Cl. 252—373.
Baumer, Earl F. Single-void unitized transportable package. 2,869,721, 1-20-59, Cl. 206—65.
Beach, James B., to Lockheed Aircraft Corp. Aircraft landing gear. 2,869,806, 1-20-59, Cl. 244—102.
Beachler, Edward D.: *See*—
Hornbostel, Lloyd, Beachler, and Ely. 2,869,437.
Bean, Russell K., to United States of America, Interior. Orthophotoscope. 2,869,419, 1-20-59, Cl. 88—24.
Beauchamp, Paul N., to General Motors Corp. Extractor. 2,869,917, 1-20-59, Cl. 294—92.
Beauchamp, Wilfred A., to The Youngstown Steel Door Co. Side constructions for railway freight cars. 2,869,481, 1-20-59, Cl. 105—409.
Beaver, David J., and P. J. Stoffel, to Monsanto Chemical Co. Substituted ureas. 2,870,205, 1-20-59, Cl. 260—553.
Beck, Henry E., to Massey-Ferguson Inc. Steering mechanism. 2,869,665, 1-20-59, Cl. 180—79.2.
Beck, Roderick G.: *See*—
Keller, Harold M., and Beck. 2,870,026.
Beck, Warren R.: *See*—
Stradley, Norman H., and Beck. 2,870,030.
Becker, Bernard J., Jr., and J. R. Duclos, to General Motors Corp. Connector assembly for a door handle. 2,869,912, 1-20-59, Cl. 292—336.3.
Beckett, Donald E., and W. N., to Beckett-Harcum Co. Spool valve. 2,869,583, 1-20-59, Cl. 137—625.42.
Beckett-Harcum Co.: *See*—
Beckett, Donald E., and W. N. 2,869,583.
Beckett, William N.: *See*—
Beckett, Donald E., and W. N. 2,869,583.
Bedford Gear & Machine Products, Inc.: *See*—
Etchell, Howard L. 2,869,884.
Beeston, John T., Jr., to Frontier Development Co. Blade for rotary lawn mower. 2,869,311, 1-20-59, Cl. 56—295.
Beitler, Eddie B.: *See*—
Burgess, Louis. 2,869,990.
Bellisle, Adelard J. Reclining chair mechanism. 2,869,616, 1-20-59, Cl. 155—106.
Bell, Kenneth: *See*—
Kraft, George H., Groszen, and Bell. 2,869,868.
Bell Telephone Laboratories, Inc.: *See*—
Hewitt, William H., Jr. 2,870,418.
Brattain, Walter H., and Garrett. 2,870,344.
Cronburg, Claude I. L., Jr., and Teutter. 2,870,271.
Franz, Erwin E. 2,870,424.
Guenther, Richard. 2,870,260.
MacWilliams, Walter H., Jr., and Winans. 2,870,327.
Mason, Warren P. 2,870,241.
Mills, John K. 2,870,332.
Mitchell, Doren, and Vroom. 2,869,964.
Pomeroy, Richard C. 2,870,328.
Stryker, Norman R. 2,870,272.

Belle City Malleable Iron Co.: *See*—
Pirsig, Howard C. 2,869,189.
Belmont, Edward A. Hole de-burring tool. 2,869,406, 1-20-59, Cl. 77—73.5.
Beloit Iron Works: *See*—
Hornbostel, Lloyd. 2,869,817.
Hornbostel, Lloyd, Beachler, and Ely. 2,869,437.
Justus, Edgar J. 2,869,248.
Bemberg, J. P.: *See*—
Buschmann, Walter, and Bühren. 2,869,246.
Bemis Bro. Bag Co.: *See*—
Perry, Ray P. 2,869,589.
Williams, Russell J. 2,869,772.
Benbassat, Bessie. Combination check and cash disbursement book. 2,869,899, 1-20-59, Cl. 283—57.
Bendix Aviation Corp.: *See*—
Anastasia, Harry G. 2,869,365.
Mazzarella, Daniel A. 2,870,383.
Tognola, Tullio. 2,870,376.
Benning, Wilbert O. Running gear for houses and the like. 2,869,890, 1-20-59, Cl. 280—106.5.
Benson, Charles J. Retractable hook mechanism. 2,869,916, 1-20-59, Cl. 294—83.
Benson, Donald O., to Toro Mfg. Corp. Reel-type mower. 2,869,309, 1-20-59, Cl. 56—249.
Benson, Donald O., to Toro Mfg Corp. of Minnesota. Extruded cutter reels for mowers and the like. 2,869,310, 1-20-59, Cl. 56—294.
Bent, John H., to Gardner-Denver Co. Power operated tool with fluid pressure actuated positive feed. 2,869,403, 1-20-59, Cl. 77—34.4.
Benziger, Theodore M., to United States of America, Atomic Energy Commission. Graphite extrusions. 2,870,031, 1-20-59, Cl. 106—56.
Berdner, John T., to Aquatic Products Corp. Water jet amusement device. 2,869,874, 1-20-59, Cl. 273—119.
Berg, Richard J. Removable ventilated rib for shotguns. 2,869,271, 1-20-59, Cl. 42—76.
Berge, Joseph M. Trammel bar compass. 2,869,237, 1-20-59, Cl. 33—27.
Berger, Martin: *See*—
Lippmann, Seymour, and Berger. 2,869,610.
Bergstrom, Eric V., to Socony Mobil Oil Co., Inc. Adsorbent drying process and apparatus. 2,870,088, 1-20-59, Cl. 208—305.
Bermite Powder Co.: *See*—
McKnight, James T. 2,869,463.
Bernstein, Joseph D., to Beverly Development Corp. Slide fastener. 2,869,207, 1-20-59, Cl. 24—201.
Bertram, John C., to Bertram Wire Products, Inc. Bending machine to form wire articles containing an offset. 2,869,612, 1-20-59, Cl. 153—34.
Bertram Wire Products, Inc.: *See*—
Bertram, John C. 2,869,612.
Bethlehem Steel Co.: *See*—
Williams, Glenn S. 2,869,154.
Beverly Development Corp.: *See*—
Bernstein, Joseph D. 2,869,207.
Bickers, Arthur, to Marconi's Wireless Telegraph Co. Ltd. Variable inductance devices. 2,870,423, 1-20-59, Cl. 336—110.
Bigelow, John E., to United States of America, Navy. Meter with logarithmic amplifier. 2,870,409, 1-20-59, Cl. 324—132.
Billingsley, William F., and J. K. Balshiser, to The B. F. Goodrich Co. Pneumatic tire treads. 2,869,609, 1-20-59, Cl. 152—209.
Bina, Melvin J.: *See*—
Meyer, Earl A., and Bina. 2,869,761.
Bird, Lester F., to Engelhard Industries, Inc. Operating circuit for compact type arc lamps. 2,870,379, 1-20-59, Cl. 315—174.
Birden, John H., to United States of America, Atomic Energy Commission. Fabrication of neutron sources. 2,870,339, 1-20-59 Cl. 250—84.5.
Birdsall, Charles K.: *See*—
Everhart, Thomas E., and Birdsall. 2,870,367.
Birum, Gail H.: *See*—
Heininger, Samuel A., and Birum. 2,870,209.
Bisgard, Andrew N., F. A. Robinson, and J. P. Spicer. Loading assemblies for use in filling diesel locomotive fuel tanks. 2,869,594, 1-20-59, Cl. 141—209.
Bishop John W. H. Combined ribbon spool and re-inker. 2,869,706, 1-20-59, Cl. 197—171.
Bissinger, Walter J., to Gould & Eberhardt, Inc. Weight-compensating means for precision-shifted members. 2,869,933, 1-20-59, Cl. 308—5.
Bittle, Harold G.: *See*—
Vogel, Henry A., and Bittle. 2,870,116.
Vogel, Henry A. Bittle, and Christenson. 2,870,117.
Bituminous Coal Research, Inc.: *See*—
Yellott, John I., and Broadley. 2,869,677.
Bitzer, Martin: *See*—
Deibel, Raymond A., and Bitzer. 2,869,167.
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Blair, Etcyl H. H. R. Slagh, and E. C. Britton, to The Dow Chemical Co. Bis-phosphoroamidothioates. 2,870,189, 1-20-59, Cl. 260—461.
Blake, Robert W.: *See*—
Jurs, Peter C., Van Overveen, and Blake. 2,869,239.
Blatz, Philip S., to E. I. du Pont de Nemours and Co. Coated polymeric thermoplastic dielectric film. 2,870,044, 1-20-59 Cl. 117—138.8.
Bleaney Paul, to A. B. Mould and Construction Co. Ltd. Mechanically operated shovels or scrapers. 2,869,843, 1-20-59, Cl. 259—164.
Blecker, Ray H.: *See*—
Petersen, John S., and Blecker. 2,869,619.
Petersen, John S., and Blecker. 2,869,622.
Bliss, Harvey N., and O. Wild, Jr., to Veeder-Root Inc. Resetting mechanism for registers. 2,869,791, 1-20-59, Cl. 235—144.
Bloom, Barry M., to Chas. Pfizer & Co. Hydrogenated 2-(1-naphthylamino)-oxazolines. 2,870,159, 1-20-59, Cl. 260—307.
Bloom, Barry M., to Chas. Pfizer & Co. 2(benzofuranyl amino)-and 2(thianaphthenyl amino) oxazolines. 2,870,160, 1-20-59, Cl. 260—307.
Bloom, Barry M., to Chas. Pfizer & Co. 2-(1-indanyl amino)-oxazolines. 2,870,161, 1-20-59, Cl. 260—307.
Bloom, Quentin M., to Selas Corp. of America. Strip heating furnace. 2,869,846, 1-20-59, Cl. 263—8.
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Bobo, Roy A., to Phillips Petroleum Co. Control system. 2,869,475, 1-20-59, Cl. 103—233.
Boccone, Egidio A. Table leg assembly. 2,869,950, 1-20-59, Cl. 311—112.
Bochan, John, to General Electric Co. Centrifugal clutch for clothes washing machine. 2,869,344, 1-20-59, Cl. 68—12.
Bochan, John, to General Electric Co. Two speed drive. 2,869,699, 1-20-59, Cl. 192—48.
Bode, Henry W., to The Chas. H. Stehling Co. Method of removing dirt and manure from fresh hides. 2,869,250, 1-20-59, Cl. 69—21.
Bodnar, Stephen J.: *See*—
Wilson, Samuel W., and Bodnar. 2,870,232.
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Hyland, Francis G., and Kassel. 2,869,807.
Boettcher, Alfred, and P. Himmelstein, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process for the production of metals by reduction of their compounds in the vapor phase. 2,870,007, 1-20-59, Cl. 75—84.5.
Boettcher, Stephen A., and J. C. Page, to Abrading Systems Co. Lapping machine. 2,869,294, 1-20-59, Cl. 51—266.
Bohme, Hans P., to Joh. Kleinewefers Sohne Drive for printing rollers of printing machines. 2,869,459, 1-20-59, Cl. 101—248.
Boland, Albert J., Jr.: *See*—
Boland, Albert J., Sr., and A. J. Boland, Jr. 2,869,847.
Boland, Albert J., Sr., and A. J. Boland, Jr. Furnace slot cover and operating mechanism. 2,869,847, 1-20-59, Cl. 263—8.
Bono, Luigi, to Vittorio Necchi S. p. A. Rotary hook for sewing machines. 2,869,495, 1-20-59, Cl. 112—230.
Bonstedt, Kurt P., to Koppers Co., Inc. Tricresylphosphate process. 2,870,192, 1-20-59, Cl. 260—461.
Bonvini, Robert C. and W. F. Gryskiewicz. Syringe for ejecting plastic material. 2,869,763, 1-20-59, Cl. 222—388.
Booth, Jack J., and W. C. Branch. Automatic replenishing device for cup dispensers. 2,869,754, 1-20-59, Cl. 221—11.
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Brockelsby, Dale L. 2,869,831.
Werden, Robert G. 2,869,335.
Bork Hugo W., to Skil Corp. Hinge butt locating gauge. 2,869,245, 1-20-59, Cl. 33—197.
Bornkessel, Paul, to P. Bornkessel. Pressure gas burners. 2,869,632, 1-20-59, Cl. 158—116.
Borrows, Edward T.: *See*—
Stewart, David G., Waddan, and Borrows. 2,870,100.
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Bosch, Robert, G. m. b. H.: *See*—
Orenfart, Berthold, and Aldinger. 2,869,529.
Boschi, Antonio, to Societa Applicazioni Gomma Antivibranti. Resilient mountings. 2,869,811, 1-20-59, Cl. 248—9.
Bothwell, William R., to Federal Paper Board Co., Inc. Box handle. 2,869,771, 1-20-59, Cl. 229—52.
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Bourns, Marlan E., Harrison, Goeppinger, and Gaa. 2,870,302
O'Brian, Edward D. 2,870,303.
O'Brian, Edward D. 2,870,304.
Bourns, Marlan E., M. E. Harrison, E. J. Goeppinger, and D. L. Gaa; said Harrison, Goeppinger and Gaa, assors. to Bourns Laboratories, Inc. Potentiometers. 2,870,302, 1-20-59, Cl. 201—62.
Bowden, George W., to General Electric Co. Positive clutch with damping arrangement. 2,869,700, 1-20-59, Cl. 192—67.
Bowlden, Earl T. Wall construction. 2,869,355, 1-20-59, Cl. 72—33.
Bovajean, John A., to Fairchild Camera and Instrument Corp. Photoelectric pick-up system for engraving machines. 2,870,250, 1-20-59, Cl. 178—7.1.
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Boyer, Wayne L., to United States of America, Army. Streamer mount for flagstaffs. 2,869,507, 1-20-59, Cl. 116—173.
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Bradstreet, Samuel W., to Armour Research Foundation of Illinois Institute of Technology. Process of coating and hot working of metals. 2,869,227, 1-20-59, Cl. 29—424.
Brainard, Frank S., Sr. Rate recorder for integrating meters. 2,869,963, 1-20-59, Cl. 346—14.
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Brand, Helmut, to Licentia Patent-Verwaltungs-G. m. b. H. Toggle switch system. 2,870,282, 1-20-59, Cl. 200—67.

Brand, Warren H., and R. F. Holben, to Conoflow Corp. Measuring and controlling servo-motor system. 2,870,387, 1–20–59, Cl. 318—32.

Brandl, Wilhelm. Appliance for preparing hot beverages. 2,869,451, 1–20–59, Cl. 99—302.

Brantley, John C., to Union Carbide Corp. Organo-chromium compounds. 2,870,183, 1–20–59, Cl. 260—438.

Brasseur, Eudore D., to Ateliers de Constructions Electriques de Charleroi. Sound recording and reproducing apparatus. 2,869,876, 1–20–59, Cl. 274—10.

Brattain, Walter H., and C. G. B. Garrett, to Bell Telephone Laboratories, Inc. Semiconductor devices. 2,870,344, 1–20–59, Cl. 307—88.5.

Bratz, Otto J., to American Chain & Cable Co., Inc. Conduit and fitting assemblies. 2,869,905, 1–20–59, Cl. 287—78.

Braukly, Damasas. Earth working machine. 2,869,257, 1–20–59, Cl. 37—145.

Breckheimer, Raymond J., to Air Filter Corp. Frame construction for filter units. 2,869,694, 1–20–59, Cl. 189—36.

Breen, Alvin L., to E. I. du Pont de Nemours and Co. Bulky yarn. 2,869,967, 1–20–59, Cl. 57—140.

Breithaupt, Donald E. Attachment for a fishing rod reel. 2,869,277, 1–20–59, Cl. 43—26.

Bretscher, Otto, to Gesellschaft der Ludw. von Roll'schen Eisenwerke A. G. Slideway grinding machine. 2,869,288, 1–20–59, Cl. 51—3.

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Bristol Aircraft Ltd.: *See*—
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Perron, Yvon G. 2,870,145.
Perron, Yvon G. 2,870,146.
Perron, Yvon G., and Sam. 2,870,156.
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Britcher, Charles W., to W. W. Frankel, C. W. Britcher, and H. Cole, trustees. Dusting method and equipment. 2,869,482, 1–20–59, Cl. 107—9.

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British Thomson-Houston Co. Ltd., The: *See*—
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Brockelsby, Dale L., to Borg-Warner Corp. Water treating apparatus. 2,869,831, 1–20–59, Cl. 257—2.

Broderick, Edward: *See*—
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Brooker, Leslie G. S., and E. J. Van Lare, to Eastman Kodak Co. Cyanines from triazole bases. 2,870,014, 1–20–59, Cl. 96—106.

Brooks, Forrest E., to Radio Corp. of America. Deflection systems. 2,870,373, 1–20–59, Cl. 315—27.

Brooks, Thomas E., to Lisle Corp. Magnetic plug. 2,870,284, 1–20–59, Cl. 317—201.5.

Broussaud, Georges, to Compagnie Generale de Telegraphie Sans Fil. Radiating systems. 2,870,444, 1–20–59, Cl. 343—909.

Brown, Boveri & Cie, Akt.: *See*—
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Brown, Cicero C. Washover tool for use in wells. 2,869,644, 1–20–59, Cl. 166—103.

Brown, George L.: *See*—
Richter, George A., Jr., and Brown. 2,869,977.

Brown, Glenn M.: *See*—
Killian, Robert J., and Brown. 2,869,223.

Brown, Harrison S., and D. S. Webster, to United States of America, Atomic Energy Commission. Recovery of plutonium values by fluorination and fractionation. 2,869,982, 1–20–59, Cl. 23—14.5.

Brown, James D., to Toledo Scale Corp. Table for band saws. 2,869,595, 1–20–59, Cl. 143—132.

Brown, James W., and E. A. Destrempe, to Esso Research and Engineering Co. Preliminary heating of fluid coke briquettes. 2,869,992, 1–20–59, Cl. 44—10.

Brown, John R., to The Reliance Gauge Column Co. Electrical water gauge. 2,869,368, 1–20–59, Cl. 73—304.

Brown, Ralph E., and H. N. Stautz, to Geniece, Inc. Rotary test table. 2,869,376, 1–20–59, Cl. 74—200.

Browne, Lindsay H. Pumps. 2,869,468, 1–20–59, Cl. 103—44.

Brucken, Byron L., to General Motors Corp. Domestic appliance for washing, drying and fluffing clothes. 2,869,346, 1–20–59, Cl. 68—19.

Brundage, Alfred H. Coffee making assembly. 2,869,759, 1–20–59, Cl. 222—48.

Bryan, Hugh D., to Mead Johnson & Co. Stable encapsulated solution of a salt of a dialkyl sulfosuccinate. 2,870,060, 1–20–59, Cl. 167—56.

Bryant Electric Co., The: *See*—
Taylor, Owen L., and Smith. 2,870,290.

Buchanan Electrical Products Corp.: *See*—
Ustin, George. 2,870,239.

Buckeye Steel Castings Co., The: *See*—
Mills, William A. 2,869,938.
Wolfe, Harry H. 2,869,736.

Buckingham, Marshall F. Diaper button. 2,869,202, 1–20–59, Cl. 24—110.

Bucyrus-Erie Co.: *See*—
Thornburg, Herbert W. 2,869,826.

Buffalo Brake Beam Co.: *See*—
Busch, Charles R. 2,869,683.
Busch, Charles R. 2,869,688.

Buhr, August G., to Allis-Chalmers Mfg. Co. Grain drill dual feed boot structure with separating device. 2,869,489, 1–20–59, Cl. 111—80.

Bühren, Walter: *See*—
Buschmann, Walter, and Bühren. 2,869,246.

Bührer, Erwin. Attachment for moulding machines with mechanically driven intermittently rotating turntable. 2,869,193, 1–20–59, Cl. 22—21.

Builders Equipment Co.: *See*—
Thomas, Paul M. 2,869,737.

Bunnell, William S., to Boyar-Schultz Corp. Deep drilling attachment. 2,869,402, 1–20–59, Cl. 77—32.3.

Burger, Herbert. Trailer with steerable tandem axles. 2,869,888, 1–20–59, Cl. 280—81.

Burgert, Bill E., and H. Tolkmith, to The Dow Chemical Co. Phosphonate compounds. 2,870,190, 1–20–59, Cl. 260—461.

Burgess, Louis, deceased: S. Tour, M. Burgess, and E. B. Beitler, executors. Process of producing carbides. 2,869,990, 1–20–59, Cl. 23—208.

Burgess, Murray: *See*—
Burgess, Louis. 2,869,990.

Burgmer, Josef. Apparatus for the assembly and finishing of sets of duplicating forms. 2,869,864, 1–20–59, Cl. 270—52.

Burroughs Corp.: *See*—
Tarbuck, Robert R. 2,869,684.

Burrows, Arthur T. C., to Geo. W. King Ltd. Conveyor systems. 2,869,477, 1–20–59, Cl. 104—89.

Burton, Howard, to Air-Matic Products Co., Inc. Collet-fixture assembly with eccentric adjustment. 2,869,879, 1–20–59, Cl. 279—6.

Burton, Joe M., to Phillips Petroleum Co. Hypergolic fuel and its method of use in developing thrust. 2,869,320, 1–20–59, Cl. 60—35.4.

Busch, Charles R., to Buffalo Brake Beam Co. Railway brake mechanism. 2,869,683, 1–20–49, Cl. 188—59.

Busch, Charles R., to Buffalo Brake Beam Co. Railway brake discs. 2,869,688, 1–20–59, Cl. 188—218.

Buschmann, Walter, and W. Bühren, to J. P. Bemberg Akt. Process for drying sheet material with air. 2,869,246, 1–20–59, Cl. 34—23.

Butler, Jesse L., to Sanders Associates, Inc. Conical scanning antenna systems as used in radar. 2,870,440, 1–20–59, Cl. 343—755.

Butt, Alan G., to The Trane Co. Heat exchanger. 2,869,835, 1–20–59, Cl. 257—245.

Buttner-Werke Akt.: *See*—
Kamp, Heinrich. 2,869,249.

Buvelot, John A., to American Steel Foundries. Slack adjuster. 2,869,904, 1–20–59, Cl. 287—58.

Byrkett, Elwood L., and H. D. Kiefaber, to The Sheffield Corp. Gaging apparatus. 2,869,243, 1–20–59, Cl. 33—178.

Byrne Doors, Inc.: *See*—
Urquhart, Thornton L. 2,869,862.

Bythrow, Ellsworth P. Vacuum hot top for ingot mold. 2,869,192, 1–20–59, Cl. 22—147.

Caldwell, Charles W.: *See*—
Herr, Theodore Z., and Caldwell. 2,869,695.

California Research Corp.: *See*—
Schurman, Glenn A. 2,869,226.
Scott, John W., Jr., Lavender, and Rossi. 2,870,230.
Sieg, Robert P., and Barber. 2,870,082.
Toland, William G., Jr. 2,870,217.
Wright, James R. 2,870,184.

Cameto, Leon R., to Misto Gem Equipment Co. Medicinal inhalant atomisation. 2,869,188, 1–20–59, Cl. 21—117.

Campbell, J. Allan, J. C. Babcock, and J. A. Hogg, to The Upjohn Co. 6-fluoro-20-hydroxy-4-pregnen-3-ones and the 20-acylates thereof. 2,870,141, 1–20–59, Cl. 260—239.5.

Camras, Marvin, to Armour Research Foundation of Illinois Institute of Technology. Sound motion picture film. 2,869,878, 1–20–59, Cl. 274—41.4.

Cantor, Edward B. Vaginal applicator. 2,869,546, 1–20–59, Cl. 128—261.

Capek, Louis E., and R. T. Van Campen. Retractable tap feed mechanism operative upon undue axial force on the spindle. 2,869,153, 1–20–59, Cl. 10—135.

Capita, Emil R. Zone purification device. 2,870,309, 1–20–59, Cl. 219—10.43.

Care, Richard L., to Grant Development Co. Throughway fare collection device. 2,869,776, 1–20–59, Cl. 232—7.

Cargille, R. P., Laboratories, Inc.: *See*—
Allen, Roy M. 2,869,417.

Carlisle, Willis C.: *See*—
McCarvell, John H., and Carlisle. 2,869,568.

Carlsen, Leonard O., W. C. Critchley, and C. F. Magee, to The Gleason Works. Machine and method for producing tapered gears. 2,869,427, 1–20–59, Cl. 90—3.

Carlson, Floyd E., to Sundstrand Machine Tool Co. Flow controller unit for stack valve. 2,869,567, 1–20–59, Cl. 137—117.

Carlson, Martin. Automatic door operator. 2,869,861, 1–20–59, Cl. 268—66.

Carpenter, Paul G.: *See*—
Reynolds, William B., and Carpenter. 2,870,107.

Carrier Corp.: *See*—
Ashley, Carlyle M. 2,870,020.
Kessler, Vernon R., and La Grange. 2,869,505.

Carroll, Bernard J.: *See*—
Eder, George L. 2,869,143.

Carter, Clare A., to Union Carbide Corp. Production of nonionic surface active agents. 2,870,220, 1–20–59, Cl. 260—615.

Carter, Larry J., to Farnam Mfg. Co., Inc. Reconstituted mica heating element. 2,870,277, 1–20–59, Cl. 200—19.

Carter-Waters Corp., The: *See*—
Kulhavy, George W., and Coleman. 2,869,356.
Case, J. L., Co.: *See*—
Kline, Harry E., and Vifot. 2,869,652.
Case, Morris A.: *See*—
Barton, Clarence D., and Case. 2,869,944.
Casey, Robert T. Tachistoscope. 2,869,252, 1–20–59, Cl. 35—35.
Castle, Charles H.: *See*—
Rapp, Edward G., and Castle. 2,869,383.
Caterpillar Tractor Co.: *See*—
Klecker, Joseph G., Miller, Sieving, and Rediger. 2,869,382.
Osterhout, Ross V., and Shrier. 2,869,466.
Mayo, Roy E. 2,869,639.
Cathcart, John A., to Eastman Kodak Co. Photographic film cleaning solutions. 2,870,094, 1–20–59, Cl. 252—171.
Cavanagh, Patrick E., to Ontario Research Foundation. Method of converting hematite to magnetite. 2,870,003, 1–20–59, Cl. 75—34.
Cedermark, Knut I., to Aktiebolaget Elektrolux. Starter for outboard motors. 2,869,531, 1–20–59, Cl. 123—179.
Celanese Corp. of America: *See*—
Cooley, Stone D., and Marcotte. 2,870,225.
Stuckl, Hans R. 2,869,318.
Century Geophysical Corp.: *See*—
Westervelt, John C. 2,870,312.
Chain Belt Co.: *See*—
Welser, Brinton. 2,869,379.
Chamberlain Corp.: *See*—
Kiffer, Desire A., and Orser. 2,869,839.
Chamberlain, Richard O., and C. E. Wakefield, Jr., to Richfield Oil Corp. Apparatus for controlling the flow of fluids in a multi-strata well. 2,869,643, 1–20–59. Cl. 166—185.
Chamberlain, Richard O., and C. E. Wakefield, Jr., to Richfield Oil Corp. Flow control apparatus. 2,869,646, 1–20–59, Cl. 166—185.
Chamberlin, John M., and G. A. McElroy, to Palm-Roy, Inc. Spring wheel. 2,869,608, 1–20–59, Cl. 152—86.
Chance, Leon H., G. L. Drake, Jr., and W. A. Reeves, to United States of America, Agriculture. Flame resistant organic textiles and method of production. 2,870,042, 1–20–59, Cl. 117—136.
Chandler, Douglas G. Electrical therapeutic jacket. 2,869,551, 1–20–59, Cl. 128—379.
Chandler, Jasper S., to Eastman Kodak Co. Multiple clutch drive mechanism. 2,869,381, 1–20–59, Cl. 74—330.
Chao, Shih C., to International Business Machines Corp. System for selectively energizing one of three circuits responsive to variation of two conditions. 2,870,348, 1–20–59. Cl. 307—88.5.
Chapman, Robert G.: *See*—
Klope, Joseph C., and Chapman. 2,869,751.
Charbonnier, Roger, to Rochar Electronique. Electronic amplifiers. 2,870,269, 1–20–59, Cl. 179—171.
Chase-Shawmut Co., The: *See*—
Edsall, William S. 2,870,293.
Chemical Construction Corp.: *See*—
Atkin, Sydney. 2,869,997.
Chemstrand Corp., The: *See*—
Ham, George E. 2,870,124.
Ham, George E. 2,870,127.
Cherry, William H., to Radio Corp. of America. Cross talk eliminating apparatus in a time division multiplex system. 2,870,247, 1–20–59, Cl. 178—5.2.
Chester, Carroll W. Sun shield for automobiles. 2,869,922, 1–20–59. Cl. 296—97.
Chicago Bridge & Iron Co.: *See*—
Arne, Christian, and Zick. 2,869,749.
Chilcott, Doris C.: *See*—
Cunningham, James M. 2,869,966.
Chilcott, E. R.: *See*—
Cunningham, James M. 2,869,966.
Christenson, Roger M.: *See*—
Bogel, Henry A., Bittle, and Christenson. 2,870,117.
Chu, John J. Pneumatic pressure respiratory vest. 2,869,537. 1–20–59, Cl. 128—27.
Chubb, Howard E. Method and apparatus for recording and reproducing a video display and its audio counterpart. 2,869 251. 1–20–59, Cl. 35—10.4.
Ciba Ltd.: *See*—
Hanhart, Walter. 2,870,136.
Ciba Pharmaceutical Products Inc.: *See*—
Romeo, Aurelio. 2,870,175.
Wettstein, Albert, and Ehmann. 2,870,142.
Ciments Lafarge: *See*—
Folliot, Albert E. J., and Kenzinger. 2,869,849.
Cincinnati Butchers' Supply Co., The: *See*—
Schmidt, William C. 2,869,840.
Schmidt, William C. 2,869,842.
Citron, Robert E. Extension device for garment hangers and the like. 2,869,767. 1–20–59. Cl. 223—88.
Clark, John A., Jr., and J. J. Fischer, to The Patterson-Kelley Co, Inc. Heat exchanger. 2,869,834, 1–20–59, Cl. 257.235
Clarke, George F.: *See*—
Halford, Frank B., and Clarke. 2,869,821.
Clarke Maurice G.: *See*—
Walker, Cyril H., and Clarke. 2,870,342.
Clay, Robert A., to M. Abraham. Shot blasting machines. 2,869,291. 1–20–59, Cl. 51—14.
Clemens, Milton L., Jr., to Eastman Kodak Co. Gentisic acid purification. 2,870,199. 1–20–59, Cl. 260—521.
Clerc, Andre, to Societe Rhodiaceta. Thread traverse. 2,869,797. 1–20–59, Cl. 242—43.
Cleveland Patents, Inc.: *See*—
Hickok, Robert D., Jr. 2,870,400.
Clevett, Merton L., Jr., to United States of America, Army. Pistol belt clip. 2,869,198, 1–20–59, Cl. 24—3.
Clevite Harris Products, Inc.: *See*—
Drake, Robert T. 2,869,339.
Clifford, Robert, to Thompson Products, Inc. Mechanical-pneumatic turbine control. 2,869,565, 1–20–59, Cl. 137—38.
Clift, Paul E., to Thomas Hunter Ltd. Closure of bottles, jars and like containers. 2,869,303, 1–20–59, Cl. 53—331.
Cluwen, Johannes M., to North American Philips Co., Inc. Modulator circuit arrangement comprising transistors. 2,870,413, 1–20–59, Cl. 332—31.
Coberly, Clarence J., to Kobe, Inc. Free pump system with reverse flow. 2,869,470, 1–20–59, Cl. 103—46.
Coe, Thompson J., to United States of America, Agriculture. Shrinkproofing textiles with volatile polyamines and epoxides. 2,869,971, 1–20–59, Cl. 8—116.2.
Coggins, Robert W., to National Tank Co. Methods and means for the low temperature separation of high pressure well streams. 2,869,675, 1–20–59, Cl. 183—2.7.
Cohn, David, to T. Cohn, Inc. Ball-operated counting device. 2,870,279, 1–20–59, Cl. 200—61.11.
Cohn, Irwin. Ball throwing apparatus. 2,869,532, 1–20–59, Cl. 124—26.
Cohn, T., Inc.: *See*—
Cohn, David. 2,870,279.
Colburn, Richard R. Combined tractor and power mower. 2,869,304, 1–20–59, Cl. 56—25.4.
Cole, Edward N.: *See*—
Arnold, Charles F., and Cole. 2,870,862.
Cole, Herbert: *See*—
Britcher, Charles W. 2,869,482.
Cole, Paul M., to E. I. du Pont de Nemours and Co. Treating apparatus and process. 2,869,976, 1–20–59, Cl. 8—151.
Cole, Raben H.: *See*—
Matthews, Clell R., and Cole. 2,869,894.
Coleman, Richard L.: *See*—
Kulhavy, George W., and Coleman. 2,869,356.
Colgate-Palmolive Co.: *See*—
Pickin, John H. 2,869,837.
Collier, Robert T.: *See*—
Keller, Philip B. 2,869,332.
Collins, Leonard M., to Pressure Dispensers, Inc. Self-closing valve construction for a pressurized container. 2,869,764, 1–20–59, Cl. 222—394.
Collins Radio Co.: *See*—
Babcock, Dean F. 2,870,431.
Easler, Warren O. 2,870,346.
Hern, Howard D. 2,870,412.
Sterner, Everett L. 2,870,326.
Whittington, William E. 2,869,498.
Yasumura, John. 2,870,321.
Collins, William A., to Rudy Mfg. Co. Refrigeration evaporator with clinch-type plates. 2,869,337, 1–20–59, Cl. 62—516.
Combustion Engineering, Inc.: *See*—
Schroedter, Wilbart W., and Powell. 2,869,519.
Comer, Richard L., to General Motors Corp. Thermocouple. 2,870,233, 1–20–59, Cl. 136—4.
Compagnie des Machines Bull: *See*—
Knutsen, Knut A. 2,869,455.
Compagnie Francaise Otherme: *See*—
Jasienski, Marcel M. P. 2,869,586.
Compagnie Generale d Telegraphie Sans Fil: *See*—
Broussaud, Georges. 2,870,444.
Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme: *See*—
Jourdain, Andre P. 2,869,329.
Companhia Portuguesa Radio Marconi, S. A. R. L.: *See*—
Filipowsky, Richard F. J. 2,870,432.
Compule Corp., The: *See*—
Lockhart, Marshall L. 2,869,745.
Conbere, John P., and K. Pfister, III, to Merck & Co., Inc. Δ4-11-oxygenated-pregnene-17α,21-diol-3,20-dione 21-phosphate and salts thereof. 2,870,177, 1–20–59, Cl. 260—197.45.
Condo, Fred E.: *See*—
Martin, Robert W., and Condo. 2,870,098.
Condrac, Robert F., to United States Steel Corp. Cutting tool. 2,869,404, 1–20–59, Cl. 77—58.
Coney, Charles H., and W. L. Rumgay, to Eastman Kodak Co. Process for forming weftless ribbon. 2,870,055, 1–20–59. Cl. 154—92.
Conlee, George D., to General Electric Co. Drive mechanism. 2,869,698, 1–20–59, Cl. 192—48.
Conley, Howard W. Coin purse. 2,869,603, 1–20–59, Cl. 150—37.
Connell, Wade H.: *See*—
Swanstrom, John E., Connell, Cooper, and Swanson. 2,869,409.
Connor, William G.: *See*—
Patterson, Walter M., Connor, and Shaw. 2,869,197.
Conoflow Corp.: *See*—
Brand, Warren H., and Holben. 2,870,387.
Consolidated Electronics Industries Corp.: *See*—
Ambrosaitis, John J. 2,869,639.
Continental-Diamond Fibre Corp.: *See*—
Haroldson, Arthur H., and Cox. 2,870,295.
Controls Co. of America: *See*—
Lewis, Melvin R. 2,869,375.
Converse, Sherman, to Graniteville Co. Process for treating grass. 2,870,037, 1–20–59, Cl. 117—3.
Cook, De'Orr. Retrievable stabilizer for well bores. 2,869,827. 1–20–59, Cl. 255—27.
Cook, Leslie W.: *See*—
Phillips, Harold P., and Cook. 2,869,200.
Cook, Nolan L. Fishhook release. 2,869,278, 1–20–59, Cl. 43—42.8.

Cooley, Stone D., and F. B. Marcotte, to Celanese Corp. of America. 1,2-dichloroethane. 2,870,225, 1–20–59, Cl. 260—662.
Cooper, Curtis M. Automatic meter reading system. 2,870,258, 1–20–59, Cl. 179—2.
Cooper, Joseph F., Jr.: *See*—
Swanstrom, John E., Connell, Cooper, and Swanson. 2,869,409.
Cooper, Ronald H., and G. M. Corbett, to The Dow Chemical Co. Composition comprising sand, phenolic resin and anhydrous sodium carbonate, method of making and refractory article produced. 2,869,191, 1–20–59, Cl. 22—147.
Cooper, Ronald H., to The Dow Chemical Co. Auto-hardening phenol-formaldehyde composition and method of preparing shell molds therefrom. 2,869,194, 1–20–59. Cl. 22—193.
Cooper, Ronald H., and J. A. Kelly, to The Dow Chemical Co. Shell molding composition containing fatty alkylol amide condensate, inert filler and a phenolic resin and method of making mold. 2,869,195, 1–20–59. Cl. 22—193.
Cooper, Ronald H., and G. M. Corbett, to The Dow Chemical Co. Refractory composition containing slag, sand, and magnesium oxide, and aqueous phenolic resin, method of making and product obtained. 2,869,196, 1–20–59. Cl. 22—193.
Cooper, Ronald H., and L. C. Johnson, to The Dow Chemical Co. Porous composition containing a phenol-aldehyde resin, method of preparation, and article fabricated therefrom. 2,870,110, 1–20–59, Cl. 260—29.3.
Cooper, Virgil K., ½ to E. L. Weber. Self-wringing mop. 2,869,161, 1–20–59, Cl. 15—119.
Coover, Harry W., Jr.: *See*—
Guillet, James E., and Coover. 2,870,131.
Copeland, Robert D. Impeller pump, seal and wear ring. 2,869,471, 1–20–59, Cl. 103—111.
Corbett, Gerald M.: *See*—
Cooper, Ronald H., and Corbett. 2,869,191.
Cooper, Ronald H., and Corbett. 2,869,196.
Corbitt, Howard E., R. M. Hill, Jr., and D. H. Bogarth, to Aerojet-General Corp. Electrical device. 2,870,287, 1–20–59. Cl. 200—87.
Cordry, David D., to The Trane Co. Refrigeration load calculator. 2,869,787, 1–20–59, Cl. 235—61.
Corey, Flournoy and F. C., and R. D. Pitts, to Pickwick Co. Poultry processing equipment. 2,869,172, 1–20–59, Cl. 17—11.1.
Corey, Frederick C.: *See*—
Corey, Flournoy and F. C., and Pitts. 2,869,172.
Corkum, Howard D., to The American Thread Co. Impregnated synthetic fiber sewing thread and method of making same. 2,870,045, 1–20–59, Cl. 117—138.8.
Corr, James J., and M. Sirkel, to United States of America, Air Force. Calibration circuit. 2,870,402, 1–20–59, Cl. 324—57.
Corrado, Victor M.: *See*—
Rossetto, Louis, and Corrado. 2,869,717.
Cory Corp.: *See*—
Karlen, Harvey R. 2,870,318.
Karlen, Harvey R., and Eisendrath. 2,869,780.
Cotton, James F.: *See*—
Waddle, Howard M., Cotton, and Hudson. 2,870,641.
Couture, Clara M.: *See*—
Couture, Wilfrid J. 2,869,269.
Couture, Wilfrid J., deceased, by C. M. Couture, administratrix, to Olin Mathieson Chemical Corp. Safety mechanism for firearms. 2,869,269, 1–20–59, Cl. 42—70.
Cowan, Ben. Agitator for pulp stock tanks. 2,869,841, 1–20–59, Cl. 259—96.
Cox, George W., to Northrop Aircraft, Inc. Multiple position switch with built-in memory. 2,870,299, 1–20–59, Cl. 200—167.
Cox, Hubert L.: *See*—
Haroldson, Arthur H., and Cox. 2,870,295.
Cox, Martin, to Power Jets (Research and Development) Ltd. Method and apparatus for heating fluid. 2,869,830, 1–20–59, Cl. 257—1.
Coyle, Eugene F. Gas-operated automatic shotgun choke. 2,869,272, 1–20–59, Cl. 42—79.
Craven, Isaac: *See*—
Huber, Henry, and Craven. 2,869,490.
Crawford, Francis W., to Phillips Petroleum Co. Earth boring. 2,869,825, 1–20–59, Cl. 255—1.8.
Cretella, Mary C.: *See*—
Juda, Walter, and Cretella. 2,870,071.
Cretex Companies, Inc., The: *See*—
Longfellow, Richard C. 2,869,213.
Cretin-Maitenaz, Bernard, to Societe en commandite simple et en nom collectif a l'egard de Gerants dite: Societe Industrielle et Commerciale des Ouvriers Lunetiers (Cottet, Poichet, Tagnon & Cie). Multifocal lens having a locally variable power. 2,869,422, 1–20–59, Cl. 88—54.
Critchley, William C.: *See*—
Carleen, Leonard O., Critchley, and Magee. 2,869,427.
Crockett, Donald K.: *See*—
Muinch, George, and Crockett. 2,869,804.
Crockett, Thomas E. Valve device for toilet flush tanks. 2,869,578, 1–20–59, Cl. 137—444.
Crofts, George B. Plural section magnetically variable inductor with frequency tracked systems. 2,870,334, 1–20–59, Cl. 250—40.
Cronburg, Claude I. L., Jr., and C. S. Yeutter, to Bell Telephone Laboratories, Inc. Automatic transmission regulation. 2,870,271, 1–20–59, Cl. 179—171.9.
Crosfield, J. F., Ltd.: *See*—
Crosfield, John F., and Allen. 2,870,253.
Crosfield, John F., and G. S. J. Allen, to J. F. Crosfield Ltd. Production of printing surfaces. 2,870,253, 1–20–59, Cl. 178—6.6.
Crow, Howard M. Sprinkler head. 2,869,924, 1–20–59, Cl. 299—64.
Crown Cork & Seal Co., Inc.: *See*—
Day, Carl L., Fauth, and Regnier. 2,870,016.
Crown Engineering Corp.: *See*—
Symmank, William D. 2,869,327.
Csendes, Ernest, to E. I. du Pont de Nemours and Co. 2,2'-dithiobisbenzothiazole and 2-mercaptobenzothiazole $ZnCl_2$ and $CdCl_2$ complexes. 2,870,157, 1–20–59, Cl. 260—299.
Cubitt, Kenneth H., and J. W. Leonard, to The Educational Supply Association Ltd. Aircraft hangar doors. 2,869,685, 1–20–59. Cl. 160—178.
Cuccia, Carmen L., to Radio Corp. of America. Electron beam tubes. 2,870,368, 1–20–59. Cl. 315—5.49.
Cunningham, James M., to E. R. and D. C. Chilcott, d. b. a. Techno Instrument Co. Recording sheet and means for mounting same on a rotary drum. 2,869,966, 1–20–59, Cl. 346—74.
Cushman Motor Works, Inc.: *See*—
Von Seggern, Robert D. 2,869,919.
Cutler-Hammer, Inc.: *See*—
Eck, Robert N., and Simson. 2,870,392.
Hodgson, Howard E. 2,870,382.
Cuzzone, Raymond: *See*—
Wilk, Stanley H., and Cuzzone. 2,869,579.
Cyphers, Alexander D., Jr., and A. A. Gruber, to E. I. du Pont de Nemours and Co. Chloroform extraction process for improving recovery of adipic acid. 2,870,203, 1–20–59, Cl. 260—537.
Czwerwinski, Wachaw, to Avro Aircraft Ltd. Ball and socket coupling having air bearing means. 2,869,901, 1–20–59, Cl. 285—181.
Dahlem, Maura L.: *See*—
Offermann, Alfredo M. 2,869,359.
Daimler-Benz Akt.: *See*—
Gnamba, Josef. 2,869,341.
Müller, Josef. 2,869,392.
Naumann, Willy R. 2,869,295.
Dale, George W.: *See*—
Perkins, Glen E., and Dale. 2,869,931.
Dalton Foundries, Inc., The: *See*—
Matthews, Clell R., and Cole. 2,869,896.
Danison, Robert C.: *See*—
Gooding, William T., Jr., and Danison. 2,869,395.
Danvers, Ellis: *See*—
Fairhurst, Leonard G., and Danvers. 2,869,650.
Davidson, Charles S.: *See*—
Van Hartesveldt, Carroll H., and Davidson. 2,869,173.
Davidson, John T., to The Standard Register Co. Autographic register. 2,869,897, 1–20–59, Cl. 282—20.
Davidson, John T., R. D. Georges, and R. L. Fortune, to The Standard Register Co. Capacitor control unit. 2,870,399, 1–20–59, Cl 323—75.
Davidson, Samuel H., D. A. Love, and H. T. Williams, to Imperial Chemical Industries Ltd. Blasting device. 2,869,462, 1–20–59, Cl. 102—25.
Davis, Flavius E., to Anchor Mfg. Co. Meter box cover lock. 2,870,238, 1–20–59, Cl. 174—50.
Davis, Horace R.: *See*—
Sorensen, David P., and Davis. 2,870,216.
Davis, Horace R., and D. P. Sorensen, to The M. W. Kellogg Co. Conversion of organic sulfides to sulfones. 2,870,163, 1–20–59. Cl. 260—327.
Davis, Horace R., Jr., and D. P. Sorensen, to The M. W. Kellogg Co. Disproportionation of organic sulfoxides. 2,870,215, 1–20–59, Cl. 260—607.
Davis, Robert O., to Gene Olsen Corp. Apparatus for stacking and unstacking building blocks. 2,869,739, 1–20–59, Cl. 214—16.4.
Davison, James M., and J. F. Erdmann, to Union Carbide Corp. Ethylene polymers. 2,870,130, 1–20–59, Cl. 260—94.9.
Day, Carl L., F. E. Fauth, and W. D. Regnier, to Crown Cork & Seal Co., Inc. Method and apparatus for preparing beverages. 2,870,016, 1–20–59, Cl. 99—79.
Dayton Rubber Co., The: *See*—
Freedlander, Abraham L. 2,869,148.
Dazzi, Joachim, to Monsanto Chemical Co. Vinyl chloride polymers plasticized with polycarboxylates. 2,870,111, 1–20–59, Cl. 260—31.8.
Dazzi, Joachim, to Monsanto Chemical Co. Ethers of the furan series. 2,870,169, 1–20–59, Cl. 260—347.8.
Deal, Carl H., Jr.: *See*—
Keeler, William R., Douglin, and Deal. 2,869,989.
Deanesly, Richard M., to Universal Oil Products Co. Production and recovery of aromatic hydrocarbons. 2,870,226, 1–20–59, Cl 260—668.
Deaton, Charles U., and C. D. Graber, to Diebold, Inc. Vault door construction. 2,869,485, 1–20–59, Cl. 109—61.
Debusk, Ralph E.: *See*—
Perry, Milton A., and Debusk. 2,870,214.
Deering Milliken Research Corp.: *See*—
Klein, Norman E. 2,869,315.
Williams, James C. 2,869,802.
De Ford, Peri E., 25%, R. Geold, and 25%, E. Tolman. Hydraulic and planetary gear transmission. 2,869,393, 1–20–59, Cl. 74—688.
De Havilland Engine Co. Ltd., The: *See*—
Halford, Frank B., and Clarke. 2,869,821.
Deibel, Raymond A., and M. Bitzer, to Trico Products Corp. Windshield cleaner. 2,869,167, 1–20–59, Cl. 15—253.
Deitz, Jennings D. Cover for telephone exchange apparatus. 2,869,606, 1–20–59, Cl. 150—52.
De Keizer, Adrianus, C. P. van Dijk, and A. A. Gips, to Shell Development Co. Production of meta-diisopropyl benzene. 2,870,229, 1–20–59, Cl. 260—671.
Deknatel, J. A., & Son, Inc.: *See*—
Kurtz, Leonard D. 2,869,550.
De La Mater, George B., to Mallinckrodt Chemical Works. X-ray contrast composition comprising substantially amylose-free amylopectin in aqueous solution of contrast agent. 2,870,063, 1–20–59, Cl. 167—95.

Delliso, John. Socket and rod coupling. 2,869,907, 1–20–59, Cl. 287—126.
Delman Co., The: *See*—
Neufeld, Leonard C. 2,869,164.
De Millar, Floyd O., to The Radian Corp. Motor starting apparatus. 2,869,682, 1–20–59, Cl. 185—41.
Dempster, George R. Transporting equipment. 2,869,740, 1–20–59. Cl. 214—75.
Den Herder, Marvin, and R. V. Malo, to Standard Oil Co. Fluid platinum catalyst hydroforming system. 2,870,086, 1–20–59, Cl. 208—140.
Denver Brick and Pipe Co.: *See*—
Hileman, Dean S. 2,869,742.
Dermond, Lawrence C., to General Motors Corp. Windshield cleaning apparatus. 2,869,165, 1–20–59, Cl. 15—250.4.
Dery, Aldege L. Loading magazine for a work holding fixture. 2,869,433, 1–20–59, Cl. 90—59.
Deschmann, Heinrich: *See*—
Rosenberg, Heinz, and Deschmann. 2,870,349.
Destremps, Edward A.: *See*—
Brown, James W., and Destremps. 2,869,992.
Deutsche Gold- und Silber-Scheideanstalt vormals Roessler: *See*—
Bader, Erich, and Schweitzer. 2,870,118.
Boettcher, Alfred, and Himmelstein. 2,870,007.
De Vrijer, Frederik W.: *See*—
Valeton, Josue J. P., de Vrijer, and Teer. 2,870,248.
De Weese, Robert G., to Textron Inc. Spectacle case. 2,869,605, 1–20–59, Cl. 150—52.
Diamond Alkali Co.: *See*—
Gooding, William T., Jr., and Danison. 2,869,985.
Lander, James G. 2,870,033.
Parker, Joseph. 2,870,074.
Diamond Calk Horseshoe Co.: *See*—
Swanstrom, John E., Connell, Cooper, and Swanson. 2,869,409.
Diamond Gardner Corp.: *See*—
Schaer, Glenn R. 2,870,068.
Diamond Laboratories: *See*—
Ratcliff, Karl A., and Dorrance. 2,869,543.
Ratcliff, Karl A., and Dorrance. 2,869,544.
Dickey, Robert C., F. P. Hauck, and H. M. Archer, to Michigan Abrasive Co. Apparatus for propelling particulate matter. 2,869,511, 1–20–59, Cl. 118—638.
Dickey, Wallace J., and K. R. McClure; said K. R. McClure assor. to said W. J. Dickey. Self-locking shackle seal. 2,869,911, 1–20–59, Cl. 292—324.
Dickie, William A., J. G. N. Drewitt, and H. E. B. Young, to British Celanese Ltd. Filamentary material. 2,869,848, 1–20–59, Cl. 263—30.
Dickison, Harry A. Tension spring supporting means for trailers. 2,869,889, 1–20–59, Cl. 280—104.5.
Dictaphone Corp.: *See*—
Taylor, Douglas E., Jones, and Mitchell. 2,870,264.
Diebold, Inc.: *See*—
Deaton, Charles U., and Graber. 2,869,485.
Diemer, Fritz, to EMA A.-G. Electric measuring instrument. 2,870,410, 1–20–59, Cl. 324—141.
Dillen, Warren A., to Reynolds Metals Co. Display frame having detachable interlocking joints. 2,869,263, 1–20–59, Cl. 40—155.
Dipert, Steven R. Adjustable support fixture. 2,869,244, 1–20–59, Cl. 33—180.
Di Salvo, Walter A.: *See*—
Klein, Howard C., Di Salvo, and Kapp. 2,870,198.
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Hall, Reginald H., and Graham. 2,870,221.
Dixon Robert W.: *See*—
Shoup, Edgar C., Jr., and Dixon. 2,869,941.
Djerassi, Carl. Cyclopentanophenanthrene derivatives and method for the production thereof. 2,870,174, 1–20–59, Cl. 260—397.4.
Dobratz, Robert E. Disposable trap. 2,869,280, 1–20–59, Cl. 43—77.
Doerr, Dale D., and W. H. Grip, to Kaiser Aluminum & Chemical Corp. Container. 2,869,750, 1–20–59, Cl. 220—4.
Dole, James, Engineering Co.: *See*—
Martin, William M. 2,870,024.
Dole Valve Co., The: *See*—
Algino, Joseph M., and Slimak. 2,869,566.
Dolza, John to General Motors Corp. Valve means. 2,869,526, 1–20–59. Cl. 123—119.
Dominion Engineering Works Ltd.: *See*—
Stewart, Alexander E. 2,869,436.
Doolittle, Howard D., E. J. Naill, and B. H. Wadia, to Machlett Laboratories, Inc. Electron discharge device. 2,870,364, 1–20–59, Cl. 313—178.
D'Or, Nici. Disposable brassiere. 2,869,553, 1–20–59, Cl. 128—505.
Dorrance, William A.: *See*—
Ratcliff, Karl A., and Dorrance. 2,869,543.
Ratcliff, Karl A., and Dorrance. 2,869,544.
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Keeler, William R., Douslin, and Deal. 2,869,989.
Dow Chemical Co., The: *See*—
Blair, Etcyl H., Slagh, and Britton. 2,870,189.
Burgert, Bill E., and Tolkmith. 2,870,190.
Cooper, Ronald H. 2,869,194.
Cooper, Ronald H., and Corbett. 2,869,191.
Cooper, Ronald H., and Corbett. 2,869,196.
Cooper, Ronald H., and Johnson. 2,870,110.
Cooper, Ronald H., and Kelly. 2,869,195.
Doyle, Dewey I., Jr., to Doyle Vacuum Cleaner Co. Rigid axle mounting. 2,869,885, 1–20–59, Cl. 280—47.17.
Doyle Vacuum Cleaner Co.: *See*—
Doyle, Dewey I., Jr. 2,869,885.
Draganjac, Michael J., to Westinghouse Air Brake Co. Precise automatic multirange indicating voltmeter and/or ratiometer. 2,870,408, 1–20–59, Cl. 324—115.
Drake, George L., Jr.: *See*—
Chance, Leon H., Drake, and Reeves. 2,870,042.
Drake, Kenneth: *See*—
Kluge, Herman D., and Drake. 2,870,134.
Drake, Robert T., to Clevite Harris Products, Inc. Flexible coupling and method of making same. 2,869,339, 1–20–59, Cl. 64—11.
Dray, Merrill E.: *See*—
Antonidis, John E., Dray, and Ulm. 2,870,354.
Dreier Brothers, Inc.: *See*—
Dreier, Raymond C. 2,869,600.
Dreier, Raymond C., to Dreier Brothers, Inc. Saw structure and blade mount therefor. 2,869,600, 1–20–59, Cl. 145—33.
Drevitson, Wesley B. Tractor for controlling movement of the human hand. 2,869,658, 1–20–59, Cl. 180—1.
Drewitt, James G. N.: *See*—
Dickie, William A., Drewitt, and Young. 2,869,848.
Dritz, Arthur, to John Dritz & Sons. Combination fountain pen and brush. 2,869,162, 1–20–59, Cl. 15—124.
Dritz, John, & Sons: *See*—
Dritz, Arthur. 2,869,162.
Drummond, Ronald B. Protective hood. 2,869,132, 1–20–59, Cl. 2—4.
Duane, Jerome J.: *See*—
Godowsky, Leopold, and Duane. 2,870,012.
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Becker, Bernard J., Jr., and Duclos. 2,869,912.
Dugan, Henry M. and J. J. Leather-covered button and method of manufacture. 2,869,203, 1–20–59, Cl. 24—113.
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Dugan, Henry M. and J. J. 2,869,203.
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Sanger, Richard E. 2,870,325.
Slate, Matthew W. 2,870,338.
Dunbar, Robert R. Holder construction. 2,869,883, 1–20–59, Cl. 279—56.
Duncan, Angus W., to The Mining Engineering Co. Ltd. Scraper chain conveyor structures. 2,869,713, 1–20–59, Cl. 198—204.
Duncan Electric Co., Inc.: *See*—
Milligan, James W., and Green. 2,869,934.
Milligan, James W., and Green. 2,869,935.
Dunlop Rubber Co. Ltd.: *See*—
Mitchell, Charles D. 2,870,065.
Shrimpton, Ronald H., and Mitchell. 2,870,114.
Dunlop Tire and Rubber Corp.: *See*—
Gough, Sidney W., and Morgan. 2,869,362.
Powell, Ernest F., and Lawton. 2,869,361.
Du Pont de Nemours, E. I., and Co.: *See*—
Adams, Benjamin F., Jr. 2,869,974.
Barney, Arthur L., and Stevenson. 2,870,196.
Blatz, Philip S. 2,870,044.
Breen, Alvin L. 2,869,967.
Cole, Paul M. 2,869,976.
Csendes, Ernest. 2,870,157.
Cyphers, Alexander D., Jr., and Gruber. 2,870,203.
Gillson, Joseph L., Jr. 2,870,338.
Hare, Weston A. 2,869,975.
Hubbard, James K., and Koontz. 2,869,973.
Kirby, Arthur F. 2,870,167.
Loder, Donald J. 2,870,058.
Mitchell, Thomas E. 2,869,319.
Morning, John L. 2,870,006.
Murphey, Wilbur A. 2,870,126.
Pattison, Dexter B. 2,870,097.
Ryder, David F. 2,869,838.
Sands, Seymour. 2,869,435.
Schulze, Ferdinand. 2,869,969.
Shacklett, Comer D. 2,870,181.
Williams, Mortimer P., and Kirchner. 2,870,059.
Wolinski, Leon E. 2,870,043.
Wright, Arthur A. 2,869,176.
Duprat, Athanase J., to B. F. Perkins & Sons, Inc. Turning apparatus. 2,869,411, 1–20–59, Cl. 82—4.
Dwyer, Walter M., to The Greist Mfg. Co. Sine gage. 2,869,242, 1–20–59, Cl. 33—174.
EMA A.-G.: *See*—
Diemer, Fritz. 2,870,410.
Eastman Kodak Co.: *See*—
Allen, Charles F. H., and Sagura. 2,870,015.
Brooker, Leslie G. S., and Van Lare. 2,870,014.
Cathcart, John A. 2,870,094.
Chandler, Jasper S. 2,869,381.
Clemens, Milton L., Jr. 2,870,199.
Coney, Charles H., and Ramgay. 2,870,055.
Godowsky, Leopold, and Duane. 2,870,012.
Guillet, James E., and Coover. 2,870,131.
Head, William I., Kirk, and Mather. 2,869,972.
Jarvis, James G. 2,869,461.
Jeffreys, Roy A. 2,870,013.
Martin, William A. 2,869,445.
Nerwin, Hubert, and Harvey. 2,869,748.
Perry, Milton A., and Debusk. 2,870,214.
Robertson, Earl M., and Van Allan. 2,870,011.
Stern, Max H., and Hawks. 2,870,176.
Wright, Robert A., and McFadden. 2,870,405.
Easton, Fred H.: *See*—
Helmer, Norman D., and Easton. 2,869,541.
Eaves, William C. Heating or deicing unit for glazed windows. 2,869,166, 1–20–59, Cl. 15—250.5.
Ebbinghouse, John A., to American Rock Wool Corp. Fiberizing steam ring. 2,869,175, 1–20–59, Cl. 18—2.5.
Ebert Walter: *See*—
Kessler, Joseph S., and Ebert. 2,869,211.
Eck, Robert N., and V. H. Simson, to Cutler-Hammer, Inc. Electric controllers for machines. 2,870,392, 1–20–59, Cl. 318—470.

Eden, William P. Hose winder. 2,869,800, 1-20-59, Cl. 242—86.
Eder, George L., ½ to B. J. and F. M. Carroll. Cabinet with folding bed structure. 2,869,143, 1-20-59, Cl. 5—2.
Edsall, William S., to The Chase-Shawmut Co. Automatic circuit interrupter integrated with current-limiting fuses. 2,870,293, 1-20-59, Cl. 200—114.
Educational Supply Assn. Ltd., The: *See*—
Cubitt, Kenneth H., and Leonard. 2,869,635.
Egan, Edmond F.: *See*—
McKay, Alexander S., and Egan. 2,869,642.
Ehmann, Ludwig: *See*—
Wettstein, Albert, and Ehmann. 2,870,142.
Eichweber, Kurt. Detachable road protecting device for tractors, tracklaying vehicles and the like. 2,869,932, 1-20-59, Cl. 305—10.
Eisendrath, David C.: *See*—
Karlen, Harvey R., and Eisendrath. 2,869,760.
Electric & Musical Industries Ltd.: *See*—
James, Ivanhoe J. P. 2,870,249.
McGee, James D. 2,869,803.
Electrical Utilities Co.: *See*—
Milliken, Alvin R., and Hook. 2,870,307.
Ellin, Nils A. Holder for read-made four-in-hand tie. 2,869,199, 1-20-59, Cl. 24—49.
Elliott, George, to General Dynamics Corp. Radio or carrier terminal dial selector. 2,870,263, 1-20-59, Cl. 179—41.
Elliott, Kenneth M., to Socony Mobil Oil Co., Inc. High pressure reforming with lowered hydrogen partial pressure. 2,870,083, 1-20-59, Cl. 208—135.
Ely, Donald A.: *See*—
Hornbostel, Lloyd, Beachler, and Ely. 2,869,437.
Emerson-Pryne Co.: *See*—
Ford, Harold H. 2,870,319.
Engelhard Industries, Inc.: *See*—
Bird, Lester F. 2,870,379.
Enterprise Railway Equipment Co.: *See*—
Batho, William F. 2,869,480.
Erbe, Otto A. K., K. Hartwig, and A. Rakebrandt, to Carl Zeiss. Coarse and fine movement for optical instruments, especially microscopes. 2,869,373, 1-20-59, Cl. 74—10.52.
Erdmann John F.: *See*—
Davison, James M., and Erdmann. 2,870,130.
Ernestus, Adolph W., to A. O. Smith Corp. Hoist unit. 2,869,734, 1-20-59, Cl. 212—21.
Erwin, Ransome W., to Salt Water Control, Inc. Mud degasser. 2,869,673, 1-20-59, Cl. 183—2.5.
Esposito Salvatore: *See*—
Anderson, Harry R. Esposito, and Rossi. 2,870,022.
Essler, Warren O., to Collins Radio Co. Pulse stretching phase detector. 2,870,346, 1-20-59, Cl. 307—88.5.
Esso Research and Engineering Co.: *See*—
Bailey, Philip S. 2,870,194.
Brown, James W., and Destrempe. 2,869,992.
Love, Robert M. 2,870,085.
Mertzweiller, Joseph K. 2,870,112.
Wilson, Samuel W., and Bodnar. 2,870,232.
Estes, James W., and G. E. Spangler, to Air Reduction Co., Inc. Method of producing nodular cast iron. 2,870,004, 1-20-59 Cl. 75—51.
Etchell, Howard L., to Bedford Gear & Machine Products, Inc. Chuck. 2,869,884, 1-20-59, Cl. 279—123.
Ethyl Corp.: *See*—
Kosikowski, John, and Larson. 2,870,180.
Lyben, Raymond G. 2,869,993.
Orloff, Harold D., and Markley. 2,870,186.
Euclid Electric & Mfg. Co., The: *See*—
Merchant, Charles W. 2,870,273.
Ene, Ludwig: *See*—
Schafer, Werner, Wegler, and Ene. 2,870,144.
Evans, Lyon D., and N. J. Hebert, to Reynolds Metals Co. Pivoted window structure. 2,869,691, 1-20-59, Cl. 189—89.
Everhart, Thomas E., and C. K. Birdsall, to Hughes Aircraft Co. Low-noise microwave tube. 2,870,367, 1-20-59, Cl. 315—3.6.
Fagin, Karl W.: *See*—
Radke, Donald F., Fagin, and Marks. 2,869,790.
Fairchild Camera and Instrument Corp.: *See*—
Boyajean, John A. 2,870,260.
Fairchild Engine and Airplane Corp.: *See*—
Horrell, Theodore H. 2,869,535.
Fairhurst, Leonard G., and E. Danvers, to Rotol Ltd. Pitch lock valve for hydraulic variable pitch propellers. 2,869,650, 1-20-59, Cl. 170—160.21.
Falk Corp., The: *See*—
Schmitter, Walter P. 2,869,384.
Farbenfabriken Bayer Akt.: *See*—
Schafer, Werner, Wegler, and Ene. 2,870,144.
Schrader, Gerhard. 2,870,191.
Schrader, Gerhard, and Mersch. 2,870,187.
Farbwerke Hoechst Akt. vormals Meister & Bruning: *See*—
Scherer, Otto. 2,870,224.
Farley & Loetscher Mfg. Co.: *See*—
Loetscher, Robert F. 2,869,598.
Farnam Mfg. Co., Inc.: *See*—
Carter, Larry J. 2,870,277.
Farnon, Robert B., and S. E. Rose, to General Electric Co. Drip rail assembly for window. 2,869,185, 1-20-59, Cl. 20—70.
Farnsworth, Le Moyne, to Automation Machines and Equipment Co., Inc. Apparatus for feeding and handling thin metal sheets. 2,869,756, 1-20-59, Cl. 221—212.
Farnsworth, Philo T., to International Telephone and Telegraph Corp. Radiation translating device. 2,870,371, 1-20-59, Cl. 315—11.
Farrel-Birmingham Co., Inc.: *See*—
Tippet, Philip V. 2,869,452.
Fassero, Anthony T., and J. R. Maddox. Device for curing tire casings. 2,869,180, 1-20-59, Cl. 18—45.
Fauth, Frederick E.: *See*—
Day, Carl L., Fauth, and Regnier. 2,870,016.
Federal Paper Board Co., Inc.: *See*—
Bothwell, William R. 2,869,771.
Fellers, Carl R., and W. A. Zachowski, to Blue Channel Corp. Preventing struvite formation in thermally treated seafoods. 2,870,025, 1-20-59, Cl. 99—188.
Fenner, Robert M., and D. E. Hamilton. Tension adjustments for trampolina. 2,869,147, 1-20-59, Cl. 5—202.
Ferguson, Harry D., Jr., to Philco Corp. Heaters. 2,870,316, 1-20-59, Cl. 219—37.
Fernandez, Carmel G. Self-propelled tandem wheeled carrier. 2,869,661, 1-20-59, Cl. 180—19.
Ferranti, Ltd.: *See*—
Scarrott, Gordon G., and Johnson. 2,870,437.
Fettes, Edward M.: *See*—
Nevers, Ashley D., and Fettes. 2,869,994.
Fibreboard Paper Products Corp.: *See*—
Marander, Myron P., Gschwend, and Smith. 2,869,722.
Wilcox, William H. 2,869,439.
Fidelity Union Trust Co.: *See*—
Senn, Otto. 2,870,135.
Thummel, Ludwig, and Aeberhardt. 2,869,968.
Fields, Arnold C., to Westinghouse Electric Corp. Gas filter mats. 2,869,680, 1-20-59, Cl. 183—62.
Filachione, Edward M., and E. H. Harris, Jr., to United States of America, Agriculture. Tanning with epoxy resins. 2,869,970, 1-20-59, Cl. 8—94.33.
Filipowsky, Richard F. J., to Companhia Portuguesa Radio Marconi, S. A. R. L. Dynamic memory device using electrical pulses. 2,870,432, 1-20-59, Cl. 340—173.
Findlay, Robert A., to Phillips Petroleum Co. Continuous gas absorption process and apparatus. 2,869,672, 1-20-59, Cl. 183—2.
Finke, Arthur A.: *See*—
Stewart, Jack L., Friedberg, and Finke. 2,870,243.
Finn, Sidney J., to United Shoe Machinery Corp. Heel and shank lasting machines. 2,869,155, 1-20-59, Cl. 12—8.5.
Finston, Victor, to The Meaker Co. Processing machine. 2,869,560, 1-20-59, Cl. 134—70.
Firma Bölkow Entwicklungen Kommanditgesellschaft: *See*—
Honolka, Walter. 2,870,257.
Firma Wilhelm Schroeder: *See*—
Naujokat, Gustav. 2,869,352.
Fischer, Andrew P. Variable speed drive mechanism. 2,869,378, 1-20-59, Cl. 74—216.3.
Fischer, John J.: *See*—
Clark, John A., Jr., and Fischer. 2,869,834.
Fischer, Paul W., to Union Oil Co. of California. Method of gas purification utilizing an amine solution and an anticorrosion agent. 2,869,978, 1-20-59, Cl. 23—3.
Fish, James L. and J. H. Hydraulic vise. 2,869,434, 1-20-59, Cl. 90—60.
Fish, John H.: *See*—
Fish, James L. and J. H. 2,869,434.
Fisher, William T., and J. Platt, to Bristol Aircraft Ltd. Snap ring devices. 2,869,910, 1-20-59, Cl. 292—256.067.
Fitzsimmons, William E. Map holder and protector. 2,869,604, 1-20-59, Cl. 150—39.
Fleet, C. B., Co., Inc.: *See*—
Forsyth, Harry D. 2,869,545.
Fleming, Earl L.: *See*—
Venditty, Chester G., and Fleming. 2,869,891.
Fletcher-Terry Co., The: *See*—
Judd, Chester K., Jr. 2,869,131.
Fleuret, Marcel. Electromagnetic metering valve. 2,869,818, 1-20-59. Cl. 251—137.
Fluor Corp., Ltd., The: *See*—
Baird, Raymond C. 2,869,962.
Flynn, John H. Gas burner with selective flame distribution. 2,869,630, 1-20-59, Cl. 158—105.
Folliet, Albert E. J., and L. Kenzinger, to Ciments Lafarge. Rotary furnace. 2,869,849, 1-20-59, Cl. 263—33.
Foote, William R., to General Electric Co. Gas turbine powerplant cycle with water evaporation. 2,869,324, 1-20-59, Cl. 60—39.59.
Ford, Harold H., to Pryne & Co., Inc. Cover attaching assembly. 2,869,908, 1-20-59, Cl. 292—1.
Ford, Harold H., to Emerson-Pryne Co. Combined heating and ventilating unit. 2,870,319, 1-20-59, Cl. 219—39.
Ford Instrument Co. of Sperry-Rand Corp.: *See*—
Rowley, Lothair H. 2,870,417.
Ford Motor Co.: *See*—
Hutchison, Joseph D. 2,869,393.
Koehl, Frank J. 2,869,394.
Venditty, Chester G., and Fleming. 2,869,891.
Forster, John O., to Heli-Coil Corp. Seating tool for wire coil screw thread inserts. 2,869,224, 1-20-59, Cl. 29—240.5.
Forsyth, Harry D., to C. B. Fleet Co., Inc. Package. 2,869,545, 1-20-59, Cl. 128—232.
Fortune, Raymond L.: *See*—
Davidson, John T., Georgen, and Fortune. 2,870,399.
Foster, Edwin E. Spring motor. 2,869,801, 1-20-59, Cl. 242—107.3.
Foster, Elton G.: *See*—
Anderson, Elmer A., Foster, Gable, and Hood. 2,869,986.
Fountain, Henry F., and W. L. Tancred, to Sturrup, Inc. Method of and apparatus for gauging the dimensions of objects of irregular contour. 2,870,336, 1-20-59, Cl. 250—53.
Franceschini, Lorenzo, to Officine Galileo Societa per Azioni. Shutter device for cameras provided with two or more objectives. 2,869,446, 1-20-59, Cl. 95—62.
Francis, John P. Automobile windshield weather protector. 2,869,562, 1-20-59, Cl. 135—5.
Frank, Wallace E., and F. F. Ohntrup, to W. K. Kellogg Foundation. Device for detecting and indicating proximity of objects. 2,870,427, 1-20-59, Cl. 340—16.

Franke & Heidecke, Fabrik Photographischer Praxisions-Apparate: *See*—
Heidecke, Reinhold, Bretthauer, and Madge. 2,869,396.
Frankel, Wm. W.: *See*—
Britcher, Charles W. 2,869,482.
Franklin, Edna M. Dressmaker's pattern gauge. 2,869,236, 1–20–59, Cl. 33—2.
Fransen, Jacobus, to North American Philips Co., Inc. X-ray tube voltage control circuit. 2,870,340, 1–20–59, Cl. 250—103.
Frans, Erwin E., to Bell Telephone Laboratories, Inc. Electrical socket for miniature components. 2,870,424, 1–20–59, Cl. 339—17.
Fraser, Julius T., to General Precision Laboratory Inc. Machine programming control. 2,870,389, 1–20–59, Cl. 318—162.
Fraser, Kenneth G.: *See*—
Stillwagon, George B., Jr. 2,869,342.
Freedlander, Abraham L., to The Dayton Rubber Co. Furniture construction. 2,869,148, 1–20–59, Cl. 5—210.
Frey, Frederick E., to Phillips Petroleum Co. Removal of metal contaminants from hydrocarbon liquids and improved hydrocarbon conversion process. 2,870,081, 1–20–59, Cl. 208—88.
Friedberg, Milton R.: *See*—
Stewart, Jack L., Friedberg, and Finke. 2,870,243.
Frontier Development Co.: *See*—
Beeston, John T., Jr. 2,869,311.
Frouwa, Simon M., to North American Philips Co. Inc. Glow-discharge tube. 2,870,365, 1–20–59, Cl. 313—197.
Funkhouser, Mearick, and H. E. Schultze, to General Motors Corp. Inertia controlled shock absorber system. 2,869,685, 1–20–59, Cl. 188—87.
G. Q. Parachute Co. Ltd.: *See*—
Gregory, James. 2,869,809.
Gaa, Donald L.: *See*—
Bourns, Marian E., Harrison, Goeppinger, and Gaa. 2,870,302.
Gable, Charles M.: *See*—
Anderson, Elmer A., Foster, Gable, and Hood. 2,869,986.
Gable, Charles M., to Shell Development Co. Epoxidation process. 2,870,171, 1–20–59, Cl. 260—348.5.
Gaines, Harry B., to Saginaw Furniture Shops, Inc. Extension commode. 2,869,956, 1–20–59, Cl. 312—297.
Gainesburgh, Charles B. Toy holster construction. 2,869,768, 1–20–59, Cl. 224—2.
Gallatin, Harold A.: *See*—
Reinke, Herbert J., and Gallatin. 2,870,395.
Gans, Daniel M., ½ to H. Mahler. Display rack divider. 2,869,732, 1–20–59, Cl. 211—184.
Garbellano, David W. Underwater hood. 2,869,133, 1–20–59, Cl. 2—68.
Garbuny, Max, and R. C. Ohlmann, to United States of America, Air Force. Photothermionic spectrum converter. 2,870,370, 1–20–59, Cl. 315—10.
Garden City Plating & Mfg. Co.: *See*—
Arnit, Fred H. 2,869,499.
Gardner-Denver Co.: *See*—
Bent, John H. 2,869,403.
Garrett, Charles G. B.: *See*—
Brattain, Walter H., and Garrett. 2,870,344.
Garrison, Marion A., to Johnston Testers, Inc. Bottom hole weight indicator. 2,869,363, 1–20–59, Cl. 73—151.
Gates, Albert G. R., to Gestetner Ltd. Duplicating machines. 2,869,458, 1–20–59, Cl. 101—247.
Gates, Eugene H., Jr. Ribbon supply apparatus for reverse image typing. 2,869,704, 1–20–59, Cl. 197—151.
Gates, Eugene H., Jr. Outboard ribbon supply apparatus for typewriters. 2,869,705, 1–20–59, Cl. 197—151.
Gaudreau, Richard J., to Production Tool Die Co., Inc. Apparatus for discharging successive articles from a stack thereof. 2,869,755, 1–20–59, Cl. 221—93.
Gebhard, Kurt O. R., to South African Iron and Steel Industrial Corp. Ltd. Process for heating the head of an ingot of molten ferrous material. 2,870,005, 1–20–59, Cl. 75—60.
Geigy, J. R., A-G.: *See*—
Hindermann, Peter, Kolliker, and Trautzl. 2,870,173.
Geissler, Hugo H., to Shell Development Co. Method of withdrawing a mixture of feed liquor and carrier liquid from a centrifuge. 2,869,779, 1–20–59, Cl. 233—14.
Gelzer, John R., to Oak Mfg. Co. Electrical switch. 2,870,275, 1–20–59, Cl. 200—11.
Gelzer, John R., to Oak Mfg. Co. Rotary electric switch. 2,870,276, 1–20–59, Cl. 200—11.
General Aniline & Film Corp.: *See*—
Randall, David L., and Schmidt-Nickels. 2,870,168.
General Dynamics Corp.: *See*—
Elliott, George. 2,870,263.
General Electric Co.: *See*—
Atchison, Leonard W. 2,869,334.
Bochan, John. 2,869,344.
Bochan, John. 2,869,699.
Bowden, George W. 2,869,700.
Conlee, George D. 2,869,698.
Farnon, Robert B., and Rose. 2,869,185.
Foote, William R. 2,869,324.
Gray, Walter E., Jr., and Larkin. 2,869,347.
Kelley, Fred W., Jr. 2,870,397.
Kelling, Leroy U. C. 2,870,386.
Lewis, Walter E. 2,870,317.
Metzger, Matt F. 2,869,247.
Miller, Nicholas. 2,870,314.
Mosher, Ralph S. 2,869,139.
Muth, Robert C., and Hegel. 2,869,939.
Nerad, Anthony J. 2,869,629.
Radke, Donald F., Fagin, and Marks. 2,869,790.
Rocha, Henrique A. F. 2,870,380.
Rose, Stanley E. 2,869,651.
General Electric Co.—Continued
Shelton, Winston L. 2,869,348.
Shelton, Winston L., and Jennings. 2,870,278.
Solheim, Karsten. 2,870,438.
Van Nest, Francis H. 2,869,323.
Wilk, Stanley H., and Cuzzone. 2,869,579.
General Medical Equipment Corp.: *See*—
Murcott, Charles R. 2,869,160.
General Mills, Inc.: *See*—
Keller, Harold M., and Beck. 2,870,026.
General Motors Corp.: *See*—
Antonidis, John E., Dray, and Ulm. 2,870,354.
Arnold, Charles F., and Cole. 2,870,362.
Baker, Max P. 2,869,585.
Beauchamp, Paul N. 2,869,917.
Becker, Bernard J., Jr., and Duclos. 2,869,912.
Brucken, Byron L. 2,869,346.
Comer, Richard L. 2,870,233.
Dermond, Lawrence C. 2,869,165.
Dolza, John. 2,869,526.
Funkhouser, Mearick, and Schultze. 2,869,685.
Geyer, Howard M. 2,869,383.
Grady, Francis H. 2,869,506.
Groves, Ronald C. 2,869,527.
Hoffman, Carl S. 2,869,670.
Keim, Paul T., and Treseder. 2,869,687.
Kesling, Keith K. 2,869,954.
Kesling, Keith K. 2,869,959.
Kreis, Oscar C. 2,869,388.
McCormick, Francis H. 2,870,313.
McMichael, John D. 2,869,679.
Royer, Darrell E. 2,869,564.
Saunders, Orson V. 2,869,952.
Sihvonen, Kauno E. 2,869,372.
Smidl, John M., Nelson, and Neilson. 2,869,330.
Whistler, Charles C., Jr. 2,869,222.
General Precision Laboratory Inc.: *See*—
Fraser, Julius T. 2,870,389.
Gray, John W., and Newsom. 2,870,331.
Hales, Everett B. 2,870,429.
General Telephone Laboratories, Inc.: *See*—
Peterson, Edward S. 2,870,256.
Sengebusch, Hans. 2,870,262.
Geniseo, Inc.: *See*—
Gindes, Philip, and Linn. 2,870,422.
Tikanen, William A. 2,870,301.
Brown, Ralph E., and Stanta. 2,869,376.
Georgen, Robert D.: *See*—
Davidson, John T., Georgen, and Fortune. 2,870,399.
Gesellschaft der Ludw. von Roll'schen Eisenwerke A. G.: *See*—
Bretscher, Otto. 2,869,288.
Gerdes, Carl V.: *See*—
Van Asselt, Robert L., and Gerdes. 2,870,046.
Gestetner Ltd.: *See*—
Gates, Albert G. R. 2,869,458.
Geyer, Howard M., to General Motors Corp. Means for interconnecting control surfaces. 2,869,383, 1–20–59, Cl. 74—424.8.
Gibson, George M. Electric motor structure. 2,870,356, 1–20–59, Cl. 310—258.
Gibson, Robert M., K. C. ten Brink, and A. M. Shook, to The Texas Co. Method and apparatus for operating underground storage caverns. 2,869,328, 1–20–59, Cl. 61—5.
Giddings & Lewis Machine Tool Co.: *See*—
Ormsby, Edwin P. 2,869,428.
Giesen, Johann, to Inventa A.-G., fur Forschung und Patentverwertung Luzern. Production of phenols by catalytic hydrogenation of lignin. 2,870,123, 1–20–59, Cl. 260—124.
Gilbert & Barker Mfg. Co. (Australia) Pty. Ltd.: *See*—
Gordon, John M. 2,869,584.
Gill, Edwin R., Jr. Coated manifolding sheets and method of making them. 2,870,040, 1–20–59, Cl. 117—36.
Gillson, Joseph L., Jr., to E. I. du Pont de Nemours and Co. Photodielectric device and process. 2,870,338, 1–20–59, Cl. 250—83.3.
Gilmore, Forrest E., to Phillips Petroleum Co. Cracking process. 2,870,087, 1–20–59, Cl. 208—168.
Gindes, Philip, and J. S. Linn, to Geniseo, Inc. Accelerometer. 2,870,422, 1–20–59, Cl. 336—30.
Gips, Arthur A.: *See*—
De Keizer, Adrianus, van Kijk, and Gips. 2,870,229.
Gisholt Machine Co.: *See*—
Leifer, Lorenz A. 2,869,390.
Giusti, Gino P., and A. R. Johnson, to Texas Gulf Sulphur Co. Method of fluidization. 2,870,001, 1–20–59, Cl. 75—9.
Glanz, Samuel R. Hand operated toy car. 2,869,686, 1–20–59, Cl. 188—109.
Gleason Works, The: *See*—
Carlsen, Leonard O., Critchley, and Magee. 2,869,427.
Gleim, William K. T., to Universal Oil Products Co. Stabilization of organic compounds. 2,870,021, 1–20–59, Cl. 99—163.
Gleitsman, Harold, to Gleitsman's, Inc. Adjustable ottoman. 2,869,620, 1–20–59, Cl. 155—169.
Gleitsman's, Inc.: *See*—
Gleitsman, Harold. 2,869,620.
Gleitsman, Harold. Tubular furniture. 2,869,902, 1–20–59, Cl. 287—54.
Gloss, Gunter H., to International Minerals & Chemical Corp. Activation of lime. 2,869,988, 1–20–59, Cl. 23—186.
Gluss, Norman. Air cylinder. 2,869,514, 1–20–59, Cl. 121—1.
Gnamba, Josef, to Daimler-Benz Akt. Joint, in particular universal joint. 2,869,341, 1–20–59, Cl. 64—17.
Gnandt, John A., and E. A. Kay, to Harris-Intertype Corp. Lubrication markers. 2,869,681, 1–20–59, Cl. 184—105.
Godowsky, Leopold, and J. J. Duane, to Eastman Kodak Co. Microdispersions of photographic color couplers. 2,870,012, 1–20–59, Cl. 96—97.

Goeppinger, Edward J.: *See*—
Bourns, Marian E., Harrison, Goeppinger, and Gas. 2,870,302.

Golay, Marcel J. E., to The Perkin-Elmer Corp. Radiation comparison systems. 2,870,343, 1–20–59, Cl. 250—220.

Gomersall, John R., to McGraw-Edison Co. Drawer suspension. 2,869,961, 1–20–59, Cl. 312—339.

Good, George M. Golf course divot replacing tool. 2,869,915, 1–20–59, Cl. 294—50.6.

Gooding, William T., Jr., and R. C. Danison, to Diamond Alkali Co. Process for producing alkali metal silicates. 2,869,985, 1–20–59, Cl. 23—110.

Goodman, Henry B. Divider and rack construction. 2,869,733, 1–20–59, Cl. 211—184.

Goodrich, B. F., Co., The: *See*—
Billingsley, William F., and Balzhiser. 2,869,609.

Goodrich, Hunter C., to Radio Corp. of America. Transistor reactance circuit. 2,870,421, 1–20–59, Cl. 333—80.

Goold, Reed: *See*—
De Ford, Perl E. 2,869,398.

Gordon, John M., to Gilbert & Barker Mfg. Co. (Australia) Pty. Ltd. Means for operating liquid supply valves. 2,869,584, 1–20–59, Cl. 137—630.

Gordon, Joseph, and C. Woolf, to Allied Chemical Corp. Polymers of 2-difluorovinyl methyl ether. 2,870,222, 1–20–59, Cl. 260—615.

Gossard, Charles H., to Pangborn Corp. Reversible centrifugal blasting method and apparatus. 2,869,289, 1–20–59, Cl. 51—9.

Gough, Sidney W., and J. A. Morgan, to Dunlop Tire and Rubber Corp. Machines for testing pneumatic tires. 2,869,362, 1–20–59, Cl. 73—146.

Gould & Eberhardt, Inc.: *See*—
Bissinger, Walter J. 2,869,933.

Graber, Carl D.: *See*—
Deaton, Charles U., and Graber. 2,869,485.

Grady, Francis H., to General Motors Corp. Transmission control indicator mechanism. 2,869,506, 1–20–59, Cl. 116—124.

Graham, Archibald R.: *See*—
Hall, Reginald H., and Graham. 2,870,221.

Graniteville Co.: *See*—
Converse, Sherman. 2,870,037.

Grant Development Co.: *See*—
Care, Richard L. 2,869,776.

Grant Pulley & Hardware Corp.: *See*—
Levine, Mark. 2,869,171.

Gravimer Mfg. Co. Ltd.: *See*—
Mathisen, Anders. 2,869,647.

Gray, Emanuel: *See*—
Liebman, Louis, and Gray. 2,869,187.

Gray, John W., and E. G. Newsom, to General Precision Laboratory Inc. Automatic signal frequency tracker. 2,870,331, 1–20–59, Cl. 250—36.

Gray, Walter E., Jr., and K. A. Larkin, to General Electric Co. Variable fill control for automatic washer. 2,869,347, 1–20–59, Cl. 68—207.

Green, Stanley R.: *See*—
Milligan, James W., and Green. 2,869,934.
Milligan, James W., and Green. 2,869,935.

Greene, Ben. Furnaces. 2,869,856, 1–20–59, Cl. 266—3.

Greene, Harry A., Jr.: *See*—
Jenkins, Charles D., Jr., and Greene. 2,870,255.

Greenfield, Eugene W., and L. F. Roehmann, to Kaiser Aluminum & Chemical Corp. Electrical Conductor and system. 2,870,311. 1–20–59, Cl. 219—19.

Greenlee Bros. & Co.: *See*—
Swanson, Edwin C. 2,869,407.

Greenwood, Ruth A.: *See*—
Lecher, Hans Z., and Greenwood. 2,870,204.

Gregory, Arthur C. Combination cradle, bassinet and buggy. 2,869,145, 1–20–59, Cl. 5—109.

Gregory, James, to G. Q. Parachute Co. Ltd. Parachute pack. 2,869,809, 1–20–59, Cl. 244—148.

Greist Mfg. Co., The: *See*—
Dwyer, Walter M. 2,869,242.

Grinstead, Robert R., to United States of America, Atomic Energy Commission. Slurry solvent extraction process for the recovery of metals from solid materials. 2,869,979, 1–20–59, Cl. 23—14.5.

Grinstead, Robert R., to United States of America, Atomic Energy Commission. Process for the recovery of metals from high-lime carnotite ores. 2,869,980, 1–20–59, Cl. 23—14.5.

Grip, William H.: *See*—
Doerr, Dale D., and Grip. 2,869,750.

Grober, Johann C.: *See*—
Pleuger, Friedrich W., and Grober. 2,869,474.

Grootenhuis, Pieter: *See*—
Hughes, Edward M., Howland, and Grootenhuis. 2,870,231.

Grossen, Harry W.: *See*—
Kraft, George H., Grossen, and Bell. 2,869,843.

Groves, Ronald C., to General Motors Corp. Charge forming means for an internal combustion engine. 2,869,527, 1–20–59, Cl. 123—119.

Gruber, Alfred A.: *See*—
Cyphers, Alexander D., Jr., and Gruber. 2,870,203.

Gruen, Dieter M., to United States of America, Atomic Energy Commission. Separation of metal salts by adsorption. 2,869,983, 1–20–59, Cl. 23—14.5.

Grundig, Max: *See*—
Hebel, Martin. 2,869,703.

Gryskiewicz, Walter F.: *See*—
Bonvini, Robert C., and Gryskiewicz. 2,869,763.

Gschwend, Felix B.: *See*—
Marander, Myron P., Gschwend, and Smith. 2,869,722.

Guenther, Richard, to Bell Telephone Laboratories, Inc. Speech interpolation communication system. 2,870,260, 1–20–59, Cl. 179—15.

Guex, Waldemar, and G. Ryser, to Hoffmann-La Roche Inc. Unsaturated cyclic ketones. 2,870,208, 1–20–59, Cl. 260—586.

Guilliet, James E., and H. W. Coover, Jr., to Eastman Kodak Co. High density polyethylene by high pressure polymerization with hydrogen and azo catalyst. 2,870,131, 1–20–59, Cl. 260—94.9.

Gulf Research & Development Co.: *See*—
Hartle, Robert J., and Tnayer. 2,870,057.

Gump, B. F. Co.: *See*—
Williams, Ralph E. 2,869,714.
Williams, Ralph E. 2,869,715.
Williams, Ralph E. 2,869,743.

Gunnesson, Erik J.: *See*—
Sefried, Harry H., II, and Gunnesson. 2,869,268.

Gury, John B., Jr. Lubricating system for cloth cutting machine. 2,869,231, 1–20–59, Cl. 30—123.

Gustin-Bacon Mfg. Co.: *See*—
Barton, Clarence D., and Case. 2,869,944.

Gutehoffnungshutte Sterkrade Akt.: *See*—
Kope, Gunter, and Ulbricht. 2,869,857.

H. Z. Corp.: *See*—
Hood, John W. 2,870,078.
Kushner, Jack. 2,870,077.

Haegert, Clarence B. Battery terminal clamp. 2,870,426, 1–20–59, Cl. 339—231.

Hagan Chemicals & Controls, Inc.: *See*—
Markson, Alfred A. 2,870,297.

Hagen, Clarence H., to International Harvester Co. Cotton harvester. 2,869,306, 1–20–59, Cl. 56—14.

Hagen, Oscar A. Fishing reel brace attachment. 2,869,276, 1–20–59, Cl. 43—25.

Hager, Karl F.: *See*—
Michel, Josef M., and Hager. 2,869,995.

Hahne, Karl H.: *See*—
Raydt, Ulrich, and Hahne. 2,869,220.

Haines, William A., to A. O. Smith Corp. Centrifugally actuated switch. 2,870,283, 1–20–59, Cl. 200—80.

Hales, Everett B., to General Precision Laboratory Inc. Automatic program control system. 2,870,429, 1–20–59, Cl. 340—147.

Halford, Frank B., and G. F. Clarke, to The De Havilland Engine Co. Ltd. Blade ring assemblies for axial flow compressors or turbines. 2,869,821, 1–20–59, Cl. 253—78.

Hall, Carroll B., N. A. Perry, and M. F. Zullig, to Ridbo Laboratories, Inc. Low viscosity sulfurized tall oil and process for making the same. 2,870,132, 1–20–59, Cl. 260—97.5.

Hall, George D., to Thornhill-Craver Co., Inc. Locking device for closures. 2,869,752, 1–20–59, Cl. 220—40.

Hall, Oscar J. Socket plug receptacle. 2,870,425, 1–20–59, Cl. 339—75.

Hall, Reginald H., and A. R. Graham, to The Distillers Co. Ltd. Production of 1:1:3-trialkoxyprop-2-ene. 2,870,221, 1–20–59, Cl. 260—615.

Hallden, Frederick G., and M. J. McCann, to The Western Union Telegraph Co. Two way facsimile repeater. 2,870,246, 1–20–59, Cl. 178—3.

Ham, George E., to The Chemstrand Corp. Process for producing synthetic linear condensation copolyesters using an alkylene carbonate. 2,870,124, 1–20–59, Cl. 260—75.

Ham, George E., to The Chemstrand Corp. Process for producing synthetic linear aromatic sulfur-containing condensation polyesters and products thereof. 2,870,127, 1–20–59, Cl. 260—78.4.

Hamel, Lewis E., to Lewis E. Hamel Co. Boat clamp. 2,869,812, 1–20–59, Cl. 248—42.

Hamel, Lewis E., Co.: *See*—
Hamel, Lewis E. 2,869,812.

Hamilton, Donald E.: *See*—
Fenner, Robert M., and Hamilton. 2,869,147.

Hamm, Forrest D., to Air Reduction Co., Inc. Anesthetic vaporizer apparatus. 2,869,540, 1–20–59, Cl. 128—188.

Hammer, Richard B. Reflective warming device. 2,869,424, 1–20–59, Cl. 88—81.

Hancock, Robert D., to Northrop Aircraft, Inc. Distortion indicator. 2,870,430, 1–20–59, Cl. 340—149.

Hanhart, Walter, to Ciba Ltd. Polyazo-dyestuffs. 2,870,136, 1–20–59, Cl. 260—173.

Hankoff, Harry N. Trouser leg supporting device. 2,869,138, 1–20–59, Cl. 2—311.

Hanna, M. A. Co., The: *See*—
Vidmar, John P. 2,869,716.

Hardgrove, Ralph M., to The Babcock & Wilcox Co. Apparatus for generating and superheating steam. 2,869,321, 1–20–59, Cl. 122—481.

Hare, Weston A., to E. I. du Pont de Nemours and Co. Process for shrinking and setting polyacrylonitrile textile filaments with specific chemical shrinking agents. 2,869,975, 1–20–59, Cl. 8—130.1.

Harkness, Tom S. Building structure. 2,869,561, 1–20–59, Cl. 135—1.

Harling, Donald W., to McGraw-Edison Co. Latch. 2,869,909, 1–20–59, Cl. 292—256.

Haroldson, Arthur H., and H. L. Cox, to Continental-Diamond Fibre Corp. Refusible fuseholder. 2,870,295, 1–20–59, Cl. 200—131.

Harris, Edward H., Jr.: *See*—
Filachione, Edward M., and Harris. 2,869,970.

Harris-Intertype Corp.: *See*—
Gnandt, John A., and Kay. 2,869,681.

Harris, James S., to Radio Corp. of America. Pulse comparison display system. 2,870,372, 1–20–59, Cl. 315—26.

Harrison, Marvin E.: *See*—
Bourns, Marian E., Harrison, Goeppinger, and Gas. 2,870,302.

Harrop, Clifford B., to International Harvester Co. Cultivator clamp. 2,869,657, 1–20–59, Cl. 172—710.
Hart, Arthur A. Apparatus for producing concrete stair steps. 2,869,212, 1–20–59, Cl. 25—118.
Hart, William J.: *See*—
Nieman, Donald F., and Hart. 2,869,416.
Hartle, Robert J., and H. I. Thayer, to Gulf Research & Development Co. 4 or 5-indanyl N-methyl carbamate. 2,870,057, 1–20–59, Cl. 167—30.
Hartmann Mfg. Co.: *See*—
Hartmann, Philip. 2,869,472.
Hartmann, Philip, to Hartmann Mfg. Co. Fluid pump or motor. 2,869,472, 1–20–59, Cl. 103—123.
Hartwell, Ralf L., to Metal Textile Corp. Vibration and shock absorptive cushion element. 2,869,858, 1–20–59, Cl. 267—1.
Hartwig, Albert F., to McDonnell Aircraft Corp. Controllable apparatus for radius cutters. 2,869,431, 1–20–59, Cl. 90—19.
Hartwig, Karl: *See*—
Erbe, Otto A. K., Hartwig, and Rakebrandt. 2,869,373.
Harvey, Douglass C.: *See*—
Nerwin, Hubert, and Harvey. 2,869,748.
Hassett, Thomas G. Interlocking building assembly. 2,869,692, 1–20–59, Cl. 189—34.
Hastings Mfg. Co.: *See*—
Phillips, Harold P., and Cook. 2,869,200.
Hauck, Frederick P.: *See*—
Dickey, Robert C., Hauck, and Archer. 2,869,511.
Hawk, James H. Oscillating bed. 2,869,538, 1–20–59, Cl. 128—29.
Hawkes, Charles T.: *See*—
Williams, Norman H., and Hawkes. 2,869,991.
Hawkins, Donald E., R. S., and F. R. Control device for dispensing nozzles. 2,869,758, 1–20–59, Cl. 222—29.
Hawkins, Fred R.: *See*—
Hawkins, Donald E., R. S., and F. R. 2,869,758.
Hawkins, Ronald S.: *See*—
Hawkins, Donald E., R. S., and F. R. 2,869,758.
Hawks, Orris D.: *See*—
Stern, Max H., and Hawks. 2,870,176.
Hayden, Irby I.: *See*—
Hayden, Thomas J. 2,869,729.
Hayden, Thomas J., ½ to I. I. Hayden. Gun rack. 2,869,729, 1–20–59, Cl. 211—64.
Hazak, John T., to Raymond International Inc. Automatic drop mechanism for boring. 2,869,823, 1–20–59, Cl. 255—1.
Hazak, John T., to Raymond International Inc. Automatic drop weight for boring. 2,869,824, 1–20–59, Cl. 255—1.
Head, William I., H. R. Kirk, and C. B. Mather, to Eastman Kodak Co. Method of treating yarns and filaments and products produced thereby. 2,869,972, 1–20–59, Cl. 8—130.1.
Heal, Jesse F. Automatic fire alarm. 2,870,296, 1–20–59, Cl. 200—140.
Hearts, Robert A., to Minneapolis-Honeywell Regulator Co. Magnetic modulator. 2,870,416, 1–20–59, Cl. 332—51.
Hebel, Martin, to M. Grundig. Type key blocking mechanism. 2,869,703, 1–20–59, Cl. 197—13.
Hebert, Norman J.: *See*—
Evans, Lyon D., and Hebert. 2,869,691.
Hecker, Arthur C.: *See*—
Leistner, William E., and Hecker. 2,870,119.
Leistner, William E., and Hecker. 2,870,182.
Hegel, George W.: *See*—
Muth, Robert C., and Hegel. 2,869,939.
Heidecke, Reinhold, H. Bretthauer, and J. Mädge, to Franke & Heidecke, Fabrik Photographischer Praziisions-Apparate. Holding means for camera shutter setting knobs. 2,869,396, 1–20–59, Cl. 74—528.
Heigl, Carl H., and V. A. Zugel, to Macey Co. File elevator. 2,869,870, 1–20–59, Cl. 271—62.
Heiman, John H., Jr. Fluid pressure rotary engine. 2,869,516, 1–20–59, Cl. 121—73.
Heininger, Samuel A., to Monsanto Chemical Co. Quaternaries of pyridyl and quinolyl propionitriles. 2,870,153, 1–20–59, Cl. 260—286.
Heininger, Samuel A., and M. Kosmin, to Monsanto Chemical Co. Alkyl beta-alkoxypropionates. 2,870,193, 1–20–59, Cl. 260—484.
Heininger, Samuel A., and G. H. Birum, to Monsanto Chemical Co. Ketone products. 2,870,209, 1–20–59, Cl. 260—590.
Heininger, Samuel A., to Monsanto Chemical Co. Electrical devices containing alkyl β-alkoxypropionates. 2,870,236, 1–20–59, Cl. 174—17.
Heisig, Charles G., to Union Carbide Corp. Apparatus for measuring viscosity. 2,869,358, 1–20–59, Cl. 73—60.
Heli-Coil Corp.: *See*—
Forster, John O. 2,869,224.
Helmer, Norman D., and F. H. Easton. Syringe structure. 2,869,541, 1–20–59, Cl. 128—218.
Henry, Edwin B., Jr., to United States Steel Corp. Apparatus for testing bodies of magnetic material. 2,870,401, 1–20–59, Cl. 324—34.
Hergert, Herbert L., to Rayonier Inc. Process for recovering flavonoids from bark. 2,870,165, 1–20–59, Cl. 260—345.2.
Hermorian Ltd.: *See*—
Järund, Harry S. V. 2,869,299.
Hern, Howard D., to Collins Radio Co. Frequency modulation means including pulse position modulation. 2,870,412, 1–20–59, Cl. 332—16.
Herr, Theodore E., and C. W. Caldwell, to The American Welding & Mfg. Co. Knock-down door frame. 2,869,695, 1–20–59, Cl. 189—46.
Herrmann, Edward M.: *See*—
Schlachter, Karl E., and Herrmann. 2,869,671.
Herrmann, Gerhard, to Mahle Kommandit-Gesellschaft. Light alloy piston for internal combustion engines. 2,869,946, 1–20–59, Cl. 309—13.
Hershman, Gordon L., to International Harvester Co. Fast hitch for 3-point hitch. 2,869,654, 1–20–59, Cl. 172—272.
Hertrich, Elise: *See*—
Hertrich, Joseph. 2,869,726.
Hertrich, Joseph, deceased, by E. Hertrich, executrix, to The Western States Machine Co. Power-operated curb cover for centrifugal machines. 2,869,726, 1–20–59, Cl. 210—142.
Hersfeld, Maura L.: *See*—
Offermann, Alfredo M. 2,869,359.
Heteji, Paul S., to Worthington Corp. Dust seal for an industrial mixer. 2,869,900, 1–20–59, Cl. 285—9.
Hewitt, William H., Jr., to Bell Telephone Laboratories, Inc. Wave guide components controlled by ferro-magnetically resonant elements. 2,870,418, 1–20–59, Cl. 333—7.
Hewitt, Woodrow W., to Parks-Cramer Co. Creel for twisting and similar machines. 2,869,903, 1–20–59, Cl. 287—54.
Heyden Newport Chemical Corp.: *See*—
Kraft, William M. 2,870,121.
Hickok, Robert D., Jr., to Cleveland Patents, Inc. Tube tester. 2,870,400, 1–20–59, Cl. 324—22.
Higer, Harry. Loading platform for garbage disposal machine. 2,869,795, 1–20–59, Cl. 241—301.
Higgs, Richard F., and C. J. Owen, to United States Steel Corp. Electrodeposition of tin and electrolyte therefor. 2,870,070, 1–20–59, Cl. 204—54.
High Standard Mfg. Corp., The: *See*—
Sefried, Harry H., II, and Gunnesson. 2,869,268.
Hightower, Thomas H. Holder for hair trimming blade. 2,869,229, 1–20–59, Cl. 30—30.
Hileman, Dean S., to Denver Brick and Pipe Co. Attachments for fork lift trucks. 2,869,742, 1–20–59, Cl. 214—654.
Hill, Artie D. Single pedal throttle and brake control for vehicles. 2,869,696, 1–20–59, Cl. 192—3.
Hill Cross Co., Inc.: *See*—
Wood, Donald. 2,869,693.
Hill, F. H., Co., Inc.: *See*—
Overland, John S., Hill, and Seger. 2,869,216.
Hill, James T.: *See*—
Overland, John S., Hill, and Seger. 2,869,216.
Hill, Ralph M., Jr.: *See*—
Corbitt, Howard E., Hill, and Bozarth. 2,870,287.
Himmelstein, Paul: *See*—
Boettcher, Alfred, and Himmelstein. 2,870,007.
Hindermann, Peter, H. P. Kölliker, and P. Trautzl, to J. R. Geigy, A.-G. Anthraquinone dyestuffs. 2,870,173, 1–20–59, Cl. 260—373.
Hindmarch, Thomas. Fluid pressure operated friction clutch. 2,869,702, 1–20–59, Cl. 192—85.
Hines, Paul, to Raytheon Mfg. Co. Microwave antennas. 2,870,441, 1–20–59, Cl. 343—781
Hipp, Augusta F. Clothes supporting attachment for ironing boards. 2,869,259, 1–20–59, Cl. 38—106.
Hirdler, Fairbanks C., Jr., to Turco Products, Inc. Method for removing metal from the surface of a metal object. 2,869,266, 1–20–59, Cl. 41—42.
Hirschberg, Theodore B., Jr.: *See*—
Little, Alfred E. 2,869,456.
Hoda Corp.: *See*—
Welsh, James W. 2,870,291.
Welsh, James W. 2,870,292.
Hodel, Hans. Rail fastening device. 2,869,792, 1–20–59, Cl. 238—349.
Hodges Research and Development Co.: *See*—
Williams, Beverly E. 2,870,018.
Hodgson, Howard E., to Cutler-Hammer, Inc. Methods of and means for controlling electromagnets. 2,870,382, 1–20–59, Cl. 317—123.
Hoehn, William L.: *See*—
Allison, Kenneth C., and Hoehn. 2,869,395.
Hoern, Joseph H., to Saginaw Wire Products Inc. Wire bending machines. 2,869,590, 1–20–59, Cl. 140—71.
Hoffman, Carl S., to General Motors Corp. Intake silencer. 2,869,670, 1–20–59, Cl. 181—35.
Hoffmann-La Roche Inc.: *See*—
Atherton, Frank R. 2,870,188.
Guex, Waldemar, and Ryser. 2,870,208.
Isler, Otto, Lindlar, Montavon, Ruegg, and Zeller. 2,870,197.
Lindlar, Herbert, Montavon, and Ruegg. 2,870,212.
Surmatis, Joseph D. 2,870,210.
Hogberg, Ake O., and A. C. Nellson, to Riley Stoker Corp. Register. 2,869,625, 1–20–59, Cl. 138—1.5.
Hoge, Legare W., and R. L. Pendley. Reflective optical systems. 2,869,423, 1–20–59, Cl. 88—57.
Hogg, John A.: *See*—
Campbell, J. Allan, Babcock, and Hogg. 2,870,141.
Holby, James C., and R. L. Westrum, to D. W. Ovan & Sons, Inc. Air conditioner for automotive vehicles and controls therefor. 2,869,333, 1–20–59, Cl. 62—239.
Holben, Eugene F.: *See*—
Brand, Warren H., and Holben. 2,870,387.
Hollar, John V., to The La Resista Corset Co. Brassiere. 2,869,554, 1–20–59, Cl. 128—498.
Hollar, John V., to The La Resista Corset Co. Girdle. 2,869,555, 1–20–59, Cl. 128—533.
Holman, Emmette R., to Turco Products, Inc. Method of etching aluminum and aluminum alloys. 2,869,267, 1–20–59, Cl. 41—42.
Holst, Donald K.: *See*—
Winters, Alva B., and Holst. 2,869,690.
Honolka, Walter, to Firma Bölkow Entwicklungen Kommanditgesellschaft. Electrical signal transmission. 2,870,257, 1–20–59, Cl. 179—1.5.
Hood, John W., to H. Z. Corp. Cells for electro-chemical measurements. 2,870,078, 1–20–59, Cl. 204—195.

Hook, Melvin S.: *See*—
Milliken, Alvin R., and Hook. 2,870,307.
Hoover Ball & Bearing Co.: *See*—
Price, Clarence A., and Rupp. 2,869,571.
Hoover, Vaino A. Adjustable end fitting for mechanical actuator. 2,869,386, 1-20-59, Cl. 74—424.8.
Horizons Titanium Corp.: *See*—
Meriub-Sobel, Menahem. 2,870,072.
Meriub-Sobel, Menahem, Arnoff, and Sorkin. 2,870,073.
Horn, Hans, to International Minerals & Chemical Corp. Activation of lime. 2,869,987, 1-20-59, Cl. 23—186.
Horn, James A., to Western Electric Co., Inc. Overload release devices. 2,869,453, 1-20-59, Cl. 100—282.
Hornbostel, Lloyd, E. D. Beachler, and D. A. Ely, to Beloit Iron Works. Paper machine press section. 2,869,437, 1-20-59, Cl. 92—49.
Hornbostel, Lloyd, to Beloit Iron Works. Stream flow valve. 2,869,817, 1-20-59, Cl. 251—133.
Horrell, Theodore H., to Fairchild Engine and Airplane Corp. Aircraft heating system. 2,869,535, 1-20-59, Cl. 126—110.
Hough, John J., to United States of America, Air Force. Mechanism for mounting electrical units. 2,869,958, 1-20-59, Cl. 312—323.
Howard, Posy A. Mounting for pipe end abraders. 2,869,293, 1-20-59, Cl. 51—241.
Howe, Elra F., to V. R. Howe. Valved floor drain fitting and a strainer therefor. 2,869,727, 1-20-59, Cl. 210—429.
Howe, John P.: *See*—
Leverett, Miles C., and Howe. 2,870,075.
Howe, Velma R.: *See*—
Howe, Elra F. 2,869,727.
Howell, Sabert N., to Servo Corp. of America. Optical pyrometer. 2,869,369, 1-20-59, Cl. 73—355.
Howland, Alfred H.: *See*—
Hughes, Edward M., Howland, and Grootenhuis. 2,870,231.
Hubbard, Eber J., to Hubbard Spool Co. Wire processing and storage container. 2,869,719, 1-20-59, Cl. 206—1.
Hubbard, James K., and F. H. Koontz, to E. I. du Pont de Nemours & Co. Synthetic paper sheet of chemically bonded synthetic polymer fibers and process of making the same. 2,869,973, 1-20-59, Cl. 8—120.1.
Hubbard Spool Co.: *See*—
Hubbard, Eber J. 2,869,719.
Huber, Henry, and I. Craven, to A. M. Jongeneel. Fertilizer drill and seed planting implement. 2,869,490, 1-20-59, Cl. 111—80.
Huck, Charles V. Flush tank ball valve stem guide. 2,869,142, 1-20-59, Cl. 4—57.
Hudson, Richard E., Jr.: *See*—
Waddle, Howard M., Cotton, and Hudson. 2,870,041.
Huebner, William C., to The Standard Register Co. Apparatus for selecting printing characters. 2,869,443, 1-20-59, Cl. 95—4.5.
Huet, André. Tubular heat exchanger with cores. 2,869,836, 1-20-59, Cl. 257—262.14.
Huggins, John A., to Mead Johnson & Co. Concentrates of dialkyl sulfosuccinates. 2,870,061, 1-20-59, Cl. 167—56.
Hughes Aircraft Co.: *See*—
Everhart, Thomas E., and Birdsall. 2,870,367.
Mulnch, George, and Crockett. 2,869,804.
Hughes, Edward M., A. H. Howland, and P. Grootenhuis, to National Research Development Corp. Production of unsaturated hydrocarbons. 2,870,231, 1-20-59, Cl. 260—679.
Humphreys & Glasgow Ltd.: *See*—
Williams, Norman H., and Hawkes. 2,869,991.
Hunter, Jonathan, to Marchant Research, Inc. Magnetic tape transport mechanism. 2,869,799, 1-20-59, Cl. 242—55.12.
Hunter, Thomas, Ltd.: *See*—
Clift, Paul E. 2,869,308.
Huntley, Walter H. Key holding device. 2,869,354, 1-20-59, Cl. 70—456.
Huns, Alphonse W. Low table unit. 2,869,948, 1-20-59, Cl. 311—17.
Hurd, Edwin P., to Hurd Rock & Mfg. Co. Wheel cover. 2,869,929, 1-20-59, Cl. 301—37.
Hurd Rock & Mfg. Co.: *See*—
Hurd, Edwin P. 2,869,929.
Hurlimann, Hans. Stand for a fishing rod. 2,869,814, 1-20-59, Cl. 248—48.
Huston, Norman E.: *See*—
Andrews, Franklin T., and Huston. 2,869,504.
Hutchens, Francis G. Fluid pressure regulator. 2,869,575, 1-20-59, Cl. 137—251.
Hutchinson, Philip. Propulsion of vehicles. 2,869,479, 1-20-59, Cl. 104—155.
Hutchison, Frank E. Pillow block for vibratory shafts. 2,869,937, 1-20-59, Cl. 308—26.
Hutchison, Joseph D., to Ford Motor Co. Vehicle accelerator linkage. 2,869,393, 1-20-59, Cl. 74—516.
Hyland, Francis G., and H. W. Kassel, to Boeing Airplane Co. Anti-skid brake control system with locked-wheel prevention apparatus. 2,869,807, 1-20-59, Cl. 244—111.
I-T-E Circuit Breaker Co.: *See*—
Schmidt, Frederick G. 2,870,288.
Ideal Brass Works, Inc.: *See*—
Quinn, Bert A. 2,869,219.
Illinois Tool Works: *See*—
Autio, Paul. 2,869,723.
Illman, John C., and H. J. Sommer, to Shell Development Co. Asphalt plastisols and process for their preparation. 2,870,080, 1-20-59, Cl. 208—23.
Imhoff, William B., Jr., to The Yale & Towne Mfg. Co. Lock securing means. 2,869,353, 1-20-59, Cl. 70—370.
Imperial Chemical Industries Ltd.: *See*—
Davidson, Samuel H., Love, and Williams. 2,869,462.
Imperial Tobacco Co. of Canada Ltd.: *See*—
Rowell, Lorne A. 2,869,556.
Industrial Controls Corp.: *See*—
Thomas, Albert G. 2,870,288.
Industrie-Werke Karlsruhe Akt.: *See*—
Konig, Wilhelm A. 2,869,796.
Institute of Textile Technology: *See*—
Nieman, Donald F., and Hart. 2,869,416.
Instruments for Industry, Inc.: *See*—
Lockwood, Robert C. 2,870,381.
International Business Machines Corp.: *See*—
Adams, Francis V. 2,869,785.
Bauer, Charles H. 2,869,869.
Chao, Shih C. 2,870,348.
Pratt, Francis L. 2,869,853.
Stewart, William R. 2,869,789.
Willard, Dennis D. 2,869,965.
International Harvester Co.: *See*—
Barbknecht, Fred W. 2,869,308.
Hagen, Clarence R. 2,869,306.
Harrop, Clifford B. 2,869,657.
Hershman, Gordon L. 2,869,654.
Mason, Wylie A., Jr. 2,869,656.
Murray, Donald A. 2,869,305.
Orendorff, John W. 2,869,491.
Smith, Hiram P. 2,869,653.
International MacGregor Organization (I. M. G. O.): *See*—
Schmidt, Gunter. 2,869,859.
International Minerals & Chemical Corp.: *See*—
Gloss, Gunter H. 2,869,988.
Horn, Hans. 2,869,987.
Woerther, Clarence. 2,870,048.
International Telephone and Telegraph Corp.: *See*—
Farnsworth, Philo T. 2,870,371.
Lindsay, Kenneth L. 2,870,315.
Norris, Bevitt J. 2,870,259.
Papp, George. 2,870,374.
Inventa A.-G., fur Forschung und Patentverwertung Luzern: *See*—
Giesen, Johann. 2,870,183.
Ionics, Inc.: *See*—
Juda, Walter, and Cretella. 2,870,071.
Iowa Cooperative Association: *See*—
Ratcliff, Karl A., and Dorrance. 2,869,543.
Ratcliff, Karl A., and Dorrance. 2,869,544.
Isler, Otto, H. Lindlar, M. Montavon, R. Ruegg, and P. Zeller, to Hoffmann-La Roche Inc. 4,4'-disubstituted-C$_{40}$-carotenoids and their preparation. 2,870,197, 1-20-59, Cl. 260—488.
Isley, Cary T., Jr., to The Martin Co. Suppressed carrier modulator. 2,870,414, 1-20-59, Cl. 332—44.
Jacini, Giovanni, to American Lecithin Co., Inc. Hydrogenation of phosphatides. 2,870,179, 1-20-59, Cl. 260—403.
Jackson Industries, Inc.: *See*—
Latimer, James T. 2,869,596.
Jacobs, Louis J., to The S. Obermayer Co. Refractory gunning composition and method of producing the same. 2,870,032, 1-20-59, Cl. 106—67.
Jacobsohn, David H., and L. C. Merrill, to United States of America, Atomic Energy Commission. Adder circuit. 2,869,786, 1-20-59, Cl. 235—61.
Jagen-Werke Akt.-Ges.: *See*—
Zerlin, Hans, and Michaelis. 2,869,440.
James, Ivanhoe J. P., to Electric & Musical Industries Ltd. Colour television apparatus. 2,870,249, 1-20-59, Cl. 178—5.4.
Jamieson, Allan: *See*—
Miller, Carl P., and Jamieson. 2,869,418.
Jankowski, Edward M., to Sioux Steel Co. Animal watering tank. 2,869,753, 1-20-59, Cl. 220—73.
Janssen, Peter J. H., to North American Philips Co., Inc. Circuit arrangement for use in television receivers. 2,870,251, 1-20-59, Cl. 178—7.5.
Jantzen Inc.: *See*—
Smith, Samuel H. 2,869,552.
Jarund, Harry S. V., to Hermorian Ltd. Device for continuous filling of packages with a liquid during their manufacture. 2,869,299, 1-20-59, Cl. 53—63.
Jarvis, James G., to Eastman Kodak Co. Electroprinting from a raised resist pattern. 2,869,461, 1-20-59, Cl. 101—426.
Jasienski, Marcel M. P., to Compagnie Francaise Othermo. Circular loom. 2,869,586, 1-20-59, Cl. 139—13.
Jastram, Edward P.: *See*—
Vander Pyl, John R., Jastram, McMorrow, and Shockroo. 2,870,294.
Jaworski, Ernest G., and D. B. Sharp, to Monsanto Chemical Co. Fungicidal compositions comprising the monophenylhydrazones of α-diketones α-ketoaldehydes, and α-hydroxyketones. 2,870,056, 1-20-59, Cl. 167—30.
Jeffrey Mfg. Co., The: *See*—
Kindig, Arnie J. 2,869,712.
Lemmon, Alexis W. 2,869,380.
Jeffreys, Roy A., to Eastman Kodak Co. The hardening of gelatin with 2,3 dihydroxy dioxane. 2,870,013, 1-20-59, Cl. 96—100.
Jellyman, Philip E., H. F. Macintosh, and J. E. Wilcock, to Pilkington Brothers Ltd. Glass insulator assembly units. 2,870,244, 1-20-59, Cl. 174—165.
Jenkins, Charles D., Jr., and H. A. Greene, Jr., to Remler Co., Ltd. Microphone assembly. 2,870,255, 1-20-59, Cl. 179—1.
Jennings, Gresham N.: *See*—
Shelton, Winston L., and Jennings. 2,870,278.
Jennings, Harold H.: *See*—
Strathearn, Donald M., and Jennings. 2,869,345.
Jensen, Alan K., to Monroe Calculating Machine Co. Bistable transistor circuit. 2,870,347, 1-20-59, Cl. 307—88.5.
Jensen, Louis, to Kelco Engineering Ltd. Article depository. 2,869,780, 1-20-59, Cl. 232—44.
Jofeh, Marcus L.: *See*—
Sedgfield, Hugh B., Jofeh, and Albrecht. 2,869,851.

Johnson, Axel R.: *See*—
Giusti, Gino P., and Johnson. 2,870,001.

Johnson, Axel R., to Texas Gulf Sulphur Co. Method of fluidization. 2,870,002, 1–20–59, Cl. 75—9.

Johnson, Joel R., to Western Electric Co., Inc. Machine for stitching terminals onto cards. 2,869,126, 1–20–59, Cl. 1—92.

Johnson & Johnson: *See*—
Sellers, John C. 2,870,128.

Johnson, Kenneth C.: *See*—
Scarrott, Gordon G., and Johnson. 2,870,437.

Johnson, Leland C.: *See*—
Cooper, Ronald H., and Johnson. 2,870,110.

Johnson, Lyle S. Buoyant belt. 2,869,151, 1–20–59, Cl. 9—17.

Johnston, J. Ford, to Lockheed Aircraft Corp. Vane stabilizing wing tip pod for aircraft. 2,869,808, 1–20–59, Cl. 244—135.

Johnston Testers, Inc.: *See*—
Garrison, Marion A. 2,869,363.

Jones, Charles H., and J. H. Thompson, to United States of America, Navy. Electronic current regulator. 2,870,396, 1–20–59, Cl. 323—4.

Jones, Lloyd R.: *See*—
Taylor, Douglas E., Jones, and Mitchell. 2,870,264.

Jones, Rufus V., to Phillips Petroleum Co. Method for producing finely divided solid 1-olefin polymer. 2,870,113, 1–20–59, Cl. 260—34.2.

Jones, Samuel O., to Newport News Shipbuilding and Dry Dock Co. Stud welding gun. 2,870,322, 1–20–59, Cl. 219—98.

Jones, Walter A., to E. Kendall. Closure operator and radio control apparatus. 2,869,860, 1–20–59, Cl. 268—59.

Jongeneel, Albert M.: *See*—
Huber, Henry, and Craven. 2,869,490.

Jordan, Walter, to Luther-Werke, Luther & Jordan. Suction device for the transfer of liquid from one container to another. 2,869 815, 1–20–59, Cl. 251—76.

Jordan, William E., Jr.: *See*—
Pitman, Herbert J., Jordan, and Bright. 2,870,090.

Jourdain, André P., to Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme. Expansible mandrel. 2,869,329, 1–20–59, Cl. 61—79.

Juda, Walter, and M. C. Cretella, to Ionics, Inc. Electrolytic production of titanium tetrahalides. 2,870,071, 1–20–59, Cl. 204—61.

Judd, Chester K., Jr., to The Fletcher-Terry Co. Glazier's point driver. 2,869,131, 1–20–59, Cl. 1—44.

Jurgeleit, Herbert F., to United States Rubber Co. Guides for reciprocable platens. 2,869,177, 1–20–59, Cl. 18—17.

Jurs, Peter C., J. P. Van Overveen, and R. W. Blake, to Shand and Jurs Co. Tank gauging apparatus. 2,869,239, 1–20–59, Cl. 33—126.6.

Justus, Edgar J., to Beloit Iron Works. Condensate removal control for paper machine dryers. 2,869,248, 1–20–59, Cl. 34—54.

Kabik, Irving, and J. N. Ayres, to United States of America, Navy. Apparatus and method for non-destructive testing of initiators. 2,869,364, 1–20–59, Cl. 73—167.

Kacowski, Raimund. Extensible shoe lace. 2,869,205, 1–20–59, Cl. 24—143.

Kagan, Fred, to The Upjohn Co. Purification of D (—) galactamine. 2,870,139, 1–20–59, Cl. 260—211.

Kagel, Hans, to Vereinigte Westdeutsche Waggonfabriken Akt. Tilting assembly for lift trucks. 2,869,744, 1–20–59, Cl. 214—672.

Kahle Engineering Co.: *See*—
Kahle, Louis C. 2,869,285.

Kahle, Louis C., to Kahle Engineering Co. Apparatus for shaping glass articles. 2,869,285, 1–20–59, Cl. 49—7.

Kaiser Aluminum & Chemical Corp.: *See*—
Doerr, Dale D., and Grip. 2,869,750.
Greenfield, Eugene W., and Roehmann. 2,870,311.

Kaiser Industries Corp.: *See*—
Aiken, William R. 2,870,361.

Kamp, Heinrich, to Buttner-Werke Akt. Apparatus for drying and simultaneously cooling white sugar coming from a drier. 2 869,249, 1–20–59, Cl. 34—65.

Kapp, Roland: *See*—
Klein, Howard C., Di Salvo, and Kapp. 2,870,198.

Karlen, Harvey R., and D. C. Eisendrath, to Cory Corp. Hot water dispenser. 2,869,760, 1–20–59, Cl. 222—76.

Karlen, Harvey R., to Cory Corp. Hot water heater. 2,870 318, 1–20–59, Cl. 219—38.

Karsten, Peter M.: *See*—
Vandenberg, Howard L., and Karsten. 2,870,357.

Kassel, Henry W.: *See*—
Hyland, Francis G., and Kassel. 2,869,807.

Kath, Alfred W., to R. P. Scherer Corp. Machine for making hard-shell gelatine capsules. 2,869,178, 1–20–59, Cl. 18—25.

Kautsky, Joe. Rod holding device. 2,869,209, 1–20–59, Cl. 24—249.

Kay, Edward A.: *See*—
Gnandt, John A., and Kay. 2,869,681.

Kaye, Morton, to The Perkin-Elmer Corp. Color measuring circuit. 2,869,415, 1–20–59, Cl. 88—14.

Kearney & Trecker Corp.: *See*—
Wetzel, Theodore A. 2,869,429.

Kee, Leland M., to Air Reduction Co., Inc. Welding rods and method of making same. 2,870,047, 1–20–59, Cl. 117—202.

Keeler, William R., D. R. Douslin, and C. H. Deal, Jr., to Shell Development Co. Method for the recovery of hydrogen peroxide. 2,869,989, 1–20–59, Cl. 23—207.

Keim, Paul T., and R. C. Treseder, to General Motors Corp. Anti-skid hydraulic brake system. 2,869,687, 1–20–59, Cl. 188—181.

Kelco Engineering Ltd.: *See*—
Jensen, Louis. 2,869,780.

Keller, Fred: *See*—
Kloha, Murle W., Keller, and Williams. 2,870,164.

Keller, Harold M., and R. G. Beck, to General Mills, Inc. Process for making a refrigerated batter. 2,870,026, 1–20–59, Cl. 99—192.

Keller, Philip B., to R. T. Collier. Refrigerator drive utilizing waste heat. 2,869,332, 1–20–59, Cl. 62—238.

Kelley, Fred W., Jr., to General Electric Co. Saturable core transformer. 2,870,397, 1–20–59, Cl. 323—56.

Kelling, Leroy U. C., to General Electric Co. Follow-up control system. 2,870,386, 1–20–59, Cl. 318—30.

Kellogg, M. W., Co., The: *See*—
Davis, Horace R., and Sorensen. 2,870,163.
Davis, Horace R., Jr., and Sorensen. 2,870,215.
Sorensen, David P., and Davis. 2,870,216.
Frank, Wallace E., and Ohntrup. 2,870,427.

Kelly, James A.: *See*—
Cooper, Ronald H., and Kelly. 2,869,195.

Kemper, Charles R. Variable density article and method of making. 2,869,947, 1–20–59, Cl. 309—44.

Kendall, Edythe: *See*—
Jones, Walter A. 2,869,860.

Kennedy, Jack W., and J. A. Ransom. Detachable safety guard for bathing table. 2,869,949, 1–20–59, Cl. 311—103.

Kennedy, William C. Key-operated fire hydrant. 2,869,576, 1–20–59, Cl. 137—296.

Kenzinger, Louis-Charles: *See*—
Folliot, Albert E. J., and Kenzinger. 2,869,849

Kershaw, Henry. Rear view mirror for vehicles. 2,869,425, 1–20–59, Cl. 88—87.

Kershaw, Royce, to Kershaw Mfg. Co., Inc. Railroad track sweeper. 2,869,159, 1–20–59, Cl. 15—55.

Kershaw, Royce G., to Kershaw Mfg. Co., Inc. Railroad track raising and ballast tamping apparatus. 2,869,476, 1–20–59, Cl. 104—12.

Kershaw Mfg. Co., Inc.: *See*—
Kershaw, Royce. 2,869,159.
Kershaw, Royce G. 2,869,476.

Kesling, Keith K., to General Motors Corp. Domestic appliance. 2,869,954, 1–20–59, Cl. 312—275.

Kesling, Keith K., to General Motors Corp. Door mounting. 2,869,959, 1–20–59, Cl. 312—328.

Kessler, Joseph S., and W. Ebert, to Ladish Co. Adjustable toggle-type connecting assemblies. 2,869,211, 1–20–59, Cl. 24—270.

Kessler, Vernon R., and W. A. La Grange, to Carrier Corp. Control center. 2,869,505, 1–20–59, Cl. 116—124.

Keylwert, Johann, and K. Tronicek, to Klockner-Humboldt Deutz Akt. Valve controlled internal combustion engine. 2,869,525, 1–20–59, Cl. 123—90.

Kharasch, Morris S., and W. Nudenberg, to Shell Development Co. Production of unsaturated polycarboxylic acids and esters. 2,870,200, 1–20–59, Cl. 260—533.

Kiefaber, Harry D.: *See*—
Byrkett, Elwood L., and Kiefaber. 2,869,243.

Kiffer, Desire A., and L. D. Oreer, to Chamberlain Corp. Power plant arrangement for mobile spray tank. 2,869,839, 1–20–59, Cl. 259—39.

Killian, Robert J., and G. M. Brown, to Automatic Steel Products, Inc. Method of forming multi-groove pulleys. 2,869,223, 1–20–59, Cl. 29—159.

Kimmell, Garman O. Automatic dump valve systems. 2,869,569, 1–20–59, Cl. 137—188.

Kinderman, Walter J., and J. W. Williams, 3d., to Yarnall-Waring Co. Compensating mechanism for indicator. 2,869,371, 1–20–59, Cl. 73—432.

Kindig, Arnie J., to The Jeffrey Mfg. Co. Conveyor belt idler 2,869,712, 1–20–59, Cl. 198—202.

King, Geo. W., Ltd.: *See*—
Burrows, Arthur T. C. 2,869,477.

Kirby, Arthur F., to E. I. du Pont de Nemours and Co. Preparation of α-chloroglutaric anhydride. 2,870,187, 1–20–59, Cl. 260—343.9.

Kirchner, Carroll T.: *See*—
Williams, Mortimer P., and Kirchner. 2,870,059.

Kirk, Hubert R.: *See*—
Head, William I., Kirk, and Mather. 2,869,972.

Kivela, Stanley E. Combination knife and slitting tool. 2,869,232, 1–20–59, Cl. 30—161.

Klecker, Joseph G., Y. M. Miller, A. W. Sieving, and J. R. Rediger, to Caterpillar Tractor Co. Gear type power transmission and controls therefor. 2,869,382, 1–20–59, Cl. 74—360.

Klein, Gunnar. Method of making utility and decorative article of stainless steel. 2,869,265, 1–20–59, Cl. 41—26.

Klein, Howard C., W. A. Di Salvo, and R. Kapp, to Nopco Chemical Co. Production of choline salts. 2,870,198, 1–20–59, Cl. 260—501.

Klein, Norman E., to Deering Milliken Research Corp. Spinning apparatus. 2,869,315, 1–20–59, Cl. 57—58.84.

Kleinewefers, Joh., Sohne: *See*—
Bohme, Hans P. 2,869,459.

Klement, John F., to Ampco Metal, Inc. Method of heat treating aluminum bronze alloy and product thereof. 2,870,051, 1–20–59, Cl. 148—21.92.

Klenk, Karl J. Hand shear for cutting plastic laminate. 2,869,235, 1–20–59, Cl. 30—252.

Klenz, Karl A. Vertical Venetian blind. 2,869,636, 1–20–59, Cl. 160—168.

Kline, Harry E., and S. O. Vifot, to J. I. Case Co. Root crop harvester. 2,869,652, 1–20–59, Cl. 171—115.

Klockner-Humboldt Deutz Akt.: *See*—
Keylwert, Johann, and Tronicek. 2,869,525.

Kloha, Murle W., F. Keller, and R. E. Williams, to Riker Laboratories, Inc. Process for making d,l-methysticin and d,l-dihydromethysticin. 2,870,164, 1–20–59, Cl. 260—340.5.

Klope, Joseph C., and R. G. Chapman, to Pfaudler Permutit Inc. Insulated storage tank and method of making a storage tank. 2,869,751, 1–20–59, Cl. 220—15.

Kluge, Herman D., and K. Drake, to The Texas Co. Preparation of calcium phenolates and sulfurized derivatives thereof. 2,870,184, 1–20–59, Cl. 260—137.

Klugman, Ira L. Precision grinding machine. 2,869,292, 1–20–59, Cl. 51—122.

Knoll, Max, and P. Rudnick, to United States of America, Army. Electron storage device. 2,870,360, 1–20–59, Cl. 313—68.

Knutsen, Knut A., to Compagnie des Machines Bull. Electromechanized actuating means in wire printing machines. 2,869,455, 1–20–59, Cl. 101—93.

Kobe, Inc.: *See*—
Coberly, Clarence J. 2,869,470.

Koch, Leonard J., to United States of America, Atomic Energy Commission. Method and apparatus for improving performance of a fast reactor. 2,870,076, 1–20–59, Cl. 204—193.2.

Koch, Royal G., and H. O. Spaulding. Valve for liquid reservoirs and particularly for water closets with water control means. 2,869,141, 1–20–59, Cl. 4—56.

Koehl, Frank J., to Ford Motor Co. Brake actuating mechanism for motor vehicle. 2,869,394, 1–20–59, Cl. 74—520.

Koehler Aircraft Products Co.: *See*—
Koehler, Gordon T. 2,869,577.

Koehler, Gordon T., to Koehler Aircraft Products Co. Fluid quantity control. 2,869,577, 1–20–59, Cl. 137—414.

Kölliker, Hans P.: *See*—
Hindermann, Peter, Kölliker, and Trautzl. 2,870,173.

König, Wilhelm A., to Industrie-Werke Karlsruhe Akt. Winding device for spooling machines, especially for synthetic threads. 2,869,796, 1–20–59, Cl. 242—35.5.

Koon, Raymond E. Refrigerator with freezing and normal cooling compartments. 2,869,331, 1–20–59, Cl. 62—207.

Koontz, Franklin H.: *See*—
Hubbard, James K., and Koontz. 2,869,973.

Köpke, Günter, and K. Ulbricht, to Gutehoffnungshütte Sterkrade Akt. Device for feeding an additive to a melt. 2,869,857, 1–20–59, Cl. 266—34.

Koppers Co., Inc.: *See*—
Bonstedt, Kurt P. 2,870,192.

Kosmin, Milton: *See*—
Heininger, Samuel A., and Kosmin. 2,870,195.

Kosmura, Lew. Thrust rolling-bearings of large diameters. 2,869,943, 1–20–59, Cl. 308—235.

Koup, Alfred L., to United States of America, Navy. Detachable wheel assembly drive unit. 2,869,662, 1–20–59, Cl. 180—55.

Kovacs, Louis A.: *See*—
Smith, Julian K., and Kovacs. 2,869,774.

Kozikowski, John, and M. L. Larson, to Ethyl Corp. Process for the preparation of hydrocarbon manganese carbonyl compounds. 2,870,180, 1–20–59, Cl. 260—429.

Kraft, George H. H. W. Grossen, and K. Bell, to National Dairy Products Corp. Wrapper feed mechanism. 2,869,868, 1–20–59, Cl. 271—31.

Kraft, William M., to Heyden Newport Chemical Corp. Pentaerythritol-acrolein reaction products and method of producing same. 2,870,121, 1–20–59, Cl. 260—67.

Kramer, Daniel E., to Mercer Engineering Co. Means and method for controlling high side pressure in heat transfer systems of the compression type. 2,869,330, 1–20–59, Cl. 62—117.

Kraus, Henry D. Automotive safety switch. 2,870,280, 1–20–59, Cl. 200—61.52.

Krause, Bruno. Plant potting machine. 2,869,283, 1–20–59, Cl. 47—1.

Krause, Leonard M.: *See*—
Miller, William G., and Krause. 2,869,660.

Kreamer, William H., to American Viscose Corp. Metering pump. 2,869,473, 1–20–59, Cl. 103—126.

Kreis, Oscar C., to General Motors Corp. Gear wheels. 2,869,388, 1–20–59, Cl. 74—443.

Kritz, Jack. Continuously indicating electroacoustic densitometer. 2,869,357, 1–20–59, Cl. 73—32.

Kromer, Franklin A. Vehicle filler tube locking bracket. 2,869,918, 1–20–59, Cl. 296—1.

Krotz, Albert. Meat mincing machine. 2,869,601, 1–20–59, Cl. 146—67.

Krueger, Herman A. Measuring and dispenser device. 2,869,592, 1–20–59, Cl. 141—160.

Kubler, Donald G., to Union Carbide Corp. 6-peroxyalkyl ethers of aliphatic tetrahydropyran-2-carboxylates. 2,870,168, 1–20–59, Cl. 260—345.8.

Kuder, Milton L., to United States of America, Commerce. Electronic analogue-to-digital converter. 2,870,436, 1–20–59, Cl. 340—347.

Kulhavy, George W., and R. L. Coleman, to The Carter-Waters Corp. Control joint for building blocks. 2,869,356, 1–20–59, Cl. 72—107.

Kurtz, Leonard D., to J. A. Deknatel & Son, Inc. Surgical needle. 2,869,550, 1–20–59, Cl. 128—339.

Kushner, Jack, to H. Z. Corp. Cells for electro-chemical measurements. 2,870,077, 1–20–59, Cl. 204—195.

Kuykendall, Jack C. Safety feed control for liquid fuel. 2,869,628, 1–20–59, Cl. 158—38.

Kyle, William D., Jr., to McGraw-Edison Co. Circuit interrupter. 2,870,289, 1–20–59, Cl. 200—97.

Labus, Otto, to The Trane Co. Air diffusing device. 2,869,449, 1–20–59, Cl. 98—40.

Ladish Co.: *See*—
Kessler, Joseph S., and Ebert. 2,869,211.

La Grange, William A.: *See*—
Kessler, Vernon E., and La Grange. 2,869,505.

Lagucki, Edward R., to Shell Development Co. Electro-pneumatic tank switcher. 2,869,676, 1–20–59, Cl. 183—2.7.

Lamouria, Lloyd H.: *See*—
Abernathy, George H., and Lamouria. 2,869,284.

Lamphier, Walter C.: *See*—
Rice, Livingston L., Lamphier, and Netherwood. 2,870,385.

Lander, James G., to Diamond Alkali Co. Adhesive compositions. 2,870,033, 1–20–59, Cl. 106—82.

Lang, Albert P., to Sperry Rand Corp. Inking system for high speed printers. 2,869,454, 1–20–59, Cl. 101—93.

Langdon, Robert S., to Western Gear Works. Variable speed power transmission mechanism for use with hydraulic drives. 2,869,400, 1–20–59, Cl. 74—765.

La Resista Corset Co., The: *See*—
Hollar, John V. 2,869,554.
Hollar, John V. 2,869,553.

Larkin, Kenneth A.: *See*—
Gray, Walter E., Jr., and Larkin. 2,869,347.

Larkin, Sam. Apparatus adapted for the bending of wire strip material and the like. 2,869,591, 1–20–59, Cl. 140—71.

Larson, Melvin L.: *See*—
Kozikowski, John, and Larson. 2,870,180.

La Rue, Ray M. Cabinet construction. 2,869,955, 1–20–59, Cl. 312—297.

Latimer, James T., to Jackson Industries, Inc. Veneer lathe. 2,869,596, 1–20–59, Cl. 144—209.

Lavender, Harrison M., Jr.: *See*—
Scott, John W., Jr., Lavender, and Rossi. 2,870,230.

Lawton, Harold J.: *See*—
Powell, Ernest F., and Lawton. 2,869,361.

Laxson, J. T., to Marvel Specialty Co., Inc. Method of inspecting and trimming hosiery and apparatus therefor. 2,869,765, 1–20–59, Cl. 223—43.

Lecher, Hans Z., and R. A. Greenwood, to American Cyanamid Co. Preparation of phosphonothioic dichlorides, tetrachlorophosphoranes, and phosphonic dichlorides. 2,870,204, 1–20–59, Cl. 260—543.

Lechner, Herbert, to Arnold & Richter K. G. Method and means of conveying carrier strips carrying layers to be treated chemically and/or physically, especially layers consisting of light-sensitive emulsion, through at least one treating device. 2,869,865, 1–20–59, Cl. 271—2.3.

Lehner, William L., to Sylvania Electric Products Inc. Soldering machine. 2,869,497, 1–20–59, Cl. 113—59.

Leifer, Lorenz A., to Gisholt Machine Co. Automatic drive speed control. 2,869,390, 1–20–59, Cl. 74—472.

Leigh, Robert L., to Air Control Products, Inc. Air register of the wall type. 2,869,450, 1–20–59, Cl. 98—108.

Leistner, William E., and A. C. Hecker, to Argus Chemical Laboratory, Inc. Polyvinyl chloride and alkyl tin mercaptoalcohol monocarboxylic acid esters. 2,870,119, 1–20–59, Cl. 260—45.75.

Leistner, William E., and A. C. Hecker, to Argus Chemical Laboratory, Inc. Organic derivatives of tetravalent tin. 2,870,182, 1–20–59, Cl. 260—429.7.

Leje & Thurne Aktiebolag: *See*—
Wallen, Emil O. L. 2,869,728.

Lemmon, Alexis W., to The Jeffrey Mfg. Co. Chain link bearing means. 2,869,380, 1–20–59, Cl. 74—245.

Leonard, George H. Mechanical counter numeral wheel rectifying apparatus. 2,869,782, 1–20–59, Cl. 235—1.

Leonard, George H., to United States of America, Navy. Time delay releasing device for a parachute pack cover. 2,869,810, 1–20–59, Cl. 244—150.

Leonard, James W.: *See*—
Cubitt, Kenneth H., and Leonard. 2,869,635.

Leslie, Donald J. Rotatable tremulant sound producer. 2,869,667, 1–20–59, Cl. 181—27.

Leslie, Donald J. Acoustic apparatus. 2,869,669, 1–20–59, Cl. 181—27.

Lever Brothers Co.: *See*—
Ruff, Edgar E. 2,870,092.
Ruff, Edgar E. 2,870,093.

Leverett, Miles C., and J. P. Howe, to United States of America, Atomic Energy Commission. Nuclear reactor unloading apparatus. 2,870,075, 1–20–59, Cl. 204—193.2.

Levin, David: *See*—
Ratner, Arthur F., and Levin. 2,870,095.

Levin, Meyer. Fishing line signal device. 2,869,275, 1–20–59, Cl. 43—17.

Levine, Mark, to Grant Pulley & Hardware Corp. Door check for sliding doors. 2,869,171, 1–20–59, Cl. 16—83.

Levy, Sidney E., ¼ to A. Blumenfeld. Plural drive loudspeaker. 2,869,668, 1–20–59, Cl. 181—27.

Lewis, Melvin R., to Controls Company of America. Step-by-step ratchet drive. 2,869,375, 1–20–59, Cl. 74—125.

Lewis, Walter R., to General Electric Co. Electric surface heating unit. 2,870,317, 1–20–59, Cl. 219—37.

Libbey-Owens-Ford Glass Co.: *See*—
Ramford, William P. 2,869,287.

Licentia Patent-Verwaltungs-G. m. b. H.: *See*—
Brand, Helmut. 2,870,282.
Renner, Otto 2,869,510.

Lieberherr, Arthur, to Sulzer Freres, Societe Anonyme. Once through steam generating plant. 2,869,517, 1–20–59, Cl. 122—406.

Liebman, Louis, and E. Gray. Sliding type window construction. 2,869,187, 1–20–59, Cl. 20—52.2.

Light Metals Research Laboratory, Inc.: *See*—
Pagonis, George A. 2,869,370.

Lilly, Joseph C., to The Plastic Wire & Cable Corp. Twisted conductors and cables and method and apparatus for making the same. 2,869,316, 1–20–59, Cl. 57—93.

Limpert, Alexander S., and R. J. Liquid proportioning pump. 2,869,467, 1–20–59, Cl. 103—37.

Limpert, Robin J.: *See*—
Limpert, Alexander S. and R. J. 2,869,467.

Lindlar, Herbert: *See*—
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Lindlar, Herbert, M. Montavon, and R. Rüegg, to Hoffmann-La Roche Inc. Method for the production of dicarboxylpolyenes. 2,870,212, 1–20–59, Cl. 260—593.

Lindner, Wolfram P. G. Cutter. 2,869,218, 1–20–59, Cl. 29—103.

Lindsay, Kenneth L., to International Telephone and Telegraph Corp. Apparatus for forming cathodes. 2,870,315, 1–20–59, Cl. 219—35.

Ling, Sung-Ching. Constructions for anemometers of the hot wire type. 2,870,305, 1–20–59, Cl. 201—63.

Linn, Jerome S.: *See*—
Gindes, Philip, and Linn. 2,870,422.

Lippke, Paul. Device for dielectrically measuring the thickness of moving webs of material. 2,870,403, 1–20–59, Cl. 324—61.

Lippmann, Seymour, and M. Berger, to United States Rubber Co. High-speed tire. 2,869,610, 1–20–59, Cl. 152—330.

Lisle Corp.: *See*—
Brooks, Thomas E. 2,870,384.

Little, Alfred E., to T. B. Hirschberg, Jr. Motor operated checkwriter. 2,869,456, 1–20–59, Cl. 101—95.

Lochmiller, Jesse W. De-beaking devices. 2,869,549, 1–20–59, Cl. 128—305.

Lockhart, Marshall L., to The Compule Corp. Plunger closures of containers. 2,869,745, 1–20–59, Cl. 215—6.

Lockheed Aircraft Corp.: *See*—
Beach, James B. 2,869,806.
Johnston, J. Ford. 2,869,808.

Lockwood, Robert C., to Instruments for Industry, Inc. Micro-wave transmission networks. 2,870,381, 1–20–59, Cl. 317—99.

Loder, Donald J., to E. I. du Pont de Nemours and Co. Fungicide-oil formulations. 2,870,058, 1–20–59, Cl. 167—42.

Loetscher, Robert F., to Farley & Loetscher Mfg. Co. Method of manufacturing solid core flush doors. 2,869,598, 1–20–59, Cl. 144—309.

Longfellow, Richard C., to The Cretex Companies, Inc. Gasket sealed concrete pipe form. 2,869,213, 1–20–59, Cl. 25—127.

Lorenz, Anton: *See*—
Schliephacke, Fridtjof F. 2,869,617.
Schliephacke, Fridtjof F. 2,869,618.

Lorig, Edwin T., to United States Steel Corp. Self-centering roll. 2,869,866, 1–20–59, Cl. 271—2.6.

Louden, Russell L. Television aerial mast turner. 2,869,387, 1–20–59, Cl. 74—425.

Love, David A.: *See*—
Davidson, Samuel H., Love, and Williams. 2,869,462.

Love, Robert M., to Esso Research and Engineering Co. Process for regenerating platinum catalyst in a reforming process. 2,870,085, 1–20–59, Cl. 208—140.

Lozon, Alfred W. Arrow fletching fixture. 2,869,597, 1–20–59, Cl. 144—289.

Lubelle, Jack G.: *See*—
Mullen, Melvin Z. 2,869,286.

Lucas, Charles D. Wheel-supported advertising signs. 2,869,262, 1–20–59, Cl. 40—129.

Luce, Yves. Liquid metering apparatus. 2,869,757, 1–20–59, Cl. 222—14.

Luckett, Embry L. Portable livestock loading chute. 2,869,513, 1–20–59, Cl. 119—82.

Ludwig, Ernst, to Brown, Boveri & Cie, Akt. Control system for regulation of direct current machines with rectifiers in armature and exciter circuits. 2,870,390, 1–20–59, Cl. 318—327.

Lundquist, Bror A. Device for dissolving and mixing soluble solid fertilizers in flowing water. 2,869,926, 1–20–59, Cl. 299—84.

Lurgi Gesellschaft fur Warmetechnik m. b. H.: *See*—
Schnur, Friedrich. 2,870,185.

Luther-Werke, Luther & Jordan: *See*—
Jordan, Walter. 2,869,815.

Lux, Horst D., to M. Mackenzie. Helicopter rotor. 2,869,649, 1–20–59, Cl. 170—160.11.

Lyben, Raymond G., to Ethyl Corp. Antiknock mixtures. 2,869,993, 1–20–59, Cl. 44—69.

Lynch, Leonard J., and H. H. Tishrock. Television antenna. 2,870,443, 1–20–59, Cl. 343—812.

Lyness, John S., to United Shoe Machinery Corp. Rough rounding machines. 2,869,157, 1–20–59, Cl. 12—85.

Lyon, George A. Wheel cover. 2,869,928, 1–20–59, Cl. 301—37.

Macey Co.: *See*—
Heigl, Carl H., and Zugel. 2,869,870.

Machlett Laboratories, Inc.: *See*—
Doolittle, Howard D., Naill, and Wadia. 2,870,364.

Macintosh, Hamish F.: *See*—
Jellyman, Philip E., Macintosh, and Wilcock. 2,870,244.

MacIntyre, William R., to Joseph Bancroft & Sons Co. Method for imparting durable lusterized finish to fabric. 2,870,038, 1–20–59, Cl. 117—11.

Mackenzie, Murdo: *See*—
Lux, Horst D. 2,869,649.

MacWilliams, Walter H., Jr., and R. C. Winans, to Bell Telephone Laboratories, Inc. Electronic probability circuit. 2,870,327, 1–20–59, Cl. 250—27.

Maddox, James R.: *See*—
Fassero, Anthony T., and Maddox. 2,869,180.

Madge, Joachim: *See*—
Heidecke, Reinhold, Bretthauer, and Madge. 2,869,396.

Magee, Charles F.: *See*—
Carlsen, Leonard O., Critchley, and Magee. 2,869,427.

Magnetic Precision Controls Inc.: *See*—
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Mahle Kommandit-Gesellschaft: *See*—
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Mahler, Harold: *See*—
Ganz, Daniel M. 2,869,732.

Mahoney, Edward T. Blade holders. 2,869,233, 1–20–59, Cl. 30—162.

Mahoney, James A. Package for incandescent lamps. 2,869,720, 1–20–59, Cl. 206—65.

Main Alloy Company Establishment (Mace): *See*—
Neu, Willi. 2,870,008.

Malek, Joseph V., to American Phenolic Corp. Electrical connector for coaxial cable. 2,870,420, 1–20–59, Cl. 333—33.

Mallinckrodt Chemical Works: *See*—
De La Mater, George B. 2,870,063.

Malme, Elmer K. Electrical insulator. 2,870,245, 1–20–59, Cl. 174—175.

Malo, Russell V.: *See*—
Den Herder, Marvin, and Malo. 2,870,086.

Mamon, Michel, 40% to G. A. Rubissow, and 60% to Magnetic Precision Controls Inc. Transistor controlled low level magnetic amplifier. 2,870,268, 1–20–59, Cl. 179—171.

Manhart, Charles E. Raft-boarding aid. 2,869,150, 1–20–59, Cl. 9—11.

Marander, Myron P., F. B. Gschwend, and M. F. Smith, to Fibreboard Paper Products Corp. Paper products having a release coating and method of preparation thereof. 2,869,722, 1–20–59, Cl. 206—84.

Marc, Henri, to The American Pad & Textile Co. Cushion pads. 2,870,053, 1–20–59, Cl. 154—54.

Marchant, Francis C. L., W. J. Morley, and E. Briggs, to Bristol Aero-Engines Ltd. Rotors for axial flow compressors or turbines. 2,869,820, 1–20–59, Cl. 253—69.

Marchant Research, Inc.: *See*—
Hunter, Jonathan. 2,869,799.

Marconi's Wireless Telegraph Co. Ltd.: *See*—
Bickers, Arthur. 2,870,423.

Marcotte, Frank B.: *See*—
Cooley, Stone D., and Marcotte. 2,870,225.

Marean, Dale F. Internal combustion rotary engine. 2,869,522, 1–20–59, Cl. 123—12.

Mark, Vennice E. Combination work and storage unit. 2,869,957, 1–20–59, Cl. 312—298.

Markley, Francis X.: *See*—
Orloff, Harold D., and Markley. 2,870,186.

Marks, Charles E.: *See*—
Radke, Donald F., Fagin, and Marks. 2,869,790.

Markson, Alfred A., to Hagan Chemicals & Controls, Inc. Trip thermostats having sharp reference temperatures. 2,870,297, 1–20–59, Cl. 200—142.

Marshall, Colin S. R., to Tiltman Langley Ltd. Power transmission clutch. 2,869,697, 1–20–59, Cl. 192—17.

Marshall, Peter L., to North American Aviation, Inc. Control surface. 2,869,805, 1–20–59, Cl. 244—87.

Martin Co., The: *See*—
Isley, Cary T., Jr. 2,870,414.

Martin, George E., to Wheeling Steel Corp. Method of making a composite structure. 2,869,228, 1–20–59, Cl. 29—428.

Martin, Menno G., to The Shaw-Walker Co. Payroll record and computing papers. 2,869,898, 1–20–59, Cl. 282—27.

Martin, Robert W., and F. E. Condo, to Shell Development Co. Process for preparing resins of poly-substituted benzenes. 2,870,098, 1–20–59, Cl. 260—2.

Martin, William A., to Eastman Kodak Co. Camera turret indexing mechanism. 2,869,445, 1–20–59, Cl. 95—45.

Martin, William M., to James Dole Engineering Co. Preserving products in sealed containers. 2,870,024, 1–20–59, Cl. 99—182.

Marvel Specialty Co., Inc.: *See*—
Laxson, J. T. 2,869,765.

Maryland Engineering Co.: *See*—
Neer, Clifford H. 2,869,297.

Mason, James H. Colostomy device. 2,869,548, 1–20–59, Cl. 128—283.

Mason, Warren P., to Bell Telephone Laboratories, Inc. Metal connection. 2,870,241, 1–20–59, Cl. 174—94.

Mason, Wylie A., Jr., to International Harvester Co. Control apparatus for agricultural implement. 2,869,656, 1–20–59, Cl. 172—458.

Massey-Ferguson Inc.: *See*—
Heck, Henry E. 2,869,665.
Miller, William G., and Krause. 2,869,660.

Master Vibrator Co.: *See*—
Barnes, Ralph G. 2,869,441.

Mather, Charles B.: *See*—
Head, William I., Kirk, and Mather. 2,869,972.

Mathews, Howard H., to Air Reduction Co., Inc. Electric arc welding. 2,870,320, 1–20–59, Cl. 219—74.

Mathisen, Anders, ⅓ to Graviner Mfg. Co. Ltd., and ⅓ to The Wilkinson Sword Co. Ltd. Means for detecting and suppressing explosions. 2,869,647, 1–20–59, Cl. 169—4.

Matthews, Clell R., and R. H. Cole, to The Dalton Foundries, Inc. Trailer coupler. 2,869,896, 1–20–59, Cl. 280—512.

Mattingly, Virdean R. Pump. 2,869,945, 1–20–59, Cl. 309—3.

Mayo, Roy E., to Caterpillar Tractor Co. Air cooling for tractor steering mechanism. 2,869,659, 1–20–59, Cl. 180—6.2.

Mazzarella, Daniel A., to Bendix Aviation Corp. Control for apparatus for treating smokestack gases and like effluents. 2,870,383, 1–20–59, Cl. 317—157.

McArthur, John E. Tracton wheel with segmental rim and retractable lugs. 2,869,930, 1–20–59, Cl. 301—46.

McCall, Richard H., to The Texas Co. Cathodic protection of metal structures. 2,870,079, 1–20–59, Cl. 204—197.

McCann, Marshall J.: *See*—
Hallden, Frederick G., and McCann. 2,870,246.

McCarvell, John H., and W. C. Carlisle. Gas lift valve. 2,869,568, 1–20–59, Cl. 137—155.

McClinton, John. Keyseat tool. 2,869,828, 1–20–59, Cl. 255—28.

McClure, Kenneth R.: *See*—
Dickey, Wallace J., and McClure. 2,869,911.

McCormick, Francis H., to General Motors Corp. Domestic appliance. 2,870,313, 1–20–59, Cl. 219—20.

McDevitt, Harry J. Shoes for hold-down mechanism for storage batteries. 2,869,663, 1–20–59, Cl. 180—68.5.

McDevitt, Harry J. Device for demineralizing water. 2,869,724, 1–20–59, Cl. 210—94.
McDonnell Aircraft Corp.: *See*—
Hartwig, Albert F. 2,869,431.
McElgin, John W., to John J. Nesbitt, Inc. Apparatus for air conditioning. 2,869,832, 1–20–59, Cl. 237—2.
McElroy, George A.: *See*—
Chamberlin, John M., and McElroy. 2,869,608.
McFadden, Archie R.: *See*—
Wright, Robert A., and McFadden. 2,870,405.
McGee, James D., to Electric & Musical Industries Ltd. Vehicles. 2,869,803, 1–20–59, Cl. 244—14.
McGill, William C., to Union Carbide Corp. Apparatus for utilizing detonation waves. 2,869,924, 1–20–59, Cl. 299—28.6.
McGraw-Edison Co.: *See*—
Gomersall, John R. 2,869,961.
Harling, Donald W. 2,869,909.
Kyle, William D., Jr. 2,870,289.
Moulton, Joseph D. 2,870,234.
McGrogan, John F., to The Atlantic Refining Co. Open gear lubricants. 2,870,089, 1–20–59, Cl. 252—22.
McKay, Alexander S., and E. F. Egan, to The Texas Co. Method of treating subsurface formations. 2,869,642, 1–20–59, Cl. 166—4.
McKnight, James T., to Bermite Powder Co. Delayed firing cartridge. 2,869,463, 1–20–59, Cl. 102—39.
McMichael, John D., to General Motors Corp. Cleaner silencer assembly. 2,869,679, 1–20–59, Cl. 183—15.
McMorrow, Joseph L.: *See*—
Vander Ply, John R., Jastram, McMorrow, and Shockroo. 2,870,294.
McReynolds, Robert W., 50% to A. R. Moulin. Method and apparatus for coating a surface with light weight aggregate. 2,870,039, 1–20–59, Cl. 117—28.
Mead Johnson & Co.: *See*—
Bryan, Hugh D. 2,870,060.
Huggins, John A. 2,870,061.
Meaker Co., The: *See*—
Finston, Victor. 2,869,560.
Medow, Jules, to United States of America, Air Force. Electronic chassis locking assembly. 2,869,960, 1–20–59, Cl. 312—333.
Meier, Vincent L., to United States of America, Navy. Quick release mechanism. 2,869,208, 1–20–59, Cl. 24—230.
Melick, George F.: *See*—
Aronson, David, and Melick. 2,869,833.
Mellor, Alfred S., to United Shoe Machinery Corp. Outsole roughing machines. 2,869,349, 1–20–59, Cl. 69—6.5.
Mercer Engineering Co.: *See*—
Kramer, Daniel E. 2,869,330.
Merchant, Charles W., to The Euclid Electric & Mfg. Co. Electrical switching mechanism. 2,870,272, 1–20–59, Cl. 200—5.
Merck & Co., Inc: *See*—
Combere, John P., and Pfister. 2,870,177.
Tristram, Edward W. 2,870,178.
Mergenthaler Linotype Co.: *See*—
Rossetto, Louis, and Corrado. 2,869,717.
Merian, Ernest, B. J. R. Nicolaus, and W. Wehrli, to Sandoz A. G. Water-insoluble monoazo dyestuffs. 2,870,137, 1–20–59, Cl. 260—207.
Meriub-Sobel, Menahem, to Horizons Titanium Corp. Preparation of fused salt electrolytes. 2,870,072, 1–20–59, Cl. 204—64.
Meriub-Sobel, Menahem, M. J. Arnoff, and J. L. Sorkin, to Horizons Titanium Corp. Preparation of the refractory metals by fused salt electrolysis. 2,870,073, 1–20–59, Cl. 204—64.
Merriam, Frederic C., to United Shoe Machinery Corp. Water vapor permeable resins. 2,870,129, 1–20–59, Cl. 260—86.1.
Merrill, Leslie C.: *See*—
Jacobsohn, David H., and Merrill. 2,869,786.
Merritt, Thomas W., and C. A. Thomas, to Babcock Bros. Co. Milker. 2,869,512, 1–20–59, Cl. 119—14.46
Mersch, Rudolf: *See*—
Schrader, Gerhard, and Mersch. 2,870,187.
Mertzweiller, Joseph K., to Esso Research and Engineering Co. Cross-linked polyesters of dicyclopentadiene dicarboxylic acids. 2,870,112, 1–20–59, Cl. 260—33.6.
Mesaler, Raymond E. Drop stakes with V type bunks, log bunks and other vehicles using stakes. 2,869,894, 1–20–59, Cl. 280—145.
Metal Textile Corp.: *See*—
Hartwell, Ralf L. 2,869,858.
Metalastik Ltd.: *See*—
Saberton, Frederick R. 2,869,340.
Metals & Controls Corp.: *See*—
Vander Pyl, John R., Jastram, McMorrow, and Shockroo. 2,870,294.
Metzger, Matt F., to General Electric Co. Control system for clothes dryers. 2,869,247, 1–20–59, Cl. 34—45.
Meyer, Curtis E., to The Upjohn Co. Therapeutic Composition. 2,870,019, 1–20–59, Cl. 99—123.
Meyer, Earl A., and M. J. Bina, to Bjorksten Research Laboratories, Inc. Liquid injector. 2,869,761, 1–20–59, Cl. 222—158.
Meyer, Robert, and D. Pillon, to Societe des Usines Chimiques Rhone-Poulenc. Preparation of benzophenone-azine. 2,870,206, 1–20–59, Cl. 260—566.
Michaelis, Heinz: *See*—
Zerlin, Hans, and Michaelis. 2,869,440.
Michel, Josef M., and K. F. Hager, to United States of America, Army. Stabilization of fuels containing tetraethyl lead. 2,869,995, 1–20–59, Cl. 52—0.5.
Michigan Abrasive Co.: *See*—
Dickey, Robert C., Hauck, and Archer. 2,869,511.
Miesel, Ross A. Apparatus for punching cards. 2,869,641, 1–20–59, Cl. 164—111.
Miles, Everett G. Differential transmission. 2,869,399, 1–20–59, Cl. 74—711.
Miller, Carl P., and A. Jamieson, to The Texas Co. Plate holding microphotometer attachment. 2,869,418, 1–20–59, Cl. 88—14.
Miller, Charles B., and C. Woolf, to Allied Chemical Corp. Production of halofluoroacetone hydrate. 2,870,211, 1–20–59, Cl. 260—593.
Miller, Marion E., and J. H. Yoder, to Barler Metal Products, Inc. Cabinet. 2,869,953, 1–20–59, Cl. 312—263.
Miller, Nicholas, to General Electric Co. Control device. 2,870,314, 1–20–59, Cl. 219—20.
Miller, William G., and L. M. Krause, to Massey-Ferguson Inc. Automatic coupling for power shafts on coupled vehicles. 2,869,660, 1–20–59, Cl. 180—14.
Miller, Yale M.: *See*—
Klecker, Joseph G., Miller, Sieving, and Rediger. 2,869,382.
Milligan, James W., and S. S. Green, to Duncan Electric Co., Inc. Magnetic suspensions. 2,869,934, 1–20–59, Cl. 308—10.
Milligan, James W., and S. S. Green, to Duncan Electric Co., Inc. Magnetic suspension. 2,869,935, 1–20–59, Cl. 308—10.
Milliken, Alvin R., and M. S. Hook, to Electrical Utilities Co. Weatherproof resistor. 2,870,307, 1–20–59, Cl. 201—[illegible].
Mills, John K., to Bell Telephone Laboratories, Inc. Oscillation generator. 2,870,332, 1–20–59, Cl. 250—36.
Mills, William A., to The Buckeye Steel Castings Co. Railway journal box lid lug wear plate assemblies. 2,869,938, 1–20–59, Cl. 308—47.
Milstein, Morris J. Adjustable headwear. 2,869,134, 1–20–59, Cl. 2—172.
Mincher, John M. Floating and troweling machine. 2,869,442, 1–20–59, Cl. 94—45.
Mining Engineering Co. Ltd., The: *See*—
Duncan, Angus W. 2,869,713.
Minneapolis-Honeywell Regulator Co.: *See*—
Heartz, Robert A. 2,870,416.
Schulze, George R. 2,870,434.
Wagner, Thomas C. G. 2,870,411.
Minnesota Mining & Mfg. Co.: *See*—
Stradley, Norman H., and Beck. 2,870,030.
Misek, Victor A., to Sanders Associates, Inc. Saturable magnetic modulator. 2,870,415, 1–20–59, Cl. 232—51.
Misto Gen Equipment Co.: *See*—
Camete, Leon E. 2,869,188.
Mitchell, Charles D., to Dunlop Rubber Co. Ltd. Process and apparatus for distillation. 2,870,065, 1–20–59, Cl. 202—46.
Mitchell, Doren, and E. Vroom, to Bell Telephone Laboratories, Inc. Magnetic recording system. 2,869,964, 1–20–59, Cl. 346—74.
Mitchell, Francis E. Burglar alarm. 2,870,281, 1–20–59, Cl. 200—61.93.
Mitchell, Harry G.: *See*—
Shrimpton, Ronald H., and Mitchell. 2,870,114.
Mitchell, John E. Amusement ride device. 2,869,871, 1–20–59, Cl. 272—36.
Mitchell, Thomas R., to E. I. du Pont de Nemours and Co. Bucket process for novelty regenerated cellulose yarn. 2,869,319, 1–20–59, Cl. 57—157.
Mitchell, William F.: *See*—
Taylor, Douglas E., Jones, and Mitchell. 2,870,264.
Modrey, Henry J. Disposal-driven pot scouring device. 2,869,794, 1–20–59, Cl. 241—101.
Moesta, Hasso. Ionization manometer. 2,870,358, 1–20–59, Cl. 313—7.
Mogk, August: *See*—
Seidl, Herbert, and Mogk. 2,869,518.
Monroe Calculating Machine Co.: *See*—
Jensen, Alan K. 2,870,347.
Monsanto Chemical Co.: *See*—
Allen, Lyman S. 2,870,035.
Beaver, David J., and Stoffel. 2,870,205.
Dazzi, Joachim. 2,870,111.
Dazzi, Joachim. 2,870,169.
Heininger, Samuel A. 2,870,153.
Heininger, Samuel A. 2,870,236.
Heininger, Samuel A., and Birum. 2,870,209.
Heininger, Samuel A., and Kosmin. 2,870,195.
Jaworski, Ernest G., and Sharp. 2,870,056.
Nickerson, Ralph F. 2,870,108.
Nickerson, Ralph F. 2,870,109.
Seiffer, Eli, and Richardson. 2,870,064.
Van Asselt, Robert L., and Gerdes. 2,870,046.
Wesp, George L. 2,870,123.
Montavon, Marc: *See*—
Isler, Otto, Lindlar, Montavon, Ruegg, and Zeller. 2,870,197.
Lindlar, Herbert, Montavon, and Rüegg. 2,870,212.
Montgomery, William T. S. Machine for punching and cutting of wood. 2,869,793, 1–20–59, Cl. 241—50.
Moore, David W., to Servomechanisms, Inc. Force-ratio-responsive system. 2,869,367, 1–20–59, Cl. 73—182.
Moore, Marjorie B.: *See*—
Wright, Howard B., and Moore. 2,870,147.
Wright, Howard B., and Moore. 2,870,149.
Wright, Howard B., and Moore. 2,870,150.
Wright, Howard B., and Moore. 2,870,151.
Moore, Robert S., to The Procter & Gamble Co. Non-volatile mercaptan and hydroxyamine impregnated end wrap and method of use. 2,869,559, 1–20–59, Cl. 132—7.
Moppa, William M. Shoelace retaining clamp. 2,869,204, 1–20–59, Cl. 24—117.

Morgan, Carroll Z.: *See*—
Armstrong, Warren E., and Morgan. 2,870,228.
Morgan, James A.: *See*—
Gough, Sidney W., and Morgan. 2,869,362.
Morin, Louis H., to West Chemical Products Inc. Machine for milling slots in fanfold paper towels. 2,869,430, 1–20–59, Cl. 90—16.
Morley, William J.: *See*—
Marchant, Francis C. L., Morley, and Briggs. 2,869,820.
Morneault, Alphonse A. Shoe polishing kit. 2,869,168, 1–20–59, Cl. 15—258.
Morning, John L., to E. I. du Pont de Nemours and Co. Process for melting metals. 2,870,006, 1–20–59, Cl. 75—84.
Morris, Joseph. Mechanical hammer. 2,869,374, 1–20–59, Cl. 74—22.
Morrison, Joseph D.: *See*—
Baker, Bertsil B., and Morrison. 2,870,067.
Morse, Milton. Pressure equalizing hermetically sealing boot. 2,870,300, 1–20–59, Cl. 200—168.
Morton, William A., and A. Augustine. Recuperative furnaces. 2,869,627, 1–20–59, Cl. 158—4.5.
Mosher, Ralph S., to General Electric Co. Linkage. 2,869,139, 1–20–59, Cl. 3—12.
Mosse, Daniel T. Slenderizing machine. 2,869,539, 1–20–59, Cl. 128—33.
Moulin, Augustine R.: *See*—
McReynolds, Robert W. 2,870,039.
Moulton, Joseph D., to McGraw-Edison Co. Alkaline storage cells with cadmium type negative electrodes. 2,870,234, 1–20–59, Cl. 136—24.
Mueller, Charles W., and R. L. Sherwood, to Radio Corp. of America. Semiconductor devices and method of making same. 2,870,049, 1–20–59, Cl. 148—1.5.
Mueller, Charles W., and J. M. Printon, to Radio Corp. of America. Semiconductor devices and methods of making same. 2,870,050, 1–20–59, Cl. 148—1.5.
Muinch, George, and D. K. Crockett, to Hughes Aircraft Co. Acceleration responsive control surface control limiting system for aircraft. 2,869,804, 1–20–59, Cl. 244—77.
Mulichak, Steven. Retractable hard top convertible. 2,869,923, 1–20–59, Cl. 296—117.
Mullen, Melvin Z., ½ to J. G. Lubelle and ½ to L. C. Silverman. Apparatus for forming tubular structures in glassware. 2,869,286, 1–20–59, Cl. 49—7.
Müller, Josef, to Daimler-Benz Akt. Foot pedal arrangement. 2,869,392, 1–20–59, Cl. 74—512.
Murcott, Charles E., to General Medical Equipment Corp. Multiple element cleaning device for hypodermic syringes. 2,869,160, 1–20–59, Cl. 15—105.
Murphey, Wilbur A., to E. I. du Pont de Nemours and Co Process for preparing fiber-forming polythiolesters by interfacial condensation polymerization. 2,870,126, 1–20–59, Cl. 260—78.5.
Murphy, David W., to Pastushin Aviation Corp. Ejector release mechanism for auxiliary fuel tanks, and the like. 2,869,523, 1–20–59, Cl. 123—24.
Murphy, L. R., Scale Co.: *See*—
Murphy, Leslie R. 2,869,855.
Murphy, Leslie R., to L. R. Murphy Scale Co. Extensible scale platform for weighing trucks and the like. 2,869,855, 1–20–59, Cl. 265—71.
Murray, Donald A., to International Harvester Co. Wheel controlled harrow. 2,869,305, 1–20–59, Cl. 55—73.
Murray, Maxton F., to The Upjohn Co. Erythromycin salts. 2,870,138, 1–20–59, Cl. 260—210.
Muth, Robert C., and G. W. Hegel, to General Electric Co. Temperature varying means. 2,869,939, 1–20–59, Cl. 308—77.
Myers, F. E., & Bro. Co., The: *See*—
Staats, William A., 2,869,723.
Nagai, Kenzo, and S. Uemura. Magnetic reproducing systems. 2,870,270, 1–20–59, Cl. 179—100.2.
Naill, Eugene J.: *See*—
Doolittle, Howard D., Naill, and Wadia. 2,870,364.
National Aluminate Corp.: *See*—
Rysnar, John W. 2,870,000.
National Dairy Products Corp.: *See*—
Kraft, George H., Grossen, and Bell. 2,869,868.
National Key Co., The: *See*—
Orchard, David W. 2,870,351.
National Machine Products Co.: *See*—
Widmann, Adolf A. 2,869,607.
National Research Development Corp.: *See*—
Hughes, Edward M., Howland, and Grootenhuis. 2,870,231.
National Tank Co.: *See*—
Coggins, Robert W. 2,869,675.
Naujokat, Gustav, to Firma Wilhelm Schroeder. Lock for bicycles and the like. 2,869,352, 1–20–59. Cl. 70—227.
Naumann, Willy R., to Daimler-Benz Akt. Method of forming grooves on a shaft. 2,869,295, 1–20–59, Cl. 51—289.
Naylor, Joseph F., to Vicars, T. & T., Ltd Treatment of edible plastic material. 2,869,483, 1–20–59, Cl. 107—12.
Neer, Clifford H., to Maryland Engineering Co. Method and apparatus for casing merchandise. 2,869,297, 1–20–59, Cl. 53—26.
Neff, Hans, to Siemens-Reiniger-Werke Akt. X-ray diffraction system. 2,870,337, 1–20–59, Cl. 250—53.
Neilson, Alan C.: *See*—
Hogberg, Ake O. and Neilson. 2,869,625.
Neilson, Swen W.: *See*—
Smidl, John M., Nelson, and Neilson. 2,869,336.
Nelson, Corless B.: *See*—
Smidl, John M., Nelson, and Neilson. 2,869,336.
Nelson, John F., S. D. Warner, and R. G. Whitney, to United States Steel Corp. Apparatus for gathering and suspending tied bundles of wire or the like in aligned groups. 2,869,738, 1–20–59, Cl. 214—8.
Nerad, Anthony J., to General Electric Co. Burner assembly. 2,869,629, 1–20–59, Cl. 158—73.
Nerwin, Hubert, and D. C. Harvey, to Eastman Kodak Co. Transparency mounting device. 2,869,748, 1–20–59, Cl. 216—22.
Nesbitt, John J., Inc.: *See*—
McElgin, John W. 2,869,832.
Nesseth, Clifford A. Bale conveyer. 2,869,708, 1–20–59, Cl. 198—158.
Netherwood, Paul H.: *See*—
Rice, Livingston L., Lamphier, and Netherwood. 2,870,385.
Neu, Willi, to Main Alloy Co. Establishment (Mace). Zinc-aluminum alloys and the method for producing same. 2,870,008, 1–20–59, Cl. 75—141.
Neubauer, Emil T., to The Trane Co. Reciprocating compressor apparatus. 2,869,775, 1–20–59, Cl. 230—206.
Neufeld, Leonard C., to The Delman Co. Windshield wiper motor control device. 2,869,164, 1–20–59, Cl. 15—250.4.
Neumann, Erich. Snap lock for portable typewriter cases or like receptacles. 2,869,282, 1–20–59, Cl. 45—68.2.
Nevers, Ashley D., and E. M. Fettes; said Nevers assor. to Pennsalt Chemical Corp., and said Fetter assor. to Thiokol Chemical Corp. Fuel gas composition containing odorant. 2,869,994, 1–20–59, Cl. 48—195.
Newport News Shipbuilding and Dry Dock Co.: *See*—
Jones, Samuel O. 2,870,322.
Newsom, Earl G.: *See*—
Gray, John W., and Newsom. 2,870,331.
Newton, Albert E., M. H. Roake, and J. E. Walsh, to United Shoe Machinery Corp. Mechanisms for feeding electronic components and the like. 2,869,130, 1–20–59, Cl. 1—3.
Nickerson, Ralph F., to Monsanto Chemical Co. Novel silica products and silicone rubber containing same coated silica aerogel, silicone rubber reinforced therewith and method of making. 2,870,108, 1–20–59, Cl. 260—29.1.
Nickerson, Ralph F., to Monsanto Chemical Co. Coated silica aerogel, silicone rubber reinforced therewith and method of making. 2,870,109, 1–20–59, Cl. 260—29.1.
Nicolaus, Bruno J. R.: *See*—
Merian, Ernest, Nicolaus, and Wehrli. 2,870,137.
Niederhauser, Warren D., and E. Broderick, to Rohm & Haas Co. Secondary aliphatic amines containing tertiary carbon atoms. 2,870,207, 1–20–59, Cl. 260—583.
Nieman, Donald F., and W. J. Hart, to Institute of Textile Technology. Optical fabric analyzer. 2,869,416, 1–20–59, Cl. 88—14.
Nissen, George P. Adjustable handle for a rope or the like. 2,869,872, 1–20–59, Cl. 272—75.
Nitikman, Arthur, to Northrop Aircraft, Inc. Vortex frequency airspeed indicator. 2,869,366, 1–20–59, Cl. 73—181.
Nobel, Fred L.: *See*—
Ostrow, Barnet D., and Nobel. 2,870,069.
Nopco Chemical Co.: *See*—
Klein, Howard C., Di Salvo, and Kapp. 2,870,198.
Nordmark-Werke Gesellschaft mit beschrankter Haftung: *See*—
Schusteritz, Ludwig, and Wolf. 2,870,152.
Norgaard, Erika C.: *See*—
Norgaard, Jorgen H. and E. C. 2,869,338.
Norgaard, Jorgen H. and E. C.; said E. C. Norgaard assor. to said J. H. Norgaard. Earring having two engaging spring biased parts. 2,869,338, 1–20–59, Cl. 63—12.
Norris, Bevitt J., to International Telephone and Telegraph Corp. Synchronous clamping. 2,870,259, 1–20–59, Cl. 179—15.
North American Aviation, Inc.: *See*—
Marshall, Peter L. 2,869,805.
North American Philips Co., Inc.: *See*—
Cluwen, Johannes M. 2,870,413.
Duinker, Simon, and Westmijze. 2,870,267.
Fransen, Jacobus. 2,870,340.
Frouws, Simon M. 2,870,365.
Janssen, Peter J. H. 2,870,251.
Salmet, Gaston. 2,870,330.
Valeton, Josue J. P., De Vrijer, and Teer. 2,870,248.
Van Lottum, Johannes T. A. 2,870,261.
Van Overbeek, Adrianus J. W. M. 2,870,310.
Van Overbeek, Adrianus J. W. M. 2,870,345.
Van Tol, Hendrikus J. M. 2,870,366.
Vermeulen, Roelof. 2,870,265.
Verweel, Jan. 2,870,375.
Westmijze, Willem K. 2,870,266.
Northrop Aircraft, Inc.: *See*—
Cox, George W. 2,870,299.
Hancock, Robert D. 2,870,430.
Nitikman, Arthur. 2,869,366.
Villepigue, Julius G. 2,869,465.
Villepigue, Julius G., and Schmued. 2,869,464.
Nudenberg, Walter: *See*—
Kharasch, Morris S., and Nudenberg. 2,870,200.
Oak Mfg. Co.: *See*—
Gelzer, John R. 2,870,275.
Gelzer, John R. 2,870,276.
O'Bannon, John B., 40% to B. L. Parker. Boat hull structure including plural air tank chambers. 2,869,149, 1–20–59, Cl. 9—3.
Obermayer, S., Co., The: *See*—
Jacobs, Louis J. 2,870,032.
O'Brian, Edward D., to Bourns Laboratories, Inc. Variable resistor. 2,870,303, 1–20–59, Cl. 201—62.
O'Brian, Edward D., to Bourns Laboratories, Inc. Adjustable electrical resistor. 2,870,304, 1–20–59, Cl. 201—62.
Offermann, Alfredo M., ½ to M. L. Herzfeld. Instrument for measuring the moisture and temperature of soil. 2,869,359, 1–20–59 Cl. 73—73.
Officine Galileo Societa per Azioni: *See*—
Franceschini, Lorenzo. 2,869,446.

Ohlheiser, Carlton E., to American Instrument Co., Inc. Wide range electrical humidity-sensing unit. 2,870,306, 1–20–59, Cl. 201—63.

Ohlmann, Robert C.: *See*—
Garbuny, Max, and Ohlmann. 2,870,370.

Ohntrup, Frederick F.: *See*—
Frank, Wallace E., and Ohntrup. 2,870,427.

Oja, George E.: *See*—
Winters, Kauno W., and Oja. 2,869,741.

Olander, Karl E. Shut-off device for flexible tubes. 2,869,816, 1–20–59, Cl. 251—6.

Olin Mathieson Chemical Corp.: *See*—
Couture, Wilfrid J. 2,869,269.
Williams, Jesse E. 2,869,127.

Oliveau, John V., to The Aerotec Corp. Explosion-proof float switch for fuel supply tanks for aircraft. 2,870,284, 1–20–59, Cl. 200—84.

Olsen, Gene, Corp.: *See*—
Davis, Robert O. 2,869,739.

Olson, Robert [illegible], to Texas Instruments Inc. Signal converter. 2,870,350, 1–20–59, Cl. 310—27.

Ontario Research Foundation: *See*—
Cavanagh, Patrick E. 2,870,003.

Orchard, David W., to The National Key Co. Combined machine frame and motor mounting. 2,870,351, 1–20–59, Cl. 310—59.

Orendorff, John W., to International Harvester Co. Attachment for planters and the like. 2,869,491, 1–20–59, Cl. 111—86.

Orloff, Harold D., and F. X. Markley, to Ethyl Corp. Dimethyl-(monochlorotolyl)-phosphate. 2,870,186, 1–20–59, Cl. 260—461.

Ormsby, Edwin P., to Giddings & Lewis Machine Tool Co. Lubricant drain for machine tool lubricating system. 2,869,428, 1–20–59, Cl. 90—11.

Orser, Lawrence D.: *See*—
Kiffer, Desire A., and Orser. 2,869,839.

Orsten, Leo A., and G. G. Simor. Universal aspirating syringe for long and short cartridges. 2,869,542, 1–20–59, Cl. 128—218.

Ortho-Sonic Instruments, Inc.: *See*—
Bard, George L. 2,869,877.

Osnabrucker Kupfer-und Drahtwerk: *See*—
Raydt, Ulrich, and Hahne. 2,869,220.

Osterhout, Ross V., and W. C. Shrier, to Caterpillar Tractor Co. Remote control for pipeline pumping engines. 2,869,466, 1–20–59, Cl. 103—27.

Osterreichische Textilmaschinenfabrik G. Josephy's Erben: *See*—
Rosenberg, Heinz, and Deschmann. 2,870,349.

Ostrow, Barnet D., and F. I. Nobel. Bath for electroplating nickel. 2,870,069, 1–20–59, Cl. 204—49.

Ovan, D. W., & Sons, Inc.: *See*—
Holby, James C., and Westrum. 2,869,333.

Overhead Door Corp.: *See*—
Schacht, Clifford A., Jr. 2,869,637.

Overland, John S., J. T. Hill, and V. H. Seger, to F. H. Hill Co., Inc. Casket sealing construction. 2,869,216, 1–20–59, Cl. 27—17.

Overman, Earl R., deceased, by M. B. Overman, executrix. Two-stage bagging machine. 2,869,296, 1–20–59, Cl. 53—24.

Overman, Mary B.: *See*—
Overman, Earl R. 2,869,296.

Ovrevik, Glenn S. Means for detecting the defective element in a series connection. 2,870,377, 1–20–59, Cl. 315—92.

Owen, Charles J.: *See*—
Higgs, Richard F., and Owen. 2,870,070.

Oxenfart, Berthold, and U. Aldinger, to Robert Bosch G. m. b. H. Injection pump assembly. 2,869,529, 1–20–59, Cl. 123—140.

Oxley, Thomas A., to Scottish Mechanical Light Industries Ltd. Measurement of moisture content. 2,870,404, 1–20–59, Cl. 324—65.

Package Machinery Co.: *See*—
Zworer, Walter R. 2,869,298.

Page Engineering Co.: *See*—
Page, John W. 2,869,255.
Page, John W. 2,869,735.

Page, Jack C.: *See*—
Boettcher, Stephen A., and Page. 2,869,294.

Page, John W., to Page Engineering Co. Connection for an excavating bucket. 2,869,255, 1–20–59, Cl. 37—135.

Page, John W., to Page Engineering Co. Trussing for booms. 2,869,735, 1–20–59, Cl. 212—144.

Pagonis, George A., to Light Metals Research Laboratory, Inc. Combined valve and molten metal sampling device. 2,869,370, 1–20–59, Cl. 73—422.

Paige, Walter G., to Sperry Rand Corp. Rotary printing means. 2,869,457, 1–20–59, Cl. 101—96.

Palm, George H. Woodworker's hand plane. 2,869,599, 1–20–59, Cl. 145—14.

Palm Roy, Inc.: *See*—
Chamberlin, John M., and McElroy. 2,869,608.

Pangborn Corp.: *See*—
Gossard, Charles M. 2,869,289.

Paper Strap, Inc.: *See*—
Watson, William M. 2,869,438.

Papp, George, to International Telephone and Telegraph Corp. Microwave electron discharge tubes. 2,870,374, 1–20–59, Cl. 315—39.

Parker, Bruce L.: *See*—
O'Bannon, John B. 2,869,149.

Parker, Joseph, to Diamond Alkali Co. Electrolysis of alkali metal chloride brine. 2,870,074, 1–20–59, Cl. 204—98.

Parker, Lawrence E. Baby walker. 2,869,613, 1–20–59, Cl. 155—22.

Parks-Cramer Co.: *See*—
Hewitt, Woodrow W. 2,869,903.

Parsons, Stuart L.: *See*—
Sadowsky, Meier, and Parsons. 2,870,010.

Pastushin Aviation Corp.: *See*—
Amos, Homer, and Strickland. 2,870,054.
Murphy, David W. 2,869,523.

Patterson, C. J., Co.: *See*—
Patterson, Curtis J. 2,869,484.

Patterson, Curtis J., to C. J. Patterson Co. Baking process. 2,869,484, 1–20–59, Cl. 107—54.

Patterson, Joseph A., to Patterson Patents Products Co., Inc. Nonrefillable bottle. 2,869,747, 1–20–59, Cl. 215—19.

Patterson-Kelley Co., Inc. The: *See*—
Clark, John A., Jr., and Fischer. 2,869,834.

Patterson Patents Products Co., Inc.: *See*—
Patterson, Joseph A. 2,869,747.

Patterson, Walter M., W. G. Connor, and R. B. Shaw, to Allegheny Ludlum Steel Corp. Process of casting metal on glass fiber mat. 2,869,197, 1–20–59, Cl. 22—200.

Pattison, Dexter B., to E. I. du Pont de Nemours and Co. Process for the preparation of polymeric acetals. 2,870,097, 1–20–59, Cl. 260—2.

Paulison, William L., Jr., to Bailey Meter Co. Vapor generating and superheating operation. 2,869,520, 1–20–59, Cl. 122—479.

Payne, George B., and C. W. Smith, to Shell Development Co. Epoxidized polyethylenically unsaturated polycarboxylic acids, derivatives thereof and method for producing the same. 2,870,125, 1–20–59, Cl. 260—78.3.

Payne, George B., and C. W. Smith, to Shell development Co. Esters of epoxy-substituted polycarboxylic acids and epoxy-substituted alcohols. 2,870,170, 1–20–59, Cl. 260—348.

Pelavin, Milton H., to Technicon International Ltd. Automatic immersion apparatus. 2,869,508, 1–20–59, Cl. 118—10.

Pendley, Ralph L.: *See*—
Hoge, Legare W., and Pendley. 2,869,423.

Pennock, John C., to Tracerlab, Inc. Radiography source. 2,870,341, 1–20–59, Cl. 250—106.

Pennsalt Chemical Corp.: *See*—
Nevers, Ashley D., and Fetten. 2,869,994.

Pereira, Alfred R. Bulldozer blade tilting device. 2,869,256, 1–20–59, Cl. 37—144.

Perez, Horacio E. Ignition brake lock. 2,869,581, 1–20–59, Cl. 137—598.

Perkin-Elmer Corp., The: *See*—
Golay, Marcel J. E. 2,870,343.
Kaye, Morton. 2,869,415.

Perkins, B. F., & Sons, Inc.: *See*—
Duprat, Athanase J. 2,869,411.

Perkins, Glen E., and G. W. Dale. Movable carriage for mobile vehicles. 2,869,931, 1–20–59, Cl. 305—4.

Perron, Yvon G., to Bristol Laboratories Inc. Therapeutic agents. 2,870,145, 1–20–59, Cl. 260—247.2.

Perron, Yvon G., to Bristol Laboratories Inc. Therapeutic agents. 2,870,146, 1–20–59, Cl. 260—247.2.

Perron, Yvon G., and J. Sam, to Bristol Laboratories Inc. N - pyridylethyl - 3,4,5 trimethoxybenzamide. 2,870,156, 1–20–59 Cl. 260—295.

Perry, Milton A., and R. E. Debusk, to Eastman Kodak Co. Preparation of aldehydes from diols by a dehydration rearrangement reaction. 2,870,214, 1–20–59, Cl. 260—603.

Perry, Newell A.: *See*—
Hall, Carroll B., Perry, and Zullig. 2,870,132.
Ridgway, Eric O., and Perry. 2,870,103.
Ridgway, Eric O., and Perry. 2,870,105.
Ridgway, Eric O., and Perry. 2,870,106.

Perry, Ray P., to Bemis Bro. Bag Co. Woven webs. 2,869,589, 1–20–59, Cl. 139—383.

Person, Frank R., to United States Steel Corp. Assembly for connecting parallel rope sections. 2,869,906, 1–20–59, Cl. 287—78.

Person, Julius E. Ball cock valve with floating, inverted cup, sealing member. 2,869,572, 1–20–59, Cl. 137—218.

Petersen, John S., and R. H. Blecker, to Simmons Co. Head rest for reclining chair. 2,869,619, 1–20–59, Cl. 155—107.

Petersen, John S., and R. H. Blecker, to Simmons Co. Adjustable head rest. 2,869,622, 1–20–59, Cl. 155—177.

Peterson, Edward S., to General Telephone Laboratories, Inc. Universal loudspeaking telephone system. 2,870,256, 1–20–59, Cl. 179—1.

Petrich, Elso. Method for the obtention of calcium tartrate. 2,870,202, 1–20–59, Cl. 260—536.

Petropoulos, John C., to American Cyanamid Co. Novel ditolyl alkanes and process for preparing the same. 2,870,227, 1–20–59, Cl. 260—668.

Petterson, Olof H. Arrangement in calenders. 2,869,258, 1–20–59, Cl. 38—56.

Pfaudler Permutit Inc.: *See*—
Klope, Joseph C., and Chapman. 2,869,751.

Pfister, Karl, III.: *See*—
Conbere, John P., and Pfister. 2,870,177.

Pfizer, Chas., & Co.: *See*—
Bloom, Barry M. 2,870,159.
Bloom, Barry M. 2,870,160.
Bloom, Barry M. 2,870,161.

Philco Corp.: *See*—
Ferguson, Harry D., Jr. 2,870,316.
Rittmann, Albert D. 2,870,052.
Sadowsky, Meier, and Parsons. 2,870,010.
Strathearn, Donald M., and Jennings. 2,869,345.

Phillips, Harold P., and L. W. Cook, to Hastings Mfg. Co. Quickly releasable buckle device. 2,869,200, 1–20–59, Cl. 24—78.

Phillips Petroleum Co.: *See*—
Bobo, Roy A. 2,869,475.
Burton, Joe M. 2,869,320.
Crawford, Francis W. 2,869,825.
Findlay, Robert A. 2,869,672.
Frey, Frederick E. 2,870,081.
Gilmore, Forrest E. 2,870,087.
Jones, Rufus V. 2,870,113.
Pitzer, Emory W. 2,870,154.
Reynolds, William B., and Carpenter. 2,870,107.

Pickin, John H., to Colgate-Palmolive Co. Apparatus for homogeneous blending. 2,869,837, 1–20–59, Cl. 259—8.

Pickwick Co.: *See*—
Corey, Flournoy and F. C., and Pitts. 2,869,172.

Pierotti, Gino J., to Shell Development Co. Condensation and separation process. 2,870,066, 1–20–59, Cl. 202—57.

Pieterse, Marius C. Devices for the transmission of movements. 2,869,377, 1–20–59, Cl. 74—216.3.

Pihl, Hadley C., to Sears, Roebuck and Co. Ventilating fan with reversible pitch blade. 2,869,648, 1–20–59, Cl. 170—160.1.

Pilkington Brothers Ltd.: *See*—
Jellyman, Philip E., Macintosh, and Wilcock. 2,870,244.

Pillon, Daniel: *See*—
Meyer, Robert, and Pillon. 2,870,206.

Piqua Machine & Mfg. Co., The: *See*—
Slaughter, Elmer C. 2,870,286.

Pirsig, Howard C., to Belle City Malleable Iron Co. Helicoid strike-off device for variable height flasks. 2,869,189, 1–20–59, Cl. 22—9.

Pitman, Herbert J., W. E. Jordan, Jr., and G. S. Bright, to The Texas Co. Method of grease manufacture comprising shearing. 2,870,090, 1–20–59, Cl. 252—41.

Pitt, Harold M., to Stauffer Chemical Co. Apparatus for photochemical chlorination reactions. 2,870,335, 1–20–59, Cl. 250—43.

Pitts, Robert D.: *See*—
Corey, Flournoy and F. C., and Pitts. 2,869,172.

Pittsburgh Plate Glass Co.: *See*—
Vogel, Henry A., and Bittle. 2,870,116.
Vogel, Henry A., Bittle, and Christenson. 2,870,117.

Pitzer, Emory W., to Phillips Petroleum Co. Catalyst dehydrogenation process. 2,870,154, 1–20–59, Cl. 260—290.

Plan Hold Corp.: *See*—
Schneider, Oscar K. 2,869,210.

Plastic Wire & Cable Corp., The: *See*—
Lilly, Joseph C. 2,869,316.

Platt, James: *See*—
Fisher, William T., and Platt. 2,869,910.

Platt, Stephen A. Travelling wire coil cutter. 2,869,640, 1–20–59, Cl. 164—43.

Platzer, Hans. Fluid metering device. 2,869,515, 1–20–59, Cl. 121—48.

Plessey Co. Ltd., The: *See*—
Simpson, Anthony W. 2,870,433.

Pleuger, Friedrich W., and J. C. Grober, to F. W. Pleuger. Diaphragm piston pump. 2,869,474, 1–20–59, Cl. 103—152.

Pneumatic Scale Corp., Ltd.: *See*—
Whelan, James P. 2,869,718.

Pokolic, Ivan. Still picture attachment for moving picture projectors. 2,869,421, 1–20–59, Cl. 88—28.

Polaroid Corp.: *See*—
Wareham, Richard R. 2,869,444.

Pollack, Maxwell A. Making alpha-chloroacrylic compounds. 2,870,193, 1–20–59, Cl. 260—465.7.

Pollack, Maxwell A. Synthesis of amino acids. 2,870,201, 1–20–59, Cl. 260—534.

Polydoroff, Wladimir J. Ferromagnetic antenna systems. 2,870,442, 1–20–59, Cl. 343—787.

Pomeroy, Richard C., to Bell Telephone Laboratories, Inc. Proportional amplitude discriminator. 2,870,328, 1–20–59, Cl. 250—27.

Portanger, Edward. Apparatus for cleaning wool. 2,869,181, 1–20–59, Cl. 19—85.

Porter, Robert E. Belt holder. 2,869,169, 1–20–59, Cl. 15—268.

Posey, Joseph J., to United States Steel Corp. Dual arch. 2,869,488, 1–20–59, Cl. 110—99.

Poulin, Peter. Chair with liftable arm rests. 2,869,623, 1–20–59, Cl. 155—198.

Powell, Elno M.: *See*—
Schroedter, Willburt W., and Powell. 2,869,519.

Powell, Ernest F., and H. J. Lawton, to Dunlop Tire and Rubber Corp. Method and apparatus for testing tires, belts or the like. 2,869,361, 1–20–59, Cl. 73—146.

Power Jets (Research and Development) Ltd.: *See*—
Cox, Martin. 2,869,830.

Pratt, Francis L., to International Business Machines Corp. Tare correction apparatus. 2,869,853, 1–20–59, Cl. 265—27.

Pressure Dispensers, Inc.: *See*—
Collins, Leonard M. 2,869,764.

Pretorius, Yarl. Fishing lure. 2,869,279, 1–20–59, Cl. 43—42.6.

Price, Clarence A., and W. L. Rupp, to Hoover Ball & Bearing Co. Ball cock. 2,869,571, 1–20–59, Cl. 137—215.

Prichard, William K. Reversible ratchet wrench with handle extension means. 2,869,410, 1–20–59, Cl. 81—177.

Printon, Jane M.: *See*—
Mueller, Charles W., and Printon. 2,870,050.

Procter & Gamble Co., The: *See*—
Moore, Robert S. 2,869,559.

Production Tool Die Co., Inc.: *See*—
Gaudreau, Richard J. 2,869,755.

Proefke, Lawrence. Rack gear with improved method of making. 2,869,389, 1–20–59, Cl. 74—462.

Propper Mfg. Co., Inc.: *See*—
Speelman, Irving A. 2,869,536.

Pryne & Co., Inc.: *See*—
Ford, Harold H. 2,869,908.

Purkhiser, Rawlins E., to Air Reduction Co., Inc. Motor speed control. 2,870,391, 1–20–59, Cl. 318—327.

Quinn, Bert A., to Ideal Brass Works, Inc. Method of making hinges having locked-in bushings. 2,869,319, 1–20–59, Cl. 29—149.5.

Radian Corp., The: *See*—
De Millar, Floyd O. 2,869,082.

Radio Corp. of America: *See*—
Brooks, Forrest E. 2,870,373.
Cherry, William H. 2,870,247.
Cuccia, Carmen L. 2,870,368.
Goodrich, Hunter C. 2,870,421.
Harris, James S. 2,870,372.
Mueller, Charles W., and Printon. 2,870,050.
Mueller, Charles W., and Sherwood. 2,870,049.

Radke, Donald F., K. W. Fagin, and C. E. Marks, to General Electric Co. Card reader device. 2,869,790, 1–20–59, Cl. 235—61.11.

Rakebrandt, August: *See*—
Erbe, Otto A. K., Hartwig, and Rakebrandt. 2,869,873.

Randall, David L., and W. Schmidt-Nickels, to General Aniline & Film Corp. Dinaphthofurandiome vat dyestuffs. 2,870,168, 1–20–59, Cl. 260—346.2.

Randall, Kenneth B.: *See*—
Welch, Douglas F., and Randall. 2,869,321.

Rankin, Donald L., to Sperry Rand Corp. Fuel control system for gas turbine engines under steady-state operating conditions. 2,869,322, 1–20–59, Cl. 60—39.28.

Ransom, James A.: *See*—
Kennedy, Jack W., and Ransom. 2,869,949.

Rapp, Edward G., and C. H. Castle, to Thompson Products, Inc. Power steering assembly. 2,869,383, 1–20–59, Cl. 74—388.

Ratcliff, Karl A., and W. A. Dorrance, to Iowa Cooperative Association, d. b. a. Diamond Laboratories. Injector. 2,869,543, 1–20–59, Cl. 128—218.

Ratcliff, Karl A., and W. A. Dorrance, to Iowa Cooperative Association, d. b. a. Diamond Laboratories. Injector. 2,869,544, 1–20–59, Cl. 128—220.

Rathjen, Theodore N. Meat grinder. 2,869,602, 1–20–59, Cl. 146—189.

Ratzer, Arthur F., and D. Levin, to Baker Industries, Inc. Liquid gelling agent. 2,870,095, 1–20–59, Cl. 252—316.

Raydt, Ulrich, and K. H. Hahne, to Osnabrucker Kupfer- und Drahtwerk. Process and arrangement for the production of cables and conductors having a corrugated sheathing, more especially a metal sheathing. 2,869,220, 1–20–59, Cl. 29—155.5.

Raymond International Inc.: *See*—
Hazak, John T. 2,869,823.
Hazak, John T. 2,869,824.
Van Buren, Myers. 2,869,214.

Rayonier Inc.: *See*—
Hergert, Herbert L. 2,870,165.

Raytheon Mfg. Co.: *See*—
Hines, Paul. 2,870,441.

Reckling, Gerhard: *See*—
Asinger, Friedrich, Thiel, Schroder, and Reckling. 2,870,158.

Redford, Edward L. Cigar having a tip or mouthpiece. 2,869,558, 1–20–59, Cl. 131—187.

Rediger, John R.: *See*—
Klecker, Joseph G., Miller, Sieving, and Rediger. 2,869,382.

Reeves, Wilson A.: *See*—
Chance, Leon H., Drake, and Reeves. 2,870,042.

Regnier, Wilmer D.: *See*—
Day, Carl L., Fauth, and Regnier. 2,870,016.

Reichelt, Lester O., to Western Electric Co., Inc. Device for inserting L-shaped terminals into printed circuit boards. 2,869,128, 1–20–59, Cl. 1—1.

Reinke, Herbert J., and H. A. Gallatin, to Allis-Chalmers Mfg. Co. Motor generator set with frequency control by voltage to induction motor. 2,870,395, 1–20–59, Cl. 322—39.

Reliance Electric & Engineering Co., The: *See*—
Smith, Julian K., and Kovacs. 2,869,774.

Reliance Gauge Column Co., The: *See*—
Brown, John R. 2,869,368.

Remler Co., Ltd.: *See*—
Jenkins, Charles D., Jr., and Greene. 2,870,255.

Renner, Otto, to Licentia Patent-Verwaltungs G. m. b. H. Electrostatic coating apparatus utilizing overflow means to facilitate constant level. 2,869,510, 1–20–59, Cl. 118—626.

Revere Electric Mfg. Co.: *See*—
Winters, Alva B., and Hoist. 2,869,690.

Reynolds Metals Co.: *See*—
Dillen, Warren A. 2,869,263.
Evans, Lyon D., and Hebert. 2,869,691.

Reynolds, R. J., Tobacco Co.: *See*—
Teague, Claude E., Jr. 2,869,557.

Reynolds, William B., and P. G. Carpenter, to Phillips Petroleum Co. Synthetic rubber composition containing rosin acid and dithiocarbamate accelerating agent and method of producing same. 2,870,107, 1–20–59, Cl. 260—27.

Riblet, Henry J. Ultra-high frequency directional coupling apparatus. 2,870,419, 1–20–59, Cl. 333—10.

Rice, Livingston L., W. C. Lamphier, and P. H. Netherwood, to Sprague Electric Co. Impregnated electrical capacitors. 2,870,385, 1–20–59, Cl. 317—258.

Richardson, George A.: *See*—
Seiffer, Eli, and Richardson. 2,870,064.

Richfield Oil Corp.: *See*—
Chamberlain, Richard O., and Wakefield. 2,869,645.
Chamberlain, Richard O., and Wakefield. 2,869,646.

Richter, George A., Jr., and G. L. Brown, to Rohm & Haas Co. Process for spinning particulate dispersions. 2,869,977, 1–20–59, Cl. 18—54.

Richter, Johan C. F. C., to Aktiebolaget Kamyr. Method and apparatus for the separation of liquids from cellulosic pulp. 2,870,009, 1–20–59, Cl. 92—7.

Ridbo Laboratories, Inc.: *See*—
Hall, Carroll B., Perry, and Zullig. 2,870,122.
Ridgway, Eric O. 2,870,104.
Ridgway, Eric O., and Perry. 2,870,103.
Ridgway, Eric O., and Perry. 2,870,105.
Ridgway, Eric O., and Perry. 2,870,106.

Rideout, Richard G. Apparatus for photographic slide viewing. 2,869,260, 1–20–59. Cl. 40—78.

Ridgway, Eric O., and N. A. Perry, to Ridbo Laboratories, Inc. Chlorosulfonated polyethylene composition containing sulfurized tall oil. 2,870,103, 1–20–59. Cl. 260—23.

Ridgway, Eric O., to Ridbo Laboratories, Inc. Chloroprene rubber composition containing a tall oil-sulphur reaction product. 2,870,104, 1–20–59. Cl. 260—23.7.

Ridgway, Eric O., and N. A. Perry, to Ridbo Laboratories, Inc. Nitrile rubber compositions containing sulfurized tall oil. 2,870,105, 1–20–59. Cl. 260—23.7.

Ridgway, Eric O., and N. A. Perry, to Ridbo Laboratories, Inc. Chloroprene rubber compositions containing sulfurized tall oil. 2,870,106, 1–20–59. Cl. 260—23.7.

Riker Laboratories, Inc.: *See*—
Kloha, Merle W., Keller, and Williams. 2,870,164.

Riley, James Whitcomb, Memorial Association, The: *See*—
Schulz, Dale M. 2,869,414.

Riley Stoker Corp.: *See*—
Hogberg, Ake O., and Nelson. 2,869,625.

Rittmann, Albert D., to Philco Corp. Semiconductive device and method for the fabrication thereof. 2,870,052, 1–20–59. Cl. 148—33.

Riv-Officine Di Villar Perosa Societa per Azioni: *See*—
Barberis, Giovanni. 2,869,783.

Roberts, John W., to Westinghouse Electric Corp. Electrostatic precipitators. 2,869,678, 1–20–59. Cl. 183—7.

Robertson, Earl M., and J. A. Van Allan, to Eastman Kodak Co. Photosensitization of vinylazidophthalate polymers. 2,870,011, 1–20–59. Cl. 96—91.

Robinson, Alice G. Containers, such as boxes, baskets and the like. 2,869,709, 1–20–59. Cl. 224—46.

Robinson, Frank A.: *See*—
Bisgard, Andrew N, Robinson, and Spiess. 2,869,594.

Rocha, Henrique A. F., to General Electric Co. Power supply systems. 2,870,380, 1–20–59. Cl. 317—17.

Rochar Electronique: *See*—
Charbonnier, Roger. 2,870,269.

Roehmann, Ludwig F.: *See*—
Greenfield, Eugene W., and Roehmann. 2,870,311.

Rogers, Chester E., Jr., to United Shoe Machinery Corp. Component inserting machines having improved feed control. 2,869,129, 1–20–59. Cl. 1—2.

Rohm & Haas Co.: *See*—
Niederhauser, Warren D., and Broderick. 2,870,207.
Richter, George A., Jr., and Brown. 2,869,977.

Rohrbach, Fritz, to Verwerk & Co. Electrical brush arrangement. 2,870,355, 1–20–59. Cl. 310—247.

Rolph, Henry D., to The Yale & Towne Mfg. Co. Lock utilizing interlocking cylinders. 2,869,351, 1–20–59. Cl. 70—134.

Romeo, Aurelio, to Ciba Pharmaceutical Products Inc. New cyclosteroids. 2,870,173, 1–20–59, Cl. 260—397.5.

Romero, Manuel, to Stabil Internacional S. A. Process for stabilizing milk and similar products. 2,870,027, 1–20–59, Cl. 99—212.

Root Spring Scraper Co.: *See*—
Weeks, Warren D. 2,869,254.

Roper, Edward H., and C. J. Sullivan, to Air Reduction Co., Inc. Arc welding. 2,870,323, 1–20–59, Cl. 219—137.

Rose, Stanley E.: *See*—
Farnom, Robert B., and Rose. 2,869,185.

Rose, Stanley E., to General Electric Co. Mounting arrangement for propeller type fan. 2,869,651, 1–20–59. Cl. 170—173.

Rosenberg, Heinz, and H. Drechmann, to Osterreichische Textilmaschinenfabrik G. Josephy's Erben. Electromagnetic drive for bodies to be moved in pregiven paths, especially shuttles of circular looms. 2,870,349, 1–20–59. Cl. 310—13.

Rosenfeld, Sam, to United States of America, Atomic Energy Commission. Process for the purification of uranium. 2,869,981, 1–20–59. Cl. 23—14.5.

Rosenqvist, Terkel. Process for the production of sulphur, metal oxides and metal sulphates. 2,869,999, 1–20–59, Cl. 75—6.

Roske, Milton H.: *See*—
Newton, Albert E., Roske, and Walsh. 2,869,130.

Rossetto, Louis, and V. M. Corrado, to Mergenthaler Linotype Co. Typographical composing machine. 2,869,717, 1–20–59. Cl. 199—18.

Rossi, Joseph A.: *See*—
Anderson, Harry R., Esposito, and Rossi. 2,870,022.

Rossi, William J.: *See*—
Scott, John W., Jr., Lavender, and Rossi. 2,870,230.

Rotol Ltd.: *See*—
Fairhurst, Leonard G., and Danvers. 2,869,650.

Rowell, Lorne A., to Imperial Tobacco Co. of Canada Ltd. Apparatus for conditioning tobacco. 2,869,556, 1–20–59 Cl 131—135.

Rowley, Lothair H., to Ford Instrument Co. of Sperry-Rand Corp. Magnetic amplifier circuit. 2,870,417, 1–20–59, Cl. 323—89.

Royer, Darrell E., to General Motors Corp. Governor valve assembly. 2,869,564, 1–20–59, Cl. 137—48.

Rubissow, George A.: *See*—
Mamon, Michel. 2,870,268.

Rucker, Robert M., to ACF Industries, Inc. Gate valve. 2,869,819, 1–20–59, Cl. 251—199.

Rudnick, Paul: *See*—
Knoll, Max, and Rudnick. 2,870,360.

Rudy Mfg. Co.: *See*—
Collins William A. 2,869,337.

Ruefenacht, Werner. Balance. 2,869,854, 1–20–59, Cl. 265—49.

Ruegg, Rudolf: *See*—
Laier, Otto, Lindlar, Montavon, Ruegg, and Zeller. 2,870,197.
Lindlar, Herbert, Montavon, and Rüegg. 2,870,212.

Ruff, Edgar E., to Lever Brothers Co. Polyphosphate compositions containing tallow methyl tauride and 2-mercaptothiazoline. 2,870,092, 1–20–59, Cl. 252—137.

Ruff, Edgar E., to Lever Brothers Co. Polyphosphate compositions containing coco-β-alanine and 2-mercaptothiazoline. 2,870,093, 1–20–59, Cl. 252—137.

Rufle, George H. Switching device. 2,870,285, 1–20–59, Cl. 200—87.

Ruhrchemie Akt.: *See*—
Schnur, Friedrich. 2,870,185.

Rumgay, William L.: *See*—
Coney, Charles H., and Rumgay. 2,870,035.

Rupp, William L.: *See*—
Price, Clarence A., and Rupp. 2,869,571.

Ryder, David F., to E. I. du Pont de Nemours and Co. Agitating device. 2,869,838, 1–20–59, Cl. 259—9.

Ryser, Gottlieb: *See*—
Guex, Waldemar, and Ryser. 2,870,208.

Rysnar, John W., to National Aluminate Corp. Finely divided metal-containing substances and process for the preparation thereof. 2,870,000, 1–20–59, Cl. 75—.5.

Saberton, Frederick R., to Metalastik Ltd. Shaft assemblies. 2,869,340, 1–20–59, Cl. 64—11.

Sachs, Louis. Moisture absorbent and self-ventilating footwear. 2,869,253, 1–20–59, Cl. 36—3.

Sadowsky, Meier, and S. L. Parsons, to Philco Corp. Method of manufacturing electrical apparatus. 2,870,010, 1–20–59, Cl. 96—35.

Saginaw Furniture Shops, Inc.: *See*—
Gaines, Harry B. 2,869,956.

Saginaw Wire Products Inc.: *See*—
Hoern, Joseph H. 2,869,590.

Sagura, John J.: *See*—
Allen, Charles F. H., and Sagura. 2,870,015.

Sahagian, Edward H. Hydraulic stabilizing system for vehicles. 2,869,892, 1–20–59, Cl. 280—124.

Sahagian, Edward H. Stabilizing means for the air springs of an automobile. 2,869,893, 1–20–59, Cl. 280—124.

Salmet, Gaston, to North American Philips Co., Inc. High frequency oscillator control circuit arrangement. 2,870,330, 1–20–59, Cl. 250—36.

Salmi, Albert E. Decorative bow and method of making the same. 2,869,264, 1–20–59, Cl. 41—10.

Salt Water Control, Inc.: *See*—
Erwin, Ransome W. 2,869,673.

Sam, Joseph: *See*—
Perron, Yvon G., and Sam. 2,870,156.

Sam, Joseph, to Bristol Laboratories Inc. Heterocyclic amides of N aralkyl piperidine carboxylic acids. 2,870,148, 1–20–59. Cl. 260—247.5.

Samuely, Max, to Tubular Structures Corp. of America. Hydraulic drive system for portable builder's hoist. 2,869,325, 1–20–59. Cl. 60—53.

Sanders Associates, Inc.: *See*—
Butler, Jesse L. 2,870,440.
Misek, Victor A. 2,870,415.

Sanders, Orville F. Fluid dispenser. 2,869,762, 1–20–59, Cl. 222—382.

Sandoz A. G.: *See*—
Merian, Ernest, Nicolaus, and Wehrli. 2,870,137.
Schoenauer, Wolfgang. 2,870,172.

Sandoz Trust: *See*—
Senn, Otto. 2,870,135.
Thummel, Ludwig, and Aeberhardt. 2,869,968.

Sands, Seymour, to E. I. du Pont de Nemours and Co. Process and product. 2,869,435, 1–20–59, Cl. 92—3.

Sanger, Richard B., to Allen B. Du Mont Laboratories, Inc. Alarm system. 2,870,325, 1–20–59, Cl. 250—2.

Satchwell, Leonard. Resistance grids. 2,870,308, 1–20–59, Cl. 201—69.

Saul & Co.: *See*—
Senn, Otto. 2,870,135.
Thummel, Ludwig, and Aeberhardt. 2,869,968.

Saunders, Clarence L., to Sylvania Electric Products Inc. Method for assembling travelling wave tubes. 2,869,217, 1–20–59, Cl. 29—25.14.

Saunders, Orson V., to General Motors Corp. Door latch. 2,869,952, 1–20–59, Cl. 312—214.

Scarrott, Gordon G., and K. C. Johnson, to Ferranti, Ltd. Digital-analogue converter. 2,870,437, 1–20–59, Cl. 340—347.

Schaaf, Willard A., and L. E. Simes, II, to Whirlpool Corp. Pilotless ignition device and system for the safe ignition of gases and vapors. 2,869,633, 1–20–59, Cl. 158—128.

Schacht, Clifford A., Jr., to Overhead Door Corp. Upwardly acting door assembly. 2,869,637, 1–20–59, Cl. 160—201.

Schaer, Glenn R., to Diamond Gardner Corp. Electroformed screens. 2,870,068, 1–20–59, Cl. 204—11.

Schafer, Werner, R. Wegler, and L. Eue, to Farbenfabriken Bayer Akt. 3-furfurylidene-amino-1,2,4-triazole and process for producing same. 2,870,144, 1–20–59, Cl 260—240

Scherer, Otto, to Farbwerke Hoechst Akt. vormals Meister & Bruning. Production of 1,1-difluoro-1,2,2-trichloroethane. 2,870,224, 1–20–59, Cl. 260—653.7.

Scherer, R. P., Corp.: *See*—
Kath, Alfred W. 2,869,178.
Stanley, John P., and Bradley. 2,870,062.

Scherz, Louis, to The American Pad & Textile Co. Adjustable cans and like structures. 2,869,137, 1–20–59, Cl. 2—197.

Schiffman, Bernard. Automobile accessory. 2,869,144, 1–20–59, Cl. 5—94.

Schiffman, Murray M. Information indicating devices. 2,869,250, 1–20–59, Cl. 35—9.

Schlachter, Karl E., and E. M. Herrmann, to United States of America, Navy. Gas turbine muffler. 2,869,671, 1–20–59, Cl. 181—50.

Schlage, Ernest L., to Schlage Lock Co. Noiseless lock unit. 2,869,913, 1–20–59, Cl. 292—341.12.

Schlage Lock Co.: *See*—
Schlage, Ernest L. 2,869,913.

Schliephacke, Fridtjof F., to A. Lorenz. Reclining chairs. 2,869,617, 1–20–59, Cl. 155—106.

Schliephacke, Fridtjof F., to A. Lorenz. Reclining chairs. 2,869,618, 1–20–59, Cl. 155—106.

Schmidt, Clayton E., to Schmidt Mfg. Co. Reed frame. 2,869,587, 1–20–59, Cl. 139—192.

Schmidt, Frederick G., to I-T-E Circuit Breaker Co. Motor operated circuit breakers. 2,870,288, 1–20–59, Cl. 200—92.

Schmidt, Gunter, to International MacGregor Organization (I. M. G. O.). Device for controlling hatch-covers and like panels on ships, railway-cars and the like with the assistance of an endless, driven chain. 2,869,859, 1–20–59, Cl. 268—18.

Schmidt Mfg. Co.: *See*—
Schmidt, Clayton E. 2,869,587.

Schmidt, William C., to The Cincinnati Butchers' Supply Co. Agitating apparatus. 2,869,840, 1–20–59, Cl. 259—45.

Schmidt, William C., to The Cincinnati Butchers' Supply Co. Self locking agitator assembly. 2,869,842, 1–20–59, Cl. 259—109.

Schmidt-Nickels, Wilhelm: *See*—
Randall, David I., and Schmidt-Nickels. 2,870,168.

Schmitter, Walter P., to The Falk Corp. Speed reducer. 2,869,384, 1–20–59, Cl. 74—420.

Schmued, Edgar: *See*—
Villepigue, Julius G., and Schmued. 2,869,464.

Schneider, Oscar K., to Plan Hold Corp. Friction-type binder. 2,869,210, 1–20–59, Cl. 24—251.

Schnur, Friedrich, to Ruhrchemie Akt., and Lurgi Gesellschaft für Warmetechnik m. b. H. Working up of products from the catalytic hydrogenation of carbon monoxide. 2,870,185, 1–20–59, Cl. 260—450.

Schoenauer, Wolfgang, to Sandoz A. G. Pigment dyestuffs of the anthraquinone series. 2,870,172, 1–20–59, Cl. 260—368.

Schoengrun, Emile R. Quasi-elastic magnetic device. 2,869,563, 1–20–59, Cl. 137—43.

Schofield, H Bruce. Two-stage power apparatus. 2,869,190, 1–20–59, Cl. 22—68.

Schrader, Gerhard, and R. Mersch, to Farbenfabriken Bayer Akt. O,O-dimethyl-O-(4-chloro-3-nitrophenyl)-thiophosphoric acid esters and their preparation. 2,870,187, 1–20–59, Cl. 260—461.

Schrader, Gerhard, to Farbenfabriken Bayer Akt. Thiophosphoric acid esters and process for their manufacture. 2,870,191, 1–20–59, Cl. 260—461.

Schreiber, William F., to Sylvania Electric Products, Inc. Cathode ray tube counting device. 2,870,369, 1–20–59, Cl. 315—10.

Schroder, Lother: *See*—
Asinger, Friedrich, Thiel, Schroder, and Reckling. 2,870,158.

Schroeder, Juel P., to Union Carbide Corp. Composition of vinyl chloride homopolymer and chloroprene homopolymer and method of making same. 2,870,115, 1–20–59, Cl. 260—45.5.

Schroedter, Willburt W., and E. M. Powell, to Combustion Engineering, Inc. Method of operating a waistline vapor generator. 2,869,519, 1–20–59, Cl. 122—478.

Schuessler, Albert G., and C. B. Swain, to Swift & Co. Treatment of oil and gas wells. 2,869,643, 1–20–59, Cl. 166—42.

Schultz, Kristian: *See*—
Anderson, Lindson P., and Schultz. 2,870,028.

Schultz, Margaret F.: *See*—
Anderson, Lindson P., and Schultz. 2,870,028.

Schultze, Harold E.: *See*—
Funkhouser, Mearick, and Schultze. 2,869,685.

Schulz, Dale M., to The James Whitcomb Riley Memorial Assn. Strip-adaptor for spectrophotometers. 2,869,414, 1–20–59, Cl. 88—14.

Schulze, Ferdinand, to E. I. du Pont de Nemours and Co. Formaldehyde as an assistant in the dyeing of polyester fibers and blends thereof at high temperatures. 2,869,969, 1–20–59, Cl. 8—55.

Schulze, George R., to Minneapolis-Honeywell Regulator Co. Detection and signaling apparatus. 2,870,434, 1–20–59, Cl. 340—227.

Schurman, Glenn A., to California Research Corp. Cable assembly method and apparatus. 2,869,226, 1–20–59, Cl. 29—421.

Schurr, Hans, and H. Stahlecker, to Wurttembergische Spindelfabrik G. m. b. H. Spindle driving mechanism. 2,869,317, 1–20–59, Cl. 57—105.

Schusterits, Ludwig, and V. Wolf, to Nordmark-Werke Gesellschaft mit beschrankter Haftung. Piperazine derivatives and the production thereof. 2,870,152, 1–20–59, Cl. 260—268.

Schwab, H. W., Textile Corp.: *See*—
Schwab, Harold W. 2,869,588.

Schwab, Harold W., to H. W. Schwab Textile Corp. Woven fabric. 2,869,588, 1–20–59, Cl. 139—383.

Schwager, Henry H., to Schwager-Wood Corp. Encapsulated vacuum insulated circuit breaker. 2,870,298, 1–20–59, Cl. 200—144.

Schwager-Wood Corp.: *See*—
Schwager, Henry H. 2,870,298.

Schweitzer, Otto: *See*—
Bader, Erich, and Schweitzer. 2,870,118.

Scites, Joe, ½ to I. Tuggle. Safety constructions for refrigerators. 2,869,486, 1–20–59, Cl. 109—63.5.

Scott, John W., Jr., H. M. Lavender, Jr., and W. J. Rossi, to California Research Corp. Adsorption separation process. 2,870,230, 1–20–59, Cl. 260—674.

Scott, Robert F. Apparatus for packaging flat flexible articles. 2,869,302, 1–20–59, Cl. 53—255.

Scottish Mechanical Light Industries Ltd.: *See*—
Oxley, Thomas A. 2,870,404.

Scranton, Charles J., to Allis-Chalmers Mfg. Co. Means for mounting pickup fingers on draper conveyer. 2,869,711, 1–20–59, Cl. 198—198.

Sears, Roebuck and Co.: *See*—
Pihl, Hadley C. 2,869,648.
Sefried, Harry H., II, and Gunnesson. 2,869,268.

Seavert, Howard H., to Simmons Co. Feeding and guiding mechanism for sewing machines. 2,869,492, 1–20–59, Cl. 112—3.

Seavert, Howard H., to Simmons Co. Apparatus for closing mattresses. 2,869,493, 1–20–59, Cl. 112—3.

Sebem S. A.: *See*—
Tuscher, Jean E. 2,869,528.

Sedgfield, Hugh B., M. L. Jofeh, and R. Albrecht, to The Sperry Gyroscope Co. Ltd. Apparatus adapted to measure accelerations and inclinations. 2,869,851, 1–20–59, Cl. 264—1.

Sedlaczek, Herbert, and O. Waldrich, Hot machining of metal ingots. 2,869,432, 1–20–59, Cl. 90—43.

Seemuller, John R.: *See*—
Webb, Edwin T., and Seemuller. 2,870,223.

Sefried, Harry H., II, and E. J. Gunnesson, ½ to Sears, Roebuck and Co., and ½ to The High Standard Mfg. Corp. Spring ejector means. 2,869,268, 1–20–59, Cl. 42—25.

Segal, Stanley M. Flashback shield. 2,870,359, 1–20–59, Cl. 313—36.

Seger, Victor H.: *See*—
Overland, John S., Hill, and Seger. 2,869,216.

Sehl, Harry J.: *See*—
Walper, Curry O., and Sehl. 2,869,624.

Seidl, Herbert, and A. Mogk, to The Babcock & Wilcox Co. Radiant vapor generating and superheating unit with radiant superheater platens. 2,869,518, 1–20–59, Cl. 122—478.

Seifter, Eli, and G. A. Richardson, to Monsanto Chemical Co. Penicillin process. 2,870,064, 1–20–59, Cl. 195—36.

Seigle, William. Fishing float. 2,869,274, 1–20–59, Cl. 43—17.

Selas Corp. of America: *See*—
Bloom, Quentin M. 2,869,846.

Sellers, John C., to Johnson & Johnson. Cross-linked esters of maleic anhydrides-styrene copolymer and method for preparation. 2,870,128, 1–20–59, Cl. 260—78.5.

Sellet, Lucien, to Jacques Wolf & Co. Modified aminoplast resin complexes and processes for producing them. 2,870,122, 1–20–59, Cl. 260—69.

Selvaggio, John D., and C. C. Wareham, to United States Steel Corp. Crucible furnace. 2,869,845, 1–20–59, Cl. 263—2.

Sengebusch, Hans, to General Telephone Laboratories, Inc. Control mechanism for two motion flat-type switches. 2,870,262, 1–20–59, Cl. 179—27.52.

Senn, Otto, to Saul & Co., nominee of Fidelity Union Trust Co., executive trustee under Sandoz Trust. Metalliferous polyazo dyestuffs. 2,870,135, 1–20–59, Cl. 260—145.

Serota, Samuel: *See*—
Wall, Monroe E., and Serota. 2,870,143.

Servo Corp. of America: *See*—
Howell, Sabert N. 2,869,369.

Servomechanisms, Inc.: *See*—
Moore, David W. 2,869,367.

Shacklett, Comer D., to E. I. du Pont de Nemours and Co. Water soluble organotitanium compounds and process of preparation. 2,870,181, 1–20–59, Cl. 260—429.5.

Shand and Jurs Co.: *See*—
Jurs, Peter C., Van Overveen, and Blake. 2,869,239.

Share, Barnett. Coin operated devices and method of collecting coins therefrom. 2,869,777, 1–20–59, Cl. 232—16.

Share, Barnett. Coin collection system. 2,869,778, 1–20–59, Cl. 232—16.

Sharp, Dexter B.: *See*—
Jaworski, Ernest G., and Sharp. 2,870,056.

Shaw, Richard B.: *See*—
Patterson, Walter M., Connor, and Shaw. 2,869,197.

Shaw-Walker Co., The: *See*—
Martin, Menno G. 2,869,898.

Sheeran, Norman J., to American-Marietta Co. Laminating adhesive and method of producing the same. 2,870,034, 1–20–59, Cl. 106—124.

Sheffer, Lowell B. Sleeve extender. 2,869,766, 1–20–59, Cl. 223—74.

Sheffield Corp., The: *See*—
Byrkett, Elwood L., and Klefaber. 2,869,243.

Shell Development Co.: *See*—
Anderson, Elmer A., Foster, Gable, and Hood. 2,869,986.
Armstrong, Warren E., and Morgan. 2,870,228.
Borrows, Edward T., and Stewart. 2,870,099.
De Keizer, Adrianus, van Dijk, and Gips. 2,870,229.
Gable, Charles M. 2,870,171.
Geisler, Hugo H. 2,869,779.
Illman, John C., and Sommer. 2,870,080.
Keeler, William R., Dousiin, and Deal. 2,869,989.
Kharasch, Morris S., and Nudenberg. 2,870,200.
Lagucki, Edward B. 2,869,676.
Martin, Robert W., and Condo. 2,870,098.
Payne, George B., and Smith. 2,870,125.
Payne, George B., and Smith. 2,870,170.
Pierotti, Gino J. 2,870,066.
Stewart, David G., Waddan, and Borrows. 2,870,100.
Stewart, David G. 2,870,101.
Thomas, Samuel B. 2,869,844.

Shelton, Winston L., to General Electric Co. Sediment removal means for clothes washing machine. 2,869,348, 1–20–59, Cl. 68—208.

Shelton, Winston L., and G. N. Jennings, to General Electric Co. Timing mechanism for conducting a selected one of a plurality of sequences of operation. 2,870,278, 1–20–59, Cl. 200—38.

Sherman, Ralston M., to The Silent Glow Oil Burner Corp. Incinerators. 2,869,487, 1–20–59, Cl. 110—8.
Sherman, Ralston M., to The Silent Glow Oil Burner Corp. Fluid fuel burning apparatus. 2,869,626, 1–20–59, Cl. 158—4.
Sherwood, Ralph L.: *See*—
Mueller, Charles W., and Sherwood. 2,870,049.
Shields, George B., to Webster Electric Co. Tape footage indicator. 2,869,240, 1–20–59, Cl. 33—127.
Shobert, Erle L., II, to Stackpole Carbon Co. High altitude brush. 2,870,353, 1–20–59, Cl. 310—228.
Shockree, James E.: *See*—
Vander Ply, John R., Jastram, McMorrow, and Shockree. 2,870,294.
Shook, Austen M.: *See*—
Gibson, Robert M., ten Brink, and Shook. 2,869,328.
Shoup, Edgar C., Jr., and R. W. Dixon, to United Aircraft Corp. Turbine bearing support. 2,869,941, 1–20–59, Cl. 308—184.
Shrier, William C.: *See*—
Osterhout, Ross V., and Shrier. 2,869,466.
Shrimpton, Ronald H., and H. G. Mitchell, to Dunlop Rubber Co. Ltd. Solid isocyanate modified polyethylene adipate dispersed in liquid isocyanate modified polyethylene adipate. 2,870,114, 1–20–59, Cl. 260—45.4.
Shurtliff, Norval E. Logging cable haulback apparatus. 2,869,822, 1–20–59, Cl. 254—150.
Sieg, Robert P., and G. R. Barber, to California Research Corp. Silica-alumina cracking catalyst and method. 2,870,082, 1–20–59, Cl. 208—120.
Siemens-Reiniger-Werke Akt.: *See*—
Neff, Hans. 2,870,337.
Siepmann, Walter, to Stahl-Armaturen G. m. b. H. Method of producing valve housings. 2,869,221, 1–20–59, Cl. 29—157.1.
Sieving, Alfred W.: *See*—
Klecker, Joseph G., Miller, Sieving, and Rediger. 2,869,382.
Sihvonen, Kaapo E., to General Motors Corp. Balancing machine. 2,869,372, 1–20–59, Cl. 73—460.
Silent Glow Oil Burner Corp., The: *See*—
Sherman, Ralston M. 2,869,487.
Sherman, Ralston M. 2,869,626.
Silverman, Emanuel. Trailer antenna rotor and mount. 2,869,812, 1–20–59, Cl. 248—45.
Silverman, Lew C.: *See*—
Mullen, Melvin Z. 2,869,286.
Simes, Lewis K., II.: *See*—
Schaaf, Willard A., and Simes. 2,869,633.
Simmons Co.: *See*—
Petersen, John S., and Blecker. 2,869,619.
Petersen, John S., and Blecker. 2,869,622.
Seavert, Howard H. 2,869,492.
Seavert, Howard H. 2,869,493.
Simmons, Ernest P. Shotgun chamber with cutting edge. 2,869,270, 1–20–59, Cl. 42—76.
Simon, Mathias J. Bushing. 2,869,412, 1–20–59, Cl. 82—44.
Simor, George G.: *See*—
Orsten, Lee A., and Simor. 2,869,542.
Simpson, Anthony W., to The Plessey Co. Ltd. Storage devices. 2,870,433, 1–20–59, Cl. 340—174.
Simson, Verne H.: *See*—
Eck, Robert N., and Simson. 2,870,392.
Sioux Steel Co.: *See*—
Jankowski, Edward M. 2,869,753.
Siskel, Manuel: *See*—
Corr, James J., and Siskel. 2,870,402.
Sivells, Lethe L. Shampooing and massaging device. 2,869,158, 1–20–59, Cl. 15—22.
Skil Corp.: *See*—
Bork, Hugo W. 2,869,245.
Skipwith, Lee, Jr., to Sprayers & Nozzles, Inc. Shut-off valves. 2,869,582, 1–20–59, Cl. 137—614.19.
Slagh, Harold R.: *See*—
Blair, Elryl H., Slagh, and Britton. 2,870,189.
Slate, Matthew W., to Allen B. Du Mont Laboratories, Inc. Selectable long lines on rotatable disc tuned by shading elements on another disc. 2,870,233, 1–20–59, Cl. 250—40.
Slaughter, Elmer C., to The Pigua Machine & Mfg. Co. Electric switch. 2,870,286, 1–20–59, Cl. 200—87.
Slayton, Ransom D., and R. R. Smeesaert, to Teletype Corp Telegraph system. 2,870,254, 1–20–59, Cl. 178—69.
Slimak, Julius S.: *See*—
Algine, Joseph M., and Slimak. 2,869,566.
Slayton, Ransom D., and Smeesaert. 2,870,254.
Smeesaert, Raymond R.: *See*—
Slayton, Ransom D., and Smeesaert. 2,870,254.
Smidl, John M., C. B. Nelson, and S. W. Nelson, to General Motors Corp. Refrigerating apparatus. 2,869,336, 1–20–59, Cl. 62—405.
Smith, A. O., Corp.: *See*—
Ernestus, Adolph W. 2,869,734.
Haines, William A. 2,870,268.
Stewart, Joe W. 2,870,036.
Smith, Caldwell P., to United States of America, Air Force. Device for voltage measurement. 2,870,406, 1–20–59, Cl. 324—99.
Smith, Clarence M.: *See*—
Taylor, Owen L., and Smith. 2,870,290.
Smith, Curtis W.: *See*—
Payne, George B., and Smith. 2,870,125.
Payne, George B., and Smith. 2,870,170.
Smith, Frederick H. Tool holder. 2,869,890, 1–20–59, Cl. 279—6.
Smith, Frederick H. Adjustable floating tool holders. 2,869,891, 1–20–59, Cl. 279—16.
Smith, Hiram P., to International Harvester Co. Gauge wheel for two-way plow. 2,869,653, 1–20–59, Cl. 172—212.
Smith, Julian K., and L. A. Kovacs, to The Reliance Electric & Engineering Co. Removable hub. 2,869,774, 1–20–59, Cl. 230—134.
Smith, Monroe F.: *See*—
Marander, Myron P., Gschwend, and Smith. 2,869,722.
Smith, Robert S. Molding method. 2,869,215, 1–20–59, Cl. 25—156.
Smith, Samuel H., to Jantsen Inc. Sun bra. 2,869,552, 1–20–59, Cl. 128—456.
Smith, William O. Safety catch for vertically sliding doors. 2,869,183, 1–20–59, Cl. 20—19.
Soboleski, Henry J. Eyeglass cleaner. 2,870,029, 1–20–59, Cl. 106—5.
Societa Applicazioni Gomma Antivibranti: *See*—
Boschi, Antonio. 2,869,811.
Societe Anonyme de Vehicules Industriels et D'Equipements Mecaniques (Savieni-Lrs): *See*—
Sourdillon, André. 2,869,532.
Societe Anonyme Union Francaise Commerciale et Industrielle: *See*—
Webb, Edwin T., and Seemuller. 2,870,223.
Societe des Usines Chimiques Rhone-Poulenc: *See*—
Meyer, Robert, and Pillon. 2,870,206.
Societe en commandite simple et en nom collectif a l'egard de Gerants dite: Societe Industrielle et Commerciale des Ouvriers Lunetiers (Cottet, Poichet, Tagnon & Cie): *See*—
Cretin-Maitenaz, Bernard. 2,869,422.
Societe Rhodiaceta: *See*—
Clerc, Andre. 2,869,797.
Socony Mobil Oil Co., Inc.: *See*—
Bergstrom, Eric V. 2,870,088.
Elliott, Kenneth M. 2,870,083.
Sola, Joseph G., to Basic Products Corp. Transformer for starting and operating metallic vapor discharge devices. 2,870,398, 1–20–59, Cl. 323—61.
Solheim, Karsten, to General Electric Co. Cabinet with integral tube mounting means. 2,870,438, 1–20–59, Cl. 340—347.
Soltis, Daniel G., to Union Carbide Corp. Cathodic envelope cell. 2,870,235, 1–20–59, Cl. 136—111.
Sommer, Harry J.: *See*—
Illman, John C., and Sommer. 2,870,080.
Sorensen, David P.: *See*—
Davis, Horace R., and Sorensen. 2,870,163.
Davis, Horace R., Jr., and Sorensen. 2,870,215.
Sorensen, David P., and H. R. Davis, to The M. W. Kellogg Co. Disproportionation of organic sulfoxides. 2,870,216, 1–20–59, Cl. 260—607.
Sorkin, Jack L.: *See*—
Meriub-Sobel, Arnoff, and Sorkin. 2,870,072.
Sourdillon, André, to Societe Anonyme de Vehicules Industriels et D'Equipements Mecaniques (Savieni-Lrs). Exhaust valve for internal-combustion engines. 2,869,532, 1–20–59, Cl. 123—188.
South African Iron and Steel Industrial Corp. Ltd.: *See*—
Gebhard, Kurt O. R. 2,870,005.
Southern Research Institute: *See*—
Baker, Bertsil B., and Morrison. 2,870,067.
Spangberg, Sven P. A. Railing for stairways. 2,869,839, 1–20–59, Cl. 256—65.
Spangler, Grant E.: *See*—
Estes, James W., and Spangler. 2,870,004.
Spaulding, Howard O.: *See*—
Koch, Royal G., and Spaulding. 2,869,141.
Speelman, Irving A., to Propper Mfg. Co., Inc. Self-applicable sphygmomanometer. 2,869,536, 1–20–59, Cl. 128—2.05.
Speeter, Merrill E., and W. C. Anthony, to The Upjohn Co. Production of certain tryptamines and compounds produced in the process. 2,870,182, 1–20–59, Cl. 260—319.
Sperlich, Herman A.: *See*—
Zebley, Donald D. 2,869,709.
Sperry Gyroscope Co. Ltd., The: *See*—
Sedgfield, Hugh B., Jofeh, and Albrecht. 2,869,851.
Sperry Rand Corp.: *See*—
Lang, Albert P. 2,869,454.
Paige, Walter G. 2,869,457.
Rankin, Donald L. 2,869,322.
Spier, Hans G., to Baldwin-Lima-Hamilton Corp. Free piston engine. 2,869,524, 1–20–59, Cl. 123—46.
Spiess, John P.: *See*—
Biegard, Andrew N., Robinson, and Spiess. 2,869,504.
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Rice, Livingston L., Lamphier, and Netherwood. 2,870,385.
Sprayers & Nozzles, Inc.: *See*—
Skipwith, Lee, Jr. 2,869,582.
Staats, William A., to The F. E. Myers & Bro. Co. Quick drain device. 2,869,725, 1–20–59, Cl. 210—137.
Stabil Internacional S. A.: *See*—
Romero, Manuel. 2,870,027.
Stacey, Ernest W., deceased, by H. M. Stacey, executrix, to United Shoe Machinery Corp. Rough rounding machines. 2,869,156, 1–20–59, Cl. 12—17.2.
Stacey, Helen M.: *See*—
Stacey, Ernest W. 2,869,156.
Stackpole Carbon Co.: *See*—
Shobert, Erle L., II. 2,870,353.
Stafford, Alton B. Combination air nozzle. 2,869,573, 1–20–59, Cl. 137—223.
Stahl-Armaturen G. m. b. H.: *See*—
Siepmann, Walter. 2,869,221.
Stahlecker, Hans: *See*—
Schurr, Hans, and Stahlecker. 2,869,317.
Stalker Development Co., The: *See*—
Stalker, Edward A. 2,869,611.
Stalker, Edward A. 2,869,773.

Stalker, Edward A., to The Stalker Development Co. Apparatus including a female die receiving a reciprocating articulated male die for stretch-forming hollow blades. 2,869,611, 1–20–59, Cl. 153—32.

Stalker, Edward A., to The Stalker Development Co. Bladed wheels of fabricated construction. 2,869,773, 1–20–59, Cl. 230—134.

Standard Brands Inc.: *See*—
Barch, William E. 2,870,017.

Standard Coil Products Co., Inc.: *See*—
Thias, Edwin P. 2,870,274.

Standard Oil Co. (Indiana): *See*—
Den Herder, Marvin, and Malo. 2,870,086.
Van Strien, Richard E. 2,870,102.

Standard Oil Co., The (Ohio): *See*—
Strecker, Harold A., and Stine. 2,870,084.

Standard Register Co., The: *See*—
Davidson, John T. 2,869,897.
Davidson, John T., Georgen, and Fortune. 2,870,399.
Huebner, William C. 2,869,443.

Stanley John P., and C. W. Bradley, to E. P. Scherer Corp. Gelatin composition for capsules. 2,870,062, 1–20–59, Cl. 167—83.

Stauffer Chemical Co.: *See*—
Pitt, Harold M. 2,870,335.

Stautz, Herbert N.: *See*—
Brown, Ralph E., and Stautz. 2,869,376.

Steenson, William. Golf practice game. 2,869,875, 1–20–59, Cl. 273—177.

Stehling, Chas. H., Co., The: *See*—
Bode, Henry W. 2,869,350.

Stein, Frederick W. Method of and apparatus for treating materials. 2,869,360, 1–20–59, Cl. 73—76.

Stepan Chemical Co., The: *See*—
Tomlinson, William F. 2,870,091.

Sterling, John J. Football position indicator. 2,869,238, 1–20–59, Cl. 33—46.

Stern, Max H., and O. D. Hawks, to Eastman Kodak Co. Preparation of stigmasterol material. 2,870,176, 1–20–59, Cl. 260—397.25.

Sterner, Everett L., to Collins Radio Co. Device for selecting signal of greatest energy. 2,870,326, 1–20–59, Cl. 250—6.

Stevenson, Halsey B.: *See*—
Barney, Arthur L., and Stevenson. 2,870,196.

Stewart, Alexander E., to Dominion Engineering Works Ltd. Stock cross-flow distribution. 2,869,436, 1–20–59, Cl. 92—44.

Stewart, David G.: *See*—
Borrows, Edward T., and Stewart. 2,870,099.

Stewart, David G., D. Y. Waddan, and E. T. Borrows, to Shell Development Co. Production of polymers of epoxide compounds. 2,870,100, 1–20–59, Cl. 260—2.

Stewart, David G., to Shell Development Co. Polyalkylene oxide resins. 2,870,101, 1–20–59, Cl. 260—2.

Stewart, Edward C., to Barber-Greene Co. Idler roller anchoring device. 2,869,710, 1–20–59, Cl. 198—192.

Stewart, Jack L., M. R. Friedberg, and A. A. Finke, to The Antenna Specialties Co. Mounting device for mobile antenna. 2,870,243, 1–20–59, Cl. 174—153.

Stewart, Joe W., to A. O. Smith Corp. Asphalt-base mastic. 2,870,036, 1–20–59, Cl. 106—269.

Stewart, William R., to International Business Machines Corp. Information storage apparatus. 2,869,789, 1–20–59, Cl. 235—61.11.

Stieglitz, Henry M., to Frank Adam Electric Co. Bus ducts. 2,870,240, 1–20–59, Cl. 174—88.

Stihl, Andreas. Grinding chain tool. 2,869,524, 1–20–59, Cl. 125—21.

Stillwagon, George B., Jr., ½ to K. G. Fraser. Sealing means. 2,869,342, 1–20–59, Cl. 64—32.

Stine, Harrison M.: *See*—
Strecker, Harold A., and Stine. 2,870,084.

Stineheifer, Harold E., to The Western Union Telegraph Co. Microwave energy attenuating wall. 2,870,439, 1–20–59, Cl. 343—18.

Stobb, Anton R., to Western Printing & Lithographing Co. Signature stitching, folding and trimming mechanism. 2,869,863, 1–20–59, Cl. 270—37.

Stoffel, Paul J.: *See*—
Beaver, David J., and Stoffel. 2,870,205.

Stokes, Ray A. Dual abrasive blast nozzle. 2,869,290, 1–20–59, Cl. 51—11.

Stover, Harry E., to Anchor Hocking Glass Corp. Machine for aseptically sealing containers. 2,869,300, 1–20–59, Cl. 53—88.

Stover, Harry E., to Anchor Hocking Glass Corp. Machine for hermetically sealing glass containers. 2,869,301, 1–20–59, Cl. 53—110.

Stradley, Norman H., and W. R. Beck, to Minnesota Mining & Mfg. Co. High-index glass elements. 2,870,030, 1–20–59, Cl. 106—47.

Stransky, Gustave. Hatch covers for ships. 2,869,502, 1–20–59, Cl. 114—202.

Stransky, Gustave. Hatch cover for ships. 2,869,502, 1–20–59, Cl. 114—202.

Strathearn, Donald M., and H. H. Jennings, to Philco Corp. Combination washer and dryer. 2,869,345, 1–20–59, Cl. 68—19.

Strecker, Harold A., and H. M. Stine, to The Standard Oil Co. Process of aromatizing a naphtha with a alumina-chromia-platinum catalyst. 2,870,084, 1–20–59, Cl. 208—136.

Strickland, Edward T.: *See*—
Amos, Homer, and Strickland. 2,870,054.

Stryker, Norman R., to Bell Telephone Laboratories, Inc. Loudness transmission testing system. 2,870,272, 1–20–59, Cl. 179—175.1.

Stuart, Duncan J. K.: *See*—
Weaving, John H., and Stuart. 2,869,397.

Stucki, Hans R., to Celanese Corp. of America. Voluminous yarn. 2,869,318, 1–20–59, Cl. 57—157.

Sturrup, Inc.: *See*—
Fountain, Henry F., and Tancred. 2,870,336.

Sullivan, Cornelius J.: *See*—
Roper, Edward H., and Sullivan. 2,870,323.

Sullivan, Donald L. Automatic feeder for verterbrata. 2,869,638, 1–20–59, Cl. 161—10.

Sulzer Freres, Societe Anonyme: *See*—
Lieberherr, Arthur. 2,869,517.

Sundstrand Machine Tool Co.: *See*—
Carlson, Floyd E. 2,869,567.

Surmatis, Joseph D., to Hoffmann-La Roche Inc. 6,10,12-trimethyl-5,9-tridecadien-2-one. 2,870,210, 1–20–59, Cl. 260—593.

Svenson, Ernest J. Hydraulic valve control for bilge discharge. 2,869,500, 1–20–59, Cl. 114—183.

Swain, Charles B.: *See*—
Schuessler, Albert G., and Swain. 2,869,643.

Swanson, Edwin C., to Greenlee Bros. & Co. Portable metal working tool. 2,869,407, 1–20–59, Cl. 81—15.

Swanson, Swan E.: *See*—
Swanstrom, John E., Connell, Cooper, and Swanson. 2,869,409.

Swanstrom, John E., W. H. Connell, J. F. Cooper, Jr., and S. E. Swanson, to Diamond Calk Horseshoe Co. Slidable jaw wrench with worm latching means. 2,869,409, 1–20–59, Cl. 81—165.

Swift & Co.: *See*—
Schuessler, Albert G., and Swain. 2,869,643.

Sylvania Electric Products Inc.: *See*—
Lehner, William L. 2,869,497.
Saunders, Clarence L. 2,869,217.
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Symmank, William D., to Crown Engineering Corp. Hydraulically operated power mechanism. 2,869,327, 1–20–59, Cl. 60—97.

Tancred, William L.: *See*—
Fountain, Henry F., and Tancred. 2,870,336.

Tarbuck, Robert R., to Burroughs Corp. Tape feeding system. 2,869,684, 1–20–59, Cl. 188—78.

Taylor, Douglas E., L. R. Jones, and W. F. Mitchell, to Dictaphone Corp. Control apparatus for remote dictation systems. 2,870,264, 1–20–59, Cl. 179—100.1.

Taylor, Owen L., and C. M. Smith, to The Bryant Electric Co. Wiring device. 2,870,290, 1–20–59, Cl. 200—113.

Teague, Claude E., Jr., to R. J. Reynolds Tobacco Co. Tobacco. 2,869,557, 1–20–59, Cl. 131—144.

Technicon International Ltd.: *See*—
Pelavin, Milton H. 2,869,508.
Woods, Joseph J. 2,869,509.

Techno Instrument Co.: *See*—
Cunningham, James M. 2,869,966.

Teer, Kees: *See*—
Valeton, Josue J. P., de Vrijer, and Teer. 2,870,248.

Teletype Corp.: *See*—
Slayton, Ransom D., and Smeenaert. 2,870,254.

Ten Brink, Karl C.: *See*—
Gibson, Robert M. ten Brink, and Shook. 2,869,328.

Teuscher, Edward C. Ant trap. 2,869,281, 1–20–59, Cl. 43—131.

Texas Co., The: *See*—
Gibson, Robert M., ten Brink, and Shook. 2,869,328.
Kluge, Herman D., and Drake. 2,870,134.
McCall, Richard H. 2,870,079.
McKay, Alexander S., and Egan. 2,869,642.
Miller, Carl P., and Jamieson. 2,869,418.
Pitman, Herbert J., Jordan, and Bright. 2,870,090.

Texas Gulf Sulphur Co.: *See*—
Giusti, Gino P., and Johnson. 2,870,001.
Johnson, Axel R. 2,870,002.

Texas Instruments Inc.: *See*—
Olson, Robert W. 2,870,350.

Textron Inc.: *See*—
De Weese, Robert G. 2,869,605.

Thannhauser, Fred G. Device for displaying moving information. 2,869,420, 1–20–59, Cl. 88—27.

Thayer, Helen I.: *See*—
Hartle, Robert J., and Thayer. 2,870,057.

Thias, Edwin P., to Standard Coil Products Co., Inc. Electrical wafer switches. 2,870,274, 1–20–59, Cl. 200—11.

Thiel, Max: *See*—
Asinger, Friedrich, Thiel, Schroder, and Heckling. 2,870,158.

Thiokol Chemical Corp.: *See*—
Nevers, Ashley D., and Fettes. 2,869,994.

Thomas, Albert G., to Industrial Controls Corp. Motor control circuit. 2,870,388, 1–20–59, Cl. 318—138.

Thomas, Chester A.: *See*—
Merritt, Thomas W., and Thomas. 2,869,512.

Thomas, Paul M., to Builders Equipment Co. Apparatus for cubing building blocks. 2,869,737, 1–20–59, Cl. 214—6.

Thomas, Robert E., to United States of America, Atomic Energy Commission. Multiplier circuit. 2,869,784, 1–20–59, Cl. 235—61.

Thomas, Samuel B., to Shell Development Co. Treating liquid with gas. 2,869,844, 1–20–59, Cl. 261—21.

Thompson, John H.: *See*—
Jones, Charles H., and Thompson. 2,870,396.

Thompson, Marvin R. and R. E. Therapeutic agents derived from rauwolfia serpentina. 2,870,140, 1–20–59, Cl. 260—236.5.

Thompson Products, Inc.: *See*—
Cliborn, Robert. 2,869,365.
Rapp, Edward G., and Castle. 2,869,383.

Thompson, Robert E.: *See*—
Thompson, Marvin R. and R. E. 2,870,140.
Thorburn, John H. Spear gun. 2,869,273, 1-20-59, Cl. 43—6.
Thornburg, Herbert W., to Bucyrus-Erie Co. Rotary well drill feed. 2,869,626, 1-20-59, Cl. 266—22.
Thornhill-Craver Co., Inc.: *See*—
Hall, George D. 2,869,752.
Thummel, Ludwig, and M. Acherhardt, to Saul & Co., nominee of Fidelity Union Trust Co., Executive trustee under Sandoz Trust. Method of dyeing mixtures of animal fibers and synthetic polyamide fibers with reservation of the latter. 2,869,968, 1-20-59, Cl. 8—21.
Tikanen, William A., to Genisco, Inc. Pressure responsive resistor. 2,870,301, 1-20-59, Cl. 201—48.
Tiltman Langley Ltd.: *See*—
Marshall, Colin S. R. 2,869,697.
Tippet, Philip V., to Farrel-Birmingham Co., Inc. Cane mills. 2,869,452, 1-20-59, Cl. 100—165.
Tishrock, Harold H.: *See*—
Lynch, Leonard J., and Tishrock. 2,870,443.
Tkachyk, Richard: *See*—
Tkachyk, Walter M. and R. 2,869,895.
Tkachyk, Walter M. and R. Short hitch steering assembly. 2,869,895, 1-20-59, Cl. 280—411.
Tognola, Tullio, to Bendix Aviation Corp. Electrical apparatus. 2,870,376, 1-20-59, Cl. 315—59.
Toland, William G., Jr., to California Research Corp. Process for producing low molecular weight propylene polymers. 2,870,217, 1-20-59, Cl. 260—614.
Toledo Scale Corp.: *See*—
Brown, James D. 2,869,595.
Tolkmith, Henry: *See*—
Burgert, Bill E., and Tolkmith. 2,870,190.
Tolman, Emerson: *See*—
De Ford, Peri E. 2,869,896.
Tomlinson, William F., to The Stepan Chemical Co. Detergent composition. 2,870,091, 1-20-59, Cl. 252—137.
Toone, B., (Nottingham) Ltd.: *See*—
Toone, Ralph N. 2,869,342.
Toone, Ralph N., to B. Toone (Nottingham) Ltd. Knitting machine. 2,869,342, 1-20-59, Cl. 66—134.
Torbin, Milton A. Floor racks for meat trucks. 2,869,920, 1-20-59, Cl. 296—24.
Tornabene, Frank S. Toy pistols. 2,869,873, 1-20-59, Cl. 273—1.
Toro Mfg. Corp. of Minnesota: *See*—
Benson, Donald O. 2,869,310.
Torriente, Juan A. Clothesline. 2,869,730, 1-20-59, Cl. 211—124.
Tour, Sam: *See*—
Burgess, Louis. 2,869,990.
Townsend, Palmer W., to Air Reduction Co., Inc. Method of preparing 2,2,2-trifluoroethyl vinyl ether. 2,870,218, 1-20-59, Cl. 260—614.
Tracerlab, Inc.: *See*—
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Cordry, David D. 2,869,787.
Labus, Otto. 2,869,449.
Neuhauser, Emil T. 2,869,775.
Trautzl, Peter: *See*—
Hindermann, Peter, Kolliker, and Trautzl. 2,870,173.
Treseder, Robert C.: *See*—
Keim, Paul T., and Treseder. 2,869,657.
Trico Products Corp.: *See*—
Deibel, Raymond A., and Bitzer. 2,869,167.
Tristram, Edward W., to Merck & Co., Inc. Chemical compounds and processes of preparing same. 2,870,178, 1-20-59, Cl. 260—397.45.
Tromiseck, Karl-Heinz: *See*—
Keylwert, Johann, and Tromiseck. 2,869,525.
Tubular Structures Corp. of America: *See*—
Samuely, Max. 2,869,325.
Tuggle, Ida: *See*—
Scites, Joe. 2,869,486.
Turco Products, Inc.: *See*—
Hirdler, Fairbanks C., Jr. 2,869,266.
Holman, Emmette E. 2,869,267.
Turner, John D. Lumber tally system. 2,869,788. 1-20-59. Cl. 235—61.
Tuscher, Jean E., to Sebem S. A. Fuel feed device for internal combustion engines. 2,869,528, 1-20-59, Cl. 123—140.
Twin Disc Clutch Co.: *See*—
Yokel, Edward C. 2,869,701.
Uebel, Norman P. Cutter for slicing cheese or the like. 2,869,230 1-20-59, Cl. 30—116.
Uemura, Sabure: *See*—
Nagai, Kenso, and Uemura. 2,870,270.
Ulbricht, Kurt: *See*—
Köpke, Günter, and Ulbricht. 2,869,857.
Ulm, Robert A.: *See*—
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Union Carbide Corp.: *See*—
Brantley, John C. 2,870,183.
Carter, Clare A. 2,870,220.
Davison, James M., and Erdmann. 2,870,130.
Heisig, Charles G. 2,869,358.
Kubler, Donald G. 2,870,166.
McGill, William C. 2,869,924.
Schroeder, Juel P. 2,870,115.
Soltis, Daniel G. 2,870,235.
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Union Oil Co. of California: *See*—
Fischer, Paul W. 2,869,978.
United Aircraft Corp.: *See*—
Shoup, Edgar C., Jr., and Dixon. 2,869,941.
United Shoe Machinery Corp.: *See*—
Finn, Sidney J. 2,869,155.
Lyness, John S. 2,869,157.
Mellor, Alfred S. 2,869,349.
Merriam, Frederic C. 2,870,129.
Newton, Albert E., Rooke, and Walsh. 2,869,130.
Rogers, Chester E., Jr. 2,869,129.
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Agriculture: *See*—
Chance, Leon H., Drake and Reeves. 2,870,042.
Coe, Thompson J. 2,869,971.
Filachione, Edward M., and Harris. 2,869,970.
Wall, Monroe E., and Berota. 2,870,142.
Air Force: *See*—
Corr, James J., and Sickel. 2,870,402.
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Hough, John J. 2,869,958.
Medow, Jules. 2,869,960.
Smith, Caldwell P. 2,870,406.
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Boyer, Wayne L. 2,869,507.
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Knoll, Max, and Rudnick. 2,870,360.
Michel, Josef M., and Hager. 2,869,995.
Atomic Energy Commission: *See*—
Baker, George E. 2,870,407.
Benziger, Theodore M. 2,870,031.
Birden, John H. 2,870,339.
Brown, Harrison S., and Webster. 2,869,982.
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Grinstead, Robert R. 2,869,980.
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Jacobsohn, David H., and Merrill. 2,869,786.
Kock; Leonard J. 2,870,076.
Leverett, Miles C., and Howe. 2,870,075.
Rosenfeld, Sam. 2,869,981.
Thomas, Robert E. 2,869,784.
Commerce: *See*—
Kuder, Milton L. 2,870,436.
Interior: *See*—
Bean, Russell K. 2,869,419.
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Bigelow, John E. 2,870,409.
Jones, Charles H., and Thompson. 2,870,396.
Kabik, Irving, and Ayres. 2,869,364.
Koup, Alfred L. 2,869,662.
Leonard, George H. 2,869,810.
Meier, Vincent I. 2,869,208.
Schlachter, Karl E., and Herrmann. 2,869,671.
Yuserm, Milton. 2,870,120.
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Jurgeleit, Herbert F. 2,869,177.
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United States Steel Corp.: *See*—
Condrac, Robert F. 2,869,404.
Henry, Edwin B., Jr. 2,870,401.
Higgs, Richard F., and Owen. 2,870,070.
Lorig, Edwin T. 2,869,866.
Nelson, John F., Warner, and Whitney. 2,869,738.
Person, Frank R. 2,869,906.
Posey, Joseph J. 2,869,488.
Selvaggio, John D., and Wareham. 2,869,845.
Witt, Frank A. 2,869,241.
Universal Oil Products Co.: *See*—
Deanesly, Richard M. 2,870,226.
Gleim, William K. T. 2,870,021.
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Abernathy, George H., and Lamouria. 2,869,284.
Upjohn Co., The: *See*—
Campbell, J. Allen, Babcock, and Hogg. 2,870,141.
Kagan, Fred. 2,870,139.
Meyer, Curtis E. 2,870,019.
Murray, Maxton F. 2,870,138.
Speeter, Merrill E., and Anthony. 2,870,162.
Urquhart, Thornton L., to Byrne Doors, Inc. Cable operated system for a hinged door. 2,869,862, 1-20-59, Cl. 268—74.
Ustin, George, to Buchanan Electrical Products Corp. Electrical connector. 2,870,239, 1-20-59, Cl. 174—87.
Utter, Raymond E. Hydraulic power actuator. 2,869,664, 1-20-59, Cl. 180—79.2.
VEB Leuna-Werke "Walter Ulbricht": *See*—
Asinger, Friedrich, Thiel, Schroder, and Reckling. 2,870,158.
Valeton, Josue J. P., F. W. de Vrijer, and K. Teer, to North American Philips Co., Inc. Multiplex transmission system for the transmission of three signals 2,870,248, 1-20-59, Cl. 178—5.2.
Van Allan, James A.: *See*—
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Van Asselt, Robert L., and C. V. Gerdes, to Monsanto Chemical Co. Electrical current rectifier. 2,870,046, 1-20-59, Cl. 117—200.
Van Buren, Myers, to Raymond International Inc. Grouting of reinforcements in post-tensioned concrete structures. 2,869,214, 1-20-59, Cl. 25—254.
Van Campen, R. T.: *See*—
Capek, Louis E., and Van Campen. 2,869,153.
Vandenberg, Howard L., and P. M. Karsten, to Allis-Chalmers Mfg. Co. Dynamoelectric machine. 2,870,357, 1-20-59, Cl. 310—269.
Vandenburgh, Charles D., to American Viscose Corp. Liquid and gas separator. 2,869,674, 1-20-59, Cl. 183—2.5.
Vander Pyl, John R., E. P. Jastram, J. L. McMorrow, and J. E. Shockroe, to Metals & Controls Corp. Thermostatic switch 2,870,294, 1-20-59, Cl. 200—120.

Van Dijk, Christiaan P.: *See*—
de Keizer, Adrianus, van Dijk, and Gips. 2,870,229.
Van Dijk, Pieter, to American Enka Corp. Yarn heating apparatus. 2,869,312, 1–20–59, Cl. 57—34.
Van Hartesveldt, Carroll H., and C. S. Davidson, said Davidson to Van Hartesveldt. Safety device for diaphragm actuated means. 2,869,173, 1–20–59, Cl. 18—16.
Van Hartesveldt, Carroll H. Molding press guide system. 2,869,174, 1–20–59, Cl. 18—16.
Van Hartesveldt, Carroll H. Mold construction. 2,869,179, 1–20–59, Cl. 18—34.
Van Lare, Earl J.: *See*—
Brooker, Leslie G. S., and Van Lare. 2,870,014.
Van Lottum, Johannes T. A., to North American Philips Co., Inc. Arrangement of subscribers' circuits in electronic telephone exchanges. 2,870,261, 1–20–59, Cl. 179—18.
Van Nest, Francis H., to General Electric Co. Gas turbine powerplant with steam injection. 2,869,323, 1–20–59, Cl. 60—39.35.
Van Overbeek, Adrianus J. W. M., to North American Philips Co., Inc. Indicator circuit arrangement. 2,870,310, 1–20–59, Cl. 219—10.77.
Van Overbeek, Adrianus J. W. M., to North American Philips Co., Inc. Amplification control of a transistor. 2,870,343, 1–20–59, Cl. 307—88.5.
Van Overveen, Joseph P: *See*—
Jurs, Peter C., Van Overveen and Blake. 2,869,239.
Van Strien, Richard E., to Standard Oil Co. Resin derived from polyhydric alcohol, fatty oil, benzene tribasic acid and certain glycols. 2,870,102, 1–20–59, Cl. 260—22.
Van Tol, Hendrikus J M., to North American Philips Co., Inc. Electric discharge tube of the kind comprising a cathode of the indirectly heated type. 2,870,366, 1–20–59, Cl. 313—337.
Veeder-Root Inc.: *See*—
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Venditty, Chester G., and E. L. Fleming, to Ford Motor Co. Roll resisting motor vehicle wheel suspension. 2,869,891, 1–20–59, Cl. 280—124.
Verch, George O., to Allis-Chalmers Mfg. Co. Ladle. 2,869,940, 1–20–59, Cl. 308—127.
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Vermeulen, Roelof, to North American Philips Co., Inc. Magnetic recording device. 2,870,265, 1–20–59, Cl. 179—100.2.
Verweel, Jan, to North American Philips Co., Inc. Cavity-resonator magnetron. 2,870,375, 1–20–59, Cl. 315—39.51.
Vibber, Alfred W. Method of and apparatus for plying strands. 2,869,313, 1–20–59, Cl. 57—58.3.
Vibber, Alfred W. Twisting spindle balloon control. 2,869,314, 1–20–59, Cl. 57—58.55.
Vicars, T. & T., Ltd.: *See*—
Naylor, Joseph F. 2,869,483.
Vidmar, John P., to The M. A. Hanna Co. Conveyor belt idler. 2,869,716, 1–20–59, Cl. 198—230.
Vierling, Donald E. Liquid fertilizer. 2,869,996, 1–20–59, Cl. 71—29.
Vierling, Donald E. Liquid fertilizer. 2,869,998, 1–20–59, Cl. 71—50.
Vifot, Stig O.: *See*—
Kline, Harry E., and Vifot. 2,869,652.
Villepigue, Julius G., and E. Schmued, to Northrop Aircraft, Inc. Friction type fuse device. 2,869,464, 1–20–59, Cl. 102—49.
Villepigue, Julius G., to Northrop Aircraft, Inc. Rocket fuse. 2,869,465, 1–20–59, Cl. 102—70.2.
Vittorio Necchi S. p. A.: *See*—
Bono, Luigi. 2,869,495.
Vogel, Henry A., and H. G. Bittle, to Pittsburgh Plate Glass Co. Coating composition comprising a vinyl halide polymer and an aldehyde-reacted polymer of acrylamide and metallic surface coated therewith. 2,870,116, 1–20–59, Cl. 260—45.5.
Vogel, Henry A., H. G. Bittle, and R. M. Christenson, to Pittsburgh Plate Glass Co. Coating composition comprising an epoxy resin and an aldehyde-reacted polymer of acrylamide and metallic surface coated therewith. 2,870,117, 1–20–59, Cl. 260—45.5.
Vogt, Clarence W. Enwrapments for plastic and like substances. 2,870,023, 1–20–59, Cl. 99—179.
Volpin, Alexander S. Automatic lubricated gate valve. 2,869,574, 1–20–59, Cl. 137—246.12.
Volpin, Alexander S. Stem and stuffing box construction for non-rising stem gate valves. 2,869,942, 1–20–59, Cl. 308—187.1.
Von Seggern, Robert D., to Cushman Motor Works, Inc. Utility bodies for vehicles and tail gates therefor. 2,869,919, 1–20–59, Cl. 296—24.
Vorwerk & Co.: *See*—
Rohrbach, Fritz. 2,870,355.
Vroom, Edward: *See*—
Mitchell, Doren, and Vroom. 2,869,964.
Waddan, Dhafir Y.: *See*—
Stewart, David G., Waddan, and Borrows. 2,870,100.
Waddle, Howard M., J. F. Cotton, and R. E. Hudson, Jr., to West Point Mfg. Co. Process for preventing aldehyde odors. 2,870,041, 1–20–59, Cl. 117—62.
Wadia, Behram H.: *See*—
Doolittle, Howard D., Naill, and Wadia. 2,870,364.
Wagenfeld, Gilbert B. Sanitary head covering. 2,869,135, 1–20–59, Cl. 2—174.
Wagner, Fred A.: *See*—
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Wagner, Frederick A. and F. A. Gauge for boring tools. 2,869,401, 1–20–59, Cl. 77—4.
Wagner, Thomas C. G., to Minneapolis-Honeywell Regulator Co. Frequency modulated oscillator. 2,870,411, 1–20–59, Cl. 332—16.
Wagnon, Francis M. Cotton harvesting and cleaning machine. 2,869,307, 1–20–59, Cl. 56—30.
Wakefield, Charles E., Jr.: *See*—
Chamberlain, Richard O., and Wakefield. 2,869,645.
Chamberlain, Richard O., and Wakefield. 2,869,646.
Waldrich, Oskar: *See*—
Sedlaczek, Herbert, and Waldrich. 2,869,432.
Walker, Cyril H., and M. G. Clarke, to The British Thomson-Houston Co. Ltd. Devices for amplifying or converting radiation. 2,870,342, 1–20–59, Cl. 250—213.
Wall, Monroe E., and S. Serota, to United States of America, Agriculture. Process for conversion of steroidal sapogenins to pseudosapogenins. 2,870,143, 1–20–59, Cl. 260—239.55.
Wallace, Robert E., Sr. Portable compound pressure booster. 2,869,326, 1–20–59, Cl. 60—54.5.
Wallach, Bernard H. Skid indicator for vehicles. 2,869,852, 1–20–59, Cl. 264—1.
Wallen, Emil O. L., to Lejo & Thurne Aktiebolag. Apparatus for separating solid particles suspended in a liquid. 2,869,728, 1–20–59, Cl. 210—526.
Walper, Curry O., and H. J. Sehl. Furnace draft controls. 2,869,624, 1–20–59, Cl. 158—1.
Walsh, John E.: *See*—
Newton, Albert E., Roske, and Walsh. 2,869,130.
Wamsley, Floyd B. Combination wheel chair and stretcher. 2,869,614, 1–20–59, Cl. 155—30.
Wang, Wensan. Disposable all-weather hat. 2,869,136, 1–20–59, Cl. 2—177.
Wardell, Ross D. Hand truck. 2,869,886, 1–20–59, Cl. 280—47.18.
Wareham, Calvin C.: *See*—
Selvaggio, John D., and Wareham. 2,869,845.
Wareham, Richard R., to Polaroid Corp. Photographic apparatus. 2,869,444, 1–20–59, Cl. 95—13.
Warner, Scott D.: *See*—
Nelson, John F., Warner, and Whitney. 2,869,738.
Watson, William M., to Paper Strap, Inc. Machine for attaching handles to cartons. 2,869,438, 1–20–59, Cl. 93—36.
Weaving, John H., and D. J. K. Stuart, to The Austin Motor Co. Ltd. Hydro-mechanical variable speed transmission gearing. 2,869,397, 1–20–59, Cl. 74—687.
Webb, Edwin T., and J. R. Seemuller, to Societe Anonyme Union Francaise Commerciale et Industrielle. Extraction processes. 2,870,222, 1–20–59, Cl. 260—637.
Weber, Ernst L.: *See*—
Cooper, Virgil K. 2,869,161.
Webster, Donald S.: *See*—
Brown, Harrison S., and Webster. 2,869,982.
Webster Electric Co.: *See*—
Shields, George B. 2,869,240.
Webster, John C. Automatically recording pitch matching equipment. 2,869,666, 1–20–59, Cl. 181—5.
Webster, Richard L. Rear horn for vehicles. 2,870,428, 1–20–59, Cl. 340—70.
Weeks, Warren D., to Root Spring Scraper Co. Snow plow mount for a radially swingable snow plow. 2,869,254, 1–20–59, Cl. 37—42.
Wegler, Richard: *See*—
Schäfer, Werner, Wegler, and Eue. 2,870,144.
Wehrli, Walter: *See*—
Merian, Ernest, Nicolaus, and Wehrli. 2,870,137.
Welch, Douglas F., and K. B. Randall, to The British Thomson-Houston Co. Ltd. Fuel reaction chambers. 2,869,321, 1–20–59, Cl. 60—39.28.
Welser, Brinton, to Chain Belt Co. Chain sideplate construction. 2,869,370, 1–20–59, Cl. 74—245.
Welsh, James W., to Hoda Corp. Snap action device. 2,870,291, 1–20–59, Cl. 200—113.
Welsh, James W., to Hoda Corp. Snap action device. 2,870,292, 1–20–59, Cl. 200—113.
Werden, Robert G., to Borg-Warner Corporation. Air conditioning and heating systems. 2,869,335, 1–20–59, Cl. 62—324.
Wesp, George L., to Monsanto Chemical Co. Polymeric aminonitriles. 2,870,123, 1–20–59, Cl. 260—72.
Wessel, Hans. Vacuum cleaner attachment. 2,869,170, 1–20–59, Cl. 15—399.
Westberg, Harold A., to The Wyatt Mfg. Co., Inc. Mobile tool carrier. 2,869,887, 1–20–59, Cl. 280—44.
West Chemical Products Inc.: *See*—
Morin, Louis H. 2,869,430.
Wooster, Philip A. 2,869,951.
Western Electric Co., Inc.: *See*—
Horn, James A. 2,869,453.
Johnson, Joel R. 2,869,126.
Reichelt, Lester O. 2,869,128.
Western Gear Works: *See*—
Langdon, Robert S. 2,869,400.
Western Printing & Lithographing Co.: *See*—
Stobb, Anton R. 2,869,863.
Western States Machine Co., The: *See*—
Hertrich, Joseph. 2,869,726.
Western Union Telegraph Co., The: *See*—
Hallden, Frederick G., and McCann. 2,870,246.
Stinebelfer, Harold E. 2,870,439.
Westervelt, John C., to Century Geophysical Corp. Fixer for electrostatic photography. 2,870,312, 1–20–59, Cl. 219—19.
Westinghouse Air Brake Co.: *See*—
Draganjac, Michael J. 2,870,408.
Westinghouse Electric Corp.: *See*—
Fields, Arnold C. 2,869,680.
Roberts, John W. 2,869,678.
Westmijze, Willem K.: *See*—
Duinker, Simon and Westmijze. 2,870,267.
Westmijze, Willem K., to North American Philips Co., Inc. Annular magnet head of the kind comprising a solid core for magnetic recording and reproduction. 2,870,266, 1–20–59, Cl. 179—100.2.
West Point Mfg. Co.: *See*—
Waddle, Howard M., Cotton, and Hudson. 2,870,041.
Westrum, Robert L.: *See*—
Holby, James C., and Westrum. 2,869,333.

Wettstein, Albert, and L. Ehmann, to Ciba Pharmaceutical Products, Inc. Process for the partial removal of oxo groups. 2,870,142, 1–20–59. Cl. 260—239.55.

Wetzel, Theodore A., to Kearney & Trecker Corp. Pattern controlled machine tool. 2,869,429, 1–20–59. Cl. 90—13.5.

Wheeling Steel Corp.: *See*—
Martin, George E. 2,869,228.

Whelan, James P., to Pneumatic Scale Corp., Ltd. Infusion bag. 2,869,718. 1–20–59. Cl. 206—.5.

Whirlpool Corp.: *See*—
Schaaf, Willard A., and Simes. 2,869,633.

Whistler, Charles C., Jr., to General Motors Corp. Refrigerating apparatus. 2,869,222, 1–20–59. Cl. 29—157.3.

White, Ivan J. Dog track lure mechanism. 2,869,478, 1–20–59. Cl. 104—131.

White, Walter S., Jr. Roof or wall construction. 2,869,182, 1–20–59. Cl. 20—4.

Whitehead, Cyril C., to Bailey Meter Co. Thermionic servo-amplifier systems. 2,870,393, 1–20–59. Cl. 318—29.

Whitney, Robert G.: *See*—
Nelson, John F., Warner, and Whitney. 2,869,738.

Whittington, William E., to Collins Radio Co. Soldering jig for mechanical filters. 2,869,498, 1–20–59. Cl. 113—99.

Widakowich, Marius. Commutation of contact converters. 2,870,394, 1–20–59. Cl. 321—49.

Widmann, Adolf A., to National Machine Products Co. Hollow-adjusting screw having radially projecting thread locking portions. 2,869,607, 1–20–59. Cl. 151—14.

Wiedemann, Martin F., Jr. Portables baptistry. 2,869,140, 1–20–59. Cl. 4—1.

Wienert, Fritz O., to Union Carbide Corp. Preparation of ore and method of heat treatment. 2,869,850, 1–20–59. Cl. 263—52.

Wilcock, John E.: *See*—
Jellyman, Phillip E., Macintosh, and Wilcock. 2,870,244.

Wilcox, Isaac L. Bottle cap. 2,869,746, 1–20–59. Cl. 215—41.

Wilcox, William H., to Fibreboard Paper Products Corp. Carton setting up machine. 2,869,439, 1–20–59. Cl. 93—49.

Wild, Otto, Jr.: *See*—
Bliss, Harvey N., and Wild. 2,869,791.

Wilk, Stanley H., and R. Cusmens, to General Electric Co. Mechanical pressure relief device. 2,869,579, 1–20–59. Cl. 137—467

Wilkerson Corp.: *See*—
Wilkerson, Dewey L. 2,869,570.

Wilkerson, Dewey L., to Wilkerson Corp. Air line automatic drain valve. 2,869,570, 1–20–59. Cl. 137—204.

Wilkerson, Edward D. Conduit protecting sheath. 2,870,242. 1–20–59. Cl. 174—135.

Wilkie, Wallace J., to Avco Mfg. Corp. Mass depleying apparatus. 2,869 426, 1–20–59. Cl. 89—1.5.

Wilkins, Charles L., and R. Y. Multiple conductor service cable insulator. 2,870,237, 1–20–59. Cl. 174—41.

Wilkins, Ruth Y.: *See*—
Wilkins, Charles L., and R. Y. 2,870,237.

Willard, Dennis D., to International Business Machines Corp. Electro-sensitive digital data plotter. 2,869,965, 1–20–59. Cl. 346—74

Willhauck, Everette I. Emergency fuel stop for Diesel engines. 2,869,530, 1–20–59 Cl. 123—140

Williams, Beverly R., to Hodges Research and Development Co. Diathermal tenderizing of meat. 2,870,018, 1–20–59. Cl. 99—107.

Williams, Glenn S., to Bethlehem Steel Co. Pusher means for feeding articles relative to a threading spindle including motor control means responsive to failure of the pusher means to advance. 2,869,154, 1–20–59. Cl. 10—139.

Williams, Gorman S., deceased: M. J. Williams, executrix, to herself individually. Hydraulic pumping jack for oil wells. 2,869,469, 1–20–59. Cl. 103—46.

Williams, Hugh T.: *See*—
Davidson, Samuel H., Love, and Williams. 2,869,462.

Williams, James C., to Deering Milliken Research Corp. Tensioning means. 2,869 802, 1–20–59. Cl. 242—156.1.

Williams, James W., 3rd: *See*—
Kinderman, Walter J., and Williams. 2,869,371.

Williams, Jesse E., to Olin Mathieson Chemical Corp. Tool for driving powder-actuated fasteners. 2,869,127, 1–20–59. Cl. 1—106.

Williams, Mary Jo: *See*—
Williams, Gorman S., and M. J. 2,869,469

Williams, Mortimer P., and C. T. Kirchner, to E. I. du Pont de Nemours and Co. Process of molding dithiocarbamate slurries which contain guar gum. 2,870,060, 1–20–59. Cl. 167—42.

Williams, Norman H., and C. T. Hawkes, to Humphreys & Glasgow, Ltd. Apparatus incorporating a vibrating grate. 2 869,991, 1–20–59. Cl. 23—284.

Williams, Ralph E. to B. F. Gump Co. Conveyer construction. 2,869,714, 1–20–59. Cl. 198—213.

Williams, Ralph E. to B. F. Gump Co. Continuous feeder apparatus. 2,869,715, 1–20–59. Cl. 198—213.

Williams, Ralph E., to B. F. Gump Co. Improvement in continuous feeder. 2,869,743, 1–20–59. Cl. 214—152.

Williams, Robert E.: *See*—
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Williams, Russell J., to Bemis Bro. Bag Co. Bag. 2,869,772, 1–20–59. Cl. 229—55.

Williford, Jacob V. Rotor for electric motor. 2,870,352, 1–20–59. Cl. 310—162.

Wilsmann, Wilhelm. Feed arrangement for centrifugal separators. 2,869,781, 1–20–59. Cl. 233—45.

Wilson, Rosser L., to American Brake Shoe Co. Railroad brake shoes. 2,869,689, 1–20–59. Cl. 188—251.

Wilson, Samuel W., and S. J. Bodnar, to Esso Research and Engineering Co. Acetylene removal from diolefin streams. 2,870,232, 1–20–59. Cl. 260—681.5.

Winans, Robert C.: *See*—
MacWilliams, Walter H., Jr., and Winans. 2,870,327.

Winslow, Charles A. Folding anchor. 2,869,503, 1–20–59. Cl. 114—208.

Winters, Alva B., and D. K. Holst, to Revere Electric Mfg. Light pole construction. 2,869,690, 1–20–59. Cl. 189—28.

Winters, Kauno W., and G. E. Oja. Log handling arm attachment for trucks. 2,869,741, 1–20–59. Cl. 214—92.

Witt, Frank A., to United States Steel Corp. Apparatus for measuring the length of strip. 2,869,241, 1–20–59. Cl. 33—136.

Woerther, Clarence, to International Minerals & Chemicals Corp. Deenameling process. 2,870,048, 1–20–59. Cl. 134—29.

Wolf, Jacques, & Co.: *See*—
Sellet, Lucien. 2,870,122.

Wolf, Viktor: *See*—
Schusterits, Ludwig, and Wolf. 2,870,152.

Wolfe, Duane M., to American Iron & Machine Works Co., Inc. Trepanning head. 2,869,405, 1–20–59. Cl. 77—69.

Wolfe, Harry H., to The Buckeye Steel Castings Co. Railway coupler. 2,869,736, 1–20–59. Cl. 213—72.

Wolff, Harry O. Attaching device. 2,869,201, 1–20–59. Cl. 24—81.

Wolinski, Leon E., to E. I. du Pont de Nemours and Co. Printable polyethylene film. 2,870,043, 1–20–59. Cl. 117—138.8.

Wood, Donald, to Hill Cross Co., Inc. Reticular structure. 2,869,693, 1–20–59. Cl. 189—34.

Woods, Joseph J., to Technicon International Ltd. Automatic immersion apparatus. 2,869,509, 1–20–59. Cl. 118—10.

Woolf, Cyril: *See*—
Gordon, Joseph, and Woolf. 2,870,222.
Miller, Charles B., and Woolf. 2,870,211.

Woolf, Cyril, to Allied Chemical Corp. Difluorochloroacetaldehyde and process. 2,870,213, 1–20–59. Cl. 260—601.

Woolf, Cyril, to Allied Chemical Corp. Difluorovinyl methyl ether. 2,870,219, 1–20–59, Cl. 260—614.

Wooster, Philip A., to West Chemical Products, Inc. Dispensing devices for fan-fold sheet material. 2,869,951, 1–20–59, Cl. 312—39.

Worthington Corp.: *See*—
Aronson, David, and Melick. 2,869,833.
Heteji, Paul S. 2,869,900.

Worthington, Emory W. Rotary letterpress ink fountain. 2,869,460, 1–20–59. Cl. 101—366.

Wright, Arthur A., to E. I. du Pont de Nemours and Co. Spinneret pack. 2,869,176, 1–20–59, Cl. 18—8.

Wright, Howard B., and M. B. Moore, to Abbott Laboratories. Morpholine ethers. 2,870,147, 1–20–59, Cl. 260—247.5.

Wright, Howard B., and M. B. Moore, to Abbott Laboratories. Morpholine ethers IV. 2,870,149, 1–20–59, Cl. 260—247.7.

Wright, Howard B., and M. B. Moore, to Abbott Laboratories. Morpholine ethers. 2,870,150, 1–20–59, Cl. 260—247.7.

Wright, Howard B., and M. B. Moore, to Abbott Laboratories. Morpholine ethers. 2,870,151, 1–20–59, Cl. 260—247.7.

Wright, James B., to California Research Corp. Process for making poly 2-ethylbutoxysiloxanes. 2,870,184, 1–20–59, Cl. 260—448.8.

Wright, Robert A., and A. R. McFadden, to Eastman Kodak Co. Apparatus for measuring moisture in web coatings. 2,870,405, 1–20–59. Cl. 324—65.

Württembergische Spindelfabrik G. m. b. H.: *See*—
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Wyatt Mfg. Co., Inc., The: *See*—
Westberg, Harold A. 2,869,887.

Yale & Towne Mfg. Co., The: *See*—
Imhoff, William B., Jr. 2,869,353.
Rolph, Henry D. 2,869,351.

Yarnall-Waring Co.: *See*—
Kinderman, Walter J., and Williams. 2,869,371.

Yasumura, Jobu, to Collins Radio Co. Welding device to attach transducer wires to mechanical filters. 2,870,321, 1–20–59, Cl. 219—97.

Yeglinski, Joseph. Safety pin. 2,869,206, 1–20–59, Cl. 24—156.

Yellott, John I., and P. R. Broadley, to Bituminous Coal Research, Inc. Dunlab tube separators and coolant means therefor. 2,869,677, 1–20–59, Cl. 183—5.

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Hall, Carroll B., Perry, and Zullig. 2,870,132.
Zwoyer, Walter R., to Package Machinery Co. Automatic packaging machine. 2,869,298, 1–20–59, Cl. 53—51.

CLASSIFICATION OF PATENTS

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NOTE.—First number=class, second number=subclass, third number=patent number

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Renew
Sec. 12

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
January 20, 1959 Volume 738 Number 3

TRADEMARKS

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	10,890
Date of oldest new application	April 20, 1958
Date of oldest amended application	July 1, 1958

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 15, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	6-1-58	8-26-58
(II) R. F. SHRYOCK, Classes 6, 18, 27, 29, 30, 32, 44, 48, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	4-20-58	7-1-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 28, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	5-3-58	8-1-58
Renewals (All Classes)	10-26-58	11-26-58
Sec. 12 (c) Publications (All Classes)	10-22-58	11-24-58

Applications Filed During the Month of November 1958—1,625

Registrations Issued	344	No. 672,653 to No. 672,996
Renewals Issued	42	

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $3.75 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 2.101 to 2.105.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 22,713. Sokota Hybrid Producers, Brookings, S. Dak. Filed Jan. 16, 1957.

Sokota

For Hybrid Corn.
First use Apr. 18, 1945.

SN 23,096. Frontier Hybrids, Inc., Scott City, Kans., by change of name from Seed Producers, Inc., Scott City, Kans. Filed Jan. 23, 1957.

Frontier

For Field Seed—Namely, Hybrid Grain Sorghums and Hybrid Forage Sorghums.
First use Dec. 5, 1956.

SN 34,441. The Lackawanna Leather Company, Hackettstown, N. J. Filed July 26, 1957.

CHIFFONETTE

For Upholstery Leather.
First use Mar. 1, 1957.

SN 41,241. Coast Envelope Company, Los Angeles, Calif. Filed Nov. 25, 1957.

Royal Vinyl

Applicant disclaims use of the word "Vinyl" apart from the mark as shown.
For Vinyl Plastic Sheet Material From Which Applicant Manufactures Bank Checkbook and Pass-Book Covers.
First use Aug. 12, 1957.

SN 48,834. Ethicon Inc., Somerville, N. J. Filed Apr. 1, 1958.

MERSILENE

For Polyester Fiber.
First use May 3, 1957.

SN 49,021. The Wayside Gardens Co. Inc., Mentor, Ohio. Filed Apr. 3, 1958.

WAYSIDE GARDENS

Owner of Reg. No. 316,648.
For Perennial Plants, Roses, Trees, Shrubs, Vines, Evergreens, Bulbs, Lilies, Flower Seeds, Grass Seed, and Lawn Seed.
First use in 1909.

TM 90

SN 54,147. Courtaulds (Alabama) Inc., New York, N. Y. Filed June 24, 1958.

TOPEL

For Man-Made Cross-Linked Cellulosic Fiber.
First use June 9, 1958.

SN 54,148. Courtaulds (Alabama) Inc., New York, N. Y. Filed June 24, 1958.

CORVAL

For Man-Made Cross-Linked Cellulosic Fiber.
First use June 6, 1958.

SN 56,412. The Reliable Textile Company, Chicago, Ill. Filed July 31, 1958.

REDI-SHREDDIE

Owner of Reg. No. 625,175.
For Ground Foamed Plastics for Stuffing Pillows, Cushions, Toys and the Like.
First use July 1, 1958.

Class 2—Receptacles

SN 32,360. Westinghouse Electric Corporation, Pittsburgh, Pa. Filed June 20, 1957. Sec. 2(f).

TOSS-AWAY

Owner of Reg. No. 344,478.
For Vacuum Cleaner Bags.
First use on or about April 1949.

SN 40,482. Monsanto Chemical Company, St. Louis, Mo. Filed Nov. 12, 1957.

EX-LINER

For Plastic Shipping Bag Which, When Inflated, Fits the Bodies of Trucks or Railway Cars.
First use Apr. 18, 1957.

SN 41,210. R. E. Allen, Inc., Kenton, Ohio. Filed Nov. 25, 1957.

BLOCK SEAL

For Bags of Transparent Synthetic Material.
First use Aug. 1, 1957.

SN 41,759. Geo. W. King Limited, Stevenage, England. Filed Dec. 4, 1957.



Owner of British Reg. No. 698,897, dated June 11, 1951.
For Tanks, Water Bowls, Cow Mangers, and Drinking Troughs for Animals.

SN 46,597. F. N. Burt Company, Inc., Buffalo, N. Y. Filed Feb. 26, 1958. Sec. 2(f) as to "Burt."

Owner of Reg. Nos. 169,502, 169,503, and 164,402.
For Paper and Cardboard Boxes.
First use in 1933; in 1886 as to "Burt."

SN 47,656. Haveg Industries, Inc., Wilmington, Del. Filed Mar. 13, 1958.

HAVEG

Owner of Reg. No. 374,009.
For Closed Tanks for Storage and Shipping, Open Tanks for Storage and Handling of Liquids, Pressure Tanks, Pickling Tanks, Etching Tanks, Crystallizers, Separating Tanks, Surge Tanks, Plating Tanks, Tank Parts Including Baffles, Partitions and the Like, Buckets and Pitchers.
First use Mar. 15, 1938.

SN 48,562. Illinois Tool Works, Chicago, Ill. Filed Mar. 27, 1958.

FASTEX

Owner of Reg. No. 635,402.
For Plastic Containers—Namely, Flower Pots, Cups, and the Like.
First use Mar. 12, 1958.

SN 50,002. Andre-Matic Machinery Company, San Leandro, Calif. Filed Apr. 21, 1958.

ANDRE-MATIC PAK

The exclusive right to the use of the word "Pak" apart from the mark as shown is herewith disclaimed.
For Cartons.
First use Dec. 17, 1953.

SN 52,818. The Lecent Corporation, New York, N. Y. Filed June 3, 1958.

TABLE D'HOTE

For Trays of Plastic.
First use May 2, 1958.

SN 53,129. Reid H. Cox, d. b. a. Reid H. Cox Co., Atlanta, Ga. Filed June 9, 1958.

The Colonels Pride

For Utility Cans Made of Metal or Plastic.
First use May 13, 1958.

SN 53,198. Service Ideas, Inc., Minneapolis, Minn. Filed June 9, 1958.

THERMO-SERV

Owner of Reg. No. 635,400.
For Insulated Beverage Container and Server.
First use Dec. 23, 1955.

SN 53,291. Chicago Molded Products Corporation, Chicago, Ill. Filed June 12, 1958.

CLOVERLANE

For Molded Plastic Dinnerware, Including Cups, Plates, Saucers, and Other Dishes.
First use Sept. 5, 1955.

SN 53,583. Chicago Molded Products Corporation, Chicago, Ill. Filed June 16, 1958.

STARLANE

Owner of Reg. No. 655,655.
For Plastic Tote Boxes.
First use Dec. 20, 1957.

SN 53,609. Gem Manufacturing Company, Baltimore, Md. Filed June 16, 1958.

For Textile Bags.
First use Aug. 7, 1957.

SN 53,750. Weaver's, Flomaton, Ala. Filed June 17, 1958.

For Concrete Burial Vaults.
First use Mar. 14, 1958.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 43,225. Adorn Plastic Specialists, Inc., Chicago, Ill. Filed Dec. 31, 1957.

For Personal Goods Fabricated of Plastic Composition—Namely, Wallets, Bill Folds, Card Cases, Key Cases, Check Book Cases, Coin Cases, Portfolios, Note Pad Holders and Notebook Holders in the Form of Pocket Secretaries, Pass Cases, Tie Cases, and Change Purses.
First use Dec. 2, 1957.

SN 51,228. A. J. Siris Products Corp., New York, N. Y. Filed May 7, 1958.

CAREFREE

For Wallets, Change Purses, and Key Cases.
First use Apr. 30, 1958.

SN 53,958. Skyway Luggage Company, Seattle, Wash. Filed June 20, 1958.

CASUALITE

For Ladies' Luggage.
First use Aug. 1, 1956.

Class 4 — Abrasives and Polishing Materials

SN 14,650. The Gerson Stewart Corporation, Cleveland, Ohio. Filed Aug. 27, 1956.

PAYGENOIL

For Liquid Polishing Material for Enameled Metal and Varnished and Painted Woodwork.
First use in January 1918.

SN 43,753. General Electric Company, Baltimore, Md. Filed Jan. 10, 1958.

INSULBRITE

For Abrasive and Detergent Insulator Cleaner.
First use Oct. 4, 1956.

SN 44,259. The Cellowax Company, Baltimore, Md. Filed Jan. 20, 1958.

PANTALOON



Reserving all common law rights, no claim is made to the notation "Mirror-Like Finish Wears and Wears" except in the trademark as shown. Owner of Reg. No. 636,674.
For Cleaning and Polishing Composition for Use on Floors, Linoleum Tile Including Cork and Asphalt Tiles, Furniture, Wooden Articles, Automobiles, and Articles Presenting Similar Surfaces.
First use Nov. 1, 1955.

SN 51,633. Hollywood Shoe Polish Inc., Richmond Hill, N. Y. Filed May 14, 1958.



For White Shoe Polish.
First use in February 1941.

SN 52,514. Precision-Cosmet Company, Inc., Minneapolis, Minn. Filed May 28, 1958.

Foto-Kleer

For Liquid for Cleansing and Polishing Optical Lenses.
First use Apr. 22, 1958.

Class 5 — Adhesives

SN 37,884. Lamitool, Inc., Santa Monica, Calif. Filed Sept. 26, 1957.

EPOLITE

For Laminating Resins and Hardeners.
First use on or about Jan. 1, 1954.

SN 41,802. Emerson & Cuming, Inc., Canton, Mass. Filed Dec. 5, 1957.

ECCOBOND

For Adhesive Compositions Also Useful as a Sealant.
First use Dec. 11, 1956.

SN 42,805. American-Marietta Company, Chicago, Ill. Filed Dec. 23, 1957.



Owner of Reg. No. 513,847.
For Protein and Resin Adhesives; and Additives, Anti-Foam Agents, Catalysts, and Extenders for Said Adhesives.
First use in 1946.

SN 42,807. American-Marietta Company, Chicago, Ill. Filed Dec. 23, 1957.

A-M

For Protein and Resin Adhesives; and Additives, Anti-Foam Agents, Catalysts, and Extenders for Said Adhesives.
First use in 1946.

SN 44,753. Phillips Petroleum Company, Bartlesville, Okla. Filed Jan. 27, 1958.



The drawing is lined for black and orange. Owner of Reg. No. 525,123.
For Friction Tape.
First use in September 1955.

SN 44,754. Phillips Petroleum Company, Bartlesville, Okla. Filed Jan. 27, 1958.

66

The drawing is lined for black. Owner of Reg. No. 315,257.
For Friction Tape.
First use in September 1955.

SN 44,755. Phillips Petroleum Company, Bartlesville, Okla. Filed Jan. 27, 1958.



The drawing is lined for black and orange. Owner of Reg. No. 427,059.
For Friction Tape.
First use in September 1955.

Class 6—Chemicals and Chemical Compositions

SN 49,229. Western Fire Equipment Co., San Francisco, Calif. Filed Apr. 7, 1958.

FORESTER

Owner of Reg. No. 364,251.
For Wetting Agents Used as Components of Charges for Fire Pumps.
First use June 20, 1947.

SN 49,925. W. R. Grace & Co., Cambridge, Mass. Filed Apr. 18, 1958.

MRDA

For Chemical Composition for Use as a Retarder for Portland Cement.
First use Aug. 11, 1944.

SN 50,165. Pennsalt Chemicals Corporation, Philadelphia, Pa. Filed Apr. 22, 1958.

CLOREZE

For Laundry Bleaching Agent.
First use Mar. 10, 1958.

Class 7—Cordage

SN 39,516. The Colorado Fuel and Iron Corporation, Denver, Colo. Filed Oct. 25, 1957.

DOUBLE GRAY

For Wire Rope.
First use Aug. 12, 1957.

Class 8—Smokers' Articles, Not Including Tobacco Products

SN 53,398. Samuel F. Dupree, Jr., Toledo, Ohio. Filed June 12, 1958.

ASH-MASTER

For Smoker's Articles Including Ash Trays, and Parts Thereof.
First use May 19, 1958.

SN 54,696. Jetto Corporation, New York, N. Y. Filed July 2, 1958.

NITE-BRITE

For Ashtrays.
First use Apr. 29, 1958.

SN 55,270. Scripto, Inc., Atlanta, Ga. Filed July 14, 1958.

KINGSMARK

For Cigar and Cigarette Lighters, Flints, and Wicks Therefor.
First use Mar. 13, 1958.

SN 55,732. Scripto, Inc., Atlanta, Ga. Filed July 21, 1958.

VU-AD

For Cigar and Cigarette Lighters, Flints, and Wicks Therefor.
First use May 15, 1958.

SN 56,142. Kapp & Peterson Ltd., Dublin, Ireland. Filed July 28, 1958.



For Pipes.
First use Aug. 15, 1951.

Class 9—Explosives, Firearms, Equipments, and Projectiles

SN 37,880. Frank Royce Brownell II, d. b. a. Bob Brownell's, Montezuma, Iowa. Filed Sept. 26, 1957.

LATIGO

For Rifle and Shotgun Slings.
First use Feb. 23, 1957.

SN 50,524. Petroleum Tool Research, Inc., Fort Worth, Tex. Filed Apr. 28, 1958.

VIBRO-SHOT

For Explosive Charges Used in Formation Fracturing in Well Bores.
First use Apr. 2, 1958.

SN 57,689. Hercules Powder Company, Wilmington, Del. Filed Aug. 22, 1958.

DYNATEX

For Nitrocarbonitrate Blasting Agent.
First use May 7, 1958.

Class 10—Fertilizers

SN 53,603. First, Inc., Phoenix, Ariz. Filed June 16, 1958.

Bi-O-Kem

For Liquid Soil Conditioner.
First use Feb. 24, 1958.

SN 55,976. Bunyon Enterprises Inc., Morrow, Ga. Filed July 25, 1958.

BUNYON'S MIRACLE EARTH

For Organic Soil Builder.
First use on or about Apr. 11, 1958.

SN 57,506. The Smith Agricultural Chemical Company, Columbus, Ohio. Filed Aug. 19, 1958.

G AND F

For Fertilizers.
First use June 30, 1934.

Class 12 — Construction Materials

SN 33,560. Midix Asphalt Corporation, Miami, Fla. Filed July 11, 1957.



For Asbestos Roof Cement.
First use in June 1957.

SN 39,571. Alsco, Inc., Akron, Ohio. Filed Oct. 28, 1957.

GOLD BAK

For Aluminum Siding.
First use July 10, 1956.

SN 41,293. Morrison & Co., San Francisco, Calif. Filed Nov. 25, 1957.

CUSHION-LOCK

For Reglets and Counterflashings Used in the Construction of Roofs and Windows.
First use in November 1955.

SN 41,302. E. H. O'Neill Floors Co., Cicero, Ill. Filed Nov. 25, 1957.

INDUSTROFLOR

For Synthetic Resin Material for Floor Surfacing.
First use on or about Mar. 23, 1957.

SN 41,760. Geo. W. King Limited, Stevenage, Hertfordshire, England. Filed Dec. 4, 1957.



Owner of British Reg. Nos. 698,893 and 698,895, dated June 11, 1951.

For Poles for Leading Bulls, Storage Stacks, Stillages (Supports), Sliding Doors and Runners and Tracks Therefor, Cowstalls, Panelling for Animal Pens, Structures for Use in the Servicing of Cows, All Being Metal and Nonmetal Goods: Structural Steelwork, Greenhouses and Farm Buildings, All of Precast Concrete; Precast Fencing Posts and Building Blocks, None Being Metal Goods.

SN 42,436. Borg-Warner Corporation, Chicago, Ill. Filed Dec. 16, 1957.

ANKORITE

Owner of Reg. No. 216,283.
For Anchor Bolts.
First use Apr. 17, 1957.

SN 43,875. The Reardon Company, St. Louis County, Mo. Filed Jan. 13, 1958.

TRAX

For Materials for Jointing Wallboard.
First use Oct. 16, 1956.

SN 44,325. United States Mineral Wool Company, Stanhope, N. J. Filed Jan. 20, 1958.



The words "Certified Adequate Insulation" are disclaimed apart from the mark as shown.

For Mineral Fiber Thermal and Sound Insulating Products in the Form of Loose Wool, Granulated Wool, Felt, Board, Batts, Blankets, and Pads.
First use Dec. 20, 1957.

SN 44,638. Majestic Tile Co., Chicago, Ill. Filed Jan. 24, 1958.

CORINTHIAN ONYX

For Plastic Wall Tile.
First use Dec. 1, 1957.

SN 46,071. West Coast Laminating Corp., Los Angeles, Calif. Filed Feb. 18, 1958.

VINYLPLY

For Plastic Covered Plywood or Other Sheet Stock.
First use Jan. 17, 1958.

SN 47,839. Continental Oil Company, Ponca City, Okla. Filed Mar. 17, 1958.

HIMITE

For Pipe Thread Compound.
First use on or about May 15, 1957.

SN 49,070. Luwa A. G., Zurich, Switzerland. Filed Apr. 4, 1958.

LUWA

Owner of Swiss Reg. No. 168,783, dated Jan. 30, 1958; and U. S. Reg. No. 588,523.

For Roller Jalousies, Control Devices for Roller Jalousies; Parts and Accessories of Such Jalousies and Control Devices.

SN 49,276. Industrial Acoustics Company, Inc., New York, N. Y. Filed Apr. 8, 1958.

QUIET-VENT

Owner of Reg. No. 661,537.

For Prefabricated Sound Elimination Ducts Which Eliminate Noise From Airconditioning and Ventilating Systems.

First use Oct. 30, 1957.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 49,186. The Prizer-Painter Stove Works, Inc., Reading, Pa. Filed Apr. 7, 1958. Sec. 2(f).

PRIZER-WARE

Owner of Reg. No. 590,096.

For Cast Iron Porcelain Enameled Cooking Ware Used for Cooking and Serving of Food.

First use Jan. 26, 1953.

SN 52,920. Unique Window Balance Corporation, South Norwalk, Conn. Filed June 4, 1958.

UNISLIDE

For Window Hardware.

First use Jan. 21, 1958.

SN 53,491. The Fanner Manufacturing Company Division of Textron, Inc., Providence, R. I. Filed June 13, 1958.

FANNGRIP

For Preformed Helical Reinforcements and Gripping Devices for Cables and Electrical Lines.

First use Feb. 10, 1956.

SN 53,492. The Fanner Manufacturing Company Division of Textron, Inc., Providence, R. I. Filed June 13, 1958.

FANNSPLICE

For Preformed Helical Reinforcements and Gripping Devices for Cables and Electrical Lines.

First use July 23, 1956.

SN 53,494. The Fanner Manufacturing Company Division of Textron, Inc., Providence, R. I. Filed June 13, 1958.

FANNGUARD

For Preformed Helical Reinforcements and Gripping Devices for Cables and Electrical Lines.

First use May 15, 1956.

SN 54,705. The Oscar C. Rixson Company, Franklin Park, Ill. Filed July 2, 1958.

MULTI-CHECK

For Door Closers.

First use June 16, 1958.

SN 55,882. S-B Manufacturing Company, Milwaukee, Wis. Filed July 23, 1958.

STORM KING

Owner of Reg. No. 422,219.

For Door Latches and Door Stops.

First use June 15, 1954, on door stops.

SN 55,917. The H. M. Harper Company, Morton Grove, Ill. Filed July 24, 1958.

HARPER

Owner of Reg. Nos. 614,206 and 539,018.

For Bolts, Nuts, Screws, Metal Washers, Rivets, Cotter Pins, and Studs.

First use Nov. 16, 1949.

Class 14—Metals and Metal Castings and Forgings

SN 11,707. Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed July 6, 1956.

AGA

Owner of Swedish Reg. Nos. 28,880 and 43,632, dated Aug. 26, 1924, and June 11, 1934, respectively.

For Solder, Welding Rods, and Brazing Alloys.

SN 47,249. Norman Freeman, d. b. a. The Woodhill Chemical Co., Cleveland, Ohio. Filed Mar. 7, 1958.

CHEMSTEEL

For Putty Compound Composed of Atomized Steel, Clay, Vinyl Adhesives, and Suitable Solvents.

First use Jan. 20, 1958.

SN 54,163. The International Nickel Company, Inc., New York, N. Y. Filed June 24, 1958.

INCONEL "X"

Owner of Reg. Nos. 306,200, 610,249, and others.

For Nickel Alloys, Particularly Nickel-Chromium and Nickel-Chromium-Iron Alloys, and Including Age-Hardenable Nickel-Chromium and Nickel-Chromium-Iron Alloys.

First use during 1946.

Class 15—Oils and Greases

SN 32,799. American Grease Stick Company, Muskegon Heights, Mich. Filed June 28, 1957.

L-7

For Liquid Preparation in the Nature of an Oil for Protecting Metal Surfaces Possessing Moisture Repellency, Anti-Corrosion, and Lubrication Properties.

First use Apr. 16, 1957.

SN 40,770. Michigan Tool Company, Detroit, Mich. Filed Nov. 15, 1957.

SHEAR SPEED

Owner of Reg. No. 642,563.
For Coolants and Lubricants.
First use in 1952.

SN 41,138. The R. J. Brown Company, St. Louis, Mo. Filed Nov. 22, 1957.

BRONOCO
LO-ODR

No claim is made to the word "Lo-Odr" apart from the mark shown. Owner of Reg. Nos. 158,906 and 399,598.
For Petroleum Aliphatic Naphthas.
First use July 24, 1957.

SN 41,141. The R. J. Brown Company, St. Louis, Mo. Filed Nov. 22, 1957.

BRONOCO
NO-ODR

No claim is made to the word "No-Odr" apart from the mark shown. Owner of Reg. Nos. 158,906 and 399,598.
For Petroleum Aliphatic Naphtha.
First use July 24, 1957.

SN 54,250. The Ohio Oil Company, Findlay, Ohio. Filed June 25, 1958.

V.E.P.

Owner of Reg. No. 361,794.
For Motor Oil.
First use Nov. 23, 1937.

SN 54,267. The Standard Oil Company, Cleveland, Ohio. Filed June 25, 1958.

FIBRON

For Grease.
First use Feb. 1, 1957.

Class 16—Protective and Decorative Coatings

SN 36,893. S. C. Johnson & Son, Inc., Racine, Wis. Filed Sept. 9, 1957.

ENVY

For Coating for the Artificial Coloring and Protection of Grass and Other Vegetation.
First use July 22, 1957.

SN 41,508. Archer-Daniels-Midland Company, Minneapolis, Minn. Filed Nov. 29, 1957.

DRYFOL

For Processed Oils Constituting Vehicles for Use in the Manufacture of Paints.
First use in March 1948.

SN 48,165. General Paint & Varnish Company Inc., Chicago, Ill. Filed Mar. 21, 1958.

3-4-8

For Interior and Exterior House Paints and Enamels.
First use Nov. 1, 1956.

SN 58,781. John C. Dolph Company, Monmouth Junction, N. J. Filed Sept. 11, 1958.

HI-MEG

For Varnishes, Resins, and Insulating Coating Compositions.
First use Mar. 2, 1956.

SN 58,834. Columbia Technical Corporation, Woodside, N. Y. Filed Sept. 12, 1958.

HUMISEAL

For Resinous Protective Coating.
First use Sept. 10, 1958.

SN 60,168. Mohawk Furniture Finishing Products, Inc., Amsterdam, N. Y. Filed Oct. 6, 1958.

SPRA TONE

For Furniture Repairing and Finishing.
First use Sept. 29, 1958.

Class 17—Tobacco Products

SN 51,734. Philip Morris Incorporated, New York, N. Y. Filed May 15, 1958.

MAYFIELD

For Cigarettes.
First use May 2, 1958.

SN 56,290. The American Tobacco Company, New York, N. Y. Filed July 30, 1958.



For Cigarettes.
First use July 18, 1958.

Class 18—Medicines and Pharmaceutical Preparations

SN 56,406. Eli Lilly and Company, Indianapolis, Ind. Filed July 31, 1958.

DELVEX

For Anthelmintic Useful in the Treatment of Parasites in Humans.
First use July 11, 1958.

Class 19—Vehicles

SN 38,385. Protect-O-Matic Corporation, Kenmore, N. Y. Filed Oct. 4, 1957.

PROTECT-O-MATIC

For Automatic Safety Seat Mechanisms Adapted To Tilt Vehicle Seats Rearwardly Upon Collision.
First use June 1, 1957.

SN 50,496. Louis Lek Enterprises, Incorporated, San Diego, Calif. Filed Apr. 28, 1958.

Ki Ki

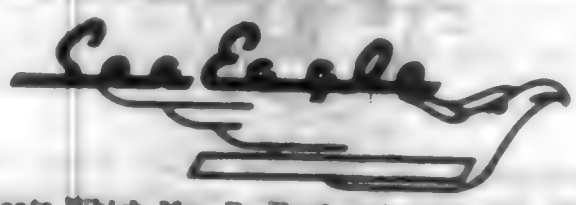
For Boats.
First use on or about Mar. 8, 1958.

SN 51,679. Adler Manufacturing Corporation, Danville, Pa. Filed May 15, 1958.

SEA EAGLE

For Boats Which May Be Used as Row Boats or To Which an Outboard Motor May Be Attached.
First use Feb. 26, 1958.

SN 51,680. Adler Manufacturing Corporation, Danville, Va. Filed May 15, 1958.



For Boats Which May Be Used as Row Boats or To Which an Outboard Motor May Be Attached.
First use Feb. 26, 1958.

SN 54,652. Terra-Marina Mfg. Co., Inc., Houston, Tex. Filed July 1, 1958.

Terra-Marina

For Amphibious Mobile Home Cruiser.
First use Mar. 1, 1957.

Class 20—Linoleum and Oiled Cloth

SN 52,293. Fibreboard Paper Products Corporation, San Francisco, Calif. Filed May 26, 1958.

DESIGNER SQUARES

No claim is made to exclusive appropriation of the word "Squares" apart from the mark as shown.
For Linoleum Floor Covering Tiles.
First use Dec. 31, 1957.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 30,735. Clayton Mark & Company, Evanston, Ill. Filed May 27, 1957. Sec. 2(f).

ENAMELKOTE

For Electrical Raceways.
First use June 24, 1925.

SN 32,144. Jerome Tanner, d. b. a. Tanner Communications Co., Birmingham, Ala. Filed June 17, 1957.

TANCO FOCUSED SOUND

The expression "Focused Sound" is disclaimed apart from the mark.
For Public Address Systems and Loud Speakers for Use Therein.
First use May 17, 1957.

SN 35,054. Magna Electronics, Inc., Inglewood, Calif., assignee of Magna Electronics Co. Incorporated, Inglewood, Calif. Filed Aug. 6, 1957.



For AM, FM Tuners, Pre-Amplifiers, and Amplifiers.
First use June 20, 1957.

SN 38,852. McGraw-Edison Company, d. b. a. The Bussman Manufacturing Company, St. Louis, Mo. Filed Oct. 14, 1957.

HI-CAP

For Electric Fuses.
First use Mar. 26, 1954.

SN 39,879. Industro Transistor Corporation, Long Island City, N. Y. Filed Oct. 31, 1957.



The words "Transistors for Industry" are disclaimed.
For Transistors, Electronic Tubes.
First use Aug. 1, 1957.

SN 39,956. G & M Battery Company, Inc., Detroit, Mich. Filed Nov. 1, 1957.

MARINER

For Batteries.
First use May 1, 1957.

SN 41,226. Associated Equipment Corp., St. Louis, Mo. Filed Nov. 25, 1957.

DURATRON

For Battery Chargers and Parts Thereof, Including Alternating Current Rectifiers.
First use Nov. 13, 1957.

SN 42,151. McKaig Electronics Inc., Seattle, Wash. Filed Dec. 10, 1957.

LIGHTMINDER

For Electrically Powered Vehicle Accessories—Namely, a Warning Device Utilizing a Buzzer and/or Light for Indicating That the Headlights Are On.
First use July 31, 1954.

SN 42,232. Panelmatic, Inc., Youngstown, Ohio. Filed Dec. 11, 1957.

PANELMATIC

For Electrical Control Panels.
First use Sept. 15, 1957.

SN 42,345. Bendix Aviation Corporation, Detroit, Mich. Filed Dec. 13, 1957.

BENFLEX

For Electrical Connectors and Parts Thereof.
First use June 4, 1957.

SN 43,582. Aurora Plastics Corporation, West Hempstead, N. Y. Filed Jan. 8, 1958.

AURORA

For Hobby Electronic Sets for Assembly, Including Radio Crystal Sets, Transistor Radio Sets, Germanium Crystal Diode Radio Sets, Battery Eliminators, Telegraph Sets, Intercommunication Sets, Tube Radio Sets, Portable Radio Sets, and Parts Thereof.
First use in August 1957.

SN 43,584. Automation Machines & Equipment Co., Inc., Milwaukee, Wis. Filed Jan. 8, 1958.

AMECO

For Welding Manipulators Used in Arc Welding, Portable Tungsten Arc Guns Used for Welding Tubes in the Production of Boilers and Automatic Loaders Used in Connection Therewith.
First use Dec. 16, 1955.

SN 43,951. G. C. Murphy Company, McKeesport, Pa. Filed Jan. 14, 1958.

SHAMROCK

Owner of Reg. No. 327,292.
For Electrical Appliances—Namely, Casseroles, Coffee Makers, Cookers, Corn Poppers, Portable Fans, Fryers, Grills, Room Heaters, Hot Plates, Irons, Food and Beverage Mixers, Skillets, Toasters, Window Fans, Lamps, Lamp Shades, Light Fixtures, Radios, Phonographs.
First use Jan. 24, 1956.

SN 44,610. The Electric Storage Battery Company, Philadelphia, Pa. Filed Jan. 24, 1958.

Raysol

For Corrosion Inhibiting Additive Incorporated in Dry Cells and Dry Cell Batteries.
First use Dec. 20, 1957.

SN 47,196. Howard Industries, Inc., Racine, Wis. Filed Mar. 6, 1958.

VITA-PACK

For Electric Speed Controls, Electric Vibrators, and Electric Motors for Use in Connection With Vibrating Pads, and Vibrating Furniture for Home Use.
First use Apr. 16, 1957.

SN 47,524. Societe Anonyme Andre Citroen, Paris, France. Filed Mar. 11, 1958.



Owner of French Reg. No. 456,129, dated Feb. 29, 1956 (Seine); Natl. Inst. No. 73,066.
For Automobile Equipment—Namely, Electrical Equipment, Batteries, and Headlights.

SN 48,204. Preformed Line Products Company, Cleveland, Ohio. Filed Mar. 21, 1958.

PLP

For Accessories for Electrical Ropes, Cables, Strands, Wires, and Pole Line Hardware—Namely, Armor Rods and Wires, Splices, Line Guards, Patch Rods, Tap Armor, Line Splices, Dead Ends, Telephone Splints, Splint and Tie Assemblies, Lashing Rods, Conductor Suspension Systems, Electrical Splice Shunts, Spacers for Parallel Conductors, Tangent Supports, Drop Wire Hangers.
First use about Feb. 28, 1953.

SN 48,205. Preformed Line Products Company, Cleveland, Ohio. Filed Mar. 21, 1958.

PLP

For Accessories for Electrical Ropes, Cables, Strands, Wires, and Pole Line Hardware—Namely, Armor Rods and Wires, Splices, Line Guards, Patch Rods, Tap Armor, Line Splices, Dead Ends, Telephone Splints, Splint and Tie Assemblies, Lashing Rods, Conductor Suspension Systems, Electrical Splice Shunts, Spacers for Parallel Conductors, Tangent Supports, Drop Wire Hangers.
First use about Feb. 28, 1953.

SN 50,480. Gould-National Batteries, Inc., St. Paul, Minn. Filed Apr. 28, 1958.

NICAD

For Storage Batteries and Electric Lamps Powered by Storage Batteries.
First use Sept. 18, 1945.

SN 50,838. Sel-Rex Corporation, Nutley, N. J. Filed May 1, 1958.

Jet Plater

The applicant hereby disclaims the use of the term "Plater."
For Electroplating Machine.
First use Oct. 4, 1954.

SN 51,294. Schiller Brothers, North Bergen, N. J. Filed May 8, 1958.

TREASURE

For Electrical Lamps, Lamp Shades.
First use Jan. 12, 1948.

SN 51,585. Pye Telecommunications Limited, Cambridge, England. Filed May 13, 1958.

TRANSHAILER

Owner of British Reg. No. B. 746,317, dated Sept. 22, 1955.
For Electric Megaphones, Microphones, Loudspeakers and Electric Amplifiers, and Parts of All the Aforesaid Goods.

SN 51,903. Magnode Products, Inc., Trenton, Ohio. Filed May 16, 1958.

MAGNODE

For Anodes.
First use July 22, 1947.

SN 51,955. Union Carbide Corporation, New York, N. Y. Filed May 19, 1958.

BEACON

For Electric Flashlights.
First use on or about Jan. 29, 1958.

SN 52,420. L'Air Liquide Societe Anonyme Pour l'Etude et l'Exploitation des Procedes Georges Claude, Paris, France. Filed May 27, 1958.

DYNAWELD

Claims priority under Sec. 44(d) on Canadian application filed Apr. 19, 1958, Reg. No. 111,362, dated Oct. 10, 1958.
For Continuous Wire Electrode Feeding Units and Wire Electrodes.

SN 52,699. R. E. Dietz Company, Syracuse, N. Y. Filed June 2, 1958.

VISI-FLASH

For Battery Operated Portable Flasher Warning Lamps.
First use Feb. 18, 1957.

SN 52,765. Retail Rentals, Inc., Dallas, Tex. Filed June 2, 1958.

RENT O-MAT

For Electrically Operated Machines for Advertising Merchandise by Display Panels.
First use Apr. 10, 1958.

SN 53,346. McGraw-Edison Company, St. Louis, Mo. Filed June 11, 1958.

TRON

For Electric Fuses.
First use May 19, 1958.

SN 53,534. Sanders Associates, Inc., Nashua, N. H. Filed June 18, 1958.

FLEXPRINT

For Wire, Cable, Harness, Printed Circuits, Circuit Connectors, and Accessories.
First use May 27, 1958.

SN 53,602. International Rectifier Corporation, El Segundo, Calif. Filed June 18, 1958.

SEMICAP

For Electrical Capacitors.
First use May 10, 1958.

SN 53,690. Norcal Electronics, Inc., Sacramento, Calif. Filed June 19, 1958.

ALUMITRON

For Television Picture Tubes.
First use on or about May 1, 1957.

SN 54,308. The Gudeman Company, Chicago, Ill. Filed June 26, 1958.

SNOWCAP

For Capacitors.
First use May 4, 1958.

SN 54,323. Square D Company, Detroit, Mich. Filed June 26, 1958.

FSP

For Electrical Panelboards.
First use Mar. 12, 1958.

SN 54,494. Peter Cook, d. b. a. Scientific Electric Company, Wickliffe, Ohio. Filed June 30, 1958.

GEN-EXC.

For Exciter for an Electrical Generator.
First use Feb. 15, 1958.

SN 54,556. Radio Engineering Laboratories, Inc., Long Island City, N. Y. Filed June 30, 1958.

ELDICO

For Radio Transmitters and Receivers.
First use June 1, 1946.

SN 54,798. Vitalic Battery Company, Inc., Dallas, Tex. Filed July 3, 1958.

EVANG E LINE

For Storage Batteries.
First use on or about June 23, 1958.

Class 22—Games, Toys, and Sporting Goods

SN 25,525. Cravotta Brothers, Inc., East McKeesport, Pa. Filed Mar. 5, 1957.

BLACK HAWK

Owner of Reg. No. 605,736.
For Binders for Water Skis and Parts Thereof.
First use on or about Jan. 21, 1957.

SN 38,167. Bernard N. Rumpel, d. b. a. East Coast Plastic Products, Deer Park, N. Y. Filed Oct. 1, 1957.

SWEPT-WING AQUA-FIN

For Swimming Fins and Water Skis.
First use Aug. 16, 1957.

SN 49,051. Alice L. Daniel, d. b. a. Mrs. Joe Daniel, Griffin, Ga. Filed Apr. 4, 1958.

TARDITOYS

For Toy Learning Aids—Namely, Pegboards, Break-Up Number Puzzles, Two-Piece Jigsaw Puzzles, Name Puzzles, Inlay Puzzles, Plywood Number Sets and Plywood Letter Sets.
First use on or about Nov. 23, 1957.

SN 49,496. Heilite Trailers, Inc., Lodi, Calif. Filed Apr. 11, 1958.

HEILITE

For Portable Camp Kitchens Comprising an Ice Chest, a Food Storage Area, a Serving Shelf, a Stove Compartment, a Water Tank, a Dishpan and a Drop Leaf Work Area.
First use Jan. 20, 1958.

SN 50,189. Albert A. Ruocco, Livingston, N. J. Filed Apr. 22, 1958.

Pro-Swing

For Golf Practice Devices—Namely, Golf Club Swing Indicator.
First use Feb. 24, 1958.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 34,244. Lion Brand Cutlery Co. Inc., New York, N. Y. Filed July 23, 1957.



Applicant disclaims the word "Cutlery" apart from the mark.
For Articles of Cutlery, Steak Sets, and Carving Sets.
First use Sept. 19, 1956.

SN 41,936. Record and Greeting Card Vending Machine Corp., New York, N. Y. Filed Dec. 6, 1957.

PAN-A-VEND

For Merchandise Vending Machines.
First use Apr. 15, 1957.

SN 42,067. Società Italiana Pompe Aturia S. p. A., Milan, Italy. Filed Dec. 9, 1957.

ATURIA

Owner of Italian Reg. No. 76,571, dated Sept. 18, 1947.
For Motor-Pumps, Particularly Submersible Pumps Operated by Electrical Motors.

SN 42,196. Belshaw Brothers, Incorporated, Seattle, Wash. Filed Dec. 11, 1957. Sec. 2(f).

SANITARY

For Doughnut Making Machines.
First use February 1924.

SN 46,212. Ducati Meccanica S. p. A., Bologna, Italy. Filed Feb. 20, 1958.



Priority claimed under Sec. 44(d) on Italian application filed Aug. 24, 1957; Reg. No. 134,408, dated Jan. 28, 1958. Applicant disclaims the word "Bologna" apart from the mark. The drawing is lined for red and blue. The word "Meccanica" means "mechanical," in English.
For Machines and Machine Tools Including Lathes, Milling Machines, Grinding Machines, Lapping Machines, Drilling Machines, Gear-Cutting Machines, Automatic Hammers, Motor-Driven Saws, Internal Combustion Engines, Farm Tractors, Motor-Driven Cultivators and Hoes, and Motor-Driven Pumps.

SN 48,679. Allied Tractor Equipment Co., Seattle, Wash. Filed Mar. 31, 1958.

ALLIED

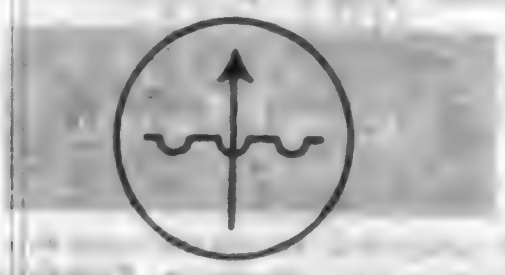
For Attachments and Accessories for Tractors—Namely, Rippers, Clearing Blades, Stump Splitters, Moldboards, Pusher Plates, Root Cutters, Canopy Tops, Blade Mounting Mechanisms, Tractor Drawn Scrapers, and Power Take-Off Cable Drums.
First use Mar. 24, 1950.

SN 50,165. Interstate Precision Products Corporation, Anaheim, Calif. Filed Apr. 22, 1958.



For Carpet Sweepers.
First use Apr. 8, 1958.

SN 51,760. Merriman Bros., Inc., Boston, Mass. Filed Apr. 28, 1958.



For Spinning and Twisting Rings and Parts Thereof.
First use Apr. 11, 1958.

SN 51,972. Sterling Precision Corporation, New York, N. Y., assignee of American La France Corporation, Elmira, N. Y. Filed May 20, 1958.

FOAMITE

Owner of Reg. Nos. 103,786, 175,089, and others.
For Portable Fire Extinguishers and Fire Extinguishing Apparatus, Wheeled Fire Extinguishers and Fire Extinguishing Systems.
First use in or about September 1914.

SN 52,236. Dockenderff and Company, Incorporated, Bridgeport, Conn. Filed May 26, 1958.

PULJAK

For Wire Working Tool.
First use May 15, 1958.

SN 52,518. Root-Lowell Manufacturing Co., Lowell, Mich. Filed May 28, 1958.

R-L
ROOT-LOWELL

Owner of Reg. Nos. 528,200 and 601,604.
For Pesticidal Applicators—Namely, Manual and Power-Operated Sprayers and Dusters and Parts Thereof.
First use Feb. 28, 1958.

SN 52,783. Varian Associates, Palo Alto, Calif. Filed June 2, 1958.

VACION

For High Vacuum Pumps.
First use Feb. 14, 1958.

SN 52,837. Underwood Corporation, New York, N. Y. Filed June 3, 1958.

Hideaway

For Typewriting Machines.
First use May 9, 1958.

SN 53,406. Greenlee Tool Co., Rockford, Ill. Filed June 12, 1958.

PERMA PAK

For Tools—Namely, Bits, Chisels, and Drills.
First use Apr. 11, 1958.

SN 53,588. M. M. A., Inc., Lancaster, Pa. Filed June 19, 1958.

"LITTLE WINDY" AIRVAC

For Portable Industrial Vacuum Cleaners.
First use on or about April 1956.

SN 54,176. Samuel Olson Mfg. Company, Inc., Chicago, Ill. Filed June 24, 1958.

WORKMASTER JR.

Owner of Reg. No. 645,712.
For Inclined and Horizontal Portable and Fixed Conveyors, Including Belt and Chain Conveying Elements.
First use Aug. 21, 1957.

SN 54,947. Hein, Lehmann & Co. AG, Duesseldorf, Germany. Filed July 8, 1958.

RIMA

Owner of German Reg. No. 906,428, dated June 27, 1951.
For Wire Meshing and Wire Netting, Sieves, Wire Hurdles, Conveyor Belts.

SN 55,546. Waukesha Motor Company, Waukesha, Wis. Filed July 17, 1958.

ROILINE

For Internal Combustion Engines and Engine-Driven Generator Sets.
First use June 12, 1958.

SN 55,547. Waukesha Motor Company, Waukesha, Wis. Filed July 17, 1958.

ROILINE

For Internal Combustion Engines and Engine-Driven Generator Sets.
First use June 12, 1958.

SN 56,031. Leyatall Engineering Company Limited, London, England. Filed July 25, 1958.

CROMARD

For Cylinder Liners for Piston Engines and Machines.
First use Dec. 31, 1945; in commerce Dec. 13, 1949.

SN 57,510. Start Pilot Corporation, Mineola, N. Y. Filed Aug. 19, 1958.

"START RAY"

Owner of Reg. No. 622,155.
For Mechanical Device for Attachment to an Internal Combustion Engine for Mixing With Air a Special Fuel Which Promotes the Rapid Starting of the Engine.
First use July 11, 1958.

SN 59,971. The M. T. & D. Company, Cleveland, Ohio. Filed Oct. 2, 1958.

MTD
Lawnflite

For Lawn-Mowers, Hand and Power-Driven.
First use July 1, 1958.

SN 60,162. McCulloch Corporation, Minneapolis, Minn. Filed Oct. 6, 1958.

Scott

For Outboard Motors.
First use Sept. 1, 1958.

Class 25 — Locks and Safes

SN 48,559. Herring-Hall-Marvin Safe Company, Hamilton, Ohio. Filed Mar. 27, 1958. Sec. 2(f).



For Portable and Stationary Safes, Bank Vaults.
First use in September 1951.

Class 26 — Measuring and Scientific Appliances

SN 36,324. Technical Animations Incorporated, Port Washington, N. Y. Filed Aug. 27, 1957.

TECHNAMATION

For Unit Consisting of a Working Model Made of Plastic Pieces or Polarized Birefringents Which May Be Used With a Projector or Rear Illuminated to Graphically Illustrate Mathematical, Physical, and Chemical Phenomena.
First use Dec. 15, 1956.

SN 43,215. Rudolf Steineck, Lugano-Pregassona, Switzerland. Filed Dec. 30, 1957.

Tessina

Owner of Swiss Reg. No. 157,407, dated July 18, 1955.
For Photographic Cameras.

SN 43,807. Atrio Optische Gesellschaft mit beschrankter Haftung, Solingen, Germany. Filed Jan. 13, 1958.

ATRIO

Owner of German Reg. No. Ws 671,536, dated July 30, 1957.
For Metallic and Non-Metallic Spectacle Mountings, Sun Glasses, Spectacles, Optical Viewers.
First use May 13, 1954; in commerce Jan. 30, 1956.

SN 44,730. Minneapolis-Honeywell Regulator Company, Minneapolis, Minn. Filed Jan. 27, 1958.

CADET

For Thermostats, Fan Controls, and Similar Devices.
First use Oct. 12, 1956.

SN 44,912. J. D. Möller Optische Werke GMBH., Wedel/Holstein, Germany. Filed Jan. 29, 1958.

MOLLER M WEDEL

Owner of German Reg. No. 704,136, dated July 4, 1957.
For Ophthalmological Instruments; Kolposcopes; Spectroscopes, Optical Adjusting Apparatuses, Goniometers; Binoculars, Spectacle Lenses, Magnifiers; Photo-Binoculars, Cinema Optics, Anamorphics; Diesel Injection Elements, Opticians' Workshop Equipments; Micro-Graduations, Clinometers, Rectangular Prisms.

SN 44,945. Yokogawa Electric Works, Inc., Musashino City, Tokyo, Japan. Filed Jan. 29, 1958.

YEW

Owner of Japanese Reg. Nos. 192,386 and 194,352, dated Aug. 25, 1927, and Nov. 7, 1927, respectively.
For Electrical Instruments Such as Industrial Measuring Apparatuses, Automatic Controlling Meters, Electronic Automatic Balancing Meters; Electric Meters Such as Voltmeters, Ammeters, Wattmeters, Frequency Meters, Etc.; Electric Indicators Such as Galvanometers, D. C. Potentiometers, Amplifiers, Electric Testers, and Oscillographs.

SN 48,076. Agfa Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Mar. 20, 1958.

ISOCHROM

Owner of German Reg. No. 444,090, dated Apr. 13, 1932.
For Light-Sensitive Photographic Films and Plates.

SN 48,256. Dynavia Engineering Corporation, Palo Alto, Calif. Filed Mar. 24, 1958.

DYNAVIA

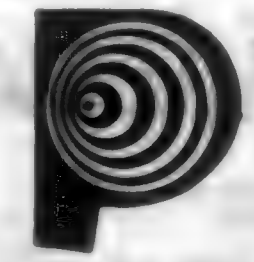
For Automatic Flight Control Equipment for Aircraft.
First use Jan. 26, 1958.

SN 48,549. De Jur-Amsco Corporation, Long Island City, N. Y. Filed Mar. 27, 1958.

ELECTRA

For Automatic Exposure Motion Picture Cameras.
First use Mar. 17, 1958.

SN 49,515. The Porter Chemical Company, Hagerstown, Md. Filed Apr. 11, 1958.



For Microscope Outfits Comprising Microscopes, Slides, Slide Glasses, Specimen Covers, Slide Labels, Lens-Cleaning Tissue, Specimen Mounting Cement and Thinner, Tweezers, Dissecting Needles and Droppers, Various Specimens for Observation Through the Microscope, Fibrous Material and Various Chemicals; Microscopes; and Microscope Slides and Parts Thereof.
First use Feb. 27, 1958.

SN 50,419. Textron Inc., Belmont, Calif. Filed Apr. 25, 1958.

TAPE-ARD

For Electrically Operated Punched Tape Data-Processing Apparatus, e. g., Tape Punches, Duplicators, and Readers.
First use on or about Mar. 27, 1957.

SN 50,547. Texas Instruments Incorporated, Dallas, Tex. Filed Apr. 28, 1958.

DUAL
rectiriter

Applicant disclaims the word "Dual" apart from the mark as shown. Owner of Reg. No. 660,542.
For Rectilinear Galvanometric Strip Chart Recorders Having Two Recorder Movements and Two Pens Contained Within a Single Instrument.
First use on or about Nov. 21, 1956.

SN 53,859. Cutler-Hammer, Inc., Milwaukee, Wis. Filed June 19, 1958.

ROCKETTE

For Thermostatically Controlled Electric Switches
First use May 16, 1958.

SN 54,051. Leonard Valve Company, Cranston, R. I. Filed June 23, 1958.

Photomaster

For Thermostatic Mixing Valves
First use on or about June 9, 1958.

SN 54,249. Nuclear-Chicago Corporation, Chicago, Ill. Filed June 25, 1958.

d/M-GAUGE

No claim is made to exclusive use of the word "Gauge" except in the combination shown.
For Portable Electronic Instrument Employing Radioactivity To Measure Moisture Content and Density of Soil and Analogous Materials, and Components for Such an Instrument—viz., Source-and-Detector Probes and Portable Scalers.
First use Oct. 31, 1957.

SN 54,973. Wilco Products, Inc., Orange, N. J. Filed July 8, 1958.

AUDIO LINER

For Wheel Supported Devices for Testing and Audibly Signalling Wheel Alignment Conditions.
First use Oct. 1, 1957.

SN 55,064. Gertsch Products, Inc., Los Angeles, Calif. Filed July 21, 1958.

RATIOTRAN

For Precision Alternating Current Transformer Voltage Dividers.
First use Oct. 26, 1956.

SN 55,409. Palisades Engineering Company, Pacific Palisades, Calif. Filed July 16, 1958.

P. E. C.

For Electrical to Pneumatic Transducers for Generating Pneumatic Wave Shapes and Functions Identical With Electrical Inputs.
First use in February 1958.

SN 55,410. Palisades Engineering Company, Pacific Palisades, Calif. Filed July 16, 1958.

FUNCTIONAIR

For Electrical to Pneumatic Transducers for Generating Pneumatic Wave Shapes and Functions Identical With Electrical Inputs.
First use in February 1958.

SN 55,521. Safe-Lock, Inc., Hialeah, Fla. Filed July 17, 1958.

WELT

For Engineers' Extension Tripods.
First use June 19, 1958.

Class 28 — Jewelry and Precious-Metal Ware

SN 25,490. Württembergische Metallwarenfabrik, Geislingen (Steige), Germany. Filed Mar. 4, 1957.

IKORA METAL

The word "Metal" is disclaimed apart from the mark as shown.
For Objects Made of Precious Metal or Plated Therewith—Namely, Vases, Dishes, Plates, Platters, Bottle Stands, Bowls, Lamp Bodies, Candlesticks, Candelabra, Hollow Tableware, Picture Frames, and Candy Boxes.
First use Dec. 21, 1928; in commerce 1933.

SN 29,586. Axel Bros., Inc., Jamaica, N. Y. Filed May 8, 1957.

Cunard

For Finger Rings.
First use October 1952.

Class 29 — Brooms, Brushes, and Dusters

SN 40,610. Pro-phy-lac-tic Brush Company, Florence, Mass. Filed Nov. 13, 1957.

GUM GUARD

For Tooth Brushes.
First use Oct. 24, 1957.

SN 52,185. American-Marietta Company (O-Cedar Division), Chicago, Ill. Filed May 23, 1958.

99

For Mops and Refill Heads Therefor.
First use Apr. 30, 1958.

Class 31—Filters and Refrigerators

SN 36,790. Enley Products, Inc., Brooklyn, N. Y. Filed Sept. 6, 1957.

Enley

For Container Employing a Chemical Composition To Be Used as a Water Purifier.
First use Mar. 1, 1956.

SN 54,863. Infilco Incorporated, Tucson, Ariz. Filed July 7, 1958.

IMPINJO

For Filters and Parts Thereof for Contaminated Liquids.
First use June 26, 1958.

Class 32—Furniture and Upholstery

SN 14,646. General Register Corporation, Long Island City, N. Y. Filed Aug. 27, 1956. Sec. 2(f).

TICKETAKER

For Filing Boxes Equipped With Rods for Sequentially Filing Ticket Stubs by Hand.
First use Oct. 1, 1951.

SN 26,704. Isocyanate Products, Inc., New Castle, Del. Filed Mar. 22, 1957.

ISOFOAM

For Molded, Shaped or Cut-to-Size Cushioning Made From Solid or Foamed-in-Place, Expansible or Flexible Resins Such as Polyisocyanates, Polyurethanes and Similar Polymers.
First use Apr. 15, 1954.

SN 40,932. Ernest Sohn Creations, Incorporated, New York, N. Y. Filed Nov. 19, 1957.

Platenium

For Metal Magazine Racks, and Metal Tea Carts and Bar Carts.
First use July 1, 1957.

SN 41,365. Pag Presswerk Aktiengesellschaft, Essen, Germany. Filed Nov. 29, 1957.

PAG

Owner of German Reg. No. 690,204, dated Apr. 28, 1956.
For Furniture of All Types, Especially Household Furniture Including Garden Furniture, Office Furniture, Furniture for Commercial Establishments and Places of Entertainment; Casings for Telephones, Radio and Television Sets; Fittings and Fixtures of Synthetic Material, Especially Handles, Knobs, and Decorative Parts for Furniture of the Above Type; Boards, Especially Table Tops, Benches, Chairs and Seats for Chairs, Backs and Arm Rests for Chairs; Decorative Moldings for Furniture of the Above Type; and Picture Frames.

SN 41,951. Three Mountaineers, Inc.; Asheville, N. C. Filed Dec. 6, 1957.



For Wooden Tables, Planters, Trays, Racks, Shelves, Candle Stands, Tea Carts, Cabinets, and Other Wooden Furniture Novelty Products.
First use about Dec. 1, 1931.

SN 43,661. Bebry Bedding Corporation, Bayonne, N. J. Filed Jan. 9, 1958.

HI-VERTIBLE

For Mechanisms for Convertible Sofas.
First use Feb. 15, 1957.

SN 47,426. Pullman Couch Company, Chicago, Ill. Filed Mar. 10, 1958.

SECTIONALS UNLIMITED

No claim is made to exclusive use of the word "Sectionals" alone.
For Fully Upholstered Living Room Furniture—Namely, a Variety of the Following Interchangeable and Combinable Furniture Components: Bases (Frame and Seat), Backs, Arms, Skirts, and Legs.
First use Mar. 4, 1958.

SN 48,485. Kitchen & Bath Inc., Garden City, N. Y. Filed Mar. 26, 1958.

Kitchen K&B Bath

Applicant disclaims the words "Kitchen" and "Bath" apart from the mark as shown.
For Kitchen and Bathroom Equipment; Especially Cabinets, Sinks, Vanities, and Parts Therefor.
First use Feb. 1, 1958.

SN 49,116. J. H. Benecke, Hannover-Vinnhorst, Germany. Filed Apr. 7, 1958.

Aalla

Owner of German Reg. No. 636,204, dated Mar. 26, 1953.
For Venetian Blinds and Slats Therefor; Cushions; Pillows; Mattresses; Window Shades; Plastic Sheeting, Cut to Size for Upholstery and Wall Decoration Purposes; and Sheet Material Impregnated or Coated With Plastics, Said Sheet Material Serving Upholstery and Wall Decoration Purposes and Being Cut to Size.

SN 57,900. Tomlinson of High Point, High Point, N. C. Filed Aug. 15, 1958. Sec. 2(f) as to "Tomlinson."

Pavane by TOMLINSON

Owner of Reg. Nos. 349,476, 647,477, and others.

For Chairs, Sofas, Love Seats, Tables, Sideboards, Cabinets, Benches, Beds, Dressers, Mirrors, Vanities, Chests, Commodes, Desks, Cupboards, Bookcases, and Couches.

First use June 23, 1958, on chairs and sofas; 1900 as to "Tomlinson."

SN 57,879. Norman Bell, d. b. a. Bell Enterprises, Brooklyn, N. Y. Filed Aug. 26, 1958.

PILFER

For Mirrors.
First use July 16, 1958.

SN 59,859. The Standard Mattress Company, Hartford, Conn. Filed Sept. 30, 1958.

BOARD-O-PEDIC

For Mattresses.
First use Sept. 2, 1958.

SN 59,888. Eclipse Sleep Products, Inc., Brooklyn, N. Y. Filed Oct. 1, 1958.

SACRO-LIGN

For Mattresses and Box Springs.
First use July 25, 1958.

SN 60,701. Vita-Rest Health Products, Inc., East Orange, N. J. Filed Oct. 15, 1958.

RELAX-A-MATIC

For Mattresses.
First use Feb. 3, 1958.

Class 34 — Heating, Lighting, and Ventilating Apparatus

SN 40,669. Dorr-Oliver Incorporated, Stamford, Conn. Filed Nov. 14, 1957

DORR-OLIVER

For Furnaces or Reactors for the Treatment of Solids Suspended in Gases.
First use Apr. 7, 1955.

SN 54,315. Kingsford Company, Iron Mountain, Mich. Filed June 26, 1958.

BAR-B-BASE

For Refractory Material in Particle Form for Lining Barbecues.
First use Mar. 21, 1958.

Class 35 — Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 54,536. Mecklenburg-Duncan Company, Oklahoma City, Okla. Filed June 30, 1958.

MADUCO

For Garden Hose.
First use May 15, 1958.

Class 36 — Musical Instruments and Supplies

SN 40,407. The Magnavox Company, Fort Wayne, Ind. Filed Nov. 12, 1957.

ASPEN

For Electrical Phonographs and Parts Thereof.
First use Oct. 18, 1957.

SN 44,081. Glaser-Steers Corporation, Belleville, N. J. Filed Jan. 16, 1958.

SPEED MINDER

For Record Changers for Electrical Phonographs.
First use Oct. 25, 1957.

SN 44,082. Glaser-Steers Corporation, Belleville, N. J. Filed Jan. 16, 1958.

GS SEVENTY SEVEN

For Record Changers for Electrical Phonographs.
First use Oct. 25, 1957.

SN 48,188. Maas Organ Company, d. b. a. Maas-Rowe Carillons, Los Angeles, Calif. Filed Mar. 21, 1958. Sec. 2(f).

MONOBELL

Owner of Reg. No. 573,041.

For Electronically Amplified Musical Bell System, Including a Musical Tone Generating Unit, an Amplifier, Loud Speakers and Their Controls.

First use May 18, 1950.

SN 51,188. Good Time Jazz Record Co., Inc., d. b. a. The Society for Forgotten Music, Los Angeles, Calif. Filed May 7, 1958.

The Society 8FM for Forgotten Music

For Grooved Phonograph Records.
First use May 2, 1958.

Class 37 — Paper and Stationery

SN 12,401. Lewis Blumenthal, d. b. a. Zip Letter Company, Chicago, Ill. Filed July 20, 1956.

Zip

The word "Letter" is disclaimed apart from the mark as shown.

For Stationery, Foldable Letters, and Blanks.
First use June 21, 1956.

SN 40,345. Hollywood Pen Co., New York, N. Y. Filed Nov. 8, 1957.

HOLLYWOOD

For Ball Point Pens, Pencils, and Fountain Pens.
First use in or about June 1946.

SN 43,402. Southwest Tablet Manufacturing Company, Dallas, Tex. Filed Jan. 3, 1958.

SKYBLEN

Owner of Reg. No. 201,337.
For Typewriter and Writing Paper and Tablets; Correspondence and Visiting Cards; Mailing Envelopes and Score Pads, and Airmail Tablets.
First use Feb. 27, 1903.

SN 51,005. Fortifiber Corporation, Los Angeles, Calif. Filed May 5, 1958.

AQUABAR

For Waterproof Paper in Sheet and Roll Form for Use in Industrial Wrappings, as a Moisture Barrier and as a Canal Liner.
First use May 29, 1953.

SN 52,686. Frank Hamlen Chamberlin, Orange, Va. Filed June 2, 1958.

BILL-A-MASTER

For Printed Forms.
First use Apr. 27, 1958.

SN 54,193. The Standard Oil Company, Cleveland, Ohio. Filed June 24, 1958.

So-clear

Owner of Reg. No. 393,196.
For Chemically Treated Paper Towels.
First use Mar. 25, 1941.

SN 54,674. Clover Farm Stores Corporation, Cleveland, Ohio. Filed July 2, 1958.

CLOVEREX

For Facial Tissue.
First use Apr. 12, 1958.

SN 55,024. Papeteries Steinbach & Cie S. A., Malmedy, Belgium. Filed July 9, 1958.

DIAFOT

Owner of Belgian Reg. No. 2,400, dated May 23, 1958.
For Baryte-Treated Paper for Copying Documents by Diaxo Process.

Class 38 — Prints and Publications

SN 41,870. Newsweek, Inc., New York, N. Y., by change of name from Weekly Publications, Inc., New York, N. Y. Filed Dec. 5, 1957.

SPACE AND THE ATOM

For Department of Magazine.
First use Nov. 4, 1957.

SN 43,801. Ames Company, Inc., Elkhart, Ind. Filed Jan. 13, 1958.

PHARMAQUICK

For Information Bulletins to Pharmacists and Related Personnel.
First use Jan. 7, 1958.

SN 43,802. Ames Company, Inc., Elkhart, Ind. Filed Jan. 13, 1958.

CLINIQUICK

Owner of Reg. Nos. 391,675, 627,205, and others.
For Information Bulletins to Medical Practitioners and Related Personnel.
First use Dec. 20, 1957.

SN 48,450. Ames Company, Inc., Elkhart, Ind. Filed Mar 26, 1958.

TECHNIQUICK

For Information Bulletins to Medical, Pharmacal, and Laboratory Personnel.
First use Mar. 17, 1958.

SN 51,443. The Family Circle, Inc., New York, N. Y. Filed May 12, 1958.

Family Circle

Owner of Reg. Nos. 382,401 and 617,878.
For Monthly Magazine.
First use May 2, 1958.

SN 51,788. HMH Publishing Co., Inc., Chicago, Ill. Filed May 16, 1958.

PLAYBOY

Owner of Reg. No. 600,018.
For Compilations of Stories Issued Annually, and Calendars
First use Nov. 1, 1953.

SN 52,065. Homer Smith Price, d. b. a. Speak-Easy Company, New York, N. Y. Filed May 21, 1958.

SPEAK-EASY

The drawing is lined to indicate the color brown and said color is claimed as a feature of the mark.
For Foreign Language Vocabulary Cards.
First use May 1, 1958.

SN 52,104. Dell Publishing Company, Inc., New York, N. Y. Filed May 22, 1958. Sec. 2(f).

DELL CROSSWORD ANNUAL

Owner of Reg. No. 532,275.
For Magazine Published Annually.
First use May 15, 1953.

SN 52,641. Kerr Printers, Inc., Culver City, Calif. Filed May 23, 1958.



The term "Book" is hereby disclaimed.
For Books.
First use Oct. 7, 1956.

SN 54,504. Walter Erhard, d. b. a. Imp Press, White Plains, N. Y. Filed June 30, 1958.



For Greeting Cards.
First use July 10, 1957.

SN 54,777. The Nightingale Press, Inc., Oradell, N. J. Filed July 3, 1958.

RN

Owner of Reg. No. 553,210.
For Periodical Publication.
First use June 15, 1937.

Class 39 — Clothing

SN 11,586. E. and M. Kaufmann, Incorporated, Aurora, Ill. Filed July 5, 1956.

JUNE IN JANUARY
JUBILEE

For Ladies' and Misses' Dresses.
First use Feb. 22, 1952.

SN 33,437. Shamrock Knitting Mills, Inc., Marietta, Ga. Filed July 9, 1957.

SHAMROCK

Owner of Reg. No. 647,889.
For Hosiery.
First use in or about May 1946.

SN 41,045. Philip Knitting Mills, New York, N. Y. Filed Nov. 20, 1957.

Phil Lon

For Sweaters.
First use Apr. 30, 1957.

SN 42,455. Dunlee Corp., Trenton, N. J. Filed Dec. 16, 1957.



For Baby Pants, Infants' Suits and Dresses, Waterproof Pants, Raincoats, Rain Hats, and Rain Capes, Shower Caps, and Sanitary Panties.
First use July 31, 1957.

SN 50,105. Rockford Textile Mills, Inc., McMinnville, Tenn. Filed Apr. 21, 1958.

Kitten-Soft

For Socks.
First use Jan. 25, 1958.

SN 50,707. S. H. Kress and Company, New York, N. Y. Filed Apr. 30, 1958.



Owner of Reg. No. 561,925.
For Boys' Shirts, Suspenders, Belts, and Underwear.
First use Oct. 3, 1956, on underwear.

SN 51,590. Chester H. Roth Co., Inc., New York, N. Y. Filed May 13, 1958.

SUPP-HORT

Owner of Reg. No. 665,788.
For Women's Hosiery.
First use Apr. 30, 1958.

SN 52,827. Press Dress and Uniform Company, Hummelstown, Pa. Filed June 3, 1958.



Owner of Reg. No. 342,418.
For Ladies' Dresses, Smocks, Uniforms for Nurses, Waitresses, Maids, and the Like; Jumpers, Pinafores, Aprons, Smocks, Coveralls, Blouses, and Slips.
First use Jan. 3, 1958; June 22, 1936, as to "White Angel."

SN 53,511. Stella Kalpakis, d. b. a. Sportway, Minden, La. Filed June 13, 1958.

SPORTWAY BY STELLA

For Women's Sportswear—Namely, Blouses, Skirts, Co-Ordinates (Namely, Combinations of Blouses, Skirts, Shorts or Capri Pants), and Dresses.
First use May 15, 1958.

SN 53,729. A. C. Richard Corporation, New York, N. Y. Filed June 17, 1958.

Dearfoams

For Slippers.
First use Feb. 1, 1958.

SN 54,598. Celebrity Belt Company, Philadelphia, Pa. Filed July 1, 1958.

CELEBRITY

For Men's and Boys' Belts, Each Consisting of a Strap and Buckle.
First use on or about Jan. 1, 1954.

SN 54,695. Miller Shoe Co., Inc., Cincinnati, Ohio. Filed July 2, 1958.

MILLER
FOOT DEFENDER

For Shoes Made of Leather and Leather and Fabric Combinations.
First use in or about March 1937.

SN 54,768. The Kendall Company, Boston, Mass. Filed July 3, 1958.

BLUE JAY

For Insoles for Shoes.
First use May 23, 1958.

SN 54,776. J. R. Morgan Knitting Mills, Inc., Tamaqua, Pa. Filed July 3, 1958.

HEAT-LOK

For Men's Socks.
First use during April 1958.

SN 55,065. Glen Raven Knitting Mills, Inc., Glen Raven, N. C. Filed July 10, 1958.

SPECTACU-LEGS

For Hosiery.
First use May 5, 1958.

SN 55,223. Cambridge Rubber Company, Taneytown, Md. Filed July 14, 1958.

Rayn Lite

Owner of Reg. No. 656,854.
For Shoes Made of Rubber, Leather, Fabric, Plastic and/or Any Combination Thereof for Men, Women, and Children.
First use June 3, 1957.

SN 55,273. Schwartz & Benjamin Inc., New York, N. Y. Filed July 14, 1958.

Customcraft

Owner of Reg. No. 405,252.
For Women's Shoes.
First use Feb. 16, 1936.

SN 55,318. Glen Raven Knitting Mills, Inc., Glen Raven, N. C. Filed July 15, 1958.

Bene-fits

For Hosiery.
First use May 5, 1958.

SN 55,329. Sam Labinson, Inc., New York, N. Y. Filed July 15, 1958.

GENEVIEVE

For Dresses, Blouses, and Skirts.
First use June 13, 1958.

SN 55,419. S. D. S. Inc., d. b. a. "Renee of Hollywood," Los Angeles, Calif. Filed July 16, 1958.

Pompadour

For Brassieres, Corsets, Bandeaux, Girdles, Corset-Combinations, and Garter Belts.
First use July 9, 1958.

SN 55,470. Goodyear Rubber Company, Middletown, Conn. Filed July 17, 1958.

APEX

For Rubber Boots and Shoes.
First use in January 1917.

SN 55,494. The May Department Stores Company, New York, N. Y. Filed July 17, 1958.

MELODY

Owner of Reg. No. 337,593.
For Children's, Misses', and Women's Shoes; Ladies' Hosiery.
First use Jan. 14, 1936, on ladies' hosiery.

SN 55,513. Abe Popkin, d. b. a. Popkin's Shoes, Bristol, Pa. Filed July 17, 1958.

BANDSTANDERS

For Women's Shoes.
First use June 2, 1958.

SN 55,527. I. Schneierson & Sons, Inc., New York, N. Y. Filed July 17, 1958.

TIME-SMILER

For Ladies' and Children's Slips, Petticoats, and Sleepwear.
First use on or about June 24, 1956.

SN 55,611. I. Schneierson & Sons, Inc., New York, N. Y. Filed July 18, 1958.

MIRACLE-BODICE

For Ladies' and Children's Slips, Petticoats, and Sleepwear.
First use on or about June 17, 1958.

SN 56,367. Suburbia USA, Inc., New York, N. Y. Filed July 30, 1958.

Suburbia

For Ladies' and Teen Age Shorts, Pedal Pushers, Slacks, T-Shirts, Beach Robes, Bathing Suits, and Coveralls.
First use Nov. 2, 1955.
Subj. to Intf. with Reg. No. 661,077.

Class 40—Fancy Goods, Furnishings, and Notions

SN 49,527. Snappy Button, Inc., Omaha, Nebr. Filed Apr. 11, 1958.

Twik

For Buttons.
First use Feb. 26, 1958.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 21,299. Susan Thomas, New York, N. Y. Filed Dec. 20, 1956.

SUSANITE

For Finish With Which Applicant Has Treated Its Woven and Knitted Fabrics.
First use Oct. 2, 1956.

SN 30,082. "Givenchy" (Société Anonyme), Paris, France. Filed May 15, 1957.

Hubert de Givenchy.

Owner of French Reg. No. 561,276, dated Dec. 5, 1956 (Seine); Natl. Inst. No. 85,948.
For Woolen-Fabrics, Cotton-Fabrics, Silk-Fabrics, Synthetic-Fibre Fabrics.

SN 36,610. Millbrooke Fashions, Inc., New York, N. Y. Filed Sept. 8, 1957.

BROADTELLA

For Fabric Sold Only in Finished Apparel—Namely, Women's and Misses' Coats, Suits, Toppers, Stoles, and Shrugs.
First use May 20, 1957.

SN 40,223. J. P. Stevens & Co. Inc., New York, N. Y., assignee of D. B. Fuller & Co. Inc., New York, N. Y. Filed Nov. 7, 1957.

TOPAZ

For Printed Cotton Dress Fabrics.
First use Mar. 7, 1957.

SN 43,773. Hugh Nelson-Columbia Carpet Mills, Inc., Philadelphia, Pa. Filed Jan. 10, 1958.

Textular

For Textile Carpets and Rugs.
First use Dec. 24, 1957.

SN 43,774. Hugh Nelson-Columbia Carpet Mills, Inc., Philadelphia, Pa. Filed Jan. 10, 1958.

Woodlawn

For Textile Rugs and Carpets.
First use Dec. 18, 1957.

SN 45,901. Mohasco Industries, Inc., Amsterdam, N. Y. Filed Feb. 14, 1958.

ROYAL GROSVENOR

Owner of Reg. No. 560,838.
For Textile Rugs and Carpets.
First use Nov. 20, 1957.

SN 47,367. Fishel-Cohen Inc., New York, N. Y. Filed Mar. 10, 1958.

EMPERADA

For Fabrics Sold Only in Finished Apparel—Namely, Women's Coats.
First use Dec. 4, 1956.

SN 51,240. Wellington Sears Company, New York, N. Y. Filed May 7, 1958.

MIDAS TOUCH

For Bath Towels, Hand Towels, Wash Cloths Made All of Cotton or All of Cotton With Synthetic Metal Yarn Decoration.
First use in 1956.

SN 51,869. Deering, Milliken & Co. Inc., New York, N. Y. Filed May 19, 1958.

Featheron

For Textile Fabrics Made of Wool, Cotton, and Synthetic Fibers and Combinations Thereof.
First use on or about Feb. 28, 1957.

SN 51,870. Deering, Milliken & Co. Inc., New York, N. Y. Filed May 19, 1958.

BENVENITO

For Textile Fabrics Made of Wool, Cotton, and Synthetic Fibers and Combinations Thereof.
First use on or about Oct. 7, 1957.

SN 51,872. Deering, Milliken & Co. Inc., New York, N. Y. Filed May 19, 1958.

SIMPLAY

For Textile Fabrics Made of Wool, Cotton, and Synthetic Fibers and Combinations Thereof.
First use on or about May 9, 1955.

SN 52,111. J. P. Stevens & Co. Inc., New York, N. Y., as assignee of D. B. Fuller & Co. Inc., New York, N. Y. Filed May 22, 1958.

FULLERKNIT

Owner of Reg. Nos. 387,730, 654,183, and others.
For Fabrics Knitted of Cotton Yarns.
First use Nov. 20, 1957.

SN 53,149. The Grand Union Company, East Paterson, N. J. Filed June 9, 1958.

GRAND-WAY

For Dish Towels.
First use on or about Apr. 10, 1958.

SN 53,957. William Skinner & Sons, New York, N. Y. Filed June 20, 1958.

DEW LINE

For Fabrics of Silk, Wool, Cotton, Man-Made Fibers and Combinations Thereof.
First use June 9, 1958.

SN 56,268. Oneita Knitting Mills, New York, N. Y. Filed July 29, 1958.

COLD-BAN

For Thermal Underwear Fabric.
First use June 27, 1958.

Class 43—Thread and Yarn

SN 52,998. The Dupian Corporation, Winston-Salem, N. C. Filed May 27, 1958.

SUNANAIR

Owner of Reg. No. 361,314.
For Natural and Synthetic Yarns, Including Specifically Nylon Yarn.
First use May 1, 1958.

SN 53,706. Gehring Laces, Inc., New York, N. Y. Filed June 17, 1958.

LEAVERLON

For Textured Yarn for Laces.
First use May 13, 1958.

Class 45—Soft Drinks and Carbonated Waters

SN 38,160. The Perfection Company, Ltd., Waco, Tex. Filed Oct. 1, 1957.

Sun Tang BIG RED

Owner of Reg. Nos. 375,706, 567,433, and others.
For Syrups for Making Carbonated Beverages.
First use Aug. 29, 1957.

SN 40,112. W. R. Beyer, d. b. a. Beyer Company, Odessa, Tex. Filed Nov. 5, 1957.

SI SI

For Soft Drink Beverages.
First use in June 1937.

SN 54,543. The Moxie Company, Needham Heights, Mass. Filed June 30, 1958.

TED'S

For Root Beer and Concentrate for Making the Same.
First use Mar. 26, 1958.

Class 46—Foods and Ingredients of Foods

SN 44,125. Wilh. Schmitz-Scholl, Mulheim (Ruhr), Germany. Filed Jan. 16, 1958.

Wissoll

Owner of German Reg. No. 706,768, dated Sept. 24, 1957.
For Candy, Candied Fruit, Powdered Cocoa, Fondant Mass and Fruit Pulp Used in the Manufacture of Candy, Cocoa Butter for Food Purposes.

SN 48,987. Goldrei & Co., Inc., New York, N. Y. Filed Apr. 3, 1958.

GOLDSHIRE

For Frozen Poultry, Frozen Fish, Frozen Shell Fish.
First use 1950 on poultry.

SN 50,391. Sam Drey, Phoenix, Ariz., assignee of Salt River Valley Produce, Inc., Glendale, Ariz. Filed Apr. 25, 1958.

BONNIE LEE

For Fresh Lettuce and Melons.
First use 1955 on fresh lettuce.

SN 52,327. Northwest Wholesale Incorporated, d. b. a. Washington Sales, Inc., Wenatchee, Wash. Filed May 26, 1958.

GREAT NORTHWEST

Owner of Reg. No. 211,526.
For Fresh Deciduous Fruit.
First use Sept. 18, 1925.

SN 52,384. C-K Processing Co., Muscatine, Iowa. Filed May 27, 1958.

Econolass

For Molasses Feed for Livestock and Poultry.
First use Mar. 15, 1958.

Class 49—Distilled Alcoholic Liquors

SN 54,622. MacDonald Greenlees Limited, Leith, Edinburgh, Scotland. Filed July 1, 1958. Sec. 2(f).

OLD PARR

Owner of U. S. Reg. No. 585,434.
For Scotch Whisky.
First use Oct. 5, 1909; in commerce June 27, 1933.

Class 50—Merchandise Not Otherwise Classified

SN 26,984. Sylvan, Mark, Aktiebolag, Stockholm, Sweden. Filed Mar. 26, 1957.

FAC

For Comprehensive Construction Kits Comprising Constructional Elements in the Nature of Rods, Plates, Couplings, Joints, Tubes, Wheels, Gears, Screws, Nuts, Washers, Sprockets, Springs and the Like To Be Readily Assembled Into Structures, Mechanisms, Working Models for Use in Industry, by Hobbyists and if Desired as a Toy.
First use in or about December 1952; in commerce in or about November 1954.

SN 40,241. The Mead Corporation, Dayton, Ohio. Filed Nov. 7, 1957.

GLIDE-PAK

For Material Handling Pallets.
First use October 1955.

SN 46,033. Up-Right, Inc., d. b. a. Up-Right Scaffolds, Berkeley, Calif. Filed Feb. 17, 1958.

TALLESCOPE

For Portable Scaffolding.
First use during the last week of December 1957.

SN 50,890. Fulton Bag & Cotton Mills, Atlanta, Ga. Filed May 2, 1958.

ROCKET TENT

The word "Tent" is disclaimed apart from the mark as shown.
For Tents.
First use Mar. 26, 1958.

SN 52,358. Trio Manufacturing Co., Griggsville, Ill. Filed May 26, 1958.

TRIO

Owner of Reg. No. 606,332.
For Garden Supplies Comprising Lawn Edging Strips, Plant Supports, Root Feeder Devices and Mounting Posts Therefor, Stabilizer Devices for Mounting Posts, and Arbor Structure Kits.
First use on or about Dec. 17, 1957.

SN 53,104. Baleguard Corporation, El Centro, Calif. Filed June 9, 1958.

BALEGUARD

For Woven Cotton Cloth Material Laminated With Plastic for Use as Protective Covering.
First use Dec. 20, 1956.

SN 53,498. Armour A. Haines, d. b. a. Richwood Box Mill, Detroit Lakes, Minn. Filed June 13, 1958.

BLACK LILY

For Sparrow Traps, Bird Shelters, and Bird Feeders.
First use Oct. 15, 1955.

SN 53,825. Rubbermaid Inc., Wooster, Ohio. Filed June 18, 1958.

HELPMATE

For Kitchen and Household Articles Made of Rubber Composition, Rubber-Like Composition, Plastic Composition, or Such Compositions Combined With Metal—Namely, Mats, Trays, and Dish Drainers.
First use on or about Dec. 16, 1957.

Class 52—Detergents and Soaps

SN 53,886. Lystad & Redlick, Inc., Grand Forks, N. Dak. Filed June 19, 1958.

CHAMP

For Detergent for Floors, Walls, Woodwork, Metal, Glass, Plastics, Concrete and Painted Surfaces.
First use Jan. 18, 1941.

SN 57,204. Goldblatt Tool Company, Kansas City, Mo. Filed Aug. 14, 1958.

BRICK BATH

For Masonry Cleaner.
First use Feb. 24, 1958

SERVICE MARKS

Class 100—Miscellaneous

SN 30,464. Aireco, Inc., Jamaica, N. Y. Filed May 22, 1957.

AIR ECO

For Designing and Engineering Services for Plant and Facility Layout and Designing Equipment for Aircraft Servicing.
First use Apr. 10, 1956.

SN 42,754. Alpha Engineering Works, Inc., Mount Prospect, Ill. Filed Dec. 20, 1957.

ALPHA

For Research and Development Work, Design Work, Preparation of Engineering Drawings, and Other Engineering Services in the Mechanical, Electrical, and Production Engineering Fields, Including Also the Automation Field.
First use Mar. 31, 1945.

Class 101—Advertising and Business

SN 28,513. Dan Gray, d. b. a. Time Finance Adjusters, Fort Worth, Tex. Filed Apr. 19, 1957.

T F A

For Adjusting and Repossessing Mortgaged Property.
First use Apr. 8, 1957.

Class 105—Transportation and Storage

SN 50,706. Koninklijke Luchtvaart Maatschappij N. V., d. b. a. K. L. M. Royal Dutch Airlines, New York, N. Y. Filed Apr. 30, 1958.

THRIFTAIR

For Transportation of Passengers by Air,
First use Jan. 9, 1958; in commerce Jan. 9, 1958.

Class 107—Education and Entertainment

SN 43,277. Teen Tones, Columbus, Ga. Filed Dec. 31, 1957.

TEEN TONES

For Title of a Television Program—Namely, Variety and Music.
First use July 28, 1957.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

672,653. BONJANA. Reinhold Hummel. SN 15,787. Pub. 11–4–58. Filed 9–17–56.

672,654. HEAVEN SCENT. Hatheway Floral Company, assignee of Curtis R. Hatheway, Jr. SN 22,676. Pub. 11–4–58. Filed 1–16–57.

672,655. KITOVI. Fouke Fur Company. SN 20,762. Pub. 11–4–58. Filed 5–27–57.

672,656. ASTRALON. Dynamit-Actien-Gesellschaft vormals Alfred Nobel & Co. SN 32,477. Pub. 11–4–58. Filed 6–24–57.

672,657. ADCOL. Archer-Daniels-Midland Company. SN 36,044. Pub. 11–4–58. Filed 8–23–57.

672,658. BLUE MOUNTAIN. International Minerals & Chemical Corporation. SN 39,144. Pub. 11–4–58. Filed 10–18–57.

672,659. THERMALEATHER. A. L. Gebhardt Co. SN 39,803. Pub. 11–4–58. Filed 10–30–57.

672,660. TAXI. Titanium and Zirconium Industries Proprietary Limited. SN 40,194. Pub. 11–4–58. Filed 11–6–57.

672,661. BROOKSBANK. McLeod Leather and Belting Company. SN 42,044. Pub. 11–4–58. Filed 12–9–57.

672,662. MENEFEE. Menefee Turkey Ranch, Inc. SN 42,967. Pub. 11–4–58. Filed 12–24–57.

672,663. DEWKIST. John Masek, d. b. a. John's. SN 43,622. Pub. 11–4–58. Filed 1–8–58.

672,664. MONSANTO M. Monsanto Chemical Company. SN 46,473. Pub. 11–4–58. Filed 2–24–58.

672,665. TREE WOOL. Simpson Timber Company. SN 46,656. Pub. 11–4–58. Filed 2–26–58.

Class 2—Receptacles

672,666. STEEL-STRAIN. Leo Fremont, d. b. a. Fremont Bags. SN 25,417. Pub. 11–4–58. Filed 3–4–57.

672,667. DESIGN OF GROTESQUE HUMAN FORMED OF LETTERS AND SYMBOLS. Hilding A. Johnson, d. b. a. Sargent-Morse Co. SN 46,390. Pub. 11–4–58. Filed 1–22–58.

672,668. DESIGN OF CHEST. The Hope Chest Company, Inc. SN 46,621. Pub. 11–4–58. Filed 2–26–58.

672,669. HOPE CHEST. The Hope Chest Company, Inc. SN 46,623. Pub. 11–4–58. Filed 2–26–58.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

672,670. DEBBY. I. Smallman & Sons Co. SN 46,767. Pub. 11–4–58. Filed 2–27–58.

672,671. DATE BAIT. I. Smallman & Sons Co. SN 46,769. Pub. 11–4–58. Filed 2–27–58.

672,672. SALEM. I. Smallman & Sons Co. SN 46,770. Pub. 11–4–58. Filed 2–27–58.

672,673. HEART THROB. A. J. Siris Products Corp. SN 49,526. Pub. 11–4–58. Filed 4–11–58.

Class 4—Abrasives and Polishing Materials

672,674. ESQUIRE CUSTOM FINISH. Knomark Manufacturing Co., Inc. SN 699,507. Pub. 11–4–58. Filed 12–6–35.

672,675. PALCO SPRAY SHINE. Palco Chemical Corp. SN 27,814. Pub. 11–4–58. Filed 4–9–57.

672,676. SAVOY. Seeman Brothers, Inc. SN 43,346. Pub. 7–15–58. Filed 1–2–58.

672,677. ELEPHANT. International Steel Wool Corporation. SN 48,340. Pub. 11–4–58. Filed 4–1–58.

672,678. CAR-SILK. Carl E. Sykes, Sr., d. b. a. The Tops Chemical Mfg. Co. SN 49,094. Pub. 11–4–58. Filed 4–4–58.

672,679. SILSMITH. Consultant Sales Service, Inc. SN 50,036. Pub. 11–4–58. Filed 4–21–58.

672,680. SWAB. Bay Chemical Corporation. SN 50,451. Pub. 11–4–58. Filed 4–28–58.

672,681. GUIDE. Janitors Supply and Chemical Company, Inc. SN 50,627. Pub. 11–4–58. Filed 4–29–58.

Class 6—Chemicals and Chemical Compositions

672,682. OPEX. National Polychemicals, Inc. SN 23,167. Pub. 3–11–58. Filed 7–2–57.

672,683. BBL. Baltimore Biological Laboratory, Inc. SN 33,199. Pub. 11–4–58. Filed 7–5–57.

672,684. LAREX. Swift & Company. SN 37,198. Pub. 11–4–58. Filed 9–13–57.

672,685. NIAX. Union Carbide Corporation. SN 37,468. Pub. 11–4–58. Filed 9–18–57.

672,686. NITRA N AND DESIGN. Mid-South Chemical Corporation. SN 37,892. Pub. 11–4–58. Filed 9–26–57.

672,687. AQUA N AND DESIGN. Mid-South Chemical Corporation. SN 38,553. Pub. 11–4–58. Filed 10–8–57.

672,688. ACTRON. Gerald W. Goldstone, d. b. a. A-C Carbon Co. SN 42,862. Pub. 11–4–58. Filed 12–23–57.

Class 7—Cordage

672,689. BLACK SHIELD. Dan H. Shield Cordage Company. SN 50,735. Pub. 11–4–58. Filed 4–30–58.

Class 11—Inks and Inking Materials

672,690. BOURGES. Bourges Color Corporation. SN 44,251. Pub. 11–4–58. Filed 1–20–58.

672,691. AURAVIN. Interchemical Corporation. SN 48,417. Pub. 11–4–58. Filed 3–25–58.

Class 12—Construction Materials

672,692. B. Bethlehem Steel Company. SN 26,036. Pub. 11–4–58. Filed 3–13–57.

672,693. FLEXIDOR AND DESIGN. Jamison Cold Storage Door Company. SN 36,195. Pub. 11–4–58. Filed 8–26–57.

672,694. SUPERGLAS. The Eagle-Picher Company. SN 47,745. Pub. 11–4–58. Filed 3–14–58.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

672,695. FLEXPIN. H & L Tooth Company. SN 34,697. Pub. 11–4–58. Filed 7–31–57.

672,696. SP. Orangeburg Manufacturing Co., Inc. SN 47,776. Pub. 11–4–58. Filed 3–14–58.

672,697. ORANGEBURG SP. Orangeburg Manufacturing Co., Inc. SN 47,777. Pub. 11–4–58. Filed 3–14–58.

672,698. SEWER-GUARD. Cleveland-Detroit Corporation. SN 48,144. Pub. 11–4–58. Filed 3–21–58.

672,699. SCULFIL. Scully Signal Company. SN 48,503. Pub. 11–4–58. Filed 3–26–58.

672,700. G AND DESIGN. Grinnell Corporation. SN 49,366. Pub. 11–4–58. Filed 4–9–58.

672,701. LADISH. Ladish Co. SN 50,071. Pub. 11–4–58. Filed 4–21–58.

672,702. KV. Knape and Vogt Manufacturing Company. SN 50,234. Pub. 11–4–58. Filed 4–23–58.

672,703. SPOTLITE. Washington Steel Products, Inc. SN 50,425. Pub. 11–4–58. Filed 4–25–58.

672,704. "CERTISEAL." D. & S. Stamping Co. SN 50,455. Pub. 11–4–58. Filed 4–28–58.

672,705. HANGOLET. Bonney Forge & Tool Works. SN 50,768. Pub. 11–4–58. Filed 5–1–58.

672,706. WEE-TRAINER. Thayer, Inc. SN 50,943. Pub. 11–4–58. Filed 5–2–58.

Class 14—Metals and Metal Castings and Forgings

672,707. FERRAFUSE. Raybestos-Manhattan, Inc. SN 33,502. Pub. 11–4–58. Filed 7–10–57.

672,708. PENETRED AND DESIGN. Penetred Corporation. SN 35,117. Pub. 11–4–58. Filed 8–7–57.

672,709. SCOVILL AND DESIGN. Scovill Manufacturing Company. SN 35,124. Pub. 11–4–58. Filed 8–7–57.

672,710. B AND DESIGN. A. M. Byers Company. SN 35,742. Pub. 11–4–58. Filed 8–19–57.

672,711. ORTHONIK. Armco Steel Corporation. SN 37,336. Pub. 11–4–58. Filed 9–17–57.

Class 15—Oils and Greases

672,712. F-7-L. Franklin Research Company. SN 41,533. Pub. 11–4–58. Filed 11–29–57.

672,713. PETRELAB. Petroleum Reactor Laboratories, Inc. SN 46,754. Pub. 11–4–58. Filed 2–27–58.

672,714. MOTOR MAGIC AND DESIGN. Motor Magic Corporation. SN 46,974. Pub. 11–4–58. Filed 3–3–58.

Class 16—Protective and Decorative Coatings

672,715. 33 HIGH GLOSS BLACK AND DESIGN. Rogers Paint Products, Inc. SN 41,836. Pub. 11–4–58. Filed 12–5–57.

672,716. HEDRAL. Wyandotte Chemicals Corporation. SN 54,920. Pub. 11–4–58. Filed 7–7–58.

672,717. KABINITE. American Paint Corporation. SN 55,365. Pub. 11–4–58. Filed 7–16–58.

672,718. PLASTOX. Pittsburgh Plate Glass Company. SN 55,510. Pub. 11–4–58. Filed 7–17–58.

Class 17—Tobacco Products

672,719. ALPINE. Philip Morris Incorporated. SN 47,515. Pub. 11–4–58. Filed 3–11–58.

672,720. CHEVRON. Imperial Tobacco Company of Canada, Limited. SN 47,766. Pub. 11–4–58. Filed 3–14–58.

672,721. PEYTON. Philip Morris Incorporated. SN 49,379. Pub. 11–4–58. Filed 4–9–58.

672,722. TURMAC. Turmac Tabak Maatschappij (Turmac Tobacco Company). SN 49,635. Pub. 11–4–58. Filed 4–14–58.

Class 18—Medicines and Pharmaceutical Preparations

672,723. RUBITABS. Stanley Drug Products, Inc. SN 21,957. Pub. 9–24–57. Filed 12–31–56.

672,724. SOMATOZYME. The Purdue Frederick Company. SN 38,765. Pub. 11–4–58. Filed 10–11–57.

672,725. GLIDDAMINS. Otis E. Glidden & Co., Inc. SN 44,274. Pub. 11–4–58. Filed 1–20–58.

672,726. PEERLESS. Walter A. Petersen, d. b. a. Peerless Pharmacal Company. SN 49,180. Pub. 11–4–58. Filed 4–7–58.

672,727. 9X AND DESIGN. Brooks Tyler & Co., Inc. SN 50,259. Pub. 11–4–58. Filed 4–23–58.

672,728. ALL-DAY-C. Barth Levitt Products. SN 51,277. Pub. 11–4–58. Filed 5–8–58.

672,729. KANAMIZE. Bristol Laboratories Inc. SN 51,852. Pub. 11–4–58. Filed 5–19–58.

Class 19—Vehicles

672,730. WESCO. W. C. Manufacturing Co., Inc. SN 40,100. Pub. 11–4–58. Filed 11–4–57.

672,731. VICTOR. Vauxhall Motors Limited. SN 41,593. Pub. 11–4–58. Filed 11–29–57.

672,732. PAY. International Harvester Company. SN 47,385. Pub. 11–4–58. Filed 3–10–58.

672,733. TOTLINER. Hedstrom Union Company. SN 49,693. Pub. 11–4–58. Filed 4–15–58.

Class 21—Electrical Apparatus, Machines, and Supplies

672,734. MICRO-MAGIC. Edwin L. Wiegand Company SN 27,362. Pub. 10–7–58. Filed 4–1–57.

672,735. BATTERY BIB. R. E. Dietz Company, assignee of Morris F. Glyer. SN 28,849. Pub. 9–9–58. Filed 4–25–57.

672,736. REDISOL. The C. O. Jelliff Mfg. Corporation. SN 34,537. Pub. 11–4–58. Filed 7–29–57.

672,737. ORBLITES AND DESIGN. The Pyle-National Company, assignee of Steber Manufacturing Co. SN 40,089. Pub. 11–4–58. Filed 11–4–57.

672,738. MUNTZ. Muntz TV, Inc. SN 40,865. Pub. 11–4–58. Filed 11–18–57.

672,739. LIFEBELT. McGraw-Edison Company. SN 42,310. Pub. 11–4–58. Filed 12–16–57.

672,740. REPRESENTATION OF CROWN AND SHIELD. Zenith Radio Corporation (Delaware corporation), by merger from Zenith Radio Corporation (Illinois corporation). SN 45,233. Pub. 11–4–58. Filed 2–3–58.

672,741. ISALITE. The Electric Auto-Lite Company. SN 46,301. Pub. 11–4–58. Filed 2–21–58.

672,742. COLORGLO. John H. Shaver, Jr., d. b. a. Shaver Floodlight Service. SN 46,572. Pub. 11–4–58. Filed 2–25–58.

672,743. TUFFER-BUFFER AND DESIGN. The Dill Manufacturing Company. SN 46,606. Pub. 11–4–58. Filed 2–26–58.

672,744. MAGNECHARGER. Fox Products Company. SN 46,820. Pub. 11–4–58. Filed 2–28–58.

672,745. TI-TAL. Ti-Tal Inc. SN 47,020. Pub. 11–4–58. Filed 3–3–58.

672,746. T AND DESIGN. Ti-Tal Inc. SN 47,021. Pub. 11–4–58. Filed 3–3–58.

672,747. ORIOLE. The Wm. C. O'Brien Co. SN 47,136. Pub. 11–4–58. Filed 3–5–58.

672,748. ROLLECTRODE. Micro-Test, Inc. SN 49,877. Pub. 11–4–58. Filed 4–9–58.

672,749. CELLULINE. Belden Manufacturing Company. SN 49,409. Pub. 11–4–58. Filed 4–10–58.

672,750. THERMALEX F. Essex Wire Corporation. SN 49,428. Pub. 11–4–58. Filed 4–10–58.

672,751. CON-SEAL. Paragon Creations, Inc. SN 49,705. Pub. 11–4–58. Filed 4–15–58.

672,752. VOLTRAP. Industrial Heater Co., Inc. SN 49,788. Pub. 11–4–58. Filed 4–16–58.

Class 22 — Games, Toys, and Sporting Goods

672,753. PEE SPACE SIREN. Pen-Haas Incorporated. SN 17,751. Pub. 11–4–58. Filed 10–18–56.

672,754. STAR GLIDE AND DESIGN. Star Glide. SN 48,807. Pub. 11–4–58. Filed 3–31–58.

672,755. FREENO. Stanley A. Nisetich, d. b. a. Sanco. SN 48,816. Pub. 11–4–58. Filed 3–31–58.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

672,756. COMBINE MILKER. The De Laval Separator Company. SN 19,432. Pub. 11–4–58. Filed 11–19–56.

672,757. SHORE CRAFT. Elco Products Company. SN 28,340. Pub. 11–4–58. Filed 4–17–57.

672,758. RED CENTER. Bettis Rubber Company. SN 32,578. Pub. 5–27–58. Filed 6–25–57.

672,759. BELLOWS AIR MOTOR. International Basic Economy Corporation, assignee of The Bellows Co. SN 34,906. Pub. 11–4–58. Filed 8–8–57.

672,760. NORDHOLM STAINLESS AND DESIGN. The Ashe-Houston Company Inc. SN 37,849. Pub. 11–4–58. Filed 9–26–57.

672,761. BEAVER. Beaver Pipe Tools, Inc. SN 38,727. Pub. 11–4–58. Filed 10–11–57.

672,762. DEXTER. Walter Ratner, d. b. a. The Grant Company. SN 38,271. Pub. 11–4–58. Filed 10–21–57.

672,763. SWINGLINE. Swingline, Inc. SN 42,741. Pub. 11–4–58. Filed 12–19–57.

672,764. VISIBALL. Visiball, Inc. SN 45,929. Pub. 7–8–58. Filed 2–14–58.

672,765. PAY. International Harvester Company. SN 47,384. Pub. 11–4–58. Filed 3–10–58.

672,766. KIDDE. Kidde Manufacturing Co., Inc. SN 47,589. Pub. 9–16–58. Filed 3–12–58.

672,767. DB DAVID BRADLEY. Sears, Roebuck and Co. SN 50,397. Pub. 11–4–58. Filed 4–25–58.

672,768. PREFECT. Ace Fastener Corporation. SN 51,098. Pub. 11–4–58. Filed 5–5–58.

672,769. REPRESENTATION OF SEA HORSE. Outboard Marine Corporation. SN 52,237. Pub. 11–4–58. Filed 5–23–58.

672,770. LANDMACO. The Landis Machine Company. SN 54,951. Pub. 11–4–58. Filed 7–8–58.

672,771. FARGO AND DESIGN. Fargo Mfg. Company, Inc. SN 54,995. Pub. 11–4–58. Filed 7–9–58.

672,772. GROVER. Littleton Implement Company. SN 55,011. Pub. 11–4–58. Filed 7–9–58.

672,773. UNI-MAT. Den-Nap Electric Mold Company. SN 55,134. Pub. 11–4–58. Filed 7–11–58.

672,774. UNI-MATIC. Den-Nap Electric Mold Company. SN 55,135. Pub. 11–4–58. Filed 7–11–58.

672,775. UNI-RAK. Den-Nap Electric Mold Company. SN 55,136. Pub. 11–4–58. Filed 7–11–58.

672,776. KITCHENAID. The Hobart Manufacturing Company. SN 55,144. Pub. 11–4–58. Filed 7–11–58.

672,777. WRIGHTROVAC. Sperry Rand Corporation. SN 55,425. Pub. 11–4–58. Filed 7–16–58.

672,778. ANCHOR AND FLAG DESIGN. Ansul Chemical Company. SN 55,439. Pub. 11–4–58. Filed 7–17–58.

672,779. DAYTON. The Dayton Rubber Company. SN 55,460. Pub. 11–4–58. Filed 7–17–58.

672,780. DRIVE-EZY. McDonough Co., d. b. a. O. Ames Co. SN 55,495. Pub. 11–4–58. Filed 7–17–58.

Class 24 — Laundry Appliances and Machines

672,781. DIAL-A-HEAT. Borg-Warner Corporation. SN 36,773. Pub. 11–4–58. Filed 9–6–57.

672,782. MOR AND DESIGN. Moore's Time-Saving Equipment, Inc. SN 44,551. Pub. 11–4–58. Filed 1–23–58.

672,783. DRY-A-TEER. Dennis Mitchell Industries. SN 47,403. Pub. 11–4–58. Filed 3–10–58.

Class 25 — Locks and Safes

672,784. ARCOLOCK. A. Rifkin & Company. SN 47,437. Pub. 11–4–58. Filed 3–10–58.

Class 26 — Measuring and Scientific Appliances

672,785. CARDATRON. Burroughs Corporation. SN 29,428. Pub. 6–24–58. Filed 5–6–57.

672,786. RE AND DESIGN. Reeves Equipment Corp. SN 29,948. Pub. 11–4–58. Filed 5–13–57.

672,787. TALLY PRINT. Standard Instrument Corporation, division of Heat Timer Corporation. SN 34,640. Pub. 11–4–58. Filed 7–30–57.

672,788. TALLY COUNT. Standard Instrument Corporation, division of Heat Timer Corporation. SN 34,641. Pub. 11–4–58. Filed 7–30–57.

672,789. AEROGRAPH. Wilkins Instrument and Research, Inc. SN 37,059. Pub. 11–4–58. Filed 9–11–57.

672,790. HOPPERMATIC. Burton R. Garrett, d. b. a. U. S. Engineering Company. SN 38,988. Pub. 11–4–58. Filed 10–16–57.

672,791. PERFXRAY. General Controls Co. SN 43,682. Pub. 11–4–58. Filed 1–9–58.

672,792. VENTALARM GAUGE. Scully Signal Company. SN 47,976. Pub. 11–4–58. Filed 3–18–58.

672,793. SUBURBAN. Da-Lite Screen Company, Inc. SN 49,358. Pub. 11–4–58. Filed 4–9–58.

672,794. HERCULENSES. Louis H. Nicolaus Optical Co. SN 49,601. Pub. 11–4–58. Filed 4–14–58.

672,795. CHROMOMAX. Leeds and Northrup Company. SN 49,709. Pub. 11–4–58. Filed 4–15–58.

672,796. WAY-PAC. The A. H. Emery Company. SN 49,833. Pub. 11–4–58. Filed 4–17–58.

672,797. ESSARETTE. Unitronics, Inc. SN 49,992. Pub. 11–4–58. Filed 4–18–58.

672,798. PRESTO. Advance Pattern Co., Inc. SN 50,149. Pub. 11–4–58. Filed 4–22–58.

672,799. TITMUS. Titmus Optical Company, Inc. SN 50,559. Pub. 11–4–58. Filed 4–28–58.

672,800. GAY LITE. The Univis Lens Company. SN 50,744. Pub. 11–4–58. Filed 4–30–58.

Class 27—Horological Instruments

672,801. REMINGTON RAND. Sperry Rand Corporation. SN 15,410. Pub. 11–4–58. Filed 9–10–56.

672,802. BANNER. Louis Schein Company, d. b. a. Banner Watch Company. SN 44,417. Pub. 11–4–58. Filed 1–21–56.

Class 28—Jewelry and Precious-Metal Ware

672,803. FASHION FLAIR. Coro, Inc. SN 25,971. Pub. 11–4–58. Filed 3–12–57.

672,804. ANSON. Anson Incorporated. SN 40,643. Pub. 11–4–58. Filed 11–14–57.

672,805. CAROL WESTLAKE. Carol Westlake Molitor, d. b. a. Carol Westlake Originals. SN 44,549. Pub. 11–4–58. Filed 1–23–58.

Class 29—Brooms, Brushes, and Dusters

672,806. DORIX. Farbenfabriken Bayer Aktiengesellschaft. SN 41,699. Pub. 11–4–58. Filed 12–3–57.

672,807. GRILL-BRITE. Industries for the Blind, Inc. SN 42,878. Pub. 11–4–58. Filed 12–23–57.

672,808. SUPER GREYHOUND. Art & Sign Brush Mfg. Corp. SN 43,794. Pub. 11–4–58. Filed 1–13–58.

672,809. KEMI-KLEEN AND DESIGN. Lowndes Products, Inc. SN 45,260. Pub. 11–4–58. Filed 2–4–58.

672,810. MIRACLE. A. G. Jacobus' Sons Inc. SN 47,952. Pub. 11–4–58. Filed 3–18–58.

Class 31—Filters and Refrigerators

672,811. ESKIMO. Eskimo Pie Corporation. SN 51,705. Pub. 11–4–58. Filed 5–15–58.

672,812. VAPOLEX. Westinghouse Air Brake Company. SN 54,972. Pub. 11–4–58. Filed 7–8–58.

672,813. ROBOT DESIGN. Tyler Refrigeration Corporation. SN 55,037. Pub. 11–4–58. Filed 7–9–58.

672,814. ATLAS. Atlas Supply Company. SN 35,442. Pub. 11–4–58. Filed 7–17–58.

Class 32—Furniture and Upholstery

672,815. DEAN SLIMLINE. Dean Industries, Inc. SN 28,579. Pub. 7–9–57. Filed 4–22–57.

672,816. SUPR-LOOP. No-Sag Spring Company. SN 33,993. Pub. 11–4–58. Filed 7–18–57.

672,817. SLUMBER DEEP. Belknap Hardware and Manufacturing Company. SN 46,100. Pub. 6–10–58. Filed 2–19–58.

672,818. PORTA CHECK FILE. Hamilton-Skotch Corporation. SN 48,742. Pub. 11–4–58. Filed 3–31–58.

672,819. KENMAR DESIGNS. The Kenmar Manufacturing Company. SN 53,512. Pub. 11–4–58. Filed 6–13–58.

672,820. TENDERTRAP. The Englander Company, Inc. SN 54,748. Pub. 11–4–58. Filed 7–3–58.

672,821. NAPSACK. The Englander Company, Inc. SN 54,749. Pub. 11–4–58. Filed 7–3–58.

672,822. KNAPSACK. The Englander Company, Inc. SN 54,750. Pub. 11–4–58. Filed 7–3–58.

Class 34—Heating, Lighting, and Ventilating Apparatus

672,823. MOLECU DRYER. C. I. Hayes, Inc. SN 33,709. Pub. 11–4–58. Filed 7–15–57.

672,824. CHAR-START. May Research, Inc. SN 27,280. Pub. 11–4–58. Filed 9–16–57.

672,825. AHC. American Hydronics Corporation. SN 41,431. Pub. 11–4–58. Filed 11–27–57.

672,826. SWEPT SURFACE. The Creamery Package Mfg. Company. SN 44,069. Pub. 11–4–58. Filed 1–16–58.

672,827. AMC HI-FLO. The Associated Merchandising Corporation. SN 50,003. Pub. 11–4–58. Filed 4–21–58.

672,828. SNOWCREST. National Gas Equipment Company, Inc. SN 50,310. Pub. 11–4–58. Filed 4–24–58.

672,829. THE CHARCOAL PIT. Marc Manufacturing Corp. SN 50,500. Pub. 11–4–58. Filed 4–28–58.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

672,830. REPRESENTATION OF A ROBIN. Robbins Tire & Rubber Company, Inc. SN 41,307. Pub. 11–4–58. Filed 11–25–57.

672,831. POSI-DRIVE AND DESIGN. The Russell Manufacturing Company. SN 46,760. Pub. 11–4–58. Filed 2–27–58.

672,832. PORTAGE. Seiberling Rubber Company. SN 48,938. Pub. 11–4–58. Filed 4–2–58.

Class 36—Musical Instruments and Supplies

672,833. FELSTED AND DESIGN. London Records, Inc. SN 49,169. Pub. 11–4–58. Filed 4–7–58.

672,834. ROSE AND REPRESENTATION OF ROSE. Rose Records, Inc. SN 49,387. Pub. 11–4–58. Filed 4–9–58.

672,835. COIN AND DESIGN. Coin Records, Inc. SN 49,741. Pub. 11–4–58. Filed 4–16–58.

Class 37—Paper and Stationery

672,836. PATCH ERASE. The Robert Howard Company. SN 21,692. Pub. 11–4–58. Filed 12–27–56.

672,837. NEET-WRAP. Piggly Wiggly Operators' Ware-House, Inc. SN 36,018. Pub. 11–4–58. Filed 8–22–57.

672,838. RUBKLEEN. Eberhard Faber Pencil Company. SN 36,804. Pub. 11–4–58. Filed 8–30–57.

672,839. ELECTRONIC ACCOUNTING CARD CORP. AND DESIGN. Electronic Accounting Card Corporation. SN 36,709. Pub. 11–4–58. Filed 9–5–57.

672,840. CASHMERE. The Champion Paper and Fibre Company. SN 38,343. Pub. 11–4–58. Filed 10–4–57.

672,841. BARBARA LANE. United Whelan Corporation. SN 39,430. Pub. 11–4–58. Filed 10–23–57.

672,842. VALKYRIE AND DESIGN. Bergstrom Paper Company. SN 47,331. Pub. 11–4–58. Filed 3–10–58.

672,843. CLUPAK. Clupak, Inc. SN 47,921. Pub. 11–4–58. Filed 3–19–58.

672,844. CARGO-PEN. Cory Corporation. SN 48,248. Pub. 11–4–58. Filed 3–24–58.

672,845. M AND DESIGN. Milprint, Inc. SN 49,597. Pub. 11–4–58. Filed 4–14–58.

Class 38—Prints and Publications

672,846. SEARCHLIGHT BIBLE COURSE. The General Conference of the Church of God (Seventh Day), d. b. a. Trurock Publishers. SN 32,813. Pub. 11–4–58. Filed 6–28–57.

672,847. COMPENDIO MEDICO. Merck & Co., Inc. SN 39,001. Pub. 11–4–58. Filed 10–16–57.

672,848. PAISANO PRESS AND DESIGN. Paisano Press. SN 43,206. Pub. 11–4–58. Filed 12–30–57.

672,849. CONSUMER REPORTS. Consumers Union of United States, Inc. SN 43,817. Pub. 11-4-58. Filed 1-13-58.

672,850. CRYSTAL-MARK. Crystal Transparent Corporation. SN 45,458. Pub. 11-4-58. Filed 2-7-58.

672,851. ENTRE. Recording & Statistical Corporation. SN 45,611. Pub. 11-4-58. Filed 2-10-58.

672,852. YANKEE GROCER. Shamie Publishing Co., Inc. SN 47,009. Pub. 11-4-58. Filed 3-3-58.

Class 39 — Clothing

672,853. SHAGGY DOG AND DESIGN. J. Press, Inc. SN 36,634. Pub. 1-7-58. Filed 4-22-57.

672,854. MARJI LOW. B. Lowenbaum Manufacturing Company. SN 36,459. Pub. 11-4-58. Filed 8-29-57.

672,855. LEAGUE OF CHAMPIONS AND DESIGN. The League of Champions, Inc. SN 36,965. Pub. 11-4-58. Filed 9-10-57.

672,856. DOVRE. A/S Lillestrom Trikotagefabrik. SN 37,205. Pub. 11-4-58. Filed 9-16-57.

672,857. BROWN BULL. Good Luck Glove Company. SN 37,430. Pub. 11-4-58. Filed 9-18-57.

672,858. MR. LONGFELLOW AND DESIGN. Hollywood Rambler. SN 39,528. Pub. 11-4-58. Filed 10-25-57.

672,859. LOVABLE "VELVET GLOVE." The Lovable Brassiere Co. SN 39,814. Pub. 11-4-58. Filed 10-30-57.

672,860. X-POSE. Exquisite Form Brassiere, Inc. SN 41,901. Pub. 11-4-58. Filed 12-6-57.

672,861. AQUA-SHEER. Wilkes-Barre Hosiery Mills, Inc. SN 42,178. Pub. 11-4-58. Filed 12-10-57.

672,862. KORLANE REX. Premier Knitting Co. Inc. SN 42,206. Pub. 11-4-58. Filed 12-12-57.

672,863. CROWN ROYAL ETC. AND DESIGN. S. K. Tate Furs. SN 42,743. Pub. 11-4-58. Filed 12-19-57.

672,864. BRINDLEIGH CLOTHES. Jacob Finkelstein & Sons Inc. SN 44,170. Pub. 11-4-58. Filed 1-17-58.

672,865. CRADDOCK-TERRY SHOE CORPORATION ETC. AND DESIGN. Craddock-Terry Shoe Corporation. SN 44,439. Pub. 11-4-58. Filed 1-22-58.

672,866. CONTINENTAL TRAVELLER. Valmeline Imports, Ltd. SN 45,290. Pub. 11-4-58. Filed 2-4-58.

672,867. LONGHORN BRAND AND DESIGN. H. J. Justin & Sons, Inc., d. b. a. Justin Boot Company. SN 46,321. Pub. 9-23-58. Filed 2-21-58.

672,868. POWER PROFILE. Cole of California, Inc. SN 46,603. Pub. 11-4-58. Filed 2-26-58.

672,869. DRAMATIQUE. Lady Marlene Brassiere Corp. SN 46,740. Pub. 11-4-58. Filed 2-27-58.

672,870. LILIMODE'S EXCLUSIVELY LITTLE'S AND DESIGN. Little's Shoe Store. SN 48,569. Pub. 11-4-58. Filed 3-27-58.

672,871. STERI+STEP AND DESIGN. Sidney Gilbert, d. b. a. The Gilbert Manufacturing Co. SN 49,061. Pub. 11-4-58. Filed 4-4-58.

672,872. TOW-COATS. Morton Karten, Inc. SN 49,073. Pub. 11-4-58. Filed 4-4-58.

672,873. EXCALIBUR. I. Spiewak & Sons, Inc. SN 49,089. Pub. 11-4-58. Filed 4-4-58.

672,874. DARLENE. M. K. M. Knitting Mills, Inc. SN 49,170. Pub. 11-4-58. Filed 4-7-58.

672,875. MAKAPU SURFHUGGERS. Aaron Minkes, d. b. a. California Swimwear Company. SN 49,172. Pub. 11-4-58. Filed 4-7-58.

672,876. HARROGATE. Weber and Heilbronner, Inc. SN 49,328. Pub. 11-4-58. Filed 4-8-58.

672,877. BRIOLETTES. Federated Department Stores, Inc. SN 49,564. Pub. 11-4-58. Filed 4-14-58.

672,878. WELLSLEY. Rudin & Roth. SN 49,616. Pub. 11-4-58. Filed 4-14-58.

672,879. EXPLORER. The Shirtcraft Company, Inc. SN 49,790. Pub. 11-4-58. Filed 4-16-58.

672,880. INSUL KNIT. P. H. Hanes Knitting Company. SN 50,053. Pub. 11-4-58. Filed 4-21-58.

672,881. LORD DANIEL. J. M. Lynch & Bro. SN 50,062. Pub. 11-4-58. Filed 4-21-58.

672,882. SCOOTIES. Robert L. Schumacher, d. b. a. Robb Enterprises. SN 50,394. Pub. 11-4-58. Filed 4-25-58.

672,883. JAX. Plymouth Undergarment Co. SN 50,639. Pub. 11-4-58. Filed 4-29-58.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

672,884. SATINESQUE. Columbus Coated Fabrics Corporation. SN 35,165. Pub. 11-4-58. Filed 8-8-57.

672,885. RIMAL WEAVES. The Joseph & Feiss Company. SN 36,443. Pub. 11-4-58. Filed 8-29-57.

672,886. COMPLEMATE. United Merchants and Manufacturers, Inc. SN 41,589. Pub. 11-4-58. Filed 11-29-57.

672,887. COMPLEMATES. United Merchants and Manufacturers, Inc. SN 41,591. Pub. 11-4-58. Filed 11-29-57.

672,888. SKYLINER. United States Rubber Company. SN 45,765. Pub. 11-4-58. Filed 2-12-58.

672,889. AIRLANE. United States Rubber Company. SN 45,766. Pub. 11-4-58. Filed 2-12-58.

672,890. NEW YORKER. Michaelian & Kohlberg, Inc., d. b. a. Spinning Wheel Rugs. SN 46,147. Pub. 11-4-58. Filed 2-19-58.

672,891. PERMADALE. Dubin-Haskell-Jacobson, Inc. SN 49,913. Pub. 11-4-58. Filed 4-18-58.

672,892. THE CHEMOTEXTILE. Pellon Corporation. SN 50,099. Pub. 11-4-58. Filed 4-21-58.

672,893. TURNA-MAGIC. John Wolf Textiles, Inc. SN 50,196. Pub. 11-4-58. Filed 4-22-58.

672,894. MELLOSAN. Dubin-Haskell-Jacobson, Inc. SN 50,221. Pub. 11-4-58. Filed 4-22-58.

672,895. CHLOREPEL. The Calico Printers' Association Limited. SN 50,445. Pub. 11-4-58. Filed 4-28-58.

672,896. BON-SEAM. Lydia Cotton Mills. SN 50,813. Pub. 11-4-58. Filed 5-1-58.

672,897. PANAMA. M. & W. Thomas Corp. SN 50,849. Pub. 11-4-58. Filed 5-1-58.

Class 44 — Dental, Medical, and Surgical Appliances

672,898. ACE. Becton, Dickinson and Company. SN 41,351. Pub. 10-14-58. Filed 11-26-57.

672,899. RONSON. Ronson Corporation. SN 46,485. Pub. 11-4-58. Filed 2-24-58.

672,900. TRIMATREAT. Miracle Massage Corporation, d. b. a. Miracle Massage Corp. SN 46,634. Pub. 11-4-58. Filed 2-26-58.

672,901. RAPAK. The Wilson Rubber Company. SN 47,163. Pub. 11-4-58. Filed 3-5-58.

672,902. INTRACATH. Deseret Pharmaceutical Company, Inc. SN 47,354. Pub. 11-4-58. Filed 3-10-58.

672,903. KIMLON. Kimberly-Clark Corporation. SN 47,808. Pub. 11-4-58. Filed 3-17-58.

Class 45 — Soft Drinks and Carbonated Waters

672,904. JUNGLE BREW. Filler Products, Inc. SN 22,103. Pub. 11-4-58. Filed 1-4-57.

672,905. ROCK CREEK. Rock Creek Ginger Ale Co., Inc. SN 45,204. Pub. 11-4-58. Filed 2-3-58.

Class 46—Foods and Ingredients of Foods

672,906. MR. CHICO AND DESIGN. Dolly Fruit Products Corp. SN 658,519. Pub. 5–3–55. Filed 12–24–53.

672,907. SMOKELLE. National Dairy Products Corporation, by merger from Kraft Foods Company. SN 661,348. Pub. 11–23–54. Filed 2–19–54.

672,908. PIC-A-SNAK. Pic-A-Snak Corporation. SN 11,873. Pub. 11–4–58. Filed 7–10–56.

672,909. APEX AND DESIGN. Food Town, Inc. SN 23,390. Pub. 11–4–58. Filed 1–29–57.

672,910. COUNTY FAIR. Charles Graziano, d. b. a. Ace Pecan Company and County Fair Nut Company. SN 23,461. Pub. 1–14–58. Filed 1–30–57.

672,911. SOILLESS GARDEN AND DESIGN. Howard W. Messeroll and Stella K. Messeroll, d. b. a. Soilless Garden. SN 26,371. Pub. 11–4–58. Filed 3–18–57.

672,912. VITA. Vita Food Products, Incorporated. SN 31,440. Pub. 11–4–58. Filed 6–5–57.

672,913. "THE UNIVERSAL FRUIT." Kenneth H. Dunham. SN 32,295. Pub. 11–4–58. Filed 6–20–57.

672,914. HEALTH MAID BRAND AND DESIGN. Paul John Gundlach, d. b. a. The Vita-Mart. SN 32,680. Pub. 11–4–58. Filed 6–26–57.

672,915. DESIGN OF GROTESQUE BIRD. Malt-o-Meal Company. SN 33,557. Pub. 11–4–58. Filed 7–11–57.

672,916. OLD FAITHFUL ETC. AND DESIGN. Pierce Packing Company. SN 36,018. Pub. 11–4–58. Filed 8–22–57.

672,917. M·J·B QUICK BROWN AND DESIGN. M. J. B. Co. SN 42,389. Pub. 11–4–58. Filed 12–13–57.

672,918. TEXSUN. Texsun Corporation. SN 48,882. Pub. 11–4–58. Filed 4–1–58.

672,919. BARBE-CUTIES. Bernard S. Pincus Co. SN 52,334. Pub. 11–4–58. Filed 5–26–58.

672,920. HYDROX. Sunshine Biscuits, Inc. SN 53,207. Pub. 11–4–58. Filed 6–9–58.

Class 49—Distilled Alcoholic Liquors

672,921. ALEXANDER'S DANDIE DINMONT AND DESIGN. A. Alexander & Company Limited. SN 35,309. Pub. 11–4–58. Filed 8–12–57.

672,922. ALEXANDER'S. A. Alexander & Company Limited. SN 36,550. Pub. 11–4–58. Filed 9–3–57.

672,923. AMERICAN GENTLEMAN. Schenley Distillers, Inc., d. b. a. Number One Distilling Company. SN 48,209. Pub. 11–4–58. Filed 3–21–58.

672,924. MR. LONDONER. Schenley Distillers, Inc. SN 48,501. Pub. 11–4–58. Filed 3–26–58.

Class 50—Merchandise Not Otherwise Classified

672,925. HY-SYNS. Charlotte M. Baron, d. b. a. Professional Products Company. SN 28,481. Pub. 11–4–58. Filed 4–19–57.

672,926. THREAD-A-FOIL. Chicago Printed String Co. SN 33,949. Pub. 11–4–58. Filed 7–18–57.

672,927. ROLL-A-FOLD. Robert L. Dickerson, d. b. a. Roll-A-Fold Scaffold Company. SN 37,237. Pub. 11–4–58. Filed 9–16–57.

672,928. IRONING VALET. Dennis Mitchell Industries. SN 43,262. Pub. 11–4–58. Filed 12–31–57.

672,929. CHROMELITE. Minnesota Mining and Manufacturing Company. SN 47,123. Pub. 11–4–58. Filed 3–5–58.

672,930. WET-A-PAK. Needl-Pak Company. SN 47,671. Pub. 11–4–58. Filed 3–13–58.

672,931. SANI-PIC. Sani-Pic, Inc. SN 47,682. Pub. 11–4–58. Filed 3–13–58.

Class 51—Cosmetics and Toilet Preparations

672,932. GENII. Lydia O'Leary, assignee of Lydia O'Leary, Inc. SN 690,186. Pub. 11–4–58. Filed 6–24–55.

672,933. RENAISSANCE. Ludwig Scherk, Inc. SN 12,476. Pub. 11–4–58. Filed 7–12–56.

672,934. BALSAN. Macsil Inc. SN 17,778. Pub. 11–4–58. Filed 10–18–56.

672,935. BENE-FACIAL. Graef Miller, d. b. a. Margaret Lane. SN 26,291. Pub. 11–4–58. Filed 3–15–57.

672,936. THE WYBRANT SYSTEM. The Wybrant System Products Corporation. SN 31,370. Pub. 11–4–58. Filed 6–4–57.

672,937. LE SECRET DE LA NATURE. Golden Peacock Co., Inc. SN 23,491. Pub. 11–4–58. Filed 7–10–57.

672,938. TILFORD. Park & Tilford. SN 36,672. Pub. 11–4–58. Filed 9–4–57.

672,939. LITTLE DANCER. Parfums Ciro, Inc. SN 37,973 Pub. 11–4–58. Filed 9–27–57.

672,940. KERI. Foster-Milburn Company. SN 42,013. Pub. 11–4–58. Filed 12–9–57.

672,941. GIFT OF LIFE. Para Laboratories. SN 42,716. Pub. 11–4–58. Filed 12–19–57.

672,942. MARTHA GRETCHEN. John W. Hanlon, Inc. SN 43,452. Pub. 11–4–58. Filed 1–6–58.

672,943. ENGLISH LEATHER. Mem Company, Inc. SN 44,403. Pub. 11–4–58. Filed 1–21–58.

672,944. TARTAN 21. McKesson & Robbins, Incorporated. SN 48,299. Pub. 11–4–58. Filed 3–24–58.

Class 52—Detergents and Soaps

672,945. BULAN. Augustus Mierson, d. b. a. Bulan Company. SN 39,653. Pub. 11–4–58. Filed 10–28–57.

672,946. LIVING BEAUTY. Living Beauty, Inc. SN 46,283. Pub. 11–4–58. Filed 2–20–58.

672,947. BC BEAUTY CREATIONS AND DESIGN. Living Beauty, Inc. SN 46,235. Pub. 11–4–58. Filed 2–20–58.

672,948. CRENUM. Societe Francaise des Cosmetiques Biologiques. SN 48,588. Pub. 11–4–58. Filed 3–27–58.

Service Marks

Class 100—Miscellaneous

672,949. KIWANIS. Kiwanis International. SN 8,670 COLLECTIVE MARK. Pub. 11–4–58. Filed 5–21–56.

672,950. AIRTONE. Airtone Chemical Company. SN 24,743. Pub. 11–4–58. Filed 2–20–57.

672,951. ELECTRO-CHEK AND DESIGN. Electro-Chek Corporation of America. SN 27,021. Pub. 11–4–58. Filed 3–27–57.

672,952. DE CRIS AND DESIGN. Santa J. Crisall. SN 27,494. Pub. 11–4–58. Filed 4–4–57.

672,953. SPORTS CAR CLUB OF AMERICA AND DESIGN. Sports Car Club of America, Incorporated. SN 31,255. Pub. 11–4–58. Filed 6–4–57.

672,954. THE SCHOOL ENTERPRISES AND DESIGN. Grossman & Sons, Inc. SN 35,486. Pub. 11–4–58. Filed 8–2–57.

672,955. SILK HAT INC. ETC. AND DESIGN. Silk Hat, Inc., Tuxedo Rental Service. SN 40,885. Pub. 11–4–58. Filed 11–18–57.

672,956. VOGUE. Vogue Thermographer's, Inc. SN 47,297. Pub. 11–4–58. Filed 3–7–58.

Class 101 — Advertising and Business

672,957. CINDERELLA. Cinderella Homes, Inc. SN 693,734. Pub. 11-4-58. Filed 8-26-55.

672,958. NCCH. A. C. Nielsen Company. SN 34,622. Pub. 11-4-58. Filed 7-30-57.

672,959. ACSA AND DESIGN. American Continental Shoppers Association, Inc. SN 41,606. Pub. 11-4-58. Filed 12-2-57.

672,960. WRT AND DESIGN. Wilmette Research Tabulating, Inc. SN 44,235. Pub. 11-4-58. Filed 1-17-58.

Class 102 — Insurance and Financial

672,961. AMERICAN HARDWARE MUTUAL ETC. AND DESIGN. American Hardware Mutual Insurance Company. SN 19,858. Pub. 11-4-58. Filed 11-26-56.

672,962. LITTLE GIANT. Combined Insurance Company of America. SN 32,471. Pub. 11-4-58. Filed 6-24-57.

672,963. FLEXIPLAN. The Union Central Life Insurance Company. SN 40,389. Pub. 11-4-58. Filed 11-8-57.

672,964. FIGURE OF A MAN. The Cleveland Trust Company. SN 43,374. Pub. 11-4-58. Filed 2-6-58.

Class 103 — Construction and Repair

672,965. JOE GRANVILLE AND DESIGN. Market Tire Company of Maryland, Inc. SN 38,478. Pub. 11-4-58. Filed 10-7-57.

672,966. HOMCO. The Houston Oil Field Material Company, Inc. SN 41,387. Pub. 11-4-58. Filed 11-26-57.

672,967. GRACO AND DESIGN. Graco Metal Products, Inc. SN 48,555. Pub. 11-4-58. Filed 3-27-58.

Class 104 — Communication

672,968. MOBILE MIKE. Mobile Radio Engineering, Inc. SN 42,301. Pub. 11-4-58. Filed 12-12-57.

Class 105 — Transportation and Storage

672,969. IAL. Icelandic Airlines, Inc. SN 32,759. Pub. 11-4-58. Filed 6-27-57.

672,970. NALCO AND DESIGN. National Auto Leasing Corporation. SN 33,826. Pub. 11-4-58. Filed 7-16-57.

Class 106 — Material Treatment

672,971. XP AND DESIGN. Midcontinent Map Company, d. b. a. X P Service Co. SN 47,404. Pub. 11-4-58. Filed 3-10-58.

Class 107 — Education and Entertainment

672,972. MCI. Paul Klemtner & Company, Inc. SN 28,525. Pub. 11-4-58. Filed 4-19-57.

672,973. GUSSIE'S CORNER. Gertrude Augusta Moran Hand, d. b. a. Gussie Moran. SN 44,087. Pub. 11-4-58. Filed 1-16-58.

Collective Membership Mark

Class 200

672,974. The American College of Life Underwriters. SN 680,992. Pub. 11-4-58. Filed 2-3-55.

Certification Mark

Class A — Goods

672,975. GENUINE ENGLISH LIGHTWEIGHT ETC. AND DESIGN. The British Cycle & Motor Cycle Industries Association Limited. SN 38,126. Pub. 11-4-58. Filed 10-1-57.

672,976. RIS AND DESIGN. California Redwood Association. SN 48,461. Pub. 11-4-58. Filed 3-26-58.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 1 — Raw or Partly Prepared Materials

672,977. W. J. Walden Seed Company, Inc., Midway, Ky., by change of name from Producers Seed Company, Inc., Midway, Ky. SN 19,325. Filed P. R. 11-15-56. Am. S. R. 10-6-58.



For Grass Seed.
First use on or about July 1, 1956.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

672,978. A. J. Siris Products Corp., New York, N. Y. SN 37,526. Filed P. R. 9-19-57. Am. S. R. 9-30-58.

FLIP-TOP

For Plastic Purses.
First use Sept. 16, 1957.

Class 6 — Chemicals and Chemical Compositions

672,979. Potter-McCune Company, McKeesport, Pa. SN 33,569. Filed P. R. 7-11-57. Am. S. R. 8-29-58.

STA-BRITE

For Ammonia and Bleach (Sodium Hypochlorite).
First use March 1946.

Class 10—Fertilizers

672,980. Getchells Farm, d. b. a. "The Getchells," Lakeport, Calif. SN 57,366. Filed P. R. 8–18–58. Am. S. R. 11–25–58.

NATURE'S FORMULA

For Earth Worm Castings for Use as a Soil Conditioner.
First use July 1, 1957.

Class 17—Tobacco Products

672,981. General Cigar Co., Inc., New York, N. Y. SN 56,253. Filed 7–29–58.



The drawing is lined for gold and red.
For Tobacco Sheet Material for Use as Cigar Binder.
First use May 31, 1957.

Class 37—Paper and Stationery

672,982. Pak-Well Paper Products Company, Portland, Oreg. SN 57,367. Filed P. R. 9–17–57. Am. S. R. 11–6–58.

SNAP–TAB

For Paper Litter Bags.
First use Aug. 29, 1957.

672,983. Eberhard Faber Pencil Company, Wilkes-Barre, Pa. SN 40,928. Filed P. R. 11–19–57. Am. S. R. 11–21–58.

BLAK-PRINT

For Pencils and Ball Point Pens.
First use Nov. 14, 1957.

Class 39—Clothing

672,984. Munsingwear, Inc, d. b. a. Hollywood V-Ette-Vanarette, Division of Munsingwear, Inc., assignee of Hollywood-Maxwell Co., Los Angeles, Calif. SN 31,565. Filed P. R. 6–7–57. Am. S. R. 11–12–58.

THE HOLLYWOOD LOOK

For Brassieres.
First use May 23, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

672,985. Gordon Clothes, Inc., Philadelphia, Pa. SN 17,806. Filed P. R. 10–10–56. Am. S. R. 10–9–58.

CAMBRI CLOTH

For Fabric Sold Only in Finished Garments—Namely, in Men's, Women's and Children's Coats, Suits, Jackets, Shirts and Walk Shorts.
First use Dec. 11, 1955.

Class 45—Soft Drinks and Carbonated Waters

672,986. The J. R. Watkins Company, Winona, Minn. SN 42,095. Filed P. R. 12–9–57. Am. S. R. 11–24–58.

FRESH-AID

For Beverage Base for Soft Drinks.
First use Nov. 17, 1957.

Class 46—Foods and Ingredients of Foods

672,987. Chun King Sales, Inc., assignee of Chun King Frozen Foods Corp., Duluth, Minn. SN 656,298. Filed P. R. 11–13–53. Am. S. R. 11–10–58.

DIVIDER FREEZE PACK

For Packages Containing Frozen Beef, Chow Mein and Meatless Chow Mein.
First use on or about Nov. 1, 1953.

672,988. Chicken Delight Inc., Rock Island, Ill. SN 11,225. Filed P. R. 6–29–56. Am. S. R. 11–21–58.

SHRIMP ROYALE

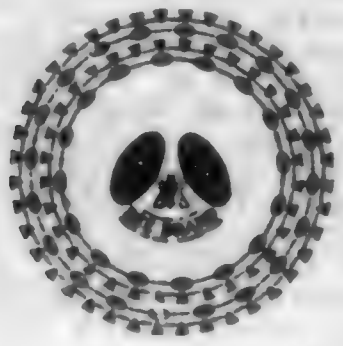
For Packaged Cooked Meal Consisting of Fried Shrimp, Potatoes, Sauce, and a Muffin or Roll.
First use June 6, 1956.

672,989. Chicken Delight Inc., Rock Island, Ill. SN 11,226. Filed P. R. 6–29–56. Am. S. R. 11–21–58.

CHICKEN ROYALE

For Packaged Cooked Meal Consisting of Fried Chicken, Potatoes, Sauce, and a Muffin or Roll.
First use June 6, 1956.

672,990. Societe Anonyme des Caves et des Producteurs Reunis de Roquefort, Roquefort (Aveyron), France. SN 25,210. Filed P. R. 8–8–57. Am. S. R. 11–12–58.



Owner of U. S. Reg. Nos. 40,159 and 25,285.
For Cheeses.
First use Jan. 12, 1957.

672,991. The Holton Company, Inc., Chicago, Ill. SN 25,509. Filed P. R. 8–14–57. Am. S. R. 10–2–58.

HOLTON'S

For Pizza Crust.
First use Aug. 3, 1957.

672,992. Aron Streit, Inc., New York, N. Y. SN 39,100. Filed P. R. 10–17–57. Am. S. R. 10–16–58.

DIET-SNAX

For Matzo Crackers.
First use Oct. 1, 1957.

Class 47—Wines

672,993. Wine Growers Guild, Lodi, Calif. SN 34,652. Filed P. R. 7–30–57. Am. S. R. 10–21–58.



The drawing is lined for red.
For Rose Wines.
First use July 15, 1957.

672,994. Rene Ott, Marcel Ott, Andre Ott, and Etienne Ott, d. b. a. Ott Freres, Antibes, France. SN 54,550. Filed 6–30–58.



Owner of French Reg. No. 434 (Antibes), dated June 19, 1951; Natl. Inst. No. 495,206.
For Wines.

Class 51—Cosmetics and Toilet Preparations

672,995. Juliette Margien, Inc., Ridgefield, N. J. SN 25,356. Filed 8–12–57.



The mark consists of the configuration of the goods, comprising a round base made up of two annular bands, with a top which is round at its foot to fit the base and then tapers into an oval shape.
For Lipsticks.
First use June 14, 1956.

Class 52—Detergents and Soaps

672,996. Eaton Chemical and Dyestuff Company, Detroit, Mich. SN 24,842. Filed P. R. 2–21–57. Am. S. R. 12–23–57.

Eaton's SPRAY SPOTTER

For Spraying Solution Used in Dry Cleaning.
First use Oct. 23, 1956.

TRADEMARK REGISTRATIONS RENEWED

122,964. EMODELLA. Cl. 18. 10–1–18.
123,533. MULTIMOTOR. Cl. 15. 11–19–18.
123,799. FREEDOM AND DESIGN. Cl. 1. 12–10–18.
124,039. REPRESENTATION OF BREASTPLATE AND DESIGN. Cl. 6. 12–31–18.
125,091. REIS AND DESIGN. Cl. 39. 4–8–19.
359,029. BLUE BIRD AND REPRESENTATION OF BIRD. Cl. 36. 8–2–38.
359,410. BUTVAR. Cl. 6. 8–16–38.
359,567. LOVEHEART. Cl. 28. 8–23–38.
360,170. MIL-K-BOTL AND REPRESENTATION OF WINDMILL. Cl. 45. 9–6–38.
360,229. DON'T KILL YOUR WELL CALL OTIS. Cl. 23. 9–13–38.
361,124. RAMSES. Cl. 18. 10–11–38.
361,145. TWANG. Cl. 45. 10–11–38.
361,616. PICTURE OF BABY FACE. Cl. 46. 10–25–38.
361,662. CHRONOS. Cl. 26. 10–25–38.
361,736. RED DEVIL. Cl. 23. 11–1–38.
361,737. RED DEVIL AND REPRESENTATION OF DEVIL. Cl. 23. 11–1–38.
361,767. PLUS. Cl. 26. 11–1–38.
361,784. HOLSTEN-BRAUEREI AND DESIGN. Cl. 48. 11–1–38.
361,979. ALMA DE ESPANA. Cl. 51. 11–8–38.
362,035. AMBRE SOLAIRE. Cl. 51. 11–8–38.
362,460. MAGIKIL. Cl. 6. 11–15–38.
362,461. MYSTIKIL. Cl. 6. 11–15–38.
362,673. CHAMPION. Cl. 21. 11–29–38.
362,716. OVOCYLIN. Cl. 18. 11–29–38.
362,725. PIGROW. Cl. 46. 11–29–38.
362,814. PERCORTEN. Cl. 18. 11–29–38.
363,301. T. B. RIPY. Cl. 40. 12–20–38.
363,349. EXPANDO. Cl. 37. 12–20–38.
364,547. STAMCO. Cl. 11. 2–7–39.
364,912. THIS. Cl. 6. 2–21–39.
365,113. MIL-K-BOTL AND REPRESENTATION OF WINDMILL. Cl. 45. 2–21–39.
365,433. SAVADAY AND DESIGN. Cl. 6. 3–7–39.
365,563. K. M. TRAFFORD TILE. Cl. 12. 3–14–39.
365,950. K & M BEST IN ASBESTOS AND DESIGN. Cl. 35. 3–21–39.
366,016. NATIONAL CO-OP AND DESIGN. Cl. 24. 3–28–39.
366,352. SANOSOX. Cl. 39. 4–11–39.
366,568. NATURAL GRIP. Cl. 4. 4–18–39.
366,681. TEMP. Cl. 4. 4–25–39.
366,741. PO-KE-NO. Cl. 22. 4–25–39.
366,893. GLEN AIRE. Cl. 46. 5–2–39.
366,896. SUNNY DAWN. Cl. 46. 5–2–39.
366,897. TOWN HOUSE. Cl. 46. 5–2–39.

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171,320. THIS AND THAT IN CHOCOLATES. Cl. 46. 8–7–23.
171,457. ISLE O'DREAMS. Cl. 46. 8–7–23.
190,904. FORERUNNER. Cl. 46. 10–28–24.
191,744. SILVER THREADS. Cl. 46. 11–18–24.
227,112. "GOOD COMPANY." Cl. 46. 4–26–27.
230,469. RARITIES. Cl. 46. 7–26–27.
244,183. RIVERRO. Cl. 46. 7–17–28.
298,331. DU PONT MX. Cl. 9. 10–25–32.
298,558. REPRESENTATION OF FILE WITH RED BAND AT END OF SAME. Cl. 23. 11–1–32.
298,911. SERAX. Cl. 50. 11–15–32.
374,794. DAILY DOUBLE. Cl. 46. 1–23–40.
553,945. TEXROLL. Cl. 18. 1–22–52.

The following registrations issued December 8, 1953

567,281. BUBBLO. Cl. 46.
567,284. THE KING OF THE KEROSENES AND DESIGN. Cl. 15.
567,287. FAMOUS FOOD OF VIRGINIA AND DESIGN. Cl. 46.
567,295. PERMA-LOCK AND DESIGN. Cl. 32.
567,298. LIGHTHOUSE BRAND AND DESIGN. Cl. 46.
567,301. SECURITY AND DESIGN. Cl. 38.
567,303. "STARDUST." Cl. 2.
567,304. LERINA AND DESIGN. Cl. 49.
567,307. PLYMOUTH. Cl. 44.
567,308. HUBBARD AND DESIGN. Cl. 13.
567,310. HYDRONAMIC. Cl. 23.
567,311. INSURAID. Cl. 23.
567,315. ONE MINUTE. Cl. 51.
567,317. CYTOZON. Cl. 44.
567,320. CANTEEN NEWS. Cl. 38.
567,322. JACKUT. Cl. 23.
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567,329. ELECTROMERSIBLE. Cl. 23.
567,334. FLEET MIX. Cl. 46.
567,339. ARGARDEN. Cl. 42.
567,342. BAKU. Cl. 42.
567,344. COWBOY JIM. Cl. 22.
567,346. KRE-ME-KUTS. Cl. 46.
567,353. DURO-SEAM WITHIN DESIGN. Cl. 2.
567,357. FROST 'N FEAST. Cl. 46.
567,368. C. F. HATMAKER. Cl. 22.
567,374. VO-GEL. Cl. 18.
567,375. CARRYALL. Cl. 13.
567,384. KELOSONE. Cl. 18.
567,386. FOLEY FATIGUE FYTERS. Cl. 18.
567,387. SHOTWELL AND ARROW DESIGN. Cl. 46.
567,388. CHIKARA-MOCHI. Cl. 46.
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567,395. NYL-ON-KIDS. Cl. 39.
567,398. D/40°. Cl. 5.
567,399. BILD-A-GLAZE. Cl. 32.
567,400. COMANCHE BELLE AND DESIGN. Cl. 51.
567,401. AG AND REPRESENTATION OF SCOTCH BOY. Cl. 45.
567,402. TRYNE AND DESIGN. Cl. 31.
567,406. SOUTHLAND THE TOP PURR-FORMANCE AND DESIGN. Cl. 15.
567,408. SCAIR. Cl. 18.
567,414. "NOT EVEN A PUR-R-R!" Cl. 27.
567,415. "GOLDEN AGE." Cl. 28.
567,417. HANWO. Cl. 42.
567,418. SUNTANA AND DESIGN. Cl. 51.
567,427. STARLING AND DESIGN. Cl. 48.
567,430. T. M. DESIGN OF WINDOW IN A BOX. Cl. 46.
567,435. COSASCO. Cl. 13.
567,438. HYDRABORE. Cl. 23.
567,439. BARREL BREASTED. Cl. 1.
567,440. NORTHWESTER. Cl. 1.
567,445. "RAINBOW COLOR." Cl. 38.
567,446. RAINIER OLD-TIME KRAUSEN AND DESIGN. Cl. 48.
567,453. BABY JO AND REPRESENTATION OF A BABY. Cl. 52.
567,455. YOTTO. Cl. 45.
567,458. VIP. Cl. 38.
567,466. Mc O-ROY. Cl. 42.
567,469. BI-WIN NU. POR. Cl. 13.
567,472. A QUAL-ECON PRODUCT. Cl. 18.
567,473. THEIR PREFERENCE. Cl. 31.
567,478. GLOBE. Cl. 23.
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567,511. ODEON. Cl. 49.
567,515. SNAFU. Cl. 22.
567,517. COLONEL JET AND DESIGN. Cl. 22.
567,519. THE KEY TO PEACE OF MIND. Cl. 38.
567,522. A TRAVERS LE MONDE AIT AND DESIGN A TRAVERS LES SIECLES. Cl. 38.
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567,553. TREVYL. Cl. 18.
567,555. DRAWING LINED FOR RED AND GREEN. Cl. 46.
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567,574. H 52. Cl. 6.
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567,585. ISONIZED AND DESIGN. Cl. 163.
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567,593. DERMZ. Cl. 18.
567,594. BONA FIDE. Cl. 46.
567,595. STURDIWOOD. Cl. 12.
567,596. KAR KRIB AND DESIGN. Cl. 19.
567,598. AIR LIFT AND DESIGN. Cl. 19.
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567,607. LOUISVILLE SHOWBOAT. Cl. 107.

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JANUARY 20, 1959

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A-C Carbon Co. : *See*—
Goldstone, Gerald W.
A/S Lillestrom Trikotagefabrik, Lillestrom, Norway. 672,856, pub. 11–4–58. Cl. 39.
Ace Fastener Corp., Chicago, Ill. 672,705, pub. 11–4–58. Cl. 23.
Ace Pecan Co., and County Faur Nut Co. : *See*—
Graziano, Charles.
Advance Pattern Co., Inc., New York, N. Y. 672,796, pub. 11–4–58. Cl. 26.
Air Lift Co., Lansing, Mich. 567,598, canc. Cl. 19.
Airtone Chemical Co., Baltimore, Md. 672,960, pub. 11–4–58. Cl. 100.
Alexander, A., & Co.' Ltd., Leith, Edinburgh, Scotland. 672,921, pub. 11–4–58. Cl. 49.
Alexander, A., & Co. Ltd., Leith, Edinburgh, Scotland. 672,922, pub. 11–4–58. Cl. 49.
Alliance Internationale de Tourisme, Geneva, Switzerland. 567,322, canc. Cl. 38.
American Chemical Paint Co., Ambler, Pa. 567,571, canc. Cl. 6.
American College of Life Underwriters, The, Philadelphia, Pa. 672,974, pub. 11–4–58. Cl. 200.
American Continental Shoppers Association, Inc., New York, N. Y. 672,959, pub. 11–4–58. Cl. 101.
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Anderson, H. C., d. b. a. The Yotto Co., Athens, Ga. 567,455, canc. Cl. 42.
Anson Inc., Providence, R. I. 672,804, pub. 11–4–58. Cl. 28.
Ansul Chemical Co., Marinette, Wis. 672,778, pub. 11–4–58. Cl. 23.
Anthony, Earle C., Inc., Los Angeles, Calif. 123,538, ren. 11–19–58. Cl. 15.
Apollo Metal Works, Chicago, Ill. 567,590, canc. Cl. 106.
Archer-Daniels-Midland Co., Minneapolis, Minn. 672,657, pub. 11–4–58. Cl. 1.
Argarden Tweeds Ltd., Edinburgh, Scotland. 567,339, canc. Cl. 42.
Armco Steel Corp., Middletown, Ohio. 672,711, pub. 11–4–58. Cl. 14.
Art & Sign Brush Mfg. Corp., Long Island City, N. Y. 672,908, pub. 11–4–58. Cl. 29.
Artcraft Color Cards, Inc., Washington, D. C. 567,445, canc. Cl. 38.
Ashe-Houston Co. Inc., The, Glenbrook, Conn. 672,760, pub. 11–4–58. Cl. 23.
Associated Grocers' Co. of St. Louis, Mo. 567,401, canc. Cl. 45.
Associated Merchandising Corp., The, New York, N. Y. 672,827, pub. 11–4–58. Cl. 34.
Athe Supply Co., Newark, N. J. 672,814, pub. 11–4–58. Cl. 31.
Automatic Canteen Co. of America, Chicago, Ill. 567,320, canc. Cl. 38.
Automatic Canteen Co. of America, Chicago, Ill. 567,407, canc. Cl. 46.
Baltimore Biological Laboratory, Inc., Baltimore, Md. 672,683, pub. 11–4–58. Cl. 6.
Banner Watch Co. : *See*—
Schein, Louis, Co.
Baron, Charlotte M., d. b. a. Professional Products Co., Toledo, Ohio. 672,925, pub. 11–4–58. Cl. 50.
Barrow, Hepburn & Gale Ltd., London, England. 567,538, canc. Cl. 1.
Barton Chemical Co. : *See*—
Bartos, Vincent B.
Bartos, Vincent B., d. b. a. Barton Chemical Co., to Barton Chemical Co., Chicago, Ill. 365,435, ren. 3–7–59. Cl. 6.
Basic Foods, Inc., from Curt Michaelis, Union City, N. J. 567,357, canc. Cl. 46.
Bay Chemical Corp., Port Washington, N. Y. 672,680, pub. 11–4–58. Cl. 4.
Beaver Pipe Tools, Inc., Warren, Ohio. 672,761, pub. 11–4–58. Cl. 23.
Becton, Dickinson and Co., Rutherford, N. J. 672,898, pub. 10–14–58. Cl. 44.
Beir-nes Laboratories : *See*—
Beirnes, Percival W.
Beirnes, Percival W., d. b. a. Beir-nes Laboratories, Los Angeles, Calif. 567,606, canc. Cl. 18.
Belden Mfg. Co., Chicago, Ill. 672,749, pub. 11–4–58. Cl. 21.
Belknap Hardware and Mfg. Co., Louisville, Ky. 672,817, pub. 6–10–58. Cl. 32.
Bellows Co., The : *See*—
International Basic Economy Corp.
Bethlehem Steel Co., Bethlehem, Pa. 672,692, pub. 11–4–58. Cl. 12.
Bettis Rubber Co., Whittier, Calif. 672,758, pub. 5–27–58. Cl. 23.
Bergstrom Paper Co., Neenah, Wis. 672,842, pub. 11–4–58. Cl. 37.
Bernstein, S., Inc., Newark, N. J. 567,530, canc. Cl. 18.
Bi-Wix Co., Chicago, Ill. 567,469, canc. Cl. 13.
Black-Clawson Co., The, Hamilton, Ohio. 567,310, canc. Cl. 23.
Bonney Forge & Tool Works, Allentown, Pa. 672,705, pub. 11–4–58. Cl. 13.
Borg-Warner Corp., Chicago, Ill. 672,781, pub. 11–4–58. Cl. 24.
Botany Mills, Inc., Passaic, N. J. 567,575, canc. Cl. 42.
Bourges Color Corp., New York, N. Y. 672,690, pub. 11–4–58. Cl. 11.
Bristol Laboratories Inc., Syracuse, N. Y. 672,729, pub. 11–4–58. Cl. 18.
British Cycle & Motor Cycle Industries Association Ltd., The, Coventry, England. 672,975, pub. 11–4–58. Cl. A.
Bulan Co. : *See*—
Mierson, Augustus.
Bunte Brothers, Chicago, Ill. 171,320, canc. Cl. 46.
Bunte Brothers, Chicago, Ill. 171,457, canc. Cl. 46.
Bunte Brothers, Chicago, Ill. 190,904, canc. Cl. 46.
Bunte Brothers, Chicago, Ill. 191,744, canc. Cl. 46.
Bunte Brothers, Chicago, Ill. 227,112, canc. Cl. 46.
Bunte Brothers, Chicago, Ill. 230,469, canc. Cl. 46.
Bunte Brothers, Chicago, Ill. 244,183, canc. Cl. 46.
Bunte Brothers, Chicago, Ill. 374,794, canc. Cl. 46.
Burroughs Corp., Pasadena, Calif. 672,785, pub. 6–24–58. Cl. 26.
Byers, A. M., Co., Pittsburgh, Pa. 672,710, pub. 11–4–58. Cl. 14.
Calico Printers' Association Ltd., The, Manchester, England. 672,895, pub. 11–4–58. Cl. 42.
California Redwood Association, San Francisco, Calif. 672,976, pub. 11–4–58. Cl. A.
California Swimwear Co. : *See*—
Minken, Aaron.
Carpenter Steel Co., The, Reading, Pa. 553,945, canc. Cl. 13.
Champion Paper and Fibre Co., The, Hamilton, Ohio. 672,840, pub. 11–4–58. Cl. 37.
Chaswell Co., Chicago, Ill. 567,515, canc. Cl. 22.
Chicago Printed String Co., Chicago, Ill. 672,926, pub. 11–4–58. Cl. 50.
Chicken Delight Inc., Rock Island, Ill. 672,988. Cl. 46.
Chicken Delight Inc., Rock Island, Ill. 672,989. Cl. 46.
Chronos-Werk Reuther & Reisert K. G. : *See*—
Heinefer Maschinenfabrik C. Reuther & Reisert mit Beschrankter Haftung.
Chun King Frozen Foods Corp. : *See*—
Chun King Frozen Sales, Inc.
Chun King Frozen Sales, Inc., from Chun King Frozen Foods Corp., Duluth, Minn. 672,987. Cl. 46.
Ciba Pharmaceutical Products Inc. : *See*—
Society of Chemical Industry In Basel.
Cigogne, Inc., New York, N. Y. 567,475, canc. Cl. 51.
Cinderella Homes, Inc., South Gate, Calif. 672,957, pub. 11–4–58. Cl. 101.
Cinefot International Corp., New York, N. Y. 567,501, canc. Cl. 26.
Cinefot International Corp., New York, N. Y. 567,502, canc. Cl. 26.
Cleveland-Detroit Corp., Cleveland, Ohio. 672,696, pub. 11–4–58. Cl. 13.
Cleveland Trust Co., The, Cleveland, Ohio. 672,964, pub. 11–4–58. Cl. 102.
Clupak, Inc., New York, N. Y. 672,842, pub 11–4–58. Cl. 37.
Coin Records, Inc., Chicago, Ill. 672,835, pub. 11–4–58. Cl. 36.
Cole of California, Inc., Los Angeles, Calif. 672,868, pub. 11–4–58. Cl. 39.
Columbus Coated Fabrics Corp., Columbus, Ohio. 672,884, pub. 11–4–58. Cl. 42.
Comanche Belle Enterprises : *See*—
Thomas, Charles.
Combined Insurance Co. of America, Chicago, Ill. 672,962, pub. 11–4–58. Cl. 102.
Consolidated Cosmetics, Chicago, Ill. 567,315, canc. Cl. 51.
Consultant Sales Service, Inc., Denver, Colo. 672,679, pub. 11–4–58. Cl. 4.
Control Systems, Inc. : *See*—
General Register Corp.
Core, Inc., New York, N. Y. 672,803, pub. 11–4–58. Cl. 28.
Corona Oil Specialties & Service Co., La Canada, Calif. 567,435, canc. Cl. 13.
Cory Corp., Chicago, Ill. 672,844, pub. 11–4–58. Cl. 37.
Consumers Union of United States, Inc., Mount Vernon, N. Y. 672,849, pub. 11–4–58. Cl. 38.
Craddock-Terry Shoe Corp., Lynchburg, Va. 672,865, pub. 11–4–58. Cl. 39.
Crisali, Santa J., Ridgefield Park, N. J. 672,952, pub. 11–4–58. Cl. 100.
Crown Cork & Seal Co., Inc., Baltimore, Md. 298,911, canc. Cl. 50.
Crystal Transparent Corp., Englewood, N. J. 672,850, pub. 11–4–58. Cl. 38.
Curtis, John W., Topeka, Kans. 567,453, canc. Cl. 52.

D. & S. Stamping Co., Utica, Mich. 672,704, pub. 11–4–58. Cl. 13.
Da-Lite Screen Co., Inc., Warsaw, Ind. 672,793, pub. 11–4–58. Cl. 26.
Dayton Rubber Co., Dayton, Ohio. 672,779, pub. 11–4–58. Cl. 23.
Dean Industries, Inc., Pontotoc, Miss. 678,815, pub. 7–9–57. Cl. 32.
Decker Corp., The, Glenside, Pa. 567,398, canc. Cl. 5.
De Laval Separator Co., The, Poughkeepsie, N. Y. 672,756, pub. 11–4–58. Cl. 23.
De Laval Steam Turbine Co., Trenton, N. J. 567,829, canc. Cl. 23.
Den-Nap Electric Mold Co., Macon, Ga. 672,773–5, pub. 11–4–58. Cl. 23.
Dennisons of Glens Falls, Glens Falls, N. Y. 567,895, canc. Cl. 39.
Deseret Pharmaceutical Co., Inc., Salt Lake City, Utah. 672,902, pub. 11–4–58. Cl. 44.
Dexter Woolen Corp., New York, N. Y. 567,482, canc. Cl. 42.
Diamond Chemical Co., Corsicana, Tex. 567,593, canc. Cl. 18.
Dickerson, Robert L., d. b. a. Roll-A-Fold Scaffold Co., Seattle, Wash. 672,927, pub. 11–4–58. Cl. 50.
Dietz, R. E., Co., Syracuse, N. Y., from M. F. Glyer, Sacramento, Calif. 672,735, pub. 9–0–58. Cl. 21.
Dill Mfg. Co., The, Cleveland, Ohio. 672,743, pub. 11–4–58. Cl. 21.
Dolly Fruit Products Corp., Brooklyn, N. Y. 672,906, pub. 5–3–55. Cl. 46.
Doughten, H. W., New York, N. Y., to The Doughten Seed Co., Jersey City, N. J. 123,799, ren. 12–10–58. Cl. 1.
Doughten Seed Co., The: *See*—
Doughten, H. W.
Dubin-Haskell-Jacobson, Inc., New York, N. Y. 672,891–4, pub. 11–4–58. Cl. 42.
Du Bois Co., Inc., The: *See*—
Du Bois Soap Co., The.
Du Bois Soap Co., The, to The Du Bois Co., Inc., Cincinnati, Ohio. 366,681, ren. 4–25–59. Cl. 4.
Dunham, Kenneth H., Portland, Conn. 672,913, pub. 11–4–58. Cl. 46.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 298,331, canc. Cl. 9.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 567 546, canc. Cl. 6.
Dynamit-Actien-Gesellschaft Vormals Alfred Nobel & Co., Troisdorf, Germany. 672,656, pub. 11–4–58. Cl. 1.
Eagle-Picher Co., The, Cincinnati, Ohio. 672,694, pub. 11–4–58. Cl. 12.
Eaton Chemical and Dyestuff Co., Detroit, Mich. 672,996. Cl. 52.
Eberhard Faber Pencil Co., Crestwood, Wilkes-Barre, Pa. 672,983. Cl. 37.
Eberhard Faber Pencil Co., Wilkes-Barre, Pa. 672,838, pub. 11–4–58. Cl. 37.
Ekco Products Co., Chicago, Ill. 672,757, pub. 11–4–58. Cl. 23.
Electric Auto-Lite Co., Toledo, Ohio. 672,741, pub. 11–4–58. Cl. 21.
Electro-Chek Corp. of America, Ogden, Utah. 672,951, pub. 11–4–58. Cl. 100.
Electronic Accounting Card Corp., High Point, N. C. 672,839, pub. 11–4–58. Cl. 37.
Ellison & Spring, Inc., New York, N. Y. 567,504, canc. Cl. 42.
Elting Brothers, to Elting Brothers, Inc., New York, N. Y. 366,352, ren. 4–11–59. Cl. 39.
Elting Brothers, Inc.: *See*—
Elting Brothers.
Emery, A. H., Co., The, New Canaan, Conn. 672,798, pub. 11–4–58. Cl. 26.
Empire Case Goods, Jamestown, N. Y. 567,295, canc. Cl. 32.
Englander Co., Inc., The, Chicago, Ill. 672,820–2, pub. 11–4–58. Cl. 32.
Eskimo Pie Corp., Richmond, Va. 672,811, pub. 11–4–58. Cl. 31.
Essex Wire Corp., Fort Wayne, Ind. 672,750, pub. 11–4–58. Cl. 21.
Exiner, Alexander, Co.: *See*—
Exiner, Alexander R.
Exiner, Alexander R., to Alexander Exiner Co., Chicago, Ill. 567,595, canc. Cl. 12.
Exquisite Form Brassiere, Inc., New York, N. Y. 672,860. pub. 11–4–58. Cl. 39.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 672,806. pub. 11–4–58. Cl. 29.
Fargo Mfg. Co., Inc., Poughkeepsie, N. Y. 672,771, pub. 11–4–58. Cl. 23.
Federated Department Stores, Inc., New York, N. Y. 672,877, pub. 11–4–58. Cl. 39.
Filler Products, Inc., Atlanta, Ga. 672,904, pub. 11–4–58. Cl. 45.
Finkelstein, Jacob, & Sons Inc., Woonsocket, R. I. 672,864, pub. 11–4–58. Cl. 39
Fisch, Edmondo A., Zurich, Switzerland. 567,317, canc. Cl. 44.
Foley & Co., Chicago, Ill. 567,386, canc. Cl. 18.
Food Town, Inc., Washington, D. C. 672,909, pub. 11–4–58. Cl. 46.
Foremost Dairies, Inc.: *See*—
Western Condensing Co.
Foster-Milburn Co., Buffalo, N. Y. 672,940, pub. 11–4–58. Cl. 51.
Fouke Fur Co., St. Louis, Mo. 672,655, pub. 11–4–58. Cl. 1.
Fox Products Co., Philadelphia, Pa. 672,744, pub. 11–4–58. Cl. 21.
Franklin Research Co., Philadelphia, Pa. 672,712, pub. 11–4–58. Cl. 15.
Fremont Bags: *See*—
Fremont, Leo.
Fremont, Leo, d. b. a. Fremont Bags, Brighton, Mass. 672,666, pub. 11–4–58. Cl. 2.
Friend, Joseph, Philadelphia, Pa. 567,583, canc. Cl. 107.
Friedman, Bert J., Santa Monica, Calif. 567,418, canc. Cl. 51.
Gaba A. G., Basel, Switzerland. 122,964, ren. 10–1–58. Cl. 18.
Garrett, Burton R., d. b. a. U. S. Engineering Co., Long Island City, N. Y. 672,790, pub. 11–4–58. Cl. 26.
General Cigar Co., Inc., New York, N. Y. 672,981. Cl. 17.
General Conference of The Church of God, The (Seventh Day), d. b. a. Trurock Publishers, Denver, Colo. 672,846, pub. 11–4–58. Cl. 38.
General Controls Co., Glendale, Calif. 672,791, pub. 11–4–58. Cl. 26.
General Food Products Co.: *See*—
Safeway Stores, Inc.
General Register Corp., to Control Systems, Inc., New York, N. Y. 361,767, ren. 11–1–58. Cl. 26.
Gerbhardt, A. L., Co., Milwaukee, Wis. 672,659, pub. 11–4–58. Cl. 1.
Getchells Farm, d. b. a. "The Getchells," Lakeport, Calif. 672,980. Cl. 10.
"Getchells, The": *See*—
Getchells Farm.
Gilbert Mfg. Co., The: *See*—
Gilbert, Sidney.
Gilbert, Sidney, d. b. a. The Gilbert Mfg. Co., Hialeah, Fla. 672,871, pub. 11–4–58. Cl. 39.
Glidden, Otis E., & Co., Inc., Waukesha, Wis. 672,725, pub. 11–4–58. Cl. 18.
Glyer, Morris F.: *See*—
Dietz, R. E., Co.
Golden Peacock Co., Inc., Paris, Tenn. 672,937, pub. 11–4–58. Cl. 51.
Goldsmith Bros., New York, N. Y. 363,349, ren. 12–20–58. Cl. 37.
Goldstone, Gerald W., d. b. a. A-C Carbon Co., Los Angeles, Calif. 672,688, pub. 11–4–58. Cl. 6.
Good Luck Glove Co., Carbondale, Ill. 672,857, pub. 11–4–58. Cl. 39.
Gordon Clothes, Inc., Philadelphia, Pa. 672,965. Cl. 42.
Goyescas Corp., New York, N. Y. 361,979, ren. 11–8–58. Cl. 51.
Grace Metal Products, Inc., Huntingdon Valley, Pa. 672,967, pub. 11–4–58. Cl. 103.
Granitine Products Co.: *See*—
Groves, Harold L.
Grant Co., The: *See*—
Ratner, Walter.
Gray's Carpets & Textiles Ltd., Springwell Mill, Batley, and London, England. 567,417, canc. Cl. 42.
Graziano, Charles, d. b. a. Ace Pecan Co., and County Fair Nut Co., Chicago, Ill. 672,910, pub. 1–14–58. Cl. 46.
Creamery Package Mfg. Co., The, Chicago, Ill. 672,828, pub. 11–4–58. Cl. 34.
Gregory and House, Inc., Cleveland, Ohio. 567,607, canc. Cl. 107.
Grinnell Corp., Providence, R. I. 672,700, pub. 11–4–58. Cl. 13.
Grossman & Sons, Inc., Columbus, Ohio. 672,954, pub. 11–4–58. Cl. 100.
Groves, Harold L., d. b. a. Granitine Products Co., South Gate, Calif. 567,399, canc. Cl. 52.
Gumakers of America, Inc., New York, N. Y. 567,281, canc. Cl. 46.
Gundlach, Paul J., d. b. a. The Vita-Mart, Cleveland, Ohio. 672,914, pub. 11–4–58. Cl. 46.
H & L Tooth Co., Montebello, Calif. 672,696, pub. 11–4–58. Cl. 13.
Hamilton-Skotch Corp., Hamilton, Ohio. 672,818, pub. 11–4–58. Cl. 32.
Hand, Gertrude A. M., d. b. a. Gussie Moran, New York, N. Y. 672,973, pub. 11–4–58. Cl. 107.
Hanes, P. H., Knitting Co., Winston-Salem, N. C. 672,850, pub. 11–4–58. Cl. 39.
Hanlon, John W., Inc., Grand Island, N. Y. 672,942, pub. 11–4–58. Cl. 51.
Hartz Mountain Products, New York, N. Y. 567,550, canc. Cl. 46.
Hatheway, Curtis R., Jr.: *See*—
Hatheway Floral Co.
Hatheway Floral Co., to C. R. Hatheway, Jr., Etowah, N. C. 672,654, pub. 11–4–58. Cl. 1.
Hatmaker, C. F., Ocean Grove, N. J. 567,365, canc. Cl. 22.
Hayes, C. L., Inc., Cranston, R. I. 672,822, pub. 11–4–58. Cl. 34.
Hedstrom Union Co., Fitchburg, Mass. 672,732, pub. 11–4–58. Cl. 19.
Hennefer Maschinenfabrik C. Reuther & Reisert mit Beschrankter Haftung, to Chornos-Werk Reuther & Reisert K. G., Hennef-on-the-Sieg, Germany. 361,662, ren. 10–25–58. Cl. 26.
Herold Mfg. Co., not Inc., Chicago, Ill. 567,478, canc. Cl. 23.
Hobart Mfg. Co., Troy, Ohio. 672,776, pub. 11–4–58. Cl. 23.
Hollywood-Maxwell Co.: *See*—
Munsingwear, Inc.
Hollywood Rambler, Los Angeles, Calif. 672,858, pub. 11–4–58. Cl. 39.
Hollywood V-Ette-Vassarette, Division of Munsingwear, Inc.: *See*—
Munsingwear, Inc.
Holsten-Brauerei, Hamburg-Altona, Germany. 361,784, ren. 11–1–58. Cl. 48.
Holton Co., Inc., The, Chicago, Ill. 672,901. Cl. 46.
Hope Chest Co., Inc., The, Minneapolis, Minn. 672,068–9, pub. 11–4–58. Cl. 2.
Houston Oil Field Material Co., Inc., The, Houston, Tex. 672,966, pub. 11–4–58. Cl. 103.
Howard, Robert, Co., The, Palo Alto, Calif. 672,836, pub. 11–4–58. Cl. 37.

Hubbard and Co., Pittsburgh, Pa. 567,308, canc. Cl. 12.
Hummel, Reinhold, Stuttgart-Weil im Dorf, Germany. 672,653, pub. 11–4–58. Cl. 1.
Icelandic Airlines, Inc., New York, N. Y. 672,969, pub. 11–4–58. Cl. 105.
Imperial Tobacco Co. of Canada, Ltd., Montreal, Quebec, Canada. 672,720, pub. 11–4–58. Cl. 17.
Industrial Container Corp., Brooklyn, N. Y. 567,252, canc. Cl. 2.
Industrial Heater Co., Inc., New York, N. Y. 672,752, pub. 11–4–58. Cl. 21.
Industrial Trades Institute, Atlanta, Ga. 567,581, canc. Cl. 107.
Industries for the Blind, Inc., Milwaukee, Wis. 672,807, pub. 11–4–58. Cl. 29.
Interchemical Corp., New York, N. Y. 672,691, pub. 11–4–58. Cl. 11.
International Basic Economy Corp., New York, N. Y., from Bellows Co., The, Akron, Ohio. 672,759, pub. 11–4–58. Cl. 23.
International Harvester Co., Chicago, Ill. 672,732, pub. 11–4–58. Cl. 19.
International Harvester Co., Chicago, Ill. 672,765, pub. 11–4–58. Cl. 23.
International Minerals & Chemical Corp., Chicago, Ill. 672,658, pub. 11–4–58. Cl. 1.
International Steel Wool Corp., Springfield, Ohio. 672,677, pub. 11–4–58. Cl. 4.
Jackut Co., Rivera, Calif. 567,322, canc. Cl. 23.
Jacobsen, Robert P., Elizabethtown, Pa. 567,596, canc. Cl. 19.
Jacobus', A. G., Sons Inc., Verona, N. J. 672,810, pub. 11–4–58. Cl. 29.
Jamison Cold Storage Door Co., Hagerstown, Md. 672,693, pub. 11–4–58. Cl. 12.
Janitors Supply and Chemical Co., Inc., Greenville, S. C. 672,681, pub. 11–4–58. Cl. 4.
Jolliff, C. O., Mfg. Corp., The, Southport, Conn. 672,730, pub. 11–4–58. Cl. 21.
John's: *See*—
Masek, John.
Johnson, Hilding A., d. b. a. Sargent-Morse, Rockford, Ill. 672,667, pub. 11–4–58. Cl. 2.
Joseph & Feiss Co., The, Cleveland, Ohio. 672,885, pub. 11–4–58. Cl. 42.
Justin Boot Co.: *See*—
Justin, H. J., & Sons, Inc.
Justin, H. J., & Sons, Inc., d. b. a. Justin Boot Co., Fort Worth, Tex. 672,867, pub. 9–23–58. Cl. 39.
Karr, Dar, to United Export Packers, Inc., Los Angeles, Calif. 362,673, ren. 11–29–58. Cl. 21.
Karten, Morten, Inc., New York, N. Y. 672,872, pub. 11–4–58. Cl. 39.
Keasbey & Mattison Co., Ambler, Pa. 365,950, ren. 3–21–59. Cl. 25.
Keasbey & Mattison Co., Ambler, Pa. 365,563, ren. 3–14–59. Cl. 12.
Kenmar Mfg. Co., The, East Palestine, Ohio. 672,818, pub. 11–4–58. Cl. 22.
Kidde Mfg. Co., Inc., Bloomfield, N. J. 672,786, pub. 9–16–58. Cl. 23.
Kimberly-Clark Corp., Neenah, Wis. 672,903, pub. 11–4–58. Cl. 44.
Kiwanis International, Chicago, Ill. 672,949, pub. 11–4–58. Cl. 100.
Klemtner, Paul, & Co., Inc., Newark, N. J. 672,972, pub. 11–4–58. Cl. 107.
Knape and Vogt Mfg. Co., Grand Rapids, Mich. 672,702, pub. 11–4–58. Cl. 12.
Knomark Mfg. Co., Inc., Brooklyn, N. Y. 672,674, pub. 11–4–58. Cl. 4.
Knowles, James H., Centralia, Wash. 567,439, canc. Cl. 1.
Knowles, James H., Centralia, Wash. 567,440, canc. Cl. 1.
Koppers Co., Inc., Pittsburgh, Pa. 567,578, canc. Cl. 6.
Kotake Co., Ltd., Honolulu, Hawaii. 567,388, canc. Cl. 46.
Kraft Foods Co.: *See*—
National Dairy Products Corp.
Laboratoires de l'Ambre Solaire: *See*—
Schueller, Eugene.
Ladish Co., Cudahy, Wis. 672,701, pub. 11–4–58. Cl. 12.
Lady Marlene Brassiere Corp., New York, N. Y. 672,559, pub. 11–4–58. Cl. 39.
Lambert Co., The, d. b. a. John Hudson Moore Co., Division of The Lambert Co., Jersey City, N. J., and New York, N. Y. 567,574, canc. Cl. 6.
Landis Machine Co., The, Waynesboro, Pa. 672,770, pub. 11–4–58. Cl. 23.
Lane, Margaret: *See*—
Miller, Graeff.
Lanshire Clock & Instrument Corp., Chicago, Ill. 567,222, canc. Cl. 26.
League of Champions, Inc., The, New York, N. Y. 672,855, pub. 11–4–58. Cl. 39.
Leeds and Northrup Co., Philadelphia, Pa. 672,705, pub. 11–4–58. Cl. 26.
Letford, William K., d. b. a. The Tryne Co., Sayville, N. Y. 567,402, canc. Cl. 51.
Lethelin Products Co., Inc., Mount Vernon, N. Y. 362,460, ren. 11–15–58. Cl. 6.
Lethelin Products Co., Inc., Mount Vernon, N. Y. 362,461, ren. 11–15–58. Cl. 6.
Levitt, Barth, Products, Lynbrook, N. Y. 672,728, pub. 11–4–58. Cl. 18.
Lilliston Implement Co., Albany, Ga. 672,772, pub. 11–4–58. Cl. 23.
Little's Shoe Store, Pittsburgh, Pa. 672,870, pub. 11–4–58. Cl. 39.
Living Beauty, Inc., Memphis, Tenn. 672,946–7, pub. 11–4–58. Cl. 52.
London Records, Inc., New York, N. Y. 672,833, pub. 11–4–58. Cl. 26.
Lovable Brassiere Co., The, Atlanta, Ga. 672,859, pub. 11–4–58. Cl. 39.
Lowenbaum, R., Mfg. Co., St. Louis, Mo. 672,854, pub. 11–4–58. Cl. 39.
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Washington Steel Products, Inc., Tacoma, Wash. 672,703, pub. 11–4–58. Cl. 13.
Watkins, J. R., Co., The, Winona, Minn. 672,988. Cl. 45.
Weber and Heilbroner, Inc., New York, N. Y. 672,876, pub. 11–4–58. Cl. 39.
Western Condensing Co., to Foremost Dairies, Inc., San Francisco, Calif. 362,725, ren. 11–29–58. Cl. 46.
Westinghouse Air Brake Co., Wilmerding, Pa. 672,812, pub. 11–4–58. Cl. 31.
Westlake, Carol, Originals: *See*—
Molitor, Carol W.
Weston Biscuit Co., Inc.: *See*—
Southern Biscuit Co., Inc.
Wiegand, Edwin L., Co., Pittsburgh, Pa. 672,734, pub. 10–7–58. Cl. 21.
Wiesenberger, Arthur, & Co., New York, N. Y. 567,301, canc. Cl. 38.
Wilkes-Barre Hosiery Mills, Inc., Philadelphia, Pa. 672,861, pub. 11–4–58. Cl. 39.
Wilkins Instrument and Research, Inc., Berkeley, Calif. 672,789, pub. 11–4–58. Cl. 26.
Wilson Rubber Co., The, Canton, Ohio. 672,901, pub. 11–4–58. Cl. 44.
Wine Growers Guild, Lodi, Calif. 672,993. Cl. 47.
Winthrop-Stearns Inc., New York, N. Y. 567,557, canc. Cl. 18.
Wolf, John, Textiles, Inc., New York, N. Y. 672,803, pub. 11–4–58. Cl. 42.
Wyandotte Chemicals Corp., Wyandotte, Mich. 672,716, pub. 11–4–58. Cl. 16.
Wybrant System Products Corp., The, New York, N. Y. 672,930, pub. 11–4–58. Cl. 51.
X P Service Co.: *See*—
Midcontinent Map Co.
Yorkshire Copper Works Ltd., The, Stourton, Leeds, England. 567,547, canc. Cl. 13.
Yorkshire Copper Works Ltd., The, Stourton, Leeds, England. 567,548, canc. Cl. 13.
Yorkshire Copper Works Ltd., The, Stourton, Leeds, England. 567,549, canc. Cl. 13.
Yotto Co., The: *See*—
Anderson, H. C.
Zenith Radio Corp., by merger from Zenith Radio Corp., Chicago, Ill. 672,740, pub. 11–4–58. Cl. 21.

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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
January 27, 1959 Volume 738 Number 4

PATENTS

NOTICES

Erratum

All references to Patent No. 2,867,629 to John D. Garber, Robert E. Jones and Robert A. Gasser, assignors to Merck & Co., Inc., for Derivatives of 5-Hydroxymethyl Furfural and Process of Producing Them, appearing in the OFFICIAL GAZETTE of January 6, 1959, should be deleted as the application was withdrawn from issue and the patent was not issued.

Service by Publication George A. Gates

In accordance with Rule 47 of the Rules of Practice of the United States Patent Office in Patent Cases, notice is hereby given of the filing on June 8, 1955, of an application for patent entitled "Fuel Burner Valve and Safety Coupling," on behalf of George A. Gates, whose last known address is 186 Broad Street, Newark, New Jersey. The application was made in compliance with Rule 47(a) and 35 U. S. C. 116 by joint inventor Roger J. McGraw without execution by the said George A. Gates. Notice of the filing directed to the above noted address has been returned undelivered.

Any action to be taken by the said George A. Gates in connection with the said application must be taken within thirty days of the publication of this notice.

ARTHUR W. CROCKER,
First Assistant Commissioner of Patents.

Disclaimers

2,372,786.—*Henry L. Vining*, Dallas, Tex. PRESSURE REGULATOR FOR FUEL LINES. Patent dated Oct. 23, 1951. Disclaimer filed Dec. 22, 1958, by the inventor.

Hereby enters this disclaimer to claim 7 of said patent.

2,797,795.—*James R. West*, New Holland, Pa. REVERSIBLE RATCHET DRIVE MECHANISM. Patent dated July 2, 1957. Disclaimer filed Dec. 3, 1958, by the assignee *Sperry Rand Corporation*.

Hereby enters this disclaimer to claims 1 to 3, inclusive, of said patent.

Patents Available for Licensing or Sale

The following 2 patents are offered by William J. Miskella, % The Miskella Infra-Red Co., 7301 Grand Ave., Cleveland 4, Ohio.

Correspondence concerning these patents is to be directed to: Wupper, Gradolph & Love, 2300 Board of Trade Building, La Salle St. and Jackson Blvd., Chicago 4, Ill.

2,498,389. Combination Paint Booth and Baking Oven.

2,841,684. Apparatus for Baking Paint on Automotive Vehicles.

General Electric Company is prepared to grant non-exclusive licenses on reasonable terms to domestic manufacturers under the following 11 patents.

Applications for license under the following patent may be addressed to: General Electric Company, Housewares and Radio Receiver Division, 1285 Boston Ave., Bridgeport 2, Conn.

2,820,914. Dynamoelectric Machine Structures.

Applications for license under the following 5 patents may be addressed to: General Electric Company, Patent Counsel, Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,367,047. Mica Sheet and Process for Making the Same.

2,404,204. Decarboxylated Half Esters of Hydroxylated Fatty Oils and Alpha Unsaturated Polycarboxylic Acids.

2,428,787. Interpolymerization Products.

2,450,682. Polymers of an Unsaturated Alkyd Resin and an Unsaturated Halogenated Compound and Method of Producing Same.

2,570,248. Method of Metallizing and Bonding Nonmetallic Bodies.

Applications for license under the following 5 patents may be addressed to: Patent Counsel, Light Military Electronics Department, General Electric Company, Utica, N. Y.

2,777,103. Drift Stabilized Velocity Servo.

2,803,887. Long Period Pendulum for Navigation Control System.

2,906,366. Slipping Clutches Having Wave-Like Contours on the Clutch.

2,815,869. Component Carrier.

2,818,712. Slipping Clutch.

New Applications Received During November 1958

Patents	5,969
Designs	346
Plant Pats	8
Reissues	23
Total	6,346

Issue

Patents	1,034	No. 2,870,445 to No. 2,871,478, incl.
Designs	30	No. 184,297 to No. 184,326, incl.
Plant Pats	1	No. 1,804
Reissues	3	No. 24,594 to No. 24,596, incl.
Total	1,068	

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1958

Total number of pending applications (excluding Designs)	201, 598
Total number of pending Design applications	6, 983
Total number of applications awaiting action (excluding Designs)	84, 136
Total number of Design applications awaiting action	3, 121
Date of oldest new application	Dec. 6, 1957
Date of oldest amended application	Dec. 3, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 36, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 52, 62
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders; Harrows and Diggers; Plows.	4-7-58	4-10-56
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	1-29-58	2-10-56
3. (VII) MARMELSTEIN, N., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	5-7-58	5-26-58
4. (VI) FALLER, E. A. (SCHULZ, H. O., acting), Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	4-21-58	4-23-58
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	3-11-58	1-15-58
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	4-11-58	4-9-58
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	4-4-58	4-2-58
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	4-9-58	3-18-58
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	4-21-58	4-2-58
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	4-29-58	4-1-58
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	4-29-58	5-2-58
12. (III) SPINTMAN, S. (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	3-14-58	3-27-58
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	3-19-58	3-10-28
14. (III) WILTZ, W. A., (acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	12-27-57	12-23-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus	3-26-58	3-17-58
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	3-28-58	3-11-58
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	3-3-58	3-3-58
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	3-21-58	3-10-28
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	4-4-58	4-1-58
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	4-7-58	4-8-58
21. (III) MADER, R. C., Textiles	3-7-58	3-7-58
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	3-17-58	2-20-58
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	12-6-57	12-3-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	5-26-58	7-2-58
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	4-24-58	4-15-58
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	5-1-58	5-1-58
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	5-19-58	5-14-58
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	3-3-58	2-28-58
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	3-11-58	3-7-58
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling; Refrigeration	3-28-58	4-1-58

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	6-12-58	5-15-58
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	5-1-58	4-28-58
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements; Roofs	5-1-58	4-14-58
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	5-1-58	4-6-58
35. (IV) DEMBO, L. J., Dispensing; Filling Receptacles; Toilet; Sheet Feeding	7-1-58	7-3-58
36. (V) EVANS, E. L., Measuring and Testing; Automatic Weighers; Weighing Scales	1-2-58	1-2-58
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	2-10-58	1-24-58
38. (I) PARKER, C. D., (acting). Carbon Chemistry (part), e. g., Aza, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	5-29-58	6-17-58
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	6-2-58	6-12-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5-1-58	4-25-58
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	4-9-58	4-18-58
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	3-12-58	3-12-58
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	5-6-58	5-1-58
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	1-26-58	1-6-58
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	4-15-58	4-10-58
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	4-14-58	4-18-58
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	4-22-58	4-22-58
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	3-4-58	2-26-58
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Concentrating Evaporators; Glass	4-23-58	4-1-58
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber; Synthetic Resins (part) (e. g., Butadiene Polymers and Copolymers, Polyacrylonitriles, Acrylate Polymers and Copolymers)	3-13-58	3-26-58
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas; Oscillators	4-16-58	4-3-58
52. (V) LE ROY, C. A., Supports and Racks	3-26-58	3-14-58
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	6-20-58	5-13-58
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	6-16-58	5-17-58
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	3-3-58	2-6-58
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	4-3-58	4-15-58
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Cutting and Punching	3-17-58	3-17-58
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part); Selective Punching	4-1-58	3-1-58
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	3-3-58	3-13-58
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	5-1-58	5-1-58
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Railway Mail Delivery; Feeding of Indefinite Lengths	4-1-58	4-1-58
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	4-18-58	5-1-58
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	3-4-58	3-26-58
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	3-3-58	3-3-58
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	3-13-58	3-17-58
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	4-22-58	4-9-58
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	5-29-58	5-27-58
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	4-15-58	4-14-58
CLASS. DIVS. II—LADY, J. E., Detectors; Miscellaneous Electron Tube Circuits	5-1-58	5-5-58
CLASS. DIVS. III—WAHL, R. A., Metal Bending; Web Feeding	6-3-58	4-23-58
CLASS. DIVS. IV—BERLOWITZ, W., Earth Boring	4-29-58	5-9-58
CLASS. DIVS. V—ANGEL, C. D., Scaffolds; Masonry and Concrete Structures; Time-Controlling Apparatus; Packed Rod Joints; Joint Packings	4-9-58	4-15-58
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part) i. e., Polyethylenes	7-31-58	5-15-58
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	5-26-58	6-20-58
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	4-10-28	4-14-28

*Established August 28, 1957, by order of the Commissioner—729 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1959, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,268,540 to 2,271,509, inclusive
Plant Patents ..... Numbers 499 to 501, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE ANCHIN

No. 6383. Decided December 1, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—INVENTION—PLACING STATISTICS SIDE BY SIDE FOR PURPOSES OF COMPARISON.

"The idea of placing various statistics side by side for purposes of comparison is conventional and of general application."

2. SAME—SAME—PHOTOGRAPHING RECORDS AND MAKING COPIES.

Held that is common practice "to photograph records of various kinds and to make as many copies as may be needed in that manner."

3. SAME—PARTICULAR SUBJECT MATTER—METHOD OF PREPARING STATISTICAL REPORTS.

A claimed method of preparing statistical reports *Held* not to involve such a departure from what is shown by the prior art as to amount to patentable invention.

APPEAL from the Patent Office. Serial No. 229,780.

AFFIRMED.

Victor M. Helfand (*Robert I. Dennison* of counsel) for Anchin.

Clarence W. Moore (*D. Kreider* of counsel) for the Commissioner of Patents.

Before O'CONNELL, *Acting Chief Judge*, and WORLEY, RICH, and MARTIN, *Associate Judges*

O'CONNELL, *Acting Chief Judge*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the rejection by the Primary Examiner of claims 1, 2, and 3 of appellant's application, No. 229,780, for a patent on a method of preparing statistical reports. The Examiner rejected all of the claims on the grounds, among others, "as unpatentable over Hutchings, Pennewill, or the well-known, conventional practice of photographing business records." That rejection was sustained by the Board for reasons explained in detail in its decision and reviewed herein.

Claim 3, which is the most specific of the appealed claims, reads as follows:

3. The method for preparing cumulative periodic statistical reports for a group of periods which comprises the steps of preparing a master sheet for the period group by placing the summaries and averages of the same statistics for a prior period group and sub-groups thereof on a sheet of opaque material of adequate size to accommodate said statistical summaries and averages together with the statistics for each of the periods in the current period group and for summaries for sub-groups of periods of the current period group and then preparing a current period report sheet successively for each of the periods of the current group by adding successively to the master sheet the statistics of each current report period and photographing the master sheet after each current period statistics have been added to it on a light-sensitized sheet of paper.

The references relied on are:

Pennewill, 1,227,653, May 29, 1917.
Hutchings, 2,026,500, Dec. 31, 1935.

Appellant's alleged invention relates to a system of keeping records in which a variety of summaries and/or averages are tabulated in columnar form at set periods; for example, every month. The method disclosed and claimed involves the use of a master sheet having columns in which the appropriate values are to be entered, one column corresponding to each month of the current year, and also having a column containing similar entries for the last period (as shown, the last month) of the preceding year. As the figures are compiled for each month, they are entered in the proper column on the master sheet so that the statistics for the entire year up to date may be seen at any time. Copies of the master sheet are made by photographing it at the end of each month, so that each photograph will show the year's records to date, and all previous copies may be destroyed, except that the last photograph for each year is kept as a permanent record.

The Pennewill patent discloses a record entry form containing separate columns for listing various accounting statistics for each of a number of months and corresponding generally to appellant's master sheet.

The Hutchings patent was cited merely to show the admittedly old process of duplicating records by photographing them.

It was the opinion of the Board that Pennewill shows everything claimed by the appellant except the photographing step. That is true as far as claim 1 is concerned, but Pennewill does not appear to disclose the step set forth in claims 2 and 3 of placing a summary of statistics for a prior period on the sheet before beginning the series of current entries. In our opinion, however, that step is not patentable. [1] The idea of placing various statistics side by side for purposes of comparison is conventional and of general application. Moreover, after the first series of monthly entries had been made by Pennewill, there would be a set of monthly values available for comparison with each successively entered series. It would be obvious to extend that principle by placing the last series of values from the old sheet on a new one, for purposes of comparison, when the new sheet was first put into use.

We agree with the Examiner and the Board that, so far as the system of making entries is concerned, the appealed claims define no invention over Pennewill. The record sheet disclosed by Pennewill is adaptable to various kinds of entries and would provide, at the end of each month, a cumulative set of records equivalent in all material respects to those provided by appellant's master sheet.

We are also in agreement with the Patent Office tribunals that patentability of the appealed claims cannot be predicated upon the photographing step. [2] It is common practice, as shown for example by Hutchings, to photograph records of various kinds and to make as many copies as may be needed in that manner. No new or unexpected result is obtained by photographing the particular records referred to in the appealed claims. The fact that the old records may be discarded when a new one is made is inherent in any cumulative system of keeping and reproducing records by photographic means or otherwise.

[3] While the system claimed by appellant is a convenient and efficient one, it does not, in our opinion, involve such a departure from what is shown by the prior art as to amount to patentable invention.

The decision of the Board of Appeals is affirmed.

AFFIRMED.

U. S. Court of Customs and Patent Appeals

IN RE ALTMANN ET AL.

No. 6866. Decided December 8, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—PARTICULAR SUBJECT MATTER—METHOD OF PROCESSING A SLURRY OF WASTEPAPER PULP.

A claim to a method of processing a slurry of wastepaper pulp *Held* patentable over a cited reference patent, with expression of the new that "While some of the limitations set forth * * * might be regarded individually as involving matters of degree, it is clear, that taken together, they define a process widely different from that of the cited reference."

APPEAL from the Patent Office. Serial No. 300,938.

REVERSED.

Cromwell, Greist & Warden (*Fred S. Lockwood* of counsel) for Altmann.

Clarence W. Moore (*Arthur H. Behrens* of counsel) for the Commissioner of Patents.

Before O'CONNELL, *Acting Chief Judge*, and WORLEY, RICH, and MARTIN, *Associate Judges*.

O'CONNELL, *Acting Chief Judge*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the final rejection by the Primary Examiner of claim 28 of appellants' application, No. 300,938 for a patent on a method of preparing paper stock. Three apparatus claims have been allowed, but claim 28 was rejected as unpatentable over the cited prior art.

The appealed claim reads as follows:

28. The method of processing a slurry of wastepaper pulp which has been subjected to a disintegrating action to deflber the wastepaper and dislodge ink and other particles from the fibers, comprising, subjecting an enclosed stream of said slurry of relatively deep cross section to the action of a plurality of high velocity submerged jets of wash water so as to intensely agitate the slurry and disperse the fibers and said particles in the water vehicle while lowering the consistency to a thin watery slurry, and immediately discharging the thin watery slurry onto a screen and draining the water and suspending particles from the fibers so as to leave them in a clean condition.

The only rejection which was affirmed by the Board was based upon the following single reference:

Hill et al., 2,641,164, June 9, 1953.

Appellants' application relates to a method of processing waste paper pulp which has been subjected to a disintegrating action to deflber the paper and dislodge ink from the fibers. In the method as described and claimed a slurry of such pulp is fed in the form of a relatively deep stream through a scrubbing device where it is subjected to the action of a number of high velocity jets of wash water which agitate the slurry and disperse the particles therein while substantially lowering the consistency, by means of the added water, until the slurry is thin and watery. Immediately thereafter the slurry is discharged onto a screen and the water, along with ink particles, is drained from the fibers leaving them in a clean condition.

The patent to Hill discloses a method of treating paper which has been either coarsely pulped or "essentially repulped" by grinding or otherwise. A slurry of such pulp is fed between two closely spaced plates which are provided with projections, and one of which is gyrated relatively to the other to agitate the pulp. The plates are spaced more closely at their peripheries than at the central portions, and the slurry enters at the central portions and flows outwardly to the periphery, so that it is compressed and thickened by dewatering as it moves into the area where the plates are more closely spaced. Apparently the compression is relied on to remove excess water from the pulp, since the patent does not disclose any subsequent screening or dewatering step. During the agitation of the pulp, water in small quantities, is fed through openings in the upper plate and passes through the pulp, after which it escapes through openings in the lower plate.

From our examination of the claims and reference, we find that the following distinctions exist between the claimed process and that disclosed by the patent to Hill:

(1) The rejected claim calls for an enclosed stream of slurry of relatively deep cross section, while the slurry in the reference patent lies between two closely spaced plates, so that it is not accurately described as an enclosed stream and we question whether it is relatively deep within the meaning of the claim.

(2) The claim states that the slurry is subjected to the action of high velocity jets of water which intensely agitate it. In the patent it is stated that "a slow flow of water is caused to pass from the top plate through the agitated layer of pulp and out through the bottom plate," and that a very small pressure differential, on the order of one pound per square inch, is sufficient to cause the necessary flow. Clearly, therefore, there are no high velocity jets; and the agitation of the pulp is not produced by jets, but by the mechanical action of the plates.

(3) The claim states that the consistency of the pulp stream is lowered to a thin, watery condition, whereas in the Hill method the pulp stream is increased from as low as four to 25 percent or even 40 percent.

(4) The claim calls for a final dewatering step in which the pulp is discharged on a screen and the water is drained from it. No such step is disclosed by Hill.

The Board of Appeals was of the opinion that the differences above noted involved largely matters of degree, and that the introduction of the wash water in the process disclosed by Hill "would necessarily result in lowering the consistency even though the slurry is ultimately dewatered."

It is difficult to agree with the conclusion expressed by the Board in the quoted statement. Since water is being drained from the pulp, through the openings in the bottom plate, at the same time when wash water is being slowly supplied through the upper plate, it is not necessary that there should be any decrease in consistency. Even if there is a momentary local decrease at the points where the wash water enters the pulp, it is clear that the general uniform trend is toward substantially increased consistency, and that the requirement of the claim that the slurry be decreased to a thin watery consistency is not suggested by the disclosure of Hill.

While some of the limitations set forth in the appealed claim might be regarded individually as involving matters of degree, it is clear, that taken together, they define a process widely different from that of the cited reference. What that patent discloses is essentially the mechanical agitation, compressing and dewatering of wet pulp. The amount of water added during the process is small and, in fact, the patentees state that the pulp may initially contain enough water so that none need be added. The consistency of the

pulp increases throughout the process and is apparently so high at the finish that no additional dewatering step is required. As contrasted with this, the appealed claim calls for a process in which the pulp is agitated by high velocity jets while being thinned to a watery consistency, and is then separately dried on a screen. In our opinion there is no such similarity between the claimed invention of the applicants and the disclosure of the cited reference as would justify the rejection here under consideration.

[1] The decision of the Board of Appeals is reversed.

REVERSED.

U. S. Court of Customs and Patent Appeals

IN RE HARPER

No. 6380. Decided December 1, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—INVENTION—SUGGESTION FROM DISCLOSURE IN REFERENCE.

Where a reference patent disclosed a headlight control system requiring a high voltage source, which was not shown nor described specifically as being a part of a radio, but the patent included a statement that a suitable high voltage source was "the usual rectified and filtered high-potential source required by a radio receiver," *Held* that the statement that the same type of source might be used for both purposes would readily suggest to a person skilled in the art the idea of employing a common source which could be selectively connected to the two devices.

2. SAME—PARTICULAR SUBJECT MATTER—AUTOMATIC DIMMING DEVICE FOR AUTOMOBILE HEADLIGHTS—CONVENIENT ARRANGEMENT.

Held that while the specific automatic dimming device for automobile headlights described and claimed by appellant was a convenient one, it involved no more than an obvious modification of the system of a cited reference patent, and *Held* that the appealed claims were properly rejected.

APPEAL from the Patent Office. Serial No. 215,047.

AFFIRMED.

Hill, Sherman, Meroni, Gross & Simpson (*Carlton Hill* and *Van Metre Lund* of counsel) for Harper.

Clarence W. Moore (*D. Kreider* of counsel) for the Commissioner of Patents.

Before O'CONNELL, *Acting Chief Judge*, and WORLEY, RICH, and MARTIN, *Associate Judges*.

WORLEY, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the action of the Primary Examiner in finally rejecting claims 4 and 5, the only remaining claims of appellant's application for a patent on an automatic dimming device for automobile headlights.

The claims read:

4. In an automatic dimmer assembly for an automobile including a battery, headlights and a radio having a power supply for converting battery voltage to a relatively high voltage, a dimmer unit including a photo-electric cell and an amplifier device controlled by said cell, a relay having a coil in series with said device and contacts controlled by energization of said coil, means for connecting said device and said coil to the high voltage output of the power supply, and a manually operated switch for simultaneously connecting the battery to said dimmer unit and to the low voltage input of the power supply.

5. In an automatic dimmer assembly for an automobile including a battery, headlights and a radio having a power supply for converting battery voltage to a relatively high voltage, a dimmer unit including a photo-electric cell and an amplifier device controlled by said cell, a relay having a coil in series with said device and contacts controlled by energization of said coil, means for connecting said contacts in circuit with the headlights, means for connecting said device and said coil to the high voltage output of the power supply, a first manually operated double pole switch, means for connecting one pole of said switch between the battery and said dimmer circuit, means for connecting the other pole of said switch between the battery and the low voltage input of the power supply, a second manually operated double pole switch, means for connecting one pole of said second double pole switch between the battery and the radio, and means for connecting the other pole of said second double pole switch between the battery and the low voltage input of said power supply.

The single reference relied on is

Schmidt, Jr., 2,476,389, July 19, 1949.

Appellant's application relates to automobile headlights of the conventional type, comprising separate bright and dim filaments. In the arrangement shown, a light-sensitive element is located toward the front of the automobile so that it will be activated by the headlights of an approaching vehicle and, by means of an amplifier and a relay, will shift from the bright to the dim filament when such rays are of a predetermined intensity. The amplifier employs both high and low voltage current, the former being obtained from the high voltage source of the automobile radio which steps up the battery voltage, while the latter flows directly from the battery. That arrangement requires the selective use of the high voltage source, either in the radio or in the headlight control system, or both. Appellant provides for such selection by means of two double pole switches, one of which simultaneously connects the battery to the high voltage source and to the low voltage portion of the control system, while the other simultaneously connects the battery to the high voltage source and to the radio.

The Schmidt patent discloses a headlight control system which appears to be generally similar to appellant's, and includes a light-sensitive cell acting automatically through a relay and amplifier requiring both high and low voltage. In the closest approximation to appellant's system (Fig. 5 of Schmidt), the amplifier is connected to both the battery and a high voltage source, and a single-pole switch is provided which connects the battery with, or disconnects it from, the entire system, including the amplifier and the high voltage source. The latter is not shown or described specifically as being part of a radio, but the specification of the patent states that a suitable high voltage source is "the usual rectified and filtered high-potential source required by a radio receiver."

Appellant urges that the language just quoted is not a disclosure of the idea of using the same high-potential source for operating the radio and the headlight dimming system, but is merely a statement that the same type of high-potential source may be used in each case. However, we agree with the Board that Schmidt's disclosure is clearly sufficient to suggest to a person skilled in the art that a common high-potential source might be used for the radio and headlight dimming system. [1] It seems reasonable to assume that the statement that the same type of source might be used for both purposes would readily suggest to such a person the idea of employing a common source which could be selectively connected to the two devices.

We also agree with the Board that, given the idea of such selective connection, it would be obvious to provide a switching arrangement of the type called for by the appealed claims. Claim 5, which is the more specific of the two claims, recites two double pole switches, one serving to connect the battery to the

dimmer circuit and the low voltage input of the power supply (high voltage source), while the other connects the battery to the radio and the low voltage input.

It seems to us that the idea of using two separate switches would readily suggest itself, since it would obviously be desirable to permit the radio and dimmer circuits to be used simultaneously as well as individually. That would require three distinct arrangements of connections and, accordingly, it would not be practicable to employ a single switch. The desirability of using double pole switches would also be apparent, since complete independence of the dimming circuit and radio would require the connection and disconnection of both the low and high voltage elements in each case. [2] While the specific arrangement described and claimed by appellant is a convenient one, we are of the opinion the Board was correct in its holding that it involves no more than an obvious modification of the Schmidt system and that the appealed claims were, therefore, properly rejected.

The decision is affirmed.

AFFIRMED.

U. S. Court of Customs and Patent Appeals

IN RE SPENCE

No. 6367. Decided December 1, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. EVIDENCE—JUDICIAL NOTICE—PART OF PRIOR ART—TELESCOPING PIPE INTO FLEXIBLE COUPLING.

"* * * we note that the Board approved of the Examiner's reliance, in addition to the references, on common knowledge that it is conventional to telescope pipe into flexible couplings as in the case of the radiator hose on an automobile. We would, if necessary, take judicial knowledge of such practice ourselves and include it with the cited patents as part of the prior art * * *."

2. PATENT—PRESUMPTION OF OPERATIVENESS—35 U. S. C. 101.

"The invention disclosed in a patent is presumed to be operative because the patent enjoys a statutory presumption of validity, 35 U. S. C. 282, and operativeness is a prerequisite to validity, 35 U. S. C. 101."

3. PATENTABILITY—UTILITY—INOPERATIVE DEVICE.

"An inoperative device lacks the utility which is required by statute."

4. SAME—PARTICULAR SUBJECT MATTER—COUPLING FOR FLEXIBLY CONNECTING RIGID PIPE LENGTHS—35 U. S. C. 103.

Upon consideration of a claim, numbered 13, to a coupling for flexibly connecting two rigid pipe lengths *Held* that "Appellant has failed to convince us that there resides anywhere in the recitals of claim 13 a distinction which makes a patentable difference from the prior art because he has not persuaded us that such differences as do exist would have been unobvious to the ordinary worker in this art at the time the invention was made," citing 35 U. S. C. 103.

APPEAL from the Patent Office. Serial No. 324,919.

AFFIRMED.

Mitchell & Beckert (*Fred J. Beckert* and *John M. Calimafde* of counsel) for Spence.

Clarence W. Moore (*D. Kreider* of counsel) for the Commissioner of Patents.

Before O'CONNELL, *Acting Chief Judge*, and WORLEY, RICH, and MARTIN, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

Appellant asks us to reverse the decision of the Patent Office Board of Appeals which affirms the final rejection of a single claim of his application Serial No. 324,919, filed December 9, 1952, for Flexible Coupling. The only question is patentability over prior art.

The invention relates to means for flexibly coupling two lengths of rigid pipe, particularly heavy-duty pipe such as is used in dredging operations. The objects of the invention are flexibility at the joint, ruggedness, and prevention of accidental detachment of the coupling parts.

Appellant provides a rubber sleeve having a bore sized to fit over the ends of two adjacent pieces of pipe, the sleeve having an annular external flange at each end. The pipe ends are inserted in the sleeve, past the flanges, and clamps are placed on the sleeve compressing it on the pipe ends. They bear against the flanges in an endwise direction. Brackets are welded to the pipe near where the sleeve is located and they are connected to the clamps by links, the clamps being provided with appropriate link-engaging brackets. The specification does not say how the links and brackets are connected, beyond stating that the links are removable, but the drawing shows the links as connected to the brackets at each end by pins held in place by cotter-pins. The clamps, which are split, are compressed on the rubber sleeve by bolts.

The rejected claim reads as follows:

13. Coupling means for flexibly connecting two rigid cylindrical pipe lengths together, comprising a sleeve of resilient material fitting over the longitudinal ends of said pipe lengths with substantial overlap thereof, first and second radially outwardly extending flange means integral with the respective ends of said sleeve and forming a circumferential radially extending shoulder at each end of said sleeve, first and second circumferentially extending clamping means in direct axial-thrust sustaining relation with the shoulder of each said flange and radially inwardly binding said sleeve to the respective ends of said pipe lengths at each overlap with said pipe lengths, the shoulders of each said flange being of radial height substantially exceeding the effective radial thickness of said clamping means, and anchoring means fixed to each pipe length and straddling the adjacent flange and positively connected to the clamping means adjacent thereto.

Only two references are relied on in this court:

Nicholls, 1,006,588, Oct. 24, 1911.

Cole, 2,428,652, Oct. 7, 1947.

The appealed rejection is that claim 13 is unpatentable over Cole in view of Nicholls.

Nicholls discloses a product of the gaslight era in the form of a rubber gas tube tip for connection to a gas stove (apparently a table-top variety), the relevant disclosure being of a rubber sleeve having an external annular flange at its outer end, the sleeve being shown as at the end of a hose, slipped over the nipple of the stove and secured thereto by a split metal hose clamp tightened by a screw or bolt. It happens that in the drawing there is a small space between the clamp and the annular flange, i. e. they are not shown as in contact. The specification, however, states that the purpose of the flange is to adapt the rubber tip "to securely fit on the stove nipple 3 and prevent its slipping off when the gas supply tube 4 with which it is connected is bent either up or down." Appellant argues that, because the flange and the hose clamp are shown in the drawings as out of contact, "there is no relationship between the flange 2 and the constricting ring 5 and they just happen to be shown near together." The fact is Nicholls shows both the flange or the sleeve and a clamping ring but fails to disclose the idea of securing the clamping ring to the pipe and hence the flange has, in Nicholls, no functional relationship to the clamp, whether they are spaced or in contact.

The Cole patent discloses a flexible rubber connection specifically for dredging pipe in which a rubber

sleeve having external annular end flanges (hereinafter more particularly described) is connected to the ends of two sections of dredging pipe. However, instead of drawing the sleeve over the pipe ends, the pipe ends are provided with flush-mounted radial metal flanges to each of which is hinged a pair of semicircular gate-like clamping collars which engage the flanges of the sleeve and press its ends into engagement with the metal flanges. Slotted bolts and wedging keys hold the clamping parts together. Clearly there is here present the concept of anchoring means fixed to the metal pipe and positively connected to the clamping means which holds the rubber sleeve, employed by appellant. True, the clamp does not press the sleeve onto the outer surface of the pipe, because the sleeve does not surround it, but it does engage the annular shoulder of the sleeve and it is positively connected to the radial metal flanges which are welded to the pipes.

Now, the annular flange of Cole are not of rectangular cross-section as are appellant's (or Nicholls') but are of triangular cross-section. In other words, the outer cylindrical surface of Cole's sleeve flares at its ends and it is this flared end which is gripped by the gate-like semicircular clamping sleeves. Appellant makes much of this, arguing that in Cole "there is no radial flange and no radial shoulder." We find this argument unpersuasive. Claim 13 calls for "radially outwardly extending flange means" and this we think Cole has, as did the Board. Clearly the flange *extends* radially outwardly. Said means is described in the claim as "forming a circumferential radially extending shoulder" with which the clamp is "in direct axial-thrust sustaining relation." While appellant's shoulder is in a plane at right angles to the sleeve's longitudinal axis and Cole's shoulder is sloping, appellant as much as admits—and could hardly deny—that there is a longitudinal thrust component in Cole's structure which is exerted by the clamping means. The difference is a minor mechanical variation.

In any event, notwithstanding all of the minor structural differences from the terms of claim 13 which have been pointed out by appellant, we observe in Nicholls the precise shoulder-to-clamp relationship which appellant has. We think that if one wished to further anchor such a connection as Nicholls' to make it more secure against pulling off, it would be well within the skill of an ordinary mechanic to weld some lugs to the pipe and fasten them to the sleeve-clamping bands, particularly in the light of the teaching of Cole that the clamping means may be welded to the pipe. Viewed in another way and starting with the Cole concept of clamping means welded to the pipe, it would be an obvious expedient to use the more conventional radially contracted type of clamp and extend the pipe ends into the sleeve so as to underlie it. In this connection [1] we note that the Board approved of the Examiner's reliance, in addition to the references, on common knowledge that it is conventional to telescope pipe into flexible couplings as in the case of the radiator hose on an automobile. We would, if necessary, take judicial knowledge of such practice ourselves and include it with the cited patents as part of the prior art, but this is scarcely necessary as we have the specific disclosure in Nicholls.

Appellant presents considerable argument, but nothing in the way of evidence, that the Cole sleeve would slip out of its clamps when subjected to bumps on the outside, once it is wet, "like a rubber heel on a wet pavement." [2] The invention disclosed in a patent is presumed to be operative because the patent enjoys a statutory presumption of validity, 35 U. S. C. 282, and operativeness is a prerequisite to validity, 35 U. S. C. 101. [3] An inoperative device lacks the utility which is required by statute. While this argument of appellant is imaginative it is wanting in a legal foundation. Even if appellant is right, it would be well within ordinary skill to reenforce Cole's shoulder to make it so rigid it could not slip out.

[4] Appellant has failed to convince us that there resides anywhere in the recitals of claim 13 a distinction which makes a patentable difference from the prior art because he has not persuaded us that such differences as do exist would have been unobvious to the ordinary worker in this art at the time the invention was made. 35 U. S. C. 103.

The decision of the Board is therefore affirmed.

AFFIRMED.

U. S. Court of Customs and Patent Appeals

THE GILLETTE COMPANY *v.* STERN

Special Patent Docket No. 74. Decided December 19, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. TRADEMARKS—OPPOSITION—HOLDING IN REGARD TO ABANDONMENT.

With respect to a decision dismissing appellant's opposition to the registration by appellee of the word "Juliette" as a trademark for ladies' electric razors, based on various registrations owned by appellant including No. 371,424 for "Gillette" and No. 409,066 for "Jilet," applied to electric shavers, in which the Assistant Commissioner stated that: "The sole question presented is whether or not applicant's mark 'Juliette,' when used on ladies' electric razors so resembles opposer's 'Gillette' marks as to be likely to cause confusion, mistake or deception," and that: "• • • it is considered that applicant's mark is not likely to cause purchaser confusion, or mistake," and, prior to these statements, contained the following:

> "Opposer's record establishes prima facie abandonment of 'Gillette' for electric shavers, as set forth in Reg. 371,424, and of 'Jilet' as shown by Reg. No. 409,066."

Held that "no actual holding was made that either of the marks of Registrations 371,424 and 409,066 was abandoned."

2. APPEAL TO THE U. S. COURT OF CUSTOMS AND PATENT APPEALS—DISMISSAL PURSUANT TO ELECTION TO PROCEED UNDER 35 U. S. C. 146—TRADEMARKS—OPPOSITION—CONTENTION THAT PORTION OF DECISION WAS EX PARTE HOLDING.

Where an appeal from a decision in a trademark opposition was ordered dismissed pursuant to a notice of election by appellee to have all further proceedings conducted as provided in 35 U. S. C. 146, and appellant requested reconsideration of the order so far as it applied to reasons of appeal directed to a portion of the decision reading, "Opposer's record establishes prima facie abandonment of 'Gillette' for electric shavers, as set forth in Reg. 371,424, and of 'Jilet' as shown by Reg. No. 409,066," and moved that jurisdiction be retained as to those reasons, contending that the quoted statement was an ex parte decision as to which the election provision in 35 U. S. C. 141 and 15 U. S. C. 1071 was inapplicable, *Held* that there was no ex parte question presented which would justify the retention by the court of any part of the appeal.

3. SAME—SAME—REQUEST FOR RECONSIDERATION—MOTION TO STAY MANDATE.

In regard to a motion to stay mandate which accompanied a request for reconsideration of an order of dismissal of an appeal pursuant to an election by appellee to have all further proceedings conducted as provided in 35 U. S. C. 146, *Held* that the mandate had been withheld until the date of the decision on the request for reconsideration.

ON RECONSIDERATION of Dismissal of Appeal.

Motion for Modification of Order of Dismissal of Appeal.

DENIED.

Rowland V. Patrick for The Gillette Company.

Aaron R. Townshend for Stern.

Before WORLEY, RICH, and MARTIN, *Associate Judges*

PER CURIAM

Appellant requests reconsideration of the order of dismissal of the appeal, entered in the above-entitled case on December 2, 1958, so far as it applies to reasons of appeal Nos. 19–21, 25–29 and 32, and moves that jurisdiction be retained by this court as to those reasons. The appeal was dismissed pursuant to a notice of election by appellee to have all further proceedings conducted as provided in 35 U. S. C. 146.

The instant appeal was taken from a decision of the Assistant Commissioner reversing a decision of the Examiner of Interferences and dismissing appellant's opposition to the registration by appellee of the word "Juliette" as a trademark for ladies' electric razors. The opposition was based on various registrations owned by appellant including No. 371,424 for "Gillette" and No. 409,066 for "Jilet," applied to electric shavers.

In the decision appealed from the Assistant Commissioner stated that:

"The sole question presented is whether or not applicant's mark 'Juliette,' when used on ladies' electric razors so resembles opposer's 'Gillette' marks as to be likely to cause confusion, mistake or deception" and that:

"* * * it is concluded that applicant's mark is not likely to cause purchaser confusion, or mistake."

Prior to the quoted statements, however, the decision contains the following:

"Opposer's record establishes prima facie abandonment of 'Gillette' for electric shavers, as set forth in Reg. 371,424, and of 'Jilet' as shown by Reg. No. 409,066."

The reasons of appeal to which the instant request for reconsideration relates are directed to the last-quoted portion of the decision. It is contended by appellant that the question of abandonment of registrations Nos. 371,424 and 409,066 was not before the Assistant Commissioner inter partes and that the last-quoted statement is therefore an ex parte decision as to which the election provision in 35 U. S. C. 141 and 15 U. S. C. 1071 is inapplicable, citing *Baxter Laboratories* v. *Don Baxter, Inc.*, 38 CCPA (Patents) 786, 186 F.2d 511, 88 USPQ 287.

[1] It appears, however, from the above-quoted portions of the decision, that no actual holding was made that either of the marks of Registrations 371,424 and 409,066 was abandoned.

[2] Under the circumstances above set forth, we are of the opinion that there is no ex parte question presented which would justify the retention by this court of any part of the instant appeal.

The order of dismissal has been reconsidered as requested but no reason is found for modifying it and appellant's motion for modification of it is accordingly denied.

[3] Pursuant to appellant's motion to stay mandate, which accompanied the request for reconsideration, the mandate has been withheld until the date of the instant decision.

DENIED.

738 O. G.—62

Commissioner's Decision

IN RE MYERS

Decided October 6, 1958

1. APPLICATION—DRAWINGS—ONLY LINE DRAWINGS CONSIDERED WITHIN TERMS OF RULES—PHOTOGRAPHS NOT DRAWINGS—*In re Taggart et al.*, 725 O. G. 397, 1957 C. D. 6, 115 USPQ 413, SETS FORTH ESTABLISHED PRACTICE.

"The Rules of the Patent Office have always contained rigid standards for patent drawings, and strict adherence to the requirements of the rules has been enforced. Only line drawings are considered to be drawings within the terms of the rules. Clearly photographs are not drawings. *In re Taggart et al*, 725 O. G. 397. If applications have been accepted containing mounted photographs as drawings, it was a mistake to do so. The established practice is that set forth in the Taggart case; * * *."

2. SAME—INCOMPLETE—MOUNTED PHOTOGRAPHS AS DRAWINGS—DRAWING DESCRIBED IN SPECIFICATION MUST MEET REQUIREMENTS OF RULES.

With regard to application papers describing a drawing where mounted photographs were submitted in lieu of ink drawings, *Held* that the application was not complete until the drawing described in the specification was one which met the requirements of the rules.

3. SAME—DRAWINGS—STATUTORY REQUIREMENT APPLIES TO DRAWING DESCRIBED IN SPECIFICATION.

Where application papers presented October 21 were refused a filing date because mounted photographs were submitted in lieu of ink drawings and were granted a filing date of November 2 of the same year when an ink drawing was filed; and the specification described a drawing, *Held* that the statutory requirement for a drawing applies to what is described in the specification, and *Held* that considering all the facts and circumstances of the case there was no error in denying a filing date to the papers presented on October 21.

ON PETITION.

DENIED.

CROCKER, *Acting Commissioner:*

This is a petition requesting that the above identified application be granted a filing date of October 21 * * *. The record shows that the papers presented on that date were refused a filing date because mounted photographs were submitted in lieu of ink drawings, that an ink drawing was filed on November 2 * * *, and that the application bears that filing date. The application is entitled "Textured Plastic Materials."

Petitioner states that the statute does not prohibit acceptance of mounted photographs, that the Office has accepted mounted photographs in other cases, citing six patents from various classes as illustrative, and that even though the drawings may have been informal, the informality was of a nature mentioned in Rule 85.

[1] The Rules of the Patent Office have always contained rigid standards for patent drawings, and strict adherence to the requirements of the rules has been enforced. Only line drawings are considered to be drawings within the terms of the rules. Clearly photographs are not drawings. *In re Taggart et al.*, 725 O. G. 397. If applications have been accepted containing mounted photographs as drawings, it was a mistake to do so. The established practice is that set forth in the Taggart case; hence [2] this application was not complete until the drawing described in the specification was one which met the requirements of the rule.

However, it is noted that the claimed invention relates to a process of producing textured structure of polystyrene, and the structure so produced. Since it has long been the practice to accept process and composition cases without a drawing (cf. Section 608.02 of the Manual of Patent Examining Procedure) the

application could have received the earlier filing date, except for the fact that the specification described a drawing, and [3] the statutory requirement for a drawing applies to what is described in the specification. *Ex parte Edgerton*, 1902 C. D. 382. Hence, considering all the facts and circumstances of this case there was no error in denying a filing date to the papers presented on October 21 • • •.

The petition is denied.

DENIED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,255,313, C. Ellis, Ethylenic-alpha-beta synthetic resins and process of making same, **filed** Feb. 5, 1954, D. C. N. J. (Newark), Doc. 111/54, *Ellis-Foster Co. v. Reichhold Chemicals, Inc.* Stipulation and order of dismissal Dec. 4, 1958.

2,309,268, J. R. Reed, Safety joint bumper sub, **filed** June 5, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 550/48–WM, *J. B. Peak v. Shaffer Tool Works.* Order dismissing complaint (notice Dec. 5, 1958).

2,420,771, Crawford and Crawford, Knitting machine and method; **2,473,677**, same, Knitting machine; **Reg. No. 423,856** (MORPUL), Morpul, Inc., Men's hosiery, **filed** Dec. 5, 1958, D. C. N. H. (Concord), Doc. 1976, *Cormier Hosiery Mills Inc. v. Morpul, Inc. et al.*

2,457,319, D. N. Judelshon, Cutting machine, **filed** Dec. 12, 1958, D. C., S. D. N. Y., Doc. 140/371, *Oscar I. Judelshon, Inc. v. G. & W. Leather Goods Supply Co., Inc.*

2,473,677. (See 2,420,771.)

2,513,626, J. T. Krapp, Couplings, **filed** Sept. 29, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c294, *John T. Krapp v. Milwaukee Valve Co.* Stipulation and order of dismissal Dec. 5, 1958.

2,538,467, B. P. Solomon, Pleating device, **filed** Dec. 3, 1958, D. C., E. D. Mich. (Detroit), Doc. 18630, *Pleatmaster, Inc. v. The Stanley Works.*

2,576,558, J. A. Bede, Paint heaters, **filed** July 21, 1954, D. C., N. D. Ohio (Cleveland), Doc. 31231, *James A. Bede et al. v. Baker & English, Inc. et al.* Order of dismissal; patent held valid and not infringed Dec. 5, 1958.

2,577,221, J. B. Filger, Nose drop dispenser, **appeal** filed Nov. 21, 1957, C. C. A., 6th Cir., Doc. 13423, *Joseph B. Filger v. Plax Corp.* Judgment of District Court, Western District of Kentucky affirmed Dec. 3, 1958.

2,580,716, L. Balamuth, Method and means for removing material from a solid body; **2,632,858**, C. L. Calosi, Support for vibratory-devices, **filed** Apr. 16, 1953, D. C., E. D. N. Y. (Brooklyn), Doc. 13432, *Raytheon Mfg. Company v. Cavitron Corp. et al.* Dismissed without prejudice Dec. 11, 1958.

2,622,558, A. E. Andersson, Machine for removing bark from logs; **2,738,806**, same, Ring shaped sealing device; **2,765,715**, Brundell and Jonsson, Arrangement for feeding forward of logs and the like; **2,766,480**, same, Rotary debarker having pivotal bark-removing tools biased by elastic rubber; **2,788,034**, same, Rotary ring-type debarker, including means for disintegrating slivers of bark; **2,775,274**, A. E. Andersson, Bark-removing machine having self-lifting blunt-edge tools; **2,787,304**, Brundell and Jonsson, Machine for removing bark from logs, **filed** Dec. 9, 1958, D. C., W. D. S. C. (Greenville), Doc. 2471, *Soderhamn Machine Mfg. Co. et al. v. Carl W. Mullins Engineering & Mfg. Co., Inc. et al.*

2,632,858. (See 2,580,716.)

2,640,763, Easley and Swayze, Etching; **2,828,194**, Hopkins and Easley, same, **filed** June 23, 1958, D. C., E. D. Mo. (St. Louis), Doc. 58c264, *Dow Chemical Co. v. Ad Service Engraving Co.* Cause dismissed by stipulation without prejudice Dec. 9, 1958.

2,696,455, H. E. Blair, Cadmium compositions for roundworm control and process of administration, **appeal** filed Jan. 17, 1958, C. C. A., 6th Cir., Doc. 13482, *Pennco Products, Inc. v. General Mills, Inc.* Judgment of District Court for Northern District of Ohio affirmed Dec. 8, 1958.

2,697,586, D. O. Talley, Earth underreamer, **filed** Dec. 5, 1958, D. C., S. D. Tex. (Houston), Doc. 12430, *Bel-Tee Foundation Co. v. Bell Shaft Foundation (Drilling) Co. et al.* Same, Doc. 12431, *Bel-Tee Foundation Co. v. J. G. McCullough Construction Co. et al.*

2,700,302, Rickes and Wood, Vitamin B–12 active composition and process of preparing same, **filed** Apr. 9, 1956, D. C. N. J. (Newark), Doc. 303/56, *Pacific Yeast Products, Inc. v. Merck & Co., Inc.* Consent judgment Dec. 10, 1958.

2,720,422, W. H. Seavey et al., Rotary broom making machine, **filed** Dec. 5, 1958, D. C. Oreg. (Portland), Doc. 10111, *Municipal Research & Development Corp. v. Peninsula Iron Works et al.*

2,736,945, Burleson and Holmes, Process for knitting; **2,771,733**, Leath and Bobo, Jr., Yarn and method of producing same; **2,771,739**, same, Textile product and method, **filed** Feb. 1, 1957, D. C., M. D. Pa. (Scranton), Doc. 5824, *Patentex, Inc. v. Capital Nylon Co., Inc.* Consent judgment; patents held valid Dec. 9, 1958. **Same**, Doc. 5825, *Patentex, Inc. v. Plains Throwing Co.* Decree as above.

2,737,962, G. Cressi et al., Fins for swimmers, **filed** May 27, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 488/58–BH. *Il Pescatore Subacquee-Cressi v. U. S. Divers Co., Inc. et al.* Consent judgment; patent held valid and infringed; defendants restrained (notice Dec. 8, 1958).

2,738,996. (See 2,623,558.)

2,763,228. (See Re. 24,562.)

2,771,733. (See 2,736,945.)

2,771,739. (See 2,736,945.)

2,775,274. (See 2,623,558.)

2,785,715. (See 2,623,558.)

2,786,488. (See 2,623,558.)

2,787,304. (See 2,623,558.)

2,796,634. (See 2,623,558.)

2,817,831, Schwartz and Lo, Broad-band end-fire television antenna, **filed** Nov. 10, 1958, D. C., N. D. Ohio (Toledo), Doc. 8122, *Channel Master Corp. v. While-Away Products Co.* Consent judgment; patent infringed; injunction issued Dec. 4, 1958.

2,828,194. (See 2,640,763.)

2,832,302. (See Re. 24,370.)

2,838,210, Detrie and Stayboldt, Sealant dispensing device, **filed** Nov. 18, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1069/58–Tc, *Semco Research, Inc. v. Pyles Industries, Inc. et al.*

2,845,960, S. J. Jamison et al., Diaper, **filed** Dec. 4, 1958, D. C., W. D. S. C. (Greenville), Doc. 2468, *Chicopee Mfg. Corp. v. Riegel Textile Corp.*

2,851,106, W. W. Block, Combination serving cart and rack for stacked serving tables, **filed** Dec. 5, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c2107, *Quaker Stretcher Co. v. Harrison Wholesale Co.*

Re. 24,370, C. Harris, Embroidering mechanism for zigzag sewing machines; **2,832,302**, F. Gegauf, Sewing machine, **filed** Dec. 2, 1958, D. C., E. D. S. C. (Charleston), Doc. AC–241, *Singer Mfg. Co. v. Alco Appliance Distributing Co.*

Re. 24,562 (of 2,763,258), C. C. Hughes, Construction of circular saws, **filed** Dec. 10, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1156/58–TC, *Hughes Blades, Inc. et al. v. Diamond Tool Associates.*

Des. 182,168, Dearling and Malan, Novelty desk set, **filed** Aug. 22, 1958, D. C., S. D. N. Y., Doc. 127/109, *Rubicon, Inc. v. Dan-Dee Imports, Inc.* Stipulation and order of discontinuance Dec. 5, 1958.

REISSUES

JANUARY 27, 1959

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,594
BATTERY POWERED DISK TYPE LAWN MOWER

Philip Smith, Kissimmee, Fla.

Original No. 2,702,448, dated February 22, 1955, Serial No. 375,148, August 19, 1953. Application for reissue May 22, 1958, Serial No. 737,470
7 Claims. (Cl. 56—25.4)



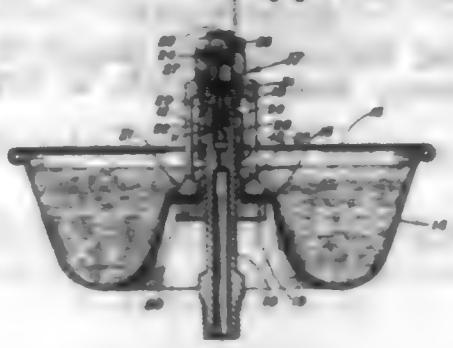
1. A battery powered lawn mower comprising a frame, ground engaging means on said frame for supporting the same for movement along the ground without appreciable rocking of the frame relative to the ground, a handle [pivotally] mounted on the frame, [for movement from a position near the ground to a higher elevation short of the vertical,] an electric motor mounted on *and having a shaft extending below* said frame, a cutting blade rotatably mounted on said [frame and connected to be driven from said motor,] *shaft below said frame*, a battery mounted on said frame near said motor, relatively short loss minimizing leads between said battery and said motor, a solenoid switch in one of said leads, a normally open switch mounted on said handle for convenient engagement by the hand of the operator while engaging said handle, conductors between said normally open switch on said handle and the solenoid [of the motor] switch whereby an operator may cause the mower to function only while he holds the switch closed whereby said battery will be used a minimum amount and its life will be proportionately prolonged.

24,595
CONSTANT MASS LIQUID DISPENSING CONTROL

Woolford L. Edmonston, Laurel, Md., assignor to William E. McBride, Woodstown, N. J.

Original No. 2,810,367, dated October 22, 1957, Serial No. 476,825, December 21, 1954. Application for reissue May 22, 1958, Serial No. 737,177
5 Claims. (Cl. 119—81)

1. Liquid dispensing means comprising a standpipe adapted for connection to a pressure source of liquid, a check valve [having a closing spring] mounted therein and normally closing off flow therethrough when not in use, a liquid container having means for hanging it over said standpipe, said means including a connection for automatically opening said normally closed valve when said container is hung on said standpipe and directing the flow of liquid from said standpipe into said container,

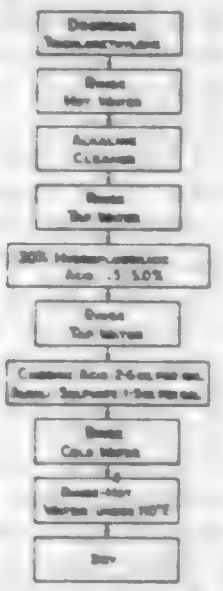


and means for closing off the flow whenever the liquid in the container reaches a predetermined amount.

24,596
CLEANING ALUMINUM

Leon L. Deer, Marion County, Ind., assignor to The Diversey Corporation, a corporation of Illinois

Original No. 2,705,500, dated April 5, 1955, Serial No. 390,266, November 4, 1953. Application for reissue March 29, 1957, Serial No. 649,586
13 Claims. (Cl. 134—3)
(Granted under Title 35, U. S. Code (1952), sec. 266)



8. The method of treating an aluminum surface to simultaneously deoxidize it and protect it against re-oxidation without measurably increasing electrical resistance, which comprises treating the surface of an aluminum piece with an aqueous solution having a pH of 1.2 to 1.5 and containing a member of the group consisting of chromic acid, alkali metal chromates and alkali metal bichromates, and a member of the group consisting of sulfuric acid, nitric acid, alkali metal sulfates, alkaline earth metal sulfates, alkaline earth metal nitrates and alkali metal nitrates, and rinsing the aluminum piece so treated with water.

PLANT PATENTS

GRANTED JANUARY 27, 1959

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,804

ROSE PLANT

Roy L. Byrum, Richmond, Ind., assignor to Joseph H. Hill Company, Richmond, Ind., a corporation of Indiana

Application June 16, 1958, Serial No. 742,454

1 Claim. (Cl. 47—61)

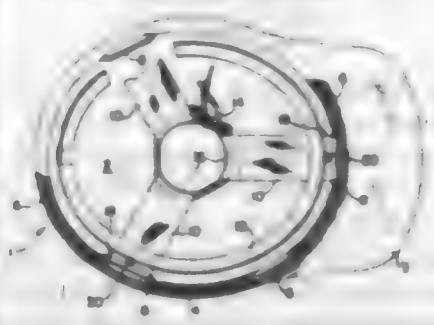
A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by the unique combination of abundant dark green, semi-glossy foliage borne on almost the entire length of the stem, a habit of bearing flowers on strong stems of a length suitable for cut flowers, relatively long buds, a distinctive Mimosa Yellow general color tonality of the flowers, and a suitability for greenhouse forcing use.

PATENTS

GRANTED JANUARY 27, 1959

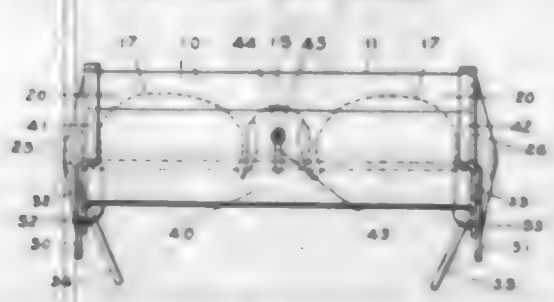
GENERAL AND MECHANICAL

2,870,445
PROTECTIVE HEADGEAR AND LINING SUSPENSIONS
Joseph R. Fisher, Penn Township, Allegheny County, Pa., assignor to Mine Safety Appliances Company
Application October 28, 1954, Serial No. 465,309
2 Claims. (Cl. 2—3)



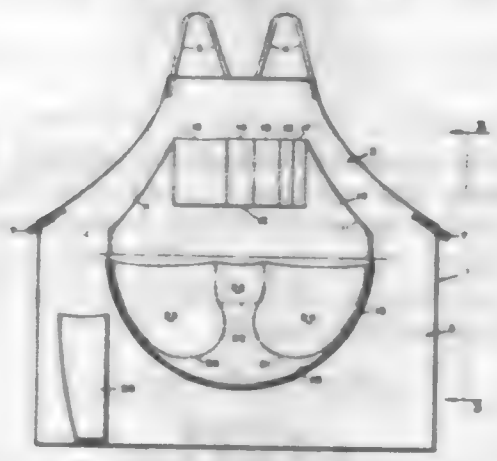
1. A protective headgear comprising a blow-resistant crown having a substantially smooth inner surface, spaced indentations formed along said inner surface, a lining mounting cord molded between the inner and outer surfaces of said crown and having portions extending across said indentations, and said portions being spaced from the walls of said indentations and disposed inwardly from said inner surface of the crown, whereby an air space is provided outwardly of said portions and said inner surface being unobstructed by said portions.

2,870,446
PILOT'S INSTRUMENT FLYING HOOD
Ross H. Mitchell, Dover, Del.
Application February 16, 1956, Serial No. 565,942
3 Claims. (Cl. 2—12)



1. A pilot's instrument-flying hood comprising a fixed rectangular visor, a supplemental visor having a straight lower edge and straight parallel side edges at right angles to said lower edge, slidably mounted on the outer surface of said fixed visor, extending from side to side thereof and downwardly extensible therefrom, means retaining said supplemental visor in selective positions; a fixed side mask of generally triangular shape having a vertical rear edge and a forward edge inclined thereto at an acute angle, mounted on each side of said fixed visor with its apex at the upper edge of said fixed visor and its forward edge extending along and secured to the side of said fixed visor, the acuity of said angle being such as to enable the pilot by extension of said supplemental visor to bring its lower edge into registration, to the eyes of said pilot, with the upper edge of the instrument panel of the airship; a supplemental side mask for each of said fixed side masks supported in parallel, adjacent relationship to said fixed side mask and downwardly extensible therefrom means supporting said supplemental side mask in such relationship to said fixed side mask and permitting its downward extension therefrom said supplemental side mask masking when so extended, the side view below the lower edge of said fixed side mask exposed to said pilot's eyes; a pair of side shields, respectively having vertical forward edges hingedly mounted with said forward edges adjacent to said rear edges of said fixed side masks, extending rearwardly therefrom, and bows rearwardly extending from said last named side shields.

2,870,447
PRINTER'S APRON
Ewing T. Pitcock, Tacoma, Wash.
Application September 11, 1957, Serial No. 683,251
1 Claim. (Cl. 2—51)



A printer's apron comprising a unitary apron having an upper portion diverging downwardly from two top corners and integrated with a rectangular bottom portion having two top corners, a pair of side loops permanently secured at the top corners of said bottom portion, a pair of shoulder straps permanently secured at one of their ends to said top corners of the upper portion and adapted for passage through said side loops for tying therebetween to attach the apron to the body of a wearer, a pocket panel having an upper portion and a semi-circular bottom portion, the upper portion of the pocket panel being similar in outline to the outline of the upper portion of the apron and secured thereto by vertical and horizontal pocket-defining stitching across its top portion and extending downwardly along its sides and terminating at points below said side loops whereby said semi-circular bottom portion of the pocket panel is detached from the apron, a matching panel secured by stitching about its semi-circular marginal edge to the corresponding edge of the bottom portion of the pocket panel and further secured thereto by stitching along involute lines to provide pockets converging toward the bottom center of the bottom portion of the pocket panel whereby tools carried within the converging pockets will remain settled toward said bottom center and thereby prevented from falling out during forward bending movements of the wearer.

2,870,448
WEARING APPAREL
Joseph S. Rosenthal, New York, N. Y., assignor to Cisco, Inc., a corporation of New York
Application March 4, 1958, Serial No. 719,063
1 Claim. (Cl. 2—91)

As an article of manufacture, a combined muffler and vest-like member comprising an elongated rectangular strip of fabric of the same width throughout its entire

length and devoid of discontinuities along its parallel longitudinal edges, adapted to be positioned around the neck of a wearer to define two panels depending from the neck portion of the strip and adapted to lie on the chest of the wearer on each side thereof and of combined width to cover a substantial portion of the chest of the wearer, said panels being of length substantially to reach the



waist of the wearer, a plurality of complementary button holes and buttons along each of the adjacent inner edges of said panels near the lower ends thereof, said complementary buttons and button holes coacting releasably to join the adjacent inner edges of the panels together with said edges overlapping, each of said panels having a pocket adjacent the lower end thereof.

2,870,449
DOUBLE CAP
Theodore L. Bailey, Natick, Mass., assignor to United States of America as represented by the Secretary of the Army
Application March 30, 1956, Serial No. 575,294
1 Claim. (Cl. 2—172)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A double head covering in the form of a cap adjustable to heads of various sizes comprising an inner cap and an oversized outer cap, each of said caps comprising a crown and an annular side wall, said inner cap having a visor and a pair of circumferentially stretchable elasticizing inserts in the side wall spaced rearwardly of the visor, the side wall of the outer cap having an arcuate cut-out portion straddling said visor, elongated flaps hinged to the side wall of the outer cap positioned to overlap the inserts in the inner cap and normally folded onto the top side of the crown of the inner cap, and means for detachably securing the inner and outer caps together.

2,870,450
ELASTIC FRONT CAP
Theodore L. Bailey, Natick, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application March 30, 1956, Serial No. 575,293
4 Claims. (Cl. 2—197)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. A cap comprising a crown, an upright cylindrical side wall and a visor, said cylindrical side wall comprising an inelastic portion provided with an arcuate cut-out at the front thereof and an arcuate insert of circumferentially stretchable two-ply elastic material filling said cut-out and attached to the arcuate edge thereof, said cut-out and elastic insert extending through less than one-half the circumference of the side wall, means for attaching the visor to the free edge of the elastic insert intermediate the ends thereof and impart adjustability to the cap, and means for mounting a stiffening stay on the inner ply of elastic material.

2,870,451
ALL-WEATHER RAIN HAT
Elaine Brodsky, New York, N. Y.
Application March 11, 1958, Serial No. 720,761
4 Claims. (Cl. 2—202)

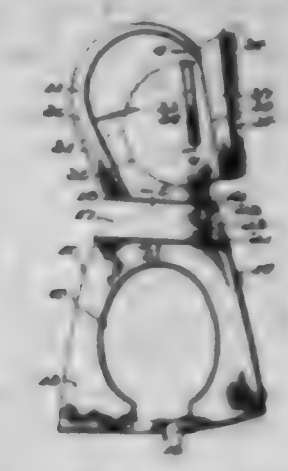


1. A foldable water-resistant head covering for women comprising a flexible flat crown section with a substantially straight front portion which, when in wearing position, is adapted to be wider than the head of the wearer, a flexible hood section depending from the sides and back of the crown section of sufficient length to be adapted to be tied about the neck of the wearer, a rigid support disposed along substantially the length of the front portion of the crown section, and means for tieing the hood section about the neck of the wearer, the rigid support being the only rigid element in the head covering, whereby the head covering can be folded about it, the support acting to prevent the hood section from exerting pressure on the coiffure of the wearer on the front portion of the head when the hood section is tied about the neck of the wearer.

2,870,452
GARMENT HOOD
Joseph De Grazia, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Army
Application October 24, 1956, Serial No. 618,158
3 Claims. (Cl. 2—203)
(Granted under Title 35, U. S. Code (1952), sec. 266)

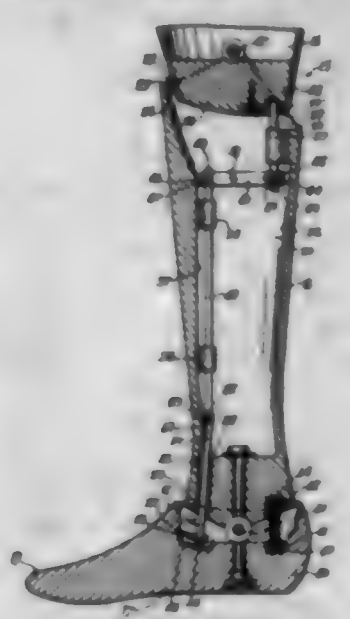
1. In combination with a protective helmet or the like having a substantially rigid and laterally extending brim;

a fabric hood comprising a helmet covering portion having a front edge defining a face opening, a substantially tubular curtain carried by said front edge concentrically thereof and adapted to extend forwardly of the same and said helmet, said curtain having a free forward edge, said front edge of said helmet covering portion crossing said brim on opposite sides of said helmet and being spaced thereby from the wearer's cheeks to form air spaces below said brim, substantially vertically disposed semi-



rigid ductile means carried by said helmet covering portion rearwardly of said front edge thereof, said ductile means crossing said brim on opposite sides of said helmet, said ductile means and said front edge of said helmet covering portion being deformable about said brim toward and away from the wearer's cheeks to open and close said air spaces, and said free forward edge of said curtain being undeformed by said deformation of said ductile means.

2,870,453
ARTIFICIAL LIMBS
Sofanor Vasquez, Barranquilla, Colombia
Application May 16, 1955, Serial No. 508,726
3 Claims. (Cl. 3—36)



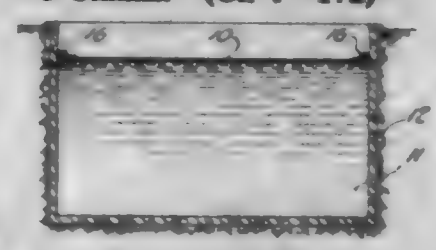
1. An artificial limb comprising an upper thigh member, a lower foot member with heel and toe portions, and an intermediate calf member having one end pivotally connected with the upper thigh member and one end pivotally connected with the lower foot member between the heel and toe portions, said calf member having a central axial chamber, coacting calf and thigh member latch means mounted in the calf and thigh members to hold said members in fixed axial alignment, foot operable latch operating means in the calf and foot members to release and reset said latch means, connecting linkage lever means in the central axial chamber of the calf member operatively connecting said foot operable latch operating means and said latch means, said latch means being a latch bar slidably mounted in the calf member and a latch plate fixed to the upper thigh member, said foot operable latch operating means being a push block and a bearing plate, said bearing plate being mounted in the lower foot member, said connecting linkage lever means being a lever centrally fulcrumed in the central axial chamber of the calf member, said lever having two ends one of which being pivotally and slidably connected to the latch bar, and a pair of connecting arms slidably mounted in the central axial chamber of the calf member and pivotally connected together and pivotally connected to the other end of said lever and to said push block, said lever end pivotally connected to the latch bar having a slot opening therein and a pivot pin slidably extending through said slot opening and fixed to said latch bar, said push block having a slot opening therein and a pivot pin extending through said slot opening in the push block and secured to one of the connecting arms, and resilient compression spring means mounted in and between said heel portion of the foot member and said calf member normally biasing said calf member around its pivotal connection with said foot member.

2,870,454
SWIMMING POOL COVER
Florence J. Schippert and Mary L. Lawser, Philadelphia, Pa.
Application October 4, 1954, Serial No. 459,988
9 Claims. (Cl. 4—172)



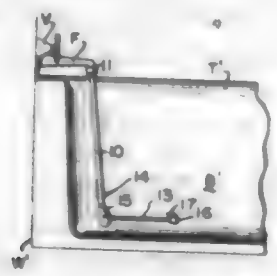
1. A swimming pool cover conforming in size and shape to the area at the top of the pool, means at the peripheral edge of said cover for attaching said edge to an inner surface of the side wall of the pool, said attaching means comprising a peripheral series of resilient suction cups attached to the edge of the cover, and a peripheral flap on said cover projecting beyond the points of attachment of said suction cups to the cover and exceeding in width the axial dimension of said cups.

2,870,455
PROTECTIVE COVER FOR AN OUTDOOR SWIMMING POOL
Charles E. Graham Reeves, Summit, N. J., assignor to Reeves Brothers, Inc., New York, N. Y., a corporation of New York
Application February 6, 1957, Serial No. 638,668
5 Claims. (Cl. 4—172)



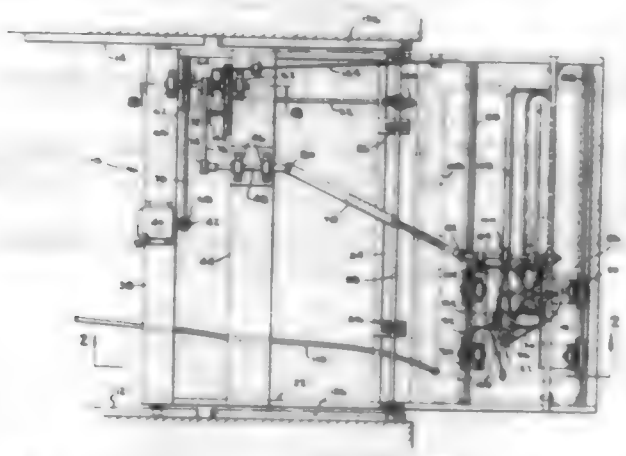
1. A protective cover for an outdoor swimming pool which comprises a sheet of open-mesh fabric conforming in size and shape to the surface area of a body of water in a swimming pool, said open-mesh fabric being formed from filaments of a non-water absorbing polyolefine having a specific gravity less than the specific gravity of water and a buoyant member extending around said sheet at the edges thereof and being secured thereto, said member forming a ridge extending above the surface of the sheet.

2,870,456
BATH TUB AND ATTACHMENT THEREFOR
Lawrence A. Greensides, Aurora, Colo.
Application January 18, 1957, Serial No. 634,989
1 Claim. (Cl. 4—173)



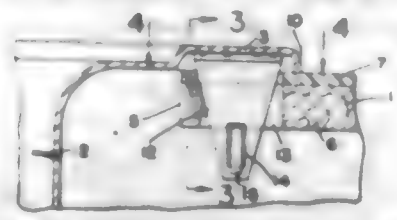
An attachment for a bath tub having a bathing recess of substantial depth formed therein providing a bottom surface and end and side walls upstanding therefrom, the tub having associated therewith adjacent the end wall the usual liquid faucet, comprising a liquid supply line for carrying liquid from the faucet into the recess, said line being detachably connectable with the faucet and having connected therewith a pair of liquid jet discharge nozzles, means to detachably secure the line to the interior surface of the tub recess adjacent the front corners and bottom surface thereof whereby a nozzle may be positioned immediately adjacent the recess bottom along each side wall of the recess, said nozzles being further positioned to discharge liquid from said line into said recess and direct same in a like circulatory path, said line including a first tube detachably connectable to the faucet and arranged to extend therefrom vertically downwardly in the recess to immediately adjacent the bottom surface, and a second tube in the form of a substantial U with the legs thereof being arranged for positioning in a common horizontal plane along the sides of the recess immediately adjacent the bottom surface and terminating in said nozzles, said means to detachably secure the line comprising at least one suction cup carried by the second tube of the line and engageable with said interior surface.

2,870,457
BATHTUB CLEANING APPARATUS
Robert L. Knight, Coalgate, Okla.
Application June 20, 1958, Serial No. 743,265
5 Claims. (Cl. 4—173)



1. The combination with a vertical wall provided with an elongated opening extending inwardly therein, and an open top tub positioned outwardly of and adjacent said wall, of a horizontally disposed trackway positioned within said opening so that one of the ends is remote from said wall and the other of the ends is adjacent said wall and having one end connected to the sides of said opening for movement of said trackway about a horizontal axis from the horizontal position to an upwardly and outwardly sloping position in which the other end of the trackway is spaced inwardly from said wall, a platform superimposed upon said trackway so that the portion adjacent one end extends over the open top of said tub and the portion adjacent the other end is adjacent to and spaced from said one end of said trackway and connected to said trackway for movement of said platform from the position in which the portion adjacent the one end extends over the open top of said tub to a position in which the portion adjacent the one end is inwardly of and spaced from said vertical wall, a drive shaft on said portion of said platform adjacent the other end, a carriage superimposed upon said portion of said platform adjacent the one end and connected to said platform for back and forth movement in a linear path transverse of said platform, a vertically disposed driven shaft carrying a brush element on the lower end positioned within said tub so that the brush element is wholly within and below the open top with the portion adjacent the other end exteriorly of and spaced above the open top of said tub, means connecting the portion adjacent the other end of said driven shaft to said drive shaft for rotation of said driven shaft responsive to the rotation of said drive shaft, and means connecting said carriage to said drive shaft for said back and forth movement responsive to rotation of said drive shaft.

2,870,458
BASIN INSTALLATION
William H. Bowden, Alliance, Ohio, assignor to Alliance Ware, Inc., Alliance, Ohio, a corporation of Delaware
Application September 20, 1957, Serial No. 685,222
1 Claim. (Cl. 4—187)

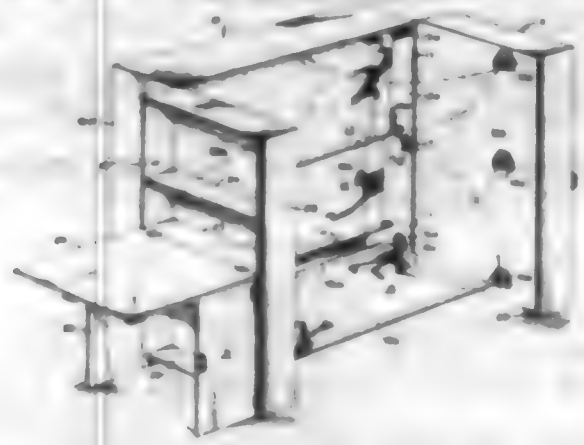


The basin installation which includes a support with an opening therein to accommodate the bowl of a basin, a metal basin which is porcelain enameled and is provided with a rim extending outwardly from all sides of the bowl over the opening toward the support, the rim having a raised border with the inner edge thereof over the opening and the outer edge thereof turned down toward the support, slots in the support extending away from the opening on all sides thereof, brackets welded to the underside of said border of the rim which extend through the respective slots, a hole in each bracket which starts above the bottom of the slot in which it is located and extends below it, and a wedge in each hole which is braced between the bottom of the hole and the bottom of the support on both sides of the slot in which the bracket is located whereby the downwardly turned edge of the rim is held in sealing contact with the support.

2,870,459
FOLDING FURNITURE
Raymond F. Zabielski, San Francisco, Calif.
Application October 29, 1956, Serial No. 619,066
1 Claim. (Cl. 5—2)

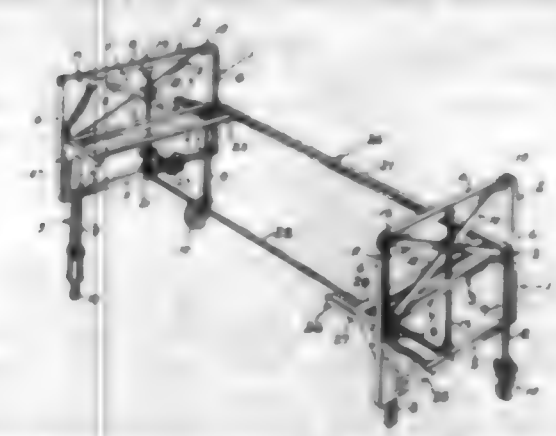
An article of furniture that is portable and may be moved about in a room, comprising a cabinet having a back wall, side walls and front structure coextensive with said back wall, said front structure being divided substantially in the center thereof to form two sections, said front structure also having means for pivotally attaching the rear side edges thereof to the front edges of adjacent ones of said side walls so that the divided sections of said front structure may be swung outward to extend to the front of the respective side walls to which said divided sections are pivotally attached thereby to provide access to the inside of the cabinet, each of said divided sections comprising vertical side members and

a plurality of horizontal members positioned between said vertical side members and fixedly attached thereto and to the respective back walls of said divided sections to provide bracing to said divided sections, a plurality of bunk bed frames adapted to be positioned in said cabinet, each of said frames comprising a front member and a parallel rear member, said members extending inside of said cabinet substantially between said side walls, bearing members for receiving the ends of said rear frame members attached to the inside of said walls for rotatably supporting said rear frame members one above the other in said cabinet, side frame members attached to said front and rear frame members near the ends thereof and supporting means for supporting said front frame



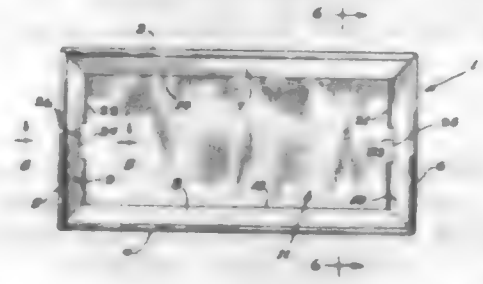
members, means in said supporting means for retaining the ends of said front frame members therein when said bed frames are in their horizontal positions, said supporting means being attached to the rear wall of said front structure near the line of division thereof so that said supporting means are in position to receive the ends of said front frame members when the two sections of said front structure are swung out to the front of said side walls, said front frame members extending between the rear walls of said swung-out front structure when said bed frames are fixed in their horizontal positions providing a multiple tier bed in which the tiers of said bed frames form braces between the swung-out sections of said front structure.

2,870,460
HOSPITAL BED
Russell T. Sanford, Chicago, Ill.
Application April 15, 1955, Serial No. 501,555
1 Claim. (Cl. 5—63)



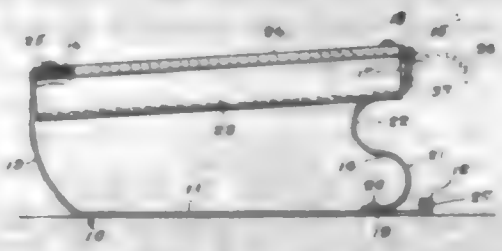
A bed comprising a pair of spaced, upstanding units, each unit comprising a substantially rectangular end frame, a pair of vertical guides on said end frame, an upstanding, inverted U-shaped leg frame resting on the floor adjacent said end frame and having its vertical leg portions slidably received in the guides of said end frame for supporting the end frame above the floor, a pantograph connected to said end frame and leg frame, each pantograph including a first diagonal link pivotally connected at one end to the end frame adjacent an upper corner thereof and at the other end to the leg frame at the upper corner remote therefrom, a second diagonal link pivotally connected at one end to the end frame adjacent the other upper corner thereof and at the other end to the leg frame at the other upper corner remote therefrom, a slot in each link extending longitudinally thereof, said slots crossing each other, a pin pivotally and slidably received in said slots thereby connecting said links at the intersection thereof intermediate their ends, a nut carried on said pin, and a vertical screw threadedly engaging said nut and rotatably mounted on said end frame, and a horizontally extending bed spring frame connecting said end frames of said units together, whereby rotation of said screws actuates said pantographs to cause relative movement between the leg frames and the end frames thereby raising and lowering said end frames and bed spring frame relative to the floor.

2,870,461
DISPOSABLE BASSINETS AND PARTS THEREOF
Matthew A. Rosenthal, Brooklyn, N. Y.
Application November 16, 1954, Serial No. 469,227
10 Claims. (Cl. 5—93)



2. In bassinet construction, a housing including a bottom and upstanding side and end walls therearound, said housing being formed of relatively rigid material, a false bottom seated within said housing in spaced relation with respect to said bottom, resilient means formed integrally with said false bottom extending between said bottom and said false bottom and along the side edges of said false bottom for supporting said false bottom in said spaced relation and means formed on said walls and on said false bottom for retaining said false bottom in position in said housing.

2,870,462
BABY BED
Joseph G. Turrin and Joseph C. Turrin,
New Philadelphia, Ohio
Application April 10, 1957, Serial No. 651,866
1 Claim. (Cl. 5—99)



In a folding bed, a frame including a pair of spaced parallel side pieces, each of said side pieces including a horizontally disposed first portion, a vertically disposed lug extending upwardly from an end of said first portion, a second portion extending upwardly from the other end of said first portion, a third portion extending forwardly from the upper end of said second portion and arranged above said first portion, a lip depending from the front end of said third portion, a pair of body members each including an upper vertically disposed section connected to said lip and a lower section connected to said side piece, each of said body members further including intermediate oppositely extending curved sections, a support member adapted to support a child and including

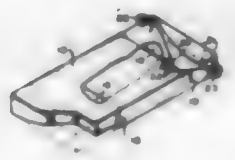
spaced parallel longitudinally extending hems arranged in engagement with the third portions of said side pieces, a first link means hingedly connecting the rear ends of said third portions together, a second link means hingedly connecting the front ends of the third portions together, and a third link means extending between the lugs on said first portions, each of said link means including a pair of pivoted links, each of said link means including interengaging stop members for limiting pivotal movement of the hinge means, said link means further including latch means for preventing accidental pivotal movement of the link means, the upper sections of said body members being provided with slots, and curved brackets having tongues detachably engaging said slots.

2,870,463

ANCHOR BLANKET

Wilma Leola Arnett Hoppe, Anniston, Ala., assignor of forty percent to George Douglas Hoppe, Calhoun County, Ala.

Application December 18, 1956, Serial No. 629,103
2 Claims. (Cl. 5—334)



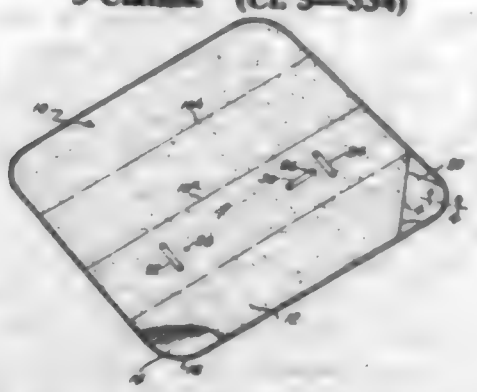
1. An anchor blanket of a character to remain in position on a bed comprising a pair of end casings for a mattress to which the device is to be applied, said end casings being of a size and configuration to fit snugly one over each of the opposite ends of a mattress, the bottom of one of the said casings being of relatively narrow width to facilitate application and removal of the same, a cover member having a foot portion with box corners, said cover member being of a length to extend beyond the bottom casing for tucking it beneath the foot of a mattress or left untucked in an extended position, said box corners preventing the foot end of the said cover member from being disengaged from the foot end of said mattress, stitching securing said cover member at each side to adjacent portions of said casings whereby said cover member will be maintained in extended position, fastening elements on the head end of said cover member by which it may be secured in proper position, and cooperative fastening elements on said casing at the head end of the bed for detachable reception of said first mentioned fastening elements.

2,870,464

ALL-PURPOSE BLANKET

Michael J. Lalick, Evergreen Park, Ill.

Application May 14, 1958, Serial No. 735,220
3 Claims. (Cl. 5—334)



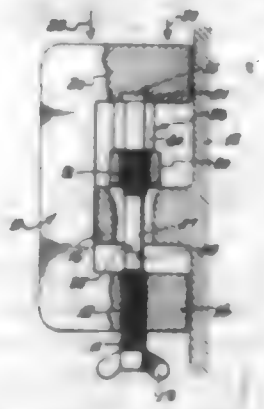
1. An all purpose blanket which may be used either as a sleeping bag or around the wearer with a portion acting as a hood over the head of the wearer, said blanket comprising a rectangularly shaped sheet of cloth fabric and a similarly shaped sheet of waterproof material, the two sheets being secured together around their peripheral edges by a suitable binding, a generally triangularly shaped transparent plastic sheet being fastened thereto across one corner of the same, said triangularly shaped plastic sheet being fastened only on two sides with the base being open so it may be worn over the head as a hood and the blanket held around the wearer, and said sheet of cloth fabric having an opening across one end of the same whereby the blanket may be used as a sleeping bag, and a zipper attachment for closing said opening.

2,870,465

METHOD OF DIE FORMING INTERNAL THREADS

Robert A. Kraus and Edmund J. Kraus, Redondo Beach, Calif.

Application August 22, 1957, Serial No. 679,642
4 Claims. (Cl. 10—152)



1. The method of forming internal threads in a work piece including the steps of: placing the workpiece to be threaded about a threaded mandrel; placing at least the threaded portion of said mandrel in axial compression; and forcing said mandrel carrying said nut through a die to thereby cause said nut blank to assume the shape of said thread of said mandrel.

2,870,466

AUTOMATIC JACK SUPPORTING AND ACTUATING MECHANISM

Frank E. Cole, Manchester, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., and Boston, Mass., a corporation of New Jersey

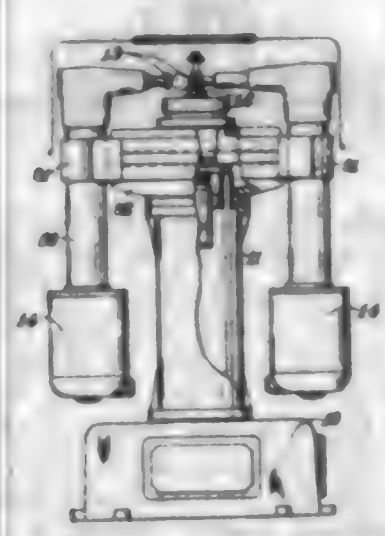
Original application October 16, 1953, Serial No. 386,551. Divided and this application April 15, 1955, Serial No. 501,461
7 Claims. (Cl. 12—17.2)



1. In a shoe machine having means for operating upon a shoe, a shoe supporting jack, an assembly of supports

on which the jack is carried, a feed lever connected with the jack, a pattern cam shaft and cam and follower connections with said supports and feed lever for imparting tipping, turning and feeding movements to the jack to transfer the point of operation of the operating means about the sole margin of the shoe, driving mechanism for the pattern cam shaft including a pattern cam shaft forward driving clutch, and a reversing clutch having driving and driven reversing clutch members relatively shiftable between engaged and disengaged positions and having engaging surfaces cammed to urge the clutch members to the disengaged position, and manual control means for said clutches comprising a manually operable lever having a flexible shank portion shiftable between forward, reverse and intermediate neutral positions, means to bias the lever to the forward position, and a control plate having formed therein a slot with a neutral stop surface and lengths in opposite directions therefrom in which the shank portion of the lever is permitted limited movement to each of said forward and reverse positions.

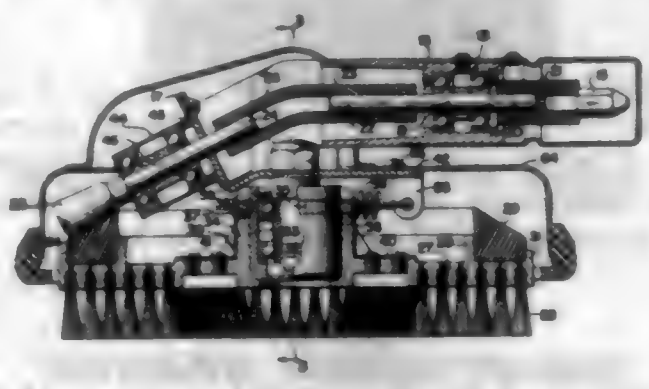
2,870,467
POWER BRUSHING MACHINES
Emil Grosz, London, England, assignor to The Elgro Machine Tool Company Limited, London, England, a British company
Application March 22, 1955, Serial No. 495,951
12 Claims. (Cl. 15—21)



1. A power brushing machine for brushing a gear comprising a rotary power-driven wire brush, a holder for the gear to be brushed, means for rotating the holder in angular steps corresponding to the angular spacing of the gear teeth and means for moving said holder towards and away from the brush in synchronism with the stepwise rotation so that the brush enters successively between pairs of adjacent teeth to brush these teeth along their flanks towards a side face thereof.

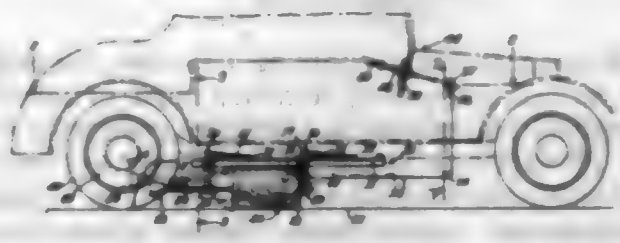
2,870,468
ROTARY CLEANING BRUSH ATTACHMENT FOR SUCTION CLEANING DEVICES
Cornelis Barel, Leidschendam, Netherlands, assignor to Rudolf Bilk Electrische Apparaten-en Metaalwarenfabriek N. V., The Hague, Netherlands
Application September 20, 1952, Serial No. 310,671
3 Claims. (Cl. 15—49)

1. A rotary attachment for suction cleaners having a motor with a drive shaft extending from the air discharge side of the cleaner, said attachment comprising, in combination, a brush assembly having a frame, a driven shaft adapted to be driven by the shaft of said motor, a sleeve pivotally connected to said frame, a ball bearing assembly carried by said sleeve, a second shaft extending through said sleeve and supported in said bearing, a flexible coupling extending within one end of said sleeve and connecting one end of said second shaft with said driven shaft, a third shaft, a mounting for pivotally supporting said third shaft on said frame, a second flexible coupling connecting the opposite end of said second shaft with said third shaft, a driving roller supported on said third shaft, a rotary disc having a plurality of bristles rotatably supported upon said frame, resilient means biasing said disc into frictional engagement with said roller for rotating the disc by said roller,



an elongated strip secured to said mounting for said third shaft, said sleeve being in rocking engagement with said strip, and means carried by said sleeve including a projection adapted to engage with said strip to disengage said roller from engagement with said rotary disc in response to pivotal movement of said sleeve relative to said frame.

2,870,469
MOTOR VEHICLE SNOW BROOM
Ralph P. Meece, Cincinnati, Ohio
Application April 8, 1957, Serial No. 651,395
5 Claims. (Cl. 15—82)

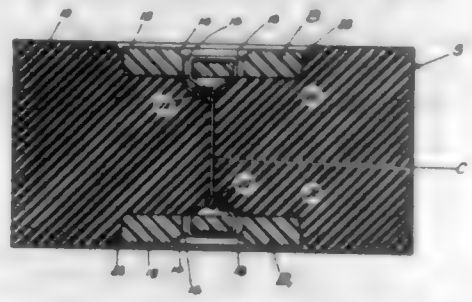


1. A motor vehicle snow broom comprising an elongated frame adapted to be secured to the underside of a part of a motor vehicle chassis in front of a rear driving wheel of the vehicle, the longitudinal axis of the frame being disposed nearly parallel to the longitudinal axis of the vehicle, longitudinally spaced hanger means swingably supported by and depending from longitudinally spaced portions of said frame for swinging movement longitudinally of the frame and vehicle, a pair of bearings, trunnion means pivotally mounting said bearings in said hanger means beneath and spaced from the frame, a shaft journalled in and supported nonslidably by said bearings, a circular broom fixed to said shaft, between the bearings and hanger means for rotation with the shaft and a friction wheel fixed to a rear end of said shaft and adapted to engage an inner side wall of the tire of the driving wheel in front of which said frame and broom are disposed whereby said friction wheel will be revolved by rotation of the tire to revolve said shaft and the broom for sweeping snow to clear a path in front of the tire.

2,870,470
WINDSHIELD CLEANING DEVICE
Fred Looney and Howard O. Earnest, Long Beach, Calif.
Application August 16, 1956, Serial No. 604,412
1 Claim. (Cl. 15—118)

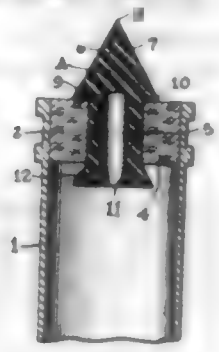
A windshield cleaning device, comprising: a generally rectangular sponge block of cellular, resilient material, the upper and lower surfaces of said block being engageable with a windshield to be cleaned; first and second cutter disks substantially centrally disposed relative to the upper and lower surfaces of said block, respectively; aperture means formed in said cutter disks; and cord means extending directly vertically through said block

and contained completely within the confines thereof and having its opposite ends affixed to said aperture means



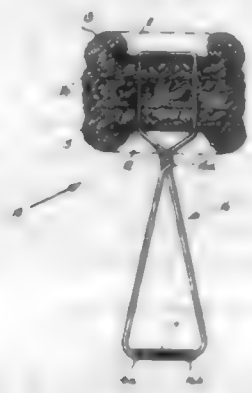
so as to secure said cutter disks within the upper and lower portions of said block and normally retracted from the plane of said upper and lower surfaces.

2,870,471
SURFACE DRESSING APPLICATOR
Edward J. Albert, West Orange, N. J., assignor to Matthew W. Grum and Florence Grum, Short Hills, N. J.
Application March 9, 1955, Serial No. 493,159
7 Claims. (Cl. 15—134)



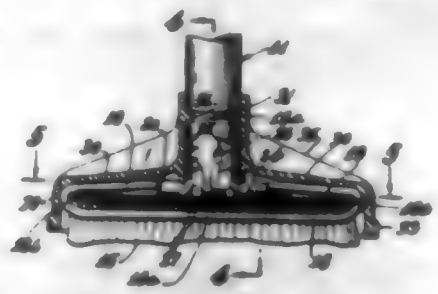
3. An applicator, for applying a suitable dressing to a chosen surface, comprising a device made of suitable porous material and having an applying portion, a vertical section of which is triangular in shape and having a tubular extension adapted to be mounted in a container closure member, said extension having a hole extending from its free end up to at least the base of its triangularly shaped portion, the base of the said portion having oppositely positioned cuts therein whereby the structure can be readily tilted to get a smooth wiping action on the surface to which the dressing is being applied.

2,870,472
CLEANING IMPLEMENTS
Albert E. Hartmann, New York, N. Y.
Application August 22, 1956, Serial No. 605,498
1 Claim. (Cl. 15—209)



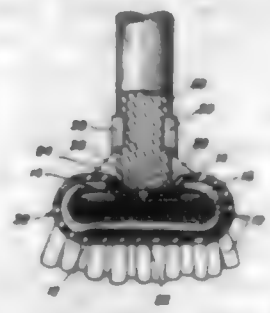
A cleaning implement consisting of two spaced substantially flat discs each having a pair of spaced holes, the holes in one of said discs being aligned with the holes in the other of said discs, a compressible cleaning body between said discs, said cleaning body extending beyond the peripheries of said discs and having its median portion compressed by said discs and its marginal portions expanded beyond the planes of the outer surfaces of said discs, and a metallic clamping device consisting of a pair of prongs, each of said prongs having a first extremity and a second extremity, a connecting member between and integral with said first extremities of said prongs, said connecting member being adjacent to and bearing against the outer surface of one of said discs, said prongs then extending through said holes in said discs and through said cleaning body therebetween in parallelism with each other and lockingly engaging by being twisted one around another at a point adjacent the outer surface of the other of said discs whereby said median portion of said cleaning body is maintained in compressed condition by said discs, the portions of said prongs between said point of locking engagement and said second extremities thereof being spaced from one another to form a flat handgrip member, and tubular means for receiving said second extremities of said prongs and for maintaining said portions of said prongs in spaced relation.

2,870,473
CLAMP-TYPE MOP FOR ENGAGING MULTIPLE STRAND ELEMENTS
Harold H. Schwartz, Port Chester, N. Y., assignor to Empire Brushes, Inc., Port Chester, N. Y., a corporation of New York
Application June 25, 1956, Serial No. 593,546
6 Claims. (Cl. 15—229)



5. A mop comprising a transverse bar, a retainer comprising a portion spaced below the bar, mop strands having fold portions received between said retainer portion and bar, said retainer having bent-back portions and terminal portions folded over the top of the bar, a socket attached to the central portion of the bar, said socket having internal screw thread means, a casing having a tubular portion receiving the socket, said casing having a top wall, side walls and end walls and being open at the bottom, an elongated handle having a reduced screw threaded portion forming a shoulder, said tubular portion having an internal annular flange, said screw threaded portion of the handle passing through said flange and being screwed to said screw thread means of the socket, said shoulder contacting the upper side of said flange, and said flange contacting the upper end of said socket, and said top wall of said casing contacting the terminal portions of said retainer.

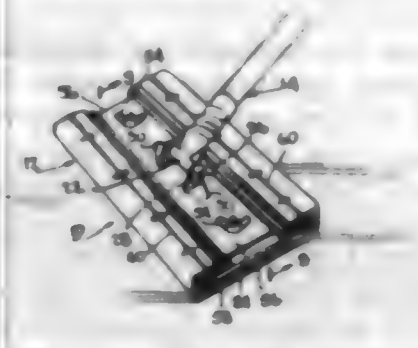
2,870,474
PROTECTED MOP HEAD AND METHOD OF ASSEMBLING IT
William E. Kautenberg, Freeport, Ill., assignor to W. E. Kautenberg Co., Freeport, Ill., a corporation of Illinois
Application August 10, 1956, Serial No. 603,278
6 Claims. (Cl. 15—229)



4. In a mop head, a plurality of substantially parallel mop strands, a clamping plate to extend transversely of the strands having notches at the ends and lateral exten-

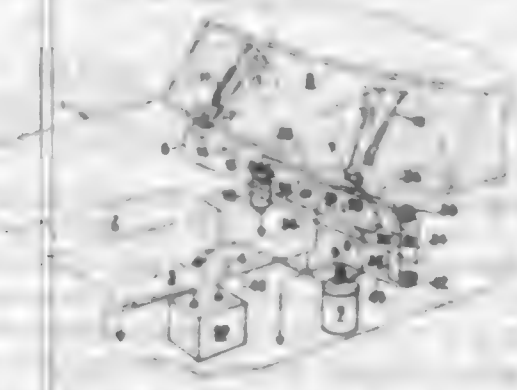
sions at the sides thereof, a wire extending across the strands at the bottom of the clamping plate, the ends of the wire being bent over inwardly in the notches and between the lateral extensions of the clamping plate to grip the strands tightly in place, a plastic protector for the wire extending at the outer exposed side for the full length of the wire and inwardly over the wire between the lateral extensions of the clamping plate, and means to secure the ends of the protector tightly against the wire within the lateral extensions of the clamping plate.

2,870,475
DUSTING DEVICE WITH DISPOSABLE REPLACEABLE SOFT PAPER LAMINAE
Fred F. Scheuer, Bronx, and Paul M. Marx, Kew Gardens, N. Y., assignors to Herbert Glatt, San Juan, Puerto Rico
Application November 14, 1955, Serial No. 546,388
1 Claim. (Cl. 15—231)



In a dusting device comprising a stiff non-metallic flat plate, a handle, means pivotally securing the handle to the plate, said plate having opposite parallel edges, and a plurality of soft laminae of the facial tissue type with two registered sets of opposite parallel edges, said laminae extending across the undersurface of said plate, being folded around the edges of said plate and having said opposite edges of said laminae overlying the top surface of the plate, the improvement comprising at least two groups of said laminae in overlying relation, elongated staples securing the folded portions of each of said groups, said staples being disposed near said opposite edges of said laminae, thereby leaving said edges entirely exposed, said staples also being positioned in a direction perpendicular to the direction of said laminae edges, the staples for the lowermost laminae group being driven into said plate, and the staples of the overlying laminae group being driven into said lowermost laminae group.

2,870,476
COMBINED ELECTRIC WINDSHIELD CLEANER AND WASHER
John R. Oishei, Buffalo, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.
Application February 12, 1954, Serial No. 409,837
7 Claims. (Cl. 15—250.4)



1. A windshield cleaning system for an automotive vehicle comprising, a wiper motor having a rotatable element, a washer unit operable to deliver a predetermined quantity of liquid solvent to a windshield, control means operable to activate said washer unit and simultaneously start said wiper motor, and an automatically operable coordinator mechanism activated in response to operation of said control means and including timing means operatively associated with said rotatable element for maintaining said wiper motor active for a predetermined number of rotations of said rotatable element.

2,870,477
HINGE
Robert C. Anthony, Pontiac, and Robert J. Williams, Clawson, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 1, 1955, Serial No. 512,504
10 Claims. (Cl. 16—164)

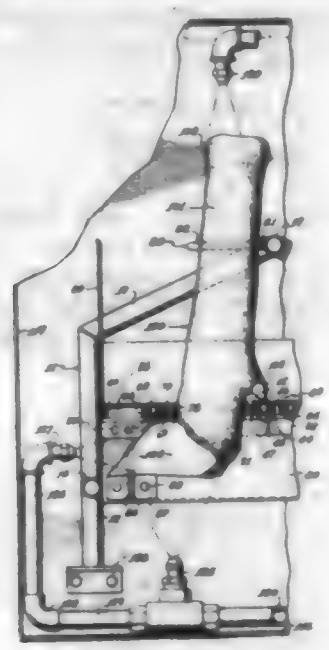


1. A hinge for swingably mounting a closure on a vehicle body for movement of the closure between closed, intermediate and open positions comprising, in combination, a hinge arm pivotally connected to said closure and said body for swinging movement relative to each about a stationary pivotal axis, a first cam on said closure having a hold open detent yieldably engaging said hinge arm when said closure is in intermediate position to restrain pivotal movement of said closure relative to said hinge arm in a closure opening direction, a second cam on said body having a hold open detent yieldably engaging said hinge arm when said closure is in intermediate position to restrain pivotal movement of said hinge arm relative to said body in a closure closing direction, and stop means on said closure engageable with said hinge arm when said closure is in intermediate position to prevent pivotal movement of said closure relative to said hinge arm in closure closing direction whereby movement of said closure in closure closing direction will cause said hinge arm to override said hold open detent of said second cam and allow said closure to be moved to closed position.

2,870,478
APPARATUS FOR HOLDING AND CLEANING SEVERED ANIMAL FEET
John A. Schuster, Bakersfield, Calif.
Application May 7, 1956, Serial No. 583,154
9 Claims. (Cl. 17—1)

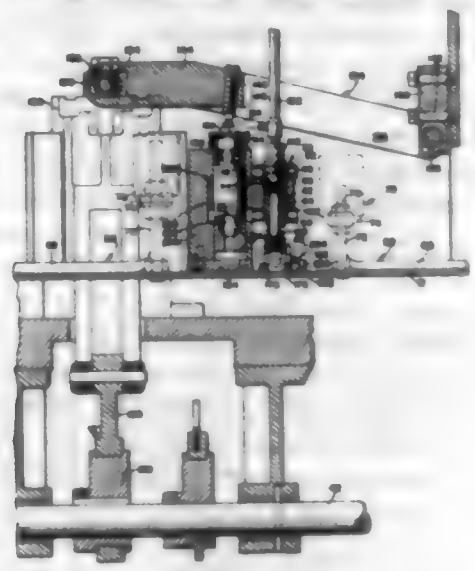
1. An apparatus for holding the dismembered foot and attached shank of an animal to facilitate cleaning of the foot without contaminating the shank comprising a frame; and a foot stock including a central stationary plate rigidly mounted in the frame having an edge providing an outwardly disposed notch, an outer plate having an edge providing an inwardly disposed notch, and being removably mounted in the frame in substantially coplanar relation with the central plate and with the notches fitted together to form an opening in the stock

adapted to receive the foot of an animal, and resilient collar members mounted on the plate along the edges of the notches, the collar members on the stationary and outer plates being transversely extended edgewardly out-



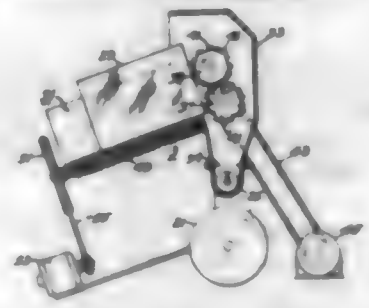
wardly and inwardly, respectively, of their respective notches for circumscribing sealing engagement with a foot received in said opening thereby effectively to separate said foot from the shank for cleaning purposes.

2,870,479
CHARGE DEPOSITING MECHANISM FOR CLOSURE LINER APPLYING APPARATUS
Elbe A. Wilckens, William C. Rainer, and Edward M. Redding, Baltimore, Md., assignors to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application November 14, 1955, Serial No. 546,532
7 Claims. (Cl. 18—5)



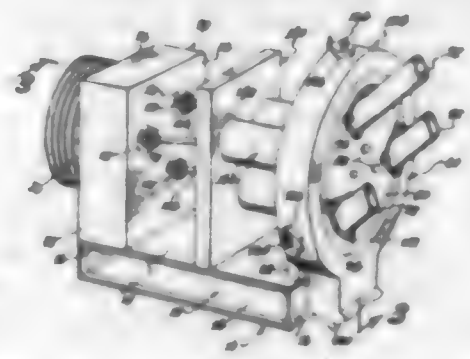
1. In a machine of the type described having means for intermittently moving a series of closures past a fixed charge receiving station, and a device at said station for depositing a charge of sealing material in a viscous state into each closure, said device being mounted for vertical reciprocation and including parts arranged to be moved relative to each other to effect the depositing of a charge; the improvement comprising means mounted for movement into and out of the path of movement of said device for engaging one of said relatively movable parts to halt the movement of the latter during each cycle of movement of said device to effect said relative movement, and sensing means responsive to the absence of a closure in said series for preventing the movement of said part engaging means into the path of movement of said device so that no relative movement of the parts of the device will take place to deposit a charge when no closure is presented to receive the charge, said sensing means including a leaf spring mounted for movement into a position preventing movement of said part engaging means.

2,870,480
APPARATUS FOR COOLING MATERIAL ADVERSELY AFFECTED BY HEAT OF EXTRUSION
Edgar N. Meakin, Hillsborough, Calif.
Application February 3, 1956, Serial No. 563,294
5 Claims. (Cl. 18—12)



4. Apparatus for comminuting material such as Dry Ice in solid state, comprising a support for a block of such material, at least one roll mounted adjacent an end of said support, said roll having scraper means on the surface thereof, and means for positively and controllably urging such block of material toward said roll, said means including a drive screw disposed longitudinally of and being at least partially exposed relative to said support thereby to be engaged by such block and to effect a screw engagement therewith, and means for rotating said drive screw.

2,870,481
ROTARY PELLET MILL
Paul Bonnafoux, Lancaster, Calif.
Application February 24, 1956, Serial No. 567,670
8 Claims. (Cl. 18—12)

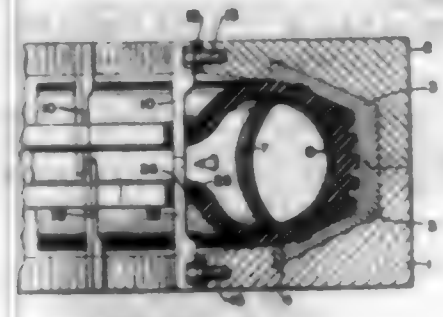


1. In a pellet mill, the combination of: a power source; a plurality of drive rollers connected to said power source, said rollers having die-engaging peripheral surfaces; and a die supported on said rollers for rotation thereby, said die having a plurality of die openings therein for the expression of material therethrough by said rollers.

2,870,482
BEAD ALIGNING MEANS
Merrill K. Eriksen, Bay Village, Ohio, assignor to The James C. Heintz Company, Cleveland, Ohio, a corporation of Ohio
Application July 13, 1955, Serial No. 521,682
2 Claims. (Cl. 18—18)

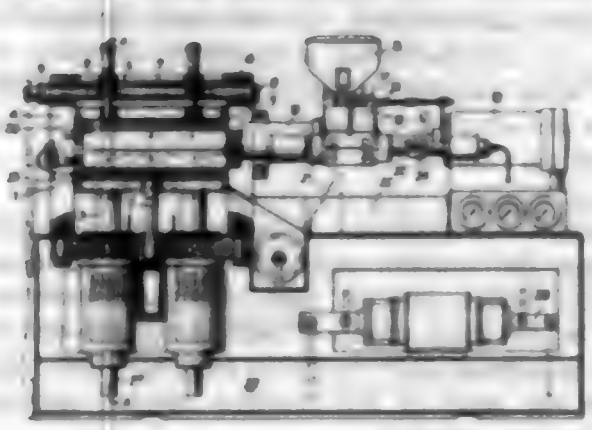
1. A retreading mold formed with generally annular upper and lower platens each designed to contact the new tread for a tire and no more than a part of the upper portion of a side wall, whereby the mold is adapted for use with an inside curing rim, the mold having a plurality of legs attached at one end to each platen adjacent its inner circumference and directed toward the opposite platen, the legs on the respective platens overlapping one another when the platens are closed and being stag-

gered then so that they do not touch one another, the other ends of the legs being smoothly tapered on their outer surfaces so that the heels of the beads of a tire in pressure contact with the ends of legs attached to the



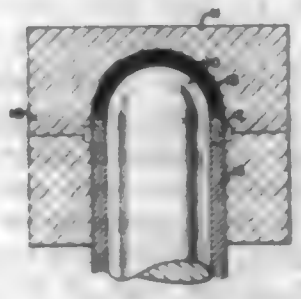
respective platens will slide over the tapered ends thereof onto the surfaces of the legs adjacent the tapered ends whereby the tire will be aligned in the mold, said surfaces of the legs being substantially perpendicular to the planes of the respective platens.

2,870,483
DIE-CASTING MACHINE
Friedrich Moser, Mendrisio, Switzerland, assignor to RI-RI Werke A. G., Mendrisio, Switzerland
Application September 24, 1954, Serial No. 458,221
Claims priority, application Switzerland September 26, 1953
1 Claim. (Cl. 18—38)



A die casting machine for simultaneously producing a plurality of slide fastener stringers by casting the interlocking elements in rows on a plurality of parallel stringer tapes, comprising a vertically closing two-part die having a horizontal parting face, with grooves for receiving the stringer tapes, with rows of recesses for casting on said tapes the rows of interlocking elements, and with horizontally extending straight gates for supplying the casting material to such recesses, the two parts of said die being formed to present, when the die is closed, a vertical face transverse to and intersected by said parting face, on which vertical face the ends of said gates open; a member for distributing the molten casting material to said gates, which member is horizontally movable toward and away from said vertical face in a direction normal thereto into and out of contact therewith and on its side which contacts said vertical face is formed with a single horizontally extending groove laterally closed by such contact and when so closed forms a channel for supplying and distributing the casting material to said gates, said channel so formed being laterally opened when said member is horizontally moved out of such contact, said member being further formed with a horizontally extending straight through opening normal to and communicating with said groove therein, a nozzle in axial alignment with said through opening mounted for horizontal axial movement into and out of contact with the side of said member opposite said groove therein for supplying molten casting material to said through opening; said gates, groove in said member, through opening, and axial line of said nozzle all lying in the horizontal plane of the parting face of the die; and hydraulically operated means for so moving said member and nozzle and for forcing molten casting material through said nozzle into said through opening when said nozzle is in contact with said member and the latter is in contact with said vertical face, and for holding said nozzle and member in such contact while such material is being so forced.

2,870,484
SPHERICAL DIE
Jack P. Livingston, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application April 6, 1955, Serial No. 499,771
1 Claim. (Cl. 18—34)



A die for pressing powdered materials into a hemispherical shape of uniform density and wall thickness comprising in combination a female die element, a male die element and a pressing ring, said female die element and said male die element held in stationary spaced relation, said space defined by said male and female elements being equivalent to said wall thickness and defining said hemispherical shape, said pressing ring linearly movable along said male die element, means for filling said space with said powdered materials, means for moving said pressing ring along said male die element whereby said powdered material is pressed into said hemispherical shape, and means for heating said male element whereby said powdered materials may be heated while simultaneously being pressed.

2,870,485
MANUFACTURE OF POWDERS OF COPPER AND COPPER ALLOYS
William David Jones, London, England, assignor to F. W. Berk & Company Limited, London, England, a British company
No Drawing. Application June 26, 1956
Serial No. 593,835
Claims priority, application Great Britain October 28, 1955
6 Claims. (Cl. 18—47.3)

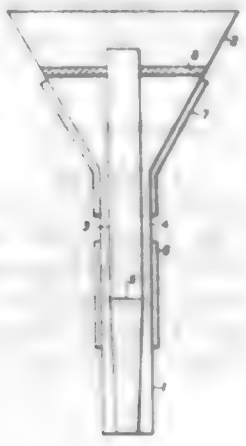
1. A process for the manufacture of a copper powder of low apparent density which comprises incorporating with substantially pure copper such a small proportion of a metal selected from the group consisting of magnesium, calcium, lithium, zirconium and titanium that the copper remains substantially pure and in such amount as to effectively cause the conversion of a molten mass of the resultant copper composition subjected to atomization by an aqueous liquid to a copper powder of low apparent density suitable for the production of sintered articles, and then atomizing a molten mass of such resultant copper composition by means of such aqueous liquid to convert the same into a copper powder of low apparent density containing at least approximately 98% of copper and less than approximately 1% of said incorporated metal.

2,870,486

PROCESS FOR THE PRODUCTION OF TUBES

Herbert Wagner, Krefeld-Oppum, and Karl-Heinz Eisenmann, Koln-Stammheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

Application November 22, 1954, Serial No. 470,404
Claims priority, application Germany November 28, 1953
1 Claim. (Cl. 18—55)



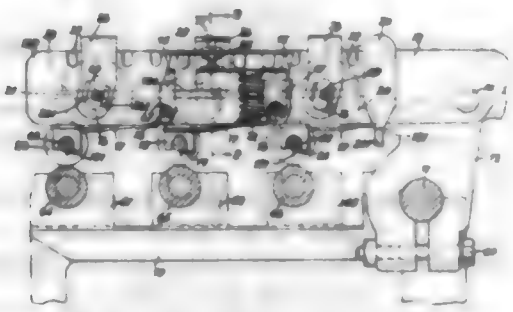
Process for the extrusion of a continuous polymeric tube reinforced with fibers comprising introducing a continuous stream of polymerizable solution having fibers dispersed therein into one end of an elongated annulus formed by the positioning of a mandrel coaxially within a cylinder, said mandrel tapering to a smaller diameter at the discharge end of the annulus so as to enlarge this zone of the annulus accordingly, heating the polymerizable solution in this zone, whereby it polymerizes and hardens, thus fixing the position of the reinforcing fibers embedded therein, extruding said solution through the annulus at a speed which is proportional to the temperature of polymerization, and continuously withdrawing a polymeric fiber-reinforced tube from the discharge end of the annulus.

2,870,487

TEXTILE DRAWING MECHANISMS

Erwin Dausch, Esslingen (Neckar), Germany, assignor to S. K. F. Kugellagerfabriken, G. m. b. H., Schweinfurt, Germany

Application November 16, 1954, Serial No. 469,224
Claims priority, application Germany April 1, 1954
18 Claims. (Cl. 19—134)



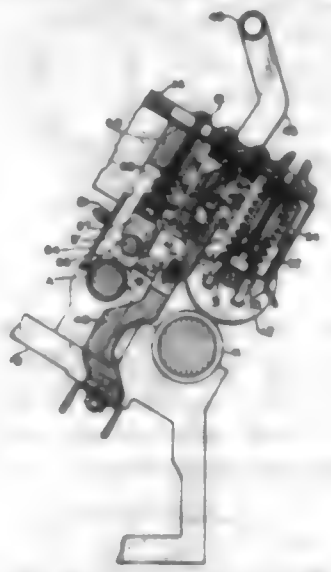
15. In a textile drawing mechanism, in combination, a top rolls carrier in the form of an elongated channel member of substantially U-shaped cross section having a pair of side walls; a clearer roll carrier of substantially U-shaped cross section extending at least partly about said top rolls carrier and having side walls respectively engaging said side walls of said top rolls carrier, the side walls of one of said carriers being formed with grooves extending along the length thereof and the side walls of the other of said carriers being formed with ribs extending into said grooves so that said clearer roll carrier may be guided along said top rolls carrier to a predetermined position.

2,870,488

TOP ROLL POSITIONING AND PRESSURE-APPLYING MEANS FOR TEXTILE DRAFTING MACHINE

William W. Werth, Douglas, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a corporation of Massachusetts

Application March 17, 1954, Serial No. 416,809
4 Claims. (Cl. 19—135)



1. In a textile drafting machine having a continuously rotated front bottom roll and a front top roll mounted above said bottom roll and frictionally driven thereby, in combination, a shaft mounted in fixed position substantially rearward of said rolls, an arm pivoted on said shaft, a front top roll bearing yieldingly mounted at the front and free end of said arm, a spring to apply pressure to said bearing, an abutment mounted in fixed position in said machine, a clamping member mounted on said arm, separate upper and lower pin-and-slot connections between said clamping member and said arm, and manual means to move the upper end of said clamping member upward relative to said arm with a substantially straight-line movement as determined by said upper pin-and-slot connection and to simultaneously swing the lower end of said clamping member transversely by the cam action of said lower pin-and-slot connection to engage said clamping member under said abutment at the start of the relative upward movement of said clamping member.

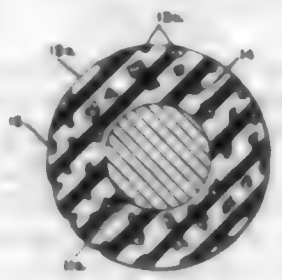
2. The combination in a textile drafting machine as set forth in claim 1, in which the manual means comprises a handle pivoted on said arm, and a toggle connection between said handle and said clamping member by which the lower end of said chamber member may be moved transversely of said arm to operative position and will be locked in said operative position.

2,870,489

TEXTILE DRAFTING COT

Joseph Rockoff, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio

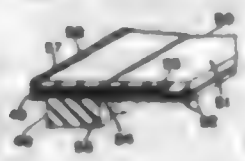
Application April 20, 1953, Serial No. 349,720
5 Claims. (Cl. 19—143)



1. A textile cot for drafting textile fibers having a fiber drafting surface with a degree of roughness and porosity,

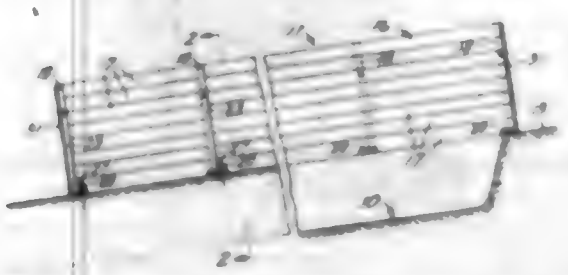
comprising a matrix of non-porous rubber-like material and a plurality of particles of porous cellular synthetic rubber-like composition embedded therein in substantially uniform spaced relationship, said particles retaining their porosity after incorporation into said surface.

2,870,490
RUB APRON
Abraham Lincoln Freedlander, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio
Application February 26, 1954, Serial No. 412,693
13 Claims. (Cl. 19—153)



1. An improved rub apron for operation about spaced parallel rollers on a carding machine comprising a flexible tubular body portion of elastomeric composition and a separate, preformed guiding strip attached to the inner periphery of said body, said guiding strip comprising a backing web positioned in a recessed portion of the inner surface of said body such that the inner surface of the web will lie in a common plane with the inner surface of said body portion, said web having a plurality of circumferentially aligned lugs formed integrally therewith and projecting inwardly therefrom.

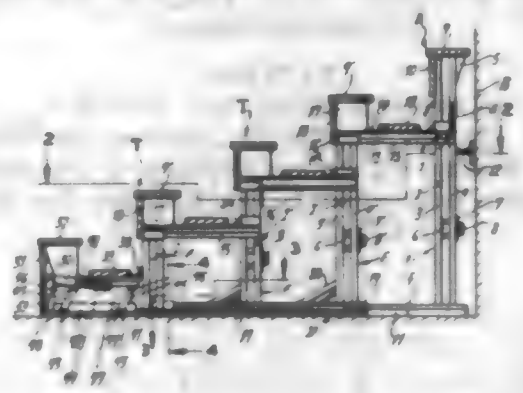
2,870,491
HORIZONTAL SILO CONSTRUCTION
David A. Vincent, Wilton, Minn.
Application March 27, 1957, Serial No. 648,807
5 Claims. (Cl. 20—1.4)



1. A horizontal silo comprising a bottom formed directly from an area of ground having spaced side edges, an upstanding wall along each of the straight side edges, said walls being angled divergently upward, support means secured in horizontally spaced relation along each of said walls and terminating laterally outward from the bottom in contact with adjacent ground surface, and anchoring means tieing the support means to the ground adjacent the outward terminii thereof whereby to resist the horizontal force component exerted upon each of said walls.

2,870,492
SEATING STRUCTURES
George R. Chervenka, St. Louis, Mo., assignor to Fred Medart Manufacturing Co., St. Louis, Mo., a corporation of Missouri
Application April 6, 1953, Serial No. 346,870
14 Claims. (Cl. 20—1.126)

1. A telescopic bleacher comprising a plurality of upright frames respectively sized for internested relation one within another when the structure is fully telescoped, and means connecting said frames for relative sliding movement from such fully telescoped position into fully extended position in which the several frames are positioned in successively rearwardly spaced relation to each other, said means including; upper guide-forming means operatively connected to each frame and also connected to an adjacent frame for guiding the movement of the upper ends of the frames along straight parallel paths as the frames are being moved to fully extended position; and a channel member rigidly connected to each of said



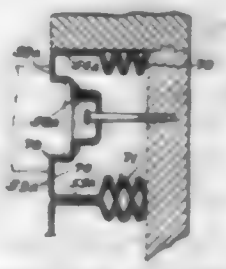
upright frames adjacent to the lower end thereof, the adjacent channel members being connected so that they slide relatively to each other along their lengths.

2,870,493
PUSH BAR FOR METAL DOORS
Thomas T. Beyrle, Los Angeles, Calif., assignor to Acme Metal Molding Co., Los Angeles, Calif., a corporation of California
Application April 9, 1957, Serial No. 651,733
3 Claims. (Cl. 20—16)



1. In combination with a door having a hollow hinge stile and a hollow outer stile, a push bar assembly comprising a bar formed into a straight, elongated body member, a portion at one end thereof bent at an angle to said body member, a spring hook member secured to said portion, said hook member being inserted through an opening in said outer stile, the end of said hook member contacting the inner surface of said stile and means for attaching the other end of said bar to said hinge stile with said hook member placed under a condition of tension.

2,870,494
REMOVABLE WINDOW SASH AND A SPRING-CHANNEL COMBINATION THEREFOR
Gordon W. Love, Birmingham, and Charles A. Pellizzari, Royal Oak, Mich.
Application April 28, 1954, Serial No. 426,130
1 Claim. (Cl. 20—52.2)



An integral spring and spring pressed guide rail for a removable window sash comprising an elongated member having face portions contacting the edge of a window sash in channeling and sliding relationship, integral side portions leading from said face portions contacting and sliding against locating and guiding frame members, pleated accordion-type spring portions leading from said

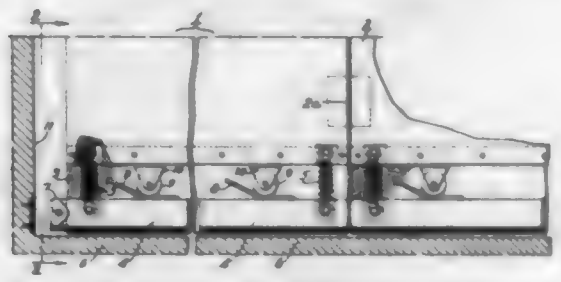
side portions contacting and pressing against a frame jamb so as to render said guide rail resilient relative to a jamb and guiding frame elements.

2,870,495

CLOSURE SEALING DEVICE

Charles H. Wetzel, Wayne, Pa., assignor to Wayne Iron Works, Wayne, Pa., a corporation of Pennsylvania

Application September 16, 1954, Serial No. 456,483
1 Claim. (Cl. 20—68)



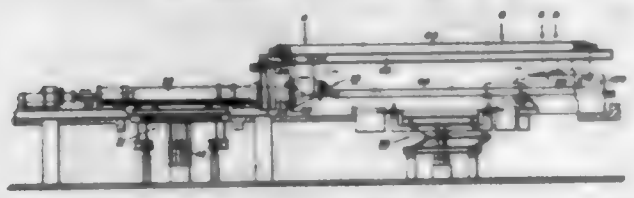
A sealing device for folding partitions, doors and like closure members, said device comprising a sealing strip mounted on the closure member with freedom to move both longitudinally and transversely relative to said member between a normal retracted inoperative position and an extended sealing position, a resilient cam assembly including a cam element and co-active rolling follower mounted one on the closure member and the other on the sealing strip for actuation in response to the said longitudinal movement of the strip to displace the strip transversely to the extended position, said cam assembly comprising a resilient leaf spring having a free end portion inclined to the longitudinal axis of the strip and yieldable in direction normal to said axis under pressure of the follower for relieving an undue pressure on the assembly when the displacement movement of the strip is interrupted before completion of the longitudinal movement of the strip, and resilient means operatively connected to the member and strip for supporting the strip in the retracted position, said means being biased by longitudinal displacement of the strip from the normal retracted position so as to exert forces tending to draw the strip both longitudinally and transversely from the extended position.

2,870,496

APPARATUS FOR STRIPPING TUBULAR CASTINGS FROM MOLDS AND CLEANING THE CASTINGS

Jacob L. Cooper, Kenneth R. Daniel, James O. Patton, Jr., and Erskine Vandergrift, Jr., Birmingham, Ala., assignors to American Cast Iron Pipe Company, Birmingham, Ala., a corporation of Georgia

Application December 28, 1955, Serial No. 555,935
20 Claims. (Cl. 22—65)



1. A machine for stripping tubular castings from cylindrical molds comprising means for supporting a mold and a contained casting in a substantially horizontal stripping position, horizontally reciprocable stripping means movable in a fixed horizontal path and so constructed and arranged as to engage the casting at a plurality of points symmetrically disposed with respect to the axis of the casting and remove it from the mold while the mold is supported on said supporting means, means for adjusting said stripping means to engage castings of different diameters, and means for varying the vertical position of said supporting means so as to axially align molds of different diameters with said horizontally reciprocable stripping means.

2,870,497

CASTING METALS AND ALLOYS

Joseph R. Ehrlich and Walter A. Strauss, New York, N. Y.; said Ehrlich assignor to said Strauss

Application August 13, 1956, Serial No. 603,660
3 Claims. (Cl. 22—113)

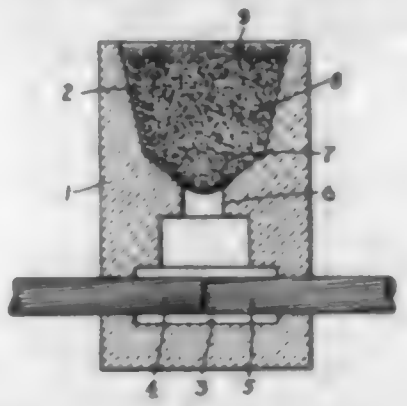
2. A method of casting fused metallic material which dissolves air or gas in the fused state and which releases the dissolved air or gas rapidly upon solidification, which consists in casting said fused metallic material by gravity in a mold defined by a permanent porous wall fabricated from a non-corrodible and inert material selected from the group consisting of stainless steel, stainless iron and graphite, said walls having pore sizes of from 5 to 60 microns for stainless steel and stainless iron and 5 to 100 microns for graphite and being sufficiently permeable at 20° C.–30° C. and under a pressure of ten pounds per square inch and at a wall thickness of approximately 0.1 inch, to pass a minimum of 0.7 cubic foot of air per minute per square inch of wall surface.

2,870,498

METHOD FOR WELDING ALUMINUM ARTICLE TO ANOTHER METAL ARTICLE

Melvin F. Rejdak, Cleveland, Ohio, assignor to Erico Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application April 25, 1955, Serial No. 503,569
11 Claims. (Cl. 22—204)



1. The method of welding an aluminum article to another metal article which comprises exothermically reducing tin oxide with metallic aluminum, controlling the violence of the reaction by inclusion of excess aluminum in the exothermic reaction mixture, such excess aluminum alloying with the molten tin produced, immediately delivering such resultant molten alloy at a temperature of at least 2,000° F. to a mold cavity defined in part by such articles to be welded, the heat content of such molten charge being sufficient partially to melt such aluminum article for interfusion therewith to form a strong malleable cast weld connection of good electrical conductivity.

2,870,499

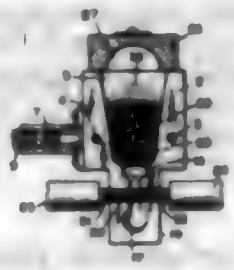
EXOTHERMIC REACTION MIXTURE AND METHOD OF CAST WELDING A COPPER BASE ALLOY UTILIZING SAME

Donald J. Burke, East Cleveland, Ohio, assignor to Erico Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application August 26, 1957, Serial No. 680,425
8 Claims. (Cl. 22—205)

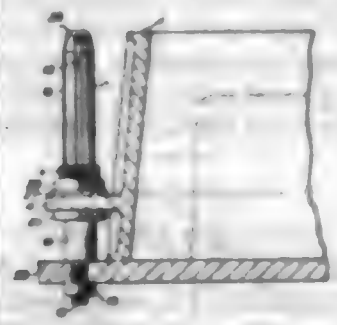
8. The method of cast welding together the opposed ends of two stranded copper conductor cables which comprises producing a small charge of molten copper by an exothermic reaction, alloying from about ½% to about 10% tin therewith, by weight of the total alloy, dropping a portion of such molten alloy against such opposed cable ends to pre-heat the same with such portion con-

tinuing downwardly past such ends to solidify in a region substantially spaced therefrom, dropping a further portion of such molten alloy closely following such first portion against such pre-heated cable ends confined in a mold closely embracing the same, whereby such further portion of such alloy will flow a short distance along the



respective cable end portions and wet and weld the same, allowing such alloy to solidify, and then trimming away the solidified first portion of such alloy and any excess solidified above the cable end portions to leave a cast weld connection of substantially the same diameter as such cable end portions.

2,870,500
MOLDING APPARATUS
Russell J. Hines, Lakewood, Ohio, assignor to The Hines Flask Company, Cleveland, Ohio, a corporation of Ohio
Application November 16, 1956, Serial No. 622,607
6 Claims. (Cl. 22—110)



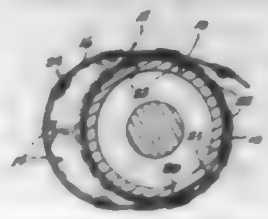
1. A unitary flask guide pin adapted for insertion in apertures formed in guide lugs disposed on flask elements comprising, a single-piece elongated member having means at one end for securing the member to a flask guide lug and having means at its other end for facilitating its entry into the guide lug aperture, said member having a slot formed transversely entirely therethrough and extending longitudinally from substantially adjacent said one end and terminating within said other end, and each end of said member being closed.

2,870,501
LINERS FOR HOSE CLAMPS
Raymond M. Combs, Cheshire, Conn., assignor to The Joclin Manufacturing Company, North Haven, Conn., a corporation of Connecticut
Application November 23, 1956, Serial No. 624,020
10 Claims. (Cl. 24—16)



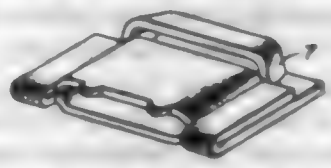
1. A strip of material of channel-shaped form in cross section and of helical form longitudinally for use as a clamp liner or the like comprising a length of fibrous material impregnated with a tough, flexible, thermosetting, heat-resistant, moldable material, said strip having a substantially chemically inert, noncorrosive surface coating.

2,870,502
DRIVING GLOVE HOLDER
Raymond M. Sasse, Portland, Oreg.
Application October 21, 1955, Serial No. 541,986
1 Claim. (Cl. 24—17)



A driving glove holder for mounting on a steering column of a vehicle, comprising: a looped element having a circular shape for receiving a steering column; flexible means extending wholly exteriorly of said element; and means separably connecting said flexible means to said element at selected locations angularly spaced about the element, said connecting means being adapted for forming the flexible means to a selected, adjusted length and being also adapted for forming said element to an adjusted size while separably closing the same about the steering column, said connecting means comprising a first longitudinal series of gripper fastener elements at one end of the flexible means, a second series of gripper fastener elements, the elements of said second series being spaced apart circumferentially of the looped element and mating with the elements of the first series, said first and second series being overlapped with a selected gripper fastener element of the first series being connected to a selected element of the second series, a single gripper fastener element on the looped element spaced circumferentially of the looped element from the second series, and a third series of gripper fastener elements on the other end of the flexible means, said single element mating with and being connected separably to any selected one of the elements of the third series, said one end of the flexible means when detached from the looped element being adapted to be swung away from the looped element to permit insertion of a pair of driving gloves between the flexible means and the looped element, said holder comprising a single length of flexible material, said single gripper fastener element being at one extremity of said length, the first series of elements being at the other extremity of said length, the second and third series being disposed intermediate the opposite ends of said length, the second series extending longitudinally of said length intermediate said single gripper fastener element and the third series, with the third series extending longitudinally of said length at a location intermediate the first series and the second series, the connection of said single gripper fastener element to the selected, mating element of the third series forming said looped element, said length extending in a continuous spiral from one to its opposite extremities to define the looped element at the center of the spiral.

2,870,503
METAL STRAP FASTENING MEANS
Michael J. McAneny, New York, N. Y., assignor, by mesne assignments, to Lewis Schott
Application September 15, 1953, Serial No. 380,315
10 Claims. (Cl. 24—23)



1. A metal strap fastening buckle comprising a metal blank having a transversely slotted central portion, said metal blank formed and folded on itself on a transverse line through said slotted portion to form two opposed

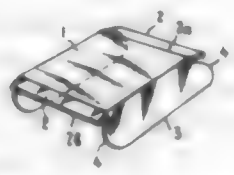
upper and lower plate portions each having an intermediate portion thereof offset to define a depressed strap receiving channel transversely of the blank between side flanges, the side flanges of said plate portions being in abutting relationship in such manner as to define and provide a passage through the buckle defined by the offset portions of the plate portions, one of said plate portions having a struck-up strap end receiving arch the side and support portions of which converge toward the end of the buckle and the top portion of which is inclined downwardly and outwardly toward the end of the buckle.

2,870,504

HOOP IRON CLAMPING MEMBER

Erich Borbé, Zurich, Switzerland

Application October 11, 1954, Serial No. 461,570
Claims priority, application Switzerland October 13, 1953
2 Claims. (Cl. 24—23)



1. A closure member for a hoop iron, said closure member being adapted to be arranged in a stack and comprising a punched and pre-bent sheet metal body provided with a flat and smooth top surface for application to a hoop iron, a pair of flaps extending from two opposite end edges of said surface at acute angles with respect thereto and projecting therefrom a predetermined distance for resiliently engaging a hoop iron, and tongues extending transversely to said flaps and from said top surface, said tongues having opposite portions laterally extending beyond said surface at acute angles thereto, said tongues being adapted to be tucked around said hoop irons below said top surface whereby said flaps provide a substantially smooth transition between said top surface and a hoop iron.

2,870,505

HOSE OR THE LIKE SUPPORTER

Frederick Hawie, Nichols, Conn., assignor to The Hawie Manufacturing Co., Bridgeport, Conn., a corporation of Connecticut

Application June 14, 1955, Serial No. 515,289
11 Claims. (Cl. 24—79)



1. A hose or the like supporter adapted to be connected to a supporting tab, comprising a rigid base member having a button-receiving loop at one end, a tab-receiving loop, having a tab engaging portion, at the other end and a latch mounting portion intermediate said button loop and tab-receiving loop, and a latch pivotally mounted on the base member and including a portion having a slot cooperating with the tab-engaging portion of the tab-receiving loop of the rigid base member to clamp the supporting tab thereto.

2,870,506

SAFETY STOP BLOCK

Clyde Hudkins, Glen Dale Heights, and Ray R. Moore, Moundsville, W. Va.

Application May 31, 1957, Serial No. 662,937
5 Claims. (Cl. 24—129)



1. A stop block for use with electric cable, rope and the like, said stop block comprising a one piece block member having centrally disposed entrance openings in opposite ends thereof, said block member having a longitudinal axis passing through the centers of said entrance openings, end passages disposed in a plane passing through said longitudinal axis and extending inwardly from said entrance openings in opposed relation, said end passages being disposed at angles to said longitudinal axis and in converging relation, said block member having a peripheral surface, inner ends of said end passages opening through said peripheral surface in longitudinally spaced relation, a first longitudinal groove in said peripheral surface interconnecting said inner ends, intermediate passages disposed in said longitudinal plane and extending transversely of said block member, said intermediate passages opening into said longitudinal groove intermediate said inner ends and extending therefrom in diverging relation, said intermediate passages having outer ends disposed in spaced relation, a second longitudinal groove in said peripheral surface connecting together said outer ends.

2,870,507

SLIDER FOR SLIDE FASTENERS

Noel J. Poux, Meadville, Pa., assignor to Talon, Inc., a corporation of Pennsylvania

Application May 17, 1952, Serial No. 288,449
2 Claims. (Cl. 24—205.15)



1. A slider for slide fasteners of the type having a series of spaced-apart interlocking fastener elements attached to the opposed edges of a pair of stringer tapes, comprising a body member having spaced-apart wing portions connected by a neck portion at one end thereof, at least one of said wing portions having inwardly extending marginal flanges so as to provide substantially a Y-shaped channel therebetween, at least one of said wing portions having two sets of closely spaced grooves arranged on the inner side thereof so as to provide a plurality of closely spaced knife-like ridges having inclined side walls over which ridges the fastener elements pass in the opening and closing of the fastener, one set of grooves and ridges arranged in the upper portion of said wing and the other set of grooves and ridges arranged in the lower portion thereof, both sets of grooves and ridges extending outwardly from substantially the longitudinal center line of said wing and arranged angularly relative to the path of the fastener elements through the channel of said slider body with the grooves and ridges in the upper portion of said wing tending to converge toward

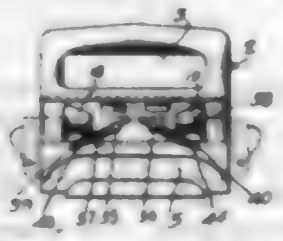
the upper end of the slider body and with the grooves and ridges in the lower portion of said wing tending to converge toward the lower end of said wing.

2,870,508
SHOE FASTENER
Stanley Zubris, Huntington Woods, Mich.
Application November 12, 1957, Serial No. 695,671
3 Claims. (Cl. 24—207)



1. A fastener on the spaced edge portions of the upper of a shoe comprising a pair of parallel spaced elongated locking strips, each having a row of spaced apertures therethrough, and mounted upon said upper adjacent said edge portions, fastening means securing said strips to said upper, an elongated upwardly and outwardly extending flange projecting from the inner marginal edge of each strip at an acute angle thereto, an elongated transversely convex gripping plate slidably positioned over said strips, and a series of elongated opposed spaced pairs of downwardly and inwardly extending gripping flanges parallel to said strip flanges, respectively, the gripping flanges of each of said pairs being spaced apart at different distances, one pair of said gripping flanges interlockingly engaging said strip flanges respectively for drawing up and securing said edge portions together.

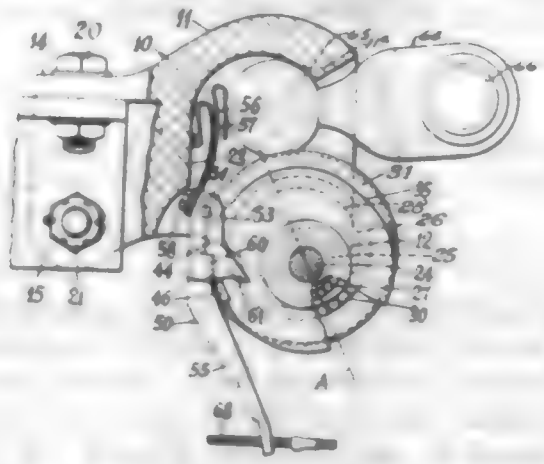
2,870,509
WEBBING RELEASE
John A. Gaylord, Pacific Palisades, Calif., assignor of one-half to Rocket Jet Engineering Corp., Glendale, Calif., a corporation of California
Application August 11, 1954, Serial No. 449,152
3 Claims. (Cl. 24—230)



1. A webbing release which comprises, a body having means at one end for attaching to a webbing, and a recess in the other end for receiving a link of the webbing, a member slidably mounted on said body and encircling the same and movable from a retaining position to retain such a link in such recess and to a releasing position to allow the escape of such a link from said recess, a pair of spring-actuated latching members for latching the sliding member in the retaining position, and a pair of oppositely movable buttons for releasing the latching members from said slidable member, a toggle spring means interconnecting the sliding member and body for yieldingly holding the sliding member both in the retaining and in the releasing position.

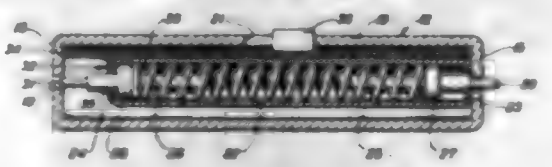
2,870,510
QUICK RELEASE MECHANISM
Elmore Frank Morrow, Toronto, Ontario, Canada, assignor to Avro Aircraft Limited, Malton, Ontario, Canada, a corporation
Application October 4, 1956, Serial No. 613,921
28 Claims. (Cl. 24—230)

1. A releasable connection comprising a pair of releasable members adapted to be subjected to a force tending to pull the members apart, one of the members comprising housing means having a chamber opening toward the other member, the other member having a holding portion adapted to be disposed in the chamber, a rotatable eccentric member carried by the housing means and having a peripheral portion adapted in a first rotative position of the eccentric member to constrict the chamber opening and retain the holding portion against release therethrough, the eccentric member being rotatable to a second position to withdraw the peripheral portion from its constricting position, the holding portion under



the pull of the force on the connection exerting a force against the peripheral portion having a component tending to rotate the eccentric member to its second position, the holding portion being movable through the chamber opening with the peripheral portion withdrawn from its constricting position, and selectively releasable means engageable with the eccentric member for locking the eccentric member in its first position, the releasable means being incapable of release by the force of the holding portion against the peripheral portion of the eccentric member.

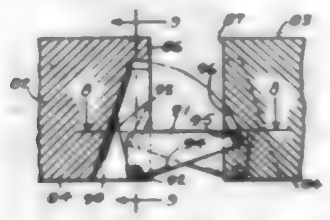
2,870,511
WRIST WATCH BAND CONNECTOR
John F. Sand, Convent Station, N. J., assignor to The Gemex Corporation, Union, N. J., a corporation of New Jersey
Application June 17, 1957, Serial No. 665,922
3 Claims. (Cl. 24—265)



1. A wristwatch connector of the class described comprising: a housing, means adapted to secure said housing to an end of a watchband, said housing including a side member and a pair of end pieces, there being a hole passing through each of said end pieces there being an opening in said side member; a spring bar disposed within said housing, said spring bar including a cylindrical tube having bent over ends, said ends being spaced a distance apart from each other which is less than the distance between the inwardly disposed surfaces of said end pieces, a pair of pins disposed within said cylindrical tube, and a coil spring disposed within said cylindrical tube, the ends of which bear against an inwardly disposed surface of each of said pins; said pins each having en enlarged portion thereon adapted to bear against one of said bent over ends, and a second cut down portion at the outer end thereof providing a shoulder adapted to abut against the inner surface of an end piece, said cut down portion being adapted to extend through said hole in said end piece; an actuating bar within said housing, said actuating bar having a first arm having a hole therein adapted to receive a portion of one of said pins and bear against one of said bent over ends of said

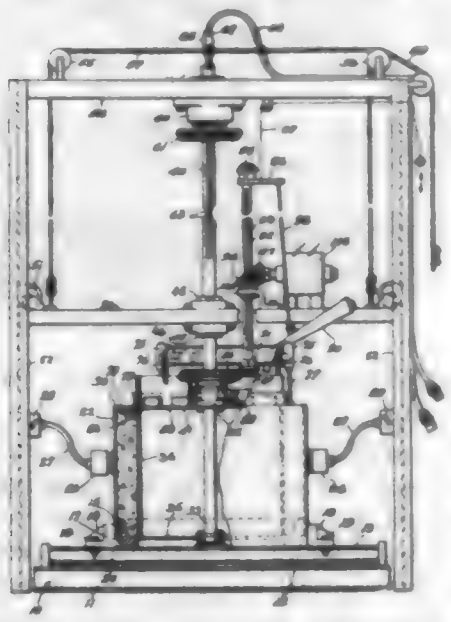
cylindrical tubes, a second arm extending parallel to said cylindrical tube, and means on said second arm extending through said opening in said housing for manual actuation, whereby said cylindrical tube may be axially shifted to retract one of said pins within the hole in the end piece with which it is engaged.

2,870,512
BLOCK MANUFACTURING MACHINE
Martin Branham, Pound, Va.
Application July 6, 1956, Serial No. 596,346
3 Claims. (Cl. 25—1)



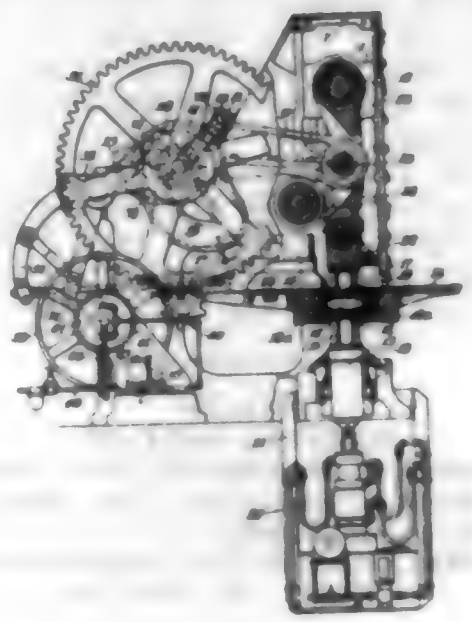
1. In a molding press for forming cementitious blocks a block pallet comprising a generally rectangular body having parallel opposite side walls, parallel opposite end walls, an upper wall and a lower wall, said body having a slot formed in one end wall adjacent one side wall communicating through said bottom wall, a bolt pivoted in said slot having means normally spring biasing said bolt to an extended position, a T head formed on the end of said bolt opposite said pivot, and a T slot formed in said end wall adjacent the side wall opposite to said first slot with said T slot being adapted to receive the T head of the bolt on the next adjacent pallet locking the pallets together.

2,870,513
PIPE MAKING APPARATUS
Archie R. Gagne, Homewood, Ill.
Application April 28, 1955, Serial No. 504,413
9 Claims. (Cl. 25—30)



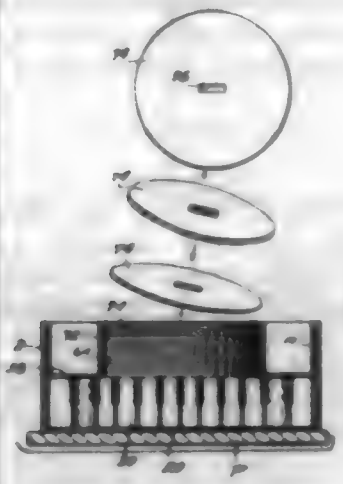
1. Apparatus for casting concrete pipe comprising a horizontal base, means for supporting an outer cylindrical form vertically on said base, a platform, means for supporting said platform so that it may be moved vertically, a vertically disposed shaft carried by said platform, said shaft being rotatable with respect to said platform, an inner form rigidly secured to said shaft, said inner form being coaxial with said outer form and movable from a position within said outer form to a position clear of said outer form, said inner form having a top circular plate forming a cover for said inner form, said top circular plate having a top portion of the inner form extending upwardly above the same, said upwardly extending portion of said inner form having a series of discharge apertures therethrough so that cement mix resting on said top cover plate may be fed through said apertures to the space between the inner and outer form, paddle means rotatable around said shaft and disposed just above said top cover plate to distribute mix to said discharge apertures, means for supplying concrete mix to said top cover plate when said inner form is in its lower position within said outer form, means for rotating said paddles, means for moving said inner form around its axis, vibrating means coupled to said outer form for tamping concrete mix, means for cutting off the feed of concrete mix to the space between said forms when said inner form is being moved, and means supported by said inner form for shaping the top of the mix between said forms.

2,870,514
PRESS
Robert A. Ebersole, Park Forest, Ill., assignor to Chisholm, Boyd & White Company, a corporation of Illinois
Application August 7, 1953, Serial No. 372,858
3 Claims. (Cl. 25—90)



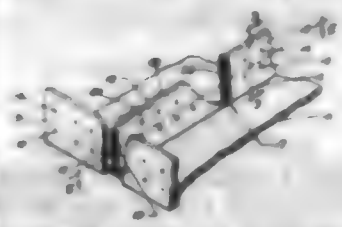
1. In a press of the character described, a main frame, means on the frame forming a mold, a toggle frame slidably mounted on the main frame and carrying a lower plunger, a pair of toggle arms on the toggle frame and carrying an upper plunger, said plungers being relatively movable toward each other in the mold as said toggle arms move toward dead center for compressing material in the mold, driving means, means connecting the driving means to the toggle arms including a clutch and a brake, means for actuating said clutch and said brake, electromagnetic means for controlling said actuating means, and rotary cam means on said press operated by said connecting means for cyclically operating said electromagnetic means in timed relation to movement of said toggle arms and operable to control said connecting means to sequentially clutch the driving means to the connecting means to move said toggle arms to cause said plungers to move toward each other to a first position in which said plungers partially compress the material in said mold, to brake said connecting means to hold said plungers for a period in said first position sufficient to allow compressed air to escape from the partially compressed material, to reclutch the driving means to the connecting means to move said toggle arms to dead center to move said plungers toward each other to a second position where further compression is exerted on the material, and then to move said toggle arms away from dead center so as to move said plungers apart to a third position permitting the discharge of the compressed material.

2,870,515
MOLD ASSEMBLY FOR MANUFACTURING CONCRETE INLET TOPS FOR STORM DRAINS
John William Parfitt, Manchester, N. H.
Application September 19, 1957, Serial No. 685,027
9 Claims. (Cl. 25—118)



5. A mold assembly for use in making concrete inlet tops for storm drains comprising a circular metal ring having an inner surface, a cardboard cylinder positioned within and engaging the inner surface of said metal cylinder, said cardboard ring having an inner surface defining a mold cavity, a mold element formed of corrugated cardboard positioned within said cavity, said mold element comprising a reinforced body portion having parallel vertically extending oppositely-disposed side walls forming chords of the circle defined by said cardboard cylinder, said body portion also comprising a horizontal floor having opposite side edges joined to said side walls and opposite curved end edges engaging the inner surface of said carboard cylinder, said body portion also having a cylindrical ring located concentric to said cardboard cylinder extending up from said horizontal floor, and means disposed within said cylindrical ring supporting said cylindrical ring against buckling under the load of concrete resting on said horizontal floor.

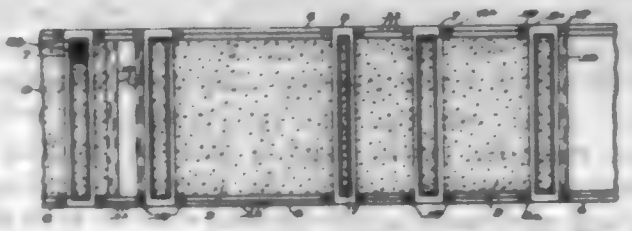
2,870,516
FORM UNIT
William Allen Jennings, Des Moines, Iowa, assignor to Economy Forms Corporation, Des Moines, Iowa, a corporation of Iowa
Application April 19, 1956, Serial No. 579,242
2 Claims. (Cl. 25—131)



1. A concrete form unit comprising a flat base plate having a flange integral with and extended laterally of one side thereof, said flange having side portions with terminal edges and having end portions, with said end portions being normal to said base plate and said flange being curved in a direction laterally inwardly of said base plate such that the terminal edges of said side portions lie in a plane normal to said base plate.

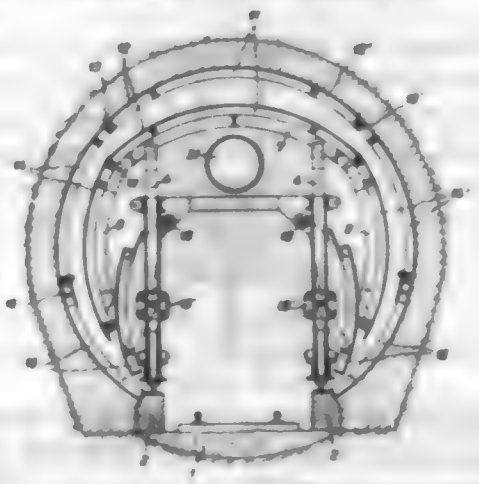
2,870,517
APPARATUS FOR MAKING CONCRETE BUILDING SEGMENTS
Albert Henderson, Pittsburgh, Pa.
Application January 9, 1957, Serial No. 633,267
7 Claims. (Cl. 25—131)

1. Molding apparatus for making concrete roof or floor building members having relatively spaced vertical walls integrally cast to said members, that comprises a lower horizontal mold which has a bottom and side



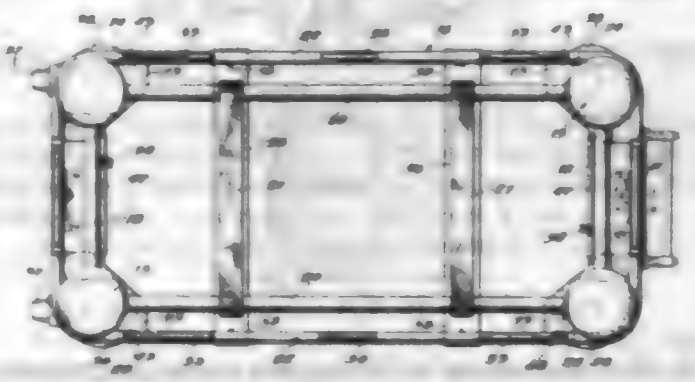
walls, vertical wall molds open at their upper and lower ends disposed crosswise of the side walls and mounted for adjustment along the upper edges thereof.

2,870,518
MOBILE FORM FOR THE CONCRETE MOULDING OF BARREL VAULTS, TUNNELS, GALLERIES, OR SHAFTS
Josef Bömmer, Bad Aibling, Germany
Application August 16, 1955, Serial No. 528,790
Claims priority, application Germany August 19, 1954
7 Claims. (Cl. 25—131.6)



1. A mobile concrete form means comprising a carrier and a wall structure having a collapsed and an expanded position; said carrier including a plurality of expandable and collapsible shell-shaped members and actuating means therefor; hinge means interconnecting said shell-shaped members; at least a first part of said wall structure being removably supported by said shell-shaped members and being movable from said collapsed to expanded position by said actuating means acting through said shell-shaped members.

2,870,519
CASKET CARRIAGE
Gilbert A. Yeazel, Chicago, Ill., assignor to Frigid Fluid Company, a corporation of Illinois
Application December 28, 1955, Serial No. 555,878
7 Claims. (Cl. 27—32)



6. A casket carriage adapted for lowering a casket into a grave, comprising: a casket lowering device; a rectangular frame for supporting said casket lowering device; a mounting member having a hollow upwardly extending cylindrical post swivelly secured adjacent each corner of said frame, a rotatable wheel secured to each of said mounting members, and brake means for said wheels,

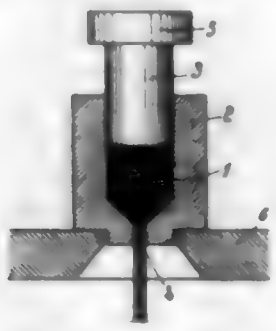
said brake means including a brake plunger slidably received in each of the hollow posts and normally resiliently urged upwardly thereof, a brake shoe secured to each mounting member and positioned for yieldable movement adjacent the lower end of each brake plunger so that depression of a brake plunger will yieldably urge the adjacent brake shoe into braking engagement with the adjacent rotatable wheel, and a pair of braking bars journaled in opposite sides of the frame in tandem and having lugs positioned at the opposite ends of each of said bars, said lugs being adapted to engage and depress each of said brake plungers and brake shoes against their respective wheels when the braking bars are axially rotated to prevent rotation of the respective wheels.

2,870,520

RADIATION-PRODUCING DEVICE

Francois Desvignes, Bourg la Reine, France, assignor to Laboratories Electroniques et de Physique Appliquees, Paris, France

Application February 28, 1955, Serial No. 491,165
Claims priority, application France March 2, 1954
4 Claims. (Cl. 29—25.17)



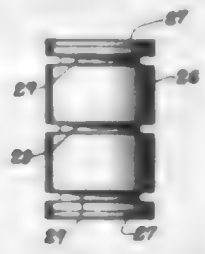
1. A method of making a radiating element for a radiation-producing device, comprising preparing a wet mixture consisting essentially of a refractory metal oxide, thereafter molding said mixture into the desired form of the radiating element, heating said molded mixture at a temperature at which a hard body is formed and in an atmosphere containing oxygen at a pressure below that present in the outside atmosphere and for a time interval at which the electrical conductivity of the body increases to a value at least equal to 10^{-6} mhos/cm. at 20° C., and applying to the ends of said body terminals for applying a voltage thereto.

2,870,521

METHOD OF ADJUSTING THE RESONANT FREQUENCY OF A VIBRATING SYSTEM

Norman Rudnick, New Brunswick, N. J., assignor to Gulton Industries, Inc., Metuchen, N. J., a corporation of New Jersey

Application February 24, 1955, Serial No. 490,229
3 Claims. (Cl. 29—25.35)



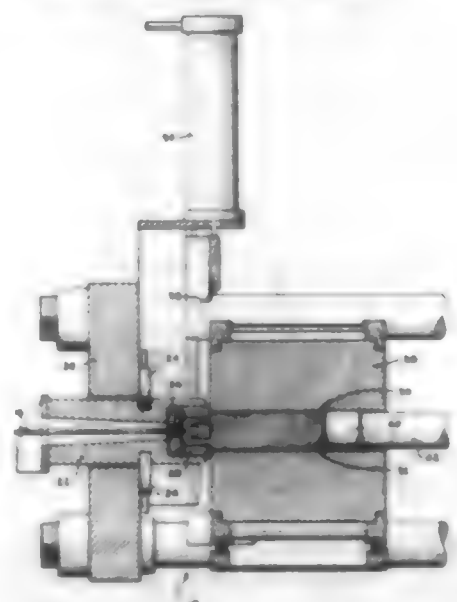
3. The method of adjusting the resonant frequency of a piezoelectric ceramic electromechanical transducer which comprises removing small masses from said transducer at at least one of the nodal surfaces of said transducer to lower the resonant frequency and removing small masses from said transducer at at least one of the surfaces of velocity loops of said transducer to raise the resonant frequency.

2,870,522

APPARATUS FOR MANUFACTURING TUBING

Charles E. Hickman and Allen L. Goldsmith, Adrian, Mich.

Application September 6, 1951, Serial No. 245,404
5 Claims. (Cl. 29—33)



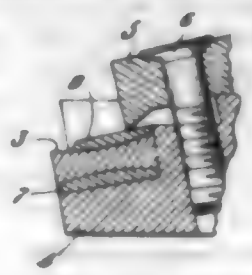
1. A tube coiling device comprising a pair of cooperative peripherally grooved drive rolls, a forming and a series of retainer rolls arranged to coil tubing in the form of a free ended helix, one of said drive rolls being rotatable on a fixed axis, means freely mounting the other of said drive rolls for rotation about an axis shiftable toward and away from said fixed axis, said drive rolls being arranged to receive said tubing in driving relation therebetween and being operable to propel said tubing past said other rolls, said mounting means having adjustable means to limit the movement of the axis of said other drive roll only toward said fixed axis so that said drive rolls will automatically space themselves to accommodate variations in the diameter of said tubing, common means for driving said drive rolls at the same rate of speed but in opposite directions, said last-mentioned driving means being constructed and arranged with respect to said mounting means for the shiftable drive roll so as to apply torque to said shiftable drive roll in a direction to produce torque reaction of the shiftable drive roll which biases said shiftable drive roll toward the other of said drive rolls, and a horizontally extending arm freely projecting from said device and arranged to support said coil of tubing after it is formed so that a severed coil of such tubing may be freely removed with out interfering with the operation of said cooling device.

2,870,523

CUTTING TOOLS

Henry J. Richard, Lincoln, Mass., assignor of fifty-one percent to Theophile J. La Lime, Redding, Conn.

Application August 10, 1956, Serial No. 603,254
2 Claims. (Cl. 29—96)



1. A cutting tool comprising a holder having a seat, a shim bearing on the seat, a bit bearing on the shim, a keeper bearing on the bit, and means clamping the parts together on said seat, the lateral sides of the bit meeting at corners to provide cutting edges, the faces of the bit which bear on the shim and keeper respectively being similarly concave in each dimension to provide rake

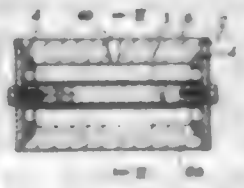
clearance and the faces of the shim and keeper which engage the bit having corresponding convexity so that the bit fits between the shim and keeper with either of its faces bearing on the shim, whereby the bit may be used in any one of a number of positions equal to the number of cutting edges on both of its faces with rake clearance in each position and the bit may be replaced with another bit having different rake clearance merely by substituting a keeper and shim having corresponding convexity.

2,870,514

MANUFACTURE OF WAVEGUIDE COMPONENTS

John Alexander Christie Kinnear, Bromley, England, assignor to Elliott Brothers (London) Limited, London, England, a company of Great Britain

Application May 10, 1954, Serial No. 428,569
Claims priority, application Great Britain May 18, 1953
5 Claims. (Cl. 29—155.5)



1. A method of manufacturing a waveguide component embodying a length of waveguide capable of conducting high frequency electromagnetic energy which comprises the steps of securing a detachable electrically non-conducting plane end cheek tightly in contact with each end face of a mandrel having a smooth electrically conducting external surface, electrodepositing on said external surface between said end cheeks a thin metallic shell which is to constitute the conducting wall of the waveguide, detaching one of said end cheeks from said mandrel, locating two annular coupling flanges around said mandrel, re-securing said detached end cheek to said mandrel, surrounding said mandrel between said end cheeks by a retaining wall which leaves an annular space between its inner surface and the metallic shell on the mandrel and co-operates with said end cheeks to locate each annular coupling flange concentrically with said mandrel in contact with the inner face of the adjacent end cheek, filling said annular space with a fluid material which is capable of assuming a relatively hard and rigid final form, causing said material to assume said final form and thereby bond said flanges to said shell, detaching one of said end cheeks from said mandrel and extracting said mandrel from said shell.

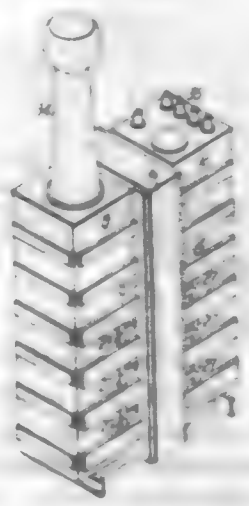
2,870,525

METHOD OF TRANSFORMER ASSEMBLY USING DIVIDED TANK AND BANDING PLATE

Harding B. Hansen, Elm Grove, William C. Sealey, Wauwatosa, Stan S. Stemersen, Milwaukee, and Karl P. Wiederkehr, Elm Grove, Wis., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application December 10, 1954, Serial No. 474,454
3 Claims. (Cl. 29—155.58)

1. The method of assembling a stationary induction apparatus having a laminated magnetic core, a winding, and a tank comprising the steps of providing two separate sections of a tank each having a rectangular open end, welding channel members to each said section at the edges of said open ends to form end frames for said core, disposing one of said sections so that the edge of the end frame welded thereto is in a substantially horizontal plane, positioning said winding in said one section with the axis of said winding disposed in a horizontal plane a predetermined distance above said horizontally disposed end frame, stacking laminations on said horizontally disposed end frame to a predetermined height to define a magnetic core, positioning the other said section of said tank above said stacked core, lowering said other section over said winding until the end frame welded to said other section is positioned on said stacked laminations in registry with said horizontally disposed end frame to cause a clamping pressure on said laminations,



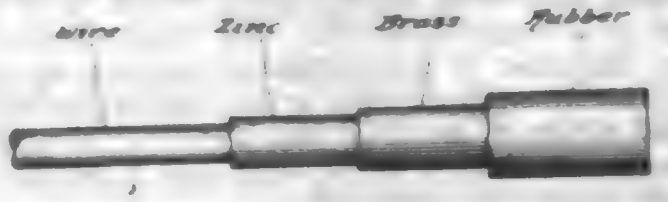
adjusting to a predetermined value the pressure on said laminations caused by said other section being supported on said stacked laminations, and completing said tank by welding a banding plate between said end frames around the perimeter thereof to maintain said predetermined pressure on said laminations.

2,870,526

BRASS PLATED RUBBER ADHERENT STEEL WIRE

Orville E. Adler, Niles, Mich., assignor, by mesne assignments, to National-Standard Company, a corporation of Delaware

Application September 23, 1955, Serial No. 536,075
4 Claims. (Cl. 29—183.5)



1. A ferrous base article having a layer of zinc thereon which is at least .00004 inch thick; and an electrodeposited as such layer of highly rubber adherent brass on the zinc which is at least .000017 inch thick, said brass layer immediately after deposition having a uniform ratio of copper to zinc throughout, and having a high degree of stability to change in its rubber adherence under adverse climatic conditions.

2,870,527

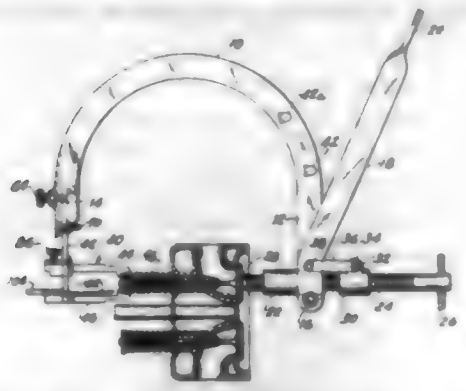
REFRACTORY METAL BODIES AND METHOD OF MAKING SAME

Leonard F. Yntema, Waukegan, Ill., and Roger J. Runck, Columbus, Ohio, assignors, by direct and mesne assignments, to Fansteel Metallurgical Corporation, North Chicago, Ill., a corporation of New York

No Drawing. Application January 15, 1953
Serial No. 331,498
10 Claims. (Cl. 29—198)

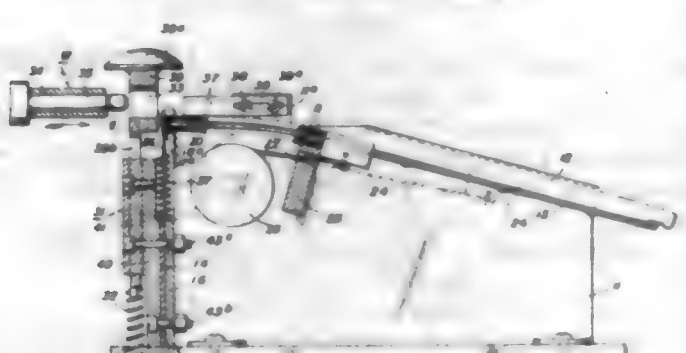
1. As an article of manufacture, a refractory metal body resistant to oxidation in air at elevated temperatures comprising a molybdenum base having an exterior layer composed predominantly of an alloy or intermetallic composition of molybdenum, silicon and zirconium, the silicon and zirconium being in weight proportions of 75 to 95 parts of silicon to 25 to 5 parts of zirconium and sintered into the molybdenum surface as a layer integral therewith.

2,870,528
AUTOMOTIVE VALVE TOOL
Joseph Sumen, Clayton, Mo.
Application March 1, 1954, Serial No. 413,403
4 Claims. (Cl. 29—219)



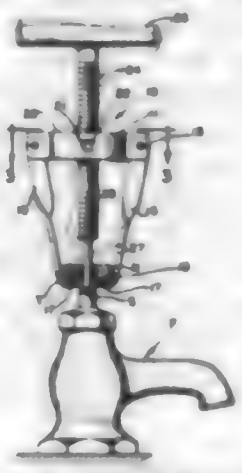
1. In a device of the kind described, a C-frame having a long leg and a short leg, a valve head engaging member slidably mounted on the end of the long leg of the frame for transverse movement in the plane of the frame, and an operating lever pivotally connected to the frame and the member for moving it, an arm pivotally mounted at one end on the short leg of the frame and extending outwardly therefrom and arranged for limited rotational adjustment in the plane of the frame, a pair of elongated valve spring engaging members connected at one end to the free end of said arm and extending perpendicularly of the arm toward said valve head engaging member, one of said elongated members being fixed on said arm and the other being slidably adjustable thereon, spring pressed means for restraining said slidably mounted member in adjusted position on said arm, and screw threaded means for locking said spring pressed means in an adjusted position, said elongated members each having a perpendicular valve spring receiving abutment at its free end for engaging a valve spring retaining cup at diametrically opposed peripheral portions thereof lying in the plane of the frame, and spring pressed means carried by at least one of said elongated members and acting transversely toward the other of said elongated members so as to bear yieldably against a valve spring locking key on the exposed portion of the valve stem when the valve spring is compressed, thereby to yieldably hold a locking key in place against the valve stem.

2,870,529
MEANS FOR ASSEMBLING OPEN RETAINING RINGS ON SHAFTS, PINS AND THE LIKE
Hans Erdmann, Maplewood, N. J., assignor to Waldes Kohinoor, Inc., Long Island City, N. Y., a corporation of New York
Application February 9, 1956, Serial No. 564,496
7 Claims. (Cl. 29—229)



1. Means for dispensing open retaining rings singly from a supply thereof and for applying the single rings to grooved shafts, pins and the like, including, in combination, a vertically disposed applicator blade terminating at its upper end in a pair of resilient jaws defining a semi-circular ring-receiving cut-out for a single ring which opens upwardly, retractible means slidably mounted on said applicator blade and normally closing one side of the cut-out, means disposed on the other side of the cut-out for maintaining a supply of the retaining rings being assembled in substantially horizontal alignment with one another and with said cut-out, spring means positively biasing said rings towards said cut-out and effective to cause said rings to feed one-by-one to the cut-out upon said cut-out being conditioned to receive same means for positively feeding a grooved shaft and the like into said cut-out so as to effect transfer of a ring contained in the cut-out to the groove of said shaft including, a vertically disposed plunger mounted for vertical reciprocating movement in a plane closely adjacent to but which is offset relatively forwardly of the applicator blade and retractible means mounted thereon an amount permitting the plunger to reciprocate independently of said retractible means and without engaging the applicator blade, said plunger having provision adjacent its upper end for receiving the grooved end of said shaft and being operative to dispose the same vertically above the applicator blade and with its axis horizontal and parallel to that of said cut-out, and means for locating said shaft end in an axial position such that its groove is vertically aligned with said cut-out whereby said plunger is adapted when actuated in downward direction to lower the shaft into said cut-out with its groove in exact alignment therewith, and spring means normally maintaining said plunger raised and being also effective to return said plunger to raised position following downward actuation thereof.

2,870,530
FAUCET HANDLE PULLER
Ervin J. Dvorak, Azusa, Calif.
Application May 7, 1956, Serial No. 583,298
1 Claim. (Cl. 29—261)



A faucet handle puller comprising, in combination: a generally annular body member having a cylindrical bore therein; a pair of arms having right angle twists and pivotally depended from bifurcated lugs depended integrally laterally from an outer peripheral portion of said body member; end faucet handle engaging portions formed integrally on free ends of said arms; semicircular faucet stem engaging cutouts in said engaging portions; an annular gimbal nut disposed in said bore and pivotally connected with said body member, an axis of said pivotal connection between said nut and said body member being substantially normal to a plane interconnecting the pivotal connection of said arms to said body member, a peripheral portion of said nut being positioned in close proximity to said bore in said body member whereby to limit pivotal movement of said nut about said pivotal connection thereof with said body member; a faucet stem engaging member threadably disposed through a central area of said nut; a handle formed integrally on one end of said engaging member; an elongated reduced diameter pin portion formed integrally on another end of said engaging member; and a transverse end on said pin por-

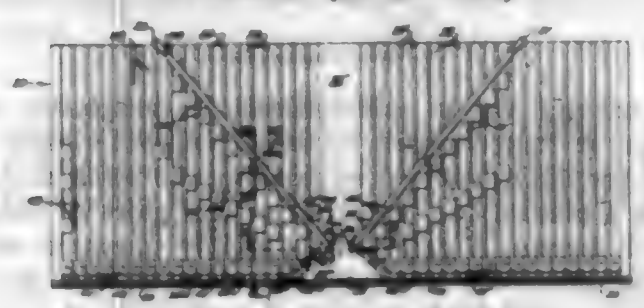
tion, said pin portion and said end thereof being adapted for disposition in a threaded bore in a free end of said faucet stem, whereby to engage a bottom of said threaded bore and upon threadable travel of said engaging member through said nut to move said pin portion relative to said engaging portions of said arms to separate said faucet handle from said faucet stem.

2,870,531

AWNING END WING ASSEMBLY JIG

Forrest H. Hudson, Tucker, Ga., assignor to Ray-O-Lite Corporation of America, Atlanta, Ga., a corporation of Georgia

Application August 15, 1956, Serial No. 604,135
5 Claims. (Cl. 29—286)



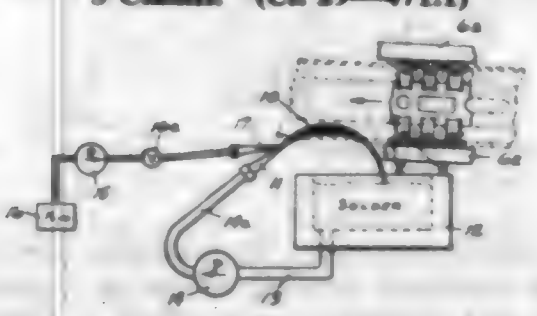
1. An assembly jig for assembling an awning end wing, said end wing being of generally triangular shape having a channeled bottom mold, a fastener bar along the top fixed at one end to an end of said bottom mold, and a plurality of panel sections extending vertically between said bottom mold and said fastener bar, comprising a table top, a plurality of spaced parallel ribs on said table top, the top surfaces of said ribs being adapted respectively to support an offset edge portion of each said panel section in position for assembly, support blocks resting on said table top in the spaces between said ribs, said blocks having upper surfaces spaced above the top surfaces of said ribs adapted to support the main portions of said panels above the respective offset edge portions thereof, an elongate bottom mold stop fixed to said table top, said stop extending parallel to said table top in a direction perpendicular to said ribs and projecting above said top surfaces thereof, a center stop fixed to said table top adjacent said bottom mold stop, said assembly jig having a bottom mold recess extending along said bottom mold stop and said center stop for holding said bottom mold in assembly position with its channeled side facing away from said bottom mold stop while said panel sections are slid along the top surfaces of said ribs and blocks to position their bottom ends in assembly position in said bottom mold, and a roof angle positioning bar pivoted at one of its ends to said center stop for swinging over the top surfaces of said ribs to a selected angular position with respect to said ribs so as to define the assembly position of said fastener bar.

2,870,532

METHOD OF SOLDERING A PLURALITY CLOSELY SPACED ELECTRICAL CONNECTIONS

Francis R. Young, Erie, Pa., assignor to Erie Resistor Corporation, Erie, Pa., a corporation of Pennsylvania

Application February 10, 1956, Serial No. 564,696
5 Claims. (Cl. 29—471.1)



1. The method of making soldered electrical connections between conductors in an assembly having closely spaced joints and for eliminating solder bridging between adjacent joints which comprises holding the conductors together at the joints to be soldered and flowing over the joints a stream of oxide free molten solder having a layer of flux floating on the outer surface of the stream.

2,870,533

JOINING TOGETHER OF METAL PARTS

Frederick Samuel Benham, Twickenham, England, assignor to Vandervell Products Limited, London, England

Application January 10, 1955, Serial No. 480,919
Claims priority, application Great Britain January 11, 1954
3 Claims. (Cl. 29—525)



1. The method of manufacturing a double-faced bearing washer consisting of two metal parts each having a relatively soft layer of bearing metal bonded to a relatively hard backing layer, comprising the steps of shearing at least one piece of metal partially out of each of said parts to form at least one projection on the backing layer surface of each of said parts, each of said projections having sides perpendicular to the backing faces of their corresponding parts and lengths less than the thicknesses of the other parts, shearing at least one aperture in the backing layer of each of said parts, said apertures having walls perpendicular to their corresponding backing faces, assembling the parts in face-to-face relationship with the backing layers contiguous and the bearing surfaces exposed to cause the projection of each part to be inserted into the corresponding aperture of the other part, and compressing the parts in a direction perpendicular to the mating faces of the parts whereby the walls of the apertures are compressed inwardly into gripping engagement with the sides of the projections.

2,870,534

RAZOR HAVING AN ELASTIC RECIPROCATING CUTTING MEANS TO CUT LONG AND SHORT HAIR

Paul Angst and Willy Rabald, Uitikon am Albis, Switzerland

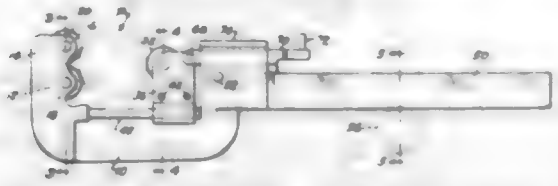
Application January 27, 1956, Serial No. 561,879
Claims priority, application Switzerland March 18, 1955
4 Claims. (Cl. 30—34)



1. Hair cutting and shaving apparatus comprising a holder, a pair of parallel combs fixed to said holder and having curved cross-sectional profiles with opposite concave faces, each of said combs having outwardly extending teeth, the teeth of such combs pointing in opposite directions, an elastic reciprocatory cutting comb extending between and guided lengthwise of and contacting said combs and having opposite toothed longitudinal marginal portions overlying said teeth for hair cutting action and having a central curved portion provided with cutting slots, a perforated skin guard metal foil overlying said central portion, means for holding said foil in sta-

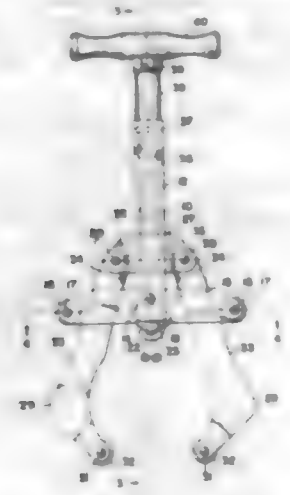
tionary relationship to said combs in contact with and biassed against said central curved portion of said cutting comb for shaving action, and actuating means mounted in said holder and engaging said cutting comb to reciprocate the latter relative to said combs and to said metal foil lengthwise thereof, whereby both of said combs in operation touch the skin and perform a hair cutting operation while said skin guard prevents said central portion from touching the skin and both cooperate to perform a shaving function.

2,870,535
PIPE CUTTERS
Howard Vernette, Hammond, Ind.
Application August 24, 1956, Serial No. 606,110
12 Claims. (Cl. 30—102)



1. A pipe cutter comprising a frame having a pair of vertically aligned guide rollers mounted for rotation in one end of the same, a pair of parallel horizontal guideways on said frame, a vertically disposed sliding block mounted on said guideways, a vertically disposed rotatable cutter carried by said sliding block, a rack and ratchet housing formed at one end of said frame, a rack mechanism slidably mounted therein and pivotally connected to said sliding block, a handle pivotally connected to said frame, and a ratchet carried by said handle for moving said rack and sliding block forward.

2,870,536
TUBING CUTTER
Simon Lutsker, Shaker Heights, Ohio
Application August 26, 1957, Serial No. 680,129
9 Claims. (Cl. 30—102)



1. In a tubing cutter of the character described, a guide member, a housing secured to said guide member, a cutter wheel rotatably mounted in said housing, a guide block, means for reciprocably moving said block along said guide member, and roller-supporting members pivotally secured to said guide block.

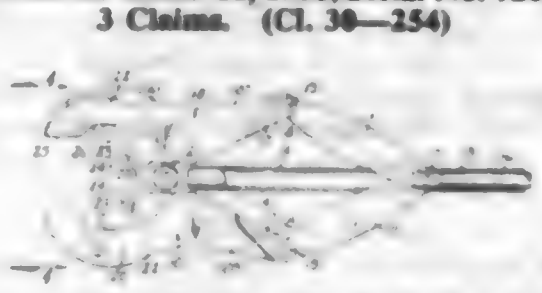
2,870,537
POCKET SAFETY KNIFE
Samuel Ortner, Newark, N. J.
Application March 14, 1958, Serial No. 721,448
2 Claims. (Cl. 30—162)

1. A pocket safety knife comprising a pair of spaced apart parallel walls, a bight integrally securing said walls together along one edge thereof, means adjacent the opposite edges of said walls extending between said walls and securing said walls in spaced parallel relation, a longitudinally extending inwardly opening channel formed in one of said walls, said walls having aligned longitudinal slots formed therein with one of said slots opening through said channel, a bar slidably mounted in said channel, said longitudinal slot in said channel having a plurality of longitudinally spaced enlarged circular portions, means carried by said bar extending through said slots having a head detachably engaging in said circular por-



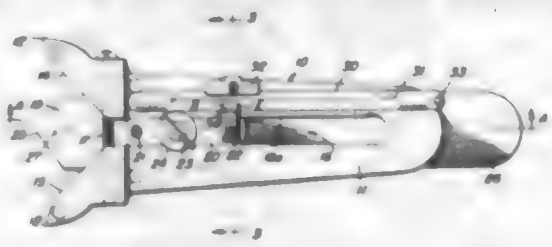
tions of said slot in said channel to detachably secure said bar in longitudinally adjusted position, a blade positioned for sliding movement between said walls, said blade having a plurality of angularly related pairs of apertures formed therein, a pair of lugs rigidly mounted on said bar and selectively engaging in a pair of said apertures positioning said blade in one of a plurality of angularly adjusted positions with respect to said bar.

2,870,538
CABLE CUTTER
Henry H. Townshend, Jr., New Haven, Conn., assignor to J. T. Henry Manufacturing Co., Inc., Hamden, Conn., a corporation of Connecticut
Application March 11, 1958, Serial No. 720,610
3 Claims. (Cl. 30—254)



1. A cable cutter comprising a pair of blades pivotally interconnected and having opposing cutting-edge portions defining therebetween an opening when the blades are partially closed, each blade having a guide extension cooperating with the other blade to resist blade torque during a cutting operation, the extensions being formed as lugs on the blades and providing substantial bearing areas well forward of the pivotal axes of the blades when the blades are swung to overlap their outer ends, and said extensions being engageable with a cable interposed between the blades to position the cable relatively to the blades at the commencement of the cutting operation.

2,870,539
SCRIBING IMPLEMENT
Frank P. Zaccone, Chicago, Ill.
Application April 2, 1958, Serial No. 725,816
8 Claims. (Cl. 33—41)



1. A scribing instrument for marking a line in accordance with dictates of a guide surface of a workpiece or the like, said instrument comprising a frame having spaced contacts for the instrument to follow the guide surface, a scribe bar on said frame and slidable with

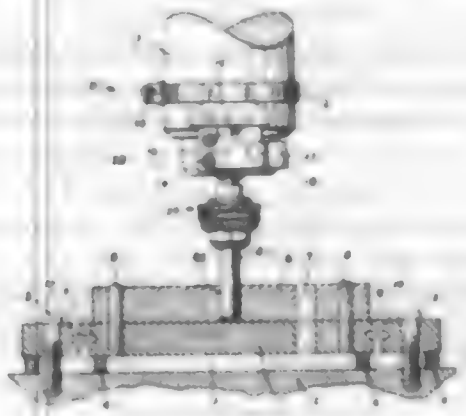
respect to said frame in and out along a path between said contacts, said scribe bar itself having a contact for the guide surface and being slidable with said bar to a position relative to the contacts on said frame corresponding to all of said contacts being against said guide surface at once, a scribe point on said bar, and means on said frame and scribe bar including a scale and an indicator for said scale individually on said frame and scribe bar for measuring the distance said scribe point is set for scribing with respect to said guide surface subsequent to said contact on said slide bar being set to a position relative to the contacts on said frame corresponding to all of said contacts being against said guide surface at once, said scale and indicator being movable with respect to each other while said contacts are in positions equivalent to being against said guide surface all at once.

2,870,540

ELECTRONIC CENTERING DEVICE

Abraham J. Housman, Brookline, Mass.

Application April 1, 1955, Serial No. 498,645
14 Claims. (Cl. 33—172)



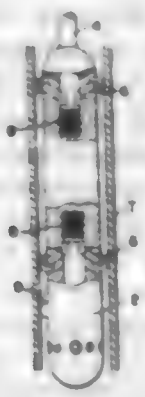
1. A means for accurately locating the center of a hole in a conductive material comprising a conductive axially rotatable pin having a diameter slightly smaller than the diameter of said hole, means for axially rotating said pin, means for adjustably positioning said pin while axially rotating in said hole, and means responsive to the electrical resistance between said axially rotating pin and conductive material for indicating that the pin is centered in the hole.

2,870,541

TUBING CALIPER

Fred M. Mayes, Newtown Square, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application November 9, 1955, Serial No. 545,963
19 Claims. (Cl. 33—178)



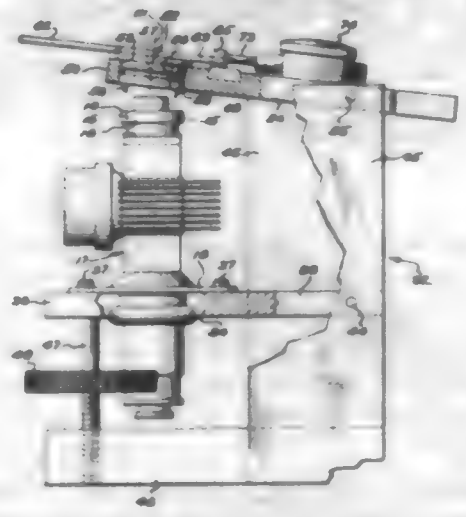
4. Tube calipering means comprising a plurality of distributed detectors and means associated therewith providing electrical signals individual to the detectors and indicative by their magnitudes of the magnitudes of tube pits adjacent to the corresponding detectors, and means receiving all of said electrical signals and providing an indication of the maximum signal, the last means comprising rectifying elements individual to the signals of the respective detectors and connected to a capacitance to effect charging thereof.

2,870,542

APPARATUS FOR DETERMINING THE LOCATION OF MOUNTING HOLES TO BE DRILLED IN A PART

Robert R. Gasper, Clarendon Hills, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application September 8, 1954, Serial No. 454,658
7 Claims. (Cl. 33—181)



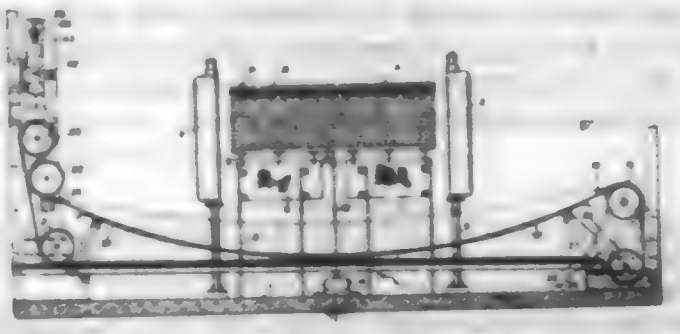
1. In an apparatus for locating mounting holes to be drilled in an apertured part having a laterally disposed pair of lugs with a pair of opposed parallel surfaces, a plate having a circular member engageable in the aperture of said part for supporting said part for oscillatable movement about an axis through the member, a slide mounted on said plate for movement along a predetermined path and having a head provided with a pair of curved surfaces engageable with said parallel surfaces of the part and provided with a cam surface disposed obliquely with respect to said path of travel, a dial indicator mounted on said supporting plate and having a movable element engageable with said cam surface for actuating said dial indicator in response to movement of said slide to indicate the positions of said part and said head on the plate, means for moving said slide, means for clamping said part to said plate after it has been adjusted about said axis, guides in said plate for guiding drills to predetermined locations on said part, and means on said plate for supporting it in inverted position with the part and the dial on the underside thereof.

2,870,543

METHOD AND APPARATUS FOR DIELECTRIC HEATING

George E. Gard, East Hempfield Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

Application January 24, 1956, Serial No. 560,942
16 Claims. (Cl. 34—1)



3. In a method of drying a substantially flat workpiece of porous dielectric material in which the moisture is concentrated in a limited portion of the workpiece, the steps comprising subjecting said workpiece to high frequency alternating electric stress applied thereto in a

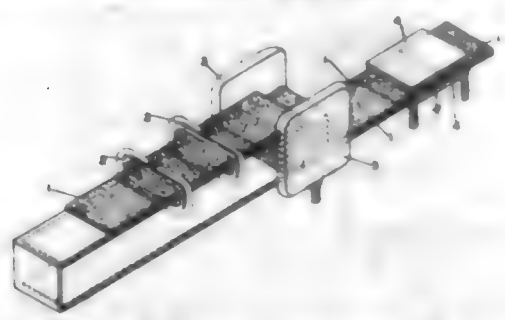
direction substantially parallel to the flat faces of said workpiece, thereby removing some of said moisture from said workpiece and effecting migration of the remaining moisture substantially uniformly throughout the thickness of said workpiece, and thereafter subjecting said workpiece to high frequency alternating electric stress applied thereto in a direction substantially perpendicular to the flat faces of said workpiece to further heat said workpiece and remove moisture therefrom.

2,870,544

METHOD OF DRYING FIBROUS BOARDS

George E. Gard, East Hempfield Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

Application January 24, 1956, Serial No. 560,943
2 Claims. (Cl. 34—1)



1. The method of drying a substantially planar dielectric article having a pair of substantially flat parallel faces and a relatively wet central section comprising moisture non-uniformly distributed in the plane of said article between said faces, comprising the steps of applying high-frequency electric fields to said article in three successively different orientations thereby to successively redistribute and dry said non-uniformly distributed moisture in different orientations, said method comprising the first step of applying a high-frequency electric field to said article in the plane of said article and in a first direction through said wet central section substantially parallel to the flat faces of said article thereby to partially redistribute and dry said non-uniformly distributed moisture in a first orientation, the second step of applying, immediately subsequent to completion of said first step, a further high-frequency electric field to said article in the plane of said article in a second direction through said wet central section substantially parallel to the flat faces of said article, said second direction being transverse to said first direction in the plane of said article whereby said second step further redistributes and further dries said non-uniformly distributed moisture in a second orientation parallel to said flat faces but different from the drying and moisture redistributing first orientation of said first step, whereby said first and second steps partially dry said article and redistribute the remaining moisture in said article substantially uniformly throughout said article between the flat faces thereof, and the third step of applying, immediately subsequent to said second step, a still further high-frequency electric field to said article in a direction substantially perpendicular to the flat faces of said article thereby to finish-dry said substantially uniformly redistributed remaining moisture from said article in a third orientation transverse to each of said first and second orientations.

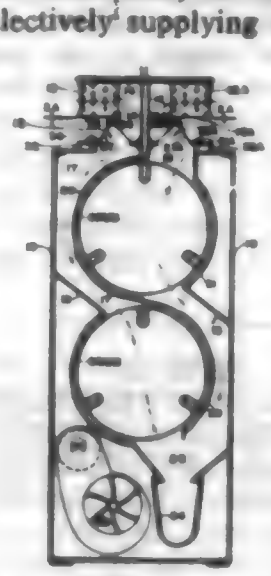
2,870,545

FABRIC DRYING APPARATUS HAVING MEANS FOR SELECTIVELY SUPPLYING DRYING AND COOLING MEDIUM

Frank H. Richterkessing, Louisville, Ky., assignor to W. M. Cissell Manufacturing Company, Louisville, Ky., a corporation of Kentucky

Application May 24, 1955, Serial No. 510,794
2 Claims. (Cl. 34—63)

2. In a fabric drying apparatus having a casing, means defining a pair of air supply chambers attached to said casing at the top thereof, each chamber having spaced inlets for heating air and for unheated air respectively, and a common outlet for air entering said inlets, a heating unit in each chamber, means defining a common discharge chamber at the bottom of said casing, separate ducts connecting said discharge chamber and said common air outlets, and a perforated drum mounted for rotation in each of said ducts; the improvement comprising means for selectively supplying heated and unheated



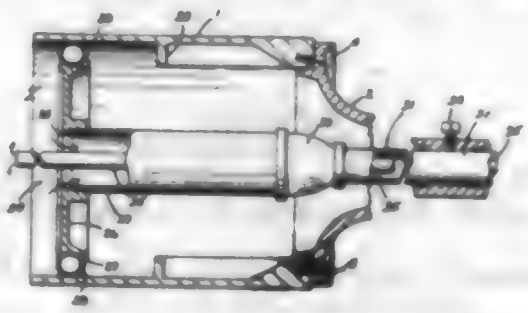
air independently to said drums and including a pivoted damper in each of said air supply chambers movable between a first position for closing the flow of unheated air into its associated duct and a second position for closing the flow of heating air into that duct, and an adjustable blade-like member slidably mounted on said casing adjacent said unheated air inlet and cooperating with said damper and serving to prevent leakage of unheated air into said air supply chamber when said damper occupies said first position.

2,870,546

DRYING ROLL

Seddon C. Nelson, Fredericksburg, Va., and Hans K. Steinfeld, Swarthmore, Pa., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application August 30, 1954, Serial No. 453,062
12 Claims. (Cl. 34—124)



1. A drying roll for drying a continuous sheet of flexible material comprising a rotatable hollow drum having a substantially smooth and uninterrupted surface over and against which the sheet travels, means for supplying a heating medium to the interior of the drum, and at least one unbroken partition mounted within and closing off one portion of the drum interior from the remaining portion of the drum interior for effecting a temperature differential between the two portions of the drum interior and the corresponding portions of the drum surface.

2,870,547

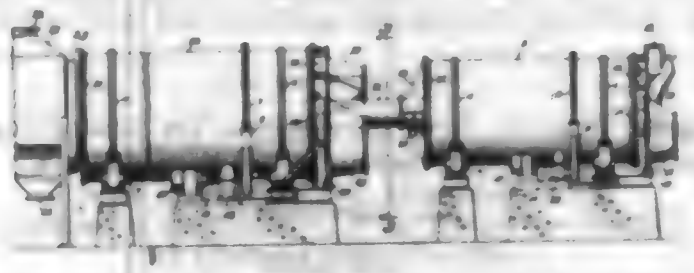
ROTARY DRYERS AND/OR COOLERS

Rudolph R. Teichman, North Riverside, Ill., assignor to Link-Belt Company, a corporation of Illinois

Application July 18, 1956, Serial No. 598,546
6 Claims. (Cl. 34—129)

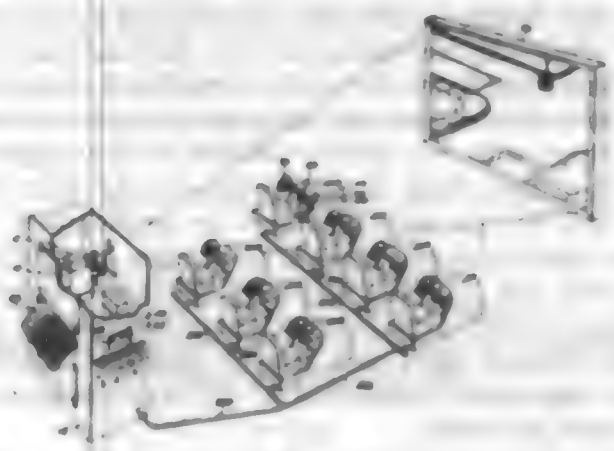
1. A device of the type defined, comprising first and second horizontally arranged cylindrical shells rotatably sup-

ported in spaced axial alignment and each having a feed end and a discharge end, said first shell having its discharge end arranged adjacent the feed end of the second shell, a plurality of axially extending louvre assemblies mounted in each shell to form a circumferentially arranged series of treatment passages with each passage having a rearwardly opening gas outlet throughout its length and to form a support for a bed of material, means for supplying material to the feed end of said first shell, rotating means for receiving material from the discharge



end of said first shell and for transferring it to the feed end of said second shell while restricting the flow of treatment gas from said first shell to said second shell, said means being connected to one of said shells so as to be operatively rotated thereby, means for withdrawing material from the discharge end of the said second shell, separate inlet means associated with the feed end of each shell for introducing treatment gas, and separate exhaust means associated with the feed end of each shell for withdrawing spent treatment gas.

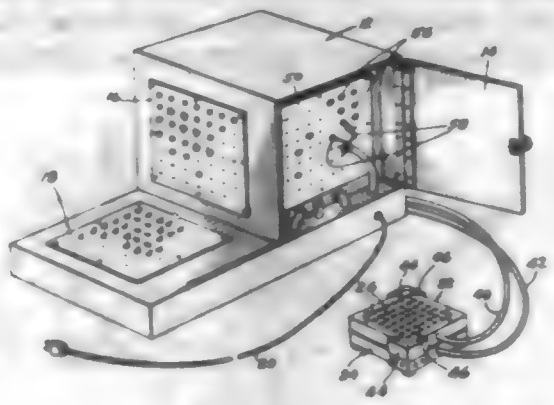
2,870,548
DRIVER TRAINING AND TESTING EQUIPMENT
Conkling Chedister, Livingston, N. J.
Application October 12, 1953, Serial No. 385,401
31 Claims. (Cl. 35—11)



28. In an apparatus for the training of a number of subjects, the combination of a motion picture projector, a plurality of sets of controls, one set for each subject, a plurality of groups of electromagnetic recorders, one for each subject, the number of controls in each set exceeding the number of recorders in each group, means actuated in relation to passage of film through the projector and including selective circuits for variously connecting the recorders of each group with the controls of each set whereby the recorders are actuated by different controls at different times, all of the groups of recorders being similarly connected to all of the sets of controls at any particular time.

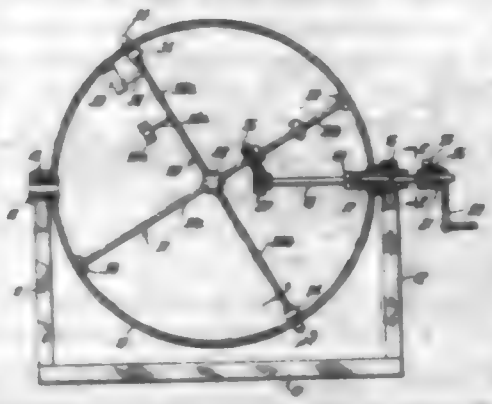
2,870,549
INTELLIGENCE TESTING APPARATUS
James F. Craine, Beverly Hills, Calif.
Application September 13, 1954, Serial No. 455,535
1 Claim. (Cl. 35—22)

An intelligence testing apparatus comprising a panel of lights or the like in a pre-determined relationship, a panel of corresponding operating switches or the like in a similar relationship, current-carrying means between the switches and lights, a master control switch in the current-carrying means for varying the relationship between the switches and lights, an additional relationship varying means included in the circuit, said additional means comprising a switchboard, having a number of jack-plugs corresponding to the number of switches and lights, the plugs and jacks being originally in a normal light operat-



ing relationship with respect to the switches, the master control switch being composed of two parts, each having respective contact elements, one element of the master control switch being relatively fixed and the other element being shiftable and variable with respect thereto, the shiftable and variable portion of the master control element being cubical.

2,870,550
TOY EARTH SATELLITE
Lambert Decker, Ulster Park, N. Y.
Application January 28, 1958, Serial No. 711,683
8 Claims. (Cl. 35—46)

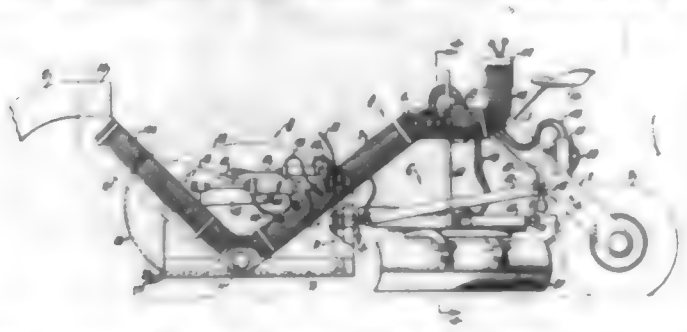


1. A device comprising a base having two opposed pedestals provided with aligned trunnions, a hollow globe of non-magnetizable material having two diametrically opposed shafts rotatably mounted in said trunnions, a third shaft rotatably mounted within the globe on an axis of the globe at an acute angle to the axis through said trunnions, a rod secured to said third shaft at right angles thereto having a magnet on one end thereof positioned close to but spaced from the inner surface of the globe, at least one of said opposed shafts being fixed to the globe and extending from the outside of the globe to the inside thereof, intermeshed gear means partly on that portion of said one of said opposed shafts inside the globe and partly on said third shaft, means for rotating said one of said opposed shafts, and a magnetizable object adapted to be mounted on the globe in alignment with said magnet.

2,870,551
ROAD WORKING MACHINE
William R. Thompson, San Francisco, Calif., assignor to Thompson Scoop-Grader, Inc., San Francisco, Calif., a corporation of California
Application July 6, 1954, Serial No. 441,307
3 Claims. (Cl. 37—117.5)

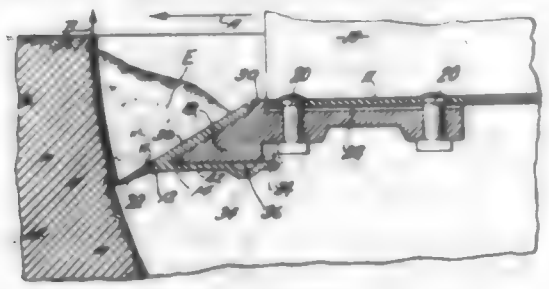
1. A road working machine comprising: a main frame having front and rear sections pivotally connected to-

gether; a scoop mounted within and disposed transversely of the forward end of the rear section of said main frame; hydraulic power means to change the angular relation between said sections to raise said scoop to an elevated load transporting position or to lower said scoop to loading position; a scraper blade assembly mounted within the rear section of said main frame directly behind said scoop, said assembly including a sub-frame mounted for vertical and lateral tilting movements; a substantially hori-



zontal rotatable ring carried by the sub-frame; a scraper blade centrally supported by said ring; means to secure the ring against rotation relative to the sub-frame with the scraper blade set at any desired angle to the line of travel of the machine; and power means to selectively elevate said scraper blade assembly thereby to render said scraper blade inoperative or to depress said assembly thereby to force said blade into the earth or to tilt said assembly laterally.

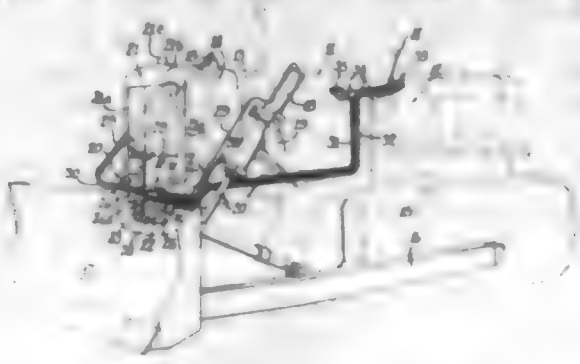
2,870,552
TWO-PIECE DIGGING TOOTH
Forrest W. Richardson, Kansas City, Mo.
Application November 4, 1955, Serial No. 544,879
2 Claims. (Cl. 37—142)



1. A two-piece digging tooth comprising a mounting adaptor including a forwardly tapering wedge-shaped lug having susbtantially planar faces, one of said faces being recessed to form a rearwardly facing shoulder, and a digging section socketed correspondingly to said lug and fitted thereover, said digging section including a rearwardly extending malleable tongue in engagement with the recessed face of said lug, the rearward end portion of said tongue being bent into said recess and engaging said shoulder to secure the parts in assembly, said tongue having a preformed arch therein immediately forwardly of said lug-shoulder and bowed outwardly from said recessed lug face, whereby a sharp hammer blow on the outer surface of said tongue arch will bend said tongue to remove the end portion of said tongue from said recess.

2,870,553
REMOTE CONTROLLED HYDRAULIC VALVE ASSEMBLY
Paul C. Temple, Springfield, Ill., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a corporation of Delaware
Application December 30, 1954, Serial No. 478,613
23 Claims. (Cl. 37—144)

10. A remote controlled hydraulic valve assembly which comprises a main valve, a piston and cylinder actuator for actuating said main valve with hydraulic fluid received from the main valve, a remote sender for controlling said actuator, means for flowing fluid from the actuator to the sender, and fluid trapping and displacing means in said sender for reversely actuating the



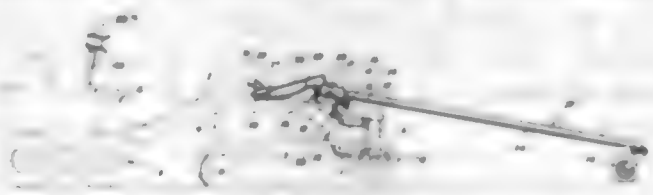
trapped fluid to drive the actuator for controlling the position of the main valve.

2,870,554
COMBINATION AGRICULTURAL IMPLEMENT
George Marvin, Woodland, Calif., assignor to Marvin Landplane Company, Woodland, Calif., a partnership
Application March 25, 1954, Serial No. 418,687
1 Claim. (Cl. 37—153)



An agricultural implement comprising an elongated rectangular frame including an upper portion having side members, caster wheels supporting the upper frame portion adjacent the corners thereof, a transverse tool bar under said members intermediate their ends, a draft tongue projecting forwardly from and below the frame portion centrally of the width thereof, a supporting bracket on which the tongue is pivoted for horizontal swinging movement, tension braces included with the frame and extending rearwardly from the sides of the bracket in diverging relation to each other and with an upward slope to rigid connection with the side members of the upper frame portion, tension bars extending rearwardly from the forward end of the tension braces in overlapping relation thereto and diverging rearwardly thence to rigid connection with the tool bar adjacent the ends thereof, and transverse pivot means connecting the bracket and the related tension bars and braces together; there being means operatively connected to said tension bars to raise and lower the same.

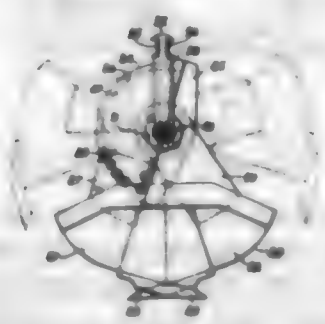
2,870,555
LEVEL CONTROL ATTACHMENT FOR ROAD GRADERS
Raymond A. Gurries, San Jose, and John Curlett, Los Gatos, Calif., assignors to Gurries Manufacturing Co., San Jose, Calif., a corporation of California
Application November 30, 1956, Serial No. 625,527
4 Claims. (Cl. 37—180)



1. A grade control device for the blade of a road grader, said grader comprising a rigid frame, wheels supporting the frame at its rear end, a grading blade rigid with the frame intermediate its end, and a front wheel truck; the device comprising longitudinally extending vertically spaced links connecting the wheel truck and frame for vertical movement of the front end of the frame relative to the truck; a forwardly extending boom having a feeler at its forward end to engage

the ground a material distance ahead of the front wheel truck, boom mounting means including a sleeve slidably supporting the boom adjacent its normally rear end, means mounting the sleeve on the grader frame for swinging about a transverse axis, the boom being relatively rigid with the sleeve whereby to swing therewith as a unit, and a mechanism connected between the sleeve and one of the parallel links to relatively swing the latter up and down so as to raise and lower the grader frame upon corresponding vertical movement of the feeler and the resulting swinging of the boom and sleeve.

2,870,556
FLUID POWER MOTOR APPARATUS
Joseph Murray Riddell, Houghton, Mich.
Application December 6, 1954, Serial No. 473,423
10 Claims. (Cl. 37—184)



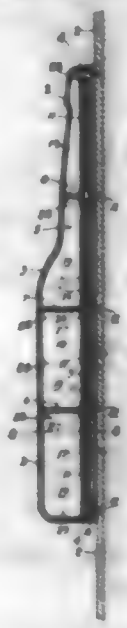
1. In combination, a clam shell shovel comprising a pair of cooperating buckets pivoted about a common axis, and a fluid powered motor comprising a housing to which one of said buckets is secured and having a cylindrical segment chamber, a shaft concentric with the pivotal axis of said buckets and having at least one portion extending outwardly of said housing to which the other bucket is secured and a vane secured to said shaft within said chamber and affording relative rotation of said shaft and said housing upon development of differences in fluid pressure on opposite sides thereof.

2,870,557
DISPLAY DEVICE
James C. Cook, Detroit, Mich.
Application October 14, 1955, Serial No. 540,474
4 Claims. (Cl. 40—39)



1. In an advertising display device, an inner advertising element comprising a disk mounted for rotation about a stationary axis, through the center thereof a ring-shaped outer advertising element, mounted for rotation about an axis perpendicular to said first mentioned axis, said outer element generating a hollow solid of revolution which encompasses said inner element as said outer element is rotated, said elements having surfaces which are adapted for carrying advertising messages and which face in the same direction at least once during each revolution of the outer element, and means connecting said inner element with said outer element so that said inner element is rotated in response to rotation of said outer element.

2,870,558
DISPLAY ELEMENT IN RELIEF FOR AN ADVERTISING SIGN
Ira W. Fuller, Dorchester, Mass.
Application November 12, 1957, Serial No. 695,898
2 Claims. (Cl. 40—126)



1. The contribution with an advertising sign, of a display element in relief having a dome-shaped envelope member of sheet material molded to a desired shape and presenting a continuous peripheral edge portion having a contour determined by the shape of said display element, a base element located entirely within said envelope member adjacent to but spaced inwardly from the continuous edge thereof, whereby said continuous edge projects beyond the base element, said base element having a peripheral contour corresponding to that of the edge portion of the envelope member, means permanently securing the peripheral edge of the base element to the inner face of the peripheral edge portion of the envelope member, brace members of sheet material permanently secured to the inner face of the base element and extending therefrom to the envelope member, the outer edges of the brace members being permanently secured to the inner face of the envelope member, a support member having a peripheral contour corresponding to that of the peripheral edge portion of the envelope member, said support member having a size to fit into the part of said edge portion which projects beyond the base element, means to secure said support member to the advertising sign, and means to detachably secure the projecting edge of the envelope member to the edge of the support member, whereby the envelope member together with the base element and brace members enclosed therein may be readily removed from the support member or replaced thereon.

2,870,559
FLAG TOWER STRUCTURE
Bernard F. Shaughnessy, Catasauqua, Pa.
Application October 3, 1956, Serial No. 613,679
1 Claim. (Cl. 40—139)

A flag tower structure that comprises a fixedly mounted mast of tubular form, a turret rotatably supported on the upper end of the mast, a vertical shaft in the mast and connected to the turret, a motor at the lower end of the shaft and serving to rotate it and the turret, a vertical flag staff rigidly connected to the turret and extending above the turret, a vane fixedly carried by the turret and of sufficient area to swing the turret about its vertical axis, upon changes in wind direction when the motor is inactive to drive the shaft, means for supplying a blast of air upwardly through the mast and into the turret while the turret is being rotated, the flag staff being hollow and having a vertical row of holes through which air flow will be had from the turret, a second hollow flag staff

carried by the turret at one side thereof and having a vertical row of holes, and means for directing a blast



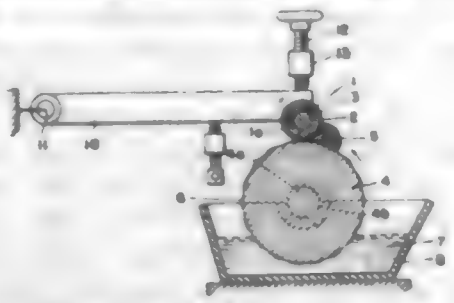
of air from the turret through said side thereof and into the second-named flag staff.

2,870,560

METHOD AND MEANS FOR ETCHING FIGURES ON ROLLERS

Richard Kauschka, Kufstein, Austria, assignor to Rochlen Engraving Works, Inc., Rochester, N. Y., a corporation of New York

Application February 1, 1956, Serial No. 562,858
Claims priority, application Austria February 3, 1955
6 Claims. (Cl. 41—9)



4. An apparatus for etching patterns on rollers comprising a container for etching fluid; means rotatably supporting a roller to be etched in fixed relation to said container with a portion of said roller dipping below and a portion of said roller rising above the etching fluid contained in said container; a pattern roller having raised portions forming the negative of the pattern to be etched on said first-mentioned roller; means rotatably mounting said pattern roller for movement toward and away from said roller to be etched; and means urging said pattern roller into rolling contact with a portion of said roller to be etched above the etching fluid in said container, the arrangement being such that when said pattern roller and said roller to be etched are continuously rotating in opposite directions in rolling contact, moldable etching-fluid-inert plastic material positioned in the entry angle between said rollers continuously coats the non-contacting surface portions of the roller to be etched and the non-coated portions of the roller to be etched are etched away as they pass through the etching fluid.

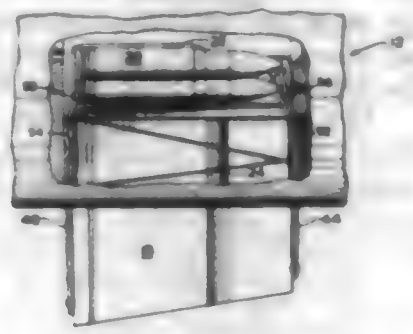
2,870,561

CARTRIDGE POSITIONER

Richard H. Colby, South Hadley, Mass., assignor to the United States of America, as represented by the Secretary of the Army

Application May 15, 1956, Serial No. 585,127
1 Claim. (Cl. 42—18)
(Granted under Title 35, U. S. Code (1952), sec. 266)

In combination with a gun provided with a reciprocating bolt and a feed throat, a magazine receivable by the feed throat for storing cartridges arranged in double rows and in staggered relationship, said magazine including a mouth portion and a pair of notches extending from the mouth portion into the front and rear ends of the magazine, a spring and a follower disposed between the spring and the supply of cartridges for transferring the bias of the spring thereto to sequentially move the leading cartridges in the double rows to alternate ones of a pair of feed positions respective thereto, a device for isolating the cartridges in the feed positions from the influence of the spring including a pair of retainer members each including a foot portion secured respectively to one end of the magazine below the notch therein, a



lower portion extending resiliently outward from the foot portion, a bearing portion disposed at the upper end of said lower portion for sliding engagement with the corresponding end of the feed throat to resiliently press said retainer member inwardly towards the corresponding end of said magazine, and a pair of fingers extending angularly inward from said bearing portions for projection through the adjacent one of the notches when said bearing portion is engaged with the corresponding end of said feet throat, said fingers being so disposed that the corresponding ones thereof on said pair of retainer members are jointly engageable with the undersides of the front and rear ends of the cartridge disposed in the respective one of the two feeding positions.

2,870,562

CARTRIDGE CASE EXTRACTOR FOR A FIREARM

John W. Kimball, Detroit, Mich.

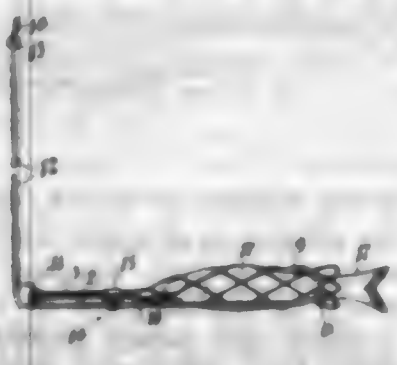
Application February 8, 1956, Serial No. 564,331
3 Claims. (Cl. 42—25)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In combination with a longitudinally reciprocal slide having a substantially arcuate recess extending upwardly into the front face thereof for seating the rim portion of a cartridge case therein and having a substantially rectangular recess extending rearwardly along the underside thereof to intersect the lower portion of said cartridge seating recess and form an entrance for the upward passage of the rim portion of the cartridge case, a cartridge case extractor having a longitudinal shank portion rotatably mounted in said slide above and to the side of said cartridge seating recess therein along an axis substantially parallel to the longitudinal axis of said slide, a claw portion projecting downwardly from the forward end of said shank portion to terminate adjacent the entrance in the lower portion of the cartridge case seating recess for gripping the rim of the case during the upward movement thereof, spring means normally biasing said claw portion to swing about said shank portion as a fulcrum into said cartridge seating recess immediately above said cartridge case rim entrance therein, a cylindrical pin extending downwardly from the top of said slide through said shank

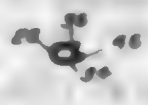
portion to positively secure said extractor against longitudinal movement while simultaneously limiting the swinging movement of said claw portion into and out of said cartridge seating recess, and a cam surface disposed at the lower inner corner of said claw portion to permit the upwardly and outward displacement thereof out of the upward path of the cartridge case during the passage of the case through said entrance in said cartridge seating recess.

2,870,563
BAIT ATTACHMENT DEVICES
Leslie W. Rose, Toronto, Ontario, Canada
Application April 9, 1956, Serial No. 577,161
1 Claim. (Cl. 43—41)



In a fish lure including a hook and a live bait-receiving and retaining open mesh sock having a strand form attaching cable at one end, said sock comprising an open mesh of flexible strands extending helically in a crossed and interlaced manner whereby said body is constituted of an open mesh adapted to be elongated with an attendant reduction in girth, said body having an open end and a closed end, the closed end being of a conical shape and said strands of the body being arranged in two groups with strands of each group at said open end interconnected by a return bend, strands of said two groups being extended away from said closed end axially of said body to provide said attachment cable, said hook comprising a substantially L-form functionally integral stem of stiff but somewhat resilient material and providing continuous and unobstructed long and short arms, the free end of the former terminating in a line-attaching portion and the free end of the latter terminating in a barb-incorporating hook, said stem at the junction of said arms being bent to provide an arm-connecting coil spring-providing loop at one side and extending away from the axis of the short arm in the same direction as said hook, whereby the arms are resiliently connected for relative movement only in the plane of said stem, means connecting the sock-attaching cable to said spring-providing loop so that the sock can be extended rearwardly to lie alongside said short stem arm and hook bill, and a clip of pliant material comprising an eye and an integral laterally extending tab, the sock-attaching member slidably threaded through said clip eye and tab bent to frictionally embrace a selected portion of said short stem arm so as to secure the adjacent sock end in variable proximity to the hook-providing stem arm.

2,870,564
FISH HOOK EXTRACTOR
Matthias M. Schwegler, Syracuse, N. Y.
Application October 19, 1956, Serial No. 617,188
18 Claims. (Cl. 43—53.5)



3. A barbed hook extractor comprising a channel section member tapering in depth, said channel section member being transversely sharpened at its end of lesser cross-section, said member being of a depth and cross section to closely and substantially enshroud the barb point and sides of the barb of a barbed hook when nested in said channel section with the point of the hook adjacent the sharpened end of the member, and means comprising a finger formed on one side wall of said channel member adjacent its cross section of greater depth, said finger extending part way across said open channel, and rearwardly from said sharpened end.

2,870,565
POWDER-DISSEMINATING DEVICE
Warren S. Martin, Babylon, N. Y.
Application February 28, 1957, Serial No. 643,868
10 Claims. (Cl. 43—148)



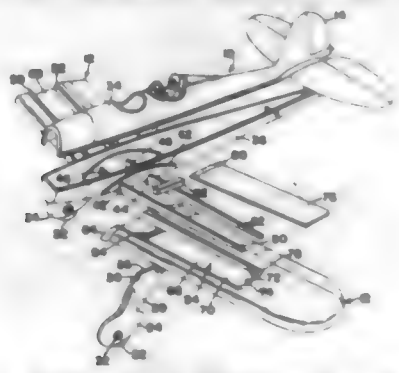
1. A pneumatic dust disseminating device comprising an air-activating chamber adapted to receive a quantity of dusting material and having a control head forming a top wall for said chamber, means for admitting an air stream into said chamber and for directing said air stream in a first pass downwardly and forwardly toward the forward side of said chamber, means for redirecting said air stream in a second pass to flow rearwardly and upwardly along the rearward side of said chamber and in a spiral course toward said control head, means for further redirecting said air stream in a third pass to flow forward along said top wall of said chamber, and means providing a discharge port in communication with said chamber for discharging said air stream.

2,870,566
CONVERTIBLE TOY VEHICLE
Leonhard Hofler, Furth, Bavaria, Germany
Application November 26, 1956, Serial No. 624,326
Claims priority, application Germany July 14, 1956
9 Claims. (Cl. 46—17)



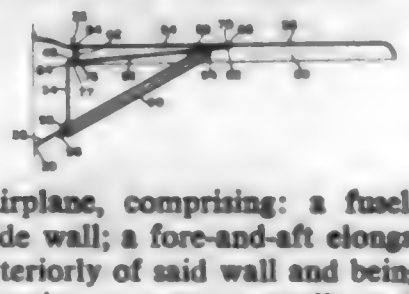
1. A convertible wheeled toy vehicle comprising a chassis with a driver's cab thereon and having a substantially flat top surface behind said cab, at least one rear axle means on said chassis, one of said means being removable therefrom, an elongated conversion member adapted to be selectively assembled on said chassis in different positions to convert said vehicle to different uses, including to a semi-trailer, said member being adapted to be assembled on said top surface to lie flat thereon and extending substantially over its entire length, said member tapering to its front end and having side walls spaced at the rear of said member about the width of said top chassis surface, said driver's cab having in its rear wall an aperture to receive said front end of said member when the latter is assembled on said top surface, a set of aligned apertures in said side walls adapted to alternatively receive said removable rear axle means when said conversion member is connected to said chassis in a position to serve as semi-trailer-like extension of said chassis.

2,870,567
MODEL AIRPLANE
Harold A. Bergstrand, East Moline, Ill., assignor to Strombeck-Becker Mfg. Co., Moline, Ill.
Application March 18, 1957, Serial No. 646,811
14 Claims. (Cl. 46—76)



1. In a toy airplane: a fuselage having transversely opposed side walls apertured in transverse alinement; a pair of wings symmetrically arranged respectively at opposite sides of the fuselage, each wing having an inner marginal portion secured to the respective side wall in the zone of the aperture and extending laterally outwardly therefrom; each wing comprising a one-piece sheet of airfoil section having a portion of said sheet depressed to interrupt said section and affording in said wing an elongated upwardly facing pocket running lengthwise of said wing and opening at said inner marginal portion in register with the proximate side wall aperture; spar means extending transversely through the fuselage via the side wall apertures and having outer portions received respectively in the wing pockets and secured to the wings respectively in said pockets; and a pair of pocket covers secured respectively to the wings and respectively closing the pockets, each cover completing the respective interrupted airfoil section and enclosing the respective outer portion of the spar means from above.

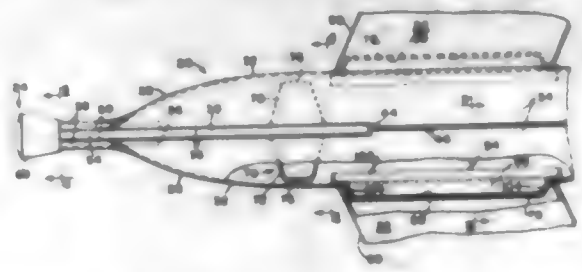
2,870,568
MODEL AIRPLANE
Harold A. Bergstrand, East Moline, Ill., assignor to Strombeck-Becker Manufacturing Co., Moline, Ill., a corporation of Illinois
Application March 18, 1957, Serial No. 646,812
12 Claims. (Cl. 46—76)



8. A toy airplane, comprising: a fuselage having a fore-and-aft side wall; a fore-and-aft elongated mounting pad on and exteriorly of said wall and being of generally airfoil shape, having an outer generally upright mounting face defined by an upper convex edge and a lower straight edge, said face along its lower edge being spaced laterally outwardly of said wall to afford a fore-and-aft downwardly facing ledge; and a wing-like element having an inner generally upright mounting face substantially congruent with and having face-to-face contact with and secured to the pad face and like said pad face having an upper convex edge and a lower straight edge, said element having along its lower edge a fore-and-aft flange projecting laterally inwardly under and secured to the pad ledge.

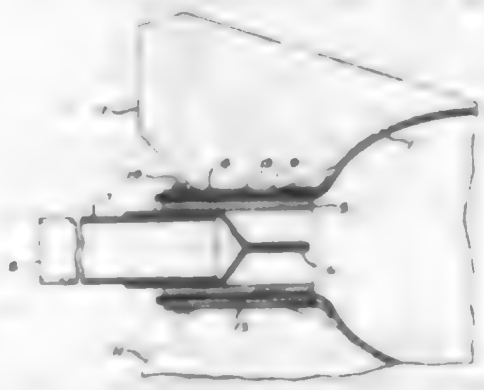
2,870,569
MODEL AIRPLANE CONSTRUCTION
Harold A. Bergstrand, East Moline, Ill., assignor to Strombeck-Becker Mfg. Co., Moline, Ill., a corporation of Illinois
Application July 29, 1957, Serial No. 674,885
8 Claims. (Cl. 46—81)

1. In a toy airship: a fuselage comprising an elongated fore-and-aft nose stiffener of relatively rigid sheet material having opposite flat sides and opposite fore-and-aft marginal edge portions; a pair of complementary fore-and-aft fuselage halves of relatively lightweight material and of semitubular section disposed respectively at opposite sides of the stiffener; each half having a front part alongside the proximate side of the stiffener and a rear part formed as a continuation of said front part and extending longitudinally beyond the stiffener; each front part having generally diametrically opposed flanged marginal edge portions coplanar with the associated side of the stiffener and secured to said side along the marginal



edge portions of the stiffener so that the fore part of the airship about the stiffener is of triple thickness; and said rear parts having fore-and-aft marginal edge flanges formed respectively as continuations of said front part flanged edge portions and joined respectively together longitudinally beyond the stiffener in a fore-and-aft plane medially through the stiffener to afford a fore-and-aft double-thickness rib medially of the rear part of the airship; each rear part edge flange being laterally inwardly offset immediately rearwardly of the stiffener to compensate for the intervening thickness of the stiffener between the front part flanged edge portions.

2,870,570
TOY JET PROJECTILE
Ralph A. Benson, Sparta, N. J., assignor of one-half to Raymond J. Novotny, Rockaway, N. J.
Application August 22, 1955, Serial No. 529,800
17 Claims. (Cl. 46—86)



13. A toy jet projectile, comprising, in combination, an inflatable balloon and a rigid nozzle assembly therefor, said nozzle assembly being fixedly attached to the neck of said balloon, guide fins fixedly attached to and symmetrically arranged about said nozzle assembly in proximity to the trailing edge of said balloon, and a combined inflating and sealing device detachably secured to said nozzle assembly, said device being manually detachable from said nozzle assembly to launch said toy jet projectile.

2,870,571
DOLL EYE
Albert Basbover, Livingston, N. J., assignor to Margon Corporation, Newark, N. J., a corporation of New Jersey
Application April 25, 1956, Serial No. 580,598
5 Claims. (Cl. 46—169)

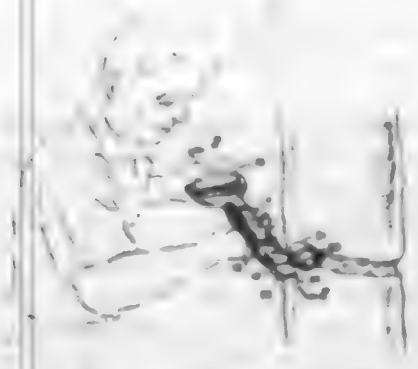
1. In combination, a doll head and an eye member, said doll head being made of a flexible material and having an eye opening and a substantially enclosed eye socket within the head behind said eye opening receiving

the aforesaid eye member, said socket having a fulcrum bar which extends across the socket, said eye member comprising an approximately hemispherical eye portion and a weight portion extending rearwardly of the eye portion, the back of said eye portion being shaped to



form an inverted hook-shaped bearing, said hook-shaped bearing being open to the rear and received over said fulcrum bar to pivot the eye member in the socket, said bar being disposed so as not to interfere with opening and closing movement of the eye member, and the socket constituting the sole enclosure for said eye member.

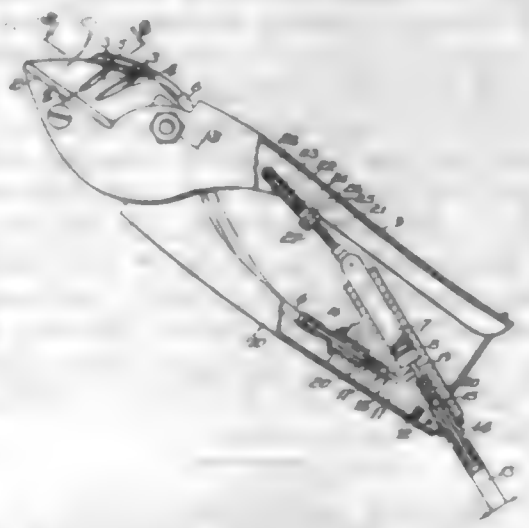
2,870,572
COMBINATION TREE GIRDLER AND PUNCH
Andrew F. Grisanti, Hattiesburg, Miss.
Application November 9, 1955, Serial No. 545,973
6 Claims. (Cl. 47—1)



1. A device of the character described comprising a relatively straight body having added weight to provide increased inertia of motion and driving force, a pair of arms attached to one end portion of said body and extending outwardly from the axis of said body and terminating in uniform relation, said arms being equally weighted internally to provide balance in operation, a hand grip mounted transversely between said spaced arms so that when said body is axially retracted the hands of the operator will be protected, a cutter disposed at the opposite end of said body from said hand grip, said cutter comprising a substantially L-shaped support adapted to be fastened to the end of said body opposite to said handle and with a hollow V-shaped cutting edge facing in the direction of said handle with the open end of said V-shaped cutting edge located adjacent to said body and the closed end of said cutting edge remote from said body, said cutter having an elongated cutting edge wedge-shaped in cross section, providing an extension of said body for cutting when the body is moved longitudinally with said cutting edge at its advanced end.

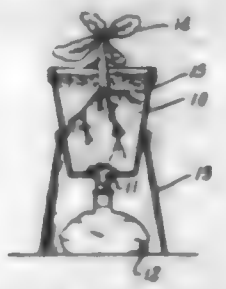
2,870,573
CHEMICAL SUPPLY MEANS FOR PRUNING SHEARS
William Frederick Reuben Scadden, Berri, South Australia, Australia
Application August 28, 1957, Serial No. 680,805
3 Claims. (Cl. 47—1)

1. Improved pruning shears having handles and co-operating cutting means comprising a cutting blade connected to one handle and an anvil connected to the other handle, channels formed within said cutting blade itself which break out into grooves in the face of the said blade, pump means mounted on said one handle, adjustable link means between said pump means and said other handle to vary the stroke of said pump, a tube



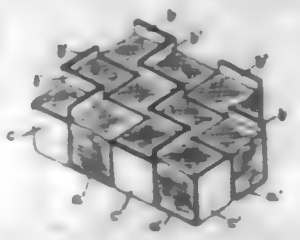
connecting said pump means with the said channels through the back of the said blade, and a tube to connect said pump means with a supply container.

2,870,574
HYDROPONIC UNIT WITH COMPRESSIBLE RESERVOIR
James V. Sheridan, Detroit, Mich.
Application April 5, 1956, Serial No. 576,291
4 Claims. (Cl. 47—1.2)



1. A structure in which to grow plants comprising a vessel for holding a plant root supporting medium; a manually compressible water reservoir positioned below said first vessel; and a two way flow, subirrigating conduit extending from the bottom of said vessel into said reservoir, said conduit serving to carry water into the bottom of said vessel upon compression of said reservoir and serving to return said water to said reservoir by gravity flow upon release of said compression.

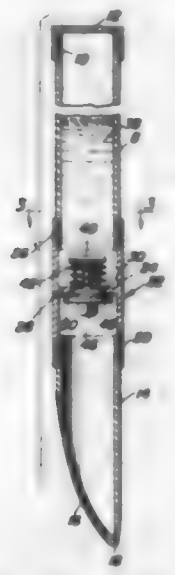
2,870,575
PLANT PROPAGATING DEVICES
Robert Weber, Lausanne, Switzerland
Application August 2, 1954, Serial No. 447,192
Claims priority, application Switzerland July 31, 1953
1 Claim. (Cl. 47—37)



A plant propagating device comprising an assembly of a plurality of coacting compartment-like U-shaped bodies for receiving rearing earth and seedlings, each of said U-shaped bodies being provided with opposite upright side walls, a bottom wall intermediate said side walls, one of said side walls being longer than and extending above the other side wall to form a visible separator and handle, the width of both said side walls and of said bottom wall being equal throughout their

extent, the distance between said upright side walls corresponding to the width of each of said side walls, said U-shaped bodies being arranged adjacent one another in a plurality of rows, said rows of said bodies being arranged in parallel abutting relationship, each of said U-shaped bodies in each of said rows extending with respect to each adjacent U-shaped body so that one side wall of one of said bodies extends normal to one side wall of each adjacent body and in abutting relation to both side walls of an adjacent body and closes the space between the side walls of the latter, the bottoms of said respective U-shaped bodies lying in the same plane, whereby any of said U-shaped bodies may each be removed from said assembly without affecting the position of any of its adjacent U-shaped bodies and without disturbing the roots or soil of a plant in such adjacent U-shaped body.

2,870,576
AUTOMATIC TREE INJECTOR
James S. Parker, Troy, Ala., assignor of one-half to James G. Clower, Troy, Ala.
Application January 2, 1958, Serial No. 706,699
3 Claims. (Cl. 47—57.5)



1. For use in conjunction with and between adjacent ends of a liquid containing barrel and a tubular thrust-type liquid dispensing and injecting blade, a ready-to-use and replaceable valve assembly comprising a linearly straight open ended sleeve screw-threaded at its ends and providing a coupling, said sleeve being provided on its interior and intermediate its ends with a centrally apertured flange providing a valve opening and also a valve seat, an openwork cage having an imperforate bottom, open at the top and provided at the top with an outstanding flange, said bottom being located normally in said guide opening, a coil spring surrounding the cage and bearing at its lower end on said flange and at its upper end on a shoulder carried by the cage, the bottom of said cage having a reduced screw-threaded stud, a nut threaded on said stud and provided with a valve disk, said disk being cooperable with the underneath side of said flange and providing the desired valving action.

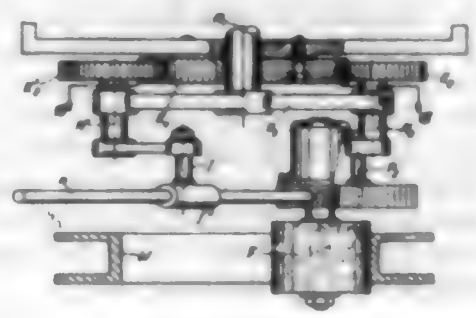
2,870,577
HONING MACHINE WITH PLUG SIZING
Earnest Y. Seborg, Rockford, Ill., assignor to Barnes Drill Co., Rockford, Ill., a corporation of Illinois
Continuation of application Serial No. 561,483, January 26, 1956. This application October 30, 1957, Serial No. 693,390
3 Claims. (Cl. 51—34)

1. In a machine for honing the wall of a bore in a workpiece, the combination of, a rotary spindle, a honing tool thereon, mechanism for reciprocating said spindle to move said tool back and forth through said bore, a sizing plug including a sleeve surrounding and loosely journaled on said spindle so as to be adapted for limited transaxial floating relative to the spindle, means on the end of said sleeve adjacent said tool providing a beveled surface adapted to engage and be stopped at the end of said bore wall when the latter is under a predetermined size but to enter the bore when the wall attains such size, said plug being carried by the spindle alternately into and out of feeling engagement with said wall end during reciprocation of said tool, an electric pick-up device hav-



ing an output circuit and a sensing element disposed adjacent the path of reciprocation of said plug but at all times out of mechanical contact with the latter, means on said sleeve axially spaced from said bevel surface and providing a metallic mass spaced different distances from said sensing element when said plug is in the stopped and entered positions respectively, and means responsive to current changes in said output circuit produced by changes in the position of said mass and operable to signal the entry of said plug into said bore.

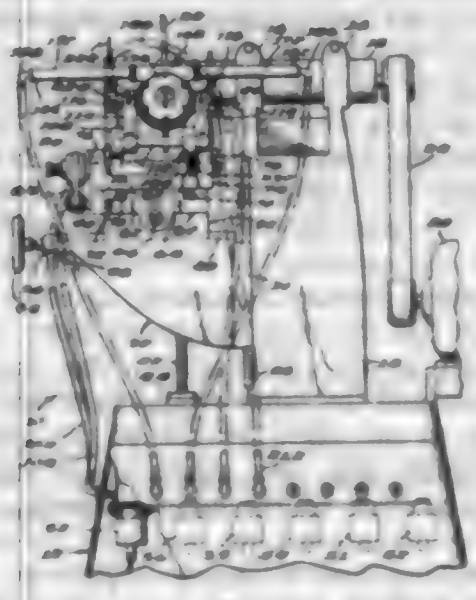
2,870,578
MECHANISM FOR MACHINING TROCHOIDAL ROTORS AND COUNTER-ROTORS
Othmar Baier, Stuttgart, Germany, assignor to NSU Werke Aktiengesellschaft, Neckarsulm (Wurttemberg), and Felix Wankel, Lindau am Bodensee, Germany
Application March 18, 1957, Serial No. 646,842
16 Claims. (Cl. 51—90)



14. Mechanism for generating either internal or external trochoidal surfaces or surfaces parallel to a true trochoid and including a pair of circular elements one of which is in rolling contact with the other, a generating tool means having its working surface disposed in a line constituting the normal to the track of a true trochoidal curve, a link rod constrained to be fulcrumed at the generating point of the trochoidal surface, means extending perpendicular to said circular elements and disposed in a plane that is spaced axially from said circular elements and defining a second point for determining the position of said link rod to be in coincidence with the normal of

the trochoidal surface to be generated and said means including a parallel linkage mechanism and a slidable connection between said link rod at said second point.

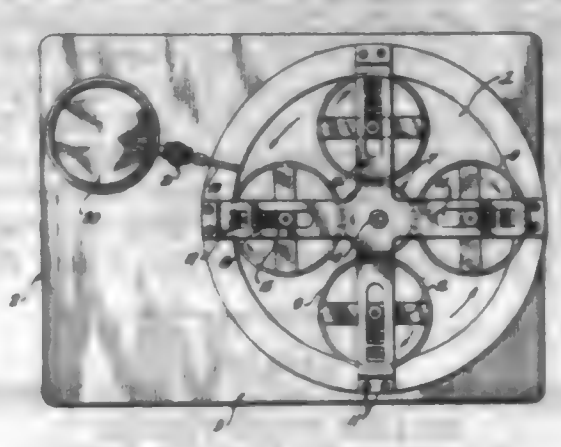
2,870,579
AUTOMATIC GRINDING MACHINE FOR SPIRAL DRILLS
Henry S. Siemsen and Kenneth E. Foote, Los Angeles, Calif.
Application February 28, 1955, Serial No. 490,772
8 Claims. (Cl. 51—94)



8. A device for grinding the points of drills comprising a basal supporting means, a movable member mounted on said supporting means for vertical movement with respect to a rotating grinding wheel, a chuck carried by said movable member, pneumatic means including valves to control fluid supplied under pressure to provide vertical upward and downward movement of said chuck with respect to said grinding wheel, said chuck having movable jaw means for gripping the end of a drill, pneumatic means including valves to control fluid supplied under pressure to move said movable jaw means to grip and release said drill, rack and pinion means secured to said chuck, pneumatic means including valves to control fluid supplied under pressure to reciprocate said rack and rotate said chuck, and means for automatically and sequentially closing the movable jaw means of said chuck to grip a drill, moving said chuck and drill vertically to bring one side of said drill into grinding contact with said grinding wheel and past said grinding wheel and out of contact therewith, rotating said chuck and drill through an angle of 180° about the longitudinal axis of said drill, moving said chuck and drill vertically in the opposite direction to bring the opposite side of said drill into grinding contact with said grinding wheel and past said grinding wheel and out of contact therewith, and releasing said drill from said chuck.

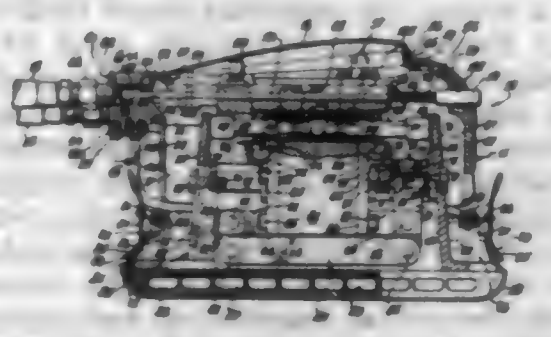
2,870,580
FLAT LAPPING MACHINE
Charles G. Norton, Garden Grove, Calif., assignor to Pacific Valves, Inc., Long Beach, Calif., a corporation of California
Application April 18, 1955, Serial No. 502,028
7 Claims. (Cl. 51—131)

1. A lapping machine for forming a true surface upon an article, said machine comprising a rotatable lap table having a surface capable of producing the desired true surface, means rotatably mounting and supporting said lap table, means for holding the article on the lap table, a support on the lapping machine for said holding means, a post rising from the holding means and journaled in the support, said holding means being freely rotatable on the support and relative to the lap table, means for rotating said holding means comprising a hub on the lap table rotatable with said table, and spring means engaging said



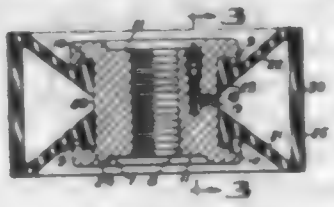
mounting post and pressing said holding means against the hub.

2,870,581
RECIPROCATING SANDER
Lucein L. Lyon, Huntington Park, Calif., assignor to Ralph W. Welch
Application January 23, 1957, Serial No. 635,706
6 Claims. (Cl. 51—170)



1. A sanding device comprising a handle adapted to be held in the hand of a user, a shoe carried by and reciprocable relative to said handle, means for attaching an abrasive sheet to said shoe for reciprocation therewith to abrade a work piece, compressed air actuated driving means for reciprocating said shoe relative to said handle, an inlet connection for compressed air flowing to said driving means, a conduit for discharging fluid onto a work surface adjacent said shoe and communicable with said air inlet for delivering air onto the work surface, a first valve for closing off communication between said air inlet and said conduit while still allowing air to flow to said driving means, a liquid inlet connection for connection to a supply of liquid when said first valve is closed, said liquid inlet connecton communicating with said conduit to then pass liquid therefrom onto the work through the conduit, a second valve operable to close off the discharge of either air or liquid through said conduit, and a third valve controlling the admission of air to said driving means.

2,870,583
INFLATED GRINDING WHEEL
Arthur Raske, Willoughby, Ohio
Application October 2, 1956, Serial No. 613,574
4 Claims. (Cl. 51—192)



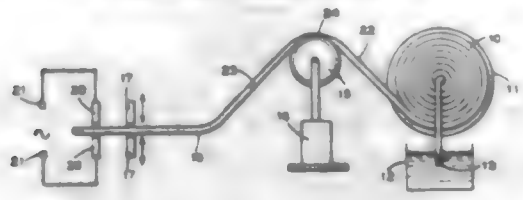
1. In an inflated grinding wheel of the class described comprising: a rigid solid core having a threaded opening formed centrally therethrough and provided on its periphery, at opposite ends, with parallel flat faces, and provided on its periphery, at each opposite end, with an inwardly directed flange to provide oppositely disposed

peripheral grooves, the inner surface of each of said flanges being in alignment and parallel to the axis of said core; an inflatable, flexible drum comprising an annular trough-shaped band having sides inclined inwardly toward each other embracing said core; a head on the end of each of said sides, each of said heads having an outwardly projecting flange for engaging between said core and the inwardly directed flange on said core, said flanges on said head having on their inner and outer surfaces a surface parallel to the axis of said drum.

2,870,583
PRODUCTION OF SEALED CONTAINERS FILLED WITH LIQUID

Valer Flax, Vic-Fezensac, France

Application May 21, 1953, Serial No. 356,609
6 Claims. (Cl. 53—37)

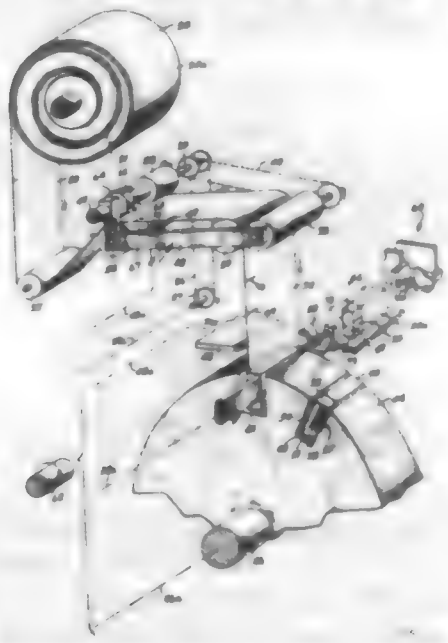


1. In a method for producing liquid filled individual containers from continuous partially liquid filled tubing of thermoplastic material which is heat sealed between opposing welding tools; the steps which consist in partially filling with liquid a predetermined length of continuous tubing, mounting one end of said continuous tubing in the zone of opposing welding tools, mounting the remainder of the length of the continuous tubing to dispose the liquid contained in said tubing in two liquid sectors separated by an intermediate gaseous sector, one of which liquid sectors is disposed at the zone of the welding tools, and progressively moving said continuous tubing after each individual container is formed by activation of siad welding tools, the continuous tubing being so mounted that as each successive individual liquid filled container is formed by the welding tools, liquid is displaced from the one liquid sector at the zone of the welding tools into the gaseous medium sector and towards the other liquid sector.

2,870,584
APPARATUS FOR PACKING AND WRAPPING CIGARETTES

Joseph H. Sherrill, Winston-Salem, N. C., assignor to R. J. Reynolds Tobacco Company, Winston-Salem, N. C., a corporation of New Jersey

Application May 20, 1955, Serial No. 509,759
14 Claims. (Cl. 53—55)



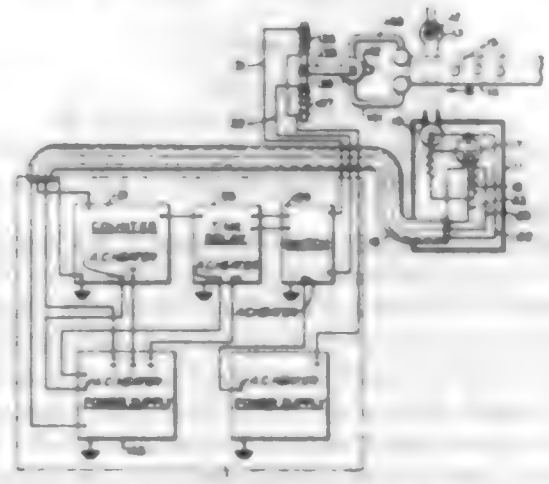
1. In cigarette packing and wrapping apparatus, the combination for producing an easy-opening package which comprises means for producing a cigarette package packed with cigarettes and having an open end from which the wrapping material projects in unfolded condition at two narrow sides and two wide sides, means for supplying wrapping material to the first-mentioned means, including rotary cutting means for slitting a side portion of said wrapping material at spaced localities, to provide slits in the projecting unfolded wide side portions of the aforesaid package spaced from but near one of the narrow side unfolded portions, means for inwardly folding the narrow projecting portion of material which is opposite the last-mentioned narrow portion, folding means for folding down the projecting wide side portions over the first-mentioned narrow portion fold and with one of the folded wide portions overlying the other, to provide a substantially triangular flap consituting the remaining projecting narrow portion of material, folding means for engaging the flap to fold it against the end of the package over the last previously made fold, means for applying to the package an outer protective wrapping having a portion to cover the aforesaid end that has the folds produced from the unfolded portions, and means intermediate the last-mentioned folding means and the outer wrapping means, for applying adhesive to the outer surface of the aforesaid last-folded triangular flap, for adherence of the aforesaid end-covering portion of the outer wrapping to the said flap.

14. In packing and wrapping apparatus, means for producing a package wrapped in an inner wrapping of material at least the outer surface of which is electrically conductive, means for applying to the package an outer wrapping of electrically insulating material, means for checking the operation of said outer wrapping applying means comprising a sensing station including two electrically conductive contacts insulated from each other, an electric circuit including said contacts, and means for moving said packages from said outer wrapping applying means to said sensing station so as to bring the outer surface of each package into engagement with both said contacts, said inner wrapping being then effective to complete said circuit if no outer wrapping has been applied over it, and control means connected in said circuit energized upon completion thereof, and effective upon energization to operate a device indicative of the absence of said outer wrapping.

2,870,585
CONTROL CIRCUIT FOR FILLING OF CONTAINERS

Tyson G. Cowan, Campbell, Calif., assignor to Roy M. Magnuson; Genevieve I. Magnuson, executrix of said Roy M. Magnuson, deceased

Application August 6, 1956, Serial No. 602,216
6 Claims. (Cl. 53—59)



1. An electronic device for controlling the operation of container filling apparatus comprising an input circuit adapted to produce an electrical pulse corresponding to

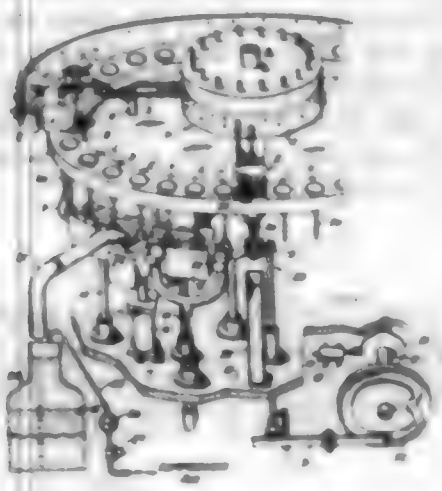
each object supplied to a container, an electrical pulse responsive circuit, said last-mentioned circuit having adjustable means to control the response thereof to a preset number of pulses supplied thereto from said input circuit, said preset number of pulses corresponding to the number of objects supplied to a given container, a switching circuit connected to said pulse responsive circuit having alternately energized output circuits, electromechanical control apparatus connected to the output circuits of said switching circuit to be operated after the preset number of pulses is supplied to said pulse responsive circuit, said electromechanical control apparatus having a pair of solenoids and valve means adapted to be operated by said solenoids to control a compressed air stream, connections for connecting one of said alternately energized output circuits to one of said solenoids and for connecting the other of said alternately energized circuits to the other of said solenoids, whereby said air stream may be controlled to deflect alternate preset numbers of said selected objects into different containers.

2,870,586

EXHAUSTING AND GAS FILLING MACHINES FOR LAMPS

Donald L. Pearson, Euclid, and John D. Nelson, Cleveland Heights, Ohio, assignors to General Electric Company, a corporation of New York

Application March 1, 1957, Serial No. 643,295
4 Claims. (Cl. 53—79)



1. A machine for gas filling and sealing a glass lamp bulb provided with a glass exhaust tube comprising, in combination, a rotatable turret mechanism for gripping a plurality of the exhaust tubes to move a plurality of the lamp bulbs in sequence to a series of work stations, said mechanism including means for gas filling the lamp bulbs at some of said work stations, means for cooling simultaneously a plurality of gas filled lamp bulbs, including a cooling tank movable into and out of engagement with the lamp bulbs as the turret mechanism rotates, means for heating part of the exhaust tube of at least one of the lamp bulbs while the bulb is immersed in said cooling tank, and means for separating the bulb from the heated part of the exhaust tube to seal off the bulb while the gas therein is still cool to reduce its pressure.

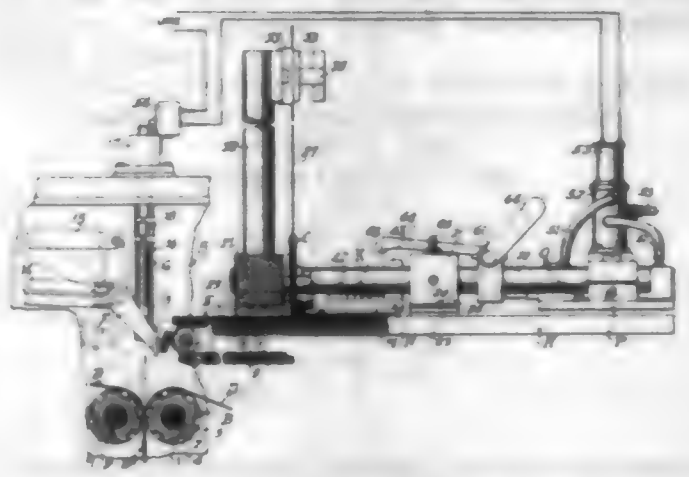
2,870,587

APPARATUS FOR FEEDING THIN ARTICLES TO PACKAGING MACHINES

George A. Swartz, Millington, N. J., assignor to Ivers-Lee Company, Newark, N. J., a corporation of Delaware

Application July 25, 1958, Serial No. 750,973
10 Claims. (Cl. 53—180)

1. The combination with means for moving longitudinally two strips of packaging material in spaced opposed relation to each other and sealing between them thin flat articles having openings therethrough, a movable conveyor for the articles, and transfer mechanism including a reciprocable device for transferring said articles from the conveyor in succession and depositing them between said strips prior to the sealing of the strips together, of a frame above said conveyor, a magazine for a plurality of said articles including a vertical magazine strip on said frame to freely pass through the openings in a plurality of said articles for holding said articles in a vertical column, a horizontal support plate fixed on said frame above said conveyor to underlie the lowermost



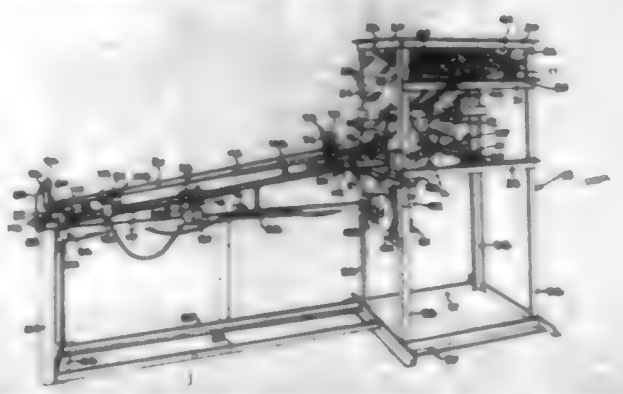
article in said column and spaced from the lower end of said magazine strip a distance slightly greater than the thickness of one of said articles, a feed plate horizontally slidably reciprocably mounted with respect to said support plate, said support plate and said feed plate being formed to coact to push the lowermost article from said column and to cause it to gravitationally drop onto said conveyor upon reciprocation of said feed plate in opposite directions, respectively, and means controlled by and upon reciprocation of said reciprocable device of the transfer mechanism for causing reciprocation of said feed plate.

2,870,588

CORE LOADING MACHINE

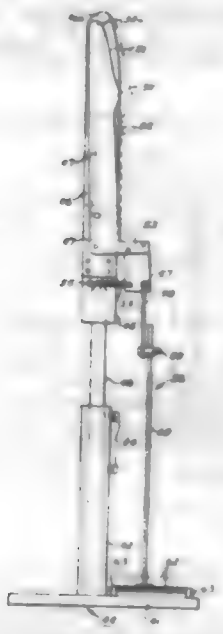
Lewis H. Lanier, Sr., Mentor, Lewis H. Lanier, Jr., Park Hills, and Max E. Dawson, Covington, Ky., assignors to Kentucky-Ohio Products Corporation, Covington, Ky., a corporation of Ohio

Application March 2, 1954, Serial No. 413,582
14 Claims. (Cl. 53—197)



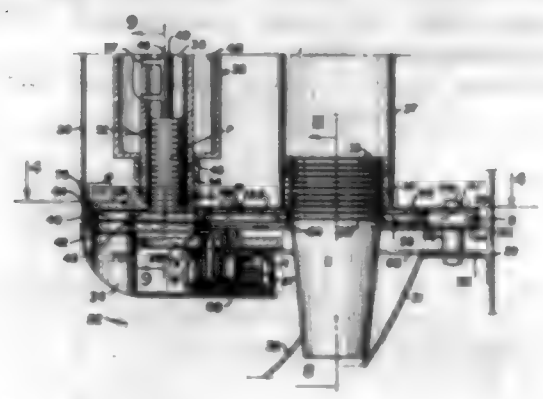
1. A machine for loading tubular cores on an elongated mandrel, said machine comprising a core receiving hopper, means communicating with the lowermost portion of said hopper for serially removing cores therefrom, guide means for positioning said cores after they have been removed from the hopper, means for supporting a mandrel in alignment with said guide means, means for retarding said cores adjacent to the end of said guide means for forming a succession of cores in endwise abutment, a pusher mechanism positioned to engage one of said succession of cores for urging the endmost of said abutting cores from said guide means onto said mandrel, and means for stopping the operation of said pusher mechanism when a predetermined number of cores have been loaded on a mandrel.

2,870,589
PACKAGE FORMING MACHINE
John C. Berry, Durham, N. C.
Original application December 6, 1954, Serial No. 473,293, now Patent No. 2,742,149, dated April 17, 1956. Divided and this application February 9, 1956, Serial No. 564,400
10 Claims. (Cl. 53—197)



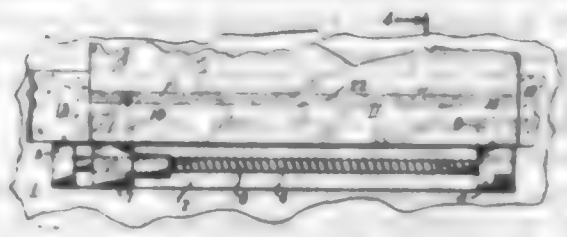
1. A package forming machine comprising a pair of spaced front support members mounted on frame means, a pair of spaced rear support members secured to said frame means, said front and rear support members being in slightly overlapping relationship with respect to one another and adapted to receive a stocking insert therebetween, and means to actuate one of said pairs of support members toward the other pair.

2,870,590
DISPENSING APPARATUS
Marvin R. Manzer, Manitou Springs, Colo.
Application May 26, 1954, Serial No. 432,392
10 Claims. (Cl. 53—250)



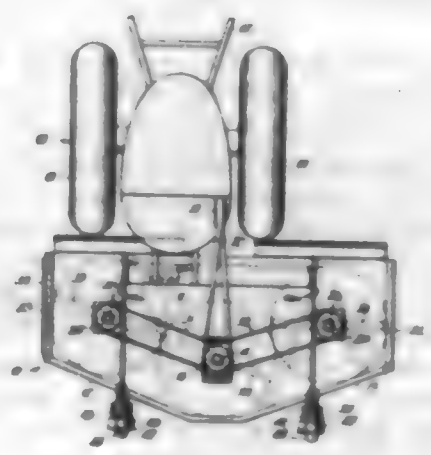
1. A dispensing apparatus for providing a cup with a measured number of pellets therein, including, in combination, a flat body member having a flat reciprocally-shiftable tongue extending longitudinally therethrough, a pellet receiving orifice in the top of the body and a pellet container upstanding thereabove adapted to drop pellets into the orifice and against the tongue, a pellet discharging passageway in the bottom of the body offset from the pellet receiving orifice along a line defining the path of tongue movement, an orifice through the tongue adapted to register with the pellet receiving orifice at one limit of the tongue movement to receive a measured number of pellets, and to register with the discharge passageway at the other limit of movement to drop the pellets therethrough, and means for providing a cup supply and for moving a cup underneath the discharge orifice, responsive to said tongue movement, to receive the pellets dropped therefrom.

2,870,591
BAG HOLDER FOR A VACUUM BAG SEALING MACHINE
Ralph S. Randall, San Francisco, Calif., assignor to Vak-U-Pak Corporation, San Francisco, Calif., a corporation of California
Application December 5, 1955, Serial No. 552,921
3 Claims. (Cl. 53—371)



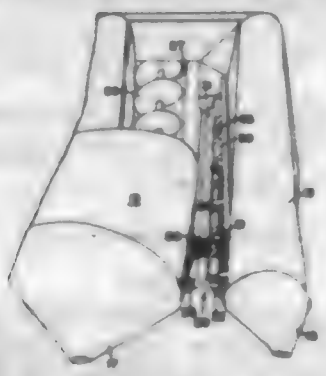
3. A holder for the open end of a bag lying on a platform, comprising a straight strip of rigid material secured upon the platform and having a block rising from one end thereof, with a finger projecting from the block over the platform in spaced relation thereto, a stop mounted on the other end of the strip in opposing relation to the block, a rod mounted in the block and the stop, a second block slidable on the rod and having a second finger mounted thereon in registering relation to the first finger, and a spring mounted on the rod and operable for urging the second block away from the first block, the fingers being engageable in the open end of the bag for stretching the same, and the fingers being in the form of tapered blades having relatively thin outer edges engaging the bag material and heavier inner edges for spacing the bag sheets to form a lengthwise slit in the open end of the bag.

2,870,592
MULTIPLE CUTTER POWER MOWER
Norman F. Swanson, Warrenville, Ill.
Application November 13, 1956, Serial No. 621,886
11 Claims. (Cl. 56—25.4)



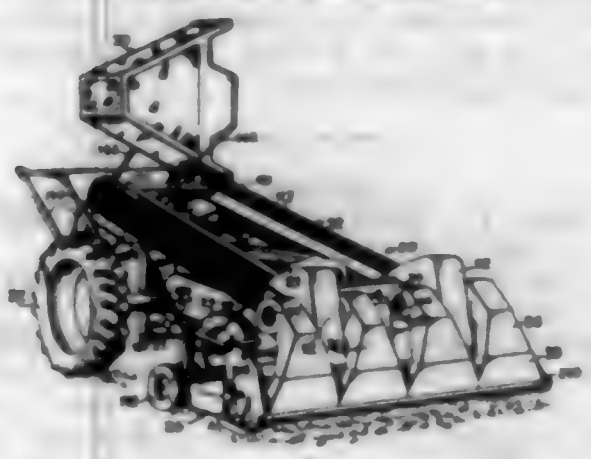
1. In a power mower, a platform, a driven middle shaft journaled in said platform carrying a cutter blade at the underside of said platform, a pair of driven outer shafts journaled in said platform and spaced from said middle shaft carrying cutter blades at the underside of said platform, a pair of castors mounted on said platform forwardly of said middle shaft and between said center shaft and said outer shafts, and a pair of runners mounted at the sides of said platform outside the radius of said cutter blades, said runners depending from said platform to a point above the lowest surface of said castors and to a distance sufficiently below said blades for supporting said platform over uneven ground without allowing scalping of the ground by said blades.

2,870,593
CORN HARVESTING MECHANISM
Sidney E. Anderson, Polk City, Iowa, assignor, by mesne assignments, to Deere & Company, a corporation of Delaware
Application March 25, 1957, Serial No. 648,200
5 Claims. (Cl. 56—104)



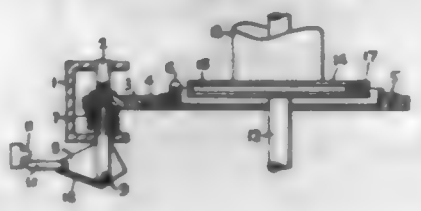
1. Harvesting mechanism for a corn harvester of the type having a main mobile frame and a forwardly extending gathering structure mounted on the frame and forming a fore-and-aft extending stalk passage for receiving stalks into the harvester as it advances over the field, said harvesting mechanism comprising: an upper pair of cooperating rolls supported on the frame and positioned on opposite sides of the passage respectively and spaced apart to permit relative free passage of the stalks while preventing passage of ears of corn; a lower pair of rolls supported on the frame beneath the upper rolls and closely spaced on opposite sides respectively of the stalk passage and operative upon rotation to aggressively engage the stalks for drawing them downwardly between the upper rolls to effect detachment of the ears from the stalks by the upper rolls; and a peripheral spiral rib on at least one of the upper rolls for feeding the stalks rearwardly.

2,870,594
NUT GATHERER
Everett P. Larsh, Dayton, Ohio
Application May 3, 1954, Serial No. 427,218
11 Claims. (Cl. 56—328)



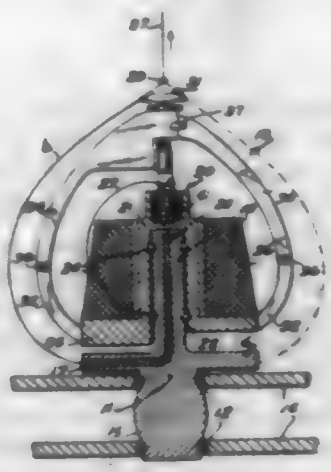
1. In a nut gathering and hulling machine comprising a supporting structure movable upon the ground and having a forward portion and a rearward portion, blower means attached to the supporting structure at the forward portion thereof, the blower means being provided with conduit means extending to a position adjacent the ground for forcing air upon the ground at the forward end of the supporting structure and in advance thereof, movable picking means attached to the support structure and disposed rearwardly of the conduit means for engaging the nuts, nut receiving means carried by the supporting structure and disposed adjacent the picking means, the picking means transferring nuts from the ground to the receiving means, elevator means carried by the supporting structure and disposed adjacent the receiving means for lifting nuts from the receiving means, container means attached to the supporting structure adjacent the rearward portion thereof, auger means carried by the supporting structure intermediate the elevator means and the container means, the auger means transferring nuts from the elevator means to the container means, and a tubular housing closely enclosing the auger means.

2,870,595
RING SPINNING AND TWISTING MACHINES
Alan J. Eidlow, New Malden, Marion Markowicz, Leek Wootton, and David I. Morgan, Coventry, England, assignors to Courtaulds Limited, London, England, a British company
Application October 11, 1956, Serial No. 615,300
Claims priority, application Great Britain October 18, 1955
5 Claims. (Cl. 57—34)



1. A ring spinning and twisting machine having a rotatable spindle, a ring and a traverse mechanism to cause relative axial reciprocation between the ring and spindle, comprising, to enable a tail to be wound about a part of the spindle not normally traversed by the ring, a manually engageable mechanism to give the ring an additional relative axial displacement including a latch engageable to maintain this displacement, and a part movable automatically relatively to the latch by the traverse mechanism and adapted to disengage the latch at a predetermined point in the traversing cycle.

2,870,596
TWISTING SPINDLE BALLOON CONTROL
Alfred W. Vibber, Ridgewood, N. J.
Application September 4, 1957, Serial No. 682,866
35 Claims. (Cl. 57—58.83)

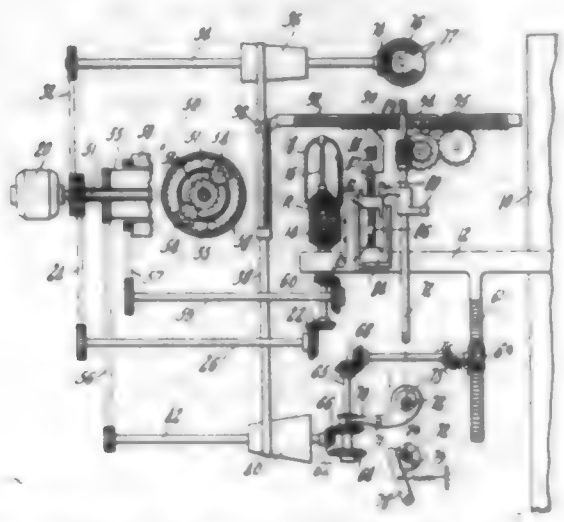


1. Apparatus for handling elongated flexible material advancing under tension in a zone in which it forms a rotating bulging loop in flight through the air, comprising means mounted within the loop and interacting with a portion of the loop intermediate its ends for detecting changes in the size of the loop, and means responsive to the last named means for varying the size of the loop.

2,870,597
ROVING FRAME BUILDER MECHANISM
Clarence W. Hill, Biddeford, and David B. Hopkinson, Kennebunk, Maine, assignors to Saco-Lowell Shops, Boston, Mass., a corporation of Maine
Application May 9, 1957, Serial No. 658,837
3 Claims. (Cl. 57—96)

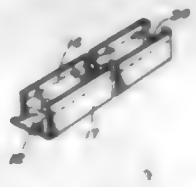
1. In a textile roving frame having a bobbin and a flyer mounted for relatively traversing movement for

winding roving onto said bobbin to provide a cylindrical roving package with tapered end portions, a builder mechanism for relatively traversing said bobbin and flyer including an upper taper controlling and lower taper controlling builder jaw for controlling the distance of travel of said traversing movement and means movable with one of said bobbin and said flyer for progressively



moving said jaws toward one another progressively to decrease said traversing movement, and providing a lesser movement of said lower taper controlling jaw than of said upper taper controlling jaw to wind roving delivered from said flyer into a cylindrical roving package having a steeper taper on said lower end portion than on said upper end portion.

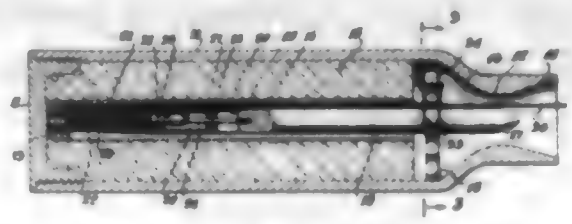
2,870,598
CHAIN HAVING A ONE PIECE FOLDED TUBULAR LINK
William F. Hess, Providence, R. I.
Application September 23, 1953, Serial No. 381,922
2 Claims. (Cl. 59—80)



1. In an ornamental chain, a series of hollow links, a connecting element disposed between pairs of said links and operatively secured thereto, said links and connecting elements defining a flexible chainlink construction, each of said links being formed from a one-piece blank and including a base, side members joined to said base and wing members joined to said side members, said wing members being folded over into contact relation and being positioned in parallel relation with respect to said base, thereby defining the bottom of said link, said base, side members and wing members having tabs formed on each end thereof and disposed in perpendicular relation thereto, said tabs being tapered to nest together and defining a slot therebetween, said connecting elements extending through said slots in said links and locked therein.

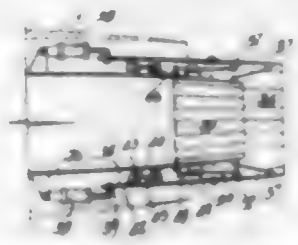
2,870,599
TEMPERATURE RESPONSIVE ROCKET NOZZLE
Theodore M. Long, Somerville, N. J.
Application December 6, 1952, Serial No. 324,472
14 Claims. (Cl. 60—35.6)

2. A rocket including in combination a body, means providing a throat portion of variable area as a part of said body, a pressure chamber contained within said body, a body of fluid having liquid and vapor phases disposed within said chamber, said body of fluid having a pressure which is a function of temperature, means controlled by the pressure therein for adjusting the effective throat area in one direction and a spring also carried by said body and connected to control the effective area of the throat portion in an opposite direction, and
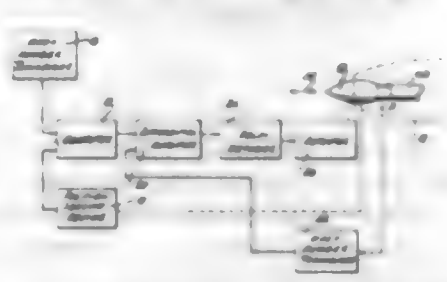


a collapsible tube surrounding said chamber actuated by combustion gases for sealing said chamber and spring against the entry of said gases.

2,870,600
VARIABLE EJECTOR FOR IRIS NOZZLES
Charles R. Brown, Mission, Kans., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application December 27, 1954, Serial No. 477,961
5 Claims. (Cl. 60—35.6)



1. A variable ejector for a jet engine having a variable area nozzle, said engine being enclosed by a casing, said ejector comprising a sleeve surrounding the casing of said engine and disposed adjacent the rearward portion thereof; means mounting said sleeve on said casing for longitudinal movement relative thereto; movable closure means connected to said sleeve and overlying said variable area nozzle; and means connected to said casing, said sleeve, and said closure means for operatively controlling the disposition of said closure means, said control means comprising a lever pivotally mounted at one end on said casing, a bracket on said sleeve pivotally connected to the midpoint of said lever, a bar pivotally mounted on the other end of said lever, a unison ring operatively connected to said bar, and pivoted links connecting said unison ring to said closure means.

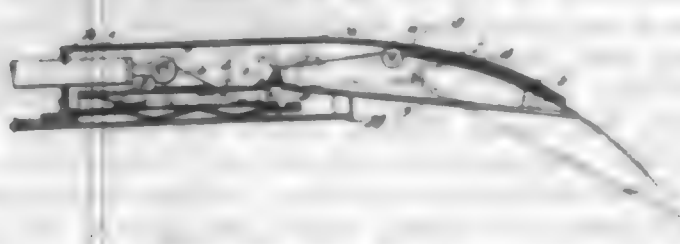
2,870,601
AUTOMATIC DIFFUSER CONTROL FOR AIR-BREATHING ENGINES
Anthony Demetriades, Pasadena, Calif., assignor to Lear, Incorporated, Santa Monica, Calif.
Application March 14, 1955, Serial No. 493,939
4 Claims. (Cl. 60—35.6)



2. In combination, in an air-breathing engine for supersonic aircraft, a cowling for said engine having an entrance to receive inlet air, a length of movable spike centered at the entrance of said cowling, said spike and said cowling providing a supersonic diffuser for the inlet air, said spike having a geometry which effects maintenance of a minimum diffuser throat area at a predetermined point from said entrance for limited axial movement of said spike, respective means to develop signals representing the instant position of said spike and the Mach numbers of air flow at opposite ends of said spike, means

responsive to said signals to develop a control signal representative of the optimum position of said spike at which maximum operating efficiency of the engine will be effected at the instant speed of the aircraft, and means for moving said spike to said optimum position in response to said control signal.

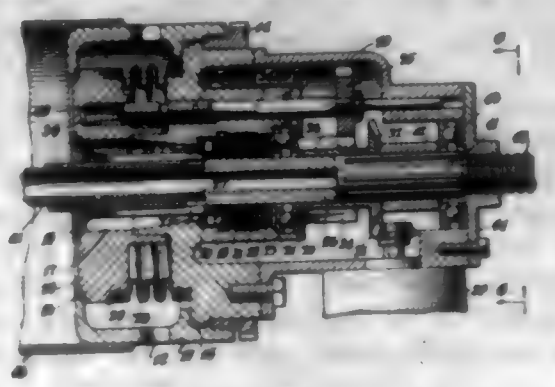
2,870,602
AFTERBURNER EXHAUST NOZZLE VARIABLE AREA
Robert G. Glenn, Merriam, Kans., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application February 13, 1956, Serial No. 565,279
1 Claim. (Cl. 60—35.6)



Apparatus for controlling the area of the exhaust nozzle of a jet engine comprising a cylindrical tube defining a combustion chamber terminating in an exhaust nozzle, a double wall casing closed at one end secured to and extending rearward from said nozzle, said casing including an annular cylindrical inner wall and an annular outer wall, a portion of said outer wall extending rearward beyond said inner wall and having a tapered inner surface, an axially reciprocable annular unison ring positioned between said walls, a plurality of circumferentially spaced outer driving leaf elements disposed longitudinally between said walls in axial alignment with said unison ring, a plurality of circumferentially spaced inner driven leaf elements interposed between and inwardly of said outer leaf elements, the lateral edge portions of each of said outer leaves overlying the adjacent edges on said inner leaves, said inner and outer leaf elements cooperating to form a substantially annular member, hinge means secured to and in axial alignment with said unison ring and said leaves for permitting inward tilting of said leaves, a roller mounted at substantially the center of each of said driving leaves and bearing against the inner surface of said outer wall so that longitudinal, rearward movement of said rollers on said tapered surface forces said leaves to tilt toward the center of the nozzle to reduce its area, and a curved fairing element on the outer surface of each leaf that follows the contour of said outer wall extending from its rearward end to substantially the center of said leaf, the lateral edge portion on said fairing elements on said driving leaves overlying those on the driven leaves, said fairing on said driven leaves being pivoted at their forward ends to the driven leaves and being resiliently urged outwardly to hold said lateral edges in sealing engagement.

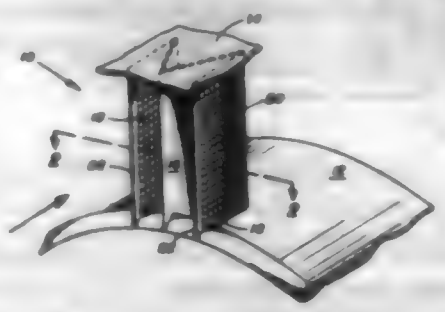
2,870,603
FLOW CONTROLLING MECHANISM FOR REACTION TYPE MOTORS
Theodore M. Long, Somerville, N. J.
Application June 12, 1947, Serial No. 754,133
20 Claims. (Cl. 60—35.6)

2. A flow controlling mechanism for reaction type motors having a combustion chamber, said mechanism including in combination a converging-diverging nozzle, a body in advance thereof and connected thereto, said body providing a valve seat, a valve movable with respect thereto and provided with a bore, said body being also provided with a bore, one of said bores serving as a passage for the flow of fluid oxidizer and the other for the flow of fuel, a further valve seat cooperable with said valve for closing the bore of the latter against the flow of fluid therethrough, means for movably mounting said further valve seat, means for shifting said valve



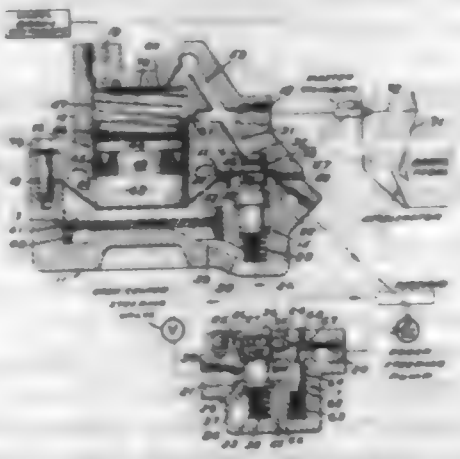
into and out of sealing engagement with the valve seat provided by said body and means for limiting the flow-restricting movement of said further valve seat.

2,870,604
FLAME STABILIZER FOR HIGH VELOCITY GAS STREAMS
Earl W. Conrad, North Royalton, Ohio, assignor to the United States of America as represented by the Secretary of the Navy
Application April 27, 1955, Serial No. 504,388
9 Claims. (Cl. 60—39.72)
(Granted under Title 35, U. S. Code (1952), sec. 266)



9. In a jet engine, a flame stabilizer comprising a V-shaped gutter extending transversely of a high velocity gas stream, the apex of said gutter constituting a leading edge, and screen means upstream of said leading edge extending transversely of the direction of gas flow to reduce the local velocity in a zone of the stream laterally outwardly from the trailing edges of said gutter, said screen means comprising a relatively coarse screen and a relatively fine screen, said relatively coarse screen extending further from said leading edge than said relatively fine screen.

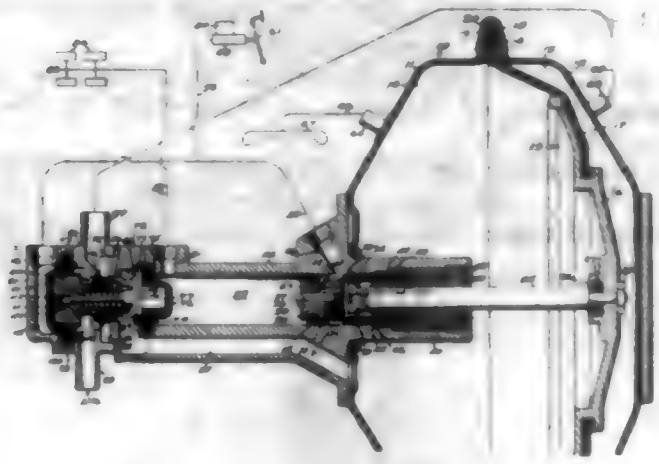
2,870,605
AUTOMOTIVE VEHICLE POWER BRAKE EMPLOYING POWER STEERING PUMP PRESSURE
Lloyd M. Forster, Birmingham, Mich.
Application April 16, 1956, Serial No. 578,279
16 Claims. (Cl. 60—54.5)



7. In an automotive vehicle equipped with a power steering system including hydraulic pump and open center steering valve elements and a hydraulic brake system including master cylinder and wheel cylinder elements; a power brake mechanism interposed in said steering

system between said pump and steering valve elements and interposed in said brake system between said master cylinder and wheel cylinder elements, said mechanism including means employing steering pump pressure to actuate said wheel brake cylinders, control means responsive to master cylinder pressure for directing and regulating the intensity of said actuation, means for admitting flow of master cylinder pressure to and from said wheel cylinder elements as required for conventional manual hydraulic brake application and modulation in the absence of hydraulic pump pressure, and means for blocking the flow of master cylinder pressure to said wheel cylinder elements during power brake applications.

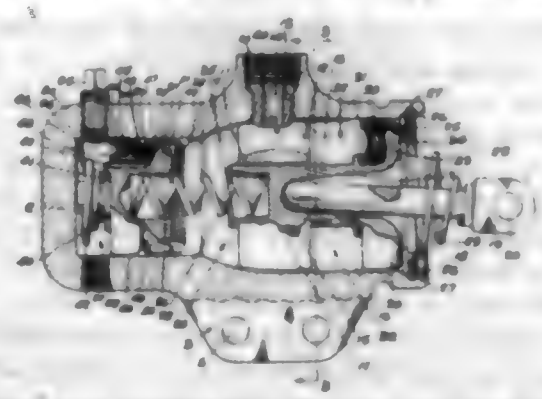
2,870,606
BOOSTER BRAKE MECHANISM
William Stelzer, Summit, N. J.
Application January 13, 1953, Serial No. 330,942
12 Claims. (Cl. 60—54.6)



1. A booster brake mechanism comprising a hydraulic fluid chamber having an outlet for connection with the brakes of a motor vehicle, a fluid displacing member movable into said chamber, a normally deenergized motor connected to said fluid displacing member, a pressure movable member biased to a normal position and exposed to said chamber to be moved upon the building up of pressure therein, and a control device connected to said motor adjacent said pressure movable member and having a normal position in which said motor is deenergized and being movable relatively toward said pressure movable member to energize said motor, there being play between said control device and said pressure movable member when the former is in normal position, said control device being movable from said normal position to energize said motor to move said piston into said chamber and build up pressure therein, whereupon said pressure movable member comes into engagement with said control device to transmit thereto pressure reaction forces in said chamber.

2,870,607
SUPERCHARGING AND COMPENSATING HYDRAULIC PRESSURE GENERATOR
Bernhard F. Voigt, Corvallis, Oreg.
Application July 22, 1955, Serial No. 523,830
2 Claims. (Cl. 60—54.6)

1. A hydraulic pressure generator comprising in combination a horizontally disposed cylinder having a port, a fluid reservoir mounted upon the cylinder and in communication with the interior of the cylinder through said port, said cylinder being open at one of its ends and closed at its opposite end, a guide bearing fixedly secured within the cylinder intermediate the ends thereof and having a longitudinal slot therein, said slot having side walls converging from their ends toward the center thereof to provide a central restriction in the slot and so located that said port is in open communication with the slot at its central point of greatest restriction whereby as the velocity of fluid flow through said restriction increases the pressure in the restriction will decrease, a valved piston disposed within the cylinder between said closed end thereof and the corresponding end of the guide bearing to provide a primary fluid space between the closed end of the cylinder and the corresponding end of the valved piston and an intermediate fluid space between the opposite end of said piston and said corresponding end of the guide bearing, a plunger slidably mounted through said guide bearing and operable from the exterior of the cylinder for moving the valved piston toward the closed end of the cylinder, a sealing element carried by the outer end of the plunger to provide a secondary fluid space between the sealing element and the adjacent end of the guide bearing, a fluid conduit in open communication at one of its ends with said primary fluid space and adapted at its opposite end for attachment to and open communication with the interior of a brake cylinder, a first resilient means disposed within the primary fluid space bearing against the closed end of the cylinder and against the adjacent end of the valved piston, a second resilient means disposed within said intermediate fluid space and bearing against the opposite end of the

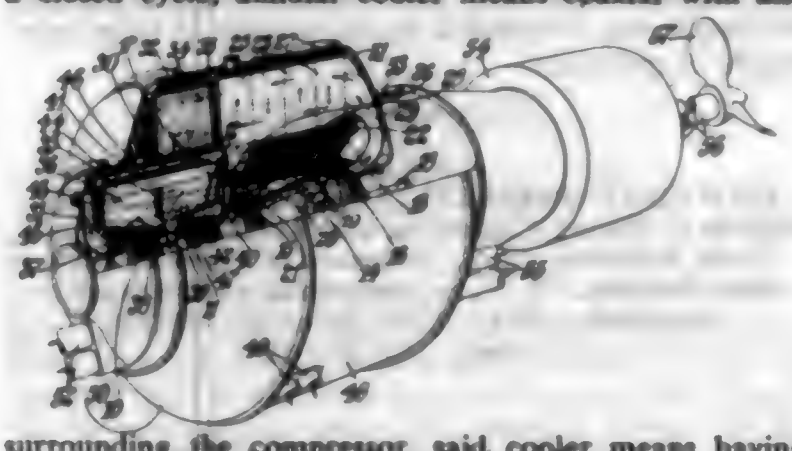


valved piston and against the adjacent end of said plunger, said valved piston comprising a cylindrical body member having longitudinal grooves in its outer peripheral surface for controlled passage of fluid therethrough, valve means surrounding said body member normally sealing off said grooves and adapted to open the grooves upon movement in one direction relative to the body member, whereby movement of said plunger and sealing element toward said guide bearing will force fluid from said secondary fluid space through said restricted slot in the guide bearing to said intermediate fluid space and whereby said decrease in pressure at said point of greatest restriction in said slot will preclude flow of fluid from the secondary fluid space to the reservoir and whereby said movement of the valved piston by the plunger will increase the fluid pressure in the primary fluid space and said conduit and brake cylinder and whereby upon opposite movement of the valved piston the fluid pressure in the primary fluid space in cooperation with said first resilient means will move the valved piston into abutment with the guide bearing to thereby open said grooves to allow passage of fluid from the intermediate fluid space to the primary fluid space to compensate for operational fluid displacement therein.

2,870,608
CLOSED CYCLE GAS TURBINE POWER PLANT
Cecil Alastair Comyns-Carr, Coxbench, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application November 26, 1956, Serial No. 624,310
Claims priority, application Great Britain December 3, 1955
6 Claims. (Cl. 60—59)

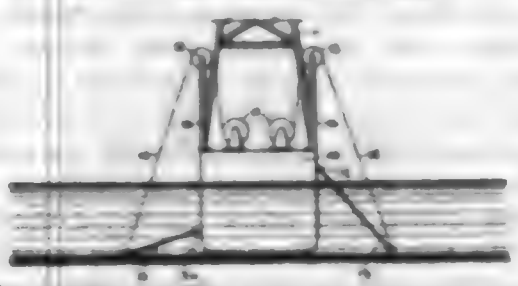
1. A power plant comprising a compressor having inlet and delivery ends, turbine means coaxially arranged with the compressor and drivingly connected thereto, said turbine means having an inlet and an exhaust outlet, an annular heater coaxial with and surrounding the turbine, said heater having a first fluid flow path wherein working

fluid is indirectly heated, an annular recuperator coaxial with and surrounding said annular heater, said recuperator having first and second fluid flow paths, the first fluid flow path of the recuperator and the first fluid flow path of the heater being connected in flow series arrangement between the delivery of the compressor and the inlet of the turbine means, and the second flow path of the recuperator being connected to receive exhaust gas from the turbine means and being connected to the inlet of the compressor, whereby the power plant operates on a closed cycle, annular cooler means coaxial with and



surrounding the compressor, said cooler means having a first fluid flow path connected to receive gas flowing in said closed cycle and a second fluid flow path carrying a coolant fluid, a pressure-tight casing enclosing the assembly formed by said compressor, turbine means, heater, recuperator and cooling means, and said casing having coolant fluid inlet and outlet connections connected with said second fluid flow path of the cooling means, and a power output shaft coaxial with and driven by the turbine means and extending from the casing.

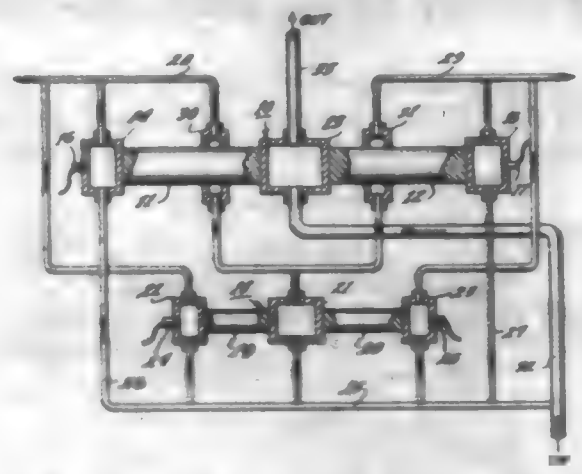
2,870,609
DRILLING BARGE WITH ANTI-SCOURING PLATES
Christian H. Stebenhausen, Jr., and Wilfred S. Crake, Houston, Tex., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
Application March 2, 1954, Serial No. 413,494
5 Claims. (Cl. 61—46.5)



1. A submersible drilling barge adapted to be towed to a predetermined location and sunk to the ocean floor, at least one side of said barge being provided with anti-scouring means to interfere with and prevent wave action from scouring earth from beneath the sunken barge, said anti-scouring means comprising perforate plate means positioned in the water adjacent the barge to attenuate the effect of the orbital velocities of waves, said perforate plate means being pivotally secured to the side of said barge to pivot outwardly therefrom so that the edge of the plate means opposite the pivoted edge rests on the ocean floor with the plate means forming an angle of at least 15° with the ocean floor.

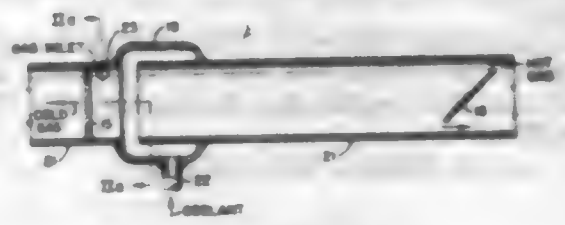
2,870,610
THERMOELECTRIC HEAT PUMPS
Nils E. Lindenblad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 25, 1955, Serial No. 524,042
5 Claims. (Cl. 62—3)

1. A thermoelectric heat pump comprising a number of bodies, some of said number being formed of material having dissimilar thermoelectric properties from the material of the other of said number, junction means joining said bodies of dissimilar thermoelectric material in a series-connected chain to provide alternate hot and cold junctions therebetween, a number of auxiliary cooling devices, said number being equal to the number of said bodies, each of said devices having a dimension in length



smaller than the length of any of said bodies, each of said devices having a channel therein for the passage of a cooling fluid therethrough, each of said devices being disposed on a different one of said bodies at a location thereon closer to said cold junctions than to said hot junctions, and means for circulating said cooling fluid through said channels in each of said bodies.

2,870,611
PROCESS FOR COOLING A GAS
Willem Pieter Hendal, Amsterdam, Netherlands, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application November 12, 1954, Serial No. 468,487
Claims priority, application Netherlands November 20, 1953
1 Claim. (Cl. 62—5)

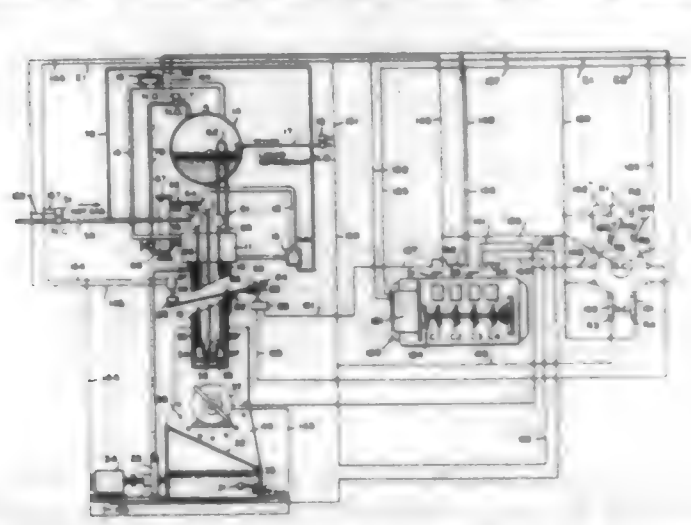


In a process for producing cold in a gas stream utilizing a vortex tube wherein the gas stream is divided into a peripheral outer hot portion and a central cold portion and wherein there is a heat separation zone for transferring heat from the central cold portion to the outer hot portion, said vortex tube being unobstructed along its length where the heat separation effect occurs, the improvement comprising intensively cooling the gases of the heat separation zone by direct heat exchange with a liquid coolant flowing along at least a portion of the inner wall of the vortex tube enclosing said heat separation zone, and thereby facilitating the transfer of heat from the central cold portion to the outer hot portion, resulting in a lower temperature in said cold portion than obtainable in the absence of said flowing liquid coolant.

2,870,612
ICE-MAKING APPARATUS
Milton W. Garland, Waynesboro, Pa., assignor to Frick Company, Waynesboro, Pa., a firm of Pennsylvania
Application August 29, 1955, Serial No. 531,017
14 Claims. (Cl. 62—138)

6. A defrosting control for sensing the presence of ice on a member and for operating control means as soon as the ice has been removed from the member, comprising a shaft rotatably mounted adjacent to the member, a finger rigidly connected to the shaft and

extending laterally from the shaft and positioned to engage the member after rotation of the shaft from a first position to a second position, the engagement of the finger with ice on the member preventing such rotation, an arm rigidly connected to the shaft, a first means for engaging the arm and holding the shaft in first position during the period of formation of ice on the member, means for removing said first holding means from en-



gagement with the arm at the end of the ice formation period, a second means on the arm for biasing it and the shaft toward the second position and for moving said shaft to second position after said first holding means is removed from engagement with the arm and ice is removed from the member, the movement of said shaft to second position operating control means to initiate the formation of ice on said member and for engaging said first holding means with said arm.

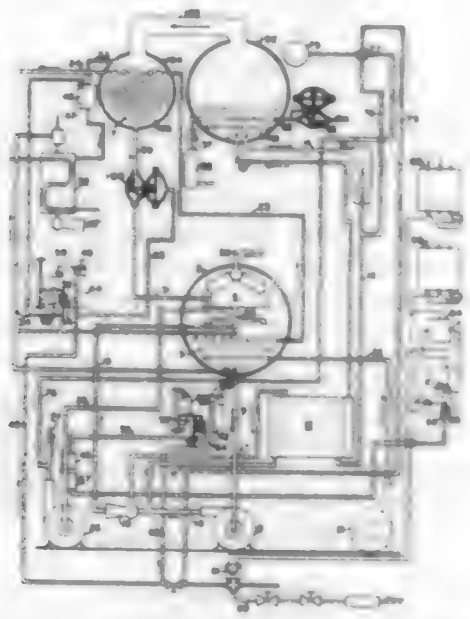
2,870,613

CONTROL ARRANGEMENT FOR ABSORPTION REFRIGERATION SYSTEM

Louis H. Leonard, Jr., Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Original application August 7, 1951, Serial No. 240,645, now Patent No. 2,722,805, dated November 8, 1955. Divided and this application September 15, 1955, Serial No. 534,519

5 Claims. (Cl. 62—103)



4. In an absorption refrigeration system, the combination of a shell, an element in said shell cooperating therewith to form an absorber, a second element in said shell cooperating with the shell to form an evaporator, a second shell, a member in the second shell cooperating therewith to form a generator, a third shell, a member in said third shell cooperating therewith to form a condenser, the generator, condenser, evaporator and absorber being placed in a closed circuit, the circuit containing a saline solution as an absorbent and water as a refrigerant, a condensate line connecting the condenser with the evaporator, a valve in the condenser line to regulate passage of condensate therethrough, variation in flow of condensate through said line varying the level of condensate in the condenser shell thereby rendering a portion of the condenser heat exchange surface ineffective, and means for actuating said valve in response to a change in load imposed upon the system, said means compriting a thermostat control responsive to variation in saturation temperature corresponding subetantially to variation in pressure in said second shell, and a second thermostatic control responsive to variation in temperature of water leaving the evaporator.

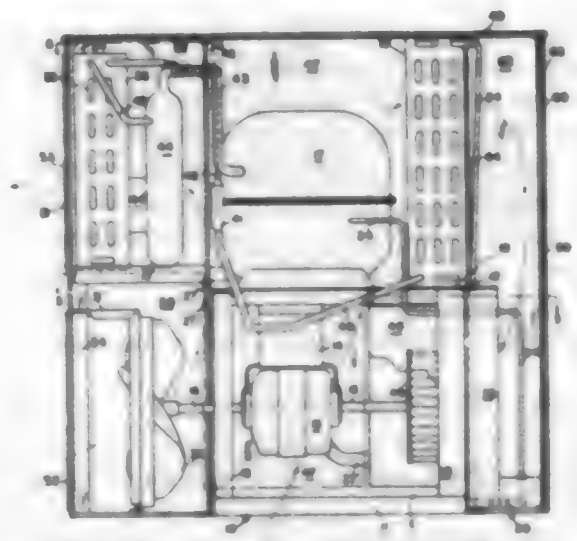
2,870,614

SELF CONTAINED AIR CONDITIONING UNITS

William E. Renner, Cazenovia, and William A. Arzberger, North Syracuse, N. Y., assignors to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Application July 1, 1954, Serial No. 440,618

9 Claims. (Cl. 62—429)



1. Air conditioning apparatus comprising a supporting frame, a casing having opposed side walls and an end wall forming a compartment, said casing being attached to one side of the frame, a prime mover mounted on said frame with the power shaft thereof extending within said compartment, an evaporator supported on the opposed side walls of said casing above the power shaft, a fan mounted on that portion of the power shaft within said casing, a compressor and condenser mounted on the frame above said prime mover, a blower wheel secured to the power shaft of said prime mover, a scroll having an outlet and an inlet remote from said outlet surrounding said blower, and means surrounding the frame and casing for defining a path of air flow under the influence of the blower wheel upwardly through a side of the frame, over the prime mover, compressor and the condenser into the scroll inlet to be forcibly discharged through the same side of the frame that the air was originally moved upwardly.

3,870,615

SHAFT COUPLING WITH SYMMETRICAL LOAD DISTRIBUTION

Emil Johann Walk, Dayton, Ohio

Application July 17, 1956, Serial No. 598,484

4 Claims. (Cl. 64—19)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a symmetrical torque transmitting coupling, a first rotary coupling member, a second rotary coupling member in normal coaxial relation with said first coupling member, one of said coupling members adapted to be fixed to a first shaft for rotation therewith, the other of said coupling members adapted to be fixed to a second shaft, said one coupling member having a concentric cylindrical re-

cess formed therein having diametrically opposite abutment means in the wall thereof, a pair of interengaging torque transmitting members pivoted in said second element in symmetrical relation to the rotary axis thereof in interlocking driving relation with said diametrically opposite abutment means; whereby said members are self-adjustable through their interengaging portions to apply rotative torque symmetrically from one of said coupling members to the other upon rotation of one of said members, said second coupling member incorporating a pair of elongated thrust transfer elements projecting inwardly therefrom into the recess formed in said first coupling



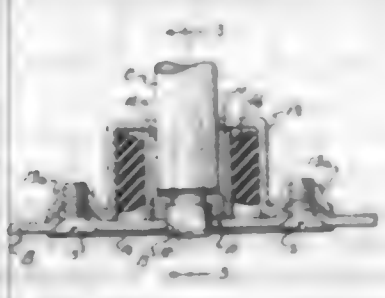
member, and said torque transmitting members comprising a pair of self-adjusting torque levers intermediately pivoted to said pair of thrust transfer elements within the recess formed in said first coupling member, one of said pair of torque levers having an extension formed on the inner end thereof in complemental engagement with the inner end of the other of said pair of torque levers and each of said pair of torque levers having an outer end normally in a disengaged position within a respective diametrically opposed abutment means and movable to interlocking driving engagement therewith when rotary torque is applied to one of said shafts.

2,870,616

COUPLING FOR CONNECTING ROTARY ELEMENTS SUCH AS ROTARY MOWER BLADES WITH SOURCE OF POWER

Donald O. Benson, Minneapolis, Minn., assignor to Toro Manufacturing Corporation, Minneapolis, Minn., a corporation of Minnesota

Application October 8, 1957, Serial No. 688,972
6 Claims. (Cl. 64—27)



3. A coupling for yieldably attaching a rotary element such as a lawn mower blade to the driving shaft of an engine comprising a compression cup spacedly surrounding said driving shaft and having fixed connections with said rotary element, a core non-rotatably connected for driving to said driving shaft, an annular elastic cushion surrounding said core and compressed diametrically by said cup and internally affixed to said core, the outer periphery of said cushion frictionally engaging the interior of said cup, said shaft having an axially disposed, projecting element and said driven rotary element having a slot therein confining said extension element, said slot extending transversely of said driven element.

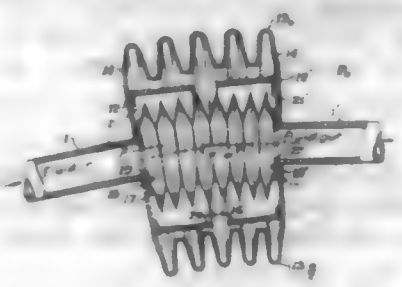
2,870,617

CONTROL OF TORQUE AND FLUID FLOW IN SEALED DRIVES

Melville F. Peters, Livingston, N. J.

Application April 26, 1954, Serial No. 425,669
6 Claims. (Cl. 64—32)

1. A torque transmitting mechanism comprising, a pair of rotatable fluid conduits having appositioned, axially spaced terminal flanges, a bellows assembly interconnecting said flanges and a flexible torque transmitting mem-



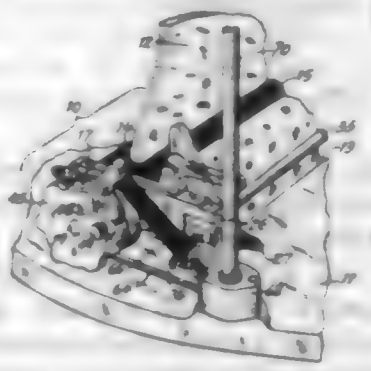
ber secured between the flanges to limit the torque imposed upon the bellows during rotation of the conduits.

2,870,618

TAKE-UP MECHANISM

Rudolph E. Zernseth, Philadelphia, Pa.

Application April 6, 1954, Serial No. 421,276
5 Claims. (Cl. 66—152)



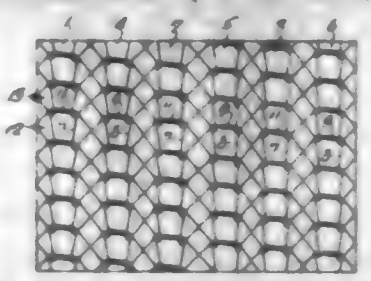
1. A spring driven take-up for the fabric of a circular knitting machine, said take-up having a rotatable roll in contact with the fabric to tension and to advance the fabric as it is produced by the machine, a trunnion shaft extending axially from one end of said roll, a hand wheel secured to said shaft, an intermittently active pre-energized spring, an operative releasable connection between said spring and said hand wheel, said spring turning said roll in one direction through successive arcs of rotation with the power stored in said spring, means operatively connected to said hand wheel to prevent retrograde motion of said roll, and means to re-energize said spring during its inactive periods, said hand wheel being adapted to turn said roll in either direction of rotation upon release of said connection.

2,870,619

FLEXIBLE HOSE

John Greczin, Philadelphia, Pa., assignor to Fidelity Machine Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania

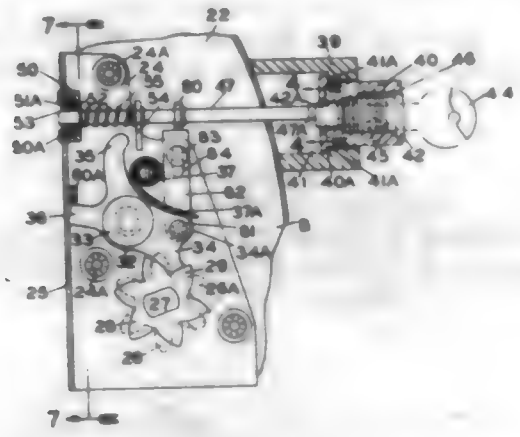
Application January 23, 1957, Serial No. 635,809
3 Claims. (Cl. 66—169)



1. A tubular knitted reinforcing fabric for flexible hose, said fabric being made up of individual mutually overlying knitted webs relatively arranged so that the wales of one web lie in parallel alignment with and within the spaces between the wales of the other web and with the wale loops of both webs in coursewise alignment, the yarn connecting the loops of each adjoining pair of wales of each web in any one course being tucked behind a loop of the intervening wale of the other web in a succeeding course so that in the spaces

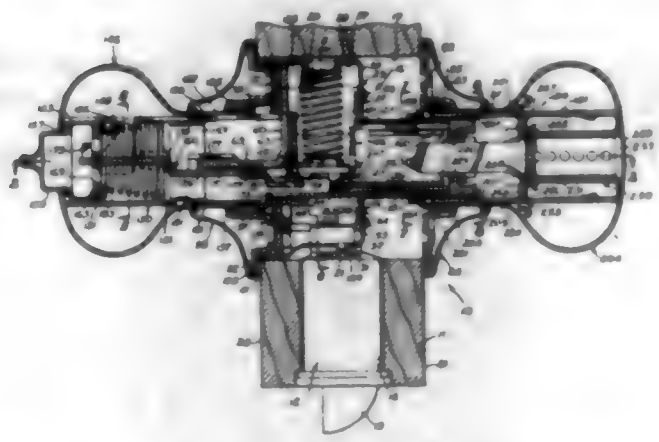
between the wales of the said fabric the yarns of the webs intersect each other on lines diagonal to the said coursewise direction.

2,870,620
DOOR LOCK
William D. Allison, Grosse Pointe Farms, Mich.
Application May 14, 1956, Serial No. 584,842
25 Claims. (Cl. 70—135)



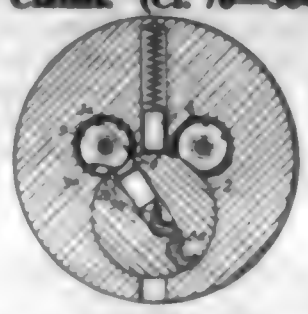
21. In a lock mechanism for a swinging door, a support, a rotatable latch device mounted on said support, detent means pivotally mounted on said support and engageable with said latch device for holding the same in latching position, a shiftable member mounted on the support to turn about a generally horizontal axis, an outer non-rotable element shiftable in a generally horizontal direction inwardly to shift said member endwise in the direction of said axis and cause a part thereon to pivotally actuate said detent means and thereby disengage the same from said latch device, means for turning said member relative to said element to dispose said part out of operative position with respect to said detent means, and means operated by said detent means for turning said member to restore said part to its operative position.

2,870,621
CYLINDRICAL LOCK SET
Adolf Schoepe, Fullerton, Calif., assignor, by mesne assignments, to The American Hardware Corporation, New Britain, Conn., a corporation of Connecticut
Application November 20, 1953, Serial No. 393,346
9 Claims. (Cl. 70—146)



1. In a cylinder lock mounting, the combination of: a spindle, said spindle having an elongated slot therein and first and second pairs of openings formed intermediate the ends thereof; a knob mounted on the end of said spindle, said knob having detent means thereupon engageable with one of said pairs of openings and a centrally located opening therein; a cylinder lock located within said slot in said spindle and having one end supported in said opening: and means for supporting the other end of said cylinder engageable with the other pair of said openings.

2,870,622
CYLINDER LOCK
Sven Erik Birger Eriksson, Spanga, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application July 21, 1954, Serial No. 444,853
Claims priority, application Sweden January 12, 1954
9 Claims. (Cl. 70—364)



1. A cylinder lock comprising a casing, a plug rotatably mounted in said casing and having a longitudinally extending key slot, said casing and said plug being formed with longitudinally spaced and radially extending bores, upper and lower tumbler pins respectively slidably disposed in said bores, a shaft mounted within a longitudinal bore in said casing extending parallel to the axis of said plug, at least one locking member rotatably seated in said longitudinal bore on said shaft, said locking member having a peripheral portion projectable into a tumbler pin bore placed in registry with said portion upon turning of the plug in one direction and withdrawable from the said bore upon turning of the plug in opposite direction, and loaded spring means coacting with said locking member for turning the same toward projection into said bore.

2,870,623
SUPPORTED CONCRETE FLOOR AND CONDUITS
Victor S. Murray, Toronto, Ontario, Canada
Application September 24, 1957, Serial No. 685,837
1 Claim. (Cl. 72—70)

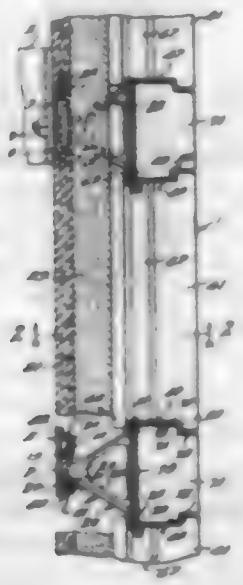


In a floor duct system for a cementitious floor having bar joists carrying said floor, a plurality of elongated perforated metal straps each in its longitudinal direction extending transversely of said joists and seated upon the upper surfaces thereof, said straps being in spaced, substantially parallel, relation to each other, each said strap having a width of minor extent with respect to its length, wire receiving ducts disposed between said joists and having side flanges, bolts extending through said side flanges and through perforations in said metal straps to secure said ducts to said straps to provide preliminary supports for the ducts prior to pouring the floor, said bolts having heads disposed below said straps and free end portions projecting upwardly beyond said straps, said free end portions of said bolts being embedded in said cementitious floor to form primary supports for the ducts.

2,870,624
FURNACE WALL
Richard E. Sampson, Southfield Township, Oakland County, Mich., assignor to Bigelow-Liptak Corporation, Detroit, Mich., a Michigan corporation
Application June 6, 1955, Serial No. 513,399
7 Claims. (Cl. 72—101)

1. In a suspended wall structure for industrial furnaces including vertical columns, a plurality of vertically spaced

channel shaped cast iron horizontal bars having their back faces secured to said columns on different levels, means whereby a pair of vertically adjacent bars support refractory tile blocks forming an inside high temperature lining for the wall structure comprising an inwardly presenting opening extending along the length of each of said bars and including a vertical lip, a plurality of inwardly extending relatively narrow high temperature alloy hangers detachably received in said bar openings and each having an upwardly extending flange engaging behind said lip on said bars, the hangers on each bar being spaced horizontally from each other by substantial distances, a layer of insulation supported against the inner faces of said bars and passing said hangers but terminating short of the inner ends of the hangers, said



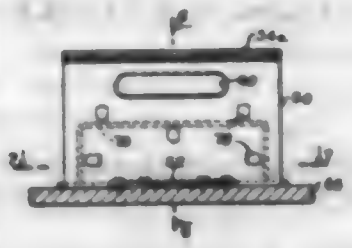
hangers having vertical flanges at the inner ends, and refractory tile blocks considerably wider than said hangers each resting at their bottom ends near the outer faces thereof on a hanger on one bar and at the top end having a shoulder caught behind said vertical flange on a hanger on the next vertically adjacent bar, the outer faces of said tile blocks being in juxtaposition to the inner face of said insulation and holding it against said bars, the inner ends of said hangers being spaced a considerable distance outwardly from the inner faces of said tile blocks, said layer of insulation and said refractory blocks being thick enough to provide a temperature gradient through the wall such that said bars are subjected to temperatures no higher than substantially 900° F.

2,870,625

CEILING INSERT FOR CONCRETE

Stanley Furer, West Hempstead, N. Y.

Application December 6, 1955, Serial No. 551,340
1 Claim. (Cl. 72—105)



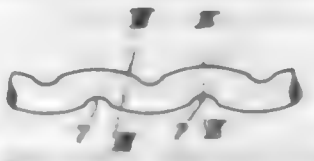
A concrete ceiling insert, comprising a housing, a cover and a clip, said housing having a bottom wall and a pair of upwardly extending side walls, said side walls having lower portions which extend vertically in parallel relation to each other, and having upper portions which are bent at an angle to the vertical and which are provided at their upper ends with diagonally disposed flanges, said clip comprising a slug struck out from said bottom wall of said housing and being detached therefrom except for a narrow neck portion which joins said clip to said bottom wall, said narrow neck portion being rupturable to completely detach said clip from said bottom wall, nail holes formed in said clip, whereby said housing may be detachably secured to a wooden form on which concrete is poured to form a concrete ceiling, by means of nails driven through said nail holes and into said form, said cover being of inverted U shape, the legs of said inverted U being disposed between the lower vertically extending portions of the side walls of the housing, the yoke of said inverted U extending horizontally across and above said clip, between said legs of the inverted U and between said lower portions of the side walls of the housing, thereby forming an enclosure above said bottom wall of the housing which prevents entry of the concrete which is poured upon said form, and thereby forming a chamber having as its bottom wall the bottom wall of the housing and said clip, said upper bent portions of the side walls of said housing and said diagonally disposed flanges being adapted to be embedded into said poured concrete so as to support said ceiling insert therein, said clip being detachable from said bottom wall of the housing after the concrete sets and the form is removed therefrom, in order to remove the nails from said housing and to provide an opening through which a nut may be inserted into said chamber, lugs being struck out of the side walls of the housing and being engageable with and positioning the cover therein, some of said lugs being engageable with the legs of said cover to prevent lateral displacement thereof, other of said lugs being also engageable with the yoke of said cover to prevent upward displacement thereof, said clip being provided with an elongated slot which is engageable with a tool of the character of a screw driver so that said clip may readily be detached from the bottom wall of said housing after the concrete is set and the form is removed therefrom.

2,870,626

REINFORCING BARS HAVING DEPRESSED PORTIONS FOR USE IN CONCRETE CONSTRUCTIONS

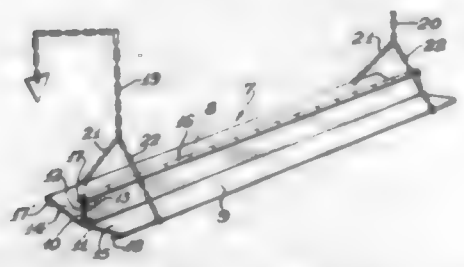
Johannes Gilberg, Stockholm, Sweden

Original application November 3, 1950, Serial No. 193,862. Divided and this application February 9, 1956, Serial No. 564,528
Claims priority, application Sweden November 4, 1949
6 Claims. (Cl. 72—111)



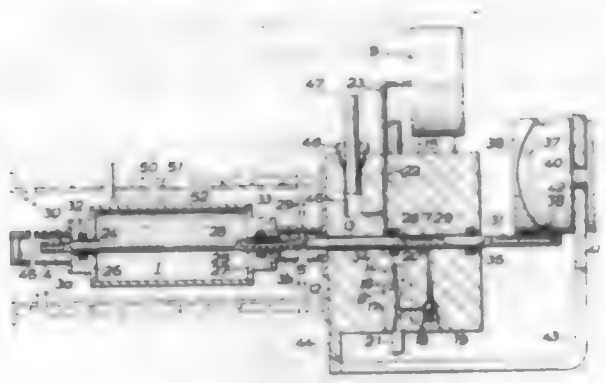
1. A reinforcing iron bar subject to tensile stresses and for use in concrete constructions formed of an elongated iron body having substantially circular cross-sectional contour and being bent into a regular wave form, said bar having cold-compressed depressions in each of the valleys of the said wave form, the cross-sectional area of the bar being reduced at said depressions, the depressions on one side of the bar being staggered relative to the depressions on the opposite side of the bar, said depressions having a substantially uniform and smoothly curved shape compensating the reduction of the cross sectional area of the bar at the places for the said depressions by increasing the yielding point of the iron bar at the place of the said depressions.

2,870,627
WALL CAVITY TRAY
James Garth, Chicago, Ill.
Application July 24, 1956, Serial No. 599,796
2 Claims. (Cl. 72—128)



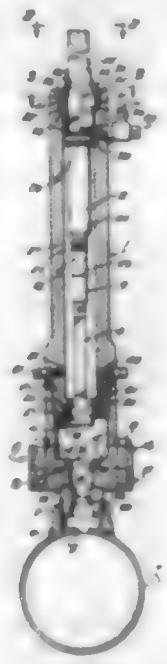
1. A wall cavity tray for catching mortar dropped in the cavity during the erection of a cavity-type wall, said tray comprising, a pair of relatively elongated elements, each element comprising a leg portion and a companion tray portion which latter is coextensive in length with its companion leg portion, the plane of each leg portion being disposed at an acute angle to the plane of its companion tray portion, hinge means connecting the longitudinal edges of the leg portions of said elements together with the leg portions freely swingable about said hinge means into substantially plane-parallel plane-abutting relationship to each other whereby the tray portions span transversely a substantial portion of the width of the wall cavity, and flexible means connected to the longitudinal edges of said tray portions remote from said leg portions to swing said tray portions toward each other in the cavity when said flexible means is tensioned to move the tray upwardly from said cavity with droppings caught during the erection of the wall.

2,870,628
CONTROL OF GASEOUS MEDIA IN MANUFACTURING PROCESSES
William Kenneth Donaldson and Dennis Alnscough, Manchester, England, assignors to Tootal Broadhurst Lee Company Limited, Manchester, England
Application September 8, 1954, Serial No. 454,789
Claims priority, application Great Britain September 18, 1953
1 Claim. (Cl. 73—29)



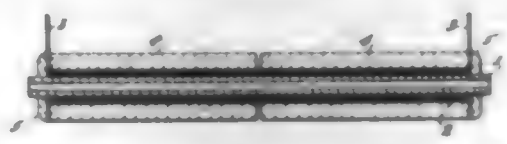
An apparatus for use in measuring the proportions of the constituents of a mixture of steam and air including a sampling vessel, a manometer for indicating changes of pressure in the sampling vessel, means for maintaining the sampling vessel at a temperature above the condensation temperature of the steam, a jet pump comprising a body defining a passage therethrough, which passage abruptly enlarges in cross-sectional area or diameter, a suction duct communicating with the enlarged passage adjacent to the position at which the enlargement occurs, said body defining a further passage enabling it to serve as condensing means, and valve means for connecting the sampling vessel to the source of said mixture and to said condensing means, and further valve means for connecting said jet pump to said sampling vessel and said condensing means.

2,870,629
APPARATUS FOR MOVING AN ELEMENT INTO AND FROM A VESSEL CONTAINING FLUID UNDER PRESSURE
Robert S. Willis, Long Beach, Calif., assignor, by direct and mesne assignments, of ninety-seven and one-half percent to Willis Oil Tool Co., Long Beach, Calif., a corporation of California, and two and one-half percent to Elmer L. Decker, Long Beach, Calif.
Application January 18, 1956, Serial No. 560,019
21 Claims. (Cl. 73—86)



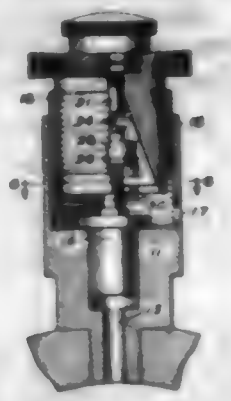
1. In apparatus for moving an element into and from a vessel containing fluid under pressure; a cylinder; means on one end of said cylinder for connecting the cylinder with the vessel; a check valve mounted in said cylinder to open toward said vessel; a carrier in said cylinder including a piston portion; means at the other end of said cylinder providing a seal between said carrier and said cylinder; means on said carrier for supporting an element to be moved into and out of said vessel; said carrier being movable in said cylinder between a first position in which said piston portion and said element are disposed between said sealing means and said valve, and a second position in which said element is moved past said valve into said vessel while said piston portion is disposed between said valve and said sealing means; means on the cylinder operable to introduce fluid under pressure between said piston portion and said sealing means as well as for relieving fluid pressure from between said piston portion and said sealing means; said carrier when in said second position engaging and holding said valve open; and valved by-pass means in said cylinder operable for introducing fluid under pressure from said vessel into said cylinder between said valve and said piston portion.

2,870,630
INDUCTANCE STRAIN GAUGES
Jens Sivertsen, Philadelphia, Pa.
Application March 5, 1954, Serial No. 414,318
5 Claims. (Cl. 73—88.5)



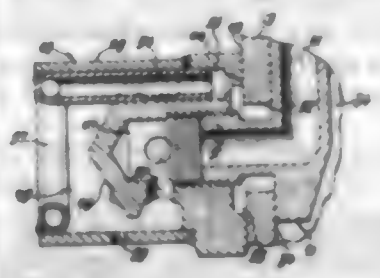
1. In a strain gauge, a solenoid having a yielding core and a winding around the core, and a magnetic shield surrounding the winding, the outer ends of the core, and shield and end convolutions of the winding being permanently and mechanically connected to yield axially as a unit.

2,870,631
POSITIONING AND HOUSING OF CRUSHER GAUGES
C Walton Musser, Levittown, and Lloyd W. Insetta, Feasterville, Pa.
Application April 29, 1955, Serial No. 505,068
7 Claims. (Cl. 73—167)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a structure for positioning and housing a crusher gauge upon a pressure-transmitting assembly, for determination of pressure values within the interior of a weapon: a body in which a gauge is substantially fully enclosed when stationed for response to pressure; a fixed reference means supported within the body for establishing perpendicularity of a gauge when operatively positioned thereagainst; movable means supported within the body for centering and engaging a gauge upon the fixed reference means; means for coupling the body to a pressure-transmitting assembly for clamping a gauge in a substantially fully housed condition against the pressure-transmitting element of the pressure-transmitting assembly for deformational response; and moving means supported within and extending from the body and operatively connected to said movable means whereby the latter may be caused to disengage and engage a gauge, at will.

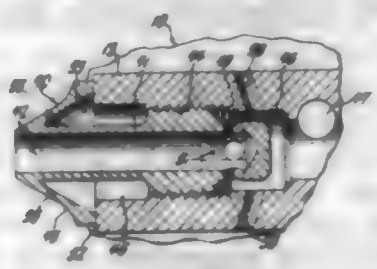
2,870,632
HEATED PRESSURE PROBE
Arthur W. Gaubatz, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 13, 1953, Serial No. 348,341
6 Claims. (Cl. 73—212)



1. A pressure probe comprising, in combination, means defining a chamber having an inlet open to receive fluid under pressure, means defining an outlet from the chamber for connection to a pressure responsive device, a heating tube formed as a single turn of a coil extending around the said inlet of the chamber and disposed within the chamber, and means for conducting hot fluid to the heating tube, the heating tube having an outlet therefrom for the hot fluid opening into the chamber.

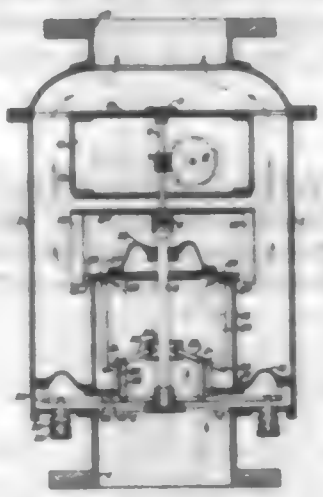
2,870,633
HEATED PRESSURE PROBE
William R. Harding and Charles J. McDowall, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 27, 1953, Serial No. 351,336
7 Claims. (Cl. 73—212)

1. In combination, an air conduit, a support extending into the space within the conduit having a cavity therein opening into the space within the air conduit, and a pressure probe mounted on the support extending from the exterior of the support into the cavity and including a portion closing the cavity to define an inner chamber remote from the surface of the support, a pressure connection in the support communicating with the inner chamber, the probe having a passage therein communi-



cating with the inner chamber and opening into the space within the conduit exterior to the support, the probe including a flange adjacent the opening of the passage in the probe, disposed over the cavity, partially spaced from the support and having a rim portion in contact with said support to define an outer chamber, and the support defining a passage for supplying hot fluid communicating with the outer chamber.

2,870,634
MEASURING WHEEL METERS
Hans Gehre, Oberkassel, Germany
Application November 24, 1954, Serial No. 471,032
Claims priority, application Germany December 14, 1953
16 Claims. (Cl. 73—230)

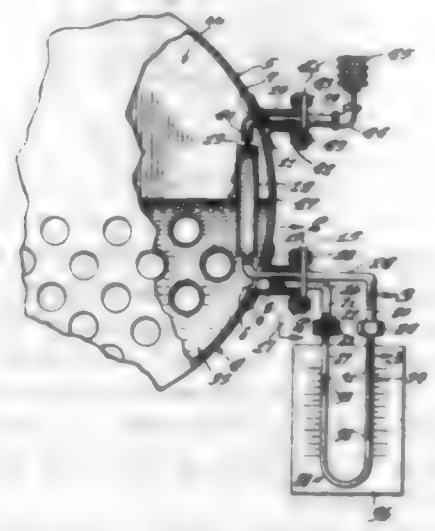


1. In a measuring wheel meter having a rotatable impulse-type measuring wheel with blades and means defining an opening positioned for the passage of fluid therethrough transversely across the blades to impinge on the blades of said measuring wheel for the rotatable actuation thereof, said opening representing the measuring cross-section of the meter, the improvement which comprises a movable control member movable in response to change in the pressure drop across said opening, means for varying the transverse angle of incidence at which fluid passing through said opening impinges on the surfaces of the blades of said measuring wheel responsive to movement of said control member, and for varying the size of said opening responsive to movement of said control member.

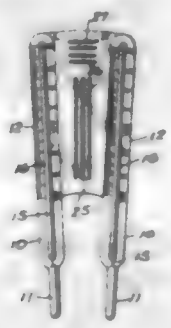
2,870,635
COMPENSATED WATER LEVEL INDICATOR
Justus T. Vollbrecht, Princeton, and Milton S. Umbenhauer, Chatham, N. J.
Application October 20, 1955, Serial No. 541,763
10 Claims. (Cl. 73—299)

1. A compensative water level indicator for a boiler having spaced openings in the bounding wall thereof, including a pair of pipes extending through one of said

openings in steam tight manner, a water level indicating device connected to the outer ends of said pipes externally of said opening, one of said pipes communicating with the interior of said boiler below the normal minimum water level therein, an upright reference tube connected to the inner end of the other pipe and having an open upper end forming a reference water column in said reference tube, the liquid level of the water in said tube being substantially above the normal operating liquid level of water in said boiler, a condenser located outside said boiler and connected to the interior thereof through the other one of said openings whereby steam generated in said boiler is continuously condensed in said condenser and condensed vapor is returned as liquid to said boiler, said condenser having a connection terminating directly above said reference tube and arranged to direct condensate into said tube to maintain the liquid level of the reference water column constant.

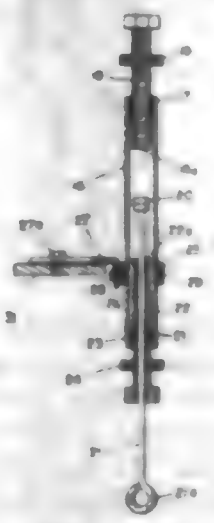


2,870,636
ORAL THERMOMETER STRUCTURE
Ardis Serafin, Detroit, Mich.
Application February 8, 1955, Serial No. 486,760
5 Claims. (Cl. 73—371)



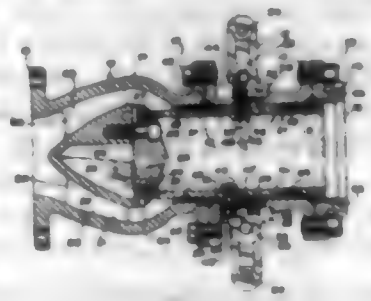
5. A clinical thermometer structure of obtaining simultaneous plural, oral temperature readings, comprising a pair of fluid column type thermometers, each having a bulb for insertion under a human tongue and having an elongate stem graduated to indicate temperature, said stems having a predetermined cross dimension and having longitudinally extending side walls, support means for said thermometers, said support means being integrally joined with said side walls with the junctures between said support means and side walls extending longitudinally along a major extent of said side walls, said thermometers extending in generally the same plane, said support means having a thickness dimension in said general plane smaller than said cross dimension of said stems, and having integral reinforcing protuberances extending transversely between said stems and forming finger holds, said support means having a width dimension between said stems of less than the general width of the human tongue, said bulbs being spaced apart a distance less than the general width of the human tongue and projecting free of said support means in a longitudinal direction, whereby said bulbs can be inserted beneath spaced apart portions of a human tongue for obtaining simultaneous independent temperature readings.

2,870,637
RATCHET CONTROL ASSEMBLY
Roy E. Johnson, Gastonia, and Arthur H. Justice, Belmont, N. C.
Application February 21, 1957, Serial No. 641,661
4 Claims. (Cl. 74—128)



1. Means for imparting an intermittent rotary movement to a driven shaft from a reciprocatory part operating in unison with said driven shaft, said means comprising a ratchet mechanism engaged with the driven shaft, which ratchet mechanism includes an actuating arm for the same, an adjustable lost motion connection between the reciprocatory part and said actuating arm, comprising a tube having closed sides, connections between the tube and the reciprocating part by which bodily endwise reciprocation is imparted to the tube, a bolt threaded into one end of the tube for bodily adjustment into and out of said tube, the inner end of said bolt forming an abutment, a tubular bolt threaded into the other end of the tube for adjustment into and out of said tube, the inner end of which constitutes an abutment, a rod slidably disposed in the bore of the tubular bolt, a head upon said rod located between the abutments of the first and second named bolts, the lower end of said rod being pivotally engaged with the actuating arm of the ratchet mechanism, the head of the rod and the said abutments being housed in the closed tube and there protected against the accumulation of foreign matter between head and abutments.

2,870,638
PRESSURIZED EXTENSIBLE SEALS
Karl A. Klingler, Naperville, Ill.
Application August 6, 1956, Serial No. 602,251
5 Claims. (Cl. 74—18.2)



1. A pressurized extensible seal comprising, in combination, an elongated tubular sleeve adapted to seal a space between inner and outer relatively reciprocable elements; said sleeve being formed of an elastomeric material and having its opposite ends folded upon itself to provide inner and outer walls defining a fluid chamber, means for clamping said reversely folded end portions together, and valve means for controlling the admission of pressure

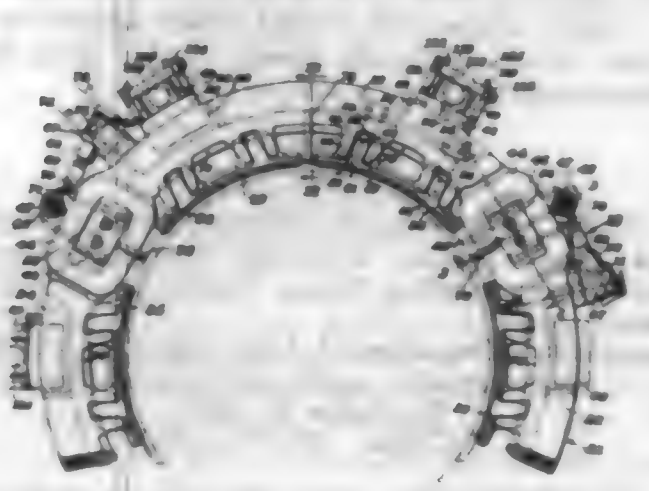
fluid into said pressure chamber comprising a normally closed slit passageway formed in a flexible side wall of the sleeve and responsive to external fluid pressure to open the slit, and flexible lips surround the discharge end of said slit passageway, whereby the internal fluid pressure in the sleeve exerts pressure against said lips to hold the slit passageway closed.

2,870,639

GRIPPER AND JACK ASSEMBLY FOR PLATFORMS AND SUPPORTING COLUMNS

George E. Suderow, Staten Island, N. Y., assignor to DeLong Corporation, a corporation of Delaware

Application June 2, 1953, Serial No. 359,115
12 Claims. (Cl. 74—162)



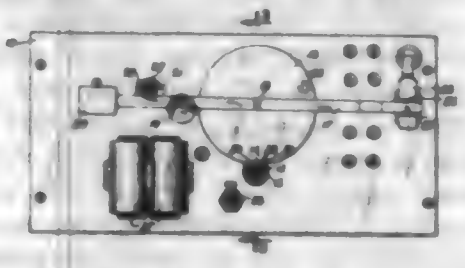
1. A gripper assembly for selectively engaging or disengaging a smooth-surfaced, elongated, cylindrical element against relative movement in either direction longitudinally of the element, comprising: a segmental ring adapted to surround the element; movable wedge means interconnecting the adjacent ends of each pair of adjacent segments of said ring and effective on movement in one direction to contract said ring and force said segments radially inwardly into tight gripping engagement with the element and on movement in the opposite direction to release said segments for expansion of said ring; and power-operated means interconnecting said adjacent ends of each pair of adjacent segments for moving said ends circumferentially apart to expand said ring and move said segments radially outwardly on release of the latter by said wedge means.

2,870,640

RADIO RELAY OR REPEATER STATION TIME SYNCHRONIZING SWITCH

Lyman E. Rinker and Harold G. Lee, Portland, Oreg., assignors, to Leupold & Stevens Instruments, Inc., Portland, Oreg., a corporation of Oregon

Application February 18, 1958, Serial No. 715,957
5 Claims. (Cl. 74—209)



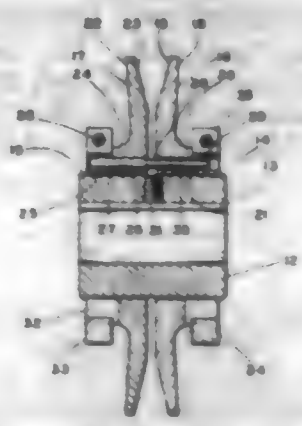
1. A time synchronizing mechanism comprising a drive wheel, means driving said drive wheel at a fairly constant rate, a driven disc in peripheral contact with and frictionally driven by said drive wheel, the relative effective diameters of said drive wheel and disc being such that the disc completes a revolution in approximately a desired interval of time, the periphery of said disc having a recess therein, means mounting said disc for bodily movement toward and away from said drive wheel, yieldable means constantly urging said disc into contact with said drive wheel, said disc mounting means including a switch actuator, a switch closed by said actuator as said drive wheel enters said recess and opened by said actuator as said drive wheel leaves said recess, a receiver circuit energized upon closure of said switch, a relay in said circuit actuated upon receipt of a synchronizing signal by said circuit, said relay comprising an armature member engageable with said disc mounting means to move said disc away from said drive wheel a distance less than the depth of said recess, and means journaling said disc upon said mounting means for free rotation, said disc being eccentrically weighted whereby the point of engagement of said disc with said drive wheel is automatically reset to a definite starting point within said recess upon actuation of said relay.

2,870,641

ADJUSTABLE PULLEYS

Bernard R. Bellmann and Ernest Veris, Dayton, Ohio, assignors to The Dayton Rubber Company, Dayton, Ohio, a corporation of Ohio

Application September 11, 1956, Serial No. 609,239
3 Claims. (Cl. 74—230.17)



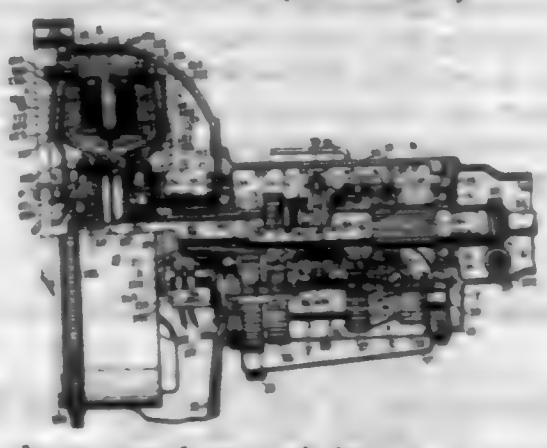
1. An adjustable pulley for use with V-belts comprising a central hub having opposite hand threads on each half of its external surface and a keyway in its inner surface; a pair of sheaves including belt-engaging flanges and internally threaded inner collars, one of said collars mating with and mounted upon one-half of said hub, the other of said collars having an opposite hand thread to said one collar and mating with and mounted upon the other half of said hub; an aperture extending axially within one of said collars, a pin fixed to the other of said collars extending axially into said aperture, the portion of said pin extending into said aperture having a diameter less than said aperture diameter to permit free movement of said aperture-bearing collar in an axial direction.

2,870,642

AUTOMOTIVE VARIABLE-RATIO POWER TRANSMISSION

Glenn T. Randol, Mountain Lake Park, Md.

Application July 27, 1955, Serial No. 524,677
35 Claims. (Cl. 74—330)



1. In change-speed transmissions, a source of driving torque, a pair of coaxial driving shafts, a pair of clutches

for selectively connecting said shafts to said source of torque, a driving sleeve loosely mounted on one of the driving shafts a countershaft, a pair of gear trains for selectively connecting said shafts, including a gear fast on the countershaft in constant mesh with a smaller gear fixed on the other driving shaft, another gear fast on the countershaft constantly meshing with a gear loosely mounted on the one driving shaft, a third gear fast on the countershaft constantly meshing with a larger gear loosely mounted on the driving sleeve, positive clutch means slidably splined on the one driving shaft for connecting the driving sleeve thereto, another positive clutch means slidably splined on the driving sleeve coaxial operating relationship with respect to the larger gear and the first-mentioned loosely mounted gear for selectively connecting them to the driving sleeve, and overrunning clutch means operably incorporated between the larger gear and driving sleeve for momentarily establishing a one-way drive synchronism therebetween to facilitate connection aforesaid of the last-named positive clutch means without interrupting the meshing relation of the larger gear and mating countershaft gear.

2,870,643

CLUTCH SHIFTING MECHANISM

Chester P. Leliter, Springfield, Ill., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application October 10, 1956, Serial No. 615,129
17 Claims. (Cl. 74—335)



1. In a power control device for transmitting mechanical power to operate tool or wheel adjusting mechanisms on a self-propelled earth working vehicle, the combination comprising: a support housing; an input shaft; an output shaft; a forward and reverse gearing operatively interposed between said output and input shaft; a clutch member mounted on said output shaft for rotation therewith and for selectively establishing a forward or reverse drive between said input and output shafts; a clutch shifting structure slidably mounted on said support housing and presenting spaced abutment portions for receiving and transmitting thrust; means presented by said shifting structure for urging said clutch member into and out of torque transmitting engagement with said forward and reverse gearing; and a manually actuated control lever mounted on said support housing for pivoting about an axis and having a pair of arms extending radially from said axis; and thrust transmitting means operatively interposed between said arms and said abutment portions for transmitting thrust therebetween, one of said arms being disposed in a near dead center position when said control lever is pivoted so as to move said clutch member into engagement with said forward or reverse gearing.

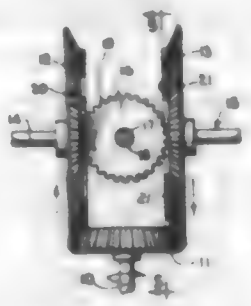
2,870,644

IMPROVED MULTIPLE SPEED GEAR TRANSMISSION

Carl E. Winter, Los Angeles, Calif.

Application June 10, 1957, Serial No. 664,786
15 Claims. (Cl. 74—351)

1. In a gear transmission: a first shaft; a first pinion mounted on said first shaft; first rotating means; first gear rack means on said first rotating means, said first gear rack means being defined by a plurality of parallel teeth and being positioned so as to mesh with and drivingly engage said pinion continuously throughout one



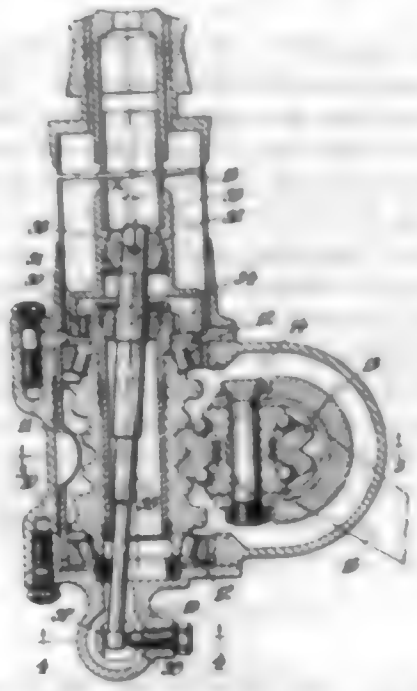
given angular portion of a cycle of a revolution of said first rotating means; and, second means adapted to effect rotation of said first shaft during another given angular portion of said cycle of revolution.

2,870,645

VEHICLE POWER STEERING APPARATUS

Frank Henry Tarlton, Winsford, England, assignor to Rolls-Royce Limited, Derby, England, a British company

Application December 13, 1954, Serial No. 474,652
Claims priority, application Great Britain December 23, 1953
4 Claims. (Cl. 74—388)



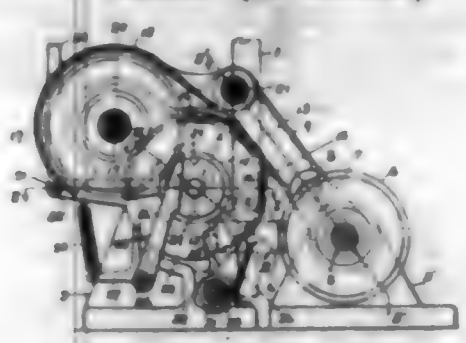
1. In a vehicle steering apparatus of the class comprising a manually-rotatable steering shaft and power means to assist steering forces applied through the shaft; an internally-toothed gear and a meshing externally-toothed gear, said gears having their axes of rotation offset from one another, whereof one of said gears is connected to be driven by the steering shaft and affords an input member, said input member being adapted to be displaced on transmission of torque by said gears, and whereof the other of said gears is hollow and affords an output member; a second gear mechanism comprising a first and hollow gear element having said output gear member secured coaxially thereto at one end whereby the output gear member and the first gear element rotate together, and a second gear element connected to be driven by rotation of said first gear element and adapted to transmit steering forces; a movable power supply control element adapted to control power supply by said power means, said control element being movably mounted beyond the opposite end of said first gear element; and a lever pivoted at a point intermediate its ends and extending through the hollow output member and the hollow first gear element, said lever being connected

at one end to the input member to be moved on movement of said input member and connected at its opposite end to said control element to effect power supply controlling movement thereof.

2,870,646
DEVICE FOR INTERMITTENTLY DRIVING A SHAFT

Shigetada Miyazawa, Kobe, Japan, assignor to Osaka Machine Mfg. Co., Ltd., Osaka, Japan, a company of Japan

Application March 4, 1957, Serial No. 643,759
Claims priority, application Japan May 7, 1957
3 Claims. (Cl. 74—394)

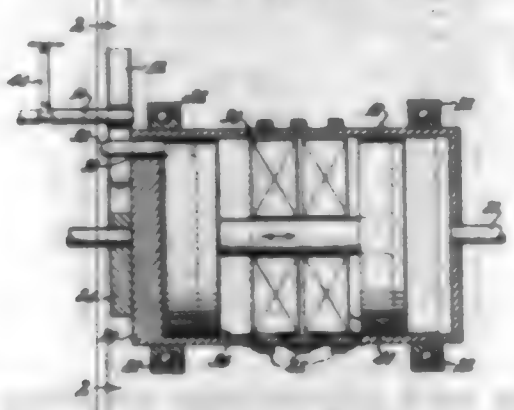


1. An intermittent turning device comprising in combination a gear case, a driven shaft on which said gear cabe is loosely mounted, a crank pin pivoted to said gear case, a continuously rotating shaft on which said crank pin is mounted, two integral gears having different diameters mounted on the gear case, a gear secured to the driven shaft with which one of said two gears is meshed, a further gear loosely fitted on the driven shaft with which the other of said two gears is meshed, said loosely mounted gear having a recess in the periphery thereof, a frame for the device, a pawl pivoted on the frame for temporarily fixing the loosely mounted gear relative to the frame and engaging in the recess on the periphery of the loosely mounted gear, a spring urging said pawl into the recess, an operating arm engageable with said pawl for disengaging the pawl from the loosely mounted gear when the arm is actuated from outside the device, said arm having a step therein, a lever pivoted on the frame which engages with the step in the operating arm for keeping the arm inactive, and means for pulling the lever from the step when the driven shaft has turned a predetermined number of revolutions.

2,870,647
GENEVA MOVEMENT

Carl Lauzen, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application November 1, 1956, Serial No. 619,875
11 Claims. (Cl. 74—436)

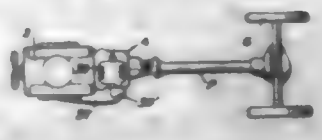


3. In a system for transmitting intermittent motion, a star wheel, a rotor, an armature slidably carried by said rotor and arranged to rotate with said rotor, a driving pin projecting from said armature and movable longitudinally therewith in relation to said rotor, a pair of coils carried by said rotor in association with said armature, means for energizing said coils whereby, when one of said coils is energized, said armature will retract and move said driving pin to a position where it is incapable of engagement with said star wheel, and whereby, when the other of said coils is energized, said driving pin will be moved to a position wherein it is capable of engagement with said star wheel.

2,870,648
THROTTLE ADVANCE CONTROL

Andrew S. Gill, Jr., South Euclid, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application June 16, 1954, Serial No. 437,245
13 Claims. (Cl. 74—472)

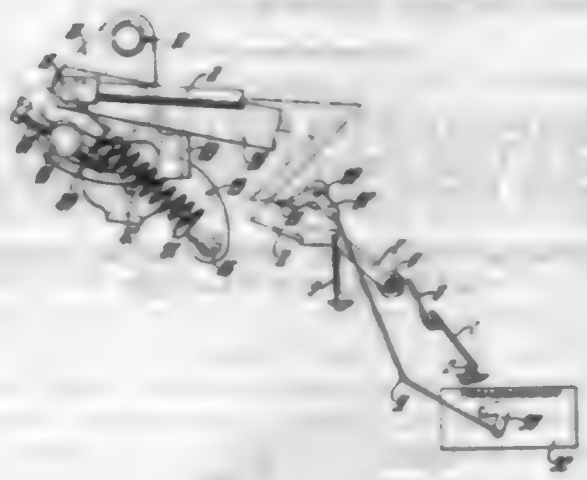


1. A shift advance system comprising an internal combustion engine having a variable speed control, said engine being coupled to a load through a transmission having a plurality of selectable gear ratios a shift mechanism for selectively providing one of said gear ratios a solenoid coil for actuating the transmission shift mechanism, a governor coupled to said engine and to said load and being responsive to variations in said speed control and to the speed of the load to produce a control signal for changing gear ratios in said transmission and means coupling said governor to said transmission and applying said signal to said solenoid coil.

2,870,649
COMBINED CONTROL FOR CARBURETOR AND TRANSMISSION

Kenneth M. Zemke, Lake Orion, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

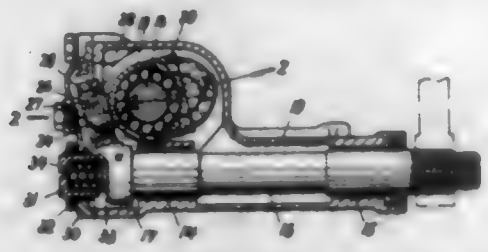
Application September 20, 1957, Serial No. 685,329
12 Claims. (Cl. 74—472)



2. A combined control for carburetor throttle, transmission control, and choke valves comprising a first plate rotatable on a first axis and connected to rotate said carburetor throttle valve, a second plate pivotally secured to said first plate on a second axis, yieldable means between said plates for compelling said plates to rotate in unison about said first axis, manually operated linkage connected to said second plate to cause rotation of said plates to move said carburetor throttle valve from closed position to substantially wide open position, linkage between said second plate and said transmission control valve to cause movement of said valves simultaneously, said second plate being rotatable on said different axis through a limited range when said carburetor throttle valve is in substantially wide open position to cause further movement of said transmission control valve, means carried by one of said plates adapted to engage means on said other plate for compelling said plates to rotate

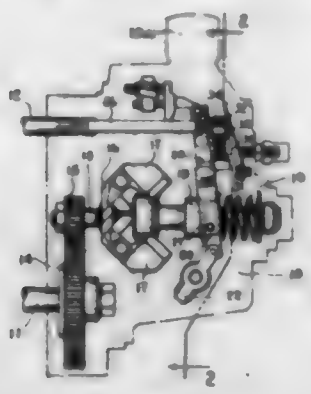
in unison about said first axis in a second range, and means carried by said first plate adapted to move said choke valve from a closed position to an open position during said second range unison movement.

2,870,650
STEERING GEAR
Eugen Stump and Hans Siegel, Stuttgart-Untertürkheim, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application November 10, 1954, Serial No. 468,106
Claims priority, application Germany November 11, 1953
8 Claims. (Cl. 74—499)



1. A steering gear comprising a steering column provided with external ball-worm grooves, a ball nut surrounding said steering column with clearance and provided with internal ball-worm grooves, a ball train running in the grooved raceways formed by the two matching ball-worm grooves and effecting the engagement of said steering column with said ball nut for transmitting the steering motion, a steering-gear shaft for passing on the steering motion arranged transversely to said steering column, a steering lever arranged on the inner end of said steering-gear shaft and extending therefrom toward one side of said ball nut, a hemispherical cavity in the form of a ball socket in said steering lever, an essentially hemispherical member having a wide base and constituting a ball pivot essentially matching said cavity and being in direct force-transmitting engagement therewith over the matching surfaces of said cavity and said member and arranged with its wide base directly on said ball nut and being made integrally therewith.

2,870,651
FULCRUM LEVER FOR GOVERNORS
Thaddeus A. Lasek, Chicopee, Mass., assignor to American Bosch Arma Corporation, a corporation of New York
Application October 16, 1953, SerialNo. 386,692
4 Claims. (Cl. 74—522)



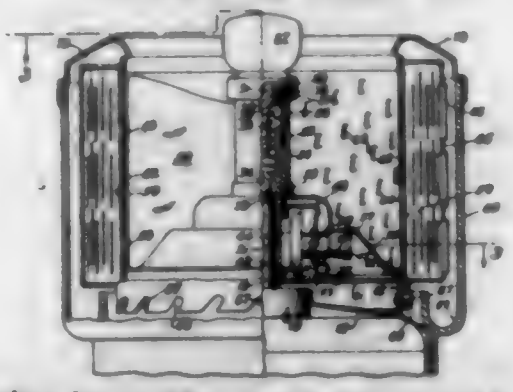
1. A fulcrum lever for use with a variable speed governor having a governor shaft, a sleeve mounted for longitudinal movement on said shaft, means for effecting movement of said sleeve in one direction as a function of speed of shaft rotation, and resilient means for urging said sleeve in the opposite direction, said fulcrum lever comprising a yoke having a fixed portion having pivot connections adjacent the free ends of the legs thereof and an adjustable portion mounted for longitudinal adjustment relative to said fixed portion, said adjustable portion having pivot means for pivotally connecting said lever and means for adjusting said adjustable portion relative to said fixed portion and retaining said adjustable portion in adjusted position.

2,870,652
ADJUSTABLE CAM TRACKS
Frohman Anderson, Las Vegas, Nev.
Original application February 8, 1955, Serial No. 486,773, now Patent No. 2,851,880, dated September 9, 1958. Divided and this application October 10, 1957, Serial No. 689,426
3 Claims. (Cl. 74—568)



1. An adjustable cam structure comprising an elongated flexible member constituting a cam track and a plurality of adjustable supports therefor each comprising a relatively fixed supporting bar having a rod receiving bore therethrough which has an axial plane parallel with a plane including the cam track and having a transverse plunger receiving bore laterally offset from the rod receiving bore and normal to and tangentially intersecting the rod receiving bore, a rod passing loosely through the rod receiving bore provided with a plurality of circumferential grooves along its length and having a connection at one end with the cam track, a plunger in the transverse bore having a conical head adapted to engage and fit into a circumferential groove in the rod in the intersection of the two bores and slidable axially to move the head into and out of said engageable position, and a spring biasing the plunger into the engageable position.

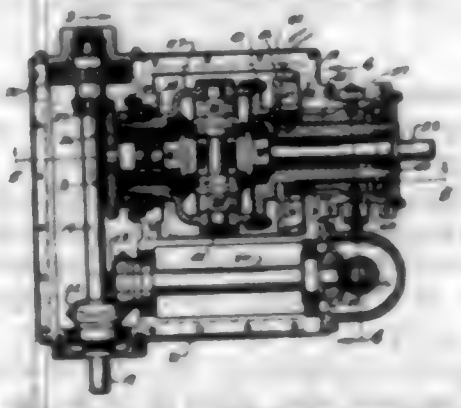
2,870,653
JUICE EXTRACTOR
William E. Koenig, Menlo Park, Calif.
Application March 10, 1955, Serial No. 493,528
2 Claims. (Cl. 74—731)



1. A drive for a juice extractor comprising a shaft, a first driven member, a second driven member, said driven members being rotatable in planes transverse to said shaft, a plurality of spindles extending radially transversely of said shaft, means rotatively mounting said spindles for movement toward and away from said first driven member, said spindles each having a first friction surface and a second friction surface, an annular friction member mounted on said first driven member and engage-

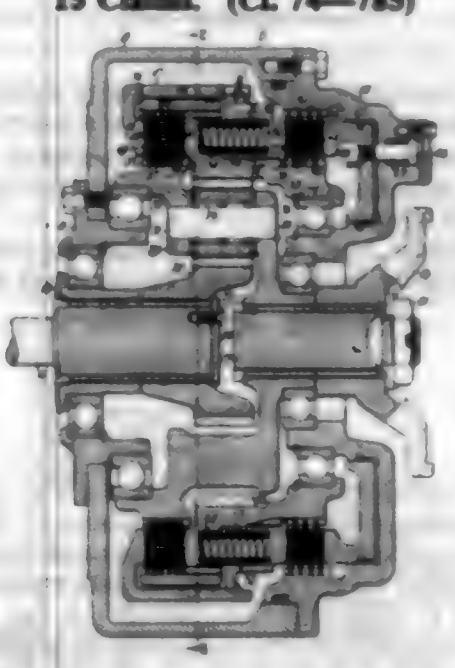
able with said first friction surfaces of said spindles, a hollow member rotatable with said second driven member, said hollow member having a third friction surface engageable with said second friction surfaces, and means manually operable arranged to move said first friction surfaces and said annular friction member toward tighter frictional engagement whereby the speed of said second driven member relative to said first driven member is responsive to the force applied to said last mentioned means.

2,870,654
MECHANICAL POWER TRANSMISSION MECHANISM
Urban P. Trudeau, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application August 9, 1954, Serial No. 448,472
8 Claims. (Cl. 74—777)



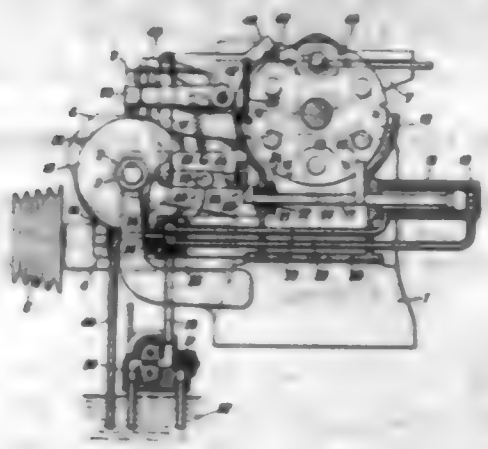
6. The combination of a driving element, drivable elements, power transmission gearing interconnecting said elements and operable to transmit motion from the driving element to either of said drivable elements and drive it uninterruptedly at a predetermined constant speed while the other drivable element is at rest, and means for applying a retarding force to one of the drivable elements while it is running and thereby decelerating it and concomitantly driving and accelerating the other drivable element, and means for locking one of the drivable elements in a fixed predetermined position when the other drivable element is brought up to said predetermined speed.

2,870,655
CHANGE SPEED TRANSMISSION
Harvey W. Rockwell, Cedar Rapids, Iowa, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application February 20, 1957, Serial No. 641,383
15 Claims. (Cl. 74—785)



1. In a change speed power transmission having a housing; input and output shafts with a common axis of rotation; a planetary gear set including a sun gear connected for rotation with one of said shafts, a ring gear rotatably supported within said housing, and a planet carrier connected for rotation with the other of said shafts; a clutch and brake mechanism comprising: a friction plate clutch operatively interposed between said planet carrier and said ring gear, a friction plate brake axially spaced from said clutch and operatively interposed between said ring gear and said housing, a reactor ring mounted in axially slidable relation to said ring gear and presenting a first annular surface in axially confronting relation to one side of said clutch and a second annular surface in axially confronting relation to one side of said brake, said annular surfaces facing in one axial direction, spring means interposed between said ring gear and said reactor ring for urging said reactor ring in said one axial direction and normally engaging said clutch, and means selectively engaging the other side of said brake to lock said ring gear to said housing and axially move said reactor ring in opposition to said spring means to disengage said clutch.

2,870,656
TURRET INDEXING MECHANISM FOR AUTOMATIC LATHE
André Bechler, Moutier, Switzerland
Application December 21, 1953, Serial No. 399,288
Claims priority, application Switzerland December 10, 1951
2 Claims. (Cl. 74—822)

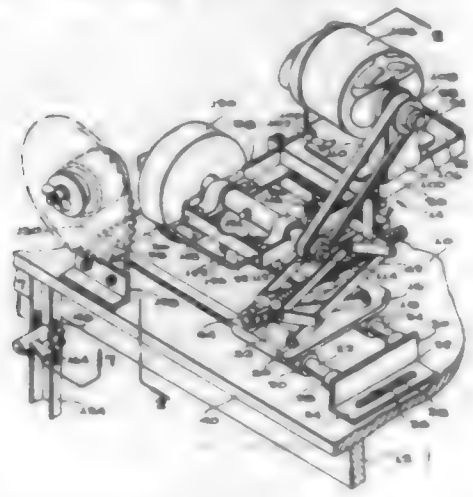


1. An indexing mechanism for an automatic lathe comprising, in combination, rotatable means supporting a plurality of indexing pins, a spring-pressed locking arm, said rotatable means having surface areas engageable selectively by said locking arm to hold said means against rotation, an indexing finger movable into engagement with said pins to effect rotational movement of said rotatable means, means for moving said indexing finger, a cam member movable integrally with said indexing finger and lever means engageable by said cam member to lift said locking arm from said areas to free said rotatable means for rotation, said cam member being positioned to lift said locking finger after the indexing operation has been started but before said indexing finger engages one of the indexing pins and to release said finger at the latest by the time the cam member and the indexing finger have completed their active stroke, power means for moving said indexing finger and said cam member, and means automatically actuated upon release of said locking finger to reverse said power means, and means for deflecting said indexing finger out of the path of said indexing pins upon reverse movement of said indexing finger.

2,870,657
APPARATUS FOR SHARPENING SAWS
Walter H. Hogue, Elkins, W. Va.
Application July 19, 1957, Serial No. 672,958
8 Claims. (Cl. 76—40)

1. A saw sharpener comprising a support structure having a horizontal top, a supporting plate, means se-

curing the supporting plate in adjustable positions on the top, a mounting plate, means adjustably attaching said mounting plate on the supporting plate, a bed plate having a motor means and a grinder wheel mounted thereon, means drivingly connecting said motor means to the grinder wheel, a handle element on the bed plate, means



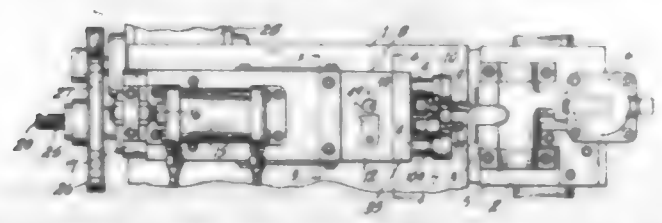
attaching the bed plate to the mounting plate and including means for adjusting said bed plate in curvilinear paths of movement about vertical and horizontal axes and spring means connected to opposite ends of the mounting plate and extending outwardly therefrom and connected to opposite ends of the bed plate for maintaining the bed plate in a normal level position.

2,870,658

MACHINE TOOL FOR BORING INTERSECTING BORES

George Melling, Sr., Jackson, Mich., assignor to Melling Tool Company, Jackson, Mich.

Application May 17, 1955, Serial No. 508,883
14 Claims. (Cl. 77—3)



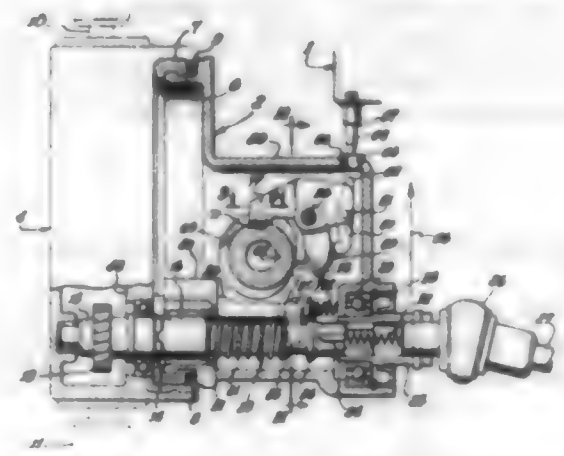
1. A boring machine comprising a base having a slideway, a head slidable on said way, a work holder positioned to hold the work opposite the end of said head three spaced journal blocks on said head and having closely spaced sets of alined bearings therein, a drive spindle journaled in one set of bearings and a counter spindle journaled in the other set of bearings, means forming a splined driving connection to the inner end o said driving spindle, meshing gears on said spindles lo cated between the outer and intermediate journal blocks, annular shoulders on the outer ends of said spindles having rolling contact with each other, backing rolls mounted on the outer side of the outer journal block and engaging the opposite sides and diverging sides of said shoulde on said spindles, other backing rolls mounted on the inner side of the outer journal block and engaging the opposite sides of said spindles and the converging side of one spindle and the diverging side of the other spindle, thrust bearings coacting with said spindles, the thrus bearing on the counter spindle being adjustable on the head, cutting tools removably mounted on the outer ends of said spindles, said tools having radially extending and intermeshing arms with hardened coplanar cutting edges on their radially extending outer edges and on their axially extending radially outer edges, said rollers being mounted on bearings positioned eccentrically on pins rotatably adjustably supported in said blocks, and means for advancing said head on said slideway.

2,870,659

MACHINE TOOL HAVING A TURRET HEAD

Fred G. Burg, Los Angeles, Calif.

Application July 1, 1957, Serial No. 669,091
7 Claims. (Cl. 77—25)



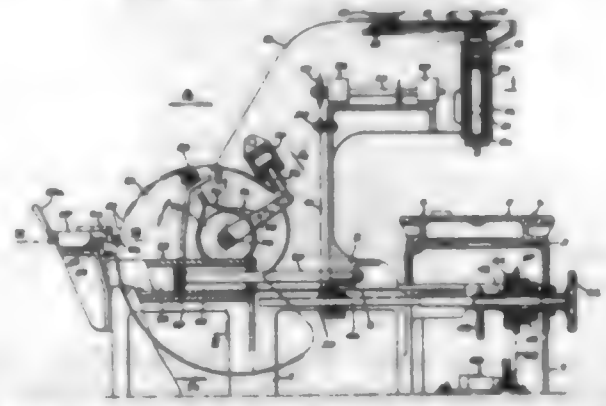
4. In a mechanism having an axis of rotation, a clutch part rotating about said axis and having one or more angularly spaced recesses extending in a substantially radial direction, a cooperating slidable clutch part spaced from said axis and engageable in any of the recesses to provide a coupling between the parts, resilent means for urging the slidable clutch part to engaging position, and a shaft carrying the slidable clutch part, to be driven by the rotatable clutch part, the combination therewith of: a cam member that when it is in the path of the angular motion of the slidable clutch part about said axis engages and moves the clutch part to retract it from the rotating clutch part for disengaging the clutch parts, and when the cam member is out of the angular motion of the slidable clutch part, the said slidable clutch part is urged toward the rotating clutch part; a pin upon which the cam member is pivotally mounted; a force transmitting member pivotally carried on an axis spaced from that of the pin, for causing the cam member to be moved out of said path; resilient means interposed between the force transmitting member and the cam member for optionally rendering said force transmitting member ineffective; means pivotally mounted on the pin and operated by the rotation of the slidable clutch part about the clutch axis, for moving the force transmitting member to inactive position; and resilient means interposed between the cam member and the means for moving the force transmitting member, for urging the cam member toward the said path of angular motion.

2,870,660

AUTOMATIC MACHINE FOR DRILLING SERIES OF HOLES IN VARIOUS PARTS

André Chaumon, Asnieres, France, assignor to Societe Anonyme des Usines Chaumon, Asnieres, France, a company of France

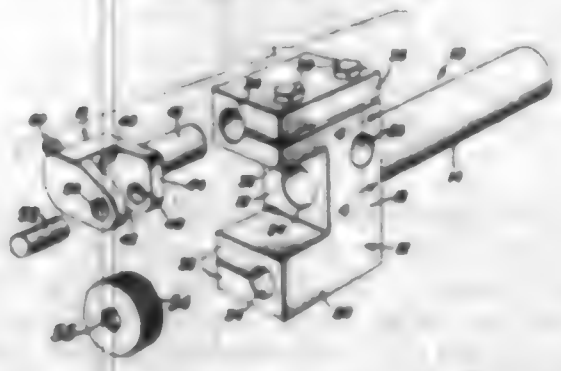
Application April 5, 1957, Serial No. 650,975
Claims priority, application France April 14, 1956
5 Claims. (Cl. 77—32.2)



1. A machine of the character described for the automatic drilling of several series of holes in parallel rela-

tionship in pieces to be drilled comprising a fixed body, a sliding carriage for said piece to be drilled carried by said body, a movable frame also carried by said body and movable transversely with respect to said sliding carriage and a drilling head carried by said movable frame, said machine being further provided with a pawl and ratchet-wheel mechanism having a driving control cam to operate said sliding carriage in an intermittent motion the amplitude of which is imparted by said cam and corresponds to the space separating the successive holes to be drilled in each row of holes, then a pressure activated operating system operated by said sliding carriage at the end of its stroke to drive said movable frame in time relation with said sliding carriage, said pressure activated operating system having a removable cam provided with a number of inclined teeth corresponding to the number of rows of holes to be drilled so that the space separating the successive rows of holes is determined by said removable cam.

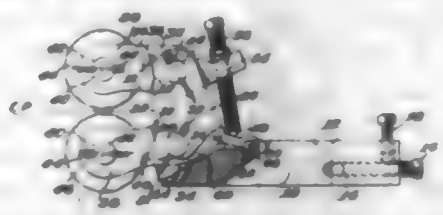
2,870,661
KNURLING TOOL
John E. Poorman, Philadelphia, Pa.
Application March 12, 1956, Serial No. 570,743
3 Claims. (Cl. 80—5.1)



1. A knurling tool comprising a mounting shank, a tool support on said mounting shank and having a pair of arms projecting therefrom equally spaced radially away from the shank, longitudinal bores in said arms equally spaced diametrically relative to said shank, a pair of tool holding blocks each having a shaft extending perpendicularly therefrom and rotatably journaled in one of said bores, said blocks each including a pair of spaced parallel ears having aligned bearing seats therein with the axis of said seats parallel to and in radial offset relation to the associated shaft, a spindle mounted in said bearing seats and bridging the space between said ears, a knurling wheel journaled on said spindle between said ears, and clamping means releasably securing said shafts in selected angular position in said bores and fixing said tool holding blocks in nonrotative relation to said tool support with said blocks extending in opposite directions relative to each other and to said tool support and on opposite sides of the axis of said shank with said knurling wheels in diametrically and diagonally opposite relation to a workpiece positioned therebetween regardless of the diameter of the workpiece and with the axes of said spindles coplanar with the axis of the workpiece.

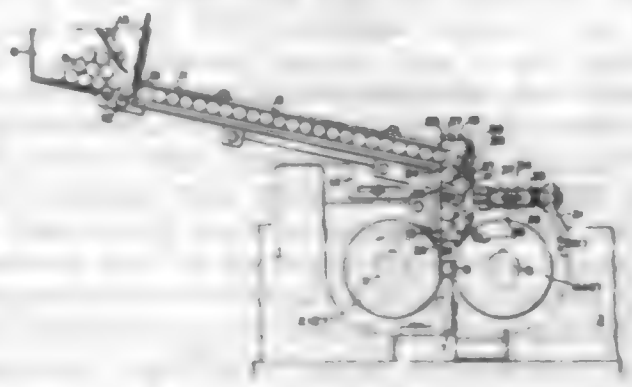
2,870,662
CROSS-SLIDE KNURLING OR LIKE TOOL
John E. Poorman, Philadelphia, Pa., assignor to J. E. Poorman, Inc., Philadelphia, Pa.
Application March 19, 1956, Serial No. 572,286
6 Claims. (Cl. 80—5.1)

1. A knurling or like tool of the type having a pair of movably supported tool wheels such as knurling wheels, comprising a rigid stock for mounting on a machine, a pair of pivots carried by said stock in fixed spaced relation one above the other and having substantially parallel axes, a lever pivotally supported intermediate its ends by each of said pivots, a tool wheel journaled on the corresponding end of each of said levers, abutment means on the upper of said levers and engageable with said stock to limit gravitation of the tool wheel carried thereby to prevent movement of said tool wheel below a center-plane perpendicularly intersecting midway between said axes a plane common to said axes, and mutually cooperative adjustable abutment means carried by said levers on



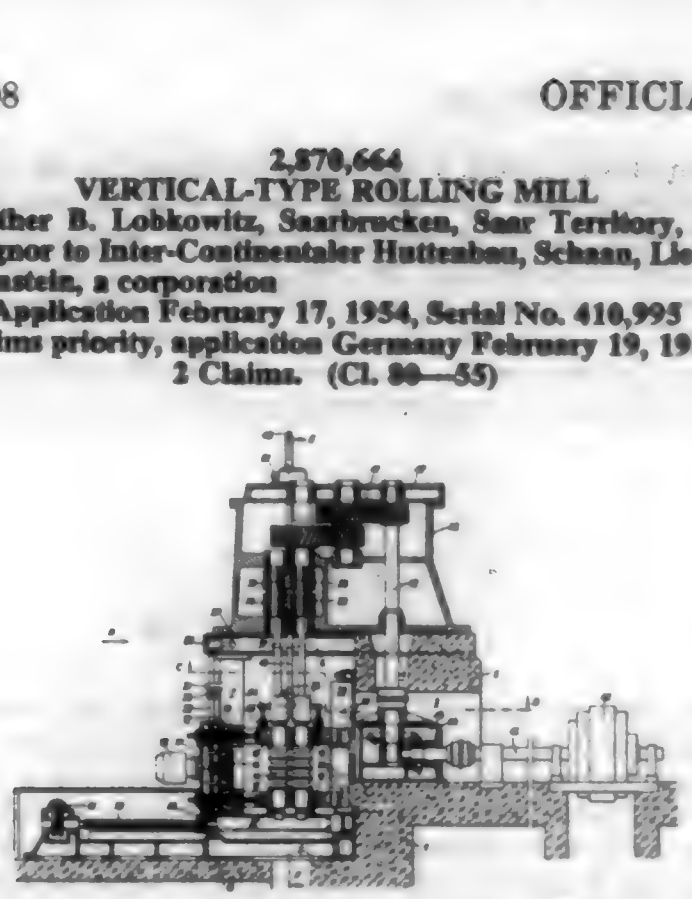
the ends opposite said wheels for swinging the lower of said levers to elevate its tool wheel and equalize the spacing of said wheels relative to said center-plane when said wheels engage a workpiece, said mutually cooperative adjustable abutment including an abutment surface on one of said levers and an abutment screw carried by the other of said levers and engageable with said abutment surface.

2,870,663
WORK FEEDING AND TRANSFER MECHANISMS
Johann Hübl, Berlin-Halensee, Germany, assignor, by mesne assignments, to Landis Machine Company, Waynesboro, Pa., a corporation of Pennsylvania
Application June 24, 1953, Serial No. 363,876
2 Claims. (Cl. 80—6)



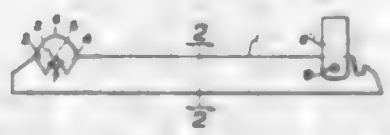
1. In a machine for forming work pieces, said machine having a pair of work forming members and means for moving one of said forming members toward and away from the other of said forming members, a stationary work piece feeding mechanism comprising a chute for conveying work pieces from a hopper to a work forming position between said forming members, said chute having a vertical end portion above said forming position, a substantially vertical fixed strip forming one side of said chute end portion, a plurality of latches pivotally mounted in aligned vertically spaced relation at one side of said vertical end portion of said chute opposite said strip, each of said latches having upper and lower work holding projections extending into the chute, respectively, above and below their respective pivotal axes, a link connected to each of said latches, means resiliently biasing said link in one direction to simultaneously resiliently urge the lowermost of said projections of each of said latches into said chute to hold said work pieces against said strip, and means mounted for movement with said one forming member to and from said link and adapted to strike the said link in response to movement of said one forming member toward the other forming member to urge said link in the opposite direction to simultaneously pivot said latches about the respective pivotal axes toward a position in which said lower projections release said work pieces and said upper projections engage the next one in the series of said work pieces.

2,870,664
VERTICAL-TYPE ROLLING MILL
Günther B. Lobkowitz, Saarbrucken, Saar Territory, assignor to Inter-Continentaler Hüttenbau, Schaan, Liechtenstein, a corporation
Application February 17, 1954, Serial No. 410,995
Claims priority, application Germany February 19, 1953
2 Claims. (Cl. 80—55)



1. A rolling mill comprising a standard, vertical rolls mounted in said standard, a horizontal bed plate disposed below said standard, a structure supporting said standard and located adjacent one side thereof, said structure including a vertical bed plate, a separate and fixed housing located partly above said standard and partly adjacent said one side of said standard and mounted to said structure, pinions and back gears mounted in said housing operatively connected to said vertical rolls, a motor operatively connected to said back gears and pinions, at least two columns supporting said housing located on the other side of said standard laterally offset from said standard and connected to said horizontal bed plate at their lower ends and to the part of said housing above said standard at their upper ends, said columns defining guide faces for said standard, gibs mounted on said columns for clamping said standard against said vertical bed plate, and means supported by said structure for lifting said rolls and said standard in a vertical direction, said housing and said pinions and gears therein remaining in fixed position during the lifting of said standard and said rolls.

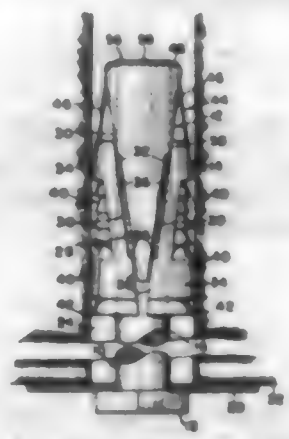
2,870,665
PIANO HAMMER
Ferdinand T. Machalek, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation
Application September 21, 1956, Serial No. 611,114
2 Claims. (Cl. 84—254)



1. An instrument of the character described comprising a single member having a W-shaped section, and a pad of hammer-felt material conformed and secured to said section, said pad being fastened to said section only along the two outer surfaces, said pad thereby being held in contact with the point of said section.

2,870,666
MINE ROOF BOLT WITH ABUTTING SHOULDER PREVENTING OVER-EXPANSION
Joseph B. Dempsey, Marietta, Ohio, assignor to Pattin Manufacturing Company, Inc., Marietta, Ohio, a corporation of Ohio
Application February 21, 1955, Serial No. 489,696
1 Claim. (Cl. 85—2.4)

A mine roof bolt assembly comprising: an expansible anchoring shell having two separate diametrically-disposed parts, each shaped as a longitudinally-tapering segment of a hollow cylinder and having stepped longitudinal side edges each disposed in two parallel planes and defining a shoulder therebetween, each stepped side edge extending the entire length of the corresponding part, and each opposed to the corresponding stepped side edge of the other part, each corresponding pair of said opposed edges being divergent toward one end of said shell to form a stepped V-shaped slot between said parts with said shoulders facing toward said one end; wedge means disposed between said opposed part edges and having stepped planar surfaces complementary thereto and in mutual wedging engagement therewith for effecting expansion of said shell upon relative longitudinal movement between the latter and said wedge means in one direction, said surfaces of said wedge means being of greater length than said shell part side edges and in wedging engagement with at least both end portions of the latter throughout said



relative movement from substantially fully contracted to substantially maximum extended condition of said shell, the stepped planar surfaces of said wedging means defining shoulders facing in the opposite direction from the shoulders on said parts, the shoulders on said parts being engageable with the shoulders on said wedge means after a predetermined relative longitudinal movement in said one direction between said shell and said wedge means to thereby limit the extent of said relative longitudinal movement and thus prevent separation of said wedge means from said shell by over-expansion of the latter, and the maximum transverse dimension of said wedge means being at least as small as that of said shell when the latter is in said fully contracted condition; and a U-shaped resilient member having the legs thereof secured to said shell parts and the base thereof extending diametrically of said shell at said one end thereof over one end of said wedge means.

2,870,667
RETAINING KEY FOR DIPPER TOOTH PARTS HAVING RESILIENT PAD
Joseph P. Murtaugh, Pacific Palisades, Calif., assignor to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application July 8, 1954, Serial No. 441,973
2 Claims. (Cl. 85—8.3)



2. In an integral three-part retaining key member insertable in a key-receiving opening of an assembly of dipper tooth parts, a substantially C-shaped one-piece clamp part having an elongated solid thick body portion with a rear surface and a front surface and with spaced

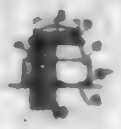
apart upper and lower substantially identically sized and dimensioned and configured forwardly projecting portions at the respective ends thereof extended forwardly beyond the front surface of said body portion and in substantially parallel planes disposed normal to the plane of said body portion, said projections thus embracing a forwardly opening recess on the front side of said elongated body and said projections constituting heads each having flat outer surfaces adapted either one to be impacted by a hammer blow and each having substantially flat uninterrupted monoplanar inner surfaces facing toward one another in wide apart spaced relation and defining with the front surface of the body portion of the clamp part the limits of said recess, an elongated solid thick one-piece wedge member of substantially uniform thickness throughout having opposed flat front and rear surfaces and opposed substantially flat uninterrupted end walls disposed in said recess beneath said heads and with the opposed end walls of said wedge disposed substantially parallel to said mono-planar surfaces in close proximity thereto, an elongated thick solid one-piece pad of compressible resilient material having a substantially uniform thickness throughout interposed between the front surface of said clamp part and the opposed rear surface of said wedge and vulcanized thereto as the sole connection between the clamp part and the wedge and the resilient pad, said resilient pad having the longitudinal axis thereof disposed parallel to the longitudinal axes of said clamp part and said wedge, all portions of said resilient pad being confined within said recess and the two ends of said pad each being respectively spaced inwardly of said mono-planar surfaces and the front surface of said wedge projecting beyond the forwardmost surfaces of said heads and the projecting heads of said clamp part extending over portions at least of the ends of said wedge but not extending substantially forwardly of the front surface of said wedge in the normal uncompressed state of said pad, said resilient pad being placed under compression during insertion of said key member in said key-receiving opening by virtue of the rear surface of the clamp part engaging one unyielding surface of the dipper tooth assembly defining said key-receiving opening and the front surface of the wedge engaging another unyielding surface of the dipper tooth assembly defining the remainder of said key receiving opening, the opposite end portions of the front surface of said wedge being gradually bent rearwardly proceeding from the front of the wedge to the rear of the wedge, and ends of the body portion of the clamp part being bent substantially parallel to said bent portions of the wedge to afford oppositely angled surfaces between the opposed ends of the clamp part at the rear surface thereof and which oppositely angled surfaces are adapted to be associated with complementally angled surfaces in one of the dipper tooth parts defining said key-receiving opening as aforesaid to maintain the retaining key member in place within said key-receiving opening.

2,870,668

NUT THREAD WITH PITCH DIFFERENCE RELATIVE TO BOLT THREAD TO PROVIDE GOOD THREAD BEARING UNDER LOAD

René E. Flahaut, Pavillons-sous-Bois, France

Application June 16, 1953, Serial No. 362,018
Claims priority, application France June 20, 1952
6 Claims. (Cl. 85—32)



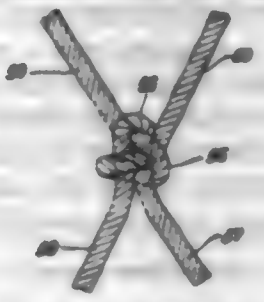
1. In an assembly comprising a threaded member and a nut in engagement therewith, to be tightened thereon for pressing upon a work, having a downwardly facing pressing face at its under end, and a thread with a constant radius and a greater pitch than the thread on the threaded member and arranged to provide between the two threads a play sufficient to avoid a substantial distortion of the nut prior to the tightening thereof, in combination, the thread on the nut presenting relative to the thread on the threaded member an excess of pitch difference ranging between .003 and .007 of said pitch, said nut throughout at least a substantial portion of its height being progressively reduced in cross-section away from said pressing face by an amount producing, upon tightening, a decrease of the pitch of said nut threads in said reduced portion greater than the increase in pitch of the threaded member whereby the upper faces of the nut threads will progressively engage the lower faces of the threaded member threads.

2,870,669

NETTING TREATMENT PROCESS

Adam F. Kopacki, North Arlington, N. J., assignor to The Linen Thread Co., Inc., Paterson, N. J., a corporation of Delaware

Application October 29, 1954, Serial No. 465,585
9 Claims. (Cl. 87—1)



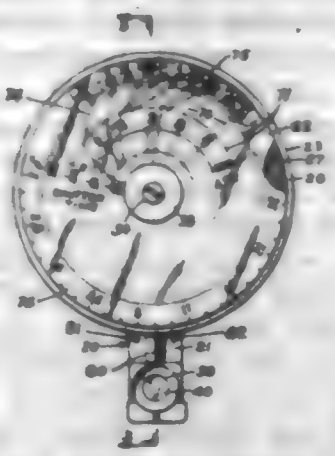
1. A method of treating netting made of a thermo-sensitive synthetic resin twine knotted to form meshes, which treatment renders the netting substantially resistant to slippage at the knots; which method comprises treating the netting with a chemical swelling agent for the thermo-sensitive synthetic resin, the temperature of the swelling agent not exceeding 110° F., said netting being subjected to the action of the chemical swelling agent for a period of time sufficient to swell and soften only the external portions of the twine of the netting and permit the plastic memory of the internal portions of the twine to remain unchanged, the netting itself remaining in a substantially unshrunken condition, and thereafter removing the chemical swelling agent from the netting.

2,870,676

EXPOSURE CALCULATOR FOR FLASH LIGHT PHOTOGRAPHY

Donald W. Norwood, Pasadena, Calif.

Application March 12, 1953, Serial No. 341,981
10 Claims. (Cl. 88—2.4)



1. In a device for use in flash photography to determine correct camera adjustment on the basis of the illumination by the flash light source as limited by the shutter time factor as a first factor, the sensitivity of the film combined

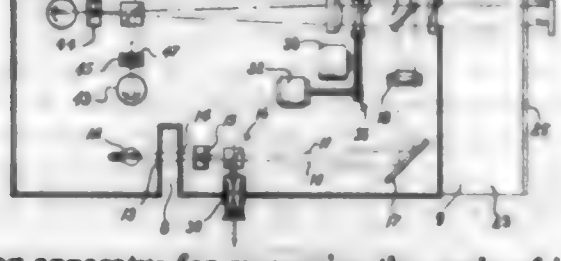
with the shutter time factor as a second factor, the relative size of the aperture of the camera lens as a third factor and the distance of the light source from the subject as a fourth factor, the combination of: a range finder mechanism having a fixed element and a second element movable relative thereto to determine the distance to a photographic subject; a first scale means; a second scale means adjacent thereto; means operatively connecting said second scale means to said movable range finder element to move said movable range finder element in response to movement of said second scale means; and a reference means adjacent said first scale means and fixed relative to said fixed range finder element, said first and second scale means being movable relative to each other and relative to said reference means; one of said scale means having indices representing one of the first two mentioned factors, the other of the scale means having indices cooperating with the first-mentioned indices and representing the other of the first two mentioned factors, whereby said two scale means may be positioned relative to each other in accord with the first two mentioned factors; said reference means and said first scale means having cooperating index means including at least one index on one of the two last-mentioned means and indices on the other of said two last-mentioned means representing the third factor; whereby positioning the two scale means relative to each other in accord with the first two factors and positioning the two scale means relative to said reference means by movement of said second scale means to effect distance-measuring adjustment of said movable range finder element in accord with the fourth factor results in cooperation of the index means on said reference means and said first scale means to indicate the correct camera aperture adjustment.

2,870,671

AUTOCOLLIMATOR FOR MEASURING ANGLE OF INCIDENT LIGHT BEAM

Oscar R. Falconi, Inglewood, Calif.

Application August 30, 1955, Serial No. 531,493
3 Claims. (Cl. 88—14)



1. In an apparatus for measuring the angle of incidence of an entering beam of light, the combination of: deflection means for cyclically deflecting an entering beam; reference signal means coupled to said deflection means, said reference signal means producing a reference signal that is a function of the status of said deflection means; a first opaque plate having a first transparent slit therein; a second opaque plate having a second transparent slit therein; beam-splitting means positioned between said deflection means and said plates, said beam-splitting means directing the deflected beam onto each of said plates, whereby the cyclically deflected beam traverses both of said slits, said first slit being disposed at an angle relative to said second slit; first pickup means located in optical line with said deflection means and said first plate to receive that portion of the deflected beam which traverses said first transparent slit; second pickup means located in optical line with said deflection means and said second plate to receive that portion of the deflected beam which traverses said second transparent slit, each of said pickup means producing an output that is a function of its received beam; and means for combining each of said outputs and said reference signal, said means producing an indication of the angle of incidence of the entering beam.

2,870,672

TRAVELLING MATTE PHOTOGRAPHY

Fred W. Gage, Los Angeles, and Albert W. Tondreau, Arcadia, Calif., assignors to Warner Bros. Pictures, Inc., Burbank, Calif., a corporation of Delaware

Application May 28, 1956, Serial No. 587,627
2 Claims. (Cl. 88—16)



1. A composite photographing process for simultaneously obtaining a defined negative image of a foreground component surrounded by a transparent area and a negative transparent silhouette of said foreground component surrounded by an opaque area, said transparent and opaque areas to be subsequently provided with a background component, which comprises positioning a foreground component in front of a translucent screen, positioning illuminating means having a surface substantially equal to the surface of said screen closely adjacent the back of said screen, said means uniformly illuminating said screen with ultra-violet light, positioning a light source in front of said screen and illuminating said foreground component with light from said source through a filter which transmits visible light rays whereby the foreground component is illuminated with visible light, providing two light sensitive photographic emulsions, focusing said foreground component on said emulsions, one of said photographic emulsions having substantially no sensitivity to said visible light rays and said other photographic emulsion having a sensitivity to said visible light rays, providing a light filter in front of the other of said emulsions having a sensitivity to said visible light rays, said filter transmitting said visible light rays to which said first-mentioned emulsion is not sensitive, providing a light beam splitter to divide the light from said screen and said foreground component reaching said emulsions whereby when said light sensitive emulsions are developed, the positive printed from the developed emulsion behind said last-mentioned filter which transmits only said visible light rays will have a defined positive image of said foreground component and the area surrounding said foreground component will be opaque, and whereby the positive printed from the developed emulsion not having any substantial sensitivity to visible light rays will have an opaque silhouette of said foreground component and the area surrounding said silhouette will have substantially no density, the latter positive providing a matte of said foreground component, projecting an image of the background component to be subsequently combined with said foreground component on said screen during the photographing of and while avoiding said foreground component, the light forming said background component being projected on said screen alternately with the exposure of said foreground component.

2,870,673

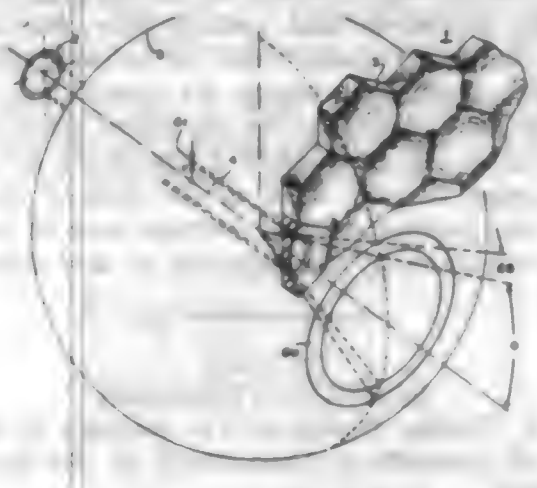
LENTICULATED REAR PROJECTION SCREEN

Gerhard Schwesinger, Heidesheim (Bronx), Germany, assignor to the United States of America as represented by the Secretary of the Army

Application November 26, 1954, Serial No. 471,545
3 Claims. (Cl. 88—28.93)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A lenticulated rear projection screen comprising a sheet of transparent screen material, one surface of which is plane and the other surface of which is made up of a multitude of adjoining tiny aspherical lenses, said lenses each having optical axes which are substantially paral-

lel, said lenses each having surfaces tangent to a common plane at points where said optical axes are perpendicular



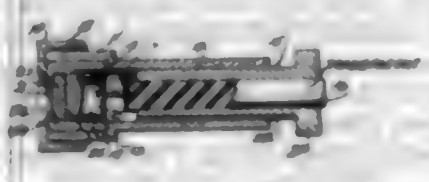
to said plane, the surface curvature of each lens conforming substantially to a generating curve defined by

$$\pm\frac{z}{c}=\sqrt{1-r^2/c^2}-1+n\log_e\frac{n-\sqrt{1-r^2/c^2}}{n-1}$$

where:

z and r are the coodinates of said generating curve,
n is the refractive index of said screen material,
c is a parameter having the dimension of a length and determined by $c=nr_1/(n^2-1)^{1/2}$
n_e is the refractive index of said screen material,
r_1 is the radius as measured outwardly and perpendicularly from the optical axis to the surface of one of said lenses at the limit of total reflection and r is greater than zero and equal to or less than r_1.

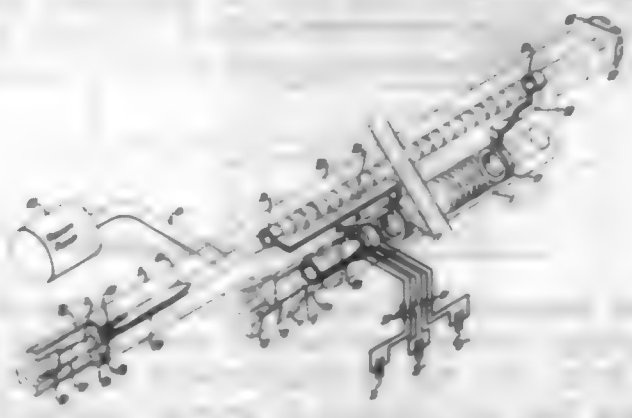
2,870,674
MICROSCOPE
Cecil I. Mize, Tacoma, Wash.
Application November 1, 1956, Serial No. 619,747
1 Claim. (Cl. 88—39)



In a microscope, the combination which comprises an elongated tubular casing having an enlarged end with an annular recess therein, a lens cell removably mounted in the recess in the enlarged end of the casing, a lens positioned in said cell, an elongated tubular holder having a flange on the outer end frictionally and slidably mounted in the casing, and an elongated transparent body carried by the said holder, the object being viewed being retained on the end of the transparent body positioned in the casing by a transparent cap frictionally held on the inner end of the said elongated transparent body.

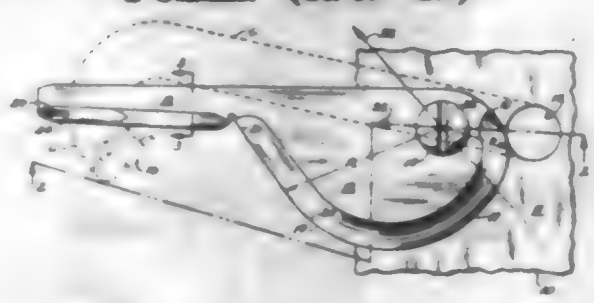
2,870,675
ACCELERATION AMPLIFIER
Winfield W. Salisbury, Lafayette, Calif., assignor to Zenith Radio Corporation, a corporation of Delaware
Application November 15, 1954, Serial No. 468,696
14 Claims. (Cl. 89—1)

1. An acceleration amplifier comprising a linear induction motor stator and a shorter linear generator stator, said stators including an equal multiplicity of cylindrical coils disposed end to end to form respective tubular bores therealong, rigid connections from each generator coil to the motor coil positioned in corresponding order on said motor stator, a generator armature adapted for movement through the generator stator and of such length as to span a few of the coils thereon, means for exciting in said armature magnetic fields linking the coils spanned thereby to induce therein phase-displaced currents when moved with relation to the coils so spanned, a motor armature comprising a conductive projectile movable within the coils of said motor stator and of such length as to span a plurality thereof, and means including means for accelerating said generator armature



through said generator coils to induce in said projectile from said motor coils a localized field traversing said motor stator to support said projectile and to move the latter through said motor coils at a greater acceleration than that of said generator armature, said localized field constituting the sole support of said projectile during said acceleration.

2,870,676
SHEARING DEVICE FOR CABLES
Leo Radkowski, Thomas A. Daly, and Oliver Eikel, Jr., Sharon, Pa., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application June 6, 1952, Serial No. 292,042
2 Claims. (Cl. 89—1.7)

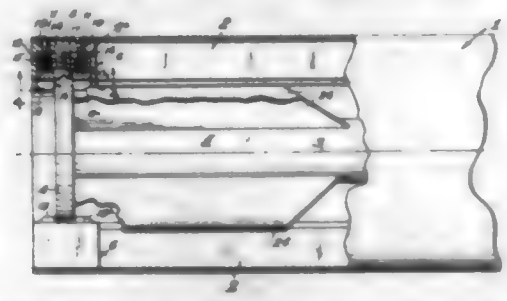


1. In a torpedo of the type having electrically actuated controls and a cable having a plurality of electrical conductors therein extending between the torpedo and a control station through which the controls may be preset, the improvements in combination comprising; a cable shearing device movably carried by the torpedo for shearing the cable, and means including the cable for moving said cable shearing device in response to relative movement between the torpedo and the control station, said means including a lever carried by the cable shearing device having a bifurcated free end through which an intermediate portion of the cable detachably extends, and means for preventing unauthorized movement of the intermediate portion of the cable outwardly from the bifurcated free end.

2,870,677
MISSILE RETAINING DEVICE
Fred Herrmann, West Englewood, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application February 3, 1955, Serial No. 486,039
6 Claims. (Cl. 89—1.7)

1. In a mechanism for releasably retaining a self-propelled missile in launching position within a tube, a housing adapted for rigid securement to the inner periphery of said tube, there being a pair of bores radially disposed in spaced relation in said housing with their axes in a common plane through the axis of the tube, said housing having a notch in the wall between each said

bore and the respective forward and rearward face thereof, a pair of plungers each fitting a respective bore, each said plunger having a slot in its inner end said slots being disposed in coplanar relation with one another to form a continuous passage with said notches in said



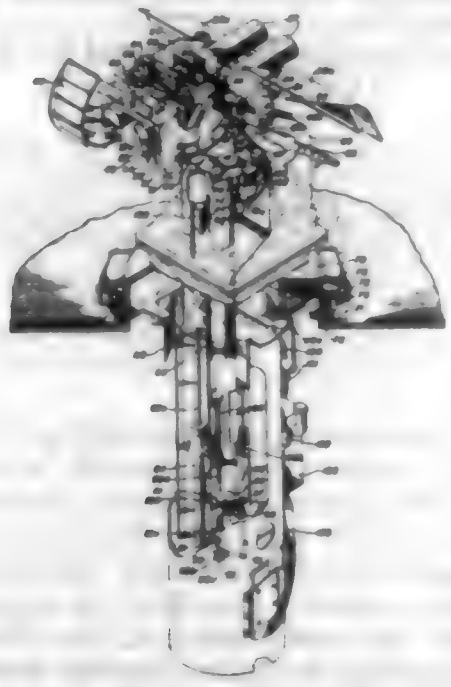
housing longitudinal of said tube, a coil spring in each bore urging each plunger radially inwardly, and a cap screw fixed with said housing between said bores and engaging both said plungers to prevent rotation of said plungers and limiting radial inward movement thereof under urge of said coil springs.

2,870,675

PROJECTILE LAUNCHER

Phillas H. Girouard, Garret L. Schuyler, and Maurice H. Baller, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Navy

Application April 11, 1946, Serial No. 661,260
15 Claims. (Cl. 89—1.7)
(Granted under Title 35, U. S. Code (1952), sec. 266)



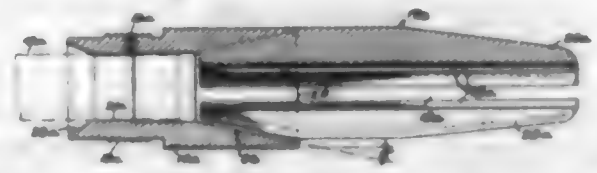
1. A missile launcher adjustable in train and elevation comprising a missile guide tube, a dummy gun, a missile loading tube, a mounting carriage for said launcher adjustable in train, said guide tube and dummy gun being mounted upon said carriage for independent pivotal movement in elevation, means for rapidly pivoting said guide tube between loading and firing positions and vice versa, said guide tube being in registry and alignment with said loading tube when in loading position, positioning abutments carried by said dummy gun for stopping the guide tube in its pivotal travel from loading to firing position to establish positively and accurately the firing angle of elevation whereby the position of the dummy gun establishes the angle of elevation for the firing position of said guide tube, means for firing missiles loaded in said guide tube upon said guide tube reaching said dummy gun established angle of elevation, fire control means for adjusting said carriage in train and said dummy gun in elevation, and an electrical interlock control circuit for facilitating the operational cycle of the launcher having means for controlling the pivotal movement of said guide tube to bring it into loading position when empty and into firing position when loaded, means for controlling the delivery of missiles placed in said loading tube into said guide tube to load said guide tube when in registry with said loading tube, and means for controlling the firing of missiles thus loaded to fire the same upon said guide tube reaching the established firing angle of elevation, missiles being thereby fired in the desired direction in train by the position of said carriage and in the desired angle of elevation by the position of said dummy gun.

2,870,679

FLASH SUPPRESSOR

Richard V. Collins, Dahlgren, Va., assignor to the United States of America as represented by the Secretary of the Army

Application November 25, 1952, Serial No. 322,468
10 Claims. (Cl. 89—14)



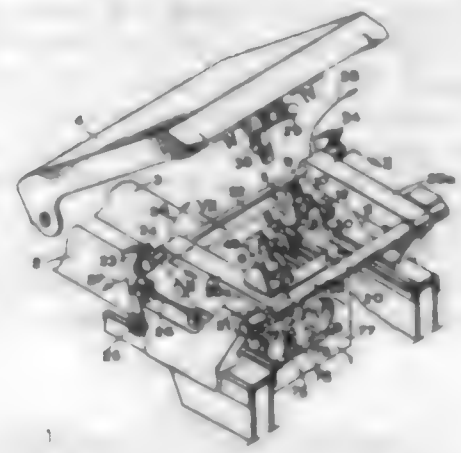
1. In a flash suppressor for a 50-caliber machine gun comprising a body portion having an axial bore formed in a part of its length and having a plurality of radial slots cut in the forward wall of said body portion to form circumferentially spaced suppressor bars extending parallel with the bore axis and connected only at their rearward ends, an axial counter-bore communicating with said axial bore and counterbored rearwardly to receive the muzzle end of a gun, and means for securing the suppressor to a gun.

2,870,680

DEVICE FOR THE CONTROL OF THE BREECH OF A DOUBLE-BARRELLED GUN

Henri Correc, Paris, France, assignor to Societe des Forges et Ateliers du Creusot, Paris, France

Application January 31, 1956, Serial No. 562,564
Claims priority, application France February 3, 1955
9 Claims. (Cl. 89—17)



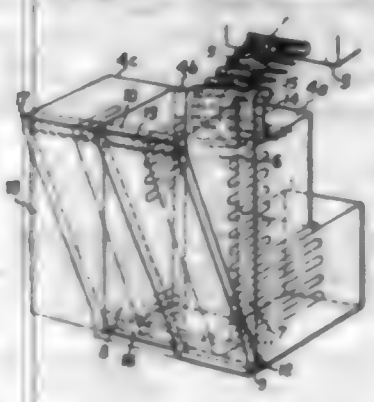
1. In a breech control mechanism, a double-barrelled gun having a common breech, a breech closure wedge for each of said barrels, levers for actuating each of said breech closure wedges, a carriage mounted above and reciprocal over said breech wedges, cams on said carriage for each of said breech closure wedges, means for reciprocating said carriage to alternately bring the corresponding ones of said cams into position to engage said actuating levers for the corresponding one of said breech closure wedges including a rotatable eccentric engaging said carriage and a change-over mechanism moving with said common breech during recoil for rotating said eccentric.

2,870,681

CONTAINER FOR A CARTRIDGE BELT

Johannes Linke, Zurich, Switzerland, assignor to Machine Tool Works, Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a company of Switzerland

Application May 26, 1958, Serial No. 737,910
Claims priority, application Switzerland June 18, 1957
3 Claims. (Cl. 89—34)



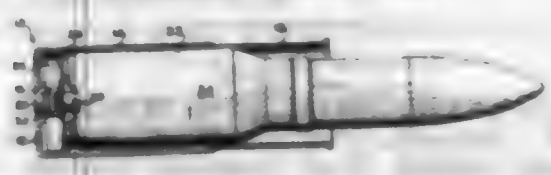
1. A container for a cartridge belt of an automatic firearm, comprising in combination: end walls, side walls, a bottom and a top, partition walls dividing the container into separate compartments, passages for the belt being arranged in the side walls of adjacent compartments on the same side thereof alternately near the top and the bottom thereof, and oblique conduits lining up the said passages near the bottom of one compartment with the said passages near the top of the adjacent compartment, the said cartridge belt being folded zig-zag fashion in each compartment with the cartridges substantially parallel to a vertical plane containing the axis of the said firearm, and being passed from one compartment to the next adjacent compartment through the said passages and conduits connecting the same.

2,870,682

CARTRIDGE RAM LINK

Charles R. Bell, Canoga Park, Calif., and Eugene S. Wassel, La Grange, and Mitchell Jay Shoelson, Hometown, Ill., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Army

Application October 7, 1957, Serial No. 688,787
2 Claims. (Cl. 89—35)



1. A belt link for carrying a cartridge, said link comprising a cylindrical body provided with an open front end, a closed rear end and a forward section of reduced diameter for releasably gripping the cartridge, a primer ignitably disposed in said rear end, and a piston slidably disposed in said body between said rear end and said reduced diameter section for engagement with the cartridge to transfer the forces produced by said primer when ignited to the cartridge for propulsion thereof from said body.

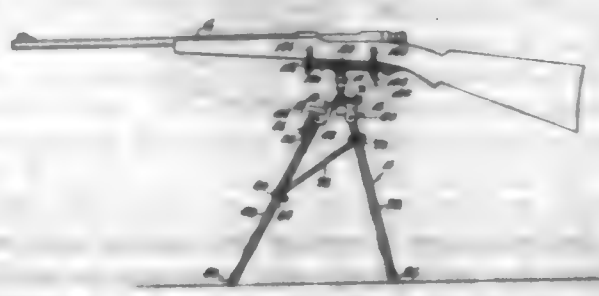
2,870,683

ADJUSTABLE TRIPOD TYPE GUN MOUNT

Walter H. Wilson, Mansfield, Ohio

Application September 28, 1955, Serial No. 535,416
6 Claims. (Cl. 89—40)

1. A gun mount comprising a base, supporting legs for said base, an upstanding rotatable shaft on said base, means for adjusting the frictional drag and thus the relative freedom of rotation of said rotatable shaft, a gun support on said shaft, said support being mounted for pivotal movement in a vertical plane on said shaft, means for adjusting the frictional drag and thus the relative freedom of pivotal movement of said support, a tubular gun clamp support mounted on said gun support for both longitudinal and rotational movement, and manually operable means for adjusting the freedom of movement of said tubular support member in regard to both the longitudinal and rotational movements thereof, said supporting legs comprising two side legs depending from said base in oppositely inclined directions, and a front leg depending in a third inclined direction away from said two



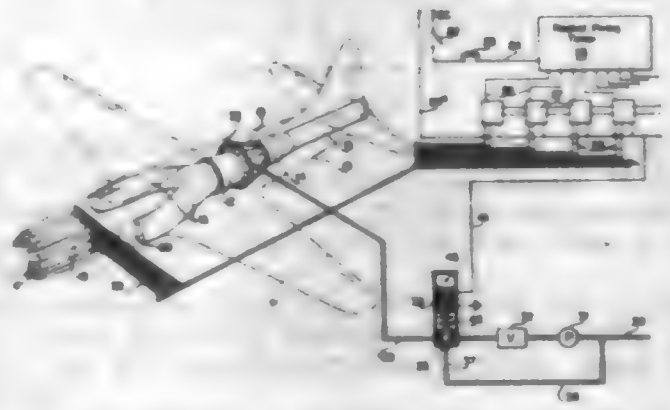
side legs, all three legs being pivotally connected to said base, linkage connecting said side legs to said front leg, said front leg being pivotally movable away from said side legs to move said side legs along therewith into a position substantially parallel to said tubular support, means to releasably lock said front leg in its various pivotal positions, and auxiliary supporting legs perpendicularly arranged relative to said side legs and pivotally movable with said side legs.

2,870,684

TURBINE ENGINE BLOW-OUT PREVENTER

Clarence L. Johnson, Encino, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.

Application December 28, 1953, Serial No. 400,463
10 Claims. (Cl. 89—133)



1. In combination with an engine having a fuel pressure supply; an armament firing system; a pipe for bleeding fuel from the fuel pressure supply, a valve closing said pipe and operable when opened to allow the bleeding of fuel from said fuel supply to reduce fuel flow to the engine, and means uninfluenced by engine operating conditions and energized by the firing system for opening the valve.

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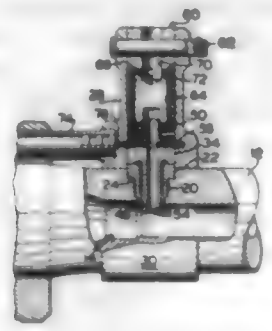
GAS-OPERATED ACTUATING SYSTEM FOR FIREARMS

Earle M. Harvey, Agawam, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application February 21, 1957, Serial No. 641,784
2 Claims. (Cl. 89—191)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a firearm having a barrel with a chamber for receiving a cartridge with a projectile and a bore for the passage of the projectile after the cartridge is fired and a gas cylinder with a cooperating piston, an actuating system including a passageway communicating between the bore and the gas cylinder, a valve engageable with the projectile when the cartridge is chambered for blocking said passage and subjectable to the

gas pressure in the bore after the cartridge is fired and while the projectile is in flight in the bore for holding said valve in said blocking position until the projectile



leaves the bore, and a spring for moving said valve to a position for unblocking said passageway while there is sufficient pressure in the bore for operating the piston.

2,870,686

AUTOMATIC EXPANDING MANDREL

Gordon Raymond Smith, Detroit, Mich., assignor of one-half to Earl R. Lowe, East Detroit, Mich.

Application April 28, 1954, Serial No. 426,064
13 Claims. (Cl. 90—11.58)



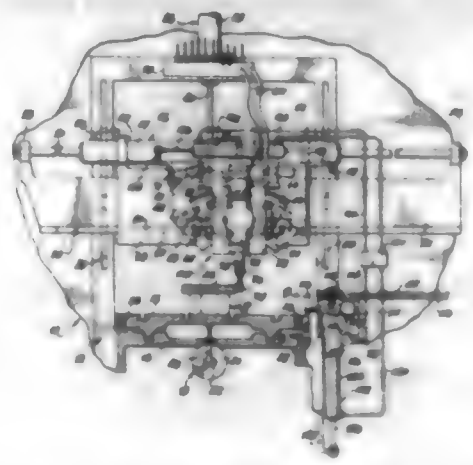
1. A device for facilitating the machining of hollow workpieces and adapted to be mounted on a milling machine or the like comprising, an expandable mandrel adapted to be received in independent supporting relation by said workpiece, said mandrel including a supporting shaft, a first wedge element fixed on said shaft and a second wedge element shiftable thereon, said wedge elements having oppositely angled conical surfaces, a resiliently expandable element having a workpiece-engaging surface and having an opposite surface with conical portions mating with said conical portions of said wedge elements, spring means on said shaft reacting against said second wedge element to wedge said expandable element against said workpiece, said shaft and second wedge element having outwardly extending portions cooperating to form operating means for controlling the expansion of said mandrel, support means selectively operable and positioned to engage said shaft and support said mandrel independently of said workpiece, and means associated with said support means for shifting said mandrel operating means against the action of said spring means selectively to facilitate removal of said workpiece while said mandrel is being supported independently of the workpiece by said support means.

2,870,687

CONTOURING MACHINE

Leonard E. Roberts, Los Angeles, and Everett Evenson, Glendale, Calif., assignors to American Tapered Wings, Inc., Los Angeles, Calif., a corporation of California

Application August 6, 1956, Serial No. 602,166
5 Claims. (Cl. 90—13)



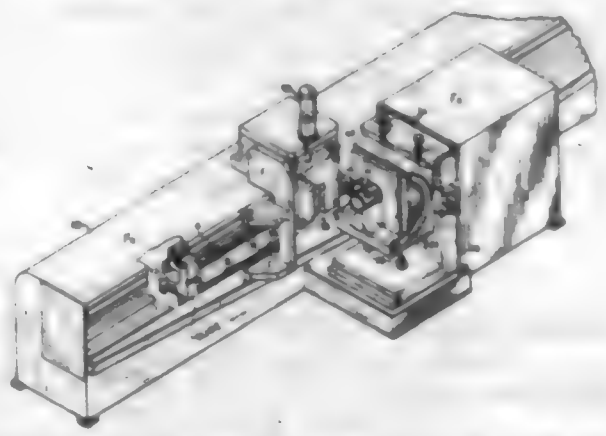
1. In a device for forming contours in a work piece, the combination of: a mounting frame; a contouring head mounted for arcuate movement on said frame; a longitudinally movable work piece supporting table on said frame below said head; pattern mounting means on said table; a pattern on said mounting means; a first motor fixedly attached to said frame having a portion movable with respect to said frame; a control mounted on said movable portion of said first motor, said control having a tracing finger and a control member responsive to deflection of said tracing finger, said first motor being connected to said control whereby, when said tracing finger is deflected by said pattern, the movable portion of said first motor is moved to return said tracing finger to its original position; a second motor fixed to said frame and having a movable portion connected to said contouring head to cause arcuate movement thereof, said second motor being connected to said first motor so that displacement of the movable portion of said first motor is accompanied by corresponding displacement of said second motor and said second motor being connected to said control; and a source of power connected to said control whereby movement of the movable portions of said first and second motors is accomplished.

2,870,688

BI-LEVEL BROACHING MACHINE

Oliver W. Bonnafe, Hudson, Mass., assignor to The Lapointe Machine Tool Company, Hudson, Mass., a corporation of Maine

Application December 7, 1956, Serial No. 627,088
1 Claim. (Cl. 90—33)



In a broaching machine, a frame, a broach holder means mounting said broach holder for sliding movement in a fixed path, means supporting a two-part broach having its broaching parts reversely mounted and fixed in said broach holder, a workholder, means to shift said workholder transversely with respect to the line of

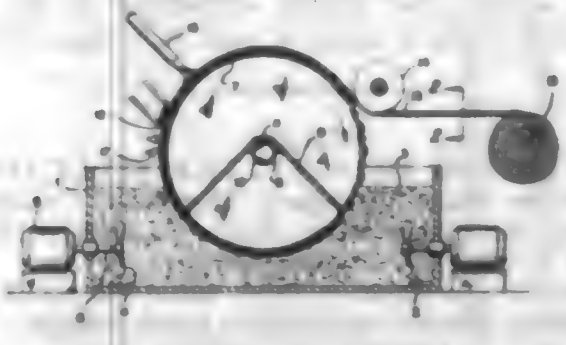
broach travel alternately and in an opposite direction at the end of each broaching stroke, means mounted on said frame and movable toward said work holder to force the work firmly against the workholder and against movement relative thereto during a broaching stroke which tends to move the work away from the workholder, and means to actuate said force-applying means including the release of said force-applying means at the end of such broaching stroke to thereby permit free transverse shifting movement of the workholder and work relative to the broaches and relative to said force-applying means.

2,870,689

METHOD OF PRODUCING STRIP MATERIAL

Joseph B. Brennan, Cleveland, Ohio; Helen E. Brennan, executrix of the estate of said Joseph B. Brennan, deceased

Application December 4, 1952, Serial No. 324,020
9 Claims. (Cl. 92—41)



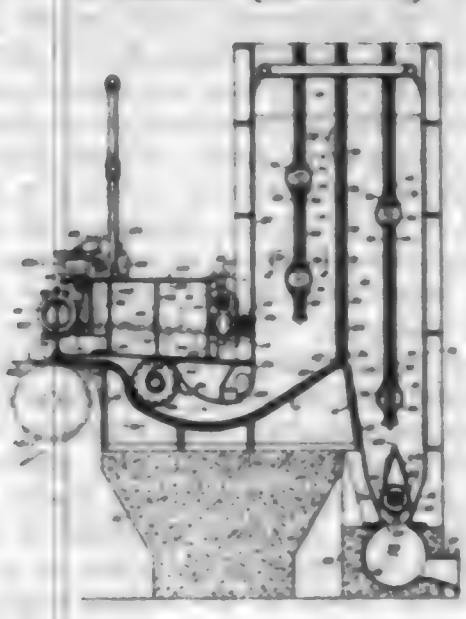
2. A method of continuously making a fibrous strip or the like comprising continuously suction-depositing dielectric fibers from a fluid suspension thereof to accrete a continuous porous mat on a former advancing through the slurry, and spraying a particulate porous metal layer on the fibers thereon to bond the fibers together into a self-supporting strip and removing said so bonded strip from said former.

2,870,690

HEAD BOX FOR PAPER MAKING MACHINES

Wesley S. Corbin, Charles M. Pearson, and Henrik Walden, Watertown, N. Y., assignors, by mesne assignments, to The Black-Clawson Company, Hamilton, Ohio, a corporation of Ohio

Application November 6, 1952, Serial No. 319,157
11 Claims. (Cl. 92—44)



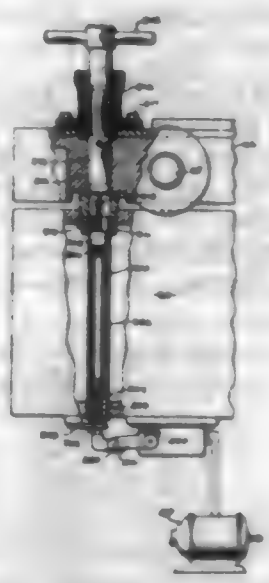
1. A head box for a Fourdrinier paper machine having a forming wire and a breast roll supporting the wire in a predetermined horizontal plane, comprising front and rear walls and a pair of side walls defining a main chamber for receiving the paper making stock, said chamber being open to atmospheric pressure at the top thereof, means including a bottom wall forming a ridge extending permanently across said main chamber and defining therewith a rear and a front compartment, means for delivering stock into said rear compartment for flow therefrom over said ridge to said front compartment, means forming a slice in substantially the same horizontal plane as the wire for delivering the stock from said front compartment to the wire, means including a top wall forming a discharge passage leading from said front compartment to said slice, means establishing said ridge at substantially the same horizontal level as the wire to provide for slow speed operation of said head box with a correspondingly low pressure head of stock above said ridge, removable partition means above said ridge for raising the height of said front compartment to increase the pressure head of stock therein for correspondingly increasing speeds of operation, a distributor roll journaled within said discharge passage for agitating the stock flow through said passage to even the flow distribution of the stock therethrough, said top wall having a substantial portion of the length thereof located below the horizontal level of said ridge and the remainder thereof located not substantially higher than said ridge to maintain said distributor roll submerged in stock through the full speed range of operation of said head box, means forming a bleed chamber in said head box located forwardly of said ridge, said top and said bottom walls including portions located between said ridge and said distributor roll in relatively close proximity to each other to introduce a restriction in said discharge passage intermediate said ridge and said distributor rolls with resulting change of the pressure head on the stock flowing therethrough to velocity promoting release of entrained air bubbles at the top of said restriction, means defining a slot in said top wall extending substantially the full width of said restriction for conducting air bubbles from the stock in said discharge passage to said bleed chamber, and means for venting said bleed chamber.

2,870,691

FOURDRINIER PAPER MAKING MACHINE

Isle R. Wisner, Wesley S. Corbin, and Henrik Walden, Watertown, N. Y., assignors, by mesne assignments, to The Black-Clawson Company, Hamilton, Ohio, a corporation of Ohio

Original application March 28, 1952, Serial No. 279,852, now Patent No. 2,799,209, dated July 16, 1957. Divided and this application May 2, 1955, Serial No. 506,151
5 Claims. (Cl. 92—44)



1. A Fourdrinier paper making machine comprising a frame including front and rear side beams, a plurality of cross beams fixedly mounted at their rear portions for supporting said side beams, a couch roll mounted on one end of the frame, a pair of shake rails carried by said side beams at the opposite end of the machine, a breast roll supporting structure pivotally mounted on said shake

rails, power actuated means for moving said breast roll supporting structure about its pivot for moving the breast roll upwardly and downwardly into and out of operative position, shake mechanism operatively connected to said shake rails, a movable member for initiating operation of said power actuated means, and means responsive to movement of said movable member for rendering said shape mechanism inoperable prior to operation of said power actuated means.

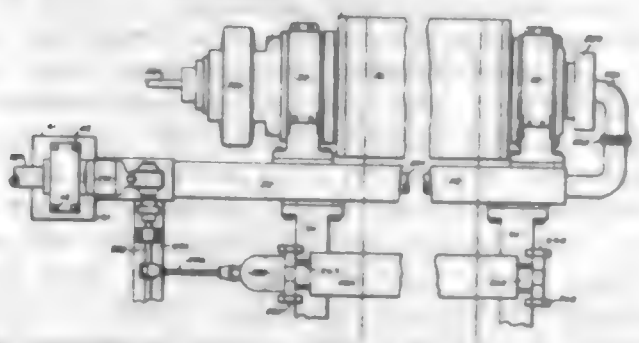
2,870,692

FOURDRINIER PAPER MAKING MACHINE

Idie R. Wisner, Wesley S. Corbin, and Henrik Walden, Watertown, N. Y., assignors, by mesne assignments, to The Black-Clawson Company, Hamilton, Ohio, a corporation of Ohio

Original application March 28, 1952, Serial No. 279,852, now Patent No. 2,799,209, dated July 16, 1957. Divided and this application May 2, 1955, Serial No. 506,153

2 Claims. (Cl. 92—44)



1. A Fourdrinier paper making machine comprising a pair of front and rear side beams, a plurality of cross beams located in spaced relation along said machine and connecting said side beams to form a unitary frame, base means connected with said frame at the back thereof and supporting the front thereof in cantilevered position, a suction couch roll, means mounting said couch roll directly on one end of said frame for support thereby with the front end thereof in cantilevered position, means forming separate suction connections at both the rear and front ends of said couch roll, a suction pipe extending transversely of said frame and connected to said suction connection at the front end of said couch roll, and means supporting said suction pipe on said cantilevered portion of said frame to maintain said pipe with the front portion thereof unsupported except by said frame and said couch roll.

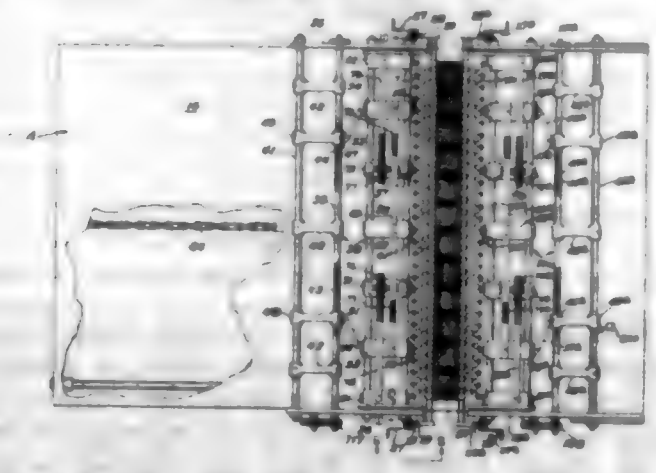
2,870,693

PULLING MEANS FOR EXPANDING HONEYCOMB

Roger C. Steele, Berkeley, and Glen O. Tant, Oakland, Calif., assignors to Hexcel Products Inc., Oakland, Calif., a corporation of California

Application July 26, 1955, Serial No. 524,462

6 Claims. (Cl. 93—1)



1. Means for expanding honeycomb characterized by its tendency to narrow in the direction of its width in determinable ratio to its lengthwise expansion, comprising: first and second assemblies for engaging opposite end areas of an unexpanded honeycomb section; means for forcefully reciprocating said assemblies away from one another to exert an expansion force on a section of honeycomb engaged by said assemblies; each assembly comprising a lazy tong structure defining parallel inner and outer rows of pivoted elbow joints; said inner elbow joints individually supporting a plurality of honeycomb engaging members in spaced relation and for movement relatively closer and further away from one another upon relative retraction and extension of said lazy tong structure; and driving means operable to retract said lazy tong structure and cause said members carried thereby to move relatively closer together in synchronized relation to the relative narrowing of the honeycomb section during reciprocable movement of said assemblies away from one another causing consequent expansion of said honeycomb section; said driving means comprising synchronized screw drive means connected to the outer rows of pivoted elbow joints of each lazy tong structure.

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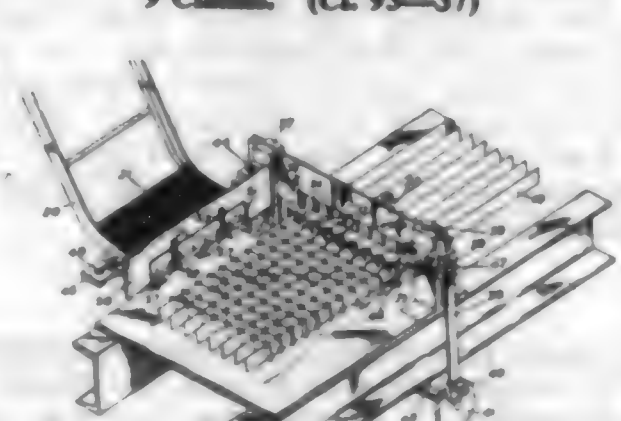
MANUFACTURE OF CELLULAR STRUCTURES

Robert Colvin Blair, Winnipeg, Manitoba, Canada, assignor to The British Plaster Board (Holdings) Limited, London, England, a British company

Application December 8, 1954, Serial No. 473,924

Claims priority, application Great Britain January 20, 1955

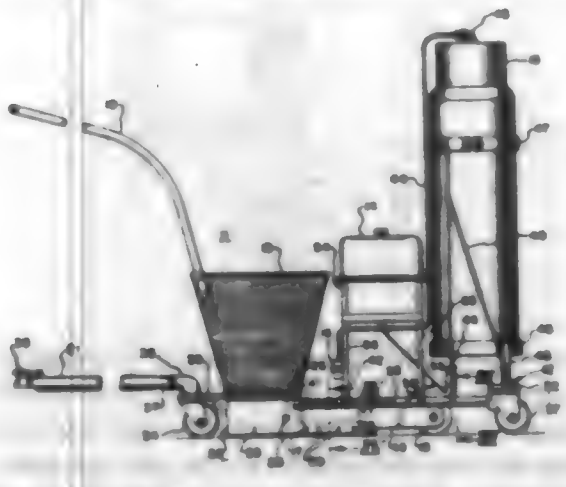
9 Claims. (Cl. 93—37)



8. Apparatus for manufacturing cellular structures of the kind set forth comprising guide means for maintaining a plurality of slotted strips of wall element material on edge in parallel spaced relationship, means for advancing said strips in the direction of their length, supply means arranged to deliver slotted wall elements so that they extend lengthwise in a direction across the path of travel of said strips, a presser plate associated with said supply means adapted to receive wall elements in succession from said supply means and to deliver them into engagement with aligned slots in said strips in timed relationship with the advancing of the strips, a guillotine adapted to cut the strips substantially simultaneously between two wall elements to detach cellular structures of given length, said guillotine comprising a pair of blade carriers having blades extending downwardly therefrom and one of which is longitudinally displaceable relatively to the other in a direction across the path of travel of the formed cellular structure, pivot means and guide means for said blade carriers enabling the blade carriers to be angularly displaced from a raised inoperative position above the path of travel of the formed cellular structure down to an operative position in which the blades of the respective blade carriers lie on opposite sides of the strips of the formed cellular structure and means for causing angular displacement of the blade carriers about said pivot means comprising a constantly rotating shaft, clutch

means associated with said shaft of the kind which automatically disengages itself after it has performed a single revolution, means driven by said clutch and associated with said blade carriers for converting a rotary motion to a reciprocatory motion, electrical relay means for controlling the engagement of said clutch, a switch controlling said relay and a counting device for controlling said switch, said counting device being arranged to count wall elements fed to said strips whereby to cause the clutch to be engaged at intervals during which a predetermined number of wall elements have been fed to said strips.

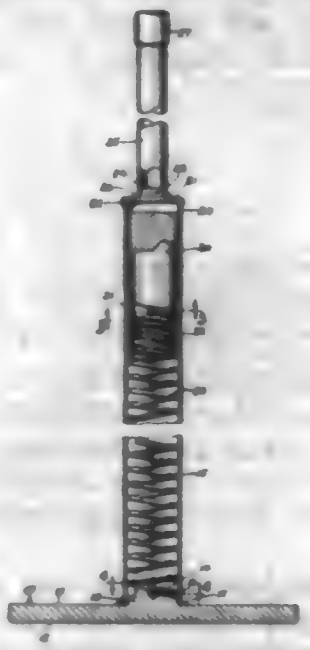
2,870,695
TRAFFIC MARKER APPARATUS
Norman L. Kellogg, Garden Grove, Calif.
Application January 18, 1957, Serial No. 635,020
2 Claims. (Cl. 94—46)



1. An apparatus for applying heated traffic marker material to a highway for service as a raised traffic marker, said apparatus comprising a mobile frame, a hopper mounted on said frame for carrying traffic marker material, said hopper having an open lower end, a tined feed roller mounted on said frame adjacent said lower end of said hopper and rotatable to evenly distribute marker material from said hopper to said highway, a forming element mounted on said frame in position to contact and form said marker material upon said highway, the transverse cross section of said forming element being substantially concave downwardly to thereby impart a raised and substantially convex configuration to said marker material upon said highway, means for heating said forming element to enable easier formation of said marker material, said last-mentioned means including a burner means directed toward said forming element, a finish roller rotatably carried by said frame rearwardly of said forming element and in position to roll upon said marker material and firmly pack it in position upon said highway, means coupling said finish roller to said feed roller whereby said feed roller is rotated in accordance with rotation of said finish roller, said finish roller being adapted by its configuration to retain the configuration of said marker material imparted thereto by said forming element while firmly packing said marker material upon said highway, means for cooling said finish roller to reduce adherence of marker material thereto, said last-mentioned means including means mounted over said finish roller for directing a cooling fluid thereagainst, and a shield for protecting said finish roller from the heat of said burner means.

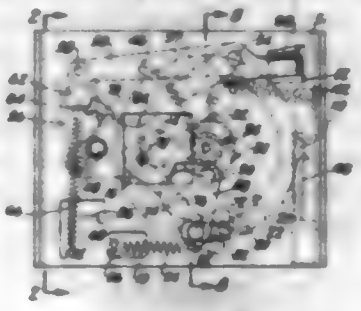
2,870,696
TAMPING TOOL
John J. Yoch, Belleville, Ill.
Application June 6, 1955, Serial No. 513,241
5 Claims. (Cl. 94—49)

1. In a tamping tool, a base, an elongate tubular element fixedly secured to said base, a compressible coil spring disposed in said tubular element, a handle fixedly secured to said tubular element adapted for raising and lowering said tool, a hammer located in said tubular element for reciprocal movement in a vertical direction, the hammer being free of direct attachment to said tubular



element, the coil spring having one end connected to said hammer, and having the opposite end anchored to said base, the hammer moving upwardly under spring loading so that said hammer transmits through said spring a lifting action to said base and tool in response to hammer inertia, whereby to facilitate manual lifting of said tool.

2,870,697
CAMERA SHUTTER
Joseph H. De Lacy, Los Angeles, Calif.
Application November 12, 1954, Serial No. 468,379
7 Claims. (Cl. 95—61)

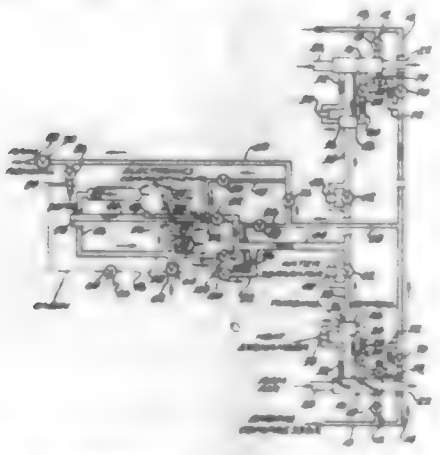


1. A camera shutter comprising: a rotatable shutter blade, spring means for urging rotation of said shutter blade, one-way drive means for applying a predetermined force upon said spring means, an escapement lever normally engaging said shutter blade holding same against rotation under the urging of said spring means, a pivotally mounted instantaneous exposure lever, a gear segment pivoted by depression of said instantaneous exposure lever, a gear meshing with said gear segment and driving said one-way drive means upon rotation thereof, and means carried by said gear segment to move said escapement lever to release said shutter blade for rotation upon the pivoting of said gear segment.

2,870,698
RECIRCULATING FLOW AIRCRAFT AIR CONDITIONING SYSTEM
Stanley G. Best, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application April 30, 1957, Serial No. 656,091
8 Claims. (Cl. 98—1.5)

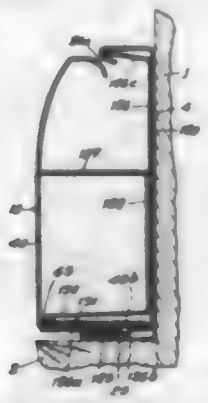
1. An air conditioning system for a plurality of aircraft compartments which include one normally closed compartment capable of retaining air under pressure, the said system comprising a main supply conduit connectible

with a source of air under pressure and opening into the said one compartment, air passage means providing communication between said one compartment and another of said compartments, an air discharge conduit connected with said other compartment, a valve for controlling flow through said discharge conduit whereby to provide air pressure control in said one and other compartments, a recirculating conduit connected for communication be-



tween said one compartment and said discharge conduit on the upstream side of said valve, air pumping means disposed in said recirculating conduit to withdraw some of the air discharged from said other compartment and to recirculate the same through said one compartment, and check valve means disposed in said recirculating conduit to prevent flow therein from said one compartment to said discharge conduit.

2,870,699
WARM AIR BASEBOARD HEATING STRUCTURE
Earl Richards, Chicago, Ill.
Application January 26, 1955, Serial No. 484,255
4 Claims. (Cl. 98—40)



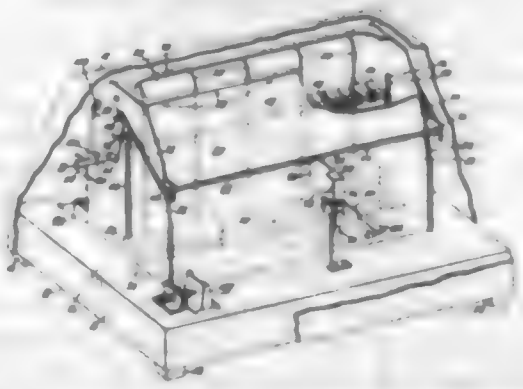
1. A baseboard duct structure for air heating systems comprising a generally longitudinal rear member having a vertically disposed rear wall adapted to be secured to the wall of a building, a forwardly projecting horizontally disposed upper portion, said upper portion having a rearwardly bent angularly disposed edge portion forming a generally longitudinal lip extending the length of said rear member, and a forwardly projecting generally horizontally disposed lower portion positioned for contact with the floor of a building, said lower portion having a rearwardly bent forward edge portion lying along its upper surface, the edge of said rearwardly bent portion being spaced outwardly from said vertical wall, a plurality of connector means positioned along the forward face of said rear member, said connector means including a bracket having a generally vertical portion adapted to be positioned against said vertical wall portion of said rear member between said upper and lower forwardly projecting portions, said bracket vertical portion having a forwardly projecting upwardly inclined portion along its upper edge adapted to be fitted beneath said lip portion on said rear member, said bracket having a forwardly projecting generally perpendicularly disposed lower portion adjacent the lower edge of said bracket vertical portion, said lower bracket portion having a downwardly disposed offset adjacent said bracket vertical portion and spaced from said bracket vertical portion a distance not greater than the distance between the vertical wall of said rear member and the rear edge of said rearwardly bent edge portion of the lower horizontal rear member portion, the arrangement of the parts being such that said bracket member may be snapped into predetermined relationship with said rear member, said upwardly inclined upper bracket portion serving to force said offset into position behind said rearwardly bent horizontal rear portion.

2,870,700
VENTILATING PANELS
Florian P. Harrington, Norfolk, Va.
Application November 10, 1955, Serial No. 546,163
1 Claim. (Cl. 98—96)



A rigid vertically disposed panel providing a pane for a window opening comprising, substantially rigid plate means formed of impervious material having an outer face in one continuous plane and an inner face in one continuous plane substantially parallel to the outer face, said plate means having light transmitting characteristics, said plate means having openings extending therethrough, each opening being of generally circular cross section sloping upwardly from said inner face of the plate means to a mid-portion thereof and thereafter sloping downwardly in proceeding to the outer face of the plate means, and the portals of each opening being flush with the faces of said plate means.

2,870,701
TOASTER
Alfred E. De Mott, Allentown, Pa., assignor to General Electric Company, a corporation of New York
Application March 27, 1957, Serial No. 648,902
11 Claims. (Cl. 99—391)



1. In a toaster having a toasting chamber, means for holding food to be toasted, and means for toasting said food, the improvement comprising: mechanism for supporting said holding means in either a toasting position or a non-toasting position, said supporting mechanism comprising a pair of control linkage assemblies, one of said control linkage assemblies being located adjacent each end of said holding means, each of said control linkage assemblies comprising a pair of control legs and a control link which are generally disposed in a common plane, said control legs being elongated and each being pivotally secured at one of its ends about a fixed point, said

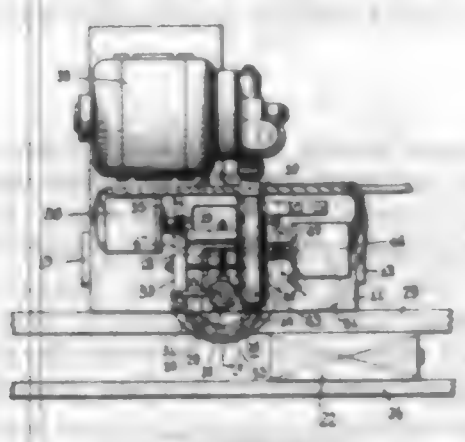
points being spaced, the other ends of the control legs of each assembly being pivotally secured to the ends of their associated control link, the parts of each control linkage assembly being disposed substantially in accordance with the principle of Watt's Motion, and said control links being secured to the ends of said holding means, whereby pivotal movement of said control legs results in substantially straight line movement of said holding means between said positions.

2,870,702

ARTICLE MARKING

John D. Van Buskirk, Southport, Conn., assignor to Van Buskirk & Company, Inc., Bridgeport, Conn., a corporation of Connecticut

Application July 16, 1954, Serial No. 443,927
13 Claims. (Cl. 101—35)



1. Apparatus for marking articles comprising a rotary member having exposed marking means thereon, said member and means having a predetermined, at-rest, premarking starting position and being engageable and rotatable by an article to be marked for effecting the marking thereof; means for moving articles one at a time past said rotary member in a path providing rolling printing contact between a surface of each article and said rotary member; means to turn said rotary member rapidly to said predetermined starting position when otherwise positioned, including a source of motive power and a driving train connecting the source with said rotary member; an affirmatively disengageable connection in said driving train; means responsive to the presence of an article in juxtaposition to said rotary member for operating said connection to disengaged condition to prevent rotation of said member by said motive power source when said member is in contact with said article, and responsive to the removal of a marked article from proximity to said member for re-establishing said connection to drive said member from said motive power source rapidly to said predetermined starting position in readiness for the marking of another article and means, responsive to positioning of said rotary member in said starting position, for interrupting said driving train.

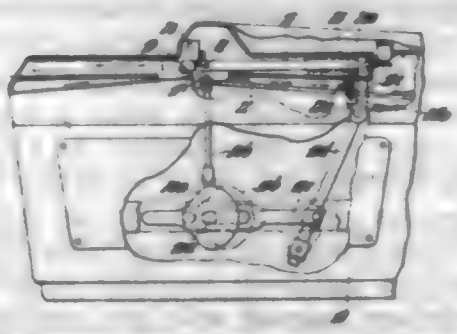
2,870,703

SCREEN PRINTING MACHINES

William Balmer, Glasgow, Scotland, assignor to Autoscreen Manufacturing Company Limited, Edinburgh, Scotland

Application November 20, 1956, Serial No. 623,489
Claims priority, application Great Britain December 30, 1955
1 Claim. (Cl. 101—126)

In a screen printing machine of the reciprocating screen and rotatable cylinder type, a transverse member which reciprocates with the screen, grippers carried by said members to grip the leading edge of the stock by which the stock is drawn between the screen and cylinder, a delivery conveyor to receive the printed stock, guide means for the ends of the transverse member, said guide means being inclined relative to the plane in which the screen reciprocates and further guide means for the ends of said member, said further guide means reciprocating with the screen and being slightly inclined relative to the normal of said plane, the aforesaid guide means combining to guide the transverse member so that the resultant travel imparted to the grippers during the printing stroke of the screen is progressively away from the screen but the linear travel is never greater than that of the screen, and the stock gripped by the grippers is peeled progressively and continuously throughout the printing stroke without danger of increasing the tension on the stock.

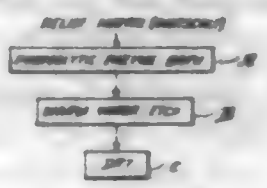


2,870,704

REDUCTION OF DYE ABSORPTION IN HARDENED GELATIN RELIEF MATRICES

Richard J. Goldberg, North Hollywood, and Earl M. Olds, Jr., Van Nuys, Calif., assignors to Technicolor Corporation, Hollywood, Calif., a corporation of Maine

Application October 8, 1957, Serial No. 688,921
6 Claims. (Cl. 101—149.1)



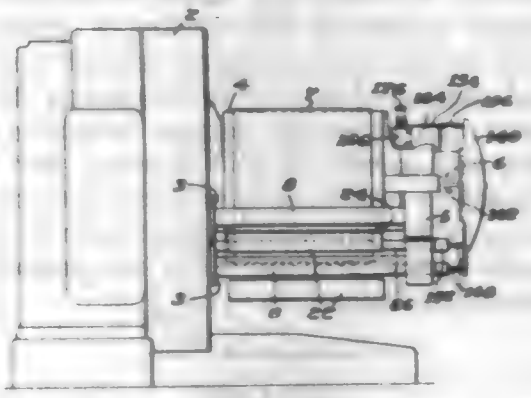
1. For reducing the dye absorption of a hardened gelatin relief matrix which absorbs dye in excess of the amount necessary correctly to reproduce a color aspect of a scene, the method which comprises treating the matrix with a proteolytic enzyme bath for a predetermined time sufficient to solubilize only a portion of the gelatin and dissolving said gelatin portion with a solvent, thereby reducing the dye absorption without destroying the contrast.

2,870,705

PRINT MACHINE DOCTOR BLADE DRIVING MECHANISM

Graydon Smith, Concord, Mass., assignor to Cranston Print Works Company, Cranston, R. I., a corporation of Rhode Island

Application February 19, 1957, Serial No. 645,391
7 Claims. (Cl. 101—152)



5. In a print machine having a backing cylinder and a plurality of print rolls operating in contact with the periphery of said backing cylinder at spaced positions thereabout to print a textile fabric passed around said backing cylinder beneath said print rolls successively by said rolls, doctor blades associated with each of said

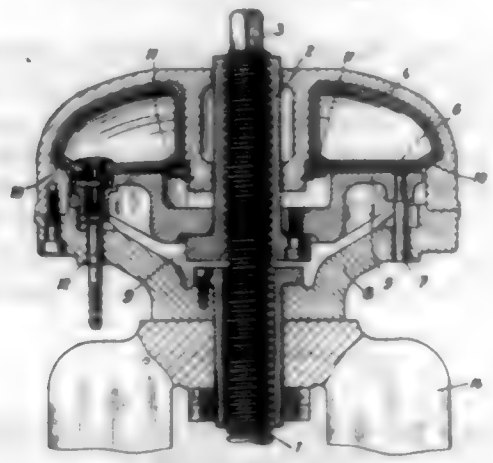
print rolls and mounted for reciprocating movement therealong in a direction parallel to the axes of said cylinder and rolls, and means for reciprocating said doctor blades axially of said print rolls, said means including a generally circular rigid disk-like wobble plate universally mounted at its center on the axis of said backing cylinder extending generally radially outwardly from and perpendicular to said axis, wobble plate drive means connected to said wobble plate at a point spaced from the center thereof for moving said point in a generally circular path lying in a plane tangent to a circle on said plate passing through said point imparting an adjustable wobbling motion about its center to said plate, said wobble plate drive means including at least two eccentric members having relatively rotatable circular cam surfaces in peripheral contact with one another, means for rotating one of said members and means for adjustably positioning another of said members to vary the relative eccentricity establishing the diameter of said circular path, and doctor blade drive means extending generally parallel to the axes of said print rolls connected between each of said doctor blades and said wobble plate for reciprocating each of said doctor blades, said drive means being connected to points on said wobble plate circumferentially spaced from one another and at substantially equal radial distances from the center of said wobble plate.

2,870,706

PRESSURE MEANS FOR ROTARY PRINTING MACHINES

Peter Urban, Huls, near Krefeld, Germany, assignor to Eduard Kusters

Application July 14, 1955, Serial No. 522,148
Claims priority, application Germany July 19, 1954
5 Claims. (Cl. 101—247)



1. In a machine for printing on webs, comprising an impression cylinder and at least one printing roller mounted to be displaced radially towards said impression cylinder, means for pressing said printing roller against said impression cylinder, said means comprising a housing, a movable bottom in said housing, a spindle fixed to said movable bottom and extending through said movable bottom and said housing, means connecting said spindle to said roller and an elastic annular inflatable container surrounding said spindle in said housing, said container being arranged to bear against said movable bottom and said housing, whereby, when said container is inflated, said movable bottom and said roller are pressed towards said impression cylinder.

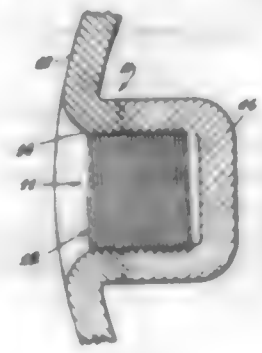
2,870,707

BOMB SHELL WITH HANGER SOCKET STRUCTURE

George Albert Lyon, Detroit, Mich.

Application February 18, 1955, Serial No. 489,240
1 Claim. (Cl. 102—2)

In a bomb shell having a curved cylindrical wall portion, a hanger socket comprising a punched inwardly extending circular flange in said curved wall, and a circular closed cup-shaped socket member disposed as a boss projecting into the interior of the shell and having a circular flange of substantially the same inside diameter as said cylindrical flange edge and welded edgewise in complete sealing relation to the flange and defining therewith an outwardly opening socket entirely closed in moistureproof relation from the inside of the



shell, the socket having a cylindrical internal wall surface inclusive of both flanges and being threaded with a continuous thread that extends from adjacent the mouth of the socket inwardly along both flanges and across the weld joint between the flanges, so that a hanger member threadedly secured in said socket by means of said thread will act to draw the socket member toward said inwardly extending wall flange.

2,870,708

FIRING LINE FOR SUBAQUEOUS GEOPHYSICAL PROSPECTING

George M. Pavey, Jr., Dallas, Tex., assignor to Marine Instrument Company, Dallas, Tex.

Application August 19, 1955, Serial No. 529,451
17 Claims. (Cl. 102—16)



1. In a surveying system for seismic exploration of submerged areas from a vessel, the combination of a firing line towed by said vessel and having an electrode exposed to the surrounding sea water near the trailing end thereof, said electrode comprising a contact surface encircling the firing line and having a stop member formed thereon, a casing having an explosive charge therein, said casing comprising means forming a second electrode, an electroresponsive detonator for exploding said charge, means for electrically connecting the detonator to said first named and second electrodes respectively, a third electrode on the trailing end of said firing line, said third electrode being constructed and arranged to be in close spaced adjacency but not in physical contact with said second electrode and to extend rearwardly beyond said trailing end of the firing line as the firing line is towed through the water, and means for applying an electrical firing impulse to said first named and third electrodes of sufficient strength to fire the detonator.

2,870,709

ELECTROFORMED ARTICLES AND PROCESS FOR THEIR MANUFACTURE

Edwin D. Boelter, Jr., Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application October 28, 1955, Serial No. 543,496
2 Claims. (Cl. 102—24)

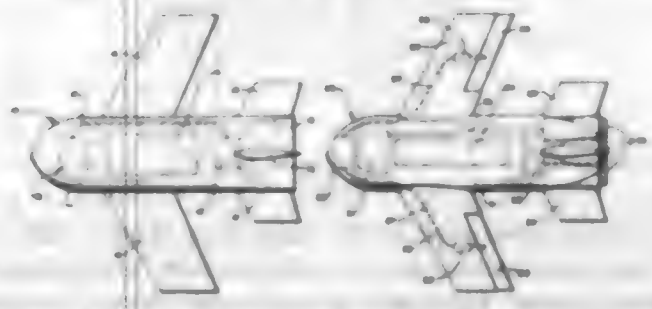
1. In a jet perforator comprising a shaped charge, means for detonating said shaped charge, a container substantially surrounding the shaped charge and a cavity in

the base of the same, a lining in said cavity comprising a substantially strain-free copper cone produced by elec-



trodepositing copper from an alkaline copper cyanide bath ing 50–1000 p. p. m. of an inorganic selenide.

2,870,710
COMPOUND PROJECTILE WITH SEPARABLE SECTIONS
Roland E. Miedel, Hatboro, Pa.
Application March 18, 1954, Serial No. 415,452
6 Claims. (Cl. 102—50)
(Granted under Title 35, U. S. Code (1952), sec. 266)

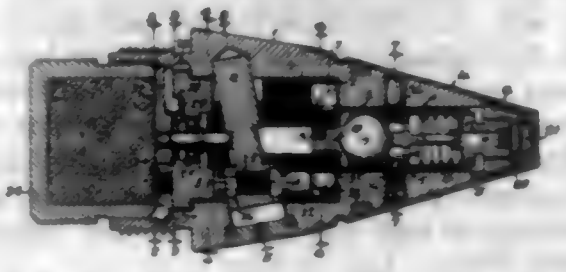


1. An airborne compound projectile assembly comprising at least two individually aerodynamically stable elongated projectile sections each containing a destructive charge therein, connecting means arranged to rigidly interconnect said sections in axial alignment with complementary surfaces interfitted and automatically releasable as the projectile assembly approaches a target, aerodynamic braking means initially disposed in a low drag position upon the rearmost section and movable to a high drag position, and positioning means operable when said connecting means is released to move said aerodynamic braking means to the high drag position and thereby withdraw said rearmost section from the next adjacent section in flight, whereby said sections continue along substantially the same trajectory to strike the same target at spaced intervals.

2,870,711
PROJECTILE CARRYING VEHICLE
Irwin R. Barr, Kingsville, and Richard S. Dowd and John W. Thompson, Baltimore, Md., assignors to Aircraft Armaments, Inc., Baltimore, Md., a corporation of Ohio
Application May 14, 1953, Serial No. 355,006
6 Claims. (Cl. 102—50)

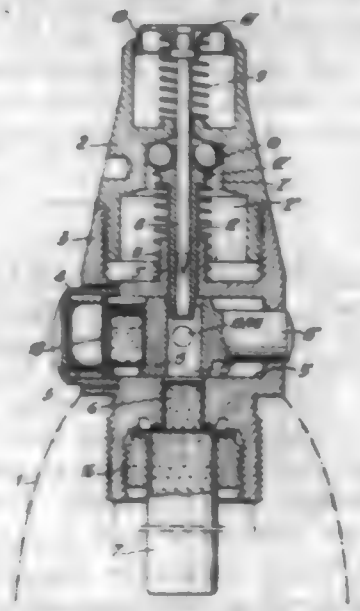
1. A vehicle for aerodynamically stabilizing a projectile and adapting it to a gun having a bore larger than the diameter of said projectile comprising, a tubular housing, means carried by said housing adjacent the forward end thereof for securely mounting said projectile on said housing, a plurality of radially extending fins carried by said housing adjacent the rear end thereof for aerodynamically stabilizing said vehicle and projectile, the diameter defined by the outer edge of said fins being substantially equal to the bore diameter of said gun, and the length of said fins being sufficient to stabilize and support said vehicle and projectile for only axial movement within said gun, a propellant carried within said housing for generating gas, an opening formed in the rear end of said housing for exhausting said gas within the bore of said gun, and a pair of semi-circular obturating plates swingably carried by the rear ends of two of said fins and arranged to circumferentially engage the bore of said gun for trapping said exhaust gases within said gun whereby to accelerate said vehicle, said plates being responsive to air drag after leaving said mortar to swing into approximate alignment with the vehicle flight path.

2,870,712
FUZE FOR USE ON ROTATING ARTILLERY AMMUNITION
Julius L. Brown, Mount Vernon, Edwin F. Shelley, New Rochelle, and Theodore K. Steele, Bayside, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application October 23, 1953, Serial No. 388,076
16 Claims. (Cl. 102—70.2)



1. In a point detonating fuse for a rotating projectile a body having an axial passage from front to rear, an arming rotor toward the rear of said passage and movable in response to spin, a detonator explodable upon the passage therethrough of electrical energy and forming a part of an explosive train, a pyrotechnic element carried by said rotor movable to form a part of said explosive train in armed position, piezoelectric means toward the front of said passage, a primer disposed adjacent said piezoelectric means, a plunger in said passage extending toward said primer and normally spaced therefrom, means responsive to projectile ricochet to force said plunger into said primer, a firing circuit including said piezoelectric means, plunger, detonator and fuze body in series in the sequence named, and centrifugally-releasable means carried by said fuze body and normally engaging said plunger to immobilize said plunger and short circuit said piezoelectric means until released in response to projectile spin.

2,870,713
FUSE FOR SHELLS
Arvo Eetio Salorants and Eeko Puronto, Helsingfors, Finland
Application June 9, 1955, Serial No. 514,188
8 Claims. (Cl. 102—78)



2. A fuse for shells, comprising a body having a head portion, a firing pin mounted in said head portion for

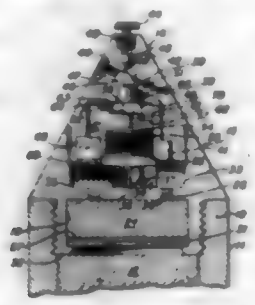
sliding movement in the axial direction of said fuse body, said firing pin having a striker, said body having a bottom portion which is adapted for connection with a shell, a booster charge mounted in said bottom portion, a slider mounted in said fuse body between said firing pin and said booster, for sliding movement in a direction transverse to the axis of said body from safety position to armed position, a priming cartridge carried by said slider, said slider, when in safety position, holding said priming cartridge out of the path of said axially movable firing pin and when in armed position holding the cartridge in the path of movement of said firing pin and in communication with said booster charge, a sleeve-shaped lock bolt for holding said slider in safety position mounted in said fuse body for sliding movement in the axial direction of said fuse body and surrounding said firing pin for guiding the same, said slider having an axially extending hole for accommodating the rear end of said lock-bolt and allowing frictional engagement of said lock-bolt with one side of said hole, said firing pin and said lock bolt being provided with independent support springs, and both being provided for rearward movement upon firing, and release balls normally holding the lock bolt in locking position in said hole in said slider but upon the rearward movement of said lock-bolt allowing disengagement of said lock-bolt from said locking position in said slider.

2,870,714

DELAYED ARMING DEVICE FOR A FUZE

Royal Weller, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application June 3, 1949, Serial No. 97,064
5 Claims. (Cl. 102—79)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In an impact fuze for a spin missile, a casing, an explosive charge arranged within said casing, an extensible bellows arranged within said fuze in coincidence with the axis of spin of the missile, respective end walls sealing said bellows, a quantity of liquid sealed within the bellows whereby said bellows is extended in response to the pressure of the liquid caused by centrifugal force of the liquid as the spin of the liquid approaches the spin of the missile, means actuated by an end wall of the bellows for arming the fuze when the bellows has been extended a predetermined amount, and means responsive to impact of the missile with a target for firing said explosive charge.

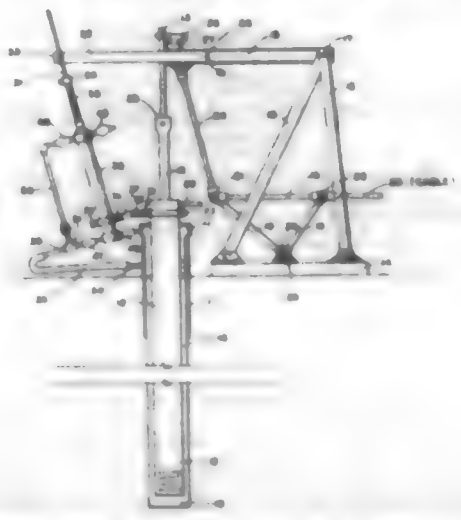
2,870,715

WELL PUMPING APPARATUS

Gaylord P. Barrett, Nocona, Tex.; Mary Jo Barrett, administratrix of said Gaylord P. Barrett, deceased

Application May 2, 1955, Serial No. 505,360
1 Claim. (Cl. 103—6)

An improved pumping system for use with a well comprising a casing enclosing the top portion of the well, a pipe string within and extending above said casing forming the outer shell of a well pumping unit, a pivotally supported beam, means for supporting said beam, a power cable secured to said beam whereby application of tension causes said beam to rotate in a first direction about its fulcrum, a sucker rod attached to be reciprocated axially by said beam and connected to said beam so that the weight of the sucker rod urges said beam for rotation in a second direction about its fulcrum counter to said first direction, a piston within said pipe string connected to the lower end of said sucker rod and adapted to travel freely within said pipe string, a vacuum pump comprising relatively movable piston and cylinder elements wherein said piston element is connected to said beam for actuation thereby and the cylinder is pivotally



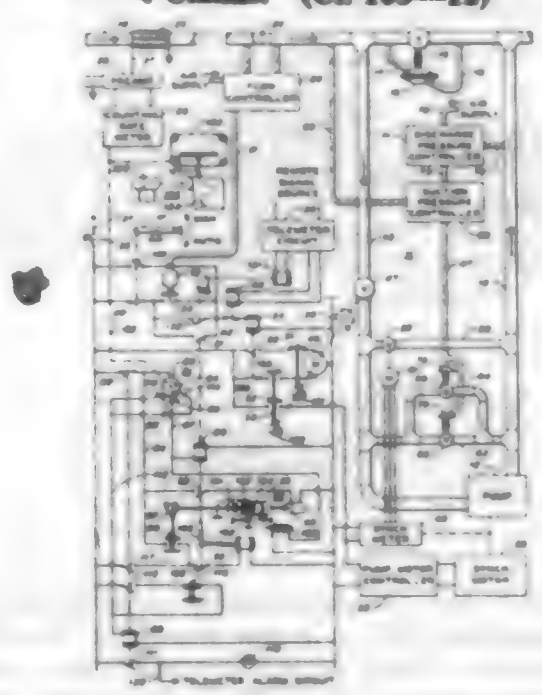
connected to said pipe string extending above said casing, said pivotal connection including a first clamping member having jaw portions at each end thereof shaped to engage said pipe string extending above said casing and a second clamping member pivotally connected to said first clamping member, said second clamping member having jaw portions at each end thereof and shaped to engage said cylinder element and conduit means for connecting said vacuum pump with the space in the well bore.

2,870,716

BOOSTER PUMP STATION CONTROL

William Edward Mentley, Oakland, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application May 5, 1953, Serial No. 353,129
4 Claims. (Cl. 103—12)



1. In combination with a pump in an intermittently operated booster station of a pipe line conveying successive liquid products having different physical characteristics, to prevent mixing thereof, a control system comprising means responsive to flow conditions in said line and associated therewith for energizing said pump, a detector associated with said line and responsive to a first change in a physical property of the liquid passing into said station, means connecting said detector and said flow-responsive means for controlling the flow of

liquid through said pump independently of said flow-responsive means, a time-delay means, and means connecting said time-delay means to said detector to restore control of said pump to said flow-responsive means a predetermined time after a second change occurs in a physical property of liquid passing into said station.

2,870,717
PRESSURE GENERATING MEANS FOR DEEP WELL PUMPS

John E. Dube, Chesterfield, Mo., and Roger W. Schoen, Mineral Wells, Tex., assignors to Alco Valve Company, St. Louis, Mo., a corporation of Missouri

Application August 13, 1953, Serial No. 374,004
4 Claims. (Cl. 103—45)

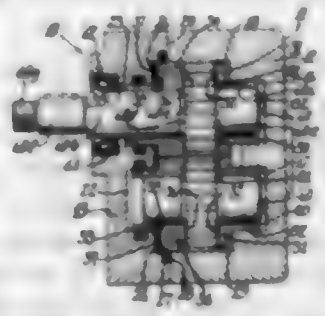


1. In a well pumping apparatus: a fluid circuit including a primary fluid pump, a fluid motor, connections between the pump and the fluid motor so that the fluid pressure produced by the pump operates the fluid motor, and connections from the fluid motor back to the pump whereby the fluid can be circulated in a closed system; a heat exchanger having two passes, one pass interposed in one of said connections; a secondary pump connected with and adapted to be operated by the fluid motor; power fluid piping connecting into the last named pump; power oil high pressure piping leading from the last named pump, a deep well pump connected to the power oil high pressure piping at the bottom of a well; a production fluid piping for conducting production fluid from the pump; and connections introducing one of said last named fluid pipings through the other pass of the heat exchanger.

2,870,718
IMPLEMENT PUMP

Herbert F. Prasse, Gates Mills, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application October 23, 1953, Serial No. 387,826
10 Claims. (Cl. 103—126)

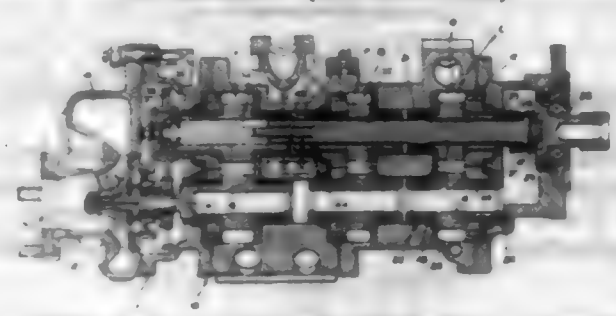


1. A pump comprising a casing having a pumping chamber with an inlet and an outlet, rotary fluid displacement means in said pumping chamber, and movable end plate means in said casing comprising a generally tubular bushing having a flange at one end providing a front sealing face to engage said rotary fluid displacement means and a rear pressure face spaced from an adjoining wall of said casing to provide a pressure control chamber, said tubular bushing providing a generally cylindrical bore wall forming a bearing surface, means communicating pump generated pressure fluid to said pressure control chamber to load said bushing toward sealing engagement with said rotary fluid displacement means, and a passageway in said bushing extending radially inwardly through said tubular bushing from said pressure control chamber and intersecting said bearing surface between opposite ends of said bushing to supply pressurized fluid for flow in opposite axial directions towards said opposite ends for cooling and lubrication of said bearing surface.

2,870,719
BUSHING FOR PRESSURE LOADED GEAR PUMP HAVING A TAPERED JOURNAL SURFACE

John F. Murray, Macedonia, and John A. Wotring, Painesville, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application October 4, 1955, Serial No. 538,450
20 Claims. (Cl. 103—126)

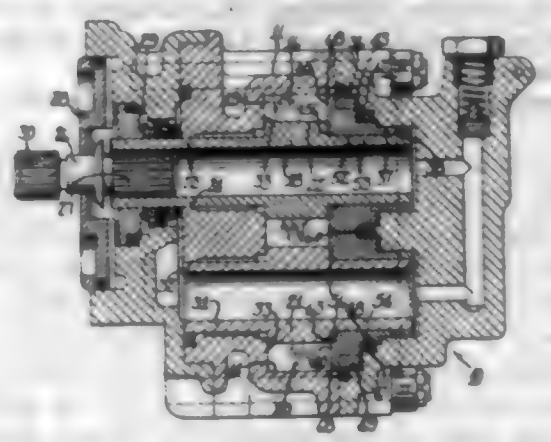


1. A fluid pump of the type including a housing having an inlet and an outlet port formed therein, a rotatable pumping member journaled in said housing for transferring fluid from said inlet to said outlet, axially movable end plate means adapted to engage said pumping member in sealing relation and movable independently of said rotatable pumping member, a continuous generally annular motive surface on said end plate adapted in response to application of pressure thereto to urge said end plate toward said rotatable member to establish said sealing relation, conduit defining means for continuously communicating pressure generated by said pump to said motive surface, said motive surface having a generally circular outer periphery concentrically disposed with respect to the axis of rotation of the pumping member and a generally circular inner periphery eccentrically disposed with respect to the axis of said pumping member, said inner periphery having its center offset toward said inlet port, and means forming bearing and journaling surfaces between said rotatable pumping member and said movable end plate means provided with a divergent inclination extending in the direction of the engaging portions of said pumping member and said end plate means to provide an annular generally conical clearance space, reducing center load concentration.

2,870,720
MOVABLE BUSHING FOR A PRESSURE-LOADED GEAR PUMP

Donald L. Lorenz, Euclid, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application January 10, 1956, Serial No. 558,307
3 Claims. (Cl. 103—126)



1. In a high pressure gear pump, a housing having an inlet and an outlet and providing a pumping cavity,

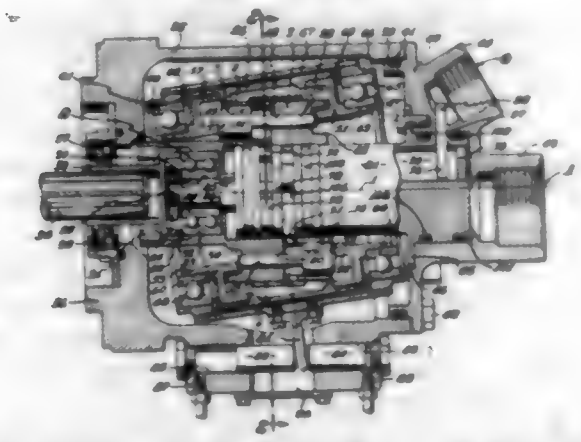
and end plate means for said cavity in said housing, said end plate means having a pressure-receiving back surface forming together with means including a portion of said housing a pressure-control chamber, said end plate means having a pressure-sealing front surface for engaging an adjoining side face of a rotary gear fluid displacement means, and means placing said pressure control chamber in pressure communication with said outlet, said sealing front surface having a chamfered peripheral edge forming a passageway extending from the outlet side of said end plate means around the periphery and terminating short of the inlet side of said end plate means to intercommunicate the spaces between the gear teeth and the pump outlet.

2,870,721

HYDRODYNAMIC APPARATUS USING INCLINED PLATES

Elias Orshansky, Jr., Pasadena, Calif., assignor, by mesne assignments, to The New York Air Brake Company, New York, N. Y., a corporation of New Jersey

Application February 25, 1954, Serial No. 412,408
7 Claims. (Cl. 103—162)



2. In hydrodynamic apparatus: a cylinder block, there being cylindrical spaces formed in said block by cylindrical surfaces, said surfaces having parallel axes; a stationary pintle for rotatable supporting said block; each of the cylinder spaces having a radially inwardly directed port; a piston operating in each cylinder space; means for reciprocating said pistons as the block is rotated; a collar attached to the pintle and having arcuate inlet and outlet ports cooperating with the cylinder ports; said pintle having corresponding longitudinally extending ports in constant communication with said collar ports; and collars carried by the block and disposed on each side of the collar; the collars carried by the block having surfaces in contact with the opposite sides of the collar attached to the pintle; the adjacent surfaces between the collar attached to the pintle and the collars carried by the block having communicating annular grooves.

2,870,722

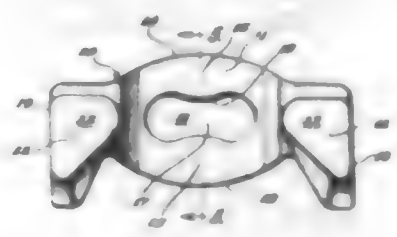
ANCHOR FOR LADING STRAPS AND THE LIKE

Gilbert F. Oakley, Chicago, Ill., assignor to MacLean-Fogg Lock Nut Company, Chicago, Ill., a corporation of Illinois

Application July 19, 1954, Serial No. 444,110
4 Claims. (Cl. 105—369)

2. An anchor for lading straps and the like for use on railway freight cars and comprising, in combination, a tie post portion of generally symmetrical shape relative to a plane extending longitudinally thereof and of a length along said plane which is greater than its width in a direction normal to said plane, said tie post portion being of a thickness less than its width and having longitudinally convex edges extending longitudinally of the tie post portion on opposite sides of said plane, said tie post portion also having a longitudinally convex surface and a relatively flat surface providing faces in opposed and spaced relationship to one another and extending between the said convex edges, wing portions of similar shape to one another integral with opposite longitudinal ends of the tie post portion and having end surfaces in opposed relationship to one another and spaced therefrom in a direction longitudinal of the tie post portion, said wing portions also having side faces in substantially flush relationship to the said relatively flat surface of the tie post portion,





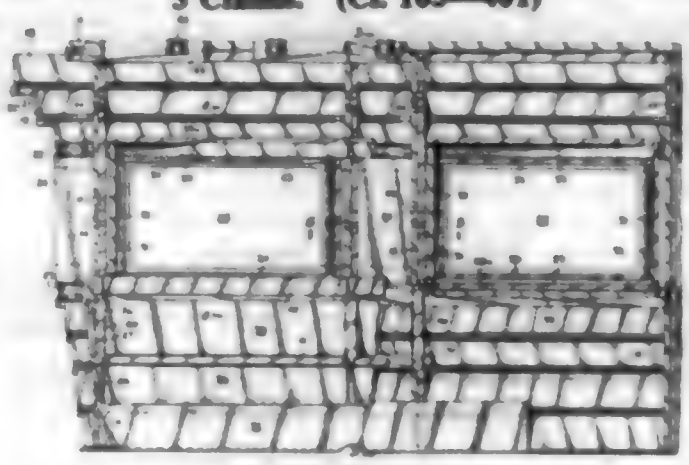
and said wing portions having mounting surfaces aligned with one another longitudinally of the tie post portion and extending in acute angular relationship to the said relatively flat surface of the tie post portion, said mounting surfaces also being in a plane spaced from the tie post portion in directions normal to the planes of the mounting surfaces.

2,870,723

RAILWAY CAR SIDE WALL

George E. Bock, Munster, Ind., and John H. Spence, Chicago, Ill., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application June 29, 1954, Serial No. 440,134
3 Claims. (Cl. 105—401)



1. In a vehicle side frame having a side plate and a side sill, a plurality of vertical members, and outer sheathing having window openings therein, said vertical members being structurally secured to said sill, plate and sheathing, and window framing means structurally secured directly only to said outer sheathing thereby stiffening said outer sheathing to such an extent as to cause said vertical members to conform to said sheathing, the window framing means comprising a box frame having four units, each unit including a window frame element connected to a sash element, each sash element being secured to said outer sheathing.

2,870,724

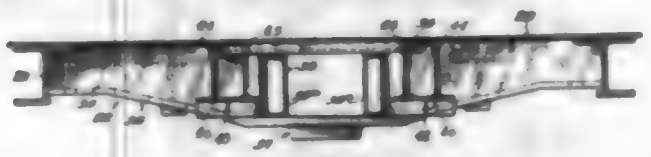
RAILWAY FLAT CAR UNDERFRAME

Jack E. Gutridge, Munster, Ind., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application January 27, 1954, Serial No. 406,429
2 Claims. (Cl. 105—414)

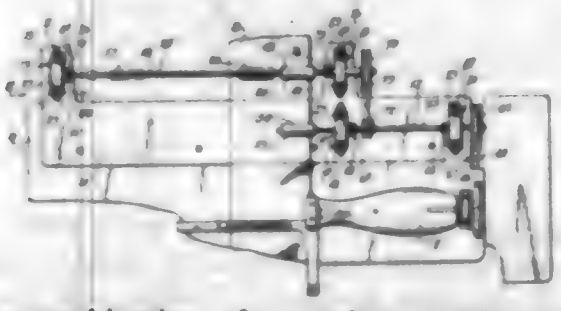
1. In a railroad car for the purpose described having a floor and an underframe comprising a center sill, side

sills, end sills, cross bearers, and body bolsters between the cross bearers and the end sills, the combination therewith of means supporting said floor on said underframe comprising a first set of members overlying the cross bearers and extending only between the bolsters and connected at their ends thereto and including a pair of members each having a vertical web located closely adjacent a side of the center sill and another pair of members each spaced equidistantly between the center sill and one of the side sills, the upper edges of each of said pairs of members being operatively connected to the floor for



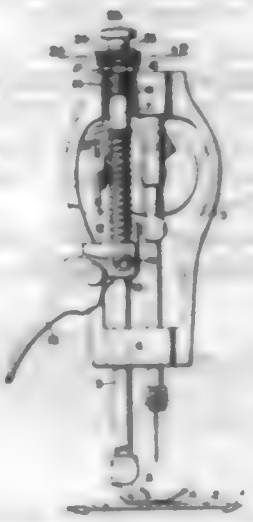
supporting the same, and said supporting means comprising also a second set of members including a pair of bracket assemblies extending from each bolster to the adjacent end sill, each bracket assembly being spaced laterally from the center sill and comprising a pair of laterally spaced vertical longitudinal plates having their inner ends connected to the adjacent bolster and their outer ends connected to the adjacent end sill, and a generally horizontally disposed base plate connecting the bottom edges of the plates of each pair, the upper edges of said bracket assemblies being operatively connected to the floor for supporting the same.

2,870,715
AUTOMATIC TRANSPORTING-GUIDING DEVICE FOR SEWING MACHINES
Tobias Cohen, Brooklyn, N. Y.
Application August 6, 1956, Serial No. 602,365
3 Claims. (Cl. 112—211)



1. The combination of a sewing machine and a device for transporting and guiding material from the sewing machine at a uniform predetermined speed and tension, comprising a support table having substantially a planar surface, said sewing machine being mounted on the table with the horizontal axis of the sewing machine parallel to the planar surface, said device comprising a pair of spaced parallel shafts whose axis are in a plane normal to the planar surface with opposite ends, parallel to the horizontal axis of the sewing machine and the planar surface, including a bearing assembly rotatably supporting said shafts, secured to the table said table and assemblies including means for adjusting the assemblies axially along the shafts, said sewing machine including a pulley, one of said shafts having a pulley at one end, in further combination with a motor driven pulley operatively connected with driving belts to the sewing machine and shaft pulleys whereby actuation of the motor causes simultaneous actuation of the sewing machine and shafts, said shafts including meshing gears whereby both shafts rotate simultaneously in opposing directions, said shafts including opposing adjacent rollers at the shaft ends remote from the pulley and aligned with the sewing machine needle, said bearing assembly being located between the shaft pulley and the rollers, said bearing assembly having a bushing adapted to receive one of said shafts rotatably, said assembly further including a block vertically movable relative to the base having a bushing spaced from and parallel to the first said bushing adapted to receive the other of said shafts each of said assemblies having threaded bolts symmetrically placed on both sides of the bushings extending thru the table in further combination with springs mounted on the bolts urging the block towards the base and means for forcing the said resilient means against the movable block with varying pressure, in further combination with nuts mounted on the bolts between each block and base whereby the roller spacing is restricted to a predetermined minimum.

2,870,726
PRESSER MECHANISMS FOR SEWING MACHINES
Anthony J. Maturas, Union, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application September 9, 1955, Serial No. 533,483
6 Claims. (Cl. 112—236)

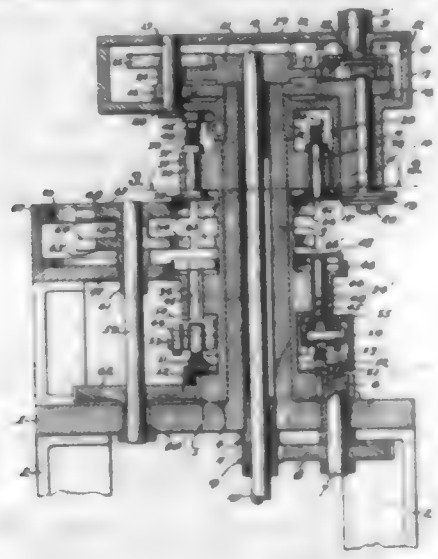


1. A quick-release device for the pressure mechanism of a sewing machine comprising a bushing adapted to be secured in the head of a sewing machine and having a bore, a sleeve mounted for axial sliding movement in the bore of said bushing and having serrations in the peripheral surface thereof, a substantially U-shaped radially-collapsing spring mounted upon the end of said bushing about said sleeve, means for anchoring one end of said spring in said bushing, a cap mounted for turning on the end of said bushing adjacent to said spring, and means for securing the other end of said spring to said cap, said spring being normally collapsed into engagement with the peripheral surface of said sleeve to cooperate with said serrations to lock said sleeve against sliding movement in one direction relative to said bushing, whereby when said cap is turned, said spring will be expanded to release said sleeve for sliding movement.

2,870,727
CAN CLOSING MACHINE
John C. Strickler, San Francisco, Calif.
Application April 23, 1954, Serial No. 425,264
9 Claims. (Cl. 113—23)

1. A machine for seaming tops onto cans comprising a frame, a rotatable turret on said frame operable to advance a succession of cans and tops from a receiving station to a delivery station, a plurality of can gripping units mounted in angularly spaced relation upon the periphery of the turret, each unit comprising upper and lower plates freely rotatable upon the turret and axially movable to press the cans and tops into engagement, a plurality of seaming wheels journaled for orbital movement about fixed points in angularly spaced relation on said frame adjacent the turret for seaming the tops onto cans carried therepast by the turret, driving means for rotating the seaming wheels, and means for moving the wheels orbital-

ly in timed relation with the rotation of said turret and with the movement of the cans and tops for maintaining



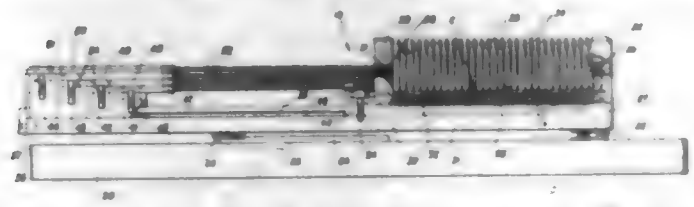
progressive seaming engagement with each successive can and top.

2,870,728

THREE DIMENSIONAL ALIGNING APPARATUS FOR ELECTRONIC COMPONENTS

James R. Goodykoontz, Jr., Santa Monica, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application November 29, 1957, Serial No. 699,606
6 Claims. (Cl. 113—99)



1. An electronic circuit module component aligning apparatus comprising: a supporting structure normally adapted for horizontal disposition; spaced rows of pins disposed normally generally vertically from said supporting structure; a plurality of pairs of rods adapted for disposition adjacent and substantially normal to said rows of pins; means for individually selectively disposing at least a portion of said pairs of rods in said position adjacent said pins, whereby to define a plurality of laterally aligned pairs of generally square spaces between said rods and said pins through which leads of said components may be disposed; and means for effecting gravitational engagement of said leads with said pins and rods at laterally spaced junctions between one pair of said pins and one pair of said rods thus to align said leads to permit disposition of perforated circuit carrying boards thereon.

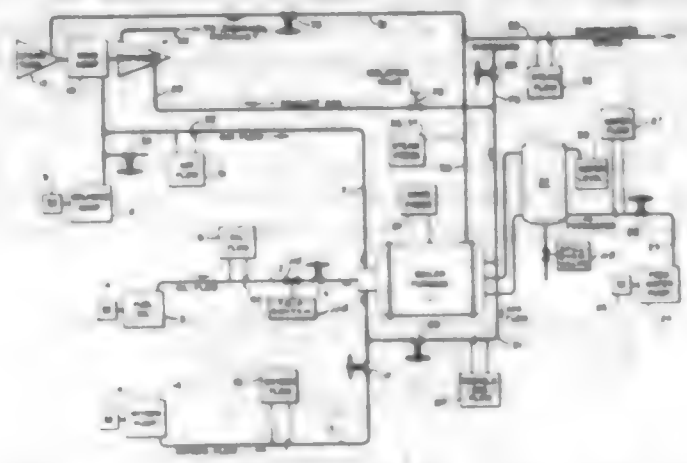
2,870,729

CONTROL SYSTEMS

Jack F. Shannon, Euclid, Clayton H. Barnard, South Euclid, and Howard C. Schink, Cleveland Heights, Ohio, assignors to Bailey Meter Company, a corporation of Delaware

Application January 10, 1952, Serial No. 265,897
8 Claims. (Cl. 114—16)

3. A system for controlling the steam generation process of a submarine propulsion unit subject to surface, snorkel and submerged operating conditions, including in combination, a steam generating furnace combustion chamber in the submarine interior, a fuel supply conduit for the furnace, an oxidant supply conduit for the furnace, a first meter for the fuel conduit, a second meter for the oxidant conduit, regulating valves in each of the conduits, a master steam pressure controller positioning the conduit valves simultaneously, a ratio determining means sensitive to the first and second meters modifying the regulation of the fuel supply conduit valve, a constant supply of fuel for the fuel supply conduit of the furnace, a compressor of constant speed connected to the oxidant supply conduit for supplying air from the submarine interior, and a valve in the oxidant conduit



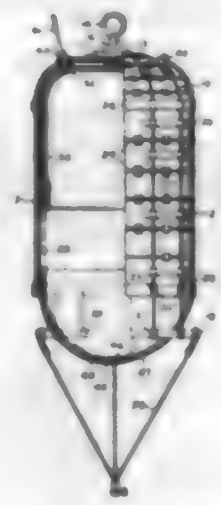
between the compressor and furnace under the conjoint control of the master steam pressure controller and the oxidant meter.

2,870,730

SALVAGE PONTOON

Anthony I. Bruno, West New York, N. J.

Application February 1, 1956, Serial No. 562,703
11 Claims. (Cl. 114—54)



1. A salvage pontoon comprising an envelope made of flexible, substantially non-stretchable material adapted to contain an inflating medium provided with an opening for escape of the inflating medium, and a wall composed of flexible, resilient material normally closing the area of said opening, said wall having its peripheral edge portions secured to said envelope around the edge of said opening and having within the area defined by said secured edge portions thereof cooperative edge portions providing a vent opening under pressure directly applied by the inflating medium in said envelope, said cooperative edge portions being normally closed by the inherent resiliency of said wall material when the internal and external pressures on said envelope are substantially in balance to prevent escape of the inflating medium therebetween and being automatically operable as soon as there occurs a condition of unbalance in the internal and external pressures on said envelope sufficient to overcome the inherent resiliency of said wall to instantly release sufficient of the inflating medium to promptly restore a balanced condition of such pressures.

2,870,731

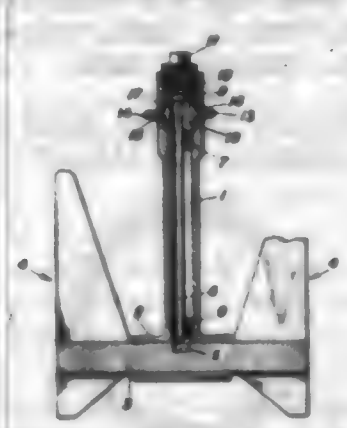
ANCHOR

James F. Marshburn and Henry W. Wills, Snow Hill, N. C., assignors of ten percent to William R. Hodge, Washington, D. C.

Application May 2, 1957, Serial No. 656,583
4 Claims. (Cl. 114—208)

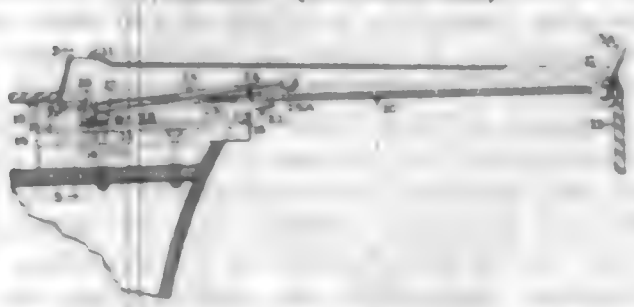
1. A rolling anchor comprising a hollow cylindrical body, a hollow hub secured to one end of said body and

perpendicular thereto, a shaft disposed within said hollow hub, a plurality of fluke assemblies mounted on either end of said shaft, a pin disposed centrally of said hollow cylindrical body and reciprocatable therein, a recess in said shaft aligned with said pin and having a limited arcuate length about the circumference of said shaft, a head on one end of said pin remote from said shaft,



a spring for depressing said pin into said recess, a cable eye extending into said hollow cylindrical body at diametrically opposed points of said hollow cylinder, said eye being rotatable with respect to said hollow cylindrical body and cam means secured to the portions of said eye extending into said body for engaging said head and raising said pin upon said eye obtaining a predetermined rotational position with respect to said hollow body.

2,870,732
ANCHOR BOOM ASSEMBLY
Fred C. Good, Philadelphia, Pa., assignor to Fred C. Good & Sons, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application May 16, 1957, Serial No. 659,625
6 Claims. (Cl. 114—210)



1. An anchor boom assembly for mounting on the deck of a boat, comprising in combination: An elongated boom member over which the anchor line passes; a base plate member rigidly secured to the deck of the boat; an upper plate member overlying said base plate and hinged thereto at the outboard end thereof, the hinge being in the horizontal plane transversely of the boom; means forming a hinge connection between the inboard ends of said boom and said upper plate member, the axis of the hinge lying in a horizontal plane transversely of the boom; and means forming a pivotal connection between the rear inboard end of said boom and the upper and lower plate members, the axis of the pivot being in the vertical plane; whereby the boom and upper plate may pivot about a horizontal axis to substantially parallel the anchor line during the lowering and raising operations.

2,870,733
CLEAT
Simon P. Wuther, Chicago, Ill.
Application October 7, 1957, Serial No. 688,508
10 Claims. (Cl. 114—218)

1. A flush type cleat for mounting in a recess on the coaming or bulwark of a water craft comprising an elongated housing having sides and top flush with the sides and top of the coaming or bulwark, a transverse aperture intermediate the ends and extending between the sides of the housing, an upstanding post in the aperture dividing said aperture into two spaced passages for reception of a line, recesses in the top of the housing adjacent the aperture, a locking plate receivable by the recesses, vertically movable means carried by the locking plate and slidably related to the housing, said locking

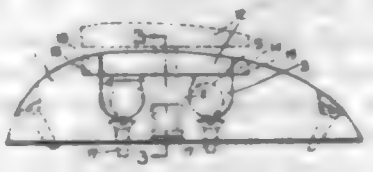
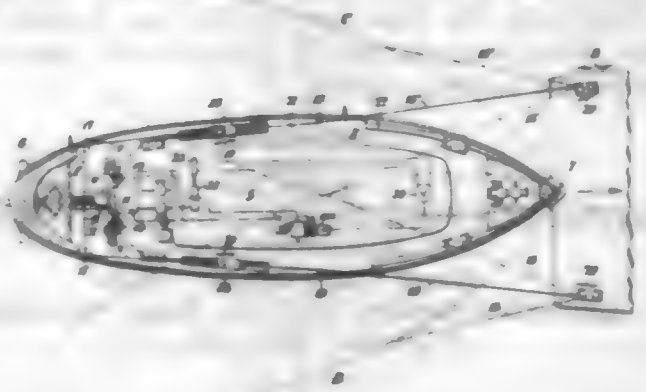


plate registering with the recesses when in locking position and movable vertically out of the recesses and rotatable into transverse relation to the longitudinal axis of the housing for reception of a line on the post of the cleat.

2,870,734
COUPLING AND STEERING APPARATUS FOR A SINGLE SCREW TUG
John Percy Armstrong and John Donald Hoffpauir, Orange, Tex.
Application November 23, 1955, Serial No. 548,651
3 Claims. (Cl. 114—236)



1. In combination, a single screw tug and a barge, means pivotally connecting the forward end of said tug to an end of said barge, a pair of sheave carriers slidably connected to said tug, one at each side thereof, with capacity for sliding movement forwardly and rearwardly of said tug, a pair of sheaves, one carried by each of said sheave carriers, a pair of lines, one trained around each of said sheaves, means maintaining an end of each of said lines in adjusted and fixed position relative to said tug, a pair of winch means on said tug connected to the other ends of said lines, each winch means being connected to a respective end, for paying out and winding in said lines, and a pair of sheave carrier positioning lines, each fixed respectively to one of said sheave carriers and each of said positioning lines extending forwardly of said tug to a corresponding side of said barge and secured thereto.

2,870,735
PERMIT SYSTEM FOR PARKING AUTOMOBILES
Reginald R. Hunt, Seattle, Wash.
Application March 23, 1956, Serial No. 573,528
1 Claim. (Cl. 116—133)



A parking time indicator to be positioned within a vehicle in externally visible position, comprising: a disc

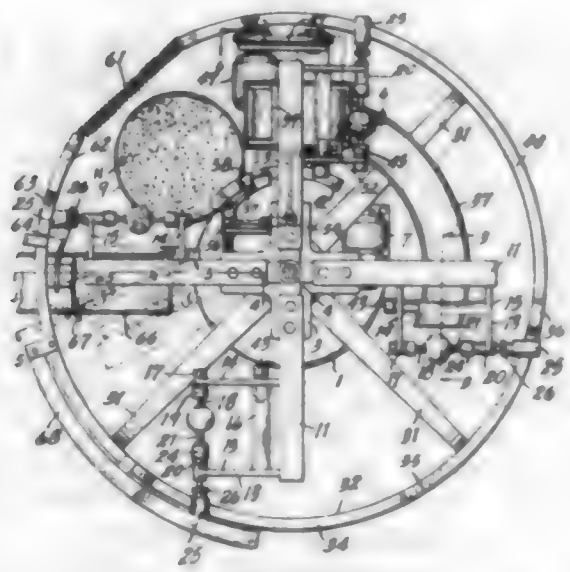
shaped body formed by a face plate and a base plate secured together in aligned and abutted position, said face plate having identification indicia thereon indicating the vehicle license number and the political division with which the indicator is associated and having time dial indicia radially disposed indicating the hours and parts thereof, a vacuum cup centrally disposed on said face plate and adapted to be secured to the inside of a vehicle window thereby displaying said face plate, said vacuum cup being secured to said body by a screw embedded therein and extending through said body and a manually adjustable knurled nut on the end of said screw to press on said base plate to secure the assembly together and a minute indicating pointer mounted on said screw to be located by the motorist in position indicating parts of an hour in the manner of the minute hand on a clock and said pointer being secured in adjusted position by said nut, said base plate having a rim overhanging its rear face and a pair of sliders each having a rear portion with an arcuate groove fitting said rim and abutting the rear face of said base plate and having an overlapping front portion abutting the front face of said face plate whereby said sliders are slidable about the perimeter of said body, and said sliders having pointers on said front portion reading on said time dial, one slider being marked as indicating the time the vehicle was parked and the other slider being marked as indicating the time at which permissible parking expires.

2,870,736

APPLE COATING TURRET WITH SWINGABLE HOOD MEANS

Harry Pikal, Bangor, Mich.

Application January 18, 1957, Serial No. 635,076
6 Claims. (Cl. 118—13)



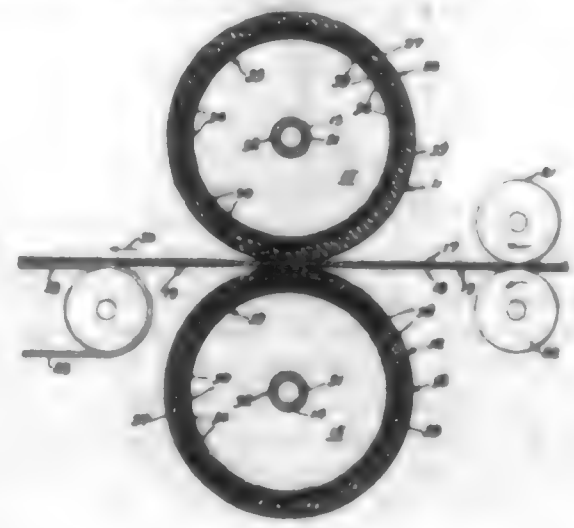
5. In an apple coating machine having a plurality of hangers with transversely spaced arms and means for advancing the hangers in pivoted pendent fashion around a closed path with the hangers transverse to their path of motion, the lower ends of the hanger arms having opposed rotatable apple chucking shafts mounted thereon, the combination including a dip tank and means for rollingly supporting said shafts along a reach of said path to coat apples held by the shafts, guide means positioned to engage said hangers and raise the same over the end of said tank, a driven belt positioned at the end of said tank to engage and rotate one shaft on said hangers as the hangers are delivered thereto by said guide means to spin excess coating off apples carried by the shafts, a hood swingably positioned at the side of said belt at one end thereof and located transversely of the path of apples carried by said shafts, a lift portion on said guide means to lift said shafts and apples carried thereby over the hood, and a drive means connected to said hood to swing the hood over an apples supported on said belt and positioned to be actuated by each hanger as the hanger advances to and along said belt.

2,870,737

EQUIPMENT FOR OILING METAL SURFACES

James H. Byrnes, Orinda, Calif., assignor to Westcak Machine Corp., Oakland, Calif., a corporation of California

Application January 22, 1957, Serial No. 635,349
6 Claims. (Cl. 118—227)



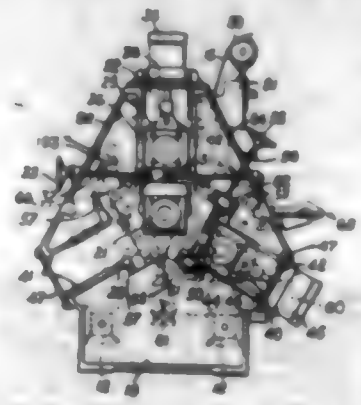
1. Equipment for oiling metal sheets and strips, said equipment comprising a rotatably mounted hollow roller defining a chamber for receiving a controlled quantity of an oil, means for supplying a regulated quantity of an oil to said chamber, a perforated periphery on said roller for establishing communication between said chamber and the exterior of the roller, a spongeous covering on and extending around the periphery of said roller and of sufficient capacity to retain oil emanating from said chamber without dripping thereof; release of oil from said spongeous covering occurring upon the subjection of said covering to the external force of a metal surface engaging said covering, and means mounted on said roller between said spongeous covering and the periphery of said roller for evenly distributing oil emanating from said chamber throughout the entire extent of said spongeous covering whereby the surface of a metal sheet engaging said covering is uniformly coated with oil emitted from said spongeous covering.

2,870,738

PAPER COATING MACHINE

Robert J. Jacobs and Edward E. Persson, Fulton, N. Y., assignors to The Black-Clawson Company, Hamilton, Ohio, a corporation of Ohio

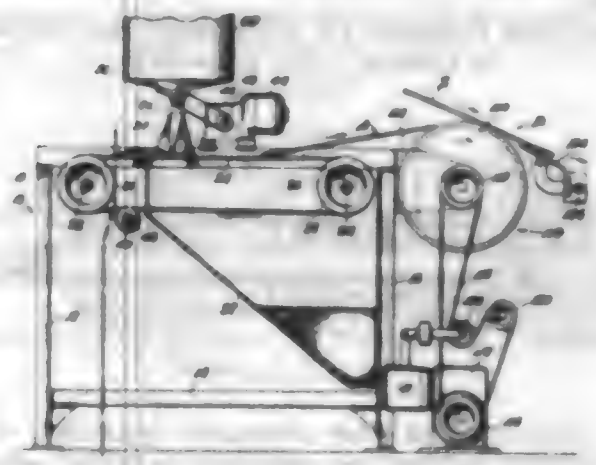
Application February 28, 1957, Serial No. 643,197
1 Claim. (Cl. 118—249)



Web coating apparatus of the character described comprising means including a pair of opposed side frames forming a main framework, an applicator roll, means in each of said side frames for mounting said applicator roll in generally centered position in said framework,

means for mounting a pressure roll in adjustably fixed position in said side frames above said applicator roll to form a coating nip therewith, each of said side frames having a pair of slideways therein extending downwardly on opposite sides thereof at substantially equal angles with the horizontal and in radially aligned relation with the axis of said applicator roll, a metering roll, bearing means for said metering roll constructed for sliding movement in said slideways to locate said metering roll in an operative position below and to one side of said applicator roll, a pan adapted to contain a supply of coating material, means in said framework for supporting said pan below said operative position in cooperative relation with said metering roll, pressure means for urging said metering roll toward said applicator roll, means on said side frames associated with each of said slideways for mounting said pressure means in operative position within said associated slideway, adjustable means for regulating the movement of said bearing means in said slideways to control the spacing of said metering roll and said applicator roll, and means on said side frames associated with each of said slideways for mounting said adjustable means in operative position with respect to the associated said slideway.

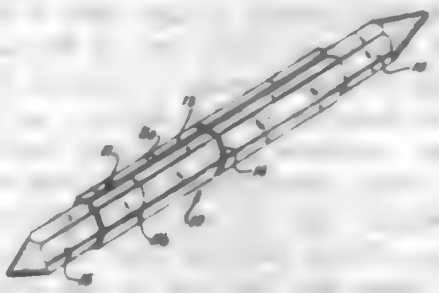
2,870,739
SPHERE DISPENSING APPARATUS
Gilbert Rodli, Huntingdon, Pa., assignor to Wald Industries Inc., Huntingdon, Pa., a corporation of Pennsylvania
Application April 5, 1955, Serial No. 499,297
7 Claims. (Cl. 118—308)



1. In apparatus for applying small spheres on an object, means for receiving said spheres, means secured to said receiving means for dispensing said spheres, said dispensing means including a rotor mounted therein, said rotor having a plurality of helically extending V-shaped grooves formed therein, said grooves intersecting to define a plurality of cavities for receiving said spheres, said cavities being formed with inclined walls and in straight line relation, the straight line formed being positioned parallel to the axis of said rotor, whereby said spheres are dispensed from said rotor in mono-layers.

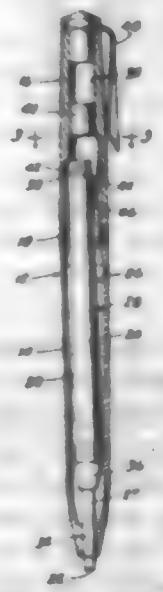
2,870,740
CRAYON HOLDERS
Theodore B. H. Vogt, Fair Lawn, N. J.
Application December 7, 1955, Serial No. 551,668
1 Claim. (Cl. 120—1)

In combination a holder comprising an elongated hollow body of resilient material and of polygonal cross-section, one of the sides of said body having a longitudinal slit therein and said body having additionally one traverse slit therein intermediate its length extending through all of its sides except one, the latter being disposed in a plane and extending integrally over the entire length of said holder opposite said one of the sides having a longitudinal slit, said one integral side defining an angle relative to its adjacent sides, and permitting a resilient bending of said adjacent sides along the joining longitudinal line between said integral side and said adjacent sides, with a crayon received at each end of said holder



and of a polygonal cross-section complementary to and slightly larger than the polygonal cross-section of said holder, in order to retain said crayons resiliently in said holder.

2,870,741
WRITING INSTRUMENT
William H. Kersten, Janesville, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application July 5, 1955, Serial No. 519,727
5 Claims. (Cl. 120—42.03)

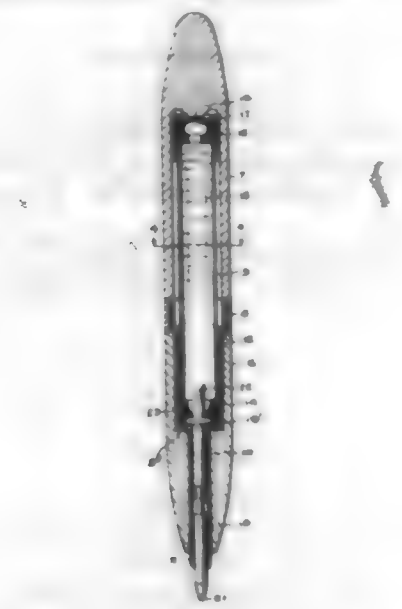


1. A writing instrument comprising a casing, a writing unit slidable in the casing between a projected position and a retracted position, the casing having a forwardly facing internal shoulder disposed for engagement with the unit when the unit is in projected position, spring means continuously biasing the unit laterally towards the shoulder for engaging the unit and shoulder and releasably retaining the unit and shoulder in engagement, and permanent magnet magnetic means continuously urging the unit in retracting direction for retracting the unit upon disengagement of the unit and shoulder and for releasably retaining the unit in retracted position permitting the unit to be projected forwardly by inertia from retracted position to projected position, said magnetic means including first and second magnetic elements at least one of which is a permanent magnet, the first element being mounted in the rear end of the unit and the second element being mounted in the casing rearwardly of the first element and positioned for engagement with the first element when the unit is in retracted position.

2,870,742
PRESSURE FEED FOR CARTRIDGE TYPE WRITING INSTRUMENT
Saul A. Hackmyer, Miami, Fla., assignor to Technical Research, Inc., Miami Beach, Fla., a corporation of Florida
Application October 19, 1956, Serial No. 617,148
9 Claims. (Cl. 120—45.4)

9. A writing instrument of the character described that includes an elongated cylindrical handle forming

barrel, the barrel being open at its upper end, the barrel being cylindrically chambered for its major length and with the chamber terminating in a lower flat wall, the said barrel downwardly from the flat wall being centrally and axially bored, a cap that is threadedly engaged within the open upper end of the barrel and with the cap being provided with a rounded knob that projects into the chamber axially thereof, an ink containing cartridge that includes a cylindrical housing and with the housing being dimensioned to have a relatively close sliding fit within the chamber of the barrel, the cartridge having a lower flat end that has a normal resting engagement upon the flat wall of the chamber, a relatively slender feed tube fixedly connected to the car-



tridge at its lower end centrally and axially thereof, the said feed tube at its lower end being provided with a writing point, the said feed tube engaged within and shiftable axially with respect to the bore and with the writing point being disposed below the lower end of the barrel, the said cartridge being open at its upper end and closed by a resilient stopper having a convex diaphragm and with the diaphragm underlying the said knob when the device is in assembled relation, the said cartridge and the said feed tube being shiftable upwardly and axially of the barrel when an axial pressure is exerted upon the writing point and whereby to shift the cartridge upwardly for causing the diaphragm to be depressed under the influence of the knob for forcing a supply of writing fluid through the feed tube to the writing point.

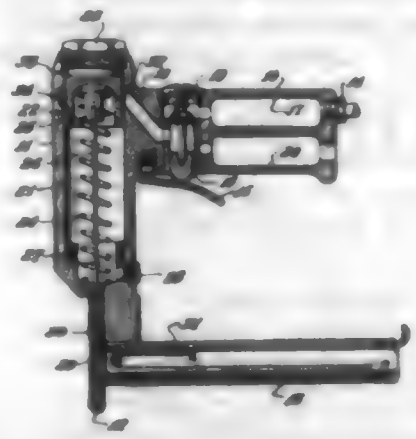
2,878,743

AIR FLOW AND PISTON DRIVE FOR PNEUMATIC STAPLERS

Howard W. Juilfs, Batavia, Ohio, assignor to Senco Products, Inc., Cincinnati, Ohio, a corporation of Ohio

Application October 6, 1954, Serial No. 460,667
1 Claim. (Cl. 121—21)

In a pneumatic stapling machine having a staple driver actuated by a solid-wall piston reciprocating within a cylinder having a cylinder head, said piston being driven by air and returned by a spring, said piston at rest abutting said head, said cylinder and said head providing a clearance behind said piston at rest, and said machine including a trigger actuated valve controlling the admission of air to said cylinder, the improvement which comprises: an annular groove extending completely around the inner wall of said cylinder, said groove being spaced from said clearance, said groove being positioned in that part of said cylinder occupied by said piston at rest whereby said groove is covered by said piston at rest, and an air passageway extending from said valve to said annular groove whereby air is uniformly distributed about the periphery of said piston, said annular groove constituting the entire means in said cylinder wall for the passage of air from said valve to said clearance, air from said groove being free to seep evenly between the periphery of said solid-wall piston and said cylinder wall to said clearance whereby said piston is air balanced within the center of



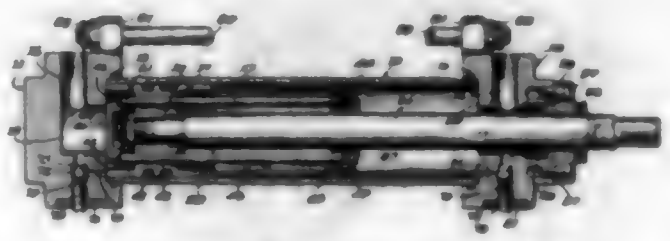
said cylinder and drag of said piston against said cylinder wall is eliminated, air which seeps between said solid-wall piston and said cylinder wall away from said clearance being free to exhaust, whereby pressure is built up in said clearance behind said piston to move said piston from said head on the drive stroke of said said piston.

2,878,744

CUSHIONING DEVICE FOR CYLINDERS

Harold C. Hallerstrom, Evanston, Ill., assignor to Hanna Engineering Works, Chicago, Ill., a corporation of Illinois

Application February 16, 1956, Serial No. 565,849
6 Claims. (Cl. 121—38)



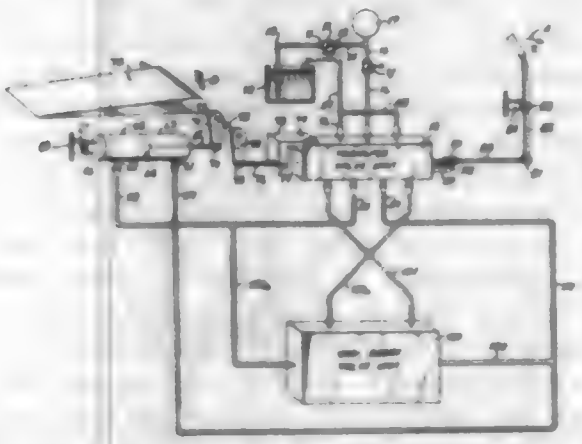
1. In apparatus of the character described, a fluid power cylinder having end members provided with passages for admitting a pressure fluid to the cylinder and for exhausting the fluid therefrom, means for cushioning the impact of the piston of said cylinder with the end members at the end of the piston strokes, said means including a valve member located on each side of the piston, said piston on each side thereof having a recess for receiving the valve member on that side, each valve member having a flat face for valving contact with the flat surface of its respective end member whereby to close the fluid passage in the end member, and tie rods connecting the said valve members, the tie rods extending through the piston and being slidably mounted thereby so that the valve members and tie rods comprise a unitary assembly capable of movement with respect to the piston, whereby during each stroke of the piston one valve member or the other is caused to contact its respective end member to close the fluid passage therein and trap fluid between the piston and the end member, each recess in the piston having a depth greater than the thickness of the valve member to be received therein so that prior to the start of each piston stroke initial movement of a valve member takes place as permitted by the depth of its recess to admit pressure fluid to substantially the entire face of the piston, and a metering valve provided by each end member and operative to release the trapped fluid at a predetermined metered rate whereby the travel of the piston is cushioned to the extent desired.

2,870,745

VARIABLE BOOST SERVO-ASSISTING SYSTEM

Theodore W. Kenyon, Old Lyme, Conn., and Stokely Webster, Huntington, N. Y., assignors, by mesne assignments, to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application March 24, 1954, Serial No. 418,428
11 Claims. (Cl. 121—41)



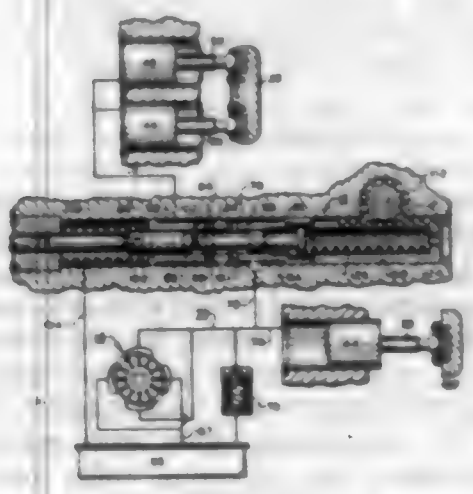
1. A variable boost fluid motor-assisting system including in combination a source of fluid under pressure, a fluid motor to be supplied with fluid from said source, a transfer valve connected between said source and said motor, means for actuating said transfer valve to connect said source to said motor to supply fluid under a system pressure, variable pressure reducing means adapted to receive fluid under said system pressure and adapted to be operated to provide fluid under a feedback pressure which is less than said system pressure, said transfer valve including means for receiving feedback fluid for operating against said transfer valve actuating means and means responsive to fluid under said system pressure supplied from said source by said transfer valve for operating said variable pressure reducing means.

2,870,746

SERVO CONTROL FOR POWER TRANSMISSION

Adolf Keel, Highland Park, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan

Application November 19, 1954, Serial No. 469,934
2 Claims. (Cl. 121—41)



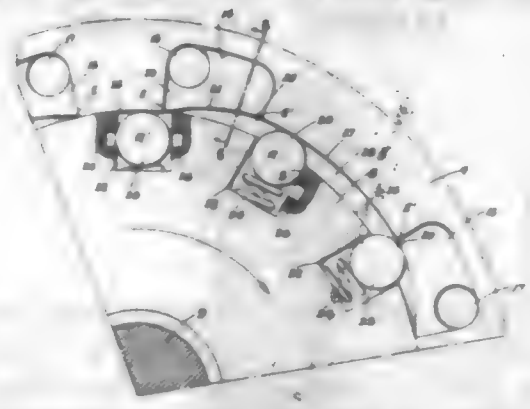
1. In a servo system for positioning a pivotally mounted controlled member, the combination of: a power section, including means for applying to the controlled member at one side of the pivotal axis a continuous, unidirectional biasing force and at the other side of the pivotal axis a modulated control force in opposition to said biasing force; positive control means for said power section comprising input and feedback sections; and means for applying continuous, unidirectional biasing forces to said input section and to said feedback section, whereby control may be effected throughout the full range by change in net forces in each section but without change in direction of individual forces, thus minimizing lost motion.

2,870,747

HIGH TORQUE HYDRAULIC MOTOR

Albert G. Garries, Gilroy, Calif.

Application February 18, 1957, Serial No. 640,763
2 Claims. (Cl. 121—86)



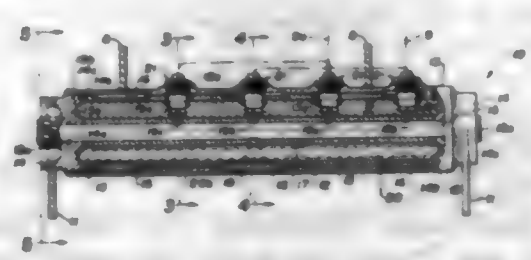
1. A fluid motor comprising a body, a rotor turnable in the body and having a peripheral surface concentric with the axis of the rotor, a shaft having an exposed end journaled in the body and fixed with the rotor, circumferentially spaced vanes mounted in the rotor for yieldable radial movement, a track in the body about the rotor and engaged by the vanes, said track being formed at evenly spaced intervals with portions closely engaging the periphery of the rotor and with other longer portions intermediate and of a greater radius than said first portions and with the body and the periphery of the rotor providing enclosed arcuate passages, the spacing of adjacent vanes being less than the arcuate extent of each such passage, means to simultaneously feed fluid into all the passages at one end thereof, and means to relieve fluid from the passages at the other end thereof; the vanes comprising transversely extending rollers, the rotor having pockets in which the rollers are seated and sufficiently deep to receive the rollers for their full diameter, each roller having clearance with the circumferentially spaced walls of the corresponding pocket, and said walls having bypass grooves, shorter than the axial extent of the roller, disposed at the level of the central plane of the roller when the latter is engaged with one of the first named track portions.

2,870,748

ROTARY ACTUATOR

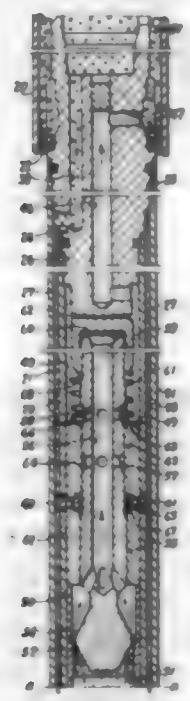
Carl A. Hemphill, Los Angeles, Calif., assignor to North American Aviation, Inc.

Application June 30, 1953, Serial No. 365,879
5 Claims. (Cl. 121—97)



1. In a fluid motor of the rotary type having a fixed cylindrical casing, torus-shaped head elements forming the ends of said casing, and a rotatable piston journalled within said casing head elements for rotation upon a longitudinal axis centrally disposed within said cylindrical casing, the improvement wherein a peripheral groove is formed within the edges of said piston and a seal for said rotatable piston comprising a continuous elongated O-ring carried within said peripheral groove formed within the edges of said rotatable piston in sealing engagement with the torus-shaped ends of said casing head elements and the interior cylindrical surface of said cylindrical casing.

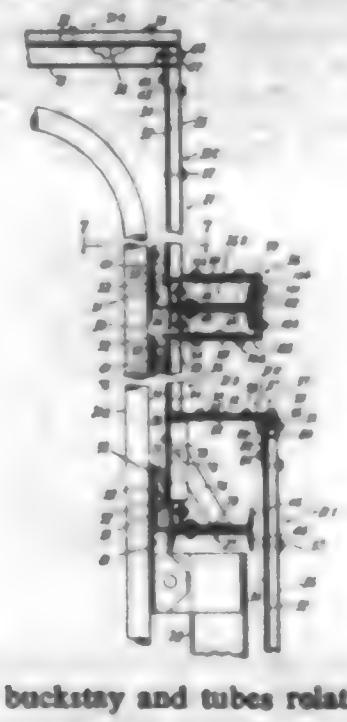
2,870,749
CONTROL VALVE FOR FLUID OPERATED ENGINES FOR DOWN WELL PUMPS
Roy H. Deitrickson, Toledo, Ohio, assignor, by mesne assignments, to The National Supply Company, Pittsburgh, Pa., a corporation of Ohio
Application April 18, 1957, Serial No. 653,622
23 Claims. (Cl. 121—150)



1. In a fluid operated downwell pump comprising a pump cylinder, an engine cylinder longitudinally displaced from said pump cylinder, connected pistons operating in the respective pump and engine cylinders, said engine piston having a greater effective area on one side than on the other whereby equal operating pressures on its two faces cause movement thereof in one direction, an exhaust passage, and a source of operating fluid under pressure, the improvement comprising valve mechanism including a housing having a flow chamber located above and in constant communication with the end of said engine cylinder above said engine piston, a constantly open passageway leading from said source of operating fluid to said engine cylinder beneath said engine piston, a port in said housing to said exhaust passage, a port in said housing to said source of operating fluid, a valve in said housing for alternately connecting said ports to the upper side of said flow chamber, an operatively integral head on said valve extending down into said flow chamber, and means in said flow chamber cooperating with said head for forming a variable flow passage through said chamber for establishing a pressure differential on opposite sides of said head.

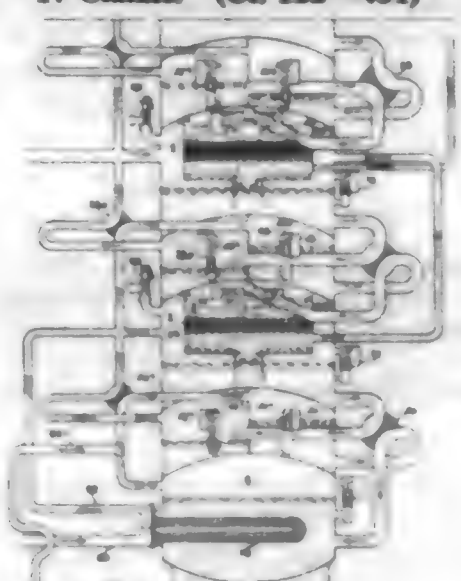
2,870,750
FLUID HEATER WALLS
Ivar L. Langvand, Barberton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Original application November 13, 1946, Serial No. 709,568, now Patent No. 2,655,238, dated October 13, 1953. Divided and this application October 8, 1953, Serial No. 384,989
9 Claims. (Cl. 122—6)

8. In a wall including a row of upright fluid heating tubes vertically supported at one elevation and expansible in length toward other elevations, means laterally supporting said tubes including a horizontally extending buckstay disposed transversely of and connected to the tubes at an elevation displaced from said elevation of vertical support, a casing section laterally spaced from and opposite said tubes and comprising a plurality of upright metallic panels adjacent said buckstay, and means including an upright batten bar connecting adjacent panels to each other, metallic means connecting one end of the batten bar of adjacent panels to said buckstay and constructed and arranged to permit vertical



movement of the buckstay and tubes relative to the casing panels.

2,870,751
PUMPLESS LIQUID HEATER AND TRANSLATOR
Harry A. Kuljian, Merion, and William J. Fadden, Jr., Ridley Park, Pa., assignors to The Kuljian Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application September 6, 1955, Serial No. 532,524
17 Claims. (Cl. 122—451)

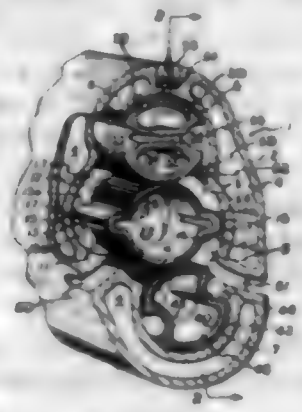


10. In combination, a boiler, a heater, means delivering condensate to said heater, means delivering extraction steam to said heater, means in said heater for intimately intermingling said steam and said condensate to heat the latter, a receiver, means for delivering the heated condensate to said receiver, a pressure equalizing chamber between said heater and said receiver, a pump for translating the condensate from said receiver to said boiler, and means for delivering boiler pressure steam simultaneously to said pressure equalizing chamber and to said receiver to prevent flashing of said condensate and consequent cavitation of said pump and to reduce the horse power requirement of said pump.

2,870,753
ROTARY ENGINES
Yves L. G. Breelle, Rueil-Malmaison, France, assignor to Institut Francais du Petrole, des Carburants et Lubrifiants, Paris, France
Application November 14, 1957, Serial No. 696,538
Claims priority, application France November 14, 1956
16 Claims. (Cl. 123—13)

13. A rotary engine of the internal combustion type comprising, in combination, a casing, wall means in said

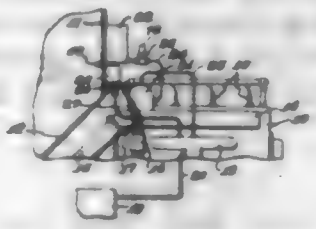
casing enclosing an annular central chamber, and a number of cavities laterally disposed of and opening into said central chamber, a central rotor rotatably mounted in said central chamber, a plurality of pistons projecting outwardly from said central rotor and fitting into said central chamber for frictionless rotation therein, a combustion rotor rotatably mounted in one of said lateral cavities, a gate rotor rotatably mounted in another of said lateral cavities, the axes of rotation of said central rotor, said combustion rotor and said gate rotor being parallel to each other, said combustion rotor comprising two wells for the passage of said pistons therethrough, which wells are disposed diametrically opposite each other in the combustion rotor and open toward the outside thereof, and an internal channel connecting said two wells with each other, said wells and channel in said combustion rotor constituting a combustion chamber therein, exhaust conduit means in said casing opening into said central chamber, said central chamber being subdivided into an intake zone, a compression zone, a power zone and an exhaust zone during the synchronized rotation of said rotors in conjunction with rotation of said pistons through said central chamber, a bypass



conduit leading from the cavity housing said combustion rotor to said central chamber through the wall of said casing so as to provide communication between a well of said combustion rotor and a space between the latter rotor and a piston of said central rotor when said piston has travelled a predetermined distance after leaving said well, means for introducing and igniting a combustible fluid mixture in said combustion chamber of said combustion rotor and comprising intake conduit means in said casing wall, and a spark plug located in the portion of the wall of said casing surrounding the peripheral inner wall enclosing said cavity of said combustion rotor, in the zone of said inner wall intermediate the limits defined, on the one hand by the opening of said bypass channel into said combustion rotor cavity and, on the other hand, by the leading edge of one of the wells of said combustion rotor in that position of the latter in which the other well connected to the former well by said internal channel is filled substantially completely by a piston of said central rotor; gear means for causing rotation in unison of said central rotor, combustion rotor, and gate rotor, and a starting motor adapted for starting rotation of said central rotor.

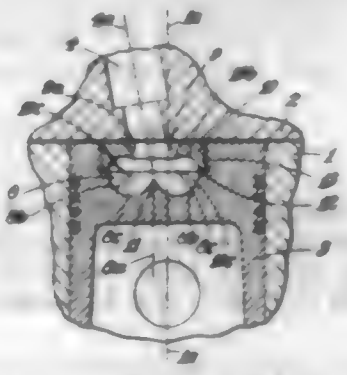
2,870,753
MANIFOLD ACTUATED ELECTRIC SWITCH DEVICE
Wayne L. Shuck and David R. Shuck, Los Angeles, Calif.
Application July 19, 1954, Serial No. 443,992
11 Claims. (Cl. 123—25)

1. In a motor vehicle having a combustion engine including an intake manifold subject to changes in pressure at different stages of engine operation the combination of a housing having a pressure chamber, a pressure-responsive element in the housing movable to positions throughout different ranges and closing one side of the pressure chamber, a tube communicating between the pressure chamber and the manifold, an electric switch member, a switch actuator member, one member of said members being mounted stationarily and the other of said members being mounted on said pressure-responsive element and extending to a location adjacent said one member and movable in response to movement



of the pressure-responsive element, one of said members having an area adapted to hold the other member in one position and another area adapted to hold said other member in another position, whereby the switch is shifted in response to movement of said pressure-responsive element to a selected position.

2,870,754
INTERNAL COMBUSTION ENGINE WITH PISTON HAVING COMBUSTION CAVITY IN ITS HEAD
Alberto Jorge Morris, Dursley, England, assignor to R. A. Lister & Company Limited, Dursley, England, a British company
Application June 21, 1954, Serial No. 438,198
Claims priority, application Great Britain May 3, 1951
22 Claims. (Cl. 123—32)

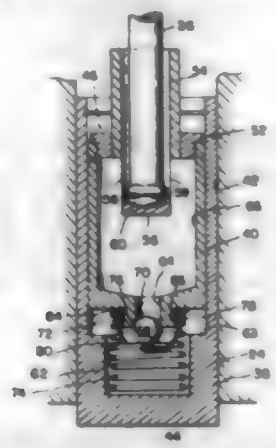


1. An internal combustion engine piston having a piston head, whereof the end surface affords the crown of the piston, a combustion cavity in the piston head, an entry throat of circular section open at one end to the crown of the piston and at its opposite end to the cavity, said throat tapering from the crown to the cavity whereby gases entering the combustion cavity are accelerated in their passage through the throat, said cavity having its wall opposite the entry throat formed with a peaked land which projects towards the entry throat coaxially therewith, the wall of the cavity being formed as a surface of revolution whereof the axis of revolution is coaxial with said land and with the entry throat and whereof the generatrix is an arc having a greater radius of curvature beginning adjacent the land than adjacent the entry throat.

2,870,755
HYDRAULIC VALVE TAPPET
Ernest L. Dayton, Detroit, Mich.
Application May 14, 1956, Serial No. 584,732
10 Claims. (Cl. 123—90)

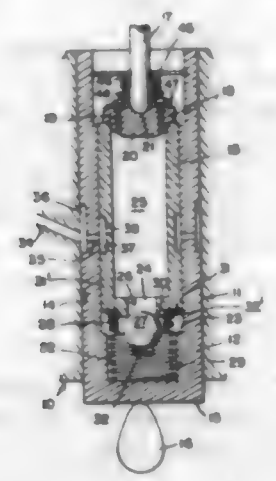
1. A hydraulic tappet assembly for a valve comprising a generally upright cylinder having a closed lower end providing a chamber for hydraulic fluid and having an open upper end, a piston mounted in said cylinder for longitudinal sliding movement between a collapsed position adjacent the lower end of said cylinder and an extended position spaced axially from the lower end of said cylinder, a chamber within said piston, a port in the

lower end of said piston connecting said piston chamber with said cylinder chamber, an opening into said piston chamber through the upper end of said piston, means providing a connection between said valve and said piston including an upright push rod having its lower end extending into the open upper end of said cylinder and through said opening into said piston chamber, said push rod being substantially smaller in cross section than said opening and spaced inwardly from the boundary thereof, means within said piston chamber providing an abutment for the lower end of said push rod, means within said



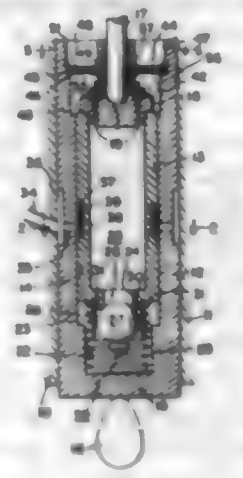
chamber providing a lateral aperture above said abutment and opposite the lower end portion of said push rod for passage of fluid through said opening into said piston chamber, and means for supplying hydraulic fluid to said push rod above said piston for gravity flow down said push rod into said piston chamber through said lateral aperture, said abutment being spaced directly beneath said opening to substantially prevent hydraulic fluid in said piston chamber from passing out through said opening along a straight path during reciprocation of said tappet assembly.

2,870,755
HYDRAULIC VALVE TAPPET
Ernest L. Dayton, Detroit, Mich.
Application July 13, 1956, Serial No. 597,713
20 Claims. (Cl. 123—90)



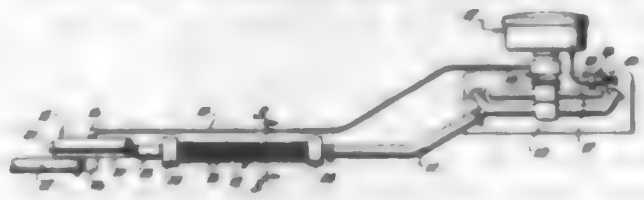
1. A hydraulic valve tappet assembly comprising a cylinder having one end closed and having a chamber at the closed end thereof, a piston slidably supported in said cylinder and having a chamber therein a port in the end of said piston adjacent the closed end of said cylinder providing communication between said chambers, a seat surrounding said port, a valve member supported in a position to engage said seat, a retainer for said valve member carried by said piston and having an adjustable bar positioned to engage the side of said valve member opposite said seat, said retainer being formed to provide sufficient lateral clearance to permit the lateral insertion of a feeler gauge between said valve member and bar during adjustment of said bar when said valve member is seated against said seat.

2,870,757
HYDRAULIC VALVE TAPPET
Ernest L. Dayton, Detroit, Mich.
Application July 30, 1956, Serial No. 601,056
25 Claims. (Cl. 123—90)



1. A hydraulic tappet assembly comprising a cylinder having one end closed and having a chamber at the closed end thereof, a piston slidably supported in said cylinder and having a chamber therein communicating with the chamber in said cylinder through a port in the end of said piston adjacent the closed end of said cylinder, valve means controlling communication through said port, an inlet port in one side of said cylinder, porting through said piston arranged to connect said inlet port to the chamber in said piston in all positions of said piston relative to said cylinder, and heat responsive means operative to reduce the flow of hydraulic fluid into the chamber in said piston when the temperature of said tappet assembly rises to a predetermined minimum.

2,870,758
DECONTAMINATION SYSTEM
Fred A. Standiford, San Pedro, Calif.
Application January 7, 1958, Serial No. 707,543
10 Claims. (Cl. 123—119)

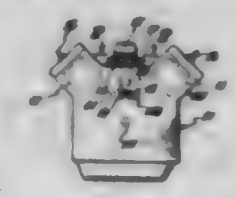


1. In apparatus for removing air contaminants from an internal combustion engine having an intake manifold, a fuel admission device, and an exhaust manifold: a device for cooling exhaust gases below the boiling point of water; a separator fed by said device for precipitating heavy hydrocarbons in water vapor, said separator having a drain outlet for heavy hydrocarbons or the like and a second outlet for light hydrocarbons or the like; means for conducting said light hydrocarbons from said second outlet to the intake manifold of the engine; and means for bypassing air independently of said admission device into said intake manifold to prevent the existence of an unduly rich mixture in said intake manifold.

2,870,759
FUEL INJECTION SYSTEM
Seth E. Aldridge, Los Angeles, Calif.
Application October 31, 1955, Serial No. 543,951
16 Claims. (Cl. 123—148)

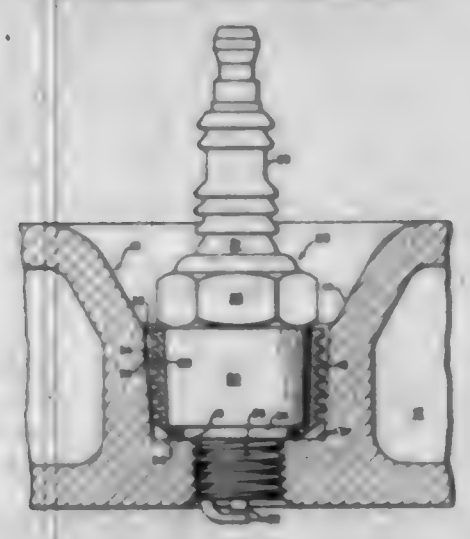
1. A fuel injection system for an internal combustion engine having a plurality of cylinders; said system including a body containing chamber means into which fuel is fed, rotary cam means carried by the body and continuously rotatably driven in timed relation to the engine and about an axis extending through the body,

a plurality of reciprocating pumping units taking suction from said chamber means and actuated by said cam means to pump metered charges of fuel to said cylinders respectively, and a flexible diaphragm forming a wall of



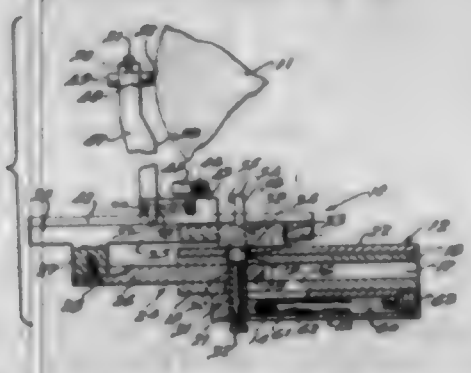
said chamber means for isolating said cam means from said fuel and flexing in accordance with the actuation of said pumping units by said cam means to allow the transmission of pumping force therebetween.

2,870,760
TEMPERATURE CONTROL DEVICE FOR SPARK PLUGS
George E. Michaud, Salem, Mass.
Application February 21, 1958, Serial No. 716,596
5 Claims. (Cl. 123—169)



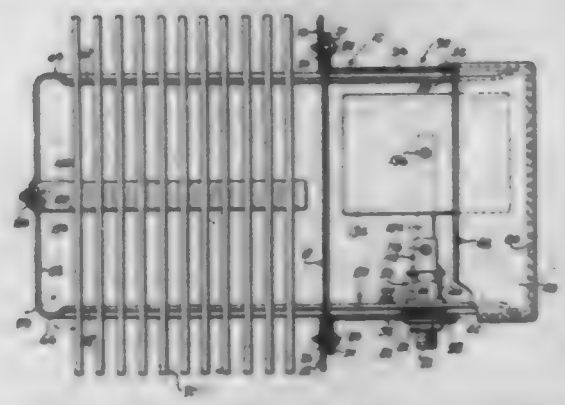
1. In an internal combustion engine, a spark plug having a metal shell, walls defining a socket for the spark plug, and a metal externally serrated sleeve engaging said metal shell, the sleeve and walls being dimensioned to provide between them an annular space when unheated, said sleeve having a greater coefficient of expansion than that of the walls of the socket, whereby when the engine is heated during operation the sleeve will expand to meet the socket walls, the contact area and contact pressure increasing with the temperature.

2,870,761
RADIUS AND ELLIPSE DRESSER FOR GRINDING WHEELS
Frank E. Buczkowski, Detroit, Mich.
Application December 5, 1956, Serial No. 626,445
10 Claims. (Cl. 125—11)



8. A grinding wheel dressing unit comprising a base structure, trammel arm means, and wheel dressing means carried by said trammel arm means and adjustably positionable thereon, said trammel arm means comprising upper and lower spaced parallel beams, said base structure being provided with upper and lower spaced beam supporting surfaces, said lower beam supporting surface being provided with a longitudinally extending groove and the upper beam supporting surface being provided with a laterally extending groove, said longitudinally extending groove terminating at one end thereof in alignment with the laterally extending groove and the longitudinal axes of said grooves being at right angles to each other, a slide means interposed between said upper beam and said upper beam supporting surface, hollow pin means carried by said slide means and slidable in said laterally extending groove, hollow pin means carried by said lower beam and slidable in said longitudinally extending groove, said trammel arm means being movable relative to said slide means whereby said pin means may be spaced a selective distance apart from each other along the longitudinal axis of the longitudinally extending groove, said hollow pin means when in vertical alignment limiting the trammel arm means to movement such that the wheel dressing means movement is in a radial path and when out of vertical alignment limiting the trammel arm means to movement such that the wheel dressing means movement is in an elliptical path, and removable means insertable through one of said hollow pin means into the other of said hollow pin means to couple the same in vertical alignment.

2,870,762
FURNACE HUMIDIFIER
Roy P. Skerritt, Detroit, Mich.
Application October 25, 1955, Serial No. 542,569
2 Claims. (Cl. 126—113)

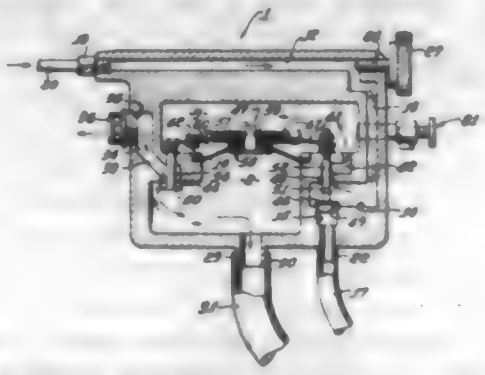


1. A furnace humidifier comprising a mounting bracket having an apertured mounting plate adapted to be secured to the furnace and having upright wings extending outwardly therefrom in spaced parallel relationship, one of said wings having a notch extending inwardly from an edge thereof, a humidifier pan extending through said aperture with its front end portion disposed between and secured to said wings and with its rearward portion extending rearwardly from said mounting plate in cantilever-supported relationship therewith, a partition plate disposed adjacent said mounting plate and extending downwardly over the aperture therein into said pan, and a float-operated valve unit disposed substantially entirely within said front end portion of said pan forwardly of said partition plate, said valve unit having a liquid supply conduit connection portion thereon passing through said pan and said notch and having fastening means thereon detachably securing said pan to said bracket.

2,870,763
PRESSURE BREATHING THERAPY APPARATUS
Philip L. Stanton, Pasadena, Calif.
Application March 15, 1957, Serial No. 646,362
23 Claims. (Cl. 128—29)

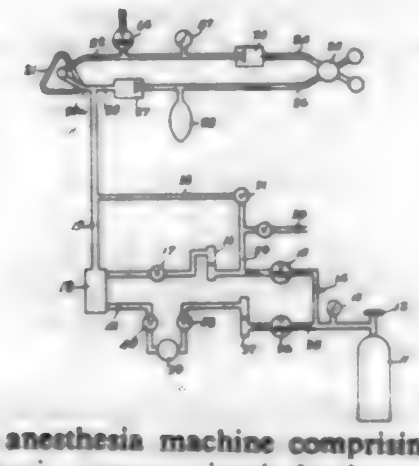
1. In apparatus for insufflating the lungs of a patient responsive to an inspiratory effort of the patient and for permitting the patient to exhale normally, wherein a housing is adapted to intake gas from a source of gas under pressure and contains fluid pressure operated, pulmometrically controlled means for starting and stopping

the flow of gas to the patient: the improvement which includes means operable to preload said fluid pressure operated means with gas at a pressure above atmospheric in response to the stopping of the flow of gas to the patient by said fluid pressure operated means; and means in the



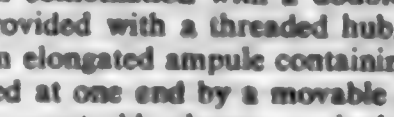
housing for regulating said preloading pressure whereby said preloading pressure is effective to actuate said fluid pressure operated means for starting flow of gas to the patient only when a negative pressure is created in said housing responsive to an inspiratory effort of the patient.

2,870,764
ANESTHETIC GAS MACHINE
Bernard E. Carlson, La Crescenta, and Arthur D. Nathan, North Hollywood, Calif., assignors to E. & J. Manufacturing Company, Burbank, Calif., a corporation of California
Application January 28, 1957, Serial No. 636,683
10 Claims. (Cl. 128—188)



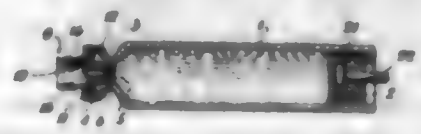
2. A gas anesthesia machine comprising: a source of oxygen; a basic oxygen circuit having a flowmeter attached to said oxygen source, means for controlling the oxygen flow attached to said flowmeter, a mixing manifold connected by a conduit to a face mask; an emergency oxygen line leading from the oxygen source to said conduit; an anesthetic supply line having a pressure regulator, an anesthetic vaporizer, means for controlling flow through said vaporizer, a flowmeter between said control means and the pressure regulator, a vaporizer outlet valve, and means for connecting said vaporizer to the mixing manifold; and an absorber circuit having a carbon dioxide absorber, a relief valve, and a flexible rebreathing bag; the vaporizer having a thick-walled metal body, inlet and outlet gas passages, a by-pass hole in said inlet directing incoming gases across the liquid anesthetic surface, said by-pass having a diameter between 0.01 and 0.03 inch, a porous disk connected to said inlet and located below the surface of the liquid anesthetic, means for directing incoming gases through said disk, pores in said disk between 5 and 20 microns diameter; said vaporizer inlet and outlet valves being combined in a single body and operated by a single control, the inlet valve portion having an oxygen inlet passage, a movable valve seat and a valve stem mounted in said inlet, a valve element on said stem, an outlet passage, a spring urging said movable valve seat towards said valve element; the outlet portion comprising a second valve element attached to said stem and operated by said control, a fixed valve seat, an anesthetic-oxygen passage entering in front of said valve seat, and an anesthetic-oxygen outlet in back of said seat.

2,870,765
HYPODERMIC NEEDLE MOUNT
Edward Henderson, Montclair, N. J.
Application November 8, 1955, Serial No. 545,731
4 Claims. (Cl. 128—215)



4. Hypodermic needle mount comprising in combination a needle supporting hub having an inwardly extending tapered end portion and an outwardly exposed shoulder presenting a bearing surface disposed transversely of the hub axis, a barrel having a tapered end portion arranged and adapted for telescoping connection with the tapered end of said hub, means interposed between the hub and the barrel for retaining said hub against rotative displacement of the hub in relation to the barrel, and a latch pivotally connected at one end to said barrel and having at its free end a detent arranged and adapted to swing with the latch into and out of engagement with said bearing surface of said shoulder whereby said hub is held against endwise displacement in relation to the barrel.

2,870,766
CARTRIDGE FOR METERING SYRINGE
Morris Dann, Havertown, and John J. Peterson, Philadelphia, Pa., assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware
Application June 6, 1956, Serial No. 589,681
11 Claims. (Cl. 128—218.1)

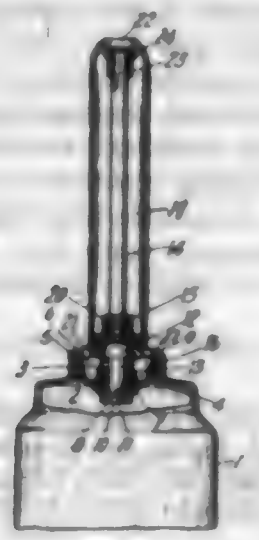


1. A cartridge adapted to be used in a metering injection syringe in combination with a double-pointed injection needle provided with a threaded hub, said cartridge comprising: an elongated ampule containing an injectable material, closed at one end by a movable plunger and at the other by a penetrable closure, a nipple having a projecting threaded portion adapted to pass through a hole in the distal wall of a metering injection syringe and mate with a threaded needle hub, means rigidly securing the nipple and penetrable closure leak-tight to the ampule, and further means adapted to secure the distal end of the cartridge rigidly to the distal end of the syringe barrel against longitudinal movement, said further means comprising a threaded member effective to hold said nipple firmly against the distal wall of the syringe when the cartridge and needle are in operating position in the syringe.

2,870,767
PRESSURIZED DOUCHE APPLICATOR
Max E. Bowen, Wixom, Mich.
Application July 12, 1957, Serial No. 671,605
10 Claims. (Cl. 128—224)

8. As an article of commerce, a container of medicated fluid compounded for internal application to the human body, a tiltable valve closing said container and operative when tilted to release fluid therefrom, said fluid being under pressure in said container, a tubular guard threadedly engaged with the valve exteriorly of said container,

and an elongated extension on said valve and projecting as a nozzle outwardly through said guard, the outer end



of said guard forming a hole opening to said nozzle and laterally supporting the outer end of said nozzle.

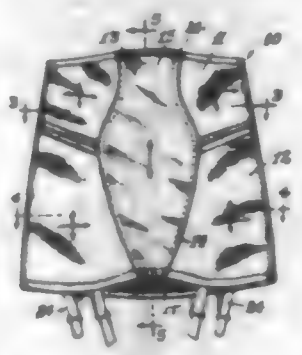
2,870,768
BRASSIERE STRAP
Mattie Lou Robinson, Rochester, Tex.
Application January 19, 1956, Serial No. 560,215
1 Claim. (Cl. 128—510)



A brassiere comprising a pair of enlarged interconnected breast supporting cups, a body strap connected with the outer side edge of each of said cups, means detachably connecting the free ends of the body straps thereby retaining the body straps in body encircling relation, and shoulder engaging supporting means connected between each cup at the top edge thereof and one of the body straps inwardly of its free end, each of said supporting means including a pair of longitudinally continuous and independent crossed straps of elastic material for extending over and engaging the shoulder of a wearer with the point of crossing of the elastic straps disposed adjacent the top of a shoulder, the rear terminal ends of the pair of elastic straps being connected with the body strap in spaced relation, the front terminal ends of the pair of elastic straps being connected to the upper edge of the cup in spaced relation, the independent movement and longitudinal resiliency of each elastic strap permitting freedom of movement of the shoulder and providing independent spaced points of resilient support for the breast cup.

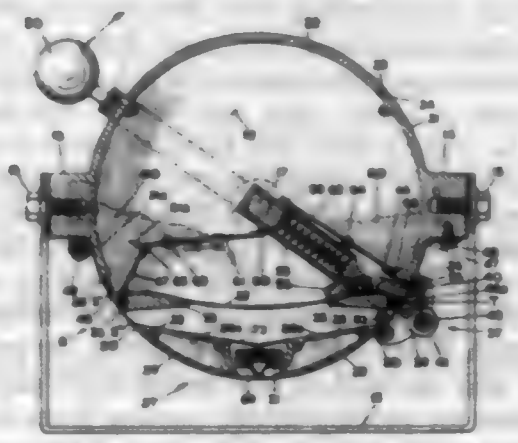
2,870,769
FOUNDATION GARMENT
Morris M. Scheinberg, New York, N. Y., assignor to De Luxe Girdlecraft Co., Inc., New York, N. Y., a corporation of New York
Application December 31, 1954, Serial No. 479,285
6 Claims. (Cl. 128—542)

1. A foundation garment comprising a waistband section and a hip section disposed below and connected to the waistband section, said waistband section having throughout its entire area a greater resistance to stretching than said hip section; and seams having front, side and rear portions, joining together the front, side and rear portions respectively of said waistband and hip sections, said seams extending diagonally downward from the rear center of the garment to the front thereof, and said waistband section being wider adjacent the front of the garment and narrowest at the rear center portion of the garment, thereby to provide increased lifting support for the front portion of the abdomen of the wearer; and a



front panel of one-way stretch material disposed at the front of the garment and arranged to stretch only vertically, said panel extending between and being attached to vertically extending front edges of both the said waistband and hip sections, said front panel being narrow at its top and bottom and widest at an intermediate point and said seams at the front of the garment connecting to said intermediate point of the front panel.

2,870,770
CIGARETTE ROLLING MACHINE
Willem A. de Bruyne, Kitimat, British Columbia, Canada
Application November 5, 1956, Serial No. 620,274
5 Claims. (Cl. 131—37)



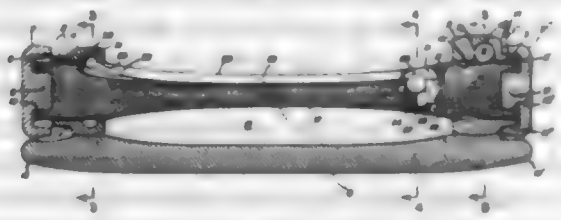
1. A cigarette rolling machine comprising a hollow body divided internally by a bed plate into an upper tobacco chamber and a lower chamber, the lower chamber having an external surface which is a segment of a cylinder having an axis, a slack web overlying the cylindrical portion, a lever pivoted at the axis of the external surface of the lower chamber and extending in one direction beyond the said external surface to carry a roller mechanism riding on the slack web and extending in another direction beyond the body to form an operating handle, the roller mechanism comprising three spaced parallel rollers lying on the web and adapted to contain a loop of the web between two adjacent rollers to form a tobacco receiving pocket, the external surface of the lower chamber having two oppositely opening slots therein, one on either side of the lower chamber, means within the tobacco chamber associated with the pivoted lever to push a charge of tobacco through a slot into the tobacco receiving pocket when the pocket is positioned over the said slot and a paper dispensing and moistening mechanism mounted in a recess mid-way between the two slots to feed a moistened cigarette paper into the rolling mechanism to surround the tobacco contained therein.

2,870,771
UTENSIL INCORPORATING A WRITING IMPLEMENT AND CIGARETTE HOLDER
Heinz Gossler, Heidelberg, Germany
Application October 26, 1956, Serial No. 618,528
Claims priority, application Germany October 27, 1955
4 Claims. (Cl. 131—178)



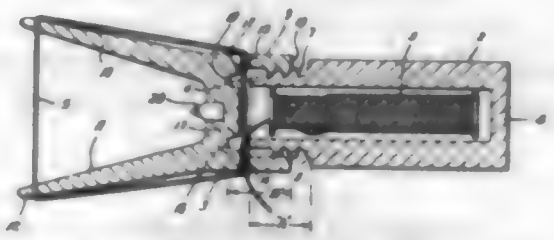
1. A utensil of the character described comprising a hollow member forming a barrel with two ends, both said ends being provided with inner threads, a writing implement having a rearward part and a forward part, said forward part being provided with threads for engagement with the threads of one of the ends of said barrel, a mouthpiece provided with threads for engagement with the threads of the other end of said barrel, filtering means within said barrel between said other end thereof and the rearward end of said writing implement, ejector means provided with a stationary, hollow member having a tubular extension, an ejector sleeve slidable relative to said stationary member, said ejector sleeve being supported by a coil spring surrounding said tubular extension and seated with one end on said stationary member, and a partition in said ejector sleeve against which the other end of said coil spring abuts, said stationary member being adapted to be placed over said forward part of said writing implement for frictional engagement with said one end of said barrel in one position and over said mouthpiece for frictional engagement with the other end of said barrel in another position, said forward part of said writing implement being provided with longitudinal peripheral grooves, which when said forward part is threadedly engaged with said one end of said barrel form passageways with the latter for guiding smoke passing from a cigarette placed in said ejector means through said filtering means, past rearward part of said writing implement into said mouthpiece.

2,870,772
HAIR CURLERS
Samuel F. Cole, Washington, D. C.
Application December 1, 1953, Serial No. 395,420
11 Claims. (Cl. 132—41)



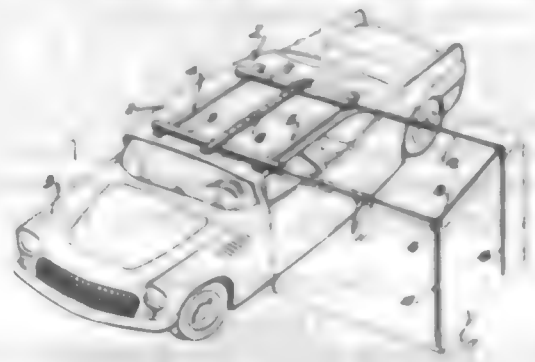
1. A hair-curler comprising in combination a slidable hair-winding member adapted for forward and reverse rotation, a support for the hair-winding member coextensive therewith, a plurality of grooves of graduated depths in one end of the hair-curler, one of the said grooves having the form of a circumferent race concentric with the hair-winding member, the other of the said grooves being a recess eccentric to the circumferent race, a spherical stop for the hair-winding member confined between the circumferent race and the eccentric recess, the said graduated depths of the grooves forming cams for aligning the stop in response to the sliding adjustment of the hair-winding member and for frictional engagement of the stop with the coacting grooves in response to the reverse rotation of the hair-winding member, a bail hinged to the hair-winding member, a fastener for the bail and for the hair-winding member in the support at the opposite end of the hair-curler, the bail and the spherical stop being simultaneously controlled by the longitudinal adjustment of the hair-winding member.

2,870,773
DENTAL FLOSS DISPENSER
James M. Parks, Jr., Houston, Tex.
Application April 17, 1957, Serial No. 653,421
2 Claims. (Cl. 132—92)



1. In a tooth cleaning device comprising an elongate hollow handle adapted to receive a roll of dental floss, a holder in releasable threaded engagement with said handle, and a pair of spaced arms on said holder having means thereon for receiving a length of dental floss extended therebetween, the improvement in said tooth cleaning device of means for holding said dental floss securely in tension across said arms comprising an annular clamping surface on said handle, a circular groove in said holder adapted to receive said clamping surface during threaded engagement of said holder and said handle, the walls of said annular groove sloping inwardly toward the bottom thereof, said bottom being narrower than the width of said clamping surface whereby said clamping surface is in wedging engagement with said sloping walls during threaded engagement of said handle and said holder, and guide means for directing said dental floss across said clamping surface toward one of said spaced arms and from the other of said spaced arms back across the clamping surface.

2,870,774
CAR TENT
Denzil Maurice Blosser, Long Beach, Calif.
Application September 24, 1956, Serial No. 611,459
1 Claim. (Cl. 135—7.1)



A car tent comprising a frame, said frame including horizontally arranged strips, the ends of said strips being joined together to form said frame, means detachably securing said strips to the roof of the car, a pair of tubes fixedly mounted on said strips, said tubes being horizontally arranged and spaced on said strips, extensions comprising a plurality of arms telescopically mounted in each of the tubes, said extensions being extendable horizontally toward one side of the car to form roof mem-

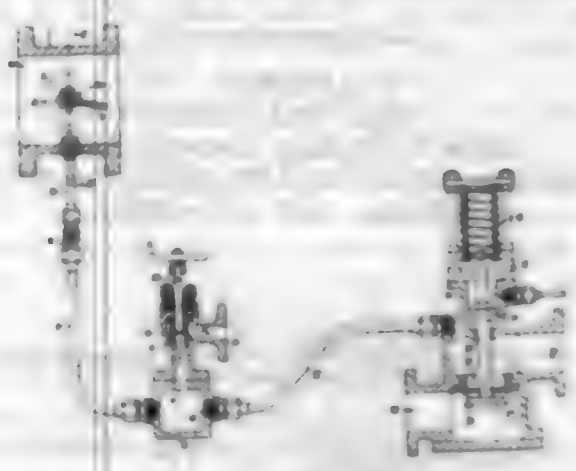
bers, a bar fixedly mounted on said tubes at substantially the longitudinal center of said tubes, said bar extending parallel to the longitudinal axis of the car, fastening means on said bar, a fabric cover, one end of said fabric cover being secured to said fastening means, said cover extending over the extensions to form an inclosure, said inclosure being arranged at one side of the car, a tie rod extending between and secured to the outermost extension, and a corner post depending from the outer ends of the extensions and resting on the ground.

2,870,775

REGULATING MEANS FOR BOILER FEED PUMPS

George Wood, London, England, assignor to Vickers-Armstrongs Limited, London, England, a British company

Application April 5, 1955, Serial No. 499,468
Claims priority, application Great Britain May 24, 1954
3 Claims. (Cl. 137—98)



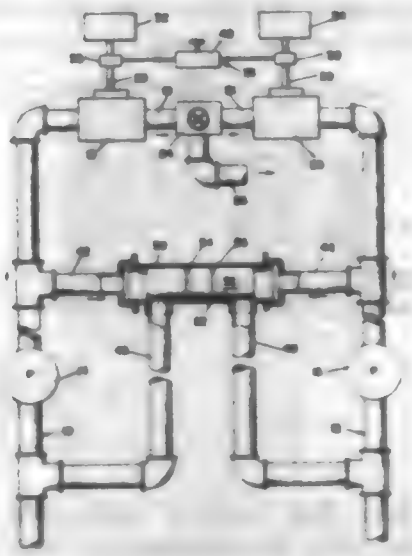
1. A boiler feed water regulator for a steam boiler having a steam take-off pipe including a coaxially mounted cylindrical collar, comprising a fluid-flow conduit for conducting pressure fluid to operate a means for supplying feed water to the steam boiler, a control valve in said fluid-flow conduit, a steam-receiving chamber, a steam conduit connected between the cylindrical collar of the steam take-off pipe and the steam-receiving chamber for conducting steam from the pipe to the chamber, said collar including diametrically opposed laterally-extending skirted cylindrical passageways in its respective sides, a fulcrumed supporting member extending diametrically across said collar with its ends respectively extending into said passageways, a semi-circular vane carried by said fulcrumed member within said collar and tending to hang substantially vertically from the supporting member until angularly displaced by steam flow, said vane being adapted to take up angular positions dependent upon the force exerted thereon by the steam flow, said passageways being provided with radially-extending apertures connected into the steam conduit, a control valve member carried on each end of said supporting member and located respectively in said skirted passageways, said valve members each comprising a skirted piston opening into said collar and provided with apertures registering with the apertures of the passageway in which it is mounted when the vane extends downwardly, the pistons being rotatable by the vane to progressively decrease the steam flow through the apertures to the steam conduit and chamber as the vane is lifted, and pressure responsive means connected into said steam-receiving chamber and responsive to the steam pressure therein for actuating the control valve in the fluid-flow conduit, said pressure responsive means being adapted to regulate said control valve in accordance with the changes in the steam pressure in the steam-receiving chamber resulting from variations in the rate of steam flow in the steam take-off pipe.

2,870,776

LIQUID PROPORTIONING SYSTEM

Alfred H. Marsh, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application June 21, 1954, Serial No. 437,918
6 Claims. (Cl. 137—99)



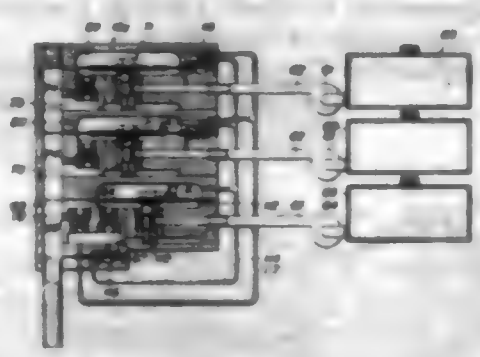
1. A system for mixing two liquids in predetermined proportions comprising separate conduits for each liquid with pumping means in each conduit adapted to transmit the liquid therethrough at substantially the same pressure, volumetric-impeller type liquid meters of equal characteristics connected to receive the output of the pumping means in each conduit and pass regulated quantities therethrough, liquid mixing means connected to receive the regulated liquid quantities from said meters, transmission means connecting said meters proportionately controlling the liquid delivery from each in desired ratio, a pressure balancing by-pass valve connecting the separate conduits between the pumping means and meters, and recirculating conduits connected to convey the higher pressured liquid under conditions of unbalanced pressure pumping means.

2,870,777

FLUID METERING SYSTEM

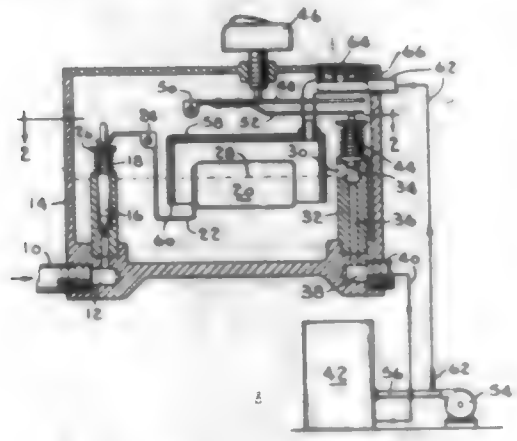
Harold Gold, Shaker Heights, and David M. Straight, North Olmsted, Ohio

Application July 3, 1956, Serial No. 595,803
3 Claims. (Cl. 137—100)
(Granted under Title 35, U. S. Code (1952), sec. 266)



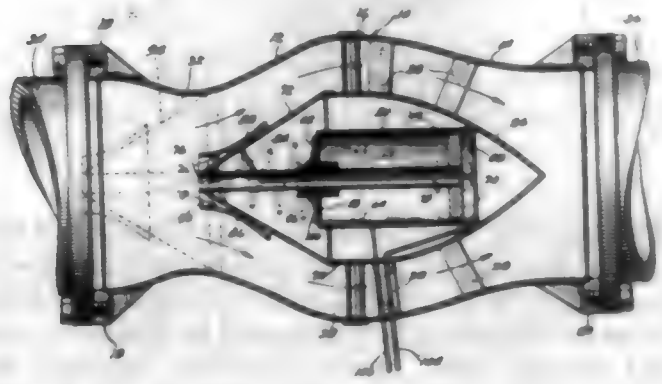
1. Apparatus for flowing liquid in predetermined flow ratio from a plurality of sources which comprises means defining a flow path for liquid from one source, said flow path having a series of orifices arranged to develop a pressure head therebetween, means providing separate flow paths for the liquid from all of the other of said plurality of sources, each of said other source flow paths having separate throttle valves and downstream therefrom separate orifices, means referencing said pressure head to said throttle valves to decrease the throttling effect upon an increase in said pressure head, and means effecting reference to the pressure of the liquid upstream from the orifices in said other paths and operative to resist the decrease in throttling effect of said throttle valves.

2,870,778
FUEL VALVE WITH FLOW RATE DEPENDENT UPON COMBUSTION FAN OPERATION
Lourdes V. McCarty, Milwaukee, Wis., assignor, by mesne assignments, to Controls Company of America, Schiller Park, Ill., a corporation of Delaware
Application January 18, 1955, Serial No. 482,612
2 Claims. (Cl. 137—209)



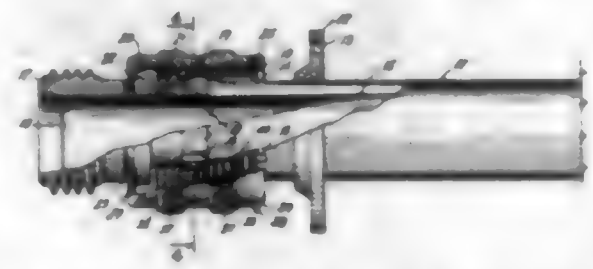
1. Liquid fuel flow control apparatus comprising, a casing provided with an atmospheric vent and including top and bottom wall members, said bottom wall member having a fuel inlet, a valve for the inlet, a float connected to the valve and operable to regulate the valve movement in accordance with the liquid level in the casing, an inverted cup mounted within the casing in spaced relation to the top wall of the casing and positioned over the float with the bottom edge of the cup below any normal liquid level encountered in the casing to provide an air seal, a conduit connected to the interior of the cup for delivering air pressure to the cup interior and adapted to be connected to the output of a combustion air fan, an outlet for liquid from the casing position within the casing externally of the cup to be subjected to a liquid head variable as the pressure within the cup varies, a control valve for the outlet and means for adjusting said control valve including a lever pivotally mounted within the casing between the cup and top wall of the casing, and manually operable means extending through the top wall of the casing and operable exteriorly of the casing for adjusting the control valve.

2,870,779
AUTOMATIC CHECK VALVE
Hubert J. Thomiszer, Skokie, Ill., assignor, by mesne assignments, to Cook Electric Company, Chicago, Ill., a corporation of Delaware
Application December 9, 1955, Serial No. 552,092
2 Claims. (Cl. 137—219)



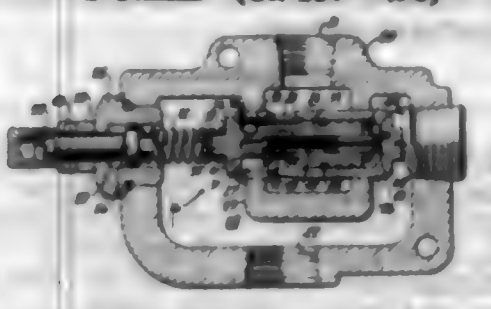
1. Fluid valve apparatus producing a low, substantially constant pressure drop comprising housing means defining a linear fluid path between an inlet aperture and an outlet aperture, said housing means having a restricted portion adjacent said inlet aperture and an adjacent enlarged portion, the inner surface of said housing having a substantially smooth continuous surface, support means centrally disposed in said enlarged portion, elongate bushing means mounted in said support substantially on the axis of said housing, a shaft mounted in said bushing for longitudinal movement, a smooth tapering valve closure mounted on said shaft for movement along said axis between a position adjacent said support and a position closing said restricted portion, said closure and said support defining a generally ovoid body when said closure is in full open position, means for controlling the position of said closure including a cylinder mounted on said support and piston means mounted on said shaft slidable in said cylinder, means for creating differential fluid pressure in said cylinder to control the position of said piston including a conduit having an inlet in said fluid path and directed toward said inlet restricted portion communicating with one end of said cylinder, venturi means mounted on said closure, and conduit means connecting the other end of said cylinder and a point of low pressure in said venturi means, and involute spring means urging said closure toward said inlet aperture against said housing at the restricted portion to form a seal therebetween.

2,870,780
SILL FAUCETS
Albert L. Fladung, Denver, Colo.
Application October 22, 1956, Serial No. 617,469
1 Claim. (Cl. 137—360)



A faucet comprising: an outer tube of sufficient length to extend through a normal building wall; a sleeve fixedly mounted on said outer tube and forming an enlarged circumferential abutment on the outer extremity of said outer tube, said sleeve being provided with external threads; an inner tube of smaller diameter and of less length than said outer tube and positioned within and in spaced relation to the latter and projecting outwardly therefrom a cylindrical, male threaded hose nipple fixedly mounted on said inner tube and forming an enlarged circumferential abutment on the outer extremity of said inner tube; a rotatable, cylindrical, cup-shaped valve barrel threaded upon the external threads on said sleeve; an inturned outer end on said barrel extending radially inward to said inner tube so as to bear against the abutment formed by said hose nipple; a set collar mounted on and projecting radially outward from said inner tube adjacent said inturned end and acting to prevent said latter end from separating from said abutment; an internal snap ring fitted into the inner extremity of said barrel and positioned to engage the abutment formed by said sleeve to limit outward movement of said barrel; a key band affixed to and surrounding said inner tube within said sleeve; keys projecting from said key band and engaging longitudinal key slots formed through said inner tube and into said sleeve to prevent rotation of said inner tube; a terminal cap fitted over and secured to the inner extremity of said inner tube to close the annular space between the two tubes; an annular sealing ring inset in said cap and acting to seal the latter to said outer tube; a washer seat positioned concentrically on said cap; a valve washer carried by said seat; a valve seat disc mounted in said outer tube inwardly from said washer and provided with a port adapted to be closed by said washer; and water ports communicating through said cap with the interior of said inner tube.

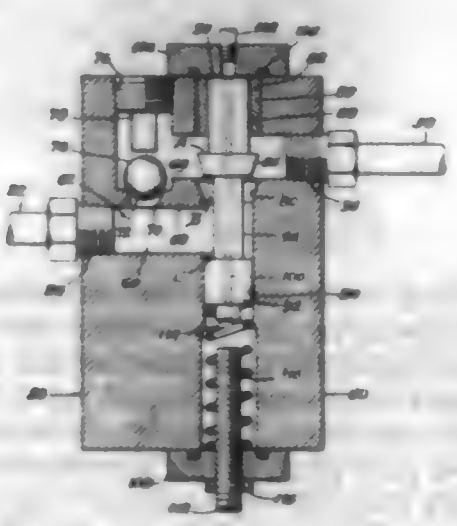
2,870,781
RELIEF VALVE
Francis H. Tenuis, Milwaukee, Wis., assignor to Hydraulic Unit Specialties Co., Waukesha, Wis., a corporation of Wisconsin
Application June 22, 1956, Serial No. 593,166
1 Claim. (Cl. 137—490)



A relief valve comprising: a body having a bore opening to its front through a counterbore and having a forwardly facing annular valve seat thereon adjacent to the mouth of the counterbore and larger in diameter than said bore, said body having an inlet communicable with a source of fluid under pressure and opening into said counterbore, inwardly of the valve seat; a main poppet valve having a head normally engaging the valve seat and thereby closing the mouth of the counterbore, an inner stem portion providing a piston slidingly received in the bore and sealing off the counterbore from that portion of the bore which is behind the piston, and a reduced outer stem portion rigidly connecting the piston and the head, the head and piston having surfaces which are spaced apart and oppose one another and the area of said surface on the head being greater than that of said surface on the piston whereby normal fluid pressure in the counterbore causes a force to be exerted upon the head tending to unseat the main poppet valve; spring means biasing the main poppet valve onto its seat with a force sufficient to overcome the unseating force exerted upon the valve head by normal fluid pressure in the counterbore, said spring means being yieldable to permit instantaneous unseating of the main poppet valve in response to the direct application to said surface thereon of forces in excess of said biasing force tending to hold the main poppet valve seated and which forces may be produced by abrupt above normal pressure pulsations in the counterbore; and pilot relief valve mechanism for effecting unseating of the main poppet valve whenever the pressure of fluid entering the counterbore builds up less abruptly beyond normal, said pilot relief valve mechanism comprising restricted passage means communicating the body inlet with the bore rearwardly of said piston, and a pilot poppet valve in said passage means biased to a position closing the passage means but arranged to open whenever fluid pressure at the body inlet exceeds said normal pressure to provide for the flow of such fluid through said passage means and into the bore behind the piston where it can exert a forward unseating force upon the piston and the main poppet valve connected therewith to overcome the biasing force tending to hold the latter closed, and thus effect unseating of the main poppet valve to allow fluid entering the counterbore to flow out of the mouth of the counterbore; and means in the body providing a restricted bleed outlet from the body, communicating with the bore rearwardly of the piston therein, and through which fluid behind the piston may be exhausted from the body during seating of the main poppet valve.

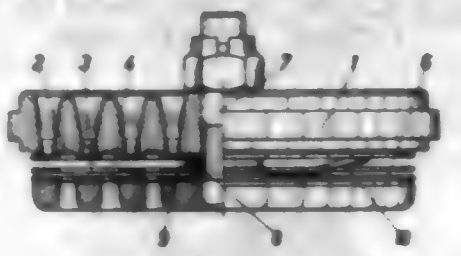
2,870,782
HYDRAULIC DECOMPRESSION ARRANGEMENT
Robert J. Lindsey, Cincinnati, Ohio, assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application May 4, 1954, Serial No. 427,547
3 Claims. (Cl. 137—595)

1. In a decompression valve for exhausting a high pressure chamber, a body, a fluid pressure chamber therein, a wall integral with said body dividing said chamber into separate intake and exhaust portions, a port in said wall establishing communication between said portions, an upper and a lower opening in said body vertically aligned with said port, a member guidably carried in said openings and extending through said port, said member having an enlarged portion above said port and engageable with said port for opening and closing thereof, said member having a second enlarged portion



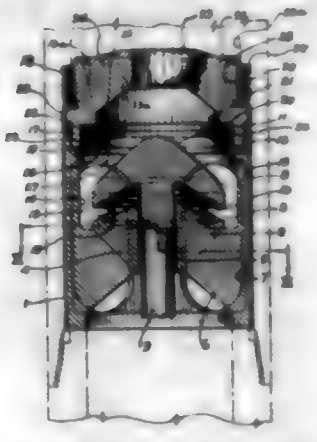
below said port, said enlarged portions being provided with opposed differential pressure areas such that fluid pressure in said chamber will urge said member downward tending to close said port when subjected to high pressure, stop means in said lower opening to limit the downward motion of said member, and resilient means in said lower opening urging said member upward to gradually open said port as the pressure in said high pressure chamber decreases.

2,870,783
ANNULAR PLATE VALVE
Theodor Karl Kohler, Vienna, Austria, assignor to Hoerbiger & Co., Vienna, Austria
Application October 26, 1954, Serial No. 463,459
Claims priority, application Austria October 23, 1953
4 Claims. (Cl. 137—516.13)



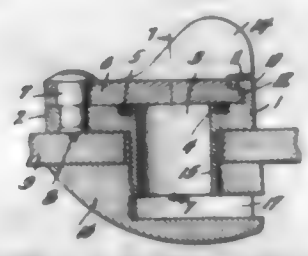
1. An annular plate valve comprising a valve seat, a valve guard, means connecting said valve seat and said valve guard in spaced relation, a guide member disposed between the valve seat and valve guard, a spring plate supported on said valve guard, first and second spring arms on said spring plate, a damping plate movable axially above the valve guard and guided in the movement by engagement with said guide member, a projection on said guide member for limiting the upper position of said damping plate, said first spring arm yieldingly supporting said damping plate in its upper position, a valve plate movable axially between said damping plate and said valve seat and guided in the movement by engagement with said guide member, said second spring arm yieldingly supporting said valve plate against the valve seat, whereby upon movement of the valve plate toward the valve guard said valve plate will be subject to two stage damping.

2,870,784
DRILLING STRING FLOAT VALVE
Walter Walls, Edmonton, Alberta, Canada
Application January 19, 1955, Serial No. 482,796
Claims priority, application Canada September 16, 1954
2 Claims. (Cl. 137—543)



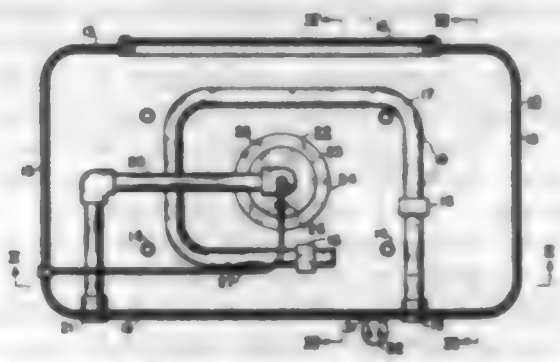
1. A drilling string float valve comprising a hollow valve casing having an accurately cylindrical outer surface and a substantially cylindrical inner surface, a valve stem, a conical valve head secured to said valve stem, a valve seat secured in said casing for co-operation with said valve head, a valve stem guide having a configuration substantially that of a truncated right circular cone superimposed co-axially upon the base of an inverted truncated right circular cone of similar base diameter but of greater height, a plurality of webs extending radially inwardly of said casing to support said valve stem guide centrally thereof whereby to mount said valve stem to extend along the longitudinal axis of said casing, said valve head and valve stem guide forming between them an annular conical cavity, a conical valve spring adapted to be compressible into a substantially flat spiral, said valve spring being mounted beneath said valve head in said cavity, the outer conical surface of the valve head and the outer conical surface of the valve stem guide co-operating with one another in the open position of the valve to form a substantially uninterrupted streamlined surface of smoothly varying cross-sectional diameter in the longitudinal direction of the casing.

2,870,785
SYPHON BAILER FOR BOATS
Richard R. Lovett, Jr., Longport, N. J.
Application January 14, 1955, Serial No. 481,858
1 Claim. (Cl. 137—560)



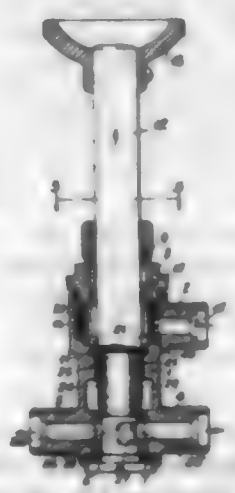
In a syphon bailer, a body portion having a central bore open at its opposite ends; a head formed integral with the body portion, the head being ovate in top plan; a groove formed in the head and concentric with the bore; an O-ring in said groove and extending slightly above the top surface of the head; a gate corresponding in outline to the head, pivoted at its one end to the head; the head provided with an upwardly extending projection at its bottom end, arcuate in top plan and rabbeted throughout its length; the gate at its free end cut out to tightly fit within the rabbet; the under opposite side edges of the gate being slightly chamfered; the gate having an upwardly extending thumbpiece; the O-ring and the gate forming a tight seal about the bore when the gate is in its closed position and compressing the O-ring; the bottom of the syphon being externally threaded; an internally threaded streamline cap having a discharge passage therein, the discharge passage in the cap disposed at right angles to the bore when attached, the cap adapted to tightly hold the syphon in place and assist in the syphoning action of the bailer; and the gate when open allowing the water to flow through the central bore in the head and discharge through the aforementioned discharge passage.

2,870,786
OIL RESERVOIR FOR HYDRAULIC EQUIPMENT
John S. Schroeder, Edgeworth, Pa., assignor, by mesne assignments, to Schroeder Brothers Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 8, 1954, Serial No. 435,111
1 Claim. (Cl. 137—587)



An oil reservoir for a closed hydraulic system and the like including a tank, a pipe for receiving oil returned to the tank positioned on the bottom of the tank and substantially following the perimeter of the bottom but spaced therefrom, said pipe being provided with discharge means consisting of openings spaced along the length of the pipe which are directed toward the side walls whereby substantially all of said return oil is discharged from the openings as streams which reach the tank walls and are thereby cooled by conduction and which thereby also circulate the oil within the tank, an outlet pipe extending from the center of the tank and having an opening substantially in the same plane as said inlet pipe whereby the tank can be substantially tilted without interfering with the continued flow of oil through the tank, and a vent for the tank positioned adjacent the center and top of the tank.

2,870,787
WARM AND COLD WATER MIXING VALVE FOR BATHS, SINKS AND THE LIKE
Rinaldo Rossi, Lodi, Italy
Application May 4, 1956, Serial No. 583,882
Claims priority, application Italy May 5, 1955
2 Claims. (Cl. 137—597)



1. A mixing device for warm and cold water for the selective feeding of bath and shower, comprising a metallic body provided with four branching taps, two of said taps being positioned at the same level for the inlet

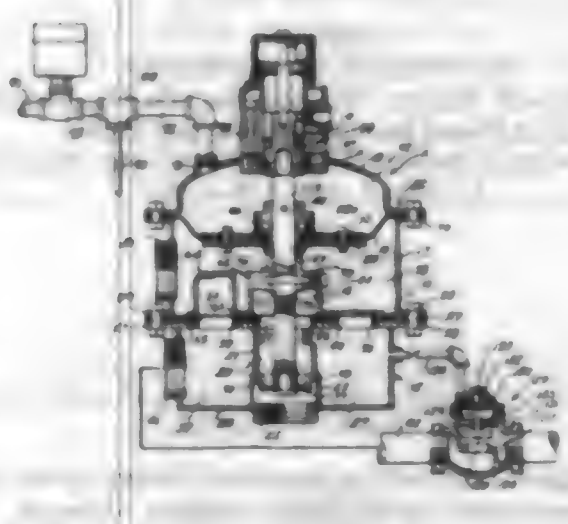
to the mixer of the warm and the cold water respectively, and two other branching taps aligned in opposite directions and spaced axially from the first taps, to feed water to the bath and the shower, a bushing aligned with the two inlet taps inside the body, said bushing being of non-metallic material and provided with openings in register with the two branch taps, an annular cylindrical metallic member inside said bushing provided with holes and tapered recesses for the admission of the warm and cold water, a control stem slidably and rotatably mounted within the body, ribs on said stem, said cylindrical member being engaged with the stem by means of two longitudinal inner grooves along two diametrically opposite sides thereof within which are engaged the ribs of said stem, the lower portion of said stem being hollow and having grooves and small holes in the wall thereof, said small holes being in communication with the holes and tapered recesses of the cylindrical metallic member when the control stem is raised, a shut-off position in said mixing device when the stem is lowered, a hollow spindle seated in said hollow lower portion and having small wings engaging the last mentioned grooves and an opening which may be brought to register with either of said outlet taps, according to whether it is desired to feed the bath or the shower, said last mentioned opening being of enlarged configuration to permit intermediate rotation of the stem, said hollow spindle being actuated by means of the control stem.

2,870,788

FLOW CONTROL APPARATUS FOR WATER TREATMENT SYSTEMS

Dean R. Huff and Robert A. Whitlock, Jr., Rockford, Ill., assignors to Aquamatic Inc., a corporation of Illinois

Application December 6, 1952, Serial No. 324,584
10 Claims. (Cl. 137—613)



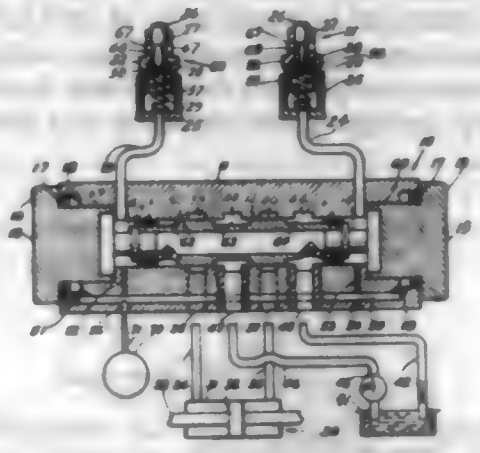
1. In a water treatment system, the combination of a control valve including a body having a face provided with a plurality of flow passages, means defining a fluid chamber at one side of said face, an inlet conduit communicating with said fluid chamber, a distributor in said chamber mounted in confronting relation with the body face for movement to preselected different rotative positions in confronting relation with the body face to establish different flows through the valve, a service conduit for treated liquid communicating with one of said flow passages, a pressure responsive service valve in said service conduit controlling the flow therethrough, and means including a fluid connection communicating with said control valve and extending between said control valve and said pressure responsive valve for supplying fluid pressure from the control valve to said pressure responsive valve to close said pressure responsive valve while the distributor is being moved between said preselected rotative positions.

2,870,789

PNEUMATICALLY OPERATED CONTROL VALVE FOR HYDRAULIC ACTUATORS

Viktors Bilsids, Chicago, Ill.

Application January 11, 1956, Serial No. 558,559
6 Claims. (Cl. 137—622)



1. A control valve for controlling relative movement between a piston and cylinder of a hydraulic actuator, comprising a valve body having a chamber therein, a first passageway in said body adaptable to connect said chamber with one end of said cylinder on one side of said piston, a second passageway in said body adaptable to connect said chamber with the other end of said cylinder on the other side of said piston, an inlet passageway in said body adaptable to supply a first fluid medium under pressure to said chamber, an exhaust passageway in said body adaptable to exhaust said first fluid medium from said chamber to a reservoir for said first fluid medium, a valve spool in said chamber shiftable to one position to connect said inlet passageway with said first passageway and to connect said second passageway with said exhaust passageway and to another position to connect said inlet passageway with said second passageway and to connect said first passageway with said exhaust passageway, passageway means in said body adaptable to supply a second fluid medium under pressure to opposite ends of said chamber adjacent opposite ends of said spool, a first exhaust passageway means in said body adaptable to exhaust said second fluid medium from one end of said chamber, a first valve for controlling exhaust of said second fluid medium from said one end of said chamber through said first exhaust passageway means, a second exhaust passageway means in said body adaptable to exhaust said second fluid medium from the other end of said chamber, and a second valve for controlling exhaust of said second fluid medium from said other end of said chamber through said second exhaust passageway means, said first and second valves being selectively operable to bleed said second fluid medium under pressure from the respective ends of said chamber to shift said spool.

2,870,790

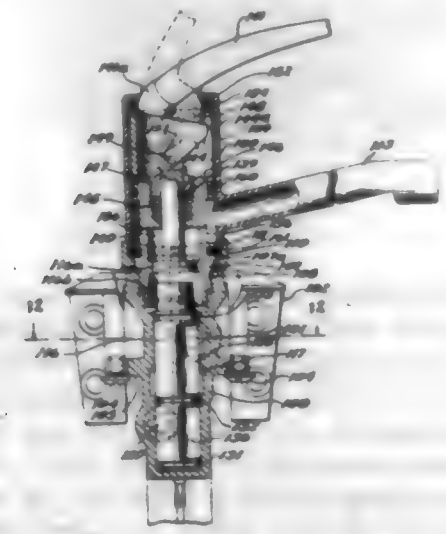
SINGLE LEVER FAUCET

Richard H. Jordan, Mansfield, Ohio, assignor to Barnes Manufacturing Co., Mansfield, Ohio, a corporation of Ohio

Application May 14, 1954, Serial No. 429,718
2 Claims. (Cl. 137—625.12)

1. A valve device comprising a body having a generally cylindrical bore, hot and cold water inlet ports communicating with said bore axially spaced therealong and angularly spaced circumferentially around said bore, said body having a mixing chamber downstream from said ports and a discharge outlet communicating with said chamber, a valve piston reciprocable and oscillatable in said bore, upstream and downstream axially aligned valving grooves in said piston and spaced axially along the circumference of said piston, said grooves being positioned to register each one with its respective inlet port while said piston closes the other inlet port, said grooves being movable by piston oscillation across said inlet

ports and each partially registering with its respective inlet port for regulating the proportionate flow from each port into said mixing chamber, first uninterrupted sealing means between that portion of said piston between said grooves and a first zone of the surrounding bore when said valve is closed, second uninterrupted sealing means between said piston and a second zone of said bore downstream from said downstream groove, there being a recess of greater diameter in said bore downstream from each of said zones, said sealing means engaging said bore in the



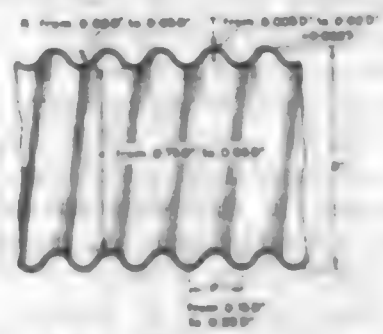
respective zones when said valve is closed, and said piston being reciprocable downstream from said closed position to move said sealing means into and out of their respective recesses of greater diameter, the recess downstream of said first uninterrupted sealing means selectively communicating with each of said grooves and the recess downstream of said second uninterrupted sealing means selectively connecting with said upstream groove thereby controlling the fluid flow through both upstream and downstream grooves to said mixing chamber.

2,870,791
PRESSURE ACCUMULATOR
Harold E. Wells, Kenmore, and John F. Strickler, Jr., Williamsville, N. Y., assignors to Bell Aircraft Corporation, Wheatfield, N. Y.
Application October 3, 1955, Serial No. 537,962
3 Claims. (Cl. 138—31)



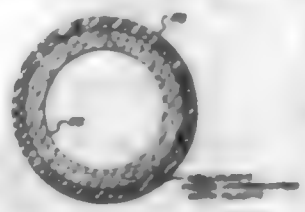
2. A pressure accumulator comprising a cylinder having a gas inlet port and a liquid port and a piston slidably mounted in said cylinder intermediately of said ports thereby defining separate gas and liquid chambers interiorly of said cylinder, said piston having spaced annular grooves in the peripheral wall thereof interconnected by an additional chamber disposed intermediately of said grooves, a resilient deformable seal ring in each of said grooves bearing against the inner wall of said cylinder, a helically coiled tube connected at one end to said piston in communication with said additional chamber and at its other end to a vent passageway formed through said cylinder whereby to intercommunicate said additional chamber with the atmosphere exteriorly of said cylinder while enabling sliding movement of said piston in said cylinder.

2,870,792
METAL TUBES OR METAL SHEATHS OF ELECTRIC CABLES
James Ronald Penrose, Watford, England, assignor to Pirelli-General Cable Works Limited, London, England, a British company
Application March 5, 1957, Serial No. 644,123
Claims priority, application Great Britain March 7, 1956
2 Claims. (Cl. 138—59)



1. Circumferentially corrugated metal tubing of a metal having a tensile strength of from 7 to 25 tons per square inch, wherein the interior root diameter of the corrugations lies between 0.75 and 0.85 of the exterior crest diameter, the pitch of the corrugations is between 0.15 and 0.25 of the exterior crest diameter and the thickness of the tube wall is between 0.005 and 0.02 of the exterior crest diameter measured in inches, plus 0.0025 inch.

2,870,793
SUPPORTING MEMBERS
William Russell Bailey, Washington, D. C., assignor to Gar Wood Industries, Wayne, Mich.
Application February 8, 1955, Serial No. 486,946
1 Claim. (Cl. 138—78)

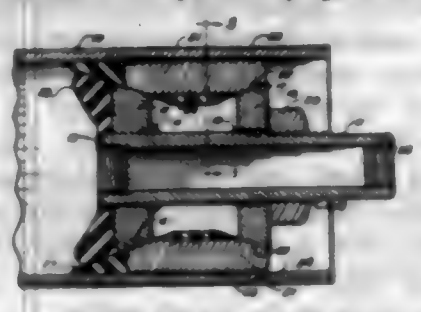


An elongated supporting member having great longitudinal compressive and lateral flexural strength, comprising a hollow cardboard tube which by itself is self-supporting and is impregnated with a thermosetting resin, and an outer tubular sheath of glass fibers encompassing said cardboard tube and disposed longitudinally and extending full length of said cardboard tube, said glass fibers being impregnated with and bonded directly to the cardboard tube by an epoxide resin, and said cardboard tube having a wall thickness substantially greater than the wall thickness of said sheath of glass fibers.

2,870,794
PIPE PLUGS
Ellis B. Thaxton, Grand Prairie, Tex.
Application June 10, 1954, Serial No. 435,728
5 Claims. (Cl. 138—96)

1. A plug for sealing against the inner surface of a pipe comprising a hollow resilient body having an outside diameter slightly smaller than the diameter of the inner surface of said pipe, said body having an annular sealing lip at one end and having a resilient slip-support-

ing portion between its ends; an annular series of radially outwardly facing slip segments each disposed axially of said body and embedded in the outer periphery of said supporting portion and bonded thereto, said segments each having a wedge portion at each end which extends inwardly through the resilient body; axially spaced annular wedge



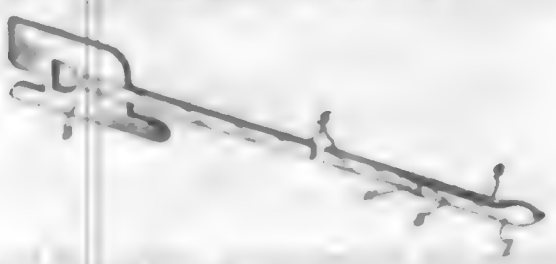
means within the hollow body underlying said wedge portions and adapted to engage said wedge portions to displace the slip segments radially outwardly into engagement with said surface; and means for forcing said wedge means to approach each other.

2,870,795

OFFSET BLADE PILE WIRE FOR LOOMS

Charles C. Berry, Lexington, Va., assignor to James Lees and Sons Company, Bridgeport, Pa., a corporation of Pennsylvania

Application February 28, 1957, Serial No. 641,391
2 Claims. (Cl. 139—44)



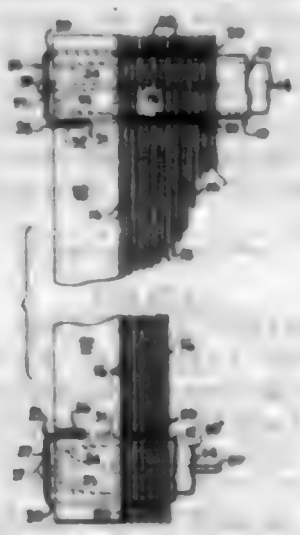
1. A wire for a pile loom comprising a head, an elongated body portion to which the head is attached, a transversely enlarged tip at the opposite end of said body portion, a cutting element in said tip and laterally offset from the center line of the body portion, and means in advance of the cutting element for laterally spreading a pile loop to provide cut pile tufts of unequal length.

2,870,796

LOOM REED

Vernon C. Laughlin, Greensboro, N. C.

Application November 17, 1955, Serial No. 547,383
3 Claims. (Cl. 139—192)



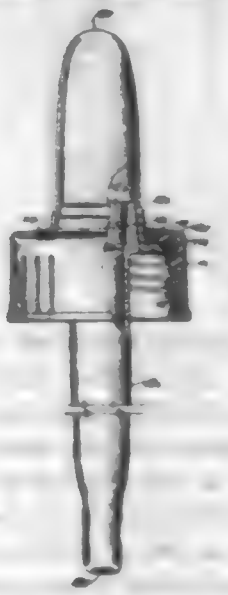
1. In a loom reed including a pair of spaced substantially parallel longitudinally extending split retaining bars and a plurality of splits having opposite ends thereof extending through the split retaining bars; the combination of an end bar for each end of the reed having opposite ends thereof extending through the split retaining bars and terminating substantially flush with corresponding ends of the splits, each end bar having a pair of notches formed in its edge remote from the reed splits and spaced from opposite ends of the corresponding reed end bar a distance at least equal to the distance from the proximal surfaces of the split retaining bars to the outer ends of the splits, a cap inserted over each end of each split retaining bar, each cap having an outer slot therein and an inner slot disposed substantially diametrically opposite the outer slot, the outer slot being of greater depth than the inner slot, and the inner slot defining a latch portion on the cap fitting in the corresponding notch formed in said edge of the corresponding end bar for preventing endwise movement of the corresponding end bar relative to the split retaining bars.

2,870,797

DROPPER ASSEMBLY

Paul A. Marchant, Kansas City, Mo., assignor to Injection Molding Company, Kansas City, Mo., a corporation of Missouri

Application April 15, 1957, Serial No. 652,847
6 Claims. (Cl. 141—24)



1. A cap dropper assembly comprising a cap having a hole in the top thereof and a depending circumferential container engaging rim, a squeeze bulb having a closed upper end and an open lower end, the lower end of the bulb thickened in cross section to increase its rigidity, the bulb so formed that the outer diameter thereof above the thickened portion is not greater than the inner diameter of the cap top hole while the outer diameter of the thickened portion is greater than the inner diameter of the cap top hole, a radial flange on the outer surface of the bulb adjacent the lower end thereof, the outer diameter of the flange being greater than the inner diameter of the cap top hole, engaging means formed in the inner surface of the bulb thickened portion intermediate the upper and lower portions thereof, a pipette having a lower discharge end and an upper engaging end, the upper engaging end wall enlarged to a greater cross-sectional thickness than the wall therebelow to increase its rigidity, the pipette upper engaging end wall also so sized as to be compressed when received in engaging relationship within the bulb lower end thickened portion when the latter is received in the cap top hole, and engaging means formed on the outer surface of the thickened portion of the pipette to mate with the engaging means on the inner surface of the bulb.

2,870,798

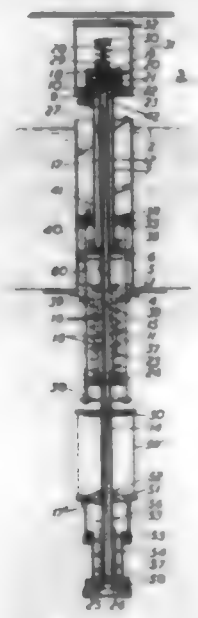
BOTTLING MACHINES

Leonard Charles Snelling, Whyteleafe, England

Application February 20, 1956, Serial No. 566,699
5 Claims. (Cl. 141—48)

1. In a bottling machine having a liquid holder, a filling device comprising in combination a stationary mounting

member secured in the base of the liquid holder, a filling tube for insertion into the mouth of a bottle and longitudinally slidable in said mounting member, an abutment on said filling tube, a sealing means around said filling tube between the end thereof and said abutment for placing against the mouth of a bottle, a stationary vent tube surrounding the filling tube and extending upwardly to a level above the liquid level in the holder, said filling tube having an orifice in the end thereof near said abutment, a gaseous by-pass tube arranged within the filling tube and extending upwardly from the orifice to a level above the liquid level in the holder, a container within



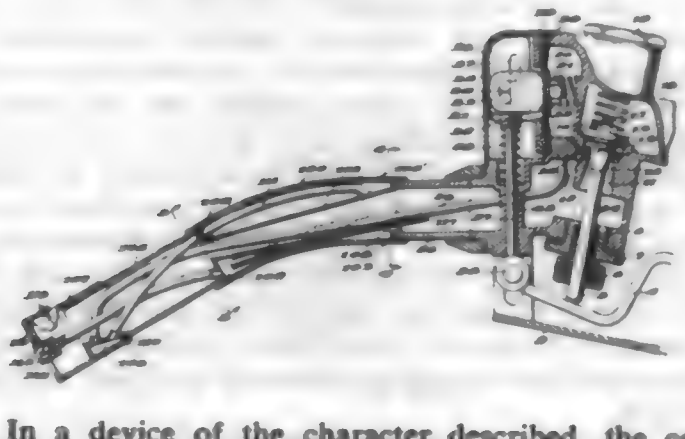
the liquid holder arranged around said vent tube, valve means between the top of the vent tube and the filling tube for connecting said by-pass tube with the gas space in the top of the holder on an initial upward movement of the filling tube, a second valve means between the container and the liquid space in the holder, and a third valve means between the container and the filling tube, said second and third valve means opening and closing in response to the movement of the filling tube, said second valve means between the container and the liquid space being timed to close not later than just after the commencement of the opening of the third valve means between the container and the filling tube.

2,370,799

FILLING NOZZLE WITH SELECTIVE AUTOMATIC SHUT-OFF

Robert W. Kinnison, Laramie, Wyo.

Application April 29, 1955, Serial No. 505,018
7 Claims. (Cl. 141—209)



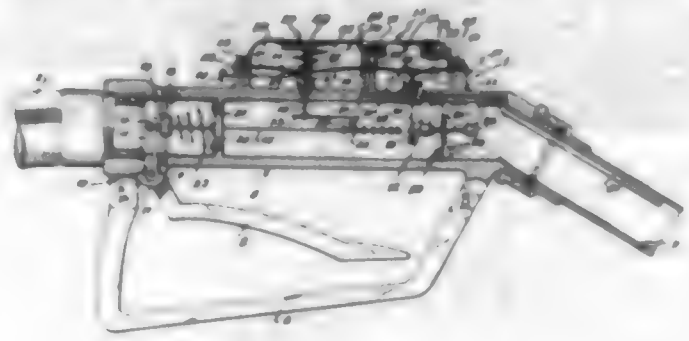
1. In a device of the character described, the combination of a body having intake and discharge passages connected by a valve controlled passage, a valve for opening and closing said valve controlled passage, a chamber having a flexible wall acting as a diaphragm, a latch carried by the medial portion of said flexible wall and moving therewith, a tube for supplying air to said chamber, an evacuating duct extending from the interior of said chamber to the interior of said valve controlled passage at a point on the discharge side of said valve to evacuate said chamber, means for opening said valve, and releaseable means slidably disposed in said body and connected to said valve opening means and normally engaged and held in raised position by said latch, with a control chamber, means for delivering fluid from said body to said control chamber, adjustable means for regulating the time required to fill said control chamber, a syphon tube having a loop disposed in and in communication with the interior of said control chamber and extending from said control chamber to a point in the discharge passage adjacent to the intake end of said air supply tube, a reservoir extending across the adjacent ends of said tubes, said reservoir being formed with a minute drain at its lowest point.

2,370,800

AUTOMATIC LIQUID DELIVERY SHUT-OFF DEVICE

Toby B. Harper, Dolph, Ark.

Application December 6, 1957, Serial No. 701,134
2 Claims. (Cl. 141—209)



1. A device for automatically cutting off the flow of liquid through a delivery nozzle when the liquid reaches a predetermined level in a container, comprising a hollow body through which the liquid flows to the nozzle, a valve in said body moveable between liquid flow permitting and liquid flow preventing positions, valve biasing means urging said valve to liquid flow preventing position, retaining means for maintaining said valve in liquid flow permitting position against the bias of said biasing means, and release means including a retaining means tripping device operated by a fluid pressure differential, a fluid pump operated by the flow of liquid through said body and connected and arranged to supply said fluid pressure differential, said fluid pump comprising a diaphragm reciprcoated by a connecting rod operated by a crank shaft rotated by an impeller positioned in the hollow body, and fluid pressure differential inhibiting means operative while the level of the liquid in the container is below the predetermined point and inoperative when the level of the liquid in the container is above said predetermined point to nullify the said pressure differential

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2,370,801

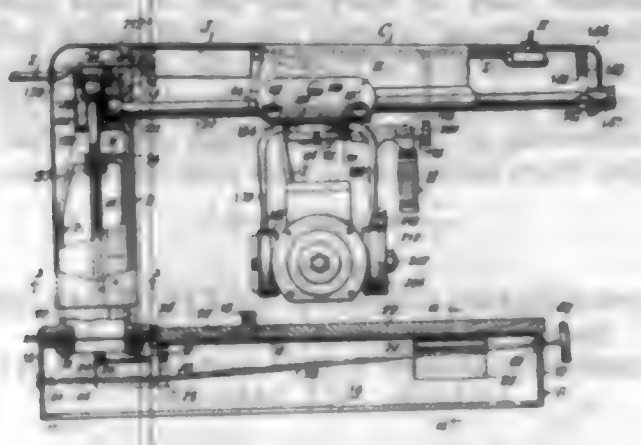
COLUMN CONSTRUCTION AND ADJUSTMENT FOR A RADIAL SAW

Benjamin B. Cravens, Livingston, N. J.

Application April 15, 1955, Serial No. 501,659
4 Claims. (Cl. 143—6)

4. A machine tool comprising a base frame, a vertical column mounted on said frame and having a substantially V-shaped guideway on each side thereof, a radial arm extending over said base frame and having a downwardly extending channel embracing said column, gibbs having chamfered surfaces engaging the angled sides of said guideways and mounted solely on split tubular spring pins secured to said channel so that shocks and stresses imposed on said radial arm and channel will

be absorbed by said spring pins and thus prevented from being transmitted to the column, and means for



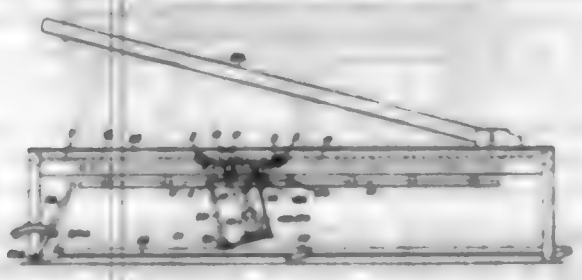
moving said channel and the arm connected thereto vertically on said column.

2,870,862

UNDER-TABLE, TRAVELING-SAW APPARATUS FOR CUTTING SHEETS OF MATERIALS

Robert William Birch Richards, Shrewsbury, Salop, England, assignor to Thomas Robinson & Son Limited, Rochdale, England

Application September 17, 1957, Serial No. 684,489
3 Claims. (Cl. 143—47)



1. Apparatus for cutting sheets of material comprising a saw table having a longitudinal slot therein, longitudinal guide rails below said saw table, a carriage disposed beneath said saw table and arranged to be traversed to and from longitudinally of said table, said carriage comprising an outer frame mounted on said longitudinal guide rails and an inner frame pivotally associated with said outer frame, a circular saw blade and an electric driving motor therefor mounted upon said inner frame, pinion means mounted on said inner frame and having driving connection with said driving motor, a pair of parallel rack bars disposed longitudinally below said saw table, and a support rail for said inner frame, said support rail being vertically displaceable to raise said inner frame to cause said saw blade to project through said slot and to cause said pinion means to engage one of said racks for forward traverse of said carriage, and to lower said inner frame to lower said saw blade so that it does not project through said slot and to cause said pinion means to engage the other of said racks for return traverse of the carriage, thereby permitting manipulation of a sheet of material on said work table during said return traverse.

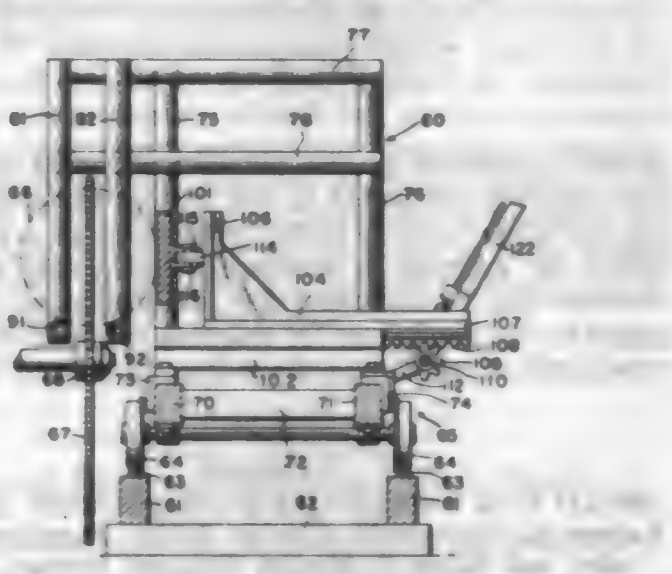
2,870,883

COOPERAGE BOLT SAWING MACHINE

John H. Eppler, Dorsey, Md., assignor to Eppler Wood Products Corporation, Dorsey, Md., a corporation of Maryland

Application May 29, 1956, Serial No. 588,058
2 Claims. (Cl. 143—54)

2. A cooperage bolt sawing machine, comprising, a saw blade mounted for rotary movement, a motor mechanically coupled to said saw for powering said saw for rotary movement, a carriage having two pairs of wheels and having its direction of movement arranged parallel to the plane containing said saw, a pair of spaced tracks, said pairs of wheels being positioned on said spaced tracks for movement of said carriage along said tracks, a cantilever frame carried by said carriage and extending laterally therefrom over and above said saw, said frame consisting of first and second pairs of members extending vertically from said carriage, with said first and second pairs of said members being located at opposite ends of said carriage, each member of said first and second pairs of said members being positioned on opposite sides of said carriage, third and fourth pairs of members extending horizontally from said carriage, said third and fourth pairs of members being secured to said first and second pair of members, respectively, and spaced an equal distance apart, said third and fourth pairs of members extending outwardly past the vertical plane of said saw an equal distance, the lowermost members of said third and fourth pairs of members being located in a plane above



the upper edge of said saw, and fifth and sixth pairs of members extending downwardly from the overhanging ends of said third and fourth pairs of members, respectively, and secured thereto, said outwardmost members of said fifth and sixth pairs of members and the innermost members thereof being positioned apart and located on opposite sides of said saw an equal distance, with the innermost members of said fifth and sixth pairs of members being located between said saw and said carriage, and a roller positioned between the lower ends of the outermost members and another roller between the lower ends of the innermost members of said fifth and sixth pairs of members for supporting a log to be cut into bolts, with said rollers being arranged to support said billet at equal points on both sides of said saw, and means including a sliding carriage for positioning said billet with respect to the plane of said saw.

2,870,884

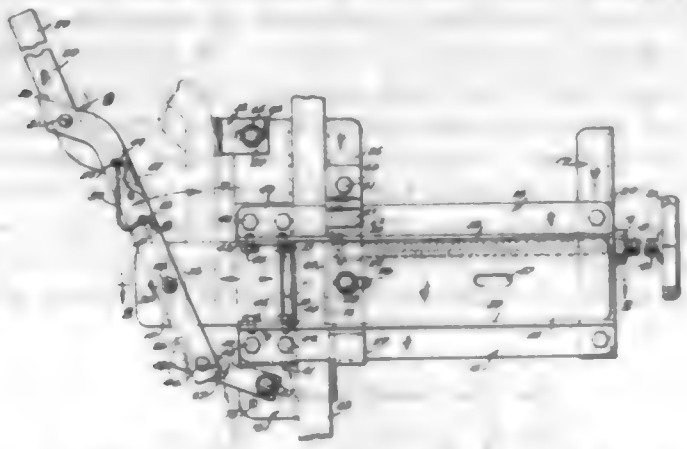
BUTT HINGE AND TENON MORTISER

William S. Hiett, Eastaboga, Ala.

Application March 26, 1956, Serial No. 573,934
3 Claims. (Cl. 144—27)

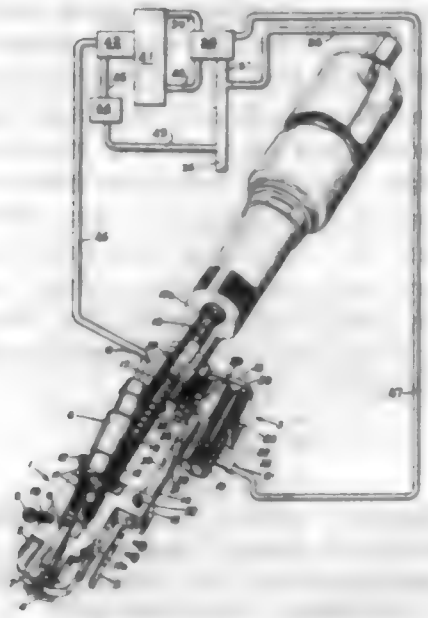
3. In a butt hinge and tenon mortiser, the combination which comprises a pair of spaced bars, a transversely disposed stationary bar extended across and secured to the ends of the pair of bars, the stationary bar being secured to the parallel bars and having an element depending from one edge and formed to be positioned against one side of a door, a movable bar positioned parallel to the stationary bar and also having an element extended downwardly and positioned to coact with the depending element of the stationary bar, for clamping the mortiser on a door, clips extended from the movable bar and overlapping edges of the parallel bars for supporting the movable bar upon the parallel bars, an end bar connecting ends of the parallel bars opposite to the ends connected to the stationary bar, a screw threaded in the end bar and rotatably mounted in the movable bar, a hand

wheel on the extended end of the screw for manually rotating the screw to adjust the position of the movable bar in relation to the stationary bar, a cutting blade having a sharp beveled cutting edge with short cutting edges at the sides slidably mounted on the stationary bar and positioned between the parallel bars, a link pivotally mounted on the stationary bar, a hand lever having a



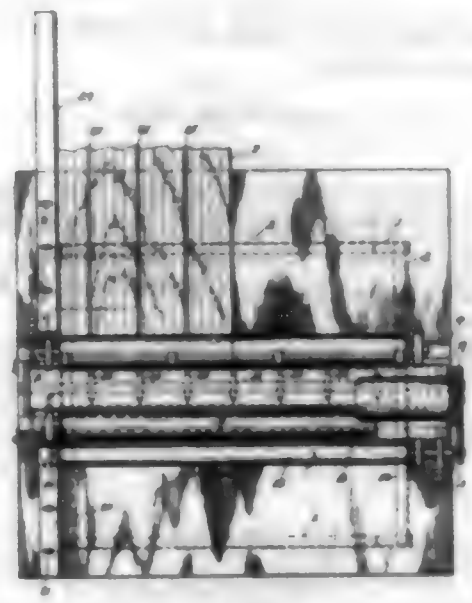
pivotal connection therein pivotally mounted on the link and pivotally connected to the cutting blade for actuating the blade to cut a recess in the edge of a door upon which the mortiser is positioned, and a stop adjustably mounted on the stationary bar and positioned to be engaged by the hand lever for stopping the lever to limit the movement of the cutting blade into the edge of the door.

2,870,805
HEAD FOR POWER OPERATED SCREW DRIVER
Andrew S. Zakrzewski, George Ashby, Zbigniew Daskiewicz, and Edgar S. Moore, Toronto, Ontario, Canada, assignors to Taymouth Industries Limited, Toronto, Ontario, Canada, a corporation
Application April 27, 1956, Serial No. 581,089
Claims priority, application Great Britain April 28, 1955
12 Claims. (Cl. 144—32)



2. A head for attachment to a fastener driving tool of the kind which includes a housing from which projects the driving end of a shank, comprising a body having a fastener receiving chamber which includes a passage for the reception through one end of the driving end of the shank of the driving tool, an entry tube on the body and having an exit end which opens into the chamber and another end for connection to a supply of fasteners, an adaptor member for firm attachment to the driving tool, interconnecting means between the body and the adaptor member enabling reciprocation of the adaptor member and thus of the attached driving tool relative to the body between a first position where the shank is advanced relative to the body and a second position where the shank is retracted, biasing means normally urging to the second position and adaptor member relative to the body, a fastener guiding member on the body at the other end of the aforesaid passage to receive fasteners admitted into the chamber from the entry tube and to hold them one at a time in driving position and in alignment with the shank, and a stop arm on the body for engaging the head of a fastener held by the guiding member, the said stop arm preventing a fastener on which an external load is applied from being forced back into the chamber.

2,870,806
WOODWORKING GROOVE CUTTING MACHINE
Barney G. Thompson, Birmingham, Ala.
Application October 8, 1956, Serial No. 614,521
2 Claims. (Cl. 144—136)

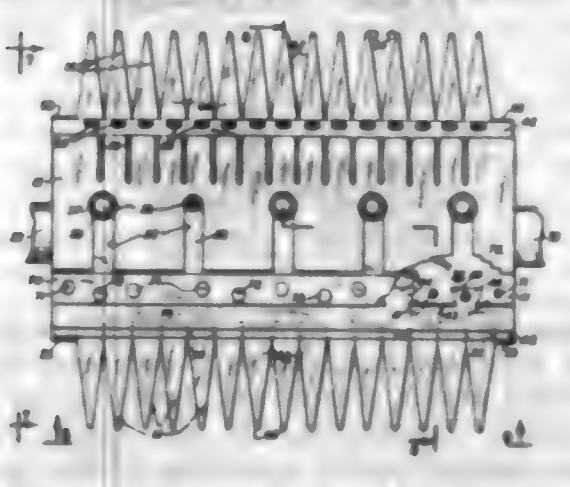


1. A groove cutting machine of the character described comprising a flat metal top, a plurality of vertical and cross bars as a structure for supporting said top, two main rollers supported in bearings under the top, said top having two slots in its middle portion, said rollers being positioned so their upper edges protrude through said slots, an electric motor mounted in the structure below the top, a pulley on the shaft of the motor, a pulley on an end of the shaft of one of the rollers, a belt mounted around the pulley on the motor shaft and the pulley on the roller shaft, another pulley mounted on the other end of the said roller shaft, a pulley mounted on the end of the shaft of the second roller, a belt mounted around the pulley on the first shaft and the pulley on the end of the shaft of the second roller, two rollers mounted over the said two rollers below the top and positioned and adapted to make contact with any flat sheet material while it is passing over the lower rollers, a second supporting structure attached above the said flat top, an electric motor mounted in this upper structure, a double pulley on an end of the shaft of this motor, a shaft, a plurality of disks mounted on this shaft, each of said disks having a plurality of groove cutting blades removably attached thereto, two bearings mounted in the upper structure, said shaft with disks thereon mounted in said bearings, a double pulley on an end of the shaft having the disks thereon, a belt around the pulley on the motor shaft and the pulley on the shaft having the said disks thereon, two additional bearings mounted in the upper structure, a sanding roller mounted on a shaft, this shaft being supported in said two additional bearings, a pulley on one end of this shaft, a belt around the double pulley on the shaft of the disks and the pulley on the end of the shaft of the sanding roller, a housing mounted tiltably on the said upper structure, a piece of leather attached as a closure on one lower edge of said housing, said housing terminating chimney fashion as means for attaching to an air suction device for removing shavings from the machine when in operation cutting grooves in plywood or the like.

2,870,807
WOODWORKING FINGER JOINT CUTTER ASSEMBLY

Henry Harris Payzant, Portland, Oreg., assignor to Timber Structures, Inc., Portland, Oreg., a corporation of Oregon

Application October 4, 1957, Serial No. 688,336
3 Claims. (Cl. 144—218)

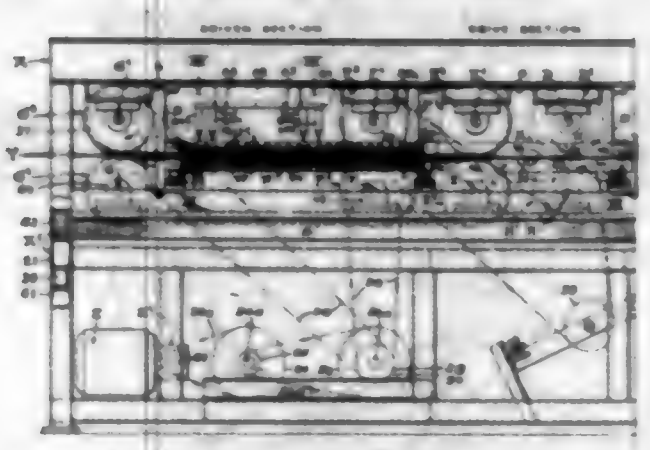


1. A finger joint cutter comprising an arbor having transverse, dove-tail slots and ribs on a pair of diametrically opposed faces, a pair of blade holders respectively mounted on said opposed faces, said blade holders having dove-tail slots and ribs interlocking with the dove-tail slots and ribs on the arbor, said blade holders being transversely narrower than said opposed faces and each having a longitudinal, undercut slot in its outer surface, a plurality of blades mounted on each of said blade holders, each of said blades comprising a base portion having a flat bottom, parallel, vertical side walls and undercut end walls for engagement in said undercut slot, said blades being mounted side-by-side with the side walls of the base portions of adjacent blades contiguously, means locking said blades in fixed position in said slots on said blade holders, a plurality of tension bolts extending longitudinally of respective dove-tail slots in the arbor and into threaded engagement with corresponding dove-tail ribs on the blade holders, means providing bearing surfaces for the heads of said tension bolts where said bolts may be rotated to adjust said blade holders transversely of said arbor, and a plurality of compression screws threadedly engaged in and extending through said blade holders normal to said opposed faces, said compression screws thrusting against said opposed faces to lock said blade holders in adjusted position on said arbor.

2,870,805
CONTINUOUSLY-OPERATED RADIO FREQUENCY ADHESIVE SETTER FOR THE EDGE BONDING OF MATERIALS

Julius W. Mann and George F. Russell, Tacoma, Wash.

Application December 14, 1951, Serial No. 261,692
11 Claims. (Cl. 144—281)

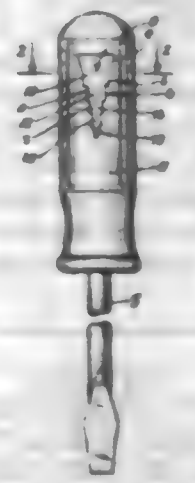


1. In a device of the type described: a group of endless belts, each having one of its reaches adapted to move in a common flat plane with the other reaches and to be parallel with the other reaches and spaced apart; means for moving all of the reaches that lie in the same flat plane, in the same direction; a second group of endless belts, each having one of its reaches adapted to move in the same plane and to extend for a short distance between two adjacent reaches of the first group; a third group of endless belts, each having one of its reaches adapted to move in a second common plane that substantially parallels the first plane, and to cooperate with one of the reaches of the first group; the reaches of the third group that lie in the second plane, substantially paralleling each other and being spaced apart; a fourth group of endless belts, each having one of its reaches adapted to move in the second plane and to extend for a short distance between two adjacent reaches of the third group; the reaches of the fourth group that lie in the second plane co-operating with the reaches of the second group that lie in the first plane; a plurality of wheels contacting each of the reaches of the third group that lie in the second plane; a plurality of wheels contacting each of the reaches of the fourth group that lie in the second plane; an articulated frame for supporting the wheels that contact the reaches of the third and fourth groups; and means for exerting independent and yielding pressures at different points on the articulated frame for causing the reaches of the third and fourth groups that lie in the second plane, to move toward the first plane for gripping and guiding members as they are moved between the two planes.

2,870,839
TOOL HANDLE

Herman Feldman, Surfside, and Martin Sems, Miami Beach, Fla.

Application November 9, 1955, Serial No. 545,871
7 Claims. (Cl. 145—61)



1. In a hand tool, a handle adapted to be held by a hand of the user for operating the tool, said handle being provided longitudinally thereof with a through opening extending transversely of the tool handle for the cross-reception of an implement which may be grasped by said hand of the user for obtaining increased operating leverage, the opposed longitudinal walls of said through opening being stepped to define a plurality of openings of sequentially decreasing widths arranged longitudinally of the handle in progressively stepped relation, the said through opening including a portion extending beyond the largest stepped opening and a portion extending beyond the smallest stepped opening, the said longitudinal walls defining said through opening being resilient to permit said walls to flex transversely of the length of said handle, whereby implements of different widths may be received by said through opening and an implement of a given width may be resiliently fitted into and held within one of said stepped openings which is of a corresponding width.

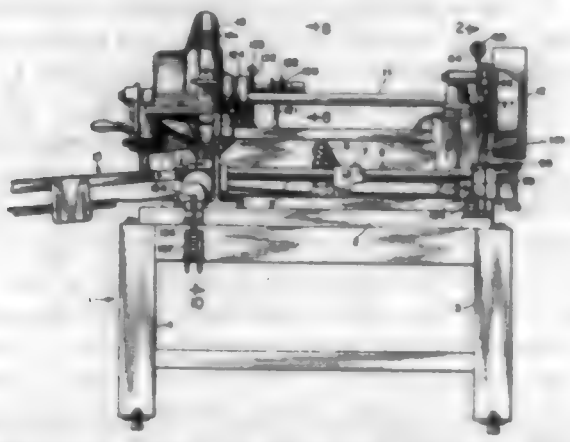
2,870,810

AUTOMATIC SHINGLING OR STACKING DEVICE FOR A SLICING MACHINE

Joseph Folk, La Porte, Ind., assignor to U. S. Slicing Machine Company, Inc., La Porte, Ind., a corporation of Indiana

Continuation of application Serial No. 283,804, April 23, 1952. This application February 9, 1955, Serial No. 487,088

16 Claims. (Cl. 146—94)



1. A slicing machine of the class described comprising a knife, a pusher for feeding a substance to the knife to be sliced thereby, a conveyor for receiving slices of the substance and for carrying the slices away from the machine, means to drive the conveyor, reciprocating drive means for advancing said pusher toward said knife in a step-by-step movement, means for arranging the severed slices into groups onto said conveyor, each group containing a predetermined number of slices including a first control means having adjustable mechanism for predetermining the number of slices for each group and a second control means, mechanism responsively connecting said second control means with said first control means, said second control means having mechanism for interrupting the advancement of said pusher after each time said predetermined number of slices has been severed, and means operatively connected to said second control means for selectively rendering said conveyor drive means operative to drive said conveyor continuously for shingling the slices and for rendering said conveyor drive means operative to drive said conveyor only when advancement of the pusher is interrupted from stacking said slices, thereby to space the groups along said conveyor.

2,870,811

CHURCH COLLECTION BAG

Maurice Harrison, Queens Village, N. Y.

Application June 21, 1957, Serial No. 667,188

3 Claims. (Cl. 150—1)



1. A church collection bag comprising an outwardly flared bag of readily pliable fabric having an open neck portion, the fabric forming said neck portion being inwardly folded upon itself, and stitched to the unfolded portion of said neck portion adjacent thereto to form a closed pocket, a hook mounted in said pocket for maintaining said neck portion open, a bag corresponding in shape and size to said first mentioned bag loosely disposed within said first mentioned bag and similarly having an open neck portion, the inner bag being affixed to the outer bag adjacent the underside of the hook, the lower portion of the inner bag being completely withdrawable from the outer bag.

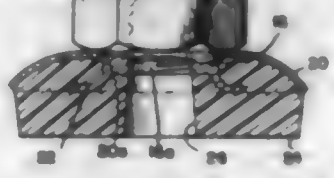
2,870,812

NUT AND WASHER ASSEMBLY, INCLUDING A RESILIENT PLASTIC PAD TO PROVIDE A SEAL AND LOCK

Robert M. Heller, Birmingham, Mich., assignor to Watts Electric & Mfg. Co., Birmingham, Mich., a corporation of Michigan

Application September 21, 1953, Serial No. 381,217

1 Claim. (Cl. 151—38)



A composite nut and washer assembly comprising a one-piece polygonal body having a bolt receiving opening extending axially thereof and having at one end of and in endwise registration with said axially extending opening an integral axially extending tubular projection, said polygonal body and said tubular projection having connecting internal threads for engagement by a bolt, said tubular projection being provided at its free end in spaced substantially parallel relation to the adjacent side of said polygonal body with an outturned radially extending annular portion, a concavo-convex washer sleeved upon said tubular projection in the space between said polygonal body and said outturned portion, the convex side of said washer bearing against the adjacent side of said polygonal body and disposed substantially parallel to said outturned portion, and a unitary body of resilient material having resilient portions respectively upon opposite sides of said outturned portion, one of said resilient portions surrounding said tubular projection between and adhered to the opposed surfaces of said washer and said outturned portion whereby the washer will be held against displacement from the adjacent side of said polygonal body, and the other of said resilient portions being a yieldable pad underlying said one resilient portion and having a substantially flat bottom extending outwardly substantially as far as the edge of said washer and an axially extending opening in endwise registration with the opening in said tubular projection and adapted to receive the bolt being compressible relative to said tubular projection, outturned portion and washer to serve as a sealing element, lock washer and cushioning member when said assembly is bolted against a surface of another element.

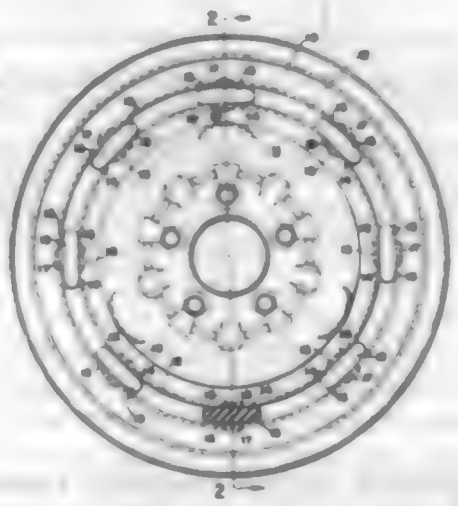
2,870,813

RESILIENT WHEEL ASSEMBLY

Thomas L. Fawick, Cleveland, Ohio

Application June 6, 1955, Serial No. 513,251

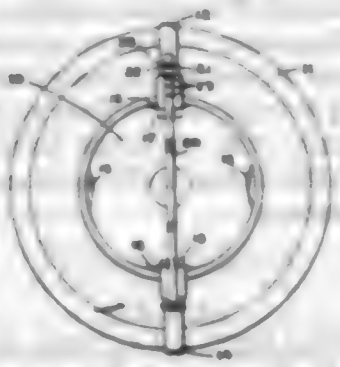
2 Claims. (Cl. 152—44)



1. An assembly comprising an inner wheel element, an annular outer wheel element surrounding a part of said

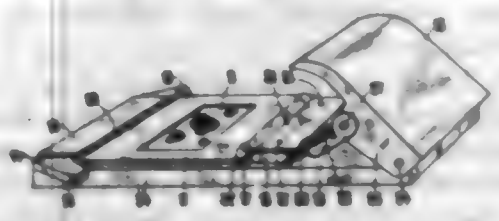
inner wheel element in radially spaced relation thereto and thus defining therewith an annular cushion-receiving space, and a set of circumferentially spaced apart cushioning units mounted in said space, each of said units comprising a biscuit-shaped cushioning body of greater extent circumferentially than radially of the wheel and providing opposite, extensive, at least approximately planar supporting faces and formed of material having substantially the resilient deformability of vulcanized soft-rubber and a pair of plates extending only at substantially right angles to the local radius of the wheel and surface bonded to the said extensive faces respectively of the biscuit-shaped cushioning body, the cushioning bodies of the several units insulating said wheel elements from each other, all of said cushioning bodies being held under deforming radial compression at least primarily by reason of the radial thinness of the space between the said wheel elements, and each unit comprising snap-in means rigid with the respective plates and interlocking said plates individually with the said wheel elements respectively again relative circumferential movement and against relative axial movement of said wheel elements, so that the said cushioning bodies sustain the circumferential forces and the axial forces primarily in shear.

2,870,814
TRACTION DEVICE
Yerem Khachikian, Newark, N. J.
Application June 6, 1957, Serial No. 664,846
2 Claims. (Cl. 152—218)



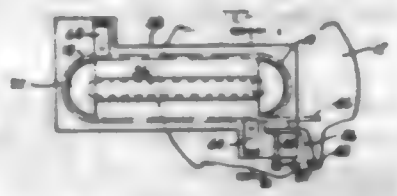
1. The combination of an automobile disk wheel having a tire mounted thereon, the disk having apertures, a traction device on the wheel and comprising a pair of curved traction plates hooked over the wheel tire transversely, a bar connecting said plates on the outer side only of the wheel, and auxiliary means for holding said plates in place, said means comprising a radial member secured to each of said plates on the outer part only thereof and extending through an aperture of the disk from the outer side only of the disk and bearing against the inner face of the disk and terminating a short distance beyond the aperture.

2,870,815
APPARATUS FOR SEALING A TRANSPARENCY SLIDE
Arnold Perrot, Nidau, Switzerland
Original application July 6, 1955, Serial No. 520,259. Divided and this application October 4, 1956, Serial No. 616,907
Claims priority, application Switzerland September 13, 1954
1 Claim. (Cl. 153—1)



In an apparatus for sealing a transparency slide having an inner frame the outer edges of which have a V-shaped groove ,two protective glasses accommodated in the opening of the inner frame and enclosing a transparency, and two windowed metal masks provided with upright flanges bendable against the walls of the said V-shaped groove of the inner frame for sealing the slide: a platen provided near one end with a stationary jaw provided with two lateral horns for centering the slide, the platen having two parallel slots spaced from and exangles corresponding to the V-shaped groove of the said tending away from said stationary jaw, a movable jaw slidable in the said slots, both jaws consisting of metal plates whose opposite sides have the shape of dihedral inner frame, a small plate secured to each jaw for preventing the slide from being lifted above the platen during the sealing operation, a control lever pivoted on the platen near its end remote from the stationary jaw, a return spring resting on the platen and acting on the said lever, a connecting bar linked to said lever and interlocked with said movable jaw, whereby oscillation of the lever about its fulcrum will move the movable jaw toward and away from the stationary jaw so as to bend two opposite flanges of the said masks against the walls of the V-shaped groove of the inner frame.

2,870,816
DEVICE FOR BENDING COILS
Raymond H. Greene, Detroit, Mich., assignor to Calumet & Hecla, Inc., Chicago, Ill., a corporation of Michigan
Application January 30, 1956, Serial No. 562,121
5 Claims. (Cl. 153—48)

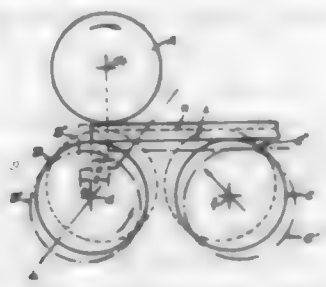


1. Apparatus for bending a length of stock comprising a fixed pin, a fixture having means providing an elongated guide receiving said pin, said fixture being slidable on said pin as determined by said guide between spaced points along said guide, stock supporting members carried by said fixture respectively adjacent said spaced points, said fixture being rotatable on said pin at said spaced points whereby the stock may be coiled upon said members by alternately sliding said fixture in opposite directions on said pin to locate the latter at said spaced points and rotating said fixture on said pin at said spaced points to bend the stock around said members, blocks carried by said fixture at opposite sides of said guide respectively adjacent said members, said blocks being positioned to bear against the outer side of the length of stock being bent between said members, and means to cause said stock to contact said supporting members.

2,870,817
MACHINE FOR CURVING AND BENDING METALLIC SHEETS OF DIFFERENT THICKNESS
Rino Boldrini, Milan, Italy
Application September 30, 1953, Serial No. 383,346
Claims priority, application Italy March 3, 1953
2 Claims. (Cl. 153—54)

1. A machine for curving and bending metal sheets comprising a pair of feed rollers and a bending roller, one of said feed rollers having a fixed axis, the axes of the other feed roller and the bending roller being parallel to each other and to the axis of the fixed feed roller, the axes of the three rollers being disposed in parallel, triangular array, the axis of the other of said feed rollers being adjustable by translation in a plane substantially at right angles to a plane including the axes

of the fixed feed roller and the bending roller, and the axis of the bending roller being adjustable in a plane including its axis and the axis of the fixed feed roller, wherein the bending roller is disposed upstream, with respect to the path of the sheets, of the feed rollers and on the side of the path of the sheets opposite the feed roller having a fixed axis, and wherein said other



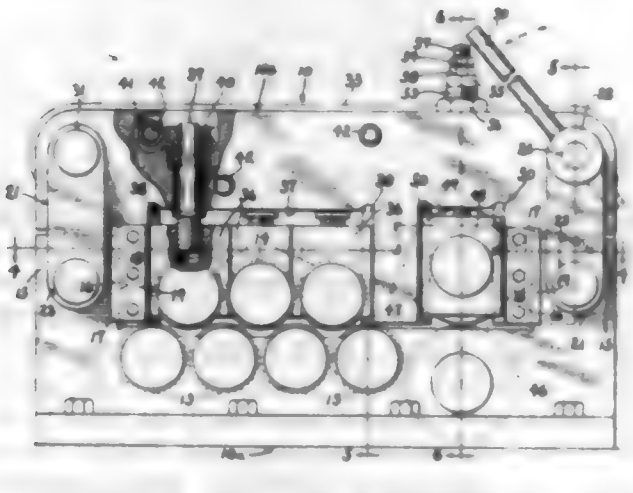
feed roller is adjustably movable with respect to said fixed feed roller so as to increase the distance therebetween to match sheets of increasing thickness while simultaneously moving to an adjusted position in a downstream direction to effect a fulcrum with respect to said fixed roller against which initial bending of a sheet can be achieved by initial adjusting of said bending roller.

2,870,518

RESILIENT ROLL APPARATUS FOR WORKING TENUOUS MATERIAL

Richard F. Herr, Warren, Ohio, assignor to The Herr Equipment Corporation, Warren, Ohio, a corporation of Ohio

Application October 8, 1954, Serial No. 461,690
3 Claims. (Cl. 153—104)



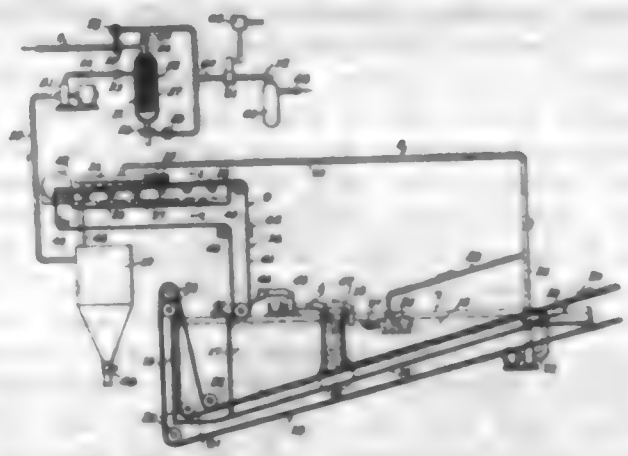
1. Apparatus for imparting a predetermined set to sheet material of varying thickness, comprising a plurality of rolls providing a tortuous pass through which the material travels, certain of said rolls engaging one side of the material and certain other of said rolls engaging the other side of the material and said rolls having deformable, resilient peripheral working surfaces in pressure contact with the material traveling through said pass to bend the material in one direction about the radii of certain of said rolls and in the other direction about the radii of certain other of said rolls to flex the material beyond its elastic limit, said pressure contact between the material and said rolls varying in accordance with material thickness and effecting temporary deformation of the peripheries of said rolls to respective arcuate shapes having radii larger than the initial, undeformed radii of said rolls, the radii to which the peripheries of said rolls are deformed varying in accordance with said pressure contact and automatically increasing with an increase in material thickness to reduce the amount that the material is bent and automatically decreasing with a decrease in material thickness to increase the amount that the material is bent to automatically impart said predetermined set to the material despite variations in thickness thereof.

2,870,519

APPARATUS AND METHOD FOR FORMING A SHEET OF INTEGRATED MICA

Moses D. Heyman, Woodmere, N. Y.

Application February 6, 1952, Serial No. 270,242
7 Claims. (Cl. 154—2.5)



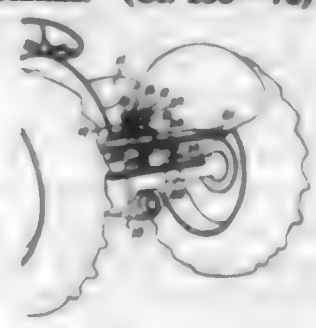
1. Apparatus for forming a continuous sheet of integrated mica comprising a tank provided with a static head settling chamber intermediate its ends to provide said tank with settling chambers one on each side of the static head chamber, said chambers being connected at their bottoms, a web moving through the bottoms of said three chambers and receptive of mica flakes settling downwardly in said chambers, an inlet for a flow of liquid-borne mica flakes to said static head chamber, an outlet for excess liquid in said tank and in the upper portion of the tank to maintain a constant level of liquid in the tank, means to elevate the liquid passing through said outlet, and a liquid-passing conveyor receptive of said elevated outlet liquid to intercept mica flakes suspended in said outlet liquid to collect said flakes and pass the outlet liquid therethrough, said conveyor having a portion disposed to convey the flakes collected thereon back to one of said side chambers.

2,870,519

AUXILIARY TRACTOR SEAT

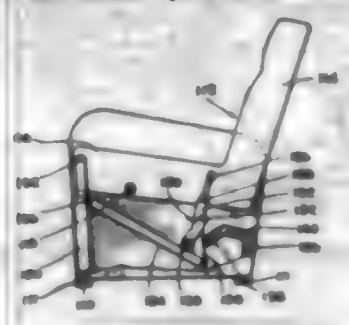
David R. Turnipseed, Sigourney, Iowa

Application January 4, 1957, Serial No. 632,475
4 Claims. (Cl. 155—78)



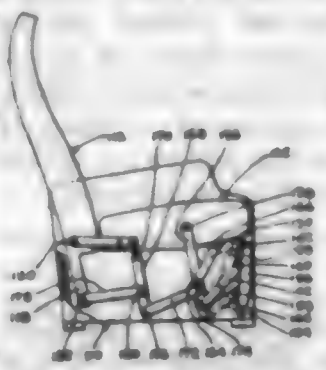
4. In an auxiliary tractor seat, a horizontal base portion having a seat thereon, two spaced apart vertical arms on the forward end of said base and adapted to extend at each side of the lift rocker of a tractor, two spaced apart horizontal bearings on each of said vertical arms; said two bearings of one arm being in line with the two bearings, respectively, of the other said arm, at least one bolt means extending through at least one bearing of each of said arms; said bolt means also adapted to extend through the lift rocker of a tractor, an elongated horizontal rod shaft adapted to engage the leveling arms of a tractor, two spaced apart downwardly extending flanges on said horizontal base, each having a horizontal row of bolt holes, two upwardly extending spaced apart arms on said rod shaft extending to the sides of said flanges, respectively, and a bolt means extending through each of said last mentioned arms and selectively through one of the holes of the adjacent flange thereto for horizontally adjustably securing said rod shaft relative to said seat.

2,870,821
RECLINING ARTICLE OF REPOSE FOR SUPPORTING THE BODY OF A PERSON
Johannes Luckhardt, Berlin-Dahlem, Germany; Wasili Johannes Friedrich Luckhardt, Berlin-Dahlem, Germany, sole heir of said Johannes Luckhardt, deceased, assignor to Norman P. Martin and Otto L. Walter, as trustees of Kappa Trust, Lake Worth, Fla.
Application October 21, 1954, Serial No. 463,656
5 Claims. (Cl. 155—106)



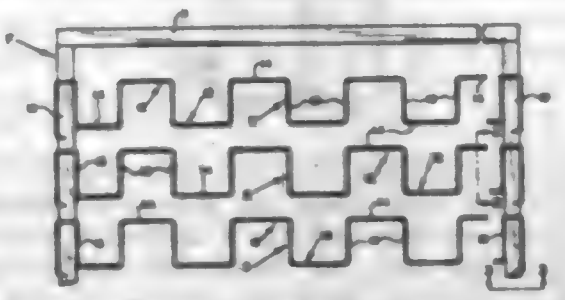
1. A reclining article of repose for supporting the body of a person, comprising: a support, a unit including a seat and a back-rest rigid with each other, a portion of said unit being tiltably connected with said support, toggle guiding means including a first guiding link and a second guiding link pivotally connected with each other at adjoining portions, said first guiding link being pivoted to said unit at a point to the rear of the tilting connection between said unit and said support, and having a lower extension portion extending beyond the pivotal connection between the first and second guiding links, said second guiding link being pivoted to said support, blocking means arranged on a member of the article for abutting engagement with at least one of said guiding links so as to hold the guiding links of said toggle guiding means in a position slightly to the rear of the dead center position when the unit is in its sitting position, and biasing means for urging said guiding link into abutting engagement with said blocking means, said biasing means including a leg-rest movable relative to said seat, and controlling means operatively connected with said leg-rest and the lower extension portion of said first guiding link for controlling the movements of said leg-rest in dependence upon movements of said guiding means, said guiding links being arranged for passing through and forwardly of their dead center position during a tilting movement of the unit from the sitting position into a reclined position.

2,870,822
ARTICLE OF REPOSE FOR SUPPORTING THE BODY OF A PERSON
Johannes Luckhardt, deceased, late of Berlin-Dahlem, Germany, by Wasilli Luckhardt, administrator, Berlin-Dahlem, Germany, assignor to Anton Lorenz, Boynton Beach, Fla.
Application March 1, 1955, Serial No. 491,400
5 Claims. (Cl. 155—106)



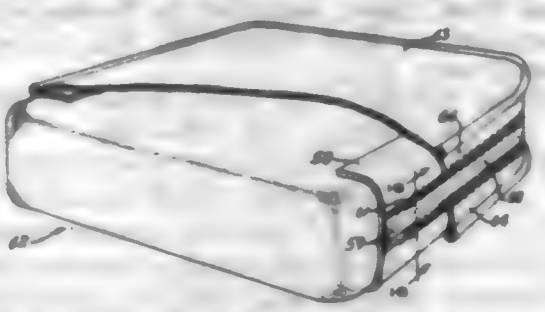
1. A reclining chair comprising a support, body-supporting means including a seat and a back-rest having a downward extension movably mounted on said support for movement between an upright sitting position and a rearwardly-inclined reclining position, a leg-rest, a first pair of links including a first and second link connected end to end, a second pair of links including a third and fourth link connected end to end, the first link being pivotally connected to and depending from the seat, the third link being pivotally connected to and depending from the support, the second and fourth links being operatively connected at spaced points to said leg-rest, said fourth link crossing over and being pivotally connected to an intermediate portion of said first link, a connecting link connected to an intermediate portion of one of said first and third links, a guiding link pivotally mounted on said support and pivotally connected to said connecting link, and means operatively connecting said guiding link to a downward extension of said back-rest for forward and upward movement of said guiding link and connecting link in response to rearward tilting movement of said back-rest, whereby said third link is pivoted forwardly and upwardly on said support to lift said fourth link and said leg-rest.

2,870,823
SPRING STRUCTURES
Lynn W. Staples, Saginaw, Mich., assignor to Saginaw Wire Products Inc., Saginaw, Mich.
Application March 13, 1956, Serial No. 571,273
3 Claims. (Cl. 155—179)



1. In a spring assembly; a pair of transversely spaced apart longitudinally extending frame members, at least one of which has a side surface with a substantially flat portion extending longitudinally; a weight supporting spring wire having a load supporting deck section extending transversely relative to said members; and sections extending from said deck section secured to said frame members; at least one end section having a planar loop portion extending longitudinally in a longitudinal plane parallel to said portion of the frame member and sidewise adjacent thereto so that said loop has load distributing bearing engagement with said portion of the frame member over a substantial portion of its extent when a load is applied to said deck section; and means securing said end sections to said frame members.

2,870,824
UPHOLSTERED CUSHIONS AND EQUIPMENT FOR UPHOLSTERING THE SAME
Robert M. Le Barre, Rochester, Mich.
Application May 20, 1957, Serial No. 660,272
6 Claims. (Cl. 155—182)



1. Cushion structure comprising a cushion having a longitudinally extending edge margin, and means on said cushion for the releasable fitting and securement thereto of a sheath-like cover, said cover having longitudinal edge portions disposed adjacent one another and paralleling said cushion edge margin when so fitted, said means comprising at least one elongated member permanently

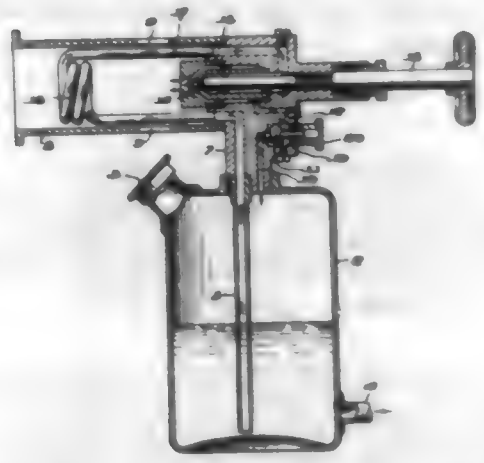
secured to said cushion to extend parallel to said edge margin thereof, said last named member having means for releasable holding engagement on at least one of its opposite transverse sides with one of said edge portions of said cover, thereby to hold said cover substantially anchored in both transverse directions relative to said cushion edge margin.

2,870,825

BLOW TORCHES

Alexander Schoenwald, Grove City, Pa., assignor to P. Wall Mfg. Company, Grove City, Pa., a corporation of Pennsylvania

Application July 17, 1956, Serial No. 598,415
2 Claims. (Cl. 158—33)



1. A blow torch apparatus that comprises in combination with a fuel tank which has means for directing air into it under pressure and has a discharge pipe therein leading upwardly from the bottom thereof, of a burner body, a forwardly-extending burner tube carried thereby and having air inlet openings intermediate its ends, a fuel nozzle having a passageway, that extends into the rear end of the tube, a heating coil in the tube and communicating at one end with the said pipe and at its other end with said passageway, a valve that controls fuel flow from the passageway, a second passageway that conducts air from the upper end of the fuel tank to the fuel nozzle through a third passageway that is concentric to the first-named passageway, and a pressure-actuated valve in the second-named passageway that is opened by the air pressure in the upper part of the tank when such pressure exceeds a predetermined degree, and is automatically closed and shuts off air flow through this second passageway, when the pressure falls below said degree, discharge of air from the third-named passageway and the fuel from the first-named passageway being in the same general direction.

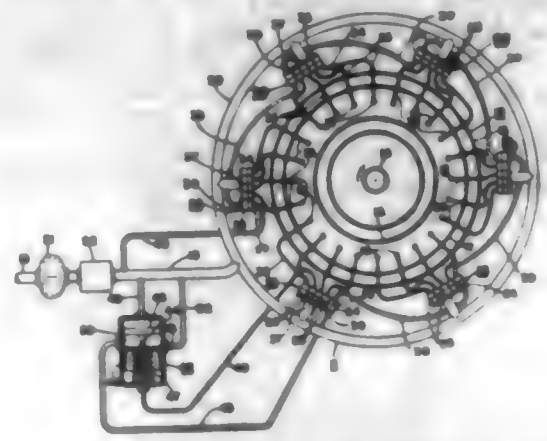
2,870,826

LIQUID FUEL DISTRIBUTING SYSTEMS FOR COMBUSTION ENGINES

Robert J. Thorpe, Shawnee, and Donald F. Winters, Overland Park, Kans., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 20, 1957, Serial No. 697,691
6 Claims. (Cl. 158—36)

1. A liquid distributing system comprising a liquid manifold, a liquid supply pipe communicating with said manifold, a plurality of positive displacement liquid pumps, a plurality of sets of positive displacement liquid actuated motors, each of said sets of motors being mechanically coupled to and driving an associated one of said pumps, each of said sets of motors having their inlets connected to said manifold, conduit structure connecting the inlets and outlets of said pumps in a series hydraulic circuit, valve structure disposed in said conduit structure for controlling the pressure rise across said pumps, the pressure rise across said pumps being effective to maintain a regulated pressure drop across said motors, and a plurality of liquid dispensing nozzles, each of said



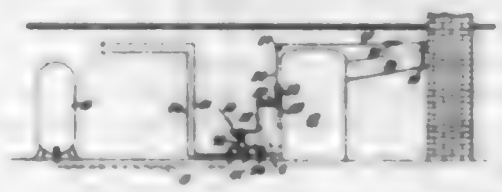
nozzles being connected to the outlet of an associated motor.

2,870,827

AUTOMATIC VALVE AND SWITCH FOR FUEL BURNERS

Lucas T. Brockbank, Schenectady, N. Y.

Application October 4, 1954, Serial No. 459,966
2 Claims. (Cl. 158—42.4)



1. In the combination of an oil burning furnace and a safety device, said furnace being of the type having a fire box, a fire box door, an electrically controlled burner including an electrically operated blower, a remotely located source of fuel, a fuel line connecting said fuel source and said burner, an electric control circuit for said blower, and a smoke-pipe connecting said fire box to a chimney; a safety device comprising a fuel shut off valve in said fuel line adjacent said burner and having a valve head mounted on a valve stem extending out of said valve, a spring in said valve biasing said valve to cut off position, a bracket mounted on the exterior of said valve, an electric switch of the type operated by tilting pivotally mounted on said bracket and interposed in said electric circuit, lever means pivoted to said valve and secured to said valve stem whereby said valve may be held in open position against said spring, link means connecting said pivotally mounted switch to said lever so that said lever and switch will pivot simultaneously, said switch being so positioned with relation to said lever that said switch is closed when said lever is in a position holding said valve open, cable means having one end secured to said lever to hold said lever in a position in which said valve is held open and said switch is held closed, means to secure the other end of said cable means to said smoke-pipe and at least one fusible link means interposed in said cable means at the connection of said cable means to said stack whereby upon disconnection of the smoke-pipe by explosion or fusion of the fusible link by over-heating the fuel will be cut off and the electric circuit to the blower will be interrupted.

2,870,828

RADIANT HEAT GAS RANGE BURNER

Frederic O. Hess, Philadelphia, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania

Application September 14, 1953, Serial No. 379,962
1 Claim. (Cl. 158—113)

A radiant heat gas burner for use in a kitchen range, said burner including means forming an annular manifold surrounding a combustion chamber, a substantially

flat refractory member of annular shape and a substantially flat plate of glass mounted on said means and forming bottom and top walls respectively of said chamber, said plate of glass being resistant to temperatures of the order of 1,800° F., means to fasten said plate to said manifold, means forming a plurality of circumferentially spaced ports between said manifold and combustion chamber and through which the outer portion of said combustion chamber is in communication with said manifold, a first conduit extending up through



said member from below it and having one end opening into the central portion of said chamber that is radially displaced from said ports, a second conduit opening into said manifold, and means for passing a mixture of gas and combustion air into said chamber through the second mentioned of said conduits to burn in said chamber, said mixture traveling radially in all directions across said member, and means for drawing products of combustion away from said chamber through the first mentioned of said conduits.

2,870,829
RADIANT HEAT FUEL BURNER
John Roger Williams, Ambler, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application March 26, 1954, Serial No. 418,858
12 Claims. (Cl. 158—113)



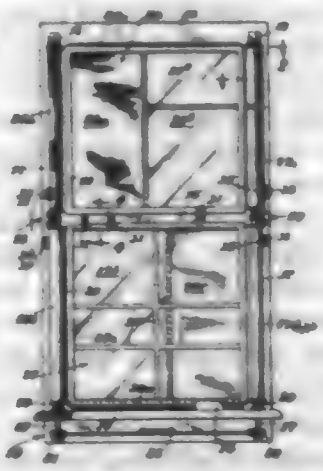
1. A unit type radiant heat fuel burner for a range comprising a substantially horizontal refractory bed having a central opening therein, a one piece, substantially flat heat transmitting cover spaced from said bed forming a substantially flat combustion space between said cover and bed, a hollow annular body to support said bed and cover, means forming a plurality of ports in said bed and body, said ports extending between said space and the interior of said body around and adjacent to the outer edge of said space, a sealing ring engaging said cover to fasten said cover to said body to enclose and substantially seal said combustion space, means for feeding gas and means for feeding air through said central opening, means for igniting and burning the gas and air in said enclosed combustion space, a suction fan, and means to connect said fan to the interior of said body to withdraw the combustion products from all around the outer edge of said combustion space through said ports at a multiplicity of points.

2,870,830
GAS BURNERS
Gunther Schwank, Koln-Kalk, Germany; Rheinisch-Westfalische "Revision" Treuhand Aktiengesellschaft (Treuhand Aktiengesellschaft), and Wilhelm Franken, executors of said Gunther Schwank, deceased, assignors to American Infra Red Radiant Co., Inc., New York, N. Y., a corporation of Delaware
Application October 28, 1954, Serial No. 465,411
4 Claims. (Cl. 158—114)



1. In a gas burner, a dish-shaped body member having opposite side walls, opposite end walls and a bottom wall defining a mixing chamber in which gaseous fuel and air are mixed prior to combustion, a mixing tube disposed in said mixing chamber and having an inlet adjacent one of said end walls, said mixing tube extending toward the opposite end wall and having an outlet in communication with said chamber at a point remote from said one end wall and nearer to said opposite end wall than to said one end wall, said side walls confronting the opposite sides, respectively, of said mixing tube, and defining the maximum width of said dish-shaped body, each side wall being spaced a substantial distance from the confronting side, respectively, of the mixing tube, a nozzle in fluid communication with said mixing tube for supplying fuel to the latter, air inlet means in fluid communication with said mixing tube and nozzle for supplying air to said mixing tube responsive to the flow of fuel from said nozzle into said tube, said dish-shaped body having a flat planar opening substantially coextensive in area with said dish-shaped body between said opposite side walls and said opposite end walls thereof, and flat fuel-outlet burner means mounted on said body adjacent said mixing tube and covering said opening, said flat fuel-outlet burner means having its opposite surfaces of maximum area disposed parallel to said planar opening of the dish-shaped body member, the depth of said dish-shaped body between said bottom wall and said flat fuel-outlet burner means being not substantially greater than the diameter of said mixing tube.

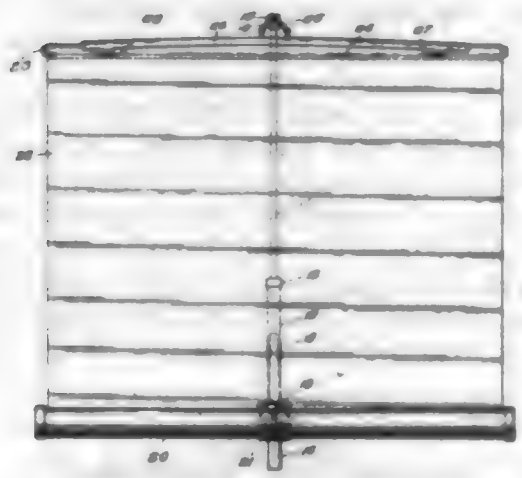
2,870,831
MULTIPANEL WINDOWS
Herman Peselnick, Brooklyn, N. Y.
Application June 15, 1955, Serial No. 515,628
5 Claims. (Cl. 160—120)



1. In a window frame having two lateral sides, in combination: a multipanel window comprising two vertical shafts each rotatably mounted at one lateral side of said frame, each shaft having a lower end and at least one multi-facet portion; at least one pair of hori-

zontally aligned upright rollers, each roller having an end and each pair of rollers being axially traversed by said shafts; a flexible band for each pair of rollers, each band having two lateral sides and consisting of a screen portion, at least one transparent or translucent portion, and a non-transparent portion, the lateral sides of each band being anchored in a pair of said rollers; drive means connected with and located in the proximity of the lower ends of said shafts for rotating same; means for selectively connecting said shafts with said rollers and comprising a sleeve rigidly connected with the end of each roller and surrounding a multi-facet portion of one of said shafts, and retaining means traversing said sleeve and adapted to engage a selected facet of the multi-facet portion of one of said shafts; and a retaining frame for each band, said retaining frame being attached to said window frame for holding the edges of the visible portion of a band against said window frame when said drive means is not actuated and being movable with respect to said window frame into one position in which it sealingly engages a selected band by pressing same against said window frame, and into another position in which it permits horizontal movements of the band when said drive means is actuated and the rollers of a selected band are connected with said shafts.

2,870,832
PICTURE SCREEN
Alan P. Linquist and Russell E. Petrick, Park Ridge, Ill., assignors to Knox Manufacturing Co., a corporation of Illinois
Application May 21, 1954, Serial No. 431,393
1 Claim. (Cl. 160—351)



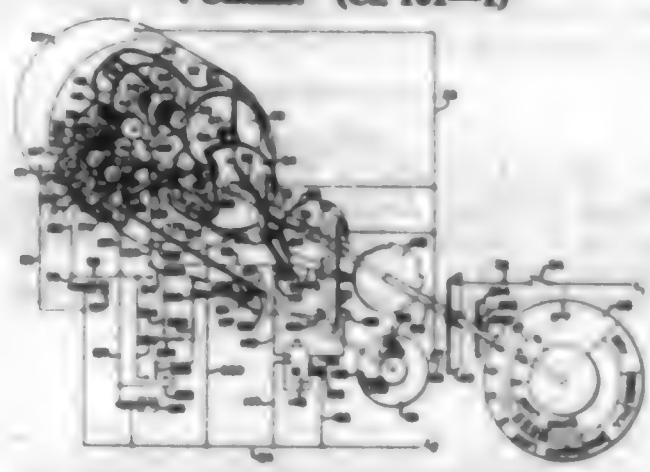
A portable picture screen structure, comprising: an elongated upright standard for supporting a picture screen in exposed position, said standard being resiliently, axially flexible and having an upper end portion terminating in a plurality of fastening hooks positioned transversely of the axis of the standard, said upper end portion being curved rearwardly and forming a goose-necked screen support with said plurality of fastening hooks, one of said fastening hooks being positioned in longitudinal alignment with the standard; a flexible screen provided with a bottom rod attached to the standard and a top rod adapted for selective attachment with each one of said hooks to suspend said screen in exposed position in any one of a number of positions of inclination; and an adjustable screen tensioning device for applying varying stretching forces to the screen to pull said screen taut between said rods, the angular disposition of said screen in exposed position being variable with respect to the horizontal by preselection of the point of suspension of said screen from said hooks and by varying the applied force upon the screen from said adjustable screen tensioning device to vary the resilient flexure of said supporting standard.

2,870,833
BUG SCREEN BRACING MEANS
Jacob Pomansky, St. Paul, Minn.
Application March 12, 1956, Serial No. 571,006
5 Claims. (Cl. 160—369)



3. A brace for use in connecting a bug screen and a vehicle hood ornament, the brace including an elongated slide comprising a pair of parallel wire rods connected at one end and spaced to provide a slot therebetween, a pair of arms having loop ends, a clamping member extending through said slot and adjustably connecting said arms and said slide, and ring means arranged on a plane at right angles to the other end of said rods forming said slide.

2,870,834
TWO SPEED TIMER
Kenneth O. Sisson, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 31, 1955, Serial No. 485,181
4 Claims. (Cl. 161—1)

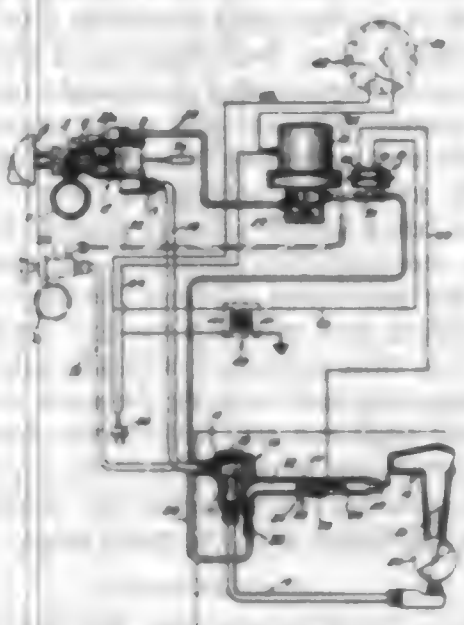


1. An automatic washing machine control system including a timing drive means, a cam shaft provided with cam means, means operated by the cam means for controlling the filling and operation of an automatic washing machine, a first train of gears connecting said drive means and said cam shaft, a second train of gears having a different speed ratio than said first train of gears, a movable mounting for said second train of gears, control means for moving said mounting to move two different gears of said second train into meshing engagement with two different gears of said first train, said first train having clutch means between said two different gears.

2,870,835
ELECTRIC IGNITION SYSTEM FOR THE OVEN OR BROILER BURNER ON A GAS STOVE
John L. Lundgren, Rockford, Ill., assignor, by mesne assignments, to Geo. D. Roper Corp., a corporation of Delaware
Application September 6, 1952, Serial No. 308,199
2 Claims. (Cl. 161—9)

1. A control system for an oven burner arranged for manual and automatic operation comprising a gas supply line, a main oven burner, a pilot burner in igniting relation to said main burner, control valve means including a manually operable main shut-off valve communicating with the supply line and a temperature responsive flow regulating valve communicating with the shut-off valve, a main burner conduit communicating said main burner with said control valve means after said flow

regulating valve, said regulating valve being manually adjustable to a preselected temperature setting and adapted to open and close in accordance with the temperature in the oven to regulate the flow of gas to the main burner and maintain that preselected temperature in the oven, a pilot burner conduit communicating with said control valve means after said main shut-off valve and before said flow regulating valve, an electrically energized igniter for igniting the pilot burner, a normally open pressure switch in circuit with the igniter and including a pressure responsive movable element in communication with said pilot burner conduit and operative to control the operation of the pressure switch in accordance with the pressure in the pilot burner conduit, flow restriction means in the pilot burner conduit between the pressure responsive element and the pilot burner operative in response to opening of the main shut-off valve to build up back pressure in the pilot burner conduit means at said pressure responsive element to operate the pressure responsive switch and complete the energization circuit for the igniter, a normally closed safety valve means in the main burner



conduit between the flow regulating valve in the main burner, said safety valve means including a valve member movable from a position blocking flow through said main burner conduit to an open position, means engageable with said safety valve member and operable in response to the heat produced by said pilot burner when the latter is ignited to move the safety valve member to its open position, a normally open valve means in the pilot burner conduit between the main shut-off valve and the pressure switch for controlling the flow of fuel to the pressure responsive element and said pilot burner, electro-responsive valve actuating means adapted upon energization to close said valve means and prevent flow of gas to said pressure responsive element and said pilot burner when said main shut-off valve is opened, and a program switch means operable to energize and de-energize said valve operating means at preselected selectively variable times to effect a time controlled cooking cycle in which the valve means is opened to supply gas to the pressure responsive means and pilot burner and thereby initiate the cooking cycle and to thereafter close the valve means and stop the cooking cycle.

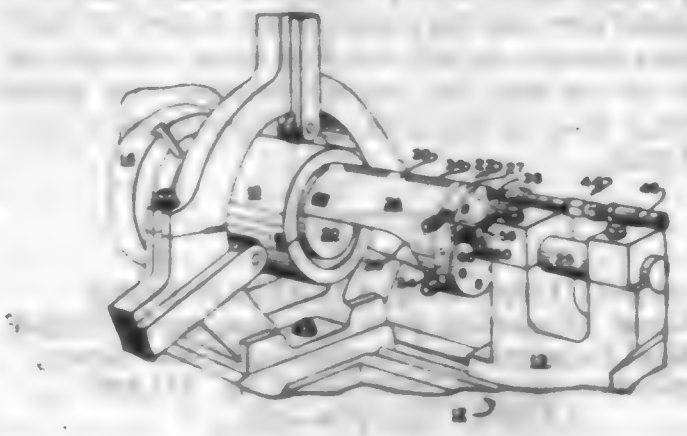
2,870,836

TREPANNED CORE CUTOFF TOOL

Nicola P. Renato, Hyde Park, and Sven E. Siemen, Harvard, Mass., assignors to the United States of America as represented by the Secretary of the Army

Application May 19, 1955, Serial No. 509,782
3 Claims. (Cl. 164—41)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A device for cutting off from a workpiece a core formed therein by an annular groove, said device including means for rotating the workpiece, a nonrotating tube having one end insertable into the annular groove, a longitudinal shaft rotatably mounted through the wall of said tube so as to extend beyond both ends thereof, a cutting tool mounted to one of said extending ends of said shaft for cutting radially through the core, an arm mounted to the other one of said extending ends, said cutting tool having an arcuate configuration conforming to the radius



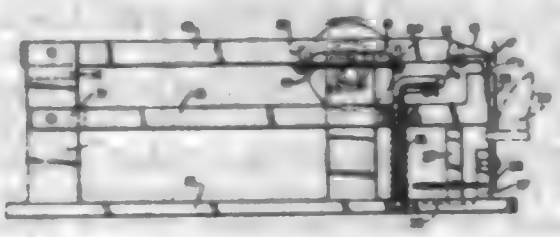
of said tube so as to align therewith for insertion into the groove, passageway means through said shaft and said cutting tool for conducting oil therethrough, tube means disposed on said cutting tool for communication with said passageway means to conduct the oil therefrom against the working areas of said cutting tool, and screw means cooperating with said arm for pivoting said cutting tool against the core.

2,870,837

HIGH SPEED PIVOTED CUTTING MACHINE

Harry Rosenberg, Baltimore, Md.

Application April 17, 1957, Serial No. 653,468
7 Claims. (Cl. 164—43)



1. In a cutting apparatus, a supporting structure, a first elongated arm having one end thereof pivotally supported on said supporting structure, the other end of said first arm being tapered in configuration thereby to exhibit a thickness substantially less than that of said one end of said arm, an L-shaped blade supported by said first arm adjacent the said tapered other end thereof, said L-shaped blade having a first leg extending in the direction of elongation of said elongated arm closely adjacent to the thinner end of said arm, said L-shaped blade having a second leg extending transverse to said first leg and having a cutting edge spaced from said first leg, driving means coupled to said first arm between the ends thereof at a position closer to said thinner other end than to said thicker one end of said arm, said driving means including means for reciprocating said first arm and said L-shaped blade about its pivot point between first and second positions, a shearing blade closely adjacent one of said reciprocating positions of said L-shaped blade, a guard and guiding structure mounted adjacent said reciprocating blade, said guard and guiding structure comprising a second elongated arm having one end thereof pivotally supported on said supporting structure adjacent the pivot point of said first mentioned elongated arm, said first and second elongated arms extending in the same direction from said supporting structure, said second elongated arm including a pair of elongated substantially parallel guides adjacent the other end thereof respectively disposed closely adjacent opposite elongated edges of said second leg of said L-

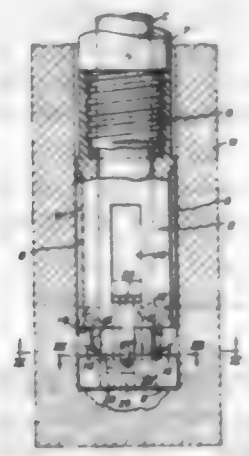
shaped blade whereby said blade is restricted from moving appreciably in directions transverse to its reciprocating motion by said parallel guides, a guard structure attached to the free ends of said parallel guides whereby said second leg of said L-shaped blade moves reciprocally in a space defined respectively between said guides, said guard, said shearing blade, and said first leg of said L-shaped blade, and means for prepositioning said second elongated arm and the guide carried thereby at varying positions relative to said shearing blade, whereby an article to be cut may be inserted between said guide and shearing blade in the path of reciprocation of said L-shaped blade.

2,870,838

CUTTING TOOL FOR A TREPAN CORE

Earl F. Aston, Homestead Park, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

Application June 10, 1958, Serial No. 741,040
1 Claim. (Cl. 164—60)



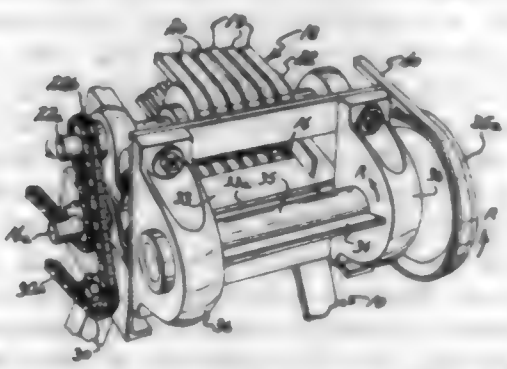
A tool for cutting a trepan core comprising a cylindrical body having a bore therethrough dimensioned to admit the core, a semi-crescent shape cutter pivoted on one end of said body and projecting axially therebeyond, a bearing ring coaxial with said body located forwardly of the cutter, said ring having a surface adapted to engage and pivot the cutter, and means connecting the ring to the body for axial movement relative thereto, said means including a pair of opposed arms connected by one end with said bearing ring, said arms each being mounted in a recess on the outer surface of said cylindrical body for axial movement therein relative to said body.

2,870,839

BATT CUTTING MACHINE

William C. Dunne, Mankato, Minn., assignor to The Carney Company, Inc., Mankato, Minn., a corporation of Minnesota

Application January 18, 1955, Serial No. 482,552
1 Claim. (Cl. 164—61)



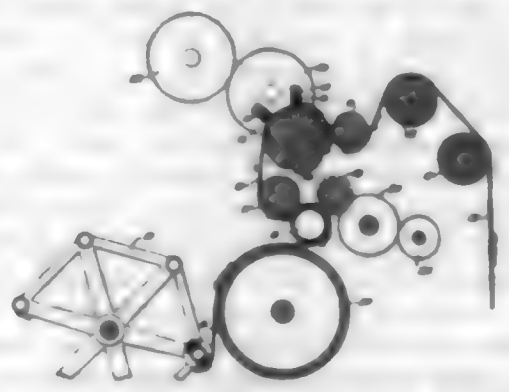
A machine for cutting and fluffing fiber batts of rock wool and the like, comprising a frame, a pair of spaced and opposed conveyors carrying such a batt therebetween, each of the conveyors comprising a plurality of laterally spaced and parallel endless belts each mounted opposite a corresponding belt of the other conveyor and each of said conveyors having a receiving end and a discharging end with said conveyors being substantially coterminus at the discharge end, said conveyors converging from the receiving ends thereof to the discharge ends thereof and being spaced apart at a point starting intermediate the ends thereof and extending to the discharge end less than the thickness of the batt such that a batt is constantly engaged between said conveyors and compressed thereby for a substantial extent of its length from said point to said discharge end and is progressively compressed as it approaches the discharge end of the conveyors, means driving said conveyors in synchronism with each other, a plurality of continuous moving cutter blades extending transversely of and between said conveyors and each disposed between adjacent belts of said conveyors for cutting batts into elongated strips, a shear anvil mounted in close proximity with the discharge end of the conveyor and having a cutting edge in the plane of the surface of one of said belts and being positioned in close proximity to the discharge end of said conveyors such that compressed batts issuing from the discharge end of the conveyors immediately pass over said cutting edge and while the batts are in an expanding condition after having been suddenly released from their compressed state as effected by the conveyors, upstanding guide and confining means positioned closely adjacent and along opposite sides of the conveyor and extending beyond said discharge end toward said anvil but terminating short thereof, said guide means being spaced apart to confine the batt therebetween as the conveyors compress and expel the batt, a severing bar positioned adjacent the edge of the anvil, means mounting said severing bar for rapid repetitious movement into close proximity with the outer edge of the anvil for impacting and severing the same in cooperation with the anvil edge and also fluffing the chunks from the compacted condition of the strips into expanded condition and means for driving the bar repetitiously into cooperating condition with the anvil edge.

2,870,840

WEB CUTTING APPARATUS

Edwin M. Kwitek, Green Bay, Wis., assignor to Paper Converting Machine Co., Inc., Green Bay, Wis., a corporation of Wisconsin

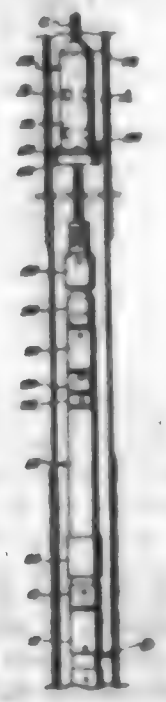
Application May 16, 1957, Serial No. 659,511
9 Claims. (Cl. 164—68)



1. In web cutting apparatus, a frame, a cutting roll rotatably mounted in said frame, means for rotating said roll, a resilient cutting blade rigidly supported upon said roll at a spaced distance from its cutting edge to provide a free flexing cutting edge, said blade being inclined with respect to a radial line drawn from the cutting edge to the roll center and forming with said line an acute angle, means for feeding the web over said roll and over said blade for travel upon said roll, a blade-supporting block adjacent said cutting roll, a stationary cutting blade rigidly supported in said block and presenting a cutting edge for coaction with said first-mentioned cutting blade, said blades having their cutting edges at an angle to each other and said stationary blade having its cutting edge radially inward of the path of

travel of the cutting edge of the rotating blade, the cutting edge of the stationary blade being defined by angularly related surfaces, the cutting edge-defining surface first in the path of said rotating blade being angularly inclined relative to a radial line drawn to the stationary blade-cutting edge, whereby said blade edges engage during the rotation of said roll and said free flexing cutting edge yields during engagement with said rigidly mounted stationary blade.

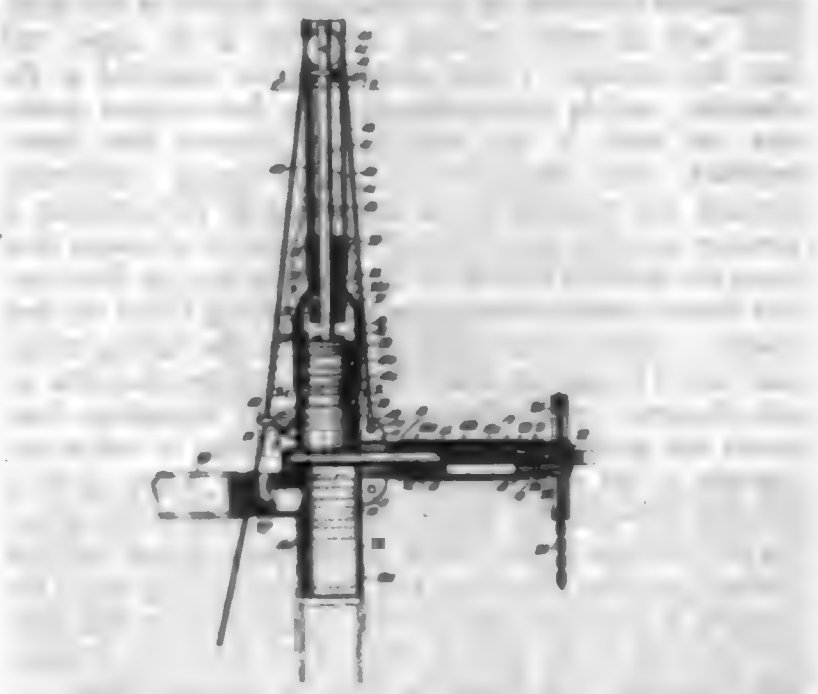
2,870,841
APPARATUS FOR OPERATING SUBSURFACE WELL DEVICES
Martin B. Conrad, Downey, and John R. Baker, Pasadena, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application July 25, 1952, Serial No. 300,902
10 Claims. (Cl. 166—63)



1. In subsurface well apparatus adapted to be lowered in a well bore on a running-in string: an electrically operable device; a generator; a circuit electrically connecting said generator to said device; a motor drivably connected to said generator to rotate the same; means including a timing device operatively connected to said motor for effecting its operation after a predetermined period has elapsed; and means controlled by the operator at the top of the well bore for short circuiting said circuit at all depths in the well bore.

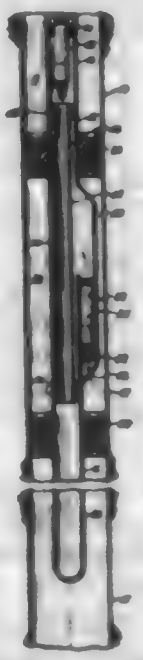
2,870,843
CEMENTING HEAD
John A. Hall, Weatherford, Tex.
Application August 4, 1955, Serial No. 526,429
5 Claims. (Cl. 166—70)

1. A cementing head comprising a hollow body portion, the upper part of said body portion adapted to receive a cement plug, the lower portion adapted to be connected to the casing so as to substantially align the axes of the casing and body portion, removable means for retaining the plug in the upper body portion positioned adjacent the bottom of the upper body portion, the lower portion of said body portion having an input opening for well fluids and open at its lower end for egress of said fluids therefrom, means cooperating between the upper and lower body parts to permit bypass of a portion of the well fluids entering the body portion through the input opening past the plug into the upper body portion to equalize the pressure on each side of the plug, a piston rod mounted at the upper end of said body portion and extending therethrough, the lower end of said piston rod abutting the top of said cement plug, means for applying force axially of said piston rod mounted on said body portion whereby to move said plug from the upper body portion at least past the upper edge of the fluid input opening in the lower body portion, said rod of sufficient length to continually contact said plug until it passes the upper edge of said fluid input



opening, the means cooperating between the upper and lower body portions to permit bypass of well fluids past the plug into the upper body portion comprising at least one rod fixedly attached to the inner wall of said body portion and extending between said upper and lower body portions, said rod of greater length than said plug.

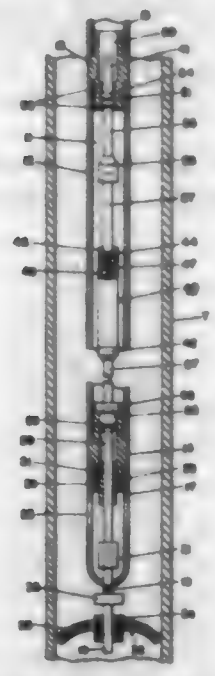
2,870,843
APPARATUS FOR CONTROL OF FLOW THROUGH THE ANNULUS OF A DUAL-ZONE WELL
Clifford J. Rodgers, Jr., Houston, Tex., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 21, 1955, Serial No. 516,916
2 Claims. (Cl. 166—115)



1. Apparatus for installation down the hole of a dual zone well for control of flow through the annulus of the dual zone well comprising a tubing string for delivery of fluid from the lower zone of the well, a casing surrounding the tubing string with an annulus therebetween, perforations in the casing at the upper production zone of the well, a first packer between the tubing and casing above the perforations, a second packer between the tubing and casing below the perforations, said first packer and second packer isolating a portion of the annulus into which the perforations in the casing open, a tubular mandrel con-

nected in and forming a part of the tubing string between the first packer and second packer, said mandrel having an expanded section extending laterally toward the casing whereby the opening in the mandrel is of larger horizontal cross section area than the opening in the tubing string, a vertical baffle in the mandrel forming a vertical cylindrical chamber in the expanded section of the mandrel, said chamber opening upwardly at its upper end into the mandrel, a flow control device mounted in the chamber, sealing means engaging the flow control device and the walls of the chamber to prevent flow therebetween, said flow control device being retrievable through the opening at the upper end of the chamber, a passage into the lower end of the chamber allowing flow from the isolated section of the annulus into the flow control device, perforations in the tubing string above the first packer, a sleeve retrievably mounted in the tubing string, said sleeve having an outer diameter smaller than the inside diameter of the tubing string and extending from above the perforations in the tubing string to below the opening in the upper end of the chamber, a first packing element between the sleeve and the tubing string above the perforations in the tubing string, and a second packing element between the sleeve and the tubing string below the opening at the upper end of the chamber to prevent mixture of fluid in the tubing string from the lower production zone and fluid from the upper production zone.

2,870,844
WELL SAMPLING DEVICE
William E. Barnes, Beaumont, Tex., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application July 19, 1955, Serial No. 522,908
3 Claims. (Cl. 166—165)



1. A device adapted to be lowered into and removed from well tubing for obtaining a sample from a fluid reservoir within a well comprising an elongate housing having spaced upper and lower valve bodies providing a fluid sample chamber therebetween, said bodies having axial passageways extending therethrough communicating with said sample chamber, the passageway in the upper of said bodies providing an elongated valve seat and a lower valve seat provided in the passageway of said lower body; an upper valve plug and a lower valve plug positioned for operating engagement with the respective seats, said upper valve plug being of a diameter less than the diameter of the elongated valve seat and having a seal ring thereon for sealing contact with said seat, said lower valve plug adapted to sealably engage said lower valve seat; a rod extending through said passages and comprising two sections, a section connected to each valve plug, means including a resilient member connecting said sections together between said valve plugs permitting movement of the sections and their plugs relative to each other, said resilient member normally urging said sections to an extended position, means holding the sections against dissociation in said extended position; a shaft depending from said lower valve plug, and an actuator on said shaft positioned exteriorly of said housing frictionally engaging the tubing wall.

2,870,845
REVERSED SPIRAL MOLDED SCRAPER
James C. Tripplehorn, Pampa, Tex.
Application September 17, 1956, Serial No. 610,160
6 Claims. (Cl. 166—176)



1. A reversed-spiral paraffin scraper for use on a rod comprising a blade adapted to spiral around the rod in a plurality of mutually-spaced open convolutions, said blade standing normal to the rod at all points along its length and having a semi-cylindrical rod gripping surface integral with the blade and the axis of the semi-cylindrical surface falling on a straight line comprising the axis of the scraper, the convolutions at one end of the scraper spiraling in a direction opposite to those at the other end of the scraper and the change of direction occurring at a cusp at the center of the scraper.

2,870,846
FORMATION TEST TOOL PACKER SETTING TOOL
Fermon F. Moore, Carrizo Springs, Tex.
Application September 25, 1956, Serial No. 611,935
4 Claims. (Cl. 166—185)

1. The combination, with a tool for sampling fluids from strata encountered in a well hole, and with a drill pipe for lowering said tool into the hole, of a packing and packing setting device comprising: a longitudinally contractile, radially expandable packer having an upper end limited against upward movement by the lower end of said tool; a piston connected to the lower end of and extending above the packer, said tool having a cylinder in which the piston works and having a passage opening at one end into said cylinder, said cylinder having a longitudinal chamber and the piston being movable longitudinally of and within the chamber, the piston having an upper portion in wiping contact with the wall of said chamber and facing downwardly into the lower part of the chamber, said passage opening into the chamber through the wall thereof below said upper portion of the piston; a casing aligned longitudinally with and interposed between the tool and drill pipe, said casing being connected at its ends to the tool and drill pipe respectively and having a bore constituting a second passage, said

second passage communicating at one end, through the wall of the casing, with a surrounding well hole space in which drilling fluid is confined under pressure, the second passage at its other end communicating with the other end of said first passage, whereby said drilling fluid, whenever permitted to enter the second passage, will flow therethrough and through the first passage under pressure to enter the lower part of the chamber and impinge against

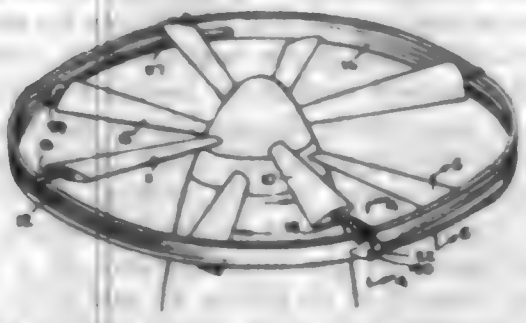


the underside of said upper portion of the piston to shift the same upwardly for radially expanding the packer; a frangible seal extending across the second passage to normally prevent the flow of the drilling fluid to the piston, the drill pipe having an axial bore communicating with said second passage; and means mounted in the drill pipe and second passage for movement against the seal to rupture the same.

2,870,847

TURBINE DRIVEN OPPOSITELY ROTATING PROPELLERS

Vern K. Fry, Logansport, Ind.
Application May 9, 1955, Serial No. 506,901
9 Claims. (Cl. 170—135.28)

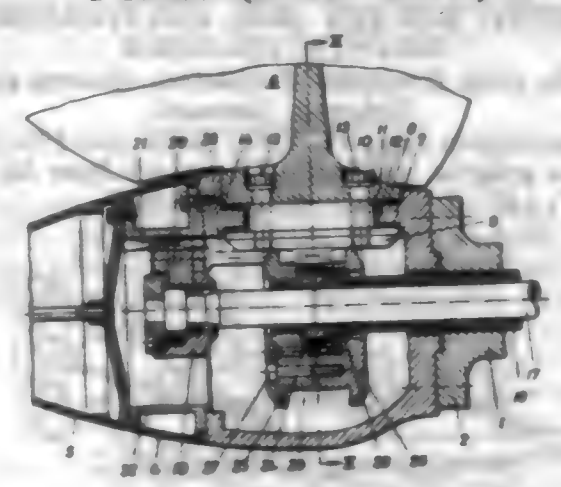


1. In a power plant, a pair of oppositely rotating propellers, each having a set of blades, a central shaft about which both propellers rotate, a first ring concentric with the propellers, supports for said first ring carried by one set of said propeller blades, a set of turbine blades carried by said first ring, a delivery nozzle carried by said first ring and delivering in a radial plane, a second ring concentric with the first ring and overlapping the first ring, supports for said second ring carried by the other set of propeller blades, a set of turbine blades carried by said second ring against which said nozzle is adapted to deliver a driving jet, a nozzle carried by the second ring adapted to deliver in a radial plane a driving jet against the first ring turbine blades, and conveying devices adapted to deliver fuel and air to said nozzles.

2,870,[illegible]

PITCH ADJUSTING GEAR FOR CONTROLLABLE PITCH PROPELLERS

Nils Johannes Lizaen, Alesund, Norway
Application June 23, 1954, Serial No. 438,723
Claims priority, application Norway April 13, 1954
1 Claim. (Cl. 170—160.39)

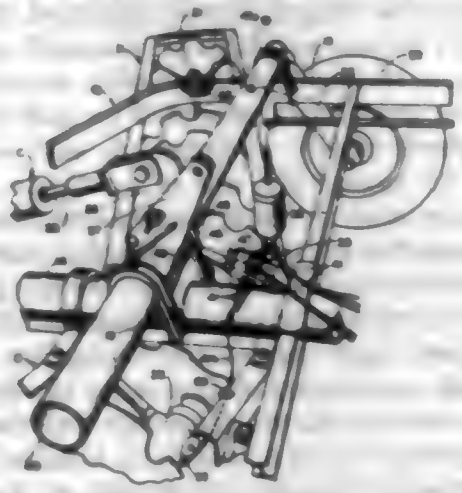


A controllable pitch propeller including a hollow hub rotatable about a predetermined axis, a plurality of blades respectively journalled in said hub for pitch changing adjustment about axes extending generally radially to said rotational axis, the inner ends of said blades being spaced from said axis, a cross head positioned on said rotational axis between said inner ends of the blades, means supporting and guiding said cross head for adjustment along said rotational axis, a plurality of slides carried by said cross head for movement therewith, each said slide being guided for movement on said cross head transversely to said rotational axis and to the pitch changing axis of one of said blades, and a pivot pin interconnecting each said slide and its said one blade, said pivot pin having its axis eccentric and parallel to the pitch changing axis of said one blade, in combination with a second pivot pin eccentrically positioned on the inner end of each said blade in diametrically opposed relation to said first pivot pin, a second cross head axially spaced from the inner ends of said blades, means supporting and guiding said second cross head for adjustment along said rotational axis, connecting rods extending axially between and interconnecting said second cross head and each of said second pivot pins, and means interconnecting said cross heads for movement in opposite axial directions, said connecting rods respectively extending and movable between the inner end of each said blade and the said first cross head.

2,870,849

AUTOMATIC LUBRICATION FOR DISK HARROWS

Charles H. Youngberg and William P. Oehler, Moline, Ill., assignors, by mesne assignments, to Deere & Company, a corporation of Delaware
Application September 12, 1956, Serial No. 609,491
8 Claims. (Cl. 172—413)



1. In a disk harrow, a main frame, a disk gang having bearing means and carried by said frame, means to raise

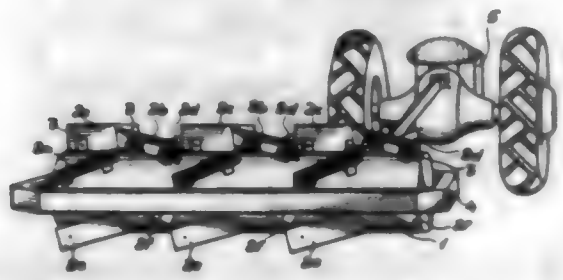
said frame and gang into a transport position, and means connected to be actuated by said raising means for forcing lubricant to said bearing means.

2,870,850

COMBINED ROTARY SOIL CULTIVATOR AND BRANCH CRUSHER

Borghild Hartmann Dethlefsen, Bistrup pr. Birkerod, Denmark

Application June 14, 1956, Serial No. 591,385
Claims priority, application Denmark June 28, 1955
1 Claim. (Cl. 172—554)



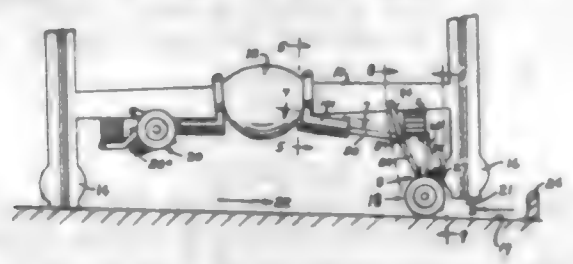
A combined rotary soil cultivator and branch crusher comprising a cylindrical roller formed of concrete provided with a plurality of flat substantially rectangular knives having straight knife edges, each of said knives being detachably fastened to a pair of holders anchored in the concrete mass of the cylindrical roller in such a manner that the knife edge at one corner is at a greater distance from the surface of the cylinder than at the other corner, and in which each pair of knife holders is arranged in such a manner that one of the holders is placed radially in relation to the cylinder, while the other holder is placed parallel to the first mentioned holder and forms an acute angle with the radius of the cylinder through the fastening point of the knife on the holder, each of said holders having a flat supporting surface for fastening one side of the knife thereon.

2,870,851

PARKING DEVICE FOR AUTOMOBILES

Jorge Luis de la Parra Clark, Detroit, Mich., assignor of one-fourth to Robert G. Mentag, Detroit, Mich.

Application February 23, 1956, Serial No. 567,166
2 Claims. (Cl. 180—1)



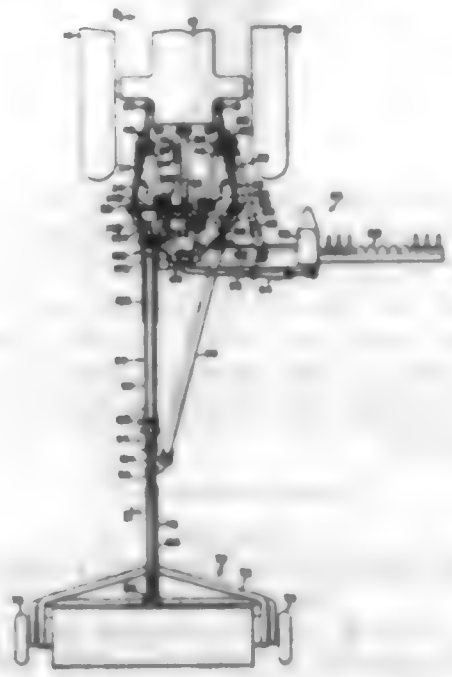
2. In a power parking device for an automative vehicle, a drive unit comprising: a casing; a horizontal shaft rotatably mounted in said casing; a pair of spaced apart ground engageable wheels fixedly mounted on said horizontal shaft; a driven gear fixedly mounted on said horizontal shaft; a second shaft rotatably mounted in said casing; a drive gear fixedly mounted on said second shaft; a friction wheel fixedly mounted on said second shaft and adapted to engage the tire of a vehicle drive wheel when the drive unit is in a ground-engaging operative position; means for swingably suspending said drive unit from the vehicle; power means for swinging said drive unit from a raised inoperative position to a lowered operative position; said means for swingably suspending said drive unit comprising, a first lever having the lower end fixedly connected to the drive unit and the upper end hingedly connected to the vehicle, a bracket having the upper end thereof hingedly connected to the vehicle at a point inwardly of said first lever, a second lever having the upper end thereof hingedly connected to the lower end of said bracket and the lower end thereof hingedly connected to the first lever; said power means including a hydraulic cylinder having one end hingedly connected to the vehicle and a piston rod extending from the other end of said hydraulic cylinder and being hingedly connected to the upper end of said second lever; a fluid system connected to said power means including, a fluid reservoir for receiving fluid from the hydraulic cylinder, a fluid accumulator, a pump operatively connected to said reservoir for pumping fluid into the fluid accumulator, a pressure operated switch means for starting and stopping said pump for maintaining a desired pressure in said fluid accumulator, and, a manually operated flow control valve for directing the fluid under pressure from said accumulator to the desired ends of said hydraulic cylinder and back to said reservoir.

2,870,852

HITCH FOR SERIES-CONNECTED IMPLEMENTS

Wilbur J. Coultas, Moline, Ill., assignor, by mesne assignments, to Deere & Company, a corporation of Delaware

Application August 9, 1957, Serial No. 677,315
6 Claims. (Cl. 180—14)



1. For a tractor-mounted implement having a pair of fore-and-aft supporting members and a drive member rotatable on a fore-and-aft axis and driven by the tractor: a hitch for connecting to the implement in trailing relation thereto a second implement having a drivable part, comprising a transversely disposed hitch element adapted to span the supporting members; a pair of laterally spaced apart attachment means on said element for detachable connection respectively to the support members; a driven member journaled on the hitch element on a fore-and-aft axis and adapted to be driven by said drive member, said driven member having an output portion for driving the drivable part of the second implement; and means on the hitch element for effecting a towing connection to the second implement.

2,870,853

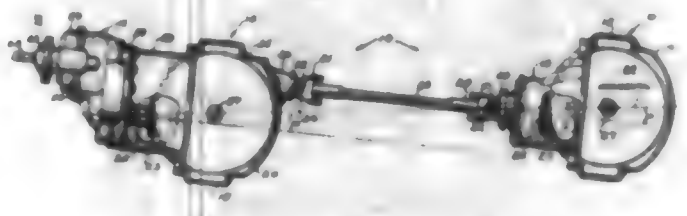
TANDEM DRIVE AXLE ASSEMBLY WITH STRAIGHT LINE THROUGH LINE DRIVE CONNECTION

Beverly W. Keese, Neenah, Wis., assignor to Rockwell-Standard Corporation, a corporation of Pennsylvania

Application January 10, 1955, Serial No. 480,765
5 Claims. (Cl. 180—22)

1. In a vehicle, two relatively closely spaced parallel tandem differential equipped drive axles arranged transversely of the vehicle, an interaxle differential assembly mounted on the forward tandem axle and having an

input and differentially connected outputs, a longitudinal engine driven main propeller shaft connected to said input, front mounted carrier supported parallel input pinion shafts in the respective axles lying in a common plane normal to the axle axes, a drive shaft assembly universally connected at one end to one output of said interaxle differential and universally connected at the other end to the input pinion shaft of the rearward tandem drive axle, and transfer gearing



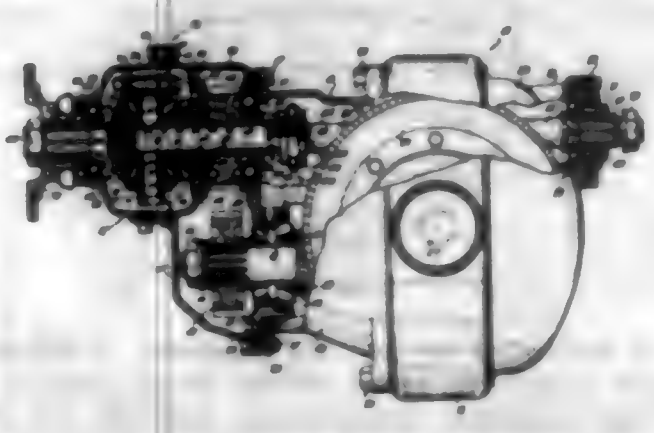
including an idler gear connecting the other output of said interaxle differential to the input pinion for the forward tandem axle to drive said pinion shaft in the same sense as said other output, said main propeller shaft, a drive shaft assembly and the input pinion shaft to the rearward tandem axle lying normally in substantially a common plane, hypoid drive pinions on the respective input pinion shafts disposed substantially the same distance below the horizontal plane normally containing the tandem axle axes.

2,870,854

TANDEM AXLE DRIVE AND LUBRICATING MEANS THEREFOR

Beverly W. Keese, Neenah, Wis., assignor to The Rockwell-Standard Corporation, a corporation of Pennsylvania

Application June 27, 1956, Serial No. 594,155
2 Claims. (Cl. 180—22)



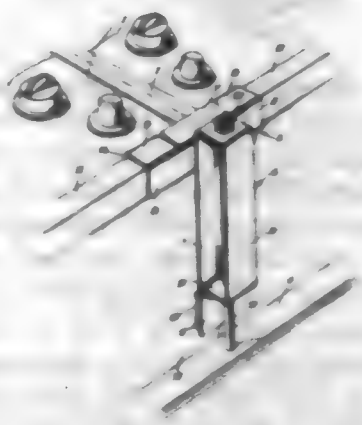
2. In a tandem axle assembly including a pair of tandem differential equipped drive axles each having forwardly extending pinion input shafts and meshed pinion and ring gears forming a drive connection between the pinion input shaft and the differential, the front axle comprising: an axle housing, a gear housing rotatably mounting the differential and mounted on the axle housing, means journalling said front axle pinion input shaft on said gear housing, said gear housing having an upper structure providing a front to rear through passage above said pinion input shaft and the differential; and a lower structure enclosing the forward end of said pinion input shaft; and an interaxle differential journalled in said gear housing in alignment with said front to rear passage and having an input and two outputs; one of said outputs being a shaft extending through said housing passage and journalled in said housing at the rear of said front axle; the other of said interaxle differential outputs including a transfer drive gear coaxial with said last mentioned shaft and disposed above said front pinion input shaft; a driven transfer gear connected by splines to said front pinion input shaft and driven by said transfer drive gear to provide a drive train between said other interaxle differential output and said front pinion input shaft, oil pocket means on said gear housing disposed adjacent the front axle differential mechanism ring gear rotation path for collecting oil thrown from said ring gear; means directing oil so collected into said gear housing to lubricate said interaxle differential mechanism and said transfer gears, and means for enabling excess oil from said interaxle differential and transfer gears to drain back into said axle housing.

2,870,855

HOLD-DOWN DEVICE FOR STORAGE BATTERIES

Wilmarth A. Hildreth, Stockton, Calif., assignor of one-half to Myrna D. Hildreth, Stockton, Calif.

Application February 25, 1957, Serial No. 642,295
2 Claims. (Cl. 180—68.5)



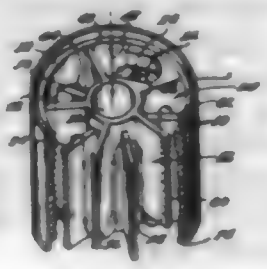
1. A hold-down device, for use with a storage battery supported on a base, comprising a post adapted to upstand closely adjacent a wall of the battery, a member on the post adapted to engage the top edge of said wall, a vertical tension bolt connected to the base and extending through the post to a termination above the top thereof, and a nut threaded on the bolt above the post and forcefully bearing against said top; the post being formed from a single length of metallic strap bent to include, with the top, an inner side, an outer side, and a bottom; the inner side depending, as a skirt, below the bottom; and a stand-off pad on the inside of said skirt.

2,870,856

ACOUSTIC APPARATUS

Harry F. Olson, Princeton, and John Preston, Metedeconk, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application May 22, 1953, Serial No. 356,755
3 Claims. (Cl. 181—5)



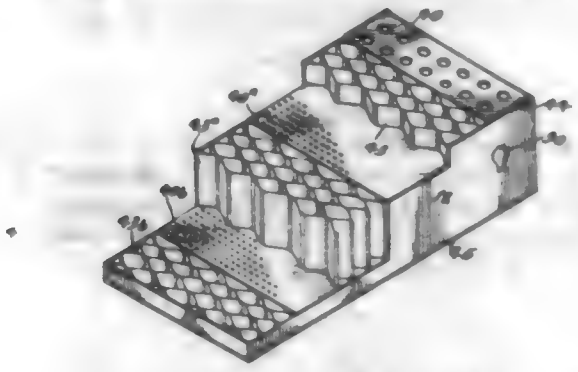
1. A labyrinthal acoustic passage for cooperation with a microphone comprising a shell, an elongated member within said shell and extending longitudinally thereof, said elongated member having a plurality of fins radiating therefrom in radial array and extending therefrom to said shell, the surfaces of said finned member and said shell defining a plurality of longitudinally disposed, elongated air chambers within said shell, said chambers being enclosed along the length thereof, and means communicating with each of said air chambers to provide an enclosed, continuous passageway through said labyrinth.

2,870,857

TRANSLUCENT ACOUSTICAL CORRECTION CEILING CONSTRUCTION

Eugene E. Goldstein, New Orleans, La., assignor to The Celotex Corporation, Chicago, Ill., a corporation of Delaware

Application March 6, 1956, Serial No. 569,748
10 Claims. (Cl. 181—33)



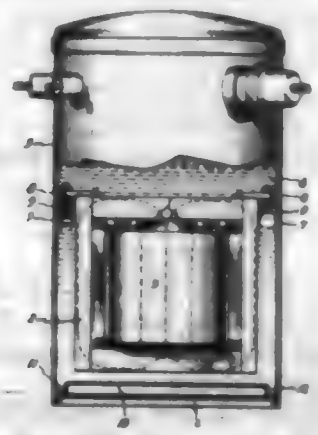
1. A sound absorbing unit comprising a sheet-form cellular core portion in which the cells extend normal to a face surface and through the thickness thereof, a sound porous sheet adhered to a face surface of the cellular core portion, said sound porous sheet having air permeability of between 90 and 200 cubic feet per minute at 0.5" hydrostatic pressure, and a facing sheet adhered to said sound porous sheet, about 5 to 15% of said facing sheet comprising substantially regularly dispersed perforations of about 0.01 to 0.05 square inch area, each, extending through the thickness of said facing sheet.

2,870,858

NOISE REDUCTION IN TRANSFORMERS

Crawford M. Adams, Dalton, Mass., assignor to General Electric Company, a corporation of New York

Application May 10, 1956, Serial No. 583,985
4 Claims. (Cl. 181—33)



1. In the combination of a tank, a liquid in said tank, a vibrating structure which is immersed in said liquid, means for reducing noise generated by said structure comprising a shallow and wide relatively resilient entirely hollow liquid-empty member disposed between the bottom of said structure and the bottom of said tank and spaced from said structure, and there being only one such hollow liquid-empty member in said tank whereby the sides of said structure and tank have primarily only said liquid therebetween.

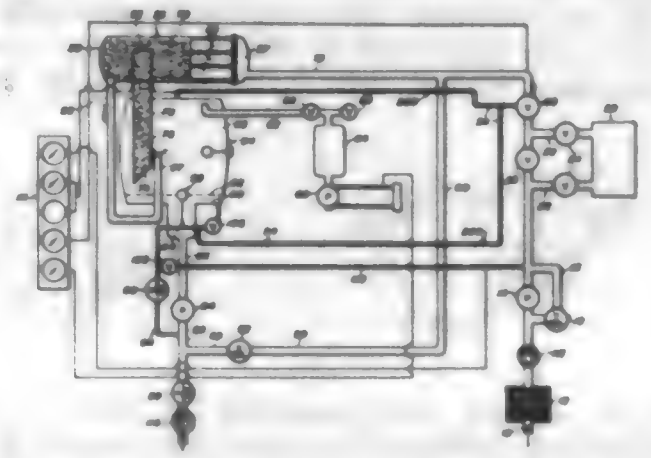
2,870,859

PROCESS AND APPARATUS FOR DE-AERATING OLEAGINOUS MATERIALS

George J. Topol, Hamilton, Ontario, and Leslie B. Baranowski and Ivan Bartik, Burlington, Ontario, Canada, assignors to Bowser, Inc., Fort Wayne, Ind., a corporation of Indiana

Application June 19, 1957, Serial No. 666,518
14 Claims. (Cl. 183—2.5)

11. A process for removing dissolved gas from oils and the like comprising the steps of: introducing through a fibrous medium a quantity of gasified oil into a subatmospheric first chamber to cause release of dissolved gas, passing the liquid fraction of oil from said first chamber to a second chamber of lower pressure, collecting and conveying to said second chamber any oil foam which develops in said first chamber incidental to gas release, forcibly ejecting said foam through a foraminous medium as it passes into said second chamber where the expansion and forcible impingement of the foam disintegrates the foam and resolves it into a degasified liquid fraction.

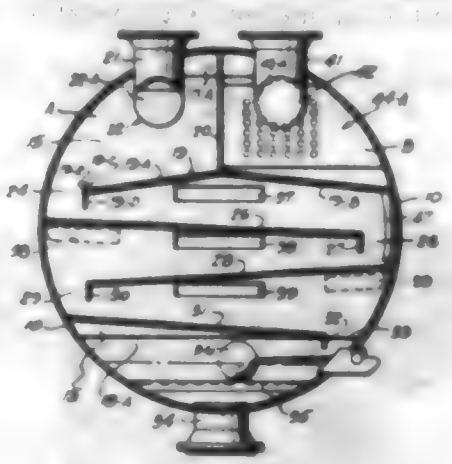


2,870,860

HORIZONTAL OIL AND GAS SEPARATOR

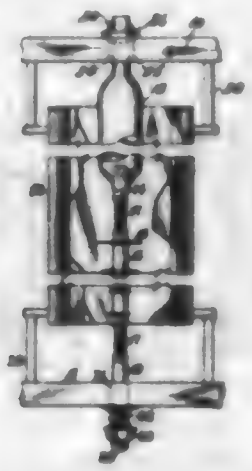
Robert F. Ray, Houston, Tex., assignor to Parkersburg-Aetna Corporation, Houston, Tex., a corporation of West Virginia

Application November 5, 1956, Serial No. 620,359
7 Claims. (Cl. 183—2.7)



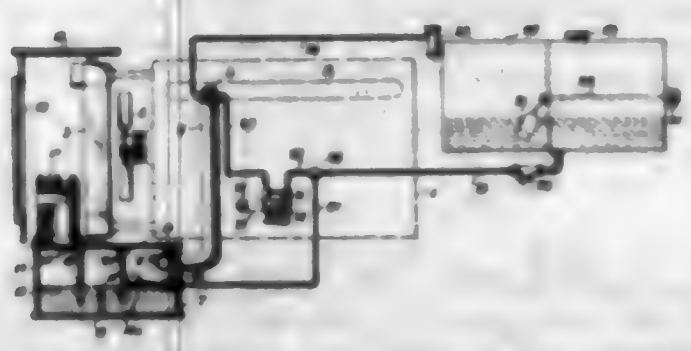
7. A horizontal oil and gas separator, including, an elongate cylindrical vessel having closed ends, a first flow tray extending longitudinally between the closed ends and forming an upper longitudinal chamber above the tray, a vertically disposed divider within the chamber dividing the same into a flow stream inlet area and a gas outlet area, a flow stream inlet extending into the inlet area, a gas outlet extending from the gas outlet area, that portion of the first flow tray below the inlet area inclining transversely downwardly with respect to a horizontal plane and having its longitudinal edge spaced from the vessel wall, whereby the flow stream from the inlet is deposited upon the tray and flows downwardly along the upper surface to be discharged over said longitudinal edge, a plurality of additional flow trays below the first tray extending between the closed ends and also inclined transversely downwardly with respect to a horizontal plane, alternate trays being inclined in opposite directions whereby the flow stream is conducted successively downwardly over the surfaces of the trays and gas is separated from the liquid, an oil outlet in the lower portion of the vessel for conducting separated liquid from the vessel, and means for establishing communication between the gas outlet area in the upper portion of the vessel and those areas above the trays into which the separated gas passes.

2,870,861
COLLECTOR-IONIZER ELECTRODE
Joseph F. Valve, Stillwater, Okla., and Peter Hodson, Wellsville, N. Y., assignors to Apra Precipitator Corporation, New York, N. Y., a corporation of Delaware
Application July 27, 1955, Serial No. 524,637
5 Claims. (Cl. 183—7)



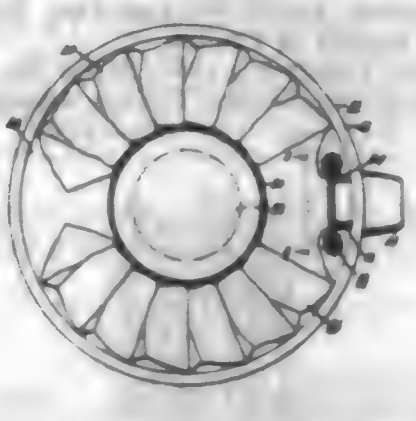
1. In an electrostatic precipitator having a support grid and a guide grid spaced apart in parallel planes, an electrode assembly intermediate said grid members comprising a collecting electrode pivotally suspended from the support grid; an ionizing electrode axially aligned with the collecting electrode and pivotally connected thereto; a collecting surface positioned concentrically around said electrode assembly and insulated therefrom; and resilient connecting means interconnecting said ionizing electrode and said guide grid whereby the collector and ionizer components of the electrode assembly are maintained in axial alignment.

2,870,862
MEANS FOR SAFELY EXHAUSTING HOT GASES
Robert T. Norment, New York, N. Y., assignor to International Fermont Machinery Co., Inc., Ramapo, N. Y., a corporation of New York
Application November 10, 1954, Serial No. 468,867
3 Claims. (Cl. 183—35)



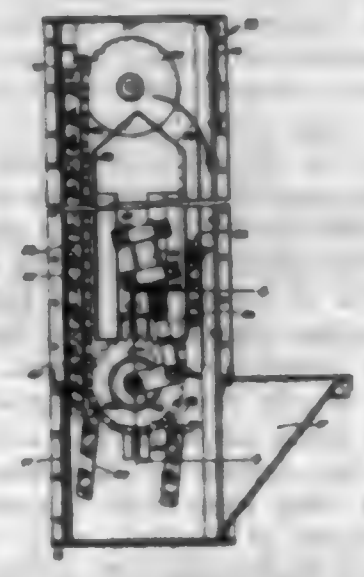
1. An exhaust gas safety system comprising a downwardly sloping exhaust pipe and water storage means, a nozzle connected to said water storage means and mounted on the upper end of said pipe adapted to spray water into the gases passing into said pipe, a first conduit interposed between said water storage means and said nozzle, a second water conduit interposed between said nozzle and said water storage means to convey excess water back to the water storage means, a water chamber mounted on said exhaust pipe whereby exhaust gases will be conveyed to said water chamber, at least one baffle mounted in and extending across said water chamber, said baffle being partially submerged in the water to direct the exhaust gases into contact with the water, a third water conduit connecting said water chamber to said first water conduit to convey water from said water storage means to said water chamber, a regulator within said water chamber and mounted on said third water conduit and normally closing the same, said regulator being adapted to open said third water conduit when the water gets below a predetermined level to permit water to enter the water chamber, an outlet on said water chamber on the opposite side of said baffle from the conduit connection, a flame trap on said water chamber having an opening communicating with said outlet, and a fan adjacent said flame trap to disperse gases emerging therefrom.

2,870,863
COUPLING
George H. Brumbell, Chagrin Falls, Ohio, assignor to General Electric Company, a corporation of New York
Application October 4, 1955, Serial No. 538,437
12 Claims. (Cl. 183—43)



1. A fastener comprising a back plate and a pressure plate, said plates having opposed planar surfaces, and means secured to one of said plates and disposed between portions of said plates for normally resiliently pressing said surfaces into contact, said plates being mounted for uniform relative movement toward and away from each other and adapted to have the mounting plate of a member to be coupled to said fastener inserted and slid between them.

2,870,864
AUTOMATIC SELF-CLEANING FILTER
Jacob K. Britzius, Cleveland, and George M. Walton, Shaker Heights, Ohio, assignors to Air-Maze Corporation, Cleveland, Ohio, a corporation of Delaware
Application November 12, 1953, Serial No. 391,539
6 Claims. (Cl. 183—52)



1. In an automatic filter comprising a supporting frame, spaced upper and lower guide means, a pair of generally parallel endless flexible carrying means passing around said upper and lower guide means, and having two generally vertical runs spaced apart in the direction of stream flow through the filter, a plurality of filter cells mounted on said carrying means and forming a substantially endless curtain on both of said vertical runs, a liquid reservoir in the bottom of said frame at a level to substantially submerge said filter cells as they pass around said

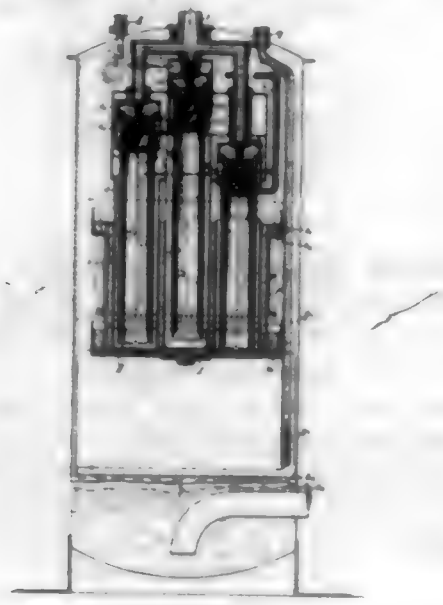
lower guide means; the combination therewith of stroke impulse driving means operatively connected with said flexible carrying means, said driving means including power means providing at each energization thereof a jerky driving impulse to said carrying means sufficient to propel a filter cell in said reservoir to cause a cleansing action of said liquid so as to free material caught on said filter cells, one energization of said power means being insufficient to propel a filter cell through the liquid in said reservoir.

2,870,865

METHODS OF SATURATING A LIQUID WITH CARBONIC ACID

Jean Fènart, Issy-les-Moulineaux, France, assignor to Etablissements Fenart-Bouguet-Pau, Bas-Meudon, France, a society of France

Application August 23, 1954, Serial No. 451,667
Claims priority, application France August 28, 1953
1 Claim. (Cl. 183—114)



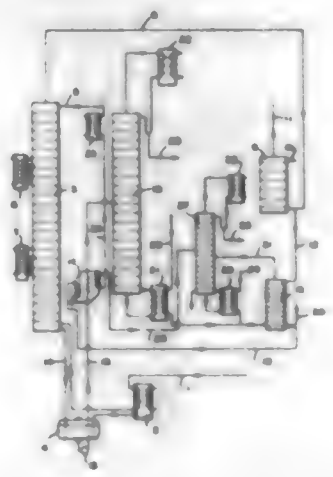
A process for saturating a liquid with carbonic acid while at the same time simultaneously deaerating said liquid, wherein said liquid circulates in counter current to said carbonic acid comprising gradually removing the air contained in said carbonic acid and said liquid while at the same time saturating said liquid with carbonic acid by a counter circulation in several successive elements, comprising treating said liquid containing air in a first contact stage with a gaseous mixture high in air content and low in carbonic acid content then treating said liquid impregnated with carbonic acid and partially deaerated from said first stage in a second contact stage with a gaseous mixture containing air and carbonic acid, the proportion of air in said last named gaseous mixture being less than that in said first named gaseous mixture, and the proportion of carbonic acid being greater than that in said first named gaseous mixture, then treating said liquid having a high content of carbonic acid and a low content of air coming from said second stage in a third stage with a gaseous mixture having a high content of carbonic acid, then treating said liquid having a high content of carbonic acid and a low content of air in a final contact stage with the mixture of carbonic acid and a low proportion of air entering into the circuit, then withdrawing said liquid saturated with carbonic acid and deaerated following said final stage, the gaseous mixture high in air content formed by the air coming from the deaeration of the liquid and the air initially present in the gaseous mixture and containing a slight proportion of carbonic acid being evacuated at the end of the circulation at the exit of said first contact stage by means of an adjustable drain-cock.

2,870,866

METHOD OF OBTAINING ACETALDEHYDE

Gunnar Baecklund, Stockholm, Sweden, assignor to Aktiebolaget Chematur, Stockholm, Sweden, a corporation of Sweden

Application June 14, 1952, Serial No. 293,532
10 Claims. (Cl. 183—115)



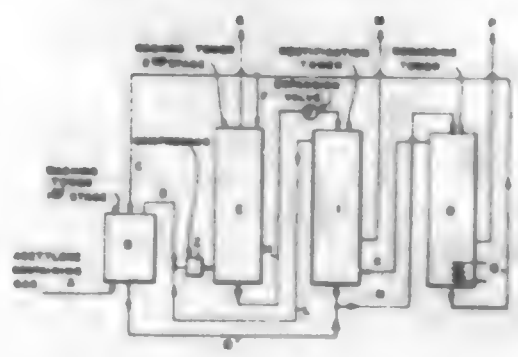
1. Method of obtaining acetaldehyde from acetaldehyde containing gases obtained from ethyl alcohol by catalysis by washing with an ethyl alcohol-water mixture of such a strength that the absorbate does not contain more water than from 60 to 10 percent by weight.

2,870,867

SEPARATION OF ACETYLENE FROM GAS MIXTURES

Ernst Bartholome, Heidelberg, Otto Frey, Ludwigshafen am Rhine, Erwin Lehrer, Bad Duerkheim, and Lothar Lorenz, Ludwigshafen am Rhine, Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen am Rhine, Germany

Application January 25, 1956, Serial No. 561,205
Claims priority, application Germany January 27, 1955
7 Claims. (Cl. 183—115)

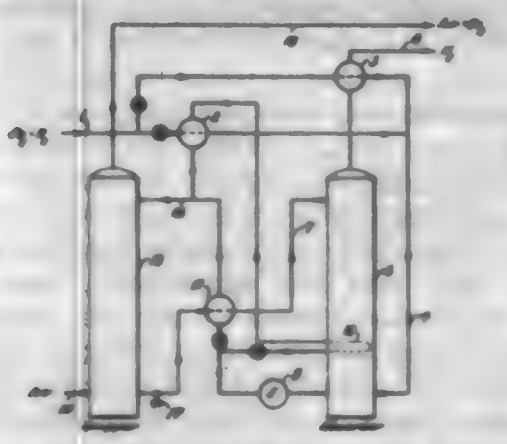


7. An improved process for the separation of acetylene from a gas mixture containing acetylene and obtained by cracking hydrocarbons which comprises washing said gas mixture containing polycyclic hydrocarbon contaminants in a first stage with an amount of acetylene-absorbing solvent and at a pressure between about atmospheric and 1.5 atmospheres, which amount and pressure are sufficiently low that only a small quantity of acetylene and diacetylene, but the bulk of said contaminants are absorbed, washing the solvent from the first stage in a second stage with a larger amount of the same solvent and at a pressure between about 8 and 30 atmospheres so as to absorb acetylene, rectifying the solvent from the second stage to free pure acetylene, degassing the rectified solvent from the second stage, distilling at least part of the solvent from at least one of the two stages to free absorbed constituents not separable by degassing, and reusing both degassed and distilled solvent for washing in each of the two stages.

2,870,868
SEPARATION OF CARBON DIOXIDE FROM GASEOUS MIXTURES

Du Bois Eastman, Whittier, and Warren G. Schlinger, Altadena, Calif., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

Application June 1, 1956, Serial No. 588,855
5 Claims. (Cl. 183—115)

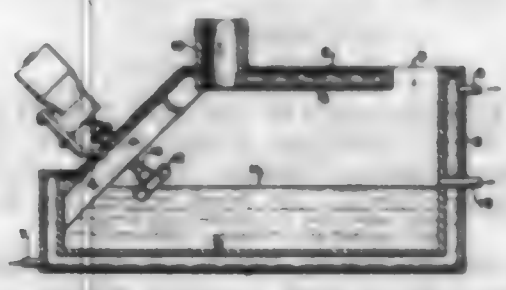


1. A process for the separation of carbon dioxide from a feed gas stream comprising at least 25 percent carbon dioxide in admixture with hydrogen which comprises contacting said mixture in an absorption zone at a pressure in the range of 200 to 1000 p. s. i. g. and at a temperature below about 40° F. with a normally liquid light hydrocarbon distillate having an atmospheric boiling range within the range of 100 to 500° F. effecting substantially complete absorption of said carbon dioxide in said hydrocarbon distillate, discharging a gas rich in hydrogen and substantially free from carbon dioxide from said absorption zone, withdrawing from said absorption zone said hydrocarbon distillate containing said absorbed carbon dioxide, reducing the pressure of said hydrocarbon distillate containing carbon dioxide to a pressure not above about 50 p. s. i. g. effecting expansion and temperature reduction thereof, passing expanded hydrocarbon distillate and carbon dioxide at reduced temperature in heat exchange with hydrocarbon distillate free from carbon dioxide supplied to said absorption zone thereby reducing the temperature of said carbon dioxide-free hydrocarbon distillate and warming said hydrocarbon distillate and carbon dioxide to a temperature above about 40° F., effecting removal of carbon dioxide from said hydrocarbon distillate at said reduced pressure, and returning said hydrocarbon distillate substantially free from carbon dioxide to said heat exchange step and to said absorption zone.

2,870,869
RECOVERY OF TITANIUM TETRACHLORIDE

George T. Mahler, Palmerton, Pa., assignor to The New Jersey Zinc Company, New York, N. Y., a corporation of New Jersey

Application April 15, 1957, Serial No. 653,650
9 Claims. (Cl. 183—120)

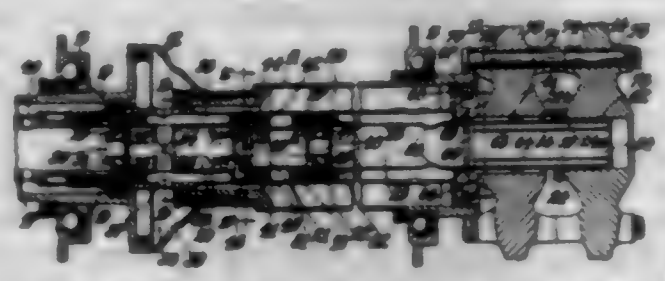


1. The method of recovering titanium tetrachloride from a gaseous mixture of the titanium tetrachloride with at least one of the normally solid chlorides of the group consisting of ferrous chloride, ferric chloride and aluminum chloride which comprises passing the gaseous mixture through a scrubbing chamber having in the bottom thereof a body of a slurry of said solid chlorides suspended in liquid titanium tetrachloride, hurling a substantially continuous shower of said slurry throughout the chamber with such violence as to provide by itself and by its splashing against the interior surfaces of the chamber a turbulent shower of the slurry through which the gaseous mixture passes, the slurry being maintained at a temperature close to but below the dew point of the titanium tetrachloride so as to remove substantially all of said normally solid chlorides from admixture with the remaining gaseous titanium tetrachloride without condensing all of the gaseous titanium tetrachloride, and thereafter condensing and recovering the resulting iron- and aluminum-free titanium tetrachloride from the gaseous effluent from the scrubbing operation.

2,870,570
LUBRICATING ARRANGEMENTS FOR ROTATING MACHINERY

Lionel Haworth, Littleover, Ralph John Shire, Normanton, and Frederick Moon, Derby, England, assignors to Rolls-Royce Limited, Derby, England, a British company

Application October 1, 1956, Serial No. 613,147
Claims priority, application Great Britain October 26, 1955
17 Claims. (Cl. 184—6)

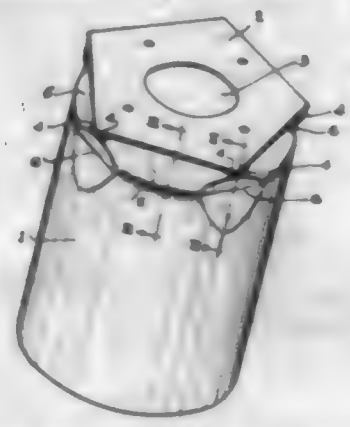


1. In rotating machinery, means for supplying lubricant to parts requiring lubrication which means comprises rotating structure having a tubular wall defining an internal bore through which the lubricant passes and axially-spaced internal transverse walls co-operating with the tubular wall to define a chamber in which oil is trapped, oil-inlet defining means having an oil inlet opening into said chamber coaxially with the rotating structure, and oil outlet defining means including a passage, said passage having an inlet thereto opening into the chamber and an outlet therefrom in communication with the part to be lubricated, said inlet and outlet of the passage being on opposite sides of the rotational axis of the rotating structure and being at a radial distance from the axis greater than the oil inlet.

2,870,871
SHOCK ABSORBER

Harry T. Stevinson, Ottawa, Ontario, Canada, assignor to National Research Council, Ottawa, Ontario, Canada, a body corporate of Canada

Application May 20, 1955, Serial No. 509,896
8 Claims. (Cl. 188—1)



1. A shock absorber comprising a squat, open-ended metal tube formed with a plurality of inwardly projecting, circumferentially elongated depressions arranged

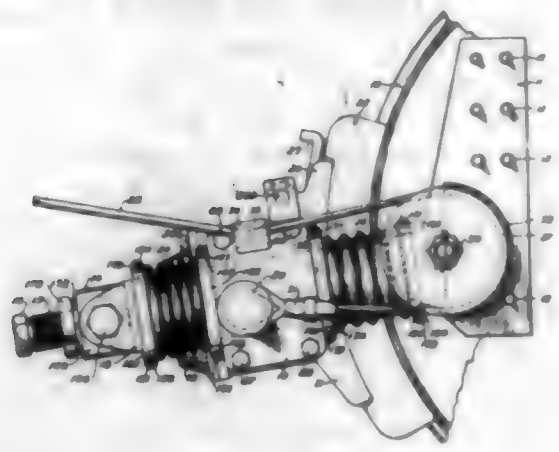
around said tube in a circumferentially extending series closed upon itself, such depressions constituting, at least in rudimentary form, a circumferential series of contiguous, inwardly projecting, straight folds.

2,870,872
NON-SKID CAR BLOCK
George G. Rapp, Mendota, Ill.
Application August 20, 1957, Serial No. 679,258
1 Claim. (Cl. 188—32)



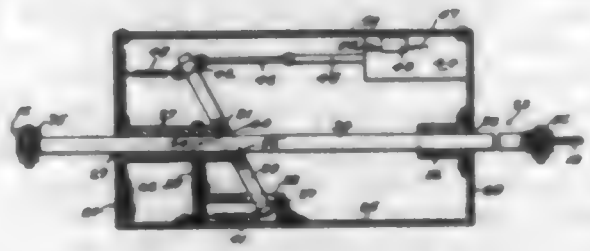
A wheel chock for insertion under the wheel of a car to prevent accidental movement of the car comprising a pair of spaced apart parallel angle iron members each having a vertical leg and a horizontal leg, said horizontal legs being disposed in confronting relation and in the same horizontal plane with respect to each other to serve as trackways, said horizontal legs each having their inner corners downwardly turned, each of said vertical legs having an aperture extending therethrough adjacent one of the ends thereof, said apertures being axially aligned with respect to each other, each of said vertical legs having a plurality of spaced bores extending therethrough adjacent the other end thereof, said bores in one of said vertical legs being axially aligned with a respective one of said bores in the other of said vertical legs, an inverted substantially V-shaped block having a transversely extending aperture adjacent the bottom thereof, the apex of said block being arcuate in cross section, an elongated bolt passing through said transversely extending aperture and said first named apertures in said vertical legs to detachably secure said block between said angle iron members, a second inverted substantially V-shaped block having a transversely extending aperture adjacent the bottom thereof, the apex of said second block being arcuate in cross section, and an elongated bolt passing through said transversely extending aperture and a selected pair of said bores to detachably secure said second block between said angle iron members.

2,870,873
TREAD BRAKE UNIT FOR RAILWAY VEHICLES
Emil G. Mueller, Wilkinsburg, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application May 31, 1956, Serial No. 588,560
9 Claims. (Cl. 188—33)



1. Tread brake apparatus for use with a brake shoe on a railway vehicle having a supply of fluid under pressure comprising, in combination, a pair of side frame elements, each of said side frame elements having an extended arm portion and an attaching portion for fastening to the vehicle, said side frame elements while attached to the vehicle being in positions whereat the arm portions are disposed in predetermined fixed spaced-apart positions with respect to each other and to a vehicle wheel to be braked, a trunnion member pivotally mounted between said arm portions, a piston rod attached at one end thereof to said trunnion member, a piston connected to the other end of said piston rod, a brake cylinder in which said piston operates, said brake cylinder having disposed therein spring means biasing said piston toward one end of the cylinder, said brake cylinder having means for admitting fluid under pressure to the cylinder for forcing said piston away from said last named end, means slidably mounting said brake cylinder on said arm portions, and a brake shoe carried by said brake cylinder, said cylinder being moved by a predetermined pressure of fluid admitted to the cylinder to shift said brake shoe into braking engagement with the tread of said wheel.

2,870,874
EMERGENCY BRAKE SAFETY LOCK
Cecil A. Pollitt, St. Louis, Mo.
Application January 28, 1957, Serial No. 636,785
5 Claims. (Cl. 188—67)

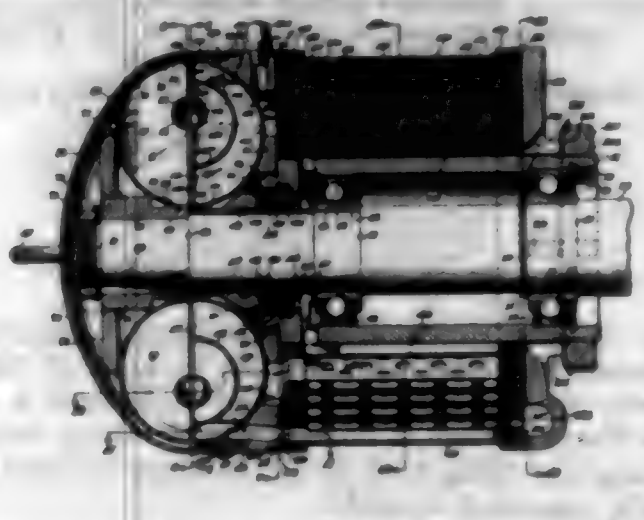


1. In combination with a vehicle emergency brake actuating linkage, a brake locking attachment including a pull rod interposed in the brake actuating linkage, a guide member in which said pull rod is reciprocably supported, a latch bar having an opening through which the pull rod loosely extends, spring means urging the latch bar to a canted position for frictional gripping engagement with the pull rod, said guide member having a beveled end forming abutment means against which a part of the latch bar bears when held in a canted position by said spring means to prevent sliding movement of said pull rod in one direction for locking said brake actuating means against movement toward a brake releasing position, an electromagnet means connected to said latch bar for rocking the latch bar against the action of said spring means toward a position normal to the axis of the pull rod for disengaging the latch bar from frictional gripping engagement with the pull rod to permit movement of the brake actuating mechanism toward a brake releasing position.

2,870,875
HYDRO-KINETIC BRAKE DEVICE
Edwin L. Cline, Altadena, Calif., assignor to Clayton Manufacturing Company, El Monte, Calif.
Application October 12, 1951, Serial No. 251,695
43 Claims. (Cl. 188—90)

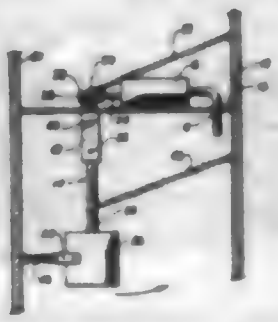
1. In a hydro-kinetic device, a substantially semi-toroidal sheet metal shell member having a predetermined number of circumferentially spaced notches in the inner and outer marginal edges thereof and a like number of slots in an intermediate portion thereof, said notches and slots being formed on an angle of about 45° to a plane parallel with and passing through the axis of said shell member, and vanes mounted in said shell member with each vane having peripheral tabs extending into one of the notches formed in said inner and

outer marginal edges of said shell and into one of said slots, whereby said vanes are disposed in said shell mem-



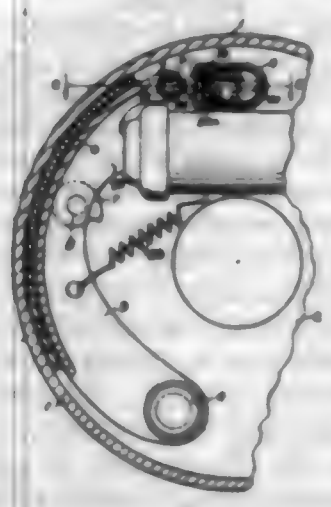
ber upon an angle corresponding to that upon which said notches and slots are formed.

2,870,876
TRAILER BRAKE CONTROL SYSTEM
Robert H. Pease, Oklahoma City, Okla.
Application May 6, 1957, Serial No. 657,101
4 Claims. (Cl. 188—139)



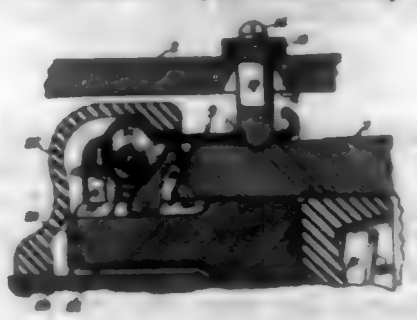
1. A brake control system for a trailer having hydraulic brakes, comprising a mass pivotally suspended in the trailer for swinging movement fore and aft in the trailer with deceleration and acceleration of the trailer, a system of levers connecting the mass to the master cylinder piston of the trailer hydraulic brakes in a manner to actuate said brakes upon forward movement of the mass and release said brakes upon rearward movement of the mass, a spring biasing the mass forwardly in the trailer, and a resilient buffer secured behind said mass for limiting the rearward movement of said mass to a position substantially directly below the pivot point of said mass.

2,870,877
AUTOMATIC CLEARANCE SETTER
Bernhard F. Voigt, Corvallis, Oreg.
Application July 22, 1955, Serial No. 523,721
3 Claims. (Cl. 188—196)



3. A device for automatically setting predetermined clearances between cooperating elements of a machine normally subjected to operational loss of material therebetween and thereby increasing clearance therebetween upon their operational separation, said device comprising a bracket fixedly secured with respect to one element of the machine, a locking element adjustably attached to the bracket and extending outwardly therefrom, a stud attached at the end of said locking element and projected into an opening formed within an actuated lever of the machine, said opening having a greater dimension as measured in the planes of motion of said actuated lever than that of the stud, whereby the locking element will be pulled by the actuated lever in one direction and released therefrom upon movement of the actuated lever in the opposite direction, means carried by the bracket and engageable with said locking element to establish a limit stop for the movement of the actuated lever in said opposite direction and for the extent thereof, and said bracket comprising an outer lamination secured to an inner lamination having a different thermo-coefficient of expansion whereby thermo-malfunction of the device will be prevented.

2,870,878
AUTOMATIC CLEARANCE SETTER
Bernhard F. Voigt, Corvallis, Oreg.
Application July 22, 1955, Serial No. 523,811
4 Claims. (Cl. 188—196)

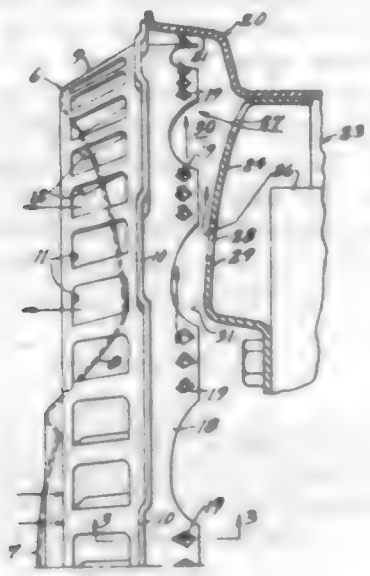


1. A device for automatically setting predetermined clearance between cooperating elements of a machine which are subject to an operational loss of material and thereby increasing clearances between said cooperating elements upon the operational separation thereof, and normally provided with means of compensation upon readjustments of said clearances, said device comprising a piston operatively disposed within a guide and between a source of controlled pressure and one of said cooperating elements, said piston having longitudinal channels formed therein, an annular cam surface surrounding said piston adjustable axially thereof and in spaced relation to the adjacent end of said guide, spring urged cam elements operable within said channels and engageable with said annular cam surface upon outward movement of the piston to tilt the cam elements in one direction to permit freedom of such movement of the piston and said cams being tiltable in an opposite direction by contact with said adjacent end of the guide upon movement of the piston in an opposite direction to thereby lock the piston against further inward movement, whereby said outward movements of the piston will accumulate and their aggregate will equal that necessary to compensate for all operational loss of material and to maintain predetermined space relations between said cooperating elements regardless of any change in shape incidental to said loss of material.

2,870,879
WHEEL STRUCTURES
James K. Gaylord and Lewis E. Thatcher, Chicago, Ill., assignors to Gaylord Products, Incorporated, Chicago, Ill., a corporation of Delaware
Application March 22, 1954, Serial No. 417,604
3 Claims. (Cl. 188—264)

1. In a wheel structure, a vehicle wheel comprising a tire rim secured to an apertured plate, a brake drum

mounted on said plate, a wheel cover comprising an apertured hub portion, an annular axially extending marginal wall joined to the hub portion by a web portion, said wall having circumferentially spaced outlet apertures and vanes adapted to move streams of air inwardly through said apertured hub portion and thence outwardly through said outlet apertures, said vanes projecting inwardly from said wall and extending axially thereof, and means for de-



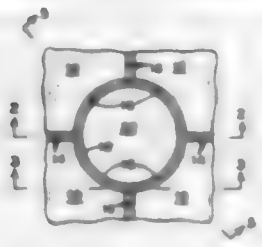
tachably mounting the cover upon the tire rim, with the periphery of the cover in circular abutting engagement with the rim, said means comprising an annular attachment member having an outwardly projecting annular flange on one end thereof and radially outwardly projecting spurs adjacent the other end thereof, said marginal wall having interconnected annular web and flange portions defining an annular recess to receive the attachment member flange.

2,870,850

PANEL WALL CONSTRUCTION

Josef Thelen, Dulsburg, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application May 2, 1956, Serial No. 582,261
5 Claims. (Cl. 189—34)



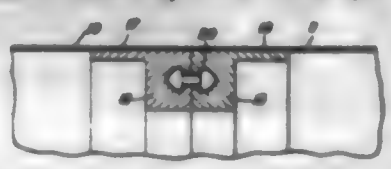
1. In apparatus subject to thermal expansion and contraction, a flexible gas-tight wall comprising a multiplicity of metallic panels each formed with an arcuate shaped corner, a hollow metallic member of circular cross-section closed at one end and disposed interjacent the arcuate shaped corners of said panels, said panels being formed with marginal flaring flexible flanges at their adjacent edges and along the arcuate shaped corners, and means joining in gas-tight relation the outer edge portions of the flexible flanges of adjacent panels to each other and to the opposite end of said metallic member, the flexible flange portions joined to the opposite end of said metallic member flaring in the direction of said one end of said metallic member at an acute angle to the circular wall thereof.

2,870,851

BLIND JOINT-INTERNAL TYPE LOCKING

Bernhard Rogge, Baldwin, Md.

Application August 3, 1954, Serial No. 447,690
3 Claims. (Cl. 189—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



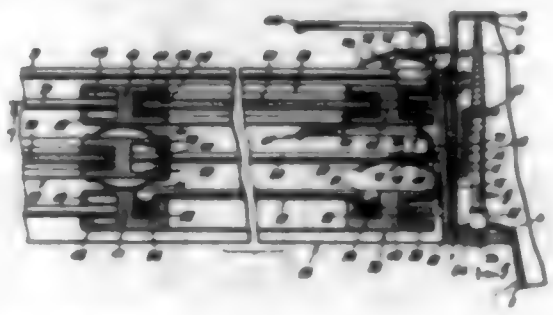
1. A joint structure for sheet metal comprising two opposed flange sections attached to each of two metal sheets, opposed coinciding undercut channels in each of said flange sections, a hollow, shaped tubing, tightly connecting and filling both of said channels by being hydraulically expanded therein.

2,870,852

HORIZONTAL SLIDING WINDOW

John A. Telman, Hollywood, Calif., assignor to Andem Corporation, Pasadena, Calif., a corporation of California

Application October 20, 1952, Serial No. 315,656
3 Claims. (Cl. 189—75)



3. In a window construction, a metal frame structure adapted to be clamped about the top, bottom and side edges of a window opening, said frame structure having a bead of rectangular cross section projecting radially inwardly from the web portion thereof, spring tongue means secured to the inner side wall of said bead having free ends equidistantly spaced from a vertical edge of said bead, and a metal rail framing assembly having an outer side wall adapted to nest within said bead, said rail framing assembly having a pair of outwardly extending parallel flanges, one of said flanges being low and adapted to nest into the opening formed by said bead and into locking engagement with said spring tongues, and the other and longer of said flanges being adapted to seat against a radial face of said bead as said spring tongues engage behind said low flange thereby locking said rail framing assembled in place.

2,870,853

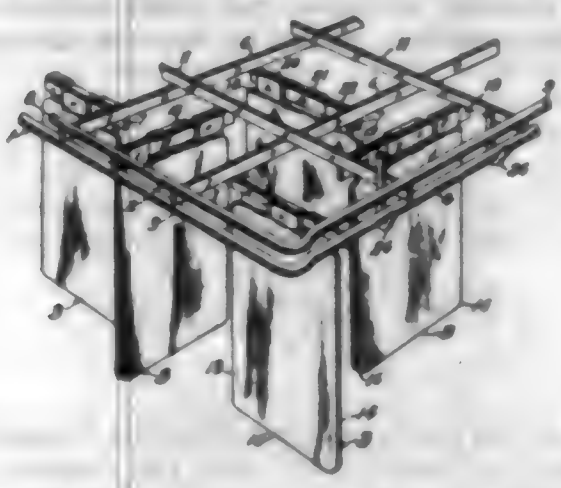
LIGHT-RAY BAFFLE CONSTRUCTION

Charles U. Deaton, Crestwood, Mo.

Application May 25, 1953, Serial No. 357,157
12 Claims. (Cl. 189—82)

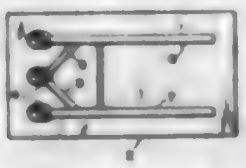
4. A light-ray baffle adapted to be supported in space relation to a light source, said baffle comprising an open framework formed of relatively thin members, presenting substantially small interference to the passage of light rays through the framework, a plurality of first substantially flat, individual baffle elements mounted at one end upon the framework and projecting outwardly therefrom in spaced parallel relation, and a plurality of second substantially flat, individual baffle elements, also mounted at one end from the framework in outwardly spaced parallel relation to each other, each of said second baffle elements being positioned approximately midway between two adjacent first baffle elements in edgewise presented angular relation thereto and with its edges disposed in

spaced, contiguous relation to the adjacent faces of said first baffle elements, each of said first baffle elements being positioned approximately midway between two adjacent



second baffle elements in edgewise presented angular relation thereto and with its edges disposed in spaced contiguous relation to the adjacent faces of the second baffle elements.

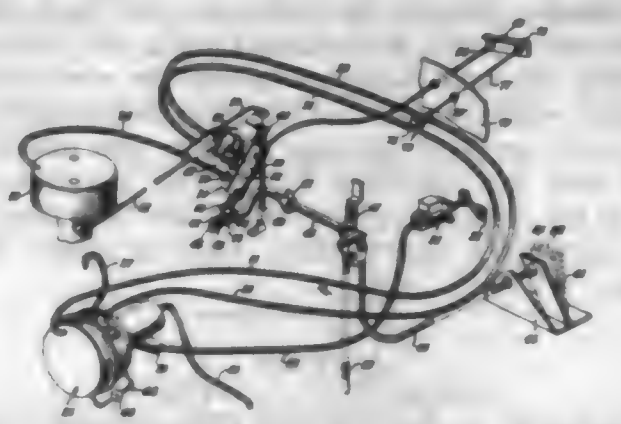
2,870,884
GROUND ANCHOR
Paul M. Mazur, Fiddlers Creek Farm, N. J.
Application January 4, 1957, Serial No. 632,453
2 Claims. (Cl. 189—90)



1. In a ground anchor adapted to convert a horizontal pull into a vertical thrust, the combination of a plate-like member adapted to rest on and be supported by the ground and to transfer forces over a relatively large area of the ground beneath the plate, said plate member having a plurality of openings therein through which spikes or pins may be driven into the ground to hold the plate in place, collars about said openings inclined rearwardly at an angle to oppose forces applied in a substantially horizontal direction, outer reenforcement members on opposite sides of said plate member engaging said collars and extending forwardly longitudinally of the plate from the inclined outer collars, second reenforcement members extending at an angle to said first reenforcement members engaging an inner collar and extending from the inner collar to the outer reenforcement members, and an attaching member extending between and secured to said longitudinally extending reenforcement members to which a cable or chain may be secured.

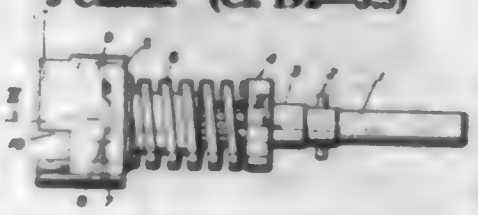
2,870,885
DECELERATOR BRAKE FOR MOTOR VEHICLES
Harold A. McIntosh, Los Angeles, Bertrand Deleray Mouron, South Laguna, and Joseph Stoll and Albert M. Herzig, Los Angeles, Calif.
Application September 19, 1955, Serial No. 534,942
5 Claims. (Cl. 192—3)

1. In an accelerator actuatable fluid decelerating system of the character described, a power booster unit arranged to actuate vehicle brakes having a high pressure side and a low pressure side, a valve for selectively introducing atmospheric and vacuum pressure to said booster unit, means connecting said valve with said booster unit for said selective introduction of atmospheric and vacuum pressure to the respective high pressure and low pressure sides thereof, whereby any selected degree of pressure difference between said sides can be introduced, accelerator control means for said valve, and by-pass means between the high and low pressure sides of said system arranged to limit the pressure differential between said



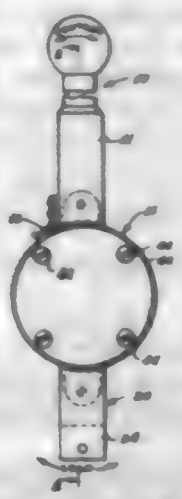
sides to such maximum value that said unit is incapable of bringing said vehicle to a sudden stop.

2,870,886
SLIP COUPLING FOR BELT FASTENING MACHINES
John Gleghorn Wood, Sutton, near Hull, Sidney Beetham Hainsworth, Elloughton, Brough, and Bernard Tebb, Hull, England, assignors to Mastaber Mining Equipment Company Limited, a British company
Application November 12, 1953, Serial No. 391,701
Claims priority, application Great Britain November 17, 1952
3 Claims. (Cl. 192—3.5)



1. A power drive for a belt fastening machine adapted to be used in coal mines comprising a coal mine drill motor, a conveyor belt fastening machine, and an overload dogged slip coupling connecting said motor and fastening machine for driving said fastening machine from said motor and for imparting a series of driving impacts to said fastening machine by the slipping of said dogged coupling upon overload of said coupling.

2,870,887
TWO-WAY AUTOMATIC LOCKING ACTUATORS
Howard W. Cole, Jr., Mountain Lakes, and Delwyn L. Olson, Lake Mohawk, N. J.
Application April 12, 1954, Serial No. 422,541
9 Claims. (Cl. 192—8)



1. A motion-transmitting device including a controller, a load connected element operated by the controller, two overrunning clutches axially spaced from one another and facing in opposite directions circumferentially and each including an outer clutch member comprising a housing, an inner clutch member within the housing, a plurality of clutch elements between the outer and

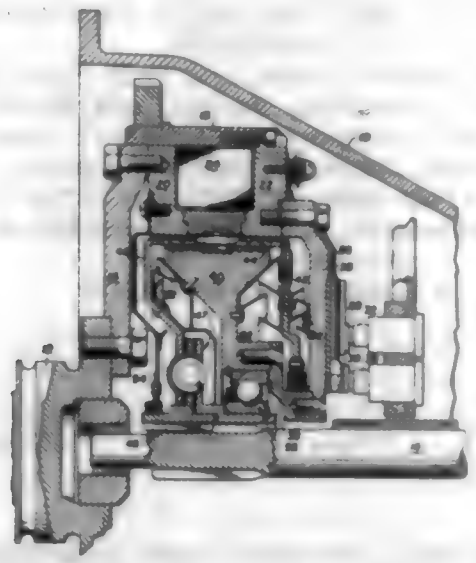
inner clutch members of each clutch, one of the clutch members of each clutch being stationary, and the other clutch member of each clutch having cam faces thereon for wedging the clutch elements against the fixed member when the cam faces are moved in one direction, the clutch member with the cam faces being rigidly connected with the load carrying element, and means connected with the controller for moving the clutch elements of the respective clutches as a unit with their associated cam faces and without wedging either of the clutches.

2,870,888

MAGNETIC CLUTCH

Andrew S. Gill, Jr., South Euclid, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application May 20, 1955, Serial No. 509,945
5 Claims. (Cl. 192—21.5)



1. A magnetic clutch comprising a pair of driving members and a driven member rotatable relative to said driving members, a first of said driving members including a pair of axially spaced pole portions and an electromagnetic coil therebetween for providing a magnetic field, a second of said driving members located concentrically within said first driving member and separated therefrom to provide an opening, said driven member including spaced plate supporting means disposed axially on opposite sides of said second driving member and a sleeve portion located in said opening and secured in spaced relation to each of said driving members by said spaced plate supporting means to provide a dual pair of axially spaced gaps, magnetic material in said gaps responsive to said magnetic field for providing a bond between said members to urge the unitary movement thereof, sealing means disposed adjacent said plate supporting means for confining the magnetic material in said respective gaps and preventing the commingling thereof, said magnetic field traversing sequentially each of said pole portions, each of said gaps and each of said members to provide a coupling therebetween.

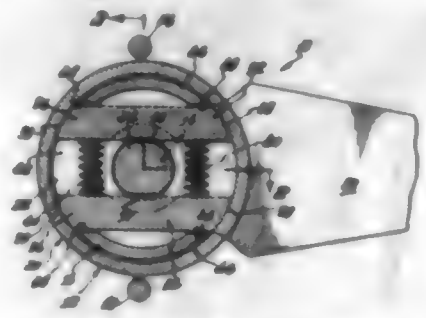
2,870,889

OVERRUNNING CLUTCH

Glen W. Walton, Culver City, Calif., assignor to Telecomputing Corporation, Los Angeles, Calif., a corporation of California

Application June 16, 1955, Serial No. 515,897
4 Claims. (Cl. 192—22)

3. In a bidirectional overrunning clutch, the combination of: a driving member having a cylindrical clutch surface on its inner wall; a driven member constituted by a shaft having an extremity provided with oppositely disposed flats located within said driving member; a pair of elongated clutch bars located on opposite sides of said shaft extremity and having opposed surfaces juxtaposed to said flats, said clutch bars having arcuate extremities engageable with said clutch surface and being of a length sufficient to span the chordal distance on either side of the driven member to engage said clutch surface; a pair of compression springs located on opposite sides of said



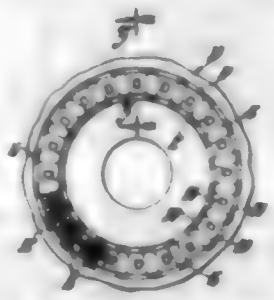
shaft and having their opposite extremities engaged upon said opposed surfaces of said bars; and arcuate release fingers located adjacent said clutch surface and having their opposite edges engageable with opposite extremities of a juxtaposed clutch bar.

2,870,890

ONE-WAY CLUTCH

Leland D. Cobb, Forestville, Conn., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 18, 1954, Serial No. 412,754
1 Claim. (Cl. 192—45.1)



A one way clutch for use between a pair of relatively rotatable coaxial races comprising an annular cage adapted to be positioned between and radially spaced from said races, the cage having a pair of substantially identical end rings and a plurality of axially extending flat cross bars disposed between said end rings, said end rings having adjacent planar faces disposed normal to said axis, said cross bars having radially disposed body portions with the ends thereof fitting against said end rings across substantially the entire radial width of each end ring, said ends having reduced portions with rectangular cross sections fitted within and extending through rectangular openings in said end rings, the outer ends of the reduced portions being headed over, sprags disposed between adjacent pairs of said cross bars for wedging engagement with said races, said sprags and adjacent cross bars having registering openings therethrough and annular spring means extending through said registering openings and supporting the cage in radially spaced relation to both of said races.

2,870,891

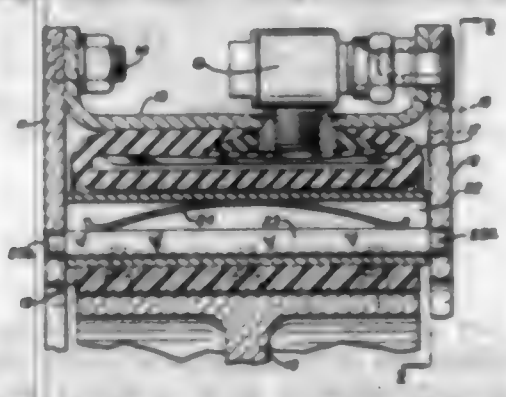
ASSEMBLY FOR CLUTCHES AND BRAKES

John V. Eskin, Rocky River, and Joseph S. Walsh, Fairview Park, Ohio, assignors to Fawick Corporation, a corporation of Michigan

Application May 21, 1954, Serial No. 431,340
1 Claim. (Cl. 192—88)

An assembly comprising two relatively rotatable structures one within the other and adapted for frictional, torque-sustaining engagement with each other, the inner one of said structures having an outwardly presented frictional-engagement face and the outer of said structures being rotatably mounted and comprising a set of wear-shoe assemblies, a fluid-distensible diaphragm for urging said assemblies radially inward toward said face in being

distended, a mounting for said diaphragm comprising rigid side rings lying adjacent opposite sides of the diaphragm and the wear-shoe assemblies, each of said wear-shoe assemblies comprising a rigid structure having a frictional-engagement face and formed, at a position between its forward and rear ends, with a hole extending axially through it from adjacent one to adjacent the other of the said side rings, said hole having walls on all sides, all the walls of said hole being continuous and uninterrupted between the ends of the hole, a torque-sustaining bar extending through said hole in torque-transmitting relation



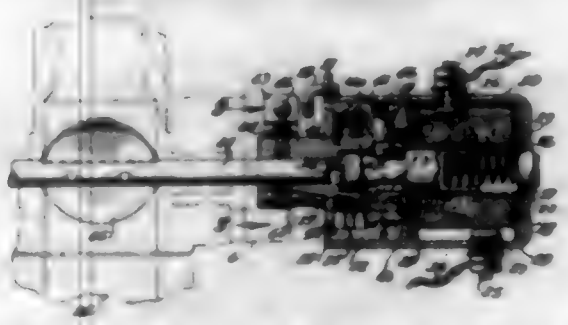
to a wall of the hole, the end portions of the bar being interlocked with said rings respectively against relative movement under the force of the torque, and a spring mounted in the said hole for yieldingly urging the wear-shoe assembly away from the frictional-engagement face first above mentioned, the spring being of the leaf type, extending lengthwise of the torque-sustaining bar, and being seated against said bar and against a wall of the hole, and the spring being substantially enclosed by the side rings, the torque-sustaining bar, and the walls of the defined hole.

2,870,892

SPEED GOVERNOR

Henry E. Hiser, Petersburg, W. Va.

Application March 4, 1954, Serial No. 414,000
1 Claim. (Cl. 192—98)



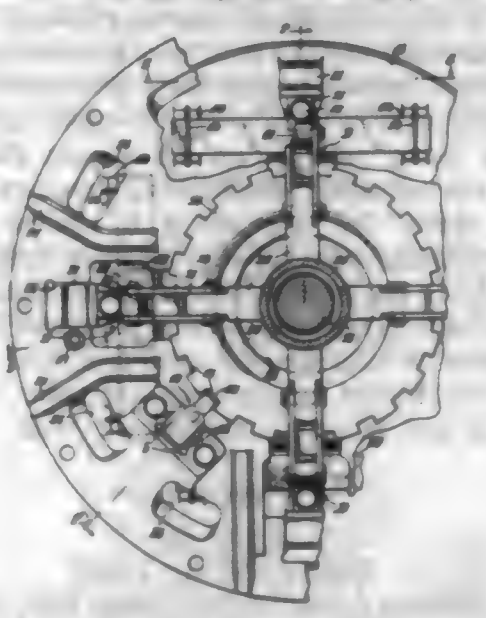
A speed control element for use on motor vehicles comprising a cup-shaped housing, a bushing having an annular recess therein positioned in one end of said housing, a hub having an annular flange thereon that is positioned in the annular recess in said bushing, a shaft extended into said hub, means in the hub for connecting said shaft to said hub, a sleeve extended from the hub into the housing and positioned in the bushing, a reciprocating latching pin mounted in the bushing for engagement with the sleeve to retain the sleeve against relative rotation with respect to the bushing, said hub having a single bore therein for engagement with said latching pin so that latching can occur in only one relative position of the hub, a plunger having a tapered surface thereon slidably mounted in the housing, a ball mounted in the housing for engagement with said latching pin and the tapered surface of said plunger, a spring positioned in the housing in circumjacent relation to said sleeve and connected to said sleeve and said bushing for rotating the sleeve and hub with respect to the bushing, a solenoid in the housing, a core slidably mounted in the solenoid for moving said plunger to cause said ball to move said latching pin out of engagement with said sleeve so that said sleeve and said hub can be rotated.

2,870,893

CLUTCH ASSEMBLY

James W. Palm, Rockford, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Original application May 12, 1951, Serial No. 226,069, now Patent No. 2,742,129, dated April 17, 1956. Divided and this application March 1, 1956, Serial No. 568,757
3 Claims. (Cl. 192—113)



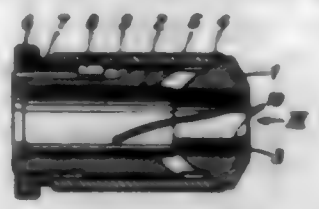
1. A friction clutch assembly of the heavy duty type which is subject to heating during operation, comprising driving members and a driven member, one of said driving members being movable axially with respect to the other driving member to frictionally engage said driven member therebetween; means defining a back plate attached to one of said driving members and arranged rearward thereof and said other members, means defining an axial opening of substantial dimensions in the center of said back plate, said back plate also having an annular row of circumferentially spaced apertures extending axially therethrough communicating the front and rear surfaces thereof between its outer periphery and said axial opening adapted to provide air channels; and a plurality of fins on the rear surface of said back plate projecting axially away from said driving members and extending radially between said central axial opening and the outer periphery of said back plate for a distance substantially equal to the spacing between said central opening and said outer periphery effective during operation of the clutch assembly to draw extraneous coolant air into said clutch assembly through said central axial opening to impinge upon and cool said driving and driven members, and to discharge said coolant air through said annular row of apertures.

2,870,894

WORKPIECE HOLDING OR JOURNALLING MEMBER FOR MACHINE TOOLS

Walter Neukomm, Moutier, Switzerland, assignor to Frederic Neukomm, Court, Switzerland

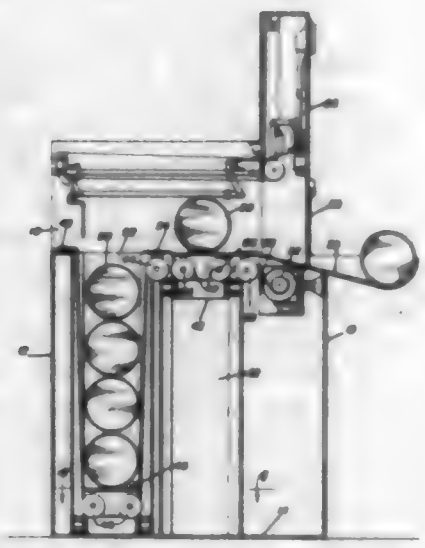
Application January 21, 1954, Serial No. 405,481
Claims priority, application Switzerland February 6, 1953
1 Claim. (Cl. 193—1)



A centering collet type bearing for a workpiece which is to be rotated in the bearing while being fed axially through the bearing comprising a collet-like structure having a bore of one diameter and a counterbore of a larger diameter coaxial therewith, the interior wall of

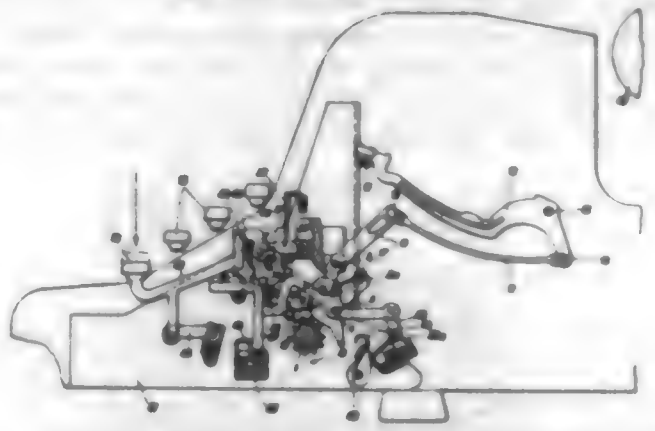
said first bore being defined by a cylindrical bearing portion at the outer end of said structure, said structure inwardly from said outer end defining a shank within which said counterbore is defined, a series of radial slots defined in said outer end and opening through the interior wall defining said cylindrical bearing portion, said slots being angularly disposed to the longitudinal axis of said bore to prevent chatter of the workpiece rotated and centered in said cylindrical bearing portion, said slots extending into said counterbore and terminating within the axial confines thereof to provide a substantial part of said counterbore with a solid wall, the outer surface of said outer end being conical, an adjustment sleeve for said structure for adjusting said bearing structure to the workpiece to center the same as it is rotated therein said sleeve embracing said shank inwardly from said outer end and being supported for axial movement relative to said outer end to engage said outer conical surface to adjust the size of said bearing structure, and an actuating nut in screw thread engagement with one of said shank and sleeve and in axial engagement with the other of them.

2,870,895
DISPENSING UNIT
William L. McDaniel, Camp Hill, Ala.
Application December 29, 1953, Serial No. 400,875
11 Claims. (Cl. 194—10)



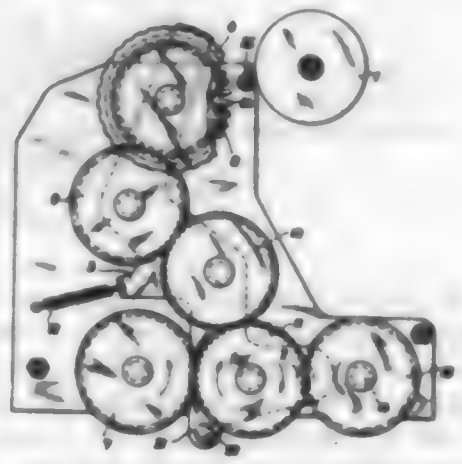
11. A dispensing unit comprising a housing having a front wall and a tunnel communicating exteriorly of the housing with an opening in the housing for dispensing an article from the housing, a well formed in said housing below said tunnel and opening into said tunnel, a carriage vertically slidable in said well, means for vertically moving said carriage for moving articles from the well into the tunnel, a horizontal track member disposed longitudinally of said tunnel, a pusher slidable on said track member through said tunnel toward and away from the opening in said front wall for moving an article through said tunnel, means for imparting movement of the pusher, an actuator bar for actuating said carriage moving means underlying said track member and pivotally connected thereto for movement in a vertical plane to an inoperative position upon movement of an article into the tunnel to stop said carriage moving means, switch means on said track member responsive to movement of said actuating bar, said switch means operating said carriage moving means upon passage of an article from said tunnel, said means for moving the pusher toward the opening comprising a continuously rotating shaft, a drum journaled on said shaft, a clutch for connecting said drum to said shaft for rotation therewith, and a flexible member wound on said drum and connected to said pusher.

2,870,896
POWER-DRIVEN TYPEWRITER
Heinrich Riffel, Duesseldorf, Germany, assignor to Rheinmetall Aktiengesellschaft, Duesseldorf, Germany
Application November 25, 1953, Serial No. 394,437
Claims priority, application Germany November 29, 1952
7 Claims. (Cl. 197—17)



7. A key locking device for power driven typewriters having typewriter keys, comprising key locking members, a locking slide adapted to be actuated by each of said keys into an operative position in engagement with said key locking members, the key locking members rendering all the keys inoperative except the one which has actuated its respective locking slide, and means operable in response to operation of the key by which the locking slide has been actuated to the operative position to effect release of the locking slide from said operative position.

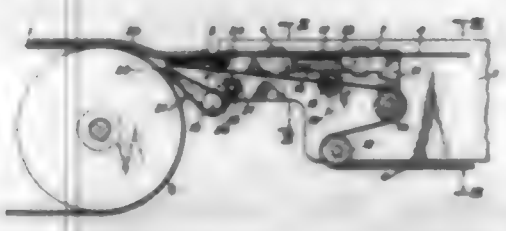
2,870,897
ELECTRICALLY OPERATED TEXT WRITING DEVICE FOR BOOKKEEPING MACHINES
Franz Hübl, Gothenburg, Sweden, assignor to Kolnale Apparate G. m. b. H., Villingen, Schwarzwald, Germany
Application September 28, 1955, Serial No. 535,334
Claims priority, application Germany October 4, 1954
6 Claims. (Cl. 197—18)



3. In an electrically operated textwriting device for bookkeeping machines, the combination of a platen for the paper to be written upon; a type wheel bearing type characters; a lever pivotally mounted on a fixed pintle; spring-means retaining said lever in normal, inoperative position, said type wheel being journaled on said lever, and said type wheel and said platen being so relatively disposed that the wheel prints its characters upon the paper when said lever is rocked from its normal position; driving means and toothed-wheel gearing means, the latter being disposed between said driving means and said type wheel; and means adapted to interrupt rotation of said type wheel when a selected character is positioned relative to said platen for printing said character, said toothed-wheel gearing means being adapted to transmit driving movement from said driving means to said type wheel and to transmit the effect of said interrupting means from the latter to said type wheel, said driving means and said

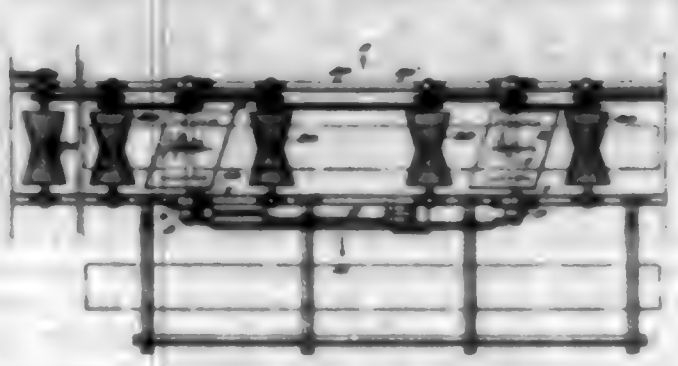
interrupting means co-operating against the action of said spring-means to rock said lever to print said selected character.

2,870,898
APPARATUS FOR CONVEYING SHEETS OF FRAGILE MATERIAL
Joseph Francis Naylor and Robert Leslie Large, Newton-le-Willows, England, assignors to T. & T. Vicars Limited, Newton-le-Willows, England, a British company
Application June 16, 1954, Serial No. 437,171
Claims priority, application Great Britain June 18, 1953
2 Claims. (Cl. 198—20)



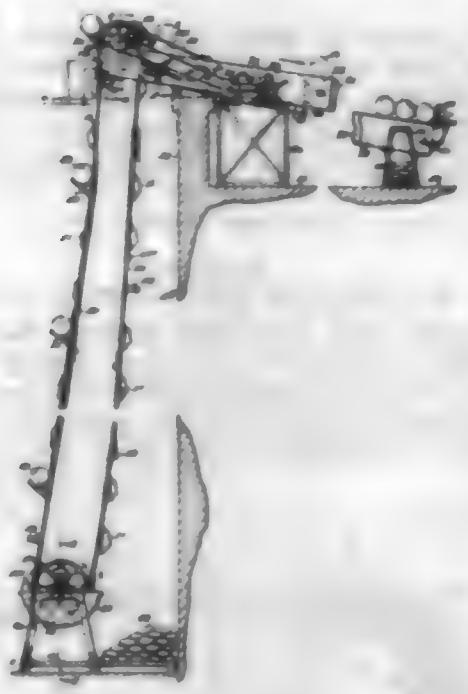
2. In a conveyor system for sheets of fragile baked confection, such as sponge cake, including a receiver conveyor band and a second conveyor band with the respective upper runs substantially coplanar, said receiver conveyor band being lapped about adjustable guide means to form a receiving edge positioned adjacent said second conveyor band in the region of a downward turn thereof, upwardly directed pressure air ejection means extending below said receiving edge over the width of the sheet receiving surface of said receiver conveyor band and adapted to pass air between the two said conveyor bands uniformly along said width, and means for the selective adjustment of said guide means to either one of two positions disposed in a plane substantially parallel to the plane of the upper runs of the two said conveyors, a first position in which said receiving edge is closely proximate to said second conveyor band and a second position in which said receiving edge is well clear of said second conveyor band.

2,870,899
MEANS FOR MOVING ELONGATED OBJECTS TRANSVERSELY OF THE LINE OF TRAVEL THEREOF
Frederick Lawrence Dillingham, Sylacauga, Ala., assignor to Soderhamn Machine Manufacturing Co., Talladega, Ala., a corporation of Alabama
Application March 5, 1954, Serial No. 414,323
5 Claims. (Cl. 198—25)



1. Means for selectively manipulating elongated substantially cylindrical articles to either side of a line of travel in which the articles are moved longitudinally of their axes including at least two ejector planar plates normally positioned in and below the line of travel, each plate having opposite edges extending across the line of travel at an angle to a plane perpendicular to the line of travel, means supported exteriorly of the frame members and out of the line of article travel for selectively and simultaneously rocking the plates to move said edge upwardly into engagement with the article to deflect the same transversely of the line of travel said last-mentioned means including at least one lever arm means connected to one of said plates, link means connected to said lever arm means at one end and at the other end connected to the other plate for transmitting movement of the lever arm means to said other plate and a pivotally mounted double acting fluid motor having a piston directly pivotally connected to said lever arm means below the point of connection of the said one end of the link means therewith, whereby actuation of the motor in either direction directly rocks one plate and through the link means rocks the other with minimum waste of fluid from the motor regardless of which direction of movement the plates are rocked.

2,870,900
CONSTRUCTION ELEVATOR
William B. Will, Honolulu, Territory of Hawaii
Application January 26, 1955, Serial No. 484,157
9 Claims. (Cl. 198—72)

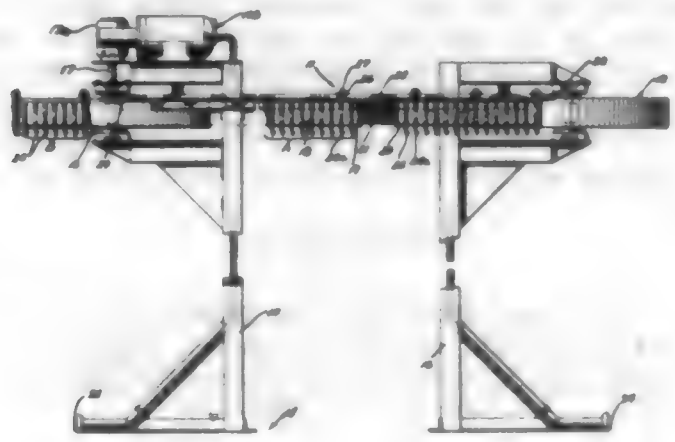


1. A building construction elevator comprising a support, a tail shaft mounted in said support, a guiding idler wheel rotatably mounted on the tail shaft, a vertically disposed building wall having a roof spaced downwardly from the upper edge and extended therefrom, spaced beams mounted in inclined positions on the wall with upper ends of the beams resting upon the upper edge of the wall and with lower ends thereof resting upon the roof, the upper ends of said beams being extended from the wall, the hopper extended between the beams and secured to lower surfaces thereof, an inclined baffle also extended between the beams and positioned to receive products deposited by carriers of the elevator, the inclined baffle guiding products from the elevator to the hopper depending from the beams, a head shaft rotatably mounted on the extended ends of said beams, a sprocket on said head shaft, power means for rotating the head shaft, and a chain having material carrying elements thereon trained over the sprocket and guiding idler wheel.

2,874,991
CALL SERVICE CONVEYOR
Sherwood E. Rinn, Lapeer, Mich.
Application December 19, 1955, Serial No. 554,049
6 Claims. (Cl. 198—177)

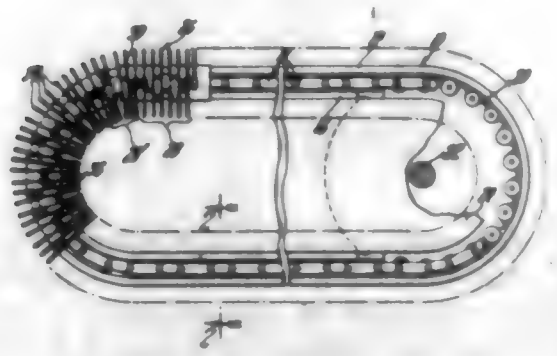
1. A semi-portable endless conveyor comprising: a pair of spaced apart wheels horizontally positioned and supported above a datum plane, each of said wheels having a wide outer peripheral belt engaging surface; a pair of parallel tracks spaced apart substantially the diameter of said wheels and aligned with the upper and outer sur-

faces of said wheels; a broad face friction belt having material carrying supports fixedly and spacedly secured therealong, said belt mounted for movement around said spaced apart wheels in endless manner some of said carrying supports having a portion extending above said belt



and said extensions being provided with rollers to ride in and on said tracks and on and around the upper rim of said wheels; a source of power connected to one of said wheels to drive said one wheel and a control station remote from said motor to control said power source.

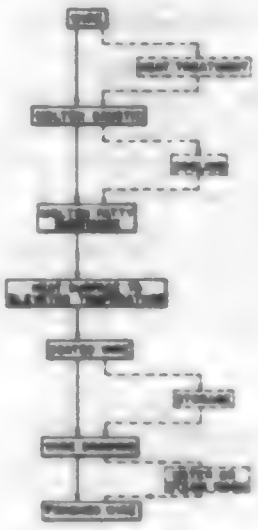
2,870,901
CONVEYER BELT STRUCTURE
Frank Joseph Rada and Karl Richard Bowman, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 20, 1956, Serial No. 579,578
8 Claims. (Cl. 198—181)



1. A conveyer comprising a conveyer belt and guide means for the belt defining a conveyance course which changes direction laterally of the belt, plural mounting members supported on the guide means in spaced relation along the course, said belt being formed of multiple, spaced apart elements extending laterally of the course and terminating in opposite ends, said opposite ends of each element being connected to alternate adjacent elements by a resilient coupling permitting lateral flexure of the belt, the belt being secured to each of said mounting members, and driving means for moving said mounting members along said course.

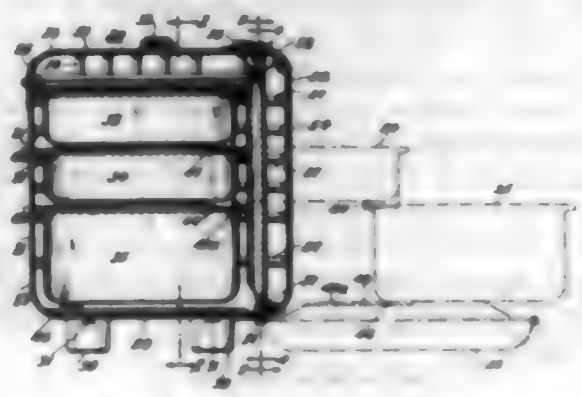
2,870,903
METAL DRAWING LUBRICANT
Joseph Adrien M. Leduc, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
Application April 8, 1955, Serial No. 500,058
2 Claims. (Cl. 205—21)

1. A metal treating process comprising the steps of successively immersing the metal in molten alkali metal hydroxide, immersing said metal in a molten fatty substance which reacts with said hydroxide in situ to form a lubricant layer, and subsequently subjecting the thus-treated metal to heating at an elevated temperature sufficient to remove excess unreacted molten fatty substance without removing said lubricant layer.



2. The process of claim 1 wherein said metal is subjected to drawing following removal of the excess molten fatty substance.

2,870,904
PHYSICIAN'S BAG
John P. Tarbet, Philadelphia, Pa.
Application May 14, 1954, Serial No. 429,987
2 Claims. (Cl. 206—12)



2. A physician's bag characterized by the provision of a body portion, closure means, and trays made of heat-resisting and reagent-resisting material, all of said parts having a self-cleaning construction characterized by round corners and the absence of sharp corners within the interior of the bag, said body portion having a plurality of inwardly extending ribs along opposite sides thereof, said trays being of variable depth and each having an outwardly extending rim portion supported by and slidable on said ribs, said ribs forming the sole support of said trays while disposed within said body portion, each of said trays having a depression extending downwardly from the bottom wall and to a position below a horizontal plane coinciding with the upper edge of the tray below it for interlocking said trays for collective withdrawal in a connected series, said trays being selectively and independently removable and separable from said body portion and from each other, said closure means having a side portion with a configuration substantially identical with the side portion of said body opposite that of said one part of said closure means, said closure means including a top portion hinged to said body portion and movable between open and closed positions, said side portion of said closure means having tray-guiding structure disposed in the path of the bottom tray and engageable with complementary interlocking structure on the bottom of said bottom tray, said bottom tray being movable outwardly of said body portion to expose the contents of said bottom tray and movable an additional distance along said guiding structure to a position completely outside of said body portion and beyond said ribs and in such position supported only by said side portion of said closure, the tray next-above

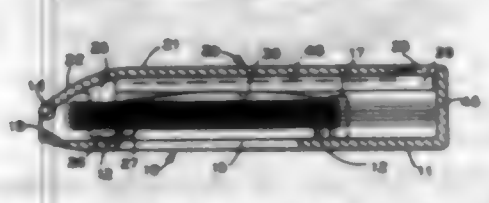
said bottom tray when interlocked therewith being jointly supported by said bottom tray and certain of said ribs, said top and side portions of said closure means being proportioned so that the inwardly facing edges thereof abut the outwardly facing edges of the walls of said body portion, the upper edge of said side portion and the lower edge of said top-portion meeting in face-to-face relation in the closed positions thereof.

2,870,905

RAZOR BLADE PACKAGE

Bartholomew A. Holohan, Little Neck, N. Y., assignor to Club Razor Blade Mfg. Company, Newark, N. J., a corporation of New Jersey

Application July 11, 1956, Serial No. 597,259
1 Claim. (Cl. 206—16)



A razor blade dispensing magazine comprising, in combination, a disengageably interconnected base and cover cooperably providing a pair of spaced substantially parallel walls arranged to form a blade discharge opening at one end of the magazine; the base wall having an access opening therein and posts around said opening having their outer ends in a substantially common plane parallel to the base wall; the cover wall having a lug projecting therefrom for engagement in the usual central slot of razor blades; said lug being between such access and discharge openings and extending inwardly to at least such substantially common plane; a plurality of blades disposed in said magazine; a plurality of paper separator strips disposed in said magazine in alternation with said blades; interengaging means on said strips and in said magazine retaining said strips in said magazine as the blades are dispensed, said interengaging means in said magazine engaging the ends of said blades furthest from said discharge opening to prevent movement of said blades in a direction away from said discharge opening; and spring means engaged with said cover wall to bias the blades toward said posts whereby outward movement of the blades is limited by engagement of said lug in the blade slots; said posts including a pair at the discharge end of said recess spaced laterally substantially the width of the usual reduced end of a blade whereby, when a blade engaging said posts is moved outwardly to near the limit provided by engagement of said lug in the blade slot, the reduced width end of the blade, moving between said pair of posts, will displace the blade inwardly for outward movement beneath said lug, each strip having a tab extending into a blade slot to retain underlying blades against movement when the blade engaging said pair of posts is dispensed.

2,870,906

LIGATURE PACKAGE

Reed B. Harkness, University City, and Eleanor E. Lacey, St. Louis, Mo., assignors to The C. Dewitt Lukens Surgical Manufacturing Company, St. Louis, Mo., a corporation of Missouri

Application September 26, 1956, Serial No. 612,256
2 Claims. (Cl. 206—63.3)

2. A ligature package comprising an elongate cylindrical glass tube having a closed end and an open end, said tube having an inwardly directed annular bead at its open end, an elongate plastic stopper for the open end of the tube, said stopper having an outwardly projecting flange intermediate its ends engaging the tube at its open end, said stopper having a recess opening into the tube and extending outward beyond the flange, the portion of the stopper outward of the flange being relatively thick-walled and hence relatively rigid, the portion of the stopper inward of the flange being relatively thin-walled and hence comprising an annular resilient skirt fitting in the open end of the tube, said skirt adjacent the flange having an external annular ridge providing a groove adjacent the flange for receiving the bead, a coiled ligature in the tube, and a paper label wrapped around the coil, an end portion of the ligature extending from within the label down and around to the outside of the label and thence up into the recess, the end of said portion of the ligature projecting from the tube when the stopper is removed.

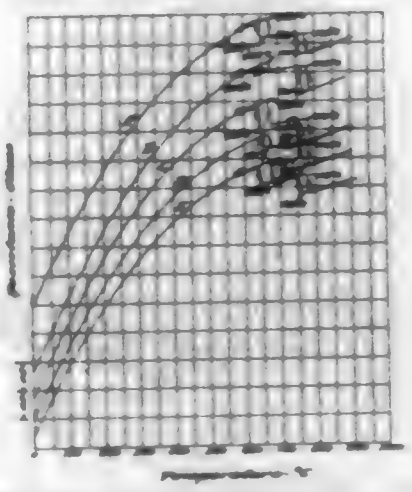


2,870,907

FORMING TUBES AND RODS OF URANIUM METAL BY EXTRUSION

Edward C. Creutz, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application July 22, 1944, Serial No. 546,177
2 Claims. (Cl. 207—10)



1. A method of extruding uranium comprising preheating a billet of uranium in an inert atmosphere to a temperture in excess of 780° C. but below 1100° C., placing the heated billet in an extrusion apparatus wherein the die of such apparatus had been maintained at a temperature of about 870° C. for a sufficient time to produce an oxide film thereon, placing a copper disc between the billet and die of such character as to act as an extrusion lubricant, and extruding said billet while said billet is at a temperature above 780° C.

2,870,908

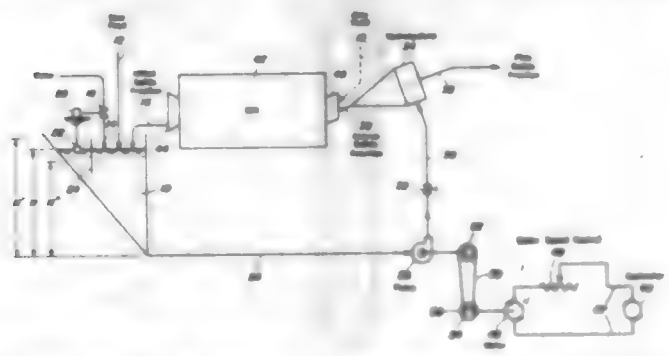
HYDROCYCLONES IN CLOSED-CIRCUIT GRINDING OPERATIONS

Elliot B. Fitch, Westport, Conn., assignor to Dorr-Oliver Incorporated, Stamford, Conn., a corporation of Delaware

Application December 17, 1954, Serial No. 476,266
7 Claims. (Cl. 209—211)

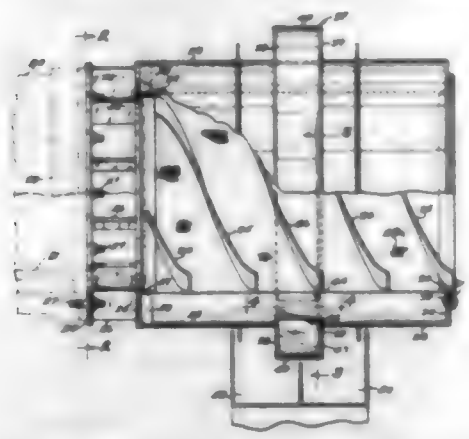
1. A continuous method of hydraulically classifying solid particles into a coarse solids fraction and a fine

solids fraction, which comprises introducing solids to be classified and liquid into a dilution tank whereby feed slurry is formed; removing slurry from the dilution tank while introducing liquid into said tank in direct proportion to variations in the rate of removal of feed slurry; introducing removed feed slurry in a confined stream under hydrostatic head into a hydrocyclone station including at least one hydrocyclone whereby solids in said slurry are hydraulically classified into a fine solids fraction and



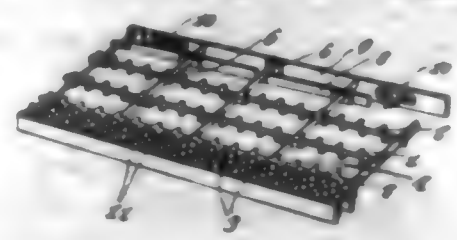
a coarse solids fraction; withdrawing said coarse solids fraction in the underflow of said hydrocyclone; withdrawing said fine solids fraction in the overflow of said hydrocyclone; and controlling the dilution of the feed slurry to the hydrocyclone to give a predetermined mesh of separation by regulating said rate of removal of feed slurry from said dilution tank; and simultaneously controlling the dilution of the hydrocyclone underflow to lie within a volumetric liquid-solids ratio range of 1.0 to 1.5.

2,870,909
PULP SPLITTER
Ira H. Wynne, San Francisco, Calif., assignor to Reserve Mining Company, Silver Bay, Minn., a corporation of Minnesota
Application February 5, 1957, Serial No. 638,383
6 Claims. (Cl. 209—284)



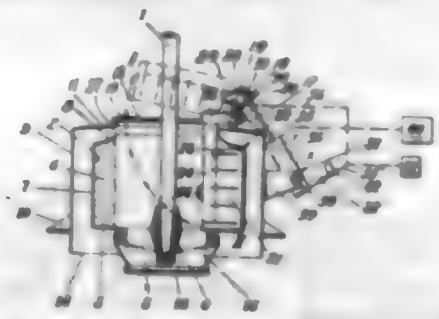
2. Means for receiving a ground agglomerate of varying particle sizes from a processing device and splitting at least a portion of said agglomerate into two distinct streams diverging to respective further processing devices, said means comprising inner and outer coaxial cylinders fixed with respect to each other and rotatable on their common horizontal axis, said inner cylinder having a mesh screen wall portion, means for moving said agglomerate from one end of said inner cylinder towards the other during rotation of said cylinders whereby at least a part of said agglomerate falls through said mesh screen into the space between the cylinders, an annular peripheral channel supported on the wall of the outer cylinder and bounded by a pair of outwardly projecting parallel side walls, and a bottom wall carried thereby, a plurality of partitions extending across said channel at respectively spaced locations whereby to divide said channel into a plurality of segments, said outer cylinder wall being provided with a ring of spaced ports, one port in registry with each segment, said parallel side walls being provided with discharge apertures, one aperture to each segment, the apertures being alternately staggered, right and left in sequence, whereby, when said cylinders are rotated, screened material falls by gravity into said segments in turn, and therefrom out of said staggered apertures in alternate sequence.

2,870,910
SCREEN FOR USE IN OSCILLATING SCREENING DEVICES
Albert Wehner, Neuss am Rhine, Germany, assignor to Bruckenbau Flender G. m. b. H., Duesseldorf, Germany, a company with limited liabilities
Application March 15, 1954, Serial No. 416,318
3 Claims. (Cl. 209—396)



1. A screen for use in oscillating screening devices, comprising an outer frame and an inner frame, said inner frame defining a screening area, a plurality of longitudinal bars adjacent each other, disposed within the confines of said inner frame each longitudinal bar having lateral extensions spaced from each other and projecting into inter-extension spaces of the longitudinal bars adjacent thereto, said longitudinal bars and extensions extending throughout said area, alternate longitudinal bars defining a first group and being supported for movement in unison relative to the other longitudinal bars defining a second group, said outer frame and said inner frame being reciprocally movable parallel relative to each other in the direction of elongation of said longitudinal bars, each frame supporting transverse rails, the longitudinal bars of said first group being supported by the transverse rails of one of said frames, and the longitudinal bars of the other group by the transverse rails of the other frame, and connecting means interconnecting said frames and operable for guiding one frame parallel relative to the other, said inner frame including said connecting means being disposed entirely within the confines of said outer frame.

2,870,911
SCRAPER BLADE DEVICE
Francesco Moretti, Terni, Italy, assignor to Officine Meccaniche e Fonderie A. Bosco S. p. A. Terni, Italy, a company of Italy
Application August 17, 1956, Serial No. 604,666
Claims priority, application Italy October 19, 1955
6 Claims. (Cl. 210—147)



1. A centrifugal hydroextractor for the production of sugar which comprises in combination an outer stationary casing having the bottom and the top wall each provided with a central aperture, a cover for each of the said apertures, each of said covers having two sectors arranged to be closed and open with respect to each other, a first support fastened outwardly of the upper wall of the casing, a second support fastened to the side wall of the casing, a shaft suspended for rotation above the said casing and extending into the said casing and rotating

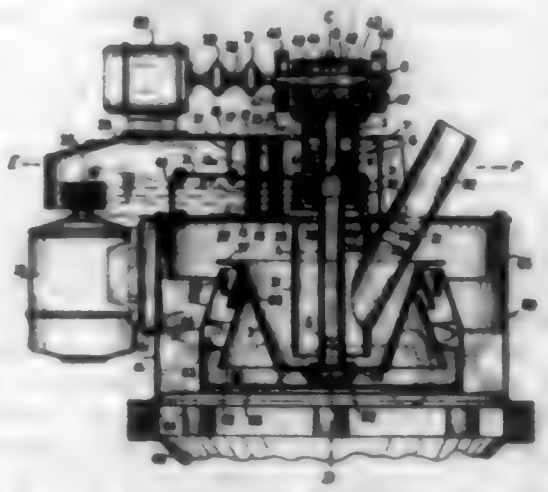
therein, a basket contained in the said casing and mounted on said shaft and rotating therewith, said basket having a bottom having outlets and the top wall having a central aperture corresponding to the central aperture of the top wall of said casing, said top wall of the basket having a convex surface curving toward the inside of said basket, a scraper comprising a rod, a blade and a connecting member perpendicular to the rod pivoted to the said first support on the casing, said scraper being swingable in a vertical plane parallel to the rotational axis of the hydroextractor from an inoperative position outside the casing to a plurality of operative positions inside the casing along an arc of a circle having a radius equal to the radius of curvature of the said convex surface of the top wall of the basket, said scraper having a side edge parallel to the said rod of the scraper and having an upper edge having a convex form defining with the said side edge a corner which when the scraper has reached the last of the said plurality of operative positions inside the basket, faces the side and top wall of the basket, a pneumatic control device pivoted at one end to the said second support on the side wall of the said casing and operatively connected to said rod of the scraper for controlling the swinging of said scraper, a safety device pivoted on the said first support on the upper wall of said casing and engaging said scraper for preventing the swinging of the said scraper except under certain conditions, an oil damper mounted between said scraper and said casing for controlling the downward swinging speed of said scraper during the passage of the scraper from the first to the last one of the said plurality of operative positions inside the basket, and a reservoir of compressed air connected to said pneumatic control cylinder and the said safety device for supplying compressed air thereto.

2,870,913

CENTRIFUGAL DEVICE FOR DEHYDRATING A FINE-GRANULAR MATERIAL

Wolfgang Gertrud Joseph Heckmann, Köln-Deutz, Germany, assignor to Klöckner-Humboldt-Deutz Aktiengesellschaft, Köln, Germany, a corporation of Germany

Application October 27, 1954, Serial No. 465,846
Claims priority, application Germany October 30, 1953
14 Claims. (Cl. 210—370)



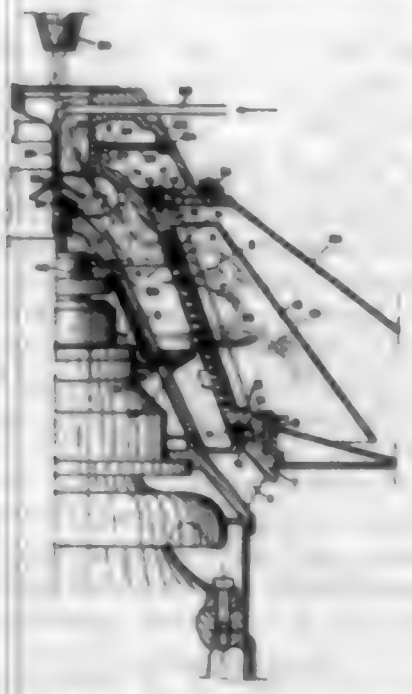
14. A centrifugal device for dehydrating a fine-granular material comprising, in combination: a frame, a casing resiliently mounted on said frame for performance of vibrating movements substantially in the direction of its longitudinal axis, a shaft, a first portion of said shaft being rotatably and axially immovably arranged in said casing, a second portion of said shaft projecting from said casing, a sieve drum surrounding at least a part of said second portion of said shaft and being rigidly connected therewith, means for rotating said shaft, a second shaft arranged on said casing at an angle to said shaft, means for rotating said second shaft, coupling means including resilient parts for coupling said second shaft with said means for rotating the same, and at least one weight arranged eccentrically on said second shaft and imparting to the same vibrations in the transversal direction thereof, said transversal vibrations imparting axial vibrations to said casing whereby said sieve drum is subjected to vibrating movements in addition to its rotating movements.

2,870,912

APPARATUS TO SEPARATE THE SOLID PARTICLES IN A LIQUID SOLUTION AND TO DRY SAID PARTICLES

François Joseph Henri Mathieu, Saint-Cloud, France, assignor to Societe Ire Construction Guinard, Courbevoie, France, a corporation of France

Application August 11, 1955, Serial No. 527,742
Claims priority, application France August 11, 1954
3 Claims. (Cl. 210—213)



1. Apparatus to separate the solid particles from a liquid suspension including a cone adapted to be rotated round its axis and provided on its outer surface with helical scrapers, a truncated basket surrounding said cone, forming with said cone a passage chamber in which are disposed the scrapers and adapted to be rotated in the same direction as the cone but at a different speed, means to introduce in said chamber a suspension of solid particles in a liquid, means to discharge in separate zones, on the one hand the liquid of the suspension and on the other hand the solid particles, apertures provided in the cone in the zone corresponding to the discharge of the crystals, means provided in the axis of the cone to introduce in said cone a washing liquid passing through said apertures into said chamber, and gaps provided in the scrapers at the level of the apertures and extending substantially in the direction of the aforesaid cone axis whereby the solid particles are withdrawn from the action of the scrapers and undergo a prolonged washing.

2,870,914

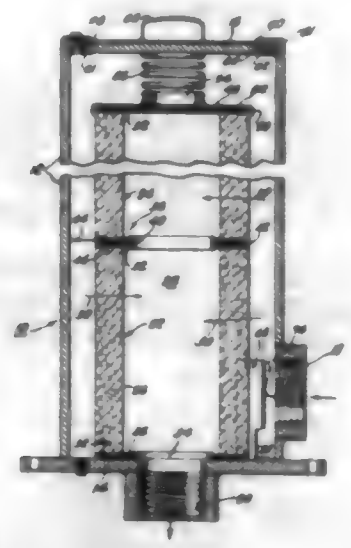
LIQUID FILTER STRUCTURE

Alexander Bloch, East Norwalk, Conn., assignor to Consolidated Diesel Electric Corporation, Stamford, Conn.

Application March 6, 1957, Serial No. 644,262
3 Claims. (Cl. 210—453)

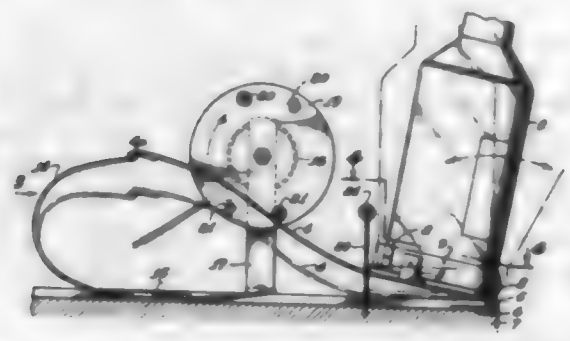
1. Filter apparatus comprising in combination a tubular casing having a closed end and an open end provided with a removable cover, and filtering means including a plurality of tubular filter cartridges assembled end to end in said casing and forming therewith in effect an outer

chamber having an inlet port and an inner chamber having an outlet port, said cartridges being readily insertable into and removable from said casing through said open end, and each of said cartridges having a flat annular bearing and sealing plate at each end, removable cartridge positioning and guiding means slidable to and from operative position longitudinally in the casing and including a collar disposed coaxially in said inner chamber and overlapping opposed end portions of adjacently positioned cartridges when assembled therewith, said collar



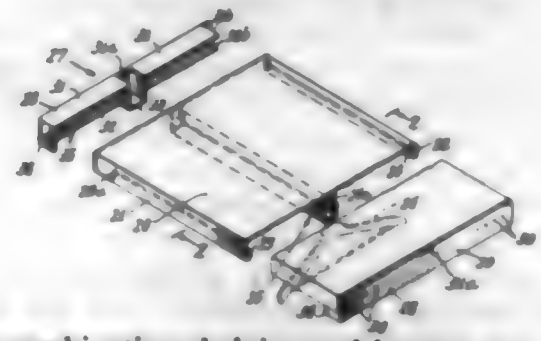
having a flat peripheral annular flange extending between said opposed cartridge ends, and said flange having circumferentially spaced lugs extending radially therefrom across said outer chamber without impeding the flow of liquid therethrough and whereby said cartridges, said collar and said flange are retained substantially coaxial in said casing, and spring means between the cover and an end one of said cartridges assembled in the casing for exerting endwise pressure thereon and thereby retaining said cartridge ends in effective non-leaking engagement one with another and with portions of said casing.

2,870,915
DISPLAY MEANS
William Clyde Adams and Alvin D. Andersen, Norwalk, Calif.
Application February 20, 1956, Serial No. 566,648
2 Claims. (Cl. 211—1.5)



1. A display device for containers, including an elongated strap provided with a cut-out portion, means hinging one end of said strap to a supporting element, means carried by said strap adjacent its hinged end for securing the article to be displayed, means for the opposite end of said strap normally elevating said end to tip the display device carried thereon, and means for depressing the said strap and the third named means to move the element being displayed from a tipped position to a vertical position, said means for depressing the said strap comprising a depressor arm for engagement with the strap and for releasing said strap through said cut-out portion.

2,870,916
COMBINED SHELF AND HANGER MEANS AND IMPROVED SUPPORT THEREFOR
Vincent La Bonia, North Haven, and John W. Platt, West Haven, Conn., assignors to The Platt & La Bonia Company, North Haven, Conn., a corporation of Connecticut
Application June 5, 1956, Serial No. 589,542
14 Claims. (Cl. 211—90)



1. A combination shelving and hanger means and support therefor comprising a shelf, hanging means dependingly connected to said shelf and extending longitudinally of said shelf for supporting garment hangers, and supporting means for supporting said shelf and hanging means between suitable planar supporting surfaces disposed at and perpendicular to the ends of said shelves, said supporting means including a pair of elongate bracket members having a mounting portion extending for the full length thereof and adapted to be connected to said supporting surfaces and having means to support said shelf thereon, said brackets having a member projecting from the face of the mounting portion and forming a means extending under said hanging means for supporting said hanging means depending from said shelf to prevent deformation of the same when a load is applied thereto by hanging a number of garments thereon.

2,870,917
HANGER SUPPORT
Axel E. F. Johnson, Cincinnati, Ohio, assignor to American Hospital Supply Corporation, Evanston, Ill., a corporation of Illinois
Application February 14, 1955, Serial No. 487,969
2 Claims. (Cl. 211—105.1)



1. A hanger support formed from a single integral bar of flat sheetmetal and comprising a longitudinal-extending channel member in the form of an inverted V in cross section and endpieces extending at right angles to said channel member and forming inverted channels adapted to engage supporting bars, said endpieces being provided with vertical end walls connected to said longitudinally-extending channel member by downwardly-inclined web portions merging with the side walls of said longitudinal member and the crest of said channel near each endpiece being bulged upwardly where it merges with said endpiece, said web portions lying along planes substantially parallel with said end walls and being spaced therefrom for receiving supporting bars therebetween.

2,870,918
ADJUSTABLE CURTAIN, BLIND AND DRAPE HOLDER
Emmett Leroy Grubbs, Michigan City, Ind.
Application May 31, 1956, Serial No. 588,539
1 Claim. (Cl. 211—105.2)

A frictionally self-sustaining support for application within a window opening to support articles in spaced rela-

tion from the plane of said opening, comprising a pair of relatively spaced, oppositely laterally presented gripping feet, means connected between said feet for spreading same laterally apart for gripping engagement with the opposite sides of a window opening, and braces rigidly connected to said support and carrying supporting feet on the relatively remote sides of said gripping feet and out of alignment therewith, in combination with article support-

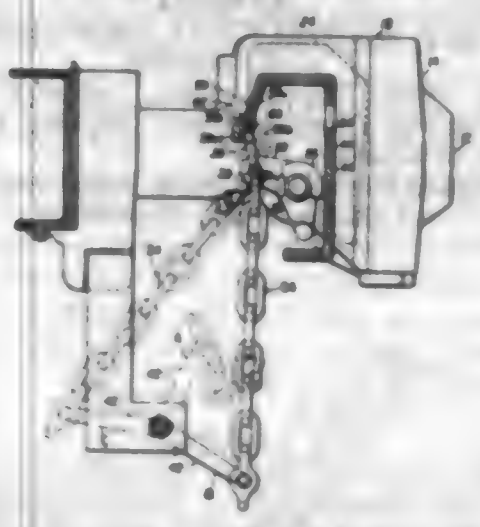


ing brackets carried by said support for adjustment horizontally relative to a vertical plane through said feet, said braces being carried by said brackets and extending diagonally below said means connected between the feet and toward said vertical plane for abutting engagement with a supporting surface at one side of the window opening, and means associated with the respective braces for adjusting same diagonally toward and away from said plane.

2,870,919
CAR COUPLER

William J. Metzger, East Cleveland, Ohio, assignor to National Malleable and Steel Castings Company, Cleveland, Ohio, a corporation of Ohio

Application August 16, 1955, Serial No. 528,634
11 Claims. (Cl. 213—100)



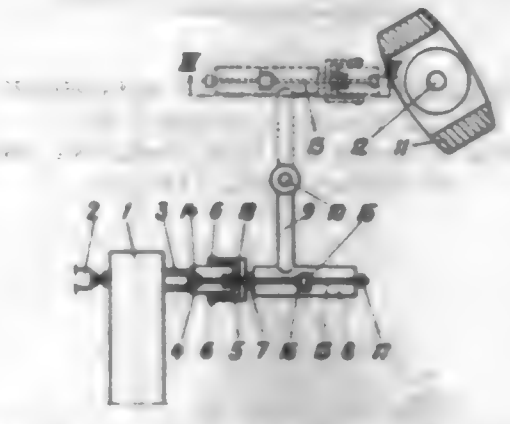
10. In a car coupler of the rigid-jawed type having a head, a movable lock, said lock automatically assuming a forwardly projecting locking position and being movable rearwardly to unlocking position, a rotatable lock operating lever for moving said lock to unlocking position, said lever having an opening therein, a lock neutralizing link loosely received in said opening in pivotal relationship with said lever, abutment means on said link and on said head, said means on said link being moved into holding relationship with said means on said head upon predetermined rotation of said lever to retain said lock in said last mentioned position.

2,870,920
ARRANGEMENT FOR CHARGING EXTRUSION PRESSES WITH INGOTS, BLOOMS OR BILLETS FROM METAL

Olof Alvar Granström and Erik G. M. Hockzell, Vasteras, Sweden, assignors to Aktiebolaget Svenska Metallverken, Vasteras, Sweden, a joint stock company limited of Sweden

Application August 22, 1955, Serial No. 529,748
Claims priority, application Sweden September 2, 1954
3 Claims. (Cl. 214—1)

5. An apparatus for receiving a billet in a horizontal position from a billet furnace and for transferring said billet to a vertically disposed receptacle of an extrusion press, said apparatus comprising an arm mounted for pivotal movement about a vertical axis, extensible and retractable means carried by said arm, a tubular billet receiving basket open at both ends and pivotally mounted on said means for movement about a horizontal axis, an actuating rod pivotally secured at one end to said basket, a guide member carried by said arm, the opposite end of said rod being slidably received in said guide member, spaced stop collars fixed to said rod on opposite sides of

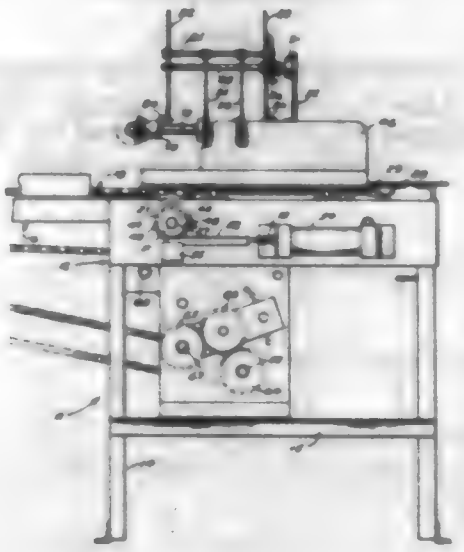


said guide member and billet supporting means disposed below said basket whereby upon movement of said extensible and retractable means to move said basket away from said arm one of said stop collars will engage said guide member and cause said rod to move said basket from a horizontal to a vertical position, said supporting means retaining a billet in said basket until the same reaches a vertical position and upon retracting said extensible and retractable means the other stop collar will engage said guide member and said rod and will return said basket to horizontal position.

2,870,921
CELL QUANTITY SELECTOR FOR BATTERY PLATES

Herbert C. Winkel, Watervliet, Mich.

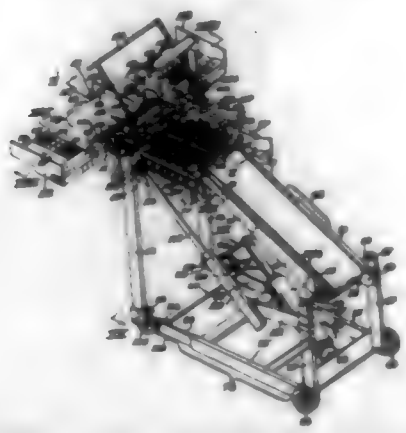
Application November 30, 1953, Serial No. 395,282
5 Claims. (Cl. 214—6)



1. In a machine for selecting and stacking substantially rigid sheets, the combination comprising: a receiving surface; a feeding conveyor positioned above said surface and terminating at one end adjacent one edge of said surface, said conveyor being provided with lugs of substantial length; means effecting continuous movement of said conveyor; an engaging member supported for movement across said receiving surface toward and away from a point adjacent to the end of said conveyor; mechanism effecting such movement of said member so timed with the continuous movement of said conveyor that said member will be positioned adjacent said end of said conveyor for engaging the leading edge of a sheet urged toward said member by one of said lugs and holding said

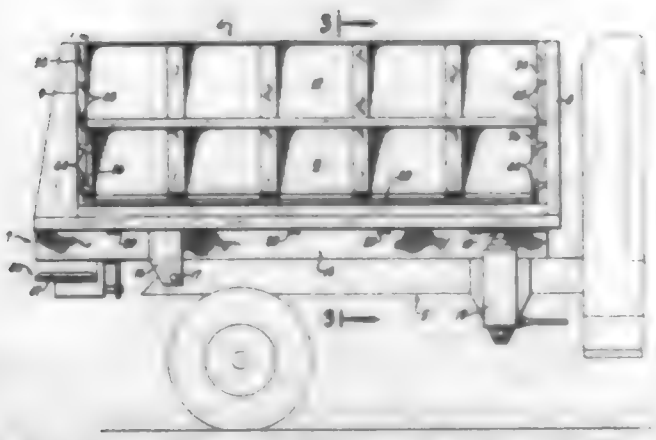
sheet in an inclined position and against further movement for a period of time sufficient to permit said lug to move under said sheet for engaging the trailing edge thereof and said member then moving away from said point a distance substantially equal to the dimension of said sheet in its direction of travel on said conveyor and there cooperating with said lug for holding said sheet in a horizontal position, said engaging member and said lug then moving apart substantially simultaneously to drop said sheet onto said surface.

2,870,922
PACKAGE HANDLING MACHINE
Ely K. Thomsen, Orange, Tex.
Application February 23, 1955, Serial No. 489,992
38 Claims. (Cl. 214—6)



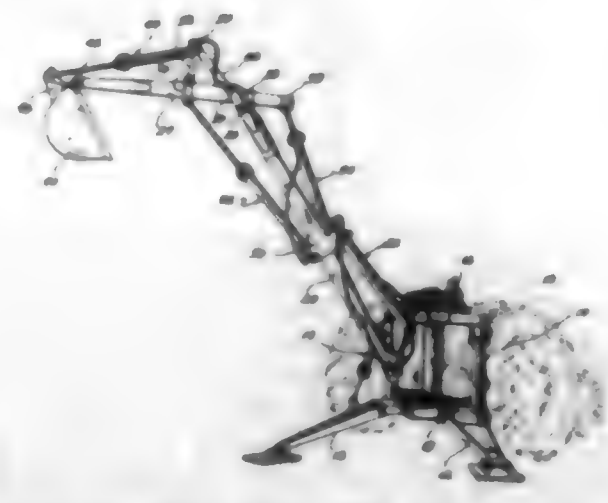
1. A package handling machine comprising an elevatable carriage, means for raising and lowering said carriage, package turning means carried by said carriage, operating means carried by the carriage for turning said turning means, a package supporting member reciprocable in a substantially horizontal plane toward and away from said carriage, means for transferring packages from said turning means to said package supporting member, and means carried by said carriage for discharging packages from said package supporting member.

2,870,923
CONVERTIBLE DUMP BODY
Lisle A. Jewell, Jr., Kinsman, Ohio
Application May 23, 1957, Serial No. 661,245
3 Claims. (Cl. 214—83.36)



1. In a vehicle body having a frame and spaced apart upright front, rear and side walls supported by the frame: a pair of fixed side wall members supported by the frame in upright positions along opposite sides of the body and each having its lower edge spaced a substantial distance above the bottom of the body; a pair of movable side wall members; means on the frame mounting one of said movable side wall members upright along each side of the body for up and down motion between a lower position in which the movable member spans the gap between the lower edge of the adjacent fixed side wall member and the bottom of the body and an upper position in which the movable side wall member flatwise overlies the outer surface of the fixed side wall member; a conveyor supported by the frame and extending lengthwise along the bottom of the body with its longitudinal side edges spaced from the side walls; means providing a flat substantially horizontal bottom for the body, comprising a pair of movable complementary floor members, each lying flatwise upon the frame and providing one longitudinal half of said bottom; means hingedly connecting the outer longitudinal edges of the floor members with the lower edges of the adjacent movable side wall members for movement therewith between a dump body position in which the movable side wall members are in their lower positions and the floor members are disposed substantially horizontally upon the frame and overlie the conveyor, and a hopper position in which the movable side wall members are in their upper positions and the floor members are held thereby in sloping positions inclined inwardly and downwardly toward the conveyor with their inner edges spaced apart and near the sides of the conveyor to expose the same; cooperating guide means on the frame adjacent to the opposite sides of the conveyor, and on inner longitudinal edge portions of the floor members to support said inner edge portions of the floor members at substantially the same level adjacent to the top of the frame in any position of the floor members; and means for readily releasably holding each of the movable side wall members in either its upper or its lower position.

2,870,924
BUCKET AND BUCKET ARM CONTROL FOR BOOMS
Marion C. Wills, Topeka, Kans., assignor to Shawnee Manufacturing Company, Inc., Topeka, Kans., a corporation of Kansas
Application January 16, 1956, Serial No. 559,483
3 Claims. (Cl. 214—138)



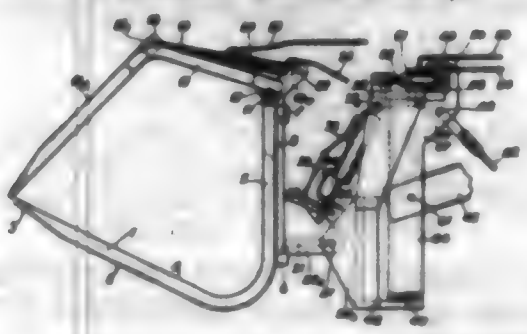
1. In a machine of the kind described, the combination of a boom; an arm; means spaced from one end of the boom swingably mounting the arm on the boom; a material handling device swingably mounted on the arm; a first link pivotally connected to the boom at said one end thereof; a second link pivotally connected to the arm intermediate the ends of the latter; a double-action, hydraulic piston and cylinder assembly pivotally connected to the material handling device; and pivot means interconnecting the links and the assembly for swinging the material handling device relative to the arm in response to swinging of the arm relative to the boom, said links and said assembly progressively and continually increasing the angle between the device and the arm when the latter is swung in one direction and progressively and continuously decreasing said angle when the arm is swung in the opposite direction.

2,870,925

APPARATUS FOR STOCKING SMALL LOGS AND PICKING UP SAME FROM A STOCK FOR LOADING VEHICLES

Jacques Joachim Bernud, Auby, Armand Novion, Rieulay par Marchiennes, and Michel Jean Labloche-Combier, Neuves-Maisons, France, assignors to Société Anonyme dite: Societe Auxiliaire de l'Entreprise "Auxen", Paris, France

Application March 6, 1957, Serial No. 644,234
Claims priority, application France March 15, 1956
8 Claims. (Cl. 214—147)



1. A crane for transferring substantially cylindrical stacked logs from one stack to another, which comprises an automotive vehicle, a platform mounted for rotation on said vehicle about a vertical axis, a boom pivoted on said platform about a substantially horizontal luffing pivot, a supporting structure pivoted on the outer end of the boom about a pivot pin parallel to the axis of the luffing pivot of said boom, a support in front of and pivoted on said supporting structure about a vertical pivot pin, a first fork in front of and pivoted on said support about a horizontal pivot pin, another fork pivoted above said first fork about a pivot axis parallel to the pivot axis of said first fork, means adapted to maintain in a vertical position the pivot pin by which said support is pivoted on the supporting structure irrespective of the inclination of the boom relative to the vehicle, other means for controlling the pivotal movement of said support relative to said supporting structure, means for controlling the pivotal movement of first fork relative to said support, and means for controlling the pivotal movement of other fork relative to said first fork so as to open or close the jaw constituted by said first and other forks.

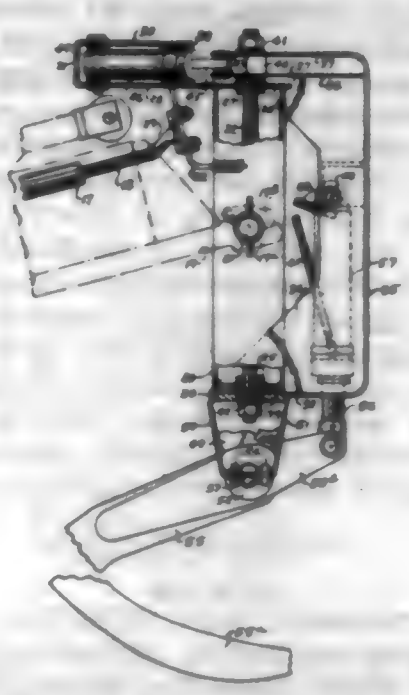
2,870,926

LIFTER ATTACHMENT FOR MATERIAL HANDLING AND EARTH MOVING APPARATUS

William M. Shook, New Philadelphia, Ohio, assignor to The Warner & Swasey Company, Cleveland, Ohio, a corporation of Ohio

Application May 6, 1957, Serial No. 657,323
9 Claims. (Cl. 214—147)

1. A lifter attachment of the character described suitable for an extensible telescopic boom comprising a supporting cylinder provided on its circumference with diametrically located trunnion posts adapted to be journalled in bearings at the end of a carrying element such as a boom whereby said cylinder can swing about the axis of said trunnion posts, a shaft mounted longitudinally in said cylinder and having its opposite ends located beyond the upper and lower ends of said cylinder and with its axis extending transversely to the axis of said trunnion posts, a generally C-shaped carrier support having an intermediate portion at the opposite ends of which are parallel arms mounted on the opposite ends of said shaft whereby said carrier support straddles said cylinder and can swing relative thereto on the axis of said shaft, a carrier support actuating power device carried by said cylinder at the upper end thereof, means operatively connecting said power device to said carrier support to swing the latter relative to said cylinder, the arm of said carrier support at the lower end of said cylinder mounting a carrier having downwardly extending supporting means, a pintle post carried by said supporting means and parallel to said trunnion posts and extending transversely to the axis of said shaft, a hook member swingably mounted on said pintle post and including a portion extending beyond said supporting means and underlying the intermediate portion of said carrier support, a hook member actuating power



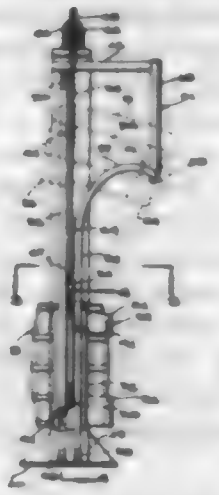
device pivotally connected to said intermediate portion of said carrier support, and operative connections between said last mentioned power device and said extended portion of said hook member whereby actuation of said power device rocks said hook member about said pintle post.

2,870,927

ELEVATING AND DUMPING DEVICE

John S. Warren, Winnebago, Minn.; Theresa Z. Warren, administratrix of said John S. Warren, deceased

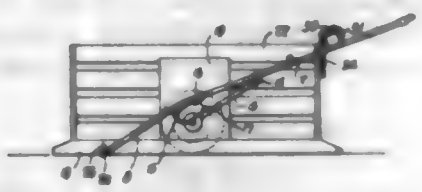
Application December 7, 1956, Serial No. 626,965
2 Claims. (Cl. 214—313)



1. In a hoisting and dumping device, a supporting structure including straight, vertical rear guide rails and front guide rails including approximately vertical lower portions closely spaced from the rear guide rails and forwardly, arcuately and upwardly bowed upper end portions; a carriage for supporting a container the contents of which are to be dumped, said carriage being slidably mounted on the front and rear guide rails so as to be tilted to a container-dumping position on travel of the carriage onto the upper end portions of the respective guide rails; means connected to the carriage and carried by the supporting structure for shifting the carriage upwardly upon the guide rails, said carriage including a yoke connected to said means, said yoke being of inverted U-shape, and a container support member pivotally connected to and embraced by the legs of the yoke, said container support member pivoting on an axis extending transversely between the legs of the yoke, the container support member being slidably

connected to both the front and rear guide rails so as to be tilted on its pivot axis responsive to movement of the yoke along the guide rails, said container support member being of a U-shape so as to include a bight portion on which the container may be supported; and retaining brackets mounted upon the container support member for adjustment toward and away from the bight portion thereof for clampably engaging the supported container between the brackets and said bight portion, the container support member including legs extending from the bight portion adjacent the respective guide rails, said brackets being of inverted L-shape and including first legs extending longitudinally of the respective legs of the container support member and connected to said legs of the container support member for adjustment longitudinally thereof, and short second legs spaced widely apart in the container support member and extending laterally inwardly from the respective legs of the container support member toward each other to engage opposite sides of the supported container.

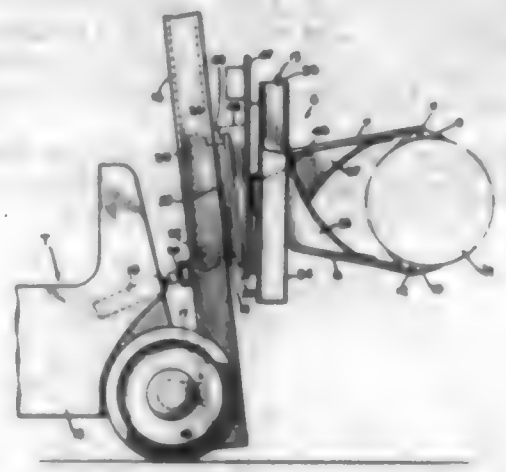
2,870,925
COMBINATION VEHICLE
John M. Haggard and Paul H. McMurray, Delphi, Ind., assignors to Delphi Products Company, Incorporated, Delphi, Ind., a corporation
Application December 19, 1955, Serial No. 553,887
1 Claim. (Cl. 214—373)



In a vehicle of the class described, a yoke-like frame comprised of side members having wheel means secured thereto, said frame being closed forwardly and open rearwardly to straddle a body provided with hook-engaging means to be carried by said vehicle; said side members terminating rearwardly in hook means pivotally engageable with said hook-engaging means substantially at the rear of said body; a lifting mechanism carried by said frame forwardly thereof and having means for engaging said body at a forward portion to lift said forward portion so as to pivot said body around said engaged hook means, abutment means comprising horizontal shoulders and vertical shoulders carried by said frame forwardly thereof engageable by said body at the forward portion thereof subsequent to being lifted by said lift mechanism, said lifting mechanism comprising lever means movable beyond dead center for lockingly maintaining tight engagement between said body and said abutment means.

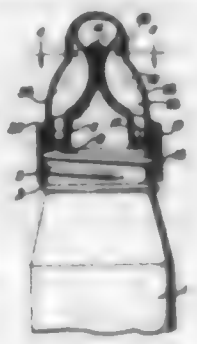
2,870,929
LOAD MANIPULATING DEVICE FOR LIFT TRUCK
George F. Quayle, Philadelphia, Pa., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut
Application September 25, 1956, Serial No. 611,878
8 Claims. (Cl. 214—652)

1. In a truck of the class described, a pair of uprights, means for tilting said uprights, a carriage mounted for movement on said uprights in a linear direction determined by the vertical position of said uprights, a pair of clamping arms, means mounting said clamping arms to rotate with one another on said carriage and also to move relatively to one another for gripping a cylindrical load therebetween, a portion of said mounting means lying at an angle of six degrees to said uprights whereby to hold said clamping arms equidistant longitudinally from said truck when said uprights are tilted rearwardly six degrees from their normal vertical position, and said mounting means by so holding the clamping arms causing one of said clamping arms to overreach the other



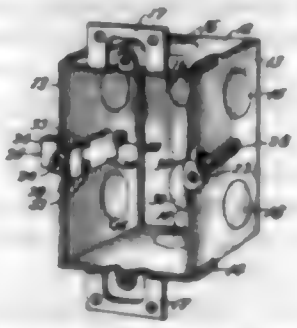
when said clamping arms are in vertically aligned relation and said uprights are in their normal vertical position on said truck.

2,870,930
NURSING BOTTLE ASSEMBLY
Constance Bannister and Joseph H. Hatcher, New York, N. Y.
Application January 24, 1958, Serial No. 710,900
11 Claims. (Cl. 215—11)



1. A nursing bottle assembly, including in combination, a bottle, a nipple removably mounted thereon, and a cover and sealing organization for said nipple, said organization being removably mounted on said bottle and enveloping said nipple, a pair of arms pivotally mounted in opposing positions on said organization with said nipple therebetween, and said arms being swingable toward each other to positions engaging and compressing said nipple to prevent leakage of fluid therefrom, said arms having curved surfaces engaging said nipple, and means on said organization coactive with said arms to maintain them in operative position.

2,870,931
ELECTRICAL CONNECTION BOXES
Christopher C. Beckels, Chicago, Ill.
Application January 28, 1953, Serial No. 333,749
7 Claims. (Cl. 220—3.6)



1. A box for electric connections including oppositely positioned gates each comprising a ring formed from a side of the box and connected to the side integrally by narrow webs on opposite sides thereof extending away

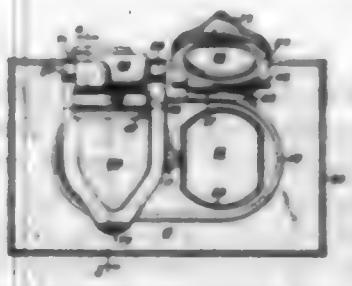
from the ring an appreciable length and twisted by turning the ring to lie in a plane perpendicular to said side, a slot in each of said sides extending away from said gate and being wider adjacent to the ring than the width of the ring to form said webs, a clamp extending through each slot, a screw passing through each ring and threaded to the associated clamp to draw it forward in the slot and a pair of opposed brackets each carried by a wall of the box to limit the movement thereof, said clamps each being slotted to guide the same along the slot and each having a leg extending along the slot and closing a part thereof.

2,878,932
MINNOW AND TACKLE CONTAINER
Peter J. Davis, Camden, Ark.
Application March 21, 1958, Serial No. 722,947
2 Claims. (Cl. 220—23)



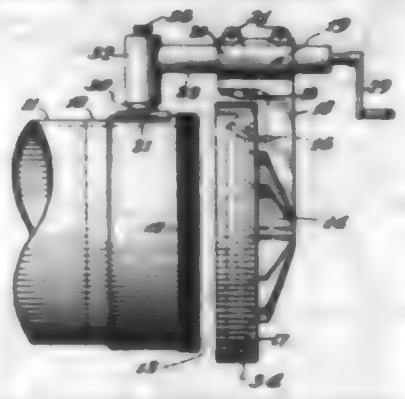
1. In combination, a bucket adapted to contain minnows or similar bait, a centrally apertured horizontal top wall member on said bucket providing access to the contents of the bucket through the aperture thereof, and a tackle box pivotally connected to said top wall member on a vertical pivot axis, said tackle box being formed and arranged to at times cover the central aperture of said top wall member but being swingable horizontally at other times to an uncovering position relative to said aperture, said tackle box being provided with a top cover swingably mounted thereon.

2,878,933
WATERPROOF WALL PLATE WITH HINGED LIDS
Paul H. Winter, Syracuse, N. Y., assignor to Pass & Seymour, Inc., Syracuse, N. Y., a corporation of New York
Application February 14, 1957, Serial No. 640,128
10 Claims. (Cl. 220—24.3)



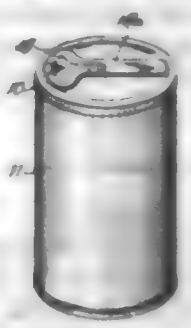
1. In a waterproof wall plate assembly for an electric convenience outlet, in combination, a metal wall plate for covering the face of an outlet box and having an access opening therethrough for exposing a convenience outlet in the box to receive an attachment plug, a lid for said opening comprising a rigid plate having a pair of substantially parallel spaced arms extending beyond one end thereof, aligned pivot pins extending toward each other, one from each arm and having their facing ends separated a fixed distance, a block integral with said plate and extending above the top surface thereof adjacent said opening, the top surface of said block being flat and parallel to the plate top surface, aligned, half cylindrical notches in said block spaced said fixed distance to receive and act as bearings for said pivot pins, a cover for said block shaped to hold said pins in said notches and interengaging integral parts on the block and cover exposed beyond one edge of the plate for securing the cover to the block.

2,878,934
SCRAPER TRAP CLOSURE
Arthur M. Hill, Tulsa, Okla., assignor to Service Pipe Line Company, Tulsa, Okla., a corporation of Maine
Application May 31, 1955, Serial No. 512,011
7 Claims. (Cl. 220—33)



1. A support for an end closure of a substantially horizontally disposed pipe comprising a pedestal fixed to said pipe, the axis of said pedestal being substantially vertical and passing substantially through the axis of said pipe, crane means having an arm mounted to rotate on said pedestal, the axis of said arm being substantially parallel to the axis of said pipe, a carriage movably mounted to travel axially along said arm, a closure head for said pipe, and support means connecting said head to said carriage with the axis of said head substantially parallel to the axis of said arm.

2,878,935
CONTAINER SEAL
Ayres Houghtelling, New York, N. Y., assignor of fifty percent to Suzanne Kaaren Blackmer, Salisbury, N. C.
Application January 27, 1955, Serial No. 484,398
4 Claims. (Cl. 220—53)



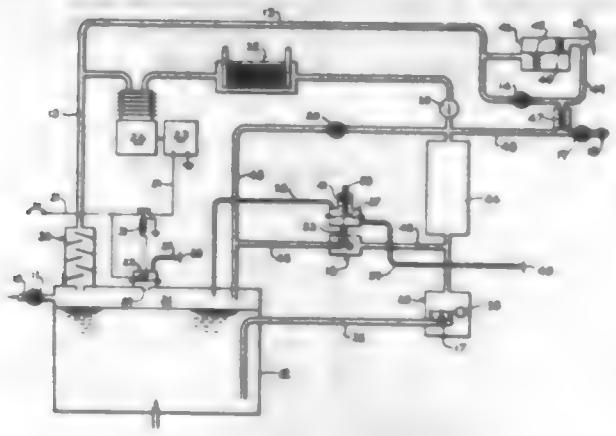
1. In a container, a rigid wall having a pre-formed opening therein, a preformed, cover of a polymeric, plastic material overlying the edge defining said pre-formed opening in the rigid wall and being detachably secured to the outer surface of the rigid wall surrounding the opening therein, said cover being formed with an edge portion thereof which serves as a lift tab for the cover, and a semi-rigid, relatively thin inner seal of the same material as the cover, the inner seal adhering to the inner surface of the rigid wall surrounding the edge defining the pre-formed opening and fused to the portion of the underside of the semi-rigid cover which is exposed by the pre-formed opening, forming an integral coherent structure across the opening whereby the removal of the outer cover will lift with it the inner seal against the edge defining the opening, thereby severing for removal with the cover only that part of the inner seal which is coincident with the opening in the wall, the remaining portion of the inner seal still adhering to the inner surface of the wall so as not to fall into the container.

2,870,936

CLOSED SYSTEM FOR VENTING AND INERTING AIRCRAFT FUEL TANKS

Arthur J. Clayton, Seattle, Wash., assignor to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware

Application March 18, 1957, Serial No. 646,705
10 Claims. (Cl. 220—88)



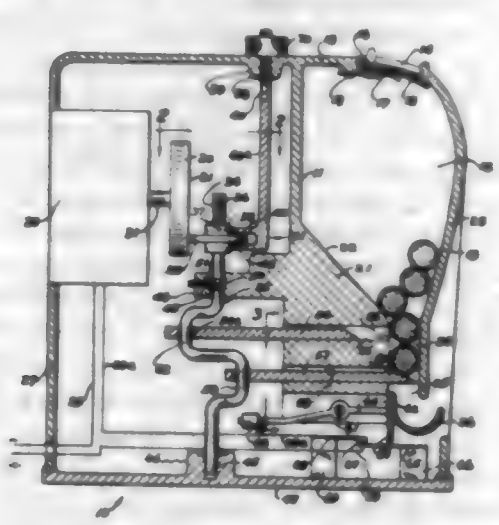
1. A closed system for simultaneously and continuously inerting and maintaining the vapor space or chamber in a fuel tank at a pressure substantially equivalent to ambient atmospheric pressure regardless of changes in such atmospheric pressure, comprising: a pressure reservoir for storing inert gas and fuel vapor at a pressure greater than external ambient atmospheric pressure; a first passageway connecting the reservoir with the fuel tank vapor chamber; flow blocking means interposed in said passageway responsive to an increase in external ambient atmospheric pressure to open communication between the reservoir and the vapor chamber, and responsive to the resulting equalization of external ambient atmospheric and internal vapor chamber pressures to again block communication between reservoir and vapor chamber; a second passageway connecting the reservoir with the vapor chamber; power driven vapor moving means interposed in the second passageway; and means responsive to a decrease in external ambient atmospheric pressure to render the vapor moving means operative to draw gas and vapor from the vapor chamber and to force it into said reservoir, and responsive to the resulting equalization of external ambient atmospheric and internal vapor chamber pressures to render the vapor moving means inoperative.

2,870,937

PERIODIC CIGARETTE DISPENSER

Reginald Telly, Detroit, Mich.

Application May 23, 1955, Serial No. 510,198
3 Claims. (Cl. 221—22)



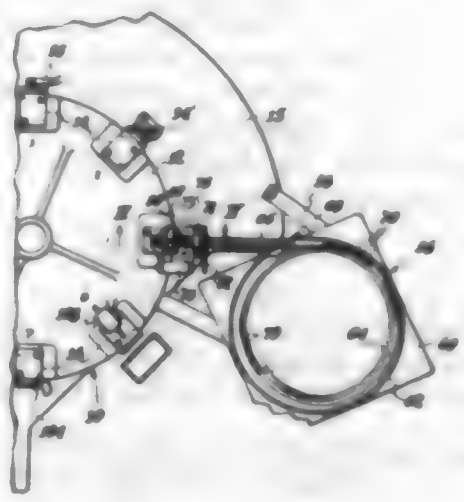
1. A cigarette-dispensing device comprising a housing, a hopper within the housing, a hinged door closing the hopper at the top, a spring inside the hopper to hold the door in a closed position, the hopper including, within its lower portion, a chute for reception of cigarettes in a single vertical file, one wall of the chute being provided with two horizontal slots, one above the other, a vertical shaft mounted opposite said slots for rotation about its axis, the shaft including two diametrically-opposed cranks, one above the other, a flat separator slidingly disposed in one slot and pivotally connected at one end to one crank, while the other end of the separator is adapted to be reciprocated by said crank into and out of said chute, a similar separator slidingly disposed in the second slot and adapted to be similarly reciprocated by the other crank a spring-operated clockwork to rotate the shaft about the axis, a delivery tray under the lower end of the chute, a disk axially mounted on the shaft for rotation therewith, the disk being provided with a plurality of apertures along its rim, and a pivoted lever responsive to the weight of the cigarettes in the tray, said lever having a member for engagement with any one of said apertures to stop the rotation of the shaft.

2,870,938

AUTOMATIC CANE LOADING FOR SPUD INSERTING MACHINE

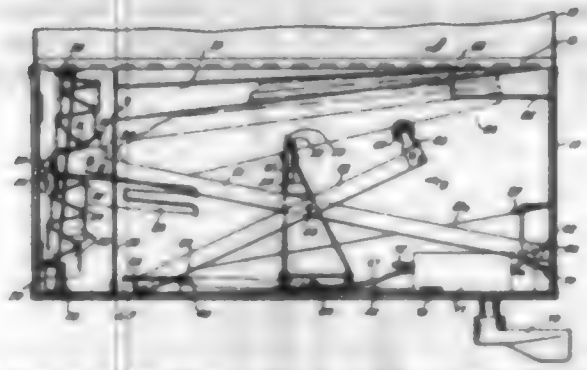
John P. Stries, East Orange, Frederick Theodore May, Verona, and Herman James Eberist, West Orange, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 25, 1953, Serial No. 364,094
4 Claims. (Cl. 221—183)



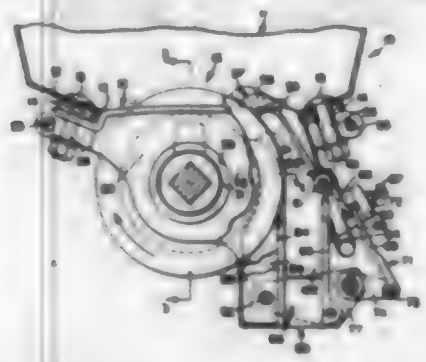
1. Automatic apparatus for feeding articles to an article fabricating machine comprising: a feeder bowl provided with a helical delivery track on its inner side wall; a guide tube having a resiliently mounted section extending from said track and for providing frictionless movement of said articles on their longitudinal axis therealong, and a rigidly mounted section having a discharge end in registry with said resiliently mounted section, said rigidly mounted section extending adjacent to an article feeding station of said machine; means aligned with and located a distance substantially equal to the longitudinal axis of an article from the discharge end of said rigidly mounted section for restraining the forward movement of said articles and maintaining the leading article in the delivery position; a cane release device on said rigidly mounted section adjacent the discharge end thereof for engaging an article supported in said rigidly mounted section and restraining said article; and vibratory means for continuously vibrating said feeder bowl and said resiliently mounted section for causing said articles to move frictionlessly along said track and said guide tube in a single line for delivery to said feeding station of said machine.

2,870,939
VENDING MACHINE
Elmer G. Etes, William K. Baer, and George A. Baer, Rockford, Ill.; said William K. Baer and said George A. Baer assignors to said Elmer G. Etes
Application February 20, 1953, Serial No. 337,928
15 Claims. (Cl. 221—213)



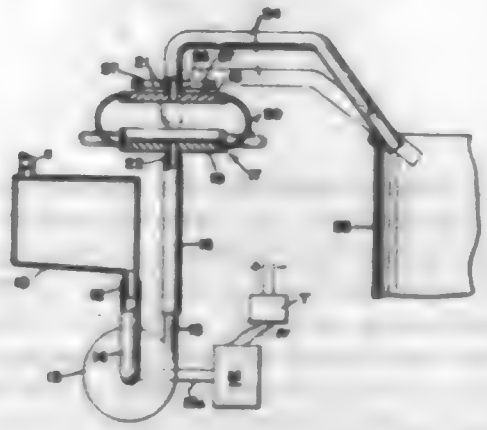
2. A newspaper dispensing machine comprising a housing having a dispensing opening at one end, the bottom of the housing sloping downwardly from front to back, means for retaining a stack of newspapers on the bottom of the housing in edgewise relation adjacent the rear of the housing, a plurality of pin blocks each having a plurality of needle point pins rigidly secured thereto and projecting therefrom for engagement with the paper on one end of the stack, a reciprocable slide secured to the front wall of the housing and disposed in a direction parallel to the bottom wall in spaced relation to the end paper, a connecting arm pivoted to the slide for movement in a direction transverse the slide toward the stack under gravity, means pivotally supporting the pin blocks for pivotal movement on the arm in a direction transverse the slide, manually operable means including an operating lever for moving the slide in a dispensing stroke toward the opening to urge the pins into the end paper and slide the same from the stack into the dispensing opening, and a lost motion connection between the lever and the slide to permit limited movement of the lever with respect to the slide.

2,870,940
SEEDING DEVICE
Talbert W. Paul, Kansas City, Mo., assignor, by mesne assignments, to Deere & Company, a corporation of Delaware
Application December 1, 1955, Serial No. 551,855
12 Claims. (Cl. 221—233)



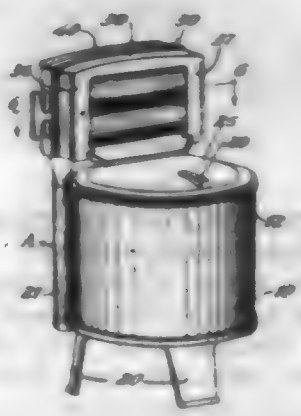
1. A seed wheel for planters and the like, comprising a central wheel member and two side members, each in the form of a casting and each having a generally radially outwardly extending flange, the peripheral portion of the central member having two sets of half-cell recesses disposed alternately on opposite sides of the associated flange, the recesses of each set facing laterally outwardly and also generally radially outwardly alongside the associated flange, each of said side members having a set of half-cell recesses at one side of the associated flange and lying below the latter, said latter recesses facing generally radially outwardly and also facing generally laterally inwardly in registering alignment with the recesses of the adjacent set of half-cell recesses on the central member, each of said half-cell recesses having walls all of which flare laterally in a diverging manner, thereby facilitating the formation of said wheel members by casting without cores or the like, and means fixing said wheel members together.

2,870,941
ADJUSTABLE OVERFLOW LIQUID DISPENSING SYSTEM
Virgil Kenneth Steidley, Mansfield, Ohio, assignor to Gorman-Rupp Industries, Inc., Bellville, Ohio, a corporation of Ohio
Application September 30, 1957, Serial No. 687,222
8 Claims. (Cl. 223—70)



1. In a system for dispensing a measured amount of liquid into a receptacle, a supply reservoir containing liquid to be dispensed, an adjustable volume chamber positioned above said reservoir, a pump connected to said reservoir and chamber for delivering liquid from said reservoir to said chamber during a predetermined operating time interval in a measured amount in excess of the volume of said chamber for any adjusted position of said chamber, and overflow means connected to the top of said chamber for conducting the overflow liquid from said chamber to said receptacle.

2,870,942
CONDIMENT CONTAINERS
Clifford E. McIlrath, St. Paul, Minn.
Application January 24, 1958, Serial No. 710,895
9 Claims. (Cl. 222—78)

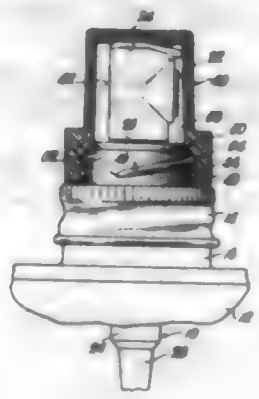


1. A condiment holder including a body shaped to resemble the body of a washing machine, a generally rectangular frame supported upon said body and designed to simulate the frame of a washing machine wringer, said frame having top and bottom members connected by substantially vertical frame ends, one of said ends having a pair of superimposed apertures therethrough and a pair of elongated tubular condiment receptacles slidable into or out of said frame through said apertures, said condiment receptacles being shaped to simulate wringer rolls when supported in said frame.

2,870,943
PUMP-TYPE LIQUID SPRAYER HAVING HOLD-DOWN CAP

Baxter L. Scoggin, Jr., Kansas City, Mo., assignor, by mesne assignments, to Cook Chemical Company, Kansas City, Mo., a corporation of Missouri

Application March 4, 1957, Serial No. 643,711
4 Claims. (Cl. 222—182)



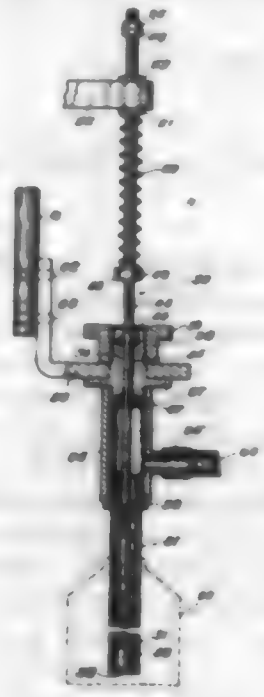
1. In a closure assembly for an open-top container having a perforated cap over said open top thereof mounting a spray unit including a barrel provided with a tubular extension passing coaxially upwardly through the perforation in said cap, a plunger reciprocably carried by the barrel and normally extending therebeyond and a spray head on the upper end of the plunger above said extension, the combination with said spray unit of an annular retainer telescoped over and secured to the extension above said cap and provided with external, circumferentially disposed screw threads and an annular, continuous segment at the upper part of the retainer above said screw threads, and a cup-shaped hold-down member housing the head and holding the plunger depressed at substantially the innermost path of travel thereof within the barrel, said member being provided with internal screw threads complementally engaging said screw threads on the retainer and having an internal, circumferentially extending, continuous shoulder disposed to engage said segment around the entire periphery thereof and thereby present a liquid-tight seal located between the spray head and said threads on the retainer and said member respectively, said shoulder being spaced from the lower annular peripheral edge of the member a distance at least slightly less than the distance from that portion of said segment normally engaged by said shoulder, to the proximal upper surface of the cap whereby said lower edge of the member is maintained out of contacting relationship with the cap when the member is on the retainer in a position with said shoulder in tight sealing engagement with the segment.

2,870,944
DISPENSING ASSEMBLY

Albert B. Campbell, Bensenville, Ill., assignor to Campbell Products Co., a corporation of Illinois

Application April 9, 1956, Serial No. 576,921
3 Claims. (Cl. 222—509)

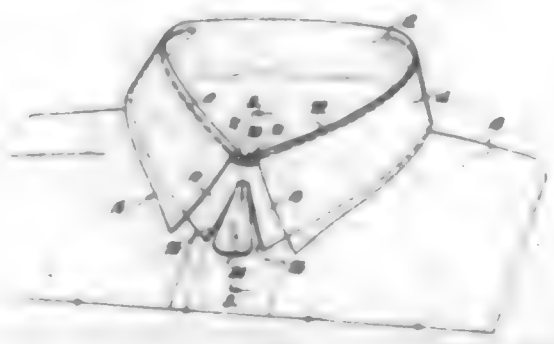
1. A dispensing assembly comprising: a fluid holding chamber wholly capable of displaceable movement, said chamber having a fluid inlet opening, a discharge opening and a plunger rod opening in spaced relationship to the discharge opening, the discharge opening having a valve seat, a plunger rod slidably positioned in the plunger opening intermediate end portions of said plunger rod so that part of the plunger rod extends internally in, as well as externally beyond, the chamber, the plunger rod having a valve means positioned thereon and shaped to cooperate with the valve seat to close the discharge opening, reciprocating means operatively connected to the chamber, urging means associated with the plunger rod to urge the valve means against the valve seat and fixed stop means operatively associated with said external part of the plunger rod to restrict displaceable movement of the rod, said reciprocating means displacing the chamber for a predetermined distance in one direction with the plunger rod being simultaneously displaced in the same direction with the urging means urging the valve means in closing engagement with the discharge opening and said stop means then stopping further displacement of the plunger rod while the reciprocating means further displaces the chamber in the same direction for a predetermined distance thereby opening the discharge opening, and then said reciprocating means displacing the chamber for a predetermined distance in the opposite direction with the discharge opening open and the plunger rod stationary until the valve seat and valve means come in contact and close the discharge opening, said urging means maintaining the valve closed, and continuing displacement of the chamber with simultaneous displacement of the plunger rod for a predetermined distance with the discharge opening so closed.



2,870,945
COLLAR SUPPORTING DEVICE

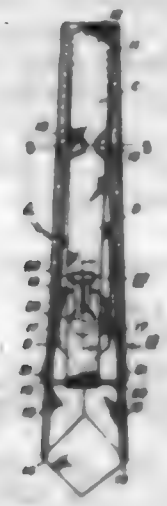
James W. Steele, North Kansas City, Mo.

Application October 11, 1957, Serial No. 689,695
2 Claims. (Cl. 223—83)



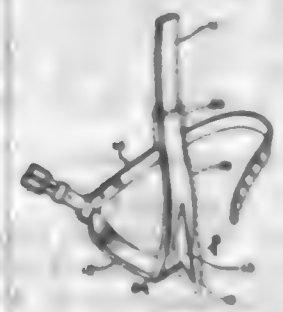
1. A collar supporting device for collar-attached shirts, comprising a band or strip of relatively stiff and slightly flexible material, of a length sufficient to span the space between the front meeting end portions of the collar and also project between the inner and outer folds thereof a distance substantially halfway around each of the opposite sides of the collar, the middle portion of said band or strip being cut by converging slits forming a tongue-shaped portion projecting from a location near the upper margin of the band to some distance below the lower edges of the band at the opposite sides of said tongue shaped portion.

2,870,946
NECKTIE DISPLAY DEVICE
Arthur J. Herndon, Wichita, Kans.
Application April 14, 1958, Serial No. 728,434
6 Claims. (Cl. 223—85)



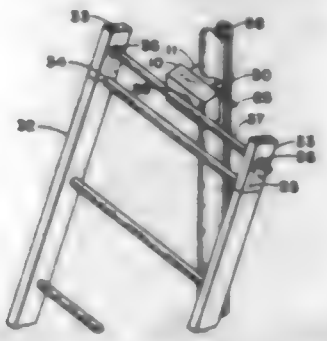
1. A device for holding and displaying four-in-hand neckties comprising, a rear inverted generally U-shaped frame including spaced rear sides and an upper transverse element connecting the upper ends of the spaced sides, forward spaced sides extending longitudinally of the rear spaced sides and secured to the lower ends of the rear spaced sides, the upper ends of the forward spaced sides being free from connection with each other and terminating near the transverse element, an inverted generally U-shaped bracket including spaced sides and an upper transverse element and inwardly directed fingers carried by the lower ends of the bracket sides, said fingers being spaced and separate from each other, the bracket being attached to the rear sides near their lower ends, and a clip mounted upon the transverse bracket element for engagement with a support, the arrangement being such that portions of the tie may be folded about the transverse element of the rear frame and said fingers and the forward sides inserted into the forward portion of the necktie.

2,870,947
SPUR GUARD
Adolph R. Hendry, Portland, Oreg.
Application March 22, 1955, Serial No. 495,918
2 Claims. (Cl. 227—37)



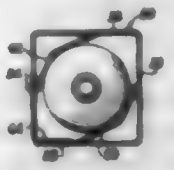
1. A removable spur guard for a climber's spur of the type having a vertical metal shank with a pointed projection extending downwardly and laterally therefrom at an acute angle thereto, said spur guard comprising a molded flexible rubber body having a lower toe end and an upper shank strip, said toe end having a tapered socket to fit said pointed projection of the spur and a tapered tubular metal reinforcing member molded in said rubber surrounding said socket, one end of said reinforcing member being contained within a lip portion of said socket which engages the crotch of said spur in the acute angle between said pointed projection and metal shank to limit the depth of insertion of said pointed projection into said socket, and the upper end of said shank strip having integral transverse resilient arms arranged to embrace said metal shank of the spur to secure the guard thereto.

2,870,948
LADDER ATTACHMENT
Robert H. Lundgren, Lake Charles, La.
Application April 27, 1955, Serial No. 504,321
1 Claim. (Cl. 228—60)



An attachment for securing one end of a ladder to a post or the like, comprising a hollow housing having one side thereof pivotally secured to one end of the ladder for motion about a first axis parallel to the rungs of said ladder and for rotation about an axis perpendicular to said first axis, a serrated jaw secured on the opposite side of the housing and shaped to engage one side of the post, a chain having one end pivotally secured to said opposite side of the housing adjacent one end of the jaw and being of a length to encircle the post, a lever pivotally secured in the housing to move in a plane parallel with the jaw, one end of said lever being bent to extend out through an opening in said opposite side of the housing adjacent the end of the jaw opposite the first-mentioned end and having hooks formed thereon outwardly of the housing to engage the chain when the chain encircles the post, an internally threaded member pivotally secured to the opposite end of said lever within the housing, and a threaded shaft rotatably secured in the housing in a fixed longitudinal position at a right angle to said lever and jaw and extending through said member in threaded engagement with said member, only one end of said shaft being extended through one side of the housing and being shaped to facilitate turning of said shaft, whereby said member is moved along said shaft to pivot said lever and tighten the chain.

2,870,949
CARTONS
John F. Carrivan, Portland, Conn.
Application November 30, 1954, Serial No. 471,974
11 Claims. (Cl. 229—14)

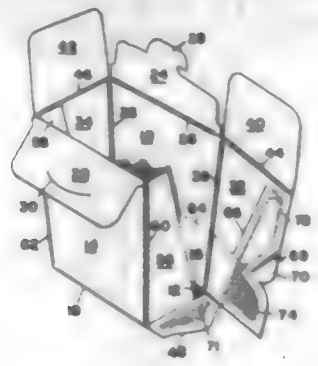


1. A carton for the protective containment of fragile articles comprising a body portion formed of a plurality of side wall panels, and a pair of protective inner flaps for resiliently positioning an article in said carton, each of said flaps comprising a tab cut from a pair of adjacent side wall panels and each being foldably connected to one of the pair of panels from which it is cut, each of said tabs being adapted to assume a position within the carton spanning a respective corner thereof defined by the panel to which the tab is foldably connected and a panel adjacent thereto and, in said position, having a free end in sliding abutment with the inner surface of a panel adjacent the one to which the tab is foldably connected.

2,870,950
CARTON

William H. Inman, Newark, N. Y., assignor to Bloomer Bros. Company, Newark, N. Y., a corporation of New York

Application April 24, 1957, Serial No. 654,803
7 Claims. (Cl. 229—16)

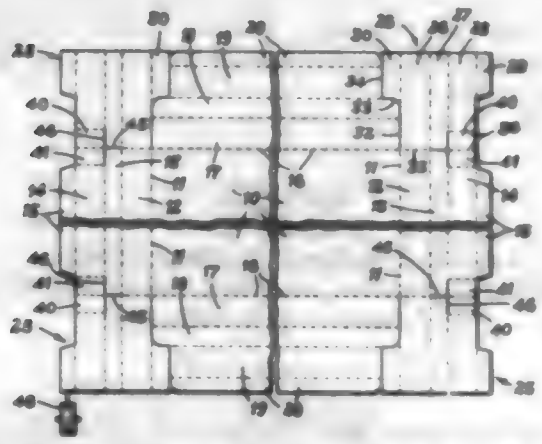


1. A carton having a bottom, and front, rear and side walls extending upwardly from said bottom, said side walls comprising overlapping inner and outer flaps, a line of weakening extending across said front wall and said outer flaps and dividing the same into upper and lower zones, adhesive connections between the lower zones of said outer flaps and the corresponding portions of said inner flaps, and detachable adhesive connections between the upper zones of said outer flaps and the corresponding portions of said inner flaps, said upper zones being detachable from said inner flaps and concomitantly separable from said lower zones along said lines of weakening to allow said upper zones and the upper portion of said front wall to be swung forwardly for exposing the contents of said carton.

2,870,951
DOUBLE WALLED BOX

Glenn E. Struble, Hamilton, Ohio, assignor, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware

Application August 23, 1955, Serial No. 530,011
5 Claims. (Cl. 229—34)

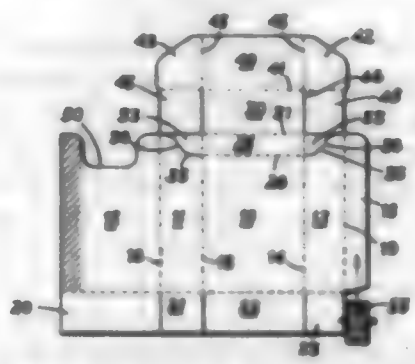


1. A blank for forming a double walled box of the character described, comprising a unitary sheet of material scored to provide a bottom, side walls each including outer, top, inner and bottom panels extending in that order from one edge of said bottom and foldable into tubular form with said bottom side wall panel adapted for securing to said bottom, end walls, each including outer, top, inner and bottom panels connected in that order and foldable into tubular form with said bottom panel overlying said bottom, corner locking sections at opposite ends of said side walls and each including inner, outer, top and bottom panels foldable into tubular configuration, a glue flap on each said outer locking section panel for attachment to said bottom locking section panel, said locking sections being free of direct connection with said end walls and having integral hinged connections with said side wall through said inner side wall panel and said inner locking section panel and through said outer side wall and said outer locking section panel, the connection between said inner side wall panel and said inner locking section panel including a pair of gusset panels adapted for folding into abutting relation within said hollow side wall at the corner of the erected box, and said top side wall and top locking section panels being separated from each other and from the adjacent edge of said gusset panels by a T-shaped slit through said blank providing for overlapping of said top side wall and top locking section panels and for inward folding of said gusset flaps after said locking section is folded into position extending across the end of the box.

2,870,952
CARTON

William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware

Application October 24, 1955, Serial No. 542,439
2 Claims. (Cl. 229—44)



1. A blank adapted to be formed by high speed machine operations into a carton having a reclosable lid, said blank comprising front, rear and side panels and a glue flap all attached for lateral folding about an arbor to provide an open ended tube, flaps on the bottom edges of said panels for assembly into a bottom wall to convert said tube into an open top box, said front panel being substantially greater in height than said rear panel, said side panels having the upper edges thereof sloped from the upper edge of said front panel to the upper edge of said rear panel, lid forming means for the carton including a rear wall hinged to the upper edge of said rear panel, top, front and side walls on said lid integral with said rear wall and dimensioned to cover the open top of said box and the upper portions of said front and side panels, and flaps extending from the sides of said rear wall and adapted to be adhered to the inner surface of said side walls, said flaps having a sloped lower edge complementary to the sloped upper edge of said side panels for abutment therewith in the closed position of the lid.

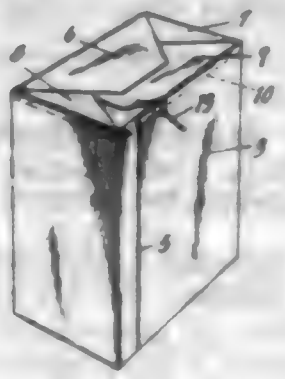
2,870,953
TEAR STRIP, AND WRAPPER AND PACKAGE

Daniel B. Parker, Kalamazoo, and Harry Dean Kitchen, Grand Rapids, Mich., assignors to Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich.

Application November 7, 1956, Serial No. 620,883
3 Claims. (Cl. 229—51)

1. A package comprising a carton having closure flaps at one end, and a wrapper sheet therefor having a heat sealable thermoplastic coating on its inner side and having side wall embracing portions, and end wall embracing portions which are disposed in overlapping and heat sealed relation over said closure flaps, and a tear strip disposed on and bonded to the inner side of said wrapper sheet and comprising a body strip having a thermoplastic coating on its outer side having a melting point substantially different from that of the coating of said wrapper sheet and thermoplastically bonded thereto, and a cutting strand disposed at one edge of the body strip and bonded thereto by its said coating, said tear strip

being disposed on the wrapper sheet with its cutting strand positioned at the juncture of said side and end wall portions of the wrapper sheet so that the tear strip

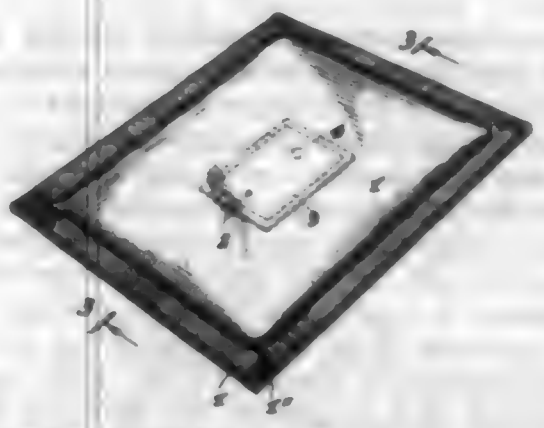


body constitutes a continuous reinforcing element for the side wall portions of the wrapper at the severance zone.

2,870,954
VACUUM PACKAGE

Chester P. Kuleszo, Midlothian, Va., assignor to Reynolds Metals Company, Richmond, Va., a corporation of Delaware

Application May 15, 1956, Serial No. 584,905
1 Claim. (Cl. 229—62.5)



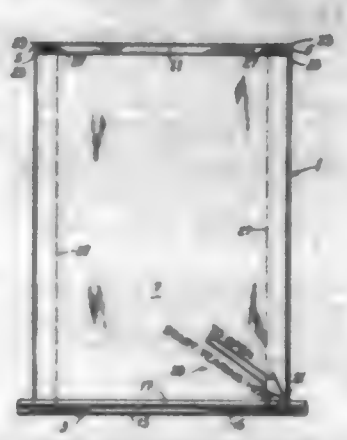
An impervious flexible wrapping sheet adapted for the formation of hermetically sealed packages in general, consisting of at least one sheet of aluminum foil and a layer of heat sealing material carried thereby and of substantially uniform thickness, said sheet having an opening therein extending through the heat sealing layer, and a relatively stiff valve piece facing said heat sealing layer, said valve piece being of flat impervious material sealed to the aluminum foil sheet by said heat sealing material at least along the periphery of the valve piece, leaving an intermediate area unsealed, said intermediate area being opposite the opening in the foil, and said valve piece having an opening spaced from the opening in the foil and within the unsealed intermediate area of the valve piece, the valve piece having a stiffness greater than the flexible wrapping sheet per se.

2,870,955
BAG

Charles V. Brady and August F. Ottinger, St. Louis, Mo., assignors to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri

Application July 5, 1955, Serial No. 519,736
2 Claims. (Cl. 229—66)

1. A paper bag comprising a multi-ply paper tube having at least three plies and formed with gussets at the sides, a closure at one end of the tube comprising a paper tape folded around the end of the tube and a line of stitching traversing said tape and tube, said tube being prepared to facilitate starting the tearing at one end of the line of stitching by having a cut-out in at least one of the intermediate plies of the tube at one side of the tube in line with and extending transversely across at least one of the outer folds of the gusset at said side of the tube and extending inward from said end of the tube beyond the line of stitching at said side of the tube, said tape extending out from the bag at the side where said cut-out is located and constituting a rip strip which may be grasped

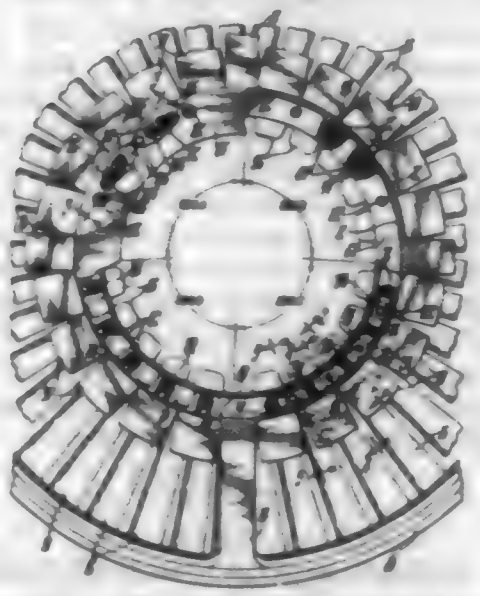


and pulled to separate a corner portion of the bag at the location of the cut-out from the remainder of the bag and to rip the bag open along the line of holes made by the stitching, and said bag having means thereon indicating that tearing is to be started at said end of the line of stitching.

2,870,956
AIR INTAKE CONTROL APPARATUS

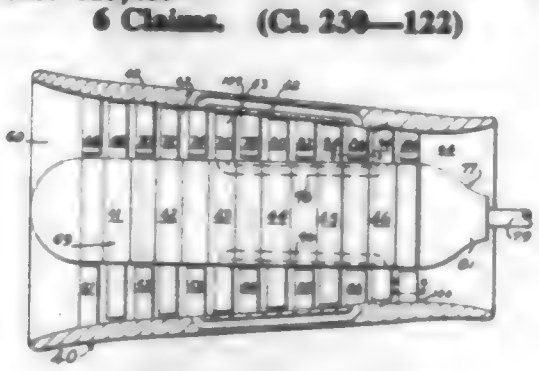
Herman R. C. Dhonau and Stanley E. Nelson, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 18, 1956, Serial No. 591,986
1 Claim. (Cl. 230—114)



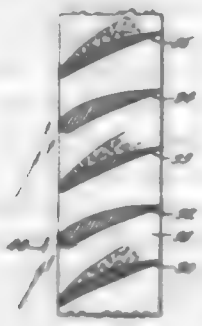
In an air intake for a gas compressor having an inner annular wall and an outer annular wall forming an annular air flow orifice therebetween, blockage means for reducing the area of said orifice including a plurality of circumferentially arranged ring segments adjacent one of said walls, a plurality of guide members carried by said one wall slidably mounting said segments for axial movement thereon, a plurality of operating members carried by said one wall each operatively connected to one of said segments for axially moving said segments relative to said one wall, a plurality of circumferentially arranged links pivoted at one end to said one wall, a plurality of blockage flaps circumferentially arranged and each pivotally supported on the other end of one of said links, and each of said flaps pivotally connected to one of said ring segments for causing swinging movement of said flaps between a position substantially parallel to said one wall to a position oblique to said one wall and extending toward the other of said walls, when said segments are axially moved on said guide members by said operating members.

2,870,957
COMPRESSORS
Edward A. Stalker, Bay City, Mich.
Original application December 26, 1947, Serial No. 794,018, now Patent No. 2,749,027, dated June 5, 1956. Divided and this application March 11, 1954, Serial No. 415,459
6 Claims. (Cl. 230—122)



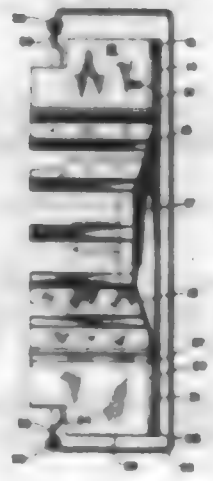
1. In combination in an axial flow compressor, a case having an inlet and an exit, a plurality of axial flow stators supported within said case and spaced axially therealong, a plurality of axial flow rotor stages alternated with said stators and cooperating to direct a flow of said fluid at increasing pressure from said inlet to said exit, each said rotor stage comprising a hub surface and a plurality of axial flow blades carried thereon peripherally spaced thereabout with a plurality of rotor axial flow passages between said blades, each said passage having an exit facing downstream chiefly in the general axial direction to discharge fluid rearward substantially in the general axial direction, one of said rotor stages having blades of streamline blade section having a maximum thickness ordinate at about mid chord and having its mean camber line curved chiefly in the rear half thereof, said section having a tapered fore portion extending forward from said ordinate and a tapered aft portion extending rearward therefrom, said portions having a convex upper streamline contour extending rearward from substantially the leading edge over said aft portion, and means to rotate at least one of said rotor stages such that the fluid speed relative to the blades thereof is less than the speed of sound in said fluid upstream adjacent thereto and to rotate another said rotor stage having blades formed with said streamline blade sections at blade tip speeds relative to said fluid at or above the speed of sound in said fluid upstream adjacent to the last said blades, to extend the range of operation of said compressor at high efficiency.

2,870,958
MIXED BLADE COMPRESSOR
Edward A. Pinsley, East Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application January 13, 1956, Serial No. 558,874
3 Claims. (Cl. 230—122)



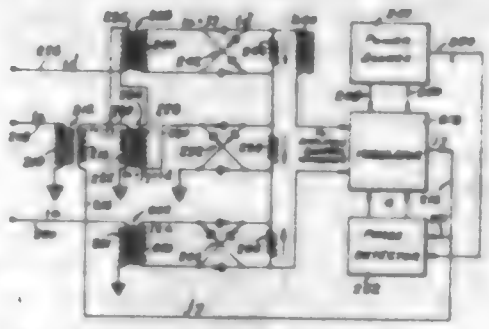
1. A rotor for an axial flow compressor having a plurality of stages, at least one of said stages comprising a plurality of circumferentially spaced blades, and adjacent blades being of different blade section whereby one of said blades has a relatively sharp leading edge and the next adjacent blade has a relatively blunt leading edge, with the blades with blunt leading edges alternating with blades with sharp leading edges, all of said blades having leading and trailing edges terminating in the same positions respectively along the axis of flow and all of the blades having relatively sharp trailing edges.

2,870,959
BLOWER WHEEL
Wayne A. Giddings, Cedar Rapids, Iowa, assignor to Amana Refrigeration, Inc., Amana, Iowa, a corporation of Iowa
Application November 7, 1956, Serial No. 620,885
3 Claims. (Cl. 230—134)



1. In a blower wheel, a circular metallic base plate provided with circumferentially spaced radial slots, and a molded integral blade structure mounted on said base plate comprising blades disposed radially of said plate and having base portions extending through said slots with base flanges engaging the opposite faces of said plate, said blades projecting upwardly from said plate substantially parallel with the axis thereof and tapering in thickness upward, a continuous outer reinforcing ring connecting the bases of all of said blades and enclosing the outer circumferential portion of said plate, and a continuous inner ring connecting the bases of all of said blades at the upper face of said plate.

2,870,969
SYSTEM FOR ANALOGUE COMPUTING UTILIZING DETECTORS AND MODULATORS
John E. Richardson, Los Angeles, Calif.
Application May 28, 1952, Serial No. 290,609
12 Claims. (Cl. 235—61)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A computer for solving the equation

$$b^2x^2+a^2y^2=a^2b^2$$

comprising sources of A. C. voltages 1, y, ix, jy, ia, $-2a$, and $i\sqrt{a^2-b^2}$ wherein 1 is a reference voltage of unit magnitude, j is a second reference voltage equal in magnitude to 1 and at quadrature therewith, x is a first variable, y is a second variable, and a and b are parameters of said equation, means to vectorially combine voltages ix, jy, and $i\sqrt{a^2-b^2}$ to produce a first resultant, means to vectorially combine voltages ix, jy, and $-i\sqrt{a^2-b^2}$ to produce a second resultant, an amplitude detector connected to com-

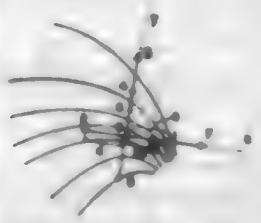
pare the vectorial sum of said first and second resultants with the voltage $-2a$ effective to produce a control voltage in response to amplitude variation between said sum voltage and said voltage $-2a$, and a modulator connected to receive said control voltage and to control at least one of said sources ix and jy effective in response to said control voltage to control the voltage of said one source to maintain equal amplitude between said sum voltage and voltage $-2a$.

2,878,961

ELECTRICAL ANALOGS EMPLOYING MORE THAN TWO PROBES

George A. Smith, Philadelphia, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application October 29, 1953, Serial No. 389,131
9 Claims. (Cl. 235—61)



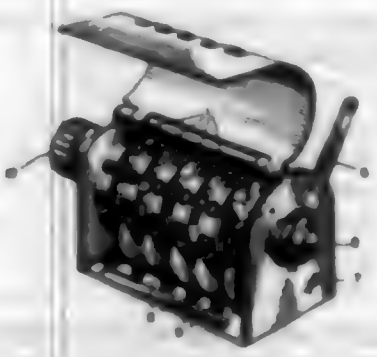
1. In combination with conducting means carrying current and providing a potential field, a probe array comprising at least six probe elements in fixed spaced relationship with each other and arranged to pick up potentials in said field, and means receiving and combining the potentials of said probe elements to provide outputs approximately proportional to components of the gradient of said field in the vicinity of said probe array.

2,878,962

COUNTING DEVICE

Stephen V. Klein, Evanston, Ill., assignor to F. B. Redington Co., Chicago, Ill., a corporation of Delaware

Application May 31, 1955, Serial No. 511,892
10 Claims. (Cl. 235—144)



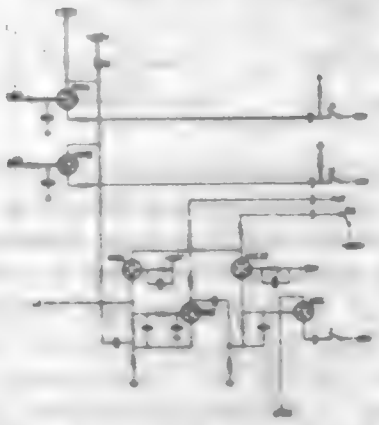
1. In a counting device having a reset shaft with a longitudinal notch therein, a molded plastic indicating wheel rotatably mounted on the shaft, said wheel comprising a cylindrical surface having indicia thereon, ten radial teeth spaced uniformly about the wheel on one side of the cylindrical surface, a single tooth positioned on the other side of the cylindrical surface, a hub portion centrally positioned in the wheel, all of said teeth and said hub portion being molded integrally with the body of the wheel, said hub portion having a segment removed therefrom therby forming a shoulder stop, a leaf spring pawl attached to the body of the wheel, said pawl having a part extending into the hub where the segment is removed and engageable with the notch of the reset shaft, said pawl being operable to interpose between the notch of the shaft and the shoulder stop of the wheel hub thereby positively engaging the wheel to the shaft when the shaft is rotated in one direction with respect to the wheel and being operable to move away from the notch and the shoulder stop and thereby releasing the shaft from the wheel when the shaft is rotated in the opposite direction.

2,878,963

ADDING ARRANGEMENTS

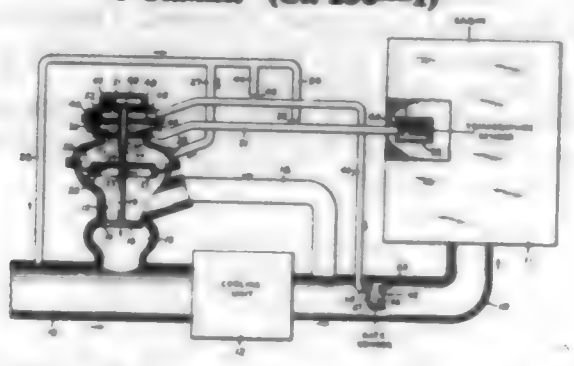
Ronald Threadgold, Liverpool, England, assignor to Automatic Telephone & Electric Company Limited, Liverpool, England, a British company

Application March 8, 1956, Serial No. 570,368
Claims priority, application Great Britain March 24, 1955
1 Claim. (Cl. 235—61)



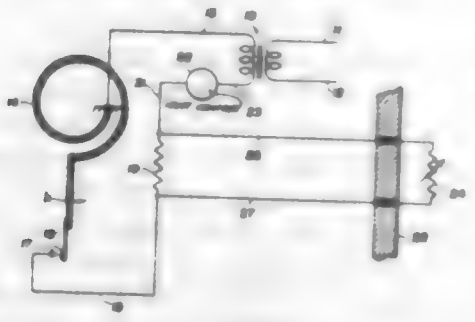
In combination in circuit arrangements for the addition of two binary numbers having a stage for each order of the numbers to be added, a plurality of binary circuits one for each stage, each binary circuit comprising first and second cold cathode gas discharge tubes connected to form a mutually extinguishing pair, input and output leads connected to said first tube and a third tube connected to both said first and second tubes, a first series of gate circuits one for each stage, first switching means operative to open all said first series of gate circuits simultaneously to apply electrical conditions to the input leads of the binary circuits of those stages corresponding to "1" digits of the augend, a second series of gate circuits one for each stage, second switching means operative subsequent to the operation of said first switching means to open all said second series of gate circuits simultaneously to apply electrical conditions to the input leads of the binary circuits of those stages corresponding to "1" digits of the addend, first carry leads one for each stage excepting the first and extending from the preceding stage to the input lead of the binary circuit, means responsive to the first application of an electrical condition representing a "1" digit to the input lead of a binary circuit for striking the first tube of the binary circuit whereby the third tube of the binary circuit is primed and an electrical condition representing a "1" digit is applied to the output lead of the binary circuit, means responsive to the second application of an electrical condition representing a "1" digit to the input lead of said binary circuit for striking successively said third and second tubes whereby said first tube is extinguished and the electrical condition representing a "1" digit is removed from said output lead, means for extinguishing said third tube, means responsive to the third application of an electrical condition representing a "1" digit to the input lead of said binary circuit for again striking said first tube and extinguishing said second tube, a third series of gate circuits one for each stage except the last stage, third switching means operative subsequent to the operation of said second switching means to open all said third series of gate circuits simultaneously, second carry leads extending between said third series of gate circuits and said first carry leads of the respective succeeding stages and means responsive to the opening of said third series of gate circuits in those stages in which the second tubes of the binary circuits are conducting for applying an electrical condition representative of a "1" digit to the respective second carry leads.

2,870,964
PNEUMATIC CABIN TEMPERATURE CONTROL SYSTEM
Torsten H. Lindbom, Garden City, N. Y., assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland
Application January 27, 1956, Serial No. 561,821
8 Claims. (Cl. 236—1)



1. An automatic temperature control system for an enclosure fed from a fluid pressure source by a conduit having a cooling means therein, a by-pass channel for passing fluid around said cooling means, and a valve for controlling the flow of fluid through said by-pass channel, comprising a positional servomechanism for operating said valve, means for sensing the temperature in said enclosure to provide a variable continuous signal representative thereof, means for sensing the rate of change of temperature of the fluid in said conduit to provide a variable continuous signal proportionate thereto, and differential means responsive to said temperature sensing signal and said rate of change of temperature sensing signal for controlling the operation of said positional servomechanism.

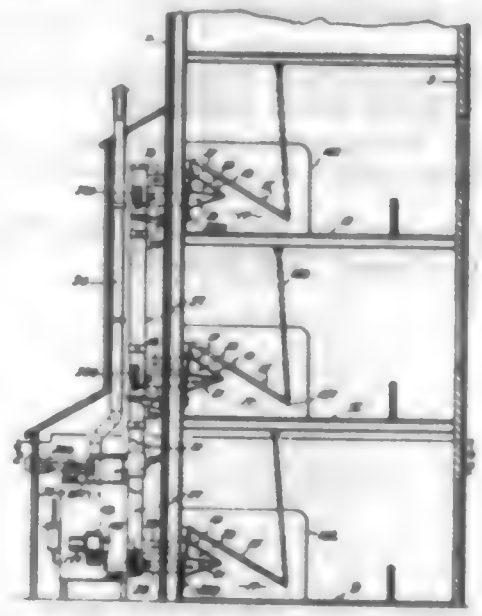
2,870,965
COMPENSATED ANTICIPATING THERMOSTAT
Kenneth G. Kreuter, Goshen, Ind., assignor to Penn Controls Incorporated, Goshen, Ind., a corporation of Indiana
Application October 3, 1956, Serial No. 613,625
4 Claims. (Cl. 236—68)



4. A circuit for controlling a heating system from a single temperature responsive means comprising, a circuit having a source of power, a room thermostat, a heating means controller, and a heat anticipator network all serially connected; said heat anticipator network comprising an electrical heater and a negative temperature coefficient resistor of the self-heating type parallel connected, said heater being adapted to influence the room thermostat and said negative temperature coefficient resistor being thermally insulated from said heater, whereby the thermal output of said heater is maintained substantially constant independently of the magnitude of the current through said heating means controller.

2,870,966
BROODERS
Ralston M. Sherman, Glastonbury, Conn., assignor to The Silent Glow Oil Burner Corporation, Hartford, Conn., a corporation of Connecticut
Application February 8, 1955, Serial No. 486,893
6 Claims. (Cl. 237—14)

1. A chicken brooder comprising means presenting a flat floor for the chicks to be brooded and a vertical wall surface rising from said floor, an elongated horizontally extending hover above said floor having a lower horizontally extending edge in vertically spaced relation to said floor, the hover being inclined upwardly from said edge to an upper horizontally extending edge thereof adjacent said wall surface, a horizontally extending relatively thin gauge sheet metal conduit beneath said hover adjacent said wall surface and the higher portion of said hover, which conduit has a lower flat wall upwardly inclined



from a lower edge thereof adjacent said wall surface and spaced from said floor to an upper edge thereof adjacent said hover and spaced from said wall surface for radiating heat downwardly and outwardly at an inclination on those portions of said floor beneath said hover which extend toward the lower edge of said hover, and means for supplying said conduit with high temperature air at a pressure only slightly above atmospheric for flow through said conduit for causing such radiation.

2,870,967
DISPENSER
Heinrich Huelden, La Crescenta, Calif., assignor to Hansen-Lynn Co., Inc., Burbank, Calif., a corporation of California
Application July 22, 1955, Serial No. 523,683
5 Claims. (Cl. 241—222)

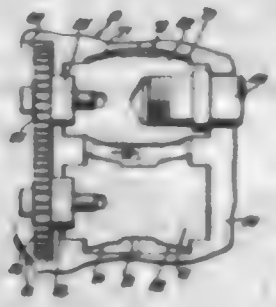


5. A pair of spaced rollers for use in a tablet dispenser having means for feeding tablets of a particular thickness to the space between said rollers and means for counterrotating the rollers with the adjacent surfaces of said rollers moving in a downward direction away from such tablets, one of said rollers having a concave surface of revolution and the other of said rollers having a convex surface of revolution, the distance between said surfaces being at least as great as the thickness of the tablet being dispensed and less than that which permits a whole tablet to pass between said rollers.

2,870,968
TABLET BREAKER AND DISPENSER
Heinrich Huelden, La Crescenta, Calif., assignor to Hansen-Lynn Co., Inc., Burbank, Calif., a corporation of California
Application February 25, 1957, Serial No. 642,247
12 Claims. (Cl. 241—235)

4. A pair of spaced rollers for use in a tablet breaker and dispenser having means for feeding tablets of a par-

ticular thickness to the space between said rollers and means for counterrotating the rollers with the adjacent surfaces of said rollers moving in a downward direction away from such tablets, one of said rollers hav-



ing a concave surface of revolution and the other of said rollers having a convex surface of revolution, with each of said surfaces having a plurality of shallow depressions therein, the distance between said surfaces being at least as great as the thickness of the tablet being dispensed.

2,870,969
ICE CRUSHER

Walter E. Moore, St. Louis County, Mo., assignor to Swing-A-Way Manufacturing Company, St. Louis, Mo., a corporation of Missouri

Application October 21, 1954, Serial No. 463,787
7 Claims. (Cl. 241—238)



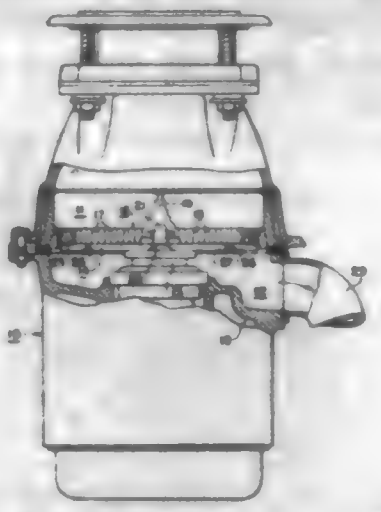
1. An ice crusher comprising, in combination, housing means for receiving a plurality of ice cubes, means including tooth means movable within said housing means for engaging and fracturing received ice cubes, said tooth means comprising a tooth having an extended portion provided with oppositely directed chisel-like edges, first and second stationary restraining means disposed within said housing for cooperation with said tooth means, said first restraining means being adapted to cooperate with said movable means in retaining fragments of ice cubes above a first predetermined general size and said second restraining means being adapted to cooperate with said movable means in retaining fragments of ice cubes above a second predetermined general size, and a receptacle disposed below said movable means and said restraining means for collecting crushed ice.

2,870,970
ROTOR-PERIPHERY AND ADJACENT SHREDDER-RING STRUCTURE FOR FOOD WASTE DISPOSER

John S. Willemsen, Springfield, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 9, 1955, Serial No. 506,860
4 Claims. (Cl. 241—260)

1. In a food waste disposer, the combination of a shredding sleeve and a disc-like rotor disposed within said sleeve with close radial clearance between the periphery of the rotor and the inner surface of the sleeve, said sleeve having strainer slots in its inner surface adjacent the periphery of the rotor, said strainer slots being of a width to pass the size of particle to which it is desired to comminute material, said rotor having a recess in its periphery which extends upwardly at least as high as the lowermost portion of the top surface of the rotor adjacent the periphery, said recess, throughout the major

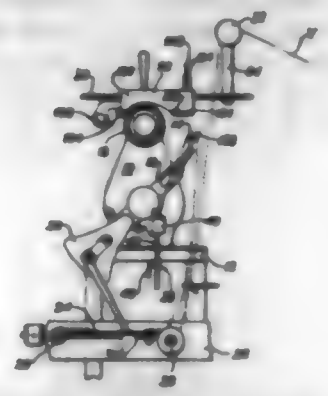


portion of its vertical extent, having a width greater than the width of said strainer slots, the width of said recess at the top surface of the rotor being not greater than the width of said strainer slots.

2,870,971
WINDING MACHINE AND METHOD OF DOFFING AND THREAD-IN

John Vernon Keith, Warwick, R. I., assignor to Universal Winding Company, Cranston, R. I., a corporation of Massachusetts

Application January 15, 1953, Serial No. 331,358
4 Claims. (Cl. 242—18)



1. In a winding machine for winding a continuously advancing strand of yarn the combination comprising a rotatable spindle, core holding means on said spindle having means operable to grip a core placed thereon, a member engageable by a core placed on said holding means while said spindle is rotating to actuate said gripping means to engage said core and secure it to said holding means whereby a package of yarn can be wound thereon, a yarn guide for traversing yarn being wound on said core, means comprising a supplementary yarn guide and a yarn cutter for holding said continuously advancing strand of yarn in position to be pinched between said core and said member whereby said strand can be attached to said core at substantially the same time said core is secured to said holder, and means for disposing of said continuously advancing strand of yarn prior to the time it is attached to said core.

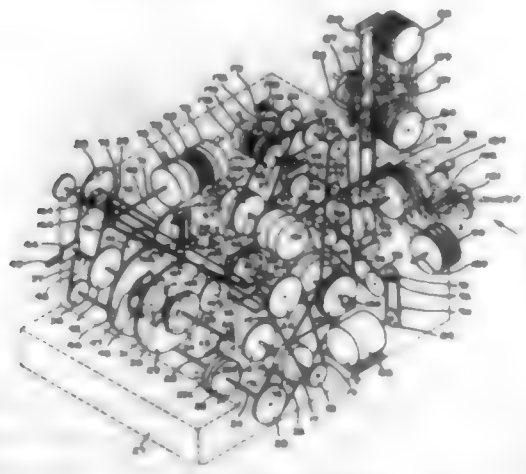
2,870,972
COILING APPARATUS

James A. Mason, Beloit, Wis., and Harold H. Duff, Manchester, Conn., assignors to Machinery Electrification, Inc., Worcester, Mass., a corporation of Massachusetts

Continuation of application Serial No. 371,688, July 31, 1953. This application July 30, 1957, Serial No. 676,463
11 Claims. (Cl. 242—25)

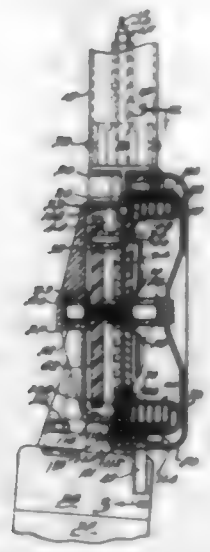
1. A coiling apparatus comprising a frame, at least one reel mounted on the frame, a shaft on which the

reel is mounted, the shaft being hingedly connected to the frame at one end for swinging movement about a hinged connection having a vertical axis, a guide member adapted to traverse in a straight horizontal path across the frame, the shaft normally residing parallel to the path of the guide member, and driving means



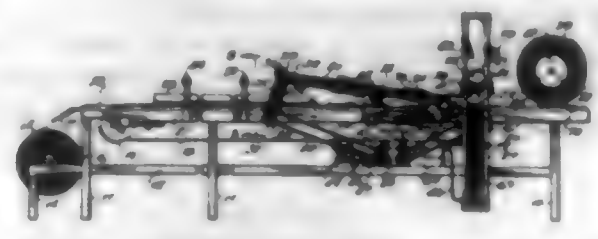
for the shaft which means actuates the shaft for the driving thereof when it is situated in the normal position parallel to the path of the guide member but which means does not actuate the shaft when it is moved away from the said path about the hinged connection to the frame.

2,870,973
DRIVING MECHANISM FOR RETRACTABLE ANTENNAE
Emil Carlson, Detroit, Mich., assignor to Pioneer Specialty Company, Detroit, Mich., a corporation of Michigan
Application July 26, 1955, Serial No. 524,449
23 Claims. (Cl. 242—54)



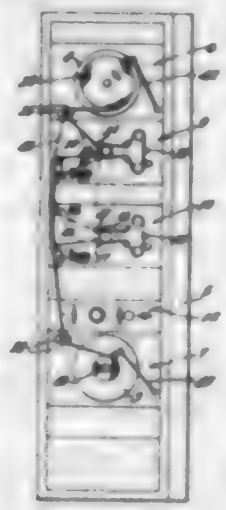
11. A driving mechanism for an extensible antenna or the like comprising a housing, a peripherally grooved driving pulley rotatably mounted in said housing, a gear mounted in said housing and coaxially fixed to said pulley for rotation therewith, means to drive said gear in rotation, a drum mounted in said housing coaxially with said pulley and freely rotatable independently of said pulley and said gear, said drum defining a substantially cylindrical internal storage chamber and having an open end adjacent to and facing said pulley, a guideway formed in said housing adjacent and substantially coplanar with the groove of said pulley and extending partially around and axially away from said pulley groove and toward said drum, a flexible but relatively inelastic insulating driving rod frictionally engaging a portion of the groove of said pulley and extending out of said groove in a generally helico-spiral path along said guideway and into said drum through the open end of the latter, the radius of the open end of the drum exceeding the radius of the pulley by more than one, but less than two, diameters of the driving rod, a curved flexible shoe member mounted within said housing adjacent the periphery of and extending partially around said pulley and slidably engaging said rod in said pulley groove, and means to urge said shoe member radially inwardly toward said pulley at a plurality of spaced positions along said pulley groove to force said rod into frictional driving engagement with said pulley.

2,870,974
MACHINE FOR COMPRESSING AND ROLLING BEDDING SPRINGS
Alvin F. Clark, Jr., Fort Worth, Tex.
Application March 29, 1955, Serial No. 497,675
5 Claims. (Cl. 242—55)



1. In a device for rolling innersprings for bedding, in combination, a feed and guide table having means for supporting a reel at one end thereof for receiving compressed innersprings, the reel supporting means comprising a frame extending above the table, and a vertically movable bearing on each side of the frame, a reel supported in the bearings transversely of the table, hydraulic means in the frame for raising the reel bearings as the innersprings are reeled on the reel, automatic means at the top of the frame for releasing the hydraulic means and the reel when a predetermined length of innersprings is reeled thereon, means supported above the table for compressing the innersprings as they are moved longitudinally of the table, means for moving the innersprings toward the reel, and driving means for the moving means.

2,870,975
SOUND FILM REPRODUCER DRIVING SYSTEM
Arthur C. Albee, Burbank, and James L. Pettus, Encino, Calif., assignors to Radio Corporation of America, a corporation of Delaware
Application February 25, 1953, Serial No. 338,736
6 Claims. (Cl. 242—55.12)



1. A film driving system for a sound reproducer of a record on film comprising a vertical frame having serially arranged panels, a reproducer for said record on said film, a motor mounted on a centrally located panel of said frame, said motor having two sections, means driven by one of said sections of said motor for advancing said film at sound reproducing speed, said means being driven by said other section of said motor for advancing said film at speeds greater than said sound reproducing speed, a film

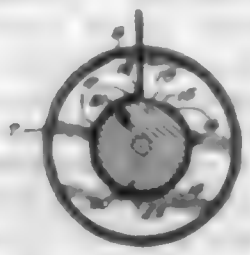
takeup reel on one end panel of said frame, a second motor directly connected to said reel, a film supply reel on the other end panel of said frame, a third motor directly connected to said supply reel, said film being advanced from said supply reel to said takeup reel through said reproducer, a power source for said first-mentioned motor, a switch adapted to connect said first-mentioned section of said motor to said power source for advancing said film in one direction between said reels at a constant sound reproducing speed, and a second power source, said switch being adapted to connect said second power source to said second-mentioned section of said first-mentioned motor for advancing said film at a variable speed in the same direction between said reels, means for controlling the amount of power impressed on said second-mentioned section of said first-mentioned motor to vary the speed of advancement of said film between said reels at greater than normal reproducing speed, and means for connecting said second power source to said second and third motors, said means driven by said first and second-mentioned sections of said first-mentioned motor including a first sprocket on said centrally located motor panel for film of one width, a second sprocket on a second centrally located panel for film of a second width, and interconnecting driving means between said sprockets, said interconnecting driving means providing a different speed for said second sprocket from that of said first sprocket.

2,870,976

CORE ATTACHMENT FOR PICTURE SCREENS

Alan P. Linquist, Park Ridge, Ill., assignor to Knox Manufacturing Company, a corporation of Illinois

Application December 1, 1953, Serial No. 395,357
1 Claim. (Cl. 242—74)



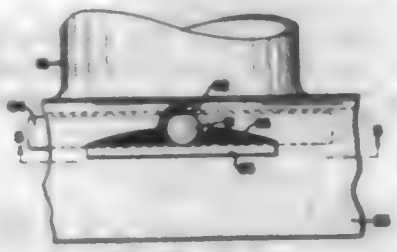
In a picture screen stand adapted to support an extensible picture screen along its marginal edge portions in open position, a spring-wound reel for winding the screen into closed position, comprising: an elongated cylindrical core member having a circular cross section; means securing one marginal edge portion of the screen to said core member; a resilient, longitudinally split sleeve positioned over the core member so that the screen projects outwardly from the split in the sleeve, the cross section of said sleeve in unstressed condition being such that the inner surface of said sleeve along one side of said longitudinal split forms a core-conforming segment, and the inner surface of the sleeve along the other side of said split forms a screen-wedging segment having a radius of curvature slightly greater than that of the circular core member, said one marginal edge portion of the screen extending between the core member and the screen-wedging segment and being securely wedged substantially along its entire length between the core member and a longitudinal portion of the screen-wedging segment; and anchoring means extending between the core member and the screen-wedging segment through said one marginal edge portion to press said screen-wedging segment with uniform pressure against the entire width of the interposed marginal edge portion of the screen and to hold said sleeve and core member against relative movement.

2,870,977

STRAND END ATTACHER FOR A SPINNING REEL

Thomas F. Sarah, Akron, Ohio, assignor to The Enterprise Manufacturing Company, Akron, Ohio, a corporation of Ohio

Original application March 1, 1954, Serial No. 412,988, now Patent No. 2,755,037, dated July 17, 1956. Divided and this application February 28, 1956, Serial No. 572,185
4 Claims. (Cl. 242—125.2)



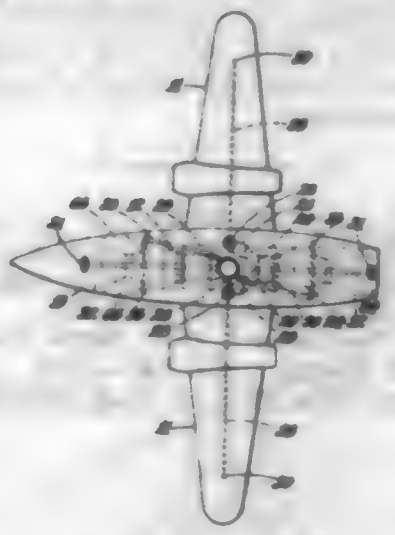
1. A spool construction for a fishing reel comprising a hub and a rear skirt flange, said flange having a recess in its outer periphery, a rivet slidable through said flange and having a head, means within said flange yieldingly seating said head in said recess, and said flange having a groove extending alongside the rivet head and merging with the recess for guiding a portion of fishing line under said head as the line is pulled from said groove toward said head.

2,870,978

CONTROLS FOR AIRCRAFT

Alan Arnold Griffith, Derby, and Alan William Thorpe, Farnborough, England; said Griffith assignor to Rolls-Royce Limited, Derby, England, a British company, and said Thorpe assignor to The Minister of Supply, in Her Majesty's Government, of the United Kingdom of Great Britain and Northern Ireland, London, England

Application May 1, 1953, Serial No. 352,382
Claims priority, application Great Britain May 1, 1952
6 Claims. (Cl. 244—23)

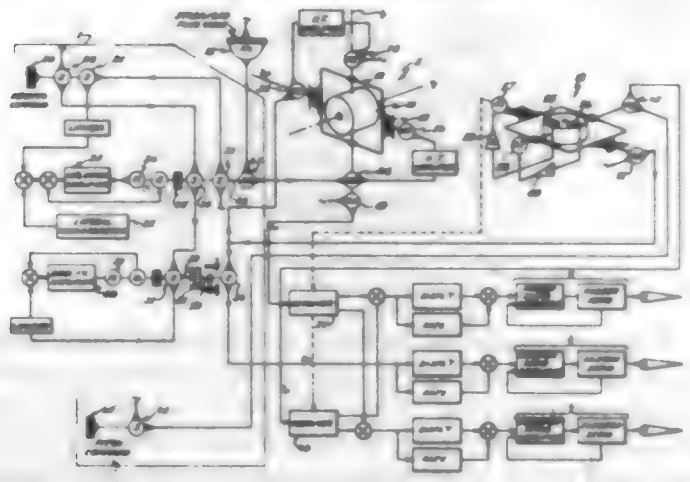


1. An aircraft having gas turbine propulsion means including compressor means and a propulsive nozzle arrangement directed in the sense substantially at right angles to a plane which is horizontal in normal cruising flight of the aircraft, a pair of auxiliary jet nozzles spaced apart on the aircraft and directed in the same sense as one another and substantially at right angles to said plane thereby to produce mutually opposed turning moments on the aircraft about a given axis, means affording a supply of compressed air from said compressor means and connected to supply said pair of auxiliary jet nozzles simultaneously with compressed air, and control means to effect simultaneously a decrease in the supply to one of said pair of jet nozzles and an equal increase in the supply to the other jet nozzle, whereby the total supply to the nozzles is unchanged and the ratio in which the supply is divided between the nozzles is varied to vary the effective overall turning moment on the aircraft by said auxiliary jet nozzles.

2,870,979
AIRCRAFT AUTOMATIC PILOT

Everett R. Tribken, Garden City, and Stanford A. Fingerhood, New York, N. Y., assignors to Sperry Rand Corporation, Great Neck, N. Y., a corporation of Delaware

Application October 20, 1955, Serial No. 541,364
16 Claims. (Cl. 244—79)

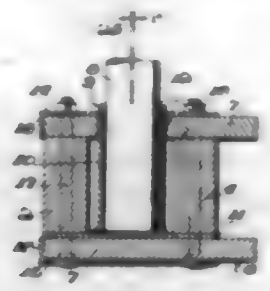


1. A heading reference for aircraft comprising a magnetic device for determining the orientation of the longitudinal axis of said craft through interaction with the earth's magnetic field, a directional gyro having a rotor, a rotor case supporting said rotor for spinning about a horizontal spin axis, a gimbal for pivotally supporting said rotor case for movement about a second, normally vertical axis, means for supporting said gimbal in said aircraft for pivotal movement about a third normally horizontal axis parallel to the longitudinal axis of said aircraft, means responsive to said magnetic device for maintaining said spin axis at substantially right angles to the orientation of said craft longitudinal axis as determined by said magnetic device, means for determining the bank angle of said craft, and means coupled with said gimbal and responsive to said last-mentioned means for rotating said gimbal about said third axis in accordance with the roll angle of said craft whereby to maintain said rotor spin axis horizontal.

2,870,980
WAREHOUSE PALLETS

Walter A. Higgins, Adamsville, R. I., and Harry C. Lott, Millmont Park, Pa.

Application November 1, 1955, Serial No. 544,386
3 Claims. (Cl. 248—120)
(Granted under Title 35, U. S. Code (1952), sec. 266)

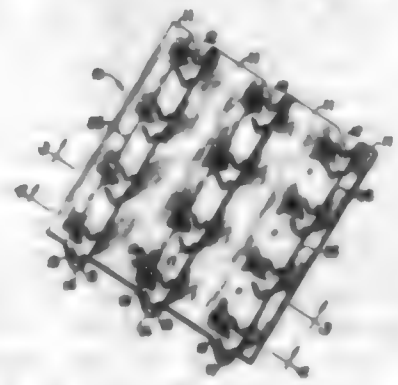


1. A warehouse pallet comprising a rectangular pallet body composed of a plurality of stringers, upper and lower platforms secured to the stringers, socket members, each composed of a plate and an upstanding tube fixed to the upper surface of the plate, one of said socket members being mounted at each corner of the lower platform with the upper end of the tube extending into an opening formed in the upper platform and the plate disposed under one of the stringers, means for securing each of said socket members in place, said means comprising an apertured plate engaged over the upper end of the socket member and mounted on the upper platform, a lower plate in engagement with the underside of the lower platform at the corners thereof, and threaded means passing through said plates and portions of the socket member for securing the same in position.

2,870,981
PLATFORM

Daniel H. Dellinger, Dearborn, Mich., and John W. McIlwraith, New Castle, Pa., assignors to Associated Box Corporation, a corporation of Michigan

Application August 6, 1957, Serial No. 676,589
20 Claims. (Cl. 248—120)



1. A platform formed of a single piece of sheet material comprising a plurality of coplanar, transversely spaced, elongated deck members and depending elongated channel members connected between adjacent deck members; each depending channel member including at each side a leg portion extending along a longitudinal edge portion of a respective one of the deck members and including at its bottom a base portion connecting the leg portions; each of the leg portions including a shoulder portion integral with the longitudinal edge portion of the respective deck member and a downwardly extending side portion integrally connected at its upper edge with the shoulder portion and integrally connected at its lower edge with the base portion; a plurality of transversely extending, longitudinally spaced, convex reinforcing ribs formed in each channel member; each of the transversely extending, longitudinally spaced, convex reinforcing ribs extending around the base portion and up each side portion of respective channel members with the upper ends of the convex reinforcing ribs terminating in respective leg portions; and a plurality of transversely extending, longitudinally spaced, concave reinforcing ribs formed in the deck members and connected channel members; each of the transversely extending, longitudinally spaced, concave reinforcing ribs extending from a deck member around the shoulder portion and down the side portion of the respective leg portion of a connected channel member and terminating in the respective leg portion at a point below the upper end of the convex reinforcing ribs in the respective leg portion; the transversely extending, longitudinally spaced, convex reinforcing ribs and the transversely extending, longitudinally spaced concave reinforcing ribs being formed in different transverse planes.

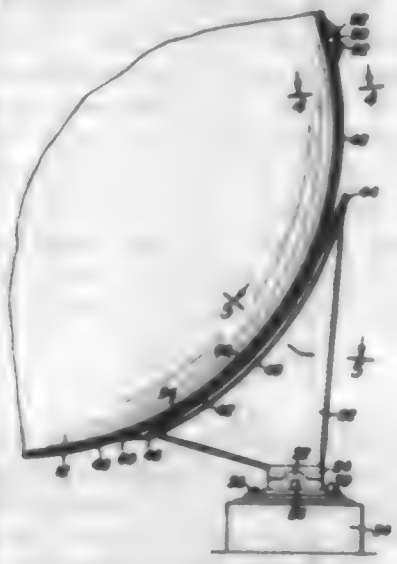
2,870,982
TANK SUPPORTING MEANS

Otto W. Greene, Brighton, and James Kirvan, North Chili, N. Y., assignors to Pfaudler Permutit Inc., Rochester, N. Y., a corporation of New York

Application January 18, 1954, Serial No. 404,548
2 Claims. (Cl. 248—146)

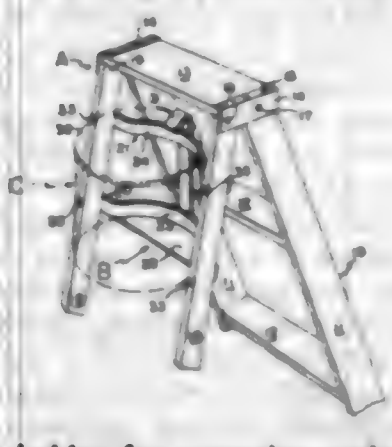
1. The combination with a liquid storage tank of generally rounded, cross-sectional shape disposed with its longitudinal axis extending in a generally horizontal direction, of a plurality of pairs of supporting legs spaced longitudinally of said tank with the legs of each pair spaced from each other on opposite sides of said axis, and a band in encircling attachment to said tank at each of said pairs of legs, each of said legs comprising a base

portion, a body portion pivotally mounted on said base portion independently of the other leg of said pair and having a portion inclined upwardly and outwardly of said tank, said inclined portion being shaped to extend partially around the perimeter of said tank encircling band laterally of and above the tank bottom and having



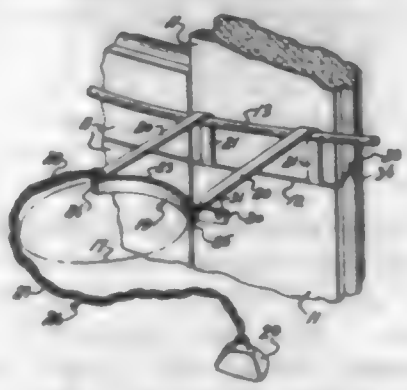
spaced parts and a flexible leg band having its opposite ends attached to said spaced parts of said inclined body portion, respectively, with the intermediate part of said leg band spaced from said inclined body portion and attached to said tank encircling band for yieldably supporting said tank in floating relation to said body portion.

2,870,983
BUCKET SUPPORT FOR ATTACHMENT TO STEPLADDERS
Ralph M. Booth, Sunnyvale, Calif.
Application January 11, 1954, Serial No. 403,119
3 Claims. (Cl. 248—210)



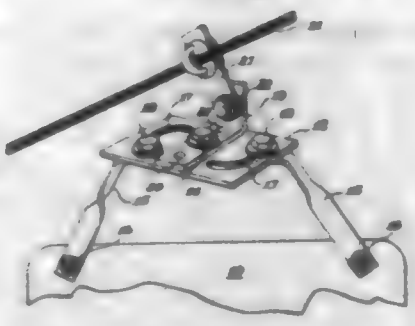
1. A bucket holder for mounting entirely within the confines of a painter's stepladder when folded, said holder comprising a pair of rigid band members adapted to be mounted transversely across the inner sides of the rear supporting legs, and between two upper steps of such ladder when folded, a concavely curved rearwardly facing portion formed centrally in each of said band members to seat a bucket of conforming curvature therein, a segmental bucket support plate having a curved forward edge fitted and secured to the lower edge of the curved portion of the lower transverse band member and of a width less than half the diameter of a bucket to be supported thereon, said segmental plate having a rear chordal edge thereof disposed substantially coextensively with the end portions of said lower band member, an upright member connecting the curved portions of the upper and lower transverse band members and extending upwardly beyond the upper of said band members, and a portion at the upper end of said connecting member bent to extend angularly downwardly and rearwardly at a height from the bottom plate greater than the height of a bucket to be supported thereby, the lower end of the rearwardly bent portion being at a height from the segmental plate less than the height of such bucket, whereby a bucket of predetermined height and diameter having a portion of its bottom resting on the segmental plate and its upper edge inserted beneath said rearwardly bent portion is retained within the curvature of said band means, and when the bucket is removed and a ladder on which the bucket holder is mounted is folded, no portion of the bucket holder projects beyond such ladder.

2,870,984
SILO CONSTRUCTION
Herman G. Keser, Almena, Wis.
Application June 2, 1954, Serial No. 434,082
2 Claims. (Cl. 248—229)



1. A blower tube mounting for attachment to a conventional silo, said mounting comprising, a cradle element for receiving an ensilage blower tube in abutting relation against lateral displacement, an L-shaped support having a laterally extending portion secured at its outer end to said cradle element and having an inner upstanding portion adapted to be held against the silo wall by said band, and elongated flexible holder secured at one side of the cradle element and adapted to closely encircle a blower tube, said flexible holder being securable at the other side of the cradle to hold the tube in rigid spaced relation with the silo and a band encompassing the silo and holding the inner upstanding portion of the support against the silo, said inner portion projecting downwardly from the band.

2,870,985
SIGN SUPPORTING BRACKET
Andrew S. Martin and James E. McCleary, Salem, Ohio
Application August 23, 1955, Serial No. 530,056
2 Claims. (Cl. 248—324)



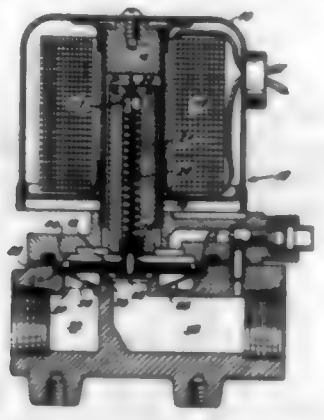
1. A sign supporting bracket comprising a flat rectangular body member having a central opening therein and a pair of outwardly bowed oppositely disposed arcuate slots therein located one on either side of said central opening, fasteners positioned one in said opening and one in each of said slots, an inverted U-shaped member secured intermediate its needs to said fasteners beneath said body member and comprising means for suspending a sign attached thereto, an L-shaped arm secured to said body member, an extension movably secured to the upper portion of said L-shaped arm and a clamp comprising an apertured fitting having a U-bolt engaged therein positioned on said extension and comprising means for attaching said sign supporting bracket to a wire.

2,870,986

AMPLIFYING MEMBER FOR PILOT-OPERATED VALVES

Frank J. Vargo, St. Louis County, Mo., assignor to Jackes-Evans Manufacturing Company, St. Louis, Mo., a corporation of Missouri

Application May 15, 1957, Serial No. 659,420
12 Claims. (Cl. 251—45)



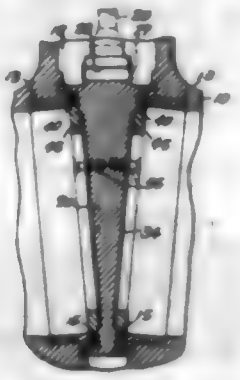
1. An amplifying member for pilot-operated valves, comprising a plate-like support member having opposed faces and a side edge; a flexible diaphragm positioned in contact with one of said faces coextensive therewith; a pilot-port extending through the support member and the diaphragm; a groove in said one face of the support member; an aperture through the support member in communication with the groove; and an aperture through the diaphragm in communication with the groove at a different location therealong.

2,870,987

GATE VALVE AND SEALING MEANS THEREFOR

Dolphice H. Greenwood, Pasadena, Calif.

Application July 8, 1955, Serial No. 520,820
4 Claims. (Cl. 251—327)



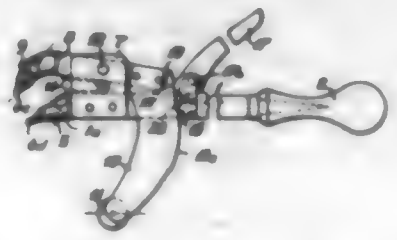
2. A valving means for use in a valve body having a fluid flow passage therein and an annular valve seating face surrounding said passage and inclined slightly less than 90 degrees to the axis of said flow passage, comprising: a valving member having a seating face for metal-to-metal sealing engageable against the face of a valve seating member for shutting off the flow of fluid through the passage, means for opening and closing said valving member into high pressure metal-to-metal sealing engagement with said seating member, one of said members having an annular recess in its said face providing a bottom surface, an outer cylindrical surface and a radially inwardly projecting lip overlying said bottom surface in spaced relation thereto; a compressible O-ring for seating in said recess and engageable against said bottom surface with said lip overlying and engaging an outer portion of the O-ring, said O-ring having a cross-sectional diameter greater than the depth of said recess so that a portion of the O-ring projects outwardly beyond the face of said valving member and being adapted when stretched to lie against said cylindrical surface; and a retainer element securable in said recess and within said O-ring, said retainer element having a peripheral lip overlying and engaging an outer portion of said O-ring, said bottom surface, cylindrical surface and periphery of said retainer element together defining an annular groove in which said O-ring is seated, said lips confining and lightly compressing said O-ring in said groove, there being an annular opening between said lips of a width substantially less than the cross-sectional diameter of the O-ring through which the outer portion of the O-ring projects, said O-ring having a cross-sectional area less than the cross-sectional area of said recess to accommodate said O-ring when said valving member is fully closed with its face in direct metal-to-metal engagement with said seating valve face, and the inner diameter of the O-ring being exposed to the high pressure side of said valve whereby said pressure is effective to expand said O-ring into high pressure sealing contact with the cylindrical surface of said recess and across the interface between said metal-to-metal sealing members.

2,870,988

EXTRACTOR FOR NAILS OR THE LIKE

Amable Alvarez Vazquez, Buenos Aires, Argentina

Application October 5, 1953, Serial No. 384,222
Claims priority, application France October 4, 1952
9 Claims. (Cl. 254—22)



6. A nail and spike extractor comprising, in combination, a first substantially rectilinear lever; a handle provided at one end of said first lever; a tooth provided at the other end of said first lever; a first pair of spaced supports carried by said first lever and projecting therefrom; a second lever having a first substantially rectilinear portion and a tooth at one end thereof and having a second portion connected to said first portion and extending therefrom at substantially right angles and being directed toward said first lever and extending beyond same; means mounting said second lever between said spaced supports with said tooth thereof located adjacent said tooth on said first lever for rotation of said first and second levers relative to each other and for slidable movement relative to each other in a direction substantially parallel to one of said levers; and manually operable lever means turnably mounted on one of said levers and engaging the other of said levers for holding the same with said teeth thereof respectively forced towards each, whenever required.

2,870,989

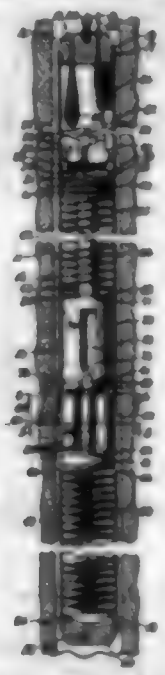
SAMPLING APPARATUS

Claude C. Laval, Jr., Fresno, Calif.

Application September 7, 1954, Serial No. 454,543
12 Claims. (Cl. 255—1.4)

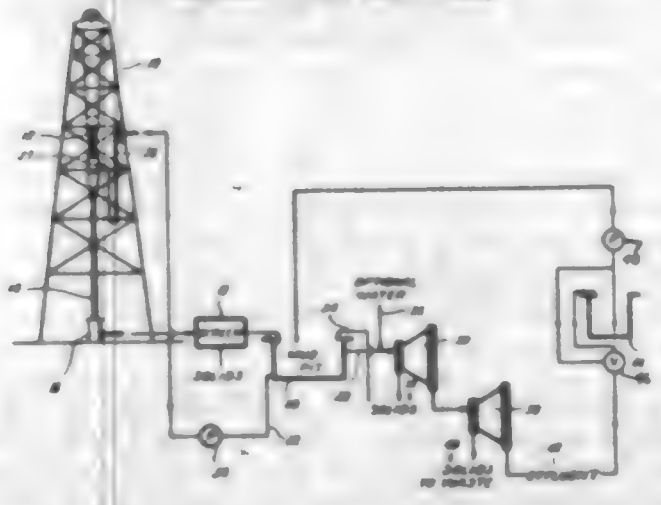
1. A borehole sampling apparatus comprising an elongated housing having opposite ends and a plurality of longitudinally disposed slots intermediate said ends, a mounting block mounted for slidable reciprocation in the housing past the slots and having longitudinal grooves therein adapted for registration with said slots, each of the grooves having latch means therein, a plurality of sampling tools mounted on the block individually associated with grooves and adapted for registration with the slots for pivotal movement between positions endwardly extended from the block and reversely pivoted positions within the grooves, means for thrusting the tools outwardly of the housing upon registration thereof with the slots, means in the housing urging the mounting block toward one end of the housing with the tools in their inwardly extended position out of registration from the

slots, means for applying pressure to the mounting block urging it toward the other end of the housing for registration of the tools with the slots whereupon they are thrust outwardly of the housing, said pressure applying means further urging the mounting block past the slots toward said other end of the housing for drawing the



tools into their position within the grooves of the mounting block, the latch means releasably retaining each of the tools in its respective groove, and means for relieving said pressure applying means to permit said yieldable means to urge the mounted block toward said one end of the housing back past the slots.

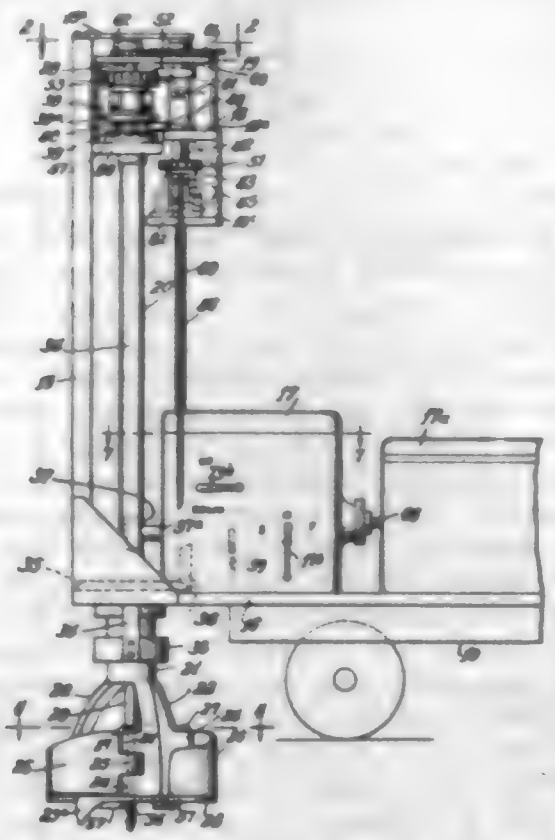
2,870,990
DRILLING FLUID METHOD
Taylor G. Bergey, Houston, Tex.
Application March 2, 1955, Serial No. 491,748
9 Claims. (Cl. 255—1.8)



1. A method of treating oil, gas and sulphur well drilling fluid containing suspended solids and weighting material of greater density than the suspended solids to recover the weighting material and to produce an effluent suitable for reuse in drilling fluid comprising, separating at least partially the weighting material from the drilling fluid, centrifuging the remaining drilling fluid by a centrifugal force sufficient to separate enough suspended solids from the drilling fluid to produce an effluent which is suitable for use in the drilling fluid, and reinjecting the weighting material into the effluent.

2,870,991
EARTH DRILLS
Harry I. Larson, Chicago, Ill., assignor of one-half to John A. Carlson, Chicago, Ill.
Application October 30, 1950, Serial No. 192,933
4 Claims. (Cl. 255—22)

1. In a drill of the type described having a base, an upright frame on said base, said frame comprising facing channel members, a plate connecting the upper ends of the same, power means and shiftable power transmitting gears mounted on said base, a drive shaft from said power means to said gears, a vertically movable frame mounted in the main frame, a pair of vertical racks forming part of said movable frame, a horizontal platform on top of said movable frame, said platform having shoes engaging said channel members, a square hollow vertically disposed auger shaft supported on said platform and extending through an opening in said base, a crown gear positioned on said base and having a square opening through which said auger shaft extends, a bevel gear connected to said power transmitting gears, a cutter head connected to the lower end of said shaft, said cutter head having laterally swinging side wall cutter blades, a second shaft rotatable within said auger shaft, said second shaft supported in said movable frame and extending down into said cutter head and having pivotal link connections with each side wall cutter blade for controlling the latter, a two-part clutch connected between the upper ends of the two shafts, the lower part of said clutch being fixedly secured to the auger shaft and having a pinion formed



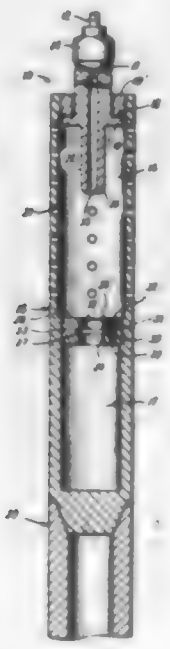
thereon, the upper part of said clutch being slidably feathered on the inner shaft whereby both shafts may rotate together, said upper clutch part having a pinion formed thereon, a rotatable stub shaft mounted in the upper part of the vertically movable frame adjacent the auger shaft and said two-part clutch, a sleeve mounted on said stub shaft, said sleeve having a cam at one end and a lug at the other end, a slidable collar mounted on said stub shaft, a gear fastened to said collar, a manually operable lever for raising said collar and gear, an idler gear engaged by said gear on the collar when raised, said idler gear meshing with the pinion on said lower clutch part whereby said stub shaft and sleeve are rotated and said cam caused to disrupt the clutch connection between the two first mentioned shafts while the latter are rotating at which time said lug, through the medium of the upper clutch part pinion and said feathered shaft connection, will advance said inner shaft a degree of rotation before the parts of said clutch again move into clutching position, whereby said swingable cutter blades are swung outwardly a predetermined degree, and pinion gears connected to said power transmitting gears, said pinion gears meshing with said racks for moving said movable frame up and down.

2,870,992

JAR OPERABLE UPON RELEASE OF VACUUM

Bryant P. Arterbury, Houston, Tex., assignor of thirty-three and one-third percent to Roy L. Arterbury, Houston, Tex.

Application May 17, 1955, Serial No. 508,958
9 Claims. (Cl. 255—27)



1. A jar operable in a well bore pipe string and comprising a tubular body including therein an upper chamber providing opening means through the wall thereof and having a top closure therefor, said body also including a lower fixed volume chamber axially adjacent to said upper chamber and having a bottom closure therefor, a ring forming a wall in said body between said chambers extending transversely there-across and having a smaller inner diameter than said chambers, a mandrel extending longitudinally in said body through said top closure and said upper chamber and having a lower end of a diameter to be sealably insertable through the inner diameter of said ring to close said lower chamber and extendable into said closable chamber, and a wall of said closable chamber being provided with a passage, check valve means in said passage for the escape of fluid from said closable chamber into said well bore as said fluid is displaced by said mandrel, said mandrel creating vacuum in said closable chamber as it is withdrawn therefrom and said vacuum being released as said mandrel clears the open chamber side of said ring whereby said mandrel is brought into jarring impact with said top closure.

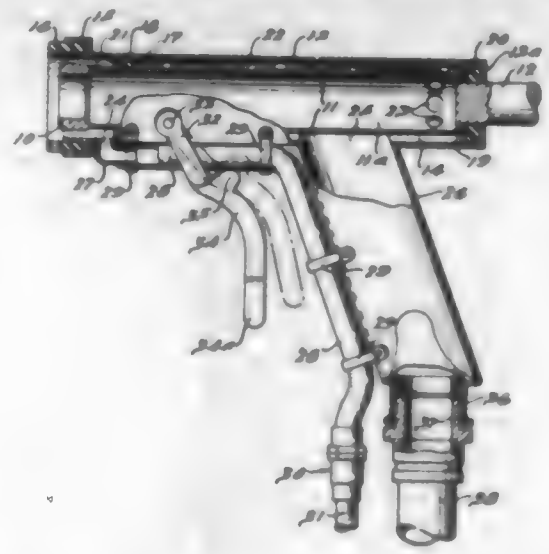
2,870,993

CORE BIT DRILLING TOOL

David H. Jahnke, Detroit, Mich., assignor to Koebel Diamond Tool Co., Detroit, Mich., a corporation of Michigan

Application September 27, 1956, Serial No. 612,504
18 Claims. (Cl. 255—47)

1. In a drilling device, a tubular bit body, a core bit supported on the forward end of said body, a cylindrical shell embracing said bit body and having the cylindrical wall thereof spaced outwardly of said body to provide a longitudinally extending annular space therebetween, sealing means on the forward end of said shell for sealing the same when in engagement with the face of the work, a second sealing means interposed between said shell and bit body to provide a chamber between both of said first and second named sealing means, a third sealing means providing a second chamber between said shell and body at a locality intermediate said second and third sealing means, said bit body being provided with a port means for the flow of liquid coolant from said bit body into said second chamber, means for introducing liquid coolant into said first named chamber, and means communicating



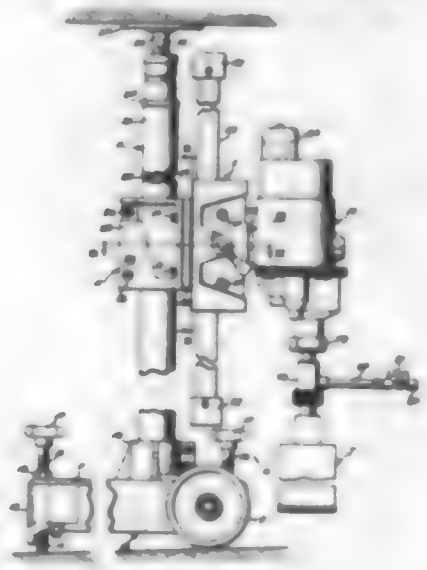
with said second named chamber for discharging liquid coolant therefrom.

2,870,994

DRILLING MACHINE

Karl J. Klapka, Detroit, Mich., assignor to Wheel Trueing Tool Company, Detroit, Mich., a corporation of Delaware

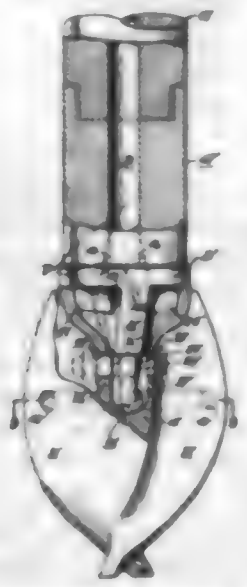
Application August 6, 1956, Serial No. 602,134
3 Claims. (Cl. 255—53)



2. In a drilling machine, a base adapted to rest on the floor, a support column mounted on said base adapted to have clamping engagement with the ceiling and hold said base stationary on the floor and supported in fixed relation with respect thereto for drilling, a drill carriage having a drill thereon, means for mounting said drill carriage on said column for adjustable movement therealong and for rotatable adjustment with respect thereto about an axis extending transversely of the axis of said column comprising a support collar mounted on said column for adjustable movement therealong, means for clamping said collar in position on said column, a support plate having a vertically extending face mounted on said column for free rotation with respect thereto about a horizontal axis, a clamping plate retaining said support plate to said collar, means clamping said clamping plate to said collar and exerting frictional resistance to rotation against said support plate to hold said support plate in position, a channeled guide track secured to said support plate on the outer face thereof and having flanges extending outwardly from said support plate, a rack extending along said guide track between the flanges thereof, said drill carriage being of a generally channel-like form in cross-section and having slidable engagement with the flanges of said guide track and having gibs

extending inwardly along the base of said guide track, and means feeding said carriage along said guide track comprising a pinion meshing with said rack and means rotatably mounted on said carriage for rotatably moving said pinion.

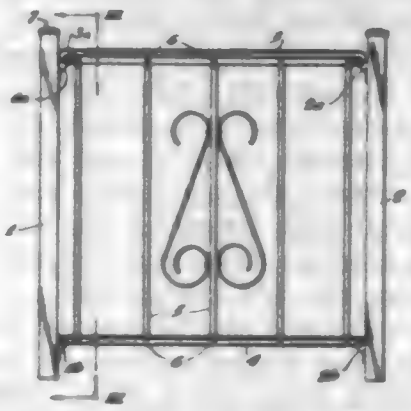
2,870,995
DRIVE LUG FOR PILOT BIT AND EARTH BORING AUGERS
Gerald A. M. Petersen, Santa Clara, Calif.
Application November 15, 1954, Serial No. 468,620
9 Claims. (Cl. 255—61)



1. In combination with a pilot bit of the type having dual helical blades formed integrally with a relatively cone-shaped central body portion, means for coupling said pilot bit to a drive shaft comprising a drive lug having a plate-like formation secured to the end of said drive shaft, said lug comprising a depending key portion formed integrally with said plate-like formation and an ear disposed perpendicular to said key portion on either side thereof, said key portion spanning the full diameter of said plate-like formation between the dual blades of said pilot bit and twisting congruent to the helical trend thereof to a depth limited by the ability of the cone-shaped central body of said pilot bit to receive the same, said cone shaped central body having a socket formed therein complementary to said diametrically extending key portion for receiving the same, said ears between said plate formation and key portion each being disposed in a leading direction relative to the direction of turning of said drive shaft for transmitting direct driving forces to said pilot bit and for minimizing counterforces of the latter against said key portion, and a bolt extending through said key portion and the cone shaped central body of said pilot bit for attaching the latter to said drive lug.

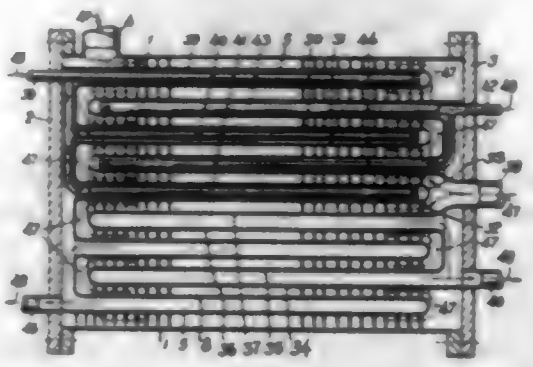
2,870,996
KNOCKDOWN ADJUSTABLE RAILING
Herbert M. Helt, Pittsburgh, Pa., assignor to National Aluminum Products Company, Pittsburgh, Pa.
Application June 6, 1957, Serial No. 664,090
3 Claims. (Cl. 256—22)

1. An adjustable pitch railing structure comprising a pair of vertical end posts, longitudinally extending top and bottom rails of extruded metal extending between said posts, a plurality of parallel, vertical spindles extending between said rails, the top ends of said spindles being spaced from the bottom surface of said top rail adapted for relative tilting movement, said top rail having downwardly extending, longitudinal flanges abutting opposite sides of the top end portions of said spindles, said top rail having downwardly turned edge portions, said longitudinal flanges and abutting opposite sides of said top end portions having registering holes, a plurality of bolts extending through said registering holes and providing pivots for relative pivotal movement of said top rail and spindles, said bottom rail comprising two separate, spaced, extruded rail sections of angular cross section abutting opposite sides of the bottom portions of said spindles and being pivotally connected thereto, end brackets secured



to top and bottom portions of said end posts, and pivotal means for pivotally connecting the ends of said top and bottom rails to said brackets, whereby said top and bottom rails, end posts and spindles provide a pivotally movable parallelogram linkage so as to enable selective adjustment of the pitch of said railing structure.

2,870,997
HEAT EXCHANGER
Sten Söderstrom, Sollentuna, Sweden
Application June 4, 1954, Serial No. 434,488
Claims priority, application Sweden June 10, 1953
7 Claims. (Cl. 257—237)



4. Heat exchanger comprising a housing including opposite end walls and a side wall therebetween, a first multiple tube comprising an outer tube secured at one end thereof to a first end wall of said housing, the opposite end of said outer tube being turned inwardly to form the corresponding end of a first inner tube within said outer tube, the opposite end of said first inner tube being located in the proximity of but in spaced relation from that end wall of said housing to which said outer tube is secured, said opposite end of said first inner tube being turned inwardly to form the corresponding end of a second inner tube within said first inner tube, the opposite end of said second inner tube being closed and spaced from the second and opposite end wall of said housing; a second multiple tube comprising an outer tube secured at one end thereof to said second end wall of said housing and extending into an end of said first inner tube of said first multiple tube and being spaced therefrom, the opposite end of said outer tube of said second multiple tube terminating in the proximity of but in spaced relation from the inwardly turned end of said first inner tube of said first multiple tube and itself being turned inwardly to form the corresponding end of a first inner tube within said outer tube of said second multiple tube, the oposite end of said first inner tube of said second multiple tube terminating in the proximity of but in spaced relation from said second end wall of said housing to which said outer tube of said second multiple tube is secured, said opposite end of said first inner tube of said second multiple tube being turned inwardly to form the corresponding end of a second inner tube located within said first inner tube of said second

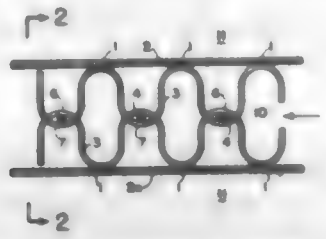
multiple tube and spaced therefrom, said tubes of said first and second multiple tubes being spaced from each other and from the side wall of said housing; an inlet pipe for a first heat exchanging medium leading to the housing space between said end walls and the outer side of said outer tube of said first multiple tube, an exit pipe for said first heat exchanging medium connected to the opposite end of said second inner tube of said second multiple tube, an inlet pipe for a second heat exchanging medium leading through said first end wall into a first enclosed space between the outer tube and inner tubes of said first multiple tube, an outlet pipe for said second heat exchanging medium from said first enclosed space, a second inlet pipe for said second heat exchanging medium leading through said second end wall into a second enclosed space between the outer tube and inner tubes of said second multiple tube, and a second outlet pipe for said second heat exchanging medium from said second enclosed space.

2,870,998

HEAT EXCHANGER WALLS WITH COUPLED SINUOUS FIN ELEMENTS

Thomas L. Woolard, Wellsville, N. Y., assignor to The Air Preheater Corporation, New York, N. Y., a corporation of New York

Application May 14, 1954, Serial No. 429,909
3 Claims. (Cl. 257—245)



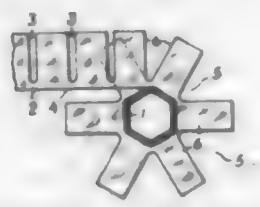
3. A heat exchange envelope including metallic plates spaced apart to provide walls for a fluid passageway therebetween, a plurality of sinuous wires secured to each wall and adapted to extend perpendicularly between metallic plates to provide parallel rows of heat exchange elements having alternate rows secured to opposing passage walls; and linking means extending through the spaces formed between overlapping loops of oppositely extending sinuous wires to link the wires and their attached plates together into an integral body.

2,870,999

HEAT EXCHANGE ELEMENT

Sten Hilding Söderström, Sollentuna, Sweden

Application February 20, 1956, Serial No. 566,593
Claims priority, application Sweden February 24, 1955
1 Claim. (Cl. 257—262.20)



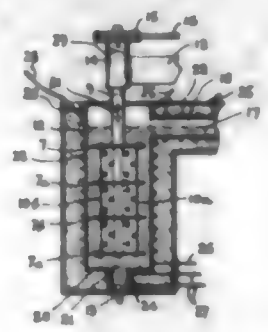
A heat exchanging device, comprising in combination with a tube, a flat band of the same material as the tube having its inner longitudinal edge wound helically in direct contact with the surface of the tube and united with the tube by means of a continuous weld joint along said edge with same material as the band and tube, the outer longitudinal edge of the band being provided with transverse interspaced slits with the slits of one turn in axially staggered relation to the slits of the adjacent turn of the band; the spacing of the adjacent turns being in the ratio of 1 to 5 times the thickness of the band.

2,871,000

APPARATUS FOR STIRRING GLASS

Robert F. Dowling, Sturbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application March 12, 1956, Serial No. 570,778
12 Claims. (Cl. 259—4)



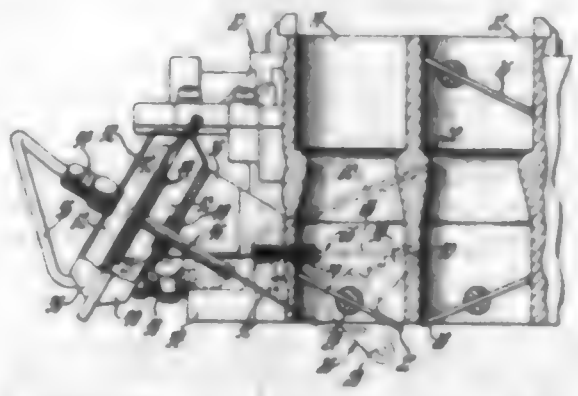
1. A stirring device of the character described comprising a shaft, a plurality of perforated disks secured concentrically to said shaft with the perforations in each successive disk being in offset relation with the perforations in the preceding disk in a direction longitudinally of said shaft, radially disposed perforated webs between said disks each having their inner edge secured to said shaft and their upper and lower edges secured to the adjacent disks, the outer edges of said webs being substantially in meeting relation with the outer annular edges of said adjacent disks and the perforations therein being in offset relation with each other.

2,871,001

THROTTLE ACTUATING MECHANISM

Donald D. Stoltman, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

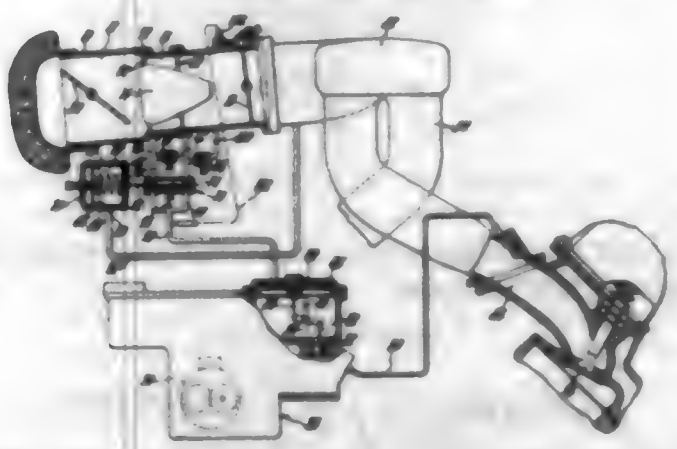
Application May 9, 1957, Serial No. 658,112
6 Claims. (Cl. 261—23)



1. A carburetor comprising a primary air induction passage, a venturi formed in said induction passage, a primary throttle valve disposed in said induction passage posteriorly of said venturi, a secondary induction passage, a throttle valve disposed in said secondary passage, a lever fixed for rotation with said secondary induction passage throttle, a servo mechanism mounted on said carburetor, a conduit connecting said servo mechanism with the venturi of the primary induction passage, linkage means connecting said servo mechanism with said lever whereby the servo will tend to open said secondary throttle as the flow of air through said venturi increases, spring means fixed at one end to said carburetor and at the other end to said lever tending to urge the secondary throttle in a closed direction, said spring means being connected to said lever such that the moment arm through which said means acts to close said secondary throttle progressively decreases as the throttle moves from a fully closed to a partially opened position, said linkage means being connected to said lever such that the moment arm through which said servo mechanism acts to open said secondary throttle progressively increases from the fully closed position of said throttle to a substantially fully

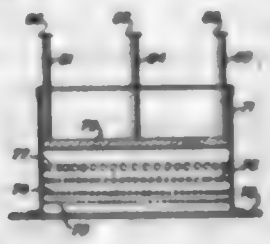
opened position of said throttle, said spring means and said linkage means being arranged with respect to said lever so that the resultant force tending to open said secondary throttle increases from the fully closed to the fully opened position of said secondary throttle.

2,871,083
FUEL INJECTION METERING SYSTEM
Donald A. Gail, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 6, 1957, Serial No. 657,448
7 Claims. (Cl. 261—69)



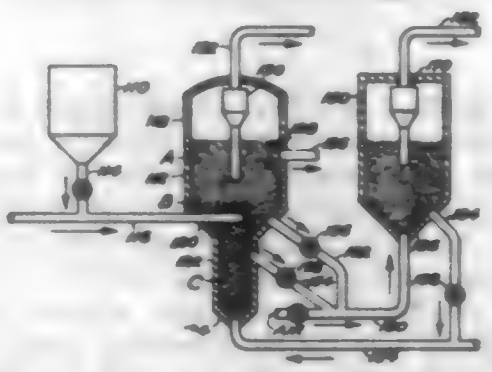
1. A fuel injection system for an internal combustion engine comprising an air intake passage, a venturi formed in said passage, a throttle valve formed in said passage anteriorly of said venturi, individual intake passages communicating each cylinder of said engine with said air induction passage, a source of fuel under pressure, conduit means for communicating said fuel source with the individual intake passages, a metering valve disposed in said conduit means for regulating the quantity of fuel supplied to the individual cylinders of said engine, vacuum responsive means connected to said metering valve for controlling the actuation thereof, conduit means communicating said vacuum responsive means with the induction passage at a plurality of axially spaced positions within said venturi, a different vacuum force existing in said conduit means at each of said positions, and engine load responsive means for controlling the vacuum force conveyed by said conduit means to said vacuum responsive means.

2,871,093
FRACTIONATOR BUBBLE CAP
Richmond B. Galbreath, New Orleans, La., assignor, by mesne assignments, to The American Oil Company, a corporation of Maryland
Application September 28, 1955, Serial No. 537,129
3 Claims. (Cl. 261—114)



3. A contacting apparatus comprising an outer shell provided with ingress and egress conduits for material to enter and leave the interior of said shell, a plurality of horizontal decks in vertical spaced relationship in said shell, each of said decks being provided with weir means for maintaining a depth of liquid thereon, with downcomer means for transferring liquid from a deck to the next lower deck, with apertures communicating with the space below the deck, and bubble cap means positioned coaxially over said apertures, wherein the bubble cap means comprises can-like chimney extending from the deck to an elevation substantially equal to said weir height, a disc member positioned transversely within said chimney having essentially the same area as the chimney transverse area and capable of up and down movement in said chimney, cross-bar members positioned across the upper end of said chimney to prevent further upward movement of said disc-member, a plurality of post-like members joined to the upper side of said disc-member and extending through apertures provided in said cross-members, said post-like members having means which contact said cross-members to prevent movement of said disc-member beyond the lower end of said chimney, said chimney being provided with a plurality of rows of circular apertures, each horizontal row consisting of equi-size apertures in equi-distant spacing around the chimney, the apertures in said rows increasing in size with the smallest apertures being in the row nearest the deck and each row having apertures at least as large as the next lower row.

2,871,094
PROCESS FOR HEAT TREATING HEAT SENSITIVE SOLID PARTICLES
Everett Gorin, Pittsburgh, Pa., assignor to Consolidation Coal Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application February 29, 1956, Serial No. 568,594
13 Claims. (Cl. 263—52)

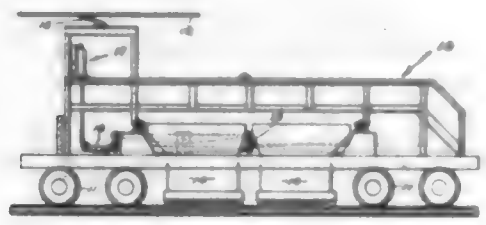


2. A method of heat treating a heat sensitive solid material which comprises maintaining a supply of inert solid particles in a heat treating zone, continuously supplying heat sensitive particles to said heat treating zone, maintaining an inventory of heat sensitive particles in said heat treating zone, passing a treating gas at a temperature above the temperature of said heat treating zone upwardly through said heat treating zone at a velocity sufficient to maintain both said inert solid particles and said heat sensitive solid particles in a fluidized condition so that all of said particles define a dense phase fluidized bed, the majority of said heat sensitive particles being smaller in size than the majority of said inert particles so that the upper portion of said dense phase fluidized bed consists essentially of said heat sensitive particles and the lower portion of said dense phase fluidized bed consists essentially of said inert particles, said supply of inert solid particles in said dense phase fluidized bed lower portion serving as a tempering means for said treating gas so that the temperature of said treating gas is reduced prior to contact of said treating gas with said heat sensitive particles, and continuously withdrawing treated heat sensitive particles directly from the upper portion of said dense phase fluidized bed.

2,871,095
SCALE TOTALIZER
Hugues Bourassa, Cleveland, Ohio, assignor to The Atlas Bolt & Screw Company, Cleveland, Ohio, a corporation of Ohio
Application January 23, 1952, Serial No. 267,873
32 Claims. (Cl. 265—28)

32. In a material handling system having weight totalizers, a plurality of spaced apart containers for stor-

ing materials; a scale car movable between stations corresponding to said containers; said scale car having a material receiving hopper and having a scale operatively connected to said hopper with a scale indicator member for indicating the total weight of said hopper and its contents; each container being adapted to store and to dispense any desired weight of material into said hopper when said scale car is located at the station corresponding to said container; a plurality of weight totalizing counters, one counter for each container and station unit; a motion transmitting means; means for selectively connecting the motion transmitting means to one of said counters; a control means for energizing the motion transmitting means until the selected counter registers in response to the position of said scale indicator member an amount equivalent to the weight of material dispensed into the hopper from the container; said control means including a follower member registrable with said indicator member and movable in a path parallel to the path



of said indicator member, including means for holding said follower member as said indicator member moves away from a first registered position in response to the weight of a first material dispensed into said hopper, and including manually initiated means for energizing said motion transmitting means and for moving together the counter corresponding to the first material and said follower member with the latter moving along its path until a second registration with said indicator member takes place with the extent of movement controlled by a position responsive means on one of said members coacting with the other of said members only during registration; means for moving said scale car between said stations; and means responsive to said position responsive means for preventing said last means from moving said car after material is dispensed into said hopper unless manual initiation of follower member and counter movement has occurred and said counter has registered the exact weight corresponding to the movement of said scale indicator member.

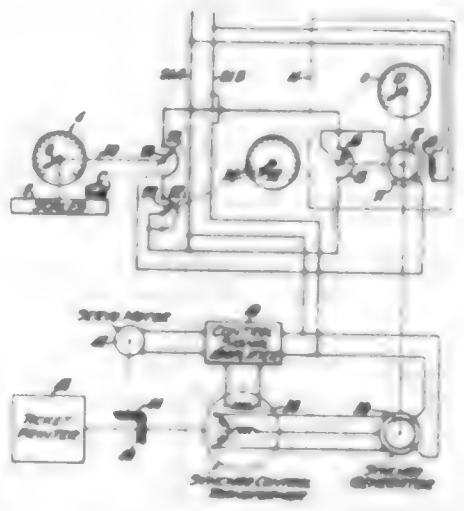
2,871,006

APPARATUS FOR DETERMINING THE NET WEIGHT OF MATERIAL IN A CONTAINER

Joseph W. Hags, Irwin, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

Application December 3, 1952, Serial No. 323,870
3 Claims. (Cl. 265—70)

1. Apparatus for determining the net weight of material in a container comprising a scale for determining the weight of the material plus the weight of the container, an indicator for said scale, a power source having two leads, a variable resistor having a first end electrically connected to the first of said leads and a second end electrically connected to the second of said leads, a reversible motor mechanically connected to move the contact arm of said variable resistor, means electrically connecting the first side of said motor to the said contact arm, two potentiometers connected in series to said power source, the contact arm of the first of said two potentiometers being electrically connected to the second side of said motor, means for causing the contact arm of the first of said two potentiometers to move proportionately to the movement of said indicator, the contact arm of the second of said two potentiometers being movable in proportion to the weight of said container, and a net weight



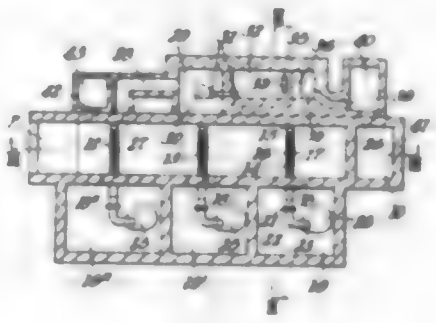
indicator connected to said motor for indicating the net weight of said material.

3,871,007

CONDENSER FOR CONDENSING METAL VAPOURS

Leslie Jack Derham, Brentry, Bristol, and John Wilford Haywood, Clifton, Bristol, England, assignors, by mesne assignments, to Metallurgical Processes Limited and The National Smelting Company Limited doing business as Metallurgical Development Company, Nassau, Bahamas

Application October 5, 1954, Serial No. 460,488
Claims priority, application Great Britain October 6, 1953
3 Claims. (Cl. 266—15)

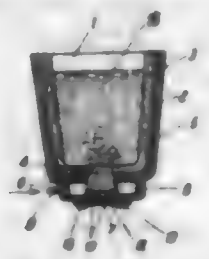


1. A condenser for condensing metal vapors from gases containing these comprising an inlet for the gases, a long condensing region of width considerably greater than its height and adapted under operating conditions to contain a bath of molten condensing metal up to a level such that the free space above the surface of the molten condensing metal is of cross-sectional area considerably less than that of the inlet, said inlet being adapted under operating conditions to deliver the gases to said free space, an outlet for the gases of cross-sectional area generally at least as large as that of the inlet, a plurality of longitudinally spaced pipes positioned in and extending transversely across the condensing region under the surface of the molten condensing metal adapted to be contained therein, each of said pipes having for most of the width of the condensing region means of communication between the interior of the pipe and the condensing region, pumps for supplying molten condensing metal to said pipes from chambers arranged at the side of the condensing region, the side walls of the condensing region having openings through which said pipes pass, each opening being larger than the pipe passing therethrough to provide around the pipe a space permitting return of molten condensing metal from the condensing region to the chamber arranged at the side thereof.

2,871,603
APPARATUS FOR GAS FLUSHING OF MOLTEN METAL

Etienne Spire, Montreal, Canada, assignor to l'Air Liquide, Societe pour l'Etude et l'Exploitation des Procedes Georges Claude

Original application November 2, 1950, Serial No. 193,581, now abandoned. Divided and this application January 7, 1955, Serial No. 480,542
Claims priority, application France November 3, 1949
5 Claims. (Cl. 266—39)



1. Apparatus for stirring, in a metallurgical fusion bath, a molten metal phase in contact with a slag phase by insufflating a gas into said bath, said apparatus comprising, in combination, a refractory lined vessel having a depth at least equal to its width, an homogeneous self-sustaining gas-permeable ceramic refractory block impervious to molten metals, sealed in an aperture in the central portion of the bottom of said vessel, said block having an upper face substantially level with the vessel lining, the area of said face being less than about one eighth of the surface of the vessel bottom, the side wall of said block being provided with a gas-impervious peripheral coating, and means for insufflating a gas into said vessel through said permeable block.

2,871,609
CLOSURE OPERATING MECHANISM AND AUTOMATIC CONTROL SYSTEM THEREFOR

George G. Picatti, Yakima, Wash.

Application March 9, 1955, Serial No. 493,161
7 Claims. (Cl. 268—49)

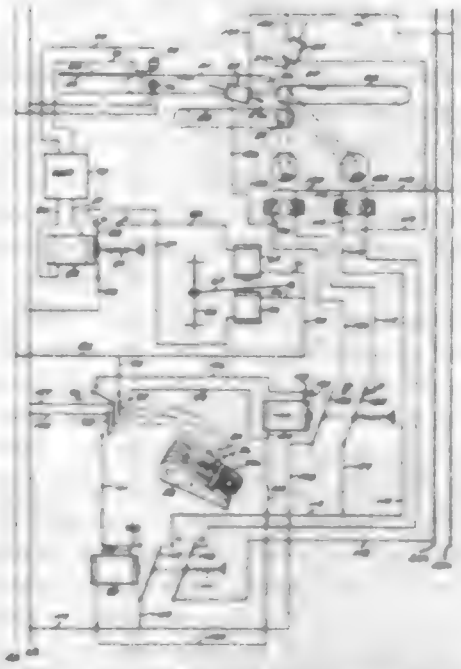


1. Selective energization and operating mechanism for a closure member of the sliding door type, wherein said closure member is mounted for reciprocal movement with respect to an associated stationary structure in turn provided with an accessway, comprising a reversible power drive assembly including a rotatable drive element in floating, tractive engagement with a driven track, one such tractive element being situated on said closure member and the other such tractive element being situated on such stationary structure, and an automatic control system enabling selective actuation of such operating mechanism to cause a complete opening and closing cycle of the operation without further attention from an operator, said automatic control system comprising a time-delay relay, an opening relay, and a closing relay, switch means for selectively energizing said time-delay relay, limit switch means contacted by associated camways arranged in the path of travel of said closure member adjacent the limits thereof, a first such limit switch means being established in an open contact condition when said closure member approaches an open position with respect to said accessway, and a second such limit switch means being established in an open contact condition when said closure member approaches a closed position with respect to said accessway, the energization circuit for said opening relay comprising a normally open time-delay relay contact, a normally closed closing relay contact, and said first limit switch means, the energization circuit for said closing relay comprising a normally closed opening relay contact and said second limit switch means, the energization circuit for said time-delay relay including a normally open interlock contact in parallel with said selectively actuated switch means, said opening relay further having a normally open contact which, when closed, energizes the drive motor of said power drive assembly to cause rotation thereof in a first or opening direction opening said closure member and said closing relay further comprising a normally open contact in an energization circuit for said drive motor to cause rotation thereof in a direction closing said closure member.

2,871,810
MEASUREMENT CONTROLS OR TIMERS FOR FOLDING MACHINES

Glen V. Likens, Portland, Oreg.

Application December 6, 1954, Serial No. 473,084
14 Claims. (Cl. 270—81)

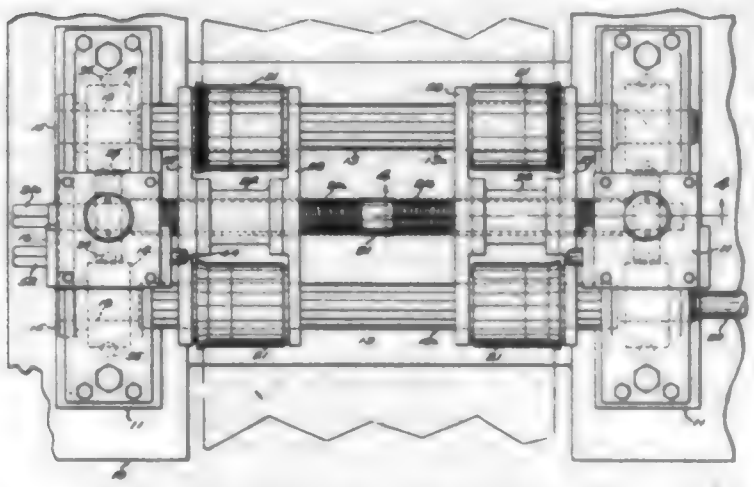


1. In a folding machine of the type wherein folding means performs two folding operations, both proportionate, but in different ratios, to article length upon each of a series of articles fed in succession along a path, improved controlling means for said folding means comprising a first timing arm, a second timing arm, and a third arm, driving means sensitive to passage of the leading edge of the article past a control point for rotating said first timing arm for a first increment of the timing cycle at a speed bearing a fractional relationship to article travel, and likewise sensitive to passage of the trailing edge of the article past said control point for rotating said first timing arm a second increment of the timing cycle at a speed proportionate to the speed of article travel, means for preventing rotation of said third arm during said first increment, means providing a common axis of rotation for all said arms, said second timing arm having a linkage connection with both said first timing arm and said third stopped arm whereby to cause said second timing arm to rotate at one-half the speed of said first timing arm, means for releasing said third arm at the termination of said first increment, means for causing said third arm, immediately thereafter and during said second increment, to be driven with said first and second arms at said speed proportional to article travel, and respective first and second fold initiating means in the paths of travel of said first timing arm and said second timing arm, and effective on said folding means, for initiating first and second folding operations when said timing arms move to respective contacting registry with said fold-initiating means.

2,871,011
SIMULTANEOUSLY ADJUSTABLE PINCH ROLLS FOR FEEDING ENDLESS STRIPS

Lad L. Hercik, Lakewood, Ohio

Application June 13, 1955, Serial No. 515,034
13 Claims. (Cl. 271—2.3)

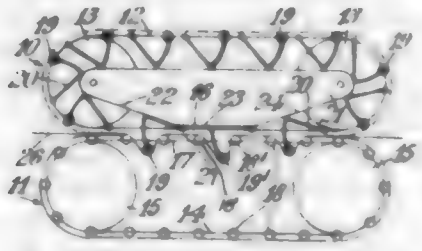


1. A machine for feeding endless strip comprising in combination pairs of opposed rolls rotatably supported with each pair about a horizontal axis, said pairs of opposed rolls being positioned respectively at opposite sides of said endless strip, a housing, supporting means for supporting a plurality of horizontal guide shafts on said housing, said guide shafts extending transversely across the direction of strip travel, frame means supported on said guide shafts on opposite sides of said endless strip, said pairs of rolls rotatable relative to said frame means, said rolls adapted to slide axially on said guide shafts, driving means on said housing and connected to said rolls by said guide shafts whereby said rolls may be rotated simultaneously with lateral adjustment, means comprising screw shafts for laterally moving said pairs of opposed rolls by said frame means toward and away from each other along said guide shafts, at least one pair of opposed rolls having a substantially cylindrical portion for supporting said endless strip, an extension on each of said rolls providing a frusto-conical flange, said frusto-conical flanges on pairs of rolls cooperating to engage the edges of said endless strip as said opposed pairs of rolls are moved laterally toward one another to provide the sole means for supporting said strip during feeding, said shaft supporting means rotatably supporting opposite ends of said guide shafts and including means for simultaneously raising and lowering said guide shafts.

2,871,012
DISPLAY APPARATUS TO ALLOW EXAMINATION OF A FAST-MOVING CONTINUOUS WEB

Peter Ralph Price, London, England, assignor of one-third to George Edmond Brackenbury Abell, and one-third to Donald William Tilley, London, England

Application August 13, 1956, Serial No. 603,755
Claims priority, application Great Britain August 18, 1955
12 Claims. (Cl. 271—2.3)

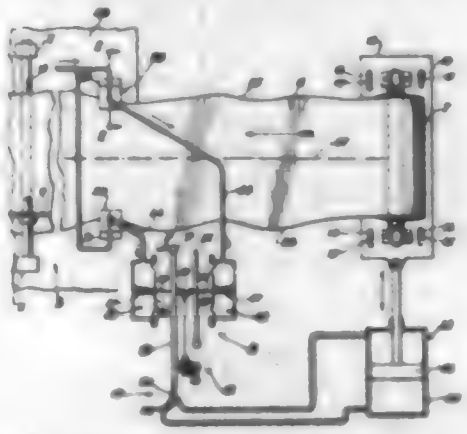


7. In a web manipulating machine of the kind in which a web is caused to travel under tension at a uniform high overall speed, means for locally reducing the web speed at a viewing station to enable successive planar sections of the web to be examined visually, comprising an endless succession of spaced web-support devices each embodying two such supports spaced apart along the length of the succession to support between them a planar section of the web, means for moving the succession past the viewing station in the direction of web movement and adjacent one face of the web, an endless succession of web diverting members, means for moving the diverting members in the direction of web movement adjacent the other face of the web and in staggered relation with the web-support devices and means for moving the diverting members into the spaces between the support devices as they approach the viewing station, thereby to push the web between the support devices to form a succession of loops in the web alternating with a succession of plane surfaces and means for withdrawing the diverting members from the spaces after leaving the viewing station.

2,871,013
WEB GUIDE

Frank J. Markey, Hammond, Ind., assignor to GFE Controls, Inc., Chicago, Ill., a corporation of Illinois

Application April 3, 1956, Serial No. 575,808
12 Claims. (Cl. 271—2.6)



1. Means for detecting and indicating the lateral position of the center line of a longitudinally traveling web the lateral positions of the edges of which may shift either in corresponding directions as a consequence of lateral movement of the web or relative to each other as a consequence of varying web width, said means comprising a first web edge detector arranged for sensing the lateral position of a first one of the edges of said web and developing a first signal the magnitude of which varies continuously and proportionally with degree of change in the lateral position of said first web edge, a second web edge detector arranged laterally opposite said first detector for sensing the lateral position of the other edge of said web and developing a second signal the magnitude of which varies continuously and proportionally with degree of change in the lateral position of said other edge, and summariner means coupled with both said detectors and arranged to compare the magnitudes of said first and second signals and to produce a third signal the magnitude of which continuously and proportionally varies with the difference between the magnitudes of said first and second signals.

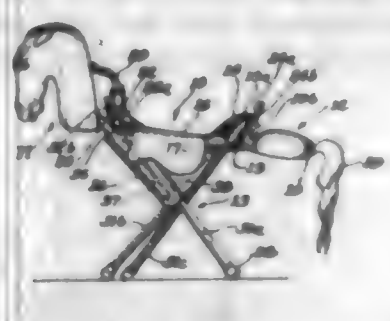
2,871,014
CHILD'S SADDLE STOOL

Haskell Benson, Chicago, Ill., assignor to The Benson Company, Inc., Chicago, Ill., a corporation of Illinois

Application November 29, 1955, Serial No. 549,637
5 Claims. (Cl. 272—1)

1. A child's stool comprising a simulated riding saddle of inherently flaccid material having pockets defining a horn and cantle and having a seat of substantially isosceles triangular configuration, the horn being at the apex and the cantle at the base thereof, a plurality of legs for spacing the saddle from a supporting surface, pocket portions forming part of the saddle for individual recep-

tion of said legs, means for maintaining said legs in rigid relation to the saddle and a collapsible wire frame for rigidifying the several parts of the saddle comprising a front member of U-shape, the legs whereof extend horizontally rearwardly and a part of the bight thereof being conformed to fit snugly in the horn pocket for support thereof, a rear member substantially of U-shape, the legs



whereof extend horizontally forwardly and the bight thereof being conformed to fit snugly in the cantle pocket for support thereof, the extremities of the legs of the two U-shaped members confronting and having looped terminations for mutual hinging engagement whereby, when the saddle supporting legs are detached the saddle and frame may be jointly folded.

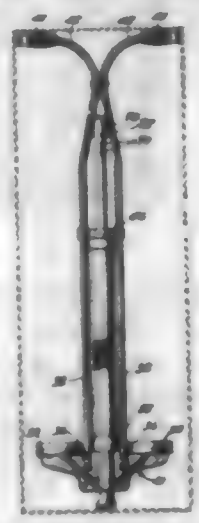
2,871,015
RIDING TOY
Herman H. Block, Chicago, Ill.
Application March 1, 1956, Serial No. 568,826
10 Claims. (Cl. 272—1)



1. A riding toy comprising: a body having a rider supporting portion; a support for said body having supporting portions on opposite sides thereof supporting the body for oscillation about an axis; a first attaching member on one side of said body attaching the body and one supporting portion for oscillation of the body; an oscillation control member having an extending portion in said body at substantially the axis of oscillation oscillatably engaging the body and the supporting portion on the other side of said body, said control member having an operating member accessible from said rider supporting portion extending transversely to said axis; means operatively attaching said control member to said body whereby movement of said member oscillates said body; and means for limiting the extent of oscillation of said body.

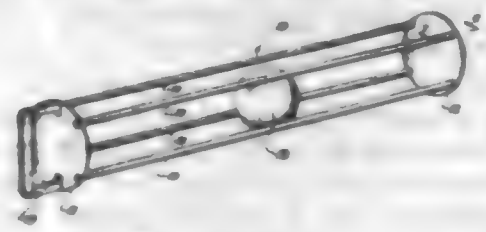
2,871,016
POGO STICK
Herman L Rapaport, Chicago, Ill.
Application May 9, 1957, Serial No. 658,893
3 Claims. (Cl. 272—57)

3. A Pogo stick comprising a platform formed of two plates joined together to form a central guide opening and a pair of spaced circular foot rests at the opposite ends thereof, a resilient circular foot pad detachably secured to each said circular foot rest, a pair of uprights secured at their lower ends to said platform, said uprights each having a laterally extending handle at the upper end thereof, an upper cross member secured to said uprights below said handle members and defining an unobstructed space between said uprights and above said cross member and below said handles, an inverted cup shaped member positioned against said upper cross member, a supporting pole extending between said uprights and through said upper cross member and said inverted cup shaped member and said central guide opening, a lower cup shaped member surrounding said pole, a pin detachably secured to said pole and engaged by said lower cup shaped member to limit the downward movement of said lower cup shaped member, a coil spring surrounding said pole with the opposite ends of the spring positioned in said aforementioned cup shaped members, said pin when detached from said pole adapted to release said lower cup shaped member from securement to said pole to permit retraction of said



pole upwardly between said uprights so that the upper portion of said pole extends into said unobstructed space above said upper cross member and below said handles and the lower extremity of the pole is positioned adjacent the platform so that substantially the entire pole in said retracted position is located within the length of said uprights and said platform, and a sleeve surrounding and enclosing said spring with the opposite ends of the sleeve retained within said cup shaped members.

2,871,017
EXERCISER AND AMUSEMENT DEVICE
Milton V. Cook, Los Angeles, Calif.
Application June 21, 1955, Serial No. 516,945
1 Claim. (Cl. 272—79)

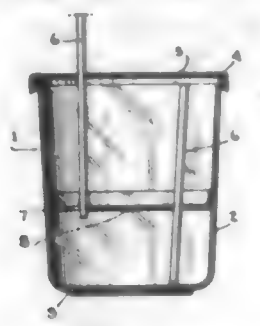


An exercising and amusement device, comprising: a hollow elongate housing defining an internal, longitudinal guideway, said housing including rigid end walls closing opposite ends of said guideway, a single, relatively light weight rubber ball confined in the guideway for movement into impact with said end walls by reciprocation of said housing, said ball having a diameter approximating but slightly less than the cross-sectional dimensions of said guideway so as to be restrained against any appreciable lateral movement in the guideway and being completely detached from said housing so as to be free to roll in said guideway, said housing having at least one longitudinal opening through which movement of said ball in the guideway may be observed by a user of the device, and a handle secured to one end of said housing, said handle including a hand grip extending transverse to the length of the housing.

2,871,018
GAME DEVICE
Lauretta Fink, Glen Cove, N. Y.
Application January 30, 1956, Serial No. 562,174
2 Claims. (Cl. 273—1)

1. An educational toy comprising a transparent hollow cylinder closed at one end, a cover adapted to close the

other end of said cylinder, said cover having a plurality of apertures therein, a disc having a plurality of apertures therethrough disposed in substantially vertical alignment with said cover apertures, a means for securing said disc in said cylinder intermediate the ends thereof, at least one partition extending upwardly from said disc to a



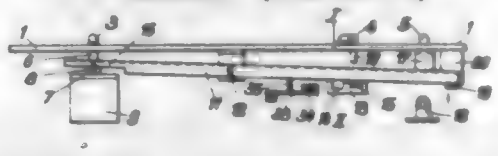
plane adjacent the cover, said partitions having different colored surfaces and a plurality of members having different colors similar to the surfaces of the partitions adapted to pass through said apertures, said members having a length less than the height of the cylinder and greater than the distance between the cover and said disc.

2,871,019

DEVICE FOR MAGNETICALLY RECORDING AND REPRODUCING SOUND

Willi Roepke, Berlin-Steglitz, Germany, assignor to Loewe Opta A. G., Berlin-Steglitz, Germany, a German company

Application August 18, 1952, Serial No. 304,981
Claims priority, application Germany August 20, 1951
5 Claims. (Cl. 274—4)



1. A magnetic tape sound recording and reproducing device containing an operation switch for two operating positions "recording" and "reproducing," and a turntable tape movement switch for several tape movement positions "stop," "normal speed," "rapid speed," and a two-arm-lever swingably mounted on a fixed part of said device, the first arm of said lever containing a number of cams circumferentially arranged near and around the axis of said turntable tape movement switch, the radial edges of said cams being in engagement with a projecting pin connected with said tape movement switch axis, and preventing said pin from being moved in the switching direction from "stop" to "normal speed" and to "rapid speed," the second arm of said lever being connected with a knob pressable towards said lever, thereby removing said first lever arm and its cams from the position engaging with said projecting pin, and a part of said operation switch being arranged opposite an edge of said swingable lever near said knob and preventing, in its position "recording," the movement of said knob in the direction of disengagement of said cams from the projecting pin of said tape movement switch, and to release, in its position "reproducing," the movement of said lever.

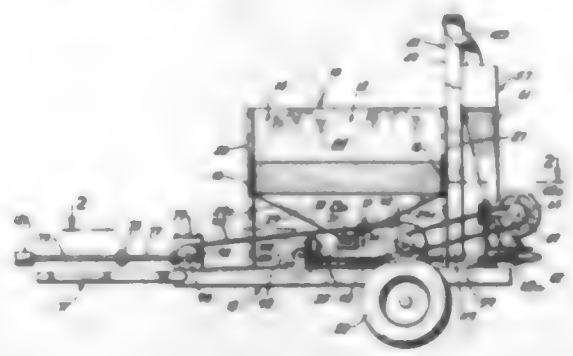
2,871,020

DISTRIBUTOR ATTACHMENT FOR WAGON

Timothy O. Merrivan, Monroe Township, Turner County, S. Dak.

Application May 2, 1957, Serial No. 656,571
1 Claim. (Cl. 275—2)

In a seeder including a wagon having a hopper-bottom box, a discharge outlet in the bottom of said box, drive means on the front end of said wagon for connecting said wagon to a tractor having a power take-off in trailing relation thereto, an elongated screw conveyor mounted on and carried by said vehicle below said box, said conveyor having an inlet in the forward end portion and an outlet in the rear end portion, means connecting said inlet to said first named discharge outlet, seed distributing means including a hopper and a distributor mounted on said wagon rearwardly of said box with the inlet of the hopper above said conveyor, an elevator mounted on said wagon between said box and said distributing means in position to elevate seed from said conveyor to



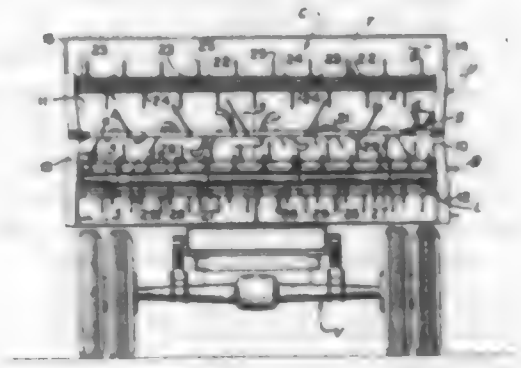
said hopper inlet, said outlet of said conveyor being connected to said elevator in position to feed seed from said conveyor into the lower portion of said elevator, said conveyor being operatively connected to said elevator in position to operatively drive said elevator during operation of said conveyor and drive means for operatively connecting said conveyor and said distributor to such a power take-off for simultaneous driving of said conveyor, elevator and distributor by said power take-off.

2,871,021

SPREADER UNIT FOR TRUCK BODIES

Walter M. Baldridge and Kenneth R. Davieson, Severance, Colo.

Application December 9, 1953, Serial No. 397,359
1 Claim. (Cl. 275—6)



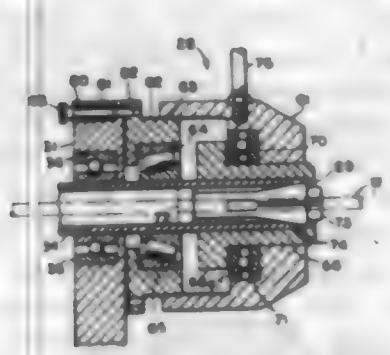
A widespread material spreader for a scattering unloader, comprising a rotatable shaft having arms mounted thereon, said arms being axially spaced along and at different points around the shaft, each arm having a free end and an end integrally mounted on the shaft, each arm being made of relatively flat stock and of substantially uniform width and thickness and being curved from the shaft outwardly and tilted at an angle with a plane arranged transversely and passing vertically through the shaft so that the free end of each arm is some distance from the shaft and also displaced longitudinally along the shaft from the attached end, the arms on a portion of said shaft being tiltably mounted toward one end of the shaft and the arms on another portion of the shaft being tiltably mounted toward the other end of the shaft and the free ends of the arms being arranged to trail the attached ends when the shaft is rotated.

2,871,811

INDEXABLE COLLET CHUCK APPARATUS

Lawrence Farnsworth, Racine, Wis., assignor of fifty per-cent to Max M. Seft, Racine, Wis.

Original application September 19, 1956, Serial No. 610,741. Divided and this application May 13, 1957, Serial No. 658,611
2 Claims. (Cl. 279—5)



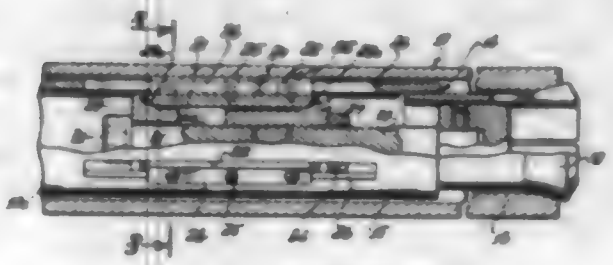
1. An indexable collet chuck assembly adapted to be supported by a support structure, said assembly including, a tubular drive shaft adapted to be rotatably and drivingly mounted in said structure, a collet mounted in said shaft adjacent the end of the latter, said collet having spring jaws engageable with said shaft end, a sleeve mounted over said shaft for limited sliding relative thereto, said sleeve having a portion adapted to bear against said jaws to force the latter against said shaft end to a jaw closing position, a nose portion mounted on said sleeve, said sleeve having an axial thrust absorbing surface, an anti-friction bearing between said surface and said nose portion whereby said sleeve and collet are rotatably driven with said shaft while said nose portion remains stationary, an index portion having an exposed peripheral portion for manual rotation thereof independently of said nose portion, said index portion being rotatably mounted relative to said shaft and threadably engaged with said nose portion for moving the latter in an axial direction when said index portion is rotated, said index portion including a plurality of circumferentially spaced and axially extending apertures, a locking pin slidably mounted in said support structure for movement in an axial direction between index portion locked and unlocked positions, and a spring for urging said pin to said locked position.

2,871,823

LATHE SPINDLE STOP

Gayle R. McCormick, North Hollywood, Calif.

Application September 3, 1957, Serial No. 681,829
2 Claims. (Cl. 279—51)



1. A work piece stop for use in combination with a hollow lathe spindle, comprising: an assembly consisting of a collet, having work engaging jaws, and a draw tube longitudinally movable within the spindle to close the collet jaws against the work piece by movement relative to the spindle, said tube having openings in its walls; a stop within the assembly for positioning the work piece; and anchor means projecting through the openings in the draw tube into engagement with the spindle to secure the stop at a predetermined position relative to the spindle.

2,871,824

TRAY STRUCTURE FOR TELESCOPING CARTS

Fred W. Young, Oklahoma City, Okla., assignor to Sylvan N. Goldman, Oklahoma City, Okla.

Application March 29, 1957, Serial No. 649,517
5 Claims. (Cl. 280—33.99)



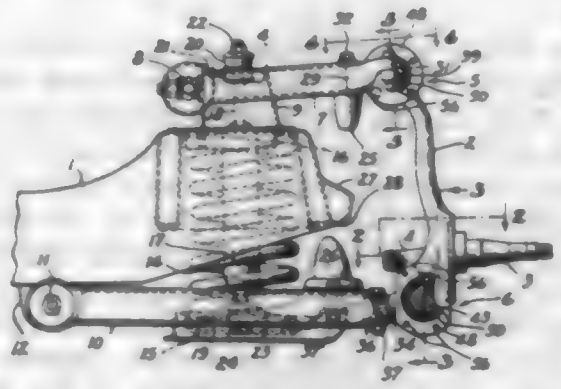
1. In a telescoping cart assembly, a combination of a base frame, wheels supporting said frame, a vertical supporting structure extending above the base frame, a receptacle mounted on the vertical supports including a forwardly converging body having a hinged gate to permit telescoping association with a cart of similar construction, and a tray including converging side walls and a pivoted end gate for telescopic association with a tray of similar construction, said tray being located below said receptacle and being swingably mounted on the upright frame generally medially of its length and above said base frame, whereby the tilting of the tray on its mounting will permit the alternate ends to be lowered into engagement with the base frame for support thereby.

2,871,825

STEERING KNUCKLE MOUNTING

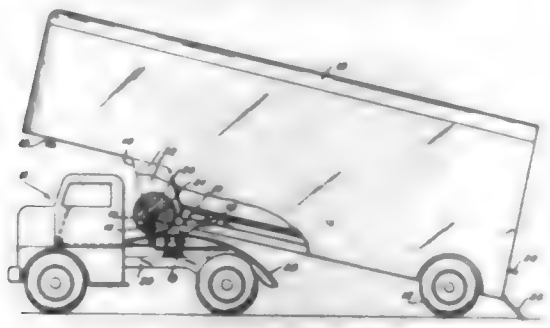
Eldon Paul Neher, Logansport, Ind., assignor to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio

Application October 17, 1955, Serial No. 540,692
5 Claims. (Cl. 280—96.2)



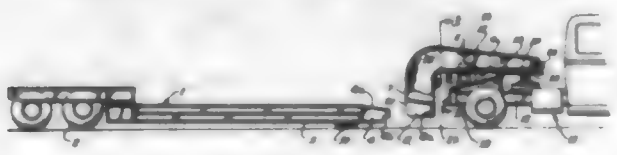
1. In a front wheel suspension, a steering knuckle mounting comprising upper and lower supporting members, a substantially upright steering knuckle having a laterally projecting wheel spindle and elastically cushioned universal connections between the upper and lower ends of said steering knuckle and said upper and lower supporting members, each of said connections comprising an inner pivot member in the form of a bar with a ball-shaped enlargement intermediate its ends and an outer pivot member in the form of an internally spherical socket surrounding said enlargement and having elongated diametrically opposite slots through which said bar extends, means rigidly securing one of the pivot members of each connection to said knuckle and the other to one of said supporting members, said bars and slots being horizontally disposed, and a bushing of elastic rubber surrounding the enlargement of each inner pivot member and under radial compression between said enlargement and the surrounding socket.

2,871,026
TRAILER HITCH
Thomas Hotchkiss, Sr., St. Louis, Mo.
Application May 8, 1957, Serial No. 657,859
11 Claims. (Cl. 280—423)



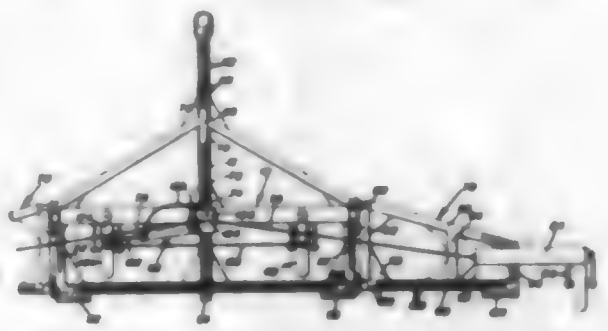
9. In a tractor-trailer combination, a trailer hitch device on the tractor, a king pin receiver in said device including a recess, king pins spaced apart on the trailer and carried thereon at different elevations, the higher elevated king pin engaging in said receiver first, selectively operable bar means carried by said hitch device to traverse said receiver annd engage or disengage said higher king pin, one of said selectively operable bar means disengaging said higher king pin to release it for movement into and through said recess, and another of said selectively operable bar means engaging a relatively lower elevated king pin to hitch the trailer in an inclined position relative to the tractor, and a further bar means engaging said lower elevated king pin to retain it in said hitch device for trailer towing.

2,871,027
SEMI-TRAILER STRUCTURE AND TRACTOR AND SEMI-TRAILER COMBINATION
Arthur C. Brockman, Birmingham, Mich.
Application June 21, 1956, Serial No. 592,883
13 Claims. (Cl. 280—425)



1. In a tractor-trailer combination in which a fifth wheel element is mounted on the tractor and the trailer includes a body member and a detachable gooseneck member having an upper forwardly extending portion on the underside of which is a complementary fifth wheel element engageable in coupling relation to the first fifth wheel element and one of said members has sockets opening toward the other member and the other member has connecting lugs receivable in the sockets for connecting a lower rear portion of the gooseneck member to the body member upon relative movement of the members toward each other endwise of the body member into a final coupling relation, and means to connect the members against separation endwise of the body member when the lugs and sockets are in said final coupling relation; the improvement comprising ramp means on the tractor and sloping downwardly and rearwardly from the fifth wheel element on the tractor and on which said forward portion of the gooseneck member can be supported and up which it can be slid into position for coupling the tractor and gooseneck member by the fifth wheel elements, a first one-way restrainer connecting the tractor and gooseneck member so as to limit relative rearward movement of the gooseneck member to a rearmost position in which said forward portion is supported on the ramp means rearwardly from, and below the level of, the tractor fifth wheel member and so as to leave the gooseneck member free for movement of said forward portion up and down the ramp means in front of said rearmost position, a second one-way restrainer detachably connecting the gooseneck member and body member so as to limit relative movement of the gooseneck member forwardly of the body member to a forward position in which the sockets and lugs are out of said final coupling relation but said rear portion is supported above ground level through the medium of the body member, movable blocking means for said members and operable in one position relative to one of them to block reentry of the lugs into interfitting coupling relation in the sockets after the lugs have been withdrawn from said coupling relation, and a third restrainer operatively interposable between the tractor and gooseneck member so as to constrain the tractor and gooseneck member to move together in a direction rearwardly of the tractor when said movable blocking means has been moved to another position.

2,871,028
IMPLEMENT HITCH
Rowland G. Hibbard, Billings, Mont., assignor to J. Frank Dunn, Billings, Mont.
Application November 16, 1953, Serial No. 392,319
14 Claims. (Cl. 280—476)



1. An implement hitch comprising a substantially horizontal, longitudinal frame member provided at its forward end with means for attachment to a tractor drawbar and the like; a pair of substantially horizontal angular frame members extending respectively angularly to each side from a forward position on and connected to said longitudinal member; a pair of side frame members connected to and extending rearwardly from the respective rear ends of said angular members; a draw bar extending transversely and connected to said side members adjacent the rear ends thereof and also connected centrally to said longitudinal member adjacent the rear end thereof, said longitudinal member, angular members, side members and draw bar lying substantially in the same substantially horizontal plane; a transverse backbone disposed above said plane and provided with depending caster wheels in positions at each side of said backbone and closer to said side members than to said longitudinal member, said backbone being the main frame member and adapted to support the vertical load of said longitudinal member, side members, angular members and draw bar; means extending between said backbone and said longitudinal member for supporting the latter from said backbone; and means extending between each said side member and said backbone adjacent the respective ends of the latter for supporting said side members from said backbone.

2,871,819
COUPLING FOR TRACTOR AND TRAILER VEHICLES
Frank Demarest, Dixon, Ill.
Application August 27, 1957, Serial No. 680,494
4 Claims. (Cl. 280—477)

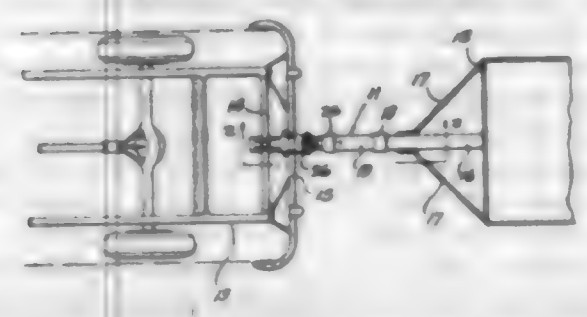
1. A tractor coupling or hitch, comprising a body, a cover secured to said body forming interior confines for the operating mechanism of said tractor coupling, extendable and retractable tongue means mounted within said interior confines, latch locking means mounted on

said tongue means, spring-urged latch means articulately mounted within said interior confines and having an edge thereof in locking abutment with said latch locking means, web means positioned within said interior confines provided with edge means to arrest the extendable movement of said tongue means, locking bolt means rotatably secured to one end of said locking latch means



and provided with an elongated head for locking said latch means against accidental tripping thereof, and saddle means mounted pivotably to said tongue means and in intimate contact therewith so that substantial areas of their flat surfaces remain in facing contact at all times thus furnishing rigid support to said tongue means when in extended position.

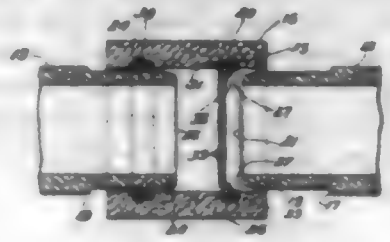
2,871,030
EQUIPMENT HITCH FOR VEHICLES
Brooks S. Hollis, Simsboro, La.
Application July 6, 1956, Serial No. 596,192
1 Claim. (Cl. 280—492)



An equipment hitch assembly comprising a main bracket plate, means for securing said plate to the rear portion of a towing vehicle, vertical pivot means on said plate, a ring element rotatably engaged on said vertical pivot means for free rotation around a vertical axis, transverse pivot studs on said ring element in the same transverse vertical plane as the axis of said ring element, yoke means rotatably engaged on said pivot studs, a longitudinal shank element rigidly connected to said yoke means substantially in longitudinal horizontal alignment with said vertical pivot means, a sleeve-like housing receiving said shank element axially therein, a first annular bearing member secured in the forward end of said housing and rotatably supporting said shank element in the housing, a second annular bearing member secured in the rear portion of said housing and rotatably supporting said shank element therein, an annular head element on the end of said shank element and rotatably engaging against the rear side of said second annular bearing member, a drawbar member adapted to be connected to a trailer vehicle, and means connecting the rear end of said housing to said drawbar member with the head element substantially in abutment with but being rotatable with respect to the end of said drawbar member.

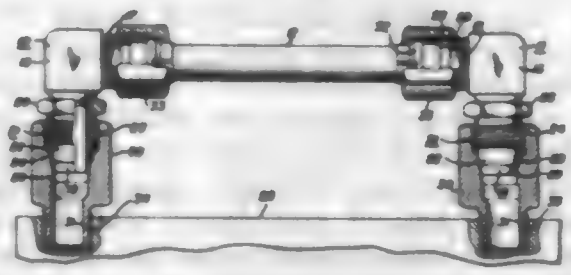
2,871,031
PIPE COUPLING
Daniel F. Altemus, Norristown, and Robert A. Schneider, Springfield Township, Montgomery County, Pa., assignors to Kennedy & Mattison Company, Ambler, Pa., a corporation of Pennsylvania
Application October 11, 1955, Serial No. 539,826
2 Claims. (Cl. 285—18)

1. A coupling for conduit elements of the kind having a generally cylindrical portion terminating in an end portion having a tapered external surface inclined with respect to the axis of said conduit element, said coupling comprising, a socket member having a socket in an end face thereof for receiving the end of a conduit element, a resilient ring gasket, said socket member having an internal annular groove adapted to receive said gasket, said gasket being positioned in said groove and comprising an annular solid main body portion located toward the entrance to the socket of the socket member and a lip portion located toward the interior of the socket member, said gasket in the groove being in relatively tight surface contact with the peripheral surface of the groove, the minimum inside diameter of the solid body portion being greater than the outside diameter of the smaller end of the tapered portion of the conduit element and being smaller than the outside diameter of the generally cylindrical portion of the conduit element whereby to provide for compression of the solid body portion of the gasket by a conduit element positioned in the coupling, said lip portion including outer annular lip means adapted for cooperation with the surface of said groove and inner annular lip means adapted for



cooperation with the surface of the conduit element, said outer and inner annular lip means being separated by an intermediate portion having a plurality of relatively small annularly arranged closely spaced recesses therein, each such recess being of depth sufficient to form a cavity in the gasket extending through the lip portion to the solid body portion to maintain said lip means in contact with the conduit element and socket member when assembled, the minimum inside diameter of said inner lip means being smaller than the outside diameter of the smaller end of the tapered portion of the conduit element, whereby the initial contact between the free end of a conduit element and the gasket during assembly of the conduit element into the socket is in the region of the gasket in which the recesses are located, said gasket when positioned in said groove having a tapered internal surface inclined in direction to provide an enlarged mouth for first receiving the end of the conduit element, the angle of inclination of the inclined gasket surface being greater than that of the inclined surface of the conduit element end portion, whereby to minimize friction between the two inclined surfaces.

2,871,032
FLUID CONDUIT SWIVEL ADAPTER COUPLING ASSEMBLY
George V. Woodling, Cleveland, Ohio
Application February 2, 1951, Serial No. 209,825
2 Claims. (Cl. 285—31)



1. Fluid conduit interconnection means between two fixedly spaced pipe threaded ports, said ports having axes respectively lying in substantially parallel spaced planes, said conduit means including eccentric adapters respec-

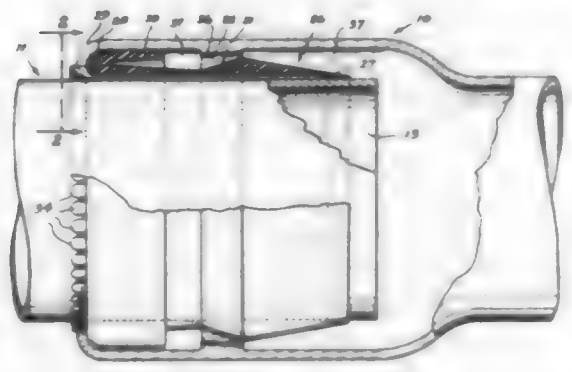
tively mounted in said pipe threaded ports and having adapter ports eccentrically disposed with respect to said pipe threaded ports, said conduit means also including a straight metal tube, and first and second end coupling means respectively connected to the ends of the tube and mountable in said adapter ports, each said coupling means comprising first and second swivelably connected means, said first swivelably connected means comprising a hollow intermediate body portion having a hollow swinging arm and a hollow rotating arm, respectively, extending therefrom and fixedly connected therewith, said arms having external surfaces generating respectively about axes defining substantially a right angle, said second swivelably connected means comprising threaded means and contractible ring means, said threaded means being threadably turnable in said adapter ports, said contractible ring means securing said threaded means to said rotating arms, said swinging arms having longitudinally extending bores to retractibly receive the ends of the tube, connection means for each swinging arm to anchor the end of a tube thereto, each said connection means comprising a contractible sleeve for contractibly engaging the end of the tube, said sleeves upon engaging the ends of the tube retractibly urging the tube farther into the bores of the swinging arms to shorten the distance between the rotating arms and aligning the threaded means with the adapter ports, said adapters being threadably turnable in said pipe threaded ports and aligning said adapter ports with said threaded means.

2,871,033

COUPLER FOR PIPE SECTIONS WITH INTERMEDIATE FLUID ACTUATED SEAL AND GRIPPING MEANS

William H. Stout and Paul H. Raumaker, Portland, Oreg.; said Raumaker assignor to said Stout

Application August 17, 1953, Serial No. 374,764
2 Claims. (Cl. 285—106)



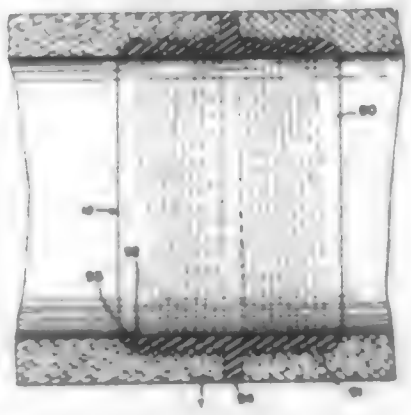
1. In combination, axially aligned pipe sections having spigot and bell ends in spaced telescoped relation, an inwardly directed terminal lip on said bell, the outer surface of said spigot and the inner surface of said bell defining an annular space between said spigot and bell, an elongated rubber sleeve disposed within the annular space, a first lip on the inner end of the sleeve adapted to be sealed to the spigot, a second lip on the outer end of the sleeve adapted to be sealed to the bell, a seating ring having a hole therethrough carried internally of said bell end adapted circumferentially to engage said sleeve between the ends of said sleeve and adapted to allow fluid within said pipe sections to fill the portion of said annular space lying between the sleeve and said bell, and a plurality of rib-like protuberances and alternating depressions disposed in mutually parallel relation with the longitudinal axis of said sleeve, said protuberances and depressions being formed on the inner surface of the sleeve, the protuberances being in engagement with said spigot and being adapted under the action of hydraulic pressure in the portion of said annular space lying between the sleeve and the bell to effect a substantially dry interfacial gripping contact between said sleeve and spigot by pressing the protuberances against said spigot so as to force any liquid carried on the spigot into said depressions.

2,871,034

PRESSURE ACTUATED RESILIENT SLEEVE TYPE TUBE COUPLING

Sumner D. Wiltse, Detroit, Mich.

Application August 10, 1953, Serial No. 373,239
1 Claim. (Cl. 285—109)



A joint comprising a pair of tubes formed of substantially rigid unyielding material having end portions spaced apart a limited distance in axial alignment, the outer surfaces of said end portions being smooth cylindrical surfaces, the inner surface of each of said end portions being recessed adjacent the ends thereof, the inner wall of each of said recesses having a plurality of alternated equal diametered ribs and grooves formed thereon extending generally circumferentially of said tubes, said ribs having one face thereof disposed at an angle to the tube axis and sloping downwardly and inwardly from said end portion toward said axis, the end of each recess being tapered toward and merging with said inner surface, a coupling member formed of an elastometric resilient material comprising an annular abutment web interposed between the adjacent end surfaces of said tubes, integral one piece inner tubular portions extending axially in opposite directions from the radially inner edge of said web and fitted within the recessed end portions of said rigid tubes, said tubular portions having a substantially uniform average wall thickness and a length at least several times their wall thickness and an inner diameter the same as that of said tubes, the outer surfaces of said tubular portions having a plurality of alternated equal diametered grooves and ribs shaped to fit respectively into the corresponding ribs and grooves at the inner surfaces of the end portions of said tubes, the tubular portions of said coupling member having tapered ends mating with the tapered ends of said recesses and being radially expansible by yielding of the material thereof under internal fluid pressure to effect a tight grip and interlock between the said ribs and grooves to couple the tubes together, the ribs at the outer surface of said coupling member being yieldable to provide for assembly of said tubes and coupling member by direct axial relative movement into position in which the ribs of said member interfit within the grooves of said tubes, said coupling member constituting the sole means for holding said pipes and member in coupled relation.

2,871,035

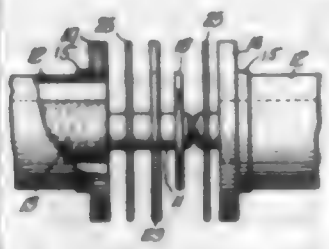
ANCHOR

Edward W. Kaiser, Chicago, Ill.

Application September 19, 1955, Serial No. 535,059
3 Claims. (Cl. 285—133)

1. In a conduit system, in combination, cylindrical casings in end to end relation having radially outwardly extending flanges at the ends, an inner pipe extending through and spaced from the inside of said casings, an anchor plate secured to said inner pipe and extending radially therefrom at least to the outer surface of said casings and interposed between said ends thereof to bear

against the same on endwise expansion or contraction of said inner pipe, an anchor flange separate and distinct from said anchor plate and surrounding the same and inter-



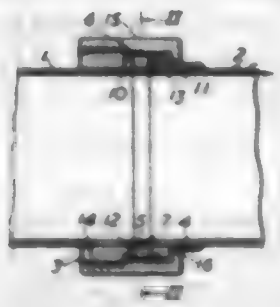
posed between said flanges, and retaining means holding said flanges in fluid tight relation with opposite sides of said anchor flange.

2,871,036

PACKED SCREW-THIMBLE TYPE COUPLING WITH MEANS TO PREVENT OVEROMPRESSION OF THE PACKING

Hugh Frederick Goodman, London, England, assignor to The A. P. V. Company Limited, London, England

Application July 26, 1954, Serial No. 445,633
Claims priority, application Great Britain November 20, 1953
2 Claims. (Cl. 285—354)



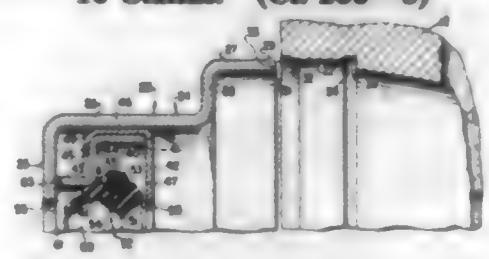
1. In combination, two pipes, means to draw the ends of the two pipes towards one another including an annular flange fitting surrounding one pipe at its end, an annular-threaded fitting surrounding the other pipe at its end, and an internally-threaded sleeve flanged at one end surrounding the fittings, a resiliently deformable sealing component in the form of a ring which is interposed between the end faces of the pipe ends and has a circular flow opening corresponding substantially to the bore of the pipe ends and an external diameter corresponding substantially to the external diameter of the pipe ends, and a rigid confining component substantially T-shaped which is secured to and surrounds the sealing component to prevent it spreading radially outwards, the end faces of the fittings being coplanar with the end surfaces of the respective pipes and forming abutment surfaces, and the exterior surfaces of the fittings having a portion of reduced diameter immediately adjacent their ends, concentric with their axes, said confining component having the web portion of the T extending axially from each side of the stem and of an internal diameter to receive the portions of the fittings of reduced diameter to hold the bore of the pipe ends and the opening in the sealing component coaxial, the stem portion of the T of the confining component forming also an abutment between the abutment surfaces at the ends of the fittings to limit the movement of the pipe ends towards one another, said resiliently deformable sealing component being dovetail in transverse cross section and forming a continuation of the stem portion of the T, the abutment and abutment surfaces being arranged so as to limit the compression of the sealing component between the pipe ends to prevent the sealing component spreading radially inwards.

2,871,037

FLUID SEAL

Lloyd A. Johnson, Woodside, and Edward K. Bowen, Mountain View, Calif., assignors, by mesne assignments, to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan

Application January 27, 1956, Serial No. 561,774
16 Claims. (Cl. 286—5)



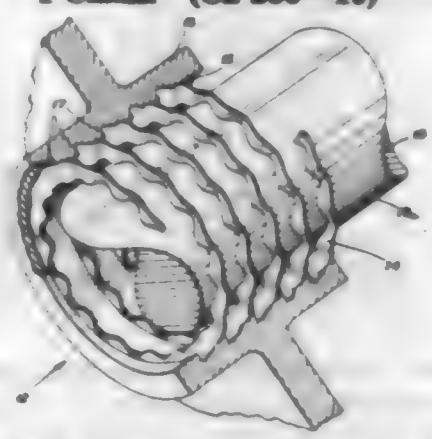
1. In a shaft seal, the combination of a reinforcing ring having a cylindrical flange meeting a radial flange at a corner and extending axially from said corner in one direction, and a unitary resilient sealing member bonded to both said flanges around the outside of said corner and having a lubricant-sealing portion extending out away from but closely adjacent to said flanges and having a lip smaller in diameter than said ring, said sealing member also having a dust-sealing portion joined to said lubricant-sealing portion adjacent said corner by a narrow portion and having a free lip extending from adjacent said corner axially along the same direction as said cylindrical flange but also extending radially inwardly therefrom.

2,871,038

LABYRINTH SEALS

Peter Dennis Cemery, Cookville, Ontario, Canada, assignor to Orenda Engines Limited, Malton, Ontario, Canada, a corporation

Application September 22, 1955, Serial No. 535,905
1 Claim. (Cl. 286—10)



A labyrinth seal comprising a mounting surface which is a surface of revolution, an uninterrupted helical groove cut in the mounting surface, a metallic strip of helical configuration seated in and brazed in the groove, the strip having crimps formed therein, each crimp extending from one side of the strip to the other side and being of greater magnitude adjacent the edge of shorter radius than adjacent the edge of greater radius, the width of the groove being substantially equal to the distance through which the material of the strip is displaced in forming the crimps along one of the edges of the strip so that the ridge of each crimp in the strip will contact the edge of the groove thereby forming, in association with the side wall of the groove, an area of capillary attraction for molten brazing material to secure the strip in the groove.

2,871,039

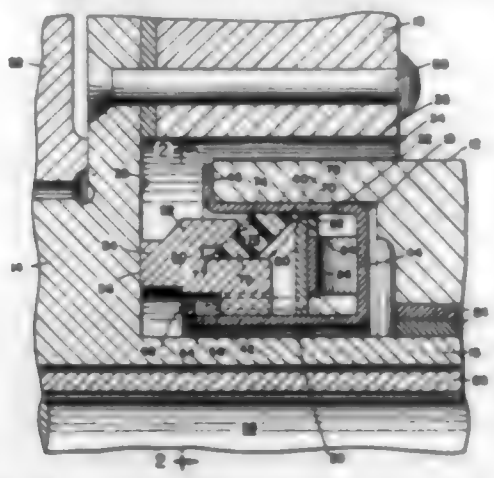
SEALING ELEMENT FOR ROTARY MECHANICAL SEALS

Frank E. Payne, Glencoe, Ill., assignor to Crane Packing Company, Chicago, Ill., a corporation of Illinois

Application January 19, 1955, Serial No. 482,769
3 Claims. (Cl. 286—11.14)

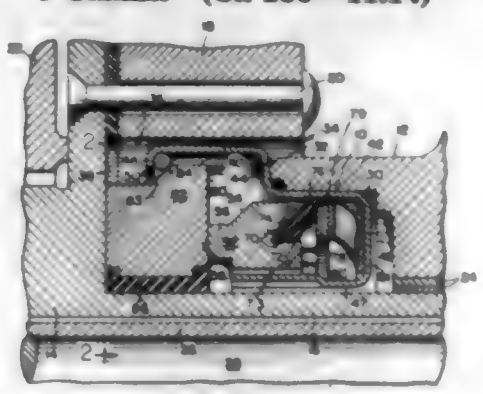
1. In combination, a seal retainer having an inner substantially cylindrical surface, a sealing washer having an

outer substantially cylindrical surface disposed radially inwardly from the retainer cylindrical surface, a frusto-conical ring disposed between the two substantially cylindrical surfaces to effect a seal therebetween, an abutment on the washer to limit relative axial movement between the ring and washer, a lip on the ring contacting said



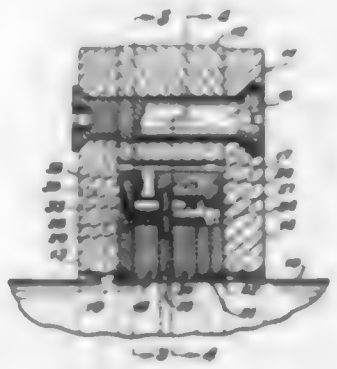
inner substantially cylindrical surface, said lip being disposed on the side of the ring remote from the abutment and having a tapered inner surface, and means exerting an axial force on the tapered surface to urge the ring against the abutment and to develop a radial component urging the lip against the inner cylindrical surface.

2,871,040
ROTARY MECHANICAL SEAL
Frank E. Payne, Glencoe, Ill., assignor to Crane Packing Company, Chicago, Ill., a corporation of Illinois
Application September 7, 1955, Serial No. 532,871
3 Claims. (Cl. 286—11.14)



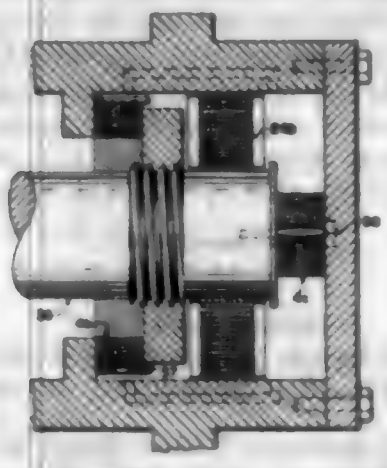
1. In a seal for relatively rotatable concentric inner and outer elements, in combination, a washer adapted to surround the inner element and having a central cylindrical bore therethrough and a front face providing a radial sealing surface, said washer being formed with a rearwardly and outwardly facing annular recess the side wall of which is generally of cylindrical configuration defining a central hub-like rearward extension of the washer, said recess having a frusto-conical bottom wall inclined radially outwardly and rearwardly from the forward end of said hub-like extension, a retainer adapted to surround said inner element and having a cylindrical centerpost extending into said washer, an outer cylindrical wall surrounding said washer and having an open forward end, and an interconnecting radial wall extending between the outer cylindrical wall and centerpost rearwardly of said washer, a continuous unbroken annular sealing ring formed of a material having a substantial degree of resistance to compressional forces but subject to a slight degree of cold flow, said sealing ring being in the form of a continuous hollow cone frustum having a slant height greater than the radial distance between the cylindrical wall of the hub-like extension of the washer and the inner cylindrical surface of the outer cylindrical wall of the retainer and having a slant angle slightly less than the slant angle of the frusto-conical bottom wall of the recess in said washer, said sealing ring being interposed between the cylindrical wall of the hub-like portion of the washer and said inner cylindrical surface on the retainer with its outer conical surface in opposition to the frusto-conical portion of said bottom wall and with the small and large bases thereof contiguous to the cylindrical wall of the hub-like extension of the washer and the inner cylindrical surface of the retainer respectively, a seat member adapted to surround said inner element and positioned forwardly of said washer, said seat member having a radial surface designed for running engagement with the radial sealing surface on said washer, a resilient sleeve interposed between said seat member and inner element and compressed therebetween and serving to support said seat member on the inner element against relative rotation with respect thereto, said seat member being disposed at least partially within the outer cylindrical wall of the retainer and having a portion thereof projecting outwardly through the open forward end of the latter, said seat member being provided with a forwardly facing shoulder disposed within the retainer and means carried by the forward open end of the retainer and engageable with said shoulder for preventing removal of said seat member outwardly through the forward end of the retainer, and thrust means interposed between the radial wall of the retainer and the inner conical surface of said frusto-conical sealing ring yieldingly applying axial pressure to said sealing ring in a direction to wedge the material of the sealing ring into sealing engagement with said cylindrical wall of the hub-like extension of the washer and the inner cylindrical surface of the retainer and to force the same into engagement with said bottom wall of the recess whereby said bottom wall constitutes a backing surface for the material of said sealing ring.

2,871,041
SHAFT SEAL WITH RELATIVELY ROTATABLE RADIALLY CONTAINING SEALING SURFACES
William J. Anderton, Toledo, Ohio
Application May 26, 1955, Serial No. 511,185
11 Claims. (Cl. 286—11.15)



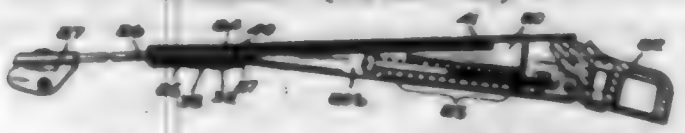
1. In combination, a rotating shaft member, an enclosing stationary cylindrical wall member spaced from the shaft member, an annular oil seal interposed between said shaft and enclosing wall members, said seal comprising an annular housing of channel shape cross-section tightly fitting one of said members, the chamber enclosed by the channel facing the other member, a shroud ring in said chamber, a split ring in said chamber disposed between said shroud ring and said other member, spring means bearing against said shroud ring and forcing said split ring into gripping relation with said other member, a continuous ring engaging said other member and spaced axially from said split ring by a wavy axially expansible ring, spring means bearing on said shroud ring and on said continuous ring on the side thereof remote from said other member, and means for holding said last named spring means against axial movement while permitting axial movement of said continuous ring, whereby relative axial movement between said split ring and said continuous ring is permitted.

2,871,841
SUPPORTING AND HEAT INSULATING MEANS
Bascom W. Birmingham, Edmund H. Brown, Russell B. Scott and Peter C. Vander Arend, Boulder, Colo., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application June 2, 1954, Serial No. 434,096
2 Claims. (Cl. 287—20)



1. Means for simultaneously supporting inner and outer members spaced from each other and heat insulating them from each other comprising an outer member, an inner member, said members together defining an annular cavity, a shoulder carried by the outer member and projecting toward the inner member, a shoulder carried by the inner member and projecting toward the outer member, a stack of annular metal plates in said cavity and held between the shoulder of the outer member and the shoulder of the inner member, edges of the metal plates forming the stack being exposed to said cavity and to evacuation conditions which may exist within said cavity, said stack of metal plates serving to both support one of said members with respect to the other and as a heat insulator.

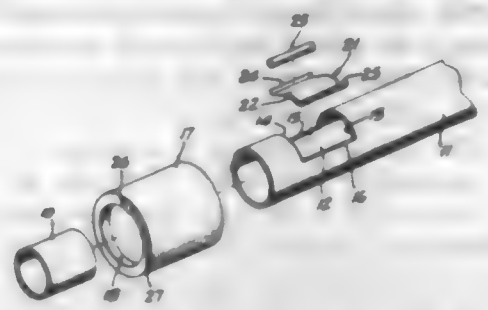
2,871,843
TELESCOPING WIPER ARM
Israel Nesson, Lynn, Mass., assignor to Max Zaiger, Swampscott, Mass.
Application February 2, 1955, Serial No. 485,739
6 Claims. (Cl. 287—58)



1. A windshield wiper arm comprising a channel-shaped arm base having depending side walls, a channel-shaped bearing member disposed in said base and having depending legs aligned with said side walls, a bearing plate disposed alongside said member and forming therewith a generally rectangular tube-like enclosure, an arm extension bar of generally rectangular cross-section received in said enclosure and slidable therein to adjust the overall length of the arm, a bowed leaf spring having end portions engaging said plate, said spring having an intermediate portion spaced from said plate, and tabs on said side walls bent inward toward each other and engaging said intermediate portion, said tabs being fixed in such a position as to cause said spring to press said plate and said member together to bear constantly on said bar with sufficient force to hold the bar in any position to which it is adjusted.

2,871,844
ADJUSTABLE TELESCOPIC CONNECTION
John W. Peterson and Harry C. Jennings, Jr., Los Angeles, Calif., assignors to Everest & Jennings, Inc., Los Angeles, Calif., a corporation of California
Application October 4, 1957, Serial No. 688,234
7 Claims. (Cl. 287—58)

1. In combination with two telescopically arranged members adapted to assume different axially adjusted positions with respect to each other, a sleeve presenting an inner surface concentric to the axes of said members rotatable about the outer of said members, a surface eccentric to the axis of the inner member disposed within the sleeve, and a roller interposed between said eccentric



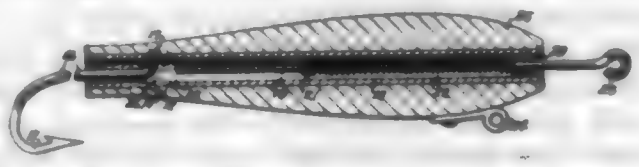
surface and the concentric surface on the interior of the sleeve whereby upon rotating the sleeve relatively to the outer member the roller turning sympathetically therewith will roll on said surface and ultimately cause the telescopic members to be frictionally held in adjusted position.

2,871,845
WIRE CONNECTING DEVICE
Charles H. Klein, Cleveland, Ohio, assignor to The National Telephone Supply Co.
Application February 3, 1958, Serial No. 712,933
9 Claims. (Cl. 287—75)



1. A wire connecting device for connecting a line wire to a dead-end support, said wire connecting device comprising a loop wire having ends and first and second sleeve members, said loop wire extending around said dead-end support, said sleeve members having a middle portion and first and second tubular portions, said first and second tubular portions having outer and inner ends, said first tubular portions of said sleeve members extending at an angle from an end of said middle portion, said second tubular portions of said sleeve members extending at an angle from the other end of said middle portions, said first and second tubular portions being substantially parallel and laterally off-set with respect to each other with said middle portion extending therebetween and at an angle thereto, said first and second tubular portions each having an opening forming a passage wall extending from said outer end to said inner end, said passage walls of said first tubular portions of said first and second sleeve members being of a diameter to receive said ends of said loop wire, said passage walls of said second tubular portions of said first and second sleeve members being of a diameter to receive said line wire, and said tubular portions of said sleeve members being compressed about said wires enclosed therein and securely connecting said line wire to said loop wire.

2,871,846
RESILIENT LOCKING COUPLING
Peter C. Smith, Perth Amboy, N. J.
Application November 28, 1956, Serial No. 624,921
1 Claim. (Cl. 287—103)



In a fish lure coupling, the combination which comprises an elongated tapering body having a bore extended

longitudinally therethrough, a sleeve, elliptical-shaped in cross section extended through the bore, the sleeve having oppositely disposed openings therein and said openings being spaced inwardly from the small end of the body, the openings being positioned in the edges of short radii of the sleeve, a rod having a round cam-shaped end extended into the sleeve from the end positioned in the large end of the body in which the sleeve is positioned, the rod having a collar thereon and said collar being positioned in the sleeve and intermediate of the ends thereof, a bushing in the end of the sleeve opposite to the end in which the oppositely disposed openings are positioned providing a bearing for the rod, the sleeve being crimped into recesses of the bushing for retaining the bushing in position in the end of the sleeve, a spring on the rod positioned between the collar of the rod and the bushing in which the rod is slidably mounted, and a fish hook shank, the end of which is positioned at an angle of 90° to the shank providing a right angular positioned projection extended into the end of the sleeve in which the oppositely disposed openings are positioned, the outer surface at the intersection of the projection with the shank being arcuate, resiliency inherent in the rod permitting the round cam-like end or nose of the rod to be moved to one side of the sleeve providing an abutment against which the arcuate surface at the intersection of the shank and projection rides, the nose being positioned to provide a guide for directing the projection on the arcuate end of the shank into one of the oppositely disposed openings of the sleeve and also designed to be positioned between the shank and inner surface of the sleeve for locking the projection of the shank in one of the oppositely disposed openings of the sleeve.

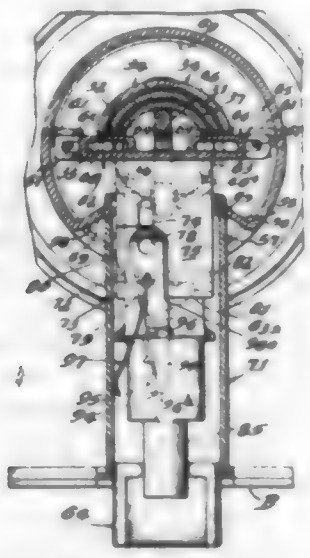
2,871,047

KEY LOCK CONSTRUCTION

Edwin W. North, Rockford, Ill., and William B. Wilson, La Habra, Calif., assignors to National Lock Company, Rockford, Ill., a corporation of Delaware

Original application August 9, 1952, Serial No. 303,534, now Patent No. 2,814,194, dated November 26, 1957. Divided and this application January 28, 1957, Serial No. 638,195

6 Claims. (Cl. 292—169)



1. In a lock construction, a latch bolt housing, a retractable latch bolt having a latching end adapted to be received in an opening of a strike plate, a bracket in the housing carrying the latch bolt at one end thereof, a cam at the other end of the bracket for retracting the bracket and its latch bolt, a fixed pin on which said cam is pivotally mounted, a spring-biased dead bolt carried in the housing adjacent said bracket and latch bolt, a locking bar pivotally mounted adjacent one end on said pin between the bracket and the dead bolt and carrying a lug at its other free end, an elongated cam on the dead bolt adjacent the bracket, said cam having a cam surface extending longitudinally of said dead bolt and merging into a rearwardly inclined cam surface, tension means for maintaining the lug in contact with the cam faces, and a narrow stop provided on the adjacent face of the bolt bracket, said dead bolt when moved inwardly by engagement with the face of the strike plate and said latch bolt is received in said opening of the strike plate, said lug rides off the inclined cam surface of the locking bar and positions the free end of the latter in alignment with the stop of the bolt bracket whereby inward movement of the latch bolt by a force applied to the latching end thereof when latched to the strike plate causes said stop to engage the free end of the locking bar and prevent retraction of the latch bolt.

2,871,048

DOOR LATCH

Roy O. Balogh, Clayton, Mo., assignor to McCabe-Powers Auto Body Co., St. Louis, Mo., a corporation of Missouri

Application February 15, 1956, Serial No. 565,673

10 Claims. (Cl. 292—173)



3. A door latch comprising a lock housing adapted to fit into a door, said housing having a back wall provided with an elongated slot, a slide-forming element secured upon the interior face of the back wall in overlying relation to the slot, a bolt shiftably mounted in the slide-forming element and having a pin projecting through the slot, a handle rockably mounted in the housing, a hollow actuator operatively connected to the handle and extending around and bearing against the pin, whereby the bolt is retracted into the slide-forming element responsive to rocking movement of the handle, and co-operating means on the outer face of the back wall and the actuator for sealing the slot against the passage of moisture when the bolt is in closed position.

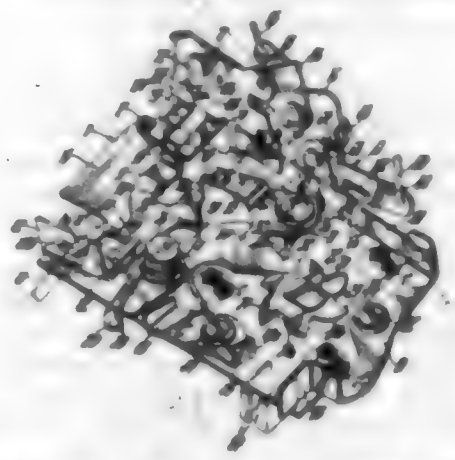
2,871,049

ROTARY GEAR BOLT DOOR LATCH

Stanley D. Cockburn, Detroit, James D. Leslie, Manchester, Bewley D. Priestman, Livonia, and La Verne B. Ragsdale, Dearborn, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 16, 1953, Serial No. 392,266

6 Claims. (Cl. 292—280)



1. A door latch of the character described, including: pivotally mounted latching means having a plurality of

detent engaging teeth; a pivotally mounted detent having a foot adapted to abut a surface of one of said teeth to block pivotal movement of the latching means in a door opening direction, said foot being swingable out of abutting relation with the surface of said tooth, and the abutting surfaces of said foot and tooth being curved on an arc having its center adjacent the pivotal axis of said detent but spaced from said pivotal axis in the general direction in which said foot swings when moving out of abutting relation with said tooth, said center being farther from the axis of the latching means than is the pivotal axis of said detent whereby said foot backs off from the surface of said tooth when the detent is swung; and operating means for swinging said detent out of blocking engagement with said latching means.

2,871,050
DOOR PUSH BAR
Oral W. Dickinson, Anoka, Minn.
Application November 1, 1956, Serial No. 619,823
4 Claims. (Cl. 292—336.3)



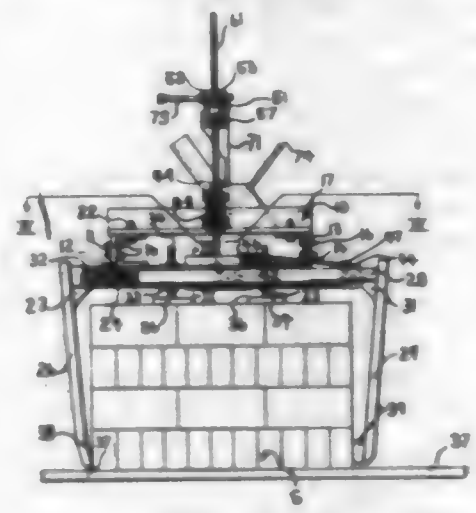
1. For use on a door that has a latch handle, an attachment to actuate the handle and open the door in one motion, said attachment comprising a bar which extends transversely across the door, means mounting one end of said bar on the door for movement toward and away from the door, means pivotally connecting the opposite end of the bar to the latch handle so that said latch handle is actuated when any part of said bar is pushed, said means forming the pivotal connection between the bar and latch handle having a member mounted on said latch handle, said member being compressible and flexible so that it is adapted to distort to various shapes to fit various shapes of handles and so that said member is capable of yielding in response to movement of said bar, and fastening means securing said member to said bar.

2,871,051
HOLDING DEVICE FOR DISPOSABLE CONTAINERS
Floyd F. Nesslein and Robert J. Nesslein, Pagedale, Mo.
Application September 15, 1955, Serial No. 534,489
5 Claims. (Cl. 294—31)



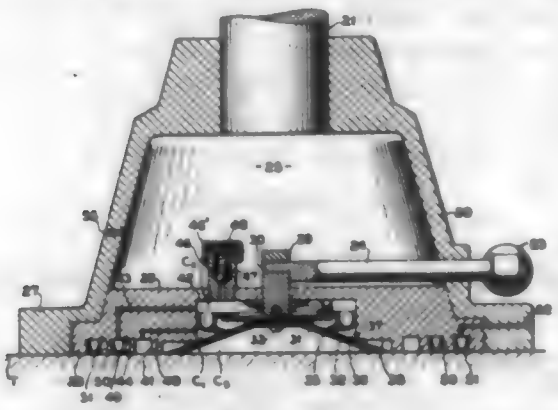
1. A holder for a waxed paper milk carton and the like of the type having a bottom closure and a roof-shaped top wall with an upstanding multiple ply ridge flange and further having a laterally opening recess under said top wall, comprising carton-engaging means including an upper lifter section and a lower carton-encircling section and a handle connecting said sections, said lifter section being insertable into the carton recess in abutment with the top wall for supporting, lifting and carrying the carton, said carton-encircling section being adapted to circumscribe the carton intermediate the bottom closure and top wall thereof, and single and elongated control means having a lower end connected to said carton-encircling section and extending upwardly therefrom for bearing against the carton adjacent to the top wall on the side opposite from said handle for holding the lifter section in abutment with the carton top wall.

2,871,052
APPARATUS FOR LIFTING STACKS OF BRICKS AND THE LIKE
Herbert J. Neher, Decatur, Ala.
Application August 25, 1955, Serial No. 530,545
4 Claims. (Cl. 294—63)



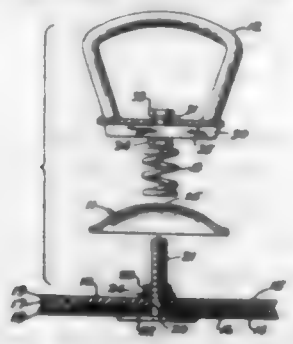
1. In apparatus for lifting a stack of bricks and the like, a main frame adapted to be positioned over the stack of bricks, parallel horizontal tubular members secured to said main frame and having outer ends adapted to extend beyond one side of the stack, downwardly and inwardly directed gripper arms secured to the outer ends of said tubular members and adapted to contact the bricks on one side of the lower course, a horizontally extending member fitting slidably in each of said tubular members and having an outer end adapted to extend beyond a side of the stack opposite said one side, gripper arms similar to the first named ones secured to the outer ends of the slidable members opposite said first mentioned gripper arms and adapted to contact bricks on the opposite side of the lower course, a sheave mounted on a horizontal axis on each of said tubular members, a second sheave mounted on each of said slidable members outwardly of said tubular members with the second sheaves being equally spaced from the gripper arms on the slidable members, a cable connected at one end to each of said tubular members and passing around said second sheave and then around the first mentioned sheave, a sheave block positioned over each tubular member to which the other end of said cable is connected, an equalizing bar mounted for movement in a vertical plane above the sheave blocks, sheaves mounted on the equalizing bar, a second cable having its ends secured to the equalizing bar and passing alternately under the sheaves in the blocks and over the sheaves on the equalizing bar, means for lifting the equalizing bar thereby to move the sheave blocks upwardly and move the tubular members and the horizontally extending members inwardly of the stack toward each other thereby moving the gripping arms into contact with the sides of the lower course of bricks, releasable hold-down means carried by said equalizing bar adapted to engage the main frame and limit movement of the equalizing bar relative to the main frame when said equalizing bar is lifted, and means mounted on said equalizing bar to release said hold-down means.

2,871,053
PNEUMATIC HOLDING DEVICE
Otto P. Richter, Hollis, N. Y.
Application March 14, 1956, Serial No. 571,517
10 Claims. (Cl. 294—64)



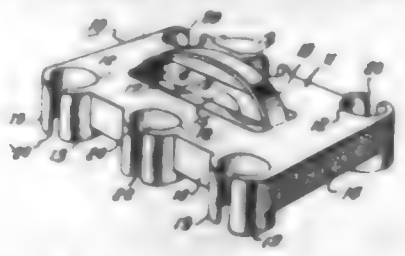
8. A pneumatic holding device, comprising a block having a rigid flat bottom surface for contacting a flat support, said block having a cylindrical cavity therein open at the bottom of the block, said cavity having a wall undercut to form a recess with an inner circular corner rim, said block having a plurality of grooves open at the bottom of the block and surrounding said recess, a pair of resilient rings retained respectively in two of said grooves and normally spaced inwardly from the bottom of the block, a stiffly resilient membrane extending across the cavity and having its outer edge normally supported in said recess adjacent said rim to divide the cavity into first and second compartments, a flexible partition extending across the recess adjacent the membrane to form a wall of a third compartment in the recess, means supporting said membrane in an unstressed condition away from the bottom of the block in said recess, said block having three passages formed therein, a first one of the passages connecting one of said two grooves with the third compartment, a second one of said passages connecting the other of said two grooves with the exterior of the block, the third one of said passages connecting the second compartment with a third one of the grooves, said means being operative to stress said membrane and partition for enlarging the first compartment while diminishing the second and third compartments, said outer edge of the membrane being pivotable by said means outwardly on said rim to effect a hermetic seal of the first compartment on said flat support, said rings normally sealing the rings against flow of air from said passages past the rings, said rings being forced outwardly to press against said flat support by air pressure applied from the diminished third compartments and by outside air pressure respectively.

2,871,054
SUCTION CUP
Erwin Max Zinke, Sonoma, Calif.
Application July 5, 1956, Serial No. 595,915
8 Claims. (Cl. 294—64)



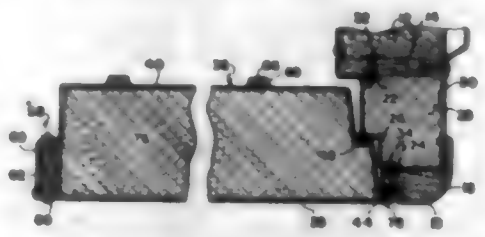
1. In a suction device, the combination of a normally flat composite rubber disc having a thick upper reinforcing portion made of relatively hard rubber and a thinner lower surface-engaging portion made of relatively soft rubber; a concave metal cup smaller in diameter than said disc in which the central portion of the disc lies, with the upper portion against said cup; a bolt having a thin, broad head sunk into the soft rubber lower disc portion and a stem extending through said disc and said cup and beyond said cup for a substantial distance; a nut threaded on said stem and against said hard rubber portion to secure said rubber disc to said bolt; a handle secured to said bolt; and a spring compressed between said metal cup and said handle, whereby said spring enables seizure of an object by said device when said device is applied onto said object by pressure and the pressure then released, the soft rubber portion assuring good surface contact and the hard rubber portion reinforcing and supporting the soft rubber portion.

2,871,055
BOTTLE CARRIER
Irving D. Glazer, Dallas, Tex., assignor to Dura Pak Corporation, Dallas, Tex., a corporation of Texas
Application January 16, 1956, Serial No. 559,293
6 Claims. (Cl. 294—87.2)



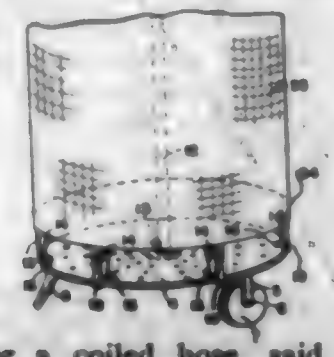
1. A carrier for bottles having reduced neck portions including a substantially flat rectangular body, socket means at the margins of the body for supporting a plurality of bottles by their reduced neck portions, the socket means being formed of elastic material for gripping the neck portions of the bottles and permitting insertion and removal thereof by relative longitudinal movement between the bottles and body, each socket means having spaced end portions projecting outwardly from the marbins of the body and forming coacting flexible jaws to permit insertion and removal of the neck portion of a bottle therebetween by swinging movement of the bottle relative to said body, and radially projecting means in each socket means opposite the jaws for engaging the neck portion of the bottle to maintain the bottle in parallel relation to adjacent bottles.

2,871,056
PLASTIC DOORS AND DOOR FRAMES FOR TRAILERS
Semond Levitt, Philadelphia, Pa., assignor, by mesne assignments, to Fruehauf Trailer Company, Detroit, Mich., a corporation of Michigan
Application November 30, 1953, Serial No. 394,948
8 Claims. (Cl. 296—106)



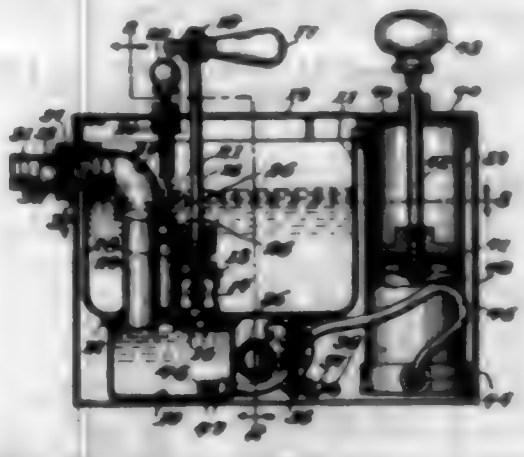
1. In a trailer having a roof, sides and door jambs at their rear vertical ends, plastic door frames secured to the sides and jambs and plastic doors hinged to the jambs and cooperating with the frames, said doors including inner vertical edges of step cross-section, one portion of said edges of one door cooperating with an adjacent portion of said edges of the other door to form meeting edges and a vertical post secured in the step of one door, said post having a step cross-section to provide a portion adapted to overlap the meeting edges and nest in the step of the other door to effect a tight closure.

2,871,857
HOSE BASKET
George S. Bernyk, Dayton, Ohio
Application November 22, 1955, Serial No. 548,421
3 Claims. (Cl. 299—78)



3. A basket for a coiled hose, said basket having rounded sides and a bottom member with water openings distributed throughout the sides and bottom, means within the basket for guiding the convolutions of hose against the sides of the basket, a central tubular column in said basket, the lower end of the hose communicating with said column, and a space between the lower edge of the sides of the basket and the bottom member of the basket to permit insertion of the hand for making a connection and a disconnection of the lower end of the hose.

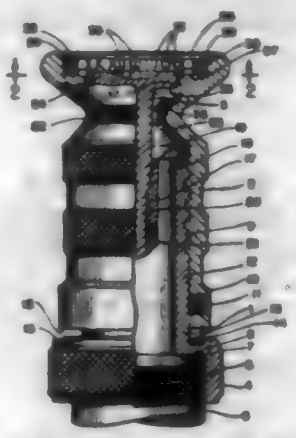
2,871,858
TONSORIAL LATHER DISPENSERS
Salvatore Puglia, New York, N. Y.
Application June 24, 1955, Serial No. 517,865
3 Claims. (Cl. 299—83)



1. A lather dispenser comprising a soap chamber, an aerating chamber directly below the soap chamber and in valved communication with the latter, a hand pump discharging air into the aerating chamber, a standpipe in the soap chamber and communicating with the aerating chamber, a discharge nozzle connected with the standpipe, the nozzle level being well above the level of the aerating chamber, a vent valve positioned in the soap chamber but in communication with the aerating chamber, and an exterior operating means for the vent valve to relieve the aerating chamber of excess air.

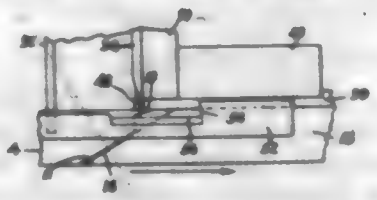
2,871,859
FIRE HOSE NOZZLE
William P. O'Brien, Western Springs, Ill., assignor to W. D. Allen Manufacturing Co., Chicago, Ill., a corporation of Illinois
Application June 7, 1956, Serial No. 589,920
5 Claims. (Cl. 299—136)

1. A fog nozzle comprising a hollow base, a hollow body having a fog discharge end, said base and said body having cooperating threads adjustably securing the body to the base, said body having an inwardly projecting shoulder forming a discharge passage of reduced diameter, a spray stem having an elongated shank and a head of increased diameter, the shank and the base having cooperating threads securing the spray stem with the head thereof positioned in spaced relation with the shoulder in the body, and a spray ring mounted substantially flush with the discharge end of the body, said spray ring having inwardly projecting teeth in spaced relation with the head of the spray stem, said spray stem being operable



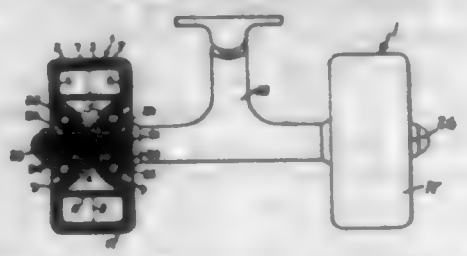
to direct a spray of water outwardly into the teeth of the spray ring, each of the teeth of the spray ring being wedge-shaped and having symmetrical opposed sides each having a concave surface and a flat surface, the flat surfaces of each adjacent pair of teeth forming a parallel-sided slot extending radially of said spray ring.

2,871,860
STOCK PICKER
John B. Benyak, Cleveland, Ohio, assignor to The Osborn Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application June 14, 1955, Serial No. 515,473
11 Claims. (Cl. 300—7)



1. In a brush bristle stock picker including a hopper and bristle bundle extracting slide mechanism reciprocable therebeneath; a slide bar mounted for reciprocation beneath said hopper, a separate slide extension member, resilient means normally urging said bar and extension member together for reciprocation in unison, means operative to reciprocate said bar from a position with the opposed end portions of said bar and extension member beneath said hopper to a position with said portions laterally of said hopper, and stop means adapted to engage said extension member as it is reciprocated toward said hopper to halt the same with its end opposed to said bar beneath said hopper, said reciprocating means being operative further to reciprocate said bar to space the latter from said extension member a predetermined distance to afford a widening notch to receive a bundle of bristle material therebetween.

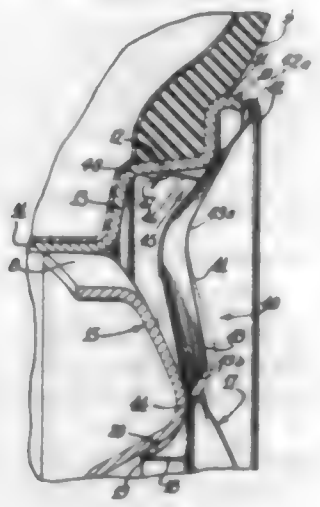
2,871,861
ROLLER SKATE WHEEL
Carl M. Behm, Parma Heights, Michael Bushi, Cleveland, and Steve Bushi, Seven Hills, Ohio
Application November 16, 1955, Serial No. 547,262
5 Claims. (Cl. 301—5.3)



1. A composite wheel structure comprising complementary annular sheet metal stampings which are formed

with inner telescoping portions and outer abutting annular rims and which define a hollow annular shell, said shell having opposite recesses extending outwardly from the inner telescoped portions, and an integral layer of organic plastic material embracing the periphery and opposite sides of said shell, and also overlying such recesses to provide bearing surfaces composed of such plastic material and backed up by said stampings.

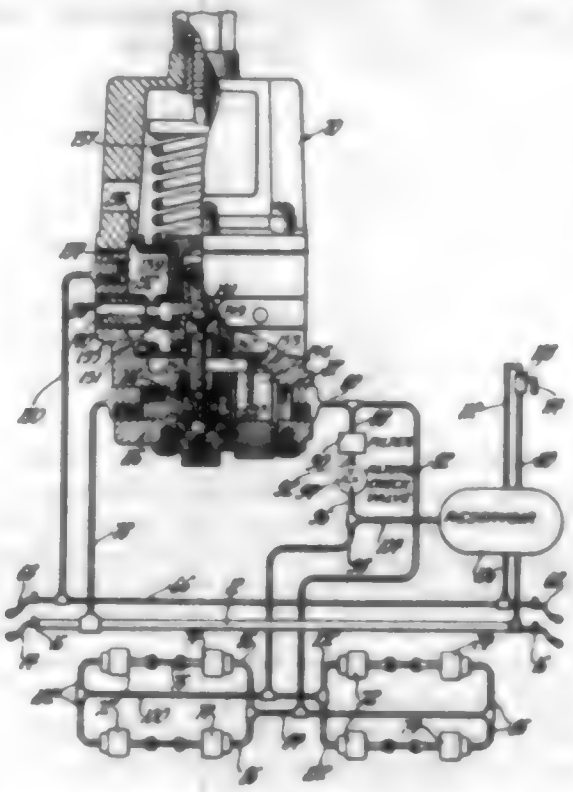
2,871,061
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Original application October 12, 1953, Serial No. 385,471, now Patent No. 2,757,976, dated August 7, 1956. Divided and this application May 22, 1956, Serial No. 586,393
9 Claims. (Cl. 301—37)



1. In a wheel assembly including a wheel with a central part having a plurality of circumferentially spaced wheel cover retaining means and a drop center rim having an annular generally radially inwardly facing flange, a wheel cover for disposition at the outer side of the wheel having a resilient rearwardly extending annular flange portion for retaining engagement with said retaining means, and another annular portion spaced radially outwardly from the first named annular flange portion and generally telescoped into said radially facing rim flange, said last named portion having resilient means pressed therefrom and generally radially outwardly therebehind for engaging said rim flange for aiding in centering the cover over the wheel when inserting the cover in place, said resilient means comprising a series of circumferentially spaced generally axially inwardly and radially outwardly angled fingers having generally radially inwardly turned terminals providing at juncture with the fingers generally radially outwardly facing shoulders frictionally grippingly engageable with the rim flange.

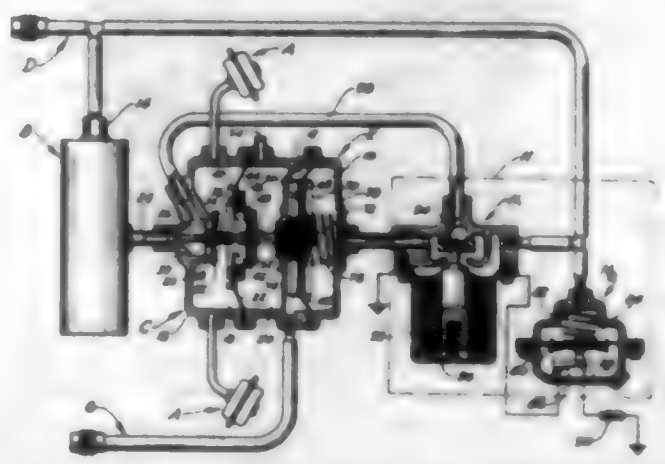
2,871,063
BRAKE SYSTEM
Kenneth D. Swander, Jr., La Grange, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 30, 1955, Serial No. 531,315
2 Claims. (Cl. 303—26)

1. An airbrake system for a train comprising a pressure source, a trainline supply pipe running the length of said train and connected to said source, a control pipe running the length of said train which when exhausted effects release of the train brakes and when charged effects application thereof, an air conducting connection between said pipes manually operable to charge said control pipe from said trainline supply pipe, a valve assembly operable to connect said control pipe to said source to effect application of the train brakes and to disconnect said control pipe from said source and connect it to atmosphere to effect release thereof and including valve means responsive to brake release operation of said valve



assembly to disconnect said control pipe from atmosphere after a predetermined interval of connection thereto.

2,871,064
AUTOMATIC BRAKING SYSTEM
Earl R. Price, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application August 21, 1956, Serial No. 605,405
4 Claims. (Cl. 303—31)



1. In a pneumatic control system for automotive braking and the like: a fluid pressure motor actuated by the application of a pressure differing from atmosphere; a normal but fluctuable source of said pressure differing from atmosphere; a reservoir supplied by said fluctuable source of said pressure differing from atmosphere; check valve means interpositioned between said reservoir and said source for closing off communication therebetween when the intensity of said source falls below that existing in said reservoir; a control valve having a movable element which opens and closes communication between said reservoir and said fluid pressure motor; a fluid pressure actuated control motor having a movable wall therein which operates said movable element and which movable wall separates opposing pressure chambers in said motor; a control line communicating with one of said opposing chambers; a normal supply line for communicating the other of said opposing chambers with said source; said control motor being arranged to cause said movable element to close communication between said reservoir and said first mentioned fluid pressure motor when pressures of substantially equal intensities exist in said opposing

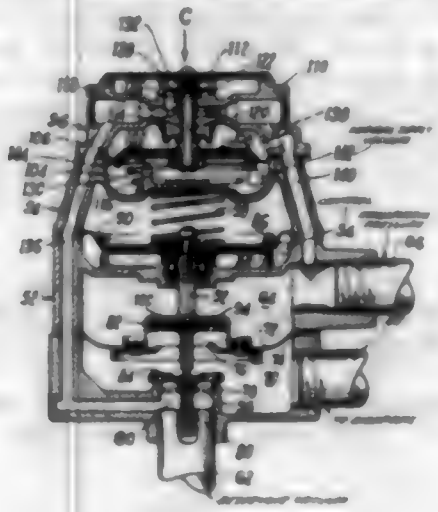
chambers, and to cause said movable element to open communication between said reservoir and said fluid pressure motor when atmospheric pressure is bled into said one opposing chamber and said differing pressure exists in said other opposing chamber; and means for communicating said normal supply line to said other opposing chamber when the differential pressure between said normal supply line and atmosphere exceeds a predetermined amount and for communicating said reservoir to said other opposing chamber when said differential pressure is below said predetermined amount.

2,871,065

AUTOMATIC BRAKING DEVICE

John W. Blair and Maxwell L. Cripe, South Bend, Ind., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application August 28, 1956, Serial No. 606,761
5 Claims. (Cl. 303—31)



3. In a remote control valve for an automotive braking system and the like: a valve body having a fluid pressure motor chamber therein; a movable wall separating said chamber into a control and an opposing chamber; said movable wall being operatively connected to control valve means for governing the operation of a controlled device, and which valve means provides a reaction to said movable wall which is generally proportional to the force developed by the controlled device when being actuated by said control valve; means for communicating a control pressure signal to said control chamber which control signal is normally of a pressure differing from atmospheric and which control signal approaches atmospheric pressure to cause activation of the controlled device; means for communicating a fluctuable source of a pressure differing from atmosphere to said opposing chamber, which fluctuable source has a normal intensity generally corresponding to the normal intensity of said control signal; and means for sequentially closing off communication between said fluctuable source and said opposing chamber, and thereafter communicating an auxiliary source of said differing pressure to said opposing chamber when the differential pressure between said fluctuable source and atmosphere falls below a predetermined level.

2,871,066

AUTOMATIC SAFETY BRAKE SYSTEM

Louis Henry Pannier and John M. Ey, Pittsburgh, Pa.

Application February 10, 1954, Serial No. 409,348
3 Claims. (Cl. 303—63)

1. A system for operating the braking units of a vehicle having a main fluid-pressure brake actuating system provided with a fluid outlet line for the braking units, which fluid outlet line has an applicator valve interposed therein for the purpose of opening and closing the fluid outlet line, comprising an auxiliary fluid-pressure tank, an auxiliary fluid-pressure line leading from said auxiliary fluid-pressure tank, a selector valve interposed between the brake units and the fluid outlet line of the main system and said auxiliary fluid-pressure line, a plunger for said selector valve for selectively connecting the fluid outlet line of the main fluid-pressure brake actuating system and said auxiliary fluid-pressure line to the braking units in accordance with the position of said plunger, said plunger being automatically positioned in accordance with a condition of the main fluid-pressure brake actuating system and an auxiliary applicator valve interposed in said auxiliary fluid-pressure line to open and close said line, operating means for said auxiliary applicator valve for operating said auxiliary applicator valve simultaneously with the applicator valve interposed in the fluid outlet line of the main fluid-pressure brake actuating system.

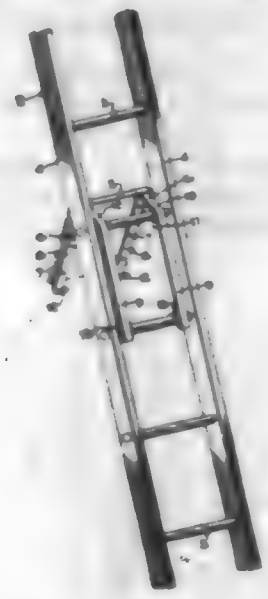


2,871,067

STAND-ON PLATFORM FOR A LADDER

James W. Brogdon, Cincinnati, Ohio

Application March 28, 1956, Serial No. 574,547
7 Claims. (Cl. 304—31.5)



1. A readily detachable ladder platform attachment comprising a base of less lateral width than the width of a space between two side supports for the ladder rungs and a pair of brackets for said base, each bracket having an horizontal top leg adapted to be fitted to the underside of said base, a downwardly extending hook on the free end of the leg opposite to an elongated front side, a bottom leg downwardly extending from the one end of the front side and inclined in the general direction of the top leg to provide a free end spaced from the hooked end of said top leg for a distance substantially the same as the space between two adjacent rungs of the ladder and terminating in a rung engaging hook, said bottom leg providing a limit stop, below the horizontal top leg, for the movement of the attachment in one direction, and the hook on the top leg providing a limit stop for the movement of the attachment in the opposite direction, said entire attachment adapted to be pivoted on the lower ladder rung for moving the base and the top legs of the bracket over the next higher ladder rung from operative position in front of the ladder to inopera-

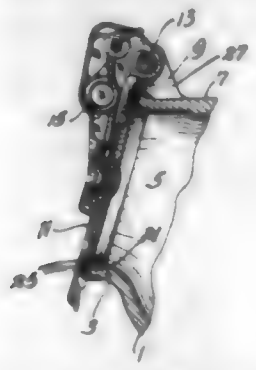
tive position rearward of the ladder for permitting normal use of the ladder when said attachment is in inoperative position.

2,871,668

RAILWAY JOURNAL BOX LID SEAL

Edward P. Wright, Glendale, Calif., assignor to Turco Products, Inc., Los Angeles, Calif.

Application September 10, 1956, Serial No. 609,817
3 Claims. (Cl. 308—44)



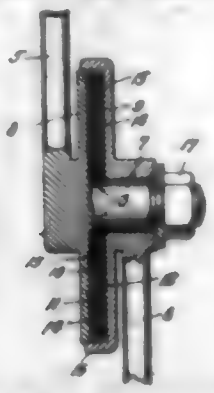
1. A railway journal box lid seal comprising a flat thin relatively wide band of compressible rubber-like material forming a rectangular frame surrounding an opening corresponding to the lid-fitted opening of a journal box to which it is to be applied, a relatively thin elongated flat strip of metal forming a stiff rectangular frame secured to one face of said band, and a plurality of U-shaped clips of spring material at intervals along the frame, each having a cross bar, secured to said band, and legs extending from the band and frame transversely of the general plane of the band and frame and arranged to receive between them and frictionally engage the opposite sides of the marginal portion of a journal box wall.

2,871,069

SELF-LUBRICATING AND RATTLE PREVENTING WASHER

Laura E. Weber, Englewood, N. J.

Application March 7, 1957, Serial No. 644,558
3 Claims. (Cl. 308—135)



1. Self-lubricating and rattle preventing spacing washer engageable between pivotally and rotatably connected parts, comprising laminations of plastic in flat back-to-back engagement and having a central stud, bolt or axle passage therethrough, there being at least three of said laminations, including an intermediate lamination having lubricant retaining cavities in opposite faces of the same and imperforate laminations at opposite faces of said intermediate laminations with heavy grease-like lubricant confined in said cavities by said imperforate laminations and exposed for distribution over the opposing faces of the laminations.

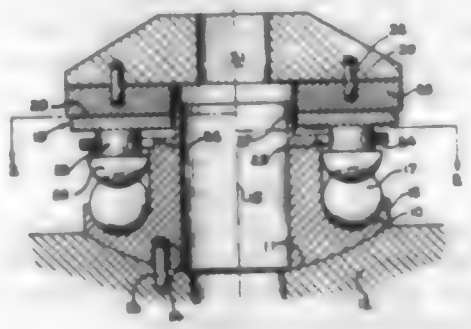
2,871,070

SELF-EQUALIZING THRUST DEVICE

Eustace S. Dunn, Piedmont, Calif.

Application October 25, 1955, Serial No. 542,651
6 Claims. (Cl. 308—160)

1. A self-equalizing thrust device comprising, in combination, a rotatable thrust pad, a plurality of thrust shoes of irregular quadrilateral shape contacting said thrust pad, a base having an annular recess therein, a plurality of equalizing balls in said recess with freedom of adjustment of the spacing between adjacent balls, a plurality of substantially evenly spaced pivot balls, one secured to each thrust shoe, each of said pivot balls resting on two equalizing balls in said recess tending, under load, to force the two balls apart, each of said pivot balls supporting a thrust shoe with freedom to tilt relatively to said base, and continuous means for restraining said thrust shoes from rotating about the axis of said pivot balls parallel to the axis of rotation of said thrust pad.

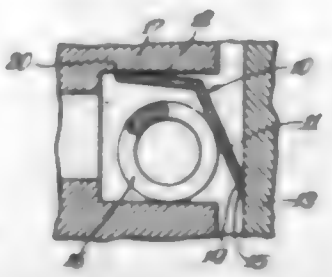


2,871,071

PISTON RING ASSEMBLY

Arthur M. Breneke, Hagerstown, Ind., assignor to Perfect Circle Corporation, Hagerstown, Ind., a corporation of Indiana

Application February 8, 1955, Serial No. 486,834
14 Claims. (Cl. 309—30)



1. A piston ring assembly for a piston having a groove with upper and lower sides, comprising a ring member comprising an inwardly extending flange adapted to be positioned adjacent the upper side of the groove and a flange extending downwardly therefrom to adjacent the lower side of the groove, the lower edge portion of the downwardly extending flange being adapted to contact the cylinder wall, and spring means bearing outwardly against the downwardly extending flange above the lower edge thereof to force the lower edge portion against the cylinder wall and to tilt the ring member to hold the inner edge portion of said inwardly extending flange against the upper side of the ring groove.

2,871,072

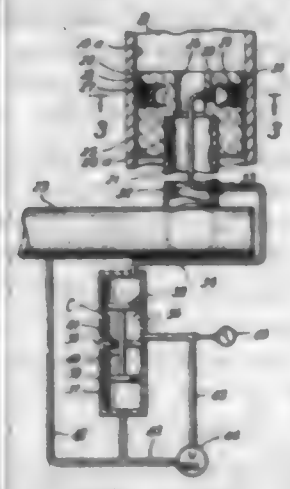
PISTON SEALING ASSEMBLIES

Asbury S. Parks and William O'Bannon, Houston, Tex.; said O'Bannon assignor to Parkersburg-Aetna Corporation, Houston, Tex., a corporation of West Virginia

Application July 15, 1954, Serial No. 443,604
4 Claims. (Cl. 309—31)

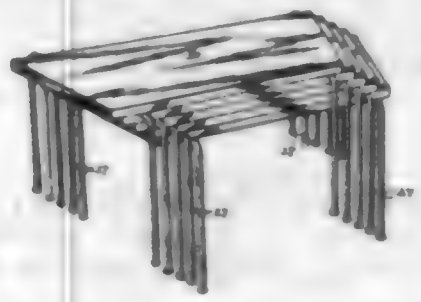
1. In a fluid counterbalancing apparatus for a pumping unit including a relatively movable piston and cylinder one of which is anchored and the other connected to the pumping unit, the improvement comprising an annular sealing element mounted on the piston and having its external peripheral surface in sealing engagement with the wall of the cylinder, means maintaining a fluid pressure within the cylinder and effective against one end of the piston, and means controlled by said cylinder pressure

applying a fluid pressure which is greater than the cylinder pressure by a predetermined amount to the inner periphery



of the sealing element to urge the element outwardly into sealing position.

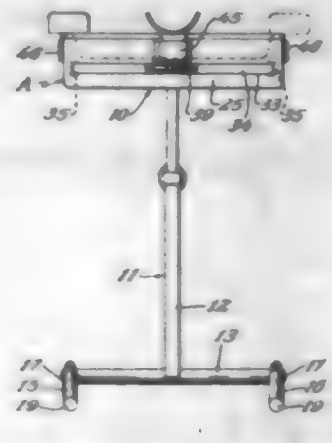
2,871,873
TABLE ADAPTED FOR VERTICAL STACKING AND HORIZONTAL GROUPING
Jens Robert F. Swanson, Bloomfield Hills, Mich.
Application March 12, 1956, Serial No. 570,803
1 Claim. (Cl. 311—1)



A table required to stack vertically to have the full weight of the superjacent tables of the stack supported by the lowermost table of the stack, said table being further required to group horizontally with identical tables to form selectively an arcuate row, a full circular row, a straight row of single table width, and a straight row of multiple table width, forming in all such horizontal grouping a continuous horizontal surface having no through gaps, and in straight horizontal row grouping having two continuous straight and parallel edges; said table comprising a flat top having two parallel and two non-parallel sides forming a right trapeze, with all four sides being straight; two members of inverted U-shape arranged under the trapeze top in two vertical planes parallel to the non-parallel sides of the trapeze and secured to said top to form four legs therefor, with said U-shape members extending in said planes beyond the edges of the parallel sides of the top for a sufficient distance to clear the top of the subjacent table in vertical stacking, with the vertical planes of the U-shape members being disposed at different distances from the respective non-parallel edges at the trapeze-shape top in order that when the parallel edges of the tops of the grouped tables are brought in contact alignment with one another, the protruding portions of the U-shaped member contact and lock each other from movements along the parallel edges of the tables, with the planes of the U-shape members which are in-locking contact forming an appreciable angle with each other.

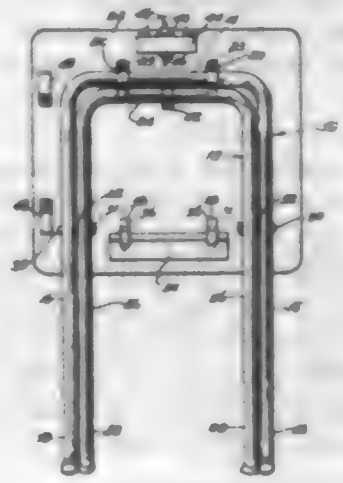
2,871,874
COMBINED SURGICAL TABLE AND BODY MEMBER SUPPORT
J Anthony Malerich, Jr., St. Paul, Minn.
Application August 8, 1956, Serial No. 602,872
8 Claims. (Cl. 311—11)

1. A surgical table including a base, an open topped table member mounted on said base, a removable basin supported in said open topped table member, and detach-



able limb supports mounted on opposite sides of said table member to project above said basin.

2,871,875
COLLAPSIBLE UTILITY TABLE OR STAND
Peter Stone, Chicago, Ill., assignor to Premier Materials Co., Chicago, Ill., a corporation of Illinois
Application December 26, 1957, Serial No. 705,332
2 Claims. (Cl. 311—83)

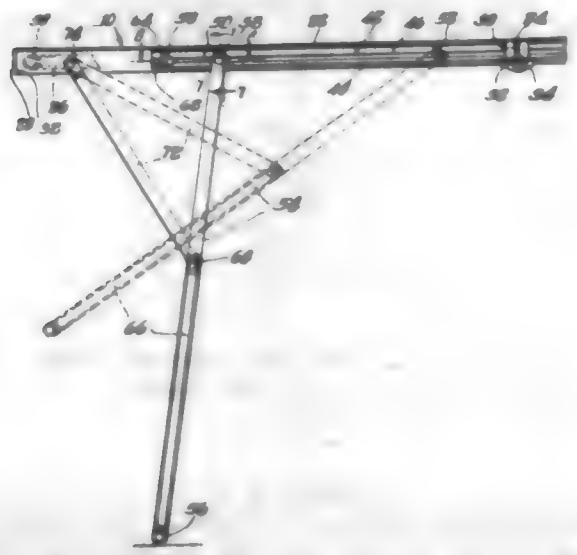


1. A collapsible stand comprising a top, an inverted first U-shaped supporting member pivotally secured to the underside of said top, a second inverted U-shaped supporting member pivotally secured to said first mentioned supporting member and having a width less than said first mentioned supporting member and a length above the pivotal connection less than the corresponding length of said first mentioned member to permit positioning of said second mentioned supporting member within said first mentioned supporting member when said supporting members are positioned in collapsed position parallel with said top, a member rigidly secured to the underside of said top and angularly positioned below the underside of said top, clip means secured to said last mentioned member for detachably securing said second supporting member in extended position to support said top in a horizontal plane, a clip member secured to the underside of said table top adjacent the pivotal connection of said first supporting member to said table top, said second supporting member adapted to be detachably secured to said last mentioned clip member when said second supporting member is nested within said first supporting member when said stand is in collapsed position, the lower portion of each of the legs of said first and second supporting members being bent so that said lower portions are in a vertical plane when the stand is in extended supporting position and are inclined at an angle when said second supporting member is nested within said first supporting member to support said stand in an upright position when collapsed.

2,871,876
FOLDABLE TABLE

William E. Mell, Prairie View, Ill., assignor to Mell-Hoffmann Mfg. Co., Chicago, Ill., a corporation of Delaware

Application September 17, 1956, Serial No. 610,265
5 Claims. (Cl. 311—90)

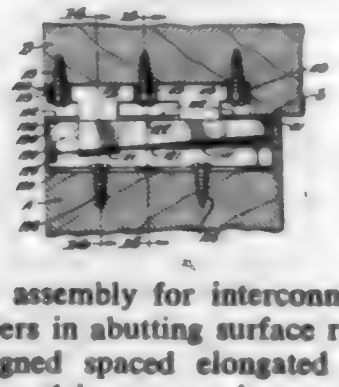


1. A table comprising load supporting panel means, leg means disposed adjacent opposite ends of said load supporting panel means and pivotally and slidably connected thereto, and a plurality of struts respectively pivotally secured to said leg means intermediate the ends thereof and to said panel means spaced from the connection of the leg means thereto toward the adjacent ends of said panel means whereby the ends of the leg means that are not connected to the panel means are movable between collapsed position adjacent the ends of the panel means and extended position projecting downwardly from said panel means to support the same, the ends of said leg means connected to said panel means correspondingly pivoting and sliding from positions relatively remote from the ends of said panel means to positions less remote thereto, and said struts pivoting from a position adjacent said panel means to a position extending downwardly therefrom.

2,871,877
WEDGE FASTENER ASSEMBLIES

Henry Mutchnik, Baltimore, Md.

Application March 14, 1955, Serial No. 494,208
8 Claims. (Cl. 311—110)



1. A fastener assembly for interconnecting a pair of structural members in abutting surface relation, comprising integral aligned spaced elongated U-shaped sheet metal loops disposed in a recess in one of said members and affixed thereto at their proximal parts and defining, together with their distal parts and the opposite side walls of said loops, a plurality of substantially rectangular passages with at least one space therebetween, the spacing between the side walls of each loop being a fractional part of the length of said loops and the distal parts thereof lying entirely within said recess without extending beyond the abutting surface of said one member, said recess being of keyhole configuration and comprised of merging portions of rectangular and circular cross-section with said loops distending from the side walls in the rectangular portion into the circular portion of the recess in congruity therewith, said second member having a U-shaped sheet metal loop affixed thereto and projecting beyond the abutting surface of said second member to interengage said first-mentioned loops in said space therebetween to define a common coextensive passage between the side walls of the loops affixed to the two structural members, the distal edges of the respective loops remote from the points of affixation to their respective structural members being inclined relative to each other along straight continuous lines, and a flat sheet metal wedge having the opposite edges thereof straight and conforming to said relative inclinations of said distal edges and of a thickness to enable rectilinear movement in said rectangular passages, whereby a reciprocating movement of said wedge in a direction towards the restricted ends of said passages is translated into a movement between the members in a transverse direction and a permanently forceful connection therebetween at their abutting surfaces.

2,871,878
COMBINATION STORAGE AND DISPENSING DEVICE FOR WOUND MATERIAL

Vincent A. Carleo, Norfolk, Va., assignor of fifty percent to George Howard Loeb, Jr., Norfolk, Va.

Application April 13, 1956, Serial No. 577,969
8 Claims. (Cl. 312—39)



7. A combination storage and dispensing device comprising a container adapted to hold a plurality of rolls of wound material and provided with a downwardly open slot through which wound material from the lowermost of said rolls may be withdrawn, means within said container for selectively maintaining the lowermost of said rolls out of contact with the other rolls and operable to position a single one of said rolls into the bottom portion of said container, and means forming a generally upwardly extending slot in at least one wall of said container adjacent the bottom thereof, the width of said downwardly open slot and the lower portion of said upwardly extending slot being smaller, and the width of the upper portion of said upwardly extending slot being greater, than the diameter of any of the winding hubs of said rolls.

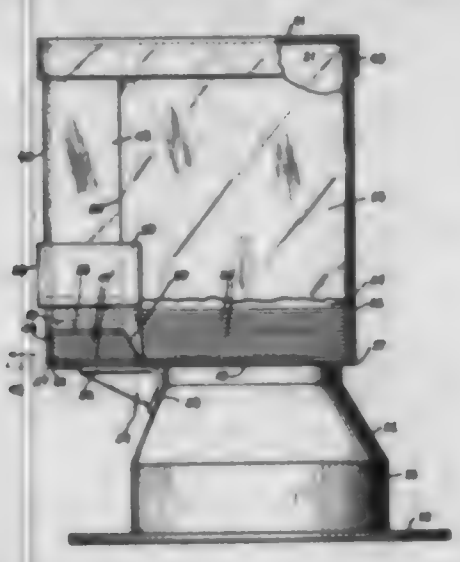
2,871,879
DISPENSERS FOR SANITARY SPOONS AND THE LIKE

Frank B. Barrett, Henderson, Nev.

Continuation of application Serial No. 454,349, September 7, 1954. This application February 11, 1957, Serial No. 639,581
3 Claims. (Cl. 312—42)

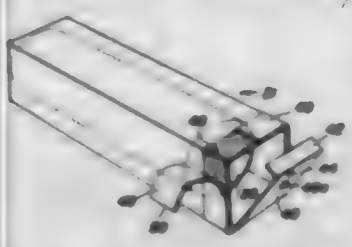
2. A dispenser for holding a stack of thin and flat implements comprising a stand having a horizontal flat upper surface, a shell having its surface extending vertically and comprising spaced apart sides and closed curved ends, one of said closed curved ends having its upper edge lying in the same plane as that of the upper edges of said sides and its lower edge lying in the same plane as that of the lower edges of said sides, the other of said closed curved ends having its upper edge lying below the plane of the upper edges of said sides, and having its lower edge provided with portions forming recesses with the adjacent sides of said shell, said other

closed curved end having a portion whose lower edge lies above the plane of the lower edges of said shell sides a distance slightly greater than the thickness of one of said implements to form a lip so as to permit the withdrawal of a single implement under said lip when the fingers of the user seize an implement through



said recesses, and a closure member having an upper portion adapted to enclose the upper edges of said sides and the upper edge of said first-named closed end and having a depending member having edges adapted to abut the other of said closed curved ends and to abut the portions of said shell sides adjacent to the other curved end.

2,871,688
MULTIPLEX TUBE CONSTRUCTION
Robert B. Shelly, Logan, Utah, assignor to Pack Manufacturing Company, Logan, Utah, a corporation of Utah
Application February 3, 1955, Serial No. 485,940
9 Claims. (Cl. 312—107)



3. A multiplex tube construction comprising an inner tube having a cross section of closed curvature; an outer tube at least partially in contact with the inner tube along longitudinal elements thereof; an initial closure in common at one end of both tubes; and means for shortening the multiplex formation, said means for shortening including a line of perforations extending around the periphery of the inner tube in spaced relation to the initial closure thereof; means for forming the end of the outer tube adjacent the line of perforation into an assemblage of overlapping leaves; and means for adhesively connecting the overlapping leaves to one another along contacting surfaces thereof.

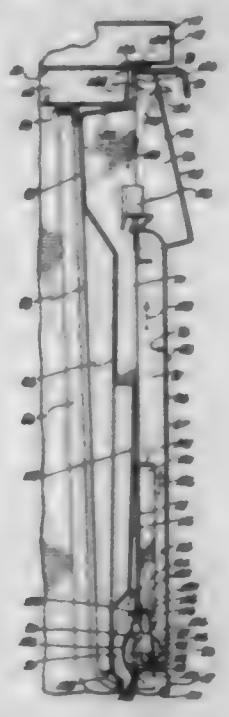
2,871,681
DISPLAY PANEL
Robert Z. Greene, Norwalk, Conn., Vael Benson, Newark, N. J., and Raymond Spilman, Bronxville, N. Y., assignors to Rowe Manufacturing Co., Inc., Whippany, N. J., a corporation of New York
Application November 16, 1945, Serial No. 469,162
4 Claims. (Cl. 312—114)

4. In a merchandising machine adapted to dispense articles of merchandise, a merchandise machine cabinet for housing a supply of articles of merchandise to be dispensed, a panel formed with a plurality of apertures, means mounting said panel on said cabinet, a plurality of transparent housing members respectively extending through said apertures, a plurality of housing base members, means for securing the respective base members to said transparent members to form a plurality of housing assemblies, means for positioning respective sample articles of said merchandise to be exhibited within the housing assemblies upon said base members, means for



fastening said housing assemblies to said panel, said means for mounting said panel comprising a re-entrant portion formed in said merchandising machine cabinet, said re-entrant portion having a transparent wall and a lamp positioned within the merchandising machine adjacent the transparent wall whereby to illuminate said sample articles of merchandise being exhibited in said housing assemblies.

2,871,683
DISHWASHER DOOR WITH AIR CIRCULATING MEANS AND MOISTURE TRAP
Horace E. Karig, Pasadena, and Herbert L. Smith, Gardena, Calif., assignors to Waste King Corporation, Los Angeles, Calif., a corporation of California
Application December 31, 1956, Serial No. 631,930
22 Claims. (Cl. 312—213)



10. In a dishwasher, the combination of: a housing including a dish chamber and having a front provided with a doorway for access to the interior of said dish chamber, said dish chamber providing at the bottom thereof a sump having a front wall adjacent the bottom of said doorway; and a door adapted to close said doorway and pivotally connected to said housing for movement between open and closed positions about a horizontal pivot axis adjacent the bottoms of said doorway and said door, said door including spaced front and rear walls which

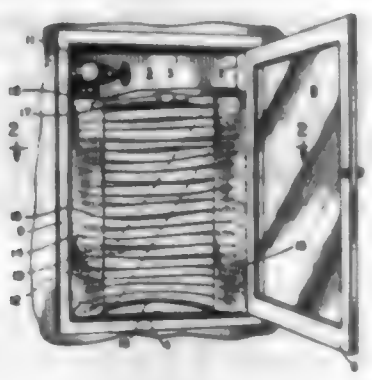
straddle and are spaced from said front wall of said sump when said door is closed, said rear wall of said door including a forwardly offset portion which is located intermediate its upper and lower edges and which is located at a level above said front wall of said sump when said door is closed, said door including another, intermediate wall which is located between and spaced from said front and rear walls of said door and which is located at a level between the upper and lower edges of said front and rear walls of said door and which is located at a level above said front wall of said sump when said door is closed, said intermediate wall of said door being located in close proximity to said forwardly offset portion of said rear wall thereof so that upward flow from said sump through the space between said rear wall of said door and said front wall of said sump into the space between said forwardly offset portion of said rear wall of said door and said intermediate wall thereof is throttled, and said door including a drainage lip carried by and sloping downwardly and rearwardly from said intermediate wall of said door, said drainage lip being located rearwardly of and at a level above the upper edge of said front wall of said sump when said door is closed, whereby to drain moisture collecting on said intermediate wall of said door adjacent said forwardly offset portion of said rear wall thereof downwardly into said sump rearwardly of said front wall of said sump.

2,871,083

STORAGE CABINET FOR FIRE HOSE

John A. Pokryfke, Chicago, Ill., assignor to W. D. Allen Manufacturing Co., Chicago, Ill., a corporation of Illinois

Application June 4, 1956, Serial No. 589,120
1 Claim. (Cl. 312—242)



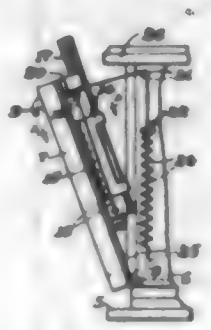
A collapsible fire hose in combination with a storage cabinet for storing same, said cabinet comprising top and bottom walls, a rear wall and a door hingedly mounted to one of said side walls defining a front wall, an arcuate bottom supporting member mounted on said bottom wall, a standpipe mounted in said cabinet near said top wall, and inwardly extending flanges on the forward edges of said side walls defining a restricted opening for normally holding the hose within the cabinet, said flanges extending upwardly from the bottom wall and terminating in spaced relation from said top wall below said standpipe, the depth of said cabinet being such as to hold a plurality of tiers of hose in side-by-side relationship, said hose including a plurality of tiers supported on said supoprting member and adjacent each other wherein the rearmost tier is directly adjacent the rear wall of said cabinet and the opposite ends of the outermost tier are held within the cabinet by said flanges, each tier including a group of superposably arranged hose portions extending between the side walls of said cabinet, the hose portions of said adjacent tiers being connected by a hose portion extending from the top of the rearmost tier to the bottom of the adjacent tier, and one end of said hose portions of the rearmost tier being connected to said standpipe.

2,871,084

MAGAZINE CABINET

Clair C. Gardner, Rockford, Ill.

Application March 24, 1955, Serial No. 496,464
6 Claims. (Cl. 312—310)



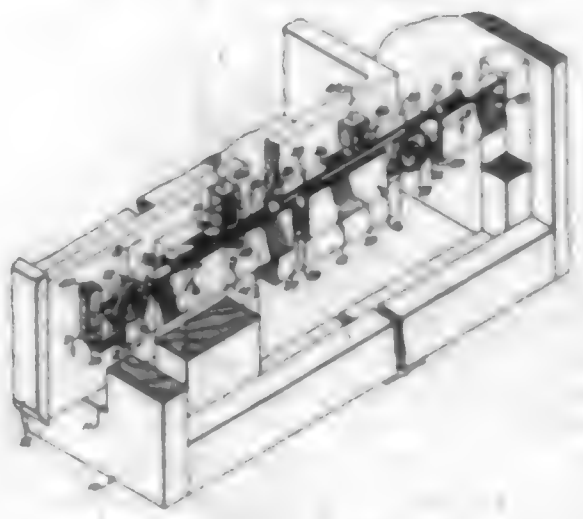
3. In a cabinet of the character described, a housing having an opening, a door hinged at its lower end on said housing to close said opening, an open top receptacle slidably mounted on the inner side of said door for up and down movement, a flexible element to raise and lower said receptacle secured at one end to a portion of said receptacle and extending upwardly over a guide on the inner side of the door, said element extending inwardly from said guide into the housing, means in said housing connected with said element to maintain the said element under tension while allowing a predetermined movement of said element with the door in opening and closing, and other means in said housing which, after a predetermined movement of the door, holds said element against movement whereby positively to raise the receptacle in the further door opening movement.

2,871,085

DRAWER SLIDE

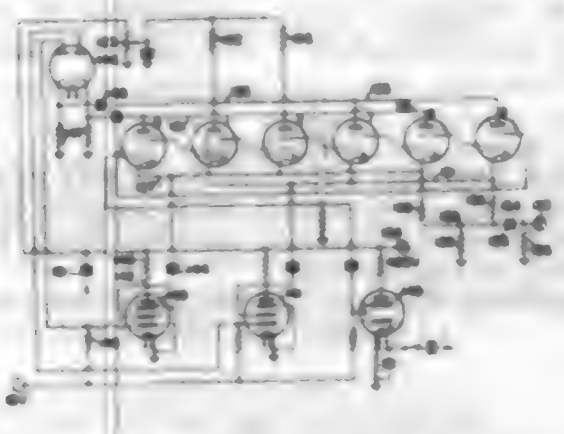
Arthur G. Disck, Inglewood, Calif.

Application May 17, 1954, Serial No. 430,082
10 Claims. (Cl. 312—339)



1. In a drawer slide, the combination of: guide and slide members of C-shaped cross section nested together in face-to-face relation, each of said members having an upper, downwardly facing, channel-shaped track extending longitudinally thereof to provide an upper, downwardly facing track surface, and each of said members having a lower, upwardly facing, channel-shaped track extending longitudinally thereof to provide a lower, upwardly facing track surface, said slide member being offset vertically upwardly relative to said guide member so as to nest said guide and slide members together in overlapping relation and so as to dispose said upper, channel-shaped track of said slide member above said upper, channel-shaped track of said guide member, said members having plane, parallel, laterally spaced webs respectively connecting said upper and lower channel-shaped tracks

a second plurality of gaseous electron-discharge devices, each of said devices of said first and second plurality including at least two main electrodes and control means for controlling conduction therebetween; a first operating potential supply connected across said main electrodes of each of said discharge devices of said first plurality and forming them into a first group; a second operating potential supply connected across said main electrodes of each of said discharge devices of said second plurality and forming them into a second group; means connecting the discharge devices into an operational series in which the conducting condition of the devices is advanced step by step, each series connection extending from a discharge device in one group to a discharge device in the other group and enabling the conduction in a device in one group to prepare a device in the other group for firing in response to an input impulse; means to supply input impulses to the devices of both groups to cause any prepared device to be fired and rendered conductive; a blow-out impulse amplifier tube for each of said plurality of gaseous discharge devices, each having at least a pair of electrodes and control means for controlling conduction therebetween; an operating potential supply connected across said electrodes of said blow-out tubes for providing said tubes with a higher potential than that supplied to the plurality of discharge devices to enable relatively large amplitude blow-out impulses to be produced upon a change in the conducting status of each of said blow-out tubes; means connecting said control means of one of said blow-out tubes to one of said main electrodes of said electron-discharge devices of said first plurality to be controlled thereby, to change its conducting status and produce a strong blow-out impulse each time one of said discharge devices of said first plurality is fired; means connecting one of said electrodes of said blow-out tube to one of said main electrodes of each of said discharge devices of said second plurality to apply the blow-out impulse thereto to cause any conducting discharge device of said second plurality to be extinguished; means connecting said control means of the other of said blow-out tubes to the other of said main electrodes of each of said electron-discharge devices of said second plurality to be controlled thereby to change its conducting status and produce a strong blow-out impulse each time one of said electron-discharge devices of said second plurality is fired; and means connecting one of said electrodes of the other of said blow-out tubes to the other main electrode of each of said discharge devices of said first plurality to apply the blow-out impulse thereto to cause any conducting discharge device of said first plurality to be extinguished, the blow-out tubes operating alternately as the discharge devices of the sequence are fired in response to input impulses and producing large-amplitude blow-out impulses to insure that a previously conducting device of the series is extinguished each time another device in the series is fired.

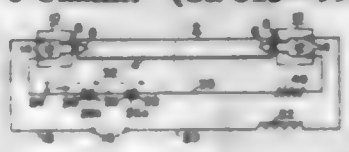


2,871,409

STARTER FOR A GASEOUS DISCHARGE DEVICE

Donald F. Aldrich, Elmira, N. Y., and William E. Newell, Penn Township, Allegheny County, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 24, 1954, Serial No. 477,464
6 Claims. (Cl. 315—99)



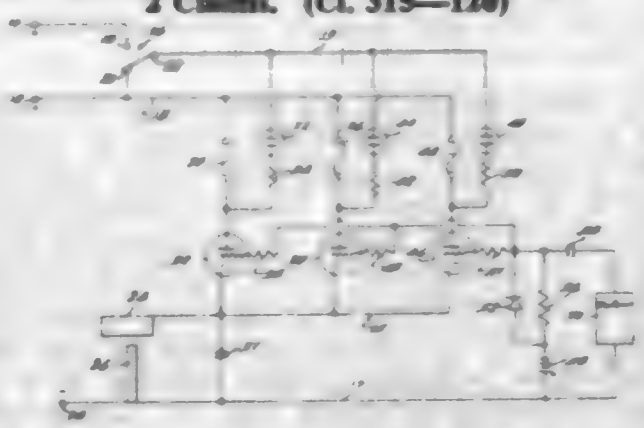
1. An electrical circuit for starting and operating a gaseous discharge device comprising, a pair of spaced lampholders adapted to support a gaseous discharge device of a type having a cathode at each of its ends with each cathode connected in series with a pair of terminals at the adjacent end of the gaseous discharge device, each of said lampholders having spaced contacts engageable with the terminals at one of said ends of said discharge device, respectively, a supply circuit connected to one of said contacts of said lampholders, respectively, a single series starting circuit connected to the other contacts of said lampholders including a starter comprising semiconductor means having more than one junction connected in series in said starting circuit, said semiconductor means having a blocking voltage lower than that of said supply circuit and the open circuit voltage of said gaseous discharge device but higher than the voltage across said device when a discharge occurs therein.

2,871,410

ELECTRICAL DISCHARGE MACHINING WATCHDOG CIRCUIT

Victor E. Matulaitis, Franklin, Mich., assignor to Elox Corporation of Michigan, Royal Oak, Mich., a corporation of Michigan

Application June 24, 1957, Serial No. 667,610
2 Claims. (Cl. 315—120)



1. In an electronic circuit having a triode power tube connected across a voltage source and operative to transmit power pulses in response to signals impressed on the grid of said tube from a pulsating signal source, means for automatically disconnecting said tube from said circuit upon said tube becoming defective in such manner that it is capable of transmitting abnormal current comprising a fuse connected in one of the power leads to said tube, means for indicating opening of said fuse comprising a glow lamp connected in parallel with said fuse, and means of testing the operability of said lamp comprising means for connecting said fuse and lamp in series across a relatively higher voltage source.

2,871,411

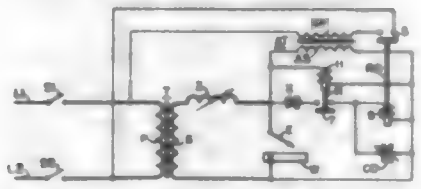
HOT-START DEVICE FOR A. C. WELDERS

Ray V. Lester, Kenmore, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 9, 1953, Serial No. 385,867
9 Claims. (Cl. 315—176)

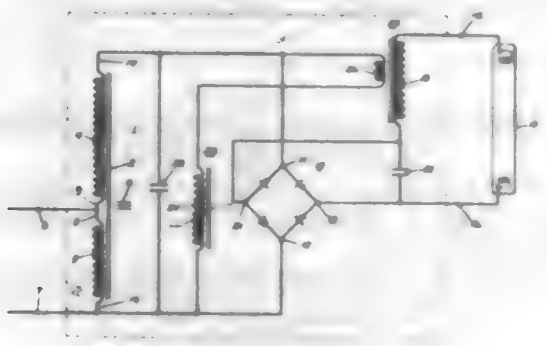
1. In an arc welder for welding work with a welding electrode the combination including a main welding

circuit for supplying current for welding and having a predetermined open circuit potential; an auxiliary hot-start circuit for supplying current and having an open circuit potential substantially equal to said predetermined potential; means for connecting said first and second circuits in parallel to said electrode and work so that they



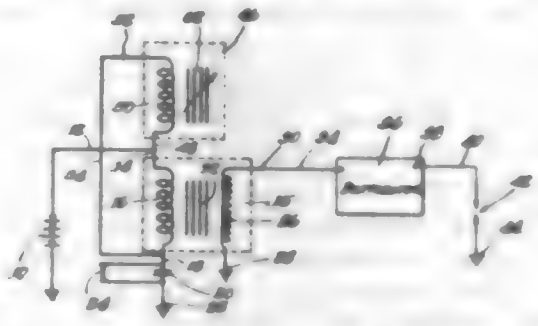
supply their current cumulatively to said electrode and work; and time delay means to be connected to said electrode and work and responsive to the arc potential between said electrode and work for opening said auxiliary circuit a predetermined time interval after an arc is fired between said electrode and work.

2,871,412
STARTING AND OPERATING CIRCUIT FOR ARC-DISCHARGE DEVICE
Harold W. Lord, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application July 1, 1957, Serial No. 669,118
5 Claims. (Cl. 315—205)



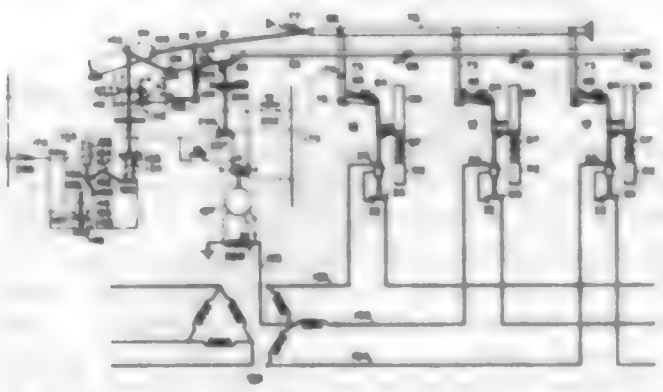
1. A circuit for starting and operating an arc-discharge device on direct current from a source of alternating current comprising: an alternating current input circuit adapted to be connected to a source of alternating current; a direct current output circuit adapted to be connected to an arc-discharge device; rectifying means connected in circuit between said input and output circuits for supplying direct current for operating said device; filtering means including a main winding of a linear inductor connected in circuit with the output of said rectifying means; impedance means connected in circuit between said rectifying means and said input circuit for ballasting said device during operation, said input terminals being arranged so that the open circuit voltage across the input of said rectifying means is higher than the operating voltage and lower than the starting voltage of said device; and a non-linear resonant circuit including capacitance, and the winding of a saturating inductor and an auxiliary winding on said linear inductor connected in circuit with said input of said rectifying means, said saturating inductor being arranged to saturate at said open circuit voltage thereby drawing a highly peaked alternating current through said auxiliary winding of said linear inductor so that a peaked alternating current voltage is induced across said main winding and superimposed on the direct current voltage output of said rectifying means whereby an elevated voltage for starting said device is provided, said saturating inductor being arranged to be unsaturated at the voltage across the input of said rectifying means after said device has started thereby drawing minimum alternating current through said auxiliary winding whereby said device operates on the direct current voltage output of said rectifying means.

2,871,413
IGNITION SYSTEM
Stephen C. Baker, North Riverside, Ill.
Application October 25, 1954, Serial No. 464,293
6 Claims. (Cl. 315—224)



1. In an internal combustion engine having a spark ignition system, the combination comprising a distributor having a shaft rotated by said engine at a speed proportional to the speed of the engine, said distributor further having a set of breaker points, one of said breaker points being orbitally movable about the other, means for orbitally moving said one breaker point from time to time, an ignition coil connected to said distributor including said breaker points and having a D. C. primary circuit opened by said breaker points from time to time, and an auxiliary coil connected to said distributor in circuit with said ignition coil, said auxiliary coil having a movable core part with a rest position and having a predetermined range of movement for varying the permeability thereof, said movable core part being moved a proportional part of said range in accordance with engine speed to produce a constant spark throughout a wide range of engine speeds.

2,871,414
POLYPHASE CIRCUIT INTERRUPTER
James M. Wallace, Montclair, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 2, 1953, Serial No. 334,686
13 Claims. (Cl. 317—22)



9. Protective apparatus for a grounded polyphase circuit comprising, a circuit interrupter having a set of separable contacts in each phase, electroresponsive means connected in series with each set of contacts and having a part movable by a predetermined overcurrent to separate said contacts, lockout means operable to bias said contacts open, restraining means normally rendering said lockout means inoperative including a toggle lever mechanism connected to the lockout means and having two overcenter pivots, releasable means holding one of said pivots in said overcenter position, a movable member connected to a lever carrying the other of said pivots, a stop engaging said member to hold said other pivot in its overcenter position, operating means for actuating said member to move said other pivot to its overcenter position, trip means operable to release said releasable means, a counter associated with each of the electroresponsive means operable in response to a predetermined number of closely successive operations of the electroresponsive means to effect movement of said other pivot to collapse the toggle lever mechanism, a ground fault relay having

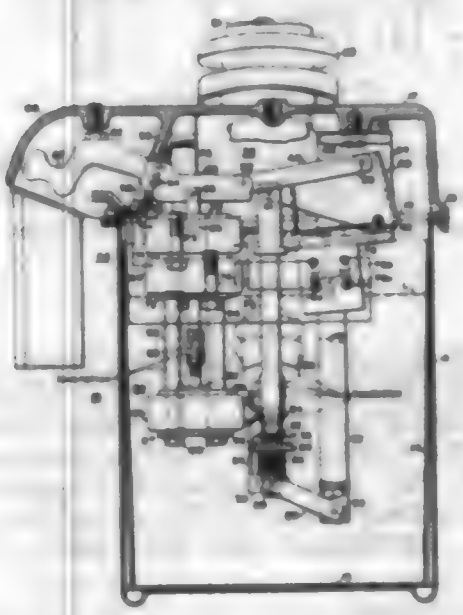
a movable contact normally connected to effect energization of the trip means and operable in response to a ground fault current to effect energization of the operating means, and a switch actuated in response to operation of any one of the counters to prevent energization of the operating means.

2,871,415

SWITCHES AND CIRCUIT INTERRUPTERS

Leonard V. Chabala, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 11, 1953, Serial No. 373,467
12 Claims. (Cl. 317—35)



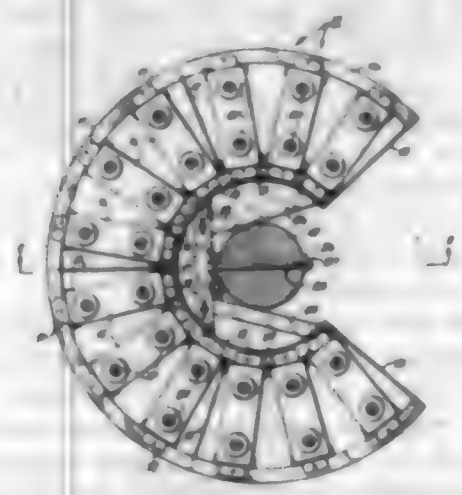
1. A switch comprising, separable contacts including stationary and movable contacts, remotely controlled electromagnetic trip means operable instantaneously to effect separation of said contacts insulating means supporting said stationary contact, and means including a part carried by said insulating means operable in response to an overcurrent in excess of a predetermined value to prevent operation of the trip means.

2,871,416

RACK FOR POLE-MOUNTED CAPACITORS AND THE LIKE

Wayne L. Steinberge, South Plainfield, N. J., assignor to Cornell-Dubilier Electric Corporation, South Plainfield, N. J., a corporation of Delaware

Application May 16, 1955, Serial No. 508,460
11 Claims. (Cl. 317—99)



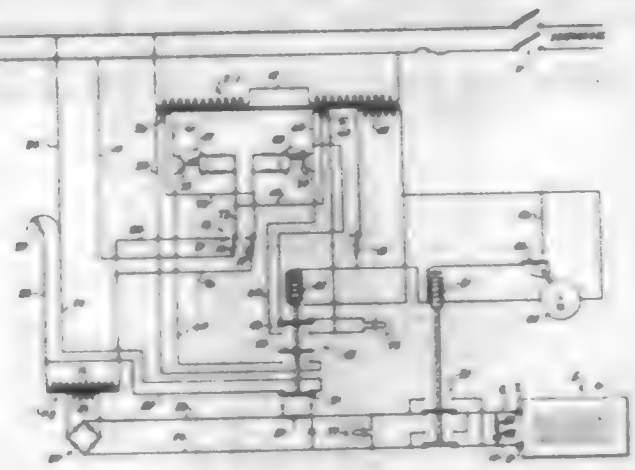
1. A rack for pole-mounted capacitors and the like comprising an arcuate-shaped frame including an opening therein to enable the frame to be disposed in surrounding relation to said pole by lateral translation thereof, said frame including inner and outer concentric supports for a plurality of capacitors to be secured thereto in radial relation relative to the centerline of the pole, a pair of chordal braces secured to said inner support and disposed in inwardly converging relation from the opening for receiving the pole therebetween and means for maintaining said chordal braces in compressive engagement with said pole surface.

2,871,417

MAGNETIZING AND DEMAGNETIZING APPARATUS

Eugene N. Conroy, Minneapolis, Minn., assignor to Continental Machines, Inc., Savage, Minn., a corporation of Minnesota

Application October 14, 1957, Serial No. 689,901
1 Claim. (Cl. 317—123)



In a magnetizing and demagnetizing apparatus of the type comprising rectifier means having alternating current input terminals and including a full wave rectifier having direct current output terminals, a magnetizing coil connected with the direct current output terminals of the rectifier means, and switch controlled means for effecting periodic reversals of the polarity of the current output of the rectifier means during demagnetization: a pair of hot cathode high vacuum rectifier tubes which remain conductive as long as the temperatures of their cathodes are above a predetermined minimum and gradually conduct less current as their cathodes cool; means connecting the cathode of each tube with the anode of the other; energizing circuits for the cathodes of said tubes; switch means in said energizing circuits for controlling energization and deenergization of the cathodes; conductor means connecting one terminal of an alternating current source with an input terminal of the rectifier means; means providing a connection between the anode of one tube and the other terminal of the alternating current source; means including switch means for alternatively connecting the other input terminal of the rectifier means with the other terminal of the alternating current source to provide for magnetization, or with the anode of the other tube to provide for demagnetization, said last named switch means being adapted to be operated concomitantly with the switch means controlling energization and deenergization of the cathodes and with the switch means controlling said means for effecting periodic reversals of polarity of the output current of the rectifier means, so that as the cathodes of the tubes cool subsequently to deenergization thereof, the tubes will pass a constantly diminishing current from said alternating current source to the input terminals of the rectifier means, and the polarity reversing means will effect reversals of polarity of such rectified diminishing current to effect demagnetization.

2,871,418

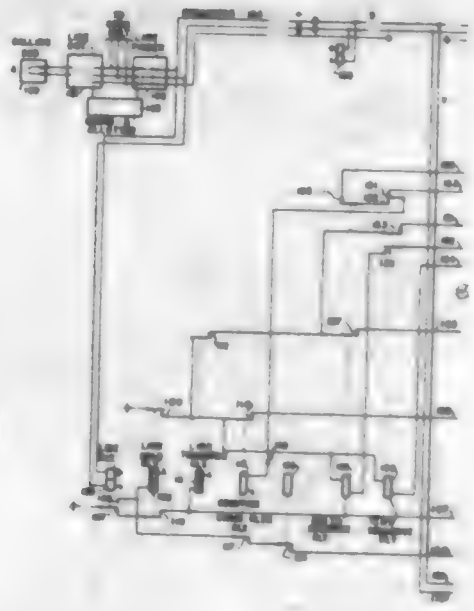
AUTOMATIC TELEPHONE SYSTEM

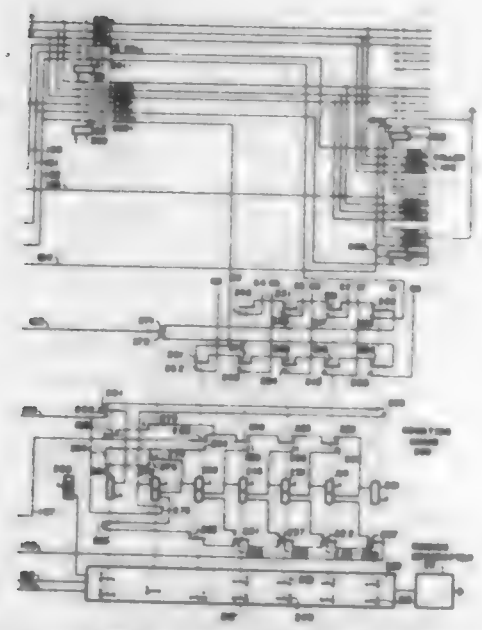
Per O. Dahlman, Galion, Ohio, assignor to North Electric Company, a corporation of Ohio

Application March 9, 1955, Serial No. 493,076
5 Claims. (Cl. 317—148)

1. In a selector switch for use in an automatic telephone system, a first group of relays, a second group of

relays, and signal responsive means including a counting chain operative responsive to each set of first and second sets of incoming signals to operate a corresponding one of said first relay group, means controlled by the operated one of said first relay group to select a corresponding one of said second relay group, means for controlling operation of the selected relay of the second group only with receipt of the first impulse set and re-





lease means operative responsive to the operation of said relay of said second group to release said signal responsive means and the operated relay of said first group, and circuit transfer means operative in response to the release of said operated relay of said first group to prevent the operation of further relays of said second relay group with the subsequent operation of the relays of said first group.

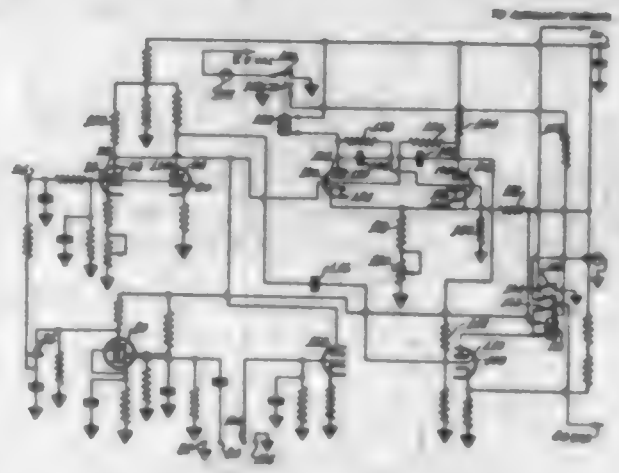
2,871,419

VARIABLE TIME DELAY CIRCUIT

Amnon Brosh, Philadelphia, Pa., assignor to Tele-Dynamics Inc., a corporation of Pennsylvania

Application May 27, 1955, Serial No. 511,663
8 Claims. (Cl. 317—142)

1. In combination with a relay adapted to be operated by a predetermined voltage applied to an input circuit, a time delay circuit for delaying the operation of said relay in accordance with the strength of a signal voltage comprising means including said signal voltage for providing a variable output voltage normally lower than said predetermined voltage, a bistable circuit having two relatively fixed voltage levels, means including said signal voltage for triggering said bistable circuit to provide a step-up voltage when said signal voltage exceeds a predetermined level, said step-up voltage being higher than said predetermined voltage, capacitive means, means for applying said variable output voltage to said input circuit through said capacitive means, and means for applying said step-up voltage to said input circuit



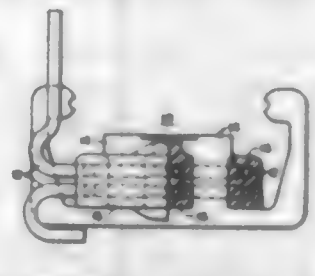
whereby the voltage at said input circuit rises to reach said predetermined voltage after a time delay dependent upon the level of said variable output voltage.

2,871,420

POLYESTER ELASTOMERIC MOLDING COMPOSITION AND PRODUCT PRODUCED THEREWITH

Herbert F. Minter and Newton C. Foster, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 21, 1953, Serial No. 399,576
10 Claims. (Cl. 317—158)

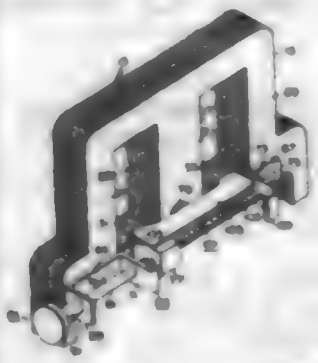


1. A moldable polyester resin composition which thermosets to a tough and elastic solid comprising an intimate admixture of (A) from 65 to 25 parts by weight of a finely divided inorganic filler at least 70% by weight of which is a non-fibrous solid filler of an average particle size of below 5 microns and (B) from 35 to 75 parts by weight of a polyester resin derived by heating above 150° C. but not exceeding 260° C., (*a*) one mol of at least one unsaturated acidic compound selected from the group consisting of fumaric acid, maleic acid, maleic anhydride, citraconic anhydride and citraconic acid, (*b*) from 10 to 15 mols of adipic acid, (*c*) from 0.5 to 5 mols of propylene glycol, (*d*) from 14.0 to 9 mols of ethylene glycol and (*e*) from 0.1 to 0.75 mol of glycerol, the glycols and glycerol providing sufficient hydroxyl groups to exceed by at least 5% but not over 15% the number of carboxyl groups in the adipic acid and the acidic compound, the heating being continued until the polyester resin has an acid number of below 12 and a viscosity of about K in a 50% solution in toluene.

9. A current coil comprising an electrical conductor, a magnetic polepiece and a tough thermoset elastomeric molded composition embedding the electrical conductor and magnetic polepiece, the composition comprising the product derived by curing an intimate mixture of (A) from 65 to 25 parts by weight of an inorganic filler at least 70% by weight of which is a non-fibrous solid filler having an average particle fineness of not in excess of 2 microns, (B) from 35 to 75 parts by weight of a polyester resin derived by heating to temperatures of from 150 but not exceeding 260° C. (*a*) one mol of fumaric acid, (*b*) 12 mols of adipic acid, (*c*) 2.0 to 2.5 mols of propylene glycol, (*d*) from 12.3 to 11.8 mols of ethylene glycol and (*e*) from 0.25 to 0.35 mol of glycerol, heating being

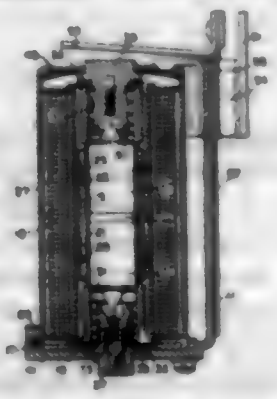
continued until the polyester resin has an acid number of not exceeding 8, and a 50% solution in toluene has a viscosity of K or higher on the Gardner-Holdt scale, and (C) a peroxide polymerization catalyst in an amount of from ½% to 3% of the weight of the polyester resin.

2,871,421
ELECTRICAL MEASURING DEVICE
Warren J. Schmidt, Bloomfield, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 23, 1955, Serial No. 517,595
17 Claims. (Cl. 317—167)



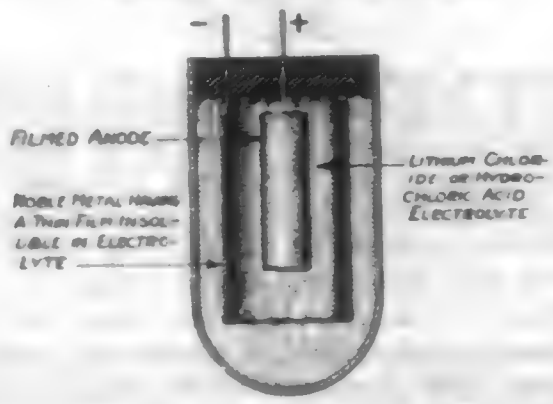
1. In an electrical meter, a magnetic structure having an air gap, said magnetic structure including a voltage magnetic pole and a pair of current magnetic poles, said voltage pole extending along a first axis, winding means surrounding the voltage and current poles effective when energized for producing voltage and current magnetic fluxes cooperating to establish a shifting magnetic field in the air gap, an electroconductive armature mounted for rotation relative to the magnetic structure about a second axis through the air gap under the influence of the magnetic field, and magnetic diverting means for diverting a portion of the voltage flux away from the air gap and away from the armature to control the effective strength of the magnetic field, said diverting means including a shunt magnetic path positioned to divert a portion of the voltage flux away from the air gap and away from the armature, and adjustable magnetic means included in said path spaced from the magnetic structure for movement relative to the voltage pole along a third axis extending parallel to the plane of the magnetic structure and transverse to said first axis for varying the reluctance of the shunt path.

2,871,422
RELAY
Ralph D. Jessee, Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 31, 1955, Serial No. 485,003
10 Claims. (Cl. 317—189)



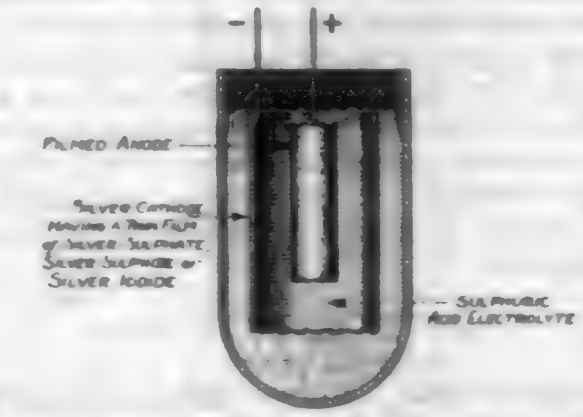
1. A relay for use on a movable device comprising an energizing winding, an armature disposed adjacent to one end of said winding to be operated by energization of said winding, a plurality of movable magnetic members disposed within said winding and biased toward each other, a flux-carrying member positioned adjacent to and magnetically linking said movable members within said winding, said magnetic members being movable in opposite directions away from each other upon energization of said winding to effect operation of said armature, a non-magnetic member disposed between said magnetic members, said magnetic members moving in the same direction relative to said winding in response to a change in the velocity of said movable device to prevent false operation of said armature by changes in the velocity of said movable device.

2,871,423
ELECTROLYTIC CAPACITOR
Oliver S. Alkman, Libertyville, Ill., assignor to Fansteel Metallurgical Corporation, North Chicago, Ill., a corporation of New York
Application March 9, 1953, Serial No. 341,321
10 Claims. (Cl. 317—230)



1. A polarized capacitor substantially free of aging effects, said capacitor comprising a noble metal cathode, a filmed anode, an aqueous electrolyte containing predominantly chloride ions as negative ions, said cathode having thereon an adherent thin film of a compound of said noble metal, insoluble in the electrolyte, said compound being selected from the class consisting of the chlorides and iodides of the noble metals, said adherent film being thin enough so that the initial equivalent series resistance of the capacitor is higher than the capacitor without the adherent film, said equivalent series resistance dropping with capacitor use.

2,871,424
ELECTROLYTIC CAPACITOR
Oliver S. Alkman, Libertyville, Ill., assignor to Fansteel Metallurgical Corporation, North Chicago, Ill., a corporation of New York
Application March 9, 1953, Serial No. 341,322
9 Claims. (Cl. 317—230)

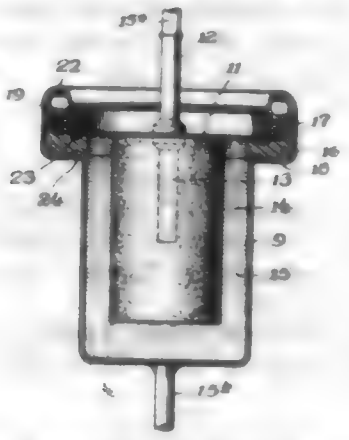


1. A polarized capacitor substantially free of aging effects, said capacitor comprising a silver cathode, a filmed anode, an aqueous solution of sulfuric acid as electrolyte, said cathode having thereon an adherent thin film of a compound of silver insoluble in the electrolyte, said compound being selected from the class consisting of silver sulfate, silver sulfide and silver iodide, said adherent film being thin enough so that the initial equivalent series resistance of the capacitor is higher than the capacitor without the adherent film, said equivalent series resistance dropping with capacitor use.

2,871,425
CAPACITOR

John Burnham, Los Angeles, Calif., assignor to Fansteel Metallurgical Corporation, a corporation of New York

Application September 16, 1954, Serial No. 456,378
20 Claims. (Cl. 317—230)

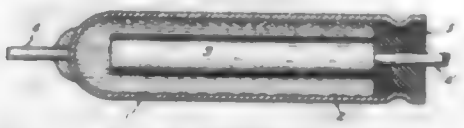


1. A method of forming a dielectric film on an electrode for use in an electrolytic type of capacitor or rectifier, said method comprising: disposing an electrode of film-forming metal in an electrolyte containing from about 2% to about 95% by weight of water and a remainder portion consisting of at least one halogen-substituted acetic acid and acetic acid in proportions ranging from about 5% to about 50% by weight of the remainder portion of the halogen-substituted acetic acid and from about 95% to about 50% by weight of the remainder portion of acetic acid; connecting said electrode as an anode; providing a cathode in said electrolyte; and impressing a potential thereon for a period sufficient to create a dielectric film upon said anode, said film being characterized by high resistance to potential breakdown.

2,871,426
ELECTROLYTIC CAPACITORS WITH INCREASED AVAILABLE CAPACITANCE

Harry H. Hilton, Glens Falls, N. Y., and Alfred F. Torrisi, Chicago, Ill., assignors to General Electric Company, a corporation of New York

Application December 15, 1954, Serial No. 475,424
4 Claims. (Cl. 317—230)



1. An electrolytic capacitor comprising, in combination, an electrolyte and a pair of spaced electrodes coacting with said electrolyte, at least one of said electrodes being formed of silver and being subjected to a pre-treatment with concentrated sulfuric acid at a temperature of between 50° C. and the boiling point of the acid for a sufficient period to produce a dark, dull surface thereon, whereby the capacitance of said silver electrode and thereby the available capacitance of the capacitor are increased.

2,871,427
GERMANIUM CURRENT CONTROLLING DEVICES

Winfield W. Tyler and Roger Newman, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

Application April 28, 1954, Serial No. 426,098
9 Claims. (Cl. 317—239)

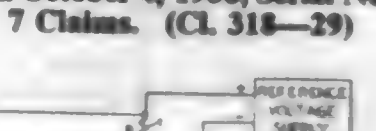


9. An asymmetrically conducting device comprising a crystalline body of germanium having a finite excess of uncompensated donor activator impurities for germanium not exceeding 10^{14} atoms per cubic centimeter thereof impregnated with from 10^{12} to 10^{14} atoms of iron per cubic centimeter of germanium, a rectifying connection to one region of said body, and a low resistance connection to a second region of said body.

2,871,428
CONSTRUCTION OF ELECTRIC CIRCUITS

Tzu En Shen, Ealing, London, England, assignor to British Dielectric Research Limited, London, England, a British company

Application January 20, 1954, Serial No. 405,229
Claims priority, application Great Britain
February 20, 1953
5 Claims. (Cl. 317—242)

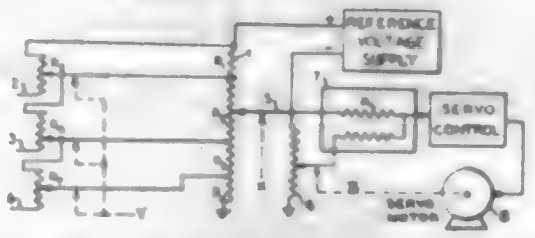


1. In combination a printed circuit containing a capacitor comprising a support, conductive layers on the surface of and attached to the support, one of the conductive layers which is a metal selected from the group aluminum, magnesium and tantalum and forming a first electrode of the capacitor, a dielectric layer which is an oxide of the metal, formed as an adherent layer on the exposed face of the first electrode, a layer of insulating material applied to and overlapping a minor area of the dielectric near one edge of the metal layer and merging smoothly with the surface of the dielectric to form a substantially continuous smooth surface, a second electrode which is in the form of a metalized coating of self healing thickness on the exposed surface of the dielectric and the overlapping layer of insulating material and a further deposit of metal on said insulating material in contact with said metalized coating, said further deposit being of sufficient thickness to form a terminal for said electrode, at least one of the electrodes being electrically connected to a conductive layer on the support other than the first electrode.

2,871,429
POTENTIOMETER CONTROLLED FOLLOW-UP SYSTEM

Max Fogiel, New York, N. Y.

Application October 4, 1956, Serial No. 613,981
7 Claims. (Cl. 318—29)



1. A three dimensional cam circuit comprising in combination a first potentiometer the sliding member of which is positioned by one of two independent variables to provide variable voltage for different positions of said sliding member, tap points located on the resistance element of said potentiometer to allow resistance to be connected in parallel with segments of said resistance element, secondary potentiometers connected in parallel with the resistance segment between adjacent tap points of said resistance element to provide variable resistance of said segment as required by the variation of the second of said two independent variables, the sliding members of said secondary potentiometers being positioned by the second of said two independent variables, a voltage supply to energize the resistance element of said first potentiometer,

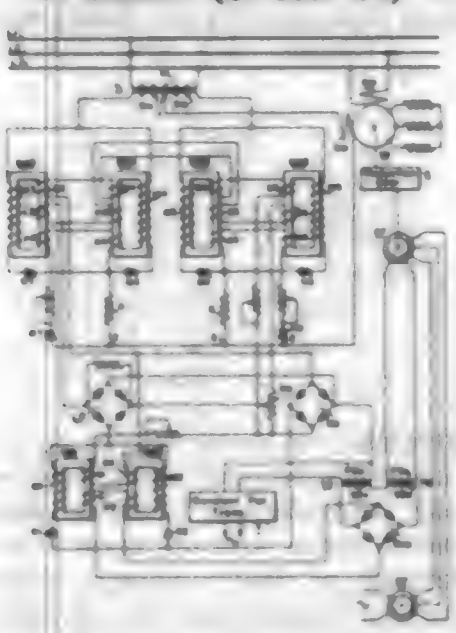
a summing network the signal leg of which is connected to the voltage output of said sliding member of said first potentiometer to serve as nulling means in a servo system for converting the electrical output of said first potentiometer into mechanical form, a servo motor to position a mechanical shaft in proportion to the magnitude of the voltage output of said first potentiometer, a servo control to control said servo motor in accordance with the error signal from said summing network, a feedback potentiometer positioned by the shaft of said servo motor to provide feedback voltage to said summing network and complete the servo loop, and a voltage supply to energize the resistance element of said feedback potentiometer.

2,871,430

MOTOR CONTROL SYSTEM

Edgar C. Fox, Jr., Wilkinsburg, Charles G. Helmick, Jr., Penn Township, Allegheny County, and Sylvester J. Campbell, North Braddock, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 20, 1954, Serial No. 451,186
11 Claims. (Cl. 318—30)



1. A position regulator for positioning a member to be controlled comprising, a control transformer having a stationary winding and a rotatable winding, means for connecting said rotatable winding to be rotated by movement of said member, means for applying alternating current to one of said windings, means for producing a reference alternating-current voltage, transformer means connected to algebraically combine the voltage of the other of said windings of said control transformer and said reference voltage, said transformer having an output circuit, a rectifier connected in said output circuit, amplifier means controlled by said rectifier and having a direct-current output circuit, means connected with said direct-current output circuit for controlling said member, and means connected with said direct-current output circuit for applying a direct-current voltage therein in opposition to the direct-current voltage output of said amplifier means.

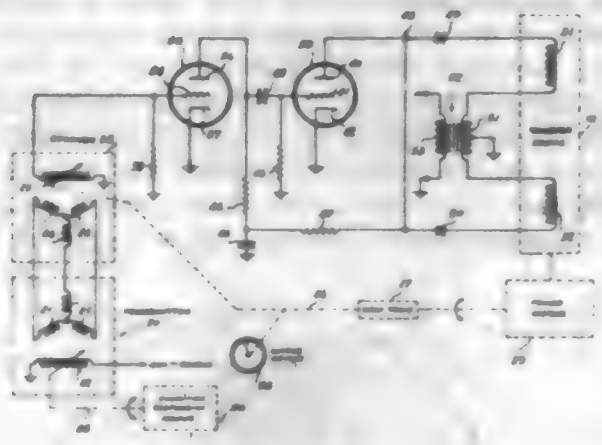
2,871,431

SERVOSYSTEM WITH PREAMPLIFIER

James E. Brook, Hackensack, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application February 24, 1955, Serial No. 490,362
10 Claims. (Cl. 318—30)

1. In a position servo employing inductive transmitting and receiving devices and including a magnetic amplifier having cores with excitation, control and output windings operatively connected in a balanced arrangement, switching means connected to said control windings and having a common terminal, current control means having at least a plate connected to said switching means by way of said common terminal to provide energization of said control windings, whereby a pulsating direct current is



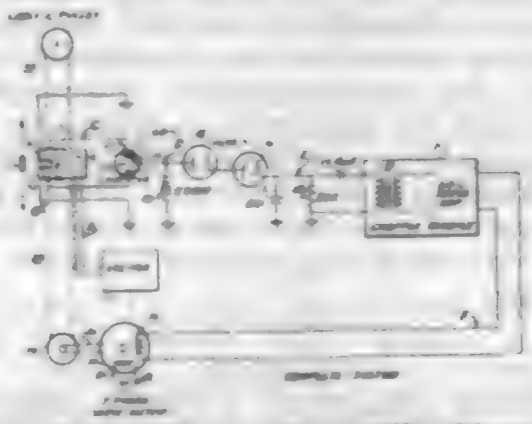
provided across said plate and ground, a pre-amplifier having at least a plate coupled to the input of said current control means, and a filter network connected to said common terminal and said pre-amplifier plate to supply a D. C. plate voltage for said pre-amplifier.

2,871,432

AUTOMATIC TRACKING PROXIMITY GAGE

Louis A. Marzetta, West Hyattsville, Md., assignor to the United States of America as represented by the Secretary of Commerce

Application August 9, 1956, Serial No. 603,201
8 Claims. (Cl. 318—31)



6. A gage for tracking small metallic objects comprising an inductive probe having two separate spaced secondary windings and a common primary winding movably positioned on support means adjacent to a metallic object to be tracked, exciting means coupled to said primary winding, chopper means coupled to said secondary windings for successively sampling the induced voltages on said secondary windings, detecting means coupled to said chopper means for obtaining a signal representative of the envelope of said sampled voltages, two phase servomotor means coupled to said detecting means for comparing the phase and magnitude of said envelope signal with the phase and magnitude of a reference signal and mechanical means responsive to the output of said servomotor comparing means for moving said probe along said support means in accordance with the position of said metallic object.

2,871,433

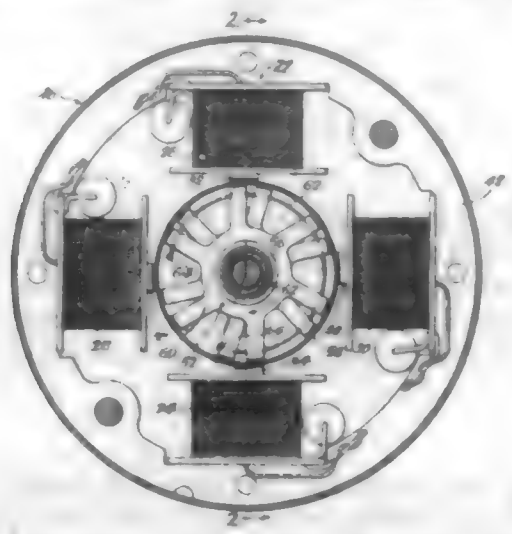
ELECTRIC SPEED INDICATING INSTRUMENT

Peter Wargo, Maywood, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia

Application May 22, 1956, Serial No. 586,488
13 Claims. (Cl. 318—166)

1. In an electric tachometer for measuring the speed of a moving part, the combination of a switch having an operating member adapted to be connected with the part, a source of electric power, a plurality of equidistantly spaced electromagnetic field poles including a plurality

of field coils, conductors connecting alternate field coils in two groups to the switch and the source in two circuits, the switch being constructed so as to sequentially connect the field coil groups with the source for sequential magnetization of the field poles in response to movement of the part, a magnetically permeable motor armature mounted for rotation adjacent the field poles and including a plurality of equidistantly spaced main armature poles differing in number from and not a multiple of the number of field poles and having a pole pitch different from that of the field poles, a plurality of smaller supplementary armature poles staggered slightly



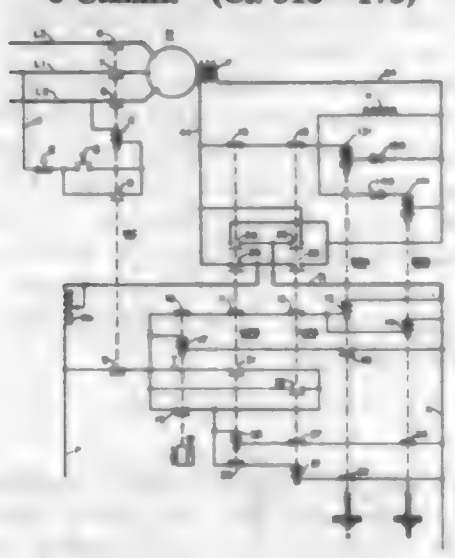
with respect to said main poles, said armature being formed of a stack of substantially identical laminations, said laminations being so arranged that most of the laminations are in alignment to form said main poles, while the remaining laminations are in alignment with each other but offset circumferentially with respect to the group forming the main poles, a sealed case enclosing said armature, said case being freely rotatable relative to said armature, a liquid damping substance substantially filling said case, and a spring within said case attached at one end to said armature and at the other end to said case.

2,871,434

SELECTIVE POLARITY SYSTEM FOR FIELD APPLICATION OF SYNCHRONOUS MOTORS

William H. Dauberman, Fairview Park, and Frank A. Woodbury, Cleveland, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 21, 1955, Serial No. 516,942
6 Claims. (Cl. 318—175)



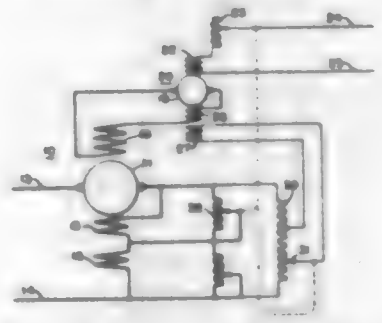
1. In a system of control for starting a synchronous motor, in combinations, a synchronous motor having a stator and having a field winding disposed on a plurality of poles disposed on the rotor structure of the motor, a pair of terminals energized with direct current, a pair of selectively operable synchronizing means, one of said means, being responsive to the frequency of the voltages of one polarity induced in the motor field winding during acceleration of the motor, effects the connection of the field winding to said terminals so that the odd poles are north and the even poles are south, the second of said means, being responsive to the frequency of the voltages of opposite polarity induced in the field winding during acceleration of the motor, effects the connection of the field winding to said terminals so that the odd poles are south and the even poles are north, said synchronizing means each including means responsive to the particular half cycle, of the voltage induced in the field winding during low slip of the motor as it accelerates, that has a duration longer than a selected value, whereby said synchronizing means are selectively operated depending on whether the particular half cycle is of said one polarity or of said opposite polarity.

2,871,435

EXCITATION OF DYNAMO-ELECTRIC MACHINES

Alonzo F. Kenyon, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application February 8, 1954, Serial No. 408,917
2 Claims. (Cl. 318—308)



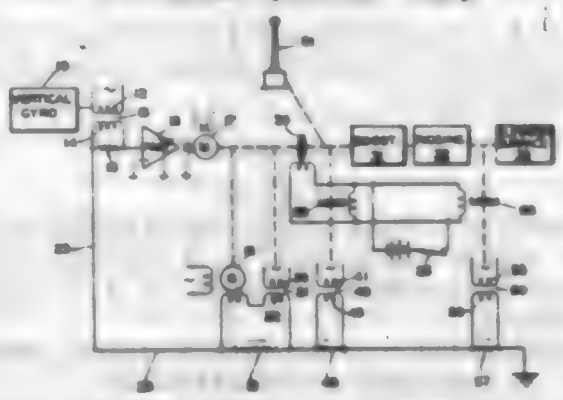
1. In combination, a motor having an armature with cumulative commutating and series field windings, and a separate main field winding, an exciter having an armature connected in series with the main field winding and having a plurality of field windings, circuit means including a rheostat connecting one of said plurality of field windings to a separate source of substantially constant voltage, a rheostat shunting the commutating field windings operatively connected to the field winding rheostat, and means including a potentiometer rheostat for reversibly connecting another of said plurality of field windings for energization in accordance with the current through the commutating and series field windings.

2,871,436

DIRECTIONAL CONTROL SERVOSYSTEM

Christopher A. Rafferty, Brooklyn, N. Y., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application April 21, 1955, Serial No. 502,820
8 Claims. (Cl. 318—489)



3. A control system for an aircraft having a movable surface, comprising means for developing a signal corresponding to the extent of deviation of the craft from reference, a motor operable by said signal, second means for developing a second signal corresponding to the ex-

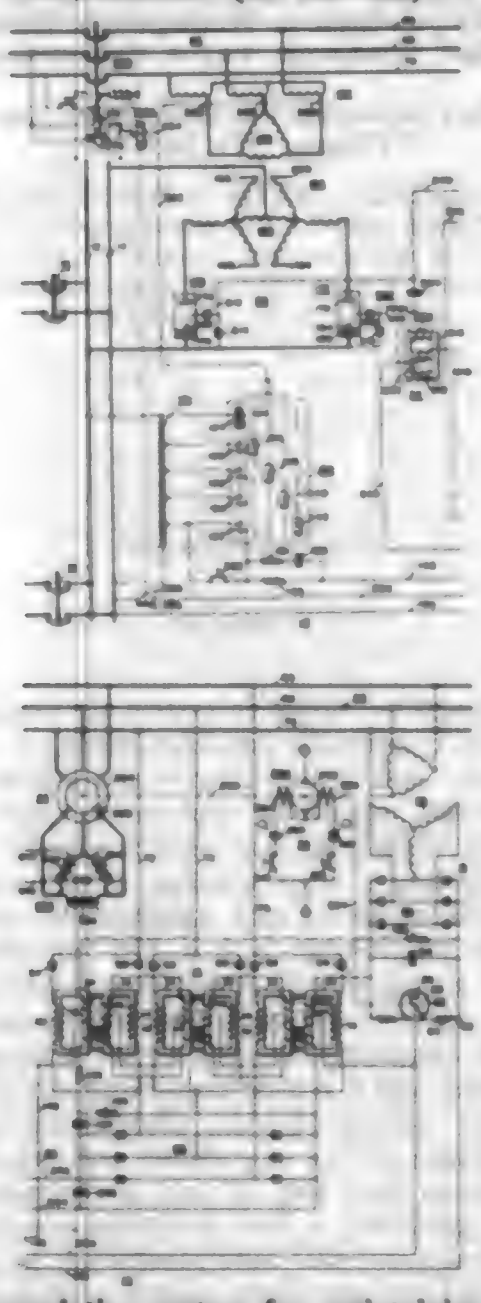
tent of motor operation to oppose said first signal, whereby said motor operation stops when said signals become equal and opposite, means for connecting said motor and said surface including means operable after said connection for developing a third signal corresponding to the subsequent motor operation to oppose said second signal, said third signal being sufficiently greater than said second signal as to tend to cause said motor to move the surface through said connecting means so as to compensate for loss of motion therein, and means operable in response to the movement of said surface by said motor for developing a fourth signal to oppose the said first signal.

2,871,437

CONTROL APPARATUS

Loren F. Stringer, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 26, 1954, Serial No. 432,403
8 Claims. (Cl. 321—18)



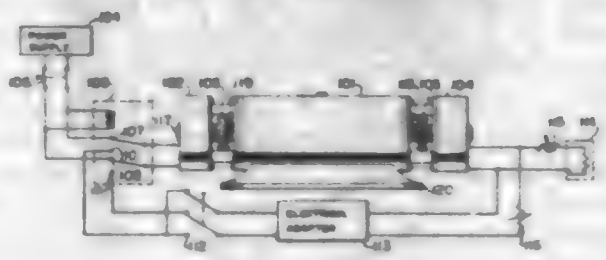
1. In a regulating system for maintaining a quantity substantially constant, the combination comprising, means for producing a reference voltage, a magnetic amplifier, circuit means for rendering the magnetic amplifier responsive to the difference between the reference voltage and a measure of said quantity to thus control the magnitude of the output of the magnetic amplifier, control means, including a controllable rectifier, responsive to the output of the magnetic amplifier and having an output for controlling the magnitude of the said quantity, additional control means for controlling the output of said control means responsive to the output of the magnetic amplifier, and means for interlocking said additional control means with said means for producing a reference voltage, so that as the said additional control means effects a change in the magnitude of the said quantity, a predetermined change is made in the magnitude of the reference voltage, to thereby prevent an excessive increase in the magnitude of the said quantity.

2,871,438

POWER PLANT

Andrew J. Annis, Fort Lauderdale, Fla.

Application March 11, 1958, Serial No. 720,593
9 Claims. (Cl. 322—13)



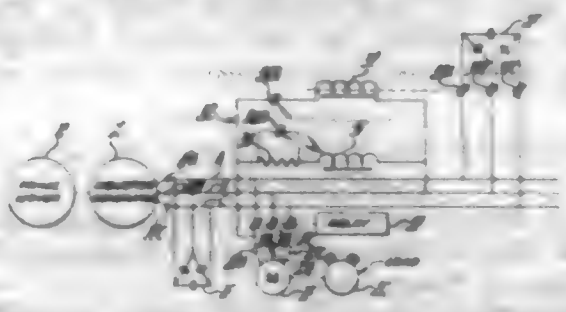
1. In an electro-mechanical device for generating electric current, in combination, an electric motor, an extraneous electric power supply, wiring means including a line switch to connect said electric motor to said extraneous electric power supply, a variable mechanical rotation transmission, said electric motor being disposed through mechanical coupling means to drive said variable mechanical rotation transmission, and electric generator, other mechanical coupling means mechanically coupling said transmission to said generator, an electrical supply line connected to said generator supplying electricity from said generator to an extraneous electrical device, and automatic means including an electrically actuated relay and an electric supply to connect said generator to said motor electrically when said extraneous power supply is disconnected from said motor to the end that inertially generated electricity is supplied to said motor from said generator to operate said motor and to prevent stoppage of said motor at a rate faster than stoppage of said generator.

2,871,439

INDUCTION GENERATOR POWER SYSTEM

Henry V. Shaw, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 16, 1957, Serial No. 634,552
4 Claims. (Cl. 322—47)



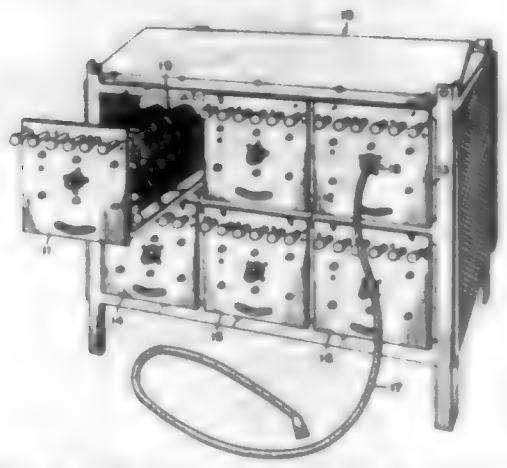
1. A power system comprising an induction generator having a pair of output terminals, a load device having a pair of input terminals, switching means interposed between the pairs of terminals for connecting the load device to the generator, a starting excitation circuit including a capacitor and relay actuable contacts and extending between the pair of output terminals, a control circuit connected across the pair of input terminals through said switching means and including a relay for closing said contacts when the load device is connected, said circuit also including control relay contacts in series with said relay, a control relay and a series resistor connected across said output terminals for opening said control relay contacts when the generator voltage reaches a predetermined value, and second control relay contacts connected in shunt with said resistor whereby the first control relay contacts are maintained open at a voltage less than said predetermined value.

2,871,440

IMPROVED WELDING UNIT

Oliver M. Hart, West Cornwall, Conn.

Application September 21, 1955, Serial No. 535,560
6 Claims. (Cl. 323—74)



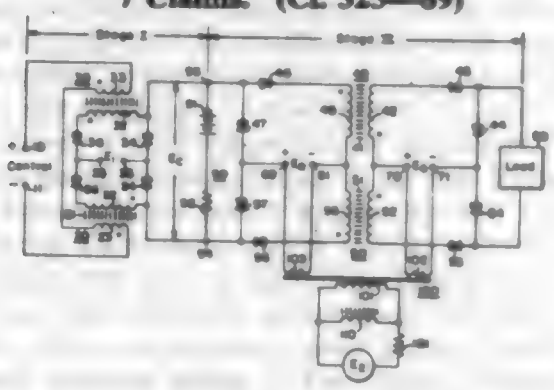
1. In a multiple welding unit including a cabinet having a plurality of removable drawers therein, an electrical outlet on each drawer, a plurality of resistor units carried by each drawer having electrical connection with a source of current, and a multiple switch assembly including a plurality of switches for individual electrical connection of said resistor units in different combinations to said outlet whereby to selectively control the magnitude of welding current available to said outlet, said switch assembly including an elongate block of flexible insulating material mounted upon the inner face of its associated drawer front, said elongate block having a front face disposed adjacent the inner face of the associated drawer front and having an oppositely disposed rear face, said insulating block having an elongated cavity formed therein, an elongate bus bar embedded within said cavity, each of said switches including a first contact secured to the bus bar and projecting rearwardly from the rear face of said insulating block, a second contact secured to said rear face of the insulating block and projecting rearwardly therefrom, a blade pivotally carried by one contact for oscillation into and out of engagement with the other contact, an actuating plunger secured to the blade rearwardly of said rear face of the insulating block, said plunger projecting through said block and said drawer front and extending forwardly thereof, said plunger being slidably but snugly supported only by said insulating block to prevent the transfer of moisture on said plunger through the insulating block when the plunger is moved rearwardly.

2,871,441

AMPLIFIER CIRCUIT

Floyd A. Baker, Inglewood, Calif., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 21, 1957, Serial No. 679,458
7 Claims. (Cl. 323—89)



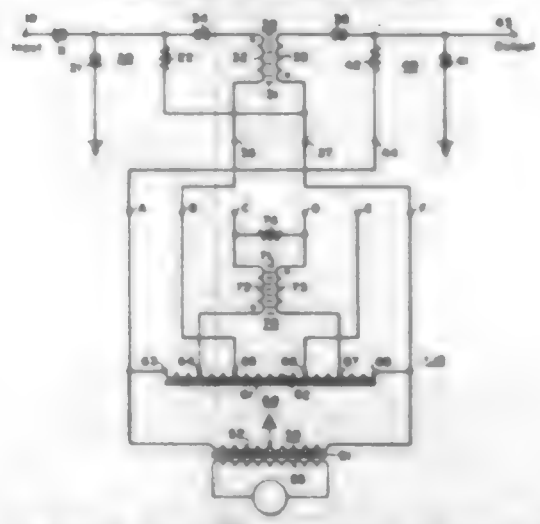
1. In a magnetic amplifier circuit, in combination, a first stage magnetic amplifier, a second stage magnetic amplifier, coupling means connecting the output of said first stage magnetic amplifier to control said second stage magnetic amplifier, said first stage magnetic amplifier comprising saturable means having inductively disposed thereon output winding means and control winding means, means for applying an alternating current voltage to said output winding means, means for applying an input signal voltage to said control winding means, said second stage magnetic amplifier comprising a saturable magnetic core having load winding means and reset winding means inductively disposed thereon, means for applying an alternating current voltage having a conduction angle of less than 180° per half-cycle to said second stage load and said second stage reset winding means, said alternating current voltage being applied to said second stage load and second stage reset winding means being operative to drive said second stage saturable magnetic core toward saturation on a gating half-cycle and away from saturation on a succeeding resetting half-cycle.

2,871,442

MAGNETIC AMPLIFIER SYSTEM

Harley A. Perkins, Jr., Baldwin Township, Allegheny County, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 14, 1957, Serial No. 696,429
7 Claims. (Cl. 323—89)



1. In a magnetic amplifier system, in combination; a power supply; a magnetic amplifier having a reset and a gating circuit; said power supply comprising an autotransformer and means for applying a source of alternating-current voltage to said autotransformer; said reset circuit comprising a reset winding inductively disposed on a saturable magnetic core member and connected in series circuit relationship with a first non-linear circuit means; said gating circuit comprising a gating winding inductively disposed on said saturable magnetic core member and connected in series circuit relationship with rectifier means and a second non-linear circuit; said autotransformer having taps at predetermined intervals whereby voltages of like magnitudes but opposite phases are available on each side of said autotransformer; circuit means connecting a first alternating-current voltage of a first phase from said autotransformer to said gating circuit and said first non-linear circuit; circuit means connecting a second alternating-current voltage of a second phase from said autotransformer to said reset circuit.

2,871,443

PROCESS FOR REGISTERING THE RELATIVE DEGREE OF BRANCHING OF A HYDROCARBON MATERIAL CONTAINING ALKYL GROUPS AND FOR CONTROLLING A PROCESS IN RESPONSE TO THE REGISTRATION

Rollie B. Williams, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application March 14, 1956, Serial No. 571,516
8 Claims. (Cl. 324—.5)

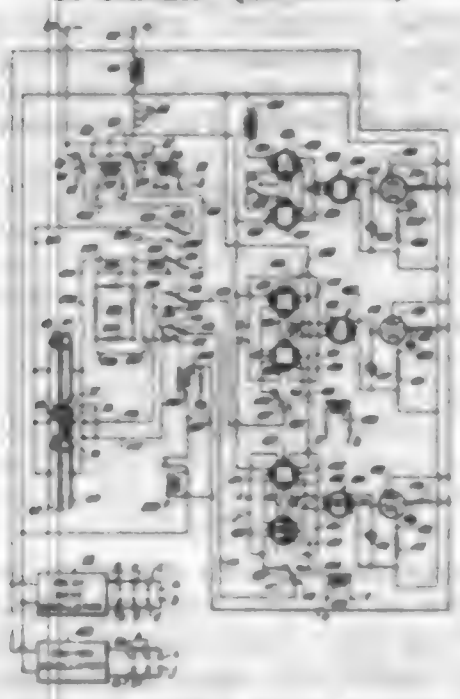
1. A method for controlling a treating process wherein a hydrocarbon product containing aliphatic chains is

produced as a part of the process and wherein the degree of branching of the aliphatic chains contained in said product is a measure of the effectiveness of treatment, said method comprising the steps of obtaining a sample of said product, subjecting said sample to high resolution nuclear magnetic resonance spectroscopic an-



alysis under conditions to obtain a signal constituting a measure of the concentration of methylene groups not alpha to an aromatic ring relative to the concentration of methyl groups not alpha to an aromatic ring and regulating a treating process variable in response to said signal.

2,871,444
ELECTRICAL WELL LOGGING
Raymond G. Piety, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application July 28, 1953, Serial No. 368,906
20 Claims. (Cl. 324—1)

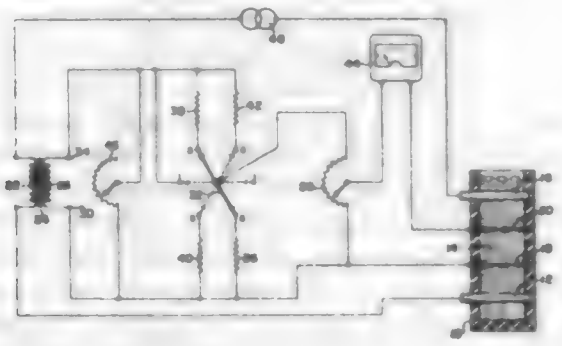


15. Electrical well logging apparatus comprising an electrode assembly adapted to be lowered into a bore hole, said assembly comprising first and second opposing elongated electrodes, said first and second electrodes being of substantially semicircular cross-section and positioned with respect to one another so that said pair of first and second electrodes is of substantially circular cross-section, third and fourth opposing elongated electrodes, said third and fourth electrodes being of substantially semicircular cross-section and positioned with respect to one another so that said pair of third and fourth electrodes is of substantially circular cross-section, a fifth electrode of substantially semicircular cross-section, a plurality of sixth electrodes positioned with respect to one another so that said plurality of sixth electrodes is of substantially semicircular cross-section, said sixth electrodes being positioned with respect to said fifth electrodes so that the group of said fifth and sixth electrodes is of substantially circular cross section; means for suspending said assembly within a bore hole so that said first and second electrodes are positioned above said fifth and sixth electrodes and said third and fourth electrodes are positioned below said fifth and sixth electrodes, the groups of said first and second, third and fourth, and fifth and sixth electrodes being positioned in substantially vertical alignment so that said entire assembly is of substantially circular cross section; a source of direct electrical potential, means for applying one terminal of said source of direct electrical potential to said first, third and fifth electrodes, and means for applying the second terminal of said source of direct electrical potential to said second, fourth and sixth electrodes so that a first current path is established between said first and second electrodes, a second current path is established between said second and said fourth electrodes, and a plurality of third current paths are established between said fifth and said sixth electrodes, said first, second, and third current paths being through any fluids within the bore hole surrounding said assembly and the earth formations adjacent said assembly, said first, second, third and fourth electrodes serving as guard electrodes so that said third current paths lie in substantially a horizontal plane; and means adapted to be positioned within the bore hole to measure each of said current flows and the difference between said first and second potentials comprising a plurality of pairs of cores of magnetic material, there being one pair of cores for each of said current flows to be measured and one pair of cores for the difference in said potentials to be measured, an output winding mounted on each of said cores, the two output windings of each pair of cores being connected in series relation, a control winding mounted on each of said cores, the two control windings of each pair of cores being connected in series relation, means for applying said current flows to respective pairs of said control windings, means for applying said potential difference across the remaining pair of said control windings, an exciter winding mounted on each of said cores, the two exciter windings of each pair of cores being connected in series relation but wound on the respective cores in each of said pairs in opposite directions, and a source of alternating potential of predetermined frequency applied to the exciter windings of each pair of cores, there being no signal induced in the output windings by a signal applied to the exciter windings in the absence of a signal being applied to said control windings, there being a signal induced in said output windings proportional in magnitude to any signal applied to said respective control windings, said output signals being of the same frequency as the respective signals applied to said exciter windings, there being a different frequency applied to each pair of exciter windings.

2,871,445
WELL FLUIDS RESISTIVITY MEASUREMENT APPARATUS
Daniel H. Carter and Richard H. Huddleston, Jr., Houston, Tex., assignors, by mesne assignments, to Welex, Inc., a corporation of Delaware
Application November 30, 1956, Serial No. 625,384
10 Claims. (Cl. 324—30)

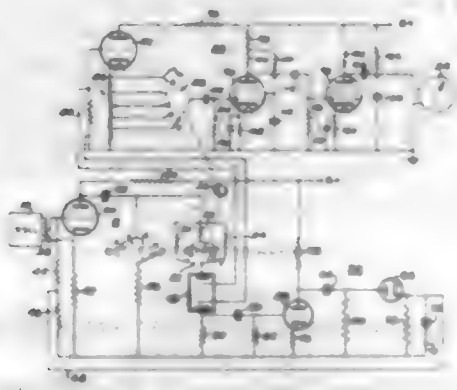
1. An apparatus for determining the resistivity of a well fluid contained in a fluid sample cell of the four electrode type comprising, a first circuit powered by a source of alternating current and connected to a first current electrode and a second current electrode of said cell, said first and second current electrodes being in electrical communication by means of a fluid sample in said cell, a means in said first circuit to provide a current through a second circuit which is proportionately variable to current variation in said first circuit, a calibrated first shunting means to divide current flow through said second circuit in a proportion of the geometry of said sample cell to the geometry of a desired unit of specific resistivity, a variable potentiometer in said second circuit, one terminal of said potentiometer and the tap of said potentiometer being adapted to exhibit a potential varied by adjustment of said potentiometer, said potentiometer be-

ing connected through a potential null indication means to a first and second potential electrode of said sample cell whereby said potentiometer may be adjusted to exhibit a potential equal to that potential found across said potential electrodes, said potentiometer being adapted, upon said first shunting means being adjusted to provide a division of current flow through said potentiometer which is in proportion to the geometry of said sample



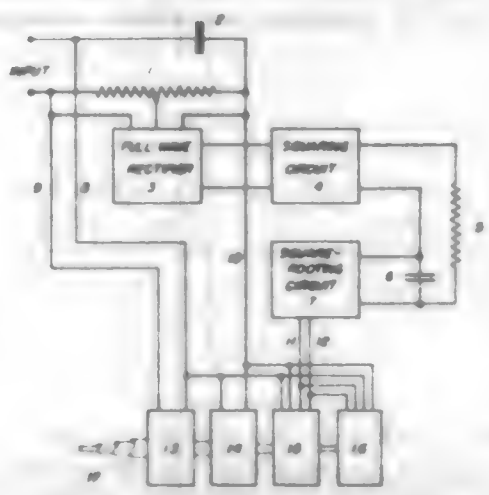
cell and said potentiometer being adjusted to provide said equal potential, to indicate the specific resistivity of said fluid as a decade factor of the ohmic resistance calibration of said potentiometer, and a second shunting means adapted to divide current flow through said potentiometer whereby other potential ranges may be found across said potentiometer while retaining said geometric proportion of current flow provided by said first shunting means.

2,871,446
WIDE-RANGE RESISTANCE AND RESISTIVITY MEASURING APPARATUS
Laymond D. Wann, Ponca City, Okla., assignor to Continental Oil Company, Ponca City, Okla., a corporation of Delaware
Application January 28, 1955, Serial No. 484,669
8 Claims. (Cl. 324—64)



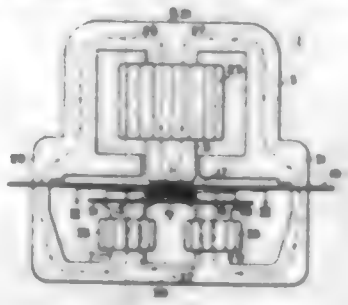
4. Apparatus for the measurement of the electrical resistance of a specimen, comprising a pair of current electrodes for connection to the specimen, a vacuum tube including at least a cathode, an anode and a control grid and having its anode-cathode path connected through a first fixed resistor in an alternating current circuit to said current electrodes, a source of alternating potential connected between said cathode and said grid, a source of direct current voltage connected between said anode and said cathode through a second fixed resistor, means for deriving from said first fixed resistor a voltage proportional to the current flow between said current electrodes and for applying said derived voltage between said cathode and said control grid to vary the anode-cathode current in such a direction as to maintain constant the current through said first fixed resistor, a pair of potential-sensing electrodes for connection to the specimen, and means for measuring the potential drop between said last-named electrodes to indicate the resistance of the specimen.

2,871,447
ELECTRICAL MEASURING SYSTEM
William Ferguson Hall, Arlington, Va.
Application August 13, 1956, Serial No. 603,668
8 Claims. (Cl. 324—114)



1. In an electrical measuring system, means for generating a weighted running mean value of an input signal, means for generating a running value of the mean variations of the input signal about said running mean, and means for combining the two generated values whereby the mean variation of the input signal is displayed in relation to the weighted running mean value.

2,871,448
ALTERNATING CURRENT RESPONSIVE DEVICES
Warren J. Schmidt, Bloomfield, and Frederick V. Kadri, Madison, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 1, 1954, Serial No. 472,457
3 Claims. (Cl. 324—138)



2. In an alternating current induction meter, a magnetic structure including a first magnetic pole having a first pole face and a pair of spaced second magnetic poles having second pole faces, said second pole faces defining a common plane which is spaced from and parallel to the plane of the first pole face to define an air gap, a first winding surrounding the first pole effective when energized for producing an alternating first flux, second windings surrounding the second poles effective when energized for producing an alternating second flux cooperating with the first flux to establish a shifting magnetic field in the air gap, an electroconductive armature mounted for rotation through the air gap under the influence of the shifting magnetic field, a magnetic shunt assembly positioned between said second poles for shunting a portion of the second flux away from the air gap, said magnetic shunt assembly including a magnetic shunt having a pair of opposed surfaces positioned in spaced planes parallel to the plane of the first pole face with one surface nearer to the first pole face than the other surface, and means for controlling the phase relationship between the first and second fluxes, said last-named means comprising an electroconductive member positioned in the path of the first flux to lag the first flux, said member being adapted for adjustment to provide a variable lag effect, and a layer of electroconductive material adhering directly to said one surface in the path of the first flux to lag the first flux.

2,871,449
MAGNETIC RESTORING FORCE SUSPENSION GALVANOMETER

Veikko K. Peltola, Chicago, Ill., assignor to Illinois Testing Laboratories, Inc., Chicago, Ill., a corporation of Illinois

Application June 8, 1953, Serial No. 360,852
1 Claim. (Cl. 324—154)

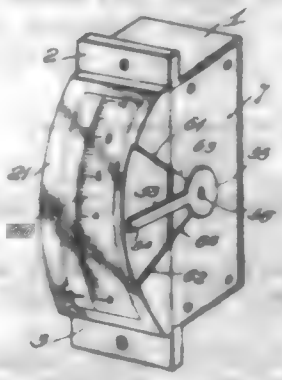


An electrical instrument comprising a support, a magnetic field structure carried thereby, and comprising a permanent magnet having a pair of opposed pole pieces with concave partially cylindrical faces, a substantially cylindrical magnetic core carried by said support and concentrically located with respect to said pole faces, forming an air gap, an axially and radially rigid supporting means for two filaments, which carry the upper end of a moving coil unit, comprising a rigid bridge of non-magnetic metal carried by said magnetic field structure opposite each end of said core, each bridge having an axial, concentric, threaded bridge bore, a threaded insulating plug located in one of said bridge bores, and having two parallel bores located at equal radial distances from the axis of said plug, a pair of fine wire suspension filaments secured in said parallel bores at one end of the filaments, a moving coil unit comprising a rigid, rectangular spool having a coil about said spool, with its ends connected to said filaments, said spool having a rigid, axial, insulating post carried by one end of said spool, and having a pair of metal pins therein equally spaced from the axis of said post, and to which the ends of the suspension filaments are secured, a magnetic centering and tensioning suspension for the lower end of the moving coil unit, comprising a rigid shaft of non-magnetic metal axially located and extending from the other end of said spool, a first cylindrical body of paramagnetic metal carried by the end of said shaft and concentrically located thereon, and having a conical end portion, said first body being located adjacent to and concentric with a second paramagnetic body carried by the rigid bridge at the other end of the field structure, the said latter bodies being magnetized with such polarity that they exert an axial tension on the filaments through the shaft and moving coil unit, centering the shaft and causing the parallel filaments to seek a straight parallel zero position, from which the coil unit is moved rotatively by magnetic forces caused by current in the coil unit, causing the filaments to assume a partially helical position in which the tension in the filaments caused by the magnetic bodies produces an axial movement and a rotative torque acting on the coil unit, the filaments tensioned by the magnetic bodies constituting the sole restoring force tending to move the coil unit to zero position.

2,871,450
ELECTRICAL MEASURING INSTRUMENTS

Richard H. Podoloff, New Haven, Conn., assignor to International Instruments, Inc., a corporation of Connecticut

Application October 9, 1956, Serial No. 614,986
15 Claims. (Cl. 324—154)

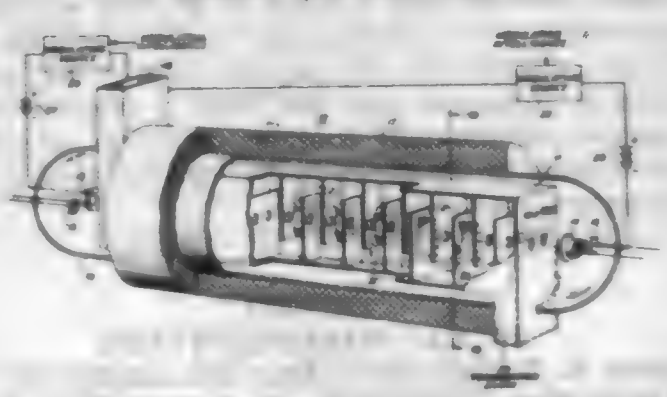


1. An adjustable indicator setting mechanism comprising a casing having a side wall extending in a plane normal to the front of the casing, a flat recess in said side wall extending from the front edge of said side wall and terminating in a socket-like recess in a substantially central position in said side wall, an adjustable lever having a circular disc on one end thereof seated in the said socket-like recess and angularly adjustable therein, said lever operating within the limits of the thickness dimension of said flat recess and projecting beyond the front edge of said side wall and controllable from the front of said casing, means journaled in the socket-like recess in said casing and connected with said disc, means extending interiorly of said casing from said last mentioned means and angularly adjustable in proportion to the adjustment of said lever, a meter shaft journaled with respect to said casing, an indicator carried by said meter shaft and operative over a scale, torsional tension means for said shaft, and means interconnecting said first mentioned means and said torsional tension means for correcting the position of said indicator with respect to said scale.

2,871,451
MODULATED BACKWARD WAVE OSCILLATOR

Arthur Ashkin, Irvington, and Laurence R. Walker, Bernardsville, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 21, 1953, Serial No. 399,284
4 Claims. (Cl. 332—25)



1. In an oscillator, a wave interaction circuit a plurality of operating wavelengths long of the kind which is characterized in that a wave propagating therealong in a given direction gives rise to components thereof with phase velocities both in the direction of and direction opposite to that of wave propagation, a first electron source at a first potential for forming a primary electron beam for flow past said interaction circuit for interaction with a predetermined component of a wave of desired frequency having a phase velocity in the direction opposite to that of wave propagation, a second electron source at a second different potential for forming a secondary electron beam spaced apart from said primary

electron beam for flow past said interaction circuit in a direction opposite to that of the primary electron beam for interacting with a component of the wave of desired frequency and having phase velocity in the direction of the wave propagation, dissipative termination means at the downstream end of said interaction circuit relative to said first electron beam, and means coupled to the end of the interaction circuit upstream along the primary electron beam for abstracting for utilization oscillatory wave energy.

2,871,452
BROAD BAND WAVEGUIDE DIRECTIONAL COUPLER

William R. Hewlett, Palo Alto, Calif., assignor to Hewlett-Packard Company, Palo Alto, Calif., a corporation of California

Application April 23, 1953, Serial No. 350,641
3 Claims. (Cl. 333—10)



1. A rectangular waveguide directional coupler for operation over a waveguide band of frequencies comprising: primary and auxiliary sections of rectangular waveguides having substantially parallel longitudinal axes and being of substantially the same width, said primary and auxiliary sections being joined along one broad wall over a substantial distance to permit coupling between said primary and auxiliary sections through the common broad wall, a plurality of longitudinally aligned and spaced coupling elements to provide coupling between said primary and said auxiliary sections, each of said coupling elements comprising a hole cut in the common wall between said primary and said auxiliary sections, said hole having an opening which is uninterrupted by the common wall, each of said holes as viewed in plan being substantially symmetrical with respect to a line at 45 degrees with respect to the axes of said primary and auxiliary sections and coplanar with said common wall between said primary and auxiliary sections, the spacing between longitudinally aligned coupling elements being not greater than one-half guide wavelength at the highest frequency of said band, the spacing of each coupling element from the center of said common wall being approximately one-quarter of the width of said common wall, thereby to provide substantially equal coupling by each element to the longitudinal and transverse components of magnetic field in said primary section of waveguide over said band of frequencies, and whereby a substantially constant coefficient of coupling as a function of frequency is obtained for each coupling element over said band.

2,871,453
SIGNAL SHAPING SYSTEM

William E. Bradley, New Hope, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application October 27, 1953, Serial No. 388,635
5 Claims. (Cl. 333—20)

1. Means for increasing the steepness of a pulse wavefront comprising, an electrical transmission system of finite electrical length in which the velocity of signal propagation at any point along the transmission system is a function of the instantaneous signal amplitude at said point, means for supplying the signal to be shaped to said transmission system at an amplitude such that the time required for the lowest amplitude component to traverse said transmission system differs from the time required for the highest amplitude component to traverse said transmission system by substantially the time of rise or fall of said pulse wavefront, and means associated with the

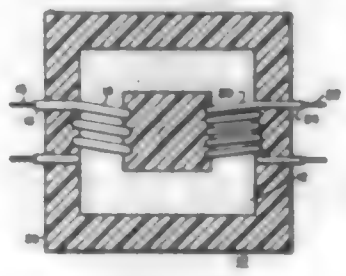


output of said transmission system for receiving signals which have passed therethrough.

2,871,454
GLYCIDYL POLYETHER-TRIETHANOLAMINE BORATE COMPOSITION AND PRODUCT TREATED THEREWITH

Stanley H. Langer, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 14, 1954, Serial No. 429,967
12 Claims. (Cl. 336—96)



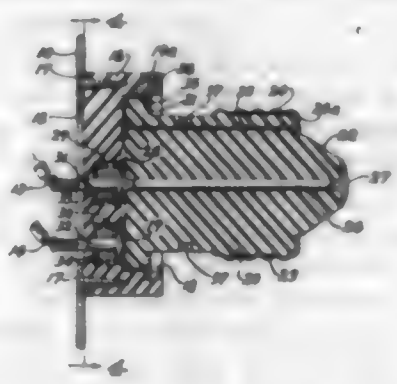
1. A composition of matter comprising a reactive glycidyl polyether of a dihydric phenol and a curing catalyst therefor comprising triethanolamine borate derived by reacting substantially equimolar proportions of triethanolamine and boric acid.

10. An electrical transformer comprising a magnetic core, electrical windings disposed about the magnetic core and a cured body of resinous insulation applied to the electrical windings, the resinous insulation comprising the reaction product of a glycidyl polyether of a dihydric phenol, said polyether having a 1,2-epoxy equivalency of greater than 1, and from about 2% to 18% by weight of triethanolamine borate derived by reacting substantially equimolar proportions of triethanolamine and boric acid.

2,871,455
ELECTRICAL FIXTURE

Norman H. Richardson, Ypsilanti, Mich.

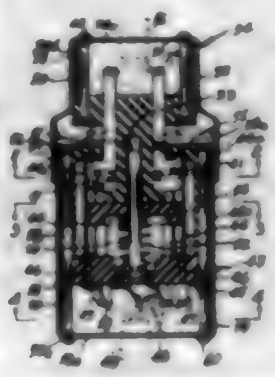
Application November 18, 1954, Serial No. 469,796
2 Claims. (Cl. 339—8)



1. In an electrical connection, a dielectric hub having a well therein, an annular conductor rotatably seated within said well and having a flanged sidewall portion in bearing relation with the sidewall of said well, a rotatable dielectric core having a base seated within the flanged portion of said annular conductor and having a nose extending outwardly from said well, a C-ring interengaging portions of said hub and core to hold

the same against relative axial displacement; an axial conductor extending through said core and having enlarged contact portions at opposite ends projecting from said nose and base respectively, the contact portion projecting from said base being located within the opening of said annular conductor and being spaced from the latter, a threaded shell conductor around said core between said nose and base and adapted to screw into an electrical socket, an eccentrically located conductor fixed within the body of said core and connecting said annular and shell conductors, said hub also having a pair of spring wells therein opening toward the base of said core and confronting said annular and axial conductors respectively, a pair of conductors shiftable axially within said spring wells respectively and contacting said annular and axial conductors respectively, and spring means within said spring wells yieldingly urging said pair of conductors into engagement with said annular and axial conductors respectively.

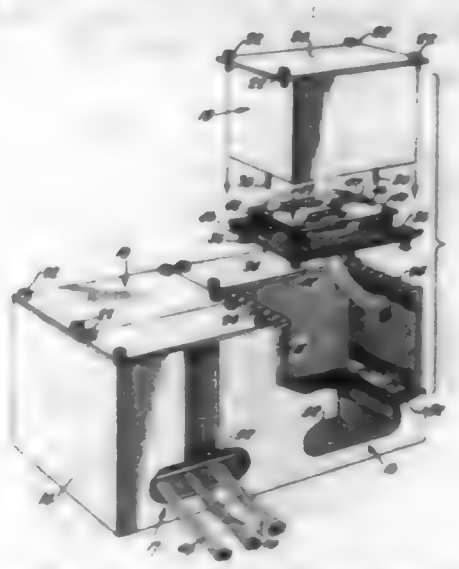
2,871,456
LOCKING CONNECTOR
Joseph F. Healy, Westport, Conn., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn., a corporation of Connecticut
Application March 7, 1952, Serial No. 275,460
4 Claims. (Cl. 339—42)



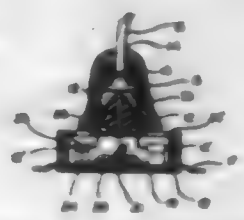
3. In a connector of the character described, a receptacle comprising an insulating body including an end wall provided with a central entrance opening, a plurality of stationary contacts carried by said body, said end wall being provided with a series of radial slots about and communicating with said opening forming entrance openings for contact blades of a plug-in cap leading to said contacts to permit engagement of the blades with the contacts by relative longitudinal movement between the cap and receptacle, and said end wall being provided with inwardly facing recesses in its inner surface between and spaced from said slots to receive outwardly facing locking lugs on the blade contacts to lock the cap and receptacle against relative turning movements.

2,871,457
MOUNTING FOR ELECTRONIC COMPONENTS
Harold S. Jencks, Woodland Hills, and Robert C. Twomey, Los Angeles, Calif., assignors to Douglas Aircraft Company, Inc., Santa Monica, Calif.
Application October 26, 1956, Serial No. 618,633
10 Claims. (Cl. 339—75)

7. A self ejecting electrical equipment rack assembly comprising: a hollow supporting framework having one side thereof open; a first member attached to the framework inwardly of the open side; a second member attached to and movable relative to the said first member; resilient means biasing the members apart; one coupling part of a separable electrical connector affixed to the second member; an equipment housing adapted to be thrust into the framework through the open side thereof; a second coupling part on the housing adapted to matingly engage the first said coupling part, the motion of the housing into the framework effecting connection of the coupling parts and also overcoming the force exerted by the resilient means; and means maintaining the housing within the framework against the force of the resilient means.



2,871,458
PLUG AND RECEPTACLE ASSEMBLY
Richard A. Rybold, Jr., Milwaukee, Wis.
Application September 27, 1955, Serial No. 536,888
2 Claims. (Cl. 339—91)

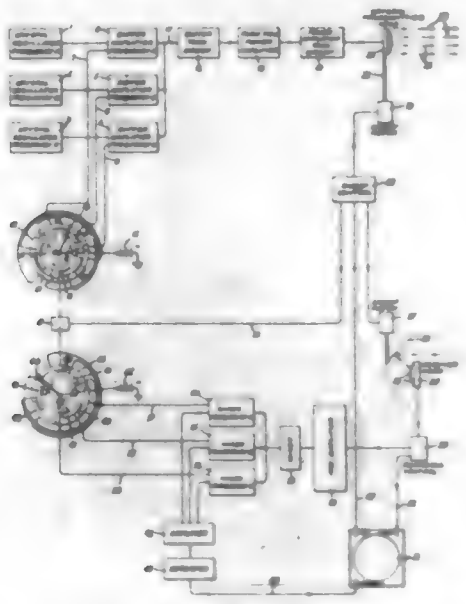


2. In an electrical plug and receptacle assembly, a receptacle having contacts therein spaced from the center of said receptacle, said receptacle having an exposed wall provided with spaced arcuate apertures offset with respect to said contacts, each aperture being enlarged at one end thereof, a detachable plug having contact members extending therefrom, said contact members having portions extending generally transverse to the axis of said plug, said portions being adapted for insertion through said enlargements and adapted, upon rotation of the plug, to be brought into engagement with said contacts, an upstanding guide on said exterior wall, said guide having a generally conic form, said plug having an opening therein to receive said guide, the contacts on said plug being spaced on opposite sides of said opening such as to be engaged by said guide as said contacts pass over the base of said guide.

2,871,459
SUBMERGED OBJECT LOCATING
Theodore M. Berry, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application May 6, 1946, Serial No. 667,527
18 Claims. (Cl. 340—3)

1. An arrangement for operating an object locator of the type comprising a plural frequency transmitter for transmitting energy toward objects within a zone to be examined and a plural frequency echo receiver arranged to receive echoes from objects within said zone, which comprises means for transmitting energy of given carrier frequency toward said zone during a predetermined finite number of successive appreciable time intervals and for changing the carrier frequency of said transmitted

energy for each successive interval, and means for controlling the frequency sensitivity of the receiver to render



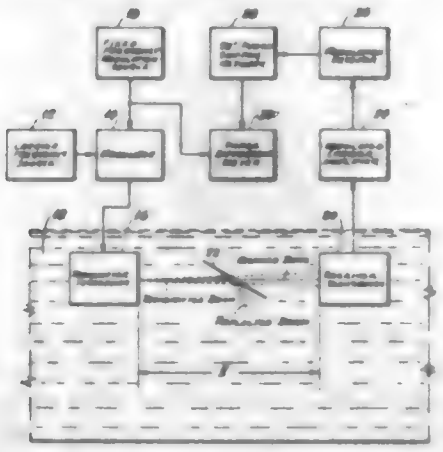
it insensitive to energy of the carrier frequency being transmitted at any instant.

2,871,460

VELOCITY MEASURING APPARATUS

John N. Beebe, Millis, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application May 12, 1955, Serial No. 508,003
5 Claims. (Cl. 340—3)



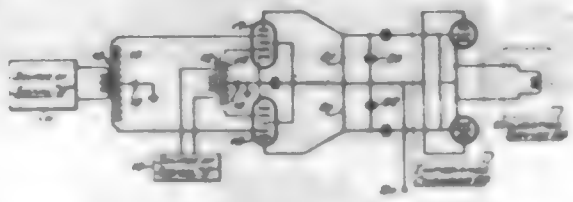
5. In an apparatus for transmitting intelligence across a fluid medium in the form of compressional waves and of the type including an electromechanical transmitter transducer and an electromechanical receiver transducer within said fluid medium and spaced apart in face-to-face relationship and means for providing oscillatory electrical energy of a predetermined frequency to said transmitter whereby said transmitter generates corresponding compressional waves in the fluid medium which at least in part are intercepted by said receiver, part of the incident compressional wave energy being absorbed thereby and part being reflected thereby back to said transmitter and means for comparing the phase of energy of said frequency as it is provided to said transmitter with that incident to said receiver, the improvement which comprises the combination therewith of a baffle for minimizing the amount of said reflected energy reaching said transmitter and tending to modify the phase and amplitude of compressional waves generated thereby relative to the oscillatory electrical energy input thereto, said baffle being a flat continuous uniform plate between said transducers and oblique to the spacing between said transducers and of sufficient area such that it intercepts all compressional wave energy moving from said transmitter to said receiver and deflecting away from both said transducers a substantial portion thereof and transmitting the remainder thereof to said receiver transducer, said baffle also intercepting all of the compressional wave energy that is reflected by said receiver back to said transmitter and deflecting away from both of them a substantial portion of the reflected energy whereby the amount of receiver-reflected energy deriving at said transmiter is so attenuated so as to have negligible effect on the phase and amplitude of the compressional wave energy of said frequency generated by said transmitter.

2,871,461

SEISMIC PROSPECTING

Burton D. Lee, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application November 20, 1953, Serial No. 393,433
13 Claims. (Cl. 340—15)



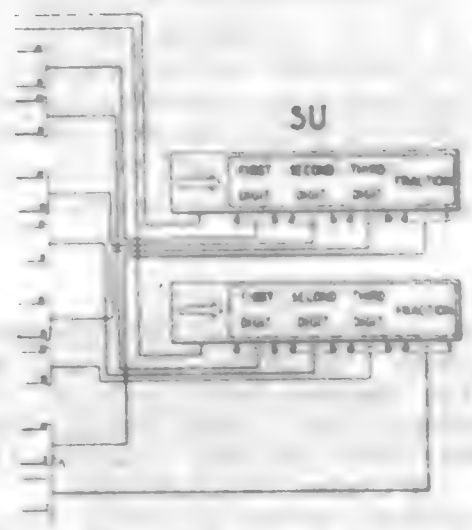
1. Electrical apparatus for combining a plurality of signals to provide an output that is proportional to the product of their instantaneous values during input signal excursions of like polarity comprising a pair of amplifying devices each having at least two signal inputs and the characteristic of affording for a signal applied to one of said inputs a gain which is variable in accordance with variations in the potential of the other input; a phase splitter for receiving a first signal and applying it to each of a pair of said inputs in a different one of said devices in respectively opposite phase; another phase splitter for receiving a second signal and applying it to each of the remaining pair of said inputs in respectively opposite phase; and means for biasing each of said inputs substantially to cut-off in the absence of an applied signal, and output means for said devices.

2,871,462

INFORMATION DISPLAY DEVICES

Arlo Raleigh Eggensperger, Tenafly, and Daniel Elmore Foley, Nutley, N. J., assignors to William Francis Hogan, New York, N. Y.

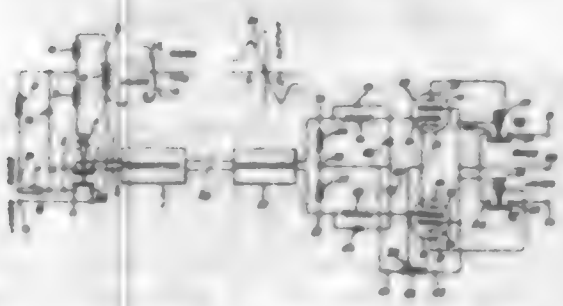
Application October 5, 1955, Serial No. 538,650
5 Claims. (Cl. 340—154)



1. An information display device for displaying information transmitted in a long series of groups of codes in which items of information in a given category are scattered among items of information in other categories, each item of information in said given category containing identification codes followed by information codes, an on and off circuit responsive to one particular code to switch said circuit off and responsive to an additional code to switch said circuit on, a plurality of display units, each consisting of a double set of display

lamps and an indicator for each said set of display lamps to indicate the last set of lamps to have been operated, means operative in the off position of said on and off circuit responsive to identification codes for selecting a given one of said display units and means within said selected unit thereafter responsive to information codes for automatically selecting, releasing, and operating the eldest operated set of display lamps and for releasing said indicator lamp associated with the other said set of lamps and for operating said indicator lamp associated with said eldest operated set of lamps.

2,871,463
METHOD AND APPARATUS FOR TRANSMISSION OF INTELLIGENCE
Robert W. Beckwith, North Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application August 1, 1952, Serial No. 302,649
11 Claims. (Cl. 340—171)



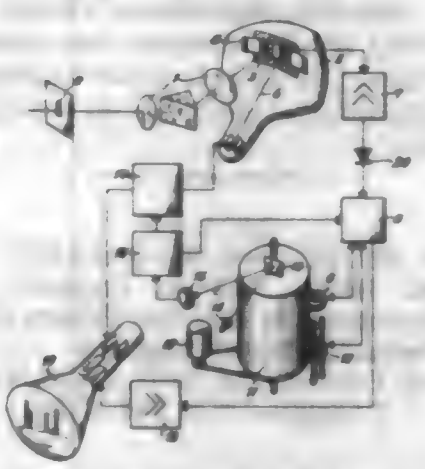
1. The combination, in a remote control system, of signaling control means to produce signals having either of two frequencies and to produce signals having a frequency varying regularly between said frequencies, a pair of control devices, means responsive to signals of each of said frequencies to actuate a respective one of said control devices, and means responsive to the reception of signals having a frequency varying regularly between said frequencies to prevent actuation of either of said control devices.

2,871,464
METHODS OF RECORDING INTELLIGENCE
Esmond Philip Goodwin Wright, Joseph Rice, and Donald Gordon Neal Hunter, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application March 22, 1954, Serial No. 417,888
Claims priority, application Great Britain February 17, 1954
1 Claim. (Cl. 340—174)



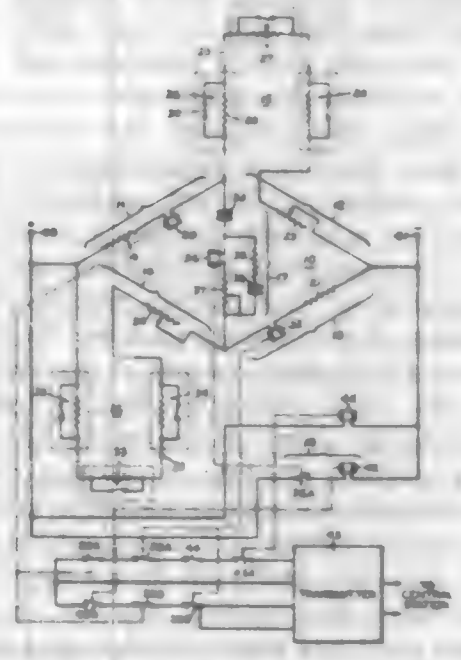
Equipment for the storage of intelligence in the form of elements each stored in a defined elemental store comprising reading means including a reading head having a working gap, recording means including a recording head having a working gap, a support, means for mounting both heads in said support in spaced relation such that the distance between the working gaps of said heads is substantially equal to the length of an elemental store, a reading coil in said reading head, a recording coil in said recording head, a balancing coil in said recording head, means for connecting said balancing coil in series with said reading coil, said balancing coil being so poled that potentials induced in said reading coil and said balancing coil from alternating current flowing in said recording coil are in opposite phase, whereby a reduction in the combined induced potentials is obtained.

2,871,465
MEASURING PROCESS FOR THE RECORDING OF THE INTENSITY OF SIGNAL SEQUENCES
Niels Heimo Nielsen, Hamburg, Germany
Application October 13, 1954, Serial No. 462,872
Claims priority, application Germany October 20, 1953
2 Claims. (Cl. 88—14)



1. A method for recording the intensity of signal sequences with greatly variable absolute and relative intensity of electro-oscilloscopic means including the following steps, receiving and storing directly the signal sequence in a first storage means, scanning periodically said first storage means to transmit all signal elements of the initially recorded signal sequence from said first storage means to a second storage means, in each scanning cycle separately summing all transmitted signal elements to the corresponding signal elements already stored in said second storage means so that upon termination of the scanning process said second storage means contains an image representing the total intensity distribution of each signal element which can be made visible and evaluated by scanning of said second storage means, storing the intensity distributions for comparison and rendering at least one signal sequence visible as a comparison curve simultaneously with the curve of an investigated distribution, said comparison signal sequence being stored on said second storage means.

2,871,466
AUTOMATIC FIRE ALARM SYSTEM
Theo N. Vassil, Flushing, and Francis C. Evans, Richmond, N. Y., assignors to American District Telegraph Company, Jersey City, N. J., a corporation of New Jersey
Application December 30, 1955, Serial No. 556,710
10 Claims. (Cl. 340—233)



1. An automatic fire alarm system, comprising a bridge circuit, a conductor adapted to be disposed about a space to be protected and having a temperature coefficient of

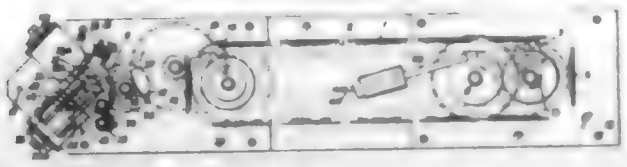
resistance and being included in an arm of said bridge, a source of potential coupled to one pair of opposite terminals of said bridge, an indicating circuit coupled to the other pair of opposite terminals of said bridge, said indicating circuit including, in series connection, a capacitive element and a sensing element operative in response to a predetermined current flow in said indicating circuit, and a series resistance-capacitance circuit connected in parallel with said sensing element, said resistance-capacitance circuit having a time constant sufficiently great to provide an appreciable delay in the operation of said sensing element.

2,871,467

ELECTRIC SELECTIVE SIGNALLING SYSTEMS

Albert Martin Hailey, Sidcup, England, assignor, by mesne assignments, to Siemens Edison Swan Limited, London, England, a British company

Application February 26, 1957, Serial No. 642,423
2 Claims. (Cl. 340—324)



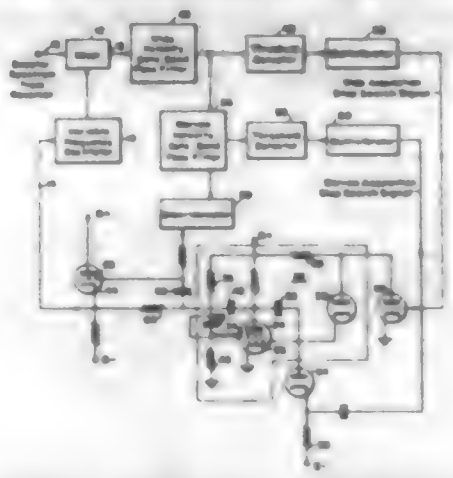
1. An electrically-operated changing display indicator arranged for control by multi-element code signals, comprising a driven member having a normal position and a plurality of stopping positions at which different display surfaces are displayed, a control circuit for controlling the setting of said driven member, said control circuit being connected between the two sides of a power supply circuit and having a main portion and a single resetting branch and for each element of the code employed a code branch, said code and resetting branches all being in parallel with one another, a code switching device, a rotor forming part of said code switching device and coupled to said driven member so as to be driven in correspondence therewith, a conducting code disc forming part of said rotor for each said code branch and a single conducting reset disc forming part of said rotor, all said conducting discs being in permanent electrical connection with one another and together constituting the common point of said main portion and said code and resetting branches of said control circuit, a fixed wiper individual to each said conducting code disc for connecting the corresponding said code branch to said common point and a fixed wiper individual to said conducting reset disc for connecting said resetting branch to said common point, said conducting code and reset discs having portions cut away so that a through circuit between each of these discs and its wiper exists only when said rotor is occupying certain positions and moving between certain positions depending upon the disc, a fixed wiper co-operating with said rotor for continuously connecting said main portion of said control circuit to said common point, means for closing, subject to the switching performed by said code switching device, different combinations, corresponding to different code signals, of said code branches of said control circuit, for bringing about the setting of said driven member from a normal position, means for closing, subject to the switching performed by said code switching device, said resetting branch for bringing about the resetting of said driven member to a normal position, a driving electromotor individual to the indicator and connected in said main portion of said control circuit and energised, in the setting of said driven member, until said driven member reaches or is about to reach the requisite position, the cutting of said conducting code and reset discs being adapted to this end and friction normally operative to oppose movement of the driven member being relied upon to bring said driven member to rest in the requisite position, and a reduction gear train permanently coupling said driving electromotor to said driven member and having a reduction ratio high enough to ensure that variations, within the limits obtaining, in the number of revolutions due to momentum made by the rotor of said electromotor following upon the open-circuiting of the electromotor have for practical purposes only a negligible effect upon the accuracy of the setting.

2,871,468

DOPPLER RADAR ACQUISITION SYSTEM

Harry B. Smith, Catonsville, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 26, 1955, Serial No. 542,820
6 Claims. (Cl. 343—8)



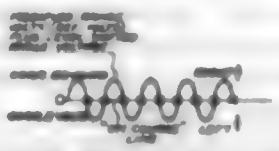
1. In a Doppler radar system adapted to receive reflected energy from a distant object, the combination of a variable frequency oscillator the output frequency of which varies as a function of a control voltage applied thereto, means for applying a sawtooth control voltage to said oscillator to vary its output frequency periodically between predetermined limits, means for mixing said received energy with the output of said variable frequency oscillator, a first band pass filter connected to the output of said mixer, means for detecting energy passing through said first band pass filter, means responsive to the output of said detecting means for changing the rate of change of the output of said sawtooth wave producing means, a second band pass filter connected to the output of said first band pass filter, said second band pass filter having a pass band narrower than the pass band of said first filter, means for detecting energy passing through said second filter, and means responsive to the output of said latter-mentioned detecting means for causing said sawtooth wave producing means to hold its output voltage constant at its last value when energy passes through said second filter.

2,871,469

ELECTRIC COMPUTER USING NON-LINEAR CIRCUIT ELEMENTS FOR DERIVING A VOLTAGE REPRESENTATIVE OF AN IDEAL FLIGHT PATH

Dallas Valo Franke, Redondo Beach, Calif., assignor to Gilfillan Bros. Inc., Los Angeles, Calif., a corporation of California

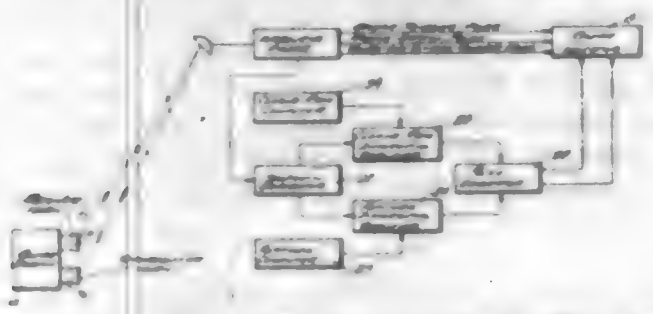
Application January 11, 1952, Serial No. 266,001
8 Claims. (Cl. 343—11)



1. In an arrangement of the character described, means deriving a voltage, the intensity of which is representative of the range of an object being tracked, means for deriving a varying voltage, the intensity of which at one particular instant is representative of the angular position of the tracked object while positioned on an ideal

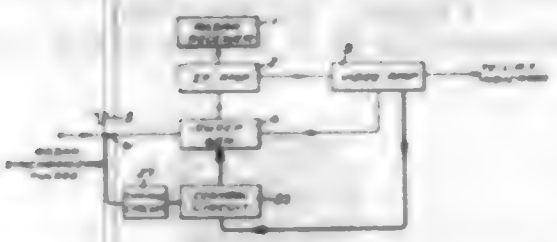
flight path, and means combining said first voltage and second voltage to produce an alternating voltage, the crossover point of which represents said ideal flight path for the object.

2,871,470
DEVELOPMENT OF AN AIR CONTROLLED APPROACH RADAR LANDING SYSTEM
Luther Stephenson, Arlington, Mass.
Application August 19, 1953, Serial No. 375,309
9 Claims. (Cl. 343—11)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An airborne controlled approach landing system comprising a first airborne radar device, a second airborne radar device, an airborne radar indicator coupled to said first and second radar devices, a radar beacon located at one end of an aircraft runway and being capable of transmitting electromagnetic pulses in response to interrogating pulses of the airborne radar, means including said first and said second radar devices for producing video pulses on the radar indicator respectively representing altitude and range, means for producing calibration markers on the radar indicator with which said video pulses can be compared to estimate range and altitude and means for producing a video pulse which moves along the face of the radar indicator at a rate indicating a preselected closing rate.

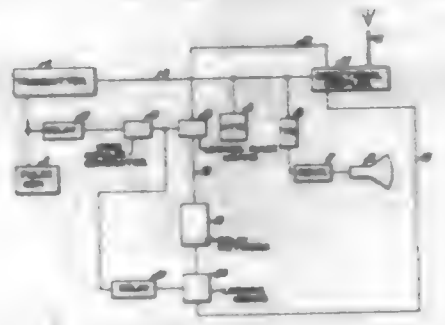
2,871,471
GAIN CONTROL
Jack Gordon McQueen, Sale, England, assignor to General Electric Company, a corporation of New York
Application September 22, 1950, Serial No. 186,249
Claims priority, application Great Britain September 26, 1949
14 Claims. (Cl. 343—17.1)



1. In a radar equipment, means for generating a recurrent, sweep voltage which is applied to the radar receiver for varying the gain thereof with time, means for sampling a portion of said receiver output, means for integrating said sampled portion and means for varying the initial amplitude of said sweep voltage in accordance with said integrated portion.

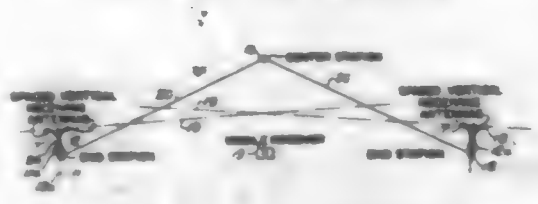
2,871,472
ARRANGEMENT FOR CONTROLLING RADAR SYSTEMS
Siegfried Zisler, Bievres, and Gérard Dubost, Paris, France, assignors to Societe Francaise Sadir-Carpentier, Paris, France, a corporation of France
Application February 20, 1956, Serial No. 566,716
Claims priority, application France March 18, 1955
3 Claims. (Cl. 343—17.7)

3. An arrangement for controlling a radar system including a transmitter and a receiver, said arrangement including means for diverting a small fraction of the high frequency impulses produced by the transmitter, a high frequency delay network fed by said means, an impulse generator, a first delay network connecting the latter with the transmitter to make said impulse generator produce impulses in synchronism with the transmitter with a predetermined delay between the starting of its impulses and that of the transmitter impulses, the rear edges of the impulses of the generator and of the transmitter being synchronous, two locking means at the input and at the output ends of the first mentioned delay network, each locking means including a number of interconnected recti-



fied cells, means wherethrough the impulse generator, when inoperative biases said cells into cut off conditions and, when operative, restores the conductivity of the cells, a further delay network operatively inserted between the impulse generator and the second locking means to constrain the impulses fed into said first delay network during the release of the first locking means to execute an odd number of progressions therein until the second locking means are released in their turn, and means through which the output of the first delay network feeds the receiver with the delayed impulses upon release of the second locking means.

2,871,473
RADIO LOCATION SYSTEM
James E. Hawkins, Broken Arrow, and Lewis Eugene Garrett, Tulsa, Okla., assignors to Seismograph Service Corporation, Tulsa, Okla., a corporation of Delaware
Application January 3, 1956, Serial No. 556,936
18 Claims. (Cl. 343—105)

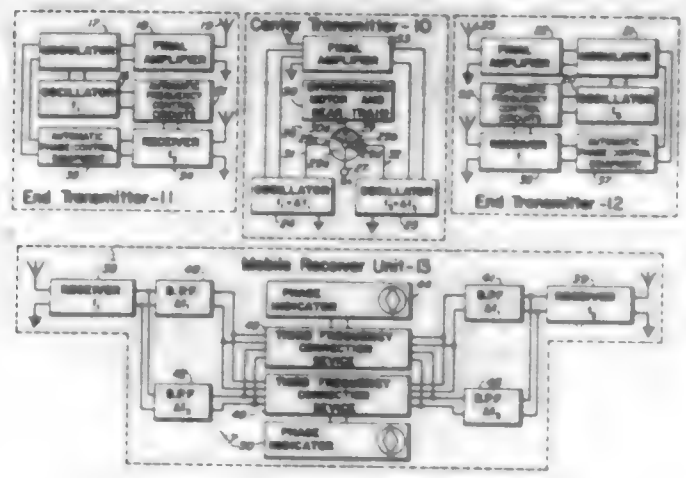


1. In a position determining system of the type requiring the transmission of position indicating signals from spaced transmitters and the transmission of a reference signal as a modulation component, the combination of at least a pair of spaced apart transmitting units for radiating waves of different frequencies, means adjacent one of said units including receiver means for receiving at least one ground wave radiated from another of said units and for developing therefrom a reference signal, means for modulating said reference signal upon a carrier wave radiated from said one unit, and means for preventing interference of both said carrier wave and the sky wave resulting from radiation of said one wave with said receiver means, said last named means including at least two spaced receptors each receiving said carrier wave and said ground and sky waves, and a bridge circuit excited by the signals from each receptor and balanced to said carrier wave.

2,871,474
RADIO LOCATION SYSTEM

Beverly W. Koeppel, Tulsa, Okla., assignor to Seismograph Service Corporation, Tulsa, Okla., a corporation of Delaware

Application October 16, 1956, Serial No. 616,215
25 Claims. (Cl. 343—105)

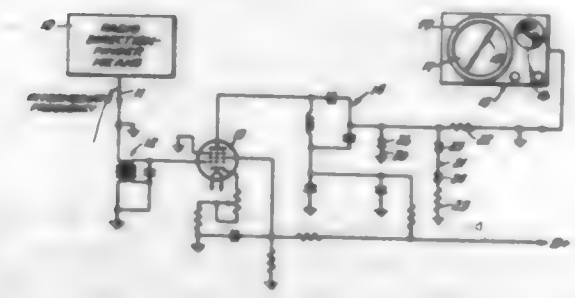


1. In a radio position determining system of the hyperbolic continuous wave type wherein at least two position indication signals are radiated to a mobile receiver unit from a pair of spaced transmitting points and a reference signal derived from said position indicating signals is transmitted from a link transmitting station spaced from said transmitting points, means at the mobile receiver unit responsive to the position indicating signals and to the reference signal for providing an indication of the location of the mobile receiver unit relative to said pair of transmitting points, and means at the mobile receiver unit for reducing or eliminating from said position indication third frequency errors resulting from the transmission of the reference signal from a point spaced from said pair of transmitting points.

2,871,475
DETECTOR FOR VISUAL AND AURAL DIRECTION FINDERS

Cornelius A. Gallagher, Hicksville, N. Y., assignor to Servo Corporation of America, New Hyde Park, N. Y., a corporation of New York

Application June 11, 1954, Serial No. 435,983
8 Claims. (Cl. 343—113)

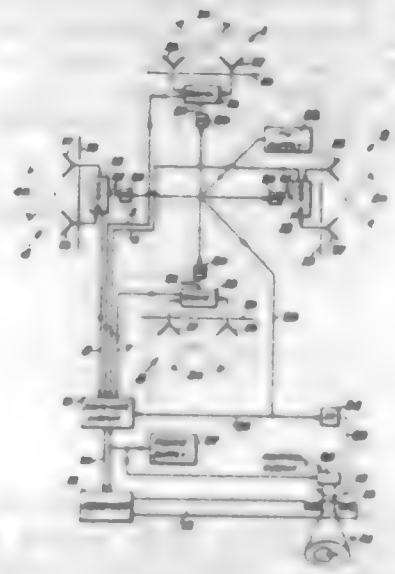


8. Direction-finder means, comprising a radio receiver including an intermediate-frequency circuit, a tank circuit connected to the output of said intermediate-frequency circuit, and detector means connected to said tank circuit, said detector means comprising first and second non-linear arms in parallel, said first non-linear arm being poled to clip positive voltages in tank-circuit output, and said second non-linear arm being poled oppositely to said first arm, said second arm comprising non-linear resistance means and linear resistance means in series, the maximum forward resistance of said non-linear resistance means being of the order of magnitude of said linear resistance means, and filter means at the output of said detector means.

2,871,476
DIRECTION FINDER

Henri G. Busignies, Forest Hills, N. Y., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application September 11, 1944, Serial No. 553,598
10 Claims. (Cl. 343—120)

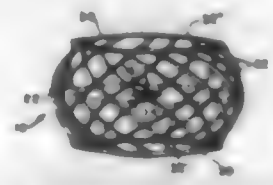


1. A direction finder for indicating the direction of transmitting stations within a given arc, comprising means for producing a plurality of different directive radiant acting receiver patterns, means for successively sweeping the directive effect of each of said patterns successively through given contiguous angles to define together said given arc, means for producing in synchronism with said sweeping an indicator trace representing successive of said contiguous angles to provide a trace representing said arc, and means for applying received energy from each of said directive patterns during its respective sweeping period to said indicator to produce deflections of said trace to indicate the directive position of transmitting stations within said arc.

2,871,477
HIGH GAIN OMNIAZIMUTH ANTENNA

Leonard Hatkin, Elberon, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application May 4, 1954, Serial No. 427,684
5 Claims. (Cl. 343—728)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An omniazimuth antenna system for producing a narrow beam in elevation comprising a reflector having a surface of revolution formed by rotating a parabola about its latus rectum in such a manner that the locus of the vertex of the parabola as it is rotated comprises a circle in a plane perpendicular to the latus rectum and a common focus at the center of said circle, said surface comprising a plurality of spaced longitudinal conducting members each disposed 45 degrees with respect to said latus rectum at the respective points of intersection of the vertex circle locus and said members, said members going around said surface in one direction so that any two members intersecting the vertex circle locus at respective diametrically opposed points are displaced 90 degrees relative to each other, and incident radiation means at said focus for producing a resultant omniazimuth radiation pattern polarized 45 degrees with respect to said latus rectum whereby the reflected radiated energy

from each of said members passes through said reflector at respective points diametrically opposite the reflecting members.

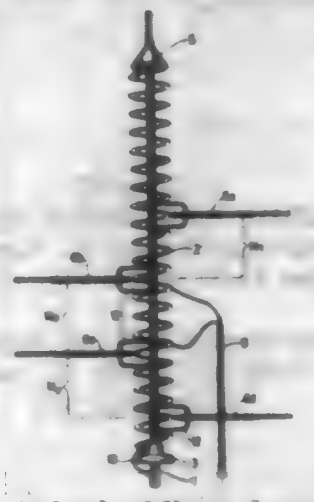
2,871,678

ANTENNAS

Denis Evald Reinhold Lander, Sunne, Sweden

Application May 16, 1955, Serial No. 508,588
Claims priority, application Sweden May 22, 1954
10 Claims. (Cl. 343—857)

1. An antenna for the reception of high and ultra high frequency radiation including television signals, comprising a helically wound conductor, pairs of antenna rods connected to said helical conductor at various points thereof, the two rods of each pair extending radially in different directions from said conductor and forming with the intervening portion thereof a resonant circuit tuned for the reception of the frequency of a desired wave, and a feed line connected across a portion of the part of the helical conductor disposed between two pairs of antenna rods, said portion being such that the impedance of the

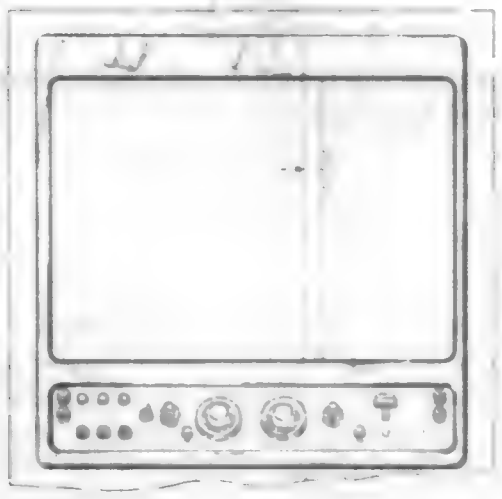


antenna as seen from the feed line substantially equals the impedance of said feed line.

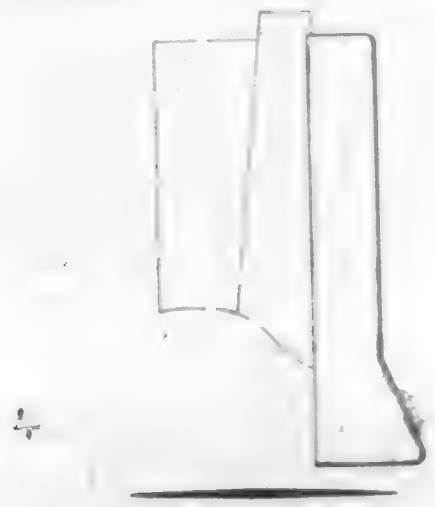
DESIGNS

JANUARY 27, 1959

184,297
GRAPHIC RECORDER HOUSING
Edward E. Austin and Richard M. Kemplin, Los Angeles, Calif., assignors to F. L. Moseley Co., a corporation of California
Application August 9, 1956, Serial No. 42,554
Term of patent 14 years
(Cl. D26—14)



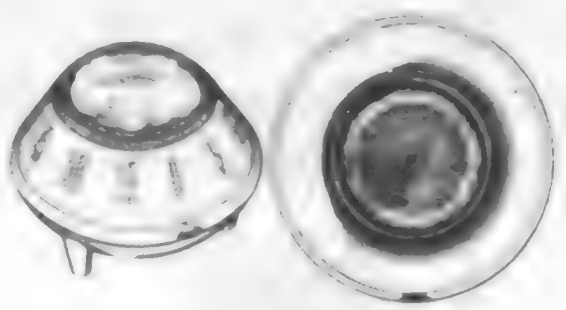
184,298
SOCK
James Earl Barger, Athens, Tenn., assignor to Athens Hosiery Mills, Incorporated, Athens, Tenn., a corporation of Tennessee
Application April 23, 1958, Serial No. 50,586
Term of patent 14 years
(Cl. D47—7)



184,299
SOCK
James Earl Barger, Athens, Tenn., assignor to Athens Hosiery Mills, Incorporated, Athens, Tenn., a corporation of Tennessee
Application April 23, 1958, Serial No. 50,587
Term of patent 14 years
(Cl. D47—7)



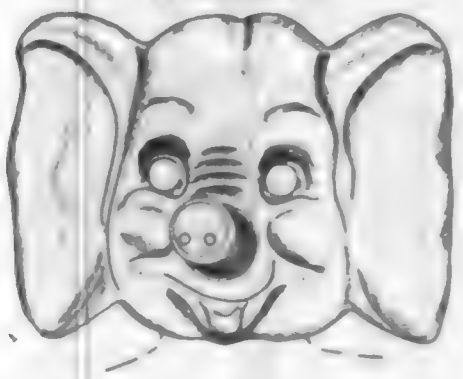
184,300
TIMER
Melvin H. Boldt, Glenview, Ill., assignor to National Presto Industries, Inc., Eau Claire, Wis., a corporation of Wisconsin
Application December 13, 1957, Serial No. 48,895
Term of patent 14 years
(Cl. D42—7)



184,301
DRESS
Oleg Cassini, New York, N. Y.
Application July 21, 1958, Serial No. 51,875
Term of patent 3½ years
(Cl. D3—26)



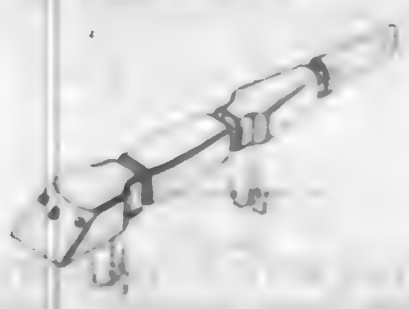
184,302
FACE MASK
Benjamin Cooper, Woodmere, N. Y.
Application February 28, 1958, Serial No. 49,852
Term of patent 7 years
(Cl. D34—15)



184,303
FACE MASK
Benjamin Cooper, Woodmere, N. Y.
Application February 28, 1958, Serial No. 49,853
Term of patent 7 years
(Cl. D34—15)



184,304
FISHING LURE
William O. Crutchfield, Elizabethton, Tenn.
Application May 23, 1958, Serial No. 51,058
Term of patent 14 years
(Cl. D31—4)



184,305
PLANT SPRAYER
Albert Czaczkes, alias Chasques, Boulogne-sur-Seine, France
Application December 26, 1957, Serial No. 49,027
Term of patent 3½ years
(Cl. D62—2)



184,306
PORTABLE BLENDER OR SIMILAR ARTICLE
Angelo C. De Angelis, New Shrewsbury, N. J., and Gerald Stahl, New York, N. Y., assignors to Standard Electronics Corporation, Newark, N. J., a corporation of Delaware
Application April 9, 1958, Serial No. 50,412
Term of patent 14 years
(Cl. D89—1)



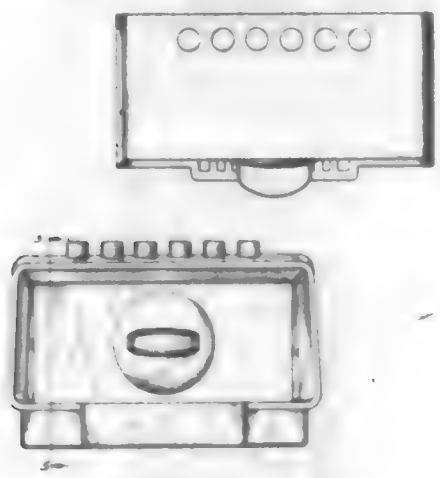
184,307
TELEPHONE SET
Henry Dreyfuss, South Pasadena, Calif., Robert H. Hose, Mountainside, N. J., and James N. Burlin, New York, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 24, 1958, Serial No. 51,504
Term of patent 14 years
(Cl. D26—14)



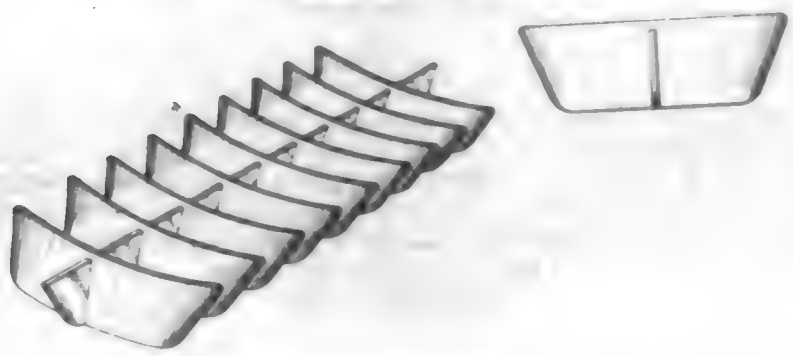
184,308
AIR CONDITIONER OR SIMILAR ARTICLE
David C. Eisendrath, Chicago, Ill., assignor to Cory Corporation, Chicago, Ill., a corporation of Delaware
Application July 10, 1957, Serial No. 46,898
Term of patent 7 years
(Cl. D62—4)



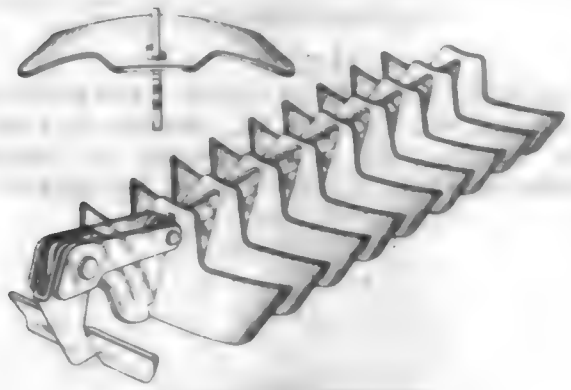
184,309
ELECTRICAL CONTROL BOX
W Arthur Ernst, Racine, Wis.
Application March 6, 1958, Serial No. 49,925
Term of patent 14 years
(Cl. D26—13)



184,310
ICE TRAY GRID
Arthur J. Frei and Raymond C. Davis, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 24, 1957, Serial No. 46,711
Term of patent 14 years
(Cl. D67—3)



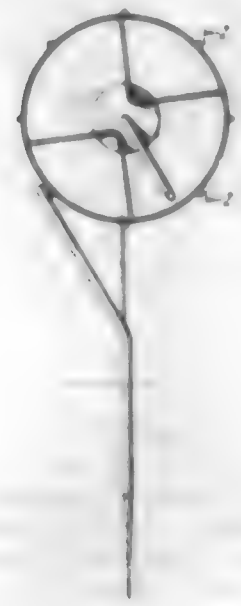
184,311
ICE TRAY GRID
Arthur J. Frei and Raymond C. Davis, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 17, 1958, Serial No. 49,659
Term of patent 14 years
(Cl. D67—3)



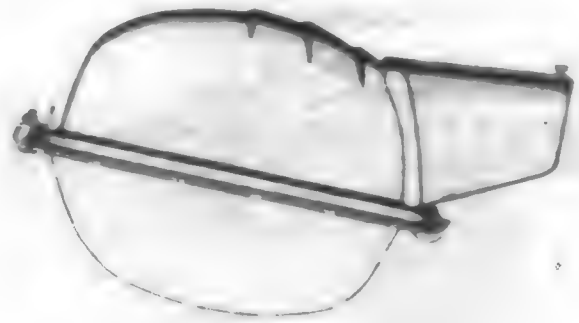
184,312
PORTFOLIO LOCK
Charles S. Gehrie, Montclair, N. J., assignor to Presto Lock Co., Garfield, N. J., a limited partnership
Application January 10, 1958, Serial No. 49,185
Term of patent 14 years
(Cl. D50—7)



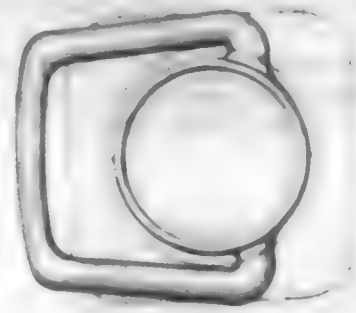
184,313
GARDEN HOSE REEL
William A. Gerson, Vineland, N. J., assignor to Elbee Manufacturing Co., Vineland, N. J.
Application July 22, 1957, Serial No. 47,041
Term of patent 14 years
(Cl. D41—1)



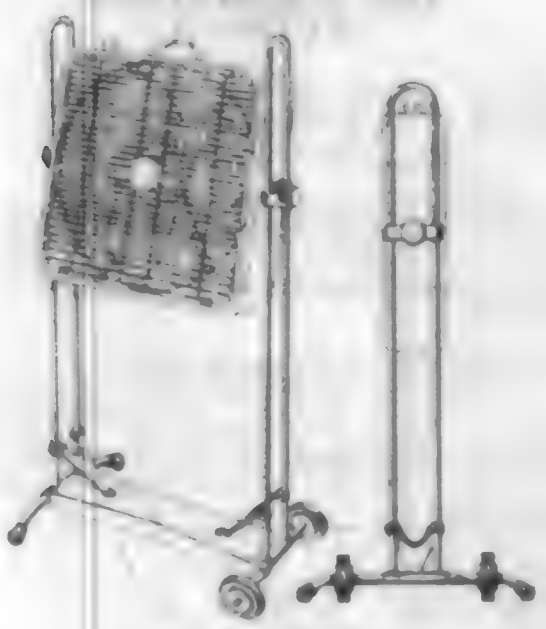
184,314
LUMINAIRE
Donald E. Husby, Fairview Park, and Edmund L. Izzi, Cleveland, Ohio, assignors to Westinghouse Electric Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 21, 1957, Serial No. 47,471
Term of patent 14 years
(Cl. D48—31)



184,315
HANDLE FOR BOTTLE TYPE CONTAINERS
Webb C. Jennings, Rocky River, Ira T. Swartwood, Lakewood, and Rudolph A. Sampson, Cleveland, Ohio
Application October 11, 1957, Serial No. 48,072
Term of patent 14 years
(Cl. D58—26)



184,316
MOBILE STAND FOR A FAN
Carl Krauss, Chicago, Ill.
Application July 9, 1957, Serial No. 46,872
Term of patent 14 years
(Cl. D26—7)



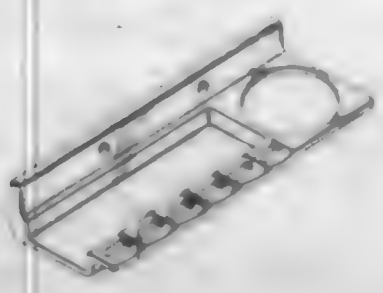
184,317
COMBINED KNIFE, FORK, AND SPOON
John William Shaw McArthur, Potts Point, Sydney, New South Wales, Australia
Application July 25, 1957, Serial No. 47,089
Claims priority, application Australia February 1, 1957
Term of patent 7 years
(Cl. D54—12)



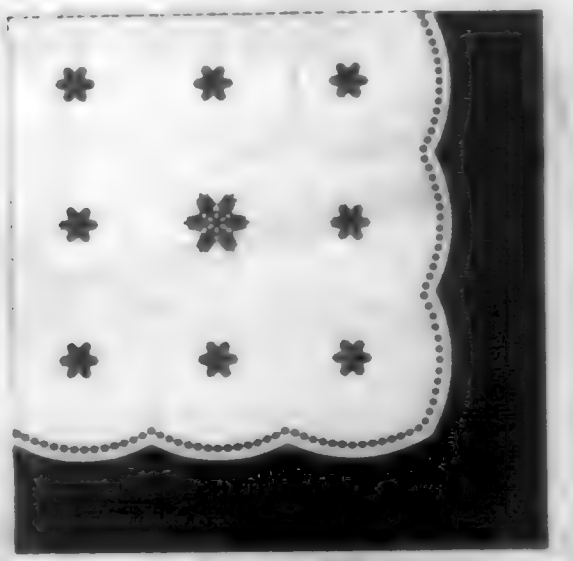
184,318
FISH LURE
William W. Multanen, Santa Cruz, Calif.
Application November 25, 1957, Serial No. 48,631
Term of patent 14 years
(Cl. D31—4)



184,319
COMBINED TOOTHBRUSH, TOOTH PASTE TUBE AND TUMBLER HOLDER
Marie C. Oland, Los Angeles, Calif.
Application April 18, 1958, Serial No. 50,512
Term of patent 3½ years
(Cl. D4—3)



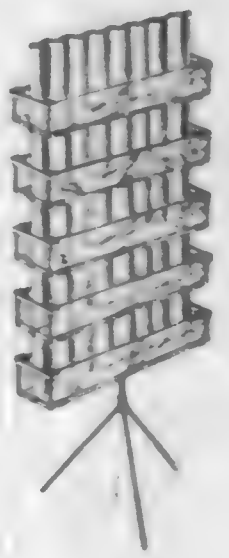
184,320
PAPER TABLE NAPKIN OR SIMILAR ARTICLE
Bradley Rutledge, Piedmont, and Adam J. Kirth, Alameda, Calif., assignors to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada
Application February 4, 1958, Serial No. 49,493
Term of patent 14 years
(Cl. D59—2)



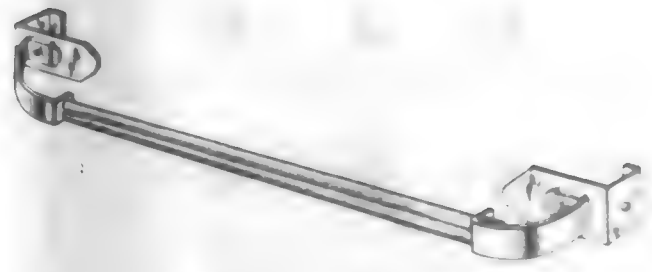
184,321
TABLE LIGHTER OR SIMILAR ARTICLE
Alfred William Skinner, Epsom, England, assignor to Ronson Corporation, Newark, N. J., a corporation of New Jersey
Application April 1, 1958, Serial No. 50,275
Claims priority, application Great Britain January 14, 1958
Term of patent 14 years
(Cl. D48—27)



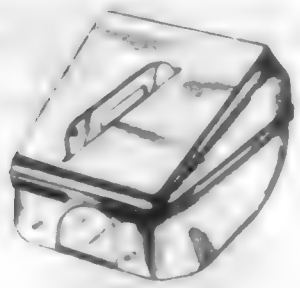
184,322
DISPLAY RACK FOR GREETING CARDS OR SIMILAR ARTICLE
Fred M. Slavic, New Rochelle, N. Y.
Application September 2, 1958, Serial No. 52,461
Term of patent 14 years
(Cl. D80—9)



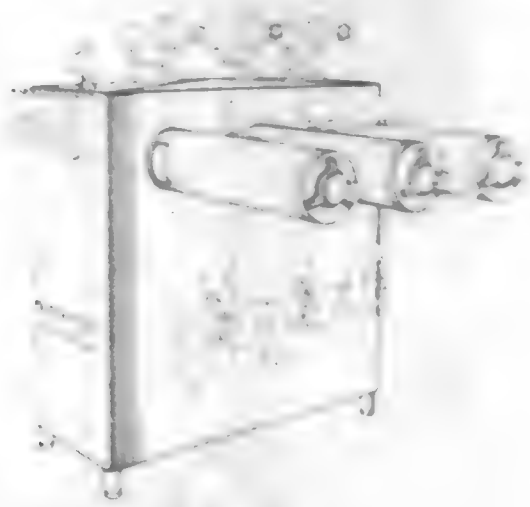
184,323
TOWEL RACK OR SIMILAR ARTICLE
Albert Spielman, New York, N. Y., assignor to Sanjo Utility Manufacturing Co., Inc., Brooklyn, N. Y., a corporation of New York
Application April 1, 1958, Serial No. 50,273
Term of patent 7 years
(Cl. D4—3)



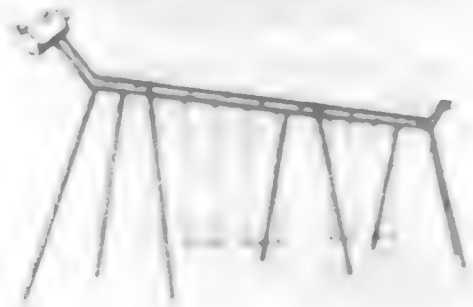
184,324
GRASS CATCHER FOR ROTARY MOWER
Raymond K. Strasel, Winthrop Harbor, Ill., assignor to Jacobsen Manufacturing Co., Racine, Wis., a corporation of Wisconsin
Application September 9, 1957, Serial No. 47,669
Term of patent 14 years
(Cl. D40—1)



184,325
ICE CREAM FREEZER
John C. Walsh and Jess G. Argenbright, Cedar Rapids, Iowa, assignors to Cherry-Burrell Corporation, Chicago, Ill., a corporation of Delaware
Application December 28, 1956, Serial No. 44,342
Term of patent 14 years
(Cl. D67—1)



184,326
SUSPENSION TRESTLE FOR PLAYGROUND SWINGS
Robert S. Wormser, Mexico, Pa., assignor to The Mexico Forge, Inc., Mexico, Pa., a corporation of Pennsylvania
Application September 30, 1958, Serial No. 52,824
Term of patent 14 years
(Cl. D34—5)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 27TH DAY OF JANUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Deer, Leon L., to The Diversey Corp. Cleaning aluminum. Re. 24,396, 1-27-59, Cl. 134—3.

Diversey Corp., The: *See*—
Deer, Leon L. Re. 24,596.

Edmonston, Woolford L., to W. R. McBride. Constant mass liquid dispensing control. Re. 24,595, 1-27-59, Cl. 119—81.

McBride, William R.: *See*—
Edmonston, Woolford L. Re. 24,595.

Smith, Philip. Battery powered disk type lawn mower. Re. 24,594, 1-27-59, Cl. 56—25.4.

LIST OF PLANT PATENTEES

Byrum, Roy L., to Joseph H. Hill Co. Rose plant. 1,804, 1-27-59, Cl. 47—61.

Hill, Joseph H., Co.: *See*—
Byrum, Roy L. 1,804.

LIST OF DESIGN PATENTEES

Arganbright, Jess G.: *See*—
Walsh, John C., and Arganbright. 184,325.

Athens Hosiery Mills, Inc.: *See*—
Barger, James E. 184,298.
Barger, James E. 184,299.

Austin, Edward E., and R. M. Kemplin, to F. L. Moseley Co. Graphic recorder housing. 184,297, 1-27-59, Cl. D26—14.

Barger, James E., to Athens Hosiery Mills, Inc. Sock. 184,298, 1-27-59, Cl. D47—7.

Barger, James E., to Athens Hosiery Mills, Inc. Sock. 184,299, 1-27-59, Cl. D47—7.

Bell Telephone Laboratories, Inc.: *See*—
Dreyfuss, Henry, Hose, and Burlin. 184,307.

Boldt, Melvin H., to National Presto Industries, Inc. Timer. 184,300, 1-27-59, Cl. D42—7.

Burlin, James N.: *See*—
Dreyfuss, Henry, Hose, and Burlin. 184,307.

Casalai, Oleg. Dress. 184,301, 1-27-59, Cl. D3—26.

Chasques, Albert: *See*—
Cnockes, Albert. 184,305.

Cherry-Burrell Corp.: *See*—
Walsh, John C., and Arganbright. 184,325.

Cooper, Benjamin. Face mask. 184,302, 1-27-59, Cl. D34—15.

Cooper, Benjamin. Face mask. 184,303, 1-27-59, Cl. D34—15.

Cory Corp.: *See*—
Eisendrath, David C. 184,308.

Crown Zellerbach Corp.: *See*—
Rutledge, Bradley, and Kirth. 184,320.

Crutchfield, William O. Fishing lure. 184,304, 1-27-59, Cl. D31—4.

Cnockes, Albert, alias Chasques. Plant sprayer. 184,305, 1-27-59, Cl. D62—2.

Davis, Raymond C.: *See*—
Frei, Arthur J., and Davis. 184,310.
Frei, Arthur J., and Davis. 184,311.

De Angelis, Angelo C., and G. Stahl, to Standard Electronics Corp. Portable blender or similar article. 184,306, 1-27-59, Cl. D39—1.

Dreyfuss, Henry, R. H. Hose, and J. N. Burlin, to Bell Telephone Laboratories, Inc. Telephone set. 184,307, 1-27-59, Cl. D26—14.

Eisendrath, David C., to Cory Corp. Air conditioner or similar article. 184,308, 1-27-59, Cl. D62—4.

Elbee Mfg. Co.: *See*—
Gerson, William A. 184,313.

Ernst, W Arthur. Electrical control box. 184,309, 1-27-59, Cl. D26—13.

Frei, Arthur J., and R. C. Davis, to General Motors Corp. Ice tray grid. 184,310, 1-27-59, Cl. D67—3.

Frei, Arthur J., and R. C. Davis, to General Motors Corp. Ice tray grid. 184,311, 1-27-59, Cl. D67—3.

Gehrie, Charles S., to Presto Lock Co. Portfolio lock. 184,312, 1-27-59, Cl. D50—7.

General Motors Corp.: *See*—
Frei, Arthur J., and Davis. 184,310.
Frei, Arthur J., and Davis. 184,311.

Gerson, William A., to Elbee Mfg. Co. Garden hose reel. 184,313, 1-27-59, Cl. D41—1.

Hose, Robert H.: *See*—
Dreyfuss, Henry, Hose, and Burlin. 184,307.

Husby, Donald E., and E. L. Izzi, to Westinghouse Electric Corp. Luminaire. 184,314, 1-27-59, Cl. D48—31.

Izzi, Edmund L.: *See*—
Husby, Donald E., and Izzi. 184,314.

Jacobsen Mfg. Co.: *See*—
Strasel, Raymond K. 184,324.

Jennings, Webb C., I. T. Swartwood, and R. A. Sampson. Handle for bottle type containers. 184,315, 1-27-59, Cl. D58—26.

Kemplin, Richard M.: *See*—
Austin, Edward E., and Kemplin. 184,297.

Kirth, Adam J.: *See*—
Rutledge, Bradley, and Kirth. 184,320.

Krauss, Carl. Mobile stand for a fan. 184,316, 1-27-59, Cl. D26—7.

MacArthur, John W. S. Combined knife, fork and spoon. 184,317, 1-27-59, Cl. D54—12.

Mexico Forge, Inc., The: *See*—
Wormser, Robert S. 184,326.

Moseley, F. L., Co.: *See*—
Austin, Edward E., and Kemplin. 184,297.

Multanen, William W. Fish lure. 184,318, 1-27-59, Cl. D31—4.

National Presto Industries, Inc.: *See*—
Boldt, Melvin H. 184,300.

Oland, Marie C. Combined toothbrush, tooth paste tube and tumbler holder. 184,319, 1-27-59, Cl. D4—3.

Presto Lock Co.: *See*—
Gehrie, Charles S. 184,312.

Ronson Corp.: *See*—
Skinner, Alfred W. 184,321.

Rutledge, Bradley, and A. J. Kirth, to Crown Zellerbach Corp. Paper table napkin or similar article. 184,320, 1-27-59, Cl. D59—2.

Sampson, Rudolph A.: *See*—
Jennings, Webb C., Swartwood, and Sampson. 184,315.

Sanjo Utility Mfg. Co., Inc.: *See*—
Spielman, Albert. 184,323.

Skinner, Alfred W., to Ronson Corp. Table lighter or similar article. 184,321, 1-27-59, Cl. D48—27.

Slavic, Fred M. Display rack for greeting cards or similar article. 184,322, 1-27-59, Cl. D80—9.

Spielman, Albert, to Sanjo Utility Mfg. Co., Inc. Towel rack or similar article. 184,323, 1-27-59, Cl. D4—3.

Stahl, Gerald: *See*—
De Angelis, Angelo C., and Stahl. 184,306.

Standard Electronics Corp.: *See*—
De Angelis, Angelo C., and Stahl. 184,306.

Strasel, Raymond K., to Jacobsen Mfg. Co. Grass catcher for rotary mower. 184,324, 1-27-59, Cl. D40—1.

Swartwood, Ira T.: *See*—
Jennings, Webb C., Swartwood, and Sampson. 184,315.

Walsh, John C., and J. G. Arganbright, to Cherry-Burrell Corp. Ice cream freezer. 184,325, 1-27-59, Cl. D67—1.

Westinghouse Electric Corp.: *See*—
Husby, Donald E., and Izzi. 184,314.

Wormser, Robert S., to The Mexico Forge, Inc. Suspension trestle for playground swings. 184,326, 1-27-59, Cl. D34—5.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 27TH DAY OF JANUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

A. P. V. Co. Ltd., The: *See*—
Goodman, Hugh F. 2,871,036.
Abbott Laboratories: *See*—
Peterson, Merlin H. 2,871,164.
Abell, Frank. Method of obtaining evidence of traffic signal violations. 2,871,088, 1-27-59, Cl. 346—1.
Abell, George E. B.: *See*—
Price, Peter R. 2,871,012.
Acme Metal Molding Co.: *See*—
Beyrle, Thomas T. 2,870,493.
Adair, Paul F., to Jet Ignition Co., Inc. Spark gap electrode. 2,871,388, 1-27-59, Cl. 313—141.
Adams, Arthur, and R. Slack, to May & Baker Ltd. 5-amino-3-methyl-isothiazole and process. 2,871,243, 1-27-59, Cl. 260—306.8.
Adams, Crawford M., to General Electric Co. Noise reduction in transformers. 2,870,858, 1-27-59, Cl. 181—33.
Adams, William C., and A. D. Andersen. Display means. 2,870,915, 1-27-59, Cl. 211—1.5.
Adler, Orville E., to National-Standard Co. Brass plated rubber adherent steel wire. 2,870,526, 1-27-59, Cl. 29—183.5.
Agarwal, Jagdish C., to United States Steel Corp. Method of preparing self-fluxing synthetic iron scrap. 2,871,115, 1-27-59, Cl. 75—3.
Aikman, Oliver S., to Fansteel Metallurgical Corp. Electrolytic capacitor. 2,871,423, 1-27-59, Cl. 317—230.
Aikman, Oliver S., to Fansteel Metallurgical Corp. Electrolytic capacitor. 2,871,424, 1-27-59, Cl. 317—230.
Ainscough, Dennis: *See*—
Donaldson, William K., and Ainscough. 2,870,628.
Aircraft Armaments, Inc.: *See*—
Barr, Irwin R., Dowd, and Thompson. 2,870,711.
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Brixius, Jacob K., and Walton. 2,870,864.
Air Preheater Corp., The: *See*—
Woolard, Thomas L. 2,870,998.
Akt. Brown, Boveri & Cie.: *See*—
Bardorf, Oskar. 2,871,320.
Aktiebolaget Chematur: *See*—
Baecklund, Gunnar. 2,870,866.
Aktiebolaget Svenska Metallverken: *See*—
Granstrom, Olof A., and Hackzell. 2,870,920.
Aladdin Industries, Inc.: *See*—
Lyman, Harold T. 2,871,360.
Albee, Arthur C., and J. L. Pettus, to Radio Corp. of America. Sound film reproducer driving system. 2,870,975, 1-27-59, Cl. 242—55.12.
Alberda, Gerrit, to N. V. Nederlandsche Combinatie voor Chemische Industrie. Process for the extraction of alkali metal salts of vanillin or its higher homologues from alkaline process liquors. 2,871,270, 1-27-59, Cl. 260—600.
Albert, Edward J., to M. W. and F. Grum. Surface dressing applicator. 2,870,471, 1-27-59, Cl. 15—134.
Albiswerk Zuerich A. G.: *See*—
Portenier, Ernst, Spinnler, Bolay, and Riolo. 2,871,372.
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Dube, John E., and Schoen. 2,870,717.
Aldrich, Donald F., and W. E. Newell, to Westinghouse Electric Corp. Starter for a gaseous discharge device. 2,871,409, 1-27-59, Cl. 315—99.
Aldridge, Clyde L., and E. M. Charlet, to Esso Research and Engineering Co. Method for preparing emulsifying agents and emulsions prepared therefrom. 2,871,137, 1-27-59, Cl. 106—285.
Aldridge, Seth E. Fuel injection system. 2,870,759, 1-27-59, Cl. 123—140.
Allegheny Ludlum Steel Corp.: *See*—
Zaremski, Donald R. 2,871,175.
Allen, W. D., Mfg. Co.: *See*—
O'Brien, William P. 2,871,059.
Pokryfke, John A. 2,871,083.
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Bowden, William H. 2,870,458.
Allied Chemical Corp.: *See*—
Hyland, James W., Jr. 2,871,215.
Allis-Chalmers Mfg. Co.: *See*—
Getting, Milan P., Jr. 2,871,143.
Hansen, Harding B., Sedley, Stenersen, and Wiederkehr. 2,870,525.
Leliter, Chester P. 2,870,643.
Rockwell, Harvey W. 2,870,655.
Temple, Paul C. 2,870,553.
Allison, William D. Door lock. 2,870,620, 1-27-59, Cl. 70—135.
Allmanna Svenska Elektriska Aktiebolaget: *See*—
Ladell, Emil. 2,871,279.
Altemus, Daniel F., and R. A. Schneider, to Keasbey & Mattison Co. Pipe coupling. 2,871,031, 1-27-59, Cl. 285—18.
Alvarez Vazquez, Amable. Extractor for nails or the like. 2,870,988, 1-27-59, Cl. 254—22.
Amana Refrigeration, Inc.: *See*—
Giddings, Wayne A. 2,870,959.

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Lasek, Thaddeus A. 2,870,651.
American Brake Shoe Co.: *See*—
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American Cast Iron Pipe Co.: *See*—
Cooper, Jacob L., Daniel, Patton, and Vandergrift. 2,870,496.
American Cyanamid Co.: *See*—
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Cardaciotto, Paul S., and Vitalis. 2,871,158.
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Minieri, Pasquale P., and Ziegler. 2,871,264.
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Andersen, Alvin D.: *See*—
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Anderson, Frohman. Adjustable cam tracks. 2,870,652, 1-27-58, Cl. 74—568.
Anderson, Herbert R., Jr., to Phillips Petroleum Co. Natural and synthetic rubber compositions containing boron nitride and method for producing same. 2,871,216, 1-27-59, Cl. 260—41.5.
Anderson, Sidney E., to Deere & Co. Corn harvesting mechanism. 2,870,593, 1-27-59, Cl. 56—104.
Anderton, William J. Shaft seal with relatively rotatable radially containing sealing surfaces. 2,871,041, 1-27-59. Cl. 286—11.15
Andrews, Roland E., to United States of America, Atomic Energy Commission. Calutron assembling and disassembling apparatus. 2,871,361, 1-27-59, Cl. 250—41.9.
Andrews, Roland E., and J. Thornton, to United States of America, Atomic Energy Commission. Calutron assembling and disassembling means. 2,871,362, 1-27-59, Cl. 250—41.9.
Andrews, Roland E., to United States of America, Atomic Energy Commission. Calutron assembling and disassembling apparatus. 2,871,363, 1-27-59, Cl. 250—41.9.
Angst, Paul, and W. Rabald. Razor having an elastic reciprocating cutting means to cut long and short hair. 2,870,534, 1-27-59, Cl. 30—34.
Ankh Laboratories, Inc.: *See*—
Salisbury, Alvin B., Jr. 2,871,168.
Annis, Andrew J. Power plant. 2,871,435, 1-27-59, Cl. 322—13.
Anthony, Robert C., and R. J. Williams, to General Motors Corp. Hinge. 2,870,477, 1-27-59, Cl. 16—164.
Appell, Herbert R., to Universal Oil Products Co. Boron halide-alkali metal acid pyrophosphate complex and catalyst containing same. 2,871,198, 1-27-59, Cl. 252—433.
Apra Precipitator Corp.: *See*—
Valvo, Joseph F., and Hodson. 2,870,861.
Aquamatic Inc.: *See*—
Hull, Dean R., and Whitlock. 2,870,788.
Arisman, Mervin B., W. H. Budd, and A. M. Daily, to Chicago Telephone Supply Corp. High voltage variable resistor. 2,871,325, 1-27-59, Cl. 201—55.
Armour and Co.: *See*—
Martens, Henry F. 2,871,131.
Piotrowski, Lottie J., Rienks, and Grossnickle. 2,871,159.
Robbins, Kenneth C., and Grant. 2,871,165.
Armstrong Corp Co.: *See*—
Gard, George E. 2,870,543.
Gard, George E. 2,870,544.
Utica, Joseph J. 2,871,331.
Armstrong, Edwin H.: *See*—
Bose, John H. 2,871,292.
Armstrong, Esther M.: *See*—
Bose, John H. 2,871,292.

Armstrong, John P., and J. D. Hoffpauir. Coupling and steering apparatus for a single screw tug. 2,870,734, 1-27-59. Cl. 114—236.

Arnold, Lionel K.: *See*—
Sweeney, Orland R., Arnold, and Long. 2,871,207.

Arterbury, Bryant P., 33⅓%, to R. Arterbury. Jar operable upon release of vacuum. 2,870,992, 1-27-59. Cl. 255—27.

Arterbury, Roy: *See*—
Arterbury, Bryant P. 2,870,992.

Arxberger, William A.: *See*—
Renner, William E., and Arxberger. 2,870,614.

Ashby, George: *See*—
Zakrzewski, Andrew S., Ashby, Daskiewicz, and Moore. 2,870,805.

Ashkin, Arthur, and L. R. Walker, to Bell Telephone Laboratories, Inc. Modulated backward wave oscillator. 2,871,451. 1-27-59. Cl. 332—25.

Associated Box Corp.: *See*—
Dellinger, Daniel H., and McIlwraith. 2,870,981.

Aston, Earl F., to United States Steel Corp. Cutting tool for a trepan core. 2,870,838, 1-27-59, Cl. 164—60.

Atkinson, James T. N., to Her Majesty the Queen, in the right of Canada, as represented by the Minister of National Defense. Electro-plating of metals. 2,871,172, 1-27-59, Cl. 204—52.

Atkinson, James T. N., to Her Majesty the Queen, in the right of Canada, as represented by the Minister of National Defense. Method of electroplating copper on aluminum. 2,871,171, 1-27-59, Cl. 204—33.

Atlas Bolt & Co., The: *See*—
Bourassa, Hugues. 2,871,003.

Augustine, Frank, and A. D. Schwope, to Clevite Corp. Quartz crystal. 2,871,192, 1-27-59, Cl. 252—62.9.

Automatic Telephone & Electric Co. Ltd.: *See*—
Threadgold, Ronald. 2,870,963.

Autoscreen Mfg. Co. Ltd.: *See*—
Balmer, William. 2,870,703.

Avro Aircraft Ltd.: *See*—
Morrow, Elmore F. 2,870,310.

Babcock & Wilcox Co., The: *See*—
Langvand, Ivar L. 2,870,750.
Thelen, Josef. 2,870,880.

Bacon, Donald D., J. H. Scaff, and H. C. Theuerer, to Bell Telephone Laboratories, Inc. Treatment of semiconductive material. 2,871,111, 1-27-59, Cl. 41—42.

Bacon, Walter M., D. E. Branson, G. J. Knandel, and G. A. Locke, to Bell Telephone Laboratories, Inc. Message transmission system. 2,871,286, 1-27-59, Cl. 178—2.

Badische Anilin- & Soda-Fabrik Akt: *See*—
Bartholome, Ernst, Frey, Lehrer, and Lorenz. 2,870,867.
Pfitzner, Helmut, and Kaufmann. 2,871,233.
Ziese, Walter. 2,871,099.

Baeckland, Gunnar, to Aktiebolaget Chematur. Method of obtaining acetaldehyde. 2,870,866, 1-27-59, Cl. 183—115.

Baer, George A.: *See*—
Etes, Elmer G., and W. K. and G. A. Baer. 2,870,939.

Baer, William K.: *See*—
Etes, Elmer G., and W. K. and G. A. Baer. 2,870,939.

Baggett, Joseph M., and M. E. Pruitt, to The Dow Chemical Co. Solid polymers of epichlorohydrin. 2,871,219, 1-27-59, Cl. 260—45.95.

Baier, Othmar, to N S U Werke Akt., and F. Wankel. Mechanism for machining trochoidal rotors and counter-rotors. 2,870,578, 1-27-59, Cl. 51—90.

Bailey Meter Co.: *See*—
Hartman, Carl D. 2,871,107.
Shannon, Jack F., Barnard, and Schink. 2,870,729.

Bailey, Theodore L., to United States of America, Army. Double cap. 2,870,449, 1-27-59, Cl. 2—172.

Bailey, Theodore L., to United States of America, Army. Elastic front cap. 2,870,450, 1-27-59, Cl. 2—197.

Bailey, William R., to Gar Wood Industries. Supporting members. 2,870,793, 1-27-59, Cl. 138—78.

Bain, George W., to International Telephone and Telegraph Corp. Image multiplier. 2,871,369, 1-27-59, Cl. 250—213.

Bain, Joseph P., A. B. Booth, H. G. Hunt, and E. A. Klein, to The Glidden Co. Treatment of verbenyl ethers. 2,871,268, 1-27-59, Cl. 260—587.

Baker, Floyd A., to Westinghouse Electric Corp. Amplifier circuit. 2,871,441, 1-27-59, Cl. 323—89.

Baker, George W.: *See*—
Gabriel, Gustave O. 2,871,384.

Baker, John R.: *See*—
Conrad, Martin B., and Baker. 2,870,841.

Baker Oil Tools, Inc.: *See*—
Conrad, Martin B., and Baker. 2,870,841.

Baker, Stephen C. Ignition system. 2,871,413, 1-27-59, Cl. 315—224.

Baldridge, Walter M., and K. E. Davisson. Spreader unit for truck bodies. 2,871,021, 1-27-59, Cl. 275—6.

Ballet, Maurice H.: *See*—
Girouard, Phillas H., Schuyler, and Ballet. 2,870,678.

Ballweber Edward G.: *See*—
Molotsky, Hyman M., and Ballweber. 2,871,255.

Balmer, William, to Autoscreen Mfg. Co. Ltd. Screen printing machines. 2,870,703, 1-27-59, Cl. 101—126.

Balogh, Roy O., to McCabe-Powers Auto Body Co. Door latch. 2,871,048, 1-27-59, Cl. 292—173.

Bannister, Constance, and J. H. Hatcher. Nursing bottle assembly. 2,870,930, 1-27-59, Cl. 215—11.

Baranowski, Leslie B.: *See*—
Topol, George J., Baranowski, and Bartik. 2,870,859.

Barch, William E., and W. Neumann, to Standard Brands Inc. Cheese composition. 2,871,127, 1-27-59, Cl. 99—117.

Barden, Wayne A.: *See*—
Budd, Wilbert H., Christner, Barden, Kehres, and Daily. 2,871,328.

Bardorf, Oskar, to Aktiengesellschaft Brown, Boveri & Cie. Heavy duty switch with magnetic blasting. 2,871,320, 1-27-59, Cl. 200—146.

Barel, Cornelis, to Rudolf Blik. Electrische Apparaten-en Metaalwarenfabriek N. V. Rotary cleaning brush attachment for suction cleaning devices. 2,870,468, 1-27-59, Cl. 15—49.

Barnard, Clayton H.: *See*—
Shannon, Jack F., Barnard, and Schink. 2,870,729.

Barnard, Richard P., to General Motors Corp. Cigar lighter having retractable sleeve. 2,871,335, 1-27-59, Cl. 219—32.

Barnes Drill Co.: *See*—
Seborg, Earnest Y. 2,870,577.

Barnes Mfg. Co.: *See*—
Jordan, Richard H. 2,870,790.

Barnes, William E., to Sun Oil Co. Well sampling device. 2,870,844, 1-27-59, Cl. 166—165.

Barr, Erwin R., R. S. Dowd, and J. W. Thompson, to Aircraft Armaments, Inc. Projectile carrying vehicle. 2,870,711, 1-27-59. Cl. 102—50.

Barrett, Frank B. Dispensers for sanitary spoons and the like. 2,871,079, 1-27-59, Cl. 312—42.

Barrett, Gaylord P., deceased; M. J. Barrett, administratrix. Well pumping apparatus. 2,870,715, 1-27-59, Cl. 103—6.

Barrett, Mary J.: *See*—
Barrett, Gaylord P. 2,870,715.

Bartholome, Ernst, O. Frey, E. Lehrer, and L. Lorenz, to Badische Anilin- & Soda-Fabrik Akt. Separation of acetylene from gas mixtures. 2,870,867, 1-27-59, Cl. 183—115.

Bartik, Ivan: *See*—
Topol, George J., Baranowski, and Bartik. 2,870,859.

Bashover, Albert, to Margon Corp. Doll eye. 2,870,571, 1-27-59, Cl. 46—169.

Bauer, Clifford D., R. M. Marks, and E. A. Bernardoni, to The Borden Co. Calcium enriched milk. 2,871,123, 1-27-59, Cl. 99—54.

Bechler, André. Turret indexing mechanism for automatic lathe. 2,870,650, 1-27-59, Cl. 74—822.

Beckwith, Robert W., to General Electric Co. Method and apparatus for transmission of intelligence. 2,871,463, 1-27-59, Cl. 340—171.

Beebe, John N., to United States of America, Navy. Velocity measuring apparatus. 2,871,460, 1-27-59, Cl. 340—3.

Behm, Carl M., and M. and E. Bushi. Roller skate wheel. 2,871,061, 1-27-59. Cl. 301—5.3.

Behn, Eugene A., to The Dow Chemical Co. Production of acetylenic diols. 2,871,278, 1-27-59, Cl. 260—635.

Bell Aircraft Corp.: *See*—
Wells, Harold E., and Strickler. 2,870,791.

Bell, Charles R., E. S. Wassel, and M. J. Shoelson, to United States of America, Navy. Cartridge ram link. 2,870,682, 1-27-59, Cl. 89—35.

Bell Telephone Laboratories, Inc.: *See*—
Ashkin, Arthur, and Walker. 2,871,451.
Bacon, Donald D., Scaff, and Theuerer. 2,871,111.
Bacon, Walter M., Branson, Knandel, and Locke. 2,871,286.
Chruney, Michael. 2,871,398.
Cioffi, Paul P. 2,871,395.
Dickinson, Frank R. 2,871,283.
Frila, Harald T., and Sharpless. 2,871,353.
Howard, John B. 2,871,217.
Kretzmer, Ernest R. 2,871,376.
Turner, Dennis R. 2,871,174.

Bellmann, Bernard R., and E. Voris, to The Dayton Rubber Co. Adjustable pulleys. 2,870,641, 1-27-59 Cl. 74—230.17.

Bemis Bros. Bag Co.: *See*—
Brady, Charles V., and Ottinger. 2,870,955.

Bendix Aviation Corp.: *See*—
Blair, John W., and Cripe. 2,871,065.
Brook, James E. 2,871,431.
Price, Earl R. 2,871,064.
Rafferty, Christopher A. 2,871,436.

Benham, Frederick S., to Vandervell Products Ltd. Joining together of metal parts. 2,870,533, 1-27-59, Cl. 29—525.

Benson Co., Inc., The: *See*—
Benson, Haskell. 2,871,014.

Benson, Donald O., to Toro Mfg. Corp. Coupling for connecting rotary elements such as rotary mower blades with source of power. 2,870,616, 1-27-59, Cl. 64—27.

Benson, Haskell, to The Benson Co., Inc. Child's saddle stool. 2,871,014, 1-27-59 Cl. 272—1.

Benson, Ralph A., ½ to R. J. Novotny. Toy jet projectile. 2,870,570, 1-27-59, Cl. 46—86.

Benson, Richard E., to E. I. du Pont de Nemours and Co. Synthesis of alpha-methylene carboxylic acid esters from allene, carbon monoxide and an alcohol with iron or ruthenium carbonyl catalysts. 2,871,262, 1-27-59, Cl. 260—486.

Benson, Vaul: *See*—
Greene, Robert Z., Benson, and Spilman. 2,871,081.

Benyak, John B., to The Osborn Mfg. Co. Stock picker. 2,871,060, 1-27-59, Cl. 300—7.

Bergey, Taylor G. Drilling fluid method. 2,870,990, 1-27-59, Cl. 255—1.8.

Bergstrand, Harold A., to Strombeck-Becker Mfg. Co. Model airplane. 2,870,567, 1-27-59, Cl. 46—76.

Bergstrand, Harold A., to Strombeck-Becker Mfg. Co. Model airplane. 2,870,568, 1-27-59, Cl. 46—76.

Bergstrand, Harold A., to Strombeck-Becker Mfg. Co. Model airplane construction. 2,870,569, 1-27-59, Cl. 46—81.

Bergstrom, Herman A., to General Aniline & Film Corp. Anthraquinone azoic pigments. 2,871,234, 1-27-59, Cl. 260—162.

Berk, F. W., & Co. Ltd.: *See*—
Jones, William D. 2,870,485.

Bernad, Jacques J., A. Novion, and M. J. Lablache-Combier, to Societe Anonyme dite: Societe Auxiliaire de l'Entreprise "Auxen". Apparatus for stocking small logs and picking up same from a stock for loading vehicles. 2,870,925, 1-27-59, Cl. 214—147.

Bernardoni, Edwin A.: *See*—
Bauer, Clifford D., Marks, and Bernardoni. 2,871,123.
Bernyk, George S. Hose basket. 2,871,057, 1-27-59, Cl. 299—78.
Berry, Charles C., to James Lees and Sons Co. Offset blade pile wire for looms. 2,870,795, 1-27-59, Cl. 139—44.
Berry, John C. Package forming machine. 2,870,589, 1-27-59, Cl. 53—197.
Berry, Theodore M., to General Electric Co. Submerged object locating. 2,871,459, 1-27-59, Cl. 340—3.
Best, Stanley G., to United Aircraft Corp. Recirculating flow aircraft air conditioning system. 2,870,698, 1-27-59, Cl. 98—1.5.
Bewley, William L., and L. M. Dvoracek, to Union Oil Co. of California. Shale feeder. 2,871,170, 1-27-59, Cl. 202—93.
Beyrle, Thomas T., to Acme Metal Molding Co. Push bar for metal doors. 2,870,493, 1-27-59, Cl. 20—16.
Bielawski, Mitchell S., to Universal Oil Products Co. Manufacture of solid phosphoric acid catalysts. 2,871,199, 1-27-59, Cl. 252—435.
Bigelow-Liptak Corp.: *See*—
Sampson, Richard E. 2,870,624.
Bilaisis, Viktoras. Pneumatically operated control valve for hydraulic actuators. 2,870,789, 1-27-59, Cl. 137—622.
Binder, William O.: *See*—
Perkins, Roger A., and Binder. 2,871,118.
Birmingham, Bascom W., E. H. Brown, R. B. Scott, and P. C. Vander Arend, to United States of America, Atomic Energy Commission. Supporting and heat insulating means. 2,871,042, 1-27-59, Cl. 287—20.
Bjork, John C. H.: *See*—
Nilsson, Nils E., Rodnert, and Bjork. 2,871,299.
Black-Clawson Co., The: *See*—
Corbin, Wesley S., Pearson, and Walden. 2,870,690.
Jacobs, Robert J., and Persson. 2,870,738.
Wisner, Isle R., Corbin, and Walden. 2,870,691.
Wisner, Isle R., Corbin, and Walden. 2,870,692.
Blackmer, Suzanne K.: *See*—
Houghtelling, Ayres. 2,870,935.
Blair, John W., and M. L. Cripe, to Bendix Aviation Corp. Automatic braking device. 2,871,065, 1-27-59, Cl. 303—31.
Blair, Robert C., to The British Plaster Board Holdings Ltd. Manufacture of cellular structures. 2,870,694, 1-27-59, Cl. 93—37.
Blanchard, Thomas R., to American Cyanamid Co. Method of recovering thiocyanate solutions. 2,871,093, 1-27-59, Cl. 23—75.
Blik, Rudolf, Electrische Apparaten-en Metaalwarenfabriek N. V.: *See*—
Barel, Cornelis. 2,870,468.
Bloch, Alexander, to Consolidated Diesel Electric Corp. Liquid filter structure. 2,870,914, 1-27-59, Cl. 210—453.
Bloch, Herman S.: *See*—
Hervert, George L., and Bloch. 2,871,096.
Hervert, George L., and Bloch. 2,871,095.
Block, Herman H. Riding toy. 2,871,015, 1-27-59, Cl. 272—1.
Bloomer Bros. Co.: *See*—
Inman, William H. 2,870,950.
Blosser, Denzil M. Car tent. 2,870,774, 1-27-59, Cl. 135—7.1.
Bock, George E., and J. H. Spence, to Pullman-Standard Car Mfg. Co. Railway car side wall. 2,870,723, 1-27-59, Cl. 105—401.
Bodendieck Tool Co.: *See*—
Tipsord, Clyde E., and Turner. 2,871,282.
Boeing Airplane Co.: *See*—
Clayton, Arthur J. 2,870,936.
Boelter, Edwin D., Jr., to E. I. du Pont de Nemours and Co. Electroformed articles and process for their manufacture. 2,870,709, 1-27-59, Cl. 102—24.
Bolay, Errol: *See*—
Portenier, Ernst, Spinnler, Bolay, and Riolo. 2,871,372.
Boldrini, Rino. Machine for curving and bending metallic sheets of different thickness. 2,870,817, 1-27-59, Cl. 153—54.
Bonnafe, Oliver W., to The Lapointe Machine Tool Co. Bi-level broaching machine. 2,870,688, 1-27-59, Cl. 90—33.
Bonnafoux, Paul. Rotary pellet mill. 2,870,481, 1-27-59, Cl. 18—12.
Bonnar, James G.: *See*—
Crow, Clarence C., and Bonnar. 2,871,301.
Bonnet, Paul: *See*—
Cahen, Gilbert M., Bonnet, and Treille. 2,871,365.
Booth, Albert B.: *See*—
Bain, Joseph P., Booth, Hunt, and Klein. 2,871,268.
Booth, Albert B., to The Glidden Co. Preparation of tertiary aliphatic terpene alcohols. 2,871,271, 1-27-59, Cl. 260-614.
Booth, Ralph M. Bucket support for attachment to step-ladders. 2,870,983, 1-27-59, Cl. 248—210.
Borbé, Erich. Hoop iron clamping member. 2,870,504, 1-27-59, Cl. 24—23.
Borden Co., The: *See*—
Bauer, Clifford D., Marks, and Bernardoni. 2,871,123.
Borg-Warner Corp.: *See*—
Palm, James W. 2,870,893.
Bortnick, Newman M., to Rohm & Haas Co. Method for preparing polypeptides. 2,871,225, 1-27-59, Cl. 260—77.5.
Bose, John H., to E. M. Armstrong, executrix of the estate of E. H. Armstrong. Noise reduction in phase shift modulation. 2,871,292, 1-27-59, Cl. 179—15.
Blesner, Josef. Mobile form for the concrete moulding of barrel vaults, tunnels, galleries, or shafts. 2,870,518, 1-27-59, Cl. 25—131.6.
Boston, Edward D.: *See*—
Smith, Brook L., Boston, and Herrmann. 2,871,183.
Bottoms, Robert R., to Chemetron Corp. Racemization of optically active menthol. 2,871,272, 1-27-59, Cl. 260—631.
Bourassa, Hugues, to The Atlas Bolt & Screw Co. Scale totaliser. 2,871,005, 1-27-59, Cl. 265—28.
Bouvier, George A., to North American Aviation, Inc. Electromechanical actuator. 2,871,382, 1-27-59, Cl. 310—82.
Bowden, William H., to Alliance Ware, Inc. Basin installation. 2,870,458, 1-27-59, Cl. 4—187.
Bowen, Edward K.: *See*—
Johnson, Lloyd A., and Bowen. 2,871,037.
Bowen, Max E. Pressurized douche applicator. 2,870,767, 1-27-59, Cl. 128—224.
Bowman, Karl R.: *See*—
Rada, Frank J., and Bowman. 2,870,902.
Bowser, Inc.: *See*—
Topol, George J., Baranowski, and Bartik. 2,870,859.
Bradley, William E., to Philco Corp. Signal shaping system. 2,871,453, 1-27-59, Cl. 333—20.
Brady, Charles V., and A. F. Ottinger, to Bemis Bros. Bag Co. Bag. 2,870,955, 1-27-59, Cl. 229—66.
Bramhall, George H., to General Electric Co. Coupling. 2,870,863, 1-27-59, Cl. 183—43.
Branham, Martin. Block manufacturing machine. 2,870,512, 1-27-59, Cl. 25—1.
Branson, David E.: *See*—
Bacon, Walter M., Branson, Knandel, and Locke. 2,871,286.
Breelle, Yves L. G., to Institut Francais du Petrole, des Carburants et Lubrifiants. Rotary engines. 2,870,752, 1-27-59, Cl. 123—13.
Brennan, Helen E.: *See*
Brennan, Joseph B. 2,870,689.
Brennan, Joseph B., deceased, H. E. Brennan, executrix. Method of producing strip material. 2,870,689, 1-27-59, Cl. 92—41.
Brenneke, Arthur M., to Perfect Circle Corp. Piston ring assembly. 2,871,071, 1-27-59, Cl. 309—30.
Briggs, Raymond W., II: *See*—
Hutchinson, James O., and Briggs. 2,871,348.
Briggs & Stratton Corp.: *See*—
Harkness, Joseph R. 2,871,280.
British Dielectric Research Ltd.: *See*—
Shen, Tzu E. 2,871,428.
British Plaster Board Holdings Ltd., The: *See*—
Blair, Robert C. 2,870,694.
British Thomson-Houston Co. Ltd., The: *See*—
Dunsmuir, Robert. 2,871,396.
Dunsmuir, Robert. 2,871,406.
Brixius, Jacob K., and G. M. Walton, to Air-Maze Corp. Automatic self-cleaning filter. 2,870,884, 1-27-59, Cl. 183—52.
Broad, Charles S., to Gallay Ltd., and C. T. Delaney. Joining of cuprous metals and alloys. 2,871,338, 1-27-59, Cl. 219—117.
Broady, Stephen N., to United States of America, Navy. Pulse circuit. 2,871,352, 1-27-59, Cl. 250—27.
Brockbank, Lucus T. Automatic valve and switch for fuel burners. 2,870,827, 1-27-59, Cl. 158—42.4.
Brockman, Arthur C. Semi-trailer structure and tractor and semi-trailer combination. 2,871,027, 1-27-59, Cl. 280—425.
Brodsky, Elaine. All-weather rain hat. 2,870,451, 1-27-59, Cl. 2—202.
Brogdon, James W. Stand-on platform for a ladder. 2,871,087, 1-27-59, Cl. 304—31.5.
Brook, James E., to Bendix Aviation Corp. Servosystem with preamplifier. 2,871,431, 1-27-59, Cl. 318—30.
Brosh, Amnon, to Tele-Dynamics Inc. Variable time delay circuit. 2,871,419, 1-27-59, Cl. 317—142.
Brown, Charles R., to United States of America, Navy. Variable ejector for iris nozzles. 2,870,600, 1-27-59, Cl. 60—35.6.
Brown, Edmund H.: *See*—
Birmingham, Bascom W., Brown, Scott, and Vander Arend. 2,871,042.
Brown, Julius L., E. F. Shelley, and T. K. Steele, to United States of America, Army. Fuse for use on rotating artillery ammunition. 2,870,712, 1-27-59, Cl. 102—70.2.
Brueckenbau Flender G. m. b. H.: *See*—
Wehner, Albert. 2,870,910.
Brukner, John S., to The Texas Co. Drilling fluid. 2,871,189, 1-27-59, Cl. 252—8.5.
Brunberg, Gunnar K., and A. K. Dietsch, to Telefonaktiebolaget L M Ericsson. Electric thermocontact. 2,871,307, 1-27-59, Cl. 179—184.
Bruno, Anthony I. Salvage pontoon. 2,870,730, 1-27-59, Cl. 114—54.
Brush, Walton E.: *See*
Fraser, William M., and Brush. 2,871,150.
Bryant, Edwin F., to Sunkist Growers, Inc. Polyuronic acid choline-metal salts. 2,871,236, 1-27-59, Cl. 260—209.
Buchner, Karl, and H. Schwarz, to Ruhrchemie Akt. Working up of distillation fractions containing alcohols and hydrocarbons. 2,871,240, 1-27-59, Cl. 260—413.
Buckbee, John A., and V. V. Terzian, to Raytheon Mfg. Co. Scan register single gun control systems. 2,871,403, 1-27-59, Cl. 315—21.
Buckels, Christopher C. Electrical connection boxes. 2,870,931, 1-27-59, Cl. 220—3.6.
Buczkowski, Frank E. Radius and ellipse dresser for grinding wheels. 2,870,761, 1-27-59, Cl. 125—11.
Budd, Wilbert H.: *See*—
Arisman, Mervin B., Budd, and Daily. 2,871,325.
Budd, Wilbert H., to Chicago Telephone Supply Corp. Multiple variable resistance control with common snap-in mounting. 2,871,324, 1-27-59, Cl. 201—55.
Budd, Wilbert H., H. F. Christner, Jr., W. A. Barden, J. L. Kehres, and A. M Daily, to Chicago Telephone Supply Corp. Preset type variable resistor. 2,871,328, 1-27-59, Cl. 201—62.

Buntenbach, Rudolph W., to United States of America, Atomic Energy Commission. High-speed multiple-exposure photographic apparatus. 2,871,400, 1-27-59, Cl. 315—10.
Burg, Fred G. Machine tool having a turret head. 2,870,659, 1-27-59, Cl. 77—25.
Burke, Donald J., to Erico Products, Inc. Exothermic reaction mixture and method of cast welding a copper base alloy utilizing same. 2,870,499, 1-27-59, Cl. 22—205.
Burnham, John, to Fansteel Metallurgical Corp. Capacitor. 2,871,425, 1-27-59, Cl. 317—230.
Burton, Donald, R. Reed, and F. O. Flint. Process for the treatment of hides and skins with mucolytic enzymes. 2,871,161, 1-27-59, Cl. 195—8.
Bushi, Michael: *See*—
Behm, Carl M., and M. and S. Bushi. 2,871,061.
Bushi, Steve: *See*—
Behm, Carl M., and M. and S. Bushi. 2,871,061.
Busignies, Henri G., to International Telephone and Telegraph Corp. Long distance communication system. 2,871,344, 1-27-59, Cl. 250—15.
Busignies, Henri G., to International Telephone and Telegraph Corp. Direction finder. 2,871,476, 1-27-59, Cl. 343—120.
Byrnes, James H., to Westcak Machine Corp. Equipment for oiling metal surfaces. 2,870,737, 1-27-59, Cl. 118—227.
Cadle, Richard D., and R. W. Moshier. Aromatic amine aldehyde perchlorate resins. 2,871,224, 1-27-59, Cl. 260—72.5.
Cahen, Gilbert M., P. Bonnet, and P. Treille, to Etat Francais, represented by Secretariat d'Etat à la Defense Nationale et aux Forces Armées (Direction des Etudes et Fabrications d'Armement). Apparatus for detecting radioactivity. 2,871,365, 1-27-59, Cl. 250—83.6.
California Institute Research Foundation: *See*—
Petracek, Francis J., and Zechmeister. 2,871,267.
California Research Corp.: *See*—
Meneley, William K. 2,870,716.
Calumet & Hecla, Inc.: *See*—
Greene, Raymond H. 2,870,816.
Campbell, Albert B., to Campbell Products Co. Dispensing assembly. 2,870,944, 1-27-59, Cl. 222—509.
Campbell Products Co.: *See*—
Campbell, Albert B. 2,870,944.
Campbell, Sylvester J.: *See*—
Fox, Edgar C., Jr., Helmick, and Campbell. 2,871,430.
Cantor, Theodore: *See*—
Rednitz, Alexander, Goodman, and Cantor. 2,871,098.
Cardaciotto, Paul S., and E. A. Vitalis, to American Cyanamid Co. Laxative powders containing di-2-octyl sulfosuccinates. 2,871,137, 1-27-59, Cl. 167—56.
Cardaciotto, Paul S., and E. A. Vitalis, to American Cyanamid Co. Laxative syrups containing di-2-octyl sulfosuccinate salts. 2,871,158, 1-27-59, Cl. 167—56.
Carico, Vincent A., 50% to G. H. Loeb, Jr. Combination storage and dispensing device for wound material. 2,871,078, 1-27-59, Cl. 312—39.
Carlson, Bernard E., and A. D. Nathan, to E. & J. Mfg. Co. Anesthetic gas machine. 2,870,764, 1-27-59, Cl. 128—188.
Carlson, Emil, to Pioneer Specialty Co. Driving mechanism for retractable antennae. 2,870,973, 1-27-59, Cl. 242—54.
Carlson, John A.: *See*—
Larson, Harry I. 2,870,991.
Carney Co., Inc., The: *See*—
Duane, William C. 2,870,839.
Carrier Corp.: *See*—
Leonard, Louis H., Jr. 2,870,613.
Renner, William E., and Arzberger. 2,870,614.
Carter, Daniel H., and R. H. Huddleston, Jr., to Welex, Inc. Well fluids resistivity measurement apparatus. 2,871,445, 1-27-59, Cl. 324—30.
Casey, Robert F., to Allen B. Du Mont Laboratories, Inc. Delay sweep circuit. 2,871,350, 1-27-59, Cl. 250—27.
Castellano, Eugene N., to The Seymour Mfg. Co. Method of making ductile copper platings. 2,871,173, 1-27-59, Cl. 204—52.
Cattaro, Matthew A.: *See*—
Neubrech, David A., and Cattaro. 2,871,370.
Celanese Corp. of America: *See*—
Martin, Alfred W. 2,871,169.
Celotex Corp., The: *See*—
Goldstein, Eugene E. 2,870,857.
Loechl, Clarence J. 2,871,134.
Chabala, Leonard V., and G. A. Rusnak, to Westinghouse Electric Corp. Fuse device. 2,871,313, 1-27-59, Cl. 200—113.
Chabala, Leonard V., to Westinghouse Electric Corp. Switches and circuit interrupters. 2,871,415, 1-27-59, Cl. 317—35.
Charlet, Elphege M.: *See*—
Aldridge, Clyde L., and Charlet. 2,871,137.
Chase-Shawmut Co., The: *See*—
Swain, Kenneth W., Kozacka, and Saiser. 2,871,314.
Chausson, André, to Societe Anonyme des Usines Chausson. Automatic machine for drilling series of holes in various parts. 2,870,660, 1-27-59, Cl. 77—32.2.
Chedister, Conkling. Driver training and testing equipment. 2,870,548, 1-27-59, Cl. 35—11.
Chemetron Corp.: *See*—
Bottoms, Robert R. 2,871,272.
Chervenka, George R., to Fred Medart Mfg. Co. Seating structures. 2,870,492, 1-27-59, Cl. 20—1.126.
Chiavetta, Frank P.: *See*—
Mankowich, Ivan, Steinle, and Chiavetta. 2,871,205.
Mankowich, Ivan, Steinle, and Chiavetta. 2,871,206.
Chicago Telephone Supply Corp.: *See*—
Arisman, Mervin B., Budd, and Daily. 2,871,325.
Budd, Wilbert H. 2,871,324.
Budd, Wilbert H., Christner, Barden, Kehres, and Daily. 2,871,328.
Chisholm, Boyd & White Co.: *See*—
Ebersole, Robert A. 2,870,514.
Christenson, Roger M., and L. O. Cummings, to Pittsburgh Plate Glass Co. Oil soluble butenylphenol formaldehyde resins. 2,871,208, 1-27-59, Cl. 260—19.
Christner, Howard F., Jr.: *See*—
Budd, Wilbert H., Christner, Barden, Kehres, and Daily. 2,871,328.
Chruney, Michael, to Bell Telephone Laboratories, Inc. Barrier grid storage tube charge pattern regeneration. 2,871,398, 1-27-59, Cl. 315—8.5.
Ciba Pharmaceutical Products Inc.: *See*—
Wettstein, Albert, Vischer, Meystre, and Ehmann. 2,871,245.
Cioffi, Paul P., to Bell Telephone Laboratories, Inc. Magnetic structures for traveling wave tubes. 2,871,393, 1-27-59, Cl. 315—3.5.
Cisco, Inc.: *See*—
Rosenthal, Joseph S. 2,870,448.
Cissell, W. M., Mfg. Co.: *See*—
Richterkessing, Frank H. 2,870,545.
Clark, Alvin F., Jr. Machine for compressing and rolling bedding springs. 2,870,974, 1-27-59, Cl. 242—55.
Clark, Jorge L. D., ¼ to R. G. Mentag. Parking device for automobiles. 2,870,851, 1-27-59, Cl. 180—1.
Clark, Louis F. Recovering metal values from sulfur containing ores. 2,871,116, 1-27-59, Cl. 75—108.
Clayton, Arthur J., to Boeing Airplane Co. Closed system for venting and inerting aircraft fuel tanks. 2,870,936, 1-27-59, Cl. 220—88.
Clayton Mfg. Co.: *See*—
Cline, Edwin L. 2,870,875.
Clevite Corp.: *See*—
Augustine, Frank, and Schwope. 2,871,192.
Cline, Edwin L., to Clayton Mfg. Co. Hydro-kinetic brake device. 2,870,875, 1-27-59, Cl. 188—90.
Clower, James G.: *See*—
Parker, James S. 2,870,576.
Club Razor Blade Mfg. Co.: *See*—
Holohan, Bartholomew A. 2,870,905.
Cobb, Leland D., to General Motors Corp. One-way clutch. 2,870,890, 1-27-59, Cl. 192—45.1.
Cockburn, Stanley D., J. D. Leslie, B. D. Priestman, and L. B. Ragsdale, to General Motors Corp. Rotary gear bolt door latch. 2,871,049, 1-27-59, Cl. 292—280.
Cohen, Tobias. Automatic transporting-guiding device for sewing machines. 2,870,725, 1-27-59, Cl. 112—211.
Colby, Richard H., to United States of America, Army. Cartridge positioner. 2,870,561, 1-27-59, Cl. 42—18.
Cole, Frank E., to United Shoe Machinery Corp. Automatic jack supporting and actuating mechanism. 2,870,466, 1-27-59, Cl. 12—17.2.
Cole, Howard W., Jr., and D. L. Olson. Two-way automatic locking actuators. 2,870,887, 1-27-59, Cl. 192—8.
Cole, Samuel F. Hair curlers. 2,870,772, 1-27-59, Cl. 132—41.
Coles, Robert F., and V. Tulagin, to General Aniline & Film Corp. Azine cyan color formers. 2,871,120, 1-27-59, Cl. 96—55.
Colgate-Palmolive Co.: *See*—
Henkin, Hyman. 2,871,193.
Collins, Clifford B., to General Electric Co. Silicon current controlling devices. 2,871,330, 1-27-59, Cl. 201—63.
Collins, Richard V., to United States of America, Army. Flash suppresser. 2,870,679, 1-27-59, Cl. 89—14.
Combs, Raymond M., to The Joclin Mfg. Co. Liners for hose clamps. 2,870,501, 1-27-59, Cl. 24—16.
Comery, Peter D., to Oremda Engines Ltd. Labyrinth seals. 2,871,038, 1-27-59, Cl. 286—10.
Comstock, George E., 3d, to Norton Co. Electrolytic grinding apparatus. 2,871,177, 1-27-59, Cl. 204—218.
Comyns-Carr, Cecil A., to Rolls-Royce Ltd. Closed cycle gas turbine power plant. 2,870,606, 1-27-59, Cl. 60—59.
Connick, Robert E.: *See*—
Gofman, John W., Connick, and Wahl. 2,871,251.
Connoy, Eugene N., to Continental Machines, Inc. Magnetizing and demagnetizing apparatus. 2,871,417, 1-27-59, Cl. 317—123.
Conrad, Earl W., to United States of America, Navy. Flame stabilizer for high velocity gas streams. 2,870,604, 1-27-59, Cl. 60—39.72.
Conrad, Martin B., and J. R. Baker, to Baker Oil Tools, Inc. Apparatus for operating subsurface well devices. 2,870,841, 1-27-59, Cl. 166—63.
Consolidated Diesel Electric Corp.: *See*—
Bloch, Alexander. 2,870,914.
Consolidation Coal Co.: *See*—
Gorin, Everett. 2,871,004.
Kulik, Metro D. 2,871,181.
Consortium de Produits Chimiques et de Synthese: *See*—
Passedouet, Andre H. 2,871,091.
Continental Machines, Inc.: *See*—
Connoy, Eugene N. 2,871,417.
Continental Oil Co.: *See*—
Wann, Laymond D. 2,871,446.
Controls Co. of America: *See*—
McCarty, Lourdes V. 2,870,778.
Cook Chemical Co.: *See*—
Scoggin, Baxter L., Jr. 2,870,943.
Cook Electric Co.: *See*—
Thomlaser, Hubert J. 2,870,779.
Cook, James C. Display device. 2,870,557, 1-27-59, Cl. 40—39.
Cook, Milton V. Exerciser and amusement device. 2,871,017, 1-27-59, Cl. 272—79.
Cooper, Cleveland N., and A. I. Frederick, to The Pandjiris Weldment Co. Welding apparatus. 2,871,334, 1-27-59, Cl. 219—130.
Cooper, Jacob L., K. R. Daniel, J. O. Patton, Jr., and E. Vandergrift, Jr., to American Cast Iron Pipe Co. Apparatus for stripping tubular castings from molds and cleaning the castings. 2,870,496, 1-27-59, Cl. 22—65.

Copen, Edward H. Method of making a multi-card carrier. 2,871,153, 1–27–59. Cl. 154—116.
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Wisner, Isle R., Corbin and Walden. 2,870,691.
Corbin Wesley S. : *See*—
Wisner, Isle R., Corbin, and Walden. 2,870,692.
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Cornell-Dubilier Electric Corp. : *See*—
Steinbarge, Wayne L. 2,871,416.
Correc, Henri, to Societe des Forges et Ateliers du Creusot. Device for the control of the breech of a double-barrelled gun. 2,870,680, 1–27–59, Cl. 89—17.
Coultas, Wilbur J., to Deere & Co. Hitch for series-connected implements. 2,870,852, 1–27–59, Cl. 180—14.
Courtaulds Ltd. : *See*—
Eidlow, Alan J., Markowicz, and Morgan. 2,870,595.
Cowan, Tyson G., to R. M. Magnuson, deceased ; G. I. Magnuson, executrix. Control circuit for filling of containers. 2,870,585, 1–27–59. Cl. 53—59.
Cox, Bonnar, J. Goldberg, and W. H. Kauts, to General Electric Co. Error-checking system. 2,871,289, 1–27–59, Cl. 178—23.
Craine, James F. Intelligence testing apparatus. 2,870,549, 1–27–59, Cl. 35—22.
Crake, Wilfred S. : *See*—
Siebenhausen, Christian H., Jr., and Crake. 2,870,609.
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Payne, Frank E. 2,871,039.
Payne, Frank E. 2,871,040.
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Smith, Graydon. 2,870,705.
Cravens, Benjamin B. Column construction and adjustment for a radial saw. 2,870,801, 1–27–59, Cl. 143—6.
Creutz, Edward C., to United States of America, Atomic Energy Commission. Forming tubes and rods of uranium metal by extrusion. 2,870,907, 1–27–59, Cl. 207—10.
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Crow, Clarence C., and J. G. Bonnar, to North Electric Co. Automatic telephone system. 2,871,301, 1–27–59, Cl. 179—27.
Crowley, Edgar I., N. W. Franke, and T. P. Joyce, Jr., to Gulf Research & Development Co. Safety device. 2,871,106, 1–27–59, Cl. 23—260.
Crown Cork & Seal Co., Inc. : *See*—
Wilckens, Eibe A., Rainer, and Redding. 2,870,479.
Csendes, Ernest, to E. I. du Pont de Nemours and Co. Chromic salts of o-alkoxy-o'-hydroxy monoazo compounds. 2,871,232, 1–27–59, Cl. 260—147.
Cummings, Lowell O. : *See*—
Christenson, Roger M., and Cummings. 2,871,208.
Curlett, John : *See*—
Gurries, Raymond A., and Curlett. 2,870,555.
Currivan, John F. Cartons. 2,870,949, 1–27–59, Cl. 229—14.
Curry, Neil. Sub-miniature polar relay. 2,871,312, 1–27–59, Cl. 200—93.
Cutter Laboratories, Inc. : *See*—
Hidalgo, John, Williams, and Halverstadt. 2,871,258.
Dahlman, Per O., to North Electric Co. Automatic telephone system. 2,871,418, 1–27–59, Cl. 317—140.
Daily, Arthur M. : *See*—
Arisman, Mervin B., Budd, and Daily. 2,871,323.
Budd, Wilbert H., Christner, Barden, Kehres, and Daily. 2,871,328.
Daimler-Benz Akt. : *See*—
Stump, Eugen, and Siegel. 2,870,650.
Dales, George F. Thermostat and method of making. 2,871,315, 1–27–59. Cl. 200—138.
Daly, Thomas A. : *See*—
Radkowski, Leo, Daly, and Eikel. 2,870,676.
D'Amico, John J., to Monsanto Chemical Co. 2-(2,6-dimethyl-4-morpholinylmercapto)-benzothiazoles. 2,871,239, 1–27–59, Cl. 260—247.1.
Daniel, Kenneth R. : *See*—
Cooper, Jacob L., Daniel, Patton, and Vandergrift. 2,870,496.
Dann, Morris, and J. J. Peterson, to American Home Products Corp. Cartridge for metering syringe. 2,870,766, 1–27–59, Cl. 128—218.1.
Da Riva, Antonio. Telephone intercommunication system having means for interconnecting any two stations. 2,871,303, 1–27–59. Cl. 179—39.
Daskiewicz, Zbigniew : *See*—
Zakrzewski, Andrew S., Ashby, Daskiewicz, and Moore. 2,870,805.
Dauberman, William H., and F. A. Woodbury, to Westinghouse Electric Corp. Selective polarity system for field application of synchronous motors. 2,871,434, 1–27–59, Cl. 318—175.
Dansch, Erwin, to S. K. F. Kugellagerfabriken, G. m. b. H. Textile drawing mechanisms. 2,870,487, 1–27–59, Cl. 19—134.
Davis, Peter J. Minnow and tackle container. 2,870,932, 1–27–59. Cl. 220—23.
Davis, Ralph A. : *See*—
Ruh, Robert P., and Davis. 2,871,274.
Davisson, Kenneth R. : *See*—
Baldridge, Walter M., and Davisson. 2,871,021.
Dawson, Max E. : *See*—
Lanier, Lewis H., Sr., and L. H., Jr., and Dawson. 2,870,588.
Dayton, Ernest L. Hydraulic valve tappet. 2,870,755, 1–27–59. Cl. 123—90.
Dayton, Ernest L. Hydraulic valve tappet. 2,870,756, 1–27–59. Cl. 123—90.
Dayton, Ernest L. Hydraulic valve tappet. 2,870,757, 1–27–59, Cl. 123—90.
Dayton Rubber Co., The : *See*—
Bellmann, Bernard R., and Voris. 2,870,641.
Freedlander, Abraham L. 2,870,490.
Rockoff, Joseph. 2,870,489.
Dearborn, Elizabeth C. : *See*—
Shepherd, Ridgley G., Jr., and Dearborn. 2,871,221.
Deaton, Charles U. Light-ray baffle construction. 2,870,883, 1–27–59, Cl. 189—82.
De Bruyne, Willem A. Cigarette rolling machine. 2,870,770, 1–27–59. Cl. 131—37.
Decker, Elmer L. : *See*—
Willis, Robert S. 2,870,629.
Decker, Lambert. Toy earth satellite. 2,870,530, 1–27–59, Cl. 35—46.
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Anderson, Sidney E. 2,870,593.
Coultas, Wilbur J. 2,870,852.
Paul, Talbert W. 2,870,940.
Youngberg, Charles H., and Oehler. 2,870,849.
De Grazia, Joseph, to United States of America, Army. Garment hood. 2,870,452, 1–27–59. Cl. 2—203.
Deitrickson, Roy H., to The National Supply Co. Control valve for fluid operated engines for down well pumps. 2,870,749, 1–27–59, Cl. 121—130.
De Jilovice, Vladimir J. H. Process for obtaining polysaccharide material from plants of the genus "cecropia." 2,871,235, 1–27–59, Cl. 260—209.
De Lacy, Joseph H. Camera shutter. 2,870,697, 1–27–59, Cl. 95—61.
Delaney, Cyril T. : *See*—
Broad, Charles S. 2,871,338.
Dellinger, Daniel H., and J. W. McIlwraith, to Associated Box Corp. Platform. 2,870,981, 1–27–59, Cl. 248—120.
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Suderow, George E. 2,870,639.
Delphi Products Co., Inc. : *See*—
Haggard, John M., and McMurray. 2,870,928.
De Luxe Girdlecraft Co., Inc. : *See*—
Scheinberg, Morris M. 2,870,769.
Demarest, Frank. Coupling for tractor and trailer vehicles. 2,871,029, 1–27–59. Cl. 280—477.
Demetriades, Anthony, to Lear, Inc. Automatic diffuser control for air-breathing engines. 2,870,601, 1–27–59, Cl. 60—35.6.
De Mott, Alfred E., to General Electric Co. Toaster. 2,870,701, 1–27–59, Cl. 99—391.
Dempsey, Joseph B., to Pattin Mfg. Co., Inc. Mine roof bolt with abutting shoulder preventing over-expansion. 2,870,666, 1–27–59, Cl. 85—2.4.
Den Herder, Marvin J. : *See*—
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Derham, Leslie J., and J. W. Haywood, to The Metallurgical Processes Ltd. and National Smelting Co. Ltd., doing business as Metallurgical Development Co. Condenser for condensing metal vapours. 2,871,007, 1–27–59. Cl. 266—15.
Desch, Joseph B., to The National Cash Register Co. Electronic counter. 2,871,406, 1–27–59, Cl. 315—84.5.
Desvignes, Francois, to Laboratoires d'Electroniques et de Physique Appliquees. Radiation-producing device. 2,870,320, 1–27–59, Cl. 29—25.17.
Dethlefsen, Borghild H. Combined rotary soil cultivator and branch crusher. 2,870,850, 1–27–59, Cl. 172—554.
De Val, Eugene J., to Westinghouse Electric Corp. Lightning arrester. 2,871,390, 1–27–59, Cl. 313—231.
Dhonau, Herman B. C., and S. E. Nelson, to General Motors Corp. Air intake control apparatus. 2,870,956, 1–27–59. Cl. 230—114.
Diack, Arthur G. Drawer slide. 2,871,065, 1–27–59, Cl. 312—339.
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Goss, Norman P. 2,871,140.
Knapp, Bernard L. 2,871,108
Leduc, Joseph A. M. 2,870,903.
Diamond Gardner Corp. : *See*—
Ringler, William A. 2,870 952.
Struble, Glenn E. 2,870,951.
Dickinson, Frank R., to Bell Telephone Laboratories, Inc. Cable termination. 2,871,283, 1–27–59, Cl. 174—50.52.
Dickinson, Oral W. Door push bar. 2,871,050, 1–27–59, Cl. 292—336.3.
Dickinson, Robert C., to Westinghouse Electric Corp. Circuit interrupter. 2,871,319, 1–27–59, Cl. 200—144.
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Brunberg, Gunnar K., and Dietsch. 2,871,307.
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Dilling, Elmer D., to Titanium Metals Corp. of America. Electrode sealing and power connection apparatus. 2,871,178, 1–27–59. Cl. 204—246.
Dillingham, Frederick L., to Soderhamn Machine Mfg. Co. Means for moving elongated objects transversely of the line of travel thereof. 2,870,890, 1–27–59, Cl. 198—25.
Distillers Co. Ltd., The : *See*—
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Doban, Robert C., to E. I. du Pont de Nemours and Co. Method for the preparation of cementable fluorocarbon polymer surfaces. 2,871,144. 1–27–59, Cl. 117—138.8.
Dollacheck, Charles W., to Philco Corp. Remote control for a signal transfer channel employing feedback means. 2,871,304, 1–27–59, Cl. 179—171.
Dome, Robert B., to General Electric Co. Saw-tooth wave generator. 2,871 357, 1–27–59, Cl. 250—36.
Donaldson, William K., and D. Ainscough to Tootal Broadhurst Lee Co. Ltd. Control of gaseous media in manufacturing processes. 2,870,628, 1–27–59, Cl. 72—29.
Dorr-Oliver Inc. : *See*—
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Doumani, Thomas F., to Union Oil Co. of California. Hydrocarbon conversion catalysts. 2,871,200, 1-27-59, Cl. 252—440.
Doumani, Thomas F., to Union Oil Co. of California. Hydrocarbon conversion catalysts. 2,871,201, 1-27-59, Cl. 252—440.
Dow Chemical Co., The: *See*—
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Hymas, Theo A. 2,871,156.
Ivins, Owen D., and Head. 2,871,250.
Lorette, Nicholas B. 2,871,269.
Ruh, Robert P., and Davis. 2,871,274.
Dow, Gordon M. Co-axial switch connector. 2,871,821, 1-27-59, Cl. 200—153.
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Draley, Joseph E., and W. E. Ruther, to United States of America, Atomic Energy Commission. Nuclear reactor component cladding material. 2,871,176, 1-27-59, Cl. 204—193.2.
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Drysdale, John J., to E. I. du Pont de Nemours and Co. Tetrafluoroadipic acids and derivatives. 2,871,260, 1-27-59, Cl. 260—485.
Duane, William C., to The Carney Co., Inc. Batt cutting machine. 2,870,839, 1-27-59, Cl. 164—61.
Dube, John E., and R. W. Schoen, to Alco Valve Co. Pressure generating means for deep well pumps. 2,870,717, 1-27-59, Cl. 103—45.
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Casey, Robert F. 2,871,350.
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Hibbard, Rowland G. 2,871,028.
Dunsmuir, Robert, to The British Thomson-Houston Co. Ltd. Klystrons. 2,871,396, 1-27-59, Cl. 315—5.39.
Dunsmuir, Robert, to The British Thomson-Houston Co. Ltd. Injection magnetrons. 2,871,406, 1-27-59, Cl. 315—39.63.
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Boelter, Edwin D., Jr. 2,870,709.
Carnden, Ernest. 2,871,232.
Doban, Robert C. 2,871,144.
Drysdale, John J. 2,871,260.
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McShane, Herbert F., Jr. 2,871,226.
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Walter, Henry C. 2,871,227.
Dura Pak Corp.: *See*—
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Dvoracek, Louis M.: *See*—
Bewley, William L., and Dvoracek. 2,871,170.
Dvorak, Ervin J. Faucet handle puller. 2,870,530, 1-27-59, Cl. 29—261.
E. & J. Mfg. Co.: *See*—
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Eakin, John V., and J. S. Walsh, to Fawick Corp. Assembly for clutches and brakes. 2,870,891, 1-27-59, Cl. 192—88.
Early, Edwards D. Computer network for the economic loading of power sources. 2,871,374, 1-27-59, Cl. 307—57.
Early, Edwards D. Generation control system. 2,871,375, 1-27-59, Cl. 307—57.
Earnest, Howard O.: *See*—
Looney, Fred, and Earnest. 2,870,470.
Earp, Charles W., to International Standard Electric Corp. Electric signal communication systems. 2,871,290, 1-27-59, Cl. 178—43.5.
Eastern Power Devices Ltd.: *See*—
Turgeon, Albert J. 2,871,309.
Eastman, du Bois, and W. G. Schlinger, to The Texas Co. Separation of carbon dioxide from gaseous mixtures. 2,870,868, 1-27-59, Cl. 183—115.
Eastman, du Bois, to The Texas Co. Process for the gasification of solid fuels. 2,871,114, 1-27-59, Cl. 48—206.
Eastman Kodak Co.: *See*—
Kuhrt, Noel H., and Van Graafeiland. 2,871,124.
Kuhrt, Noel H., and Van Graafeiland. 2,871,125.
Kuhrt, Noel H., and Van Graafeiland. 2,871,126.
Straley, James M., Wallace, and Fisher. 2,871,231.
Eaton Mfg. Co.: *See*—
Gill, Andrew S., Jr. 2,870,648.
Gill, Andrew S., Jr. 2,870,888.
King, William F. 2,871,383.
Eberiel, Herman J.: *See*—
Sirkes, John F., May, and Eberiel. 2,870,938.
Ebersole, Robert A., to Chisholm, Boyd & White Co. Press. 2,870,514, 1-27-59, Cl. 25—90.
Eckey, Eddy W. Method for continuous multistage countercurrent contacting of liquids with vapors. 2,871,250, 1-27-59, Cl. 260—428.5.
Eckhardt, Heinz, G. Keicher, and G. von Rosenberg, to Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning. Wax preparations containing antioxidizing agents. 2,871,136, 1-27-59, Cl. 106—270.
Economy Forms Corp.: *See*—
Jennings, William A. 2,870,516.
Eggensperger, Arlo B., and D. E. Foley, to W. F. Hoban. Information display devices. 2,871,462, 1-27-59, Cl. 340—154.
Ehmann, Ludwig: *See*—
Wettstein, Albert, Vischer, Meystre, and Ehmann. 2,871,245.
Ehrlich, Joseph R., and W. A. Strauss; said Ehrlich assor. to said Strauss. Casting metals and alloys. 2,870,497, 1-27-59, Cl. 22—113.
Eidlow, Alan J., M. Markowicz, and D. I. Morgan, to Courtaulds Ltd. Ring spinning and twisting machines. 2,870,595, 1-27-59, Cl. 57—34.
Eikel, Oliver, Jr.: *See*—
Radkowski, Leo, Daly, and Eikel. 2,870,676.
Eisenmann, Karl-Heinz: *See*—
Wagner, Herbert, and Eisenmann. 2,870,486.
Eisner, James R., to Standard Oil Co. Polymerization of alpha olefins in the presence of an AlR3 catalyst. 2,871,276, 1-27-59, Cl. 260—683.15.
Eitel-McCullough, Inc.: *See*—
Preist, Donald H., and Murdock. 2,871,397.
Electric & Musical Industries Ltd.: *See*—
Ingham, William E. 2,871,379.
Elektrokemisk A-S: *See*—
Sandvold, Knut. 2,871,278.
Elgro Machine Tool Co. Ltd., The: *See*—
Gross, Emil. 2,870,467.
Elliott Brothers (London) Ltd.: *See*—
Kinear, John A. C. 2,870,524.
Pateman, Jack E. 2,871,347.
Ellis, Carlos B.: *See*—
Morris, William W. 2,871,329.
Elox Corp. Of Michigan: *See*—
Matulaitis, Victor E. 2,871,410.
Empire Brushes, Inc.: *See*—
Schwartz, Harold H. 2,870,473.
English Electric Valve Co. Ltd.: *See*—
Staerck, Thomas H. 2,871,387.
Enterprise Mfg. Co., The: *See*—
Sarah, Thomas F. 2,870,977.
Eppler, John H., to Eppler Wood Products Corp. Cooperage bolt sawing machine. 2,870,803, 1-27-59, Cl. 143—54.
Eppler Wood Products Corp.: *See*—
Eppler, John H. 2,870,803.
Erdmann, Hans, to Waldes Kohinoor, Inc. Means for assembling open retaining rings on shafts, pins and the like. 2,870,529, 1-27-59, Cl. 29—229.
Erico Products, Inc.: *See*—
Burke, Donald J. 2,870,499.
Rejdak, Melvin F. 2,870,498.
Erie Resistor Corp.: *See*—
Young, Francis R. 2,870,532.
Eriksen, Merrill K., to The James C. Heintz Co. Bead aligning means. 2,870,482, 1-27-59, Cl. 18—18.
Eriksson, Sven E. B., to Telefonaktiebolaget L M Ericsson. Cylinder lock. 2,870,622, 1-27-59, Cl. 70—384.
Esso Research and Engineering Co.: *See*—
Aldridge, Clyde L., and Charlet. 2,871,137.
Smith, Brook L., Boston, and Herrmann. 2,871,183.
Williams, Rollie B. 2,871,443.
Etablissements Fenart-Bouguet-Pau: *See*—
Fenart, Jean. 2,870,865.
Etat Francais, represented by Secretariat d'Etat à la Defense Nationale et aux Forces Armées (Direction des Etudes et Fabrications d'Armement): *See*—
Cahen, Gilbert M., Bonnet, and Treille. 2,871,365.
Etes, Elmer G., and W. K. and G. A. Baer; said W. K. and G. A. Baer assignors to said Etes. Vending machine. 2,870,939, 1-27-59, Cl. 221—213.
Etheridge, Oliver R., to A. E. Staley Mfg. Co. Starch pasting system. 2,871,146, 1-27-59, Cl. 127—28.
Evans, Francis C.: *See*—
Vassil, Theo N., and Evans. 2,871,466.
Evenson, Everett: *See*—
Roberts, Leonard E., and Evenson. 2,870,687.
Everest & Jennings, Inc.: *See*—
Peterson, John W., and Jennings. 2,871,044.
Ey, John M.: *See*—
Pannier, Louis H., and Ey. 2,871,066.
Fadden, William J., Jr.: *See*—
Kuijian, Harry A., and Fadden. 2,870,751.
Fairchild Engine and Airplane Corp.: *See*—
Lindbom, Torsten H. 2,870,964.
Falconi, Oscar R. Autocollimator for measuring angle of incident light beam. 2,870,671, 1-27-59, Cl. 88—14.
Fansteel Metallurgical Corp.: *See*—
Aikman, Oliver S. 2,871,423.
Aikman, Oliver S. 2,871,424.
Burnham, John. 2,871,425.
Yntema, Leonard F., and Runck. 2,870,527.
Farbenfabriken Bayer Akt.: *See*—
Graulich, Wilhelm, Sinn, Holzrichter, and Rosahl. 2,871,213.
Wagner, Herbert, and Eisenmann. 2,870,486.
Farbwerke Hoechst Akt.: *See*—
Huss, Richard, Siebert, and Weissert. 2,871,230.
Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning: *See*—
Eckhardt, Heinz, Keicher, and von Rosenberg. 2,871,136.
Farnsworth, Lawrence, 50% to M. M. Seft. Indexable collet chuck apparatus. 2,871,022, 1-27-59, Cl. 279—5.
Fawick Corp.: *See*—
Eakin, John V., and Walsh. 2,870,891.
Fawick, Thomas L. Resilient wheel assembly. 2,870,813, 1-27-59, Cl. 152—44.
Federal Electric Products Co.: *See*—
Wills, Ervin E. 2,871,284.
Federal-Mogul-Bower Bearings, Inc.: *See*—
Johnson, Lloyd A., and Bowen. 2,871,037.
Feldman, Herman, and M. Sama. Tool handle. 2,870,809, 1-27-59, Cl. 145—61.

Fenart, Jean, to Etablissements Fenart-Bouguet-Pau. Methods of saturating a liquid with carbonic acid. 2,870,865, 1-27-59, Cl. 183—114.

Fidelity Machine Co., Inc.: *See*—
Greczin, John. 2,870,619.

Finestone, Arnold B., to Westinghouse Electric Corp. Catalysts for glycidyl polyethers and products produced thereby. 2,871,222, 1-27-59, Cl. 260—47.

Fingerhood, Stanford A.: *See*—
Tribken, Everett R., and Fingerhood. 2,870,979.

Fink, Lauretta. Game device. 2,871,018, 1-27-59, Cl. 273—1.

Finlayson, Claude M., and J. W. Jordan, to National Lead Co. Oil dispersible phytates and compositions thereof. 2,871,190, 1-27-59, Cl. 252—32.5.

Fisch, Edwin J.: *See*—
Lowman, Malden C., Jr., and Fisch. 2,871,180.

Fisher, John G.: *See*—
Straley, James M., Wallace, and Fisher. 2,871,231.

Fisher, Joseph E., to Mine Safety Appliances Co. Protective headgear and lining suspensions. 2,870,445, 1-27-59, Cl. 2—3.

Fitch, Elliott B., to Dorr-Oliver Inc. Hydrocyclones in closed-circuit grinding operations. 2,870,908, 1-27-59, Cl. 209—211.

Fladung, Albert L. Sill faucets. 2,870,780, 1-27-59, Cl. 137—360.

Flagg, Raymond P., to Minneapolis-Honeywell Regulator Co. Combination valve and safety pilot. 2,871,311, 1-27-59, Cl. 200—61.86.

Flahaut, René E. Nut thread with pitch difference relative to bolt thread to provide good thread bearing under load. 2,870,668, 1-27-59, Cl. 85—32.

Flax, Valer. Production of sealed containers filled with liquid. 2,870,583, 1-27-59, Cl. 53—37.

Flint, Frances O.: *See*—
Burton, Donald, Reed, and Flint. 2,871,162.

Fogiel, Max. Potentiometer controlled follow-up system. 2,871,429, 1-27-59, Cl. 318—29.

Foley, Daniel E.: *See*—
Eggensperger, Arlo R., and Foley. 2,871,462.

Folk, Joseph, to U. S. Slicing Machine Co., Inc. Automatic shingling or stacking device for a slicing machine. 2,870,810, 1-27-59, Cl. 146—94.

Foos, Raymond A.: *See*—
Wilhelm, Harley A., and Foos. 2,871,092.

Foote, Kenneth E.: *See*—
Siemsen, Henry S., and Foote. 2,870,579.

Forster, Lloyd M. Automotive vehicle power brake employing power steering pump pressure. 2,870,905, 1-27-59, Cl. 60—54.5.

Foster, Newton C.: *See*—
Minter, Herbert F., and Foster. 2,871,420.

Fouse, Samuel S., and E. O. Krance, to Westinghouse Electric Corp. Branch bus duct structures. 2,871,285, 1-27-59, Cl. 174—72.

Fox, Edgar C., Jr., C. G. Helmick, Jr., and S. J. Campbell, to Westinghouse Electric Corp. Motor control system. 2,871,430, 1-27-59, Cl. 318—30.

Francisco, Cecil J., and T. H. Schultz, to Sinclair Refining Co. Catalytic cracking system. 2,871,186, 1-27-59, Cl. 208—147.

Franke, Dallas V., to Gilfillan Bros. Inc. Electric computer using non-linear circuit elements for deriving a voltage representative of an ideal flight path. 2,871,469, 1-27-59, Cl. 343—11.

Franke, Norman W.: *See*
Crowley, Edgar L., Franke, and Joyce. 2,871,106.

Franken, Wilhelm: *See*
Schwank, Gunther, and Franken. 2,870,830.

Fraser, William M., and W. E. Brush, to Westinghouse Electric Corp. Method of cladding molybdenum. 2,871,150. Cl. 148—11.5.

Frederick, Arthur L.: *See*—
Cooper, Cleveland N., and Frederick. 2,871,334.

Freedlander, Abraham L., to The Dayton Rubber Co. Rub apron. 2,870,490, 1-27-59, Cl. 19—153.

Frey, Otto: *See*—
Bartholome, Ernst, Frey, Lehrer, and Lorenz. 2,870,867.

Frick Co.: *See*—
Garland, Milton W. 2,870,612.

Frigid Fluid Co.: *See*—
Yeazel, Gilbert A. 2,870,519.

Friis, Harald T., and W. M. Sharpless, to Bell Telephone Laboratories, Inc. Electromagnetic wave detector. 2,871,353, 1-27-59, Cl. 250—31.

Frink, Russell E., to Westinghouse Electric Corp. Circuit interrupter. 2,871,318, 1-27-59, Cl. 200—144.

Friz, Walter: *See*—
Klein, Werner, and Friz. 2,871,393.

Fruehauf Trailer Co.: *See*—
Levitt, Semond. 2,871,056.

Fry, Vern K. Turbine driven oppositely rotating propellers. 2,870,847, 1-27-59, Cl. 170—135.28.

Fuller, Ira W. Display element in relief for an advertising sign. 2,870,558, 1-27-59, Cl. 40—126.

Furer, Stanley. Ceiling insert for concrete. 2,870,625, 1-27-59, Cl. 72—105.

G P E Controls, Inc.: *See*—
Markey, Frank J. 2,871,013.

Gabriel, Gustave O., 50% to G. W. Baker, 10% to J. Drew, and, 5% to J. Labanowski. Stator constructions for synchronous hysteresis motors. 2,871,384, 1-27-59, Cl. 310—258.

Gage, Fred W., and A. W. Tondreau, to Warner Bros. Pictures, Inc. Travelling matte photography. 2,870,672, 1-27-59, Cl. 88—16.

Gagne, Archie R. Pipe making apparatus. 2,870,513, 1-27-49, Cl. 25—30.

Galbreath, Richmond B., to The American Oil Co. Fractionator bubble cap. 2,871,003, 1-27-59, Cl. 261—114.

Gall, Donald A., to General Motors Corp. Fuel injection metering system. 2,871,002, 1-27-59, Cl. 261—69.

Gallagher, Cornelius A., to Servo Corp. of America. Detector for visual and aural direction finders. 2,871,475, 1-27-59, Cl. 343—113.

Gallay Ltd.: *See*—
Broad, Charles S. 2,871,338.

Gard, George E., to Armstrong Cork Co. Method and apparatus for dielectric heating. 2,870,543, 1-27-59, Cl. 34—1.

Gard, George E., to Armstrong Cork Co. Method of drying fibrous boards. 2,870,544, 1-27-59, Cl. 34—1.

Gardner, Clair C. Magazine cabinet. 2,871,084, 1-27-59, Cl. 312—310.

Gardner, Henry A.: *See*—
Neubrech, David A., and Cattaro. 2,871,370.

Garland, Milton W., to Frick Co. Ice-making apparatus. 2,870,612, 1-27-59, Cl. 62—138.

Garrett, Lewis E.: *See*—
Hawkins, James E., and Garrett. 2,871,473.

Garth, James. Wall cavity tray. 2,870,627, 1-27-59, Cl. 72—128.

Gasper, Robert R., to Western Electric Co., Inc. Apparatus for determining the location of mounting holes to be drilled in a part. 2,870,542, 1-27-59, Cl. 33—181.

Gaubatz, Arthur W., to General Motors Corp. Heated pressure probe. 2,870,632, 1-27-59, Cl. 73—212.

Gaylord, James K., and L. E. Thatcher, to Gaylord Products, Inc. Wheel structures. 2,870,879, 1-27-59, Cl. 188—264.

Gaylord, John A., ½ to Rocket Jet Engineering Corp. Webbing release. 2,870,500, 1-27-59, Cl. 24—230.

Gaylord Products, Inc.: *See*—
Gaylord, James K., and Thatcher. 2,870,879.

Gehre, Hans. Measuring wheel meters. 2,870,634, 1-27-59, Cl. 73—230.

Gemex Corp., The: *See*—
Sand, John F. 2,870,511.

General Aniline & Film Corp.: *See*—
Bergstrom, Herman A. 2,871,234.
Coles, Robert F., and Tulagin. 2,871,120.
Randall, David L., and Solomen. 2,871,240.

General Dynamics Corp.: *See*—
Pharis, William W. 2,871,302.
Scuitto, Thomas J. 2,871,399.
Stachiewicz, Bogdan B. 2,871,294.
Stachiewicz, Bogdan B. 2,871,295.
Woods, Eric R. 2,871,355.

General Electric Co.: *See*—
Adams, Crawford M. 2,870,858.
Beckwith, Robert W. 2,871,463.
Berry, Theodore M. 2,871,459.
Bramhall, George H. 2,870,863.
Collins, Clifford B. 2,871,330.
Cox, Bonnar, Goldberg, and Kautz. 2,871,289.
De Mott, Alfred E. 2,870,701.
Dome, Robert B. 2,871,357.
Hilton, Harry H., and Torrisi. 2,871,426.
Lord, Harold W. 2,871,412.
McQueen, Jack G. 2,871,471.
Pearson, Donald L., and Nelson. 2,870,586.
Speros, Dimitrios M. 2,871,196.
Tyler, Winfield W., and Newman. 2,871,377.
Tyler, Winfield W., and Newman. 2,871,427.

General Motors Corp: *See*—
Anthony, Robert C., and Williams. 2,870,477.
Barnard, Richard P. 2,871,335.
Cobb, Leland D. 2,870,890.
Cockburn, Stanley D., Leslie, Priestman, and Ragsdale. 2,871,049.
Dhonau, Herman B. C., and Nelson. 2,870,956.
Gall, Donald A. 2,871,002.
Gaubatz, Arthur W. 2,870,632.
Harding, William R., and McDowall. 2,870,633.
Rada, Frank J., and Bowman. 2,870,902.
Shaw, Henry V. 2,871,439.
Sisson, Kenneth O. 2,870,834.
Skunda, Michael. 2,871,389.
Stoltman, Donald D. 2,871 001.
Swander, Kenneth D., Jr. 2,871,063.
Zemke, Kenneth M. 2,870,649.

General Tire and Rubber Co., The: *See*—
Neher, Eldon P. 2,871,025.

Gerhold, Clarence G., to Universal Oil Products Co. Separation of selected components from hydrocarbon mixtures. 2,871,275, 1-27-59, Cl. 260—676.

Getting, Milan P., Jr., to Allis-Chalmers Mfg. Co. Magnetic material provided with separator coating. 2,871,143, 1-27-59, Cl. 117—127.

Giddings, Wayne A., to Amana Refrigeration, Inc. Blower wheel. 2,870,959, 1-27-59, Cl. 230—134.

Gilfillan Bros. Inc.: *See*—
Franke, Dallas V. 2,871,469.

Gill, Andrew S., Jr., to Eaton Mfg. Co. Throttle advance control. 2,870,648, 1-27-59, Cl. 74—472.

Gill, Andrew S., Jr., to Eaton Mfg. Co. Magnetic clutch. 2,870,888, 1-27-59, Cl. 192—21.5.

Gillberg, Johannes. Reinforcing bars having depressed portions for use in concrete construction. 2,870,626, 1-27-59, Cl. 72—111.

Girouard, Philias H., G. L. Schuyler, and M. H. Baller, to United States of America, Navy. Projectile launcher. 2,870,678, 1-27-59, Cl. 89—1.7.

Glatt, Herbert: *See*—
Scheuer, Fred F., and Marx. 2,870,475.

Glaser, Irving D., to Dura Pak Corp. Bottle carrier. 2,871,055, 1-27-59, Cl. 294—87.2.

Glen-Gery Shale Brick Corp.: *See*—
Hummel, Floyd A. 2,871,132.
Glenn, Robert G., to United States of America, Navy. Afterburner exhaust nozzle variable area. 2,870,602, 1-27-59, Cl. 60—35.6.
Glidden Co., The: *See*—
Bain, Joseph P., Booth, Hunt, and Klein. 2,871,268.
Booth, Albert H. 2,871,271.
Gofman, John W., R. E. Connick, and A. C. Wahl, to United States of America, Atomic Energy Commission. Process for the separation of heavy metals. 2,871,251, 1-27-59, Cl. 260—429.1.
Gold, Harold, and D. M. Straight. Fluid metering system. 2,870,777, 1-27-59, Cl. 137—100.
Goldberg, Jacob: *See*—
Cox, Bonnar, Goldberg, and Kauts. 2,871,289.
Goldberg, Richard J., and R. M. Olds, Jr., to Technicolor Corp. Reduction of dye absorption in hardened gelatin relief matrices. 2,870,704, 1-27-59, Cl. 101—149.1.
Goldman, Sylvan N.: *See*—
Young, Fred W. 2,871,024.
Goldsmith, Allen L.: *See*—
Hickman, Charles E., and Goldsmith. 2,870,522.
Goldstein, Eugene E., to The Celotex Corp. Translucent acoustical correction ceiling construction. 2,870,857, 1-27-59, Cl. 181—33.
Golinelli, Marino. Method of producing a dietetic honey still containing its active principles. 2,871,129, 1-27-59, Cl. 99—146.
Good, Fred C., to Fred C. Good & Sons, Inc. Anchor boom assembly. 2,870,732, 1-27-59, Cl. 114—210.
Good, Fred C., & Sons, Inc.: *See*—
Good, Fred C. 2,870,732.
Goodman, Hugh F., to The A. P. V. Co. Ltd. Packed screw-thimble type coupling with means to prevent overcompression of the packing. 2,871,036, 1-27-59, Cl. 285—354.
Goodman, Joseph J., to American Cyanamid Co. Fermentation of oxytetracycline by streptomyces rimosus. 2,871,166, 1-27-59, Cl. 195—114.
Goodman, Solomon: *See*—
Reduiss, Alexander, Goodman, and Cantor. 2,871,098.
Goodrich, B. F., Co., The: *See*—
Gregory, James T. 2,871,237.
Gregory, James T. 2,871,238.
Schollenberger, Charles S. 2,871,218.
Wootton, Gerald V., and Hoxie. 2,871,214.
Goodykoontz, James H., Jr., to Hughes Aircraft Co. Three dimensional aligning apparatus for electronic components. 2,870,728, 1-27-59, Cl. 113—99.
Gorin, Everett, to Consolidation Coal Co. Process for heat treating heat sensitive solid particles. 2,871,004, 1-27-59, Cl. 263—52.
Gorman-Rupp Industries, Inc.: *See*—
Steidley, Virgil K. 2,870,941.
Goss, Norman F., to Diamond Alkali Co. Metal treating process. 2,871,140, 1-27-59, Cl. 117—49.
Gossler, Heinz. Utensil incorporating a writing implement and cigarette holder. 2,870,771, 1-27-59, Cl. 131—178.
Gournay, Luke S., to Socony Mobil Oil Co., Inc. Gamma ray collimating device. 2,871,367, 1-27-59, Cl. 250—105.
Granström, Olof A., and H. G. M. Hackzell, to Aktiebolaget Svenska Metallverken. Arrangement for charging extrusion presses with ingots, blooms or billets from metal. 2,870,920, 1-27-59, Cl. 214—1.
Grant, Norman H.: *See*—
Robbins, Kenneth C., and Grant. 2,871,165.
Granlich, Wilhelm, G. Sinn, H. Holzrichter, and D. Rosahl, to Farbenfabriken Bayer Akt. Aqueous composition comprising rubbery copolymer and condensation product of formaldehyde and methylol-forming compound. 2,871,213, 1-27-59, Cl. 260—29.3.
Gray, Sidney, to Radio Corp. of America. Wide-band interference light filter. 2,871,371, 1-27-59, Cl. 250—226.
Greczin, John, to Fidelity Machine Co., Inc. Flexible hose. 2,870,619, 1-27-59, Cl. 66—169.
Green, Ralph J.: *See*—
Okress, Ernest C., and Green. 2,871,407.
Greene, Otto W., and J. Kirvan, to Pfaudler Permutit Inc. Tank supporting means. 2,870,982, 1-27-59, Cl. 248—146.
Greene, Raymond H., to Calumet & Hecla, Inc. Device for bending coils. 2,870,816, 1-27-59, Cl. 153—40.
Greene, Robert E., V. Benson, and R. Spilman, to Rowe Mfg. Co., Inc. Display panel. 2,871,061, 1-27-59, Cl. 312—114.
Greensides, Lawrence A. Bath tub and attachment therefor. 2,870,456, 1-27-59, Cl. 4—173.
Greenwood, Dolphice H. Gate valve and sealing means therefor. 2,870,987, 1-27-59, Cl. 251—327.
Gregory, James T., to The B. F. Goodrich Co. 2-imino-3-substituted-1,3,4,6H-thiadiazines and methods for their preparation. 2,871,237, 1-27-59, Cl. 260—243.
Gregory, James T., to The B. F. Goodrich Co. 2-nitrosoimino-1,3,4,6H-thiadiazines and methods for their preparation. 2,871,238, 1-27-59, Cl. 260—243.
Griffith, Alan A., and A. W. Thorpe: said Griffith assor. to Rolls-Royce Ltd., and said Thorpe assor. to The Minister of Supply, in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland. Controls for aircraft. 2,870,978, 1-27-59, Cl. 244—23.
Grinsett, Andrew F. Combination tree girdler and punch. 2,870,572, 1-27-59, Cl. 47—1.
Grossnickle, Myron D.: *See*—
Piotrowski, Lottie J., Rienks, and Grossnickle. 2,871,159.
Groux, Emil, to The Elgro Machine Tool Co. Ltd. Power brushing machines. 2,870,467, 1-27-59, Cl. 15—21.
Grubbs, Emmett L. Adjustable curtain, blind and drape holder. 2,870,918, 1-27-59, Cl. 211—105.2.
Grum, Florence: *See*—
Albert, Edward J. 2,870,471.
Grum, Matthew W.: *See*—
Albert, Edward J. 2,870,471.
Guire, Ronald J., and K. Weiser, to Radio Corp. of America. Method of preparing indium phosphide. 2,871,100, 1-27-59, Cl. 23—204.
Gulf Oil Corp.: *See*—
Rodgers, Clifford J., Jr. 2,870,843.
Gulf Research & Development Co.: *See*—
Crowley, Edgar L., Franke, and Joyce. 2,871,106.
Gulton Industries, Inc.: *See*—
Rudnick, Norman. 2,870,521.
Gurries, Albert G. High torque hydraulic motor. 2,870,747, 1-27-59, Cl. 121—86.
Gurries Mfg. Co.: *See*—
Gurries, Raymond A., and Curlett. 2,870,555.
Gurries, Raymond A., and J. Curlett, to Gurries Mfg. Co. Level control attachment for road graders. 2,870,555, 1-27-59, Cl. 37—180.
Gutberlet, Louis C., and M. J. den Herder, to Standard Oil Co. Removal of metals from reduced crudes by mild coking in the presence of a silico ortho ester. 2,871,185, 1-27-59, Cl. 208—55.
Guthrie, William D.: *See*—
Tarsey, Alexandre R., and Guthrie. 2,871,094.
Gutridge, Jack E., to Pullman-Standard Car Mfg. Co. Railway flat car underframe. 2,870,724, 1-27-59, Cl. 105—414.
Hackmyer, Saul A., to Technical Research, Inc. Pressure feed for cartridge type writing instrument. 2,870,742, 1-27-59, Cl. 120—45.4.
Hackzell, Erik G. M.: *See*—
Granström, Olof A., and Hackzell. 2,870,920.
Haensel, Vladimir, to Universal Oil Products Co. Hydrocarbon conversion process. 2,871,277, 1-27-59, Cl. 260—683.64.
Hagerty, Peter F.: *See*—
Snyder, John R., Hagerty, and Molstad. 2,871,109.
Haggard, John M., and P. H. McMurray, to Delphi Products Co., Inc. Combination vehicle. 2,870,928, 1-27-59, Cl. 214—373.
Hagn, Joseph W., to United States Steel Corp. Apparatus for determining the net weight of material in a container. 2,871,006, 1-27-59, Cl. 265—70.
Hailey, Albert M., to Siemens Edison Swan Ltd. Electric selective signalling systems. 2,871,467, 1-27-59, Cl. 340—324.
Hainsworth, Sidney B.: *See*—
Wood, John G., Hainsworth, and Tebb. 2,870,886.
Haids, Joseph. Process of impregnating textile material to increase its wear resistance. 2,871,145, 1-27-59, Cl. 117—139.5.
Hall, John A. Cementing head. 2,870,842, 1-27-59, Cl. 166—70.
Hall, William F. Electrical measuring system. 2,871,447, 1-27-59, Cl. 324—114.
Hallerstrom, Harold C., to Hanna Engineering Works. Cushioning device for cylinders. 2,870,744, 1-27-59, Cl. 121—38.
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Hidalgo, John, Williams, and Halverstadt. 2,871,258.
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Hankins, Elinor M., and S. Melamed, to Rohm & Haas Co. Polymers, copolymers, and processes for preparing them. 2,871,223, 1-27-59, Cl. 260—70.
Hanna Engineering Works: *See*—
Hallerstrom, Harold C. 2,870,744.
Hansen, Harding B., W. C. Sealey, S. S. Steneroen, and K. P. Wiederkehr, to Allis-Chalmers Mfg. Co. Method of transformer assembly using divided tank and banding plate. 2,870,525, 1-27-59, Cl. 29—155.58.
Hansen-Lynn Co., Inc.: *See*—
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Huelden, Heinrich. 2,870,968.
Harding, William R., and C. J. McDowall, to General Motors Corp. Heated pressure probe. 2,870,633, 1-27-59, Cl. 73—212.
Harkness, Joseph R., to Briggs & Stratton Corp. Piezoelectric igniter unit for internal combustion engines. 2,871,280, 1-27-59, Cl. 123—148.
Harkness, Reed B., and E. E. Lacey, to The C. Dewitt Lukens Surgical Mfg. Co. Ligature package. 2,870,906, 1-27-59, Cl. 206—63.3.
Harner, Toby B. Automatic liquid delivery shut-off device. 2,870,800, 1-27-59, Cl. 141—209.
Harrington, Florian P. Ventilating panels. 2,870,700, 1-27-59, Cl. 98—96.
Harrison, Maurice. Church collection bag. 2,870,811, 1-27-59, Cl. 150—1.
Hart, Oliver M. Improved welding unit. 2,871,440, 1-27-59, Cl. 323—74.
Harter, James R. R. Photographic reproduction method and apparatus. 2,871,287, 1-27-59, Cl. 178—6.7.
Hartman, Carl D., to Bailey Meter Co. Moisture control in gas generators. 2,871,107, 1-27-59, Cl. 23—281.
Hartmann, Albert E. Cleaning implements. 2,870,472, 1-27-59, Cl. 15—209.
Harvey, Earle M., to United States of America, Army. Gas-operated actuating system for firearms. 2,870,685, 1-27-59, Cl. 89—191.
Hasser, George L.: *See*—
Horwitz, Henry L., and Hasser. 2,871,300.
Hatcher, Joseph H.: *See*—
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Hatkin, Leonard, to United States of America, Army. High gain cominazimuth antenna. 2,871,477, 1-27-59, Cl. 343—728.
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Hawie, Frederick. 2,870,505.

Hawkins, James E., and L. E. Garrett. Seismograph Service Corp. Radio location system. 2,871,473, 1-27-59, Cl. 343—105.
Haworth, Lional, R. J. Shire, and F. Moss, to Rolls-Royce Ltd. Lubricating arrangements for rotating machinery. 2,870,870, 1-27-59, Cl. 184—6.
Hays, Stephen A., to North American Aviation, Inc. Chemical nickel and cobalt plating process. 2,871,142, 1-27-59, Cl. 117—102.
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Ivins, Owen D., and Head. 2,871,256.
Healy, Joseph F., to Harvey Hubbell, Inc. Locking connector. 2,871,456, 1-27-59, Cl. 339—42.
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Hendal, Willem P., to Shell Development Co. Process for cooling a gas. 2,870,611, 1-27-59, Cl. 62—5.
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Hercik, Lad L. Simultaneously adjustable pinch rolls for feeding endless strips. 2,871,011, 1-27-59, Cl. 271—2.3.
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Herr, Richard F., to The Herr Equipment Corp. Resilient roll apparatus for working tenuous material. 2,870,818, 1-27-59, Cl. 153—104.
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Hervert, George L., and H. S. Bloch, to Universal Oil Products Co. Production of alumina. 2,871,096, 1-27-59, Cl. 23—143.
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Hewlett, William R., to Hewlett-Packard Co. Broad band waveguide directional coupler. 2,871,452, 1-27-59, Cl. 333—10.
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Hibbard, Rowland G., to J. F. Dunn. Implement hitch. 2,871,028, 1-27-59, Cl. 280—476.
Hickman, Charles E., and A. L. Goldsmith. Apparatus for manufacturing tubing. 2,870,522, 1-27-59, Cl. 29—33.
Hidalgo, John, A. R. Williams, and I. F. Halverstadt, to Cutter Laboratories, Inc. Branched chain diammonio esters. 2,871,258, 1-27-59, Cl. 260—482.
Hiett, William S. Butt hinge and tenon mortiser. 2,870,804, 1-27-59, Cl. 144—27.
Higgins, Walter A., and H. C. Lott. Warehouse pallets. 2,870,980, 1-27-59, Cl. 248—120.
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Hildreth, Wilmarth A. 2,870,855.
Hildreth, Wilmarth A., to M. D. Hildreth. Hold-down device for storage batteries. 2,870,855, 1-27-59, Cl. 180—68.5.
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Hill, Arthur M., to Service Pipe Line Co. Scraper trap closure. 2,870,934, 1-27-59, Cl. 220—33.
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Hill, Frank A., to Librascope, Inc. Apparatus for sensing radioactivity. 2,871,366, 1-27-59, Cl. 252—83.6.
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Hines, Russell J., to The Hines Flask Co. Molding apparatus. 2,870,500, 1-27-59, Cl. 22—110.
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Marshburn, James P., and Willis. 2,870,731.
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Hollis, Brooks S. Equipment hitch for vehicles. 2,871,030, 1-27-59, Cl. 280—492.
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Hopkins, Robert P., to Rohm & Haas Co. Method of producing granular compositions of acrylate salt, sand, and clay and product resulting therefrom. 2,871,204, 1-27-59, Cl. 260—2.2.
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Hoppe, George D.: *See*—
Hoppe, Wilma L. A. 2,870,463.
Hoppe, Wilma L. A., 40% to G. D. Hoppe. Anchor blanket. 2,870,463, 1-27-59, Cl. 5—334.
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Horwitz, Henry L., and G. L. Hasser, to International Telephone and Telegraph Corp. Intercept discriminator. 2,871,300, 1-27-59, Cl. 179—27.
Hotchkiss, Thomas, Sr. Trailer hitch. 2,871,026, 1-27-59, Cl. 280—423.
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Huelden, Heinrich, to Hansen-Lynn Co., Inc. Tablet breaker and dispenser. 2,870,968, 1-27-59, Cl. 241—235.
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Hutchinson, James O., and R. W. Briggs, II, to Westinghouse Electric Corp. Discriminator circuit. 2,871,348, 1-27-59, Cl. 250—27.
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Hyland, James W., Jr., to Allied Chemical Corp. Stable chlorophthalic acid modified unsaturated alkyd resin molding compositions. 2,871,215, 1–27–59, Cl. 260—40.
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Mahler, Charles J., White, and Immel. 2,871,322.
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Ingham, William E., to Electric & Musical Industries Ltd. Pulse separating circuits. 2,871,379, 1–27–59, Cl. 307—88.5.
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Inter-Kontinentaler Huttenbau: *See*—
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International Instruments, Inc.: *See*—
Podoloff, Richard H. 2,871,450.
International Standard Electric Corp.: *See*—
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International Telephone and Telegraph Corp.: *See*—
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Busignies, Henri G. 2,871,476.
Horwitz, Henry L., and Hauser. 2,871,300.
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Ivins, Owen D., and J. D. Head, to The Dow Chemical Co. Method of preparing terephthalic acid esters from α, α, α, α′, α′, α′-hexachloro-β-xylene. 2,871,256, 1–27–59, Cl. 260—475.
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Jackson, Clarence E., and J. M. Ruzek, to Union Carbide Corp. Electric arc welding. 2,871,339, 1–27–59, Cl. 219—137.
Jacobs, Robert J., and E. E. Persson, to The Black-Clawson Co. Paper coating machine. 2,870,738, 1–27–59, Cl. 118—249.
Jahnke, David H., to Koebel Diamond Tool Co. Core bit drilling tool. 2,870,993, 1–27–59, Cl. 255—47.
Jencks, Harold R., and R. C. Twomey, to Douglas Aircraft Co., Inc. Mounting for electronic components. 2,871,457, 1–27–59, Cl. 339—75.
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Jennings, William A., to Economy Forms Corp. Form unit. 2,870,516, 1–27–59, Cl. 25—131.
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Jewell, Lisle A., Jr. Convertible dump body. 2,870,923, 1–27–59, Cl. 214—83.36.
Joclin Mfg. Co., The: *See*—
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Johnson, Axel E. F., to American Hospital Supply Corp. Hanger support. 2,870,917, 1–27–59, Cl. 211—105.1.
Johnson, Clarence L., to Lockheed Aircraft Corp. Turbine engine blow-out preventer. 2,870,684, 1–27–59, Cl. 89—133.
Johnson, Kenneth F., and A. L. Quinlan, to Western Electric Co., Inc. Electrical control system for percussion welder. 2,871,337, 1–27–59, Cl. 219—113.
Johnson, Lloyd A., and E. K. Bowen, to Federal-Mogul-Bower Bearings, Inc. Fluid seal. 2,871,037, 1–27–59, Cl. 286—5.
Johnson, Richard H., and W. P. Schneider, to The Upjohn Co. Hydrocortisone compositions and method for extemporaneous administration. 2,871,160, 1–27–59, Cl. 167—77.
Johnson, Roy E., and A. H. Justice. Ratchet control assembly. 2,870,637, 1–27–59, Cl. 74—128.
Jones, Joseph W. Electric controller including a volume controlling resistance. 2,871,327, 1–27–59, Cl. 201—62.
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Jucker, Ernst, E. Rissi, R. Sucss, A. Vogel, and R. Wolff, to Sandoz Ltd. (N-alkyl-4-piperidone)-hydrazones. 2,871,241, 1–27–59, Cl. 260—294.
Juilfs, Howard W., to Senco Products, Inc. Air flow and piston drive for pneumatic staplers. 2,870,743, 1–27–59, Cl. 121—21.
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Karig, Horace E., and H. L. Smith, to Waste King Corp. Dishwasher door with air circulating means and moisture trap. 2,871,082, 1–27–59, Cl. 312—213.
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Kautenberg, W. E., Co.: *See*—
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Kautenberg, William E., to W. E. Kautenberg Co. Protected mop head and method of assembling it. 2,870,474, 1–27–59, Cl. 15—229.
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Keese, Beverly W., to Rockwell Standard Corp. Tandem drive axle assembly with straight line through line drive connection. 2,870,853, 1–27–59, Cl. 180—22.
Keese, Beverly W., to The Rockwell-Standard Corp. Tandem axle drive and lubricating means therefor. 2,870,854, 1–27–59, Cl. 180—22.
Kehler, Theodor K., to Hoerbiger & Co. Annular plate valve. 2,870,783, 1–27–59, Cl. 137—516.13.
Kehres, Joel L.: *See*—
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Keinzle Apparate G. m. b. H.: *See*—
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Keith, John V., to Universal Winding Co. Winding machine and method of doffing and thread-in. 2,870,971, 1–27–59, Cl. 242—18.
Kellogg, Norman L. Traffic marker apparatus. 2,870,695, 1–27–59, Cl. 94—46.
Kelvin & Hughes Ltd.: *See*—
Rankin, Alexander B. C. 2,871,381.
Kent, Sheldon E., to Hodag Chemical Corp. Crystallizing of sugars. 2,871,148, 1–27–59, Cl. 127—58.
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Lanier, Lewis H., Sr., Lewis H. Lanier, Jr., and Dawson. 2,870,588.
Kenyon, Alonzo F., to Westinghouse Electric Corp. Excitation of dynamo-electric machines. 2,871,435, 1–27–59, Cl. 318—308.
Kenyon, Theodore W., and S. Webster, to United Aircraft Corp. Variable boost servo-assisting system. 2,870,745, 1–27–59, Cl. 121—41.
Kersten, William H., to The Parker Pen Co. Writing instrument. 2,870,741, 1–27–59, Cl. 120—42.03.
Khachikian, Yerem. Traction device. 2,870,814, 1–27–59, Cl. 152—218.
Kimball, John W. Cartridge case extractor for a firearm. 2,870,562, 1–27–59, Cl. 42—25.
Kimura, Shuji, and J. N. Stich. Photographic fixer-hardener compositions. 2,871,121, 1–27–59, Cl. 96—61.
King, William F., to Eaton Mfg. Co. Electric coupling and brake. 2,871,383, 1–27–59, Cl. 310—96.
Kinnear, John A. C., to Elliott Brothers (London) Ltd. Manufacture of waveguide components. 2,870,524, 1–27–59, Cl. 29—155.5.
Kinnison, Robert W. Filling nozzle with selective automatic shut-off. 2,870,799, 1–27–59, Cl. 141—209.
Kirkland, Earl V., and I. H. Lutz, to The American Oil Co. Glycol diesters. 2,871,248, 1–27–59, Cl. 260—410.6.
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Greene, Otto W., and Kirvan. 2,870,982.
Kitchen, Harry D.: *See*—
Parker, Daniel B., and Kitchen. 2,870,953.
Klapka, Karl J., to Wheel Trueing Tool Co. Drilling machine. 2,870,994, 1–27–59, Cl. 255—53.
Klaui, Heinrich, to Hoffmann-La Roche Inc. Esters of vitamin. 2,871,261, 1–27–59, Cl. 260—485.
Klein, Charles H., to The National Telephone Supply Co. Wire connecting device. 2,871,045, 1–27–59, Cl. 287—75.
Klein, Eugene A.: *See*—
Bain, Joseph P., Booth, Hunt, and Klein. 2,871,268.
Klein, Stephen V., to F. B. Redington Co. Counting device. 2,870,962, 1–27–59, Cl. 235—144.
Klein, Werner, and W. Friz, to International Standard Electric Corp. Traveling wave tube of high amplification. 2,871,393, 1–27–59, Cl. 315—3.5.
Klingler, Karl A. Pressurized extensible seals. 2,870,638, 1–27–59, Cl. 74—18.2.
Klockner-Humboldt-Deutz Akt.: *See*—
Heckmann, Wolfgang G. J. 2,870,913.

Klomparens, William, and C. D. Vellaire, to The Upjohn Co. Fungicidal composition comprising cycloheximide and solubilized lignin. 2,871,155, 1-27-59, Cl. 167—42.

Knandel, George J.: *See*—
Bacon, Walter M., Branson, Knandel, and Locke. 2,871,286.

Knapp, Bernard L., to Diamond Alkali Co. Apparatus for separating solid-liquid-gas mixtures. 2,871,108, 1-27-59, Cl. 23—288.

Knight, Robert L. Bathtub cleaning apparatus. 2,870,457, 1-27-59, Cl. 4—173.

Knochel, William J., to Westinghouse Electric Corp. Method of assembling a color television tube. 2,871,087, 1-27-59, Cl. 316—19.

Knox Manufacturing Co.: *See*—
Linquist, Alan P. 2,870,976.
Linquist, Alan P., and Petrick. 2,870,832.

Koebel Diamond Tool Co.: *See*—
Jahnke, David H. 2,870,993.

Koenig, William E. Juice extractor. 2,870,653, 1-27-59, Cl. 74—721.

Koeppel, Beverly W., to Seismograph Service Corp. Radio location system. 2,871,474, 1-27-59, Cl. 343—105.

Kolling, Helmut, F. Rappen, and W. Reiffert, to Ruhrchemie Akt. Water-free polishes containing partially neutralized wax-acid paraffin. 2,871,210, 1-27-59, Cl. 260—23.

Kopacki, Adam F., to The Linen Thread Co., Inc. Netting treatment process. 2,870,669, 1-27-59, Cl. 87—1.

Korchynsky, Michael, to Union Carbide Corp. Low alloy ferritic steel for high temperature application. 2,871,117, 1-27-59, Cl. 75—123.

Korner, Renzo L., G. N. Rieger, and W. H. McCurdy, to Westinghouse Electric Corp. Method for baking and exhausting electron discharge devices. 2,871,086, 1-27-59, Cl. 316—4.

Koser, Herman G. Silo construction. 2,870,984, 1-27-59, Cl. 248—229.

Kottler, August: *See*—
Seeger, Ernst, and Kottler. 2,871,242.

Kozacka, Frederick J.: *See*—
Swain, Kenneth W., Kozacka, and Salzer. 2,871,314.

Krance, Earl O.: *See*—
Fouse, Samuel S., and Krance. 2,871,285.

Kraus, Edmund J.: *See*—
Kraus, Robert A. and E. J. 2,870,465.

Kraus, Robert A. and E. J. Method of die forming internal threads. 2,870,465, 1-27-59, Cl. 10—152.

Krepps, James E., Jr., to Sarkes Tarzian, Inc. Ultra-high-frequency tuner for television receivers. 2,871,358, 1-27-59, Cl. 250—40.

Kretzmer, Ernest R., to Bell Telephone Laboratories, Inc. Temperature sensitive transistor control circuit. 2,871,376, 1-27-59, Cl. 307—88.5.

Kreuter, Kenneth G., to Penn Controls Inc. Compensated anticipating thermostat. 2,870,965, 1-27-59, Cl. 236—68.

Kuder, Milton L., to United States of America, Commerce. Balance detector used in electronic analogue-to-digital converter. 2,871,351, 1-27-59, Cl. 250—27.

Kuhrt, Noel H., and M. I. Van Graafeiland, to Eastman Kodak Co. Method of producing bakery products. 2,871,124, 1-27-59, Cl. 99—91.

Kuhrt, Noel H., and M. I. Van Graafeiland, to Eastman Kodak Co. Method of making bakery products. 2,871,125, 1-27-59, Cl. 99—91.

Kuhrt, Noel H., and M. I. Van Graafeiland, to Eastman Kodak Co. Method of preparing bakery products. 2,871,128, 1-27-59, Cl. 99—118.

Kulesza, Chester P., to Reynolds Metals Co. Vacuum package. 2,870,954, 1-27-59, Cl. 229—62.5.

Kulik, Metro D., to Consolidation Coal Co. Method of removing finely divided solid particles from hydrocarbonaceous liquids. 2,871,181, 1-27-59, Cl. 208—45.

Kuljian Corp., The: *See*—
Kuljian, Harry A., and Fadden. 2,870,751.

Kuljian, Harry A., and W. J. Fadden, Jr., to The Kuljian Corp. Pumpless liquid heater and translator. 2,870,751, 1-27-59, Cl. 122—451.

Kunreuther, Frederick, to Shell Development Co. Process for the production of gasoline from petroleum residues. 2,871,184, 1-27-59, Cl. 208—55.

Kusters, Eduard: *See*—
Urban, Peter. 2,870,706.

Kwitek, Edwin M., to Paper Converting Machine Co., Inc. Web cutting apparatus. 2,870,840, 1-27-59, Cl. 164—68.

Labanowski, Jessie: *See*—
Gabriel, Gustave O. 2,871,384.

Lablache-Combier, Michel J.: *See*—
Bernad, Jacques J., Novion, and Lablache-Combier. 2,870,925.

La Bonia, Vincent, and J. W. Platt, to The Platt & Labonia Co. Combined shelf and hanger means and improved support therefor. 2,870,916, 1-27-59, Cl. 211—90.

Labortoires d'Electroniques et de Physique Appliquees: *See*—
Desvignes, Francois. 2,870,520.

Lacey, Eleanor E.: *See*—
Harkness, Reed B., and Lacey. 2,870,906.

Lacey, Richard N., to The Distillers Co. Ltd. Production of acid chlorides. 2,871,257, 1-27-59, Cl. 260—480.

Ladell, Emil, to Allmanna Svenska Elektriska Aktiebolaget. Security means for water cooled stirring windings. 2,871,279, 1-27-59, Cl. 13—26.

L'Air Liquide, Societe, pour l'Etude et l'Exploitation des Procedes Georges Claude: *See*—
Spire, Etienne. 2,871,008.

Lalick, Michael J. All-purpose blanket. 2,870,464, 1-27-59, Cl. 5—334.

La Lime, Theophile J.: *See*—
Richard, Henry J. 2,870,523.

La Maur Inc.: *See*—
Spiegel, Maurice L. 2,871,161.

Lander, Denis E. R. Antennas. 2,871,478, 1-27-59, Cl. 343—857.

Landis Machine Co.: *See*—
Hübl, Johann. 2,870,663.

Langer, Stanley H., to Westinghouse Electric Corp. Glycidyl polyether-triethanolamine borate composition and product treated therewith. 2,871,454, 1-27-59, Cl. 336—96.

Langvand, Ivar L., to The Babcock & Wilcox Co. Fluid heater walls. 2,870,750, 1-27-59, Cl. 122—6.

Lanier, Lewis H., Jr.: *See*—
Lanier, Lewis H., Sr., L. H. Lanier, Jr., and Dawson. 2,870,588.

Lanier, Lewis H., Sr., L. H. Lanier, Jr., and M. E. Dawson, to Kentucky-Ohio Products Corp. Core loading machine. 2,870,588, 1-27-59, Cl. 53—197.

Lapointe Machine Tool Co., The: *See*—
Bonnafe, Oliver W. 2,870,688.

Large, Robert L.: *See*—
Naylor, Joseph F., and Large. 2,870,896.

Larsh, Everett P. Nut gatherer. 2,870,594, 1-27-59, Cl. 56—328.

Larson, Harry I., ½ to J. A. Carlson. Earth drills. 2,870,991, 1-27-59, Cl. 255—22.

Lasek, Thaddeus A., to American Bosch Arma Corp. Fulcrum lever for governors. 2,870,651, 1-27-59, Cl. 74—522.

Laughlin, Vernon C. Loom reed. 2,870,796, 1-27-59, Cl. 139—192.

Lauren, Carl, to Radio Corp. of America. Geneva movement. 2,870,647, 1-27-59, Cl. 74—436.

Laval, Claude C., Jr. Sampling apparatus. 2,870,989, 1-27-59, Cl. 255—1.4.

Lawrence, Ernest O., to United States of America, Atomic Energy Commission. Calutrons. 2,871,364, 1-27-59, Cl. 250—41.9.

Lawser, Mary L.: *See*—
Schippert, Florence J., and Lawser. 2,870,454.

Lear, Inc.: *See*—
Demetriades, Anthony. 2,870,601.

Le Barre, Robert M. Upholstered cushions and equipment for upholstering the same. 2,870,824, 1-27-59, Cl. 155—182.

Leduc, Joseph A. M., to Diamond Alkali Co. Metal drawing lubricant. 2,870,903, 1-27-59, Cl. 205—21.

Lee, Burton D., to The Texas Co. Seismic prospecting. 2,871,461, 1-27-59, Cl. 340—15.

Lee, Harold G.: *See*—
Rinker, Lyman E., and Lee. 2,870,640.

Lees, James, and Sons Co.: *See*—
Berry, Charles C. 2,870,795.

Lehfeldt, Dr., & Co., G. m. b. H.: *See*—
Mugele, Friedrich. 2,871,404.

Lehovec, Kurt, to Sprague Electric Co. Semiconductor method. 2,871,140, 1-27-59, Cl. 148—1.5.

Lehrer, Erwin: *See*—
Bartholome, Ernst, Frey, Lehrer, and Lorenz. 2,870,867.

Leleu, Jean: *See*—
Seon, Marius, Wetroff, and Leleu. 2,871,247.

Leliter, Chester P., to Allis-Chalmers Mfg. Co. Clutch shifting mechanism. 2,870,643 1-27-59, Cl. 74—335.

Lempert, Joseph, to Westinghouse Electric Corp. Split section high voltage tube. 2,871,402, 1-27-59, Cl. 315—14.

Leonard, Edward J., to International Telephone and Telegraph Corp. 100-line direct-access crossbar telephone switching unit. 2,871,297, 1-27-59, Cl. 179—18.

Leonard, Louis H., Jr., to Carrier Corp. Control arrangement for absorption refrigeration system. 2,870,613, 1-27-59, Cl. 62—103.

Leslie, James D.: *See*—
Cockburn, Stanley D., Leslie, Priestman, and Ragsdale. 2,871,049.

Lester, Ray V., to Westinghouse Electric Corp. Hot-start device for A. C. welders. 2,871,411, 1-27-59, Cl. 315—176.

Leupold & Stevens Instruments, Inc.: *See*—
Rinker, Lyman E., and Lee. 2,870,640.

Levinthal Electronic Products, Inc.: *See*—
Morris, Albert J., and Swanson. 2,871,380.

Levitt, Semond, to Fruehauf Trailer Co. Plastic doors and door frames for trailers. 2,871,056, 1-27-59, Cl. 296—106.

Levy, Joseph, to The Trubek Laboratories. Method of producing carbamate esters. 2,871,259, 1-27-59, Cl. 260—482.

Liaaen, Nils J. Pitch adjusting gear for controllable pitch propellers. 2,870,848, 1-27-59, Cl. 170—160.39.

Librascope, Inc.: *See*—
Hill, Frank A. 2,871,366.

Likens, Glen V. Measurement controls or timers for folding machines. 2,871,010, 1-27-59, Cl. 270—81.

Lindbom, Torsten H., to Fairchild Engine and Airplane Corp. Pneumatic cabin temperature control system. 2,870,964, 1-27-59, Cl. 236—1.

Lindenblad, Nils E., to Radio Corp. of America. Thermoelectric heat pumps. 2,870,610, 1-27-59, Cl. 62—3.

Lindsey, Robert J., to American Steel Foundries. Hydraulic decompression arrangement. 2,870,782, 1-27-59, Cl. 137—505.

Linen Thread Co., Inc., The: *See*—
Kopacki, Adam F. 2,870,669.

Link-Belt Co.: *See*—
Teichman, Rudolph R. 2,870,547.

Linke, Johannes, to Machine Tool Works Oerlikon, Administration Co. Container for a cartridge belt. 2,870,681, 1-27-59, Cl. 89—34.

Linnell, Robert H., to Titanium Zirconium Co., Inc. Zirconium compositions and process of making. 2,871,138, 1-27-59, Cl. 106—299.

Linquist, Alan P., to Knox Mfg. Co. Core attachment for picture screens. 2,870,976, 1-27-59, Cl. 242—74.

Linquist, Alan P., and R. E. Petrick, to Knox Mfg. Co. Picture screen. 2,870,832, 1-27-59, Cl. 160—351.

Lionel Corp., The: *See*—
Pettit, Frank. 2,871,808.
Lipton, Milton A. Electrical cable. 2,871,151, 1–27–59, Cl. 154—2.24.
Lister, R. A., & Co. Ltd.: *See*—
Morris, Alberto J. 2,870,754.
Litton Industries of California: *See*—
Weideman, James W., and Rathje. 2,871,326.
Livingston, Jack P., to United States of America, Atomic Energy Commission. Spherical die. 2,870,484, 1–27–59, Cl. 18—34.
Lobkowitz, Günther B., to Inter-Continentaler Huttenbau. Vertical-type rolling mill. 2,870,654, 1–27–59, Cl. 80—55.
Lobosco, Roscoe R., J. E. Messina, and G. W. Oyler, to Union Carbide Corp. Electric arc process and apparatus. 2,871,336, 1–27–59, Cl. 219—74.
Locke, George A.: *See*—
Bacon, Walter M., Branson, Knandel, and Locke. 2,871,286.
Lockheed Aircraft Corp.: *See*—
Johnson, Clarence L. 2,870,684.
Loeb, George H., Jr.: *See*—
Carico, Vincent A. 2,871,078.
Loechl, Clarence J., to The Celotex Corp. Gypsum products and process of manufacture. 2,871,134, 1–27–59, Cl. 106—110.
Loewe Opta A. G.: *See*—
Roepke, Willi. 2,871,019.
Lohman, Robert D., to Radio Corp. of America. Stepwave generator. 2,871,378, 1–27–59, Cl. 307—88.5.
Lokes, Bjarte, to G. D. Searle & Co. Process for 3-hydroxy-6-alkyl-5,16-pregnadien-20-ones and esters thereof. 2,871,246, 1–27–59, Cl. 260—397.4.
Long, Justin T.: *See*—
Sweeney, Orland R., Arnold, and Long. 2,871,207.
Long, Theodore M. Temperature responsive rocket nozzle. 2,870,599, 1–27–59, Cl. 60—35.6.
Long, Theodore M. Flow controlling mechanism for reaction type motors. 2,870,603, 1–27–59, Cl. 60—35.6.
Lonza Elektrizitätswerke und Chemische Fabriken A. G.: *See*—
Zdansky, Ewald A. 2,871,179.
Looney, Fred, and H. O. Earnest, Windshield cleaning device. 2,870,470, 1–27–59, Cl. 15—118.
Loper, George H., and R. R. Pittman, to Socony Mobil Oil Co., Inc. Recording camera for monitoring seismic waves. 2,871,089, 1–27–59, Cl. 346—109.
Lorenz, Anton: *See*—
Luckhardt, Johannes and W. 2,870,822.
Lorenz, Donald L., to Thompson Products, Inc. Movable bushing for a pressure-loaded gear pump. 2,870,720, 1–27–59, Cl. 103—126.
Lorenz, Lothar: *See*—
Bartholome, Ernst, Frey, Lehrer, and Lorenz. 2,870,867.
Lorette, Nicholas B., to The Dow Chemical Co. Preparation of keto ethers. 2,871,269, 1–27–59, Cl. 260—594.
Lott, Harry C.: *See*—
Higgins, Walter A., and Lott. 2,870,980.
Love, Gordon W., and C. A. Peltzsari. Removable window sash and a spring-channel combination therefor. 2,870,494, 1–27–59, Cl. 20—52.2.
Lovett, Richard R., Jr. Syphon bailer for boats. 2,870,785, 1–27–59, Cl. 137—560.
Lowe, Earl R.: *See*—
Smith, Gordon R. 2,870,686.
Lowman, Malden C., Jr., and E. J. Fisch, to Shell Development Co. Recovery of oil from tar sands. 2,871,180, 1–27–59, Cl. 208—11.
Luckhardt, Johannes, deceased; W. J. F. Luckhardt, sole heir of said Luckhardt, to N. F. Martin, and O. L. Walter, trustees of Kappa Trust. Reclining article of repose for supporting the body of a person. 2,870,621, 1–27–59, Cl. 155—106.
Luckhardt, Johannes, deceased by W., administrater, to A. Lorenz. Article of repose for supporting the body of a person. 2,870,822, 1–27–59, Cl. 155—106.
Luckhardt, Wassili: *See*—
Luckhardt, Johannes and W. 2,870,822.
Luckhardt, Johannes and W. J. F. 2,870,821.
Lukens, C. Dewitt, Surgical Mfg. Co., The: *See*—
Harkness, Reed R., and Lacey. 2,870,806.
Lundgren, John L., to Geo. D. Roper Corp. Electric ignition system for the oven or broiler burner on a gas stove. 2,870,835, 1–27–59, Cl. 141—9.
Lundgren, Robert H. Ladder attachment. 2,870,948, 1–27–59, Cl. 228—60.
Luteker, Simon. Tubing cutter. 2,870,536, 1–27–59, Cl. 30—102.
Lutz, Irvin H.: *See*—
Kirkland, Earl V., and Lutz. 2,871,248.
Lyman, Harold T., to Aladdin Industries, Inc. Wide range tuner with flat coil and cavity resonator. 2,871,360, 1–27–59, Cl. 250—40.
Lyon, George A. Bomb shell with hanger socket structure. 2,870,707, 1–27–59, Cl. 102—2.
Lyon, George A. Wheel cover. 2,871,062, 1–27–59, Cl. 301—37.
Lyon, Lucein L., to R. W. Walsh. Reciprocating sander. 2,870,581, 1–27–59, Cl. 51—170.
MacDonald, Robert N., to E. I. du Pont de Nemours and Co. Stabilization of polyoxymethylenes with phenols. 2,871,220, 1–27–59, Cl. 260—45.95.
Machalek, Ferdinand T., to International Telephone and Telegraph Corp. Piano hammer. 2,870,665, 1–27–59, Cl. 84—254.
Machine Tool Works Oerlikon, Administration Co.: *See*—
Linke, Johannes. 2,870,681.
Machinery Electrification, Inc.: *See*—
Mason, James A., and Duff. 2,870,972.
MacIntyre, Ronald, and L. J. Sheakley, to Specialties Development Corp. Resistance material for fire detector element. 2,871,197, 1–27–59, Cl. 252—518.
MacLean-Fogg Lock Nut Co.: *See*—
Oakley, Gilbert F. 2,870,722.
Magnuson, Genevieve I.: *See*—
Cowan, Tyson G. 2,870,585.
Magnuson, Roy M.: *See*—
Cowan, Tyson G. 2,870,585.
Mahler, Charles J., M. P. White, and R. B. Immel, to Westinghouse Electric Corp. Mounting means for contact members. 2,871,322, 1–27–59, Cl. 200—166.
Mahler, Charles J., and M. P. White, to Westinghouse Electric Corp. Mounting means for contact members. 2,871,323, 1–27–59, Cl. 200—166.
Mahler, George T., to The New Jersey Zinc Co. Recovery of titanium tetrachloride. 2,870,869, 1–27–59, Cl. 183—120.
Malerich, J Anthony, Jr. Combined surgical table and body member support. 2,871,074, 1–27–59, Cl. 311—11.
Malsbary, James S., and E. B. Hilker, deceased, by A. Hilker, administratrix, to Wagner Electric Corp. Control for parallel connected A. C. supply circuits. 2,871,373, 1–27–59, Cl. 307—51.
Mankowich, Ivan, L. E. Steinle, and F. P. Chiavetta, to United States Rubber Co. Reclaiming of vulcanized scrap rubber. 2,871,205, 1–27–59, Cl. 260—2.3.
Mankowich, Ivan, L. E. Steinle, and F. P. Chiavetta, to United States Rubber Co. Treatment of reclaimed rubber. 2,871,206, 1–27–59, Cl. 260—5.
Mann, Julius W., and G. F. Russell. Continuously-operated radio frequency adhesive setter for the edge bonding of materials. 2,870,806, 1–27–59, Cl. 144—281.
Manser, Marvin R. Dispensing apparatus. 2,870,590, 1–27–59, Cl. 53—250.
Mappes, William L., to Northeast Capital Corp. Clearance marker light. 2,871,342, 1–27–59, Cl. 240—8.2.
Marchant, Paul A., to Injection Molding Co. Dropper assembly. 2,870,797, 1–27–59, Cl. 141—24.
Margon Corp.: *See*—
Bashover, Albert. 2,870,571.
Marine Instrument Co.: *See*—
Pavey, George M., Jr. 2,870,708.
Markey, Frank J., to G P E Controls, Inc. Web guide. 2,871,013, 1–27–59, Cl. 271—26.
Markowicz, Marion: *See*—
Eidlow, Alan J., Markowicz, and Morgan. 2,870,595.
Marks, Robert M.: *See*—
Bauer, Clifford D., Marks, and Bernardoni. 2,871,123.
Marsh, Alfred H., to Sun Oil Co. Liquid proportioning system. 2,870,776, 1–27–59, Cl. 137—99.
Marshburn, James P., and H. W. Willis, 10% to W. R. Hodge. Anchor. 2,870,731, 1–27–59, Cl. 114—208.
Martens, Henry F., to Armour and Co. Poultry package. 2,871,131, 1–27–59, Cl. 99—194.
Martin, Alfred W., to Celanese Corp. of America. Purification of methylisobutylketone. 2,871,169, 1–27–59, Cl. 202—60.
Martin, Andrew S., and J. E. McCleary. Sign supporting bracket. 2,870,985, 1–27–59, Cl. 248—324.
Martin, Norman P.: *See*—
Luckhardt, Johannes and W. 2,870,821.
Martin, Warren S. Powder-disseminating device. 2,870,565, 1–27–59, Cl. 43—148.
Marvin, George, to Marvin Landplane Co. Combination agricultural implement. 2,870,554, 1–27–59, Cl. 87—153.
Marvin Landplane Co.: *See*—
Marvin, George. 2,870,554.
Marx, Paul M.: *See*—
Scheuer, Fred F., and Marx. 2,870,473.
Marsetta, Louis A., to United States of America, Commerce. Automatic tracking proximity gage. 2,871,432, 1–27–59, Cl. 318—31.
Mason, James A., and H. H. Duff, to Machinery Electrification, Inc. Coiling apparatus. 2,870,972, 1–27–59, Cl. 242—25.
Mastabar Mining Equipment Co. Ltd.: *See*—
Wood, John G., Hainsworth, and Tebb. 2,870,886.
Mathieu, Francois J. H., to Societe les Constructions Guinard. Apparatus to separate the solid particles in a liquid solution and to dry said particles. 2,870,912, 1–27–59, Cl. 210—213.
Matulaitis, Victor R., to Elox Corp. of Michigan. Electrical discharge machining watchdog circuit. 2,871,410, 1–27–59, Cl. 315—120.
Matuzas, Anthony J., to The Singer Mfg. Co. Presser mechanisms for sewing machines. 2,870,726, 1–27–59, Cl. 112—236.
May & Baker Ltd.: *See*—
Adams, Arthur, and Slack. 2,871,243.
May, Frederick T.: *See*—
Sirles, John P., May, and Eberiel. 2,870,938.
Mayes, Fred M., to Sun Oil Co. Tubing caliper. 2,870,541, 1–27–59, Cl. 33—178.
Mayner, Thomas S., to Industrial Rayon Corp. Method for the manufacture and treatment of polyamide fibers. 2,871,090, 1–27–59, Cl. 8—151.1.
Masur, Paul M. Ground anchor. 2,870,884, 1–27–59, Cl. 189—90.
McAneny, Michael J., to L. Schott. Metal strap fastening means. 2,870,508, 1–27–59, Cl. 24—23.
McCabe-Powers Auto Body Co.: *See*—
Balogh, Roy O. 2,871,048.
McCarty, Lourdes V., to Controls Co. of America. Fuel valve with flow rate dependent upon combustion fan operation. 2,870,778, 1–27–59, Cl. 137—209.
McCleary, James E.: *See*—
Martin, Andrew S., and McCleary. 2,870,985.
McCormick, Gayle R. Lathe spindle stop. 2,871,023, 1–27–59, Cl. 279—51.

McCurdy, William H.: *See*—
Korner, Renzo L., Rieger, and McCurdy. 2,871,086.
McDaniel, William L. Dispensing unit. 2,870,895, 1-27-59, Cl. 194—10.
McDowall, Charles J.: *See*—
Harding, William R., and McDowall. 2,870,633.
McGraw-Edison Co.: *See*—
Moulton, Joseph D., and Miller. 2,871,281.
McIlrath, Clifford E. Condiment containers. 2,870,942, 1-27-59, Cl. 222—78.
McIlwraith, John W.: *See*—
Dellinger, Daniel H., and McIlwraith. 2,870,981.
McIntosh, Harold A., B. D. Mouron, J. Stell, and A. M. Herzig. Decelerator brake for motor vehicles. 2,870,885, 1-27-59, Cl. 192—3.
McMurray, Paul H.: *See*—
Haggard, John M., and McMurray. 2,870,928.
McQueen, Jack G., to General Electric Co. Gain control. 2,871,471, 1-27-59, Cl. 343—17.1.
McShane, Herbert F., Jr., to E. I. du Pont de Nemours and Co. Elastomeric condensation products prepared from polyether glycols. 2,871,226, 1-27-59, Cl. 260—77.5.
Meadows, James L., to The Texas Co. Regeneration of organic caustic solutions used in dethiolizing hydrocarbons. 2,871,194, 1-27-59, Cl. 252—192.
Meakin, Edgar N. Apparatus for cooling material adversely affected by heat of extrusion. 2,870,480, 1-27-59, Cl. 18—12.
Medart, Fred, Mfg. Co.: *See*—
Chervenka, George R. 2,870,492.
Meece, Ralph P. Motor vehicle snow broom. 2,870,469, 1-27-59, Cl. 15—82.
Melamed, Sidney: *See*—
Hankins, Elinor M., and Melamed. 2,871,223.
Melamed, Sidney, to Rohm & Haas Co. Process for the preparation of polymeric aminoalkyl vinyl ethers. 2,871,203, 1-27-59, Cl. 260—2.1.
Melik, John S., and H. E. Ries, Jr., to Sinclair Refining Co. Process for reactivating a spent silica-magnesia cracking catalyst. 2,871,195, 1-27-59, Cl. 252—411.
Mell-Hoffmann Mfg. Co.: *See*—
Mell, William E. 2,871,076.
Mell, William E., to Mell-Hoffmann Mfg. Co. Foldable table. 2,871,076, 1-27-59, Cl. 311—90.
Melling, George, Sr., to Melling Tool Co. Machine tool for boring intersecting bores. 2,870,658, 1-27-59, Cl. 77—3.
Melling Tool Co.: *See*—
Melling, George, Sr. 2,870,658.
Meneley, William E., to California Research Corp. Booster pump station control. 2,870,716, 1-27-59, Cl. 103—12.
Mentag, Robert G.: *See*—
Clark, Jorge L. 2,870,851.
Mercer, William R., to Sanders Associates, Inc. Noise comparison signal detecting system. 2,871,346, 1-27-59, Cl. 250—20.
Merck & Co., Inc.: *See*—
Ott, Walther H. 2,871,122.
Merrigan, Timothy O. Distributor attachment for wagon. 2,871,020, 1-27-59, Cl. 275—2.
Messina, Joseph E.: *See*—
Loboseo, Roscoe R., Messina, and Oyler. 2,871,336.
Metallurgical Development Co.: *See*—
Derham, Leslie J., and Haywood. 2,871,007.
Metallurgical Processes Ltd.: *See*—
Derham, Leslie J., and Haywood. 2,871,007.
Metzger, William J., to National Malleable and Steel Castings Co. Car coupler. 2,870,919, 1-27-59, Cl. 213—100.
Meystre, Charles: *See*—
Wettstein, Albert, Vischer, Meystre, and Ehmann. 2,871,245.
Michaud, George E. Temperature control device for spark plugs. 2,870,760, 1-27-59, Cl. 123—169.
Miedel, Roland E. Compound projectile with separable sections. 2,870,710, 1-27-59, Cl. 102—50.
Mika, Thomas F., to Shell Development Co. Rubber vulcanization using pentaalkyl-substituted tetrahydropyrimidines as accelerators. 2,871,211, 1-27-59, Cl. 260—23.7.
Miller, William R.: *See*—
Moulton, Joseph D., and Miller. 2,871,281.
Mine Safety Appliances Co.: *See*—
Fisher, Joseph R. 2,870,445.
Minieri, Pasquale P., and W. M. Ziegler, to American Cyanamid Co. Tetracycline extractions. 2,871,264, 1-27-59, Cl. 260—559.
Minister of National Defense, Her Majesty the Queen in the right of Canada, as represented by the: *See*—
Atkinson, James T. N. 2,871,172.
Atkinson, James T. N. 2,871,171.
Minister of Supply, in Her Majesty's Government, of the United Kingdom of Great Britain and Northern Ireland, The: *See*—
Griffith, Alan A., and Thorpe. 2,870,978.
Minneapolis-Honeywell Regulator Co.: *See*—
Flagg, Raymond P. 2,871,311.
Minter, Herbert F., and N. C. Foster, to Westinghouse Electric Corp. Polyester elastomeric molding composition and product produced therewith. 2,871,420, 1-27-59, Cl. 317—158.
Mitchell, Ross H. Pilot's instrument flying hood. 2,870,446, 1-27-59, Cl. 2—12.
Miyazawa, Shigetada, to Osaka Machine Mfg. Co. Ltd. Device for intermittently driving a shaft. 2,870,646, 1-27-59, Cl. 74—394.
Mize, Cecil I. Microscope. 2,870,674, 1-27-59, Cl. 88—39.
Molotsky, Hyman M., and E. G. Ballweber, to Velsicol Chemical Corp. 1,2,3,4,5,5-hexachloro-4-hydroxymethylcyclopent-2-ene carboxylic acid derivatives. 2,871,255, 1-27-59, Cl. 260—468.
Molstad, Melvin C.: *See*—
Snyder, John R., Hagerty, and Molstad. 2,871,109.
Monsanto Chemical Co.: *See*—
D'Amico, John J. 2,871,239.
Moore, Edgar S.: *See*—
Zakrzewski, Andrew S., Ashby, Daskiewicz, and Moore. 2,870,805.
Moore, Fennon F. Formation test tool packer setting tool. 2,870,846, 1-27-59, Cl. 166—185.
Moore, Pernell J., to National Lead Co. Hydrocarbon detection. 2,871,105, 1-27-59, Cl. 23—230.
Moore, Ray R.: *See*—
Hudkins, Clyde, and Moore. 2,870,506.
Moore, Walter E., to Swing-A-Way Mfg. Co. Ice crusher. 2,870,969, 1-27-59, Cl. 241—238.
Moretti, Francesco, to Officine Meccaniche e Fonderie A. Bosco S. p. A. Scraper blade device. 2,870,911, 1-27-59, Cl. 210-147.
Morgan, David I.: *See*—
Eidlow, Alan J., Markowicz, and Morgan. 2,870,595.
Morris, Albert J., and J. P. Swanson, to Levinthal Electronic Products, Inc. High voltage pulse generator. 2,871,380, 1-27-59, Cl. 307—106.
Morris, Alberto J., to R. A. Lister & Co. Ltd. Internal combustion engine with piston having combustion cavity in its head. 2,870,754, 1-27-59, Cl. 123—32.
Morris, Jean K.: *See*—
Morris, William W. 2,871,329.
Morris, William W., ½ to C. B. Ellis and ½ to J. K. Morris. Electrical resistance wire nets and terminals. 2,871,329, 1-27-59, Cl. 201—63.
Morrow, Elmore F., to Avro Aircraft Ltd. Quick release mechanism. 2,870,510, 1-27-59, Cl. 24—230.
Morton Chemical Corp.: *See*—
Walton, Harold F., and Waugh. 2,871,252.
Moser, Friedrich, to Ri-Ri Werke A. G. Die-casting machine. 2,870,483, 1-27-59, Cl. 18—30.
Moshier, Ross W.: *See*—
Cadle, Richard D., and Moshier. 2,871,224.
Moss, Frederick: *See*—
Haworth, Lionel, Shire, and Moss. 2,870,870.
Moulton, Joseph D., and W. R. Miller, to McGraw-Edison Co. Alkaline storage battery with negative iron electrode. 2,871,281, 1-27-59, Cl. 136—25.
Mouron, Bertrand D.: *See*—
McIntosh, Harold A., Mouron, Stell, and Herzig. 2,870,885.
Mueller, Emil G., to Westinghouse Air Brake Co. Tread brake unit for railway vehicles. 2,870,873, 1-27-59, Cl. 188—33.
Mugele, Friedrich, to Dr. Lehfeldt & Co., G. m. b. H. Circuit for displaying ultrasonic energy signals. 2,871,404, 1-27-59, Cl. 315—26.
Murdock, Clayton E.: *See*—
Preist, Donald H., and Murdock. 2,871,397.
Murray, John F., and J. A. Wotring, to Thompson Products, Inc. Bushing for pressure loaded gear pump having a tapered journal surface. 2,870,719, 1-27-59, Cl. 103—126.
Murray, Victor S. Supported concrete floor and conduits. 2,870,623, 1-27-59, Cl. 72—70.
Murtaugh, Joseph P., to American Brake Shoe Co. Retaining key for dipper tooth parts having resilient pad. 2,870,667, 1-27-59, Cl. 85—8.3.
Musser, C Walton, and L. W. Insetta. Positioning and housing of crusher gauges. 2,870,631, 1-27-59, Cl. 73—167.
Mutchnik, Henry. Wedge fastener assemblies. 2,871,077, 1-27-59, Cl. 311—110.
N S U Werke Akt.: *See*—
Baier, Othmar. 2,870,578.
N. V. Nederlandsche Combinatie voor Chemische Industrie: *See*—
Alberda, Gerrit. 2,871,270.
Napolin, Seymour, to Radio Receptor Co., Inc. Ultra high frequency tuners or converters. 2,871,345, 1-27-59, Cl. 250—20.
Nathan, Arthur D.: *See*—
Carlson, Bernard E., and Nathan. 2,870,784.
National Aluminum Products Co.: *See*—
Helt, Herbert M. 2,870,996.
National Cash Register Co., The: *See*—
Deech, Joseph R. 2,871,408.
National Dairy Products Corp.: *See*—
Smith, Augustus B., Roberts, Wagner, and Stine. 2,871,126.
National Lead Co.: *See*—
Finlayson, Claude M., and Jordan. 2,871,190.
Moore, Pernell J. 2,871,105.
National Lock Co.: *See*—
North, Edwin W., and Wilson. 2,871,047.
National Malleable and Steel Castings Co.: *See*—
Metzger, William J. 2,870,919.
National Research Council: *See*—
Stevinson, Harry T. 2,870,871.
National Smelting Co. Ltd., The: *See*—
Derham, Leslie J., and Haywood. 2,871,007.
National-Standard Co.: *See*—
Adler, Orville E. 2,870,526.
National Supply Co., The: *See*—
Deitrickson, Roy H. 2,870,749.
National Telephone Supply Co., The: *See*—
Klein, Charles H. 2,871,045.
Naylor, Joseph F.: *See*—
Northmore, Raymond, and Naylor. 2,871,332.
Naylor, Joseph F., and R. L. Large, to T. & T. Vicars Ltd. Apparatus for conveying sheets of fragile material. 2,870,898, 1-27-59, Cl. 198—20.
Neher, Eldon P., to The General Tire and Rubber Co. Steering knuckle mounting. 2,871,025, 1-27-59, Cl. 280—96.2.

Neher, Herbert J. Apparatus for lifting stacks of bricks and the like. 2,871,052, 1-27-59, Cl. 294—63.
Nelson, John D.: *See*—
Pearson, Donald L., and Nelson. 2,870,586.
Nelson, Seddon C., and H. K. Steinfeld, to American Viscose Corp. Drying roll. 2,870,546, 1-27-59, Cl. 34—124.
Nelson, Stanley E.: *See*—
Dhonau, Herman B. C., and Nelson. 2,870,956.
Nesslein, Floyd F. and R. J. Holding device for disposable containers. 2,871,051, 1-27-59, Cl. 294—31.
Nesslein, Robert J.: *See*—
Nesslein, Floyd F. and R. J. 2,871,051.
Nesson, Israel, to M. Zaiger. Telescoping wiper arm. 2,871,043, 1-27-59, Cl. 287—58.
Neubrech, David A., and M. A. Cattaro, to Henry A. Gardner Laboratory, Inc. High sensitivity exposure head. 2,871,370, 1-27-59, Cl. 250—220.
Neukomm, Frederic: *See*—
Neukomm, Walter. 2,870,894.
Neukomm, Walter, to F. Neukomm. Workpiece holding or journalling member for machine tools. 2,870,894, 1-27-59, Cl. 193—1.
Neumann, Walter: *See*—
Barch, William E., and Neumann. 2,871,127.
New Jersey Zinc Co., The: *See*—
Mahler, George T. 2,870,869.
New York Air Brake Co., The: *See*—
Orshansky, Elias, Jr. 2,870,721.
Newell, William E.: *See*—
Aldrich, Donald F., and Newell. 2,871,409.
Newman, Roger: *See*—
Tyler, Winfield W., and Newman. 2,871,377.
Tyler, Winfield W., and Newman. 2,871,427.
Nielsen, Niels H. Measuring process for the recording of the intensity of signal sequences. 2,871,465, 1-27-59, Cl. 88—14.
Nilsson, Nils E., G. O. Rodmert, and J. C. H. Bjork, to Telefonaktiebolaget L M Ericsson. Automatic telephone system. 2,871,290, 1-27-59, Cl. 179—22.
Nilsson, Richard, Aktiebolag: *See*—
Weiss, Josef. 2,871,135.
Norment, Robert T., to International Fermont Machinery Co., Inc. Means for safely exhausting hot gases. 2,870,862, 1-27-59, Cl. 183—25.
North, Edwin W., and W. B. Wilson, to National Lock Co. Key lock construction. 2,871,047, 1-27-59, Cl. 292—169.
North Electric Co.: *See*—
Crow, Clarence C., and Bonnar. 2,871,301.
Dahlman, Per O. 2,871,418.
North American Aviation, Inc.: *See*—
Bouvier, George A. 2,871,382.
Hays, Stephen A. 2,871,142.
Hemphill, Carl A. 2,870,748.
Northeast Capital Corp.: *See*—
Magnes, William L. 2,871,342.
Northmore, Raymond, and J. F. Naylor, to T. & T. Vicars Ltd. Dielectric heating electrodes. 2,871,332, 1-27-59, Cl. 219—10.69.
Norton, Charles G., to Pacific Valves, Inc. Flat lapping machine. 2,870,580, 1-27-59, Cl. 51—131.
Norton Co.: *See*—
Comstock, George R., 3d. 2,871,177.
Norwood, Donald W. Exposure calculator for flashlight photography. 2,870,670, 1-27-59, Cl. 88—2.4.
Novion, Armand: *See*—
Bernad, Jacques J., Novion, and Lablache-Combier. 2,870,925.
Novotny, Raymond J.: *See*—
Benson, Ralph A. 2,870,570.
Oakley, Gilbert F., to MacLean-Fogg Lock Nut Co. Anchor for lading straps and the like. 2,870,722, 1-27-59, Cl. 105—369.
O'Bannon, William: *See*—
Parks, Asbury S., and O'Bannon. 2,871,072.
O'Brien, William P., to W. D. Allen Mfg. Co. Fire hose nozzle. 2,871,059, 1-27-59, Cl. 299—136.
Oehler, William P.: *See*—
Youngberg, Charles H., and Oehler. 2,870,849.
Officine Meccaniche e Fonderie A. Bosco S. p. A.: *See*—
Moretti, Francesco. 2,870,911.
Oishei, John R., to Trico Products Corp. Combined electric windshield cleaner and washer. 2,870,476, 1-27-59, Cl. 15—250.4.
Okress, Ernest C., and R. J. Green, to Westinghouse Electric Corp. Electron discharge device. 2,871,407, 1-27-59, Cl. 315—39.69.
Olds, Karl M., Jr.: *See*—
Goldberg, Richard J., and Olds. 2,870,704.
Oliver, John R. Method of etching for duplicating in a metallic piece a pattern formed by recessed areas in the surface of a master piece. 2,871,112, 1-27-59, Cl. 41—43.
Olson, Delwyn L.: *See*—
Cole, Howard W., Jr., and Olson. 2,870,887.
Olson, Harry F., and J. Preston, to Radio Corp. of America. Acoustic apparatus. 2,870,856, 1-27-59, Cl. 181—.5.
Orenda Engines Ltd.: *See*—
Comery, Peter D. 2,871,038.
Orshansky, Elias, Jr., to The New York Air Brake Co. Hydrodynamic apparatus using inclined plates. 2,870,721, 1-27-59. Cl. 103—162.
Ortner, Samuel. Pocket safety knife. 2,870,537, 1-27-59, Cl. 30—162.
Osaka Machine Mfg. Co. Ltd.: *See*—
Miyazawa, Shigetada. 2,870,646.
Osborn Mfg. Co., The: *See*—
Benyak, John B. 2,871,060.
Osenchuk, John M., to Raytheon Mfg. Co. Electron discharge devices and cathodes therefor. 2,871,394, 1-27-59, Cl. 315—3.5.
Ott, Walther H., to Merck & Co., Inc. Feedstuffs fortified with bacitracin and vitamin B_{12}. 2,871,122, 1-27-59, Cl. 99—2.
Ottinger, August F.: *See*—
Brady, Charles V., and Ottinger. 2,870,955.
Owens-Illinois Glass Co.: *See*—
Trudeau, Urban P. 2,870,654.
Oyler, Glenn W.: *See*—
Lobosco, Roscoe R., Messina, and Oyler. 2,871,336.
Pacific Valves, Inc.: *See*—
Norton, Charles G. 2,870,580.
Pack Mfg. Co.: *See*—
Shelly, Robert S. 2,871,080.
Palm, James W., to Borg-Warner Corp. Clutch assembly. 2,870,893, 1-27-59, Cl. 192—113.
Palonen, Carl V., and E. W. Kaiser, to Peerless Cement Corp. Inorganic dust treatment process. 2,871,133, 1-27-59, Cl. 106—100.
Pan American Petroleum Corp.: *See*—
Swearingen, John E. 2,871,253.
Pandjiris Weldment Co., The: *See*—
Cooper, Cleveland N., and Frederick. 2,871,334.
Pannier, Louis H., and J. M. Ey. Automatic safety brake system. 2,871,066, 1-27-59, Cl. 303—63.
Paper Converting Machine Co., Inc.: *See*—
Kwitek, Edwin M. 2,870,840.
Parfitt, John W. Mold assembly for manufacturing concrete inlet tops for storm drains. 2,870,515, 1-27-59, Cl. 25—118.
Parker, Daniel B., and H. D. Kitchen, to Kalamazoo Vegetable Parchment Co. Tear strip, and wrapper and package. 2,870,953, 1-27-59, Cl. 229—51.
Parker, James S., ½ to J. G. Clower. Automatic tree injector. 2,870,576, 1-27-59, Cl. 47—57.5.
Parker Pen Co., The: *See*—
Kersten, William H. 2,870,741.
Parkersburg-Aetna Corp.: *See*—
Parks, Asbury S., and O'Bannon. 2,871,072.
Ray, Robert F. 2,870,860.
Parks, Asbury S., and W. O'Bannon, said O'Bannon assor. to Parkersburg-Aetna Corp. Piston sealing assemblies. 2,871,072, 1-27-59, Cl. 309—31.
Parks, James M., Jr. Dental floss dispenser. 2,870,773, 1-27-59, Cl. 132—92.
Pass & Seymour, Inc.: *See*—
Winter, Paul H. 2,870,933.
Passedouet, Andre H., to Consortium de Produits Chimiques et de Synthese. Method of disinfecting. 2,871,091, 1-27-59, Cl. 21—58.
Paterman, Jack E., to Elliott Brothers (London) Ltd. Electronic amplifying circuits. 2,871,347, 1-27-59, Cl. 250—27.
Pattin Mfg. Co., Inc.: *See*—
Dempsey, Joseph B. 2,870,666.
Patton, James O., Jr.: *See*—
Cooper, Jacob L., Daniel, Patten, and Vandergrift. 2,870,496.
Paul, Talbert W., to Deere & Co. Seeding device. 2,870,940, 1-27-59, Cl. 221—233.
Pavey, George M., Jr., to Marine Instrument Co. Firing line for subaqueous geophysical prospecting. 2,870,708, 1-27-59, Cl. 102—16.
Payne, Frank E., to Crane Packing Co. Sealing element for rotary mechanical seals. 2,871,039, 1-27-59, Cl. 286—11.14.
Payne, Frank E., to Crane Packing Co. Rotary mechanical seal. 2,871,040, 1-27-59, Cl. 286—11.14.
Payzant, Henry H., to Timber Structures, Inc. Woodworking finger joint cutter assembly. 2,870,807, 1-27-59, Cl. 144—218.
Pearson, Charles M.: *See*—
Corbin, Wesley S., Pearson, and Walden. 2,870,690.
Pearson, Donald L., and J. D. Nelson, to General Electric Co. Exhausting and gas filling machines for lamps. 2,870,586, 1-27-59, Cl. 53—79.
Pease, Robert H. Trailer brake control system. 2,870,876, 1-27-59, Cl. 188—139.
Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques: *See*—
Seon, Marius, Wetroff, and Leleu. 2,871,247.
Peerless Cement Corp.: *See*—
Palonen, Carl V., and Kaiser. 2,871,133.
Pelizzari, Charles A.: *See*—
Love, Gordon W., and Pelizzari. 2,870,494.
Peltola, Veikko K., to Illinois Testing Laboratories, Inc. Magnetic restoring force suspension galvanometer. 2,871,449, 1-27-59, Cl. 324—154.
Penn Controls Inc.: *See*—
Kreuter, Kenneth G. 2,870,965.
Penrose, James R., to Pirelli-General Cable Works Ltd. Metal tubes or metal sheaths of electric cables. 2,870,792, 1-27-59, Cl. 138—50.
Perfect Circle Corp.: *See*—
Bremneke, Arthur M. 2,871,071.
Perkins, Harley A., Jr., to Westinghouse Electric Corp. Magnetic amplifier system. 2,871,442, 1-27-59, Cl. 323—89.
Perkins, Roger A., and W. O. Binder, to Union Carbide Corp. Resistance to hot-cracking of chromium-nickel steel welds. 2,871,118, 1-27-59, Cl. 75—130.5.
Perlman, Robert R. Oscillators. 2,871,354, 1-27-59, Cl. 250—36.
Perrot, Arnold. Apparatus for sealing a transparency slide. 2,870,813, 1-27-59, Cl. 153—1.
Persson, Edward E.: *See*—
Jacobs, Robert J., and Persson. 2,870,738.
Peselnick, Herman. Multipanel windows. 2,870,831, 1-27-59, Cl. 160—120.

Petera, Melville F. Control of torque and fluid flow in sealed drives. 2,870,617, 1–27–59, Cl. 64—32.

Petersen, Gerald A. M. Drive lug for pilot bit and earth boring augers. 2,870,995, 1–27–59, Cl. 255—61.

Peterson, John J.: *See*—
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Peterson, John W., and H. C. Jennings, Jr., to Everest & Jennings, Inc. Adjustable telescopic connection. 2,871,044, 1–27–59, Cl. 287—58.

Peterson, Merlin H., to Abbott Laboratories. Production of penicillin in presence of a polythionate. 2,871,164, 1–27–59, Cl. 195—36.

Petracek, Francis J., and L. K. Zechmeister, to California Institute Research Foundation. β-carotene derivatives and method of preparing derivatives of polyenes. 2,871,267, 1–27–59, Cl. 260—586.

Petrick, Russell E.: *See*—
Linquist, Alan P., and Petrick. 2,870,832.

Pettit, Frank, to The Lionel Corp. Toy railroad track connectors. 2,871,308, 1–27–59, Cl. 191—29.

Pettus, James L.: *See*—
Albee, Arthur C., and Pettus. 2,870,975.

Pfaudler Permutit Inc.: *See*—
Greene, Otto W., and Kirvan. 2,870,982.

Pfitzner, Helmut, and O. Kaufmann, to Badische Anilin- & Soda-Fabrik Akt. Cobalt containing azo dyestuffs. 2,871,233, 1–27–59, Cl. 260—151.

Pharis, William W., to General Dynamics Corp. Reverting call circuit. 2,871,296, 1–27–59, Cl. 179—17.

Pharis, William W., to General Dynamics Corp. Telephone trunking system. 2,871,302, 1–27–59, Cl. 179—27.

Philco Corp.: *See*—
Bradley, William E. 2,871,453.
Dollscheck, Charles W. 2,871,304.
Waring, John W. 2,871,306.

Phillips Petroleum Co.: *See*—
Anderson, Herbert R., Jr. 2,871,216.
Piety, Raymond G. 2,871,444.
Short, James N. 2,871,283.

Picatti, George G. Closure operating mechanism and automatic control system therefor. 2,871,009, 1–27–59, Cl. 268—49.

Piety, Raymond G., to Phillips Petroleum Co. Electrical well logging. 2,871,444, 1–27–59, Cl. 324—1.

Pikal, Harry. Apple coating turret with swingable hood means. 2,870,736, 1–27–59, Cl. 118—13.

Pinsley, Edward A., to United Aircraft Corp. Mixed blade compressor. 2,870,958, 1–27–59, Cl. 230—122.

Pioneer Specialty Co.: *See*—
Carlson, Emil. 2,870,973.

Piotrowski, Lottie J., L. Rienks, and M. D. Grossnickle, to Armour and Co. Thyrotropic hormone separation. 2,871,159, 1–27–59, Cl. 167—74.

Pirelli-General Cable Works Ltd.: *See*—
Penrose, James R. 2,870,792.

Pitcock, Ewing T. Printer's apron. 2,870,447, 1–27–59, Cl. 2—51.

Pittman, Robert R.: *See*—
Loper, George B., and Pittman. 2,871,089.

Pittsburgh Plate Glass Co.: *See*—
Christenson, Roger M., and Cummings. 2,871,208.

Platt, John W.: *See*—
La Bonia, Vincent, and Platt. 2,870,916.

Platt & Labonia Co., The: *See*—
La Bonia, Vincent, and Platt. 2,870,916.

Podoloff, Richard H., to International Instruments, Inc. Electrical measuring instruments. 2,871,450, 1–27–59, Cl. 324—154.

Pohl, Walter J.: *See*—
Rogers, Douglas C., and Pohl. 2,871,392.

Pokryfke, John A., to W. D. Allen Mfg. Co. Storage cabinet for fire hose. 2,871,083, 1–27–59, Cl. 312—242.

Politte, Cecil A. Emergency brake safety lock. 2,870,874, 1–27–59, Cl. 188—67.

Poorman, John E. Knurling tool. 2,870,661, 1–27–59, Cl. 80—5.1.

Poorman, J. E., Inc.: *See*—
Poorman, John E. 2,870,662.

Poorman, John E., to J. E. Poorman, Inc. Cross-slide knurling or like tool. 2,870,662, 1–27–59, Cl. 80—5.1.

Porcheddu, John. Inertia-operated switch for conveyances and the like. 2,871,310, 1–27–59, Cl. 200—61.45.

Portenier, Ernst, W. Spinnler, E. Bolay, and H. Riolo, to Albiswerk Zuerich A. G. Infrared image converter apparatus. 2,871,372, 1–27–59, Cl. 250—239.

Porter, Lee M.: *See*—
Rust, Frederick F., and Porter. 2,871,101.
Rust, Frederick F., Porter, and Vaughan. 2,871,102.

Posansky, Jacob. Bug screen bracing means. 2,870,833, 1–27–59, Cl. 160—369.

Poux, Noel J., to Talon, Inc. Slider for slide fasteners. 2,870,507, 1–27–59, Cl. 24—205.15.

Prasse, Herbert F., to Thompson Products, Inc. Implement pump. 2,870,718, 1–27–59, Cl. 103—126.

Preist, Donald H., and C. E. Murdock, to Eitel-McCullough, Inc. Electron tube of the klystron type. 2,871,397, 1–27–59, Cl. 315—5.46.

Premier Materials Co.: *See*—
Stone, Peter. 2,871,075.

Preston, John: *See*—
Olson, Harry F., and Preston. 2,870,856.

Price, Earl R., to Bendix Aviation Corp. Automatic braking system. 2,871,064, 1–27–59, Cl. 303—31.

Price, John A., to American Cyanamid Co. Copolymers of a dialkyl amine oxide and a monovinylidene compound and oriented fiber thereof. 2,871,229, 1–27–59, Cl. 260—85.5.

Price, Peter R., ⅛ to G. E. B. Abell, and ⅛ to D. W. Tilley. Display apparatus to allow examination of a fast-moving continuous web. 2,871,012, 1–27–59, Cl. 271—2.3.

Priestman, Bewley D.: *See*—
Cockburn, Stanley D., Leslie, Priestman, and Ragsdale. 2,871,049.

Proctor & Gamble Co., The: *See*—
Holman, George W. 2,871,130.

Pruitt, Malcolm E.: *See*—
Baggett, Joseph M., and Pruitt. 2,871,219.

Puglia, Savatore. Tonsorial lather dispensers. 2,871,058, 1–27–59, Cl. 299—83.

Pullman-Standard Car Mfg. Co.: *See*—
Bock, George E., and Spence. 2,870,723.
Gutridge, Jack E. 2,870,724.

Puronto, Esko: *See*—
Saloranta, Arvo E., and Puronto. 2,870,713.

Quayle, George F., to The Yale & Towne Mfg. Co. Load manipulating device for lift truck. 2,870,929, 1–27–59, Cl. 214—652.

Quinlan, Amos L.: *See*—
Johnson, Kenneth F., and Quinlan. 2,871,337.

Rabalt, Willy: *See*—
Angst, Paul, and Rabalt. 2,870,534.

Rada, Frank J., and K. R. Bowman, to General Motors Corp. Conveyor belt structure. 2,870,902, 1–27–59, Cl. 198—181.

Radcliffe, Arthur J., Jr., to International Telephone and Telegraph Corp. Multichannel telephone carrier system. 2,871,293, 1–27–59, Cl. 179—15.

Radio Corp. of America: *See*—
Albee, Arthur C., and Pettus. 2,870,975.
Gray, Sidney. 2,871,371.
Guire, Ronald J., and Weiser. 2,871,100.
Lauxen, Carl. 2,870,647.
Lindenblad, Nils E. 2,870,610.
Lohman, Robert D. 2,871,378.
Olson, Harry F., and Preston. 2,870,856.
Schade, Otto H. 2,871,391.
Thomas, Lucius P. 2,871,288.
Vonderschmitt, Bernard V. 2,871,405.

Radio Receptor Co., Inc.: *See*—
Napolin, Seymour. 2,871,345.

Radkowski, Leo, T. A. Daly, and O. Eikel, Jr., to United States of America, Navy. Shearing device for cables. 2,870,676, 1–27–59, Cl. 89—1.7.

Rafferty, Christopher A., to Bendix Aviation Corp. Directional control servosystem. 2,871,436, 1–27–59, Cl. 318—489.

Ragsdale, La Verne R.: *See*—
Cockburn, Stanley D., Leslie, Priestman, and Ragsdale. 2,871,049.

Rainer, William C.: *See*—
Wilckens, Eibe A., Rainer, and Redding. 2,870,479.

Randall, David I., and N. W. Solonen, to General Aniline & Film Corp. Dyestuffs derived from 2,5-dimethoxyterephthaloyl chloride and amino 1,9-anthra-pyrimidine. 2,871,240, 1–27–59, Cl. 260—256.4.

Randall, Ralph S., to Vak-U-Pak Corp. Bag holder for a vacuum bag sealing machine. 2,870,591, 1–27–59, Cl. 53—371.

Randol, Glenn T. Automotive variable-ratio power transmission. 2,870,642, 1–27–59, Cl. 74—330.

Rankin, Alexander B. C., to Kelvin & Hughes Ltd. Ultrasonic testing of materials. 2,871,381, 1–27–59, Cl. 310—8.2.

Rapaport, Herman I. Pogo stick. 2,871,016, 1–27–59, Cl. 272—57.

Rapp, George G. Non-skid car block. 2,870,872, 1–27–59, Cl. 188—32.

Rappen, Friedrich: *See*—
Kolling, Helmut, Rappen, and Reiffert. 2,871,210.

Rapson, William H., to Hooker Chemical Corp. Production of chlorine dioxide. 2,871,097, 1–27–59, Cl. 23—152.

Raske, Arthur. Inflated grinding wheel. 2,870,582, 1–27–59, Cl. 51—192.

Rathje, David S.: *See*—
Weidenman, James W., and Rathje. 2,871,326.

Raumaker, Paul H.: *See*—
Stout, William H., and Raumaker. 2,871,033.

Ray-O-Lite Corp. of America: *See*—
Hudson, Forrest H. 2,870,531.

Ray, Robert F., to Parkersburg-Aetna Corp. Horizontal oil and gas separator. 2,870,860, 1–27–59, Cl. 183—2.7.

Raytheon Mfg. Co.: *See*—
Buckbee, John A., and Terzian. 2,871,403.
Osepchuk, John M. 2,871,294.
Schreiner, Louis W. 2,871,359.

Redding, Edward M.: *See*—
Wilckens, Eibe A., Rainer, and Redding. 2,870,479.

Redington, F. B., Co.: *See*—
Klein, Stephen V. 2,870,962.

Redniss, Alexander, S. Goodman, and T. Cantor, to Technical Enterprises Inc. Production of hydrogen chloride and sulfuric acid. 2,871,098, 1–27–59, Cl. 23—156.

Reed, Charles C., and R. Winterbottom, to American Cyanamid Co. Process for preparing chlortetracycline sulfate. 2,871,265, 1–27–59, Cl. 260—559.

Reed, Ronald: *See*—
Burton, Donald, Reed, and Flint. 2,871,162.

Reeves Brothers, Inc.: *See*—
Reeves, Charles E. G. 2,870,455.

Reeves, Charles E. G., to Reeves Brothers, Inc. Protective cover for an outdoor swimming pool. 2,870,455, 1–27–59, Cl. 4—172.

Reiffert, Wilhelm: *See*—
Kolling, Helmut, Rappen, and Reiffert. 2,871,210.

Rejdak, Melvin F., to Erico Products, Inc. Method for welding aluminum article to another metal article. 2,870,498, 1–27–59, Cl. 22—204.

Renner, William E., and W. A. Arnberger, to Carrier Corp. Self contained air conditioning units. 2,870,614, 1–27–59, Cl. 62—429.

Reserve Mining Co.: *See*—
Wynne, Ira H. 2,870,909.

Reynolds Metals Co.: *See*—
Kamjet, Jonas. 2,871,244.
Kuleesa, Chester P. 2,870,954.
Reynolds, R. J., Tobacco Co.: *See*—
Sherrill, Joseph H. 2,870,584.
Rheinisch-Westfalische "Revision Treuhand Akt." (Treuhand Akt.): *See*—
Schwank, Gunther. 2,870,830.
Rheinmetall Akt.: *See*—
Riffel, Heinrich. 2,870,896.
Rheostatic Co. Ltd., The: *See*—
Surgenor, David H. 2,871,316.
Rice, Joseph: *See*—
Wright, Esmond P. G., Rice, and Hunter. 2,871,484.
Richard, Henry J., 51% to Theophile J. La Lime. Cutting tools. 2,870,523, 1–27–59, Cl. 29—96.
Richards, Earl. Warm air baseboard heating structure. 2,870,699, 1–27–59, Cl. 98—40.
Richards, Robert W. B., to Thomas Robinson & Son Ltd. Under-table, traveling-saw apparatus for cutting sheets of materials. 2,870,802, 1–27–59, Cl. 143—47.
Richardson, Forrest W. Two-piece digging tooth. 2,870,552, 1–27–59, Cl. 37—142.
Richardson, John E. System for analogue computing utilizing detectors and modulators. 2,870,960, 1–27–59, Cl. 235—61.
Richardson, Norman H. Electrical fixture. 2,871,455, 1–27–59, Cl. 339—8.
Richter, Otto P. Pneumatic holding device. 2,871,053, 1–27–59, Cl. 294—64.
Richterkessing, Frank H., to W. M. Cissell Mfg. Co. Fabric drying apparatus having means for selectively supplying drying and cooling medium. 2,870,545, 1–27–59, Cl. 34—63.
Riddell, Joseph M. Fluid power motor apparatus. 2,870,556, 1–27–59, Cl. 27—184.
Rieger, Gilbert N.: *See*—
Korner, Renso L., Rieger, and McCurdy. 2,871,066.
Rienks, Leo: *See*—
Piotrowski, Lottie J., Rienks, and Groesnickle. 2,871,159.
Ries, Herman E., Jr.: *See*—
Melik, John S., and Ries. 2,871,195.
Riffel, Heinrich, to Rheinmetall Akt. Power-driven typewriter. 2,870,896, 1–27–59, Cl. 197—17.
Riley, Gerard C., to Rohm & Haas Co. Tert-carbinamines. 2,871,266, 1–27–59, Cl. 260—584.
Ringler, William A., to Diamond Gardner Corp. Carton. 2,870,952, 1–27–59, Cl. 229—44.
Rinker, Lyman E., and H. G. Lee, to Leupold & Stevens Instruments, Inc. Radio relay or repeater station time synchronizing switch. 2,870,640, 1–27–59, Cl. 74—209.
Rinn, Sherwood E. Call service conveyor. 2,870,901, 1–27–59, Cl. 198—177.
Riole, Hans: *See*—
Portenier, Ernst, Spiessler, Bolay, and Riole. 2,871,372.
Ri-Ri Werke A. G.: *See*—
Moser, Friedrich. 2,870,485.
Risel, Erwin: *See*—
Jucker, Ernst, Risel, Suess, Vogel, and Wolff. 2,871,241.
Robbins, Kenneth C., and N. H. Grant, to Armour and Co. Process for preparing pankria. 2,871,165, 1–27–59, Cl. 195—63.
Roberts, Leonard E., and E. Evenson, to American Tapered Wings, Inc. Contouring machine. 2,870,687, 1–27–59, Cl. 90—13.
Roberts, Miron J.: *See*—
Smith, Augustus B., Roberts, Wagner, and Stine. 2,871,126.
Roberts, William L., to Westinghouse Electric Corp. Image reproduction system. 2,871,385, 1–27–59, Cl. 313—66.
Robinson, Mattie L. Brassiere strap. 2,870,768, 1–27–59, Cl. 128—510.
Robinson, Thomas, & Son Ltd.: *See*—
Richards, Robert W. B. 2,870,802.
Rocket Jet Engineering Corp.: *See*—
Gaylord, John A. 2,870,509.
Rockoff, Joseph, to The Dayton Rubber Co. Textile drafting cot. 2,870,489, 1–27–59, Cl. 19—143.
Rockwell, Harvey W., to Allis-Chalmers Mfg. Co. Change speed transmission. 2,870,655, 1–27–59, Cl. 74—783.
Rockwell Standard Corporation: *See*—
Keese, Beverly W. 2,870,853.
Rockwell-Standard Corporation, The: *See*—
Keese, Beverly W. 2,870,854.
Rodgers, Clifford J., Jr., to Gulf Oil Corp. Apparatus for control of flow through the annulus of a dual-zone well. 2,870,843, 1–27–59, Cl. 166—115.
Rodli, Gilbert, to Wald Industries Inc. Sphere dispensing apparatus. 2,870,739, 1–27–59, Cl. 118—308.
Rodnert, Gustav O.: *See*—
Nilsson, Nils E., Rodnert, and Bjork. 2,871,290.
Roehlen Engraving Works, Inc.: *See*—
Kauschka, Richard. 2,870,560.
Roepke, Willi, to Loewe Opta A. G. Device for magnetically recording and reproducing sound. 2,871,019, 1–27–59, Cl. 274—4.
Rogers, Douglas C., and W. J. Pohl, to International Standard Electric Corp. Travelling wave tubes. 2,871,392, 1–27–59, Cl. 315—3.5.
Rogge, Bernhard. Blind joint-internal type locking. 2,870,881, 1–27–59, Cl. 189—36.
Rohm & Haas Co.: *See*—
Bortnick, Newman M. 2,871,225.
Hankins, Elmer M. and Melamed. 2,871,223.
Hopkins, Robert P. 2,871,204.
Melamed, Sidney. 2,871,203.
Riley, Gerard C. 2,871,266.
Shelley, James P. 2,871,209.
Rolls-Royce Ltd.: *See*—
Comyns-Carr, Cecil A. 2,870,608.
Griffith, Alan A., and Thorpe. 2,870,978.
Haworth, Lionel, Shire, and Moss. 2,870,870.
Tarlton, Frank H. 2,870,645.
Roper, Geo. D., Corp.: *See*—
Lundgren, John L. 2,870,885.
Rosahl, Dietrich: *See*—
Granlich, Wilhelm, Sinn, Holzrichter, and Rosahl. 2,871,213.
Rosato, Nicola P., and S. E. Siemen, to United States of America, Army. Trepanned core cutoff tool. 2,870,836, 1–27–59, Cl. 164—41.
Ross, Leslie W. Bait attachment devices. 2,870,563, 1–27–59, Cl. 43—41.
Rosenberg, Harry. High speed pivoted cutting machine. 2,870,837, 1–27–59, Cl. 164—43.
Rosenthal, Joseph E., to Cisco, Inc., Wearing apparel. 2,870,448, 1–27–59, Cl. 2—91.
Rosenthal, Matthew A. Disposable bassinets and parts thereof. 2,870,461, 1–27–59, Cl. 5—93.
Rossi, Rinaldo. Warm and cold water mixing valve for baths, sinks and the like. 2,870,787, 1–27–59, Cl. 137—597.
Rowe Mfg. Co., Inc.: *See*—
Greene, Robert E., Benson, and Spilman. 2,871,081.
Rudnick, Norman, to Gulton Industries, Inc. Method of adjusting the resonant frequency of a vibrating system. 2,870,521, 1–27–59, Cl. 29—25.35.
Ruh, Robert P., and E. A. Davis, to The Dow Chemical Co. Oxybromination of chlorodifluoromethane. 2,871,274, 1–27–59, Cl. 260—653.8.
Ruhrchemie Akt.: *See*—
Buchner, Karl, and Schwarz. 2,871,249.
Kolling, Helmut, Rappen, and Reiffert. 2,871,210.
Runck, Roger J.: *See*—
Yatsuna, Leonard F., and Runck. 2,870,527.
Rusnak, George A.: *See*—
Chabala, Leonard V., and Rusnak. 2,871,313.
Russell, George F.: *See*—
Mann, Julius W., and Russell. 2,870,806.
Rust, Frederick F., to Shell Development Co. Manufacture of hydrogen peroxide. 2,871,104, 1–27–59, Cl. 23—207.
Rust, Frederick F., and L. M. Porter, to Shell Development Co. Manufacture of hydrogen peroxide. 2,871,101, 1–27–59, Cl. 23—207.
Rust, Frederick F., L. M. Porter, and W. E. Vaughan, to Shell Development Co. Process for the production of hydrogen peroxide. 2,871,102, 1–27–59, Cl. 23—207.
Ruther, Westley E.: *See*—
Draley, Joseph E., and Ruther. 2,871,176.
Runek, Jan M.: *See*—
Jackson, Clarence E., and Runek. 2,871,339.
Rybold, Richard A., Jr. Plug and receptacle assembly. 2,871,458, 1–27–59, Cl. 339—91.
S. K. F. Kugellagerfabriken, G. m. b. H.: *See*—
Dausch, Erwin. 2,870,487.
Saco-Lowell Shops: *See*—
Hill, Clarence W., and Hopkinson. 2,870,597.
Saginaw Wire Products Inc.: *See*—
Staples, Lynn W. 2,870,823.
Salisbury, Alvin B., Jr., to Ankh Laboratories, Inc. Apparatus for testing metabolic agents. 2,871,168, 1–27–59, Cl. 195—139.
Salisbury, Winfield W., to Zenith Radio Corp. Acceleration amplifier. 2,870,673, 1–27–59, Cl. 89—1.
Saloranta, Arvo E., and E. Puronto. Fuse for shells. 2,870,713, 1–27–59, Cl. 107—78.
Salzer, Erwin: *See*—
Swain, Kenneth W., Kozacka, and Salzer. 2,871,314.
Sampson, Richard E., to Bigelow-Liptak Corp. Furnace wall. 2,870,624, 1–27–59, Cl. 72—101.
Sams, Martin: *See*—
Feldman, Herman, and Sams. 2,870,809.
Sand, John F., to The Gemex Corp. Wrist watch band connecter. 2,870,511, 1–27–59, Cl. 24—265.
Sanders Associates, Inc.: *See*—
Mercer, William R. 2,871,346.
Sandoz Ltd.: *See*—
Jucker, Ernst, Risel, Suess, Vogel, and Wolff. 2,871,241.
Sandvold, Knut, to Elektrokemisk A-S. Arrangement for electric smelting furnaces. 2,871,278, 1–27–59, Cl. 13—17.
Sanford, Russell T. Hospital bed. 2,870,460, 1–27–59, Cl. 5—63.
Sarah, Thomas F., to The Enterprise Mfg. Co. Strand end attacher for a spinning reel. 2,870,977, 1–27–59, Cl. 242—125.2.
Sarkes Tarzian, Inc.: *See*—
Kreppe, James E. Jr. 2,871,358.
Sasse, Raymond M. Driving glove holder. 2,870,502, 1–27–59, Cl. 24—17.
Savage, Eugene M. Wire solder feeding mechanism. 2,871,333, 1–27–59, Cl. 219—27.
Scadden, William F. R. Chemical supply means for pruning shears. 2,870,573, 1–27–59, Cl. 47—1.
Scaff, Jack H.: *See*—
Bacon, Donald D., Scaff, and Theuerer. 2,871,111.
Schaafsma, Albert: *See*—
Hoog, Han, and Schaafsma. 2,871,254.
Schade, Otto H., to Radio Corp. of America. Electron tube structure. 2,871,391, 1–27–59, Cl. 313—238.
Scheinberg, Morris M., to De Luxe Girdlecraft Co., Inc. Foundation garment. 2,870,769, 1–27–59, Cl. 128—342.
Scheuer, Fred F., and P. M. Marx, to H. Glatt. Dusting device with disposable replaceable soft paper laminae. 2,870,475, 1–27–59, Cl. 15—231.
Schink, Howard C.: *See*—
Shannon, Jack F., Barnard, and Schink. 2,870,729.
Schippert, Florence J., and M. L. Lawser. Swimming pool cover. 2,870,454, 1–27–59, Cl. 4—172.

Schlinger, Warren G.: *See*—
Eastman, du Bois, and Schlinger. 2,870,868.
Schmidt, Warren J., to Westinghouse Electric Corp. Electrical measuring device. 2,871,421, 1-27-59, Cl. 317—167.
Schmidt, Warren J., and F. V. Kadri, to Westinghouse Electric Corp. Alternating current responsive devices. 2,871,448, 1-27-59, Cl. 324—138.
Schneider, Robert A.: *See*—
Altemus, Daniel F., and Schneider. 2,871,031.
Schneider, William P.: *See*—
Johnson, Richard H., and Schneider. 2,871,160.
Schoen, Roger W.: *See*—
Dube, John E., and Schoen. 2,870,717.
Schoenwald, Alexander, to P. Wall Mfg. Co. Blow torches. 2,870,825, 1-27-59, Cl. 158—33.
Schoepe, Adolf, to American Hardware Corp. Cylindrical lock set. 2,870,621, 1-27-59, Cl. 70—146.
Schollenberger, Charles S., to The B. F. Goodrich Co. Simulated vulcanizates of polyurethane elastomers. 2,871,218, 1-27-59. Cl. 260—45.4.
Schott, John E., to Socony Mobil Oil Co., Inc. Greases stabilized with organic carbonates. 2,871,191, 1-27-59, Cl. 252—40.5.
Schott, Lewis: *See*—
McAneny, Michael J. 2,870,503.
Schreiner, Louis W., to Raytheon Mfg. Co. Tunable end-load lines with screw adjustment for tracking tuning capacitors. 2,871,359, 1-27-59 Cl. 250—40.
Schroeder Brothers Corp.: *See*—
Schroeder, John S. 2,870,786.
Schroeder, John S., to Schroeder Brothers Corp. Oil reservoir for hydraulic equipment. 2,870,786, 1-27-59, Cl. 137—587.
Schultz, Theodore H.: *See*—
Francisco, Cecil J., and Schultz. 2,871,186.
Schuster, John A. Apparatus for holding and cleaning severed animal feet. 2,870,478, 1-27-59, Cl. 17—1.
Schuyler, Garret L.: *See*—
Girouard, Philias H., Schuyler, and Baller. 2,870,678.
Schwank, Gunther, deceased; Rheinisch-Westfalische Revision Treuhaud Akt. (Treuhaud Akt.) and W. Franken, executors, to American Infra Red Radiant Co., Inc. Gas burners. 2,870,830, 1-27-59, Cl. 158—114.
Schwartz, Harold H., to Empire Brushes, Inc. Clamp-type mop for engaging multiple strand elements. 2,870,472, 1-27-59, Cl. 15—229.
Schwarz, Heinrich: *See*—
Buchner, Karl, and Schwarz. 2,871,249.
Schwegler, Matthias M. Fish hook extractor. 2,870,564, 1-27-59. Cl. 43—53.5.
Schweisinger, Gerhard, to United States of America, Army. Lenticulated rear projection screen. 2,870,673, 1-27-59, Cl. 88—28.93.
Schwope, Arthur D.: *See*—
Augustine, Frank, and Schwope. 2,871,192.
Scoggin, Baxter I., Jr., to Cook Chemical Co. Pump-type liquid sprayer having hold-down cap. 2,870,943, 1-27-59, Cl. 222—182.
Scott, Carleton B., to Union Oil Co. of California. Organophosphorus polymers. 2,871,202, 1-27-59, Cl. 260—2.
Scuitto, Thomas J., to General Dynamics Corp. Electronic counter. 2,871 399, 1-27-59, Cl. 315—8.6.
Sealey, William C.: *See*—
Hansen, Harding B., Sealey, Stenersen, and Wiederkehr. 2,870,525.
Searle, G. D., & Co.: *See*—
Loken, Bjarte. 2,871,246.
Searle, Norman E., and D. E. Wolf, to E. I. du Pont de Nemours and Co. Fungicidal compositions and methods employing lipoic acids. 2 871,154, 1-27-59, Cl. 167—22.
Seborg, Earnest Y., to Barnes Drill Co. Honing machine with plug sizing. 2,870,577, 1-27-59, Cl. 51—34.
Seeger, Ernst, and A. Kottler, to Dr. Karl Thomae, G. m. b. H. Process for the production of dioxydiphenylpyridylmethanes. 2,871,242, 1-27-59, Cl. 260—296.
Seismograph Service Corp.: *See*—
Hawkins, James E., and Garrett. 2,871,473.
Koeppel, Beverly W. 2,871,474.
Selas Corp. of America: *See*—
Hess, Frederic O. 2,870,828.
Williams, John R. 2 870,829.
Senco Products, Inc.: *See*—
Juilfs, Howard W. 2,870,743.
Seon, Marius, G. Wetroff, and J. Leleu, to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques. Process for producing amino-esters. 2,871,247, 1-27-59, Cl. 260—404.
Serafin, Ardis. Oral thermometer structure. 2,870,636, 1-27-59, Cl. 73—371.
Service Pipe Line Co.: *See*—
Hill, Arthur M. 2,870,934.
Servo Corp. of America: *See*—
Gallagher, Cornelius A. 2,871,475.
Seymour Mfg. Co., The: *See*—
Castellano, Eugene N. 2,871,173.
Shannon, Jack F., C. H. Barnard, and H. C. Schink, to Bailey Meter Co. Control systems. 2,870,729, 1-27-59, Cl. 114—16.
Shapiro, Jonas M. Discriminator circuit. 2,871,349, 1-27-59, Cl. 250—27.
Sharpless, William M.: *See*—
Friis, Harald T., and Sharpless. 2,871,353.
Shaughnessy, Bernard F. Flag tower structure. 2,870,559, 1-27-59, Cl. 40—139.
Shaw, Henry V., to General Motors Corp. Induction generator power system. 2,871,439, 1-27-59, Cl. 322—47.
Shawnee Mfg. Co., Inc.: *See*—
Wills Marion C. 2 870,924.
Sheakley, Leonard J.: *See*—
MacIntyre, Ronald, and Sheakley. 2,871,197.
Shell Development Co.: *See*—
Hendal, Willem P. 2,870,611.
Hoog, Han, and Schaafsma. 2,871,254.
Kunreuther, Frederick. 2,871,184.
Lowman, Malden C., Jr., and Fisch. 2,871,180.
Mika, Thomas F. 2,871,211.
Rust, Frederick F. 2,871,104.
Rust, Frederick F., and Porter. 2,871,101.
Rust, Frederick F., Porter, and Vaughan. 2,871,102.
Siebenhausen, Christian H., Jr., and Crake. 2,870,609.
Skinner, John R., and Steinle. 2,871,103.
Shelley, Edwin F.: *See*—
Brown, Julius L., Shelley, and Steele. 2,870,712.
Shelley, James P., to Rohm & Haas Co. Aminoplast resin coating compositions. 2,871,209, 1-27-59, Cl. 260—21.
Shelly, Robert S., to Pack Mfg. Co. Multiplex tube construction. 2,871,080, 1-27-59, Cl. 312—107.
Shen, Tru E., to British Dielectric Research Ltd. Construction of electric circuits. 2,871,428, 1-27-59, Cl. 317—242.
Shepherd, Ridgley G., Jr., and R. C. Dearborn, to United States Testing Co., Inc. Epoxy resins cured with dianhydrides of tetracarboxylic acids. 2,871,221, 1-27-59, Cl. 260—47.
Sheridan, James V. Hydroponic unit with compressible reservoir. 2,870,574, 1-27-59, Cl. 47—1.2.
Sherman, Ralston M., to The Silent Glow Oil Burner Corp. Brooders. 2,870,966, 1-27-59, Cl. 237—14.
Sherrill, Joseph H., to R. J. Reynolds Tobacco Co. Apparatus for packing and wrapping cigarettes. 2,870,584, 1-27-59, Cl. 53—55.
Shire, Ralph J.: *See*—
Haworth, Lionel, Shire, and Moss. 2,870,870.
Shoelson, Mitchell J.: *See*—
Bell, Charles R., Wassel, and Shoelson. 2,870,682.
Shook, William M., to The Warner & Swasey Co. Lifter attachment for material handling and earth moving apparatus. 2 870,926, 1-27-59, Cl. 214—147.
Short, James N., to Phillips Petroleum Co. Phosphonic dihalides. 2,871,263, 1-27-59, Cl. 260—543.
Shuck, David R.: *See*—
Shuck, Wayne L. and D. R. 2,870,753.
Shuck, Wayne L. and D. R. Manifold actuated electric switch device. 2,870,753, 1-27-59, Cl. 123—25.
Siebenhausen, Christian H., Jr., and W. S. Crake, to Shell Development Co. Drilling barge with anti-scouring plates. 2,870,609, 1-27-59, Cl. 61—46.5.
Siebert, Arthur: *See*—
Huss, Richard, Siebert, and Weissert. 2,871,230.
Siegel, Hans: *See*—
Stump, Eugen, and Siegel. 2,870,850.
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Sisson, Kenneth O., to General Motors Corp. Two speed timer. 2,870,834, 1-27-59, Cl. 161—1.
Siverteen, Jens. Inductance strain gauges. 2,870,630, 1-27-59, Cl. 73—88.5.
Skerritt, Roy P. Furnace humidifier. 2,870,762, 1-27-59, Cl. 126—113.
Skinner, John R., and S. E. Steinle, to Shell Development Co. Method for the production of hydrogen peroxide. 2,871,103, 1-27-59, Cl. 23—207.
Skunda, Michael, to General Motors Corp. Spark plugs and method for improving leakage characteristics thereof. 2,871,389, 1-27-59, Cl. 313—144.
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Smith, Brook I., E. D. Boston, and J. W. Herrmann, to Esso Research and Engineering Co. Conversion of hydrocarbons. 2,871,183, 1-27-59, Cl. 208—54.
Smith, Clifford E., to A. C. Staley Mfg. Co. Method of refining starch hydrolysate liquors. 2,871,147, 1-27-59, Cl. 127—40.
Smith, George A., to Sun Oil Co. Electrical analogs employing more than two probes. 2,870,961, 1-27-59, Cl. 235—61.
Smith, Gordon R., ½ to E. R. Lowe. Automatic expanding mandrel. 2,870,686, 1-27-59, Cl. 90—11.58.
Smith, Graydon, to Cranston Prints Works Co. Print machine doctor blade driving mechanism. 2,870,703, 1-27-59, Cl. 101—152.
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Söderstrom, Sten H. Heat exchange element. 2,870,999, 1-27-59, Cl. 257—262.20.
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Stachiewicz, Bogdan R., to General Dynamics Corp. Automatic frequency correction in suppressed carrier communication systems. 2,871,295, 1-27-59, Cl. 179—15.5.
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Swain, Kenneth W., F. J. Kozacka, and E. Salser, to The Chase-Shawmut Co. Composite current-limiting fuse structures. 2,871,314, 1-27-59, Cl. 208—120.
Swander, Kenneth D., Jr., to General Motors Corp. Brake system. 2,871,063, 1-27-59, Cl. 303—26.
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Telly, Reginald. Periodic cigarette dispenser. 2,870,937, 1–27–59, Cl. 221—22.
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Hervert, George L., and Bloch. 2,871,096.
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318— 29: 2,871,429
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173: 2,871,434
206: 2,871,435
459: 2,871,436
321— 18: 2,871,437
322— 13: 2,871,438
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323— 74: 2,871,440
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324— 8: 2,871,443
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114: 2,871,447
138: 2,871,448
154: 2,871,449
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329— 10: 2,871,452
20: 2,871,453
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42: 2,871,456
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154: 2,871,462
171: 2,871,463
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233: 2,871,466
234: 2,871,467
343— 8: 2,871,468
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2,871,470
17.1: 2,871,471
17.7: 2,871,472
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2,871,474
113: 2,871,475
120: 2,871,476
728: 2,871,477
857: 2,871,478
346— 1: 2,871,085
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CLASSIFICATION OF DESIGNS

D 8—26: Des. 184,301
D 4— 3: Des. 184,319
Des. 184,323
D26— 7: Des. 184,316
13: Des. 184,309
D26—14: Des. 184,297
Des. 184,307
D31— 4: Des. 184,304
Des. 184,318
D34— 5: Des. 184,326
D34—15: Des. 184,302
Des. 184,303
D40— 1: Des. 184,324
D41— 1: Des. 184,313
D42— 7: Des. 184,300
D47— 7: Des. 184,298
Des. 184,299
D49—27: Des. 184,321
21: Des. 184,314
D50— 7: Des. 184,312
D54—12: Des. 184,317
D58—26: Des. 184,315
D59— 2: Des. 184,320
D62— 2: Des. 184,305
4: Des. 184,308
D67— 2: Des. 184,325
3: Des. 184,310
Des. 184,311
D80— 9: Des. 184,322
D89— 1: Des. 184,306

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

January 27, 1959 Volume 738 Number 4

TRADEMARKS

NOTICES

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancelation will be proceeded with as in the case of default.

The Parents' Institute, Inc., New York, N. Y., Reg. No. 436,121, Canc. No. 7174.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 62,885 (BEACON AND DESIGN), Beacon Mfg. Co., Bed blankets, wrapper blankets, etc.; **Reg. No. 80,526** (BEACON), same, Napped cotton goods, etc.; **Reg. No. 157,000**, same; **Reg. No. 157,004**, same; **Reg. No. 159,658** (BEACON BLANKETS MAKE WARM FRIENDS), same; **Reg. No. 311,976** (BEACON), same, Robe-flannel in the piece, etc.; **Reg. No. 318,426**, same, Electrically heated blankets; **Reg. No. 318,427** (BEACON ELECTROMATIC AND DESIGN), same; **Reg. No. 319,243** (BEACON AND DESIGN), same, Bed blankets, etc.; **Reg. No. 334,911**, same; **Reg. No. 334,912**, same, Crib blankets; **Reg. No. 335,232**, same; **Reg. No. 399,706** (BEACON BLANKETS), same, Blankets, etc.; **Reg. No. 399,707** (BEACON BLANKETS MAKE WARM FRIENDS), same; **Reg. No. 560,191** (BEACON), same, filed Dec. 1, 1938, D. C., E. D. N. Y. (Brooklyn), Doc. 19247. *Beacon Manufacturing Co. v. Samuel Steinberg et al.*

Reg. No. 85,922 (STANDARD OIL COMPANY AND DESIGN), Standard Oil Co., Lubricating-oils; **Reg. No. 110,701** (S AND DESIGN), same, Petroleum pitch and asphaltum; **Reg. No. 112,568**, same, Petroleum furniture polish and petroleum floor oil; **Reg. No. 119,901**, same, Petroleum harness oil and petroleum belt dressing; **Reg. No. 120,787**, same, Petroleum wool oil, etc.; **Reg. No. 122,349**, same, Naphtha, petroleum refined oil, etc.; **Reg. No. 134,846** (STANDARD OIL COMPANY OF NEW JERSEY), same, Harness oil, etc.; **Reg. No. 155,909**, same, Paving asphalts, mixing asphalts, etc.; **Reg. No. 155,910** (STANDARD), same; **Reg. No. 155,911** (STANDARD OIL COMPANY OF NEW JERSEY), same, Furniture polish, automobile body polish, etc.; **Reg. No. 156,551**, same, Axle greases, black greases, etc.; **Reg. No. 156,552** (STANDARD), same, Sewing machine oils, transformer oils, etc.; **Reg. No. 159,110** (S AND DESIGN), same, Axle greases, black greases, etc.; **Reg. No. 160,249** (STANDARD OIL COMPANY OF NEW JERSEY), same; **Reg. No. 160,250** (STANDARD), same, Floor dressing, floor oil, etc.; **Reg. No. 176,406** (ESSO), same, Refined, semirefined, unrefined oils, etc.; **Reg. No. 220,294**, same; **Reg. No. 226,540** (STANDARD), D. B. Smith & Co., Inc., Fly and germ killer, etc.; **Reg. No. 228,643** (ESSO), Standard Oil Co. of New Jersey, Liquid gloss and floor dressing; **Reg. No. 280,620**, same, Glass pump globes and lenses thereof; **Reg. No. 282,230**, same, Dispensing pumps and parts thereof; **Reg. No. 286,988** (STANDARD OIL COMPANY OF NEW JER-

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	10,890
Date of oldest new application	April 20, 1958
Date of oldest amended application	July 1, 1958

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	6-1-58	8-26-58
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	4-30-58	7-1-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	6-2-58	8-1-58
Renewals (All Classes)	10-26-58	11-24-58
Sec. 12 (c) Publications (All Classes)	10-22-58	11-24-58

Applications Filed During the Month of November 1958—1,625

Registrations Issued	323—No. 672,997 to No. 673,319
Renewals Issued	60

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $3.75 additional; single copies, 20 cents each.

SEY), same, Floor oils and hydrocarbon solvents, etc.; **Reg. No. 337,835**, same, Petrolatums, petrolatum oils, etc.; **Reg. No. 338,114**, same, Harness oil, etc.; **Reg. No. 338,622**, same, Refined, semirefined, and unrefined oils, etc.; **Reg. No. 338,892**, same, Paving asphalts, mixing asphalts, etc.; **Reg. No. 347,535** (ESSO), same, Asphalt; **Reg. No. 354,294**, same, Leather oil; **Reg. No. 355,741**, same, Liquid gloss and floor dressing, etc.; **Reg. No. 376,515**, same; **Reg. No. 376,887**, same, Anti-freeze compounds, etc.; **Reg. No. 377,505**, same, Refined, Semirefined oils, etc., **filed** Nov. 3, 1958, D. C., E. D. Ark. (Little Rock), Doc. B–311, *Esso Standard Oil Co. v. U. S. Oil Co. et al.*

Reg. No. 90,536. (See Reg. No. 62,895.)
Reg. No. 110,701. (See Reg. No. 85,922.)
Reg. No. 112,568. (See Reg. No. 85,922.)
Reg. No. 119,901. (See Reg. No. 85,922.)
Reg. No. 120,787. (See Reg. No. 85,922.)
Reg. No. 122,349. (See Reg. No. 85,922.)
Reg. No. 154,846. (See Reg. No. 85,922.)
Reg. No. 155,909. (See Reg. No. 85,922.)
Reg. No. 155,910. (See Reg. No. 85,922.)
Reg. No. 155,911. (See Reg. No. 85,922.)
Reg. No. 156,551. (See Reg. No. 85,922.)
Reg. No. 156,552. (See Reg. No. 85,922.)
Reg. No. 157,060. (See Reg. No. 62,895.)
Reg. No. 157,904. (See Reg. No. 62,895.)
Reg. No. 159,110. (See Reg. No. 85,922.)
Reg. No. 159,658. (See Reg. No. 62,895.)
Reg. No. 160,349. (See Reg. No. 85,922.)
Reg. No. 160,350. (See Reg. No. 85,922.)
Reg. No. 176,408. (See Reg. No. 85,922.)
Reg. No. 220,294. (See Reg. No. 85,922.)
Reg. No. 226,540. (See Reg. No. 85,922.)
Reg. No. 258,648. (See Reg. No. 85,922.)
Reg. No. 280,830. (See Reg. No. 85,922.)
Reg. No. 282,250. (See Reg. No. 85,922.)
Reg. No. 336,968. (See Reg. No. 85,922.)
Reg. No. 337,835. (See Reg. No. 85,922.)
Reg. No. 338,114. (See Reg. No. 85,922.)
Reg. No. 338,622. (See Reg. No. 85,922.)
Reg. No. 338,892. (See Reg. No. 85,922.)
Reg. No. 347,535. (See Reg. No. 85,922.)
Reg. No. 354,294. (See Reg. No. 85,922.)
Reg. No. 355,741. (See Reg. No. 85,922.)
Reg. No. 376,870. (See Reg. No. 85,922.)
Reg. No. 376,515. (See Reg. No. 85,922.)
Reg. No. 376,887. (See Reg. No. 85,922.)
Reg. No. 377,505. (See Reg. No. 85,922.)

Reg. No. 428,256 (MORPUL), Morpul, Inc., Men's hosiery; 2,420,771, Crawford and Crawford, Knitting machine and method; 2,473,677, same, Knitting machine, **filed** Dec. 5, 1958, D. C. N. H. (Concord), Doc. 1976, *Cormier Hosiery Mills, Inc.* v. *Morpul, Inc. et al.*

Reg. No. 511,976. (See Reg. No. 62,895.)
Reg. No. 518,436. (See Reg. No. 62,895.)
Reg. No. 518,437. (See Reg. No. 62,895.)
Reg. No. 519,243. (See Reg. No. 62,895.)
Reg. No. 534,911. (See Reg. No. 62,895.)
Reg. No. 534,912. (See Reg. No. 62,895.)
Reg. No. 535,252. (See Reg. No. 62,895.)
Reg. No. 560,706. (See Reg. No. 62,895.)
Reg. No. 560,707. (See Reg. No. 62,895.)
Reg. No. 580,191. (See Reg. No. 62,895.)

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 2.101 to 2.105.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 2 — Receptacles

SN 42,313. The Royal Manufacturing Company, Bowling Green, Ohio. Filed Dec. 12, 1957.

ROYAL

For Thermally Insulated Jugs and Chests.
First use Nov. 1, 1957.

SN 53,927. Columbus Plastic Products, Inc., Columbus, Ohio. Filed June 20, 1958.

Lustro-Ware Elegante

Owner of Reg. Nos. 521,835, 564,913, and others
For Molded Plastic Housewares—Namely, Bread Boxes, Cake Cover Sets, Cookie Jars, Kitchen Canister Sets, Combination Paper Towel and Waxed Paper Container-Dispensers, Recipe Storage Boxes, Salt and Pepper Shakers, and Waste Baskets
First use May 28, 1958.

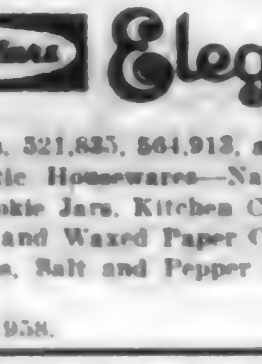
Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 53,988. Aristocrat Leather Products, Inc., New York, N. Y. Filed June 23, 1958

KEY TOTE

For Key Cases.
First use June 18, 1958.
Subj. to Intf. with SN 56,446.

SN 56,195. The Springfield Leather Products Company, Springfield, Ohio. Filed July 28, 1958.



Owner of Reg. No. 337,997.
For Pocket Letter Cases, Card Cases, Pass Cases, Leather Toilet Cases, Purses, Leather Key Holders, Billfolds, Portfolios, and Wallets.
First use June 21, 1938.

SN 56,446. Boxcrafters, Inc., Amityville, N. Y. Filed Aug. 1, 1958.

KEY-TOTE

For Key Cases.
First use June 16, 1958.
Subj. to Intf. with SN 53,988.

Class 5 — Adhesives

SN 44,177. Haveg Industries, Inc., Wilmington, Del. Filed Jan. 17, 1958.

TERRAN

For Adhesive for Assembly of Insulating Materials to Steel.
First use Apr. 27, 1957.

Class 6 — Chemicals and Chemical Compositions

SN 28,028. Harry T. Campbell Sons' Corp., Towson, Md. Filed Apr. 12, 1957. Sec. 2(f) as to "Campbell."

Campbell

For Cement Colors.
First use Apr. 29, 1935; 1934 as to "Campbell."

SN 41,286. Knickerbocker Biologicals, Inc., New York, N. Y. Filed Nov. 25, 1957.

PENCELLS

For Penicillinized Cells of Human Blood Used as a Laboratory Reagent for Testing Human Blood Serum for the Presence of Anti-Penicillinized Cells or Anti-Penicillin.
First use Nov. 15, 1957.

SN 49,560. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed Apr. 14, 1958.

TRYBEN

For Weed Killing Compounds.
First use Mar. 24, 1958.

SN 49,607. Northrup, King & Co., Minneapolis, Minn. Filed Apr. 14, 1958.

NORTHRUP KING

For Lawn Weed Killer and a Crabgrass Killer.
First use Feb. 1, 1951.

SN 50,387. S. B. Penick and Company, New York, N. Y. Filed Apr. 23, 1958.

FENN

For Anti-Picking Spray for Game Birds.
First use Sept. 4, 1957.

SN 50,388. Leon A. Powell, d. b. a. Specialty Products Co., Griffin, Ga. Filed Apr. 23, 1958.

SANIMINT

For Germicide and Disinfectant for Household Use.
First use January 1958.

SN 50,798. The Harshaw Chemical Company, Cleveland, Ohio. Filed May 1, 1958.

CUPREX

For Additives for Copper Electroplating Solutions.
First use Dec. 12, 1957.

SN 50,799. The Harshaw Chemical Company, Cleveland, Ohio. Filed May 1, 1958.

AIRGLOW

For Additives for Nickel Electroplating Solutions.
First use Dec. 27, 1957.

SN 52,362. Union Carbide Corporation, New York, N. Y. Filed May 26, 1958.

EVEREADY

Owner of Reg. Nos. 340,401, 392,632, and others.
For Chemical Compositions for Use in the Garden and on the Lawn To Control Crabgrass, Weeds, and Plant Diseases, and for Use in the Home and Garden and on the Lawn To Control Insects.
First use Feb. 7, 1958.

SN 53,053. K. J. Quinn & Co., Inc., Malden, Mass. Filed June 6, 1958.

QUINTOL

For Liquid Tannery Finishes.
First use January 1938.

SN 53,119. Ciba Limited, Basel, Switzerland. Filed June 9, 1958.

UNIVADINE

Owner of Swiss Reg. No. 165,648, dated May 29, 1957.
For Chemical Products for Use as Auxiliary Agents in the Textile, Leather, and Paper Industries, Washing and Bleaching Agents for Industrial Purposes.

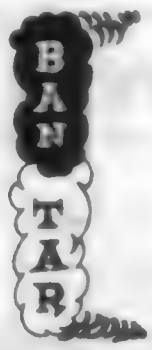
SN 53,952. Rotenone Products Company, East Orange, N. J. Filed June 20, 1958.

ANTCHEK

For Insecticide.
First use April 1936.

Class 8 — Smokers' Articles, Not Including Tobacco Products

SN 54,844. Exitar Corp., Kansas City, Mo. Filed July 7, 1958.



For Cigarette Holders.
First use Apr. 15, 1958.
Subj. to Intf. with SN 55,073.

SN 55,073. MacFarland Aveyard & Company, Chicago, Ill. Filed July 10, 1958.

TAR BAN

For Cigarette Holders.
First use June 24, 1958.
Subj. to Intf. with SN 54,844.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 37,270. The High Standard Manufacturing Corporation, Hamden, Conn. Filed Aug. 15, 1958.

SUPERMATIC TOURNAMENT

Owner of Reg. No. 566,919.
For Pistols and Parts Therefor.
First use on or about Feb. 8, 1958.

SN 37,272. The High Standard Manufacturing Corporation, Hamden, Conn. Filed Aug. 15, 1958.

SUPERMATIC CITATION

Owner of Reg. No. 566,919.
For Pistols and Parts Therefor.
First use on or about Feb. 8, 1958.

Class 10 — Fertilizers

SN 49,308. The Stadler Fertilizer Company, Cleveland, Ohio. Filed Apr. 8, 1958.



Applicant disclaims the terms "Azalea," "Rhododendron," and "Camellia" apart from the mark as shown. Owner of Reg. Nos. 61,315, 617,334, and others.
For Plant Food.
First use July 11, 1957.

SN 49,309. The Stadler Fertilizer Company, Cleveland, Ohio. Filed Apr. 8, 1958.

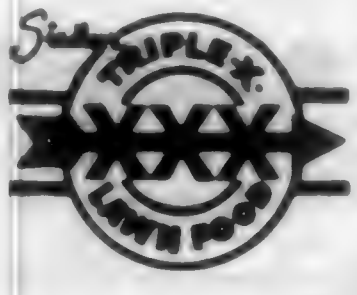


Applicant disclaims the terms "Vegetables," "Shrubs," and "Flowers" apart from the mark as shown. Owner of Reg. Nos. 612,804, 617,334, and 626,430.

For Plant Food.

First use Nov. 7, 1932.

SN 49,310. The Stadler Fertilizer Company, Cleveland, Ohio. Filed Apr. 8, 1958.



Applicant disclaims the term "Lawn Food" apart from the mark as shown. Owner of Reg. Nos. 61,315, 617,334, and others.

For Lawn and Tree Food.

First use Jan. 20, 1958.

Class 11 — Inks and Inking Materials

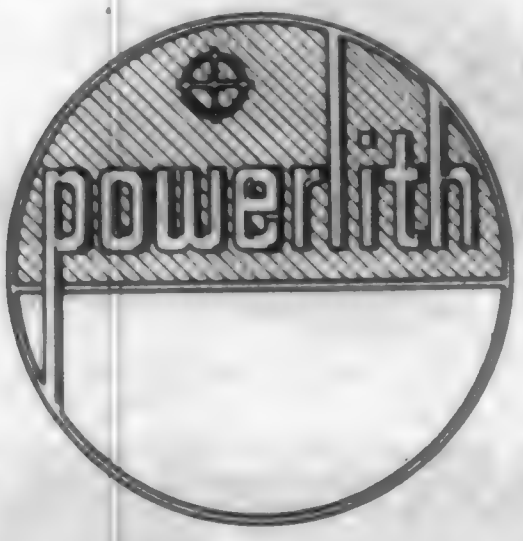
SN 32,503. Lawter Chemicals, Inc., Chicago, Ill. Filed May 28, 1958.

A-P

For Ink Vehicle.

First use May 7, 1958.

SN 36,247. Chemco Photoproducts Company, Inc., Glen Cove, N. Y. Filed July 29, 1958.



The drawing is lined for green. Owner of Reg. Nos. 361,019 and 605,140.

For Lithographic Developing Ink.

First use Mar. 15, 1957.

Class 12 — Construction Materials

SN 29,248. Western Pine Association, Portland, Oreg. Filed May 1, 1957. COLLECTIVE MARK.



For Lumber, Millwork, and Lath.

First use Feb. 8, 1957.

SN 40,426. Ceco Steel Products Corporation, Chicago, Ill. Filed Nov. 12, 1957.

CECOFRAME

Owner of Reg. Nos. 118,162, 405,471, and 523,259.

For Rigid Steel-Frame Buildings.

First use July 16, 1957.

SN 40,804. Daniel F. Bailey, d. b. a. Industrial Maintenance Company, Cincinnati, Ohio. Filed Nov. 18, 1957.



For Bituminous Admixture for Surfacing Soil Areas.

First use on or about Mar. 15, 1957.

SN 41,166. Hammontree Brothers Lumber Company, Chattanooga, Tenn. Filed Nov. 22, 1957. Sec. 2(f).

E-Z LIFT

Owner of Reg. No. 570,492.

For Window Units.

First use in April 1951.

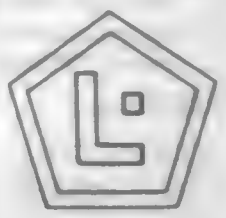
SN 49,313. Portco Corporation, Portland, Oreg. Filed Apr. 11, 1958.

INFOCO

For Lumber.

First use June 17, 1957.

SN 50,072. E. L. Le Baron Foundry Company, Brockton, Mass. Filed Apr. 21, 1958.



For Construction Castings—Namely, Ashpit Cleanout Doors, Ash Dumps, Manhole Frames, Grates and Covers, Catch Basin Frames, Grates, Traps, Steps, and Fireplace Dampers.

First use in or about 1927.

SN 50,360. Transit-Tank Company, Richmond, Calif. Filed Apr. 28, 1958.

ONODA

For Portland Cement.
First use on or about June 1, 1956.

SN 50,797. Harbison-Walker Refractories Company, Pittsburgh, Pa. Filed May 1, 1958.

H-W
APACHE

Owner of Reg. Nos. 321,333, 643,136, and others.
For High Alumina Plastic Fire Brick.
First use Sept. 27, 1957.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 43,266. Outer Space Products, Inc., Los Angeles, Calif. Filed Dec. 31, 1957.

OUTER SPACE

For Bolt, Screw, and Nut Type Fasteners and Fastener Fittings, Including Bolts, Nuts, Washers, Screws, Dowel Paper and Cotter Pins, Rivets, Nails, Studs, Balls, Eyelets, and Grommets, Particularly for Use in Aircraft and Electronic Equipment.
First use Jan. 4, 1955.

SN 44,839. The Pollak Steel Company, Cincinnati, Ohio. Filed Jan. 28, 1958.

RIB-BAK

For Metal Sign Posts.
First use Oct. 29, 1957.

SN 49,519. Republic Industries, Inc., Chicago, Ill. Filed Apr. 11, 1958.

DOR-O-MATIC
GARAGE DOR-MAN

Owner of Reg. Nos. 533,349 and 614,198.
For Garage Door Operators and Parts Therefor.
First use Feb. 17, 1958.

SN 51,198. Thomas William Lench Limited, Blackheath, England. Filed May 7, 1958.

ADMIRAL

Owner of British Reg. Nos. 320,498 and 342,591, dated Feb. 4, 1910, and May 14, 1912, respectively.
For Bolts, Nuts, Rivets, Screws, Washers, Studs, Wire Rope Grips, and Pole Line Hardware.

SN 53,027. Gerber Plumbing Fixtures Corp., Chicago, Ill. Filed June 6, 1958.

ALL TUB

For Bath Tub Drains.
First use in January 1957.

SN 53,241. Dresser Industries, Inc., Dallas, Tex. Filed June 10, 1958.



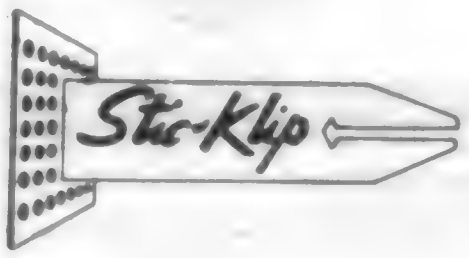
For Pipe Clamps.
First use Mar. 31, 1958.

SN 53,615. Hays Filter Company, Waco, Tex. Filed June 16, 1958.

SEPTI-ROBIC

For Sewage Treatment Plants for Domestic Use.
First use May 6, 1958.

SN 56,199. Stic-Klip Manufacturing Co., Inc., Cambridge, Mass. Filed July 28, 1958.



Owner of Reg. Nos. 402,922 and 625,722.
For Metallic Washers and Construction Clips.
First use on or about July 17, 1958.

SN 56,339. Mueller Co., Decatur, Ill. Filed July 30, 1958.



Applicant makes no claim to the words "Quality" and "Serving the Water and Gas Industries," apart from the mark as shown, reserving all common law rights. Owner of Reg. Nos. 64,609, 551,432, and others.
For Gas and Water Stops and Valves, Service T's, Service Clamps, Meter Couplings, and Regulating Valves and Parts Thereof.
First use Dec. 26, 1957.

SN 56,340. Mueller Co., Decatur, Ill. Filed July 30, 1958.



Applicant makes no claim to the words "Quality" and "Serving the Water and Gas Industries," apart from the mark as shown, reserving all common law rights. Owner of Reg. Nos. 64,609, 551,432, and others.

For Gas and Water Stops and Valves, Service T's, Service Clamps, Meter Couplings, and Regulating Valves and Parts Thereof.

First use Dec. 26, 1957.

SN 56,491. Newton Insert Co., Los Angeles, Calif. Filed Aug. 1, 1958.

KEENSERTS

For Threaded Inserts To Be Connected Into a Carrier Part and to Which Other Threaded Elements Can Then Be Attached.

First use Mar. 15, 1957.

Class 14 — Metals and Metal Castings and Forgings

SN 31,828. Duo Temp Corporation, Depew, N. Y. Filed June 12, 1957.

DUODIZED

For Surface Finish on Aluminum Window Frames To Provide Increased Weather Resistance, Particularly to Salt Air, Which Finish Is Produced by Successive Steps of Etching, Cleaning, Heat-Treating, and Lacquering.

First use June 6, 1957.

SN 49,877. Specialloy, Inc. & Donald Carroll Metals, Inc., Chicago, Ill. (Joint owners). Filed Apr. 17, 1958.

CARASIL

For Metal Alloys.

First use Jan. 28, 1958.

Class 15 — Oils and Greases

SN 53,366. American Metal Climax, Inc., New York, N. Y. Filed June 16, 1958.

Molysulfide

For Molybdenum Disulphide Used as a Lubricant, Lubricant Additive and Also as a Filler.

First use Dec. 19, 1949.

Class 16 — Protective and Decorative Coatings

SN 42,211. Finnaren & Haley, Inc., Philadelphia, Pa. Filed Dec. 11, 1957.

Vinyl-Vel

For Plastic Type Paint.

First use Oct. 15, 1957.

Class 18 — Medicines and Pharmaceutical Preparations

SN 2,591. Svenska ab Remedia, Stockholm, Sweden. Filed Aug. 21, 1957.

MINUS

For Pharmaceutical Preparations, Particularly Preparations for Slimming Purposes.

First use March 1957; in commerce March 1957.

SN 30,496. Istituto Sieroterapico Italiano S. p. A., Naples, Italy. Filed May 22, 1957.

TIOCTIDASI

Owner of Italian Reg. No. 125,567, dated Nov. 16, 1955.

For Pharmaceutical Preparations for Treating Hepatic Insufficiency, Cerebral Sclerosis, Hepatitis, Dyseptic and Cough Syndromes.

SN 42,106. E. Francis Hanlon, d. b. a. Hanlon Drug Products, Poughkeepsie, N. Y. Filed Dec. 9, 1957.

DOLORNEED

For Analgesic Preparation.

First use June 15, 1954.

SN 45,544. The Dow Chemical Company, Midland, Mich. Filed Feb. 10, 1958.

MIXOMENE

For Feed Supplement Containing Methionine and Glycine.

First use Nov. 7, 1957.

SN 46,120. Elmorene Company, Chicago, Ill. Filed Feb. 19, 1958.

SUCCESS

For Medicated Geriatric Capsules Consisting of Vitamins and Minerals.

First use Jan. 8, 1956.

SN 47,087. Abbott Laboratories, North Chicago, Ill. Filed Mar. 5, 1958.

SPEKTRO-CHEK'D

For Radioactive Pharmaceutical Products.

First use Dec. 11, 1957.

SN 47,137. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Mar. 5, 1958.

GASTROGRAFIN

Owner of Reg. No. 600,918.

For Contrast Medium for Gastrointestinal Radiography.

First use Feb. 3, 1958.

SN 48,902. Ciba Limited, Basel, Switzerland. Filed Apr. 2, 1958.

ATURBANE

Owner of Swiss Reg. No. 148,790, dated Nov. 24, 1953.
For Spasmolytic and Anticholinergic Preparation.

SN 51,001. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed May 5, 1958.

BAYRENA

Owner of German Reg. No. 517,240, dated Nov. 6, 1939.
For Chemotherapeutic Agents for Humans and Animals, Chemical Products for Medicinal Purposes, and Pharmaceutical Drugs and Preparations.

SN 51,925. Merck & Co., Inc., Rahway, N. J. Filed May 19, 1958.

DIURIL

Owner of Reg. Nos. 519,733 and 660,963.
For Drug—Namely, Chlorothiazide.
First use Apr. 19, 1957.

SN 52,513. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed May 28, 1958.

VISTARIL

For Tranquilizer Preparation.
First use Feb. 3, 1958.

SN 53,175. May & Baker Limited, Dagenham, Essex, England. Filed June 9, 1958.

PEROLYSEN

Owner of British Reg. No. 771,488, dated Nov. 23, 1957.
For Pharmaceutical Preparations for the Use in the Treatment of Hypertension and Allied Disorders.

SN 53,381. Aktiebolaget Hassle, Apotekare Paul Nordstroms Fabriker, Goteborg, Sweden. Filed June 12, 1958.

DURILETTES

Owner of Swedish Reg. No. 82,244, dated Mar. 22, 1957.
For Pharmaceutical Preparations—Namely, Sympathomimetic Agents and Sedatives in the Form of Tablets, Capsules, Suppositories, and Liquids.

SN 54,553. The Pfeiffer Co., St. Louis, Mo. Filed June 30, 1958.

CALAMYCIN

For Medicated Lotion for the Relief of Sunburn, Insect Bites, Poison Ivy, and Simple Skin Irritations.
First use June 9, 1958.

SN 55,040. Vitaminerals, Inc., Glendale, Calif. Filed July 9, 1958.

DECELACID

For Glutamic Acid Hydrochloride for Acidulating the Gastric Content.
First use June 20, 1958.

SN 55,094. U. S. Vitamin Corporation, New York, N. Y. Filed July 10, 1958.

PREDNIDERM

Owner of Reg. No. 662,149.
For Pharmaceutical Preparation for Topical Use in Dermatological Conditions.
First use Oct. 7, 1957.

SN 55,099. U. S. Vitamin Corporation, New York, N. Y. Filed July 10, 1958.

PREDNIMIDE

Owner of Reg. No. 662,149.
For Pharmaceutical Preparation Used in the Treatment of, and Alleviation of Pain in, Arthritic Diseases.
First use June 11, 1958.

SN 55,120. Carrtone Laboratories, Inc., New Orleans (Metairie), La. Filed July 11, 1958.

CARRMINE

For Medical and Pharmaceutical Products—Namely, an Anti-Histaminic Sedative for the Control of Coughs and Other Congestive Symptoms Associated With Colds.
First use Jan. 24, 1958.

SN 55,121. Carrtone Laboratories, Inc., New Orleans (Metairie), La. Filed July 11, 1958.

CARR-SERP

For Medical and Pharmaceutical Products—Namely, a Remedy for Exerting a Hypotensive Effect and for Producing a Non-Hypnotic Sedative Action.
First use May 22, 1956.

SN 55,123. Carrtone Laboratories, Inc., New Orleans (Metairie), La. Filed July 11, 1958.

DEX-SED

For Medical and Pharmaceutical Products—Namely, a Remedy for the Treatment of Chronic Fatigue, for the Restoration of Natural Alertness and for Control of Appetite in Weight Reductions.
First use June 22, 1956.

SN 55,587. Hoffmann-La Roche Inc., Nutley, N. J. Filed July 18, 1958.

MADRIBON

For Drug—Namely, an Antibacterial Sulfa Agent.
First use June 17, 1958.

SN 55,651. Dade Reagents, Inc., Miami, Fla. Filed July 21, 1958.

PATHO-TROL

For Control Serum With Pathological Values.
First use May 28, 1958.

SN 55,858. Eli Lilly and Company, Indianapolis, Ind. Filed July 23, 1958.

TELMID

For Anthelmintic Useful in the Treatment of Parasites in Humans.
First use Mar. 11, 1958.

SN 55,899. Carrtone Laboratories, Inc., New Orleans (Metairie), La. Filed July 24, 1958.

SALBEE

For Medical and Pharmaceutical Products—Namely, an Analgesic Sedative for Providing Effective and Prolonged Relief of Pain Associated With Headaches, Neuralgia, Rheumatism and Arthritic Conditions.
First use Sept. 3, 1957.

SN 55,900. Carrtene Laboratories, Inc., New Orleans, (Metairie), La. Filed July 24, 1958.

CARRTUSSIN

For Medical and Pharmaceutical Products—Namely, an Antihistamatic Sedative for the Treatment of Coughs and Other Congestive Symptoms Associated With Colds.
First use May 7, 1956.

SN 55,935. Medicone Company, New York, N. Y. Filed July 24, 1958.

DIOMEDICONE

Owner of Reg. No. 443,104.
For Stool Softener for the Relief of Constipation.
First use July 2, 1958.

SN 56,038. Olin Mathieson Chemical Corporation, New York, N. Y. Filed July 25, 1958.

RASHENE

For Preparation To Prevent or Help Heal Chafing, Chapping, Diaper Rash, or Other Minor Skin Irritations.
First use Feb. 19, 1958.

SN 56,055. Sterling Drug Inc., New York, N. Y. Filed July 25, 1958.

ZEPHISAGE

For Medicated Preparation for Use in Skin Care.
First use June 13, 1958.

SN 56,061. The Vale Chemical Company, Inc., Allentown, Pa. Filed July 25, 1958.

SOOTHOGEL

For Dermatological Therapeutic Cream.
First use February 1947.

SN 56,072. Aktiebolaget Bofors, Bofors, Sweden. Filed July 28, 1958.

SCANDOCAIN

Owner of Swedish Reg. No. 80,479, dated May 25, 1956.
For Medicines and Pharmaceutical Preparations—Namely, Local Anaesthetics.

SN 56,309. Dermik Pharmacal Co., Inc., Brooklyn, N. Y. Filed July 30, 1958.

CORT-ACNE

For Medical Preparation for Dermatological Use for the Treatment of Acne Vulgaris, Acne Rosacea and All Other Forms of Acne.
First use Feb. 25, 1956.

SN 56,310. Dermik Pharmacal Co., Inc., Brooklyn, N. Y. Filed July 30, 1958.

GERI-BATH

For Medical Preparation for Dermatological Use for the Treatment of Dry Skin, Eczema, and Senile Pruritis.
First use Mar. 10, 1957.

SN 56,373. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Aug. 4, 1958.

OLEOTOPE

For Pharmaceutical Preparations Containing Radioactive Oleic Acid.
First use Jan. 31, 1958.

SN 58,102. Lewis-Howe Company, St. Louis, Mo. Filed Aug. 29, 1958.

ACNIL

For Preparation for Treatment of Acne.
First use July 21, 1958.

Class 19—Vehicles

SN 11,711. Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed July 6, 1956.

AGA

Owner of Swedish Reg. Nos. 28,880 and 43,632, dated Aug. 26, 1924, and June 11, 1934, respectively.
For Ships and Boats and Parts Thereof, Buoys, Airplanes, Airships, and Other Airborne Craft, and Balloons and Equipment and Parts Therefor; Bicycles; Automobiles; Railway Carriages and Cars and Parts Therefor.

SN 54,803. Albright Boat & Marine Co., Inc., Charlotte, N. C. Filed July 7, 1958. Sec. 2(f).

ALBRIGHT

For Boats.
First use in November 1952.

Class 20—Linoleum and Oiled Cloth

SN 53,690. Bonafide Mills, Inc., New York, N. Y. Filed June 17, 1958.

GOTHIC

For Felt Base, Linoleum, Asphalt, Plastic, and Composition Floor Coverings.
First use May 20, 1958.

SN 55,306. Bonafide Mills, Inc., New York, N. Y. Filed July 15, 1958.

SHO-TILE

For Felt Base, Linoleum, Asphalt, Plastic, and Composition Floor Coverings.
First use July 10, 1957.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 41,492. Thor Power Tool Company, Chicago, Ill. Filed Nov. 27, 1957.

THOR

Owner of Reg. Nos. 57,742, 632,643, and others.
For Electric Impact Wrenches, Electric Concrete Vibrators, Gasoline Driven Electricity Generators, Electric Percolators, Electric Toasters, and Electric Fry Pans.
First use Dec. 12, 1948.

SN 42,091. Vickers Incorporated, Detroit, Mich. Filed Dec. 9, 1957.

CONTROLARC

For Electric Welding Machines.
First use on or about May 18, 1954.

SN 42,230. Model Engineering & Manufacturing, Inc., Huntington, Ind. Filed Dec. 11, 1957.

TRU-RIB

For Electrical Resistors.
First use Aug. 31, 1951.

SN 43,305. Erie Resistor Corporation, Erie, Pa. Filed Jan. 2, 1958.

PAC

For Printed Circuit Boards With Resistors and Capacitors Assembled Thereon and With the Assembly Embedded in a Hard Plastic Coating.
First use December 1955.

SN 45,446. Belling & Lee Limited, Enfield, England. Filed Feb. 7, 1958. Sec. 2(f).

BELLING-LEE

For Electrical Plugs, Sockets, Terminals, and Connectors. Thermal Switches and Vacuum Tubes and Tube Pin Straighteners.
First use in 1951.

SN 49,757. General Motors Corporation, Detroit, Mich. Filed Apr. 16, 1958.

ACNITER

Owner of Reg. Nos. 282,699 and 311,173.
For Spark Plugs.
First use Feb. 28, 1958.

SN 53,533. Sanders Associates, Inc., Nashua, N. H. Filed June 13, 1958.

FLEXPRINT

For Wire, Cable, Harness, Printed Circuits, Circuit Connectors, and Accessories.
First use May 27, 1958.

SN 54,180. Oreste Prosperi, d. b. a. World Art Company, Fort Lauderdale, Fla. Filed June 24, 1958.

WORLD ART

For Electric Lamps.
First use Apr. 1, 1944.

SN 54,265. Mark Simpson Manufacturing Co., Inc., Long Island City, N. Y. Filed June 25, 1958.

MULTI-TALK

For Two-Way Intercommunication and Music Distribution Units.
First use Dec. 15, 1956.

SN 54,609. Dryomatic Corporation, Alexandria, Va. Filed July 1, 1958.

PORTA-SIGNAL

For Portable, Radio-Controlled, Battery-Operated Traffic Light.
First use June 13, 1958.

SN 54,699. National Products Corporation, Cambridge, Mass. Filed July 2, 1958. Sec. 2(f).

dri-SPARK

Owner of Reg. No. 577,449.
For Sheathed Electrical Connectors Particularly Adapted for Use in Ignition Circuits.
First use June 15, 1951.

SN 54,900. Sprague Electric Company, North Adams, Mass. Filed July 7, 1958.

CERA-LYTIC

For Electrical Capacitors.
First use Mar. 11, 1957.

SN 56,104. Economy Auto Stores, Inc., Atlanta, Ga. Filed July 28, 1958.



Owner of Reg. Nos. 395,756 and 396,142.
For Spark Plugs.
First use Jan. 1, 1958

Class 22 — Games, Toys, and Sporting Goods

SN 40,879. Rheuma Spa (Zermo) Ltd., London, England. Filed Nov. 18, 1957.

PICAS

Owner of British Reg. No. 758,804, dated Oct. 22, 1956.
For Mechanical Body Exercising Appliance.

SN 43,583. Aurora Plastics Corporation, West Hempstead, N. Y. Filed Jan. 8, 1958.



For Kits for Assembly of Toy Model Ships, Vehicles, Dolls, Figures and So Forth Made of Plastic, Wood, or Similar Material.
First use in 1951.

SN 44,143. White Stag Mfg. Co., Portland, Oreg. Filed Jan. 16, 1958.

HEAT-RAY

For Insulating Lining Cut to Size for Sleeping Bags.
First use Sept. 5, 1957.

SN 45,774. Kohner Brothers, New York, N. Y. Filed Jan 31, 1958.

KOHNER

For Construction Toys, Educational Toy Blocks, Toy Hobby Craft Kits, Action Toys and Component Parts for Playing Skill and Spelling Games.
First use May 5, 1956.

SN 46,662. Sportsman's Golf Corporation, Melrose Park, Ill. Filed Feb 26, 1958.

Betty King

For Golf Clubs.
First use Mar. 20, 1955.

SN 46,663. Sportsman's Golf Corporation, Melrose Park, Ill Filed Feb. 26, 1958.

Tommy Masters

For Golf Clubs.
First use Jan. 23, 1954.

SN 46,664. Sportsman's Golf Corporation, Melrose Park, Ill. Filed Feb. 26, 1958.

Bill Lyle

For Golf Clubs.
First use Dec. 18, 1950

SN 46,665. Sportsman's Golf Corporation, Melrose Park, Ill. Filed Feb. 26, 1958.

Tommy Burns

For Golf Clubs.
First use Feb. 25, 1952.

SN 46,666. Sportsman's Golf Corporation, Melrose Park, Ill. Filed Feb. 26, 1958.

Jimmy Richard

For Golf Clubs.
First use Mar. 30, 1955.

SN 48,323. Ernest J. Webber, d. b. a. Lucky Day Bait Co., Long Lake, Minn. Filed Mar. 26, 1958.

DUBL-POP

For Artificial Fish Lures.
First use in May 1952.

SN 48,970. Crestwood Wood Products, Inc., Brooklyn, N. Y. Filed Apr. 3, 1958.

SABRE

For Arrow Heads.
First use Feb. 4, 1958.

SN 49,043. Channel Master Corporation, Ellenville, N. Y. Filed Apr. 4, 1958.

CHANNEL MASTER

Owner of Reg. No. 398,429.
For Playground Equipment, i. e., Play Gym Set Comprising a Slide, Swings, and Ladder.
First use Feb. 19, 1958.

SN 49,254. Design Research, Inc., Cambridge, Mass. Filed Apr. 8, 1958.

SPUNNEL

For Spiral-Tunnel Toy for Use as a Play House or Maze Erectable From Preformed Paper Board Sections.
First use Dec. 12, 1957.

SN 50,365. Jacmar Manufacturing Co. Inc., New York, N. Y. Filed Apr. 25, 1958.

PLAYWAY to KNOWLEDGE

For Component Parts for Playing a Question and Answer Game.
First use June 15, 1907.

SN 52,986. Louis Marx & Company, Inc., New York, N. Y. Filed June 5, 1958.

ARCADE

For Small Harmless Enclosed Toy Shooting Range for Home Use.
First use in June 1954.

SN 53,246. Earl and Arlington, Inc., San Francisco, Calif. Filed June 10, 1958.

BABY'S CHOICE

For Infants' Rattles and Toys.
First use Dec. 4, 1952.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 1,362. American Saw and Tool Company, Louisville, Ky. Filed Jan. 27, 1956.

KROMEDGE

For Saw Blades.
First use Oct. 31, 1955.

SN 32,373. Clark Equipment Company, Buchanan, Mich. Filed June 21, 1957.

TRANSVERTER

For Transmissions and Parts Thereof.
First use May 28, 1957.

SN 43,476. Pacific Tool & Manufacturing Co. (Oregon corporation), Portland, Oreg., assignee of Pacific Tool and Manufacturing Co. (partnership), Portland, Oreg. Filed Jan. 6, 1958.

FORMATIC

For Tool Grinding Machine.
First use Jan. 29, 1957.

SN 46,583. United States Steel Corporation, Pittsburgh, Pa. Filed Feb. 25, 1958.

CHROMEX

For Reciprocating Pump Piston Rods for Oil Well Slush Pumps.
First use on Oct. 4, 1957.

SN 49,194. Robinair Manufacturing Corporation, Edgerton, Ohio. Filed Apr. 7, 1958.

ROBINAIR

For Automotive Service Tools; and Appliance Service Tools for Use in Servicing Refrigerators, Washers, Stoves and Ranges, Dishwashers, Ironers, and Air Conditioning Apparatus.
First use about September 1956.

SN 52,545. Ace Fastener Corporation, Chicago, Ill. Filed May 29, 1958.

ACE CLIPPER

Owner of Reg. Nos. 363,963 and 363,964.
For Stapling Machines of the Plier Type.
First use in 1938.

SN 55,968. Boston Cutting Die Company, Boston, Mass. Filed July 25, 1958.

THERM-O-TRIM

For Die Presses and Dies Therefor.
First use Aug. 31, 1956.

SN 59,413. Oneida Ltd., Oneida, N. Y. Filed Sept. 23, 1958.
Owner of Reg. No. 512,067.

CAPRI

For Stainless Steel Flat Tableware.
First use Aug. 21, 1958.

SN 59,434. U. S. Tool Company, Inc., Ampere, N. J. Filed Sept. 23, 1958.

SLIDEAIRE

For Slide Feeds.
First use on or about May 16, 1956.

SN 59,573. Thompson Products, Inc., Cleveland, Ohio. Filed Sept. 25, 1958.

Owner of Reg. Nos. 325,972, 328,184, and 328,910.
For Connecting Rods, Connecting Rod Bearings, Main Bearings, Main Bearing Caps, Camshaft Bearings, Shims, Valves, Valve Guides, Valve Springs, Valve Stem Keys, Valve Seat Inserts, Valve Rotators, Pistons, Piston Pins, Piston Pin Bushings, Cylinder Sleeves, Water Pumps, and Parts Thereof. Spring Bolts, Chassis Bushings, Shackles, Rubber Bushings, Tie Rods, Tie Rod Ends, Drag Links, Independent Front Wheel Suspension Parts, Coil Springs, Shock Links, Shock Absorbers, and Piston Rings."
First use Jan. 21, 1957.

SN 59,668. Francis C. Worth, Brooklyn, N. Y. Filed Sept. 26, 1958. Sec. 2(f).

CORLISS

For Coding Machines, Marking Machines, and Label Applying Machines.
First use on or about Sept. 13, 1947, on coding machines.

Class 26—Measuring and Scientific Appliances

SN 24,342. The Geolograph Company, Oklahoma City, Okla. Filed Feb. 13, 1957

TRIP ACTION

For Mechanical Well Logging Instruments.
First use June 25, 1953.

SN 24,687. General Dynamics Corporation, Rochester, N. Y Filed Feb. 19, 1957.

XY

Owner of Reg. Nos. 577,407 and 618,568.
For Telephone Office Equipment Including Power and Supervisory Boards, Test Desks, Test Sets, Toll Ticketing Equipment, Meters, Computers, and Parts Thereof.
First use Jan. 21, 1957.

SN 32,780. Servonics, Inc., Alexandria, Va. Filed June 27, 1957.

DIPOT

For Potentiometers.
First use Aug. 16, 1956.

SN 34,152. Lufkin Rule Company, Saginaw, Mich. Filed July 22, 1957.

MEZURMATIC

Owner of Reg. No. 335,235.
For Measuring Tapes and Tape Rules.
First use June 14, 1957.

SN 34,153. Lufkin Rule Company, Saginaw, Mich. Filed July 22, 1957.

MASTER PLANER GAUGE

Applicant disclaims the terms "Planer Gauge" apart from the mark as shown. Owner of Reg. Nos. 412,565, 506,661, and 506,662.

For Planer Gages.

First use Jan. 15, 1939.

SN 36,210. Mud Control Laboratories, Inc., Oklahoma City, Okla. Filed Aug. 26, 1957.

CONTROL-O-MATIC

For Electronic Apparatus for Determining and Regulating the Drilling Operations of Well Drilling Equipment.

First use on or about Feb. 20, 1956.

SN 36,339. Agfa Aktiengesellschaft, Leverkusen-Bayerwerk, Germany, by change of name from Agfa Aktiengesellschaft für Photofabrikation, Leverkusen-Bayerwerk, Germany. Filed Aug. 28, 1957.

VARIOGRAD

Owner of German Reg. No. 698,106, dated Dec. 11, 1956.

For Photographic Belt Copying Machines With Gradation Compensation.

SN 42,683. Lawrence Wickes Conant, d. b. a. Graphax, Washington, D. C. Filed Dec. 19, 1957.

Graphax

For Slide Rule Showing Graphic Facts for Specific Securities.

First use Nov. 7, 1957.

SN 42,750. Cadillac Optical Corporation, New York, N. Y. Filed Dec. 20, 1957.

MICROLUX

For Microscopes.

First use Aug. 16, 1957.

SN 42,941. Stewart-Warner Corporation, Chicago, Ill. Filed Dec. 23, 1957.

STEWART-WARNER

For Speedometers, Tachometers, Odometers, Pressure Gauges, Vacuum Gauges, Liquid Level Gauges, Ammeters, Temperature Indicators.

First use in January 1926.

SN 44,124. Scanoptic, Inc., New York, N. Y. Filed Jan. 16, 1958.

SCANAR

For Photographic Lenses and Projection Lenses.

First use Jan. 6, 1958.

SN 44,318. J. Melvin Roberts, Albuquerque, N. Mex. Filed Jan. 20, 1958.

MICROTRON

For Light Radiation Meters.

First use Aug. 20, 1954.

SN 44,681. Atomic Laboratories, Inc., Berkeley, Calif. Filed Jan. 27, 1958.

A L

For Atomic Scientific Demonstration Equipment—Namely, Electromagnet Kits, Electrostatic Generator, Closed Chamber, Optics Kit, Interferometer (Including Light Source), Circular Slide Rule, Tesla Coil, Glass Blower Kit, Particle Accelerator, Nuclear Reactor Simulator, Glow Discharge Unit, Propane Bubble Chamber, Pulsed Neutron Generator, and Brower Multiple Scattering Microscope.

First use in June, 1956.

SN 48,711. Chart-Pak, Incorporated, New Canaan, Conn. Filed Mar. 31, 1958.

TRANSOGRAPH

For Pressure Sensitive Plastic Sheets of Shading Film.

First use June 10, 1937.

SN 49,142. Electro-Voice, Incorporated, Buchanan, Mich. Filed Apr. 7, 1958.

ey Instruments

Applicant disclaims the word "Instruments" apart from the mark as shown. Owner of Reg. Nos. 433,507 and 597,359.

For Laboratory Instruments—Namely, Devices for Amplifying Electrical Potentials To Be Measured and for Producing an Output Related to an Input by a Mathematical Function, Calibrated and Standard Microphones, and Laboratory Magnetizers for Precision Control of Magnetic Polarization and Accessories Therefor.

First use Jan. 9, 1958.

SN 49,875. Sordelli & C. S. p. A., Varese, Italy. Filed Apr. 17, 1958.

NIL SOL

Priority claimed under Sec. 44(d) on Italian application filed Nov. 22, 1957; Reg. No. 135,463, dated Apr. 3, 1958.

For Spectacles, Anti-Dazzle Spectacles, Optical Lenses, Anti-Dazzle Glasses: Spectacles and Spectacle Lenses in General.

SN 50,417. Sylvania Electric Products Inc., New York, N. Y. Filed Apr. 25, 1958.

COLOR-MATIC

For Correlated Scale Settings on Cameras.

First use Dec. 18, 1953.

SN 52,022. Agfa Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed May 21, 1958.

ISOLY

Owner of German Reg. No. 710,054, dated Jan. 16, 1958; and U. S. Reg. Nos. 637,430, 655,791, and others.

For Photographic Cameras and Lenses.

SN 56,130. M. E. Hodge Corporation, Pasadena, Calif. Filed July 28, 1958.

TRAV-A-DIAL

For Measuring Devices of the Type Which Measure Relative Travel Between Members, Such as Members of a Machine Tool or the Like.
First use Feb. 20, 1958.

SN 56,166. John W. Morris, Sarasota, Fla. Filed July 28, 1958.

SWEET SPOTTER

For Tool for Determining Proper Amount of Weight and Its Distribution in the Head of a Golf Club.
First use Apr. 20, 1958.

SN 56,325. Jon-May Mfg. Co., San Antonio, Tex. Filed July 30, 1958.

LAUNDRI-GRAPH

For Instrument for Monitoring the Saturation of Washing Solutions During Processing, as in Laundries.
First use May 30, 1958.

Class 31 — Filters and Refrigerators

SN 29,854. f5 Air Conditioning Corp., Tulsa, Okla. Filed May 13, 1957.

fandaire

For Condenser for Refrigeration Apparatus.
First use in June 1956.

SN 53,569. American Service & Supply Co., Inc., Boston, Mass. Filed June 16, 1958.

A·M·S·C·O

For Food Freezers.
First use on or about May 1, 1958.

SN 59,507. Borgerud Mfg. Co., Inc., Deerfield, Wis. Filed Sept. 25, 1958.

WATER KING

For Water Conditioning and Filtering Equipment.
First use Oct. 23, 1956.

Class 32 — Furniture and Upholstery

SN 32,787. The United States Bedding Co., St. Paul, Minn. Filed June 27, 1957.

HYDRAMATIC

Owner of Reg. No. 607,972.
For Beds Having Pivotally Mounted Bed Sections.
First use May 1956.

SN 33,290. Southeastern Metals Company, North Birmingham, Ala. Filed July 5, 1957.

SCHOLAR CRAFT

For Classroom Furniture.
First use June 21, 1957.

SN 42,297. B. G. Mesberg National Sales, Inc., New York, N. Y. Filed Dec. 12, 1957.

DIRECTIONAL

Owner of Reg. No. 535,773.
For Bedroom, Dining Room, Kitchen, and Living Room Furniture—Namely, Beds, Benches, Bookcases, Breakfronts, Cabinets, Carts, Chairs, Chests, Commodes, Couches, Dressers, Head Boards, Love Seats, Tables, Settees, Sofas, Stands, Stools, and Wardrobes.
First use on or about Feb. 1, 1949.

SN 42,298. B. G. Mesberg National Sales, Inc., New York, N. Y. Filed Dec. 12, 1957.

PLANNER GROUP

The word "Group" is disclaimed apart from the mark as shown. Owner of Reg. No. 558,684.
For Bedroom, Dining Room, Kitchen, and Living Room Furniture—Namely, Beds, Benches, Bookcases, Breakfronts, Cabinets, Carts, Chairs, Chests, Commodes, Couches, Dressers, Head Boards, Love Seats, Tables, Settees, Sofas, Stands, Stools, and Wardrobes.
First use on or about Jan. 2, 1951.

SN 53,380. Airway Products Corporation, Schiller Park, Ill. Filed June 12, 1958.

CHEK-LINE

For Check Out Counters for Self-Service Stores.
First use May 20, 1958.

SN 54,434. Royal Metal Manufacturing Company of Illinois, New York, N. Y. Filed June 27, 1958.

PARK AVENUE

For Office Furniture.
First use May 15, 1958.

SN 56,054. Slumber Products Corporation, Memphis, Tenn. Filed July 25, 1958.

TRENDitional

For Chairs, Beds, Mattresses, Box Springs, Sofas, Cushions for Furniture, Sofa Beds.
First use June 15, 1958.

SN 56,863. Metropolitan Furniture Manufacturing Company, South San Francisco, Calif. Filed Aug. 8, 1958.

WEEK/ENDER

For Dual Purpose Combined Sofa and Bed.
First use July 2, 1958.

SN 57,077. John Huff, d. b. a. Huff Tool & Manufacturing Co., Chicago, Ill. Filed Aug. 12, 1958.

HUFF-LOK

For Furniture Leg Assemblies.
First use July 22, 1958.

SN 57,161. National Store Fixture Co., Inc., Odenton, Md. Filed Aug. 13, 1958.

NEVAMAR CAREFREE KITCHENS

No claim is made to the word "Kitchens" apart from the mark as shown. The drawing is lined for gold and red. Owner of Reg. No. 666,597.

For Kitchen Cabinets and Kitchen Cabinet Sets.

First use June 19, 1958; at least as early as Aug. 16, 1957, as to "Nevamar Carefree Kitchens."

SN 61,055. The Hitchcock Chair Company, Riverton, Conn. Filed Oct. 21, 1958. Sec. 2(f).

L. HITCHCOCK, HITCHCOCKSVILLE, CONN. WARRANTED.

Owner of Reg. Nos. 514,621, 633,628, and others.

For Dining, Lounge, and Occasional Chairs, Tables, Headboards, Mirrors, Benches, Settees, Cornices, Chests, Chests of Drawers, and Desks.

First use Dec. 14, 1948.

SN 61,219. Takara Company, New York, Inc., New York, N. Y. Filed Oct. 23, 1958.

Belmont

For Beauty Parlor Chairs.

First use Nov. 1, 1957.

Class 33—Glassware

SN 54,171. Maxim Import Co., Inc., Los Angeles, Calif. Filed June 24, 1958.

TREECANTER

For Combination Glass Decanter and Candelabra.

First use June 8, 1958.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 41,494. Thor Power Tool Company, Chicago, Ill. Filed Nov. 27, 1957.

THOR

Owner of Reg. Nos. 57,742, 632,643, and others.

For Dehumidifying Units for Removing Moisture From Air and Air Cooling and Conditioning Units.

First use Aug. 21, 1957.

SN 42,747. Welbilt Corporation, Maspeth, N. Y. Filed Dec. 19, 1957. Sec. 2(f).

Welbilt

Owner of Reg. No. 653,422.

For Air Conditioners.

First use Mar. 2, 1953.

SN 42,967. Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden. Filed Dec. 24, 1957.

VELOTERM

Owner of Swedish Reg. No. 83,268, dated Aug. 30, 1957.

For Apparatus for Conditioning of Air or Other Gaseous Media by Heating, Cooling, Humidifying, or Dehumidifying.

SN 53,133. Eigen Manufacturing Corporation, Long Island City, N. Y. Filed June 9, 1958.

BALL-O-MATIC

For Heating, Ventilating, and Air Conditioning Damper Fixtures.

First use May 28, 1958.

SN 53,663. Stewart-Warner Corporation, Chicago, Ill. Filed June 16, 1958.

STEWART-WARNER

Owner of Reg. Nos. 238,103, 242,872, and others.

For Heating and Air Conditioning Apparatus.

First use in January 1953.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 11,706. Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed July 6, 1956.

AGA

Owner of Swedish Reg. Nos. 28,880 and 43,632, dated Aug. 26, 1924, and June 11, 1934, respectively.

For Hose of Rubber or Plastic for Various Purposes Including Welding Purposes; Diaphragms of Leather, Rubber, and Metal.

SN 36,101. Perfect Circle Corporation, Hagerstown, Md. Filed Aug. 23, 1957.

98

For Piston Rings.

First use Mar. 25, 1955.

SN 54,856. Harrison Mfg. Co., Burbank, Calif. Filed July 7, 1958.



The word "Seal" is disclaimed apart from the mark as shown.

For Metallic Static Seals.

First use Apr. 1, 1958.

Class 36 — Musical Instruments and Supplies

SN 54,280. Traficante, Inc., Minneapolis, Minn. Filed June 25, 1958.

ORGANETTE

For Accordions.
First use Nov. 11, 1957.

Class 37 — Paper and Stationery

SN 42,552. Superior Marker Company, Oakland, Calif. Filed Dec. 16, 1957.

PRESENTA-FILE

For Folders or Covers for Retaining and Displaying Papers, Documents, Etc.
First use Oct. 1, 1957.

SN 43,119. Swingline, Inc., Long Island City, N. Y. Filed Dec. 27, 1957.

SPEEDWAY

Owner of Reg. No. 413,085.
For Covers and Folders.
First use May 9, 1935.

SN 45,303. Allied Stores Corporation, New York, N. Y. Filed Feb. 5, 1958.

ALTEST

For Facial Tissues, Toilet Tissues, and Paper Hand Towels.
First use in June 1941.

SN 46,141. Great Lakes Paper Company, Chicago, Ill. Filed Feb. 19, 1958.

VUE-THRU

For Treated Paper for the Manufacture of Lamp Shades.
First use Aug. 26, 1957.

SN 46,766. A. J. Siris Products Corp., New York, N. Y. Filed Feb. 27, 1958.

HEART THROB

For Pencil Bags, Notebooks, Diaries, Ring Binders, School Portfolios, Autograph Books, Stationery Cases Containing Stationery, Picture Albums, Telephone and Engagement Pads.
First use Feb. 20, 1958.

SN 55,347. Alfred Allen Watts Company, Inc., New York, N. Y. Filed July 15, 1958.

TAB A PART

For Continuous, Carbon-Interleaved Business Forms.
First use in May 1958.

SN 55,372. Bergstrom Paper Company, Neenah, Wis. Filed July 16, 1958.

SPEAR HEAD

For Safety Paper.
First use June 19, 1958.

SN 55,565. Albert G. Barnes, d. b. a. The Plasteen Company, Hellam, Pa. Filed July 18, 1958.

ECON-O-WALL

For Wallpaper.
First use Nov. 20, 1957.

SN 55,579. Executary Corporation, Waban, Mass. Filed July 18, 1958.

EXECUTARY

For Pocket Secretary, Diary and Personal Record Booklets, Sold in Monthly Volumes.
First use June 1, 1957.

SN 62,468. Kimberly-Clark Corporation, Neenah, Wis. Filed Nov. 14, 1958.

KIMFECT

For Book Paper.
First use Nov. 26, 1940.

Class 38—Prints and Publications

SN 42,109. The Hopp Press, Inc., New York, N. Y. Filed Dec. 9, 1957.

DUAL-WAY

For Printed Pricing Cards.
First use on or about October 1957.

SN 42,973. H. S. Crocker Co., Inc., d. b. a. Crocker-Union, San Francisco, Calif. Filed Dec. 24, 1957.

METALESCENT

For Printed and Lithographed Labels and Box Wrappers.
First use Nov. 13, 1957.

SN 45,663. The N P D Corp., New York, N. Y. Filed Jan. 28, 1958.

PMI
PHOTO METHODS FOR INDUSTRY

Applicant disclaims the words "Photo Methods for Industry."
For Magazine.
First use during the month of December 1957.

SN 48,610. Charm Craft Publishers, Inc., New York, N. Y. Filed Apr. 22, 1958.

Charm Craft

Owner of Reg. No. 526,809.
For Greeting Cards.
First use August 1957.

SN 50,990. Doehla Greeting Cards, Incorporated, Nashua, N. H. Filed May 5, 1958.

from the Coronet COLLECTION

For Greeting Cards, Christmas Cards, and Greeting and Christmas Card Box Assortments.
First use Feb. 10, 1958.

SN 51,398. RKO Teleradio Pictures, Inc., New York, N. Y. Filed May 2, 1958.

an RKO Radio Picture

Owner of Reg. Nos. 251,395, 266,145, and 273,076.
For Exposed Motion Picture Film.
First use June 20, 1937.

SN 52,482. The Educational Publishing Corporation, Darien, Conn. Filed May 28, 1958.

AMERICAN CHILDHOOD

Owner of Reg. No. 273,999.
For Magazine.
First use in September 1891.

SN 53,331. The Hearst Corporation, New York, N. Y. Filed June 11, 1958.

New York Mirror

For Newspaper.
First use May 1, 1957.

SN 55,485. Kellogg Company, Battle Creek, Mich. Filed July 17, 1958.

KELLOGG NEWS

No claim is made for the word "News" apart from the mark shown. Owner of Reg. Nos. 363,556, 398,399, and 601,700.
For Employees' Magazine.
First use Mar. 2, 1931.

SN 55,562. Allegheny Ludlum Steel Corporation, Pittsburgh, Pa. Filed July 18, 1958.

STEEL HORIZONS NEWS

Owner of Reg. No. 369,074.
For House Organ Published From Time to Time.
First use in January 1957.

Class 39—Clothing

SN 38,876. Truval Shirt Company, Inc., New York, N. Y. Filed Oct. 14, 1957.

TRUVAL DENBY

Owner of Reg. Nos. 96,306, 651,237, and others.
For Shirts.
First use Feb. 15, 1957.

SN 38,877. Truval Shirt Company, Inc., New York, N. Y. Filed Oct. 14, 1957.

TRUVAL HOWE

Owner of Reg. Nos. 96,306, 651,237, and others.
For Shirts.
First use Feb. 15, 1956.

SN 41,849. Southern Athletic Company, Inc., d. b. a. Wynn Bilt Clothes, Knoxville, Tenn. Filed Dec. 5, 1957.

McDELMAS

For Men's Suits.
First use Sept. 13, 1957.

SN 45,840. Alix of Miami, Inc., Miami, Fla. Filed Feb. 14, 1958.

Alix OF MIAMI
ORCHIDS OF THE SEA

Applicant disclaims the words "Of Miami" apart from the mark as shown. Owner of Reg. No. 632,740.
For Swim Suits and Bathing Suits.
First use Dec. 11, 1957.

SN 48,401. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Mar. 25, 1958.

VANITY PANAMA

Owner of Reg. Nos. 177,974, 598,802, and others.
For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Mar. 17, 1958.

SN 48,991. Hilb Manufacturing Co., Inc., Denver, Colo. Filed Apr. 3, 1958.

RANCH-MAN

For Western Wear for Men Including Shirts, Pants, Suits, Vests, and Jackets.
First use Nov. 1, 1957.

SN 49,352. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Apr. 9, 1958.

PENZANCE

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Mar. 27, 1958.

SN 49,353. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Apr. 9, 1958.

THACKERAY

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Apr. 29, 1955.

SN 49,834. Max Dombrowsky, d. b. a. Mr. Docal, Los Angeles, Calif. Filed Apr. 17, 1958.

mister Do'cal

For Boys', Girls', Men's, and Women's Shirts, Pants, Slacks, Skirts, Jackets, and Coats.
First use Feb. 28, 1958.

SN 50,257. Michaels Stern & Company, Incorporated, Rochester, N. Y. Filed Apr. 23, 1958. Sec. 2(f).

CORNWALL

For Men's Outercoats, Suits, Jackets, and Slacks.
First use Sept. 15, 1941.

SN 51,937. Peter Pan Foundations, Inc., New York, N. Y. Filed May 19, 1958.

TIGER

For Girdles and Panty Girdles.
First use May 1, 1958.

SN 51,996. Howard Stores Corporation, Brooklyn, N. Y. Filed May 20, 1958.

AIR-WEIGH

For Men's and Boys' Suits, Coats, Overcoats, and Slacks.
First use May 7, 1958.

SN 52,408. Fairfield Knitwear, Inc., New York, N. Y. Filed May 27, 1958.

Clarelle by FAIRFIELD

Owner of Reg. No. 649,776.
For Knitted Sweaters.
First use Apr. 7, 1958.

SN 52,879. Frank Brothers Footwear, Inc., New York, N. Y., assignee of Fenn-Feinstein, New Haven, Conn. Filed June 4, 1958.

Fenn-Feinstein

For Men's and Young Men's Ties, Shirts, Overcoats, Topcoats, Belts, Raincoats, Suits, Hats, Sweaters, Slacks, Sport Coats, Jackets, Socks.
First use Mar. 1, 1941.

SN 53,183. Munsingwear, Inc., Minneapolis, Minn. Filed June 9, 1958.



For T-Shirts, Longies, Undershirts, Pajamas, Knit and Woven Shorts, Athletic Undershirts, Union Suits, Briefs.
First use Feb. 21, 1956.

SN 55,471. Goodyear Rubber Company, Middletown, Conn Filed July 17, 1958.

U WEAR

For Rubber Boots and Shoes.
First use in December 1915.

SN 55,567. Blue Bell, Inc., Greensboro, N. C. Filed July 18, 1958.

SEDGEFIELD

Owner of Reg. No. 658,085.
For Men's and Boys' Slacks, Bermuda Shorts and Jackets.
First use Oct. 1, 1955.

SN 55,783. Cooper Brothers, Trumansburg, N. Y. Filed July 22, 1958.

SCOOPERS BY COOPER

For House Scuffs Made of Leather, With a Leather Lining and Foam Rubber Interlining.
First use Apr. 15, 1958.

SN 56,062. Valley Lane, Inc., New York, N. Y. Filed July 25, 1958.

COLORS OF THE VALLEY

For Ladies' Skirts, Blouses, and Dresses.
First use Mar. 15, 1958.

SN 56,363. Leslie J. Steele Company, Atlanta, Ga. Filed July 30, 1958.



For Children's, Girls', Pre-Teens', Misses', Juniors', Ladies', and Women's Shorts, Pedal Pushers, Pants, Slacks, Blouses, Coats, Halters, and T Shirts, Jackets, Skirts.
First use Feb. 1, 1954.

Class 40—Fancy Goods, Furnishings, and Notions

SN 56,070. Meyer Jacoby & Son, Inc., New York, N. Y. Filed July 25, 1958.

MYERLON

For Costume Wigs.
First use July 1, 1958.

SN 56,338. Milfur, Inc., Milwaukee, Wis. Filed July 30, 1958.

BELTAB

For Closure Parts of Belts for Men and Women.
First use July 7, 1958.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 42,846. Deering, Milliken & Co. Inc., New York, N. Y. Filed Dec. 23, 1957.

Loring

For Textile Fabrics Made of Wool, Cotton, and Synthetic Fibers and Combinations Thereof.
First use on or about Feb. 15, 1957.

SN 43,030. K & K Textile Co., Inc., New York, N. Y. Filed Dec. 26, 1957.

MIRAJ

For Drapery Fabrics and Draperies.
First use Dec. 13, 1957.

SN 43,141. J. Capps & Sons, Ltd., Jacksonville, Ill. Filed Dec. 30, 1957.

BARGATE

For Fabrics Sold Only as Finished Apparel—Namely, Men's Suits and Slacks.
First use in May 1956.

SN 43,272. Seamloc Carpet Company, Sanford, Maine. Filed Dec. 31, 1957.

NY-LOC

For Textile Carpets.
First use June 12, 1957.

SN 43,655. Ansonia Mills Incorporated, East Taunton, Mass. Filed Jan. 9, 1958.

ANOSET

For Elasticized Fabrics.
First use Jan. 3, 1958.

SN 51,867. Cone Mills Inc., New York, N. Y. Filed May 19, 1958. Sec. 2(f).

SPORTERRY

For Terry Cloth Piece Goods Made From Cotton and Cotton and Synthetic Fibres.
First use Dec. 22, 1949.

SN 51,871. Deering, Milliken & Co. Inc., New York, N. Y. Filed May 19, 1958.

Caraleno

For Textile Fabrics Made of Wool, Cotton, and Synthetic Fibers and Combinations Thereof.
First use on or about Feb. 28, 1957.

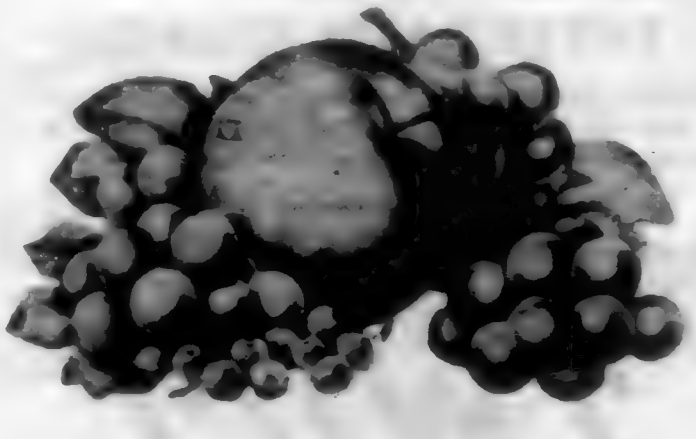
SN 55,212. Joseph Bancroft & Sons Co., Wilmington, Del. Filed July 14, 1958.

Quality Fabric
BAN-LON

Applicant disclaims the phrase "Quality Fabric" apart from the mark as shown. Owner of Reg. No. 505,384.
For Knitted and Woven Fabrics Made From Artificially Crimped Yarns.
First use on or about Feb. 26, 1958.

SN 55,772. Fruit of the Loom, Inc., Providence, R. I. Filed July 23, 1958.

FRUIT OF THE LOOM



Owner of Reg. Nos. 124,730, 174,998, and 175,314.
For Furniture Slip Covers.
First use in January 1945.

SN 56,251. Fieldcrest Mills, Inc., Spray, N. C. Filed July 29, 1958.

Flourish

For Textile Rugs and Carpeting.
First use June 26, 1958.

SN 56,884. Security Mills, Inc., New York, N. Y. Filed Aug. 8, 1958.

MERINGUE

For Knitted Fabrics in the Piece of Cotton, Wool, Rayon, Worsted and Combinations Thereof.
First use Jan. 2, 1958.

Class 43—Thread and Yarn

SN 55,922. Imperial Chemical Industries Limited, London, England. Filed July 24, 1958.

TERON

Owner of British Reg. No. 648,400, dated June 3, 1946.
For Yarns and Threads.

SN 56,766. Eastman Kodak Company, Rochester, N. Y. Filed Aug. 7, 1958.

HEATHERLOFT

For Synthetic Yarn.
First use July 15, 1958.

Class 44—Dental, Medical, and Surgical Appliances

SN 43,462. Lohmann Kommanditgesellschaft, Fahr/Rheinland, Germany. Filed Jan. 6, 1958.

CELLAMIN

Owner of German Reg. No. 703,131, dated June 3, 1957.
For Plaster of Paris Bandages.

SN 43,969. Miguel Segura Tristan, Lucainena des las Torres (Almeria), Spain. Filed Jan. 14, 1958.

INYECTANO SEGURA

Priority claimed under Sec. 44(d) on Spanish application filed July 16, 1957; Reg. No. 322,739, dated Oct. 29, 1957.
For Syringes for Suppositories.

SN 44,406. Natone Company, Los Angeles, Calif. Filed Jan. 21, 1958.

Twirl

For Revolving Brush To Apply Mascara to Eyelashes.
First use December 1950.

SN 50,314. Relaxacizor, Los Angeles, Calif. Filed Apr. 24, 1958.

RelaxAcizor

For Electrical Devices Used in Muscle Exercising by Means of Interrupted Electric Currents.
First use 1952.

Class 45—Soft Drinks and Carbonated Waters

SN 40,113. W. R. Beyer, d. b. a. Beyer Company, Odessa, Tex. Filed Nov. 5, 1957.



The words "The Champagne Taste" are disclaimed apart from the mark as shown.
For Soft Drink Beverages.
First use in June 1957.

SN 42,360. S. C. Clayton Co., Inc., Boston, Mass. Filed Dec. 13, 1957.

SKI-QUEEN

Owner of Reg. No. 410,508.
For Syrup Used for Making Soft Drinks.
First use Mar. 20, 1938.

SN 48,070. Adolph Westphal Bottling Works, River Forest, Ill. Filed Mar. 19, 1958. Sec. 2(f).

WESTPHAL'S QUALITY Beverages

The drawing is lined for red. No claim is made to the exclusive right of the phrases and words "Quality Beverages," "Purity" and "Excellence."
For Bottled Soft Drinks.
First use in October 1949.

Class 46 — Foods and Ingredients of Foods

SN 655,608. Ralston Purina Company, St. Louis, Mo. Filed Oct. 20, 1953.

flavor-fed

For Fresh and Frozen Dressed Poultry.
First use July 1, 1940.

SN 696,871. Chun King Sales, Inc., Duluth, Minn. Filed Oct. 21, 1955.

CHUN KING

Owner of Reg. Nos. 422,687 and 501,448.
For Chow Mein Noodles, Brown Sauce, Soya Sauce, Chop Suey Vegetables, Select Bean Sprouts, Beef Chop Suey, Water Chestnuts, Bamboo Shoots, Chop Suey Rice, Meatless Chow Mein, and Chicken Chow Mein.
First use on or about Jan. 1, 1948.

SN 12,357. Foremost Food & Chemical Co., San Francisco, Calif., assignee of Foremost Dairies, Inc., d. b. a. American Dairies, Inc., Jacksonville, Fla. Filed July 18, 1956.

GOLD BAR

Assignee owner of Reg. No. 150,474.
For Butter and Oleomargarine.
First use 1911 on butter.

SN 16,786. The Andros Island Company Limited, Nassau, Bahamas. Filed Oct. 2, 1956.

ANDROSIAN

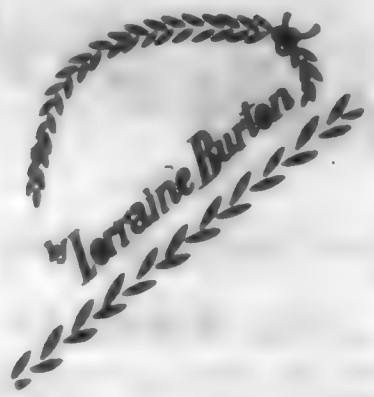
For Fresh Fruits and Vegetables.
First use Aug. 31, 1956; in commerce Aug. 31, 1956.

SN 26,647. Swift & Company, Chicago, Ill. Filed Mar. 21, 1957.



Owner of Reg. No. 299,483.
For Ice Cream.
First use January 1957.

SN 27,772. Case-Swayne Co., Inc., Santa Ana, Calif., assignee of Lorraine Burton Foods, Santa Monica, Calif. Filed Apr. 9, 1957.



"Lorraine Burton" constitutes a portion of the name of Lorraine Burton Heidt, consent of record.
For Commercially Packaged Caesar Salad Dressing.
First use Nov. 6, 1948.

SN 31,171. Central Carolina Farmers Exchange, Inc., Durham, N. C. Filed May 17, 1957.



The drawing is lined for red and blue but no claim is made to the particular coloring thus illustrated. Applicant disclaims the representations of the egg, the chicken, and the abbreviation "Inc." apart from the mark as shown.
For Fresh Dressed and Frozen Poultry and Fresh and Frozen Eggs.
First use July 1, 1955.

SN 31,568. International Minerals & Chemical Corporation, Chicago, Ill. Filed June 7, 1957.

SAUCE-QUIK

For Sauce Base, Made of Fat, Flour, Milk, Starch, and Seasonings for Use in Creaming Foods.
First use May 8, 1957.

SN 32,294. Kenneth H. Dunham, Portland, Conn. Filed June 20, 1957.

BLUBANA

For Bananas.
First use May 1956.

SN 26,763. American Cyanamid Company, New York, N. Y. Filed Sept. 6, 1957.

MYPROZINE

For Antifungal Preparation for the Control of Yeast and Mold Growth in Food Products.
First use July 23, 1957.

SN 38,180. Valley Packing Service, Watsonville, Calif. Filed Oct. 1, 1957.

Valley Frost

For Frozen Berries, Fruits, and Vegetables.
First use 1950.

SN 40,974. Tunies, Inc. (Delaware corporation), Chula Vista, Calif., by merger from Tunies, Inc. (California corporation), Chula Vista, Calif. Filed Nov. 19, 1957.

TUNIES

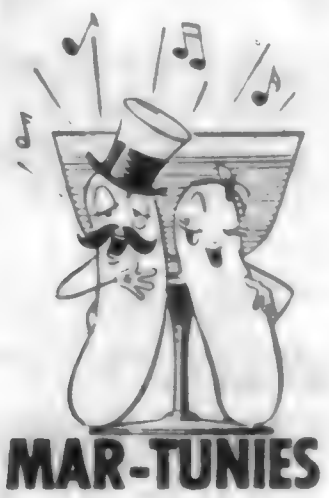
For Fish Sausages.
First use Oct. 25, 1957.

SN 41,531. Fisher Flouring Mills Company, Seattle, Wash. Filed Nov. 29, 1957.

DURAKO

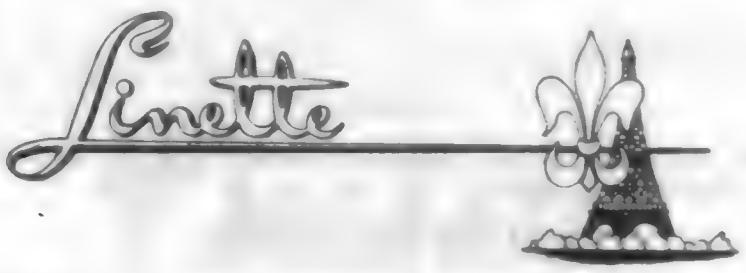
Owner of Reg. Nos. 317,478 and 372,479.
For Granular Durum Wheat for Human Consumption.
First use Oct. 24, 1957.

SN 42,409. Tunies, Inc. (Delaware corporation), Chula Vista, Calif., by merger from Tunies, Inc. (California corporation), Chula Vista, Calif. Filed Dec. 13, 1957.



For Fish Sausages.
First use Oct. 25, 1957.

SN 43,765. James P. Linette, Inc., Reading, Pa. Filed Jan. 10, 1958.



For Candy.
First use Sept. 1, 1956; June 15, 1922, as to "Linette."

SN 43,856. Jackson Produce Company, El Centre, Calif. Filed Jan. 13, 1958.

Jackson

For Fresh Vegetables.
First use Dec. 24, 1957.

SN 44,853. Adele Washington, d. b. a. Adele Food Products, New York, N. Y. Filed Jan. 28, 1958.

CRAN-QUATS

For Processed Fruit Preserves, Consisting of Cranberries and Kumquats, Sold in Food Stores.
First use Oct. 10, 1955.

SN 45,088. Sunshine Biscuits, Inc., Long Island City, N. Y. Filed Jan. 27, 1958.

HYDE PARK

For Cookies.
First use Nov. 18, 1936.

SN 47,450. St. Cloud Milling Company, St. Cloud, Minn. Filed Mar. 10, 1958.

SMORGASBIRD

For Wild Bird Feed.
First use Jan. 28, 1958.

SN 47,779. Prince Biscuit Corporation, Brooklyn, N. Y Filed Mar. 14, 1958.

GOLDEN PAK

For Biscuits, Cookies, Cakes, and Fig Bars.
First use Mar. 5, 1958.

SN 48,890. United Biscuit Company of America, Melrose Park, Ill. Filed Mar. 31, 1958. Sec. 2(f)

CINNAMON CRISP

Applicant disclaims the word "Cinnamon," except as a part of the mark as shown.
For Dry Bakery Product—Namely, Flavored, Sweet Crackers.
First use May 16, 1955.

SN 49,215. Tiedemann & McMorran, Inc., San Francisco, Calif. Filed Apr. 7, 1958.

Sun-Blest

Owner of Reg. No. 573,617.
For Canned Fruits, Canned Berries, Canned Vegetables, Canned Baked Beans With Pork, Hominy, Mushrooms, Pickles, Sweet Relish, Canned Sauerkraut, Tomato Catsup, Tomato Chili Sauce, Tomato Paste, Tomato Sauce, Canned Fruit Juices, Sugar, Canned Vegetable Juices, Chop Suey Sauce, Honey, Mincemeat, Mushroom Sauce, Prepared Mustard, Peanut Butter, Pimientos, Raviolis, Salt, Vinegar, Olive Oil, Chicken Tamales, Imitation Maple Syrup, Canned Apple Sauce, Canned Fruit Cocktail, Olives, Fruit Preserves, Berry Preserves, Apple Butter, Jams, Jellies, Marmalades, Canned Fish, Canned Shellfish, Mayonnaise Dressing, Clam Juice, Italian Style Sweet Peppers, Gelatine Dessert, Egg Noodles and Corned Turkey Giblets; Egg Noodles and Chicken; Egg

Noodles and Chicken Giblets; Chow Chow, Pepper Sauce; Hot Pepper Relish of Peppers, Cabbage, Onions, Vinegar, Salt, and Spices; Vegetable Relish of Cabbage, Carrots, Peppers, Onions, Vinegar, Sugar, Salt, and Spices; Sweet Pickle Relish of Pickles, Sugar, Vinegar, Cauliflower, Onions, and Spices; Prepared Cocktail Sauce, Strained Cranberry Sauce, Whole Cranberry Sauce, Canned Brown Bread With Raisins, Salad Dressing, 1000 Island Dressing, and Pudding Powders.
First use Dec. 21, 1922.

SN 49,397. Virginia Smelting Company, West Norfolk, Va. Filed Apr. 9, 1958.

SIL-AID

For Silage Preservatives.
First use Feb. 14, 1958.

SN 50,190. Standard Bakers Supplies, Inc., Philadelphia, Pa. Filed Apr. 22, 1958.

STANDEX

For Baking Ingredients—Namely, Food Flavoring Extracts, Jellies, Pie Fillings, Chocolate and Fudge Coatings, Glazes, Fruit and Nut Toppings, Chocolate Chips, Cocoa, Baking Chocolates, Fondant, Diced and Glazed Fruits, Nuts, Pan Grease, Spices, Nut Pastes, Baking Powder and Sugars.
First use Oct. 15, 1946.

SN 51,057. Revere Smoked Fish Company, Chelsea, Mass. Filed May 5, 1958.

SEA-LECT

For Smoked Fish.
First use 1944.

SN 51,206. McCormick & Company, Incorporated, Baltimore, Md. Filed May 7, 1958.

BANQUET McCormick

Owner of Reg. Nos. 46,038, 634,146, and others.
For Old Fashioned Country Relish, Dehydrated Potato Cubes, Pancake Syrup, Mustard, Flavored Gelatine, Butterscotch Pudding, Chocolate Pudding, Vanilla Pudding, Light-Chocolate Fudge Sauce, Dark-Chocolate Fudge Sauce, Butterscotch Fudge Sauce, Chopped Onions, Sliced Onions, and French Dressing.
First use Jan. 15, 1958.

SN 51,450. Griffith Laboratories, Inc., Chicago, Ill. Filed May 12, 1958.

MYGLO

For Edible Coloring Composition.
First use Apr. 3, 1958.

SN 51,669. Southern Fruit Distributers, Inc., Orlando, Fla. Filed May 14, 1958.

CARDINAL

Owner of Reg. Nos. 271,350, 657,539, and others.
For Fresh Peaches.
First use not later than 1926.

SN 52,759. The Pillsbury Company, Minneapolis, Minn., by change of name from Pillsbury Mills, Inc., Minneapolis, Minn. Filed June 2, 1958.

CHEF STYLE

For Dehydrated Potato Flakes.
First use May 19, 1958.

SN 53,084. Wass Food Sales, Inc., d. b. a. Wass Food Sales Co., Chicago, Ill. Filed June 6, 1958.

SLOPPY JOE

For Barbecue Sauce.
First use Apr. 18, 1958.

SN 53,151. Hales & Hunter Co., Chicago, Ill. Filed June 9, 1958.

KIB-LETS

For Dog Food.
First use May 12, 1958.

SN 53,413. The H. E. Koontz Creamery, Inc., Baltimore, Md. Filed June 12, 1958.

GREEN MEADOW

For Dairy Products—Namely, Fluid Milk and Non-Fat, Dry Milk Solids.
First use as early as 1932 on fluid milk.

SN 53,469. Blue Ribbon Rice Mills, Inc., Houston, Tex. Filed June 13, 1958.

CHOPSTICK

For Packaged Rice.
First use 1951.

SN 53,640. Phelan & Taylor Produce Company, Oceano, Calif. Filed June 16, 1958.

BIKINI

For Fresh Vegetables.
First use June 3, 1958.

SN 54,601. Comet Rice Mills, Houston, Tex. Filed July 1, 1958.

COMET

Owner of Reg. Nos. 77,427, 655,595, and others
For Rice Flour.
First use May 16, 1958.

SN 55,042. Welsh's Bakery, Inc., Reno, Nev. Filed July 9, 1958.

SHEEPHERDER

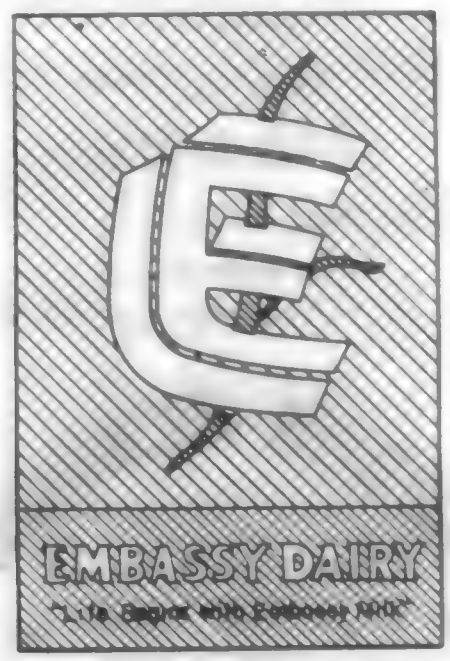
For Bread.
First use Apr. 1, 1948.

SN 55,156. Michael W. Mettenleiter, New York, N. Y. Filed July 11, 1958.

Seniorfood

For Processed Fruits and Vegetables, Prepared Ready to Eat.
First use Dec. 4, 1956.

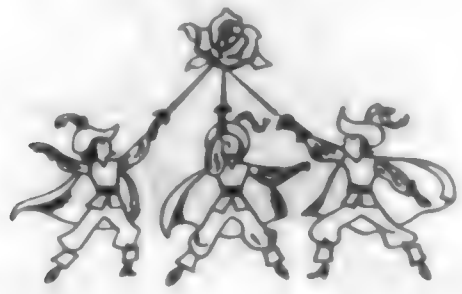
SN 59,669. Maryland and Virginia Milk Producers Association, Inc., d. b. a. Embassy Dairy, Arlington, Va. Filed Sept. 23, 1958.



The drawing is lined for green but no claim to color is made. Owner of Reg. No. 570,320.
For Fluid Milk, Fluid Buttermilk, Fluid Cream, and Fluid Sour Cream.
First use Jan. 5, 1956, on fluid milk.

Class 47 — Wines

SN 52,700. Di Giorgio Wine Company, d. b. a. Santa Fe Wine Company, Los Angeles, Calif. Filed June 2, 1958.



For Wine.
First use May 1, 1958.

SN 52,967. Paul Masson, Inc., d. b. a. Paul Masson Vineyards, San Francisco, Calif. Filed June 5, 1958.

RED FLANNELS

For Wines—Namely, Red Wines.
First use Apr. 29, 1958.

SN 52,968. Paul Masson, Inc., d. b. a. Paul Masson Vineyards, San Francisco, Calif. Filed June 5, 1958.

CANDLELIGHT

For Wines—Namely, Champagne.
First use Apr. 29, 1958.

SN 55,216. Beaulieu Vineyard, San Francisco, Calif. Filed July 14, 1958.

Beaulieu

Owner of Reg. No. 624,154.
For Wines.
First use in 1900.

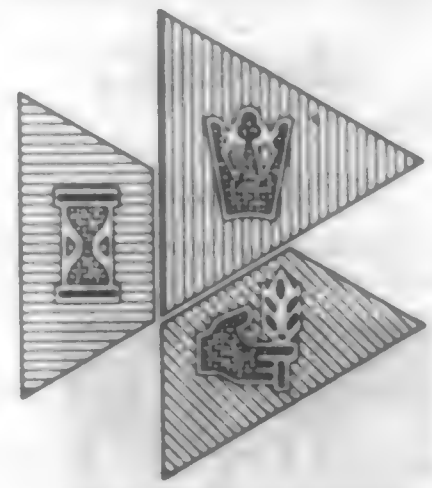
SN 55,682. Hanns J. Kornell, d. b. a. Hanns Kornell Cellars, Sonoma, Calif. Filed July 21, 1958.



For Champagne.
First use July 10, 1958.

Class 48 — Malt Beverages and Liquors

SN 52,376. Bavarian Brewing Company, Covington, Ky. Filed May 21, 1958.



The lines on the drawing are for the colors red, yellow, blue, and green, but no claim is made as to color.
For Beer.
First use about May 16, 1957.

SN 53,284. Piel Bros., Brooklyn, N. Y. Filed June 10, 1958. Sec. 2(f) as to "Piels."



Owner of Reg. Nos. 70,630, 558,603, and others.
For Beer.
First use Mar. 22, 1956; in 1883 as to "Piels."

Class 49—Distilled Alcoholic Liquors

SN 44,804. Croiset, Eymard & Co., Saint Meme-Cognac, France. Filed Jan. 28, 1958.

BONAPARTE

Owner of French Reg. No. 13,671, dated May 9, 1957 (Cognac); Natl. Inst. No. 90,439.
For Cognac.
First use in 1907; in commerce in 1907.

SN 47,571. Joseph S. Finch & Company, Schenley, Pa. Filed Mar. 12, 1958.

MELROSE
The Champagne of Whiskies

Applicant disclaims, apart from the mark as shown, the words "The Champagne of Whiskies." Owner of Reg. Nos. 261,698, 422,203, and others.
For Whiskey.
First use Feb. 11, 1958.

Class 50—Merchandise Not Otherwise Classified

SN 12,494. Celebrity, Inc., New York, N. Y. Filed July 20, 1956. Sec. 2(f).

TRAVEL WITH A CELEBRITY

For Toilet Kit Containing a Hair Brush, Comb, and Mirror.
First use in June 1951.

SN 40,873. Kimble Glass Company, Toledo, Ohio, assignee of Owens-Illinois Glass Company, Toledo, Ohio. Filed Nov. 18, 1957.

KIMAX

Owner of Reg. No. 646,480.
For Stop-Cock Plugs and Stoppers.
First use Aug. 16, 1957.

SN 50,712. Mercantile Machine & Mfg. Co., Inc., New York, N. Y. Filed Apr. 30, 1958.

PICK-A-DILLIES

For Plastic Party Picks.
First use Jan. 3, 1950.

SN 52,445. Theodor Manufacturing Company, Los Angeles, Calif. Filed May 27, 1958.

TEMPRA

For Plastic Sheeting, Generally Simulating Leather, Used in the Manufacture of Handbags, Etc.
First use Aug. 29, 1957.

SN 54,407. Hobade Associates, Inc., New Brunswick, N. J. Filed June 27, 1958.

KOOL-PRESS

For Insulating Covers or Jackets for Garment Presses.
First use Mar. 15, 1958.

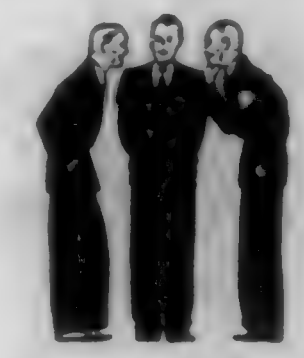
SN 55,386. Design and Production, Inc., Alexandria, Va. Filed July 16, 1958.

D&P

For Exhibition and Display Units in the Nature of Portable, Demountable, Display Assemblies for Use at Exhibits, Trade Shows, Conventions, Etc., and Bulletin Boards.
First use in August 1956.

Class 51—Cosmetics and Toilet Preparations

SN 31,690. Ludwig Scherk, Inc., New York, N. Y. Filed June 10, 1957.



HAPPY SHAVERS

Owner of Reg. No. 437,893.
For After Shave Lotion.
First use December 1932.

SN 37,490. Foster-Milburn Company, Buffalo, N. Y. Filed Sept. 19, 1957.

KEROHYDRIC

For Dewaxed, Oil-Soluble, Keratin-Moisturizing Fraction of Lanolin Incorporated as an Ingredient in a Preparation for Use on the Skin To Soften and Promote Moisture Retention and Relieve Minor Skin Disorders Associated With Dry Skin.
First use Sept. 4, 1957.

SN 39,671. Anatole Robbins, Inc., Hollywood, Calif. Filed Oct. 28, 1957.

NYLRESSI

For Moisture Oil for the Skin.
First use Oct. 8, 1953.

SN 39,903. Helena Rubinstein, Inc., New York, N. Y. Filed Oct. 31, 1957.

MASCARA-MATIC

For Mascara in a Dispensing Applicator.
First use May 14, 1957.

SN 40,382. Helena Rubinstein, Inc., New York, N. Y. Filed Nov. 18, 1957.

PURSCENT

For Solid Perfume.
First use May 15, 1957

SN 43,098. The Gillette Company, d. b. a. The Toni Company, Boston, Mass. Filed Dec. 27, 1957.

BRIGHT PROMISE

Owner of Reg. Nos. 576,780 and 625,997.
For Hair Color Rinse.
First use July 17, 1956.

SN 43,497. National Boulevard Bank of Chicago, Chicago, Ill., assignee of Lanolin Plus, Inc., Chicago, Ill. Filed Oct. 14, 1957.

GOLDEN ESSENCE

For Sterol-Rich Facial Beauty Cream.
First use Sept. 30, 1957.

SN 50,702. The House of Stuart, Inc., Newark, N. Y. Filed Apr. 30, 1958.

HUMIDERM

For Moisturising Skin Cream.
First use Feb. 12, 1958.

Class 52—Detergents and Soaps

SN 43,831. Economics Laboratory, Inc., d. b. a. Economics Laboratory, St. Paul, Minn. Filed Jan. 13, 1958.

ASSURE

For Composition for Cleaning and Detarnishing of Steel and Silver Tableware.
First use Aug. 6, 1957.

SN 50,400. Sears, Roebuck and Co., Chicago, Ill. Filed Apr. 25, 1958.

DB DAVID BRADLEY

For Grease and Rust Remover.
First use on or about Jan. 2, 1958.

SN 51,658. Pfanstiehl Detergent Chemicals, Inc., Waukegan, Ill. Filed May 14, 1958.

EMPTIZON

For Detergents Used for Cleaning Milkers and Other Dairy Farm Equipment.
First use Apr. 30, 1958.

SERVICE MARKS

Class 101—Advertising and Business

SN 25,984. M. K. Guertin, d. b. a. Best Western Motels, Long Beach, Calif. Filed Mar. 12, 1957.

THE BEST Western MOTELS BWA

No claim is made to the exclusive right to use the words "The Best Motels" apart from the mark as shown.

For Promotional and Advisory Services to Associated Independent Motel Operators—Namely, the Furnishing of Advertising, Advertising Listings, Promotional Material, and Printed Business Forms.
First use Nov. 2, 1947.

Class 107—Education and Entertainment

SN 8,609. American Foundation for Homoeopathy, Washington, D. C. Filed May 21, 1956.



The portrait and name forming part of the mark are of Samuel C. F. Hahnemann, deceased.

For Conduct of Adult Educational Services Through the Media of Group Discussions Organized by or With the Cooperation of the Foundation and Under the Moderation of Persons Trained by or With the Assistance of the Foundation, Which Groups Discuss and Debate Issues Pertaining to the Laws of Cure as Discovered by Dr. Samuel C. F. Hahnemann, and by Achieving the Same Purposes Through the Media of Motion Pictures, Pamphlets, Brochures and Other Printed Material.
First use May 31, 1951.

COLLECTIVE MEMBERSHIP MARKS

Class 200

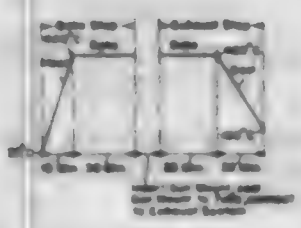
SN 51,102. Million Dollar Round Table of the National Association of Life Underwriters, Chicago, Ill. Filed Apr. 28, 1958.

MEMBER MILLION DOLLAR ROUND TABLE N·A·L·U

For Indicating Membership in the Organization.
First use Feb. 25, 1935.

rear end of said web of said slide member, said front roller extending into said upper and lower channel-shaped thereof; front and rear rollers respectively mounted on the front end of said web of said guide member and the tracks on said slide member and being engageable with said upper and lower track surfaces on said slide member, and said rear roller extending into said upper and lower channel-shaped tracks on said guide member and being engageable with said upper and lower track surfaces on said guide member, whereby said front and rear rollers key said slide member to said guide member against lateral movement of said slide member relative to said guide member; means spacing said front roller from said web of said guide member into alignment with said upper and lower channel-shaped tracks on said slide member; and means spacing said rear roller from said web of said slide member into alignment with said upper and lower channel-shaped tracks on said guide member.

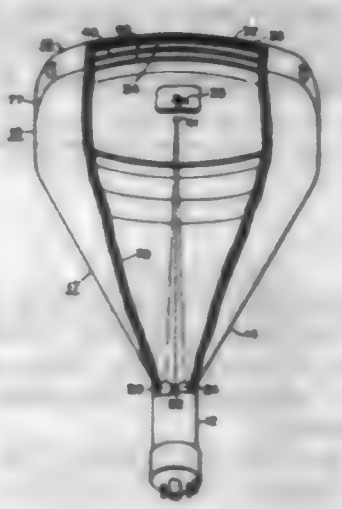
2,871,086
METHOD FOR BAKING AND EXHAUSTING ELECTRON DISCHARGE DEVICES
Renzo L. Korner, Montour Falls, and Gilbert N. Rieger and William H. McCurdy, Horseheads, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 10, 1956, Serial No. 564,826
6 Claims. (Cl. 316—4)



1. A method of making an electron discharge device having a phosphor coating on at least a portion of the interior of said device, said method including the steps of heating the device for a first time interval and simultaneously maintaining said device open to the atmosphere during said first time interval to expel large portions of any undesirable vaporizable material from said phosphor coating and said device, connecting an exhaust system to said electron discharge device while maintaining the temperature of the device at approximately the temperature which the device reached during the heating step, exhausting said electron discharge device during a second time interval and heating said electron discharge device for at least a portion of said second time interval thereby expelling substantially all of said vaporizable material.

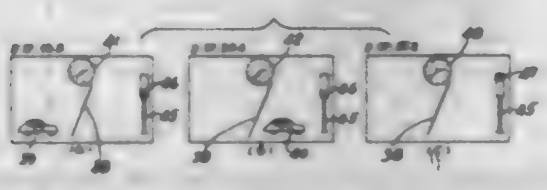
2,871,087
METHOD OF ASSEMBLING A COLOR TELEVISION TUBE
William J. Knochel, Elmira, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 10, 1956, Serial No. 564,720
4 Claims. (Cl. 316—19)

1. The method of assembling a color television tube, said tube characterized in having a glass envelope having a funnel portion and a face panel comprising the steps of depositing a phosphor screen on the interior portion of said face panel, evaporating an aluminum coating on the interior surface of said face panel, mounting a masking electrode within said face panel, securing said masking electrode within said face panel by means of clamping members secured to said face panel, sealing said glass face panel and said glass funnel together by electrically heating said face panel and said funnel, and evaporating a conductive coating within the interior of said envelope so as to cover the interior portion of said funnel and the sealing region between said funnel and said face panel



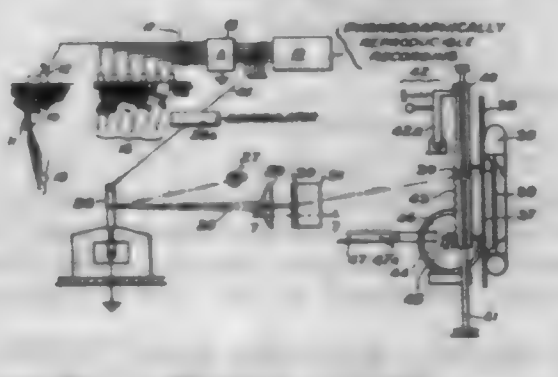
to form a continuous conductive coating between said face panel and said funnel.

2,871,088
METHOD OF OBTAINING EVIDENCE OF TRAFFIC SIGNAL VIOLATIONS
Frank Abell, Inglewood, Calif.
Application October 18, 1952, Serial No. 315,552
11 Claims. (Cl. 346—1)



3. The method of producing photographic evidence of a traffic violation by a moving vehicle at an intersection equipped with an automatic traffic signal which includes the steps of: recording the changes of said traffic signal to establish the duration of at least the stop period of the operating cycle of the signal; photographing a time indicator synchronized with local time together with the traffic signal and the vehicle at one moment and again at a latter moment during a single "stop" period to show the vehicle in two successive positions in the intersection during said single stop period of the traffic signal; and photographing the traffic signal together with a time indicator synchronized with local time after the immediately next change of the signal to "go."

2,871,089
RECORDING CAMERA FOR MONITORING SEISMIC WAVES
George B. Loper, Dallas, Tex., and Robert R. Pittman, Tulsa, Okla., assignors, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York
Application November 28, 1952, Serial No. 322,982
17 Claims. (Cl. 346—109)



2. A recording oscillograph comprising means for deflecting a beam of light in a first plane with a magnitude representative of the instantaneous values of the magnitude of a condition, a lens for viewing said beam of light

at said plane, a camera of the self-developing type having film positioned at a distance conjugate the distance from said lens to said plane, a carriage supporting said lens for movement in a second plane parallel to said first plane and perpendicular to the direction of movement of said beam in said first plane and including means for producing constant speed variation in the relative position of said lens and said beam of light, and means for controlling the initiation of said relative movement in correlation with a selected magnitude of said condition.

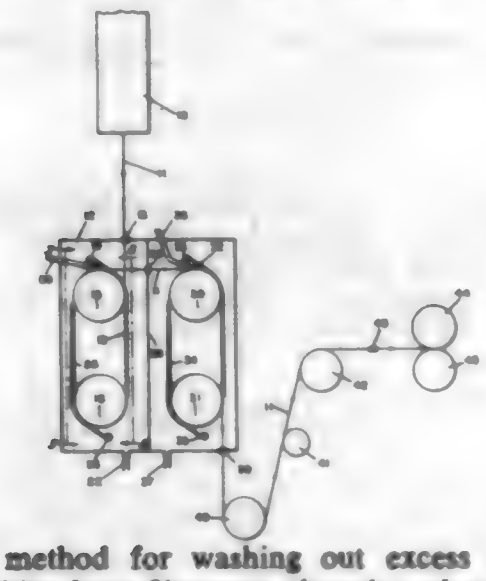
CHEMICAL

2,871,090

METHOD FOR THE MANUFACTURE AND TREATMENT OF POLYAMIDE FIBERS

Thomas S. Mayner, Chagrin Falls, Ohio, assignor to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware

Application June 29, 1953, Serial No. 364,881
3 Claims. (Cl. 8—151.1)



1. The method for washing out excess amounts of water solubles from filaments, threads and yarns of polycaproamide polymers, comprising; forming of said filaments, threads and yarns an elongated helix along its transverse axis having unsupported sections; advancing said helix through a wash treating stage; and while in said wash stage frictionally wet brushing said helix including at least about the entire portion of an unsupported elongated section.

2,871,091

METHOD OF DISINFECTING

André Henri Passedouet, Berons, France, assignor to Consortium de Produits Chimiques et de Synthese, Berons, France

No Drawing. Application June 9, 1954
Serial No. 435,630
Claims priority, application France June 13, 1953
1 Claim. (Cl. 21—58)

The method of disinfecting materials which comprises applying a solution in a water-soluble organic solvent of a salt having the formula:

$$X-\underset{\underset{R}{|}}{N}-(_nC_7H_{2n})_3$$

wherein X is an anion and R is selected from the group consisting of aliphatic hydrocarbon radicals containing from 1 to 7 carbon atoms and benzyl radicals to the material to be disinfected, in an amount sufficient to effect said disinfecting.

2,871,092

NIOBIUM-TANTALUM SEPARATION

Harley A. Wilhelm, Ames, Iowa, and Raymond A. Foos, Kenmore, N. Y., assignors to the United States of America as represented by the Atomic Energy Commission

No Drawing. Application August 15, 1955
Serial No. 528,569
5 Claims. (Cl. 23—23)

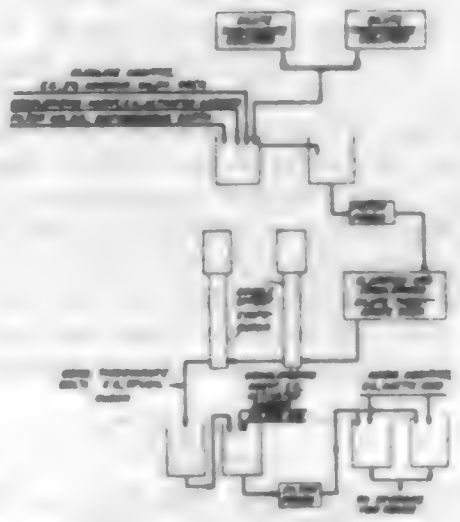
1. A process of substantially reducing the corrosive effect of hydrofluoric acid on metal and glass equipment used in the selective extraction of tantalum values from an aqueous hydrofluoric acid solution containing said tantalum values together with niobium values by contacting said solution with an organic substantially water-immisible solvent selected from the group consisting of cyclohexanone, isophorone, mesityl oxide, methyl isobutyl ketone, methyl n-hexyl carbinol, diethyl ketone, tributyl phosphate, ethyl acetoacetate, m-toluidine and a mixture of diethyl ketone plus primary alkyl amines having branched alkyl chains in which the primary amino-nitrogen is directly attached to a tertiary carbon atom and in which the amines contain from 12 to 24 carbon atoms per molecule, said process comprising the step of adding to said hydrofluoric acid solution, prior to contacting with the solvent, an amine selected from the group consisting of phenylethylethanolamine, m-tolyldiethanolamine, phenyl diethanolamine and aniline in a quantity to adjust the pH value of said hydrofluoric acid solution to between 4 and 6.

2,871,093

METHOD OF RECOVERING THIOCYANATE SOLUTIONS

Thomas R. Blanchard, Waterbury, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application August 25, 1955, Serial No. 530,535
15 Claims. (Cl. 23—75)



1. The method of obtaining a concentrated aqueous solution of an alkali-metal thiocyanate from a dilute aqueous solution containing from about 2% to about 10% by weight of the said thiocyanate and having a pH of less than 7.0, said method comprising adding to the said dilute solution, as the sole chemical additive, a substance which is alkaline in the said aqueous solution, the amount thereof being sufficient to increase the pH of the said dilute solution to at least 7.5 and concentrating the resulting solution by evaporation to an aqueous solution having a concentration of the said alkali-metal thiocyanate such that the said solution will dissolve a polymer of acrylonitrile.

2,871,894
PURIFICATION OF TITANIUM TETRACHLORIDE WITH COPPER

Alexandre R. Tarasy, Las Vegas, Nev., and William D. Guthrie, Fayetteville, Ark., assignors to Titanium Metals Corporation of America, New York, N. Y., a corporation of Pennsylvania

No Drawing. Application January 26, 1956
Serial No. 561,678
7 Claims. (Cl. 23—87)

1. In a method for purifying crude titanium tetrachloride by contact with a mass of copper coated ferrous pieces and in which said mass after contact with crude $TiCl_4$ becomes fouled and is retreated for reuse, the improvement in the step of retreating said fouled mass which comprises; draining $TiCl_4$ from said fouled mass, washing said drained mass with a dilute acid wash solution, clarifying and adjusting the used wash solution to provide a soluble copper content therein of between 1 and 20 grams per liter and a pH between 2 and 6, contacting said adjusted used wash solution with said mass to deposit a chemically plated copper surface thereon.

2,871,895
PRODUCTION OF ALUMINA

George L. Hervert, Downers Grove, and Herman S. Bloch, Skokie, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

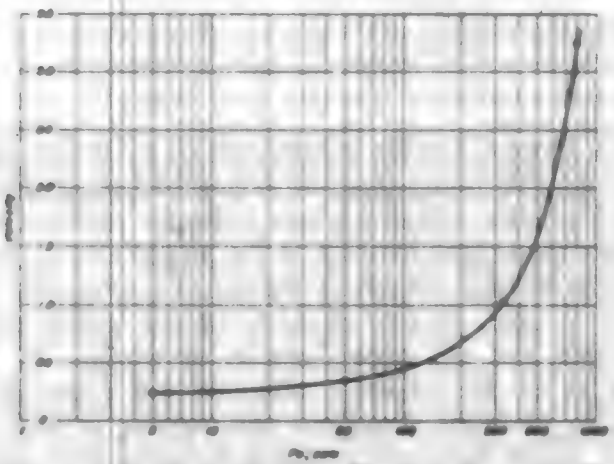
No Drawing. Application October 24, 1955
Serial No. 542,462
6 Claims. (Cl. 23—143)

1. In the production of alumina by the reaction of metallic aluminum with water, the improvement which comprises reacting the aluminum and water in physical contact with from about 100 to about 10,000 weight parts per million (based on the aluminum) of an activator metal selected from the group consisting of tin, lead and germanium.

2,871,896
PRODUCTION OF ALUMINA

George L. Hervert, Downers Grove, and Herman S. Bloch, Skokie, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

Application October 24, 1955, Serial No. 542,467
4 Claims. (Cl. 23—143)



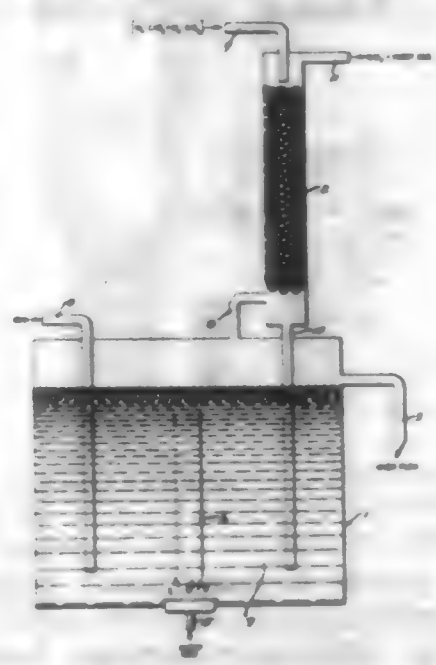
1. In the production of alumina by the reaction of metallic aluminum with water, the improvement which comprises reacting the aluminum and water in physical contact with from about 100 to about 2500 weight parts per million of iron based on the aluminum.

2,871,897
PRODUCTION OF CHLORINE DIOXIDE

William Howard Rapson, Toronto, Ontario, Canada, assignor to Hooker Chemical Corporation, Niagara Falls, N. Y., a corporation of New York

Application February 6, 1956, Serial No. 563,739
4 Claims. (Cl. 23—152)

1. In a process for producing chlorine dioxide the steps of: contacting a solution containing substantially equimolecular quantities of a metal chlorate and metal chlorite with a gas containing chlorine and chlorine dioxide in approximately 2 to 1 molar ratio thereby to produce a mixture of higher content of chlorine dioxide, a chlorate and a chloride; separating the chlorine dioxide thus produced; introducing the resulting chlorate and chloride containing solution thus produced into a

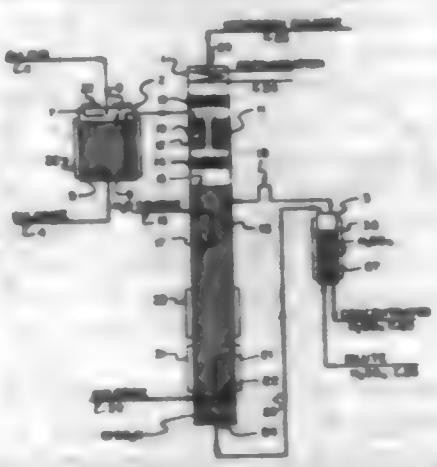


reaction mixture comprising a concentration of between about 0.3 and 0.001 molar each of a chlorate and a chloride in an aqueous solution of a strong acid selected from the group consisting of sulfuric acid 3.5–7 molar in acid and phosphoric acid 7–15 molar in acid, to produce an additional chlorine dioxide and chlorine gas mixture; and, further contacting said gas mixture with additional chlorate and chlorite.

2,871,898
PRODUCTION OF HYDROGEN CHLORIDE AND SULFURIC ACID

Alexander Redulas and Solomon Goodman, New York, and Theodore Cantor, Yonkers, N. Y., assignors to Technical Enterprises Inc., New York, N. Y., a corporation of New York

Application July 19, 1955, Serial No. 523,014
6 Claims. (Cl. 23—156)



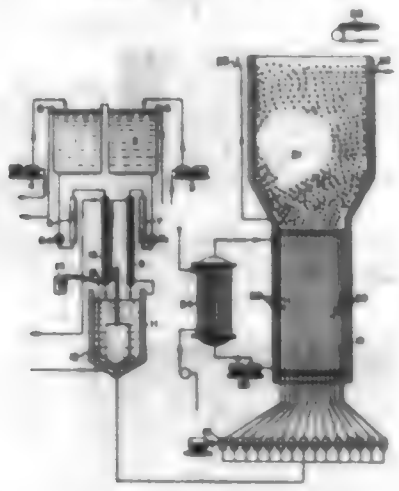
5. A process for the continous production of sulfuric acid and gaseous hydrogen chloride, which comprises continuously feeding into a reaction zone, which is at such a temperature and pressure as to maintain the reaction medium therein in liquid state, chlorine, a liquid mixture of sulfur and sulfur monochloride, and a member of the group consisting of water, aqueous hydrogen chloride, and aqueous sulfuric acid at a rate approximating its rate of reaction with said chlorine, sulfur, and sulfur monochloride, and continuously removing gaseous hydrogen chloride and a member of the group consisting of sulfuric and chlorosulfonic acids from the reaction mixture.

2,871,099

PROCESS FOR THE CONTINUOUS PRODUCTION OF HYDROGELS CONTAINING SILICIC ACID

Walter Ziese, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

Application February 1, 1956, Serial No. 562,894
Claims priority, application Germany February 3, 1955
5 Claims. (Cl. 23—182)



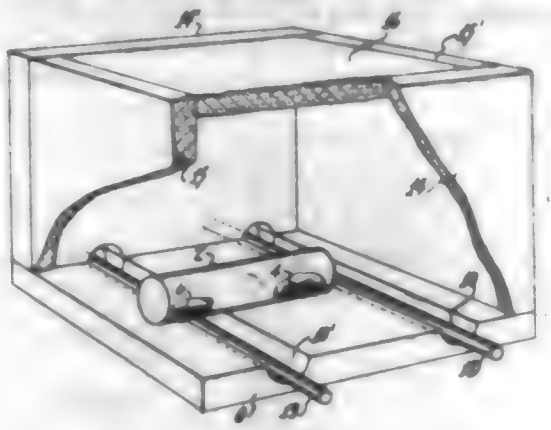
1. In the process for continuously producing elastic hydrogels containing silicic acid from alkali silicates and inorganic acids with the intermediate formation of an unstable sol containing silicic acid the steps which comprise dividing the sol containing silicic acid into individual streams of the sol which streams have a cross-section up to about 70 millimetres and are heated to about 40° up to about 100° C. whilst being led through tubes having a smooth inner surface in such manner that the sol is solidified during its passage through said tubes to the hydrogel and removing the hydrogel in the form of the resultant rods from said tubes.

2,871,100

METHOD OF PREPARING INDIUM PHOSPHIDE

Ronald J. Guire, Columbus, and Kurt Weiser, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application July 22, 1955, Serial No. 523,718
5 Claims. (Cl. 23—204)



1. The method of preparing crystalline indium phosphide comprising the steps of: heating a quantity of indium at one end of an evacuated container to a temperature at which indium reacts with phosphorus, independently and separately heating a quantity of phosphorus in said container at the other end thereof to the temperature at which a sufficient phosphorus vapor pressure is obtained at which said indium reacts with said phosphorus to produce indium phosphide, further heating an additional quantity of phosphorus at said other end of said container in excess of that needed for said reaction so as to provide a phosphorus vapor pressure in said container, of at least three atmospheres, maintaining a melt of said indium phosphide under said phosphorus vapor pressure, said phosphorus vapor pressure being sufficient to prevent the escape of said reacted phosphorus from said melt, establishing a temperature gradient in said melt from one end to the other, and thereafter slowly freezing successive portions of said melt proceeding from the coldest to the hottest portions thereof whereby a mass of relatively large crystalline portions of said indium phosphide is obtained.

2,871,101

MANUFACTURE OF HYDROGEN PEROXIDE

Frederick F. Rust, Oakland, and Lee M. Porter, Richmond Annex, Calif., assignors to Shell Development Company, San Francisco, Calif., a corporation of Delaware

No Drawing. Application August 21, 1950
Serial No. 180,694
23 Claims. (Cl. 23—207)

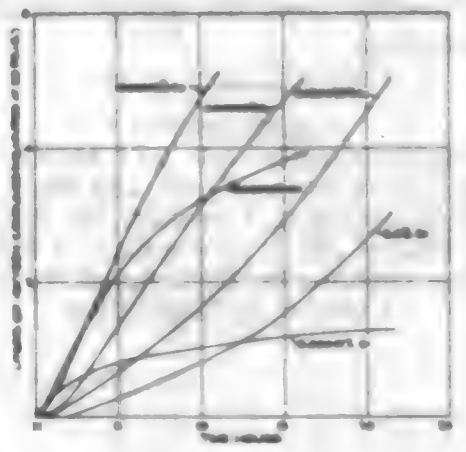
1. The process for the production of hydrogen peroxide which comprises aerating and maintaining substantially saturated with gas containing molecular oxygen, a liquid mixture containing only secondary alcohol as the progenator of hydrogen peroxide and added hydrogen peroxide stabilizer at a temperature above 90° C., the aeration being continued until hydrogen peroxide is formed in appreciable and substantial quantity by non-photochemical partial oxidation of the secondary alcohol.

2,871,102

PROCESS FOR THE PRODUCTION OF HYDROGEN PEROXIDE

Frederick F. Rust, Orinda, Lee M. Porter, Richmond Annex, and William E. Vaughan, Berkeley, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application August 18, 1951, Serial No. 244,763
19 Claims. (Cl. 23—207)



1. A process for the production of hydrogen peroxide, which process comprises subjecting to the action of molecular oxygen-containing gas a liquid mixture containing only secondary alcohol as the progenator of hydrogen peroxide having dispersed therein a compound soluble therein at least of one member of the group consisting of copper and the heavy metals of groups V, VI, VII and VIII of the periodic table of the elements and a hydrogen peroxide stabilizer, the content of heavy metal in said liquid being up to about 0.001% by weight.

2,871,103

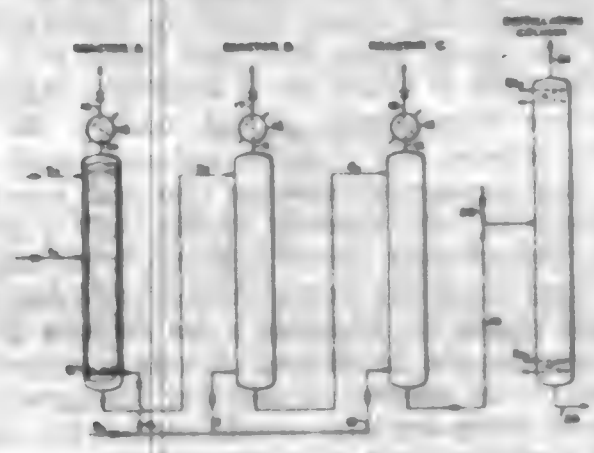
METHOD FOR THE PRODUCTION OF HYDROGEN PEROXIDE

John R. Skinner, Oakland, and Shelton E. Steinle, Richmond, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application December 23, 1953, Serial No. 399,868
10 Claims. (Cl. 23—207)

1. A process for the production of hydrogen peroxide by non-photochemical partial oxidation of a secondary alcohol in liquid phase, which comprises, passing a liquid comprising only secondary alcohol as progenitor of hydrogen peroxide through a succession of non-photo-

chemical reaction zones each maintained at a reaction temperature above about 70° C., in which hydrogen peroxide is substantially stable, in each of said successive zones aerating the liquid with a stream of gas containing molecular oxygen in the presence of a substantially constant and, from zone to zone in succession, a progressively increasing concentration of hydrogen perox-



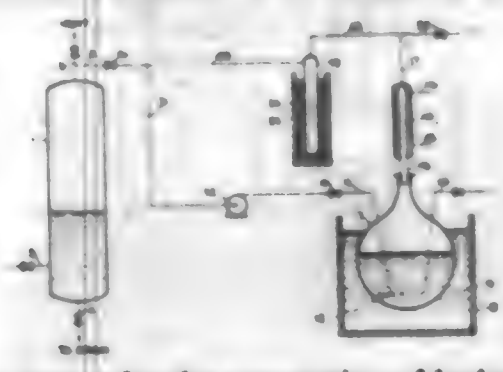
ide, and regulating the temperatures of the successive reaction zones so that the reaction temperature decreases progressively from zone to zone in the direction of liquid flow by a differential of from about 2° C. to about 20° C. between successive zones, and withdrawing liquid product compriting hydrogen peroxide from the last of said zones.

2,871,104

MANUFACTURE OF HYDROGEN PEROXIDE

Frederick F. Rust, Orinda, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application January 31, 1955, Serial No. 484,864
29 Claims. (Cl. 23—207)



1. In a process for the preparation of hydrogen peroxide from a secondary alcohol in liquid phase, the steps of reacting said alcohol with oxygen non-photochemically in a liquid phase containing only secondary alcohol as progenitor of hydrogen peroxide, in the presence of hydrogen peroxide at a reaction temperature upwards from about 70° C. in a reaction environment in which hydrogen peroxide is relatively stable, introducing oxygen-containing gas and further amounts of said secondary alcohol into the liquid body comprising said secondary alcohol and said hydrogen peroxide at rates so as to hold the temperature of said liquid body substantially constant during the major part of the contact period, withdrawing liquid product from the reaction system at a rate adjusted to maintain the volume of said liquid body substantially constant, and recovering hydrogen peroxide from said liquid product.

2,871,105

HYDROCARBON DETECTION

Parnell J. Moore, Houston, Tex., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

Application March 12, 1952, Serial No. 276,203
8 Claims. (Cl. 23—230)

2. In a rock sample tester, an at least loosely closed substantially water-tight container, rock disintegration means in the lower portion of said container, hydrocarbon detection means in the upper portion of said container but shielded from the remainder of said upper



portion by a baffle shield freely permeable to gases and impermeable to trajected particles, and means for registering the response of said hydrocarbon detection means.

2,871,106

SAFETY DEVICE

Edgar I. Crowley, Baltimore, Md., and Norman W. Franke and Thomas P. Joyce, Jr., Penn Township, Allegheny County, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application September 26, 1956, Serial No. 612,198
4 Claims. (Cl. 23—260)



1. A reaction system comprising a reactor, a reservoir and a storage vessel; means communicating between said reactor and the upper portion of said reservoir and between said storage vessel and the upper portion of said reservoir; means operable to regulate such communication; second means communicating between the lower portion of said reservoir and said reactor, means in said second communicating means normally preventing communication between said reservoir and said reactor but adapted to be fractured and permit communication therebetween upon the application of an elevated pressure differential thereacross.

2,871,107

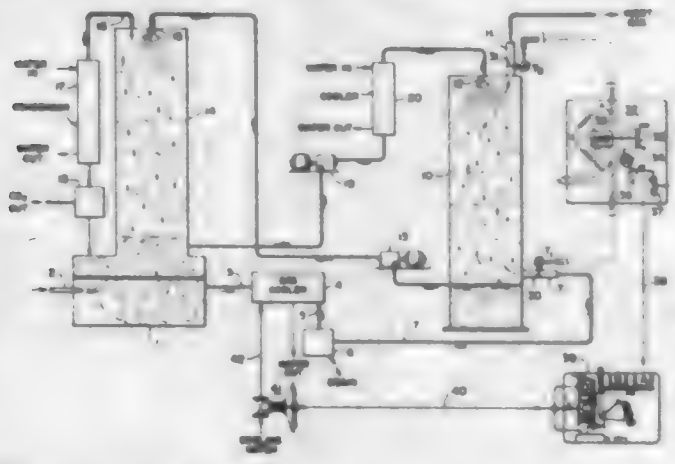
MOISTURE CONTROL IN GAS GENERATORS

Carl D. Hartman, Pittsburgh, Pa., assignor to Bailey Meter Company, a corporation of Delaware

Application August 3, 1955, Serial No. 526,201
5 Claims. (Cl. 23—281)

1. A system for the production of high nitrogen, carbon dioxide-free atmosphere for industrial processes and comprising means for burning a mixture of fuel and air to produce hot gaseous products of combustion containing water vapor, a gas cooler receiving such products of combustion, means supplying cooling fluid in indirect heat exchange relation to the gas cooler, a vapor separator receiving cooled gaseous products of combustion from the gas cooler and removing moisture therefrom, an

absorption tower for contacting an absorbent liquid with vapors undergoing absorption and having means within its upper end supplying a carbon dioxide selective absorbent liquid to the packed portion thereof to remove the carbon dioxide from said products of combustion and to raise the temperature thereof, means conducting separated carbon dioxide saturated gas from the vapor separator to a lower portion of the absorption tower, means at the upper end of said tower for discharging gas of high nitrogen, carbon dioxide-free atmosphere composition, a stripper column indirectly heated at the bottom, conduit means passing carbon dioxide saturated absorbent liquid from the bottom of the absorption tower to



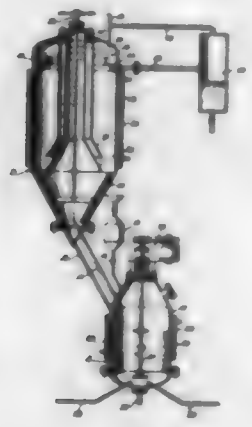
the top of the stripping column, means for removing stripped carbon dioxide from the top of said column, conduit means passing absorbent liquid collected at the bottom of the stripper column to the said selective absorbent liquid supplying means of the absorption tower, means for detecting the temperature of said separated carbon dioxide saturated gas entering the absorption tower, means for detecting the temperature of the gas after being freed of carbon dioxide in the absorption tower, and means operatively connected to both said detecting means and responsive to the temperature differential detected by the two temperature detecting means for controlling the supply of cooling fluid to the gas cooler.

2,871,108

APPARATUS FOR SEPARATING SOLID-LIQUID-GAS MIXTURES

Bernard L. Knapp, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

Application November 18, 1955, Serial No. 547,785
3 Claims. (Cl. 23—288)



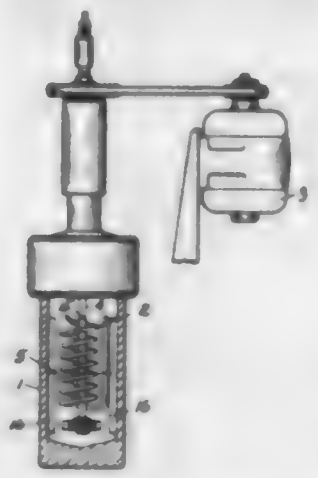
1. An apparatus for forming solid-liquid-gas phase mixtures and separating the components of said mixtures, comprising in combination an enclosed chamber having means for introducing gas, liquid, and solid phases thereinto, said chamber being in fluid connection with a vessel adapted for separation of solid-liquid-gas phases, said vessel being positioned above said chamber and having a pair of vertically disposed, and concentrically arranged open-end conduits therein spaced from the bottom thereof, the inner of said conduits having means providing for fluid flow therefrom to the annulus between said conduits, the outer of said conduits being in fluid communication with separate means for withdrawing gas from said vessel, means for withdrawing a portion of the liquid phase from said vessel at a level therein below that at which gas is withdrawn therefrom and above the lower termini of said conduits, the fluid connections between said chamber and said vessel comprising a first passageway opening into said vessel below the inner of said conduits therein, and a second passageway the openings thereof into said vessel and said chamber being positioned below those of said first passageway, and means for imposing a gas pressure in said chamber whereby the liquid level therein is maintained substantially at the opening of said first passageway and in said vessel above the level of said conduit for removing a portion of the liquid phase therefrom.

2,871,109

AUTOCLAVE

John Robert Snyder, Lititz, Peter Frank Hagerty, Drexel Hill, and Melvin C. Molstad, Moylan, Pa., assignors to the Trustees of the University of Pennsylvania, Philadelphia, Pa.

Application May 6, 1955, Serial No. 506,527
3 Claims. (Cl. 23—290)



1. In a closed or high pressure autoclave for reactions between gases and liquids, a closed vessel holding liquid reactants in its lower part, a tube having its upper end in the vessel above the liquid level and having its lower end submerged, a gas inlet to the interior of the tube above the liquid level for conducting gas to the interior of the tube, a gas outlet opening in the tube submerged below the liquid level for conducting gas out from the interior of the tube, a submerged disc above the gas outlet opening, a disc-like impeller hub spaced below the disc and defining therewith a passageway essentially free of liquid and leading radially outward from the gas outlet opening, the disc and hub being axially spaced apart at the outer periphery of the disc whereby the outermost part of the passageway between the hub and disc is annular and is presented directly to the liquid, means for rotating the hub, blades fixed to the hub for forcing liquid out from above and below the liquid free passageway between the hub and disc and inducing a flow of gas out through the outlet opening, said blades having outer ends projecting radially outside both the hub and disc and having inner ends extending axially between the hub and disc and projecting radially within both the hub and disc and into the liquid free passageway between the hub and disc, and baffle means outside the blades for blocking the flow of liquid circumferentially around the vessel.

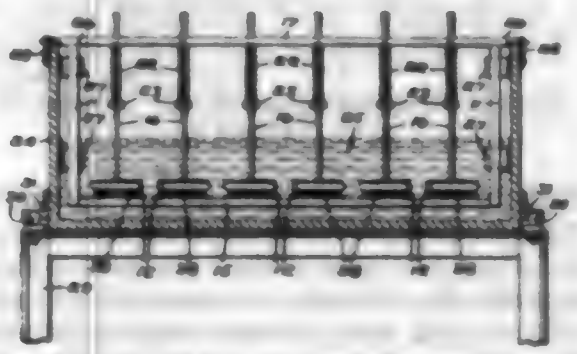
2,871,110
ETCHING OF SEMICONDUCTOR MATERIALS
Richard R. Stead, Richardson, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
No Drawing. Application July 26, 1956
Serial No. 600,162
12 Claims. (Cl. 41—42)

1. A method of etching a surface of an electrical semiconductor which comprises etching said surface in a solution of nitric acid, hydrofluoric acid, and sodium dichromate.

2,871,111
TREATMENT OF SEMICONDUCTIVE MATERIAL
Donald D. Bacon, Summit, and Jack H. Scaff, Bernardsville, N. J., and Henry C. Theuerer, New York, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
No Drawing. Application November 25, 1957
Serial No. 698,393
4 Claims. (Cl. 41—42)

1. A process for treating a semiconductive body containing silicon which comprises the step of contacting the surface of said body with a basic solution comprising tetramethyl ammonium hydroxide, a beta-diketone, and a low dielectric constant liquid which is a solvent for the said beta-diketone and said tetramethyl ammonium hydroxide, and rinsing said body in a low dielectric constant liquid.

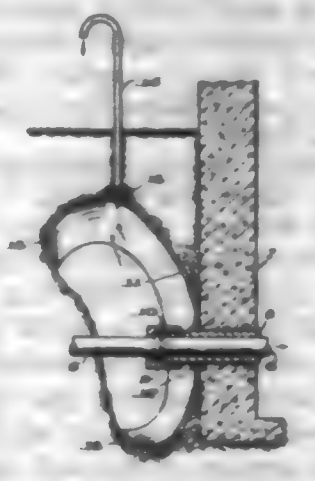
2,871,112
METHOD OF ETCHING FOR DUPLICATING IN A METALLIC PIECE A PATTERN FORMED BY RECESSED AREAS IN THE SURFACE OF A MASTER PIECE
John R. Oliver, Boston, Mass.
Application April 25, 1956, Serial No. 580,666
20 Claims. (Cl. 41—43)



1. A method of etching for duplicating in a ferrous piece, a pattern formed by recessed areas in the surface of a master piece, said method comprising the steps of applying to the surface of the master piece a layer of acid resistant coating containing particles subject to magnetic attraction, passing a roller over the surface of said master piece to transfer to said roller acid resistant coating from said master piece and accurately defining on said roller the pattern of said master piece, passing said roller over said ferrous piece to deposit thereon acid resistant coating accurately defining the pattern of said master piece, maintaining the edges of the acid resistant coated area of said ferrous piece in constant position through the utilization of magnetic force on said particles and subsequently subjecting the ferrous piece to an acid bath to be etched at those areas not covered by said acid resistant coating.

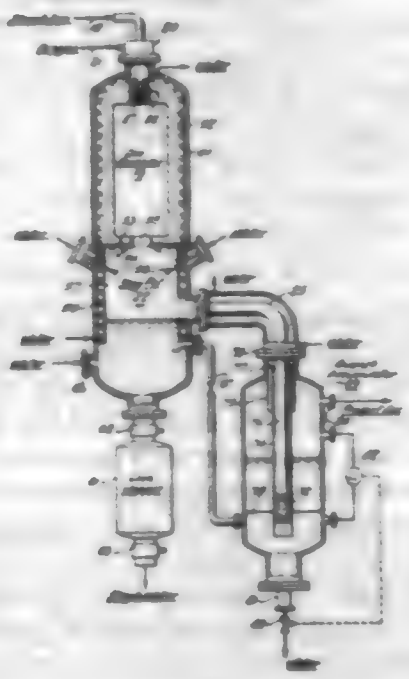
2,871,113
SAFETY GAS SHIELD FOR SERVICE LINES
Louis L. Hammers, Pittsburgh, Pa.
Application March 27, 1957, Serial No. 648,886
1 Claim. (Cl. 48—192)

A gas shield and vent for underground service lines, that comprises a sleeve for encircling an underground pipe where it extends through a foundation wall and into a building, the sleeve surrounding that portion of the pipe that extends through the wall and projecting along the pipe for a substantial distance outwardly from the wall, a baffle plate of convex form through which the projecting portion of the sleeve extends, the convex face of the plate being toward the wall and the plate being snugly welded around said projecting portion, a packing device sealing the outer end of the sleeve and the pipe



and preventing flow of gas along the pipe and into the sleeve, a cap that has screw threaded connection with the projecting end of the sleeve and compresses the packing, a hood-like extension on the upper edge of the plate and extending outwardly from the wall, at a substantially greater distance from the wall than the cap and downwardly toward the pipe, and a vent pipe connected into the said hood-like extension, in position to direct stray gases upwardly.

2,871,114
PROCESS FOR THE GASIFICATION OF SOLID FUELS
Du Bois Eastman, Whittier, Calif., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application July 29, 1955, Serial No. 525,240
2 Claims. (Cl. 48—206)



1. In a process for the generation of carbon monoxide and hydrogen by the interaction of a solid carbonaceous fuel containing an incombustible residue with an oxygen-containing gas and steam in a flow-type reaction zone at a pressure above about 100 pounds per square inch gauge and a temperature above the fusion point of said residue, the improvement which comprises discharging molten residue together with all gaseous effluent from a common outlet in the lowermost portion of said reaction zone to permit unobstructed flow of molten residue therefrom into direct contact with water thereby quench cooling said molten residue to solidified particles of slag, collect-

ing resulting slag particles in a closed quench zone maintained at the pressure of said reaction zone, maintaining a body of water in said quench zone, discharging product gas substantially free from slag from said quench zone, and separately discharging solidified slag and water from said quench zone.

2,871,115
METHOD OF PREPARING SELF-FLUXING SYNTHETIC IRON SCRAP

Jagdish C. Agarwal, Penn Township, Allegheny County, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

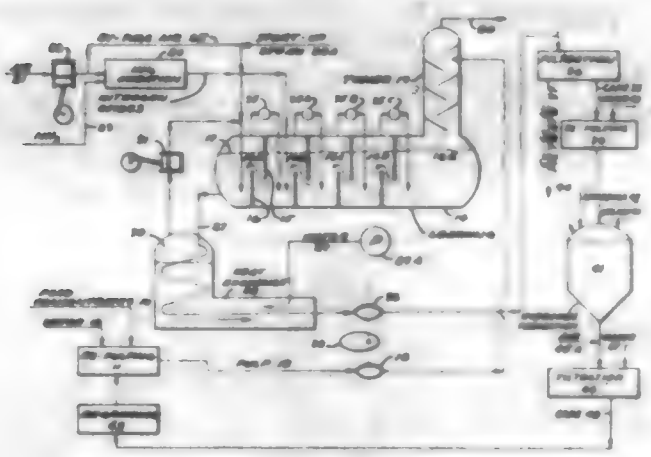
No Drawing. Application June 1, 1956
Serial No. 588,632
2 Claims. (Cl. 75—3)

1. A method of preparing self-fluxing synthetic scrap iron comprising mixing lime with iron ore fines in an amount equivalent to about 1 to 20 percent lime by weight of the ore, directly at least partially reducing said ore by treatment with a reducing gas in a fluidized bed at a temperature within the range of about 1200 to 1600° F. but leaving the gangue unreduced, agglomerating the reduced fines, gangue and lime without reoxidation, and coating the surfaces of the agglomerates with additional lime to prevent reoxidation.

2,871,116
RECOVERING METAL VALUES FROM SULFUR CONTAINING ORES AND SOLUTIONS

Louis F. Clark, Pasadena, Calif.

Application October 18, 1954, Serial No. 462,861
8 Claims. (Cl. 75—108)



1. In the recovery of metals which form water soluble sulphates from a solid material containing iron and sufficient sulphur to form the sulphates by subjecting an aqueous pulp of the solid material to the action of gaseous oxygen in a first autoclave at a temperature sufficient to maintain saturated steam and superatmospheric pressure therein, there being sufficient water in said first autoclave to maintain saturated steam in contact with liquid water so as to produce a digested pulp containing a dissolved sulphate of the metal and undissolved basic iron sulphate, the improvement which comprises separating the dissolved metal sulphate from the undissolved basic iron sulphate, and thereafter adding water to the basic iron sulphate and converting the said basic iron sulphate to ferric hydroxide in the presence of water by reacting the basic iron sulphate with ammonia in a second autoclave at a temperature sufficient to maintain saturated steam and superatmospheric pressure therein, there being sufficient water in said second autoclave to maintain saturated steam in contact with liquid water, thereby producing an aqueous solution of ammonium sulphate and a precipitate of ferric hydroxide, separating the ferric hydroxide precipitate from the ammonium sulphate solution and returning the separated ferric hydroxide precipitate, at least in part, to the first autoclave in an amount sufficient to neutralize any free sulfuric acid present in the first autoclave.

2,871,117
LOW ALLOY FERRITIC STEEL FOR HIGH TEMPERATURE APPLICATION

Michael Korchynsky, Niagara Falls, N. Y., assignor to Union Carbide Corporation, a corporation of New York

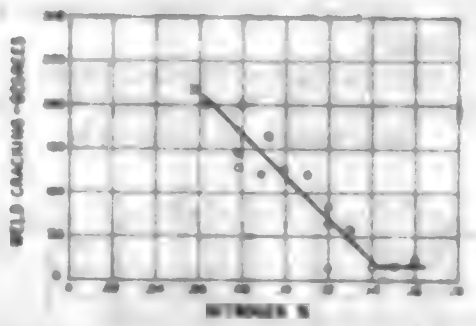
No Drawing. Application July 18, 1956
Serial No. 598,330
9 Claims. (Cl. 75—123)

2. A low alloy steel for high temperature application containing carbon, oxygen and nitrogen in a proportion up to 0.05 percent; 0.40 to 1.00 percent zirconium, the ratio of said zirconium to carbon, oxygen and nitrogen where the same are present being at least 8 to 1; at least one member selected from the group consisting of molybdenum and tungsten in an amount in the aggregate between .05 and 1.0 percent; 0.001 to 0.0025 percent boron; the remainder being iron and incidental impurities.

2,871,118
RESISTANCE TO HOT-CRACKING OF CHROMIUM-NICKEL STEEL WELDS

Roger A. Perkins, Tonawanda, and William O. Binder, Lewiston, N. Y., assignors to Union Carbide Corporation, a corporation of New York

Application September 11, 1956, Serial No. 609,159
8 Claims. (Cl. 75—130.5)

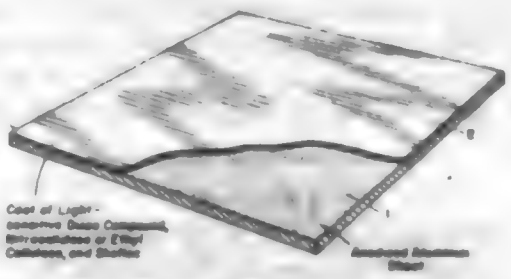


1. In a method for improving the resistance to hot-cracking of restrained weld deposits of austenitic alloys of iron, chromium and nickel, the step which consists in increasing the nitrogen content of said alloys from above the normal value present therein following standard air melting practices up to a value between about 0.1 and 0.25 percent.

2,871,119
DIAZOTYPE REPRODUCTION MATERIAL AND METHOD

Ralph P. Weeger, Villa Park, and Henry C. Unkauf, Chicago, Ill., assignors to Eugene Dietzgen Co., Chicago, Ill., a corporation of Delaware

Application February 21, 1955, Serial No. 489,440
8 Claims. (Cl. 96—49)



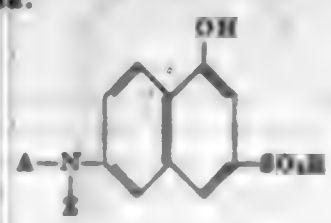
1. An aluminum base and an adherent coat of a light-sensitive diazo compound, a member selected from the class consisting of ethyl cellulose and nitrocellulose, and shellac.

2,871,120
AZINE CYAN COLOR FORMERS

Robert F. Coles, Vestal, and Vsevolod Tulagin, Binghamton, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 18, 1955
Serial No. 547,866
6 Claims. (Cl. 96—55)

1. A photographic silver halide emulsion containing as a color former fast to diffusion a compound of the following formula:



wherein A is a benzyl radical, Z is a radical selected from the class consisting of a benzyl radical and those of the benzene, naphthalene, pyridine and quinoline series, and R is selected from the class consisting of hydrogen and a cationic salt forming group.

2,871,121
PHOTOGRAPHIC FIXER-HARDENER COMPOSITIONS

Shuji Kimura, Crystal Lake, and Jules N. Stich, Woodstock, Ill.

No Drawing. Application December 14, 1955
Serial No. 552,980
9 Claims. (Cl. 96—61)

1. The composition of matter comprising a dry powder mixture of ammonium thiosulfate and an exsiccated alum.

2,871,122
FEEDSTUFFS FORTIFIED WITH BACITRACIN AND VITAMIN B_{12}

Walther H. Ott, Westfield, N. J., assignor, by mesne assignments, to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application October 31, 1950
Serial No. 193,295
7 Claims. (Cl. 99—2)

1. An improved animal feedstuff for accelerating the growth of animals which comprises a feedstuff, nutritionally adequate per se, having bacitracin dispersed therein as an active growth-promoting ingredient, said bacitracin being present in an amount within the range of 1 to 100 mgs. per kg. of feedstuff.

2,871,123
CALCIUM ENRICHED MILK

Clifford D. Bauer, Robert M. Marks, and Edwin A. Bernardoni, Elgin, Ill., assignors to The Borden Company, a corporation of New Jersey

No Drawing. Application June 10, 1955
Serial No. 514,778
2 Claims. (Cl. 99—54)

1. In suspending a water insoluble calcium compound in non-settling condition in an aqueous liquid milk product containing milk protein, the process which comprises forming an intimate mixture of the milk product, Irish moss extract constituting the sole admixed anti-settling agent and being in the proportion of about 0.02%–0.1% of the weight of the said milk product, finely divided calcium carbonate of such size of particles that at least half by weight is finer than 5 microns, adding a pH establishing material in any amount required to establish the pH of the mixture within the range 6–7, then heating the said mixture to an elevated temperature at least as high as 145° F. and below the temperature of heat curdling of the milk protein, to cause interaction of the milk protein and the Irish moss extract in contact with the calcium carbonate, maintaining the mixture at the said elevated temperature until the viscosity as measured at room temperature rises 10%–40% above the viscosity of the original mixture and until the said interaction is substantially complete as shown by no further substantial rise in the viscosity, and then cooling the material, the calcium carbonate being added in amount to make the Ca:P ratio in the product 1.5–2 parts of the calcium for 1 part of phosphorus.

2,871,124
METHOD OF PRODUCING BAKERY PRODUCTS

Noel H. Kuhrt and Milton I. Van Graafeiland, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 3, 1955
Serial No. 544,804
7 Claims. (Cl. 99—91)

1. The method of preparing bakery products which comprises incorporating into a baking mix prior to baking a monoglyceride composition in an amount comprising 0.1–3.0% by weight of said baking mix and being comprised of 50–95% by weight higher triglyceride having fat-forming fatty acid radicals and 5–50% by weight of a purified and concentrated admixture of monopalmitin and monostearin, said monoglyceride composition having more than about 25% by weight of said monopalmitin and monostearin admixture substantially uniformly dispersed therein in needle-like microcrystals about .05–.2 micron in diameter and about 1–20 microns in length.

2,871,125
METHOD OF MAKING BAKERY PRODUCTS

Noel H. Kuhrt and Milton I. Van Graafeiland, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 3, 1955
Serial No. 544,805
6 Claims. (Cl. 99—91)

1. The method of preparing bakery products which comprises incorporating into a baking mix prior to baking a monoglyceride composition in an amount comprising 0.1–3.0% by weight of said baking mix and being comprised of 50–95% by weight higher triglyceride having fat-forming fatty acid radicals and 5–50% by weight purified and concentrated monoester consisting essentially of monopalmitin, said monoglyceride composition having more than about 25% by weight of said monopalmitin substantially uniformly dispersed therein in needle-like microcrystals about .05–.2 micron in diameter and about 1–20 microns in length.

2,871,126
MANUFACTURE OF CHEESE

Augustus B. Smith, Green Bay, Wis., and Miron J. Roberts, Glenview, Donald W. Wagner, Mundelein, and James Bryan Stine, Chicago, Ill., assignors to National Dairy Products Corporation, a corporation of Delaware

No Drawing. Application January 19, 1955
Serial No. 482,691
20 Claims. (Cl. 99—116)

1. In a process for the manufacture of cheese of the Swiss type, the improvement which comprises subjecting the curd to vacuum before it has lost its ability to knit and before it has become firmly knit, holding the curd to permit it to become firmly knit, applying salt to the exterior surface of the curd, and curing the curd including a period in the warm room to effect the development of the characteristic eyes or holes.

2,871,127

CHEESE COMPOSITION

William E. Barch, Bronx, and Walter Neumann, Larchmont, N. Y., assignors to Standard Brands Incorporated, New York, N. Y., a corporation of Delaware

No Drawing. Application August 10, 1955
Serial No. 527,655
10 Claims. (Cl. 99—117)

1. A method of preparing cheese a spread which comprises forming a mixture consisting essentially of milk solids, an emulsifying agent and water and containing at least 50% hard cheese, at least 20% milk fat and not more than 60% water, homogenizing the mixture at a temperature lower than about 60° C. and pasteurizing the homogenized mixture.

2,871,128

METHOD OF PREPARING BAKERY PRODUCTS

Noel H. Kuhrt and Milton I. Van Graafeiland, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 3, 1955
Serial No. 544,806
6 Claims. (Cl. 99—118)

1. The method of preparing bakery products which comprises incorporating into a baking mix prior to baking a monoglyceride composition in an amount comprising 0.1–3.0% by weight of said baking mix and being comprised of 50–95% by weight higher triglyceride having fat-forming fatty acid radicals and 5–50% by weight purified and concentrated monoester consisting essentially of monostearin, said monoglyceride composition having more than about 25% by weight of said monostearin substantially uniformly dispersed therein in needle-like microcrystals about .05–.2 microns in diameter and about 1–20 microns in length.

2,871,129

METHOD OF PRODUCING A DIETETIC HONEY STILL CONTAINING ITS ACTIVE PRINCIPLES

Marino Golinelli, Bologna, Italy

No Drawing. Application March 2, 1956
Serial No. 574,053
5 Claims. (Cl. 99—146)

1. A method of producing a dietetic food based on honey still containing its active ingredients comprising the steps of diluting the honey in distilled water and in a sterile atmosphere, subjecting the solution to deproteinization by means of ultracentrifugation, to filtration and subjecting to depigmentation the centrifugated substance and concentrating the same by freezing of said depigmented substance to about —40° C. and then subjecting said substance to evaporation in vacuum at a temperature not higher than —20° C. and at a vacuum degree not inferior to 0.010 mm. of Hg residual.

2,871,130

EDIBLE OIL CONTAINERS AND METHOD OF TREATING SAME

George W. Holman, Wyoming, Ohio, assignor to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio

Application March 4, 1957, Serial No. 643,837
4 Claims. (Cl. 99—171)

2. A container, an edible oil within said container, said oil developing a rancid odor on oxidation, said container including a body portion having a spout member provided with an externally threaded portion and a cap member provided with an internally threaded portion for engaging the externally threaded portion on said spout member to prevent discharge of oil from the latter, the threaded portion of at least one of said members being



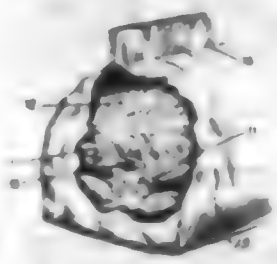
coated with a film consisting essentially of an alkali metal dihydrogen orthophosphate salt.

2,871,131

POULTRY PACKAGE

Henry F. Martens, Lincoln, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois

Application December 10, 1954, Serial No. 474,351
4 Claims. (Cl. 99—194)



1. A poultry package adapted for shipping dressed poultry under refrigeration comprising a flexible water-impervious pouch having perforations in the base thereof adapted to permit egress of fluids from the poultry package, said pouch being formed generally in the shape of a rectangular box by means of folds and stitched seams, said pouch being provided with a valve opening in the upper portion thereof, said valve opening being located in an upper stitched seam and being adapted to permit the placement of a liquefiable refrigerant material in said pouch, plurality of dressed poultry disposed within said pouch in strata and parallel rows in which the leg portions of said dressed poultry are faced inwardly within said pouch and are interlaced to provide structural support for said pouch, and a liquefiable refrigerant material situated over said dressed poultry.

2,871,132

GLAZING COMPOSITION FOR STRUCTURAL CLAY PRODUCTS AND PROCESS FOR MAKING SAME

Floyd A. Hummel, University Park, Pa., assignor to Glen-Gery Shale Brick Corporation, Reading, Pa., a corporation of Pennsylvania

No Drawing. Application April 7, 1958
Serial No. 726,643
10 Claims. (Cl. 106—45)

1. A glazing composition for structural clay products and fusible therewith at a temperature not higher than 1950° F. to produce a smooth, glossy, continuous vitrified film thereon which is non-crazing and free from "pin-holes" consisting essentially of 25% flint, 3.6% kaolinitic clay, 3.6% talc, 22.6% barium carbonate, 5 to 25% nepheline syenite, 5 to 30% colemanite and 5 to 20% lepidolite, said percentages being by weight.

2,871,133

INORGANIC DUST TREATMENT PROCESS

Carl V. Palonen and Elbert W. Kaiser, Dearborn, Mich., assignors to Peerless Cement Corporation, Detroit, Mich., a corporation of Michigan

No Drawing. Application December 10, 1956
Serial No. 627,116
17 Claims. (Cl. 106—100)

1. The process of treating cement kiln flue dust which has therein theoretical alkalies which are not readily soluble in an aqueous medium, which comprises heating the dust to a temperature of at least 1000° F. in an oven for a time sufficient to increase the solubility of the alkalies in an aqueous medium, treating the resultant heat-treated dust with an aqueous medium to dissolve a substantial amount of the water-soluble materials, and separating said aqueous medium from the solid particles of the treated dust.

2,871,134

GYPSUM PRODUCTS AND PROCESS OF MANUFACTURE

Clarence J. Loechl, Arlington Heights, Ill., assignor to The Celotex Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application November 22, 1954
Serial No. 470,521
13 Claims. (Cl. 106—116)

2. A product comprising gypsum stucco in combination with by weight of from about one-half to five percent mineral wool fibers and about ten percent finely divided wollastonite, the mineral wool fibers substantially entirely individualized and the fibers and wollastonite substantially uniformly distributed throughout the mass of gypsum stucco.

2,871,135

METHOD FOR PRODUCING DRYING OILS AND THE OIL SO PRODUCED

Josef Weiss, Vallingby, Sweden, assignor to Richard Nilsson Aktiebolag, Stockholm, Sweden, a corporation of Sweden

No Drawing. Application August 6, 1956
Serial No. 602,439
Claims priority, application Sweden November 7, 1955
6 Claims. (Cl. 106—252)

6. A drying oil comprising a mixture of glyceride of a higher fatty acid and a synthetic oil obtained by condensing two moles of a fatty acid selected from the group consisting of unsaturated higher fatty acids and mixtures of unsaturated higher fatty acids with saturated higher fatty acids with one mole of an aluminum compound prepared by reacting one mole of aluminum alcoholate and one mole of an enolic compound selected from the group consisting of acetoacetic ester, malonic diethyl ester and acetonyl acetone.

2,871,136

WAX PREPARATIONS CONTAINING ANTIOXIDIZING AGENTS

Heinz Eckhardt, Georg Keicher, and Guido von Rosenberg, Gersthofen, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application November 23, 1954
Serial No. 470,814
Claims priority, application Germany November 27, 1953
7 Claims. (Cl. 106—270)

1. A composition including wax as the essential constituent and a small amount of an antioxidizing compound for said wax, said antioxidizing compound being selected from the group consisting of condensation products of terpenes with at least bi-functional phenols consisting of carbon, hydrogen and oxygen and partial hydrogenation products of said condensation products.

2,871,137

METHOD FOR PREPARING EMULSIFYING AGENTS AND EMULSIONS PREPARED THEREFROM

Clyde Lee Aldridge, Baker, and Elphege Maxime Charlet, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 13, 1955
Serial No. 515,233
20 Claims. (Cl. 106—285)

1. A process for preparing an emulsion of hydrocarbon polymer which comprises emulsifying a high molecular weight polymer with water in the presence of the addition product of an unsaturated polymer selected from the group consisting of isobutylene and isoprene copolymers, isobutylene and styrene copolymers, butadiene and styrene copolymers, butadiene and acrylonitrile copolymers, polybutadiene and steam-cracked petroleum resins, and an anhydride selected from the group consisting of maleic anhydride, chloromaleic anhydride and citraconic anhydride neutralized with a compound selected from the group consisting of alkali metal hydroxides, alkali metal carbonates, ammonium hydroxide, ammonium carbonate and organic bases.

2,871,138

ZIRCONIUM COMPOSITIONS AND PROCESS OF MAKING

Robert H. Linnell, Blawenburg, N. J., assignor to Titanium Zirconium Company, Inc., a corporation of New Jersey

No Drawing. Application January 16, 1957
Serial No. 634,425
6 Claims. (Cl. 106—299)

1. In treating an ore containing zirconia and silica in the form of a zirconium silicate by the process which includes calcining an intimate mixture of the dry ore with dry soda ash in the proportion of about 1.25 moles for 1 mole of the zirconia, continuing the calcining until reaction between the ore and soda ash is substantially complete to give an acid soluble sodium and zirconium double silicate, and mixing the resulting product with a mineral acid, the improvement which comprises introducing the mineral acid in amount approximately stoichiometric only to the soda ash used, the acid in this amount converting substantially all the sodium of the original soda ash to the sodium salt of the acid and substantially all the zirconium and silicon originally present in the ore to their insoluble oxides in the form of a cogel mixed with the said sodium salt.

2,871,139

SILVERING PROCESS AND MATERIALS

Samuel Wein, Quincy, Mass.

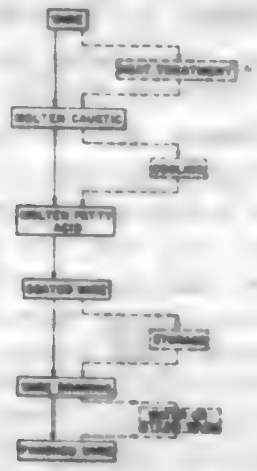
No Drawing. Application December 8, 1955
Serial No. 551,959
9 Claims. (Cl. 117—35)

1. An ammonia free process for silvering a non-metallic surface from an aqueous solution, consisting of sensitizing the surface to be silvered with an aqueous solution comprising stannic chloride and a normally solid, water-soluble acidic organic body and then applying an aqueous solution comprising soluble silver salt, a chelating agent selected from the group consisting of 2-amino-1-butanol, 2-amino-2-methyl-1-propanol, 2-amino-2-methyl-1,3 propanediol, 2-amino-2-ethyl-1,3 propanediol, tris-(hydroxymethyl) aminomethane, amino acids, and ethylenediaminetetra-acetic acid, and silver reducing agent.

2,871,140
METAL TREATING PROCESS

Norman P. Goss, Cleveland, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

Application April 6, 1955, Serial No. 499,575
4 Claims. (Cl. 117—49)



1. A metal conditioning process including the successive steps of heating a metal to an elevated temperature, immersing the heated metal in molten alkali metal hydroxide maintained at a lower temperature, removing the thus-treated metal from the alkali metal hydroxide, and immersing it in a molten fatty acid thereby to cause in situ reaction of alkali metal hydroxide and fatty acid at and beneath the metal surface, and removing the metal from the molten fatty acid.

2,871,141
SILICONE SUSPENSION AND METHOD OF APPLYING SAME TO COOKING UTENSILS

Edmund L. Van Deusen, Ossining, N. Y.

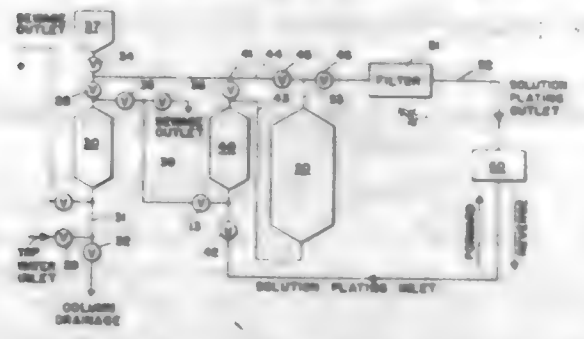
No Drawing. Application May 2, 1955
Serial No. 505,547
7 Claims. (Cl. 117—49)

1. A method for coating the internal surface of a cooking utensil which comprises heating the said surface to between about 200° and 700° F., applying thereto an aqueous colloidal suspension of a polymerized thermosetting silicone resin, and evaporating the suspension to dryness, thereby forming an adherent solid silicone coating for the surface which is easily cleaned and prevents the sticking of food particles under high temperature cooking conditions so long as the coating remains continuously adherent to the metal.

2,871,142
CHEMICAL NICKEL AND COBALT PLATING PROCESS

Stephen A. Hays, Sierra Madre, Calif., assignor to North American Aviation, Inc.

Application May 20, 1955, Serial No. 509,808
12 Claims. (Cl. 117—102)

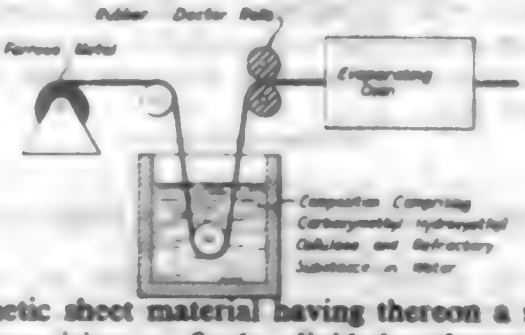


1. A process of treating an electroless nickel process plating solution containing nickel citrate and sodium hypophosphite in which the plating process depletes the nickel ions in said nickel citrate and forms sodium citrate and hydrogen ions in said solution, said treating process comprising passing the depleted plating solution continually through a nickel-charged cation exchange medium, exchanging the nickel ions in said medium with the sodium ions and hydrogen ions in the depleted plating solution, and recirculating the resultant nickel citrate solution to said electroless nickel plating process and maintaining the ratio of equivalents of citrate-to-nickel at 1.0 to 2.0.

2,871,143
MAGNETIC MATERIAL PROVIDED WITH SEPARATOR COATING

Milan P. Getting, Jr., Pittsburgh, Pa., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application June 29, 1956, Serial No. 594,707
3 Claims. (Cl. 117—127)



1. Magnetic sheet material having thereon a separator coating comprising a finely divided refractory oxide bonded to said material by carboxymethyl hydroxyethyl cellulose adhesive binder.

2,871,144
METHOD FOR THE PREPARATION OF CEMENTABLE FLUOROCARBON POLYMER SURFACES

Robert Charles Doban, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

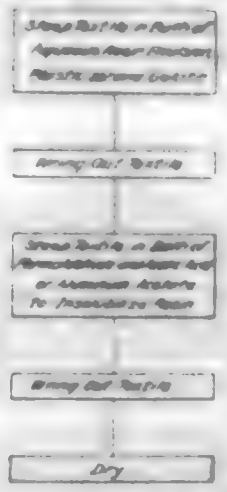
No Drawing. Application April 3, 1957
Serial No. 650,297
7 Claims. (Cl. 117—138.8)

1. A process for treating a perfluoroolefin polymer to obtain a cementable surface, which comprises contacting said perfluoroolefin polymer surface with a tetrahydrofurane solution of an alkali metal addition compound, said compound being obtained by the reaction of an alkali metal with an aromatic hydrocarbon, and thereafter treating the said surface with methanol.

2,871,145
PROCESS OF IMPREGNATING TEXTILE MATERIAL TO INCREASE ITS WEAR RESISTANCE

Joseph Hajdu, Paris, France

Application May 21, 1954, Serial No. 431,603
2 Claims. (Cl. 117—139.5)



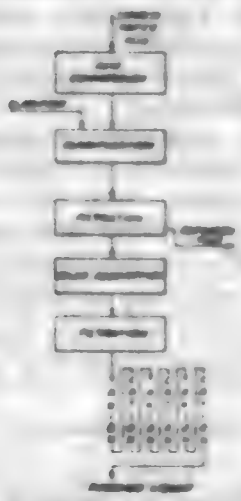
1. A process of treating textile material to increase its wear resistance comprising the steps of steeping the textile material in a first bath comprising an aqueous emulsion of an emulsifiable resin, paraffin emulsion, and gelatin, and then steeping said treated textile in a second bath comprising formaldehyde and a member selected from the group consisting of acetic acid and aluminum acetate.

2,871,146
STARCH PASTING SYSTEM
Oliver R. Etheridge, Decatur, Ill., assignor to A. E. Staley Manufacturing Company, Decatur, Ill., a corporation of Delaware
Application February 24, 1954, Serial No. 412,219
10 Claims. (Cl. 127—28)



1. The method of preparing and maintaining a stream of starch slurry of uniform and predetermined concentration within the range of about 2 to 3 pounds of starch per gallon which comprises, concurrently adding predetermined and relatively small increments of water and dry starch to a thoroughly agitated relatively large body of starch slurry, said increments of starch not being greater than one-sixth of the total starch in said body of starch slurry and said increments of water not being greater than one-tenth of the total water in said body of starch slurry, and said increments being sufficiently small and spaced apart in time so as not to appreciably vary the concentration of said slurry, and continuously withdrawing a stream of the slurry from said body thereof.

2,871,147
METHOD OF REFINING STARCH HYDROLYZATE LIQUORS
Clifford E. Smith, Decatur, Ill., assignor to A. E. Staley Manufacturing Company, Decatur, Ill., a corporation of Delaware
Application November 24, 1954, Serial No. 470,985
14 Claims. (Cl. 127—40)

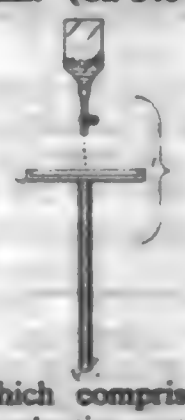


1. The method of clarifying unneutralized acid-converted starch hydrolyzate liquors at a pH in the range of about 1 to 3 which comprises reacting such a liquor with a fraction of one percent dry substance basis of a phosphate clarifier selected from the group consisting of sodium hexametaphosphate, phytic acid, sodium salts of phytic acid, calcium salts of phytic acid, sodium tetraphosphate, sodium pyrophosphate, and tetraphosphoric acid, and separating the resulting precipitate from the liquor.

2,871,148
CRYSTALLIZING OF SUGARS
Sheldon E. Kent, Wilmette, Ill., assignor to Hodag Chemical Corporation, Chicago, Ill., a corporation of Illinois
No Drawing. Application April 3, 1957
Serial No. 650,302
7 Claims. (Cl. 127—58)

1. In the process of crystallizing sugars, the step which comprises carrying out the crystallization in the presence of a fatty acid ester of a glycoside, the fatty acid acyl radical of said ester containing from 8 to 22 carbon atoms.

2,871,149
SEMICONDUCTOR METHOD
Kurt Lehovec, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application May 2, 1955, Serial No. 505,214
3 Claims. (Cl. 148—1.5)



1. The method which comprises spinning a single crystal wafer of semiconducting material heated to slightly below the melting point at between 10 and 1000 revolutions per second and dropping liquid semiconducting material containing impurities of the opposite type than the single crystal wafer on the center of the crystalline wafer while rotation is continued, then repeating the process with a liquid semiconductor material containing impurities of the same type as the single crystal wafer.

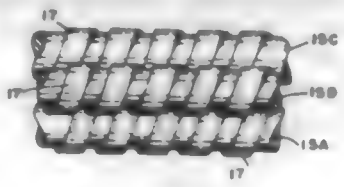
2,871,150
METHOD OF CLADDING MOLYBDENUM
William M. Fraser, Cedar Grove, and Walton E. Brush, Pompton Plains, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application September 19, 1955
Serial No. 535,282
10 Claims. (Cl. 148—11.5)

1. The method of cladding molybdenum with sheet cladding material of one of the group consisting of nickel, an alloy having as major constituents about 55% iron, 29% nickel and 16% cobalt, an alloy having as major constituents 76% nickel, 15% chromium and 9% iron and an alloy having as major constituents 80% nickel and 20% chromium, in the case of chromium-containing alloys said sheet cladding material having a layer of nickel plated on one side thereof, which method comprises cleaning a sheet of said cladding material and molybdenum plate material to remove substantially all surface impurities therefrom, tightly wrapping said cleaned sheet material entirely around said molybdenum plate material with the sheet material surfaces which are richest in nickel adjacent said molybdenum plate and so that said wrapped sheet material slightly overlaps itself with some sheet material projecting beyond the ends of said wrapped plate material, peening said projecting sheet material completely over the ends of said wrapped plate material, heating said wrapped plate material to a temperature of between 1000° C. to 1150° C. in a non-oxidizing atmosphere, rolling said heated wrapped plate through a first pass in a non-oxidizing atmosphere to reduce the plate thickness by between 15% to 40%, and thereafter heating and rolling to a desired material thickness according to a predetermined schedule.

2,871,151
ELECTRICAL CABLE
Milton A. Lipton, West Long Branch, N. J.
Application March 7, 1956, Serial No. 570,192
1 Claim. (Cl. 154—2.24)
(Granted under Title 35, U. S. Code (1952), sec. 266)

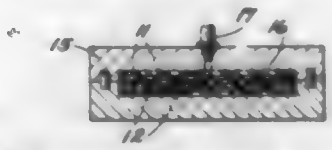
The method of forming a star-quad cable including four conductors comprising spirally winding an insulating ma-

terial in the form of a tape of approximately 5 mil thickness about each of said conductors in fixed spaced convolutions so that a series of interstices are formed between successive windings of said insulation, disposing said conductors about a core whereby the windings of insulation about any one conductor are in abutment with



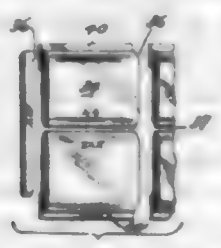
and overlap separate discrete interstices formed by the windings of a conductor immediately adjacent said one conductor and applying a filler and jacket of a material having a dielectric constant of 2.6, which is substantially the same as the insulation tape about said core and said conductors.

2,871,152
LAMINATED TILE
Frank J. Tobin, Cleveland, Ohio
Application December 6, 1955, Serial No. 551,295
1 Claim. (Cl. 154—43)



A partially-transparent, molded, composite article having an outer face of sparkling, three-dimensional appearance which comprises a plurality of fiber glass mats arranged in laminated relation, a solid integral body of clear plastic material encasing and dispersed throughout the laminated mat structure, and particles having light-reflective, plane surface portions distributed at random depth and at random angles to each other substantially throughout the depth of the article and disposed in the fiber glass mats and in spaces between the said mats whereby the light-reflecting effects of these particles vary from dull to brilliant with variations in viewing angle and with variations in depth of the particles below the surface of the article exposed to view.

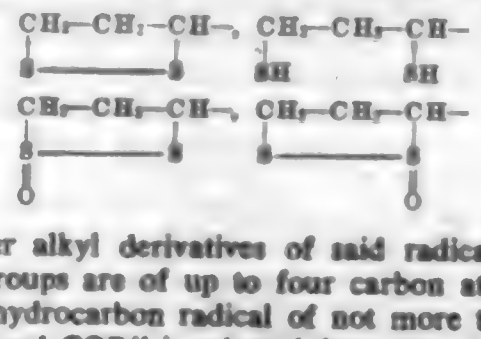
2,871,153
METHOD OF MAKING A MULTI-CARD CARRIER
Edward H. Copen, Far Rockaway, N. Y.
Application September 17, 1957, Serial No. 684,541
9 Claims. (Cl. 154—116)



1. The method of making a multi-card carrier comprising the steps of (1) providing first and second members of generally planar rectangular shape, and a third generally elongated planar member of synthetic resinous material; (2) interconnecting said first and second members along the longer edges thereof to form an envelope open at at least one end edge thereof, and interconnecting one of said longer edges along the principal axis of said third member to form a flanged portion having a pair of laterally extending continuous flanges each disposed in a common plane parallel to the planes of said first and second members and having free edges thereof which are in spaced relation with respect to said longer edges of said first and second members; (3) providing a mounting member of generally planar configuration and having a slit extending through the body of the same, said slit having a length substantially equal to the length of said first and second interconnected members; (4) inserting said interconnected first and second members through said slit to the point where said flanges engage the surface of said mounting member adjacent said slit.

2,871,154
FUNGICIDAL COMPOSITIONS AND METHODS EMPLOYING LIPOIC ACIDS
Norman E. Searle, Wilmington, and Dale E. Wolf, Hockessin, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 11, 1955
Serial No. 539,941
5 Claims. (Cl. 167—22)

1. A method for controlling the spoilage of fruits and vegetables caused by fungi which comprises applying to the fruits and vegetables, in a fungicidally effective amount, a compound of molecular weight not more than 500 and of the formula R—R'—COR'' wherein R is a monovalent radical of the class consisting of



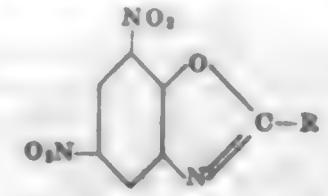
and C-lower alkyl derivatives of said radicals wherein the alkyl groups are of up to four carbon atoms, R' is a divalent hydrocarbon radical of not more than 8 carbon atoms and COR'' is selected from the class consisting of carboxyl and groups hydrolyzable thereto.

2,871,155
FUNGICIDAL COMPOSITION COMPRISING CYCLOHEXIMIDE AND SOLUBILIZED LIGNIN
William Klomparens, Kalamazoo, and Clement D. Vellaire, Richland Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application March 28, 1957
Serial No. 647,199
19 Claims. (Cl. 167—42)

1. The method of protecting foliage plants from injury on the application of cycloheximide thereto which comprises concomitantly applying to said foliage a solubilized lignin in the proportions of from about 1,000 to about 4,000 parts of solubilized lignin for each part of cycloheximide.

2,871,156
VETERINARY COMPOSITIONS CONTAINING BENZOXAZOLE-TYPE COMPOUNDS AND METHODS FOR USING SAME
Theo A. Hymas, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application November 2, 1954
Serial No. 466,453
13 Claims. (Cl. 167—53)

1. A method which comprises feeding an animal a composition comprising as an active ingredient a benzoxazole of the formula



wherein R represents a member of the group consisting of halomethyl and loweralkyl containing from 1 to 3 carbon atoms, inclusive, in intimate admixture with an

innocuous ingestible adjuvant, the composition being fed in an amount sufficient to provide a daily dosage of from 35 to 2,000 milligrams of the benzoxazole compound per kilogram of body weight.

2,871,157
LAXATIVE POWDERS CONTAINING DI-n-OCTYL SULFOSUCCINATES
Paul S. Cardaciotto, Trenton, N. J., and Emil A. Vitalis, Springdale, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application June 6, 1957
Serial No. 663,909
7 Claims. (Cl. 167—56)

1. A laxative composition suitable for rapid and accurate measuring and packaging on automatic machines in dosage unit form consisting essentially of a uniform powdered mixture of a di-(normal octyl) sulfosuccinate salt selected from the group consisting of alkali metal, ammonium and monoethanolamine salts and a dry pharmaceutical carrier in a ratio of from 1 to about 25 parts by weight of said carrier for each part of said sulfosuccinate salt.

2,871,158
LAXATIVE SYRUPS CONTAINING DI-n-OCTYL SULFOSUCCINATE SALTS
Paul S. Cardaciotto, Trenton, N. J., and Emil A. Vitalis, Springdale, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application July 1, 1957
Serial No. 668,848
6 Claims. (Cl. 167—56)

1. A laxative syrup comprising an aqueous sugar solution having dissolved therein, as a feces softening agent, from about 0.1% to 4% of a di-(normal octyl) sulfosuccinate salt selected from the group consisting of alkali metal, ammonium and ethanolamine salts and mixtures thereof.

2,871,159
THYROTROPIC HORMONE SEPARATION
Lottie I. Piotrowski, Chicago, Leo Rienks, Oak Park, and Myron D. Grossnickle, Homewood, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application October 12, 1953
Serial No. 385,788
12 Claims. (Cl. 167—74)

1. In a process for preparing a thyrotropic hormone preparation from thyrotropic hormone-bearing pituitary material wherein an aqueous solution of thyrotropin and other non-thyroid stimulating proteins is obtained including gonadotropin, the method of selectively precipitating the thyrotropin characterized by adding a mono-hydroxy alkane containing less than 4 carbon atoms to said aqueous solution until the concentration thereof is from 5 to 35% by volume, while maintaining the aqueous solution at a temperature in the range of 10° C. to the freezing point of the mixture, the bulk of said gonadotropin remaining in the supernatant solution.

2,871,160
HYDROCORTISONE COMPOSITIONS AND METHOD FOR EXTEMPORANEOUS ADMINISTRATION
Richard H. Johnson and William P. Schneider, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application July 1, 1955
Serial No. 519,628
9 Claims. (Cl. 167—77)

1. A method for the extemporaneous treatment of acute adrenocortical insufficiency which comprises dissolving in water for injection a dry, sterile powder containing a unit dose of a pharmacologically acceptable, water-soluble salt of an acid ester of hydrocortisone and a dicarboxylic acid containing at least four and not more than sixteen carbon atoms and intravenously injecting the solution thus formed into the patient.

5. A sterile aqueous solution of the sodium salt hydrocortisone 21-hemisuccinate buffered at a pH of between about 6.5 and 8.0 by a neutral phosphate buffer.

2,871,161
SPRAYABLE WATER-FREE ALCOHOLIC POLYVINYLPYRROLIDONE HAIR PREPARATION
Maurice L. Spiegel, Minneapolis, Minn., assignor to La Maur Inc., Minneapolis, Minn., a corporation of Minnesota
No Drawing. Application July 31, 1952
Serial No. 301,987
9 Claims. (Cl. 167—87.1)

1. A substantially water-free sprayable liquid hair styling preparation for applying to the surface of the hair for setting the lusterizing the same, comprising polyvinylpyrrolidone, alcohol, and a propellant selected from the group consisting of fluorochloromethanes and fluorochloroethanes.

2,871,162
PROCESS FOR THE TREATMENT OF HIDES AND SKINS WITH MUCOLYTIC ENZYMES
Donald Burton, Ronald Reed, and Frances Olga Flint, Leeds, England
No Drawing. Application February 24, 1954
Serial No. 412,389
Claims priority, application Great Britain
February 26, 1953
9 Claims. (Cl. 195—8)

1. A composition for the treatment of hides and flayed skins, comprising as the essential ingredient a mucolytic enzyme selected from the group consisting of polygalacturonidase, pectinase, hyaluronidase, chondroitinase and amylase in a concentration of 0.025 to 50%, which composition is buffered in a pH range of 3 to 8 with 0.25 to 10% of buffer, said composition also containing an aqueous carrier.

2,871,163
SEPARATION OF FIBRES FROM FIBROUS PLANTS
Robert Hutchison Turnbull, London, England
Application October 19, 1956, Serial No. 617,098
20 Claims. (Cl. 195—8)

1. The process for the separation of the fibres from fibre-containing portions of plants which comprises the steps of preparing by extraction from plants of the same kind fresh cytase-containing liquor, crushing the said fibre-containing plant portions and treating the crushed portions for a period of one to four days at a temperature between 30° and 60° C. with said liquor to effect decomposition of the pectin or pectinaceous compounds of the plants to an extent substantially to free the fibres.

2,871,164
PRODUCTION OF PENICILLIN IN PRESENCE OF A POLYTHIONATE
Merlin H. Peterson, Libertyville, Ill., assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois
No Drawing. Application October 22, 1956
Serial No. 617,211
4 Claims. (Cl. 195—36)

1. A fermentation process for the production of penicillin which comprises growing aerobically under deep culture fermentation conditions, a penicillin-forming mold in a nutrient medium containing a small amount of a

water-soluble salt of a polythionic acid, and containing the fermentation process under deep culture, aerobic conditions until a substantial amount of penicillin is produced in the said nutrient medium.

2,871,165
PROCESS FOR PREPARING PANKRIN
Kenneth C. Robbins and Norman H. Grant, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application April 11, 1955
Serial No. 500,652
12 Claims. (Cl. 195—63)

3. A proteinase, derived from an animal source, being insoluble in water, incapable of clotting blood plasma, clotting milk, and having a proteolytic activity on urea-denatured hemoglobin and ATEE substrates such that the ratio of its hemoglobin to ATEE activity is at least 150.

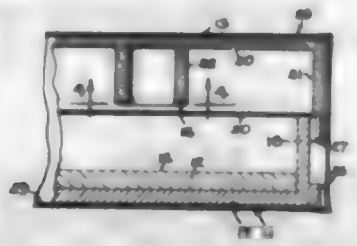
2,871,166
FERMENTATION OF OXYTETRACYCLINE BY *STREPTOMYCES RIMOSUS*
Joseph Jacob Goodman, Nanuet, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application December 12, 1956
Serial No. 627,755
4 Claims. (Cl. 195—114)

1. The process of producing oxytetracycline by aerobic fermentation of an aqueous fermentation medium with a strain of *S. rimosus* which comprises carrying out the fermentation in the presence of added fluoride ion so as to increase the yield of oxytetracycline.

2,871,167
CHLORTETRACYCLINE FERMENTATION
Stephen Aloysius Szumski, Pearl River, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application December 12, 1956
Serial No. 627,756
5 Claims. (Cl. 195—114)

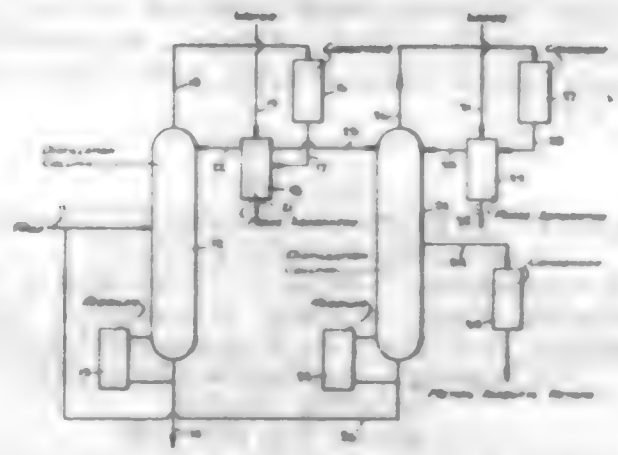
1. The process of producing chlortetracycline by aerobic fermentation of an aqueous fermentation medium with a chlortetracycline-producing microorganism of the genus Streptomyces which comprises carrying out the fermentation in the presence of added fluoride ion so as to increase the ratio of chlortetracycline to tetracycline.

2,871,168
APPARATUS FOR TESTING METABOLIC AGENTS
Alvin B. Salisbury, Jr., Fairborn, Ohio, assignor to Ankh Laboratories, Inc., Fairborn, Ohio, a corporation of Ohio
Application September 27, 1955, Serial No. 536,939
8 Claims. (Cl. 195—139)



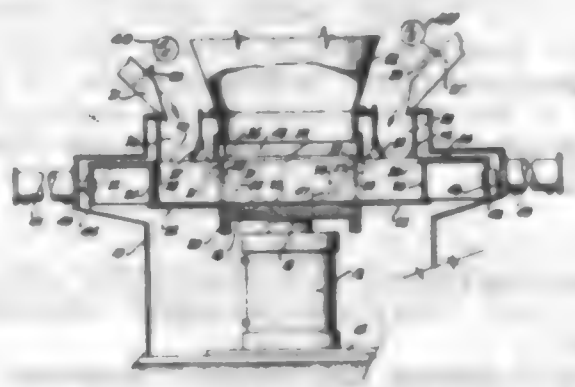
1. In apparatus for testing the effect of different metabolic agents on bacterial organisms, the combination of, a dish having a layer of nutrient culture medium covering a flat bottom of the dish with its upper surface exposed, a cover for said dish adapted to interfit with the dish and overlie said layer, said cover having supporting means projecting into said dish and toward said exposed surface of said medium when the cover and the dish interfit with each other, a plurality of quantities of different metabolic agents in a solid state spaced apart on the underside of said cover and fastened to said supporting means for movement with the cover relative to said dish, said supporting means positioning said agents in contact with said medium surface when the cover interfits with the dish and overlies the surface, a hermetically sealed container enclosing said dish and said cover, and means within said container hermetically sealing said medium from said agents.

2,871,169
PURIFICATION OF METHYLISOBUTYLKETONE
Alfred W. Martin, Corpus Christi, Tex., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application October 11, 1955, Serial No. 539,812
5 Claims. (Cl. 202—60)



1. Process for the purification of methylisobutylketone prepared by the hydrogenation of mesityl oxide, which comprises distilling the methylisobutylketone to take overhead the methylisobutylketone and leave behind high-boiling impurities, extracting the distillate with water to remove impurities therefrom, again distilling the extracted methylisobutylketone to take overhead low-boiling impurities together with a considerable proportion of methylisobutylketone, returning a portion of the distillate to the second distillation as a reflux, and removing from the second distillation a side stream of purified methylisobutylketone.

2,871,170
SOLIDS-FLUID CONTACTING APPARATUS
William L. Bewley and Louis M. Dvoracek, Long Beach, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application March 15, 1956, Serial No. 571,828
9 Claims. (Cl. 202—93)



1. An apparatus for contacting comminuted solids with a fluid comprising a vertical column wherein said contacting is effected, the bottom of said column having a coaxial opening through which said solids are introduced upwardly into said column; a solids-feeder cylinder disposed below said opening coaxially therewith; a solids-feeder piston disposed within said cylinder; means for

vertically reciprocating said piston within said cylinder; a horizontally disposed plane plate extending radially outward from the axis of said cylinder and having an opening coaxial thereto, said plate being disposed at the level of the highest point of travel of said piston; a pair of hemi-cylindrical scoops supported on said plate, said scoops being capable of being reciprocated outwardly to a solids-charging position and inwardly to a solids-feeding position wherein said scoops mate to form a cylinder coaxially disposed above said piston; means for reciprocating said scoops in said manner; inlet means for introducing solids onto said horizontal plate between said scoops in said solids-charging position; sliding cut-off valve means disposed above said pair of scoops and below said opening in said column; and means for reciprocating said valve means horizontally to place said opening into and out of communication with said solids-feeder piston.

2,871,171
METHOD OF ELECTROPLATING COPPER ON ALUMINUM

James Thomas Nesbitt Atkinson, Dartmouth, Nova Scotia, Canada, assignor to Her Majesty the Queen in the right of Canada as represented by the Minister of National Defence

No Drawing. Application May 10, 1956
Serial No. 583,943
5 Claims. (Cl. 204—33)

1. A method of plating copper on aluminum and its alloys comprising cleaning an aluminum cathode in a mildly alkaline cleaning bath; rinsing the cathode; immersing the cathode in an aqueous plating bath having a pH from about 5.0 to 6.5 consisting essentially of water containing about 10 to 60 grams per liter of bivalent copper, calculated as cupric oxide, about 50 to 300 grams per liter of a compound selected from the group of soluble pyrophosphate, soluble polyphosphate and mixtures thereof, calculated as ammonium pyrophosphate, the total condensed phosphate being present in an amount which is less than that required to fully complex the copper, about 30 to 180 grams per liter of a soluble oxalate, calculated as oxalic acid, and about 25 to 150 grams per liter of a basic cation selected from the group consisting of ammonia and tertiary (lower alkyl) amines, calculated as triethylamine; and subjecting the cathode to a plating current of from about 5 to 30 amperes per square foot at a temperature of 30–90° C. until a copper plate has been deposited thereon up to a thickness of about 0.0002 inch.

2,871,172
ELECTRO-PLATING OF METALS

James T. N. Atkinson, Dartmouth, Nova Scotia, Canada, assignor to Her Majesty the Queen in the right of Canada as represented by the Minister of National Defence

No Drawing. Application November 2, 1955
Serial No. 544,600
7 Claims. (Cl. 204—52)

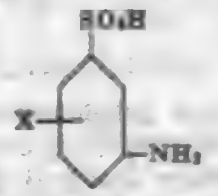
1. A method of electro-plating copper directly on the surface of a cathodic metal member selected from the group consisting of aluminum and aluminum-base alloys which comprises immersing an anode and said cathodic metal member into an aqueous plating bath having a pH not over about 4.0, said aqueous bath containing about 100–150 grams per liter of a copper salt selected from the group consisting of copper sulfate and copper nitrate, about 100–300 grams per liter of a water-soluble acid selected from the group consisting of citric acid and a 50–50 mixture of citric acid and sulfuric acid, and about 1–10 grams per liter of a water-soluble fluoride, and passing an electric current through said plating bath between said cathodic metal member and said anode.

2,871,173
METHOD OF MAKING DUCTILE COPPER PLATINGS

Eugene N. Castellano, Seymour, Conn., assignor to The Seymour Manufacturing Company, Seymour, Conn., a corporation of Connecticut

No Drawing. Application February 4, 1958
Serial No. 713,104
7 Claims. (Cl. 204—52)

1. An electrolytic bath comprising an aqueous acid solution of a copper salt and from one-tenth to 100 grams per liter of a compound selected from the class consisting of compounds having the formula

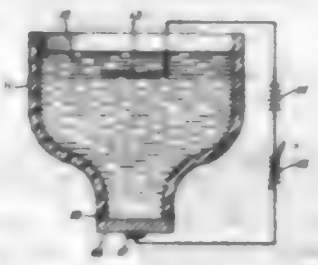


and their soluble salts, wherein X is selected from the class consisting of hydrogen, lower alkoxy and halogen, and is located in a position relative to the SO_3H group selected from the class consisting of the ortho and para positions.

2,871,174
METHOD FOR ELECTROPOLISHING SEMICONDUCTING MATERIAL

Dennis R. Turner, Murray Hill, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application April 25, 1957, Serial No. 655,097
1 Claim. (Cl. 204—140.5)

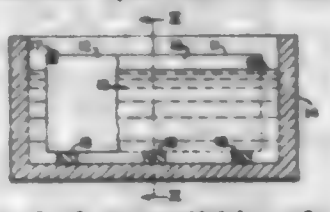


The method of electropolishing a p-type silicon surface which comprises biasing said surface anodically in an electrolyte consisting essentially of an aqueous solution of hydrofluoric acid containing from about 2 percent to about 10 percent by weight of hydrofluoric acid at a current density above that at which a dark film appears on the said surface.

2,871,175
ELECTROPOLISHING METAL

Donald R. Zaremski, Chewick, Pa., assignor to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania

Application June 25, 1957, Serial No. 667,821
9 Claims. (Cl. 204—140.5)

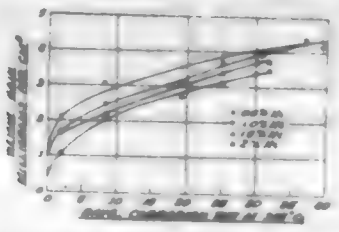


1. The method of electropolishing the surface of an object made of a metal selected from the group consisting of titanium, titanium base alloys, zirconium and zirconium base alloys which comprises, immersing said object in a molten bath that consists essentially of an alkali metal hydroxide, providing at least one other metallic object in said bath that is more noble in said bath to titanium, zirconium and alloys thereof and providing an electric coupling between said objects so as to provide an electric current.

2,871,176
NUCLEAR REACTOR COMPONENT CLADDING MATERIAL

Joseph E. Draley, Clarendon Hills, and Westly E. Ruther, Skokie, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 2, 1956, Serial No. 569,215
11 Claims. (Cl. 204—193.2)

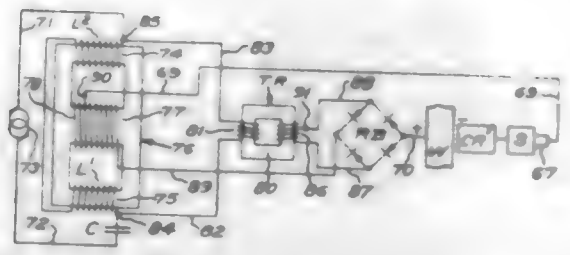


8. In a water-cooled graphite-moderated nuclear reactor the improvement comprising coolant tubes imbedded in the graphite moderator and fuel elements containing a fissionable material disposed in the coolant tubes wherein said coolant tubes are formed from and said fuel elements are clad in an aluminum alloy selected from the group consisting of binary alloys containing 2 to 4% nickel and ternary alloys containing 0.3 to 0.5% iron and 0.5 to 2% nickel.

2,871,177
ELECTROLYTIC GRINDING APPARATUS

George E. Comstock 3d, Holden, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts

Application March 16, 1953, Serial No. 342,372
3 Claims. (Cl. 204—218)

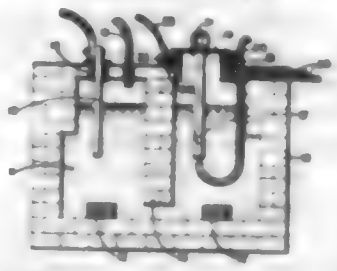


1. In electrolytic grinding apparatus, in combination, means for supplying alternating current energy, rotatable conductive means having an operative face for coaction with a work-piece, means for supporting a work-piece in operative juxtaposition to said face of said rotatable conductive means with means for supplying liquid electrolyte to the interface between the work-piece and said conductive means, said rotatable conductive means and said work-supporting means having means associating them for effecting relative movement between the face of said rotatable conductive means and the work-piece whereby interface current-demanding conditions therebetween may vary, such as changes in area or pressure of actual or apparent contact therebetween, as relative movement between the work-piece and the face of said conductive means takes place for the purpose of shaping the work-piece by electrolytic stock-removal, a rectifier bridge having a unidirectional current output circuit in which is included said interface with the work-piece positive and said rotatable conductive means negative for electrolytic decomposition at the face of said work-piece for shaping the latter, a capacitor and an iron-cored inductive winding connected in series and energized from said means for supplying alternating current energy and having a control winding on the core of said inductive winding, said control winding being connected in said output circuit for unidirectional current energization thereof that varies as said conditions at said interface change, and means for energizing the input of said rectifier bridge by alternating potential derived from said inductive winding, said capacitor and inductive winding having respective values of capacitive reactance and inductive reactance, with the latter affected by core flux produced by said variable unidirectional current energization of said control winding, to provide a D. C. voltage-current characteristic across said interface of substantially constant voltage throughout changing current across the interface below a selected maximum current value such as a current value that causes arc-over at the interface and of relatively rapidly decreasing voltage with limitation of current as the latter tends to exceed said selected value.

2,871,178
ELECTRODE SEALING AND POWER CONNECTION APPARATUS

Elmer D. Dilling, Las Vegas, Nev., assignor to Titanium Metals Corporation of America, New York, N. Y., a corporation of Delaware

Application February 14, 1957, Serial No. 640,199
3 Claims. (Cl. 204—246)

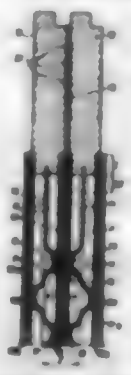


1. Electrode sealing and power connection apparatus comprising an open top channel member attached to the top of an electrolytic cell and surrounding an electrode opening therein, a depending flange attached to an electrode cover and adapted to mate with said open top channel member, a low melting point metal contained in said channel member, cooling and heating means associated with said channel member adapted to solidify and melt the low melting metal contained therein, and an electrical power connection attached to said channel member.

2,871,179
ELECTROLYTIC WATER DECOMPOSER

Ewald Arno Zdansky, Monthey, Switzerland, assignor to Lonza Elektrizitätswerke und Chemische Fabriken A. G., Basel, Switzerland

Application March 29, 1956, Serial No. 574,675
Claims priority, application Switzerland April 1, 1955
2 Claims. (Cl. 204—256)



1. In an electrolytic water decomposer, a plurality of series connected decomposer cells each of which comprises, in combination, an outer annular frame means defining the outer periphery of said cell; a pair of spaced electrically conductive separating plates connected at their peripheries to said frame means and defining said cell between themselves, at least one separating plate of each cell also being a separating plate of an adjacent cell so that such separating plate is common to the two cells; a diaphragm connected at its periphery to said frame means and located between said separating plates so as to divide said cell into anode and cathode chambers; anode and cathode electrodes located in said anode and cathode

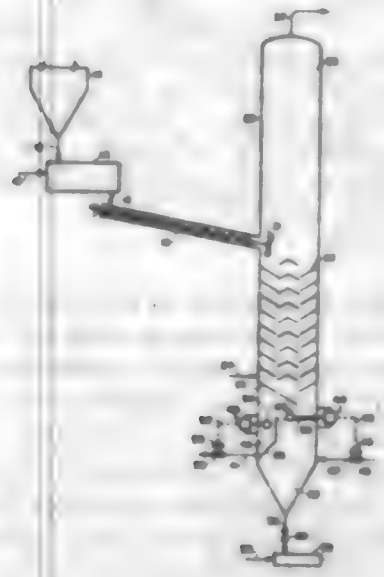
chambers, respectively, adjacent said diaphragm and electrically connected to the respective separating plates; a nickel coating covering both faces of each of said separating plates; and an activating coating covering only said anode and cathode electrodes.

2,871,186

RECOVERY OF OIL FROM TAR SANDS

Malden C. Lowman, Jr., San Rafael, and Edwin J. Fisch, Castro Valley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application May 24, 1957, Serial No. 661,501
5 Claims. (Cl. 208—11)



1. A process for separating crude oil from a bituminous sand in a deasphalted oil enriched layer and an asphaltene enriched layer which comprises providing an aqueous pulp of the bituminous sand in a vertical extraction zone, introducing a liquid low molecular weight paraffinic hydrocarbon solvent into the zone at a level below the point of introduction of the aqueous bituminous sand pulp, flowing the solvent upwardly of the vertical extraction zone in countercurrent direction to the descending sand and during said countercurrent movement forming a deasphalted oil and solvent phase, an asphaltene phase diluted with a lesser portion of the solvent, a water phase, and a substantially oil-free sand, said phases and sand having increasing specific gravities in the order presented, separating the several phases and sand into layers with the asphaltene enriched layer being disposed below the place of introduction of the hydrocarbon solvent and above the water layer and sand, and with the deasphalted oil enriched layer being formed above the point of introduction of the aqueous pulp.

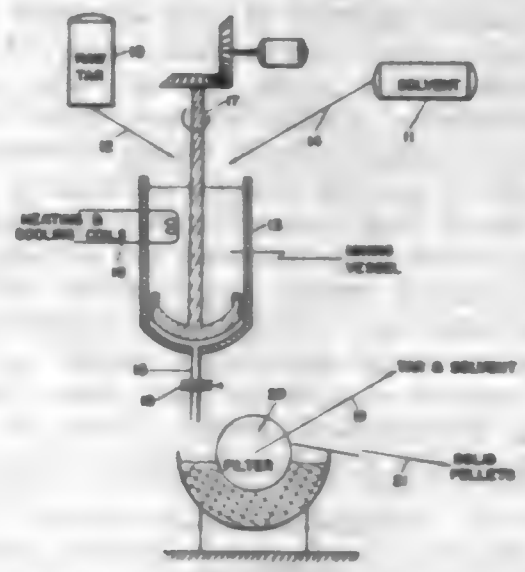
2,871,181

METHOD OF REMOVING FINELY DIVIDED SOLID PARTICLES FROM HYDROCARBONACEOUS LIQUIDS

Metro D. Kulik, Pittsburgh, Pa., assignor to Consolidation Coal Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application June 15, 1955, Serial No. 515,647
8 Claims. (Cl. 208—45)

1. The method of removing solid particles consisting essentially of finely divided particles from the class of coal and partially devolatilized coal from a hydrocarbonaceous liquid containing pitch, said liquid being derived from pyrolytic treatment of solid fuels, comprising forming a mixture of said hydrocarbonaceous liquid with a solvent boiling in the range of 50 to 300° C. and containing in wholly miscible combination type (1) materials comprising organic materials in which said hydrocarbonaceous liquids are wholly soluble at temperatures below 110° C. and type (2) materials comprising saturated hydrocarbons, said solvent having a ratio of type (1) to type (2) materials which permits substantially complete solubility of said hydrocarbonaceous liquid at an elevated temperature below 110° C. but only partial solubility at a reduced temperature above 20° C., heating said mixture to an elevated temperature below 110° C. to effect substantially complete solution of said hydrocarbonaceous liquid in said solvent, thereupon cooling said mixture under



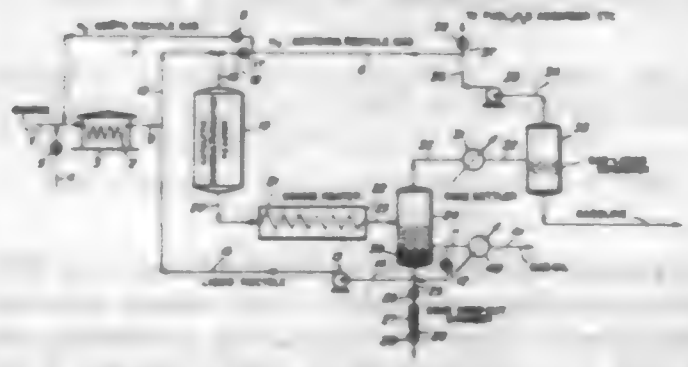
continuous agitation to a reduced temperature above 20° C. at which said hydrocarbonaceous liquid is only partially soluble in said solvent whereby a portion of said pitch is precipitated from solution for combination with said particles in agitation to form spherical agglomerates, thereupon separating from said mixture said spherical agglomerates comprising substantially all of said finely divided solid particles at a temperature which is not less than said reduced temperature.

2,871,182

HYDROGENATION AND COKING OF HEAVY PETROLEUM FRACTIONS

Vern W. Weekman, Jr., Rome, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application August 17, 1956, Serial No. 604,749
9 Claims. (Cl. 208—50)



1. A method of producing fine granular particles of petroleum coke which comprises mildly hydrogenating in a first zone a mineral oil fraction boiling above about 600° F. and substantially devoid of solid matter extraneous thereto in the presence of sulf-active hydrogenation catalyst at a temperature within the range of about 600° to about 800° F. at a pressure within the range of about 250 to about 3000 p. s. i. g. at a space velocity within the range of about 0.1 to about 10 v./v./hr. in the presence of about 300 to about 5000 s. c. f. of hydrogen per barrel of said mineral oil fraction to obtain a first zone effluent substantially devoid of solid matter extraneous to said fraction comprising hydrogen and hydrocarbons boiling above about 600° F., passing said first zone effluent substantially devoid of solid matter extraneous to said fraction through a coking zone at a temperature within the range of about 800° to about 1200° F. at a pressure up to about 3000 p. s. i. g. in the presence of up to about 5000 s. c. f. of hydrogen per

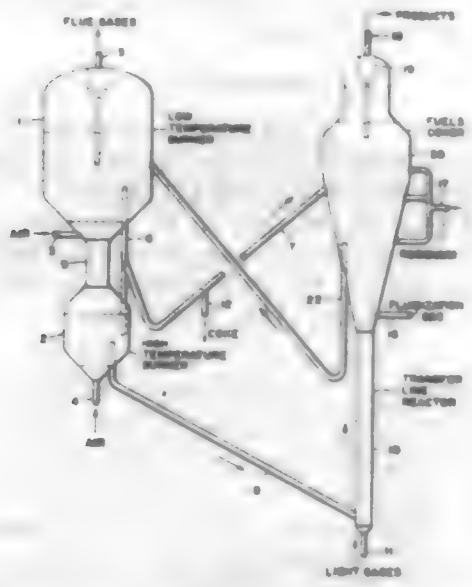
barrel to obtain an at least partially liquid coking zone effluent substantially devoid of solid matter extraneous to said mineral oil fraction comprising hydrogen, hydrocarbons boiling in the gasoline range and fine granular particles of coke suspended in liquid hydrocarbons boiling above the gasoline range including gas oil hydrocarbons, separating said hydrogen and hydrocarbons boiling in the gasoline range from a liquid fraction comprising fine granular particles of coke suspended in hydrocarbons boiling above the gasoline range and including hydrocarbons boiling in the gas oil range, stratifying said liquid fraction to obtain an upper liquid layer comprising hydrocarbons boiling in the gas oil range substantially devoid of said fine granular particles of coke and a lower liquid layer comprising hydrocarbons boiling above the gasoline range and said fine granular particles of coke suspended therein, and separately withdrawing said upper liquid layer comprising hydrocarbons boiling in the gas oil range substantially devoid of said fine granular particles of coke and said lower liquid layer comprising hydrocarbons boiling above the gasoline range and said fine granular particles of coke suspended therein.

2,871,183

CONVERSION OF HYDROCARBONS

Brook I. Smith, Elizabeth, and Edward D. Boston, Westfield, N. J., and John W. Herrmann, Woodside, N. Y., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application September 21, 1954, Serial No. 457,382
6 Claims. (Cl. 208—54)



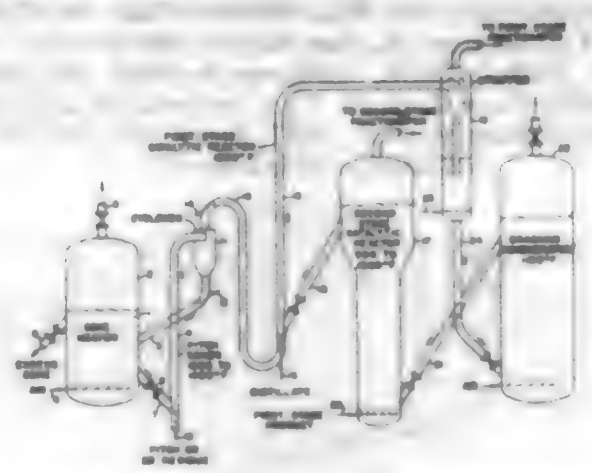
1. A process wherein hydrocarbons are converted which comprises injecting a normally liquid, heavy petroleum oil into a fuels coking zone containing particulate coke maintained at a relatively dense fluidized bed at a temperature below 1200° F., whereby said heavy petroleum oil undergoes pyrolysis upon contact with said particulate coke evolving substantial quantities of relatively light hydrocarbon vapors having less than 6 carbon atoms and including ethane, distillate vapors and heavy ends, separating thus formed light hydrocarbon vapors having less than 6 carbon atoms and contacting said vapors with another portion of particulate coke maintained at a temperature above 1200° F. in a transfer line reactor zone to obtain ethane conversions in the range of 50–60% per pass, separating as product the effluent of said transfer line reactor zone from said portions of particulate coke, circulating particulate coke so separated to a combustion zone to be partially combusted and heated therein to a temperature in the range of 900° to 2000° F., at least a portion of the coke being heated to a temperature above the temperature in said transfer line reactor zone, and passing heated coke to said fuels coking zone and to said transfer line reactor zone.

2,871,184

PROCESS FOR THE PRODUCTION OF GASOLINE FROM PETROLEUM RESIDUES

Frederick Kunreuther, Houston, Tex., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application June 28, 1955, Serial No. 518,467
4 Claims. (Cl. 208—55)



1. Process for the production of gasoline from residual oils which comprises contacting a residual oil with hot finely divided coke particles under conditions to suspend the coke particles in the oil vapors without a pseudo liquid coke phase and to give a resulting temperature between 1000 and 1400° F., centrifugally separating the major part of the suspended coke particles from the suspension after a very short contact time, suspending used and partially carbonized finely divided cracking catalyst in the remaining suspension of coke particles in oil vapors in an amount to give a resulting temperature between 900 and 1100° F. and contacting the suspended catalyst with the oil vapors in the absence of a pseudo liquid catalyst phase for a short time sufficient to afford a conversion between 25 and 60%, centrifugally separating suspended coke and catalyst particles from the oil vapors after said short time of contact and passing the separated catalyst and coke mixture to a fluidized catalyst regeneration zone, separating gasoline from the last said oil vapors and catalytically cracking the remaining oil in a separate catalytic cracking reaction zone at a temperature between about 900 and 1000° F. with less carbonized cracking catalyst from said regeneration zone, separately removing gasoline from the product of said separate reaction zone, and passing carbonized and partially spent finely divided cracking catalyst from said separate reaction zone to said suspension of coke in oil vapors as aforesaid.

2,871,185

REMOVAL OF METALS FROM REDUCED CRUDES BY MILD COKING IN THE PRESENCE OF A SILICO ORTHO ESTER

Louis C. Gutberlet, Cedar Lake, Ind., and Marvin J. den Herder, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application August 10, 1956, Serial No. 603,417
4 Claims. (Cl. 208—55)



1. The method of reducing the metals content of reduced crudes which comprise mildly coking an intimate

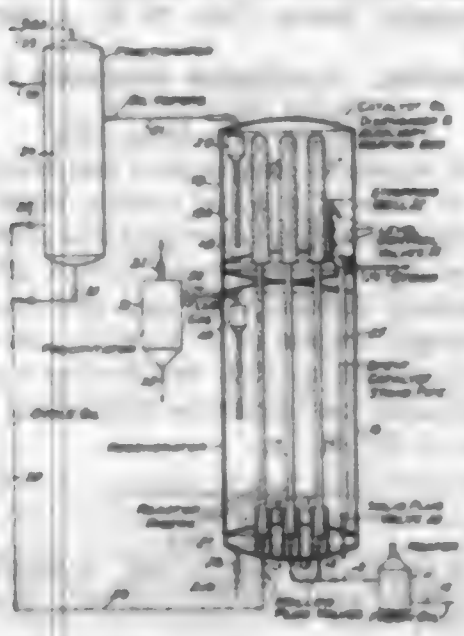
mixture of the reduced crude and between about 0.01 to 5 percent by volume based on reduced crude of a silico-ortho ester, said mild coking being carried out under conditions wherein a portion of the reduced crude is liquid and wherein the amount of coke formed is not more than the Ramsbottom carbon content of the reduced crude charged, the mild coking conditions comprising a temperature between about 750° and 900° F. and a space velocity of between about 5 and 500 liquid volumes of charged reduced crude per hour per volume of coking zone, the higher space velocities being employed with the higher temperatures.

2,871,186

CATALYTIC CRACKING SYSTEM

Cecil J. Francisco, Homewood, Ill., and Theodore H. Schultz, Munster, Ind., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

Application September 1, 1953, Serial No. 377,756
1 Claim. (Cl. 208—147)



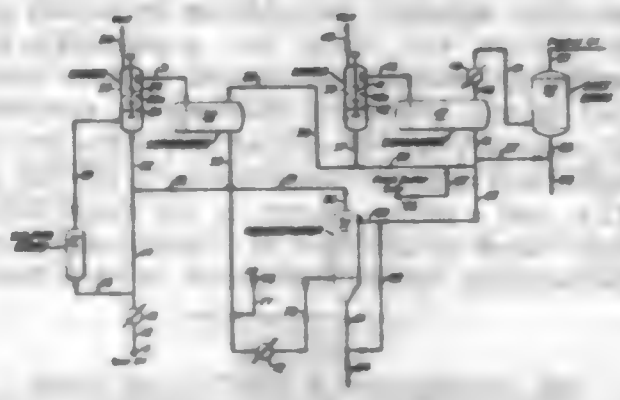
In the conversion of petroleum hydrocarbons in the presence of a finely divided solid catalyst under flow conditions providing progressive reaction, the method which comprises maintaining a fluidized bed of finely divided catalyst in each of an upper confined reaction zone and a lower confined regeneration zone disposed in vertical alignment, forming a plurality of suspensions of finely divided catalyst withdrawn from the lower portion of the regeneration zone in vapors of petroleum hydrocarbon charge stocks to be converted having a density of about 5 to about 10 pounds per cubic foot, flowing each suspension initially at a linear velocity exceeding about 12 to 15 feet per second upwardly through a separate, elongated, vertical confined reaction path extending through the fluidized catalyst beds in the regeneration and reaction zones to the upper portion of the reaction zone, deflecting the upward flowing suspensions downwardly in separate confined reaction paths through the fluidized catalyst bed in the reaction zone and discharging the hydrocarbon vapor-catalyst suspensions from each confined reaction path in the lower portion of the reaction zone, thus effecting a substantial portion of the conversion of the petroleum hydrocarbon charge stocks in the confined reaction paths and effecting the remainder of the conversion in the fluidized catalyst bed of the reaction zone, withdrawing hydrocarbon vapors from the reaction zone above the level of the fluidized catalyst bed, withdrawing spent catalyst from the reaction zone, passing the spent catalyst through a stripping zone to the regeneration zone, and regenerating the catalyst in the regeneration zone by contact with air.

2,871,187

DOCTOR SWEETENING PROCESS USING SULFUR

Mathew L. Kalinowski, Chicago, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application March 11, 1954, Serial No. 415,520
4 Claims. (Cl. 208—199)



1. A doctor sweetening process which comprises (1) intimately contacting a sour hydrocarbon oil and doctor solution in an amount between about 4 and about 15 volume percent based on said oil, said contacting being carried out at a temperature between about 100° F. and about 150° F. between on the order of 30 seconds and on the order of 1 minute wherein the contacting time is related to the contacting temperature with the shorter time corresponding to the higher temperature (2) at the end of said contacting time of step 1 continuing said contacting while adding to the mixture of said oil and said solution from step 1 free sulfur in an amount between about 105 percent and about 175 percent of the amount theoretically required to convert the mercaptans present in said sour oil to disulfides and continuing the contacting of oil, doctor solution and free sulfur until said oil has become essentially sweet and (3) separating essentially sweet oil from doctor solution.

2,871,188

FLUID FOR DRILLING HIGH TEMPERATURE WELLS

Thomas E. Watkins, Arlington, Tex., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., New York, N. Y., a corporation of New York

No Drawing. Application September 4, 1956
Serial No. 607,966
16 Claims. (Cl. 252—8.5)

1. A drilling fluid for drilling in earth formations at a temperature in excess of 250° F. and up to about 325° F., said drilling fluid comprising water, bentonite, quebracho, lignitic emulsion stabilizer, caustic, heat stable water-loss reducing agent, weighting agent, oil emulsified as the discontinuous phase, and lime, the bentonite being in an amount at least as great as five pounds but not greater than ten pounds per barrel of drilling fluid, the quebracho being in an amount between 1.75 and 2.25 pounds per barrel of drilling fluid, the lignitic emulsion stabilizer being in an amount between 1.75 and 2.25 pounds per barrel of drilling fluid, the caustic being in an amount between 0.75 and 1.25 pounds per barrel of drilling fluid and not less than one-fifth the amount of quebracho and lignitic emulsion stabilizer taken together, the heat stable water-loss reducing agent being in an amount between 0.75 and 1.25 pounds per barrel of drilling fluid, the oil being in an amount between nine and fifteen volume percent of the drilling fluid, and the lime being in an amount between 0.1 and 0.5 pound per barrel of drilling fluid to bring the pH of the drilling fluid to a value between 10.5 and 12.5.

2,871,189
DRILLING FLUID

John S. Brukner, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 27, 1957
Serial No. 642,654
29 Claims. (Cl. 252—8.5)

1. An aqueous drilling fluid comprising an alkaline aqueous phase saturated with calcium hydroxide, a water soluble calcium salt which has a solubility in said aqueous phase greater than that of calcium hydroxide dissolved therein to yield a calcium ion concentration in said aqueous phase of at least 200 parts per million by weight, said aqueous phase having a pH not greater than 12.6, and a minor amount in the range 0.01–10% by weight based on said fluid of a water soluble organic oxygen-containing silicon compound in said fluid.

2,871,190
OIL DISPERSIBLE PHYTATES AND COMPOSITIONS THEREOF

Claude Malcolm Finlayson, Coolspring Township, Mercer County, Pa., and John W. Jordan, Harris County, Tex., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application January 28, 1953
Serial No. 333,814
4 Claims. (Cl. 252—32.5)

1. A compound of the formula

$$C_6H_6O_{24}P_6Z_{12-n}R_n$$

where $C_6H_6O_{24}P_6$ is the phytate radical, Z is a cation chosen from the group consisting of hydrogen ion, ammonium ion, and alkali metal ions, *n* varies from 6 to 12 inclusive, and R is an organic onium cation containing a hydrocarbon chain of at least 10 carbon atoms in length.

4. A composition of the class consisting of lubricants, waxes, asphalts, tars, paints, varnishes, lacquers, putties, mastics, hydraulic fluids, solvents, printing inks, elastomers, adhesives, and emulsions and having a continuous phase consisting of an at least semiliquid, oleophilic, organic substance, characterized by the fact that it contains a sufficient quantity of a compound of the formula

$$C_6H_6O_{24}P_6Z_{12-n}R_n$$

where $C_6H_6O_{24}P_6$ is the phytate radical, Z is a cation chosen from the group consisting of hydrogen ion, ammonium ion, and alkali metal ions, *n* varies from 6 to 12 inclusive, and R is an organic onium cation containing a hydrocarbon chain of at least 10 carbon atoms in length, to cause a substantial increase in consistency of said composition.

2,871,191
GREASES STABILIZED WITH ORGANIC CARBONATES

John E. Schott, New York, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Application October 17, 1952
Serial No. 315,404
6 Claims. (Cl. 252—40.5)

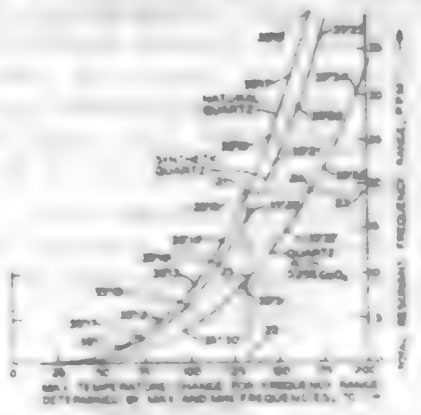
1. An alkaline earth metal soap grease normally susceptible to gel structure deterioration, having in admixture therewith a small amount, 0.01 percent to about 5 percent, of di(butoxydiethylene glycol) carbonate.

2,871,192
QUARTZ CRYSTAL

Frank Augustine, Cleveland, and Arthur D. Schwope, South Euclid, Ohio, assignors to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio

Application March 3, 1955, Serial No. 492,086
8 Claims. (Cl. 252—62.9)

5. A quartz crystal plate containing in solid solution between about 0.05 and about 1.0 percent by weight of germanium dioxide, the normal to the major surfaces of said plate lying approximately in a crystallographic YZ-



plane of the crystalline material and making an angle of between 34° and 36° 30′ with the crystallographic Y-axis.

2,871,193
SHAMPOO COMPOSITIONS

Hyman Henkin, Bayside, N. Y., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

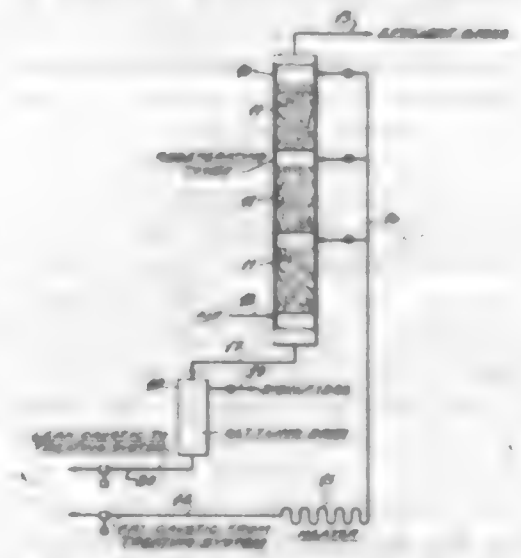
No Drawing. Application September 6, 1955
Serial No. 532,732
8 Claims. (Cl. 252—152)

1. A liquid shampoo composition consisting essentially of about 5 to 35% of a water soluble higher fatty acid monoglyceride monosulfate detergent and about 0.1 to 5% of a water soluble hydroxypropyl methyl cellulose in an aqueous medium therefor, the said cellulose derivative having a methoxy content of 25 to 32% and an hydroxypropoxy content of 2 to 10% and having a viscosity between 10 and 5,000 centipoises as determined at 2% solution in water at 20° C.

2,871,194
REGENERATION OF ORGANIC CAUSTIC SOLUTIONS USED IN DETHIOLIZING HYDROCARBONS

James L. Meadows, Port Arthur, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application July 20, 1955, Serial No. 523,224
4 Claims. (Cl. 252—192)



1. The method of regenerating an organic solution of an alkali metal hydroxide employed to effect removal of mercaptans from hydrocarbons that comprises directing the used organic solution containing extracted mercaptans but free from an associated oxidation catalyst to a regenerating tower containing a bed of stainless steel contact material having catalytic activity for oxidizing mercaptans to disulfides at such a rate that said solution flows in descending films over said contact material without forming a continuous liquid level in said bed of contact material, passing a regenerating oxygen-containing

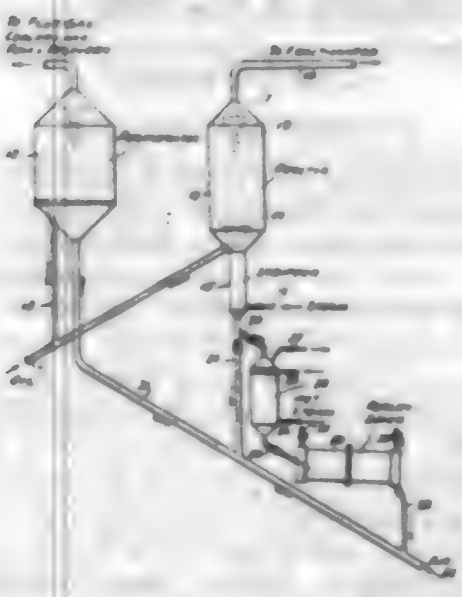
gas at atmospheric pressure in contact with the downwardly flowing solution, maintaining said regenerating gas essentially in the continuous phase, maintaining the contacting regenerating gas and solution at reactive temperature for the oxidation of mercaptans to disulfides, and passing the resultant regenerated solution containing the disulfides to a separating zone wherein the disulfides are separated from the rengerated solution.

2,871,195

PROCESS FOR REACTIVATING A SPENT SILICA-MAGNESIA CRACKING CATALYST

John S. Melik, Hammond, Ind., and Herman E. Ries, Jr., Chicago, Ill., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

Application April 16, 1953, Serial No. 349,289
6 Claims. (Cl. 252—411)



1. A method of treating spent silica-magnesia cracking catalysts which comprises treating the spent catalyst with water under conditions of elevated temperature of from about 150° F. to about 600° F., a pressure at least sufficient to insure the presence of liquid phase water in contact with the catalyst surface during the treatment at said temperature, and contact time ranging from several minutes to about 60 hours which is sufficient to effect a substantial increase in the carbon burning rate of the catalyst.

2,871,196

CATHODES AND EMISSIVE MATERIAL THEREFOR

Dimitries M. Speros, Willoughby, Ohio, assignor to General Electric Company, a corporation of New York

No Drawing. Application April 29, 1957
Serial No. 655,534
4 Claims. (Cl. 252—512)

3. An activated emissive material for a discharge cathode corresponding to the formula $(x\mathrm{BaO}\cdot\mathrm{Al_2O_3})\cdot y\mathrm{Ba}$ wherein x is between 0.1 and 1 and y is between $0.5x$ and $2.6x$.

2,871,197

RESISTANCE MATERIAL FOR FIRE DETECTOR ELEMENT

Ronald MacIntyre, North Arlington, and Leonard Junior Sheakley, Verona, N. J., assignors to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey

No Drawing. Application October 26, 1954
Serial No. 464,987
2 Claims. (Cl. 252—518)

2. A resistance material extrudable as a plastic mass onto electrical conductors and adapted to be fused thereon, said material consisting essentially of about 50 parts by weight of manganese dioxide, about 4 parts by weight of zirconium silicate, about 12.5 parts by weight of a frit, about 33.75 parts by weight of steatite, about 3.75 parts by weight of flour and sufficient water to render the material extrudable.

2,871,198

BORON HALIDE-ALKALI METAL ACID PYROPHOSPHATE COMPLEX AND CATALYST CONTAINING SAME

Herbert R. Appell, North Riverside, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application October 30, 1956
Serial No. 619,129
15 Claims. (Cl. 252—433)

1. A complex of a boron halide and an alkali metal acid pyrophosphate.

9. A solid composite of a complex of boron halide and an alkali metal acid pyrophosphate with a solid support.

2,871,199

MANUFACTURE OF SOLID PHOSPHORIC ACID CATALYSTS

Mitchell S. Bielawski, Berwyn, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application October 11, 1954
Serial No. 461,686
12 Claims. (Cl. 252—435)

1. A process for the manufacture of a solid phosphoric acid catalyst which comprises adding a polycyclic aromatic hydrocarbon to a siliceous adsorbent in an amount of from about 2.2 to about 100% by weight of the adsorbent, compositing a phosphoric acid with the mixture, and extruding and calcining the resultant composite.

2. A process for the manufacture of a solid phosphoric acid catalyst which comprises mixing a polycyclic aromatic hydrocarbon dissolved in an organic solvent with a siliceous adsorbent in an amount of from about 2.2 to about 100% by weight of the adsorbent, removing the organic solvent from the mixture, compositing a phosphoric acid with the remainder of the mixture, and extruding and calcining the resultant composite.

2,871,200

HYDROCARBON CONVERSION CATALYSTS

Thomas F. Doumani, Whittier, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application August 22, 1955
Serial No. 529,937
7 Claims. (Cl. 252—440)

1. A hydrocarbon conversion catalyst consisting essentially of a major proportion of an adsorbent carrier which is essentially activated alumina, and intimately distributed therein between about 4% and 30% by weight of molybdenum oxide, between about 0.5% and 15% by weight of an oxide of a metal selected from the group consisting of cobalt and nickel, and between about 0.5% and 20% by weight of a sulfate of a divalent metal having an atomic number between 4 and 58 inclusive.

2,871,201

HYDROCARBON CONVERSION CATALYSTS

Thomas F. Doumani, Whittier, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Original application July 6, 1951, Serial No. 235,579. Divided and this application August 22, 1955, Serial No. 529,938
3 Claims. (Cl. 252—440)

1. A hydrocarbon conversion catalyst consisting essentially of a major proportion of an adsorbent oxide carrier and intimately distributed therein between about 4% and 30% by weight of molybdenum oxide, and between about 0.5% and 20% by weight of nickel sulfate.

2,871,202

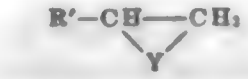
ORGANO-PHOSPHORUS POLYMERS

Carleton B. Scott, Pomona, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application June 27, 1955
Serial No. 518,390

8 Claims. (Cl. 260—2)

1. The process which comprises admixing a phosphoric ester selected from the class consisting of alkyl metaphosphates and alkyl trithiometaphosphates in which the alkyl group contains from 1 to 4 carbon atoms with at least about one molecular equivalent of an alkylene compound of the general formula:



wherein R′ represents a substituent selected from the class consisting of hydrogen, alkyl and aryl, and Y represents a substituent selected from the class consisting of oxygen, sulfur and the imine group, while maintaining a reaction temperature below about 200° C.; and thereafter separating from the reaction product so formed any of said alkylene compound remaining unreacted.

2,871,203

PROCESS FOR THE PREPARATION OF POLYMERIC AMINOALKYL-VINYL ETHERS

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application September 30, 1955
Serial No. 537,901

4 Claims. (Cl. 260—2.1)

1. A process for producing a polymer of an aminoalkyl vinyl ether which comprises hydrolyzing in an aqueous alkaline medium at a temperature of 80° C. to 100° C. a polymer, having an average molecular weight of at least 5000, of a ureidoalkyl vinyl ether having the formula

$$CH_2{=}CHOANRCONH_2$$

wherein A is an alkylene group of 2 to 3 carbon atoms of which at least two separate the adjoining O and N atoms, and R is selected from the group consisting of H and CH_3.

2,871,204

METHOD OF PRODUCING GRANULAR COMPOSITIONS OF ACRYLATE SALT, SAND, AND CLAY AND PRODUCT RESULTING THEREFROM

Robert P. Hopkins, Ardsley, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application August 17, 1954
Serial No. 450,555

11 Claims. (Cl. 260—2.2)

1. A method of producing a granular composition comprising preparing an aqueous solution containing dissolved therein, at a concentration of 5% up to saturation, 3 to 30 parts by weight of a salt of acrylic acid with a divalent metal selected from the group consisting of calcium, magnesium, strontium, zinc, and barium, introducing ½ to 10%, based on the weight of salt, of a polymerization catalyst to polymerize the salt, mixing therein 97 to 70 parts by weight of particles of a mixture consisting of sand and clay in a range of weight ratios from about 1:3 to 10:1 to form a slurry, completing the polymerization of the acrylate in the slurry at a temperature between about —12° C. and 110° C. until a coalesced mass is obtained, and subsequently sub-dividing the polymeric mass containing the inorganic particles into granules of about 0.1 to about 5 mm. average diameter in size.

6. A granular ion-exchange resin composition, the granules of which are of a size of about 0.1 to 5 mm. average diameter and are formed of a plurality of inorganic particles bound together with a polymer of a salt of acrylic acid with a divalent metal selected from the group consisting of calcium, magnesium, strontium, zinc, and barium, said composition being obtained by the process of claim 1.

2,871,285

RECLAIMING OF VULCANIZED SCRAP RUBBER

Ivan Mankowich, Cheshire, Leo E. Steinle, Beacon Falls, and Frank P. Chiavetta, West Cheshire, Conn., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 21, 1954
Serial No. 431,592

4 Claims. (Cl. 260—2.3)

1. In the process of preparing a reclaimed scrap vulcanized rubber from vulcanized scrap rubber by heating the scrap at temperature from 300° F. to 550° F. to plasticize the same, the step which comprises heating the scrap at temperature from 300° F. to 550° F. during the reclaiming treatment of said rubber in the presence of a chemical selected from the group consisting of formaldehyde, paraformaldehyde, methylal, acetaldehyde, paraldehyde, acrolein, chloral and aldol, thereby forming in-situ non-staining reaction products of normally staining accelerator and antioxidant ingredients of the reclaim with said chemical, said scrap rubber being selected from the group consisting of natural rubber, homopolymers of butadienes-1,3-copolymers of mixtures containing butadienes-1,3 with up 70% of such mixtures of compounds which contain a $CH_2{=}C<$ group and are copolymerizable with butadienes-1,3, and copolymers of a major proportion of an isoolefin and a minor proportion of a conjugated diene.

2,871,286

TREATMENT OF RECLAIMED RUBBER

Ivan Mankowich, Cheshire, Leo E. Steinle, Beacon Falls, and Frank P. Chiavetta, West Cheshire, Conn., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 21, 1954
Serial No. 431,591

4 Claims. (Cl. 260—5)

1. The method of improving the non-staining properties of a reclaimed scrap vulcanized rubber, the rubber content of which is selected from the group consisting of synthetic rubber and mixtures of synthetic rubber with up to 95% by weight of such mixtures of natural rubber, which comprises subjecting said reclaimed rubber, after it has been reclaimed, to treatment at temperatures in the range from 60° F. to less than 300° F. with a chemical in the free state selected from the group consisting of formaldehyde, paraformaldehyde, methylal, acetaldehyde, paraldehyde, acrolein, chloral and aldol, thereby forming in-situ non-staining reaction products of normally staining accelerator and antioxidant ingredients of the reclaim with said chemical, said synthetic rubber being selected from the group consisting of homopolymers of butadienes-1,3, copolymers of mixtures containing butadienes-1,3 with up to 70% of such mixtures of compounds which contain a $CH_2{=}C<$ group and are copolymerizable with butadienes-1,3, and copolymers of a major proportion of an isoolefin and a minor proportion of a conjugated diene.

2,871,207

PROCESS OF POLYMERIZING A MIXTURE OF FURFURAL, A SECONDARY AROMATIC AMINE AND A LIGNIN COMPOUND AND PRODUCT OBTAINED THEREBY

Orland R. Sweeney and Lionel K. Arnold, Ames, Iowa, and Justin T. Long, Auburn, Ala., assignors to Iowa State College Research Foundation, Inc., Ames, Iowa, a corporation of Iowa

No Drawing. Application December 24, 1953
Serial No. 400,394
11 Claims. (Cl. 260—17.5)

1. The process of polymerizing furfural to form a plastic material, which comprises forming a casting syrup from furfural, a secondary aromatic amine, and a compound selected from the group consisting of lignin and lignin-sulfonic acid a lesser proportion by weight of said secondary aromatic amine being employed than the proportion of said furfural, and then condensing the casting syrup by adding thereto an acidic condensing agent.

2,871,208

OIL SOLUBLE BUTENYLPHENOL FORMALDEHYDE RESINS

Roger M. Christensen, Whitefish Bay, and Lowell O. Cummings, Milwaukee, Wis., assignors to Pittsburgh Plate Glass Company

No Drawing. Application May 3, 1954
Serial No. 427,385
7 Claims. (Cl. 260—19)

1. A light colored varnish composition consisting essentially of the product obtained by heating together a drying oil and the resinous condensation product of formaldehyde and a mixture of butenylphenols containing about 55 percent to 85 percent by weight of ortho- and para-monobutenylphenols, and about 15 percent to 45 percent by weight of di- and tributenylphenols.

2,871,209

AMINOPLAST RESIN COATING COMPOSITIONS

James P. Shelley, Drexel Hill, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application October 24, 1956
Serial No. 617,934
16 Claims. (Cl. 260—21)

1. A composition comprising a solution, in an organic solvent comprising an alcohol having 3 to 6 carbon atoms, of a long-oil alkyd resin, a butylated dimethylolurea, and the monosalt of maleic acid with triethylamine, the concentration of alkyd and butylated dimethylolurea being from about 1 to 50% by weight, there being present 30 to 40 parts by weight of butylated dimethylolurea, 70 to 60 parts by weight respectively of the alkyd and about 1 to 3 parts by weight of the monosalt.

2,871,210

WATER-FREE POLISHES CONTAINING PARTIALLY NEUTRALIZED WAX-ACID PARAFFIN

Helmut Kolling, Duisburg-Hamborn, and Friedrich Rappen and Wilhelm Reiffert, Oberhausen-Sterkrade, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany

No Drawing. Application February 15, 1955
Serial No. 488,396
Claims priority, application Germany February 22, 1954
16 Claims. (Cl. 260—23)

1. A liquid polishing composition comprising an organic solvent solution of a mixture of a wax acid-paraffin which is obtained from paraffin hydrocarbons by chlorination, dehydrochlorination, catalytic addition of carbon monoxide and hydrogen, subsequent hydrogenation and treatment with molten alkali having a molecular size of about C_{21}–C_{40} and a portion of its acid content neutralized in the form of a metal soap selected from the group consisting of calcium, sodium, potassium, barium and strontium soaps, with a waxy member selected from the group consisting of hard paraffins melting above about 70° C., polyethylenes having a molecular weight above 1,000 and below about 10,000, and mixtures thereof.

2,871,211

RUBBER VULCANIZATION USING PENTAALKYL-SUBSTITUTED TETRAHYDROPYRIMIDINES AS ACCELERATORS

Thomas F. Mika, Orinda, Calif., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application October 12, 1953
Serial No. 385,709
10 Claims. (Cl. 260—23.7)

9. In a process for vulcanizing sulfur vulcanizable rubber of the group consisting of natural rubber, rubbery polymers of butadiene and rubbery polymers of chloroprene, the improvement which comprises heating at a temperature between 130° C. and 180° C. the rubber and sulfur in the presence of from .1 to 5 parts per 100 parts of rubber of a compound of the group consisting of (1) 2,2,4,4,6-pentaalkyl-tetrahydropyrimidines which contain no substituted substituent on the tetrahydropyrimidine ring other than the alkyl radicals and wherein each alkyl group contains 1 to 12 carbon atoms, and (2) salts of a carboxylic acid of the group consisting of C_{18} fatty acids and rosin acids, and the aforementioned 2,2,4,4,6-pentaalkyl-tetrahydropyrimidines wherein the salt linkage is formed between the carboxyl group of the acid and the nitrogen of the tetrahydropyrimidine.

2,871,213

ASPHALT COMPOSITION CONTAINING POLYETHYLENE

Clarence H. Thayer, Wallingford, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application July 13, 1956
Serial No. 597,598
4 Claims. (Cl. 260—28.5)

1. As a new composition of matter, asphalt having penetration at 77° F., prior to addition of polyethylene, within the approximate range from 60 to 300 and containing an amount less than 25 weight percent and sufficient to raise the penetration ratio of said asphalt, of polyethylene having average molecular weight within the approximate range from 500 to 12,000, said penetration ratio being determined by dividing the penetration at 39.2° F. by the penetration at 77° F. and multiplying by 100.

2,871,213

AQUEOUS COMPOSITION COMPRISING RUBBERY COPOLYMER AND CONDENSATION PRODUCT OF FORMALDEHYDE AND METHYLOL-FORMING COMPOUND

Wilhelm Graulich, Leverkusen-Bayerwerk, Gustav Sinn, Bergisch-Neukirchen, Hermann Holzrichter, Leverkusen-Bayerwerk, and Dietrich Rosahl, Koln-Flittard, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application February 28, 1956
Serial No. 568,160
Claims priority, application Germany March 3, 1955
6 Claims. (Cl. 260—29.3)

1. A composition of matter comprising (1) an aqueous medium having a pH value of about 6.5 to 9, (2) 100 parts by weight of a rubbery copolymer obtained by copolymerizing in aqueous emulsions (*a*) 0.5–25 parts

by weight of a monoethylenically unsaturated organic aliphatic compound containing a reactive group selected from the class consisting of carboxyl-, carbonamide-, keto-, and aldehyde groups, and (*b*) 75–99.5 parts by weight of a conjugated diolefin having 4 to 6 carbon atoms, said copolymer being insoluble in said aqueous medium and being finely dispersed therein, and (3) 1–50 parts by weight of a water-soluble resin-forming condensation product of formaldehyde with a methylol-forming compound selected from the group consisting of phenol, urea, dicyandiamide, melamine, and phenylsulphonamide, said condensation product being dissolved in said aqueous medium.

2,871,214

ACETONE-WATER SOLUTION OF VINYLIDENE CYANIDE-VINYL ACETATE COPOLYMER AND METHOD FOR PREPARING SAME

Gerald V. Wootton, Lorain, and Howard M. Hoxie, Avon Lake, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application March 19, 1957
Serial No. 646,965
7 Claims. (Cl. 260—29.6)

1. A composition of matter comprising from 5 percent to 50 percent by weight of a copolymer of vinylidene cyanide:vinyl acetate, said copolymer containing about 45 to 55 mol percent vinylidene cyanide in polymerized form, dissolved in a solvent mixture consisting of 75 to 95 parts of acetone, 5 to 25 parts of water, the sum of said parts of acetone and water being 100, and from 0.1 to 2.0 parts of an inorganic highly water-soluble hydrated metal salt, selected from the group consisting of chlorides, bromides, iodides, thiocyanates, perchlorates, and nitrates.

2,871,215

STABLE CHLOROPHTHALIC ACID MODIFIED UNSATURATED ALKYD RESIN MOLDING COMPOSITIONS

James W. Hyland, Jr., Maumee, Ohio, assignor to Allied Chemical Corporation, a corporation of New York

No Drawing. Application January 12, 1955
Serial No. 481,491
11 Claims. (Cl. 260—40)

1. A molding composition comprising from 50% to 85% by weight based on the total weight of the composition of filler and from 15% to 50% by weight of a mixture of the following constituents (*a*) 9 parts of an amorphous polymerizable unsaturated alkyd, solid at atmospheric temperatures, having a viscosity of from 0.9 to 5.0 poises as a 50% solution in methyl cellosolve, an acid number of from 10 to 35 and in which from 4% to 40% of the polycarboxylic acid radicals are chloro-substituted phthalic acid radicals and from 60% to 96% of such radicals are dicarboxy alkene radicals, the dicarboxy alkene having from 4 to 5 carbon atoms and having the carboxy radicals attached to adjacent carbon atoms, said alkyd being produced by the reaction of a polyhydric alcohol and the chloro-substituted phthalic acid and dicarboxy alkene employing at least an equimolar amount of said alcohol relative to the polycarboxylic acids, but not more than an excess of about 10% by weight of said alcohol based on the stoichiometric amount of said alcohol required, and (*b*) at least 1 part of diallyl phthalate, the maximum weight of said diallyl phthalate present being not more than

$$10+n+\frac{X}{\sqrt{n}}\%$$

of the total weight of (*a*) and (*b*), *n* being the average number of chlorine atoms per chloro-substituted phthalic acid radical in the unsaturated alkyd and X being the chlorine content of such radicals expressed as percent by weight of the unsaturated alkyd, and (*c*) an organic peroxide polymerization catalyst, the said diallyl phthalate being mixed with the filler and unsaturated polymerizable alkyd under conditions such that substantially no reaction takes place therebetween and substantially no polymerization of the alkyd takes place.

2,871,216

NATURAL AND SYNTHETIC RUBBER COMPOSITIONS CONTAINING BORON NITRIDE AND METHOD FOR PRODUCING SAME

Herbert R. Anderson, Jr., Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application August 31, 1956
Serial No. 607,275
8 Claims. (Cl. 260—41.5)

1. A composition of matter comprising an elastomer selected from the group consisting of natural rubber, homopolymers of conjugated dienes having from 4 to 8 carbon atoms per molecule and copolymers of such conjugated dienes with copolymerizable monomers containing a $CH_2{=}C<$ group, said elastomer being sulfur vulcanizable in its uncured state, and from 5 to 150 parts by weight of boron nitride per 100 parts of elastomer.

2,871,217

METHOD FOR THE REACTION OF POLYGLYCIDYL COMPOUNDS WITH ORGANIC POLYSULFIDES

John B. Howard, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 23, 1956, Serial No. 586,711
3 Claims. (Cl. 260—43)

1. The method of selectively catalyzing the copolymerization of a liquid polyepoxy compound, which is the product of the reaction between a diphenol and epichlorohydrin, and a liquid organic polysulfide polymer, formed by the polymerization of dichlorodiethylformal and trichloropropane in the presence of inorganic alkaline polysulfides and hydrosulfides, by use of at least one catalyst selected from the group consisting of thiuram sulfides, thiazyl sulfides and thio salts selected from the group consisting of metal thiuram and metal thiazyl salts wherein the said metal is selected from the group consisting of lead, selenium and zinc, and wherein said metal is attached to the said salt through a sulfur linkage, comprising mixing together the said polyepoxy compound, the said polysulfide polymer and the said catalyst in amounts such that there is present a substantially equal number of reactive epoxy groups and reactive hydrosulfide groups, the said catalyst being present in an amount of between 0.1 percent by weight and 10 percent by weight of the mixture, whereby a non-fluid gel results.

2,871,218

SIMULATED VULCANIZATES OF POLYURETHANE ELASTOMERS

Charles S. Schollenberger, Cuyahoga Falls, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application December 1, 1955
Serial No. 550,498
14 Claims. (Cl. 260—45.4)

1. A tough, essentially linear polyesterurethane elastomer characterized by being thermoplastic, extrudable, moldable, molten at elevated temperatures, substantially free of cross-links and substantially soluble in dimethyl formamide comprising the reaction product obtained by heating a mixture comprising as essential polyesterurethane forming ingredients (1) one mol of an essentially

linear hydroxyl terminated polyester of a saturated, aliphatic glycol having from 4 to 10 carbon atoms and having hydroxyl groups on its terminal carbon atoms and a material selected from the group consisting of a dicarboxylic acid of the formula HOOC—R—COOH where R is an alkylene radical containing from 2 to 8 carbon atoms and its anhydride, said polyester having an average molecular weight between 600 and 1200 and having an acid number less than 10, and (2) from about 1.1 to 3.1 mols of a diphenyl diisocyanate having an isocyanate group on each phenyl nucleus in the presence of (3) from about 0.1 to 2.1 mols of a saturated, aliphatic free glycol containing from 4 to 10 carbon atoms and having hydroxyl groups on its terminal carbon atoms, the molar amount of said polyester and said free glycol combined being essentially equivalent to the molar amount of said diphenyl diisocyanate whereby there are essentially no unreacted groups of the class consisting of isocyanate and hydroxyl groups in said reaction product.

2,871,219

SOLID POLYMERS OF EPICHLOROHYDRIN

Joseph M. Baggett, Freeport, and Malcolm E. Pruitt, Lake Jackson, Tex., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 11, 1955
Serial No. 500,653
14 Claims. (Cl. 260—45.95)

12. A solid homopolymer of epichlorohydrin having a melting point above 120° C. stabilized against decomposition by having incorporated therein approximately 0.5 to 2 percent of an antioxidant of the class consisting of phenols and aromatic amines.

2,871,220

STABILIZATION OF POLYOXYMETHYLENES WITH PHENOLS

Robert Neal MacDonald, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 21, 1956
Serial No. 623,553
7 Claims. (Cl. 260—45.95)

1. The thermally stabilized polyoxymethylene composition which comprises a normally solid, synthetic, high molecular weight polyoxymethylene selected from the group consisting of (1) polyoxymethylenes having a degree of toughness of at least 1, said degree of toughness of at least 1 being determined by the consecutive steps of compression-molding said polyoxymethylene into a film 3 to 7 mils in thickness, heating said film in air at 105° C. for 7 days, cooling said film to room temperature, and, while maintaining said film at room temperature, manually folding and creasing said film along a line, and manually folding and creasing said film in the reverse direction along the same line without a break occurring in the film along said line, and (2) polyoxymethylenes failing to exhibit a degree of toughness of at least 1, but having a reaction rate constant for thermal degradation at 222° C. of less than 1% by weight per minute, measured by thermally degrading said polyoxymethylene in a vessel open to the atmosphere; and 0.001%–10% by weight of said polyoxymethylene of a thermal stabilizing compound from the group consisting of phenol and substituted phenols having a pK at 25° C. of greater than 6.0 for every stage of dissociation of said substituted phenol; said thermally stabilized polyoxymethylene composition being characterized in that said composition exhibits a greater degree of thermal stability than does said poloxymethylene in the absence of said thermal stabilizing compound.

2,871,221

EPOXY RESINS CURED WITH DIANHYDRIDES OF TETRACARBOXYLIC ACIDS

Ridgley G. Shepherd, Jr., Weston, and Elizabeth C. Dearborn, Boston, Mass., assignors to United States Testing Company, Inc., Hoboken, N. J., a corporation of New York

No Drawing. Application June 8, 1954
Serial No. 435,355
7 Claims. (Cl. 260—47)

1. As novel products the resins resulting from the heat curing of (1) polyepoxy compounds selected from the group consisting of glycidyl ethers of polyhydric phenols and polyhydric aliphatic alcohols with (2) a dicarboxylic acid anhydride of the class consisting of maleic and phthalic anhydrides and (3) a small amount of 1,5-dimethyl-2,3,4,6,7,8-hexahydronaphthalene-3,4,7,8-tetracarboxylic acid dianhydride.

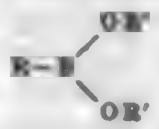
2,871,222

CATALYSTS FOR GLYCIDYL POLYETHERS AND PRODUCTS PRODUCED THEREBY

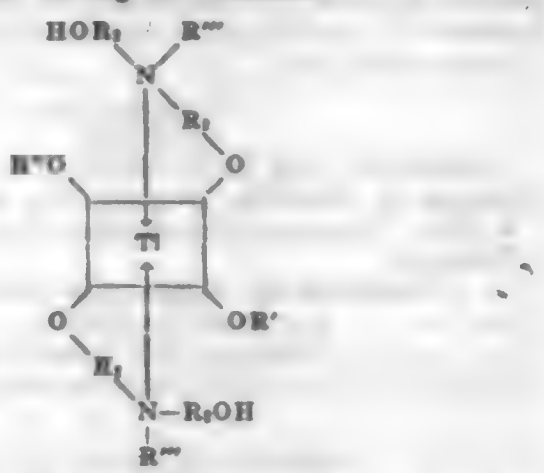
Arnold B. Finestone, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application April 18, 1957
Serial No. 653,514
7 Claims. (Cl. 260—47)

1. A composition of matter comprising (1) a reactive resinous glycidyl polyether derived from a dihydric phenol and an epihalohydrin, said polyether having an epoxy equivalency of greater than 1, and (2) a curing catalyst therefor comprising a mixture of (*a*) from 2% to 20% by weight, based on the weight of the polyether, of a least one boronate ester having the the formula



wherein R and R′ are selected from the group consisting of methyl, ethyl, propyl, isobutyl, isopropyl, butyl, isobutyl, cyclohexyl, benzyl, phenyl, and methyl-phenyl groups, and (*b*) from 2% to 15% by weight, based on the weight of the polyether, of at least one dialkylolamine-titanate ester having the formula



wherein R_2 is a bivalent alkylene radical and R′, R″, and R‴ are materials selected from the group consisting of hydrogen, methyl, ethyl, propyl, isobutyl, isopropyl, butyl, isobutyl, cyclohexyl, benzyl, phenyl, and methyl-phenyl groups.

2,871,223

POLYMERS, COPOLYMERS, AND PROCESSES FOR PREPARING THEM

Elmer M. Hankins and Sidney Melamed, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

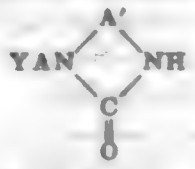
No Drawing. Application November 1, 1954
Serial No. 466,198
18 Claims. (Cl. 260—70)

1. A composition of matter comprising a condensation product, obtained at a pH above 7, of an amine, selected

from the group consisting of ethyleneimine, guanidine, morpholine, dimethylaminoethylamine, methoxyethylamine, pyrrolidine, piperidine, N-methylpiperazine, and primary and secondary monoamines in which the nitrogen atom is directly connected to at least one group selected from the group consisting of allyl, benzyl, cyclohexyl, alkyl groups having 1 to 8 carbon atoms, and hydroxyalkyl groups having 2 to 3 carbon atoms, with formaldehyde and an addition polymer of a ureido compound selected from the group consisting of those having the Formulas I, II, and III:

I $YANRCONH_2$

II $YANRCONHR'$

III 

in which Y is selected from the group consisting of $CH_2{:}CHO—$, $CH_2CR^2COO—$, and $CH_2CR^2CON(R^3)—$, R^2 being selected from the group consisting of hydrogen and methyl and R^3 being selected from the group consisting of hydrogen and methyl, A is selected from the group consisting of $—C_2H_4—$, $—CH(CH_3)CH_2—$, $—CH_2CH(CH_3)—$, and $—(CH_2)_3—$, A′ is selected from the group consisting of $—(CH_2)_2—$, $—CH_2CH(CH_3)—$, $—CH(CH_3)CH_2—$, and $(CH_2)_3$, R is selected from the group consisting of H, methyl, and ethyl, and R′ is selected from the group consisting of methyl and ethyl, the molar ratio of formaldehyde to ureido groups being from 1:1 to 5:1 and the molar ratio of amine to ureido groups being from 0.2:1 to 2.5:1.

2,871,224

AROMATIC AMINE ALDEHYDE PERCHLORATE RESINS

Richard D. Cadle, Palo Alto, Calif., and Ross W. Moshier, Miamisburg, Ohio

No Drawing. Application December 22, 1949
Serial No. 134,593
2 Claims. (Cl. 260—72.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. Propellant compositions comprising the condensation product of aniline and formaldehyde with perchloric acid, in which the perchlorate groups are present to the extent of more than 5%.

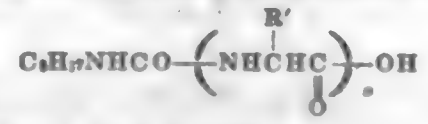
2,871,225

METHOD FOR PREPARING POLYPEPTIDES

Newman M. Bortnick, Oreland, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application June 3, 1954
Serial No. 434,318
8 Claims. (Cl. 260—77.5)

1. A method for preparing polypeptides of the formula



from compounds of the formula



in which said C_8H_{17} has a tertiary carbon atom attached to the urea nitrogen, R′ is a member of the class consisting of hydrogen, an alkyl group of one to eleven carbon atoms, and an arylalkyl group of seven to eleven carbon atoms, and *x* is an integer of 2 to 100, which comprises heating at a reacting temperature said



in the range of 175 to 250° C. at pressures less than atmospheric down to 1 mm. until distillation ceases and obtaining said polypeptides in the residue.

2,871,226

ELASTOMERIC CONDENSATION PRODUCTS PREPARED FROM POLYETHER GLYCOLS

Herbert F. McShane, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 24, 1955
Serial No. 496,685
8 Claims. (Cl. 260—77.5)

1. In the process for the preparation of curable elastomeric condensation products comprising reacting a polyether glycol having a molecular weight of about 750 to 2,500 with an organic diisocyanate in which the isocyanate groups are the sole reactive functional groups thereof in a molar ratio of greater than 1:1 and not more than 2:1, the resulting polyurethane having a molecular weight of not greater than 5,000 and being characterized by having terminal hydroxyl groups; adjusting the water content of the said polyurethane product to about 0.05 to 0.35 mol of water per mol of polyurethane product; reacting said polyurethane glycol/water mixture with an organic diisocyanate in which the isocyanate groups are the sole reactive functional groups thereof, in a molar ratio of diisocyanate to polyurethane glycol/water mixture of about 1.6:1, so as to produce an isocyanate-terminated polymer; and reacting said isocyanate-terminated polymer with a chain-extending agent having no more than two atoms bearing available active hydrogen said chain-extending agent being selected from the group consisting of water and organic compounds containing two active hydrogen containing groups in the molecule, said active hydrogen containing groups being reactable with isocyanate groups; the improvement comprising adding the said organic diisocyanate to said polyurethane glycol/water mixture in two separate increments, the first of said increments being added in a molar ratio of diisocyanate to polyurethane glycol/water mixture of about 1.1:1 to 1.5:1 so as to produce a polymer characterized by having terminal isocyanate groups and the second of said increments being added after complete reaction of available active hydrogen in said polyurethane glycol/water mixture with said first increment.

2,871,227

ELASTOMERIC CONDENSATION PRODUCTS PREPARED FROM POLYETHER GLYCOLS

Henry C. Walter, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 24, 1955
Serial No. 496,687
8 Claims. (Cl. 260—77.5)

1. A process for the preparation of curable elastomeric condensation products which comprises reacting a polyether glycol having a molecular weight of about 750 to 2,500 with an organic diisocyanate in which the isocyanate groups are the sole reactive functional groups thereof in a molar ratio of greater than 1:1 and not more than 2:1, the resulting polyurethane having a molecular weight of not greater than 5,000 and being characterized by having terminal hydroxyl groups; adjusting the water content of the said polyurethane product to about 0.05 to 0.35 mol of water per mol of polyurethane product; reacting said polyurethane glycol/water mixture with an organic diisocyanate in which the isocyanate groups are the sole reactive functional groups thereof, said diisocyanate being in excess over the theoretical amount required for reaction with said polyurethane glycol/water mixture so as to produce a polymer characterized by having terminal isocyanate groups; and reacting said isocyanate-terminated polymer with a chain-extending agent having no more than two atoms bearing available active hydrogen, said chain-extending agent being selected from the group consisting of water and

organic compounds containing two active hydrogen containing groups in the molecule, said active hydrogen containing groups being reactable with isocyanate groups.

2,871,228

WITHDRAWN

2,871,229

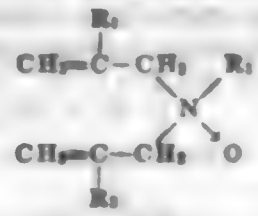
COPOLYMERS OF A DIALKYL AMINE OXIDE AND A MONOVINYLIDENE COMPOUND AND ORIENTED FIBER THEREOF

John A. Price, Swarthmore, Pa., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 1, 1956
Serial No. 612,981

12 Claims. (Cl. 260—85.5)

1. A composition comprising a linear copolymeric reaction product of a mixture of copolymerizable ingredients including (1) a bis ethylenically unsaturated compound represented by the general formula



where R_1 and R_2 each represents a member of the class consisting of hydrogen and the methyl radical, and R_3 represents a radical of the class consisting of saturated aliphatic hydrocarbon radicals, said radicals having from 1 to 18 carbon atoms in the saturated aliphatic hydrocarbon grouping thereof, and aromatic hydrocarbon radicals, and (2) a monoethylenically unsaturated compound which is copolymerizable with the compound of (1) and which contains a single $CH_2=C<$ grouping, the ingredients of (1) and (2) being present in the aforementioned mixture in the ratio of from 0.1 to 40 molar percent of the former to from 99.9 to 60 molar percent of the latter.

2,871,230

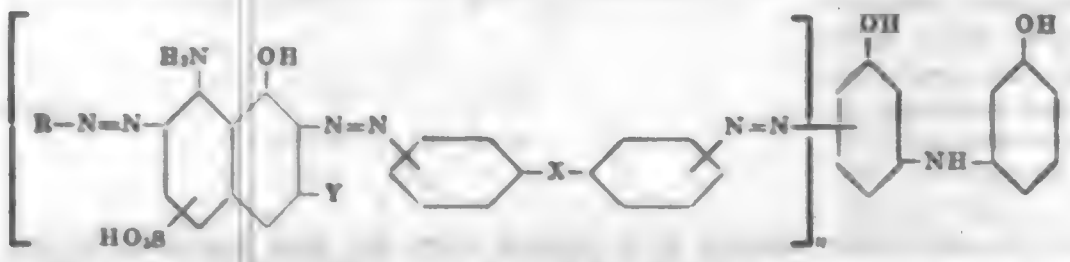
POLYAZO-DYESTUFFS

Richard Huss, Arthur Siebert, and Josef Weinert, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Original application May 21, 1954, Serial No. 431,595, now Patent No. 2,777,838, dated January 15, 1957. Divided and this application November 28, 1956, Serial No. 623,300

6 Claims. (Cl. 260—144)

1. Polyazo-dyestuffs corresponding to the following general formula



wherein R represents an aromatic radical selected from the group consisting of radicals of the benzene and naphthalene series, X stands for one of the group consisting of the diphenyl bond, —CH=CH—, —NH—CO—NH—, —CO—, —O—, —S—, —NH— and —CONH—, Y stands for a member of the group consisting of hydrogen and the sulfonic acid group, n stands for one of the numbers 1 and 2, and wherein the dyestuff molecule contains at least two sulfonic acid groups.

2,871,231

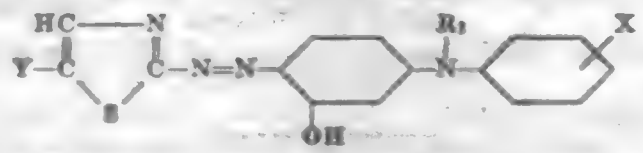
THIAZOLEAZODIPHENYLAMINE COMPOUNDS

James M. Straley, David J. Wallace, and John G. Fisher, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application December 29, 1955
Serial No. 556,032

8 Claims. (Cl. 260—146)

1. A complex metal compound which contains a metal selected from the group consisting of chromium, cobalt, copper, iron, manganese, nickel and vanadium in complex combination with a monoazo compound which has the formula:



wherein R_3 represents a member selected from the group consisting of a hydrogen atom, a methyl group, a β-hydroxyethyl group and a β-cyanoethyl group, X represents a member selected from the group consisting of a hydrogen atom, a methyl group, a methoxy group and a chlorine atom and Y represents a member selected from the group consisting of a hydrogen atom, a methyl group and a nitro group.

2,871,232

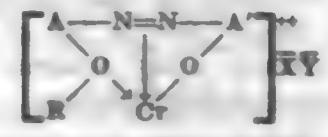
CHROMIC SALTS OF o-ALKOXY-o'-HYDROXY MONOAZO COMPOUNDS

Ernest Csendes, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 7, 1956
Serial No. 589,864

5 Claims. (Cl. 260—147)

1. Compounds of the formula



wherein R represents an alkyl radical of not over 6 C-atoms, A' represents an azo component of the group consisting of unsubstituted and substituted benzene, naphthalene, 1-phenyl-3-methyl-5-pyrazolone and 1-naphthyl-3-methyl-5-pyrazolone nuclei, whose substituents are selected from the group consisting of alkyl of not over 6 C-atoms, Cl, Br, F, NO_2, SO_2NH_2, SO_2NHR, SO_2NRR, SO_2R, $CONH_2$, CONHR, COR, OR, NHCOR, and NHCONHR, R in each instance being an alkyl group having less than 7 carbon atoms, A represents an azo component of the same group but excluding the aryl-methyl-pyrazolones, and wherein X and Y are anions selected from the group consisting of Cl, Br, F, SO_4, acetate, formate, tartrate, lactate and salicylate.

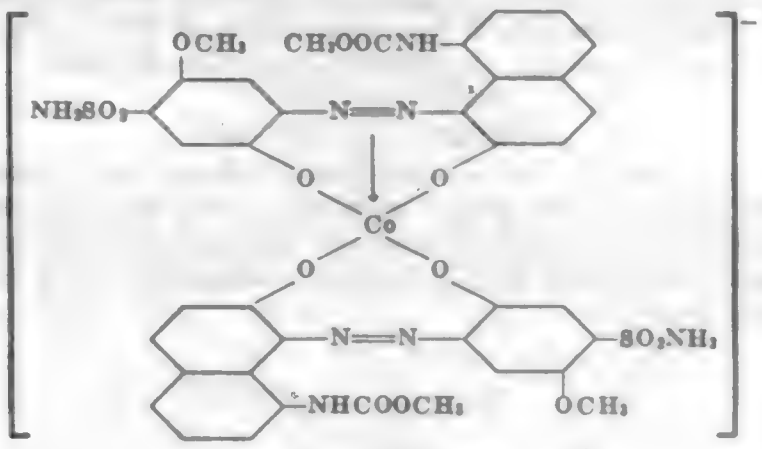
2,871,233

COBALT CONTAINING AZO DYESTUFFS

Helmut Pfitzner and Otto Kaufmann, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application June 14, 1955
Serial No. 515,554
Claims priority, application Germany June 16, 1954
1 Claim. (Cl. 260—151)

A complex cobalt-containing azo dyestuff having in its anionic form the formula



2,871,234

ANTHRAQUINONE AZOIC PIGMENTS

Herman A. Bergstrom, Londonville, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application October 16, 1956
Serial No. 616,135
8 Claims. (Cl. 260—162)

1. In the process of producing anthraquinone azoic pigments, wherein a water-soluble leuco sulfuric acid ester of an anthraquinone azoic dyestuff, free of water-solubilizing groups other than leuco sulfuric acid ester groups obtained by coupling a diazotized leuco sulfuric acid ester of an aminoanthraquinone free of water-solubilizing groups other than the leuco sulfuric acid ester groups with an azoic coupler which is free of water-solubilizing groups, is subjected, in an aqueous medium, to the action of an oxidizing agent; the improvement which comprises carrying out said oxidizing step in the presence of from about 0.001 to 5% of the total weight of the aqueous mixture being oxidized of a water-soluble polymer of N-vinyl-α-pyrrolidone.

2,871,235

PROCESS FOR OBTAINING POLYSACCHARIDE MATERIAL FROM PLANTS OF THE GENUS "CECROPIA"

Vladimir Jan Hlousek de Jilovice, Rio de Janeiro, Brazil

No Drawing. Application August 12, 1953
Serial No. 373,881
Claims priority, application Brazil August 29, 1952
17 Claims. (Cl. 260—209)

1. The process of obtaining a polysaccharide material from parts of plants of the genus Cecropia, which comprises extracting the same after it has been protected against the noxious action of enzymes and oxydases by diffusion at an elevated temperature not exceeding 100° C. in a medium consisting of a liquid selected from the group consisting of water and a weakly acidic aqueous solution, filtering the extract, precipitating the saccharide material from the filtrate by the addition of concentrated ethyl alcohol and finally drying the polysaccharide precipitate.

2,871,236

POLYURONIC ACID CHOLINE-METAL SALTS

Edwin F. Bryant, Corona, Calif., assignor to Sunkist Growers, Inc., Los Angeles, Calif., a corporation of California

No Drawing. Application May 14, 1956
Serial No. 584,417
9 Claims. (Cl. 260—209)

8. A process for preparing a polyuronic acid metal salt of a choline base which comprises reacting with agitation a mixture of an aqueous suspension of a polyuronic acid and choline, adding to said reacted aqueous solution a metal salt with agitation to obtain an amorphous precipitate, separating the resulting liquor from said amorphous precipitate, washing said precipitate with alcohol and drying said precipitate.

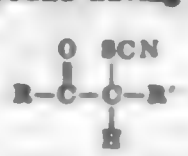
2,871,237

2-IMINO-3-SUBSTITUTED-1,3,4,6H-THIADIAZINES AND METHODS FOR THEIR PREPARATION

James T. Gregory, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corperation of New York

No Drawing. Application September 22, 1955
Serial No. 536,026
9 Claims. (Cl. 260—243)

1. The method of preparing a 2-imino-3-substituted-1,3,4,6H thiadiazine comprining reacting an alpha thiocyano carbonyl compound having the structure



in which R is selected from the class consisting of hydrogen alkyl having from 1 to 5 carbon atoms, lower alkyl, lower alkaryl, phenyl, naphthyl, and cyclohexyl lower alkyl and R' is selected from the class consisting of hydrogen, lower alkyl and phenyl radicals, with a hydrazine having the structure

$$R''—NHNH_2$$

in which R is selected from the class consisting of hydrogen alkyl having from 1 to 5 carbon atoms, lower alkyl, lower alkaryl, phenyl, naphthyl, and cyclohexyl lower alkyl and R' is selected from the class consisting rine, bromine, fluorine, and lower alkyl radicals, at a temperature from room temperature up to about 200° C. under acid conditions for a time sufficient to cause ring closure and formation of said 2-imino-3-substituted-1,3,4,6H thiadiazines.

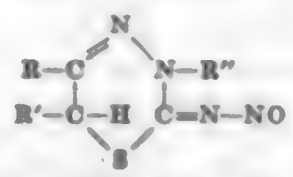
2,871,238

2-NITROSOIMINO-1,3,4,6H THIADIAZINES AND METHODS FOR THEIR PREPARATION

James T. Gregory, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corperation of New York

No Drawing. Application February 2, 1956
Serial No. 562,938
12 Claims. (Cl. 260—243)

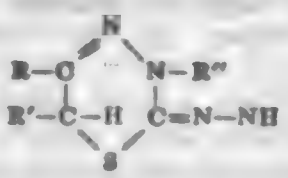
1. Compounds having the structure



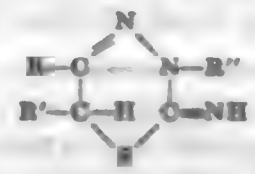
wherein R is selected from the class consisting of hydrogen, alkyl having from 1 to 12 carbon atoms, cyclohexyl substituted lower alkyl and aromatic hydrocarbon radicals having from 6 to 12 carbon atoms, R' is selected

from the class consisting of hydrogen, lower alkyl and phenyl radicals and R″ is selected from the class consisting of lower alkyl, phenyl, halophenyl, nitrophenyl and lower alkyl substituted phenyl radicals.

7. A method for preparing a 2-nitrosoimino compound of the structure



in which R is selected from the class consisting of hydrogen, alkyl having from 1 to 12 carbon atoms, cyclohexyl substituted lower alkyl, and aromatic hydrocarbon radicals having from 6 to 12 carbon atoms, R′ is selected from the class consisting of hydrogen, lower alkyl and phenyl radicals and R″ is selected from the class consisting of lower alkyl, phenyl, halophenyl, nitrophenyl and lower alkyl substituted phenyl radicals comprising, reacting a compound of the structure



wherein R, R′ and R″ each has the same designation as above with nitrous acid.

2,871,239

2-(2,6-DIMETHYL-4-MORPHOLINYLMERCAPTO)-BENZOTHIAZOLES

John J. D'Amico, Charleston, W. Va., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 27, 1955
Serial No. 555,296
4 Claims. (Cl. 260—247.1)

1. A 2-(2,6-dimethyl-4-morpholinylmercapto)benzothiazole wherein the benzothiazole substituent is selected from the group consisting of unsubstituted benzothiazole, chloro substituted benzothiazole and lower alkyl substituted benzothiazole.

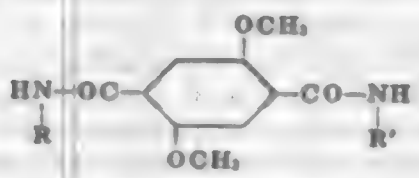
2,871,240

DYESTUFFS DERIVED FROM 2,5-DIMETHOXY-TEREPHTHALOYL CHLORIDE AND AMINO 1,9-ANTHRAPYRIMIDINE

David I. Randall, New Vernon, N. J., and Nicholas W. Solonen, Ambler, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Original application December 31, 1951, Serial No. 264,346. Divided and this application February 17, 1956, Serial No. 566,092
6 Claims. (Cl. 260—256.4)

1. Vat dyestuffs of the formula



wherein



represents a member of the group consisting of aminoanthraquinone and amino 1,9 anthrapyrimidine radicals, and R′ represents an amino 1,9 anthrapyrimidine radical.

2,871,241

(N-ALKYL-4-PIPERIDONE)-HYDRAZONES

Ernst Jucker, Binningen, Basel Land, Erwin Rissi, Basel, Rudolf Sneen, Rheinfelden, Arnold Vogel, Basel, and Eberhard Wolff, Riehen, near Basel, Switzerland, assignors to Sandor Ltd., Basel, Switzerland, a Swiss firm

No Drawing. Application December 18, 1957
Serial No. 701,718
Claims priority, application Switzerland December 13, 1956
4 Claims. (Cl. 260—294)

1. A compound selected from the group consisting of (N-alkyl-4-piperidone)-nicotinoyl-hydrazone, (N-alkyl-4-piperidone)-isonicotinoyl-hydrazone, and the non-toxic salts of these hydrazones with acids, the alkyl group being a lower alkyl of no more than two carbon atoms.

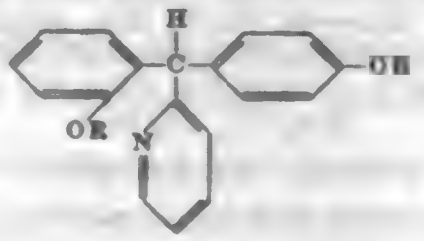
2,871,242

PROCESS FOR THE PRODUCTION OF DIOXYDIPHENYL-PYRIDYL-METHANES

Ernst Seeger and August Kottler, Biberach (Riss), Germany, assignors to Dr. Karl Thomae G. m. b. H., Biberach (Riss), Germany, a corporation of Germany

No Drawing. Application March 21, 1956
Serial No. 572,836
Claims priority, application Germany March 22, 1955
5 Claims. (Cl. 260—295)

3. Asymmetrically substituted diphenyl-(pyridyl-2)-methane compounds having the structural formula



wherein R is selected from the group consisting of hydrogen and lower alkanoyl.

2,871,243

5-AMINO-3-METHYL-ISOTHIAZOLE AND PROCESS

Arthur Adams, Essex, and Ronald Slack, London, England, assignors to May & Baker Limited, Dagenham, England, a British company

No Drawing. Application October 21, 1957
Serial No. 691,162
Claims priority, application Great Britain October 26, 1956
2 Claims. (Cl. 260—306.8)

1. 5-amino-3-methylisothiazole.

2,871,244

PROCESS FOR THE MANUFACTURE OF ANTHRAQUINONE AND DERIVATIVES THEREOF

Jonas Kamlet, New York, N. Y., assignor to Reynolds Metals Company, Richmond, Va., a corporation of Delaware

No Drawing. Application June 24, 1955
Serial No. 517,911
2 Claims. (Cl. 260—369)

1. In a process for the manufacture of anthraquinone compounds wherein an aluminum salt of an aroylarylcarboxylic acid is converted to the corresponding aroylarylcarboxylic acid and the said aroylarylcarboxylic acid is cyclized with sulfuric acid, the step which comprises reacting with phthalic anhydride the complexes formed by the reaction of metallic aluminum with a hydrogen halide from the group consisting of hydrogen chloride and hydrogen bromide, and with an aromatic compound of the general formula:



where A, B, C and D are members of the group con-

sisting of hydrogen, lower alkyl substituents, chlorine and bromine and at least two of said members are hydrogen, to form the aluminum salt of the corresponding aroyl-arylcarboxylic acid.

2,871,245

NEW 1-DEHYDRO-TESTOSTERONES AND ESTERS THEREOF

Albert Wettstein and Ernst Vischer, Basel, Charles Meystre, Arlesheim, and Ludwig Ehmann, Basel, Switzerland, assignors to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application June 18, 1957
Serial No. 666,460

Claims priority, application Switzerland June 19, 1956

4 Claims. (Cl. 260—397.4)

1. A member selected from the group consisting of a 1-dehydro-testosterone substituted in 17α-position with an alkenyl radical of two to four carbon atoms and an ester thereof.

2,871,246

PROCESS FOR 3-HYDROXY-6-ALKYL-5,16-PREGNADIEN-20-ONES AND ESTERS THEREOF

Bjarte Löken, Roosevelt, Puerto Rico, assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application May 28, 1958
Serial No. 738,305

5 Claims. (Cl. 260—397.4)

1. The process for the preparation of a member of the class consisting of 3β-hydroxy-6-methyl-5,16-pregnadien-20-ones and their 3-acylates wherein the 3-acyl group is derived from a lower alkanoic acid of less than 7 carbon atoms, which comprises contacting a 3-acyloxy-26-acetoxy-6-methyl-5,20(22)-furostadiene in which the acyl group is derived from a lower alkanoic acid of less than 7 carbon atoms with a chromium trioxide-acetic acid medium containing therein from 15–60% by volume of a chloroalkane of one to three carbon atoms, thereafter contacting the resulting 3-acyloxy-16-(δ-acetoxy-γ-methylpentanoyloxy)-5-pregnen-20-one with a solution of at least 3 mols of alkali in aqueous acetone at a temperature in the range of 20° C. to about 65° C.

2,871,247

PROCESS FOR PRODUCING AMINO-ESTERS

Marius Séon, Paris, and Georges Wetroff and Jean Leleu, Aubervilliers, France, assignors to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques, Paris, France, a corporation of France

No Drawing. Application March 29, 1954
Serial No. 419,614

Claims priority, application France April 2, 1953

6 Claims. (Cl. 260—484)

1. A process for the preparation of omega aminoacid esters from nitrilo-carboxylic acids having a straight saturated carbon chain of 7 to 10 carbon atoms which comprises, esterifying the nitrilo-carboxylic acid by reacting the same with a lower molecular alkanol thereby forming a nitrilo-carboxylic acid ester, hydrogenating said ester by reacting the same during heating with hydrogen under pressure in the presence of a hydrogenation catalyst and of ammonia and also in the presence of a lower molecular alkanol in a quantity not substantially less than two times greater than the amount of the nitrilo ester employed which suppresses side reactions, and collecting the aminoacid ester formed.

2,871,248

GLYCOL DIESTERS

Earl V. Kirkland, Le Marque, and Irvin H. Lutz, Texas City, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas

No Drawing. Application October 31, 1955
Serial No. 544,086

5 Claims. (Cl. 260—410.6)

1. As compositions of matter, glycol diesters which are produced by esterifying a glycol selected from the group consisting of triethylene glycol, diethylene glycol, ethylene glycol, and mixtures thereof with a mixture of straight and branched chain aliphatic mono-carboxylic acids containing between about 10% and 60% of straight chain acids and between about 90% and 40% of branched chain acids which mixture of acids is produced in the hydrogenation of carbon monoxide in the presence of an iron-type catalyst at a temperature between about 450° and 750° F. and a pressure between about 100 and 700 p. s. i. g., said mixture of straight chain and branched chain acids being selected from those acids which contain from 7 to 20 carbon atoms per molecule, and said mixture of acids having been hydrogenated to reduce its unsaturation prior to esterification with said glycol.

2,871,249

WORKING UP OF DISTILLATION FRACTIONS CONTAINING ALCOHOLS AND HYDROCARBONS

Karl Büchner, Duisburg-Hamborn, and Heinrich Schwarz, Oberhausen-Sterkrade, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany

No Drawing. Application March 31, 1954
Serial No. 420,184

Claims priority, application Germany April 15, 1953

7 Claims. (Cl. 260—413)

1. Process for the treatment of an intermediate fraction of alcohols and hydrocarbons obtained in the processing of higher alcohol mixtures produced from olefin mixtures in accordance with the oxo-synthesis which comprises contacting such an intermediate fraction with an amount of caustic alkali at least substantially corresponding to the hydroxyl number of the intermediate fraction contacting being effected at a temperature of about 250–350° C. and at an increased pressure, distilling off hydrocarbons from the melt formed by the alkali reaction, said distillation being at least partially effected at a reduced pressure, thereafter mixing an amount of water with the melt formed sufficient to form a pasty soap, decomposing the soap with a mineral acid and recovering the fatty acid produced.

2,871,250

METHOD FOR CONTINUOUS MULTISTAGE COUNTERCURRENT CONTACTING OF LIQUIDS WITH VAPORS

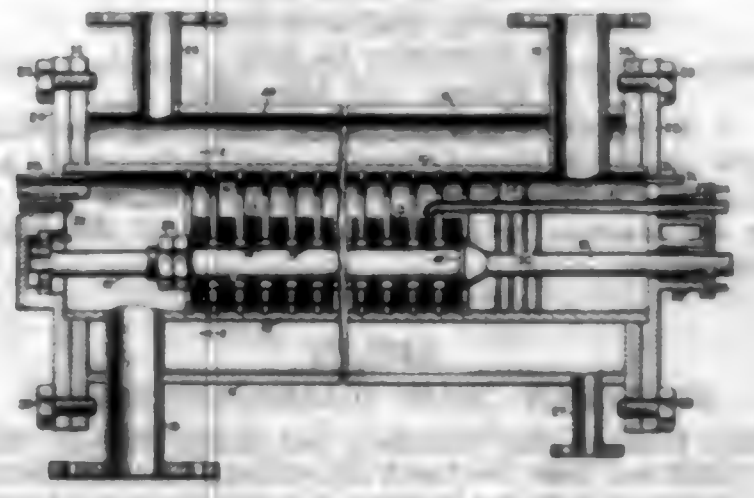
Eddy W. Eckey, Wyoming, Ohio

Application August 12, 1955, Serial No. 528,102

12 Claims. (Cl. 260—428.5)

1. A vapor-liquid contacting process which comprises passing vapors continuously through an elongated, substantially straight vapor-liquid contacting zone having an axis disposed at no more than a small angle from the horizontal wherein continuous interchange of components occurs between the vapors and a series of transverse sprays of liquid droplets, said vapors passing through said zone in an essentially straight through flow, introducing a viscous liquid continuously into a zone below and parallel to said vapor-liquid contacting zone, conducting the liquid through a series of liquid stages at least ten in number in a general direction counter to the direct ion of flow of the vapors in said contacting zone, mixing the liquid as it enters each stage with the liquid in that stage, withdraw-

ing the liquid from each stage and discharging it as droplets across said vapor-liquid contacting zone in a direction substantially normal to said axis, thereby effecting intimate contact between said vapor and said droplets, returning the liquid by gravity to the same stage and repeating said withdrawal and discharge at least once be-



fore the liquid progresses to an adjacent downstream stage, the aggregate volume of liquid withdrawn from the several stages and discharged across said contacting zone being at least fifty times the volume of liquid entering the process, and withdrawing liquid from one end of said contacting zone and vapor from the other.

2,871,251

PROCESS FOR THE SEPARATION OF HEAVY METALS

John W. Gofman and Robert E. Connick, Berkeley, Calif., and Arthur C. Wahl, Los Alamos, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application November 30, 1944, Serial No. 565,989

10 Claims. (Cl. 260—429.1)



10. A method of separating plutonium from uranium where the plutonium is present in very low concentrations comprising forming an aqueous nitric acid solution thereof, reducing the plutonium to a valence state not greater than +4, contacting the solution with an alkali metal acetate to form insoluble alkali metal uranyl acetate, separating the alkali metal uranyl acetate from the solution, oxidizing the plutonium to the +6 valence state, adding uranium nitrate to the solution, the amount of uranium added being much less than that precipitated from the solution in the preceding stage, contacting the solution with an alkali metal acetate to form insoluble alkali metal uranyl acetate and alkali metal plutonyl acetate, separating these acetates from the solution, reducing the plutonium to a valence state not greater than +4, contacting the solution with an alkali metal acetate whereby the uranium is precipitated as insoluble alkali metal uranyl acetate, and separating the alkali metal uranyl acetate.

2,871,252

PREPARATION OF ORGANO MERCURIC HYDROXIDES

Harold F. Walton and Thomas D. Waugh, Boulder, Colo., assignors, by mesne assignments, to Morton Chemical Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application July 6, 1954 Serial No. 441,684

16 Claims. (Cl. 260—431)

1. A process for producing lower alkyl mercuric hydroxides comprising contacting a material selected from the group consisting of lower alkyl mercuric chlorides, lower alkyl mercuric bromides and lower alkyl mercuric iodides in a solvent therefor selected from the group consisting of water, i-propyl alcohol and ethylene glycol monoethyl ether with an anion exchange resin of high basicity and in hydroxyl form and separating the solvent, containing the lower alkyl mercuric hydroxide produced, from said resin.

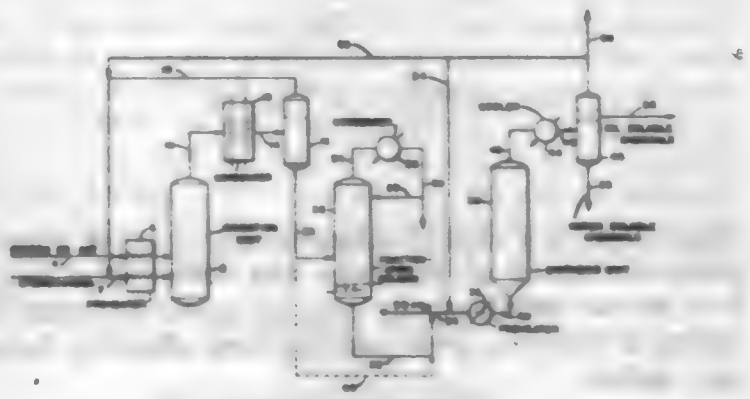
2,871,253

ADDITION OF PARTIAL OXIDATION PRODUCT TO HYDROCARBON SYNTHESIS

John E. Swearingen, Glenview, Ill., assignor to Pan American Petroleum Corporation, a corporation of Delaware

Application March 7, 1955, Serial No. 492,445

5 Claims. (Cl. 260—449.6)



1. In a process for effecting the synthesis of hydrocarbons by the reaction of carbon monoxide with hydrogen in a synthesis zone at temperatures of from about 600° to about 650° F. and under other known conditions including the use of an alkali promoted iron hydrocarbon synthesis catalyst, the improvement which comprises first effecting the partial oxidation of a light hydrocarbon, recovering an aqueous product containing alcohols and carbonyl compounds as a result of said partial oxidation, subjecting said product to distillation up to a temperature of about 190° to 195° F. to obtain an aqueous bottoms fraction comprising essentially formaldehyde and water-soluble aliphatic acids, mixing said bottoms with carbon monoxide and hydrogen in an amount sufficient to give a concentration of from about 0.25 to about 5.0 mol percent in the total synthesis feed, said carbon monoxide and hydrogen being present in the resulting mixture in synthesis proportions, continuously injecting said resulting mixture in the vapor phase into a hydrocarbon synthesis zone in the presence of a fluidized bed of an iron hydrocarbon synthesis catalyst under synthesis conditions and recovering from said zone a product mixture comprising hydrocarbons, water and oxygenated organic compounds, including alcohols.

2,871,254

OLEFINS FROM CAT-CRACKED CYCLE OIL

Han Hoog and Albert Schaafsma, The Hague, Netherlands, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application October 20, 1955
Serial No. 541,826
11 Claims. (Cl. 260—460)

1. Process for producing olefins suitable for conversion to detergent alkylate, comprising the steps of catalytically cracking a petroleum oil including a substantial proportion of components boiling above 300° C., fractionating the cracked products, recovering a fraction boiling above 300° C., selectively removing aromatic compounds solely from said fraction to produce an oil boiling above 350° C. and containing no more than 5% by weight of aromatics, thermally cracking solely said latter oil in vapor phase to produce a product comprising said olefins and recovering therefrom, by distillation, at least one fraction containing a high concentration of olefins having carbon numbers in the range from 8 to 18 and boiling in the range up to 350° C.

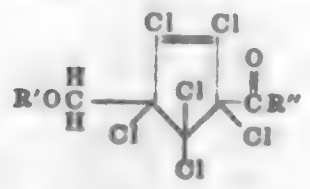
2,871,255

1,2,3,4,5,5-HEXACHLORO-4-HYDROXYMETHYL-CYCLOPENT-2-ENE CARBOXYLIC ACID DERIVATIVES

Hyman M. Molotsky and Edward G. Ballweber, Chicago, Ill., assignors to Velsicol Chemical Corporation, Chicago, Ill., a corporation of Illinois

No Drawing. Application January 8, 1957
Serial No. 632,972
6 Claims. (Cl. 260—468)

1.



wherein R' is a radical independently selected from the group consisting of hydrogen and lower alkyl and R'' is a radical independently selected from the group consisting of hydroxy, lower alkoxy, lower alkenoxy, halogen and amine.

2,871,256

METHOD OF PREPARING TEREPHTHALIC ACID ESTERS FROM α,α,α,α',α',α'-HEXACHLORO-p-XYLENE

Owen D. Ivins and James D. Head, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 2, 1956
Serial No. 568,984
8 Claims. (Cl. 260—475)

1. The method of making a diester of terephthalic acid which comprises reacting a mixture of α,α,α,α',α',α'-hexachloro-para-xylene and a monohydric aliphatic primary alcohol having 1 to 6 carbon atoms in a molar ratio of 9 to 30 moles of the alcohol per mole of the said hexachloro-para-xylene, in admixture with from 10 to 30 percent by weight based upon said hexachloro-para-xylene, of a Friedel-Crafts catalyst selected from the group consisting of sulfuric acid, aromatic sulfonic acids, and chlorides and bromides of zinc, iron, mercury, cadmium, cobalt, tin and nickel, by heating said mixture under reflux at a temperature between 60° and 145° C.

2,871,257

PRODUCTION OF ACID CHLORIDES

Richard Norman Lacey, Hull, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company

No Drawing. Application September 7, 1954
Serial No. 454,635
Claims priority, application Great Britain September 16, 1953
7 Claims. (Cl. 260—480)

1. A process which comprises interacting acetylsalicylic acid with thionyl chloride under substantially anhydrous conditions and at a temperature below 100° C. in the presence in the reaction mixture of aluminium trichloride.

2,871,258

BRANCHED CHAIN DIAMMONIO ESTERS

John Hidalgo, San Francisco, and Arthur Rodney Williams and Isaac Frederick Halverstadt, Berkeley, Calif., assignors to Cutter Laboratories, Inc., Berkeley, Calif., a corporation of California

No Drawing. Application October 14, 1954
Serial No. 462,401
8 Claims. (Cl. 260—482)

1. A compound having the formula:



wherein R, R', R'', R_1, R_1' and R_1'' are lower-alkyl groups containing up to six carbon atoms, *n* and *m* are integers from one to six, inclusive, at least one of the alkylene groups selected from the group consisting of $-C_nH_{2n}-$ and $-C_mH_{2m}-$ representing a branched chain alkylene group, and the anions are non-toxic anions.

2,871,259

METHOD OF PRODUCING CARBAMATE ESTERS

Joseph Levy, Paramus, N. J., assignor to The Trubek Laboratories, East Rutherford, N. J., a corporation of New Jersey

No Drawing. Application December 10, 1956
Serial No. 627,998
10 Claims. (Cl. 260—482)

1. The method of producing lower alkyl carbamate esters which comprises heating urea and a lower aliphatic alcohol under pressure to a temperature between about 130° C. and 180° C. in the presence of a substantially stable solvent for the urea which has a higher boiling point than the carbamate ester, and distilling off the carbamate ester produced from the unreacted urea and solvent remaining in the reaction mixture.

2,871,260

TETRAFLUOROADIPIC ACIDS AND DERIVATIVES

John J. Drysdale, Clifton Park Manor, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 13, 1956
Serial No. 577,917
8 Claims. (Cl. 260—485)

1. A tetrafluoroadipic acid, $C_6H_8O_4F_4$, having two fluorines on each of two adjacent carbon atoms in the carbon chain joining the two carboxyl groups.

8. Diethyl 3,3,4,4-tetrafluoroadipate.

2,871,261

ESTERS OF VITAMIN A

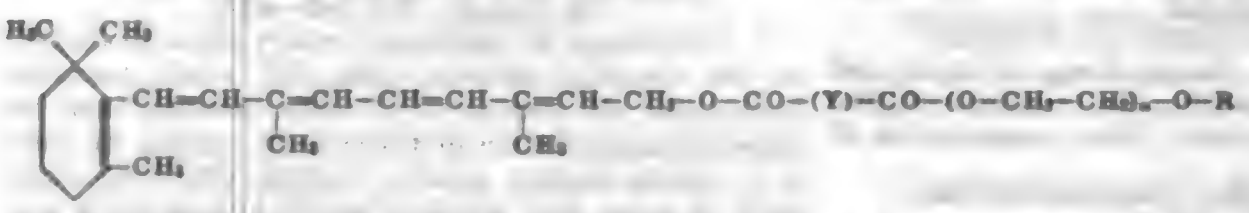
Heinrich Kühl, Riehen, near Basel, Switzerland, assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application January 9, 1957
Serial No. 633,181

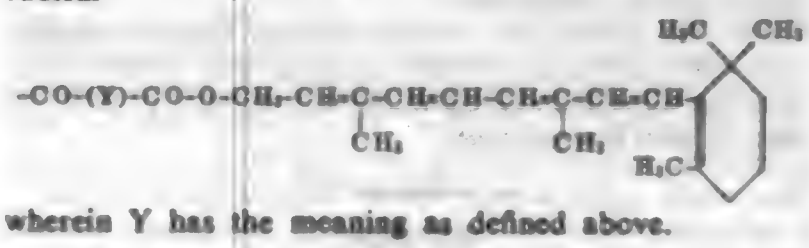
Claims priority, application Switzerland January 16, 1956

6 Claims. (Cl. 260—485)

1. A compound having the general formula



wherein Y represents a divalent alkylene radical containing from 2 to 3 carbon atoms, n represents a number from about 4 to about 45, and R represents a member selected from the group consisting of lower alkyl and the radical



wherein Y has the meaning as defined above.

2,871,262

SYNTHESIS OF ALPHA-METHYLENE CARBOXYLIC ACID ESTERS FROM ALLENE, CARBON MONOXIDE, AND AN ALCOHOL WITH IRON OR RUTHENIUM CARBONYL CATALYSTS

Richard E. Benson, Claymont, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 16, 1956
Serial No. 622,526

10 Claims. (Cl. 260—486)

1. Process for preparing esters of alpha-methylene carboxylic acids which comprises reacting allene and a monohydric alcohol selected from the class consisting of alkanols and cycloalkanols with carbon monoxide under a pressure of at least 100 atmospheres at a temperature of 120 to 250° C. and in contact with a metal carbonyl catalyst selected from the class consisting of iron carbonyls and ruthenium carbonyls.

2,871,263

PHOSPHONIC DIHALIDES

James N. Short, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application April 26, 1954
Serial No. 425,769

6 Claims. (Cl. 260—543)

1. The method of preparing a mixture of isomeric haloalkenephosphonic dihalides wherein the halogen atoms are selected from the group consisting of chlorine and bromine which comprises reacting 1,3-butadiene with a phosphorus pentahalide to form a mixture of corresponding isomeric haloalkenephosphorus tetrahalides, reacting said tetrahalides at a temperature maintained within the range of 0 to 40° C. with a substantially equivalent quantity of an organic carboxylic acid to form said dihalides, and recovering said dihalides.

2,871,264

TETRACYCLINE EXTRACTIONS

Pasquale P. Minieri, Brooklyn, N. Y., and William H. Ziegler, Clementon, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 28, 1955
Serial No. 497,454
2 Claims. (Cl. 260—559)

1. The process of decomposing a quaternary ammonium-tetracycline complex selected from the group consisting of a long chain alkyltrimethyl-ammonium chloride-tetracycline complex and a long chain dialkyl-dimethyl-ammonium chloride-tetracycline complex which comprises contacting said complex with an aqueous acid solution at a pH within the range of about 0.5–3, separating the resulting aqueous phase containing the tetracycline, and adjusting the pH of the aqueous phase with alkali to a pH within the range of about 3–7 so as to crystallize tetracycline free base therefrom.

2,871,265

PROCESS FOR PREPARING CHLORTETRACYCLINE SULFATE

Charles Claude Reed and Robert Winterbottom, Pearl River, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 27, 1956
Serial No. 612,349
7 Claims. (Cl. 260—559)

1. The process of preparing crystalline chlortetracycline sulfate which comprises slurrying neutral chlortetracycline in a lower alkoxy lower alkanol solvent, adding slightly less than a stoichiometric amount of sulfuric acid to the slurry so as to effect solution of the chlortetracycline as the sulfate, filtering to remove any insoluble impurities adding a lower alkanol to the solvent solution so as to form crystals of chlortetracycline sulfate and thereafter recovering the crystalline chlortetracycline sulfate.

2,871,266

TERT-CARBINAMINES

Gerard C. Riley, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application January 7, 1957
Serial No. 632,648
11 Claims. (Cl. 260—584)

1. A composition of matter having the formula



in which R_1, R_2, and R_3 are alkyl groups having a total of 7 to 23 carbon atoms, s is an integer of 2 to 3, and m is an integer of 5 to 100.

2,871,267

β-CAROTENE DERIVATIVES AND METHOD OF PREPARING DERIVATIVES OF POLYENES

Francis J. Petracek and Laszlo K. Zechmeister, Pasadena, Calif., assignors to California Institute Research Foundation, Pasadena, Calif., a corporation of California

No Drawing. Application June 28, 1956
Serial No. 594,343
13 Claims. (Cl. 260—586)

1. A process for preparing derivatives of compounds having a β-ionylidene structure comprising: reacting one of said compounds with a N-bromo compound selected

from the class consisting of N-bromoamides and N-bromoimides in the presence of chloroform and alcohol.

2. A process for preparing derivatives of compounds having a β-ionylidene structure, the steps comprising: reacting one of said compounds with N-bromosuccinimide in a chloroform-alcohol mixture to form bromo and ketal intermediates; and reacting said intermediates with an organic base of the substituted ammonia type.

10. A derivative of β-carotene selected from the class consisting of: 4-keto-3',4'-dehydro-β-carotene; 4-hydroxy-3'-4'-dehydro-β-carotene; and 4-keto-4'-hydroxy-β-carotene.

2,871,268

TREATMENT OF VERBENYL ETHERS

Joseph P. Bain, Albert B. Booth, Harry G. Hunt, and Eugene A. Klein, Jacksonville, Fla., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 10, 1953
Serial No. 397,464
18 Claims. (Cl. 260—587)

7. A process for producing isopiperitenone which consists essentially in heating a verbenyl compound, said compound being an ether of verbenol and an alcohol under non-acidic conditions in the temperature range of about 175° to about 700° C. until a substantial conversion to an isopiperitenyl ether has occurred, hydrolyzing the isopiperitenyl ether with a non-alkaline aqueous medium and oxidizing the resultant mixture of alcohols with chromic acid to obtain isopiperitenone.

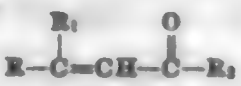
2,871,269

PREPARATION OF KETO ETHERS

Nicholas B. Lorette, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 8, 1957
Serial No. 644,718
6 Claims. (Cl. 260—594)

1. A process for the preparation of keto ethers, which comprises intermixing, in the presence of a strongly acidic cation exchange resin in the hydrogen form, a primary alcohol with an alpha-beta unsaturated ketone having the general formula:



where R and R_1 are members of the group consisting of methyl and ethyl radicals and hydrogen and R_2 represents a member of the group consisting of methyl and ethyl radicals.

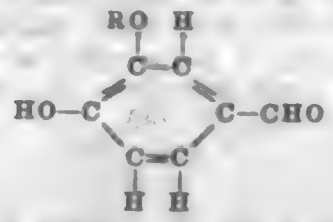
2,871,270

PROCESS FOR THE EXTRACTION OF ALKALI METAL SALTS OF VANILLIN OR ITS HIGHER HOMOLOGUES FROM ALKALINE PROCESS LIQUORS

Gerrit Alberda, Amsterdam, Netherlands, assignor to N. V. Nederlandsche Combinatie voor Chemische Industrie, Amsterdam, Netherlands, a limited-liability company of the Netherlands

No Drawing. Application November 4, 1957
Serial No. 694,870
Claims priority, application Netherlands November 13, 1956
5 Claims. (Cl. 260—600)

1. A process for extracting alkali metal salts of a compound having the formula



in which R represents the lower alkyl group from alkaline process liquors, which consists in using as an extracting solvent a substance selected from the group consisting of isopropylamine, diethylamine, pyrrolidine, morpholine, pyridine and pyridine bases, 90 percent of which boils below 160 degrees C. at atmospheric pressure.

2,871,271

PREPARATION OF TERTIARY ALIPHATIC TERPENE ALCOHOLS

Albert B. Booth, Jacksonville, Fla., assignor to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application January 15, 1953
Serial No. 331,515
16 Claims. (Cl. 260—614)

7. The process for producing tertiary aliphatic alcohols of the empirical formula $C_{10}H_{17}OH$ which comprises hydrolyzing the mixture of chlorides resulting from the monohydrochlorination of myrcene by heating the same in a weakly alkaline aqueous medium consisting essentially of water with sufficient agitation to maintain intimate contact between the aqueous and organic phases, thereafter fractionally distilling the mixture to distill off alcohols of the empirical formula $C_{10}H_{17}OH$, and then steam stripping the residue under vacuum to recover a distillate rich in dineryl ether.

16. The process for forming myrcene monohydrochloride which comprises treating myrcene with aqueous HCl until not more than an equimolecular amount of HCl has reacted with the myrcene.

2,871,272

RACEMIZATION OF OPTICALLY ACTIVE MENTHOL

Robert R. Bottoms, Crestwood, Ky., assignor to Chemetron Corporation, a corporation of Delaware

No Drawing. Application April 19, 1955
Serial No. 502,517
14 Claims. (Cl. 260—631)

1. A method of racemizing optically active menthol which comprises heating optically active menthol with a hydrogenation catalyst and hydrogen at a temperature of at least 180° C. but not greater than 210° C., and separating the racemic menthol from the reaction mixture.

2,871,273

PRODUCTION OF ACETYLENIC DIOLS

Eugene A. Behn, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application May 4, 1956, Serial No. 583,860
8 Claims. (Cl. 260—635)

1. In a process for preparation of acetylenic diols by reaction of acetylene with an aldehyde, in the presence of a copper oxide and bismuth oxide catalyst, the improvement, which comprises contacting the reactants with the catalyst impregnated upon a magnesium silicate carrier.

2,871,274

OXYBROMINATION OF CHLORODIFLUOROMETHANE

Robert P. Ruh and Ralph A. Davis, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 16, 1955
Serial No. 488,706
2 Claims. (Cl. 260—653.8)

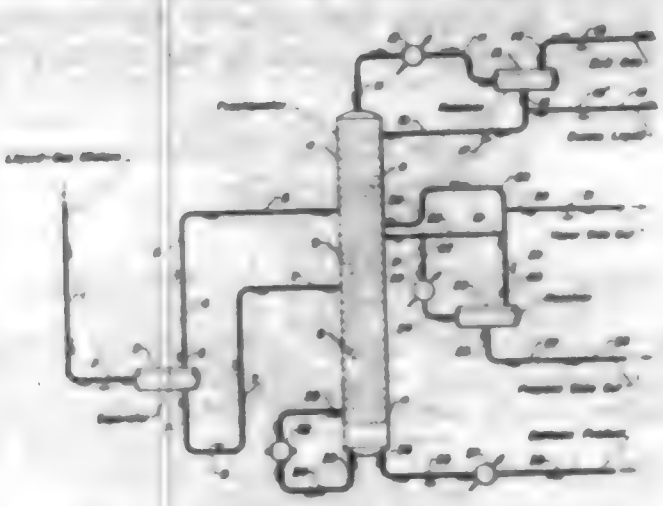
1. A method of making $CBrClF_2$ which comprises passing through a bed of a catalyst consisting essentially of chromic oxide at a reaction temperature in the range of from 300° C. to 600° C. and at a contact time of from 1 to 75 seconds, a vapor phase mixture of Br_2, $CHClF_2$, and O_2 in a mole ratio of Br_2 to $CHClF_2$ of at least 0.25:1 and of O_2 to Br_2 of at least 0.5:1.

2,871,275

SEPARATION OF SELECTED COMPONENTS FROM HYDROCARBON MIXTURES

Clarence George Gerhold, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

Application August 17, 1953, Serial No. 374,467
6 Claims. (Cl. 260—676)



1. A method for fractionally separating and recovering a desired normally gaseous component from a mixture thereof with lower boiling components and higher boiling components in the gasoline boiling range comprising, separating said mixture into a gaseous fraction and a liquid fraction, each containing a portion of said desired component and said gaseous fraction containing a major proportion of components boiling below said desired component and said liquid fraction containing a major proportion of components boiling above said component, introducing the separated lower boiling fraction to a fractionating column at an intermediate point in the height of the column, simultaneously introducing the separated higher boiling fraction to said column at a lower point in the height thereof, contacting the gaseous fraction with a lean absorption oil in the upper portion of the column, passing the resultant enriched absorption oil downwardly in the column below said intermediate point and in this portion of the column removing dissolved gases from said liquid fraction and the absorption oil, withdrawing a liquid stream of said higher boiling components from the column below said lower point, further distilling a portion of said higher boiling components to obtain said absorption oil and introducing the latter to the upper portion of the column, discharging a gaseous stream of said lower boiling components from the upper portion of the column, removing from the column between said points an intermediate fraction consisting essentially of said desired component and recovering said intermediate fraction.

2,871,276

POLYMERIZATION OF ALPHA OLEFINS IN THE PRESENCE OF AN AlR_3 CATALYST

James R. Elsner, Park Forest, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application August 11, 1954
Serial No. 449,274
15 Claims. (Cl. 260—683.15)

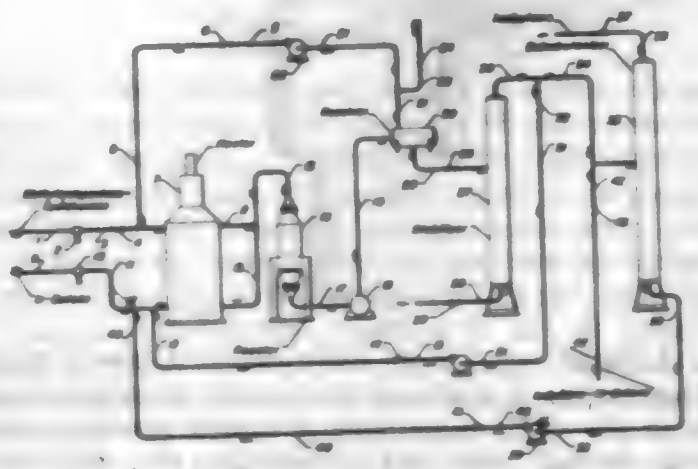
1. A process for preparing a liquid olefin polymer comprising substantially only terminal mono-olefins, which process comprises contacting an alpha-olefin having at least one hydrogen atom attached to the beta carbon atom with a catalyst comprising essentially a compound having the formula AlR_3, wherein R is selected from the class consisting of hydrogen and a monovalent hydrocarbon radical, and at least about 0.25 gram atom per gram mol of said catalyst of a promoter selected from the group consisting of elemental copper and silver under polymerization conditions, including a temperature in the range of about 80° C. to about 250° C.

2,871,277

HYDROCARBON CONVERSION PROCESS

Vladimir Haensel, Hinsdale, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

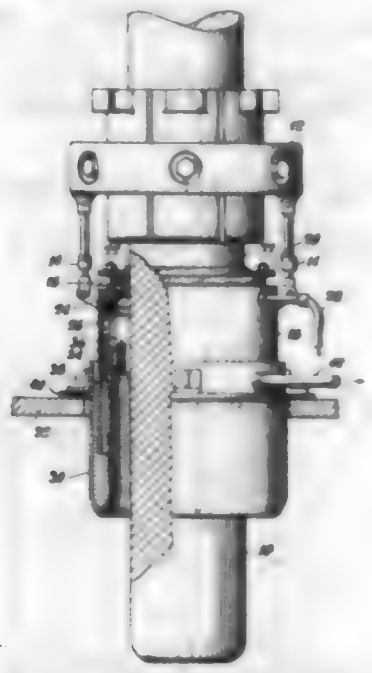
Application March 9, 1956, Serial No. 570,524
8 Claims. (Cl. 260—683.68)



4. In the isomerization of an isomerizable paraffin hydrocarbon of from 4 to 6 carbon atoms per molecule in the presence of hydrogen and in the presence of a catalyst comprising platinum, alumina, and combined halogen, the improvement which comprises adding to said hydrocarbon to be isomerized a substantial amount of a hydrocarbon fraction containing paraffins and naphthenes to effect reforming thereof simultaneously with the isomerization of the isomerizable paraffin hydrocarbon, the paraffins of said added hydrocarbon fraction having a minimum molecular weight of 86 and a maximum molecular weight not greater than 28 more than the molecular weight of said paraffin hydrocarbon to be isomerized and the naphthenes of said added hydrocarbon fraction having a minimum molecular weight of 84 and a maximum molecular weight not greater than 26 more than the molecular weight of said paraffin hydrocarbon to be isomerized, the amount of said added hydrocarbon fraction containing paraffins and naphthenes being such that dehydrogenation of the naphthenes therein will maintain the isomerization process in hydrogen balance and produce not more than 100 cubic feet per barrel of excess hydrogen.

ELECTRICAL

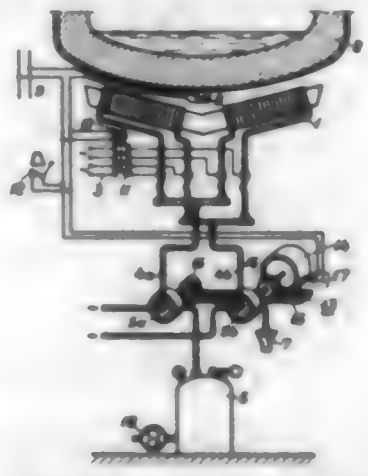
2,871,278
ARRANGEMENT FOR ELECTRIC SMELTING FURNACES
Knut Sandvold, Oslo, Norway, assignor to Elektrokemisk A-S, Oslo, Norway, a corporation of Norway
Application October 8, 1956, Serial No. 614,436
Claims priority, application Norway October 12, 1955
5 Claims. (Cl. 13—17)



1. A liquid seal for an electrode of a closed electric furnace having a roof and a movable electrode passing through the roof, comprising a trough member carried by the furnace roof and surrounding the electrode, a bell-shaped member carried by the electrode with an annular, downwardly extending fin adapted to enter said trough and a top portion extending towards the electrode, annular means in the top of the bell shaped member extending around the electrode adapted to receive a flowing stream of water and openings extending out of said annular means for causing water to flow in a substantially continuous film against the inside of said fin above the trough but below the top portion of said bell-shaped member so that the liquid will flow down on the inside of the fin, then enter the inside portion of the trough, pass under the edge of the fin and move up through the outer portion of the trough, and means for withdrawing excess water from the outside upper portion of the trough.

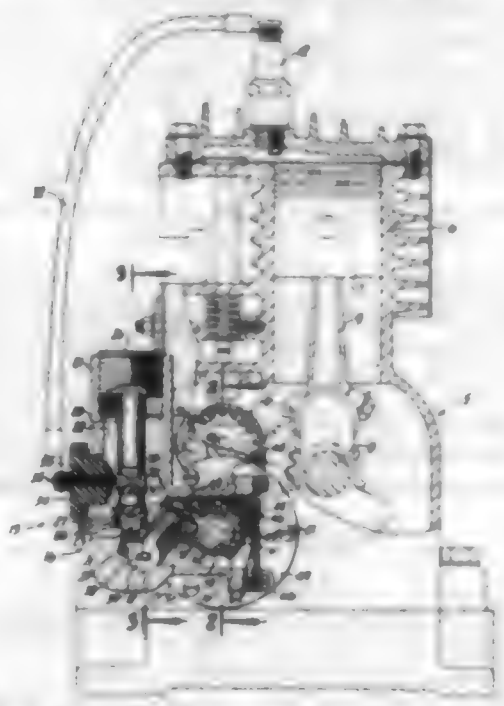
2,871,279
SECURITY MEANS FOR WATER COOLED STIRRING WINDINGS
Emil Ladell, Vasteras, Sweden, assignor to Allmanna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a corporation of Sweden
Application October 22, 1957, Serial No. 691,757
Claims priority, application Sweden October 30, 1956
1 Claim. (Cl. 13—26)

Stirring means for the molten metal in furnaces, located substantially below the furnace bottom and comprising polyphase coils fed from an alternating current source, channels within said coils for the passage of cooling water under normal operation of the stirring means, inlet and outlet means for the supply of the cooling water to said channels, a source of compressed air for substituting the supply of compressed air for the supply of water in the event of risk of the molten metal penetrating the bottom of the furnace, two-way valve means inserted in said inlet and outlet means respectively, for alternatively feeding cooling water or compressed air to said channels, means for operating said two-way valve means, and means responsive to the temperature of the furnace bottom for operating the two-way valve



operating means and comprising time lag means for interrupting the supply of electric power to the stirring means prior to the supply of compressed air to the channels of said stirring means.

2,871,280
PIEZOELECTRIC IGNITER UNIT FOR INTERNAL COMBUSTION ENGINES
Joseph R. Harkness, Milwaukee, Wis., assignor to Briggs & Stratton Corp., Milwaukee, Wis., a corporation of Wisconsin
Application August 20, 1956, Serial No. 604,886
5 Claims. (Cl. 123—148)



1. A piezoelectric igniter unit for an internal combustion engine having a crankcase and a crankshaft driven member therein, comprising: a housing; a piezoelectric element in the housing; a drive shaft rotatably journaled in the housing and having an end portion projecting a distance outwardly from one side of the housing; mechanism in the housing actuated by the drive shaft and operatively connected with the piezoelectric element for effecting sudden change in mechanical stress in the element, said mechanism including a spring which is cyclically alternately loaded and suddenly released in timed relation to rotation of the drive shaft, sudden release of the spring tending to subject the housing to abrupt, noise producing reaction forces; a driving member on said projecting end portion of the drive shaft projectable

through an aperture in the crankcase of an engine, to be driven from a crankshaft driven member of the engine; and an adaptor plate fixed on said side of the igniter housing to provide for attachment of the igniter unit to the crankcase of an engine, said plate having a central aperture therein through which the drive shaft projects and being located on the housing between said driving member and the main portion of the housing, and said adaptor plate being formed of resilient material so as to minimize the transmission of shocks, produced by suddent release of said spring, into the walls of an engine upon which the igniter is mounted.

2,871,281

ALKALINE STORAGE BATTERY WITH NEGATIVE IRON ELECTRODE

Joseph D. Moulton, West Orange, and William R. Miller, Verona, N. J., assignors, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware

No Drawing. Application November 16, 1956
Serial No. 622,523
5 Claims. (Cl. 136—25)

1. In a storage battery: a positive electrode, an alkaline electrolyte, and a negative electrode the active material of which consists essentially of electrolytically-active iron and ferrous sulphide in an amount equivalent from at least .03% to about .1% sulphur in the form of sulphide by weight of the iron.

2,871,282

HOT LINE GUARDS

Clyde E. Tipcord and William F. Turner, Taylorville, Ill., assignors to Bodendieck Tool Company, Taylorville, Ill., a corporation of Illinois

Application June 17, 1957, Serial No. 666,166
14 Claims. (Cl. 174—5)



1. In a line guard the combination of an insulating support with a stiff, resilient, elongated insulating member of sheet material, forming an inner and an outer housing about an electric line conductor, said housings comprising a pair of separate generally round and concentric tubular members each being open at its lower side and forming a double wall of insulation with the walls spaced from each other to form an insulating air gap surrounding said conductor, said support comprising an attaching flange depending from the open side of each housing to permit application of the guard to the line conductor by a downward pull, said outer housing having an upwardly projecting wall portion resiliently engaging the inside of the inner housing at the open side forming a tapered slot to be cammed open by the conductor and to snap shut upon the passage of a conductor into the guard.

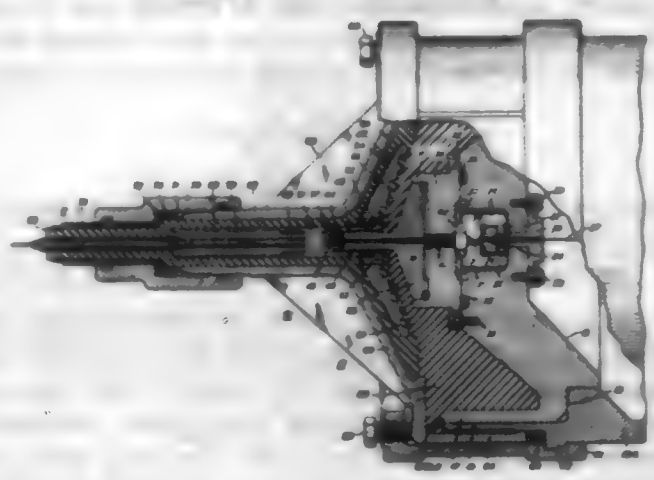
2,871,283

CABLE TERMINATION

Frank R. Dickinson, Glen Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 11, 1956, Serial No. 615,393
11 Claims. (Cl. 174—88.52)

1. In combination a cable, a repeater, and means for connecting the cable to the repeater, said cable comprising an inner conductor including a high tensile strength load transmitting core and a high conductivity sheath thereover, a layer of insulation on said sheath, an outer conductor on said layer, and a protective insulating cover on the outer conductor; said repeater comprising a rigid housing of greater cross section than said cable, amplifying means within the housing, an inner cover sealed to the housing, and an electrical terminal insulated from and sealed through said cover; said means for connecting comprising a flared anchor secured to the cable core and including a continuous envelope of insulation compatible



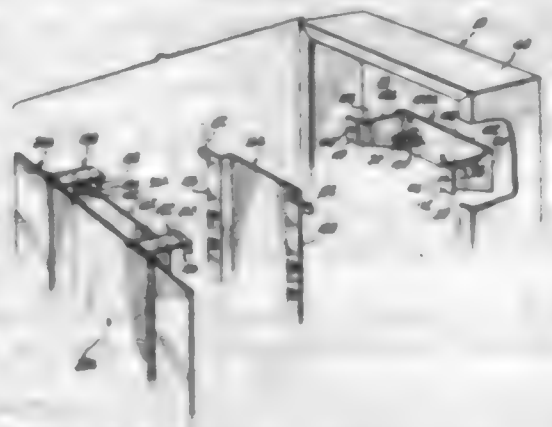
with the cable insulation and merged therewith, an outer cover in contact with a portion each of said anchor and said cable insulation, a body of substantially incompressible deformable insulating material between another portion of the anchor insulation and said inner cover, means for clamping the outer cover to the housing including means for applying sufficient pressure to the outer cover to cause said deformable material to fill all voids between the covers, means for connecting said inner conductor to said terminal, and means for connecting said outer conductor to said outer cover.

2,871,284

ENCLOSED PANELBOARD MOUNTING

Ervin E. Wills, Affton, Mo., assignor to Federal Electric Products Company, Newark, N. J., a corporation of Delaware

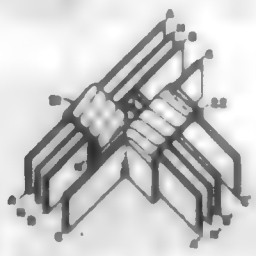
Application May 9, 1952, Serial No. 286,911
11 Claims. (Cl. 174—52)



1. A panelboard construction comprising an enclosure for an electric device, said enclosure having a front opening and a part within said enclosure extending from the rear thereof toward said front opening, and trim means for securement to said enclosure at said front opening, said trim means having a part within the marginal edges thereof and extending toward the rear of said enclosure, said parts having releasably interengageable portions for suspending said trim means in unsecured disposition on said enclosure for preventing inadvertent disengagement of said trim means from said enclosure prior to securement thereto, said enclosure part and said trim means having cooperating apertures defined therein, respectively, which are adapted to receive a securing element for securing said trim means to said

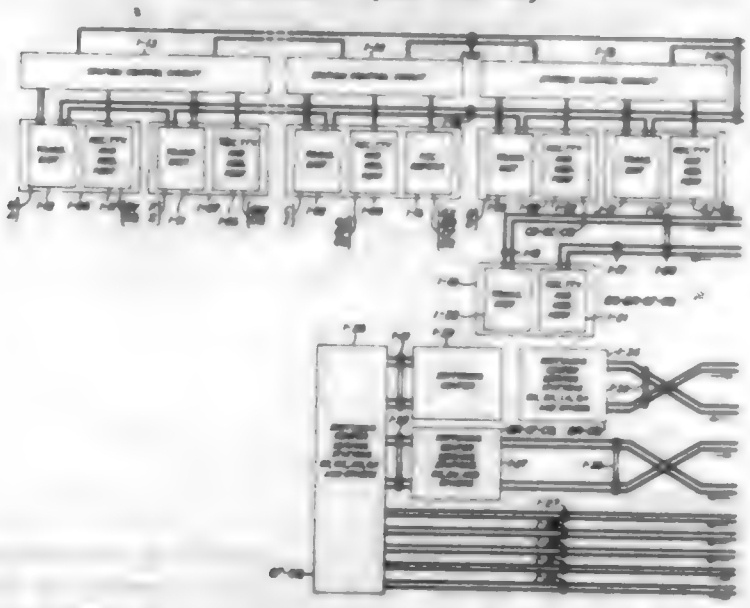
enclosure, said apertures being automatically aligned in registry upon said suspension of said trim means on said enclosure, and said parts being concealed by said trim means.

2,871,285
BRANCH BUS DUCT STRUCTURES
Samuel S. Fouse, Aliquippa, and Earl O. Krance, Beaver, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 4, 1953, Serial No. 378,568
12 Claims. (Cl. 174—72)



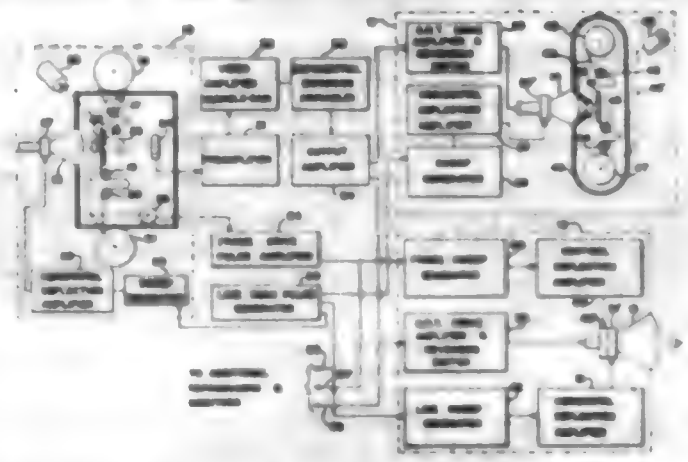
1. In a multi-phase bus duct, in combination, a duct housing, at least three substantially flat main bus bars of different phases disposed in the housing with their longitudinal center lines lying in the same plane, at least three substantially flat branch bus bars disposed substantially at right angles to the main bus bars with their longitudinal center lines lying in the same plane as the longitudinal center lines of the main bus bars, at least one branch bus bar abutting a side of at least one main bus bar of the corresponding phase, and a generally U-shaped tie bar connecting each one of the other branch bus bars to one of the other main bus bars of the corresponding phase, the legs of said tie bars being secured to the edges of the bus bars.

2,871,286
MESSAGE TRANSMISSION SYSTEM
Walter M. Bacon, New York, N. Y., and David E. Branson, Morristown, and George J. Knandel, Glen Rock, N. J., and George A. Locke, Glen Head, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 18, 1953, Serial No. 392,789
25 Claims. (Cl. 178—2)



22. In a telegraph system, a principal station, a plurality of outlying message transmitters adapted to transmit to said principal station one at a time, means manually operable in either of two ways for conditioning said transmitters for operation, roll call signal transmission means at said principal station for inviting message transmission from any transmitter conditioned according to one or the other of said two ways, said roll call signal transmission means including a stepping switch operable step by step for determining the selective characteristics of said roll call signals for selecting transmitters conditioned either way, a second stepping switch for registering the last roll call signal that resulted in the starting of a transmitter, and means responsive to advancement of said first-mentioned stepping switch through a complete cycle in which the roll call signals have selective characteristics for selecting transmitters conditioned one of said ways and into correspondence with said second-mentioned stepping switch for changing to the selective characteristics of roll call signals for selecting transmitters conditioned the other of said ways and for initiating another cycle of said first-mentioned stepping switch.

2,871,287
PHOTOGRAPHIC REPRODUCTION METHOD AND APPARATUS
James R. R. Harter, Washington, D. C.
Application June 11, 1953, Serial No. 361,899
1 Claim. (Cl. 178—6.7)
(Granted under Title 35, U. S. Code (1952), sec. 266)



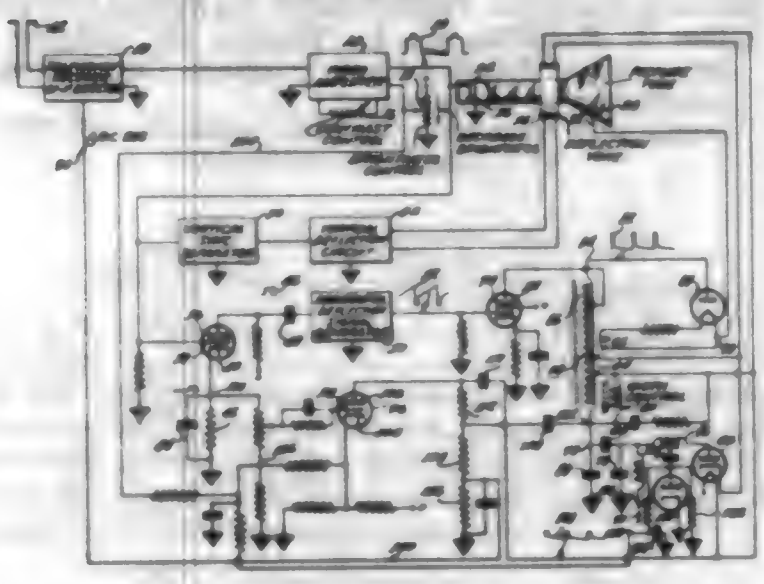
A photographic reproduction system comprising a first film having images recorded thereon, a first film transport mechanism for moving said first film at a relatively constant speed, said first film transport mechanism including a constant speed drive motor and a film rate pulse generator, a first cathode ray tube scanning element mounted in proximity to said first film and producing a movable spot source of light, a scan pulse generator, first means responsive to said scan pulse generator for deflecting the spot source of light for scanning the first film transversely to its direction of motion, photoelectric means responsive to light transmitter from said source through said film, a first aperture plate mounted between said first film and said photoelectric means having a narrow slit disposed perpendicular to the direction of motion of said first film, an expander circuit connected to the output of said photoelectric means, means in said expander circuit to alter the degree of expansion of the electrical signal passed by said circuit, and amplifier and polarity reversing switches serially connected to said expander circuit, a second film to be exposed, a second film transport mechanism having a constant speed drive motor for moving said second film at substantially the same speed as said first film, a second cathode ray tube mounted in proximity to said second film, means to produce a second movable spot source of light on the face of said second cathode ray tube, second means responsive to said scan pulse generator for deflecting said second movable spot source of light for scanning said second film in synchronism with the scan movement of the first spot source of light, a second aperture plate mounted between said cathode ray tube and said film having a narrow slit disposed perpendicular to the direction of motion of said second film, means to modulate the intensity of said second spot source of light in response to fluctuations of said expanded electrical signal, and a third cathode ray tube responsive to the output from said amplifier, said film rate pulse generator and said scan pulse generator for producing a visual image of the recorded images on the first film as altered by the operation of the expander circuit.

2,871,288

STABILIZED AGC SYSTEM

Lucius P. Thomas, West Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application November 14, 1952, Serial No. 320,487
8 Claims. (Cl. 178—7.5)



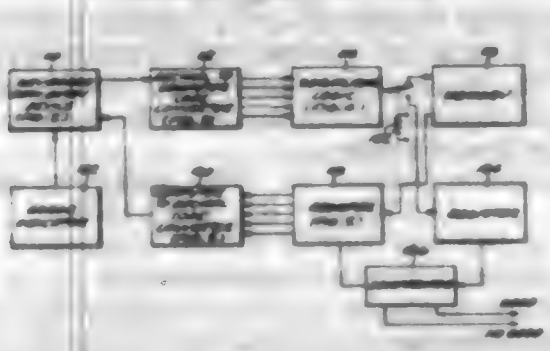
1. An automatic gain control circuit for receivers of the type including deflection control circuit means for a cathode ray tube, comprising the combination of means for deriving first and second operating potentials from said deflection control circuit means subject to amplitude variations in response to varying load demands on said deflection control circuit means, an automatic gain control amplifier stage including an input electrode, an output electrode and a common electrode, means providing an input circuit for said automatic gain control amplifier stage connected between said input electrode and said common electrode, an output circuit for deriving an automatic gain control potential the amplitude of which is a function of the signal strength of a signal wave applied to said input circuit connected between said output electrode and said common electrode, means for applying said first operating potential from said deflection control circuit means between a pair of said electrodes whereby variations in said first operating potential produces variations in the resulting automatic gain control potential, and means applying said second operating potential from said deflection control means to said output circuit in a polarity such that variations in said second operating potential compensate for said variations in automatic gain control potential.

2,871,289

ERROR-CHECKING SYSTEM

Bonnar Cox, Jacob Goldberg, and William H. Kautz, Palo Alto, Calif., assignors, by mesne assignments, to General Electric Company, New York, N. Y., a corporation of New York

Application October 10, 1955, Serial No. 539,504
6 Claims. (Cl. 178—23)



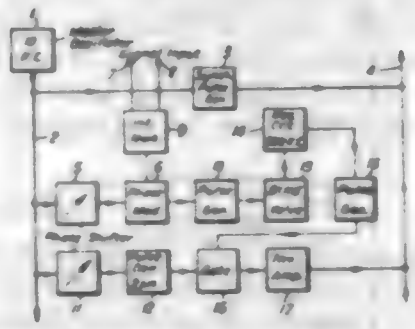
3. A system for detecting errors in transferring data to a storage device from the keys of a keyboard having columns of keys wherein data is entered by depressing a different key in each column in accordance with the data to be entered, said system comprising means to provide a decimal output from each column of keys representative of a depressed key, means to convert the output of each column from decimal-to-binary form, means to convert said binary form for all of said columns into a serial pulse train preserving digit significance, means to store said serial pulse train in said storage device, register means, means to read said serial pulse train from said storage device into said register means to be staticized, means to convert said staticized serial pulse train into a decimal form, means to apply said last-named decimal form to said respective columns of keys on said keyboard, and means to indicate a difference between the decimal output from said keyboard representative of said depressed keys and the decimal form applied to said keyboard.

2,871,290

ELECTRIC SIGNAL COMMUNICATION SYSTEMS

Charles William Earp, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application December 5, 1951, Serial No. 260,973
Claims priority, application Great Britain December 20, 1950
7 Claims. (Cl. 178—43.5)



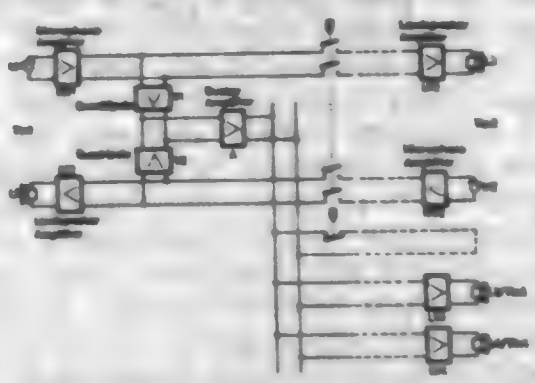
2. An electric communication system comprising a master oscillation generator arranged to produce waves at a sampling frequency, means for causing a signal wave to modulate the phase of said waves, means for deriving from the phase modulated waves a train of pulses having a pulse repetition frequency equal to an integral multiple of the sampling frequency, means for gating the train of pulses in order to select for each sample a single one of said pulses to serve as an index pulse, means for transmitting a succession of such index pulses over a communication medium to a receiver and at the receiver means responsive to the direction and rate of drift of the time positions of the received index pulses for reproducing said signal wave.

2,871,291

CONFERENCE CIRCUIT IN TWO-WAY COMMUNICATION SYSTEM WITH FOUR-WIRE OPERATION

Otto Hörner, Munich, Germany, assignor to Siemens & Halske Aktiengesellschaft, Berlin and Munich, a corporation of Germany

Application June 29, 1956, Serial No. 594,923
Claims priority, application Germany July 16, 1955
7 Claims. (Cl. 179—1)



1. In a communication system, a four-wire conference circuit forming two two-wire principal channels for in-

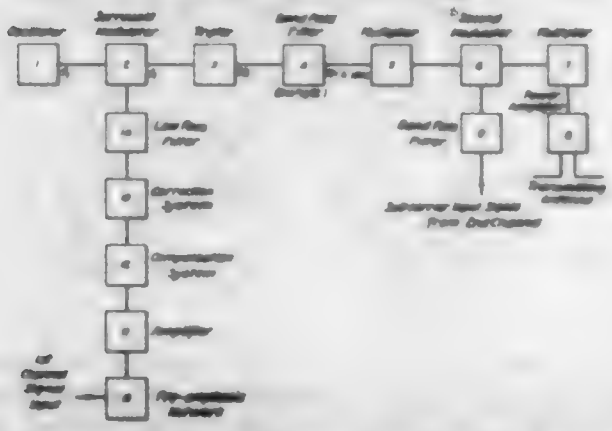
terconnecting two subscribers for two-way conversation, a four-terminal amplifier coupling link for each of said principal channels and having its input terminals connected to the wires of the corresponding channel, means for galvanically interconnecting corresponding output terminals of said coupling links to form a common two-wire output therefor, each of said coupling links being adapted to pass speech currents only from its corresponding principal channel to said common output, a two-conductor busbar, circuit means for connecting said common output of said coupling links to said busbar to pass said speech currents thereto, and circuit means for connecting to the conductors of said busbar the line wires of at least one further subscriber for transmitting to such subscriber the speech currents from said principal channel by way of the respective coupling links and said busbar.

2,871,292

NOISE REDUCTION IN PHASE SHIFT MODULATION

John H. Bose, New York, N. Y., assignor to Esther Marion Armstrong, executrix of the estate of Edwin H. Armstrong, New York, N. Y.

Application October 12, 1953, Serial No. 385,345
2 Claims. (Cl. 179—15)



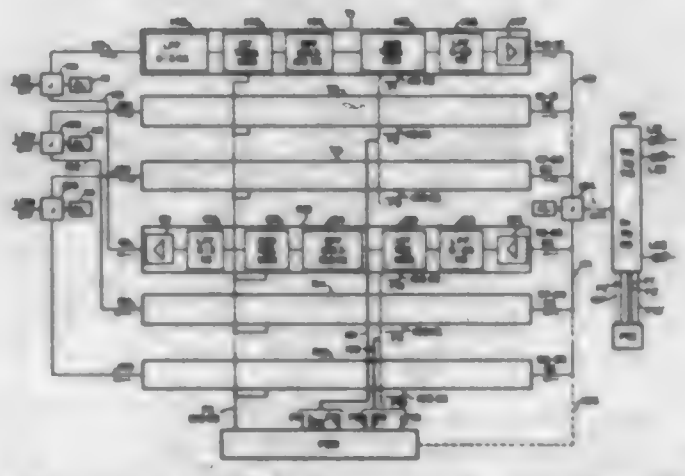
2. A frequency modulation multiplex transmitter, comprising: a first phase shift modulator having an input for carrier waves, an input for modulating signals, and an output for the modulated carrier waves; a source of constant frequency carrier waves supplying said carrier wave input of said first modulator, said source and said modulator both having inherent characteristics which introduce minute random phase shifts in the modulated carrier wave, said random phase shifts being of the type caused by thermal and tube noise; a frequency multiplier having an input coupled to the modulated wave output of said first modulator and an output, said frequency multiplier producing a frequency multiplication of said modulated carrier wave by a factor such that only a single pair of bands of side frequencies is present in the frequency multiplied modulated wave at the output of said multiplier; a second phase shift modulator having a carrier input operatively associated with the output of said multiplier and having an output and an input adapted to have modulating signals of a subcarrier frequency applied thereto; a noise removing band pass filter interposed between the output of said multiplier and said second modulator, said filter having a peaked relatively narrow band pass characteristic which effectively cuts off all frequencies lying in the range of said subcarrier modulated frequencies arising from said random phase shifts and which co-incidentally unduly attenuates the high side frequencies of the frequency multiplied modulated wave to an extent which prevents faithful reproduction of the modulations thereof; and a compensating transmission network coupled to said modulating signal input of said first modulator, said network having a rising transmission characteristic which causes the lower frequency components of the modulating signals to be attenuated with respect to the higher frequency components thereof and thereby accentuates the higher side frequencies of said modulated waves to an extent which compensates correctively for said co-incidental attenuation of said side frequencies by said filter, whereby said second modulator is shielded from the effects of said random phase shifts.

2,871,293

MULTICHANNEL TELEPHONE CARRIER SYSTEM

Arthur J. Radcliffe, Jr., La Grange, Ill., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application September 17, 1954, Serial No. 456,730
7 Claims. (Cl. 179—15)



1. In a multichannel telephone carrier system, first lines comprising respective sources of voice-frequency signals, a common transmission line, transmitting sections interposed between respective first lines and the common transmission line to provide respective transmitting channels over the common line, a first modulator in each transmitting section to provide upper and lower first side bands of the signals from the associated line with respect to a first carrier frequency common to all transmitting sections, means for supplying the said first carrier frequency to the first modulator of each section in square-wave form and of an amplitude greater than the peak amplitude of the voice frequency signals, similar band-pass filters in each section to select one of the associated first side bands while rejecting the other, a second modulator in each section coupled to the output of its associated band-pass filter, means for supplying to the respective second modulators band-allocating carrier frequencies which are separated in frequency by an amount in excess of the band width of the band-pass filter to provide upper and lower second side bands of frequencies which are correspondingly different for each section, means coupling the output of the second modulators to the common transmission line, and second filtering means interposed between the second modulators and the transmission line for selecting corresponding second-modulator side bands comprising one side band of each second modulator, while rejecting the other side band of each second modulator.

2,871,294

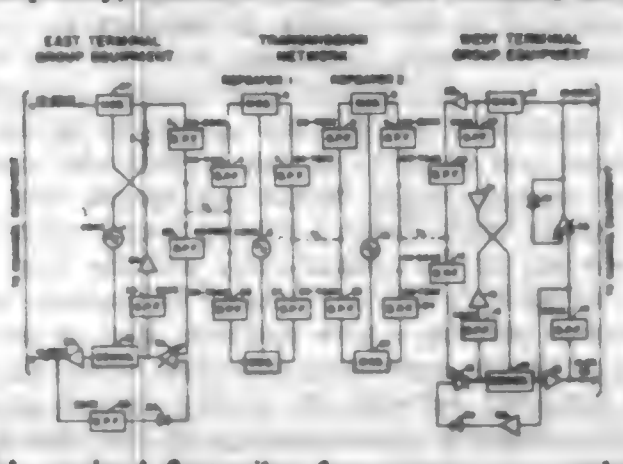
AUTOMATIC FREQUENCY CORRECTION IN TWO-WAY CARRIER COMMUNICATION SYSTEMS

Bogdan R. Stachiewicz, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application October 29, 1956, Serial No. 619,859
14 Claims. (Cl. 179—15.5)

1. In a two-way carrier system comprising first and second carrier terminals interconnected by a transmission network, means at said first terminal for generating a first pilot frequency, means for transmitting said first pilot frequency to said second terminal, means at said second terminal for deriving a second pilot frequency from said received first pilot frequency, means for transmitting said second pilot frequency to said first terminal, means at said first terminal for utilizing said received sec-

ond pilot frequency as a modulating frequency for signals transmitted to said second terminal from said first terminal, means at said second terminal for demodulating signals received from said first terminal with said second pilot frequency, means at said second terminal for utilizing said received first pilot frequency as a modulating frequency for signals transmitted to said first terminal from said second terminal, and means at said first terminal for demodulating signals received from said second terminal with said first pilot frequency.

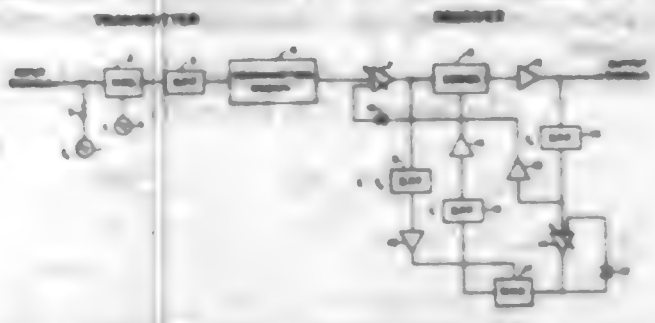


2,871,295

AUTOMATIC FREQUENCY CORRECTION IN SUPPRESSED CARRIER COMMUNICATION SYSTEMS

Bogdan R. Stachiewicz, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application October 29, 1956, Serial No. 619,068
6 Claims. (Cl. 179—15.5)



1. In a communication system comprising a transmitting terminal and a receiving terminal, a source of input signals which lie within a given frequency range, means at said transmitting terminal for modulating a carrier wave with said input signals and for suppressing the carrier frequency, means at said transmitting terminal for generating a pilot signal which differs in frequency from said carrier wave by a particular frequency within said given frequency range, means at said transmitting terminal for transmitting one of the sidebands of said modulated carrier wave and said pilot signal to said receiving terminal, said receiving terminal comprising a demodulator having an input circuit and an output circuit, means for applying the received signals to the input circuit of said demodulator, a band-pass filter tuned to said particular frequency and connected to the output circuit of said demodulator, means for modulating the received pilot signal with the signal passed by said filter to derive a carrier wave, and means for applying said derived carrier wave to said demodulator to demodulate the received sideband.

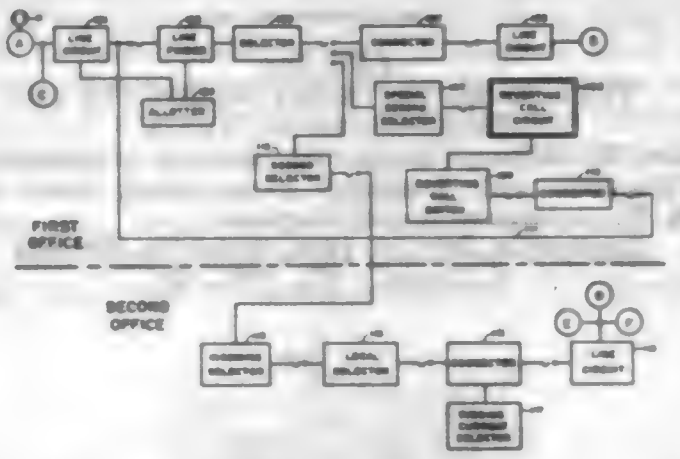
2,871,296

REVERTING CALL CIRCUIT

William W. Pharis, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application July 30, 1956, Serial No. 600,869
6 Claims. (Cl. 179—17)

1. In a telephone system, means for transmitting digit indications, means for establishing reverting calls responsive to a plurality of said digit indications representing directory numbers, means in said establishing means for extending said digit indications to succeeding equipment, means in said establishing means for rendering said last named means ineffective during transmission of digit indications representing first portions of said directory numbers, means responsive to digit indications representing later portions of said directory numbers for extending reverting calls from said establishing means, means in said establishing means for withholding digit indications representing final portions of said directory numbers thereby preventing busy tests, and controllable means for thereafter transmitting said withheld digit indications to determine the application of said busy tests.

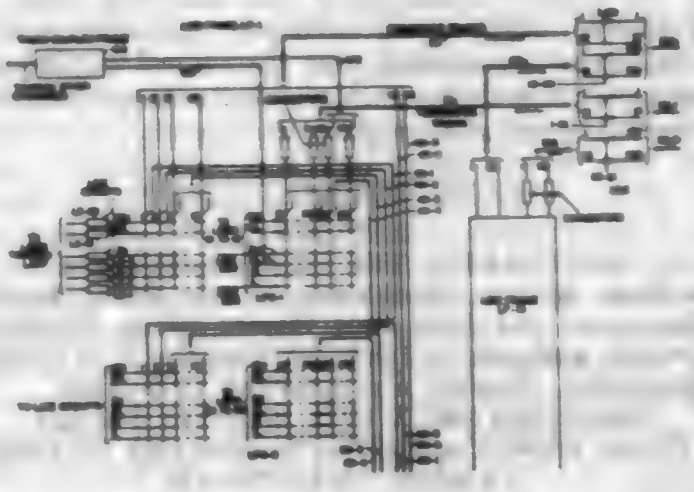


2,871,297

100-LINE DIRECT-ACCESS CROSSBAR TELEPHONE SWITCHING UNIT

Edward J. Leonard, Chicago, Ill., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

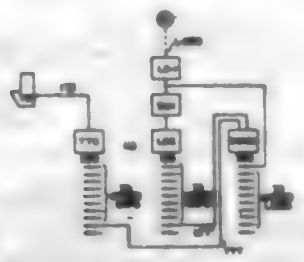
Application March 8, 1954, Serial No. 414,845
9 Claims. (Cl. 179—18)



1. In a switching system for connecting calling and called lines with trunks, a group of crossbar switches each including a numerical switching section and a non-numerical switching section, each section including line multiples and a set of intersecting trunk multiples, together with selectively operable crosspoint means for connecting any line multiple of the section to any trunk multiple thereof, lines and distributing-frame means for connecting them to respective line multiples of one section of any switch, distributing-frame means for connecting the line multiples of the non-numerical sections to respective line multiples of the numerical sections, originating trunks and wiring means for connecting them to respective trunk multiples of the non-numerical sections, terminating trunks and wiring means for connecting them to respective trunk multiples of the numerical sections, control means responsive to a calling condition on any line for selecting and operating a crosspoint means in the associated non-numerical section to connect the associated line multiple of the calling line to the trunk mul-

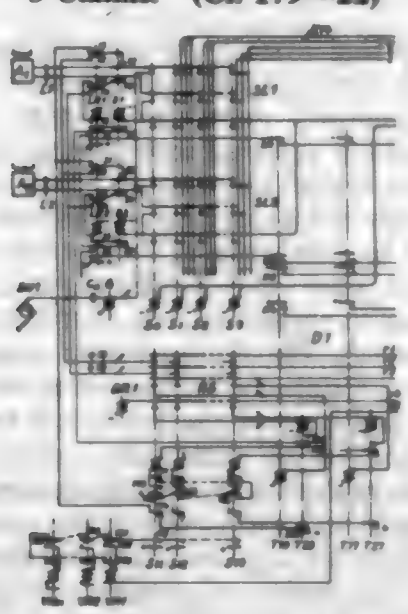
tiple of an idle originating trunk, line selecting means controllable over any terminating trunk connected to a trunk multiple in any numerical section for selecting any called line connected to a line multiple included in that section, and means controlled by the line selecting means for selecting and operating a crosspoint means to connect the last said line multiple and trunk multiple together.

2,871,298
TOLL RINGING ARRANGEMENTS IN TELEPHONE SYSTEMS
Robert W. Hutton, Chicago, Ill., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application July 23, 1956, Serial No. 599,402
5 Claims. (Cl. 179—18)



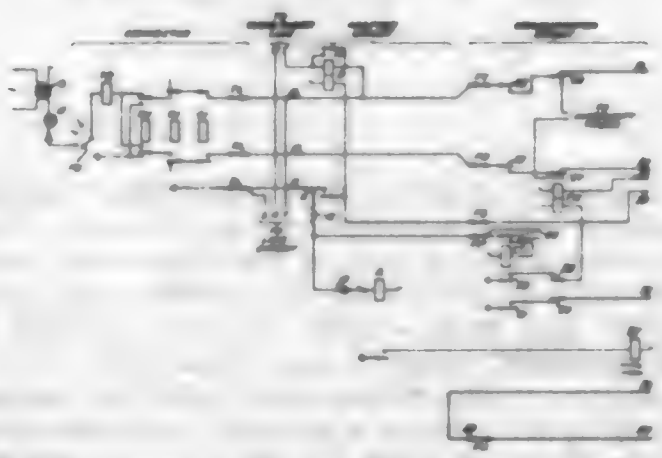
1. In an automatic telephone system, connectors serving a group of telephone lines each having one or more stations thereon, three-wire trunks incoming to respective connectors with each trunk including a first and a second talking conductor and a control conductor, each connector including switching means and including switch-control means controllable over its incoming trunk to position the switching means to connect such trunk to any desired one of the lines, means including normally ineffective signalling means in each connector for signalling any desired station on the connected line, start means in each connector for rendering the said signalling means thereof effective, means for transmitting control signals over the control conductor of any incoming trunk, and delayed-ring means in any connector responsive to a said control signal transmitted over the control conductor of its incoming trunk after the switching means is positioned for operating the start means.

2,871,299
AUTOMATIC TELEPHONE SYSTEM
Nils Emil Nilsson, Stockholm, Gustav Oscar Rodnert, Hagersten, and John Carl Harold Björk, Stockholm, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application May 2, 1956, Serial No. 582,220
Claims priority, application Sweden May 18, 1955
3 Claims. (Cl. 179—22)



1. In an automatic telephone system, in combination, subscriber's lines, links, single ended link-circuits, registers and a marker, primary switches for connecting said lines to said links, secondary switches associated with said links to connect the links to said link-circuits, two conductors in each of said link-circuits and connected speech wires, a control relay having a hold winding for each of said links operated by the marker in response to a calling subscriber's line being connected over the link to said conductors in a link-circuit, said marker connecting a called subscriber's line to said conductors in the same link-circuit over another link, said control relay operating a break contact, which breaks one speech wire and a make contact which closes a holding circuit including the hold winding of the control relay and the loop of the calling subscriber's line for holding the control relay in an operated position, a slow operating relay in each link-circuit, a ringing generator, said slow operating relays being connected between the ringing current generator and the conductor corresponding to the speech wire broken by said break contact on the calling side and being non-responsive to ringing current, a ringing signal being sent to the called subscriber's line from said generator, contacts on said slow-operating relay for disconnecting the said relay from said conductor and sending a signal to the link on the calling side, said slow operating relay being energized when the loop over the called subscriber's line is closed for direct current in response to an answer to actuate said relay contacts, said signal resetting the communication over said broken speech wire.

2,871,300
INTERCEPT DISCRIMINATOR
Henry Leopold Horwitz, Nutley, and George Louis Hasser, Packanack Lake, N. J., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland
Application March 12, 1953, Serial No. 341,856
13 Claims. (Cl. 179—27)

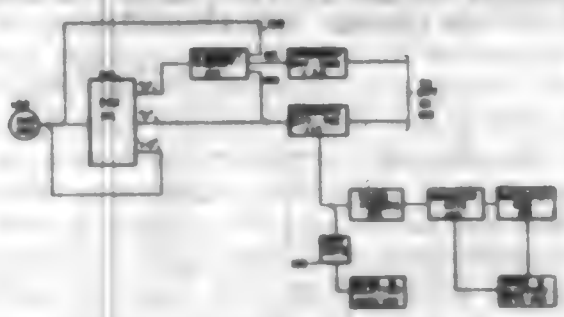


1. An intercept system for telephone party lines comprising means for selectively signalling stations on said lines, an intercept discriminator, means for extending a called party line to said discriminator, a set of test relays in said discriminator adapted to respond selectively to selective ringing currents, means for connecting one terminal of said test relays to said line and a chain of further relays in said discriminator for completing in sequential order the circuits of only those test relays which correspond to stations out of service.

2,871,301
AUTOMATIC TELEPHONE SYSTEM
Clarence C. Crow and James G. Bonner, Galion, Ohio, assignors to North Electric Company, a corporation of Ohio
Application July 13, 1954, Serial No. 443,068
31 Claims. (Cl. 179—27)

1. In an automatic telephone system including a private branch exchange having a plurality of subscribers, means in the private branch exchange for transmitting call routing digits for extending calls to subscribers in dif-

ferent exchanges, and restrictor means at the private branch exchange including counting means operative to count the number of impulses in certain of the call routing digits as transmitted, a plurality of register circuits, each of which is assigned to register a given digit in the



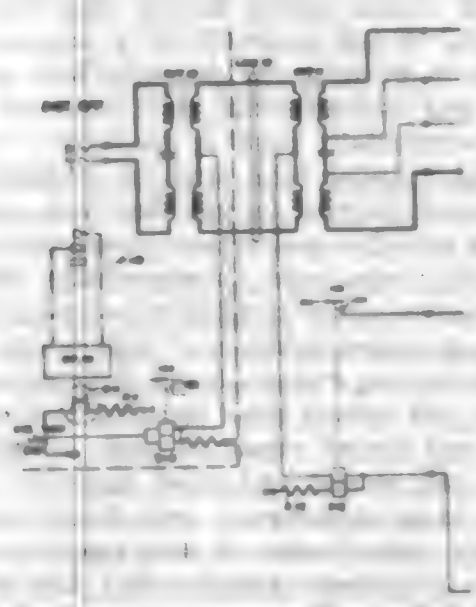
sequence, means for transmitting the value of each digit to its associated register as counted, and means controlled by said register and restrictor means to block calls which are being extended by the subscribers toward predetermined ones of said exchanges.

2,871,302

TELEPHONE TRUNKING SYSTEM

William W. Pharis, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application January 25, 1956, Serial No. 561,212
6 Claims. (Cl. 179—27)



1. In a telephone system, an office, a link in said office, a line circuit in said office, an operator position, means comprising a line terminated in said circuit for extending a connection from said position to said office, means in said line circuit operative in response to a calling condition on said line for placing said line circuit in calling condition, said link comprising a linefinder seizable in response to a calling condition on said line circuit for extending a connection from said connection extending means into said office, a tone source, means operative in response to the seizure of said link for connecting said tone source to said connection extending means, and means within said line circuit for preventing the transmission of a tone signal from said source over said line, thereby making a tone signal applied to said connection extending means inaudible at said operator position.

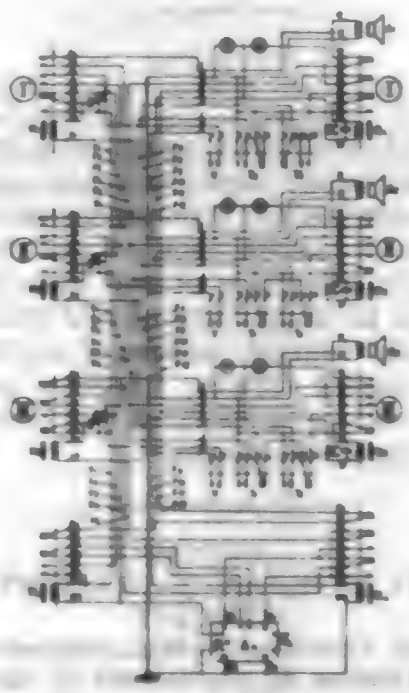
2,871,303

TELEPHONE INTERCOMMUNICATION SYSTEM HAVING MEANS FOR INTERCONNECTING ANY TWO STATIONS

Antonio Da Riva, Milan, Italy

Application December 7, 1954, Serial No. 473,588
Claims priority, application Italy April 6, 1954
12 Claims. (Cl. 179—39)

1. In a telephone communication system having at least three stations adapted for selective communication with one another, in combination, amplifier means common to all of said stations, a first group of relays each individual to a respective one of said stations, a second group of relays each individual to a respective one of said stations, a master relay common to all of said stations, each of said stations being provided with a set of manually operable selector elements individually assigned to respective ones of the remaining stations, each relay of said first group having an energizing circuit connected to corresponding selector elements of all of said stations, other than its own station, for operation upon actuation of any such selector element, means controlled by said master relay for preventing the operation of any relay of said first group in an off-normal position of said master relay, circuit means so linking said master relay with each relay of said first group as to change said master relay from a normal position to said off-normal



position upon the operation of the relay of said first group at a called station in response to actuation of the corresponding selector element at a calling station, thereby preventing the operation of a relay of said first group at any station other than said called station, each relay of said second group having an energizing circuit normally connected to be closed by said master relay in said off-normal position thereof, switch means controlled by an actuated selector element at said calling station for preventing the operation of the relay of said second group at said calling station, whereby the relays of said first and second groups at all of said stations other than said calling and called stations are unoperated and operated, respectively, electro-acoustic transducer means at each of said stations, and contact means controlled by the relays of said first and second groups for operatively connecting said transducer means of only said calling and called stations to said amplifier means.

2,871,304

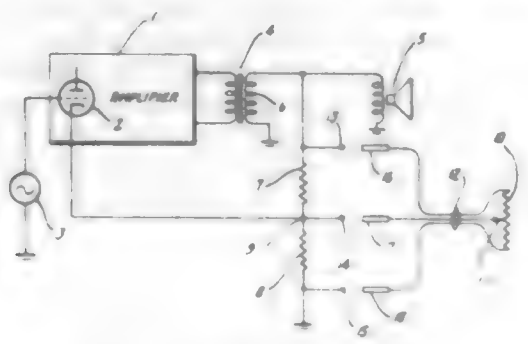
REMOTE CONTROL FOR A SIGNAL TRANSFER CHANNEL EMPLOYING FEEDBACK MEANS

Charles W. Dolliecheck, Camden, N. J., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application February 3, 1956, Serial No. 563,307
3 Claims. (Cl. 179—171)

1. In an audio amplifier system, an audio amplifier including at least one electron device having an emitter electrode and a control electrode, an output circuit for said amplifier, a first impedance means connected across said output circuit, a connection between said emitter electrode and an intermediate point of said impedance means, said point dividing said impedance means into two

portions, a source of audio signal, a connection between said source and said control electrode, a connection between said source and one terminal of said impedance means, whereby a fractional portion of the output signal voltage across said impedance means is applied degeneratively to the input of said amplifier, and an arrangement for varying said fractional portion from a remote location, comprising a second impedance means adapted to be placed at the remote location, an adjustable contact



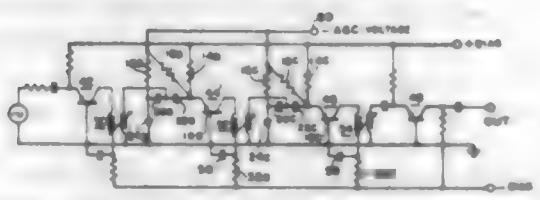
on said second impedance means, and connections for connecting said second impedance means across said first impedance means and for connecting said adjustable contact to said intermediate point of said first impedance means, whereby adjustment of said contact effects differential variation of the portions of said second impedance means in parallel with the portions of said first impedance means, thus causing different fractional portions of the output signal voltage to appear at said intermediate point of said first impedance means.

2,871,305

CONSTANT IMPEDANCE TRANSISTOR INPUT CIRCUIT

Carl R. Hurtig, Greenbush, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application June 1, 1956, Serial No. 588,934
7 Claims. (Cl. 179—171)



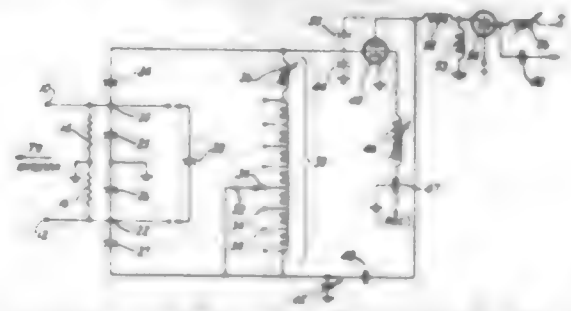
1. A translating circuit comprising a PNP transistor connected in grounded base configuration, a semiconductor diode, a D. C. bias source, a pair of terminals adapted to receive a D. C. control voltage, a capacitive connector, first, second, and third resistors, the base of said transistor and the emitter of said diode being connected in common, the emitter of said transistor and the base of said diode being connected by said capacitive connector, a first D. C. path from one terminal of said capacitive connector through said emitter and base of said transistor to said connection, a second D. C. path from the other terminal of said capacitive connector through said diode to said connection, one terminal of said D. C. bias source being connected to said connection and the other terminal being connected to one terminal of said capacitive connector through said first resistor, the bias source being polarized to forward bias the associated D. C. path, one of said control voltage terminals being connected to said connection and the other being connected through said second resistor to the emitter of said transistor and through said third resistor to the base of said diode, and a pair of input terminals connected between said transistor emitter and said common connection, one of said terminals being capacitively connected.

2,871,306

INPUT COUPLING CIRCUIT

John W. Waring, Palmyra, N. J., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application October 15, 1957, Serial No. 690,401
16 Claims. (Cl. 179—171)



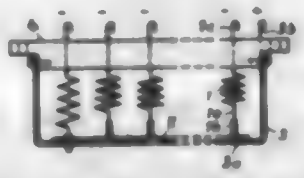
1. A tunable amplifier stage provided with first and second input terminals which are balanced with respect to ground, said amplifier stage comprising a vacuum tube having at least a cathode, an anode and a control grid, said cathode being so connected to ground as to maintain said cathode at a potential intermediate the potentials of said first and second input terminals with respect to radio frequency energy, a load impedance connected between said anode and a source of anode potential, tuning means providing, selectively, different values of inductance between first and second terminals thereof, the effective inductance values of said tuning means being such as to tune said stage selectively to a plurality of selected frequencies, said tuning means having said first terminal thereof coupled to said control grid, a capacitor coupled between a point of reference potential and said second terminal of said tuning means, said capacitor having a capacitance substantially equal to the input circuit capacitance of said vacuum tube, and an impedance transformation circuit coupled to said first and second input terminals and said first and second terminals of said tuning means, said impedance transformation circuit comprising a second capacitor coupled between said first input terminal and said first terminal of said tuning means at each of said selected frequencies, a third capacitor coupled between said second input terminal and said second terminal of said tuning means at each of said selected frequencies, said second and third capacitors being of substantially equal capacitance, and means including at least the stray capacitances of said circuit providing a net capacitive impedance between said first and second input terminals at said selected frequencies, said impedance transformation circuit resonating with said inductor to tune said stage to said selected frequencies, the capacitance of said first and second capacitors being selected so that the apparent source impedance as seen from said grid-cathode circuit decreases with frequency at approximately the same rate as the optimum source impedance of said amplifier for a selected mode of operation thereof.

2,871,307

ELECTRIC THERMOCONTACT

Gunnar Karl Brunberg, Segeltorp, and Arne Kurt Dietsch, Enskede, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden

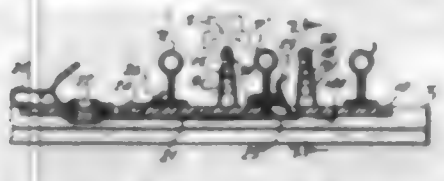
Application October 21, 1953, Serial No. 387,383
Claims priority, application Sweden October 29, 1952
9 Claims. (Cl. 179—184)



1. A thermocontact device comprising a contact spring mounting a contact element, an electric conductor disposed opposite said contact element, and a semi-conduct-

ing member interposed between one side of said conductor and said contact element in conductive contact with the conductor and the contact element, the material of said semi-conducting member having a materially reduced breaking strength when heated, said spring being biased to press said contact element against the semi-conducting member, said conductor having an aperture in alignment with the direction of pressure by the contact element upon the semi-conducting member and said spring, semi-conducting member and conductor constituting a circuit connection connectable to a source of current, a flow of current over said circuit connection above a predetermined value heating the semi-conducting member sufficient to cause collapse thereof by the pressure of said contact element thereby releasing said contact element for movement into said aperture by action of said spring, positioning of the contact element in the aperture electrically separating the contact element from the conductor whereby said circuit connection is broken.

2,871,308
TOY RAILROAD TRACK CONNECTORS
Frank Pettit, Union, N. J., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York
Application August 5, 1955, Serial No. 526,748
3 Claims. (Cl. 191—29)



1. A device for use with toy railroad track, said track having flanged wheel bearing rails and an intermediate flanged power rail, comprising an insulating base, a fixed clip carried by the base and spaced from its upper surface to accommodate the flange of one wheel bearing rail, a spring clip carried by the base and spaced from its upper surface to snap over onto the opposite side of the flange of the power rail, whereby the base may be detachably secured to said rails, two elongated, upwardly extending, conducting control rails designed to normally conduct current directly to the accessories on the train, secured to the upper surface of the base and extending parallel to the rail direction when the base is secured in place, one control rail being so positioned between the clips as to be between the power rail and the said wheel bearing rail, the other control rail being so positioned as to be between the power rail and the other wheel bearing rail, conducting spring clips having a plurality of legs, each with one leg insertable into a control rail and another leg vertically positioned above the control rail so as to provide contacting surfaces at a higher elevation than that of the control rails alone.

2,871,309
DISCONNECTING SWITCH
Albert J. Turgeon, Toronto, Ontario, Canada, assignor to Eastern Power Devices Limited, Port Credit, Ontario, Canada, a limited-liability company of Canada
Application November 7, 1956, Serial No. 620,968
4 Claims. (Cl. 200—48)

1. A disconnect switch comprising a base, an operating mechanism and a blade; said operating mechanism being comprised of a first and second member; said first member having one end pivotly mounted on said base; said second member being rigid and having one end directly connected to said blade; said blade being pivotly mounted on said base; said blade having an engaged and disengaged position with respect to a contact positioned above said operating mechanism; said blade being rotatable about its own axis and swingable about the pivotal mounting on the base toward said operating mechanism when moved to said disengaged position and resting substantially adjacent to



said first and second members of said operating mechanism when in a fully disengaged position.

2,871,310
INERTIA-OPERATED SWITCH FOR CONVEYANCES AND THE LIKE
John Porcheddu, Bronx, N. Y.
Application October 24, 1956, Serial No. 618,095
13 Claims. (Cl. 200—61.45)

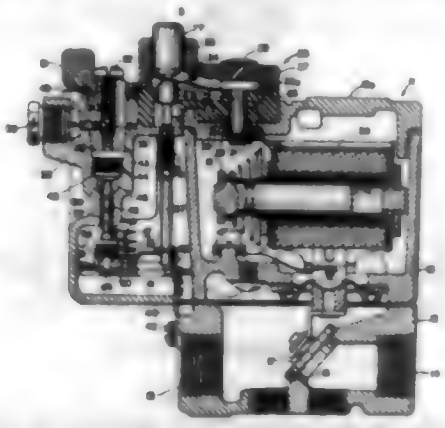


1. An inertia-operated electrical switch mechanism comprising a pair of cooperable switch contacts; means mounting one of said switch contacts for movement between a switch-closing position engaged with the other contact and a switch-opening position separated from the other contact, said one switch contact being normally biased to switch-opening position; latch means including a shoulder on the movable switch contact, disposed at right angles to the line of movement thereof and a movable locking member movable into and out of the path of movement of said shoulder, for releasably holding said one switch contact in switch-closing position; and a two-armed lever having one long arm and one short arm, disposed adjacent said locking member with its short lever arm engageable with the member to actuate the latter, the long arm of the lever being weighted and being movable in response to deceleration, thereby to enable the lever to actuate the locking member and effect release of the movable switch contact for switch-opening movement when the switch mechanism suffers a given mechanical shock.

2,871,311
COMBINATION VALVE AND SAFETY PILOT
Raymond P. Flagg, Golden Valley, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application September 9, 1957, Serial No. 682,792
5 Claims. (Cl. 200—61.86)

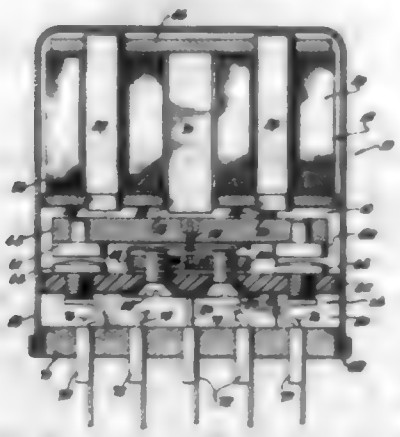
1. A combination main valve and pilot valve and switch comprising a main valve, a pilot valve, a first plunger for actuating said pilot valve, a pivoted lever operably engaging said plunger, means biasing said plunger in a direction to open said pilot valve, stronger means for biasing said

lever in a direction to close said pilot valve, condition responsive means capable of holding said lever in but incapable of moving it to valve open position, a pair of contact blades each having a fixed end and a free end which normally engages the free end of the other blade, a second plunger normally flexing a first of said blades out of engagement with the second blade, and manually operable



means movable into engagement with both of said blades to simultaneously move the free ends thereof and the two plungers to open said pilot valve while holding said free ends separated, said manually operable means being movable to its inoperative position and said second blade being movable into contact with said first blade under the bias of the second blade upon release of said manual means when the condition responsive means is energized.

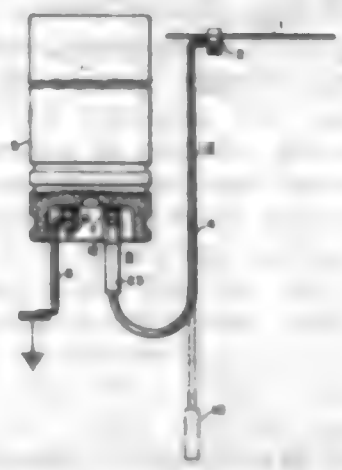
2,871,312
SUB-MINIATURE POLAR RELAY
Neil Curry, Van Nuys, Calif.
Application July 23, 1956, Serial No. 599,627
4 Claims. (Cl. 200—93)



1. In a relay, the combination of: a U-shaped, inverted frame having a bight and depending legs provided with oppositely disposed slots; a core secured to said frame; a permanent magnet located centrally of said core; coils mounted in spaced relationship on said core; a mounting plate slidably secured in the slots in said frame; adjustment means on said mounting plate including an adjustment plate movably secured to said mounting plate; fixed contacts mounted on said mounting plate; an armature movably mounted on said plate by said adjustment means; and movable contacts on said armature.

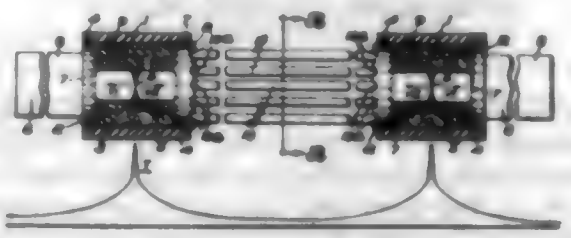
2,871,313
FUSE DEVICE
Leonard V. Chabala, Pittsburgh, and George A. Russak, Whitaker, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 26, 1954, Serial No. 412,734
7 Claims. (Cl. 200—113)

1. The combination in a fusible device for protecting electrical equipment of an insulating fuse tube, a conducting fuse link at least partially disposed within said insulating fuse tube and having a reverse locking bend frictionally gripping the inner surface wall of said fuse tube to hold the fuse tube in position, and a detachable conducting lead for energizing the equipment attached to



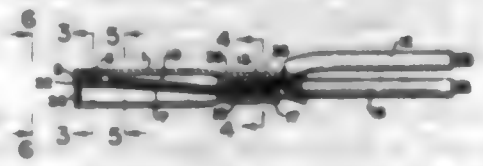
the fuse link so that upon blowing of the fuse link the fuse tube will remain secured to the detached lead to cover the end of the lead.

2,871,314
COMPOSITE CURRENT-LIMITING FUSE STRUCTURES
Kenneth W. Swain, Hampton Falls, and Frederick J. Koracka, South Hampton, N. H., and Erwin Salzer, Waban, Mass., assignors to The Chase-Shawmut Company, Newburyport, Mass.
Application May 2, 1957, Serial No. 656,661
10 Claims. (Cl. 200—120)



1. A current-limiting device comprising fusible ribbon-type fuse link means, a pair of serially related points of reduced cross-sectional area on said fuse link means sufficiently narrow and sufficiently short to approximate point heat sources when said fuse link means is carrying current, substantially tubular casing means housing said fuse link means, a pair of heat dissipating metal bodies each arranged at one of the axially outer ends of said fuse link means conductively connected to said fuse link means and closing said casing means, and an additional heat dissipating structure conductively connected to said fuse link means arranged at a point situated between said pair of points of reduced cross-sectional area, said additional structure being adapted to dissipate approximately twice as much heat as each of said pair of metal bodies.

2,871,315
THERMOSTAT AND METHOD OF MAKING
George Franklin Dales, Akron, Ohio
Application June 28, 1957, Serial No. 666,965
10 Claims. (Cl. 200—138)

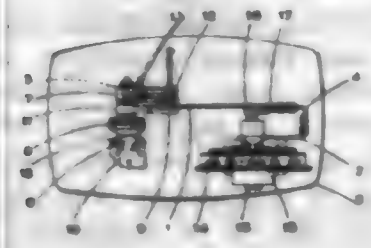


3. A thermostat with a tubular copper casing one end of which is closed by a plate having high resistance to the passage of an electric current and having an inner surface coated with zinc, the plate being bonded to the copper casing by an amalgam of the copper and zinc formed by fusion of the zinc with the end of the copper tubing.

2,871,316
MAGNETIC SNAP ACTION SWITCHES

David H. Surgenor, Beaconsfield, England, assignor to The Rheostatic Company Limited, Slough, England, a British company

Application February 5, 1958, Serial No. 713,470
Claims priority, application Great Britain February 6, 1957
2 Claims. (Cl. 200—138)

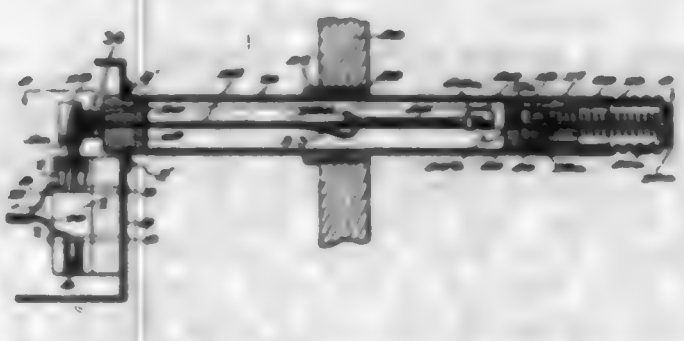


1. A magnetic snap action switch including a base for the switch, a resilient contact arm, a permanent magnet and movable contacts carried on one end of the resilient contact arm, two adjustable stops positioned one on each side of the magnet, and an armature associated with each stop, the movement of the contact arm and magnet being limited by the two adjustable stops, characterized in that one armature is fixed relative to the base for the switch, a contact in screw engagement with said armature, the gap between said armature and the magnet being set by adjustment of the contact in screw engagement with the armature, and a contact associated with the other armature and with which said other armature is in screw engagement, the gap between said other armature and the magnet being adjusted by movement of the armature by its screw engagement with the contact associated therewith.

2,871,317
TEMPERATURE AND PRESSURE RESPONSIVE ELECTRIC SWITCH

Timothy J. Sullivan, Butte, Mont., assignor to Sullivan Valve and Engineering Company, Butte, Mont., a corporation of Montana

Application September 27, 1957, Serial No. 686,736
5 Claims. (Cl. 200—148)



1. A temperature and pressure responsive electric switch comprising a housing; a switch unit secured within said housing and having a stationary contact, a movable contact adapted to contact said stationary contact, and spring means biasing said movable contact out of engagement with said stationary contact; a retaining member slidably mounted in one wall of said housing adjacent said switch unit for normally maintaining said movable contact in electrical contact with said stationary contact; spring means biasing said retaining member out of engagement with said movable contact; means including a rigid fusible link and a latch trip for normally connecting said retaining member to said housing in opposition to said retaining member spring biasing means; and pressure-responsive bellows means connected to said housing adjacent said latch trip to actuate said trip and release said retaining member upon the presence of pressure above a predetermined value.

2,871,318
CIRCUIT INTERRUPTER

Russell E. Frink, Forest Hills, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 7, 1955, Serial No. 499,970
5 Claims. (Cl. 200—144)

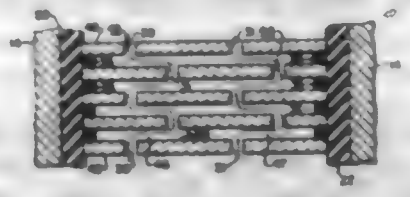


1. A circuit interrupter including means for establishing an arc, an arc chute for receiving and effecting the extinction of the arc including side walls, said arc chute also including a plurality of spaced plate portions of insulating material extending transversely inwardly between said side walls and generally transversely to the movement of the arc, a plurality of first insulating plate portions spaced at intervals along said arc chute each having a substantially centrally disposed closed slot provided therein extending inwardly from one side edge of the first plate portion with the open side of the slot facing said arc-establishing means, a plurality of second, intervening, plate portions each having a pair of elongated, closed slots therein spaced inwardly from the side walls of the arc chute and wholly provided in the plate material, one of the pair of elongated closed slots in each of the second plate portions opening at the edge of the second plate portion facing the arc-establishing means and having a tie-plate portion separating it from the adjoining closed slot of the pair of slots so that the latter slot is closed on all sides thereof, and the open ends of the closed slots in the said first plate portions substantially aligning with the open ends of said one slot of the second plate portions for accommodating entrance of said arc into the arc chute.

2,871,319
CIRCUIT INTERRUPTER

Robert C. Dickinson, Penn Township, Allegheny County, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

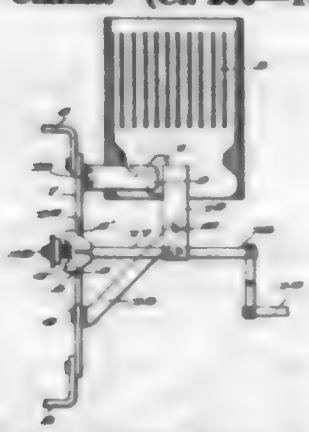
Application October 18, 1956, Serial No. 616,758
1 Claim. (Cl. 200—144)



An air-break magnetic circuit interrupter including contact means for establishing initially a single arc, an arc chute of generally rectangular shape having side wall portions and end wall portions for receiving said single arc and for causing its subsequent subdivision into two, generally parallel disposed arcs, each of said two arcs extending substantially the entire length of said generally rectangularly-shaped arc chute, said arc chute including a multiplicity of spaced, parallel disposed insulating plate portions extending generally transversely of said initially established single arc, a plurality of said insulating plate portions each having only two spaced, closed tapered slots therein, each tapered, closed slot

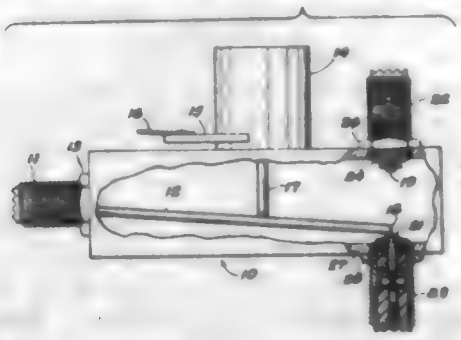
having a widened portion near to the contact means smoothly tapering to a restricted closed portion more remote from said contact means for gradual restriction of the arc column as it moves outwardly from the widened to the restricted portion, the intervening plate portion between the two slots of each plate terminating in a relatively sharp splitter portion near to said contact means, the closed ends of the two slots in each plate portion being spaced unequal distances from the side wall portions of the arc chute, the plate portions being disposed in staggered relation so that a pair of generally parallel, zig-zag, arc passages are provided along the entire length of said rectangularly-shaped arc chute to accommodate said two generally parallel disposed arcs extending the entire length of the arc chute, and the aforesaid arc-chute plate construction resulting in widespread dissipation of the generated heat of the two arcs throughout a wide surface area of the generally rectangularly-shaped arc chute to effect thereby rapid circuit interruption.

2,871,320
HEAVY DUTY SWITCH WITH MAGNETIC BLASTING
Oskar Bardorf, Neuenhof, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint stock company
Application December 18, 1956, Serial No. 629,014
Claims priority, application Switzerland December 19, 1955
3 Claims. (Cl. 200—146)



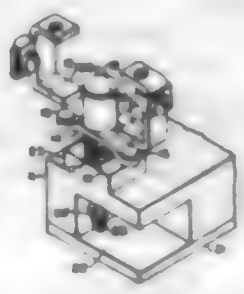
1. In a heavy duty switch having spaced fixed main contacts, fixed and movable spark drawing contacts on one side of said fixed main contacts; a movable main contact on the other side of said fixed main contacts, said movable main contact being so formed that the dynamic force of the current through the main contacts tends to close the movable contact on the fixed main contacts, and driving means on the same side of said fixed main contacts as said spark drawing contacts for moving the movable spark drawing contact and the movable main contact in opposite directions laterally away from the fixed main contacts during opening of the switch.

2,871,321
CO-AXIAL SWITCH CONNECTOR
Gordon M. Dow, Warren, Minn.
Application February 3, 1958, Serial No. 712,992
5 Claims. (Cl. 200—153)



2. A coaxial connector comprising a hollow body portion of conducting material, a first center conductor insulatingly mounted within one end of the body portion, a conducting spacer ring mounted within the body portion adjacent the inner end of the first conductor, a conducting disc formed with a large center hole mounted adjacent the end of the conducting spacer ring, a second conductor mounted in insulating material in the other end of the body portion, a spring recessed in one end of the insulating material and biasing said second conductor out of engagement with the first conductor, the inner end of said second conductor extending through a large opening in the conducting disc, a shorting disc attached to the inner end of said second conductor, and said second conductor movable from a first position wherein the second conductor is in engagement with the first conducting disc to a second position wherein the second conductor is out of engagement with the first conductor and the shorting disc is in engagement with the conducting disc.

2,871,322
MOUNTING MEANS FOR CONTACT MEMBERS
Charles J. Mahler and Marshall P. White, Buffalo, and Ralph B. Immel, Williamsville, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 21, 1956, Serial No. 623,566
3 Claims. (Cl. 200—166)

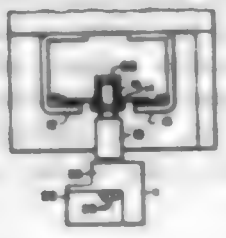


1. In a contact assembly, in combination, a pair of spaced stationary contact members, each contact member having contact surfaces on opposite sides thereof, a bridging member having spaced contact members thereon for engaging the contact surfaces on one side of said stationary contact members when disposed at one side of the stationary contact members, a movable carrier having an opening therein, a bifurcated guide member extending through said opening, at least one of the prongs of the guide member having an angularly disposed projection thereon engaging the carrier at the bottom of said opening to releasably retain the guide member in the opening, said bridging member being reversibly mounted on the guide member above the carrier, a spacing sleeve disposed on the guide member at one side of the bridging member, and a spring disposed on said guide member at the opposite side of the bridging member, said spring and said spacing sleeve being interchangeable on the guide member to change the location of the bridging member from one side of the stationary contact member to the opposite side to engage the contact surfaces on the opposite sides of the stationary contact members.

2,871,323
MOUNTING MEANS FOR CONTACT MEMBERS
Charles J. Mahler, Snyder, and Marshall P. White, Cheektowaga, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 4, 1957, Serial No. 650,693
7 Claims. (Cl. 200—166)

1. In a contact assembly, in combination, a pair of spaced stationary contact members, a bridging member having spaced contact members thereon for engaging said

stationary contact members, a movable carrier, a guide member removably mounted on the carrier, said bridging member being reversibly mounted on the guide member, a spring removably mounted on the guide member at one side of the bridging member, a separate generally cylin-



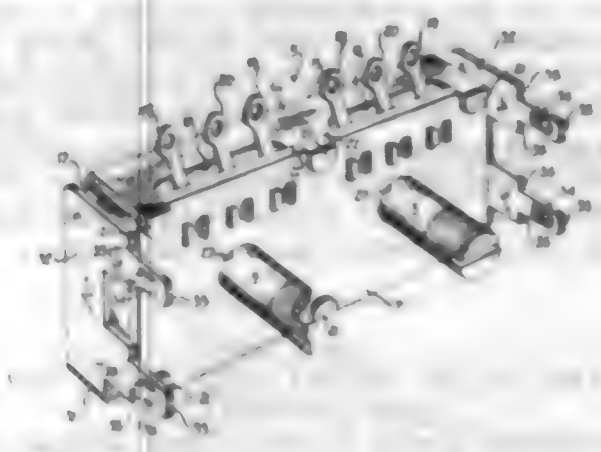
drical spacer disposed on the guide member at the other side of the bridging member, a projection on the spacer frictionally engaging the guide member to removably retain the spacer on the guide member, and said spring and said spacer being interchangeable in position on the guide member when the bridging member is reversed.

2,871,324

MULTIPLE VARIABLE RESISTANCE CONTROL WITH COMMON SNAP-IN MOUNTING

Wilbert H. Budd, Elkhart, Ind., assignor to Chicago Telephone Supply Corporation, Elkhart, Ind., a corporation of Indiana

Application March 26, 1956, Serial No. 573,890
18 Claims. (Cl. 201—55)



1. A variable resistance control adapted for mounting on a supporting panel comprising: a rectangular housing consisting of a sheet metal cover having a flat rear wall and forwardly projecting side and end walls joined to the peripheral edges of the rear wall, and a front wall of insulating material connected to the forward edges of said side and end walls in spaced parallel relation to said flat rear wall; cooperating stationary and movable elements within the housing providing a variable resistor; terminals for the control having end portions projecting from the housing; a pair of resilient supporting legs for the control, each having a fixed end integral with one of two opposite portions of one of the housing walls and a free end terminating near the opposite housing wall so that said supporting legs have substantial length, the housing being positioned between the legs but spaced therefrom so that the legs may be flexed toward and from one another; locating shoulders carried by the housing and lying in a common plane outwardly of the wall of the housing which overlies the supporting panel when the control is in place thereon, so that when said shoulders bear against the supporting panel said housing wall will be spaced a definite distance from the supporting panel; and snap-in fastening means on said legs at portions thereof spaced a substantial distance from the fixed ends thereof and projecting beyond the locating shoulders to enter holes in the panel and secure the legs to the panel.

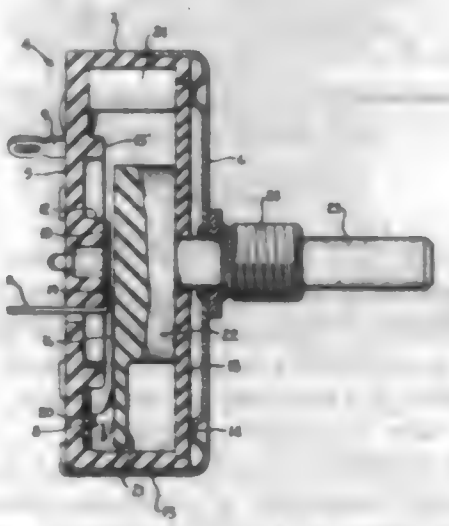
2,871,325

HIGH VOLTAGE VARIABLE RESISTOR

Mervin B. Arimura and Wilbert H. Budd, Elkhart, Ind., and Arthur M. Daily, Edwardsburg, Mich., assignors to Chicago Telephone Supply Corporation, Elkhart, Ind., a corporation of Indiana

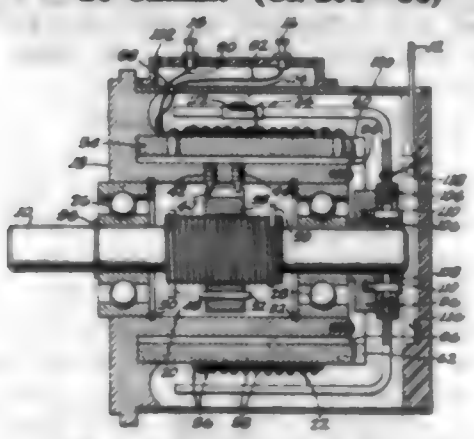
Original application May 20, 1954, Serial No. 431,124, now Patent No. 2,789,191, dated April 16, 1957. Divided and this application June 28, 1956, Serial No. 594,469

1 Claim. (Cl. 201—55)



In a high voltage variable resistor: a cup shaped housing of insulative material having a base and a side wall extending forwardly from one face of the base and provided with forwardly facing abutment means adjacent to its rim; means closing the open front of the cup shaped housing, comprising an inner front wall of insulative material extending across the housing and resting against said forwardly facing abutment means, and an outer front wall of sheet metal having portions bent rearwardly over the housing side wall and secured thereto so as to hold the inner wall clamped against said abutment means, said inner wall having a hole therein concentric with the housing side wall; means on said outer wall providing a shaft bearing coaxial with said hole in the inner wall; a flat substantially large diameter arcuate resistance element on said face of the base, concentric with the insulative side wall of the housing and located adjacent thereto; a substantially small diameter collector ring on said face of the base, concentric to but radially remote from the resistance element; an operating shaft rotatably journaled in said bearing and projecting inwardly through the hole in said inner wall; an arm of insulating material fixed to the shaft and extending radially in the housing with one side of the arm opposite said face of the base and in position to sweep across the base as the shaft is turned; a contactor having spring contact fingers thereon, the extremities of which are adapted to traverse the resistance element and the collector ring; means mounting the contactor on said side of the arm with the extremities of its spring fingers in position to traverse the resistance element and the collector ring but all at the same side of the shaft axis, whereby the spring fingers exert an off-center thrust upon the contactor carrying arm tending to tilt the same and cant the control shaft in its bearing; and means for receiving said thrust upon the arm and for carrying the same forwardly into the housing to thus relieve the shaft of tilting forces, comprising a hub integral with the contactor carrying arm and having a portion directly forwardly of the arm and the contactor thereon that bears against said inner wall at the front of the housing along an area thereof which extends radially outwardly of the shaft axis an extent at least equal to the distance from the shaft axis to an arc concentric to the collector ring and resistance element and located midway therebetween.

2,871,326
PRECISION POTENTIOMETERS
James W. Weidenman, Westbury, and David S. Radtje, Yonkers, N. Y., assignors to Litton Industries of California, Beverly Hills, Calif.
Application July 23, 1956, Serial No. 599,601
20 Claims. (Cl. 201—56)



1. In a multiturn potentiometer wherein a slider element is rotatable in accordance with the rotation of an input shaft to provide a variable resistance as the shaft is rotated through a plurality of revolutions, a dimensionally stable core assembly comprising: a coil form of substantially cylindrical configuration and formed from a non-hygroscopic material; a resistance element wound over said coil form in a helical pattern; and an insulating guide helix wound between adjacent turns of said resistance element, the cylinder defined by the outermost periphery of said guide helix having a diameter larger than that of the cylinder defined by the outermost periphery of said resistance element whereby the slider element is slidably engageable with the outer periphery of said resistance element and is guidable axially with respect to said coil form by adjacent turns of said guide helix.

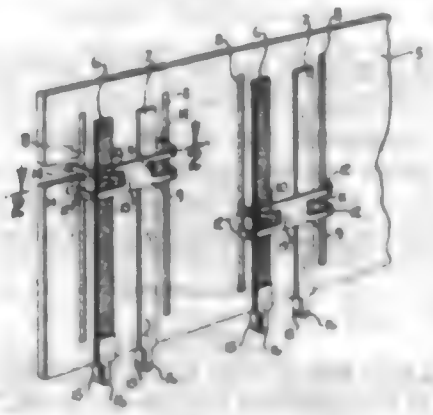
2,871,327
ELECTRIC CONTROLLER, INCLUDING A VOLUME CONTROLLING RESISTANCE
Joseph W. Jones, New York, N. Y.
Application May 11, 1953, Serial No. 353,933
1 Claim. (Cl. 201—62)



A control unit for a television receiver comprising a flat case to be held in the hand, a thumb disc pivoted in said case and having a thumb-engageable portion protruding from the side of the case, a volume controlling resistance in said case adjoining the inner side of said thumb disc, said thumb disc having an opening in that portion toward the resistance, a terminal strip in the case at the back of said thumb disc and a spring contact strip having an inner end portion engaged between the back of the thumb disc and said terminal strip, an angled portion projecting through said opening and a contact portion engaged with said resistance.

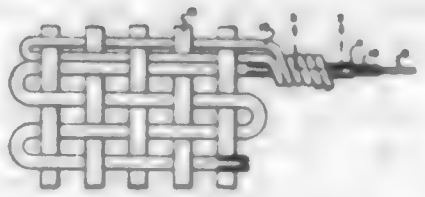
2,871,328
PRESET TYPE VARIABLE RESISTOR
Wilbert H. Budd, Howard F. Christner, Jr., Wayne A. Barden, and Joel L. Kehres, Elkhart, Ind., and Arthur M. Daily, Edwardsburg, Mich., assignors to Chicago Telephone Supply Corporation, Elkhart, Ind., a corporation of Indiana
Application August 31, 1955, Serial No. 531,802
7 Claims. (Cl. 201—62)

1. A variable resistor comprising: a flat piece of insulating material providing a base for the resistor, and having elongated slot means therethrough, said slot means providing opposed guiding surfaces equispaced from one another along the length of the slot means; a slider mounted on the base and having guide means thereon comprising an electrically conductive guide member having spaced opposite legs, portions of which are slidably received in said slot means and have guide surfaces in juxtaposition to said opposing guiding surfaces of the slot means to constrain the slider to substantially translatory motion along the slot means, said slider having parts thereof disposed upon opposite sides of the base and yieldingly urged towards one another, said parts bearing against the opposite sides of the base so that the base is



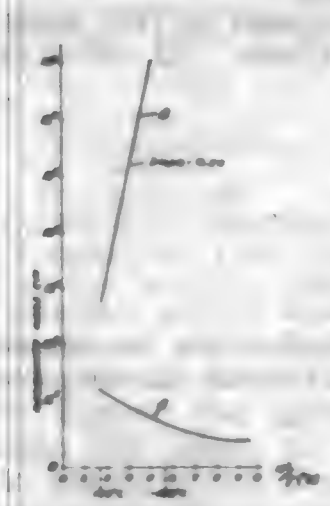
yieldingly clamped therebetween and the slider is frictionally held in any selected position along the length of the slot means; means providing an elongated resistance path bonded directly to one side of the base and disposed equidistant from one of the opposed guiding surfaces provided by the slot means; means providing an elongated low resistance conductive path bonded directly to one side of the base; said resistance and conductive paths being equidistant from one another; electrically connected spring contact portions carried by the slider, each bearing upon one of said paths to traverse the same as the slider is moved along the slot means; and terminal means on the base, one connected to each of said paths.

2,871,329
ELECTRICAL RESISTANCE WIRE NETS AND TERMINALS
William Warder Morris, Haddam, Conn., assignor of one-half to Carlos B. Ellis, Middletown, Conn., and one-half to Jean K. Morris, Haddam, Conn.
Application August 3, 1954, Serial No. 447,580
9 Claims. (Cl. 201—63)



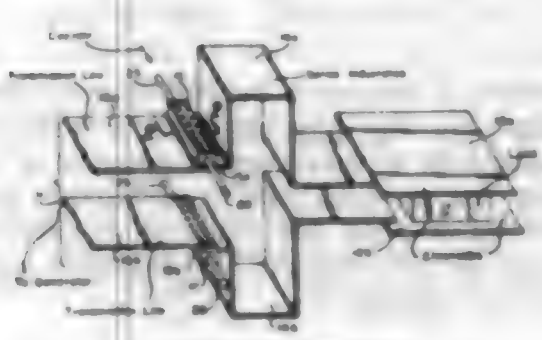
1. In an electrical heater element, a noncurrent-bearing metal body of substantial surface area to receive and dissipate heat, an insulated heater wire having a doubled portion thereof in intimate contact with the metal body to impart heat to the latter, the wire having a terminal portion extending beyond the body for electrical-current connection to a current-conducting supply wire having a lower electrical resistance than the heater wire, and an elongate member for supporting and strengthening said terminal portion and having a portion thereof of helical form intimately embracing a part of the terminal portion and having the turns thereof disposed in abutting relation to one another, said member also having a portion thereof diverging from the terminal portion and secured to the body for support by the latter, said member including a wire element.

2,871,330
SILICON CURRENT CONTROLLING DEVICES
Clifford Bruce Collins, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application December 22, 1954, Serial No. 476,910
10 Claims. (Cl. 201—63)



9. A semiconductor current control member comprising a monocrystalline body consisting essentially of P-type silicon having a finite excess of uncompensated acceptor activator impurities for silicon not exceeding 10^{14} atoms per cubic centimeter thereof impregnated with from 10^{13} to 2×10^{14} atoms of iron per cubic centimeter of silicon, said member exhibiting a change in resistivity from approximately 0.01 megohm-centimeters at 100° C to over 100 megohm-centimeters at —100° C.

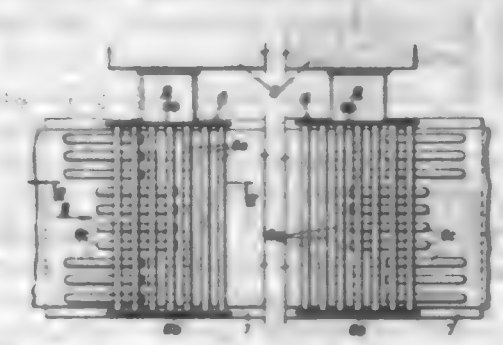
2,871,331
COOLED RADIO FREQUENCY COUPLING UNIT
Joseph J. Ustica, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
Application September 10, 1957, Serial No. 683,121
14 Claims. (Cl. 219—10.49)



1. In combination, an electrical conductor, a hollow coolant jacket removably overlying said conductor fastening means passing through said jacket for tightly clamping said jacket to said conductor, and structural means on the interior of said jacket adjacent said fastening means for resisting compressive forces exerted on said hollow jacket by said fastening means.

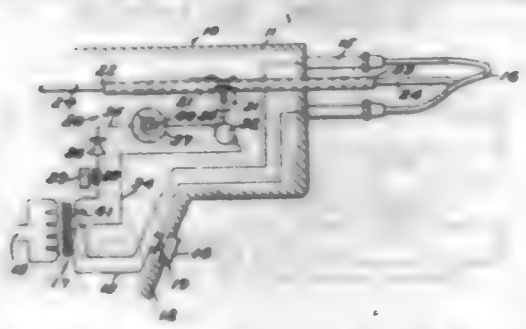
2,871,332
DIELECTRIC HEATING ELECTRODES
Raymond Northmore, Lydiate, near Liverpool, and Joseph Francis Naylor, Newton-le-Willows, England, assignors to T. & T. Vicars Limited, Newton-le-Willows, England, a British company
Application January 22, 1957, Serial No. 635,489
Claims priority, application Great Britain January 28, 1956
2 Claims. (Cl. 219—10.69)

1. A dielectric heating electrode array for the treatment of articles moving through the field of the array, comprising a series of fixed electrodes, a pair of end plates and a plurality of displaceable fingers, said fixed electrodes being disposed transversely between said end plates to form therewith a framework, and said fingers being mounted within slots formed in at least some of said transverse electrodes so as to be individually slidable



therein, thereby to vary the effective area of said electrodes at different points along the length of the array.

2,871,333
WIRE SOLDER FEEDING MECHANISM
Eugene M. Savage, Pontiac, Mich.
Application July 1, 1957, Serial No. 669,148
4 Claims. (Cl. 219—27)

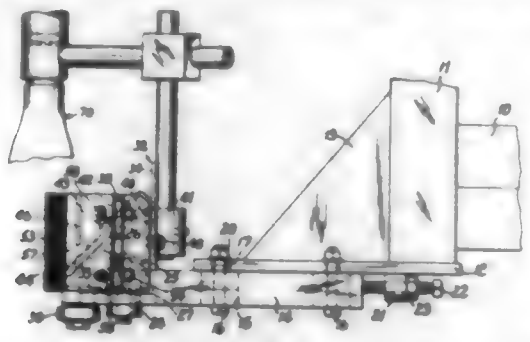


1. In combination, an automatic solder-feeding mechanism and a soldering gun comprising a housing, a transformer in said housing, a solder melting resistance heating element circuit activated by said transformer having a solder and work contacting tip portion extending from said case, a solder channel member disposed through said housing having solder entrance and exit ends with said exit end being adapted to direct solder into contact with said tip and having an intermediate side wall opening for the partial penetration of a solder engaging toothed wheel, a toothed wheel projecting into the wire-solder containing channel of said member through said member side wall opening for forcibly engaging wire-solder contained therein to coin teeth in wire solder so as to travel wire solder in said member towards said tip via rotation of said wheel, and means for driving said wheel to advance solder toward said tip, said means comprising a gear train driving said wheel, a motor driving said gear train, a motor circuit powering said motor including a power take-off coil surrounding said transformer, a potentiometer in said motor circuit, a circuit powering said transformer, and a switch in said transformer circuit; both said circuits being energized by said switch; said motor speed being adjustable via said potentiometer to adjust the feed of solder to the heat of said resistance element.

2,871,334
WELDING APPARATUS
Cleveland N. Cooper and Arthur L. Frederick, Webster Groves, Mo., assignors to The Pandjiris Weldment Co., St. Louis, Mo., a corporation of Missouri
Application January 19, 1956, Serial No. 560,168
9 Claims. (Cl. 219—130)

1. A flux holding device for a welding apparatus comprising a frame, and means carried by said frame for supporting flux against the work to be welded, said means consisting of wire brush arranged to engage the work and to determine the size, shape and orientation of the flux blanket, the wire brush consisting of many individual fine wires arranged close together to afford a density to support flux, said wires being resiliently flexible to con-

stitute spring beams that assure intimate contact with the work regardless of surface irregularities, and means con-



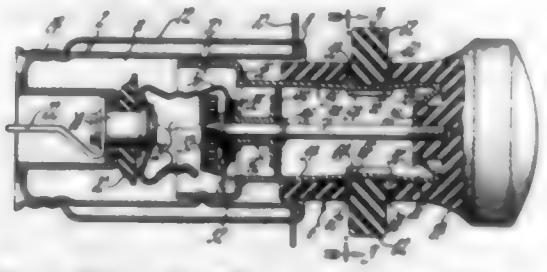
nected to the frame urging the wire brush against the work.

2,871,335

CIGAR LIGHTER HAVING RETRACTABLE SLEEVE

Richard P. Barnard, Franklin, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 31, 1957, Serial No. 675,463
16 Claims. (Cl 219—32)



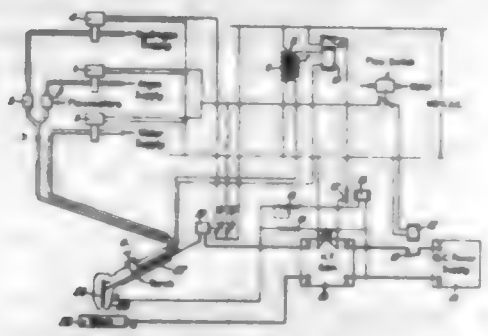
1. A cigar lighter igniting unit comprising a handling knob, an exposable heating element assembly carried by said knob, said assembly comprising a heating element substantially axially aligned with said knob, a shield surrounding and normally projecting beyond said heating element, means connected to said assembly to expose said element beyond said shield, said means comprising actuating mechanism in said handling knob operable normal to the longitudinal axis of the latter whereby the exposing movement is in substantial axial alignment with the knob axis.

2,871,336

ELECTRIC ARC PROCESS AND APPARATUS

Rocco R. Lobosco, Fanwood, Joseph E. Messina, Roselle, and Glenn W. Oyler, Springfield, N. J., assignors to Union Carbide Corporation, a corporation of New York

Application November 28, 1956, Serial No. 624,845
4 Claims. (Cl. 219—74)



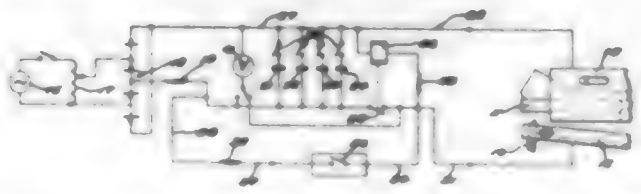
1. Process of starting a main high-pressure arc in a stream of gas having a predetermined ionization potential, which comprises starting a pilot high-pressure arc of predetermined arc current in a stream composed of gas having an ionization potential that is lower than that of the gas of the stream of such main arc, starting a main high-pressure arc with such pilot arc in such lower ionization potential gas stream at an arc current that is higher than that of such pilot arc, and changing the composition of such stream with such higher arc current to gas having an ionization potential that is higher than that of the gas of the stream of such pilot arc.

2,871,337

ELECTRICAL CONTROL SYSTEM FOR PERCUSSION WELDER

Kenneth F. Johnson, Oak Lawn, and Amos L. Quinlan, La Grange Park, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application February 26, 1957, Serial No. 642,698
6 Claims. (Cl. 219—113)



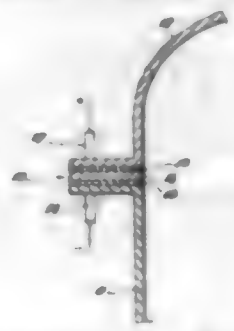
1. In a percussion welding apparatus having facilities for moving a pair of articles into percussive engagement, a charged circuit, a circuit including normally open contacts interconnecting said charged circuit with said facilities, means for closing said contacts, and means rendered effective by the engagement of the articles for precluding operation of said closing means.

2,871,338

JOINING OF CUPREOUS METALS AND ALLOYS

Charles Samuel Broad, London, England, assignor to Gallay Limited, a company of Great Britain and Northern Ireland and Cyril Terence Delaney, both of London, England

Application March 28, 1957, Serial No. 647,268
4 Claims. (Cl. 219—117)



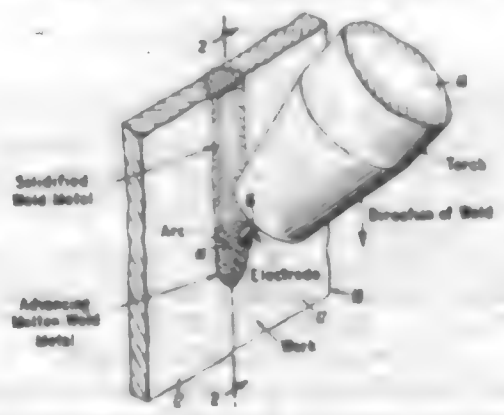
1. A method of resistance welding cupreous metals or alloys, comprising disposing between the surfaces which are to be adhesively secured together a lamina of metal or alloy which has a lower heat conductivity than said cupreous metal or alloy and which is furnished with a solder coating on both surfaces, and thereafter applying a welding current thereto.

2,871,339

ELECTRIC ARC WELDING

Clarence E. Jackson, Berkeley Heights, N. J., and Jan M. Ruzek, Niagara Falls, N. Y., assignors to Union Carbide Corporation, a corporation of New York

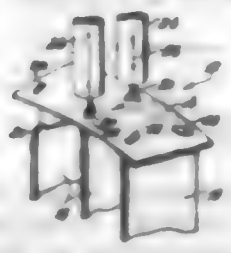
Application April 23, 1957, Serial No. 654,486
2 Claims. (Cl. 219—137)



1. Gas-shielded electric arc welding process which comprises arranging the work to be welded so that a puddle of molten weld metal formed by a welding arc will tend to flow downwardly under the force of gravity,

discharging a stream of arc shielding gas toward the work, energizing a welding arc in such stream between such work and an electrode, melting a puddle of weld metal with such arc, and relatively moving the work on the one hand with respect to the puddle, gas stream, electrode, and arc on the other hand, so that a continuous weld is made, characterized in that the gravitational flow of the molten metal of such puddle acts to cushion the arc force resulting from the selected arc current.

2,871,340
METHOD OF MAKING BLOWER WHEELS
John H. Wessel, Los Angeles, Calif., assignor to Utility Appliance Corp., Los Angeles, Calif., a corporation of California
Application October 14, 1957, Serial No. 689,856
1 Claim. (Cl. 219—150)



A method of securing together an assembly of fan components comprising a plurality of circumferentially spaced, longitudinal vanes having at their ends tabs which project through openings in mounting members at the ends of said assembly, each of said vanes having two of said tabs at each end thereof, said method including the steps of: contacting the projecting portions of said tabs at each end of each of said vanes with electrodes; passing electric current from one of said electrodes to the other through the tabs contacted by said electrodes, and through an end portion of the corresponding vane, so as to heat such tabs; and relatively moving said electrodes and said assembly longitudinally toward each other while said electrodes are in contact with said heated tabs so as to rivet said projecting portions of said heated tabs.

2,871,341
ILLUMINATED ASH RECEPTACLE
George E. Thompson, Bell, Calif.
Application August 2, 1954, Serial No. 447,811
3 Claims. (Cl. 240—2)



3. An illuminated ash receptacle for use on automobiles including in combination: an automobile ash receptacle; a lamp having a lamp base; a bracket; and a member secured to the bracket and having a resilient lamp-base-holding means curved around a longitudinal horizontal axis to encompass more than 180 degrees of curvature and defining a longitudinal horizontal opening along one side thereof, a light-reflecting means integral with and comprising a longitudial horizontal extension of said lamp-base-holding means, and light-shield means comprising a lateral horizontal extension of the bottom of said light-reflecting means projecting substantially beneath and beyond said longitudinal horizontal opening and substantially beyond the upper portion of the light-reflecting means thereby substantially preventing downward radiation of light from the device; said lamp-base-holding means removably resiliently holding said lamp base of said lamp and positioning said lamp at least partially within said light-reflecting means; said member being positioned laterally horizontally adjacent to said ash receptacle and reflecting light laterally horizontally through said longitudinal horizontal opening, as limited by said light-shield means thereunder, toward said ash receptacle and rendering said ash receptacle visible at night when said ash receptacle is in open position for use.

2,871,342
CLEARANCE MARKER LIGHT
William L. Mappes, Cincinnati, Ohio, assignor to Northeast Capital Corporation, New York, N. Y., a corporation of New York
Application December 19, 1955, Serial No. 554,087
1 Claim. (Cl. 240—8.2)

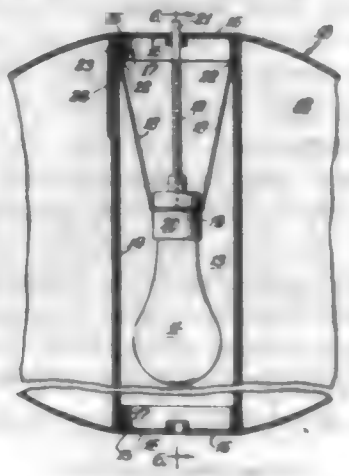


An electric clearance marker light for roadway vehicles, comprising a flat sheet metal base having a ring portion projecting laterally therefrom and a circular flange extending marginally from said ring portion in a direction generally parallel to the plane of said base, whereby the ring, base, and flange delineate an annular recess, the said flange having gaps therein providing entrances to said recess, a lens element terminating in a skirt adapted to be received telescopically within the recess area, the said skirt having ears projecting in generally radial direction therefrom, which ears are adapted to be received through the said entrance gaps into the recess annulus upon subsequent rotation of the lens in the plane of said recess, a compressible washer of resilient material disposed within the recess annulus, one face of the washer engaging the base, the other face of the washer being engageable by the ears when the lens is rotated to lock the ears within the recess, the uncompressed thickness of said washer plus the thickness of the ears when in engagement therewith being substantially greater than the base-to-flange height of said recess, whereby said washer is compressed to substantially reduced thickness upon entry of said ears into said recess beneath said flange, the said lens having a circumferential shoulder spaced longitudinally from the ears for disposition closely adjacent the exterior circumferential face of the recess, said circumferential shoulder being disposed to engage said flange to limit inward movement of said lens, and socket means for the reception of an electric light bulb carried by said base behind said lens.

2,871,343
INFLATABLE DECORATIVE LANTERN
Donald W. Whitney, Fort Lauderdale, Fla.
Application November 4, 1955, Serial No. 545,002
6 Claims. (Cl. 240—10)

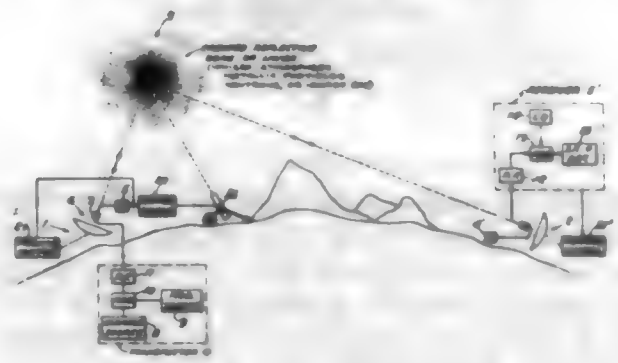
1. A lantern comprising: an elongated translucent chimney open at its ends to provide a passage for light bulb cooling air; a light bulb carrier positioned within the chimney for supporting a bulb therein; and an annular inflatable translucent globe member having an inner surface

in continuous contact with the chimney when inflated, said contact providing frictional assembly of the globe and



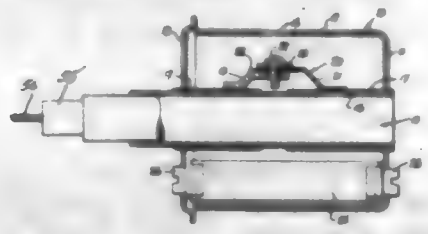
chimney for maintaining the same together in operative relationship during use.

2,871,344
LONG DISTANCE COMMUNICATION SYSTEM
Henri G. Busignies, Montclair, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application September 7, 1956, Serial No. 608,530
7 Claims. (Cl. 250—15)



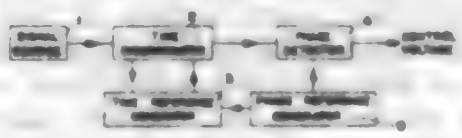
1. An over-the-horizon communication system between two spaced points comprising a transmitter and receiver at each of said points, a directive antenna system at each of said points coupled to said transmitter and said receiver, means to deposit in a given zone of the upper atmosphere a layer of electromagnetic wave dispersive material, means for directing the antenna system at each of said points toward said layer and means coupled to the receiver at one of said points and responsive to a change in the characteristic of the received signal to replenish said material in said layer to maintain its electromagnetic wave dispersive properties.

2,871,345
ULTRA HIGH FREQUENCY TUNERS OR CONVERTERS
Seymour Napolin, Williston Park, N. Y., assignor to Radio Receptor Company, Inc., Brooklyn, N. Y., a corporation of New York
Application March 25, 1953, Serial No. 344,639
2 Claims. (Cl. 250—20)



1. A local U. H. F. oscillator unit comprising, in combination, an elongated tubular dielectric member; a pair of tubular conductive metal surfaces arranged in longitudinally spaced relation on the outer surface of said member; a conductive metal plunger mounted for axial movement within said member; a cylindrical metal container enclosing said member and said surfaces and having centrally apertured end walls receiving said surfaces; each surface being fixedly metallically connected to a different end wall to form, with the container, an inductance for the unit; a second tubular dielectric member telescoped over said surfaces; a pair of metal collars mounted in longitudinally spaced relation on the external surface of said second dielectric member to form with said tubular metal surfaces, a pair of condensers; a triode tube socket mounted adjacent an opening in the side wall of said container; means connecting the plate terminal of said socket to one of said collars and the grid terminal thereof to the other collar; a triode tube mounted in said socket; an elongated strip metal reed extending between the end walls parallel to said tubular member and eccentrically of the container axis; and means mounting said reed in the end walls for rotation about its longitudinal centerline to serve as a padder for the inductance.

2,871,346
NOISE COMPARISON SIGNAL DETECTING SYSTEM
William R. Mercer, Belmont, Mass., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
Application May 13, 1954, Serial No. 429,491
3 Claims. (Cl. 250—20)

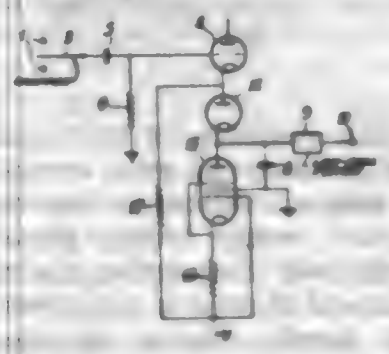


1. An electronic detecting system for developing a control voltage verifying the presence of desired signal pulses as distinguished from random noise pulses, said signal pulses recurring at a predetermined rate, comprising a time discriminator responsive to said signal pulses; a time reference generator for developing reference pulses which recur at the same predetermined rate as said signal pulses; means coupling said reference generator and said discriminator, said reference pulses controlling the time of response of said discriminator to said signal pulses and said discriminator controlling said reference generator to synchronize said reference pulses with said signal pulses; a phase reference generator for developing a phase reference voltage to displace said reference pulses with respect to time in a predetermined manner, effecting thereby a voltage output from said discriminator in response to said signal pulses and displaced reference pulses; and a phase detector, responsive to the phase difference between said output of said time discriminator and said phase reference voltage, developing said control voltage of said system only in response to said desired signal pulses.

2,871,347
ELECTRONIC AMPLIFYING CIRCUITS
Jack Edward Pateman, Potters Bar, England, assignor to Elliott Brothers (London) Limited, London, England, a British company
Application June 18, 1953, Serial No. 362,633
Claims priority, application Great Britain June 20, 1952
5 Claims. (Cl. 250—27)

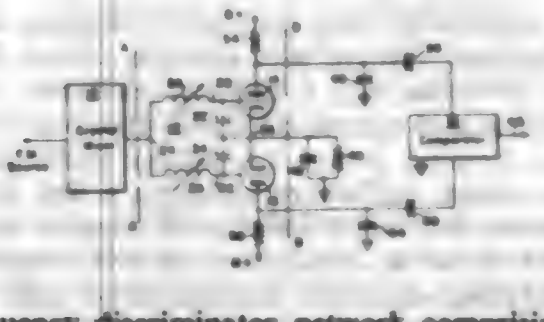
5. An amplifier circuit comprising a first thermionic valve having at least an anode, a cathode and a control grid electrode, a terminal at which is applied an input voltage capable of variation in amplitude, a chopper device having a rate of chopping which is much higher than any possible rate of variation of said input voltage for deriving from said input voltage a train of voltage pulses of substantially square-topped waveform and of an amplitude equal to that of said input voltage, differentiating means comprising a first condenser connected

between said chopper device and said grid and a first resistor connected between said grid and earth, said differentiating means being adapted to deliver to said grid alternating positive-going and negative-going voltage pulses of narrow peaked waveform and each of an amplitude equal to that of the square-topped pulse from which it derives, means for maintaining said anode at a positive potential with respect to said cathode including a source of negative potential, the magnitude of which is large compared with the magnitude of said input voltage, and a second resistor connected between said cathode and said source, a second thermionic valve having at least an anode and a cathode, the anode of said second valve being connected to the cathode of said first valve, a third thermionic valve capable of passing a substantially constant current under fluctuating conditions and having at least an anode, a cathode, a suppressor grid, a screen grid and a control grid, the anode of said third valve being



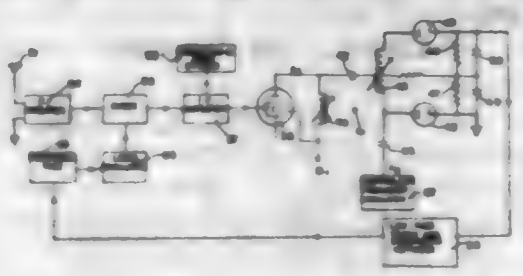
connected to the cathode of said second valve, the suppressor grid and cathode of said third valve being strapped together, the screen grid of said third valve being connected to earth, the control grid of said third valve being connected to said source and the cathode of said third valve being connected to said source through a third resistor, a second condenser connected on the one side to the cathode of said second valve and on the other side to earth so that it will be charged to the peak value of the respective positive-going pulse each time that one of these appears on the control grid of said first valve to cause said second valve to become conducting, and will discharge linearly through said third valve between the appearance of successive positive-going pulses at the grid of said first valve and means for deriving from the voltage waveform appearing across said second condenser an output representing the mean direct current level of this waveform.

2,871,348
DISCRIMINATOR CIRCUIT
James O. Hutchinson, Seattle, Wash., and Raymond W. Briggs, II, Glen Burnie, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 15, 1954, Serial No. 436,795
1 Claim. (Cl. 250—27)



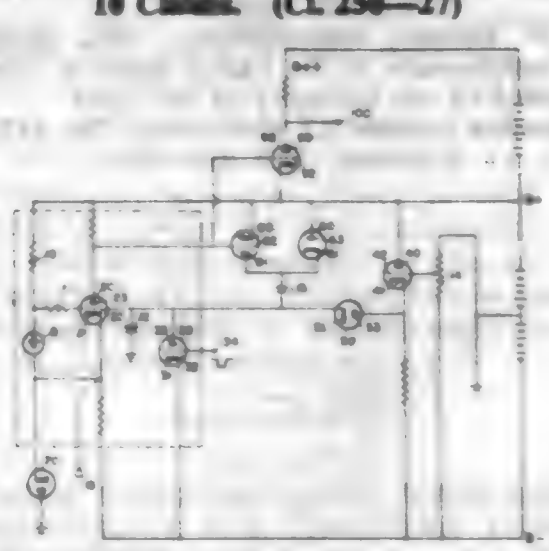
A frequency discriminator network comprising a pair of input terminals having a connection to a variable frequency signal source, a pair of electron discharge devices, an anode, cathode and grid for each of said devices, a first inductor connecting the grid of one of said discharge devices to one of said input terminals, a second inductor connecting the grid of the other of said discharge devices to said one input terminal, means connecting the cathodes of said discharge devices to the other of said input terminals, said first inductor forming a first series resonant circuit with the grid-cathode capacitance of its associated discharge device, said first resonant circuit being tuned a predetermined amount below a reference frequency, said second inductor forming a second series resonant circuit with the grid-cathode capacitance of its associated discharge device, said second resonant circuit being tuned above said resonant frequency in an amount equal to said predetermined amount, and means for comparing the outputs of said discharge devices.

2,871,349
DISCRIMINATOR CIRCUIT
Jonas M. Shapiro, Yonkers, N. Y.
Application July 14, 1954, Serial No. 443,247
3 Claims. (Cl. 250—27)



1. A discriminator circuit comprising a first source of signals, a transformer having a primary winding and a center-tapped secondary winding magnetically coupled thereto, said primary winding being coupled to said first source and one side of said primary winding being connected to the center of said secondary winding, a pair of rectifiers each coupled at one side to one end of said secondary winding, an impedance connecting together the other sides of said rectifiers and the center of said secondary winding, a crystal-controlled oscillator, means coupling said oscillator to a point in said circuit between said secondary winding and the plate of one of said rectifiers to produce therein a pair of 180° out-of-phase voltages, and means coupled to said impedance to derive an output signal therefrom.

2,871,350
DELAY SWEEP CIRCUIT
Robert F. Casey, Pompton Plains, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application July 29, 1954, Serial No. 446,430
10 Claims. (Cl. 250—27)



10. A sweep generator having an adjustable delay before the occurrence of an output signal, comprising: means to produce a sweep signal which starts below and then exceeds a given level, said means comprising a sweep capacitor, means to discharge said capacitor to a predetermined value which is below said given level, and means to charge said capacitor; an amplifier having an

input and an output terminal; means to prevent the signal at said output terminal from dropping below said given level; means to apply said sweep signal to said input terminal, whereby there is no output signal for the interval during which said sweep signal varies from said predetermined value to said given level, thus producing a delay; and means to connect an auxiliary capacitor in parallel with said capacitor.

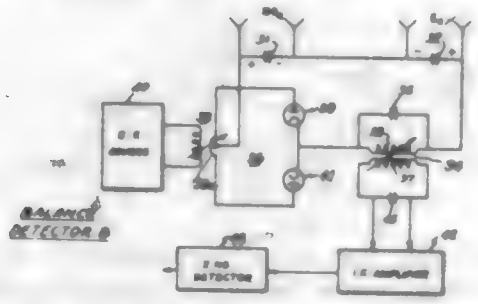
2,871,351

BALANCE DETECTOR USED IN ELECTRONIC ANALOGUE-TO-DIGITAL CONVERTER

Milton L. Kuder, Washington, D. C., assignor to the United States of America as represented by the Secretary of Commerce

Original application January 9, 1953, Serial No. 330,599, now Patent No. 2,761,968, dated September 4, 1956. Divided and this application December 15, 1955, Serial No. 553,398

5 Claims. (Cl. 250—27)



1. In an apparatus of the type described, a balance detector for generating a control signal upon consonance between the amplitudes of an applied analogue voltage E_x and a test voltage ΣE_x, comprising means responsive to said E_x and ΣE_x voltages for producing a voltage corresponding to the difference therebetween a second voltage source having a predetermined frequency, circuit means responsive to twice the frequency of said second voltage source, and selectively energizable means for operatively connecting said voltage source to said responsive means under a predetermined condition of operation in which said E_x and ΣE_x are substantially equal, said energizable means compriisng means biased by said difference voltage for normally deenergizing said energizable means and for energizing said energizable means under said condition of operation in which said difference voltage has diminished to substantially zero.

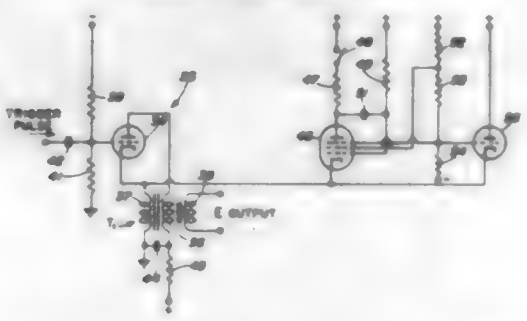
2,871,352

PULSE CIRCUIT

Stephen N. Broady, Randallstown, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application October 23, 1956, Serial No. 617,899

7 Claims. (Cl. 250—27)



2. A pulse generator comprising: a blocking oscillator; a screen coupled phantastron circuit; a triode amplifier; means to couple a trigger pulse to said blocking oscillator; means to couple the output of said blocking oscillator to said phantastron circuit to trigger the same; means to couple an output of said phantastron circuit to said triode amplifier to cause said triode amplifier to conduct; means to couple said triode amplifier to said blocking oscillator circuit to cause said blocking oscillator circuit to recommence its cycle of operation when said triode amplifier ceases conduction; and means to render said phantastron circuit inoperative.

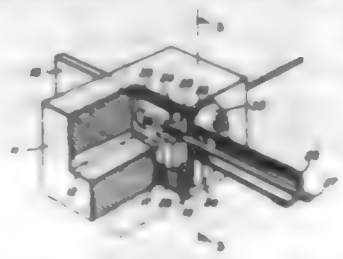
2,871,353

ELECTROMAGNETIC WAVE DETECTOR

Harald T. Friis, Rumson, and William M. Sharpless, Fair Haven, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application September 2, 1954, Serial No. 453,778

7 Claims. (Cl. 250—31)



1. A mounting assembly for wave guide circuit components for electromagnetic wave energy of short wavelength, comprising a conductively bounded wave guiding channel for said energy having given cross-sectional dimensions, a thin slab-like member of conductive material received across said channel in a transverse plane of said channel, said member having an aperture extending through its thickness of cross-sectional dimensions at least as large as said given cross-sectional dimensions, one of said cross-sectional dimensions of said aperture being larger than the other of said cross-sectional dimensions of said aperture, said member being capable of transverse movement with respect to said channel parallel to the larger cross-sectional dimension of said aperture, and a wave guide circuit component extending across said aperture in a direction parallel to the smaller cross-sectional dimension of said aperture.

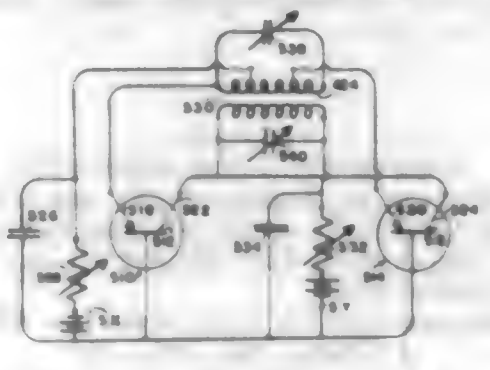
2,871,354

OSCILLATORS

Robert Ruben Perlman, New York, N. Y.

Application March 2, 1953, Serial No. 339,595

3 Claims. (Cl. 250—36)

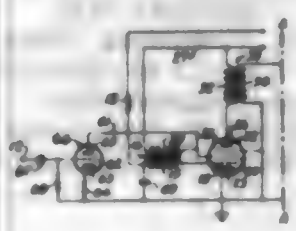


1. An oscillatory wave generator including a pair of electron devices, each of said electron devices including a control electrode and a collector electrode, electrical connections to said control electrodes and to said collector electrodes forming means to sustain oscillations, said means to sustain oscillations including a first inductance and a second inductance inductively coupled one to the other, said electrical connections to said collector electrodes including electrical connection to said collector electrodes placing said collector electrodes in parallel one respective the other, and said collector electrodes connected to said second inductance, and said electrical connections to said control electrodes including electrical connections from said control electrodes to said first inductance, said electrical connections to said first inductance placing said control electrodes out of phase one respective the other.

2,871,355
PULSE GENERATOR

Eric Robert Woods, San Diego, Calif., assignor to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware

Application February 24, 1955, Serial No. 490,252
1 Claim. (Cl. 250—36)

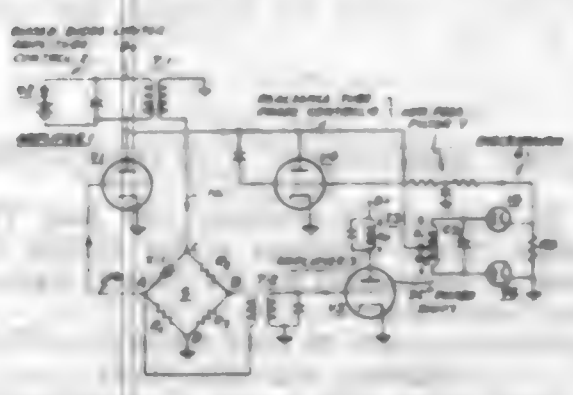


A pulse generator for supplying a power pulse comprising a discharge device including an anode, a cathode, a suppressor electrode, a first control electrode adjacent said cathode and a second control electrode positioned between said first control electrode and said suppressor electrode, negative potential means for applying a negative potential to said first control electrode, a first pulse transformer having a secondary winding connected in serial relationship with said first control electrode, a first resistor, and said negative potential means, a capacitor and a second resistor connected in serial relationship between said cathode and the junction of said first resistor and said secondary winding, means connected between said second resistor and said capacitor for applying a positive polarity trigger pulse, positive potential means, a primary winding on said first pulse transformer tightly coupled to said secondary winding, said primary winding serially connected between said second control electrode and said positive potential means, a second pulse transformer having a primary winding connected between said positive potential means and said anode and a secondary winding having a first terminal connected to said suppressor electrode and to said cathode, and power pulse output means connected to the second terminal of said second pulse transformer secondary winding.

2,871,356
FREQUENCY-STABILIZED OSCILLATOR

Peter G. Sulzer, Kensington, Md., assignor to the United States of America as represented by the Secretary of Commerce

Application July 14, 1955, Serial No. 522,188
5 Claims. (Cl. 250—36)

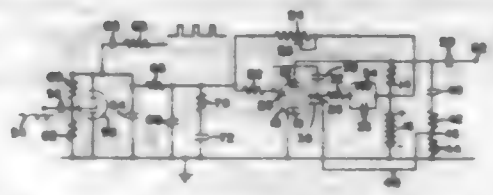


1. A frequency-stabilized electronic oscillator comprising a frequency-determining circuit, phase sensitive signal amplifying means coupled thereto, a balanced bridge, a portion of said bridge forming part of said frequency-determining circuit, a second high-gain amplifier of moderate phase stability connected to receive the output of said bridge, and means responsive to frequency variations in said frequency determining circuit connecting the output of said second amplifier to said first amplifier for exerting a reactive phase compensating control effect on said first amplifier.

2,871,357
SAW-TOOTH WAVE GENERATOR

Robert B. Dome, Geddes Township, Onondaga County, N. Y., assignor to General Electric Company, a corporation of New York

Application January 18, 1957, Serial No. 635,010
10 Claims. (Cl. 250—36)

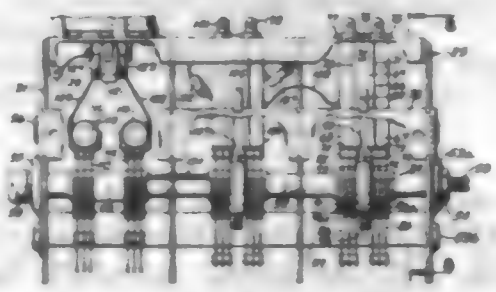


1. A saw-tooth wave generator comprising an oscillator tube having a cathode and control grid and screen grid and suppressor grid and plate, an impedance and a source of potential serially connected between said plate and said cathode, a discharge circuit for said plate comprising a capacitance and a resistance connected in series between said plate and ground, means to feed a portion of the voltage from said resistance to said control grid, means to apply a positive operating potential to said screen grid, means to apply a positive operating potential to said suppressor grid, and a coupling circuit including a capacitance interconnecting said screen grid and said suppressor grid.

2,871,358
ULTRA-HIGH-FREQUENCY TUNER FOR TELEVISION RECEIVERS

James Edgar Krepps, Jr., Bloomington, Ind., assignor, by mesne assignments, to Sarkes Tarzian, Inc. Bloomington, Ind., a corporation of Indiana

Application August 6, 1952, Serial No. 302,862
3 Claims. (Cl. 250—40)



1. In a tuner unit, a tuning shaft of insulating material, a cylindrical sleeve-like rotor hub of conductive material having a plurality of transverse grooves in the periphery thereof, a plurality of condenser rotor plates positioned in only a portion of the circumference of said grooves and carried by said rotor hub, said hub being split longitudinally thereof at a point intersecting said grooves which is removed from said plate retaining portions thereof, whereby said hub may be expanded while maintaining said rotor plates in fixed relation within said grooves, said hub in an unstressed condition having an inside diameter somewhat less than the diameter of said tuning shaft, whereby said hub may be forced onto said shaft and positioned as desired along the length thereof in securely held relation thereto.

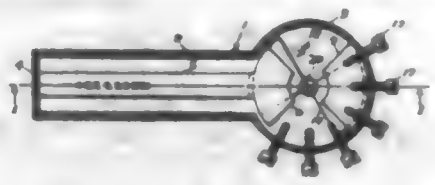
2,871,359
TUNABLE END-LOAD LINES WITH SCREW ADJUSTMENT FOR TRACKING TUNING CAPACITORS

Louis W. Schreiner, Park Ridge, Ill., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application May 27, 1955, Serial No. 511,700
4 Claims. (Cl. 250—40)

1. In combination, a tunable resonant structure comprising an outer conductor, an inner conductor, said inner conductor having a plurality of spaced plates at

one end thereof and said outer conductor having a plurality of spaced plates attached to an inner surface thereof, a rotor mounted on an insulated shaft and having a plurality of vanes adapted to engage the space between said plates of said inner and outer conductors, and a plurality of screws piercing the surface of said outer conductor and extending into said resonant structure,



certain of said screws engaging a space between said outer conductor plates and adapted to be included in a space between said vanes when said vanes move into said space between said outer conductor plates whereby the electrical characteristics between said inner and outer conductors may be varied, the remaining of said screws being disposed out of said space between said outer conductor plates.

2,871,360
WIDE RANGE TUNER WITH FLAT COIL AND CAVITY RESONATOR

Harold T. Lyman, Milford, Conn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois

Application November 15, 1955, Serial No. 546,943
7 Claims. (Cl. 250—40)

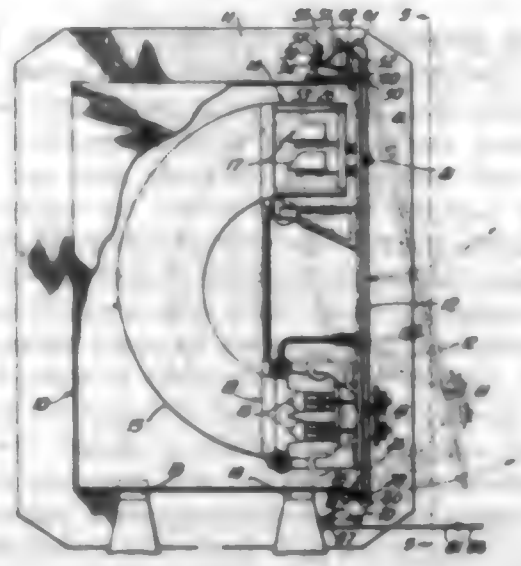


1. In a wide range tuner for high radio frequencies, the combination comprising a rotatable shaft having an arm thereon, first and second oppositely facing slider electrodes mounted on said arm for movement along arcuate paths, conductive plate means engaging said first slider electrode and extending along the arcuate path thereof for establishing a circuit connection therewith, means conductively interconnecting said slider electrodes, a flat inductance coil engageable with said second slider electrode and extending along a first portion of the arcuate path thereof, said flat coil including a flat supporting plate made of electrically insulating material, a plurality of flat conductive convolutions mounted on said plate closely adjacent the path of said second electrode, and an insulating film covering said convolutions and interposed between said convolutions and said second electrode, an arcuate cavity resonator disposed around a second portion of the path of said second electrode, said resonator having outer wall elements around the path of said second electrode and substantially spaced therefrom, a portion of said conductive plate means constituting one of said wall elements, a flat arcuate conductive post disposed in said cavity resonator and extending adjacent said second portion of the path of said second electrode, said post having one end portion adjacent said flat coil and closely adjacent the path of said second electrode, said post diverging angularly from said path of said second electrode between said one end portion and the opposite end portion so that movement of said second electrode along the second portion of said path thereof will vary the tuning of said cavity resonator, and an insulating member of progressively increasing thickness mounted on said post for slidably guiding said second electrode for movement along said post in capacitive relation thereto.

2,871,361
CALUTRON ASSEMBLING AND DISASSEMBLING APPARATUS

Roland E. Andrews, Watertown, Mass., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application March 28, 1946, Serial No. 657,634
8 Claims. (Cl. 250—41.9)



1. Assembling and disassembling apparatus for a calutron tank closely interposed between the parallel pole faces of a calutron magnet for producing a strong magnetic flux thereacross comprising a massive face plate constituting a closure for a major opening in said tank laterally defined by said pole faces and adapted to be removably secured in tank closing position across said opening, ion separating means carried by said face plate and projecting within said tank when said face plate is secured thereto, a sealing means interposed between said tank and said plate, hinge means supporting said plate upon said tank for movement of the ion separating means in a direction normal to said magnetic flux, the axis of the fulcrum of said hinge means being parallel to the direction of said flux, compression spring means for cushioning the movement of said plate as it contacts said sealing means, and detachable clamping means for holding said plate to said tank in contact with said sealing means.

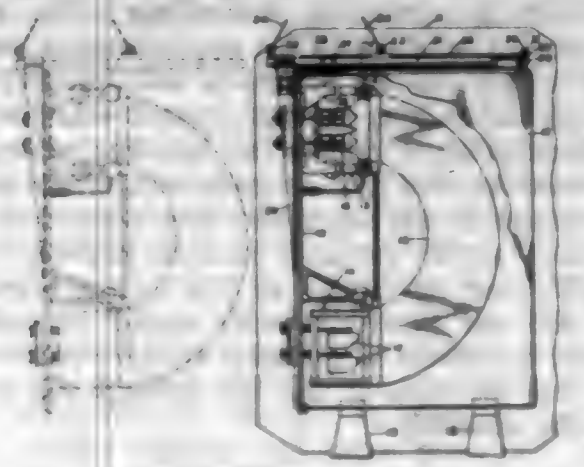
2,871,362
CALUTRON ASSEMBLING AND DISASSEMBLING MEANS

Roland E. Andrews, Watertown, and Jens Thornton, Squantum, Mass., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 28, 1946, Serial No. 657,635
6 Claims. (Cl. 250—41.9)

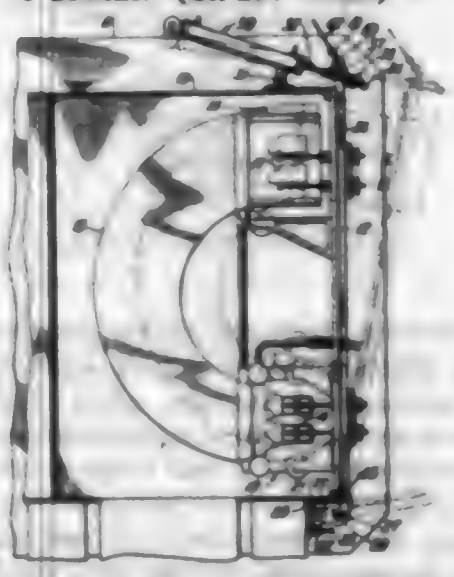
4. In combination with a pair of magnet pole faces, an apertured calutron tank disposed between said pole faces and adapted to be permeated with a magnetic flux therefrom, a closure for said tank aperture, ion separating mechanism carried by said closure and adapted to be moved into and out of said tank in a direction which is substantially normal to said magnetic flux, a track disposed externally of said tank adjacent the top thereof, and in a direction normal to said flux, a carriage movable along said track, a bracket support mounted on the external surface of said closure and extending rearwardly parallel to said track, said support being adapted to rest

upon said carriage, and actuating means connected to said carriage for effecting movement of the latter and



its supported closure with a guided and controlled movement in a direction parallel to said track.

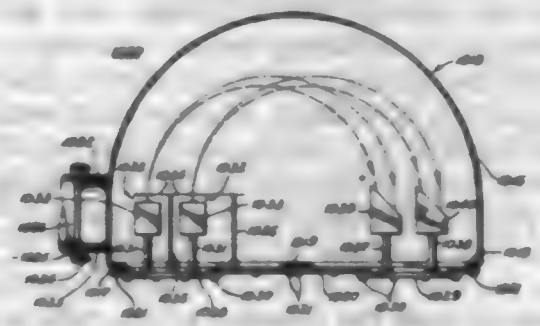
2,871,363
CALUTRON ASSEMBLING AND DISASSEMBLING APPARATUS
Roland E. Andrews, Watertown, Mass., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application March 28, 1946, Serial No. 657,636
6 Claims. (Cl. 250—41.9)



6. In combination with an apertured stationary tank adapted to be evacuated and disposed between closely spaced magnet pole faces serving to permeate the tank with a strong magnetic flux, a calutron assembling and disassembling apparatus comprising, a movable closure for said tank aperture, a plurality of separate hinge means detachably pivoting said closure at its lower end upon a mounting supported by said pole faces, the axis of the fulcrum of said separate hinge means being substantially parallel to the direction of the magnetic flux, ion separating means supported by said closure and adapted to move into and from said tank in a direction substantially normal to said magnetic flux, a seal disposed adjacent the edge of said tank and adapted to be engaged by said closure during operation of said calutron, and actuating means detachably engaging said closure at a point removed from said hinge fulcrum thereby to effect respectively a gradual and controlled engagement and disengagement of said seal by said closure as said calutron is alternately assembled and disassembled.

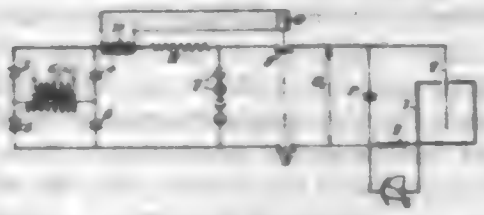
2,871,364
CALUTRONS
Ernest O. Lawrence, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application March 28, 1946, Serial No. 657,638
8 Claims. (Cl. 250—41.9)

8. In a calutron, a tank including supporting structure and a removable wall carried by said supporting structure and first and second removable panels carried by said wall, means for evacuating said tank, means for establishing a magnetic field along a given axis through said tank, an ion beam transmitter disposed in said tank and carried by said first panel, said ion beam transmitter including means for generating ions of a polyisotopic material and means for projecting therefrom an ion beam substantially transversely of said given axis, whereby the ions of different isotopes of the material are subjected to a segregating influence, an ion beam receiver disposed in



said tank and carried by said second panel, said ion beam receiver including means for receiving said ion beam and means for collecting a predetermined portion thereof containing a given isotope of the material, said wall and said first and second panels and said ion beam transmitter and said ion beam receiver being removable as a unit from said supporting structure, said first panel and said ion beam transmitter being removable as a unit from said wall and said second panel and said ion beam receiver being removable as a unit from said wall.

2,871,365
APPARATUS FOR DETECTING RADIOACTIVITY
Gilbert M. Cahen, Paul Bonnet, and Pierre Treille, Paris, France, assignors to Etat Francais, represented by Secretariat d'Etat à la Défense Nationale et aux Forces Armées (Direction des Etudes et Fabrications d'Armement), Paris, France
Application April 29, 1955, Serial No. 504,822
Claims priority, application France May 7, 1954
11 Claims. (Cl. 250—83.6)

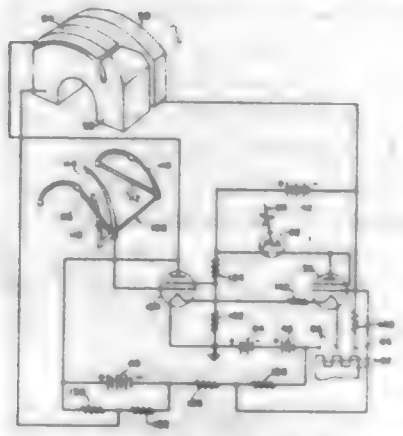


1. A radiation measuring apparatus comprising detector means for producing, in the presence of radiation under a predetermined minimum potential difference, a current, said detector means including a circuit for the flow of said current, a resistance inserted in said circuit, whereby a potential difference is created between the ends of said resistance when such a current is produced, a principal condenser connected to said circuit for impressing at least said minimum potential difference on said detector means, an electrometer mounted in shunt across the terminals of said resistance, and an auxiliary condenser connected to said electrometer for supplying a reference potential thereto, and means for charging said condensers at the desired voltages.

2,871,366
APPARATUS FOR SENSING RADIOACTIVITY
Frank A. Hill, Van Nuys, Calif., assignor to Librascope, Incorporated, Glendale, Calif., a corporation of California
Application December 29, 1955, Serial No. 556,294
17 Claims. (Cl. 250—83.6)

13. Apparatus for sensing the intensity of radioactivity, including, a first ionization chamber disposed to receive radioactivity for the production of charged particles in a number dependent upon the intensity of radioactivity,

a second ionization chamber disposed to receive radioactivity for the production of charged particles in a number dependent upon the intensity of radioactivity, a third ionization chamber disposed to receive radioactivity for the production of charged particles in a number dependent upon the intensity of radioactivity, a collector disposed in electrical communication with the ionization chambers to receive charged particles produced in the different chambers, an electrometer connected to the collector to receive a bias voltage in accordance with the charge on the collector for a control over the flow of current through the collector, means including a plurality of resistances connected in a circuit with the electrometer for the production of voltages in accordance with the flow of current through the electrometer, the second ionization chamber being connected to the resistances for the attraction of charged particles of a first polarity from the chamber to the collector at low intensities of radioactivity and for the attraction of charged particles of a second polarity from the chamber to the collector at high



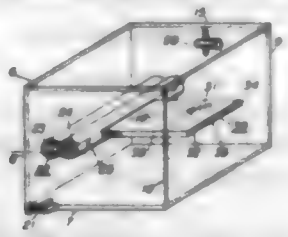
intensities of radioactivity, the third ionization chamber being connected to the resistances for the attraction of charged particles of the second polarity from the chamber to the collector, and indicator having a movable pointer disposed in contiguous relationship to the second and third chambers for an actuation of the pointer in accordance with the flow of current through the indicator, there being on the pointer radioactive material for producing a variable number of charged particles in the second and third ionization chambers in accordance with the disposition of the pointer relative to the chambers, and means connected to the resistances and connected in a circuit with the indicator for producing a flow of current through the indicator in accordance with the voltages produced across the resistances to obtain a variation of the charged particles attracted to the collector from the different chambers for a balance of the charges on the collector, the first ionization chamber being connected to the indicator circuit for the attraction of charged particles of the first polarity from the chamber to the collector.

2,871,367

GAMMA RAY COLLIMATING DEVICE

Luke S. Gournay, Oxnard, Calif., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., New York, N. Y., a corporation of New York

Application August 1, 1955, Serial No. 525,480
5 Claims. (Cl. 250—105)



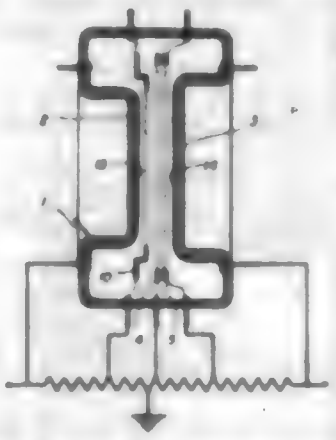
1. In an apparatus for the collimation of gamma rays the combination of a substantially enclosed box, a body of mercury contained within said box substantially filling said box, a valve positioned in the top of said box to permit the introduction of said mercury into said box, a valve positioned in said box near the bottom thereof to permit the withdrawal of said mercury from said box, a tube assembly comprising at least one hollow cylindrical tube secured within said box approximately midway between the top and the bottom of said box and having at least one end opening through a side of said box to permit the introduction of gamma ray detecting means into said tube assembly, said tube assembly being sealed with the inside surfaces of said box to exclude said mercury from said assembly, a slit assembly secured between said tube assembly and the inside surface of the front of said box, said slit assembly being sealed to exclude said mercury to provide an exclusive air-filled path for gamma rays from the front of said box through said mercury to said tube assembly.

2,871,368

IMAGE MULTIPLIER

George W. Bain, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation

Application September 21, 1954, Serial No. 611,198
6 Claims. (Cl. 250—213)



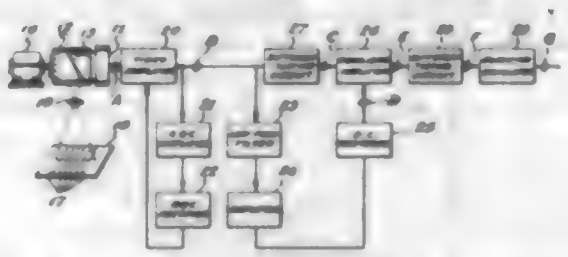
1. An electron discharge device comprising a photocathode, a plurality of multiplier dynode grids and a phosphor anode, said cathode, grids, and anode being planar and in parallel spaced relation for amplifying electron images originating at said cathode, characterized in that a planar grid of relatively high electron transmissivity compared to the transmissivity of said multiplier grids is disposed between said cathode and the first multiplier grid and circuit connections are provided for impressing on said last-named grid a potential higher than the potential of said cathode and lower than the potential of said multiplier grid thereby to decelerate secondary electrons from the first multiplier grid.

2,871,369

PULSE AMPLITUDE EQUALIZING SYSTEM

Roger B. Williams, Jr., Toledo, Ohio, assignor to Sperry Rand Corporation, a corporation of Delaware

Application December 6, 1954, Serial No. 473,249
10 Claims. (Cl. 250—214)



1. In a phototube scanner system for transversely scanning a plurality of uniformly illuminated lines on a chart wherein the sensitivity of said phototube scanner system varies during the scanning interval, an amplitude equalizing system for correcting the variation in phototube sensitivity comprising in combination, means including a low-pass filter means coupled to the output of said phototube scanner system for receiving the signal output voltage therefrom, said signal output voltage including a low-

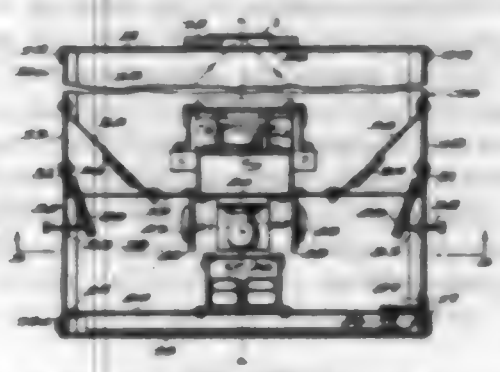
frequency component varying according to the sensitivity of said phototube scanner and including a plurality of short pulses corresponding to the lines on said chart being scanned, said low-pass filter producing an output control voltage varying according to the sensitivity of said phototube scanner, controllable amplification means coupled to the output of said phototube scanner for receiving said output voltage, means coupling said output control voltage from said low-pass filter means to said controllable amplification means for varying the amplification therethrough inversely according to the magnitude of said output control voltage, said controllable amplification means producing output pulses corresponding to the lines on said chart whose amplitude is substantially independent of changes in sensitivity of said phototube scanner system, and pulse generator means coupled to the output of said controllable amplification means for producing output pulses of constant amplitude corresponding to the lines on said chart.

2,871,370

HIGH SENSITIVITY EXPOSURE HEAD

David A. Neubrech, Takoma Park, Md., and Matthew A. Cattaro, Vienna, Va., assignors to Henry A. Gardner Laboratory, Inc., Bethesda, Md., a corporation of the District of Columbia

Application September 10, 1957, Serial No. 683,181
8 Claims. (Cl. 250—220)



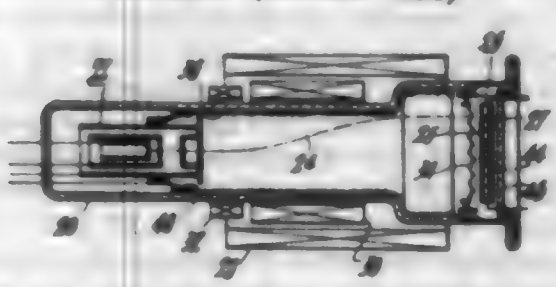
1. In a photometric exposure head the combination comprising a housing, a light source and an exposure aperture arranged in spaced relation along an axis in said housing, test photocell means arranged on said axis between said aperture and said light source, means directing a plurality of at least four beams of light from said light source to said aperture, said light beams being equally spaced about said axis and reaching said aperture at equal angles of incidence for illuminating a sample placed over said aperture equally from all sides and causing diffused light therefrom to be directed along said axis to said test photocell means, comparison photocell means arranged within said housing, and means directing another beam of light from said light source to said comparison photocell means.

2,871,371

WIDE-BAND INTERFERENCE LIGHT FILTER

Sidney Gray, Somerville, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application May 6, 1954, Serial No. 428,025
6 Claims. (Cl. 250—226)



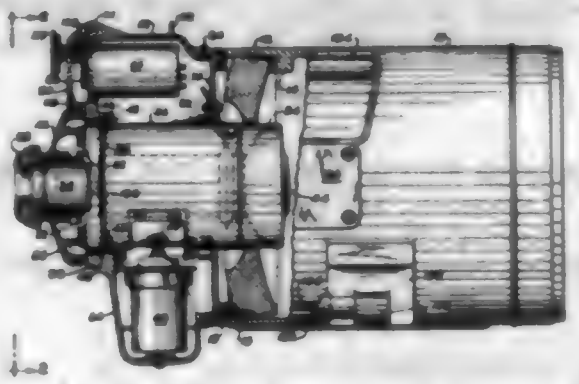
1. An interference light filter comprising alternate strata of zinc sulfide and thorium-oxy-fluoride, said strata of zinc sulfide each being about 2500 Angstroms thick and said strata of thorium-oxy-fluoride each being about 1250 Angstroms thick, said filter being transparent to light of all wavelengths throughout a wide band of wavelengths in the normal visible spectrum, and having a short wavelength cutoff characteristic of at least 85% transmission at 4300 Angstroms and less than 10% transmission at 4100 Angstroms and having a long wavelength cutoff characteristic of at least 85% transmission at 6300 Angstroms and less than 10% transmission at 6800 Angstroms.

2,871,372

INFRARED IMAGE CONVERTER APPARATUS

Ernst Portenier, Kuenacht, Wilhelm Spinnler, Schachen Bonstetten, Errol Boley, Uitikon, and Hans Riele, Wettingenaargau, Switzerland, assignors to Albiswerk Zuerich A. G., Zurich, Switzerland, a Swiss company

Application December 16, 1954, Serial No. 475,741
6 Claims. (Cl. 250—239)



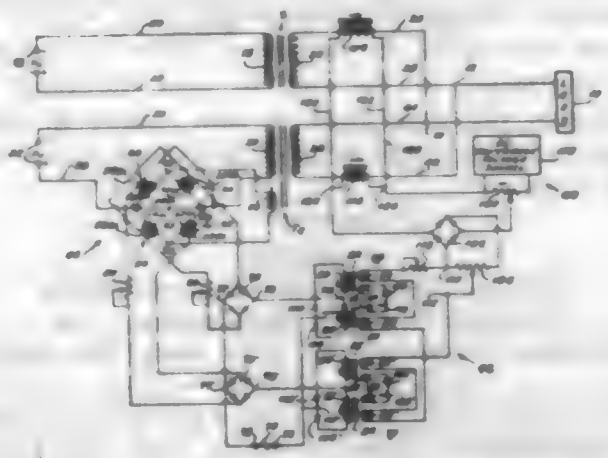
1. In an infrared image converter apparatus, in combination, a housing having at least one keyway and a stop member; a cartridge removably mounted within said housing, said cartridge comprising a casing and an infrared image converter tube mounted therein, a position determining member arranged on said cartridge and adapted to engage said stop member in said housing for axial positioning of said cartridge; a key member arranged on said cartridge and adapted to engage said keyway in said housing; a source of operating potential mounted within said housing; first electric contacts in said housing connected to said potential source; and second electric contacts on said cartridge connected to said tube, said first and second contacts being adapted to engage upon the respective engagement of said position determining and said stop members and said key and keyway.

2,871,373

CONTROL FOR PARALLEL CONNECTED A. C. SUPPLY CIRCUITS

James S. Malsbary, Glendale, Mo., and Erwin B. Hilker, deceased, late of St. Louis, Mo., by Annamary Hilker, administratrix, St. Louis, Mo., assignors to Wagner Electric Corporation, St. Louis, Mo., a corporation of Delaware

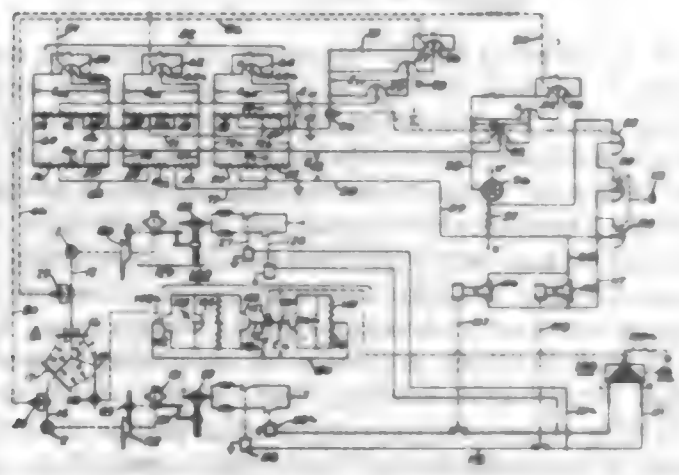
Application December 11, 1957, Serial No. 702,122
14 Claims. (Cl. 307—51)



14. An A. C. supply system comprising a plurality of power supply components connected in parallel for sup-

plying power to a single source, one of said components having an auxiliary component associated therewith, a separate input and output for each component, first voltage responsive means coupled to the output of one of said components, second voltage responsive means coupled to the output of another of said components, said first and second voltage responsive means being connected together in a circuit to produce a resultant signal voltage which varies in response to the magnitude and polarity of the inequality in the outputs of said components, generator means producing a reference voltage connected to combine said reference voltage with the signal voltage to produce a control voltage therefrom, a reactance bridge circuit including two sets of opposed bridge corners, one set of said corners being connected in circuit with the input of one of said components and the other set of said bridge corners being connected across the auxiliary component associated therewith, and amplifier means connected to communicate the control voltage with said bridge circuit for varying the impedance of the bridge circuit in a direction to equalize the outputs from said components.

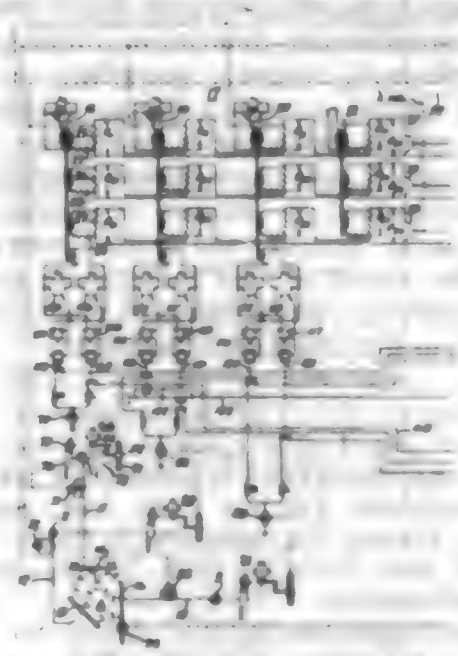
2,871,374
COMPUTER NETWORK FOR THE ECONOMIC LOADING OF POWER SOURCES
Edwards D. Early, Birmingham, Ala.
Application November 19, 1957, Serial No. 697,359
19 Claims. (Cl. 307—57)



19. A system for determining the change in generation of a power source interconnected with other power sources required to bring the incremental cost of delivered power from said source to a desired value, comprising means for producing a first signal representative of unity minus the incremental transmission loss from said source, means for producing a second signal representative of the existing incremental cost of generation of said source, means having applied thereto said second signal and adjusted in accordance with the desired incremental cost of delivered power from said source for producing an output signal representative of the ratio of the magnitude of said second signal and the magnitude of the desired incremental cost of delivered power from said source, means for subtracting said output signal from said first signal to produce a difference signal, and means responsive to the sign of said difference signal for changing the generation at said source in direction to bring its incremental cost of delivered power to said desired value.

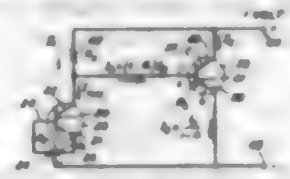
2,871,375
GENERATION CONTROL SYSTEM
Edwards D. Early, Birmingham, Ala.
Application November 21, 1957, Serial No. 697,900
10 Claims. (Cl. 307—57)

1. In a power system including a plurality of interconnected transmission lines to which there are connected a plurality of sources of power, the combination of means for generating a signal for each of said sources representative of and varying with the quantity unity minus the incremental transmission losses, means for producing for each said source a signal representative of and varying with the incremental cost of generation, an equal-λ adjustable impedance for each said source to which one of said signals for each said source is applied for obtaining a fractional signal for each said source, means including a combining circuit for each said power source for com-



bining said fractional signal and the other of said signals for said source, said signal varying with said incremental cost of generation having in said combining circuit an instantaneous polarity opposite to that of said signal varying with said quantity for producing an output signal, adding means for algebraically adding said output signals, and means responsive to the sum of said output signals for adjusting said equal-λ impedance in a direction to reduce said sum to zero.

2,871,376
TEMPERATURE SENSITIVE TRANSISTOR CONTROL CIRCUIT
Ernest R. Kretzmer, New Providence, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 31, 1953, Serial No. 401,598
12 Claims. (Cl. 307—88.5)



1. A two-terminal control circuit having a positive temperature coefficient of resistance which comprises in combination a transistor element comprising a semiconductor body, an emitter electrode, a collector electrode, and a base electrode, all in contact with said semiconductor body, a common connecting point connected to said base electrode, a thermally sensitive resistance element having a negative temperature coefficient of resistance connected between said common connecting point and said emitter electrode, and a source of direct, substantially constant current connected to said common connecting point between said base electrode and said thermally sensitive element to furnish current into said common connecting point which is separated into two components, said source having a polarity such that one of said current components flows through said constant conductance path into said base electrode in a direction to enhance the flow of current carriers between the emitter and collector electrodes in said transistor, and the remaining one of said current components flows into said thermally sensitive element, the sole means for externally connecting to said control

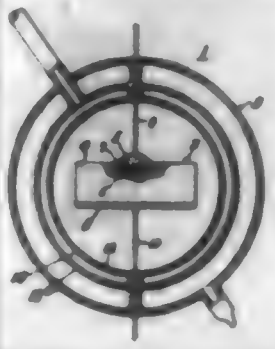
circuit consisting of a pair of terminals connected between said emitter and collector electrodes, whereby a resistance having a positive temperature coefficient is realized across said terminals.

2,871,377

BISTABLE SEMICONDUCTOR DEVICES

Winfield W. Tyler, Scotia, and Roger Newman, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

Application July 29, 1954, Serial No. 446,509
6 Claims. (Cl. 307—88.5)



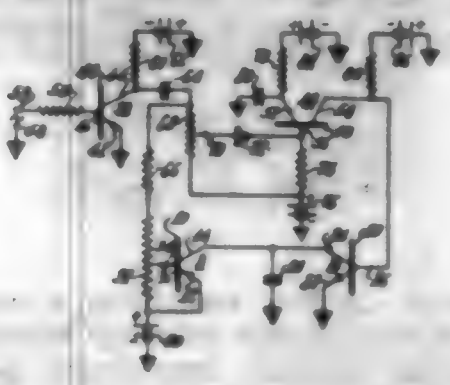
1. A bistable asymmetrically conductive device comprising a homogeneous mono-crystalline semiconductor body having two possible stable forward resistivity values and consisting essentially of near intrinsic semiconductive material having a room temperature resistivity of at least 40 ohm-centimeters and having deep lying energy levels induced therein by impurity impregnation with a metallic element other than the metals of groups III and V of the periodic table, a P–N junction rectifying contact at one surface portion of said body, a non-rectifying contact to a second surface portion of said body, and means for applying a pulsed signal to said body to cause its resistivity to change abruptly from a first stable forward resistivity value to a second stable forward resistivity value.

2,871,378

STEPWAVE GENERATOR

Robert D. Lohman, Princeton Junction, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application September 24, 1954, Serial No. 458,161
19 Claims. (Cl. 307—88.5)



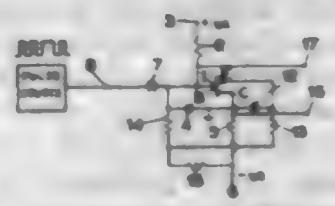
1. In a stepwave generator circuit, the combination comprising, a first semi-conductor device of one conductivity type having a first base electrode, a first common electrode and a first output electrode, said first base and first common electrodes defining an input circuit for said first semi-conductor device, said first common and first output electrodes defining an output circuit for said first semi-conductor device, a second semi-conductor device of an opposite conductivity type having a second base electrode, a second common electrode and a second output electrode, said second base and second common electrodes defining an input circuit for said second semi-conductor device, said second common and second output electrodes defining an output circuit for said second semi-conductor device, means directly connecting said first output electrode with said second output electrode, a storage element connected in common with said first and second output electrodes in the output circuits of said first and second semi-conductor devices and to a point of reference potential in said stepwave generator circuit, means connected with said first base electrode providing a source of pulses to render said first device conductive to charge said storage element, and means connected with said second base electrode for applying pulses thereto in timed relation to the charging of said storage element to render said second device conductive and discharge said storage element.

2,871,379

PULSE SEPARATING CIRCUITS

William Ellis Ingham, Ealing, London, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a company of Great Britain

Application October 11, 1954, Serial No. 461,321
Claims priority, application Great Britain October 17, 1953
6 Claims. (Cl. 307—88.5)



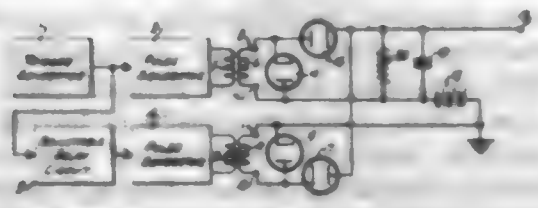
1. An electrical pulse separator for separating narrow and broad pulses comprising a source of narrow and broad pulses, a valve arrangement having electrodes coupled together regeneratively to provide a trigger circuit having at least one stable state and also having two control points, a path for feeding narrow and broad pulses to the first of said points, a separate path including an integrator through which said pulses are fed to said second control point said integrator being chosen to set up potentials of different amplitudes derived respectively from said narrow and broad pulses and means for biasing said arrangement chosen to cause both control points to rise in potential by substantially the same amount when a broad pulse is present and to enable, with the cessation of a broad pulse, said integrator to cause said second control point to change less rapidly in potential than said first control point, thereby to change the stable state of said valve arrangement to generate an output pulse on the termination of a broad pulse.

2,871,380

HIGH VOLTAGE PULSE GENERATOR

Albert J. Morris, Redwood City, and Joseph P. Swanson, Menlo Park, Calif., assignors to Levinthal Electronic Products, Inc., Palo Alto, Calif., a corporation of California

Application March 25, 1958, Serial No. 723,811
3 Claims. (Cl. 307—106)



3. A high-voltage, rectangular-waveform pulse generator comprising the following combination: a pulse output terminal; first and second pulse transformers each having a primary and a secondary, each of said secondaries having a constant-potential terminal and a variable-

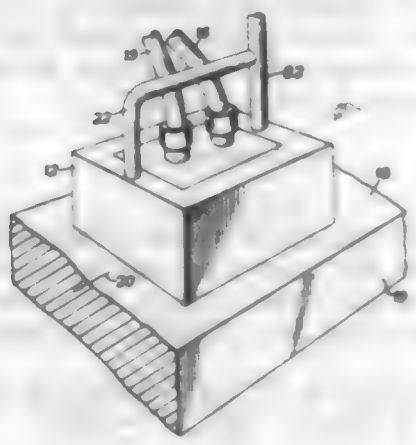
potential terminal; a half-wave rectifier having an anode connected to said variable-potential terminal of said first transformer and having a cathode connected to said output terminal; another half-wave rectifier having an anode connected to said output terminal and having a cathode connected to said variable-potential terminal of said second transformer; D. C. voltage supply means connected between said two constant-potential terminals for maintaining said constant-potential terminals at different fixed electric potentials, with said constant-potential terminal of said first transformer negative with respect to said constant-potential terminal of said second transformer; a capacitor connected between said output terminal and one of said constant-potential terminals, said capacitor providing a shunt capacitance that opposes changes in the electric potential of said output terminal; two pulse generators operable to supply current pulses to respective ones of said primaries; a trigger generator connected to supply repetitive trigger pulses to one of said pulse generators, each such trigger pulse initiating an operation of said one pulse generator for supplying a current pulse to one of said primaries; a delay circuit connected to transmit delayed trigger pulses from said trigger generator to the other of said pulse generators, each such delayed trigger pulse initiating an operation of said other pulse generator for supplying a current pulse to the other of said primaries; whereby current pulses are supplied to said two primaries sequentially, said pulses inducing a positive-going change in the potential of said variable-potental terminal of said first transformer and a negative-going change in the potential of said variable-potential terminal of said second transformer, alternately, said capacitor charging and discharging alternately through said two rectifiers responsive to said two potential changes, thereby producing rectangular-waveform voltage pulses at said output terminal.

2,871,381

ULTRASONIC TESTING OF MATERIALS

Alexander Bryce Calder Rankin, Barkingside, England, assignor to Kelvin & Hughes Limited, Glasgow, Scotland

Application February 16, 1956, Serial No. 566,010
Claims priority, application Great Britain February 21, 1955
4 Claims. (Cl. 310—8.1)



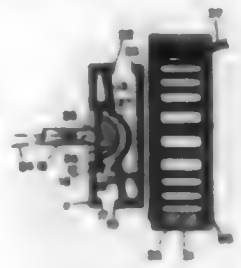
1. A probe structure for ultrasonic testing comprising a first transducer having a wave transmitting surface through which ultrasonic waves are emitted into a surface of a body under test, a second transducer having a wave receiving surface, disposed alongside of and co-planar with said wave transmitting surface, through which ultrasonic waves are received from said body surface, spacing means at least partly surrounding said transmitting and receiving surfaces, fixed in relation to said transmitting and receiving surfaces, having a bearing surface for engaging said body surface and defining the depth of a space between said transmitting and receiving surfaces and said body surface, said depth being a small fraction of the linear dimensions of either of said transmitting and receiving surfaces, and means for passing liquid through said space.

2,871,382

ELECTROMECHANICAL ACTUATOR

George A. Bouvier, Sierra Madre, Calif., assignor to North American Aviation, Inc.

Application May 17, 1956, Serial No. 585,443
7 Claims. (Cl. 310—82)



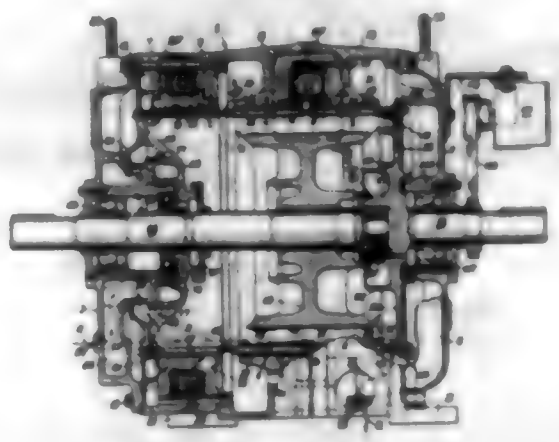
1. In combination, first and second gears with rows of teeth thereon and wobble gear means with first and second rows of teeth thereon in meshing engagement with said first and second gears, respectively, for causing one to be driven in relation to the other, said wobble gear means comprising a radially magnetized portion, and means for generating a rotating magnetic field co-acting with said radially magnetized portion to effect nutation of said wobble gear means.

2,871,383

ELECTRIC COUPLING AND BRAKE

William F. King, Wauwatosa, Wis., assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application May 14, 1956, Serial No. 584,863
9 Claims. (Cl. 310—96)

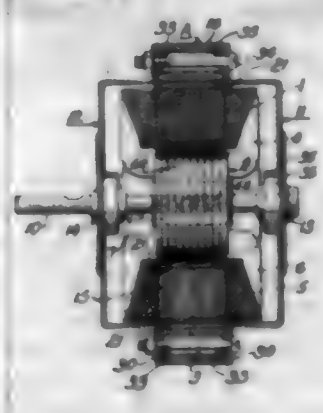


1. An electric coupling comprising a stationary annular field coil, magnetizable pole rings flanking said coil, said rings having circularly uninterrupted pole faces, a cylindrical rotary magnetizable inductor wall forming a first pair of magnetic gaps with respect to said pole rings, a magnetizable rotor having poles, said poles forming a second pair of gaps adjacent to said inductor wall, whereby upon excitation of said coil a toroidal magnetic field is produced looping through the first pair of gaps and in peripherally disposed flux concentrations through the second pair of gaps, said inductor wall being of a radial thickness adapted to convert said peripherally disposed flux concentrations at the second pair of gaps into a flux at said first pair of gaps which peripherally is substantially homogeneous, whereby upon relative rotation between said poles and the rotary inductor wall an eddy-current slip coupling effect is established therebetween but braking action is avoided at the circularly uninterrupted pole faces.

2,871,384
STATOR CONSTRUCTIONS FOR SYNCHRONOUS HYSTERESIS MOTORS

Gustave O. Gabriel, Washington Court House, Ohio, assignor of fifty percent to George W. Baker, Washington Court House, Ohio, ten percent to John Drew, Harrison, and five percent to Jessie Labanowski, Elmhurst, N. Y.

Application September 14, 1955, Serial No. 534,311
5 Claims. (Cl. 310—258)

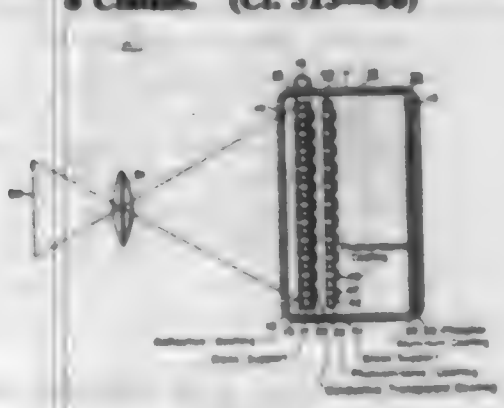


1. A stator for an electric motor of the hysteresis type, including a spider having a plurality of laminations of magnetic material, each lamination having radially extending spoke portions of uniform width connected at their inner ends by a continuous web integral therewith, the web defining a cylindrical bore for receiving the rotor of such motor, said spider also including a plurality of individual spoke laminations of rectangular form interspersed between spoke portions of the first-named laminations and of uniform width therewith, said individual spoke laminations extending from the rotor bore to the extremities of the other spoke laminations, whereby the spoke portions of the spider will be formed solidly of contiguous laminations and will be of substantially rectangular uniform cross-section throughout their length, and the web portions of the spider will be formed with spaces between laminations, and a ring of laminated magnetic material surrounding said spider and having pressure engagement with the outer ends of its spokes.

2,871,385
IMAGE REPRODUCTION SYSTEM

William L. Roberts, Turtle Creek, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application July 28, 1954, Serial No. 446,222
8 Claims. (Cl. 313—66)



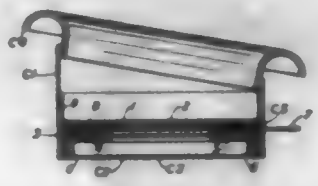
2. An image reproduction device comprising a planar cathode, a planar grid and a planar screen, said planar grid comprising a foraminated insulating support member, a plurality of elemental storage elements located on one surface of said support member and associated conductive means located on the same side of said support member.

2,871,386
WITHDRAWN

2,871,387
ELECTRON GUN STRUCTURE FOR CATHODE RAY TUBES

Thomas Henry Staerck, Chelmsford, England, assignor to English Electric Valve Company Limited, London, England, a British company

Application April 25, 1956, Serial No. 580,556
Claims priority, application Great Britain June 10, 1955
1 Claim. (Cl. 313—82)

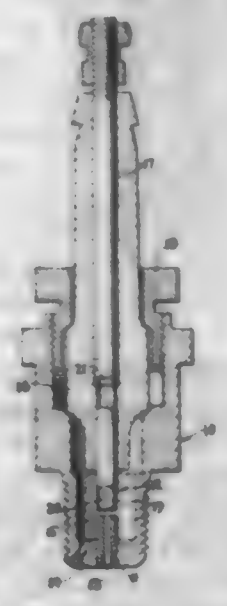


An electron gun structure for a cathode ray tube comprising a main focusing electrode system and a pre-focusing electrode system, said pre-focusing electrode system preceding the main focusing system in the direction of the electron beam and comprising a substantially cylindrical anode and a pre-focusing electrode, said anode terminating in a substantially cup-shaped member and having an apertured bottom portion, said pre-focusing electrode being formed as an apertured metal disc and mounted within but insulated from said anode, an insulating annulus, the pre-focusing electrode being fixed to said annulus whereby said elctrode is insulated from the interior sides of the anode, further annular insulating means being located on both sides of the insulating annulus, a dished metal positioning member fitting into said anode on the side of the apertured pre-focusing electrode remote from the bottom portion of said anode, the further annular insulating means together with said pre-focusing electrode being held in position by said dished metal positioning member and means for fixing said member with respect to said anode.

2,871,388
SPARK GAP ELECTRODE

Paul F. Adair, Bayshore, N. Y., assignor to Jet Ignition Co., Inc., Larchmont, N. Y., a corporation of New York

Application January 16, 1957, Serial No. 634,578
2 Claims. (Cl. 313—141)



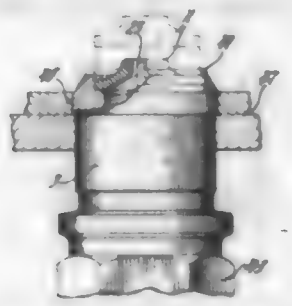
2. A spark plug assembly comprising a hollow body having a cylindrical internal space defining an ignition chamber, two axially aligned and spaced apart electrodes, one of said electrodes having a main metal body with a cavity therein and a pure sodium core in said cavity, and helical passage means connecting the cylindrical internal space to the exterior of the assembly.

2,871,389

SPARK PLUGS AND METHOD FOR IMPROVING LEAKAGE CHARACTERISTICS THEREOF

Michael Skunda, Davison, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 11, 1955, Serial No. 487,554
4 Claims. (Cl. 313—144)



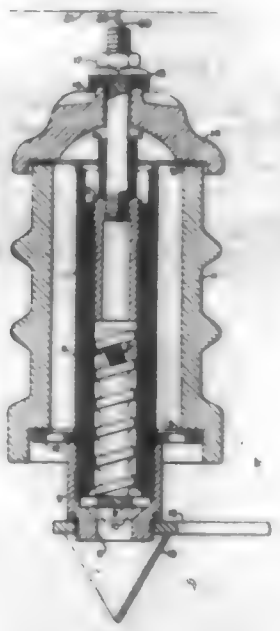
1. A method for making gas-tight spark plugs of the type having an annular ground electrode secured in the firing end of the shell by overlapping engagement between the end of the shell and the electrode which includes the steps of forming a flange on the outer surface of the shell adjacent the firing end thereof, positioning an annular ground electrode in the firing end of the shell, supporting the shell adjacent the firing end thereof and about the flange, crimping the end of the shell into overlapping engagement with the electrode, and threading the lower end of the shell to remove the flange and enable the spark plug to be secured within the engine.

2,871,390

LIGHTNING ARRESTER

Eugene J. De Val, Pitcairn, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 2, 1950, Serial No. 182,994
7 Claims. (Cl. 313—231)



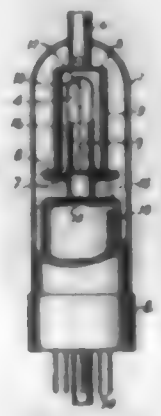
1. A lightning arrester comprising a tubular structure having an internal surface of insulating material capable of evolving gas when exposed to an electric arc, spaced electrode means disposed at opposite ends of the tubular structure, at least one of said electrode means extending into the tubular structure and at least one end of the tubular structure being vented, and an elongated filler member disposed in the tubular structure between the electrodes, said filler member being made of an insulating material capable of evolving gas when exposed to an electric arc and having a groove in its surface extending continuously around the filler from end to end thereof, said groove providing an elongated arc path of greater length than the straight initial arc path between the electrode means and being adapted to cause circumferential movement of gas produced upon the occurrence of an arc in said initial arc path to cause the gas to flow through the groove and to cause the arc to transfer to said elongated arc path in the groove.

2,871,391

ELECTRON TUBE STRUCTURE

Otto H. Schade, West Caldwell, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application September 15, 1955, Serial No. 534,448
4 Claims. (Cl. 313—238)



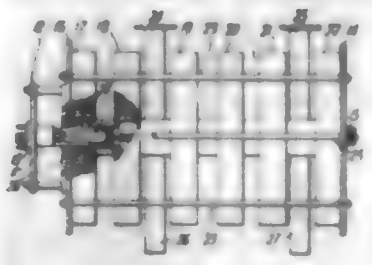
4. A rectifier tube including an envelope containing a hollow cylindrical anode closed at one end; a cathode mount comprising a hollow cylindrical member extending concentrically to within said anode, a first cathode connector and support means fixed to the end of said hollow cylindrical member within said anode and extending away from said member toward the said closed end of said anode, a second cathode connector and support means comprising a wire having a portion thereof disposed coaxially within said cylindrical member and extending beyond the said end of said member within said anode, and a cathode connected and supported between said first and said second cathode connector and support means.

2,871,392

TRAVELLING WAVE TUBES

Douglas Cecil Rogers and Walter John Pohl, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application April 21, 1955, Serial No. 502,811
Claims priority, application Great Britain June 21, 1954
3 Claims. (Cl. 315—3.5)

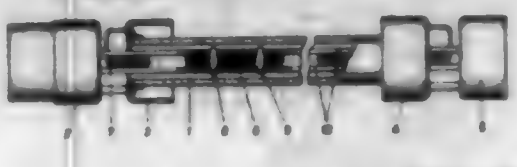


1. A low noise travelling wave amplifier comprising: an electron gun having a cathode, a plurality of anodes at successively higher accelerating potentials longitudinally spaced from said cathode and from each other, a helical line and means for coupling said helical line to a source of input signals, and means for providing a magnetic focussing field along the axis of the helical line and encompassing said electron gun diverging from behind the cathode and becoming uniform along the helical line, said magnetic focussing means comprising a series of focussing coils spaced from said cathode along said amplifier, the flux of the coil at the cathode end being greater than that of the remaining coils.

2,871,393
TRAVELING WAVE TUBE OF HIGH AMPLIFICATION

Werner Klein, Korntal, Wurttemberg, and Walter Friz, Stuttgart, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application August 24, 1955, Serial No. 530,295
Claims priority, application Germany September 16, 1954
5 Claims. (Cl. 315—3.5)

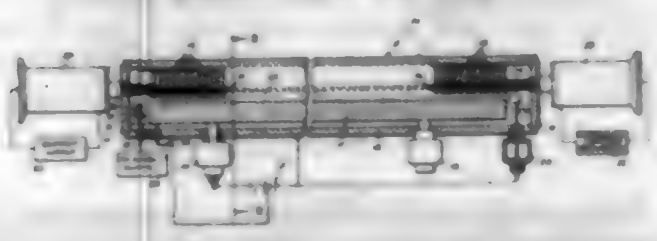


1. A traveling wave tube having a delay line along which energy to be amplified is propagated, an input coupler at one end of said delay line, an output coupler at the other end of said delay line, a support extending along said helix and in contact therewith, damping material coated on said support in variably distributed form to provide attenuation of energy increasing substantially to a maximum and then decreasing, said damping material extending between 10% and 20% of the length of said helix, the region of said damping material at which said attenuation is maximum being positioned more than half way along said helix but less than 70% of the length of said helix from said input coupler.

2,871,394
ELECTRON DISCHARGE DEVICES AND CATHODES THEREFOR

John M. Osepchuk, Peabody, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application November 28, 1955, Serial No. 549,326
18 Claims. (Cl. 315—3.5)



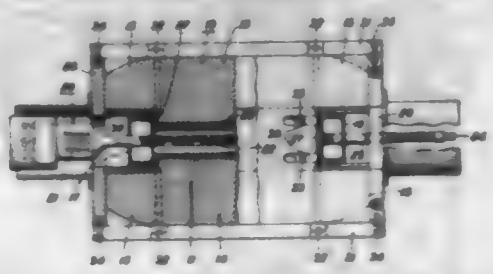
1. A traveling wave tube comprising a periodic frequency-responsive energy translation structure for transmitted signals, a principal electrode spaced from and substantially coextensive with said translation structure and adapted to be maintained at a potential negative with respect thereto to form an electrical field, means to apply a magnetic field at right angles to said electrical field, beam-forming means comprising a cylindrical electron-emissive cathode electrically connected to said principal electrode and disposed about a conductor maintained at a potential positive with respect to that of the cathode, the axis of said cathode being arranged parallel to the magnetic field and an auxiliary electrode maintained at a potential positive with respect to said cathode to form an electrical field at right angles to said magnetic field.

2,871,395
MAGNETIC STRUCTURES FOR TRAVELING WAVE TUBES

Paul P. Cioffi, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 27, 1955, Serial No. 543,235
14 Claims. (Cl. 315—3.5)

1. An electron discharge device comprising an electrical conductor defining an elongated electromagnetic wave transmission system, an input and an output coupling means for said transmission system, said coupling means being spaced apart from each other along said conductor, electron gun means adjacent one end of said conductor for projecting an electron stream lengthwise of an in coupled relationship to said conductor, electron receiving means adjacent the other end of said conductor, and means applying a magnetic field along said conductor to focus said electron stream, said last-mentioned means including a permanent magnet member having an elongated

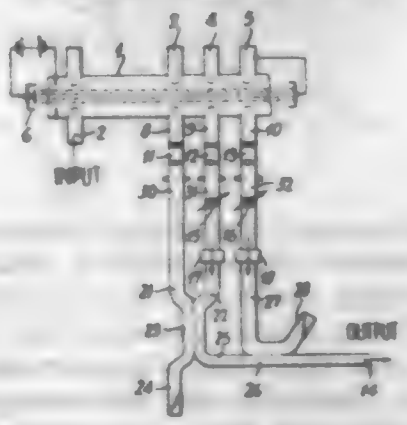


central aperture therein through which the portion of said conductor between said coupling means extends and having a pair of outer apertures coaxial with and larger than said central aperture in which said coupling means are positioned, pole pieces across the ends of each of said apertures, and flux guide means extending between said pole pieces.

2,871,396
KLYSTRONS

Robert Dunsmuir, Rugby, England, assignor to The British Thomson-Houston Company Limited, London, England, a British company

Application August 20, 1957, Serial No. 679,239
Claims priority, application Great Britain August 21, 1956
1 Claim. (Cl. 315—5.39)



A klystron comprising an electron gun for developing an electron beam and including a buncher resonator, a plurality of catcher resonators which are distributed in sequence along the line of the electron beam, individual feeder paths from each of said catcher resonators, phase changers positioned in at least some of said feeder paths, ferrite isolators in each of said feeder paths, directive couplers each having two inputs one of which is common and a single output into which output the energy from the two inputs is combined, said feeder paths being coupled to the inputs of some directive couplers the outputs of which are coupled to the inputs of further directive couplers in cascade so that all the feeder paths combine into a final common output.

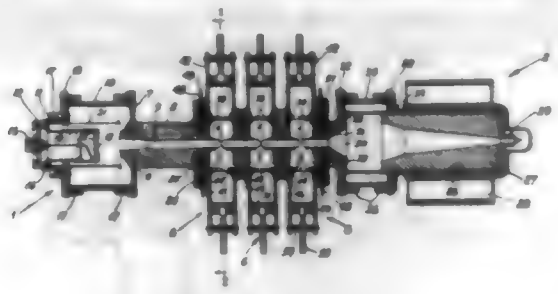
2,871,397
ELECTRON TUBE OF THE KLYSTRON TYPE

Donald H. Preist, Mill Valley, and Clayton E. Murdock, Millbrae, Calif., assignors to Eitel-McCullough, Inc., San Bruno, Calif., a corporation of California

Application March 18, 1955, Serial No. 495,151
5 Claims. (Cl. 315—5.46)

1. A klystron having metal drift tube sections separated by gaps spaced along the drift tube axis, generally rectangular resonators at the gaps having end walls comprising radial metal flanges on said drift tube sections, cylinders of insulating material sealed between the flanges providing vacuum-tight partitions in the resonators, a pair of parallel metal webs between the flanges outside

the partition cylinders and forming side walls of the resonators, and movable tuning means closing the resonators external to and on opposite sides of the partition cylinders, said drift tube sections, said end wall flanges and

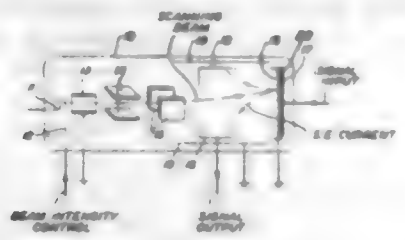


side wall webs being rigidly bonded to each other forming a unit comprising a structurally integral part of the klystron whereby said movable tuning means may be moved immediately adjacent said cylinders.

2,871,355
BARRIER GRID STORAGE TUBE CHARGE PATTERN REGENERATION

Michael Chruney, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 2, 1955, Serial No. 525,981
13 Claims. (Cl. 315—8.5)



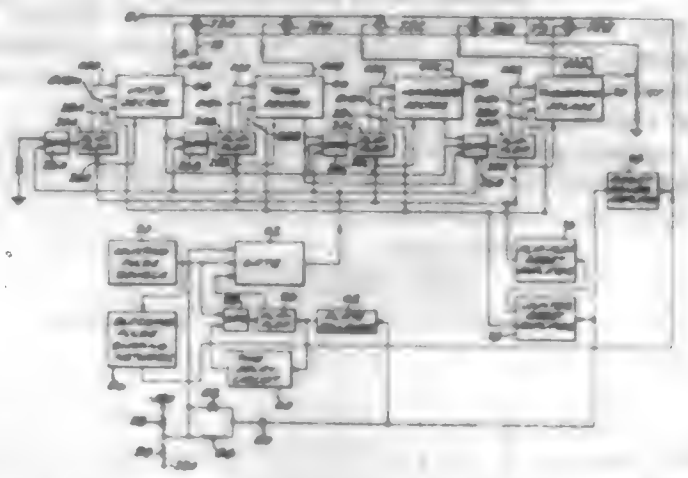
11. In combination, a barrier grid storage tube having a secondary emissive storage surface, means to direct a beam of electrons recurrently upon an elemental area of said surface, an input connection for supplying a charge to said area while said beam is maintained thereon, and an output connection for withdrawing any charge found on said area while said beam is maintained thereon, and means to restore a charge to said area immediately after it has been withdrawn therefrom which comprises means coupled to said output connection to produce a first pulse of direct current during the initial portion of each time interval during which said beam is substantially stationary upon said area whenever said beam finds said area with a charge in excess of a predetermined value, and means coupled to said input connection and triggered by said first pulse to produce a second pulse of direct current during the remaining portion of each of said time intervals and supply it to said input connection.

2,871,399
ELECTRONIC COUNTER

Thomas J. Scuitto, Santa Monica, Calif., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application August 22, 1956, Serial No. 605,564
9 Claims. (Cl. 315—8.6)

1. In a beam-switching tube counter for counting pulses, means to sense when said counter attains a desired predetermined count condition and to provide an output indicative thereof, means responsive to output from said means to sense to reset said counter to an initial count condition, means to block said means to reset for an interval substantially equal to a counting-pulse interval, and means for applying pulses to said counter to be counted including an input gate for said counter to which pulses to be counted are applied, means to close said gate responsive to an output from said means to sense, and means to maintain said gate closed for the

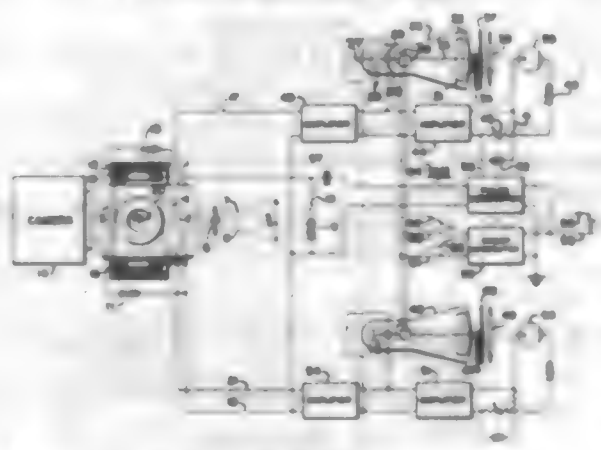


interval required to reset said counter by said means to reset.

2,871,400
HIGH-SPEED MULTIPLE-EXPOSURE PHOTOGRAPHIC APPARATUS

Rudolph W. Buntenbach, Lafayette, Calif., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application December 12, 1955, Serial No. 552,411
6 Claims. (Cl. 315—10)



1. High-speed multiple-exposure photographic apparatus comprising an image converter tube having a photoemissive cathode and a cathodoluminescent anode, means projecting an optical image on said photoemissive cathode, whereby said cathode emits electrons that travel to said anode and reproduce said optical image thereon, first electron-deflecting means for moving said reproduced image in one direction on said anode, second electron-deflecting means for moving said reproduced image in a second direction on said anode, a first waveform generator supplying to said first electron-deflecting means a first electric waveform consisting of successive positive and negative substantially rectangular pulses, a second waveform generator supplying to said second electron-deflecting means a second electric waveform consisting of successive positive and negative substantially rectangular pulses, whereby a plurality of optical images are reproduced successively on different portions of said anode, and means for photographing said images.

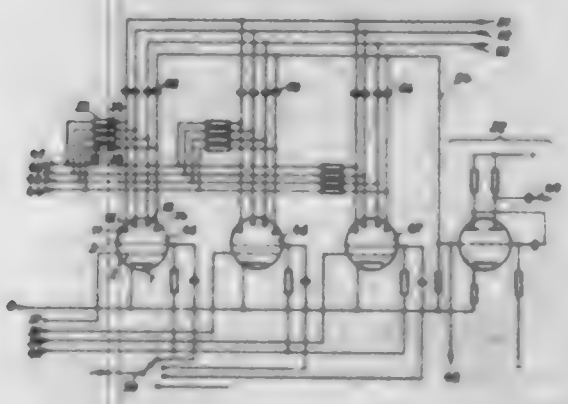
2,871,401
METHOD FOR STORING INFORMATION IN AN ELECTRONIC STORAGE TUBE

Olaf Sterubeck, Alvsjo, and Wolfram Erhard Max Uhlmann, Hagersten, Sweden, assignors to Telefonaktiebolaget L. M. Ericsson, Stockholm, Sweden, a corporation of Sweden

Application February 25, 1954, Serial No. 412,569
Claims priority, application Sweden February 27, 1953
1 Claim. (Cl. 315—12)

A control system for storing an information in electronic storage tubes, which contain at least one electron emit-

ting cathode, means for control of the current emitted from the cathode, a number of secondary emission electrodes functioning as storage elements, which electrodes interconnected with their appurtenant outer impedances may obtain two different, stable potentials on account of their negative current potential characteristic within a certain area, means for applying one of two potentials to each storage element through the above mentioned impedances, the lower of said potentials being in the vicinity of zero potential, at least one collector electrode for collection of the primary current and the secondary electron currents and in which tubes all storage elements



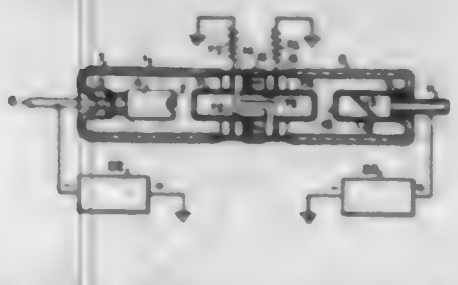
separately are from outside directly, electrically accessible, the said system comprising circuit means connecting, for registering binary information, the registering elements to be marked at one potential, via their outer impedances, to said lower potential in the vicinity of the cathode potential, circuit means connecting the registering elements, which are to be marked with a positive potential, via their outer impedances to a higher positive direct potential, whereby all potentials are referred to the cathode potential, and circuit means for temporarily suppressing the primary electron current while the said elements have their respective potentials.

2,871,402

SPLIT SECTION HIGH VOLTAGE TUBE

Joseph Lempert, West Elmira, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 20, 1954, Serial No. 456,940
6 Claims. (Cl. 315—14)



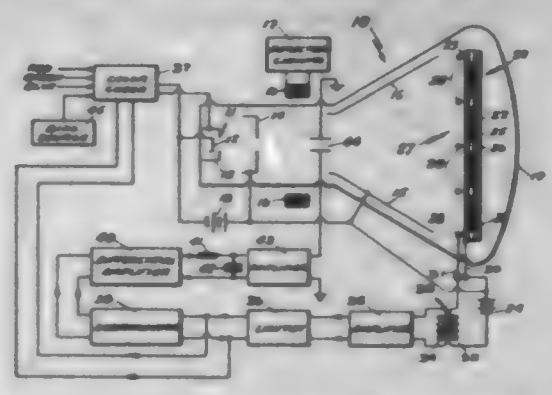
1. An electrical discharge tube comprising a pair of electrodes intended to operate at a high potential difference, a wall of insulating material about each said electrode, a wall portion interconnecting said walls and comprising a pair of conducting wall-portions connected to each other by an insulating wall-portion, and a chamber provided within said tube for each of said conducting wall-portions having conductive walls and apertures in opposite ends and connected electrically to its associated conducting wall-portion and having said apertures aligned between said electrodes, and a voltage source and a high impedance in series connecting each said conducting wall-portion to the said electrode which is nearer to it with the common point between said impedance and said voltage source connected to ground.

2,871,403

SCAN REGISTER SINGLE GUN CONTROL SYSTEMS

John A. Buckbee, Wellesley, and Vahan V. Terzian, Watertown, Mass., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application January 18, 1956, Serial No. 559,939
7 Claims. (Cl. 315—21)



1. In a color television receiver, a cathode ray tube adapted to receive video information corresponding to the presence of primary component colors in a televised scene including means for producing an electron beam comprising a cathode, a grid and an accelerating electrode, a fluorescent screen composed of a plurality of recurrent groups of elongated phosphor areas extending along said screen in a given direction and a plurality of blank areas positioned between ones of said groups, each of said phosphor areas of a given group being productive of light of a different primary color when said electron beam impinges upon it, a beam-intercepting grid positioned adjacent said fluorescent screen and including a series of spaced signal elements arranged parallel to and in alignment with corresponding blank areas, principal deflection means for scanning said beam across said fluorescent screen in a direction substantially normal to said given direction of said phosphor areas, means responsive only to the interception of said electron beam by said signal elements for producing scan register control signals independently of the presence of said video information, amplifying and limiting means responsive only to said scan register signals, discriminator means to compare the frequency characteristic of said scan register signals with the frequency characteristic of a reference signal, amplifying and integrating means responsive to the frequency difference of said scan register signals and said reference signal to obtain a control signal, and auxiliary deflection means responsive to said control signal to correct continuously the position of said electron beam, to assure correct scanning register.

2,871,404

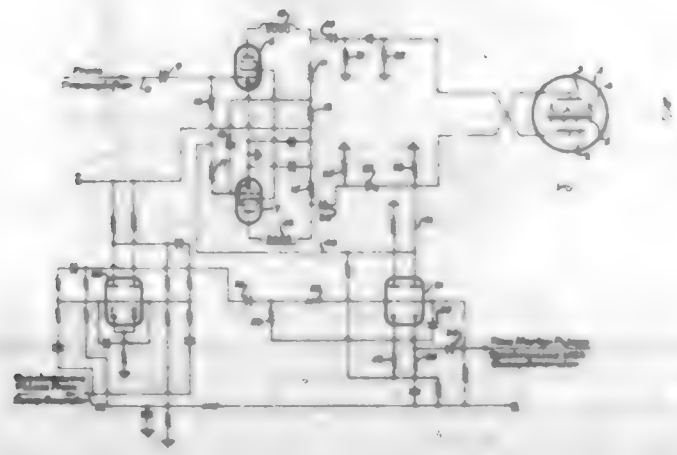
CIRCUIT FOR DISPLAYING ULTRASONIC ENERGY SIGNALS

Friedrich Mugele, Heppenheim-Bergstrasse, Germany, assignor to Dr. Lehfeldt & Company, G. m. b. H., Heppenheim-Bergstrasse, Germany, a German corporation

Application March 2, 1955, Serial No. 491,598
5 Claims. (Cl. 315—26)

1. In an oscilloscope arrangement having a luminescent screen, an electron beam for displaying electrical signals on the luminescent screen, and at least one pair of spaced deflection plates for varying the position of the electron beam, in combination, amplifying means having an input adapted to receive the electrical signals to be displayed and having an output circuit connected to the deflection plates for applying amplified output signals thereto, said amplifying means including at least two electron beam shifting circuits; switching means having an input circuit circuit adapted to receive a series of spaced reference pulses and having an output circuit connected to the deflection plates, said switching means being operable between a circuit opening position wherein said spaced

reference pulses are applied to said deflection plates and displayed, and a circuit blocked position wherein said spaced reference pulses are blocked and not displayed; and control means connected to said amplifying means and to said switching means for operating said switching means into said circuit blocking position for a first preselected time interval during which any electrical signals applied to said amplifying means are amplified and applied to said deflection plates, and for operating said



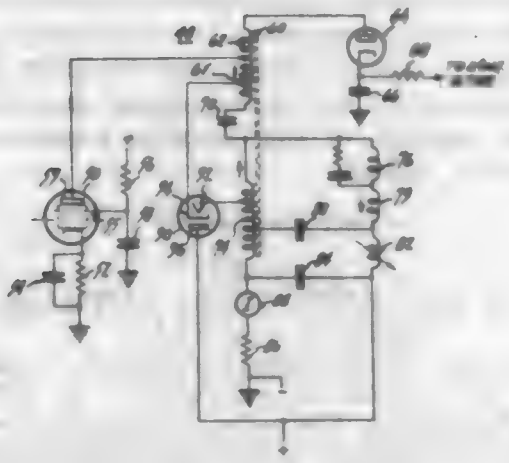
switching means into said circuit opening position for a second preselected time interval during which any electrical signals applied to said amplifying means are blocked, said control means including means for rendering both of said electron beam shifting circuits operative during said first preselected time interval, and for rendering at least one of said shifting circuits inoperative during said second preselected time interval.

2,871,405

RASTER CENTERING CONTROL

Bernard V. Vonderschmitt, Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application October 25, 1954, Serial No. 464,424
8 Claims. (Cl. 315—27)



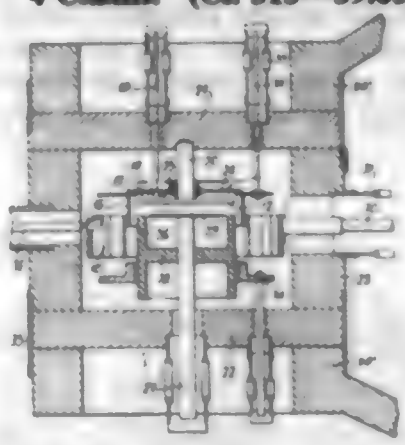
1. A deflection circuit arrangement, including a deflection wave output transformer having at least one winding with at least three terminals, a deflection system winding having one terminal connected directly to one of the terminals of said transformer winding, a load element having one terminal connected to another terminal of said transformer winding, a coupling element incapable of passing direct current connected between the other terminal of said deflection system winding and a terminal of said transformer intermediate said one and said other terminals, and an inductance element connected between the positive pole of a source of energizing potential and the said other terminal of said deflection system winding.

2,871,406

INJECTION MAGNETRONS

Robert Dunsmuir, Rugby, England, assignor to The British Thomson-Houston Company Limited, London, England, a British company

Application October 1, 1957, Serial No. 687,441
Claims priority, application Great Britain October 16, 1956
4 Claims. (Cl. 315—39.63)



1. An injection type magnetron comprising an evacuated chamber containing a cathode providing an annular electron emissive surface, a first anode of annular shape surrounding said cathode, a main anode coaxial with said cathode and formed to provide resonant cavities in which oscillations are adapted to be produced, a post electrode coaxial with said cathode and said main anode and forming with said main anode an annular interaction space into which an annular electron beam from said cathode is adapted to be injected, said annular interaction space being axially displaced from said cathode, an annular electrode disposed on the opposite side of said cathode from said interaction space and adapted to deflect electrons initially emitted from said cathode towards said first anode in an axial direction towards said interaction space, and means for producing a magnetic field axially of said cathode and said main anode whereby to impart to the electrons in said beam as they enter said interaction space an angular velocity synchronous with waves propagated in said anode.

2,871,407

ELECTRON DISCHARGE DEVICE

Ernest C. Okress, Elmira, N. Y., and Ralph J. Green, Newark, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 29, 1957, Serial No. 655,731
9 Claims. (Cl. 315—39.69)



1. A magnetron having a plurality of electrodes, two of said electrodes having a high potential gradient between them, portions of the surface of said two electrodes which are subject to an alternating current electric arc formation between them being composed of a refractory metallic material.

2,871,408

ELECTRONIC COUNTER

Joseph R. Desch, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland

Application April 21, 1953, Serial No. 350,133
10 Claims. (Cl. 315—84.5)

10. In a device of the class described, the combination of a first plurality of gaseous electron-discharge devices;

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

672,997. PLEOGEN. American Petrochemical Corporation. SN 33,450. Pub. 11–11–58. Filed 7–10–57.

672,998. DELWAN. Armour and Company. SN 47,174. Pub. 11–11–58. Filed 3–6–58.

672,999. ARMADILLO. Eagle-Ottawa Leather Company. SN 47,238. Pub. 11–11–58. Filed 3–7–58.

673,000. MICHIMOC. Eagle-Ottawa Leather Company. SN 47,239. Pub. 11–11–58. Filed 3–7–58.

673,001. MICHIGRAIN. Eagle-Ottawa Leather Company. SN 47,240. Pub. 11–11–58. Filed 3–7–58.

673,002. MICHICORP. Eagle Ottawa Leather Company. SN 50,039. Pub. 11–11–58. Filed 4–21–58.

Class 2 — Receptacles

673,003. LINCOLN BEAUTYWARE. Lincoln Metal Products Corp. SN 36,002. Pub. 11–11–58. Filed 8–22–57.

673,004. PLASTI-SEAL AND DESIGN. Constellation Cup Corporation. SN 38,201. Pub. 11–11–58. Filed 10–2–57.

673,005. PRETTY POLLY AND DESIGN. The Ohio Art Company. SN 44,643. Pub. 11–11–58. Filed 1–24–58.

673,006. LITTERID. Kenneth T. Bayard, d. b. a. Litterid Company. SN 46,406. Pub. 11–11–58. Filed 2–24–58.

673,007. SAFE-T-PAK. Bekins Van & Storage Co. SN 46,407. Pub. 11–11–58. Filed 2–24–58.

673,008. SAVE-A-SPILL. Diadem, Inc. SN 46,710. Pub. 11–11–58. Filed 2–27–58.

673,009. RHERM. Rheem Manufacturing Company. SN 46,739. Pub. 11–11–58. Filed 2–27–58.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

673,010. COFFEE BREAK. I. Smallman & Sons Co. SN 42,885. Pub. 11–11–58. Filed 1–13–58.

673,011. GLAD-MAR. Herbert J. Walsh. SN 47,700. Pub. 11–11–58. Filed 3–13–58.

673,012. ROYGEN. Platt Luggage, Inc. SN 49,460. Pub. 11–11–58. Filed 4–10–58.

Class 4 — Abrasives and Polishing Materials

673,013. SUPER-QUICK STEEL GLO AND DESIGN. Jack F. Brannick, d. b. a. Steel Glo Products. SN 16,509. Pub. 11–11–58. Filed 9–26–56.

673,014. W WATKINS. The J. R. Watkins Company. SN 47,984. Pub. 11–11–58. Filed 3–18–58.

673,015. DELOZIN. Diamond Alkali Company. SN 50,878. Pub. 11–11–58. Filed 5–2–58.

Class 5 — Adhesives

673,016. INSTANT LOK. National Starch Products Inc. SN 47,599. Pub. 11–11–58. Filed 3–12–58.

Class 6 — Chemicals and Chemical Compositions

673,017. DUBL-DETH. Destruxol Corporation, Ltd., d. b. a. Destruxol Corporation. SN 10,855. Pub. 11–11–58. Filed 6–25–56.

673,018. ANSUL D. M. B. Ansul Chemical Company. SN 30,718. Pub. 11–11–58. Filed 5–27–57.

673,019. JUNPASTUR. Bonewitz Industries, Inc., assignee, by mesne assignments, from Bonewitz Chemicals, Inc. SN 31,458. Pub. 11–11–58. Filed 6–6–57.

673,020. CLOR-TABS. Pennsalt Chemicals Corporation. SN 32,335. Pub. 11–11–58. Filed 6–20–57.

673,021. DABCO. Houdry Process Corporation. SN 34,947. Pub. 11–11–58. Filed 8–5–57.

673,022. PUREX AND DESIGN. Purex Corporation, Ltd. SN 35,388. Pub. 11–11–58. Filed 8–12–57.

673,023. CHEMPEL. Chempel, Inc. SN 35,492. Pub. 11–11–58. Filed 8–14–57.

673,024. CYANANTHROL. General Aniline & Film Corporation. SN 35,576. Pub. 11–11–58. Filed 8–15–57.

673,025. AIR CHEK AND DESIGN. Inspection Supply, Incorporated. SN 35,654. Pub. 11–11–58. Filed 8–16–57.

673,026. ZOALENE. The Dow Chemical Company. SN 35,757. Pub. 11–11–58. Filed 8–19–57.

673,027. EPOXOL. Swift & Company. SN 37,605. Pub. 11–11–58. Filed 9–20–57.

673,028. GO. General Foods Corporation. SN 41,089. Pub. 11–11–58. Filed 11–21–57.

673,029. DESIGN OF TEST TUBE ETC. Turco Products, Inc. SN 41,587. Pub. 11–11–58. Filed 11–29–57.

673,030. WITHDRAWN.

673,031. DETAMIDE. Cowles Chemical Company. SN 43,433. Pub. 11–11–58. Filed 1–6–58.

673,032. PERMA FILM AND DESIGN. Permafilm, Incorporated. SN 44,751. Pub. 11–11–58. Filed 1–27–58.

673,033. EPTAM. Stauffer Chemical Company. SN 45,222. Pub. 11–11–58. Filed 2–3–58.

673,034. SOLUPON. Soluol Chemical Co., Inc. SN 46,660. Pub. 11–11–58. Filed 2–26–58.

673,035. NANOUK. C. C. Wakefield & Company Limited. SN 46,677. Pub. 11–11–58. Filed 2–26–58.

673,036. HYSWEET. Johns-Manville Corporation. SN 48,189. Pub. 11–11–58. Filed 3–21–58.

673,037. POWDETTE. Eugene D. Koch, d. b. a. Duxe Products. SN 48,754. Pub. 11–11–58. Filed 3–31–58.

673,038. HYGROL. Niagara Blower Company. SN 48,863. Pub. 11–11–58. Filed 4–1–58.

Class 7 — Cordage

673,039. GUARDSMAN AND DESIGN. Van Waters & Rogers, Inc. SN 29,675. Pub. 11–11–58. Filed 5–8–57.

673,040. ACCURATE CORD. Muebles e Inmuebles, S. A., assignee of Midwest Cordage Co., Inc. SN 55,332. Pub. 11–11–58. Filed 7–15–58.

Class 8—Smokers' Articles, Not Including Tobacco Products

673,041. SMOKE TOTE. Amity Leather Products Co. SN 45,365. Pub. 11–11–58. Filed 2–6–58.

Class 9—Explosives, Firearms, Equipments, and Projectiles

673,042. ECONOMAX. Alcan Shells, Inc. SN 45,802. Pub. 11–11–58. Filed 2–5–58.

673,043. SKODA. Zavody V. I. Lenina Plzen, Narodni Podnik. SN 45,361. Pub. 11–11–58. Filed 2–5–58.

673,044. SUPER DYNA-JET. Jet Research Center, Inc. SN 36,015. Pub. 11–11–58. Filed 7–25–58.

Class 10—Fertilizers

673,045. USPHOS. Tennessee Corporation. SN 50,848. Pub. 11–11–58. Filed 5–1–58.

Class 11—Inks and Inking Materials

673,046. SPECTROPLAN. United States Printing Ink Corporation. SN 47,531. Pub. 11–11–58. Filed 3–11–58.

Class 12—Construction Materials

673,047. STYROCOR. Architectural Porcelain Constructors. SN 34,395. Pub. 11–11–58. Filed 7–26–57.

673,048. MURANTINE. Agency Tile Supply Corp. of New York. SN 36,268. Pub. 11–11–58. Filed 8–27–57.

673,049. CLARK WEDGE-LOK AND DESIGN. The Clark Grave Vault Company. SN 36,696. Pub. 11–11–58. Filed 9–5–57.

673,050. ELECTROSIL. Quartz Products Corporation. SN 36,924. Pub. 11–11–58. Filed 9–9–57.

63,051. SPARTEX. The Sparta Ceramic Company. SN 41,484. Pub. 11–11–58. Filed 11–27–57.

673,052. BRIXAVER. The Inland Fire Brick Company. SN 42,026. Pub. 11–11–58. Filed 12–9–57.

673,053. CLOISONNE. The Goodyear Tire & Rubber Company. SN 42,128. Pub. 11–11–58. Filed 12–10–57.

673,054. FIESTA-RAIL. Newman Brothers, Incorporated. SN 42,658. Pub. 11–11–58. Filed 12–18–57.

673,055. COMET. Alumatic Corporation of America. SN 42,685. Pub. 11–11–58. Filed 12–19–57.

673,056. DEAN CUT-RATE AND DESIGN. Dean Cut-Rate Floor Covering Company, Inc. SN 43,437. Pub. 11–11–58. Filed 1–6–58.

673,057. UNIT DECK AND DESIGN. Unit Structures, Inc. SN 45,231. Pub. 11–11–58. Filed 2–3–58.

673,058. ROOFCRAFTER. The Philip Carey Manufacturing Company. SN 46,893. Pub. 11–11–58. Filed 3–3–58.

673,059. INSULGLAS. The Eagle-Picher Company. SN 48,724. Pub. 11–11–58. Filed 3–31–58.

673,060. FENTRON. Fentron Industries, Inc. SN 48,730. Pub. 11–11–58. Filed 3–31–58.

673,061. WOOD-LAM. Wood-Lam, Inc. SN 49,103. Pub. 11–11–58. Filed 4–4–58.

673,062. HEDTILE. Stebbins Engineering & Manufacturing Company. SN 49,712. Pub. 11–11–58. Filed 4–15–58.

673,063. SEMTILE. Stebbins Engineering & Manufacturing Company. SN 49,713. Pub. 11–11–58. Filed 4–15–58.

673,064. QUIETRED. E. A. Mortrude & Co., d. b. a. Plastic-Stone Products. SN 49,960. Pub. 11–11–58. Filed 4–18–58.

673,065. DURAFLEX. Arcadia Air Products Co. SN 50,439. Pub. 11–11–58. Filed 4–28–58.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

673,066. "SNAPER." Plymouth Cordage Industries, Inc. SN 37,369. Pub. 11–11–58. Filed 9–17–57.

673,067. K KILGORE AND DESIGN. Kilgore Ceramics Corporation. SN 48,751. Pub. 11–11–58. Filed 3–31–58.

673,068. IPM AND DESIGN. International Precision Manufacturers, Inc. SN 50,625. Pub. 11–11–58. Filed 4–29–58.

673,069. FAT-AWAY. G & S Metal Products Co., Inc. SN 50,693. Pub. 11–11–58. Filed 4–30–58.

673,070. TACO AND DESIGN. Taco Heaters, Incorporated. SN 51,518. Pub. 11–11–58. Filed 5–12–58.

673,071. UNABRAC. Metal Wood Manufacturing Company. SN 51,574. Pub. 11–11–58. Filed 5–13–58.

673,072. CHILTONWARE. Aluminum Specialty Company. SN 51,684. Pub. 11–11–58. Filed 5–15–58.

Class 14—Metals and Metal Castings and Forgings

673,073. EXCELLO BRONZE. M. Swift & Sons, Inc. SN 26,574. Pub. 11–11–58. Filed 3–20–57.

673,074. TA. Unitcast Corporation. SN 44,498. Pub. 11–11–58. Filed 1–22–58.

673,075. GUNTEX. Jackson-Wheeler Metals Service, Inc. SN 46,319. Pub. 11–11–58. Filed 2–21–58.

673,076. PRIMAG. Printers Plates Limited. SN 48,481. Pub. 11–11–58. Filed 3–25–58.

673,077. AMBALLOY. A. M. Byers Company. SN 48,458. Pub. 11–11–58. Filed 3–26–58.

673,078. BYLOY. A. M. Byers Company. SN 48,459. Pub. 11–11–58. Filed 3–26–58.

673,079. FERROMAX. Quasi-Arc Limited. SN 48,580. Pub. 11–11–58. Filed 3–27–58.

673,080. REFRACTOMET. Universal-Cyclops Steel Corporation. SN 48,805. Pub. 11–11–58. Filed 3–31–58.

Class 15—Oils and Greases

673,081. FRONTIER AND DESIGN. The Frontier Refining Company. SN 620,884. CONCURRENT USE. Pub. 11–11–58. Filed 11–5–51.

673,082. FRONTIER. Ashland Oil & Refining Company, d. b. a. Frontier Oil Refining Company. SN 11,051. CONCURRENT USE. Pub. 11–11–58. Filed 6–27–56.

673,083. MIDAS. Midas, Inc. SN 41,771. Pub. 11–11–58. Filed 12–4–57.

Class 16—Protective and Decorative Coatings

673,084. METALSHIELD. The Glidden Company. SN 55,998. Pub. 11–11–58. Filed 7–25–58.

673,085. WILLIAMS. C. K. Williams & Co. SN 56,221. Pub. 11–11–58. Filed 7–28–58.

Class 17—Tobacco Products

673,086. H AND M SMOK-WEL AND DESIGN. H. Fendrich, Inc. SN 48,025. Pub. 11–11–58. Filed 3–19–58.

Class 18 — Medicines and Pharmaceutical Preparations

673,087. THE FIRST AID KIT IN A JAR. Cheesebrough-Pond's Inc. SN 31,385. Pub. 11-11-58. Filed 6-5-57.

673,088. C SPERIDIN. Marlyn Co., Inc. SN 36,607. Pub. 11-11-58. Filed 9-3-57.

673,089. PARAL. Fellows Medical Manufacturing Company, Inc., d. b. a. Fellows "TF" Testagar. SN 41,524. Pub. 11-11-58. Filed 11-29-57.

673,090. ALSORB GEL. Standex Laboratories, Inc. SN 41,725. Pub. 11-11-58. Filed 12-3-57.

673,091. ENERGPLUS. Energplus, Inc. SN 43,252. Pub. 11-11-58. Filed 12-31-57.

673,092. TROFORMONE. Societe des Laboratoires des Proxytasse. SN 45,219. Pub. 11-11-58. Filed 2-3-58.

673,093. MELFIAT UNICELLES. Hies Pharmacal Company, Inc. SN 48,284. Pub. 11-11-58. Filed 3-24-58.

673,094. CENULES. The Central Pharmacal Company. SN 49,556. Pub. 11-11-58. Filed 4-14-58.

673,095. TELOTREX. Bristol Laboratories Inc. SN 51,853. Pub. 11-11-58. Filed 5-19-58.

673,096. BY'S. B Y's, Inc. SN 52,191. Pub. 11-11-58. Filed 5-23-58.

673,097. CONCEPTROL. Donald G. Edmonston. SN 52,209. Pub. 11-11-58. Filed 5-23-58.

673,098. DERATRIC. Deseret Pharmaceutical Company, Inc. SN 52,284. Pub. 11-11-58. Filed 5-26-58.

673,099. ULTRAPAQUE. Bell-Craig Inc. SN 52,281. Pub. 11-11-58. Filed 5-27-58.

673,100. RAPAGERIC. Knoll Pharmaceutical Company. SN 52,419. Pub. 11-11-58. Filed 5-27-58.

673,101. GERILIQUID. Lakeside Laboratories, Inc. SN 52,502. Pub. 11-11-58. Filed 5-28-58.

673,102. RITONIC. Ciba Pharmaceutical Products Inc. SN 52,803. Pub. 11-11-58. Filed 6-3-58.

673,103. HERCULAX. Standex Laboratories, Inc., assignee of Edgar A. Ferguson, Jr. SN 53,140. Pub. 11-11-58. Filed 6-9-58.

673,104. INSTA-PEP. Drug Research Corporation. SN 53,245. Pub. 11-11-58. Filed 6-10-58.

673,105. VIMULTIMIN. G and G Pharmacal Co., Inc. SN 53,326. Pub. 11-11-58. Filed 6-11-58.

673,106. DIAXANTHIN. C. H. Boehringer Sohn. SN 53,470. Pub. 11-11-58. Filed 6-13-58.

673,107. SINGOSERP. Ciba Pharmaceutical Products Inc. SN 53,584. Pub. 11-11-58. Filed 6-16-58.

Class 19 — Vehicles

673,108. CITRO-MATIC. Societe Anonyme Andre Citroen. SN 29,665. Pub. 11-11-58. Filed 5-8-57.

673,109. BUCKSCO. Bucks County Enterprises, Inc. SN 30,721. Pub. 11-11-58. Filed 5-27-57.

673,110. "TEMPER-LUMINUM." Bucks County Enterprises, Inc. SN 30,722. Pub. 11-11-58. Filed 5-27-57.

673,111. HYDRO E-Z PACK. Hercules Galion Products, Incorporated. SN 36,713. Pub. 11-11-58. Filed 9-5-57.

673,112. STOCK PICKER. Rol-Away Truck Manufacturing Company, Inc. SN 38,489. Pub. 11-11-58. Filed 10-7-57.

673,113. MONOLITE. Thos. F. Moroney Co. SN 42,185. Pub. 11-11-58. Filed 12-5-57.

673,114. CE AND DESIGN. Ceske Zavody Motocyklove, Narodni Podnik. SN 44,261. Pub. 11-11-58. Filed 1-20-58.

673,115. SKODA. Zavody V. I. Lenina Plzen, Narodni Podnik. SN 45,362. Pub. 11-11-58. Filed 2-5-58.

673,116. AMPULCO. The American Pulley Company. SN 47,172. Pub. 11-11-58. Filed 4-23-58.

673,117. ALUMA LINE. The Flour City Ornamental Iron Company, d. b. a. Aluma Craft Boat Company. SN 48,264. Pub. 11-11-58. Filed 3-24-58.

673,118. AMBULITTER. Ambulitter Corporation. SN 50,661. Pub. 11-11-58. Filed 4-30-58.

Class 20 — Linoleum and Oiled Cloth

673,119. VELVETEX. Velveray Corporation. SN 15,418. Pub. 11-11-58. Filed 9-10-56.

Class 21 — Electrical Apparatus, Machines, and Supplies

673,120. NL LIGHTING AND DESIGN. N L Corporation. SN 36,387. Pub. 11-11-58. Filed 8-29-57.

673,121. BABY-COM. Fanon Electric Co. Inc. SN 37,565. Pub. 11-11-58. Filed 9-20-57.

673,122. HIGHLANDER. P. R. Mallory & Co. Inc. SN 38,620. Pub. 11-11-58. Filed 10-9-57.

673,123. WENDELIGHT. Rudolf Wendel, Incorporated. SN 39,020. Pub. 11-11-58. Filed 10-16-57.

673,124. GATES AND DESIGN. The Gates Rubber Company. SN 39,617. Pub. 11-11-58. Filed 10-28-57.

673,125. MANULUX. Major Equipment Co., Inc. SN 42,223. Pub. 11-11-58. Filed 12-11-57.

673,126. TAP-A-LINE. Robert W. McFarlin, d. b. a. Tap-A-Line Mfg. Co. SN 42,225. Pub. 11-11-58. Filed 12-11-57.

673,127. FRYONIC. Fryonic Corporation. SN 43,844. Pub. 11-11-58. Filed 1-13-58.

673,128. DREYCO. Jack Dreyfus Co. SN 44,267. Pub. 11-11-58. Filed 1-20-58.

673,129. ECON-O-MATIC. Notifier Corporation. SN 45,597. Pub. 11-11-58. Filed 2-10-58.

673,130. NOTIFIER AND DESIGN. Notifier Corporation. SN 45,598. Pub. 11-11-58. Filed 2-10-58.

673,131. SIGHTLINE. Sunbeam Lighting Company. SN 45,708. Pub. 11-11-58. Filed 2-11-58.

673,132. SODALITE. The Electric Auto-Lite Company. SN 46,119. Pub. 11-11-58. Filed 2-19-58.

673,133. LECTALITE. The Electric Auto-Lite Company. SN 46,613. Pub. 11-11-58. Filed 2-26-58.

673,134. URL AND DESIGN. United Recording Laboratories Inc. SN 47,794. Pub. 11-11-58. Filed 3-14-58.

673,135. BELDPAK. Belden Manufacturing Company. SN 48,138. Pub. 11-11-58. Filed 3-21-58.

673,136. ECON-O-TAPE. Engelhard Industries, Inc. SN 48,832. Pub. 11-11-58. Filed 4-1-58.

673,137. OILIGHTS. Shelson Oilfield Lighting Company, Incorporated. SN 48,876. Pub. 11-11-58. Filed 4-1-58.

673,138. REPRESENTATION OF ROBOT AND INSECT. Gardner International Corporation. SN 49,917. Pub. 11-11-58. Filed 4-18-58.

673,139. AUTOMIX. Globe American Corporation, d. b. a. Vulcan-Hart Manufacturing Company. SN 49,923. Pub. 11-11-58. Filed 4-18-58.

673,140. TERMOSYN. Walter Valentino Kassel, d. b. a. Kassel Export Company. SN 50,066. Pub. 11-11-58. Filed 4-21-58.

673,141. WEATHERAMA. Motorola Inc. SN 50,507. Pub. 11-11-58. Filed 4-28-58.

673,152. DIAL-A-TORQ. U. S. Electrical Motors, Inc. SN 40,976. Pub. 11-11-58. Filed 11-19-57.

Class 22 — Games, Toys, and Sporting Goods

673,142. ELVIN AND DESIGN. Levin Brothers. SN 37,740. Pub. 11-11-58. Filed 9-24-57.

673,143. TONKA TOYS AND DESIGN. Tonka Toys, Inc. SN 41,034. Pub. 11-11-58. Filed 11-20-57.

673,144. WOOD-STREAM. The American Pad & Textile Company. CONSOLIDATED CERTIFICATE. SN 42,573, pub. 10–28–58, filed 12–17–57, Cl. 22; SN 57,236, pub. 10–28–58, filed 8–15–58, Cl. 39.

673,145. SHUR-FIT. Shur-Fit Company. SN 43,884. Pub. 11–11–58. Filed 1–13–58.

673,146. THINKIE WINKIES AND DESIGN. R-J-R Toys, Inc. SN 45,608. Pub. 11–11–58. Filed 2–10–58.

673,147. ABU-MATIC. Aktiebolaget Urfabriken. SN 47,544. Pub. 11–11–58. Filed 3–12–58.

673,148. WATER WIGGLER. South Bend Tackle Company, Inc. SN 49,202. Pub. 11–11–58. Filed 4–7–58.

673,149. LIFE-LIKE AND DESIGN. Life-Like Products, Inc. SN 49,283. Pub. 11–11–58. Filed 4–8–58.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

673,150. INA AND DESIGN. Industriewerk Schaeffler O. H. G. SN 37,726. Pub. 11–11–58. Filed 9–24–57.

673,151. HYDRO-SCOPIC. The Warner & Swasey Company, assignee of Badger Machine Company. SN 39,369. Pub. 11–11–58. Filed 10–23–57.

673,152. (See Class 21 for this trademark.)

673,153. QUADRI-LOK. New Era Muffler Corporation. SN 42,522. Pub. 11–11–58. Filed 12–16–57.

673,154. TOM THUMB. Pneumatic-Hydraulic Development Company, Inc. SN 43,478. Pub. 11–11–58. Filed 1–6–58.

673,155. HEYER. The Heyer Corporation. SN 46,734. Pub. 11–11–58. Filed 2–27–58.

673,156. IRON-GUARD. Buffalo Eclipse Corporation. SN 48,235. Pub. 11–11–58. Filed 3–24–58.

673,157. MARAUDER. Ford Motor Company. SN 48,912. Pub. 11–11–58. Filed 4–2–58.

673,158. F–S AND DESIGN. Donald L. Johnson, d. b. a. Flaker-Surfacer Company. SN 48,996. Pub. 11–11–58. Filed 4–3–58.

673,159. LOAFER. Outboard Marine Corporation. SN 49,772. Pub. 11–11–58. Filed 4–16–58.

673,160. EXPANDOLIFE. Whiteley Bearing Corp. SN 50,136. Pub. 11–11–58. Filed 4–21–58.

673,161. FLOOR VAC AND DESIGN. H-P Products, Inc. SN 51,013. Pub. 11–11–58. Filed 5–5–58.

673,162. FABULITE. Stowe-Woodward, Inc. SN 55,742. Pub. 11–11–58. Filed 7–21–58.

673,163. STAR MIST. Wallace Silversmiths, Inc. SN 55,758. Pub. 11–11–58. Filed 7–21–58.

673,164. JWIS AND DESIGN. Joh. Winklhofer & Söhne. SN 55,765. Pub. 11–11–58. Filed 7–21–58.

673,165. LO-BLO THE AIR-BROOM. Atwater-Strong Company. SN 55,896. Pub. 11–11–58. Filed 7–24–58.

673,166. COMPUTREATER. C. A. Litzler Co., Inc. SN 55,931. Pub. 11–11–58. Filed 7–24–58.

673,167. IVERS-LEE. Ivers-Lee Company. SN 56,014. Pub. 11–11–58. Filed 7–25–58.

673,168. SNOW WHITE. Wallace Silversmiths, Inc. SN 56,063. Pub. 11–11–58. Filed 7–25–58.

673,169. SELECT-O-SHIFT. Ford Motor Company. SN 56,114. Pub. 11–11–58. Filed 7–28–58.

673,170. TUMBLEWEED. Dayton O. Hyde. SN 56,133. Pub. 11–11–58. Filed 7–28–58.

673,171. CASE-O-MATIC. J. I. Case Company. SN 56,450. Pub. 11–11–58. Filed 8–1–58.

Class 26—Measuring and Scientific Appliances

673,172. MARINE SONOPROBE AND DESIGN. Magnolia Petroleum Company. SN 21,448. Pub. 11–11–58. Filed 12–21–56.

673,173. SUPRA AND DESIGN. Bernhard Nickel, d. b. a. Physikalisch-Technische Werkstatten. SN 29,297. Pub. 11–11–58. Filed 5–2–57.

673,174. OPTYPE. Ateliers Bariquand & Marre, Societe Anonyme. SN 36,149. Pub. 11–11–58. Filed 8–26–57.

673,175. PRO-GLO. American Machine & Foundry Company. SN 36,337. Pub. 11–11–58. Filed 8–28–57.

673,176. CAMEX. Ercsam. SN 36,507. Pub. 11–11–58. Filed 8–30–57.

673,177. PACE. The Brearley Company. SN 37,777. Pub. 11–11–58. Filed 9–25–57.

673,178. BOILERMASTER. Penn Controls, Inc. SN 39,892. Pub. 11–11–58. Filed 10–31–57.

673,179. NAVAR. Herbert H. Ellis, d. b. a. Navar Manufacturing Co. SN 40,332. Pub. 11–11–58. Filed 11–8–57.

673,180. SODECO. S O D E C O Societe des Compteurs de Geneve. SN 46,368. Pub. 11–11–58. Filed 2–21–58.

673,181. EDACON. Andromeda Inc. SN 47,226. Pub. 11–11–58. Filed 3–7–58.

673,182. RENAISSANCE RULE. George W. Sisk, d. b. a. Model Industries Co. SN 47,443. Pub. 11–11–58. Filed 3–10–58.

673,183. SPRAY SAVER. Monsanto Chemical Company. SN 49,866. Pub. 11–11–58. Filed 4–17–58.

673,184. LANCER. General Aniline & Film Corporation, d. b. a. Anseo. SN 50,694. Pub. 11–11–58. Filed 4–30–58.

Class 27 — Horological Instruments

673,185. DEGADO. Societe Anonyme Aubry Freres Montres Ciny. SN 43,499. Pub. 11–11–58. Filed 12–9–57.

673,186. THIN-O-MATIC. Hamilton Watch Company. SN 43,941. Pub. 11–11–58. Filed 1–14–58

Class 28 — Jewelry and Precious-Metal Ware

673,187. LA MODE. Ripley and Gowen Company Incorporated. SN 26,298. Pub. 11–11–58. Filed 3–13–57

673,188. PETRA AND DESIGN. Erich Schewe e. H. G. SN 29,957. Pub. 11–11–58. Filed 5–13–57.

673,189. CELEBRITY DIAMOND. L. & C. Mayers Co., Incorporated. SN 31,017. Pub. 11–11–58. Filed 5–29–57.

673,190. FASHION ART. Mayer Bros. SN 33,628. Pub. 11–11–58. Filed 7–12–57.

673,191. B & F. Baden & Foss Co. SN 35,483. Pub. 11–11–58. Filed 8–12–57.

673,192. IDENTI-MED. Identi-Med, Inc., assignee of Edward H. Klopp. SN 36,590. Pub. 11–11–58. Filed 9–3–57.

673,193. FEATURE-FLEX. Feature Ring Co., Inc. SN 40,219. Pub. 11–11–58. Filed 11–7–57.

673,194. CASSANDRA. Castlecliff, Inc. SN 46,600. Pub. 11–11–58. Filed 2–26–58.

673,195. DESIGN OF CHEST. The Hope Chest Company, Inc. SN 46,622. Pub. 11–11–58. Filed 2–26–58.

673,196. CASCADE. Towle Manufacturing Company. SN 47,082. Pub. 11–11–58. Filed 3–4–58.

Class 29 — Brooms, Brushes, and Dusters

673,197. LADY MARIETTA. American-Marietta Company (O-Cedar Division). SN 47,040. Pub. 11–11–58. Filed 3–4–58.

673,198. SPIN-ABOUT. American-Marietta Company (O-Cedar Division). SN 47,809. Pub. 11–11–58. Filed 3–17–58.

673,199. QUIK-KLEEN. Silver Chamberlin Co. SN 48,211. Pub. 11–11–58. Filed 3–21–58.

Class 30—Crockery, Earthenware, and Porcelain

673,200. STARBURST. Gladding, McBean & Co. SN 40,220. Pub. 11–11–58. Filed 11–7–57.

Class 31—Filters and Refrigerators

673,201. HOME AID AND DESIGN. Silex Co., also known as The Silex Company. SN 55,168. Pub. 11–11–58. Filed 7–11–58.

673,202. GLOBEMASTER. Mueller Brass Co. SN 56,168. Pub. 11–11–58. Filed 7–28–58.

Class 32—Furniture and Upholstery

673,203. DU HONEY. Midwest Folding Products Mfg. Corp. SN 55,496. Pub. 11–11–58. Filed 7–17–58.

673,204. S-L RACK. Bathey Manufacturing Company. SN 55,833. Pub. 11–11–58. Filed 7–23–58.

Class 34—Heating, Lighting, and Ventilating Apparatus

673,205. W-W SHIP-HEATER. Way-Wolff Associates, Inc. SN 42,613. Pub. 11–11–58. Filed 12–17–57.

673,206. HUMI-ZON. Safeguard Corporation. SN 47,285. Pub. 11–11–58. Filed 3–7–58.

673,207. PORTA-DRY. Porta-Dry, Inc. SN 49,969. Pub. 11–11–58. Filed 4–18–58.

673,208. TACO DESIGN. Taco Heaters, Incorporated. SN 51,517. Pub. 11–11–58. Filed 5–12–58.

673,209. AQUA STEEL. The Hotstream Heater Company. SN 51,793. Pub. 11–11–58. Filed 5–16–58.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

673,210. TRACTION MASTER. Cordovan Associates, Inc. SN 50,151. Pub. 11–11–58. Filed 4–22–58.

673,211. GAY GH. Smith-Monroe Company. SN 50,322. Pub. 11–11–58. Filed 4–24–58.

Class 36—Musical Instruments and Supplies

673,212. PLAY-PAK. Toy Distributors, Inc. SN 36,634. Pub. 11–11–58. Filed 9–3–57.

Class 38—Prints and Publications

673,213. TYPEWRITER MYSTERY GAMES. Julius Nelson, d. b. a. Artistic Typing Headquarters. SN 34,549. Pub. 11–11–58. Filed 7–29–57.

673,214. GOLD IN YOUR ATTIC. General Features Corporation. SN 45,873. Pub. 11–11–58. Filed 2–14–58.

673,215. TV SCOUT AND DESIGN. NEA Service, Inc. SN 46,476. Pub. 11–11–58. Filed 2–24–58.

673,216. BAZOOKA JOE. Topps Chewing Gum, Incorporated. SN 46,778. Pub. 11–11–58. Filed 2–27–58.

673,217. HN AND DERIGN. Holmes & Narver, Inc. SN 47,116. Pub. 11–11–58. Filed 3–5–58.

673,218. MIN & CHEM. International Minerals & Chemical Corporation. SN 47,389. Pub. 11–11–58. Filed 3–10–58.

673,219. ANDREA. Aqui Esta Publishing Corp. SN 50,205. Pub. 11–11–58. Filed 4–23–58.

673,220. RETAIL LABOR REPORT. The Bureau of National Affairs, Inc. SN 50,278. Pub. 11–11–58. Filed 4–24–58.

673,221. SEEK-RET-LOK. Harry Edward Neal. SN 50,511. Pub. 11–11–58. Filed 4–28–58.

673,222. AT OUR HOUSE. National Catholic Welfare Conference. SN 50,635. Pub. 11–11–58. Filed 4–29–58.

673,223. THE FIRST NATIONAL CITY BANK OF NEW YORK AND DESIGN. The First National City Bank of New York. SN 50,881. Pub. 11–11–58. Filed 5–2–58.

Class 39—Clothing

673,144. CONSOLIDATED CERTIFICATE. See Class 22.

673,224. BENNEDITTO MARTINO ETC. AND DESIGN. Joseph Kanner Hat Co. Inc. SN 673,923. Pub. 11–11–58. Filed 9–28–54.

673,225. MINO. Trent B. Terry, d. b. a. Monticello Shirt Company. SN 36,985. Pub. 11–11–58. Filed 9–10–57.

673,226. ELMOOR. Lebof Limited. SN 38,828. Pub. 11–11–58. Filed 10–14–57.

673,227. SILVER-CIRCLE. Juneius Blair Leighton. SN [illegible]. Pub. 11–11–58. Filed 9–27–57.

673,228. PINEHURST GOLFER. Louise Garnier. SN 39,868. Pub. 11–11–58. Filed 10–31–57.

673,229. THE STUDENT PRINCE. Beau Brummel Company. SN 40,806. Pub. 11–11–58. Filed 11–18–57.

673,230. GLAMETTES. Wolf & Dessauer Company. SN 41,734. Pub. 11–11–58. Filed 12–3–57.

673,231. ASTIN. S. p. A. Alfredo Motta. SN 42,788. Pub. 11–11–58. Filed 12–20–57.

673,232. TUF-NUT WESTERNS. Little Rock Tent and Awning Company. SN 43,861. Pub. 11–11–58. Filed 1–13–58.

673,233. KA-KOON AND DESIGN. Esther E. Bogenberger, d. b. a. Ka-Koon Company. SN 44,687. Pub. 11–11–58. Filed 1–27–58.

673,234. RAMBULE. Lord Jeff Knitting Company, Incorporated. SN 46,325. Pub. 11–11–58. Filed 2–21–58.

673,235. BUDDY BIB. Fred H. Ream, d. b. a. Buddy Bib Company. SN 46,642. Pub. 11–11–58. Filed 2–26–58.

673,236. TRAVELORD. Aquascutum, Limited. SN 46,875. Pub. 11–11–58. Filed 3–3–58.

673,237. THE ORIGINAL SKOOBA-SKIN AND DESIGN. So-Lo Works, Inc. SN 47,156. Pub. 11–11–58. Filed 3–5–58.

673,238. MATEX. M. K. M. Knitting Mills, Inc. SN 48,179. Pub. 11–11–58. Filed 3–21–58.

673,239. AUTOMATIC "FIFTY-FIVES." Robert Hall Clothes, Inc. SN 48,277. Pub. 11–11–58. Filed 3–24–58.

673,240. LINDA DEANE AND DESIGN. Austin Knitting Mills, Inc. SN 48,390. Pub. 11–11–58. Filed 3–25–58.

673,241. BA-BE-SNUG. Bettye S. Dudley. SN 48,466. Pub. 11–11–58. Filed 3–26–58.

673,242. WILLIAM BARRY. William Barry, Inc. SN 48,604. Pub. 11–11–58. Filed 3–28–58.

673,243. COMPANION-ETTES. Lester Pincus Shoe Corporation. SN 48,655. Pub. 11–11–58. Filed 3–28–58.

673,244. GANTNER OF CALIFORNIA. Gantner & Mattern Company. SN 49,573. Pub. 11–11–58. Filed 4–14–58.

673,245. LA VIVE. Jacob Bolts Knitting Mill, Inc. SN 50,860. Pub. 11–11–58. Filed 5–2–58.

673,246. PERFECT STRIKE. Crown Prince, Inc. SN 50,983. Pub. 11–11–58. Filed 5–5–58.

Class 40—Fancy Goods, Furnishings, and Notions

673,247. CEE-BEE. The Cee Bee Mfg. Co. Inc. SN 38,018. Pub. 11–11–58. Filed 9–30–57.

673,248. SC ETC. AND DESIGN. Stanley Chasin, d. b. a. Stanley C. P. Co. SN 45,657. Pub. 11–11–58. Filed 2–10–58.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

673,249. CREPE DE SAND AND DESIGN. Regulated Cottons, Inc. SN 37,040. Pub. 11–11–58. Filed 9–11–57.

673,250. BLOCKOTE. Wheeler Protective Apparel, Inc. SN 38,654. Pub. 11–11–58. Filed 10–9–57.

673,251. GLEN-RAY. Glen Raven Cotton Mills, Inc. SN 46,132. Pub. 11–11–58. Filed 2–19–58.

673,252. CLINTON FABRIC. J. P. Stevens & Co., Inc. SN 48,877. Pub. 11–11–58. Filed 4–1–58.

673,253. SHAPETROL. Ackerman Associates, Incorporated. SN 49,399. Pub. 11–11–58. Filed 4–10–58.

673,254. SURACHENE. J. P. Stevens & Co. Inc., assignee of D. B. Fuller & Co., Inc. SN 50,887. Pub. 11–11–58. Filed 5–2–58.

673,255. IMPRESARIO. J. P. Stevens & Co. Inc., assignee of D. B. Fuller & Co., Inc. SN 50,889. Pub. 11–11–58. Filed 5–2–58.

673,256. KARAZA. Ashley Fashions, Inc. SN 50,952. Pub. 11–11–58. Filed 5–5–58.

673,257. STAY-STRAYT. Lisa M. Specht. SN 51,147. Pub. 11–11–58. Filed 5–6–58.

673,258. AIRMASTER. United States Rubber Company. SN 51,236. Pub. 11–11–58. Filed 5–7–58.

Class 43—Thread and Yarn

673,259. CELALOFT. Celanese Corporation of America. SN 51,112. Pub. 11–11–58. Filed 5–6–58.

Class 44—Dental, Medical, and Surgical Appliances

673,260. HYPAK. Becton, Dickinson and Company. SN 45,713. Pub. 11–11–58. Filed 2–12–58.

673,261. OXY-AID. Emergency Medical Oxygen Company, Inc. SN 46,430. Pub. 11–11–58. Filed 2–24–58.

Class 45—Soft Drinks and Carbonated Waters

673,262. GOODY. The Goody Company. SN 48,737. Pub. 11–11–58. Filed 3–31–58.

Class 46—Foods and Ingredients of Foods

673,263. PACKERS POWDER. Kadison & Company. SN 11,373. Pub. 11–11–58. Filed 7–2–56.

673,264. JUNE KIST. Edmund B. Quinby, d. b. a. Garden Gold Foods. SN 27,729. Pub. 11–11–58. Filed 4–8–57.

673,265. GIVE YOURSELF A FLAVOR BREAK. Standard Brands Incorporated. SN 27,822. Pub. 11–11–58. Filed 4–9–57.

673,266. VIENNA. Vienna Sausage Manufacturing Co. SN 28,401. Pub. 11–11–58. Filed 4–17–57.

673,267. LO-SAL. Allied Food Products Sales, Inc. SN 32,364. Pub. 11–11–58. Filed 6–11–57.

673,268. GOLDEN GEM. Oscar Threadgill, assignee of Go-Forth Enterprises, Inc. SN 33,240. Pub. 11–11–58. Filed 7–5–57.

673,269. REDLANDS BEST. Bryn Mawr Fruit Growers Association. SN 34,770. Pub. 11–11–58. Filed 8–1–57.

673,270. CHIVE-ETTES. Lee & Oshita Co. SN 38,929. Pub. 11–11–58. Filed 10–15–57.

673,271. HAVEN. Herbert Victor Nootbaar, d. b. a. H. V. Nootbaar & Co. SN 39,359. Pub. 11–11–58. Filed 10–21–57.

673,272. LARK. The Procter & Gamble Company. SN 39,670. Pub. 11–11–58. Filed 10–28–57.

673,273. TV TIME YELLO-WHITE HYBRID. TV Time Foods, Inc. SN 41,676. Pub. 11–11–58. Filed 12–2–57.

673,274. LO-MELT. Wesson Oil & Snowdrift Sales Company. SN 43,572. Pub. 11–11–58. Filed 1–7–58.

673,275. VITAVIMS. Sta-Norm. SN 44,988. Pub. 11–11–58. Filed 1–30–58.

673,276. PANCRAFT. The Pillsbury Company, by change of name from Pillsbury Mills, Inc. SN 47,604. Pub. 11–11–58. Filed 3–12–58.

673,277. RUBY. J. A. Kirsch Co. SN 47,870. Pub. 11–11–58. Filed 3–17–58.

673,278. FARM BOY. Bonner Packing Co., d. b. a. California Raisin Co. SN 48,233. Pub. 11–11–58. Filed 3–24–58.

673,279. SPRAYONNAISE. Joseph M. Christensen. SN 48,968. Pub. 11–11–58. Filed 4–3–58.

673,280. NORTHEAST AND DESIGN. Northeast Potato Company. SN 49,178. Pub. 11–11–58. Filed 4–7–58.

673,281. GOOD YEAR AND DESIGN. Martin Ranch, d. b. a. J. D. Martin. SN 49,284. Pub. 11–11–58. Filed 4–8–58.

673,282. RAYO AND DESIGN. Martin Ranch, d. b. a. J. D. Martin. SN 49,286. Pub. 11–11–58. Filed 4–8–58.

673,283. CELLO-ETTES. James Herbert Gigandet, d. b. a. Celebrity House. SN 49,918. Pub. 11–11–58. Filed 4–18–58.

673,284. TIDEPOINT. Wiegardt Brothers, d. b. a. Wiegardt Bros. SN 52,787. Pub. 11–11–58. Filed 6–2–58.

673,285. MIZZA. General Mills, Inc. SN 53,402. Pub. 11–11–58. Filed 6–12–58.

673,286. CROWN HILL. Kay's Ranches, Inc. SN 53,619. Pub. 11–11–58. Filed 6–16–58.

Class 47—Wines

673,287. ROCHEZ. Maison Roches, Ltd. SN 44,725. Pub. 11–11–58. Filed 1–27–58.

673,288. VILLANOVA. Sovereign Importers, Ltd. SN 47,979. Pub. 11–11–58. Filed 3–18–58.

Class 48—Malt Beverages and Liquors

673,289. ADEL BRAU. Wausau Brewing Company. SN 47,034. Pub. 11–11–58. Filed 3–3–58.

Class 49—Distilled Alcoholic Liquors

673,290. WHITE HEATHER. Campbells (Distillery) Limited. SN 43,924. Pub. 11–11–58. Filed 1–14–58.

Class 50—Merchandise Not Otherwise Classified

673,291. TUTTI. Tutti Enterprises. SN 39,103. Pub. 11–11–58. Filed 10–17–57.

673,292. PC AND DESIGN. Polychrome Corporation. SN 48,657. Pub. 11–11–58. Filed 3–28–58.

673,293. COUNTESS. Chetley Products, Inc. SN 49,044. Pub. 11-11-58. Filed 4-1-58.

Class 51 — Cosmetics and Toilet Preparations

673,294. DIVIDEND. Les Parfums de Dana, Inc. SN 37,026. Pub. 11-11-58. Filed 9-11-57.

Class 52 — Detergents and Soaps

673,295. LAM. J. C. Garet Incorporated. SN 28,342. Pub. 11-11-58. Filed 4-17-57.

673,296. RECEPTIV. Golden Peacock Co., Inc. SN 38,153. Pub. 11-11-58. Filed 10-1-57.

673,297. FLUSHREX H-7. Rhodia Inc. SN 47,607. Pub. 11-11-58. Filed 2-12-58.

Service Marks

Class 100 — Miscellaneous

673,298. DESIGN OF GROTESQUE HUMAN. Mister Donut of America, Inc., by change of name from Harwin Management Corporation. SN 698,977. Pub. 11-11-58. Filed 11-28-55.

Class 101 — Advertising and Business

673,299. ASSEMBLY-LINE SELLING AND DESIGN. Martin Miller, d. b. a. The Martin Miller Company. SN 693,476. Pub. 11-11-58. Filed 8-22-55.

673,300. OFFICE SERVICE AND DESIGN. Frietsch Services, Inc. SN 39,035. Pub. 11-11-58. Filed 10-17-57.

673,301. FPBAA ETC. AND DESIGN. Folding Paper Box Association of America. SN 42,465. Pub. 11-11-58. Filed 12-16-57.

673,302. DESIGN OF PAPER BOX PENCIL AND CALIPERS. Folding Paper Box Association of America. SN 42,466. Pub. 11-11-58. Filed 12-16-57.

Class 102 — Insurance and Financial

673,303. THANKSGIVING DAY. Thanksgiving Day Hospital Stamp, Inc. SN 16,913. Pub. 11-11-58. Filed 10-3-56.

673,304. FACTORY MUTUAL ETC. AND DESIGN. Factory Mutual Liability Insurance Company of America. SN 41,808. Pub. 11-11-58. Filed 12-5-57.

Class 103 — Construction and Repair

673,305. WET-AGGREGATE. Western Waterproofing Company, Inc. SN 677,689. Pub. 11-11-58. Filed 12-3-54.

Class 105 — Transportation and Storage

673,306. PACIFIC AIR LINES AND DESIGN. Pacific Air Lines, Inc. SN 48,046. Pub. 11-11-58. Filed 5-7-58.

Class 106 — Material Treatment

673,307. PHOTO WRINLAY. Photo Chemical Products, Inc. SN 4,740. Pub. 11-11-58. Filed 3-16-56.

Collective Membership Marks

Class 200

673,308. DELTA SIGMA DELTA AND COAT OF ARMS. Delta Sigma Delta Fraternity. SN 48,720. Pub. 11-11-58. Filed 3-31-58.

673,309. MONOGRAM OF DELTA SIGMA DELTA. Delta Sigma Delta Fraternity. SN 48,721. Pub. 11-11-58. Filed 3-31-58.

673,310. ANA AND DESIGN. American Nurses' Association. SN 51,769. Pub. 11-11-58. Filed 5-16-58.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 12 — Construction Materials

673,311. Marson Corporation, Revere, Mass. SN 36,608. Filed P. R. 9-3-57. Am. S. R. 11-19-58.

REZ★ZIN

For Polyester Plastic Filler for Repairing Automobile Bodies, Boats, Furniture, Toys, Appliances, Castings and the Like.

First use in June 1957.

673,312. Reliable Electric Company, Franklin Park, Ill. SN 40,281. Filed P. R. 11-7-57. Am. S. R. 11-5-58.

STEELCASE
STRANDVISE

For End Anchors for Prestressed Concrete.

First use Apr. 15, 1954.

673,313. The Logan-Long Company, Chicago, Ill. SN 49,593. Filed P. R. 4-14-58. Am. S. R. 12-1-58.

HI-SPEC

For Insulation Roof Board and Blanket Insulation.

First use Apr. 26, 1957.

Class 26 — Measuring and Scientific Appliances

673,314. Holeclaw Bros., Inc., Evansville, Ind. SN 35,652. Filed P. R. 8-16-57. Am. S. R. 8-1-58.

Holeclaw

The drawing is lined for blue and silver, but these colors are not an essential feature of the mark.

For Well Testers—Namely, Devices for Determining the

Character of Aqueous Crude Oil Mixture From Oil Wells and for Determining Fluid Flow Rate From Wells.
First use June 5, 1953.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

673,315. Vogue Rubber Company, Chicago, Ill. SN 31,056. Filed P. R. 5–29–57. Am. S. R. 11–6–58.

TWIN TREAD

For Automobile Tires.
First use on or about Feb. 25, 1930.

Class 36—Musical Instruments and Supplies

673,316. Sam C. Phillips International Corp., Memphis, Tenn. SN 45,409. Filed P. R. 2–6–58. Am. S. R. 11–6–58.



For Grooved Phonograph Records.
First use Oct. 3, 1957.

Class 46—Foods and Ingredients of Foods

673,317. Erste Tiroler Fruchtsaftpresserei, Landesprodukten-Brennerei und Likörfabrik S. Schindler, Innsbruck, Austria. SN 42,769. Filed P. R. 12–20–57. Am. S. R. 11–17–58. Priority claimed under Sec. 44(d) on Austrian application filed Oct. 4, 1957; Reg. No. 38,040, dated Jan. 4, 1958.



For Frozen Combination Lemon and Raspberry Juice Concentrate for Making a Food Beverage.

Class 50—Merchandise Not Otherwise Classified

673,318. Vandercook & Sons, Inc., Chicago, Ill. SN 12,758. Filed P. R. 7–24–56. Am. S. R. 9–23–58.

LITE BASE

For Mounting Bases for Printing Plates.
First use July 2, 1952.

673,319. Self Sett Mouse Trap Co., Cleveland, Ohio. SN 40,068. Filed P. R. 11–4–57. Am. S. R. 11–19–58.

Self Sett

For Animal Traps.
First use Oct. 24, 1957.

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123,766. PONCHO. Cl. 37. 12–3–18.
124,146. DESIGN OF STARS AND LION. Cl. 29. 1–14–19.
124,147. RED STAR. Cl. 29. 1–14–19.
124,530. PAUL GARRETT. Cl. 47. 2–25–19.
124,841. VIRGINIA DARE. Cl. 47. 3–18–19.
359,246. GLASTIC. Cl. 5. 8–9–38.
361,139. CELOREZ. Cl. 16. 10–11–38.
361,829. DALE CARNEGIE AND EMBLEM DESIGN. Cl. 38. 11–1–38.
361,880. ALCAREZ. Cl. 5. 11–1–38.
362,108. DESIGN OF BABY'S HEAD. Cl. 46. 11–15–38.
362,139. SUNSHINE SANDELS AND DESIGN. Cl. 39. 11–15–38.
362,222. LUSTERTONE AND DESIGN. Cl. 39. 11–15–38.
362,277. LA CROSSE NAILONG AND REPRESENTATION OF CROSS. Cl. 51. 11–15–38.
362,536. SAVE-UR-LIFE. Cl. 34. 11–22–38.
362,567. CHROMEX. Cl. 26. 11–22–38.
362,586. ROTAGLIO. Cl. 37. 11–22–38.
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362,815. UFORSAN. Cl. 18. 11–29–38.
362,884. FLEX. Cl. 18. 12–6–38.
362,918. MERRILL-CROWE. Cl. 31. 12–6–38.
362,995. TRAVELCADE. Cl. 42. 12–6–38.
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363,167. DIGITOS. Cl. 18. 12–13–38.
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367,618. VIX AND DESIGN. Cl. 6.
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Crosston, Frederick, d. b. a. Crosston Co., Long Island City, N. Y. 561,309, canc. Cl. 44.
Crown Prince, Inc., Milwaukee, Wis. 673,246, pub. 11–11–58. Cl. 39.
Dale Carnegie Institute of Effective Speaking and Human Relations, to Dale Carnegie Publishers, Inc., New York, N. Y. 361,829, ren. 11–1–58. Cl. 38.
Dale Carnegie Publishers, Inc.: *See*—
Dale Carnegie Institute of Effective Speaking and Human Relations.
Dean Cut-Rate Floor Covering Co., Inc., Newark, N. J. 673,056, pub. 11–11–58. Cl. 12.
Delta Sigma Delta Fraternity, Detroit, Mich. 673,308–9, pub. 11–11–58. Cl. 200.
Deseret Pharmaceutical Co., Inc., Salt Lake City, Utah. 673,098, pub. 11–11–58. Cl. 18.
Destruxol Corp.: *See*—
Destruxol Corp., Ltd.
Destruxol Corp., Ltd., d. b. a. Destruxol Corp., Pasadena, Calif. 673,017, pub. 11–11–58. Cl. 6.
Detective Stories Publishing Co., Chicago, Ill., to The M. L. Annenberg Foundation, Philadelphia, Pa. 364,185, ren. 1–24–59. Cl. 38.
Device Research Corp., Exeter, N. H. 567,834, canc. Cl. 21.
Diadem, Inc., Leominster, Mass. 573,008, pub. 11–11–58. Cl. 2.
Diamond Alkali Co., Cleveland, Ohio. 673,015, pub. 11–11–58. Cl. 4.
Dixie-Portland Flour Co.: *See*—
Stout, Charles B.
Doniger, Arthur, Paper Co., Inc., New York, N. Y. 567,657, canc. Cl. 37.
Dow Chemical Co., The, Midland, Mich. 673,026, pub. 11–11–58. Cl. 6.
Dreyfus, Jack, Co., New York, N. Y. 673,128, pub. 11–11–58. Cl. 21.
Drug Research Corp., New York, N. Y., 673,104, pub. 11–11–58. Cl. 18.
Dudley, Bettye S., Alexandria, Va. 673,241, pub. 11–11–58. Cl. 39.
Duxe Products: *See*—
Koch, Eugene D.
Eagle-Ottawa Leather Co., Grand Haven, Mich. 672,999–002, pub. 11–11–58. Cl. 1.
Eagle-Picher Co., The, Cincinnati, Ohio. 673,059, pub. 11–11–58. Cl. 12.
Edmonston, Donald G., Glendale, Calif. 673,097, pub. 11–11–58. Cl. 18.
Electric Auto-Lite Co., The, Toledo, Ohio. 673,132–3, pub. 11–11–58. Cl. 21.
Elgin National Watch Co., Chicago and Elgin, Ill. 297,921, canc. Cl. 38.
Ellis, Herbert H., d. b. a. Navar Mfg. Co., Belmont, Mass. 673,179, pub. 11–11–58. Cl. 26.
Emergency Medical Oxygen Co., Inc., Chicago, Ill. 673,261, pub. 11–11–58. Cl. 44.
Energplus, Inc., Tabor City, N. C. 673,091, pub. 11–11–58. Cl. 18.
Engelhard Industries, Inc., Newark, N. Y. 673,136, pub. 11–11–58. Cl. 21.
Ercsam, Paris, France. 673,176, pub. 11–11–58. Cl. 26.
Erste Tiroler Fruchtsaftpressurei, Landesprodukten-Brennerei und Likorfabrik S. Schindler, Innsbruck, Austria. 673,317. Cl. 46.
Esso Standard Oil Co.: *See*—
Humble Oil & Refining Co.
Standard Oil Co. of New Jersey.
FR Corp., The: *See*—
Fink-Roselieve Co. Inc.
Factory Mutual Liability Insurance Co. of America, Providence, R. I. 673,304, pub. 11–11–58. Cl. 102.
Fanon Electric Co. Inc., Brooklyn, N. Y. 673,121, pub. 11–11–58. Cl. 21.
Farrar & Trefts, Inc., Buffalo, N. Y., to Yuba Consolidated Industries, Inc., San Francisco, Calif. 362,686, ren. 11–29–58. Cl. 34.
Feature Ring Co., Inc., New York, N. Y. 673,193, pub. 11–11–58. Cl. 28.
Fellows Medical Mfg. Co., Inc., d. b. a. Fellows "TF" Testagar, New York, N. Y. 673,089, pub. 11–11–58. Cl. 18.
Fellows "TF" Testagar: *See*—
Fellows Medical Mfg. Co., Inc.
Fendrich, H., Inc., Evansville, Ind. 673,086, pub. 11–11–58. Cl. 17.
Fentron Industries, Inc., Seattle, Wash. 673,060, pub. 11–11–58. Cl. 12.
Ferguson, Edgar A., Jr.: *See*—
Standex Laboratories, Inc.
Fieldcrest Mills, Inc.: *See*—
Marshall Field & Co.
Fink-Roselieve Co. Inc., to The FR Corp., New York, N. Y. 366,671, ren. 4–25–59. Cl. 26.
First National City Bank of New York, The, New York, N. Y. 673,223, pub. 11–11–58. Cl. 38.
Fischel, Arnold E., d. b. a. Harbud Associates, Brooklyn, N. Y. 567,792, canc. Cl. 44.
Flaker-Surfacer Co.: *See*—
Johnson, Donald L.
Flour City Ornamental Iron Co., The, d. b. a. Aluma Craft Boat Co., Minneapolis, Minn. 673,117, pub. 11–11–58. Cl. 19.
Folding Paper Box Association of America, Chicago, Ill. 673,301–2, pub. 11–11–58. Cl. 101.
Ford Motor Co., Dearborn, Mich. 673,157, pub. 11–11–58. Cl. 23.
Ford Motor Co., Dearborn, Mich. 673,169, pub. 11–11–58. Cl. 23.
Fremont Canning Co., d. b. a. Gerber Products Co., to Gerber Products Co., Fremont, Mich. 362,108, ren. 11–15–58. Cl. 46.
Frietsch Services, Inc., Kansas City, Mo. 673,300, pub. 11–11–58. Cl. 101.
Fri-Mix Corp., Spokane, Wash. 567,871, canc. Cl. 46.
Frontier Oil Refining Co.: *See*—
Ashland Oil & Refining Co.
Frontier Refining Co., The, Denver, Colo. 673,061, pub. 11–11–58. Cl. 15.
Fruechtenicht, Henry, Louisville, Ky. 159,355, canc. Cl. 46.
Fryonic Corp., San Francisco, Calif. 673,127, pub. 11–11–58. Cl. 21.
Fuller, D. B., & Co., Inc.: *See*—
Stevens, J. P., & Co. Inc.
G and G Pharmacal Co., Inc., South Bend, Ind. 673,105, pub. 11–11–58. Cl. 18.
G & S Metal Products Co., Inc., Cleveland, Ohio. 673,069, pub. 11–11–58. Cl. 13.
Gantner & Mattern Co., San Francisco, Calif. 673,244, pub. 11–11–58. Cl. 39.
Garden Gold Foods: *See*—
Quinby, Edmund B.
Gardner International Corp., Dearborn, Mich. 673,138, pub. 11–11–58. Cl. 21.
Garet, J. C., Inc., Los Angeles, Calif. 673,295, pub. 11–11–58. Cl. 52.
Garnier, Louise, Pinehurst, N. C. 673,228, pub. 11–11–58. Cl. 39.
Garrett & Co., Inc., Brooklyn, N. Y. 124,530, ren. 2–25–59. Cl. 47.
Garrett & Co., Inc., Brooklyn, N. Y. 124,841, ren. 3–18–59. Cl. 47.
Gates Rubber Co., The, Denver, Colo. 673,124, pub. 11–11–58. Cl. 21.
Gay Togs, Inc., New York, N. Y. 567,766, canc. Cl. 39.
General Aniline & Film Corp., New York, N. Y., 673,024, pub. 11–11–58. Cl. 6.
General Aniline & Film Corp., d. b. a. Ansco, New York, N. Y. 673,184 pub. 11–11–58. Cl. 26.
General Features Corp., New York, N. Y. 673,214, pub. 11–11–58. Cl. 38.
General Foods Corp., White Plains, N. Y. 673,028, pub. 11–11–58. Cl. 6.
General Mills, Inc., Minneapolis, Minn. 673,285, pub. 11–11–58. Cl. 46.
Gerard Brothers Ltd., Nottingham, England. 364,354, ren. 1–31–59. Cl. 51.
Gerber Bros., Brooklyn, N. Y. 567,658, canc. Cl. 46.
Gerber Products Co.: *See*—
Fremont Canning Co.
Geriatric Pharmacal Co., The, New York, N. Y., to The Geriatric Pharmacal Corp. 567,777, canc. Cl. 18.
Geriatric Pharmacal Co., The, New York, N. Y., to The Geriatric Pharmacal Corp. 567,778, canc. Cl. 18.
Geriatric Pharmacal Corp. The: *See*—
Geriatric Pharmacal Co., The.
Gian Battista Spalletti, Tizzana, Pistoia, Italy. 567,838, canc. Cl. 47.
Gigandet, James H., d. b. a. Celebrity House, Glendale, Calif. 673,283, pub. 11–11–58. Cl. 46.
Gilman Paint and Varnish Co., Chattanooga, Tenn. 567,866, canc. Cl. 16.
Gilman Paint and Varnish Co., Chattanooga, Tenn. 567,867, canc. Cl. 16.
Gilman Paint and Varnish Co., sometimes d. b. a. Mountain City Paint Co., Chattanooga, Tenn. 567,868, canc. Cl. 16.
Gladding McBean & Co., Los Angeles, Calif. 673,200, pub. 11–11–58. Cl. 30.
Glastic Glass Cement Co.: *See*—
Woodward, Arthur J.
Glastic Glass Cement Mfg.: *See*—
Woodward, Arthur J.
Glen Raven Cotton Mills, Inc., Glen Raven, N. C. 673,251, pub. 11–11–58. Cl. 42.
Glidden Co., The, Cleveland, Ohio. 673,084, pub. 11–11–58. Cl. 16.
Glide-X Chemical Co.: *See*—
Lipsez, Avidoh.
Globe American Corp., d. b. a. Vulcan-Hart Mfg. Co., Kokomo, Ind. 673,139, pub. 11–11–58. Cl. 21.
Globe Oil & Refining Co., The, Wichita, Kans. 546,485, canc. Cl. 15.
Go-Forth Enterprises, Inc.: *See*—
Threadgill, Oscar.
Golden Peacock Co., Inc., Paris, Tenn. 673,296, pub. 11–11–58. Cl. 52.
Golf-O-Rino Co. of America, New York, N. Y. 567,727, canc. Cl. 22.

Gonset Co., a firm comprising F. R. Gonsett, from The Gonsett Electric Co., Burbank, Calif. 567,659, canc. Cl. 21.
Gonsett Electric Co., The: *See*—
Gonset Co.
Gonsett, Faust R.: *See*—
Gonset Co.
Goody Co., The, St. Louis, Mo. 673,262, pub. 11–11–58. Cl. 45.
Goodyear Tire & Rubber Co., The, Akron, Ohio. 673,053, pub. 11–11–58. Cl. 12.
Gottesman and Co., Inc., to International Paper Co., New York, N. Y. 364,126, ren. 1–17–59. Cl. 1.
Graceform-Camilla Corset Co., Inc., New York, N. Y. 567,720, canc. Cl. 39.
Grandma Moses Properties, Inc., New York, N. Y. 567,715, canc. Cl. 42.
Grandma Moses Properties, Inc., New York, N. Y. 567,721, canc. Cl. 42.
Great Lakes Steel Corp., Ecorse, Detroit, Mich. 567,617, canc. Cl. 16.
Grimes, David, Mfg. Co., Inc., New York, N. Y. 567,831, canc. Cl. 50.
Groff Paper Co., St. Paul, Minn. 567,632, canc. Cl. 37.
H-P Products, Inc., Louisville, Ohio. 673,161, pub. 11–11–58. Cl. 23.
Hale's Bedding Stores, Inc., New York, N. Y. 567,706, canc. Cl. 21.
Hall, Robert, Clothes, Inc., New York, N. Y. 673,239, pub. 11–11–58. Cl. 39.
Hamilton Watch Co., Lancaster, Pa. 673,186, pub. 11–11–58. Cl. 27.
Harbud Associates: *See*—
Fischel, Arnold E.
Harrower Laboratory, Inc., The, Jersey City, N. J. 567,883, canc. Cl. 44.
Harwin Management Corp.: *See*—
Mister Donut of America, Inc.
Hego Fabrics, Inc., New York, N. Y. 567,857, canc. Cl. 42.
Heiman, Arthur S., Inc., New York, N. Y. 567,862, canc. Cl. 42.
Hercules Galion Products, Inc., Galion, Ohio. 673,111, pub. 11–11–58. Cl. 19.
Heyer Corp., The, Chicago, Ill. 673,155, pub. 11–11–58. Cl. 23.
Higginsville Flour Mill: *See*—
Stout, Charles B.
Hine Pharmacal Co., Inc., New Hartford, N. Y. 673,093, pub. 11–11–58. Cl. 18.
Holmes & Narver, Inc., Los Angeles, Calif. 673,217, pub. 11–11–58. Cl. 38.
Holmyard, Harold R., d. b. a. Tropical Sales, Miami, Fla. 567,755, canc. Cl. 22.
Holeclaw Bros., Inc., Evansville, Ind. 673,314. Cl. 26.
Hope Chest Co., Inc., The, Minneapolis, Minn. 673,195, pub. 11–11–58. Cl. 28.
Hotstream Heater Co., The, Cleveland, Ohio. 673,209, pub. 11–11–58. Cl. 34.
Houdry Process Corp., Philadelphia, Pa. 673,021, pub. 11–11–58. Cl. 6.
Humble Oil & Refining Co., Houston, Tex., to Esso Standard Oil Co., New York, N. Y. 364,370, ren. 1–31–59. Cl. 6.
Hyde, Dayton O., Chiloquin, Oreg. 673,170, pub. 11–11–58. Cl. 23.
Hyland Electrical Supply Co., Chicago, Ill. 567,813, canc. Cl. 101.
Hyx Cleaner Co., Dallas, Tex. 567,762, canc. Cl. 52.
Identi-Med, Inc., from E. H. Klopp, Rochester, Minn. 673,192, pub. 11–11–58. Cl. 28.
Imperial Brass Mfg. Co., The, Chicago, Ill. 362,884, ren. 12–6–58. Cl. 13.
Industriewerk Schaeffer O. H. G., Hersogenaurach, Germany. 673,150, pub. 11–11–58. Cl. 23.
Inland Fire Brick Co., The, Cleveland, Ohio. 673,052, pub. 11–11–58. Cl. 12.
Inspection Supply, Inc., Seattle, Wash. 673,025, pub. 11–11–58. Cl. 6.
Interchemical Corp.: *See*—
Roxalin Flexible Lacquer Co., Inc.
International Minerals & Chemical Corp., Chicago, Ill. 673,218, pub. 11–11–58. Cl. 38.
International Paper Co.: *See*—
Gottesman and Co., Inc.
International Precision Manufacturers, Inc., Carmel, Calif. 673,068, pub. 11–11–58. Cl. 13.
International Radio Corp., Ann Arbor, Mich., to Sylvania Electric Products Inc., New York, N. Y. 362,567, ren. 11–22–58. Cl. 26.
Ivers-Lee Co., Newark, N. J. 673,167, pub. 11–11–58. Cl. 23.
Jackson-Mitchell Pharmaceuticals, Inc., Los Angeles, Calif. 567,790, canc. Cl. 18.
Jackson-Wheeler Metals Service, Inc., Brooklyn, N. Y. 673,075, pub. 11–11–58. Cl. 14.
James Mfg. Co., Fort Atkinson, Wis. 366,176, ren. 4–4–59. Cl. 13.
Jawine Co., The, New York, N. Y. 567,879, canc. Cl. 42.
Jet Research Center, Inc., Arlington, Tex. 673,044, pub. 11–11–58. Cl. 9.
Jim-E-Rub Co., Reading, Pa. 565,657, canc. Cl. 18.
Jockers, Harry W., Philadelphia, Pa., to Palico, Inc., Hoboken, N. J. 567,824, canc. Cl. 2.
Johns-Manville Corp., New York, N. Y. 673,038, pub. 11–11–58. Cl. 6.
Johnson, Donald L., d. b. a. Flaker-Surfacer Co., Tacoma, Wash. 673,153, pub. 11–11–58. Cl. 23.
K & S Distributing Co.: *See*—
Saylor, Jerry.
Kadison & Co., Chicago, Ill. 673,263, pub. 11–11–58. Cl. 46.
Kahle Horizontal Fish Hook Co.: *See*—
Kahle, Victor C.
Kahle, Victor C., d. b. a. Kahle Horizontal Fish Hook Co., South St. Paul, Minn. 567,635, canc. Cl. 22.
Ka-Koon Co.: *See*—
Bogenberger, Esther E.
Kanner, Joseph, Hat Co., Inc., South Norwalk, Conn. 673,224, pub. 11–11–58. Cl. 39.
Kassel Export Co.: *See*—
Kassel, Walter V.
Kassel, Walter V., d. b. a. Kassel Export Co., Englewood, N. J. 673,140, pub. 11–11–58. Cl. 21.
Kay's Ranches, Inc., Thermal, Calif. 673,286, pub. 11–11–58. Cl. 46.
Kiddie Kabinette, Inc., New York, N. Y. 567,767, canc. Cl. 29.
Kiddie Kabinette, Inc., New York, N. Y. 567,768, canc. Cl. 29.
Kilgore Ceramics Corp., Kilgore, Tex. 673,067, pub. 11–11–58. Cl. 13.
Kirsch, J. A., Co., New York, N. Y. 673,277, pub. 11–11–58. Cl. 46.
Klopp, Edward H.: *See*—
Identi-Med, Inc.
Knoll Pharmaceutical Co., Orange, N. J. 673,100, pub. 11–11–58. Cl. 18.
Kock, Eugene D., d. b. a. Duxe Products, Cincinnati, Ohio. 673,037, pub. 11–11–58. Cl. 6.
Kolb, John H., d. b. a. The John H. Kolb Co., St. Louis, Mo. 567,861, canc. Cl. 46.
Kolb, John H., Co., The: *See*—
Kolb, John H.
Lakeside Laboratories, Inc., Milwaukee, Wis. 673,101, pub. 11–11–58. Cl. 18.
Laucks, I. F., Inc., Seattle, Wash., to Pittsburgh Plate Glass Co., Pittsburgh, Pa. 361,139, ren. 10–11–58. Cl. 16.
Laucks, I. F., Inc., Seattle, Wash., to Pittsburgh Plate Glass Co., Pittsburgh, Pa. 361,880, ren. 11–1–58. Cl. 5.
Lebanon Woolen Mills Corp., Lebanon, N. H., and Boston, Mass. 567,803, canc. Cl. 42.
Lebof Ltd., London, England. 673,226, pub. 11–11–58. Cl. 39.
Lee & Oshita Co., Castroville, Calif. 673,270, pub. 11–11–58. Cl. 46.
Leighton, Juneius B., Miami, Fla. 673,227, pub. 11–11–58. Cl. 39.
"Lemet Cosmetic Works": *See*—
Boometal, N. V.
Les Parfums de Dana, Inc., New York, N. Y. 673,294, pub. 11–11–58. Cl. 51.
Levin Brothers, New York, N. Y. 673,142, pub. 11–11–58. Cl. 22.
Lewis, Fred, Dallas, Tex. 567,884, canc. Cl. 101.
Life-Like Products, Inc., Baltimore, Md. 673,149, pub. 11–11–58. Cl. 22.
Lincoln Metal Products Corp., Brooklyn, N. Y. 673,003, pub. 11–11–58. Cl. 2.
Lindeteves Inc., New York, N. Y. 567,706, canc. Cl. 21.
Lipsey, Avidon, d. b. a. Glide-X Chemical Co., Somerville, Mass. 567,669, canc. Cl. 4.
Litterid Co.: *See*—
Bayard, Kenneth T.
Little Rock Tent and Awning Co., Little Rock, Ark. 673,232, pub. 11–11–58. Cl. 39.
Litzler, C. A., Co., Inc., Cleveland, Ohio. 673,166, pub. 11–11–58. Cl. 23.
Livon Laboratories: *See*—
Steik, Karl T.
Logan-Long Co., The, Chicago, Ill. 673,313. Cl. 12.
Loma Plastics, Inc., Fort Worth, Tex. 567,875, canc. Cl. 2.
Lord Jeff Knitting Co., Maspeth, N. Y. 673,234, pub. 11–11–58. Cl. 39.
M. K. M. Knitting Mills, Inc., Manchester, N. H. 673,238, pub. 11–11–58. Cl. 39.
Magnolia Petroleum Co., Dallas, Tex. 673,172, pub. 11–11–58. Cl. 26.
Major Equipment Co., Inc., Chicago, Ill. 673,125, pub. 11–11–58. Cl. 21.
Makransky, S., & Sons, to S. Makransky & Sons, Inc., Philadelphia, Pa. 367,176, ren. 5–9–59. Cl. 39.
Makransky, S., & Sons, Inc.: *See*—
Makransky, S., & Sons.
Mallory, P. R., & Co. Inc., Indianapolis, Ind. 673,122, pub. 11–11–58. Cl. 21.
Marine Craft Corp. of America: *See*—
Cohn, Henry.
Markstone Mfg. Co., Chicago, Ill. 567,840, canc. Cl. 21.
Markstone Mfg. Co., Chicago, Ill. 567,841, canc. Cl. 21.
Marlyn Co., Inc., Los Angeles, Calif. 673,088, pub. 11–11–58. Cl. 18.
Marshall Field & Co., Chicago, Ill., to Fieldcrest Mills, Inc., Spray, N. C. 366,894, ren. 5–2–59. Cl. 42.
Marson Corp., Revere, Mass. 673,211. Cl. 12.
Martin, J. D.: *See*—
Martin Ranch.
Martin Miller Co., The: *See*—
Miller, Martin.
Martin Ranch, d. b. a. J. D. Martin, Fresno, Calif. 673,231–2, pub. 11–11–58. Cl. 46.
Marvin, W. B., Mfg. Co., The, Urbana, Ohio. 363,546, ren. 1–3–59. Cl. 34.
Mayer Bros., Seattle, Wash. 673,190, pub. 11–11–58. Cl. 28.
Mayers, L. & C., Co., Inc., New York, N. Y. 673,189, pub. 11–11–58. Cl. 28.
McFarlin, Robert W., d. b. a. Tap-A-Line Mfg. Co., Pompano Beach, Fla. 673,126, pub. 11–11–58. Cl. 21.
McNaught Publications, Inc., Beverly Hills, Calif. 567,679, canc. Cl. 38.
Merck & Co., Inc.: *See*—
Sharp & Dohme, Inc.
Merrill Co., The, San Francisco, Calif. 362,918, ren. 12–6–58. Cl. 31.

Metal Wood Mfg. Co., Salem, Ohio. 673,071, pub. 11–11–58. Cl. 13.
Midas, Inc., Chicago, Ill. 673,083, pub. 11–11–58. Cl. 15.
Midwest Cordage Co., Inc.: *See*—
Muebles e Inmuebles, S. A.
Midwest Folding Products Mfg. Corp., Roselle, Ill. 673,203, pub. 11–11–58. Cl. 32.
Miller, Martin, d. b. a. The Martin Miller Co., New York, N. Y. 673,299, pub. 11–11–58. Cl. 101.
Mister Donut of America, Inc., by change of name from Harwin Management Corp., Brookline, Mass. 673,298, pub. 11–11–58. Cl. 100.
Mueller Brass Co., Port Huron, Mich. 673,202, pub. 11–11–58. Cl. 31.
Muebles e Inmuebles, S. A., Merida, Mexico, from Midwest Cordage Co., Inc., Fayette, Mo. 673,040, pub. 11–11–58. Cl. 7.
Model Industries Co.: *See*—
Sisk, George W.
Molson's Brewery Ltd., Montreal, Quebec, Canada. 567,876, canc. Cl. 48.
Monsanto Chemical Co., St. Louis, Mo. 673,183, pub. 11–11–58. Cl. 26.
Monticello Shirt Co.: *See*—
Terry, Trent B.
Moroney, Thos. F., Co., Shrewsbury, Mass. 673,113, pub. 11–11–58. Cl. 19.
Mortrude, E. A., & Co., d. b. a. Plastic-Stone Products, Seattle, Wash. 673,064, pub. 11–11–58. Cl. 12.
Motorola Inc., Chicago, Ill. 673,141, pub. 11–11–58. Cl. 21.
Mountain City Paint Co.: *See*—
Gilman Paint and Varnish Co.
NEA Service, Inc., Cleveland, Ohio. 673,215, pub. 11–11–58. Cl. 38.
N L Corp., Cleveland, Ohio. 673,120, pub. 11–11–58. Cl. 21.
N. V. Goedewaagen's Koninklijke Hollandsche Pijpen en Aardewerkfabrieken, Gouda, Netherlands. 363,346, ren. 12–20–58. Cl. 8.
Napco Industries, Inc.: *See*—
Terre Haute Brewing Co., Inc.
National Catholic Welfare Conference, Washington, D. C. 673,222, pub. 11–11–58. Cl. 38.
National Hosiery Mills, Inc.: *See*—
National Silk Hosiery Mills, Inc.
National Silk Hosiery Mills, Inc., to National Hosiery Mills, Inc., Indianapolis, Ind. 364,739, ren. 2–14–59. Cl. 39.
National Starch Products Inc., New York, N. Y. 673,016, pub. 11–11–58. Cl. 5.
Navar Mfg. Co.: *See*—
Ellis, Herbert H.
Neal, Harry E., Springfield, Md. 673,221, pub. 11–11–58. Cl. 38.
Nelson, Julius, d. b. a. Artistic Typing Headquarters, Baltimore, Md. 673,213, pub. 11–11–58. Cl. 38.
Nestle's Chocolate Co., Inc., now by merger The Nestle's Co., Inc., New York, N. Y. 567,709, canc. Cl. 46.
Nestle's Co., Inc., The: *See*—
Nestle's Milk Products, Inc.
Nestle's Chocolate Co., Inc.
Nestle's Milk Products, Inc., New York, to The Nestle's Co., Inc., White Plains, N. Y. 366,705, ren. 4–25–59. Cl. 46.
New Era Muffler Corp., Rochester, Mich. 673,153, pub. 11–11–58. Cl. 23.
Newman Brothers, Inc., Cincinnati, Ohio. 673,054, pub. 11–11–58. Cl. 12.
Niagara Blower Co., New York, N. Y. 673,038, pub. 11–11–58. Cl. 6.
Nickel, Bernhard, d. b. a. Physikalisch-Technische Werkstatten, Marburg/Lahn, Germany. 673,173, pub. 11–11–58. Cl. 26.
Nichols Industries, Pasadena, Tex. 567,822, canc. Cl. 2.
Nootbaar, H. V., & Co.: *See*—
Nootbaar, Herbert V.
Nootbaar, Herbert V., d. b. a. H. V. Nootbaar & Co., Pasadena, Calif. 673,271, pub. 11–11–58. Cl. 46.
North, George O., Minneapolis, Minn., to Alden Products Co., Brockton, Mass. 362,536, ren. 11–22–58. Cl. 34.
Northeast Potato Co., Houlton, Maine. 673,280, pub. 11–11–58. Cl. 46.
Notifier Corp., Lincoln, Nebr. 673,129–30, pub. 11–11–58. Cl. 21.
Ohio Art Co., The, Bryan, Ohio. 673,005, pub. 11–11–58. Cl. 2.
Outboard Marine Corp., Waukegan, Ill. 673,159, pub. 11–11–58. Cl. 23.
Pacific Air Lines, Inc., Phoenix, Ariz. 673,306, pub. 11–11–58. Cl. 105.
Palico, Inc.: *See*—
Jockers, Harry W.
Penn Controls, Inc., Goshen, Ind. 673,178, pub. 11–11–58. Cl. 26.
Penney, J. C., Co.: *See*—
Rondeau, H. O., Shoe Co., Inc.
Penney, J. C., Co., New York, N. Y. 362,222, ren. 11–15–58. Cl. 39.
Pennsalt Chemicals Corp., Philadelphia, Pa. 673,020, pub. 11–11–58. Cl. 6.
Permafilm, Inc., New York, N. Y. 673,032, pub. 11–11–58. Cl. 6.
Philips, Joel M., d. b. a. Advance Silk Co., New York, N. Y. 567,733, canc. Cl. 43.
Phillips, Sam C., International Corp., Memphis, Tenn. 673,316. Cl. 36.
Photo Chemical Products, Inc., Long Island City, N. Y. 673,307, pub. 11–11–58. Cl. 106.
Physikalisch-Technische Werkstatten: *See*—
Nickel, Bernhard.
Pillsbury Co., The, by change of name from Pillsbury Mills, Inc., Minneapolis, Minn. 673,276, pub. 11–11–58. Cl. 46.
Pillsbury Mills Inc.: *See*—
Pillsbury Co., The.
Pincus, Lester, Shoe Corp., New York, N. Y. 673,243, pub. 11–11–58. Cl. 39.
Pittsburgh Plate Glass Co.: *See*—
Laucks, I. F., Inc.
Plasket, Chester S., d. b. a. Automotive Research, El Paso, Tex. 567,854, canc. Cl. 4.
Plastic-Stone Products: *See*—
Mortrude, E. A., & Co.
Plastiglobe, Inc., San Antonio, Tex. 567,821, canc. Cl. 2.
Platt Luggage, Inc., Chicago, Ill. 673,012, pub. 11–11–58. Cl. 3.
Plessner, Paul, Co., The, Detroit, Mich. 365,887, ren. 3–21–59. Cl. 18.
Plymouth Cordage Industries, Inc., Boston, Mass. 673,066, pub. 11–11–58. Cl. 13.
Pneumatic-Hydraulic Development Co., Inc., Fort Wayne, Ind. 673,154, pub. 11–11–58. Cl. 23.
Polychrome Corp., Yonkers, N. Y. 673,292, pub. 11–11–58. Cl. 50.
Port-Dry, Inc., Medford, Oreg. 673,207, pub. 11–11–58. Cl. 34.
Preston & Ritchey Co., San Francisco, Calif. 567,852, canc. Cl. 4.
Printers Plates Ltd., London, England. 673,076, pub. 11–11–58. Cl. 14.
Procter & Gamble Co., The, Cincinnati, Ohio. 673,272, pub. 11–11–58. Cl. 46.
Pullman Couch Co., by change of name from Hallmark Furniture Co., from Pullman Couch Co., Chicago, Ill. 567,833, canc. Cl. 32.
Purex Corp. Ltd., South Gate, Calif. 673,022, pub. 11–11–58. Cl. 6.
Quartz Products Corp., Plainfield, N. J. 673,050, pub. 11–11–58. Cl. 12.
Quasi-Arc Ltd., London, England. 673,079, pub. 11–11–58. Cl. 14.
Queen Charlotte Canners, Ltd., Massett, Queen Charlotte Islands, British Columbia, Canada. 567,796, canc. Cl. 46.
Quinby, Edmund B., d. b. a. Garden Gold Foods, Tampa, Fla. 673,264, pub. 11–11–58. Cl. 46.
R-J-R Toys, Inc., St. Joseph, Mo. 673,146, pub. 11–11–58. Cl. 22.
Radinsky, A. D., & Sons: *See*—
Radinsky, Abraham D.
Radinsky, Abraham D., to A. D. Radinsky & Sons, Denver, Colo. 124,146, ren. 1–14–59. Cl. 29.
Radinsky, Abraham D., to A. D. Radinsky & Sons, Denver, Colo. 124,147, ren. 1–14–59. Cl. 29.
Raybestos Manhattan, Inc.: *See*—
Allbestos Corp.
Raybestos-Manhattan, Inc., Passaic, N. J. 363,825, ren. 1–10–59. Cl. 35.
Ream, Fred H., d. b. a. Buddy Bib Co., Dayton, Ohio. 673,235, pub. 11–11–58. Cl. 39.
Regulated Cottons, Inc., New York, N. Y. 673,249, pub. 11–11–58. Cl. 42.
Reliable Electric Co., Franklin Park, Ill. 673,312. Cl. 12.
Ripley and Gowen Co. Inc., Attlebore, Mass. 673,187, pub. 11–11–58. Cl. 28.
Rheem Mfg. Co., Richmond, Calif. 673,009, pub. 11–11–58. Cl. 2.
Rhodia Inc., New York, N. Y. 673,297, pub. 11–11–58. Cl. 52.
Rochet, Maison, Ltd., Los Angeles, Calif. 673,287, pub. 11–11–58. Cl. 47.
Rockwood & Co., Brooklyn, N. Y. 567,808, canc. Cl. 46.
Rol-Away Truck Mfg. Co., Inc., Portland, Oreg. 673,112, pub. 11–11–58. Cl. 19.
Romanoff Caviar Co., New York, N. Y. 567,858, canc. Cl. 45.
Rondeau, H. O., Shoe Co., Inc., Farmington, N. H., to J. C. Penney Co., New York, N. Y. 362,139, ren. 11–15–58. Cl. 39.
Roxalin Flexible Lacquer Co., Inc., Elizabeth, N. J., to Interchemical Corp., New York, N. Y. 364,291, ren. 1–24–59. Cl. 16.
Rubel & Co. Decorative Accessories, Inc., New York, N. Y. 567,749, canc. Cl. 30.
SODECO Societe des Compteurs de Geneve, Geneva, Switzerland. 673,180, pub. 11–11–58. Cl. 26.
S. p. A. Alfredo Motta, Bettola di Cinisello Balsamo, Italy. 673,231, pub. 11–11–58. Cl. 39.
Safeguard Corp., Lansdale, Pa. 673,206, pub. 11–11–58. Cl. 34.
St. Meinrad's Abbey, St. Meinrad, Ind. 366,370, ren. 4–11–59. Cl. 37.
Saylor, Jerry, d. b. a. K & S Distributing Co., Portland, Oreg. 567,840, canc. Cl. 50.
Schenley Laboratories, Inc., New York, N. Y. 567,650, canc. Cl. 18.
Schewe, Erich, O. H. G., Hamburg, Germany. 673,188, pub. 11–11–58. Cl. 28.
Schmefel Bros., Corp., Newark, N. J., and New York, N. Y. 362,277, ren. 11–15–58. Cl. 51.
Schweizerische Werkzeug-Industriegesellschaft Gebr. Levaillant, Basel, Switzerland. 567,643, canc. Cl. 23.
Sebel, D., and Co. Ltd., Erith, Kent, England. 567,696, canc. Cl. 22.
Self Sett Mouse Trap Co., Cleveland, Ohio. 673,319. Cl. 50.
Shaler Co., The, Waupun, Wis. 366,687, ren. 4–25–59. Cl. 15.
Sharp & Dohme, Inc., Philadelphia, Pa., to Merck & Co., Inc., Rahway, N. J. 363,167, ren. 12–13–58. Cl. 18.
Sheldon Electric Co. Division of Allied Electric Products, Inc., Irvington, N. J. 567,758, canc. Cl. 21.
Shulton, Inc., Clifton, N. J. 366,667, ren. 4–25–59. Cl. 52.
Shur-Fit Co., Berkeley, Calif. 673,145, pub. 11–11–58. Cl. 22.

Siegel-Shulman, Inc., Miami Beach, Fla. 567,882, canc. Cl. 39.
Silex Co., The: *See*—
Silex Co.
Silex Co., also known as The Silex Co., Chicago, Ill. 673,201, pub. 11–11–58. Cl. 31.
Silson, Victor, d. b. a. Victor Silson Co., New York, N. Y. 567,836, canc. Cl. 51.
Silver Chamberlin Co., Clayton, N. J. 673,199, pub. 11–11–58. Cl. 29.
Sisk, George W., d. b. a. Model Industries Co., Kansas City, Mo. 673,182, pub. 11–11–58. Cl. 28.
Sloane-Blabon Corp., Trenton, N. J., and Philadelphia, Pa. 567,826, canc. Cl. 20.
Smallman, I., & Sons Co., New York, N. Y. 673,010, pub. 11–11–58. Cl. 3.
Smith & Frank Co., New York, N. Y. 567,719, canc. Cl. 21.
Smith-Monroe Co., South Bend, Ind. 673,211, pub. 11–11–58. Cl. 35.
Snelson Oilfield Lighting Co., Inc., Fort Worth, Tex. 673,137, pub. 11–11–58. Cl. 21.
Societe Anonyme Andre Citroen, Paris, France. 673,106, pub. 11–11–58. Cl. 19.
Societe Anonyme Aubry Freres Montres Cluy, Le Noirmont, Switzerland. 673,185, pub. 11–11–58. Cl. 27.
Societe des Laboratoires des Proxytanes, Paris, France. 673,092, pub. 11–11–58. Cl. 18.
Societe-St.-Raphael, Societe Anonyme, Paris, France. 365,074, ren. 2–21–59. Cl. 47.
Societe St.-Raphael, Societe Anonyme, Paris, France. 365,075, ren. 2–21–59. Cl. 47.
So-Lo Works, Inc., Loveland, Ohio. 673,237, pub. 11–11–58. Cl. 39.
Soluol Chemical Co., Inc., Natick, R. I. 673,034, pub. 11–11–58. Cl. 6.
South Bend Tackle Co., Inc., South Bend, Ind. 673,148, pub. 11–11–58. Cl. 22.
Sovereign Importers, Ltd., Long Island City, N. Y. 673,258, pub. 11–11–58. Cl. 47.
Sparta Ceramic Co., The, East Sparta, Ohio. 673,051, pub. 11–11–58. Cl. 12.
Specht, Lisa M., Warwick, N. Y. 673,237, pub. 11–11–58. Cl. 42.
Spontane Mfg. Co., Atlanta, Ga. 567,637, canc. Cl. 52.
Square Root Mfg. Corp., Yonkers, N. Y. 567,844, canc. Cl. 21.
Standard Brands Inc., New York, N. Y. 673,265, pub. 11–11–58. Cl. 46.
Standard Oil Co. of New Jersey, Wilmington, Del., to Esso Standard Oil Co., New York, N. Y. 364,447, ren. 1–31–59. Cl. 6.
Standard Oil Co. of New Jersey, Wilmington, Del., to Esso Standard Oil Co., New York, N. Y. 365,903, ren. 3–21–59. Cl. 6.
Standex Laboratories, Inc., Columbus, Ohio. 673,090, pub. 11–11–58. Cl. 18.
Standex Laboratories, Inc., Columbus, Ohio, from E. A. Ferguson, Jr., Brooklyn, N. Y. 673,103, pub. 11–11–58. Cl. 18.
Stanger, Frank N., Erie, Pa. 567,647, canc. Cl. 52.
Stanley C. P. Co.: *See*—
Chasin, Stanley.
Sta-Norm, Forest Hills, N. Y. 673,275, pub. 11–11–58. Cl. 46.
Stauffer Chemical Co., San Francisco, Calif. 673,032, pub. 11–11–58. Cl. 6.
Stebbins Engineering & Mfg. Co., Watertown, N. Y. 673,062–3, pub. 11–11–58. Cl. 12.
Steel Glo Products: *See*—
Brannick, Jack F.
Steik, Karl T., d. b. a. Livon Laboratories, Upper Montclair, N. J. 362,815, ren. 11–29–58. Cl. 18.
Sterling Drug Inc.: *See*—
Winthrop Chemical Co., Inc.
Stevens, J. P., & Co., Inc., New York, N. Y. 673,252, pub. 11–11–58. Cl. 42.
Stevens, J. P., & Co. Inc., from D. B. Fuller & Co., Inc., New York, N. Y. 673,254–5, pub. 11–11–58. Cl. 42.
Stifel, J. L., & Sons, Inc., Wheeling, W. Va. 567,799, canc. Cl. 42.
Stout, Charles E., d. b. a. Higginsville Flour Mill, to Dixie-Portland Flour Co., Memphis Tenn. 365,096, ren. 2–21–59. Cl. 46.
Stout, Charles E., d. b. a. Higginsville Flour Mill, to Dixie-Portland Flour Co., Memphis, Tenn. 365,097, ren. 2–21–59. Cl. 46.
Stowe-Woodward, Inc., Newton Upper Falls, Mass. 673,162, pub. 11–11–58. Cl. 23.
Structo Mfg. Co., Freeport, Ill. 567,883, canc. Cl. 22.
Stylord Mfg. Co., Inc., New York, N. Y. 567,737, canc. Cl. 28.
Stylord Mfg. Co., Inc., New York, N. Y. 567,738, canc. Cl. 28.
Sun Rubber Co., The, Barberton, Ohio. 567,747, canc. Cl. 22.
Sunbeam Lighting Co., Los Angeles, Calif. 673,131, pub. 11–11–58. Cl. 21.
Sunnyhill Aggregates Corp., Pittsburgh, Pa. 567,775, canc. Cl. 1.
Swift & Co., Chicago, Ill. 673,027, pub. 11–11–58. Cl. 6.
Swift, M., & Sons, Inc., Hartford, Conn. 673,073, pub. 11–11–58. Cl. 14.
Sylvania Electric Products Inc.: *See*—
International Radio Corp.
T V Time Foods, Inc., Bremen, Ind. 673,273, pub. 11–11–58. Cl. 46.
Taco Heaters, Inc., Cranston, R. I. 673,070, pub. 11–11–58. Cl. 12.
Taco Heaters, Inc., Cranston, R. I. 673,208, pub. 11–11–58. Cl. 34.
Talon, Inc., Meadville, Pa. 567,289, canc. Cl. 38.
Tap-A-Line Mfg. Co.: *See*—
McFarlin, Robert W.
Tarreon Co., The, Chicago, Ill. 567,689, canc. Cl. 22.
Tennessee Corp., New York, N. Y. 673,045, pub. 11–11–58. Cl. 10.
Terre Haute Brewing Co., Inc., Terre Haute, Ind., to Napco Industries, Inc., Minneapolis, Minn. 364,195, ren. 1–24–59. Cl. 46.
Terry, Trent B., d. b. a. Monticello Shirt Co., Charlottesville, Va. 673,225, pub. 11–11–58. Cl. 39.
Thanksgiving Day Hospital Stamp, Inc., Perth Amboy, N. J. 673,303, pub. 11–11–58. Cl. 102.
Thompson, Carl R., Scappoose, Oreg. 567,655, canc. Cl. 21.
Threadgill, Oscar, from Go-Forth Enterprises, Inc., Charlotte, N. C. 673,268, pub. 11–11–58. Cl. 46.
Tiny Tot Comics, Inc., New York, N. Y. 567,781, canc. Cl. 38.
Tonka Toys, Inc., Mound, Minn. 673,143, pub. 11–11–58. Cl. 22.
Topps Chewing Gum, Inc., Brooklyn, N. Y. 673,216, pub. 11–11–58. Cl. 38.
Tower Mfg. Co., Oklahoma City, Okla. 567,751, canc. Cl. 24.
Towle Mfg. Co., Newburyport, Mass. 673,196, pub. 11–11–58. Cl. 28.
Toy Distributors, Inc., Framingham, Mass. 673,212, pub. 11–11–58. Cl. 38.
Tri-State Plastic Molding Co., Henderson, Ky. 567,835, canc. Cl. 2.
Tropical Sales: *See*—
Holmyard, Harold R.
Tryon Garment Co.: *See*—
Campbell, Callie E.
Turco Products, Inc., Los Angeles, Calif. 673,029, pub. 11–11–58. Cl. 6.
Turner Halsey Export Corp., New York, N. Y., to Canton Cotton Mills, Canton, Ga. 366,923, ren. 5–2–59. Cl. 42.
Tutti Enterprises, Salt Lake City, Utah. 673,291, pub. 11–11–58. Cl. 50.
Union Bag-Camp Paper Corp.: *See*—
Union Bag & Paper Corp.
Union Bag & Paper Corp., Jersey City, N. J., and New York, N. Y., to Union Bag-Camp Paper Corp., New York, N. Y. 123,766, ren. 12–2–58. Cl. 37.
Unit Structures, Inc., Peshtigo, Wis. 673,057, pub. 11–11–58. Cl. 12.
Unitcast Corp., Toledo, Ohio. 673,074, pub. 11–11–58. Cl. 14.
United Merchants and Manufacturers, Inc.: *See*—
Cohn-Hall-Marx Co.
United Recording Laboratories Inc., New York, N. Y. 673,134, pub. 11–11–58. Cl. 21.
U. S. Electrical Motors, Inc., Los Angeles, Calif. 673,152, pub. 11–11–58. Cl. 21.
U. S. Mfg. Corp., Decatur, Ill. 567,702, canc. Cl. 21.
United States Power Squadrons: *See*—
United States Power Squadrons, Inc.
United States Power Squadrons, Inc., New York, N. Y., to United States Power Squadrons, Englewood, N. J. 365,178, ren. 2–28–59. Cl. 38.
United States Printing Ink Corp., Little Ferry, N. J. 673,046, pub. 11–11–58. Cl. 11.
United States Rubber Co., New York, N. Y. 673,258, pub. 11–11–58. Cl. 42.
Universal-Cyclops Steel Corp., Bridgeville, Pa. 673,090, pub. 11–11–58. Cl. 14.
Van Waters & Rogers, Inc., South Seattle, Wash. 673,039, pub. 11–11–58. Cl. 7.
Vandercook & Sons, Inc., Chicago, Ill. 673,318. Cl. 50.
Velveray Corp., New York, N. Y. 673,119, pub. 11–11–58. Cl. 20.
Verney Corp., Manchester, N. H. 567,693, canc. Cl. 42.
Verney Corp., Manchester, N. H. 567,694, canc. Cl. 42.
Vienna Sausage Mfg. Co., Chicago, Ill. 673,266, pub. 11–11–58. Cl. 46.
Vix Laboratories, Inc., New York, N. Y. 567,618, canc. Cl. 6.
Vogue Rubber Co., Chicago, Ill. 673,315. Cl. 35.
Vulcan-Hart Mfg. Co.: *See*—
Globe American Corp.
Wakefield, C. C., & Co. Ltd., London, England. 673,035, pub. 11–11–58. Cl. 6.
Wallace Silversmiths, Inc., Wallingford, Conn. 673,163, pub. 11–11–58. Cl. 23.
Wallace Silversmiths, Inc., Wallingford, Conn. 673,168, pub. 11–11–58. Cl. 23.
Walsh, Herbert J., Park Ridge, Ill. 673,011, pub. 11–11–58. Cl. 3.
Wamsutta Mills, New Bedford, Mass. 567,848, canc. Cl. 42.
Warner & Swasey Co., The, Cleveland, Ohio, from Badger Machine Co., Winona, Minn. 673,151, pub. 11–11–58. Cl. 23.
Waterlow & Sons Ltd., London, England. 362,586, ren. 11–22–58. Cl. 37.
Waterlow & Sons Ltd., London, England. 363,121, ren. 12–13–58. Cl. 38.
Watkins, J. R., Co., The, Winona, Minn. 673,014, pub. 11–11–58. Cl. 4.
Wausau Brewing Co., Wausau, Wis. 673,289, pub. 11–11–58. Cl. 46.
Way-Wolff Associates, Inc., New York, N. Y. 673,205, pub. 11–11–58. Cl. 34.
Weit, Morris, d. b. a. American Products Co., New York, N. Y., to Arsco Corp., Hialeah, Fla. 366,924, ren. 5–2–59. Cl. 29.
Wendel, Rudolf, Inc., New York, N. Y. 673,123, pub. 11–11–58. Cl. 21.
Wesson Oil & Snowdrift Sales Co., New Orleans, Calif. 673,274, pub. 11–11–58. Cl. 46.
Western Waterproofing Co., Inc., St. Louis, Mo. 673,305, pub. 11–11–58. Cl. 103.
Wheeler Protective Apparel, Inc., Chicago, Ill. 673,250, pub. 11–11–58. Cl. 42.
White & Wyckoff Mfg. Co., Holyoke, Mass. 567,621, canc. Cl. 38.

Whiteley Bearing Corp., Chicago, Ill. 673,160, pub. 11–11–58. Cl. 23.
Wiegardt Bros.: *See*—
Wiegardt Brothers.
Wiegardt Brothers, d. b. a. Wiegardt Bros., Ocean Park, Wash. 673,284, pub. 11–11–58. Cl. 46.
Willard Storage Battery Co., Cleveland, Ohio. 567,820, canc. Cl. 21.
Williams, C. K., & Co., East St. Louis, Ill. 673,085, pub. 11–11–58. Cl. 16.
Wilson Brothers, Louisville, Ky. 363,497, ren. 12–27–58. Cl. 39.
Winkhofer, Joh., & Sohne, Munich, Germany. 673,164, pub. 11–11–58. Cl. 23.
Winthrop Chemical Co., Inc., to Sterling Drug Inc., New York, N. Y. 366,240, ren. 4–4–59. Cl. 18.
Wolf & Dessauer Co., Fort Wayne, Ind. 673,220, pub. 11–11–58. Cl. 39.
Wood-Lam, Inc., Milwaukee, Wis. 673,061, pub. 11–11–58. Cl. 12.
Woodward, Arthur J., d. b. a. Glastic Glass Cement Mfg., Los Angeles, to Glastic Glass Cement Co., El Monte, Calif. 359,246, ren. 8–9–58. Cl. 5.
Wulfing, Johann A., Dusseldorf, Germany. 363,605, ren. 1–3–59. Cl. 6.
Yuba Consolidated Industries, Inc.: *See*—
Farrar & Trefts, Inc.
Zavody V. I. Lenina Plzen. Narodni Podnik, Plzen, Czechoslovakia. 673,043, pub. 11–11–58. Cl. 9.
Zavody V. I. Lenina Plzen Narodni Podnik, Plzen, Czechoslovakia. 673,115, pub. 11–11–58. Cl. 19.

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PATENTS

NOTICES

Selected Non-Proprietary Names

The Public Health Service has informed the Patent Office that the names listed below have been selected by WHO as recommended international non-proprietary names for pharmaceutical preparations.

The procedure for selection of these names, by WHO, including earlier publication in accordance with procedures published in the Chronicle of the World Health Organization, June-July 1955 issue, has been completed. WHO requests that these recommended names be recognized as the non-proprietary names for the substances concerned and that the necessary steps be taken to prevent acquisition of proprietary rights in the same.

Recommended International Non-Proprietary Name (*Latin, English*)	Chemical Name or Description
acetylmethadolum acetylmethadol	6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphacetylmethadolum alphacetylmethadol	α-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphamethadolum alphamethadol	α-6-dimethylamino-4,4-diphenyl-3-heptanol
anileridinum anileridine	1-[2-(p-aminophenyl)-ethyl]-4-phenylpiperidine-4-carboxylic acid ethyl ester
betacetylmethadolum betacetylmethadol	*B*-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
betamethadolum betamethadol	*B*-6-dimethylamino-4,4-diphenyl-3-heptanol
betaprodinum betaprodine	*B*-1,3-dimethyl-4-phenyl-4-propionoxypiperidine
desomorphinum desomorphine	dihydrodeoxymorphine
diethylthiambutenum diethylthiambutene	3-diethylamino-1,1-di-(2-thienyl)-1-butene
dimethylthiambutenum dimethylthiambutene	3-dimethylamino-1,1-di-(2-thienyl)-1-butene
dipipanonum dipipanone	4,4-diphenyl-6-piperidino-3-heptanone
ethoheptazinum ethoheptazine	1-methyl-4-carbethoxy-4-phenylhexamethyleneimine
ethylmethylthiambutenum ethylmethylthiambutene	3-ethylmethylamino-1,1-di-(2-thienyl)-1-butene
hydroxypethidinum hydroxypethidine	1-methyl-4-(3-hydroxyphenyl)-piperidine-4-carboxylic acid ethyl ester
levallorphanum levallorphan	*e*-3-hydroxy-*N*-allylmorphinan
levorphanolum levorphanol	*e*-3-hydroxy-*N*-methylmorphinan
metethoheptazinum metethoheptazine	1,3-dimethyl-4-carbethoxy-4-phenylhexamethyleneimine
metheptazinum metheptazine	1,2-dimethyl-4-carbomethoxy-4-phenylhexamethyleneimine
methyldesorphinum methyldesorphine	6-methyl-Δ^6-desoxymorphine
methyldihydromorphinum methyldihydromorphine	6-methyldihydromorphine
myrophinum myrophine	myristyl ester of benzylmorphine
normethadonum normethadone	4,4-diphenyl-6-dimethylamino-3-hexanone
oxpheneridine oxpheneridinum	1-(2-phenyl-2-hydroxyethyl)-4-carbethoxy-4-phenyl-piperidine
oxymorphonum oxymorphone	dihydrohydroxymorphinone
phenomorphanum phenomorphan	3-hydroxy-*N*-phenethylmorphinan
proheptazinum proheptazine	1,3-dimethyl-4-phenyl-4-propionoxyhexamethyleneimine
properidinum properidine	1-methyl-4-phenylpiperidine-4-carboxylic acid isopropyl ester
propoxyphenum propoxyphene	4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane

New Applications Received During December 1958

Patents	7,212
Designs	481
Plant Pats	14
Reissues	18
Total	7,673

Issue

Patents	1,203	No. 2,871,479 to No.	2,872,681, incl.
Designs	61	No. 184,327 to No.	184,387, incl.
Plant Pats	3	No. 1,805 to No.	1,807, incl.
Reissues	1	No. 24,397	
Total	1,268		

Erratum

All references to Patent No. 2,868,079 to George A. Hawkins, assignor to Purdue University, for Machine Gun Cooling System, appearing in the OFFICIAL GAZETTE of January 13, 1959, should be deleted as the application was withdrawn from issue and the patent was not issued.

Dedication

2,655,454.—*Edward Farber* and *Matthew Sciascia*, Washington, D. C. WOOD TREATING PROCESS AND COMPOSITION. Patent dated Oct. 13, 1953. Dedication filed Jan. 6, 1959, by the assignee, *Timber Engineering Company*.

Hereby dedicates to the public the terminal portion of the term of the patent starting with Jan. 1, 1959.

Disclaimer

2,709,249.—*Albert F. Sperry*, Chicago, Ill. INSTRUMENT UNITS FOR PROCESS ALARM SYSTEMS. Patent dated May 24, 1955. Disclaimer filed Dec. 24, 1958, by the assignee, *Panellit, Inc.*

Hereby enters this disclaimer to claims 1, 4, 5, 6, and 7 of said patent.

Patents Available for Licensing or Sale

2,682,958. Automobile Parking Facility. Correspondence to William H. Atkinson, 785 Market St., San Francisco 3, Calif.

2,742,164. Automatic Automobile Parking Facility. Correspondence to William H. Atkinson, 785 Market St., San Francisco 3, Calif.

2,840,126. Power Operated Automatic Screw Driver. Helmut Schmitt, Germany. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,849,062. Venetian Blind Tilting Mechanism. Lloyd O. Bonsteel, 23 Fairmont Place, Indian Head, Md.

2,861,495. Double Octave Mechanism for Accordions. Marvin D. Ekstrom, 2190 Blain St., Brunswick, Ga.

2,862,222. Motor Vehicle Laundry. Jesse S. Cockrell, R. F. D. 6, Farmview Road, Rockhill Beach, Pasadena, Md.

2,862,310. Adjustable Shoe Traction Device. Matt Bodnaruk, Battle Lake P. O., Alberta, Canada.

2,862,334. Plant, Vine, or Tree Holder. Talbert O. Sandvig, 12800 S. W. Boones Ferry Road, Oswego, Oreg.

2,862,508. Hair Curler. Edmund M. Campbell, 2525 26th St., Sacramento, Calif.

2,862,636. Loading and Carrying Rollers for Boat Trailer. Louis E. Miller, Box 540, Odessa, Tex.

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1958

Total number of pending applications (excluding Designs)	201,063
Total number of pending Design applications	7,062
Total number of applications awaiting action (excluding Designs)	84,659
Total number of Design applications awaiting action	2,780
Date of oldest new application	Jan. 16, 1958
Date of oldest amended application	Jan. 2, 1958

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 36, 42, 46, 53, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 60.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 27, 28, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 49, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 25, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 40, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders; Harrows and Diggers; Plows.	5-29-58	5-15-58
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	5-16-58	5-15-58
3. (VII) MARMELSTEIN, N., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	6-6-58	6-3-58
4. (VI) FALLER, E. A. (SCHULZ, H. O., acting), Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyors, Chutes, Skids, Guides and Ways	5-20-58	5-20-58
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminuters; Fumes; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	5-23-58	5-21-58
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	5-19-58	5-28-58
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	5-2-58	4-2-58
8. (V) LEWIS, R. C., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	6-2-58	3-31-58
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	6-4-58	6-2-58
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	5-20-58	5-16-58
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Classifying; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	5-23-58	5-26-58
12. (III) SPINTMAN, S. (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	4-30-58	5-27-58
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	5-6-58	5-6-58
14. (III) WILTZ, W. A., (acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	1-16-58	1-9-58
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus	6-9-58	5-16-58
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	5-11-58	5-21-58
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	7-8-58	5-27-58
18. (VI) BLUM, A., Power Plants; Fluid Transmission; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	5-15-58	5-19-58
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	5-29-58	5-15-58
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	5-22-58	5-22-58
21. (III) MADER, H. C., Textiles	4-15-58	4-21-58
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	5-16-58	5-19-58
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	2-4-58	2-3-58
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	5-1-58	5-14-58
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	7-5-58	5-13-58
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	6-9-58	5-13-58
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	7-3-58	7-1-58
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyors; Pressure Modulating Relays; Wheel Substitutes	5-19-58	5-15-58
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	4-4-58	4-24-58
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling; Refrigeration	5-16-58	5-16-58

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	7-16-58	7-14-58
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	5-23-56	5-28-58
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements; Roofs	5-10-56	5-6-58
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	5-1-56	5-1-58
35. (IV) DEMBO, L. J., Dispensing; Filling Receptacles; Toilet; Sheet Feeding	5-1-56	5-1-58
36. (V) EVANS, R. L., Measuring and Testing; Automatic Weighers; Weighing Scales	2-3-56	2-3-58
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	2-10-56	1-24-58
38. (I) PARKER, C. B., (acting). Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	7-10-56	7-30-58
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	7-15-56	7-15-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	6-2-56	6-2-58
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	6-6-56	6-3-58
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	3-21-56	3-11-58
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	6-3-56	6-3-58
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	1-20-56	1-6-58
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	5-19-56	5-28-58
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	5-6-56	5-1-58
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	5-16-56	5-16-58
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	5-15-56	5-15-58
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Concentrating Evaporators; Glass	5-16-56	5-14-58
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber; Synthetic Resins (part) (e. g., Butadiene Polymers and Copolymers, Polyacrylonitriles, Acrylate Polymers and Copolymers)	4-22-56	4-15-58
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas; Oscillators	5-15-56	5-19-58
52. (V) LE ROY, C. A., Supports and Racks	5-16-56	5-16-58
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	5-8-56	5-15-58
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	7-23-56	7-16-58
55. (VII) KLINE, I. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	5-10-56	5-10-58
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	6-4-56	5-16-58
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Cutting and Punching	5-2-56	4-22-58
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part); Selective Punching	6-2-56	5-21-58
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	5-20-56	5-16-58
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	5-13-56	5-19-58
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Railway Mail Delivery; Feeding of Indefinite Lengths	4-23-56	4-22-58
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	5-17-56	5-16-58
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	5-16-56	5-16-58
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	4-1-56	4-1-58
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	5-16-56	5-16-58
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	5-1-56	5-2-58
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	7-1-56	5-30-58
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	5-16-56	5-16-58
CLASS. DIVS. II—LADY, J. E., Detectors; Miscellaneous Electron Tube Circuits	6-5-56	5-4-58
CLASS. DIVS. III—WAHL, R. A., Metal Bending; Web Feeding	5-27-56	5-15-58
CLASS. DIVS. IV—BERLOWITZ, W., Earth Boring	7-21-56	7-7-58
CLASS. DIVS. V—ANGEL, C. D., Scaffolds; Masonry and Concrete Structures; Time-Controlling Apparatus; Packed Rod Joints; Joint Packings	5-26-56	5-26-58
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part) i. e., Polyethylenes	5-17-56	5-15-58
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	7-11-56	5-16-58
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	6-3-55	6-3-58

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 44 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during February 1959, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,271,510 to 2,274,631, inclusive
Plant Patents ..... Numbers 502 to 503, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals
District of Columbia Circuit

JOHN P. O'BRIEN

v.

ROBERT C. WATSON, *Commissioner of Patents*

No. 13,379. Decided December 18, 1958

[— U. S. App. D. C. —; — F.2d —; — USPQ —]

APPEAL TO THE U. S. COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA—NO ERROR IN FINDING OF LACK OF INVENTION

The finding by the Patent Office and by the District Court of lack of invention over the prior art *Held* not in error, where the essence of any contribution of appellant to the art of die making was not reflected in the language of his claims, or in any proof offered to the District Court.

AFFIRMED.

William J. Ruano for O'Brien.

Clarence W. Moore (*George C. Roeming*, of counsel) for the Commissioner of Patents.

Before FAHY, WASHINGTON, and BURGER, *Circuit Judges*

PER CURIAM:

This is a patent case, under Section 145 of Title 35, U. S. Code (1952). The Patent Office and District Court both found lack of invention over the prior art. On the record before us, we cannot say that either the Patent Office or the District Court erred. It may well be true, as plaintiff-appellant argues, that he has made a useful contribution to the art of die making. But the essence of any such contribution, as expressed in his brief and argument, is not reflected in the language of his formal claims,[1] or in any proof offered to the District Court.

AFFIRMED.

[1] See claims 18 and 19 of patent application filed November 29, 1947, Serial No. 788,835.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,879,878, P. R. Sabine, Sound insulating structure, **filed** Feb. 23, 1954, D. C., N. D. Ill. (Chicago), Doc. 54c300, *Riverside Laboratories* v. *Hardwood Products Corp.* Final judgment; complaint dismissed June 26, 1958.

2,232,368, A. A. Zarowin, Key case, **filed** Nov. 12, 1946, D. C., E. D. N. Y. (Brooklyn), Doc. 7442, *S. & E. Hooks Co.* v. *Albert A. Zarowin.* Order of dismissal Dec. 12, 1958.

2,286,068, D. Deskey, Plywood panels; **2,363,492**, W. C. Bailey, Process of making balanced laminated panels; **2,363,927**, same, Balanced striated plywood panels, **filed** Mar. 15, 1955, D. C., S. D. N. Y., Doc. 99/195, *Georgia-Pacific Plywood Co.* v. *United States Plywood Corp.* Consent interlocutory decree (pursuant to Judgment of U. S. C. A., 2nd Circuit); Pat. No. 2,286,068 held valid; claim 1 infringed; injunction issued Dec. 18, 1958.

2,304,701, T. A. O'Leary, Screws, **filed** Dec. 15, 1958, D. C., S. D. N. Y., Doc. 141/24, *Theodore A. O'Leary* v. *American Aviation Mfg. Corp. et al.*

2,313,282, M. M. Kistner, Steam hand iron; **2,331,838**, same, Steam-electric pressing and ironing device, **filed** Dec. 20, 1958, D. C., S. D. Fla. (Tampa), Doc. 3536, *Merrill M. Kistner et al.* v. *Maas Brothers, Inc. et al.*

2,317,215, Parker and Robins, **filed** Dec. 15, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37910, *Universal Anchors Co.* v *Continental Steel Co.*

2,363,492. (See 2,286,068.)

2,363,927. (See 2,286,068.)

2,364,839. (See 2,313,282.)

2,448,145, A. Holterhoff, Producing moire designs, **filed** Dec. 16, 1958, D. C., N. J. (Newark), Doc. 1353/58, *Newburgh Moire Co.* v. *Phoenix Moire Co., Inc. et al.*

2,491,831, W. H. Burgess, Rectifier; **Reg. No. 667,003** (SHAVER-JET), Waring Products Corp., Rectifiers for use with small electric appliances such as electric razors, **filed** Nov. 6, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1050/58–WB, *David A. Marcus et al.* v. *Robert M. Parks et al.*

2,491,448. (See Des. 149,876.)

2,500,864, Preaus and Ross, Awnings of metal or similar material; **2,564,275**, same, **filed** Dec. 15, 1958, D. C., E. D. Mo. (St. Louis), Doc. 58c492(3), *Lifelong Aluminum Awning Co., Inc.* v. *Nelvin L. Shinall, Jr. et al.*

2,561,520, Lemmens and Dorgelo, Vacuum tight seal for electrical apparatus and method of forming such seals, **filed** Apr. 24, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18,656, *North American Philips Co., Inc.* v. *General Transistor Corp.* Notice of dismissal by stipulation Dec. 16, 1958.

2,564,275. (See 2,500,864.)

2,566,817, E. Yellin, Mold for making plastic grids, **filed** Dec. 19, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c2160, *Glass Gorham Co.* v. *Sinko Mfg. & Tool Co.*

2,657,500. (See 2,753,660.)

2,660,675, Jewett and Jewett, Closure lock; **2,824,446**, Jewett and Gesing, Panic exit lock, **filed** Dec. 16, 1958, D. C., N. D. Ga. (Atlanta), Doc. 6732, *Trans Continental Industries, Inc.* v. *American Art Metals Co.*

2,670,143, H. Jordon, Garbage disposer with protective inlet, **filed** Nov. 20, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1083/58–WB, *Waste King Corp.* v. *Supreme Disposal Mfg. Co.*

2,680,496. (See Re. 24,232.)

2,700,645, T. J. Kearney, Degreasing apparatus; **2,852,417**, same, Cleaning method and apparatus; **2,902,476**, same, Cleaning apparatus; **2,902,788**, same, Method of cleaning; **2,831,785**, same, Method and apparatus utilizing focused ultrasonic transducers to produce radially dispersed compression waves; **2,771,086**, same, Apparatus for treatment with solvents; **2,842,142**, same, Apparatus for ultrasonic cleaning of parts with a solvent, **filed** Dec. 16, 1958, D. C. N. J. (Trenton), Doc. 1369/58, *Detrex Chemicals Industries, Inc.* v. *The Circo Equipment Co.*

2,753,660, H. Brudney, Dolls' eyes; **2,657,500**, H. W. Samolewitz, Transparent doll eye, **filed** July 30, 1956, D. C. N. J. (Newark), Doc. 603/56, *Dollac Corp.* v. *Morgan Corp.* Claims 1, 2 and 3 of patent No. 2,753,660 held invalid; [counterclaim alleging infringement of 2,657,500 dismissed]; complaint dismissed Nov. 24, 1958.

2,771,086. (See 2,700,645.)

2,784,930, H. C. Wernecke, Clinch nut fastener, **filed** Dec. 17, 1958, D. C. N. J. (Trenton), Doc. 1370/58, *Victor Supply Co. et al.* v. *Tops Metal Products Co.*

2,785,487, P. Hopp, Display device, **filed** Apr. 9, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 17499, *Hopp Press, Inc.* v. *Joseph Freeman & Co., Inc.* Consent judgment Dec. 15, 1958.

2,802,476. (See 2,700,645.)

2,802,788. (See 2,700,645.)

2,816,360, H. Wüster, Self-closing umbrella frame, **filed** Dec.

18, 1958, D. C. Md. (Baltimore), Doc. 11078, *Polan, Katz & Co., Inc.* v. *Leon Levi, Inc.*

2,817,089, F. Oelbaum, Garments, filed Dec. 18, 1958, D. C., S. D. N. Y., Doc. 141/94, *Freda Oelbaum* v. *Lovable Brassuere Co.*

2,824,440. (See 2,660,875.)

2,831,785. (See 2,700,645.)

2,840,071, S. L. McNair, Electrical vibrating device, in combination with a cushion, amended complaint filed Dec. 15, 1958, D. C. N. J. (Newark), Doc. 237/58, *Morris Struhl, Inc. et al.* v. *Penn Notion & Pillow, Inc. et al.*

2,842,142. (See 2,700,645.)

2,845,080, S. J. Jamison et al., Diaper, filed Dec. 4, 1958, D. C., W. D. S. C. (Greenville), Doc. 2468, *Chicopee Mfg. Corp.* v. *Riegel Textile Corp.* Voluntary notice of dismissal by plaintiff Dec. 19, 1958.

2,853,417. (See 2,700,645.)

2,854,133, Teller and Bernhardt, Package for cosmetics and the like, filed Dec. 15, 1958, D. C. N. J. (Newark), Doc. 1207/58, *Joseph E. Seagram & Sons, Inc.* v. *Johnson & Johnson et al.*

2,859,454, G. Beckwell, Collapsible bed rail; **Des. 180,542**, M. H. Best, Shopping cart, filed Dec. 19, 1958, D. C., E. D. Pa. (Philadelphia), Doc. 25320, *The Cal-Dak Co.* v. *Dennis Mitchell Industries, Inc. et al.*

2,859,830, H. S. Hoffar, Vibrating flexible silencers, filed Dec. 11, 1958, D. C. Oreg. (Portland), Doc. 10123, *Henry S. Hoffar* v. *Griffith Rubber Mills.*

Re. 23,908, W. S. McLeish, Anchors, filed Apr. 11, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 319/58–WB, *Rie-Will, Inc.* v. *Non-Corrosive Products Co., Inc. et al.* Consent judgment; patent held valid and infringed; injunction issued: complaint dismissed as to defendants Los Angeles City High School District and A. Walter Seymour (notice Dec. 10, 1958).

Re. 23,232 (of 2,660,496), R. E. Johnson, Air line lubricator, filed Feb. 19, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c281. *Arrow Tools, Inc.* v. *Barrett-Christie Co.* Final consent judgment Dec. 17, 1958.

Re. 24,871, M. R. Nadel, Display devices, counterclaims filed Dec. 15, 1958, D. C., S. D. N. Y., Doc. 129/285, *Raytes Corp.* v. *Comptone Co., Ltd.*

Des. 149,870, Hillenbrand and Burst, Floor lamp; **2,491,443**, same, filed Dec. 15, 1958, D. C. N. J. (Newark), Doc. 1134/58, *Hill-Rom Co., Inc.* v. *Kurt Versen Co., Inc.*

Des. 175,208, C. H. Clement, Lightning pole, filed Dec. 10, 1958, D. C. Ariz. (Phoenix), Doc. 2994, *Clyde H. Clement* v. *Goodnow Industries, Inc.*

Des. 177,816, Heistand and Mills, Elastic slipper or similar article, filed Aug. 6, 1956, D. C., S. D. N. Y., Doc. 111/391, *Handcraft Co., Inc.* v. *Isaak B. Cohen & Sons Corp.* Stipulation and order of dismissal with prejudice July 21, 1958. (Corrected notice. This corrects entry which appeared in 734 OFFICIAL GAZETTE, pages 840–41, dated Sept. 23, 1958.)

Des. 179,882, J. L. Malia, Aquarium filter, filed Jan. 25, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 17752, *Super Products Corp.* v. *Abby Halpert et al.* Consent judgment July 28, 1958. (Corrected notice. This corrects entry which appeared in 734 OFFICIAL GAZETTE, pages 840–41, dated Sept. 23, 1958.)

Des. 180,542. (See 2,859,454.)

Des. 182,237, P. Schuss, Sheet plastic fabric, filed Dec. 17, 1958, D. C. Mass. (Boston), Doc. 58/1198–M, *Columbus Coated Fabrics Corp.* v. *Golding Bros. Co., Inc.*

REISSUES

FEBRUARY 3, 1959

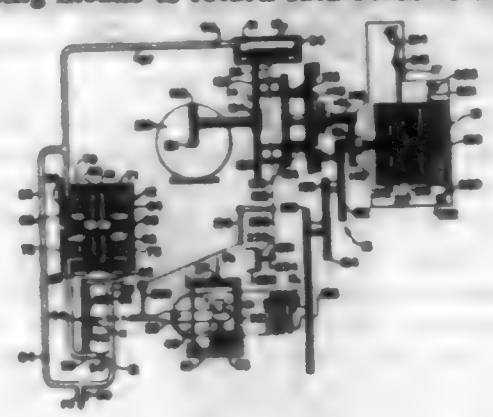
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,597
ALTITUDE CONTROLLER

Dale B. Lones, Palos Verdes Estates, and Sydney E. Westman, Inglewood, Calif., assignors to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Original No. 2,833,899, dated May 6, 1958, Serial No. 619,888, November 1, 1956. Application for reissue August 20, 1958, Serial No. 756,266
13 Claims. (Cl. 201—48)

1. A device for converting barometric pressure changes to useful outputs comprising: a closed chamber; conduit means for connecting said chamber to a source of barometric pressure; an evacuated bellows mounted in said chamber and connected to one end of a pivoted beam; pneumatic means for sensing the position of the other end of said beam; said pneumatic means positioning a variable speed drive in response to the movement of the other end of said beam; said drive being connected to an output shaft; the rotation of said shaft repositioning a force balancing means to return said beam to a null position; and said shaft, in addition, positioning a variable resistance for indicating the incremental change in altitude.



PLANT PATENTS

GRANTED FEBRUARY 3, 1959

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,805
APPLE TREE

Loran R. Frazier and Phillip J. Jenkins, Parker, Wash., assignors to Elon J. Gilbert, Yakima, Wash.

Application November 20, 1957, Serial No. 697,759
1 Claim. (Cl. 47—62)

A new and distinct variety of apple tree, substantially as herein shown and described, characterized particularly as to novelty by the bright, over-all red blush of its fruit and freedom from stripes and other markings, and by the early coloring habit of its fruit which averages at least ten days earlier than the coloring of fruit of the variety "Starking Delicious" (unpatented).

1,806
PEAR TREE

Lawrence B. Dymond, Tunkhannock, Pa., assignor to Kelly Brothers Nurseries, Inc., Dansville, N. Y., a corporation of New York

Application April 7, 1958, Serial No. 727,913
1 Claim. (Cl. 47—62)

A new and distinct variety of pear tree, substantially as herein shown and described, characterized particularly as to novelty by the unique combination of attractive dark foliage, a heavy fruit-bearing habit, good flavor and good keeping quality of the fruit, large and uniform size of the fruit, with a fruit color very similar to that of the Bartlett variety (unpatented), and a ripening habit of the fruit averaging about 10 days later than the ripening period of the Bartlett variety.

1,807
ROSE PLANT

Roy L. Byrum, Richmond, Ind., assignor to Joseph H. Hill Company, Richmond, Ind., a corporation of Indiana

Application June 25, 1958, Serial No. 744,627
1 Claim. (Cl. 47—61)

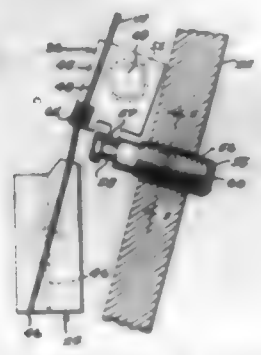
A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by the unique combination of glossy foliage, long buds, a habit of bearing the flowers on strong stems of a length suitable for cut flowers, good flower petalage, and a distinctive flower general color tonality of solid Straw Yellow in the newly-opened flowers, changing to Naples Yellow as the flowers age, without any red or pink coloration except in the tight bud stage, and with no appreciable change in the flower color during different seasons.

PATENTS

GRANTED FEBRUARY 3, 1959

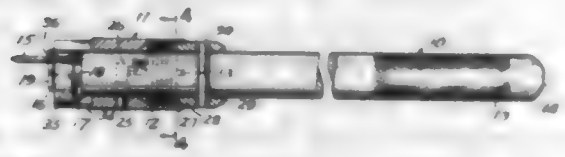
GENERAL AND MECHANICAL

2,871,479
FASTENER FORMING AND INSERTING MACHINE
John G. Wright, George M. Wynn, and Robert H. Hutcheson, Atlanta, Ga., assignors to The Auto-Soler Company, a corporation of Georgia
Application June 18, 1956, Serial No. 591,891
4 Claims. (Cl. 1—29)



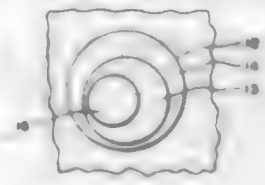
1. In a fastener forming and inserting machine of the type arranged for forming fasteners from a continuous length of wire and having a fastener forming knife assembly comprising a stationary blade member and a matched movable blade member formed with complementary fastener forming shearing edges adapted to cut said wire to form a fastener point, the knife assembly being further formed with a passageway adapting said blade members to receive and position wire in relation to said shearing edges; a guide block for directing wire to said knife assembly, said guide block having a wire directing passageway formed therethrough and being adjustably mounted for selective shifting of the discharge end of said directing passageway from a position of alignment with said knife assembly passageway in either direction longitudinally and transversely with respect to the direction of movement of said movable blade member.

2,871,480
COMBINED NAIL HOLDER AND PUNCH
Lazzaro Pezza, Edmund D. Pezza, and Joseph Miller, Bronx, N. Y.
Application May 10, 1957, Serial No. 658,444
7 Claims. (Cl. 1—47)



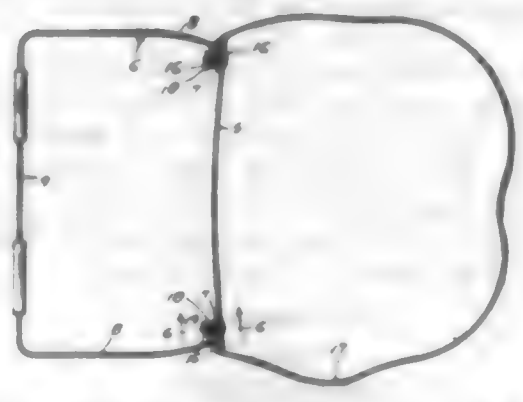
1. A nail holder comprising an elongated member having a cylindrical end portion terminating in a mutilated notched segment, and a spring-pressed sleeve open at an end thereof and mounted coaxially on and rotatable on said end portion and having an arm extending in the position of a chord of the sleeve cross section across the open end of the sleeve and urged toward the notch of the segment to lock upon the shank of a nail arranged in the notch against movement in the notch, and means for limiting movement of the sleeve to circumferential movement around the axis of said end portion and thereby rendering the sleeve incapable of being dislocated by the nail in the notch.

2,871,481
HELMET
Harry Gerstin, San Fernando, Calif., assignor to American Latex Products Corporation, Hawthorne, Calif., a corporation of California
Application December 10, 1956, Serial No. 627,166
6 Claims. (Cl. 2—6)



6. In a helmet: a liner; a circular opening in said liner corresponding to the general position of an ear of a wearer; a first circular insert rotatably positioned within said opening and having its outer edge area in frictional engagement with the inner edge area of said opening; an off-center circular opennig formed in said first insert; a second circular insert rotatably positioned within said off-center opening; and an opening for an earphone in said second insert; the position of said opening being thereby adjustable to correspond to the position of an ear of a wearer by rotation of said inserts.

2,871,482
GLARE SHIELD
Jesse A. Landis, Eaton, Ohio
Application January 14, 1958, Serial No. 708,845
1 Claim. (Cl. 2—12)

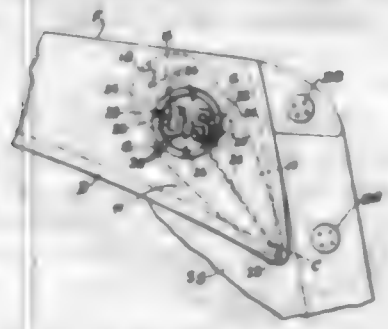


A glare shield comprising a semi-rigid supporting strip adapted to fit the curvature of the forehead of the wearer, a substantially U-shaped supporting wire having a relative straight bight secured to and extending forwardly horizontally from said supporting strip, a pair of substantially flat plastic glare shields, each shield having a pair of longitudinal grooves formed along the opposite sides thereof in alignment adjacent one edge of the shield, and a third groove formed along said one edge, said third groove engaging said bight for longitudinal and rotative movement thereabout and a substantially circular resilient clip for each glare shield, said clip having an opening forming confronting internal ends, said clip surrounding said bight and the confronting ends engaging in said pair of grooves, frictionally holding said glare shields against said bight against accidental displacement but sufficiently loosely to permit longitudinal and rotative movement of said shield relative to said bight.

2,871,483
DEVICE FOR ATTACHMENT TO A COLLAR

Leo S. Bouchard, Boston, Mass.

Application August 14, 1956, Serial No. 603,918
2 Claims. (Cl. 2—132)

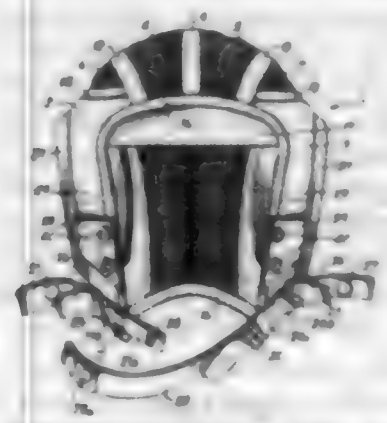


1. A device for attachment to a collar in combination with an insignia member having two pins projecting therefrom, said device embodying an elongate body member having a pair of openings therein at opposite sides of the longitudinal axis of said body one of which is higher than the other in position of use, said projecting pins being spaced apart a predetermined distance whereby they may simultaneously extend through said pair of openings and an elongate pin member attached to said body member and adapted to penetrate and attach itself to a portion of a collar.

2,871,484
CLOSE-FITTING HELMET

Walter S. Finken, Brooklyn, N. Y., and Jackson A. Alleo, Carbondale, Pa., assignors to Leonard P. Frieder, Great Neck, N. Y.

Original application September 24, 1953, Serial No. 382,048. Divided and this application March 14, 1956, Serial No. 571,451
7 Claims. (Cl. 2—195)



1. A close-fitting helmet having front and rear edges adapted to fit snugly respectively the forehead and skull base of the wearer's head, comprising a pair of zones of relatively flexible, yieldable material extending side by side from said front edge to said rear edge, means including a relatively firm tape fastening the adjacent edges of the zones together, side panels of relatively inelastic material attached to the sides of said zones, a chin strap of adjustable length connecting said side panels, said chin strap being effective when tightened to draw said zones into close-fitting relation with the top of the head of the wearer, a back strap of adjustable length spanning said zones and connecting said side panels, and effective when tightened to draw the helmet into close-fitting engagement with the back of the head of the wearer, a tape of relatively inelastic material attached to the front edges of said zones and panels and adapted to extend partially around the wearer's face, and a strip adapted to substantially cover and snugly fit the forehead of the wearer, said strip being substantially wider than said tape and extending along said front edge, said strip having an arcuate edge attached to said tape to lie above the wearer's forehead and a straight edge to extend across the forehead, and being effective to distribute the stress on said tape due to tightening of said straps.

2,871,485
GARMENT WITH INTERCHANGEABLE INDICIA

Charles C. Greco, Jamaica, N. Y.

Application June 11, 1958, Serial No. 741,422
4 Claims. (Cl. 2—246)

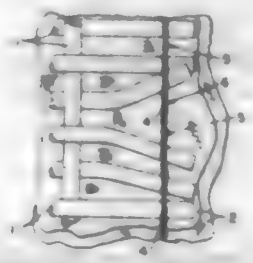


1. A jacket or shirt type garment having a free fastenable edge at which the material is folded and seamed to provide at least a double thickness of material including an outer layer and an inner layer adjacent said outer layer, the outer layer being formed with a series of uniformly spaced longitudinally aligned openings; the material of such outer layer along the longitudinal sides of each opening being turned under and stitched to the outer layer of material, and stitched to the inner layer of material along the longitudinal portions of the periphery of each opening, to define plural open face pockets each having an opening bounded along its longitudinal edges by a hem defining inwardly opening peripheral recesses along such longitudinal edges of the periphery of the opening; and plural fabric inserts secured together to form an insert strip, each insert having an indicia on at least one surface thereof, the indicia differing from each other; the insert strip being inserted through one of said openings for longitudinal movement relative to said openings between the inner and outer layers of material with the edges of the strip guided in said peripheral recesses; and each insert being exposable through an opening; the spacing of said pockets being substantially equal to the length of the inserts along the insert strip whereby the indicia displayed through the openings may be changed by longitudinal adjustment of the insert strip relative to the openings.

2,871,486
NON-SHRINKING SEAM AND METHOD OF MAKING

Chi Tao Kwok, Troy, N. Y., assignor to Cluett, Peabody & Co., Inc., Troy, N. Y., a corporation of New York

Application June 6, 1955, Serial No. 513,271
2 Claims. (Cl. 2—275)



1. The method of joining several plies of fabric together under conditions of high speed sewing in a loose seam that will show reduced tendency to shrink and stitch pucker which comprises, stitching together said plies while they are superposed, and during the sewing introducing into approximately every stitch at least one of the teeth of a comb-like structure, said teeth being approximately round, smooth filaments .004 to .025 inch in diameter and one-quarter to three-quarter inches long, and then withdrawing the comb-like structure from the seam.

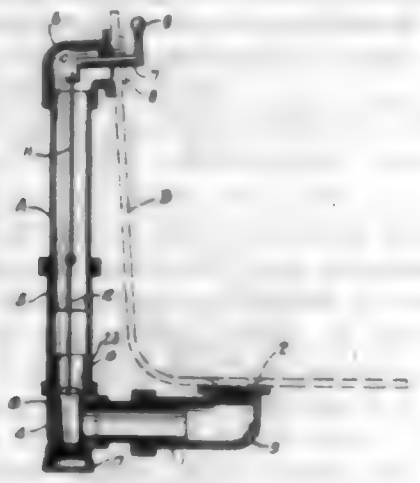
2,871,487
BATH DRAIN PLUG GUIDE

Robert J. Fife, Delphi, Ind., assignor to Stephan A. Young, Delphi, Ind.

Application October 3, 1955, Serial No. 538,060
1 Claim. (Cl. 4—199)

In a bath drain of the class described, in combination, a waste T, a seat at the outlet end thereof, a guide portion at the upper portion, a waste arm comprising a

branch of the T and entering the same intermediate the seat and guide portions, and a hollow plunger shut-off member movable in the guide portion mentioned, an over-flow tube extending from the guide portion said tube being of greater diameter than the guide portion, said tube being in threaded engagement with the T, and a tubular guide member separate from the plunger positioned within said tube, a shoulder formed in the T adjacent the guide portion, external threads on the tube and



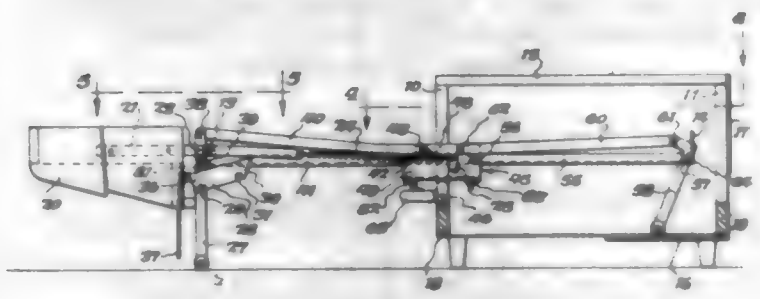
internal threads above the shoulder in the T, the tubular guide member having a flared end said flared end being interposed between the end of the tube on which the threads are provided and the shoulder aforesaid, whereby the said guide member is positioned with respect to said tube, the upper end of said tubular guide member being likewise flared so that the external diameter of said flare is approximately the inner diameter of the tube whereby to further assist in positioning the guide member with respect to said tube.

2,871,483

COMBINED SOFA SEAT AND BED

Harry Nock, Los Angeles, Calif.

Application August 31, 1956, Serial No. 608,482
7 Claims. (Cl. 5—46)



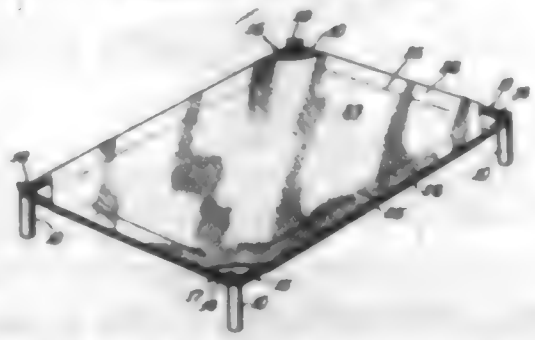
1. A sofa bed comprising a support having end members forming arm rests and connected by cross members, a mattress supporting frame disposed between said end members and including a plurality of frame parts hinged together, a member forming a back of the sofa when the parts of the sofa bed are in their sofa positions and which forms an end part of said mattress supporting frame when the parts of said sofa bed are in bed position, each side of said sofa bed having a pair of links pivotally connected to said back in spaced relation to each other, an intermediate mattress supporting frame part to which the other ends of said links are pivotally connected in spaced relation to each other, said sofa back being swingable upwardly on its connection with said links, and a spring having one end thereof connected above and forwardly of said last mentioned pivoted connections of said links and having the other end connected with said back below the pivot connections of said links with said back when said back is in sofa position, whereby said spring partly counterbalances the weight of said back until the same has been swung into a position above said support.

2,871,489

BED CONSTRUCTION

George W. Emmert, Winnetka, Ill., assignor to Federal Premium Service, Inc., Evanston, Ill., a corporation of Illinois

Application May 29, 1956, Serial No. 587,988
1 Claim. (Cl. 5—114)



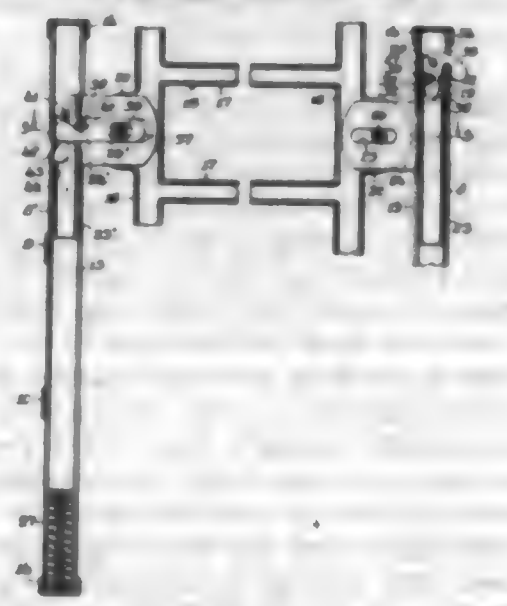
An easily assembled and disassembled bed comprising, four upstanding legs defining the four corners of said bed, a horizontal planar face on the upper end of each of said legs and extending thereacross, each of said faces having therein a pair of downwardly directed slots extending across said face at right angles to each other and physically intersecting at substantially the axial center of the leg, an upstanding axially extending stud anchored in the upper end of each leg at the physical intersection of said slots, a plurality of longitudinally extending frame members removably interconnecting said legs and defining the edges of said bed, each of said frame members overlying and removably resting at its opposite ends upon the faces of an adjacent pair of said legs with the opposite ends of each frame member abutting and bearing against the respective upstanding studs of said adjacent pair of legs to fix the minimum distance between said adjacent pair of legs, downwardly directed flanges on said frame members at the opposite ends thereof removably residing in said slots for preventing lateral movement of said frame members with respect to said legs, means removably secured upon the upper ends of said studs and overlying the ends of said frame members for clamping the ends of said frame members against said faces of said legs and for retaining said flanges in said slots, and a supporting web secured to said frame members and suspended therebetween to provide a sleeping surface, said frame members being readily disengaged from said legs upon release of said last mentioned means to provide easy disassembly of said bed.

2,871,490

GUARD RAIL FOR BEDS

Samuel A. Balonick, Los Angeles, Calif., assignor to Superior Sleeprite Corporation, a corporation of Illinois

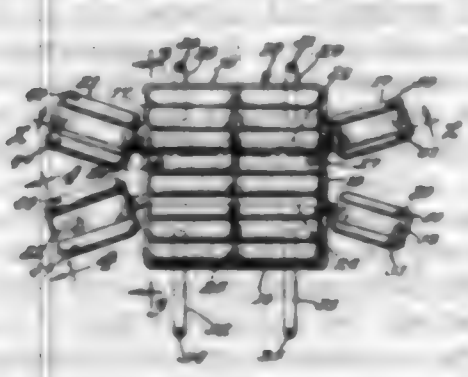
Application January 18, 1957, Serial No. 634,859
9 Claims. (Cl. 5—331)



1. In combination with a guard rail for beds, a hollow tube secured to each end of a bed, a member slidably

mounted in each of said tubes, said guard rail having its opposite ends connected to said members, separate latch means connected to each of said tubes, one of said latch means comprising a trigger engageable with one of said members to hold it against sliding movement in one of said tubes, said trigger being movable pivotally for disengagement from said one member to allow the adjacent end of said guard rail to move downwardly, said other latch means including a projection in said second tube, and a slide seated on said projection, said slide being connected to the other end of said guard rail and movable therewith to unseat said slide from said projection and thereby release the second end of said guard rail, said projection being dimensioned to prevent unseating of said slide when said guard rail is in horizontal position, whereby said second latch means is releasable only when said first mentioned latch means is in released position.

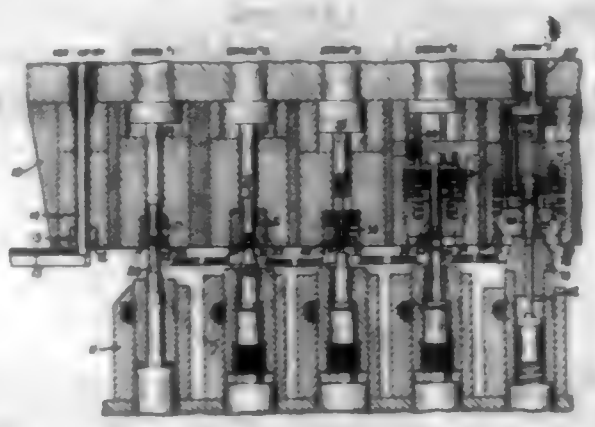
2,871,491
SWIM TRAINER
John Van Vorst, Herkimer, N. Y.
Application April 18, 1956, Serial No. 577,404
1 Claim. (Cl. 9—17)



In a swimming device, a body mat embodying a plurality of inflatable tubes, there being openings establishing communication between the tubes of the body mat whereby air can circulate through the tubes, said body mat including a pair of sections divided by a continuous seam, each of said sections being provided with an inflating valve, said body mat being provided with mounting straps having fastening elements thereon, arm units extended from one end of the body mat, leg units extended from the opposite end of the body mat, the units being connected to the body mat with unitary straps, the leg and arm units being provided with openings for the circulation therethrough of air, each side of the arm and leg units being separated by solid connections and each side being provided with inflating valves, upper edges of the leg units being connected with webs, and the upper edges of the arm units being also connected with webs.

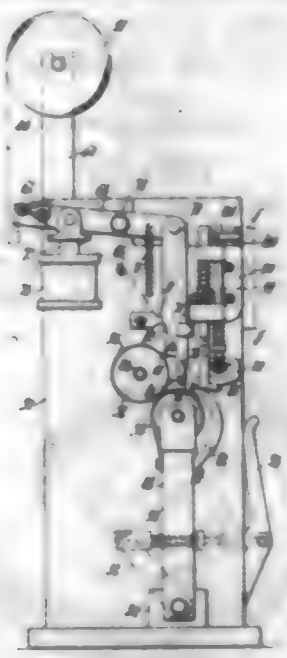
2,871,492
METHOD OF FORGING A NUT BLANK HAVING A BORE WITH A PROJECTING KEY
Charles Vincent Sciulli, Waterbury, Conn., assignor to The Waterbury Farrel Foundry & Machine Company, Waterbury, Conn., a corporation of Connecticut
Application July 24, 1956, Serial No. 599,831
2 Claims. (Cl. 10—86)

1. The method of making a nut blank by performing a plurality of operations on a workpiece at different stations in the same machine which comprises cutting a workpiece from a length of round bar stock, progressively indenting said workpiece, forming a skirt portion tapering externally toward the adjacent end face of the blank at one end thereof, then piercing an opening through the workpiece while preserving its external round shape during all of the aforesaid operations, then forcing said round workpiece into a polygonal die opening having a tapered recessed punch extending into the die while holding said punch stationary and moving said die and workpiece therein relatively to the punch, and in a direction axially of the punch, to shape the



exterior of the blank into noncircular form and simultaneously form a tapered bore in the blank having a key extending from the side wall of the blank into the tapered bore.

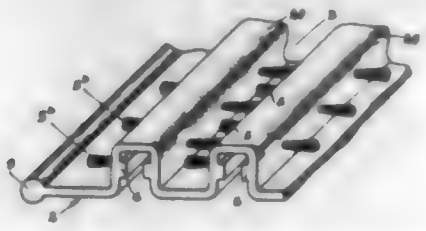
2,871,493
MACHINE FOR APPLYING AND CUTTING ADHESIVE TAPE
Hubert J. Vachon, Lynn, Mass., assignor to Boston Machine Works Company, Lynn, Mass., a corporation of Massachusetts
Application November 18, 1957, Serial No. 697,017
1 Claim. (Cl. 12—59.5)



In a tape applying machine, a frame, a driven feed roll supported by said frame for constant rotation about a fixed axis, an idle feed roll, support means for said idle roll operable to move said idle roll to and from tangential engagement with said driven roll, a guide member for work pieces mounted on said support means adjacent to the periphery of said idle roll, a trigger mounted adjacent to said guide member and movable from said guide member by the insertion of a work piece between said trigger and said guide member, an electric switch operable by movement of said trigger, a solenoid controlled by said switch, an armature in said solenoid, a rock lever mounted on said frame, means operatively connecting said rock lever to said armature to be rocked by energization of said solenoid, a slide bar attached to and operable by said rock lever, means on said frame for supporting a roll of tape and guiding the tape to the nip of said feed rolls, said guiding means including a roll mounted on said slide adjacent to the nip of said feed rolls and adapted to be raised by said slide when the solenoid is energized, said trigger being adjustable toward and from said nip of the feed rolls and adapted to ride

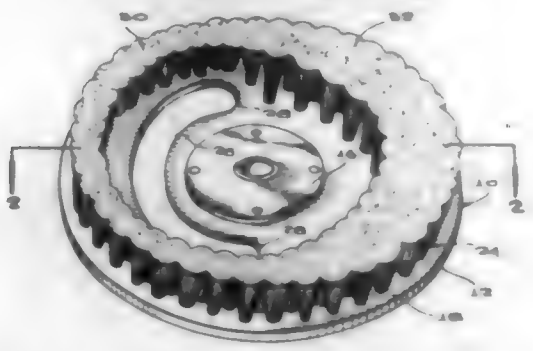
on a work piece moving on said guide member, and means on said frame operating when said guide roll is raised to sever the tape near the nip of said feed rolls.

2,871,494
COLLAPSIBLE BRUSH
Bernard A. Weyl, Pittsburgh, Pa.
Application May 23, 1958, Serial No. 737,431
4 Claims. (Cl. 15—160)



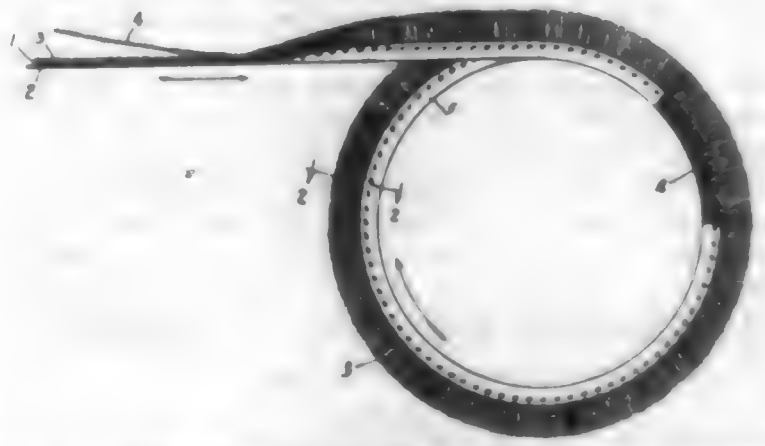
1. A brush element having a body of elastic plastic material, said body being of substantially castellated form in longitudinal section to provide upwardly open grooves having top, bottom and lateral wall portions that extend transversely of said body, and rows of bristle tufts secured in the lateral wall portions of the grooves, with the tufts arranged substantially horizontally in the grooves, said body being expansible under longitudinally applied tension into a substantially flat form, whereby said lateral wall portions of the grooves move into a substantially horizontal plane and swing said tufts into substantially vertical position, the elasticity and restitutional characteristics of said body being adapted upon release of the applied tension to restore said body from its said substantially flat form to its castellated form, whereby said tufts return to said horizontal position in said grooves.

2,871,495
ROTARY BRUSH
Dyonizy Kazmierczak, Stockertown, Pa.
Application May 3, 1957, Serial No. 656,944
3 Claims. (Cl. 15—180)



1. A rotary brush for attachment to an apparatus for the application of fluent materials to a surface comprising a circular brush head having an underside, bristles depending from the underside and arranged around the peripheral edge thereof, attaching means carried by the center of the brush head for attaching the brush to a rotary shaft, said brush head having an arcuate slot formed vertically therethrough for the passage of a fluent material through the brush head in timed relation to the rotation of the brush and said slot being arranged concentric to the center of the brush head and disposed between the center and a portion of the bristles, said bristles being arranged in two groups, one of said groups being disposed concentric to and spaced outwardly from the slot and the bristles of such group being of constant and similar radial thickness and the bristles of the second group being of greater radial thickness than the bristles of the first group and the end bristles of the second group being extended inwardly of the brush head so as to lie within the same circle as the slot, whereby the end bristles confront the ends of the slot.

2,871,496
BRUSH STRIP CONSTRUCTION
Brooks E. Nelson, Chagrin Falls, Ohio, assignor to The Osborn Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application August 26, 1954, Serial No. 452,319
12 Claims. (Cl. 15—182)



4. A brush element including an elongated straight flexible back having a longitudinal channel therein, an elongated retaining element extending separately longitudinally within such channel, and a layer of brush material retained beneath said element and protruding from said channel; said element being pre-crimped relative to said straight channel back and therefore of greater absolute length along its sinuous course than said back to facilitate stretching relative to said back when said back is flexed.

11. In the method of forming a brush element including the step of securing brush material in an elongated flexible sheet metal channel back beneath a wire retaining element; the preliminary step of crimping said wire, and the subsequent step of deforming said back longitudinally to tension said wire at least partially permanently to reduce such crimp and thereby effectively elongate said wire.

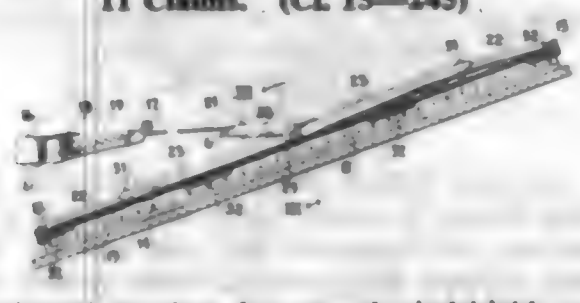
2,871,497
CLEANING DEVICE
Harold Miller and Harry Krigsman, Brooklyn, N. Y.
Application January 15, 1957, Serial No. 634,310
2 Claims. (Cl. 15—244)



1. A cleaning device comprising, in combination, an elongated body portion of substantially uniform rectangular cross section, a tubular water repellent handle sheath enclosing one extremity of said body portion, a cleaning sheath of sponge material removably secured to the opposite extremity of said body portion, said sponge sheath overlapping part of said handle sheath, removable fastening means securing said sponge sheath in assembled position with said body portion relative to said handle sheath,

the outer end of said handle sheath including a triangular tab, and said tab being provided with means for supporting said device in a vertical hanging position, said sponge sheath comprising a rectangular sheet of sponge material folded along a central longitudinal axis and having the opposite lateral extremities thereof secured together, and said sponge sheath being open at one end and closed at the opposite end.

2,871,498
WINDSHIELD WIPER
John R. Oisbet, Buffalo, and Erwin C. Horton, Hamburg, N. Y.; said Horton assignor to Trico Products Corporation, Buffalo, N. Y.
Application January 31, 1955, Serial No. 485,267
11 Claims. (Cl. 15—245)



6. A windshield wiper for curved windshields, comprising a flexible blade having an elongated flexible backing, a superimposed pair of levers connected end to end by a spring hinge to resiliently depress the outer ends of the levers upon the blade and being adapted for mounting on a spring loaded arm having a spring urge dominating the reactive urge of the spring hinge, and an arm coupler connected to the spring hinge and together therewith and with the inner ends of the levers providing a support having a direct pressure transmitting contact with the medial portion of the flexible backing for positively exerting such dominating spring urge through a minimum turning couple with the arm coupler.

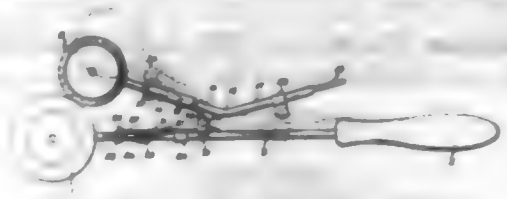
2,871,499
GOLF CLUB CLEANER
Harry L. Gardner, Sylvania, Ohio
Application April 18, 1956, Serial No. 578,954
2 Claims. (Cl. 15—246)



1. A golf club cleaner comprising a holder formed of single sheet material, said sheet material being shaped to have a perpendicular back plate, a connecting web to a front plate, said front plate being disposed at an angle to the back plate, a cleaning brush attached to the back plate with its bristles facing the front plate in spaced relation thereto, a part of the web connecting the back plate to the front plate being formed with an inwardly projecting shoulder adjacent the top of the front plate, said shoulder forming a stop engagement for the golf club head being cleaned, with means on said connecting web for clamping the holder to a support.

2,871,500
CLAMP FOR TWO-ROLL PAINT APPLICATOR
James V. Hunn, Avon Lake, and Axel E. Ogren, Cleveland, Ohio, assignors to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio
Application October 6, 1955, Serial No. 538,838
5 Claims. (Cl. 15—246)

1. A clamp for holding two paint rollers having separate shank structures each including a rearwardly extending shank portion and a laterally extending portion at the forward end of said rearwardly extending shank portion in superimposed laterally fixed relationship while permitting movement above two axes, one being substantially parallel to the axes of rotation of the two paint rollers, and the other normal to said axes of rotation and substantially centrally of the working surface of at least one of said rollers, said clamp comprising a pair of



hinged members, one of which members is formed to grasp and fixedly retain the shank structure of one paint roller, and the other member carrying means to rotatably journal the rearwardly extending shank portion of a second paint roller assembly and means for preventing movement of the applicator roll of said second paint roller assembly in a direction along the axis of the rearwardly extending shank portion.

2,871,501
WINDSHIELD WIPER
James H. Wernig, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 18, 1955, Serial No. 501,829
2 Claims. (Cl. 15—255)



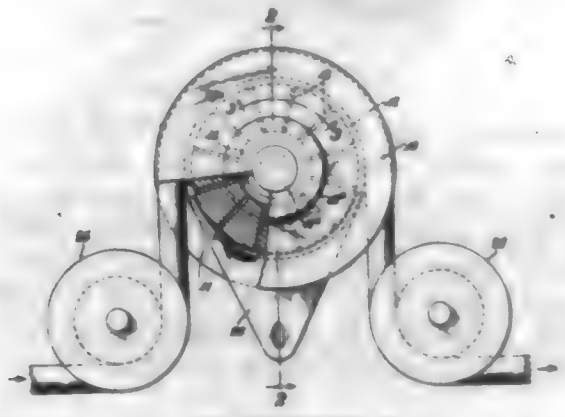
1. Apparatus for wiping a windshield having curved wrap-around portions at the outer sides thereof, including, an oscillatable wiper shaft, a stationary bushing rotatably supporting said shaft, a wiper arm comprising an inner section drivingly connected to said shaft, an outer section, means pivotally interconnecting said outer section and said inner section, and spring means carried by said arm and engaging said sections for applying wiping pressure to the outer section, a wiper blade, a clip attached to said wiper blade and pivotally connected to the outer section of said arm, a cam member attached to said bushing having a slot with portions concentric and eccentric with respect to said shaft, a reciprocable rod disposed beneath said arm, said rod being actuated by said cam member and having an operative connection with said clip for adjusting the attitude of said blade relative to said arm during a portion of its wiping stroke, the operative connection between said rod and said clip comprising a hooked end of said rod which extends through an aperture in said clip, and a torsion spring intercon-

necting said rod and said outer arm section for normally yieldingly maintaining said blade in alignment with said arm.

2,871,502
VACUUM WHEEL FOR EXTRACTING LIQUID FROM TOW

John K. Whisnant, Enka, N. C., assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware

Application March 10, 1954, Serial No. 415,309
5 Claims. (Cl. 15—306)



1. A rotatable wheel for the propulsion of tow, said wheel having a marginal groove of arcuate cross section for the reception of the tow, a narrower groove at the bottom of said marginal groove, circumferentially spaced ports extending radially within said wheel and communicating with said narrower groove, means to apply suction to said ports and stationary sealing means occupying said narrower groove in a part of its path of rotation, said sealing means extending beyond the periphery of the wheel.

2,871,503
VACUUM CLEANER ON-AND-OFF SWITCHING DEVICES

Edgar P. Senné, Suffolk County, N. Y.

Original application December 27, 1948, Serial No. 67,498, now abandoned. Divided and this application July 2, 1953, Serial No. 365,680
2 Claims. (Cl. 15—327)

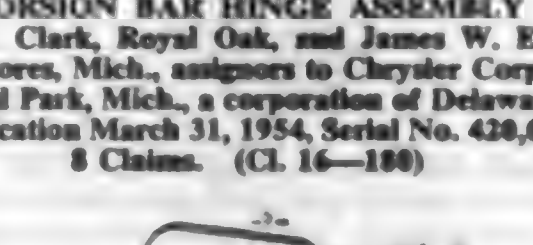


1. A vacuum cleaner comprising, in combination, a case containing a filter chamber and air propulsion means including an electric motor, an exploring hose, journal means fixed with respect to the case, hose-supporting means mounted to rotate coaxially with said journal means including a socket whose axis is substantially normal to the axis of said journal means for receiving one end of said hose, whereby the case may be propelled along a level floor surface by manual force transmitted through the hose to said socket and journal means and acting in a direction generally parallel to the axis of the socket, and an electric switch controlling said motor mounted in fixed relation to the case and adapted to be actuated by engagement therewith of said hose-supporting means when the same is rotated about the said journal, whereby the switch may be actuated by manual force transmitted through the hose to said socket and journal and acting in a direction generally at right angles to the axis of the socket.

2,871,504
CONVERTERS FOR VACUUM CLEANERS

Francis A. Gall, Springfield, and Dirwood M. Danforth, Somerville, N. J., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application December 10, 1953, Serial No. 397,327
4 Claims. (Cl. 15—338)

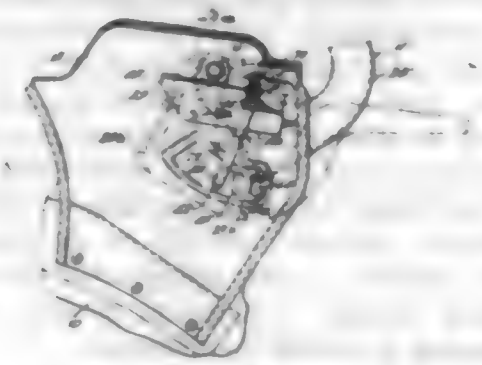


4. A vacuum cleaner converter comprising an apertured tray having a convex outer surface and a concave inner surface, the length of said tray and the length of said inner surface being several times greater than the width of said tray; a hollow neck secured to the outer surface of said tray, said neck having a passageway in communication with the aperture in said tray; a throat formed in said tray, said throat being disposed below the inner concave surface of said tray; a cusp carried by said tray and located midway in said throat, thereby bisecting said throat; a pair of lobed depressions formed in said tray and extending below the inner concave surface of said tray, said lobed depressions being in communication with said throat at locations on opposite sides of said cusp; a pair of surfaces located adjacent to the ends of said tray and said surfaces sloping downwardly toward the bottom of said inner concave surface; means located adjacent to said neck for attaching said tray to the intake opening of a vacuum cleaner; and means for connecting a hose to said neck, said passageway, said aperture, said throat, said cusp, said lobes, and said surfaces acting to direct dirt and air from a hose connected to said neck to both ends of said tray and thus into the intake opening of a vacuum cleaner to which the converter may be attached.

2,871,505
TORSION BAR HINGE ASSEMBLY

William J. Clark, Royal Oak, and James W. Eddy, St. Clair Shores, Mich., assignors to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Application March 31, 1954, Serial No. 420,006
8 Claims. (Cl. 16—180)



6. A hinge structure for pivotally mounting a closure member on a relatively fixed support comprising a strap hinge having a leg portion connected to the closure member and a neck portion pivotally connected to a support plate mounted on said fixed support, a rod receiving formation on said support plate, an elongated torsion rod mounted in said support plate rod receiving formation so as to extend in the direction of the hinge pivot axis,

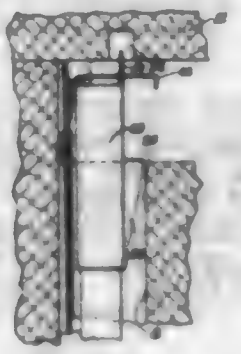
means mounting a portion of the torsion rod remote from the support plate on said fixed support to prevent rotation thereof, and a crank arm on said torsion rod having a portion slidably engageable with the hinge neck portion, the portion of the hinge neck portion engaged by the torsion rod crank arm portion comprising a cam surface adapted to effect variation in the torsional stress in said rod during hinge rotation.

2,871,506

REMOVABLE SASH BALANCE

Frederick J. Decker, Pittsford, and Mahlon H. Gregg, Rochester, N. Y., assignors to The Caldwell Manufacturing Company, Rochester, N. Y., a corporation of New York

Application February 25, 1955, Serial No. 490,552
6 Claims. (Cl. 16—202)



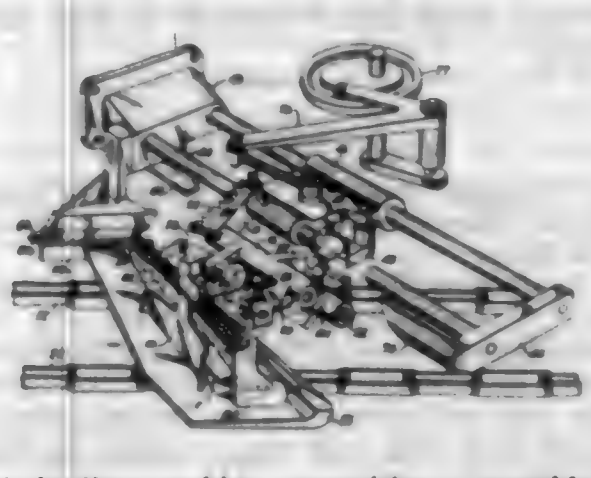
3. A sash balance fastened to a window sash; a tubular anchor fastened at one end of said sash balance, a flange on said tubular anchor adapted to be engaged in a slot in said sash for holding said tubular anchor against rotation with respect to said sash, a spring lock fastened to the window frame, said spring lock being adapted to be engaged by said tubular anchor for removably connecting said end of said sash balance to the window frame; said spring lock being adapted to be disengaged from said tubular anchor when the sash is removed from the window frame.

2,871,507

APPARATUS FOR FEEDING FISH-DRESSING MACHINES

Alfred Bartels and Paul Johmann, Lubeck, Germany, assignors to Nordischer Maschinenbau Rud. Baader, Lubeck, Germany, a firm

Application August 20, 1956, Serial No. 605,056
3 Claims. (Cl. 17—2)



1. A fish feeding machine, comprising a movable conveyor, troughs carried by said conveyor and extending transversely to the direction of movement thereof, each of said troughs being adapted to receive a decapitated fish located lengthwise upon said trough, a support, guides carried by said support, a carriage mounted upon said guides, a pusher, means pivotally and resiliently supporting said pusher above said troughs for reciprocation lengthwise of the troughs, means pivotally and resiliently connecting the first-mentioned means with said carriage for a swinging movement of said pusher away from the troughs, means reciprocating said carriage upon said guides to cause said pusher to engage the decapitated end of a fish body located upon a trough and push it toward one end of the trough, a device located adjacent said one end of the trough and receiving the tail end of the fish body, said pusher swinging over the fish body upon resistance of the fish body caused by engagement with said device, means connected with said carriage for locking the second-mentioned means during the movement of the pusher toward said device, and means releasing the second-mentioned means upon completion of this movement to cause the pusher to swing away from the trough.

2,871,508

FILLING MACHINE HORN

John W. Hill, Chicago, Ill., assignor to The Globe Company, Chicago, Ill., a corporation of Illinois

Application September 30, 1955, Serial No. 537,869
5 Claims. (Cl. 17—41)



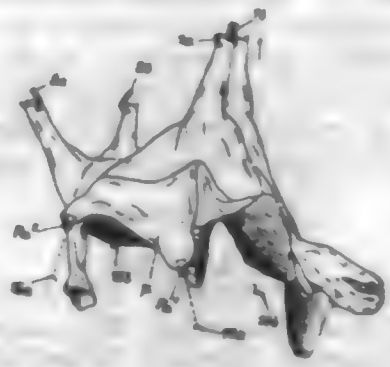
1. A filling device for filling continuous lengths of casing with charges of material comprising a tubular member having a discharge passageway therein and a discharge nose over which said casing passes, barrier means about said tubular member adjacent the discharge end thereof of a size and shape to tightly engage the inner surface of said casing thereover to close off the portion of said casing outwardly of said barrier from the portion inwardly thereof, and control mechanism associated with said member for controlling the feed of said casing from said member, said control mechanism including suction means positioned inwardly of said barrier means.

2,871,509

SKINNING METHOD AND APPARATUS

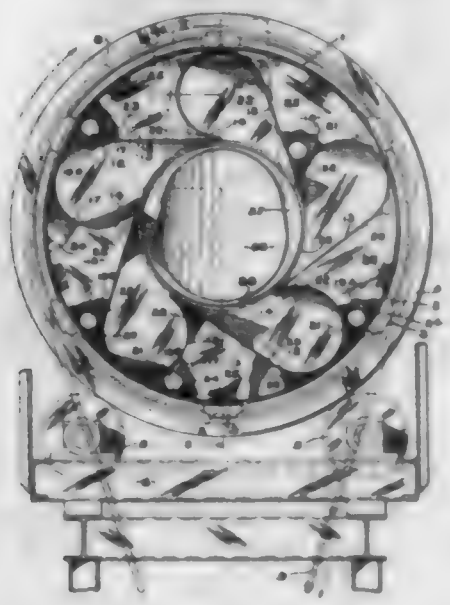
Bernard Poupet, Le Kremlin-Bicetre, France

Application April 10, 1956, Serial No. 577,252
Claims priority, application France April 13, 1955
8 Claims. (Cl. 17—45)



1. A method for removing a pelt from an animal carcass, especially that of large animals such as horses, cattle and the like, comprising slitting a pelt longitudinally medially of the underside of a carcass and from the medial slit along the four legs, manually loosening said pelt from the legs and a portion of the underside of the carcass on each side of the longitudinal medial slit, suspending the carcass by the forelegs and the hind legs independently, holding the loosened underside portions of the pelt at a plurality of points along each side of the carcass so as to exert a peeling action on the pelt when traction is applied to the carcass, and then pulling the carcass from the pelt by exerting a traction progressively on the fore and hind legs of the carcass.

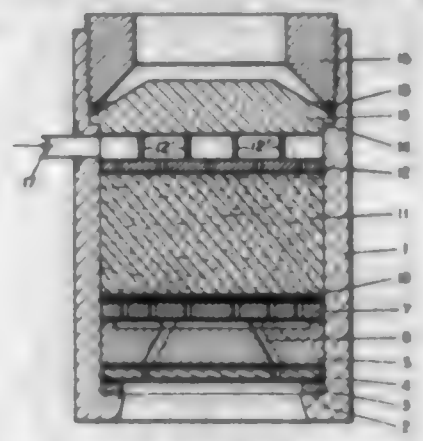
2,871,510
GRANULATOR
Walter J. Sackett, Baltimore, Md., assignor to The A. J. Sackett & Sons Company, Baltimore, Md., a corporation of Maryland
Application March 6, 1956, Serial No. 569,892
12 Claims. (Cl. 18—1)



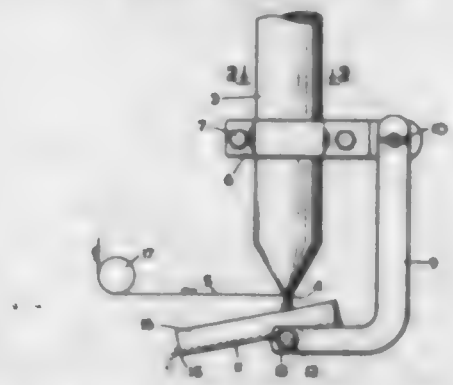
1. In a granulator for moist fertilizer and similar materials, a tubular member sloped from the horizontal to progress material therethrough upon axial rotation of the member, the member including a plurality of longitudinally extending compartments of rigid construction circularly and contiguously spaced about the member axis of rotation and leaving axially therebetween a substantially circular open surface hardening zone, each compartment having a substantially plane rolling wall and an opposed retaining wall, one rolling wall edge extending substantially to the outer periphery of the tubular member and back of the retaining wall of the respective compartment to form a material retaining pocket between the walls of each compartment, the said respective walls of the several compartments being spaced in the same order about the surface hardening zone, the rolling wall of each compartment having an opposite edge spaced inwardly axially from its substantially peripheral edge, the rolling wall at this opposite edge being substantially tangential to the surface hardening zone and joining the retaining wall of the adjacent compartment, whereby, upon rotation of the member toward the direction of the end of the rolling walls tangential to the surface hardening zone, material is cascaded from the upper retaining walls to the lower rolling walls to adhere the material together upon rolling into particles of substantial size.

2,871,511
MELT SPINNING APPARATUS
Raymond Holden Speakman, Harpenden, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
Application August 24, 1954, Serial No. 451,865
Claims priority, application Great Britain August 28, 1953
5 Claims. (Cl. 18—8)

4. A spinning pack assembly for melt spinning including a tubular housing opened at at least one end, closure means engaged to the other end of said housing for sealing this end, a radially inwardly directed annular flange means joined to said housing adjacent said one end thereof, internal removable components including a spinneret assembly loosely mounted in operative position in said housing intermediate said closure means and said flange means for axial movement therein, an annular compressible seal sandwiched in between said flange means and said spinneret assembly, and means including a duct for introducing a melt under pressure into said housing intermediate said closure means and said spinneret assembly so that the pressure of the melt will operate to effect relative movement of said spinneret assembly toward said flange means thereby compressing said seal.



2,871,512
WET SPINNING PROCESS AND APPARATUS
Clifford Ernest Page and John Downing, Spondon, near Derby, England, assignor to British Celanese Limited, a corporation of Great Britain
Application June 10, 1955, Serial No. 514,617
Claims priority, application Great Britain June 18, 1954
3 Claims. (Cl. 18—8)

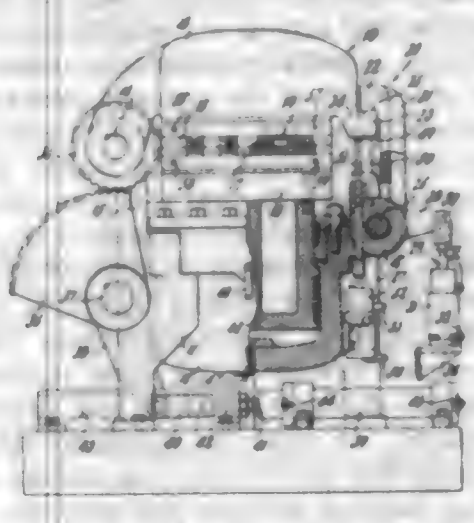


1. A wet spinning device for downward spinning, comprising a substantially vertical spinning tube having an orifice at its lower end for the passage of filamentary material and coagulant from the tube, means for drawing filamentary material laterally from the said orifice, and a plate pivotally mounted below the said orifice, said plate in operative position sloping downwardly at an angle of 3°–30° to the horizontal in the same lateral direction as that in which the said drawing means lies in relation to the orifice, that part of its surface which is directly below the orifice being spaced between ¼ inch and 1 inch therefrom.

2,871,513
MOLDING PRESS
Otto F. Hoenier, Dunedin, Fla., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application March 3, 1954, Serial No. 413,851
1 Claim. (Cl. 18—16)

A molding press comprising the combination of a ram operating in a cylinder and a cover having a pivotal connection with said cylinder, means for swinging said cover back and forth over said ram, a locking mechanism for withstanding the pressure of said ram against said cover when over said ram in its press closed position, said locking mechanism comprising a locking shoulder on one side of said cover opposite to said pivotal connection of said cover and a swinging link connected to said cylinder below said shoulder, a stop for supporting said cover over said ram at a position below its press closed position, said link having a locking head provided with a downwardly inclined face which is adapted to extend over said locking shoulder on said cover and in spaced relation thereto when the latter is supported on said stop,

said locking shoulder having a face which is upwardly inclined towards said locking head, means for moving said face on said locking head into and out of locking position over said face on said shoulder while said faces are spaced apart, and means for raising and lowering



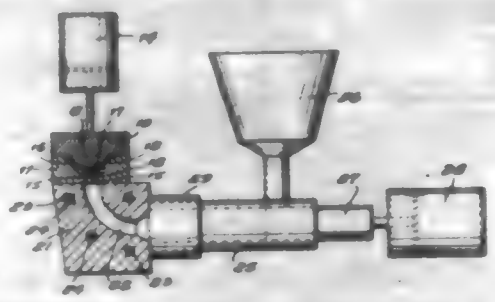
said face on said shoulder into and out of engagement with said face on said locking head to thereby move said cover into and out of its press closed position, said last mentioned means being separate from said means for swinging said cover.

2,871,514
EQUIPMENT USED TO VULCANIZE OR RECAP VEHICLE TIRES
Ottis S. White, Florence, Ala.
Application April 4, 1955, Serial No. 498,956
8 Claims. (Cl. 18—18)



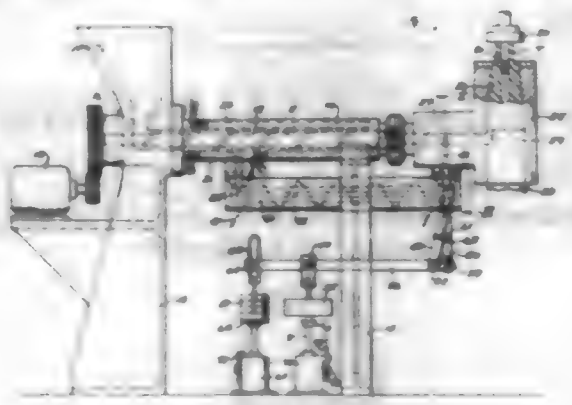
1. A tire recapping mold comprising an upper mold portion and a lower mold portion, said lower mold portion being an annular ring having a tread molding surface along its outer periphery and an upturned flange along its inner periphery, said upturned flange having a curved portion constituting a heat reflector for radiating heat toward the inside of the tire, said flange also having heating means supported along its inner side adjacent to said curved portion, an air inlet pipe connected to said flange, said upper mold portion being an annular ring having a tread molding surface around its outer periphery for cooperation with the tread molding surface on the lower mold portion, said upper mold portion further having a groove along its lower side adjacent its inner periphery for cooperation with the upturned flange of said lower mold portion in forming an air tight mold, a gasket in said groove, clamp bolts pivotally mounted on said lower mold portion for cooperation with ears attached to said upper mold portion to hold the two mold portions together; standards attached to the lower mold portion for supporting the tire mold from the floor, said lower mold portion further containing an annular band recessed in an annular slot in the upper side of said lower mold portion, said band being connected to pneumatic means for forcing the finished tire from the mold at the end of the capping operation.

2,871,515
APPARATUS FOR FORMING ARTICLES FROM THERMOPLASTIC MATERIALS
Theodore Loew, Stamford, Conn., assignor, by mesne assignments, to Kraft Foods Company, Chicago, Ill., a corporation of Delaware
Application October 26, 1953, Serial No. 388,213
5 Claims. (Cl. 18—30)



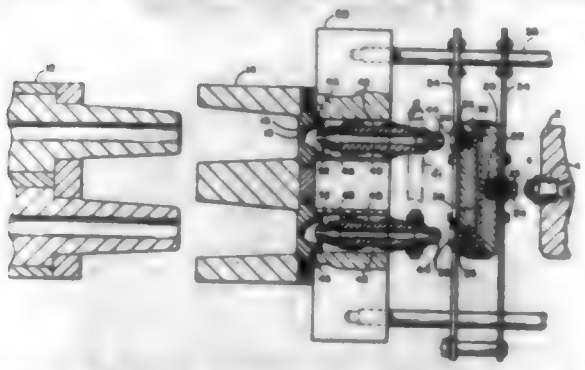
1. Apparatus for forming molded articles of thermoplastic material comprising upper and lower mold members, said members being movable relatively toward and away from each other, one of the members having a wall defining a cavity and the other member having a portion adapted to enter the cavity upon closing the mold members together, means for injecting molten thermoplastic material into the cavity of one of said mold members while the members are in open position, and a check valve forming a portion of said wall in the mold member having the cavity and through which the molten material is injected into the mold, said check valve being effective to facilitate the distribution of said thermoplastic material in said mold cavity prior to said closing of said mold members.

2,871,516
APPARATUS FOR FEEDING PLASTICIZED MATERIALS
Orville B. Sherman and George V. Mumford, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application July 6, 1954, Serial No. 441,394
8 Claims. (Cl. 18—30)



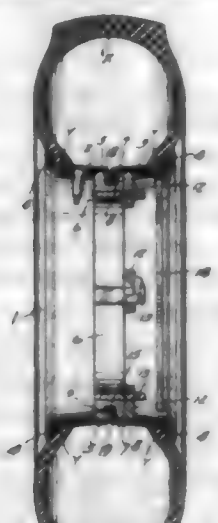
3. In an apparatus for plasticizing and feeding plastic molding material, means continuously supplying raw material to the inlet of a plasticizer tube, a pressure means in said tube to plasticize and move said material therethrough to an outlet, means to control the temperature of the material in said tube, said material becoming plastic and fluid during its travel through said plasticizer tube, an extrusion orifice means cooperating with said plasticizer and adapted to feed defined portions of material from the plasticizer to a molding means, conduit means interconnecting the plasticizer tube outlet and a portion of said tube at which said material is fluid, and means controlling the flow of plastic material through said conduit means.

2,871,517
INJECTION MOLDING MACHINE NOZZLE
Harrie M. Allard, Nashua, N. H., assignor to Improved Machinery, Inc., Nashua, N. H., a corporation of Maine
Application August 31, 1955, Serial No. 531,757
6 Claims. (Cl. 18—30)



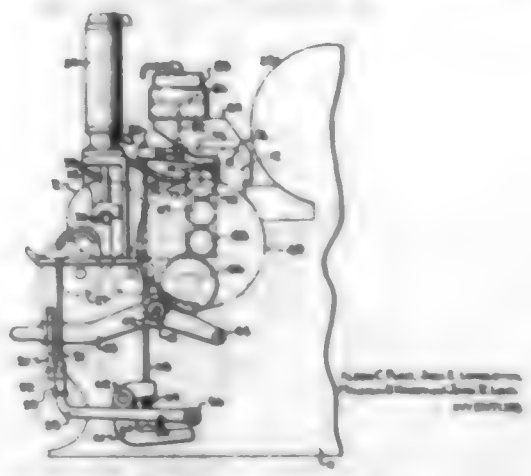
1. In a plastic molding machine including an injection nozzle having a passage with a self-aligning pressure fitting for feeding plasticized material in a stream therefrom, and a mold with a plurality of injection passages with self-aligning pressure fittings, said mold and said injection nozzle being relatively movable toward and away from one another, a cross head having a central inlet passage with a self-aligning pressure fitting for engaging said injection nozzle pressure fitting to receive plasticized material therefrom, and at least two and less than four outlet passages spaced from one another on opposite sides of said inlet passage with self-aligning pressure fittings on opposite sides of said central passage, said outlet passages being connected to said inlet passages for feeding plasticized material therefrom, and a transfer nozzle cooperating with each of said outlet passages, said transfer nozzles having passages with self-aligning pressure fittings for connecting each said cross head outlet passages to one of said mold passages and supporting said cross head from said mold at at least two and less than four spaced positions, one at each of said cross head outlet passages, whereby movement of said mold and said injection nozzle clamps said cross head pressure fittings and said transfer nozzle pressure fittings into operating position in firm pressure contact with one another and with said injection nozzle and mold pressure fittings respectively to provide a structure balanced as to forces applied between said injection nozzle and said mold with its elements free to self align by relative movement of said self-aligning pressure fittings.

2,871,518
CURING AND TESTING RIM FOR PNEUMATIC TIRE CASINGS
Charles E. Branick, Fargo, N. Dak.
Application November 26, 1957, Serial No. 699,010
2 Claims. (Cl. 18—45)



1. A curing and pressure testing rim for tubeless tires comprising a pair of generally cylindrical felly-band forming sections having bead engaging flanges at their axially outer edges, means for detachably locking said sections together with their axially inner edges in spaced aligned relationship, one of said rim sections having a radially inwardly projecting unbroken rib adjacent its axially inner edge which underlies the adjacent edge of the other of said rim sections and acts as a centering means therefor, said rib defining a radially outwardly opening channel substantially the width of the space between the aligned edges of said sections, and a cross-sectionally U-shaped elastic sealer element snugly seated within said channel and having opposite side portions which snugly engage opposite sides of the channel and opposite edge portions of said rim sections, the maximum diameter of said U-shaped sealer element being not greater than the external diameter of the adjacent fellyband-forming rim sections, whereby to permit passage of the bead portion of a tire casing thereover during mounting and dismounting of said rim sections, air pressure within a pneumatic tire mounted on said rim sections causing sealing engagement of said sealing member between said sections.

2,871,519
PRESSURE MEANS FOR CALENDER ROLLS
Alden C. Flint, Jack E. Livingston, and Malcolm D. Haven, Charleston, S. C., and John R. Long, Hickory, N. C., assignors of fifty percent to Granite Machine Company, Hickory, N. C., a corporation of North Carolina, and fifty percent to Livingston & Haven, Inc., Charleston, S. C., a corporation of South Carolina
Application October 12, 1955, Serial No. 540,044
3 Claims. (Cl. 19—164)



1. In a lap-forming machine having a frame, a vertical series of substantially horizontally disposed calender rolls between which fibers forming the lap are passed, a bearing block for each end of each calender roll, the bearing blocks for the lowermost calender roll being supported against downward movement relative to the frame and the remaining bearing blocks being mounted in said frame for vertical movement with their respective calender rolls relative to the lowermost calender roll and its bearing blocks; means for applying and maintaining a predetermined amount of pressure equally on each of the bearing blocks for the uppermost of said calender rolls to subject fibers passing between the calender rolls to constant uniform pressure transversely and longitudinally of the lap regardless of the presence of thick places in the fibers, said means comprising a fluid pressure system operatively connected to said last-named bearing blocks, said fluid pressure system including a fluid pressure source wherein fluid is maintained under pressure at least equal to said predetermined amount of pressure, a conduit extending from the fluid pressure source and through which pressure is transmitted to the calender rolls, valve means in the conduit for regulating the amount of pressure delivered from the fluid pressure source to the calender rolls and for relieving pressure in excess of said predetermined amount of pressure from the calender rolls, whereby upon thick places in the fibers passing between the calender

rolls subjecting the calender rolls and their bearing blocks to pressure in excess of said predetermined amount of pressure, said valve means will relieve the excess pressure on the calender rolls occasioned by the presence of a thick place therebetween and will permit restoration of said predetermined amount of pressure to the calender rolls after the thick place passes beyond the calender rolls to thereby maintain the calender rolls under constant uniform pressure.

2,871,520
PANEL SUPPORT
Edward P. Ruda, Chicago, Ill., assignor to Garden City Plating & Manufacturing Co., a corporation of Illinois
Application February 1, 1955, Serial No. 485,403
6 Claims. (Cl. 20—.5)



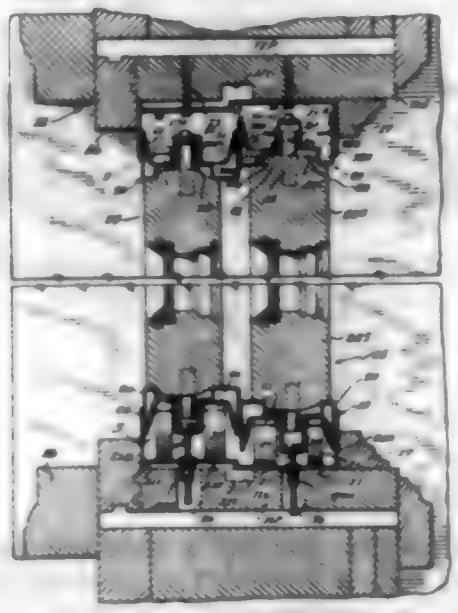
1. A panel support comprising a pair of spaced members having openings in their opposed inner wall surfaces and a panel adapted to fit between said spaced members with limited clearance to prevent any substantial lateral movement of said panel in the plane of said support, said panel having projecting members extending from opposite edges into said openings to hold said panel against movement at an angle to the plane in which said panel is normally held between said spaced members, the projecting members at one edge of said panel comprising flat spring latches with their thin edges parallel to the front surface of the panel.

2,871,521
DISPLAY DEVICE
Harold Messmore, New York, N. Y.
Application September 30, 1957, Serial No. 687,885
1 Claim. (Cl. 20—.5)



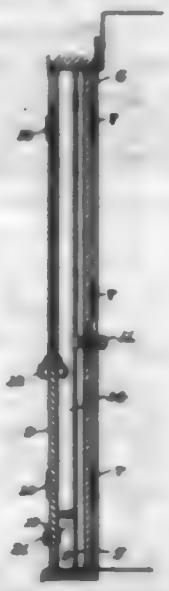
A display device of fluted construction with the flutes running from top to bottom of the display device, said display device consisting of a back wall portion, a back cove portion merging into the top of said back wall portion and two end extensions at opposite sides of said back wall portion; each of said end extensions comprising an upper cove portion merging into said back cove portion at an end thereof and a lower arched side portion merging into a side of said back wall portion; said back wall portion being constituted of all like sections extending from top to bottom of said display device, each of concavo-convex shape in cross-section, having an unflanged wall along one side thereof, a flanged wall along the other side thereof and the sections being disposed with the unflanged wall of one section abutting the flanged wall of a contiguous section; and said end extension being each constituted of all like sections extending from top to bottom of said display device, each of concavo-convex shape in cross-section, having at one side thereof an unflanged wall and at the other side thereof a flanged wall, said end sections each having the upper portion thereof of gradually diminishing width in the direction toward the top of said device and being disposed in side by side abutting relationship with the unflanged wall of one section abutting the flanged wall of a contiguous section.

2,871,522
WINDOW STRUCTURE
Michael J. Nardulli, Elmwood Park, Ill., assignor to Michael J. Nardulli, Angelo F. Naples, and Peter F. Nardulli, as trustees
Application November 7, 1956, Serial No. 620,944
3 Claims. (Cl. 20—12)



1. A yieldable sash guide assembly comprising an elongated channel-like mounting housing having a base wall and side walls, a pair of sash guide channels disposed in side by side relation in said housing, spring means in said housing and interposed between the respective sash guide channels and said base wall at predetermined spaced points along the length of the respective channels, retaining screws extended from said channels at other spaced points and threaded through said base wall to limit separating movement of said channels with respect to said base wall, and aligned openings through said channels and said base wall at still other spaced points, the said openings in said channels being larger than the aligned openings in said base wall whereby fastening screws may be inserted through aligned pairs of openings to secure said base wall against a mounting surface.

2,871,523
STORM DOOR VENT AND AUTOMATIC CLOSURE THEREFOR
Kaji Negoro, La Grange, Ill., assignor to Rockford Factories, Inc., Loves Park, Ill., a corporation of Illinois
Application November 22, 1954, Serial No. 470,215
7 Claims. (Cl. 20—16)



1. In combination, a hinged house door, an oppositely hinged storm door in spaced relation to the house door

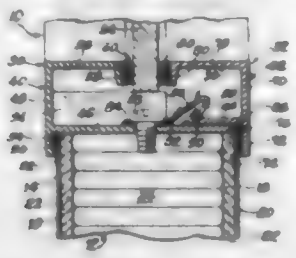
having a small vent hole provided therein for escape of air from between said doors, a flap valve comprising a seat ring mounted on the storm door at the inner end of said vent hole and having an annular flange portion projecting into said hole, and a valve disk hingedly mounted at the top thereof on said flange and engaging the flange circumferentially of the edge thereof as a seat, said disk normally gravitating to closed position but swingable away from the seat under air pressure in said space between the doors.

2,871,524

SASH CONSTRUCTION

Herbert S. Wille and Victor W. Damm, Niles, Mich., assignors to Kawneer Company, Niles, Mich., a corporation of Delaware

Application March 8, 1955, Serial No. 492,900
3 Claims. (Cl. 20—56.4)



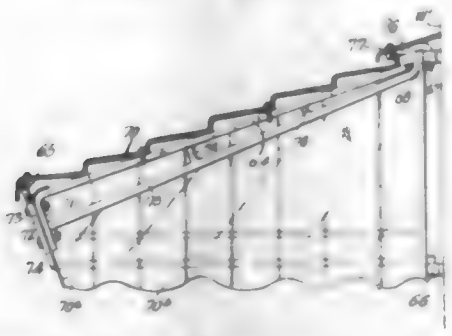
2. A sash construction for a structure having spaced apart first and second surfaces and provided with an opening including, in combination, a primary glazing frame insertable into the opening from one side of the opening and a secondary glazing frame insertable into the opening from the other side of the opening, said primary frame comprising a plurality of primary glazing strips connected at their ends to form a frame similar to the opening and each of said primary strips including a horizontal arm portion seating on the structure between the surfaces, and a vertical portion having a dependent flange abutted against the first of said surfaces and an upwardly extending portion, said secondary frame comprising a plurality of secondary glazing strips connected at their ends to form a frame similar to the opening and each of said secondary strips including a horizontal arm slidably seating on the horizontal arm of the primary glazing strip and a vertical portion having a dependent flange abutted against the second of said surfaces and an upwardly extending portion, a window pane between said frames, and means including opposed arm portions on said glazing strips above and parallel to said first arm portions for supporting said window pane, and cooperating frame locking means on the slidably related arms of said glazing strips for locking said frames and pane in and against removal from said opening.

2,871,525

DECORATIVE OUTSIDE FRAMED AWNING

Robert E. Butler, La Crosse, Wis.

Application August 15, 1955, Serial No. 528,147
3 Claims. (Cl. 20—57.5)



1. An awning of the class described comprising a frame having an inner and an outer end, means for anchoring the inner end of said frame to a building, said frame including spaced parallel forwardly and downwardly inclined side rails having upwardly and forwardly extending terminals defining flashing strip supporting elements in upward spaced relation to said rails, a top paneling sheet for said frame supported upon said rails, said top sheet having a downwardly extending flange overhanging and spaced from the outer end of said frame, a front panel sheet carried by the outer end of said frame in inward spaced relation to said downwardly extending flange of said top paneling sheet for directing air currents up under and in close proximity to the under face of said top sheet, said top sheet having an upturned rear flange spaced forwardly from the inner end of said frame to permit air currents to pass from an area in close proximity to the under face of said top sheet and to pass upwardly and over said rear flange, a flashing strip overhanging said upwardly and forwardly extending terminals in upward spaced relation to said rear flange, said flashing strip having a forward and downturned flange spaced forwardly with respect to said upturned rear flange defining an air current outlet therebetween, and said forward and downturned flange defining a weather shield in conjunction with said rear flange for the top sheet near the inner end of said frame.

2,871,526

POROUS CONTAINERS FOR THICKENED AIR ODOR CONTROL LIQUIDS

Jack J. Bulloff, Dayton, Ohio, assignor to Interstate Sanitation Company, Inc., Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application October 4, 1955
Serial No. 538,520
1 Claim. (Cl. 21—108)

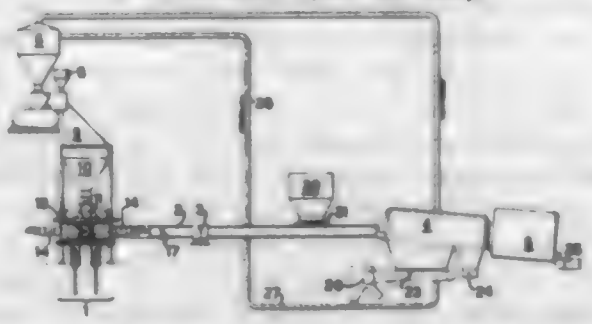
The combination consisting of an air odor control composition comprising optically active limonene as an active vaporizable constituent and having a consistency which varies from liquid to solid, and a dispenser for the composition, said dispenser being adapted to hold the air odor control composition in a condition of direct exposure to the air the odor of which is to be controlled, and being formed at least in part of a porous solid material of preselected wall porosity of approximately 35 micron average pore diameter and such that it permits diffusive transfer of the vapors of the active constituent of the air odor control composition directly therethrough to the air the odor of which is to be controlled at a steady uniform rate and without any substantial convective vapor transfer, when the dispenser containing the composition is exposed to conditions which would normally tend to induce convective transfer of the vapors of the active constituent.

2,871,527

METHOD OF AND MEANS FOR THE PRODUCTION OF CASTINGS

Charles Michael Geoffrey Wallwork, Hale, England, assignor of one-half to Henry Wallwork & Company Limited, Manchester, England, a British company

Application March 6, 1957, Serial No. 644,351
Claims priority, application Great Britain March 9, 1956
11 Claims. (Cl. 22—20)



1. A process for the production of castings comprising the steps of feeding moulding material into an open-

ended box, compressing the material in said box between opposed power-operated pattern plates to form moulds having complementary pattern impressions in their end faces, forcing the moulds successively out of the box into a channel in which they are a sliding fit, holding the moulds in the channel with their end faces in close contact, and pouring metal into the cavities formed by the cooperation of the complementary mould impressions in adjacent moulds.

2,871,528

METHOD OF AND APPARATUS FOR FORMING FRANGIBLE CASTING MOLDS

Lewis R. Schilling, Shaker Heights, Ohio, assignor to Kolcast Industries Inc., Cleveland Ohio, a corporation of Ohio

Application September 1, 1954, Serial No. 453,613
20 Claims. (Cl. 22—31)



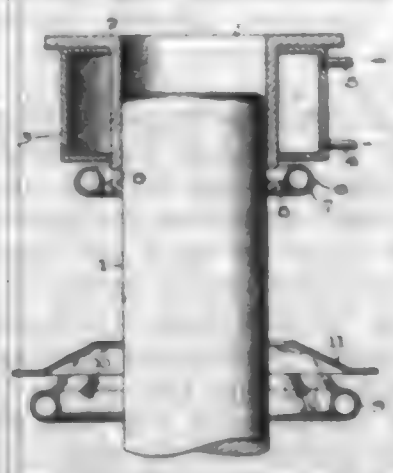
1. The herein described method of forming frangible refractory one piece casting molds which comprises forming a pattern of low melting point material, applying a covering layer of low melting point material on a carrier member that is of a size to overlie the major portion of one side of the pattern, joining said carrier to said pattern by means of spaced risers of low melting point material that are integrally joined to the pattern and to the covering layer on said carrier member, dipping said pattern and carrier member in a ceramic paste to invest the pattern and carrier in a shell of ceramic material, removing ceramic material from the side of the carrier member that faces away from the pattern, melting the material forming the pattern, the risers and the covering layer while the shell is supported with the carrier member below the pattern so as to drain the low melting point material past the carrier member and from the interior of the shell to free the shell from the carrier member, and baking said shell to form a frangible refractory mold having a casting cavity in the portion of the shell formed about the pattern, an open top pouring channel in the portion of the shell formed about the carrier member and gates connecting the pouring channel and casting cavity in the portion of the shell formed about the risers.

2,871,529

APPARATUS FOR CASTING OF METAL

Stanley A. Kilpatrick, Spokane, Wash., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

Application September 7, 1954, Serial No. 454,589
11 Claims. (Cl. 22—57.2)



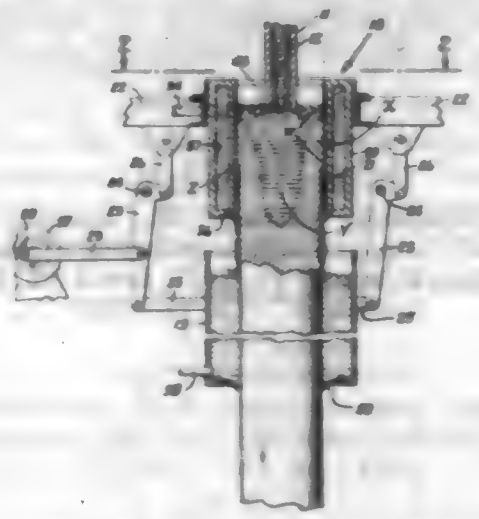
1. In apparatus for the continuous casting of metals comprising a mold shell, means for cooling said mold shell, means for applying coolant upon a casting emerging from said mold shell, the combination therewith of means positioned below said means for applying coolant to said casting for effectively removing said coolant at a substantially even level, said coolant removal means comprising a chamber for receiving gas, said chamber being provided with a plurality of gas jets for passage of gas therefrom, and at least one deflecting surface against which the gas issuing from said jets impinges upon, said deflecting surface being so constructed and arranged relative to the casting and the jets that the gas will be directed against the casting to effectively remove the coolant at a substantially even level.

2,871,530

CONTINUOUS CASTING MOLD, ITS MANUFACTURE AND USE

Hans C. P. Wieland, Ulm, Germany, assignor to Wieland-Werke A. G., Ulm, Germany, a corporation of Germany

Application September 12, 1955, Serial No. 533,590
2 Claims. (Cl. 22—57.2)



1. In a system for continuously casting metal, a mold comprising a metal supporting jacket adapted to be cooled by a fluid and a graphite liner defining a mold cavity within said jacket, said mold being thermally unconnected with the container holding the source of molten metal and so related to said container that the molten metal in the mold has its own free surface, said free surface being located a substantial distance below the upper edge of said liner, the area of greatest heat transfer from molten metal to jacket being intermediate the length of the liner and just below said free surface, the upper and lower ends of said graphite liner being, under casting conditions, comparatively cool as compared to said area of greatest heat transfer, the contacting walls of said jacket and liner being circumferentially continuous, the outer diameter of the liner before assembly being considerably larger than the corresponding inner diameter of the jacket to provide, after assembly, a severe compression fit; the severity of said fit being such that, under casting conditions, that portion of said graphite liner at said area of greatest heat transfer has reserve elastic expansive force and the immediately contacting portion of the jacket has reserve elastic contractive force, thereby providing a fluid-free, solid-to-solid contact at the interface between jacket and liner, said compression fit being more severe than that necessary to maintain, under casting conditions, a fluid-free, solid-to-solid contact at the interface between jacket and liner merely near the cooler ends of the liner.

2,871,531

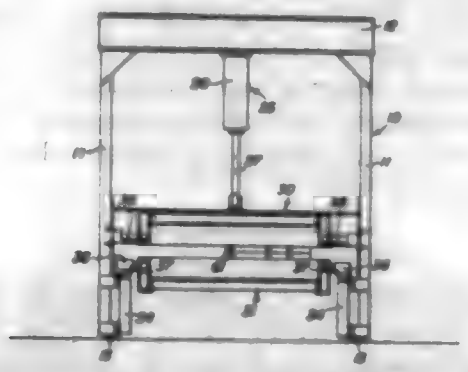
SHELL MOLDING APPARATUS

Theodore L. Burkland, Moline, Ill., assignor, by mesne assignments, to Deere & Company, a corporation of Delaware

Application June 1, 1954, Serial No. 433,385
5 Claims. (Cl. 22—90)

4. For use in the shell molding process, a mold shell clamping fixture comprising a pair of frames, means

forcing one of said frames toward the other, spring biased means carried along each of two opposite sides of each frame, at least one pair of rigid shell backing plates carried respectively by said frames, each plate having at least one pair of projections extending out-



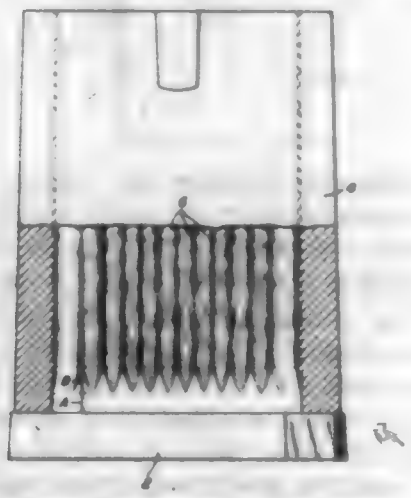
wardly from opposite ends of said plate and adapted to be engaged by said spring biased means and resiliently urged toward the other plate when the frames are closed, and guide means carried by each frame and engageable with said backing plate projections for holding the backing plates in position in the associated frames.

2,871,532

INGOT MOLD

Mark H. Gathmann, Chicago, Ill., assignor to United States Steel Corporation, a corporation of New Jersey

Application February 19, 1957, Serial No. 641,186
4 Claims. (Cl. 22—139)



1. A big-end-down ingot mold having an interior wall formed with vertical corrugations of substantially uniform dimensions, the interior wall of the mold being plain for a distance of at least four inches from its bottom with the surface thereof being in substantially the same plane as the bottom of the corrugations, the lower ends of said corrugations being gradually tapered downwardly and outwardly and merging into said plain wall.

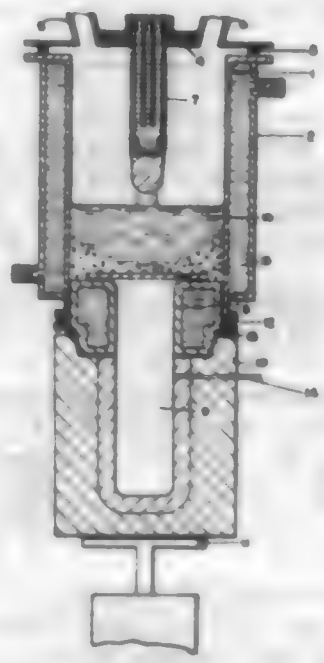
2,871,533

METHOD AND APPARATUS FOR MELTING AND CASTING OF HIGH MELTING POINT METALS OR ALLOYS

Eric Swainson, Sutton Coldfield, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

Application May 18, 1953, Serial No. 355,559
Claims priority, application Great Britain May 30, 1952
7 Claims. (Cl. 22—200)

1. A process for arc-melting and casting of high melting point reactive metals and alloys comprising introducing at least one small initial charge of solid raw material selected from the group consisting of high melting point reactive metals and alloys into a crucible having a bottom comprising in part a destructible plate of the same composition as the metal to be melted, applying an arc current sufficient to melt said initial charge but insufficient to melt said plate, decreasing said current to allow said initial charge to solidify to form a lining in said crucible, introducing a complete main charge of said solid raw material into said crucible, then applying an arc current to said complete main charge after it has been completely introduced into said crucible and arc-melting this charge and maintaining it in the molten condition so as to produce a pool of molten metal of sufficient quantity to



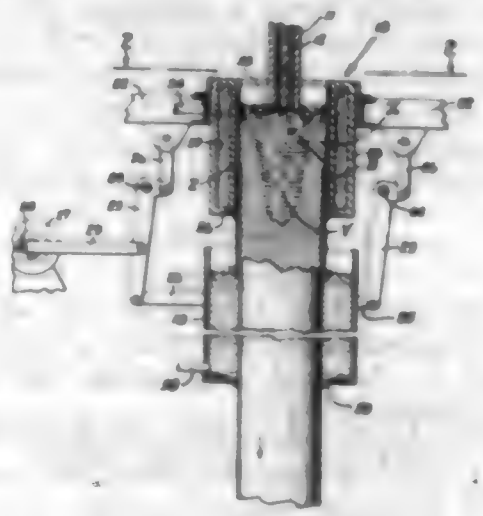
form a complete casting of predetermined size, thereafter increasing the arc current to melt a centrally disposed part of said destructible metal plate and that portion of said lining immediately above said part of said plate to form an aperture therein to permit escape of the molten metal from said crucible and flowing said molten metal into a mold.

2,871,534

METHOD OF CONTINUOUS CASTING

Hans C. P. Wieland, Ulm, Germany, assignor to Wieland-Werke A. G., Ulm (Danube), Germany, a corporation of Germany

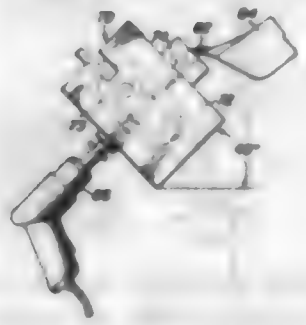
Application April 20, 1956, Serial No. 579,622
1 Claim. (Cl. 22—200.1)



The method of continuously casting phosphorized coppers in a mold, said mold having a solid graphite wall defining the mold cavity and an open top and an open bottom, said method comprising feeding the molten metal through a conduit into the top of said mold, withdrawing the congealed product from the bottom of the mold, intensively cooling the solid graphite wall and cooling said congealed withdrawn product, said feeding, withdrawing and cooling being at such rate that a top surface of molten metal is maintained in said mold above the lower end of said feed conduit, and the upper edge of the congealing crater shell is maintained in close proximity to said top surface, introducing, in particle form, solid discrete carbonaceous material to maintain an appreciable

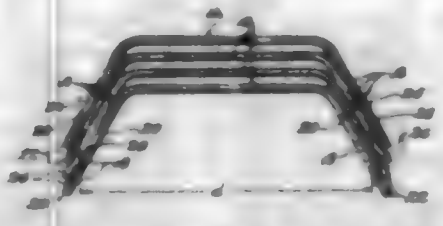
protective layer of such discrete carbonaceous material on said top surface of molten metal and that portion of the mold wall contacted by said carbonaceous material, and axially reciprocating the mold.

2,871,535
PERMANENT MOLD AND METHOD FOR MAKING CAST CHAIN LINK
John S. Nelson, Grand Island, N. Y.
Application October 2, 1956, Serial No. 613,412
1 Claim. (Cl. 22—216)



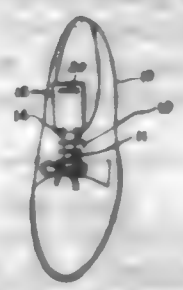
A method of making cast link chains of aluminum metal which comprises the steps of providing a permanent mold having complementary mold parts forming a chain link mold cavity having a plurality of spaced vents communicating with said mold cavity and pouring gate for introducing molten metal thereinto, establishing a source of molten aluminum metal from which the chain link castings are to be made, positioning said mold to receive molten metal, preheating the mold, tilting the mold to an angle to the vertical and along the longitudinal axis of said chain link mold cavity, pouring molten aluminum metal into the mold in a quiet undisturbed stream while simultaneously vibrating the mold to assist the molten metal to enter the cavities of the mold and displace occluded gases, thereafter cooling the mold and immediately after solidification of the molten metal opening the mold and removing the casting.

2,871,536
SEAL BLANK
William C. Childress, Oak Park, Ill., assignor to Signode Steel Strapping Company, Chicago, Ill., a corporation of Delaware
Application January 18, 1955, Serial No. 482,578
7 Claims. (Cl. 24—23)



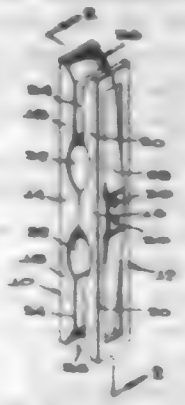
1. A metallic seal blank useful in forming a joint between overlapping metallic strapping portions and adapted to be nested with another and similarly formed seal blank, comprising a back plate to which is joined a pair of diagonally outwardly extending flanges along the side edges thereof, each flange having generally plane inner and outer faces, said inner face having a projection, and said outer face being formed with an arcuate slot therein the long dimension of which is substantially shorter than the length of said flange and the ends of which are inclined away from the outer longitudinal edge of the flange, said projections being adapted to engage in the slots of a second and similarly shaped seal blank with which said blank is nested, whereby said blanks will be held together until said blanks are moved relatively longitudinally when said projections sliding in said slots will disengage and separate said blanks.

2,871,537
FASTENER FOR LACED CLOSURES
Frederick R. Hickerson, Newton, N. J.
Application January 9, 1957, Serial No. 633,287
4 Claims. (Cl. 24—117)



1. A device adapted to be laced and tied with the lace of a shoe to enable the alternate loosening and tensioning of the lace in the lace eyelets of the shoe without untying the ends of the lace comprising a generally rectangular plate having a projection at one end thereof adapted to engage the shoe adjacent the eyelets during lacing while the plate is in a generally vertical position, and there being at least one aperture formed adjacent the opposite end of said plate for receiving the ends of the lace extended under tension out of the eyelets around the projection end of and along one side of said plate, said lace being tied with a knot against the other side of said plate and substantially concealed thereby when said plate is pivoted about the projection to horizontal position to maintain the tension of the laces.

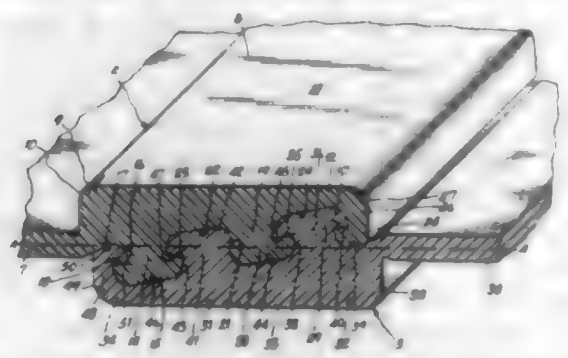
2,871,538
CLOTHESPIN
William D. Richardson, Monson, Mass.
Application May 4, 1956, Serial No. 582,708
1 Claim. (Cl. 24—137)



A clothespin comprising at least one pair of elongated clamping members disposed in face-to-face contact at least at one location along the length thereof; at least one pin headed at its opposite ends and extending transversely of the members at said location to rigidly connect the members to each other in said face-contacting relation, the heads at opposite ends of the pin being disposed in close proximity to the outer surfaces of said members at said location, said members extending in laterally spaced, normally parallel relation from a location adjacent their fixed connection, defining therebetween an elongated, article-receiving slot open at one end, said members having outer surfaces formed with shallow longitudinal recesses extending from the location of said connection to locations adjacent said one end of the slot, said recesses, at the second named locations, having end walls extending transversely of the respective members; and a pair of leaf springs one end of which is disposed in face-contacting relation to said outer surfaces of the members, at the location of said pin, said leaf springs being tightly clamped between said outer surfaces and the respective heads of the pin, so as to be fixedly anchored to the respective members at said one end of the leaf springs by the pin, said springs extending within the recesses and slidably contacting the members at the other ends of the springs,

the springs being tensioned at said other ends thereof to resiliently, yieldably oppose spreading of the members from their normal parallel relation, said other ends of the springs, in the normal relation of the members, being spaced longitudinally of the recesses from said end walls and moving toward the end walls into engagement therewith on spreading of the members, so as to limit the members against being spread beyond a predetermined extent.

2,871,539
EXTRUDED FASTENER
Allan O. Swan, Conneaut Lake, Pa., assignor to Talon, Inc., a corporation of Pennsylvania
Application May 22, 1956, Serial No. 586,572
6 Claims. (Cl. 24—201)



1. A fastening device of the class described comprising a pair of opposed elongated strips of flexible material, each of said strips having a web portion and a thickened marginal portion, said marginal portions overlapping one another and being substantially identical in cross section, each of said marginal portions having a relatively thick inner portion disposed directly next to their respective web portions and a relatively thin outer edge portion, each of said marginal portions having three spaced-apart, substantially parallel, longitudinally extending rib-like portions and three longitudinally extending channels arranged therealong, the depth and axis of said channels and rib-like portions being arranged angularly relative to the plane of their respective web portions, each of said rib-like portions having a head portion and a constricted neck portion, the cross section of said channels corresponding to the cross section of the respective rib-like portions, each of said rib like portions having a plane surface overhanging an adjacent channel, all of said plane surfaces being arranged substantially in alignment with each other and arranged angularly to the planes of the web portions but substantially perpendicular to said rib-like portions and said channels, the outermost rib-like portion of each marginal portion being substantially hook-shaped with the head portion thereof disposed in a channel arranged adjacent the web portion of the opposed marginal portion.

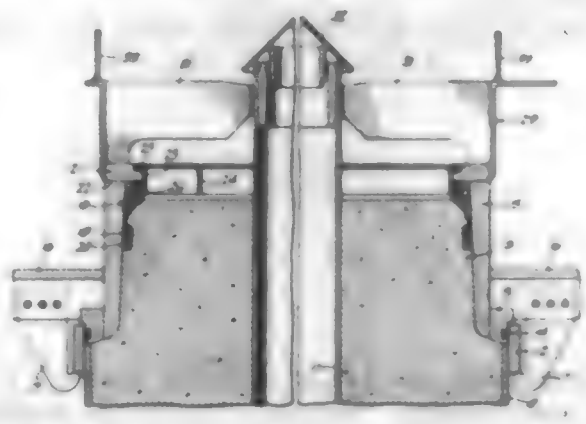
2,871,540
FISH LINE CONNECTOR
Charles C. Smith, Indianapolis, Ind.
Application March 8, 1954, Serial No. 414,599
1 Claim. (Cl. 24—237)

A fish line hook connector engageable with the eyelet of a hook and comprising a single piece of wire having an upper bend defining substantially a line attaching eye; a straight length of said wire extending from the eye into a lowermost V-bend and extending acutely from the bend by a second straight length terminating by an end intermediate said eye and said lower bend and spaced laterally from said first straight length; said wire extending by a leg in a straight line from said line eye diagonally downwardly therefrom and outwardly from said first straight length over and into contact with said end and thence through an obtuse angle bend downwardly by an arm extending in parallelism with and along the outside in compressive, yielding contact with approximately the entire length of said second straight length and terminating in an outturned end adjacent said V-bend; said wire lengths, bends, arm, leg, and ends lying in a common plane; whereby said connector and said hook may be engaged by entering said outturned end through the hook eyelet, forcing the hook eyelet along said arm passing therethrough, yieldingly spacing apart the arm and said second wire length and lifting said leg from against said second length end, moving the eyelet along the leg to clear said length end to allow the arm and second length



to spring back to longitudinal contact with and to cover over the length end, moving the eyelet back along both the arm and the second length with both passing through the eyelet, including said outturned end, to bring the hook eyelet finally to said V-bend from which the hook hangs normally; and whereby said connector and said hook may be disengaged by sliding said hook eyelet from the V-bend to have a side of the hook eyelet abut said outturned end and pass between said arm and said second length with the second length only then extending through the wire, and moving the hook eyelet along the second length to and beyond said outturned end.

2,871,541
MOLD FOR THE END OF CONCRETE PIPE AND THE LIKE
Kenneth E. James, Baldwin Park, Calif., assignor to United Concrete Pipe Corporation, Baldwin Park, Calif., a corporation of California
Application July 29, 1957, Serial No. 674,686
6 Claims. (Cl. 25—127)

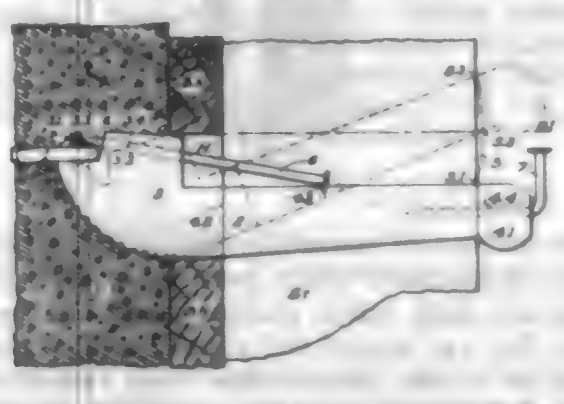


1. A vertical mold for concrete pipe and the like having at the top thereof an elastic coring ring arranged to core a circumferential groove on the exterior of the pipe, a split metallic ring engaging the top of the elastic coring ring and serving to hold the elastic coring ring against the walls of the mold.

2,871,542
SET-BACK CONCRETE-FORM TIE WITH RE-USABLE ANCHOR PIECES
Ed Berndal, Ellensburg, Wash.
Application July 12, 1954, Serial No. 442,681
6 Claims. (Cl. 25—131)

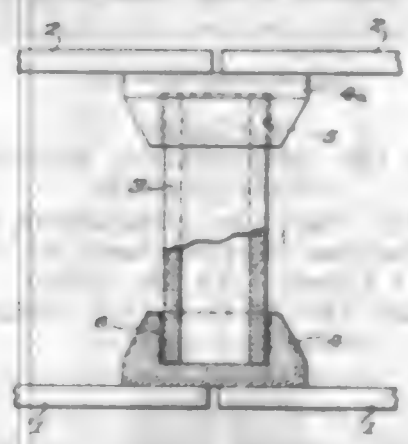
6. An anchoring device for attaching fixtures to concrete walls, said device having a primary member con-

sisting of a set-back link permanently embedded in the concrete, and a removable secondary member extending into the concrete and connecting with the said primary member: the portion of the said secondary member which extends into the concrete having substantially the form of a quadrantal sector of a circle, one of the two radial sides of the said sector lying substantially parallel to the surface of the concrete and the second



radial side of the sector lying at substantially a right angle to the surface of the concrete; said secondary member having a notch extending into it from the said second radial side, the inner side of the said notch being substantially parallel to the arc of the said sector, that portion of the sector lying between the said notch and the said arc extending through, and thereby engaging, one end of the said link.

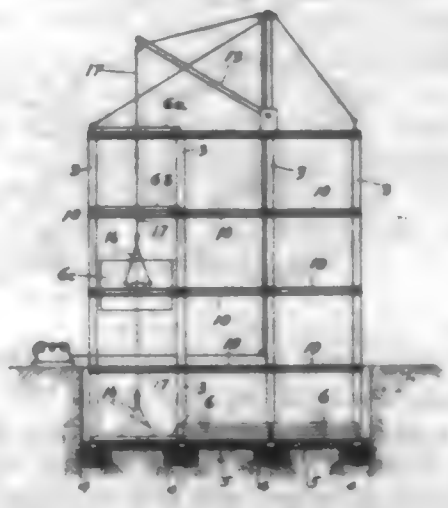
2,871,543
CERAMIC WARE SUPPORT FOR USE IN KILNS
George J. Easter, Buffalo, N. Y., assignor to Electro Refractories & Abrasives Corporation, Buffalo, N. Y.
Application May 20, 1955, Serial No. 509,747
8 Claims. (Cl. 25—153)



1. A ceramic ware support for use in kilns including a column of oxidic refractory material selected from the group consisting of alumina, aluminum silicate and fireclay, and supporting caps having portions which telescope about the ends of said column and confining said ends against splitting lengthwise thereof, said caps being made of refractory material having a tensile strength of at least 1000 p. s. i. at temperatures up to 2450 degrees F., said caps surrounding the said end laterally.

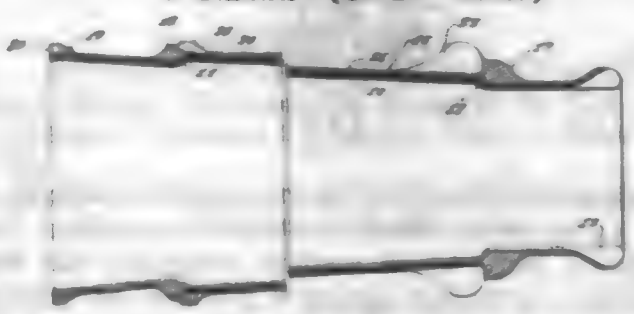
2,871,544
METHOD OF ERECTING BUILDINGS
Philip N. Youtz, Yorktown Heights, N. Y.
Application August 19, 1955, Serial No. 529,525
4 Claims. (Cl. 25—155)

1. The process of erecting a building having a steel frame composed of columns and horizontal floor supporting elements connecting said columns at various floor levels, which process consists in erecting said steel frame, some of the columns of which define a rectangular bay and some of the horizontal floor supporting elements of which bound said bay at various floor levels, pouring the ground floor of the building in said bay, pouring on the ground floor in said bay and within the limits thereof a reinforced concrete floor panel having the shape of the bay and of a size such that when it is raised to an upper floor level it can be placed in a horizontal position with its edges overlying and resting on the horizontal floor supporting elements that bound the bay at said upper floor level, shifting the position of said reinforced concrete floor panel from the horizontal position in which it was poured into a vertical position



extending diagonally of the bay, raising said floor panel in said bay to an upper floor level while it is in said vertical diagonal position and depositing it in a horizontal position on the horizontal floor supporting elements that bound said bay at said upper floor level and with the edges of said floor panel overlying and resting on the horizontal floor supporting elements which bound the bay at said floor level.

2,871,545
HIGH VOLTAGE CAPACITOR
James O. Weldon, Dallas County, Tex.
Application July 2, 1957, Serial No. 669,581
9 Claims. (Cl. 29—25.42)

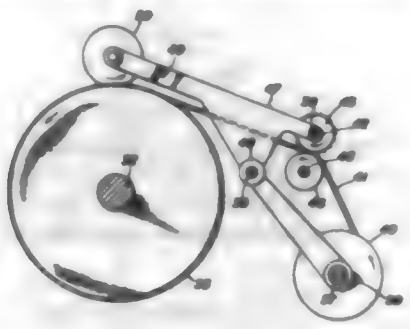


1. The method of making a capacitor which comprises the steps of winding on the outer surface of a smooth metallic member an insulating tape which shrinks lengthwise when heated, said tape being wound in a sufficient number of layers over the entire active capacitor area to provide a thickness greater than the desired final thickness of the capacitor insulation, baking the tape-wound member at temperatures which are increased gradually to the vicinity of several hundred degrees Fahrenheit, gradually cooling the baked member, machining the baked insulation to desired dimensions and coating the insulation with metal.

2,871,546
APPARATUS FOR FABRICATING POROUS WALLS FOR CONTROLLED FLOW DIRECTION AND POROSITY
Earl W. Conrad, Berea, Ohio
Original application September 16, 1953, Serial No. 380,628, now Patent No. 2,785,878, dated March 19, 1957. Divided and this application August 10, 1956, Serial No. 603,457
2 Claims. (Cl. 29—35)
(Granted under Title 35, U. S. Code (1952), sec. 266)

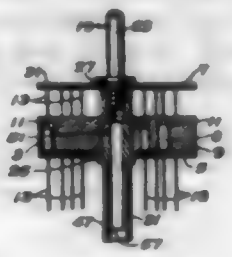
1. In an apparatus for making tubular walls for heated conduits comprising a rotatable drum, means for rotata-

bly supporting said drum, a screw shaft mounted on said drum support and extending parallel to the axis of the drum, a threaded slide member movable along said screw shaft, a spider member with projecting arms mounted on said slide member, a strip supply reel secured to one arm of said spider member, a strip securing means secured to another arm of said spider member and lying adjacent the outer periphery of said drum, and means



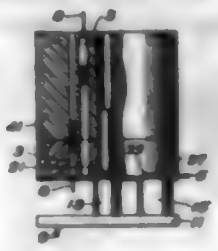
for rotating said drum and screw shaft whereby a strip may be helically wound on said drum with its edges in overlapping relation by rotating the drum with one end of the strip attached thereto and at the same time advancing the slide member, reel and securing means along the simultaneously rotating screw shaft, and progressively fastening the overlapped strip portions together with said securing means.

2,871,547
METHOD OF ASSEMBLING ELECTRONIC COMPONENTS
James E. Huggins, Jr., Fayetteville, N. Y.
Application April 15, 1955, Serial No. 501,754
16 Claims. (Cl. 29—155.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



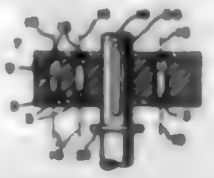
1. The method of assembling into a unit a plurality of electrical components which have leads extending from their opposite ends, which method comprises the steps of providing a catacomb having a plurality of openings of greater diameter than that of said components and disposed parallel to each other and extending therethrough, providing first and second end plates for said catacomb having openings therethrough of a size smaller than said components and larger than said leads and correspondingly located with respect to said catacomb openings, supporting said catacomb substantially in contact with and above said first plate, inserting the electrical components into said catacomb openings with the respective leads of those components to be associated with said first end plate extending through the openings in that plate, supporting said second end plate with the openings thereof in a position to receive the leads of those components to be associated therewith, moving said catacomb away from said first end plate substantially into contact with said second end plate, inverting the assembly of said end plates, said catacomb and said components, vibrating the component leads associated with said second end plate to facilitate their insertion through the openings in that plate, moving said first end plate substantially into contact with said catacomb and fastening said component leads to the respective end plate associated therewith, thereby to form the unit with the components disposed within said catacomb and with the component leads extending through the openings in said end plates.

2,871,548
METHOD OF ASSEMBLING ELECTRONIC COMPONENTS
John J. Pisani, Haddonfield, N. J.
Application April 15, 1955, Serial No. 501,755
7 Claims. (Cl. 29—155.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. The method of assembling into a unit a plurality of electrical components which have leads extending from their opposite ends, which method comprises the steps of providing first and second end plates having a plurality of openings of a size smaller than said components and larger than said leads therein, supporting said first end plate substantially in a horizontal position, providing means for supporting the components above said first end plate in spaced apart, parallel relation, mechanically positioning and inserting those leads of the components to be associated with said first end plate through the openings in that plate while supporting the components with said support means above that plate, attaching the leads extending through said first end plate openings to that end plate, removing said support means, bringing said second plate into a position where its openings are each aligned with a corresponding unattached component lead, moving said second plate into engagement with the free ends of the longer of said components, and attaching said last mentioned leads to said second end plate thereby to provide a unit with the components supported in spaced apart, parallel relation between two end plates.

2,871,549
METHOD OF ASSEMBLING ELECTRICAL COMPONENTS
Albert E. Arnold, Jr., Moorestown, N. J.
Application June 29, 1955, Serial No. 519,010
6 Claims. (Cl. 29—155.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. The method of assembling a plurality of electrical components which have leads extending from at least one end thereof into a unit, which method comprises the steps of providing a catacomb having a plurality of openings of larger diameter than that of said components and disposed parallel to each other and extending therethrough, providing first and second end plates for said catacomb having openings therethrough correspondingly located with respect to said catacomb openings, supporting said catacomb above said first end plate with the openings thereof aligned, inserting the electrical components into said catacomb openings while threading the component leads to be associated with said first end plate through the openings in that plate, supporting said second end plate above the component leads to be associated therewith with the openings aligned to receive those leads, moving said catacomb away from said first end plate substantially into contact with said second end plate while maintaining the component leads within the openings in said first end plate, moving said first end plate upwardly substantially into contact with said catacomb thereby to thread the component leads associated with said second

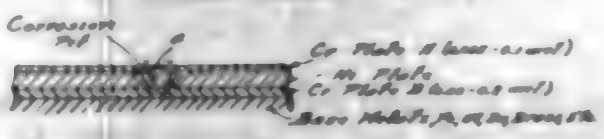
end plate through the openings in that plate and to dispose the components within said catacomb openings, and attaching said leads to the end plates associated therewith.

2,871,550

COMPOSITE CHROMIUM ELECTROPLATE AND METHOD OF MAKING SAME

Max Weinberg, Detroit, and Henry Brown, Huntington Woods, Mich., assignors to The Udylite Research Corporation, Detroit, Mich., a corporation of Michigan

Application January 10, 1958, Serial No. 708,267
18 Claims. (Cl. 29—183.5)



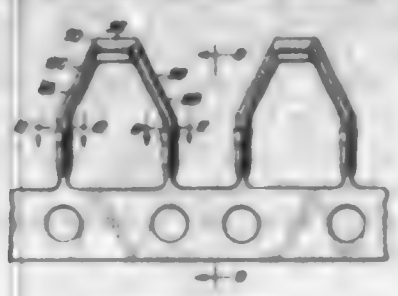
1. A laminated corrosion-protective final coating on a metal base susceptible to atmospheric corrosion comprising a layer of chromium having a thickness in the range of about 0.03 to about 0.2 mil, nickel overlying said chromium and adherent thereto and having a thickness in the range of about 0.2 mil to about 2 mils, and chromium overlying said nickel and adherent thereto and having a thickness in the range of about 0.005 mil to about 0.1 mil.

2,871,551

CHAIN OF COMBINED TERMINAL AND SUPPORT MEMBERS FOR ELECTRICAL ELEMENTS

Thomas R. Harris, Arlington Heights, Ill., assignor to Malco Tool & Mfg. Co., Chicago, Ill., a partnership

Application October 19, 1955, Serial No. 541,372
2 Claims. (Cl. 29—193.5)



1. A chain of combined terminal and support members for electrical elements comprising a perforated strip of electrically conducting material, a plurality of combined terminal and support members formed integrally with and extending laterally from said strip in spaced relation to each other, each said terminal and support member including an elongated flat shank portion having a longitudinally disposed strengthening rib formed therein and extending substantially the entire length of the shank portion, the shank portions of each pair of adjacent terminals being disposed in offset parallel planes and forming a temporary holding fixture for an electrical element to be sunbsequently permanently secured thereto, an integral substantially tubular base portion, said base portion being outwardly flared at its end connected with said shank portion to provide an end diameter greater than the width of said shank portion and to provide a conical area of contact adapted to be seated in a circular opening in a printed circuit board, the opposite end of said base portion being inwardly tapered toward the outer extremity thereof to form a tapered nose substantially smaller in diameter than the diameter of said circular opening, said base portion being longitudinally split to form a longitudinal slot of substantial width to allow resilient contraction of the circumference of the base portion when inserted into said circular opening, and a severable tongue integrally connecting the base portion of each of said terminal and support members to said strip adjacent said tapered nose.

2,871,552

WELD METAL DEPOSITS AND ARC WELDING ELECTRODES FOR PRODUCING THE SAME

Tore Mans Ivan Nortn, Goteborg, Sweden, assignor to Elektriska Svetsningsaktiebolaget, Goteborg, Sweden, a corporation of Sweden

No Drawing. Application March 19, 1956
Serial No. 572,194
Claims priority, application Sweden May 10, 1946
10 Claims. (Cl. 29—194)

1. A metal article having a metal deposit welded thereto, said deposit comprising a precipitation hardening, substantially carbon free alloy of the type Fe–Co–M, in which M signifies metal from the group consisting of tungsten, molybdenum, tantalum and niobium, the cobalt content of said alloy being not less than 3% by weight and not more than the amount Co_{max} indicated by the formula

$$Co_{max} = 100\% - \frac{40W + 35Mo + 25Nb + 25Ta}{W + Mo + Nb + Ta}\%$$

in which formula the chemical signs W, Mo, Nb and Ta represent the individual percentages by weight of the respective metals in the alloy, the content of metal selected from the group consisting of tungsten, molybdenum, tantalum and niobium being not less than 4% by weight and not more than consistent with the formula

$$W + \frac{8}{7}Mo + \frac{8}{5}Nb + \frac{8}{5}Ta = 40\%$$

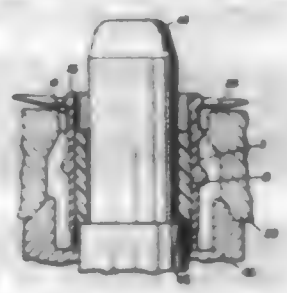
in which the chemical signs W, Mo, Nb and Ta represent the individual percentages by weight of the respective metals in the alloy, the aggregate content of cobalt and of the group comprising tungsten, molybdenum, niobium and tantalum not exceeding 95%, the balance of the alloy being principally iron.

2,871,553

METHOD OF MAKING A CONTAINER

Alfred Binder, Chicago, Ill., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

Application December 13, 1956, Serial No. 628,828
5 Claims. (Cl. 29—451)



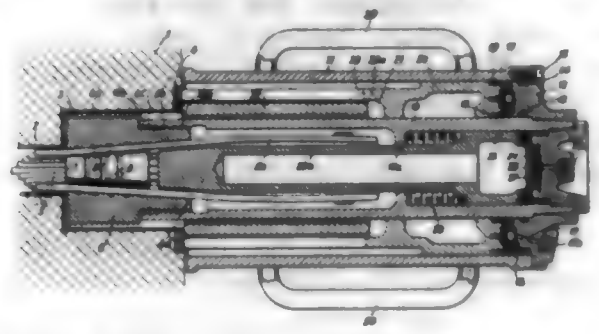
1. A process for making a container composed of a metallic can body, a metallic bottom seamed to one end, a metallic top having a rimmed circular opening therein seamed to the other end, and a non-metallic spout, comprising the steps of (1) substantially axially aligning (*a*) a resiliently deformable plastic nozzle having a tubular body with substantially non-tapering inner walls and a flange at one end of a diameter larger than that of said circular opening and capable of passing therethrough upon application of deforming force, and (*b*) said metallic container, in flange-to-rimmed circular opening relationship, (2) applying force in an axial direction to deform said plastic and move said flange through said opening to lock therebehind, and thereafter (3) telescoping within said nozzle a retaining ring adapted to be frictionally retained within said nozzle and to prevent substantial deformation of the nozzle in the region of said flange.

2,871,554

METHOD FOR POST-TENSIONING THE REINFORCING OF A PRESTRESSED CONCRETE STRUCTURE

Erwin Siegfried, Zollikofen, Switzerland, assignor to Losinger & Co. A. G., Bern, Switzerland

Application June 6, 1955, Serial No. 513,462
Claims priority, application Switzerland June 16, 1954
4 Claims. (Cl. 29—452)



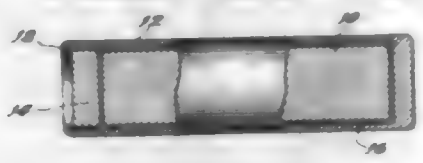
1. In a method for tensioning and anchoring the reinforcing wires of a prestressed concrete structure, of the kind in which the terminal ends of the reinforcing wires are wedged between a conical funnel and a conical wedge of an anchoring head, whereafter such anchoring head is connected to one part of a jacking device with another part thereof being adapted to rest on the structure, the anchoring head then being jacked and a nut being screwed onto the anchoring head, to rest on the structure as soon as the jacking device is released; the improvement consisting of making the reinforcing wires with such a length and wedging them in the anchoring head at a predetermined distance from one of their ends, that they present end portions protruding from said anchoring head by said distance; passing the jacking device over these end portions and connecting it to the funnel, and, subsequently to the release of the jacking device and its disconnection from the anchoring head, bending said wire end portions outwardly and embedding them in concrete to form a supplemental anchorage.

2,871,555

METHOD OF JACKETING FISSIONABLE MATERIALS

Luther M. Foster, Providence, R. I., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application March 4, 1947, Serial No. 732,342
5 Claims. (Cl. 29—474.3)



1. In a process including the steps of bonding a body of metal to the interior surface of a metal container and thereafter welding a closure member over the open end of the container, the steps of electroplating onto the internal surface of the container adjacent the open end a metal which is impervious to the bonding material before the bonding operation, and chemically removing said electroplate before the welding operation.

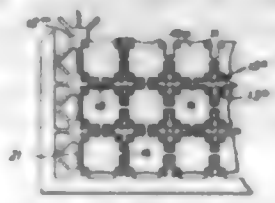
2,871,556

METHOD OF MAKING MESH FABRIC

Alpin Chisholm, Attleboro, Mass., assignor to Bugbee & Niles Company, North Attleboro, Mass., a corporation of Massachusetts

Application February 28, 1955, Serial No. 490,896
2 Claims. (Cl. 29—513)

1. That method of making a flexible mesh fabric of the kind wherein independent plates of sheet material are flexibly joined by links of sheet material, said method comprising as steps forming from a length of sheet material embryo plates with coupling elements and with narrow integral bridges of the sheet material joining the embryo plates, forming from a second length of sheet material embryo links with coupling elements which are interengageable with the coupling element of the embryo plates formed in the first sheet and with narrow integral bridges connecting the embryo links, assembling the connected plates with the connected links so that a con-



necting link is situated between each pair of plates, flexibly joining each pair of adjacent plates to the link between them by interengaging the coupling element of the plates and links and thereafter separating the plates from each other and the links from each other by removing the integral bridges between the plates and the links, leaving the plates and links united only by the interengaged coupling elements therebetween.

2,871,557

PROCESS OF MAKING DROP-FORGINGS

Bruno Tarmann and Rudolf Obauer, Kapfenberg, Steiermark, Austria, assignors to Gebr. Bohler & Co. Aktiengesellschaft, Vienna, Austria

No Drawing. Application July 12, 1954
Serial No. 442,934
Claims priority, application Austria July 24, 1953
2 Claims. (Cl. 29—528)

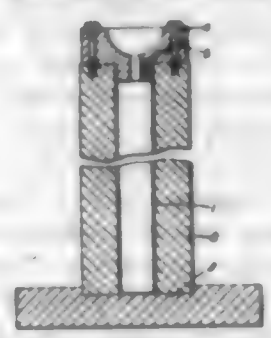
1. A process of making drop forgings, which comprises forming a steel ingot by continuous casting in the absence of mechanical pressure while passing said ingot through several zones of cooling which are individually controlled to effect a slow cooling of the ingot during solidification in order to obtain a fine-grained solid structure suitable for drop-forging, and drop-forging the ingot thus obtained between dies causing the material of the ingot to flow in all directions under pressure, without any intermediate working of the steel.

2,871,558

SHEATHING URANIUM

Eric Wincarls Colbeck, Northwich, England, assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application July 2, 1946, Serial No. 681,119
1 Claim. (Cl. 29—528)

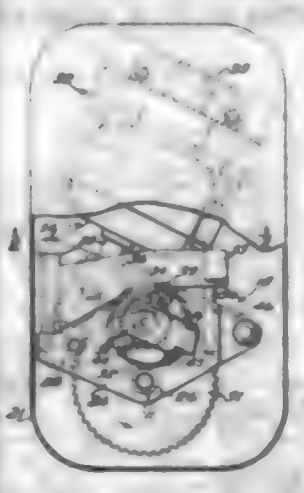


A method of forming a conveniently handled corrosion resistant uranium article, comprising pouring molten uranium into an open-ended corrosion resistant metal container in which the metal is selected from the group consisting of copper and its alloys, aluminum, and austenitic-nickel stainless steel, covering the exposed surface of the cast uranium with a metallic packing material, sealing the container in contact with substantially the entire exposed surface of said packing material, and then mechanically working said article to reduce the cross section thereof.

2,871,559
ELECTRIC CAN OPENER

Bernard Klassen, Fremont, Calif., assignor to Klassen Enterprises, Inc., Hayward, Calif., a corporation of California

Application July 15, 1957, Serial No. 671,867
12 Claims. (Cl. 30—4)



1. An electric can opener comprising a can drive wheel, an electric motor having an energizing switch and connected to rotate said can drive wheel, a cutter pivotally mounted with a normal position displaced from said can drive wheel and an actuated position overlying and adjacent same, control means for operating said motor switch, and spring means pivoting said cutter from normal to actuated position in wedging relation to the lid of a can on said wheel upon operation of said control means whereby wheel rotation causes said cutter to pierce the can lid and sever same.

2,871,560
DISPOSABLE RAZOR WITH REINFORCED HEAD

Robert M. Eberhaugh, Charleston, W. Va.

Application May 3, 1954, Serial No. 427,291
2 Claims. (Cl. 30—47)



1. A razor comprising a head and a tubular handle integrally formed of flexible sheet material, and a blade having a cutting edge secured to said head, said head having a pair of parallel elongated apertures and having a reverse fold along a single fold line at one side edge thereof between said apertures to register the apertures and to constitute an integral folded head of double thickness for confining said blade between said thicknesses, said blade projecting at its cutting edge through one of said apertures adjacent the line of fold of said head, said handle constituting a hollow tube integrally connected to said head by a transverse fold line, and a pair of angularly extended tab members formed integrally with said handle and secured to the under surface of said folded head to rigidify the razor structure.

2,871,561
DOUBLE EDGE SAFETY RAZOR WITH BALL BEARING CLAMPING MEANS

Bernard Gavrin, Bayside, N. Y.

Application June 20, 1956, Serial No. 592,546
3 Claims. (Cl. 30—65)

1. A safety razor comprising a guard adapted to be juxtaposed to the underside of a double-edged blade having a plurality of central, longitudinally spaced slots, said guard having raised guard ribs along its longitudinal edges, a pair of laterally spaced rib portions defining a central, longitudinally extending groove and laterally extending end walls at each end of the groove, a cover plate adapted to be juxtaposed to the upper side of the blade, said cover plate overlying the guard and provided with a central portion having its longitudinal edges spaced inwardly from said guard ribs to expose the blade's cutting edges, and a pair of laterally extending leg portions at each end thereof, said leg portions extending across the width of the guard and secured thereto adjacent said end walls so that the cover plate is secured to the guard in fixed, spaced relation, said leg portions providing bearing surfaces for engagement with the blade's corners, a rod disposed in said groove, connecting pins secured in said end walls and the ends of said rod for eccentrically mounting the rod for movement toward and away from

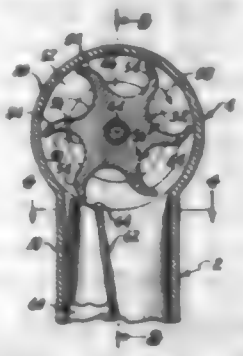


said cover plate, said rod having a toothed segment midway of its length, a series of ball bearings arranged side by side in and along said groove and rotatably disposed on said rod, said ball bearings being dimensioned to extend partially into said blade slots and to engage the portions of the blade adjacent the slots to thereby center the blade on the guard, said ball bearings providing a track for the blade as it is inserted between the guard and the cover plate, a handle depending from said guard, a bore provided in the handle leading into said groove midway of the groove's length, a shaft disposed in said bore having a toothed segment in meshing engagement with said rod toothed segment so that movement of the shaft imparts blade clamping and unclamping movement thereto, whereby movement of the shaft to blade clamping position will cause said ball bearings to be pressed against the blade and clamp the corners thereof against said leg portions.

2,871,562
ROTARY DENTAL TOOL

George R. Kern, Arlington, Va., assignor to Bowen & Company, Inc., Rockville, Md., a corporation of Delaware

Application January 9, 1957, Serial No. 633,311
6 Claims. (Cl. 32—27)



1. In a rotary dental tool, a handpiece comprising; a generally cylindrical hollow casing having a rotor journalled therein for rotation about the axis of said casing, an end of said rotor extending outwardly of an end of said casing and having means for mounting a tool thereon, a tubular handle extending transversely of the axis of said casing, the interior of said tubular handle

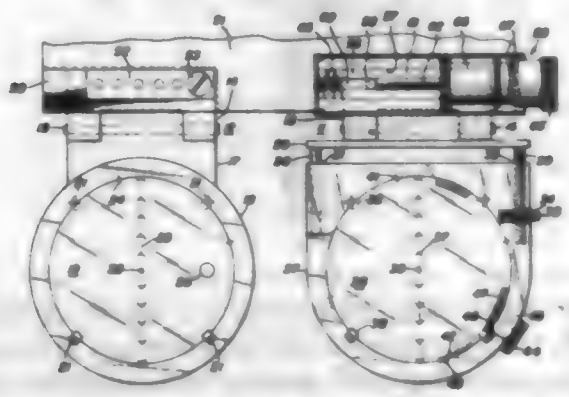
communicating with the interior of said casing and being of a diameter, at the point of communication with the interior of said casing, nearly as great as the interior diameter of said casing, said rotor being provided with spaced tangentially extending vanes defining between them tangentially directed open pockets, a small tube occupying only a minor portion of the transverse area of said handle extending along one side of the interior of said tubular handle and terminating in a nozzle portion directed generally tangentially of said rotor and into the said open pockets thereof.

2,871,563

ROTATING PLATES FOR PARALLAX MEASUREMENT

Donald W. Sawyer, Washington, D. C., and Arthur C. Lundahl, Bethesda, Md.

Application October 28, 1954, Serial No. 465,451
5 Claims. (Cl. 33—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



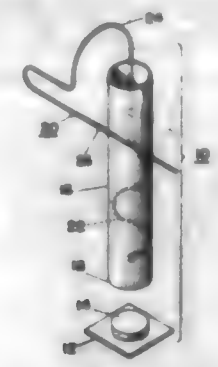
1. Parallax measurement apparatus for use in the interpretation of aerial photographs comprising a pair of similar plate assemblies adapted to be attached to a stereoscope, each of said assemblies including a circular transparent plate having a graduated center line thereon, a frame rotatably supporting said plate, and means for mounting said frame on a stereoscope; means for rotating at least one of said plates to thereby produce a parallactic difference between corresponding graduations on the plates, a scale on an edge of said one plate, and a vernier scale on the frame contiguous to said scale for measuring the amount of the plate rotation to provide an indication of said parallactic difference.

2,871,564

SKIRT GAGE

Joseph F. Bauman, Oradell, N. J.

Application March 31, 1958, Serial No. 725,033
7 Claims. (Cl. 33—9)



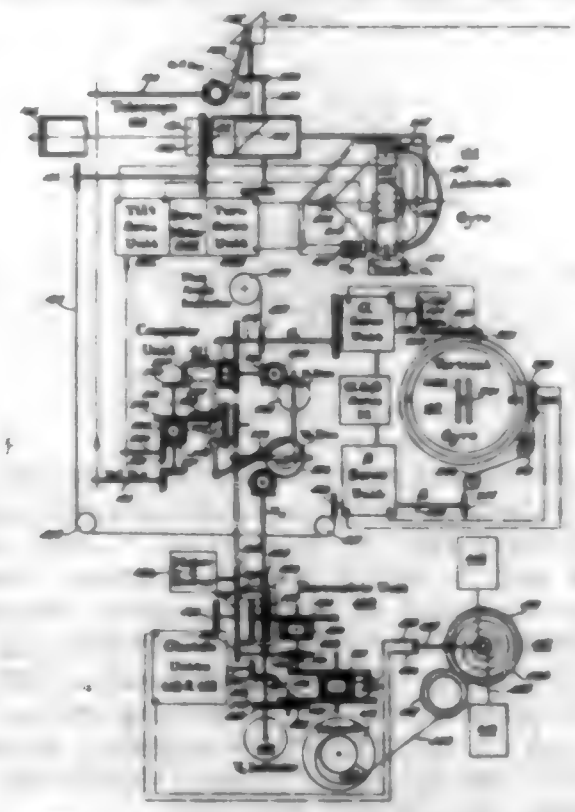
1. A skirt gage including a base, a hollow tube projecting perpendicularly upwardly from said base, and a wire gage member, the bottom portion of said wire gage member being bent, said bent bottom portion of said wire gage member being frictionally engaged with the inner wall surface of said tube, the upper portion of said wire gage member projecting from the top of said tube, with the free end of said upper portion of said wire gage member being horizontally disposed.

2,871,565

AIMING ANGLE SIGHT

Theodore H. Barth, New York, N. Y., assignor to the United States of America as represented by the Secretary of the Navy

Application April 25, 1942, Serial No. 440,543
25 Claims. (Cl. 33—46.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



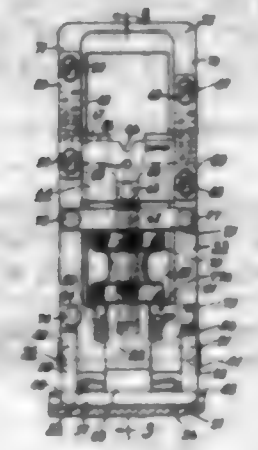
1. A collision track bomb sight for use in diving aircraft, comprising an optical system, a first gyroscopic means, a second gyroscopic means, a barometric means, a computer means, the line of sight from the eye of the bomb-sight operator to the target passing through the field of view of said optical system, said optical system having in the line of sight thereof a rotatable and tiltable entrance prism, means in the field of view of said system forming a pair of complete cross-lines and a pair of incomplete cross-lines, said first gyroscopic means having a rotor, means controlled by said first gyroscopic means for stabilizing said complete cross-lines in azimuth, means controlled by the movements of said aircraft for precessing the rotor of said first gyroscopic means to follow said movements, an overcontrol means including a means controlled by the movements of said aircraft for turning and tilting said entrance prism, said overcontrol means causing a change in the direction of said line of sight opposite to that caused by movements of said aircraft, said second gyroscopic means having a rotor, the spinning axis thereof being adjustable to the vertical, means controlled by the movements of said aircraft relative to said spinning axis for positioning said incomplete cross-lines, a dive angle indicating means, a vertical velocity indicating means, an altitude indicating means, means controlled by the movements of said aircraft relative to said spinning axis for supplying the angle of dive of said aircraft to said computer means and to said dive angle indicating means, said barometric means being responsive to changes in atmospheric pressure and supplying the vertical velocity of said aircraft to said computer means, and said vertical velocity indicating means and the altitude of said aircraft to said altitude indicating means, said computer means solving for the rate of tilting of said entrance prism for trajectory compensation and for trail compensation, means controlled by said computer means for tilting said entrance prism at said rate, and a locking means for each said gyroscopic means, the movements of the longitudinal and athwartships axes of said aircraft being indicated by relative displacements of said incomplete cross-lines relatively to said complete cross-lines.

2,871,566

SIGHT SYSTEM FOR FIREARMS

Allen L. Everitt, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 12, 1956, Serial No. 597,466
5 Claims. (Cl. 33—58)



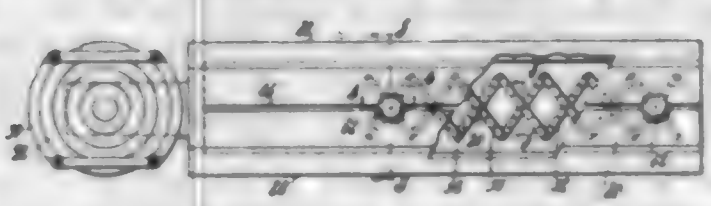
1. A sight for a firearm having a receiver portion including, a base slidable transversely of said receiver portion, an elevation post secured to said base, an elevation frame secured to said elevation post, a sighting member slidably engaged with said frame, a graduated elevation scale adjustably secured to said frame comprising a longitudinally bowed spring, and means to effect vertical movement of said sighting member.

2,871,567

NAVIGATIONAL PLOTTING INSTRUMENT

Ray J. Casten, Natick, Mass.

Application March 31, 1954, Serial No. 420,154
2 Claims. (Cl. 33—75)



1. A navigational instrument comprising a ruler having a shallow enclosed cavity extending longitudinally therein and a longitudinally slot in the top face of said ruler opening into said cavity and extending from end to end of said ruler, a lazy tongs structure in said cavity comprising a series of cross jointed links, means for supporting and releasably locking the ends of said lazy tongs to the ruler, said means consisting of a spring pressed clamping device attached to each end of the lazy tongs and extending up through said slot, each said device being operable against the pressure of its spring to release the corresponding end of the lazy tongs for movement along the ruler.

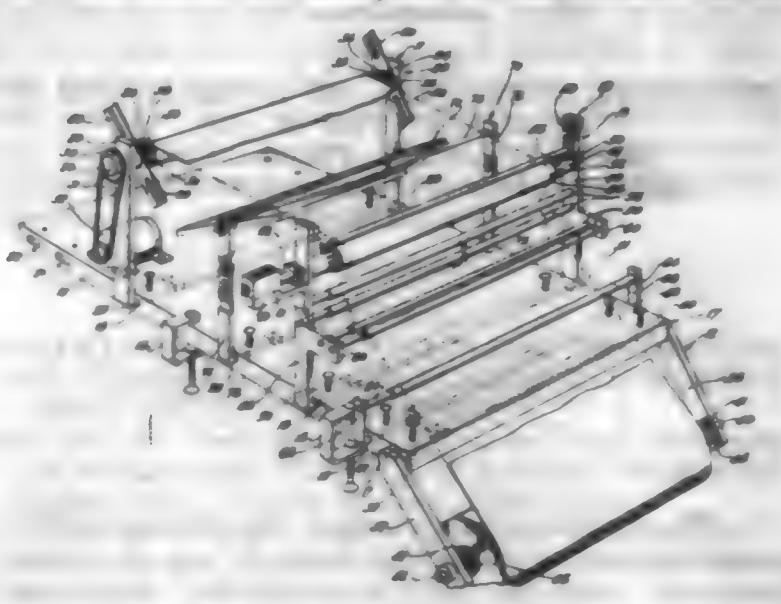
2,871,568

PORTABLE ROLL AND MEASURE MACHINE

Jack M. Bien, Los Angeles, Calif.

Application September 14, 1956, Serial No. 609,942
7 Claims. (Cl. 33—129)

6. A machine for rolling and measuring dry goods material comprising: a manually portable base having a plurality of laterally disposed receptacles therein; two upright supports detachably connected to said base and normally disposed at one end thereof in opposing relationship; chuck means rotatably mounted in each of said upright supports, said chuck means being capable of supportingly engaging reels, cylinders and boards; drive means for rotating the chuck means in one of said upright supports; two roller supports connected to said base in opposing relationship; coacting extendible rollers mounted between said roller supports, said rollers frictionally engaging said material as it is rolled therebetween; means connected to said rollers for indicating the quantity of material rolled thereby; and foot portions attached to all of said supports and adapted to be inserted into said base receptacles, said foot portions being slidable in said



receptacles and thereby laterally extendible with respect to said base, and being quickly removable from said receptacles without the use of tools for repositioning of said supports on said base and, when desired, disassembly of said machine.

2,871,569

METHOD AND APPARATUS FOR WINDING CONES WITH EQUAL THREAD LENGTHS

Theodoor W. Gettenbeck, Ede, Netherlands, assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware

Application December 14, 1955, Serial No. 553,129
Claims priority, application Netherlands December 17, 1954
8 Claims. (Cl. 33—136)

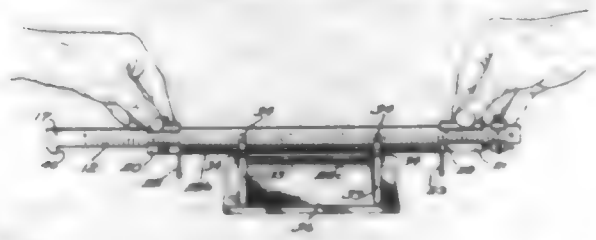


4. In a machine which is provided with interruptable drive means and equipped to wind a thread package upon a cone, means connected to support said cone and rotate therewith, means connected to continuously deflect as a dimension of said thread package increases, means connected to meter the number of revolutions of said support means, means mounted upon said metering means to interrupt said drive means in response to the occurrence of a preset number of revolutions, and means interposed between said support means and said metering means to change the rate of counting revolutions, said interposed means operative only in response to detection of a preset dimension of said thread package by said deflecting means.

7. The method of winding a predetermined length of thread on a cone which comprises applying successive layers of thread upon said cone up to a predetermined diameter while simultaneously counting the number of times that the cone supporting spindle revolves, accelerating the rate of counting the spindle revolutions during the interval following the attainment of the prede-

termined diameter while simultaneously applying additional layers of thread, and terminating the application of thread to said cone as soon as said spindle has described a predetermined number of revolutions.

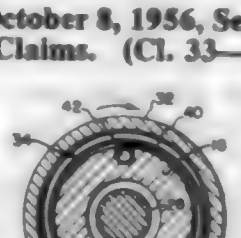
2,871,570
DIMENSION AVERAGING OF OVERLENGTH BY UNDERLENGTH SCALE
George E. Sorensen, Cheshire, Conn.
Application June 4, 1956, Serial No. 589,215
11 Claims. (Cl. 33—143)



1. The method of ascertaining the spacing between unmarked centers of parallel holes by use of a single continuous scale of half value reading dimensional graduations whose usable length is shorter than substantially twice the center spacing to be ascertained which comprises, stepping off forwardly from a beginning graduation on said scale a first span determined by the distance in a straight line between two points in the boundaries of respectively different holes thereby to arrive at a relay point on said scale, stepping off forwardly from said relay point on said scale a second span determined by the distance in said straight line between two other points in the boundaries of said respectively different holes reduced by a known dimensional constant thereby to arrive at an ultimate reading on said scale of a smaller dimension than the center spacing to be ascertained, and adding to said ultimate reading a dimensional value equal to one-half the dimensional value of said known constant thereby to obtain a correct evaluation of said center spacing.

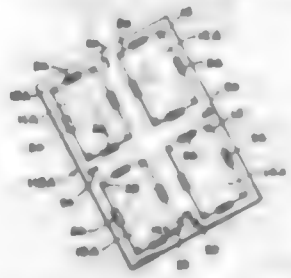
11. A fixture for use in the setting of dimension averaging instruments of the beam caliper type having a thin straight scale beam with work calipering legs projecting edgewise therefrom, comprising in combination, a plurality of straight spacer rods, a rack having within the body thereof a plurality of rod supporting seats on which said rods may rest respectively in side by side parallel relationship, said seats being of size and shape to leave bare substantially the whole of both ends of the rods and further to leave bare rectilinear surfaces of said rods extending from one to the other of said ends whereby to give the edge of said instrument beam access into close parallelism with said rectilinear rod surfaces while the legs of the instrument contact the ends of the rod for setting said instrument in accurate accordance with the length thereof.

2,871,571
FRICTION THIMBLE
William P. Metevia, Athol, Mass., assignor to The L. S. Starrett Company, Athol, Mass., a corporation of Massachusetts
Application October 8, 1956, Serial No. 614,543
4 Claims. (Cl. 33—164)



1. A friction thimble comprising in combination a cylindrical member having a concentric portion of reduced diameter, a tubular sleeve disposed rotatably and concentrically on said member, and a spiral spring disposed about the said reduced diameter portion of the member within and in resilient frictional engagement with said sleeve and having a bead on its inner end disposed within a recess in said member and laterally of its longitudinal axis and anchoring the spring to the member, said bead being of circular form and the spring extending tangentially therefrom about said reduced diameter portion of the member.

2,871,572
PHOTO COMPOSING
Ernest R. Gutzmer, Hinsdale, Ill., assignor to Intercompany Corporation, Chicago, Ill., a corporation of Illinois
Application June 14, 1957, Serial No. 665,838
8 Claims. (Cl. 33—184.5)



1. In a group composition for producing registered sets of color printing plates, the method of producing multiple subject color separation assemblies which consists in forming correspondingly located primary register openings in a layout sheet and a plurality of transparent carrier sheets allocated respectively to the different colors to be printed, locating said sheets in a stacked registered relation as determined by the primary register openings therein with one of said carrier sheets on top of the stack and said layout sheet in a face-up relation, said layout sheet having layout markings and areas thereon allocated to the respective subjects to be included in the assemblies, locating and securing registered sets of color separation transparencies pertaining to the individual subjects on the top of the stack in accordance with the layout markings and in the areas allocated to the respective subjects, forming a plurality of final registry openings through each set of transparencies and the stack, separating the carrier sheets and the transparencies, locating the transparencies pertaining to each other on and in the related subject areas of the carrier sheets allocated to the respective colors, positioning the transparencies on such carrier sheets as determined by the final register openings of the carrier sheets and transparencies, and securing the transparencies in such positions on the respective carrier sheets to produce related multiple subject color separation assemblies in which the corresponding color separation transparencies pertaining to the several subjects are identically located with respect to each other and with respect to the primary register openings in the carrier sheets.

2,871,573
ANGLE MEASURING INSTRUMENT
Abraham W. Schenker, New York, N. Y.
Application March 7, 1956, Serial No. 570,039
4 Claims. (Cl. 33—207)



1. An angle measuring instrument for use in connection with physical rehabilitation treatment, said instrument comprising a circular base plate, a transparent ring of semi-circular cross-section placed with its open side upon

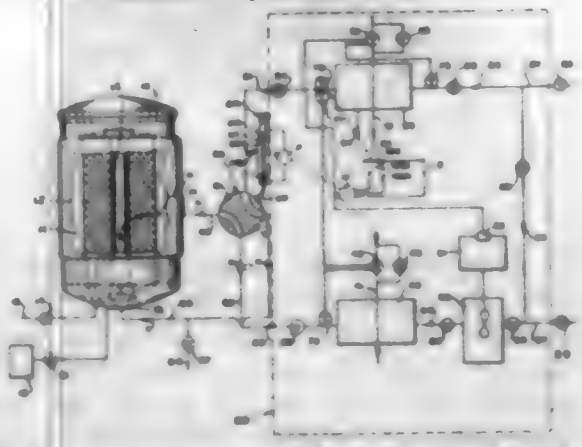
said base plate to form a closed annular channel, a liquid filling said circular channel except for a gaseous bubble freely movable in the channel, a cover disc disposed upon the closed side of the ring concentric therewith and the base plate so as to leave an annular gap between the disc and the plate, and fastening means joining the base plate, the ring and the cover disc, said fastening means permitting rotation of the disc relative to the ring, and said disc having thereon a peripheral scale calibrated in degrees disposed in juxtaposition with said gap for indicating the position of the bubble relative to the scale.

2,871,574

DRIER APPARATUS

Alfred Friedrich Bernhard Thies, Coesfeld, Germany

Application December 13, 1955, Serial No. 552,883
Claims priority, application Germany March 21, 1951
3 Claims. (Cl. 34—54)



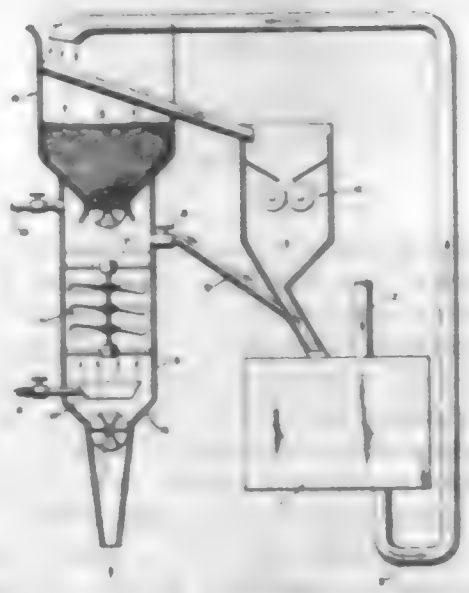
1. A drier apparatus comprising, in combination, a closed receptacle defining a chamber and having spaced opening means each placing said chamber in communication with the exterior thereof; conditioning means having inlet and outlet means and including a blower, a heater and a moisture extractor in cascade connection, with said heater being nearer to said outlet means than said moisture extractor, for moving a gaseous drying medium from said inlet means to said outlet means while at least partially extracting moisture from the gaseous medium, thereby at least partly drying the same, and thereafter heating the thus-dried gaseous medium; connecting means in communication with said opening means of said receptacle and with said inlet and outlet means of said conditioning means for placing said receptacle and said conditioning means in closed circuit communication with each other, said connecting means being movable between a first position wherein said inlet means of said conditioning means is in communication with one of said opening means of said receptacle and wherein said outlet means of said conditioning means is in communication with the other of said opening means of said receptacle, and a second position wherein said inlet means is in communication with said other opening means and wherein said outlet means is in communication with said one opening means; and temperature-responsive operating means located at said inlet means of said conditioning means and connected to said connecting means for maintaining the same in one of its positions while the temperature of the gaseous medium entering said conditioning means is below a predetermined temperature, for moving said connecting means to the other of its positions when the temperature of the gaseous medium entering said conditioning means attains said predetermined temperature, for maintaining said connecting means in its other position while the temperature of the gaseous medium entering said conditioning means is equal to at least said predetermined temperature but is below a predetermined higher temperature, and for moving said connecting means back to its one position when the temperature of the gaseous medium entering said conditioning means attains said predetermined higher temperature, whereby an at least partly dried and heated gaseous drying medium may be passed through said receptacle in one direction while the temperature of the gaseous medium entering said conditioning means is below said predetermined temperature, in the opposite direction when the gaseous medium entering said conditioning means is equal to at least said predetermined temperature but is below said predetermined higher temperature, and again in said one direction when the gaseous medium entering said conditioning means attains said predetermined higher temperature, thereby drying a material within said chamber of said receptacle.

2,871,575

APPARATUS FOR THE PNEUMATIC TREATMENT OF GRANULAR MATERIALS, PARTICULARLY FERTILIZERS

Paul Dupont, Paris, France, assignor to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey, Paris, France

Application February 10, 1956, Serial No. 564,799
Claims priority, application France February 12, 1955
1 Claim. (Cl. 34—57)



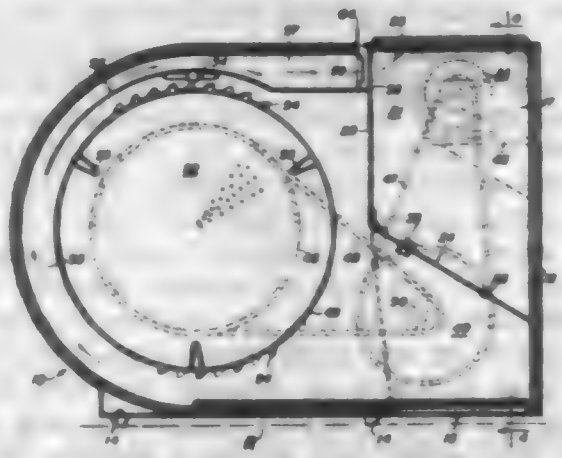
Apparatus for making fertilizer comprising a granulator, a coarse screen, means to transfer fertilizer granules from the granulator to the coarse screen, means to crush the gross particles from the coarse screen, means to recycle crushed material, means to transfer the granules that have passed through the screen to the top of a column, means to agitate the granules in the column, means to insufflate the column with air, means to discharge material from the bottom of the column, and means to recycle the fines from the top of the column.

2,871,576

CLOTHES DRIER

Tom D. Ranney, Girard, Kans.

Application October 24, 1955, Serial No. 542,416
9 Claims. (Cl. 34—87)



6. A clothes drier comprising a portable, unitary casing including a clothes drying compartment and an open

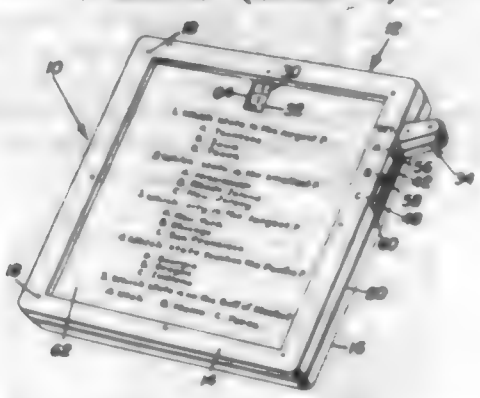
flue having a common wall therewith and adapted to be operatively positioned over a burner of a range, a clothes receptacle rotatably mounted in said compartment, a door pivoted to said common wall of said casing and adapted to alternately close said compartment and said flue to heated gases from said burner, power means mounted in said casing for rotating said receptacle, and heat conduction means positioned in said casing under said receptacle and extending over said burner to furnish additional heat to said receptacle.

2,871,577

QUESTION AND ANSWER DEVICE USING MULTIPLE ROTATING DISCS

Hollie M. Davis, River Edge, N. J.

Application April 10, 1953, Serial No. 347,962
3 Claims. (Cl. 35—9)



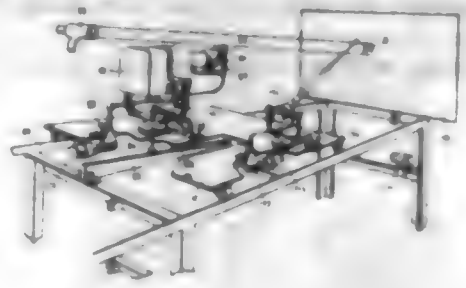
1. A teaching machine for use with multiple answer question sheets, said machine comprising a supporting frame including a rear wall, a shaft secured to said rear wall and extending through said frame generally normal to said rear wall, a first disk rotatably journaled on said shaft in overlying relation to said rear wall, a second disk rotatably journaled on said shaft in overlying relation to said first disk, a spacer disposed intermediate said first and second disks and retaining said disks in spaced relation, said second disk being of a smaller size than said first disk whereby a peripheral portion of said first disk is exposed below said second disk, said frame including a front wall overlying said second disk, a window in said front wall, said window being aligned with said first disk peripheral portion and a peripheral portion of said second disk, numerical indicia on said first disk peripheral portion visible through said window indicating the total number of answers given, other numerical indicia on said second disk peripheral portion visible through said window indicating the number of the question to be answered, a lever disposed generally within the plane of said frame and extending transversely of said frame intermediate said first disk and said second disk, connecting means between an edge portion of said frame and one end of said lever mounting said lever for pivotal and sliding movement generally longitudinally of said lever, the other end of said lever projecting beyond said frame and serving as a handle for actuating and positioning said lever, means on said frame cooperating with said lever for indicating an answer to a question by positioning said lever with respect to said frame, a first finger on said lever facing towards said lever at one end and projecting into engagement with said first disk, said first disk having a series of circumferentially spaced openings with one of said openings being aligned with said first finger at all times whereby when said lever is moved to the answer indicating position said first disk is rotated to advance said first mentioned numerical indicia one number in said window to indicate that an answer has been given, a second finger on said lever facing in an opposite direction from said first finger and projecting into engagement with said second disk, said second disk having a plurality of circumferentially spaced, radially staggered openings corresponding to the position of said second finger when said lever is in a correct answer indicating position whereby when said lever is moved out of a correct answer indicating position preparatory to indicating a next answer said second disk is rotated to advance said other numerical indicia one number in said window to indicate that a next question is to be answered.

2,871,578

APPARATUS FOR TRAINING AIR PILOTS IN SHOOTING

Jacques Faisandier, Chatillon-sous-Bagneux, France

Application December 8, 1952, Serial No. 324,698
Claims priority, application France December 18, 1951
25 Claims. (Cl. 35—10.2)



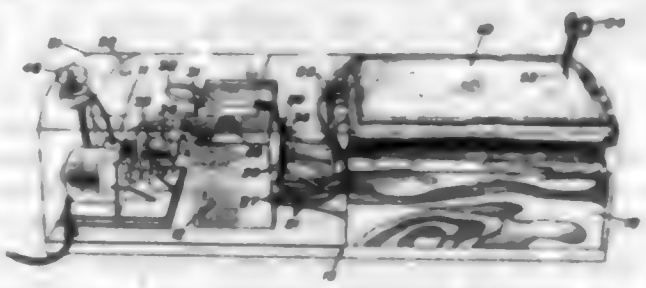
1. In an apparatus for gunnery training for pilots flying planes having fixed guns, in which the image of a target model and a representation of the fixed elements of space are projected onto a screen directly in front of the student pilot, and having means for imparting to said representation a motion corresponding to the imaginary relative motion of the imaginary plane controlled by the student pilot in relation to said fixed elements of space, as a function of the movements of the student controls effected by the student pilot, the provision of means for imparting to the image of the target model variations of size and of appearance and a motion corresponding to the imaginary relative positions of flight of the imaginary plane controlled by the teacher pilot in relation to said fixed elements of space and to the movements of the imaginary plane controlled by the student pilot, as a function of the movements of the teacher controls effected by the teacher pilot and of the student controls effected by the student pilot.

2,871,579

SURGICAL BODY-MEMBER SIMULACRUM FOR TEACHING FIRST AID

John V. Niinaren, Bethesda, Md., and Paul H. Tanner, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Navy

Application May 31, 1956, Serial No. 588,584
5 Claims. (Cl. 35—17)
(Granted under Title 35, U. S. Code (1952), sec. 266)

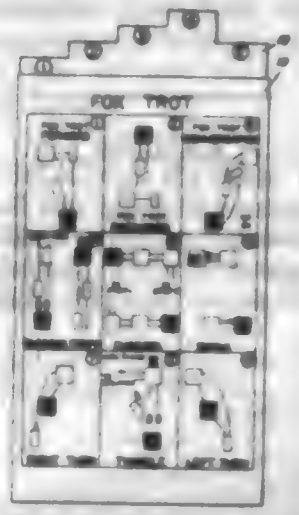


1. A teaching device comprising a simulacrum of a living body-member having therein flexible conduits for containing a liquid simulating blood, a supply tank connected to said conduits for supplying said liquid, pressure producing means connected to said tank for imparting pressure to said liquid, and an on-off valve joined intermediate said supply tank and at least one of said conduits for producing a simulated pulse-beat therein.

2,871,580
DANCE INSTRUCTION DEVICE

Russell H. Samdahl, San Jose, Calif., assignor to George W. Ferrand, Madison, Wis.

Application June 21, 1956, Serial No. 592,962
2 Claims. (Cl. 35—29)

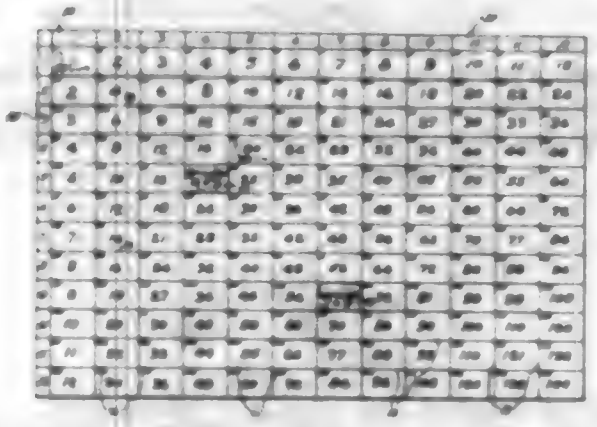


1. A device for indicating sequential podal positions in dancing, comprising a first member having delineated thereon the designations of a plurality of dance step sequences and a plurality of quadrilateral windows disposed in groups so that a group is associated with each such designation, having also delineated thereon lines connecting said windows and indicating suitable sequential relationships between the windows in each such group, a second member slidably disposed adjacent the rear surface of said first member provided with a plurality of rectangularly extended portions disposed in stepwise relation at one end thereof and having disposed on the surface thereof adjacent said first member a plurality of pedal-position indicating indicia comprising footprint symbols, said extended portions arranged to be successively forced into adjacency with an edge of said first member to thereby cause said second member to slide under said first member and to bring said pedal indicia in sequential order into registered relation with windows in each of said groups.

2,871,581
MATHEMATICAL GAME

George P. Guzak, Chicago, Ill.

Application August 1, 1956, Serial No. 601,521
10 Claims. (Cl. 35—31)

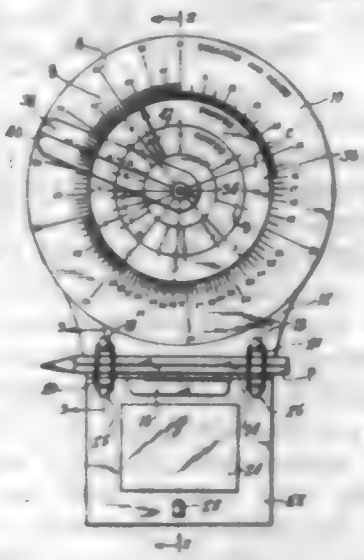


5. A mathematical game comprising a rectangular game board, a series of numbers arranged along two intersecting edges of said game board, said series commencing at said intersecting corner, said game board being divided into a number of squares, each of said squares being in alignment with a number from each of said series arranged along said game board edges, removable game pieces disposed on each of said game board squares, each of said game pieces having the product of the two numbers with which the game board square on which positioned is in alignment disclosed on the bottom surface thereof, each of said game pieces having the two numbers with which the game board square on which positioned is in alignment disclosed on a top surface thereof, and means for providing by chance two numbers arranged along the edges of said game board whereby the players of the game are required to locate the square on the game board in alignment with the two numbers on the edges provided by chance prior to removal of the game piece therefrom.

2,871,582
COMBINED WRITING PLATE AND PRICE CALCULATOR

Bernard M. Frank, Hollis, N. Y.

Application January 6, 1955, Serial No. 480,235
1 Claim. (Cl. 35—64)

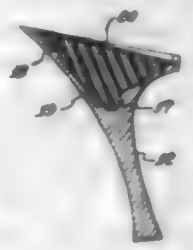


A device of the kind described comprising a disc-shaped base plate for supporting calculating devices thereupon, a plate member below said base plate and forming an extension thereof, said plate member having a surface for writing thereupon, hinge means of connection between the base plate and plate member, said means of connection including struck out tabs along the meeting edges of the base plate and plate member, rubber bands tensioned about the tabs, an outstruck tab on the base plate midway its ends, an outstruck tab on the plate member at its opposite edge, said last named tabs on the base plate and plate member being spaced closely apart when the plate member is folded about its hinge axis against the back of the base plate in order to receive a rubber band tensioned thereabout, and a tongue outstruck from the base plate and disposed in a plane offset from the main plane of the base plate constituting an abutment for limiting movement of the plate member away from its folded position beyond a position in which it is coplanar with the base plate.

2,871,583
CAST ALUMINUM HEEL WITH PLASTIC FILLER

Jack H. Cooper and Theodore Freistat, Los Angeles, Calif., assignors to Great Western Heel Co., Inc., Los Angeles, Calif., a corporation of California

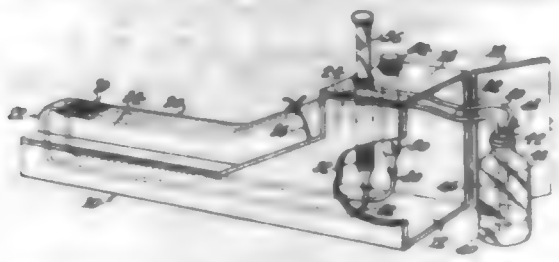
Application February 21, 1958, Serial No. 716,796
3 Claims. (Cl. 36—40)



1. A heel for attachment to a shoe comprising an aluminum casting forming a hollow shell; a plurality of ribs cast in said shell extending across said shell and upstanding from the bottom of said shell; a filler in said

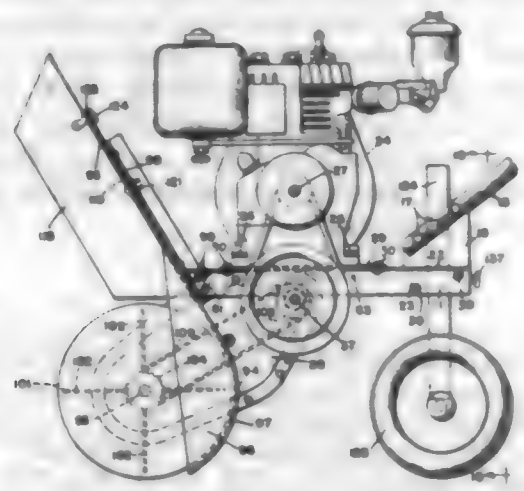
shell to form a heel seat; said filler being a plastic which upon curing is capable of receiving and holding nails for securing said heel to a shoe.

2,871,584
INTRAVENOUS THERAPY TRAINING AID
Marcus W. Poole, United States Army
Application March 25, 1957, Serial No. 648,447
5 Claims. (Cl. 35—17)
(Granted under Title 35, U. S. Code (1952), sec. 266)



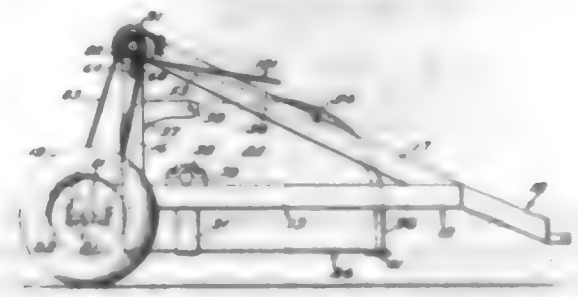
4. An intravenous therapy training aid comprising a base, a box-like structure mounted on one end of said base and having top and side walls, a member shaped to simulate a human arm mounted on said base, one end of said member abutting a side wall of said structure, a flexible conduit simulating a human vein disposed along said member, a skin-like membrane covering said member and said conduit, a syringe having an output end and a plunger mounted in the other end rigidly supported by said top wall in a vertical position, the output end thereof being disposed within said structure above said base, means connecting said conduit with the output end of said syringe for fluid flow therebetween, a drainage bottle containing a fluid simulating human blood, and means connecting said conduit to said bottle for fluid flow therebetween, said drainage bottle being so disposed with respect to said syringe that upon operation of said plunger, fluid is drawn into said syringe to a level which results in reverse flow back through said conduit into said bottle when the plunger is released.

2,871,585
MOTOR POWER UNIT
Albert B. Merry and Paul F. Hastings, Spokane, Wash.
Application May 16, 1956, Serial No. 585,249
6 Claims. (Cl. 37—43)



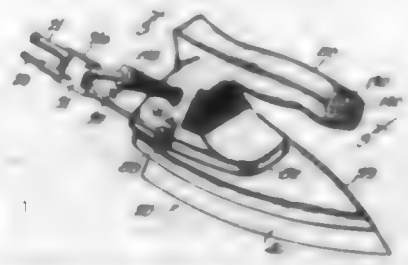
1. A motor power unit for operating a yard implement and comprising a frame, a motor mounted on said frame and having a drive shaft, an elongated case extending in an up and down direction, pivot means acting between the upper end of said case and said frame and supporting said case for swinging movement from a first position to a second position relative to said frame, means for locking said case in various positions, a countershaft rotatably mounted in said case and concentric with said pivot means, a power transmission between said motor shaft and said countershaft, a driven shaft rotatably mounted in the lower end of the case and extending transversely of said case and a power transmission within said case and driving said driven shaft from said countershaft, said driven shaft having a shaft extension extending laterally outwardly beyond said case, said case when in its first position being disposed with said shaft extension forwardly of said motor and frame to receive and drive a rotatable yard implement, and when in its second position being disposed with said shaft extension rearwardly of said motor proper to receive and drive a traction wheel.

2,871,586
EARTH MOVER AND DUMPER
Laurie Neilson, Orinda, and Robert E. Stevens, Lafayette, Calif.
Application August 10, 1953, Serial No. 373,313
2 Claims. (Cl. 37—132)



1. Earth moving equipment comprising a longitudinally extending frame, an axle mounted on said frame and having ground engaging wheels thereon, a bucket, means pivotally securing said bucket to said frame along a transverse axis disposed rearwardly of the center of gravity of said bucket, a transversely disposed drive shaft, means for rotating said drive shaft upon rotation of said axle, a drum member axially aligned with said drive shaft and having flexible means wound therearound and attached to said bucket forwardly of its center of gravity, a clutch element carried by said drum member, a second clutch element carried by said shaft, an actuating rod, link means interconnecting said rod and one of said clutch elements, said rod being normally positioned to maintain said clutch elements in disengaged relation, and cam means for axially moving said rod and urging said clutch elements into engagement whereby said drum will be rotated upon movement of said wheels over the ground in a forward direction and said flexible means will be reeled upon said drum to pivot the forward portion of said bucket upwardly.

2,871,587
PRESSING IRON
Ivar Jepson, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application November 12, 1954, Serial No. 468,454
19 Claims. (Cl. 38—77)



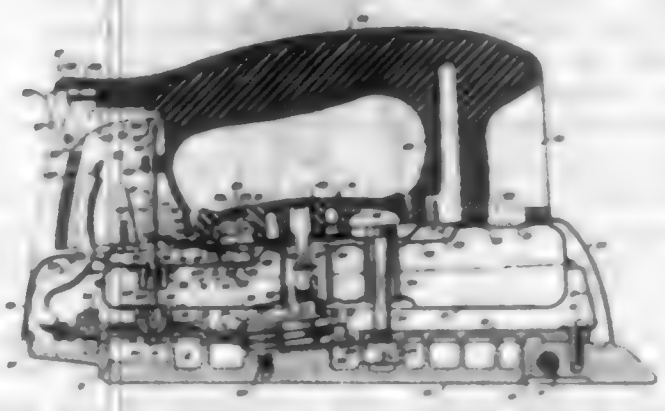
1. A pressing iron comprising a sole plate, an electric heating element disposed in heat exchange relationship with said sole plate, a handle of somewhat L shape having one arm of the L connected to said sole plate toward the rear of said sole plate and the other arm extending forwardly over said sole plate whereby the major portion of said sole plate may be inserted into ruffles, pockets or the like without interference from said handle, means defining a chamber at least a portion of which is in said handle, thermal-responsive control means disposed in said chamber for controlling the temperature of said sole

plate, manual means for selectively controlling the setting of said thermal-responsive control means comprising a knob forming an extension of said other arm and rotatable about the longitudinal axis thereof, a rotatable shaft within said other arm and extending generally along the longitudinal axis thereof, means for drivingly connecting said knob with one end of said shaft, and means for connecting the other end of said shaft with said thermal-responsive control means.

2,871,588
ELECTRIC IRONS

Warren A. Humphrey, Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application January 26, 1955, Serial No. 484,138
2 Claims. (Cl. 38—77)



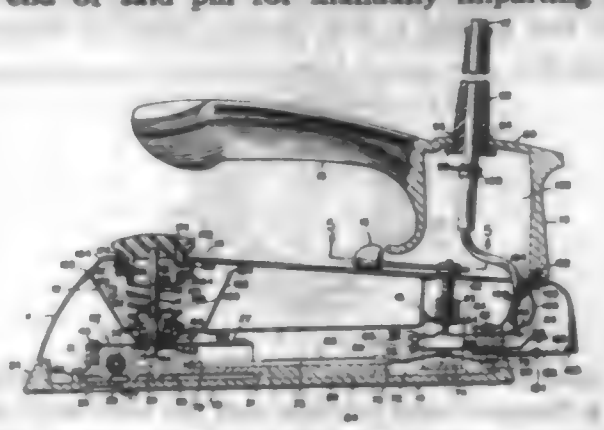
1. A steam iron comprising means forming a steam generator, a liquid reservoir having an outlet to said generator, a valve mounted for movement in opposite directions for opening and closing said outlet, valve control means including a dial movable to open and closed valve positions, cam means on said dial representing open and closed positions of said valve, overcenter means connected to said valve and arranged with respect thereto when shifted to opposite sides of its dead center to exert its force on said valve in opposite directions to move said valve to open and close said outlet, means connecting said overcenter means to said cam means on said dial to effect movement by said cam means of said overcenter means to said opposite side of dead center upon moving said dial to its open and closed valve positions to thereby shift said valve to open and close said outlet, and lever means engageable with said valve when the latter is in its open position and also engageable with a supporting surface for rotating said lever means to exert an axial force on said valve and move the latter to its closed position as the iron is moved toward a non-ironing position, and said overcenter means arranged with respect to said lever means to yieldingly resist the axial force applied by movement of said lever means to effect closing of said valve.

2,871,589
ELECTRIC IRON

Fred C. Schwaneke, Chicago, Ill., assignor to Dormeyer Corporation, Chicago, Ill., a corporation of Illinois

Application January 24, 1956, Serial No. 560,990
8 Claims. (Cl. 38—77)

1. In an electric steam iron having a sole plate, a heater, a housing secured to said sole plate and a handle having an upstanding hollow support post affixed to the rear of said housing, an extension cord extending substantially vertically through said post into electrically connected relation with said heater, means for securing said cord in said post, a thermostat secured to said sole plate having an adjustment pin for effecting changes in temperature settings for said iron, said thermostat being disposed at the rear of said iron and said pin extending upwardly into said handle post in axial alignment therewith and a horizontally extending lever secured to the upper end of said pin for manually imparting angular

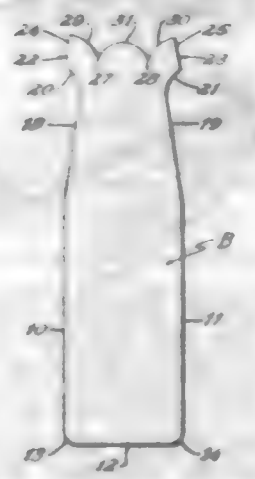


rotation thereto, said post having a laterally extending slot for receiving said lever therethrough.

2,871,590
IRONING BOARD COVER

John B. Delander, St. Paul, Minn.

Application November 5, 1956, Serial No. 620,267
3 Claims. (Cl. 38—140)



1. An ironing board covering cloth material for fabrication into an ironing board cover comprising a prefabricated single sheet having rounded corners at one end, a centrally disposed rounded edge at its other end, parallel side edges extending from said rounded corners toward said other end but spaced an appreciable distance therefrom, straight converging side edges extending from said parallel edges to a location near said other end but spaced laterally outwardly from the ends of said rounded edge, outwardly projecting extensions between said converging edges and the ends of said rounded edge, said extensions being defined by straight outermost edges substantially parallel to said converging edges, curved edges between said rounded edge and said outermost edges having a curvature complementing that of half of said rounded edge, and curved edges between said converging edges and said outermost edges which curve outwardly from said converging edges to said outermost edges, the curved edges on each extension being spaced from each other so as to render said extensions integral with the remainder of said sheet and to form fold regions for said extensions when the cover is fitted to an ironing board.

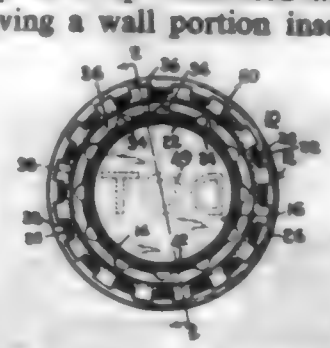
2,871,591
PLUG BUTTON ASSEMBLY

Philip D. Becker, Hingham, Mass., assignor to United-Carr Fastener Corporation, Cambridge, Mass., a corporation of Delaware

Application November 15, 1957, Serial No. 696,645
4 Claims. (Cl. 40—20)

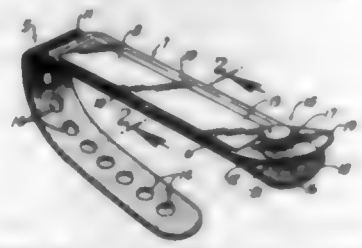
1. A plug button assembly or closure adapted for attachment to an apertured support comprising in combination, an attaching member having a resilient portion extending substantially perpendicular thereto, said attaching member having a centrally apertured base portion, gripping arms connected to the base and inclined down-

wardly out of the plane of said base at the central aperture, a resilient plastic cap assembled with said attaching member and having a wall portion inserted through the



central aperture and gripped by said arms, said cap comprising a flanged head portion and the said wall portion, and a retainer means snapped into engagement with said wall portion.

2,871,592
IDENTIFICATION BRACELET
Winfred J. Polzin, Thiensville, Wis., assignor to Will Ross, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application May 15, 1958, Serial No. 735,569
2 Claims. (Cl. 40—21)



1. An identification bracelet comprising: a band of flexible material one end portion of which has a row of spaced apart perforations disposed longitudinally of the band; means on the other end portion of the band defining an elongated pocket having opposing walls and a mouth opening to the adjacent extremity of the band, one of said opposing walls being integral with the band and the other being transparent, said opposing walls being permanently bonded to one another along both longitudinal margins thereof and along a transverse line which is adjacent to the junction between the band and the pocket so as to enable the pocket to hold a card with indicia thereon legibly visible through the transparent wall and to receive a substantial length of the opposite end portion of the band; a pair of flaps, each comprising a lengthwise extension of one of said walls of the pocket at the mouth thereof; and a snap fastener comprising cooperating male and female elements secured on said flaps, the male element being adapted to be engaged with the female element through any one of the apertures in the band when the apertured end portion of the band is inserted into the pocket to form the band into a bracelet, and by which engagement of the snap fastener elements a card is secured in the pocket.

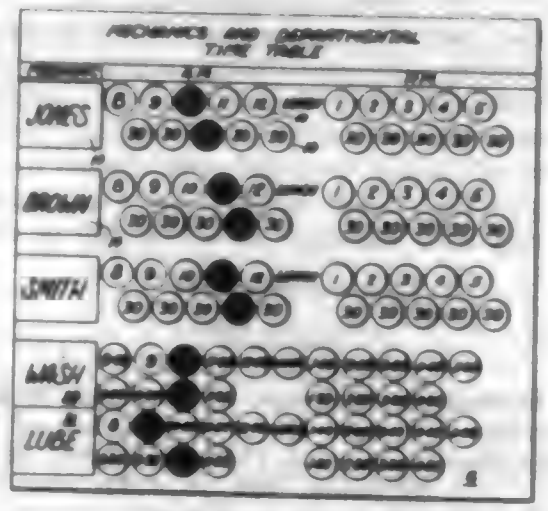
2,871,593
ELECTRONIC TALKING MANIKIN
Charles W. Roberts, New York, N. Y.
Application March 1, 1957, Serial No. 643,394
11 Claims. (Cl. 40—28.3)

1. A manikin and associated audio system, comprising an amplifier having input and output terminals a pair of audio signal sources providing vocal and musical programs respectively, one of said sources being connected to one pair of terminals of the amplifier, a relay disposed at the output terminals of the amplifier and arranged to close a first power circuit in response to actuation of the relay, a pair of motors arranged to be driven by power supplied by said first power circuit, one of said motors being operatively connected to a head and two eyes of the manikin to move said head and eyes from side to side, the other of said motors being connected to a pair of arms of the manikin for rotational movements thereon, the other of said sources being in circuit with a first pair of contacts of another relay and being directly connected to another pair of input terminals of said amplifier, the first pair of contacts of said other relay being normally closed and being opened when said one audio source is delivering an audio program to said amplifier, a third motor, said third motor being operatively connected to the jaw of the manikin, said jaw being pivotable thereby, said third motor being



in circuit with another pair of contacts of said other relay, said other pair of contacts being normally open and arranged to be closed when said one source is delivering said audio program to said amplifier, and a direct current power source in circuit with said third motor and said other pair of contacts for energizing said third motor, whereby said other audio source is automatically interrupted when said audio program is being delivered to said amplifier and said third motor is deenergized when said other audio source is delivering another audio program to said amplifier.

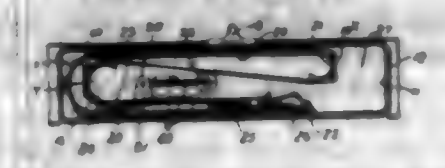
2,871,594
SERVICE CONTROL DEVICES
Joseph H. Halpert, Erie, Pa.
Application December 5, 1955, Serial No. 551,881
2 Claims. (Cl. 40—63)



2. A device for indexing automobiles in a service establishment comprising a flat plate like member made of non-magnetic material, holes in said plate like member, said holes being disposed in spaced rows designating the name of a particular person, magnetic material on one side of said plate like member overlying said holes, and indicia members disposed in some of said holes, each of said indicia member having a permanent magnet therein adapted to be disposed in said holes and to cooperate with said magnetic material to hold said indicia

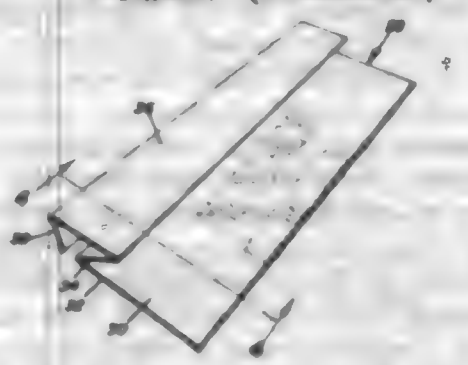
members in place in said holes to indicate the number of hours of a working day which has been sold for each particular person represented by said rows.

2,871,595
CALENDAR WITH A CURRENT DATE INDICATOR
Howard Reginald Pearce, London, England
Application October 7, 1957, Serial No. 688,775
Claims priority, application Great Britain
October 12, 1956
3 Claims. (Cl. 40—110)



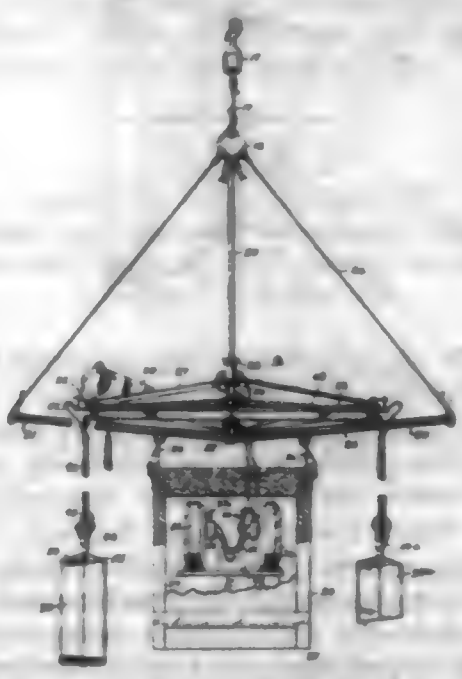
1. A calendar with a current date indicator comprising a casing, a sheet bearing date numbers mounted in said casing, an endless band adapted to be moved with respect to said sheet across the face thereof, said band having means thereon for indicating one date number at a time and being divided transversely into a plurality of equal band sections each articulated to the sections on either side thereof, means adapted to support said endless band within the casing in two loops one within the other, said supporting means comprising two members adapted at rest to hold the band with its two loops taut, one of said members being fixed and the other of said members being reciprocable with respect to said fixed member, drive means associated with said supporting means within the casing for effecting movement of said endless band step-by-step in one direction with respect to the supporting means to bring said indicating means into register with the date numbers in succession, said reciprocable member having means for engaging, on being moved in one direction by said drive means, in the acute angle formed by two band sections of the endless band where the outer and inner loops thereof join whereby the band as a whole is drawn one step around the fixed member, and control means including an element accessible from the exterior of the casing for operating said drive means.

2,871,596
AIR LEAFLET
Thomas B. Weiss, Palo Alto, Calif.
Application November 16, 1953, Serial No. 392,259
7 Claims. (Cl. 40—127)



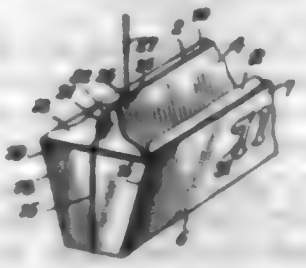
4. An air leaflet comprising a folded message sheet, said sheet having folds at one edge thereof for engaging air streams resulting from passage of said sheet through the air, a weight carried by an opposite edge of said sheet to retain said folds in an uppermost position to insure floating of said sheet through the air, said folds forming a downwardly and outwardly direct first flange at said one edge, and upwardly directed second flange disposed in offset parallel relation to said sheet proper, and a downwardly directed third flange, said first flange and said sheet proper forming a first air pocket and said second and third flanges forming a second air pocket.

2,871,597
DROPPING MECHANISM
Paul E. Yost, Hugo, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application April 2, 1956, Serial No. 575,550
12 Claims. (Cl. 40—127)



6. A load releasing means for a balloon, including in combination, supporting means adapted to be attached to a balloon, a circular member mounted on said supporting means, a rotor arm pivotally mounted on said supporting means, a driving unit mounted on said rotor arm for moving the rotor arm around the circumference of the circular member, a source of power for said driving unit, individual load units attached in spaced relation around the circumference of said circular member, and severing means actuated by the movement of said rotor arm for releasing said load units individually.

2,871,598
DISPLAY SIGN
Gustav John Pawelka, Glenwood Landing, N. Y., assignor to Fairhaven Properties Corp., Long Island City, N. Y., a corporation of Delaware
Application October 1, 1957, Serial No. 687,542
5 Claims. (Cl. 40—130)



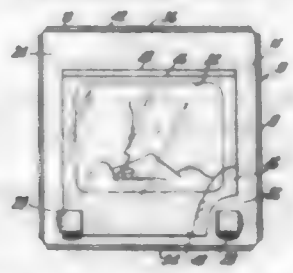
1. A display sign comprising a trough-shaped body provided with an open top through which light rays enter, said body being composed of hingedly connected sections of cardboard, said sections including a pair of inner panels arranged to form an acute angle with its apex up, said panels constituting reflecting surfaces, a pair of upwardly diverging outer walls, said walls being provided with cut-outs defining indicia through which light rays are directed by said reflecting surfaces, said panels and outer walls being collapsible into flat facing engagement with each other, a pair of end walls each hingedly connected to said outer walls and collapsible outward upon collapse of said panels and outer walls, an inturned flap upon each of said end walls, and retaining means on said panels for releasable interlock with said inturned flaps to retain said end walls inward against collapse, whereby said panels and outer walls are retained against collapse by the interlock of said end flaps and retaining means.

2,871,599
TRAFFIC SIGNAL ADAPTOR UNIT
Walter J. Kolb, Chicago, Ill.
Application April 7, 1954, Serial No. 421,600
3 Claims. (Cl. 40—131)



1. A traffic signal adaptor unit comprising a housing having six defining surfaces none of which are parallel, the two side surfaces angling outwardly from the back of said housing, the top surface inclining downwardly while the bottom surface inclines upwardly from the back to the front of said housing, the back surface having a circular opening which is fitted with a circular sleeve projecting rearwardly for attaching said adaptor to a source of light, the front surface being of transparent material and tipped forward slightly between the said down turned top surface and up turned bottom surface, which inclination of said top and bottom surfaces intensifies the light directed upon said front surface, and said front surface having opaque lettering thereon.

2,871,602
SLIDE MOUNT
Charles E. Woodruff, New York, N. Y., assignor to Television Mat Service Corp., New York, N. Y., a corporation of New York
Application April 17, 1958, Serial No. 729,137
14 Claims. (Cl. 40—152)



1. A slide mount of the character described comprising a pair of frame members, each including a flat wall section, each of said wall sections having formed an opening therein, said opening having an edge thereof spaced a distance from the contiguous wall edge to provide a relatively wide border between said opening and said edge, means provided on said border on each of said frame members for positioning and holding a film and a protective pane, and cooperating means on said frame members for separably interengaging the same with their openings in register and with their said positioning means facing one another and disposed to different sides thereof.

2,871,601
HOLDERS FOR PHOTOGRAPHIC NEGATIVES AND PRINTS
Morton C. Warnow, Jamaica, N. Y.
Application July 7, 1958, Serial No. 746,960
3 Claims. (Cl. 40—158)



1. A holder for a photographic negative and a print identified therewith comprising a base sheet of envelope forming material having a coating of pressure sensitive adhesive on one face, a readily removable cover sheet over said pressure sensitive adhesive face, separated on a dividing line corresponding to an intermediate fold line of the base sheet, a gum coating on the opposite face of the base sheet at one side of said intermediate fold line and said base sheet being folded on the gummed side at said intermediate fold line into envelope form conformation.

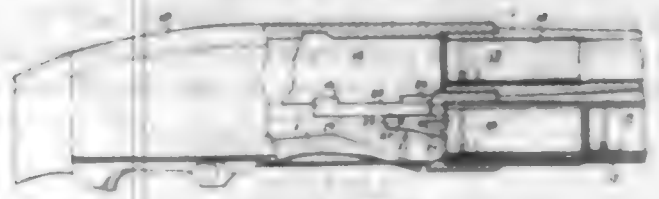
2,871,603
HEEL ORNAMENT MOUNTING BAND FOR WOMEN'S SHOES
Faith H. Uldall, Los Angeles, Calif.
Application November 13, 1956, Serial No. 621,960
3 Claims. (Cl. 41—10)



1. A band for supporting heel ornaments upon an open-heel shoe including a heel having an unindented lateral wall tapering downwardly and inwardly on both sides and at the rear and including a heel plate having an upper margin including a substantially semi-circular rear portion and side portions extending forwardly from said semi-circular rear portion and converging toward one another forwardly, said shoe having unobstructed space above said upper margin, said supporting band comprising: a substantially flat narrow flange at the top of said band, of substantially horseshoe shape and lying substantially in one plane, a rim portion of outwardly convex channel section integrally joined to the outer margin of said flange, coextensive therewith circumferentially, and curved outwardly, downwardly and thence inwardly, and a skirt joined to the lower extremity of said rim portion and extending downwardly and inwardly, said band adapted to be attached to an open shoe heel in embracing relation thereto with said flange seated against the upper face of said heel plate around the margin thereof, with said rim receiving the marginal portion of said heel plate, and with said skirt conforming substantially to the lateral and rear areas of said heel adjacent the top thereof; said skirt including a generally frusto-conical rear portion extending downwardly and forwardly from said rim portion at an angle of approximately 45° at the rear central area of said frusto conical rear portion and a pair of side arm portions projecting downwardly and inwardly from the lateral portions of said rim portion at an angle of greater than 45° to the plane of said flange, said side arm portions being merged with the lateral extremities of said rear portion and extending forwardly therefrom, said skirt having a lower margin a major portion of which is disposed in a plane substantially parallel to the plane of said flange and spaced therebelow a distance not greater than the maximum radius of said band, whereby said band covers only a minor portion of the area of said heel, at the top thereof, said major portion of said lower margin extending from a central point of the lower extremity of said frusto conical rear portion to lower forward extremities of said skirt disposed forwardly of said rear center point a distance more than half the fore-aft dimension of the band, said side arm portions tapering upwardly and forwardly from said lower forward extremities to the forward extremities of said rim portion, said forward extremities of said rim portion being generally vertical, the lateral portions of said

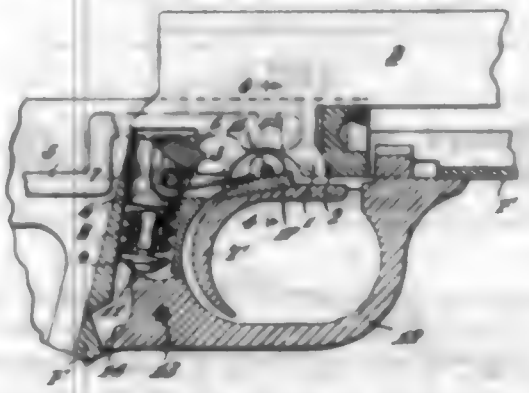
rim and said side arms of the skirt converging forwardly at a greater angle than the angle defined between the side margins of the heel plate and the lateral faces of the heel respectively and their forward extremities being spaced from one another more closely than the spacing between the side margins and lateral areas of the heel plate and heel respectively; and said band being of synthetic resin plastic sheet material, with sufficient resiliency to provide for springing apart said lateral portions of the flange, rim and side arms to receive heel and heel plate at their maximum width, in an application of the band to the shoe wherein the forward extremities of said rim are pressed against the rear portion of the heel plate and wherein the band is then pressed forwardly to spread the said lateral portions and to receive the heel and heel plate within the band, said band further being sufficiently form retaining and elastic to hug the heel plate and heel when thus installed, with a grip sufficiently tight to secure the band against rearward displacement from the heel.

2,871,603
CUT-OFF DEVICE FOR A MAGAZINE FIREARM
Rolf H. Wild, Hamden, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application February 21, 1958, Serial No. 716,639
5 Claims. (Cl. 42—17)



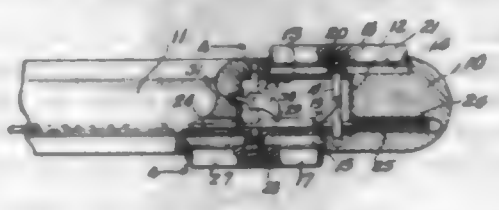
1. In a firearm including a receiver, a chamber, a magazine communicating with the receiver, said magazine being designed to receive a plurality of rounds of ammunition and being operative to urge the rounds resiliently towards said receiver, a cut-off device comprising a forked element having a pair of tines pivotally mounted on the receiver, said element being movable from a normal position wherein a first tine contacts the head of a first round of ammunition within said magazine to a second position wherein the second tine contacts the head of a second round of ammunition within said magazine and chamber closure means, said resiliently urged rounds of ammunition cooperating with the closure means effective to move the element from the normal position to the second position whereby the first round of ammunition is discharged from the magazine and the second round is retained therein.

2,871,604
ADJUSTABLE TRIGGER SPRING
Joseph W. Norman, Springfield, Mass., assignor to Smith and Wesson Inc., Springfield, Mass., a corporation of Massachusetts
Application May 28, 1957, Serial No. 662,194
7 Claims. (Cl. 42—69)



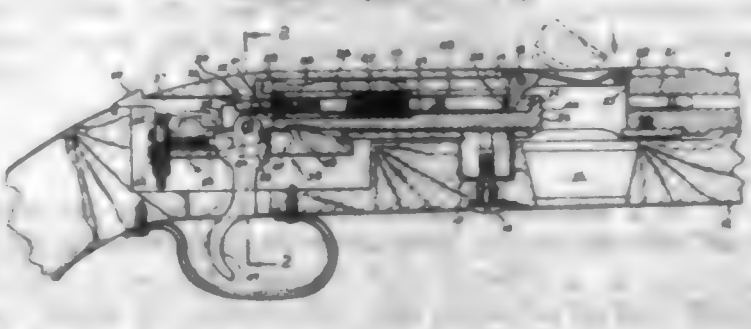
1. A firearm comprising a frame, a trigger mounted on the frame to swing about an axis between normal and firing positions, a sear actuated by the trigger, a leaf spring for yieldingly holding the trigger in normal position independently of the sear, the spring extending transversely of said axis, a transmitter for transmitting the spring force to the trigger, the spring bearing on the transmitter and the transmitter being adjustable lengthwise of said spring to vary the distance between the axis and the effective point of action of said spring on the trigger, thereby to vary the trigger action.

2,871,605
SAFETY GUN TRIGGER
Elmer A. Anderson, Moorhead, Minn.
Application March 26, 1957, Serial No. 648,696
1 Claim. (Cl. 42—70)



A gun, a safety device having a trigger, said device comprising a slidable trigger-engaging and releasing plate for normally holding a trigger in a safety position, a pull rod secured to said plate and extending forwardly of said trigger and plate, a releasable locking member engaging said pull rod for normally holding the pull rod in a safety position, a pull rod actuating member engaging the pull rod for shifting the pull rod when said locking member is released from said pull rod, the locking member and the actuating member being mounted adjacent said pull rod and extending at right angles to said pull rod, said locking and actuating members being located forwardly of said trigger and releasing plate, an elongated depressible push-button mounted upon each side of said gun, one push-button being connected to said releasable locking member and the other push-button being connected to said pull rod actuating member, the elongated push-buttons facilitating operation of the push-buttons while the operator is using hand coverings, such as mittens and the like, said pull rod having a notch, and said releasable locking member comprising a dog, a plunger rod, said dog being pivotally mounted upon said plunger to bodily move said dog away from said pull rod, said dog having a rearwardly extending fulcrum finger, and an abutment for engaging said finger to simultaneously swing said dog out of said notch as said dog is bodily moved away from said pull rod.

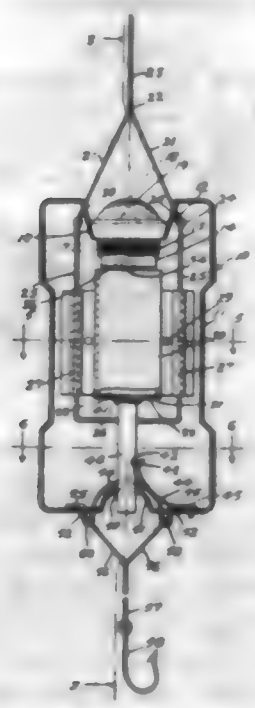
2,871,606
SEAR SAFETY OPERATED BY LOADING COVER AND BREECH BOLT
Wallace B. Butler, Branford, and Frank A. Prybyla and James J. Reardon, Hamden, Conn., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application August 2, 1957, Serial No. 675,908
7 Claims. (Cl. 42—70)



7. A single shot firearm comprising a receiver, a firing means, a safety mounted upon the the receiver and settable to block operation of the firing means, a loading cover pivotally mounted upon the receiver and depressable to load the firearm, and means movably disposed

within the receiver and cooperating with the cover and with the safety effective to set the safety whenever the cover is depressed.

2,871,607
ILLUMINATED FISHING INDICATOR
William M. Carraway, Little Rock, Ark.
Application June 6, 1958, Serial No. 740,221
4 Claims. (Cl. 43—17)



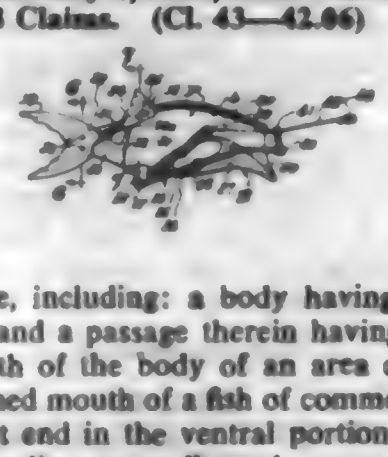
1. In a device of the character described, a casing having a bottom and a top with a countersunk opening therein, a lamp socket assembly including a lens secured in said opening, a lamp bulb including a contact in said socket, a plate secured interiorly of said housing, a battery holder carried by said plate, a battery having a contact slidably movable in said holder, slide guides carried by said plate, a U-shaped slide having its legs movable in said guide, a plunger carried by the bight of said U-shaped slide, said battery holder having an opening in the bottom thereof through which said plunger extends to contact the bottom of said battery, a supporting line secured to the legs of said U-shaped slide, said top having openings through which said supporting line extends and a fishing line secured to the bottom of said casing whereby a pull on said fishing line will move said casing relative to said slide and plunger to cause said plunger to move said battery to engage its contact with the contact of said lamp to illuminate said lamp.

2,871,608
FISH LURES
Donald G. Fisher, Petersham, Mass.
Application October 17, 1956, Serial No. 616,532
4 Claims. (Cl. 43—35)



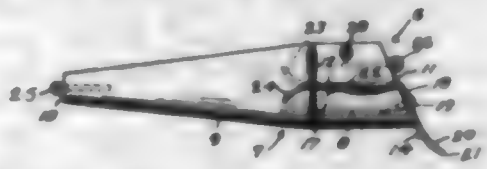
1. In a fish lure, a body element having a slot at the rear end thereof, a permanent magnet element rigidly attached to said body, and a hook including a barb, a shank and an actuating part intermediate its shank, said hooked being pivotally attached to said body forwardly of said actuating part to swing between first and second positions, in the first position, said shank being exposed intermediate of the body element to be moved into said slot by a striking fish, and the barb of said hook being shielded by said body, in the second position, said shank part being at least partly in said slot and the barb of said hook being operatively exposed, said magnet element being disposed to releasably hold said hook in said first position.

2,871,609
FISH LURE
Chrespin W. Noches, Pasadena, Calif.
Application May 6, 1954, Serial No. 427,985
8 Claims. (Cl. 43—42.06)



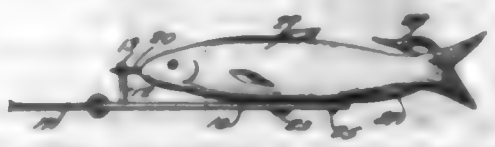
1. A fish lure, including: a body having the exterior form of a fish, and a passage therein having an entrance end in the mouth of the body of an area corresponding to the fully opened mouth of a fish of commensurate body size, and an exit end in the ventral portion of the body, the passage extending upwardly and rearwardly from the entrance end, and then abruptly downward to the exit end resulting in the body having a wall substantially perpendicular to the major axis of the body, the ventral portion of the body ahead of the exit end of the passage being provided with a sealed air chamber and the body being provided with a pocket rearwardly of said wall and communicating with the passage at the top of said wall.

2,871,610
FISH LURE
Richard W. Welch, Decatur, Ill.
Application May 24, 1957, Serial No. 661,367
4 Claims. (Cl. 43—42.46)



1. A fish lure comprising an elongated lure body having a forward part constituting a head, said head having a forward end defining a face, a blade secured to said head and disposed against and extending downwardly and forwardly from the face, wing members secured to said head and extending outwardly from the sides thereof, one of said wing members having a downwardly curved trailing end and the other wing member having an upwardly curved trailing end to cause said lure to revolve about its longitudinal axis when drawn through the water in a forward direction and to cause the blade to revolve about the axis of the lure whereby the forward end of the lure will be deflected downwardly and upwardly and to the right and to the left to travel in a spiral path, and means for attaching a line to the lure, said means projecting from the face above and behind the blade.

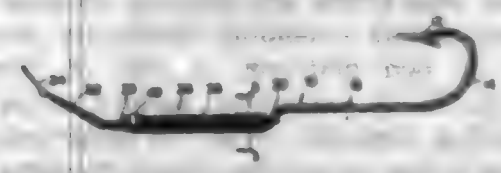
2,871,611
BAIT MISER
Walter F. Shepard, Jr., Bradenton, Fla.
Application August 9, 1957, Serial No. 677,362
4 Claims. (Cl. 43—44.2)



1. In a fishing accessory, an elongated bar provided with a first opening in its front end for connection to a

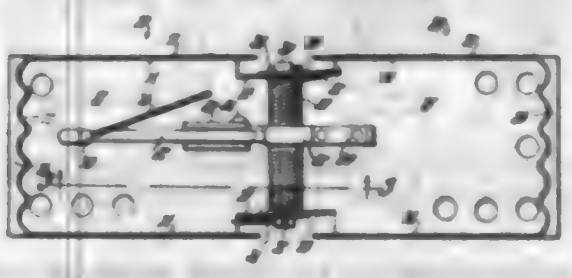
fishing line, a finger extending upwardly from the front portion of said bar and having a hook on the upper end thereof, there being spaced apart second and third openings in the rear portion of said bar, a plate spaced above the rear portion of said bar and said plate being provided with a threaded aperture registering with the second opening in said bar, an impaler adapted to extend through bait and engage said hook, said impaler including a curved portion terminating in an eyelet interposed between said plate and bar, said eyelet registering with the aperture in said plate and with said second opening, a screw member extending through said second opening and through said eyelet and threadedly engaging said aperture, a fishhook including a rearwardly disposed barb and a forwardly positioned eyelet arranged above the third opening in said bar, and a pin depending from the rear end of said plate and projecting through said last named eyelet and through said third opening, there being a cutout in said plate for the projection therethrough of a portion of said impaler.

2,871,612
FISH HOOK RELEASE UNIT
Loren E. Mohn, Elmore, Minn., assignor of one-half to Elmer J. Mohn, Elmore, Minn.
Application February 27, 1957, Serial No. 642,888
7 Claims. (Cl. 43—44.83)



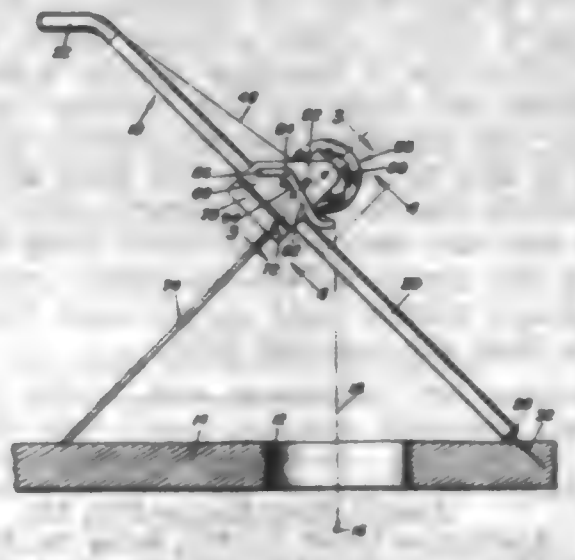
1. A fish hook barb release unit comprising a fish hook and a fish hook holding and releasing device, said fish hook comprising a fish hook barb, a hook shank, said hook shank having an offset terminal shank portion extending parallel to the shank portion from which the hook barb extends, said hook shank barb portion and said terminal shank portion being integrally connected together by a bent connecting shank portion, said fish hook holding and releasing device comprising a wire rod having a fish line leader securing eye at one end thereof and a hook terminal shank receiving eye at the other end thereof, a second wire rod extending parallel to said first wire rod in close proximity thereto at the hook shank receiving eye end thereof, said hook shank terminal receiving eye integrally connecting said second wire rod to said first wire rod, and loop means yieldably held over said two parallel wire rods, said offset terminal shank portion being arranged to extend through said hook shank receiving eye and lie parallel to said two parallel wire rods.

2,871,613
CRAB TRAP
George Coelho, Elizabeth, N. J.
Application January 22, 1958, Serial No. 710,486
1 Claim. (Cl. 43—92)



A crab trap comprising, co-operating jaws being pivoted at their inner ends and being movable towards each other into a closed trapped position and away from each other into an open entrapping position, each of said jaws including a bottom wall and opposite inwardly extending side walls and an inwardly extending end wall at the outer end thereof, a pivot pin connecting said jaws to each other in said pivotal relation adjacent the inner ends of said jaws, jaw closing spring means enclosing said pivot pin and embracing each of said jaws for actuating said jaws into the normal closed trapped position, a trigger fulcrumed above the inner face of the bottom wall of one of said jaws and being depressible to permit closing of said jaws by the action of said spring means, a bait post swingably mounted on the inner face of the bottom wall of the said one jaw, releasable means fixed on said bait post for holding said trigger in the entrapping position, a bait holder fixed on said bait post for the impalement of bait thereon, a sear fixed to the inner face of the bottom wall of the other said jaw and having a trigger engaging notch for engaging said trigger and holding said jaws in the open entrapping position against the resistance of said spring means, all the foregoing being adapted and arranged whereby as bait is consumed by a crab said bait post is swung to effect release of said trigger for the release thereof out of the notch of said sear wherefore said jaws are sprung into the closed trapped position by the action of said spring means.

2,871,614
ICE FISHING DEVICE
William A. Roff, Crosby, Minn.
Application March 8, 1957, Serial No. 644,812
8 Claims. (Cl. 43—15)

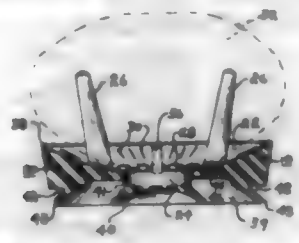


1. An ice fishing stick comprising an elongated hollow body having an opening through a side wall extending into its hollow interior, a reel having a fishing line wound thereon, a bracket for mounting said reel upon said body, resilient means inside said hollow body and including a cable extending through said aperture, connecting means operatively connecting said cable to said reel whereby the tensioning of said cable by said resilient means yieldingly urges the reel in a direction to wind said fishing line thereon, stop means preventing rotation of said reel by said cable and resilient means and a connection between said fishing line and said stop means for disengaging the latter upon predetermined tensioning of said fishing line.

2,871,615
UTILITY DEVICE
John E. Bersh, Mishawaka, Ind.
Application September 23, 1957, Serial No. 685,700
8 Claims. (Cl. 45—28)

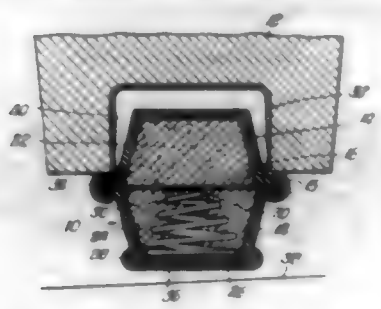
1. A device for holding and draining soap, comprising a disc shaped body having a concave upper surface and a concave lower surface, a water receiving means in the center of said upper surface, a plurality of upstanding posts spaced from one another on said upper surface, a hole connecting said upper surface with the underside of said body, a yieldable flange at the margin of

said concave lower surface, an annular groove in the periphery of said body in close proximity to said flange,



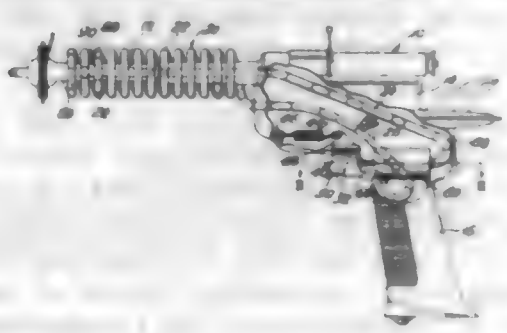
and a suction cup attached to said lower surface beneath said water receiving means.

2,871,616
LEVELING DEVICE FOR FURNITURE AND THE LIKE
Harold C. Sundell, Hollywood, Fla., assignor to Frank J. Curran, Downers Grove, Ill.
Application July 23, 1957, Serial No. 673,718
7 Claims. (Cl. 45—139)



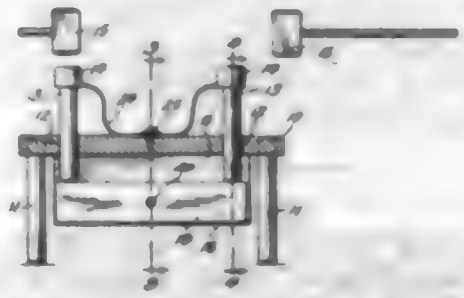
1. A leveling device for furniture and the like comprising a flexible sealed container having a relatively flat end portion, a diaphragm member mounted in said container and separating said container into compartments, said diaphragm member extending generally parallel to said flat end portion and being formed with a perforation that places said compartments in communication with each other, resilient means acting on said container and biasing said flat end portion away from said diaphragm member, said compartments being substantially filled with bouncing putty.

2,871,617
TOY
John F. West, Kansas City, Mo.
Application March 5, 1956, Serial No. 569,529
1 Claim. (Cl. 46—1)



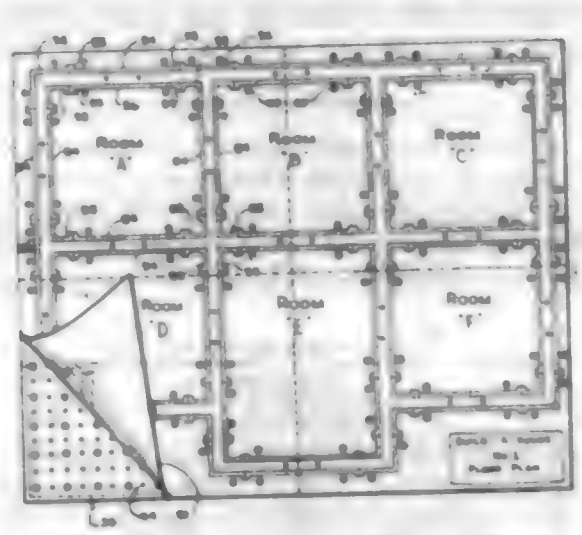
In a toy weapon, a gun-like body having an elongated barrel portion and a rear portion provided internally thereof with a cylinder having a pair of horizontally opposed ends, an inlet opening therein adjacent one end thereof and an outlet opening in the other end thereof; a tube externally coupled between said openings and provided with a transparent, exposed portion to be displayed disposed along the exterior of the barrel portion; a piston reciprocably mounted in the cylinder between said openings and provided with an aperture therethrough, the aperture being disposed at a level below the outlet opening; a check valve for each of said openings respectively, said valves each being open when the piston moves in the direction of the outlet opening and closed when the piston moves in the direction of the inlet opening; a third check valve for said aperture, said third valve being open when the piston moves in the direction of the inlet opening and closed when the piston moves in the direction of the outlet opening; a quantity of liquid material partially filling the tube and cylinder; a quantity of gaseous material filling the remainder of the tube and cylinder; a trigger assembly on the body; and means operably coupling the trigger assembly and the piston for reciprocating the piston alternately in said directions.

2,871,618
COMPETITIVE HAMMERING TOY APPARATUS
Schuyler Reynolds, Columbus, Ohio
Application March 30, 1956, Serial No. 575,148
6 Claims. (Cl. 46—1)



1. A toy comprising a platform having a pair of longitudinally spaced openings formed therein; a vertically disposed post freely and slidably received in each of said openings and extending outwardly beyond opposite sides of said platform; a pair of transversely spaced, longitudinally extending, parallel strips secured to and depending vertically from the under part of said platform, said strips occupying planes disposed at each side of said openings; a lever bar arranged longitudinally between and coextensive with said strips, said bar having opposite end surfaces disposed for engagement with the lower ends of the posts; pivot means passing transversely and centrally through said strips and pivotally supporting said bar intermediate the ends thereof; and clamping means cooperative with said pivot means for applying inwardly directed clamping forces to said strips to maintain the latter in frictional contact with said bar and posts.

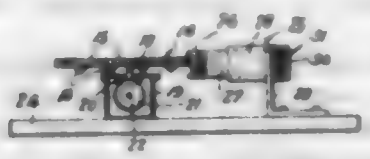
2,871,619
CONSTRUCTION KIT FOR MODEL BUILDINGS
Harry W. Walters, Edinboro, Pa.
Application September 9, 1957, Serial No. 682,713
10 Claims. (Cl. 46—19)



1. A construction kit for model buildings comprising modular wall forms having generally planar main faces of standard height and of widths which are multiples of each other, inside and outside corner forms having faces meeting at angles determined by the angles of intersection of the walls forming the corners and of the same standard height, all of said forms having cooperating vertical edge

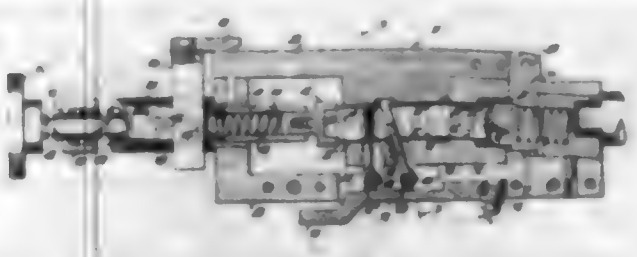
members, a plurality of resilient clips each cooperating with one of said vertical edge members on each of two adjacent ones of said forms for retaining adjacent forms in assembly, at least one construction base having a plurality of frame positioning holes therein arranged in an overall lineal pattern, each of said forms having positioning pins adapted for insertion in the holes in said base when said forms are erected thereon in wall forming position, and a plan bearing a floor layout including positioning pin locations for superposition over said construction base for indicating those of said wall forms and corner forms necessary for constructing a specific building and for closing off those holes in said construction base not necessary for such wall and corner forms, whereby said wall and corner forms and said plan form closed bottom pouring forms for pouring the walls of the model building which is constructed from cementitious material.

2,871,620
PALM TREE TRIMMER
Charles G. Bathé, Long Beach, Calif.
Application December 29, 1955, Serial No. 556,215
2 Claims. (Cl. 47—1)



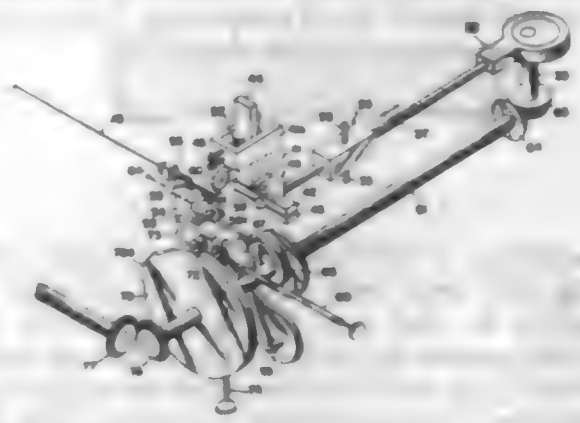
2. A device for trimming palm trees comprising a horizontal supporting platform, power means including a drive sprocket carried by said supporting platform, a carrier chain adapted to completely encircle the trunk of a palm tree engaged with said sprocket for operation in a horizontal path of travel about said trunk, cutting blades carried by said chain disposed in depending perpendicular relation to the path of travel of said chain for trimming the trunk of the palm from the top downwardly, cylinders mounted on said supporting platform adjacent said sprocket on opposite outer sides of said chain, tubular shanks in said cylinder, springs biasing said shanks toward said chain, and U-shaped guide shoes carried by the ends of said shanks loosely engaging the outer side of said chain.

2,871,621
BEADING FIXTURE
Eugene O. Hanson, Marion, and James L. Shroutz, Gas City, Ind., assignors to Radio Corporation of America, a corporation of Delaware
Application October 17, 1956, Serial No. 616,510
6 Claims. (Cl. 49—1)



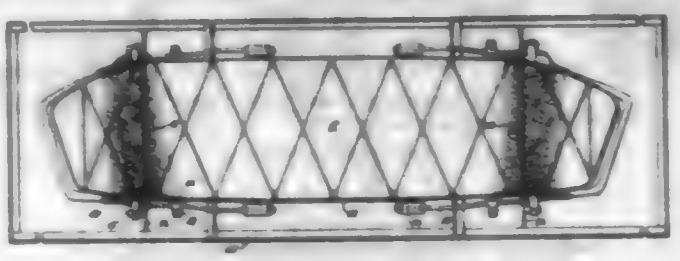
1. A beading fixture for maintaining electrode elements in a spaced relationship while being joined into a rigid assembly, said fixture comprising a body portion having a longitudinal cavity therein and means including a spring pressed plunger mounted within said body cavity for maintaining said electrode elements in fixed relationship, a spacer element pivotally mounted within said cavity for spacing a pair of electrode elements during assembly, and means for removing said spacer element from said body cavity while said electrode elements remain within said cavity.

2,871,622
AUTOMATIC FILAMENT CUTTER
Robert J. Singer, Philadelphia, Pa., and Edward N. Lichtenberg, Pennsauken, N. J., assignors to International Resistance Company, Philadelphia, Pa.
Application February 26, 1954, Serial No. 412,677
2 Claims. (Cl. 49—48)



1. Apparatus for severing frangible filaments while moving longitudinally at a predetermined lineal speed comprising the combination of a scoring tool disposed on the upper side of the path of such filament and slightly below the upper edge of the filament for partial interception of such filament, means for moving said tool across the top of and longitudinally with such moving filament to form a transverse score mark thereon, means for engaging the scored filament to snap sever it at the score mark, an anvil beneath the filament path to support the moving scored filament, means pivotally supporting said anvil for motion along the filament path, and means for moving the anvil along the path at the same speed as the moving filament with the leading edge of the anvil in the vicinity of the score mark until the scored filament is severed so that the anvil acts as a fulcrum in the snap severance of the scored filament.

2,871,623
METHOD OF BENDING GLASS
Herman R. Marini, New Kensington, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application December 22, 1954, Serial No. 476,942
6 Claims. (Cl. 49—84)

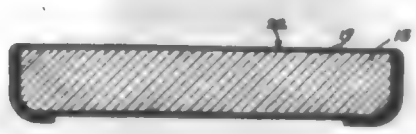


4. A method of bending glass sheets into complex curved shapes having critical areas spaced from the margin of the glass sheets whose curvature along an axis is more severe than other areas along said axis, comprising placing the glass in sheet form upon a mold having a complex shaping surface conforming to that desired for a curved glass sheet, applying a heat absorbing material, capable of disintegration at glass softening temperatures without marring the glass during its disintegration, in the form of a thin, tapered strip to each critical area of the surface of the glass mounted upon the mold, the thickness of each portion of said strip varying with the degree of curvature desired for the portion of the critical area it covers, and exposing the glass so treated to glass softening temperatures, whereby the critical areas of the glass are heated to higher temperatures than its remainder, thus accelerating the bending in those areas of the glass to conform the shape of the glass to that of the complex shaping surface of the bending mold.

2,871,624
METHOD OF ANNEALING GLASS

Lee O. Upton, Sturbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application June 14, 1954, Serial No. 436,697
4 Claims. (Cl. 49—89)

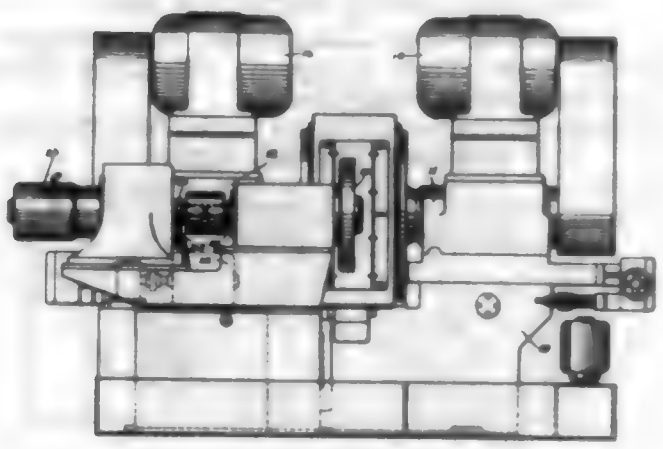


1. A method of annealing a piece of glass comprising wrapping said piece with a metal foil of high thermal conductivity so that said foil is in relatively intimate contact throughout the outer surface area of said piece, placing said glass with said metal foil thereon in a furnace and subjecting it to a controlled annealing range embodying a maximum temperature equivalent to or slightly above the softening temperature of the glass, the intimate contact of the metal foil, during said annealing cycle, and the temperature of heating being such as to cause impressions of the contact points of said foil with said glass to be left in the surface thereof when subsequently removed therefrom thereby causing a more uniform thermal distribution of the heat and causing said glass at the completion of said annealing cycle and when cooled to substantially room temperature to be substantially free from detrimental internal strains and stresses.

2,871,625
SURFACE GRINDING MACHINE

Ralph E. Price, Beloit, Wis., assignor to Gardner Machine Company, Beloit, Wis.

Application March 31, 1955, Serial No. 498,242
7 Claims. (Cl. 51—118)

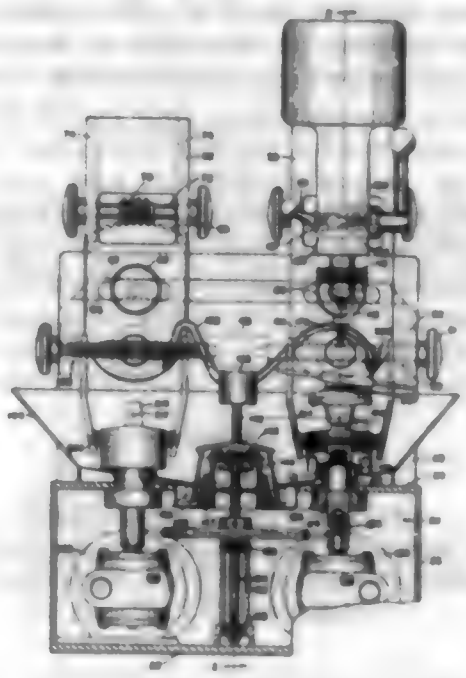


1. In a machine of the kind described having grinding wheels with annular opposed operative surfaces, a carrier for moving work pieces between and in contact with said grinding wheels, means for maintaining the operative surfaces of said wheels equally spaced from a predetermined fixed center line comprising a dressing tool having oppositely positioned diamonds for dressing said wheels, each of which is equally spaced from said center line, the space between said diamonds being a predetermined amount greater than the finished size of a work piece, means operable to pass said dressing tool across said wheels while said wheels remain in grinding position and means operable thereafter to advance each of said wheels by equal amounts, the sum of which is equal to the difference between the spacing of the diamonds and the thickness of the work piece whereby to adjust said grinding wheels to a position for grinding the work to the desired thickness.

2,871,626
LENS SURFACING MACHINE

Gene G. Desiato, Rochester, N. Y.

Application July 13, 1956, Serial No. 597,667
11 Claims. (Cl. 51—124)

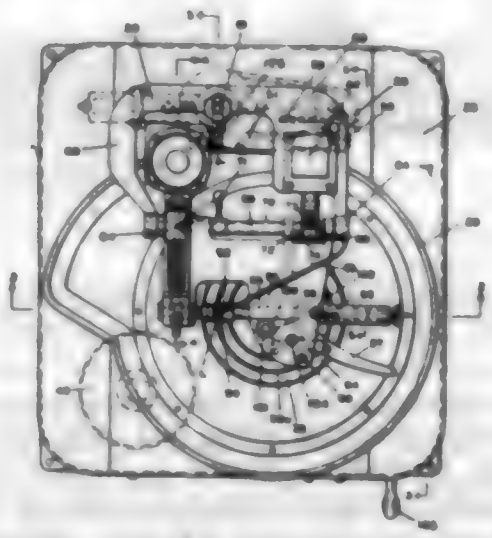


1. In a lens surfacing machine, a base having a raised deck, a back plate extending upwardly from said base and above said deck, a sector plate mounted on said back plate above said deck, said plates having cooperating ways affording lateral relative movement, a spindle support plate pivotally mounted on a substantially horizontal axis upon said sector plate, said sector plate and support plate having a cooperating worm and worm wheel teeth for angularly moving said support plate relative to said sector plate, common locking means for securing said three plates rigidly together in any set position, a tool holding spindle mounted in said base and projecting upwardly through said deck, a work actuating spindle mounted on said spindle support plate above said tool spindle and forward of said back plate, and adapted for axial and angular alignment with said tool spindle and independent motors for driving said spindles, one of said motors being mounted in said base, and the other on said spindle support plate rearward of said back plate.

2,871,627
LENS EDGING MACHINE

Roy W. Bringelson, Homewood, Ill., and Edgar M. Katzenberg, Columbus, Ohio, assignors to Robinson-Houchin, Inc., Columbus, Ohio, a corporation of Ohio

Application May 22, 1957, Serial No. 660,969
15 Claims. (Cl. 51—127)

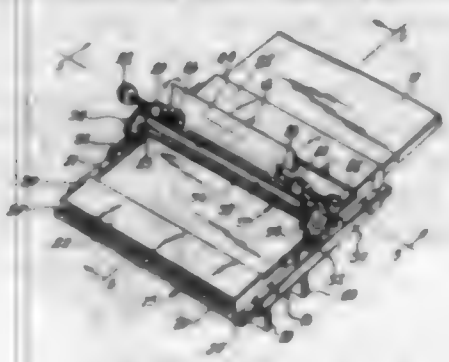


9. A lens blank edging machine comprising an abrading wheel having an abrading surface substantially normal

to its axis of rotation, means for rotating said wheel about said axis, means for supporting a lens blank to be edged in a plane substantially normal to the plane of said abrading surface of the wheel, means for rotating the lens blank about an axis substantially normal to the axis of said wheel, means for producing relative movement between said lens blank support and said wheel to cause the edge of the lens blank to traverse the said abrading surface of the wheel, said abrading surface being provided with a plurality of radially spaced continuous grooves formed therein, each of which can receive the edge of the lens blank and form thereon an edge of predetermined cross-section, said means for producing relative movement between said lens blank support and said wheel including means for interrupting said movement when the lens blank reaches a selected groove or area on said abrading surface, and means for preventing the edge of said blank from dropping into any of said grooves except the selected one.

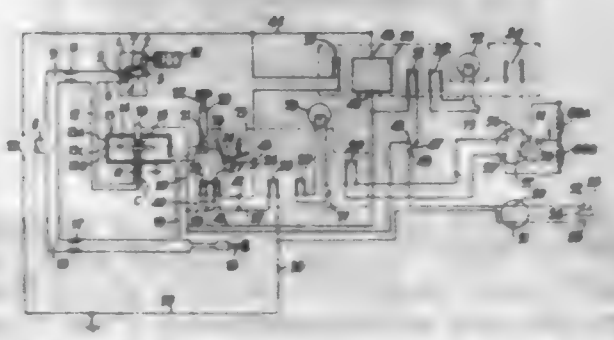
2,871,628
SHARPENING DEVICE FOR RAZOR BLADES
Walter Ostrowski, New York, N. Y.
Substituted for application Serial No. 538,182, October 3, 1955. This application July 15, 1958, Serial No. 748,667

1 Claim. (Cl. 51—153)



A sharpening device for a razor blade comprising, in combination with a strop, a frame slidably mounted on said strop for reciprocation between spaced locations on the strop, a slide element slidably mounted on the frame and including a handle, a blade support assembly rockably mounted on the frame, said assembly being adapted to dispose a supported blade in face to face contact with the strop, and means for rocking the blade support assembly responsive to sliding of said element upon the frame, said frame frictionally engaging the strop whereby to rock the blade support assembly for changing the blade face in contact with the strop at opposite extreme limits of the travel of the frame, said means comprising a rack carried by the slide element and sector gears meshing with the rack, said blade support assembly being secured to and extending between the respective sector gears, the blade assembly including a blade support bar fixedly connected at opposite ends to the respective sector gears and extending in spaced parallel relation to the axis of rotation of the gears, to oscillate about said axis responsive to sliding movement of the slide element upon the frame, said bar being adapted to support a blade having end recesses in a position in which said blade extends radially of the axis of rotation of the sector gears, said blade having end recesses, said assembly further including means carried by the bar for clampably engaging the blade, comprising lugs projecting outwardly from the bar at opposite ends thereof and screws threadedly engaged in said lugs and extendable into engagement with the walls of the recesses in the opposite end portion of the blade, the screws having wedge-like tips adapted to bias the blade into binding engagement with the bar.

2,871,629
APPARATUS FOR CONTROLLING A MACHINE TOOL IN RESPONSE TO DIMENSIONAL CHANGES OF A WORKPIECE
Frederick Robert Boosey, Letchworth, England, assignor to The Sigma Instrument Company Limited, Letchworth, England, a British company
Application December 7, 1954, Serial No. 473,704
Claims priority, application Great Britain June 4, 1954
6 Claims. (Cl. 51—165)



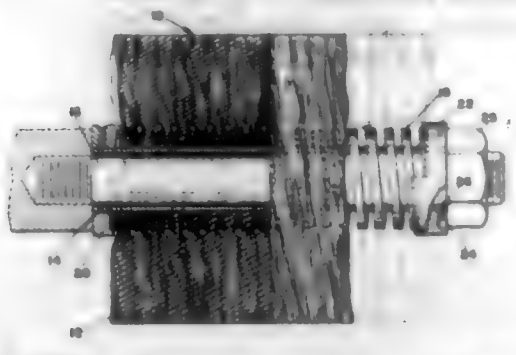
1. An apparatus for controlling the action of a machine tool upon a workpiece, the apparatus comprising an air supply pipe, a pneumatic gauge for gauging the workpiece, the gauge having an orifice the escape area of which is varied in accordance with the dimension of the workpiece being gauged, a first branch leading from the supply pipe to the orifice of the pneumatic gauge, there being, in the first branch, a first constriction between the air supply pipe and said orifice, valve means permitting controlled leakage of air, a second branch leading from the air supply pipe to the valve means, there being in the second branch a second constriction between the supply pipe and the valve means, a pneumatic pressure responsive element, an electrically conductive flexible member included in said pressure-responsive element, a first conduit from one side of the flexible member to that part of the first branch that is between the first constriction and said orifice, a second conduit between the other side of the flexible member and that part of the second branch that is between the second constriction and the valve means, an electric switch device in electrical series with and operable by said flexible member, and means for initiating a control signal to the machine tool when said switch device is operated by said element thereby to vary the action of the machine tool on the workpiece.

2,871,630
POLISHING FILE
James B. Whitlock, Reseda, Calif.
Application May 22, 1957, Serial No. 660,893
12 Claims. (Cl. 51—187)



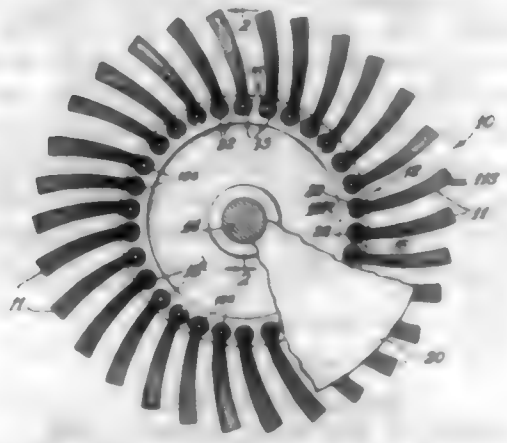
1. A hand file adapted for use with replaceable strips of abrasive material, said file comprising a rigid backing member having a hand grip rigidly and adjustably secured to one end thereof, means at the opposite ends of said rigid member for releasably clamping the opposite ends of a strip of abrasive material therein, and means operable by rotation of said hand grip independently of said clamping means for adjusting the tension on said strip of abrasive material longitudinally thereof.

2,871,631
BUFFING ROLL
George R. Churchill, Cohasset, Mass., assignor to George R. Churchill Company, Inc., Hingham, Mass., a corporation of Massachusetts
Application May 9, 1955, Serial No. 506,815
13 Claims. (Cl. 51—193)



1. In a buffing roll unit comprising an elongated tube adapted to snugly fit upon a rotatable arbor, a helical spring-like metal member T-shaped in section fitted snugly upon the tube with the narrow leg of the T engaging the tube, and an elongated strip of buffing material helically wound around the tube to extend radially of the axis of the tube with the inner ends thereof disposed between the convolutions of the T-shaped spring-like metal member, the convolutions of the helical spring-like member cooperating with adjacent convolutions to clamp the inner ends of the buffing strip between the flange of the T when the metal member is axially compressed, and end fastening members for securing the compressed spring member and the elongated buffing strip to the tube to form a unit therewith.

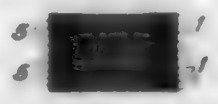
2,871,632
ROTATIVE SURFACING TOOL AND TUFTED PACKS THEREFOR AND METHOD OF MAKING SUCH PACKS
Alexander J. Cosmos, Chicago, Ill.
Application April 11, 1957, Serial No. 652,166
9 Claims. (Cl. 51—193.5)



1. In an abrasive pack for use in a rotative abrasive tool, a plurality of abrasive sheets arranged in face to face relation in a stack with the border portions of said sheets along corresponding inner edges thereof adhesively secured together and arcuately bent from the planes of their respective sheets to form two opposed oppositely bowed groups of border portions, and means located between said opposed groups of border portions and adhesively held in such location to maintain the same in their arcuate form and resist endwise withdrawal of any one of the sheets.

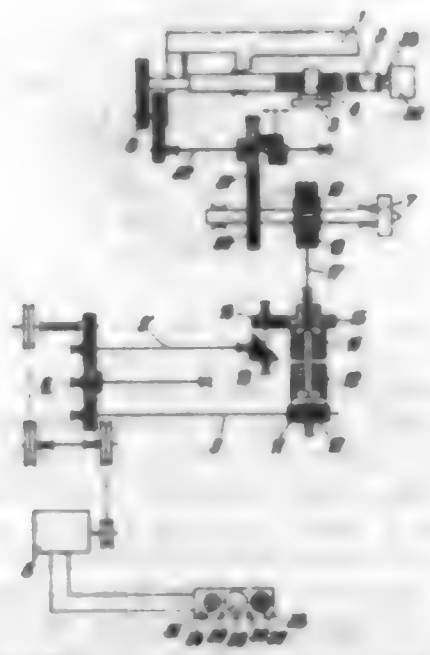
2,871,633
GRINDING BODIES
Carl Klingspor, Siegen, Germany
Application September 26, 1956, Serial No. 612,135
3 Claims. (Cl. 51—207)

1. A grinding body comprising a grinding member formed from a plurality of superimposed layers of abrasive coated fibrous material in the form of rings, alternate rings having a smaller internal diameter than the adjacent rings, and a supporting member formed from a plurality of superimposed layers of fibrous material devoid of abrasive coating in the form of discs, alternate discs having a smaller diameter than the adjacent discs, the grinding member being mounted around the periphery of the supporting member such that rings of smaller internal diameter are aligned with discs of smaller diam-



eter and rings of larger internal diameter with discs of larger diameter, said rings and discs being bonded together and to each other by a hardened synthetic resin, whereby the grinding body consists of outer circumferential portions of said abrasive coated fibrous material and inner circumferential portions of fibrous material which are devoid of the abrasive coating.

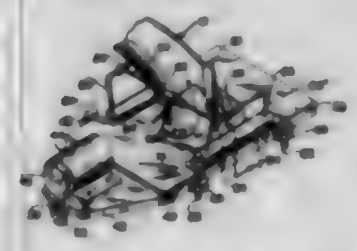
2,871,634
THREAD GENERATING MACHINE
Kurt H. Schultze, Berlin-Frohnau, Germany, assignor to Herbert Lindner G. m. b. H., Berlin-Wittenau, Germany, a corporation of Germany
Application May 22, 1956, Serial No. 586,424
Claims priority, application Germany June 2, 1955
4 Claims. (Cl. 51—232)



1. In a thread generating machine the improvement comprising a slidable workpiece support; a feed screw for said support mounted rotatably but axially unshiftably therein; stationary threaded means receiving said feed screw to cause an axial displacement thereof together with the workpiece support during the rotation of said screw; a workpiece spindle rotatably mounted in said support; and an adjustable change gear operatively connecting said feed screw and said spindle; said change gear adapted to vary the ratio of the rotations of the feed screw and the workpiece spindle in accordance with the pitch of the thread to be generated upon the workpiece; an electric variable speed motor driving said workpiece spindle; a first and a second regulator to vary the speed of said motor; said regulators operating alternately and independently of each other; the first regulator controlling and setting the operational or working speeds of said workpiece spindle; and the second regulator controlling the higher reverse speeds of said spindle and setting such reverse speed in such dependence from the pitch of the actually generated thread that the highest admissible return speed of the feed screw and thus of the workpiece support results, such highest admissible return speed being at least approximately constant for any pitch of

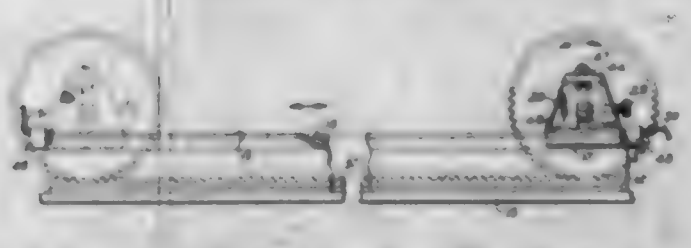
generated threads and indicator means associated with the second regulator, said indicator means defining setting positions for specific return speeds of the feed screw in dependence from the pitches of threads to be generated.

2,871,635
CLICKER BLOCK PLANER
Thomas Ligouri, Brooklyn, N. Y.
Application June 13, 1957, Serial No. 665,401
3 Claims. (Cl. 51—241)



1. A bed block sanding attachment for a clicker type die cutter having a die head plate, comprising a support plate, means to clamp the support plate to a die head plate, an abrasive roller journalled on the underside of the support plate, and means carried by said support plate for rotating said roller, said clamping means comprising shanks carried by the support plate, shafts extending between the shanks, and rollers eccentrically and rotatably mounted on the shafts and movable into and out of engagement with the die head plate for releasably clamping the die head plate and the support plate to each other, the clamping means further including handles extending radially from the rollers, said clamping means further including a connector assembly extending between the handles to lock the same against movement from a position in which the rollers are clampably engaged with the die head plate.

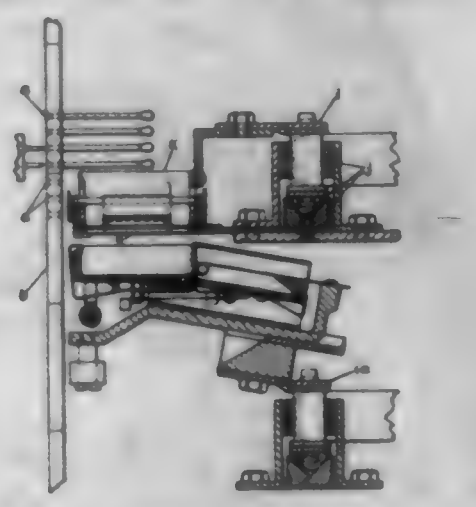
2,871,636
AUTOMATIC GRIDDLE CLEANER
Joseph Di Mola, Jr., Ozone Park, N. Y.
Application March 19, 1958, Serial No. 722,453
7 Claims. (Cl. 51—241)



1. In a griddle having a supporting platform, a cooking surface, and marginal drain channels, an automatic griddle cleaner comprising, in combination, an abrasive cleaning roll, end bearings rotatably supporting said roll in contact with the cooking surface of said griddle, means slidably supporting said end bearings upon said griddle for reciprocating longitudinal movement, means for propelling said roll and bearings back and forth upon said griddle, and means for rotating said roll upon said bearings.

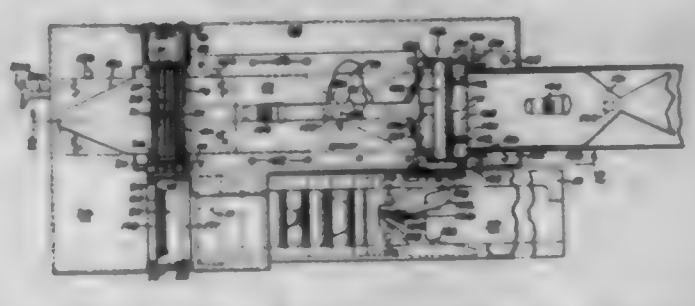
2,871,637
DEVICE FOR FILLING MATCHES INTO BOXES
Arvid Hjelm and Folke Knut Kautsson-Hall, Goteborg, Sweden
Application March 22, 1955, Serial No. 496,034
Claims priority, application Sweden March 25, 1954
6 Claims. (Cl. 53—26)

1. The method of filling matches into boxes comprising the steps of arranging the matches side by side in a vertical plane with their heads at the same end, said matches being at a slight angle with respect to each other to form spaces therebetween due to the cooperation of said heads, inserting a knife edge into one of said spaces at a desired level to remove one or more matches from



the arrangement, and transporting the removed matches to suitable boxes or collecting elements.

2,871,638
SHEET HANDLING APPARATUS
Fil F. Goodwin, Detroit, Mich., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application July 23, 1953, Serial No. 369,820
43 Claims. (Cl. 53—32)



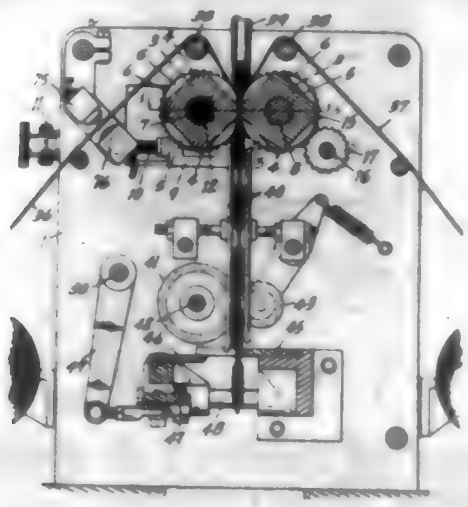
1. A sheet handling device comprising in combination means for wrapping sheet material and a wrapper into a cylindrical package, means for feeding a wrapper strip to said wrapping means, a container for receiving and retaining a plurality of wrapped packages in parallel relation, means for releasably holding said container, means for delivering wrapped packages from said wrapping means including means for laterally displacing wrapped packages into said container and operating means for operating said wrapping means, feeding means, and delivering means in a predetermined timed relationship.

43. Method of packaging flexible sheet materials in an elongated self-sealing wrapper, comprising the steps of stacking sheet material to be wrapped on the foremost wrapper of a continuous wrapper strip, clamping the next wrapper in place, reversely wrapping said stacked wrapper and material about a line transverse thereof and tearing the foremost wrapper from the clamped next wrapper to form a sealed, cylindrical package, placing said sealed package on a loading tray, pushing said package laterally off said loading tray into a container disposed in receiving position with respect to said tray, releasing said clamped wrapper, and advancing said continuous wrapper strip to place the foremost wrapper in wrapping position.

2,871,639
WRAPPER INDEXING MECHANISM FOR WRAPPING MACHINES
Eric J. Forgo, Battle Creek, Mich., assignor to Battle Creek Packaging Machines, Inc., Battle Creek, Mich.
Application February 4, 1957, Serial No. 638,041
16 Claims. (Cl. 53—180)

16. In a wrapping machine, a pair of parallel shafts having a pair of wrapping rolls thereon and driven thereby, drive means connected to rotate said shafts and rolls, said rolls having mating pockets in their surfaces with

mating sealing strips between the pockets, side sealing discs relatively rotatably mounted about said shafts at one end of each roll and in rolling contact to feed a pair of strips of sealable wrapping material between said



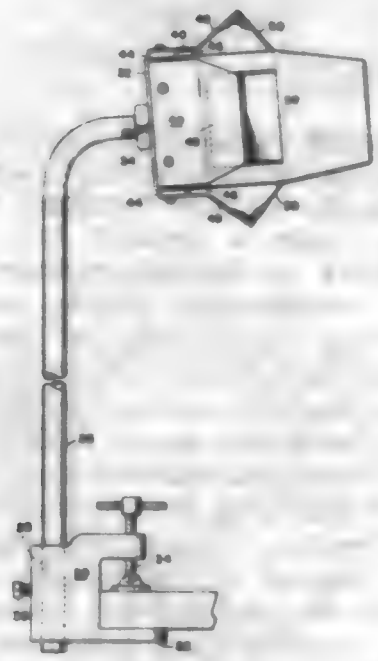
rolls to seal the side of said strips and the centers thereof between the pockets formed by said rolls, and other drive means connecting the discs for simultaneous rotation.

2,871,640

MEANS FOR OPENING CARTON FOLDING CLOSURE FLAPS

Richard C. Truini, Newark, N. Y., assignor to Bloomer Bros. Company, Newark, N. Y., a corporation of New York

Application December 18, 1957, Serial No. 703,602
3 Claims. (Cl. 53—382)



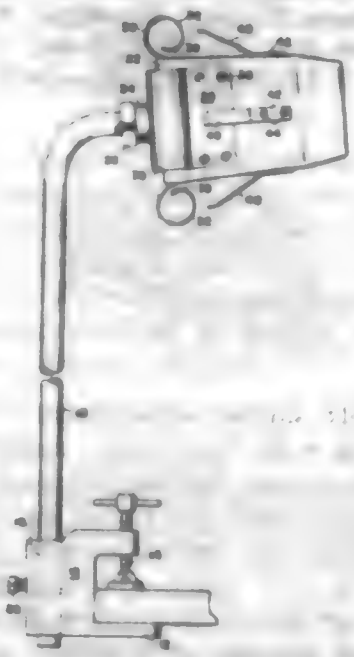
1. In a device for folding outwardly the closure flaps foldably connected with the side walls of a paperboard carton, for folding said flaps from a position in extension of and parallel with said side walls to a position extending outwardly below the plane of the carton opening to clear said opening for filling, a support, means on said support for engaging and guiding the carton side walls during movement thereof relative to said guide means, members on said guide means each forming therewith a throat, and spring actuated elements pivotally mounted on said members and normally inclined outwardly in the direction of movement of the carton for engaging said flaps during the carton movement and folding said flaps to positions inclined outwardly from the carton walls, said elements being movable by the engagement therewith of the carton side walls to swing said elements inwardly toward said throats, said carton side walls and their respective flaps being movable into said throats for pressing and folding said flaps into proximity with said side walls.

2,871,641

DEVICE FOR OPENING CARTON CLOSURE FLAPS

Leon H. Tobey, Newark, N. Y., assignor to Bloomer Bros. Company, Newark, N. Y., a corporation of New York

Application December 18, 1957, Serial No. 703,601
3 Claims. (Cl. 53—382)



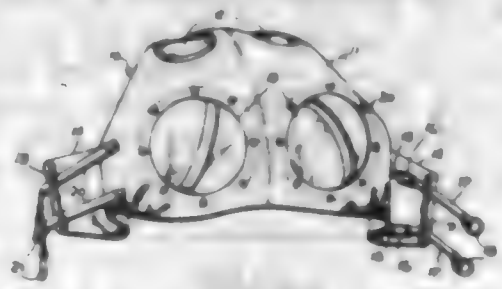
1. In a device for folding outwardly the closure flaps foldably connected with the side walls of a paperboard carton, for folding said flaps from a position in extension of and parallel with said side walls to a position extending outwardly below the plane of the carton opening to clear said opening for filling, a support, means on said support for engaging and guiding the carton side walls during movement thereof relative to said guide means, yieldable elements on said guide means inclined outwardly in the direction of movement of the carton for engaging said flaps during the carton movement and folding said flaps to positions inclined outwardly from the carton side walls and members on said guide means between which and said guide means said carton side walls and their respective flaps are pressed in the further movement of the carton, for the further folding of said flaps into proximity with said side walls, said elements being yieldable for depression by said carton side walls in the movement of said walls between said members and guide means.

2,871,642

EYE PROTECTOR

Thomas A. Damone, New York, N. Y.

Application July 1, 1955, Serial No. 519,359
2 Claims. (Cl. 54—80)



1. An eye protector for protecting the eyes of race horses, said protector comprising: a hood element adapted for positioning over the head of an animal, said hood having eye openings provided therein to expose the eyes of the horse to which the hood is applied; a rigid annular retaining ring positioned about the periphery of each of said eye openings; fastening means securing said retaining ring to the hood with a pocket formed between the hood portion surrounding the eye opening and the ring; fastening means provided at spaced distances on the

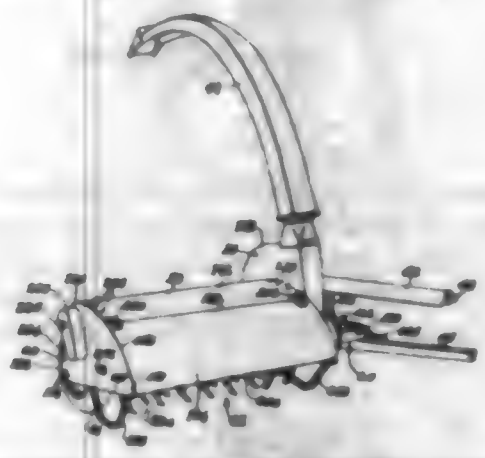
hood portion about the entire periphery of said eye opening; and eye protecting shields having mating fastening elements spaced about an edge thereof at a distance spaced to cooperate with the aforementioned fastening means whereby the protecting shields may be removably and selectively positioned at various positions to protect the eyes of the race horse under different track conditions.

2,871,643

AGRICULTURAL CROP-HANDLING MACHINE

Marcus E. McClellan, Ottumwa, Iowa, assignor, by mesne assignments, to Deere & Company, a corporation of Delaware

Application October 5, 1953, Serial No. 384,114
11 Claims. (Cl. 56—24)



1. An agricultural material handling machine adapted to advance over a field, comprising: transverse main frame structure; a crop-handling housing carried on and adjacent to one end of the main frame structure and enclosing a rotary element mounted for rotation on a transverse horizontal axis, said housing having transversely spaced apart opposite sides; drive mechanism supported at said one end of the main frame structure and at one side of the housing and including a forwardly projecting input shaft and a transverse output shaft driven by the input shaft and coaxial with and connected to the rotary element; transverse conveyor means mounted on the main frame structure at and leading to the other side of the housing and having a housing-remote end adjacent to the other end of the main frame structure; a hollow shaft journaled as respects the housing and rotary element and connected to and for driving the conveyor means; a drive shaft extending coaxially through said hollow shaft and having one end within the housing and connected to the rotary element and having its opposite end projecting axially beyond the other end of said hollow shaft; speed-reduction drive means interconnecting the projecting end of the drive shaft and said proximate end of the hollow shaft to drive the conveyor means via said hollow shaft at a speed different from that of the rotary element; crop-collecting means on the main frame structure ahead of the conveyor means and operative to collect crops and deliver them rearwardly to said conveyor means, said crop-collecting means having a rotatable driven member substantially directly ahead of the crop-handling housing; a rotatable driving member coaxial with and keyed to the aforesaid driving shaft; and an endless drive element trained about said driving and driven members to drive the crop-collecting means directly from said driving shaft.

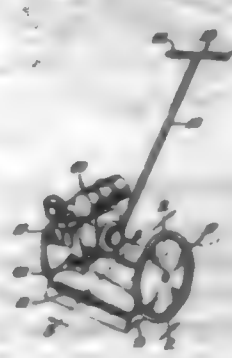
2,871,644

LAWN MOWER

Carl W. Mott, Lake Ozark, Mo., assignor to Mott Corporation, Brookfield, Ill., a corporation of Illinois

Application January 10, 1955, Serial No. 480,796
5 Claims. (Cl. 56—26)

1. A lawn mower comprising a rotor supporting frame in the form of an open-bottom hood having opposite axially spaced end walls, a substantially semi-cylindrical rear wall extending between rear portions of the end walls, an upper wall extending between upper portions of the end walls and extending forwardly and downwardly from an upper portion of the rear wall, and a front wall extending between the end walls and downwardly from a forward edge of the upper wall, rotor supporting bearing means respectively in said end walls substantially coaxially with the semi-cylindrical rear wall, the forward wall of the hood-like frame being disposed forwardly from said bearing means at least substantially twice the distance that the bearing means are spaced forwardly



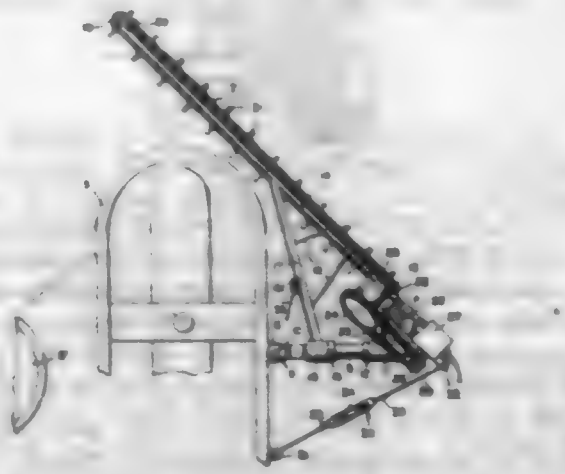
from the portion of the rear wall which is at the same elevation as the common axis of said rotor supporting bearing means, a grass cutting rotor structure within the hood-like frame and extending between and journalled in the rotor supporting bearing means, means for rotating the rotor structure in the direction to sweep the lower portion thereof forwardly and upwardly, wheel attaching bearings on the outer sides of the end walls above and substantially in vertical alignment with the rotor supporting bearings, and ground engaging wheels having hubs respectively journalled upon the wheel bearings.

2,871,645

APPARATUS FOR MECHANICALLY HANDLING SUGAR CANE STALKS DURING HARVESTING

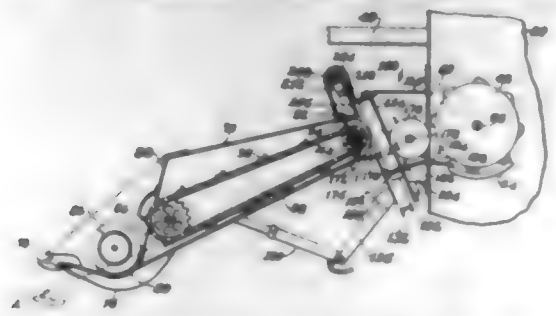
Royal J. La Rose, Thibodaux, and Edward P. Clause, Labadieville, La.

Application November 23, 1954, Serial No. 470,642
4 Claims. (Cl. 56—119)



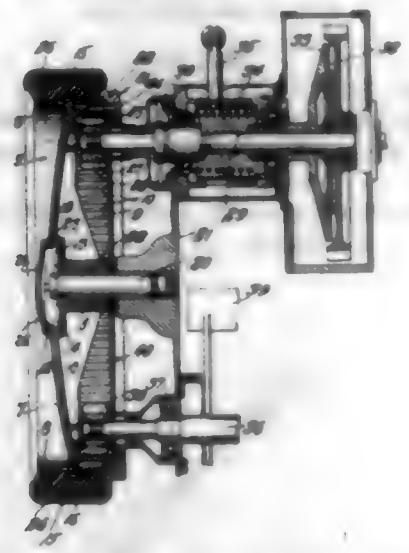
1. A sugar cane lifting and turning device for cut stalks of cane, comprising a mobile supporting means, adapted to be moved along a row of cane stalks, an elongated cane moving means on said mobile supporting means adapted to engage and move cut cane stalks therealong, said moving means having a forward lower end and a rear elevated end, the said rear end being laterally displaced with respect to the normal line of movement of said supporting means, whereby cane stalks will be engaged and moved laterally to clear a path for movement of said mobile supporting means along a row of uncut stalks.

2,871,646
HILLSIDE COMBINE
Daniel C. Heitshu, Bernard F. Vogelaar, and Glen W. Rohweder, Moline, Ill., assignors, by mesne assignments, to Deere & Company, a corporation of Delaware
Application July 30, 1957, Serial No. 675,142
17 Claims. (Cl. 56—209)



1. In a hillside harvester having a fore-and-aft body including a forwardly facing crop-inlet opening, and a transverse header disposed ahead of the body and having a rearwardly facing crop-outlet opening, the improvement comprising: fore-and-aft housing means interconnecting the header and body and communicating the header and body openings; and said housing means including a swivel joint substantially normal to the fore-and-aft axis of the housing means enabling pivoting of the header relative to the body about a downwardly and forwardly inclined axis within said housing means.

2,871,647
LAWN MOWER WHEEL
William A. Schrade, Clemson Park, and Richard D. Clemson, Middletown, N. Y., assignors to Clemson Bros., Inc., Middletown, N. Y.
Application June 6, 1956, Serial No. 589,629
3 Claims. (Cl. 56—249)

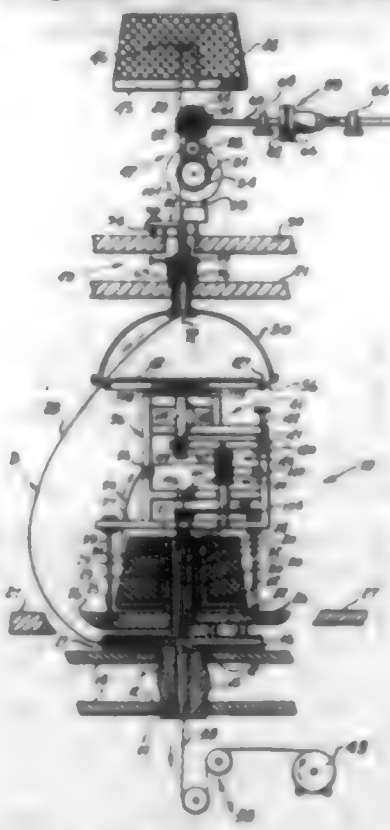


1. An integral one-piece lawn mower drive wheel comprising a hub, a disk, a rim at the outer periphery of the disk, an internal ring gear projecting laterally from one side of said disk in radially spaced relation to the rim and extending beyond the rim at one side, said ring gear having teeth at its inner periphery, and the entire wheel, including said internal ring gear and teeth, consisting of a homogeneous mass of a tough, rigid resilient plastic.

2,871,648
TWISTING SPINDLE BALLOON CONTROL
Alfred W. Vibber, Ridgewood, N. J.
Application November 4, 1957, Serial No. 695,477
25 Claims. (Cl. 57—58.36)

23. Mechanism for twisting together two strands, comprising a source of supply of a first strand and a support carrying a let-off strand package for a second strand, a rotatable shaft operable to rotate a balloon of the first strand about the let-off package and also to ply the two strands together at a plying junction, a first, variable speed means for feeding the first strand into the balloon, means outside the balloon and contacted thereby only when the balloon reaches a predetermined, first diameter for controlling the first feeding means, a second variable speed means for feeding the second strand to the plying junction, means inside the balloon and contacted thereby only when the balloon reaches a predetermined second, smaller diameter for controlling the second feeding means, whereby the diameter of the balloon is maintained within predetermined limits, and means for pulling the plied strand away from the plying junction at constant speed.

25. Mechanism for twisting together two strands, comprising a source of supply of a first strand and a support carrying a let-off strand package for a second strand, a rotatable shaft operable to rotate a balloon of the first

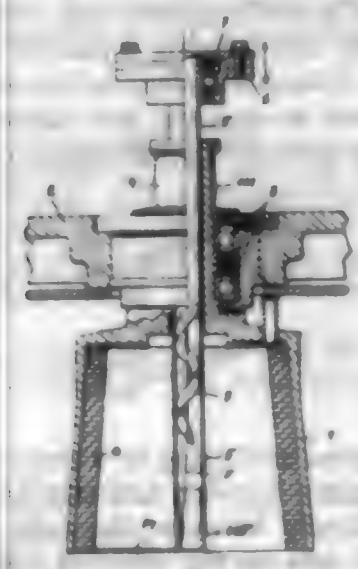


strand about the let-off package and also to ply the two strands together at a plying junction, a first frictionally retarded variable speed means for feeding the first strand into the balloon, means outside the balloon and operated thereby only when the balloon reaches a predetermined, first diameter for decreasing the speed of the first feeding means, a second frictionally retarded variable speed means for feeding the second strand to the plying junction, means inside the balloon and operated thereby only when the balloon reaches a predetermined second, smaller diameter for increasing the speed of the second feeding means, whereby the diameter of the balloon is maintained within predetermined limits, and means for pulling the plied strand away from the plying junction at constant speed.

2,871,649
CENTRIFUGAL CAN SPINNING UNITS
Adriano Gardella and Constantino Gardella, Genoa, Italy
Application January 17, 1956, Serial No. 559,745
Claims priority, application Italy January 18, 1955
5 Claims. (Cl. 57—77)

5. In a centrifugal can-spinning unit comprising: a bell-like rotatably suspended centrifugal spinning can having a closed top with an axial bore; means for driving said can at selected high speed, movable supporting means reciprocal towards or away from said spinning can, a straight tubular thread guide mounted on said supporting means and slidably traversing said axial bore and projecting in part into said spinning can, at least the part of the straight thread guide which projects into the said can being idly rotatable, thread-engaging friction surfaces in said rotatable thread guide part, the driving connection between said straight thread guide and the said spinning can being established by the thread

section tensioned between the thread guide outlet and the thread coiled in the spinning can so that the rotatable part of said thread guide is rotated each time said tension becomes excessive due to a hindrance of the free passage of the thread through the thread guide, means for ad-



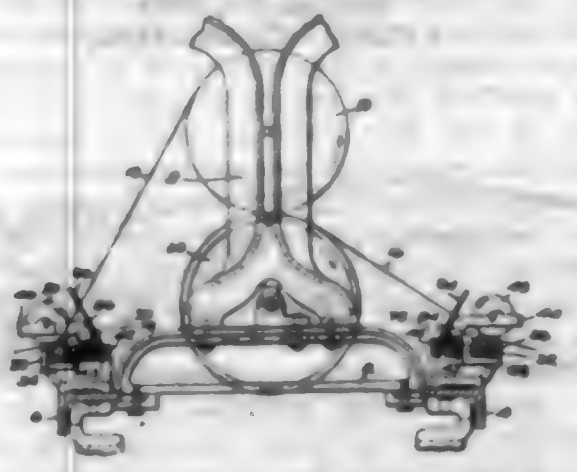
justably braking the rotation of said rotatable thread guide part, said means comprising a drum-like part fastened to said rotatable thread guide part, a fixed spring brake having a shoe urged into contact with said drum, and means for adjusting the force of said spring brake.

2,871,650

MEANS FOR MOUNTING THE TOP ROLLS OF A SPINNING FRAME FOR QUICK THREADING OF ROVING

John A. Koolstra, North Andover, Mass., assignor to Davis & Furber Machine Company, North Andover, Mass., a corporation of Massachusetts

Application October 17, 1956, Serial No. 616,460
8 Claims. (Cl. 57—90)



1. In combination with a spinning machine having a plurality of rotatable top back rolls cooperating with bottom back rolls for feeding roving to the machine from jack spools, apparatus for supporting said top back rolls comprising, a plurality of individual brackets, one for each top back roll, each bracket comprising a base portion secured to the machine, a pair of arms extending laterally of the machine provided with means for receiving the opposite ends of the shaft of one of said top back rolls, means holding said arms in spaced parallel relation to each other, and means connecting only one of said arms to said base portion acting to support said arms in vertical spaced relation to said base portion.

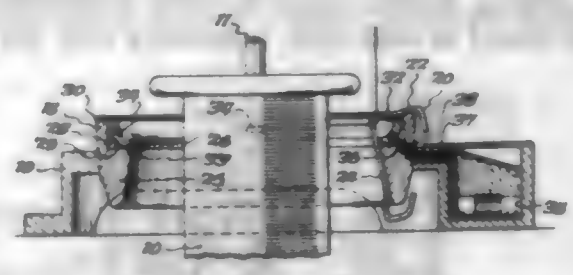
2,871,651

SPINNING RINGS

Charles Fillinger, Cheektowaga, N. Y., assignor to Herr Manufacturing Company, Inc., Buffalo, N. Y.

Application September 23, 1955, Serial No. 536,084
6 Claims. (Cl. 57—120)

1. A spinning ring formed for cooperation with a traveller and having an upper bearing surface and a substantially upright bearing surface on the inner face of said ring, said ring being formed of two parts secured together in contact with each other to form at their surfaces of contact capillary seams terminating at their outer



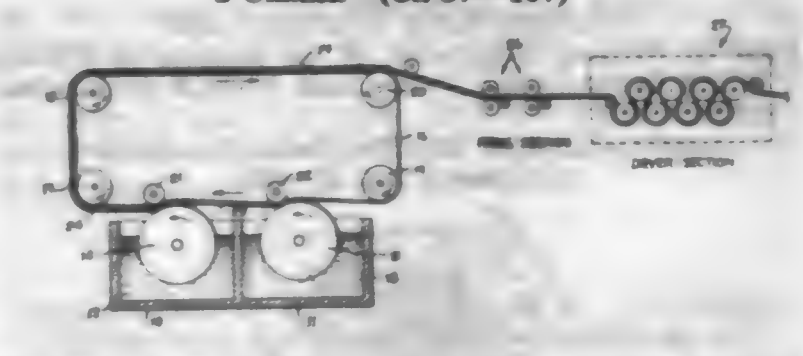
edges at both of said bearing surfaces, and wick means for supplying lubricant to the inner edges of said seams, said traveller extending across said seams in close proximity to the same.

2,871,652

TWISTED PAPER YARN

Harold A. Schwartz, Norwalk, Conn., assignor to Patchogue-Plymouth Corporation, a corporation of New York

Application March 26, 1956, Serial No. 574,019
2 Claims. (Cl. 57—167)



1. The method of producing a paper yarn of good appearance and body as well as high tensile strength, comprising the steps of forming a first wet lap of thin and good quality paper stock, forming a second wet lap of relatively bulky and poor quality paper stock, superposing said first and second wet laps, pressing and drying said superposed laps integrally to bond same together and thereby form a laminated paper web in which the first lap constitutes a cover ply and the second lap constitutes a filler ply, slitting said paper web into ribbons, and twisting said ribbons in a direction exposing the cover ply and concealing the filler ply to form said yarn.

2,871,653

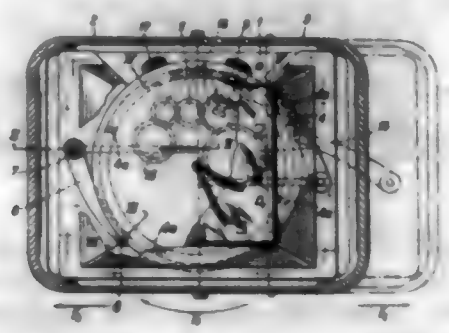
WATCH WOUND BY ENCLOSING SHEATH

Bernard Ditesheim, La Chaux-de-Fonds, Switzerland, assignor to Fabriques Movado, La Chaux-de-Fonds, Switzerland, a Swiss firm

Application April 6, 1956, Serial No. 576,561
Claims priority, application Switzerland
September 24, 1955
2 Claims. (Cl. 58—30)

1. In combination with a watch including a clockwork, the provision of a watch case provided with a dial, a protecting sheath including two caps opening towards each other along a straight line and adapted to slide with reference to each other over the watch case into and out of a position uncovering the dial on the latter, the opposite inner surfaces of each cap being provided with longitudinal grooves extending inwardly starting from their outer edge facing the other cap and with recesses deeper than the grooves and inside which the latter terminate, a ring coaxial with the watch dial revolubly carried by the watch case and including a toothed angular section, two connecting rods pivotally secured to diametrically opposed points of the ring through one end, means pivotally connecting the other end of each connecting rod with the corresponding cap and including an elastically extending

spindle system, the ends of which are adapted to enter the recesses formed in said corresponding cap along the grooves formed in the latter, said connecting rods being adapted to make said ring rotate under the action of the relative sliding movement of the caps, a winding-up stem, a pinion keyed to said stem, registering with the ring and



adapted to mesh with the toothed section of the ring to be rocked by the rotary movement of the ring under the dial when the caps are caused to slide with reference to each other and means operatively connecting the winding-up stem with the watch clockwork for at least one predetermined direction of rotation of said stem.

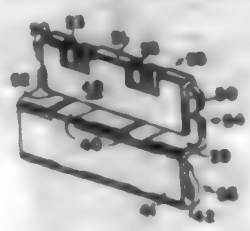
2,871,654
WATERPROOF WATCH-CASE
Emil E. Fachon, Edgewood, R. I., assignor to Bulova Watch Company Inc., New York, N. Y., a corporation of New York
Application April 14, 1954, Serial No. 423,834
8 Claims. (Cl. 58—90)



1. A moisture proof watch casing comprising a container for a watch movement, said container including a back plate and an upstanding rim having a rim-flange, a crystal of compressible material having a backwardly extending integral collar outside said rim-flange along a sidewall surface portion of the latter, a bezel for said container and having an inside surface portion received endwise over said sidewall surface portion of the rim-flange and outside said crystal collar, and an attenuated portion extending around one of said surface portions in integral relation thereto and having a contact surface adjacent to the other of said surface portions, locally reducing the space between said surface portions and by pressure locally reducing the thickness of said compressible collar, and thus providing a moisture tight seal between said surface portions frictionally resisting endwise separation of said bezel, crystal and container from their assembled positions.

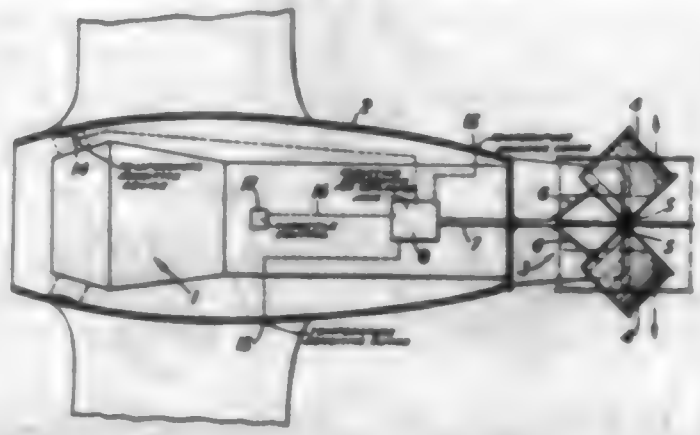
2,871,655
ADJUSTMENT LINK FOR WRISTBAND
Rudolph O'Larte, Upper Montclair, and Joseph T. Polese, East Paterson, N. J., assignors to Jeweler's "Own" Brand, Inc., Upper Montclair, N. J., a corporation of New Jersey
Application April 19, 1955, Serial No. 502,492
1 Claim. (Cl. 59—82)

For use with a wristwatch band of the type having an expansible chain of a plurality of links normally disposed in side-by-side relation, the terminal link of which has a hooked end; an adjustment link comprising a sheet having a first end and a second end and two side edges, said sheet having an offset intermediate its ends defining two portions extending oppositely in spaced parallel planes, each end being reentrantly bent from the plane of its own portion into a plane of the other portion to define a link with an S-shaped cross sectional configuration having two oppositely directed hooks, the hook on said first end extending from one side edge to the other side edge and having a pair of laterally spaced slots extending from its free end inwardly and defining a pair of laterally spaced tabs deflectable toward the plane of its own portion, said tabs being disposed at opposite side edges of the hook on said first end and extending longitudinally of the link, the



hook on said second end being of a transverse dimension less than the distance between said tabs and being dimensioned to fit laterally between the tabs of an adjacent similar link, said tabs on the adjacent link being deflectable toward the body portion of the link along a line transverse to the link when the hook of said second end of said link is interengaged with the hook and lies between the tabs of a first end of said adjacent link, whereby the opposite sides of said hook on said second end abut the inner longitudinal edges of said tabs to prevent relative lateral separation of said links.

2,871,656
JET-DIVERTING EQUIPMENT
William E. P. Johnson, Hempstead, London, England, assignor to Power Jets (Research & Development) Limited, London, England, a British company
Application January 25, 1954, Serial No. 405,963
Claims priority, application Great Britain December 7, 1951
1 Claim. (Cl. 60—35.54)



An aircraft including a jet-propulsion gas turbine power plant, a jet-nozzle connected to the power plant, an air intake duct leading to the power plant, pivotably mounted jet-diversion members positioned at the discharge end of the jet-nozzle, a linkage to vary the position of the jet diversion members, a first thermocouple mounted with its hot junction in the air intake duct, a second thermocouple mounted with its hot junction outside the power plant and at a position where heating of the aircraft structure by the diverted jet above a predetermined temperature can occur, a cylinder, a spring-loaded piston slidable in the cylinder and connected to the linkage, a pump connected to supply fluid to said cylinder to move the piston in opposition to its spring load, a constantly open restricted outlet from said cylinder for said fluid, a throttle for the power plant, an electrical amplifying device to amplify signals derived from the thermocouples, a first electric motor to drive the pump, a first electrical circuit connected to the first motor, a second electric motor to operate the throttle, a second electrical circuit connected to the second elec-

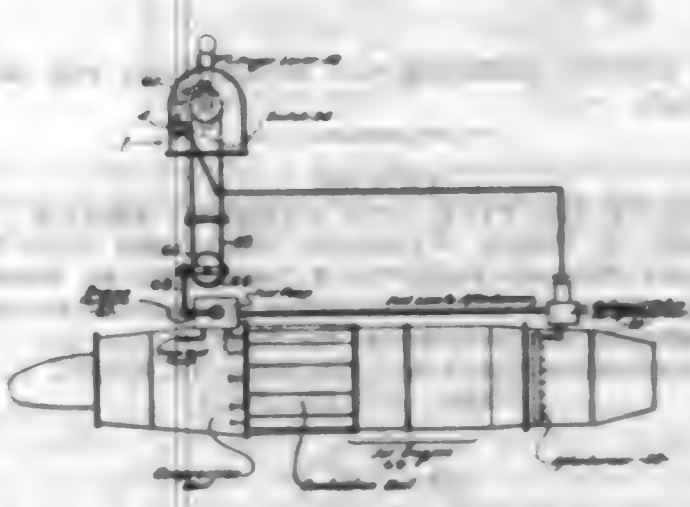
tric motor, a third electrical circuit connected to the amplifying device, a first relay in the third circuit operative to break the first circuit, and a second relay in the third circuit operative to make the second circuit, the third circuit being energized by the amplifying device whenever either of the thermocouples detects a temperature above the predetermined temperature.

2,871,657

THROTTLE CONTROL FOR USE IN A JET ENGINE HAVING AN AFTERBURNER

Charles E. Oates, Manhattan Beach, and Maxine S. Brunner, Torrance, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application February 1, 1954, Serial No. 407,232
4 Claims. (Cl. 60—35.6)



1. In an aircraft powered by a combustion engine having main and auxiliary fuel jets, a throttle assembly comprising: a throttle housing mounted in said aircraft; a throttle arm having a pair of opposed surfaces and being mounted on said housing for pivotal movement through a predetermined arcuate path between retarded and advanced positions in which said arm is disposed at respective opposite ends of said arcuate path; said arm having an intermediate position in which said arm is disposed at a predetermined angular position between said retarded and advanced positions; first means operatively connected to said arm and being adapted to regulate fuel flow to said main jets as said arm is pivoted between said retarded and advanced positions; and second means including cam means pivotally mounted in said housing in the arcuate path of said arm; manually operable means mounted on said arm for movement through a limited range; a valve adapted to allow and arrest fuel flow to said auxiliary jets when actuated between open and closed positions, respectively; said manual means being in contact with said cam means at such time as said arm is in said intermediate, advanced and all positions therebetween; said manual means acting to pivot said cam means in one direction to open said valve when moved to one end of its range and acting to pivot said cam in the opposite direction to close said valve when moved to the other end of its range.

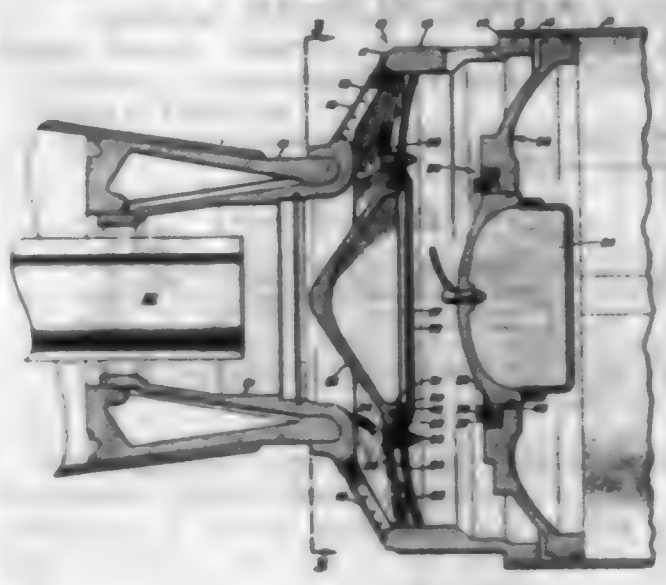
2,871,658

SUSTAINER EXHAUST GAS DEFLECTOR

William J. Keck, Sacramento, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application December 23, 1957, Serial No. 704,345
8 Claims. (Cl. 60—35.6)

4. A safety device for preventing the complete ignition of a pair of rockets in fore and aft tandem formation due to the accidental ignition of either of said rockets, comprising an adapter secured to the forward end of the aft rocket, said adapter including a forwardly extending portion secured to the aft end of the fore rocket and encompassing the tailpipe of said fore rocket, said adapter having a hollow interior for the collection of gases and a plurality of vent holes formed substantially medially thereof in an annularly spaced series to permit the escape of said collected gases, and a conical deflector within said adapter and positioned to deflect collected gases from



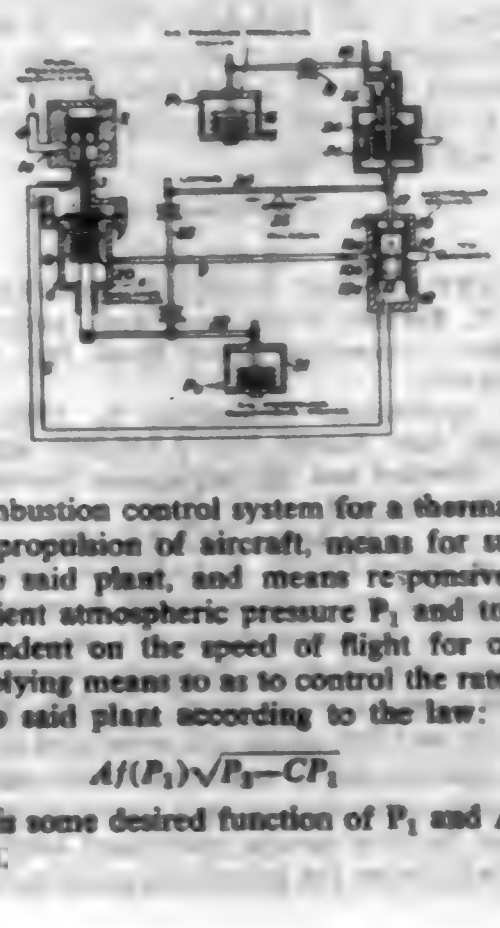
the fore rocket to said vent holes, said deflector being displaceable forwardly by gas pressure from said aft rocket to a position to deflect collected gases from the aft rocket to said vent holes, said deflector then sealing off the forward interior portion of said adapter to provide an isolating chamber for said fore rocket.

2,871,659

FLIGHT-SPEED RESPONSIVE FUEL CONTROL SYSTEM FOR JET PROPULSION POWER PLANT

Reginald Henry Douglas Chamberlin, Ealing, London, Dennis Hainsworth Mallinson, Fleet, and Rhys Price Probert, Frimley Green, Aldershot, England; said Chamberlin assignor to D. Napier & Son Limited, London, England, a company of Great Britain; said Mallinson and said Probert assignors to Power Jets (Research and Development) Limited, London, England, a British company

Application January 14, 1952, Serial No. 266,262
Claims priority, application Great Britain
January 17, 1951
14 Claims. (Cl. 60—39.28)



1. In a combustion control system for a thermal power plant for jet propulsion of aircraft, means for supplying liquid fuel to said plant, and means responsive jointly to static ambient atmospheric pressure P_1 and to a pressure P_2 dependent on the speed of flight for operating said fuel supplying means so as to control the rate of supply of fuel to said plant according to the law:

$$Af(P_1)\sqrt{P_2-CP_1}$$

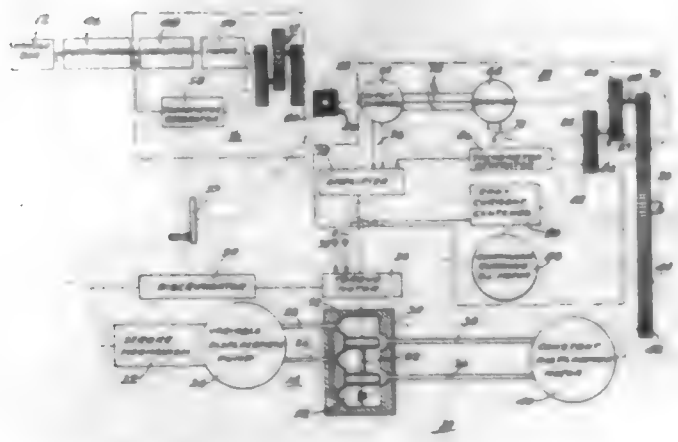
where $f(P_1)$ is some desired function of P_1 and A and C are constants.

2,871,660

REMOTE CONTROL SYSTEM

Donald C. McDonald, Wellesley, Mass., and Robert C. Boe, Des Plaines, and Jay Warshawsky, Chicago, Ill., assignors, by mesne assignments, to Cook Electric Company, Chicago, Ill., a corporation of Delaware

Application November 9, 1953, Serial No. 391,056
8 Claims. (Cl. 60—53)



1. In combination, a movable load device, a movably mounted manual controller having a neutral position and being manually displaceable therefrom to any desired extent within a predetermined range, first bi-directional motive means coupled to said load device and having power sufficient to move said load device rapidly and with substantial acceleration, second bi-directional motive means coupled to said load device and having power lower than that of said first motive means but sufficient to move said load device slowly, and control means interconnecting said manual controller and said first and second motive means operative responsively to any displacement of said controller from said neutral position to feed energy from said second motive means to said load device for moving the same and operative responsively to displacement of said manual controller from said neutral position greater than a predetermined amount to feed additional energy to said load device from said first motive means for moving the same rapidly, said control means including a closed-loop servomotor system containing the said second motive means, the said closed-loop system being controlled by the position of said load device such that energy is fed to said load device from said second motive means responsively to movement of said load device which is unaccompanied by displacement of said manual controller, said last-mentioned energy being fed to said load device in the direction tending to oppose and cancel said last-mentioned movement of said load device.

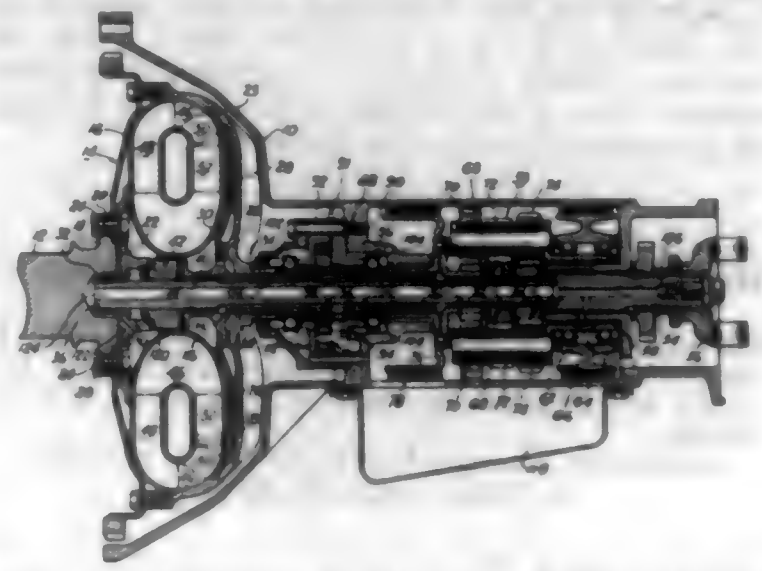
2,871,661

HYDRAULIC TORQUE CONVERTER

Richard T. Burnett, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Original application September 8, 1951, Serial No. 246,250, now Patent No. 2,745,295, dated May 15, 1956. Divided and this application November 2, 1955, Serial No. 544,424
3 Claims. (Cl. 60—54)

2. In a hydro-kinetic transmission having rotatable bladed impeller and turbine wheels forming a closed hydraulic circuit, the combination of a pump having a rotor for delivery of fluid to the hydraulic circuit, a first sleeve connected to said turbine wheel, a hollow stub shaft concentric with said first sleeve and connected to said impeller wheel, a second sleeve concentric with said first sleeve and drivably connected to said pump rotor for rotating said rotor, bearing means interposed between said first and second sleeves for permitting relative rotation therebetween, a first one-way clutch drivably connecting said second sleeve with said first sleeve, and a second one-way



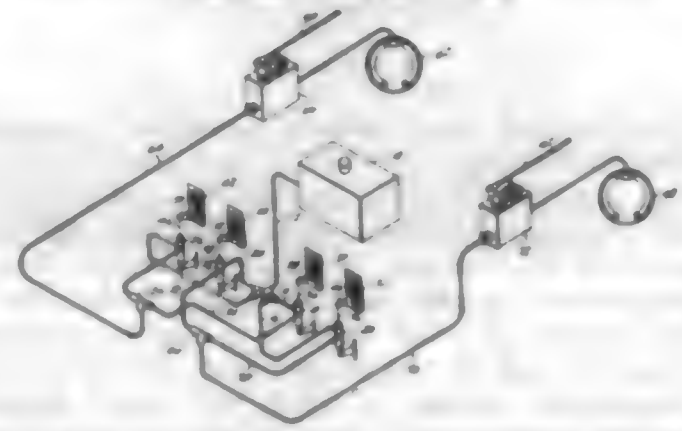
clutch drivably connecting said second sleeve with said stub shaft.

2,871,662

VALVE SHUTTLE AND PARKING BRAKE

Raymond H. Nagel, Wyandotte, Mich., and Cyril B. Rogers, Niagara Falls, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application March 10, 1954, Serial No. 415,457
1 Claim. (Cl. 60—54.5)

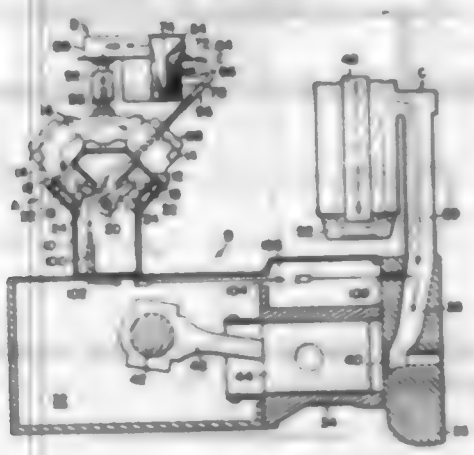


A fluid operated braking system comprising a fluid source; a fluid actuated brake; a pair of independently controlled pressure inducing devices; a valve assembly; a parking brake mechanism; and a closed fluid system between the fluid source and the brake including a first fluid path that extends from the fluid source through one of the said pressure inducing devices, the valve assembly and the parking brake valve mechanism to the brake and a second fluid path that extends from the fluid source through the other of the pressure inducing devices, the valve assembly and the parking brake valve mechanism to the brake; said valve assembly including a shuttle type valve element which is normally biased toward a first position where the first fluid path is open and the second fluid path is closed and which assumes a second position closing the first fluid path and opening the second fluid path when the said other pressure inducing device is actuated; said parking brake mechanism comprising valve means through which fluid of the fluid system must flow, means biasing the valve means towards a closed position wherein flow of fluid in the system toward the fluid source is prevented and flow toward the brake is not substantially restricted, cam means for normally maintaining the valve means in an open position, and parking brake operating means for rotating the cam means causing the valve biasing means to move into its said closed position; means for automatically compensating for loss of fluid pressure in the system between the said valve means and the brake when the parking brake is engaged; and means for maintaining the compensating means inoperative when the parking brake is disengaged.

2,871,663
CRANKCASE VENTILATING SYSTEM AND DUPLEX AIR CLEANER ESPECIALLY THEREFOR

Barrett G. Rich, Waterloo, Iowa, assignor, by mesne assignments, to Deere & Company, a corporation of Delaware

Application June 18, 1954, Serial No. 437,834
8 Claims. (Cl. 60—97)

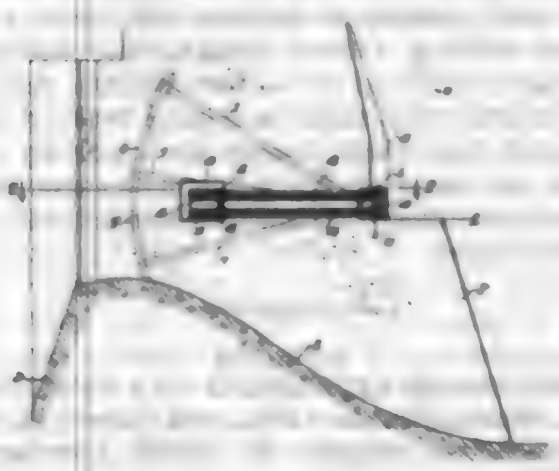


2. In combination: a first internal-combustion engine having an air-intake system; a second internal-combustion engine having an air-intake system, a crankcase and air-transfer passage means connecting said crankcase and said second engine air-intake system; said engines being arranged for operation of either independently of the other; an air cleaner having therein air-cleaning means providing first and second separate cleaned-air zones; first air-flow duct means connecting the first cleaned-air zone exclusively to the first engine air-intake system; and second air-flow duct means connecting the second cleaned-air zone to the second-engine crankcase so that sub-atmospheric pressure developed in the air-intake system of the second engine during operation of said second engine exclusively of the first engine will cause cleaned-air to flow exclusively from said second cleaned-air zone via the second air flow duct means, the second engine crankcase and the air-transfer passage means into said second engine air-intake system.

2,871,664
PRESTRESSED ANCHORAGE FOR TAINTER GATE TRUNNIONS AND METHOD FOR DOING SAME

Carson Dobell, Bronxville, N. Y., assignor to The Preload Company, Inc., New York, N. Y., a corporation of Delaware

Application February 24, 1953, Serial No. 338,402
13 Claims. (Cl. 61—25)

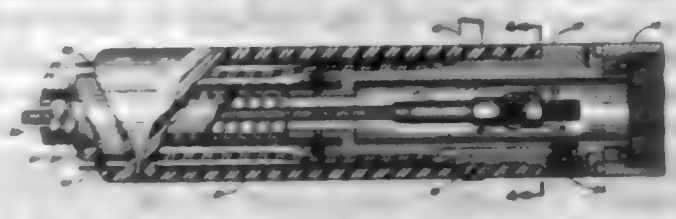


1. In a dam construction including a spillway, a concrete pier located on each side of said spillway, a trunnion imbedded in the concrete of said pier with one end of said trunnion projecting outwardly from said pier, the imbedded portion of said trunnion being surrounded by concrete in the upstream and downstream directions, and a spillway gate for closing said spillway pivotally supported by said trunnions the improvement that comprises means compressing the concrete in each pier between a point on the downstream side of said trunnion and a point on the upstream side of said trunnion when said spillway gate is free from a water pressure load.

2,871,665
SEISMIC CABLE LIFTING APPARATUS

Harry Brandt, Whittier, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application October 20, 1955, Serial No. 541,715
1 Claim. (Cl. 61—72)



Apparatus for controlling the vertical location of a horizontal seismic detector cable in a body of water comprising a flexible elongated float means of controllable buoyancy attached to and parallel with the seismic cable, gas chambers in said float means, said gas chambers separately sealed and horizontally displaced from each other along the length of said float means, means to introduce a gas separately into each of said chambers, a flexible wall in each of said chambers and disposed interiorly of said float means, a flexible conduit disposed interiorly of said float means to form a passage for a liquid longitudinally therethrough, perforations formed through the walls of said conduit to provide access for said liquid to the interior of said float means throughout its length to exert liquid pressure on the said flexible wall of each of said chambers, and means to introduce a liquid under pressure into said conduit and to release said liquid from said conduit to control the buoyancy of said float means.

2,871,666
EXPANSIBLE MANDREL INCLUDING JACKS, FOR DRIVING TUBES INTO THE GROUND

Edgard Pickman, Brussels, Belgium, assignor to Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme, Liege, Belgium

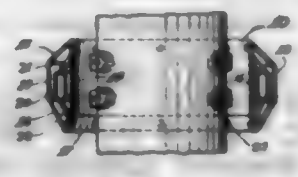
Application May 14, 1954, Serial No. 429,903
Claims priority, application France March 15, 1954
2 Claims. (Cl. 61—79)



1. An expansible mandrel operable with driving means for driving tubes into the ground, comprising an even number of longitudinally extending segments having upper ends for receiving a driving force applied by the driving means, said segments being arranged in diametrically opposed pairs and movable radially with respect to each other, each of said segments having an arcuate member

for application against the inner surface of the tube to be driven, fluid pressure operated jacks arranged at right angles to the longitudinal axes of the segments at the center of the cross-sectional area thereof for acting on the central portions of the associated arcuate members at least two jacks associated with each pair of diametrically opposed segments and distributed along the length of the latter with the jacks associated with different pairs of segments being spaced apart in the longitudinal direction of the latter, each of said jacks including a cylinder secured to the arcuate member of one of the related pair of segments and having an open inner end with a piston slidable in the cylinder, a thrust member on the arcuate member of the other of said related pair of segments which is diametrically opposed to said one segment on which the cylinder is secured and being located in alignment with said piston to receive the thrust of the latter when the piston is projected out of said open inner end of the related cylinder, means for supplying fluid under pressure to the outer end of the cylinder of each jack adjacent the arcuate member to which said cylinder is secured so that the pistons of the jacks are projected out of the open inner ends of the related cylinders to effect radially outward movement of the segments, and contraction means operatively connected to said segments and capable of causing radially inward movement of said segments upon the elimination of the fluid pressure acting in said jacks to cause said radially outward movement.

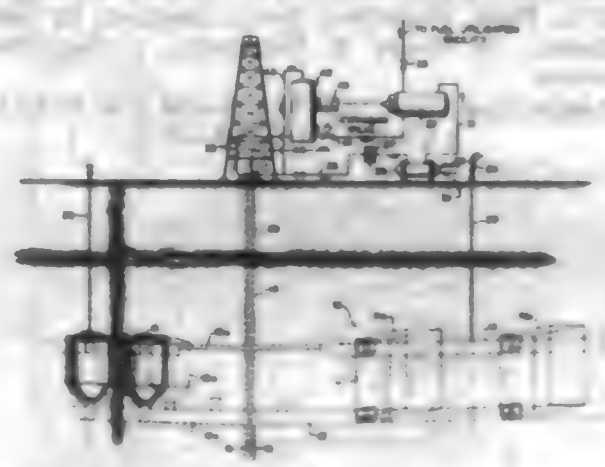
2,871,667
PILE SALVAGE RING
Wendell Herman Neddermann, College Station, Tex., assignor, by mesne assignments, to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 24, 1954, Serial No. 439,094
3 Claims. (Cl. 61—80)



1. Pile salvage apparatus comprising a hollow ring formed of hinged, semi-circular segments adapted to encircle a pile, said ring having an inner wall of such diameter as to provide an annular space between it and the pile and having a portion lying generally parallel with the surface of the pile, another portion of said inner wall being outwardly flared, orifices in said ring arranged in annular series and directed inwardly at an angle to project said fluid at an acute angle to the axis of the ring, and a conduit connecting said ring with a source of fluid under pressure.

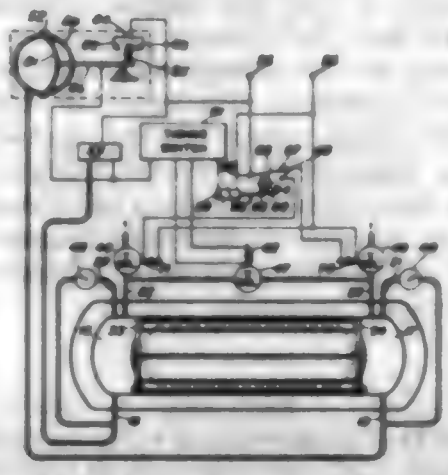
2,871,668
UNDERGROUND STORAGE
Edwin E. Reed, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application November 21, 1955, Serial No. 548,058
3 Claims. (Cl. 62—54)

1. In a system for underground storage wherein a body of liquid is stored in an underground cavern with a vapor space overlying said liquid, in combination, a compressor, a line connecting the inlet of said compressor to the vapor space of said cavern, a condenser, means for supplying a cooling medium to said condenser, a line connecting the outlet of said compressor to said condenser, an accumulator, a line connecting said condenser to said accumulator to transfer condensate thereto, a vapor-liquid separator vessel connected to the lower portion of said accumulator, means for maintaining said separator vessel at a substantially lower pressure than said accumulator, a line connecting the vapor space of said separator vessel to the inlet of said compressor and



a line for passing the liquid from said separator back to said underground cavern.

2,871,669
RADIATION SHIELD CIRCULATION SYSTEM FOR LARGE LIQUEFIED GAS STORAGE CONTAINERS
Douglas Munn and John Macinko, Boulder, Colo., assignors to the United States of America as represented by the Secretary of the Navy
Application December 5, 1956, Serial No. 626,551
8 Claims. (Cl. 62—54)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A heat-shielded storage container for cold substances comprising a structure of at least three closed shells including an inner shell for holding the cold substance, an outer shell normally at room temperature enclosing said inner shell, and an intermediate shell having opposed ends interposed between the inner and outer shells and defining a heat shield, liquid holding tanks placed one at each end of the intermediate shell, coolant pipes connecting said tanks and lying between the intermediate and inner shells, means for supplying cold substances to said inner shell and coolant to said tanks, and means for circulating said coolant automatically through said coolant pipes.

2,871,670
PROCESS OF LIQUEFIED GAS PUMPING
Dieter K. Hazel, Reseda, Calif., and Robert M. Sherman, Tucson, Ariz., assignors to North American Aviation, Inc.
Application April 28, 1953, Serial No. 349,776
2 Claims. (Cl. 62—55)

1. The process of preventing cavitation of a low boiling point liquefied gas wherein a low boiling point liquefied gas being fed to a pump forms gaseous voids in a pipe leading to said pump, comprising passing a liquefied gas into the pipe said gas being at a temperature substantially below ambient air temperature surrounding said pipe, providing a second pipe open at both ends and substantially concentric to and within said first-mentioned

pipe, maintaining sufficient heat input from the ambient air to an annular space between said pipes to generate vapor therein and circulate the liquefied gas down said

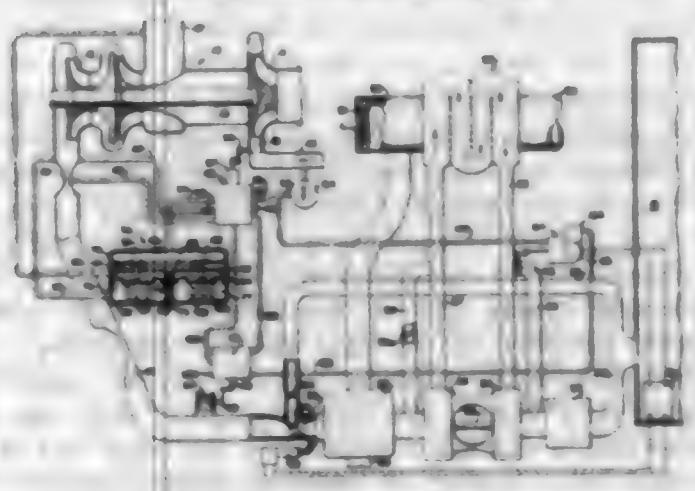


second pipe and up the annular space between said first-mentioned pipe and said second pipe whereby said gaseous voids are prevented from entering said pump.

2,871,671
CONTROLS FOR AN AIR CONDITIONING SYSTEM

James L. Bartlett, Jr., Rolling Hills, Calif., Heber T. Hartzog, Phoenix, Ariz., and Robert M. Pickard, Hermosa Beach, Calif., assignors to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application May 28, 1956, Serial No. 587,527
15 Claims. (Cl. 62—172)

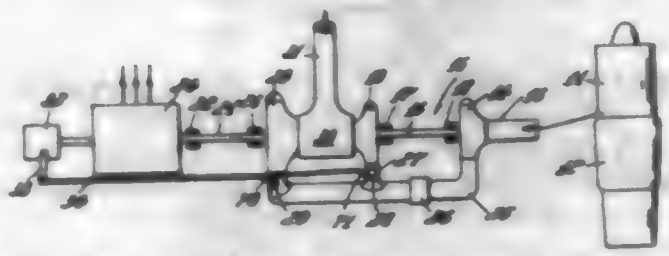


7. In an air conditioning system adapted for connection to a source of high pressure air: a turbocompressor comprising a turbine arranged to be driven by said high pressure air and a compressor driven by said turbine and having an inlet for air to be conditioned and a compressed air outlet; means for conducting discharge air from said compressor outlet to an enclosure; means for conditioning said discharge air prior to delivery to said enclosure, including a cooling turbine, a by-pass duct around said cooling turbine, and a by-pass valve located in said by-pass duct and normally controlled by a temperature controller in response to enclosure temperature variations; a flow control venturi located in said discharge air conducting means adjacent said compressor outlet; a surge bleed valve in said compressor discharge air conditioning means upstream of said air conditioning means; a variable area nozzle for admitting said high pressure air to said turbine; actuating means for modulating the area of said variable area nozzle in accordance with pressure changes in said flow control venturi to regulate delivery of said high pressure air to said turbine to maintain a substantially constant weight discharge flow from the compressor; ratio control means for overriding the response of said actuator to changes in said compressor discharge flow to limit maximum pressure ratio across the compressor in accordance with an altitude schedule; and surge control means associated with said flow control venturi for preventing surge of said compressor, said surge control means including a turbine by-pass valve actuator for overriding said temperature controller to open said turbine by-pass valve, and a surge bleed valve actuator for modulating said surge bleed valve to bleed a portion of said compressor discharge air from the system, said turbine by-pass valve actuator and said surge bleed valve actuator operating in sequence when compressor discharge flow decreases to a predetermined value below said constant weight discharge flow.

2,871,672
REFRIGERATION SYSTEMS

Kenneth Raymond Boydell, Gloucester, England, assignor to Rotol Limited, Gloucester, England, a British company

Application January 24, 1957, Serial No. 636,172
Claims priority, application Great Britain February 8, 1956
11 Claims. (Cl. 62—172)



11. In a combination in an aircraft of a gas turbine engine propulsion installation including an air compressor, and a refrigeration system utilizing as a working medium air compressed in the air compressor of the propulsion installation, a rotary compressor having an air inlet and an air outlet, a first air turbine connected to drive said rotary compressor, duct means for leading air compressed in the compressor of said propulsion installation to the air inlet of said rotary compressor, duct means for leading compressed air from the air outlet of said rotary compressor to said first air turbine to drive said first air turbine, a rotary power conversion machine, a second air turbine connected to drive said rotary power conversion machine, duct means for leading air compressed in the compressor of said propulsion installation to said second air turbine to drive said second air turbine, first valve means for controlling the flow of compressed air to said first air turbine to drive said first air turbine, second valve means for controlling the flow of compressed air to said second air turbine to drive said second air turbine, a speed governor responsive to change of speed of said rotary power conversion machine, and means operatively connecting said speed governor with said first and second valve means to adjust said first and second valve means together upon a change of speed of said rotary power conversion machine to open said first valve means and close said second valve means when the speed of said rotary power conversion machine increases and vice versa.

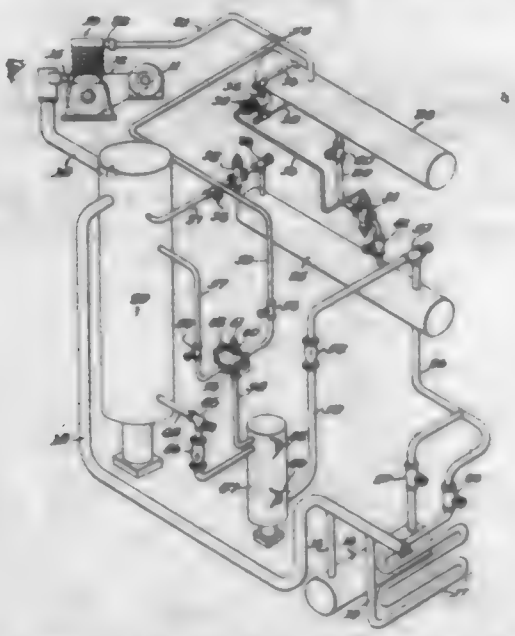
2,871,673
LIQUID RETURN SYSTEM

William V. Richards and Herbert Rosen, Chicago, Ill., assignors to H. A. Phillips, doing business as H. A. Phillips Company, Chicago, Ill., by Wayland Phillips, conservator of his estate

Application October 8, 1956, Serial No. 614,416
3 Claims. (Cl. 62—174)

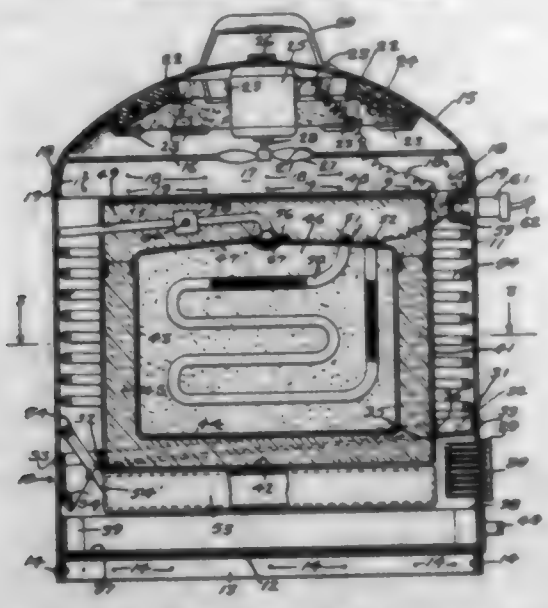
2. In a refrigeration system, in combination, a compressor, a suction line connected to one side of the compressor, a refrigerant feed line connected to the other side of the compressor and comprising the pressure side of the system, an accumulator drum in the suction line

for trapping liquid refrigerant returning in said suction line to prevent its delivery to the compressor, a liquid trap located below the accumulator drum and having a valved connection with said drum for the transfer of the trapped liquid to the trap, a condenser interposed in the refrigerant feed line, a receiver also in said line below the condenser and connecting therewith, conduit means connecting the trap with the receiver, a valve in the conduit means operable to permit flow in a direction from the trap to the receiver, electric means operable in response to changes in the level of the liquid in said trap, a solenoid valve controlled by said electric means for periodically introducing vaporized refrigerant



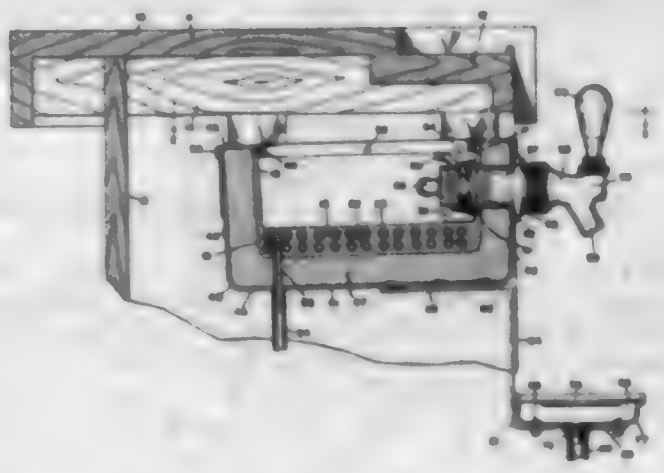
from the pressure side of the system into said trap to force the liquid therefrom and into the receiver by way of said conduit means, other conduit means connecting the trap with the suction line and operable for venting the trap between said periodic evacuations, float valve mechanism associated with the condenser and a pilot operated valve in the connections between the condenser and receiver for maintaining a predetermined level of liquid refrigerant in the condenser, and pressure regulating means for the receiver having operation to maintain a pressure in the receiver below condenser pressure to facilitate evacuation of the trap and flow of the liquid refrigerant from the trap to the receiver.

2,871,674
PORTABLE REFRIGERATION UNIT
Sulo C. Koivisto, Adelphi, Md., and Cecil W. van't Veld, Fairfax, Va.
Application December 12, 1956, Serial No. 627,869
3 Claims. (Cl. 62—232)



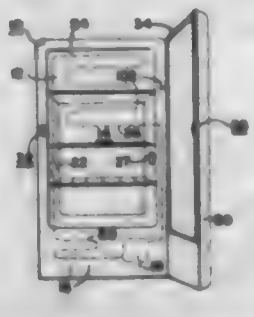
1. A portable refrigeration unit having a condensing cycle and an evaporating cycle comprising a housing, a vessel in said housing, a second vessel surrounding said first vessel and spaced from said housing, insulation filling the space between said vessels, refrigerant gas absorbent material contained in said first vessel, a heating element extending through said absorbent material, a tank position below said second vessel, a pipe coil arranged spirally between said housing and said second vessel having one end connected to said first vessel and the other end connected to said tank, and means in said housing for circulating air over said coil, whereby during the condensing cycle said coil is cooled to liquefy the refrigerant therein and during the evaporating cycle the air circulating thereover is cooled as the refrigerant evaporates.

2,871,675
BEVERAGE COOLER AND DISPENSER
Richard T. Cornelius, Minneapolis, Minn.
Application January 25, 1957, Serial No. 636,274
8 Claims. (Cl. 62—258)



1. In combination with a counter for serving beverages open at the back and having a top, rails carried by said counter and disposed below said top and extending transversely thereof, a drawer for holding a refrigerant, said drawer comprising a bottom, sides and ends, all constructed of cast metal and integral, a coil of heat conducting tubing cast in the bottom of said drawer, a faucet attached to the rear end of said drawer, and in heat conducting relation relative thereto means for bringing said faucet into communication with one end of said coil, a conduit connected to the other end of the coil and to a source of beverage under pressure and means carried by said drawer and engaging said rails for guiding said drawer for movement transversely of said counter top to expose or conceal said receptacle beneath said counter.

2,871,676
REFRIGERATING APPARATUS WITH MAGNETIC LATCH
Edwin J. Miller and Keith K. Keeling, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 6, 1954, Serial No. 441,262
13 Claims. (Cl. 62—264)



1. In a refrigerator; cabinet means forming an insulated food storage compartment having an access open-

ing; a door for said access opening; gasket means between said door and said cabinet means; a light in said compartment; an evaporator arranged in thermal exchange relationship with the contents of said compartment; means including a motor-compressor unit for supplying liquefied refrigerant to said evaporator; electromagnetic latch means for holding said door in a closed position with said gasket in a compressed condition; a common alternating current power supply means for said light, said motor-compressor unit, and said magnetic latch means; switch means operated by said door for selectively supplying electric current either to said light or to said magnetic latch means, and rectifying means between said power supply means and said latch means for rectifying the current supplied to said latch means.

2,871,677
UNIT COOLER

William W. Bradfield, Oak Park, and Russell E. Anderson, Chicago, Ill., assignors to Rigidbilt Inc., Chicago, Ill., a corporation of Illinois

Application September 1, 1955, Serial No. 532,007
12 Claims. (Cl. 62—285)



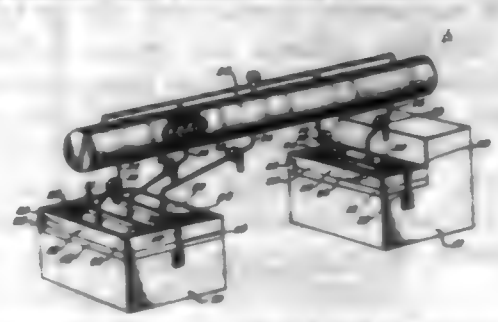
1. In truck cooling means, a truck body substantially rectangular in plan and comprising an end wall, side walls extending from said end wall, and a top wall connecting said end and side walls; and a cooling unit within said body in proximity to said end and top walls, said unit comprising a pair of fan chambers disposed adjacent the two corners defined by said top, end and side walls of the truck body, a cooling core extending between said fan chambers open at one side along its length to receive air from the truck body, and open at its opposite side for discharge of air passing through the cooling core, said core being closed along its other two sides and at its two ends adjacent the two fan chambers, an enclosed cooled-air-receiving chamber extending lengthwise of said opposite open side of the cooling core and adapted to receive air as it passes through the cooling core and channel it lengthwise of the core to the ends thereof, said cooled air-receiving chamber having communication through its opposed ends into the two fan chambers, and fans in said two fan chambers for discharging air into the truck body away from said end wall and along paths substantially parallel with said side walls whereby air is drawn by the action of said fans from the interior of the truck through the open side of the cooling core and cooled as it is passed therethrough and lengthwise of said core into the fan chambers via the cooled-air-receiving chamber so as to be returned to the interior of the truck.

2,871,678
HEAT EXCHANGER

Ralph D. Smith, Sepulveda, and Kaye B. Swan and Keith F. Finlay, Los Angeles, Calif., assignors, by mesne assignments, to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application August 1, 1955, Serial No. 525,666
1 Claim. (Cl. 62—440)

A heat exchanger comprising a container having a top thereon; a cage on the top of said container comprising U-shaped perimeter defining structure; a screen attached to each leg of said structure; at least one partition between said screens to divide said cage into compartments; a silica gel containing a liquid to be evaporated located in said compartments; a liquid supply means for said silica gel to replenish the liquid evaporated therefrom comprising a compartmented tank each compartment of which has a liquid therein; a liquid feeder tube in communication with each compartment of said tank and cage; brackets on one of said screens and attached to said feeder

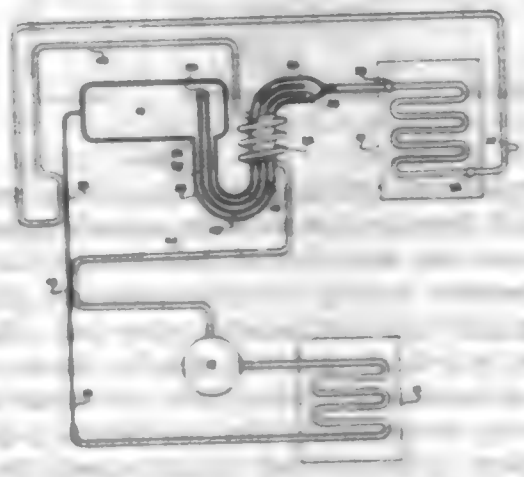


tubes for retaining said feeder tubes in a communicating relationship with the compartments of said cage; a valve in each feeder tube for opening and closing the feeder tube and making accessible and inaccessible the contents of said tank to said silica gel; and quick acting latch structure on said container and cage for readily attaching and detaching said container and cage.

2,871,679
EVAPORATOR FEED CONTROL MEANS IN REFRIGERATING APPARATUS

Elmer W. Zearfoss, Jr., Philadelphia, Pa.

Application January 19, 1955, Serial No. 482,820
14 Claims. (Cl. 62—504)



9. A refrigerating apparatus including a first evaporator section, a compressor-condensor unit for withdrawing refrigerant from the exhaust side of said first evaporator section for compressing and liquifying the refrigerant, a second evaporator section, a capillary tube leading from the discharge side of said compressor-condensor unit to the intake side of said second evaporator section, a refrigerant accumulator, a passageway leading from the discharge end of said second evaporator section to said accumulator, and means leading from said accumulator to the intake side of said first evaporator section for delivering refrigerant from said accumulator to said first evaporator.

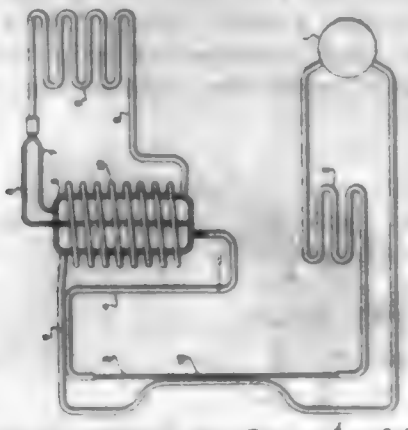
2,871,680
REFRIGERATING APPARATUS

Elmer W. Zearfoss, Jr., Philadelphia, Pa.

Application July 12, 1955, Serial No. 521,527
10 Claims. (Cl. 62—513)

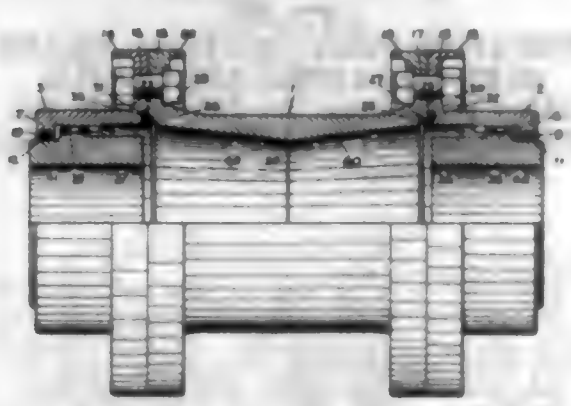
10. In a refrigerating system, a flow control combination comprising; a compressor-condenser unit, a passageway leading from said unit, said passageway including a capillary tube and an accumulator, an evaporator, a suction line between said evaporator and said unit, and two restrictive elements adapted to connect spaced regions of said accumulator with said evaporator, said suction

line being in heat exchange with a portion of said passageway; whereby the temperature of said suction line on



said passageway modulates the flow of refrigerant toward said evaporator.

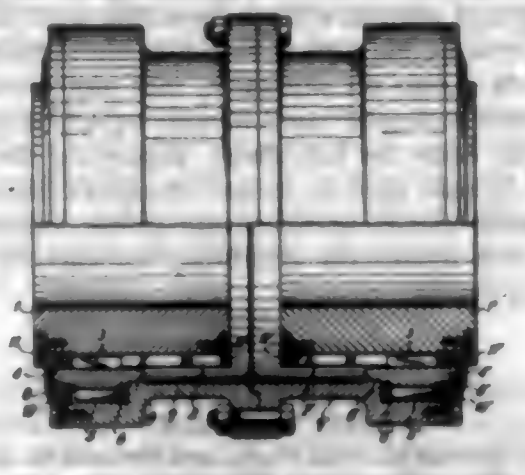
2,871,681
SHAFT COUPLING
Donald J. Beecher, Erie, Pa., assignor to American Flexible Coupling Company, Erie, Pa., a corporation of Pennsylvania
Application May 27, 1955, Serial No. 511,590
2 Claims. (Cl. 64—9)



1. A coupling comprising two spaced internal gear members, each having an outwardly extending peripheral flange adjacent one end thereof, two spaced hubs, each said hub member having external crowned gear teeth thereon engaging one said internal gear and adapted to be connected to a shaft, said hub member having a cylindrical surface extending axially from said external teeth, a sleeve having an outwardly directed flange on each end thereof adapted to be attached to said outwardly extending flanges on said internal gears whereby said gears are attached together, sealing means between said flanges, and an inwardly directed peripheral flange on the outer end of each said internal gear extending inwardly at right angles therefrom, each said peripheral flange having an inner peripheral groove on the inside thereof, each groove having an O-shaped washer therein forming sealing engagement with said cylindrical surface of one of said hubs, the inner periphery of said sleeve increasing gradually from the center toward the ends whereby the internal diameter thereof at the center is substantially less than at the ends, the major diameter of said sleeve being substantially equal to the root diameter of said internal gears, and the centrifugal force exerted on lubricant in said sleeve is greater at points spaced from the center than at the center whereby lubricant is urged toward said gears.

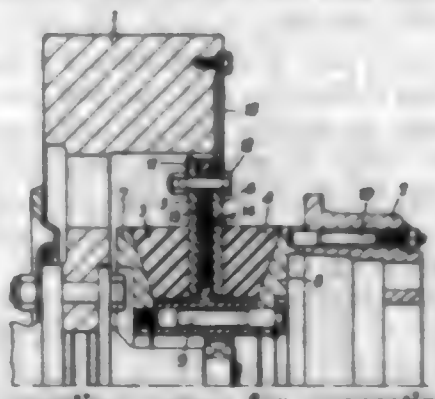
2,871,682
FLEXIBLE SHAFT COUPLING
Albert Tacke and Karl Hanekhaus, Rhine, Westphalia, Germany
Application March 26, 1956, Serial No. 573,667
Claims priority, application Germany March 25, 1955
6 Claims. (Cl. 64—9)

2. A flexible shaft coupling compensating for parallel, angular and axial displacement of shafts, said coupling comprising at least one hub, at least one sleeve enclosing said hub, at least one intermediate ring located between said hub and said ring, a toothing between said hub and said ring and consisting of intermeshing external teeth upon said hub and internal teeth upon said ring, and another toothing between said ring and said sleeve and consisting of intermeshing external teeth upon said ring



and internal teeth upon said sleeve, the teeth of one of said toothings intermeshing in sliding fit to allow for axial displacement, the teeth of the other one of said toothings intermeshing with play to compensate for angular and parallel misalinements and having interengaging curved surfaces to compensate for axial thrust.

2,871,683
FLEXIBLE COUPLINGS
George Hallewell, Stamford, England, assignor to Blackstone and Company Limited, Stamford, England
Application June 17, 1957, Serial No. 665,980
Claims priority, application Great Britain June 25, 1956
2 Claims. (Cl. 64—13)

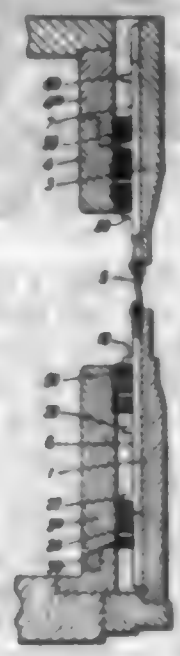


1. Flexible coupling means for connecting a driving member to a driven member even when these members are misaligned, comprising driving plate means, a pair of annular members of a resilient material bonded to either side of said plate means, a pair of annular plates attached to the driven member, each plate being bonded to the outer surface of one of said annular members, and flexible means connected to said driving plate means and connectable to a driving member even when said plate means is misaligned with the driving member, said flexible means including a ring flexible axially and fixed adjacent its inner circumference to the outer part of said driving plate means and having means adjacent its outer circumference for connection to a portion on the driving member of greater diameter than the plate means.

2,871,684
CIRCULAR KNITTING MACHINES
Henry Sidney Burdett, Knighton, England, assignor to G. Stibbe & Co. Limited, Leicester, England, a British company
Application December 19, 1955, Serial No. 554,018
Claims priority, application Great Britain December 30, 1954
7 Claims. (Cl. 66—14)

1. In a circular seamless hose knitting machine adapted to operate with oscillatory as well as with rotary motion, in combination, a bottom needle cylinder, a superimposed

top needle cylinder, a series of double-ended needles operating in said cylinders, sliders in both cylinders for actuating the needles and transferring same from one cylinder to the other according to knitting requirements, each of the sliders in the bottom cylinder being provided with a normal upper knitting butt, an intermediate transfer butt and a lower additional butt, a substantially semi-circular series of the normal knitting butts on the bottom sliders being long and the remainder shorter, and the aforesaid lower additional butts being of at least two lengths interspersed in a pre-arranged set-out capable of being varied without upsetting the set-out of the normal knitting butts, a cam box surrounding the bottom cylinder, a group of knitting cams including legging and heeling



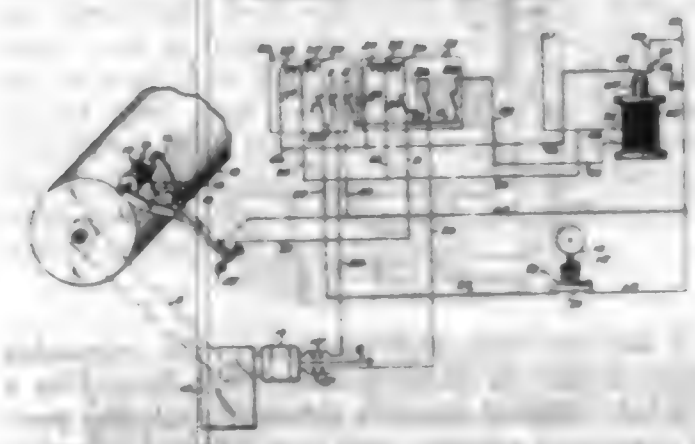
stitch cams which are provided in the cam box at a main feeder and are arranged to act on said normal knitting butts, narrowing and widening pickers acting on pre-arranged ones of the said normal knitting butts and by means of which the number of needles in action for knitting in the bottom cylinder is systematically varied during the production of heel and toe pouches by oscillatory motion, and, in an extension of the cam box at a lower level than and spaced axially clear of the group of cams at the main feeder, two circumferentially spaced further groups of knitting cams at first and second auxiliary feeders respectively, the cams of these further groups being arranged for action upon the lower additional slider butts.

2,871,685

CONTROL METHOD AND ELECTRIC SYSTEM FOR TEXTILE MACHINES

Rudolph Basist, Meriden, Conn.

Application December 6, 1955, Serial No. 551,260
6 Claims. (Cl. 66—86)



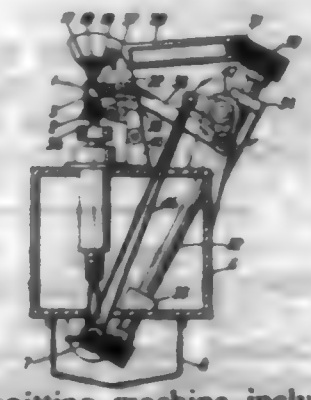
1. The combination with a knitting machine having yarn supply means, such as at least one warp beam, and yarn-demanding means, such as stitch-producing and pattern-controlling means, of a mechano-electrical control system for automatically correlating and balancing the yarn supply from said supply means to said yarn-demanding means, said system comprising in combination a reversible motor and a speed changer for driving said yarn supply means, two pre-settable impulses-controlled counters, one for the yarn supply means and a second for the yarn demanding means, two impulses-producing means, one actuated by the yarn supply means, the other by the yarn-demanding means for sending impulses to the respective counters, and pre-settable timing means for controlling the time periods of re-setting the counters, one of the counters governing the motor rotation in counter-clockwise direction, the other counter governing the motor rotation in clockwise direction, whereby the operation of the yarn supply means is either retarded or advanced by way of said speed changer.

2,871,684

WARP KNITTING MACHINERY

Allan William Henry Porter, Burton-on-Trent, England, assignor to F. N. F. Machinery Manufacturing Company Limited, a British company

Application June 11, 1956, Serial No. 590,749
11 Claims. (Cl. 66—86)



1. A flat warp knitting machine including a row of hooked needles, means for reciprocating said needles, means for opening and closing the hooks of said needles, warp thread guide means for laying warp threads in the hooks of said needles when said hooks are open and means for oscillating said guide means in a closed path having a principal component transverse to the direction of movement of said needles, said oscillating means moving said guide means with a component of movement parallel to, and in the same sense, as the movement of said needles during the time when the needle hooks are open and the threads are being laid across said needles.

2,871,687

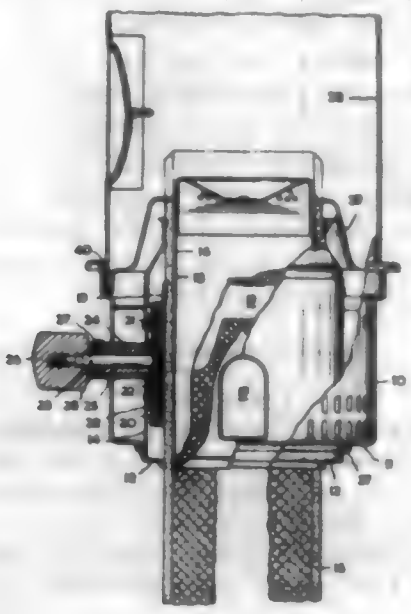
BLUE FLAME WICK BURNERS FOR LIQUID FUEL

Senia Sirkin, London, and George William Randle, Birmingham, England, assignors to Parkinson and Cowan Limited, London, England, a British company

Application June 28, 1955, Serial No. 518,567
Claims priority, application Great Britain July 1, 1954
7 Claims. (Cl. 67—38)

1. A wick burner for liquid fuel comprising in combination a rigid inner wick tube, a rigid outer wick tube coaxial with, and surrounding and spaced from the inner wick tube, a tubular wick slidable on the inner wick tube between the inner and outer wick tubes, a wick carrier band surrounding and adapted to grip the wick, a chimney, a perforate gallery surroundnig the outer wick tube, and adapted to support said chimney and defining a tubular space for leading into said chimney secondary air admitted through said perforate gallery, a radial tube sealed into an opening in the outer wick tube and extending radially outwards through the surrounding gallery, a bush which has a sliding fit in the bore of the radial tube, means for anchoring the bush in the radial tube, a spindle rotatable in the bush, a pinion rigid with the inner end of the bush having a tip diameter less than the bore diameter of the radial tube, means on the outer

end of the spindle for manually rotating said spindle, a rack rigid with the wick carrier band and engagnig the pinion, and a bracket attached to the outer wick tube and engaging the rack and adapted to guide the rack and



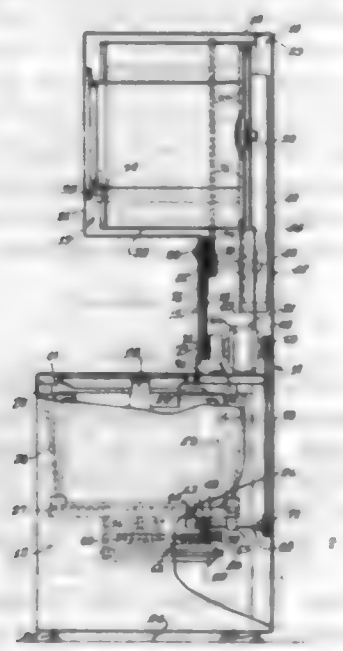
maintain the rack in contact with the pinion, said rack having a longitudinal groove in the side of the rack opposite the teeth and said bracket having an elongated tongue which slidably engages said longitudinal groove.

2,871,688

UNIT DRIVE FOR COMBINED WASHER AND DRYER

Peter Eduard Geldhof, Benton Harbor, Mich., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware

Application December 14, 1953, Serial No. 398,068
7 Claims. (Cl. 68—19)



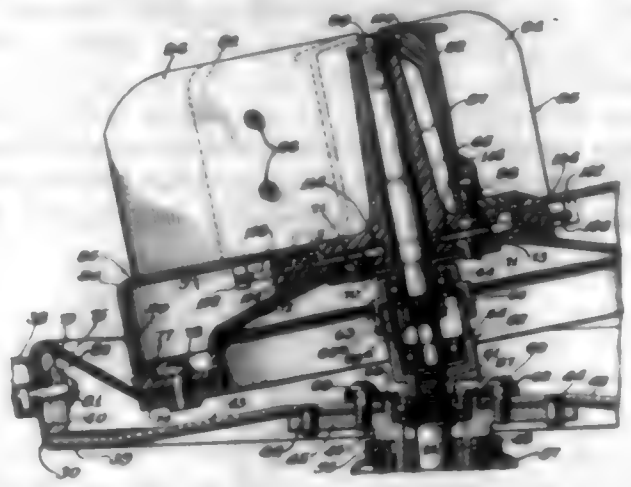
1. In a combined washer and dryer for washing fabric materials and the like having a washing mechanism and a distinct drying mechanism which is a separate entity substantially independent of the washing mechanism and in joint assembly and an air fan operatively associated with the drying mechanism to circulate air through the drying mechanism, means directly coupling the drying mechanism to said fan, a single motor means, controllable coupling and decoupling means interconnecting said motor means and said fan to drive said fan and said drying mechanism simultaneously, and further means coupling said motor means to said washing mechanism to operate both of said mechanisms jointly and selectively respectively.

2,871,689

CLOTHES WASHING MACHINE

George C. Fields, Wilmette, Ill., assignor, by mesne assignments, to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application July 30, 1953, Serial No. 371,382
3 Claims. (Cl. 68—131)



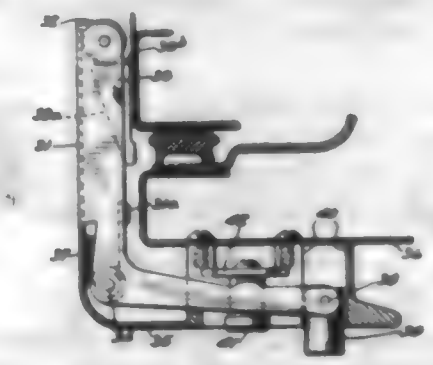
1. In a laundering machine, a tub adapted to contain clothes to be washed, said tub having an opening in the bottom thereof; agitator drive connections extending upwardly through said opening in the bottom of the tub, said drive connections comprising an upright rotatable shaft having its upper end in registration with said opening and a crank head mounted on the upper end of said shaft; an upwardly extending stub shaft disposed at an acute angle to vertical and having its lower portion mounted in said crank head; an agitator mounting member surrounding and fixedly secured to said stub shaft, above said crank head; an annular flexible sealing member connected at its inner edge in sealing engagement with the marginal portion of said mounting member and its outer edge being connected to the bottom of the tub to form a liquid seal between said tub and the agitator drive connections; an agitator mounted for free rotation on the stub shaft and seated upon said mounting member, and means for preventing rotation of said agitator in one direction, by which combination of parts rotation of the upright shaft imparts an orbital wobbling movement to said mounting member and said agitator and permits monodirectional rotation of the agitator.

2,871,690

KEY-OPERATED LATCH MECHANISM

Robert E. Johnson, Marne, Mich., assignor to Jervis Corporation, Grandville, Mich., a corporation of Michigan

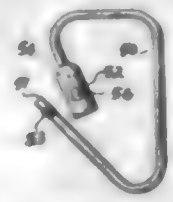
Application March 21, 1956, Serial No. 572,878
3 Claims. (Cl. 70—146)



1. In a key-operated latch mechanism for releasably maintaining a door in closed position with respect to a cabinet, a bolt member movable between a latching position and a released position, said bolt member including an arm extending laterally of and movable parallel to the direction of opening movement of said door, a push button engageable with said arm for moving said bolt member to said released position, a cylinder lock, and a member on said lock normally maintained in a position

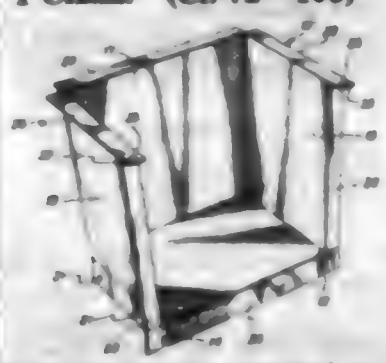
to engage said arm and prevent movement of said latch bolt to said released position, said member being movable away from said position by key operation of said lock.

2,871,691
KEY RING
John H. Bacon, Wellesley Hills, Mass.
Application December 8, 1955, Serial No. 551,956
5 Claims. (Cl. 70—458)



1. A ring structure molded of resilient plastic material comprising a body having integrally formed interengagable male and female ends, a pair of barbs molded as part of the male end and disposed on opposite sides of that end, a recess formed in the female end with its longitudinal center coincident with the longitudinal center of the female end, opposite sides of the recess converging inwardly from the female end and each side terminating in an abruptly widened section formed by passages through the walls of the female end, said passages receiving the barbs when the male end is inserted in the recess, a pair of channels formed on opposite sides of the recess normal to the converging opposite sides and extending outwardly from the passages, said channels being larger than the barbs and permitting withdrawal of the male end from the recess by twisting the male end so that the barbs are aligned with the channels.

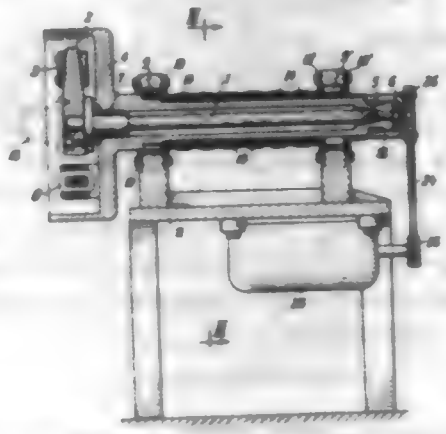
2,871,692
GIRDER POCKET FORM BOXES
Clarence Marter, Arcadia, Calif.
Application September 24, 1956, Serial No. 611,597
1 Claim. (Cl. 72—108)



A girder pocket form box adapted to be suspended within foundation wall forms comprising a fibrous base block adapted to form a sill block for the girder, a back wall extending upwardly from the base block, a pair of spaced side walls extending upwardly and outwardly from the base block, each wall being fixed at its bottom to the base block to form a box open at one vertical face and at one horizontal face, a stiffening flange extending outwardly from each wall edge defining an open face, and attachment tabs extending from the walls adjacent the foundation wall form edges, the base block having chamfered vertical edges defining with the adjoining form box walls a plurality of vent openings.

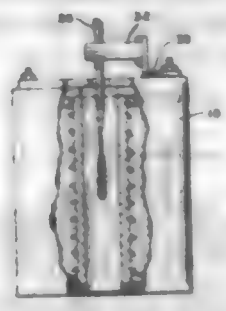
2,871,693
DEVICE FOR CALIBRATING INDICATORS OF TORSIONAL OSCILLATIONS DURING ROTATION
Miroslav Navratil, Prague, and Miroslav Prochazka, Tuchomerice, Czechoslovakia
Application April 12, 1956, Serial No. 577,792
4 Claims. (Cl. 73—1)

1. A calibrator for devices indicating torsional oscillations during rotation, comprising a rotatable fly wheel having an elongated hollow hub, a torsionally elastic shaft extending freely axially through said hub and rigidly connected, at one end, to the latter, means for rotating said fly wheel, a cross-shaped member secured on the other end of said shaft in proximity to said fly wheel and adapted to carry the indicating device to be tested in line with the axis of said fly wheel, hub and shaft, an electromagnetic exciting system including armatures on said cross-shaped member and exciting electromagnets on said fly wheel operative to oscillate said cross-shaped



member relative to said fly wheel about the axis of the latter, and additional masses mounted on two opposite arms of said cross-shaped member, with the armatures being mounted on the second pair of opposite arms of the cross-shaped member, so that said cross-shaped member, armatures and additional masses form a torsionally oscillating assembly, while said fly wheel, hub and exciting electromagnets form a torsionally non-oscillating inertia assembly with which said torsionally oscillating assembly rotates in response to rotation of said fly wheel.

2,871,694
DETERMINING GAS CONTENT IN METALS
Donald B. Watkins, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application August 9, 1956, Serial No. 602,989
5 Claims. (Cl. 73—19)

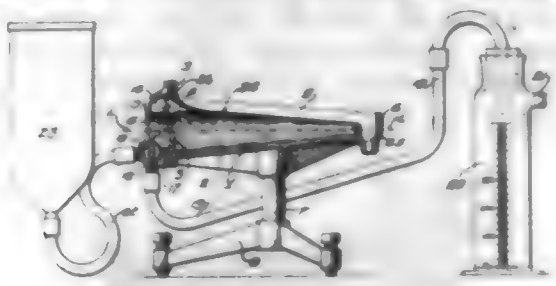


1. A method for forming glass embedded metal samples from which the gas content of a metal may be determined which comprises vertically supporting a glass tube with closed bottom, placing within the tube a sample of metal whose gas content is to be determined, applying heat to the glass tubing in an upward direction of the tubing to cause the glass to enfold about the metal in an upwardly progressive zone and to eliminate any gasses existing between the glass and metal, continuing this heating until the metal is completely enclosed within the glass, and maintaining the application of heat to the tubing to enable gasses evolved from within the metal to be occluded within the glass.

2,871,695
CONCENTROMETER
Alexander Goetz, Altadena, Calif.
Application August 30, 1954, Serial No. 453,066
23 Claims. (Cl. 73—61)

1. An apparatus for determining the concentration of a substance distributed in a quantity of fluid, comprising: means defining a cavity adapted to contain a liquid;

means for progressively altering the level of a liquid in said cavity; a microfilter disposed so as to be traversed by the surface of said liquid as its level is altered and having a progressively decreasing filter area and a progressively increasing sealed area, one area being below said liquid surface and the other being above said liquid



surface; means for establishing a pressure differential across said microfilter to cause flow of fluid through said progressively decreasing filter area, whereby said microfilter retains progressively increasing quantities of said substances; and means for detecting the substance retained by said microfilter.

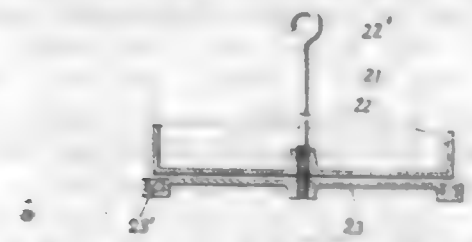
2,871,696

WEIGH PAN FOR USE IN INFRA-RED DRYING

Giovanni Ghezzi, Lecce, Italy

Application February 17, 1955, Serial No. 488,774

1 Claim. (Cl. 73—76)



A weigh pan for use in infra-red drying to determine the moisture content of materials, comprising a rod, a pan having circumferential upturned rim and a central portion adapted for detachable connection to the lower end of said rod, and a cover for said pan, said cover having grooves fitting substantially air-tightly over said rim of the pan, said cover further having a central aperture adapted to permit passage of the lower end of said rod therethrough, whereby said cover may be attached to said rod selectively above or below said pan during weighing.

2,871,697

METAL FLAW DETECTION LIQUID

Loy W. Sockman, Los Angeles, Calif.

No Drawing. Application November 8, 1954

Serial No. 467,643

13 Claims. (Cl. 73—104)

10. In the process of detecting surface-connected flaws in metal, the steps of coating the surface of the metal with a penetrant liquid containing a dyed non-volatile ester whose acid constituent is a higher fatty acid radical and whose base constituent is a saturated monohydric alcohol radical having from 3 to 5 carbon atoms; allowing the liquid to stand on the metal surface for a sufficient time to spread into surface connected defects, water flushing the surface to remove excess liquid; and allowing the liquid in the flaws to spread over the flushed off surface, whereby to make said flaws visible.

2,871,698

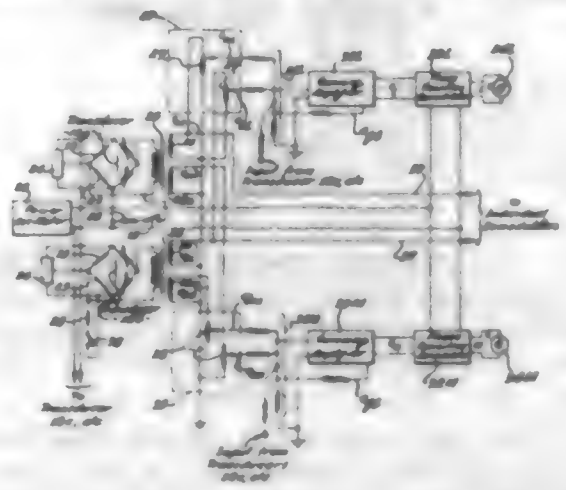
PRESSURE INTEGRATING SYSTEM

Leland W. Bagby, La Puente, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application March 1, 1957, Serial No. 643,432

15 Claims. (Cl. 73—147)

1. A pressure integrating system for determining the pressure acting on a particular surface area of an airplane wing, comprising: a plurality of pressure transducers; means providing a first output from each transducer to be used for obtaining lift information; means providing a second, identical, output from each transducer to be used for obtaining moment information; said transducers mounted at predetermined spaced intervals on said surface area; a first summing amplifier; means connecting said first summing amplifier to all of said first outputs of said transducers and integrating the total lifts; a weighing



network connected to all of said second outputs of said transducers and respectively attenuating said outputs so that each is proportional to moment of force represented by its respective transducer about a common predetermined point in said area; a second summing amplifier connected to the output of said weighing network and integrating the total moments; and indicating means connected to the output of each said first and second summing amplifiers.

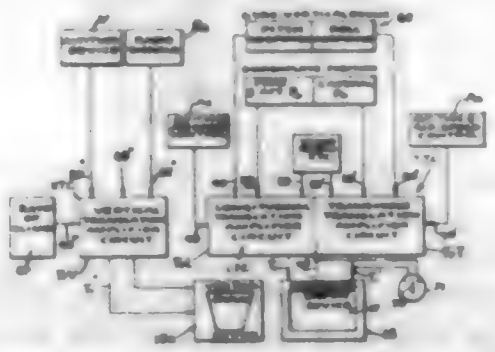
2,871,699

INDICATING INSTRUMENT FOR HELICOPTERS OR THE LIKE

Theodore W. Kenyon, Old Lyme, Conn., assignor to Kenyon Laboratories, Incorporated, Old Lyme, Conn., a corporation of Connecticut

Application February 21, 1956, Serial No. 566,842

11 Claims. (Cl. 73—178)



1. In combination with a helicopter having a swash plate, a translation indicator instrument for providing visual simulation of translatory movement of the helicopter comprising an endless band having indicia, a motor generator set for moving said band, an electric circuit including both the motor and the generator of said set and providing connections such that output from the generator of the set may be delivered to affect drive of the motor of said set for controlling the movement of said band and means for varying electric input to said circuit as a function of swash plate position with reference to vertical.

2,871,700

WATER LEVEL INDICATING GAGE FOR STEAM BOILERS

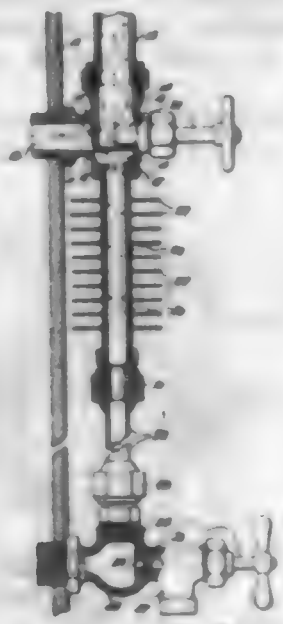
John A. Hilkene, Bloomfield, N. J.

Application April 5, 1955, Serial No. 499,274

1 Claim. (Cl. 73—328)

A boiler water level indicating gage structure adapted to be externally mounted relative to the boiler comprising

a three-way cock communicating with the boiler interior at a point spaced below the normal level of water therein, said bottom cock having an intake branch leading from the boiler, an upper branch and a lower branch, a top cock communicating with the boiler interior above the normal level of water therein, a sight glass connected in communication between said top cock and the upper branch of the bottom cock, a water cooling return conduit means providing a continuous uninterrupted water passage, said conduit means comprising an externally finned radiator member connected to the lower branch of said bottom cock and a thin walled tubular conduit

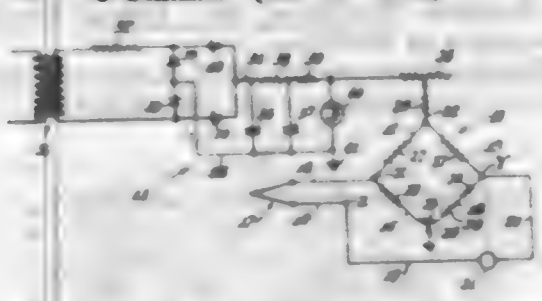


of high thermal conduction material extending downwardly from said tubular conduit, and means to connect said tubular conduit in communication with the boiler interior which is occupied by the relatively cool portion of the boiler water, the bottom cock having a chamber formed therein, said chamber being subdivided by a partition intermediate the upper branch of the cock and the intake and lower branches of the cock, said partition having a normally open port to provide communication between the intake and lower branches of the cock and the upper branch of the cock, and said bottom cock having manipulatable valve means for closing said port at will.

2,871,701
THERMOCOUPLE COLD JUNCTION COMPENSATOR

Knud J. Knudsen, Woodbury, Conn., assignor to The Lewis Engineering Company, Naugatuck, Conn., a corporation of Connecticut

Application September 14, 1955, Serial No. 534,346
6 Claims. (Cl. 73—361)

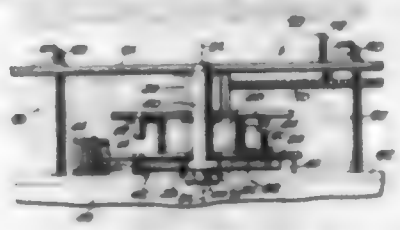


1. A Wheatstone bridge network for compensating for the variation in ambient temperature of a cold junction of a thermocouple comprising a pair of lines connected in parallel at common end points, a source of electrical energy connectible to the common end points, an output terminal formed in each line intermediate its common points providing a pair of adjacent legs of the bridge between one common point and the output terminals, and resistance means in said pair of adjacent legs for producing an exactly zero error at three different ambient temperatures, said means including a first resistor having a substantially exponential increment resistance change with a temperature change, a second resistor having a substantially linear increment resistance change with a temperature change and a third resistor having substantially no change in resistance with a temperature change, the resistance value of the exponential resistance when it is positioned in one adjacent leg exactly equaling the algebraic sum of the resistance value of the second and third resistors when they are positioned in the other of the adjacent legs at one ambient temperature at which a zero error is produced.

2,871,702
ESCAPEMENT

Roland G. Tetro, Bristol, Conn., assignor to The E. Ingraham Company, Bristol, Conn., a corporation of Connecticut

Application June 18, 1956, Serial No. 592,013
3 Claims. (Cl. 74—1.5)

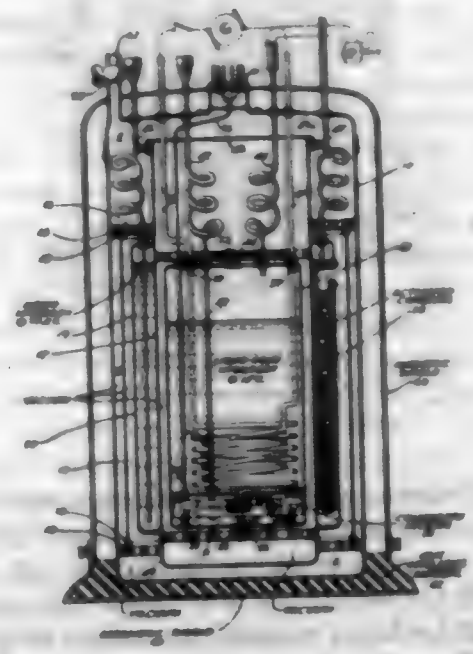


1. In an escapement, the combination with a shaft and a plurality of stops arranged peripherally throughout about the shaft axis and spaced equiangularly from each other and equal distances from said shaft axis, of a first time-driven member on said shaft turnable about the axis thereof; an escape member having a shoulder and a rectilinear slot through which said shaft extends fittedly so as to be turnable about the axis thereof and also guided for bodily movement radially thereof; anchor means on said members, respectively; a preloaded spring secured with its opposite ends to said anchor means, respectively, and normally urging said escape member in the drive direction of said first member; a cam disc with a cam periphery and pin means on said members, respectively, and cooperating bodily to retract and advance said escape member for disengagement of said shoulder from each stop on which it rests and for its operative alignment with each next stop toward which it springs, respectively; and an output element turnable about said shaft axis and drivingly connected with said escape member for rotation therewith.

2,871,703
GYRO

Claude E. Walker, Inglewood, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application November 13, 1948, Serial No. 59,876
5 Claims. (Cl. 74—5.6)



1. A device for stabilizing an accurate reference in space with respect to a reference plane comprising an

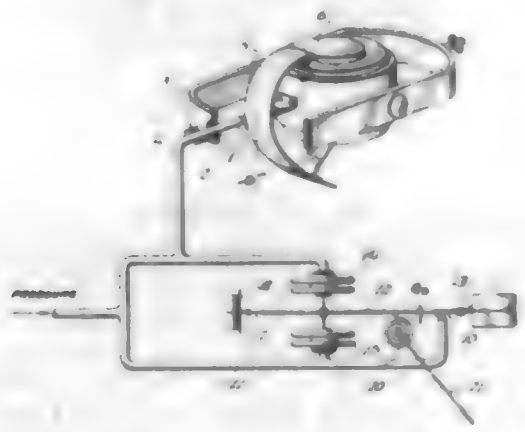
element mounted to have two degrees of freedom with respect to said plane, a mechanical gyro mounted on said element to have the same degree of freedom, means for slaving said element to said mechanical gyro, a circular conductor mounted on said element, means for maintaining a frictionless current in said conductor, means for generating signals representing tilt in two coordinates between said current flow and said conductor, and means for indicating the angular relation of said element to said reference plane.

2,871,704

INNER GIMBAL PICKOFF

William M. Harcum, Blue Bell, Pa., assignor to Tactair Inc., Bridgeport, Pa.

Application June 23, 1953, Serial No. 363,613
6 Claims. (Cl. 74—5.6)



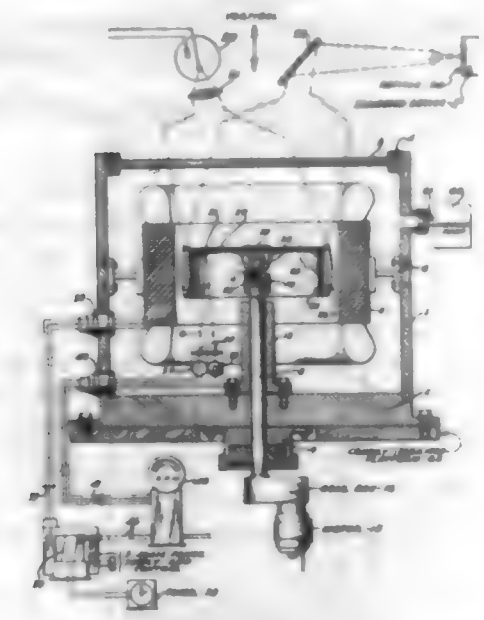
1. Signal pickoff means adapted to measure the angle of rotation of a part movable about a first axis comprising a pressure nozzle, a curved ribbon cam surface mounted on said part movable and positioned relative to said nozzle whereby the straight line distance between said nozzle and said cam varies proportionally with said angle of rotation about a first axis.

2,871,705

GYROSCOPIC TOP

Charles A. Kerner, Los Angeles, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application March 25, 1950, Serial No. 151,914
14 Claims. (Cl. 74—5.7)



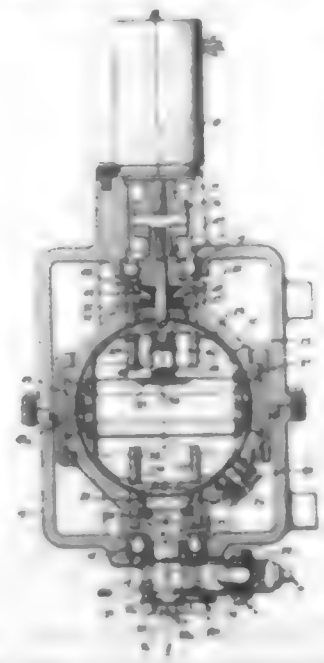
1. A gyroscopic system comprising a top having as the sole support thereof a lower ball pivot held by a ball retainer in a position where the center of said ball coincides with the center of gravity of said top, a support for said ball having a supporting surface of greater radius than that of said ball, electrical torque producing means out of contact with said top for accelerating said top to a predetermined rotational speed, and means for removing all accelerating torques between said top and said torque producing means during a coasting period.

2,871,706

FRICTIONLESS FREE GYROSCOPE

Franz L. Fischer, Jackson Heights, and Ernst F. Wendl, New York, N. Y., assignors to Bulova Research and Development Laboratories, Inc., Woodside, N. Y., a corporation of New York

Application June 22, 1956, Serial No. 593,087
10 Claims. (Cl. 74—5.7)



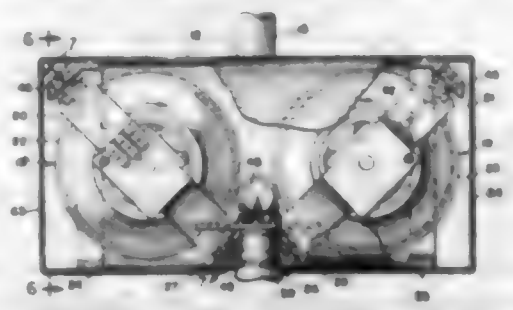
5. In a free gyroscope, a hollow spherical float whose walls are of greatest thickness at the equator thereof to provide an equatorial mass concentration stabilizing said rotor, means to adjust the distribution of mass on said float to balance same, a spherical vessel surrounding said float and spaced therefrom, a liquid filling said space and having a density imparting positive buoyancy to said float, a first pair of permanent magnets secured at opposing poles of said float, a second pair of magnets secured at diametrically opposed positions on said vessel in repelling relationship with said first magnets, and drive means to rotate said vessel at high speed about a given axis whereby said float is caused to rotate synchronously therewith.

2,871,707

GYROSCOPIC STABILIZER

James R. Kuiper, Grand Rapids, Mich., assignor to R. C. Allen Business Machines, Inc., Grand Rapids, Mich., a corporation of Michigan

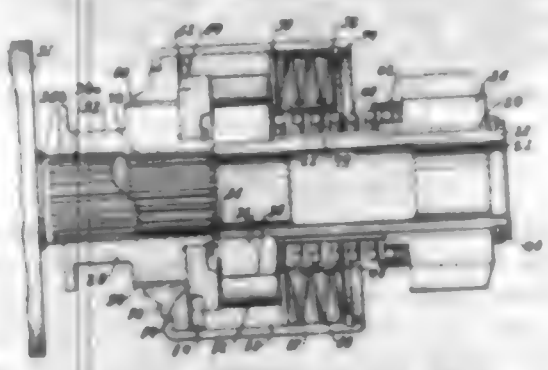
Application October 18, 1957, Serial No. 689,355
10 Claims. (Cl. 74—5.22)



1. In combination with a sighting device, a tubular casing, a support member secured to said casing having means thereon for attaching it to said sighting device to maintain said casing with its axis perpendicular to the sighting axis of said device, a first gyro frame within said casing, means for supporting said frame within said casing for rotation about an inclined axis, a rotor rotatively supported by said frame for rotation about an axis perpendicular to the axis of rotation of the frame, a second gyro frame within said casing, means for supporting said

second frame within said casing for rotation about an inclined axis, a rotor rotatively supported by said second frame for rotation about an axis perpendicular to the axis of rotation of said second frame, the spin axes of said rotors extending parallel to each other and to the sighting axis, the plane extending through the rotor axes being spaced below a parallel plane containing the sighting axis and spring restraint means for each gyro frame.

2,871,708
STARTING APPARATUS FOR INTERNAL COMBUSTION ENGINES
Louis J. Raver, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 22, 1955, Serial No. 548,349
3 Claims. (Cl. 74—6)



1. In a starting apparatus for an internal combustion engine, the combination comprising; an electric motor, a pinion movable into mesh with a gear of the engine to be started, a sleeve having internal and external splines for moving the pinion, a one-way over-running clutch for transmitting cranking torque between the motor and pinion to crank the engine and permit the pinion to over-run the motor when the engine becomes self-operative, said clutch having an inside cylindrical member connected with the pinion, an outside clutch cam member, intermediate rollers adapted to become wedged between cam surfaces of the outside clutch cam member and the cylindrical surface of the inside clutch member to drive the pinion when cranking the engine and adapted in conjunction with the outside cam member to be released when the engine becomes self-operative, an annular member having splines on its inner opening adapted to slide on the external splines of the sleeve means, mating teeth on the annular member and outside clutch member, and a means for maintaining the teeth in mating engagement with each other when torque between the motor and engine is less than a predetermined value.

2,871,709
SELF-INTEGRATING FLICKER CONTROL ACTUATOR
Bradford Donovan, Sepulveda, and Temple W. Neumann, Burbank, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application September 16, 1957, Serial No. 684,008
7 Claims. (Cl. 74—54)



3. In a pulsing and integrating actuator the combination comprising: a base structure; an output shaft mounted for angular bidirectional movement on said structure; a support assembly mounted for free pivotal movement on said shaft and having a pair of bearings located respectively on opposite sides of said shaft; an electric motor having an output member mounted on said support assembly; a torque arm fixedly secured to said shaft; a spring plate pivotally mounted on said torque arm and having a pair of bearing surfaces in which said bearings are normally bottomed; a gear train operationally mounted and extending between said structure and output member adapted to impart angular movement to said support assembly with respect to said structure when said motor is energized and said angular movement is in turn imparted to said torque arm and shaft through said spring plate.

2,871,710
DRIVING MECHANISM CAPABLE OF TRANSMITTING SWINGING AND FEATHERING MOTIONS
Tomibei Sakagami, Meguro-ku, Tokyo-to, Japan
Application March 7, 1955, Serial No. 492,629
Claims priority, application Japan January 24, 1955
6 Claims. (Cl. 74—70)



1. In a driving mechanism capable of transmitting simultaneous swinging and feathering motions, a driving shaft, a crank pin inclined at an angle to the center line of the driving shaft, a crank arm connecting the crank pin to the driving shaft, a transmitting shaft for transmitting feathering and swinging motions, a sleeve loosely associated with the crank pin, the transmitting shaft being secured to the sleeve whereby the sleeve converts the motion of the crank pin into swinging and feathering motions of the transmitting shaft, and a guide member operative to effect said swinging motion only in the plane containing the driving shaft.

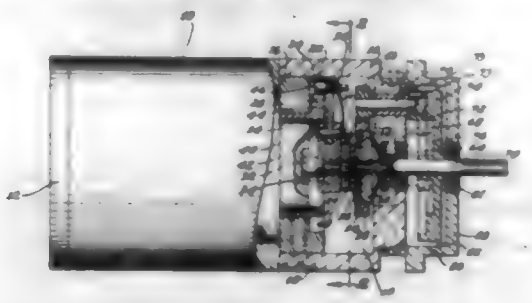
2,871,711
LOOSE LEAF BINDER MECHANISMS
Walter Stark, Bonn (Rhine), Germany, assignor to F. Soennecken, Bonn (Rhine), Germany
Application January 29, 1954, Serial No. 407,059
Claims priority, application Germany February 3, 1953
20 Claims. (Cl. 74—97)



1. In a loose leaf binder a mechanism for moving an elongated member formed with a crank portion between a first and a second position and for releasing the member from the second position thereof comprising, in combination, base plate means; a first spring adapted to engage the crank portion of said elongated member for urging the same to the first position thereof; a stationary lock member fixed to said base plate means; movable lock means for holding the elongated member in the second position thereof when said movable lock means is in a locked position, said movable lock means engaging said crank portion to move the same and to be moved thereby and having a locking portion engaging said stationary lock member when said movable lock means is in said locked position thereof; a manually operable lever turnably carried by one of said means for turning movement from a rest position together with said movable lock means for moving the latter to said locked position thereof to simultaneously move said crank portion through said movable lock means against the action of said first spring during movement of the elongated mem-

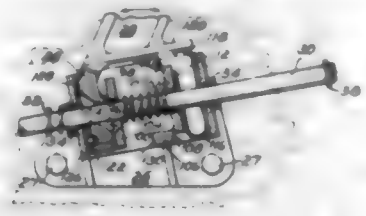
ber to the second position thereof; a second spring engaging said lever for urging the latter to said rest position thereof; and pawl means turnably carried by said lever and engaging said movable lock means for moving said locking portion thereof out of engagement with said stationary lock member to release said movable lock means and said elongated member to the influence of said first spring to move the elongated member from the second to the first position thereof, so that said lever is moved in only one direction during movement of the elongated member between the two positions thereof.

2,871,712
INCREMENTAL MOTOR
Frank R. Drury, Hermosa Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application September 23, 1955, Serial No. 536,102
12 Claims. (Cl. 74—111)



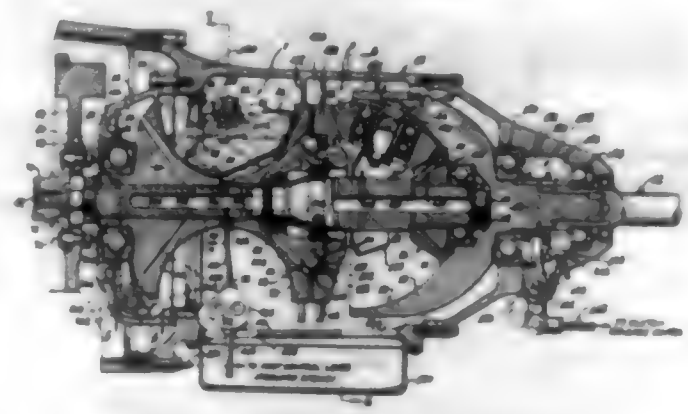
1. An incremental motion control comprising a driving shaft, to which torque is applied to cause rotation thereof; a spring loaded and connected driver means, link, and cam on and freely rotatable about said shaft; frictional means on said shaft that is interconnected to said driver for rotating said driver, cam, and link when said shaft is rotated; stop and cam ring means engaged by said cam, to define and limit the path of rotation of said cam, link, and driver; and driven means interconnected to said driver and rotatable therewith; and at least one recovery area in said cam ring into which said cam is projected when the torque is removed from said shaft.

2,871,713
BRAKE MECHANISM
Bryan E. House, Ashtabula, Ohio, assignor, by mesne assignments, to Rockwell Standard Corporation, a corporation of Pennsylvania
Application September 19, 1952, Serial No. 310,425
11 Claims. (Cl. 74—169)



1. A brake actuating mechanism comprising a housing; a brake actuating rod slidably mounted in said housing; spaced locking plates tiltably mounted on said rod in said housing both normally biased toward rod locking position; a pivoted operating lever having a part engaging one of said plates for shifting said one plate and the rod together in one direction during a brake applying stroke of said lever; means for concomitantly unlocking the other of said plates to permit sliding of the rod therethrough during said brake applying stroke; means operative upon return stroke of said lever for locking said rod to said other plate and releasing said rod with respect to said one plate to permit said one plate to return to its normal position where it engages the rod in preparation for and prior to the start of a subsequent applying stroke of said lever; and a support mounted in said housing eccentrically engageable with said other plate when the latter is biased toward locking position.

2,871,714
AUTOMOTIVE TRANSMISSION
Zenas V. Weisel, Los Angeles, Calif.
Application January 30, 1956, Serial No. 562,227
36 Claims. (Cl. 74—190.5)

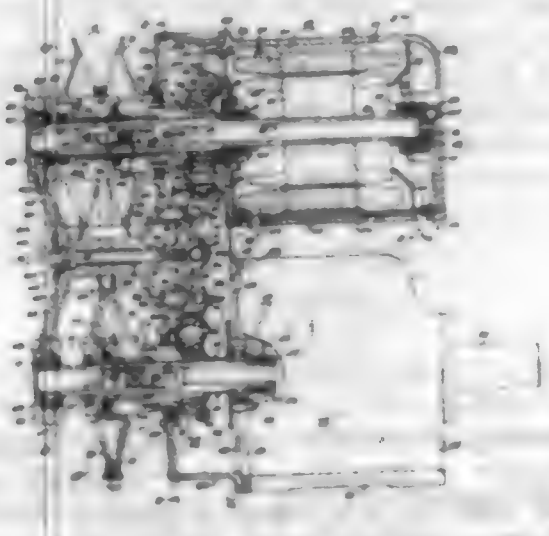


26. Transmission apparatus for use with a vehicle having an engine, comprising: a frame; a drive shaft rotatably supported by said frame and connectible to said engine; a pair of coaxial driving and driven discs, said driving disc being keyed to said drive shaft and said driven disc being supported for rotation independently of said drive shaft; a plurality of rotation-transfer rollers interposed between said discs and bridging said discs; support means interposed between said rollers and said frame permitting the ratio position of said rollers relative to said discs to be varied; a ring cone member coaxial with and adjacent to said driven disc; a coaxial sun cone member keyed to the rear end of said drive shaft; a plurality of planetary rollers rotatably interposed between said ring and sun cones; a coaxial carrier for rotatably supporting said planetary rollers, said carrier being rotatably mounted adjacent the rear end of said drive shaft; a driven shaft connected to said carrier; a pump driven by said engine for pumping liquid at a rate proportional to the rotational speed of said engine; a return line in communication with the discharge of said pump; control means in communication with said return line and operatively connected to said rotation-transfer roller so as to adjust its ratio position responsive to the volume of liquid flowing through said return line; valve means controlling the volume of liquid flowing through said return line; governor means driven by said engine and operatively connected to said valve means so as to normally control the operation thereof; and manually-actuated controls connected to said control means and valve means so as to over-ride the effect of said governor means.

2,871,715
VARIABLE SPEED TRANSMISSION MECHANISM AND INCLOSED SYSTEM OF CONTINUAL FLUID WETTING OF ACTUATING PARTS
John D. Rieser, San Francisco, Calif.
Application March 4, 1957, Serial No. 643,870
17 Claims. (Cl. 74—230.17)

1. In a variable ratio transmission mechanism, having a housing, said housing providing a fluid tight inclosure and having an operable mounting means for a drive motor, a first and a second shaft extending from within said inclosure in spaced parallel relationship, variable effective diameter pulleys mounted in opposed cooperative positions on said shafts, each of said pulleys comprising a pair of sections having opposed inclined belt engaging faces, forming by relative axial adjustment variable effective diameters, for an endless V-belt in active driving

relationship to said pulleys, said faces and said belt being disposed externally beyond said inclosure, drive means engaging said pulleys and said shafts so that each shaft rotates uniformly therewith its respective pulley, an end portion of said drive means extending into said inclosure, control means for mechanically varying said ratio, a portion of said control means being disposed within said inclosure with linkage means attached thereto while extending between said control means and said pulleys, a fluid within said inclosure, a fluid propulsion means mounted within said inclosure operably connected to at least one of the shafts, said propulsion means extending to said fluid so that upon operation of said mechanism it causes part of said fluid being propelled above the normal level of the fluid pool within the inclosure to an adjustable orifice, said orifice being disposed above the center of at least one of said shafts and being adjustable angularly so as to permit of its compensating for various mounting positions of said mechanism, a first aperture means, said first aperture means extending from said orifice to and into an end of said first shaft and to, a second



aperture means, said second aperture means being disposed within said first shaft and extending axially thereinto, a third aperture means, said third aperture means extending from an end of said first shaft to an end of said second shaft and, a fourth aperture means, said fourth aperture means being disposed within said second shaft and extending axially therein and terminating within said inclosure of the housing, said second and fourth aperture means having transverse opening extending to said drive means, said first to fourth aperture means including said orifice being in series and providing substantially a continual fluid tight aperture system extending from said orifice to and beyond said drive means and return to said inclosure, in which said system and said propulsion means forming a major mechanical means causing substantially a continual wetting of the slidable mating surfaces of said drive means and said portion of the control means by part of said fluid upon a corresponding operation of said motor, and whereby said system being continual providing a means for causing the excess fluid returning to said pool.

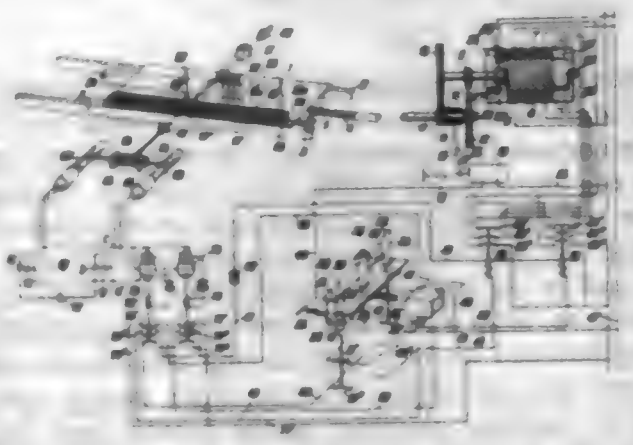
2,871,716

DEVICE FOR ADJUSTING AND CONTROLLING THE POSITION OF MOVABLE MACHINE PARTS FOR EXAMPLE IN MACHINE TOOLS

Gerhard Stade, Frankfurt am Main-Sud, Germany, assignor to Herbert Lindner G. m. b. H., Berlin-Wittenau, Germany, a corporation of Germany

Application April 23, 1956, Serial No. 579,882
Claims priority, application Germany April 29, 1955
8 Claims. (Cl. 74—472)

1. In a positioning mechanism for a movable machine part to be brought into a predetermined rest position after imparting to it an initial fast motion followed by a slow motion, the improvement comprising a reversible electric motor driving said machine part; a speedchange gear including electrically operated clutch means between said motor and said machine part to effect the said fast and slow motions of the latter; rodlike measuring means movable with said machine part and longitudinally extending in the direction of movement imparted to it; selectively exposable openings in said measuring means forming graduation marks thereof; a light source facing one side of said measuring means; photoelectric means facing the other side of said measuring means and responsive to rays of said light source; two electric circuits leading from



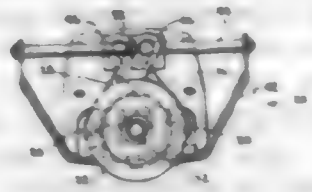
said photoelectric means; each circuit including said clutch means and said motor; and switching means in each of said circuits responding to the photoelectric current arising therein and controlling said clutch means and said motor; the photoelectric current arising first in one circuit, operating said clutch means changing the motion of said movable machine part from fast to slow and thereafter while extending into the other circuit stopping said motor thus arresting the movable machine part in a predetermined position.

2,871,717

STEERING MECHANISM AND CONTROL MEANS FOR OUTBOARD MOTORS

Harvard J. Gerstner, Minneapolis, Minn.

Application April 5, 1957, Serial No. 650,987
3 Claims. (Cl. 74—484)

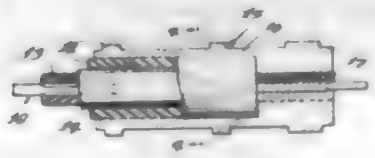


1. A steering and control device of the class described comprising in combination a bracket, a steering post extending through the bracket, means mounted on the inner end of the steering post for operating the steering post, steering drum means mounted on the lower end of the steering post, a gear control shaft extending through the bracket, a handle connected to the gear control shaft for operating the gear control shaft, a crank arm secured adjacent the lower end of the gear control shaft, a throttle control shaft extending through the bracket, a handle means connected to the upper end of the throttle control shaft for operating the throttle control shaft, a crank arm secured to the lower end of the throttle control shaft, a support assembly mounted adjacent the lower end of the gear and throttle control shafts, a first means mounted on the support assembly comprising a fixed portion, a first member movably mounted on the first fixed portion, the crank arm for the gear control shaft secured to the first movable member; a second means mounted on the support assembly comprising a second fixed portion, and a second member movably mounted on the second fixed member, the crank arm for the throttle control shaft secured to the second movable member.

2,871,718
TRANSMISSION WIRE OR CORE FOR CONTROL MECHANISM

Simon E. Schroeder, Oshkosh, Wis., assignor, by mesne assignments, to Fox River Manufacturing Company, Oshkosh, Wis., a corporation of Wisconsin

Application July 5, 1955, Serial No. 520,021
10 Claims. (Cl. 74—501)

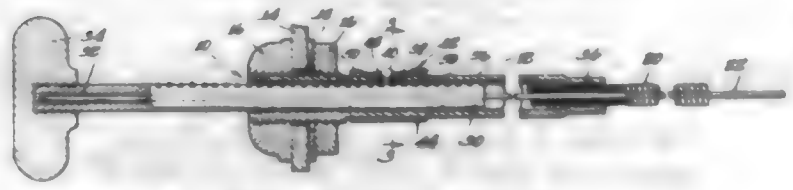


7. In a flexible transmission cable for the remote control of suitable mechanism, a flexible tubular part and a flexible control core comprising a continuous and integral length of wire housed within and projecting through the tubular part with the projecting ends of the control core connected at one end to an actuating means and at its other end to an actuated means to be operated by said control core, said wire having multiple longitudinally extending flattened sections each having a thickness substantially less than its width with the latter closely conforming to the internal diameter of the tubular part but permitting longitudinal movement of the wire within said tubular part, said sections being so constructed and arranged that adjacent sections are disposed at an angle to each other.

2,871,719
PUSH-PULL CONTROL

Philip O. Hooker, Wilmette, Ill., assignor to Arens Controls, Inc., Evanston, Ill., a corporation of Illinois

Application July 6, 1954, Serial No. 441,521
10 Claims. (Cl. 74—503)



1. A push-pull control mechanism comprising supporting means, an operating member reciprocably mounted in said supporting means, said supporting means having a frusto-conical opening therethrough with the smaller diameter end thereof confronting said operating member, and engagement means carried in said opening and resiliently urged against said operating member for locking the same in adjusted position, said engagement means having a dimension larger than the smaller diameter of said opening, said operating member having a longitudinal groove engageable with said engagement member, the walls of said groove having a series of means successively engageable with said engagement member to lock said operating member in adjusted position.

2,871,720
ROCKER ARM

Eldon K. Ralston, Lyndhurst, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application April 13, 1953, Serial No. 348,345
7 Claims. (Cl. 74—519)

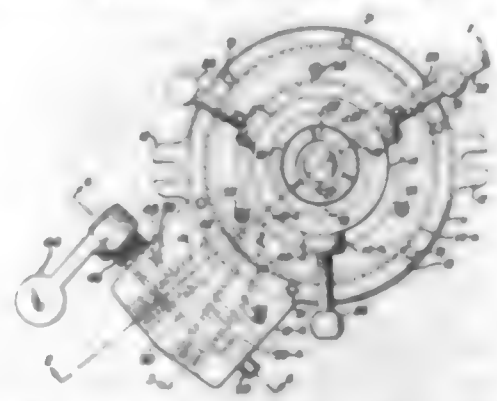


1. A rocker arm comprising a metal tube, a bearing liner in said tube, top and bottom straps extending transversely of said tube, weld bonds uniting said straps with the tube, said top strap having a substantially flat contour and enveloping only a small portion of the tube, said bottom strap lapping a substantial portion of the tube, said straps having short legs on one side of the tube and long legs on the other side of the tube, a spacer between the ends of the short legs of the straps, push rod means coacting with said ends, and the long legs of the straps being substantially longer than the short legs and converging to provide a valve contact end portion for the rocker arm.

2,871,721
INDEXING MECHANISM

Alfred A. Abramoska and John R. Cox, Cleveland, Ohio, assignors to The Bales Collet Manufacturing Company, a corporation of Ohio

Original application September 28, 1951, Serial No. 248,712, now Patent No. 2,704,671, dated March 22, 1955. Divided and this application May 11, 1954, Serial No. 428,970
10 Claims. (Cl. 74—535)

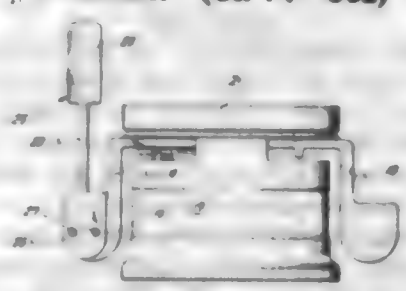


1. Indexing mechanism comprising in combination a base member, a rotatable member rotatably carried by said base member, said rotatable member having a plurality of sets of sockets formed therein, each set of sockets having its respective sockets equidistantly spaced apart around the circumferential extent of said rotatable member and each set including a different number of sockets, a plurality of plungers carried by said base member and reciprocal toward and away from said rotatable member, each of said plungers having an end adapted to fit within the respective sockets of one set only upon movement of said plunger toward said rotatable member, each set of sockets having its respective sockets formed to accommodate an end of one of said plungers only, operating means for moving said plungers relative to said rotatable member, and selective means for withholding from operating all but one of said plungers, said plungers in cooperation with said sockets providing for indexing of said rotatable member.

2,871,722
ADAPTER MEANS FOR DENTAL MOTOR CONTROLS

John Edmond Cooper, Los Angeles, Calif.

Application January 8, 1957, Serial No. 633,130
3 Claims. (Cl. 74—562)



1. Adapter means for a dental motor control of the type having a circular cross section, with one or more lever arms with foot control pedals adjacent the bottom of said motor control, and a pair of control knobs directed

upwardly from the top of said motor control, said control knobs being movable between upper and lower positions, said adapter means comprising a circular top plate removably mounted on the top of said motor control, the diameter of said top plate being substantially equal to that of said motor control, said top plate having a pair of openings therein, said openings being arranged so as to fit around said control knobs, the top of said top plate being disposed above the upper portions of said knobs, each of said openings being counter-sunk to permit manual access to and movement of said control knobs between their upper and lower positions, the top of said plate having a completely flat horizontal upper surface so that the foot of the dentist can rest upon and move freely across said surface, a vertically directed extension member removably attached to the pedal of one of said lever arms, said extension member having a yoke-shaped base member slidably fitting around said pedal from the top thereof, an extension arm extending upwardly from said base member and a foot member extending upwardly from said extension arm, said foot member comprising a vertically directed flat plate disposed above the upper surface of said top plate adjacent the periphery thereof, said top plate and extension member permitting the dentist to rest and slidably move his foot upon the flat upper surface of said top plate and operate said motor control by sliding sideward movement of his foot with said foot member, causing simultaneous rotary movement of the foot control pedal of said motor control.

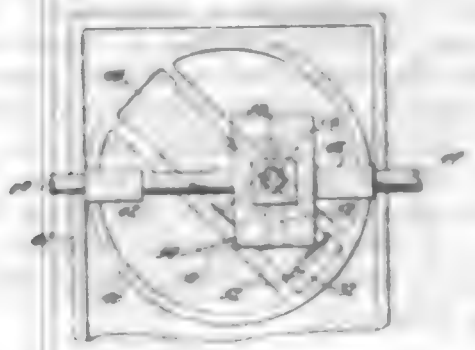
2,871,723

FACE CAM AND DOUBLE FOLLOWER

James A. Shephard, St. Petersburg, Fla., assignor to Universal Winding Company, Cranston, R. I., a corporation of Massachusetts

Application November 18, 1957, Serial No. 697,897

5 Claims. (Cl. 74—567)



1. The combination with a pair of followers mounted in fixed spaced relationship for reciprocating movement, of a face cam comprising a plate rotatable about an axis lying on the line of reciprocation of the followers and disposed eccentrically relative to the plate center, a circuitous groove in the face of said disc in which said followers are adapted to travel and having a maximum dimension in excess of the distance between the follower axes, an enlargement in said groove extending inwardly from the inner edge thereof in the direction of the maximum projection of said groove from said axis of rotation, the wall of said enlargement being spaced from the inner wall of the groove along radii through the axis of rotation a distance less than the distance between the followers at their closest points, the edges of the enlargement wall at their juncture with the inner wall of the remainder of the groove being spaced apart a distance less than the distance between the centers of said followers whereby said followers alternately travel in said groove and remain in said enlargement upon rotation of the disc.

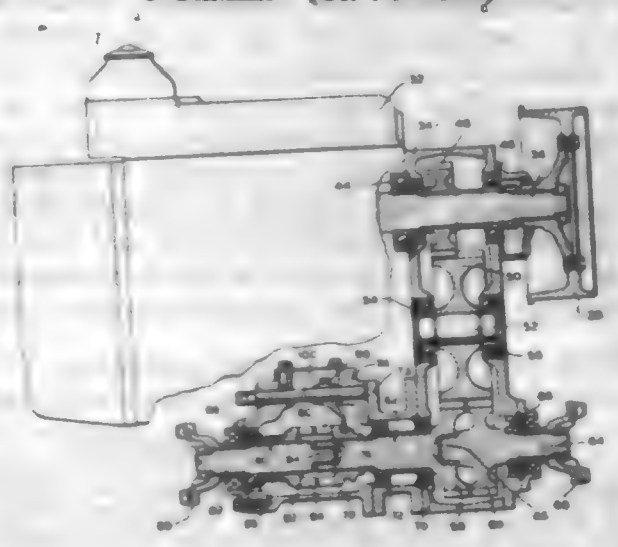
2,871,724

VEHICLE DRIVE MEANS

Donald S. Dence, Jackson, Mich., assignor to Clark Equipment Company, a corporation of Michigan

Application February 25, 1954, Serial No. 412,419

8 Claims. (Cl. 74—665)



1. For use in a vehicle having front and rear ground engaging wheels, a front propeller shaft for driving the front wheels at a predetermined ratio, a first gear drivingly connected with one end of said front propeller shaft, a rear propeller shaft for driving the rear wheels at the same ratio, a second gear drivingly connected with one end of said rear propeller shaft and having a lesser number of teeth than said first gear, and a power driven gear meshing with said first and second gears for causing said front propeller shaft to be driven at a slower speed than said rear propeller shaft.

2,871,725

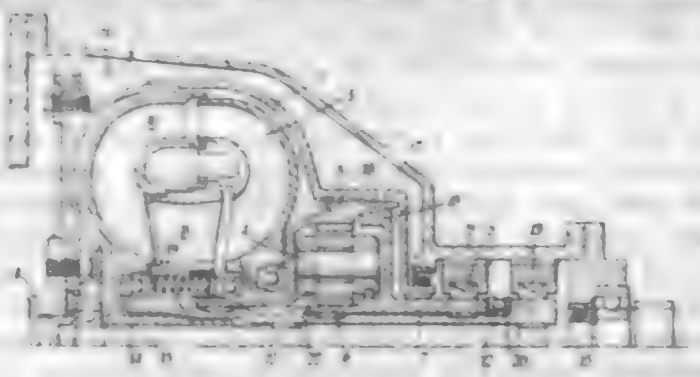
MECHANICALLY PROPELLED OR MECHANICALLY DRIVEN APPARATUS

Piero Mariano Giri de Teramala, Cox Green, England

Application January 6, 1956, Serial No. 557,757

Claims priority, application Great Britain March 1, 1955

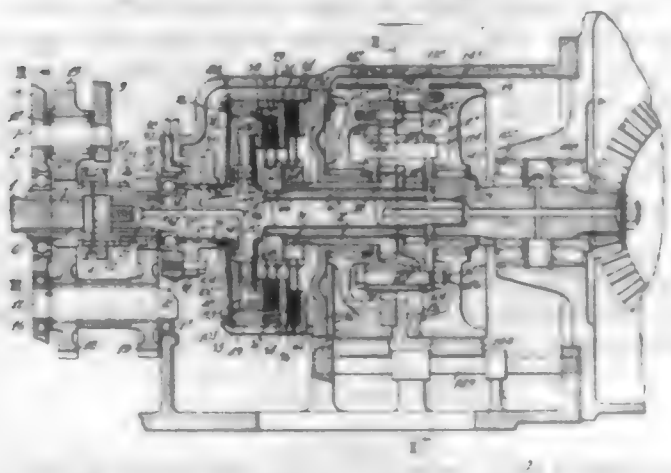
4 Claims. (Cl. 74—677)



1. Mechanically propelled or mechanically driven apparatus comprising a prime mover, a power input shaft, a power output shaft, a hydro-kinetic torque converter comprising a vaned driving member or impeller, a vaned driven member or turbine driven by liquid circulating in a closed circuit within a rotatable casing and a vaned reaction member rotatable in the same direction as said impeller, said casing being fixed to said power input shaft, planetary reduction gearing having an annulus fixed to said casing, a planet carrier attached to said impeller and a sun gear carried by a first sleeve, a fixed housing for said torque converter, a free wheel interposed between said first sleeve and said fixed housing for preventing backward rotation of said sun gear, a second sleeve coaxial with said first sleeve and carrying said reaction member, a free-wheel device interposed between said second sleeve and said fixed housing for preventing backward rotation of said reaction member, a third sleeve carrying said turbine and splined to said power output shaft to permit axial movement of said turbine relative

to said power driven shaft, an internal friction face on said annulus cooperating with an external friction face on a member associated with said first sleeve to form a rigid connection with said sun element, cavities in said reaction member having springs disposed therein for moving said reaction member and said turbine axially in one direction for coupling together said annulus and said sun gear to render said reduction gear inoperative so that power is transmitted from said prime mover to said power output shaft at a substantially 1:1 ratio, an abutment on said second sleeve engageable with said first sleeve responsive to fluid pressure developed within said torque converter to automatically move said first sleeve axially in the opposite direction to effect disengagement of said friction faces so that the reduction gear becomes operative.

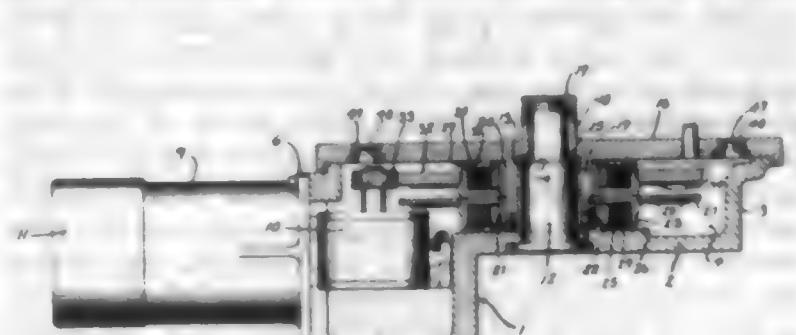
2,871,726
PLANETARY TRANSMISSION
Igor Kamlukin, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application October 20, 1954, Serial No. 463,561
3 Claims. (Cl. 74—769)



1. A quick shift, variable ratio power transmitting device comprising: a transmission input shaft; an output shaft disposed at the rear of and coaxial with said transmission input shaft, a planetary transmission unit disposed coaxial with and between said transmission input and output shafts, said unit including a planet carrier secured for rotation with said output shaft, a plurality of planet clusters rotatably mounted on said carrier and each including a pair of gear sections, a pair of selectively breakable annular gears meshing, respectively, with said gear sections, a pair of coaxial intermediate shafts coaxially aligned with and extending forwardly of said unit and sun gears nonrotatably secured, respectively, to the rear ends of said intermediate shafts for meshing, respectively, with said gear sections; and a selectively engageable and disengageable friction clutch for each of said intermediate shafts operatively interposed between said transmission input shaft and the associated intermediate shaft.

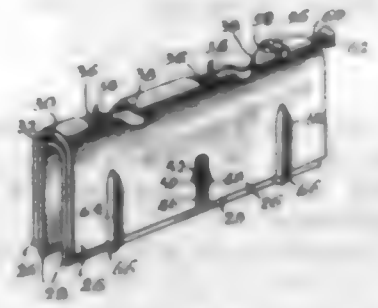
2,871,727
CONTROL DRIVE APPARATUS
Franklin S. Malick, Milwaukee, Wis.
Application February 13, 1956, Serial No. 565,082
17 Claims. (Cl. 74—813)

1. In a drive control apparatus the combination comprising a movable index plate to be progressed in steps between successive positions of index; a signal circuit including means operated by said index plate to provide a signal responsive to plate movement; electromagnetic driving and braking means for said index plate; an input circuit for said driving and braking means electrically connected with said signal circuit for driving and braking said index plate in response to signal circuit output; a lock engageable and disengageable with said index plate; an electrically operable release for said lock to disengage the lock from the plate; a timing circuit electrically connected with said lock release and said input circuit adapted to feed periodic signal impulses to the lock release and said input circuit to cause disengagement of the



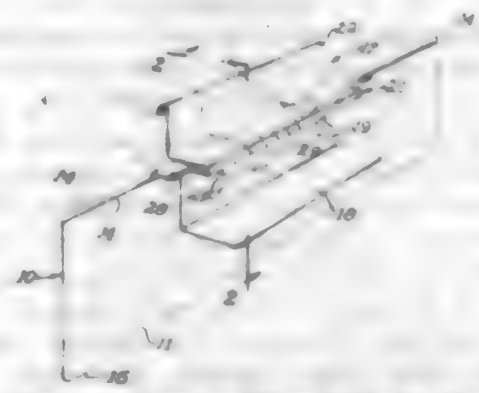
lock and operation of said driving means to cause plate movement; and connections between said signal circuit and said lock release whereby said lock is caused to be held disengaged in response to signal circuit output.

2,871,728
SAW FILING GUIDE
Alphonse Tremblay, La Decharge, Quebec, Canada
Application December 16, 1957, Serial No. 702,911
7 Claims. (Cl. 76—31)



1. In a filing guide for chain saws, a pair of body members each being bent on a longitudinal line to provide a U-shaped bend and a pair of depending parallel legs, said members providing inner and outer members with the legs of one vertically slidable and fitting against the legs of the other, supporting means for engaging a chain saw formed on the inner member, file guides formed in the outer member, securing means for holding the members in vertically adjusted relation, and positioning means for holding said members in adjusted position along a chain saw.

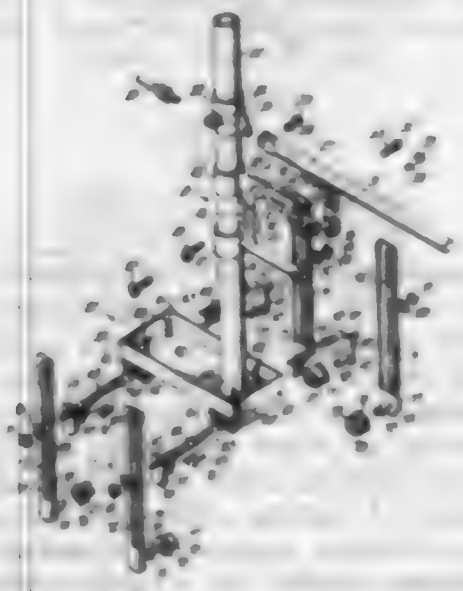
2,871,729
TROWEL FILING TOOL
Silas M. Schoonover, Richmond Beach, Wash.
Application October 15, 1956, Serial No. 615,822
1 Claim. (Cl. 76—82)



A trowel filing tool, comprising a single piece of sheet metal bent into a plurality of angularly related portions, said portions including a large area knuckle shield and a large area combination finger shield and guide bent at generally a right angle to each other and meeting at an edge, a first side of a file holding and handle means bent

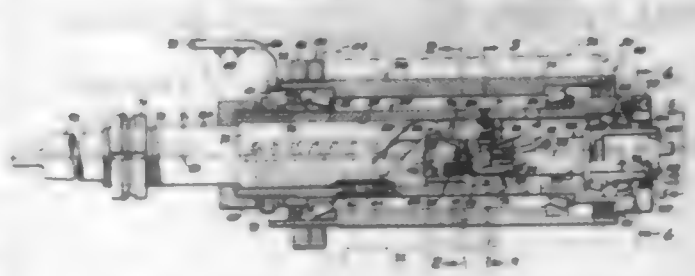
at generally a right angle to said combination finger shield and guide and meeting the same at a second edge spaced from said first-mentioned edge, said first side being generally parallel to said knuckle shield and being disposed on the same side of said combination finger shield and guide as said knuckle shield, a bottom portion of said file holding and handle means bent generally at a right angle to said first side and generally parallel to said combination finger shield and guide, a second side of said file holding and handle means bent generally at a right angle to said bottom portion and generally parallel to and spaced from said first side, said second side being wider than said first side so that an offset or shoulder is formed adjacent to said second edge, means to lock a file between said first and second sides of said file holding and handle means and in such position that one edge of said file is disposed adjacent to said offset or shoulder, a thumb and wrist shield portion connected to the edge of said second side remote from said bottom portion, said thumb and wrist shield extending at an angle to said second side and being adapted to protect the wrist of the operator of the trowel filing tool while said operator is grasping said file holding and handle means, and hook means provided on said thumb and wrist shield portion remote from said file holding and handle means to catch the sharp edge of a trowel sliding on said thumb and wrist shield portion.

2,871,730
PORTABLE DRILL PRESS
Eugene W. Gremp, Chicago Heights, Ill.
Application August 31, 1955, Serial No. 531,707
8 Claims. (Cl. 77—13)



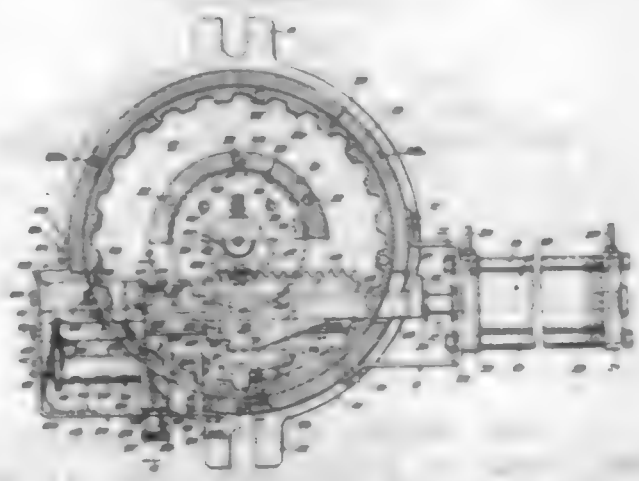
3. A portable drill press for mounting on a structural beam type work object in any position from upright to inverted and for movement in the mounted position along said work object for periodic spaced drill press operation, said press as defined in an upright position including a horizontal frame mounting on the top thereof a vertically downwardly acting and transversely pivotable drill unit, a plurality of horizontal support arms carried by said frame and extending outwardly of opposite side margins thereof in spaced relation for support of said press on a work object, inwardly directed rollers carried by said horizontal support arms below the outermost ends thereof, each of said horizontal support arms carrying a vertical work object clamping arm at its outermost end, the lowermost end of each vertical clamping arm carrying an inwardly directed roller generally opposed to one of the first mentioned rollers, and adjustable clamping means attaching each vertical clamping arm to its support arm and permitting variable fixed positioning of each vertical clamping arm relative to its support arm to variably space each of the opposed rollers for movably mounting said press on different surface portions of a work object.

2,871,731
AUTOMATIC RECESSING DEVICE
Bernard K. Stuber, Detroit, Mich., assignor to Dawson Carbide Industries, East Detroit, Mich., a corporation of Michigan
Application December 3, 1956, Serial No. 625,892
12 Claims. (Cl. 77—58)



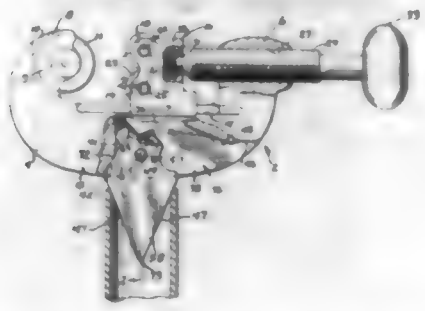
1. An automatic boring and recessing device comprising a drive shaft structure, a supporting structure rotatably supporting said drive shaft structure, a driven shaft structuree having a tool receiver mounted eccentrically therein, one of said previously-mentioned structures rotatably supporting said driven shaft structure upon an axis of rotation parallel but eccentric to the axis of rotation of said drive shaft structure, a tool driver on one of said shaft structures drivingly engageable with a tool held in said receiver, means for shifting said receiver laterally parallel to said drive shaft structure from a first position with the receiver coaxial with said drive shaft structure into a second position with the receiver axis eccentric to said drive shaft structure, and shaft-locking mechanism releasably locking said shaft structures to one another with said receiver coaxial with said drive shaft structure, said mechanism including an actuating member adapted to engage a tool of one type positioned in said receiver but avoiding engagement with a tool of a different type positioned in said receiver.

2,871,732
INDEXING TABLE
Raymond G. Olsen, Niles, Ill., assignor, by mesne assignments, to Cleveland Pneumatic Industries, Inc., Cleveland, Ohio, a corporation of Ohio
Application February 1, 1956, Serial No. 562,835
6 Claims. (Cl. 77—64)



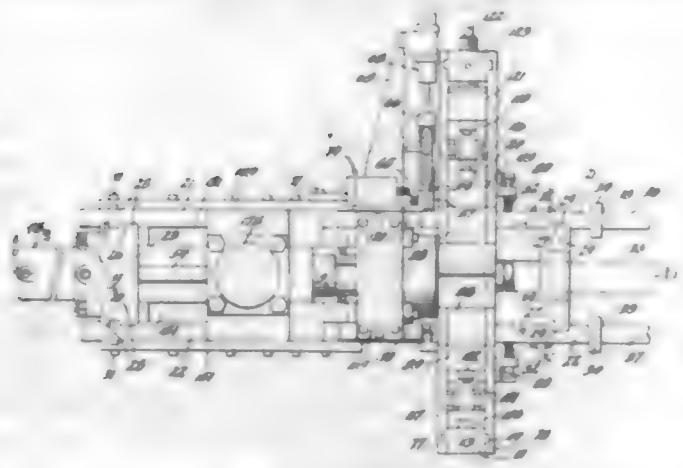
1. An indexing table comprising a stationary supporting structure, an indexing turntable, means journalling said indexing turntable on said stationary supporting structure, means rotating said indexing turntable through predetermined degrees of arcuate movement, said means rotating comprising a reciprocable rod mounted for movement on said stationary supporting structure, gearing interposed between said stationary supporting structure and said indexing turntable, locking means for said indexing turntable, means on said rod for effecting and unlocking of said locking means upon commencement of movement of said rod, and lost motion means on said rod for effecting actuation of said gearing subsequent to said unlocking.

2,871,733
REAMING TOOL
William A. Lauck, Elyria, Ohio, assignor to Ridge Tool Company, Elyria, Ohio
Application June 13, 1956, Serial No. 591,203
10 Claims. (Cl. 77—73)



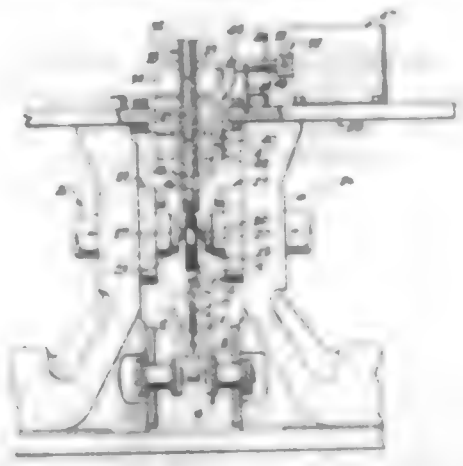
1. A reaming tool comprising a C-shaped body formed with a longitudinally extending recess therein which is open at one edge of the body, said recess having a flat bottom wall, a wall normal to the bottom wall at one end and terminating in an oblique wall at the opening into the recess, the other end wall of said recess comprising an oblique wall extending close to the bottom of the recess, a reamer blade having an end pivotally secured in said recess near said normal wall, said blade being formed with inwardly extending seats on the inner end circumferentially spaced about the pivot and the other end of the blade being formed with oblique reaming surfaces, a locking spring comprising an elongated base seated in the flat bottom of said recess and having an obliquely extending arm formed with a seat engaging surface arranged for selective engagement with the seats in said blade to hold it in an extended or retracted position abutting against one or the other of said end walls of the recess.

2,871,734
APPARATUS FOR HEADING TUBULAR MEMBERS
Francis J. Fuchs, Jr., and Charles L. Saunders, Winston-Salem, N. C., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application February 29, 1956, Serial No. 568,573
6 Claims. (Cl. 78—17)



1. A tube swaging apparatus comprising a fluid pump, means to actuate said pump, a plurality of valves to direct fluid pressure from said pump to a plurality of fluid distribution lines, forward sequence valves connected in said distribution lines to control forward operation of said apparatus, a servomechanism, a feed piston cylinder assembly controlled by said servomechanism to position a tube at a predetermined location, a stop means actuated by the tube to control said servomechanism, means to actuate said stop means, clamping means to clamp the tube, means to actuate said clamping means, a pressure booster associated with said clamping means to increase the fluid pressure on said clamping means, a mandrel to support the inside of the tube, means to actuate said mandrel, a flange pressure member to position a flange on the tube, means to actuate said flange pressure member, a heading punch to upset the end of the tube to secure the flange to the tube, means to actuate said punch, a limit switch associated with and controlled by travel of said punch to reverse the cycle of operation of the apparatus, a mandrel lubricating means to lubricate said mandrel, a plurality of pressure switches connected to one of said distribution lines operating said mandrel to actuate said mandrel lubricating means, and a plurality of reverse sequence valves connected in said distribution lines to control the reverse operation of the apparatus, said servomechanism, said feed piston cylinder assembly, said means to actuate said stop member, said means to actuate said clamping means, said means to actuate said mandrel, said means to actuate said flange pressure member and said means to actuate said punch all being connected to said fluid pump by said plurality of fluid distribution lines and actuated in a predetermined sequence by the fluid being pumped therethrough.

2,871,735
APPARATUS FOR ASSEMBLING ERASERS WITH HOLDERS THEREFOR
Robert C. Heffernan, Northport, N. Y., assignor to Eberhard Faber Pencil Company, New York, N. Y., a corporation of New York
Application June 20, 1955, Serial No. 516,361
3 Claims. (Cl. 78—82)

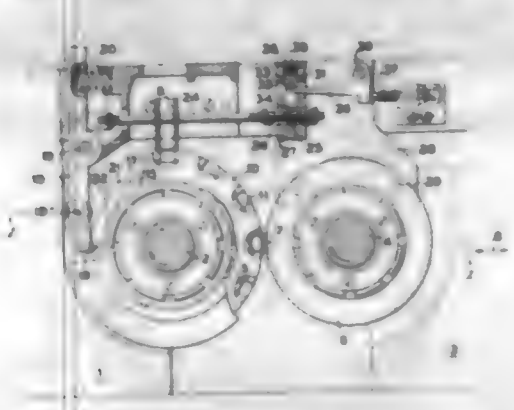


1. In a machine for assembling an eraser and a metallic holder therefor, a work clamp adapted to grip an eraser holder having a pair of spaced parallel side walls designed to receive an annular eraser therebetween, an eraser feeding guide located in the plane of said work clamp whereby an eraser holder in said clamp is presented to said feeding guide, means for discharging an eraser from said feeding guide into an eraser holder carried by said work clamp, and a pair of spaced cold welding pistons adapted to inwardly deform the side walls of an eraser holder in said work clamp and form therein a supporting hub for an eraser discharged thereinto from said feeding guide, said pistons being mounted between said feeding guide and said work clamp to reciprocate into and out of contact with an eraser holder positioned between the confronting faces of said pistons by said work clamp.

2,871,736
WORKPIECE TRANSFER CYLINDER FOR ROLLING MECHANISMS
Johann Hübl, Berlin-Halensee, Germany, assignor, by mesne assignments, to Landis Machine Company, Waynesboro, Pa., a corporation of Pennsylvania
Application June 17, 1953, Serial No. 362,353
Claims priority, application Germany June 25, 1952
1 Claim. (Cl. 80—6)

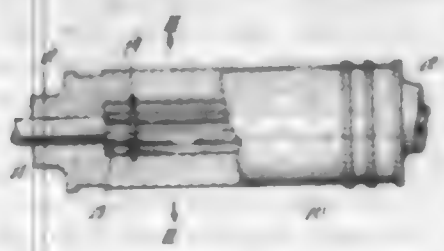
Mechanism for rolling work pieces comprising a pair of forming rolls, a slide rotatably supporting one of said rolls, means to move said slide through advance and retract strokes, respectively, toward and away from the other of said rolls, a transfer cylinder surrounding

said other of said rolls and adapted to be frictionally driven therewith to transfer successive work pieces from a magazine to a rolling position between said rolls, an indexing plate secured to said transfer cylinder, an indexing lever adapted, when engaged with said indexing plate, to lock said plate and said transfer cylinder against rotation, means resiliently urging said indexing lever into locking engagement with said indexing plate, a push



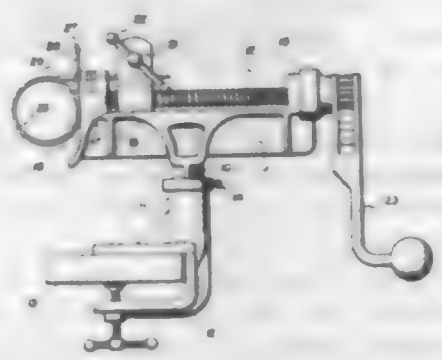
rod connected at one end to said indexing lever, latching means on said slide adapted to connect said push rod to said slide at the end of an advance stroke of said slide whereby said lever will be moved out of engagement with said indexing plate by a subsequent retract stroke of said slide, and means for automatically disconnecting said push rod from said slide whereby said lever is returned to locking engagement with said indexing plate by said resilient means.

2,871,737
REINFORCED ROLLING MILL ROLLS
Harry M. Malachowski, Pittsburgh, Pa.
Application August 31, 1956, Serial No. 607,377
1 Claim. (Cl. 80—58)



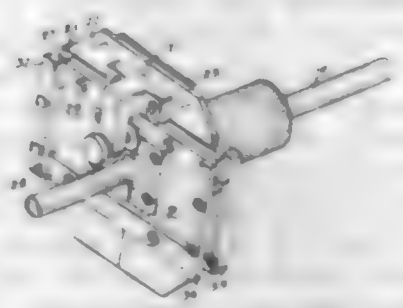
In a metal roll construction of the character shown and described for heavy duty rolling mill utilizations, a reinforcing central axial structure comprising a full length worked steel rod core member of solid construction, a longitudinally spaced-apart pair of metal holding discs, each of said discs having a large central hole portion therethrough and a series of peripherally spaced-apart relatively smaller hole portions open on their inner peripheries to said central portion and aligned within a bounding outer peripheral edge wall of the discs, said core member extending through the central hole portion of said discs, said discs being weld-secured concentrically about and at spaced locations from opposite longitudinal ends of said core member, a plurality of shorter length worked steel rod satellite members of solid metal of reduced diameter with respect to said core member and extending in a peripherally spaced-relationship in abutment with and along a central length portion of said core member and through the smaller hole portions of said discs within the bounding peripheral edge wall of said discs, and said satellite rod members being weld-secured to said discs to provide the axial structure with an integral construction; a cast ferrous metal matrix roll body having a central roll face portion surrounding said axial structure and fully enclosing said discs and said shorter length satellite members, said central roll face portion having a greater total thickness across its diameter than the thickness of said axial structure across its diameter from said satellite rod members, and said roll body having end necks connected to and of smaller diameter than said central face portion and only surrounding end portions of said rod core member.

2,871,738
METHOD OF APPLYING WIRE CLAMPS TO HOSES
Theodore H. Abbiati, Denver, Colo., assignor to Screw Machine Products Co., Denver, Colo.
Application November 4, 1954, Serial No. 466,883
5 Claims. (Cl. 81—9.3)



5. A method of binding together in tightly sealed relation an assembly of concentric telescoped members the outer of which is compressible, comprising the following steps; encircling the outer member with a coil of wire having two loose end portions extended in different directions with one end portion extending beyond and crossing the other end portion, exerting on one end portion a pull sliding the wire of the coil circumferentially around the compressible member while drawing wire from the other end portion progressively into the coil, mechanically imposing on said other end portion of the wire a restraint that is a function of the applied pulling force and which yieldably and progressively resists the pull to an extent such that the sliding coil progressively constricts upon the compressible member in frictional engagement and thereby causes the assembly to rotate on its axis which the coil is constricting, and continuing the mechanical restraint until a predetermined length of wire has been drawn into and through the coil.

2,871,739
CABLE STRIPPING TOOL
Carl A. Granzow, Dayton, Ohio
Application June 7, 1955, Serial No. 513,681
12 Claims. (Cl. 81—9.5)

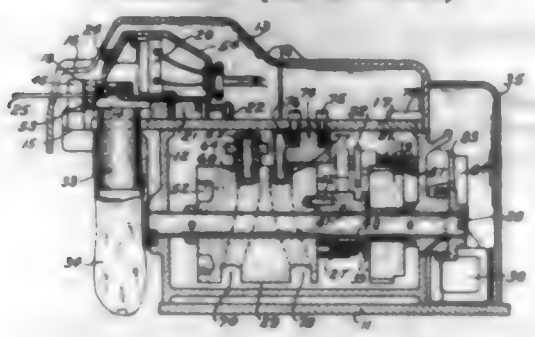


1. A cable stripping tool, including a hand grip portion having a longitudinal bore therethrough, a cutter including a mounting plate in a plane at right angles to said longitudinal bore rotatably mounted relative said hand grip, said plate having an opening aligned with the bore, cutter members slidably mounted on said plate on opposite sides of said opening, said members being movable in a common plane parallel to said plate in relative approaching and separating relation to one another, and means mounting variably sized means between said cutter members for limiting relative approaching motion of said cutter members.

2,871,740
INSULATED WIRE STRIPPER

Karl H. Andreu, West Allis, Wis., assignor to Artos Engineering Company, Milwaukee, Wis., a corporation of Wisconsin

Application March 7, 1956, Serial No. 570,135
6 Claims. (Cl. 81—9.51)

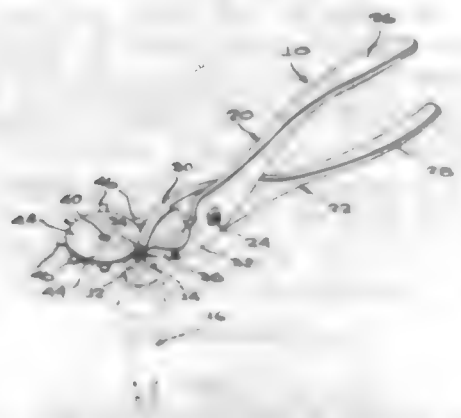


1. In a wire insulation stripper, means forming an insulation cutting and stripping zone, cutting blades within said zone for transversely severing the insulation only of a wire inserted endwise into said zone, means for utilizing the extreme inserted end of the wire to definitely locate said blades at any desired cutting position away from said end, and means for retracting said blade positioning means while the insulation severed wire is being withdrawn from said zone to permit the strippings to fall freely away from the zone.

2,871,741
SPARK PLUG GAPPING TOOL

Walter W. Weisbecker and Irene M. Weisbecker, Rantoul, Ill.

Application September 28, 1956, Serial No. 612,687
1 Claim. (Cl. 81—15)

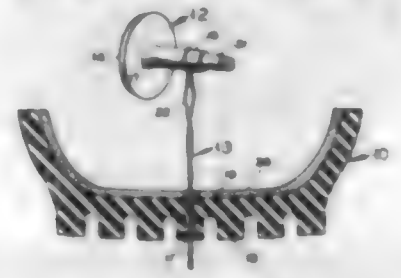


A tool for adjusting the air gap between the outer and central electrodes of a spark plug, said tool comprising a pair of opposing, complemental jaws having crossed handles pivotally connected together for moving the jaws toward and away from each other, one jaw having a forwardly projecting lug constituting an axial prolongation thereof, said lug having an underface disposed in a plane that contains the pivot axis of the handles, the other jaw terminating inwardly of said one jaw and having an extension arm extending laterally outwardly and projecting forwardly therefrom, said arm terminating in a free outer end disposed substantially in lateral alignment with said lug, a disc rotatably mounted on the free end of the arm and rotatable about an axis perpendicular to the pivot axis of the handles, said lug having a side facing the arm and disposed in a plane perpendicular to and tangentially disposed relative to an extension of the curvilinear plane in which the periphery of the disc lies, said disc having integral gauging lugs of varying thickness extending radially from the periphery thereof and disposed in circumferentially spaced fashion on the periphery, said gauging lugs being of a length substantially equal to the width of said lug and each gauging lug having a face adapted to confront said underface of said lug with each gauging lug being adapted to selectively seat on a central electrode and having it face bearing under an outer electrode and with the lug engaging at its underface on the outer electrode and clampingly cooperating with the selected gauging lug to bend the outer electrode relative to the central electrode.

2,871,742
DEVICE FOR THREADING PLUGS THROUGH PUNCTURES IN TIRES

Edwin E. Tillman, Miami, Fla., assignor to Triple Seal Corporation, Coral Gables, Fla., a corporation of Florida

Application January 17, 1955, Serial No. 482,368
1 Claim. (Cl. 81—15.7)

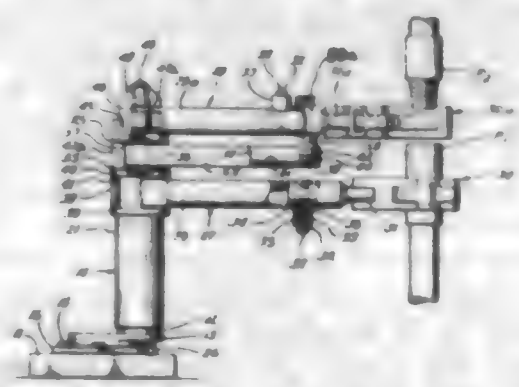


A tool for inserting a plug in a puncture in the repair of tubeless tires comprising a spring wire member bent at substantially its mid-portion to form a pair of leg portions, each of said leg portions being wound upon the other extending from intermediate its end portions to one end of said leg portions whereby a handle is formed for manipulating said tool in inserting said tool in said puncture, said leg portions extending angularly away from each other at their intermediate portion for a distance and then extending in a substantially similar but reverse angular direction toward each other to form a pair of outwardly directed shoulder means, said leg portions extending again angularly away from each other for a shorter distance than said first mentioned distance to form opposed inwardly directed shoulders and then extending again toward each other and being integrally joined at said mid-portion of the wire, so as to form a small loop at the other end of said leg portions adjacent said opposed shoulders for engaging said plug securely as said outwardly directed shoulder means become compressed upon the threading of said tool through said puncture whereby said plug may become properly seated in said puncture upon the pulling of said tool therethrough.

2,871,743
HYDRAULIC PIPE TONGING DEVICE

Benjamin F. Kelley, Tulsa, Okla.

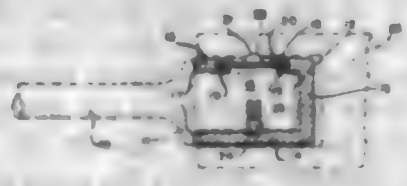
Application February 10, 1958, Serial No. 714,366
14 Claims. (Cl. 81—53)



1. A pipe tong device, comprising, a vertically disposed pedestal member, a pair of pipe tongs supported in horizontal vertically spaced positions from said pedestal member, the lower one of said tongs having one end pivotally connected to the pedestal member, a horizontally extending support arm disposed between said tongs and pivotally connected at one end to said pedestal member to swing in a horizontal plane, means forming a longitudinally slidable pivoted connection between the free end portion

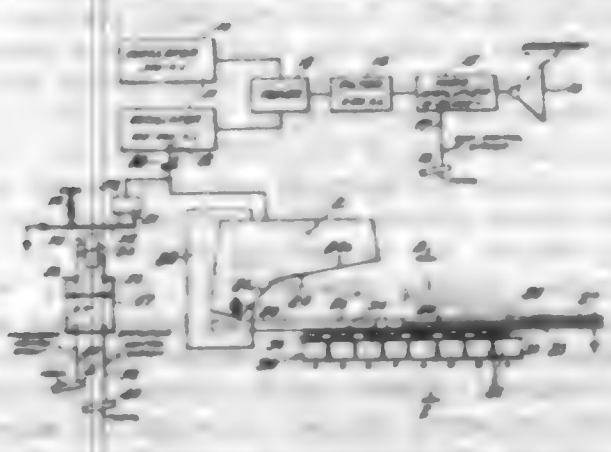
of the support arm and an intermediate point on the upper one of said tongs, and means mounted on the pedestal and connected to the free end of said upper tong for oscillating the same in a horizontal plane about said pivoted connection.

2,871,744
SOCKET WRENCH ADAPTER
Nolen C. Morrow, St. Charles, Mo.
Application June 19, 1956, Serial No. 592,318
3 Claims. (Cl. 81—185)



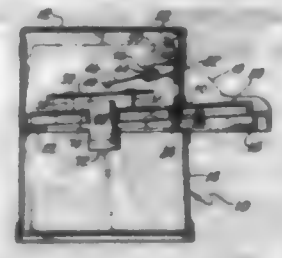
1. A socket wrench adapter comprising a rectangular housing open at one end and adapted to fit on the drive shaft of a socket wrench whereby to increase the size of the drive, means for removably retaining the adapter on the drive, and second means for removably retaining the adapter within a drive socket, said housing having a wall provided with a rectangular opening and with grooves in opposite side edges of said opening, said second means comprising a rectangular leaf spring having opposite ends seated within said grooves when flexed, and a hemispherical detent carried by said leaf spring and adapted to fit within a corresponding recess provided in the drive socket.

2,871,745
KEYBOARD OPERATED ELECTRICAL MUSICAL INSTRUMENT
Raymond Scott, Manhasset, N. Y.
Application December 28, 1956, Serial No. 629,585
15 Claims. (Cl. 84—1.25)



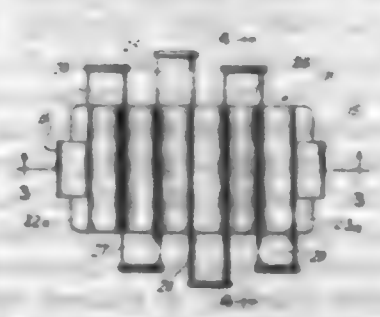
1. A musical instrument comprising loudspeaker means for emitting an audible note, an oscillator of controllable frequency connected to energize said loudspeaker means for producing said note, said oscillator comprising a terminal for controlling the frequency of oscillation of said oscillator by variation of the capacitance to ground of said terminal, a fixed control electrode connected to said terminal, a movable grounded electrode cooperating with said control electrode for varying the pitch of said note by changes in the relative positions of said electrodes, a control bar by which said grounded electrode is carried, an end portion of said control bar being pivoted to supporting means for angular movement of said control bar, a keyboard comprising series of parallel elongated key bar members extending perpendicularly with respect to said control bar, and means individually interconnecting each of said key bar members and said control bar whereby those key bar members which are located nearer to said pivoted end portion of said control bar will produce greater angular displacements of said control bar than those of said key bar members which are more remote from said pivoted end portion.

2,871,746
TOY MUSICAL INSTRUMENT
Clair Omar Musser, Studio City, Calif.
Application October 20, 1958, Serial No. 767,882
1 Claim. (Cl. 84—405)



A toy musical instrument of the class described which includes: a housing having a front side formed with an elongated slot located therein; a key support ledge attached to said front side of said housing so as to project generally parallel to said slot; a plurality of projections capable of serving as fulcrums mounted on said housing adjacent to said slot so as to project upwards from the lower edge thereof; a support member positioned within said housing so as to project generally parallel to said slot; a plurality of keys, each having a top and a bottom and a recess located in the bottom thereof positioned so as to project through said slot into said housing with each of said recesses receiving one of said projections, said keys being supported in a normal position by said projections and said support member located within said housing, said keys being capable of being engaged on the outside of said housing so as to be pushed into engagement with said key support ledge so as to rotate said keys about said projections to a playing position; a tone bar resiliently attached to each of said keys so as to be moved to a playing position when said keys are moved to a playing position; a vibrator mounted within said housing; a support bar resiliently mounted within said housing, said support bar being operatively associated with said vibrator so as to be capable of being moved thereby; a plurality of resilient arms attached to said support bar so as to extend therefrom, each of said arms extending adjacent to one of said tone bars; and hammer means adapted to engage a tone bar attached to the end of each of said arms remote from said support bar, said hammer means serving to periodically engage tone bars on said keys when said vibrator is operated and when said keys are rotated to a playing position.

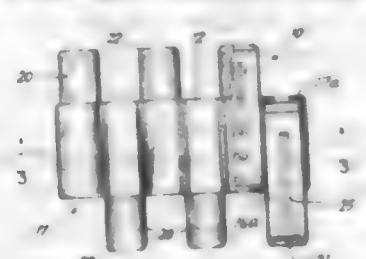
2,871,747
PLASTIC PITCH PIPE
William Kratt, Union, N. J.
Application August 2, 1954, Serial No. 447,012
3 Claims. (Cl. 84—456)



1. A pitch pipe construction comprising a pair of molded plastic sections and a reed plate in assembled relation, each of said sections being formed with adjacent semi-cylindrical chamber portions to provide when assembled a plurality of tubular chambers in side by side relation, said reed plate being disposed medially of said chambers and including a plurality of spaced vibratory reeds respectively aligned with said chambers, one of said sections including integral mouthpiece portions respectively communicating with said chambers at one

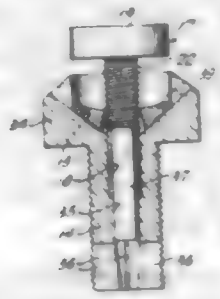
end thereof, alternate mouthpiece portions projecting from opposite sides of said section, the other of said sections including end wall portions at each of the chamber portions thereof abutting the inner end of the adjacent mouthpiece portions, and means interengageable with superposed edge portions of said sections for retaining said sections and reed plate in assembled relation.

2,871,748
PITCH PIPES
William Kratt, Union, N. J.
Application August 2, 1954, Serial No. 447,013
2 Claims. (Cl. 84—456)



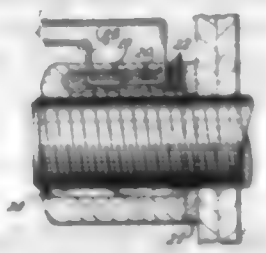
1. A pitch pipe comprising a molded plastic casing comprising top, bottom and end walls, and a plurality of parallel intermediate wall portions defining a plurality of parallel tubular chambers having aligned ends on either side thereof, and an individual tubular reed holder and reed assembly mounted in each chamber, each assembly having a mouth portion projecting from one end of its chamber, successive assemblies having their mouth portions projecting from opposite ends of their chambers respectively.

2,871,749
BLIND FASTENER HAVING LOCKING STEM RETAINED IN HEAD BY CAMMED LOCK WASHER
Aaron Kalb, Irvington, N. J.
Application May 25, 1955, Serial No. 511,089
4 Claims. (Cl. 85—2)



1. A device for securing apertured first and second articles together when assembled with their apertures in registration, by applying said device from one side only of said assembled articles, comprising a first fastener member having a head portion greater than the article aperture, an elongated stem extending from said head portion and proportioned to extend through said apertured articles and beyond the opposite side thereof, the extremity of said stem being expansible to engage the opposite side of said assembled articles, to fasten said articles between the head portion and extremity of the first fastener, said stem portion being provided with an axial aperture therethrough and being threaded in the axially apertured portion thereof, a second fastener member adapted to engage said first fastener member to so spread the said extremity of the first fastener member, said second fastener member comprising an enlarged head portion and an elongated stem extending therefrom for reception in said axial aperture, said elongated stem having a threaded portion for engagement with the threaded portion of said axially apertured stem portion of the first fastener member, said elongated stem of the second fastener member proportioned for so engaging said extremity of the stem of the first fastener member, on so threading the stem of the second fastener into said axially threaded portion of the first fastener, said first fastener member having a slotted traversing the upper end of the axial aperture therein, a plate having a pair of protuberances of softer material than the stem of the second fastener member said protuberances being dependently disposed on the plate in aligned, spaced relation and proportioned to conform to said slotted portion, so that the plate may be positioned between the head of the second fastener member and the axial aperture of the first fastener member and the protuberances of the plate disposed in said slotted portion, and, on threading the stem of the second member into the internally threaded axial aperture of the first fastener member, the head portion of the second fastener member will engage the plate and compress the protuberances thereof in said slotted portions and against the stem of the second fastener member, holding the parts in position against displacement.

2,871,750
EXPLOSIVELY RELEASED NUT
Norman Charles Parrish, Redondo Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application June 8, 1953, Serial No. 360,216
3 Claims. (Cl. 85—32)

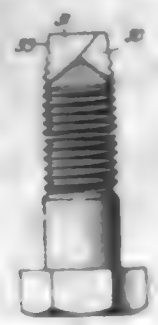


1. In an explosive breakaway attachment: fastening element having spaced parallel end faces, a plurality of opposed side faces and a threaded bore extending between an opening on both of said end faces; portions of said element define an elongated cavity having a longitudinal axis of symmetry; said cavity being spaced from said bore, extends to and opens on one of said end faces, and terminates short of the other of said end faces; an explosive charge positioned in said cavity; other portions of said element defines at least one aperture therein extending between one of said side faces and said cavity; wire means passing through said aperture whereby said explosive charge may be detonated when desired; still other portions of said element defines an elongated V-shaped groove which extends between said end faces and opens into said bore; and the axis of said cavity and the apex of said groove being parallel to the axis of said bore and said cavity being located on the side of said bore diametrically opposite said groove.

2,871,751
SELF-TAPPING SCREW HAVING LARGE CHIP CAVITY
Frank C. Lemke, River Grove, Ill., assignor to Phoell Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application June 28, 1956, Serial No. 594,418
3 Claims. (Cl. 85—47)

1. A self-tapping screw comprising a threaded shank portion and a thread cutting tapered tip portion on the lower end when the screw is head up in a vertical position and in which the threads run out, a chip cavity in the bottom end of said tip portion having a generally rectangular entrance opening occupying the center and a large portion of the bottom end of said tip portion and formed by the combined bases of two juxtaposed slots of substantial width entering said tip portion from opposite sides thereof with the lower ends of each slot extending

inwardly well past the center of said bottom end so as to terminate adjacent the side opposite entry, said slots being substantially rectangular in horizontal cross section and generally triangular in vertical cross section and formed by cutters entering said tapered tip portion from opposite sides, the apex of each slot being located adjacent the exterior of said screw on opposite sides thereof and approximately at the upper end of said tip portion, the lower end of the inner inclined leg and wall of each slot terminating at one corner of a pair of diagonally positioned corners of said rectangular opening, each corner of the other pair of diagonal corners opening into the adjacent one of said slots, each of said triangular slots having parallel inner and outer vertical side walls spaced apart a distance defining the width of each slot, said inner vertical side walls lying in a common vertical plane which longitudinally bisects said shank and tip portions, said inner inclined leg and wall of each slot extending at angles of approximately 45 degrees to the longitudinal axis of said shank portion.

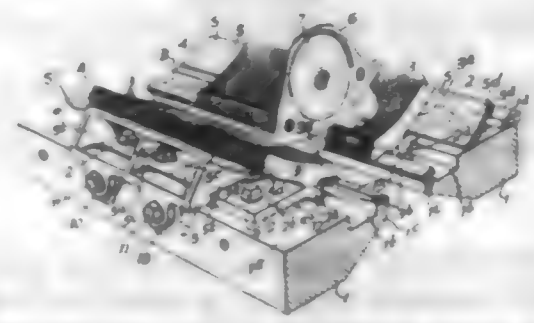


2,871,752
SCREW HAVING A DRILL POINT AND SERRATED CUTTING EDGE
William Stern, Park Ridge, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application August 14, 1957, Serial No. 678,237
3 Claims. (Cl. 85—47)



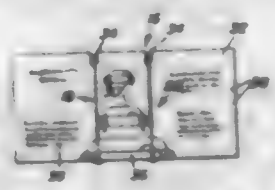
1. A drilling and thread cutting screw fastener including a shank, said shank providing a holding section having a plurality of uninterrupted thread convolutions, an entering section having a plurality of similar thread convolutions, and an enlarged head section formed integral with the shank at the opposite extremity for accommodating a turning tool, the external and root diameters of the thread convolutions on said holding section constant over the axial extent of said holding section, the external and root diameters of the thread convolutions throughout said entering section diminishing to substantially the entering extremity of the shank so as to provide substantially an interrupted threaded point, said entering section and a very limited portion of the adjacent holding section being transversed by a single recess to provide a serrated cutting edge, said recess being defined by two intersecting surfaces, one of which is relatively flat and extends through said point and the shank axis to form the aforesaid serrated cutting edge, one end of said surface terminating in the vicinity of the juncture of the entering and holding sections of the shank and the other extremity completely traversing the entering screw extremity, and the other surface defining said recess extending obliquely to and traversing said axis for deflecting chips away from said cutting edge, the entering extremity of said chip-deflecting surface terminating sufficiently short of the screw shank extremity and disposed on the side of the shank axis opposite from the other extremity of said oblique surface to facilitate work penetration by that portion of the screw point completely traversed by said flat surface when the screw fastener is initially applied to a workpiece.

2,871,753
LACE MACHINES
Charles E. Goodley, Woodthorpe, England
Application July 11, 1957, Serial No. 671,186
Claims priority, application Great Britain July 31, 1956
9 Claims. (Cl. 87—27)



1. In a lace machine of the kind herein referred to, including bobbin carriages guided between the blades of fixed combs and arranged to swing back and forth, pendulum fashion, in arcuate paths each constituting the lower portion of the circumference of a circle to which the machine is designed, a comb assembly comprising, in combination, a comb bar extending lengthwise of said machine, a longitudinal series of juxtaposed comb leads in which are cast flexible comb blades extending parallel to one another and at right angles to said comb bar, means securing the comb leads upon said bar, and a sectional carriage support bearing which extends uninterruptedly from end to end of the machine and consists of a continuous series of initially separate sections which are separately attached to the comb bar in a manner enabling any one of them to be removed and replaced by a fresh one, said sections together presenting, beneath the comb blades, an arcuate carriage bearing surface conforming to the aforesaid circle of the machine.

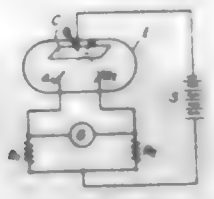
2,871,754
REARVIEW MIRROR ATTACHMENT
Kingsley W. Marble, Athol, Mass.
Application June 11, 1954, Serial No. 436,017
1 Claim. (Cl. 88—2.2)



The combination of an automobile rear view mirror for reflecting therein the image of a trailing vehicle, and a pair of adjustably spaced vertical gauge rods traversing the front surface of the mirror, and resilient means adjustably mounting said rods on the front surface of the mirror for spacing said rods apart laterally in correspondence with the width of the image in the mirror when the trailing vehicle is at a predetermined rearward distance from the automobile and the said image width being as viewed by the eye of a driver at a given normal distance from the mirror, said resilient means comprising right angled terminally hooked lower ends on said rods extending under the bottom edge of the mirror and upper hooked ends on the rods extending below the top edge of the mirror, and a pair of resilient bands extending across the back of the mirror and looped through the hooked ends of the rods and over the top edge of the mirror to

pull said right angled ends against the bottom edge of the mirror whereby said resilient bands frictionally grip the top edge of the mirror and said right angled ends grip the bottom edge of the mirror to hold said rods in laterally spaced positions over the front surface of the mirror.

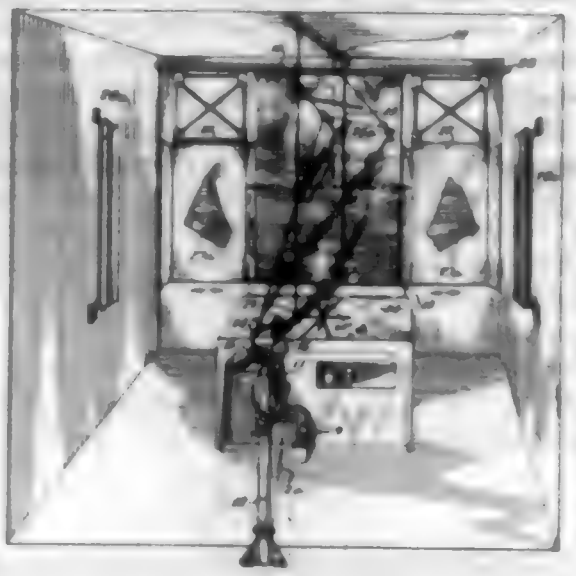
2,871,755
PHOTO ELECTRIC CELL
Emile Alfred Pierre, Paris, France
Application October 6, 1953, Serial No. 384,481
10 Claims. (Cl. 88—14)



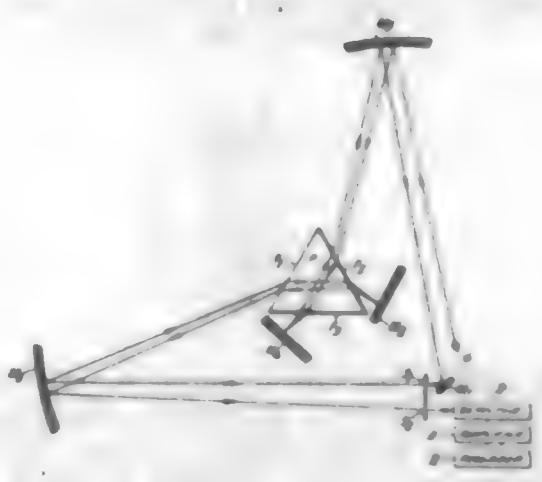
1. A photo-electric device comprising in combination an air-tight evacuated envelope, a planar cathode in said envelope, a photo-responsive surface on one face of said cathode adapted to emit electrons upon impingement of a beam of light thereon, two pairs of parallel rectilinear elongated anodes with a constant cross-section facing said photo-responsive surface, said two anodes of one pair of anodes being positioned at right angles to said two anodes of the other pair of anodes, two electrical circuits respectively associated with said two pairs of anodes, each of said two circuits comprising two branches having each one end portion thereof respectively connected to said two anodes of the associated pair of anodes while the other end portions of said two branches of said circuits, respectively, are joined together at respective junction points, first means for producing a voltage drop in each of said branches of one of said two electrical circuits depending upon a current flowing through the particular branch, second means for producing a voltage drop in each of said branches of the other of said two electrical circuits depending upon a current flowing through the particular branch, two D. C. sources having their negative terminals connected to said cathode and their positive terminals respectively connected to said junction points of said two branches of said two electrical circuits, respectively, and means connected in circuit between said two branches of said two electrical circuits respectively, so as to be responsive to any difference between currents flowing in said two branches, respectively, of said two electrical circuits.

2,871,756
MECHANO-OPTICAL METHOD FOR INSPECTING TRANSPARENT FLAT OR CONTOURED PANELS
Loinel R. Graves, Hollywood, James E. Knapp, South Gate, Antone M. Guerreiro, Long Beach, Clair A. Cable, El Segundo, and Robert C. Wheeler, Playa Del Rey, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application December 28, 1953, Serial No. 400,436
9 Claims. (Cl. 88—14)

1. The method of transparent panel inspection comprising: photographing a wall grid having the lines of the grid spaced well apart, supporting a sheet of transparent material from which windshield panels are to be formed at an angle to a horizontal plane and to the longitudinal axis of the beam projected from a projector upon said wall grid, said angles corresponding to those at which the panel is mounted in the windshield in which it is to be incorporated, thus reproducing the angle of an observer's average line of sight when seated in position in a vehicle in which the windshield is fitted, projecting said photograph upon said wall grid to accurately align the projected lines of the photograph upon the lines of the grid and moving the sheet of transparent material while supported in said angular positions across the projected beam and marking upon said sheet any areas causing distortion of the lines of the projected photograph.



2,871,757
MONOCHROMATOR
Alan Walsh, Canterbury, Victoria, Australia, assignor to Commonwealth Scientific and Industrial Research Organization, East Melbourne, Victoria, Australia, a body corporate
Application March 25, 1954, Serial No. 418,702
Claims priority, application Australia May 12, 1953
7 Claims. (Cl. 88—14)

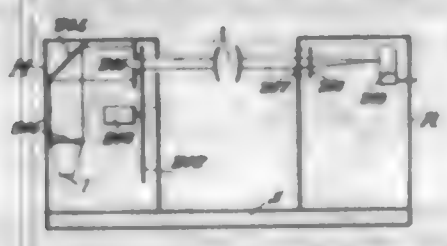


2. In combination with a single monochromator having a prism, an entrance slit, an exit slit, a dispersion system operative to direct radiation from said entrance slit through said prism for refraction at only two of the faces of said prism and to return radiation of a selected wavelength back to said exit slit, detecting means responsive to the radiation passing through said exit slit, and means for recording the detected radiation; a source of radiation, means operative to pass radiation directly from said source through said prism for refraction at one of said two faces of the latter and at a third face of the prism, thereby to disperse the radiation from said source, and means operative to pass the dispersed radiation from said source back through said one face and said third face of the prism and then to direct a range of wave-lengths of only narrow band-width through said entrance slit, so that said dispersion system operates only on said range of wavelengths of narrow band-widths, thereby to substantially reduce the amount of unwanted radiation that can pass through said exit slit.

2,871,758
DEVICES FOR MEASURING THE TEMPERATURE OF A GASEOUS FLUID AND IN PARTICULAR OF A FLAME

André Georges Lucien Moutet, Villaine par Massy, France, assignor to Office National d'Etudes & de Recherches Aeronautiques O. N. E. R. A., Chatillon-sous-Bagneux, France, a society of France

Application April 22, 1955, Serial No. 503,264
Claims priority, application France January 26, 1952
5 Claims. (Cl. 88—22.5)



1. A device for measuring magnitudes to determine the temperature of a flame which comprises, in combination, means for measuring the radiating energy emitted by a given area of said flame alone, a source of radiation of known and constant energetic brightness, means for forming a radiation beam from said source, means for positioning across said beam an area of said flame equal to that above mentioned, and means on the other side of the flame from said source for measuring the radiating energy transmitted through said flame, said last mentioned energy being the sum of the radiating energy of said given area of the flame and of the radiating energy left in said beam after its passage through said flame, whereby comparison of said two radiating energies indicates the temperature of the flame.

2,871,759
CONTOUR ANALYSIS OF STEREO PAIRS OF AERIAL PHOTOGRAPHS

Freddie O. Sconce, Eminence, Mo., and Ross A. Taylor, Jr., Charleston, W. Va., assignors of one-third to Stone Crest Studios, Inc., Charleston, W. Va., a corporation of West Virginia

Application August 15, 1956, Serial No. 604,213
7 Claims. (Cl. 88—24)

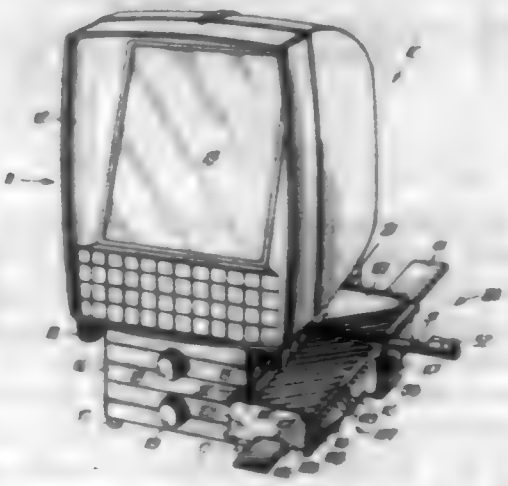


1. The method of rendering directly visible to the naked eye contour lines of the surfaces of objects imaged in a pair of photographic records taken from laterally spaced camera stations comprising the steps of superimposing a negative photographic image of one of said photographic records and a positive photographic image of the other of said photographic records over each other at a substantially common image plane, orienting said superimposed images within said common plane relative to each other to arrange the axes of each of said images aligned with the axis of camera station displacement in parallelism, relatively displacing said superimposed images within said common plane while maintaining the said camera station displacement axes of said images in parallelism with each other to dispose in apparent registry the recorded images of known vertical control points in each of said images of a selected elevation and produce a contour line pattern image for such selected elevation from said apparent registry which is visually distinguishable from the images of all objects of different elevation, and relatively shifting said superimposed images rectilinearly along said parallel axes to shift the registry contour pattern of said superimposed images to different selected subject field elevations.

2,871,760
MAGAZINE SLIDE CHANGER AND SHUTTER FOR STEREO PROJECTORS

Frank C. Badalich, Chicago, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois

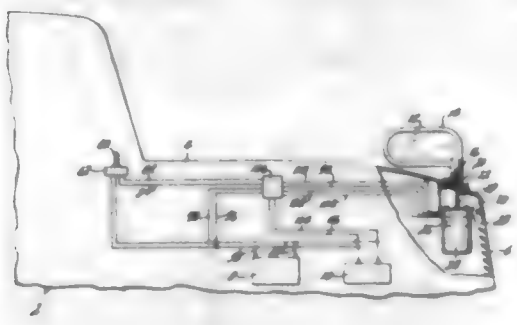
Application November 4, 1954, Serial No. 466,988
4 Claims. (Cl. 88—28)



1. A slide changer for moving the object carrying transparencies of stereo slides into and out of registry respectively with the optical axes of a stereo projector comprising, in combination, an elongated tubular frame having a rectangular cross-section and registering apertures for positioning across the optical axes of the projector, upper and lower tracks carried by said frame above and below said apertures having respectively downwardly and upwardly opening grooves formed in part by downwardly and upwardly extending flanges having slide receiving outer surfaces, leaf spring means carried by said frame biasing a slide to be viewed against said slide receiving surfaces, a shutter slidably mounted in said grooves having openings spaced apart the same distance as said apertures in said frame, spring means biasing said shutter to closed position, a lever pivoted intermediate its ends at the inner end of said housing and at one end engaging said shutter, a pusher bar slidable on the upper side of said upper track and inside said frame for engaging at its inner end near the end of its inward stroke the other end of said lever to move said shutter to open position against the biasing action of said spring means, a tray holder at the outer end of and secured to said frame and having a central raised portion and inclined portions on opposite sides thereof, an elongated guide bar secured to the under side of said central portion and extending transversely of said tray holder, an elongated stereo slide carrying tray slidably mounted on said tray holder and having a central longitudinally extending slot on its under side guided on said guide bar, the lower edges of stereo slides carried by said tray being adapted to engage one or the other of said inclined portions and to be lifted thereby onto said central raised position as said tray is moved, means for moving said tray along said guide bar, septums extending transversely of said tray for separating stereo slides therein, a wall extending along the outer side of said tray and a lip extending along the inner side thereof for holding stereo

slides therebetween, the level of the surface of said central raised portion being above the level of the upper edge of said lip whereby a slide on said central raised portion can be moved over said lip into and out of viewing position in said frame, and means carried by said pusher bar for engaging the opposite ends of a slide on said central raised portion to push the same out of or into viewing position in said frame on corresponding endwise movement of said pusher bar.

2,871,761
AUTOMOBILE SAFETY MIRROR
Frank T. Snyder, Kansas City, Mo.
Application January 2, 1957, Serial No. 632,157
4 Claims. (Cl. 88—86)



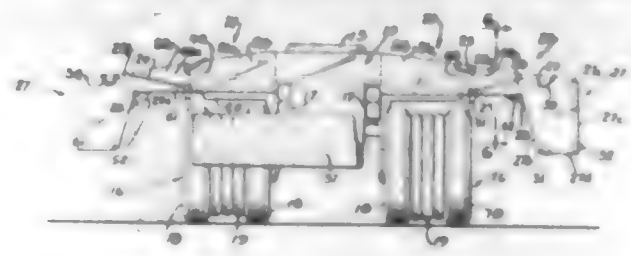
1. An automobile safety mirror comprising a double faced mirror, means adapting said mirror to be mounted in a substantially vertical plane at the forward end portion of an automobile, and to be pivotable about a vertical axis, manually actuated means operable to turn said mirror about said vertical axis in either direction from a neutral position in which it is disposed substantially parallel to the direction of travel of said automobile, and means actuated automatically responsively to operation of the engine of said automobile at or above a predetermined speed, said automatic means being operable when actuated to return said mirror to its neutral position.

2,871,762
ROCKET AND LAUNCHING MECHANISM
Edgar Schmued, Los Angeles, Calif., assignor to Northrup Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application April 26 1954, Serial No. 425,595
6 Claims. (Cl. 89—1.7)



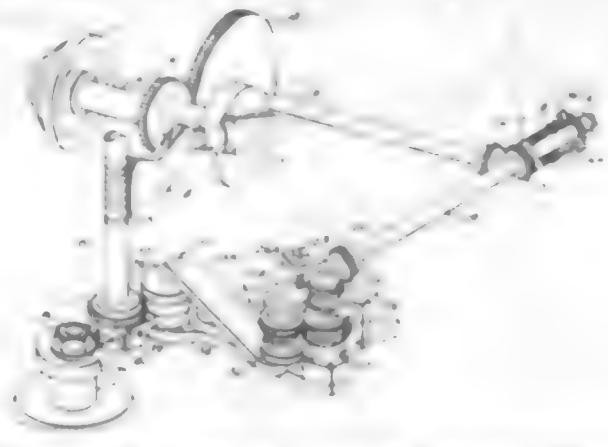
1. A rocket launcher comprising a tubular housing forming a guide means for launching of a rocket; a tubular launching sleeve mounted at one end of said housing for axial rotation within said housing, the central portion of said sleeve being spaced inwardly from said housing to form an annular chamber; a spiral torsion spring disposed in said chamber circumjacent said sleeve, said chamber having a greater diameter than the convolutions of said spring, whereby said spring may be unwound and expand outwardly in said chamber, an abutment member on said housing at one end of said chamber adapted to abut one end of said spring, an abutment member on said sleeve adjacent the other end of said chamber adapted to abut the other end of said spring, cooperating stop members on said sleeve and housing effective to stop rotation of said sleeve in said housing after a predetermined arc of rotation; means on the forward edge of said sleeve for end-to-end interlocking with a rocket received in said housing, and means for locking and unlocking said sleeve when wound.

2,871,763
VARIABLE ARMORED SECTIONS FOR VEHICLES
Albert E. Blomquist, Ringoes, N. J., assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland
Application May 17, 1955, Serial No. 508,925
7 Claims. (Cl. 89—36)



1. A vehicle comprising a body, carrying means for said body, and protective armor means secured to said body along a margin of said body, said protective armor means being secured to said body by substantially horizontally pivoted hinge means for pivotal movement about said hinge means between upstanding position and laterally disposed position extending outwardly from said body, and means for maintaining said protective armor means in each of said positions, said protective armor means comprising a trough when said protective armor means is in said laterally disposed position which is disposed alongside said body and is adapted to contain a friable aggregate material for providing additional armor effective for protecting said body.

2,871,764
DEBURRING DEVICE
Roland W. Seavey, Weathersfield, Vt., assignor to The Fellows Gear Shaper Company, Springfield, Vt., a corporation of Vermont
Application September 15, 1954, Serial No. 456,276
13 Claims. (Cl. 90—1.4)

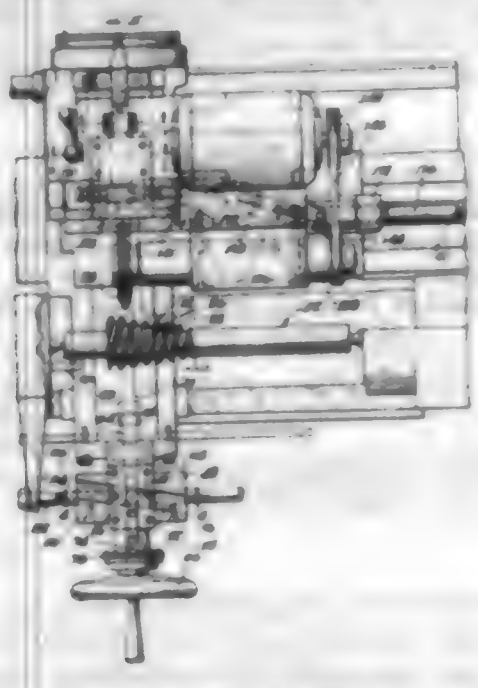


9. In a gear shaping machine the combination of a base, a cutter spindle, means to impart a reciprocating movement to said cutter spindle, a work spindle mounted in said base, a deburring tool mounted on said base for movement past the end of a work gear mounted on said work spindle, means operable in timed relation to the reciprocation of the cutter spindle to impart movement to said deburring tool, and means connecting said cutter reciprocating means to said last named means so that burrs are removed from the work piece concurrently with the formation of teeth thereon.

2,871,765
WORM FORMING APPARATUS
Oliver E. Saari, Schiller Park, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application October 6, 1955, Serial No. 538,823
3 Claims. (Cl. 90—11.64)

1. An apparatus for machining a helical tapered thread or the like having a changing lead angle on a workpiece, comprising base means, means on said base means for

rotatably supporting a workpiece for rotation about a predetermined axis, a first carriage means disposed on said base means for movement generally longitudinally of said predetermined axis, second carriage means shiftably disposed on said first mentioned carriage means for movement transversely of said predetermined axis, a rotatable shaft mounted on said second carriage means for pivotal movement about an axis intersecting and substantially perpendicular to said first mentioned axis, support means fixed on said shaft carrying rotatable means for supporting a rotatable tool for rotation about a third axis intersecting and substantially perpendicular to said second



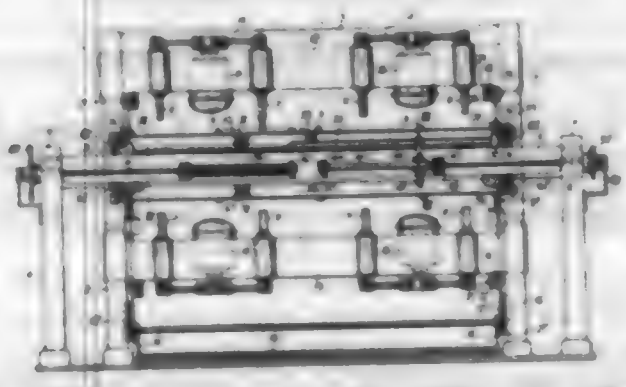
mentioned axis, a tool when disposed on said rotatable means being substantially bisected by said second mentioned axis, means mounted on said last mentioned support means for driving said rotatable means, means on said base means for simultaneously feeding said first and second carriage means to move a tool on said rotatable means diagonally with respect to said first mentioned axis, and means on said base means for pivoting said shaft in timed relationship with said diagonal feeding movement for positioning said third mentioned axis at changing angles with respect to said first mentioned axis in accordance with the changing lead angle of the thread.

2,871,766

MILLING MACHINE FOR CYLINDRICAL STEREOTYPE PLATENS OR THE LIKE

Axel Olof Olsson and Johan Julius Dahl, Stockholm, Sweden, assignors to J. Dahl & Son AB, Stockholm, Sweden, a corporation of Sweden

Application March 9, 1956, Serial No. 570,443
Claims priority, application Sweden March 15, 1955
2 Claims. (Cl. 90—20)



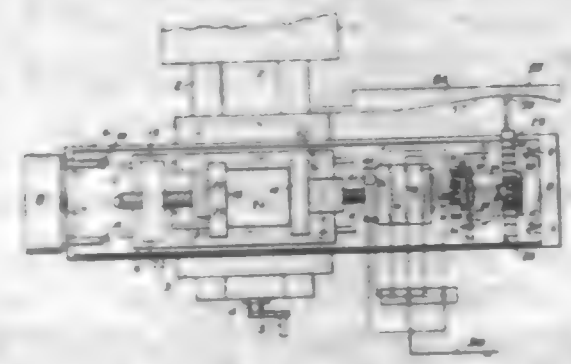
1. A milling machine for the milling of cylindrical stereotype platens or the like, said machine consisting of a frame, a supporting shaft rigidly mounted in said frame, a hollow cylinder mounted movably in the axial direction on said supporting shaft and rotatably about its central axis, said cylinder serving for carrying said stereotype platens, a mechanism enclosed within said cylinder to effect the rotary feeding movement of the cylinder, a further mechanism enclosed within said cylinder to effect the axial feeding movement of the cylinder, cutting means in the frame, said cutting means being displaceable substantially in a radial direction toward each platen, a bearing holder at each end of the cylinder, at least three rotatably mounted rollers in each bearing holder running with the outside of the outer ball race on a planed surface on said shaft, the rotary central axes of which are located in a plane at right angles to the central axis of the cylinder, said rollers running on a planed surface of the supporting shaft in the longitudinal direction of the latter, and in each bearing holder a radial bearing, on which bearings the cylinder is mounted for a rotary movement.

2,871,767

COMPENSATING SYSTEM FOR DRIVES

Albert G. Thomas, Chattanooga, Tenn., assignor to Industrial Controls Corporation, Chattanooga, Tenn., a corporation of Tennessee

Application February 20, 1956, Serial No. 566,694
4 Claims. (Cl. 90—22)



4. In a machine tool, a table, supporting means for said table providing linear movement thereof relative to said supporting means, a screw for producing the linear movement of said table, means including a first motor for rotating said screw, means carried by said table for holding a workpiece, means carried by said table for guiding said workpiece holding means for travel relative to said table in either direction parallel with the direction of said linear movement, mechanism for producing the relative travel between said table and said workpiece holding means, a plural phase step motor carried by said table and operably connected with said mechanism for driving said mechanism, a gauge member fastened to said supporting means and shaped to correspond to variations from uniformity of said screw, sensing means carried by said table and including a tracing element movements of which are controlled by said gauge member, means including current distributor means for supplying current to the phases of said motor in sequence, and means associating said current distributor means with said sensing means for causing movements of said motor in accordance with variations of said gauge member.

2,871,768

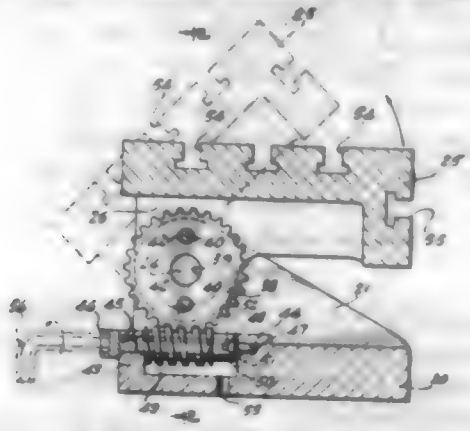
ADJUSTABLE ANGLE PLATES

Charles Henry Froberg, Jr., Brentwood, N. Y.

Application July 5, 1955, Serial No. 519,890
3 Claims. (Cl. 90—59)

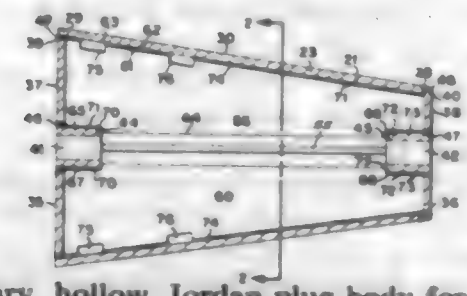
1. In an adjustable angle plate mechanism and in combination a bottom plate having a horizontal flat stability base, a shaft, spaced bosses projecting upwardly from said bottom plate, said bosses having openings therein defining bearings for supporting said shaft in a horizontal position, an angle plate, spaced bosses depending from said angle plate, said bosses having openings formed therein sized to support said angle plate upon said shaft, a bronze gear positioned between the bosses of said angle plate, said gear having a central opening therethrough sized to receive said shaft, said gear and the bosses of said angle

plate having other openings running parallel to said shaft-sized openings formed therein defining pin receiving openings which can be axially aligned by rotating said gear between said bosses with their several shaft-sized openings in axial alignment, pins passing through said axially aligned pin receiving openings to lock said gear between said bosses with their several shaft-sized openings in axial alignment, said shaft extending through said axially



aligned shaft-sized openings to mount said angle plate for angular movement towards and away from said bottom plate, a hardened steel worm gear journalled in said bottom plate and meshing with said bronze gear, and said worm gear terminating in a socket head for receiving a socket wrench by which said worm gear may be operated manually to effect angular movement of said angle plate relative to said bottom plate.

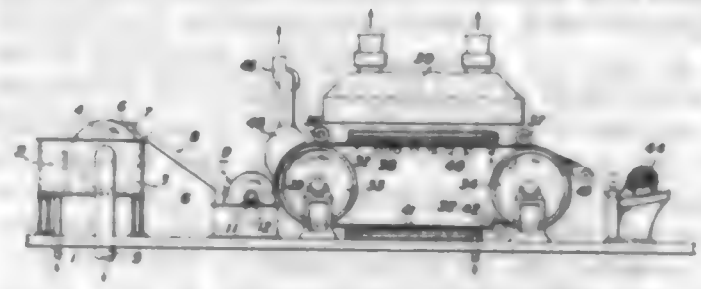
2,871,769
JORDAN PLUG BODY
Bruno E. Prevost, West Boxford, Mass., assignor to John W. Bolton & Sons, Inc., Lawrence, Mass., a corporation of Massachusetts
Application March 18, 1955, Serial No. 495,192
12 Claims. (Cl. 92—27)



1. A unitary, hollow, Jordan plug body for supporting plug bars, said body comprising a truncated conical shell of sheet material having longitudinally extending exterior grooves therealong for retaining plug bars; a pair of spaced apart end closure elements each comprising a single flat disc permanently joined and sealed at its outer rim portion to one of the opposite ends of said shell and each element having a central inwardly projecting sleeve with an axial bore therein for a plug shaft, and a plurality of shell supporting axial members of sheet material angularly spaced around the longitudinal axis of said body, and each extending longitudinally the full length of the space between said discs, each opposite end portion of each said member being joined to and supported on the sleeve of one of said elements, each member having its outer longitudinal edge joined to, and in supporting engagement with, the full length of the adjacent portion of the inside face of said shell and each member extending radially from the plane of said shell to proximate the plane of the bores in said sleeves.

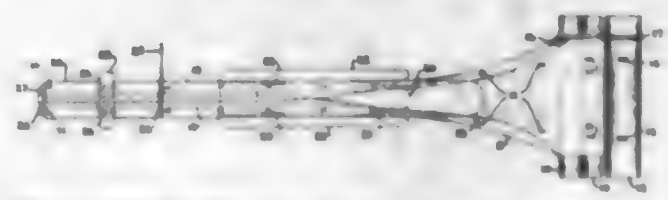
2,871,770
PAPER MAKING MACHINE
Jesse A. Jackson, Jacksonville, Fla.
Application April 17, 1956, Serial No. 578,752
26 Claims. (Cl. 92—38)

1. In a process for the manufacture of paper sheets wherein a fibrous stock is lightly deposited on a web-forming device, the step of blowing a paper-making stock having a consistency greater than 8% against the web-



forming device by means of a vapor heated to a temperature at which the thus-formed web will be a firmly cemented sheet as it strikes the web-forming device.

2,871,771
ART OF PRODUCING SIDE-GUSSETED BAGS
Lewis P. Mercer, Inglewood, Calif., assignor to Milprint, Inc., Milwaukee, Wis., a corporation of Delaware
Application June 12, 1952, Serial No. 293,189
2 Claims. (Cl. 93—35)

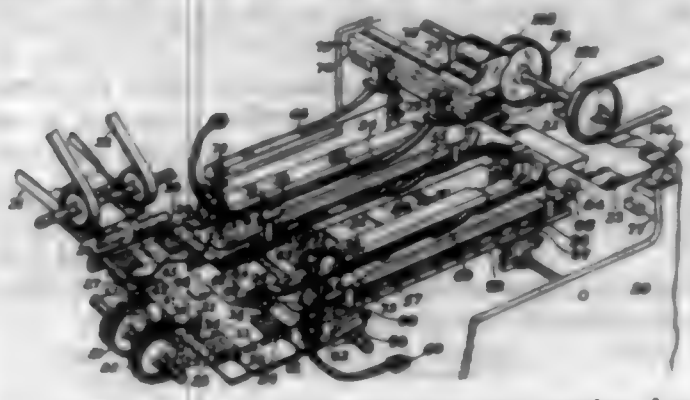


1. The method of producing gusseted bags from a web of flexible sheet material, which comprises, longitudinally advancing the web, applying a rectilinear series of local laterally spaced spots of adhesive to one face of the web inwardly of each of the side edges thereof, applying a continuous adhesive strip to a longitudinal edge portion of the same face of the advancing web, thereafter folding the web to form a tube having inwardly folded gussets extending longitudinally along opposite sides with a series of the adhesive spots disposed on one fold of each gusset and the outer walls being united to form a longitudinal seam, transversely severing said tube adjacent to but spaced from each set of said laterally spaced local spots to provide successive tube sections each having one fold of each gusset adhesively secured only at said adhesive spots to the inner surface of only the adjacent outer wall, applying a transverse strip of adhesive to a wall of each of said tube sections beyond and spaced from said set of adhesive spots and adjacent to the severed end of said section, and finally folding said end of each tube back upon itself along a transverse fold line located between its said set of adhesive spots and the other tube end to secure the adjacent surfaces of the outer tube walls directly to each other by means of said transverse strip to form a bag.

2,871,772
MACHINE AND METHOD FOR SPOT TREATING FOLDABLE SHEETS
John E. Nelson, Manchester, N. H., assignor to The International Paper Box Machine Company, Nashua, N. H., a corporation of New Hampshire
Application October 3, 1955, Serial No. 538,643
1 Claim. (Cl. 93—36)

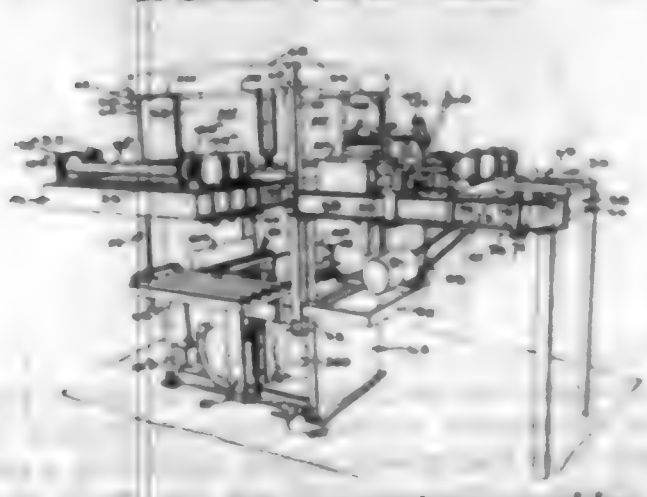
In apparatus for spot removing the coating from coated foldable box blanks in areas where said blanks are to be coated with adhesive the combination of untimed means for advancing a plurality of said blanks individually and successively along a path while underfolding the hinged elements of said blanks to present the faces thereof, to be decoated, in a downward direction; endless conveyor means for receiving said folded blanks and advancing the same through a decoating zone; a plurality of laterally spaced, longitudinally extending, heating bars mounted below the path of said blanks in said zone to engage the

downwardly presented faces of said hinged elements; an upwardly presented heating face, on each said bar, said face including lateral grooves, a longitudinal groove and a discharge conduit for draining liquid from said face,



and electric means, connected to said heating bars, for heating the heating faces thereof and volatilizing the coating from the faces of the hinged elements of said blanks.

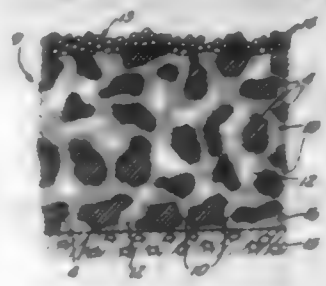
2,871,773
CRATE LINING MACHINE
Ernest A. Verrinder, Riverside, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application March 27, 1953, Serial No. 345,016
18 Claims. (Cl. 93—36.01)



6. A machine for lining a container comprising means for supporting and positioning an open top container, an endless chain conveyor having a portion movable above said container, a roll of lining material paper mounted adjacent said conveyor, a set of gripping rods rotatably mounted on said conveyor and movable with said conveyor, said conveyor being arranged to move said gripping rods toward each other to grip a leading end portion of the roll of lining material therebetween and to draw a strip of said material across the space above said container, means for stopping said conveyor when said strip is positioned above said container, a second set of rotatable gripping rods carried by said conveyor and arranged to be moved close together to grip a portion of said strip adjacent the supply roll, means for cutting said strip of material at a point between said second set of rods and said roll, and means for pressing said severed length of lining material into said container, the movement of said lining material into said container being effective to tension said material and through said tensioned material to rotate said rods to release the end portions of said strip.

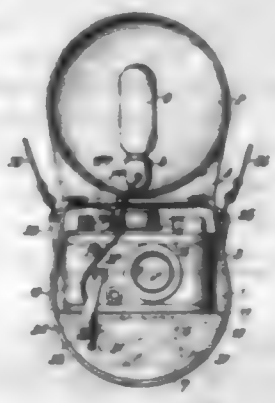
2,871,774
PROCESS OF FORMING FLOORING SURFACES WITH ASPHALT COATED RUBBER PELLETS
Thomas A. Johnson, Newfane, N. Y., assignor to U. S. Rubber Reclaiming Co., Inc., Buffalo, N. Y., a corporation of New York
Application February 24, 1955, Serial No. 490,357
4 Claims. (Cl. 94—23)

1. The process of forming a flooring which comprises substantially sealing the surfaces of discrete particles of vulcanized rubber of a size which will pass a three-mesh screen and the major portion of which will be retained on a sixteen-mesh screen and substantially all of which will be retained on a twenty-mesh screen with a melted asphaltic material having a softening point of from 130° F. to 180° F., applying the sealed particles and a binder



asphaltic material over a surface; said binder asphaltic material having a penetration at 77° F. of from 80 to 200 and having a softening point substantially lower than the softening point of the first-mentioned asphaltic material, and compacting the materials on the surface, whereby tendencies for the particles to absorb the binder asphaltic material and thereby weaken the flooring are reduced.

2,871,775
FLASHLAMP DEVICE FOR PHOTOGRAPHIC CAMERAS
Wietse Hendrik van der Mei, Apeldoorn, Netherlands, assignor to Voigtlander A. G., Braunschweig, Germany, a corporation of Germany
Application February 16, 1955, Serial No. 488,598
2 Claims. (Cl. 95—11.5)



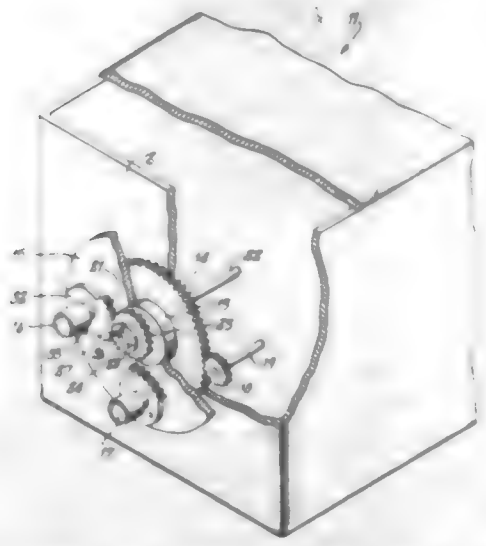
1. A container for carrying a photographic camera, a flash-bulb device, a camera and flash-bulb device synchronizing switch and accessory parts for operating said camera and said flash-bulb device, said container comprising a first and a second member, said first member having a recessed surface adapted to house the photographic camera, said second member having a recessed reflector surface and having a flash-bulb holder adapted to hold a flash-bulb centrally of said reflector surface, said second member being hinged to said first member and having a rest position in which said second member mates with said first member and closes and covers said recess in said first member and an open position in which said recessed surfaces face in the same direction, a region in one of said members for receiving said accessory parts, said first member having an aperture in its rear wall employed to permit access to parts of the camera, an angle piece for actuation of the camera shutter, said angle piece having one end resting on the shutter release of the camera and its other end extending to a position readily accessible to the camera operator, circuit connections providing a continuous electric circuit through the accessory parts, the flash-bulb holder and the synchronizing switch and an on-off switch adapted to open and close the electric circuit.

2,871,776

TELEVISION CAMERA IRIS CONTROL MECHANISM

Edward A. Calamai, Hawthorne, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application July 30, 1953, Serial No. 371,328
4 Claims. (Cl. 95—64)



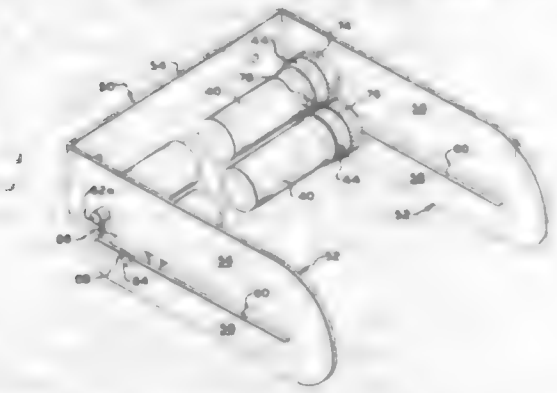
1. Apparatus for preventing movement of the iris adjustment of a lens of a multiple lens television camera during lens changes comprising, a lens turret rotatable about an axis, a plurality of lenses mounted on said turret, an iris adjusting gear sector on each lens, a shaft the axis of which is eccentric with respect to said turret axis, a driving gear freely rotatable on said shaft and engaging said gear sector when its associated lens is in operating position, a disc secured to said shaft, an aperture in said disc near its periphery, a pin smaller than said aperture secured to said driving gear and projecting through said aperture to allow limited relative rotary movement between said disc and said driving gear, and spring means secured to said pin and to said disc for centering said pin in said aperture whereby when a lens is moved into or out of operating position said driving gear and said gear sector may engage or disengage without rotating said gear sector.

2,871,777

PHOTOGRAPHIC APPARATUS INCLUDING FLUID-SPREADING AND SHEET-ARRESTING MECHANISM

John W. Lothrop, Westwood, and Charles O. Rolando, Lexington, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application October 27, 1955, Serial No. 543,086
12 Claims. (Cl. 95—89)



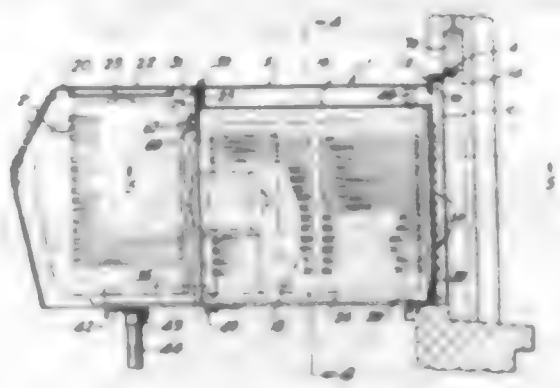
2. In photographic apparatus wherein photographic sheet materials are advanced and within which said sheet materials are processed, means for distributing a liquid between a pair of superposed sheets and for arresting the movement of said sheets, said means comprising a pair of rolls, means pivotally mounting said rolls in juxtaposition with their axes substantially parallel, means resiliently urging said rolls toward one another and into engagement with said sheets positioned between said rolls, means spacing said rolls apart to provide a gap of predetermined minimum width through which said superposed sheets are movable for distributing a liquid between said sheets, means for preventing the rotation of said rolls in response to advancement of said sheets between said rolls in frictional engagement therewith, the last-named means including means releasable to permit the rotation of said rolls in a direction intended to advance said sheets, means for manually rotating said rolls in said direction to advance said sheets, and radial projections on one of said rolls adapted during rotation of said rolls to engage said sheets for separating said rolls and advancing between said rolls a section of said sheets in engagement with said projections.

2,871,778

ADAPTER FOR INSIDE INSTALLATION OF AIR CONDITIONERS OF THE WINDOW MOUNTED TYPE

Howard E. Brehm, Jr., Cleveland Heights, and Albert F. Mitchell, East Cleveland, Ohio, assignors, by mesne assignments to Hupp Corporation, Detroit, Mich., a corporation of Virginia

Application January 20, 1954, Serial No. 405,151
5 Claims. (Cl. 98—94)



1. An adapter for inside installation of an air conditioner of the window mounted type characterized by a removable front casing; said adapter comprising a casing section made up of a top wall and side walls, certain of which walls are provided with air passage means, the casing section being open at its front end, substantially parallel laterally spaced rails extending along the lower edges of the side walls of the casing section from near the rear of the casing section a substantial distance beyond the front end thereof, a cabinet enclosing the casing section and consisting of a top wall and side walls that are spaced a substantial distance from the corresponding walls of the casing section thereby to provide an air conducting space between the walls of the cabinet and the walls of the casing section that communicates with the interior of the casing section through the aforesaid air passage means, the cabinet being open to the atmosphere at its rear end, bottom wall sections extending inwardly from the lower ends of the side walls of the cabinet and joined to said rails, a marginal wall bridging the space between the front ends of the cabinet walls and the corresponding ends of the casing section walls, a rear frame to which the adjacent ends of the cabinet walls are attached, means securing said rear frame to the frame of a window with the former frame inside and closely adjacent the vertical plane of movement of a window sash, a sealing strip extending along and movably connected to the top of the rear frame and adapted to be shifted between an idle position inside said plane and a position beneath a raised sash for sealing engagement with the bottom thereof, a door hingedly connected to one end of the rear frame and having sealing means along its upper end that is in alignment with said sealing strip when the door is in closed position, means for sealing the joint between the rear frame and the adjacent parts of the window eleswhere than along

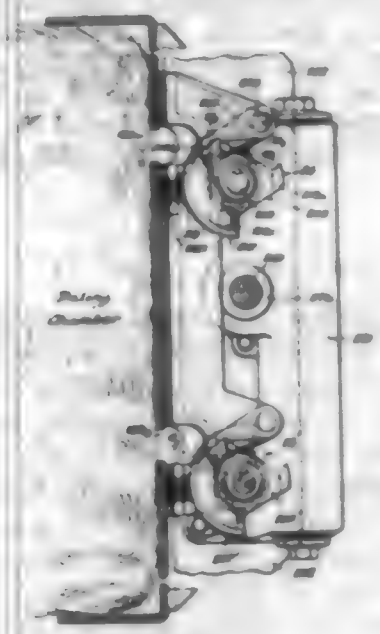
the top and said end of the rear frame, sustaining means secured to and depending from the forward ends of the aforesaid rails, and means for removably attaching the aforesaid front casing of the apparatus to the front end of the cabinet, the air conditioning apparatus exclusive of said front casing being adapted to be supported by said rails.

2,871,779
BALER

William J. Dwyer, Battle Creek, Mich., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin

Original application January 13, 1950, Serial No. 138,507, now Patent No. 2,733,652, dated February 7, 1956. Divided and this application October 16, 1953, Serial No. 392,822

11 Claims. (Cl. 100—22)



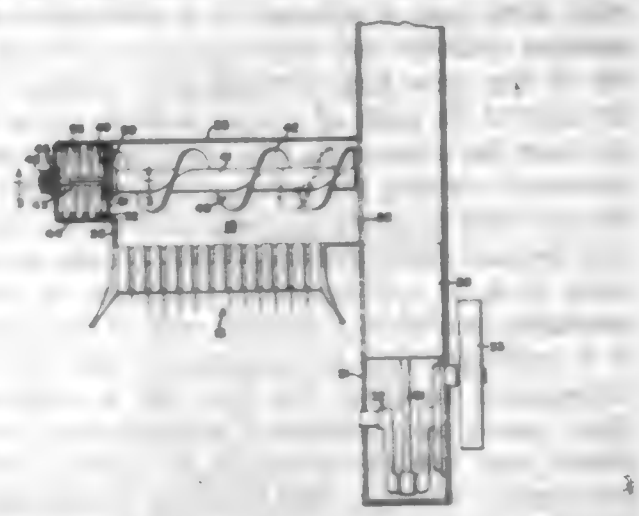
1. In a wire tying mechanism for a baler, a wire holding and cutting unit comprising a first member having means defining a pair of grooves, a rotatable member having a plurality of pairs of arms, said arms registering with the grooves in said first member, a hook-shaped portion on each of said arms, the hook-shaped portions on the arms which register with one of said grooves being of rounded cross section and the hook-shaped portions on the arms which register with the other of said grooves including one edge of rounded cross section and one edge surface which constitutes a cutting edge, said groove which cooperates with the hook-shaped portion having the rounded cross section including a defining side wall which is curved outwardly from the rotatable member to provide a clamping surface on the groove-defining first member which co-acts with said rotatable member to secure the tying wire therebetween.

2,871,780
BALER FEEDING MEANS

Arnold B. Skromme, Moline, Ill., assignor, by mesne assignments, to Deere & Company, a corporation of Delaware

Application September 2, 1955, Serial No. 532,288
4 Claims. (Cl. 100—189)

1. A baler comprising: a mobile frame, an elongated bale case mounted on the frame at one side thereof and having an upright side wall formed with a feed opening and having a baling plunger mounted in the bale case for reciprocating lengthwise of the bale case to alternately cover and uncover the feed opening; material receiving floor means extending laterally outwardly from the upright side of the bale chamber at said feed opening; a rotatable auger operative to move material laterally inwardly over the floor means and having one end normally proximate to and laterally outwardly of the feed opening; means mounting the auger on the frame for axial shifting inwardly toward and outwardly from the feed opening; and resilient means biasing the auger inwardly and

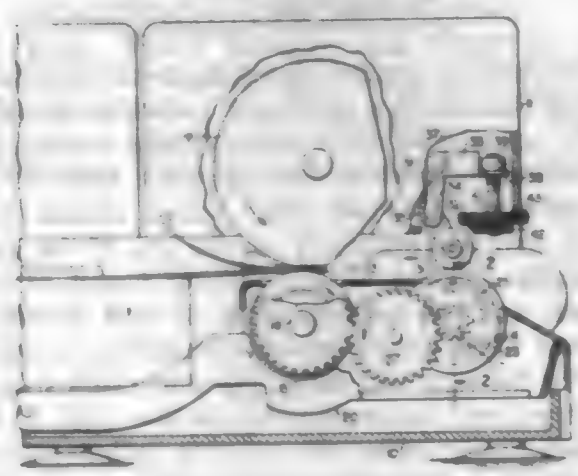


resisting movement thereof outwardly and away from the feed opening as the material is compressed against the plunger upon its covering the feed opening.

2,871,781
PIECE PRINTING AND EJECTING DEVICE

Ernst Schreiner, Stamford, Conn., assignor to Pitney-Bowes, Inc., Stamford, Conn., a corporation of Delaware

Application May 6, 1957, Serial No. 657,362
8 Claims. (Cl. 101—235)



1. In a piece printing and ejecting device, two coacting elements for printing said piece including a printing cylinder and platen roller, two coacting elements for ejecting the printed piece including an ejection roller and idler roller, means to drive the printing elements during a printing cycle, means to drive the ejection roller faster than the printing elements during a printing cycle, and energy storing means between the ejection roller drive and the ejection roller to effect storage of driving energy in said ejection roller resulting from a speed reduction of the ejection roller due to a restraining influence effected by frictional engagement of the ejection roller with a piece while the piece is stressed between the printing and ejecting elements, whereby the piece may be ejected by the ejection elments after release from the bite of the printing cylinder and platen roller.

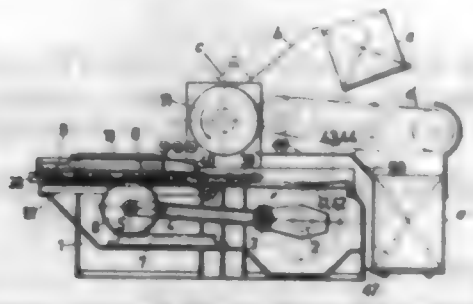
2,871,782
SHEET GUARD ARRANGEMENT FOR CYLINDER PRINTING PRESSES

Artur Buttner, Heidelberg, Germany, assignor to Schnellpressenfabrik Aktiengesellschaft Heidelberg, Heidelberg, Germany, a corporation of Germany

Application May 1, 1958, Serial No. 732,279
Claims priority, application Germany July 3, 1957
4 Claims. (Cl. 101—279)

1. In a cylinder printing press having an impression cylinder, a base, a reciprocable type bed, a drive mechanism comprising a rotatable, reciprocably driven main

drive gear for reciprocably driving the type bed between two opposite operative terminal positions, the press base having a longitudinally extending opening in which the main drive gear is disposed at a level lower than the impression cylinder and exposed to the cylinder and to the top of the press base through said opening substantially throughout its path of travel, a displaceable carriage on the base for supporting the type bed, and means for reciprocably driving the carriage in timed relationship with the type bed to cause opposite ends of the carriage to extend beyond corresponding opposite ends of the type bed when it is at said operative positions of travel and to constantly maintain a leading end of the carriage ahead of a corresponding leading end of the type bed during reciprocable travel of the type bed in both directions, a sheet guard and protective arrangement for preventing sheets and foreign matter from falling into the drive mechanism through said opening comprising, in combination, first sheet guard means on said carriage defining a space disposed centrally between said opposite ends of the carriage and through which the main drive gear operably drives the type bed, said first sheet guard



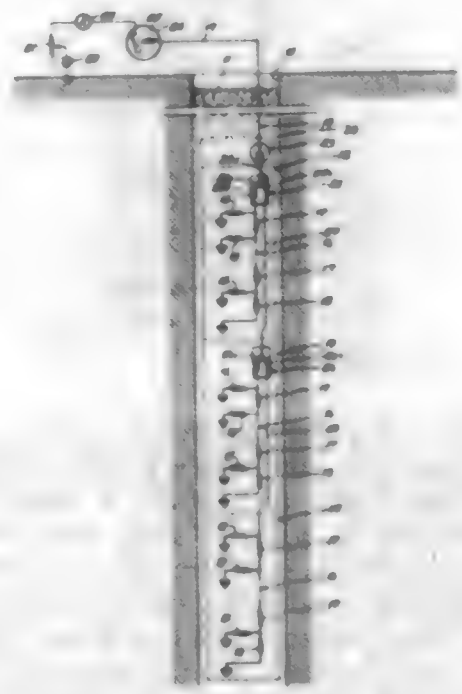
means comprising spaced plates disposed extending transversely of the carriage an extent sufficient to extend substantially across said base opening and extending in opposite directions toward said opposite ends of the carriage, stationary second sheet guard means extending vertically and longitudinally on the top of the press base substantially parallel to the path of travel of the main drive gear and on opposite sides of said opening in the base, third sheet guard means comprising a sheet guard carried by the type bed extending outwardly from an end of the type bed corresponding to the end of the type bed which passes under the printing cylinder at the start of the printing operation during the printing stroke as the type bed is reciprocated between said two operative terminal positions, said last mentioned sheet guard comprising a portion disposed outwardly from the end of the type bed and extending downwardly to cooperate with the second guard means to deliver sheets that fall onto the second guard means to a delivery end of the press corresponding with the end of the press base toward which the type bed moves when effecting a printing stroke.

2,871,783
PRINTING ROLL AND STRIP
Julius Schmutz, Glenview, Ky., assignor to Schmutz Manufacturing Company, Incorporated, Louisville, Ky., a corporation of Kentucky
Application May 2, 1955, Serial No. 505,137
6 Claims. (Cl. 101—377)



1. A printing element comprising: an elongate strip of material of T-shape in transverse cross section; the bar of the T being in the form of a composite base composed of a flexible springy metal bottom strip, a flexible resilient rubbery center strip secured to the top face of the bottom strip, the top face of the center strip having a longitudinal center portion flanked by longitudinal side marginal portions, and top strip means providing a flexible springy metal top strip extending longitudinally over and secured to each side marginal portion; and the stem of the T being composed of resilient rubbery material secured to and projecting upwardly from the longitudinal center portion of the top face of the composite base leaving the metal side marginal portions of the top face of said base exposed, the outer face of said stem material presenting a printing surface.

2,871,784
FIRING SYSTEM FOR ELECTRICALLY DETONATED BOREHOLE EQUIPMENT
Winton B. Blair, Houston, Tex., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas
Application July 5, 1951, Serial No. 235,172
7 Claims. (Cl. 102—21.6)



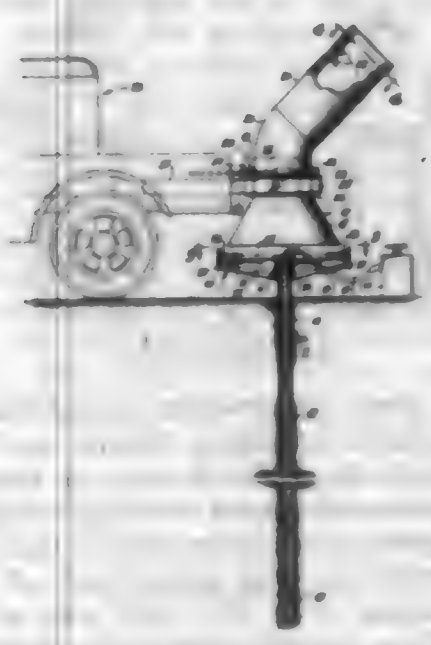
3. In a system for controlling the firing of a plurality of groups of spaced-apart explosive charges in bore hole tools which are adapted to be lowered into a bore hole in the earth, said tools being adapted to be connected together as a string of spaced-apart units, each bore hole tool having a plurality of charges and corresponding electrical igniters, an electrical conductor associated with each tool, the opposite ends of each igniter to be connected respectively to ground and to a point on said conductor so that the conductor introduces equal amounts of impedance between adjacent igniters, a controlled source of electrical energy at the surface of the earth having one terminal connected to ground, an electrical switch individual to one bore hole tool of the string and disposed in the bore hole therewith, an electrical conductor connecting the other terminal of the said source of electrical energy to the said switch, means connecting the electrical conductor of said one tool to the switch, an electrical conductor connecting the switch to the electrical conductor of another tool in the string, and current responsive means associated with said switch for connecting said conductor of said another tool to the source of electrical energy and for disconnecting said conductor of said one tool from the source, said current responsive means being responsive only to a current greater than that required to fire any or all of said plurality of charges of said one bore hole tool.

2,871,785

SHOT HOLE PROTECTIVE DEVICE

Alma J. Hintze and Murrel C. Klaus, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application September 4, 1953, Serial No. 378,548
4 Claims. (Cl. 102—22)



1. A deflector for use over shot holes comprising, in combination, a frusto-conical hood member adapted to be positioned over a shot hole, an upright conduit attached to the upper end of said hood member, a second conduit attached to the upper end of said upright conduit and extending therefrom at a predetermined angle with the axis of the shot hole to direct debris projected from the shot hole in a predetermined direction, at least one prong attached to the inner wall of said second conduit and exteading therefrom into the interior of said second conduit, a frame enclosing said upright conduit, a first plate secured to said upright conduit and resting on the top of said frame to permit rotation of said upright conduit in said frame, a second plate attached to said upright conduit and engaging the bottom of said frame, and means attached to said frame to secure said hood to a ballast member to retain said hood member in position over the shot hole against the force of debris being projected from the shot hole.

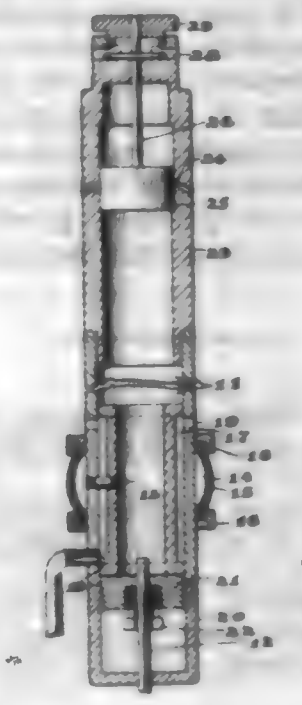
2,871,786

REUTILISABLE BLASTING ASSEMBLIES

Robert Haslam, Scotstoun, Glasgow, and Samuel Henry Davidson, Largs, Scotland, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

Application August 31, 1955, Serial No. 531,649
Claims priority, application Great Britain September 24, 1954
3 Claims. (Cl. 102—25)

1. In a gas pressure blasting device of the kind including an elongated housing having outlet ports adjacent one end thereof controlled by a valve adapted to open at a predetermined pressure and in which gas pressure is built up by the admission of gas from outside, the improvement which comprises: an annular jacket surrounding a portion of said housing adjacent the end thereof opposite said outlet ports; said jacket being provided with longitudinally spaced water inlet and outlet means whereby water may be introduced into a borehole after the blasting device has been positioned therein; an external annular collar of rubber-like sheet material surrounding said jacket intermediate said water inlet and outlet means; annular members engaging the ends of said collar and said device for retaining said collar in position; means for introducing gas into said collar for inflating said collar to form a fluid seal with the bore hole in which the device is inserted, the pressure of such gas being above the desired maximum pressure of water in the borehole



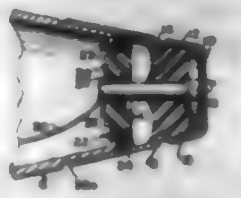
but below the operating pressure of the valve as the blasting gas is being charged into the blasting device.

2,871,787

NOSE INITIATOR MOUNTING

Ralph B. Rizer, Forest Heights, and Elmer K. Landis, Kensington, Md.

Application January 11, 1956, Serial No. 558,595
1 Claim. (Cl. 102—70.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A shaped-charge ordnance projectile having a plug-in energizer assembly affixed to the nose of said projectile; said projectile having a thin-walled ogive with a groove in the outer surface of its wall and inwardly flaring lips at its nose end, a flat plastic closure member affixed to said lips by means of screws, a hard rubber O ring positioned between said plastic closure member and said lips, said plastic closure member having a perforation falling substantially along the axis of said projectile, a bushing fitted in said perforation and adapted to receive the uncovered portion of said terminal so as to make electrical contact therewith, and a wire lead attached to said bushing in current conducting relationship therewith; said energizer assembly comprising a generally ogival metal cap open at its large end and having a flat closure at its small end, a piezoelectric crystal having one of its sides attached to the inner surface of said flat closure by electrical bonding cement, a conductive plate attached to the other side of said crystal by electrical bonding cement, a terminal depending from said conductive plate on the side away from said crystal, said terminal having its longitudinal axis substantially falling on the axis of said assembly, said conductive plate and said terminal being electrically insulated from said cap, and an epoxy-resin compound which shrinks upon setting potted in the small end of said cap so as to cover said conductive plate and crystal and a portion of said terminal, said compound thereby rigidly coupling said crystal to said cap and placing said crystal under tension,

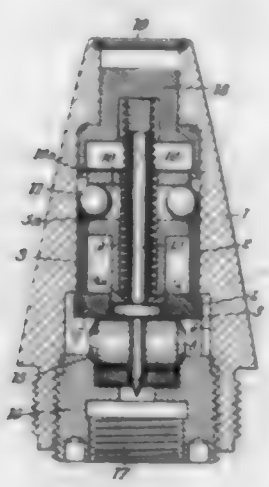
said cap having a crimp in a portion of its side wall to secure said compound in said cap; the extremities of the open end of said cap being crimped in said groove in the outer surface of the wall of the ogive of said projectile so as to press said O ring tightly against the inner wall of said cap, thereby rigidly affixing said assembly to said projectile and hermetically sealing the elements therein, the uncovered portion of said terminal passing through said bushing so as to make electrical connection therewith; the mechanical impact of said cap against a target causing a voltage to be generated in said crystal which is transferred to said wire lead through said terminal and said bushing.

2,871,788

IMPACT FUZES FOR EXPLOSIVE PROJECTILES INCLUDING A MECHANICAL SELF-DESTRUCTION DEVICE

William Guerne, Geneva, Switzerland, assignor to Brevets Aero-Mecaniques S. A., Geneva, Switzerland, a society of Switzerland

Application May 17, 1956, Serial No. 585,524
Claims priority, application Luxemburg May 24, 1955
4 Claims. (Cl. 102—71)



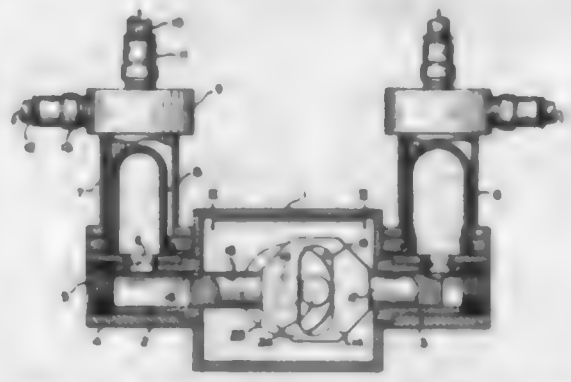
1. An impact fuze for use with a rotating projectile which comprises, in combination, a fuze body having a longitudinal axis, a member movable longitudinally in said body, an impact responsive push-piece slidable longitudinally in said body, cooperating abutment means carried by said fuze body and said push-piece, said push-piece being initially fitted in said fuze body in the position where said abutment means are in contact together, whereby said push-piece can slide longitudinally from said position only in one direction, resilient means interposed between said push-piece and said member for urging said member in said direction with respect to said push-piece, a firing part movable in said body from an inactive position to a firing position in which the fuze is set off, said firing part being operatively connected with said member so that longitudinal movement of said member in said direction under the action of said resilient means causes said firing part to move from said inactive position to said firing position, at least one centrifugal mass guided in said member so as to be movable transversely thereto between an outward position and a retracted position, abutment means carried by said fuze body adapted to cooperate with said centrifugal mass in outward position to prevent said member from moving in said direction under the action of said resilient means, whereas said centrifugal mass in retracted position is clear of said last mentioned abutment means which then does not prevent said member from moving in said direction, and cam means carried by said push-piece to engage said centrifugal mass and move it into retracted position when said push-piece is moved in said direction in said fuze body by the effect of impact.

2,871,789

PULSE PUMPS

Desire A. Kiffer, Waterloo, and Lawrence D. Orser, Cedar Falls, Iowa, assignors to Chamberlain Corporation, Waterloo, Iowa, a corporation of Iowa

Application July 11, 1955, Serial No. 521,328
5 Claims. (Cl. 103—44)



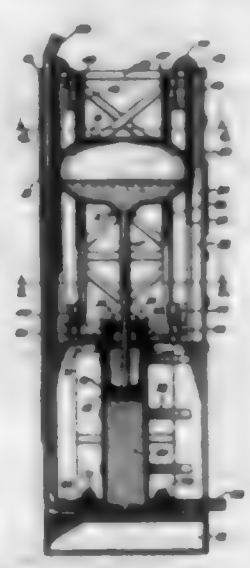
1. A pulse pump construction of the character disclosed, comprising a housing, a cylinder received at each of the opposed ends of the housing, a sleeve member substantially surrounding each of the cylinders and closed at one end thereof, a casing on each of the sleeve members, a diaphragm received within each of the casings and communicating at its open end with aligned openings in each of the cylinders and sleeve members, a fluid inlet and outlet connected to said casings, a piston movable in opposite directions within each of the cylinders, and means within the housing alternately moving each of the pistons to expand one of the diaphragms within the casing expelling fluid from the outlet therein while receiving fluid through the inlet in said casing.

2,871,790

BUOY MOTOR

Raymond T. Wells, Amarillo, Tex.

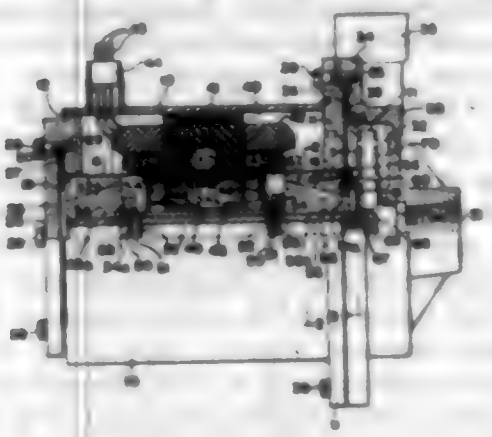
Application November 21, 1955, Serial No. 548,047
2 Claims. (Cl. 103—70)



1. An apparatus adapted to be positioned in a relatively fixed position in a mass of water subject to variation of level and for supplying hydraulic power and comprising, a plurality of vertically elongate frames fixed relative to the water level, each said frame including opposed side members and opposed end members defining a substantially open compartment therebetween, an elongate outwardly opening U-shaped member and an elongate inwardly opening U-shaped member extending longitudinally on the outer surface of each said end member in spaced apart relation, said U-shaped members on one end of one frame being adapted to fit in mated relationship with the respective U-shaped members on the other end of a second frame when said frames are placed in end to end relation, said U-shaped members having a plurality of vertically spaced apertures aligned transversely thereof, an elongate bar having a

plurality of outwardly extending prongs spaced longitudinally apart for engaging in said apertures and selectively releasably holding the frames in fixed end to end relationship, track means extending longitudinally in one end of the compartment in each said frame and defining pairs of opposed trackways secured on the inner surfaces of said side and end members, a bulb member within said one end of the compartment and adapted to float on the surface of the water, means secured on said bulb member slidably engaging in said trackways whereby the bulb member moves up and down in fixed relation to the track means, pumping means mounted in the other end of said compartment adjacent the respective ends of the trackways, means operably connecting the bulb member to said pumping means whereby up and down movement of said bulb member activates the pumping means, conduits communicating with said pumping means for selectively supplying same with water and carrying away the flow therefrom under pressure, resilient means secured at the respective ends of said trackways, and stop means in said trackways in abutting relation with said resilient means for yieldingly restricting the movement of the bulb member at the respective ends of the track means.

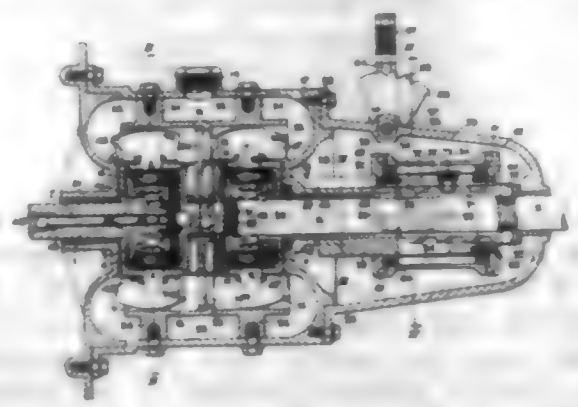
2,871,791
MOTOR DRIVEN PUMPS
David P. Litzenberg, Meadowbrook, Pa.
Application April 24, 1957, Serial No. 654,890
5 Claims. (Cl. 103—87)



1. A motor driven pump comprising a pump housing having an impeller therein, a motor housing connected to said pump housing and having end members and an outer housing section extending between said end members, a cylindrical sleeve extending between said end members and providing therewith and with said outer housing an isolated motor stator chamber, a motor stator in said motor stator chamber, the interior of said sleeve providing a motor rotor chamber, bearing members fixedly mounted in said motor rotor chamber, a shaft rotatably journaled in said bearing members, said impeller being mounted on said shaft, motor rotor members on said shaft in said motor rotor chamber axially of said bearing members, and a screen in said pump housing mounted on said shaft for rotation therewith and interposed between said impeller and said bearing members for screening liquid passing to said motor rotor chamber.

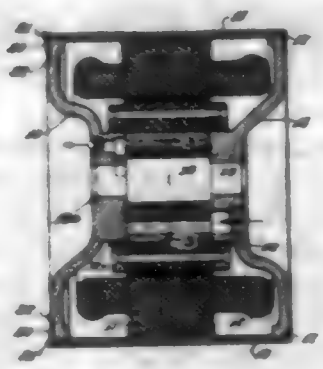
2,871,792
HYDRAULIC VARIABLE SPEED GEAR
Harold Bertram Mead, Ashford, England
Original application June 25, 1952, Serial No. 295,518, now Patent No. 2,754,764, dated July 17, 1956. Divided and this application May 24, 1956, Serial No. 587,085
Claims priority, application Great Britain July 4, 1951
1 Claim. (Cl. 103—89)

In a variable speed hydraulic coupling, a pump unit comprising an input shaft, an annular chamber in concentric surrounding relation to said shaft, a gear housing concentrically surrounding said shaft and disposed within said chamber, impeller blades disposed within said chamber, said impeller blades each being provided with a stub shaft, said housing being provided with a tubular extension in which said shaft is rotatably disposed, said stub shafts being radially disposed relative to said input shaft and being rotatably mounted in said housing with their inner free ends rotatably supported in bosses on said tubular extension, a planet wheel supported by each of said stub shafts and being disposed within said housing, a sun wheel disposed within said housing and being connected to said input shaft, said sun wheel meshing with said



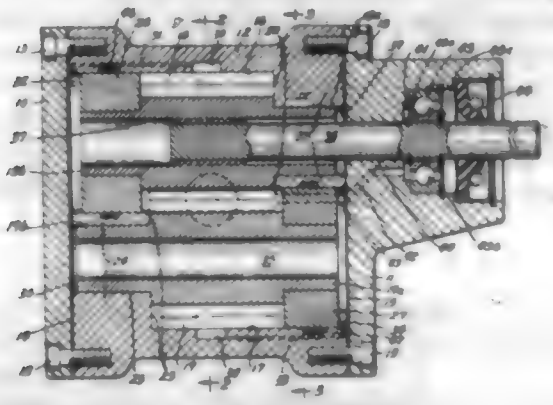
planet wheels, an idler sun wheel disposed within said housing and meshing with said planet wheels, a first sleeve surrounding and secured to said tubular extension and being provided with external splines, a second sleeve surrounding said input shaft and being provided with internal splines engaged with said external splines, said last sleeve being provided with a radially inwardly extending tooth, a third sleeve disposed within the last named sleeve and being secured to said input shaft, and being provided with helical teeth with which said tooth cooperates, and manual means engaged with said internally splined sleeve for moving same axially of said input shaft and impeller blades for desired angular adjustment of the latter.

2,871,793
ELECTRIC MOTOR AND PUMP COMBINATION
John S. Michie and William E. Springer, Springfield, Ohio, assignors to Robbins & Myers, Inc., Springfield, Ohio, a corporation of Ohio
Application June 29, 1956, Serial No. 594,741
12 Claims. (Cl. 103—118)



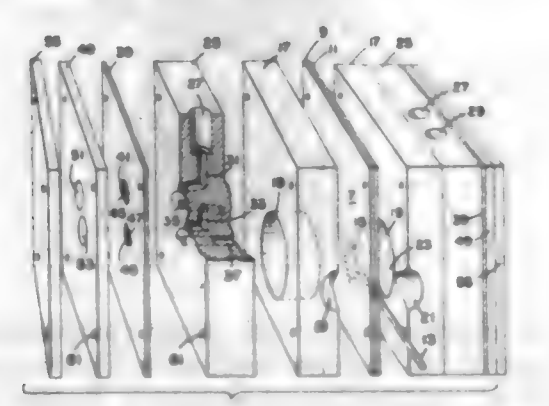
1. An electric motor and pump combination comprising a cylindrical metallic shell, an end plate tightly closing one end of said shell and annularly welded thereto, the other end of said shell having an internal annular rabbet, an end plate snugly seated in said rabbet for sliding movement therein axially of said shell, means securing said last named end plate to said first named end plate, and yieldable means for sealing said last named end plate to said shell, a pump within said shell, said pump having an exhaust port located in a said end plate and an inlet port located in a said end plate, and an electric motor driving said pump disposed within said shell, said combination constituting a pressure tight vessel.

2,871,794
GEAR PUMP OR FLUID MOTOR
Bruce H. Mosbacher, Rockford, Ill., assignor to Roper Industries, Inc., Rockford, Ill., a corporation of Illinois
Application June 1, 1953, Serial No. 358,930
12 Claims. (Cl. 103—128)



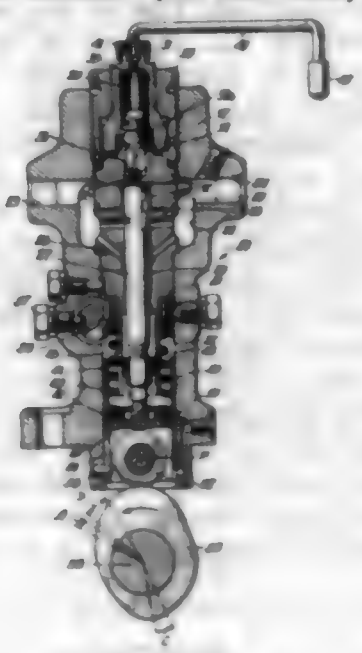
1. A gear pump or fluid motor comprising a housing defining a pair of parallel intersecting cylindrical bores, a pair of meshing rotary gears in said bores, a low pressure passage and a high pressure passage communicating with said bores on opposite sides of said meshing gears, axially movable pressure bushings in said bores having their front faces next to respective ends of the gears, means for applying high fluid pressure against the respective back faces of said pressure bushings, a rotary drive shaft separate from said gears and drivingly connected to one of said gears and exposed to the high pressure fluid at the back face of the respective pressure bushing, said drive shaft extending out through said housing, said housing having a bearing for said drive shaft which is long as compared to the diameter of said shaft and extends in a direction away from said gear, said housing defining a chamber at the outer end of said long bearing communicating with said low pressure passage to establish a pressure drop along the drive shaft toward said chamber, and a low pressure seal acting between said housing and said drive shaft outwardly from said chamber to prevent leakage of fluid along the drive shaft out of the housing.

2,871,795
DOUBLE ACTING DIAPHRAGM PUMP
Frederick R. Smith, Nitro, W. Va., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application February 29, 1956, Serial No. 568,522
13 Claims. (Cl. 103—150)



1. A double acting diaphragm pump having a pair of opposed pump chambers, a flexible diaphragm disposed between and separating said pair of opposed pump chambers, diaphragm actuating means connected in contact relation to said diaphragm and extending laterally therefrom, inlet and outlet means facilitating fluid flow into and from said pump chambers in response to movement of said diaphragm, and valve means for controlling the fluid flow through said inlet and outlet means.

2,871,796
PILOT INJECTION PUMP
Alexander Dreisin, Highland Park, and Louis G. Kaplan, Evanston, Ill., assignors, by mesne assignments, to Allis-Chalmers Manufacturing Company, a corporation of Delaware
Application August 2, 1955, Serial No. 525,859
18 Claims. (Cl. 103—154)

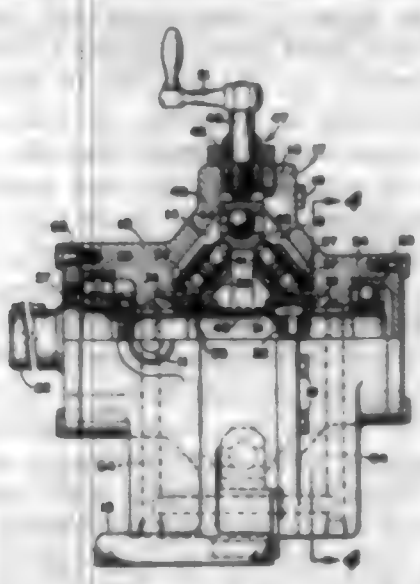


1. An injection pump comprising a housing, a bore in said housing, means forming a part of said housing defining a fluid chamber communicating with said bore, a valve controlled nozzle assembly communicating with said chamber, a plurality of passageways in said housing and communicating with said bore to deliver fluid thereto and therefrom, and a plunger in said bore, said plunger including a first series of annular and axial channels for alignment with at least one of said passageways to move fluid along said channels between said passageways and said chamber during the movement of said plunger within said bore, and a second series of annular and axial channels for alignment with at least one of said passageways to move fluid along said last named channels between said passageways and said chamber during the movement of said plunger within said bore, said channels of each series communicating with one another to provide for the flow of fluid axially along said plunger to the end thereof adjacent said chamber and directly into and out of said chamber to bring about a discharge of a relatively small quantity of fluid from said nozzle prior to a discharge of a main quantity of fluid therefrom.

2,871,797
PUMP
Hugues A. Bourassa, Warrensville Heights, and Eric Gunell, Parma, Ohio
Application March 19, 1957, Serial No. 647,129
4 Claims. (Cl. 103—161)

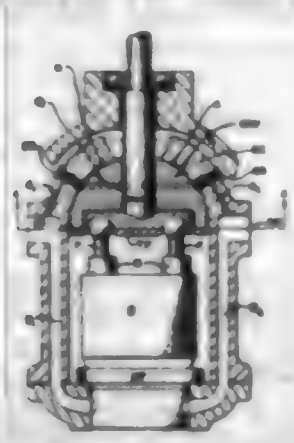
1. A hydraulic pump comprising a housing formed with first and second opposed radially extending porting surfaces each formed with a first arcuate slot adapted to be connected to a hydraulic source of fluid and a second arcuate slot adapted to be connected to a hydraulic pressure system, a rotatable shaft extending through said housing, first and second opposed cylinder rings rotatably fixed relative to said shaft each formed with radial porting surfaces engaging the cooperating porting surface in said housing, each cylindrical ring being formed with a plurality of cylinder bores substantially equally spaced around and inclined relative to the axis of said shaft, an axially extending port for each cylinder bore proportioned to progressively move into registry with said slots as said shaft and rings rotate, and a piston thrust ring carried by said housing eccentrically relative to said shaft engaged by said pistons, the centrifugal force on said pistons produced by rotation thereof maintaining them in engage-

ment with said thrust ring, the sum of axial components of force transmitted to said thrust ring by the pistons of one cylinder ring being opposed by the axial components of force transmitted thereto by the piston of the other



cylinder ring and the axial components of the hydraulic forces acting on said cylinder rings urging the associated porting surfaces into engagement with a force which is a direct function of the hydraulic pressure produced by said pump.

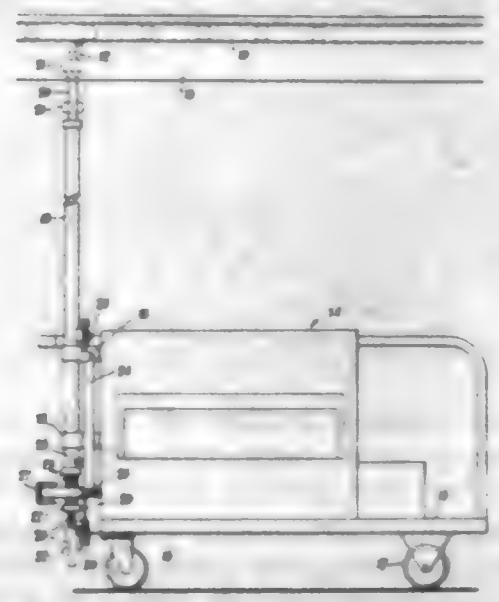
2,871,798
HYDRAULIC POWER TRANSMISSIONS
Hans Johannes Thoma, Zurich, Switzerland
Application December 7, 1955, Serial No. 551,618
9 Claims. (Cl. 103—162)



1. In a fluid pressure energy translating device having a cylinder block having a plurality of cylinder bores, pistons reciprocable in said bores, a rotatable operating member connected to said pistons, a support in which said operating member is journaled and a second support against which the first support bears, the said supports being each formed with a surface of revolution complementary to the other surface and swingable relatively to each other, said second support serving to support said cylinder block, together with a source of fluid under pressure and a conduit connected with said source and connected to conduct fluid under pressure between said complementary surfaces, said conduit including valve means constructed to permit a limited flow in one direction and constructed to prevent flow in the opposite direction.

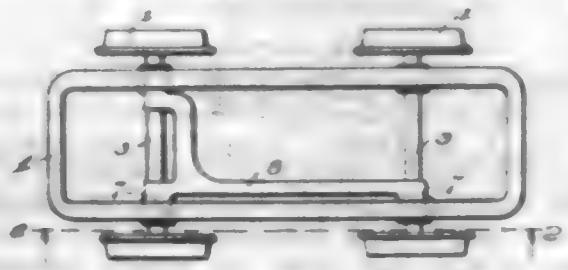
2,871,799
CONVEYORS
Donald Mayer King, Stevenage, England
Application March 15, 1956, Serial No. 571,819
Claims priority, application Great Britain March 15, 1955
9 Claims. (Cl. 104—172)

1. A conveyor comprising an overhead endless driving chain including depending driving abutments, a wheeled load carrying trolley freely movable over a surface at a level below that of the chain, a first mast section on the trolley, a second mast section supported by the first mast section and slidable upwardly and downwardly relatively to the first so as to be movable into and out of an operative position whereat said second section is engageable by one of the driving abutments on the chain, latch means on the trolley for pivotal movement into and out of engagement with said second mast section whereby the sec-



ond mast section is locked with respect to the first in operative position, and depressible means coupled to the latch means and movably located at the fore part of the trolley for contact with an obstruction in the path of the latter to move the latch means into an inoperative position to allow the second mast section to move out of engagement with the driving chain.

2,871,800
AXLE CONTROL MEANS
William T. Rossell, New York, N. Y., assignor to Transit Research Corporation, New York, N. Y., a corporation of New York
Application January 8, 1954, Serial No. 402,885
3 Claims. (Cl. 105—157)

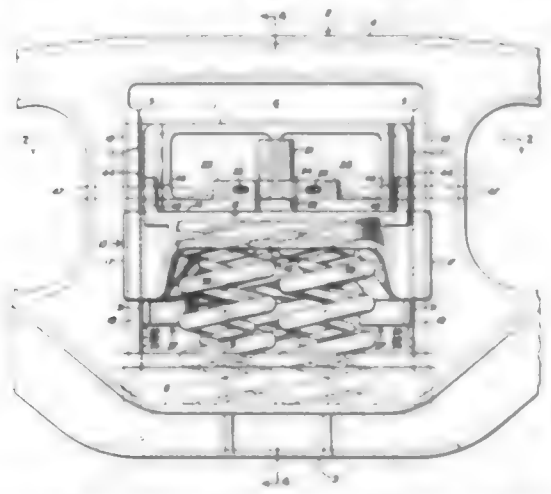


1. In a rail truck, a truck frame having a pair of pedestals near each corner thereof, axles having journal bearings residing between the members of each of said pairs of pedestals, said axles with their journal bearings having limited relative horizontal movement with respect to each other and with respect to said pedestals, means supporting said frame from each of said bearings, a friction plate interposed between three of said journal bearings and its frame supporting means capable of relative sliding movement with respect thereto and stiff means connecting said friction plates together.

2,871,801
QUICK WHEEL CHANGE TRUCK
Glenn P. Couch, Bergen, N. Y., assignor to The Symington-Gould Corporation, Depew, N. Y., a corporation of Maryland
Application January 18, 1957, Serial No. 634,927
11 Claims. (Cl. 105—197)

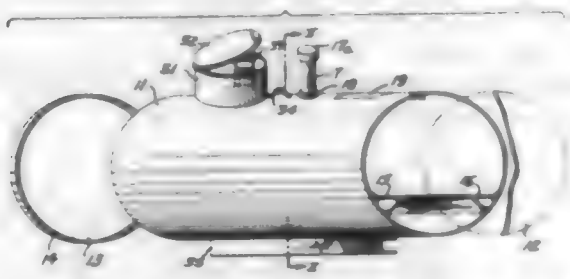
1. In a railway truck, the combination with a side frame having tension and compression members and spaced uprights connecting and including with said members a bolster opening and supporting spring means in said opening and supported on said tension member, of a bolster having an end projecting into said opening above

and supported on said spring means, inboard guide lugs outstanding from sides of said bolster and engageable with inboard faces of said uprights, a spring cap interposed between said spring means and bolster and connected for movement laterally with said bolster, outboard guide lugs carried by said spring cap and engageable with outboard



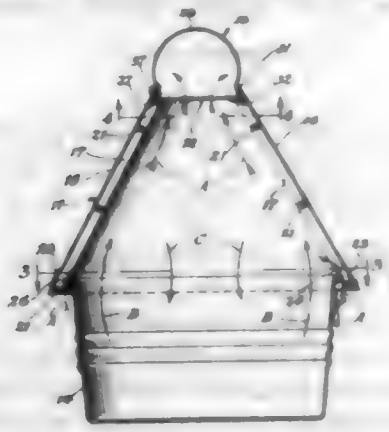
faces of said uprights, said outboard guide lugs cooperating with said inboard guide lugs for limiting movement of said bolster transversely of said side frame, and snubbing means at opposite sides of and movable vertically with said spring cap and each frictionally engaging one of a pair of friction surfaces carried by said uprights and defining sides of said opening.

2,871,802
TANK TYPE DISASTER SHELTER
Avery J. Fishler, Flint, Mich.
Application June 18, 1956, Serial No. 592,169
3 Claims. (Cl. 109—1)



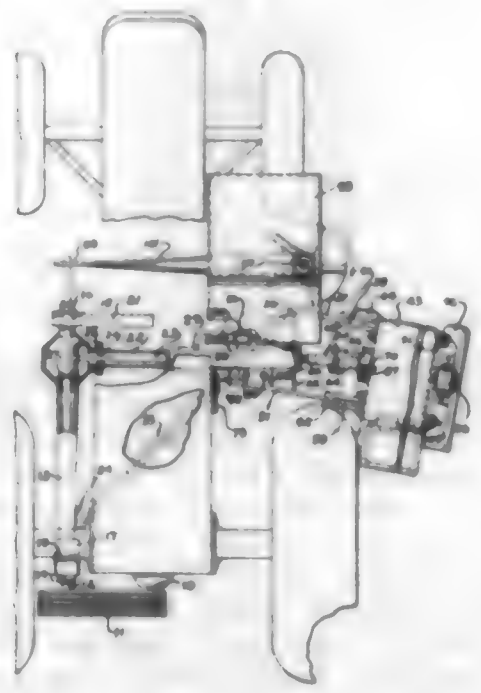
1. In a prefabricated semiportable disaster shelter the combination including: a tank; an entry providing ingress and egress to said tank; a breather tube communicating the interior of said tank with the outside atmosphere; a normally closed escape hatch selectively openable inwardly into said tank; and a frangible caulking patch normally covering said escape hatch and sealed to the body of said tank.

2,871,803
TRASH BURNER
Milford E. Wesp, Clarence, N. Y.
Application October 27, 1953, Serial No. 388,625
4 Claims. (Cl. 110—18)



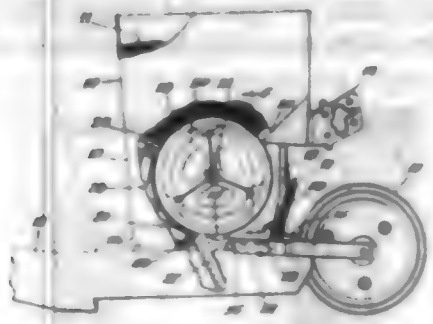
3. In a device adapted for use in burning trash and the like having a container with imperforate sides and base and having an open top, the combination therewith of means providing complete and safe combustion of trash within said container, comprising an open ended tubular sheet metal hood of generally frusto-conical form thereby to have a large open end and a small open end, and said hood being adapted to be supported in an upright position on the top rim of said container, said hood comprising a plurality of arcuate sections joined at their edges and having a plurality of internal flanges adapted to engage said rim and space the large open end of said hood outwardly from said rim of said container around the periphery of said container, thereby to provide an annular air passage between said rim of said container and said large open end of said hood, said internal flanges terminating short of the opening forming said small end of said hood, a circular spark arresting screen of larger size than said opening trapped between the adjacent ends of said flanges and the rim of said hood forming said small open end, a wind deflecting strip of metal arching outwardly from said last opening, a hook formed at one end of said strip and interposed between said hood and the margin of said screen, and means fastening the opposite end of said strip to the opposite side of said hood.

2,871,804
COMBINED TREE CULTIVATOR AND FERTILIZER DISTRIBUTOR
Hoyle Pounds, James H. Pounds, and Russell S. Pounds, Winter Garden, Fla., assignors to Pounds Motor Co., Inc., a corporation of Florida
Application April 15, 1957, Serial No. 652,798
8 Claims. (Cl. 111—11)



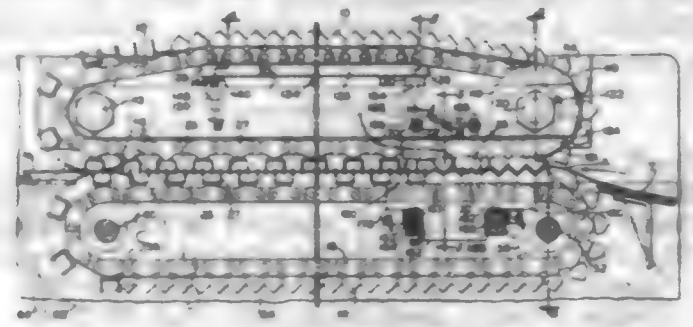
1. In combination with a tractor vehicle having a power takeoff, a drive shaft housing extending forwardly under the vehicle and pivotally secured in end bearings mounted thereon, a drive shaft in the housing driven from the power takeoff, a countershaft housing rigidly connected to and extending outwardly from the drive shaft housing, a countershaft mounted in the countershaft housing, and driven directly from the drive shaft, a cultivator frame pivotally mounted on the outer end of the counter shaft housing, a cultivator tool assembly mounted in the cultivator frame including a horizontal shaft driven directly from the countershaft and connected thereto by a universal joint, and sliding supports mounted on the ends of the cultivator frame to engage the ground when the cultivator is in use.

2,871,805
PLANTER
William B. Behnen, Richmond, Ind., assignor to International Harvester Company, a corporation of New Jersey
Application July 18, 1956, Serial No. 598,688
2 Claims. (Cl. 111—77)



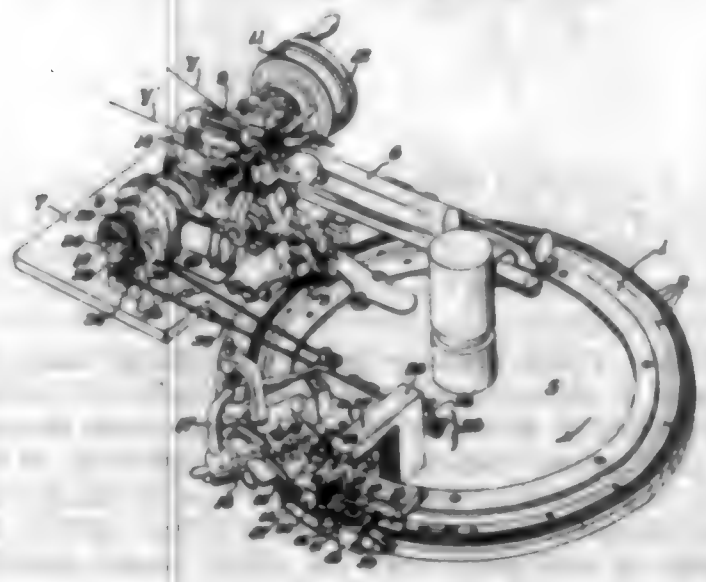
1. In a planter, a frame, a seed hopper mounted on the frame, a wheel member rotatable on a horizontal axis below said hopper and having peripheral cells therein for the reception of seeds by gravity from the hopper, said member being rotatable to convey the seeds to a position to be discharged from said cells by gravity, a furrow opener mounted on the frame below said wheel, a passageway formed in said furrow opener extending to a location adjacent the lower portion of said wheel to receive seed discharged therefrom and guide it to the furrow formed by said furrow opener, and retainer means adjacent the wheel between the hopper and said passageway operative to retain the seeds in said cells comprising a pair of circumferentially spaced rollers, arms pivotally connecting said rollers to said frame for movement toward and away from said wheel member, an endless flexible belt trained on said rollers engaging and conforming to the curvature of said wheel member, and yieldable means biasing said rollers and said belt into engagement with the periphery of said wheel.

2,871,807
SLIP STITCHING MACHINE
Gerald F. McEwen, Mountain Lakes, N. J., and James J. McGinley, Williston Park, N. Y., assignors to American Machine & Foundry Company, a corporation of New Jersey
Application May 15, 1956, Serial No. 585,068
10 Claims. (Cl. 112—174)



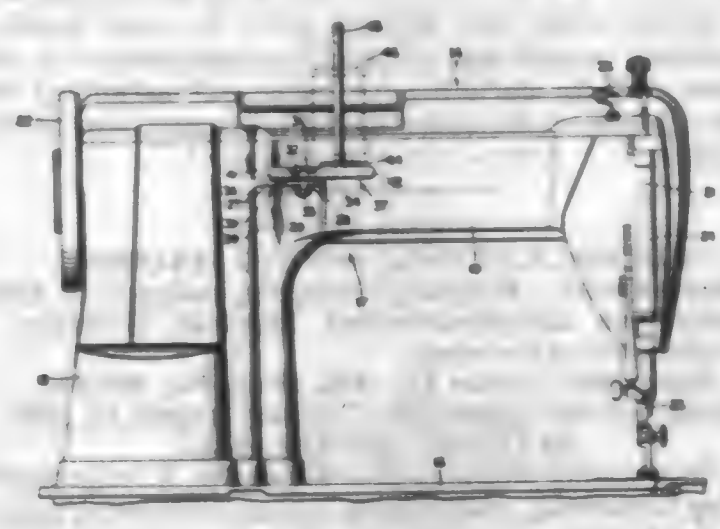
1. In a necktie slip stitching machine having an elongated needle, the combination with a pair of endless sprocket chains having opposed runs, one of said chains overlying the other chain, rotatable driving and driven means over which said chains run, a series of crimpers and a series of channel elements supported on each of said sprocket chains, said crimpers and said channel elements being provided with recesses formed thereon aligned with each other in adjacent runs, the crimpers and the channel elements on each of said opposed runs of said chains being adapted to inter-engage with the crimpers and the channel elements on the other of the opposed runs for pleating a necktie assembly between said inter-engaging crimpers, and said inter-engaging channel elements being operative to guide and constrain said needle against buckling, an infeed station, and means engaging the crimpers on said opposed runs of said chains adjacent said infeed station for maintaining the crimpers of said opposed runs against substantial vertical displacement whereby to insure uniform pleating of said necktie assembly fed between said crimpers.

2,871,806
LOOPING MACHINES AND METHODS, AND IN KNITTED FABRICS SEAMED THEREBY
William G. Bley, Richboro, Pa., assignor, by direct and mesne assignments, to Scott & Williams, Incorporated, Laconia, N. H., a corporation of Massachusetts
Application February 15, 1957, Serial No. 640,462
35 Claims. (Cl. 112—25)



1. A looping machine comprising elements for reception of loops of superposed layers of knitted fabric along a looping line, means for projecting loops of thread through loops of the knitted fabric and for engaging the projected loops about said elements, and means for sewing said layers together, the last means passing stitch loops through said layers and through the projected loops engaged about said elements.

2,871,808
SEWING MACHINE SPOOL-PIN SUPPORTS
Anthony J. Matazas, Union, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application February 6, 1956, Serial No. 563,584
1 Claim. (Cl. 112—218)



In combination, a sewing machine having an elongated overhanging arm: an elongated shelf secured to the rear side of said overhanging arm, the longitudinal dimension of said shelf being parallel to the longitudinal dimension of said overhanging arm, and the said shelf protruding from the rear of said overhanging arm a widthwise distance substantially equal to the diameter of a selective small sized spool, and the length of said shelf being equal to substantially twice the diameter of said selected small sized spools; a vertical pivot member carried by said shelf at a location closer to one end of said shelf than

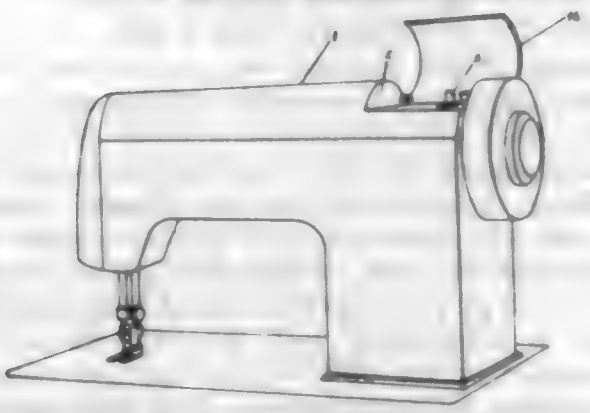
to the other end thereof; an elongated plate the length and width of which are substantially equal to the length and width of said shelf; means for pivotally securing one end of said plate to said vertical pivot member; an upstanding spool pin carried by the other end of said plate, the above parts being so constructed and arranged that, when said plate is pivotally swung away from a position parallel to said overhanging arm, said spool pin will accommodate a spool having a diameter which is larger than the diameter of said first referred to selected spool.

2,871,809

COILER FOR THE HOOK IN SEWING MACHINES

Antonio Moro, Milan, Italy, assignor to S. p. A. Fratelli Borletti, Milan, Italy

Application May 25, 1956, Serial No. 587,403
Claims priority, application Italy May 27, 1955
1 Claim. (Cl. 112—218)



A coiler for the hook spool for use in connection with a sewing machine having a horizontal arm provided with a cover having a depression therein provided with a bottom wall, a flywheel located outside one end of said arm, said coiler comprising a rotary pin for the hook spool, a friction wheel integral with said pin and mounted for rotation by the flywheel, an oscillating lever journalled on the lower surface of the bottom wall and rotatably supporting said pin and friction wheel, said bottom wall having an arcuately elongated slot through which the pin projects outwardly above the bottom wall, spring means having its ends connected to the lower surface of the bottom wall and to the oscillating lever for keeping the friction wheel in contact with or away from the flywheel, and an adjustable stop means located on the upper surface of the bottom wall and containing the outside perimeter of the hook spool for breaking contact between the friction wheel and flywheel when the hook spool is completely wound, and a curved member hinged to the bottom wall for enclosing the coiler and continuing the outer surface of the cover of the horizontal arm of the machine.

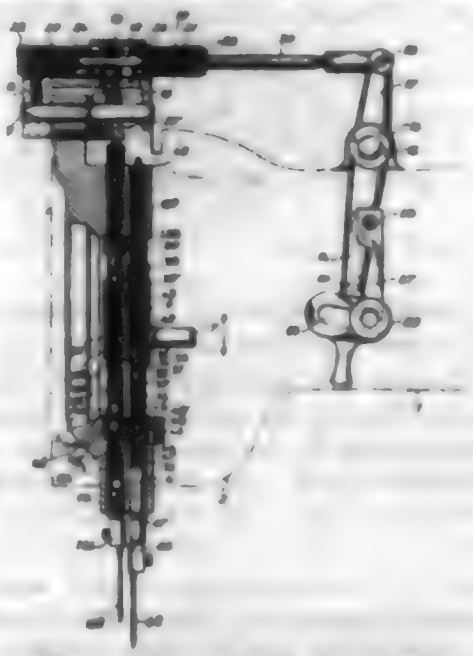
2,871,810

MULTIPLE-NEEDLE SEWING MACHINE

Gerhard Quitter, Bielefeld, Germany, assignor to Durkoppwerke Aktiengesellschaft, Bielefeld, Germany, a corporation of Germany

Application August 23, 1956, Serial No. 605,863
Claims priority, application Germany August 25, 1955
20 Claims. (Cl. 112—221)

1. In a sewing machine, in combination, a reciprocable sewing implement, continuously movable actuating means and mechanism for selectively coupling said implement with said actuating means; said mechanism comprising an axially reciprocable tubular member operatively connected with said implement, an axially reciprocable sleeve member operatively connected with said actuating mechanism and surrounding said tubular member with freedom of relative axial motion, said tubular member having a wall with an aperture and radially displaceable coupling means in said aperture, cam means within said tubular member axially shiftable relatively thereto for moving said coupling means outwardly through said wall and into operative engagement with said sleeve member, thereby operatively coupling said tubular member with said sleeve member for entrainment thereby, resilient means internally anchored to said tubular member and axially bearing upon said cam means in a sense urging the latter into outward-camming action upon said coupling means, an axially displaceable control element operatively connected with said cam means and projecting from an end of said tubular member, abutment means adjacent said



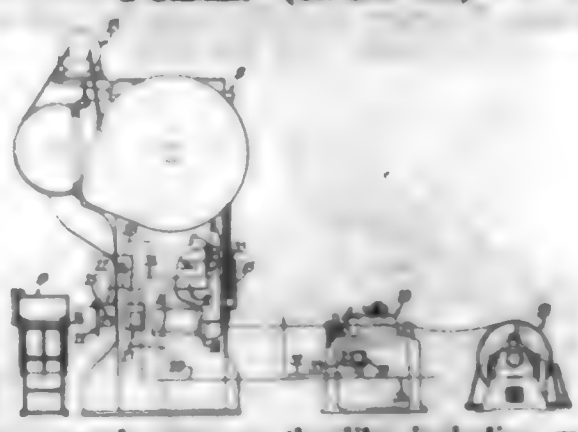
end of said tubular member selectively positionable in the path of said control element for axially displacing the latter along with said cam means relatively to said tubular member against the action of said resilient means upon movement of said tubular member in a predetermined axial direction, thereby releasing said tubular member from entrainment by said sleeve member, and blocking means adjacent said tubular member engageable therewith for arresting the return movement of said tubular member.

2,871,811

AUTOMATIC PUNCH PRESS

Edward W. Gietl, Highland Park, Ill., assignor to Houdaille Industries, Inc., a corporation of Michigan

Application January 7, 1955, Serial No. 480,397
2 Claims. (Cl. 113—50)



1. In a punch press or the like including means for ejecting a formed article therefrom, means for sensing the ejection of an article from the press, means actuated by said sensing means for initiating operation of the press, and means for preventing said sensing means from being effective except in the portion of the cycle of operation of said press when the article would normally be ejected therefrom.

2,871,812

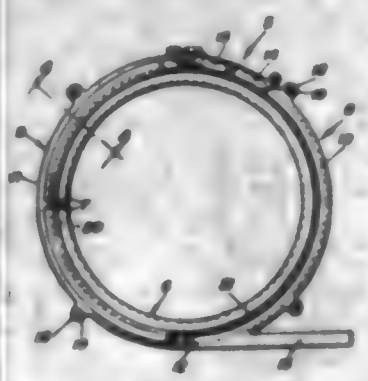
RIM RESIZING TOOL.

Clarence L. Pederson, Montevideo, Minn.

Application May 7, 1956, Serial No. 583,149
1 Claim. (Cl. 113—99)

A rim resizing tool comprising: a substantially circular clamp for the reception of a split rim to be resized,

said clamp comprising a pair of opposed, substantially semi-circular stationary and swinging jaws pivotally connected at one end and adapted to receive the rim therebetween, said stationary and swinging jaws including, respectively, pairs of laterally spaced, opposed stationary and swinging ring sections engageable circumferentially with the side portions of the rim, pins on the free end portions of the stationary ring sections, links pivotally mounted on the free end portions of the swinging ring sections, levers pivotally mounted on said links and engageable with said pins for closing the jaws and contract-



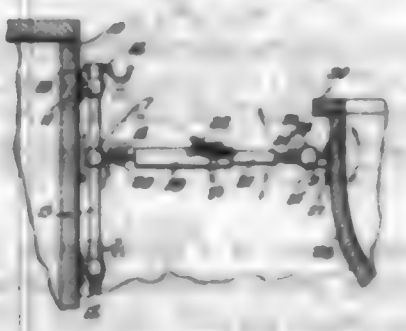
ing the rim and bringing the ends thereof into abutting engagement with each other, turnbuckles threadedly connected to the laterally opposed ring sections and to the levers for adjusting said ring sections and said levers toward or away from each other, circumferential guides at intermediate points in the swinging ring sections engageable with the rim for circumferentially aligning the ends thereof as said rim is contracted, and horizontal supporting bars projecting tangentially from said one end of the stationary jaw for receiving thereon a foot of an operator for securing the clamp in an upright position on a supporting surface.

2,871,813

BOAT MOORING APPARATUS

Charles Klawitter, Toledo, Ohio

Application June 14, 1956, Serial No. 591,430
1 Claim. (Cl. 114—230)



An apparatus of the class described comprising a support, a vertical anchoring means secured to said support, an extensible boat-connecting shank slidably connected to said vertical anchoring means, a T-shaped head carried by said shank, said head including an elongated horizontally extending portion circular in cross-section, an elongated channel member secured to the outer face of the side of a boat in a downwardly spaced relation from the gunwale of the boat to avoid being an obstruction along the deck of the boat, said socket member comprising a bottom channel semi-circular in cross-section and opening upwardly, an anchoring bracket supporting said bottom channel and anchoring the bottom channel to the side of the boat and supporting said bottom channel with its open face uppermost to facilitate the dropping of said elongated horizontally extending portion of said T-shaped head into the said bottom channel when connecting said head to said bottom channel, a hinged cover section carried by said bottom channel to hold said T-shaped head in said socket member after assembly, said T-shaped head including a neck shank connecting said elongated horizontal portion of said head to said boat-connecting shank, and said bottom channel and said cover section each being provided with a cut-away portion surrounding said neck shank of said T-shaped head to facilitate the rotation of said elongated horizontal portion of said T-shaped head within said socket member and to facilitate the up and down swinging movement of said neck portion of said T-shaped head as the boat moves upwardly and downwardly under the action of the water in which the boat floats.

2,871,814

OFFSET FENDER GUIDE

Gerald E. Stahl, Rye, N. Y., assignor to Casco Products Corporation, Bridgeport, Conn., a corporation of Connecticut

Application September 5, 1956, Serial No. 608,049
3 Claims. (Cl. 116—28)



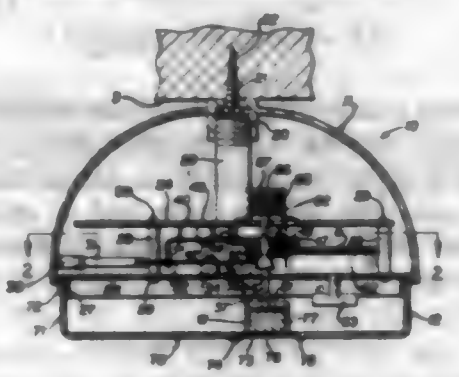
1. A fender guide comprising an attaching bracket, said bracket having a clamping means thereon, a light conducting guide element having a vertical portion and a horizontal portion, said horizontal portion being adjustably engaged along its sides only in said clamping means, said clamping means being offset from said attaching bracket to permit the terminal portion of said guide element to receive light from a suitable source.

2,871,815

FIRE DETECTING DEVICE

Alan T. Krieger, West Richfield, Ohio

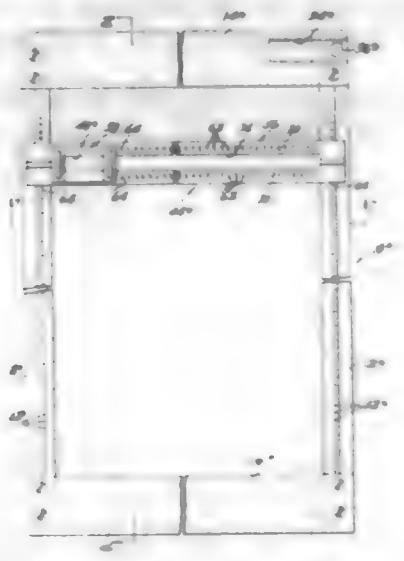
Application May 2, 1957, Serial No. 656,672
4 Claims. (Cl. 116—106)



1. A fire detecting device of the character described, comprising; a mounting base; an alarm mechanism, carried by said base; a cover releasably secured to said base and enclosing said alarm mechanism; means defining a chamber carried by cover and disposed adjacent said alarm mechanism; a meltable block received in said chamber; a means retaining said block in said chamber; a release pin in releasable engagement with said alarm mechanism, and having one axial end thereof engaging against said block; a housing carried by said base and

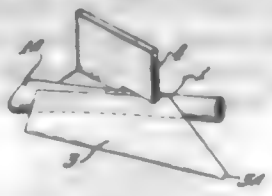
receiving the opposed axial end of said pin; and a spring interposed between said housing and said pin and urging said pin away from said housing towards a position of disengagement with said alarm mechanism.

2,871,816
READING GUIDES FOR FIGURES IN LINES AND COLUMNS
Joseph McConnell, Toronto, Ontario, Canada
Application November 29, 1957, Serial No. 699,653
6 Claims. (Cl. 116—119)



1. A reading guide for figures in lines and columns of columnar sheets comprising a pair of elongated parallel spaced side rails having top sides and upper and lower ends, cross members extending between and fixed to the side rails at their upper and lower ends, and guide block means extending between and resting upon the top sides of the side bars and slidably confined on the side rails, and abutment peg means on the side rails for holding the guide block means in selected positions along the side bars.

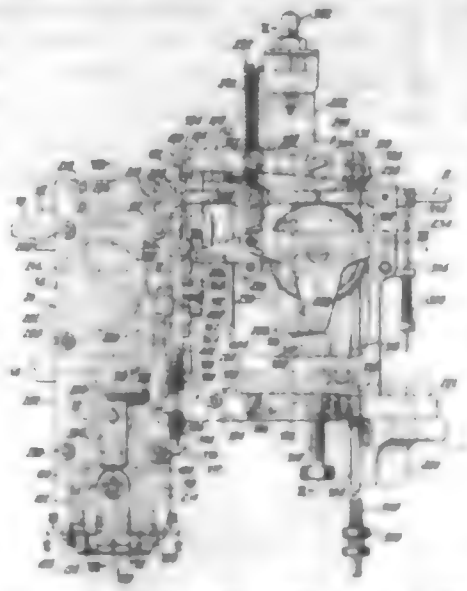
2,871,817
NOZZLE FOR PERIODIC EJECTING CAULKING GUN
George Arthur Fasold, Mount Healthy, Ohio, and John Glenn Blough, Fort Thomas, Ky., assignors to The Philip Carey Manufacturing Company, Cincinnati, Ohio, a corporation of Ohio
Application January 10, 1955, Serial No. 480,747
4 Claims. (Cl. 118—407)



1. A nozzle comprising in combination a tube through which shingle cement may be periodically ejected, said tube having a plow arranged in a plane extending laterally from one side of the tube and a guide extending from another side of the tube having a guiding edge extending up substantially at right angles to the plane of the plow.

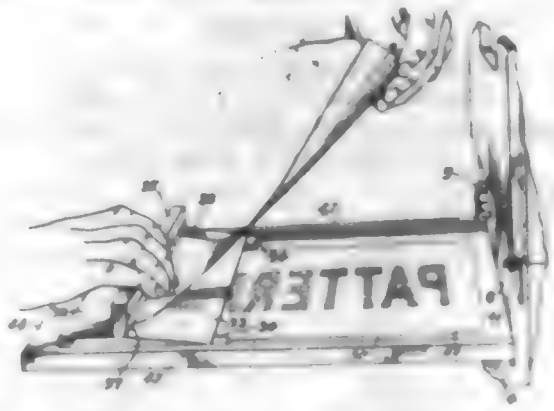
2,871,818
CEMENT HANDLING APPARATUS
Bernhardt Jorgensen, Marblehead, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application June 22, 1956, Serial No. 593,212
20 Claims. (Cl. 118—600)

1. Cement handling apparatus comprising a heated cement applying device having a cement receiving chamber with a passage leading thereinto and mounted for movement between a loading position in which cement is introduced into said chamber and an operative position in which cement is delivered from said chamber, means for moving said device, and a cement handling mechanism mounted in fixed position in a location closely adjacent to said device when the device is in loading posi-



tion, and in a location remote from the device when the device is in operative position, said cement handling mechanism having means for feeding a length of solid rod of cement into the passage leading into the chamber in said device when the device is in said loading position.

2,871,819
XEROGRAPHIC REGISTRATION GUIDE
Robert W. Gundlach, Spencerport, N. Y., assignor to Haloid Xerox Inc., Rochester, N. Y., a corporation of New York
Application August 29, 1955, Serial No. 531,852
6 Claims. (Cl. 118—637)

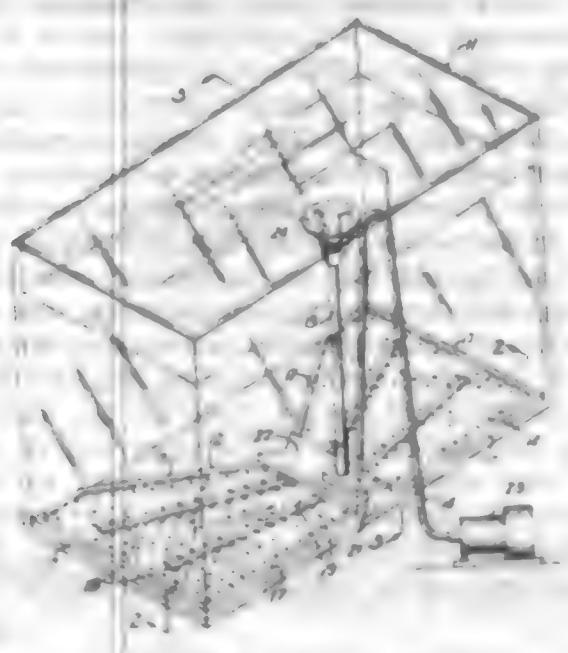


1. The combination of a xerographic plate assembly and a registration guide detachably positionable thereon for positioning image support material with reference to a powder image formed on the xerographic plate assembly wherein the plate assembly comprises a conductive plate member having a photoconductive coating and being supported in a rectangular frame member, said registration guide comprising a pair of longitudinal base members spaced substantially to abut the inner longitudinal edges of the frame member, a lateral platform member extending between and supported on said base members, a longitudinal guide member for support material mounted on the upper surface of the platform member, and a lateral guide member for support material mounted on the upper surface of the platform member normal to the longitudinal guide member.

2,871,820
AERATOR FILTER FOR FISH AND PLANT AQUARIUM
Edward F. Hayden, Benton Harbor, Mich.
Application August 1, 1955, Serial No. 525,506
4 Claims. (Cl. 119—5)

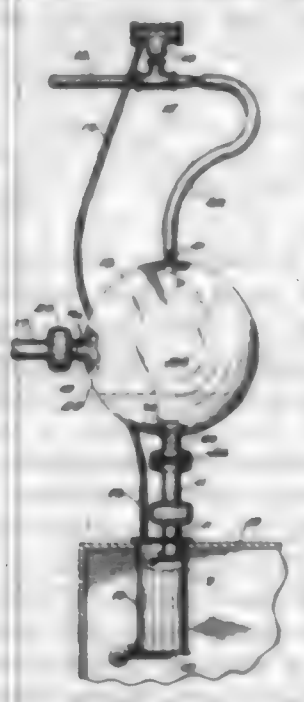
1. For use in connection with an aquarium tank having a rectangular floor, for the keeping of fish and aquatic

plant life above a sand or gravel bed: a plate-like false bottom having outer dimensions just slightly smaller than the floor of the tank with which it is to be used, to enable it to be easily placed in the tank, while extending substantially to the corners of the tank floor, said bottom covering only the major portion of the tank floor, a marginal strip extending completely around the under edge of the false bottom, to raise it above the tank floor and to provide a substantial seal for the space enclosed thereby, an eduction tube connected to the upper side of



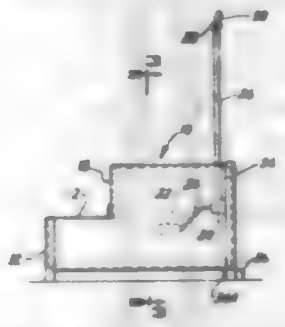
the false bottom at a point substantially equidistant from at least two opposite edges of the bottom and bridging strips on the underside of the bottom, dividing the space therebeneath into a plurality of straight passages, each and all converging directly toward the point of connection of the eduction tube, said bottom plate having a plurality of perforations passing through said bottom, upwardly of said straight passages, said perforations being more numerous over the more remote sections of said passages to substantially balance the flow of water through equal areas of said plate.

2,871,821
MILK LINE VACUUM RELEASER
Donavon E. Golay, Cambridge City, Ind., assignor to Farmer Feeder Company, Inc., Cambridge City, Ind.
Application March 20, 1957, Serial No. 647,346
1 Claim. (Cl. 119—14.07)



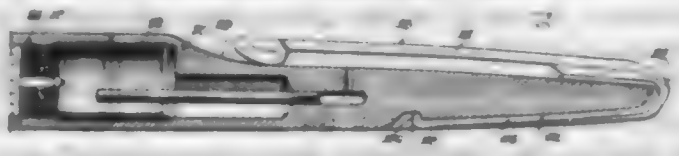
In a milking system, the combination with a constant vacuum pressure line and a milk flow line: of a spherical bowl; a passageway leading from the bowl through a milk discharge nipple extending radially and directed downwardly from the bottom of the bowl; a passageway leading into the bowl through a milk inlet nipple extending approximately tangential of the bottom of the bowl and located at the side of said discharge nipple; means interconnecting said inlet nipple with said milk flow line; a passageway leading from the bowl through a third nipple extending radially from said bowl approximately one hundred eighty degrees from said discharge nipple; means interconnecting said third nipple with said constant vacuum pressure line; the flow of milk from said milk line through said inlet nipple passageway being directed across the passageway of said discharge nipple, the level of accumulation of milk in said bowl being above said inlet nipple passageway.

2,871,822
ANIMAL WATERING DEVICE
Clayton S. Ernst, Ann Arbor, Mich.
Application August 28, 1956, Serial No. 606,763
4 Claims. (Cl. 119—78)



1. A liquid feeding device for animals comprising a tank having a front wall and a back wall constituting longitudinal ends, a vertically extending actuating handle-type liquid inlet means secured to said back wall, said inlet means having a constant liquid level control means on one end and an elevated inlet connection means on the other end, said front wall constituting an upper section and a lower section, said lower section being offset forwardly to provide an animal access opening, a front support panel affixed to and extending below the lower section of the front wall, a rear support panel extending downwardly from the rear wall and having at its lower end a ground support means extending outwardly and transversely to said tank.

2,871,823
FOUNTAIN PEN
Marlin S. Baker, Janesville, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Original application January 17, 1952, Serial No. 266,960. Divided and this application March 15, 1956, Serial No. 572,781
3 Claims. (Cl. 120—42)



1. A writing instrument having a main body carrying a writing point at the forward end and a pocket clip at the rearward end of said body, said clip comprising a U-shape element having a pair of legs and a portion connecting the legs, the element having limited resiliency for spring biasing movement of the legs toward and from each other, the element being fitted on the rear end portion of the body member with the legs extending forwardly in straddling relation to the rear end portion of the body member, one of the legs constituting a pocket engaging element and the second leg having a laterally extending lug fitted in a recess in the body member, the body member having a groove in its rear end surface receiving said connecting portion and a groove in one of its side sur-

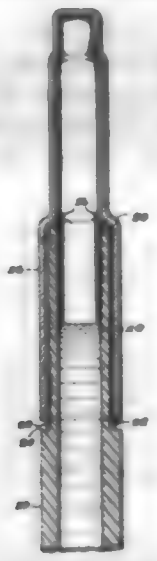
faces interconnecting the first said groove and said recess and receiving said second leg, the body member having a recess in the other of its side surfaces receiving substantially all portions of said clip inside the over-all exterior lines of said body.

2,871,824

LEAKPROOF INK TUBE FOR BALL POINT PEN

Herbert W. Sams, Atlanta, Ga., assignor to Scripto, Inc., a corporation of Georgia

Application August 8, 1957, Serial No. 677,059
6 Claims. (Cl. 120—42.4)



6. In combination with a ball point and ink reservoir unit having a supply of quick-drying ink therein, a plug and cap assembly inserted within the rear end of the ink reservoir tube of said unit, said cap being concentric with and having a surface portion in sealing engagement with a surface portion of and closing the rearward end of the plug, one of said surface portions having at least one vent groove formed thereon, said groove being in communication at one end with the interior of the tube and extending into communication with the atmosphere, said vent groove being of a depth not greater than 0.0025 inch, a width of at least 0.002 inch, and a length of at least 0.250 inch and serving, during normal operation of the tube with the ink seal at the ball point to admit air to the tube only sufficient to maintain atmospheric pressure in the interior of the tube and being capable of restricting such admission sufficiently to maintain a solvent vapor saturated atmosphere in the tube to prevent drying of the ink therein, and also serving when the ink seal at the ball point is broken and atmospheric pressure is established against the ink column at the ball point end of the ink tube, to receive an infinitesimal amount of ink in the groove and expose it to the atmosphere therein to effect evaporation of the solvent with consequent drying of the very minute amount of ink at the portion of the groove communicating with the atmosphere and thereby effect sealing of the groove and preventing of the ink from escaping from the tube, said groove having no appreciable ink storage capacity and constituting the sole means for venting the ink tube.

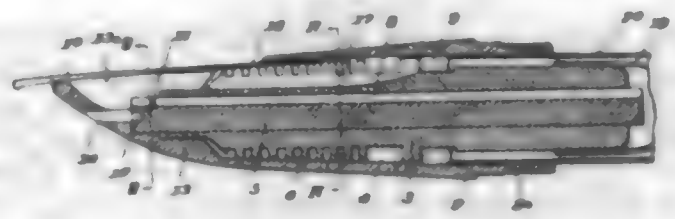
2,871,825

FOUNTAIN PEN

Ryujiro Uchida and Chuji Kurihara, Hiratsuka-shi, Kanagawa-ken, Japan, assignors to Pairotto Man-Nen-Hitsu Kabushiki Kaisha, Tokyo-to, Japan

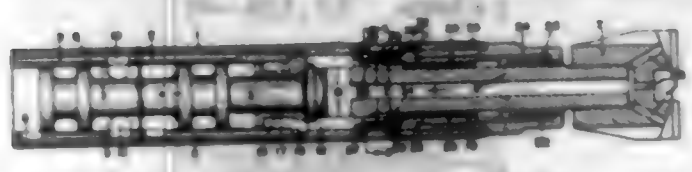
Application December 31, 1956, Serial No. 631,758
Claims priority, application Japan January 18, 1956
2 Claims. (Cl. 120—46)

2. A fountain pen comprising an outer shell, a barrel, means attaching the shell and barrel together, an ink reservoir in the barrel, a nib mounted on the outer shell, a tubular ink collector supported in the outer shell, a feed bar fitted in the ink collector, and an ink sucking means, the said nib being provided with an air hole at its center portion mounted on the top portion of the outer shell and supported at its back portion by the upper end portion of the outer shell, the outer shell having at its free end a tip hole for sucking ink into the reservoir as well as for sucking the substitute air to be supplied into the ink reservoir during writing, the ink collector being provided with ink receiving capillary cells therearound and a longitudinal narrow slit communicating with the capillary cells together with an air channel formed at the position immediately under the air hole of the nib, the feed bar having a longitudinally cut portion defining a longitudinal ink sucking channel together with the inner surface of the ink collector, said feed bar having a longitudinal ink discharging slit and another longitudinal slit communicating with said ink discharging slit through a communicating slot formed near the front end of the feed bar and at the position under the collector, the ink sucking channel being in communication with the tip hole of the outer shell through a cut slot formed in the front end of the feed bar, the said components being combined so that the path used for sucking ink into the ink reservoir as well as for sucking the substitute air into the reservoir during writing may be defined independently of the following ink discharging path by the tip hole of the outer shell, cut slot formed at the front end of the feed bar, air sucking channel of the feed bar and the ink reservoir, and an ink discharging path may be defined by the ink reservoir, longitudinal slit of the feed bar, the slit at the upper end portion of the outer shell and communicating with the said slit of the feed bar and the nib, the ink sucking means including an intermediate pipe elongated in the barrel and having a spherical rear end provided with a cut slot, an ink sack concentrically arranged in the pipe, the pipe and sack being supported in an airtight manner at their front opening portions on the rear parts of the outer shell and ink collector, a push cap slidably positioned in the rear interior of the pipe, a resilient strip normally extending in a straight line, a stopper at the front end of the strip, a pad element attached at the center portion of the strip, the strip and pad element being inserted between the pipe and ink sack so that the stopper may be arrested at the projections formed at the inner surface of the pipe and the free end of the strip being attached to the push cap, a spherical pusher positioned between the push cap and the spherical rear end of the pipe, and a projection on the pusher having a flat portion protruding out through the cut slot of the pipe capable of being turned along the cut slot so as to bend the resilient strip whereby the ink sack is caused to assume its flat state by the strip through the pad element thereof.



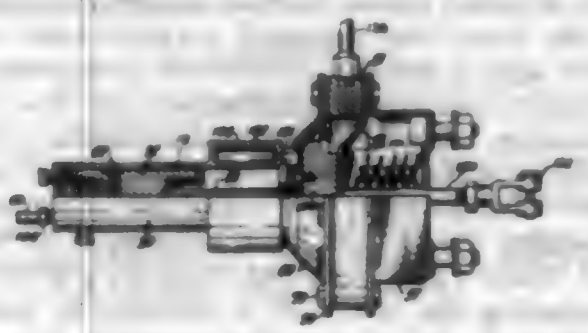


2,871,826
HAMMER ROCK DRILL
Walter D. Fish, Claremont, and John C. Curtis, Newport, N. H., assignors to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 26, 1957, Serial No. 668,106
11 Claims. (Cl. 121—16)



1. In a pressure fluid actuated tool, the combination comprising a pressure fluid motor having a cylinder provided with supply and exhaust passage means and containing a reciprocable hammer piston for percussively actuating a drilling implement, means for conducting pressure fluid from the motor exhaust means to the drilling implement to clear away the cuttings, and exhaust valve means for relieving the pressure in said cleansing fluid conducting means for preventing the building up of excessive back pressures within the tool.

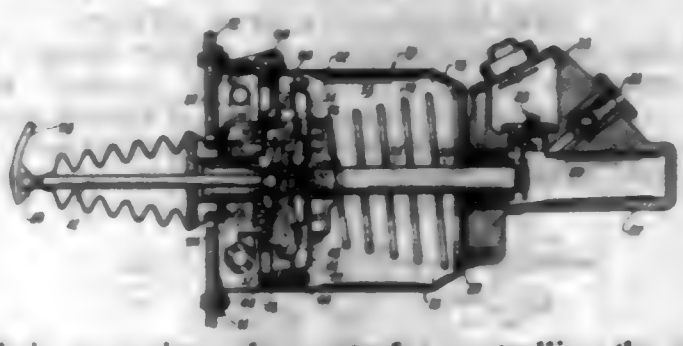
2,871,827
BRAKE MOTOR
Arthur B. Enge, Columbus, Ohio
Continuation of application Serial No. 176,785, July 31, 1950. This application February 8, 1956, Serial No. 564,313
15 Claims. (Cl. 121—38)



1. An improved brake cylinder construction for the braking system of a vehicle which construction comprises, in combination, casing means; a brake actuating rod; a moveable wall means in said casing and forming a wall of a chamber provided with an intake port for receiving pressurized fluid, said moveable wall being in force transmitting relationship with said brake actuating rod; a hydraulic motor; and means for transmitting force from said motor to said moveable wall means including an element moveable relative to said casing means, said element being separable from said moveable wall when said chamber is pressurized but in force transmitting engagement with said moveable wall when said hydraulic motor is energized.

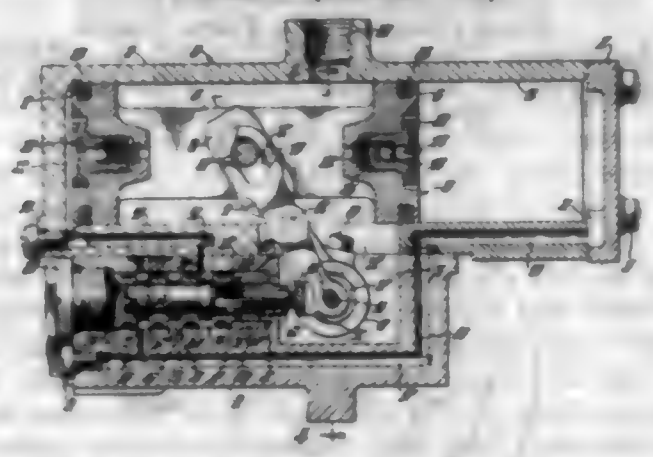
2,871,828
POWER-ASSISTED ACTUATOR
Earl R. Price, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application September 7, 1954, Serial No. 454,797
12 Claims. (Cl. 121—41)

1. In a fluid pressure device comprising a power cylinder having a pressure responsive movable wall reciprocable therein, said wall having a hollow interior, means dividing said interior into first and second differential pressure chambers, the first chamber being in communication with the rear of said wall and the second chamber being in communication with the front of said wall, a valve control member reciprocably mounted on the rear of said wall, valve means operatively associated with said valve member and carried by said reciprocable wall to control the pressure-differential across said wall, said valve means including two valve seats on said movable wall, a pivotal element pivotally mounted on said valve control member, two valve elements pivotally mounted on said pivotal element, yieldable means on said movable wall associated with said valve elements to urge the valve elements toward a seated position, said valve control member being operative, through said pivotal element, to successively seat and unseat each of the valve elements



on their respective valve seats for controlling the pressure differential across said pressure responsive movable wall, and means consisting of a third chamber in communication with said second chamber and including a pressure responsive diaphragm therein subject to the same pressure as that in said second chamber, and an operative connection between said pressure responsive diaphragm and one of said valve elements wherein said valve element is urged toward an operative position.

2,871,829
SERVOMOTOR WITH FLOATING CONTROL LINKAGE
Arthur W. Gaubatz, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 30, 1955, Serial No. 550,873
4 Claims. (Cl. 121—41)

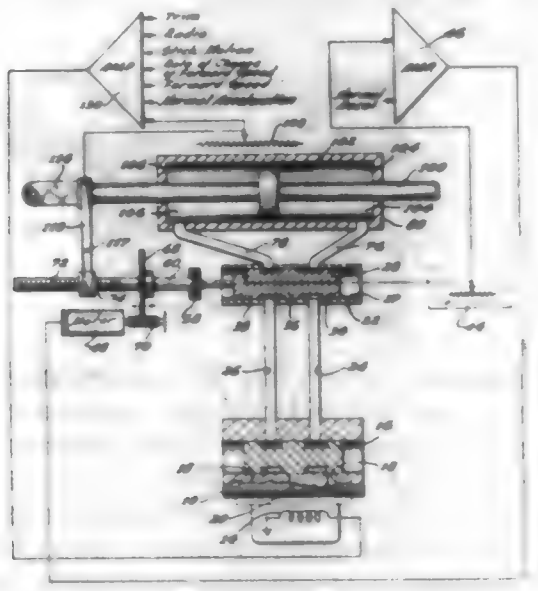


1. A servomotor comprising a cylinder, a piston reciprocable therein, a piston pin mounted in the piston transversely to the axis of the cylinder, coaxial input and output shafts parallel to the piston pin, an input arm on the input shaft engaging the piston pin with slight freedom for rotary movement of the input shaft, an output arm on the output shaft engaging the piston pin, a control lever rotatively engaging the piston pin and rotatively connected to the input arm between the piston pin and the input shaft, a servo valve supplying the cylinder, and a coupling between the servo valve and the control lever at the axis of the input shaft to shift the servo valve in response to relative movement of the said shafts.

2,871,830
VARIABLE AUTHORITY SERVO
Edward C. Wirth, Los Angeles, Wallace B. Pierce, Burbank, and Alvin R. Vogel, Los Angeles, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application May 4, 1956, Serial No. 582,702
7 Claims. (Cl. 121—41)

1. A variable authority servo comprising: a fluid actuated piston and rod enclosed within a cylinder; a

housing in communication with said cylinder by fluid carrying conduits; a reciprocable spool within said housng that monitors the flow of fluid to said cylinder; a valve in communication with said housing, by conduits, that controls the flow of fluid to said housing; mechanical



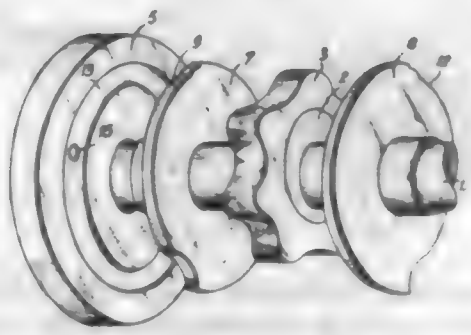
means interconnecting said spool and rod; structure operatively interconnected to said spool that actuates it to position it with respect to said conduits and monitor the flow of fluid to said cylinder; and equipment operatively interconnected to said rod and valve and actuated by the former to alter the position of the valve.

2,871,831

INTERNAL GEAR MACHINES

Pierre Charles Patin, Paris, France

Application February 2, 1955, Serial No. 485,783
Claims priority, application France February 15, 1954
23 Claims. (Cl. 121—68)



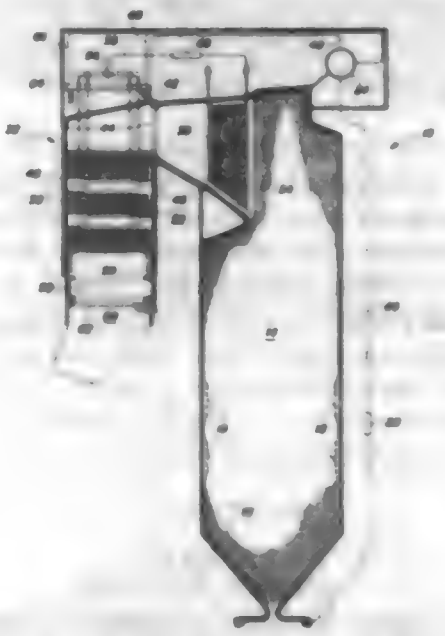
1. In an internal gear machine having a casing which houses a mating pair of intermeshing toothed members formed by an internally toothed ring gear which is held against rotation and a pinion having one tooth less than said gear and mounted on an eccentric carried by a rotary shaft coaxial with said ring gear, said gear and said pinion being housed in a casing; the improvement which comprises two flanges closing laterally said casing on either sides of the meshing toothed members, one at least of said flanges being formed with at least one port, the total number of ports being at least equal to two, said ports being connected to an inlet and an exhaust of fluid, respectively, and rotary means controlled by the rotary movement of the rotary shaft for opening and closing said ports in relation to the angular position of the rotary shaft with a view to obtain a fluid connection between the variable-volume pockets defined between the teeth of the ring gear and of the pinion, on the one hand, and the inlet and exhaust ports, on the other hand, during at least one part of the expansion and contraction phases of said pockets, respectively.

2,871,832

NOVEL METHOD RELATING TO STEAM GENERATORS

Frederic I. Epley, Rockville Centre, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application March 12, 1956, Serial No. 570,807
1 Claim. (Cl. 122—4)



In a vapor generator having a furnace that has its walls lined with steam generating tubes and an off-take for combustion gases extending therefrom having a tube bundle disposed therein forming a convection superheater with the tubes interconnected between inlet and outlet headers and a tubular economizer downstream of the superheater relative to combustion gas flow with this organization being such that a decrease in radiant heat absorption in the furnace causes an increase in the rate of heat absorption of the superheater, the method of maintaining the rate of heat absorption of the superheater within a predetermined range for a given load and counteracting the effect of a decrease in radiant heat absorption in the furnace that increases this rate comprising disconnecting only a small number of the superheater tubes from the inlet and outlet headers, the number being sufficient to bring this heat absorption of the superheater back within said range when it increases beyond this range and effectively connecting these tubes by welding in situ between the inlet and outlet of the economizer so that the heat absorbing capacity of the vapor generator will remain generally the same.

2,871,833

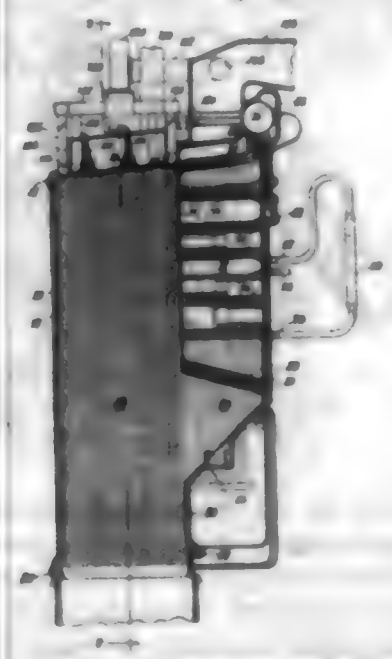
METHOD OF AND APPARATUS FOR VAPOR SUPERHEAT TEMPERATURE CONTROL WITH GAS RECIRCULATION

Paul H. Koch, Bernardsville, N. J., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application June 4, 1952, Serial No. 291,686
10 Claims. (Cl. 122—478)

1. In a method of maintaining a predetermined vapor superheat temperature over a wide load range of operation of a vapor generating and superheating unit, burning fuel in suspension in a vertically elongated flame path by downwardly firing a combustion zone with a fluid fuel and combustion air, generating vapor by radiant transmission of heat from burning fuel to enclosed streams of vaporizable liquid in a zone extending in the direction of firing, superheating the generated vapor by the convection absorption of heat from the combustion gases beyond the combustion zone, and maintaining a predetermined vapor superheat temperature over a wide load range of vapor generation by withdrawing partially cooled combustion gases from a position beyond the superheating zone and directing the withdrawn gases separately from

and in spaced relation to the fuel and combustion air introduction and as a stratum contiguously to the zone of heat absorption for vapor generation and interposed with reference to the zone of heat absorption for vapor generation and the stream of burning fuel, the introduction of



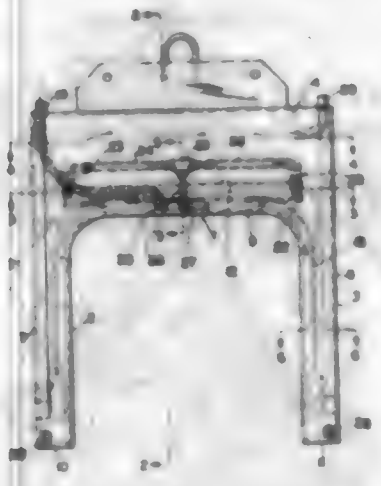
the stratum of recirculated gases, from its inception, being downwardly and substantially parallel to the direction of the burning fuel stream in the combustion zone from a position immediately adjacent the point of introduction of the recirculated gases.

2,871,834

FURNACE DOOR FRAME

Leland H. Hutton, University Heights, Ohio, assignor to Hutton Fabricating and Manufacturing Corporation, Cleveland, Ohio, a corporation of Ohio

Application October 21, 1955, Serial No. 541,920
2 Claims. (Cl. 122—499)



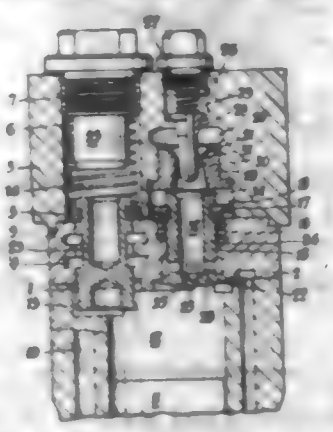
2. In a furnace door frame of the character described, front and rear plates defining, in part, a hollow structure consisting of a vertical lintel and spaced jamb portions extending from said lintel, an arch plate for closing the bottom of said frame, and a second arch plate within the hollow structure in parallel spaced relation to said first arch plate, a hollow member extending rearwardly from said rear plate and defining a horizontal lintel, means for circulating a fluid through said hollow structure and horizontal lintel, said means comprising an inlet pipe extending from one of the upper corners of said structure to a point adjacent the center of the horizontal lintel, conduits for conducting said fluid from the ends of said horizontal lintel to a common point within said vertical lintel at substantially the horizontal center thereof, a conduit for conducting said fluid from said common point vertically downward through the center of said second arch plate and into the space between said arch plates, means for diverting the fluid as it enters said space whereby to cause the fluid to flow in both directions through the space between the arch plates, and a fluid outlet pipe adjacent the other upper corner of said structure for conducting the fluid from said jamb portions to a point exteriorly of the door frame.

2,871,835

POWER OPERATED HAMMERS

Hans Ludwig Hockel, Mannheim-Feudenheim, and Ernest Ueckert, Mannheim, Germany, assignors to Knorr-Bremse G. m. b. H., Munich, Germany

Application July 2, 1956, Serial No. 595,562
Claims priority, application Germany July 2, 1955
5 Claims. (Cl. 123—7)



1. In a hammer operated by an internal combustion engine having a cylinder with a piston moveable freely therein; the combination of a casing at the top of the cylinder and having a guide bore opening into the cylinder with a sealing face formed at said opening, said casing further having a first increased diameter cylindrical space co-axial with said guide bore and with an annular shoulder being defined at the bottom of said first space and a second cylindrical base co-axial with and disposed between said first cylindrical space and said guide bore, said second cylindrical space having a diameter intermediate the diameter of said first space and the outer diameter of said guide bore, a valve including a hollow cylindrical stem slidable in said guide bore and a head at the lower end of said stem having a sealing lip to engage upwardly against said sealing face with the inner diameter of said sealing lip and the outer diameter of said stem being nearly equal, said stem having a recess therein adjacent the upper end thereof, and a disc member having a slot opening at one side thereof and being received in said recess, said disc member having a diameter greater than said outer diameter of the stem and less than the diameter of said first cylindrical space, said disc member being disposed in said base to engage said shoulder and thereby limit the longitudinal movement of said valve in the direction displacing said sealing lip away from said sealing face, the axial distance between said shoulder and said sealing face being smaller than the axial distance between said disc member and said sealing lip, said disc member being furthermore provided with a cylindrical projection at the side thereof facing toward said second cylindrical space and a helical spring disposed in said second cylindrical space engaging, at one end, against said disc member around said projection and, at its other end, against the bottom of said second cylindrical space.

2,871,836

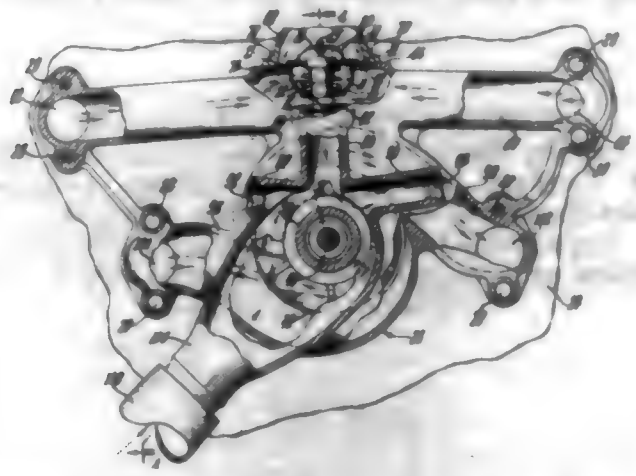
ENGINE COOLING SYSTEM WITH RADIATOR BY-PASS

Robert T. Doughty, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 18, 1956, Serial No. 559,882
5 Claims. (Cl. 123—41.1)

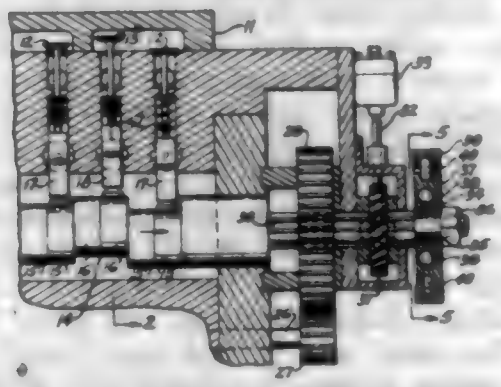
1. An engine cooling system comprising conduit means arranged to recirculate a cooling medium through an

engine cooling jacket arrangement by way of a radiator, said means including a duct by-passing said radiator, a port in said means controlling flow to said radiator, a thermostatic valve controlling said port and including



an imperforate cylinder portion arranged to enter and emerge from said duct dependent upon the temperature of said medium, and said portion enclosing thermo-sensitive material causing said portion to function as a heat actuated motor.

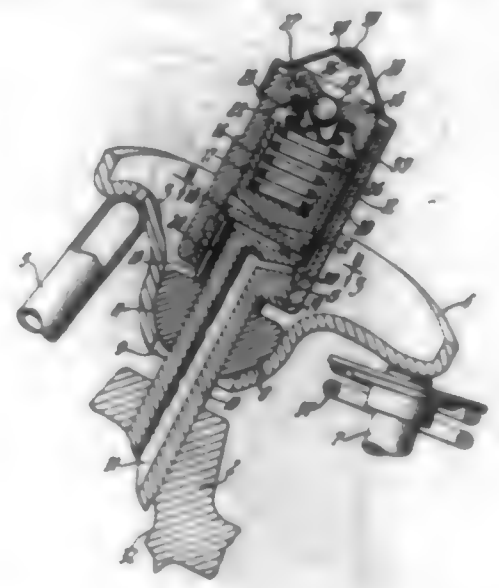
2,871,837
TWO SPEED CAM SHAFT
Lawrence L. Kerby, Hermosa Beach, Calif.
Application December 4, 1956, Serial No. 626,231
6 Claims. (Cl. 123—90)



1. In an internal combustion engine, poppet valves mounted for reciprocation and formed and arranged to control the admission of fuel into the engine cylinders and the exhaust of products of combustion therefrom, a cam shaft rotatably and slidably mounted in the engine beneath the valves and having at least two cams selectively movable beneath each poppet valve responsive to longitudinal movement of the cam shaft, spring means biasing the poppet valves into engagement with said cam shaft, respective locking pins slidably mounted in the engine adjacent to and perpendicular to the valves, said valves being formed with respective recesses located to receive said pins when the valves are elevated substantially to their uppermost positions, means for adjusting said cam shaft longitudinally, means urging said pins away from said valves, and manually operated means formed and arranged to simultaneously move said pins toward engagement with said valves for entry into said recesses and to releasably lock the poppet valves in elevated positions during the longitudinal adjustment of the cam shaft.

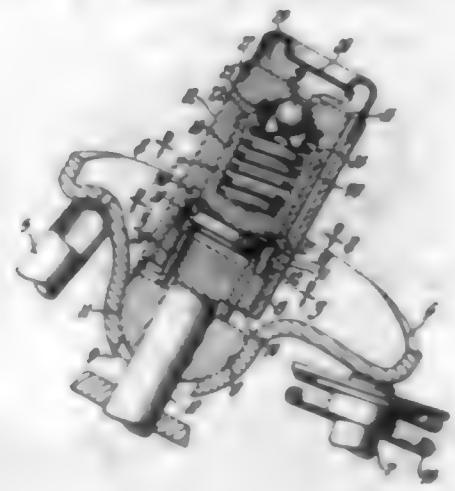
2,871,838
HYDRAULIC LASH ADJUSTER
Morris V. Dadd, Ada, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 12, 1957, Serial No. 695,723
10 Claims. (Cl. 123—90)

1. In combination with a rocker having an opening extending therethrough in the thrust direction, supporting and journaling means for the rocker including a dashpot, a plunger movable inwardly of the dashpot in response to rocker thrust, a rocker bearing disposed oppositely of the plunger from the dashpot, thrust transmitting means extending between the bearing and plunger,



and fixed supporting means for the dashpot extending through the rocker opening, each of said bearing and thrust transmitting means being guided by said fixed means between the rocker and plunger.

2,871,839
SELF-CONTAINED HYDRAULIC LASH ADJUSTER
Lee T. Mekkes, Grandville, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 13, 1958, Serial No. 708,513
6 Claims. (Cl. 123—90)



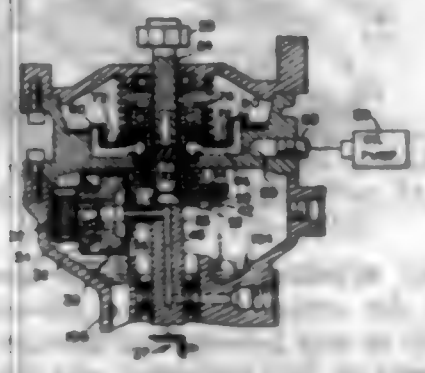
1. In combination with a rocker for transmitting motion between oppositely reciprocating elements, rocker supporting means including means journaling the rocker about its rocking axis and movable normal to said axis with change in rocker thrust, a fixed member guiding said rocker thrust movements of said journaling means, means rigid with said member and defining a bore on the thrust side of the rocker, a plunger slidably fitting said bore and biased into thrust receiving relation with said journaling means, a fluid chamber at the end of said bore most remote from the rocker, said chamber having an inlet, a check valve for said inlet accommodating fluid flow into said chamber and preventing fluid flow out of the chamber, and means sealing said bore against the escape therefrom of fluid leaking past the plunger from the chamber, said last means cooperating with the plunger in defining a reservoir, said reservoir having an outlet in sole fluid communication with said chamber inlet.

2,871,840

SPARK ADVANCE CONTROL MECHANISM FOR SPARK IGNITION INTERNAL COMBUSTION ENGINES

Alton G. De Claire, Jr., Harper Woods, and Richard E. Leibold, Detroit, Mich., assignors to Holley Carburetor Company, Van Dyke, Mich., a corporation of Michigan

Application July 9, 1956, Serial No. 596,473
21 Claims. (Cl. 123—117)



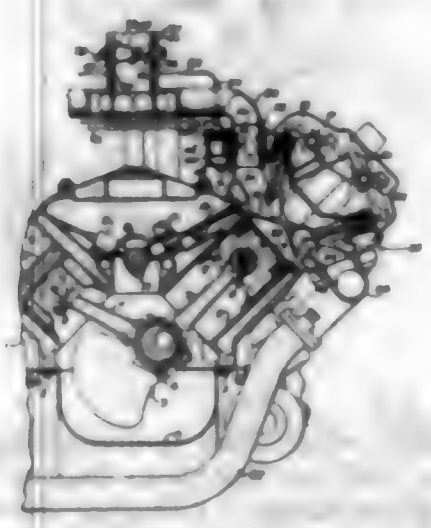
1. Spark advance mechanism for an internal combustion engine having an oil pump comprising a drive shaft adapted to be connected to the engine for rotation thereby, a timing cam shaft disposed coaxially with said drive shaft, an axially movable sleeve coupling said drive shaft and timing cam shaft and having differently inclined splined connections with both shafts whereby axial movement of said sleeve results in angular movement of said timing cam shaft relative to said drive shaft, means responsive to a variable engine condition for moving said sleeve axially, said means comprising an annular chamber surrounding said drive shaft having an axially movable wall connected to said sleeve, a spring opposing movement of said wall in the direction which enlarges said chamber, said chamber including means providing a fluid escape port, a valve movable toward and away from said port, means for moving said valve in accordance with a variable engine condition, and means for introducing oil from said oil pump into said chamber.

2,871,841

PRESSURE INJECTION TYPE CARBURETOR

Laurence M. Goodridge, Clayton, and Charles L. Martin, Berkeley, Mo.

Application October 4, 1954, Serial No. 459,976
54 Claims. (Cl. 123—119)



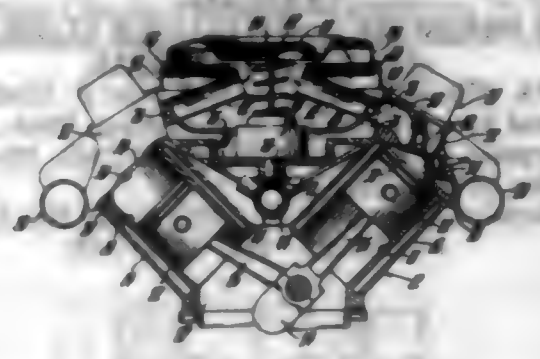
1. The method of injecting fuel into a pulsating air flow to control the air-to-fuel ratio for combustion in the cylinder of an internal combustion engine comprising the steps of maintaining the fuel level at a predetermined range in an open nozzle exposed to the flow by controlling the rate of fuel flow as a function of combustion air requirements, and raising and lowering the fuel level within the range in response to the pulsating air flow to the individual cylinders to cause a metered amount of fuel to be discharged.

2,871,842

CHARGE FORMING MEANS FOR AN INTERNAL COMBUSTION ENGINE

John Dolza, Davisburg, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 31, 1955, Serial No. 511,955
17 Claims. (Cl. 123—119)



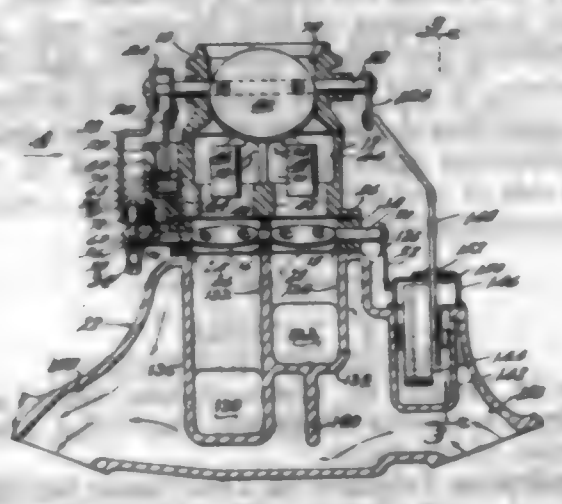
1. Charge forming means for use on an internal combustion engine having a plurality of cylinders, said charge forming means comprising an air box having an inlet communicating with the atmosphere, throttle means disposed in said inlet for controlling the rate of air flowing therethrough, a plurality of substantially identical intake passage means having the outer ends thereof communicating with said cylinders and the inner ends thereof disposed in said air box, each of said intake passage means being substantially identical with each other and being adapted to dynamically supercharge said cylinders by ram and means for injecting metered quantities of fuel into the charge posterior to said throttle means.

2,871,843

CARBURETOR CHOKE MECHANISM

Francis W. Hamilton, Detroit, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Application October 28, 1955, Serial No. 541,752
12 Claims. (Cl. 123—119)



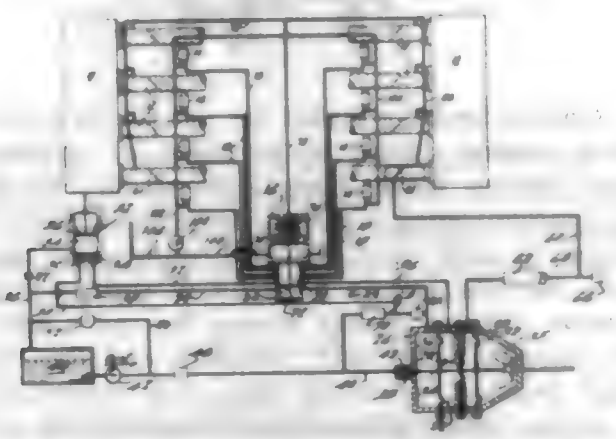
1. In a liquid fuel carburetor for an internal combustion engine having a plurality of cylinders, intake manifold conduits for conducting a combustible fuel and air mixture to said cylinders, an exhaust manifold including portions disposed near opposite sides of said engine, an exhaust gas crossover passage interconnecting said exhaust manifold portions, an intake manifold riser forming a portion of said intake manifold conduits, said intake riser being disposed within said exhaust gas crossover passage; at least one downdraft mixture conduit formed within said carburetor, said carburetor being secured to said intake manifold with said intake riser communicating with said mixture conduit, a throttle valve element disposed within said mixture conduit for controlling the flow of combustible fuel mixture therethrough, said mixture conduit communicating with a carburetor air intake passage, a choke valve element disposed within said intake passage, a well formed in said crossover passage, a thermostatic control element dis-

posed in said well, and linkage means interconnecting said thermostatic control element and said choke valve for adjustiably positioning the latter in response to variations in engine operating temperature.

2,871,844
LOW PRESSURE, CONTINUOUS FLOW FUEL INJECTION SYSTEM

Clifton M. Elliott, Birmingham, Robert P. Graham, Pontiac, and Mearl E. Noftz, Birmingham, Mich., assignors to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Application December 30, 1955, Serial No. 556,525
15 Claims. (Cl. 123—119)



3. In a liquid fuel metering system for an internal combustion engine having an intake gas manifold and a plurality of engine cylinders, a separate manifold portion communicating with each engine cylinder, and a liquid fuel nozzle mounted in each manifold portion, each of said nozzles being adapted to inject a combustible charge of fuel into its associated manifold portion; a fuel delivery passage means for supplying said nozzles with liquid fuel, a load sensor unit comprising a fuel metering orifice situated in and defining a part of said fuel delivery passage, a valve element registering with said orifice for variably restricting the same, a movable wall, said valve element being joined to said movable wall, and means for subjecting one side of said movable wall to the pressure existing in said intake manifold, said delivery passage means including a plurality of branch fuel delivery conduits extending from said metering unit on the downstream side of said orifice to said nozzles, a separate conduit communicating with each nozzle.

2,871,845
FUEL INJECTION SYSTEM

George M. Holley, Jr., Grosse Pointe, Mich., assignor to Holley Carburetor Company, Van Dyke, Mich., a corporation of Michigan

Application February 20, 1956, Serial No. 566,631
19 Claims. (Cl. 123—139)

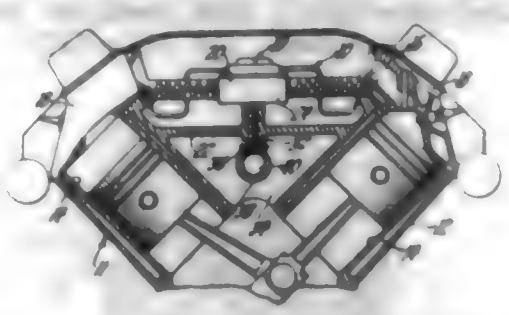


1. A fuel injection system for an internal combustion engine comprising a metering device, means for supplying fluid fuel to said device under pressure, a flow divider connected to said metering device to receive fuel therefrom and to divide it into a plurality of substantially equal portions, a plurality of variable volume pumping chambers connected to said flow divider to receive series of divided portions of the metered flow, each of said chambers being substantially freely expansible to accommodate the exact quantity of fuel metered thereto, positive acting means connected to each of said pumping chambers to reduce the volume of said chambers to expel the fuel therefrom.

2,871,846
PUMP

John Zimmerman, Grosse Pointe Woods, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 27, 1955, Serial No. 555,582
2 Claims. (Cl. 123—140)

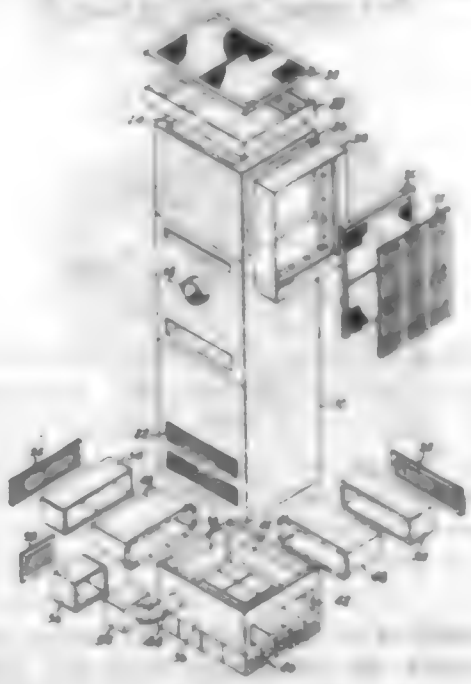


1. A pump structure comprising a housing having a chamber in the center thereof, a driveshaft extending longitudinally of said housing and through said chamber, a cam mounted on said driveshaft and disposed inside of said chamber, a pair of axially aligned cylinders disposed substantially normal to the axis of said driveshaft with the inner ends thereof opening into diametrically opposite sides of said chamber adjacent said cam, a plug of resilient material disposed in the outer ends of said cylinders to thereby form pumping chambers, a yoke disposed in said chamber and having an opening in the center thereof for encompassing said cam, said yoke including plunger portions on diametrically opposite ends thereof disposed in the inner ends of said cylinders for engaging said resilient plugs, said plunger portions being a sufficiently close fit in said cylinders for maintaining said yoke in axial alignment therewith, said yoke engaging said cam at points in substantial alignment with the axis of said cylinders for reciprocating said yoke to alternately compress said resilient plugs and thereby produce a pumping action in said pumping chambers.

2,871,847
COUNTER-FLOW WARM AIR FURNACE

Gordon H. Diehl, Pittsford, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 13, 1956, Serial No. 609,567
3 Claims. (Cl. 126—110)



1. A counter-flow warm air heating unit including, an upright housing, a combustion chamber within said housing having heat exchange surfaces, a blower in said housing above said combustion chamber, said housing having an air outlet opening in the bottom thereof whereby air may be discharged by the blower downwardly across the heat exchanger surfaces and through the bottom open-

ing in the housing, a plenum chamber comprising a sheet metal box structure having an open top communicating with said bottom opening in the housing and flanged edges upon which the housing is supported, said plenum chamber having at least one opening in its side walls for the discharge of air therefrom, said sheet metal box structure also having an open bottom, and a plurality of tile members closing the bottom of said sheet metal box structure to form said plenum chamber.

2,871,848
CULINARY UTENSILS
Mary Forbes Wall, Van Nuys, Calif., and James P. Hume, Chicago, Ill.; said Hume assignor to said Wall
Application June 2, 1955, Serial No. 512,668
1 Claim. (Cl. 126—215)



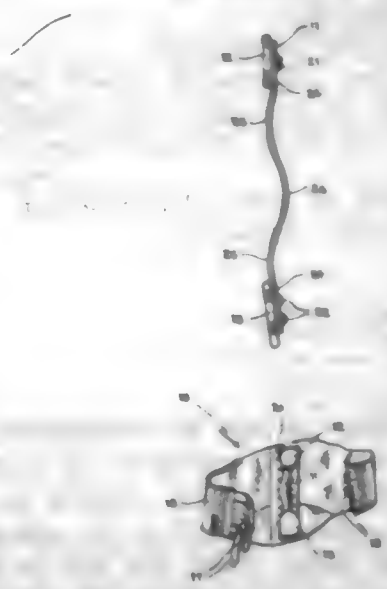
A culinary utensil of the character described, comprising an arcuate wedge body portion formed by overlapping sheet metal members bent from a single annular sheet metal blank, intermediate straps extending between and holding said overlapping members in spaced relation, a central support extending between said members and forming a heel surface for mounting a handle and a handle secured to said heel surface, said overlapping members being disposed on converging planes and having such angularity and spacing as to maintain a pan supported thereon at a predetermined angle to the horizontal.

2,871,849
BODY CONSTRAINING SUIT FOR AVIATORS
Joshua D. Chatham, Dayton, Ohio, and David M. Clark, Worcester, Mass.; said Chatham assignor to said Clark
Application August 19, 1952, Serial No. 305,148
5 Claims. (Cl. 128—1)



1. A body constraining garment for aviators comprising separate sections of flexible material joined together along their edges to form a complete suit adapted to enclose and conform to the contours of the body, legs and arms of a wearer, with one of said sections being in the form of a pleat extending continuously along one side of the garment from a point just above the ankle enclosing portion, along the outside of the thigh, along the back and over the shoulder to a point adjacent to the wrist of the arm enclosing portion, an inflatable element extending the entire length of said pleat, means for holding said element in position by attaching members secured to the edges of said pleat, whereby inflation of said element will draw the edges of the pleat together to cause the remaining material of the suit to be held in close engagement with the enclosed body portions of the wearer to constrain such portions against expansion.

2,871,850
ORTHOPEDIC SPINAL BRACE
Arthur Charles Peckham, Watertown, N. Y.
Application August 8, 1957, Serial No. 677,846
4 Claims. (Cl. 128—78)



1. In a spinal brace, a vertebrae separator comprising a resilient strip member having a pair of pad elements connected to the same side of the member adjacent the ends thereof, said member being curved towards the planes of said pad elements directly adjacent the elements and then being curved in the opposite direction to form an arch on the opposite side of the member from the pad elements approximately midway therebetween, and a belt member attached to said resilient strip member and adapted when tightened around the body of the wearer of the brace to flatten out said arch and separate said pad elements.

2,871,851
THERAPEUTIC SHOE FOR THE PREVENTION AND CORRECTION OF DROP FOOT
Lawrence R. Swanson, Camarillo, Calif.
Application December 28, 1953, Serial No. 400,571
8 Claims. (Cl. 128—80)



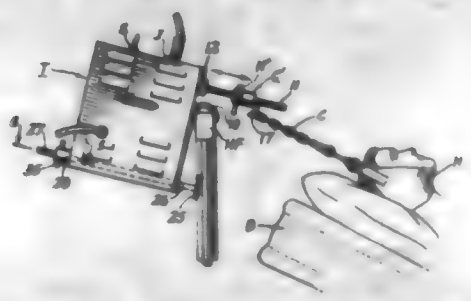
5. A thereapeutic shoe comprising a rigid sole; an upper for enclosing the foot of a wearer, said upper being secured to said sole and including a leg-engaging portion for encompassing the leg of said wearer at a region above the ankle joint; means co-acting with said upper for firmly securing said leg-engaging portion to said leg, said leg-engaging portion being inclined forwardly of a line normal to the plane of said sole to thereby hold the foot of said wearer in a position disposing the sole thereof at an acute angle to said leg; a clip comprising a flat plate extending across the under side of said sole and having upwardly and inwardly extending edge portions encompassing and gripping the side edges of said sole near the heel end thereof to secure said clip to said sole; and a flat elongated sole plate secured to said clip and disposed substantially coplanar with said sole and transversely of the length thereof for engaging a surface upon which the heel of said foot is rested to thereby inhibit rotation of said foot about the axis of said leg.

2,871,852
ORTHOPEDIC DEVICE
Leland D. Miller, Rockford, Ill.
Application July 31, 1957, Serial No. 675,419
4 Claims. (Cl. 128—80)



4. An orthopedic appliance having, in combination, a belt adapted to fit around the pelvic region of the wearer between the waist and the hip, a bracket adapted to be secured to a part such as a shoe attached to the wearer's foot and to move with the latter about the axis of the wearer's leg, an elongated torque transmitting and laterally flexible element having one end connected to said belt to transmit to the latter torque applied to the other end of the element, and a coupling between said bracket and said other end of said element permitting rotation of the bracket relative to the element about an axis transverse to the element and preventing relative rotation between the two about the axis of the element.

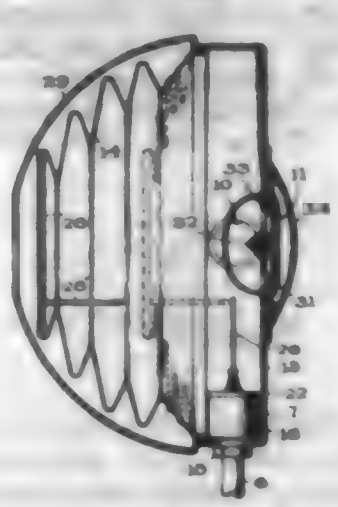
2,871,853
PORTABLE TRACTION DEVICE
William C. Demarest, White Plains, and Edward Malmstrom, Greenburgh, N. Y., assignors to said William C. Demarest
Application November 7, 1957, Serial No. 695,007
6 Claims. (Cl. 128—84)



1. A portable intermittent traction device adapted to be adjustably mountable on the frames of a wide variety of hospital beds and the like comprising hanger support means adapted pivotally to suspend said device on a horizontal frame member of said bed, adjustably extendible tilting spacer means adapted to cooperate with portions of the frame of said bed to tilt said device about said horizontal member as a pivot, and intermittent traction transmitting means extending from said device, and adapted to be connected to a harness, the angular relation of said transmitting means to said bed frame being variable by varying the extension of said spacer means.

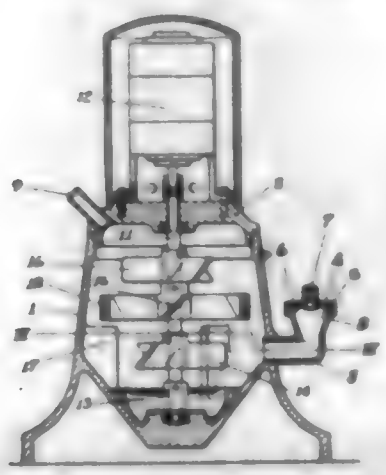
2,871,854
BREATHING APPARATUS
Christian J. Lambertsen, Philadelphia, Pa.
Application December 14, 1956, Serial No. 631,011
9 Claims. (Cl. 128—142)

1. A breathing apparatus comprising a breathing device for supplying an oxygen containing gas to a wearer of the apparatus, an inhalation tube leading to the breathing device, an exhalation tube leading from the breathing device, a conduit for supplying an oxygen containing gas to the inhalation tube, a demand valve controlling the passage of gas from said conduit to the inhalation tube, means for actuating said valve upon the reduction of pressure in the inhalation tube to a predetermined extent, a collapsible rebreathing bag the interior of which communicates with the inhalation tube, said breathing bag being dome-shaped and accordion pleated and so positioned that when the breathing apparatus is positioned on a person it fills and empties along a generally horizontal



axis, said breathing bag, when in its expanded position, being unstressed so that it will offer only slight resistance to breathing, the parts being so constructed and arranged that during the first phase of exhalation a part of the exhaled gases will pass into the inhalation tube for rebreathing on the next inhalation and gas in the inhalation tube will flow into said rebreathing bag, and an exhaling valve controlling the passage of gas from the exhalation tube to the surrounding medium, said exhaling valve being actuatable by an increase of pressure in the exhalation tube created by exhalation after the first phase thereof.

2,871,855
OIL ATOMIZING MACHINE FOR REMEDY OF CONSUMPTION
Ryohei Iwai, Yokohama, Japan
Application September 4, 1956, Serial No. 607,939
3 Claims. (Cl. 128—195)



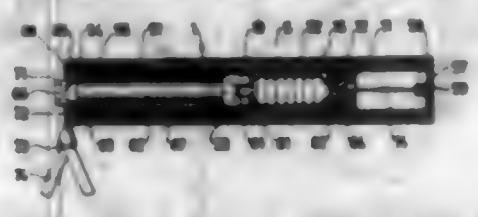
1. An oil atomizing machine for treatment of consumption, comprising a closed oil vessel having at its lower portion an air inlet, and having at its upper portion an inhalation pipe provided with a mouth piece, a vertical shaft disposed at the center of the vessel and driven by a motor, an agitator of a screw propeller type supported at the lower end of said vertical shaft to rotate while submerged in the oil which is adapted to be contained in said vessel at a predetermined level, an atomizer of a screw propeller type of a smaller diameter secured to the vertical shaft above the oil level to atomize oil spray produced by the agitator, and a

propeller of a larger diameter secured to the vertical shaft to further atomize oil drops and force them upwardly while suspended in an air current.

2,871,856
HYPODERMIC SYRINGE

Maurice Steiner, Paris, France, assignor to Aktiebolaget Astra, Apotekarnes Kemiska Fabriker, a Swedish company

Application September 6, 1955, Serial No. 532,656
Claims priority, application Germany October 27, 1954
8 Claims. (Cl. 128—216)

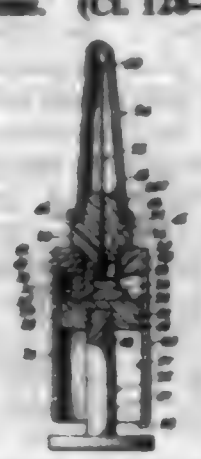


1. A hypodermic syringe comprising a tubular body, a first end wall at least partially closing the rear end of said tubular body, a second end wall closing the other end of said tubular body and having at least a central portion which is perforatable by a hypodermic needle, a needle holder slidably mounted within the end of said tubular body adjacent said second end wall, an injection needle carried by said needle holder, said needle extending both forwardly and rearwardly from said holder and having puncturing points on both ends; extensible spring means positioned within said tubular body in the end thereof adjacent said first end wall, means for locking said spring means in compressed position, a compressible ampoule adapted to contain injectable liquid positioned within said tubular body between said spring means and said needle holder, and means for releasing said locking means, whereby said spring means applies pressure to said ampoule which in turn applies pressure to said needle holder resulting in the perforation of said second end wall by one end of said needle, the perforation of said ampoule by the other end of said needle and the compression of said ampoule and the discharge of the injectable liquid through said needle.

2,871,857
HYPODERMIC AND BODY FLUIDS SAMPLING SYRINGES

Michael Lipari, Oneonta, N. Y., assignor to Lee Barry Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 12, 1957, Serial No. 665,326
21 Claims. (Cl. 128—218)

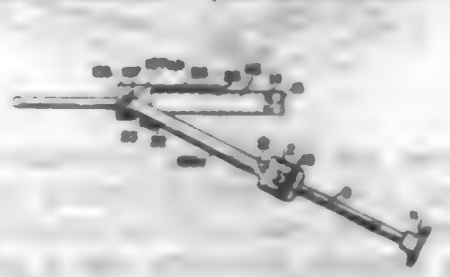


1. A hypodermic and body fluid sampling syringe comprising, in combination, means defining a liquid chamber with wall means thereof being movable to vary the chamber capacity, one portion of the wall of said chamber being provided as a head structure having a through inlet and outlet opening, and a two-part cannula hub and valve structure movably mounted in said opening for longitudinal translation between an outward valve-closing position and an inward valve-open position, the valve and hub parts of said structure having dismountable engagement for movement together between said positions, said two-part valve and hub structure having defined therethrough longitudinally thereof a fluid passage terminating in a chamber communicating mouth at a point which is accessible to the chamber with the structure in its inward valve-open position and with communication between the chamber and passage mouth cut off when the structure is in its outward valve-closing position.

2,871,858
HINGED SYRINGE BODY

Morris Dann, Havertown, and John J. Peterson, Philadelphia, Pa., assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware

Application October 30, 1957, Serial No. 693,448
6 Claims. (Cl. 128—218)

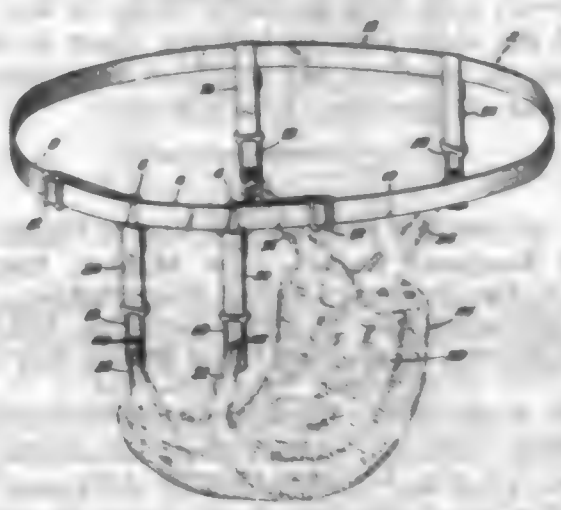


1. A non-separable syringe body adapted to be used with an injection cartridge-needle unit, comprising a generally cylindrical proximal member provided with a slidable push rod having means for positively engaging the cartridge plunger, a generally cylindrical distal member adapted to receive the needle hub of the cartridge-needle unit, hinged strips connecting proximal and distal members, the hinges being located so that when the members are swung out of line a substantial part of the proximal end of a cartridge contained in the syringe body is exposed, and means for securing the contained cartridge-needle unit against axial movement, said securing means being structurally independent of said hinges and comprising two cooperating elements associated with said distal member, one of said elements being structurally incorporated in said distal member, whereby the syringe may be used both for injection and aspiration without displacement of cartridge or needle.

2,871,859
SANITARY BELT ARRANGEMENT

Grace T. Dunn, Hammond, Ind.

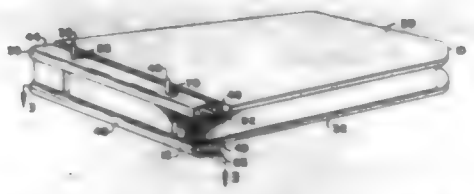
Application December 22, 1955, Serial No. 554,697
2 Claims. (Cl. 128—289)



1. In a sanitary belt, a relatively thin belt arranged to encircle the body of the wearer, a pair of spaced depending tabs directly secured to the front portion of the belt, a second pair of spaced depending tabs directly secured to the rear portion of the belt, buckles mounted on the lower end of each tab, and an absorbent napkin having opposed bifurcated end portions forming two flexible stringers on each end, each stringer being de-

mountably connected to one of the buckles, said napkin having a normal transverse dimension, the spacing between the tabs on the front portion of the belt being approximately equal to or less than said transverse dimension, and the spacing between the tabs on the rear portion of the belt being substantially greater than said transverse dimension.

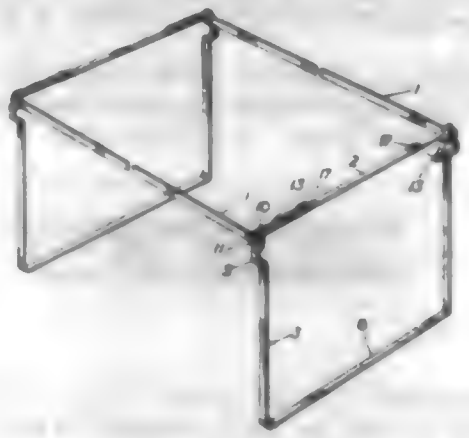
2,871,860
SHIFTING POST LOOSE LEAF BINDER
George Herbert Arnold Paget, West Vancouver, British Columbia, Canada
Application August 13, 1956, Serial No. 603,490
4 Claims. (Cl. 129—12)



3. In a loose leaf binder, the combination of a sheet having spaced L-shaped slots extending inwardly from an edge thereof with base portions extending parallel to said edge in opposite directions, and a pair of covers having a locking arrangement at corresponding ends thereof; said locking arrangement comprising a stationary post mounted on and projecting outwardly from one cover, a post movably mounted on said one cover spaced from and substantially parallel with the stationary post, the other cover having therethrough a hole just large enough to accommodate the stationary post and a slot spaced therefrom and aligned therewith through which the movable post slidably extends, means at said one cover and connected to the movable post for moving it towards and away from the stationary post and along the slot of said other cover, a locking bar slidably mounted on said other cover and having slots extending longitudinally thereof in registry with the cover hole and slot and through which the posts extend, and means connected to the locking bar for shifting it along its cover in one direction to cause the bar to bind on the posts and in the opposite direction to free itself from the latter, said bar slots being so located and of such length that continued movement of the bar in said opposite direction causes the bar to bind on the stationary post and on the movable post when the latter is in a normal position at one end of the slots through which it extends to lock said other cover on the posts while permitting the movable post to be moved towards the opposite end of its slots without releasing said other cover; said posts normally fitting in the base portions of the sheet slots to lock the sheet in the binder and when the movable post is shifted away from the stationary post, the sheet may be withdrawn.

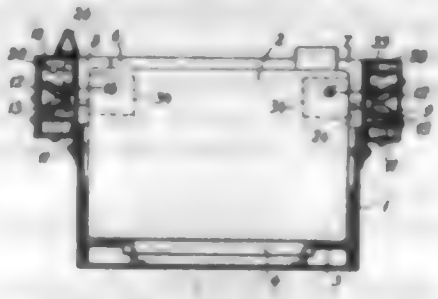
2,871,861
SUPPORT FOR SUSPENDED FILES
Bernard Benjamin Pomer, New Malden, England, assignor to The Shannon Limited, New Malden, England
Application July 20, 1954, Serial No. 444,615
Claims priority, application Great Britain July 20, 1953
4 Claims. (Cl. 129—16)

1. In a frame of the character described having a pair of vertically extending corner posts interconnected by a transverse cross bar at each end of the frame and rails extending between the ends of the frame, means for connecting the rail, cross bar and corner post at each corner of the frame, said means comprising an integral terminal portion of the cross bar consisting in succession of a horizontal part and a terminal downwardly-extending part, and an integral upper terminal portion of the corner post consisting in succession of an upwardly-facing shoulder, an upwardly-extending part, a neck, and a terminal head; said horizontal part having a hole, said terminal portion of the corner post passing through said hole with said head above said horizontal part and with said upwardly-extending part lying below said horizontal part and in a position offset toward the longitudinal center line of the frame relative to said downwardly-directed part, whereby said horizontal part, downwardly-directed part, shoulder and upwardly-directed part together define a slot; said



means further comprising an end portion of the rail lying in said slot, and a locking member extending in the general direction of the cross bar and engaging said horizontal part from above and said head from below and tending to separate said horizontal part and said head, whereby said slot is contracted vertically and the rail is gripped.

2,871,862
CARD FILE STRUCTURE WITH MAGNETIC CARD SPREADING
Per Nicolaus Mathiesen, Rutland, Vt.
Application December 19, 1955, Serial No. 554,092
Claims priority, application Norway December 23, 1954
8 Claims. (Cl. 129—16)

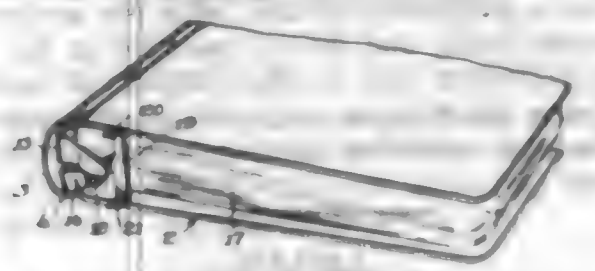


1. A magnetic card filing device comprising a receptacle having vertical side and end walls, and a bottom, a pair of magnets extending along each side wall near the upper edge thereof, said magnets being magnetized in the direction of their width, and means for movably mounting and simultaneously rotating each of the magnets of a pair relative to the other magnet of the pair about an individual pivot between an operative and an inoperative position, said pivots being mounted with their axes parallel to said wall and vertically spaced from each other, said operative position being defined by the magnets of each pair having one of each of their poles adjacent and the other of their poles remote from each other and adjacent one of said side walls, said inoperative position being defined by the magnets of each pair having said ones of their poles remote from each other and remote from one of said side walls and said others of said poles adjacent each other and adjacent one of said side walls.

2,871,863
OPENING AND CLOSING LEVERS FOR RING BINDERS
Samuel Segal, New York, N. Y., assignor to Wilson-Jones Company, Chicago, Ill., a corporation of Massachusetts
Application September 24, 1956, Serial No. 611,420
2 Claims. (Cl. 129—24)

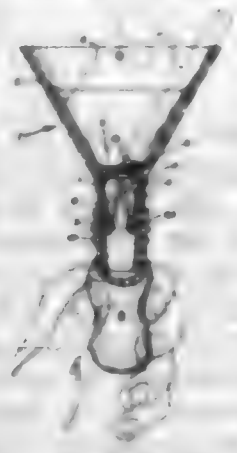
1. In combination, a cover plate, a flange extending substantially perpendicular to each longitudinal edge of

said cover plate, a pair of ring plates positioned in said cover plate, said ring plates having mating ring sections projecting therefrom, said ring plates having their outer edges engaging said flanges and their inner edges abutting to form a toggle joint therebetween, a lever secured to one end of one of said ring plates, a second lever secured to the corresponding end of said other ring plate, said levers projecting beyond said cover plate in parallel planes adjacent said ends of said ring plates, an integral lip extending at right angles from the upper portion of



one of said levers, and a pair of integral lips spaced laterally on opposite sides of said first mentioned lip and extending from the upper portion of said other lever in the same direction as said first mentioned lip, said first mentioned lip being spaced relative to said pair of lips to provide ample finger clearance therebetween in any position of said levers, whereby said first mentioned lip and either lip of said pair of lips may be selectively grasped between the user's thumb and forefinger to open or close said ring sections without interference from said other lip of said pair of lips.

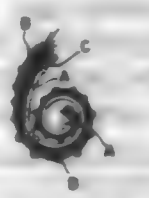
2,871,864
CIGARETTE EXTINGUISHING APPARATUS
Raymond L. Stair, San Fernando, Calif., assignor of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California
Application March 28, 1955, Serial No. 497,193
2 Claims. (Cl. 131—256)



2. Cigarette extinguishing apparatus comprising: a cigarette stop carried at the top of a W-shaped support having upwardly extending outer legs; an outer cigarette receiving funnel having a depending portion; an inner cigarette receiving funnel liner having a depending portion of lesser length than and pressing against the depending portion of the outer funnel with the upwardly extending outer legs of the support rigidly held therebetween and supporting the cigarette stop adjacent the top of the depending portion of the inner funnel liner; and hollow, elastomeric, manually graspable and collapsible water pump and reservoir means engaging the depending portion of the outer funnel.

2,871,865
HAIR CURLING DEVICE AND METHOD
Elizabeth Dux Anderson, Northwood, Del.
Application April 4, 1955, Serial No. 499,057
15 Claims. (Cl. 132—7)

12. A process of curling and setting hair wherein hair is placed in the extended, open form of a web-like device having a natural, at-rest spiral configuration and having a spiral-forming member and having, coacting with said member, reticulate material to receive and to encircle said



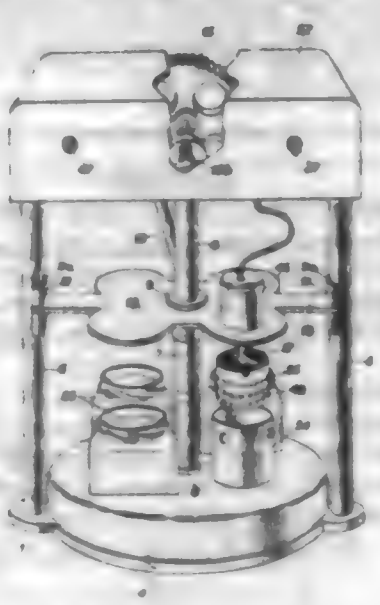
hair; closing said reticulate material about said hair; and allowing said member to return to its natural, at-rest spiral configuration.

2,871,866
HAIR CURLER
Margaret Papandrea, Westfield, N. J.
Application March 14, 1957, Serial No. 646,135
4 Claims. (Cl. 132—33)



1. A one piece hair curler comprising a flat disc-like body having at least two angularly spaced integral narrow flat arms extending outwardly from its rim and which are adapted to fold upon each other back over said body, a hair receiving notch cut inward from the rim of said body toward its center, and at least two tabs or fingers cut from radially extending slots in said body, said tabs in conjunction with said body serving as a support on which a hank of hair can be wound in a flat pancake spiral.

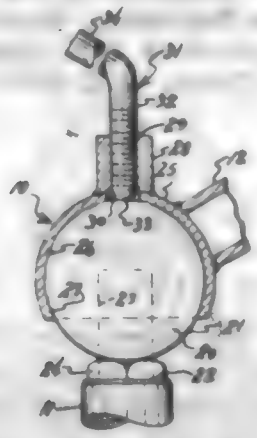
2,871,867
WATCH AND SIMILAR CLEANING MACHINES
Saul Lazretter, Manchester, England
Application March 7, 1956, Serial No. 570,026
3 Claims. (Cl. 134—58)



1. A machine for cleaning watch and similar small parts of machinery, comprising a rotary turntable, a plurality of jars mounted thereon, a table mounted for raising and lowering movements relatively to the turntable, a basket and a motor for spinning it mounted on said table, a gear carrying a crank pin and having a slot in the face thereof, a connecting rod coupled at one end to the crank pin and its other end to the table, a second motor for rotating said gear to lower and raise said table to bring the basket into and out of the jars, a star wheel connected to the turntable and positioned opposite to said face of said gear for engagement of its points in succession in the slot in said gear to intermittently rotate the turntable to bring the jars thereof in succession into position to receive the basket, cam

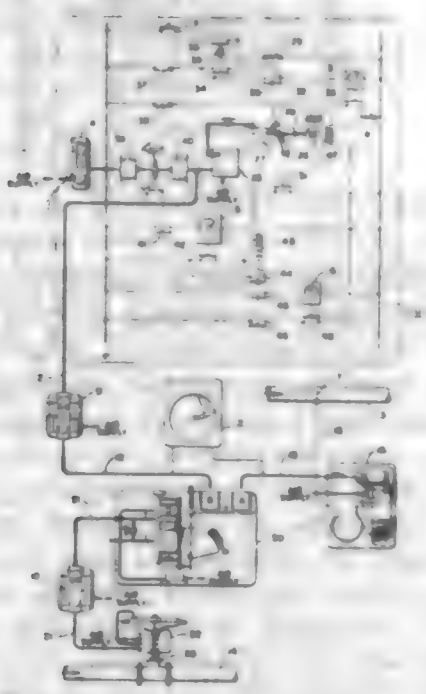
switches electrically connected to the basket spinning motor and second motor, and a third motor for operating the cam switches to energise the basket spinning motor to rotate the basket and to energise said second motor to rotate said gear and thereby raise and lower said table and to rotate said turntable in sequence and during periods which are timed by the cam switches.

2,871,868
ADJUSTABLE MOUNT
Adrian L. Faasse, Francis A. Kunzman, and Herbert W. Moser, Omaha, Nebr., assignors to Snow Corporation, Omaha, Nebr., a corporation of Nebraska
Application January 27, 1955, Serial No. 484,374
3 Claims. (Cl. 135—46)



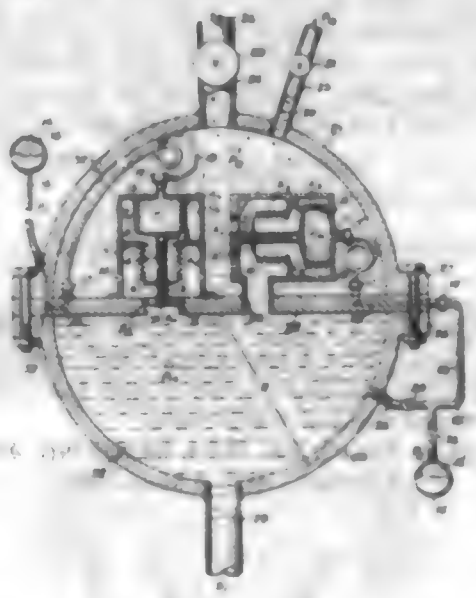
1. In an umbrella having a shade for the protection of persons such as drivers in open vehicles, a mounting structure comprising, a ball member, a standard secured at its upper end to said ball member, a socket member having a concave bearing surface in engagement with the ball member over an area greater than a hemisphere, a supporting arm secured to said socket member and normally positioned laterally to said standard at its juncture with said socket element then curving upwardly and reversely to terminate in a connector, and a locking element mounted on the socket member and having a bearing head extendible therethrough and into engagement with the surface of said ball and normally aligned with the standard and lying in opposed relation to the juncture of said standard and said ball.

2,871,869
TIME-CYCLE CONTROL SYSTEM
William C. Howard, Gates Mills, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Application July 18, 1956, Serial No. 598,666
12 Claims. (Cl. 137—82)



11. In a system for controlling a variable, the combination comprising an instrument for establishing a first signal representative of the magnitude of the variable, a transmitter for establishing a second signal, means including a constant speed electric motor operatively connected to said transmitter and rotatable in one direction to actuate said transmitter to vary said second signal from a first value to a second value in accordance with a predetermined program, comparing means responsive to said first and second signals for establishing a control signal in accordance with the difference between said first and second signals, means for deenergizing said motor for a predetermined time upon the occurrence of said second value, and means operative at the end of said predetermined time to effect rotation of said motor in a reverse direction to vary said second signal from said second to said first value in accordance with said program.

2,871,870
FLUID PRESSURE SYSTEMS
Melville F. Peters, Livingston, N. J.
Application August 10, 1955, Serial No. 527,510
4 Claims. (Cl. 137—267)

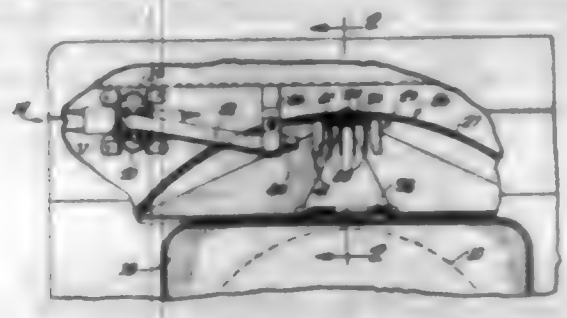


1. A surge chamber structure for a fluid pressure system comprising, a chamber, a partition dividing the chamber into two parts, one part of said chamber being in communication with the fluid system, fluid responsive valve means carried by the partition within said chamber, a housing around each valve, a bellows member sealed at one end to the top of each valve and at its other end to the inside of the housing, an auxiliary balancing fluid pressure system connected to the bellows on each valve, a source of ballast gas in communication with the chamber and means associated with said valves and including the ballast gas for operating the valves to allow fluid to pass from the system into the chamber upon increase of the fluid pressure in the system and to allow the said fluid to leave the chamber upon decrease of the said fluid pressure.

2,871,871
WATER SUPPLY MEANS FOR WASHING MACHINES
George D. Conlee, Ripon, Wis., assignor, by mesne assignments, to McGraw-Edison Company, a corporation of Delaware
Application April 26, 1956, Serial No. 580,749
3 Claims. (Cl. 137—216)

1. In a washing machine having a washing receptacle, water supply means comprising, in combination, a pan structure supported above the receptacle, a conduit positioned to discharge a jet of water substantially horizontally into said pan, a vertically disposed foraminate member supported in spaced relation to the discharge end of said conduit in a position to intercept the jet and dissipate substantially all of its kinetic energy, a shield

structure having an end wall disposed parallel to said member and at the side opposite said jet and a side wall and a top wall extending from the end wall to the vicinity



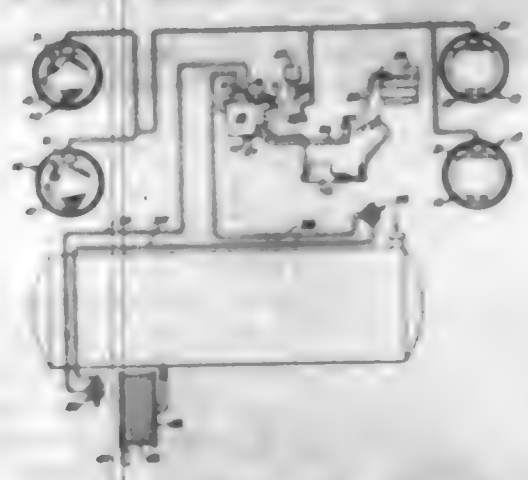
of said conduit, said shield structure being open at the bottom to allow the water to fall freely into said pan, and said pan having an outlet for delivering the water by gravity flow to the receptacle.

2,871,872

AUTOMATIC SAFETY CONTROL SYSTEM FOR VEHICLES

Franklin Morris Rowles, Sacramento, Calif., assignor to Cal-Gas Equipment Corp., Sacramento, Calif., a corporation of California

Application April 3, 1956, Serial No. 575,745
5 Claims. (Cl. 137—351)



3. An automatic safety control system for fuel trucks comprising, in combination with a vacuum booster line of the braking system of a fuel truck including a fuel carrying tank having an outlet, a movable valve mounted on said truck adjacent to said outlet, actuatable means for automatically moving said valve to automatically close and open said booster line, an unloading hose connected to said outlet and seated on said means to hold said valve in position to maintain said booster line open; removal of said unloading hose from said means to effect an unloading of said tank automatically actuating said means to move said valve to a position to close said booster line, and vacuum means responsive to the closing of said booster line to set the truck brakes, said brakes remaining set to prevent the movement of the truck until said unloading hose is returned to its initial position on said means.

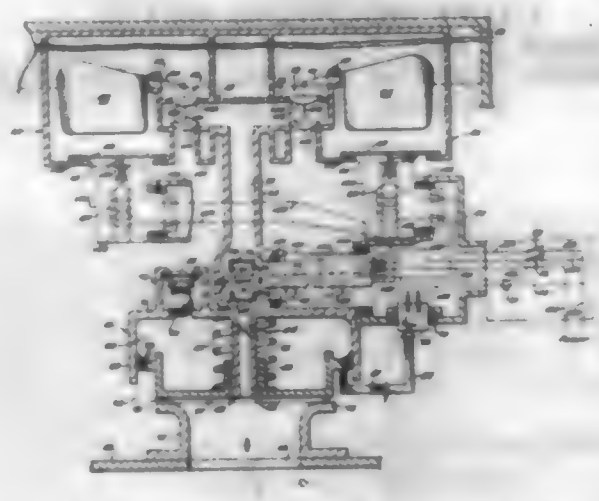
2,871,873

LIQUID LEVEL CONTROL VALVE WITH PRE-CHECK SYSTEM

Malcolm M. McQueen, Hollywood, Calif., assignor to Whittaker Controls, a Division of Telecomputing Corporation, Los Angeles, Calif., a corporation of California

Application January 31, 1958, Serial No. 712,398
19 Claims. (Cl. 137—390)

1. A valve assembly for controlling the flow of liquid from a pressurized supply into a tank, comprising: a normally closed main valve to control flow of the liquid into the tank; a first pilot valve and a second pilot valve both operative to close in response to rise of the liquid content of the tank to a predetermined level, said main valve being responsive to the pressure of the supply liquid to open when both of said pilot valves are open and being responsive to the two pilot valves individually to close in opposition to the supply pressure when either of the two pilot valves is closed; a first pre-check means operable to close said first pilot valve when the liquid content of the tank is below said predetermined level; a second pre-check means operable to close said second pilot valve when the liquid content of the tank is below said predetermined level; a normally closed safety shut-off valve to prevent fluid flow through said main valve; a first remote control means having a first operating position and a second operating position; means for coupling the first remote control means to the first pre-check means and to the safety shut-off valve to open the safety shut-off valve for the first operating position of the first remote control



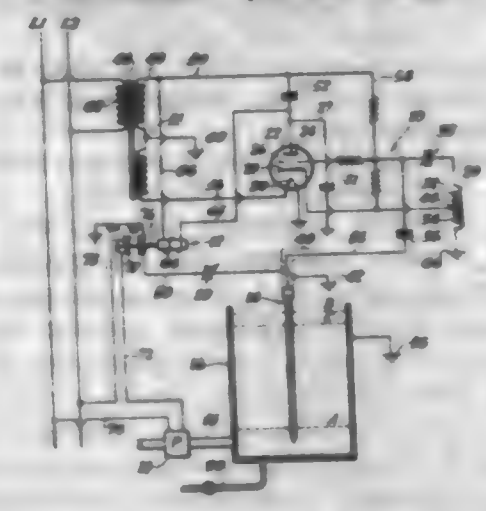
means and to operate said first pre-check means to close the first pilot valve for the second operating position of the first remote control means; a second remote control means having a first operating posititon and a second operating position; means for coupling the second remote control means to the second pre-check means and to the safety shut-off valve to open the safety shut-off valve for the first operating position of the second control means and to operate said second pre-check means to close the second pilot valve for the second operating position of the second remote control means, whereby both said remote control means may be operated to their first operating positions for a tank filling operation and the two remote control means may be operated alternately to their second operating positions during the filling operation to check on the operativeness of the valve assembly.

2,871,874

CAPACITY LEVEL CONTROL WITH ADJUSTABLE SPAN CONTROL

Ralph V. Coles, Radnor, Pa., and Frederick L. Maltby, Riverton, and Joseph W. Philippi, Woodbury, N. J., assignors to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

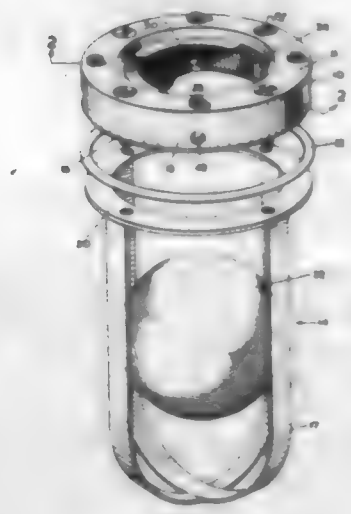
Application October 15, 1954, Serial No. 462,422
10 Claims. (Cl. 137—392)



1. In a control apparatus for controlling the level of flowable material in a container, the combination com-

prising an oscillator circuit including an electron discharge tube, a source of electric current coupled to said oscillator circuit for energizing the same, a detecting device connected to said oscillator circuit being sensitive to variations in the height of said flowable material in said container for varying the conductivity of said discharge tube, means operatively connected to said discharge tube and energized in response to the conductivity of said discharge tube for controlling the supply of flowable material to said container, and a reactance element electrically connected to said detecting device by said means when said means is deenergized for varying the sensitivity of said detecting device.

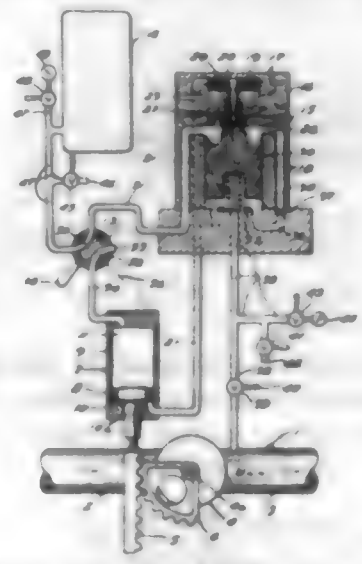
2,871,875
VALVE MOUNTING MEANS
Harold E. Dale, Toronto, Ontario, Canada
Application November 19, 1956, Serial No. 623,189
4 Claims. (Cl. 137—433)



1. Means for mounting, in a pipe, a float valve assembly having a mounting ring comprising a L-shaped passage in such mounting ring, said passage being open to an accessible surface of such ring and to a side wall of said ring which is slidable on the inner pipe surface, a ball located in the passage extending toward said pipe surface and a ball located in the passage extending from said upper surface and supported by said first mentioned ball at a point on said first mentioned ball remote from the pipe surface and above the centre line of said first mentioned ball, threading in the upper extremity of the passage adjacent the upper surface and a bolt threaded therein adapted to bear on said second mentioned ball.

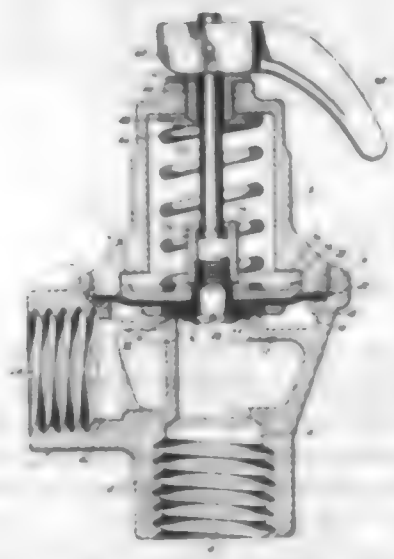
2,871,876
RATE SENSITIVE BROKEN PIPE PROTECTION VALVE APPARATUS
John R. Edmund, Berkeley, Calif., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application March 8, 1956, Serial No. 570,305
9 Claims. (Cl. 137—464)

1. A rate sensitive apparatus for shutting off fluid flow through a main, said apparatus comprising, in combination, normally open shut-off valve means interposed in the main and operable to a closed position for preventing fluid flow therethrough, power means for controlling operation of said shut-off valve means, a reservoir for storing fluid under pressure, means defining a normally open restricted flow connection between said reservoir and the portion of the main downstream of said shut-off valve means, means operable by reservoir pressure responsively to a reduction in pressure in the main at a rate exceeding the flow rate through said restricted flow connection to disconnect the main from said reservoir and cause opera-



tion of said power means to effect closure of said shut-off valve means.

2,871,877
PRESSURE RELIEF VALVE
Erich W. Work, New Britain, Conn., assignor to Beaton & Cadwell Mfg. Co., New Britain, Conn., a corporation of Connecticut
Application December 16, 1953, Serial No. 398,459
4 Claims. (Cl. 137—469)



3. A pressure relief valve having a high flow capacity for gases and a low flow capacity for liquids comprising a casing having a ported bottom portion and a cylindrical top portion connected thereto, a rigid partition in said bottom portion disposed normal to the axis of said top portion, an annular shelf in said bottom portion axially spaced from said partition and generally parallel thereto, a flexible diaphragm permanently sealed to said shelf at its periphery in spaced generally parallel relation with said partition to form with said partitions an expansion chamber, said partition provided with an inlet port for said chamber defined by a valve seat spaced from said diaphragm, and an outlet port laterally thereof leading to the exterior of said casing, said outlet port being at least no larger than said inlet port, a rigid backing plate for said diaphragm, a flat valve, positioned to engage said seat and carried by said diaphragm, means securing said valve, diaphrgm and backing plate firmly together for movement as a unitary structure, a compression spring in said top portion behind said backing plate urging said valve closed, whereby said valve will open an initial predetermined amount in response to a predetermined fluid pressure on said valve, said chamber being of a volume sufficient for the reduction of the pressure of liquid admitted to said chamber in response to said initial amount of valve displacement to a pressure substantially equal to

that in the outlet for said chamber and being of a volume substantially insufficient for the reduction in pressure of gas admitted to said chamber in response to said initial amount of valve displacement to the pressure in said outlet, said diaphragm being of sufficient area to effect additional opening of said valve in response to the pressure of gases admitted to said chamber in response to said initial valve displacement.

2,871,878

FLUID PRESSURE CONTROL SYSTEM

Jack F. Shannon, Euclid, Ohio, assignor to Bailey Meter Company, a corporation of Delaware

Application July 20, 1953, Serial No. 368,890
2 Claims. (Cl. 137—486)



1. A control system for fluid flow, including, a conduit for the fluid flow, a section in the conduit utilizing the properties of the fluid flow and creating a difference in pressure across itself, a valve in the conduit located downstream of the utilizing section of the conduit, a housing mounted on the conduit adjacent the valve, a first chamber in the housing with a movable spring-loaded wall connected to the valve, a second and third chamber in the housing separated by a spring-loaded movable wall, pipe taps conducting each of the differential pressures to each of the second and third chambers, a fourth chamber, a relay valve in the fourth chamber connecting the fourth chamber with the higher of the differential pressures and atmosphere, flexible wall pivots in the third and fourth chambers, linkage through the wall pivots to connect the spring-loaded movable wall between the second and third chambers and the relay valve in the fourth chamber while extending outside the third and fourth chambers, and a pipe between the fourth chamber and the first chamber.

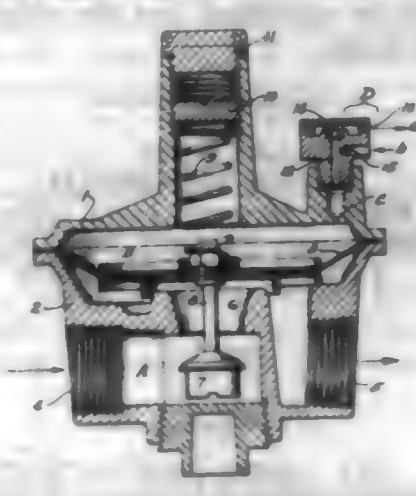
2,871,879

GAS PRESSURE CONTROL MEANS

Edward R. Downe and Ward B. Travers, Elyria, Ohio, assignors, by mesne assignments, to The C. A. Olsen Manufacturing Company, a corporation of Delaware

Application July 7, 1955, Serial No. 520,472
1 Claim. (Cl. 137—513.7)

A vent fitting for upright mounting on a gas pressure regulator at the vent thereof, said fitting having a nipple end, a cavity at its other end, a central longitudinal passageway leading from said nipple end to said cavity, a closure for the mouth of said cavity, a ball check valve arranged within said cavity to seat at the mouth of said passageway, said fitting having a leak limiting orifice arranged laterally of said cavity in communication therewith and with the exterior of the body to permit limited egress of fluid therefrom, and said fitting also having a minute opening arranged laterally of said passageway in communication therewith and with the exterior of the body to permit slight ingress of fluid thereto when said



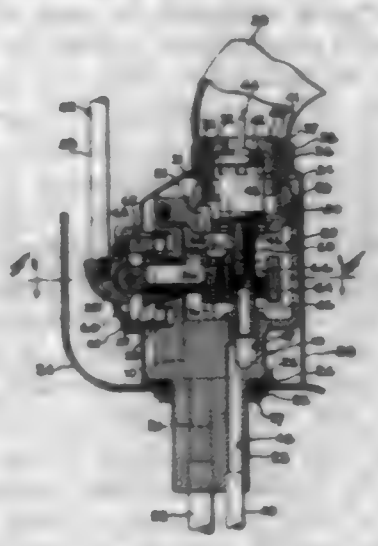
valve is seated, the capacity of said minute opening being substantially less than that of said orifice.

2,871,880

SINGLE CONTROL HANDLE OPERATED MIXING FAUCET HAVING A DIVERTER VALVE ASSOCIATED THEREWITH

Frederick W. Leutheuser, Cincinnati, Ohio, assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware

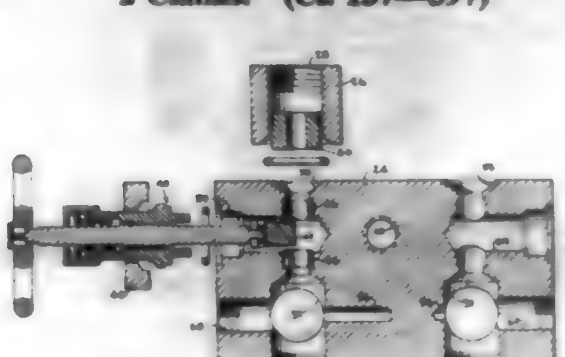
Application July 27, 1953, Serial No. 370,406
7 Claims. (Cl. 137—597)



1. In a single lever mixing faucet having a diverter valve associated therewith a faucet body having a mixing chamber therein, a cap closing the upper end of said mixing chamber, means to mount said diverter valve unit in said cap, a spout rotatably mounted in said cap above said diverter valve unit, a tailpipe depending from the lower end of said diverter valve unit into and through said mixing chamber, said tailpipe constituting an outlet passage of said diverter valve unit, a pair of toggle valves seated within said faucet body adapted respectively to control the flow of hot and cold water into said mixing chamber, each of said valves having a valve stem extending into said chamber, the respective stems being disposed in spaced parallel relation with respect to one another, a shaft slidably mounted in a side of said faucet body and extending into said mixing chamber between the respective valve stems, a valve actuator secured to said shaft, said valve actuator having cam surfaces thereon adapted to contact the respective valve stems to open said valves independently of one another upon the rotation of said shaft, additional cam surfaces upon said valve actuator adapted to selectively contact said valve stems upon longitudinal movement of said shaft, means operatively connecting said cam shaft to said lever to rotate said shaft and to move said shaft longitudinally upon movement of said lever, said valve actuator having an opening therein, said tailpiece trav-

ersing said opening, and the marginal edges of said opening providing abutment surfaces configurated to provide limits for the rotational and the longitudinal movement of said shaft.

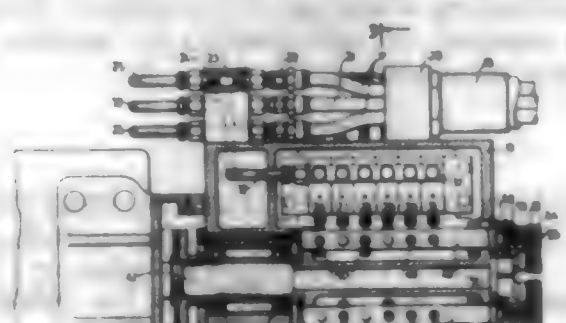
2,871,881
VALVE MANIFOLD
John E. Hewson, Tulsa, Okla.
Application January 28, 1957, Serial No. 636,802
2 Claims. (Cl. 137—597)



1. A manifold valve for use in fluid flow instrument installations, comprising, in combination, a one-piece block manifold body, said body having a pair of like, spaced and parallel passageways therethrough, each of said passageways having an inlet portion and each of said inlet portions having a gate-type valve therein, said valves having removable and replaceable gates and valve seat members removably mounted in each of said passageways, each of said passageways having two outlet portions at right angles to each other with one outlet portion of each passageway in a straightline with said inlet portion thereof, a bypass passageway in said body communicating between said first-named passageways at the points of juncture of said outlet portions, a needle valve in said bypass passageway, each of said first-named passageways having a plurality of drain and vent passageways formed in said body and communicating between points outside said body and said points of juncture of said outlet portions of said passageways and removable plug means to close said drain and vent passageways, each of said outlet portions of said passageways being threaded in an outer portion to receive conduit attachment means, each of said inlet portions of said passageways being formed in an outer portion to receive conduit attachment means, and said manifold valve having means therewith constructed to mount said manifold valve between the pressure differential taps in a fluid flow conduit and a differential pressure transmitter therefor to operatively connect same with conduits connecting said inlet portions of said first-named passageways with said pressure taps and with other conduits connecting said differential pressure transmitter and a pair of said outlets of said first-named passageways.

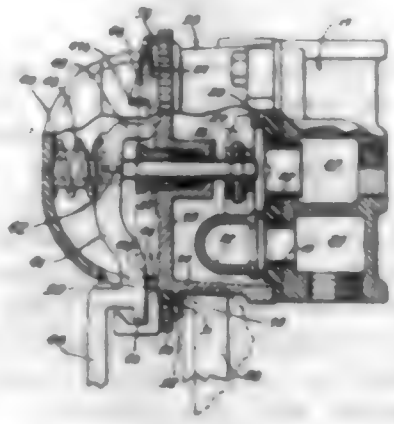
2,871,882
SEQUENTIAL VALVE ACTUATOR
Ivar Eliasson, Stockholm, Sweden, assignor to Lidköpings Mekaniska Verkstads Aktieboiag, Lidkoping, Sweden, a corporation of Sweden
Application May 4, 1954, Serial No. 427,684
Claims priority, application Sweden June 15, 1953
3 Claims. (Cl. 137—622)

1. A multiple control valve assembly for a machine tool comprising, in combination, a rotatable spool-like element having a stem with an annular flange at each end, a plurality of rods mounted between said flanges parallel to said stem, each rod being separately rotatable for circumferential adjustment in said element, means for locking each rod in any of a plurality of selected adjusted positions, a valve unit comprising a plurality of valves each adapted to communicate with a source of air under pressure and with the atmosphere, each valve including a slidable piston having an extension directed toward said spool-like element, said rods being provided with radially-projecting, axially-spaced elements each positioned in radial alignment with the extension of one of said valve



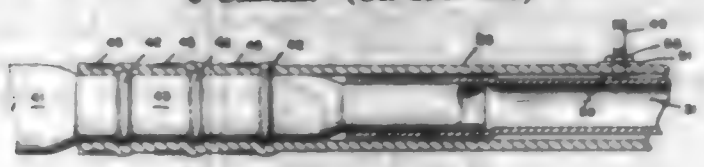
members for selective engagement with said valve members upon rotation of said spool-like element, said projecting elements being adjustable into different positions relative to said extensions.

2,871,883
MOTOR-OPERATED VALVE
Edwin V. Dunlap, Santa Rosa, Calif., assignor to Aqua Matic Inc., Rockford, Ill., a corporation of Illinois
Application November 9, 1954, Serial No. 467,728
6 Claims. (Cl. 137—633)



1. In a multiport valve including a ported stator, a cover attached to said stator forming a fluid chamber therewith and having an annular side wall and a top wall, a rotor disposed in said chamber and cooperable with said stator to control the flow of fluid therethrough, a stem attached to said stator and slidably and rotatably extending through said top wall of said cover centrally thereof, a lever attached to said stem externally of said cover and engageable with said top wall thereof to raise said stem and rotor when the lever is lifted and to turn said rotor when the lever is turned, a ring gear rotatably mounted on said annular side wall concentrically of said stem and having an upstanding annular cam thereon engageable with said lever, means for rotating said gear ring on said cover, an index ring on said top wall of said cover having a plurality of notches therein for receiving the lever at each of the rotative settings of the rotor, and spring means yieldably urging said lever to a lowered position and said rotor into seating engagement with said stator, and means including said upstanding annular cam and said index ring for lifting said lever out of one notch in the index ring and for thereafter turning said lever to the next notch in the index ring to move the rotor to a succeeding position thereof and for releasing the lever whereby said spring means is effective to move the lever to its lowered position in said next notch to thereby seat the rotor on the stator.

2,871,834
PULSE DAMPENING FEED HOSE
Seddon C. Nelson, Fredericksburg, Va., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application September 12, 1955, Serial No. 533,834
6 Claims. (Cl. 138—30)



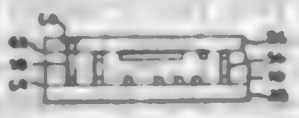
1. A pulse dampening feed hose including first and second stem members serving as a fluid inlet and outlet means respectively, a resilient fluid conducting tube connected at its opposite ends to said first and second stem members and having an imperforate wall, a second tube telescoped over said first tube and connected at its ends to said first and second stem members, said first and second tubes being of such relative size as to provide a space therebetween within which said first tube expands into engagement with the internal wall of said second tube when fluid is introduced therein, and inlet means carried by said second tube adjacent said first stem and opening into said space, said inlet means admitting fluid into said space when said first tube is in an untensioned condition and being closed as said first tube is expanded thereagainst.

2,871,885
EXPANSION JOINTS AND PLATES THEREFOR
Frederick Ray, Montecito, Calif.
Application November 13, 1953, Serial No. 391,847
8 Claims. (Cl. 138—50)



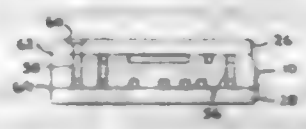
5. An annular flexible plate for an expansion joint, said plate having an annular surface with a continuous series of concentric corrugations of different depths formed in said surface, the depths of said corrugations being at least at the center of the annular surface of the plate and gradually increasing toward the inner and outer edges of said annular surface.

2,871,886
MANIFOLD
John Obrebski and Nagle V. Gusching, Sidney, Ohio, assignors to The Monarch Machine Tool Company, Sidney, Ohio, a corporation of Ohio
Application April 26, 1955, Serial No. 503,862
3 Claims. (Cl. 138—87)



1. In an aluminum manifold having passageways therein defining a plurality of separate fluid conduits, a flat body plate having grooves therein defining the shape of the separate fluid passageways, a flat cover plate closing the grooves to form the separate passageways, aluminum containing brazing alloy between said body plate and said cover plate, said body plate and cover plate co-operating with said brazing alloy to make the passageways fluid pressure tight with respect to each other, said cover plate having holes therethrough to provide communication to said passageways, said body plate having reliefs provided along the edges of the grooves adjacent the juncture between said grooves and said cover plate, said body plate and said cover plate being substantially all aluminum, said aluminum containing brazing alloy also containing silicon, and said reliefs along the juncture between said body plate and said cover plate being filled with said brazing alloy to render said fluid passageways fluid tight.

2,871,887
MANIFOLDING
John Obrebski and Nagle V. Gusching, Sidney, Ohio, assignors to The Monarch Machine Tool Company, Sidney, Ohio, a corporation of Ohio
Application April 26, 1955, Serial No. 504,000
5 Claims. (Cl. 138—87)



1. In an aluminum manifold having separate passageways therein defining a plurality of separate fluid conduits, a body plate having a plurality of separate grooves formed therein defining the shape of the separate fluid passageways, a cover plate causing the grooves to form the separate passageways in fluid tight relation to each other, holes in said cover plate connecting said passageways to the outside of the cover plate for the connection of the fluid passageways to fluid apparatus, said body plate and said cover plate being of an alloy of aluminum having less than 1.65% silicon, a brazing alloy containing aluminum and more than 1.65% silicon between said plates and bonding said plates together, said brazing alloy forming fillets along the juncture between said body plate and cover plate to render said fluid passageways fluid tight, said plates being substantially planar after brazing.

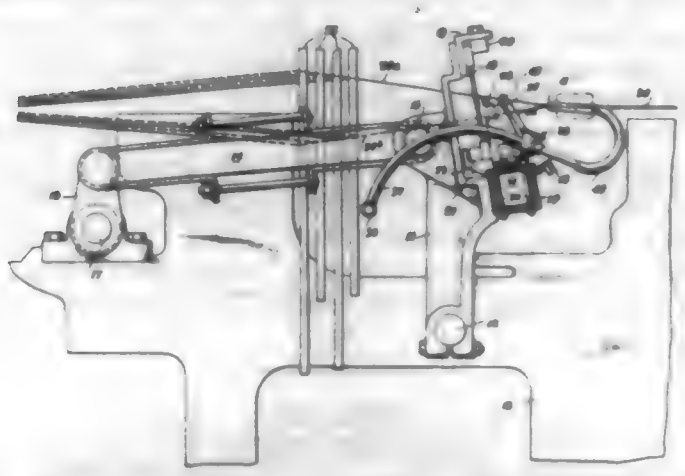
2. The method of manufacturing an aluminum manifold plate containing fluid passageways comprising the steps of: forming grooves in a body plate, providing a cover plate to cover the grooves to create fluid passageways, assembling the plates in sandwich form, annealing the sandwich in sandwich form in such a manner as to render it substantially flat and stress free, etching the plates to remove surface aluminum oxide, fluxing the surfaces to be brazed, providing a brazing alloy which melts at a lower temperature than body and cover plates, and brazing the plates in sandwich form at an elevated temperature.

2,871,888
METHOD AND MEANS FOR FORMING SELVAGE
John R. McDowell, Knoxville, Tenn., assignor to George W. Dunham, Wilton, Conn.
Application June 15, 1956, Serial No. 591,637
6 Claims. (Cl. 139—127)

1. In a loom having a lay and heddles for manipulating warps for weaving a fabric, in combination, a lay, means for inserting into an open shed the end of a weft extending from an edge of said fabric, and separate and distinct means for pulling the terminal portion of said inserted end through adjacent warps located a selvage-width distance from said edge of the fabric.

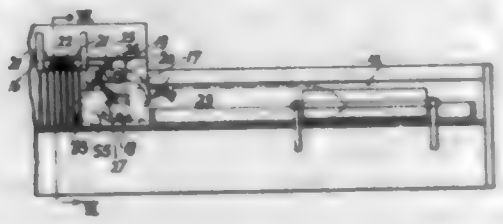
5. In a method for forming a selvage edge for a woven fabric, the steps comprising turning into an open shed an end of a weft disposed to the outer side of a marginal warp entering a fabric, closing the shed on the turned-in end of the weft, drawing the terminal portion of said

turned-in end through adjacent warps located at selvage-width distance from said marginal warp, and binding in



and beating up the portion of said turned-in end remaining in said fabric.

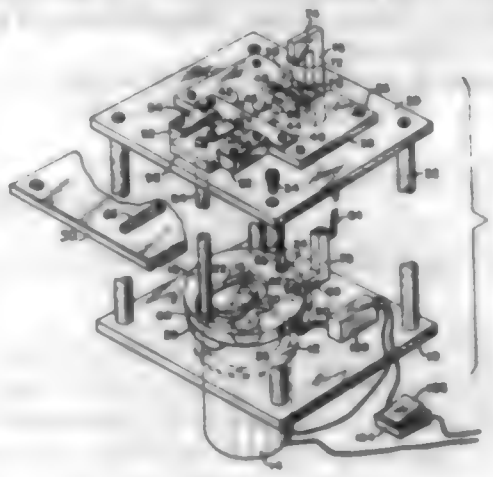
2,871,889
METHOD AND MEANS FOR THE AUTOMATIC EXCHANGE OF WEFT COPS ON LOOMS
Johann Clemens Schlösser, Bremen, Germany, assignor, by mesne assignments, to The De Laval Separator Company, Poughkeepsie, N. Y., a corporation of New Jersey
Application January 4, 1956, Serial No. 557,360
Claims priority, application Germany January 15, 1955
24 Claims. (Cl. 139—241)



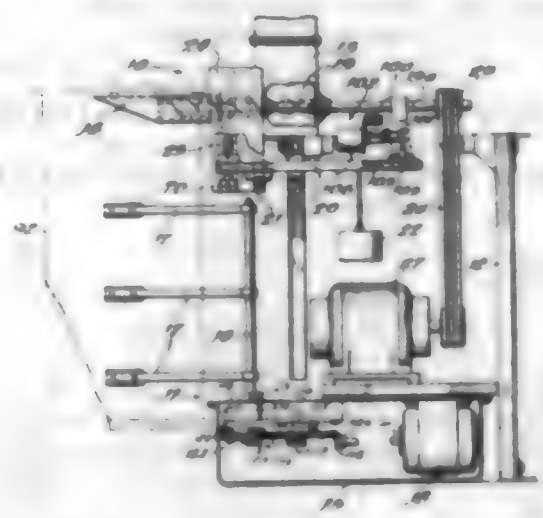
1. In an automatic weft cop exchanging device for use with looms having at least one shuttle for reciprocatory movement across said loom, a weft cop chamber in said shuttle for housing a weft cop therein to be consumed up to a determined weft cop rest which is to be ejected, and an opening in said shuttle for the passage of a weft thread from said cop to the edge of the goods on the loom; the improvement comprising ejector means for ejecting said weft cop rest from said shuttle, said means being adapted to penetrate into the interior of said chamber during the reciprocatory movement of said shuttle each time said weft cop is consumed up to said determined rest.

2,871,890
HAIR PIN HEATER, FORMER AND CUTTER
Frank H. Grimone, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application April 5, 1957, Serial No. 651,023
3 Claims. (Cl. 140—71)

1. A wire bending and cutting machine comprising a table top, an elongated mandrel on said top, a bending tool movable on an axis parallel to the elongation of the mandrel and having portions straddling the mandrel in one position of the tool, a pair of cooperating cutter blades positioned beyond the mandrel, a reciprocatable member supporting one of the blades, a wire lifting rod reciprocatable through the table and normally having its upper end flush with the table top and beneath the bent ends of the wire, rotatable cam mechanism and motor means to rotate the same, means limiting the rotation of the cam mechanism to one cycle of operation, and means connecting the cam mechanism with the bending tool, the reciprocatable blade supporting member and the wire lifting rod to reciprocate all three.



2,871,891
CONTROL FOR BAG FILLING MACHINE
Erwin M. Lau, Dolton, Ill., assignor to Black Products Co., Chicago, Ill., a corporation of Illinois
Application May 28, 1954, Serial No. 433,894
11 Claims. (Cl. 141—10)

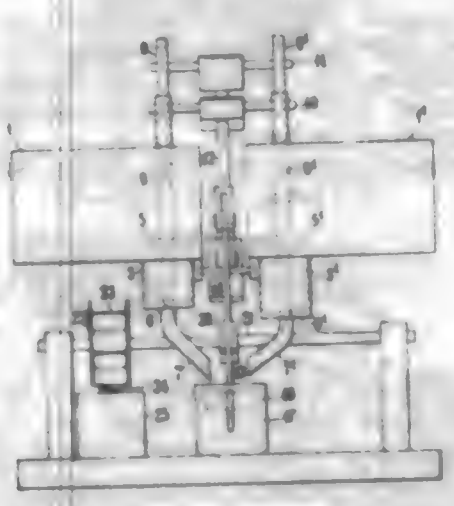


1. The method of controlling the operation of a bag filling machine of the automatic cut-off type having a hopper, a weight responsive bag supporting spout and an auger extending from said hopper into said spout, said method comprising the steps of causing said auger to be rotated in the forward direction to feed material from said hopper through said spout and into the bag, slapping the side of the bag during the feeding operation to settle the material in the bag, discontinuing the slapping operation while the feeding operation continues, discontinuing the feeding operation when a predetermined weight has been reached, which should be prior to the time that the material in the bag backs up into contact with said auger, causing said auger to be rotated in the reverse direction immediately upon the discontinuance of said filling operation, and discontinuing the reverse rotation of said auger prior to the time that all of the material disposed in said spout is backed up into said hopper.

2,871,892
APPARATUS FOR DISPENSING BEVERAGES
Jonas Geoffrey Jessel, London, England
Application May 1, 1956, Serial No. 581,977
Claims priority, application Great Britain May 4, 1955
2 Claims. (Cl. 141—100)

1. Apparatus for dispensing beverages comprising two measuring chambers having inlet valves communicating with reservoirs for the liquids to be dispensed and outlet valves communicating with delivery devices for discharging the measured quantities of liquids, said valves being

attached to slidably mounted valve rods which are operatively connected to the opposite ends of a pivotally mounted lever member which is operable by the placing of a receptacle under the delivery device, the swinging movement of said lever member being adapted to effect the movement of said valve rods in opposite directions so as to close the valves communicating with the reservoirs and open the valves communicating with the delivery devices and thus effect the discharge of the contents of said measuring chambers, said lever member



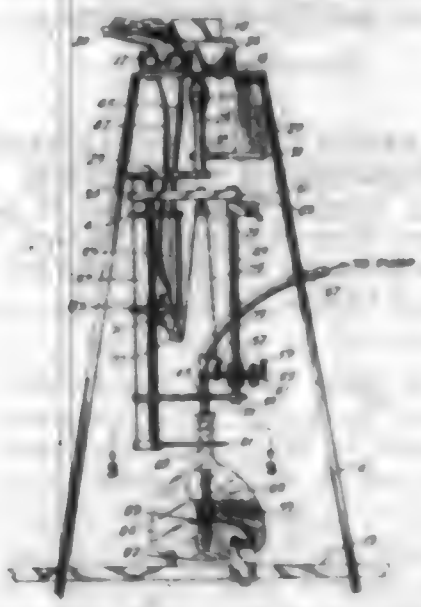
comprising a T-shaped lever, the stem of which serves as an actuating member and the cross bar of which is connected by two pivoted links to a pair of cross shafts slidably arranged in slots in said valve rods and so positioned as to prevent the cross shaft controlling the outlet valve from reaching the end of its slot until the cross shaft controlling the inlet valve is moved sufficiently to allow said inlet valve to close whereby said outlet valves are prevented from opening until said inlet valves have been closed.

2,871,893

SIPHONING APPARATUS

Earl F. Waltz, Union Springs, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application April 15, 1955, Serial No. 501,622
6 Claims. (Cl. 141—121)



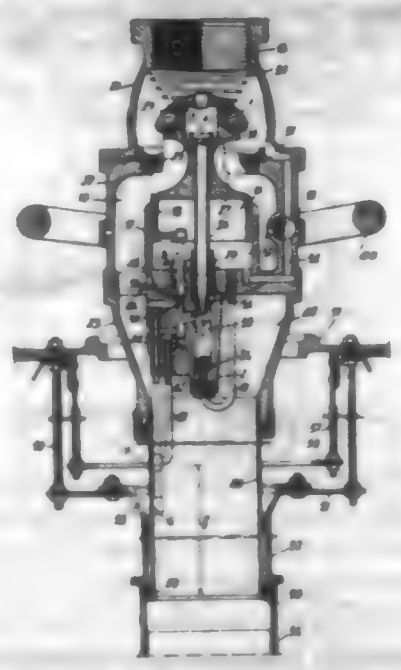
6. A machine for inserting a hollow conduit into an open-ended receptacle comprising support means having a rotatable assembly mounted thereon, said assembly including a conduit mounted for reciprocating motion between a rest position and a treating position, and means providing the reciprocating motion for said conduit comprising weighted means for moving said conduit to the treating position, actuating means for moving said conduit to the rest position, and an adjustable tortuous path coupling connecting the weighted means with said actuating means.

2,871,894

FILLING APPARATUS WITH AN AUTOMATIC STOP

Louis Auguste Carriol, Aulnay-sous-Bois, France, assignor to S. A. T. A. M., Societe Anonyme pour Tous Appareillages Mecaniques, Leclerc a la Courneuve, France, a French company

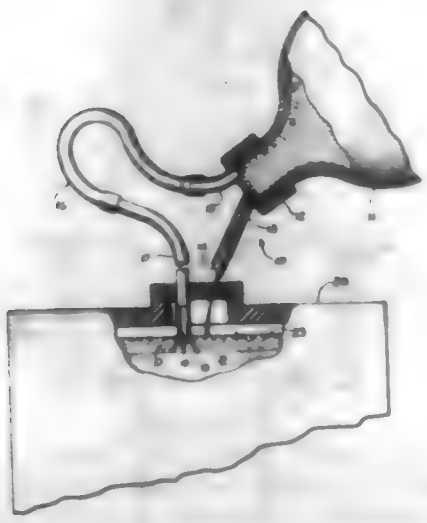
Application January 12, 1955, Serial No. 481,446
Claims priority, application France January 18, 1954
9 Claims. (Cl. 141—209)



1. A filling device for controlling the flow of a liquid into a receptacle or the like in such a manner that the liquid flows into the receptacle at a normal delivery rate until it reaches a slow-down level and thereafter continues to flow into the receptacle at a slower final delivery rate until it reaches a final level higher than said slow-down level, comprising, in combination, a hollow valve body having inlet and outlet means and a valve seat therebetween; a valve member arranged in said valve body for movement relative to said valve seat between a closed position wherein said valve member engages said valve seat so as to prevent the flow of liquid through said valve body, an intermediate position wherein said valve member is spaced a first distance from said valve seat so as to permit liquid to flow through said valve body at a final delivery rate, and an open position wherein said valve member is spaced a second distance greater than said first distance from said valve seat so as to permit liquid to flow through said valve body at a normal delivery rate greater than said final delivery rate, said valve member being constantly urged into its closed position; and operating means for maintaining said valve member in its open position during the flow of liquid into the receptacle until the liquid has attained said slow-down level, for thereupon moving said valve member into and maintaining the same in its intermediate position during the continued flow of liquid into the receptacle until the liquid has attained said final level, and for thereupon moving said valve member into and maintaining the same in its closed position, said operating means including fluid pressure operable means for holding said valve member exterior of its closed position against the action of the force constantly urging said valve member thereinto, a pressure fluid conduit having an open end and having its other end in communication with said fluid pressure operable means, a nozzle member facing said open end of said pressure fluid conduit and communicating with the interior of said valve body at least when said valve member is exterior of its closed position, first conduit means opening at one end thereof within the receptacle at said slow-down level, second conduit means opening at one end thereof within the receptacle at said final level, and valve means for placing the other end of said first conduit means, when said valve member is in its open

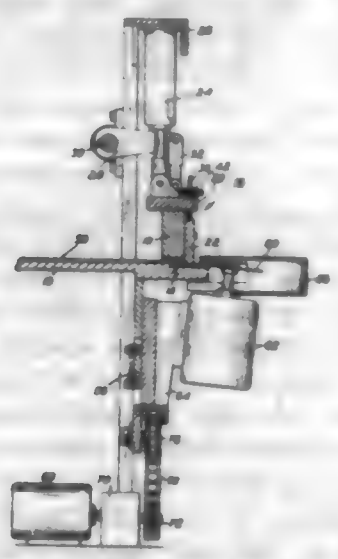
position, in communication with the region intermediate said nozzle member and said open end of said pressure fluid conduit and for placing the other end of said second conduit means, when said valve member is in its intermediate position, in communication with said region.

2,871,895
LIQUID FILLING DEVICE
Zdenek J. Rektorys, Chicago, Ill.
Application May 24, 1956, Serial No. 587,033
4 Claims. (Cl. 141—290)



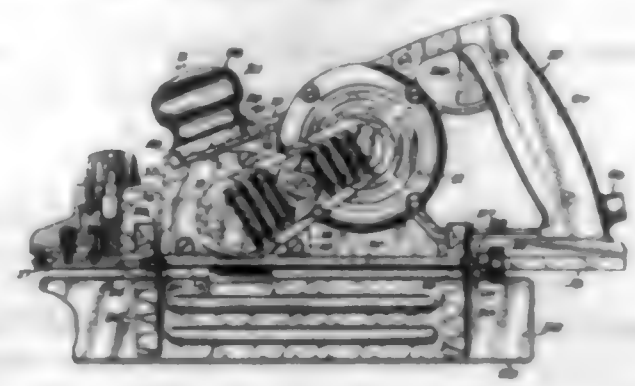
1. A filling device comprising a closure adapted to seal a portable vessel, a rigid pouring spout in said closure permitting liquid to be poured therethrough upon tilting of the vessel, means defining an air access opening in said closure, a flexible tube extending from said opening and terminating in a rigid nozzle having a breather port at the end thereof, said flexible tube and said spout being independent and unconnected with the tube being substantially longer than the spout, and means on said nozzle for engaging a submergible body to support said port at a predetermined level above the point of engagement, so that entry of air through said port incident to pouring liquid from said spout is cut off by the liquid rising to said predetermined level said rigid nozzle being elongated for providing a convenient gripping portion permitting the nozzle to be easily positioned with said means engaging said body.

2,871,896
VENEER SCARFING MACHINE
Harry D. Markwell, Aberdeen, Wash., assignor to Harbor Plywood Corporation, Aberdeen, Wash., a corporation of Delaware
Application February 18, 1957, Serial No. 640,968
5 Claims. (Cl. 144—309)



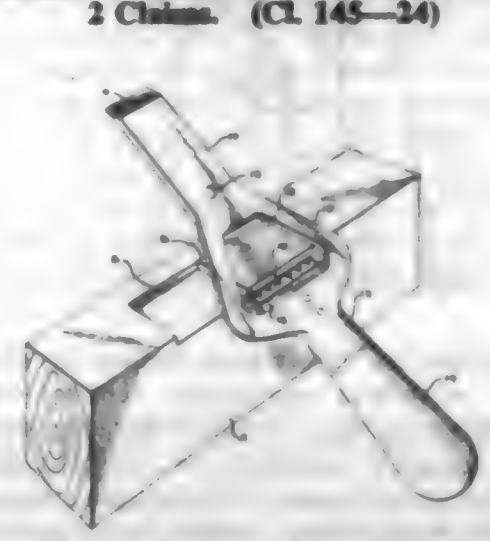
2. A machine for firmly clamping the edge portion of a normally flat, resilient sheet to enable work to be performed upon said edge portion, said machine comprising a horizontal table, a work bed at one end of said table spaced below and substantially parallel to the plane of the table, a clamping head including a body member mounted above said work bed, means for raising and lowering said body member between predetermined positions, said clamping head including a clamping plate for engaging the intermediate part of the portion of a sheet positioned over said work bed, and means adjustably securing said clamping plate to said body member.

2,871,897
POWER PLANE
Arno Heuse, Ernest William Hedeen, Jr., and John B. Sola, Chicago, Ill., assignors, by mesne assignments, to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware
Application October 28, 1955, Serial No. 543,414
1 Claim. (Cl. 145—4)



A latch and antirattle structure for securing a chip deflector to a power plane comprising a housing member provided with parallel rails, grooves undercut below said parallel rails forming a slideway, said member having cavities in registration with the grooves, said cavities having one end wall extending parallel with the grooves and side walls tapering to a narrow opening communicating with the grooves, said deflector slidable in said slideway and having narrow flanges extending into said grooves, said flanges having notches therein, springs bent into a V shape seated in said cavities against said end wall with an apex portion extending through the openings into the grooves and bearing against the deflector, for engagement in the notches provided in the flanges of said deflector to resiliently secure and locate said member and said deflector with respect to each other.

2,871,898
COMBINATION CHISEL STRUCTURE FOR MORTISING WOODWORK
Bryan Jones, Victoria, Tex., assignor of one-half to Lawrence Elmer Bergstrom, Victoria, Tex.
Application February 24, 1956, Serial No. 567,624
2 Claims. (Cl. 145—24)



1. A mortising tool comprising a handle, an open enlarged frame projecting from one end of the handle, a mortising blade secured to the frame and projecting under the open part of the frame and a chisel shank projecting from the frame in substantial alignment with

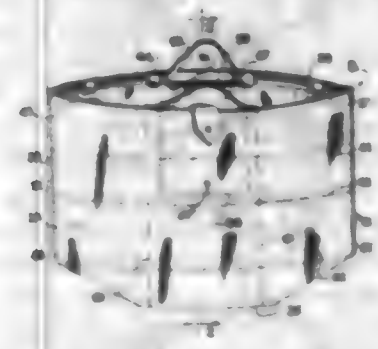
the handle and also serving as a handle when the device is used to remove material through the action of the mortising blade, said frame being sufficiently large and formed with an opening having walls in the vicinity of the blade spaced from each other a distance greater than the width of the blade, to permit the passage therethrough of a mortised slab, as it is being cut.

2,871,899
TOOL HANDLES
John H. Coyle, Fairfield, Archibald Wilson, Trumbull, and Julius L. Vargovcsik, Fairfield, Conn., assignors to The Bridgeport Hardware Manufacturing Corporation, a corporation of Connecticut
Application April 16, 1958, Serial No. 728,999
2 Claims. (Cl. 145—61)



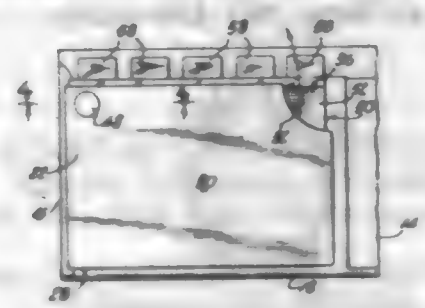
1. In a tool of the type that is manually subjected to a torque in the manner of using an ordinary screw driver, a tool shank; a base having its one end fixed to said shank and made from a material of sufficient rigidity to prevent relative movement between the shank and base when said tool is subjected to a torque for which it is designed; a sleeve of material surrounding said base and extending along said base substantially throughout its entire length and to a point adjacent, but exposing a substantial portion of the end of said base opposite that to which said shank is fixed, said sleeve having a resiliency between substantially 40 and 90 units on the "Shore A" durometer; and intermeshing connecting means between said sleeve and base.

2,871,900
FOLDABLE SHOPPING BAG
Grace Auditore, Bronx, N. Y.
Application March 28, 1957, Serial No. 649,237
1 Claim. (Cl. 150—1.7)



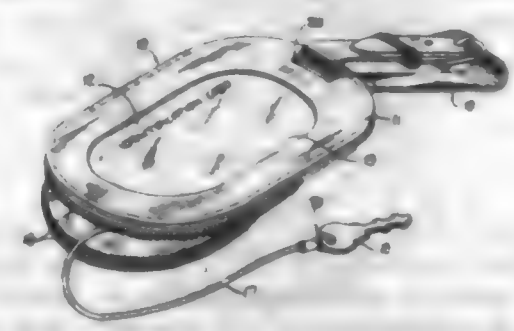
A foldable bag, comprising a single substantially rectangular piece of fabric having its sides stitched together to form a compartment with an open top and opposed generally rectangular sides, said piece having two pairs of notches joined together to form an inwardly extending expandable gusset at the bottom of the compartment, a plurality of fabric loops disposed in spaced positions inside the compartment at the top thereof, a pair of draw straps extending loosely through said loops and secured at opposite ends to margins of said rectangular sides, a tab carrying a fastener element secured to one of the rectangular sides at the top thereof, another fastener element disposed centrally on the exterior of said one rectangular side, the two fastener elements being mating members arranged to be engaged when the bag is folded into a compact flat rectangular form, said straps being adapted to serve as handles for the bag when withdrawn outwardly therefrom, a pair of rectangular pockets secured respectively to inner portions of said opposed sides, each of said pockets having a slide fastener closure, said pockets being wholly disposed within said compartment, each of said straps having a pair of spaced buttonholes, and a pair of buttons secured to each of said sides adjacent the ends of the slide fasteners, the spacing of said buttonholes being greater than the spacing of said buttons on each side of the bag.

2,871,901
WALLET AND REMOVABLE PASS CASE THEREFOR
Daniel Julius Nash, Jersey City, N. J., assignor to Nash Inc., Jersey City, N. J., a corporation of New Jersey
Application May 16, 1957, Serial No. 659,585
3 Claims. (Cl. 150—39)



1. In a wallet comprising a pair of superimposed main inner and outer panels secured to each other along a plurality of contiguous edges to define a principal pocket, means including a supplementary panel carried by one of said main panels and forming an auxiliary pocket including an inner wall and an outer wall defined by said auxiliary panel and open along a longitudinal and transverse edge thereof and closed along the opposite longitudinal and transverse edges, a pass case comprising a panel folded along a transverse line to define a cover having a front wall and a rear wall, a plurality of superimposed rectangular open-ended envelopes sandwiched between said cover front wall and rear wall, a pivot member rotatably engaging and securing said superimposed envelopes and one of said cover walls adjacent to coinciding corners thereof, a first snap fastener element mounted on said pivot member and a second snap fastener member complementary to said first snap fastener member mounted on a wall of said auxiliary pocket adjacent the intersection of an open and closed edge thereof and releasably engaging said first snap fastener member.

2,871,902
COMBINATION LUGGAGE TAG AND KEY HOLDER
Helen K. Well, Cleveland Heights, Ohio
Application January 4, 1957, Serial No. 632,593
1 Claim. (Cl. 150—40)



A luggage identification tag comprising, a substantially rectangular sheet material case having side, top, and bottom walls and a central wall therebetween, defining an upper, identification card-holding compartment, and a lower, key-holding compartment, the access openings to said compartments being positioned at diametrically opposite ends of the case, the top and central walls of the case having aligned slots therethrough at the opening of the upper compartment, a luggage strap detachably mounted through the said slots and across said opening and retaining the identification card in said upper compartment, a "zipper" mounted between the central and

bottom walls of the case across the opening of the lower compartment, and an extensible and contractable cord anchored in the bottom compartment having key retaining means at its free end, said cord and retained key being extensible through the "zippered" opening when the "zipper" is in its open condition, and nested within the lower compartment when the "zippered" opening is closed.

2,871,903
TRACTION GRIP DEVICE FOR MOTOR VEHICLE TIRES
Leon C. Minatilla, Brooklyn, N. Y.
Application June 6, 1956, Serial No. 589,817
1 Claim. (Cl. 152—226)



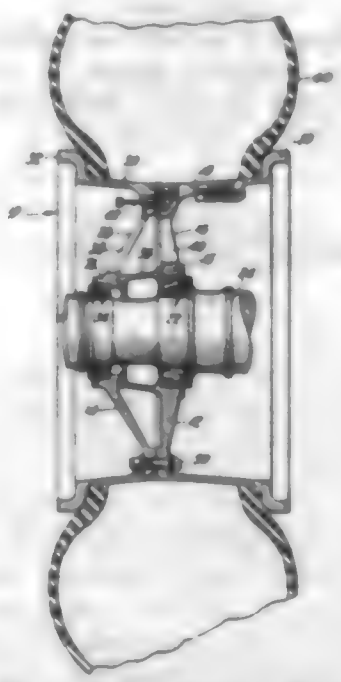
A traction grip device for a motor vehicle wheel with a pneumatic tire mounted on a demountable rim comprising unitary layers of spring steel of U-shape and of varying lengths, the layers being nested in one another with the innermost layer being longer than the other layers and the other layers being progressively shorter, said grip device adapted to conform to the shape of the tire and the ends thereof being separable to permit the extension of the grip device over the tire and over the peripheral lips of the tire rim for locking engagement therewith, a wear plate assembled upon the layers over the tread engaging portion of the device, means for securing the layers and the wear plate together against displacement from each other, and anti-friction rollers journalled on the ends of the innermost layer and adapted to ride over the peripheral lips of the tire rim and lock thereunder upon the traction device being assembled upon the tire and rim.

2,871,904
SAFETY PNEUMATIC TIRE
Harry R. Greenlee, Detroit, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application December 5, 1956, Serial No. 626,501
1 Claim. (Cl. 152—341)



A pneumatic tire adapted for mounting upon the rim of a wheel having an inflation valve, said tire comprising an outer annular casing adapted to cooperate with the wheel rim to define an annular chamber, said tire further including means forming a partition subdividing said chamber into inner and outer annular air receiving compartments, first and second valves providing restricted communication between said compartments, said inflation valve extending through said rim and into communication with said inner compartment to accommodate the admission of air into said inner compartment, said first valve comprising a one-way pressure valve adapted to accommodate the escape of air from said inner compartment to said outer compartment whenever the pressure in said inner compartment exceeds the pressure in said outer compartment by a predetermined amount, said second valve comprising a check valve adapted to accommodate the escape of air from said outer compartment to said inner compartment whenever the air pressure in said outer compartment exceeds the air pressure in said inner compartment whereby inflation of both compartments of the tire may be accomplished by inserting air under pressure through said inflation valve and inflating said inner compartment so that sufficient air escapes through said first valve to inflate said outer compartment to a desired pressure and deflation of said inner compartment through said inflation valve will also effect a deflation of said outer compartment when the pressure in said inner compartment is less than the pressure in said outer compartment, each of said first and second valves having an inlet and an outlet with the inlet thereof located relative to said tire radially outwardly of the associated outlet, each of said first and second valves further being provided with means defining a valve seat, a closure element mounted for movement in a direction toward the related valve inlet for engagement with said seat to effect valve closure and spring means urging said closure element toward its associated valve seat, said first valve having its inlet in constant fluid flow communication with said inner compartment and said second valve having its inlet in constant fluid flow communication with said outer compartment.

2,871,905
TIRE INFLATING VALVE FOR AIRCRAFT WHEEL
George E. Stanton, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application February 18, 1957, Serial No. 640,684
8 Claims. (Cl. 152—404)



1. An aircraft wheel adapted for use with both a tube and a tubeless type tire, comprising a first wheel half with a rim portion, said rim portion having a radial opening terminating at the rim surface to provide an inflation port for the tire, and a laterally formed opening which terminates at the wheel disk and intersects said radial opening, a second wheel half which is coupled to said first wheel half, said second wheel half having an opening mating with the adjacent intersecting opening of the first wheel half and of smaller size relatively thereto to provide a retaining shoulder, a valve assembly having a valve stem received in said openings, said stem being constructed with an internal passage for conductance of air therethrough, a one-way valve in said stem normally permitting passage of air in a tire-inflating direction only, an enlarged boss on said stem received in

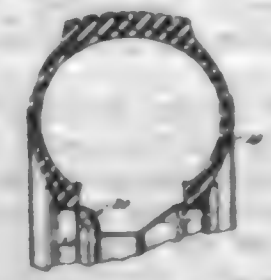
the laterally extending opening of the first wheel half and having a surrounding sealing means which prevents leakage of air across said boss, an integral mounting projection which extends across the radial opening in the first wheel half, a locking member located in said radial opening and contacting with the sides of the radial opening to prevent rocking movement of said locking member, the sides of said locking member having flats which provide sufficient gap to allow air to move across said locking member and into a tire received on the rim of said wheel, and an annular sealing means which is positioned between lapped segments of the rim portions of said wheel halves.

2,871,906
WHEEL AND TIRE CONSTRUCTION
Joseph N. Courcheone, Flint, Mich.
Application June 9, 1955, Serial No. 514,211
2 Claims. (Cl. 152—418)



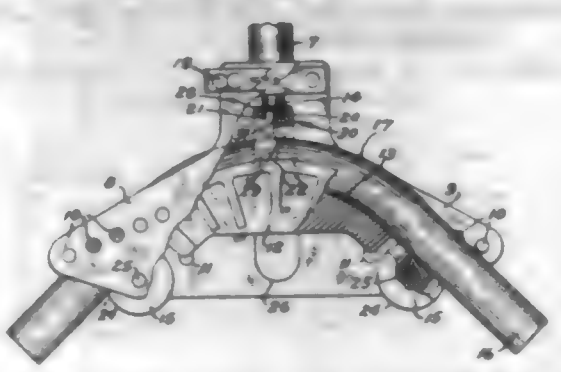
1. A pneumatic vehicle tire and disk wheel construction comprising a wheel having a plurality of studs projecting from the disk thereof, a tire mounted on the rim of said wheel, a gasket engaged against and covering said disk and through which said studs pass, a hub cap having apertures therein receiving said studs with the peripheral edge of the hub cap engaged against the gasket, means clamping said edge of the hub cap to the gasket in air-tight relationship to form an air chamber, a valve in said hub cap for filling said air chamber, said disk and said rim having apertures therethrough, a tube extending through said apertures between said air chamber and said tire intercommunicating said air chamber with said tire, said wheel being mounted on an axle having a bore therethrough opening into said air chamber, a casing about said axle, a groove in said axle, a passageway connecting said bore and said groove, and means connecting said groove with an air reservoir.

2,871,907
VALVE STRUCTURE
Alan G. Loofboerrow, Bloomfield Hills, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application November 26, 1954, Serial No. 471,301
1 Claim. (Cl. 152—427)



A vehicle wheel structure comprising a rim having first, second and third circumferentially aligned openings, a tubeless tire carried by said rim, and valve means formed of yieldable material having a flat strip-like body portion lying against said rim over said openings and having oppositely disposed integrally connected button means extending through said first and third openings to thereby secure said body portion to said rim member and to close said second opening to prevent the escapement of air from within said tire, said valve means being in direct communication with the inside of said tire so that air pressure within said tire will urge said body portion flatly against said rim to thereby seal said openings, said second opening being in direct communication with the exterior of said wheel structure to facilitate the addition of air under pressure into said wheel structure.

2,871,908
ART OF BENDING AND EJECTING BENT PIPES
Clarence L. Fleaate, Milwaukee, Wis., assignor to Blackhawk Mfg. Co., West Allis, Wis., a corporation of Wisconsin
Application November 30, 1956, Serial No. 625,289
3 Claims. (Cl. 153—38)



1. Apparatus for bending a pipe about a grooved shoe in which it has a tendency to stick and for thereafter releasing the pipe from within the groove, comprising, a frame, motor means mounted on said frame, a ram reciprocable by said motor means, power means to move said ram in one direction only, reaction blocks equally spaced on each side of said ram and mounted on said frame, a removable shoe having a face curved in longitudinal and transverse planes and adapted to bend a cylindrical workpiece supported on said reaction blocks, said transverse curvature of said shoe having approximately the same radius as the workpiece whereby said shoe has a tendency to adhere to said workpiece upon completion of the bending thereof, means on said shoe to receive one end of said ram, said shoe with said bent workpiece stock therein being reversible with respect to said reaction blocks and said ram, and ejector means engageable between said ram and the longitudinally curved edges of said shoe to force said shoe off of said workpiece upon movement of said shoe in said one direction.

2,871,909
UNIVERSAL AND ADJUSTABLE MOUNTING FOR A CLAMP DIE IN A TUBE BENDING MACHINE
Byron F. Bower, Aurora, Ill., assignor to Pines Engineering Co., Inc., Aurora, Ill., a corporation of Illinois
Application August 4, 1952, Serial No. 302,495
7 Claims. (Cl. 153—46)



1. In a tube bending machine having a swingable bending form, a self-adjusting clamp die mechanism toward which said bending form is swingable to grip therebetween a tubing to be bent, comprising a clamp die having a

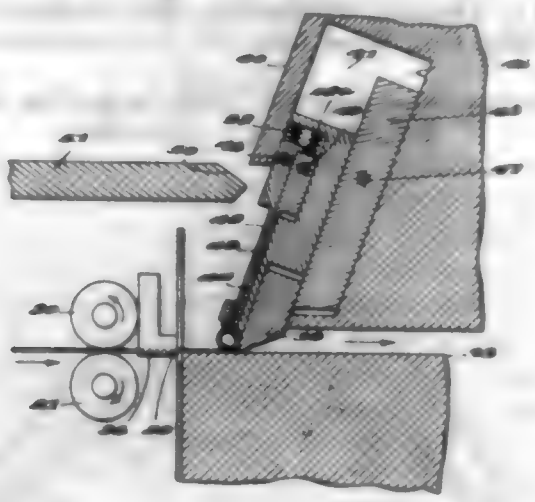
tube receiving groove in one face thereof and another groove in the face opposite said one face, said grooves being substantially at right angles to each other, a clamp die support having a socket in a face thereof, a pivot pin having a half round body terminating in a full round head, a boss on the flat face of said half round body to seat in said socket and located to position the round head beyond an adjacent surface of the clamp die support, a stud within and extending through the half round body to connect said pivot pin on the clamp die support, and a plate having an opening for receiving the round head of the pivot.

2,871,910

MACHINE FOR WINDING SPIRAL SPRINGS

Willem Johan Bernard Jansen, Paris, France

Application April 24, 1956, Serial No. 580,228
7 Claims. (Cl. 153—64)



1. In an apparatus for coiling spiral springs from a strip of spring material of rectangular cross-section including shaping means for bending the strip reversely to the direction of strip feed to form the strip into circulinear form of progressively larger diameter and means for feeding said strip against said shaping means, said shaping means including a series of successively arranged shaping abutments having flat frictional surfaces inclined with respect to each other, so that the frictional resistance of the surfaces causes the strip limit of elasticity to be surpassed resulting in permanent deformation of said strip to curvilinear form, a plurality of said abutments being automatically movable with relation to the others of said series and in synchronism with the strip feed to increase the radius of curvature of the bent strip as the coiling operation proceeds; the invention comprising means for progressively increasing the width of the flat frictional surface of one of the movable shaping abutments as the diameter of the spiral spring increases, said one of the shaping abutments comprising a plurality of parallel auxiliary shaping jaws slidably movable along their longitudinal axes relative to each other and having coil shaping surfaces which are coplanar when said jaws are in longitudinal alignment.

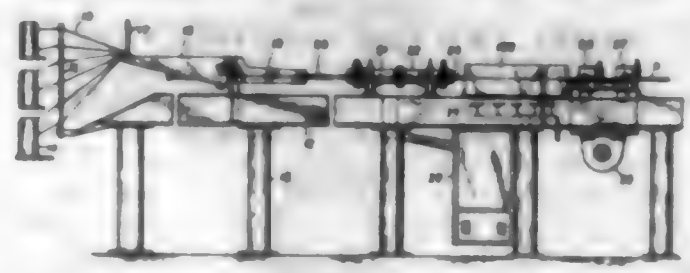
2,871,911

APPARATUS FOR PRODUCING ELONGATED ARTICLES FROM FIBER-REINFORCED PLASTIC MATERIAL

William Brandt Goldsworthy and Fred Landgraf, Los Angeles, Calif., assignors, by mesne assignments, to Glastrusions, Inc.

Application January 13, 1953, Serial No. 330,962
4 Claims. (Cl. 154—1.7)

1. Apparatus for continuously producing an elongated article from a plurality of individual glass fiber strands and an unpolymerized liquid plastic material, comprising: a plurality of substantially parallel upstanding means to guide strands from bundles and for maintaining them separated, coating means for covering the bundles of strands with said unpolymerized liquid plastic material; a compressing die having an entrance side adjacent said coating means for receiving said coated strands and an exit side remote from said coating means, said compressing die having a channel therein corresponding in shape to the cross section of the finished article and of progressively decreasing cross-sectional area, a first portion thereof being of a greater cross-sectional area than said article whereby any occluded gases in the unpolymerized plastic will be squeezed therefrom within said compressing die and said unpolymerized liquid plastic material will be forced into said strands; a shaping die having an entrance side adjacent the exit side of said compressing die for receiving said coated strands and an exit side remote from said compressing die, said shaping



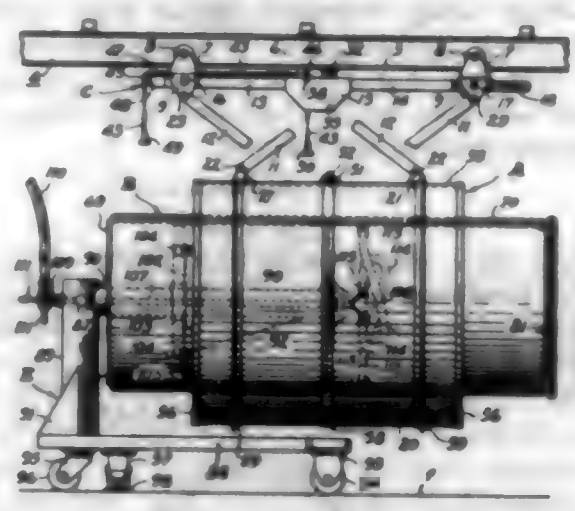
die having a cross section substantially corresponding in shape and size to the desired cross section of the finished article, and said shaping die being formed of electrically insulating material; dielectric heating means for substantially completely curing the unpolymerized liquid plastic material while the strands with which it is coated are passing through said shaping die; and pulling means adjacent the exit side of said shaping die for engaging the finished article and moving it away from the exit side of said shaping die while maintaining the portion of each of said strands between the entrance side of said compressing die and the exit side of said shaping die in substantial alignment and under substantially equal tension, with said coating means, compressing die, shaping die and pulling means being in substantial longitudinal alignment.

2,871,912

METHOD AND APPARATUS FOR APPLYING PREFORMED BANDS TO A TIRE BUILDING MACHINE

Herman T. Kraft, Akron, Ohio, assignor to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio

Application March 26, 1956, Serial No. 573,858
11 Claims. (Cl. 154—9)



1. A method of applying bands of elastic material to a tire-building drum which comprises forming an endless band of said material, expanding said band against the interior of a hollow cylinder of a circumference greater than that of the band and greater than that of said drum and causing said band to press radially outwardly against the interior of said cylinder throughout its length and circumference to exclude air from between said band and

said cylinder, holding said cylinder against rotation and excluding air from between said band and said cylinder to maintain an air pressure differential between the radially inner and outer surfaces of said band sufficient to hold the band in an expanded position against the interior surface of said cylinder while positioning the cylinder and the expanded band in a stationary position over said tire-building drum, and thereafter admitting air between the band and the cylinder to cause the band to contract upon the tire-building drum.

4. Apparatus for placing a preformed band of elastic material on a tire-building drum comprising an inflatable bag of generally cylindrical shape spaced from said drum, a rigid hollow transfer cylinder having a diameter greater than that of said bag and said drum and an axial length less than that of said band, means mounting said cylinder for movement between a receiving position surrounding said bag and a discharge position surrounding said drum and for holding said cylinder against rotation, means for inflating said bag to apply pressure uniformly to the interior of said band to expand the band against the interior surface of said cylinder and for removing substantially all of the air from between said band and said interior surface, and means carried by said cylinder for excluding air from between said band and said interior surface to maintain an air pressure differential between the radially inner and outer surfaces of said band sufficient to hold the band in its expanded position against said interior surface as the cylinder is placed around said drum, whereby the expanded band may be moved with the cylinder over the drum and then released from the cylinder by admitting air between said band and said interior surface.

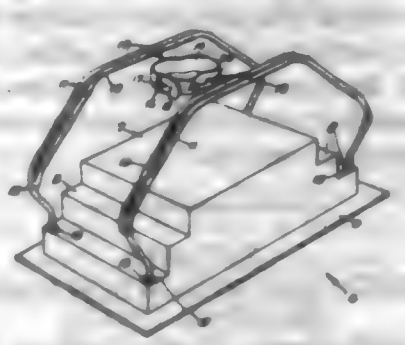
2,871,913
CONTROL FOR AUTOMOBILE SEAT
Arthur I. Appleton, Northbrook, Ill.
Application July 10, 1957, Serial No. 670,895
3 Claims. (Cl. 155—15)



1. An automobile seat mountable for fore-and-aft movement on an underlying support and comprising, in combination, first and second seat sections together defining the seat, means for manually positioning one of said seat sections relative to the support, a reversible electric motor drive means for displacing the other of said seat sections in a fore-and-aft direction relative to said one seat section and to the support, means on said manually adjustable seat section for determining limits of fore-and-aft movement of said other seat section relative thereto and control switches mounted on the seat for governing the action of said reversible electric motor drive means and hence the position of said other seat section relative to said one seat section within the limits defined by said limit determining means.

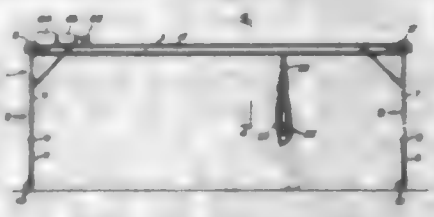
2,871,914
BABY STAIR TRAINER
Robert E. Timoney, Long Island City, N. Y.
Application July 8, 1957, Serial No. 670,449
3 Claims. (Cl. 155—22)

1. A baby stair trainer cooperable for teaching babies to climb and descend a series of stairs safely, comprising: a portable elongated walkway including a plurality of stairs joined to the ends thereof; a duplex of spaced elevated rail means attached adjacent the ends of said walkway and extending therebetween adjacent the longitudinal borders of said portable walkway; elevated stop means affixed to said rail means at a distance from the ends thereof; an adjustable belt cooperable for surrounding the waist of a baby, whereby the baby may turn



around therein; a duplex of strap means cooperable for slidably mounting said belt with respect to said rail means; said stop means cooperable for limiting the slidable travel of said belt and said strap means.

2,871,915
ORTHOPEDIC DEVICE
Joseph L. Hogan, San Francisco, Calif., assignor of one-half to Joseph B. K. Smith
Application July 5, 1956, Serial No. 595,906
8 Claims. (Cl. 155—23)



7. An orthopedic device for exercising the legs and the body of a patient, comprising a bow, a harness secured to the top of the bow and consisting of a plurality of belts for supporting a patient in substantially vertical position, the ends of said bow extending downwardly on the sides of the body and having hand rests formed on said ends, means for carrying said bow parallel to the ground, and means for adjusting said bow vertically for placing the feet of the patient on the ground for urging the patient to move his feet while the bow is moved forwardly.

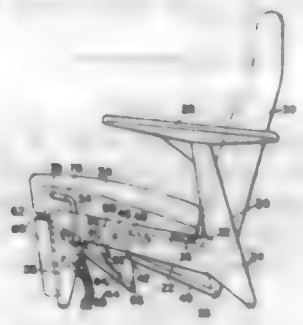
2,871,916
ROCKER SPRING FOR PLATFORM ROCKER
Martin Fox, Chicago, Ill., assignor to The Seng Company, a corporation of Illinois
Application July 24, 1957, Serial No. 673,911
1 Claim. (Cl. 155—71)



A rocker spring assembly for platform rocking chairs comprising: a bottom plate having a downturned skirt extending substantially around its perimeter, said skirt defining an open bottom chamber, there being spring receiving slot means in a margin of said skirt and apertures adjacent opposite ends of the plate to receive attaching means for securing the bottom plate to a rocker base; a pair of coil compression springs mounted in upright position on said bottom plate with their bottom convolutions beneath the plate and extending through

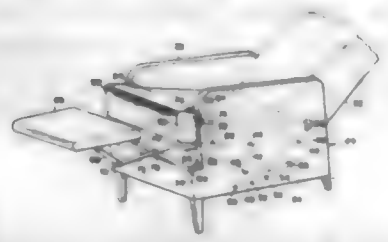
said slot means so they are partly in the chamber and partly outside it, said springs being between said apertures; integral means on the bottom plate to secure said springs thereto; a top plate with an upturned skirt having slot means in which the top convolutions of said springs are seated, a portion of said top plate being provided with apertures to receive fastening means for securing it to a rocker member; and integral means on the top plate to secure it to said springs.

2,871,917
LEG REST CONTROL MECHANISM FOR SEATING UNITS
Fridtjof F. Schliephacke, Berlin-Dahlem, Germany, assignor to Anton Lorenz, Greenwich, Conn.
Application June 8, 1956, Serial No. 590,279
6 Claims. (Cl. 155—106)



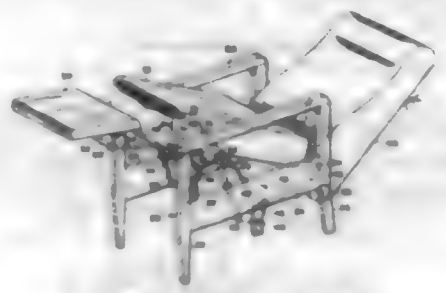
1. In a reclining article of furniture, a frame, a seat and and a back rest pivotally mounted on the frame, a lever pivotally mounted on the frame, a drive link connecting the back rest to said lever, a link connecting said lever to the seat to tilt the same when the back rest is swung backward, a leg rest, a first leg rest link pivoted to the forward part of the seat, said link having a longitudinal slot on the outer part thereof, a second leg rest link attached to the leg rest and carrying a pin slidably mounted in said slot, a third leg rest link pivoted to the leg rest at one end and to the lever mounted on the frame at the other end, said first and third named links crossing each other and being pivoted at the point of crossing and a fourth link connected to the second link, the other end of said fourth link being pivoted to the third link at a point between the pivotal connection of said link to said leg rest, and the pivotal connection at the crossing point of said first and third links.

2,871,918
RECLINING CHAIR AND THE LIKE
Fridtjof F. Schliephacke, Berlin-Schmargendorf, Germany, assignor to Anton Lorenz, Greenwich, Conn.
Application November 5, 1956, Serial No. 620,357
2 Claims. (Cl. 155—106)



2. In a reclining article of furniture having a stationary frame, a back rest mounted on said frame for tilting movement about an axis substantially above the lower end of the back rest, a seat pivoted at its rear to the back rest substantially below the pivotal axis of the back rest, a leg rest, means for connecting said leg rest and said seat permitting movement of said leg rest from a retracted position when said back rest is tilted, said means comprising sets of interrelated links constituting a lazy tongs arrangement, one set of said links including a pair of links pivoted to each other, one of said links being pivoted at its free end to the leg rest at a point removed from the rear edge thereof, the other link of said pair being pivoted to the seat, the second set of lazy tongs links comprising a link pivoted to the leg rest nearer to the rear edge thereof than the first link pivoted to the leg rest, the second said leg rest pivoted link being longer than said first leg rest pivoted link and crossing the second link of the first pair of links between the point where said second link is pivoted to said first leg rest pivoted link and the point where said second link is pivoted to the seat, a control link connected at one end to the second link in the first pair of links at a point removed from the point at which said second link of the first pair of links is pivoted to the seat, the other end of said control link being pivoted to a guide member of an operating link system connecting said back rest, said seat and said frame, the second link of said second pair of links constituting the lazy tongs arrangement being pivoted at one end to the outer end of said second leg rest pivoted link and at its other end to an intermediate point of said control link between the point at which said control link is connected to said second link of said first pair of lazy tongs links and the point where said control link is pivoted to the guide member of said operating link system.

2,871,919
SEATING UNIT HAVING ADJUSTABLE LEG REST
Fridtjof F. Schliephacke, Berlin-Schmargendorf, Germany, assignor to Anton Lorenz, Greenwich, Conn.
Application November 5, 1956, Serial No. 620,420
4 Claims. (Cl. 155—106)

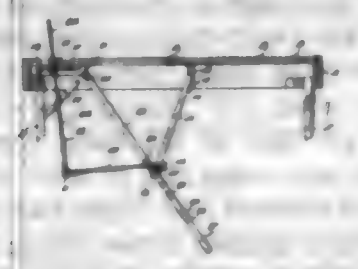


1. In a reclining article of furniture having a stationary frame, body supporting members comprising a seat and back rest and means for mounting said body supporting members on said frame permitting backward tilting movement thereof with respect to said frame, said means for mounting said body supporting members including at least one seat guide link pivoted at one end to the seat and at the other end to the frame a guide member pivoted near its lower end on the frame, a pull link pivoted to the guide member above the pivotal point of the guide member on the frame and to a body supporting member having backward movement when the body supporting members are tilted toward a reclining position, a leg rest and means for connecting said leg rest and said seat permitting movement of said leg rest from a retracted position when the seat and back rest are tilted, said means comprising a system of linkage including two links pivoted to said leg rest at spaced locations of the width thereof from front to rear, said system also including a two-armed operating lever pivoted between its arms to said seat, said arms extending in opposite directions from said pivot, one of said arms being longer than the other, the longer arm of said operating lever being pivoted to the end of one of said links pivoted to said leg rest, said arm crossing the other link pivoted to said leg rest and being pivoted thereto at the point of said crossing, a connecting link pivoted to the end of said other link in rear of said crossing point and pivoted at the other end to a movable part of the structure, and a pull link connected at one end to the shorter arm of said operating lever and at the other end to said guide member.

2,871,920
COMBINATION TABLE AND FOLDING CHAIR

Charles R. Nichols, Jr., and Joseph A. Arsenault, Gardner, Mass.

Application April 22, 1955, Serial No. 503,068
4 Claims. (Cl. 155—123)

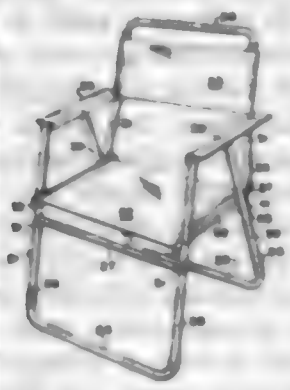


4. In combination, a table having a flat top surface provided with an opening of substantial size, a chair comprising back and seat members pivotally connected together, means for directly pivotally and slidably connecting said back member with the table top adjacent the sides of said opening, means comprising spaced links pivotally connecting studs on opposite sides of said seat member to said table top, and spaced levers pivoted to said table top at opposite sides of said opening, said spaced levers having notches located adjacent their table pivot connections and remote therefrom for engaging said stud respectively in the folded and unfolded conditions of the chair.

2,871,921
COLLAPSIBLE FOLDING CHAIR

Fredric Arnold, Roslyn Heights, N. Y.

Application May 22, 1956, Serial No. 586,612
4 Claims. (Cl. 155—140)



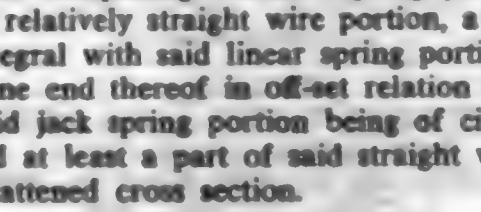
1. A chair comprising a pair of side frames, each of said side frames including a front and rear leg member, arm rest and back support members and a seat supporting bar, said members and bar comprising each frame being pivotally interconnected for folding movement, a detachable transverse brace member interconnecting the front leg members of said frames and a detachable transverse brace member interconnecting the rear legs of said frames, said brace members each including a horizontal portion and being detachably interconnected with the terminal portions of said leg members, a transverse back brace provided with a horizontal transverse portion detachably interconnected with said back support, a transverse brace interconnecting the intermediate portions of said front legs, a flexible seat and a flexible back rest secured to said seat supporting bars and extending between said seat supporting members and said back supports.

2,871,922
VEHICLE CUSHION CONSTRUCTION

Maurice Stubnitz and Lewis J. Stern, Adrian, Mich., assignors to Stubnitz Greene Corporation, Adrian, Mich., a corporation of Michigan

Application January 26, 1956, Serial No. 561,470
2 Claims. (Cl. 155—179)

1. A spring cushion construction for vehicles comprising first and second border frames, said frames being spaced from each other along at least three corresponding sides, said first frame being the upholstered deflectable loading frame of the construction and said second frame being the fixed supporting frame of the construction, a plurality of parallel arranged stringer wires in the form of lengths of relatively straight wire extending between and attached to a side of said first frame and a spaced opposed portion of one of said frames to present a resilient load carrying surface upon which the upholstery is directly supported, torsion springs each defined by angularly disposed portions converging to a common torsion portion to form a torsion spring of substantially fish mouth shape, said torsion springs being disposed between said side of said first frame and a



correspondingly spaced side of said second frame to give resilient support to said stringer wires and said first frame, said angularly disposed portions of said torsion springs diverging to meet said side of said first frame and said correspondingly spaced side of said second frame each said torsion spring and each said stringer wire having a common integral connection with each other through a turned transverse torsion bar portion disposed substantially parallel to said side of said first frame, and means for attaching said torsion bar portion to said first frame directly adjacent thereto to provide a torsion hinge at the point of connection between each stringer wire and each fish mouth torsion spring and said first frame.

2,871,923
SPRING STRUCTURE

Maurice Stubnitz and Lewis J. Stern, Adrian, Mich., assignors to Stubnitz Greene Corporation, Adrian, Mich., a corporation of Michigan

Application January 14, 1957, Serial No. 633,883
11 Claims. (Cl. 155—179)



1. A stringer type spring wire element for vehicle seats and the like comprising a linear spring portion in the form of a relatively straight wire portion, a jack spring portion integral with said linear spring portion and disposed at one end thereof in off-set relation thereto, the wire of said jack spring portion being of circular cross section and at least a part of said straight wire portion being of flattened cross section.

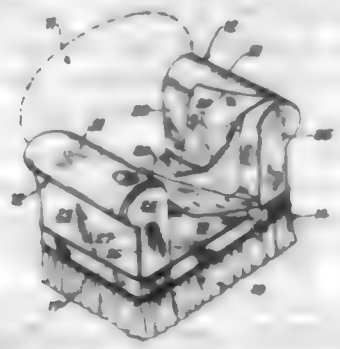
2,871,924
ADJUSTABLE ARM AND SEAT ENCASING SLIP COVER

Philip S. Trubitt, Chicago, Ill., assignor to Sam Pass, Chicago, Ill.

Application September 6, 1956, Serial No. 608,314
2 Claims. (Cl. 155—182)

1. A slip cover for articles of furniture differing in size and having a seat and arms, comprising an arm section for each arm, a seat section, and a lower section extending around at least the front and sides of the seat; each said arm section comprising integral top, inner side and outer side panels, with a major part of the lower edge of the outer side panel secured to the upper edge of said lower section, and a front arm panel of greater area than the front surface of a chair arm and being secured only at its outer vertical edge to the front edge of the outer side panel with the remainder of its periphery free;

said seat section being secured at its front edge for substantially less than its full width to the upper edge of said lower section and having depending tabs at its front corners; and draw string means extending through said lower section and completely around the article of fur-



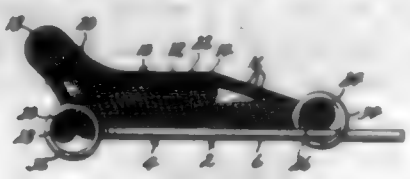
niture to effectively anchor said arm sections, said depending tabs and the lower ends of said front arm panels and to facilitate use on articles of furniture of different sizes by gathering of any excess of said lower section adjacent said arm sections.

2,871,925

EDGE ROLL FOR CUSHION SPRING ASSEMBLIES

William F. Richardson, Carthage, Mo., assignor to Flex-O-Lators, Inc., Carthage, Mo., a corporation of Missouri

Application June 21, 1957, Serial No. 667,087
2 Claims. (Cl. 155—184)



1. An edge roll for cushion spring assemblies comprising an elongated member formed of longitudinally extending strips of soft, easily tearable sheet padding material, said strips being folded longitudinally into a series of superimposed layers with said layers proportioned and disposed to provide the desired cross-sectional contour to the finished edge roll, a sheath of relatively tough, tear-resistant pliable material enclosing said padding material, and a plurality of lines of stitching extending longitudinally of the edge roll and sewed through said padding layers and said sheath to secure said sheath to said padding layers and to secure said padding layers against shifting movements relative to each other.

2,871,926

PLASTIC WEBBING FOR STEAMER DECK CHAIRS

Fred Haschke, Tenafly, N. J.

Application July 10, 1957, Serial No. 670,908
1 Claim. (Cl. 155—187)



In a deck chair or the like, an open rectangular frame having flat sides, a rectangular panel, said panel having an open structure formed by four rails of rectangular cross section secured together at their ends, each of the rails having a longitudinal groove on an inner side thereof, a web of interwoven longitudinal and transverse strips of flat flexible sheet material disposed in the space defined by the four rails, each end of each strip being turned around three sides of a rail and having a loop extending into the groove on the inner side of the rail, four elongated metal clips, each clip having a rectangular U-shaped cross section with a flange extending longitudinally and inwardly along the outer edge of one side wall of the clip, said clips respectively being juxtaposed to three sides of the rails with the flange extending into the groove in the inner side of the rail and securing the looped ends of the strips at one edge of the web therein, and angle brackets each having one side removably secured by screws to an inner side of the rectangular frame and having the other side thereof providing a flat elongated support for one of the rails, there being screws passing through said other side of each of the brackets, a bight portion of one of the clips and end portions of the strips, the last-named screws being threaded in the rails, said panel being snugly fitted within the opening in said frame with said rails being wholly confined between outer sides of the frame.

2,871,927

RUBBER SAFETY BELT FOR AUTOMOBILES

Antonio Materi, Bronx, N. Y.

Application December 10, 1957, Serial No. 701,887
1 Claim. (Cl. 155—189)



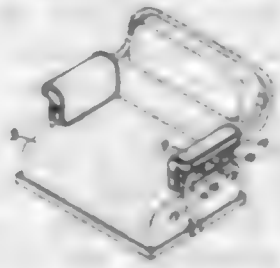
A safety device for an occupant of a seat in a moving vehicle having a seat with a seat back extending upwardly therefrom, comprising a pair of spaced hooks secured to the rear side of said seat back, a harness having a pair of spaced parallel elastic straps, each of said straps having spaced holes selectively engaged with said hooks, said straps extending over the top of said seat back to the front thereof, an elastic chest encircling belt integrally joined to one end of said straps, said straps being perpendicular to and coplanar with said belt, and a buckle integrally formed with said belt and disposed on one end thereof, said buckle having a flexible loop and a flexible tongue integrally formed with each other, the other free end of the belt having a plurality of spaced holes therein for engaging the tongue in said other end of the belt.

2,871,928

ARM REST

Carl T. Swenson, Milwaukee, Wis., assignor to Milsco Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin

Application January 6, 1955, Serial No. 480,153
2 Claims. (Cl. 155—198)



1. In an arm rest for a cylindrical seat frame having an approximately horizontal side portion and a depending front portion, said arm rest comprising a sheet metal plate having a top section and a wall section depending from the top section in right angular relation thereto and said sheet metal plate including an arcuate section intermediate said top and wall sections, a cushion having a top portion resting upon said top plate section and a side portion engaging said wall section and being provided with a covering whose upper and lower edge por-

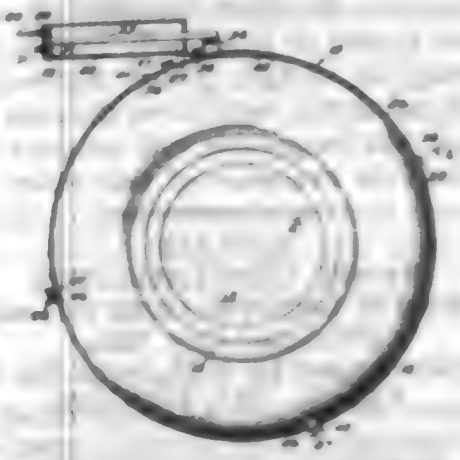
tions lap over the edges of said plate top and wall sections respectively, and a second sheet metal plate including top and wall sections and an intermediate arcuate section disposed adjacent to and parallel with said first sheet metal plate and secured thereto with the said covering edges disposed therebetween, and an arcuate spring tongue on said second sheet metal plate and cooperating with the arcuate portion thereof for releasable engagement of the arm rest with said seat frame horizontal portion.

2,871,929

TUBELESS TIRE MOUNTER

Arthur N. Butler, Oakland, and Jay Graves, Berkeley, Calif.; said Butler assignor to said Graves

Application May 2, 1955, Serial No. 505,346
2 Claims. (Cl. 157—1.21)



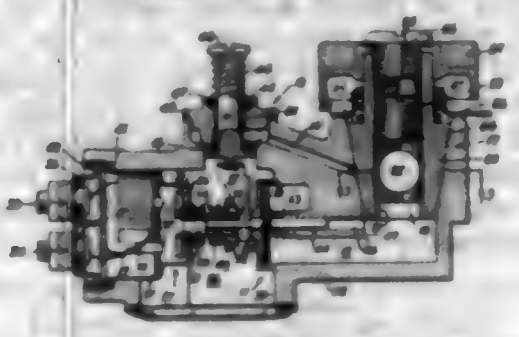
1. A tool of the character described comprising an arcuate plate, a resilient band of material overlying said plate and having at least a portion of said band in convolute overlapping form immediately adjacent said plate, loop means on said portion for restricting outward relative movement of said band, means on said plate for releasably engaging longitudinally spaced selected portions of said band, one end of the outermost convolute of said band extending generally tangentially to the other portions thereof, a cylinder secured to said band end, a piston in said cylinder having a piston rod extending therefrom, said piston rod being operatively secured to said plate for movement therewith whereby actuation of said piston results in selective expansion and contraction of said band.

2,871,930

FUEL CONTROL MECHANISM FOR HEAT APPLIANCES

Donald F. Drow, Los Angeles, Calif., assignor to Minneapolis-Honeywell Regulator Company, a corporation of Delaware

Application January 30, 1952, Serial No. 269,883
7 Claims. (Cl. 158—131)



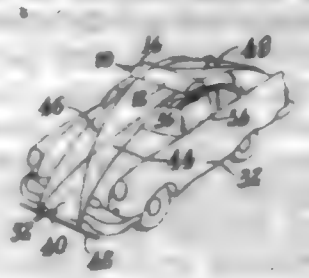
1. A pilot operated valve comprising, a valve member movable between open and closed positions, thermostat means responsive to a pilot burner flame and including a part movable between caught and released positions, spring means engaging said part and said valve member and urging said valve member into open and closed positions in accordance with the caught and released positions respectively of said part, and reset means including a wedge shaped member mounted for joint movement with said part and said valve member and being formed with opposite tapered sides slidably mounted upon and positioned between said part and valve member for relative movement therebetween to selectively urge said part to caught position while holding said valve member in closed position.

2,871,931

VEHICLE COVER-ALL ASSEMBLY

Otis H. Hastings, Ramsey, N. J.

Application July 25, 1956, Serial No. 600,119
1 Claim. (Cl. 160—21)



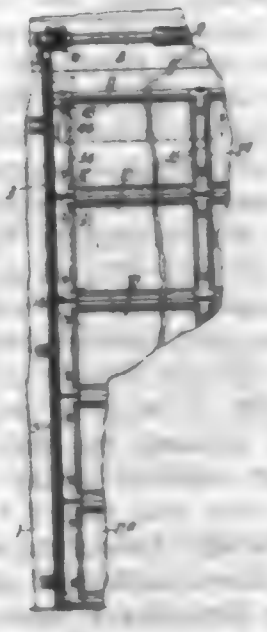
In an automobile cover-all assembly which comprises a housing adapted to be attached to an automobile top, exit means forward and aft positioned in said housing, covering material carried by rollers and drawn outwardly through said exit means to cover respective portions of the vehicle; the improvement comprising a frame, the covering material supporting rollers journalled in said frame, an elongated outer container comprising two axially telescoping portions; depending supports carried at the outer ends of the respective telescoping housing portions adapted to engage the longitudinal edges of a vehicle to which the cover-all assembly is adapted to be mounted; said frame member positioned in said container and permanently secured to one only of said telescoping portions; whereby said assembly is adapted to fit vehicle tops of varying widths, maintaining the mounting of the covering material supporting rollers intact in the telescoping portion to which the frame is permanently attached.

2,871,932

UPWARDLY ACTING DOORS HAVING TRACKS INCLINED RELATIVE TO THE DOOR FRAME

Earl L. Stroup, Hartford City, Ind., assignor to Overhead Door Corporation, Hartford City, Ind., a corporation of Indiana

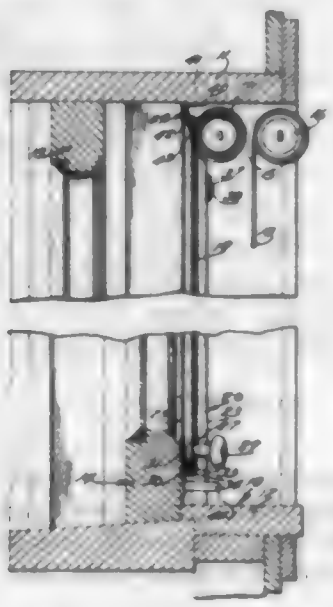
Application July 18, 1957, Serial No. 672,612
19 Claims. (Cl. 160—40)



1. In an upwardly acting door assembly including a door frame and tracks having upright sections inclined inwardly relative to the door frame and curving inwardly at their tops, a door comprising a plurality of horizontal

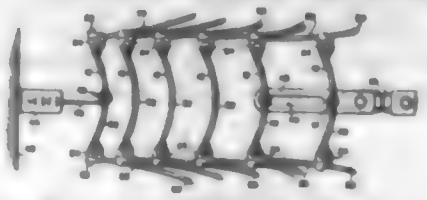
articulated sections, track engaging rollers provided with spindles having laterally offset shanks of rectangular section, resilient supports for said shanks disposed within the door sections at the ends thereof and adjacent their lower edges, the upper door section having resilient supports projecting inwardly adjacent its upper edge, spindle sockets disposed in and supported by said resilient supports, laterally projecting anchor plates on said sockets imbedded in said supports, stiles of the door sections having spindle shank openings therein aligned with said sockets, said sockets having angularly offset sets of inwardly facing longitudinal spindle shank receiving grooves therein of angled section adapted to fittingly receive and non-rotatably support the spindle shanks, the grooves of the sets being interspaced thereby permitting supporting engagement of the spindle shanks therewith to variably position the rollers relative to the plane of the door and thereby compensate for the inclination of the track, the upper rollers engaging the inwardly curved tops of said rails in the closed position of the door and having their spindle shanks received in said inwardly projecting supports.

2,871,933
PERMANENTLY INSTALLED DUAL STORM WINDOW
Rudolf William Kroger, Camp Douglas, Wis.
Application October 8, 1957, Serial No. 688,986
4 Claims. (Cl. 160—41)



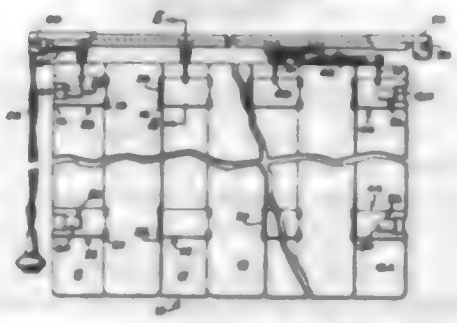
1. In combination, a window frame including vertically disposed side members and horizontally disposed top and bottom pieces, upper and lower sashes slidably mounted in said frame, a pair of spaced apart brackets secured within the upper portion of the window frame, first and second rollers supported by said brackets, said second roller having a window shade thereon, said first roller having a transparent ray member thereon, a pair of vertically disposed U-shaped channel members mounted in said frame and secured to the side members of said frame, each of said channel members including a back wall and spaced parallel side walls, a strip of yieldable material interposed between the back wall of the channel and the adjacent surface of the frame, spaced apart yieldable strips of material positioned within said channel members adjacent the inner surfaces of said side walls, said ray member having its outer edge portions folded over and said folded edge portions being slidably mounted in the channel members, a body member secured to the lower surface of said ray member and said body member including a lower curved lip, a base secured to the lower portion of the lower sash and said base including a lower curved section for engagement with the curved lip on said body member, and a strip of yieldable material secured to the lower surface of said base.

2,871,934
VENETIAN BLIND STABILIZER
Clair M. Harter, Seattle, Wash., assignor to Clair I. Hall, Seattle, Wash.
Application November 13, 1956, Serial No. 621,902
6 Claims. (Cl. 160—173)



1. A stabilizer for the lower end of a Venetian blind having vertically suspended rigid blade slats, comprising: two parallel, spaced apart, series of telescopically connected rigid links at the lower terminals of said hanging slats and extending horizontally of said blind; an anchor member traversing the lower terminal of each slat and having a jaw groove to frictionally receive the slat end; means forming an upright pivotal connection between each link and an anchor member at the ends thereof; and means on each link cooperable with the next adjacent link to serially limit the extension of said series.

2,871,935
PANEL CONSTRUCTION
Radford G. Jenkins and Dale G. Jenkins, Oklahoma City, Okla.
Application August 10, 1955, Serial No. 527,551
1 Claim. (Cl. 160—199)

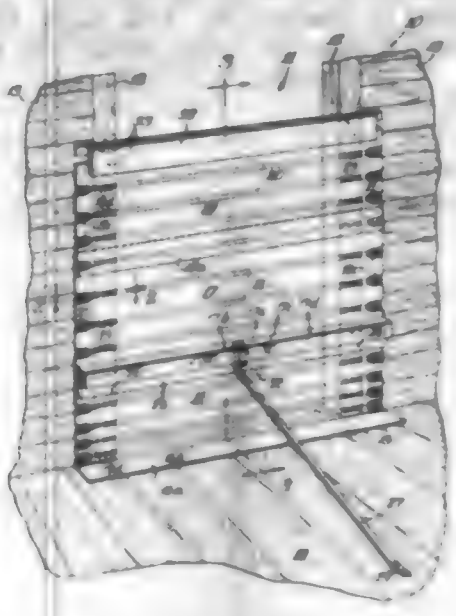


An expansible and retractable louvered panel comprising a plurality of elongated substantially rectangular louvers having a concave-convex transverse configuration, said louvers being arranged with the concave side of alternate louvers facing the concave side of adjacent louvers and having the adjacent marginal longitudinal edges of each pair of louvers disposed in overlapping relation, an elongated tape extending across said louvers adjacent each end thereof and threaded between opposite sides of each of said louvers, said tape extending across the concave side of each of said louvers, each of said louvers having recesses formed in the opposite vertical edges thereof extending from a point above said tape to a point below said tape, clips having means thereon engaging opposite side edges of said louvers for binding said tapes loosely against each of said louvers so that said louvers may be readily adjusted laterally on said tapes, said clips extending transversely across the concave side of each of said louvers with the edge engaging means thereon engaged in said recess, the free ends of each of said tapes being reverted around the central body portion of an adjacent terminal clip, means for retaining said reverted end portions in their respective positions, and means suspending said louvers in vertically aligned position.

2,871,936
GRAIN CAR DOOR
John Ekern Ott, Hinsdale, and Charles Gayle Heslet, Franklin Park, Ill., assignors to Acme Steel Company, Chicago, Ill., a corporation of Illinois
Application July 14, 1953, Serial No. 367,869
2 Claims. (Cl. 160—368)

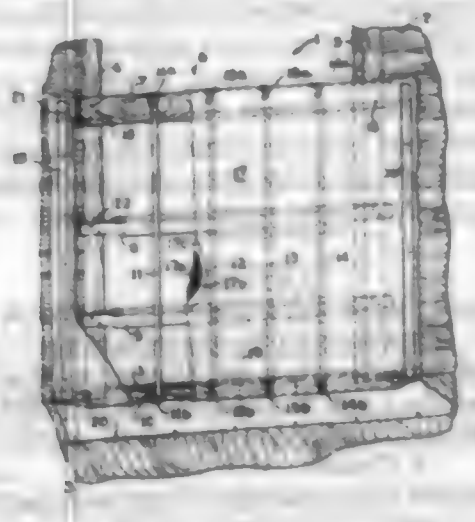
1. A grain door for closing a car door opening, said door comprising a pair of sections located one above the other, a reinforcing member secured to the car wall and

extending across the door opening on the inner side of the lower section, the upper edge of said lower section



being wrapped around said member and being overlapped by said upper section on the inner side of said member.

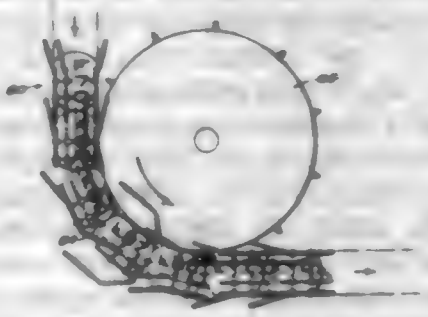
2,871,937
GRAIN CAR DOOR
Thomas J. Fullerton, Palos Heights, Ill., assignor to Acme Steel Company, Chicago, Ill., a corporation of Illinois
Application January 3, 1955, Serial No. 479,302
5 Claims. (Cl. 160—368)



1. A grain barrier for a doorway comprising an upper horizontal beam abridging the lateral margins of said doorway, vertical flexible straps fastened to said upper beam at their upper ends and at their lower ends to the lower margin of said doorway, a lower horizontal beam abridging said doorway between the said upper beam and the said lower margin of said doorway, a resilient flexible sheet fastened to said upper beam, said lower margin of said doorway and the side margins of said doorway, and said sheet slidably resting against said lower horizontal beam.

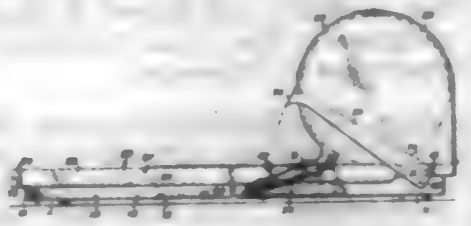
2,871,938
AUTOMATIC TIMER AND CONTROL UNIT
Edward J. Butler, Seekonk, Mass.
Application December 14, 1956, Serial No. 628,358
11 Claims. (Cl. 161—1)

1. A timing chain for controlling an electric switch mechanism comprising an endless loop of flexibly interconnected chain links, rotary elements supporting said loop for movement through an endless circuit, a clock motor operatively connected in driving relation to said chain, to drive the chain through a complete circuit in a predetermined interval of time, and a series of cam elements carried by the respective links for angular movement between erected operative positions and



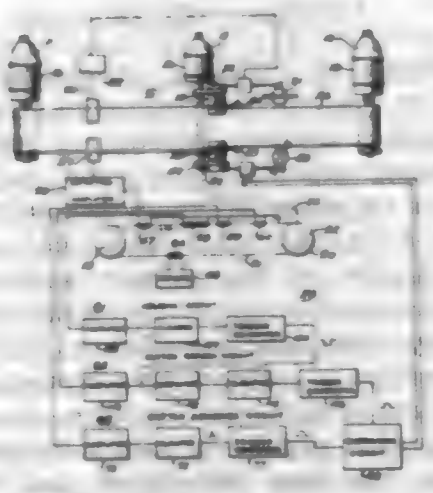
inoperative positions about axes aligned with each other and extending parallel to the movement of the chain.

2,871,939
APPARATUS FOR DISPENSING STAMPS
Garth Close, Lubbock, Tex.
Application December 26, 1956, Serial No. 630,701
7 Claims. (Cl. 164—43)



1. In apparatus for dispensing stamps, a base member, a chassis member overlying said base member having an upper surface arranged in a single plane, a housing, means providing a slot adjacent the upper surface of the chassis member through which stamps in sheet form may be withdrawn from the housing to overlie said upper surface, a cutter bar including arms pivotally attached to the base member and pivotally attached to the chassis member, and means for shifting the chassis member longitudinally of the base member upon movement of the chassis member towards the base member to move the cutter bar to a position to sever the stamps.

2,871,940
CONTINUOUS CONTROL FOR STRIP MILLS AND THE LIKE
Frederick A. Meunier, Cleveland, Ohio, assignor to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey
Application July 15, 1954, Serial No. 443,651
14 Claims. (Cl. 164—61)



1. Apparatus for continuously processing metallic strip which comprises, in combination, means for feeding the strip, means for taking up the strip, a photoelectric detector head mounted adjacent one edge of the strip for generating electrical signals in response to flaws in the strip; a recorder incorporating a continuous loop record medium and means for driving the recorder at a speed corresponding to that of the strip, a record coil for im-

pressing the electrical signals from the detector head upon the record medium, a tear remover including a cutter and a solenoid clutch adapted to move the cutter into and out of engagement with the strip upon successive energizations of the solenoid thereof, a pick-up coil coupled to the said record medium and positioned behind the record coil a distance corresponding to the distance from the detector head to the tear remover, and electric circuit means connected to the said pick-up coil and to the solenoid of the clutch for actuating the clutch to move the cutter into and out of engagement with the strip in response to the impressions upon the record medium produced by the record coil and thereby remove the edge portion of the strip containing the flaw detected by the detector head.

2,871,941

IN SITU COMBUSTION WITHIN A SUBSURFACE FORMATION CONTAINING PETROLEUM HYDROCARBONS

Joseph C. Allen, Bellaire, and Robert E. Kunetka, Houston, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 29, 1956
Serial No. 624,998

4 Claims. (Cl. 166—38)

1. A method of initiating or maintaining in situ combustion in a subsurface formation containing in place hydrocarbons which comprises introducing into said formation a compound which undergoes thermal decomposition to yield an oxidizing agent, subjecting that portion of the formation into which said compound is introduced to a temperature sufficiently high to effect thermal decomposition of said compound therein to yield said oxidizing agent and to cause said oxidizing agent to oxidize the in place hydrocarbons within said formation to effect in situ combustion therein.

2,871,942

IN SITU COMBUSTION

Allen D. Garrison, La Jolla, Calif., and Robert E. Kunetka, Houston, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 29, 1956
Serial No. 624,999

6 Claims. (Cl. 166—38)

1. A method of initiating or maintaining in situ combustion in a subsurface formation containing hydrocarbons which comprises introducing into said formation an aqueous solution of a water soluble inorganic compound as an oxidation catalyst, subjecting that portion of the formation into which said solution is injected to an elevated temperature sufficiently high to effect in situ combustion of the hydrocarbons therein while at the same time introducing into that portion of said formation a gaseous oxygen-containing combustion supporting stream, said gaseous stream being introduced into that portion of said formation into which said solution has been introduced and which is subjected to the aforesaid elevated temperature for a period of time sufficient to effect evaporation of the water from said aqueous solution previously introduced into said formation to deposit within said formation a solid residue of said inorganic compound as an oxidation catalyst therein whereby in situ combustion of said hydrocarbons within said formation is carried out in the presence of the thus-deposited oxidation catalyst.

2,871,943

PETROLEUM WELL TREATMENT BY HIGH POWER ACOUSTIC WAVES TO FRACTURE THE PRODUCING FORMATION

Albert G. Bodine, Jr., Van Nuys, Calif.

Application June 16, 1954, Serial No. 437,078
18 Claims. (Cl. 166—42)



1. The steps in the process of well preparation and treatment, following drilling of the well bore to and through the petroleum bearing formation, that comprises: introducing a hydraulic coupling liquid into the well bore, lowering a powerful acoustic wave radiation into said bore and coupling liquid opposite the productive formation into acoustically coupled relation to the walls of the bore hole, and operating said radiator to send through the formation acoustic waves of amplitude sufficient to create an internal stress cycle in the formation exceeding the endurance limit of the formation, whereby the productive formation is fractured by fatigue failure.

2,871,944

PROCESS FOR THE EXPLOITATION OF PETROLEUM DEPOSITS

Friedrich Wilhelm Pleuger, Hamburg, Germany

Application April 4, 1956, Serial No. 576,003
Claims priority, application Germany April 14, 1955
4 Claims. (Cl. 166—45)

1. The method for exploiting deep well petroleum deposits which comprises simultaneously generating vibrations of two different frequencies within the bottom region of the well riser through which the petroleum is pumped, and coupling the vibrations generated to the oil bearing strata surrounding said riser, one of said frequencies being in the range of from 12 to 60 c. p. s. and the other being in the range of from 500 to 10,000 c. p. s.

2,871,945

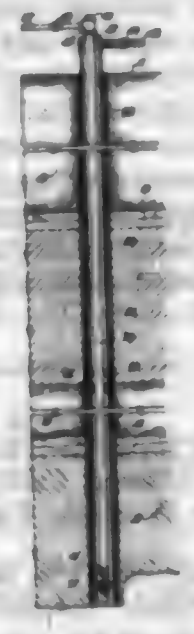
SINGLE CASING MULTIPLE HORIZON OIL PRODUCTION METHOD

Ralph Spearow, Paola, Kans.

Application September 21, 1956, Serial No. 611,266
4 Claims. (Cl. 166—52)

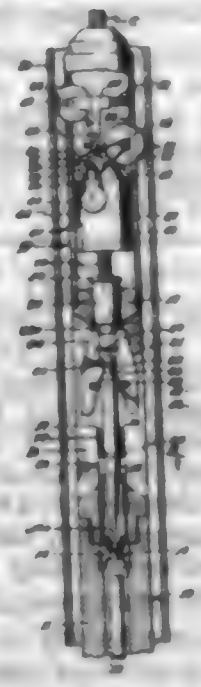
4. Apparatus for producing oil from a plurality of oil horizons vertically spaced from one another in an earth formation by a vertical drive gaseous pressurization means comprising, in combination, a separate production well bore extending from the surface to the vicinity of the bottom of the lowest oil horizon, a single production casing extending from the surface to the vicinity of the bottom of said lowest oil horizon, an annular column of sealing substance bonding said casing to the well wall at least from the vicinity of the bottom of each oil horizon to a level above each said oil horizon, at least one

access opening through said production casing communicating with the oil horizon adjacent the bottom of each oil horizon to be produced, a separate pressurization well bore extending from the surface to the level of the top of the lowest oil horizon, a single pressurization casing extending from the surface to at least the top of the lowest oil horizon, an annular column of sealing substance bonding the pressurization casing to the well wall at least from the top of the lowest oil horizon to a level thereabove and extending from the level below each other



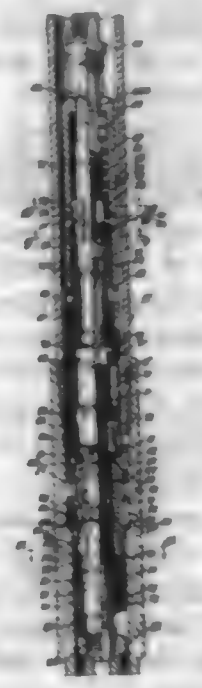
oil horizon at least to the vicinity of the top thereof and from the top of each other oil horizon to a level thereabove, at least one access opening through said pressurization casing communicating with the oil horizon adjacent the top portion of each oil horizon, a tubing positioned in the pressurization casing extending from the surface to a level at least below the top of the upper oil horizon, and means sealing said tubing to the inner surface of the pressurization casing below said top and below the access opening to the top oil horizon in order to block the annulus between the tubing and the casing.

2,871,946
APPARATUS FOR EFFECTING OPERATION OF SUBSURFACE WELL BORE DEVICES
Herbert L. Bigelow, Whittier, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application April 20, 1956, Serial No. 579,672
4 Claims. (Cl. 166—64)



1. In subsurface well apparatus: a well device; a measuring member movable with said well device in a well casing and contactable with and movable along the wall of the well casing; a counter mechanism operatively connected to said measuring member and movable thereby in accordance with the distance traversed by said measuring member along the casing wall; a longitudinally movable operating member operatively connected to said well device for effecting operation of said well device, latch means releasably engaging said operating member to hold it initially in an ineffective position; a latch releasing member engageable with said latch means to shift it from said operating member to release said operating member; means for moving said latch releasing member longitudinally into engagement with said latch means to positively shift and release said latch means from said operating member; and a holding member connected to said latch releasing member and engaging a holding portion of said counter mechanism to be held by said holding portion in a position preventing said latch releasing member from moving longitudinally; the holding portion of said counter mechanism moving from engagement with said holding member to permit longitudinal movement of said latch releasing member in response to movement of said counter mechanism a predetermined amount by said measuring member.

2,871,947
LOCKING DEVICES FOR WELL TOOLS
John V. Fredd, Dallas, Tex., assignor to Otis Engineering Corporation, Dallas, Tex., a corporation of Texas
Application October 21, 1954, Serial No. 463,721
14 Claims. (Cl. 166—219)



1. A well tool including: a lock mandrel; a tubular cage mounted on said mandrel for longitudinal movement thereon and having a plurality of windows; locking keys disposed in said cage and having bosses extending laterally outwardly through said windows, said keys being movable laterally between expanded positions remote from said lock mandrel and refracted positions adjacent said lock mandrel; means biasing said keys toward expanded positions; lock shoulders on said lock mandrel intermediate the ends thereof, said lock shoulders being disposed substantially normal to the direction of lateral movement of said keys and engageable with said keys upon longitudinal movement of said lock mandrel in said cage when said keys are in said expanded positions; a lock sleeve slidably mounted on said lock mandrel above said keys and between said lock mandrel and said cage and movable downwardly on said lock mandrel independently of movement of said mandrel from an upper unlocked position to a lower locking position, said lock sleeve having lock shoulders disposed substantially normal to the direction of lateral movement of said keys and engageable with said keys when said keys are in said expanded posi-

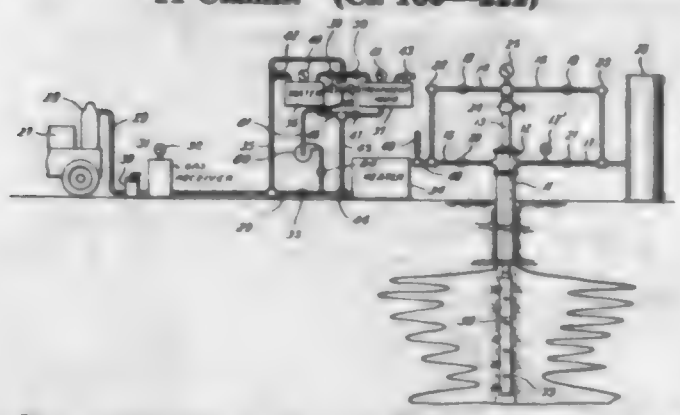
tions and said lock sleeve is moved downwardly with respect to said sleeve to lock said keys in said expanded positions; cooperable means on said lock mandrel and said keys limiting upward movement of said lock mandrel with respect to said keys; cooperable means on said lock sleeve and said keys limiting downward movement of said lock sleeve on said lock mandrel; cooperable means on said cage and said lock sleeve limiting upward movement of said lock sleeve on said lock mandrel; and cooperable means on said cage and said lock mandrel limiting upward movement of said cage on said lock mandrel.

2,871,948

PROCESS OF TREATING OIL AND GAS WELLS TO INCREASE PRODUCTION

Joseph S. Normand, Fort Worth, Tex., assignor to Normand Chemical Process Corporation, Houston, Tex., a corporation of Texas

Application June 23, 1955, Serial No. 517,487
11 Claims. (Cl. 166—222)



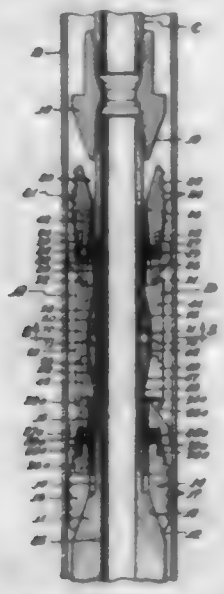
1. For employment in a well bore having a tubing suspended therein, a jet tube including a tubular member connectable upwardly to the lower end of said tubing and having a closed lower end, vertically spaced apart jet nozzles in said jet tube and extending therefrom, spaced apart valves dividing said jet tube into a plurality of valve segregated sections and set from top to bottom to open at successively higher pressures, and a shield around said jet tube outwardly of said jet nozzles and providing openings adjacent said jet nozzles through which said jet nozzles may discharge a pressurized fluid delivered down said tubing to build up pressure in excess of well bore pressure and to open said valves successively from top to bottom.

2,871,949

RELEASABLE CLUTCH DEVICE FOR WELL TOOLS

Reuben C. Baker, Coalinga, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California

Application January 20, 1956, Serial No. 560,332
14 Claims. (Cl. 166—237)



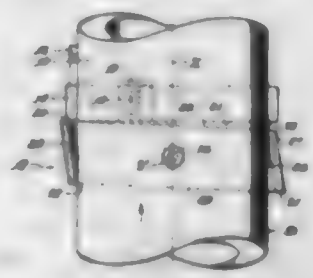
1. In a well tool adapted for operation in a well bore: a body member connectible to a running-in string for moving the tool within the well bore; a clutch housing member surrounding said body member; an expansible and contractible clutch ring between said members; said ring and one of said members having coengageable tapered surfaces for holding said ring in clutching engagement with the other of said members upon longitudinal movement in one direction of said ring relative to said one member; said ring and said one member having other coengageable tapered surfaces for holding said ring in clutching engagement with the other of said members upon longitudinal movement in the opposite direction of said ring relative to said one member; and coengageable means on said one member and ring adapted to be located in one relative position for preventing upward movement of said ring relative to said one member while permitting relative downward movement of said ring relative to said one member, adapted to be located in another relative position for preventing downward movement of said ring relative to said one member while permitting relative upward movement of said ring relative to said one member.

2,871,950

STOP DEVICES FOR WELL CONDUITS

Reuben C. Baker, Coalinga, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California

Application July 20, 1956, Serial No. 599,192
9 Claims. (Cl. 166—241)



1. In a stop device adapted to be mounted on a tubular running-in string to be lowered in a well bore: an annular member adapted to be disposed around the exterior of the running-in string and having an inner wall substantially greater in internal diameter than the external diameter of the running-in string; means on said member adapted to engage the exterior of the running-in string on opposite sides thereof for rockably mounting said member on the running-in string; said member having a gripping portion thereon adapted to grip the running-in string when said inner wall is inclined to the axis of the running-in string; said member having means thereon adapted to engage an apparatus on the running-in string to rock said member on the running-in string to a position in which its inner wall is inclined to the running-in string and bring said gripping portion into gripping engagement with the running-in string.

2,871,951

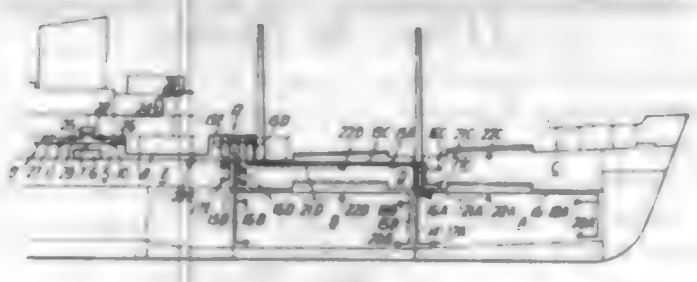
SMOKE-DETECTING AND FIRE-EXTINGUISHING APPARATUS

Howard Edwin Bedford, Brentford, England, assignor to The Pyrene Company Limited, Brentford, England

Application February 7, 1957, Serial No. 638,715
Claims priority, application Great Britain February 16, 1956
7 Claims. (Cl. 169—5)

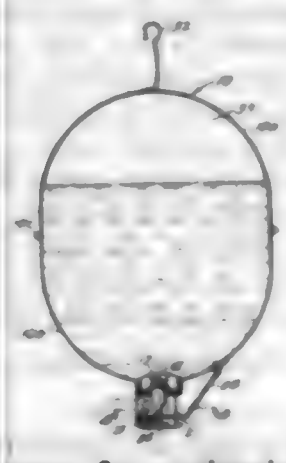
1. A combined smoke-detecting and fire-extinguishing apparatus for use with spaces constituting points of risk, comprising a pipe system having at the downstream ends outlets into the lower parts of said spaces, a source of combustion gas and a smoke-detector both connected to said pipe system and non-return valves in the pipes of said system permitting flow of said combustion gas through

said outlets, said pipes having inlets for air flowing through the pipe system to said smoke-detector, said inlets being



upstream of said non-return valves and in the upper parts of said spaces.

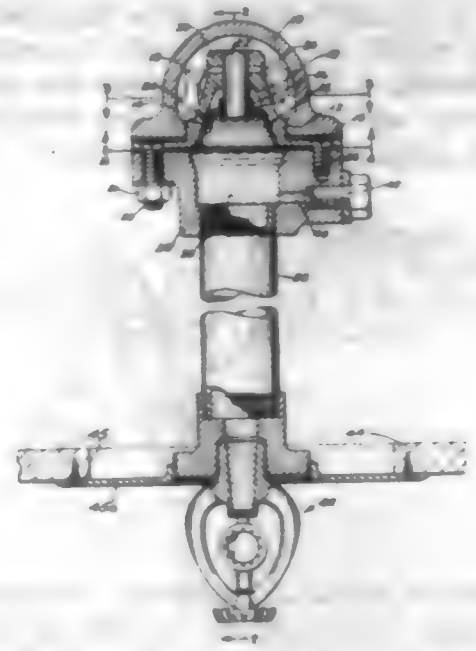
2,871,952
FIRE EXTINGUISHER
Lyle E. Douk, Circle Pines, Minn.
Application May 28, 1957, Serial No. 660,109
3 Claims. (Cl. 169—26)



1. A cartridge-type fire extinguisher, comprising a closed container adapted to contain a quantity of fire-extinguishing liquid under gas pressure, said container having an aperture in the bottom thereof defining valve-seating portions therearound, a hollow frangible stem having a closed lower end disposed outwardly of the container and adapted to be ruptured, said stem also having an open upper end projecting through the aperture in the container and an enlarged external periphery on the upper end thereof engaging and seating against said seating portion at the inner side of the aperture in the container, and spring means urging the stem outwardly, the stem being smaller in external configuration than the configuration of the aperture in the container, whereby to facilitate charging of the container with fluid and gas by application of the gas and fluid under pressure to the external side of the container and stem.

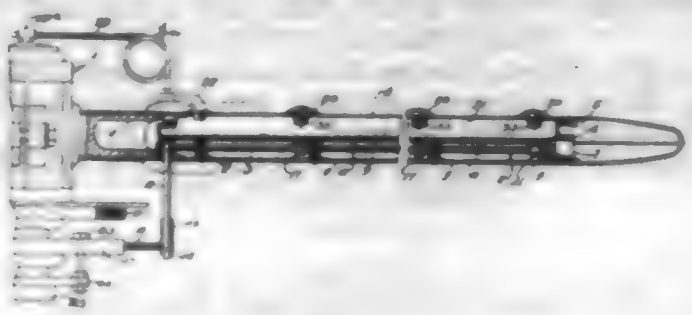
2,871,953
PENDENT SPRINKLER
Geddes Alan Bray, New Moston, Manchester, England assignor to Grinnell Corporation, Providence, R. I., a corporation of Delaware
Application June 15, 1956, Serial No. 591,579
8 Claims. (Cl. 169—37)

1. For a supply pipe carrying a fluid under pressure and having an aperture, a pendent device comprising: a drop pipe having one end adapted to be secured to the supply pipe at said aperture, an element at the said one end of the drop pipe having a portion movable between a first position in which said element prevents said fluid from passing therethrough and a second position in which said element allows said fluid to pass therethrough, closure means at the other end of the drop pipe, said drop pipe with the element and closure means at the ends thereof forming a closed chamber when said element portion is in said first position and said closure means is closed, and a non-freezing liquid substantially filling said chamber and supporting said element portion in said first position against the force exerted by said fluid under pressure when said closure means is closed, whereby opening of said closure means releases the liquid from the drop



pipe and permits said fluid under pressure to move said element portion to said second position.

2,871,954
JET OPERATED ROTARY LIFTING VEHICLE
Herbert Dix, Chicago, Ill.
Application October 7, 1957, Serial No. 688,535
5 Claims. (Cl. 170—135.4)



1. A jet operated rotary lifting vehicle comprising a support, a rotary device mounted upon said support and including a hub, diametrically opposed hollow wings secured to said hub, a resilient partition extending longitudinally of each wing dividing it into separate compartments, intake air valves in each wing for admitting atmospheric air into one compartment of each wing, jet propulsion engines secured to said wings upon their trailing edges, means connecting said resilient partition and the wall of each wing for yieldingly retaining said partition in predetermined normal position, an oscillating shaft extending longitudinally of each wing in a second compartment of same, cam means carried by said oscillating shaft operatively associated with said partition for flexing same as said shaft oscillates, rotating means for said hub carried by said support, power transmission means operatively connecting said hub rotating means to said oscillating shaft, starting means for said rotating means, and air transmission means connecting said air compartment to the said jet engines under pressure as said partition is flexed.

2,871,955
NON-CHOKING PLOW ROLLER
William S. Heslenn, Montevideo, Minn.
Application March 1, 1955, Serial No. 491,331
1 Claim. (Cl. 172—63)

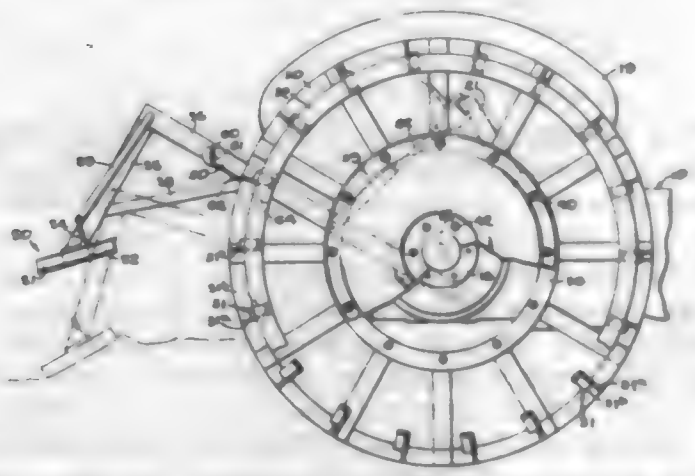
In a non-choking attachment for use on a plow, the combination which comprises a shaft having a knuckle joint at one end and a ball and socket mounting at the opposite end, a threaded sleeve extended from said ball and socket and positioned at a right angle thereto,

a threaded rod extended through the threaded sleeve and having a crank on one end, bearings for rotatably mounting the rod on a downwardly extended end of a plow beam, a bracket adapted to be mounted on a plow beam from which the downwardly extended end extends and having a bearing in which the shaft is rotatably mounted on an extended end thereof, a roller having teeth projecting from the peripheral surface fix-



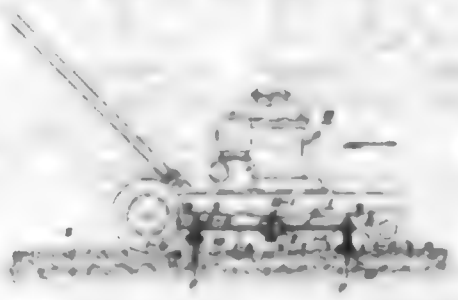
edly mounted on said shaft, stationary substantially semispherical guards positioned at the ends of the roller, a shaft extended from the knuckle joint at the upper end of the former shaft for connecting the shaft to a power take-off of a towing vehicle, and a socket adapted to be mounted on the plow beam upon which the bracket is mounted for providing a bearing for the shaft connecting the shaft upon which the roller is mounted to said power take-off.

2,871,956
SOFT GROUND CULTIVATOR ATTACHMENT FOR TRACTORS AND THE LIKE
Peter Boyd-Brent, Tamworth-in-Arden, England, assignor to Harry Ferguson of India Ltd., Stow-in-the-Wold, England, a British company
Application September 18, 1953, Serial No. 381,011
2 Claims. (Cl. 172—72)



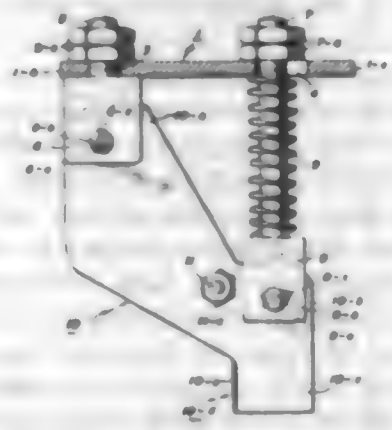
1. A soft ground cultivating attachment for a tractor comprising, in combination, an elevatable rear hitch for said tractor including a pair of trailingly pivoted hitch links and check chains limiting their upward rocking, a pair of cage-like structures adapted to be mounted on the tractor in lieu of its rear wheels and having transversely extending circularly spaced arrays of elongated slats made of angle-iron and providing support for the tractor and churning of the ground as the tractor advances, said slats being oriented to present one side in radial relation to said cage for biting engagement with soft ground and the other side in substantially tangential relation to said cage to serve as a foot limiting such biting engagement, a substantially flat leveling and smoothing board, and means adapting said board to be mounted rigidly on said hitch links to extend transversely behind said tractor and cages in forwardly inclined raking contact with the ground, rearward overturning of said tractor being precluded by said board as a foot restrained by said check chains.

2,871,957
CULTIVATOR ATTACHMENTS
Ellis Mark Zacharias, Jr., Livingston, N. J.
Application December 5, 1956, Serial No. 626,334
1 Claim. (Cl. 172—96)



In a cultivator attachment for a rotary power lawn mower having a vertical driving shaft, for cultivating soil over which the mower is moved, the combination of a bar adapted to be removably and adjustably mounted on the shaft for rotation thereby, and having an internally threaded bore adjacent one of its ends and its leading edge, and a transverse slot adjacent said end and its trailing edge; a pin threaded in said bore and having a yoke on its lower end; a second pin passed loosely through said slot and having a nut threaded thereon above said bar, a washer thereon below said bar, and a yoke on its lower end; an expansion spring coiled about said second pin between said washer and said yoke; and a cultivator blade having the upper end of its leading edge pivotally mounted in the yoke of the first pin and having a tail pivotally mounted in the yoke of the second pin.

2,871,958
CULTIVATOR ATTACHMENTS
Ellis M. Zacharias, Jr., Livingston, N. J.
Application May 3, 1957, Serial No. 656,819
3 Claims. (Cl. 172—96)

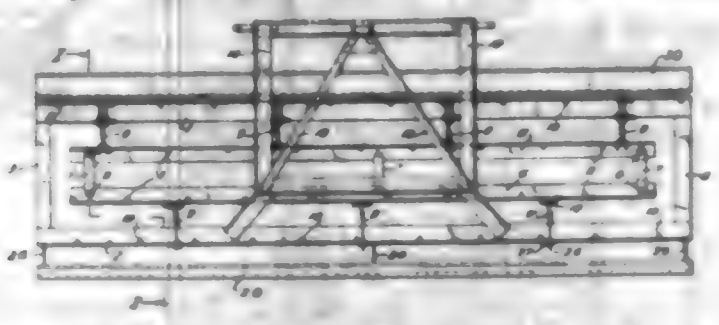


1. In a cultivator attachment for a rotary power lawn mower having a vertical driving shaft, for cultivating soil over which the mower is moved, the combination of a bar adapted to be removably and adjustably mounted on the shaft for rotation thereby; and a cultivator blade so removably mounted on said bar as to produce a circular furrow in the soil when the bar is rotated and the mower is moved over the soil, said blade having a forward portion pivotally mounted at the leading edge of said bar, a rearwardly extending tail slidably supported at the trailing edge of said bar, and a tongue depending from said tail, its forward edge constituting a cutting edge, and said tongue being biased into position for producing said furrow.

2,871,959
CULTIVATOR
Frans Fredrik Koukenmaki, Salo, Finland
Application October 10, 1955, Serial No. 539,635
Claims priority, application Finland October 18, 1954
8 Claims. (Cl. 172—197)

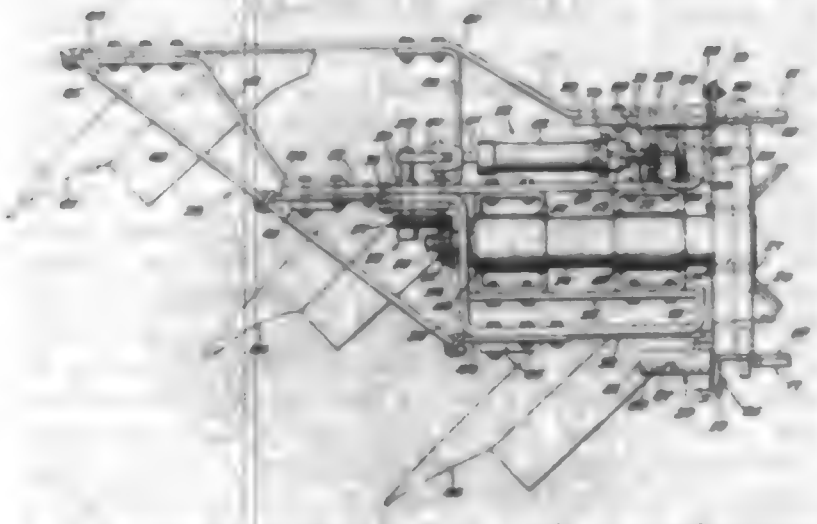
1. A cultivator, comprising in combination, an open outer frame of elongated form; attachment means on said outer frame adapted to be connected to means for pull-

ing said cultivator along the ground in a predetermined direction; a second frame located within said outer frame and spaced therefrom, said second frame being movable with respect to said outer frame; spring means connecting said second frame with said outer frame for resiliently attaching said second frame to said outer frame movably at least in said predetermined direction; and a plurality of cultivating members, a number of which are attached to said outer frame and a number of which are attached to said second frame and spaced from each other, said cultivating members projecting from said frame substan-



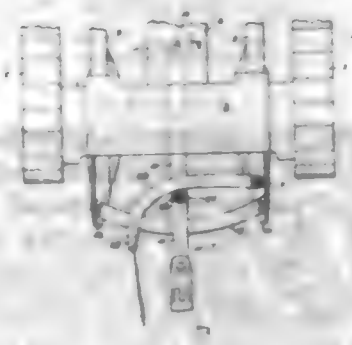
tially parallel with each other, so that when said outer frame is pulled by means of said attachment means along the ground resiliently carrying along said second frame, with said cultivating members of both frames in engagement with the ground, the cultivating members attached to said second frame are caused by varying resistance to oscillate together with said resiliently supported second frame with respect to the cultivating members attached to said outer frame in order to further break down by their reciprocating action portions of the ground cut by the cultivating members attached to the outer frame.

2,871,960
LOCK FOR TWO-WAY PLOW
Hiram F. Smith, Stockton, Calif., assignor to International Harvester Company, a corporation of New Jersey
Application May 20, 1955, Serial No. 509,733
3 Claims. (Cl. 172—226)



1. In a two-way plow having a main supporting frame and a subframe, alternately operable plow units mounted on the subframe, said subframe being movable from one position to another relative to the main frame to alternately place one of said plow units in operating position while the other is placed in an inoperative position, latch means on said main and subframes cooperative in either position of the latter to hold the subframe against movement relative to the main frame, power transmission means connected between said main and subframes for moving the latter relative to the main frame, power operated means operatively connected to said transmission means for actuating the latter, a latch actuator operable in either position of the subframe to release the latter to accommodate movement thereof to another position, and means operatively connecting said power operated means to said latch actuator for releasing the latter incident to operation of said power operated means comprising a rockable member pivoted on the subframe and offering less resistance to operation of the power operated means than that of the power transmission means, said rockable member being rockable in one direction to release the latch means in one position of said subframe and in the other direction to release the latch in the other position of said subframe.

2,871,961
HITCH FOR AN AGRICULTURAL TOOL
Archie E. Burch, Williams, Calif.
Application October 14, 1957, Serial No. 690,015
5 Claims. (Cl. 172—255)



1. A hitch for drawing an agricultural tool by a tractor carrrying a mechanism to be automatically operated whenever the latter changes the direction of its travel, said hitch comprising a draw bar, one end of which is pivotally connected to the tractor, and the other end to the agricultural tool, an arch carried by the rear end of said tractor, said arch slidably supporting the other end of said draw bar, an actuating arm, one end of which is pivoted to said tractor, means secured to said draw bar for swinging said arm by the swinging motion of said draw bar, and means operatively connecting the free end of said arm to said mechanism.

2,871,962
STOP MECHANISM FOR POWER LIFT
Samuel L. Toderick, Welland, Ontario, Canada, assignor to John Deere Plow Company (Limited), Winnipeg, Manitoba, Canada, a corporation of Canada
Application October 3, 1955, Serial No. 538,222
7 Claims. (Cl. 172—465)



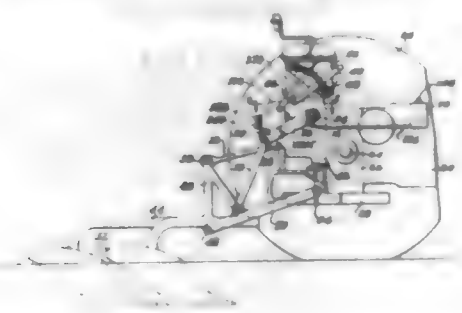
1. In a device of the class described, the combination of a power-actuated movable work member, a control element associated therewith and shiftable from a neutral position to effect movement of the work member in a certain direction, said work member and said control element being mounted for movement about parallel axes spaced apart in a generally fore-and-aft extending direction, a quadrant fixed to said work member and disposed adjacent the axis of movement of said control element, a stop on the said element having a portion disposed adjacent said quadrant, and a cooperating depth stop on said quadrant disposed on the latter in a position to engage said first stop and operate said control element, said second stop including yielding means arranged to provide for independent movement of said control element in either direction.

2,871,963

MULTIPLE-FUNCTION IMPLEMENT CONTROL SYSTEM FOR AGRICULTURAL TRACTOR

Kenneth J. Harris and Christian H. Hess, Waterloo, Iowa, assignors, by mesne assignments, to Deere & Company, a corporation of Delaware

Application November 3, 1954, Serial No. 466,623
11 Claims. (Cl. 172—465)



1. In a tractor having vertically adjustable draft linkage connectible to an agricultural implement, a fluid-pressure-operated power control system comprising: support means on the tractor, including a cylinder and a piston movable in the cylinder and connected to the draft linkage for raising, lowering and supporting said linkage; a fluid pressure source and a fluid reservoir on the tractor; a valve housing on the support means and formed with a pressure passage having an inlet end, an outlet end and a check valve chamber intermediate said ends, said housing further having a safety valve chamber therein parallel with and cross-connected to the pressure passage downstream of the check valve chamber and having a reservoir outlet, and a reservoir passage parallel with and cross-connected to the pressure passage upstream from the check valve chamber; first fluid conduit means connecting the inlet end of the pressure passage to the pressure source; second fluid conduit means connecting the outlet end of the pressure passage to the cylinder; a safety valve in the safety valve chamber normally biased to close off said safety valve chamber from its reservoir outlet; adjustable control means carried by the housing and including a check valve normally biased to close the check valve chamber against the transmission of fluid between the inlet and outlet ends of the pressure passage; and control valve portions operative in a neutral position to leave the check valve closed and to communicate the pressure passage with the reservoir passage upstream of the closed check valve, said control valve portions being further operative in an active position to close said reservoir passage and to incur opening of the check valve for supplying fluid to the cylinder to move the piston in one direction; and a high-pressure relief valve in the first fluid conduit means separate and apart from the safety valve for relieving high fluid pressures throughout the system incident to the supply of fluid to the cylinder, and said safety valve being openable against its bias to relieve high pressures in the pressure passage and second fluid conduit means incurred downstream of the check valve and incident to movement of the piston by forces external to the system and in the direction opposite to the aforesaid direction when the check valve is closed and the control valve portions are in neutral.

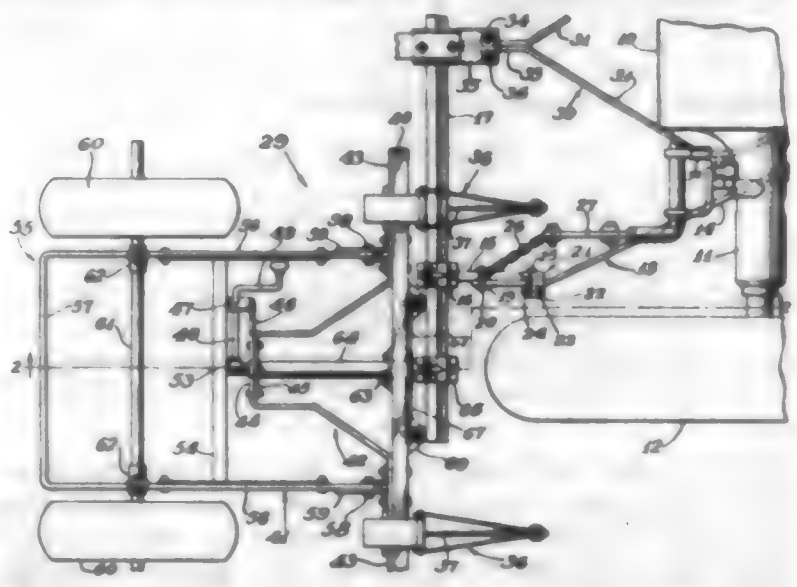
2,871,964

SPRING EQUALIZER FOR FOUR-ROW PLANTER

William N. Olson, Canton, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application September 17, 1954, Serial No. 456,704
3 Claims. (Cl. 172—624)

1. In an implement having a substantially rigid frame and laterally spaced furrow forming units adapted for connection to a tractor having a transverse tool bar mounted thereon and means accommodating vertical movement of the tool bar, the combination of a longitudinally extending supporting member affixed at one end to said tool bar and projecting therefrom, means pivotally mounting said implement frame on said supporting member at the forward end thereof between said furrow forming units for tilting in a vertical plane about the longitudinal axis of said supporting member, lost motion means connecting said implement frame to said supporting member at a location laterally spaced from



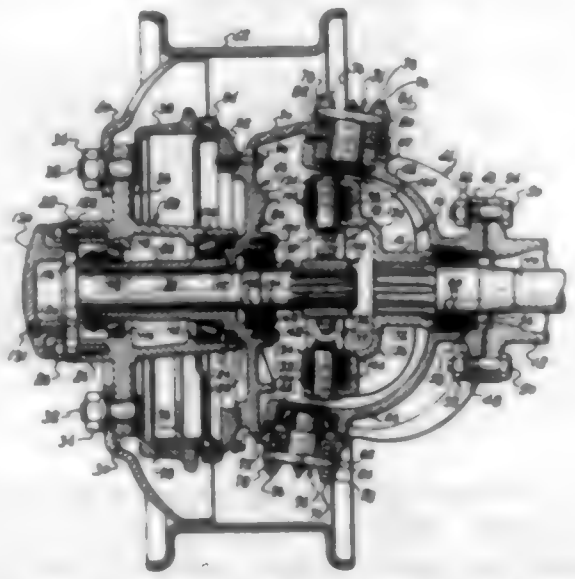
the axis thereof to accommodate said tilting of the implement frame, said lost motion means including spring means acting in compression opposing the tilting of the implement frame in either direction relative to said tool bar, and a part on the frame having a vertical slot therein to slidably receive and guide the rear end of said supporting member for limited relative movement therebetween.

2,871,965

STEERING DRIVE AXLE

Laine J. Ainsworth, Danville, Calif., assignor to Harleigh Holmes 4-Wheel Drive Company, Littleton, Colo., a corporation of Colorado

Application May 31, 1955, Serial No. 512,060
1 Claim. (Cl. 180—43)



In the environment of a steering drive axle assembly having a driver axle, a driven axle in outboard and spaced relation to said driver axle and in axial alignment therewith, means supporting said axles for rotation, means mounting said driven axle for horizontal turning movement with respect to said driver axle, and a Cardan type universal joint connecting said axles together including a drive yoke, a compensating ring, and a torque bar adapted to be fixedly secured to the inner end of said driven axle: the improvement comprising a sliding spline connection between said torque bar and said driven axle enabling said bar to be self adjusting on said axle to seek the center of said universal joint when said driven axle is turned and rotated, clamping means embodied in

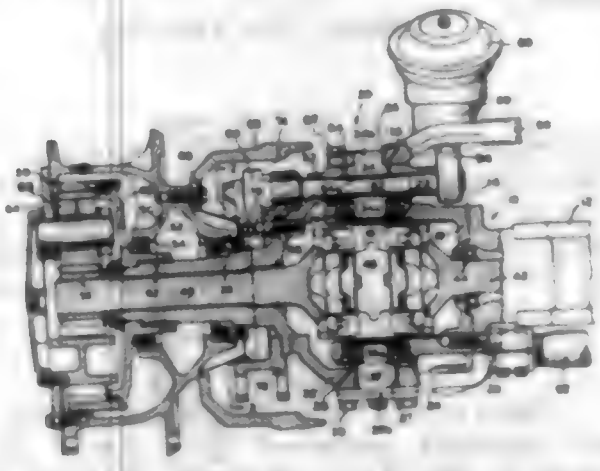
said torque bar enabling said bar to be fixedly secured to said driven axle against relative movement with respect thereto when said torque bar has become self adjusted to the center of said joint, and means embodied in said joint enabling yielding relative radial movement between said drive yoke and said compensating ring and between said compensating ring and said torque bar.

2,871,966

STEERING DRIVE AXLE

Melvin E. Dreitzler, Buchanan, Mich., assignor to Clark Equipment Company, a corporation of Michigan

Application December 26, 1956, Serial No. 630,499
2 Claims. (Cl. 180—43)



1. A steering drive axle comprising, a fixed housing having an enlarged extension portion at the end thereof, the said extension portion having a first pair of circular openings therein at the top and bottom, a movable housing pivotally mounted on the said fixed housing, said movable housing having a second pair of circular openings through top and bottom portions thereof, a pair of trunnion members located respectively in the said second pair of openings and having portions extending respectively into the said first pair of openings, a cap member mounted on the top of the said movable housing for holding the uppermost trunnion member in position, an outwardly extending central sleeve portion on the said movable housing, a wheel hub mounted for rotation on the said sleeve portion, a brake drum located between the said cap member and the said wheel hub, that is, axially outwardly of the cap member and axially inwardly of the wheel hub, brake shoes mounted on the said movable housing and arranged to engage the inner surface of the said brake drum, connections between the said brake drum and the said wheel hub located axially outwardly of the said inner surface, and an operating cam for the said brake shoes, the said movable housing and the said uppermost trunnion member having longitudinally disposed axially aligned apertures extending therethrough, a shaft for operating the said brake mechanism extending through the said apertures and having the said cam mounted on one end thereof, an actuator for the said brake mechanism mounted on the said cap member, and a lever mounted on the other end of the said shaft and connected to the said actuator.

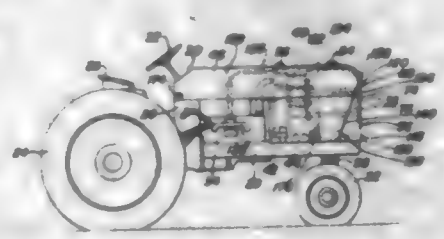
2,871,967

TRACTOR WITH FRONT MOUNTED FUEL TANK

Wallace H. Du Shane, Waterloo, Iowa, assignor, by mesne assignments, to Deere & Company, a corporation of Delaware

Application April 11, 1955, Serial No. 500,562
19 Claims. (Cl. 180—54)

1. In a vehicle having a fore-and-aft body including a front end, the improvement comprising: an upright cylindrical fuel tank carried by the body adjacent to but spaced rearwardly from said front end; a wrap-around shield structure of U-shaped section having a terminal lower base secured to the body at the front end thereof and including a transverse upright part ahead of the fuel tank and a pair of upright rearwardly extending wing parts respectively at the sides of the fuel tank; and sup-



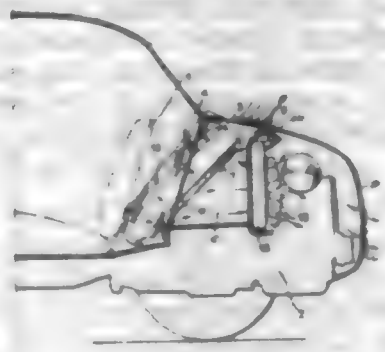
porting strap means embracing the fuel tank and secured to the shield structure at inner portions of said shield structure.

2,871,968

LUGGAGE AND SPARE WHEEL COMPARTMENT STRUCTURE ON REAR-ENGINED VEHICLES

Dante Giacosa, Turin, Italy, assignor to Sira Società Industriale Ricerche Automotoristiche, Turin, Italy

Application September 4, 1956, Serial No. 607,890
Claims priority, application Italy September 8, 1955
4 Claims. (Cl. 180—54)



1. In a motor vehicle having a passenger compartment and an engine compartment in the rear end thereof and a rearwardly inclined wall forward of the engine compartment to separate it from the passenger compartment, means for supporting an assembled spare wheel in an inclined position substantially parallel to the rearwardly inclined wall and spaced therefrom and spaced from the lateral walls of the compartment, at least one lid over the compartment operable to opened and closed positions and having formed openings disposed above the tire to provide air ingress into the compartment in a direction toward said wall and between the assembled wheel and the wall, means defining formed openings at the rear of the compartment to provide an air egress from the compartment, an engine in said compartment having a radiator mounted in the flow path of the air and between the wheel and the air egress.

2,871,969

HYDRAULIC POWER STEERING GEAR

David P. Smith, Essexville, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

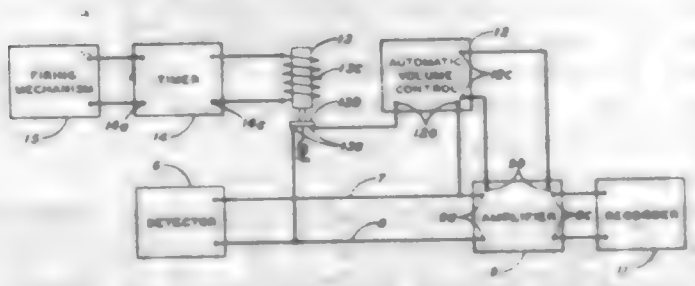
Application June 2, 1955, Serial No. 512,667
3 Claims. (Cl. 180—79.2)



1. Steering apparatus for an automotive vehicle or the like, which apparatus includes a steering cross-shaft

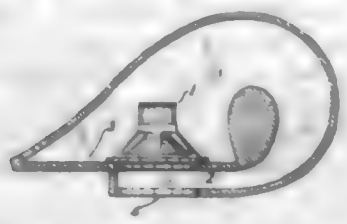
the axis of which is disposed transversely of the vehicle, a pitman carried by said shaft to rotate therewith, an idler arm rotatably supported in side by side relation to said pitman and adapted for pivotal connection with a steering linkage member, said idler arm being disposed outward of said pitman and having an opening therein surrounded by a boss located on the outer face thereof, a booster assembly disposed longitudinally of the vehicle and adapted to react against a fixed portion thereof, said assembly incorporating a control valve comprising a housing portion pivotally connected to said idler arm by means of said boss and a component within said housing portion movable relative thereto, and means interconnecting said pitman and said component whereby the latter may be actuated by said pitman, said means including an element extending from said pitman through said opening with sufficient clearance to permit a predetermined degree of relative movement between said pitman and said idler arm.

2,871,970
METHOD AND APPARATUS FOR AMPLIFYING SEISMIC SIGNALS
Robert E. Doe, Robert E. Daniel, and Graham C. Alvey, Calgary, Alberta, Canada, assignors, by mesne assignments, to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application March 18, 1954, Serial No. 417,185
2 Claims. (Cl. 181—.5)



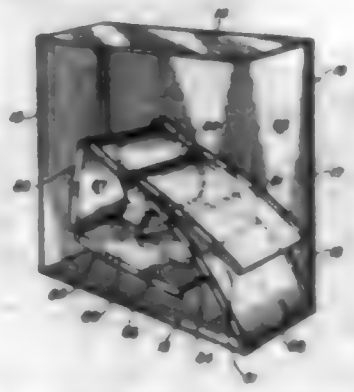
1. The method for controlling the amplification of a signal from a seismic detector to provide a record of said signal containing some portions representing said signal as modified by an automatic volume control and other portions representing said signal unmodified by said automatic volume control in which the signal from the seismic detector is passed through an amplifier which has an automatic volume control connectible to it to control the amplitudes of signals sent from the amplifier to a recorder, the improvement comprising periodically disconnecting and subsequently reconnecting the automatic volume control and the amplifier at predetermined times and for predetermined time intervals while the record is being made to provide a seismic record which has preselected portions which are free from the effects of said automatic volume control interspersed between preselected portions of said record which are affected by said automatic volume control.

2,871,971
SOUND-PROPAGATING DEVICE
Robert J. Beecroft and Edward N. Fenton, Flushing, N. Y.
Application April 28, 1954, Serial No. 426,106
1 Claim. (Cl. 181—31)



A sound propagating device comprising a casing defining a flared enclosed sound path having a throat at one end and being closed at the other end and being curved so that the closed end is adjacent said throat, said enclosed sound path having an outlet adjacent said throat, said closed end of said sound path having an opening opposed to said outlet, and a sound source positioned in said sound path closing the opening in the closed end thereof to propagate sound both at right angles to said throat and out through said outlet and parallel to the throat into the flared path.

2,871,972
HORN FOR LOUDSPEAKER
Courtney Q. Glassey, Rochester, N. Y.
Original application May 2, 1955, Serial No. 505,367, now Patent No. 2,835,335, dated May 20, 1958. Divided and this application March 12, 1958, Serial No. 720,933
7 Claims. (Cl. 181—31)

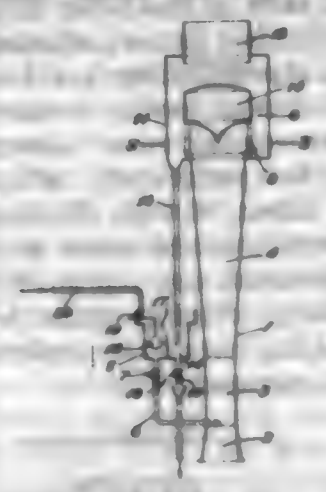


1. A sound-reproducing apparatus comprising in combination, a hollow housing having an aperture for establishing communication between the interior of said housing and the atmosphere, at least one vibrating-diaphragm type loud speaker arranged within said housing, a chamber within said housing enclosing said speaker and having a first opening for establishment communication between the rear side of the speaker diaphragm and the interior of said housing and a second opening for establishing communication between the front side of the speaker diaphragm and the interior of said housing, a partition arranged within said housing, said partition dividing said aperture into two contiguous horn mouths of a predetermined ratio of areas, a first horn substantially encircling said chamber and having a flare increasing in at least one dimension from said first opening to said aperture for directing the lower frequencies of said speaker from said first opening to one of the horn mouths, and a second horn having a flare increasing in at least the same one dimension as said first horn from said second opening to said aperture for directing the higher frequency of said speaker from said second opening to the other of the horn mouths, a portion of said first horn being arranged about said second horn with said partition forming a portion common to each of said horns.

2,871,973
APPARATUS FOR WASHING GASES
Léopold Antoine Guillaume Roujob, Brussels, Belgium, assignor to Societe Belge Frat-Daniel, Societe Anonyme, Brussels, Belgium, a Belgian company
Application February 23, 1956, Serial No. 567,375
Claims priority, application Belgium March 4, 1955
2 Claims. (Cl. 183—3)

1. Gas washing apparatus which comprises a vertical duct having an upper portion that diverges upwardly and a lower portion of uniform cross-section, said lower portion having an axial inlet at its lower end, a static centrifugal separator connected to the upper end of said diverging portion to separate suspended particles of liquid from gas, a chamber positioned at the upper part of said duct to receive particles separated from said centrifugal separator, and a circulating water circuit, comprising a collecting vessel below said chamber and above the lower

end of said vertical duct, said collecting vessel having means to separate solids from water, a conduit from said chamber to said vessel, and a conduit for said water from said vessel to said lower portion of said duct to distribute said water about the inner surface of said



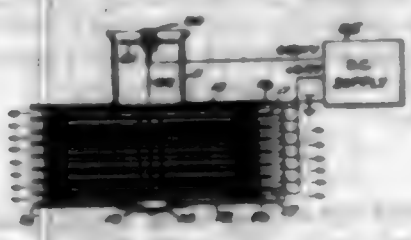
lower portion below the lower end of said upper portion to be carried up by the upflow of gas through said duct as a film on the inner surface of said lower portion and as a suspension in said gas through said upper portion to said centrifugal separator.

2,871,974

ELECTROSTATIC PRECIPITATORS

Mervin C. Werst, Penn Township, Allegheny County, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 16, 1956, Serial No. 578,392
8 Claims. (Cl. 183—7)



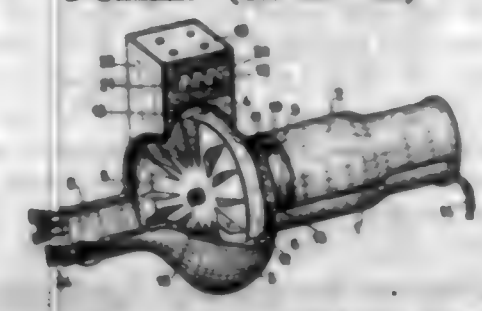
1. An electrostatic precipitator comprising a plurality of spread-apart, parallel collector plates, an inlet plate extending parallel to said plates on one side thereof, an end plate extending parallel to said collector plates on the other side thereof, said plates except for said end plate having aligned openings therein, a non-discharging ionizer electrode having a cylindrical inner surface on the outer side of said inlet plate around the opening therein, an ionizer wire within said electrode and in the openings in said collector plates, means for supporting one end of said wire adjacent the outer end of said electrode, and means supporting the other end of said wire adjacent said end plate.

2,871,975

VACUUM CLEANERS

Louis Polo, Annemasse, France, assignor to Radios S. A., Bellegarde (Ain, France), a corporation of the French Republic

Application September 23, 1955, Serial No. 536,257
Claims priority, application Switzerland October 8, 1954
2 Claims. (Cl. 183—21)



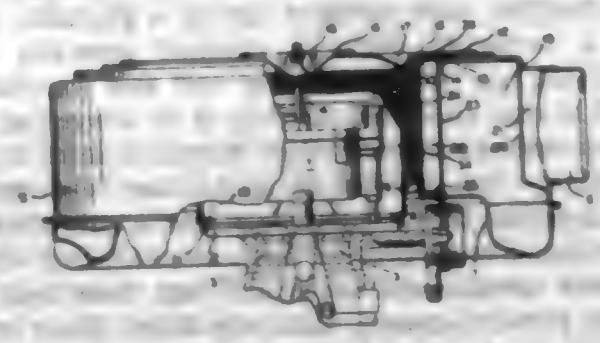
1. A vacuum cleaner adapted to be carried with one hand of the operator comprising, in combination, an elongated housing having a pair of end portions extending in opposite directions and being each formed with an air suction opening, one of said end portions forming a handle for holding said vacuum cleaner, said housing having intermediate said end portions an outwardly bulging portion aligned with said end portions on a common axis and being formed with a pair of spaced air outlet openings; a wall located between said spaced air outlet openings, extending substantially normal to said axis transversely through said bulging portion of said housing and dividing said housing into a first and a second compartment each having an air suction opening and an air outlet opening; a chamber open at one end and being attached at the other end thereof to said outwardly bulging portion of said housing so that the air outlet opening of said first compartment communicates with the interior of said chamber; sponge means located in said chamber intermediate the ends thereof and being formed with air passages therethrough, said sponge means being adapted to be moistened with dust-absorbing liquid; first impeller means located adjacent said wall in said first compartment for sucking air through said air suction opening of said first compartment and expelling said air through said air outlet opening of said first compartment into said chamber and through said air passages in said sponge means into the atmosphere; second impeller means located adjacent to said wall in said second compartment for sucking air through said suction opening in said second compartment and expelling said air through said air outlet opening in said second compartment; drive means located in said second compartment between said air suction opening and said air outlet opening formed therein and being connected by a shaft extending through said wall through said first and second impeller means for driving the same, so that dust contained in the air sucked in by the first impeller means will be absorbed by the dust-absorbing liquid as said air passes through said passages in said sponge means so that the air sucked in by the first impeller means will be expelled from the vacuum cleaner substantially dust-free, whereas the air sucked in by the second impeller means will pass over said drive means to cool the same and whereby the two air streams moved by said first and second impeller means are completely separated from each other.

2,871,976

AIR CLEANER-INTAKE SILENCER UNIT AND FILTER ELEMENT THEREFOR

Frank Sebok, Hazel Park, Mich., assignor, by mesne assignments, to Purolator Products, Inc., Rahway, N. J., a corporation of Delaware

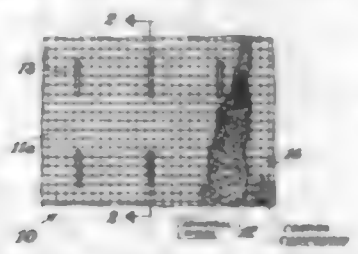
Application March 30, 1956, Serial No. 575,025
5 Claims. (Cl. 183—44)



1. In an air cleaner and intake silencer assembly, a casing having spaced air inlet and outlet openings, said casing housing a sound attenuating chamber and having an opening in the top thereof, said top opening being defined by a depressed annular shoulder, an annular air filter insertable through said top opening, said casing defining a seat for said air filter below said top opening, said filter having a resilient top end cap of sufficient diameter to extend over said shoulder, a cover for said top opening of less diameter than said top end cap and which

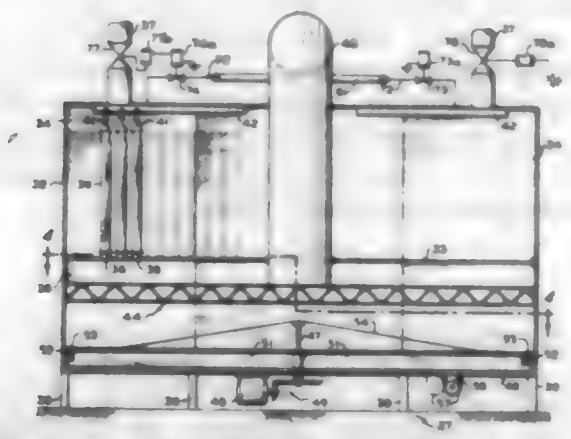
rests thereupon to compress said end cap and effect a seal for said attenuating chamber, and a fire wall extending upwardly inside and spaced from said filter between it and said air outlet opening.

2,871,977
HOT GAS FILTERS
Fred E. Kling, Tenafly, N. J.
Application December 12, 1955, Serial No. 552,342
9 Claims. (Cl. 183—45)



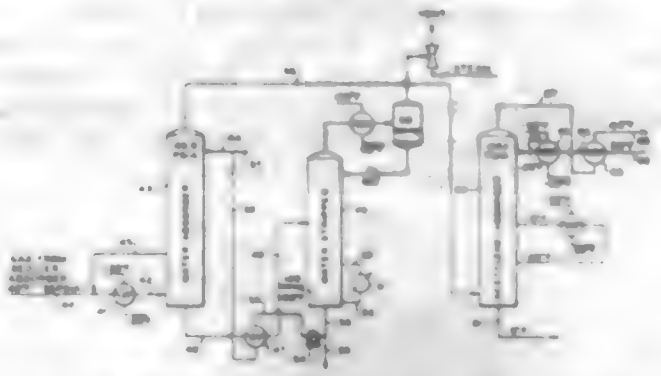
1. A hot gas filter consisting of a permeable carrier of refractory material and a permeable heat-hardened, dry coating composition applied to an exposed surface of said carrier, said coating composition consisting of a silicate vehicle and finely divided dust of a heat resistant material, said vehicle selected from the group consisting of sodium and potassium silicate, the permeability of said composition being lower than the permeability of said carrier.

2,871,978
APPARATUS FOR FILTERING SOLIDS FROM GASES
George J. Webster, Bartlesville, Okla., and Newton R. Wilson, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware
Application August 30, 1956, Serial No. 607,000
3 Claims. (Cl. 183—57)



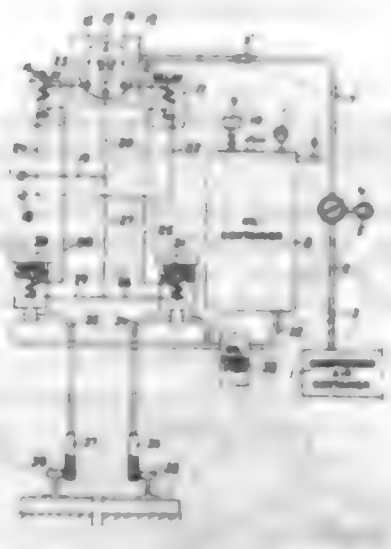
1. A dust filtering apparatus comprising, in combination, a polygonal, air-tight housing divided transversely by a horizontal partition into an upper chamber and a lower chamber, said partition having a plurality of apertures, a vertically disposed conduit centrally passing through the top of said housing and said partition, said conduit having an outlet opening at its lower end whereby a gas having suspended dust therein is introduced into substantially the middle of said lower chamber, said upper chamber being subdivided into a plurality of adjacent triangular-shaped filtering compartments which encircle said conduit and are equidistant therefrom, a plurality of parallel spaced, vertically fixed, filter bags suspended in each of said filtering compartments by their closed upper ends, the open lower ends of said filter bags being in sealed communication with said apertures, each of said filtering compartments having an outlet stack for removing dust-free gas from said compartments, said outlet stack having a normally open solenoid actuated valve therein, first conduit means for periodically reintroducing a portion of said dust-free gas into said filtering compartments under pressure whereby dust deposited on the insides of said filter bags is dislodged and permitted to fall through said apertures into said lower chamber, said first conduit means having a normally closed solenoid actuated valve therein, at least two of said filtering compartments serving as sources of dust-free gas for the purpose of repressurizing said filtering compartments, each of the latter filtering compartments having second conduit means communicating with a compressor and a repressurizing gas header, each of said second conduit means having a solenoid actuated valve therein, said first conduit means communicating with said header, means for periodically actuating the said solenoid actuated valves of each filtering compartment according to a predetermined timed sequence whereby said filtering compartments are repressurized with said dust-free gas, revolving scraping means in said lower chamber, and conveying means for removing collected dust from said lower compartment.

2,871,979
DEHYDRATION OF GASES CONTAINING ACETYLENE AND REMOVAL OF ACETYLENE THEREFROM
Raymond C. Scofield, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application June 23, 1955, Serial No. 517,495
15 Claims. (Cl. 183—115)



14. A method for dehydrating a hydrocarbon gas containing acetylene and water which comprises contacting said gas with a dimethylformamide dehydrating solvent containing from about 14 to 50 mol percent of water at a temperature below 0° F. and thereafter separating said solvent from said gas.

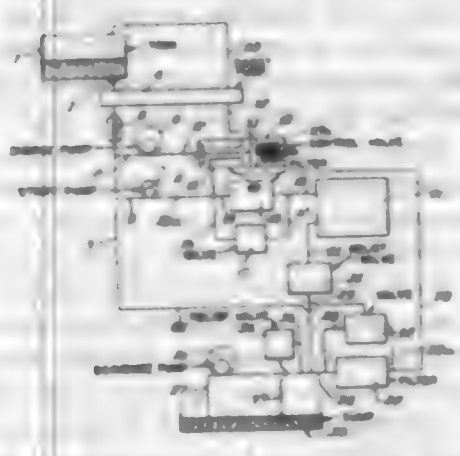
2,871,980
DEVICE FOR AUTOMATIC LUBRICATION OF RAIL CURVES
Nils G. E. Allard, Stockholm, Sweden
Application April 4, 1955, Serial No. 499,174
Claims priority, application Sweden April 9, 1954
1 Claim. (Cl. 184—3)



An apparatus for the automatic lubrication of curved portions of rails, said apparatus comprising two adjacent pairs of contacts, each pair having an inner contact and

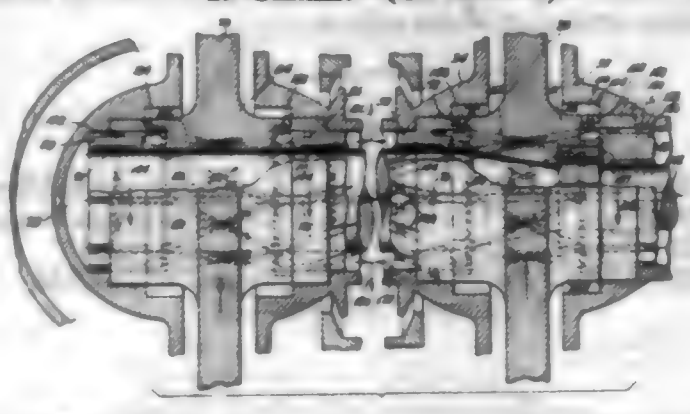
an outer contact, a gyro-guided actuating device located between said pairs of contacts and operable to close selectively one of said pairs of contacts, a source of electrical energy having two terminals, electrical conduits connecting one of said terminals to the inner contacts of each pair of contacts, two relays, each of said relays having a coil and two contacts, one of said contacts being connected with the coil, electrical conduits connecting the coil of each relay to a separate outer contact of said pairs of contacts, electrical conduits connecting the coils of said relays to the other terminal of said source, two valves, magnetic means actuating said valves, electrical conduits connecting said magnetic means with the other contact of each of said relays and with the first-mentioned electrical conduits, an oil container, oil conduits connecting said oil container with said valves, two rail-lubricating jets, oil conduits connecting each of said jets with a separate valve, whereby each valve when actuated by said magnetic means opens the flow of oil from said oil container to a separate jet, a gyro device comprising a gyro rotor, a frame carrying said gyro rotor, means connecting said frame with said gyro-guided actuating device, a dampening device connected with said frame, and a resetting spring connected with said frame; said apparatus further comprising a compressed air container, an air-pressure conduit connecting said compressed air container with said oil container, and an air-pressure conduit connecting the first-mentioned air-pressure conduit with said gyro device.

2,871,941
AIR BLOCK VALVE CIRCUIT
Stephen S. Baltz, Rockford, Ill., assignor to Sundstrand Machine Tool Co., a corporation of Illinois
Application February 5, 1957, Serial No. 638,283
6 Claims. (Cl. 184—6)



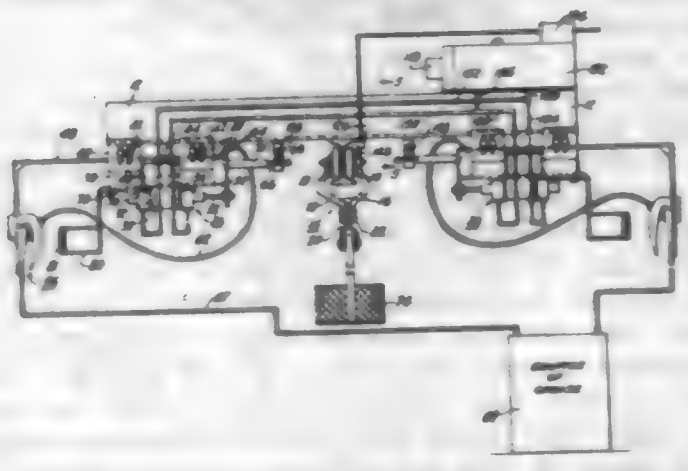
1. A lubricating oil system for a mechanism comprising, an oil tank, a sump, a charge pump normally oil-primed from the tank, a scavenge pump normally operative to direct oil from the sump to the tank, a valve having a chamber with a first inlet at one end and a second inlet, said inlets communicating with the charge and scavenge pumps, respectively, first and second outlets communicating with said mechanism and oil tank, respectively, a valve member in said chamber having a first position in response to a predetermined fluid pressure at the first inlet in which the first inlet and the first outlet are in communication as are the second inlet and the second outlet and a second position in which the communication between the valve inlets and outlets is reversed, means defining a passage in the valve member for urging air from the first inlet to the second outlet when the valve member is in its second position, a spring acting on the valve member at the end thereof remote from said first inlet and effective to shift the valve member from first to second positions when the pressure at said first inlet falls below said predetermined amount.

2,871,982
LUBRICATING, COOLING AND OIL SEALING SYSTEM FOR COUNTER ROTATING ENGINES
Ernest H. Buell, Altamont, N. Y.
Application September 19, 1957, Serial No. 685,002
19 Claims. (Cl. 184—6)



1. In a turbo compressor system, an inner unit including a rotor and a shaft, an outer unit including a rotor and a shaft, said outer shaft positioned in coaxial relation with said inner shaft, end bearings located adjacent said inner rotor and supporting said inner shaft for rotation, said inner rotor having diagonally extending passages formed therein, longitudinal passages formed in one of said end bearings and communicating with said diagonally extending passages, and helical passages formed in the other of said end bearings and communicating with said diagonally extending passages, said end bearings rotating in a direction opposite to said inner rotor whereby lubricating fluid is pumped through said longitudinal passages in said first end bearing and into said diagonally extending passages in said inner rotor, and then into said helically formed passages in the other of said end bearings for return to the point of origin.

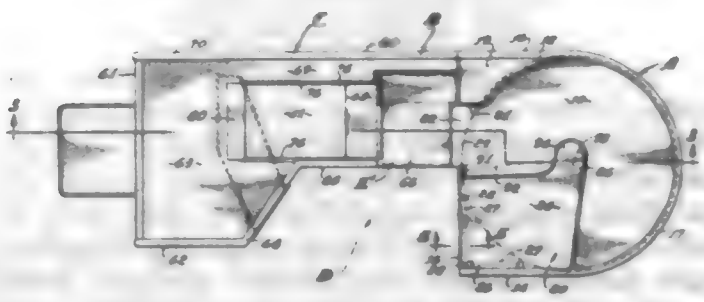
2,871,983
GREASING MECHANISM
Bernard D. Kaiser, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application October 6, 1955, Serial No. 538,924
2 Claims. (Cl. 184—15)



1. A lubricating mechanism for automatically lubricating the rollers of the trolleys of a conveyor mechanism as said trolleys move past the lubricating mechanism, said lubricating mechanism including a fixedly mounted support member, a greasing mechanism secured in large part to the support member, said greasing mechanism comprising two aligned fluid motors each comprising a casing and a piston member, support means for, in part, adjustably securing the two casings to the fixedly mounted support member, two grease transmitting means, each including a trigger control unit, for effecting a greasing operation of the rollers when the motors are energized, means, having a portion thereof slidably mounted on a portion of the support means, for supporting the grease transmitting means, and means, fixedly secured to the support means, for cooperating with the trigger control units to

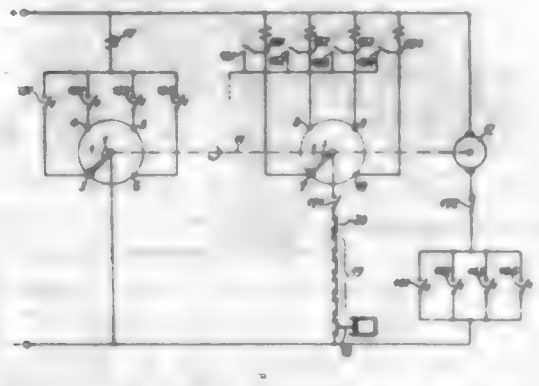
effect their operation; the entire mechanism being operable, with an energization of the two motors, to move portions of the two grease transmitting means toward the rollers of a trolley and, at the end of the stroke of the said portions, to actuate the trigger control units to effect a greasing operation of the rollers.

2,871,954
CHECK STAND
Edward Colman, Los Angeles, Calif., assignor to Du-More Fixture Co., Inc., Los Angeles, Calif., a corporation of California
Application February 24, 1956, Serial No. 567,546
7 Claims. (Cl. 186—1)



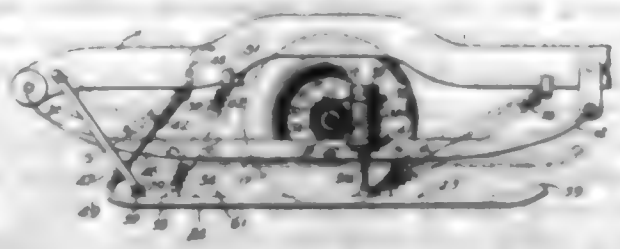
1. In a check stand: a substantially horizontally disposed rotatable turntable counter adapted to receive articles; means for rotating said turntable counter about a generally vertical axis; a support for a cash register disposed over a portion of said turntable counter and extending across said vertical axis; and means for supporting said cash register support at said vertical axis, including a bearing resting upon said turntable counter, said cash register support resting upon said bearing, said bearing having an axis coincident with said vertical axis.

2,871,985
LIFT CONTROL DEVICE
Karl Stutz, Lucerne, Switzerland, assignor to Inventio A. G., Hergiswil Nidwalden, Switzerland, a corporation of Switzerland
Application November 13, 1956, Serial No. 621,964
5 Claims. (Cl. 187—29)



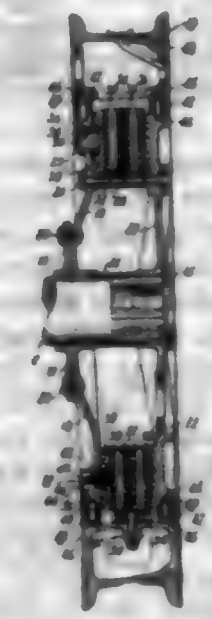
3. A lift control device for arranging the order of operational sequence of outside calls in lifts with outside call apparatus actuated by press-buttons, in which a selector arrangement is placed in circuit between at least one part of the outside call apparatus and the motion control for the lift, said selector arrangement embodies two selector arms arranged on a common shaft driven by a motor, and two sets of fixed contacts, one set associated with each selector arm, the selector arrangement is controlled by a circuit relay which comprises two switches, one of which is connected in the circuit of one of the selector arms and the other of which switches is arranged in the circuit of said motor, the first-mentioned switch being open until said relay operates and the second-mentioned switch being closed until said relay operates, one set of the fixed contacts are directly connected through call-button contacts to said circuit relay, and said call-button contacts are connected in parallel and are in operational connection with a further set of contacts in the circuit of said motor, which arrangement searches the outside call step-by-step in a predetermined order of sequence and causes the actuated members of said apparatus to operate one by one the motion control of the lift according to the predetermined order of sequence.

2,871,564
AUXILIARY SAFETY BRAKING ATTACHMENT FOR MOTOR VEHICLES
Michael Polavitch, Elizabeth, N. J.
Application December 6, 1956, Serial No. 626,704
8 Claims. (Cl. 188—5)



1. In combination with a motor vehicle having a frame including a pair of side members with a cross-member attached to and connecting a portion of said side members substantially perpendicular thereto, a rear axle supported by the frame, the housing of said rear axle having a pair of tubular side sections substantially perpendicular to the frame side members, and a pair of driving wheels supported by the rear axle; an auxiliary braking mechanism comprising a pair of auxiliary brake shoes of substantially rectangular contour mounted below the frame side members, a rear link pivotally attached to each of said frame side members, a major portion of the braking surface of each of said brake shoes being substantially flat, and parallel to one frame side member, the flat portion of each brake shoe being operative to engage the road surface over substantially its entire length, supporting the rear portion of each of the auxiliary brake shoes, a pair of pivot brackets attached to the frame cross-members, a compressed air-operated control cylinder pivotally supported by each of the rear axle housing side sections above each of said auxiliary brakes shoes, each air-operated control cylinder being supported by a pair of straps attached to a tubular bearing support member, said bearing support member being trunnioned directly on one of the rear axle housing tubular side sections, each of said control cylinders having a piston and a piston rod reciprocatingly fitted thereto, the outer end of each of said piston rods being pivotally attached to a bracket fixedly attached to the adjacent auxiliary brake shoe, a compressed air supply source connected to each of said control cylinders, a fluid pressure control valve mechanism fitted to the hydraulic master cylinder operative to control the flow of air to each of the control cylinders to force the piston rod into the auxiliary braking position, each control cylinder piston rod being operative to force one of the auxiliary brake shoes against the road surface, when the piston rod is moved outward by compressed air supplied to the piston end of the control cylinder, a manually operated control lever pivotally attached to the motor vehicle, means controlled by the control lever adapted to release air from the piston end of the control cylinder and allow compressed air to enter the piston rod end of each control cylinder to draw the piston rod into the control cylinder, and a plurality of extension spring members connecting each of the frame side members with the mating auxiliary brake shoe to draw the auxiliary brake shoe into a retracted position when the piston rod is drawn into the air cylinder.

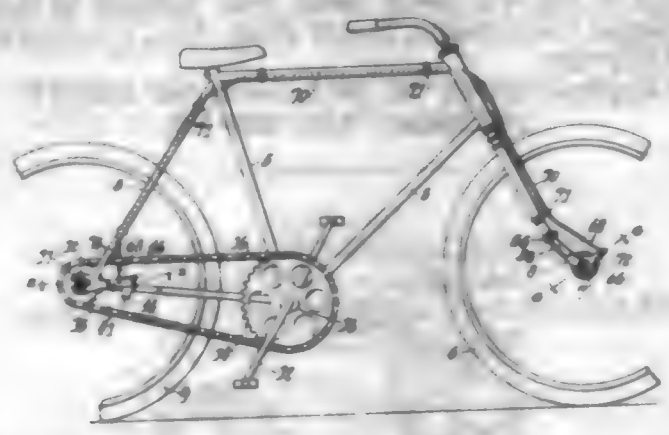
2,871,987
WHEEL AND BRAKE ASSEMBLY
William H. Du Bois, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Continuation of abandoned application Serial No. 147,887, March 1, 1950. This application July 18, 1955, Serial No. 522,591
6 Claims. (Cl. 188—18)



1. A hubless wheel and brake assembly comprising a pair of axially spaced brake supports adapted to be secured to a rigid portion of the supported vehicle, a plurality of circumferentially spaced fastening members securing said brake supports together, spacer means associated with said fastening members for holding said brake supports apart, a plurality of circumferentially spaced anti-friction bearing assemblies journaled on said brake supports to be in direct supportive engagement with the rim of said wheel, the circumferential spacing between said bearings varying to provide closely spaced bearings at one side of said brake supports and wider spaced bearings diametrically from the circumferential location of said closely spaced bearings a plurality of circumferentially spaced axially extending key members secured to the inner periphery of said wheel, one or more rotatable brake discs supported by said key members for rotation with said wheel and for axial movement, said discs being arranged to occupy the major axial portion between the sides of said wheel, a plurality of circumferentially spaced key members carried by said brake supports, one or more non-rotatable brake discs supported by said last mentioned key members for axial movement only and interleaved with said rotatable brake discs, one of said brake supports having hydraulic actuator means transversely mounted therein for producing frictional engagement of said brake discs, and means for yieldably urging said brake discs out of frictional engagement.

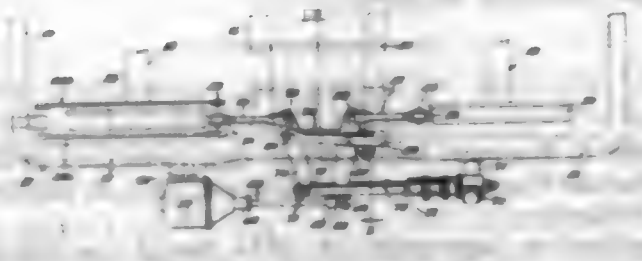
2,871,988
BICYCLE BRAKING SYSTEM
Edward D. Wilkerson, Livingston, N. J.
Application March 9, 1955, Serial No. 493,105
8 Claims. (Cl. 188—26)

1. In a bicycle wherein is provided a frame, a rear wheel rotatably mounted on the frame, a front wheel rotatably mounted on the frame, and pedal operated means for imparting rotation to the rear wheel for the purpose of propelling the bicycle, in combination, braking means for the front wheel and including a movable brake actuator, braking means for the rear wheel operable by back pedalling of the rotation imparting means for braking forward rotation of the rear wheel and including a movement imparting device movable with the rear wheel as the braking means is being applied to the rear wheel, and means for transmitting movement from said move-



ment imparting device to said brake actuator to apply the front wheel braking means as the rear wheel braking means is being applied.

2,871,989
CLASP BRAKE LINKAGE ALIGNMENT ARRANGEMENT
Carl E. Tack, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application August 19, 1955, Serial No. 529,526
3 Claims. (Cl. 188—33)



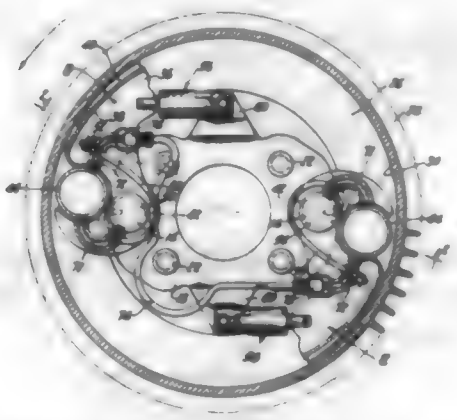
1. In a self-aligning trapezoidal tread brake linkage arrangement for a railway car truck, including a frame and a pair of supporting wheel and axle assemblies, the combination of: a pair of brake shoe assemblies disposed between respective assemblies for engagement therewith; a pair of generally vertically extending dead brake levers fulcrumed intermediate their ends to the frame and pivotally connected at their lower ends to respective brake shoe assemblies; a pair of floating links having corresponding outer ends connected to the upper ends of respective brake levers; a power cylinder member and an automatic slack adjuster member mounted on the outboard side of the frame adjacent respective assemblies, said cylinder member having a piston rod element extending toward the slack adjuster member, said slack adjuster member having an extension element extending toward said power cylinder member, said elements having ends extending beyond each other, said slack adjuster member element comprising a pair of spaced bars defining a slot therebetween; a pair of live and dead actuating levers having their inboard ends connected to corresponding inner ends of the respective links, said dead actuating lever being disposed between the power cylinder member and the live actuating lever and having its outboard end pivotally connected to the end of slack adjuster member element, said live actuating lever being disposed between the slack adjuster member and the dead actuating lever and having its outboard end disposed within the slot of said slack adjuster member element and pivotally connected to the end of said power cylinder member element; and a manually adjustable floating connector disposed to extend in a direction generally parallel to the elements of said members and comprising a pair of spaced bars interconnecting medial portions of the respective actuating levers and presenting therebetween a slot in which is disposed said live actuating lever.

2,871,990

COMBINATION DISC AND TRANSVERSE TYPE WHEEL BRAKE

Richard T. Burnett, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application July 20, 1953, Serial No. 369,197
28 Claims. (Cl. 188—70)



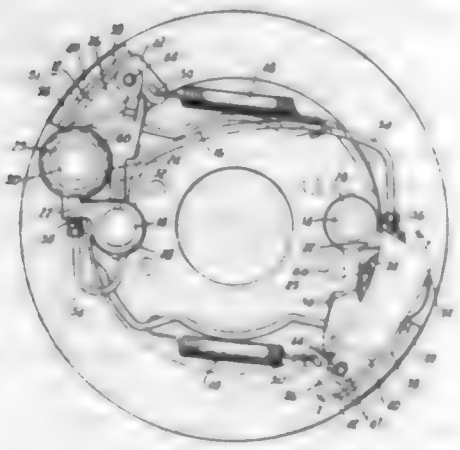
17. A combination disc and shoe unit comprising a web, a friction material lined rim, a portion of said web adapted for pivotally associating said unit with a fixed abutment and an actuator cylinder substantially perpendicularly mounted in said web intermediate said rim and pivotal mounting portion.

2,871,991

BRAKE

Richard T. Burnett, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application September 15, 1954, Serial No. 456,218
9 Claims. (Cl. 188—70)



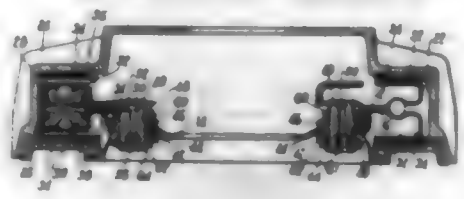
1. A friction unit comprising a cast portion having a cylinder bore formed in said cast portion, a pair of oppositely-acting pistons reciprocably received in said cylinder bore, a friction-producing element detachably secured to each of said pistons, an annular groove formed in said cylinder bore adjacent each of the opposite ends thereof, a resilient seal received in each of said grooves and contacting said pistons, a second friction-producing element removably associated with said friction unit, said second friction-producing element consisting of a lined rim substantially normal to the planes of said first friction-producing elements and a transverse strengthening web, said cast portion having a bifurcated component arranged to receive the web of said friction-producing element therebetween, a pin for securing said second friction-producing element and cast portion together, said pin extending on both sides of the unit to pilot said first friction-producing elements, and means for pivotally associating said unit with an anchor member.

2,871,992

AXIALLY AND TRANSVERSELY MOVABLE BRAKE

Richard T. Burnett, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application March 7, 1955, Serial No. 492,422
8 Claims. (Cl. 188—70)



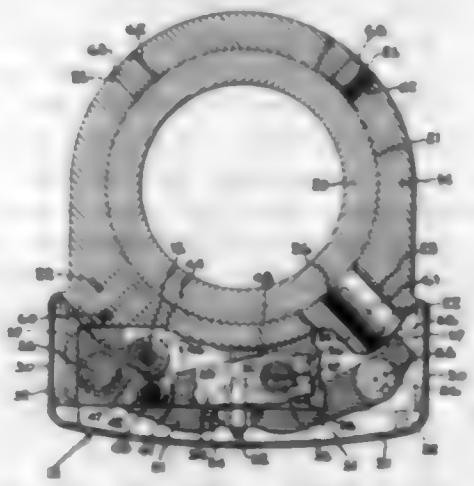
1. A brake unit comprising a web, an arcuate rim formed along a segment of the periphery of said web, friction material lining on said rim, a fluid motor transversely mounted in said web, a pair of oppositely-acting friction elements applied by said fluid motor, a post transversely received through said web and rigidly fixed thereto, a longtiudinally extending bore formed in said post, a radial bore in said post intersecting the longitudinal bore, a fluid conduit positioned in the web of said unit and interconnecting said radial bore and said fluid motor, a fixed anchor sleeve having an opening therein, said post being received through an opening in said sleeve and journaled therein to permit pivotal movement of the brake unit, and fastening means associated with said sleeve and post to prevent lateral movement of said brake unit.

2,871,993

CLAMPING MECHANISM FOR MACHINE TOOLS

William G. Hoelscher, Cincinnati, Ohio, assignor to The American Tool Works Company, Cincinnati, Ohio, a corporation of Ohio

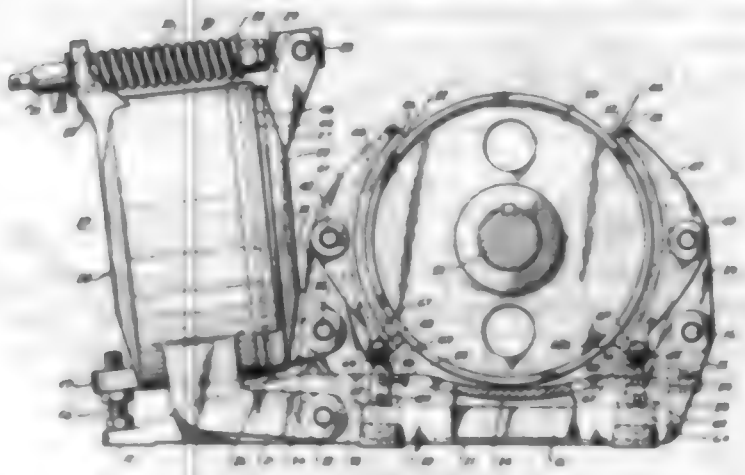
Application January 10, 1956, Serial No. 558,253
5 Claims. (Cl. 188—74)



1. In a machine tool having a cylindrical stump and column rotatably mounted relative to one another, a mechanism for clamping the column and stump in fixed position relative to one another comprising, a pair of clamping shoes slidably mounted within the column and displaced radially from one another about the circumference of the column, each of said shoes movable along a respective axis which passes substantially through the central axis of the column and stump, a respective opposed friction shoe mounted in said column along the respective axis of each clamping shoe, said clamping shoes having inner ends presented to the stump and said friction shoes having inner ends frictionally engaging the stump at points diametrically opposed to the clamping shoes, a clamp housing formed on the column adjacent the clamping shoes, a pair of clamping levers pivotally mounted within said housing, each of said levers having an outer end extending beyond its pivot point and engaged against the outer end of a respective clamping shoe, the inner ends of said levers being disposed adja-

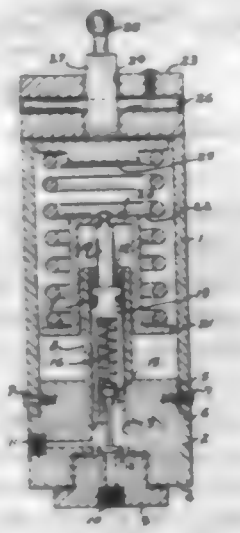
cent one another, an actuating lever pivotally mounted within the housing, said lever being shiftable to a clamping or unclamping position and engaging the adjacent inner ends of the clamping levers and actuating the same in unison, respective screw means associated with said friction shoes and with said clamping shoes, said screw means coacting to adjust the friction shoes and clamping shoes relative to said stump and to maintain the shoes under equalized frictional engagement with said stump when the actuating lever is shifted to an unclamping position, thereby to impede rotary motion of the column relative to the stump, the said clamping levers forcing the clamping shoes into equalized pressure engagement against the cylindrical stump upon shifting of the actuating lever to a clamping position, the pressure imposed upon the stump by the clamping shoes reacting through the clamp housing and column and forcing the opposed friction shoes into pressure engagement against the stump, whereby the stump is gripped from diametrically opposite points without imposing relative clamping stress upon the stump and column.

2,871,994
POSITIONAL CONTROL FOR BRAKE SHOES
Arthur L. Ward, Cleveland, Ohio, assignor, by mesne assignments, to Square D Company, Detroit, Mich., a corporation of Michigan
Application June 14, 1954, Serial No. 436,353
7 Claims. (Cl. 188—75)



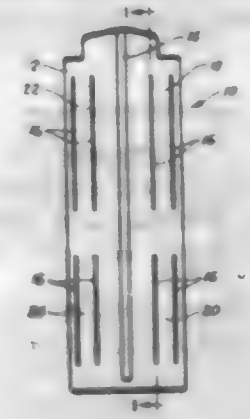
1. The combination with a braking structure comprising a support, a pivoted brake-shoe-carrying lever mounted thereon, an arcuate brake shoe freely pivoted on said lever for rocking about an axis spaced from the pivot axis of said lever, a brake wheel arranged to be operatively engaged and disengaged by said shoe as said lever rocks on its pivot axis to applied and released positions, respectively, means for adjusting the lever to different released positions, selectively, means operable for continuously urging one end portion of said shoe to remain in contact with said wheel in all released positions of said lever, a stop on said shoe presenting a stop surface in fixed relation to the shoe, a stop on said support presenting a stop surface in fixed relation to the support, said stop surfaces being mutually engageable to cause a force to be exerted on said shoe at a location on the opposite side of said pivot axis of said shoe from said one end portion of the shoe and to control movement of the shoe about the pivot axis of the shoe as the lever moves away from its applied position toward any pre-selected one of the released positions, and being so shaped and positioned that, while in said operative engagement with each other, the shoe is constrained thereby to rotate about its pivot so as to dispose both end portions of the shoe in spaced relation to said wheel upon operating movement of the lever to any one of said adjusted positions, at least one of said stop surfaces further being shaped so as to mutually constrain themselves to a line-to-line contact in all mutually engaged positions thereof, and said stop surface of the stop on the support being approximately identical with the arcuate path defined by the pivot axis of the shoe as the lever is moved from the applied position to the released position farthest therefrom with the tangents to all points on said arcuate path being approximately parallel to, but converging at a small angle with, the corresponding points on the said stop surface of the stop on the support.

2,871,995
BRAKE LOCKING MECHANISM
John E. Cline, Alpha, Ohio
Application January 24, 1956, Serial No. 561,046
8 Claims. (Cl. 188—152)



1. An accumulative brake lock for hydraulic brakes comprising, a housing, means in said housing affording an inlet thereto from a master cylinder, means providing an outlet from said housing in communication with said inlet for delivery of braking fluid to the brake lines, means in said housing operative to close said inlet but responsive to delivery of braking fluid thereto under pressure to provide access to said outlet for delivery of said fluid under pressure to said brake lines for applying the brakes, said means including self adjusting pressure means providing a constant pressure head of braking fluid in said housing and at said outlet compensating for any leakage in the brake lines during the braking period whereby the brakes are maintained in a positive locked condition once the brakes are applied.

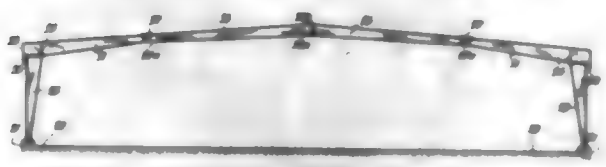
2,871,996
BRAKE SHOE
Robert L. Strebinger, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application June 20, 1955, Serial No. 516,787
6 Claims. (Cl. 188—250)



1. A brake shoe comprising a rim, a longitudinal strengthening web, a plurality of spaced slits in said rim on either side of said web, a bonding agent which is coated on the outer surface of the rim only between the slit portions of said rim, and a friction lining which is

secured to the rim by said bonding agent, the slit portions of said rim being flexible to form segments permitting limited radial movement of the lining with respect to the general surface of the rim.

2,871,997
LOW PITCH RIGID FRAME BUILDING
Harold G. Simpson, Raytown, and Norman W. Rimmer, Independence, Mo., assignors to Butler Manufacturing Company, Kansas City, Mo., a corporation of Missouri
Application June 11, 1957, Serial No. 665,026
3 Claims. (Cl. 189—1)



1. A column and rafter assembly for a low pitch rigid frame building in which the assembly provides a continuous, rigid arched frame structure for the building comprising a pair of vertical columns spaced laterally from one another and having flat, horizontal mounting surfaces at their upper ends, and an arched, unitary rafter member extending between and bridging the space between the columns and forming a ridge therebetween, said rafter member being of I construction throughout its length with upper and lower flanges defining the upper and lower flanges of the rafter member, said rafter member being symmetrical with respect to the ridge, the upper flanges on opposite sides of the ridge extending upwardly and inwardly in converging planes from the outer ends thereof to the ridge, the lower flanges at the respective outer ends being horizontal and in face to face contact with the said mounting surfaces and rigidly secured thereto whereby the beam moment due to dead load and on each side of the ridge reverses at a point intermediate the column and ridge, the lower flanges extending upwardly and inwardly from the inner edges of the columns to said reversal point at a pitch greater than the pitch of the corresponding upper flange whereby the upper and lower flanges converge for a distance inwardly of the columns on opposite sides of the ridge, the lower flanges extending from each said reversal point to the ridge at a pitch less than the pitch of the overlying upper flange whereby the flanges diverge from the said reversal points to the ridge, and the depth of the rafter between the flanges at the ridge and adjacent thereto being sufficient as to provide the rafter member with a cross sectional moment of inertia whereby suspension of the rafter at the ridge with the ends hanging free and unsupported can be carried out without damage to the rafter member thus to render the rafter member installable on the columns by providing a single lifting force at the ridge.

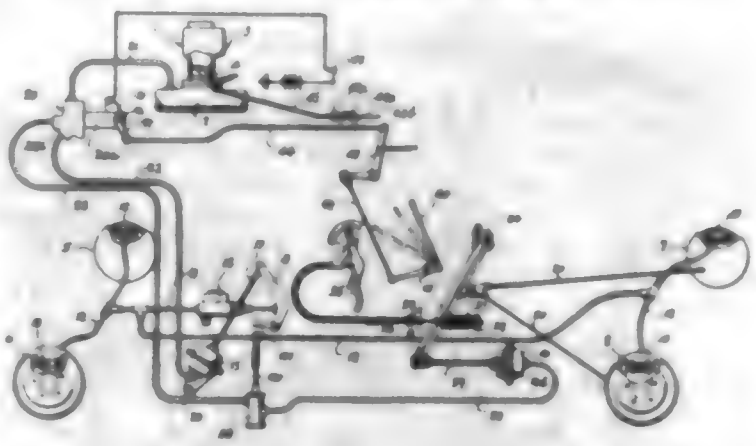
2,871,998
METAL BUILDING CONSTRUCTION
Earl Franklin Cross, Birmingham, Mich., assignor to The R. C. Mahon Company, Detroit, Mich., a corporation of Michigan
Application June 1, 1954, Serial No. 433,649
2 Claims. (Cl. 189—34)

1. A temporary metal wall structure comprising a plurality of channel sections of sheet metal, each with a plain flange on one edge and a doubled back flange on the other edge, said sections being hooked together with said plain flanges engaged within said double back flanges to form vertical ribs, a plurality of girts of thicker metal extending horizontally across and abutting said vertical ribs, a plurality of sheet metal clips supporting each of said girts, each of said clips including a pair of channel portions connected by a girt-embracing bridge portion and said



channel portions of each clip being deep channels frictionally engaging a rib for temporary support.

2,871,999
BRAKE CONTROL SYSTEM
Stanley Rice Hemphill, Pomona, Calif., assignor to Safety Automatic Brake Corporation, Denver, Colo., a corporation of Nevada
Application August 27, 1954, Serial No. 452,633
13 Claims. (Cl. 192—3)



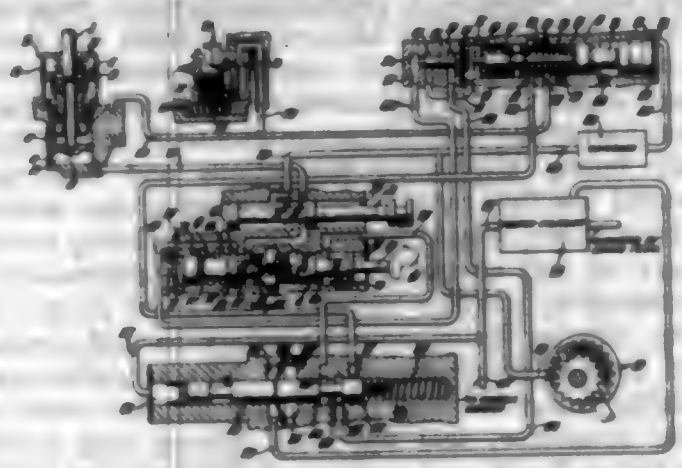
1. In an automobile having a driving power unit providing a source of suction, a power control, a power control pedal, a service brake control valve interconnected to the source of suction, brake operating power means interconnected with said valve, means for providing a lost motion connection between the power control pedal and the power control in an initial range of movement of said pedal so as to allow the power control to remain in idling position while the pedal is moved through this initial range, rigid linkage interconnecting said control pedal and said brake control valve for controlled operation of said brake control valve whereby said valve controls the suction force acting upon said brake operating power means, said valve and said power control being interconnected through said linkage so that as the pedal is depressed through the initial range the brakes are gradually released before the lost motion is fully taken up and the pedal begins to operate the power control and conversely as the pedal is released through this initial range the brakes are gradually applied before the pedal is fully released, including an emergency brake control arm adapted for hand control through a spring and means interconnected with said brake control valve for releasing the emergency brakes by moving the control arm in opposition to the spring force to release the brakes whenever the power unit is started, so that the hand control may be left locked in an emergency brake-on position and the release means will automatically return the control arm to the braking position when the power unit is shut off.

2,872,006

TRANSMISSION AND BRAKE CONTROL SYSTEM

Walter B. Herndon, Rochester, and Darrel R. Sand, Royal Oak, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 13, 1953, Serial No. 354,832
6 Claims. (Cl. 192—4)



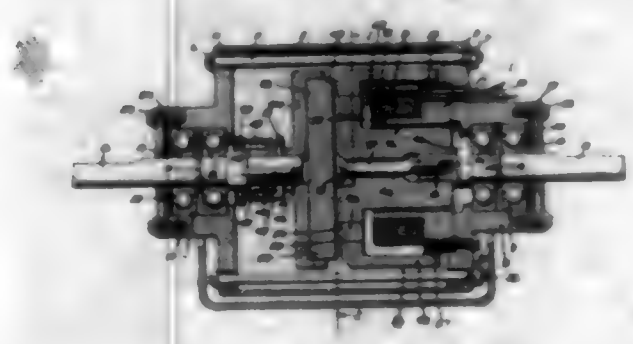
1. In a control system for a vehicle transmission having a plurality of fluid pressure responsive servo members operable to establish a plurality of transmission drive ratios, a fluid pressure source, a shift valve for controlling the admission of fluid pressure to said servo members to select the transmission drive ratio, vehicle speed responsive mechanism for applying force to move said valve to select one transmission drive ratio, vehicle brake controlling means, and valve means controlled by said vehicle brake controlling means effective to direct fluid pressure to said shift valve for moving said shift valve to select a second transmission drive ratio when said vehicle brakes are applied.

2,872,001

MAGNETIC PARTICLE CLUTCH WITH BRIQUETTE CLUTCH MEMBER

Karl M. Feiertag and Hugh M. Stephenson, Fort Wayne, Ind., assignors to General Electric Company, a corporation of New York

Application June 10, 1954, Serial No. 435,858
8 Claims. (Cl. 192—21.5)



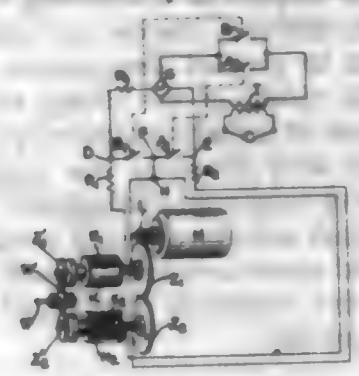
1. A magnetic clutch comprising means for producing a magnetic flux, first and second rotatable clutch members with said second member being formed entirely of magnetic material, said members being positioned within the flux field of said means and respectively having surfaces arranged to be drawn toward each other at a predetermined flux strength thereby to cause said members to rotate together, said second member having a consistency such that relative slipping of said two surfaces will cause pure, low reluctance magnetic powder to be formed from the surface of said second member between said members, the material of at least one of said members having sufficient residual magnetism to cause the major part of the powder formed to cling to the surface of said one member after said means ceases to produce flux whereby the major part of the powder is retained to link said members in subsequent operations, said members constituting the sole torque transmitting means of said clutch and being linked solely by said magnetic powder after it is formed.

2,872,002

RAPID BRAKING ARRANGEMENT FOR FORWARD-AND-REVERSE DRIVES

Ott-Heinrich Baum, Darmstadt, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany

Application September 6, 1955, Serial No. 531,397
Claims priority, application Germany September 6, 1954
5 Claims. (Cl. 192—21.5)



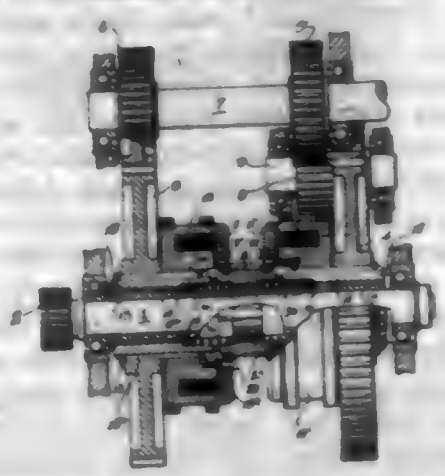
1. A rapid braking arrangement for use with a forward and reverse drive comprising a driving member, two driven members and a reversible member, which arrangement comprises electric exciter winding means, disposed within each of said driven members, said winding means being connected in series and adapted to be excited by the flow of electric current therethrough, a device comprising connector means provided for each of said winding means in each of said driven members, said connector means establishing current flow through one of said winding means while shunting off the other of said winding means, and rectifier means provided for alternately supplying current to one or the other of said winding means, said rectifying means comprising multiple stacks of rectifying elements connected in a bridge rectifier and contactor means in the supply current to said rectifier means, each of said contactor means actuating one of said connector means, one of the connector means being actuated serving to shunt when in association with said rectifier, so that the winding means pertaining to the actuated connector means is not excited, said non-excited winding means being connected in series with the excited winding means and excited by the decaying current therefrom when the contactor and the connector means corresponding to the excited winding are interrupted, simultaneous excitation of both winding means during the decay of the current effecting rapid braking of the drive.

2,872,003

ELECTROMAGNETIC REVERSING CLUTCH

Hubert Nussbaumer, Friedrichshafen, Germany; Anton Nussbaumer and Hermine Nussbaumer, heirs of said Hubert Nussbaumer, deceased, assignors to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application October 26, 1955, Serial No. 542,969
Claims priority, application Germany July 8, 1955
2 Claims. (Cl. 192—51)



1. A solenoid magnet operated reversible clutch comprising a driven shaft, a pair of magnets carried on said

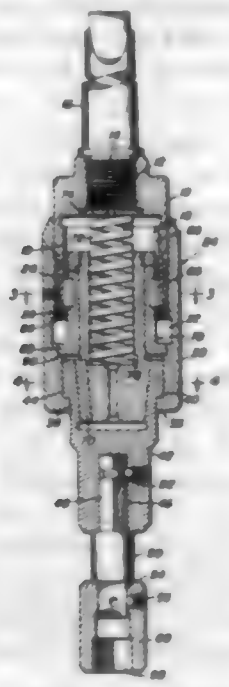
shaft and having relative rotation with respect thereto, means for rotating said solenoid magnets in opposite directions, a clutch ring keyed to each of said magnets and rotative therewith, a clutch ring sleeve intermediate said magnets and splined to said driven shaft and rotative therewith, said sleeve being slidable on said shaft and having a clutch ring on each end thereof selectively engageable with a respective clutch ring of one of said solenoid magnets, resilient means for maintaining said sleeve in position to prevent engagement of the clutch rings thereof with either of the clutch rings carried by said magnets, a pair of armatures spacedly carried by said sleeve for moving said sleeve in one axial direction or the other responsive to energization of one solenoid magnet or the other; said armatures being rotatively mounted on said sleeve, said armatures being axially movable with respect to respective solenoids and keyed thereto so as to be rotative therewith.

2,872,004

AUTOMATIC SELF-RELEASING ADJUSTABLE TORQUE WRENCH

Melvin Allen Barker, Livonia, and Arthur J. Rooks, Birmingham, Mich.

Application May 13, 1955, Serial No. 508,086
1 Claim. (Cl. 192—56)



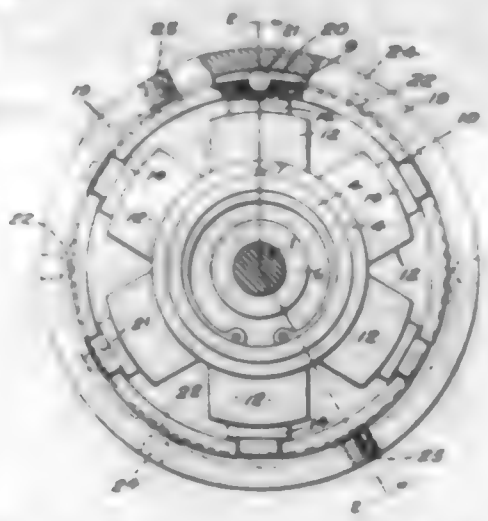
In a torque wrench, a tubular housing comprising first and second hollow bodies disposed in telescoped interlocked relation, a driving shank secured to said first body for rotating said housing, a driven tool receiving shank rotatably journaled in said second body and projecting therefrom in axial alignment with said driving shank, said driven tool receiving shank having an upper end disposed within said housing, an upwardly opening frusto-conical recess in the upper part of said driven tool receiving shank and opening through said upper end thereof, a male clutch member, said male clutch member having a frusto-conical lower portion generally complementary to said frusto-conical recess, friction elements carried by said male clutch member lower portion and seated in said frusto-conical recess, said friction element engaging that part of said driven tool receiving shank defining said recess to form a releasable driving connection between said male clutch member and said driven tool receiving shank member, said male clutch member having a tubular upper portion terminating in an open upper end, a spring disposed within said tubular upper portion and projecting through said open upper end thereof into engagement with said first body, said spring being in a compressed state and normally urging said friction elements into driving engagement with said driven tool receiving shank, a tubular connector seated in said housing against downward movement, an interlock connection between said housing and said tubular connector connecting together the two for rotation together, said male clutch member being journaled in said tubular connector and projecting thereabove, said tubular connector having an upper end in the form of circumferentially spaced alternating projections and depressions connected together by upwardly sloping cam surfaces, a connecting member secured to said male clutch member adjacent said upper end thereof for rotation therewith, said connecting member overlying said upper end of said tubular connection and having a lower part in the form of circumferentially spaced downwardly facing alternating projections and depressions connected together by downwardly sloping cam surfaces, said projections of said tubular connector being complementary to and normally seated in said depressions of said connecting member and said projections of said connecting member being complementary to and normally seated in said depressions of said tubular connector to releasably interlock said connecting member with said tubular connector, said upwardly sloping cam surfaces being engaged with said downwardly sloping cam surfaces whereby rotation between said male clutch member and said housing results in the riding of said connecting member up on said tubular connector against the resistance of said spring and the movement of said male clutch member and said fraction inserts out of engagement with said driven tool receiving shank to release said driven tool receiving shank from rotation with said housing.

2,872,005

DRIVE MECHANISM

Charles B. Spase, Syracuse, N. Y., assignor to Lipe-Rollway Corporation, Syracuse, N. Y., a corporation of New York

Application March 4, 1957, Serial No. 643,736
4 Claims. (Cl. 192—104)



1. A drive mechanism comprising a driven member having a friction drum surface, a driving member having a portion encircling said drum and carrying a series of radially movable friction shoes engaging said drum, a series of radially disposed compression springs abutting said shoes for radially urging said shoes against the drum, and adjusting means mounted for rotation on said portion of the driving member for varying the compression of said springs upon relative rotation with respect to said portion of said adjusting means.

2,872,006

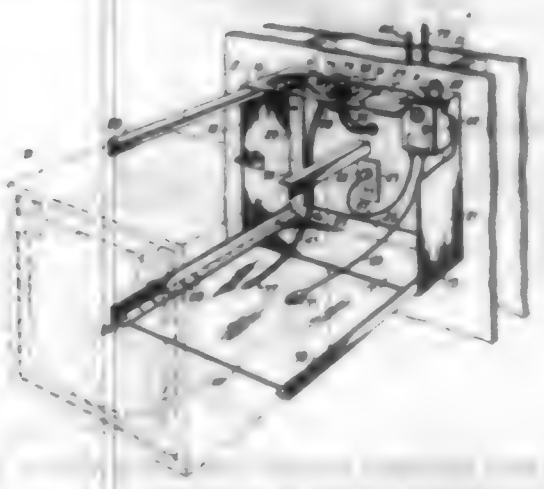
TAMPER-PROOF TELEVISION RECEIVER INSTALLATION

Oscar D. Payne, Sr., and Oscar D. Payne, Jr., Fort Worth, Tex.

Application May 10, 1956, Serial No. 583,997
7 Claims. (Cl. 194—1)

1. A tamper-proof wall mount for a television receiver comprising a rectangular box formed from a single strip of heavy metal sheet material having four flap portions

on one side, said strip being bent to form a shallow rectangular box open at the top and with said flaps being bent inward to form a partially open bottom, with all adjacent edges of said folded strip being rigidly fixed one to the other, four pieces of angle iron each having one end abutting the bottom of said box at a corner and having the end portion of its outside surfaces abutting the inside surfaces of adjacent walls, said angle irons extending outwardly from the top of said box in mutually parallel relation and forming a receptacle for removably receiving a television receiver cabinet, said strip being of sufficient width to cover the end portions of the receiver walls when the receiver is in normal operating position in said mount, and locking means extending within the box for locking said television receiver cabinet to said mount.

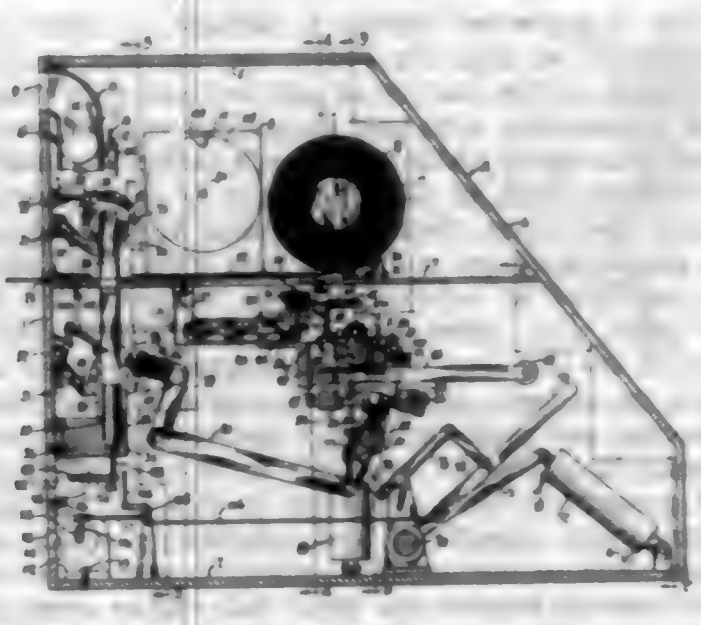


2,872,007

TICKET DISPENSING PARKING METER

John F. Robb, Cleveland Heights, and Frank B. Robb, Mayfield Heights, Ohio, assignors to James W. Meuhall, Benton, Ill.

Application December 29, 1952, Serial No. 328,474
10 Claims. (Cl. 194—7)



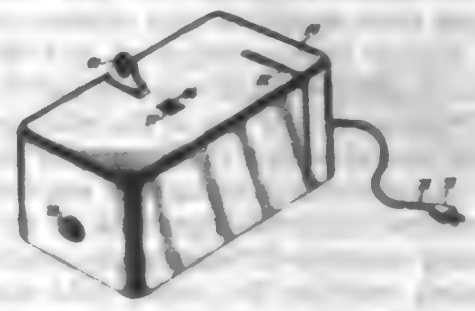
1. In a parking meter, in combination, a housing, a plurality of parking ticket dispensing units therein, an actuating device for each of said units, a main actuator comprising means for operating said actuating devices, and a selector unit operable to selectively render operative each of said devices by the main actuator, timing means to move the selector unit automatically to establish coaction of the selected actuating device and the main actuator, and means to move the main actuator, a date printing device and a ticket severing device coacting with each dispensing unit, for dating and cutting off respectively tickets dispensed thereby, and means to operate the printing and severing devices operable incident to operation of the selector unit upon operation of the main actuator.

2,872,008

COIN-ACTUATED ELECTRIC NUMBERING MACHINE

Vincent G. Scurs, Studio City, Calif., assignor to Dubl-chek Corporation, Los Angeles, Calif., a corporation of California

Application November 18, 1955, Serial No. 547,607
2 Claims. (Cl. 194—9)



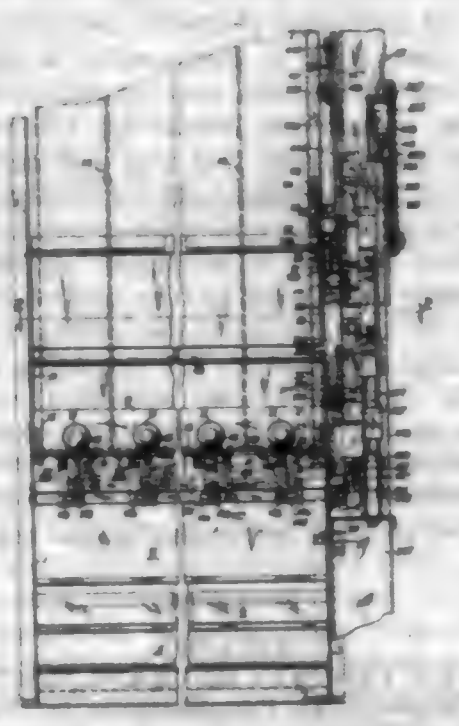
1. An electric numbering machine for consecutively numbering successive workpieces comprising a consecutive numbering stamp, a stamper shaft connected to the stamp, a solenoid coupled to the shaft to actuate the shaft and the stamp for stamping a number on a workpiece positioned adjacent the stamp, a switch connected to the solenoid and arranged to establish electrical connection to the solenoid by the positioning of a workpiece adjacent the stamp, a locking relay connected to a source of electrical energy and operatively associated with the solenoid for energizing the solenoid when the relay is locked, a coin-actuated switch operatively associated with a coin slot for energizing the relay by introduction of a coin in the slot, and a switch operatively associated with the stamper shaft for unlocking the relay and electrically disconnecting the solenoid as the samp numbers the workpiece.

2,872,009

COIN APPARATUS

Clements A. Ridings, Normandy, and Alvin W. Holstein, Lemay, Mo., assignors, by mesne assignments, to National Vendors, Inc., a corporation of Missouri

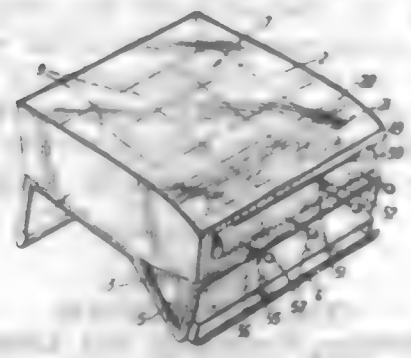
Application April 15, 1955, Serial No. 501,532
10 Claims. (Cl. 194—10)



1. In a vending machine, a first, a second and a third selector operable to obtain items of a first, a second and a third price, respectively, electrically actuated means for locking said selectors against complete operation to obtain any item but permitting limited operation of the

selectors, and a control circuit for said electrically actuated means comprising a first, a second and a third switch and a selector switch, said selector switch having contacts corresponding to said first, second and third prices, said circuit being completed upon setting of said selector switch on the first price contact and operation of said first switch, said circuit also being completed upon setting of said selector switch on the second price contact and operation of said first and second switches, and said circuit also being completed upon setting of said selector switch on the third price contact and operation of said first and third switches, means for operating said first switch in response to limited operation of any one of the selectors, means for operating the second switch in response to limited operation of the second selector, means for operating the third switch in response to limited operation of the third selector, and means operable in response to insertion of coins in said vending machine for setting said selector switch on the respective price contacts in response to insertion of coins in the respective amounts.

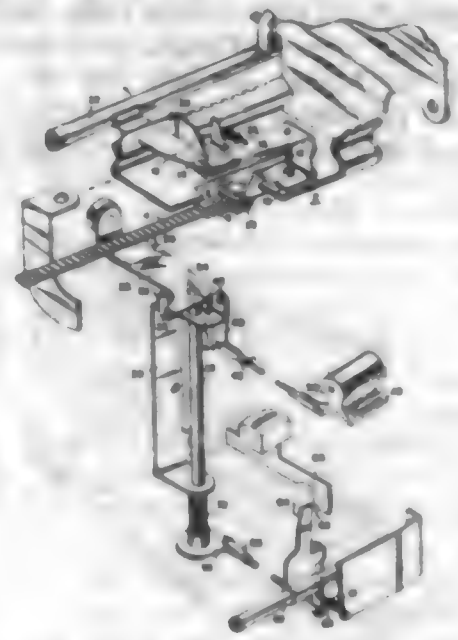
2,872,010
COIN-FREED VENDING APPARATUS
Leslie M. Milton, London, England
Application October 1, 1957, Serial No. 687,590
Claims priority, application Great Britain March 25, 1957
5 Claims. (Cl. 194—79)



1. A coin-freed vending apparatus comprising a casing, a tray in said casing for supporting a plurality of articles of the kind referred to, partition means for dividing the tray into a plurality of compartments each for containing articles of one particular character and for locating them ready for removal in a given order, a delivery chute through which the articles may be delivered to the exterior of the casing, and means for removing said articles one at a time from said tray and passing them to the chute; said means comprising an element inaccessible from the exterior of the casing for engaging one of said articles, which element is selectively movable into operative position in relation to any one of said compartments ready for the removal of the leading article therein, and a plurality of members for operating said element from outside the casing, one operating member being provided for each of said compartments and being adapted to be operatively connected by means of a coin with said element after the latter has been moved into its correct operative position in relation to the respective compartment.

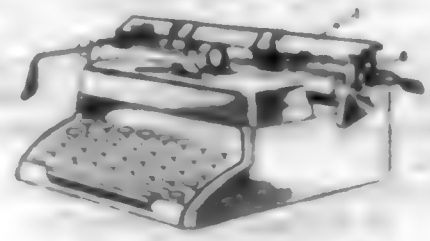
2,872,011
CARRIAGE TENSION RELEASE MECHANISM
Charles H. Beiderbecke, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application October 20, 1954, Serial No. 463,391
4 Claims. (Cl. 197—62)

3. A business machine having in combination a carriage, selectively engageable means for tensioning said carriage across a print position, a carriage release device having a carriage release position, means tensioning the same normally to its carriage release position, and means



disabling said carriage release tensioning device while said carriage tensioning means is engaged.

2,872,012
MARGIN SETTING ATTACHMENT FOR TYPEWRITERS
Irvine Dodds, St. Catharines, Ontario, Canada
Application March 10, 1958, Serial No. 720,178
5 Claims. (Cl. 197—63)

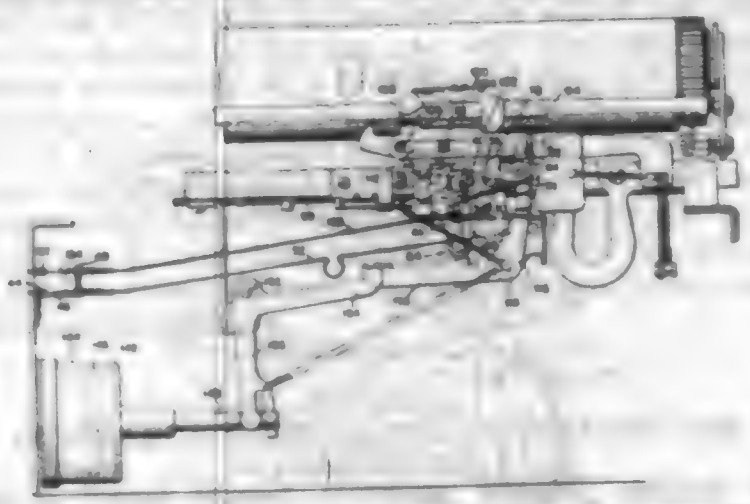


1. In a typewriter having a carriage, a space rack with margin set cogs attached to said carriage at about a 45° angle to the horizontal, and left and right margin stops co-operating with said margin set cogs, a margin setting attachment which comprises a face plate attached to said space rack in such a manner as to be movable towards and away therefrom, means for biasing said face plate away from said space rack, a rotatable pinion gear mounted at substantially the mid-point of said face plate, two opposed racks longitudinally slidably mounted on said face plate and adapted to engage said pinion on opposite sides thereof, and a left and right projection, one projection being mounted on each rack towards the outermost extremity thereof, said left and right projections being connected to said left and right margin stops respectively and adapted to cause said margin stops to release their respective cogs when said plate is moved towards the space rack and to cause said margin stops to engage their respective cogs when said plate is in its biased position.

2,872,013
CLUTCH AND PAWL CONTROL FOR CARRIAGE RETURN MECHANISMS
Bernard W. Wittwer, Wappingers Falls, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 19, 1954, Serial No. 469,915
4 Claims. (Cl. 197—66)

4. In a typewriter having a carriage, an escapement mechanism comprising an escapement rack and a pawl selectively engageable with said escapement rack to effect a carriage escapement operation, and a power driven carriage return mechanism, a device for releasing the

pawl from the escapement rack and holding it released during a carriage return operation until the carriage reaches a predetermined distance from its left hand margin position comprising a pawl release lever, means pivotally mounting the same for movement from a rest position to a pawl release position, a pawl release bell crank, means for moving said pawl release bell crank from a rest position to an operative position in response



to a carriage return operation, latch means interconnecting said pawl release bell crank with said pawl release lever for movement of the latter to its pawl release position in response to movement of said pawl release bell crank to its operative position, and means responsive to the position of said carriage for releasing said latch means to drop said pawl back in the rack irrespective of the position of said pawl release bell crank.

2,872,814

VARIABLE BACKSPACING MECHANISM FOR PROPORTIONAL SPACING TYPEWRITERS

Seyed Khalil, New York, N. Y.

Application November 8, 1954, Serial No. 467,457
12 Claims. (Cl. 197—84)



1. In combination with a typewriter proportional feed mechanism having a feed spring and an escapement wheel rotatably mounted for movement in a typing direction under the influence of said spring and in a back spacing direction; a detent engaging said wheel to restrain it against movement in a typing direction, driving means engageable with said wheel for imparting movement thereto in a back spacing direction, and means disengaging said detent from said wheel and limiting movement of said wheel in a typing direction to an amount less than said movement in said back spacing direction.

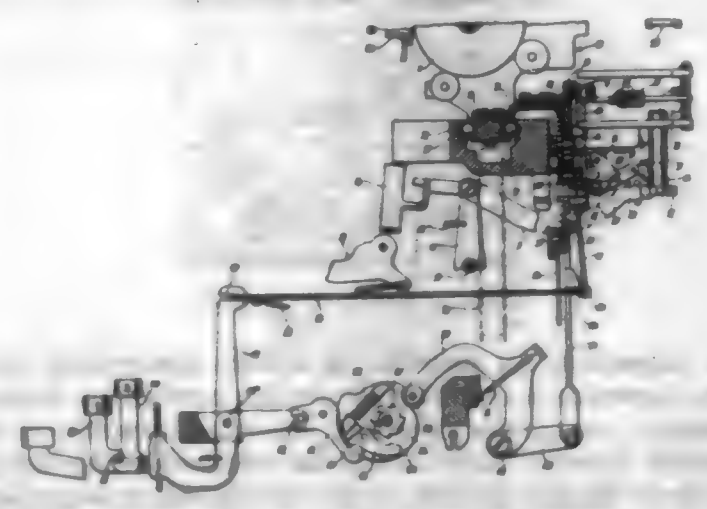
2,872,815

STEPWISE CARRIAGE POSITIONING MECHANISM AND RELATED FEATURES

John Toggenburger, Hartford, Conn., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware

Application December 29, 1954, Serial No. 478,258
21 Claims. (Cl. 197—91)

2. A back spacing mechanism for a typewriting machine carriage or the like, comprising in combination, a member having connection with said carriage for movement thereby and having a succession of uniformly spaced teeth, back space pawl means for engagement with the teeth of said member and capable of operating strokes terminating uniformly, back space key means adapted for a plurality of differential, single-key operations, power means responsive to said key means to impart an operating stroke to said back space pawl



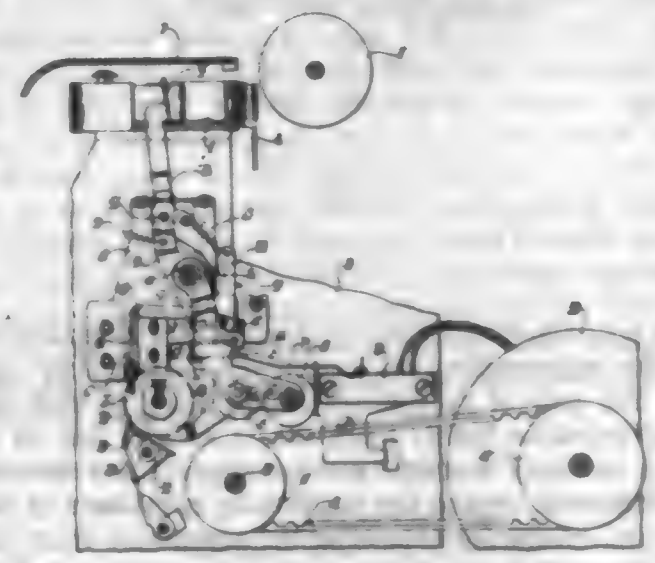
means, and means automatically controlled by said key means varyingly in dependence of each particular single-key differential operation thereof effected, to lead said back space pawl means in its operating stroke to engage said member at specific different numbers of teeth from its stroke termination thereby to impart single-sweep back spacing movements of different extents to the carriage.

2,872,816

RIBBON WINDING DEVICE FOR TYPEWRITERS AND THE LIKE

Arthur H. Sharpe, West Hartford, Conn., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware

Application December 29, 1954, Serial No. 478,307
9 Claims. (Cl. 197—151)



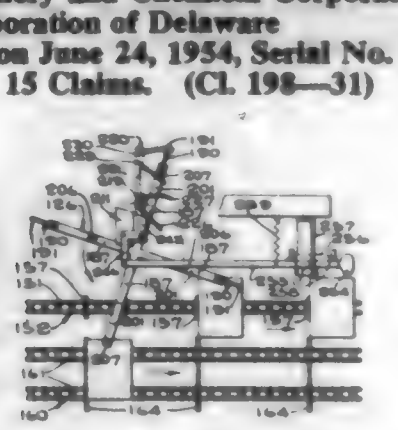
1. In a typewriting or like machine having a ribbon mounted upon spools located on opposite sides of a printing point and feedable in small increments back and forth across the printing point during typing operations to become wound first on one spool and then the other; ribbon feeding means operable upon each actuation of a type action to impart a small increment of movement to the ribbon, said feeding means comprising a toothed wheel and a feed pawl spring urged into engagement therewith, power means for driving the various parts of the machine, selectively operable means for drivingly connecting said power means to said toothed wheel for continuously winding the ribbon and means operable by said selectively operable means to disengage said feed pawl from said toothed wheel.

2,872,017

ARTICLE DISTRIBUTING MACHINE

Gerald R. Anderson, Campbell, and Dudley W. Hayes, San Jose, Calif., Charles E. Kerr, Hoopeston, Ill., and Harold W. Newburn, San Jose, Calif., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

Application June 24, 1954, Serial No. 438,964
15 Claims. (Cl. 198—31)



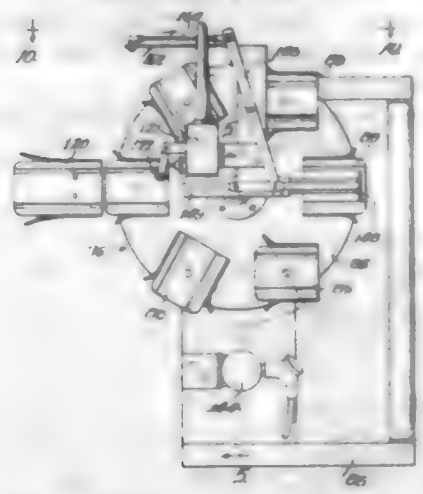
1. Apparatus for distributing articles comprising a primary conveyor, a secondary conveyor contiguous thereto, adjustable means for diverting articles advancing on the primary conveyor and sliding the same onto the second conveyor, means operable while the apparatus is in operation for adjusting the diverting means to article engaging position or to article clearing position, and means for releasably retaining the diverting means in article-engaging position or in article clearing position through more than a full operating cycle of the diverting means.

2,872,018

CONTAINER PAIRING MACHINE

Rolland H. Sorge and Raleigh C. Sorge, Manitowoc, Wis.

Application June 7, 1955, Serial No. 513,760
2 Claims. (Cl. 198—33)



1. In a container pairing machine of the character set forth, the subcombination comprising a movable support, a first pair of receptacles rigidly fixed to said support and movable bodily therewith, a second pair of receptacles movably mounted on said support and movable bodily therewith, means for positioning containers in said receptacles, means for removing the containers from said receptacles, and means for conveying the containers from said movable support.

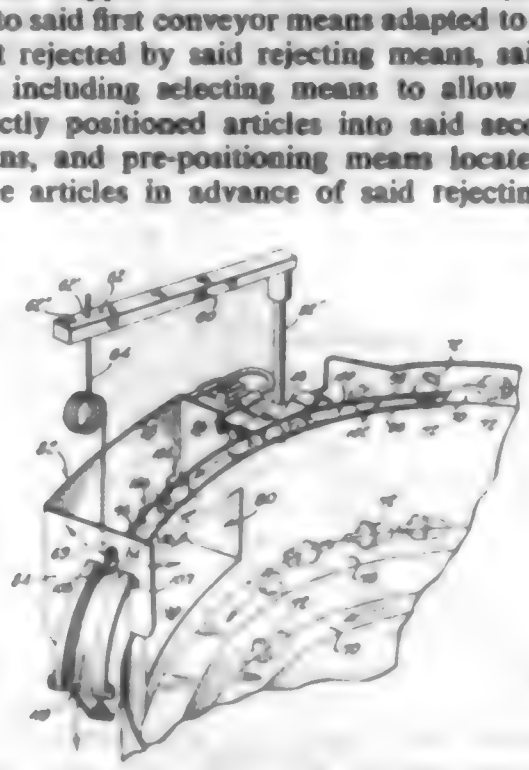
2,872,019

NON-JAMMING VIBRATORY HOPPER

Claude Maurice Owen, New York, N. Y., assignor to Chase Equipment Corporation, New York, N. Y., a corporation of New York

Application January 24, 1957, Serial No. 636,152
6 Claims. (Cl. 198—33)

1. A vibratory non-jamming hopper adapted to separate a plurality of articles, the combination of a housing, a hopper bowl mounted on said housing, means within said housing to vibrate the hopper bowl, rejecting means mounted on said housing adapted to reject incorrectly positioned articles in said bowl, first conveyor means within said bowl whereby the articles are conveyed from the hopper bowl to the rejecting means by the vibratory action of the hopper bowl and second conveyor means connected to said first conveyor means adapted to carry off articles not rejected by said rejecting means, said rejecting means including selecting means to allow entry of only correctly positioned articles into said second conveyor means, and pre-positioning means located in the path of the articles in advance of said rejecting means



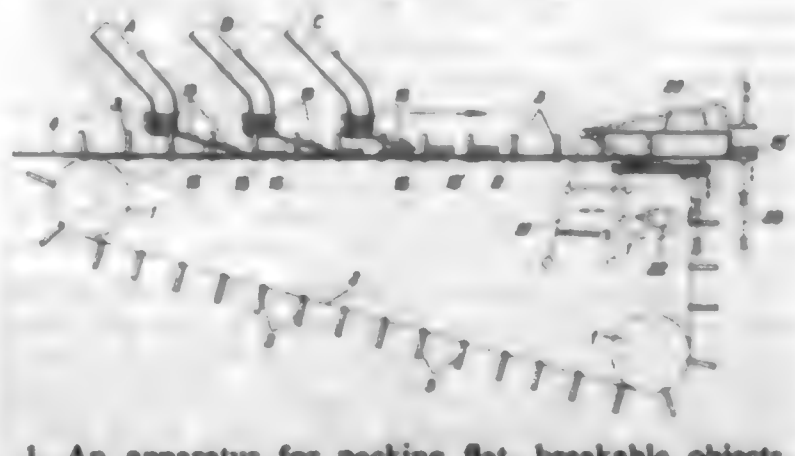
adapted to pre-position said articles for rejection by said rejecting means, wherein said first conveyor means includes a spiral shelf extending upwardly from the hopper bowl bottom around the interior of hopper bowl, said shelf terminating in advance of said pre-positioning means and a trackway extending from said shelf to said second conveyor means through said selecting means and integral with said second conveyor means, said trackway including two parallel side walls and an opening therebetween.

2,872,020

STACKING APPARATUS

Otto Hansel and Hans Lesch, Hannover, Germany

Application June 5, 1956, Serial No. 589,431
7 Claims. (Cl. 198—35)



1. An apparatus for packing flat, breakable objects, as biscuits, crackers, chocolate bars or the like, comprising a sliding path made of a plurality of first longitudinally disposed, substantially horizontal and parallel guiding bars and a plurality of channels disposed in series arrangement along and above said path and having a plurality of said objects piled up in superposed position therein, the number of said channels being equal with the number of said objects to be wrapped in a piled-up assembly, an endless conveyor means disposed below said sliding path and having a plurality of tappets spaced apart from each other along said conveyor means and projecting upwardly therefrom to a height to engage the lowermost of said objects in said channels, said tappets moving in slots formed between each pair of said adjacent guiding bars and moving the lowermost of said objects piled-up in each of said channels on top of the pile of said objects removed from

the previous of said channels, the distance between the lowermost of said objects in each of said channels from said guiding bars being greater than the height of the pile of objects to be packed and assembled at the end of said sliding path, and the bottom of each of said channels comprising a plurality of second, grate-like bars disposed parallel to each other in the direction of feeding, and said tappets moving in slots formed by each pair of said second bars, the free ends of the latter being downwardly inclined towards said sliding path in the direction of feeding, and said free ends terminating successively at a level higher than that of the previous one of said channels for an amount equal to the thickness of each of said objects, in order to move the lowermost of said objects from each of said channels on top of the object removed from the previous one of said channels and to permit of the sliding through of said plurality objects removed from said previous channels.

2,872,021

DISCHARGE DEVICES FOR CONVEYORS FOR CASE-GOODS

Edvin Frithiof Hampf, Gothenburg, Sweden, assignor to Aktiebolaget Harbor, Gothenburg, Sweden, a corporation of Sweden

Application May 27, 1957, Serial No. 661,692
1 Claim. (Cl. 198—74)



Discharge means for a pocket-type conveyor having parallel spaced endless chains, transverse rods connecting said chains, a plurality of flexible transporting pockets secured to said transverse rods, and driving means including a pair of discharge guide pulleys connected by a common horizontal pulley shaft, said chains extending respectivley around substantially half the peripheries of said discharge pulleys; said discharge means comprising a horizontal frame supported by said horizontal pulley shaft by bearing means in which said shaft is journalled, an unloading plate secured to the upper surface of said horizontal frame above the pulley shaft, said unloading plate having an inclined surface arranged to contact said pockets to discharge goods therefrom, a plurality of rollers mounted on said frame, a horizontal circular ring supported by said rollers for free rotation with respect to said frame, said circular ring extending around said frame and said pulley shaft, a downwardly converging funnel-shaped member secured at its upper end to said circular ring, and a discharge chute extending downwardly and laterally from the bottom of said funnel-shaped member.

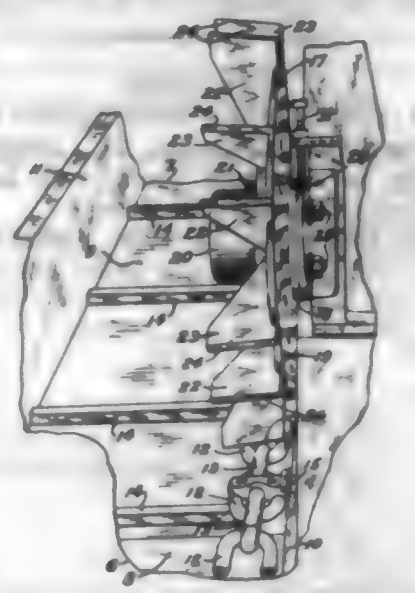
2,872,022

FLIGHT CONVEYOR GUIDE FOR BARN CLEANERS

August F. Klinzing, St. Paul, Minn.

Application August 13, 1957, Serial No. 678,003
8 Claims. (Cl. 198—137)

1. In a guide for the flight conveying chain of a barn cleaner having horizontal and upwardly inclined adjoining debris conducting gutter sections, a rotor having an annular series of complementary pairs of outwardly directed fins each cooperable with the adjacent rear and front ends of the successive advancing vertical chain links to revolve the rotor about its central axis, the outermost edges of said fins being inclined and engageable with the intervening horizontal links to urge the chain toward the adjacent side wall of the gutter at the adjoining horizontal and inclined gutter sections.

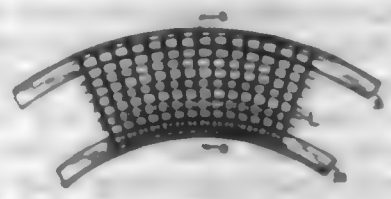


2,872,023

FLAT WIRE CONVEYOR BELT

Alfred R. Bechtel, Jr., Portsmouth, R. I., assignor to Ashworth Bros. Inc., Fall River, Mass., a corporation of Massachusetts

Application September 30, 1955, Serial No. 537,680
3 Claims. (Cl. 198—182)



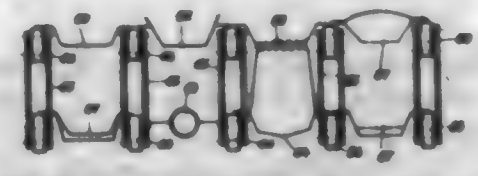
1. A flat wire conveyor belt operable in a path substantially and transversely curved in the plane of the belt and having continuous transverse tractive links and pivotal tractive cross-pins, each link being formed to provide a plurality of adjacent legs having a cross-pin opening at each end of each leg and all of said legs being tractive in normal straight belt travel, and all of the legs in at least some of said links having the cross-pin opening in at least one end thereof substantially slotted in the normal direction of belt travel, and thereby maintaining traction at the outer and convex edge portion only of a belt following a path transversely curved in the plane of the belt, while the portions of the links adjacent the inner and concave edge of the belt are free to relatively approach each other.

2,872,024

VIBRATORY MACHINE

Heinz Sernetz, Graz, Austria

Application June 4, 1953, Serial No. 359,555
6 Claims. (Cl. 198—220)



1. A resilient support means for two superposed vibratory members, comprising in combination: two rigid lateral carriers supporting each of said vibratory members, the lateral carriers of the upper and lower ones of said vibratory members being vertically aligned with each other, and two resilient elements symmetrically arranged at each side of each two vertically aligned

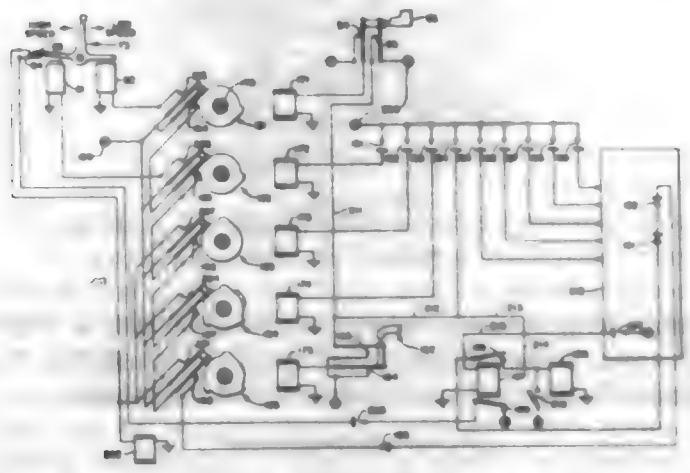
lateral carriers and connecting the same whereby each of two vertically aligned carriers with their two resilient connecting elements form a single oscillatory unit.

2,872,025

CONTROL UNIT FOR COMPOSING MACHINES

Rolf A. Thienemann, Chicago, Ill., assignor, by mesne assignments, to Fairchild Camera & Instrument Corporation, a corporation of Delaware

Application December 24, 1956, Serial No. 630,126
9 Claims. (Cl. 199—18)



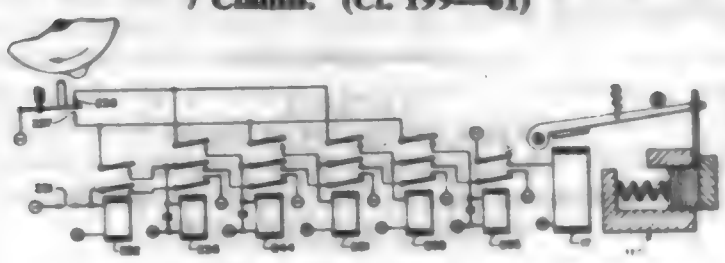
1. In an automatic control unit for linecasting and composing machines, a plurality of selectable elements, permutation means responsive to code perforations in a tape for controlling the operation of the said selectable elements, said permutation means comprising a tape reading device having a series of tape sensing elements, dually controlled means for actuating said tape reading device under two conditions of operation, selectable means effective under the control of said tape reading device in response to a first predetermined code indicia in the tape for controlling said dually controlled means under one of said conditions of operation, and reading means cooperable in code reading manner with said tape sensing elements, said reading means effective in response to a predetermined setting of said tape sensing elements in response to a second predetermined code indicia in the tape for controlling said dually controlled means under the other of said conditions of operation.

2,872,026

AUTOMATIC CONTROL MECHANISM FOR LINECASTING AND COMPOSING MACHINES

Edward Stanley Larson, Chicago, Ill., assignor, by mesne assignments, to Fairchild Camera & Instrument Corporation, a corporation of Delaware

Application August 17, 1955, Serial No. 528,941
7 Claims. (Cl. 199—61)



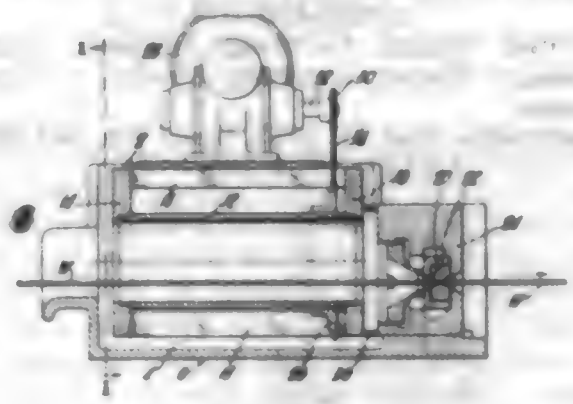
1. In a linecasting and composing machine, elevator means for assembling a line of matrices, means for supporting a line of matrices in casting position, means for supporting a line of matrices intermediate said two aforementioned means, a series of sequentially operated means having facilities identified with each of said means in which may be stored a control signal for governing the insertion of horizontal rule printing elements between every one of a plurality of cast slugs representing lines of type, a record reader for initially applying said control signal to be advanced through said series of sequentially operated means, a pair of cam operated means controlled by said machine, each of said cam operated means cooperable with a different plurality of said sequentially operated means pursuant to the operation of said record reader for advancing each control signal to its succeeding sequentially operated means as its related assembled line of matrices is advanced, and horizontal rule dropping means effective automatically in response to the arrival of said control signal at the final sequentially operated means of said series, whereby the dropping of a horizontal rule printing element invariably after every cast slug representing a single line of type is facilitated.

2,872,027

APPARATUS FOR APPLYING LUBRICANT TO WIRE

William H. Johns, Gates Mills, and Arthur A. Perry, Cleveland, Ohio, assignors to United States Steel Corporation, a corporation of New Jersey

Application July 6, 1954, Serial No. 441,354
1 Claim. (Cl. 205—19)



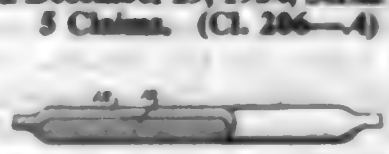
A wire drawing apparatus comprising a frame, a die mounted on said frame at one side thereof, an open end cylinder adapted to contain wire-drawing lubricant rotatably mounted in said frame longitudinally of the entrance end of said die, means mounted on said frame and connected with said cylinder for rotating the latter, the mounting of said cylinder being such as to cause the axis of rotation thereof to be offset from the axis of said wire-drawing die so that wire passing through said cylinder and said die will be offset from the axis of said cylinder, and means on said frame confining the lubricant to said cylinder and the wire passing thru said die.

2,872,028

GETTER STRUCTURE

Earle S. Thall, East Orange, N. J., assignor to Radio Corporation of America, a corporation of Delaware

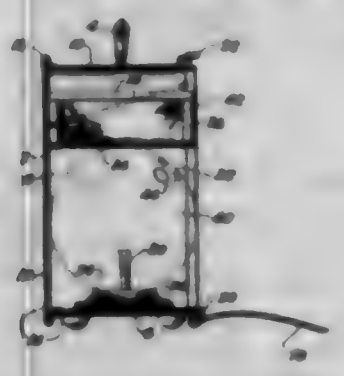
Application December 29, 1954, Serial No. 478,369
5 Claims. (Cl. 206—.4)



5. A method of making a structure adapted to be used as a getter within an electron discharge device having an aluminum sheath, and a core material exhibiting gettering action on flashing and having a melting point above that of aluminum; and comprising the operations of heating said material to a temperature above the melting point thereof, pouring said material at said temperature into an aluminum container, said container being characterized by a thermal conductivity and capacity sufficient to maintain the temperature thereof below the melting point of aluminum thereby providing an aluminum clad slug, inserting said slug into a tube having an eccentric bore and an outer surface of uniform curvature around said tube, marking the outside surface of said

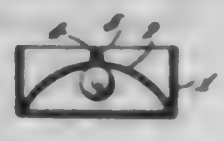
tube along the thinnest wall portion thereof to provide a reference indication, and working said tube and slug to wire form while preserving said reference indication, whereby spaces formed during the cooling of said core material, between the outside surface of said core and the inside surface of said container, are substantially eliminated and a structure is provided having the region thereof within said container substantially free of entrapped gases and adapted to be oriented for disposing said thinnest wall portion in the direction of a desired flash.

2,872,829
BOWLING BALL BAG
Theodore S. Cart, Harbourton, N. J.
Application May 9, 1957, Serial No. 658,058
3 Claims. (Cl. 206—1)



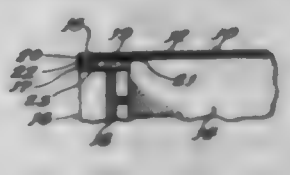
1. A bowling ball bag comprising a relatively stiff bottom portion and substantially self-sustaining top and end portions together with front and rear walls, the rear wall being connected to said bottom, top and end portions and the front wall being hingedly connected to said bottom portion for opening and closing the bag, means detachably securing said front wall to said end and top portions, ball holding means mounted on the bottom portion, a divider extending across the interior of the bag parallel to said bottom portion and normally spaced from the ball holding means a distance substantially equal to the diameter of a bowling ball so as to engage the top of a ball positioned on said holding means, said divider being spaced from the top portion to define a shoe compartment disposed above a lower ball compartment, both of said compartments being open at the front side for access thereto when the front wall of the bag is opened, and means movably connecting the divider to the bag permitting upward displacement of the divider without removal thereof in placing a ball on or removing a ball from said ball holding means.

2,872,830
PACKAGES FOR DISPLAYING PENS, PENCILS AND THE LIKE
Donald C. Dumont, Lancaster, Mass., assignor to Dennison Manufacturing Company, Framingham, Mass., a corporation of Massachusetts
Application March 22, 1957, Serial No. 647,853
3 Claims. (Cl. 206—45.14)



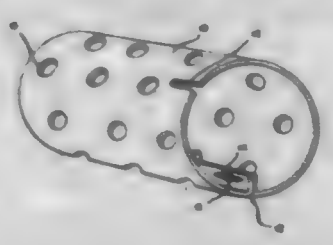
1. For displaying pens, pencils and other articles, a package comprising a box, a sheet of resilient transparent material which is shorter but wider than the box and which is fitted into the box in arched condition with its lateral edges seating against the bottom of the box at the sides, the sheet being long enough substantially to cover the article and being unattached to the box and held in position by its own resiliency so that it may be removed from the box for examination of the article, the sheet engaging the box only at its edges and being stiff enough to support the article, the sheet having a clip opening, and an article having a clip inserted through said opening from the bottom holding the article against the underside of the sheet, whereby the article is protected by the sheet while plainly visible.

2,872,831
DISPLAY CARTON CONSTRUCTION
Paul W. Lindberg, Highland Park, Ill.
Application June 22, 1956, Serial No. 593,220
1 Claim. (Cl. 206—45.34)



A display carton for toys, construction kits, and like articles including an elongate sleeve of substantially rectangular cross-sectional configuration, an article to be displayed disposed therein, said sleeve being made of paperboard or like opaque material and having open end portions, a pair of plastic transparent end wall members adhesively secured in the open end portions of said paperboard sleeve to seal said sleeve and prevent removal of the displayed article without substantial damage to the carton, at least one of said end wall members having a rectangular central portion bounded by a marginal edge extending completely therearound and fitted within said sleeve and such marginal edge extending on opposite sides of said central portion of the wall to define inner and outer recesses therewith, said central wall portion having raised lettering formed thereon and confined wholly within that recess formed on the outer side of said one end wall, the outer end of said marginal edge of said one wall terminating in an outwardly directed shoulder engaging the end face of said sleeve and abutting thereagainst, and that portion of said marginal edge of said end wall which extends inwardly from said central wall portion thereof having an inwardly tapered outer surface for initial positioning within the corresponding end of said sleeve.

2,872,832
SUPPORTS FOR CHRISTMAS TREE LIGHT CORDS
Ruth West, Milwaukee, Wis.
Application March 1, 1956, Serial No. 568,934
3 Claims. (Cl. 206—46)



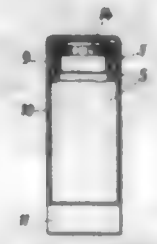
1. A protective support and an assembled Christmas tree light bulb and cord package including an elongated generally cylindrical body having the outer surface thereof exposed, a Christmas tree light bulb cord wrapped around the body, a plurality of axially spaced rows of apertures as in the body, said apertures being of a size such as to permit the bulbs and sockets of the cord to be individually passed into the apertures, each individual bulb and socket of said cord being supported within an aperture, the spacing of the rows and apertures being such as to hold the bulbs and sockets within the body, in spaced relation to each other, said body including means for securing the plug of the cord.

2,872,033

LIPSTICK HOLDER

Yvan Victor Grisel, Geneva, Switzerland, assignor to Maison Tschanz Comptoir de la Parfumerie S. A., Geneva, Switzerland, a Swiss firm

Application July 28, 1955, Serial No. 524,902
Claims priority, application Switzerland May 18, 1955
2 Claims. (Cl. 206—56)



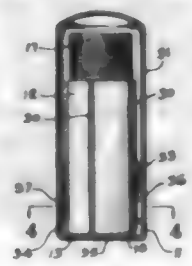
1. A lipstick holder, comprising in combination with an inner sleeve having a smooth open end, a longitudinally displaceable lipstick-holding cup within said inner sleeve, an outer sleeve enclosing said inner sleeve and rotatable relatively thereto, and driving means coupling said cup with said outer sleeve for displacing said cup longitudinally when said outer sleeve is rotated; a cap closure closing said open end of the inner sleeve, said cap closure fitting tightly over said outer sleeve, and an elastic braking member carried by an inner surface of said cap closure and projecting into said open end of the inner sleeve with tight frictional engagement to prevent relative rotation of the outer and inner sleeves.

2,872,034

LIPSTICK CONTAINER

William H. Harris, Litchfield, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut

Application February 27, 1957, Serial No. 642,798
2 Claims. (Cl. 206—56)



1. A lipstick container comprising a swivel-type lipstick holder or cartridge having the usual outer shell, inner shell and a carrier cup, said outer shell having a closed bottom end and said inner shell having an enlarged operating head exposed at the opposite upper end of said outer shell, means moving said carrier cup within said cartridge upon relative rotation of said outer and inner shells, said outer shell having a plurality of outwardly projecting longitudinal ribs equally spaced thereabout, a holder base for said cartridge, said base having a reduced cylindrical portion telescopically receiving said outer shell and slidably fitted upon said ribs, and projections formed inwardly of said cylindrical portion for gripping said outer shell anywhere between said ribs with sufficient gripping effect to hold said outer shell against rotation coincident with the rotation of said inner shell, said inward projections adapted to be laterally contacted by said ribs on said outer shell if any turning of said cartridge should occur relative to said holder base to assure operation of said cartridge.

2,872,035

NESTED CONDUITS

Richard Tatsch, Silver City, N. Mex.

Application July 25, 1955, Serial No. 524,203
18 Claims. (Cl. 206—65)

3. A package of a plurality of elongate conduits of a given number, the conduits being substantially identical to each other in their corresponding cross-sectional dimensions, each conduit comprising longitudinally extending wall portions equal in number to said given number and arranged side along side successively so that each conduit in cross section circumscribes a generally spiral form with each wall portion being integral along its side with its next adjacent wall portion, there being a first wall portion, a second wall portion integral with and disposed inwardly of said first wall portion along said spiral form, and a last wall portion disposed inwardly along said spiral form with respect to said first and second wall portions, the wall portions being of similar geometrical configura-



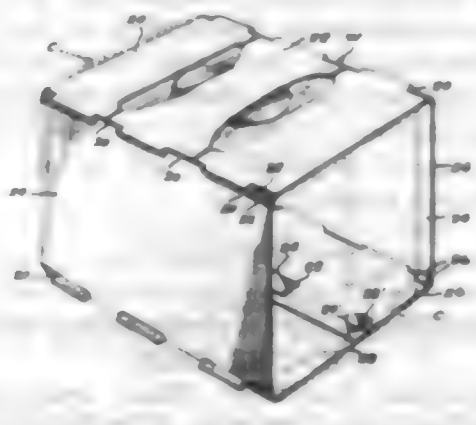
tion in cross-section, the first and last wall portions being spaced apart to provide a gap extending longitudinally of the conduit, the contour of the inside surface of each wall portion except the first being similar to the outside surface of a like adjacent inwardly, progressively positioned wall portion and the widths of said surfaces of each pair of like adjacent portions between the first and the last being the same, wherein the inside surface of each wall portion except the last wall portion of each conduit being disposed in face toward face relationship with the outside surface of the next adjacent inwardly disposed wall portion of another conduit respectively.

2,872,036

PAPERBOARD WRAPPER HAVING STRENGTHENED EDGES

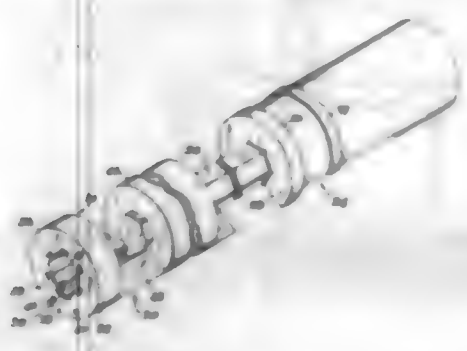
Homer W. Forrer, Atlanta, Ga., assignor, by mesne assignments, to Mead-Atlanta Paper Company, a corporation of Ohio

Application August 6, 1956, Serial No. 602,114
3 Claims. (Cl. 206—65)



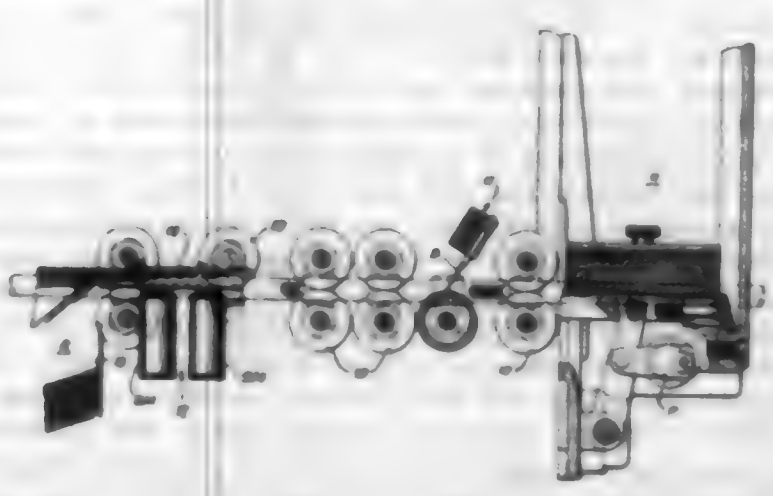
1. A package of cylindrical objects, such as cans, said package comprising a four-sided wrapper with open ends and at least one row of said objects enclosed thereby, said wrapper comprising an elongated paperboard blank scored transversely and transversely folded and secured about said objects with positioning slots spaced along the transverse folds in said wrapper and disposed sidewise of said objects for engaging end edge portions thereof, the transverse folds in said wrapper being defined between said spaced positioning slots by single score lines at which the engaged end edge portions of said objects are aligned, while being defined beyond each end positioning slot at the spacing therefrom to the adjacent wrapper edges by substantially parallel double score lines spaced to fall substantially out of alignment with the object end edge portions engaged by said end positioning slots.

2,872,837
MANDREL AND DIE
Gerhard Ansel and Clifton J. Huffman, Ferguson, Mo., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application May 21, 1954, Serial No. 431,540
2 Claims. (Cl. 207—19)



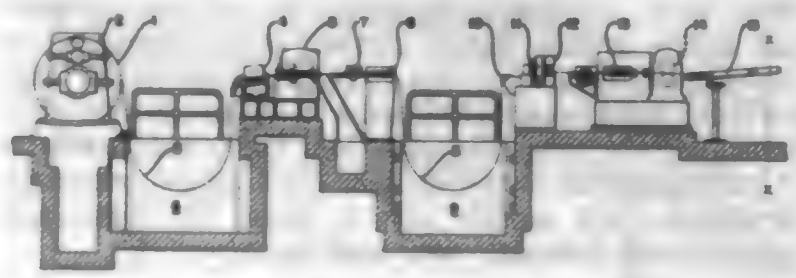
1. Extrusion apparatus comprising a die, an axially movable mandrel having a key, and a mandrel supporting guide, said die and said mandrel supporting guide each having a keyway adapted to receive the key of said mandrel in close fitting slideable relation along the longitudinal axis of said keyways, and means for aligning said keyways one with another.

2,872,838
RECORD CONTROLLED MACHINE
Just B. Andersen, Copenhagen, Denmark, assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 28, 1952, Serial No. 323,823
8 Claims. (Cl. 209—110)



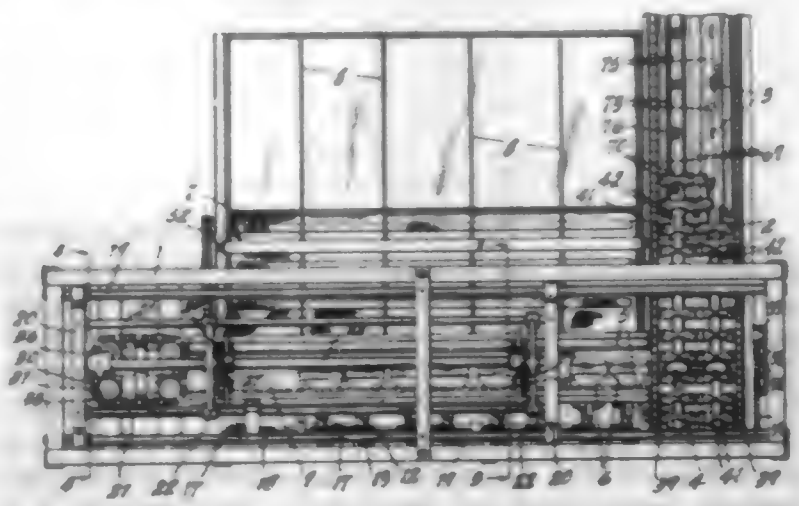
2. In a machine of the class described, means to sense records having a plurality of separate choice columns of index-point positions in which a choice selection is recorded by placing a designation in one of the corresponding index-point positions of said plurality of columns whereby each column contains representations for a plurality of separate choices, a selector operating synchronously with the sensing means and having a plurality of separate choice sections, one for each choice column, each section being provided with a series of individual manual selector devices, one for each index-point position and settable in one position to represent a correct choice and in another position to represent an incorrect choice, whereby correct choice settings and complementary incorrect choice settings for each single choice may be made by means of all of the selector devices corresponding to each index-point position, and machine control means including elements separately responsive to both the sensing means and the correct choice and incorrect choice settings of said devices.

2,872,839
STRIP INSPECTING APPARATUS
Holmes W. Lynn and Albert R. Geinzler, Warren, Ohio, assignors to The Wean Engineering Company, Inc., Warren, Ohio, a corporation of Ohio
Application November 5, 1954, Serial No. 467,842
4 Claims. (Cl. 209—111)



1. A strip classification line comprising means to flex the strip sharply and repeatedly along a sinuous path to a degree sufficient to enlarge and open pin holes in the strip, means receiving the strip from the flexing means and cutting it into sheets after passage through said sinuous path, classifying means placed on the delivery side of the cutting means in position to receive sheets from the cutting means, pin hole inspecting means placed to inspect the strip between the flexing means and the cutting means, said inspecting means being in controlling relationship to the classifying means.

2,872,840
EGG GRADING MACHINE
Roy S. Davis, Otsego, Mich.
Application March 12, 1956, Serial No. 570,874
17 Claims. (Cl. 209—121)



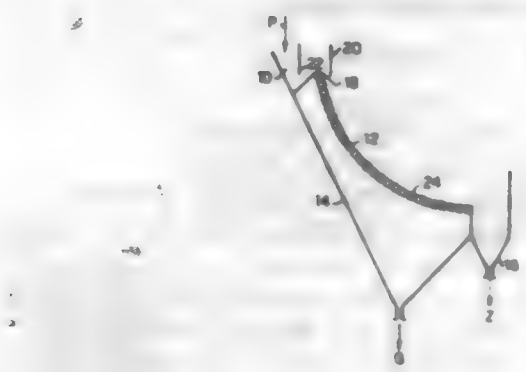
1. In an egg grading machine having a plurality of weighing scales with aligned scale pans arranged in pairs to weigh and discharge eggs of different weights, means for advancing eggs in pairs along said line of pans comprising a frame supporting said scales and including a pair of slide bars extending longitudinally in laterally spaced relation above the line of said pans, a carriage including cross bars slidably supported on said slide bars, longitudinal side bars on said carriage with cross heads extending therebetween, a longitudinal rock shaft rotatably mounted in said cross heads and having gears secured to the shaft in opposed thrust engagement with the cross heads, a pair of jaw operating shafts rotatably mounted in said cross heads, gears on the ends of said operating shafts meshed with each other, the gears on one operating shaft being meshed with the gears on said rock shaft, jaw arms projecting from said operating shafts, elongated jaws with opposed cushioned faces carried on said jaw arms over said pans for lateral opening and closing motion with respect to eggs on the pans, sprockets mounted on said frame and supporting a chain in a horizontal rectangular loop at one end of said line of pans, a stud carried by said chain loop, a crank arm fixedly secured to said rock shaft, a connecting rod telescopically engaged with said crank arm and having a universal

joint connection with said stud, means connected to rotate said chain loop, said jaws projecting oppositely from said chain loop beyond said line of pans in the retracted position of said carriage to over a supply station, means for delivering eggs in pairs to said supply station including a conveyor having hour glass shaped flights, means connected to advance said conveyor in timed relation to said chain loop, an elevator reciprocable vertically between said flights at said supply station, means connected to actuate said elevator in timed relation to said chain loop, candling lights positioned under a reach of said conveyor, support rails supporting said flights independently of said conveyor over said lights, and means connected to oscillate said support rails to rotate said flights and eggs supported thereby over said lights.

2,872,041
SCREEN

Freerk J. Fontein, Heerlen, and Hubert H. Dreimen, Geleen, Netherlands, assignors to Stamicarbon N. V., Heerlen, Netherlands

Application December 14, 1954, Serial No. 475,156
Claims priority, application Netherlands June 22, 1954
2 Claims. (Cl. 209—273)

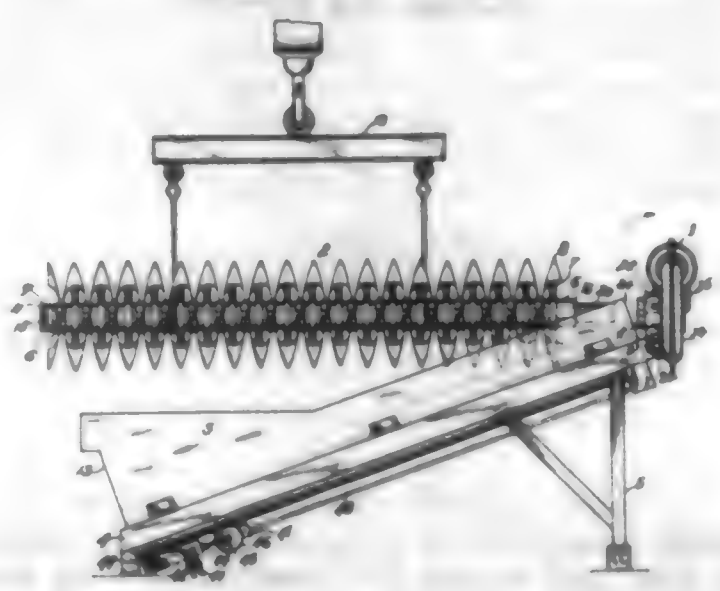


1. Apparatus for separating liquid suspended particles according to size comprising a plurality of stationarily mounted elongated rigid elements defining a screening deck having a feed end, a discharge end and a separating surface generally conforming to a surface generated by moving a line parallel to itself so that a given point on the line moves in a plane perpendicular to the moving line; each of said elements having a planar surface extending longitudinally of the element and disposed in a plane transverse to the plane of the surface of said body, said planar surface of each element facing the feed end of said body; said elements being mounted in spaced parallel relation with respect to each other and extending in a direction parallel with the generating line of said separating surface so as to define a plurality of apertures elongated in the direction of extent of said generating line, means for feeding the particles and the suspending liquid in layer formation onto the feed end of said screening deck in the direction of extent thereof and substantially perpendicular to the generating line of the said separating surface with an initial velocity of at least 50 cm./sec., said feeding means comprising an overflow reservoir disposed adjacent said feed end for receiving a supply of said suspended mixture, said reservoir being related to said screening deck feed end such that said mixture is free to flow outwardly from said reservoir over said feed end as an overflow edge, said feeding means also including a plate disposed directly in front of said screening deck feed end and substantially parallel with the plane of said feed end and extending across the entire width of the screening deck on the separating surface side thereof so as to form a narrow slit at the feed end of said screening deck parallel with said generating line.

2,872,041
DETACHABLE SPIRAL CONVEYOR ORE CLASSIFIER

William Eugene Endrezze, Long Beach, Calif.

Application October 25, 1954, Serial No. 464,489
4 Claims. (Cl. 209—464)



1. In a classifier having a longitudinally inclined tank through which a liquid medium charged with solids of finely crushed ores of different settling rates to be classified moves, said tank being open at its top and formed with a transversely curved bottom, a ribbon spiral conveyor and conveyor shaft longitudinally journalled in bearings at its upper and lower end so that the outer periphery of said spiral will operate in close spaced relation with the bottom to remove the settled material along the inclined bottom and out of the tank while the solids held in suspension by the liquid is provided an overflow at the lower end wall of said tank in elevation above the spiral conveyor, an elevationally movable bearing for the lower end of said conveyor shaft supportingly mounted submerged on the lower end wall of the tank with the upper end of said conveyor shaft main bearing supported in operating engagement with the motivating mechanism of the head motion for rotation thereby; the combination with said main bearing supported in elevation considerably spaced in vertical alignment above a transverse axle member upon which said head motion rocks, a perpendicularly disposed automatically controlled air lift cylinder affixed to the exterior bottom surface of the tank and projecting up into the tank adjacent the lower end wall of the classifier, a cylinder shaft in vertical extension slidable within said cylinder to have the upper end thereof affixed in operating engagement with said elevational movable means provided for the lower end of said conveyor shaft, whereby air pressure within said cylinder imparts an upward thrust and downward movement to the lower end of the spiral conveyor that also rocks the head motion unit upon the axis provided by said transverse axle member.

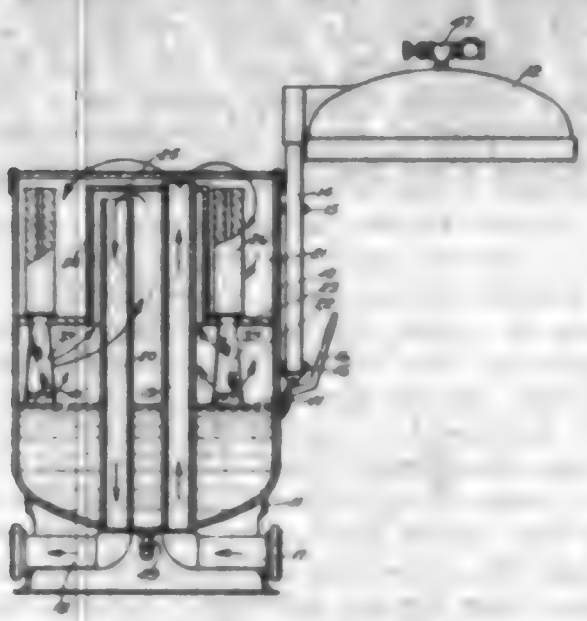
2,872,043
WATER SEPARATORS

Joseph N. Fitzgerald, John W. Gernhardt, and Owen C. Redmon, Tulsa, Okla., assignors to Fram Corporation, East Providence, R. I., a corporation of Rhode Island

Application June 6, 1956, Serial No. 589,710
8 Claims. (Cl. 210—307)

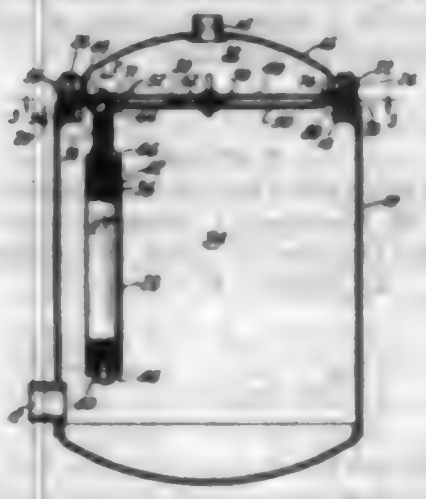
1. A separator for removing water from a hydrocarbon liquid, comprising an upright tank having a partition therein that divides the tank into an upper high pressure chamber and a lower chamber of less pressure, a removable cover that provides access to the first chamber, an inlet for the first chamber and an outlet for the second chamber, coalescer cartridges of the outside-in flow type mounted in the first chamber on said partition and each

having a sleeve at its lower end that projects downwardly through an opening in such partition, and a sack formed of a fine closely constructed fabric extending downwardly



from each sleeve into the lower chamber and operable to receive the coalesced stream from the interior of the cartridge and to pass the hydrocarbon liquid but block the coalesced water up to a critical pressure.

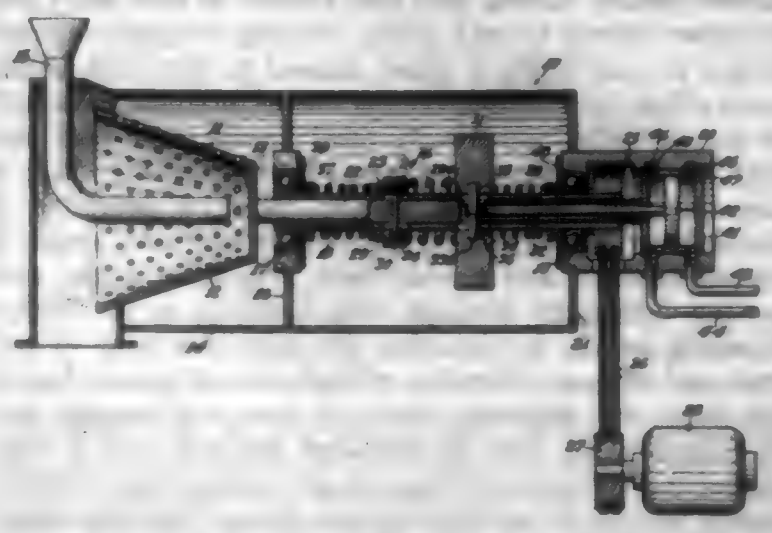
2,872,044
FILTER ELEMENT SUPPORTING PLATE AND FERRULE ASSEMBLY
Walter Kasten, Royal Oak, Mich., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application June 22, 1955, Serial No. 517,335
5 Claims. (Cl. 210—323)



1. In a filter casing having a plurality of washer type filter elements; supporting means for said filter elements comprising a mounting plate removably secured to said casing, a ferrule member removably securing said filter elements to said mounting plate, sealing means attached to said ferrule member and adapted to engage said mounting plate, retaining means operably attached to said filter elements and securely connected to said mounting plate, and resilient means attached to said retaining means for forcibly urging said ferrule member into contact with said mounting plate and said filter elements.

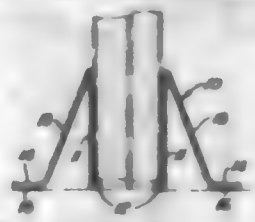
2,872,045
OSCILLATING CENTRIFUGE
Thomas Wirth, Dachau, Karl-Heinz Nebbeth, Darmstadt-Arheilgen, and Karl Wenger, Munich-Allach, Germany
Application October 29, 1957, Serial No. 693,086
19 Claims. (Cl. 210—370)

1. An oscillating centrifuge for effecting the continuous discharge of dried solid materials and comprising a frame, a basket mounted in said frame for rotation and for oscillation along the axis of rotation of the basket, a balancing mass mounted for oscillation along said axis of rotation and being elastically coupled with said basket to form, with the latter, a dual-mass oscillating system, drive means operating in opposed axial directions on said basket



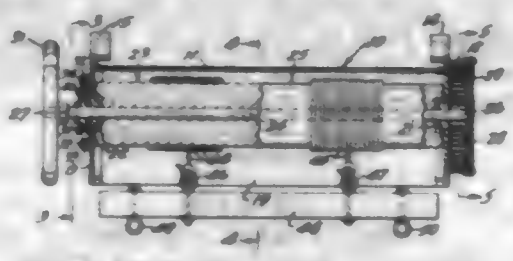
and balancing mass, respectively, and elastic means coupling said basket and said balancing mass, respectively, to said frame in opposed directions so that forces transmitted from said dual-mass oscillating system to said frame act simultaneously in opposite directions to practically eliminate the oscillation of said frame.

2,872,046
BOOK ENDS
Harvey H. Polay, Brooklyn, N. Y.
Application September 9, 1954, Serial No. 454,926
7 Claims. (Cl. 211—42)



1. A lateral supporting member for books and the like objects, said member comprising: a substantially vertical bearing member; a brace fastened rigidly to an upper part of said member and extending outwardly at an angle thereto; the lower ends of said bearing member and brace lying in a common plane, the bearing member forming an obtuse angle with respect to said plane on the side towards the brace member; and hook shaped engaging means rigidly secured to the bottom of said bearing member on the side opposite the aforementioned angle, said means spring biasing said bearing member against the article supported.

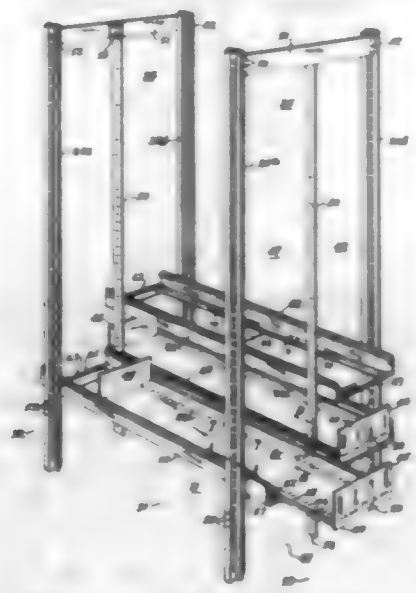
2,872,047
RETRACTABLE CLOTHESLINE DEVICE
Earl W. Outland, Cokato, Minn.
Application May 28, 1954, Serial No. 433,013
1 Claim. (Cl. 211—119.15)



A retractable clothesline device comprising a housing of generally cylindrical shape and having an elongated horizontal opening formed longitudinally thereof at a forwardly facing position and having means at the rear thereof for mounting said device on a mounting structure, said housing having a hood extending forwardly

over said opening in protecting relation therewith, a winding mechanism journaled axially of said cylindrical housing and having a shaft terminating outwardly of each of the sides of said cylindrical housing, a turning element mounted exteriorly of the casing to said shaft, spiral spring tension means having one end affixed to said shaft and the other affixed to said casing whereby to apply resilient torque to said shaft, a spool secured to the shaft within said cylindrical housing, ratchet means mounted exteriorly of said housing and having pawl engagement with said shaft for alternately permitting rotation of the shaft in one direction and then in the other, a plurality of clotheslines simultaneously wound upon said spool in spaced relation and having their respective outer ends passing outwardly through said opening, a bar having fastening means for securing the respective ends of said lines and having a plurality of opposed and spaced fastening means for anchoring remotely from said housing with the plurality of lines in extended position, and a fixed supporting structure having spaced cooperating fastening means releasably securing the said spaced fastening means on said bar, said bar being retractable when released from said supporting structure under torque of said shaft which thereafter winds said plurality of lines and causes the bar to enter said opening under the hood for sealing the interior of said housing against the elements.

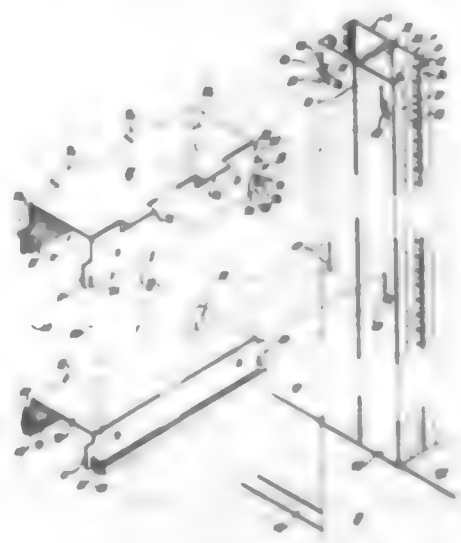
2,872,048
BOOK STORAGE APPARATUS
Ray D. Cooper, Los Altos, Calif.
Application May 18, 1955, Serial No. 509,232
9 Claims. (Cl. 211—143)



1. In a library book storage arrangement, two adjacent pairs of columns connected adjacent their upper ends in one direction by horizontal load transmitting hanger beams, a vertical support member freely depending from each of said beams intermediate the ends thereof and terminating free of a subjacent floor, a vertical spaced series of drawer carriages each extending normal to said load transmitting hanger beams between said adjacent pairs of columns, and each said carriage being connected adjacent its opposite ends to columns of said adjacent pair of columns and to said vertical support members for support thereof solely by said columns.

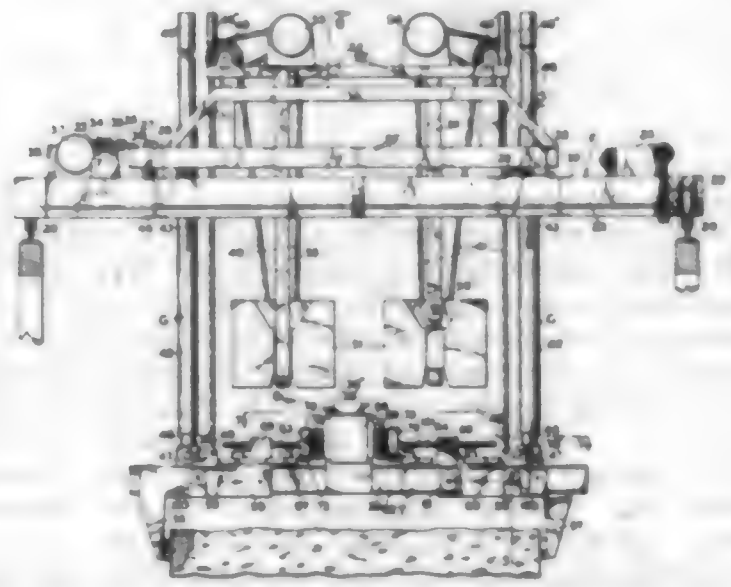
2,872,049
SHELF STRUCTURE
Walter L. Slater, Hayward, Calif.
Application December 23, 1954, Serial No. 477,355
10 Claims. (Cl. 211—148)

1. A shelf structure comprising, a base member having one dimension providing a substantial horizontal extension for stable mounting on a floor, an upright member of hollow thin wall form detachably secured to said base member and supported thereby in vertical position, a shelf bracket carried by said upright member and projecting horizontally therefrom in generally parallel overlying relation to said base member dimension and being adapted to underlie and support a shelf, one wall of said upright member being formed with a slot therethrough having a vertically elongated portion and a subjacent inclined wall portion opposite a horizontally offset slot portion having a top shoulder, a panel supporting member



having a horizontally extending and vertically depending tongue extended through said vertically elongated portion of said slot with the depending part of said tongue lying internally of said wall, and means guiding said panel supporting member for vertical displacement on said upright member thereby causing said tongue to be laterally deflected into said offset slot portion in trapped position under said shoulder, said panel supporting member being formed to support a panel in a vertical plane defining a back wall for said shelf.

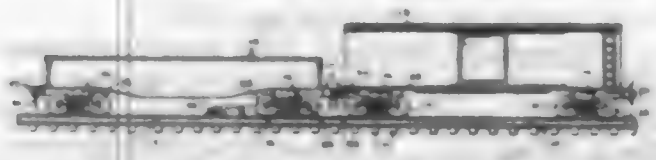
2,872,050
OVERHEAD TRAVELING CRANES
John W. Norwood, Cottage Grove, Oreg.
Application October 25, 1956, Serial No. 618,348
2 Claims. (Cl. 212—12)



1. An overhead traveling crane system comprising, a pair of elongated substantially spaced parallel horizontal rails, means rigidly supporting said rails in spaced relation to the ground, a horizontal frame, a plurality of wheels journaled on opposite sides of said frame supporting said frame on said rails for longitudinal movement thereon, power means on said frame coupled with at least one wheel on each side of said frame for moving said frame on said rails, a horizontal sub-frame positioned in vertically spaced parallel relation above said frame, shoes fixed to one end of said sub-frame engaging said frame

supporting said sub-frame on said frame, wheels journalled in the opposite end of said sub-frame engaging said frame movably supporting the opposite end of said sub-frame on said frame, vertically extending means pivotally securing said one end of said sub-frame to said frame, power means on said frame connected to the opposite end of said sub-frame for swinging said sub-frame in a horizontal plane about said pivotal securing means, a pair of spaced apart power hoists mounted on said sub-frame, a pair of spaced parallel vertically extending guides fixed to said sub-frame beneath each of said hoists, a counterweight positioned for vertical sliding movement in each pair of said guides, an upright tubular guide fixed to each end of said sub-frame, a plunger positioned in each of said tubular guides for vertical sliding movement therein, a horizontal beam, horizontal means pivotally connecting opposite ends of said beam to said plunger, a pair of chains fixed at one end to each end of said beam, said chains each being trained over one of said hoists and having the opposite end portions thereof supporting one of said counterweights, a pair of tongs mounted for horizontal movement on said beam, and power means on said beam for moving each of said tongs on said beam.

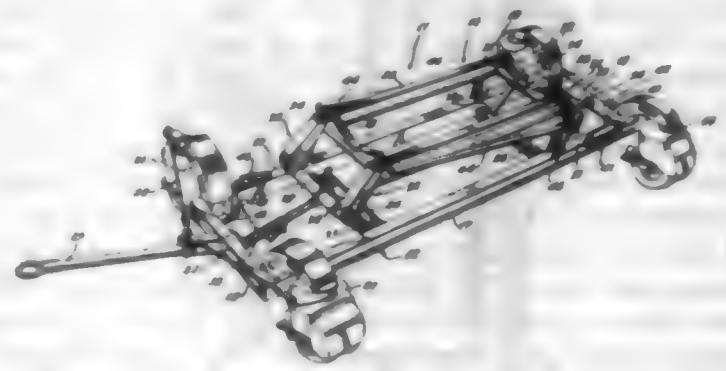
2,872,051
AUTOMATIC COUPLING AND UNCOUPLING MEANS FOR MINIATURE TRAINS
George W. Dunbar, Nashville, Tenn., assignor to Kusan Incorporated, Nashville, Tenn.
Application June 6, 1957, Serial No. 663,987
3 Claims. (Cl. 213—75)



1. Automatic coupling and uncoupling means for miniature trains wherein coupling and uncoupling of the trucks is effected by lateral movement of the trucks in opposite directions comprising in combination with a trackway, cars on the trackway, each car having a pivotally mounted truck at the ends thereof, a draw-head rigid with each truck, each draw-head having interlocking means with the next adjacent draw-head, ramp means medially of the trackway having a pair of laterally spaced upstanding flexible flanges, a downwardly extending pin on each draw-head, the pin of one draw-head having contacting engagement with one of the flanges and the pin of the other draw-head having contacting engagement with the other flange whereby lateral pressure between said flanges and pins will produce a lateral movement of said trucks in opposite directions to effect uncoupling of said draw-heads when said cars are stopped and backed into position above said ramp.

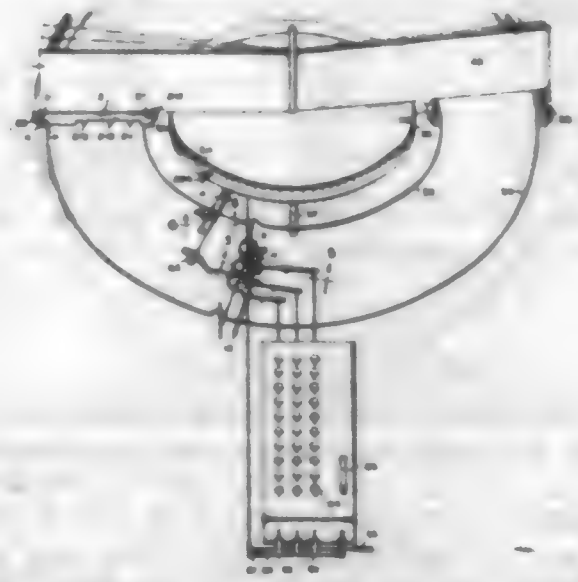
2,872,052
ELEVATING DOLLY
Lachlan Grant Ferguson, Pacific Palisades, and Jack C. Fowler, Los Angeles, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application December 7, 1953, Serial No. 396,412
2 Claims. (Cl. 214—1)

1. A dolly for transporting and elevating heavy equipment comprising: a pair of elongated, parallel, spaced apart channels; a bar secured to each end of said channels and spanning the distance therebetween; a second pair of spaced apart, parallel channels spaced from said bars, secured to said first named channels intermediate the ends thereof and spanning the distance therebetween; said second pair of channels being U-shaped in cross section; a substantially coplanar lift frame disposed between the first named channels and bars; a pair of spaced apart, parallel, members on said lift frame; one of said members resting on the bight of one of said second named channels and the other of said members resting on the bight of the other of said second named channels and



being embraced by the legs thereof; linkage means on said lift frame and said first named channels; and hydraulic means on said lift frame and said bars and disposed therebetween for lifting said lift frame from the second named channels to an elevated position.

2,872,053
AUTOMATIC CARD FILE SYSTEM
José Rafael Ulrich, Montevideo, Uruguay
Application July 22, 1957, Serial No. 673,412
34 Claims. (Cl. 214—11)

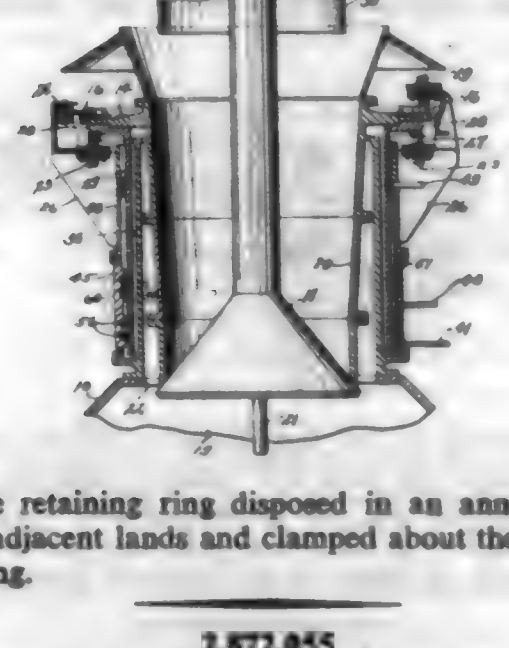


1. An automatic card file for selection and extraction of coded cards radially arranged on an annular support comprising an annular member for supporting the cards, means to rotate said member relative to a sensing zone, sensing means for sensing a code means on a card in the sensing zone, selecting means to selectively adjust the sensing means to sense and recognize a preselected code in the code means of the card, and means for ejecting, from the file, a card having the preselected code.

2,872,054
SEAL FOR BLAST FURNACE HOPPERS
John D. Geiser, Lakewood, Ohio, assignor to Interlake Iron Corporation, Cleveland, Ohio, a corporation of New York
Application April 20, 1954, Serial No. 424,356
13 Claims. (Cl. 214—37)

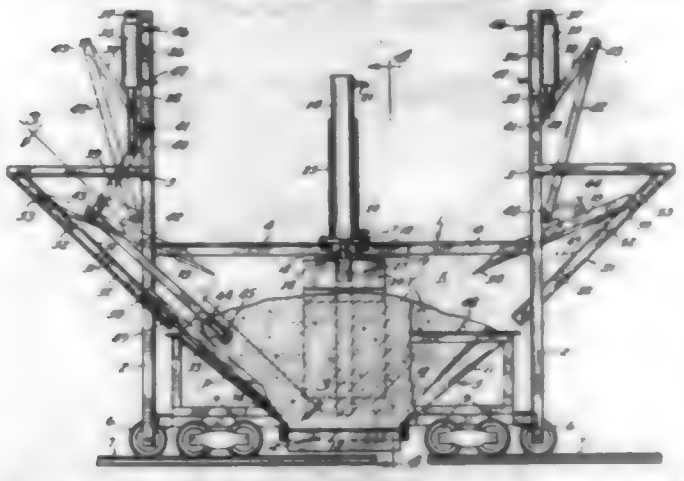
7. In a blast furnace having an open top with spaced inner and outer concentric walls defining an annular recess closed at the bottom and open at the top, a rotatable charging hopper having a closure and extending freely into the furnace top, said hopper having an external surrounding sleeve adapted to rotatably seat in the annular recess in spaced relation between the concentric walls of the furnace top, a pair of annular lands spaced along and between the sleeve and the outer concentric wall, a sealing ring assembly including a plurality of sealing rings

disposed in an annular course between adjacent lands and encircling the sleeve, and a separable and circumferentially



adjustable retaining ring disposed in an annular course between adjacent lands and clamped about the assembled sealing ring.

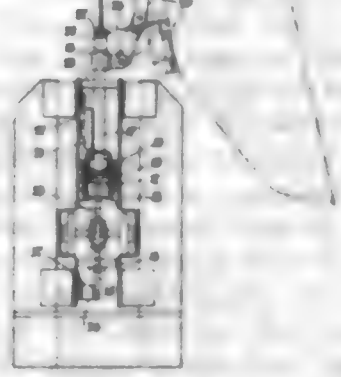
2,872,055
CAR UNLOADING DEVICE
Agard L. Lambert, Virginia, Minn.
Application December 23, 1957, Serial No. 704,586
5 Claims. (Cl. 214—44)



1. In a device for unloading open topped earth moving rail cars of the type having vertical side wall portions, downwardly diverging end walls and a discharge opening in their bottoms, said device comprising an elongated frame structure defining a passageway for said rail cars, laterally spaced side wall scraper elements supported by said frame structure in overlying relationship of the central portion of a car in said passageway, power operated means for imparting common reciprocal movements to said scraper elements in a vertical plane transversely of said passageway, an impact shoe mounted for independent vertical reciprocal movements intermediate said scraper elements, and power operated mechanism for imparting movements to said impact shoe, a pair of opposed downwardly converging guideways in substantial alignment with the planes of the respective end walls of a car within said passageway, a pair of end wall scraper elements one each mounted within one of said guideways for generally upward and downward movements in said plane, and power operated mechanism for imparting said movements to said end wall scraper elements.

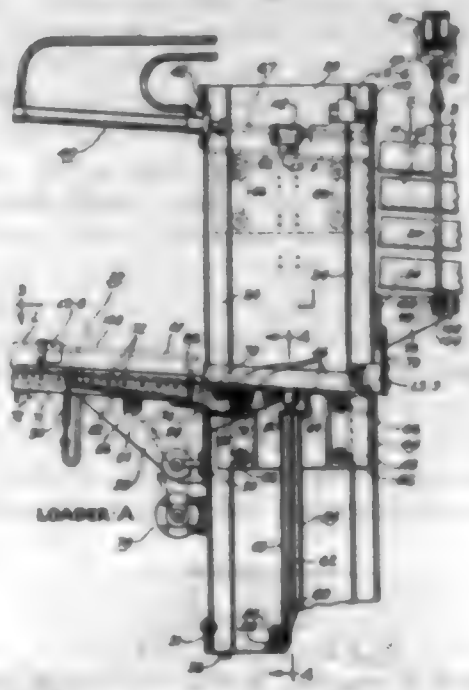
2,872,056
CONVEYOR SYSTEMS
Arthur Thomas Charles Burrows, Stevenage, England, assignor to Geo. W. King Limited, Stevenage, England, a British company
Application March 19, 1957, Serial No. 647,152
Claims priority, application Great Britain March 19, 1956
12 Claims. (Cl. 214—64)

8. A conveyor system comprising a fixed track of substantially channel section, an endless driven chain running in said track, auxiliary running surfaces disposed within said track at a level above that of the chain, skid members supported directly on the chain for movement therewith, a post carried by each skid member and projecting upwardly above the track, roller means associated with each post and skid member and arranged to cooperate with said auxiliary running surfaces to prevent both lateral and fore and aft movement of said post,



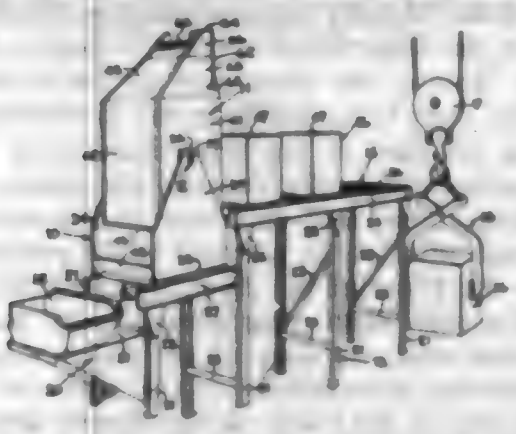
means coupling the posts of successive skid members together in pairs, a load tray supported for pivotal movement on each pair of said posts, collapsible strut means serving normally to support each tray in a load carrying position and means at a selected point along the conveyor path capable of being set to cause collapse of said strut means with consequent tipping of said tray to discharge the load therefrom.

2,872,057
LOADER, UNLOADER MECHANISM
Raymond W. Wagner and Wilber E. Sanders, Sr., South Bend, Ind., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application June 27, 1956, Serial No. 594,386
12 Claims. (Cl. 214—39)



1. A mechanism for loading a plurality of units onto and unloading said units from a powered conveyor system, said mechanism including an endless conveyor carrying a plurality of carrier units, each unit comprising a hanger and a multi-tray member secured thereto, a plurality of loader units mounted along the endless conveyor each of said loader units handling a certain type of article to be transported on a certain tray of the multi-tray member, and a plurality of corresponding unloader units mounted along the endless conveyor remote from the loader units, said loader and unloader units including control means actuated by the hangers for effecting an energization of the latter units.

2,872,058
DISPENSING MECHANISM
Charles W. Doepke and Blaine S. Aston, Cincinnati, Ohio, assignors, by mesne assignments, to Nestler Corporation, Cincinnati, Ohio, a corporation of Ohio
Application January 5, 1956, Serial No. 557,480
6 Claims. (Cl. 214—314)



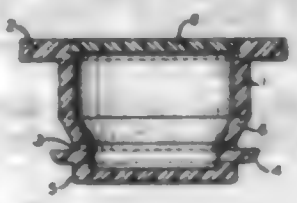
1. A dispenser arranged to dispense parts from a bulk container, said dispenser comprising a base, a hopper having a pair of side walls and an open face for receiving a parts container, said hopper having container support means at one end thereof and having a delivery spout projecting outwardly from an opposite end, said spout having an open face and having side walls joined to the side walls of the hopper, pivot means on the base and hopper cradling the hopper relative to the base for rocking motion selectively to an upright or a downwardly inclined inverted position, the open face of the hopper and spout facing upwardly in said inverted position, the said container support means residing at the lower end of said hopper when the hopper is pivoted to said upright position, whereby a bulk parts container may be advanced through said open face and upon said support means to be inverted with the hopper, stop means in said hopper adjacent the spout arranged to support the parts container in said inverted position, a second stop means on said base contacting the spout in said inverted position and stabilizing the hopper with the spout residing at the lower end of the hopper in a downwardly inclined position, whereby the parts flow by gravity from the bulk container and down the downwardly inclined spout, said spout having an open end extending beyond said base in said inverted dispensing position, a flow control gate pivotally mounted at the open end of the spout, said gate pivoting selectively to an upwardly inclined position across said downwardly inverted spout or to a downwardly inclined position corresponding at least partially to the downward inclination of the inverted spout, said gate having opposed side walls slidably interfitting the side walls of said spout, said gate in said upwardly inclined position creating a reservoir of parts to be dipped from the open face of the downwardly inclined spout, said gate in said downwardly inclined position adapting the parts to flow by gravity down the spout and across the gate.

2,872,059
FLAT BED TRAILER HITCHES
Eugene J. Miller, McHenry, Ill.
Application June 11, 1957, Serial No. 664,976
9 Claims. (Cl. 214—506)



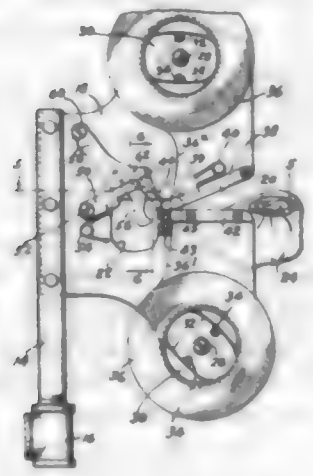
1. A low bed trailer tractor assembly adapted to deposit the front end of the low bed on the ground for loading or connection to tractor with minimum labor, comprising a low bed trailer having a plurality of rear wheels supporting the rear end of a plurality of longitudinally extending beam members, each said beam member having a rear horizontal frame portion mounted above said wheels, a downwardly offset frame portion in front of said wheels, and a forward elongated beam portion extending from the offset portion to a front forwardly tapered end, said beam members being covered and joined by an upper layer of sheet steel welded thereto, all of said beam members being sharply beveled on their upper sides at their forward ends, and the beveled portions being covered with steel ramp plate welded thereto, forming a rising ramp extending from the ground to the top surface of the low bed for use in loading and in guiding a gooseneck tow member, said beveled portions each having an upwardly open rounded apex V groove, forming a partial bearing in each beam spaced from the end of the beam, and said ramp plate having a rectangular slot located above said V groove and providing an elongated bearing slot, a tractor having an inclined load carrying table with a forwardly tapered groove, having securing means for a load pin, a gooseneck tow bar for connecting said tractor and trailer, said gooseneck comprising a frame of beams having a forwardly extending frame portion joined to a downwardly extending portion, said forwardly extending frame portion having a centrally located depending headed load pin adapted to be secured in the said forwardly tapered groove of said load table to permit the gooseneck to pivot on a vertical axis and a horizontal axis relative to the tractor, said downwardly extending portion terminating in a cross frame member, forming an elongated depending bearing lug received in said bearing slot for limited pivotal movement, pivot means for securing said lug in said slot, and tension securing means extending between the end of a plurality of said low bed beams to the front side of said gooseneck at its downwardly extending portion to resist the downward pivotal movement of the low bed on the gooseneck.

2,872,060
HOLLOW STOPPER FOR BOTTLES, TUBES OR THE LIKE, OR ARTIFICIAL MATERIAL, PREFERABLY POLYETHYLENE
Herbert Brüne, Porz, near Koln, and Lorenz Koelm, Koln-Lindenthal, Germany
Application November 8, 1955, Serial No. 545,708
19 Claims. (Cl. 215—47)



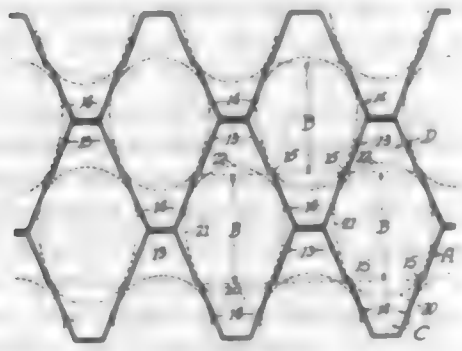
1. A hollow stopper for bottles, tubes, and the like of an elastic artificial material, comprising a hollow cylindrical member carrying integrally therewith at least one flange-like ring member surrounding peripherally said hollow cylindrical member, said ring member having a top face disposed in a plane perpendicular to the longitudinal axis of said stopper and a bottom face curving upwardly towards said top face in outward radial direction, in order to taper off said ring member outwardly, a piston-like guide disposed at the upper end and integrally connected with said cylindrical member and engaging the inner face of the neck portion of said bottles, the said piston-like guide having a smaller diameter than said ring member but a greater diameter than said cylindrical member, a flange disposed on top and integral with said piston-like guide, a special cover plate for the said flange, a bottom plate integrally disposed at the bottom of said cylindrical member, and said flange-like ring member being seamless in order to provide a secure closure.

2,872,061
MECHANISM FOR SEALING BAGS
Javier A. Tostado, Los Angeles, Calif.
Application July 2, 1956, Serial No. 595,313
1 Claim. (Cl. 216—29)



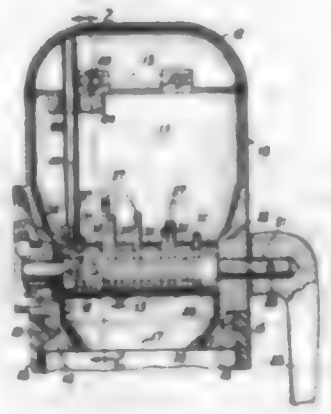
In a mechanism for sealing bags, the combination of a flat supporting plate adapted for selective vertical and horizontal positioning, a stand therefor, said plate having an opening and a V-shaped bag receiving passage communicating with said opening, a pair of rotatable supports for adhesive tape provided on said plate at opposite sides of said passage, a stationary anvil element and a pivoted hammer element provided on said plate at opposite side edges of said opening, a spring urging said hammer element against said anvil element, said hammer and anvil elements having slots therein for feeding of tape from said rotatable supports therethrough, a spring-pressed support bar having one end thereof pivoted to said plate, a blade secured to the other end of said support bar and disposed adjacent the junction of said passage and said opening, a trigger support, a pivot element attaching one end of said trigger support to said plate, a trigger secured to the other end of said trigger support and extending into said opening, and a link having one end thereof pivoted to said support bar adjacent said blade and having its other end pivoted to said trigger support at a point between said trigger and said pivot element, whereby to operatively connect said trigger support to said support bar.

2,872,062
EGG PACKING FLATS
Harry E. Lambert, Gary, Ind., assignor to Central Fibre Products Company, Quincy, Ill., a corporation of Delaware
Application September 16, 1955, Serial No. 534,764
2 Claims. (Cl. 217—26.5)



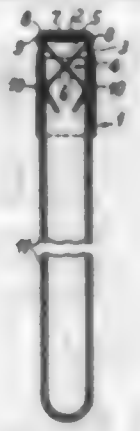
1. A filler flat for use in packing eggs in an egg case, said flat comprising a sheet of molded pulp fibre having a plurality of hollow projections integrally formed therewith, said projections extending out from the surface of the sheet and being aligned in alternate rows with the projections in one row extending out in one direction from the sheet and the projections in the next row extending out from the sheet in the opposite direction, the projections extending in one direction being offset with respect to the other projections to form hollows surrounded by four upstanding projections, each of said projections having diametrically opposed wall portions tapering from a given dimension at the outer distal end to a larger dimension substantially in the plane of the sheet, confronting wall portions of the hollows tapering from a dimension substantially in the plane of the sheet to a smaller dimension at the end thereof, the dimension of the hollow in the plane of the sheet being less than the dimension between confronting portions of the projections along a vertical plane extending diagonally through the centers of a plurality of projections, said difference in dimensions defining an abrupt offset at the juncture of the projections and hollows in the plane of the sheet, said vertical plane defining half-pockets each comprising a major and a minor wedge-shaped area, the apex of the major wedge-shaped area terminating substantially in the plane of the sheet and at the base of the minor wedge-shaped area.

2,872,063
LID ACTUATING ASSEMBLY
George A. Lehmann, Ferguson, and William E. Gundelfinger, House Springs, Mo., assignors to The Dairy Corporation, St. Louis, Mo., a corporation of Missouri
Application February 28, 1956, Serial No. 566,565
5 Claims. (Cl. 220—36)



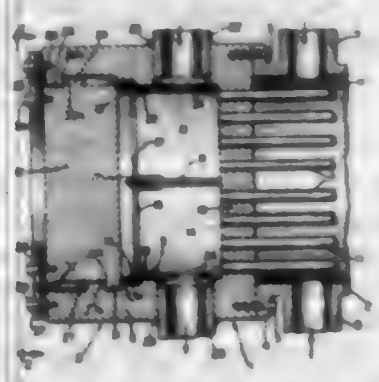
1. In a lid-actuating assembly for an ice crusher device having a receptacle and a lid hingedly attached thereto, the assembly comprising a shaft extending transversely through the receptacle, means for turning the shaft, an arm-actuating element carried by the shaft and rotatable therewith, an arm element freely mounted for rotation on said shaft, said arm element having a portion that extends normally into the path of rotation of said actuating element, resilient means engaging said arm element and tending to urge the arm element axially along said shaft in a direction to maintain said arm element portion in said path, a rod pivotally connected to said arm element, said actuating element engaging said arm element portion to rotate said arm element when the shaft is turned in one direction, guide means in said receptacle for directing the rod into lid-lifting engagement with the lid upon actuation of said arm element by said actuating element, stop means in said receptacle engaging said arm element to limit the rotation of said arm element by said actuating element to assure that the rod retains the lid in a raised position, the actuating element being operatively disengageable from said arm element portion to permit closing of the lid when the shaft is rotated in the opposite direction, a cam on one said element and a cam follower on the other element, the cam and follower engaging to displace the arm element portion out of the path of said actuating element against the loading of said resilient means when the shaft is turned in the said opposite direction, whereby to permit free rotation of said shaft in the last said direction with the lid in the closed position.

2,872,064
TEST TUBE CLOSURE, PARTICULARLY FOR BACTERIOLOGICAL PURPOSES
Albert Bruggmann, Gossau, St. Gallen, Switzerland, assignor to Ludi & Cie. Metallwarenfabriken, Flawil, St. Gallen, Switzerland
Application March 22, 1957, Serial No. 647,766
Claims priority, application Switzerland March 29, 1956
1 Claim. (Cl. 215—38)



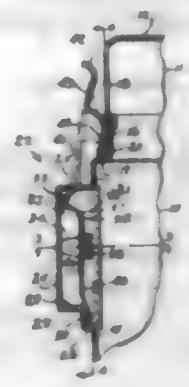
A test tube closure comprising a cylindrical cap having an internal diameter substantially equal to the external diameter of a test tube so that the cap closely fits on a test tube, said cap having a longitudinal dimension greater than said diameter, an annular projection formed internally of said cap for limiting the downward movement of the cap onto the tube and sealing the top edge of the test tube, said projection being spaced from the top of said cap a sufficient distance to form a groove therebetween, a one-piece spring completely disposed in a vertical plane and having an intermediate portion and two downwardly depending legs, the joint portions connecting said intermediate portion and said legs being removably seated in said groove with said intermediate portion extending diametrically of said cap and being bowed under tension for resiliently retaining said joint portions in said groove, said legs being of such length that the spring is totally disposed within said cap, diametrically opposed portions of said legs being crossed so that upon deflection of said legs toward each other said joint portions are further forced into said groove whereby the cap may be used to lift the test tube even when full of liquid, the free ends of said legs being bent inwardly, and the upper wall of said projection engaging and limiting the movement of the upper ends of the legs whereby resistance to deformation of the spring is increased.

2,872,065
HEAD CLOSURE CONSTRUCTION FOR HEAT EXCHANGERS
Gordon D. Hamersley, Massillon, Ohio, assignor to The Griscom-Russell Company, Massillon, Ohio, a corporation of Ohio
Application February 7, 1956, Serial No. 564,016
7 Claims. (Cl. 220—40)



1. Head closure construction for heat exchangers, including an annular head barrel wall having an inner annular surface defining the open end of the head, two closure-engaging lugs projecting radially-inwardly of the inner surface of the barrel wall, the lugs being axially spaced and circumferentially staggered, a closure member within the open end of the barrel wall, two engaging lugs extending radially-outwardly from the outer surface of the closure member, said closure member lugs being axially spaced and circumferentially staggered to match the spacing and staggering of the barrel wall lugs, the axial spacing between the barrel wall lugs being at least as great as the axial width of the closure lugs, the two closure-engaging lugs projecting inwardly of the inner surface of the barrel wall, each extending through a circumferential segment of substantially 180° free of axial overlap so constructed that the extent of circumferential connection of the two axially spaced barrel wall lugs with the barrel wall is approximately 360° around the circumference of the inner barrel wall surface.

2,872,066
SPRING LOCK
Herbert M. Piker, Wyoming, and Alvin J. Schaltheiss, Hamilton, Ohio, assignors to Hamilton-Skotch Corporation, a corporation of Ohio
Application May 2, 1955, Serial No. 505,216
12 Claims. (Cl. 220—55)

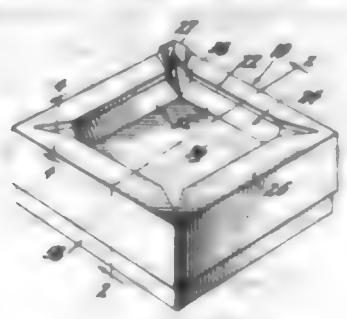


9. In combination, a box wall having an aperture therethrough and a spring lock comprising a housing having a front wall and side walls, a top wall and a bottom wall rearwardly projecting from the front wall, a flange laterally projecting from two opposite of said walls, said lock housing being inserted through the aperture in the box wall to have its flanges against one face of the box wall laterally of the aperture and its side walls, top wall, bottom wall and front projecting ahead of the other face of the box wall, a lock hasp including at one end a latch bar with depending arms from the ends of the latch bar that straddle the lock housing, inwardly projecting trunnions from the free ends of the depending arms disposed through the housing side walls to be inwardly of the housing, said housing side walls and front having formed therethrough notches through which the lock hasp trunnions are disposed inwardly of the housing, a leaf spring including a body portion and spring fingers from its opposite ends with said leaf spring body portion engaging the lock hasp trunnions and the spring fingers, engaging the housing front for outwardly projecting said housing and clamping the housing flanges against the box front, and said housing bottom wall including a shoulder for engagement by the leaf spring fingers to anchor same against displacement.

2,872,067
AUTOMATIC EJECTION ASH TRAY
William J. C. Gessner, Philadelphia, and Edward H. Gessner, Norristown, Pa.
Application May 14, 1956, Serial No. 584,804
14 Claims. (Cl. 220—65)

1. An ash tray structure comprising a rigid holder having an upwardly opening mouth therein defined by inwardly presented relatively upwardly converging walls, an ejector disposed in said holder for movement upwardly through said recess, means normally positioning the said ejector a predetermined distance below said mouth, a con-

tainer of flexible sheet material resting on said ejector and having upwardly diverging resiliently inwardly deflectible sides, the upper edges of which are normally in snug conforming engagement with and confined by said upwardly converging walls at locations spaced below said mouth, whereby said walls overhang and project inwardly above the sides of said container to prevent inadvertent displacement of the container and to direct material thereinto, and



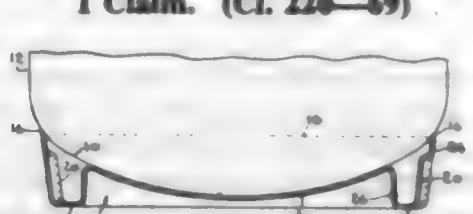
means for moving the ejector toward the mouth of said container to eject said container upwardly through said mouth, said upwardly converging walls serving to cam said sides of the container inwardly for passage through said mouth, and the ensuing resilient outward expansion of said sides causing them to overlie said mouth and be vertically supported in ejected position following retraction of the ejector.

2,872,868

DOUBLE BOTTOM COMPRESSED GAS CYLINDER AND METHOD OF MAKING SAME

Roy R. Johnson, Liberty, N, Y., assignor, by mesne assignments, to Pressed Steel Tank Company, Milwaukee, Wis., a corporation of Wisconsin

Application October 12, 1955, Serial No. 540,045
1 Claim. (Cl. 220—69)



An article of the class described comprising a gas cylinder having downwardly curved bottom wall, an auixilary bottom member secured to the cylinder, said auxiliary bottom member having an integral, annular foot portion including a lower annular ground-contacting portion and inner and outer annular wall members extending upwardly therefrom, said outer wall member terminating in an upper peripheral edge welded to the curved bottom member of the cylinder along a generally circular line of contact of a lesser diameter than that of the cylinder, said inner wall portion at its upper end being peripherally joined to a central portion of said auxiliary bottom member which is downwardly dished to conform generally to the curvautre of the bottom wall of the cylinder, said inner and outer peripheral wall members being spaced to define, with the curved surface of the cylinder bottom, a closed chamber containing dry air at subatmospheric pressure, said outer annular wall portion being provided with vertically-extending corrugations to stiffen the same, said corrugations terminating short of the upper welded edge of said wall portion to provide an intermediate substantially smooth annular wall portion to facilitate welding during replacement of the auxiliary bottom member.

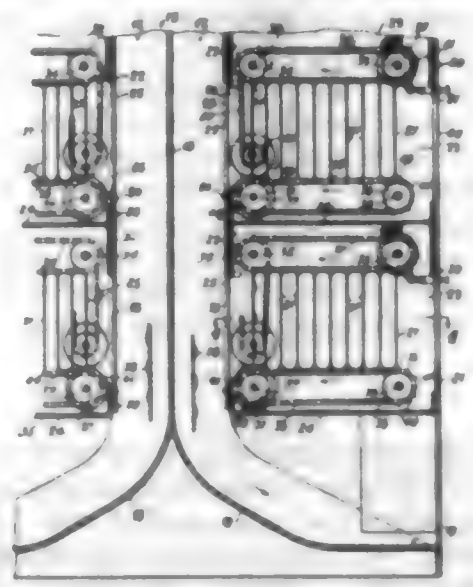
2,872,069

VENDING MACHINE

Albert Lerner, Forest Hills, N. Y.

Application April 3, 1957, Serial No. 650,384
2 Claims. (Cl. 221—85)

1. A vending machine comprising in combination a receptacle including a rear wall with an opening therein, upper and lower shafts journalled in the receptacle, sprockets secured to the ends of the shafts at the sides of the receptacle, endless chains trained around the sprockets on the upper shafts, endless chains trained around the shafts on the lower shafts, means of connection between the upper and lower shafts, the links of the lower chains having closely spaced upright lugs, the links of the upper chains having transverse rods, cards mounting articles of merchandise supported in upright



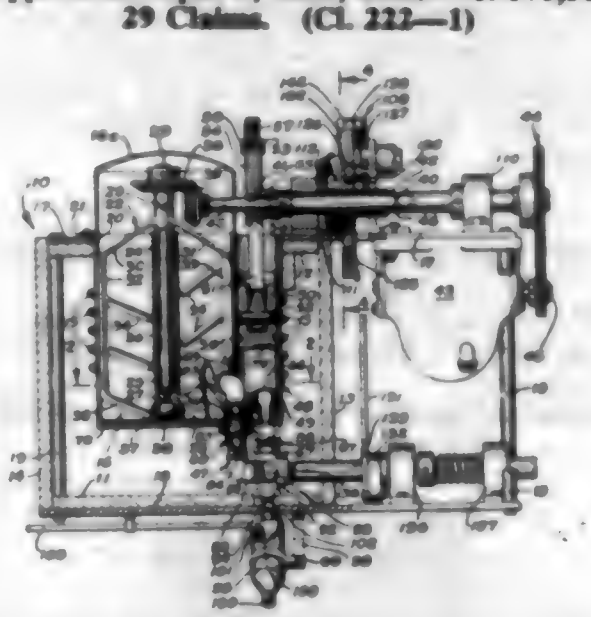
position between said chains with the bottom ends thereof in the space between said lugs and the upper ends thereof resting against said rods, means for turning one of said shafts including a toothed disc on said one shaft, a manually operated plunger, means of connection between the plunger and said disc including a lever arm connected at one end to said one shaft, linkage between the other end of the lever arm and plunger, a pawl pivotally mounted on the lever arm and yieldingly pressing against the teeth on said disc.

2,872,870

METHOD OF AND APPARATUS FOR RECONSTITUTING BEVERAGES

Millard A. Stephenson, Lake Wales, Fla.

Application April 2, 1956, Serial No. 575,385
29 Claims. (Cl. 222—1)



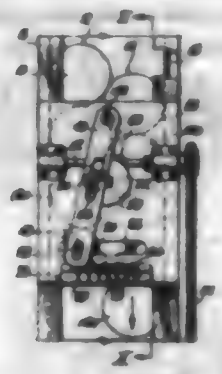
19. A process for reconstituting beverages comprising, storing a quantity of concentrate, refrigerating said concentrate to low temperatures to prolong the prime quality thereof, agitating said concentrate to enable said concentrate to be maintained in a fluid state, circulating said concentrate for maintaining said concentrate in a fluid state, discharging a predetermined quantity of said concentrate into a mixing chamber, supplying a predetermined quantity of diluent into said mixing chamber, and mixing said predetermined quantities of concentrate and diluent for dispensing a beverage.

2,872,071

MECHANISM FOR DISCHARGING GENERALLY CYLINDRICAL ARTICLES FROM THE BOTTOM OF A STAGGERED STACK THEREOF

Herbert L. Keller, Kansas City, Mo., assignor to The Vendo Company, Kansas City, Mo., a corporation of Missouri

Application September 24, 1956, Serial No. 611,425
1 Claim. (Cl. 221—67)



In a vending machine having vertical, opposed, spaced supporting and guiding members for receiving two columns of articles in staggered relationship, a horizontal, rotatable shaft having a roller rotatable thereon and adapted to alternately engage the columns to restrain both of the latter against downward movement; a pair of vertical, opposed plates adapted to be carried by the members adjacent corresponding ends of the shaft in perpendicular relationship thereto, said plates having elongated, horizontally aligned slots reciprocably receiving respective ends of the shaft; an elongated horizontal rail joined to each of the plates beneath the slot therein; a horizontal rack integral with and extending the length of each of the rails respectively; a pinion rigidly secured to each end of the shaft and movably engaged with a proximal rack, said pinions having integral hubs resting on corresponding rails supporting the roller and cooperating with said racks to limit reciprocation of the roller to a rectilinear path of travel; a single, elongated arm extending upwardly from one end of the shaft adjacent to the vertical face of one of said plates; stationary pivot means on said vertical face of said one plate pivotally supporting the arm for vertical swinging movement about a horizontal axis parallel with the axes of rotation of the shaft and the roller, said arm being provided with an elongated, longitudinal slot at the lowermost end thereof reciprocably receiving the shaft; a disc rotatably mounted on said vertical face of said one plate inwardly of said arm and between said slot of the plate and said stationary pivot means for rotation about an axis parallel with said axes; a pin rigid to said disc adjacent the periphery thereof, eccentric to the axis of rotation thereof and extending outwardly therefrom, said arm having an elongated, longitudinal slot intermediate the ends thereof receiving the pin; a spur gear connected to and in axial alignment with said disc; a horizontal shaft provided with a worm gear rotatably carried by said vertical face of said one plate, said worm gear being operably coupled with said spur gear; and power operated chain and sprocket means operably connected to said shaft of the worm gear whereby the roller is reciprocated as the worm gear and in turn the disc are rotated.

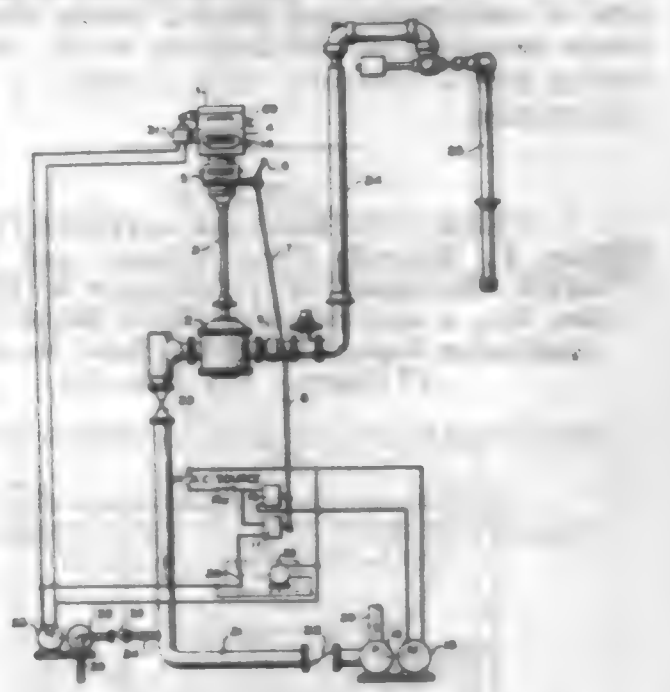
2,871,071

CONTROL SYSTEM

Edwin E. Reed, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application May 16, 1955, Serial No. 508,665
4 Claims. (Cl. 222—30)

1. A control system for indicating an additive addition to a liquid being pumped, said system comprising in combination, pumping means for pumping said liquid, conduit means for conveying the pumped liquid, means for driving said pump, pumping means for said additive, conduit means for conveying said additive, means for driving last said pumping means, a flow meter in said means for conveying said liquid, a printing means operably connected to said flow meter so as to indicate volume of flow through said meter when said printing means is made to print, a printing element in said printing means normally in the non-printing position, a solenoid operably connected to said printing element to bring it into the printing position when said solenoid is activated,



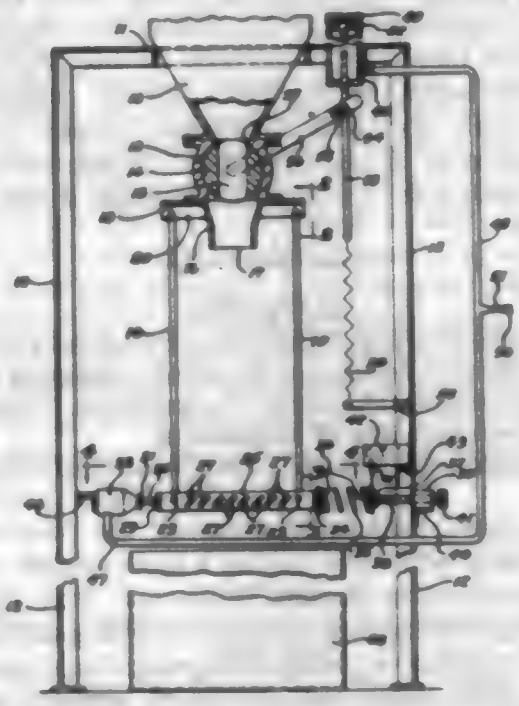
means for holding said printing element in said printing position, means for returning said printing element to the non-printing position when said printing means has been made to print, a time switch, a time motor operably connected to said time switch to open said time switch when said time motor is activated for a predetermined time, means for activating said means for driving said liquid pumping means and, when said time switch is closed, for activating said means for driving said additive pumping means, said time motor, and said solenoid.

2,872,073

FEED MEASURING AND CONTROLLING APPARATUS

Lyndus E. Harper, West Barrington, R. I., assignor to B-I-F Industries, Inc., a corporation of Rhode Island

Application March 26, 1956, Serial No. 573,740
19 Claims. (Cl. 222—55)



8. The combination with feeding means discharging a freely falling stream of material therefrom of means for controlling the rate of said feeding means compris-

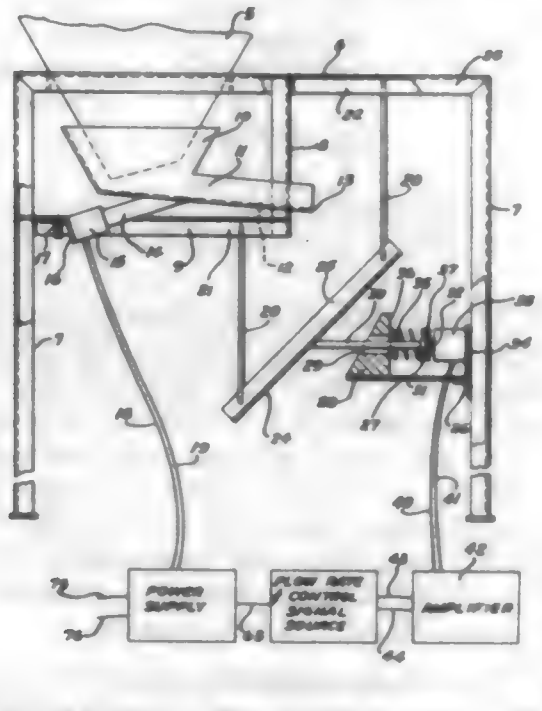
ing means for measuring the flow thereof comprising deflecting means, means suspending said deflecting means from a fixed support in said stream to be engaged by all the particles thereof upon reaching a predetermined velocity, said suspending means constraining said deflecting means against vertical movement by engagement of said particles therewith, means for measuring the horizontal component of the impact of said stream against said deflecting means comprising a movable member having a position determined by the horizontal component of said impact and yielding means opposing horizontal movement of said deflecting means, and feed controlling means responsive to the position of said movable member.

2,872,074

FEED CONTROLLING APPARATUS

William C. Birtwell, North Scituate, and Lyadus E. Harper, Barrington, R. I., assignors to B-I-F Industries, Inc., a corporation of Rhode Island

Application September 4, 1956, Serial No. 607,695
17 Claims. (Cl. 222—55)



1. The combination with feeding means discharging a freely falling stream of material therefrom of means for controlling the rate of feed thereof, comprising deflecting means, means mounting said deflecting means in said stream to be engaged by all the particles thereof upon reaching a predetermined velocity, said mounting means comprising suspending means for constraining said deflecting means against vertical movement by engagement of said particles therewith, electronic means controlling the rate of said feeding means and a voltage responsive controlling circuit for said electronic means comprising means responsive to the horizontal displacement of said deflecting means for varying the voltage in said controlling circuit.

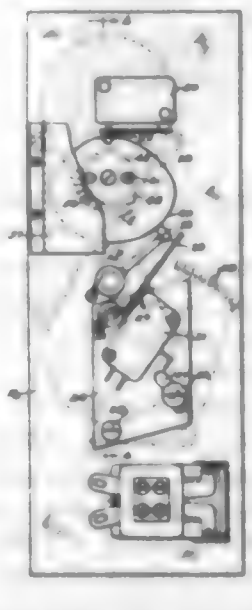
2,872,075

DISPENSER TIMING APPARATUS

Robert T. Steiner, Minneapolis, Minn., assignor to Northwest Automatic Products Corporation, Minneapolis, Minn., a corporation of Minnesota

Application March 26, 1956, Serial No. 573,851
5 Claims. (Cl. 222—70)

1. In a liquid dispensing machine, the combination of a liquid storing container having a controllable dispensing valve, valve-opening means connected with said valve, valve closing mechanism having a moving actuating element, said mechanism being constructed and arranged to close said valve when said actuating element is moved, a camming abutment, a spring-pressed travel element normally held in starting position in engagement with said camming abutment and mounted for movement into driving engagement with said actuating element for operating said valve-closing mechanism, said camming abutment being movable to change the starting position of said spring-pressed travel element and thereby change the travel distance thereof to said actuating element, driving mechanism connected with said travel element and being constructed and arranged for moving the same in a substantially uniform rate toward said actuating element, the travel time of said travel element to said actuating element changing when said camming abutment is moved to change said starting position, a rotary power unit including a speed reducing gear train drivably connected with said camming abutment and also including a motor constructed and arranged to be disconnected from said gear



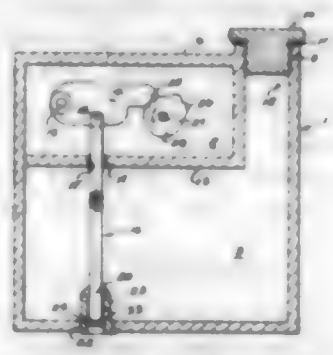
train when de-energized, said power unit moving said camming abutment to change the starting position of said travel element, and said speed reducing gear train stopping and holding said travel element when said motor is disconnected, said motor and said driving mechanism being connected with said valve to be de-energized when said valve is closed and control means connected with said valve for opening the same and also connected with said driving mechanism and with said motor for operating the same, whereby said camming abutment is moved and held in a new position each time said valve is operated to change the starting position of said travel element and thereby change the time during which the valve is open in accordance with the change of head of liquid in said container.

2,872,076

FABRIC SOFTENER EJECTOR

Samuel M. Bloom, Dayton, Ohio, assignor of one-half to Morris Nison, Dayton, Ohio

Application July 17, 1956, Serial No. 598,331
12 Claims. (Cl. 222—70)



1. A dispenser for use in automatic washers to automatically dispense fabric softener or the like comprising, a casing, means defining a control section and a storage section in said casing, a normally sealed filler aperture in said casing opening to said storage section, a valve rod having one end thereof in said control chamber and projecting through said section defining means

in bearing sealing relation thereto to dispose its other end in normally sealing relation to and within an outlet from said casing in said storage section, and control means for said valve rod lying completely within the control section of said casing and mechanically set to provide an automatic operation of said valve rod at a predetermined part of the washing cycle for measured dispensing of the fabric softener therefrom.

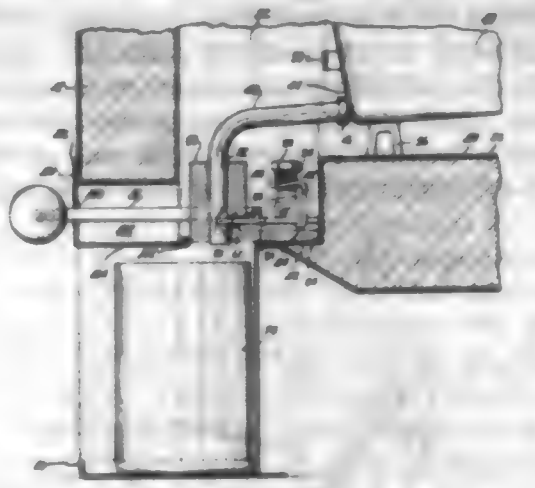
2,872,077
COLLAPSIBLE TUBE DISPENSING APPARATUS
Richard L. Heck, Butler, Pa.
Application April 25, 1957, Serial No. 655,098
1 Claim. (Cl. 222—100)



A dispensing apparatus for collapsible tubes comprising an elongated upright open front rectangular box having a back wall, spaced parallel side walls, said side walls having vertical elongated slots arranged in aligned relation therein intermediate the front and rear edges of said side walls, inwardly extending confronting flanges formed integrally on the lower ends of said side walls, a forwardly extending flange integrally formed on the lower end of said back wall and joined to said confronting flanges at its opposite ends, said flanges each having a horizontal groove formed in the adjacent faces thereof, a bottom wall, tongues formed on the rear edge and the side edges of said bottom wall engaging in said grooves detachably securing said bottom wall to said side walls and said back wall, said bottom wall having a vertically extending threaded bore projecting therethrough, a slide valve selectively closing the lower end of said threaded bore, means supporting said slide valve for sliding movement on the underside of said bottom wall, means normally biasing said slide valve into closed position, means depending from said slide valve for engagement to move said slide valve to a bore uncovering position, means mounted in said slots in said side walls for collapsing said collapsible tube, said side walls having confronting vertical grooves formed in the forward edges thereof, a front wall slidable in said last named grooves and means on the lower end of said front wall for engaging and releasably securing said botom wall in said box.

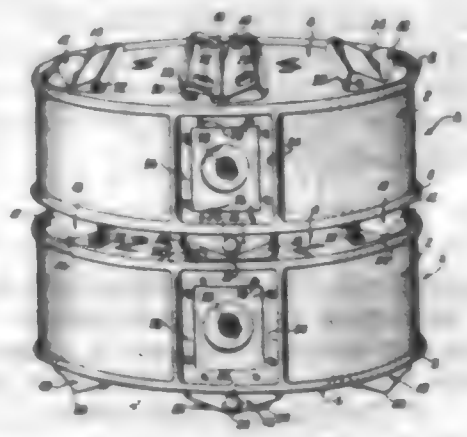
2,872,078
BEVERAGE DISPENSER
Leo Kennedy, Mount Pleasant, Iowa
Application April 29, 1955, Serial No. 504,914
15 Claims. (Cl. 222—131)

1. A dispensing apparatus comprising in combination, an insulated cabinet enclosing a refrigerating compartment, a removable and replaceable fluid container in said compartment, a valve body of high heat conducting material secured within said compartment at an edge thereof and exposed to refrigeration by said compartment, said valve body being spaced from said container, and a flexible hose connected to said container and passing through said valve body and opening to the exterior of



said compartment, and means for pinching said hose within said refrigerated valve body.

2,872,079
NESTED SHIPPING DRUMS WITH BUILT-IN PALLET
Clyde Maurice Moore, Richmond, Va.
Application January 17, 1955, Serial No. 482,146
19 Claims. (Cl. 222—143)

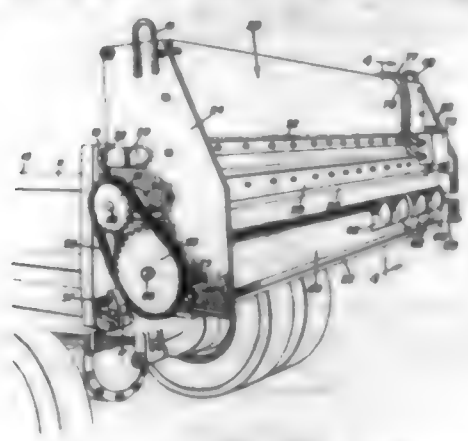


9. A container having a generally cylindrical side wall structure and generally circular top and bottom end walls secured to the ends of said side wall structure, said end walls having spaced ribs thereon and extending thereacross in a direction parallel to a diameter thereof, said ribs defining open-ended spaces therebetween of sufficient depth and width to receive lifting elements inserted beneath said container when said container is positioned on a flat supporting surface with the said ribs of one end wall resting on said surface, the crest portions of the ribs on one of said end wall structures having longitudinal concave channels therein, the crest portions of the ribs on the other end wall being of convex transverse shape substantially complementary to said concave channels whereby a plurality of said containers may be stacked, one upon the other, with said convex rib crests on one of said containers mating with the convex channels of another of said containers and with said open-ended spaces being open for the reception of lifting elements between said containers, at least one of said ribs having a convex crest being substantially centrally located on the bottom end wall of said container and having a longitudinal passageway therein extending through an end of said rib below said bottom wall and communicating with the interior of said container through said bottom wall.

2,872,080
MATERIAL SPREADING ATTACHMENT FOR TRUCK
Anthony A. Theis, St. Cloud, Minn.
Application June 18, 1957, Serial No. 666,430
3 Claims. (Cl. 222—178)

1. In combination with a truck body having a bed, side walls projecting upwardly from said bed and defining a

material confining space therewith, said bed and side walls having coplanar rear edges provided with means for normally attaching a tail gate thereto; a material spreading attachment for said truck body including a pair of side plates positioned so as to effect rearward extensions of said side walls and being detachably secured thereto by said means which normally secures the tail gate to the truck body, a bottom wall rigid with and extending between said side plates to form a rearward extension of said



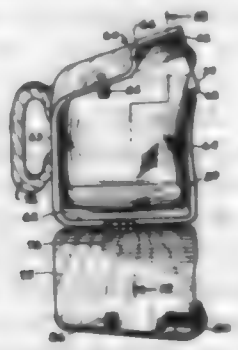
bed whereby said side plates and bottom wall provide a rearward extension of said material confining space in the body, a material spreading drum extending between said side plates having opposite end portions disposed in close adjacency to the inner faces of said side plates and being rotatably mounted therebetween, said drum having a plurality of longitudinally spaced pockets therein for entrapping and spreading discrete quantities of material from the rear of the attachment as the drum rotates, and means for rotating said drum.

2,872,081

DISPOSABLE CONTAINER FOR LIQUID AND HOLDER FOR CONTAINER

Frank E. Randall, Naugatuck, Conn.

Application February 3, 1956, Serial No. 563,222
9 Claims. (Cl. 222—183)



1. A liquid or granular substance dispenser including a bag made of thin flexible material and closed at its upper and lower ends by sealed areas and having an outlet area at one end of the upper sealed area of the bag, the outlet area being adapted to be opened to provide an outlet opening having a directional component which is vertical and having a lower edge of the opening formed of the material of the side of the bag and adapted to serve as a pouring lip, a frame in which the bag is supported when dispensing the contents of the bag through the outlet, and a clamp carried by the frame in position to grip a portion of the bag above the outlet to support the portion of the bag that is above and adjacent to the pouring lip.

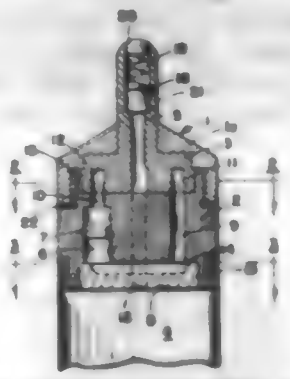
2,872,082

MEASURING CLOSURE FOR CONTAINER

Gerhart H. Neugebauer, Nurnberg, Germany, assignor of one-half to Paul O. Tobeler, doing business under the name of Trans-Oceanic, Los Angeles, Calif.

Application October 18, 1955, Serial No. 541,267
14 Claims. (Cl. 222—249)

1. A measuring and dispensing closure for a container having an outlet opening; said closure comprising a body, means for securing said body to a material container on an outlet opening of said container, a rotatable portion secured in said body and partly extending out from said body, a first conduit in said body for connecting said outlet opening to said rotatable portion, a first duct in said portion, measuring means in said body, a second conduit in said body connecting one end of said measuring means and one end of said first duct, the other end of said first duct adjoining said first conduit, a third conduit in said body extending from the other end of said measuring means to said rotatable portion, a nozzle extending through



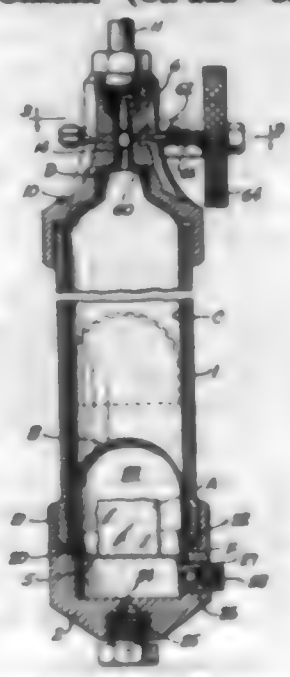
that part of said portion extending out from said body, said nozzle adapted to discharge material from said container and closure, a second duct in said portion joining said third conduit and said nozzle; said first duct effecting a 90 degree joint between said first and said second conduit, said second duct effecting a 90 degree joint between said third duct and said nozzle, whereby a predetermined 90 degree rotation of said portion in said body effects a reversal of flow of said material through said measuring means, and means to limit said rotation of said portion to said predetermined rotation.

2,872,083

DRY ICE SEALANT GUNS

Richard J. Murphy, Auburn, Wash., Joseph L. Phillips, State College, Pa., and Walford S. Pakke, Seattle, Wash., assignors to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware

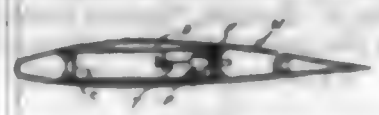
Application February 16, 1956, Serial No. 565,955
8 Claims. (Cl. 222—327)



1. A self-contained dispenser for a paste-like material, including a rigid barrel open at one end, a nozzle fitting its opposite end, a removable cap normally closing the open end of the barrel; a resiliently deformable tube interposed in the nozzle between its tip and the interior of the barrel, clamping elements guided in the nozzle for approach and recession, in position to pinch said tube upon approach, and to free the same upon recession, means carried by the nozzle and operable to actuate said clamping elements in either sense, to control discharge from the nozzle; a separate container for the paste-like material to be dispensed, including a sleeve of a size to fit

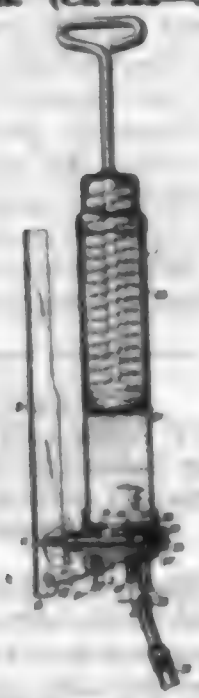
snugly within the barrel and to seat at the nozzle end thereof, and a form-sustaining end closure inset within and fitting slidably within the sleeve, initially at the cap-closed end of the barrel; said inset end closure defining a chamber between itself and the removable cap for accumulation of pressure fluid, wherewith to urge the end closure, as a plunger, bodily axially towards the nozzle end of the barrel and sleeve, whenever the discharge-controlling means are in position for discharge.

2,872,084
PUMP ASSEMBLY
Miles Lowell Edwards, Portland, Oreg.
Application February 3, 1956, Serial No. 563,282
8 Claims. (Cl. 222—333)



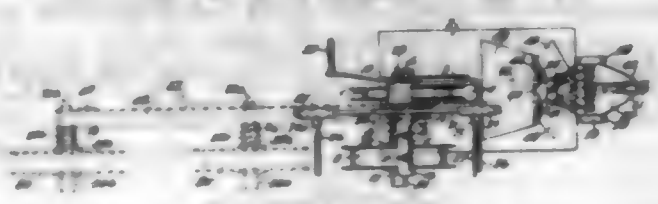
1. A plug-in type pump and motor unit for mounting in fuel tanks and the like, which comprises a casing, a pump in one end of said casing having a ring of diffuser vanes discharging into the casing around the periphery thereof, a motor in said casing surrounded by a discharge passage receiving flow from said vanes, a fitting fixed to a side wall of said tank to attach and suspend said pump and motor unit therein and having a flow passage adapted to convey fluid from the pump out of the tank, said fitting having a recess, a pilot portion on said casing snugly fitting in said recess, and means for detachably connecting the pilot portion to the fitting.

2,872,085
LUBRICATING APPARATUS
Carl H. Mueller, Pasadena Hills, Mo., assignor to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio
Application December 21, 1956, Serial No. 629,918
3 Claims. (Cl. 222—376)



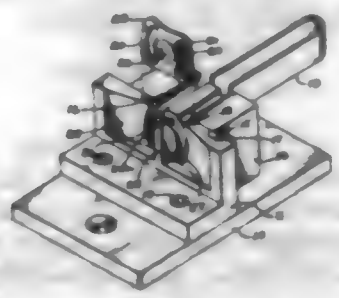
1. Lubricating apparatus comprising a lubricant container and a pump, the pump comprising a body having a bore therein constituting a pump cylinder and a plunger slidable in the bore, said body having a main inlet intersecting the bore adjacent one end of the bore which constitutes the rearward end of the bore and an auxiliary inlet intersecting the bore between the main inlet and the other and forward end of the bore for flow of lubricant from the container to the bore, said plunger being slidable in the bore between a fully retracted position wherein the forward end of the plunger is rearward of at least part of the main inlet and a forward position wherein its forward end is forward of the auxiliary inlet, said body having an outlet in communication with the forward end of the bore, a check valve in the outlet adapted to open in response to lubricant pressure developed on a forward stroke of the plunger and to close on a return stroke of the plunger, a valve seat in the auxiliary inlet facing in the direction of flow toward the bore, and an auxiliary check valve in the auxiliary inlet engageable with said valve seat, said auxiliary check valve being constantly free to move away from said valve seat to open on a return stroke of the plunger and adapted in response to lubricant pressure developed in the bore on a forward stroke of the plunger to seal against said valve seat and block off flow from the bore back to the container through the auxiliary inlet, whereby the plunger is adapted either for full-stroke operation or for short-stroke operation involving retraction thereof from its forward position to an intermediate position wherein its forward end is rearward of at least part of the auxiliary inlet and forward of the main inlet.

2,872,086
MACHINE FOR MAKING ORNAMENTAL POMPON BOWS
Richard F. Duncan, St. Paul, Minn., assignor to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application July 19, 1955, Serial No. 526,856
15 Claims. (Cl. 223—46)



1. A machine for coiling and cutting strip material, comprising a shaft adapted to receive and rotatably support a roll of said strip material, means for withdrawing a length of strip material from said roll thereof and winding the same into a hank, and means for partially cutting said hank transversely of its length.

2,872,087
BUCKLE HOLDER FOR THREADING STRAP
Raymond V. Havicin, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application August 9, 1957, Serial No. 677,383
3 Claims. (Cl. 223—49)

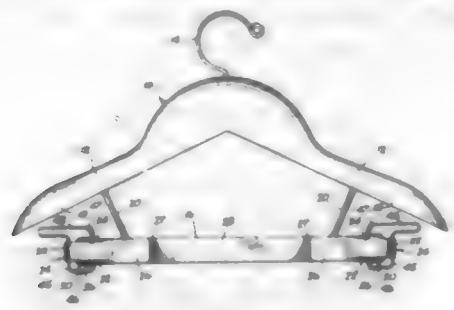


1. Apparatus for holding and assembling a strap into a buckle having a pair of opposed arcuate slots, said apparatus comprising a support, holder means in said support for slidably receiving and retaining said buckle in a vertical plane, and guide means aligned with said holder means having arcuate opposed guides that serve to arcuately bend the strap transversely preliminary to its insertion through the arcuate slots in said buckle.

2,872,088
CLOTHES HANGER
Herman B. Katz, Lynbrook, N. Y.
Application February 19, 1957, Serial No. 641,154
8 Claims. (Cl. 223—91)

1. A clothes hanger comprising opposite downwardly extending arms adapted to be inserted into the shoul-

der portion of a coat or other like garment, a crosspiece secured to the arms, a pair of clamping members adjacent the end portions of the crosspiece, each of said members having a holding portion corresponding to the crosspiece for engagement therewith, a portion securing the member to the crosspiece, and a sloping portion intermediate the other portions, said clamping members



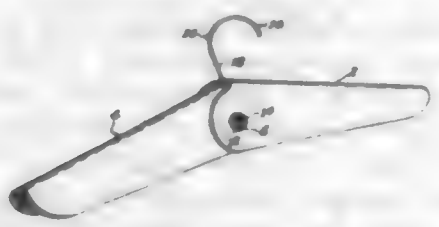
being stressed so as to constantly urge the holding portion into engagement with the crosspiece, and movable members interposed between the crosspiece and the sloping portions of the clamping members, each of said movable members being engageable with the sloping portions of the clamping members to withdraw the holding portions of the clamping members from engagement with the crosspiece.

2,872,089
CLASP HANGER FOR GARMENTS
Harry Shrom, Flushing, N. Y.
Application October 18, 1955, Serial No. 541,167
4 Claims. (Cl. 223—93)



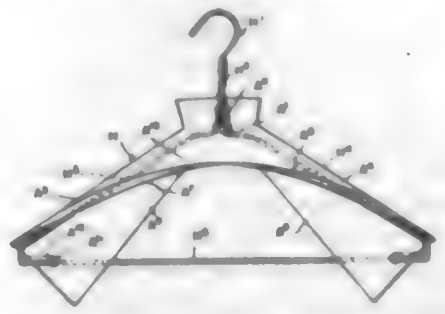
1. A garment hanger comprising a supporting bar, a garment clasping plate tiltably mounted on each end thereof, each plate having an opening midway its ends, a coil spring means associated with each clasping plate to tiltably urge said plate to clasping position, said coil spring means serving as a fulcrum around which the clasping plate is tilted, and a bail member swingably mounted on the bar and being adapted to engage the clasping plate to hold the same in inoperative position, and a nail extending from the supporting bar and extending through the opening in the adjacent plate for guiding the movements of said plate.

2,872,090
CLOTHES HANGER
Walter Goodman, Newport News, Va., assignor to Leonard A. Kocen, Richmond, Va.
Application August 10, 1956, Serial No. 603,318
3 Claims. (Cl. 223—94)



1. A foldable clothes hanger comprising a pair of arms each having a channel-shaped portion at one end, said channel-shaped portions each having a top wall and a pair of side walls, a pivot extending through said portions and spanning the channels therein, a hook loosely mounted on said pivot and extending outwardly between the top walls of said portions, said hook comprising an intermediate stem portion which serves as a stop to limit movement of said arms in a direction toward the outer end of said hook, and a coiled spring mounted on said pivot, the ends of said spring normally extending in substantially opposite directions from said pivot and each bearing against the top wall of the adjacent arm, said spring acting to move said arms outwardly into engagement with the stem portion of said hook and hold them in such position until the hanger is folded, one of said channel-shaped portions overlapping the other channel-shaped portion both when said hanger is in its folded and unfolded position, said hook stem being positioned between the adjacent ends of the top walls of said channel-shaped portions.

2,872,091
ATTACHMENT FOR METAL CLOTHES HANGERS
Augustus C. Troden, Grosse Pointe, Mich.
Application December 13, 1954, Serial No. 474,682
4 Claims. (Cl. 223—98)



1. The combination with a wire clothes hanger having a central suspension hook, a shank depending therefrom, oblique portions extending oppositely downward from said shank, and a connecting horizontal portion; of a cover comprising an oblong rectangular blank of cardboard like material formed with a central aperture near the upper edge for engaging said shank, a pair of fold lines on opposite sides of said aperture extending obliquely downward to opposite ends of the blank near its lower edge, the angle between said lines being more obtuse than that of the corresponding portion of the hanger so that when folded over and pressed down against the latter the portion of the blank therebetween will be bulged outward into conical form, the triangular portions of the blank outside said lines extending when thus folded and depressed downward below the horizontal portion of the hanger and being slitted for hooked engagement therewith to hold them down, whereby said bulged portion will be held in its conical form against resilient reaction of the material and the cover will be retained on the hanger.

2,872,092
READILY THREADED NEEDLE
Fenton Sehlow, Hollis, N. Y.
Substituted for abandoned application Serial No. 342,114, March 13, 1953. This application May 21, 1956, Serial No. 585,988
1 Claim. (Cl. 223—102)

A readily threaded needle including an elongated steel body tapering at one end to a point and having a thin flat head at the other end with a longitudinally extending eye with straight parallel sides and with the long axis thereof parallel to but spaced to one side of the longitudinal axis of the needle as a whole, the head having a rounded end with a portion of the outer sides diverging from the rounded end toward the intermediate portion of said head and the remaining portions of said sides tapering inwardly toward the normal sides of said body with the eye disposed exclusively in the end portion of the head beyond the intermediate portion thereof, the head also having a longitudinally disposed straight slot communicating with the end of the eye remote from the rounded end of the head and having another slot communicating with the end of said straight slot remote from said eye at an acute angle with said straight slot and extend-

ing to said intermediate portion of said head and opening to the outer edge thereof at one side at the widest portion of the head, and the section of said head along the closed side thereof tapering off generally in width



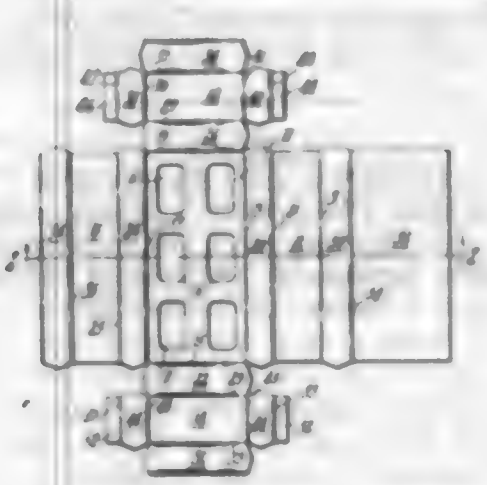
from the intermediate portion of said side to the rounded end of said head, the side of the eye nearer to the slotted other side of said head having the acute angle slot to provide maximum strength for the section of the head upon its closed side.

2,872,093

MOLDED PULP SET-UP BOX

Merle P. Chaplin, Portland, Maine, assignor to Chaplin Corporation, Portland, Maine, a corporation of Maine

Application December 28, 1956, Serial No. 631,193
7 Claims. (Cl. 229—2.5)



1. A molded pulp set-up box structure comprising a substantially flat molded pulp sheet including a generally rectangular box bottom section and generally rectangular box side sections with generally rectangular edge sections of outwardly bowed cross section interposed therebetween and molded integrally therewith to form fold lines on each side of said edge sections, said edge sections and adjoining sections each having integrally molded lug means extending inwardly only along said fold lines at each side thereof to cooperate with the adjacent lug means on the opposite side of a fold line to act as stops for said sections upon said box being set up with its side sections generally perpendicular to said box bottom section and to each other, the outer surfaces of said edge sections and their adjoining bottom and side sections cooperating to provide across said fold lines smoothly curved contiguous outer surfaces free of outwardly projecting portions.

2,872,054

ANTI-SKID COMPOSITIONS AND CONTAINER MATERIAL COATED THEREWITH

Elmer E. Leptien, Pensacola, Fla., assignor to St. Regis Paper Company, New York, N. Y., a corporation of New York

Application November 9, 1956, Serial No. 621,349
7 Claims. (Cl. 229—3.5)



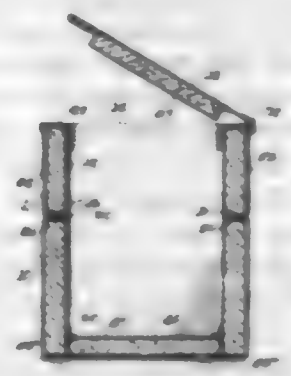
5. A smooth finished kraft paper bearing printed matter upon which there has been applied an aqueous composition consisting essentially of about 3 to 15% by weight colloidal silica, about 3 to 15% by weight of finely divided extender material selected from the group consisting of clays, talc, diatomite, insoluble carbonates, insoluble magnesium salts and mixtures thereof, a nonionic polyalkylene ether wetting agent, an emulsified dimethyl polysiloxane foam suppresser, and the balance substantially water.

2,872,095

PORTABLE INSULATED CONTAINER

Robert K. Adams, Chicago, Ill.

Application December 22, 1954, Serial No. 477,071
3 Claims. (Cl. 229—14)



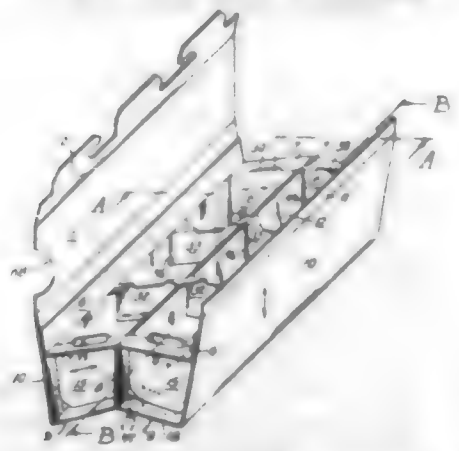
2. A container comprising a casing formed from a single piece of corrugated cardboard or the like divided by suitable score lines into side, end and bottom panels, a liner formed from a single piece of corrugated cardboard or the like and divided by suitable score lines into side and end panels, said liner being mounted within said casing in spaced relation to the side and end walls thereof, each of said liner panels being provided with a pair of extension panels one of which being arranged across the mouth of the space between the casing and the liner and the other of which being disposed in engagement with the inner surface of a corresponding casing panel, insulation bats arranged in the space between the casing and the liner, a plurality of caps arranged one at each juncture of the casing panels and the liner panels for securing these panels in fixed relation, each of these caps comprising a flat plate, integrally formed depending flanges for engagement with the top marginal edges of adjoining casing panels, and an integrally formed depending tongue for engaging adjoining liner panels, and an insulated lid for said casing.

2,872,096

COLLAPSIBLE CELLULAR CARTON

Oscar L. Vines, New York, N. Y., assignor to Alfords Cartons, Ridgefield Park, N. J., a corporation of New Jersey

Application April 7, 1954, Serial No. 421,625
2 Claims. (Cl. 229—28)



1. A paperboard collapsible carton having a pair of longitudinally connected abutting sections forming a pair of rows of cells with each row composed of at least one group of three cells defined by one pair of primary cross partitions and an intermediate pair of secondary partitions, said carton comprising a pair of inner panels adhesively secured together in side-by-side relation, a bottom panel integrally connected to the lower edge of each inner side panel, an outer side panel integrally connected to the outer edge of each bottom panel and extending upwardly and outwardly from the bottom panel, the height of each of the inner side panels being less than the height of each outer side panel, a shelf panel integrally connected at its inner edge to the upper edge of each inner side panel and adhesively connected at its outer edge to the proximate outer side panel, the width of each shelf panel being greater than the width of each bottom panel, at least one pair of oppositely extending primary cross partitions formed from the full width of each shelf panel, each primary cross partition being folded downwardly from the plane of its shelf panel about a transverse fold line, at least one pair of secondary partitions being formed in each shelf panel intermediate the pair of primary cross partitions and being folded downwardly into the erected carton about transverse fold lines spaced from one another a distance equal to their respective distance from the proximate transverse fold line for said primary cross partitions, the two primary cross partitions and the two secondary cross partitions being formed from the portion of the shelf panel between the two transverse fold lines for said primary cross partitions, a pair of oblique fold lines in each of the primary cross partitions and the secondary partitions converging from the lateral extremities of the transverse fold lines for their respective partitions along the inner and outer side panels toward the bottom panels, lateral edge portions of the primary cross partitions and the secondary partitions being folded inwardly from the planes thereof as a result of the partitions being folded about their respective transverse fold lines, said lateral edge portions being wedged against the inner and outer side panels along said oblique fold lines, each bottom panel having transverse slits therein for receiving the lower end of each primary cross partition of each pair thereof, and a pair of lugs cut from each bottom panel and forming continuous projections from the lower edge of and coplanar with each inner side panel.

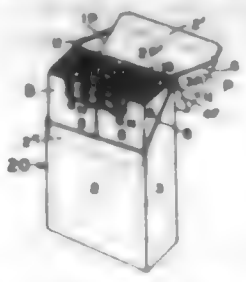
2,872,097

RECLOSABLE CONTAINERS

Paul J. Graybill, New Haven, Conn.

Application August 9, 1956, Serial No. 603,121
5 Claims. (Cl. 229—44)

1. A one piece container of foldable material comprised of two pair of opposing walls, the front and rear walls and two side walls, disposed to form the tubular body of said container, each of said four walls having articulated to each end thereof an end closure member, the front and back walls at their bottom end being articulated to the same member, which member forms one course of said bottom end-closure with the side-wall end-closure members forming the other, at least partial, course thereof, said top end-closure being formed by the four inwardly disposed top end-closure members, said four walled container having a baffle partially adhered to the inner surface of the two side-walls and the front-wall thereof, said baffle being of two parts, each part being articulated to the back wall of said container at its juncture with the side-walls, and extending fully across the inner side of the container side-wall and the two together, at least partially across the inner side of



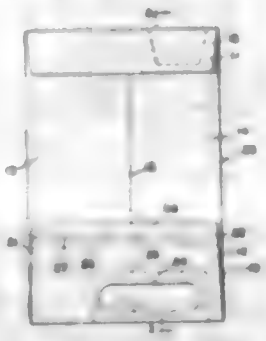
the container front wall, said side and front-walls of said container having aligned cut and perforated lines running thereacross, separating said walls into two parts each, the upper parts of said walls being adhesive free from said baffle, and forming three sides of a releasable tray-type swing-top, said swing-top being articulated to said rear wall by a hinge-crease, said swing-top in one position to be rotated about on said rear-wall hinge-crease to open said container-end when said perforated lines have been torn free, and in another position to close said container-end position about said baffle on three sides thereof; said front-wall of said swing-top having adhered to its inner surface a tuck-tab engaged in an adhesive-free tuck slot formed by the front wall of said baffle and said container front-wall which tuck-tab secures said swing-top in its closed position.

2,872,098

COMBINATION ENVELOPE

Ernst C. Sauerman, Chicago, Ill., assignor to Gaw-O'Hara Envelope Co., Chicago, Ill., a corporation of Illinois

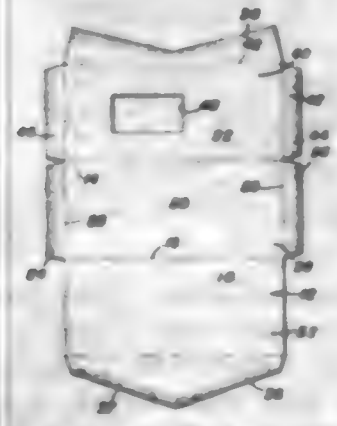
Application October 20, 1955, Serial No. 541,701
1 Claim. (Cl. 229—72)



A combination envelope comprising a sheet of fibrous material folded to provide a relatively large and a relatively small envelope integrally joined together for separately receiving different classes of mail, said sheet being folded to provide a continuous wall having a pair of side flaps, a tab providing a signal flap on the end of one of said side flaps adjacent the end flap providing the closure for the relatively large envelope and said signal flap being folded into the said relatively large envelope, a flap at one end and an end flap section at the other end, said side flaps being folded inwardly onto the continuous wall with the longitudinal free edge of said side flaps joined in overlapping relation to form with said continuous wall the two walls of said relatively large envelope, said end

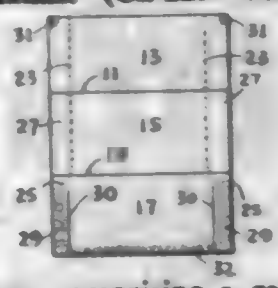
flap providing a closure for one end of said relatively large envelope and said end flap section providing a closure for the other end of said relatively large envelope and folded onto the side flaps and secured thereto to form the relatively small envelope, said end flap section consisting of a single thickness of said sheet having a flap at its free end providing a closure for the open end of the relatively small envelope, and spaced longitudinally extending spaced fold lines arranged adjacent and parallel to its flap with the opposite edges of the last mentioned flap and of the fold lines spaced inwardly of the longitudinal edges of the relatively large envelope, the flap and the opposite edges of said end flap section being joined to the side flaps of the relatively large envelope except for the portion between said fold lines to provide a narrow opening between said fold lines at each of the opposite edges of said end flap section and between said opposite edges and the spaced longitudinal edges of the large envelope for the insertion of an instrument to open the relatively small envelope from either of its edges.

2,872,095
ENVELOPES
Gerard Prial, Island Park, N. Y.
Application August 3, 1955, Serial No. 526,292
1 Claim. (Cl. 229—73)



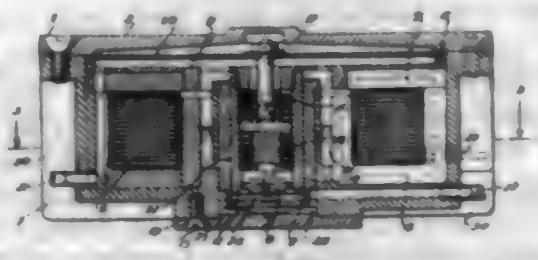
A one-piece sending and return envelope formed from a substantially rectangular sheet of paper divided by transverse, longitudinally spaced score lines into three equally dimensioned rectangular panels including a center panel and a first and a second end panel hingedly joined at their inner end edges by the score lines to the end edges of the center panel, said panels having opposing side edges disposed in longitudinal alignment, said center panel having equally dimensioned hinged flaps on its opposing side edges, the center panel defining the back wall of the envelope in both its sending and return mailing conditions, said first end panel being folded over onto the center panel and forming the front wall of the envelope in its return condition with said flaps folded over onto and secured to the first end panel and forming the side walls of the return envelope and the score line between the center panel and the first end panel forming the bottom wall of the envelope in its return condition, said first end panel having its outer end edge formed with a sealing flap which is folded back down onto the first end panel in the sending condition of the envelope and which is adapted to be folded over onto the back surface of the center panel to form the top wall of the envelope in its return condition, said second end panel being folded over onto the first end panel in the sending condition of the envelope and forming the front wall of the sending envelope with the first end panel interposed between the center panel and the second end panel, said second end panel having side flaps and an end flap which flaps are folded over onto the back surface of the center panel and glued thereto to form the end walls and the top wall of the envelope in its sending condition, the score line between the center panel and the second end panel forming the bottom wall of the envelope in its sending condition, said second end panel having a window formed therein to expose an address on a bill inserted between the first end panel and the second end panel and said second end panel being joined by perforations to its end and side flaps, said perforations joining said end and side flaps to said second panel and said perforations joining said second panel to said center panel forming a complete rectangle whereby said second panel may be torn out and removed in its entirety to permit access to said bill and said sealing flap of said first panel whereby said envelope may be transformed to its return condition, said end flap of said second panel being in the form of an inverted V when folded to facilitate removal of said bill after said second panel has been entirely removed.

2,872,100
MAILING PIECE INCLUDING RETURN ENVELOPE FORMING PORTION
Harry B. Coffin, Oakdale, Conn.
Application August 2, 1954, Serial No. 447,137
6 Claims. (Cl. 229—92.1)



1. A mailing piece comprising a rectangular sheet of paper having straight unbroken edges and foldable into three panels of substantially equal width, each wide enough to receive a mailing address and postal payment indicia, at least two of said panels being provided with such indicia; lines of perforations extending near and parallel to opposite side edges of said sheet from one end edge of the sheet for a distance of approximately two-thirds of the length of the sheet, and then turned gradually outwardly through the top portion of the bottom third of the sheet so as to intersect the side edges of the sheet at a point below the top of the lower third thereof, thereby providing tear-off strips which may be torn from the edges of the sheet by continuous tearing operations, leaving unperforated tab portions projecting at the edges of the lower third of the sheet, said tab portions being gummed on the face of the sheet, and the lower edge of the face of the sheet between said tab portions having a gummed strip thereon, there being score lines extending longitudinally of the lower third of the sheet, said score lines providing aids for the folding of the gummed tabs, said score lines terminating short of the lines of the perforations so as to leave spaces between the upper ends of said score lines and said lines of perforation.

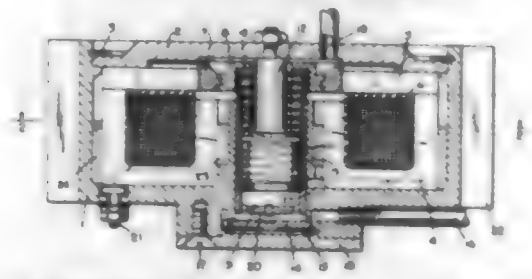
2,872,101
ELECTROMAGNETIC COMPRESSOR
Anton Ryba, Bolzano, Italy, assignor to Stempel-Hermetik G. m. b. H., Frankfurt am Main, Germany
Application December 19, 1956, Serial No. 629,335
Claims priority, application Austria December 19, 1955
15 Claims. (Cl. 230—55)



1. An electromagnetic compressor comprising, in combination, a housing; electromagnetic means carried by said housing; a cylinder carried by said housing; a piston

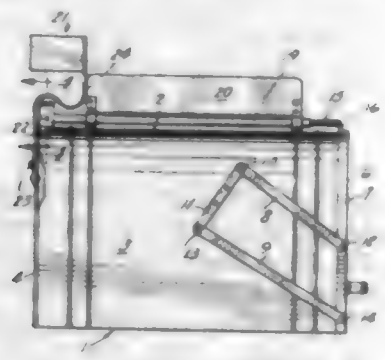
member slidable in said cylinder; an armature member fixed to said piston member, so that said members move together, and said armature member cooperating with said electromagnetic means to be reciprocated by the latter; conduit and valve means cooperating with said cylinder and piston member for directing a fluid into said cylinder ahead of said piston member during suction strokes of the latter and for directing compressed fluid out of said cylinder to a desired location during pressure strokes of said piston member; and spring means carried by said housing and cooperating with one of said members, said spring means including portions which engage each other to limit the stroke of said piston member.

2,872,102
COMPRESSOR
Anton Ryba, Bolzano, Italy, assignor to Stempel-Hermetik G. m. b. H., Frankfurt am Main, Germany
Application December 19, 1956, Serial No. 629,336
Claims priority, application Austria December 19, 1955
7 Claims. (Cl. 230—55)



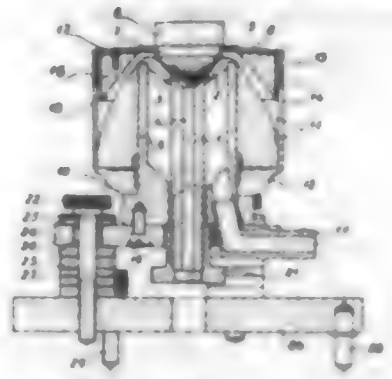
1. In an electromagnetic compressor, in combination, an armature; an annular coil; yoke means distributed along and extending almost completely around said coil and having at an inner portion directed toward and located nearer to the axis of said coil than the remainder of said yoke means a pair of spaced end faces respectively directed toward a pair of different surfaces of said armature and defining between themselves part of a free space in which said armature is movable in a direction parallel to said axis, the magnetic lines of force which move said armature extending substantially in the direction of movement of said armature, whereby said armature may be connected to a compressor element such as a piston for actuating the latter.

2,872,103
MAIL BOX CONSTRUCTION
Kenneth F. Heard, St. Ansgar, Iowa
Application December 12, 1957, Serial No. 702,365
2 Claims. (Cl. 232—35)



1. A mail box having an open front end, a cover for said front end, spaced upper and lower links pivotally secured at their inner ends to one side of said box and at their outer ends to a common side portion of said cover and mounting said cover for swinging movements from an end closing position to an end open position with the lower end portion of said cover in engagement with the upper end portion of said box, a spring secured at one end to the top of said cover and at its rear end to the top of the box adjacent the rear end thereof for swinging movements about a horizontal axis parallel to the axes of swinging movements of said links, the pivotal connections between said upper link and said box and cover being so arranged that said upper link is swung between opposite sides of dead center relationship with respect to the pivotal connection of said spring to said box, whereby said spring yieldingly urges said cover toward its closed position when said upper link is moved to one side of dead center and toward its open position when said upper link is moved to the opposite side of dead center, and a rigid tubular member secured to the top of the box in common with the rear end of said spring for common swinging movements therewith, said tubular member encompassing said spring throughout a greater part of its length and having an elongated rigid plate projecting upwardly therefrom.

2,872,104
ULTRACENTRIFUGE
Bedřich Čížinský, Ricany, near Prague, Czechoslovakia
Application September 17, 1956, Serial No. 610,702
Claims priority, application Czechoslovakia September 20, 1955
6 Claims. (Cl. 233—23)

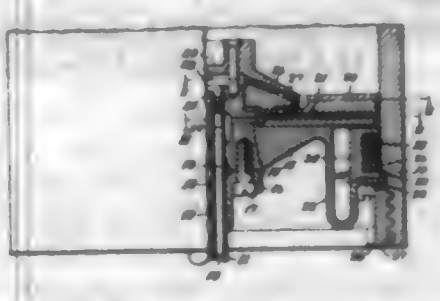


1. Ultracentrifuge working under atmospheric pressure, comprising a stator with a seating in the shape of a hollow cone and a rotor with a conical surface fitting into said seating, said rotor having substantially radial grooves in its conical surface, said stator defining a pressure chamber, means for admitting compressed air into said pressure chamber, nozzles disposed in said conical seating to emit jets of air from the pressure chamber at an angle to the radius and directed obliquely upwards, the stator having a central bore communicating with atmospheric air, the largest diameter of said conical surface of the rotor being smaller than the largest diameter of the hollow stator cone, the vertex angle of the hollow stator cone being a little smaller than the vertex angle of the conical surface of the rotor, the upper edge of the hollow stator cone being rounded, deflectors with surfaces inclined downwardly in an outward direction disposed around the stator for leading the air flow leaving the space between the hollow stator cone and the conical surface of the rotor, the surfaces of said deflectors forming an annular space for said air flow which widens, at least for the greater part of its vertical cross section, in the direction of the air flow.

2,872,105
ROTOR END CAP
Frank C. Rushing, Pittsburgh, Pa., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application September 16, 1946, Serial No. 697,329
2 Claims. (Cl. 233—27)

1. An end cap for a centrifuge bowl having a cylindrical wall mounted for rotation upon a hollow shaft having a plurality of separated passages therein, an annular cap member extending radially between said shaft and said wall, an annular disc member seated in a recess in said cap member, the outer periphery of the disc

being spaced from said wall, said annular cap and disc members having radial, intercommunicating passages communicating with one of said shaft passages, said cap member having an axially extending central threaded



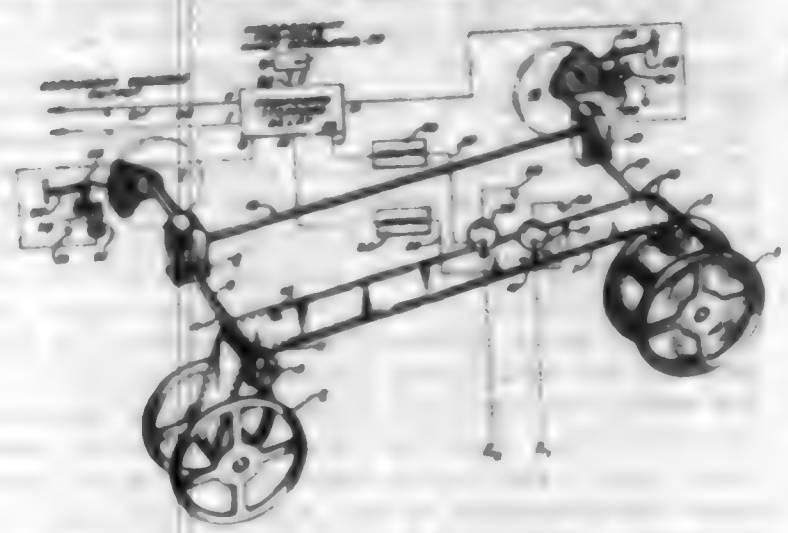
projection, and an assembly nut threadedly engaged on said projection and abutting said disc member, said assembly nut having radial passages communicating with another of said shaft passages and opening into the bowl at a position between said shaft and bowl wall.

2,872,106

TAPE CAM COMPUTER SYSTEM

Floyd G. Steele, Manhattan Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application April 3, 1958, Serial No. 153,742
11 Claims. (Cl. 235—61)



1. In a device for computing a complex function composed of a plurality of simpler functions, the combination of a plurality of tape cams, signal indications recorded on each of said tape cams, individual signal-sensing means associated with each of said tape cams, means of summing said signal indications, said summing means connected to said sensing means, the summed value of said signal indications corresponding to one of said simpler functions, external means for driving said tape cams, means for driving each of the remaining tape cams in accordance with output signals generated in said sensing means associated with other tape cams, output means for conveying out resulting signals generated in at least one of said sensing means, said resulting signals having summed values corresponding to said complex function.

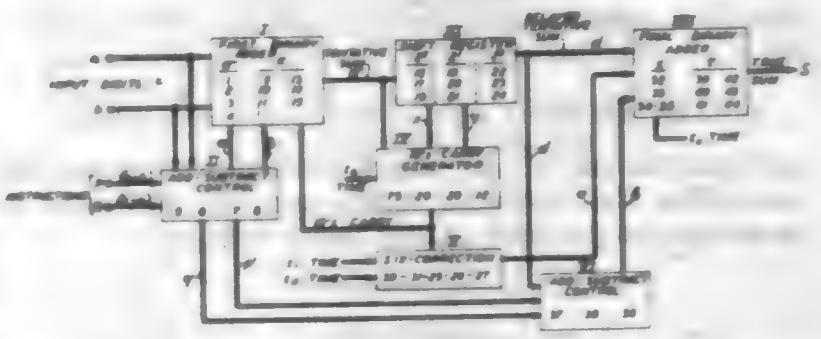
2,872,107

ELECTRONIC COMPUTER

William H. Berkhart, East Orange, N. J., assignor to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware

Application May 16, 1951, Serial No. 226,700
12 Claims. (Cl. 235—61)

8. In a serial electronic adder-subtractor for obtaining the sum or difference of two simultaneously applied numbers, each represented by serial binary code signals which are grouped according to another code of greater radix to represent digits of said other code, a first binary adder-subtractor circuit to which like order signals for both numbers and carry signals are applied simultaneously, said circuit producing binary code signals indicative of a tentative sum or difference of the numbers, means for producing said carry signals to effect carries in said circuit according to the binary code and also according to said other code, means controlled by the carry effecting means for generating signals representative of a correction factor only when the carry effecting means produces a carry signal for application to the



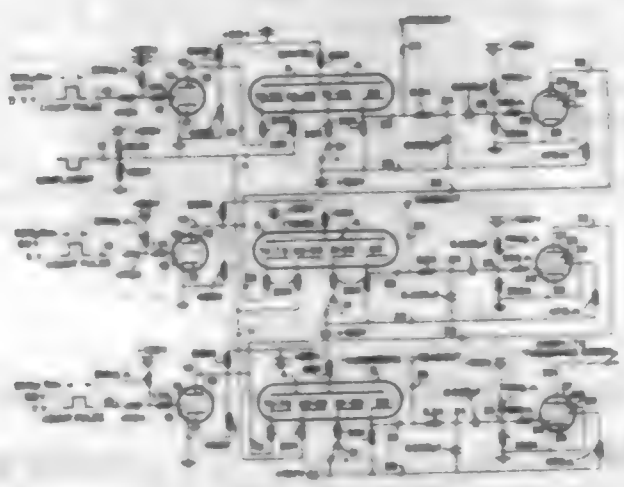
adder-subtractor circuit simultaneously with the lowest order binary signals of two groups, and a second adder-subtractor circuit to which the tentative sum and correction factor signals are applied, said circuit producing binary code signals grouped according to said other code and representative of the sum or difference of the said two numbers.

2,872,108

GAS TUBE ACCUMULATOR CARRY CIRCUIT

Robert B. Koehler, Hopewell Junction, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application March 28, 1953, Serial No. 343,767
4 Claims. (Cl. 235—61)



1. A parallel operated gas discharge accumulator system comprising, in combination; a plurality of cold cathode glow transfer gas counter tubes, one provided for each denominational order of the accumulator; input means for applying a series of pulses to be counted to each of said order counters; means for applying a carry impulse from one counter tube to the next higher order counter tube between the end of the pulse producing the carry and the beginning of the next pulse to be counted, said means comprising a self-timing delay network including an integrating circuit and a differentiating circuit series connected with a pulse shaping and amplifying device.

2,872,109

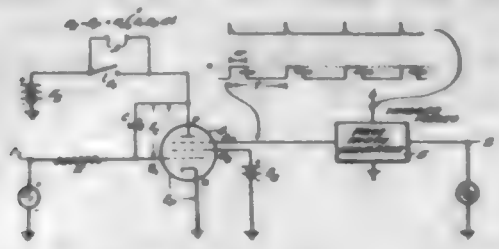
MULTIPLIER-INTEGRATOR CIRCUIT

Blanchard D. Smith, Jr., Alexandria, Va., assignor to the United States of America as represented by the Secretary of the Air Force

Application October 29, 1953, Serial No. 389,185
5 Claims. (Cl. 235—61)

1. A circuit for reducing the charge in a condenser by an amount proportional to the integral of the product of two varying signal voltages over a desired integration interval, said circuit comprising means operative during

said interval for periodically discharging said condenser through a device the current through which is substantially independent of the condenser voltage and is pro-



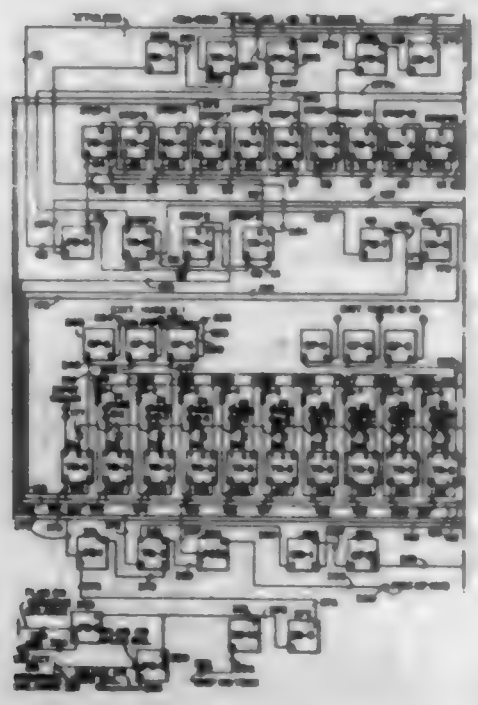
portional to one of said signal voltages, and means for controlling the durations of the periodic discharges in proportion to the other of said signal voltages.

2,872,110

FLEXIBLE ELECTRONIC COMMUTATOR

Leonard S. Snyder, Wappinger Falls, and Wilford M. Wittenberg, Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application January 15, 1954, Serial No. 404,310
12 Claims. (Cl. 235—61)



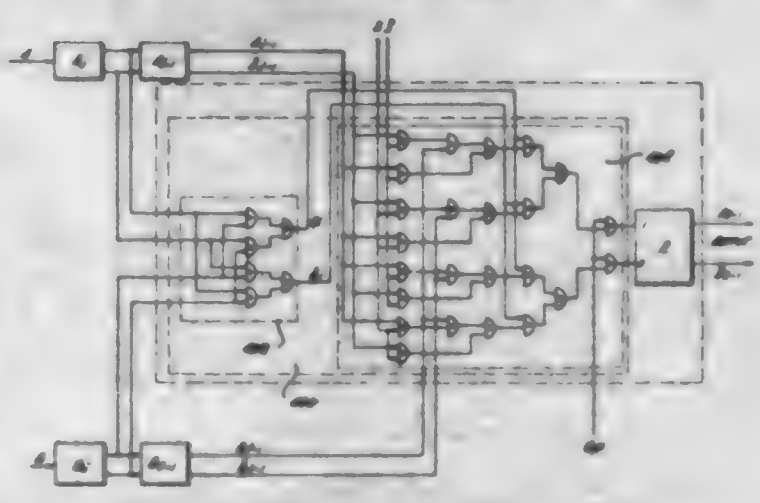
9. In a calculator adapted to solve problems through the performance of settable successively programmed arithmetic steps, a program system capable of selectively changing the set order of the performance of said arithmetic steps comprising, in combination, a plurality of program function means, each of which, when actuated, performs a particular arithmetic step in a problem, a chain of bistable elements, each of said elements being settably connected to any of said program function means, means initiating forward sequential individual operations of said elements, said elements when operated, actuate in sequence the program function means to which they are respectively connected, a gating means between each of the elements of said chain, means for simultaneously conditioning all said gating means, means including said gating means for normally causing sequential individual operations of said elements forwardly in seriatum when all said gating means are conditioned, means for selectively disabling said conditioning means to decondition all the gating means thereby interrupting the seriatum operation at a settable predetermined bistable element, said disabling means being under control of said predetermined bistable element, and means operative simultaneously with the disabling means for restarting said forward operations at any other one of the bistable elements of said chain to effect a change in the order of actuation of said program function means.

2,872,111

SERIAL BINARY ARITHMETIC UNITS

Lester S. Hecht, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application April 1, 1954, Serial No. 420,288
14 Claims. (Cl. 235—61)



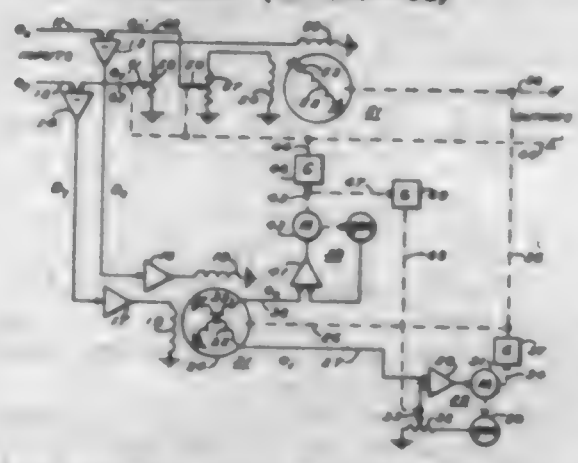
1. An arithmetic unit for performing an operation of addition or subtraction upon first and second numbers to produce the corresponding result, each number being represented by a different pair of input signal series, each of said pairs including a series of first input signals and a series of second input signals, each first input signal representing a binary digit in a corresponding binary-digit place of the associated number and each second input signal representing a binary digit in the preceding next lower-order binary-digit place of the associated number, the result including a series of binary digits represented by a corresponding series of result signals; said arithmetic unit comprising: first means, responsive to the first input signals, for producing a series of first output signals, each first output signal indicating equality between the corresponding first input signals; second means coupled to said first means and responsive to said first output signals and the second input signals for producing a series of second output signals; and storage means coupled to said second means and responsive to said second ouput signals for producing a series of output signals representing the corresponding result.

2,872,112

RIGHT TRIANGLE SOLVER USING FEEDBACK

Ivan A. Greenwood, Jr., Stamford, Conn., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application February 28, 1956, Serial No. 568,210
2 Claims. (Cl. 235—61)



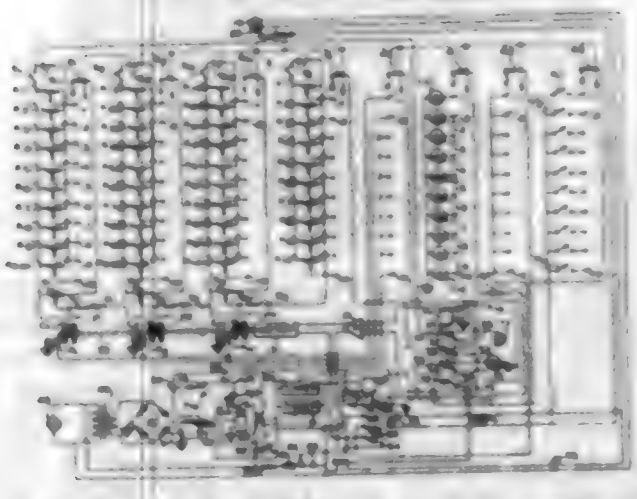
1. A right triangle solver comprising, a pair of subtracting circuits each emitting an electrical difference signal, each of said pair of subtracting circuits having applied thereto a respective one of two electrical input minuend signals representing two orthogonal vector quantities, a pair of voltage dividers each having a slider connected to a respective one of said pair of subtracting circuits for applying respective subtrahend signals thereto,

a synchro resolver having an input winding energized by a constant potential and having a pair of output windings positioned in space quadrature, said two output windings being respectively connected to said two voltage dividers for applying multiplicant signals thereto, a coordinate transformer connected to said pair of subtracting circuits and actuated by the difference signals thereof to form transformed difference signals, first and second integrators connected to said coordinate transformer and having applied thereto said transformed difference signals producing therefrom respective angle and hypotenuse integral output signals, means for positioning said coordinate transformer and said synchro resolver by said angle integral signal, a dividing circuit associated with said first integrator, said dividing circuit being actuated by the hypotenuse integral output of said second integrator for dividing the value of the transformed difference signal applied to said first integrator by the value of said hypotenuse integral signal, and means for positioning the sliders of said two voltage dividers by said hypotenuse integral signal, whereby said subtrahend signals approach said minuend signals in value and said integral output signals approach the values of the vector sum and of the arc tangent of said two orthogonal vectors.

2,872,113
COMPUTER FOR SOLVING SIMULTANEOUS EQUATIONS

Raymond L. Kindred, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application May 24, 1956, Serial No. 587,038
8 Claims. (Cl. 235—61)



1. A computer for solving a set of equations of the form

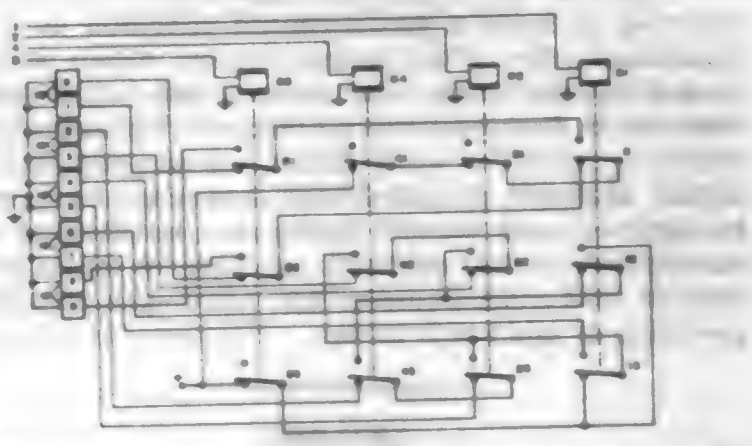
$$\sum_{j=1}^{n} a_{ij}x_j = k_i$$

for the values of x, where the a and k are constants and i varies from one to n, n being a positive integer greater than one, comprising; n groups of n first potentiometers, the potentiometers in each group being connected in parallel, means applying first potentials across each of said groups of first potentiometers, n second potentiometers connected in parallel with one another, means applying a second potential across said second potentiometers, n third potentiometers, switching means to connect each of said third potentiometers selectively in cascade with the individual first potentiometers in respective ones of said groups, means to sum the voltages between the contactors and respective first end terminals of said third potentiometers, a reversible motor, n clutch means to connect said motor selectively to the contactors of said third potentiometers to adjust same, voltage comparing means to energize said motor responsive to a difference between the output of said means to sum and the voltage between the contactor and a first end terminal of one of said second potentiometers, and timing means to energize said switching means and said clutch means periodically so that the summed voltage is sequentially compared with the voltage from a corresponding one of said second potentiometers for preselected time intervals established by said timing means.

2,872,114
SELECTING CIRCUIT

Verne H. Wilson, Morristown, N. J., assignor to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware

Application September 4, 1956, Serial No. 607,831
11 Claims. (Cl. 235—61)

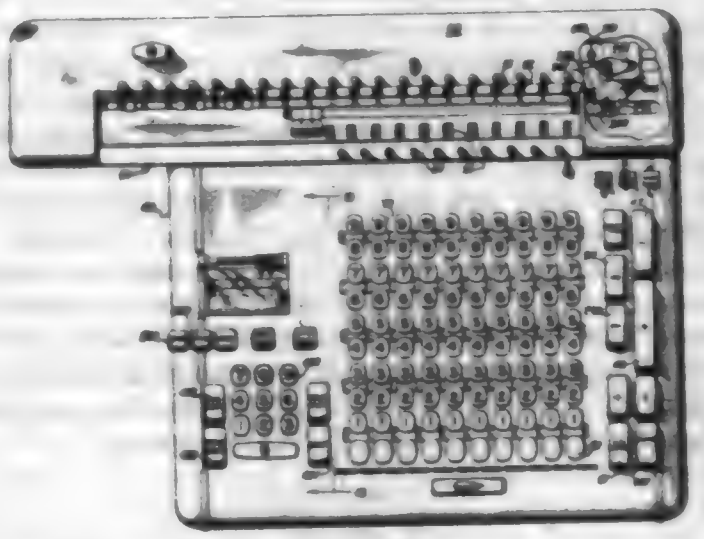


11. A selecting circuit arrangement having four inputs and ten outputs for connection between four conductors carrying binary-coded-decimal information and ten electrical devices for selectively closing a circuit path for one of said devices in response to the binary signal combination on said input conductors, comprising four two-position switching elements each having three armatures and at least one contact member astociated with each armature, said armatures and said contact members being interconnected so that two of said interconnections carry current in one direction to complete certain ones of said circuits and carry current in the opposite direction to complete certain other ones of said circuits and two of said electric circuits are completed through two armatures of one of said switching elements.

2,872,115
MULTIPLYING CALCULATOR

Grant C. Eberbeck, San Leandro, Calif., assignor to Friden, Inc., a corporation of California

Application May 31, 1955, Serial No. 512,260
15 Claims. (Cl. 235—63)



1. In a cyclically operable calculating machine having an ordinally arranged accumulator, a selection mechanism, an accumulator driving means controlled by said selection mechanism and operative to differentially drive said accumulator additively or subtractively, an ordinally arranged counter register, a counter actuator for operating said counter register to count cycles of machine operation, means for shifting the relative ordinal posi-

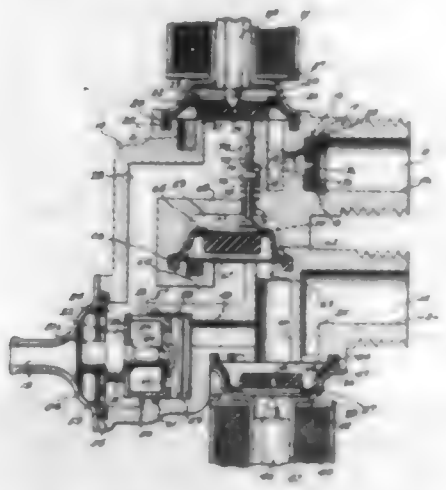
tions of the accumulator and the accumulator driving means and the counter register and counter actuator, respectively, and a power means for operating said driving means and said actuator and said shifting means, a mechanism for multiplying a value set in said selection mechanism by a value registered in the counter register which comprises a manual means for setting said counter actuator to operate said counter register subtractively and setting said driving means to operate said accumulator additively, a second manual means for setting said counter actuator to operate said counter register subtractively and setting said driving means to operate said accumulator subtractively, a normally inoperative sensing means operative to sense a predetermined condition in a predetermined order of said counter register, means operated by said sensing means when sensing said predetermined condition to disable operation of said driving means and to enable operation of said shifting means and then reinitiate operation of said driving means, means operated by each of said manual means for conditioning said sensing means for operation, and means operated by each of said manual means for initiating a continuous operation of said power means.

2,872,116

THERMOSTATIC MIXING VALVE ASSEMBLY

James A. Kozel and Victor E. Rimsha, Chicago, Ill., assignors to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

Application May 10, 1956, Serial No. 584,040
5 Claims. (Cl. 236—12)



1. In a valve assembly including a casing having a hot fluid inlet, a cold fluid inlet, and an outlet, a fluid mixing chamber leading to said outlet, a fluid-operated solenoid controlled diaphragm valve communicating at its inlet side with said hot fluid inlet and at its discharge side with said mixing chamber, a second fluid-operated solenoid controlled diaphragm valve communicating at its inlet side with said cold fluid inlet and at its discharge side with said mixing chamber through two separate passageways, means in one passageway responsive to the fluid temperature at the outlet for metering the cold fluid flow thereto, and a pilot-operated diaphragm valve in said other passageway responsive to closing and opening of said hot fluid diaphragm valve for respectively opening and closing said other passageway.

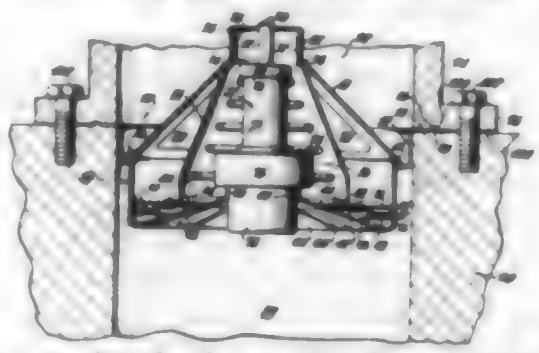
2,872,117

THERMOSTATICALLY OPERATED VALVE

Louis M. Puster, Knoxville, Tenn., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

Application January 7, 1957, Serial No. 632,822
5 Claims. (Cl. 236—34)

1. In a balanced pressure insensitive valve for controlling the flow of fluid, the combination comprising an apertured support member, a valve seat on said support member, a housing carried by said support member and provided with guide means thereon, support means carried by said guide means, sealing means carried by said support means, a valve member operatively engageable with said guide means, said support means and said sealing means and being movable between a plurality of flow controlling positions relative to said valve seat,



said valve member having a plurality of ports therein, and pressure insensitive thermally responsive means operatively associated with said valve member for imparting movement thereto in response to changes in a temperature condition, said ports in said valve member and sealing means being operable to insure a fluid pressure balance across said valve member in all of the controlling positions thereof.

2,872,118

THERMOSTATICALLY OPERATED VALVE

Louis M. Puster, Knoxville, Tenn., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

Application January 7, 1957, Serial No. 632,918
5 Claims. (Cl. 236—34)



1. A flow control valve comprising an apertured support member, a valve seat on said support member, a hollow sleeve member having a closed end carried by said support member and an opposite open end provided with guide means, a hollow valve member cooperable with said guide means and movable between a plurality of controlling positions relative to said valve seat, means on said guide means defining a recess, sealing means carried in said recess and being engageable with said valve member, abutment means operatively connected to said sleeve member, thermally responsive means carried centrally of said valve member and having an extensible and retractable portion thereof engageable with the closed end of said sleeve member for producing movement of said valve member, and resilient means cooperable with said abutment means and said valve member for opposing the movement of said valve member by said thermally responsive means.

2,872,119

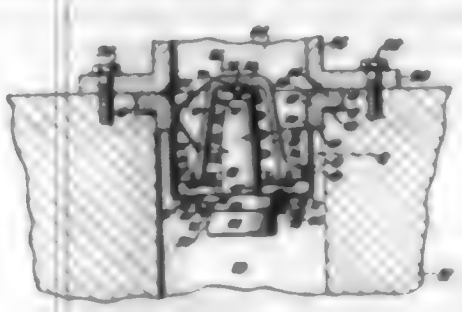
THERMOSTATICALLY OPERATED VALVE

Louis M. Puster, Knoxville, Tenn., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

Application January 7, 1957, Serial No. 632,919
8 Claims. (Cl. 236—34)

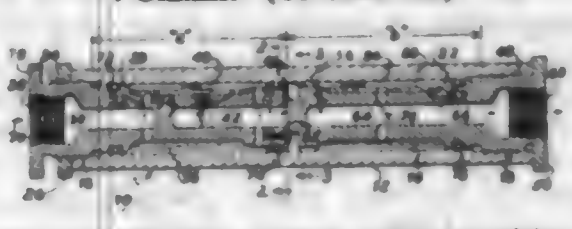
1. A valve for controlling the flow of fluid comprising an apertured support member, a valve seat on said support member, a housing integrally formed on said support member and provided with guide means thereon, sealing means carried by said guide means, a valve member operatively engageable with said guide means and said sealing means and being movable between a plurality of con-

trolling positions relative to said valve seat, said valve member having an apertured wall portion disposed below said housing to facilitate the flow of fluid relative to said valve member, thermally responsive means operatively engageable with said valve member and said housing for producing movement of said valve member in response to



changes in a temperature condition, and resilient means operatively associated with said thermally responsive means for opposing the movement of said valve member by said thermally responsive means, said sealing means and said guide means being operable to insure a fluid pressure balance across said valve member in all of said controlling positions thereof.

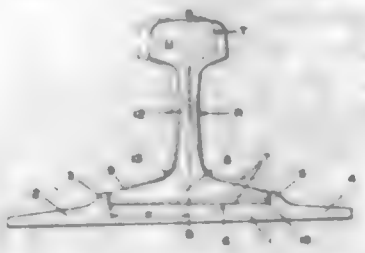
2,872,120
THERMOSTATIC FLOW CONTROL UNIT
Richard H. Weiland, Wichita, Kans., assignor to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware
Application December 21, 1955, Serial No. 554,538
4 Claims. (Cl. 236—93)



1. A thermostatic flow control unit comprising a tubular barrel having a relatively low coefficient of thermal expansion, a pair of members extending into said barrel from either end having a relatively high coefficient of expansion, the adjacent inner ends of said members being opposed to each other for relative movement toward and away from each other and the remote outer ends thereof being anchored to the opposite ends of said barrel, each of said members having an axial bore leading inwardly from its outer end to an intermediate radial passage in communication with a centrally offset passage provided between said barrel and each member, one of said members having another radial passage near its said inner end leading into another axial bore extending from said inner end toward the first mentioned bore of that member, and packing means disposed between said other radial passage and the inner end of said one member, that offset passage between the other of said members and the barrel continuing inwardly to the region of said inner ends and one of said inner ends having a radial slot leading from said last mentioned passage centrally into communication with said other bore, the flow path continuing via the centrally offset passage between the barrel and the second member to the bore of said second member, said barrel having a lower coefficient of thermal expansion than said pair of members.

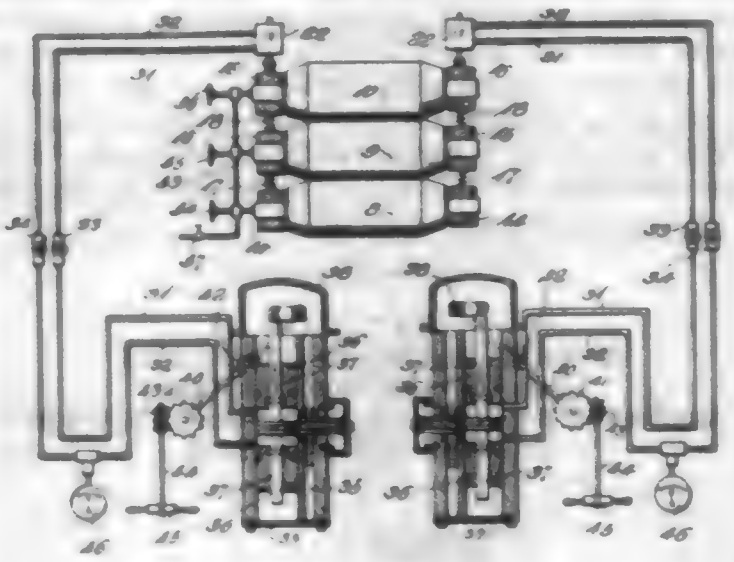
2,872,121
RECESSED TIE PLATE
Thurland G. Thonger, Glen Cove, N. Y., assignor to Poor & Company, Chicago, Ill., a corporation of Delaware
Application March 7, 1956, Serial No. 570,080
1 Claim. (Cl. 238—306)

A rail stress relieving tie plate, comprising, in combination, a planar surface for supporting the base of the rail, shoulders at each side of said surface comprising vertical wall portions of substantially the height of the edges of the base flanges of the rail and perpendicular to said surface to receive a rail therebetween by movement parallel to the vertical axis of the rail, and a depressed easement extending along the inside face of a related shoulder, said easement being of greatest depth



adjacent said shoulder on the field side of the plate and inclining upwardly toward the vertical center of the rail and terminating between said related shoulder and the center of said planar surface whereby, the base flange on the side opposite the gauge side of the rail overlying said easement permits the bending forces imposed by the wheel flange thrust on the gauge side of the rail to be reduced substantially.

2,872,122
FLOATING ROLL MILL WITH TWO POINT DIRECT HYDRAULIC PRESSURE CONTROL
Joseph George Teleky, New York, N. Y., assignor to Charles Ross & Son Company, Brooklyn, N. Y., a corporation of New York
Application December 21, 1954, Serial No. 476,668
6 Claims. (Cl. 241—111)

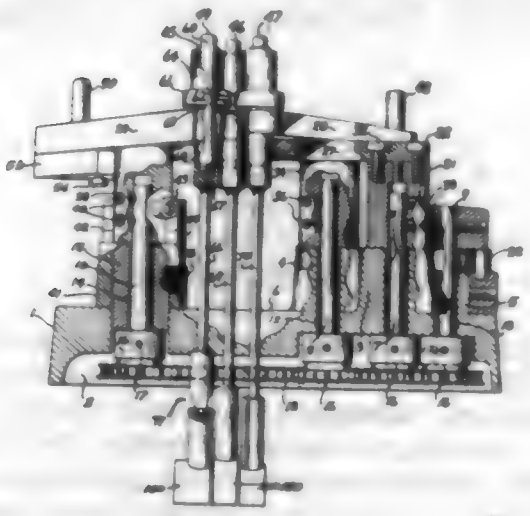


1. A mill for grinding and dispersing paint and the like comprising a frame structure, means for journaling a front roll in fixed relation to said frame structure, a floating center roll, means for journaling said floating center roll on said frame structure adjacent said front roll and slidable toward and away from said front roll, a rear roll, means for journaling said rear roll on said frame structure and slidable toward and away from said floating center roll, means disposed between said means in positions below the horizontal plane of the axes of said rolls for yieldably separating said rolls, and hydraulic means for applying forces adjacent opposite ends of said rear roll for forcing said rear roll into contact with said floating center roll and imparting corresponding movement of said floating center roll toward said front roll for comminuting paint and the like deposited in the nips of the rolls and in which said hydraulic means include for each end of said rolls a master control unit, a pressure adjusting means connected with said master control unit, a slave unit operated by said master control unit for imparting compression forces to the end of said rear roll, and a pressure gage interconnected between said master unit and said slave unit for indicating the pressure applied to the end of said rear roll.

2,872,123
TOROIDAL CORE ROTATOR ASSEMBLY

Kenneth P. Gorman, Randolph, Mass.

Application October 7, 1957, Serial No. 688,757
12 Claims. (Cl. 242—4)

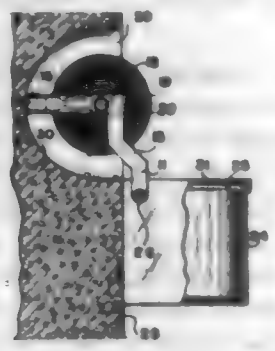


5. A device for rotatably supporting a toroidal core for winding comprising a plurality of rotatable rollers adapted to tangentially contact, rotate and support a toroidal core, drive means for said rollers, arms, each rotatably supporting one of said rollers with the axis of each roller normal to its supporting arm, a shaft fixed to each arm and each extending normal thereto, and means for synchronously and uniformly rotating said shafts, wherein said synchronous means comprises sprockets of uniform diameter secured to each shaft, a chain operatively interengaging said sprockets, and means biasing said shaft in a selected rotational position comprising a second rotatable shaft and second sprocket mounted thereon with said sprocket operatively interengaging said chain, a helical spring coaxial with and fixed to said second shaft at one end and to a rotatably adjustable member at the other end whereby said helical spring may be tightened or loosened about said second shaft.

2,872,124
SPARE TISSUE ROLL BRACKET

Louis I. Sleven, Brooklyn, N. Y.

Application November 19, 1954, Serial No. 470,010
3 Claims. (Cl. 242—55.3)

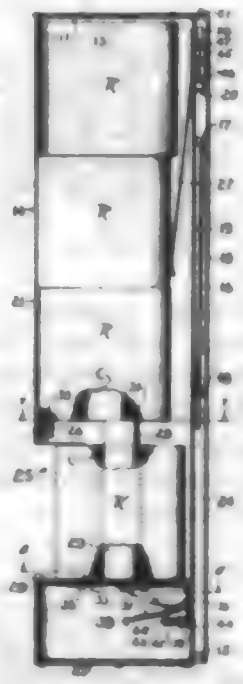


1. A bracket adapted for mounting upon a wall recess type tissue dispenser, said dispenser including trunnion receiving sockets for supporting a mandrel therebetween, said bracket comprising parallel spaced extensions projecting essentially normal from the mandrel axis and having lower aligned perforated ends adapted to receive spaced aligned spring-pressed trunnions of a supported member, including spaced parallel arms perforated for mounting on the tissue dispenser extending transversely and integral with the said extensions, including a brace bar joining the arm ends and spaced parallely to the mandrel, whereby either a spare roll tissue opened and ready for use may be mounted on the extension ends or a container therefor mounted on the said ends

2,872,125
APPARATUS FOR STORING AND DISPENSING SHEET MATERIAL IN ROLL FORM

Eugene L. Rial, Battle Creek, and Lawrence C. Rial, Ceresco, Mich.

Application June 4, 1956, Serial No. 589,292
12 Claims. (Cl. 242—55.42)



1. A toilet paper holder comprising a vertically elongated casing dimensioned to receive a vertical stack of rolls disposed end to end, the lower front portion of said casing having an opening for access to a roll dropped from said stack for use, a vertical post in said casing behind said opening for reception in the usual tubular core of the dropped roll, the axis of said post being spaced rearwardly from the casing front a distance greater than the radius of the rolls, means pivotally mounting said post for forward tilting to said opening for removal of a used core, yieldable means normally holding said post in vertical position, and a roll stop secured in the front portion of said casing over said opening, said roll stop and the upper end of said post being normally in substantially the same horizontal plane, said casing having roll guiding means for so positioning the rolls that the lowermost roll of the stack will normally rest jointly on said roll stop and said post, said roll guiding means being upwardly spaced from the aforesaid horizontal plane a distance greater than the length of a roll; whereby upon forward tilting of said post for removal of a used core, the lowermost roll of the stack will be supported only by said roll stop and will consequently tilt rearwardly to position the rear lower end portion of its core in the return path of the upper end of said post; and whereby, upon return movement of said post, the upper end of the latter will enter the lower end of the core and force the roll from said roll stop, permitting the roll to drop into position for use.

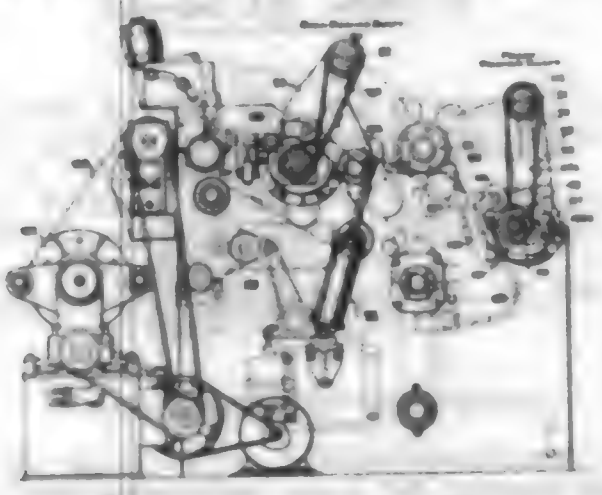
2,872,126
REWINDING MACHINE

Leonard Rockstrom, Madison, N. J., and Charles Aaron, Brooklyn, N. Y., assignors to Cameron Machine Company, Brooklyn, N. Y., a corporation of New York

Application April 4, 1955, Serial No. 498,889
14 Claims. (Cl. 242—65)

2. In a winding machine, the combination of: rewind arm means, a rewind shaft, means for pivotally supporting said arms at one end thereof for angular movement about a primary axis, said arms being adapted to support said rewind shaft at the other end thereof for angular movement therewith about such axis, and on which shaft web material is to be wound into one or more rewind rolls, a contact drum mounted for rotation in the path of such angular movement of such rewind shaft,

such movement occurring about such primary axis, a drive pulley mounted for rotation about a secondary axis near to but spaced from such primary axis, a driven pulley mounted near such other end of said rewind arm means and operatively connected to said shaft for driving same, endless belt means interconnecting said two pulleys, such web being fed tp said rewind shaft for being wound thereupon, and passing partly around said drum thereby to create web tension moments acting on said arm means in one direction about said primary



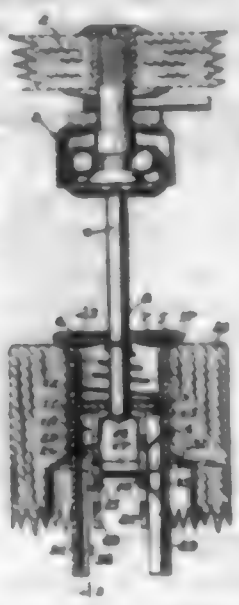
axis in response to driving such rewind shaft, said endless belt means creating belt tension moments acting on said arm means about such axis in response to driving said drive pulley, means for mounting said drive pulley with the axis of rotation thereof comprising said secondary axis parallel to but spaced from said primary axis by a selected distance and in a selected direction for creating such web tension moments in an opposite direction about said primary axis substantially to balance said belt tension moments while said rewind roll increases in diameter.

2,872,127

BOBBIN HOLDER FOR SPINNING FRAMES AND THE LIKE

Glenn S. Spencer, Horseheads, N. Y., assignor to Bendix Aviation Corporation, Elmira Heights, N. Y., a corporation of Delaware

Application May 14, 1957, Serial No. 659,131
4 Claims. (Cl. 242—130.2)



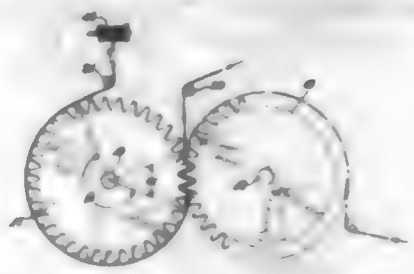
1. In a pendulous bobbin holder a hanger rod, means for rotatably suspending the rod from a fixed support, a laterally yielding bearing member fixed on the lower end of said rod, an oblong latch horizontally pivoted on said bearing member and having ratchet teeth formed thereon, a tubular body mounted for vertical sliding movement on said rod, a pawl element extending inwardly from said body in position to engage the ratchet teeth, means for limiting the travel of the body on the hanger rod, said latch and yielding bearing member having cooperating detent means for yieldingly resisting rotary movement of the latch.

2,872,128

TENSIONING DEVICE

James Watt Ijsbrand Heijnis and Jenö Beyer, Arnhem, Netherlands, assignors to American Enka Corporation, Enka, N. C., a corporation of Delaware

Application September 7, 1955, Serial No. 532,920
Claims priority, application Netherlands September 30, 1954
2 Claims. (Cl. 242—152)



2. Yarn-tensioning apparatus comprising a pair of toothed wheels mounted in fixed spacial relationship for rotation in mesh, means to draw a yarn through the meshing teeth of said wheels to impart torque to said wheels to cause them to rotate, braking means to retard the rotation of one of said wheels, a freely rotatable gear, a gear fixed to rotate with the brake wheel, said gears being in mesh, and coil spring means interconnecting said freely rotatable gear and said unbraked wheel.

2,872,129

STRAND FEEDING TOOL

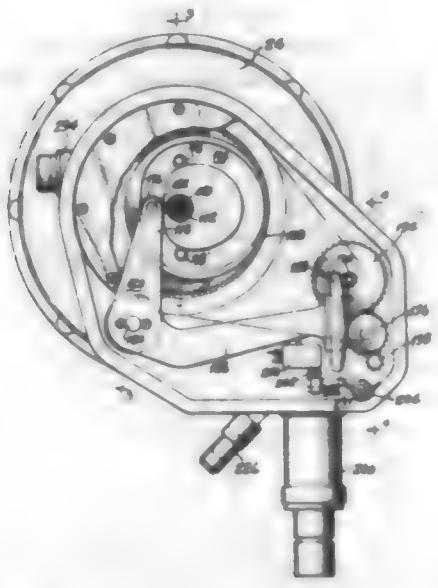
Edward A. Ellis, Reading, Mass., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application January 18, 1956, Serial No. 559,894
2 Claims. (Cl. 242—157)



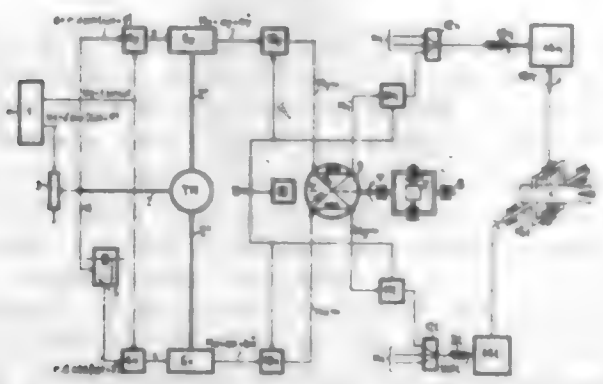
1. A portable strand feeding tool comprising a handle which may be gripped by an operator, a guard therefor mounted on the handle, an entrance element supported by the handle near one end thereof and adapted to receive and maintain longitudinally movable strands in predetermined spaced relation, a body supported by the handle near another end thereof, a delivery roller of a given length, having a cylindrical outer surface for all the strands to ride directly on during their longitudinal movement, supported for rotation by the body, means interposed between the entrance element and the delivery roller and supported by the guard to cause the spaced strands leaving the element to move in closely adacent positions over the delivery roller, clamping jaws supported by the body for relative movement into open position, to free the strands for longitudinal movement from the delivery roller, and closed position to hold the strands leaving the delivery roller against longitudinal movement, and a member supported by the handle and normally urged in one direction to close the clamping jaws and hold them closed on the strands, the member being movable in another direction to free the clamping jaws for movement into open positions.

2,872,130
AIRCRAFT-TYPE WINCHES
Romeo M. Nardone, Summit, N. J.
Application November 8, 1956, Serial No. 620,995
7 Claims. (Cl. 242—158.2)



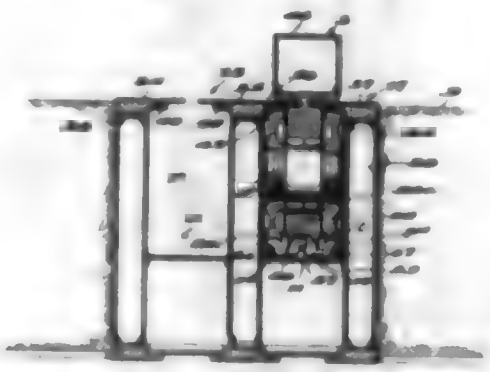
1. A winch comprising a substantially hollow, cable-receiving drum, said drum being mounted on a drum support shaft for rotation therewith, drive means substantially contained within the drum for rotating the shaft, a level-winding mechanism for winding the cable onto the drum in adjacent turns and level layers, said mechanism comprising a traversing screw mounted adjacent said drum and extending parallel to said shaft, a traveling nut cooperating with said screw for linear movement lengthwise of the screw, cable-guide means connected to said nut and movable therewith, and means responsive to the rotation of said drum support shaft in one direction for imparting movement to said nut first in one direction and then in the opposite direction comprising a cam located on the axis of the drum support shaft and rotated thereby and a linkage between the cam and the traversing screw for rotating the screw first in one direction and then in the opposite direction.

2,872,131
ROCKET
Max E. Lattmann, Zurich, Switzerland, assignor to Contraves AG, Zurich, Switzerland, a firm
Application February 19, 1954, Serial No. 411,491
3 Claims. (Cl. 244—14)



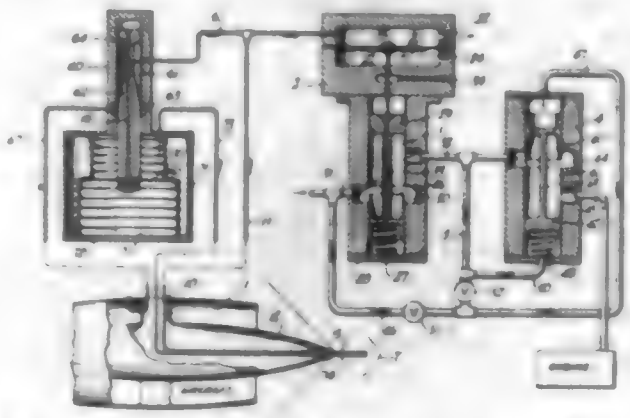
1. In a rocket guided by a high frequency signal ray, an electrical transforming device comprising means receiving the high frequency signals and transforming them into two electrical currents having variable voltages, a separate differentiation device for each of said voltages, each of said differentiation devices comprising two resistances interconnected in series and a capacity connected in parallel with one of said resistances, a setting device varying said resistances at least indirectly depending upon the flight speed of the rocket, and means transforming the voltages produced by said differentiation devices into alternating voltages of a predetermined frequency and variable amplitudes proportional to the distance of the center of gravity of the rocket from the axis of the ray measured in a rectangular system of coordinates (x, y).

2,872,132
AIRCRAFT LAUNCHING SYSTEM
Donald B. Doolittle, Wilmington, Del., assignor to All American Engineering Company, Du Pont Airport, Wilmington, Del., a corporation of Delaware
Application December 17, 1954, Serial No. 475,978
11 Claims. (Cl. 244—63)



4. A looped cable launching system for aircraft, a track for each loop of the cable, an aircraft shuttle means comprising a body movable over the track when connected to the cable, cable clamp means engageable with the said shuttle body, clamp closing means adapted to clamp said clamp around the cable and clamp opening means adapted to unclamp said clamp means from the cable, said clamp means comprising an elongated carrier housing slidably mounted around the cable between guide rails of the track, bearing means coupled in each end of the housing in slidable contact with the cable, an annular groove in the interior wall of the housing at each end, a coupling ring in each of the respective grooves, said rings serving to couple together concentric yieldably deformable tubes around the cable, an expansible pad at each end of the housing folded around the said yieldably deformable tubes, said pads being expansible to thereby compress the tubes tightly around the cable.

2,872,133
AUTOMATIC FUEL CONTROLS FOR REGULATING AIRCRAFT MACH NO. IN ACCORDANCE WITH CHANGE OF ALTITUDE
Bernard I. Seeger, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application October 2, 1953, Serial No. 383,813
9 Claims. (Cl. 244—76)



6. Fuel flow mechanism adapted to control the flow of fuel to the engine of an aircraft, comprising fuel flow regulating means including a pneumatic servomotor and ram air supply means operable to supply air to said pneumatic servomotor, and means operable to control the supply of air from said air supply means to said servomotor including a diaphragm, Mach No. sensitive bellows mounted on one side of said diaphragm, having one end sealed by said diaphragm and subjected

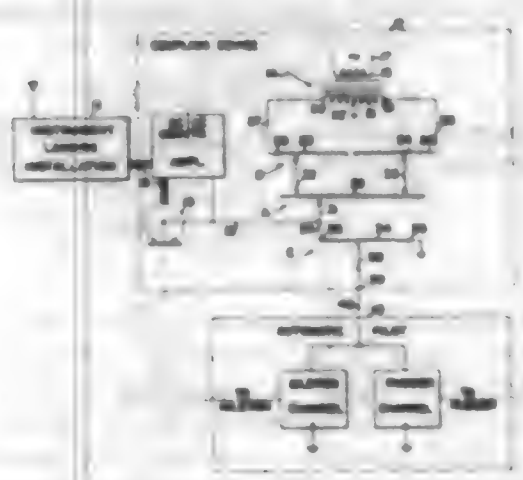
internally to impact air pressure, altitude sensitive bellows mounted on the other side of said diaphragm, having one end sealed by said diaphragm and having its interior communicating with ambient atmosphere, and a valve connected to said diaphragm and movable in opposite directions by said diaphragm in response to movement thereof by said bellows to increase or decrease, respectively, the supply of air from said ram air supply means to said servomotor and actuate said fuel flow regulating means correspondingly to increase or decrease the flow of fuel.

2,872,134

CONTROL APPARATUS FOR AIRCRAFT AND MEANS FOR VARYING THE LIMITS OF ITS GAIN CONTROL

Homer D. Eckhardt, Binghamton, N. Y., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application May 8, 1953, Serial No. 353,750
8 Claims. (Cl. 244—77)



1. Air craft control apparatus comprising in combination: means for adjusting the attitude of an aircraft about an axis thereof in accordance with a voltage; means producing a signal which varies with a condition of flight of the craft; coupling means connected to the above named means for supplying a voltage to cause adjustment of said attitude in a proportion to said condition of flight, said coupling means including a source of voltage, and a pair of impedance elements having the same resistance per unit length, a first of said impedance elements having an open circuit intermediate its ends, means connecting said elements in a series circuit with said source, a pair of adjustable wiper means each making electrical contact from one to another of said impedance elements and adjustable along said elements to adjust the limits of voltage output available from the second of said elements by increasing the effective length of the first of said elements and simultaneously decreasing the effective length of the second of said elements so that the resistance of said series circuit remains constant, whereby the voltage gradient along said series circuit remains constant regardless of the adjustment of said adjustable means, and further wiper means adjustable along the entire length of said second element in accordance with said signal to supply an output voltage for controlling adjustment of said first named means.

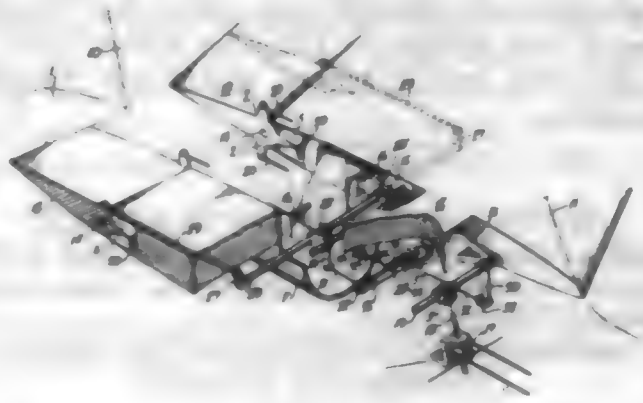
2. Variable limit voltage divider means comprising in combination: a source of electrical potential; a first impedance element; a wiper associated with said element from which the electrical output of the voltage divider is taken which wiper may be displaced along said element while remaining in electrical contact therewith; a second impedance element mechanically aligned with said first element, said impedance element being connected to said source of potential and having an open circuit intermediate its ends; and two further wipers for connecting said first impedance element to said second impedance element and for varying the limits of the electrical output of said voltage divider, said further wipers being individually adjustable along said elements while remaining in continuous electrical engagement therewith, each of which when adjusted moves simultaneously along said first and second elements, so that the portion of said voltage divider between said further wipers maintains a constant potential difference per unit length.

2,872,135

AERODYNAMIC CONTROL SURFACE MOVEMENT ASSISTING MECHANISM

Roland J. White, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware

Application December 7, 1953, Serial No. 396,574
16 Claims. (Cl. 244—82)



1. Aircraft control surface movement-assisting mechanism for a control surface connected to a movable stabilizer element and swingable relative thereto, such control surface having pilot-operated control means connected directly thereto which are operable to exert a force thereon tending to swing the control surface relative to the stabilizer element, which mechanism comprises actuating means connected to the stabilizer element and movable by movement of the stabilizer element, which stabilizer element movement is effected by aerodynamic force on the stabilizer element produced by swinging of the control surface relative to the stabilizer element away from neutral position, lever means, first linkage means interconnecting said actuating means and a portion of said lever means relatively close to but spaced from its fulcrum and operable by movement of said actuating means to exert a force on said lever means tending to swing said lever means, and second linkage means connecting the control surface and a portion of said lever means relatively far from its fulcrum and operable to exert on the control surface a force tending to swing the control surface relative to the stabilizer element farther from neutral position in response to the force exerted on said lever means by said actuating means and said first linkage means.

2,872,136

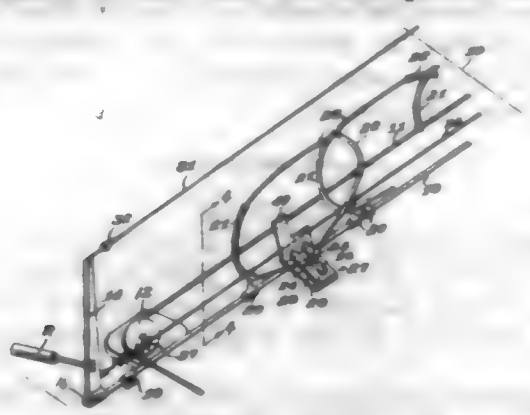
AIRCRAFT OVERRUN BARRIER

Robert B. Cotton, Media, Pa., and Charles J. Daniels, Wilmington, Del., assignors to All American Engineering Company, Wilmington, Del., a corporation of Delaware

Application October 10, 1955, Serial No. 539,383
6 Claims. (Cl. 244—110)

1. An aircraft arresting system comprising an energy absorbing arrest cable extending across and above a runway, a plurality of nose wheel strut and main landing wheel strut engageable loop-form wickets releasably disposed across the runway in advance of and parallel with said arrest cable and normally projecting vertically above the runway, said wickets each being provided with an arrest cable engaging hook, a deflector plate normally disposed between each wicket hook and said arrest cable

longitudinally of the runway for preventing engagement of the hooks with the arrest cable, and nose wheel strut engageable means connected to said deflector plates and being operative to shift said deflector plates transversely



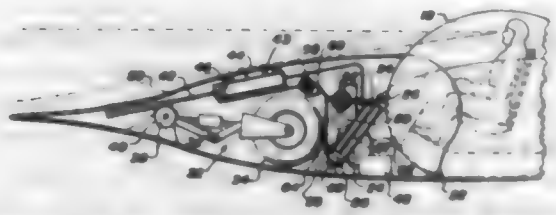
of the runway and out of longitudinal alignment with said wicket hooks whereby upon subsequent engagement of one of said wickets by the main landing gear wheel strut the hook carried by the said wicket engages the arrest cable.

2,872,137

SECTIONAL AIRCRAFT FUSELAGE

Michael E. Gluhareff, Fairfield, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application July 11, 1955, Serial No. 520,949
7 Claims. (Cl. 244—120)



1. In an airplane, a fuselage having a main body and a nose section, said nose section being pivotally connected to said body, retractable landing gear carried by said nose section, means for moving said nose section about its pivotal connection into a downwardly directed angular position with respect to the remainder of said fuselage, said last named means including a first cylinder and piston unit, one element of said first unit being connected to said nose section, the other element of said first unit being connected to said body, means for moving said landing gear between a retracted and extended position, said last named means including a second cylinder and piston unit, one element of said second unit being connected to said nose section, the other element of said second unit being connected to said landing gear, and means for directing fluid simultaneously to said first and second cylinder and piston units for moving said nose section into its downwardly directed angular position and moving said landing gear into its extended position.

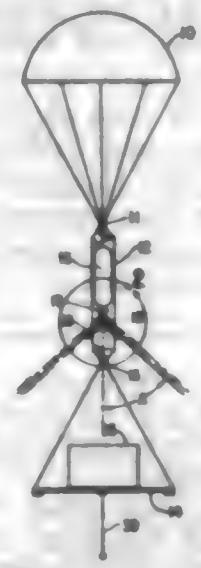
2,872,138

DEVICE FOR DECELERATING THE SINKING SPEED OF A DROPPED LOAD

Richard Vogt, Pacific Palisades, Calif., assignor to Aerophysics Development Corporation, a corporation of California

Application August 23, 1956, Serial No. 605,855
2 Claims. (Cl. 244—138)

1. A device for decelerating the sinking speed of a load dropped towards the earth comprising, in combination: a rocket; a frame support, said rocket being secured to said frame support above the center of gravity of said load to direct tthe exhaust stream of said rocket downwardly; deflector plates secured to said frame support below said rocket to intercept said exhaust stream and deflect portions thereof laterally; and means engaging said frame support and said plates and movable with respect to said frame support for varying the angle of said deflector plates with respect to the vertical so that the magnitude of



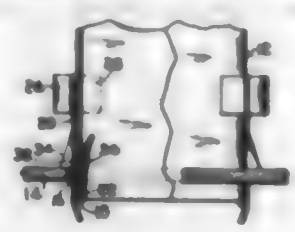
the vertical thrust component of said portions can be varied.

2,872,139

FASTENING DEVICE

William A. Bedford, Jr., North Scituate, Mass.

Application October 21, 1953, Serial No. 387,395
2 Claims. (Cl. 248—27)



1. A radio shield can assembly, comprising a panel having an opening therethrough, a shield can having an open lower end projecting through the opening, and a pair of fastening devices disposed on opposite sides of the can retaining it in assembly in the opening, each of said fastening devices having a body portion lying alongside the can and projecting through the panel opening, the lower end of the body portion having a reverse bend portion clipped over the end of one side of the can, and a pair of panel engaging arms attached to the upper end of the body portion, said arms lying in substantially the same plane as the body portion and extending downwardly through the panel opening alongside the body in spaced relation thereto, said arms being flexible toward and away from the body portion and having shoulders disposed on the outer edges disposed in snapping engagement in the panel opening.

2,872,140

FRAME MOUNTING

Walter Zareko, New York, N. Y.

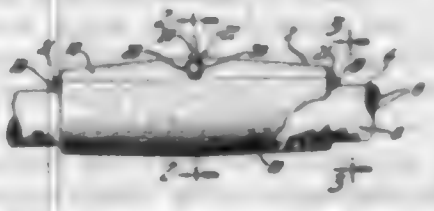
Application March 27, 1956, Serial No. 574,183
10 Claims. (Cl. 248—28)



2. In a frame mounting, a frame having an opening therein, a first guide having the front surface thereof fixed to the rear surface of a rail of the frame and of substantially the length of the opening and having side surfaces converging forwardly at the front portions thereof, the thickness of and the greatest width of said guide being approximately the same, a second similar guide fixed to

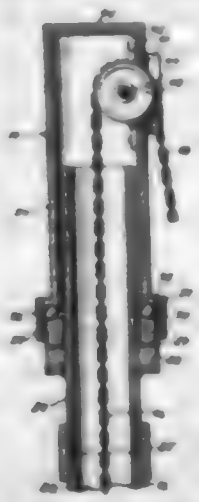
the rear surface of a rail of the frame perpendicular to and beyond the adjacent end of the first guide and of a length substantially that of the width of the opening, and a channel shaped slide having side flanges, a bend at the rear edge of each flange and a rear web integrally joining the bends, the front free edge portions of the flanges converging forwardly and grasping the respective side surfaces of a selected guide at lines spaced rearwardly of the front surface of the guide and at a plane in parallel rearward spaced relation to said front surface with sufficient force to maintain the slide in any selected position on the guide until deliberately moved in a longitudinal direction out of said position whereby the frame may be supported by the slide in either one of two different positions.

2,872,141
CABLE HANGER
Bert H. Hefner, Western Springs, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 27, 1953, Serial No. 394,582
6 Claims. (Cl. 248—62)



1. In an electrical cable hanger means for yieldably suspending flexible electrical cable therein, comprising a jacket of resilient material, said jacket including a longitudinally extending cable carrying tubular member split along its length and outwardly extended longitudinal lips on said member coextensive with each side of said split, interlocking means projecting longitudinally from the ends of said lips securable by movement of said lips in generally longitudinal opposite directions comprising mating eyes and pins, and means intermediate the ends of said lips to secure said lips against longitudinal movement relative to each other, said lips being of maximum cross sectional area at the centers thereof and gradually decreasing in cross section to a minimum at the ends thereof to gradually vary the stiffness of said jacket from a maximum at the center of said jacket to a minimum at the ends thereof whereby said cable may be flexibly supported in a substantially uniform arc for a material portion of its length.

2,872,142
RETRIEVING DEVICE
Edward Pottash, Philadelphia, Pa.
Application March 14, 1957, Serial No. 645,946
6 Claims. (Cl. 248—90)



1. A retrieving device for a flexible conduit having one end anchored and one end free, said device comprising a generally cylindrical hollow standard having its upper end open, a generally vertically disposed sleeve having its lower end open and its upper end closed and engaged over the upper end region of said standard with its closed end spaced above the upper end of said standard, bearing means circumposed about said standard and supporting said sleeve on said standard for generally axial rotation relative to the latter, said sleeve being formed with a through side opening in the region above the upper end of said standard, a generally vertically disposed pulley arranged in said sleeve opening and mounted on said sleeve for rotation therewith and rotation about a generally horizontal axis, a flexible line extending over said pulley and having its opposite ends depending respectively into said standard and exteriorly of said standard, said line thus being supported by said pulley for rotation therewith about said vertical axis and for relative up-and-down movement of opposite line ends, the end of said line disposed exteriorly of said standard being adapted for connection to an intermediate region of said flexible conduit, and a weight on the other end of said line spacedly received within said standard and tending to pull the interior end of said line down and raise the exterior end of said line and its attached conduit.

2,872,143
HOSE RACK
Joel J. Hendley and Allen A. Alexander, St. Louis, Mo.
Application May 25, 1956, Serial No. 587,268
3 Claims. (Cl. 248—81)

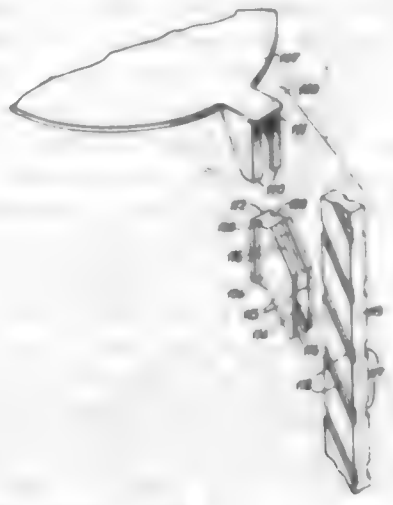


1. In a device of the character described, a base comprising a ring, a plurality of radial hose reel arms having on the outer ends vertical portions secured to the ring, said reel arms having inner ends having vertical terminals thereon and also having intermediate U-shaped hose receiving portions, a post having a lower end secured to said terminals and rising above said reel arms, and a hose nozzle gripping element on said post above said reel arms.

2,872,144
ADJUSTABLE BRACKET SUPPORTS FOR DISPLAY AND OTHER PURPOSES
Charles William Hobson, Buckinghamshire, England, assignor to Nancy Hobson
Application July 28, 1953, Serial No. 369,143
Claims priority, application Great Britain October 28, 1952
3 Claims. (Cl. 248—223)

1. A cantilever bracket supporting arrangement comprising a generally vertical support member and at least one cantilever bracket, a bearer member at one end of said bracket, a deep channel in one of said members provided with continuous side walls, a projecting part on the other of said members, said projecting part and said channel having a rectangular cross-section and said channel having approximately the same width as said projecting part for receiving said projecting part therein, at least one of the opposed side walls of said channel and the corre-

sponding face of said projecting part being provided with engaging means comprising at least one interfitting rib and groove which are inclined downwardly and away from said bracket with said rib extending transversely into and said groove opening into said channel when said means



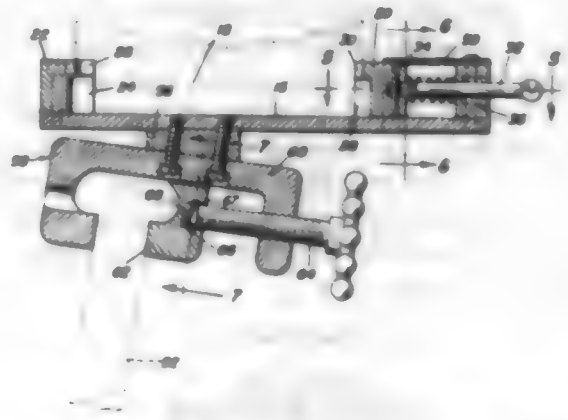
are interfitted, the said engaging means on said support member being multiplicated and regularly spaced one from another vertically therealong to provide a widely diversified vertical adjustability of said bracket on said vertical support member.

2,872,145
SUPPORT HANGER FOR PIN-UP BOARDS
Morton Goldsholl, Highland Park, Ill., assignor to Abacus, Incorporated, a corporation of Illinois
Application March 1, 1954, Serial No. 413,043
1 Claim. (Cl. 248—223)



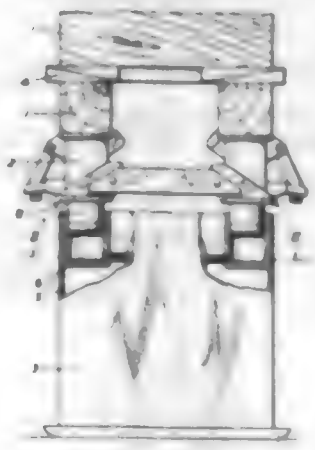
A support hanger adapted to be mounted on a pin-up board having opposed surfaces and at least one pair of vertically spaced apertures, said support hanger formed from a unitary wire member and including a vertical section adapted to lie at least adjacent one surface of said board, one portion of said wire member bent to form an integrally attached article supporting section, another portion of said wire member connected to an end of said vertical section in spaced relation to said one portion and bent to form an offset section which is adapted to be inserted in the uppermost of said pair of apertures, the end of said offset section bent to form a retaining section, at least a portion of said retaining section adapted to engage the surface of said board opposite to said one surface, and a portion of said wire member in spaced relation to said offset section folded over itself until the thickness of the folded portion of the wire is substantially equal to one of the dimensions of said lower aperture, said folded wire portion in substantially the same plane as the offset and retaining sections and adapted to penetrate said lower aperture to firmly retain said support hanger on the board.

2,872,146
BOAT LANTERN HOLDER
Edward T. Kukla, Cudahy, Wis.
Application July 6, 1955, Serial No. 520,186
2 Claims. (Cl. 248—229)



1. In a holder for a lantern, a base having a flat upper surface, an angular spacer secured to the lower surface of said base, a clamp carried by said base and mounted on said angular spacer to engage the angular side of a boat whereby the base is maintained in a horizontal position, a fixed jaw secured to the upper surface of said base and having stepped inner surfaces to engage different portions of the lantern, a movable jaw disposed on said base and spaced from said fixed jaw, means to withdraw said movable jaw from said fixed jaw in order to insert the lantern therebetween, spring means urging said movable jaw toward said fixed jaw so as to spring press said movable jaw against the lantern, guide means for said movable jaw carried by said base and including a guide block having passageways, elongated members secured to said movable jaw and freely movable through the passageways in said guide block, and a cover for said spring means carried by said guide block and contacting in guiding fashion a surface of said movable jaw.

2,872,147
ROOF SUPPORTS
Angus Wellesley Duncan, Worcester, England, assignor to The Mining Engineering Company Limited, Worcester, England
Application August 26, 1953, Serial No. 376,630
Claims priority, application Great Britain September 5, 1952
6 Claims. (Cl. 248—351)



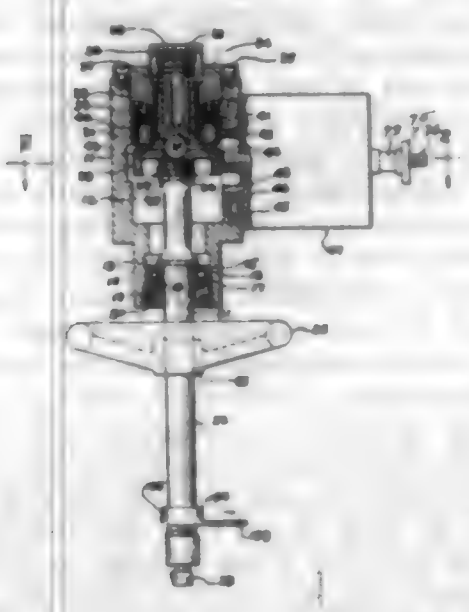
1. A mine roof support comprising in combination, chock pieces, collapsible chock releases and a unit comprising a hydraulic cylinder, a ram working within said cylinder said ram being retracted into said cylinder by subsidence of the supported roof, and bearing on said cylinder when fully retracted therein, an hydraulic accumulator in communication with said cylinder and charged with fluid by the retraction of said ram within said cylinder, and a manually controlled valve operable to isolate said accumulator from said cylinder.

2,872,148

TRACER CONTROLLED VALVE

Gale Humes, Birmingham, Mich., assignor to Manuel Turchan, doing business as Turchan Follower Machine Company, Detroit, Mich.

Application July 3, 1953, Serial No. 365,809
10 Claims. (Cl. 251—3)



1. A tracer construction comprising a hollow body, a spindle therein projecting axially therefrom and mounted intermediate its ends upon said body for rotation in a horizontal plane and for universal tilting movements, a contactor adjacent the free end of said spindle adapted to engage and traverse the profile of a template, a hand wheel secured to said spindle outside said body for intermittent manual rotation of said spindle, a cam secured to said spindle within said body and having in its periphery right angularly related pairs of diametrically opposed high and low points, spring means on said body bearing axially inward upon said spindle normally maintaining it in an axial position, a pair of angularly arranged ported valve bodies at right angles to the spindle axis secured at their inner ends to said tracer body in communication with its interior, a slidable fluid control valve within each body, and spring means on said bodies normally urging said valves into engagement with said points of said cam, whereby an initial setting of said valves is controlled by the rotated position of said cam, one of said valves being relatively unchanged following said setting adapted to provide a substantially constant reactive valve condition, tilting movements of said spindle effecting corresponding movements of said cam for controlling the positioning of the other valve, said hand wheel being adapted to effect different 90-degree rotated settings of said points with respect to said valves.

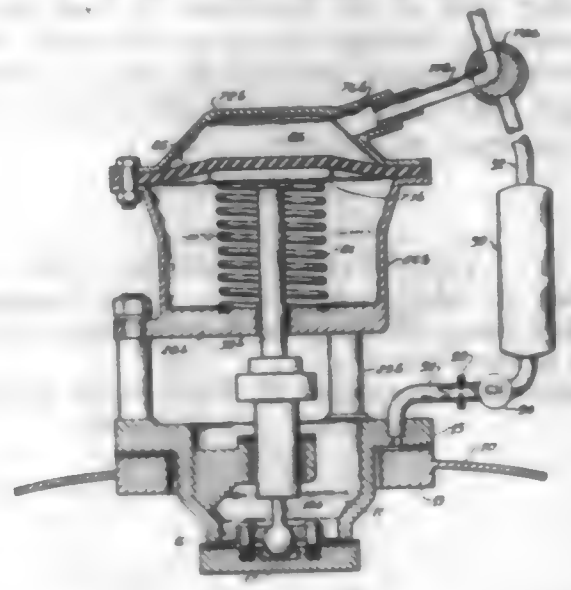
2,872,149

QUICK-ACTING RELEASE VALVE

Everett M. Battey, Alexandria, Va., and Ilya S. Livney, Tucson, Ariz., assignors to Infilco Incorporated, Tucson, Ariz., a corporation of Delaware

Application April 20, 1953, Serial No. 349,878
2 Claims. (Cl. 251—25)

1. A quick-acting gas release valve mounted on a pressure tank containing a body of gas under pressure and having a release port, said valve comprising a valve seat, a valve disk normally held against said seat by the pressure in said pressure tank, and, when seated on said seat, sealing said port, first means capable of storing energy when under a load and operatively connected with said valve disk to move said disk with a snap action in valve opening direction by release of its stored energy, said first means including a diaphragm, and wall means forming with said diaphragm a chamber adapted for selective connection to a source of gas under pressure and to atmosphere, second means adapted to selectively apply a pressure to said valve disk in valve opening direction and simultaneously load said energy storing means to a predetermined degree or to relieve said pressure, said second means including a conduit connecting said pressure tank with said diaphragm chamber, a gas tank on said conduit, a check valve on said conduit between said pressure tank opening in a direction to admit gas under pressure from said pressure tank to said chamber and said gas tank, and valve means positionable to connect said chamber to said conduit or to atmosphere, and third means preventing release of energy stored in said energy storing means while the force applied to said valve disk in valve opening direction is smaller than the force on said valve disk due to pressure in said tank, and operative to suddenly release said energy when said disk becomes unseated and starts opening said valve due to said force applied thereto in valve opening direction exceeding the force on said valve disk in valve closing direction.

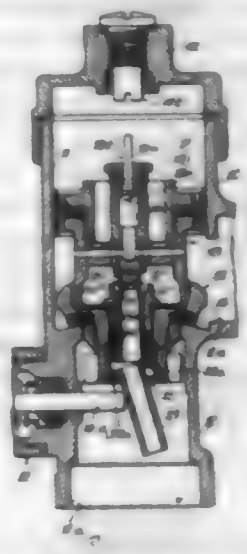


2,872,150

FLUSHING VALVE

Howard L. Philippe, Chicago, Ill., assignor to The Imperial Brass Manufacturing Company, a corporation of Illinois

Application October 15, 1956, Serial No. 616,034
4 Claims. (Cl. 251—40)



1. In a flush valve having a main movable valve member reciprocably movable through a body member and defining with the body member a chamber having restricted communication with the inlet to the valve, a pilot valve means comprising: means associated with the main valve member defining a small passage between the chamber and the outlet from the valve; a first tube slidably received in said passage to extend longitudinally therethrough, said tube having a closed end in said chamber and a port through the wall of the tube proximate said closed end; spring means for urging said tube longitudinally to dispose the port within said passage; means

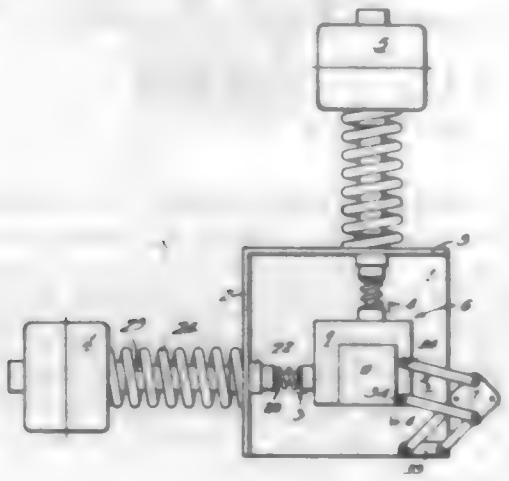
for sealing said end to the passage defining means when the port is in said passage, thereby to close the passage and prevent communication between the chamber and the outlet; a second tube aligned with said first tube and having a first end abutting the other end of said first tube, said second tube being associated with the main valve member for angular axial displacement, with a portion of said first end of said second tube being moved toward said other end of the first tube by such displacement; and manually operable means on the body member for angularly displacing said second tube and moving said port into said chamber against the action of the spring means to open said passage.

2,872,151

THREE DIMENSIONAL CAM

Carleton E. Martin, Palo Alto, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application November 15, 1956, Serial No. 622,507
8 Claims. (Cl. 251—58)



1. An apparatus for controlling flow through an orifice or the like in response to predetermined changes in a plurality of conditions comprising base means, cam means slideably carried by said base means, first condition responsive means operatively connected to said cam means and being movable in opposite directions along a predetermined path in response to predetermined changes in one of said conditions to thereby move said cam means on said base means, second condition responsive means operatively associated with said cam means and being movable in opposite directions along a predetermined path in response to predetermined changes in another of said conditions to thereby move said cam means on said base means, valve member means cooperable with said cam means and being movable thereby between a plurality of flow controlling positions relative to said orifice, and parallel motion means operatively connected to said cam means and being operable to constrain the movement of said cam means on said base means to movement in paths substantially parallel to the paths of movement of said first and second condition responsive means.

2,872,152

VALVE

Gilbert G. Budwig, North Hollywood, Calif.

Application March 22, 1954, Serial No. 417,632
4 Claims. (Cl. 251—75)



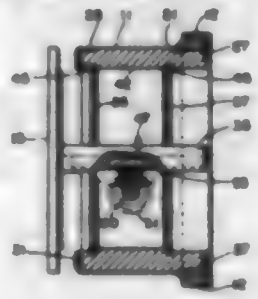
1. A valve comprising: a valve body having a valve bore extending therein and provided at one end with a counterbore, an inlet port communicating with said bore, and an outlet port intersecting the side of said bore; an elongated valve element formed of rubber-like material loosely fitting in said valve bore, said valve element, at one end, being provided with an enlarged portion tightly fitting within said counterbore, an apertured rigid member retaining said enlarged portion within said counterbore, the other end of said valve element being free, a pin extending axially within said elongated valve element and terminating a substantial distance from one end thereof, the other end of said pin passing through the apertured retaining member and being provided with a knob thereon, the wall of the aperture forming a fulcrum for said axially extending pin, a pair of axially extending ribs on the wall of said bore, one of said ribs being oppositely disposed relative to the other, said valve element occupying a slightly greater width of said bore than the space between said ribs and adapted to be laterally shifted between said ribs to cover and uncover said outlet port, said outlet port occupying a position in said bore intermediate the free end of said valve element and said fulcrum, whereby, when said knob is moved to close said outlet port, the said valve element tilts and the free end thereof first engages the wall of said bore, and further movement of said knob produces a deformation of said valve element whereby a portion of said valve element will lie along the wall of said bore and close said outlet port, and whereby movement of said knob in another direction will move the valve element to open said outlet port, said ribs being detents that retain said valve element in either its valve opening or valve closing position.

2,872,153

TRANSFORMER VALVE

Charles A. Davis, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a corporation of New Jersey

Application May 6, 1955, Serial No. 506,485
6 Claims. (Cl. 251—98)



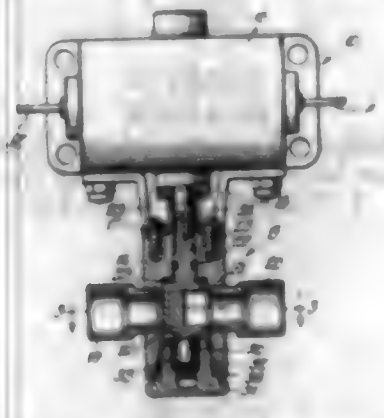
2. A valve comprising a tubular body member, a flange disposed about the body member at one end thereof, a valve stem extending longitudinally within the body member, removable support means for the stem comprising two separate longitudinally spaced support pieces and means for holding the support pieces on the inside of the body member, a rigid valve disc on one end of the stem exteriorly of the valve body to cooperate with a face on the remaining end of the body member, a shaft extending transversely through the body member and a pinion secured to the shaft, a longitudinal recess in the stem and a rack secured to the stem with the pinion engaging the rack and received in the recess in the stem for holding the shaft against transverse movement, sealing means between the shaft and the body member comprising a tubular sleeve on the shaft abutting the pinion at one end and terminating within the wall of the body member at the other end, a cylindrical packing between the shaft and the wall of the body member and a sleeve extending from within the wall of the body member toward an end of the shaft and a nut threaded on the shaft and compressing the packing between the two sleeves, and operating means on the shaft outside the body member for turning the shaft to move the disc toward and away from the said remaining end of the body member to close and open the valve.

2,872,154

THERMOSTATIC CONTROL VALVE

Evan Jones, Evanston, Ill., assignor to Henry Valve Company, Incorporated, Melrose Park, Ill., a corporation of Illinois

Application August 25, 1954, Serial No. 452,062
2 Claims. (Cl. 251—133)



1. A motor-controlled valve assembly comprising a reversing motor suitably housed with the output shaft thereof drivingly engaged with the stem of a valve element removably carried in a vlave body attached to the housing of said motor, said valve body having a valve chamber with a plurality of fluid flow passages opening thereinto, said valve body have oppositely positioned openings therein communicating with said valve chamber and axially aligned with said output shaft, one of said openings receiving said valve stem therein in driving engagement with said output shaft, the junction of said one opening and said valve chamber defining a seat against which said valve element is urged, the other of said openings being closed by a removable closure member provided with means received in said other opening and in engagement with said valve element to urge the same against said seat and hold the same in driving engagement with said output shaft, said other opening being of greater diameter than said valve element to permit ready withdrawal of said valve element therethrough from said valve chamber and out of said valve body upon removal of said closure member, said output shaft and stem having axially overlapping drive coupling end portions in the form of semi-cylindrical projections arranged in side-by-side relation with single juxtapositioned face portions thereof provided with engaged flatted surfaces establishing single positional coupling of said shaft and stem to prevent incorrect re-engagement of said shaft and stem and incorrect rotational positioning of said valve element in said valve body upon re-insertion of said valve element to said valve body following withdrawal thereof for maintenance purposes.

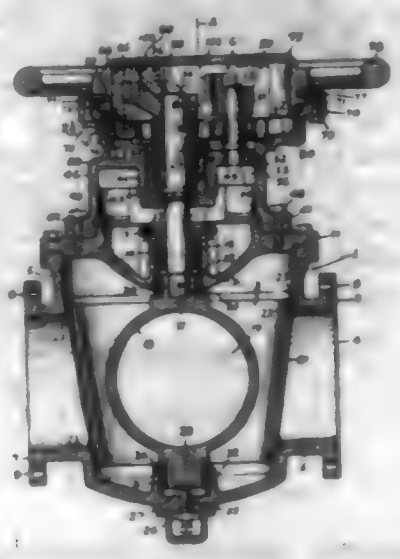
2,872,155

OPERATING MECHANISM FOR ROTATABLE PLUG VALVE

Charles S. Hazard, New York, N. Y., assignor to Neptune Meter Company, New York, N. Y., a corporation of New Jersey

Application September 22, 1953, Serial No. 381,653
22 Claims. (Cl. 251—165)

1. An operating mechanism for a valve having a plug supported for movement thereof along the axis of the plug forwardly away from seating position and rotatable on said axis and movable reversely toward seating position both in the opening and in the closing movement of said plug, said valve having a stem connected to said plug and movable therewith forwardly and reversely along said axis and rotatable with said plug on said axis, said operating mechanism comprising a rotatable member operatively connected to said stem and capable of effecting axial movement of said stem forwardly upon rotation of said rotatable member in a given direction and axial movement of said stem reversely upon reverse rotation of said rotatable member, a gear supported for rotation on its axis and operatively connected to said rotatable member for effecting rotation of said rotatable member in said given and reverse directions respectively upon rotation of said gear forwardly and reversely, gear elements disposed in spaced relation along a predetermined path of movement of said elements and connected together for concomitant movement of said gear



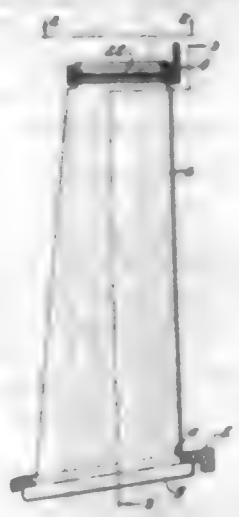
elements forwardly and reversely along said path, said gear elements being disposed in spaced relation transversely of said path for engagement with said gear respectively at opposite sides of the axis of rotation of said gear and in zones spaced along said path for effecting forward and reverse rotations of said gear both during said forward movement and during said reverse movement of said gear elements in said path.

2,872,156

VANE RETAINING DEVICE

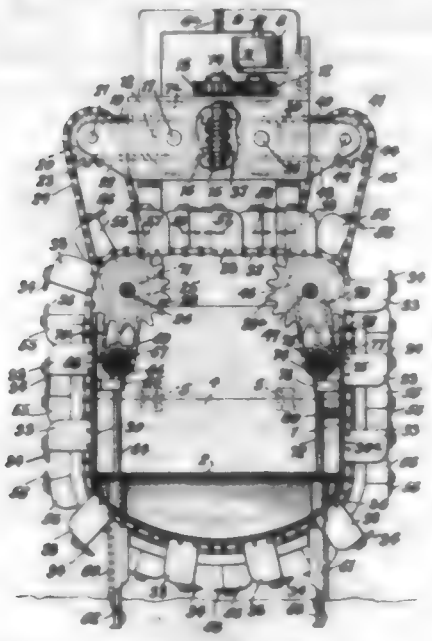
William H. Brown, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application August 20, 1956, Serial No. 604,940
7 Claims. (Cl. 253—78)



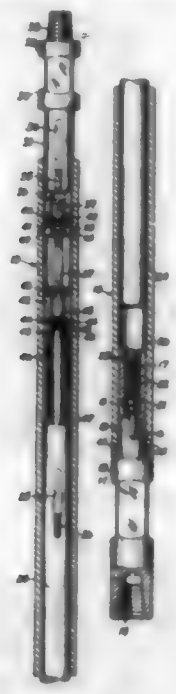
1. In a stator construction, an outer vane supporting shroud, a substantially concentric inner vane supporting shroud, a row of vanes extending between said shrouds and having ends supported by said shrouds, substantially radial slots in one of said shrouds to receive the vane ends radially slidable therein, and spring pins extending in an axial direction through said one of said shrouds and engaging the vane ends in said shroud for holding the vanes in position, each spring pin including a sleeve of resilient material having an axially extending slot therein, each of said vanes being rigidly secured to the other shroud to prevent radial movement with respect thereto.

2,872,157
EXCAVATING APPARATUS
Jules J. Brell, Baldwin, N. Y.
Application May 16, 1957, Serial No. 659,526
11 Claims. (Cl. 255—4)



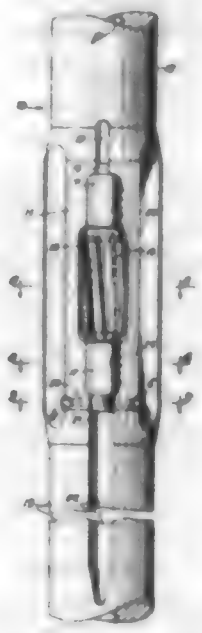
3. An excavating apparatus comprising, an open top collection bucket and means for suspending the same, a chain conveyor encircling the bucket, means on the bucket for supporting and guiding the conveyor means for moving the conveyor around the outside of the bucket, the conveyor in its travel moving both below the bucket and over the open top of the same, the conveyor carrying radially projecting excavating shovels so shaped and positioned that the same, on travel of the conveyor, are caused by movement of the conveyor to excavate while below the bucket and carry the removed earth above the bucket and deposit the earth through the open top and into the bucket.

2,872,158
DOUBLE BLOW DRILL
Nathaniel P. Green, University City, Mo.
Application July 5, 1955, Serial No. 519,833
17 Claims. (Cl. 255—6)



1. In a double blow drill, a casing, a bit anvil reciprocably mounted in said casing, a hammer reciprocably mounted in said casing, and adapted to move into impact engagement with said bit anvil, and means within said casing releasably restraining said hammer, said hammer being provided with a shoulder means, the restraining means including locking elements and resilient means urging said locking elements into engagement with said shoulder means to restrain said hammer in a raised position, the shoulder means and locking elements having coacting cam surfaces interengaging, said resilient means being yieldable to permit operative disengagement of said locking elements from said shoulder means due to the inertia of said hammer on said elements upon drilling impact of said bit anvil, whereby said hammer delivers a blow to said bit anvil.

2,872,159
REAMER
Walter D. Autry, Odessa, Tex.
Application May 24, 1956, Serial No. 586,962
1 Claim. (Cl. 255—73)



A reamer body having an elongate intermediate portion of greater diameter than its end portions, said intermediate portion having a cutter cavity and connecting bearing block recesses at each end of said cavity, the upper bearing block recess having a communicating slot of greater depth than width extending longitudinally into one of said end portions, the other of said bearing block recesses having a communicating slot extending a greater distance into the other end portion of said reamer body, each of said bearing block recesses having a semi-circular groove in one wall thereof, a bearing block in each of said recesses having a semi-circular groove matching the groove in said recess wall, a longitudinally split sleeve formed of spring steel frictionally occupying said semi-circular grooves jointly to hold said bearing blocks in their respective recesses, a cutter shaft having a flattened end retained in the slot of said upper bearing block recess and having its opposite end lying in the communicating slot of said other bearing block recess, a cutter rotatable on said shaft in said cutter cavity and a longitudinally split sleeve formed of spring steel extending frictionally through registering bores through said body on opposite sides of said communicating slot and said opposite end of said shaft.

2,872,160
HYDRAULIC EXPANSIBLE ROTARY WELL DRILLING BIT
Charles H. Barg, Anaheim, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application May 14, 1956, Serial No. 584,659
10 Claims. (Cl. 255—76)

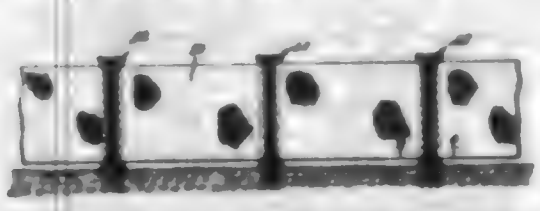
1. In a rotary drill bit: a body having a central passage and adapted to be connected to a drill string, said passage opening through the lower end of said body; cutter means mounted on said body for expansion laterally outward of said body; means for expanding said cutter means laterally outward of said body, including a plunger movable downwardly in said passage in response to fluid

pressure in said passage; a spring seat movable upwardly into said passage through the lower end of said body; means for securing said seat to said body within said passage; and a spring above said seat engaging said seat



and plunger to shift said plunger upwardly in said passage to retract said cutter means, said spring being removable from said passage through the lower end of said body.

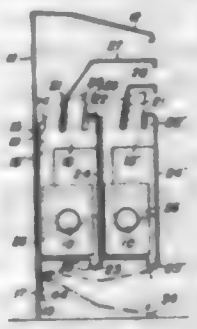
2,872,161
FENCES
Harold G. Olson, Old Greenwich, Conn.
Application January 24, 1957, Serial No. 636,000
6 Claims. (Cl. 256—24)



1. A fence comprising a series of plural-post units having end portions adapted to be driven a predetermined distance into the ground at locations substantially spaced apart along the extent of the fence, each said plural-post unit comprising a plurality of generally parallel posts spaced relatively small distances apart and the said spacing of posts of the unit being substantially uniform throughout the major portion of the length of the unit, a connector element rigidly connecting together similar end portions of all of said posts of the unit and constituting a driving head for the unit, a second connector element through which all of said posts of the unit slidably extend, said second element being adjustably secured to at least one of said posts of the unit at a predetermined distance from said head element thereof and constituting a stop limiting the distance that the lower end portions of the posts may be driven into the ground, and flexible sheet fencing material extending in longitudinally tensioned condition between successive plural-post units and frictionally engaging between and around the posts of said successive plural-post units, said fencing material having substantial width and said second connector element of each post unit being secured in position relatively closely adjacent to the lower edge of said sheet material.

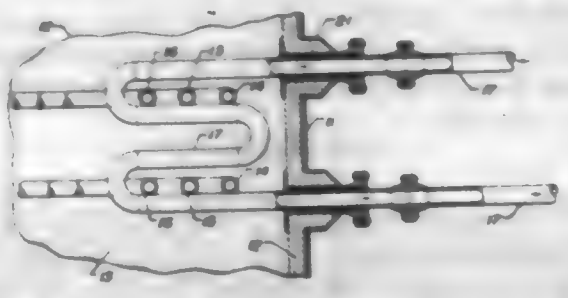
2,872,162
BASEBOARD RADIATOR
Thomas O. Marini, Haddon Heights, N. J.
Application April 25, 1956, Serial No. 580,519
2 Claims. (Cl. 257—133)

1. In a baseboard radiator of the type including a back panel adapted to be mounted to the base of the wall of an enclosure to be heated, a top panel projecting forwardly from the back panel, said back panel having pocket means on the lower portion thereof and further having laterally accessible slots disposed vertically above said pocket means, a bracket means including a depending tongue engageable in each pocket and at a lateral extension disposable through the slots to secure the bracket means to the front face of the back panel, said bracket means further having a forwardly extending portion adapted to receive a finned tube heating unit, a finned tube heating unit supported by said forwardly extending portion, said forwardly extending portion having upper and lower tabs on the front thereof, an intermediate panel having reversely curved upper and lower edges disposed on said tabs, additional bracket means secured to said intermediate panel and projecting forwardly thereof, said additional bracket means having upper and lower tabs on the front thereof similar to those on the first



bracket means, a front panel similar to the intermediate panel similarly secured to the tabs of the additional bracket means, a finned tube heating unit supported by said additional bracket means on the same level as the first finned tube heating unit whereby the back panel, and the intermediate and front panels define straight open ended passages, said depending tongue of the first bracket means extending below the panels, tongue means extending forwardly from the said depending tongue at a position between the subjacent pocket and the finned tube heating unit associated with said first mentioned bracket means, fixed louver means including portions extending forwardly of the back panel and disposed between the bracket means and the top panel and operative to deflect air flowing through the passages forwardly of the front panel and damper means operatively associated with the forwardly extending tongue means on the first bracket means to regulate the volume of air that enters the lower portion of the passages.

2,872,163
HEAT EXCHANGER
Norman H. Ranstead, Des Plaines, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
Application November 4, 1955, Serial No. 545,085
4 Claims. (Cl. 257—230)



1. A heat exchange apparatus comprising a chamber, a plurality of spaced coils within said chamber, means for supporting said coils externally of the chamber, each of said coils comprising relatively short horizontal tubular members disposed in a vertical plane in the chamber and said coils as a group having corresponding tubular members positioned in the same horizontal plane in the chamber, means for passing cooling fluid through said coils, and

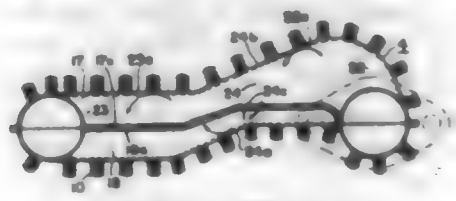
a plurality of relatively long horizontal fluid conduits supported in a horizontal plane on said corresponding tubular members and disposed substantially at right angles to said corresponding tubular members.

2,872,164

HEAT EXCHANGERS

John R. Wilson, Penn Township, Allegheny County, Pa., assignor to Hanlon & Wilson Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application November 19, 1956, Serial No. 623,074
2 Claims. (Cl. 257—241)



1. In a heat exchanger having a housing with an air inlet and an air outlet for flow of air to be warmed therethrough, the combination comprising a duct for conveying heated gases through the housing, said duct being disposed inside said housing and spaced from the walls thereof, said duct comprising two end parts and a center part with the center part interconnecting the end parts, one of said end parts being adapted to be connected to a source of the heated gases, the other end part being adapted to be connected to an exhaust conduit for the heated gases, said center part comprising a receiving chamber, a discharge chamber, and a connecting chamber with said connecting chamber diagonally interconnecting the receiving chamber and discharge chambers, said receiving chamber, said discharge chamber and said connecting chamber forming a tortuous path of flow for the heated gases through the duct, said receiving chamber being joined to the end part adapted for connection with the source of heated gases, said discharge chamber being joined to the end part adapted for connection to the exhaust conduit, said receiving chamber comprising an elbow and having one of its walls disposed substantially opposite the end part adapted for connection to the source of heated gases, said wall being inclined toward and joining with a wall of said connecting chamber, said receiving chamber being arranged relative to said end part adapted for connection to the heated gases and relative to said connecting chamber so that a swirling action is imparted to the heated gases flowing through said duct, and so that at least a part of the gases which strike the said one wall of the receiving chamber is directed into the connecting chamber and into engagement with a wall of said connecting chamber opposite said one wall of the receiving chamber, the walls of the discharge chamber being angularly disposed relative to the walls forming the connecting chamber where the walls of the discharge chamber join the walls of the receiving chamber, a plurality of heat radiating pins extending outwardly from the outer surface of said duct and being affixed to said duct and a plurality of dimple means on the inner surface of said duct.

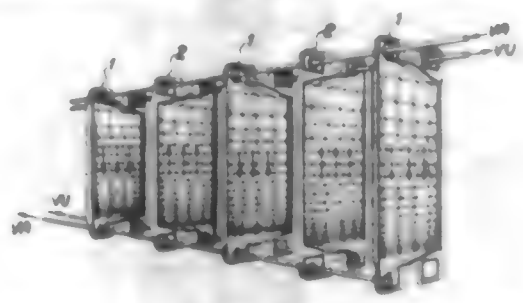
2,872,165

PLATE TYPE HEAT EXCHANGER

Fritz Johan Wennerberg, Lund, Sweden, assignor to Aktiebolaget Separator, Stockholm, Sweden, a corporation of Sweden

Application August 31, 1955, Serial No. 531,746
Claims priority, application Sweden September 4, 1954
5 Claims. (Cl. 257—245)

1. In a plate type heat exchanger, a pack of heat exchange plates defining a plurality of flow channels between adjacent plates of the pack and arranged to accommodate flow through said channels longitudinally of the plates, the plates being of uniform width and the channels being of a width substantially equal to the width of the plates, each channel extending substantially from end to end of the adjacent plates defining the channel, the plates each having a series of transverse corrugations extending transversely of said flow and partly defining each channel adjacent the plate, the corrugation adjacent



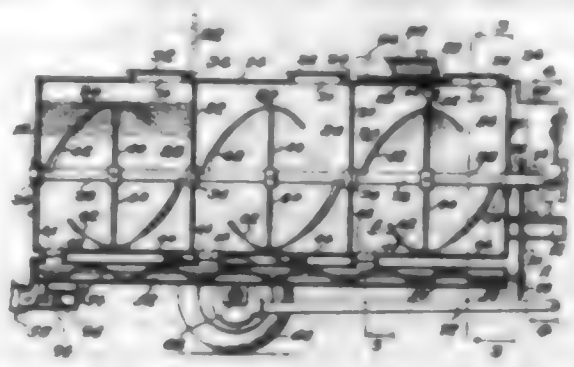
one end of each plate being of greater width than the corrugation adjacent the opposite end of the plate, said corrugation width being measured in the longitudinal direction of the plate, the corrugations of each series increasing in width from one end of the plate to the other end, whereby each channel has a cross-sectional area which increases from one end to the other end of the adjacent plates.

2,872,166

PORTABLE CHICKEN AND ANIMAL FEED MIXING AND DISPENSING MEANS

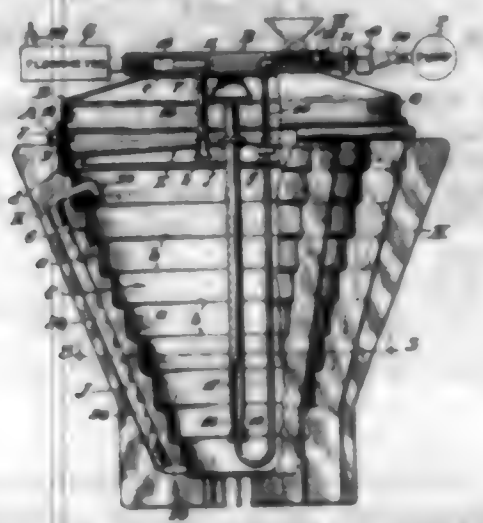
Henry B. Roberts, Salisbury, Md., assignor to Roberts Industries, Salisbury, Md., a partnership

Application October 10, 1956, Serial No. 615,186
5 Claims. (Cl. 259—9)



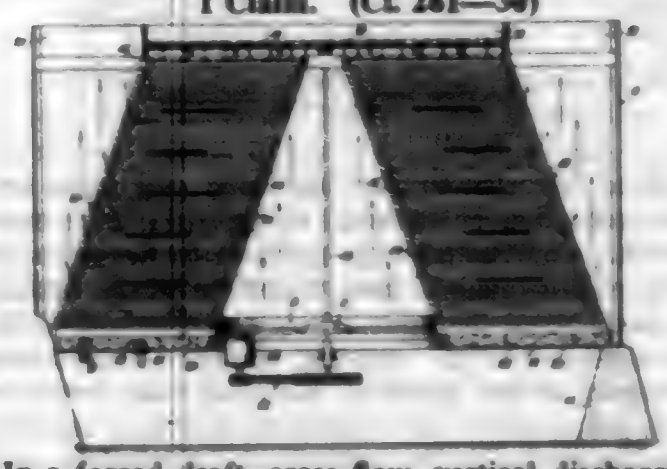
1. In combination, a portable dry feed mixing mechanism comprising a tank having separated compartments, an inlet and an outlet for each compartment adjacent one end thereof, a rotary shaft extending through the several compartments and primary mixing means mounted on said shaft comprising a plurality of arms extending from said shaft, said arms supporting a plurality of spaced worm sections, the bottom portion of said tank being rounded in cross section, each of said worm sections being constructed and adapted to scrape material along said rounded bottom portion of its compartment towards the end of the compartment having the outlet whilst mixing the material adjacent the upper portion of its compartment, each worm section extending longitudinally from one end to the other of its compartment and also extending vertically from the rounded bottom of the compartment to a point adjacent the compartment inlet, a passageway located beneath said compartments, secondary mixing means in said passageway, said outlet of each compartment communicating with the passageway, valve means located in each of said outlets, said mixing means serving to convey material adjacent one end to the opposite end of said passageway deposited through said outlets, said passageway having an outlet end, a conduit operatively connected thereto, a motor and fan located adjacent said passageway outlet end, said fan being in communication with said outlet end and conduit, whereby said fan may blow said dry feed as it passes said outlet end through said conduit.

2,872,167
ETHER VOLATILIZER
Elmond O. Pratt, Los Angeles, Calif.
Application September 24, 1956, Serial No. 611,464
5 Claims. (Cl. 261—14)



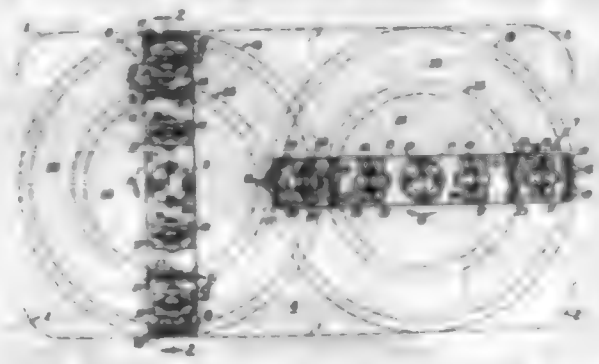
1. In a volatilizer, a housing having a side wall surrounding a volatilizing chamber and having a lower end wall and being open at its upper end, a demountable cover closing said upper end, valved means for conducting liquid into said chamber through said cover, a distributor disk in the upper portion of said chamber suspended from said cover and having a margin spaced from but proximate to the housing walls, an open ended tube carried by and leading downwardly through said disk into said chamber, means for conducting air under pressure into the lower portion of said tube to cause the flow of liquid from said chamber upwardly through said tube into the space between said disk and cover, a series of successively inwardly offset troughs progressing downwardly along the housing wall, and means for conducting vapors from the upper end portion of said volatilizing chamber from immediately beneath and through said distributor disk and through said cover.

2,872,168
FORCED DRAFT FAN-IN-BASE COOLING TOWER
Leon T. Mart, Mission Township, Johnson County, Kans., assignor to The Marley Company, Kansas City, Mo., a corporation of Delaware
Application September 10, 1953, Serial No. 379,398
1 Claim. (Cl. 261—30)



In a forced draft, cross flow, vertical discharge water cooling tower, a substantially rectangular, open top casing having opposed ends and opposed side walls respectively setting off a space within the casing, a hot water distribution basin closing a portion of the top of the casing and forming, with the end walls thereof, a pair of upwardly facing air outlet openings; a catch basin underlying said set off space at the bottom of the casing and having a central air inlet opening formed therein below and in axial alignment with the distribution basin and having an area less than that of said basin; means supporting the casing in an elevated position to present a substantially unobstructed space below the casing open to the atmosphere; an upwardly discharging fan in said opening and having blades disposed in the plane of the catch basin; and a pair of spaced apart splash deck assemblies within the space of the casing extending from side wall to side wall of the latter, one between each end wall of the casing and the air inlet opening and the fan therein respectively, said assemblies including means for dividing the water falling by gravity from the hot water distribution basin, the combined areas of the upper ends of the pair of splash deck assemblies being substantially the same as that of the hot water distribution basin whereby the hot water distribution basin completely overlies and closes the upper ends of the pair of splash deck assemblies, the lower ends of the splash deck assemblies being between respective end walls of the casing and the air inlet opening and the fan therein at the bottom of the casing, the opposed sides of each splash deck assembly being inclined upwardly and inwardly whereby to form a space therebetween and above the said air inlet opening and the fan therein, and further to form a space between each end wall of the casing and the inclined side of the proximal assembly, the cross-sectional areas of the space above the air inlet opening and the fan progressively decreasing as the hot water distribution basin is approached from said air inlet opening, the cross-sectional area of each space between the end walls of the casing and the inclined side of the proximal assembly progressively decreasing as the catch basin is approached from the air outlet opening thereabove.

2,872,169
CONTINUOUS MINING BY CUTTING AND CRUSHING
Wilbur Robbins and Gerald Stuart Jenkins, Nashville, Ill., assignors to National Mine Service Company, Pittsburgh, Pa., a corporation of West Virginia
Application November 1, 1957, Serial No. 693,880
5 Claims. (Cl. 262—7)

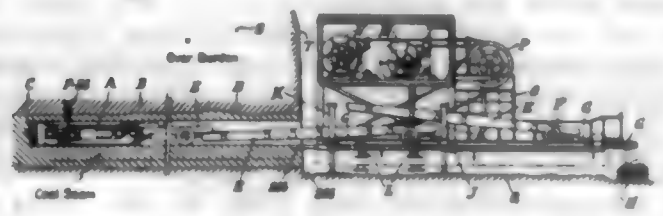


1. A cutting head for a boring type mining machine comprising rotatable means, at least one pair of outer and inner cutter supports thereon, cutter bits on said supports adapted to cut radially spaced circular recesses upon rotation of said means and leaving a projecting ring of material therebetween, and at least one crusher roller mounted for rotation and in a location in which it contacts said ring of material and rolls thereon at substantial distances from any of said recesses as the machine advances said bits to produce said recesses, said roller having a shape forming a margin composed of tooth-forming projections having noncoplanar end portions for staggered impact with the material being crushed.

2,872,170
MINING MACHINE LAUNCHING DEVICE
Paul L. Alspaugh and John W. Heinaster, South Charleston, and Roy L. McNeill, Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York
Original application May 11, 1953, Serial No. 353,932, now Patent No. 2,826,402, dated March 11, 1958. Divided and this application September 16, 1954, Serial No. 456,365
7 Claims. (Cl. 262—26)

1. A bore-mining machine launching platform for positioning a remotely controlled self-propelled bore-

mining machine on a ledge in front of a face for making a bore hole in a seam therein, and for movement off of said platform into said bore hole and return therefrom onto said platform, comprising means for raising and



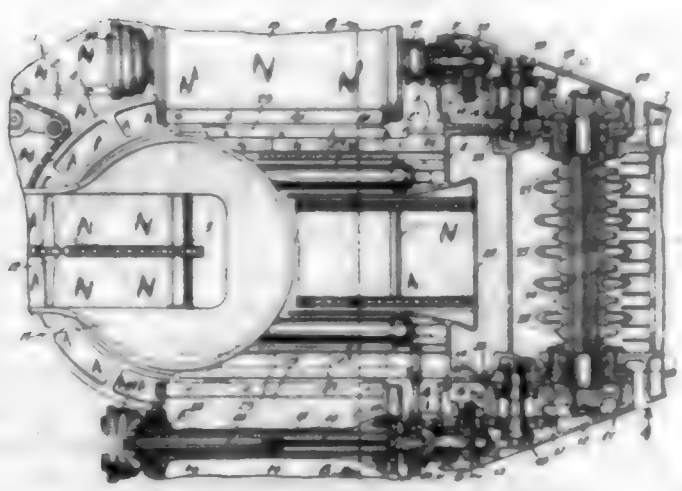
lowering said platform with respect to said ledge, means for advancing and retracting said platform with respect to said face, and means for moving said platform backward and forward along said face and ledge and transversely with respect to said bore hole.

2,872,171
MINING APPARATUS OF THE PIVOTED BOOM TYPE

John D. Russell, Bradford Woods, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Original application July 5, 1949, Serial No. 102,995, now Patent No. 2,798,714, dated July 9, 1957. Divided and this application December 28, 1954, Serial No. 478,154

9 Claims. (Cl. 262—29)



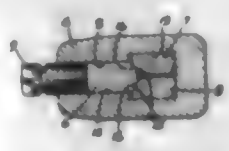
3. In combination, supporting means providing horizontal guiding means, a frame mounted on said supporting means for movement along said guiding means and providing a relatively narrow passageway extending centrally longitudinally thereof, a mineral disintegrating head pivotally mounted on said frame to swing in vertical planes with respect thereto for disintegrating the mineral of a solid mine vein, said passageway having a conveyor movable therein for receiving the disintegrated mineral discharged from said head, said guiding means including parallel horizontal guideways spaced equidistantly from the longitudinal median line of said frame and said frame having guides spaced outwardly at the sides of said passageway and received in said guideways, and parallel extensible power jacks extending longitudinally in parallelism with said guideways at the inner sides of the latter and operatively connected between said supporting means and said frame for moving the latter along said guiding means, said power jacks arranged in horizontal planes below the planes of said guideways and below the bottom of said passageway in the spaces between the sides of said passageway and said guiding means.

2,872,172
CUTTER BIT CLUSTER AND SUPPORTING MEANS THEREFOR

Charles W. Fitzgerald, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application December 20, 1956, Serial No. 629,681

6 Claims. (Cl. 262—33)



1. In combination, a support having a socket, a cluster of three cutter bits comprising a front bit and a pair of rear bits having shanks received in said socket, the front bit engaging the rear bits, the shank of said front bit having a rearward wedge portion concurrently acting on the shanks of the rear bits, and an adjustable element on said support engaging the front bit for clamping all three bits firmly in cutting position on said support.

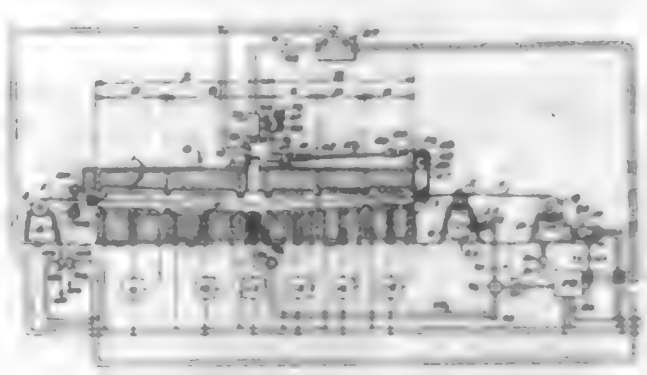
2,872,173
METHOD AND APPARATUS FOR HEAT TREATING MATERIALS IN A CONTINUOUS OPERATING FURNACE

Theo Munker, Langenberg, Germany

Application March 15, 1954, Serial No. 416,008

Claims priority, application Germany December 12, 1949

5 Claims. (Cl. 263—3)



4. Method of achieving an improved and more uniform heat reception by material in industrial heat treatment which comprises moving material to be thermally treated to and through a heat treatment zone, matting opposite surfaces of the material by applying heat to the opposite surfaces of the moving material immediately prior to entry of the material into said heat treatment zone so as to impart to the surfaces an oxidizing temperature while maintaining the interior of the material cool in relation to and in comparison with its surface temperature and controlling said application of heat in response to movement of the material through said zone.

2,872,174
ROLLER FURNACE CONSTRUCTION AND METHOD OF MAINTENANCE OPERATION

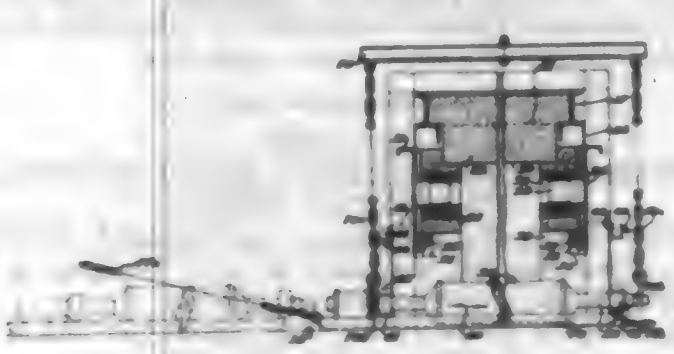
Elmer W. Lindquist, Montgomery Township, Montgomery County, Pa., assignor to Drever Company, Bethayres, Pa., a corporation of Pennsylvania

Application January 8, 1954, Serial No. 402,968

6 Claims. (Cl. 263—6)

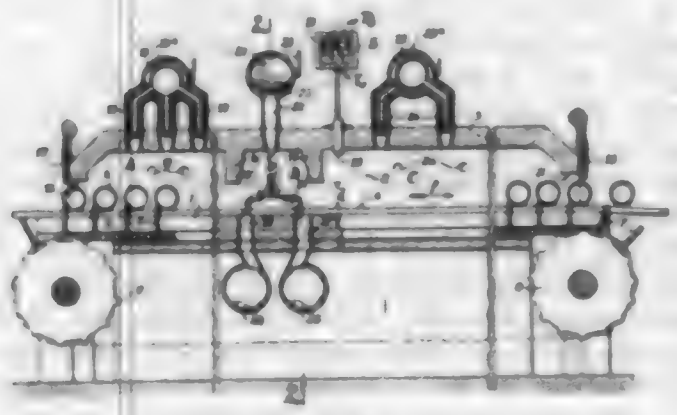
1. In a roller hearth furnace, in combination, a side wall having an embrasure for a roller, said embrasure

extending from the operative height at which said roller operates in said furnace downwardly substantially at least to the height of flooring alongside said wall, means for rotatably supporting said roller at said operative height in said furnace, and at least one wall member



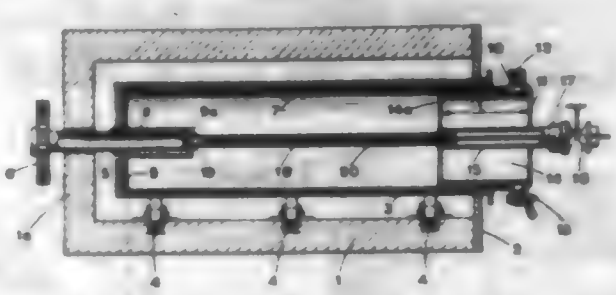
closing said embrasure which is removable below said operative height, whereby when said removable wall member is removed and said roller is disengaged from its support, it may be lowered and removed from said furnace at the level of the bottom of said embrasure.

2,872,175
ANNEALING FURNACE
Eraldo Guenzi, Pont-a-Mousson, France, assignor to Compagnie de Pont-a-Mousson, Nancy, France, a French body corporate
Application June 2, 1955, Serial No. 512,798
Claims priority, application France February 14, 1955
1 Claim. (Cl. 263—8)



In an annealing tunnel furnace for pipes and like articles: two transverse barrier walls attached to the roof of said tunnel furnace and dividing said tunnel into three successive chambers consisting of a ferritizing downstream chamber, an intermediate cooling chamber and a heated graphitizing upstream chamber; said intermediate chamber communicating with the other two chambers by free inlet and outlet passageways; the distance between said two barrier walls and the length of said intermediate chamber between said walls being not in excess of a few meters; in the roof of said tunnel, a series of orifices for admitting a cold fluid and disposed in a transverse plane passing through the middle of said intermediate chamber; in the bottom of said furnace and in said intermediate chamber, near said inlet and outlet passageways, two transverse rows of suction pipes; the cold fluid entering said intermediate chamber through said series of roof orifices being divided after a short vertical course into two divergent sheets, which become longitudinal and horizontal to spread over the entire width of the furnace, each of said sheets escaping through one of said two rows of suction pipes whereby said articles passing through said intermediate chamber are cooled intensively from a graphitizing temperature of about 950° C. to a ferritization temperature not in excess of 800° C., in a time period of from about 5 minutes to about 10 minutes.

2,872,176
ROTARY FURNACES
Jean Borgnon, Paris, France, assignor to Diffusion Alloys Limited, London, England, a British company
Application October 25, 1955, Serial No. 542,723
1 Claim. (Cl. 263—34)



A rotary furnace comprising a closed chamber, a first retort rotatably mounted therein and having an open end projecting beyond one end wall thereof, a second retort closely fitted in said first retort and insertable and removable through the open end of the first retort, said second retort having an open end projecting beyond the open end of the first retort, a cover closing the open end of the second retort, a fluid-tight packing between said cover and said second retort, a tube passing through said second retort, a cock in said tube for placing said second retort in communication with external air and for cutting off said second retort therefrom, and a second tube having radial apertures and extending through said second retort to a point close to the end thereof opposite said cover, a third tube in said second tube for connecting said second tube to a source of gas, and a cock for controlling gas flow through said third tube.

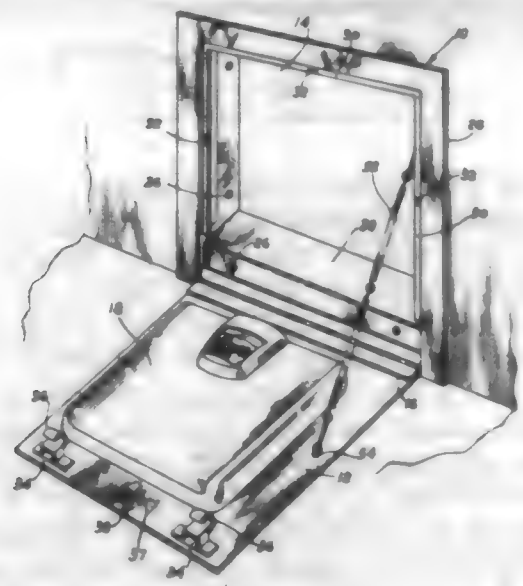
2,872,177
CENTRIFUGALLY CONTROLLED GOVERNOR DEVICE, MORE PARTICULARLY FOR MOTION PICTURE CAMERAS
František Smolař, Modřany, Czechoslovakia, assignor to Meopta, národní podnik, Modřany, Czechoslovakia
Application September 5, 1957, Serial No. 682,102
Claims priority, application Czechoslovakia September 6, 1956
2 Claims. (Cl. 264—16)



1. A centrifugal governor comprising a rotated member, a pair of weights pivotally mounted on said member at diametrically opposed locations to swing relative to said member in planes perpendicular to the axis of rotation of the rotated member, said weights having arm-like portions which move generally toward each other in response to outward swinging of said weights by centrifugal force, a strut spring interposed between said arm-like portions of the weights and being bowed in correspondence to the outward swinging of the weights, cooperating control members on said strut spring and said rotated member, respectively, so that the control member on said strut spring is moved relative to the other control member by bowing of said strut spring, and additional springs each connected, at one end, to a related one of said weights and acting, at its other end, against the arm-like portion of the other of said weights to urge the latter to swing in the direction opposed to the centrifugal force acting thereon, the forces applied by said additional springs increasing sufficiently with swinging of said weights by cen-

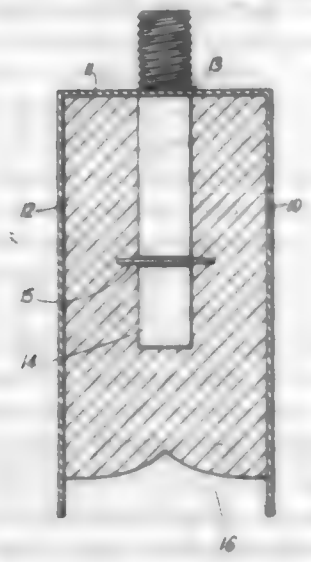
trifugal force to provide linear interdependence between the extent of the bowing of said strut spring and the rotational speed of said rotated member.

2,872,178
CABINET WEIGHING SCALE
John D. Holland, York, Pa.
Application May 3, 1956, Serial No. 582,352
12 Claims. (Cl. 265—27)



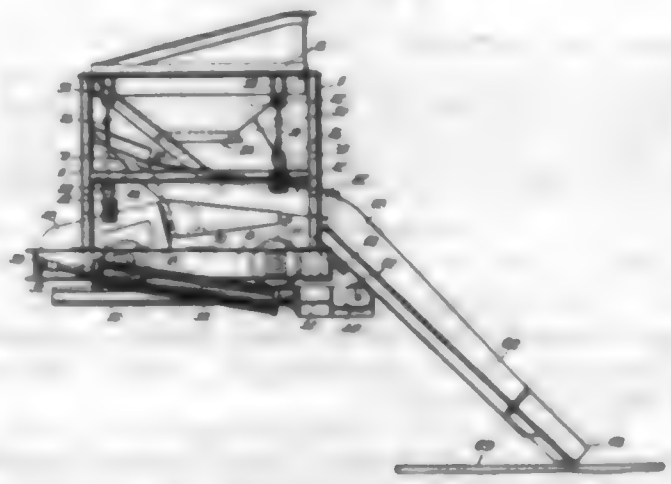
1. A cabinet comprising a unitary shell arranged to be mounted in recessed manner within a wall space the lower boundary of which is coincident with the floor of a bath room with the outer edges of the shell substantially flush with the wall, a door having a planar outer surface with no projections thereon hingedly connected to the outer edge of the normally lower portion of said shell on a pivotal axis which is substantially within the plane of the floor when said cabinet is mounted for use to permit flat support of the door upon the floor, in combination with a self-contained bath room weighing scale secured to the inner surface of said door and movable therewith between storage position within the shell when the door is closed and operative horizontal position when the door is open and resting upon the floor to support the door and scale.

2,872,179
DEVICE FOR USE IN MAKING NODULAR CAST IRON
Philip A. Fisher, Manchester, England, assignor to Magnesium Elektron Limited, Manchester, England
Application January 23, 1957, Serial No. 635,725
Claims priority, application Great Britain January 23, 1956
3 Claims. (Cl. 266—34)



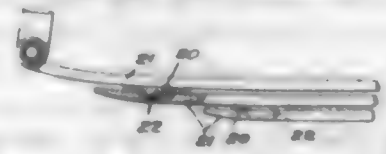
1. A device for use in making nodular cast iron, comprising a plunger in the form of a tube of ferrous metal having its lower end open and its upper end enclosed, said tube containing a billet of solid metal readily volatilizable in molten iron and suitable for treatment of iron, the tube having a rod extending through said closed upper end, the upper end of said rod being attached to a holder, the lower portion of said rod having means, rigidly attached thereto, embedded in said billet of solid metal to anchor the same within said tube.

2,872,180
APPARATUS FOR ADDING SOLID MATERIAL TO MOLTEN METAL
Rudolph Tietig, Jr., Flossmoor, and Daniel J. Pollingue, Jr., Princeton, Ill., assignors to A. J. Boynton & Co., Chicago, Ill., a corporation of Illinois
Application February 25, 1957, Serial No. 642,291
3 Claims. (Cl. 266—34)



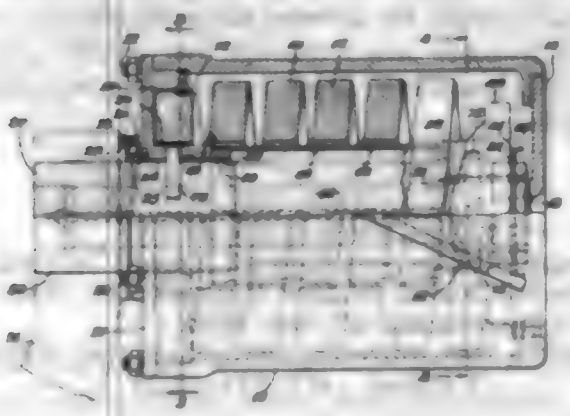
1. Apparatus for adding solid material to molten metal in a ladle as the metal is poured into the ladle, which comprises apparatus movably supported for movement toward and from the ladle and including a hopper, feeder pan below the hopper, means for vibrating the feeder pan, a discharge chute having a material-receiving end and a discharge end and adapted to extend in inclined material-leading position between the feeder pan and the ladle and to be retracted from such inclined material-leading position, means on the apparatus pivotally supporting the material-receiving end of the discharge chute, a roller supporting the discharge chute intermediate its material-receiving end and its discharge end, the said means being movable toward and away from said roller whereby the discharge end of the discharge chute may be extended into and withdrawn from the ladle and the inclination of the chute may be varied.

2,872,181
ANTI-FRICTION PAD
Leslie A. Runton, Middle Haddam, Conn., assignor to The Russell Manufacturing Company, Middletown, Conn., a corporation of Connecticut
Application September 26, 1956, Serial No. 612,192
1 Claim. (Cl. 267—49)



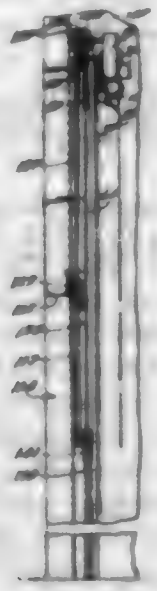
A spring liner pad for use between the leaves of a spring, comprising a layer of woven fabric having a raised boss projecting upwardly therefrom to seat in a recess in the spring leaf, said boss being woven integral with said layer, said woven fabric being composed of a spirally twisted paper tube, impregnated with a bonding agent and compacted to collapsed calendered state to form a rigid, compression-resistant structure, and polymerized tetrafluorethylene yarn, said polymerized tetrafluorethylene yarn being thicker than said collapsed tube whereby it is exposed at the surfaces of said pad and forms the anti-friction surface and boss.

2,872,182
TORSION SPRING VEHICLE SUSPENSION
Russell G. Altherr, Hazelcrest, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application June 8, 1955, Serial No. 514,063
4 Claims. (Cl. 267—58)



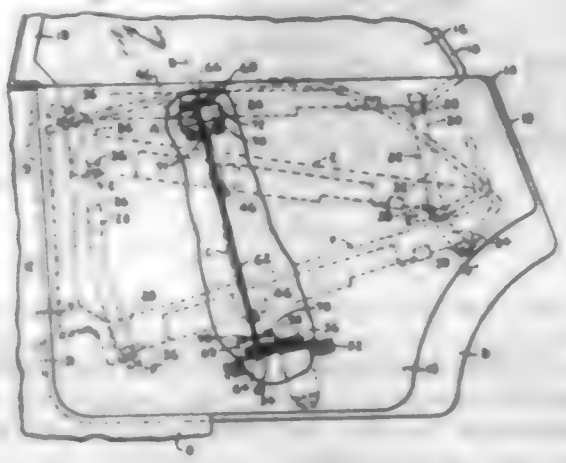
1. A torsion spring suspension for a related vehicle body comprising, a housing secured to the body, said housing having one open and one closed end, said closed end providing bearing means inwardly thereof, a shaft supported on said bearing means and projecting through said open end, a housing cap at the open end, said cap providing additional bearing means for said shaft, an inwardly facing annular groove in the cap, an abutment surface extending toward the shaft from the outer face of said groove, a radial protrusion on the inner face of the groove angularly displaced from said abutment surface approximately ninety degrees, a spring clip secured to the shaft adjacent the closed end of the housing, a shelf on said clip having a radial protrusion thereon, said clip having an abutment surface radially spaced from said shelf and angularly displaced approximately ninety degrees from said second mentioned protrusion, a rectangular section spring surrounding said shaft, the inner surface of the terminal coils of said spring being supported by said protrusions, said spring having each of its extreme ends formed into a hook having a face extending substantially radially outward from the spring body to form therewith a notch, said spring being disposed so that said notches mutually engage said surfaces, and a pair of arcuate wedge keys disposed between the shaft and spring maintaining said engagement.

2,872,183
DRIVING MECHANISMS
Ralph V. Harty, Detroit, Mich., assignor to R. V. Harty Co., Inc., Detroit, Mich., a corporation of Michigan
Application March 12, 1956, Serial No. 570,967
7 Claims. (Cl. 268—53)



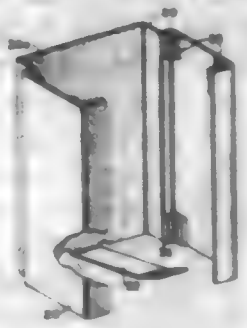
1. An actuator for driving a door or the like comprising a motor-transmission assembly of the reversible drive type having an output shaft, means supporting said assembly for limited pivotal movement about an axis substantially coaxial with the output shaft, means yieldably centering said assembly and opposing such pivotal movement thereof in either direction from a centered position, means for disabling the driving effect of the actuator, and means responsive to pivotal movement of the assembly about said axis beyond a predetermined angle in either direction to activate said disabling means.

2,872,184
WINDOW REGULATOR MECHANISM
Ralph H. Wise, Gary, Ind., assignor, by mesne assignments, to The Anderson Company, a corporation of Indiana
Application December 26, 1956, Serial No. 630,614
9 Claims. (Cl. 268—124)



1. A window regulator for a vehicle having a window panel movable between raised and lowered positions, coacting means on the window and vehicle for guiding said window in a predetermined vertical and horizontal path, means for creating a substantially straight-line drive, and connecting means for transferring said drive to the window, said connecting means including means to change said straight-line drive to the horizontal and vertical motion of the window.

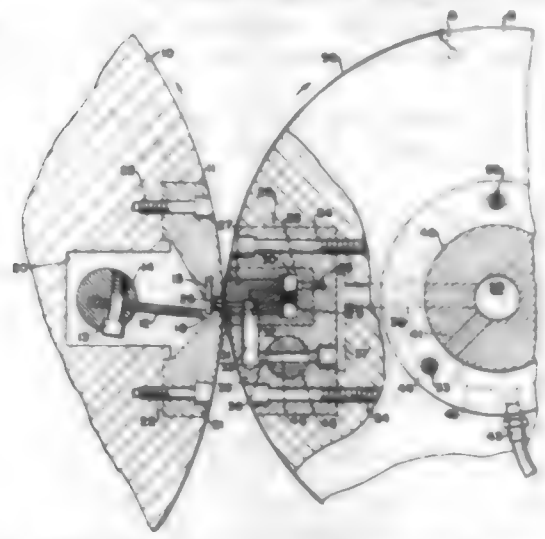
2,872,185
CARD COLLECTING RACK
Willis A. Kropp, Binghamton, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application September 12, 1955, Serial No. 533,634
3 Claims. (Cl. 270—58)



1. A card rack comprising an oblong frame, a pair of formed members vertically mounted in parallel spaced relationship on said frame, a plurality of inclined card separators in each of said members, said separators in each member being aligned with each other to form a vertical row of supports for removably carrying the cards, a sleeve mounted on said members, said sleeve being normally positioned at the lower extremity of said members but movable vertically thereon, a tongue mounted on said sleeve and extending into the space between said parallel members to collect cards carried in the aligned slots as said sleeve is moved upwad on said members, said sleeve and said separators being formed to cooperate to effect

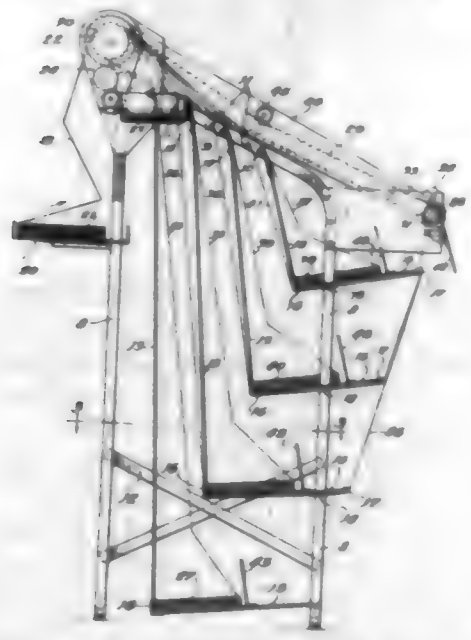
lateral adjustment of said cards as they are collected, and means for holding said sleeve stationary in any vertical position on said rack.

2,872,186
FOLDER FOR PRINTING PRESSES
William B. Raybuck, Drexel Hill, Pa., assignor to Fred'k H. Levey Company, Inc., New York, N. Y., a corporation of New York
Application July 10, 1956, Serial No. 596,991
9 Claims. (Cl. 270—69)



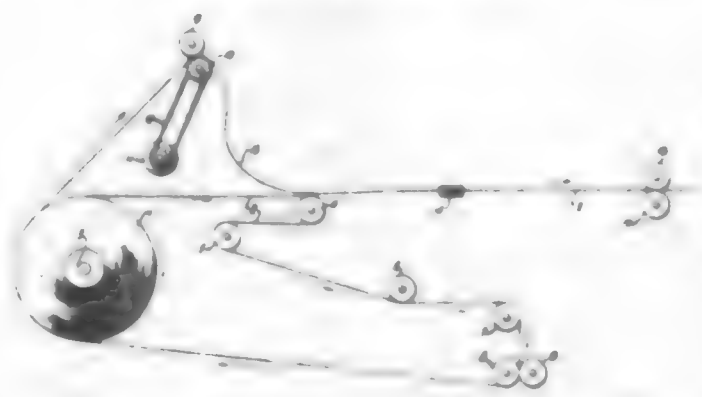
1. A folding mechanism comprising two cooperating folding rolls, a pair of longitudinally extending clamping jaws positioned in the periphery of one of the rolls, automatic means for opening and closing the jaws as the said roll rotates, a longitudinally extending jet orifice in the periphery of the other roll, the rotation of the two rolls being so coordinated that the jet orifice coincides with the opening between the jaws at the bite between the rolls, valved controlled means for supplying a gas under pressure to the orifice, automatic means for opening the valve in said conduit when the jet is coincident with the opening between the jaws and thereafter closing the valve, said means for controlling the valve and for controlling said jaws being so synchronized with the rotation of the rolls that the jaws are in the open position at the moment they become coincident with the jet and are closed immediately thereafter.

2,872,187
DELEAVER
Jack J. Kestler, Chicago, Ill., assignor to UARCO, Incorporated, a corporation of Illinois
Application August 15, 1955, Serial No. 528,455
5 Claims. (Cl. 271—2.1)



1. Apparatus for separating interleaved stationery and transfer strips, comprising: a frame having generally upright side by side chutes each for receiving an individual stationery strip together with a transfer strip from a source of interleaved strips; a shelf at the lower end of each chute, said shelves being vertically spaced in the frame; a strip feeding roll in the frame opopsite said shelves and positioned to grip transfer strips, after the strips have been led through the chutes and under said shelves to the feeding roll; and means for driving the strip feeding roll for pulling the transfer strips through the chutes to aid advance of the stationery strips toward separate packs on the shelves.

2,872,188
FEED FOR WEB PRESS
Elza Eugene Harkins and Don H. Young, Athens, Ohio, assignors to Royal McBee Corporation, New York, N. Y., a corporation of New York
Application December 13, 1956, Serial No. 628,864
1 Claim. (Cl. 271—2.2)

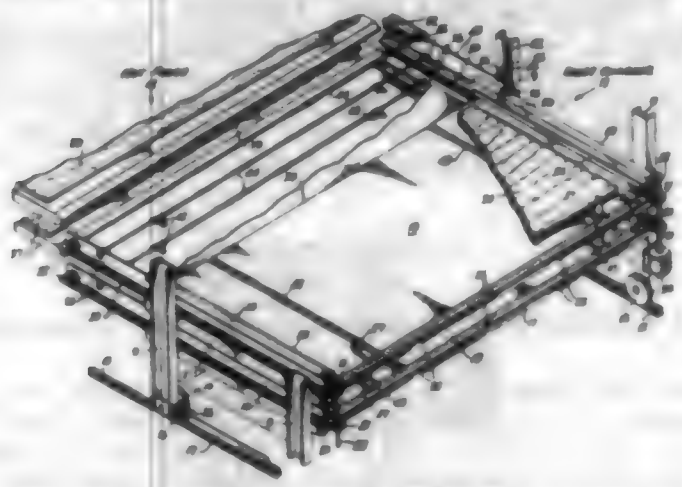


In combination, a printing press having a pair of intermittently operating indexing feed rolls for continuously gripping and intermittently advancing a continuous web therebetween to printing position, a pair of tension control blocks for continuously engaging said web therebetween to provide a constant tension in said web between said indexing feed rolls and said tension control blocks as said web is advanced during operation of said indexing feed rolls, a rotatable mill roll having a supply of webbing wound thereon, unwind roll means for unwinding said webbing from said mill roll at a constant rate, said unwind roll means being situated below said mill roll, and pull roll means above said mill roll and on the same side thereof as said unwind roll means for continually pulling said webbing from said unwind roll means tautly around said mill roll, said pull roll means being situated above and in relatively close adjacency to said tension control blocks to form a varying length slack feed loop of said webbing in immediate advance of said tension control blocks.

2,872,189
TRAY LOADING MECHANISMS FOR TRANSFERRING A SHEET UNIT TO A RECEIVING SURFACE
Thomas R. Robinson, Everett, Wash.
Application December 10, 1956, Serial No. 627,415
8 Claims. (Cl. 271—54)

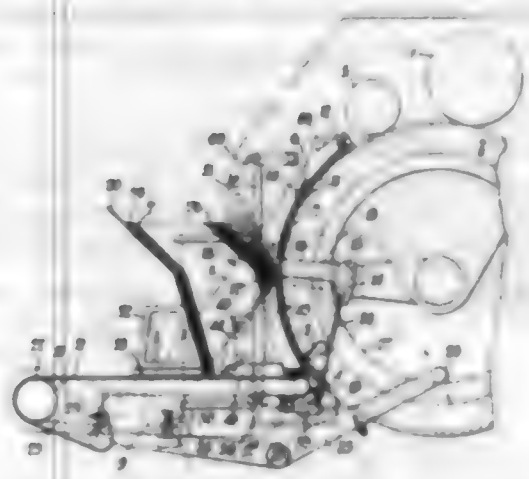
1. In tray type loading mechanism for transferring a sheet unit to a receiving surface, tray supporting means reciprocable between a withdrawn position relative to a receiving surface and to a forward transfer position adjacent said surface; wiping dog means mounted on a forward portion of said tray supporting means and movable into and out of wiping position; and movable tray means receiving thereon a sheet unit to be transferred to said receiving surface, said tray means being mounted for reciprocating movement on said tray supporting means and movable to a forward position where the trailing end portion of a sheet unit passes said wiping dog means, whereby upon reverse reciprocation of said tray means

after the trailing end portion of said sheet unit has passed said wiping dog means, the trailing end portion of said



sheet unit will engage with said wiping dog means and the sheet unit will be wiped off of said tray means.

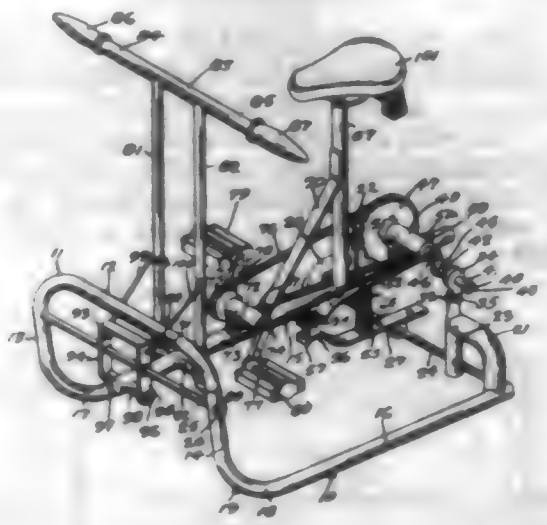
2,872,190
SHEET FEEDING AND STACKING APPARATUS
Gordon William French, Downend, near Bristol, England, assignor to Beasley, French & Company Limited, Bristol, England
Application September 13, 1955, Serial No. 534,109
Claims priority, application Great Britain September 16, 1954
11 Claims. (Cl. 271—87)



1. In a machine for delivering bags, envelopes, sheets and like articles having a delivery end, a driven roll at said delivery end for delivering the articles, stripper means adjacent to said roll for separating the articles therefrom, and a base plate located in the path of articles separated from the roll by said stripper means against which the articles normally abut, the combination of means located adjacent to said base plate for holding a batch containing a fixed number of articles delivered by said roll in the proximity of the latter and operating in such manner as to release from the batch an article distant from said roll when an article is delivered to the batch by said roll, said last named means comprising at least two resilient members acting against the transverse edges of articles delivered by said roll.

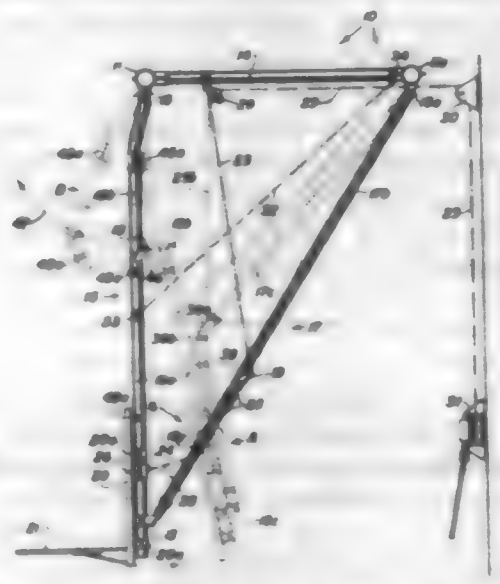
2,872,191
AMUSEMENT AND EXERCISING DEVICE
John Gallo, Sr., Boston, Mass.
Application December 28, 1956, Serial No. 631,271
3 Claims. (Cl. 272—73)

1. An amusement and exercising device comprising an integral framework, an elongated bar overlying said framework, rotatable eccentric means connecting said bar at one end to said integral framework, links pivotally connecting said bar at the other end to said integral framework, crank means rotatably disposed on said bar, means connecting said crank means and said eccentric means for swingably moving said bar on said integral framework, a seat mounted on said bar, and resilient means extending between said bar and said integral framework adjacent to said eccentric means for



resisting movement of said bar toward said integral framework and aiding movement of said bar away from said framework.

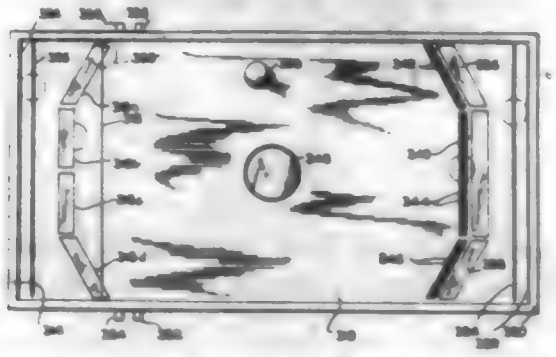
2,872,192
BASKETBALL FOLDING BACKSTOP
Hyrum Russell Margetts and Lynn F. Margetts, Salt Lake City, Utah, assignors to The Brunswick-Balke-Collender Company, Chicago, Ill., a corporation of Delaware
Application August 30, 1954, Serial No. 452,958
9 Claims. (Cl. 273—1.5)



1. A folding backstop for the game of basketball, comprising a pair of hanger arms mutually spaced apart in side-by-side relationship; rigid structural means securing said hanger arms together; means at the upper set of ends of said hanger arms for pivotally suspending the latter from an overhead support; knee joint means interposed at mutually corresponding locations in the upper portions of the respective hanger arms; a pair of sway braces extending backwardly and upwardly from pivotal securement to said hanger arms adjacent the lower ends thereof; rigid structural means securing said sway braces together; means at the upper set of ends of said sway braces for pivotally suspending them from said overhead support in backwardly spaced relation to said hanger arms; knee joint means interposed at mutually corresponding locations in the respective sway braces; a basketball backboard secured to the lower end portions of said hanger arms across the forward faces of the latter; stabilizer means associated with said hanger arms for tightly holding the knee joints thereof against articulation in the extended playing position of the structure; and flexible connector means interconnecting said hanger arms and said sway braces and having a pull end for

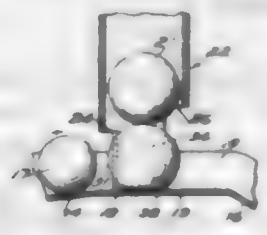
raising said backstop into folded, collapsed position adjacent said overhead support and for lowering it into extended and suspended, depending playing position.

2,872,193
OPERATOR'S SKILL COMPENSATING AMUSEMENT DEVICE
Sanborn Hamilton, Hutchinson, Kans.
Original application August 22, 1951, Serial No. 243,118, now Patent No. 2,826,828, dated March 18, 1958. Divided and this application August 2, 1954, Serial No. 447,089
9 Claims. (Cl. 273—119)



1. A paddle-board game device involving skill in the operation thereof comprising a ball, a table area supporting said ball for movement thereover, said table area including first and second ends, manually controlled paddle means at said first end for propelling said ball toward said second end, successful result responsive means actuatable when said ball reaches said second end, automatically controlled paddle means between said second end and said manually controlled paddle means for returning said ball back toward said first end to said manually controlled paddle means a variable percentage of the number of times said ball is propelled by said manually controlled paddle means, unsuccessful result responsive means actuatable when said ball reaches said first end, and means responsive to said result responsive means for altering the percentage of returns effected by said automatically controlled paddle means.

2,872,194
GAME APPARATUS
John Kellinger, Oakland, Calif.
Application December 13, 1955, Serial No. 552,823
4 Claims. (Cl. 273—127)



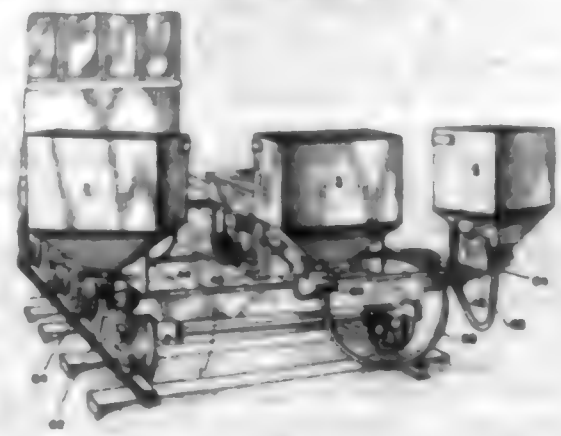
1. A game apparatus including a base along which a missile ball may be rolled and a substantially tubular vertically disposed ball receiving member, said member having a wall restraining lateral movement of target balls stacked within the same while permitting free gravitational movement of the balls within the member, means adjacent the lower end of said member for supporting a ball along an annular line below the center of gravity of said ball and in vertical alignment with the longitudinal axis of said member, means defining an opening adjacent the lower end of said member and a diametrically opposed opening adjacent said lower end, one of said openings being sufficiently large to enable a ball contained within said member to pass horizontally from the member through such opening and the other opening being too small to permit such movement and likewise preventing passage of a missile ball therethrough.

2,872,195
SOUND TRACK POSITION COMPENSATION MEANS FOR RECORD DRUM-LEAD SCREW TYPE TRANSLATING DEVICE
William R. Goehner, Harding Township, Morris County, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 4, 1957, Serial No. 688,366
5 Claims. (Cl. 274—20)



1. In a recording-reproducing device comprising a record drum and a lead screw actuated by a common means, sensing means for moving said lead screw laterally with respect to said drum to compensate for variations in the position of said drum, said means including a bearing follower comprising inner and outer races and rotatable members therebetween, said inner race being concentric with and affixed to said lead screw, said outer race comprising a lateral face disposed in contact with a lateral face of said drum, and spring means disposed in such manner as to exert pressure against said inner race and thereby force said outer race against said drum.

2,872,196
ROTARY SPREADER FOR TRACK VEHICLE
James L. Gibboney, La Grange Park, Chester A. Brown, Oak Park, and Fred Krueger, Oak Lawn, Ill., assignors to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware
Application October 13, 1954, Serial No. 461,982
1 Claim. (Cl. 275—8)



A track spreader for spreading powdered material between and along the sides of a railroad track comprising a vehicle movable along such rails through a path of travel, a plurality of spreader means, each comprising a horizontally rotating spreading disc for spreading such material during the operation of said spreader means, means supporting one of said spreader means on said vehicle centrally of the rails and overhanging one end of said vehicle in position to spread said material between said rails upon operation of said one spreader means during movement of said vehicle along said path of travel, means supporting the others of said spreader means laterally, one on each side of said vehicle outside of said rails in position to spread said material adjacent to and outside of said rails upon operation of said vehicle along said path of travel, the distribution from the central spreader means being between the rails and distribution from the lateral spreader means covering a variable range at the sides of the rails, motor driving means mounted on said vehicle,

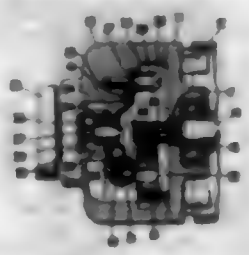
driven means connected to said plurality of said spreader means in position to effect operation of the latter, and a variable drive mechanism operatively connected between said motor driving means and said driven means to vary the distribution of said powdered material by said lateral spreader means as compared with said central spreader means by variably controlling the speeds of rotation of said lateral spreader discs as compared with said central spreader disc.

2,872,197

PORTABLE TOOLS WITH SELECTIVE MEANS FOR LOCKING SPINDLE

Reynold Happe, Princeton, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application September 10, 1957, Serial No. 683,095
6 Claims. (Cl. 279—1)



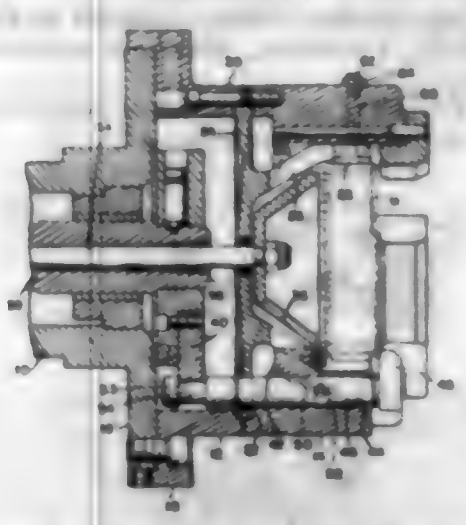
1. In a gear casing for a portable tool, an external power take-off spindle journaled in said casing, a tool-holding chuck threaded on said spindle, a train of gears within said casing for driving said spindle, one of said gears being formed with face apertures, a pin for engaging any one of said apertures, said pin being carried at the free end of a cantilever-supported arm located within said casing and normally biased to a disengaged position of the pin, and separate manually-operated means extending freely through an aperture in the wall of the gear casing for overcoming said bias to engage said pin with one of said apertures to lock the gear train against rotation to facilitate the removal of the chuck by unscrewing it from the spindle.

2,872,198

WORK HOLDER

Carl H. Metz, East Detroit, Mich., assignor to National Broach & Machine Company, Detroit, Mich., a corporation of Michigan

Application May 20, 1957, Serial No. 660,273
3 Claims. (Cl. 279—46)



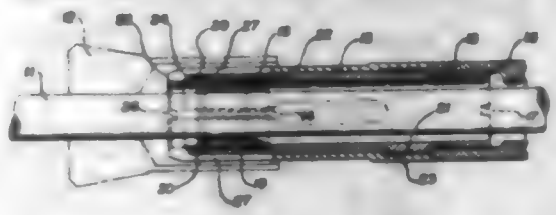
1. A work support comprising a diaphragm having a plurality of work gripping arms extending from adjacent the edge at one side thereof, said arms being adapted to grip a work piece in operation and to provide a substantial support therefor, the free ends of said arms being movable radially upon flexing of said diaphragm, a support for said diaphragm including a rigid portion disposed radially outwardly from the free ends of said arms, and abutments carried by said rigid portion engageable by said arms to limit radial outward movement thereof in response to radial loading of a work piece carried by said arms.

2,872,199

ADJUSTABLY TENSIONED PUSHER

John R. Cox, Lakewood, and Larry F. Smrekar, Solon, Ohio, assignors to The Balas Collet Manufacturing Company, a corporation of Ohio

Application September 10, 1957, Serial No. 683,065
8 Claims. (Cl. 279—47)



1. A pusher for advancing stock extending axially of the pusher comprising in combination, a feed member having a bore adapted to accommodate stock therein, said feed member having a rearward portion and forwardly extending fingers resiliently movable at the forward end of the feed member toward the axis of the feed member, said fingers carrying pad portions adapted to engage stock in said bore, said feed member at the forward end thereof being chamfered to provide a camming surface therearound disposed at an included angle of more than 45 degrees to the axis of the feed member, and a shell member concentrically mounted around said feed member, said shell member having an internal shoulder adjacent the forward end thereof interengaging the said camming surface of said feed member, said shell member and said feed member at an axial distance rearwardly from said interengaged camming surface and shoulder having complementary threaded portions threadably interlocked, said shell member being longitudinally slotted from the forward end thereof an axial distance substantially greater than the axial distance of said shoulder from said forward end of the shell member, the shell member being resiliently distortable adjacent said forward end to provide a resilient contractable and expandable forward end portion adapted to exert a resiliently maintained radially directed inward force on said camming surface upon the forward end portion being flexed radially outward by longitudinally directed pressure of the said internal shoulder against the said camming surface, the adjustment of the threaded interlocking of said threaded portions relative to said internal shoulder and camming surface providing a determinable resiliently maintained longitudinally directed pressure of the internal shoulder against said camming surface, the radially directed inward force of said resilient forward end portion resiliently urging said fingers radially inward toward said stock in accordance with the degree of said pressure.

2,872,200

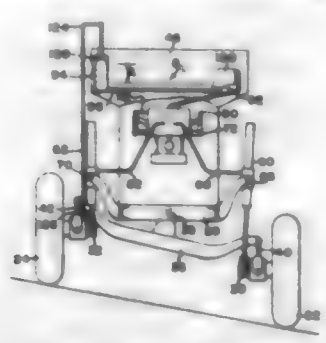
LEVELING CONTROL FOR HILLSIDE MACHINES

Everett R. Kroll, Moscow, Idaho, assignor, by mesne assignments, to Deere & Company, a corporation of Delaware

Application August 16, 1955, Serial No. 528,686
17 Claims. (Cl. 280—6)

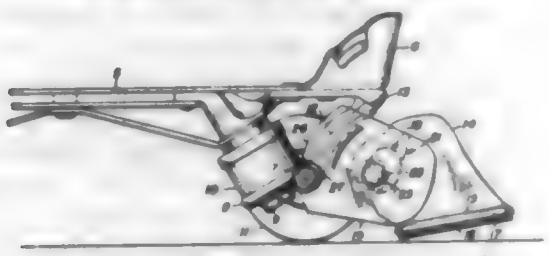
1. A leveling control system for an agricultural machine having a tiltable body part carried for advance over a field by first and second ground-engaging wheel means spaced apart and connected to the body part for movement relative to the body part and relative to each other in opposite vertical directions to assume different elevations in accordance with ground contour encountered thereby, said leveling control system comprising: power-operated leveling means connected between the body part and the wheel means and normally demobilized to

permit the body part to tend to tilt as the wheel means assume different relative elevations but mobilizable to adjust the body part relative to the wheel means for returning the body part to level position irrespective of such difference in elevation; an actuator carried by the machine for movement between a neutral position and an active position to respectively demobilize and mobilize the leveling means; machine-carried gravity-influenced means including a member movable from a normal position when the body part is level to a displaced position when the body part tilts and back to normal when the body part is re-leveled; means interconnecting the ac-



tuator and the gravity-influenced member for incurring the active position of the actuator in response to displacement of said member when the body part tilts and for returning the actuator to its neutral position as said member returns to its normal position when the body part is re-leveled by the mobilized leveling means; and booster means including a force-transmitting part connected to at least one wheel means for deriving force from relative movement between the body part and wheel means when the body part is re-leveled and operative to add at least part of that force to the gravitational force that acts to return the member to normal so as to boost said return.

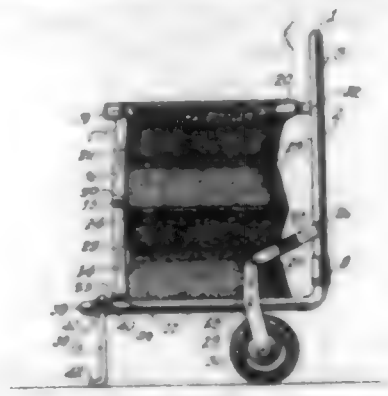
2,872,201
ROLLER SKATE BRAKE ATTACHMENT
Beverly T. Wagers, Winston, Ky., assignor of one-half to Jesse Noland, Irvine, Ky.
Application September 28, 1955, Serial No. 537,132
5 Claims. (Cl. 280—11.2)



1. In combination with a roller skate including the usual frame structure, rear axle and rollers thereon, axle supporting box and box supporting column, a brake means comprising a brake plate having a foot plate disposed in generally horizontal position across the lower edge of the brake plate and carrying a brake shoe presented for engagement with the ground or flooring, and means for removably securing the brake plate to said column, said brake plate having a cross aperture and the brake plate securing means comprising a pair of mounting plates disposed one at each side of the brake plate and engaging at opposite sides with the column, and bolt means for securing the mounting plates together and against the opposed faces of the brake plate and the column.

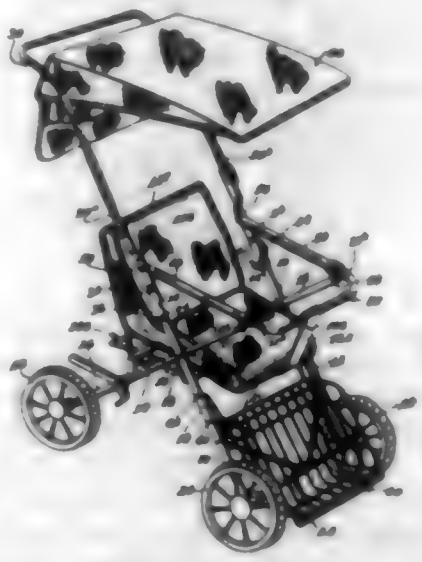
2,872,202
UTILITY CART
Marino Tripoli, Hillside, N. J.
Application January 14, 1957, Serial No. 633,873
4 Claims. (Cl. 280—36)

1. In a foldable utility cart having a hand frame including a horizontal member for pushing said cart and a pair of vertical side members connected thereto, a lower frame for supporting the contents of the cart and including a horizontal front member connected to horizontal side members which are, in turn, connected to said vertical side members, and a pair of wheels supported by said horizontal side members, the improvement comprising hinging means serving as the connection for the side members of the hand frame and lower frame, lockable means for locking said hinging means in fixed position when the cart is to be used and unlocking them when it is to be folded, a rigid container bottom mounted between said horizontal side members, collapsible container walls having their lower edges attached to the edges of said bottom, a rigid frame attached to the upper edges of said container walls, engaging means attached to the rearward portion of said container frame, complementary



engaging means on the upper portions of said vertical side members coacting with said container frame engaging means for holding up the rear portion of the container, a pair of vertically lockable hinged arms mounted on each side of said container and swivelly connected at the end of one hinged arm to the forward end of the horizontal side members and at the end of the other hinged arm to the forward portion of the container frame in a manner to hold said container open when in locked position and to permit collapsing of the container when in unlocked position, a rigid frame attached to the central portion of the container wall in a plane parallel to that of the bottom, and a partially-stretched elastic band similarly attached between said middle rigid frame and the top container frame and between the middle rigid frame and the bottom.

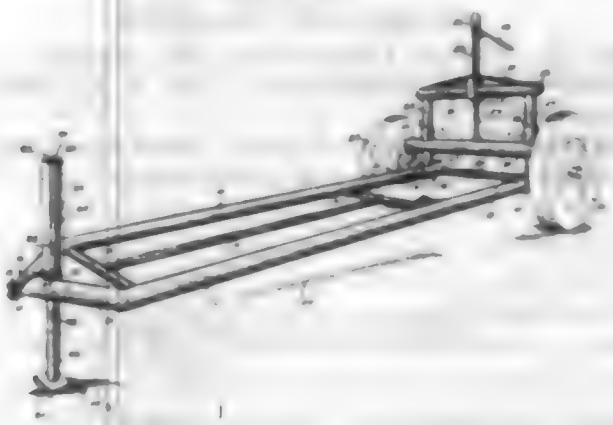
2,872,203
CONVERTIBLE AND FOLDABLE BABY VEHICLES
Carl W. Hedstrom, Gardner, Mass., assignor to Hedstrom Union Company, Fitchburg, Mass., a corporation of Massachusetts
Application February 24, 1958, Serial No. 716,939
4 Claims. (Cl. 280—41)



1. A baby vehicle comprising a frame for supporting a seat element, tubular parallel arm rest members above

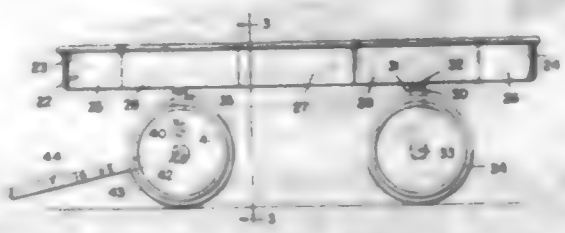
and at opposite sides of the seat element, a foot rest pivotally mounted on said frame with its pivot close to the under margin of the forward edge of said seat element, said foot rest being movable about its pivot between a stroller position in which it extends at an incline downwardly and forwardly relative to said forward edge of the seat and an elevated position in which it extends forwardly generally in a horizontal plane which is only slightly below the plane of said seat element, means for releasably maintaining the foot rest in its said elevated position, a U-shaped member having parallel U-arms connected by a generally straight bridging portion, each said U-arm being telescopically associated with a different one of said arm rest members whereby the U-shaped member is movable between an inner position wherein its said bridging portion extends transversely of the vehicle relatively close to the vertical plane of the forward edge of said seat element and a forward position in which said bridging portion extends transversely of the vehicle generally vertically above the forward end of said foot rest in the said elevated position of the latter, a vehicle body having two hinged together padded bottom sections for resting, respectively, on said seat and on said foot rest when the latter is in its said elevated position, and having side wall portions and a forward end wall portion of flexible sheet material, means for detachably connecting upper parts of said flexible sidewall portions to said U-arms when the U-shaped member is in its forward position and for detachably connecting upper parts of said forward wall portion to said bridging portion of the U-shaped member when the latter is in its said forward position, said flexible side wall and forward end wall portions, when detached, being foldable inward upon said bottom sections and the foremost of said bottom sections being foldable rearwardly upon the next adjacent bottom section with said folded flexible walls between them to provide a padded stroller seat when said U-shaped member is moved to its said inner position and said foot rest is released to its said inclined position.

2,872,204
IMPLEMENT TRANSPORT HAVING A VERTICAL ADJUSTABLE CHASSIS
Bernard L. Blubaugh, Medford, Okla.
Application December 5, 1956, Serial No. 626,525
11 Claims. (Cl. 280—44)



1. In a transporting vehicle, an elongated horizontal platform having two rearwardly extending beams, a sleeve embracing each of said rearwardly extending beams, a cross brace connecting the two sleeves, an axle means having a wheel rotatably mounted on each of its end portions, a vertical post secured to each of said sleeves and slidably extending upwardly through said axle means, a crossbar connecting the upper ends of said posts and having an irregular vertical hole passageway, a jack detachably extending through said passageway having a cylinder, lug means on the cylinder, and a downwardly extending piston, a vertical elongated housing secured on the forward end of said platform, having an irregular hole passageway in its top and adapted to selectively receive said jack, and a shaft slidably mounted in said vertical elongated housing and capable of extending downwardly therefrom.

2,872,205
COASTER WAGON
James A. Waddell, Royal Oak, Mich.
Application December 12, 1956, Serial No. 627,984
1 Claim. (Cl. 280—87.01)

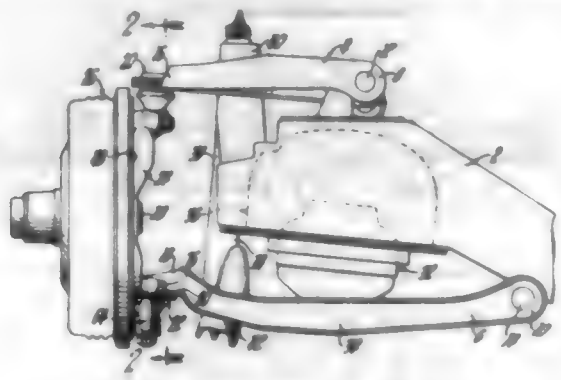


A wagon structure of the character described comprising an elongate substantially rectangular bottom and an upstanding wall integral with the periphery of the bottom, said bottom including at each longitudinal side at least two outwardly projecting portions, the outwardly projecting portions on one side being opposite to the outwardly projecting portions at the other side and said wall being contoured to follow the contour of said outwardly projecting portions, and a carriage structure comprising a rear bolster, a transverse axle and wheels on the axle and a forward bolster, an axle and wheels on the latter axle, said wheels being disposed beneath and inwardly of the outer sides of the outermost portions and the wall forming a part thereof, the said outwardly projecting portions and the contoured portions of the wall being adapted to receive portions of opposite sides of a circular basket or the like and cooperating to provide longitudinally spaced enlarged areas for receiving such baskets or the like between the opposite sides of the wall whereby such objects are held against shifting their position, the outwardly projecting portions at the sides of the body and the portions of the wall bordering the same being outwardly bowed and of semi-circular form with the curvature of the bows of the oppositely positioned portions being struck from a common center located in the longitudinal center of the bottom, said forward bolster being pivotally mounted about a vertical axis directly below the center of curvature of the forwardly disposed outwardly projecting portions with the wheels thereof lying along opposite sides of said bottom, and the radius of curvature of said forwardly disposed outwardly projecting portions being such as to effect longitudinal lengths of said outwardly projecting portions which are greater than the diameter of said forward wheels whereby as the forward bolster is swiveled for steering purposes, the wheels thereof are maintained in underlying relationship to said forwardly disposed outwardly projecting portions.

2,872,206
INDEPENDENT DIRIGIBLE WHEEL SUSPENSION
Casimer J. Cislo, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 14, 1956, Serial No. 609,911
3 Claims. (Cl. 280—96.2)

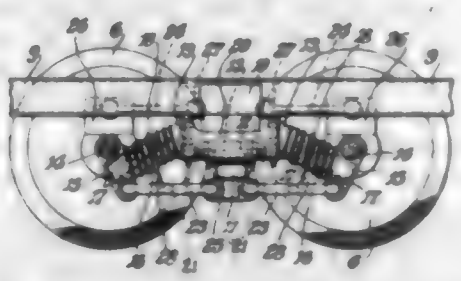
1. In a dirigible wheel suspension including pivotally mounted upper and lower control arms, a steering knuckle assembly comprising an inverted Y-shaped spindle support, a longitudinally offset portion on the upper leg of said support, a steering arm connected at spaced points to the lower diverging legs of said support, a pair of ball joint assemblies having housings connected respectively to the outer ends of said control arms, each of said assemblies including a ball stud member having a depending shank portion, means formed respectively in

said offset portion of said upper leg and the portion of said steering arm between said lower legs for receiving the shank portion of the adjacent ball stud, the housing for one of said joint assemblies being contoured to



provide a pair of limit stops, and a pair of abutment portions formed respectively on the lower diverging legs of said support adapted to engage one or the other of said stops upon turning of said wheel to its maximum angular position in either direction.

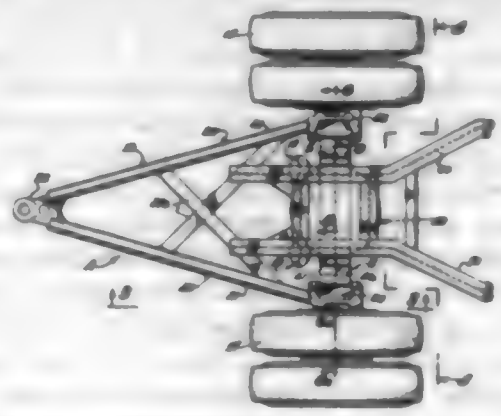
2,872,207
SPRING SUSPENSION FOR MULTI-WHEEL ROAD-VEHICLE BOGIES
Archie John Hirst, Leicester, England, assignor to Metalastik Limited, Leicester, England
Application March 22, 1956, Serial No. 573,110
Claims priority, application Great Britain March 30, 1955
8 Claims. (Cl. 280—104.5)



1. A vehicle suspension comprising a fixed frame, two pairs of wheels, one pair on each side of the vehicle, an axle member carrying each wheel, a beam for each pair of wheels, a support for carrying the beam from the frame for movement lengthwise of the vehicle, a parallel-motion linkage connecting the axle member with the frame for rising and falling movements of the axle and, for each pair of wheels, a rubber spring connected to each axle and a beam to transfer forces therebetween, said springs being in combined shear and compression.

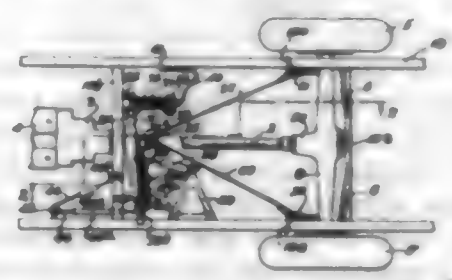
2,872,208
TOWING AND BRAKING ASSEMBLY FOR TRAILERS
Walter Bennett, Los Angeles, and Percival M. Heinmiller, La Canada, Calif., assignors to Utility Trailer Manufacturing Company, San Francisco, Calif., a corporation of California
Continuation of application Serial No. 414,928, March 9, 1954. This application September 13, 1956, Serial No. 609,691
9 Claims. (Cl. 280—116)

1. A towing assembly for trailers, embodying an axle having ground engaging wheels disposed at the outer ends thereof, a draw bar, means substantially rigidly connecting the draw bar and axle against relative angular movements in vertical and horizontal planes, a spring extending above and parallel to the axle, a pair of box members rigidly connected, one each, to opposite ends of the axle, a pair of rubber sleeves held, one each, in said boxes, the opposite ends of said spring being entered and clamped, one each, in the bores of the sleeves, and a load bearing coupling member connected to said spring between the boxes, each of said boxes containing a tapered surface in its bottom inclining upwardly and rearwardly and engaging the under side of the sleeve to pre-stress the sleeve and spring in a manner holding the free end of the draw



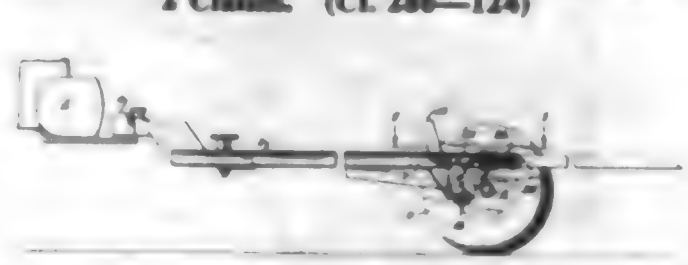
bar elevated to a predetermined height above the ground level.

2,872,209
CABLE CONNECTED AUXILIARY VEHICLE SUSPENSION
Brooks Walker, Piedmont, Calif.
Application May 11, 1954, Serial No. 429,019
15 Claims. (Cl. 280—124)



1. In combination, a motor vehicle having a vehicle body, a pair of rear wheels, supporting structure for said rear wheels, resilient means between said wheels and said body, said resilient means normally supporting one end of said body, auxiliary resilient means attached to said supporting structure by flexible means, means controllable from the vehicle interior for tightening or loosening said flexible means to render said auxiliary resilient means more or less effective, said means controllable from the vehicle interior including a wire cable passing over a pulley to act on said flexible means.

2,872,210
STABILIZED TRAILER
William R. Shaffer, Huntingdon, Pa., assignor to Wald Industries, Inc., Huntingdon, Pa., a corporation of Pennsylvania
Application February 6, 1957, Serial No. 638,510
2 Claims. (Cl. 280—124)



2. A two-wheel trailer comprising a frame, two wheels and wheel suspension means, said wheel suspension means comprising a pair of bearing brackets, means fixedly attaching each of said bearing brackets to an opposite side of the trailer frame, a torsion shaft passing through and rotatably mounted within said bearing brackets, aligned rocker arms fastened intermediate their ends to opposite extremities of said torsion shaft, a single axle carried by one leg of each rocker arm and in turn supporting said wheels at opposite sides of said trailer, a pair of compression springs each having one end attached to the frame, means operatively attaching the other end of each of said springs to the other leg of each rocker arm, and

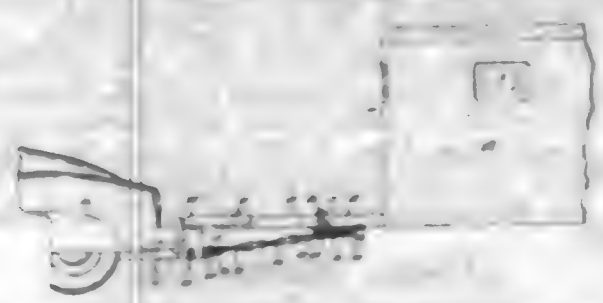
yieldable stop means operatively associated with said frame and the other leg of each rocker arm for limiting movement of said rocker arms in both directions.

2,872,211
APPARATUS FOR RETRACTING MUDGUARDS
Robert F. Barrett, Orange, Calif., assignor of one-half to Fred W. Kerns, Long Beach, Calif.
Application August 6, 1957, Serial No. 676,688
7 Claims. (Cl. 280—154.5)



1. A retractable mudguard apparatus for a dump truck or similar motor vehicle, which comprises pivot means disposed at the outer rear portions of said dump truck and generally above the rear wheels of said dump truck, a crank mounted on said pivot means for pivotal movement between an operative position disposed transverse to the longitudinal axis of said dump truck and generally above the rear portions of said rear truck wheels and a retracted position disposed outwardly from the side of said dump truck, and a mudguard mounted on said crank and adapted to depend behind the rear-most wheels of said truck when said crank is in said operative position and to be disposed away from a position behind said rearmost truck wheels when said crank is in said retracted position, and means to rotate said crank between said operative and retracted positions.

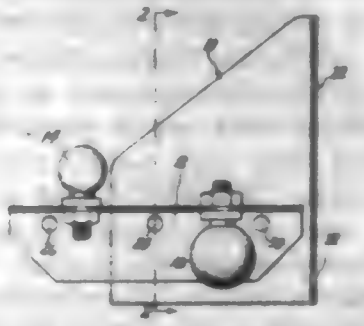
2,872,212
TRAILER HITCH FOR AUTOMOBILES
Horace D. Hume, Mendota, Ill.
Application October 9, 1953, Serial No. 385,164
7 Claims. (Cl. 280—406)



1. A coupling device for securing a trailer to a towing vehicle comprising a forwardly extending tow frame attached to the trailer, a universal joint connected to the front of the tow frame, a bracket connected to the universal joint, a tow member attached to the rear of the towing vehicle and extending rearwardly therefrom, the bracket being removably seated on said tow member, a removable pin extending through the bracket and tow member securing the bracket non-rotatably to the tow member, means on said removable pin to attach the ends of flexible connectors, said flexible connectors extending rearwardly therefrom, and a leaf spring extending transversely of the tow frame and having its center portion attached thereto, the flexible connectors being attached to the opposite ends of the leaf spring.

2,872,213
TRAILER HITCH
Lawrence A. Hosford, Windsor, Vt.
Application October 18, 1956, Serial No. 616,875
2 Claims. (Cl. 280—415)

1. A trailer hitch comprising a frame adapted to be secured to an automotive vehicle, said frame consisting of two parallel vertical plates and a web rigidly connecting said plates and projecting beyond them, a rockable member disposed between said plates, a transverse pivot element adjacent to the mid point of said rockable member rockably securing said member to said parallel plates, a removable transverse element extending through said



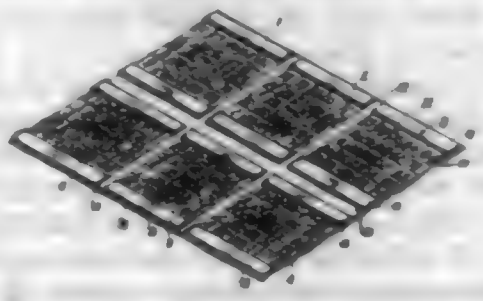
parallel plates and engaging said rockable member to hold the latter against rocking movement with either of its end projecting beyond the parallel plates, and two balls secured to said rockable member near the respective ends thereof and extending in opposite directions from the plane of said member.

2,872,214
TRAILER HITCH RESILIENT ABOUT HORIZONTAL TRANSVERSE PIVOT
Horace D. Hume, Mendota, Ill.
Application October 9, 1953, Serial No. 385,163
2 Claims. (Cl. 280—489)



1. A coupling device for securing a trailer to a powered vehicle comprising a forwardly extending tow frame mounted at the front of the trailer, a vertical member depending from the front of the tow frame, pivot means connecting the upper edge of the depending member to the front of the tow frame, a universal joint connecting the rear of the powered vehicle and the lower edge of the depending member, a wear plate secured to the powered vehicle and positioned between the powered vehicle and the universal connection and extending above the universal connection, a push rod mounted at the upper edge of the depending member and extending forwardly into contact with the wear plate, a leaf spring secured to the depending member near its lower edge and extending rearwardly, and a link member rotatably suspended from the tow frame and spaced behind the depending member, the rear end of the leaf spring being rotatably attached to the free end of the link member.

2,872,215
HOLDER FOR GAME SHEETS
Harry A. Taylor, New York, N. Y.
Application July 15, 1957, Serial No. 671,750
1 Claim. (Cl. 281—44)



A holder for a plurality of game sheets, comprising a flexible backing sheet, and means mounted in spaced relation on said sheet respectively adapted for removably holding a plurality of game sheets, in superposed relation,

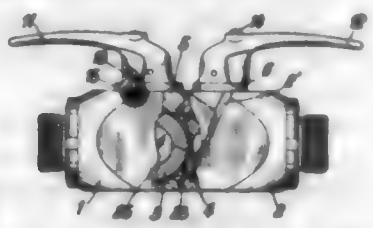
said backing sheet being foldable along lines extending within the spaces intervening between said means, for folding of said means into superposed relation, the backing sheet folding along a longitudinal fold line extending longitudinally and centrally of the backing sheet, and along a plurality of transverse fold lines intersecting the longitudinal line at uniformly spaced intervals along the length thereof, said means being arranged in straight rows disposed one at one side and one at the opposite side of said longitudinal fold line in parallel relation to the longitudinal fold line, said means comprising pairs of confronting pockets adapted to hold the opposite ends of each sheet, one pocket of the respective means constituting an inner pocket and extending along the longitudinal fold line in closely spaced relation thereto, the other pocket of each means being extended as an outer pocket along a longitudinal edge of the backing piece, said pockets being of a flexible material and including top walls flexible outwardly from the backing piece to increase the areas of the pockets temporarily for insertion or removal of said sheets, said means further including reinforcing elements of platelike form adapted to underlie each sheet to provide a stiffener extending over substantially the full area of each of said means, said reinforcing elements extending at opposite ends thereof into the respective pockets of each pair, each of said means further including friction-producing means within at least one pocket of each pair adapted to frictionally engage the inserted sheet to hold said sheet against slippage within the pocket, said friction-producing means being in the form of a small, flat, thin element of a resilient, soft material secured to said top wall of each pocket so as to be shiftable with the top wall toward and away from the inserted sheet, said friction-producing element when shifted toward the sheet being adapted for clampably engaging the sheet between the reinforcing element and the friction-producing element.

2,872,216

GLOBE COCK COUPLING, MORE PARTICULARLY FOR FUELING STATIONS SUPPLYING LIQUID FUELS

Rudolf Kaiser, Ettlingen, Baden, Germany

Application March 29, 1957, Serial No. 649,351
Claims priority, application Germany January 25, 1957
5 Claims. (Cl. 284—9)



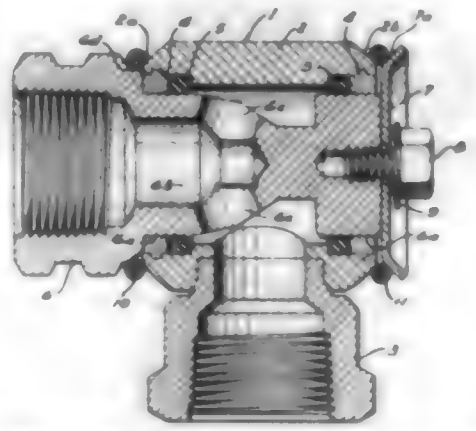
1. A globe cock coupling for connecting together two pipe ends, said coupling comprising two halves adapted to be coupled together or uncoupled, coupling means for releasably coupling said two halves comprising opposite lateral oblique guides formed on one coupling half and guide engaging means therefor on the other half, and releasable locking means, a globe cock in each of said halves, the globe cock of the said other coupling half having a spherical depression to receive the globe cock of said one coupling half, one cock for each pipe for closing the same in a fluid-tight manner when the pipe ends are disconnected from one another, an actuating shaft on each cock, a disc connected with each shaft, said releasable locking means comprising an extension formed on the disc of the shaft of said one coupling half overlapping and engaging the external surface of the other half when the halves are coupled and each disc having a recess, the said discs only allowing the coupling halves to be coupled or uncoupled when both globe cocks are in the closure position.

2,872,217

DIRT SHIELD FOR SWIVEL JOINTS

Edward M. May, Detroit, Mich.

Application October 3, 1956, Serial No. 613,773
4 Claims. (Cl. 285—45)



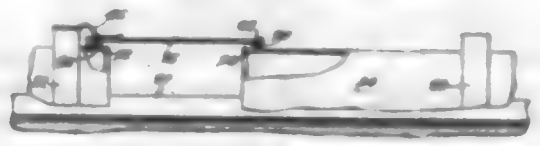
1. In a swivel joint the combination of male and female structures formed and arranged for rotation and limited axial movement in relation to each other, the two structures having mutually cooperating coaxial bearing surfaces formed on the two parts, respectively, and having at each end of the bearing zone of the joint a pair of mutually adjacent exterior annular surfaces both of which extend transversely with respect to the bearing axis of the joint and together define an outwardly flaring annular space between the male and female structures, and a circumferentially tensioned ring of elastic material movably disposed in the flaring space, the ring having an inner diametral size when untensioned smaller than the minimum diameter of the flaring space and having two annular surface portions of convexly curved cross-sectional form which are held by the inherent tension of the ring in close engagement throughout their lengths with the opposing annular surfaces of the male and female structures of the joint.

2,872,218

METHOD OF OPERATING INSPECTION SECTIONS IN BUS ENCLOSURES

Stanley C. Killian, Glen Ellyn, Ill., and Willard O. Edison, Denver, Colo., assignors to H. K. Porter Company (Delaware), a corporation of Delaware

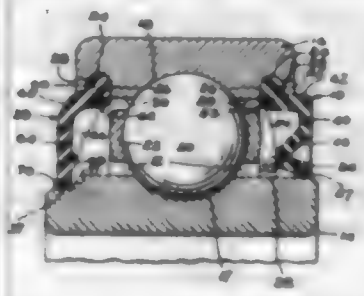
Original application May 7, 1952, Serial No. 286,645, now Patent No. 2,784,812, dated March 5, 1957. Divided and this application August 3, 1956, Serial No. 602,051
2 Claims. (Cl. 285—369)



1. The method of operating an open ended bus enclosure section which is telescopically mounted adjacent its opposite ends on a pair of spaced stationary enclosure sections and which is normally sealed to said stationary sections by a seal at each end thereof surrounding the respective stationary section, comprising the steps of moving the seal at one end of said telescopic section longitudinally of the one stationary section on which said seal is mounted in the direction away from said telescopic section a distance equal approximately to the length of said telescopic section, subsequently moving said telescopic section in said direction a distance equal approximately to the length of said telescopic section to free the same from the other seal and to telescope the entirety of said telescopic section independently of said seals onto said one stationary section, thus to open fully the space between said stationary sections, returning said telescopic section an equal distance in the opposite direction independently of said seals into engagement with said other seal, and moving said first-mentioned seal an equal dis-

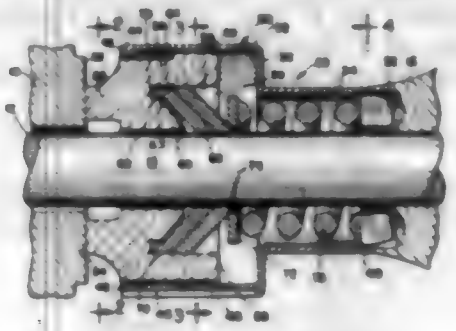
tance in said opposite direction into engagement with the adjacent end of said telescopic section, thus to close the ends of said telescopic section and to seal the same to said stationary sections.

2,872,219
DEMOUNTABLE CLOSURE
Leland D. Cobb, Forestville, Conn., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 6, 1954, Serial No. 473,312
6 Claims. (Cl. 286—5)



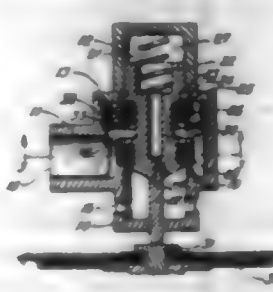
1. In a demountable closure for positioning across an annular lubricant chamber between a pair of relatively rotatable members one of which has an annular groove opening towards the other member, an inherently resilient annular bead demountably and deformably seated in sealing engagement with the walls of the groove to demountably secure the closure in position, a resiliently flexible annular flanged portion integral with the bead and radially spaced from both of said relatively rotatable members, the flanged portion extending axially outwardly from the bead and thence radially across said lubricant chamber into proximity with said other member, and a plurality of resilient reinforcing ribs bonded to the inside of the annular flanged portion and to said bead.

2,872,220
FLUID SEAL
Frank E. Payne, Glencoe, Ill.; Continental Illinois National Bank & Trust Company of Chicago, executor of said Frank E. Payne, deceased, assignor to Crane Packing Company, Morton Grove, Ill., a corporation of Illinois
Application September 2, 1952, Serial No. 307,455
1 Claim. (Cl. 286—11.15)



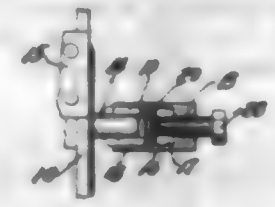
In a sealing device for sealing a space between a casing and a shaft, a sealing washer surrounding the shaft and having a radial sealing surface designed for running engagement with a radial surface normal to the shaft and fixed relative to the casing, there being an axial recess in said washer providing an annular wall surrounding the shaft and a bottom wall having an annular groove formed therein in the extreme outer regions thereof and presenting a central frusto-conical portion, the outer wall of said groove constituting a continuation of the cylindrical wall of said recess, said groove and frusto-conical bottom wall providing in combination an annular shoulder, a continuous frusto-conical sealing ring of resilient deformable material having a substantial degree of resistance to compressional forces encircling the shaft within the recess and bearing inwardly against the shaft and outwardly against the wall of the recess, said ring being free of radial slits and having a slant height greater than the radial distance between the shaft and wall, the large base of said frusto-conical sealing ring extending into said groove, said annular shoulder opposing the inside face of the sealing ring along a circular region slightly removed from said large base of the ring frustum, and thrust means normally applying axial pressure to said sealing ring at a region adjacent the small base thereof in an axial direction to wedge the material of the ring into engagement with said shaft, annular wall and recess bottom.

2,872,221
VALVE SEAL
Henry L. Burns and Russell L. Rollefson, Portland, Oreg., assignors to Alar Products, Inc., a corporation of Ohio
Application February 1, 1956, Serial No. 562,831
3 Claims. (Cl. 286—26)



1. In a balanced valve construction having a piston slidably retractible into a cylindrical cavity formed in a side of the valve housing, improved sealing means between the piston and walls of the housing comprising an annular ledge formed on the piston and concentric therewith, an annular ledge formed on the housing adjacent said cylindrical cavity and concentric therewith, said ledges being spaced apart radially of said piston to provide an annular gap therebetween, the mean diameter of said gap being substantially the same as the diameter of said cylindrical cavity, and an O-ring of rubber-like material and round cross-section positioned around said piston adjacent said ledges, the mean diameter of the O-ring also being substantially the same as the diameter of said cylindrical cavity, said O-ring being adapted to roll longitudinally of its axis around the centers of its cross-sections as said piston reciprocates and to sealingly engage with both said ledges upon being urged toward said cavity by fluid pressure in said housing to maintain a seal between said piston and said cavity during movement of the piston.

2,872,222
MOWER REEL SHARPENING AND ACTUATING MEANS
Rudolph A. Gohlke, Alpena, Mich.
Application March 9, 1953, Serial No. 341,000
3 Claims. (Cl. 287—53)

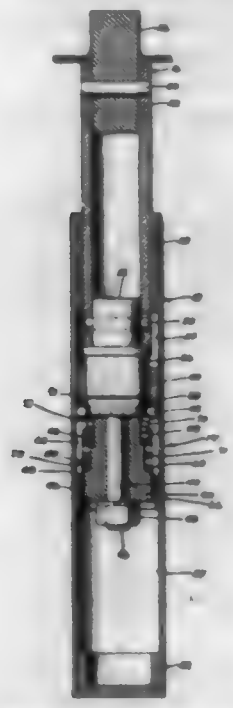


1. A mower reel rotating mechanism for releasable connection to the drive end of the reel shaft comprising, a collapsible gripper member mounted on said shaft, a socket with an outer end wall, said socket being formed with a longitudinally tapered bore pressed over said member for collapsing said member to cause it to grip said shaft, a handle on said socket to facilitate manual rotation of the device, and adjustable means threaded in the end wall of said socket and engageable with said member to force said socket out of engagement with said member upon actuation thereof.

2,872,223
EXTENSIBLE COLUMN FOR A STOOL OR THE LIKE

Spicer D. Shearman, Bryan, Ohio, and Bruce E. Herbolsheimer, Garrett, Ind., assignors to Garrett Tubular Products, Inc., Garrett, Ind.

Application March 17, 1958, Serial No. 722,066
16 Claims. (Cl. 287—58)



14. For use in combination with a stool or the like, two relatively movable telescoped members, a tapered cam surface on the inner member extending inwardly from the periphery thereof, at least one rolling element lockingly engageable with said cam surface and the inner wall of the outer telescoped member, a tripping element interposed between and relatively movable with respect to said telescoped members, said tripping element being engageable with said rolling element, a recessed portion in said inner member adjacent to the radially inner portion of said cam surface, an enlarged portion on said inner member adjacent to said recessed portion on the side opposite said cam surface, a locking sleeve surrounding said recessed and enlarged portions and being engageable with said rolling element on the side opposite from said tripping element, said sleeve being movable inside said outer member, the inner wall of said sleeve being axially divided into two different diameter lengths, the larger diameter length having a clearance fit with said enlarged portion, the smaller diameter portion having a frictional fit with said enlarged portion, and means for selectively alternatively forcing said tripping element and said locking sleeve into engagement with said rolling element.

2,872,224
TURNBUCKLE

Marvin J. Osborne, Casper, Wyo.

Application July 11, 1957, Serial No. 671,293
1 Claim. (Cl. 287—60)

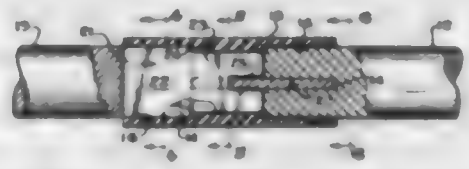


A turnbuckle comprising a pair of axially aligned companion shanks having left hand and right hand screw threads, respectively, a rigid but slotted tool grip interposed between the adjacent inner ends of the shanks and rigidly joining the shanks together to provide a unit, a nut threaded on each shank outwardly of said tool grip, a pair of axially aligned hollow cylinders having their adjacent inner ends axially aligned with and fixedly joined to their respective nuts, an end portion of each shank projecting axially and slidably into its cooperating cylinder, a headed terminal formed on each end portion, a stabilizing washer swivelly mounted on each headed terminal, said washers being confined for operation in the chamber portions of their respective cylinders and each washer being of an outside diameter approximately equivalent to the inside diameter of the cooperating cylinder, the marginal edge portions of said washers having lubricant clearance notches and said cylinder being adapted to be charged with a suitable lubricant, said shanks being of a cross-section less than the cross-section of the cylinders, a closing head affixed to the outer end of each cylinder and centrally apertured, and hooks adapted to be connected with chain links, each hook having a headed shank portion swivelly mounted in the opening provided therefor in the cooperating head, the headed end of the shank projecting into the chamber of the cylinder, whereby lubricant contained in said cylinder serves to lubricate the screw threads on the shank, the interior surfaces of the cylinder, marginal edges of the washer and the headed end of the shank of said hook.

2,872,225
FLEXIBLE COUPLING FOR SHAFTS

Emil C. Walker, Jr., Woodstock, Ill., assignor to Comptometer Corporation, a corporation of Illinois

Application February 13, 1957, Serial No. 640,040
12 Claims. (Cl. 287—85)

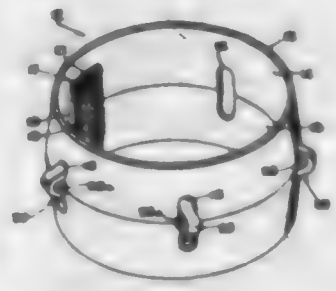


1. Coupling means for joining two substantially coaxial shafts, comprising an outer member having a bore with end portions for receiving the adjacent ends of said shafts, said bore having a central portion of non-circular cross section, and means separately interconnecting each said shaft and said central portion of said outer member for drivingly transmitting torque from one of said shafts to the other through the agency of said outer member.

2,872,226
STOP COLLAR FOR A WELL PIPE

Kenneth A. Wright and James R. Solum, Los Angeles, Calif., assignors to B and W, Inc., Terrance, Calif., a corporation of California

Application December 2, 1955, Serial No. 550,597
11 Claims. (Cl. 287—114)



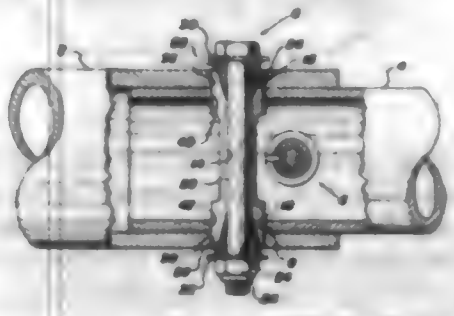
1. In a stop collar assembly for installation upon a well pipe, the combination of: a collar having an annular wall provided with two oppositely tapered surfaces on the interior thereof, the wall having a plurality of window openings extending therethrough and symmetrically located with respect to said surfaces, a plurality of members each having two wedge elements connected by an integral offset web, each wedge element having one portion for engaging one of the said tapered surfaces and having another portion for contacting the well pipe, the offset webs protruding through said window openings, whereby said wedge elements may be moved away from each other along said tapered surfaces by applying a force against said offset

webs, and thereby anchor the collar upon the well pipe, and retainer means engaging the offset webs for initially retaining the wedge elements in position.

2,872,227
RIGID SHAFT COUPLING

Miller A. Wachs, Stratford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application July 25, 1956, Serial No. 600,014
4 Claims. (Cl. 287—119)

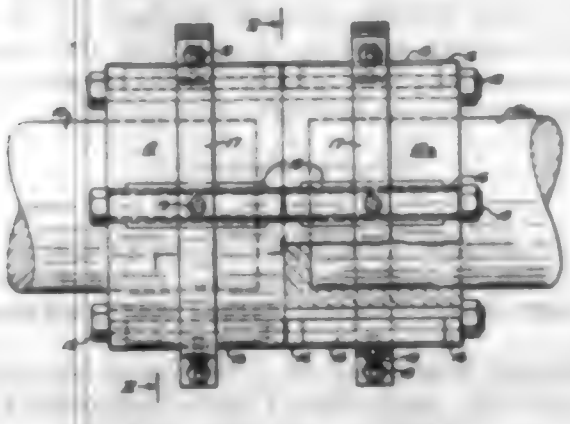


1. In combination with two thin walled shafts a connecting device for transmitting torque between said shafts, one end of one shaft being telescopically positioned within one end of the other shaft forming overlapping ends, each of said overlapping ends having a set of holes positioned on a diametrical axis, said overlapping ends having their sets of holes coaxially aligned, said connecting device comprising a split collar, said collar having a length equal to the outer diameter of the outer shaft, said collar having each end of circular cross section with the diameter being slightly less than the diameter of the aligned holes in the thin walled shafts, said collar being positioned along the axis of the coaxially aligned sets of holes with a portion adjacent its ends positioned within the holes, the split in said collar lying in a plane extending through the axis of said thin walled shafts, said collar having an outwardly tapering opening at each end, a tapered member being positioned in each tapered opening, and means for moving said tapered members axially of said collar, said tapered members opening said collar equally in a radial direction when they are moved toward each other to expand said collar to tightly engage said shafts around said holes, said two shafts being rigidly fixed axially with respect to one another at the location of said split collar, said two shafts also being rigidly fixed against rotation with respect to one another at the location of said split collar.

2,872,228
SHAFT COUPLING

Lawrence H. Anderson, Homestead, Pa.

Application May 21, 1957, Serial No. 660,709
3 Claims. (Cl. 287—129)

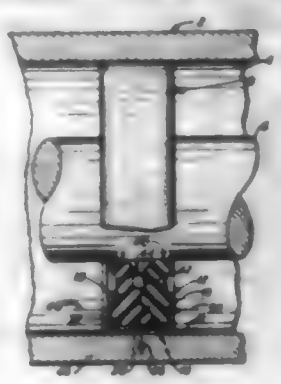


1. In combination with a pair of axially aligned shafts a coupling comprising a pair of boxes fixed to the ends of the respective shafts, each of said boxes having longitudinally extending outwardly open slots in its outer face aligned with the respective slots in the other box, bolts received in aligned pairs of slots in the two boxes, individual removable fillers fitted into said slots and covering said bolts, and retainer bands surrounding the respective boxes and holding said fillers in place.

2,872,229
SEAL ARRANGEMENT

James D. Waser, Joliet, Ill., assignor, by mesne assignments, to Phoenix Manufacturing Company, Joliet, Ill., a corporation of Delaware

Application November 21, 1955, Serial No. 548,191
5 Claims. (Cl. 288—3)



1. In a seal arrangement, a channel shaped confining shell comprising a base with spaced substantially parallel walls upstanding on opposite edges thereof, a sealing element formed of elastic material interposed between said upstanding walls and in spaced relation to the base, said walls being arranged to exert compressive forces on said sealing element, a groove formed in said element approximately centrally thereof dividing said element into lips extended away from said walls, a spring disposed in said groove and exerting a pressure on said element in a direction opposite to the extended direction of said lips, said walls being fixedly bonded to said element at opposite sides of the lips, said forces and said pressure being arranged to induce a tension in the surface of said lips transversely thereof between the spring and the walls.

2,872,230
BOREHOLE APPARATUS

Robert Desbrandes, Houston, Tex., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas

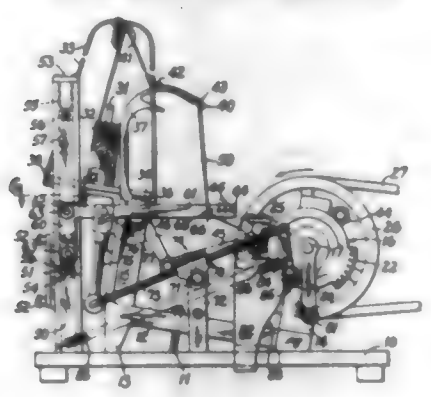
Application August 23, 1954, Serial No. 451,487
5 Claims. (Cl. 288—6)



1. A hydraulically inflatable packer comprising: a flexible tube and means coacting with said tube and extending circumferentially and longitudinally relative to the inner bore of said tube, said means including a plurality of helicoidally disposed, substantially non-exten-

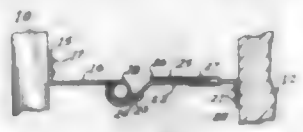
sible strands each including a first portion having an angle of pitch larger than 35°16′ and a second portion having an angle of pitch smaller than 35°16′, the strands in each of said first and second portions being longitudinally aligned.

2,872,231
LOOP-FORMING MACHINE
Norman G. Litz, University City, Mo.
Application January 9, 1958, Serial No. 708,039
14 Claims. (Cl. 289—1)



1. In a loop-forming machine, a frame, a knot-tying-and-cutting mechanism mounted on said frame, a shaft operatively connected to said mechanism for operating same, a supply of strand material having one end threadedly connected to said mechanism, a strand-engaging finger operatively disposed over the strand length leading from such mechanism, a needle arm pivotally mounted on said frame and threadedly holding the strand length at the other side of said finger, means connecting said needle arm to said shaft for operating said arm to loop the strand length over said finger and to connect the formed loop to said mechanism, and means operatively interconnecting said finger with said shaft to raise the finger in overlying relation to the strand length between the arm and mechanism after the loop is tied and cut by said mechanism.

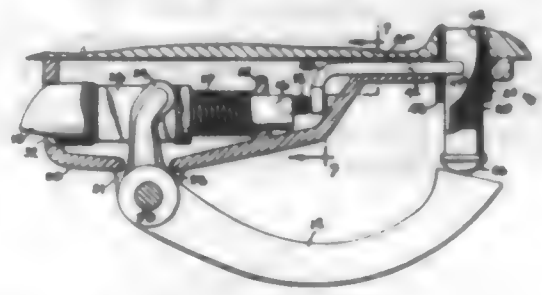
2,872,232
DOOR CHECK
Hollis E. Lawson, Atlanta, Ga.
Application May 14, 1956, Serial No. 584,485
8 Claims. (Cl. 292—80)



7. A three piece door catch comprising, a resilient catch member having a circularly bent catch end, a rigid keeper member having a keeper pocket for receiving said catch end, a cover slidably mounted on said keeper, and a catch engageable detent on said cover, said cover adapted for movement to and from a position over said keeper pocket by selective engagement of said circularly bent catch end with said catch engageable detent.

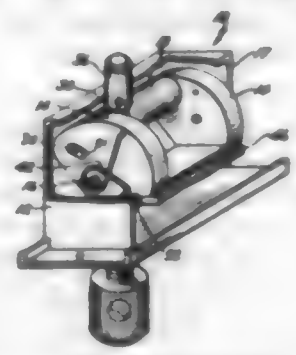
2,872,233
SAFETY RELEASE LATCH
Lawrence M. Bordner, Jr., Freeport, Ill.
Application July 5, 1956, Serial No. 595,950
4 Claims. (Cl. 292—92)

2. In a latch, the combination of, a support adapted to be secured to a door exteriorly thereof, an elongated bolt mounted on said support for endwise sliding between projected and retracted positions, a handle mounted on said support and operatively connected to said bolt to move the latter between said positions, a member disposed behind and spaced from said bolt to permit the bolt to move to the retracted position, means on said support for locating the hasp of a lock between and in abutting relation with said bolt and said member, said hasp and said member being movable on said support with said bolt as the latter slides to the retracted position, an element projecting interiorly of the door and normally engaging



said member and preventing the member from moving thereby to lock the bolt in the projected position, and means mounting said element on said support for movement out of engagement with said member to permit the member to move and thereby permit sliding of the bolt to the retracted position.

2,872,234
LATCH
Earl M. Brinton, Glen Burnie, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force
Application February 15, 1957, Serial No. 640,565
1 Claim. (Cl. 292—256)

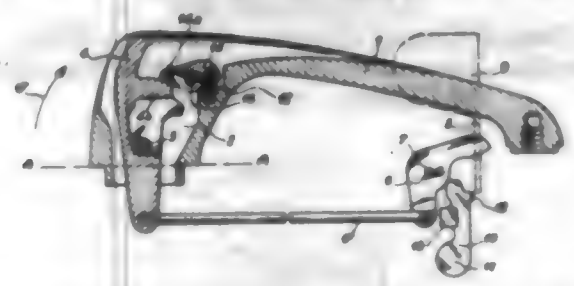


In a locking device for maintaining a cover member in closed position, a housing member arranged to be fixed to said cover member, said housing member having spaced end walls and intermediate sections connecting said end walls, a pair of spaced cam members pivotally mounted between said spaced end walls, a member for spacing said cam members and having an opening therein, a locking member passing through the opening in the spacing member, a pair of abutments for said locking member arranged to permit limited movement of said locking member relatively to said spacing member, a member fixed to one of the intermediate sections of said housing member and having a threaded opening therein, a threaded portion of said locking member arranged to be threaded into said threaded opening to maintain the spaced cam members in locking position, and spring means for biasing said cam members toward unlocked position.

2,872,235
DOOR OPERATING SYSTEM
Antoine Brueder, Paris, France, assignor to Societe Anonyme André Citroen, Paris, France, a French company
Application September 19, 1956, Serial No. 610,802
Claims priority, application France September 24, 1955
9 Claims. (Cl. 292—336.3)

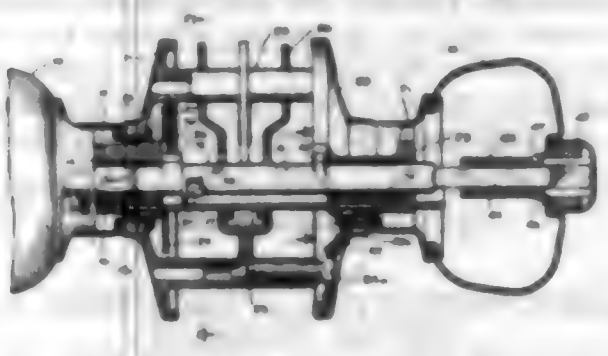
1. In a door-operating system, a lock mechanism including a movable lock-actuating member, a handle fixedly secured to the door, a recess in said handle, a manual actuating element pivoted to the handle within said recess, linkage connecting the element to the lock-actuating member for moving the latter between a locking and an un-

locking position, and detent means connected to said handle within said recess and engageable with said ele-



ment for retractibly blocking said element in the locking position of said lock-actuating member.

2,872,236
TUBULAR LOCK
Mathias M. Check, Valley Forge, Pa., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut
Application December 27, 1956, Serial No. 630,878
10 Claims. (Cl. 292—336.3)



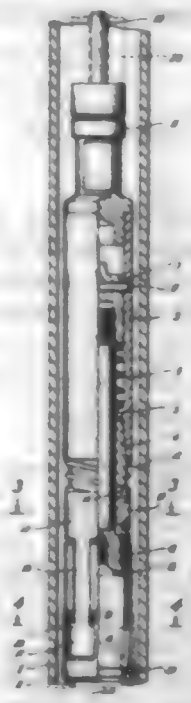
9. In a lock of the class described, a single spindle, an outside knob rotatable integrally with said spindle, an inside knob, lost motion means whereby said inside knob rotates freely of said spindle for a limited degree and thereafter rotates said spindle, a locking rod mounted for rotation relatively to said spindle and equipped with a turn button extending outwardly of said inside knob, means whereby rotation of said turn button and locking rod locks said spindle, and means whereby rotation of said inside knob freely of said spindle because of said lost motion means releases said spindle from said locking means.

2,872,237
AUTOMATIC HOOKS
Lafayette Bogle Standifer, Jr., Knoxville, and Fred S. Simpson, Powell, Tenn., assignors to Dempster Brothers, Inc., Knoxville, Tenn., a corporation of Tennessee
Application July 6, 1955, Serial No. 520,230
7 Claims. (Cl. 294—83)



1. An automatic hook comprising an upright elongated body having a hook portion thereon adapted to receive a bail therein, a shuttle overlying the hook portion and having a recess in the underside thereof in opposed relation to the hook portion in position for engagement by the bail in said recess, means pivotally connecting the shuttle with the body portion below the hook portion, said shuttle having a lip thereon projecting laterally outside of an upright plane through the outer edge of the hook portion in position for engagement by the bail and having an upper surface inclined upwardly from said lip to deflect the bail away from the hook portion.

2,872,238
WELL PULLING TOOL
Douglas E. Daffin, Pasadena, Tex., assignor to Camco Incorporated, Houston, Tex., a corporation of Texas
Application February 27, 1956, Serial No. 567,975
5 Claims. (Cl. 294—86)

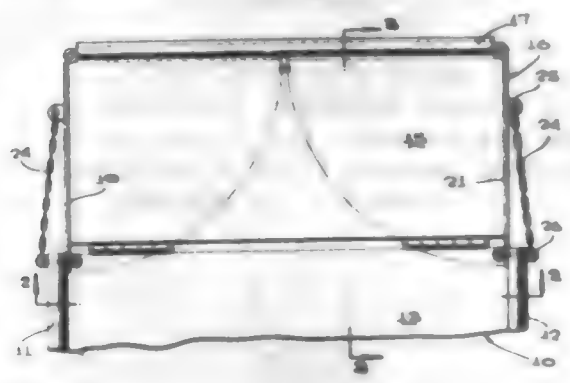


1. In a pulling tool, a tubular member, an axially shiftable collar slidably surrounding and non-rotatable on the tubular member, a dependent spring finger integral with the collar and disposed in a normal position free of outward bending stress, the lower tip portion thereof having an internally projecting lug, comprising a latch dog and said tip portion also having a peripheral side surface and a bottom surface right angularly related to each other, the bottom surface being in a transverse plane substantially normal to the axial extent of the tubular member, the wall of the tubular member in the lower portion being provided with a lateral window opening therethrough for axially slidably receiving said finger and with an internally reduced section downwardly spaced from the window opening, said finger tip portion being axially slidable into and out of the reduced section and when out of the reduced section being above the same and out of contact therewith, the bottom of said reduced section comprising an upwardly facing surface and an inwardly facing side surface in subetantially right angular relation in correspondence with the aforesaid angular relation of said finger tip portion, upwardly and outwardly inclined camming formations on the tubular member and said dependent spring finger respectively and positioned intermediate the slide collar and the finger tip portion, said cam formations being axially spaced apart when the finger tip portion is within the reduced section and said cam formations being slidable one on another for bodily displacing the tip portion outwardly through the window when said lower tip portion is above said reduced section.

2,872,239
VEHICLE BODY EXTENSION
George W. Bowness and Jesse Scott, Cedaredge, Colo.
Application October 19, 1956, Serial No. 617,151
2 Claims. (Cl. 296—26)

1. A readily attachable and detachable unit for installation on a box body having spaced side walls and a

horizontally disposed tailboard comprising a panel adapted to be vertically positioned adjacent the free end of said tailboard and having the lower end adapted to be connected to said tailboard for movement from the vertical position to a position overlying said tailboard, an upright side panel adapted to be positioned adjacent each side edge of said tailboard and connected by one end to



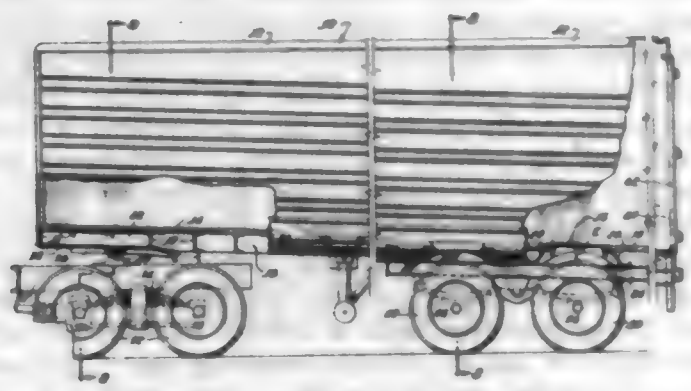
the adjacent side edge of said end panel for movement from the position adjacent the tailboard side edge to a position overlying the adjacent portion of said end panel, and means on said side panels cooperating with means provided on the adjacent parts of said body side walls for releasably holding said side panels in the position adjacent said tailboard side edges.

2,872,240

TRAILER VAN WITH SLOPING FLOOR

John C. Bennett, San Marino, Calif., assignor to Utility Trailer Manufacturing Company, Los Angeles, Calif., a corporation of California

Application December 2, 1957, Serial No. 699,976
4 Claims. (Cl. 296—28)



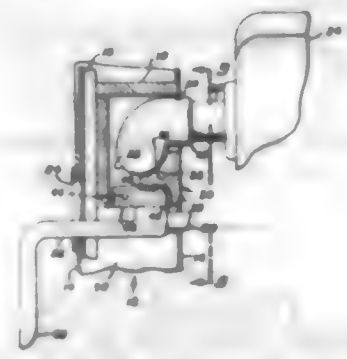
1. In trailers and the like of the van type, the combination including a body with side walls, a front end wall and a horizontal roof, a floor structure, a rear door opening extending from under the roof to the floor, an under-framing under the floor structure, running gear comprising a forward dirigible wheel and axle unit located under the forward portion of the under-framing and sprung thereto and a non-dirigible rear wheel and axle unit located under the rear portion of the under-framing and sprung thereto, the floor structure and under-framing overhanging the rear wheel and axle unit to the rear thereof, the under-framing above the wheels of the rear wheel and axle unit being arranged to form wells above the wheels to allow relative upward movement of the wheels to levels above the bottom level of the under-framing, the under-framing being vertically spaced above the wheels of the forward wheel and axle unit by a predetermined clearance and the floor structure being vertically spaced above the wheels of the rear wheel and axle unit by substantially the same spacing, and the floor structure and underframing sloping downwardly at substantially uniform slope from a point approximate the forward wheel and axle unit to their rear ends, so that the rear end of the floor is lower than is the portion of the floor over the rear wheel and axle unit.

2,872,241

COMBINED DOOR AND SEAT LOCK FOR AUTOMOBILES

Charles Hunter Shelden, Pasadena, Calif.

Application November 19, 1954, Serial No. 469,999
10 Claims. (Cl. 296—65)



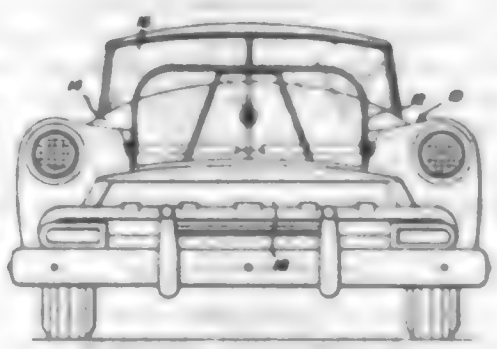
1. In an automotive vehicle having doors and seats capable of being moved from a normal operative position to a folded position, the improvement which comprises: means defining an opening attached to a door; a knob connected to the folding portion of a seat adjacent the upper edge thereof, said knob being adapted to fit within said opening; and means for locking said knob within said opening.

2,872,242

INSECT DEFLECTOR ATTACHMENT FOR MOTOR VEHICLES

Gerald W. Wharton and Fay W. Hyland, Mitchell, S. Dak.

Application August 2, 1957, Serial No. 675,873
4 Claims. (Cl. 296—91)



1. A motor vehicle insect deflector for use on a vehicle having a windshield and a hood overlying an air intake grill, said deflector including a peripheral frame, a transparent sheet secured to said peripheral frame, a flexible skirt secured to said peripheral frame and depending therefrom, said skirt being secured to the lower part of said hood, and a pair of stabilizer straps secured to said peripheral frame above said flexible skirt, said straps extending under said hood, said sheet being folded over said frame, and stitching through said sheet holding said sheet about said frame encasing said frame.

2,872,243

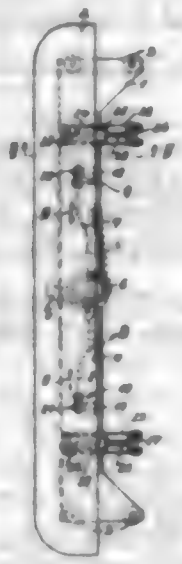
LOCK FOR A VEHICLE ROOF

Hans T. Golde, Frankfurt am Main, and Johannes K. Werner, Offenbach am Main, Germany

Application February 21, 1957, Serial No. 641,563
Claims priority, application Germany August 9, 1956
10 Claims. (Cl. 296—137)

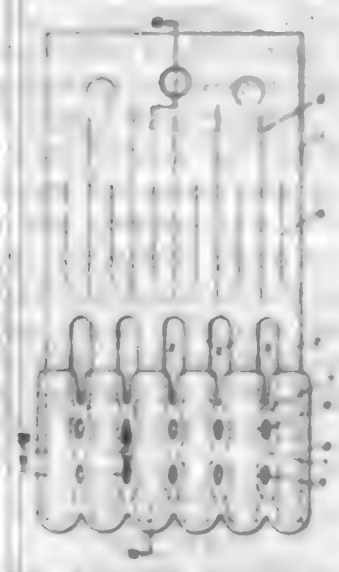
1. A lock for the displaceable roof of a vehicle comprising a brace adapted to abut the frame of the vehicle, a cap having the camber of the top of the vehicle, said cap being adapted for connection to the displaceable roof, a leverage system coupling said cap to said brace and adapted for pivotally moving said cap away from said

brace, locking means on said brace for engaging the vehicle, and control means for operating said locking means



and actuating said leverage system to control the locking and releasing of the roof with respect to the vehicle.

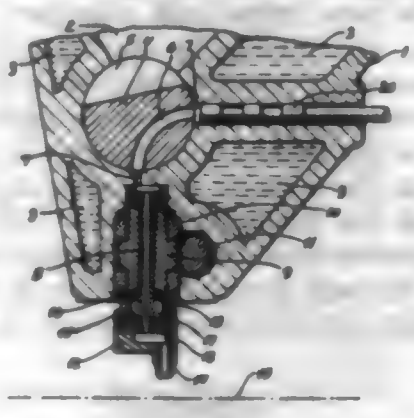
2,872,244
VOLATILE FUMIGANT PAD
Fred H. Mayer, Portland, Oreg.
Application June 26, 1956, Serial No. 593,877
4 Claims. (Cl. 299—24)



4. A volatile fumigant pad consisting of a cardboard support having a section cut-out to form spaced dependent finger-like members, said finger-like members having a tooth-like projection extending laterally into said cut-out space, a coating of volatile fumigant material encasing said finger-like members, said coating material having a knob-like portion formed when coated on said tooth-like projection, the said knob-like portion of said coating material joining the coating material on the next finger-like member, providing a frangible connection therebetween.

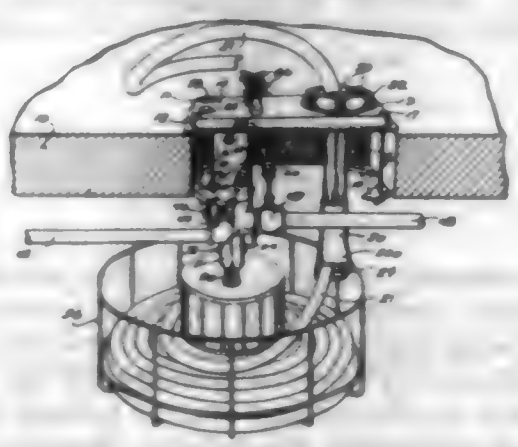
2,872,245
NOZZLE MECHANISMS FOR SPRAYING OF SEMI-SOLIDS
Mogens Groth, Lyngby, Denmark
Application June 27, 1955, Serial No. 518,261
Claims priority, application Denmark July 1, 1954
3 Claims. (Cl. 299—62)

1. Nozzle mechanism for the spraying and forming of a semi-solid substance stored in a container, comprising a supply pipe for the substance adapted to be affixed to the container, a nozzle-carrier surrounding said pipe and turnably mounted with respect thereto, said pipe having an outer surface and said carrier having an inner surface constituting cooperating engaging bearings for the turning of the carrier about the pipe as an axis, a nozzle placed on the carrier and arranged in eccentric relation to the pipe, and having a hollow interior, connected by means of a passage cut in the nozzle-carrier, with the open



end of the pipe, and means operatively associated with said carrier for swinging the said carrier around the said pipe upon said bearings.

2,872,246
HOSE REEL MOUNTING
Frank P. Zierden, Cudahy, Wis.
Application April 4, 1957, Serial No. 650,611
7 Claims. (Cl. 299—78)

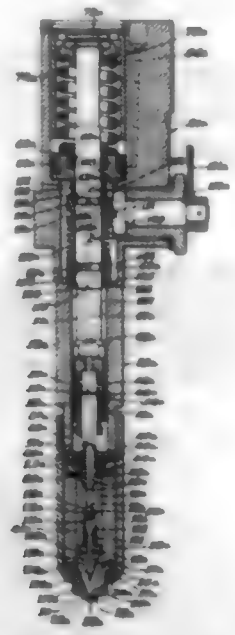


1. In a mounting for a rotatable reel receiving a hose and for permanent connection of the hose to pipes severally supplying a fluid under control of valves, the reel being on one side of a building wall and the hose extending through an opening to the other side of the wall, a base plate for substantially closing the wall opening, a guide tube supported in the plate for movement of the hose therethrough and through the wall, a connector tube supported on the plate, a tubular member attached to the connector tube and providing a chamber for receiving a plurality of fluids from the pipes, the tubular member being rotationally adjustable relative to the connector, valves for controlling the flow of fluids to the tubular member chamber and having valve-operating handles extending therefrom, a hollow spindle rotatable in the tubular member in fluid-tight relation therewith for supporting the reel, the spindle receiving fluid from the tubular member and delivering fluid to the hose, said hose being connected with the spindle, and columns mounted on the plate, receiving the valve handles, and serving for attaching the connector tube to the plate.

2,872,247
FUEL INJECTOR FOR INTERNAL COMBUSTION ENGINES
Robert L. Shallenberg, Wheaton, Ill., assignor to International Harvester Company, a corporation of New Jersey
Original application July 3, 1953, Serial No. 365,901, now Patent No. 2,792,259, dated May 14, 1957. Divided and this application February 21, 1957, Serial No. 641,697
3 Claims. (Cl. 299—107.2)

1. In a combined fuel metering and injection nozzle unit, a body containing a bore with fuel pumping and delivery chambers spaced apart axially therein, a plunger-

stem-receiving bearing of less diameter than the portion of said bore having the pumping chamber and extending axially of the bore from such chamber, fuel discharge orifice means communicating outwardly from the fuel delivery chamber, a plunger axially reciprocal in said bore and constituting a partition separating said chambers from one another, a plunger-operating stem of less diameter than the plunger and projecting axially therefrom through the pumping chamber and through said bearing with which such stem is in sliding sealing relation, a fuel inlet channel extending axially in said stem into communication with the pumping chamber, a fuel transfer



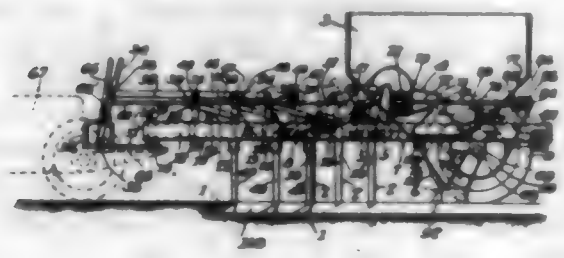
passage extending axially in the plunger and having ports respectively communicating with said chambers, said plunger being axially retractable into the pumping chamber to displace a metered quantity of fuel therefrom through the transfer passage into the delivery chamber attendant to expanding the delivery chamber to accommodate reception thereby of the metered and transferred fuel, valve means in the transfer passage and preventing reverse flow of the transferred fuel therethrough, and the plunger being axially advanceable into the delivery chamber to eject the metered and transferred fuel therefrom through the discharge orifice means.

2,872,248

PNEUMATIC CONVEYOR FOR PLANTING IMPLEMENT

Georgia W. Martin, Los Angeles, Calif.

Application June 25, 1953, Serial No. 364,030
1 Claim. (Cl. 302—21)



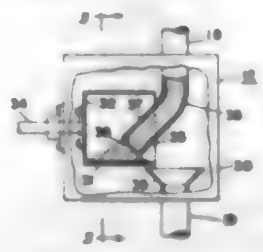
An implement as disclosed including a seed receptacle formed with an upper cylindrical wall, a lower inverted frusto-conical wall, and a bottom wall, said lower inverted frusto-conical wall converging downwardly from the lower end of said cylindrical wall to said bottom wall, and a suction and blower fan formed with an inlet and a conical hopper mounted in the lower end of said seed receptacle, and leading into the inlet of said suction and blower fan, the mouth of said hopper being of such area as to provide a narrow annular space between the lower annular edge wall of said conical hopper and the lower end portion of said frusto-conical wall of said seed receptacle, through which annular space the seeds are drawn by the suction and blower fan from said seed receptacle into said conical hopper, through the fan inlet and through the fan, for discharging seed therefrom and from said seed receptacle, through a seed-dropping tube into a furrow below said dropping tube.

2,872,249

APPARATUS AND METHOD FOR CONTROLLING THE RATE OF FLOW OF SOLID PARTICLES

Thomas S. Mertes, Wilmington, Del., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application October 22, 1954, Serial No. 463,961
14 Claims. (Cl. 302—53)



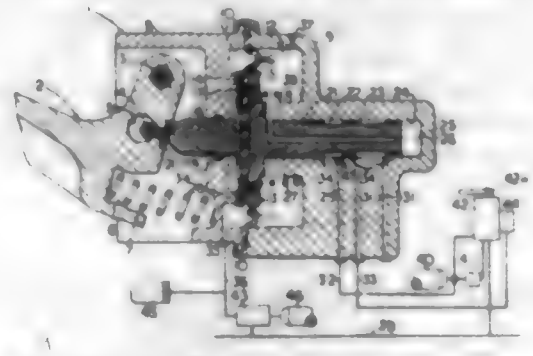
1. Apparatus for controlling the rate of flow of solid particles which comprises: a hollow member having a substantially horizontal axis and having a sidewall extending continuously around the axis of said member and providing an inner surface adapted to hinder the downward travel of solid particles introduced thereonto; means for rotating said member about its axis; means for introducing solid particles onto said surface from a position laterally spaced from said surface, said means constituting a conduit which is downwardly inclined toward said inner surface, said hollow member having an opening therefrom, the shortest path from said opening to the outlet of said means for introducing extending downwardly toward said opening and intersecting said inner surface at an angle within the approximate range from 20° less than the static angle of repose of the solids to 20° greater than said static angle, said opening being so positioned that solid particles flow from said means for introducing through said opening at a greater rate when the hollow member is rotated than when it is stationary.

2,872,250

SAFETY CONTROL BRAKE APPARATUS

Erik G. Erson, Export, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

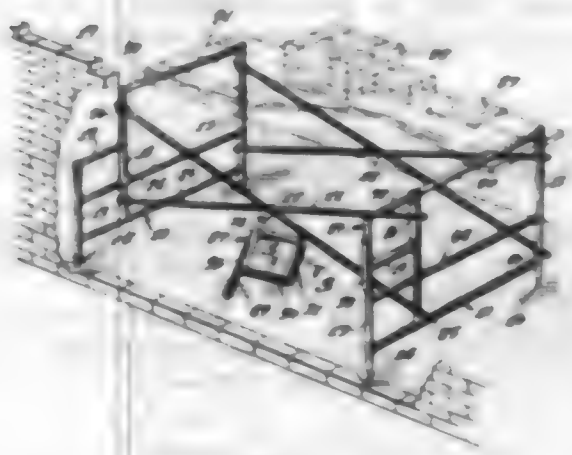
Application December 13, 1956, Serial No. 628,127
3 Claims. (Cl. 303—19)



1. A foot valve means for use in a safety control brake equipment of the type comprising a brake cylinder means, a brake pipe, a main reservoir, brake valve means operable to control supply of fluid under pressure from said main reservoir to said brake pipe, control valve means operably responsive to variation of fluid pressure in said brake pipe to control supply of fluid under pressure to said brake cylinder means, a safety control pipe, application valve means operably responsive to release of fluid pressure in said safety control pipe to effect a safety control brake application, said foot valve means comprising a valve body encasing a fluid pressure cham-

ber and a spool valve means having a valve stem, a foot pedal hingedly supported on said valve body for limited movement relative thereto by foot-applied pressure from a raised position to a lowermost position, said spool valve means and valve stem operable upon a predetermined depression of said foot pedal from its raised position to a lowermost position to move to one position and operable upon release of said foot-applied pressure to move to a second position, disc valve means operable to a first position by said valve stem while in said one position, said spool valve means being operable in said one position cooperatively with said disc valve means in said first position to establish communication between said main reservoir and said safety control pipe for charging said safety control pipe, said spool valve means being operable in said second position to effect release of fluid pressure from said safety control pipe to cause operation of said application valve means to effect a safety control brake application, and fluid pressure responsive means effective when subject to a predetermined fluid pressure in said fluid pressure chamber established in correspondence with the fluid pressure established in said brake cylinder means incident to a brake application effected by said brake valve means and said control valve means for maintaining said spool valve means in its said one position irrespective of the foot-applied pressure on said foot valve.

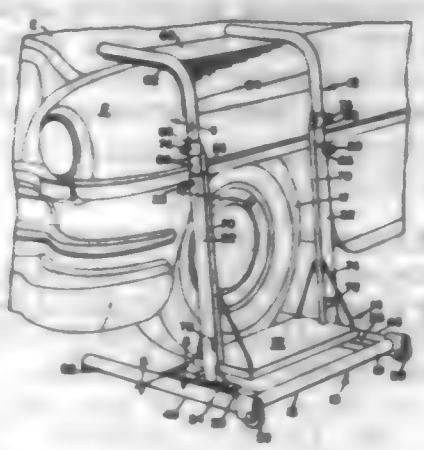
2,872,251
SCAFFOLD END FRAME AND ADAPTER
Glenn R. Crosby, Kansas City, Mo.
Application June 17, 1954, Serial No. 437,376
2 Claims. (Cl. 304—2)



1. A split level scaffold having horizontal platforms at vertically spaced levels comprising an end section including a pair of spaced legs, a pin extending outwardly from one end of each of said end legs for engagement with an opening in the opposite end of a leg of a similar end section, a plurality of spaced lateral members for connecting the legs of said end sections and a plurality of cross brace members adapted to maintain said end sections in spaced relation, and an adapter including a leg adapted to extend from said third spaced leg of said end section to the upper platform level.

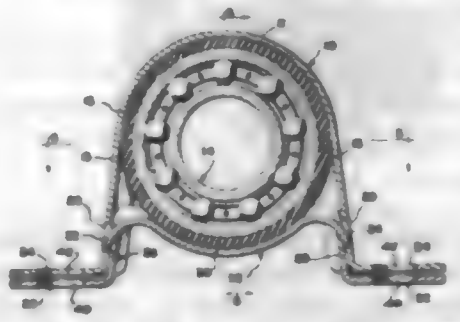
2,872,252
SERVICING STAND
Raymond L. Konkle, Clinton, Iowa
Application February 7, 1957, Serial No. 638,768
9 Claims. (Cl. 304—2)

8. A servicing stand of the class described, comprising: a base having bottom means adapted to rest on the floor or ground and upright means rigidly secured to said bottom means; an upper element having a top portion and depending means rigidly secured to said top portion and vertically slidably engaging the upright means to enable vertical adjustment of the upper element relative to the base; lock means cooperative between the base and upper element for releasably fixing selected adjusted positions



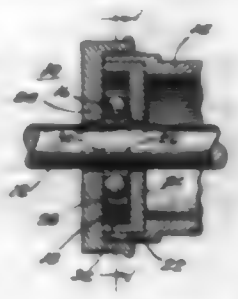
of said element; and step structure secured to and depending from the upper element.

2,872,253
PILLOW BLOCK
Howland S. Foote, Bristol, and Richard V. Tino, Terryville, Conn., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 1, 1956, Serial No. 613,055
6 Claims. (Cl. 308—36)



1. A pillow block comprising a U-shaped member, depending legs on said member, each of said legs having an opening therein, a support member having a depressed intermediate portion, and a pair of struck-out resilient fingers on the support member intermediate its ends and at each end of said intermediate portion, said struck-out fingers being arranged to demountably and yieldably snap into the openings in the legs to detachably interlock said members in unit-handling assembled relation.

2,872,254
BEARING ASSEMBLY
John F. McNaughton, Mount Prospect, and Paul Gottfried, Chicago, Ill., assignors, by mesne assignments, to Cook Electric Company, Chicago, Ill., a corporation of Delaware
Application March 23, 1955, Serial No. 496,151
8 Claims. (Cl. 308—35)



1. Bearing apparatus comprising a first annular bearing assembly having inner and outer relatively rotatable peripheral portions and a plurality of antifriction elements therebetween, a lubricant applied to said bearing assembly capable of withstanding temperatures above a given range and having increased viscosity at temperatures below said given range, and annular bearing means having inner and outer peripheral surfaces, one of which is coaxially mounted in engagement with one of said

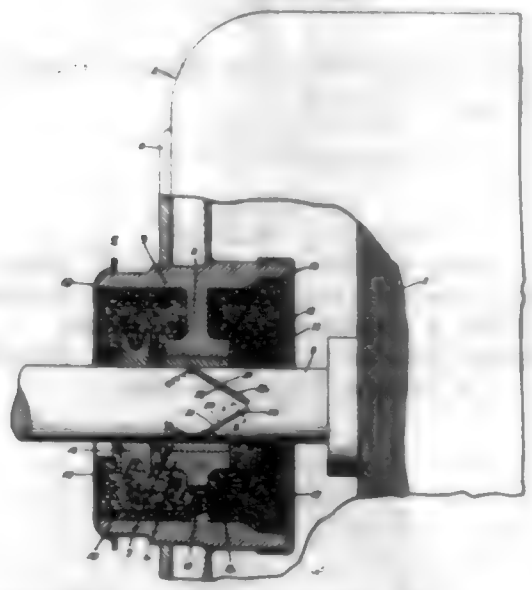
peripheral portions whereby for temperatures lower than said predetermined range said annular bearing means provides rotative movement of the bearing apparatus while at said temperatures above said given range said bearing assembly provides lower friction rotative movement between the inner and outer portions.

2,871,155

BEARING ARRANGEMENT

Paige W. Thompson, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York

Application July 12, 1957, Serial No. 671,446
4 Claims. (Cl. 308—132)



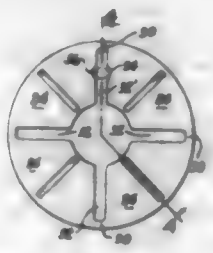
1. In combination, a shaft rotatable in either direction, a bearing therefor comprising a sleeve member for rotatably supporting said shaft, and a wicking member arranged in contact with said shaft adjacent said sleeve member for supplying lubricant thereto, one of said shafts and said sleeve members including a pair of oppositely spiralled grooves formed therein co-extending substantially from said wicking member over the axial length to be lubricated, a first side of each said groove remote from the other groove forming a substantially continuous smooth surface, the other side of each said groove adjacent the other groove being formed of a series of short surfaces angularly displaced relative to each other whereby said first side of each said groove effects pumping substantially more effectively than said other side.

2,872,256

THRUST BEARING

John B. Thomson, Manhasset, N. Y.

Application February 24, 1955, Serial No. 490,187
2 Claims. (Cl. 308—163)



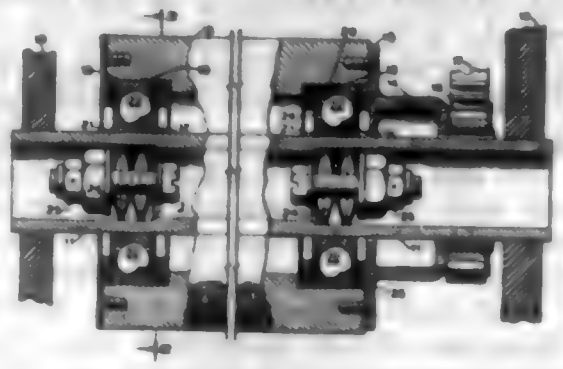
1. A thrust bearing comprising an annular flat-surfaced member formed from a tough, wear-resistant, resilient plastic material, said member having a central opening and a plurality of radial slots extending substantially, but not completely, therethrough so as to divide the member into a plurality of connected segments, the width of said slots being sufficient to compensate for the expansion of the segments during operation, and at least one oil groove formed in each segment.

2,872,257

SEALING MEANS FOR ROLLER BEARINGS

Edgar A. Brown, Owego, and Charles C. Zuleeg, Vestal, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application June 27, 1955, Serial No. 518,016
2 Claims. (Cl. 308—187)



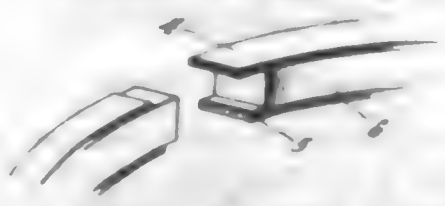
1. A lubrication system for a rolling type bearing assembly comprising a plurality of circumferentially spaced rolling elements having a rotatable outer race and a stationary inner race for guiding said rolling elements, a sintered metal sealing ring having an outer periphery mounted at each side of said outer race and cooperating with said races to define a chamber for enclosing said rolling elements and retaining a quantity of lubricant therein, and means disposed on each side of said bearing assembly to provide an inwardly opening channel, said channel having an annular ring of grease disposed therein with a radial depth to cover a portion of said sintered metal sealing ring and to develop a pressure head in excess to that developed by the lubricant in said chamber when said outer race and channel are rotated, whereby a portion of the external lubricant is forced through said sintered metal sealing rings by the differences in the pressure heads to supply additional lubricant to said chamber.

2,872,258

PISTON RING FOR INTERNAL COMBUSTION ENGINES AND THE LIKE

Heinz Berg, Frankfurt am Main, Germany, assignor to Alfred Teves Maschinen- und Armaturenfabrik KG, Frankfurt am Main, Germany

Application August 29, 1955, Serial No. 530,964
Claims priority, application Germany September 1, 1954
1 Claim. (Cl. 309—46)



A piston ring for combustion engines, compressors, and similar devices, which comprises a plurality of superposed rings with their ends in staggered relationship which enables them to dovetail upon contraction, whereby said ends will become engaged in the manner of a lock, and wherein two laminated steel rings are combined with an interposed plastic ring.

2,872,259

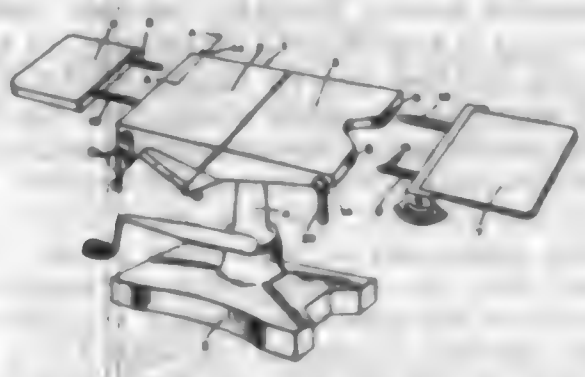
OPERATION TABLES HAVING REMOVABLY SUPPORTED INTERCHANGEABLE HEAD AND LEG EXTENSION SECTIONS

Ronald James Thorpe, New Addington, England, assignor to Allen & Hanburys Limited, London, England, a British company

Application November 25, 1957, Serial No. 698,830
Claims priority, application Great Britain November 26, 1956
4 Claims. (Cl. 311—10)

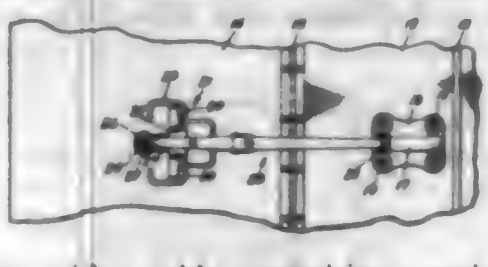
1. A surgical operation table comprising a base, a platform mounted on said base for supporting a patient and

having, extending inwards from each end, sockets disposed lengthwise of said platform, a head extension section and a leg extension section each of which is removably connected with an end of said platform, support pins on each of said extension sections removably



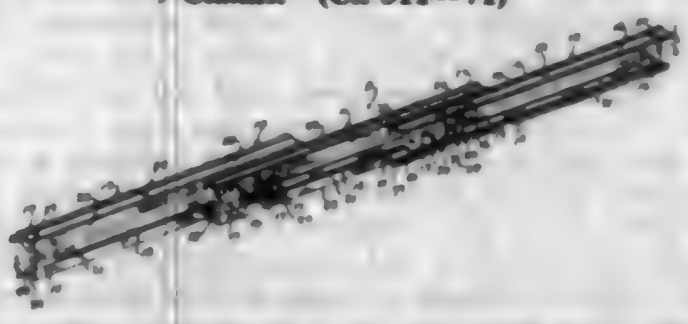
engageable in said sockets at one end of said platform whereby each said section can be connected to and removed from said platform interchanged with the other said section, and releaseable locking means adjacent each end of said platform for locking said extension sections in position.

2,872,260
ADJUSTABLE SUPPORT FOR TABLE DROP LEAF
Thomas G. Walter, Wabash, Ind., assignor to B. Walter & Company, Inc., Wabash, Ind., a corporation of Indiana
Application June 17, 1957, Serial No. 666,175
4 Claims. (Cl. 311—65)



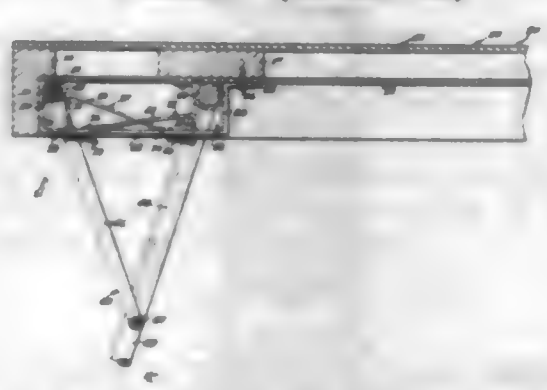
1. For use with a table comprising certain stationary parts and a leaf hinged to one of said stationary parts, a support for such a leaf comprising a first bracket, means for securing said first bracket to one of said stationary parts, a second bracket, means for securing said second bracket to said leaf, and brace means operatively connecting said brackets, the securing means for one of said brackets including an element mounted for eccentric adjustment about a fixed point of attachment to its table element, and coacting with said one bracket, when so adjusted, to shift said one bracket, relative to said fixed point, toward or away from the other bracket.

2,872,261
METALLIC SLIDES FOR FACILITATING THE EXTENDING OF TABLE TOPS AND THE LIKE
Edward J. Dobbratz and Alvin M. Ellington, Watertown, Wis., assignors of one-fourth to Janet Ellington Dobbratz and one-fourth to Lois Forbes Ellington
Application November 20, 1956, Serial No. 623,475
7 Claims. (Cl. 311—71)



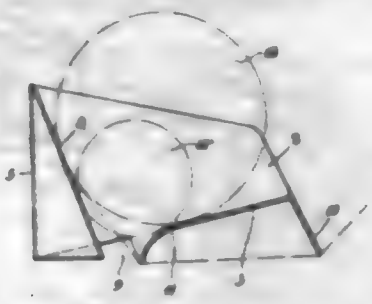
1. A slide assembly for extension tables comprising inner and outer rails and at least one intermediate rail, all of said rails being fabricated from metal structural units and each including upper and lower spaced longitudinally extending sections having a horizontal web and a vertical web, each respective metal structural unit being uniform in shape throughout its entire length, whereby any portion of said unit may be cut and utilized depending on the desired length of slide required, plates rigidly uniting the upper and lower sections of the rails together with their vertical webs accurately spaced to define slide slots, and slide blocks carried by certain plates extending into the slots of adjacent rails and engaging the facing edges of the slots to slidably connect said rails together.

2,872,262
LOCKING MECHANISM FOR LEGS OF FOLDING TABLES
Herbert Kline, Sr., Colfax, Iowa
Application July 29, 1958, Serial No. 751,697
2 Claims. (Cl. 311—88)



1. In a folding table, a top member, base members secured to said top member, a bracket mounted below each end portion of the top member, each of said brackets including a first section contiguous to the bottom of the top member, a second section arranged at right angles with respect to said first section, a third section arranged at right angles to said second section, a fourth section arranged at right angles to said third section, a fifth section arranged at right angles to said fourth section, and said fifth section being secured to the adjacent base member, a pair of spring members each including an inclined portion having an end secured to the third section of said bracket, there being a pair of spaced apart openings in said third section, a straight portion extending from each inclined portion and movably extending through a corresponding opening in said third section, a flange arranged at right angles with respect to the lower end of each straight portion, bearings mounted below said top member, a pair of shafts rotatably supported by said bearings, a pair of legs secured to each shaft, braces extending between said legs and shafts, body members each including a pair of angularly arranged arms pivotally connected to said legs, and a web connecting each pair of arms together, and a lip extending from the second section of each bracket and defining a space for at times receiving the corresponding web therein.

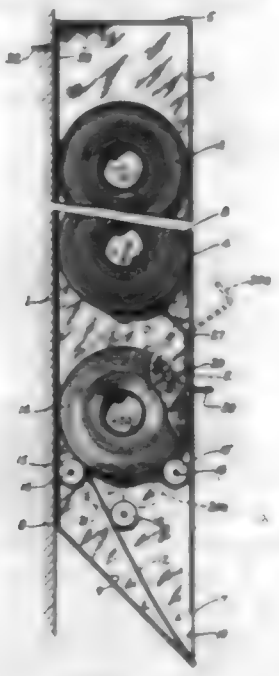
2,872,263
HOLDERS FOR A ROLL OF PAPER
Per Erland Daniel Andersson, Ha, Sweden, assignor to Bo Olof Kaller, Enskede, Sweden
Application January 20, 1956, Serial No. 560,453
Claims priority, application Sweden September 26, 1955
5 Claims. (Cl. 312—39)



1. A holder for a roll of sheet material comprising, in combination, a rear wall, a bottom wall inclined down-

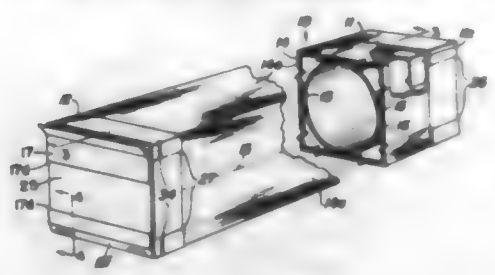
wardly from the end to the rear end thereof relative to said rear wall, said bottom wall being spaced forwardly from said rear wall to define an opening for receiving a web of paper therethrough, the opening defining edge portion of said bottom wall presenting a convex surface facing said rear wall for supporting a roll of sheet material diminishing in diameter.

2,872,264
PAPER DISPENSERS
Frederick L. Nehring, Nampa, Idaho
Application April 25, 1956, Serial No. 580,517
8 Claims. (Cl. 312—39)



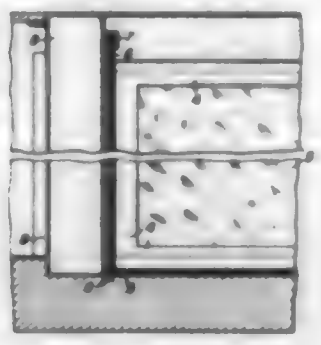
3. In a combined roll holder and paper dispenser, an elongated vertically extending chute of suitable dimension for holding in stacked relation a plurality of rolls of paper, said rolls of paper each being mounted on a deformable core, a pair of spaced supporting rollers arranged at the lower end of the chute and adapted to support the lower roll and to retain the same in position for rotation for discharge of the paper therefrom, a central supporting roller positioned intermediate the first mentioned supporting rollers and spaced from the latter a distance slightly less than the diameter of said deformable core, whereby the core will be retained in the chute until all of the paper has been dispensed therefrom and lever means for lowering the stack of rolls to furnish a new roll to the spaced supporting rollers and to discharge the core from between the lower roll and the spaced supporting rollers by pressure from the lowered stack.

2,872,265
MULTIPLE UNIT STORAGE FILE
Robert S. Shelly, Logan, Utah, assignor to Pack Manufacturing Company, Logan, Utah, a corporation of Utah
Application May 4, 1956, Serial No. 582,803
20 Claims. (Cl. 312—107)



1. A multiplex storage receptacle for rolled sheets, comprising an elongate receptacle body made up of an inner tube member and an outer container member for said tube member, said container member comprehending at least the major portion of the length of said tube member and including a plurality of flat walls, each extending longitudinally of said tube member and being disposed in tangential contact therewith; separate rigid closure caps secured to opposite ends, respectively, of said receptacle body, said end caps each being secured to at least one of said members and tightly closing both the inner tube member and the outer container member and having exterior surfaces which are substantially coplanar prolongations of said flat walls; a door in one of said closure caps affording access only to the interior of said inner tube member, said door comprehending the entire cross-sectional area of said inner tube member; and means defining a finger entryway in said one cap, aligned with the space between the peripheries of the inner tube member and the outer container member, respectively, to facilitate insertion and removal of rolled sheets, said entryway being comprehended and normally closed by said door and extending inwardly of said one cap from said door and communicating along its depth with the interior of the inner tube member.

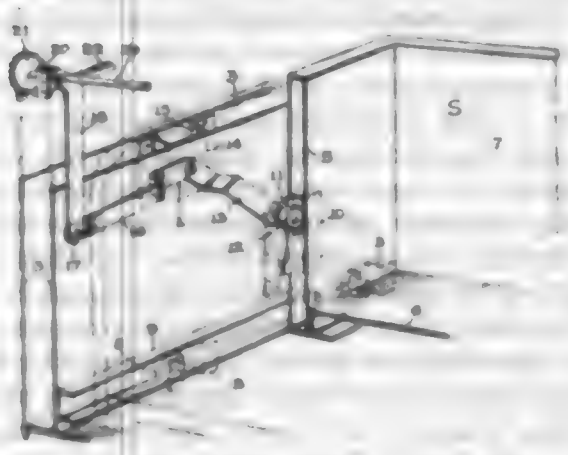
1,871,164
DISPLAY CASE DOOR
Frederick S. Holderle, Harvey C. R. Holderle, and Norbert F. W. Holderle, Rochester, N. Y.
Application March 11, 1957, Serial No. 645,052
2 Claims. (Cl. 312—138)



2. In a display case including a front display section, end display sections which extend rearwardly from the ends of the front section, and a counter in rear of the front display section and between said end display sections, a door in each of said end display sections adjacent to said counter, each door including a rectangular metal frame of U-shaped cross-section, a transparent panel secured in said metal frame along all four edges, a vertical metal rod fixed to the outer surface and centrally of one side of said metal frame and extending above and below the top and bottom of said frame, a fixed bearing in which the said upper end of said rod engages for turning, a base plate having an opening which receives the lower end of said rod, said bearing being located above said frame a distance sufficient to permit vertical movement of the door upwardly to enable the bottom of the rod to clear the opening in the base plate, said rod projecting into said base plate a slight distance less than the distance of said bearing above the door and sufficient to retain the door when in its lowermost position, the door being movable vertically to remove the lower end of the rod from said base plate and thence outwardly at its lower end, a metal overhang in spaced parallel relation in front of the door, said metal overhang extending downwardly to a point slightly above the top edge of the door whereby the door may swing to open position only when the supporting rod is in its lowered position, the door engaging said overhang when swung outwardly while the supporting rod is in its upper position and being thus prevented from swinging outwardly except when the sup-

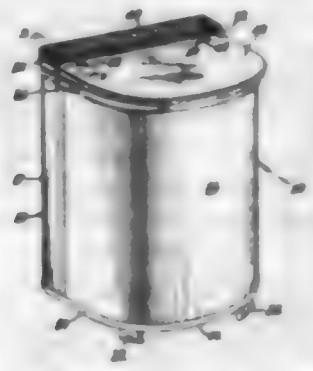
porting rod is in its lowermost position, the door being engaged with surrounding walls when the supporting rod is in its lowermost position.

2,872,267
BOOKCASE
William J. Machingo and Albert T. Swimmer, Youngstown, Ohio, assignors to The General Fireproofing Company, Youngstown, Ohio, a corporation of Ohio
Application March 5, 1958, Serial No. 719,252
6 Claims. (Cl. 312—273)



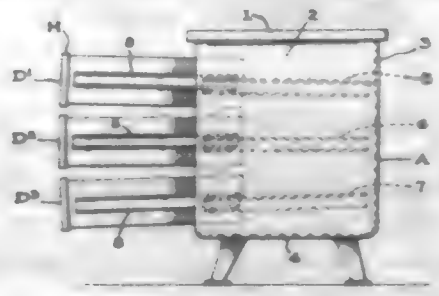
1. A bookcase or the like comprising, a cabinet, a shelf mounted in the bottom portion of the cabinet for sliding movement into and out of the same, racks in the top portion of the cabinet, a combined shaft and hinge having pinions at its ends for engaging with said racks, a door pivotally mounted at its upper end on said shaft and movable from a vertical closed position to a horizontal open position in the top of the cabinet, and link and lever means controlled by the sliding movement of said shaft for propelling the shelf out of the cabinet when the door is slidably moved into the cabinet, and vice-versa.

2,872,268
HAMPERS
Harold Gleitsman, New Rochelle, N. Y.
Application August 4, 1955, Serial No. 526,516
3 Claims. (Cl. 312—200)



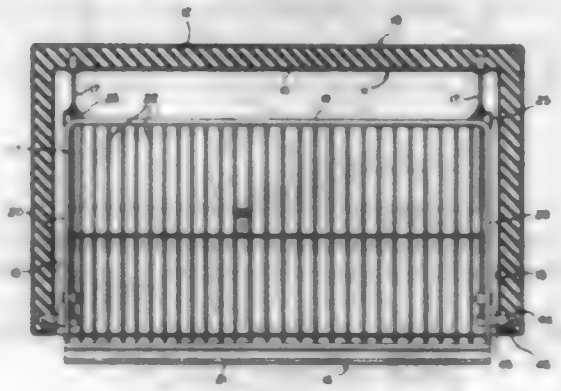
1. In a hamper having a bottom wall and a vertical peripheral wall which defines with said bottom wall a receptacle open at the top thereof; a closure for said top opening comprising a horizontal rear part mounted against movement at said top opening to cover a rear portion of the area of said top opening and a forward part mounted for movement at said top opening to provide a movable cover for the remaining area of said top opening, compartment defining means mounted by said rear part, said compartment defining means comprising an upstanding railing extending about said rear part to confine against accidental displacement therefrom of articles disposed on said rear part, said railing extending into the path of opening movement of said movable cover to limit said opening movement to prevent said movable cover from contacting said articles during said opening movement thereof.

2,872,269
MOUNTING FOR DESK DRAWERS
Alfred H. Anderson and Wilford Anderson, Youngstown, Ohio, assignors to The General Fireproofing Company, Youngstown, Ohio, a corporation of Ohio
Application June 17, 1958, Serial No. 742,573
3 Claims. (Cl. 312—330)



1. A cabinet having a drawer opening, side walls within the opening, and a plurality of drawer supporting members on the side walls disposed in relatively diverging relation toward the cabinet opening and drawers having head portions slidable on said supporting members, whereby, when the drawers are pulled outwardly of the opening their head portions will be separated.

2,872,270
SLIDING REFRIGERATOR SHELF
Charles R. D'Olive, Winnetka, Ill., assignor to Chamberlain Corporation, Waterloo, Mich., a corporation of Iowa
Application August 6, 1956, Serial No. 602,133
10 Claims. (Cl. 312—332)

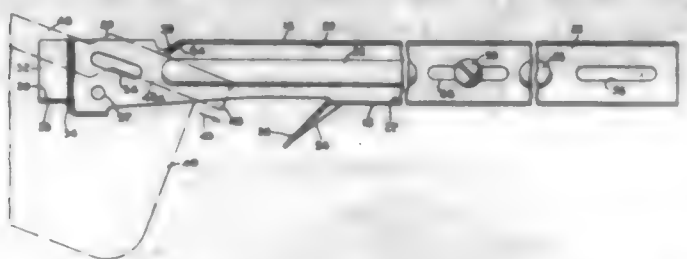


1. In a refrigerator, a cabinet having a liner having a rear wall and parallel spaced side walls extending therefrom, a sliding shelf within said cabinet, and means for supporting said shelf for free slidable movement with respect to said cabinet comprising two independent bars extending along opposite side walls of said cabinet, sockets in the rear wall of said cabinet having said bars loosely mounted therein and including resilient means biasing said bars toward the forward end of said cabinet, and individual supports for the forward ends of said bars accommodating independent lateral slidable movement of said bars with respect to the side walls of said cabinet, and retaining said bars from movement along said side walls toward the outer ends thereof.

2,872,271
DRAWER GUIDE
Charles W. Niedringhaus and Donald C. Petitt, New York, N. Y., assignors to Knoll-Drake Products, Inc., New York, N. Y.
Application March 28, 1955, Serial No. 497,212
4 Claims. (Cl. 312—345)

3. A drawer comprising side walls having laterally projecting flanges on either side thereof, each said flange including a first inner horizontal portion extending longitudinally of the drawer a substantial distance from the inner end thereof, a second horizontal portion extending longitudinally of the drawer outwardly of said inner portion and at a lower level, said drawer being insertable in a drawer opening by manipulation past two fixed ob-

struction on each side thereof, the two obstructions on each side being spaced longitudinally a distance greater than the length of said innermost flange portion and



spaced vertically a distance less than the spacing between the upper surface of the uppermost flange portion and the lower surface of the lowermost flange portion.

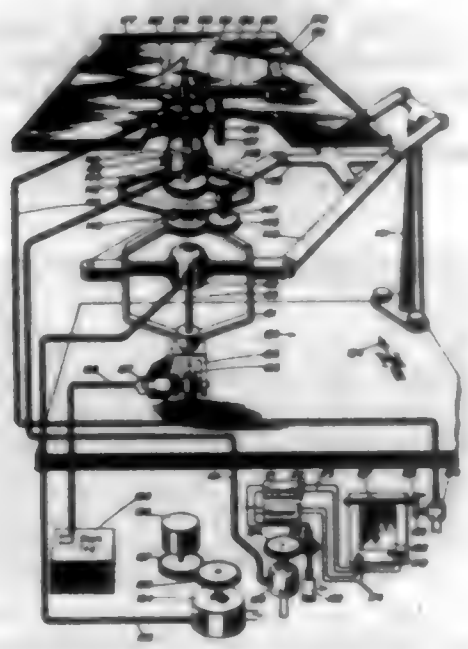
2,872,272

AUTOMATIC RELATIVE POSITION PLOTTER

Oscar Hugo Schuck, Belmont, Mass., assignor to the United States of America as represented by the Secretary of the Navy

Original application September 21, 1944, Serial No. 555,152. Divided and this application May 1, 1957, Serial No. 661,987

3 Claims. (Cl. 346—8)



1. Position plotting apparatus of the character described for indicating the instantaneous positions, relative movements and courses of travel of two independently varying self-propelled vehicles moving in the plane of the earth's surface on a planar reference chart carried by a first of said vehicles, said apparatus including a plurality of synchro-repeater type drive means, a first of said drive means being responsive to input signal intelligence indicative of instantaneous changes in bearing of said first vehicle with respect to a fixed geographical reference whereby said plotting apparatus is continuously maintained in orientation with respect to said geographical reference, a second of said drive means being responsive to signal intelligence correlative to changes in linear speed of said first vehicle, a third of said drive means being responsive to the relative bearing of said second vehicle with respect to the instantaneous position of said first vehicle, and a fourth said drive means being continuously responsive to input signal intelligence correlative to the instantaneous relative range between said first and second vehicles, said apparatus further including a supporting table disposed in parallelism with said reference chart, a pantograph arm mechanism, stanchion means for mounting said pantograph arm mechanism in a plane intermediate said chart and supporting table, means for mounting said second mentioned drive means at the center of the outer portion of said pantograph arm mechanism, a first vertically disposed frame member affixed to the outer portion of said pantograph arm mechanism, a yoke member having a rotatable shaft journalled in the lower portion of said frame member and extending vertically upward therefrom and connected to be driven by said second drive means, a transverse shaft journalled in said yoke, a feed roller affixed to said transverse shaft, said first drive means being mounted on said yoke and connected to said transfer shaft in a manner to drive said feed roller along the surface of said supporting table, gear train means having a first element thereof affixed to the upper portion of said frame member, a second vertically disposed frame member rotatably mounted in axially aligned relation to the axis of rotation of the shaft of said yoke member, said second frame being journalled at the center of said gear train means element for relative rotation with respect thereto, said gear train means being connected to the output of said third drive means and having elements thereof journalled in said second frame member and so connected to said first element thereof so as to provide rotative displacement of said first and second frame members, a third frame member extending upwardly in vertical alignment with the axes of said first and second frame members and carrying a first scribing means at the upper end thereof, means for mounting said fourth drive means on said third frame member, means extending laterally from said third frame member and carrying a longitudinally slidable gear rack, a second scribing means carried by said gear rack at the outer end thereof, and a second gear means connected to the output of said fourth drive means for providing linear movement of said rack with respect to said third frame member, said scribing means being disposed in a manner to scribe, on said chart, plots of the changes in the relative positions of said moving vehicles.

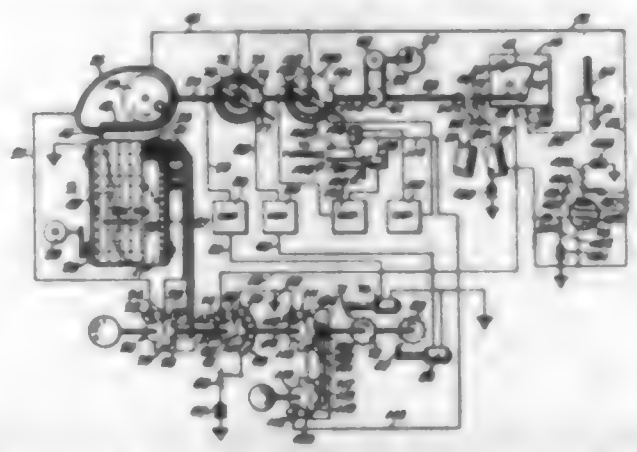
2,872,273

SCANNING TYPE CONTINUOUS RECORDING METER

Hamilton A. Stamper, Los Angeles, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware

Application November 3, 1952, Serial No. 318,465

9 Claims. (Cl. 346—33)



1. Apparatus of the type described comprising: a scanning means movable through a plurality of positions corresponding to predetermined different values; indicating means energizable to indicate a value corresponding to the position of said scanning means at the time of energization; a master element movable about an axis of rotation through a plurality of positions related to said predetermined different values; a scanning pickup element and means supporting it for rotation coaxial with, but independently of, said master element; means for periodically moving said scanning means through said positions corresponding to predetermined different values; means coupling said pickup element to said scanning means for movement in phase therewith such that during successive scanning trips of said scanning means through

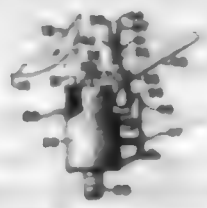
said plurality of positions said pickup element rotates through the same predetermined arc; means including cooperating members on said master element and said pickup element responsive to any angular position of said master element within said plurality of positions for momentarily energizing said indicating means at the instant of movement of said pickup element through a corresponding angular position; said means for momentarily energizing said indicating means comprising: means for producing and directing a beam of light along a first path intersecting the axis of rotation of said master element, a first mirror on said master element in the said first path for reflecting said beam into a second path the locus of which in response to rotation of said master element through its arc is a surface of revolution about said axis of rotation, a second mirror on said scanning pickup element radially displaced from said axis and in said locus of said second path for intercepting said beam at the instant of movement of said pickup element through said corresponding position and reflecting it through a third path back to said first mirror for reflection into a fixed fourth path, a light-responsive cell in said fourth path responsive to said beam to produce an electric pulse, and means for energizing said scanning means in response to said electric pulse.

2,872,274

ELECTRO-MECHANICAL CHRONOGRAPH

William M. Hurst, Fort Worth, Tex., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application April 19, 1957, Serial No. 654,848
4 Claims. (Cl. 346—38)



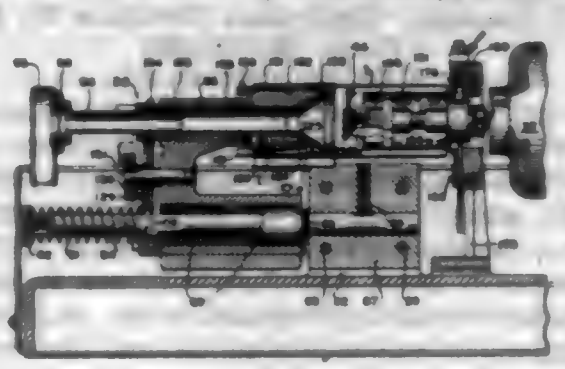
1. An electro-mechanical chronograph of the character disclosed comprising a rotatable drum having a recording chart secured about the periphery thereof, means for rotating said drum at a uniform high rate of speed, a plurality of marker elements mounted for pivotal movement about an axis parallel to the axis of rotation of said drum, each of said marker elements being composed of spring wire and having a bifurcated portion formed in a central portion along the length thereof and two helical portions contiguous with said bifurcated portion and disposed about said first named axis, an electromagnet comprising a casing, a bearing pin carried by said casing concentric with said first-named axis and arranged within each of said helical portions, means for securing the ends of said wire to the associated casing, an armature carried by said bifurcated portion of the marker and normally in a release position with respect to said electromagnet, a normally closed energizing circuit for the electromagnet, manipulative means pivotally carried by said pin and operable independently of the armature for moving said armature into contact with the electromagnet as the manipulative means is moved into engagement with said armature, said electromagnet being of sufficient strength to maintain the armature in engagement therewith when the energizing circuit is closed and the manipulative means is disengaged from the armature, and a rounded marking surface at the other extremity of said bifurcated portion of the marker for marking said chart while the drum is rotating at high speed as the energizing circuit is interrupted.

2,872,275

FACSIMILE APPARATUS FOR USE IN PRODUCING TICKETS, MESSAGES AND THE LIKE

Raleigh J. Wise, Arlington, and Douglas M. Zabriskie, Northvale, N. J., assignors to The Western Union Telegraph Company, New York, N. Y., a corporation of New York

Application November 23, 1954, Serial No. 470,628
14 Claims. (Cl. 346—74)



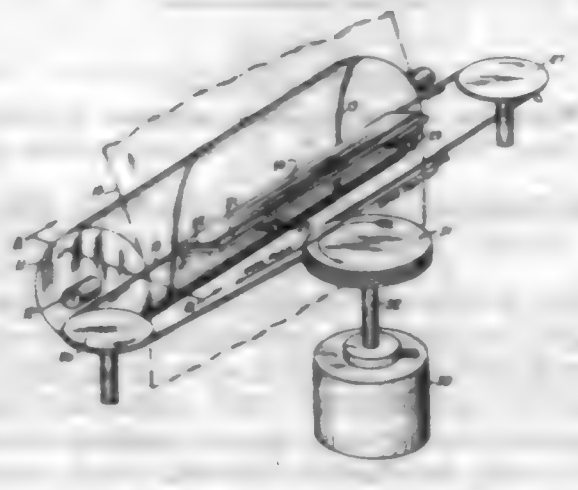
10. A facsimile recorder having means for wrapping a recording sheet into a cylindrical tube for internal scanning and for unwrapping the sheet at the end of a recording operation, comprising a rotatable electrical stylus for marking the inner surface of the tube in accordance with received facsimile signals, means including a drive shaft and a driven member for rotating said stylus to effect scanning, brake means for retarding rotation of said driven member, and stylus-positioning means including said driven member operative upon the application of said brake means for retracting said stylus out of contact with said inner surface of the tube both prior to and at the completion of a recording operation and for actuating the stylus into contact with said tube upon release of said brake means to effect a recording operation.

2,872,276

FACSIMILE DEVICE

Augustus J. Eaves, Rye, N. Y., assignor to the United States of America as represented by the Secretary of the Navy

Application March 3, 1955, Serial No. 492,056
8 Claims. (Cl. 346—101)



1. In a facsimile device, a rotary scanning helix wire, a printer mechanism for use therewith comprising a guide bar extending along the helix parallel to the helix axis, the edge of said bar adjacent the helix having a longitudinal groove from end to end thereof, a wire seated in said groove and extending along and beyond said guide bar, means for feeding said wire along said groove, a support for said bar enabling the bar to rock in a plane including the axis of said helix and including a sponge rubber tongue secured to said bar remote from the groove therein, and means engaging said sponge rubber to provide substantially steady force between said wires whereby said wires are adapted for firmly engaging with a substantially steady pressure a sheet of paper disposed and moving therebetween.

CHEMICAL

2,872,277
DYEING OF LEATHER
Joseph S. Kirk, East Greenbush, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application December 29, 1955
Serial No. 556,091
4 Claims. (Cl. 8—12)

1. A process for coloring leather comprising spraying the leather with an aqueous bath containing a sulfuric acid ester salt of a leuco vat dyestuff, an agent selected from the group consisting of water-soluble anionic and non-ionic surface active agents, a member of the group consisting of N-lower alkyl-2-pyrrolidones, N,N-dimethylformamide, N,N-diethylformamide, and N,N-dihydroxyethylformamide, and sodium nitrite, and then treating the sprayed leather with an acid solution.

2,872,278
SYNTHETIC TANNINS FROM SULFOMETHYLATED YACCA GUM AND PROCESS OF TANNING THEREWITH
Robert C. Putnam, Mountain Lakes, N. J., and Stanley I. Hayes, Jr., Hamilton, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
No Drawing. Application January 3, 1955
Serial No. 479,674
3 Claims. (Cl. 8—94.32)

1. The herein described tanning agent obtained by reacting in aqueous medium an alkaline mixture containing one part, by molar proportion, of unmodified yacca gum, 5.0 to 11.2 parts of formaldehyde and 2.5 to 5.4 parts calculated as sulfite, of an alkali metal salt of sulfurous acid selected from the group consisting of alkali metal sulfites, alkali metal bisulfites, and alkali metal metabisulfites, the molar proportion of the sulfite not being in substantial excess of that of the formaldehyde, at temperatures of 70–110° C. until the product is soluble without precipitate in water acidified with sulfuric acid to a pH of about 2.5.

2,872,279
DYEING PROCESS
George Wiseman, Fairlawn, N. J., assignor to Ciba Company, Inc., New York, N. Y., a corporation of New York
No Drawing. Application March 30, 1953
Serial No. 345,726
1 Claim. (Cl. 8—55)

A process for dyeing polyethylene terephthalate textile material, which comprises pretreating the aforesaid textile material with a composition comprising orthophenylphenol, turkey red oil (about 50% sulfonated) and pine oil dispersed in an aqueous medium, adding a dispersed cellulose acetate dye thereto while the textile material is still therein, and subjecting the pretreated material to the resulting dyebath.

2,872,280
PROCESS OF BLEACHING CELLULOSE PULPS BY ABSORBING ALKALI IN THE PULP AND THEN APPLYING HYDROGEN PEROXIDE
Robert R. Kindron, Malden, Mass., assignor, by mesne assignments, to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
No Drawing. Application May 27, 1953
Serial No. 357,889
1 Claim. (Cl. 8—104)

In the bleaching of cellulose pulps with alkaline peroxide, the improvement which comprises adding to the pulp a solution consisting of water and an alkali, until the pulp has absorbed an amount of alkali equivalent to 0.05% to 3% by weight of sodium hydroxide, said amount being calculated as percent by weight of the pulp on an oven dry basis, and then after the pulp has absorbed the alkali, introducing into the so impregnated pulp a solution in water of from 0.1 to 1% by weight, on an oven dry pulp basis, of hydrogen peroxide, and then permitting the so treated pulp to bleach.

2,872,281
CORROSION INHIBITING
Harry L. Kahler, Feasterville, and Charles B. George, Philadelphia, Pa., assignors, by mesne assignments, to Betz Laboratories, Inc., a corporation of Pennsylvania
No Drawing. Application March 24, 1954
Serial No. 418,458
11 Claims. (Cl. 21—2.7)

1. The process of protecting the metal parts in a cooling water system against corrosion, which comprises flowing water in a stream through the cooling water system and maintaining the water continuously in contact with the metal parts, adding to the water between 1 and 1000 p. p. m. of water soluble phosphate compound, between 1 and 1000 p. p. m. of water soluble chromate compound, and between 0.1 and 100 p. p. m. calculated as metal ion of a water soluble compound of the class which consists of compounds of trivalent chromium and compounds of hexavalent molybdenum, while maintaining a pH in the range between 3 and 8.5 in the case of trivalent chromium and in the range between 5 and 9 in the case of hexavalent molybdenum, and depositing on the metal parts a continuously replenishing protective coating.

2,872,282
METHOD OF INHIBITING CORROSION IN STEAM LINES
Leonard H. England, Brownsville, Miss.
No Drawing. Application September 19, 1955
Serial No. 535,287
6 Claims. (Cl. 21—2.7)

1. In the operation of a steam boiler system comprising metallic reservoirs and lines containing water which is boiled therein to provide steam, the improvement which comprises introducing into said water a substance selected from the group consisting of a polymeric product formed by reacting propylene oxide with phosphoric acid, a polymeric product formed by reacting propylene oxide with phosphoric anhydride and salts of said products.

2,872,283
PREPARATION OF POLYMERIC PHOSPHONITRILIC CHLORIDE
Maurice C. Taylor, Niagara Falls, N. Y.
No Drawing. Application January 13, 1956
Serial No. 558,855
3 Claims. (Cl. 23—14)

1. A process for the manufacture of phosphonitrilic chloride polymerized to a moderate degree which comprises heating a mixture of polymers of phosphonitrilic chloride above 200° C. at a pressure in excess of the vapor pressure of the trimer of phosphonitrilic chloride at the temperature of operation until a highly polymerized product is produced, thereafter heating the highly polymerized product at a temperature above 300° C. and at a pressure less than the vapor pressure at the temperature of this operation of the lower molecular weight polymers being formed until the highly polymerized product

is depolymerized and then fractionating the depolymerized product by distillation and separating the desired polymers polymerized to a moderate degree, mixing the undesired lower polymers and the still residue for a repetition of polymerization, depolymerization and fractionation distillation as described.

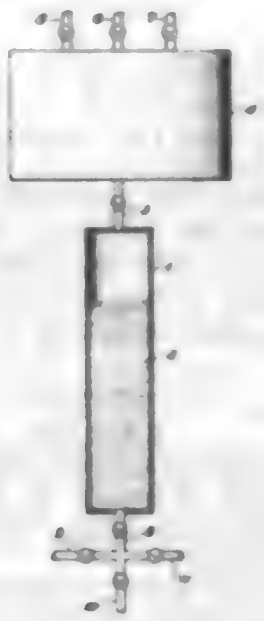
2,872,284

RECOVERY OF PROTACTINIUM

Kurt A. Kraus, Oak Ridge, and George E. Moore, Martel, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 8, 1950, Serial No. 148,314

5 Claims. (Cl. 23—14.5)



1. A process for the separation and separate recovery of protactinium values from an aqueous solution containing the same together with thorium values, which comprises establishing in the solution a hydrochloric acid concentration substantially within the concentration range of from 4 to 11 molar, contacting the resulting solution with an anion-exchange adsorbent, thereby effecting the adsorption of protactinium values upon the adsorbent while leaving thorium values remaining unadsorbed in the solution, thereafter separating the protactinium-bearing adsorbent from contact with the thorium-containing solution, and subsequently washing the separated protactinium-bearing adsorbent with an aqueous solution of hydrochloric acid in concentration less than 4 molar, thereby eluting protactinium values from the adsorbent.

2,872,285

SOLVENT EXTRACTION OF URANIUM VALUES

Harold M. Feder and Milton Ader, Park Forest, and Laurids E. Ross, Naperville, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application September 6, 1956
Serial No. 608,408

12 Claims. (Cl. 23—14.5)

1. A process of extracting uranium mineral acid salts from an aqueous solution having a maximum pH value of 7, comprising contacting said aqueous solution with a substantially water-immiscible dialkylacetamide having at least 8 carbon atoms in the molecule, and separating a uranium values-containing organic phase from a uranium-depleted aqueous phase.

2,872,286

BISMUTH PHOSPHATE CARRIER PROCESS FOR Pu RECOVERY

Theron G. Finzel, Cleveland, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application August 31, 1945
Serial No. 613,951

7 Claims. (Cl. 23—14.5)

1. In a carrier precipitation process for recovering tetravalent plutonium values from an aqueous solution containing the same comprising adding sources of bismuth ions and phosphate ions to said solution to precipitate therein bismuth phosphate which thereupon carries plutonium values from solution, the improvement which comprises effecting said addition of bismuth and phosphate ions by first adding a major portion but not more than nine-tenths of the total bismuth ions to be incorporated for precipitation, then adding all of the source of phosphate ions to be incorporated for precipitation, and thereafter adding at least one minor portion of bismuth ions to effect incorporation of the remainder of the total bismuth ions for precipitation, thereby forming a bismuth phosphate carrier precipitate of improved plutonium-carrying efficacy.

2,872,287

METHOD OF SEPARATING TETRAVALENT PLUTONIUM VALUES FROM CERIUM SUB-GROUP RARE EARTH VALUES

Robert B. Duffield, Champaign, Ill., and Raymond W. Stoughton, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application March 12, 1947
Serial No. 734,218

3 Claims. (Cl. 23—14.5)

1. A method of separating tetravalent plutonium values from rare earth values of the cerium sub-group contained in an aqueous solution, comprising adding to said solution a complexing agent for plutonium selected from the group consisting of alkali metal carbonate and uranyl nitrate, adding alkali metal carbonate as a precipitating agent in a quantity to obtain a pH value of at least 5.5 so that the rare earth values precipitate while the plutonium values remain in solution, and separating the precipitate formed from the solution.

2,872,288

CARBONATE METHOD OF SEPARATION OF TETRAVALENT PLUTONIUM FROM FISSION PRODUCT VALUES

Robert B. Duffield, Champaign, Ill., and Raymond W. Stoughton, Oak Ridge, Tenn., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 9, 1947
Serial No. 753,566

7 Claims. (Cl. 23—14.5)

1. A method of separating tetravalent plutonium values from lanthanum-group rare earth values which form carbonates insoluble in a carbonate solution contained in an aqueous acid solution, comprising adjusting the pH value of said solution to between 5.5 and 7.5, adding carbonate anions to said solution in an approximately stoichiometric amount with regard to plutonium and rare earths present whereby Pu (IV) carbonate and rare earth carbonates precipitate, separating said carbonate precipitate from the solution, contacting said carbonate precipitate with an aqueous carbonate solution of a concentration of between 1 and 3 M whereby said Pu (IV) carbonate is dissolved, and separating said rare earth carbonates-containing precipitate from said plutonium-containing solution.

2,872,289
PROCESS IN RECOVERING SULPHUR FROM WASTE SULPHITE LYE

Hans Olof Samuelson, Goteborg, Sweden, assignor to Aktiebolaget Rosenblads Patenter, Stockholm, Sweden, a corporation of Sweden

No Drawing. Application May 10, 1955
Serial No. 507,488
Claims priority, application Sweden May 12, 1954
3 Claims. (Cl. 23—129)

1. In a process for recovering sulphur values from combustion gases containing sulphur dioxide resulting from the burning of a stream of waste sulphite lye in a combustion step by absorbing sulphur dioxide from said combustion gases in an absorption step and utilizing the absorbed sulphur dioxide for the preparation of boiling liquid for the digestion of wood, the improvement which comprises the steps of dividing the combustion gases emanating from said combustion step into two separate streams, preparing the boiling liquid by absorbing SO_2 from one of said gas streams in an aqueous liquid and absorbing SO_2 from the other of said gas streams in said sulphite lye stream prior to the burning of said sulphite lye.

2,872,290
STABILIZING SULPHURIC ANHYDRIDE

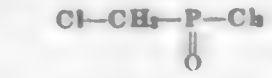
Louis Blanchard, St. Cloud, France, assignor to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de St. Gobain, Chauny & Cirey, Paris, France

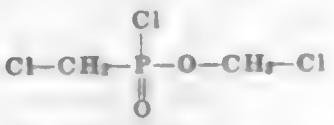
No Drawing. Application August 29, 1956
Serial No. 606,798
Claims priority, application France September 5, 1955
4 Claims. (Cl. 23—174)

1. Sulphuric anhydride containing a stabilizing amount of at least one of the following compounds:

(1) $Cl—CH_2—O—CH_2—Cl$

(2) $Cl—CH_2—O—CH_2—O—CH_2—Cl$

(3)


(4)


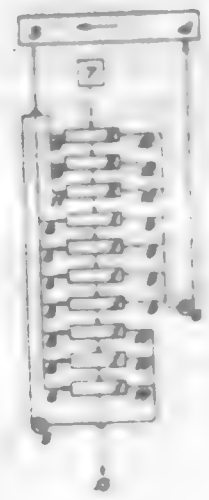
(5) $P{\equiv}(O—CH_2—Cl)_3$

2,872,291
PROCESS AND APPARATUS FOR THE DECOMPOSITION OF ALKALI METAL AMALGAMS

René Crabbé and Jean Clément, Brussels, Belgium, assignors to Solvay & Cie, Brussels, Belgium, a Belgian company

Application December 20, 1955, Serial No. 554,332
Claims priority, application Belgium March 24, 1955
8 Claims. (Cl. 23—184)

1. In a process for the manufacture of an alkil metal hydroxide solution of high alkali metal hydroxide concentration by decomposing the corresponding alkali metal amalgam in the presence of water, the steps which comprise, establishing a plurality of confined decomposition zones including a first zone, a last zone, and a plurality of intermediate zones, said zones being inter-connected for continuous gravity flow of an aqueous medium from said first zone to said last zone by passing seriatim through all of said intermediate zones, continuously introducing water into the first zone and allowing said water to flow from said first zone through said intermediate zones into said last zone, subdividing the amalgam to be decomposed into a plurality of independent streams corresponding in number to the number of said zones, simultaneously and continuously feeding each stream into only one of said zones, no two streams entering the same zone, and each amalgam stream flowing only through the zone into which it is introduced, wherein the amalgam in each stream is at least partially decomposed in each zone by contact with the aqueous medium therein, the concentration of alkali metal hydroxide in said aqueous medium thereby increasing in continuously



passing successively from said first zone through said intermediate zones into said last zone, continuously removing the separate streams of the at least partially decomposed amalgam issuing from each of said zones, and removing alkali metal hydroxide solution from said last zone.

2,872,292
METHOD OF MAKING IRON NITRIDES

George O. Altmann, Westfield, N. J., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

Application March 25, 1952, Serial No. 278,484
3 Claims. (Cl. 23—191)

1. The process of preparing iron nitrides of improved high frequency electromagnetic properties in which the particles are crystalline of the face centered cubic system with a lattice constant of approximately 3.8 A. U. and having a spherical shape with a diameter between 0.25 and 10 microns, a nitrogen content between 4.8 and 5.8%, and a carbon content between 0.5 and 0.8%, which comprises heating iron powder, obtained by the thermal decomposition of iron pentacarbonyl, at a temperature ranging from 350 to 450° C. in the presence of a gas mixture containing 60 to 90 parts by volume of ammonia and 10 to 40 parts by volume of hydrogen for a period of time sufficient to yield a powder having a nitrogen content between 4.8 and 5.8%.

2,872,293
STABILIZING HYDROGEN PEROXIDE

Edward M. Roth, Jr., Kenmore, N. Y., assignor, by mesne assignments, to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

No Drawing. Application March 18, 1953
Serial No. 343,245
1 Claim. (Cl. 23—207.5)

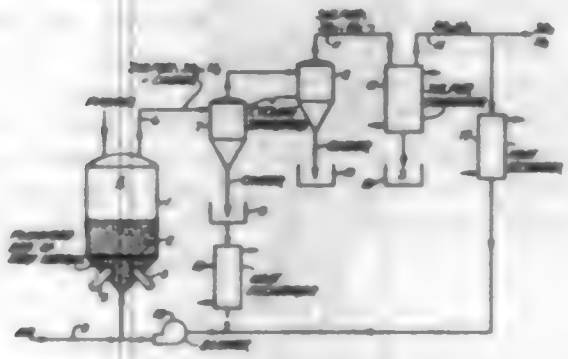
In the method of stabilizing aqueous hydrogen peroxide with sodium stannate the improvement which comprises adjusting the pH of the aqueous hydrogen peroxide to be stabilized to about pH 2.5 to 2.7 and then adding thereto a solution of sodium stannate in hydrogen peroxide the pH of which solution is about pH 5, said solution containing about 10% of sodium stannate and prepared by dissolving the sodium stannate in unstabilized hydrogen peroxide of at least 20% concentration, the amount of said solution added being sufficient to produce a concentration per liter in the resultant mixture of 10 milligrams to 1000 milligrams of sodium stannate.

2,872,294

PRODUCTION OF SULFUR FROM PYRITES

David K. Eads, Pittsburgh, and Gino P. Giusti, New Kensington, Pa., assignors to Texas Gulf Sulphur Company, New York, N. Y., a corporation of Texas

Application May 16, 1952, Serial No. 288,192
4 Claims. (Cl. 23—224)



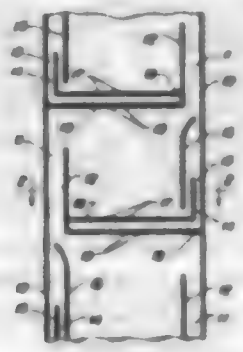
1. That method of roasting pyrites to produce sulfur comprising feeding finely divided pyrites particles to a heated bed of dense fluidized inert material through which gaseous products of reaction in said bed move at a temperature to liberate the labile sulfur atom from the pyrites particles fed to the bed, passing a stream of oxygen containing gas upwardly into said bed to fluidize it and cause combustion of the residual sulfur in said particles in the bed with production of iron oxide cinder, the amount of said gas being such that substantially all of its oxygen content is consumed in combustion of said residual sulfur, adjusting the velocity of said stream to exceed the minimum carry-over value of said cinder but below the minimum carry-over velocity of the ore feed and of said inert material, whereby substantially all of said cinder moves with the sulfur and the gaseous products of combustion, withdrawing from said space said cinder, sulfur and gaseous products of combustion, separating the cinder from the sulfur and gaseous products, and condensing and recovering the sulfur.

2,872,295

LIQUID-FLUID CONTACTOR

Jack B. Pohlenz, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

Application March 12, 1956, Serial No. 571,013
3 Claims. (Cl. 23—270.5)



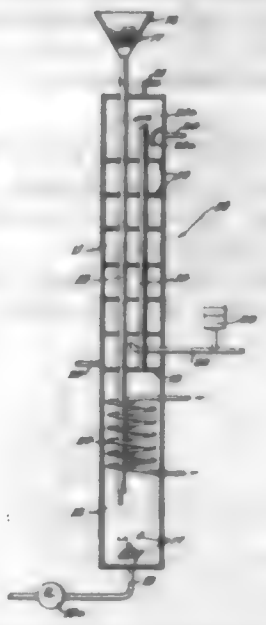
1. A sieve deck assembly comprising a pair of vertically spaced, horizontal perforated plates, one of said plates having a greater perforated area than the other, first conduit means extending vertically from the plate having the greater perforated area through and beyond the plate having the smaller perforated area, and second conduit means extending vertically from the space between said plates through and beyond the plate having the smaller perforated area, said second conduit means extending a lesser vertical distance from the plate of smaller perforated area than said first conduit means.

2,872,296

CONTINUOUS DISSOLVER EXTRACTOR FOR PROCESSING METAL

Ralph B. Lemon and James A. Beckham, Idaho Falls, Idaho, assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 26, 1957, Serial No. 648,754
4 Claims. (Cl. 23—283)



1. An apparatus for continuously dissolving metal slugs in acid and extracting certain constituents therefrom with an organic solvent, said apparatus comprising a tank divided into a dissolving section having an upper and a lower end and an extracting section having perforated baffles and an upper and a lower end, a duct for slugs entering the tank through the upper end of the extracting section and leading to the dissolving section, an inlet for acid at the lower end of the dissolving section, a conduit for solution leading from the dissolving section into the extracting section and terminating in an open end within the upper end of the extracting section, an outlet for solution at the lower end of the extracting section adjacent to the dissolving section, means for pulsing organic solvent into the extracting section at said lower end, and an outlet for organic solvent and metallic values extracted thereby at the upper end of the extracting section.

2,872,297

APPARATUS FOR CONVERTING LIQUID ANHYDROUS AMMONIA TO AQUA AMMONIA

John W. Dugan, Houma, La., assignor to Flo-Mix Fertilizers Corporation, a corporation of Delaware

Application January 11, 1955, Serial No. 481,205
9 Claims. (Cl. 23—285)



1. Apparatus for converting liquid anhydrous ammonia to aqua ammonia comprising a first vessel providing a liquid anhydrous ammonia receiving chamber; a second vessel in concentric surrounding relation with said first vessel and providing a liquid anhydrous ammonia pressure reducing chamber; means communicating with said liquid anhydrous ammonia receiving chamber and said pressure reducing chamber for delivering liquid anhydrous ammonia from said liquid anhydrous ammonia receiving chamber into said pressure reducing chamber; a third vessel in concentric surrounding relation with said first and second vessels and providing a water and liquid anhydrous ammonia mixing chamber; means communicating with said pressure reducing chamber and said

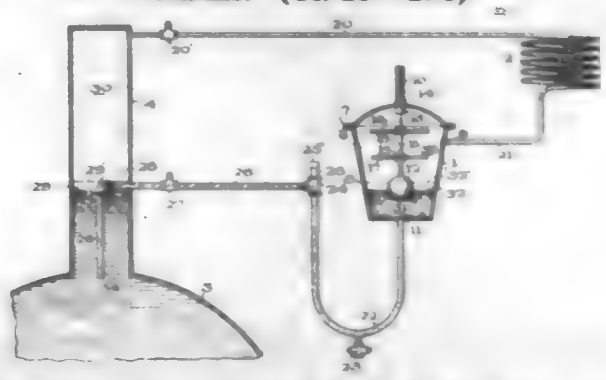
mixing chamber for delivering reduced pressure anhydrous ammonia from said pressure reducing chamber into said mixing chamber; a fourth vessel in concentric surrounding relation with said first, second, and third vessels and providing a water receiving chamber; and means communicating with said mixing chamber and said water receiving chamber for delivering water from said water receiving chamber into said mixing chamber, said mixing chamber being interposed between said pressure reducing chamber and said water receiving chamber.

2,872,298

PRESSURE VESSEL VENTING DEVICE

William F. Van Loenen, Baton Rouge, La., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

Application August 16, 1954, Serial No. 449,980
2 Claims. (Cl. 23—290)



1. Apparatus for automatically discharging non-condensible gas from a pressure vessel containing a liquor which deposits scale upon contacted surfaces, wherein said gas collects in the upper regions of said vessel and has associated therewith a condensible vapor, comprising in combination with said pressure vessel and adjacent thereto a gas discharge means, which includes: a closed chamber comprising a float valve mechanism and a gas outlet positioned above the float of said float valve mechanism, whereby said gas outlet is opened and closed by said float valve mechanism, a first conduit means which includes condensing means extending from the upper regions of said vessel and terminating above the float of said float valve mechanism in said chamber, whereby said gas and condensible vapor are delivered from the upper regions of said vessel to said chamber and become separated therein and whereby a liquid reservoir of condensed vapor is formed in said chamber and said non-condensible gas is discharged through said gas outlet, a second conduit means positioned below the float of said float valve mechanism and below said first conduit means which includes a liquid trap and extending between said chamber and said vessel, whereby said condensed liquid is returned to said vessel through said second conduit means, and whereby the level of said liquid in said reservoir will fluctuate responsive to the level of said liquor in said pressure vessel.

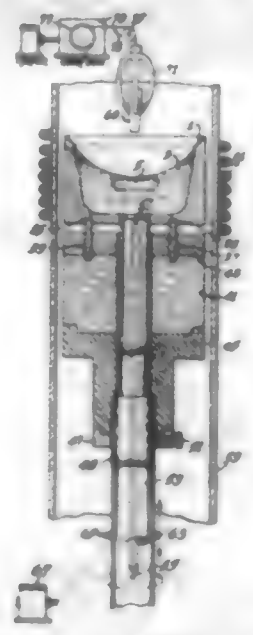
2,872,299

PREPARATION OF REACTIVE MATERIALS IN A MOLTEN NON-REACTIVE LINED CRUCIBLE

Philip R. Celmer and Robert V. Jensen, Trenton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application November 30, 1954, Serial No. 472,054
The terminal fifteen years of the term of the patent to be granted has been disclaimed
5 Claims. (Cl. 23—301)

1. In the Czochralski method of growing single crystals of silicon, the method of preventing reaction between silicon and crucible materials comprising the steps of: providing a graphite crucible to hold said silicon with an internal lining of a material non-reactive with said silicon and whose density is greater than the density of said silicon and whose melting point is lower and whose boiling point is higher than the melting point of said silicon, heating said crucible so that said lining becomes molten, rotating said crucible while feeding said silicon thereinto whereupon said silicon becomes molten, said



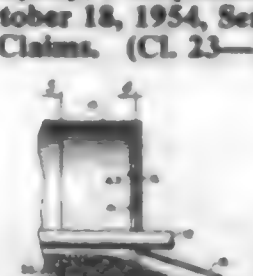
molten lining being urged radially outwardly against the walls of said crucible by the rotation thereof so as to prevent said less dense molten silicon from contacting said crucible walls, contacting a seed crystal of silicon to said molten silicon, and slowly withdrawing said seed crystal so that said molten silicon attaches thereto and grows thereon in single crystal form.

2,872,300

PROCESS AND APPARATUS FOR SIMULTANEOUSLY PELLETING POWDERED MATERIALS AND CLASSIFYING SAME

Lyle W. Pollock, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application October 18, 1954, Serial No. 462,800
16 Claims. (Cl. 23—314)



8. A process for pelleting a powdered pelletable material which comprises tumbling a bed of said material in a horizontally elongated cylindrical tumbling zone so as to produce pellets of varying sizes and distribute same in gradually decreasing size from the upper to the lower surface in a lunar bed in the lower portion of said zone; continuously feeding loose powdered material to one end section of said zone; intermittently withdrawing pellets at the opposite end of said zone in separate streams from at least two points at two different levels in an upright plane at the end of said bed so as to obtain pellets of two different size classifications.

2,872,301

CHEMICAL COMPOSITION AND PROCESS FOR ALUMINUM ETCHING

John T. Massengale, Abington, and Robert H. Elliott, Jr., Oreland, Pa., assignors to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

No Drawing. Application March 31, 1955
Serial No. 499,502
14 Claims. (Cl. 41—42)

1. The method of etching aluminum comprising treating said aluminum at an etching temperature with an

aqueous solution of an etching alkali containing, in an amount sufficient to prevent scale formation, a hydroxy amine having the general empirical formula



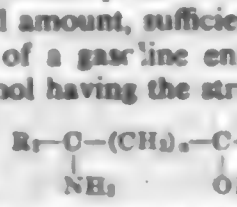
wherein n is at least 2; R is any of the group consisting of hydrogen, another $CH_2OH(CHOH)_nCH_2$-radical, a normal alkyl radical containing not more than 4 carbon atoms, an α carboxyalkyl group containing not more than 4 carbon atoms and a β carboxyalkyl group containing not more than 4 carbon atoms exclusive of the carbon in the carboxy group and R_1 is any of a group similar to R with the exception that it does not contain another $CH_2OH(CHOH)_nCH_2$-radical.

2,872,302
ETCHANT
Edward P. Bulan, Flushing, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
No Drawing. Application September 12, 1957
Serial No. 683,452
3 Claims. (Cl. 41—42)

1. A copper etchant solution comprising, in aqueous solution, ferric nitrate having a concentration by weight falling within the range 20–100 grams per liter; chromic acid having a concentration by weight falling within the range 75–125 grams per liter; and sulphuric acid, the ratio of chromic acid to sulphuric acid as expressed in concentrations by weight being about 4 to 1.

2,872,303
ANTI-STALLING GASOLINE AGENT
Theodore R. Doulan, Union, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application May 18, 1955
Serial No. 509,411
6 Claims. (Cl. 44—72)

1. A gasoline composition comprising a high quality gasoline base having an octane number greater than about 80, a Reid vapor pressure of at least about 7 p. s. i., an ASTM distillation 50% point below about 310° F., and containing a small amount, sufficient to improve the anti-stalling tendency of a gasoline engine, of a volatile primary amino alkanol having the structure



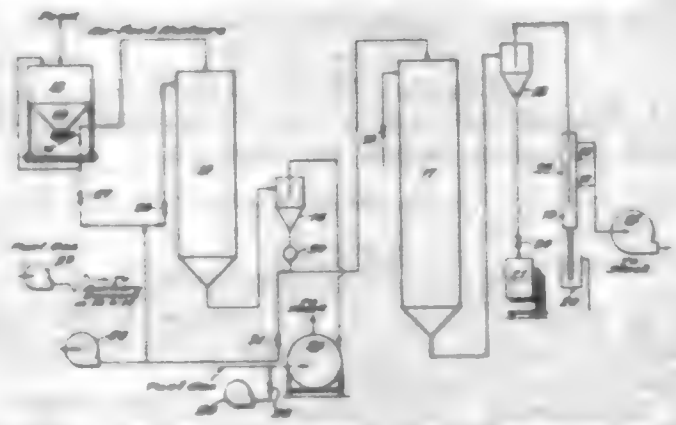
wherein R is an alkyl radical having from 1 to 3 carbon atoms, n is zero to one and R′ is a member of the group consisting of hydrogen and R; wherein the amino group is primary itself but is attached to a tertiary carbon atom; and wherein the total number of carbon atoms is not less than 4 and not more than 9.

2,872,304
ODORIZED GAS AND METHOD FOR ODORIZING THE SAME
John L. Eaton, Whitemarsh, Pa., and George E. Hinds, Houston, Tex., assignors, by mesne assignments, to Pennsalt Chemicals Corporation, a corporation of Pennsylvania
No Drawing. Application December 23, 1953
Serial No. 400,098
18 Claims. (Cl. 48—195)

1. A method of odorizing a gas which comprises mixing the gas to be odorized with a compound having the structure

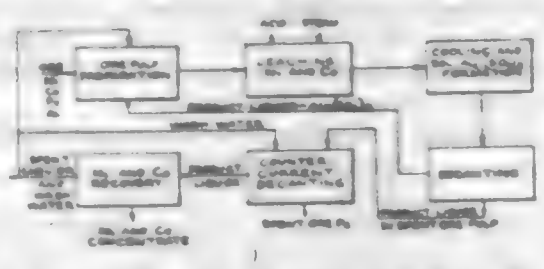
in which R is selected from the group consisting of tert-butyl and tert-amyl radicals and R_1 is selected from the group consisting of methyl, ethyl, propyl, and isopropyl radicals.

2,872,305
LIQUID OXYGEN EXPLOSIVE AND METHODS FOR PREPARING SAME
Frederick L. Shea, Jr., Arlington Heights, Ill., assignor to Great Lakes Carbon Corporation, New York, N. Y., a corporation of Delaware
Application October 15, 1957, Serial No. 690,302
8 Claims. (Cl. 52—1)



1. The method of producing a liquid oxygen explosive which comprises preparing a hard granular essentially non-activated absorbent carbon by a three-stage process from finely divided bituminous particles normally solid at ordinary temperatures and capable of expanding on heating to plasticity, said process comprising in the first stage, flash-calcining the particles entrained in a gaseous atmosphere containing oxygen in an amount such that at least 10% of the evolved combustible volatile matter remains unburned; in the second stage, separating the solid first-stage product from gaseous and vaporous products at a temperature not less than that at which substantially all of said vaporous products remain in the vaporous state; and in the third stage, heating the solid second-stage product to reduce its volatile content to less than 5% by weight; and thereafter causing liquid oxygen to be absorbed by the resulting absorbent carbon.

2,872,306
RECOVERY OF COBALT AND NICKEL FROM ORES
John George Morrow, Ottawa, Ontario, Canada, assignor to Freeport Sulphur Company, New York, N. Y., a corporation of Delaware
Application May 29, 1956, Serial No. 588,066
10 Claims. (Cl. 75—101)



1. In a system for the selective recovery of the cobalt and nickel content from minerals containing aluminum and at least one of the aforesaid metals involving leaching the ore in finely divided condition with an excess of dilute sulfuric acid at elevated temperatures and pressure, the improvement comprising mixing the ore in an aqueous sulfuric acid solution containing aluminum sulfate obtained from the product leach liquor hereinafter specified, heating the resulting ore slurry at the elevated leaching temperature until the nickel and cobalt content has been dissolved, cooling the slurry obtained to a temperature at which basic aluminum sulfate present will convert to aluminum sulfate, aging the cooled slurry until the excess free acid has in substantial part converted basic aluminum sulfate present in the liquor into soluble

aluminum sulfate, separating the product leach liquor from the spent ore, recycling the aluminum sulfate in part of such liquor to the leaching step hereinbefore specified and recovering the nickel and cobalt content from the remainder of such liquor.

2,872,307

THORIUM-CARBON ALLOYS

Harley A. Wilhelm and Robert E. Rundle, Ames, Iowa, assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application February 25, 1949
Serial No. 78,477
2 Claims. (Cl. 75—122.7)

1. A thorium-carbon alloy consisting essentially of 0.1 to 0.5% by weight carbon and thorium.

2,872,308

METAL COMPOSITIONS

Alan U. Seybolt, Scotia, N. Y., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application December 7, 1948
Serial No. 64,029
8 Claims. (Cl. 75—122.7)

2. A novel alloy consisting of from 1 to 3 atomic percent of at least one noble metal of the class consisting of rhodium, palladium and gold, and the balance of uranium.

3. A novel uranium alloy which consists of from 1 to 3 atomic percent of rhodium and the balance of uranium.

2,872,309

MANGANESE-NICKEL BASE BRAZING ALLOYS

Wilbur T. Bolkcom, Allison Park, and William E. Knapp, Pittsburgh, Pa.

No Drawing. Application July 24, 1956
Serial No. 599,702
6 Claims. (Cl. 75—134)

1. A brazing alloy comprising about 25% to 60% manganese, about 5% to 65% nickel, about 10% to 30% rare earth metals and an effective amount to promote fluxing up to about 18% of one of the group zirconium, hafnium and titanium, the balance being usual impurities in ordinary amounts.

2,872,310

ZIRCONIUM ALLOY

Harley A. Wilhelm and David Peterson, Ames, Iowa, and Ralph F. Russi, Jr., Livermore, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application December 9, 1952
Serial No. 325,018
2 Claims. (Cl. 75—177)

1. As a new composition of matter, a binary zirconium-antimony alloy containing from 0.07% to 1.6% by weight of antimony.

2,872,311

POWDER METAL COMPACTS

Peter R. Marshall, Shirley, and Philip J. Ridout, South Yardley, Birmingham, England, assignors to The Birmingham Small Arms Company Limited, Birmingham, England, a company of Great Britain

No Drawing. Application November 14, 1955
Serial No. 546,830
1 Claim. (Cl. 75—200)

The method of producing powder metal compacts from stainless steel powder for increasing the strength of the unsintered compact and for providing a sintered product of greater tensile strength and hardness, the steps comprising adding sufficient nickel powder of a particle size smaller than 300 mesh to stainless steel powder having a normal nickel content of 7–10% to increase the nickel content of the stainless steel powder to 12–40%, compressing the mixture of metal powders together to form a firm compact and sintering the compact at a suitable temperature to develop the full properties of the compact.

2,872,312

ELECTROLESS PLATING OF NON-CONDUCTORS

Philip H. Eisenberg, Hicksville, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application January 26, 1956, Serial No. 561,599
2 Claims. (Cl. 75—212)

1. A method for forming a cermet from ceramic particles having minute surface pores which comprises the steps of chemically depositing minute particles of at least one metallic component selected from the group consisting of iron, nickel, cobalt, chromium and the vanadium alloys thereof into said pores to seed said pores with said particles; electrolessly coating the ceramic particle surfaces with said component, said component impregnating said seeded pores and being mechanically keyed to said surfaces; and pressure forming and sintering said particles together to form a cermet, the said one component being uniformly dispersed about the ceramic phase of said cermet.

2,872,313

PULPING OF PAPER BROKE CONTAINING WET-STRENGTH RESINS

Ronald R. Hesse, Darien, and Yun Jen, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 8, 1955
Serial No. 533,259
3 Claims. (Cl. 92—1.4)

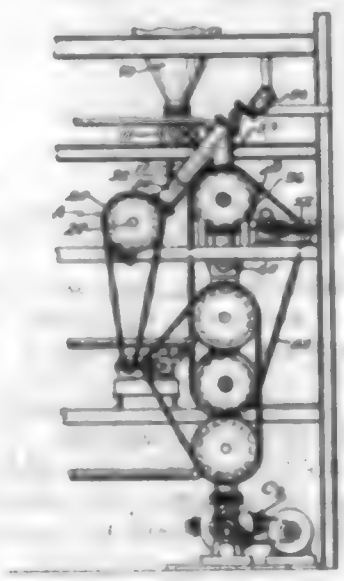
1. A process for the pulping of paper broke composed of cellulose fibers bonded together by an adsorbed content of at least one wet-strength resin which comprises: slurrying said broke with a dilute aqueous solution of an inorganic oxidizing salt thereby loosening the fiber-resin-fiber bonds in said broke, and then subjecting the broke to mechanical pulping.

2,872,314

METHOD OF MAKING PULP

Nels H. Sandberg, St. Paul, Minn., assignor to Waldorf Paper Products Co., Ramsey County, Minn., a corporation of Minnesota

Application July 12, 1954, Serial No. 442,873
7 Claims. (Cl. 92—6)



1. A method of producing pulp from wood chips including the continuous steps of immersing the chips below

the liquid level of impregnating liquor at an above atmospheric hydrostatic pressure and at an above room temperature elevated temperature which is substantially below the temperature of saturated steam at the pressure employed by maintaining steam under pressure upon the liquid level of the liquor, and then cooking the impregnated chips by the action of temperatures substantially corresponding to the temperature of saturated steam at the pressure employed to produce pulp.

2,872,315

SIZING PAPER AND PRODUCT

Spencer H. Watkins, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 14, 1956
Serial No. 609,802
6 Claims. (Cl. 92—21)

1. In the process of sizing paper with tall oil rosin size wherein the size is added to an aqueous suspension of pulp and the pulp then formed into a web of paper, the improvement which comprises incorporating with the tall oil rosin size from about 5% to about 20% by weight, based on the weight of the tall oil rosin, of a rosin acid dimer.

2,872,316

METHOD OF PRODUCING PATTERNS

Thaddeus Victor Rychlewski and Robert Frederick Wilson, Seneca Falls, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts

No Drawing. Application June 20, 1955
Serial No. 516,766
3 Claims. (Cl. 96—35)

1. A method of forming a phosphor pattern on the viewing panel of a cathode ray tube comprising the steps of coating said viewing panel with a layer of a light hardenable substance and a phosphor, exposing portions of said layer of light rays through a pattern negative, developing said pattern by washing the panel with a solvent for the unexposed portions of said light hardenable substance, applying an abrasive slurry to said panel, agitating said slurry to substantially remove any of the unexposed portions of said layer remaining after development, and removing said slurry from the panel.

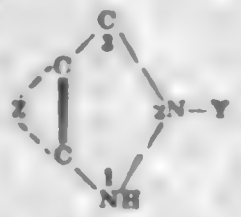
2,872,317

COLOUR PHOTOGRAPHIC IMAGES PRODUCED FROM INDAZOLONE COLOUR COUPLERS

John Mathers Woolley, Blackley, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application March 16, 1953
Serial No. 342,747
Claims priority, application Great Britain March 21, 1952
16 Claims. (Cl. 96—55)

1. Process for the production of colour photographic images which comprises developing an exposed gelatino-silver halide emulsion layer with a primary aromatic amino developing agent in the presence of a colour coupler of the formula:



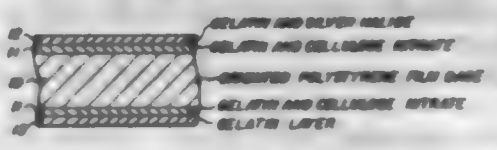
wherein Z represents the non-metallic atoms required for completing an aromatic nucleus, and Y represents a substituent from the group consisting of —COR, —COOR, —SO_2R, —CONHR, —CONRR^1 and CSNHR wherein R and R^1 each represent a member of the group consisting of hydrocarbon, a sulfo-substituted hydrocarbon radical and a heterocyclic radical.

2,872,318

POLYSTYRENE FILM ELEMENTS AND SUBBING COMPOSITIONS THEREFOR

Clemens Bernard Starck, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application February 14, 1958, Serial No. 715,295
18 Claims. (Cl. 96—87)



13. A photographic element comprising an oriented polystyrene film base coated on both surfaces with a coating composition consisting essentially of 0.40–1.75% by weight of gelatin, 0.032–0.140% by weight of cellulose nitrate, 0.8–3.5% by weight of water, 10–30% by weight of acetone, 10–30% by weight of isopropyl alcohol, 15–75% by weight of methyl alcohol, and 5–20% by weight of a higher boiling solvent selected from the group consisting of mesityl oxide, acetonyl acetone, butyl carbitol acetate, and a mixture of from 70–80% by weight of α-methyl benzyl alcohol and 30–20% by weight of acetophenone, and having a gelatino-silver halide emulsion layer coated directly over one of said coated surfaces of said film base, and having a non-sensitive gelatin composition coated directly over the other of said coated surfaces of said film base.

2,872,319

PREPARATION OF MIXTURES OF AMINO ACIDS

Karl Arvid Johannes Wretlind, Stockholm, Sweden

No Drawing. Application September 6, 1957
Serial No. 682,297
Claims priority, application Sweden September 10, 1956
1 Claim. (Cl. 99—14)

A process for preparing amino acid mixtures suitable for use as a nutrient material comprising repeatedly dissolving crude protein in aqueous alkali solution followed by repeated precipitation from the alkali solution with acid, thereafter treating the precipitate with ethyl alcohol and diethyl ether, whereby the purified protein obtained as a result of the foregoing steps is substantially free from fats, carbohydrates and other contaminants, subjecting the purified protein to enzymic hydrolysis and subjecting the hydrolysate to dialysis at a temperature of 82–90° C.

2,872,320

PREPARATION OF MIXTURES OF AMINO ACIDS

Karl Arvid Johannes Wretlind, Stockholm, Sweden

No Drawing. Application September 6, 1957
Serial No. 682,298
Claims priority, application Sweden September 10, 1956
8 Claims. (Cl. 99—14)

1. A method for the production of mixtures of amino acids for use as nutrient material which comprises subjecting protein to enzymic hydrolysis to form amino acids therefrom including glutamic acid and derivatives thereof, subjecting the amino acid product to treatment at a temperature above 30° C. for such a time that at least part of the glutamic acid and derivatives thereof liberated during the hydrolysis are transformed to pyrrolidone carboxylic acid, and subjecting the final products to purification by dialysis.

2,872,321

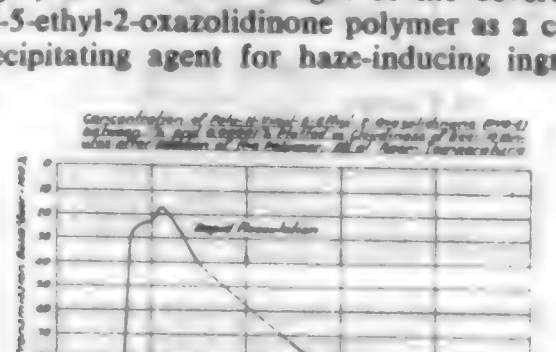
CLARIFICATION OF BEVERAGES

Wilhelm E. Walles and William F. Tousignant, Midland Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application May 7, 1958, Serial No. 733,741
8 Claims. (Cl. 99—48)

1. Process for treating essentially clear beverages to materially clarify them and render them stabilized against

hazing which process comprises adding to the beverage being treated, at a temperature beneath about 4° C., a minor proportion of between about 0.0001 and 1 percent by weight, based on the weight of the beverage, of an N-vinyl-5-ethyl-2-oxazolidinone polymer as a coagulating and precipitating agent for haze-inducing ingredients in



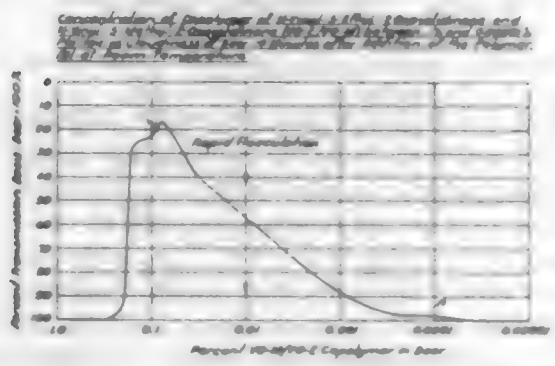
the beverage; warming the beverage containing said polymer to a temperature above about 4° C., whereupon the haze-inducing ingredients are coagulated and precipitated from said beverage along with said polymer; then physically separating the coagulated and precipitated materials from the clarified beverage product.

2,872,322

CLARIFICATION OF BEVERAGES

Wilhelm E. Walles and William F. Tousignant, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application May 7, 1958, Serial No. 733,743
9 Claims. (Cl. 99—48)



1. Process for treating essentially clear beverages to materially clarify them and render them stabilized against hazing, which process comprises adding to the beverage being treated, at a temperature beneath the cloud point of the polymeric treating agent, a minor proportion of between about 0.0001 and 1 percent by weight, based on the weight of the beverage, of a copolymer of N-vinyl-5-ethyl-2-oxazolidinone and N-vinyl-5-methyl-2-oxazolidinone that contains at least about 1 weight percent, based on the weight of the copolymer, of either monomeric ingredient, as a coagulating and precipitating agent for haze-inducing ingredients in the beverage; warming the beverage containing said copolymer to a temperature above the cloud point of said copolymer in aqueous solution, whereupon the haze-inducing ingredients are coagulated and precipitated from said beverage along with said copolymer; then physically separating the coagulated and precipitated materials from the clarified beverage product.

2,872,323

NEW METHOD OF PRODUCING WATER SOLUBLE COFFEE CONCENTRATE

Ramon Perech, New York, N. Y.

No Drawing. Application March 11, 1958
Serial No. 720,543
13 Claims. (Cl. 99—71)

1. A process for preparing an improved water soluble oxidized coffee extract, which comprises preparing a water extract from disintegrated coffee beans and heating the formed aqueous extract at an elevated temperature below the boiling point of water in contact with an oxygenous atmosphere for at least one hour and until water soluble constitutents of the coffee are oxidized in the aqueous extract medium.

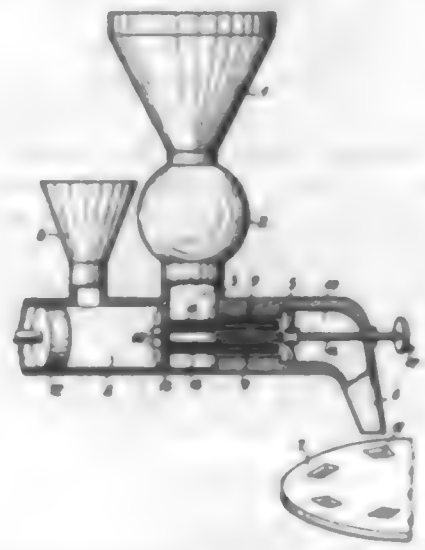
5. A process for preparing an improved water soluble oxidized coffee extract, which comprises preparing a water extract from disintegrated raw coffee beans still contained in their parchment-like coats, heating the formed aqueous extract at an elevated temperature below the boiling point of water in contact with an oxygenous atmosphere for at least one hour and until water soluble constituents of the coffee are oxidized in the aqueous extract medium, separating water insoluble ingredients from the oxidized aqueous extract, removing water from the oxidized aqueous extract to form water soluble oxidized coffee extract in the solid phase, and roasting the coffee solids at coffee roasting temperatures.

2,872,324

MOLTEN CHEESE, CONTAINING FILAMENTS OF GREEN ORGANIC SUBSTANCES, AND A PROCESS FOR ITS PRODUCTION

Ercole Locatelli, Robbio, Lomellina, Italy

Application November 10, 1953, Serial No. 391,329
Claims priority, application Italy January 22, 1953
2 Claims. (Cl. 99—115)



1. A process for the production of individual portions of a cheese paste marbleized with green mould filaments, comprising the steps of melting a first quantity of cheese paste that has been previously partially ripened and deprived of mould, adding a second quantity of cheese that has been previously ripened to a higher degree and also deprived of mould, mixing and shaking together said melted first quantity and said second quantity and leaving said first and second quantities in contact with each other for a period of time sufficient to achieve pasteurizing of said added second quantity by the heat from said melted first quantity, thereby preserving the flavor of the starting cheese paste, feeding the mixture, in semi-fluid state, through dosing passages having injecting nozzles opening longitudinally therein, feeding mould through said injecting nozzles to form longitudinal mould veins in the stream of cheeses flowing through said dosing passages, transversely cutting the stream of cheeses having longitudinal mould veins to deflect and disperse the latter within the stream of cheeses, and pouring individual portions of the thus treated cheeses into molding dies for shaping said portions.

2,872,325
PROCESS FOR COATING PERISHABLE FOODSTUFFS
Charles R. Scott and Dallas G. Grenley, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application October 25, 1956
Serial No. 618,174
4 Claims. (Cl. 99—166)

1. A process of protecting perishable foodstuffs having a natural protective covering which is normally disposed of prior to consumption from rapid dehydration consisting of the steps of completely coating the washed foodstuff with a film-forming latex composition prepared by the emulsion polymerization of from 88 to 91 percent by weight of vinylidene chloride together with from 12 to 9 percent by weight of acrylonitrile, said latex composition further containing plasticizing amounts of a plasticizer for said copolymer, and allowing the coating to dry to a continuous coherent film completely enveloping said foodstuff.

2,872,326
FATTY ACID SCREEN VEHICLES
William C. Morris, Mayfield Heights, Ohio
No Drawing. Application June 6, 1957
Serial No. 663,890
6 Claims. (Cl. 106—19)

1. A homogeneous vehicle solid at room temperature for suspending a vitrifiable ceramic composition consisting essentially of a fundamental constituent in amounts in excess of about 35% by weight of the vehicle and azelaic acid in amounts from 0.5% to about 55% by weight of the vehicle, said fundamental constituent being selected from the group consisting of fatty acids having from 12 to 22 carbon atoms and mixtures thereof.

2,872,327
REFRACTORY BODIES CONTAINING BORON NITRIDE AND A BORIDE, AND THE MANUFACTURE THEREOF
Kenneth M. Taylor, Lewiston, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a corporation of Delaware
No Drawing. Application October 25, 1954
Serial No. 464,655
13 Claims. (Cl. 105—55)

1. As a new article of manufacture, a body consisting essentially of boron nitride and boride selected from the group consisting of zirconium boride, titanium boride, molybdenum boride, chromium boride, carbon boride, and mixtures thereof, the boride amounting to 20% to 99% by weight of the body.

2,872,328
FIRED TRICALCIUM BONDED SILICA BRICK AND MORTAR
Howard F. West and John H. Veale, Joliet, Ill., assignors to Illinois Clay Products Company, Joliet, Ill., a corporation of Illinois
No Drawing. Application July 12, 1955
Serial No. 521,614
2 Claims. (Cl. 106—63)

1. The method of making a fired brick which comprises mixing granular silica in an amount of at least 90% by weight of the total mix with lime, sulphuric acid and a member of the group consisting of phosphoric acid, monobasic calcium phosphate and dibasic calcium phosphate, the amount of sulphuric acid being in excess of that required to form $CaSO_4$ and the calcium being present in not substantially greater amount than that required to combine with the phosphate containing substance to convert said substance to tricalcium phosphate, pressing the mixture into shape and drying at a temperature up to about 700° F., and then further heating to a temperature of between about 2400° F. and 2700° F. whereby the shaped article consists essentially of silica bonded together with tricalcium phosphate.

2,872,329
HYDRAULIC CEMENT COMPOSITIONS
Edward W. Scripture, Jr., St. James, Barbados, British West Indies, and Stephen W. Benedict, Cleveland Heights, Ohio, assignors, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application December 14, 1954
Serial No. 475,292
7 Claims. (Cl. 106—92)

1. A hydraulic cement mix consisting essentially of Portland cement, sufficient water to effect hydraulic setting of the cement and produce a workably plastic mix, and from about 0.05% to 1.0% based on the weight of cement, of the solids of an effluent resulting from passing waste sulfite liquor into intimate contact with an ion exchange resin until between about 15% and 40% of the solids in said liquor have been removed.

2,872,330
METHODS OF MAKING A LIGNOCELLULOSE PRODUCT AND THE PRODUCT RESULTING THEREFROM
William T. Glab, Dubuque, Iowa, assignor to Caradco Incorporated, a corporation of Iowa
No Drawing. Application September 6, 1956
Serial No. 608,196
19 Claims. (Cl. 106—163)

1. The method of making a moldable composition comprising reacting a mixture consisting essentially of comminuted lignocellulose and a finely divided solvent extracted solid pine wood resin substantially free of wood rosin by heating the mixture in the presence of steam while confining the mixture under superatmospheric pressure.

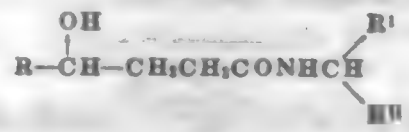
2,872,331
MANUFACTURE OF CELLULOSE ESTER MATERIALS
Dennis Grady, Harold Bates, and James Wotherspoon Fisher, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain
No Drawing. Application April 25, 1955
Serial No. 503,794
Claims priority, application Great Britain April 28, 1954
8 Claims. (Cl. 106—178)

1. Process for the manufacture of artificial filamentary materials from an unplasticized cellulose triacetate having a pH outside the range 6.0–7.5, which comprises bringing the pH of the cellulose triacetate within this range by incorporating uniformly in it a buffer mixture of salts of an acid of basicity at least 2, and then forming the unplasticized cellulose triacetate into filamentary material by a melt spinning process.

2,872,332
DRYING OIL COMPOSITIONS CONTAINING N-SUBSTITUTED HYDROXY BUTYRYL AMIDE
Richard A. Grifo, Easton, Pa., and Raymond L. Mayhew, Phillipsburg, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application November 30, 1956
Serial No. 625,223
6 Claims. (Cl. 106—252)

1. A drying oil composition containing from about 0.1 to 10% of a thixotropic and thickening agent to cause at least a partial gellation thereof, said agent consisting

of at least one N-substituted-γ-hydroxycarboxylic acid amide having the following general formula:



wherein R represents a member selected from the class consisting of hydrogen and methyl groups, R^1 represents a member selected from the class consisting of alkyl radicals containing from 10 to 22 carbon atoms, aryl and aralkyl radicals containing from 7 to 24 carbon atoms, R^{11} represents a member selected from the class consisting of hydrogen, an aliphatic radical containing from 10 to 22 carbon atoms, an alkyl and aralkyl radical containing from 7 to 24 carbon atoms, the total number of carbon atoms consisting the groups in both R^1 and R^{11} being at least 10 and not more than 24 carbon atoms.

2,872,333

PYROTECHNIC METHOD FOR INCREASING THE BASICITY OF LEAD SULFATE CONTAINING PIGMENTS

Clovis H. Adams, Chicago, Ill.

No Drawing. Application June 3, 1957
Serial No. 662,970
17 Claims. (Cl. 106—256)

1. A method for the manufacture of a lead sulfate-lead oxide containing pigment which comprises calcining a lead sulfate containing pigment with a quantity of a second lead compound capable of forming lead oxide in intimate admixture under the conditions of the process herein defined of a quantity sufficient to increase the basicity of the final pigmentary product to more than 30% but not more than about 74%, said lead sulfate containing pigment having a numerical average particle diameter of from 0.3 to 0.6 micron and subjecting said reactants to an oxidizing atmosphere at a temperature of from 550° C. to not more than about 725° C. for a time sufficient to combine all of said lead oxide reactant with said lead sulfate reactant to form a completely nodular crystal habit pigment characterized by its essentially non-bodying effect upon linseed oil paints in storage after having been incorporated in such paint and a particle size range of essentially the same particle diameter as that of the aforesaid lead sulfate reactant, said time at least about 15 minutes but insufficient to sinter the final pigment particles.

2,872,334

ASPHALT CUTBACK, HARD FILM RUST PREVENTIVE

Michael J. Furey, Berkeley Heights, and Roy A. Westlund, Jr., Roselle, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application February 2, 1956
Serial No. 562,948
6 Claims. (Cl. 106—271)

1. A solvent cutback hard film rust preventive composition which consists essentially of a blend of from about 53% to about 63% of an asphalt selected from the class consisting of straight reduced asphalts having a softening point of from about 140° F. to about 250° F. and asphalts prepared by reduction to a solid flux having a penetration of less than 200 mm./10 at 77° F. followed by oxidation to a softening point of from about 140° F. to about 250° F., about 34% to about 44% of a petroleum solvent having a final boiling point within the range of from 350° to 450° F., and about 3% to about 5% of a microcrystalline wax having a melting point above 175° F. and a penetration at 77° F. less than 10 mm./10, said percentages being by weight based on the weight of the total composition.

2,872,335

METHOD OF MANUFACTURING EXTENDED PIGMENTS

James D. Bronson, Jr., San Francisco, Calif., assignor to Thomsen Research Co., Inc.

No Drawing. Application April 3, 1956
Serial No. 575,700
3 Claims. (Cl. 106—292)

3. As a composition of matter, an extended pigment composed of an unaltered nucleus of a metallic carbonate, substantially insoluble in water and white in color, superficially coated with water-insoluble titanium compounds produced when said carbonate is suspended in an aqueous solution of titanium fluorides, the metallic carbonate being present in excess of the amount required to precipitate all of the titanium in solution, said carbonate being selected from the group consisting of calcium, barium, magnesium and zinc.

2,872,336

CARBON BLACK PELLET AND METHOD FOR PRODUCING SAME

Jack A. Weaver, Monroe, La., assignor to Columbian Carbon Company, New York, N. Y., a corporation of Delaware

No Drawing. Application August 9, 1956
Serial No. 603,177
5 Claims. (Cl. 106—307)

1. A substantially dry carbon black bead containing from about 0.1% to about 0.7% of sodium tetraborate, calculated as anhydrous sodium tetraborate, based on the weight of dry carbon black, uniformly distributed throughout the carbon black bead.

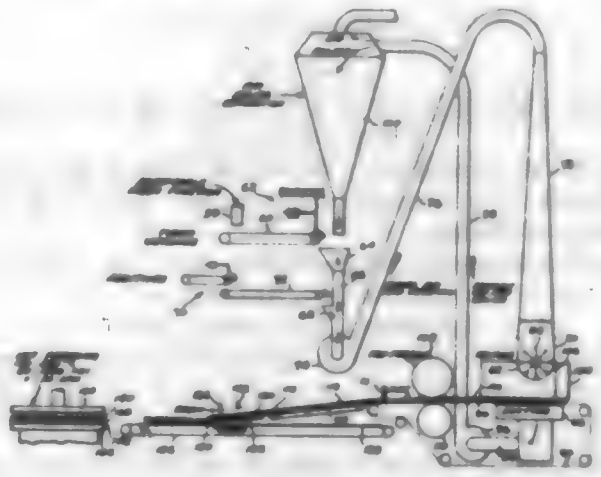
5. In the wet beading process of producing substantially dry carbon black beads in which the carbon black is agitated with water to form the carbon black into wet beads and the beads are thereafter dried, the method of increasing the resistance of the resultant dried beads to crushing which comprises the step of dissolving in the water, prior to mixing it with carbon black, borax in an amount equivalent to about 0.1% to about 0.25% of anhydrous sodium tetraborate based on the weight of the dried beads and thereby uniformly dispersing the borax in the carbon black.

2,872,337

METHOD OF COATING A FELTED FIBROUS MAT

Clark C. Heritage, Tacoma, and James R. Roberts, Longview, Wash., assignors to Weyerhaeuser Timber Company, Tacoma, Wash., a corporation of Washington

Application December 30, 1953, Serial No. 401,322
8 Claims. (Cl. 117—11)

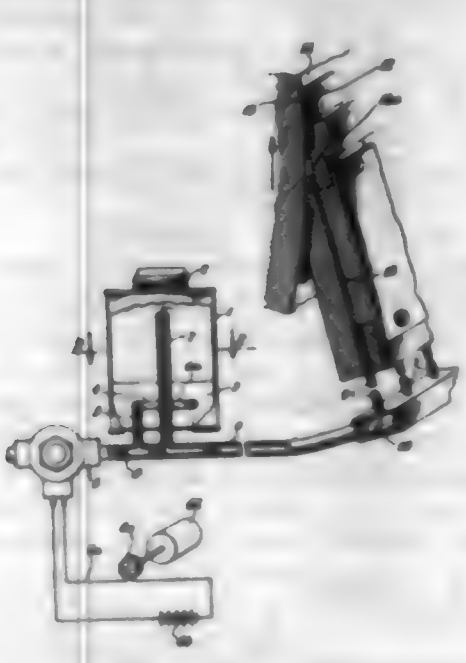


1. The process of making a coated consolidated product in a single pressing step which comprises forming defiberized wood having a moisture content of from 5–40% by weight into a felted mat by the dry felting impact procedure, distributing on the surface coating agent, and hot pressing the resulting product for consolidating it to a predetermined shape and density.

2,872,338
ELECTROPHOTOGRAPHIC DEVELOPING PROCESS

Richard B. Landrigan, Donald L. Fauser, and Ray E. Tom, Columbus, Ohio, assignors, by mesne assignments, to Haloid Xerox Inc., Rochester, N. Y., a corporation of New York

Application April 18, 1955, Serial No. 502,118
4 Claims. (Cl. 117—17.5)

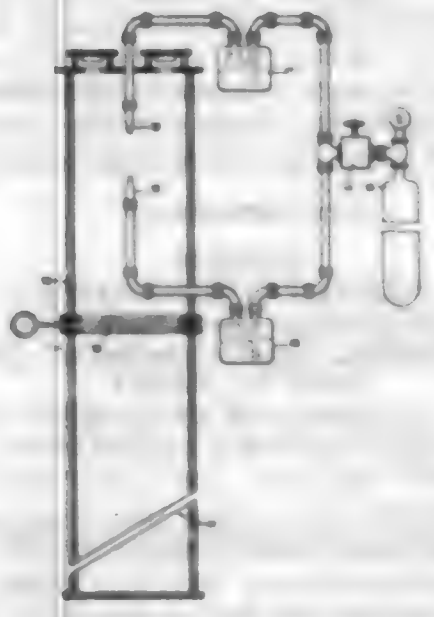


1. A process for developing an electrostatic image on an electrically insulating surface, said process including dispersing an electrophotographic developing powder in a gaseous fluid and flowing said fluid and powder over said surface while causing said fluid to pulsate.

2,872,339
METHOD OF AND APPARATUS FOR DEPOSITING COATINGS ON SURFACES

Dennis Gabor, London, and Peter Gabor Kalman, Edgware, England, assignors to National Research Development Corporation, London, England, a British corporation

Application October 2, 1957, Serial No. 687,637
Claims priority, application Great Britain October 17, 1956
9 Claims. (Cl. 117—33)



1. Method of applying a coating of finely divided material to a surface through a stencil supported in spaced relation thereto in such a manner that the coated area conforms to a projection of the configurations of the stencil on the surface, comprising enclosing the surface to be coated and the stencil in the lower part of a substantially airtight chamber with said surface and stencil arranged in parallel relation at an inclination to the vertical corresponding to the desired angle of projection of said stencil on said surface, maintaining a column of stagant air in the lower part of said chamber, introducing said finely divided material into the upper part of said chamber in a plurality of airborne streams so directed as to form a cloud wherein the material is distributed substantially uniformly over the cross section of the chamber above said stencil without producing any appreciable wave motion in a vertically downward direction capable of disturbing the stagnant column of air in the lower part of said chamber, and allowing the finely divided material to settle through the column of stagnant air, through the stencil and on to the surface by gravity.

2,872,340
TRANSFER ELEMENT AND METHOD OF MAKING THE SAME

Douglas A. Newman, Glen Cove, and Allan T. Schlotzhauer, Locust Valley, N. Y., assignors to Columbia Ribbon & Carbon Manufacturing Company, Inc., Glen Cove, N. Y., a corporation of New York

Application February 18, 1954, Serial No. 411,272
9 Claims. (Cl. 117—36)

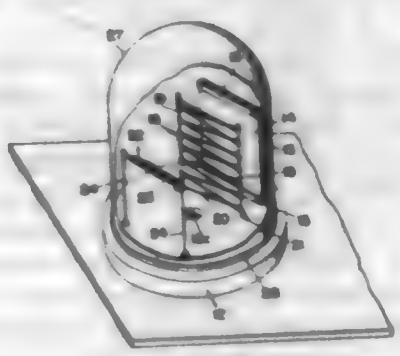


1. The method of making a transfer member sensitive to writing or typing pressure which comprises uniformly dispersing an essentially cohesive film-forming cellulose ether plastic in a liquid medium made up of two significant miscible uniformly intermixed volatile fractions, one fraction being a lower alkyl alcohol which is a rapidly evaporating solvent for the plastic and the other fraction being water, miscible with and being less rapidly evaporating than said first-named fraction and substantially a non-solvent for said plastic under normal conditions, the ratio of alcohol to water being between 5:1 and 20:1 by weight; spreading the uniform dispersion as a thin uniform coating on a flexible foundation; and evaporating the liquid medium to form a pressure-transferable layer.

2,872,341
METHOD OF PROVIDING AN ADHERENT METAL COATING ON A FLUOROCARBON RESIN

Sidney J. Stein, Philadelphia, Pa., assignor to International Resistance Company, Philadelphia, Pa.

Application September 10, 1954, Serial No. 455,292
9 Claims. (Cl. 117—47)



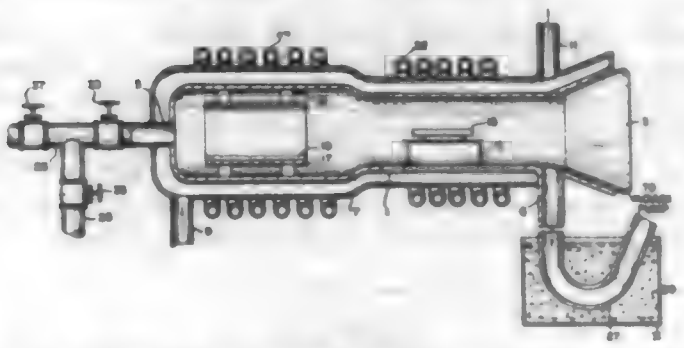
1. The method of coating a surface of an article of a solid polymer of a fluorocarbon resin with a metal comprising the steps of placing the article in a vacuum chamber, evacuating the chamber to a vacuum suitable for thermal evaporation of said metal, heating the surface to be coated until it becomes soft and then depositing a layer of said metal upon the heated surface by thermal evaporation within the chamber.

2,872,342

CATALYTIC NICKEL PLATING

Herman R. Nack, Troy, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application December 9, 1952, Serial No. 324,963
2 Claims. (Cl. 117—50)



1. A method of gas plating a deposit of nickel metal on the surface of a metal substrate to produce an adherent metal coating thereon which comprises the steps of heating said substrate to be gas plated in an enclosure, flowing hydrogen gas over substantially pure nickel metal and immediately thereafter bringing the thus pretreated hydrogen gas into contact with said metal substrate, and then contacting the thus treated substrate with gaseous nickel carbonyl while heated to a temperature sufficient to cause thermal decomposition of the gaseous metal carbonyl and deposition of a tenacious, adherent coating of nickel onto the surface of said substrate.

2,872,343

METHOD OF PROTECTIVELY COATING URANIUM

Lowell D. Eubank, South Euclid, Ohio, and Ernest R. Boller, Marion, Ind., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application March 14, 1946
Serial No. 654,504
5 Claims. (Cl. 117—51)

1. The method of protectively coating uranium, which comprises preparing the uranium for coating and dipping the freshly prepared metal into a bath of molten zinc containing less than 0.01% each of iron and lead, said bath being at a temperature between 430° C. and 600° C., withdrawing the uranium coated with zinc and cooling it to solidify the coating.

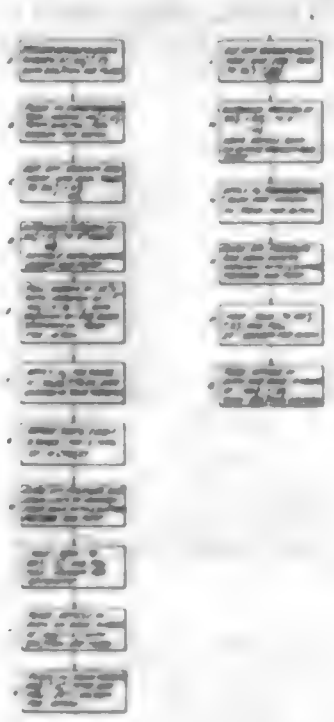
2,872,344

PROCESS OF IMPREGNATING A POROUS ARTICLE

Robert D. Mees, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York

Application December 15, 1955, Serial No. 553,400
6 Claims. (Cl. 117—61)

1. The process of impregnating a porous article comprising the steps of: preheating said article in an oven at a temperature of approximately 150° C. for a length of time sufficient to raise the temperature of the coldest point in the article to above the boiling point of water; immediately placing said article in an impregnating tank preheated to a temperature of approximately 100° C., sealing said tank and evacuating the same while maintaining the tank at the temperature to which the same was preheated for a length of time sufficient to remove air and residual moisture entrapped in said article; cutting off said vacuum without unsealing said tank and rapidly cooling the same with said article therein to a temperature of approximately 35° C.; immediately introducing a thermosetting varnish having low boiling constituents into said tank with existing vacuum therein until said varnish covers said article, said varnish being at a temperature of approximately 35° C.; immediately sealing said tank and pulling a vacuum over said varnish therein for a time sufficient to remove vapors entrapped in said article, said last named vacuum being maintained below the point at which the low boiling constituents of said varnish will boil so that substantially no boiling of any part of said varnish occurs; applying pressure to said tank over



said varnish for a length of time sufficient to cause the same to fill the voids in said article; draining excess varnish from said tank; sealing said tank; and immediately heating said tank with said article therein to approximately 100° C. while evacuating the same for a length of time sufficient to harden the varnish impregnated in and coating said article.

2,872,345

CURING AIR BLOWN OILS WITH SO_2

Ober C. Slotterbeck, Clark, and Merilyn A. Tucker, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application April 1, 1957
Serial No. 649,639
10 Claims. (Cl. 117—62)

3. A process for improving the hardness of films prepared from synthetic hydrocarbon drying oils which comprises first reacting the oil at a temperature between 20° and 280° F. with oxygen, applying a film of oil to a surface, then reacting the oxidized oil with the reaction product of molar equivalents of trimethylolpropane and tolylene diisocyanate to produce a cross-linked oil, and finally subjecting a film of the resulting cross-linked oil to the action of sulfur dioxide at room temperature.

2,872,346

METAL PLATING BATH

Adolph Miller, Great Neck, N. Y.

No Drawing. Application May 21, 1956
Serial No. 585,951
14 Claims. (Cl. 117—65)

12. A method for producing an alloy metal plating on aluminum which comprises contacting aluminum with an alkaline aqueous bath comprising a copper complex of at least one water-soluble amine selected from the group consisting of alkylene, alkyl and alkylol amines of pH above 9.5 at least sufficient to depolarize said aluminum for a time sufficient to produce a discontinuous plating of copper thereon by chemical plating, said bath containing at least about 0.1% by weight of copper and at least about 0.1% by weight of said amine, contacting said plated aluminum with a metal plating bath containing at least one metal from the group consisting of zinc, tin and cadmium as a metal complex of said water-sol-

uble amine, thereby producing a metal plating over the copper plate without the passage of current and then subjecting the thus plated aluminum to a heat treatment to effect the diffusion of the coatings one into the other to form an alloy layer on the aluminum.

2,872,347

COATED THERMOPLASTIC MATERIAL AND METHOD OF COATING THERMOPLASTIC MATERIAL

Marc Goland, New York, Lew Goland, Malverne, and Isidor M. Bernstein, Brooklyn, N. Y., assignors to Printon Corporation, New York, N. Y., a corporation of New York

No Drawing. Application August 1, 1957
Serial No. 675,531
11 Claims. (Cl. 117— 65)

1. A coated base material, said base material being selected from the group consisting of polyvinylidene chloride and copolymers of vinylidene chloride with a lesser amount of other unsaturated compounds, said base material being permeable to tetrahydrofuran, said base material having a non-blocking and moisture-resistant coating film of a vinylidene chloride-acrylonitrile copolymer, the composition of said coating film being different from the composition of said base material, abutting layers of said coating film being heat-sealable to each other to form a non-peeling joint at a temperature below the fusion point of said base material.

2,872,348

FUSED SALT METHOD FOR COATING URANIUM WITH A METAL

Lowell D. Eubank, South Euclid, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application May 6, 1946
Serial No. 667,734
13 Claims. (Cl. 117—71)

1. The method of coating uranium with a less active metal which comprises immersing the uranium in a substantially anhydrous molten solution of a halide of said less active metal in a ternary chloride composition which consists of KCl, NaCl, and a chloride selected from the group consisting of LiCl and $CaCl_2$, said composition being one selected from the group consisting of (*a*) a composition which consists of 50% by weight of LiCl, 40% by weight of KCl, and 10% by weight of NaCl, and (*b*) a composition which consists of 52% by weight of $CaCl_2$, 42% by weight of NaCl, and 6% by weight of KCl.

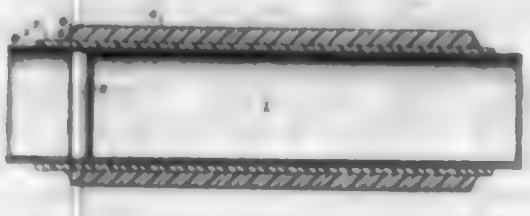
2. A process as set forth in claim 1 in which the coated uranium is provided with a further coating of metal by dipping in a molten metal bath.

2,872,349

GELLED PLASTISOL CARVING MEDIUM

James V. Hunn, Avon Lake, Ohio, assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

Application May 28, 1955, Serial No. 509,877
12 Claims. (Cl. 117—94)



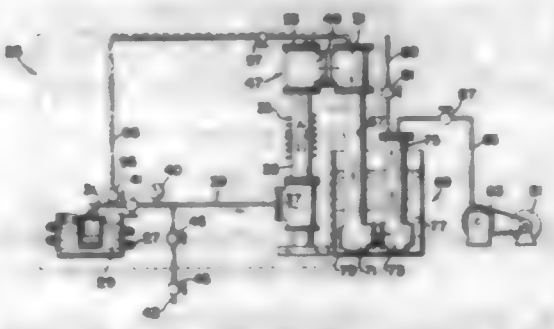
5. A substantially cylindrical carving medium comprising a rigid base, a layer of fully cured colored plastisol superimposed on said base, and a layer of incompletely cured gelled plastisol having a color different from that of said fully cured plastisol layer superimposed upon said layer of fully cured plastisol, said respective layers of plastisol being in concentric relationship with said rigid base.

2,872,350

GASEOUS DEPOSITION OF TUNGSTEN CARBIDES

Howard J. Homer and John R. Whitacre, Dayton, Ohio, assignors to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application July 1, 1955, Serial No. 519,532
2 Claims. (Cl. 117—106)



1. A process of gas plating a mixture of tungsten carbonyl and tungsten metal onto a metal body which consists in heating the body in an evacuated atmosphere to a temperature between about 650° F. and 680° F., and not over 770° F., and then contacting a hot surface of the body with gaseous tungsten carbonyl at a pressure of about 3 millimeters whereby there is deposited a coating of tungsten carbide together with tungsten metal, the latter being present in a minor amount up to 10% by weight.

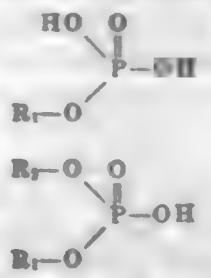
2,872,351

COMPOSITIONS FOR AND METHODS OF FINISHING TEXTILE MATERIALS

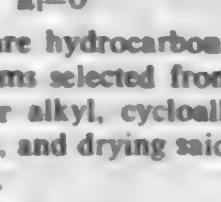
Hans Wedell, Dusseldorf-Holthausen, Germany, assignor to Böhme Fettchemie G. m. b. H., Dusseldorf, Germany, a corporation of Germany

No Drawing. Application November 15, 1954
Serial No. 469,053
Claims priority, application Germany November 14, 1953
11 Claims. (Cl. 117—121)

1. The method of rendering textile materials water-repellent which comprises impregnating said materials with an aqueous solution of at least one compound selected from the group consisting of acid esters of phosphoric acid having the general structural formulas



and



wherein R_1 and R_2 are hydrocarbon radicals containing at least 6 carbon atoms selected from the group consisting of high-molecular alkyl, cycloalkyl, alkylcycloalkyl, and alkylaryl radicals, and drying said materials at a temperature above 90° C.

2,872,352

METHOD OF PRODUCING ARTICLES FOR ENAMELLING

Frank R. Porter, Crown Point, and James W. Halley, Dune Acres, Ind., and James E. McFarland, Burnham, Ill., assignors to Inland Steel Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application June 11, 1953
Serial No. 361,082
3 Claims. (Cl. 117—130)

1. A method of treating enameling iron or steel of the type exhibiting pickle lag to prepare the same for

single coat vitreous enameling, said method comprising the steps of preliminarily determining the amount of the pickle lag layer of the metal, pickling the metal in an aqueous bath of mineral acid to remove from the surface of the metal an amount of metal at least equivalent to the predetermined pickle lag layer, said bath containing an adherence-promoting metal above iron in the E. M. F. series and selected from the group consisting of copper, platinum, palladium, iridium, rhodium, and gold, and depositing said adherence-promoting metal from the bath onto the surface of the pickled metal concomitantly with said pickling and in an amount sufficient to produce satisfactory enamel adherence with a cover coat of vitreous enamel which is substantially free of dark colored adherence-promoting oxides.

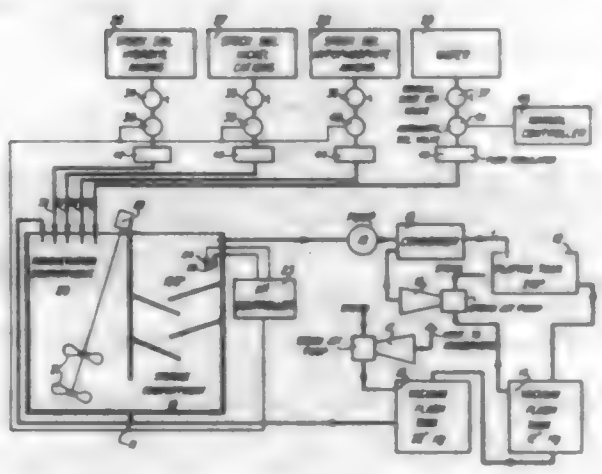
2,872,353

PROCESSES OF CONTINUOUS CHEMICAL NICKEL PLATING

Donald E. Metheny, Hammond, Ind., assignor to General American Transportation Corporation, Chicago, Ill., a corporation of New York

Application January 12, 1954, Serial No. 403,590

17 Claims. (Cl. 117—130)



1. The continuous process of chemically plating with nickel a solid body of catalytic material, which consists of providing an aqueous chemical nickel plating bath of the nickel cation-hypophosphite anion type and having both a given initial composition and a given initial pH, contacting said body with said bath during a time interval in order to effect the reduction of nickel cations to metallic nickel and the deposition thereof upon the surface of said body along with the companion oxidation of hypophosphite anions to phosphite anions and resulting in the depletion of both nickel cations and hypophosphite anions in said bath and in the corresponding decrease in the pH thereof, measuring the pH of said bath during said time interval adding to said bath during said time interval and as determined by said pH measurement a measured amount of alkalizing reagent that is sufficient substantially to restore said given initial pH thereof, adding to said bath during said time interval a measured amount of nickel cations that is related substantially in a first fixed proportion to the measured amount of alkalizing reagent added thereto, and adding to said bath during said time interval a measured amount of hypophosphite anions that is related substantially in a second fixed proportion to the measured amount of nickel cations added thereto, said measured additions of nickel cations and of hypophosphite anions substantially restoring said given initial composition of said bath.

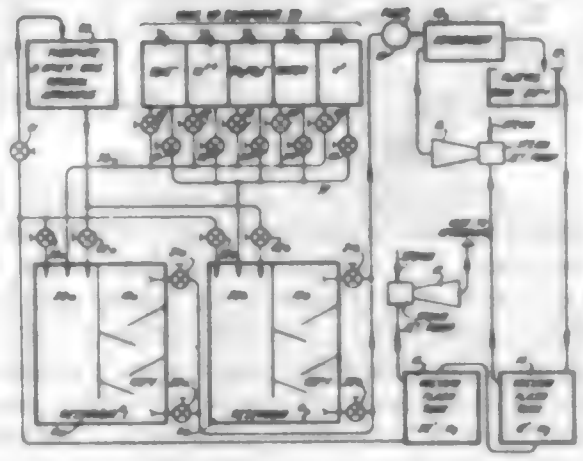
2,872,354

PROCESSES OF CONTINUOUS CHEMICAL NICKEL PLATING

Warren G. Lee, East Chicago, Ind., assignor to General American Transportation Corporation, Chicago, Ill., a corporation of New York

Original application December 31, 1954, Serial No. 479,040. Divided and this application March 26, 1956, Serial No. 573,789

7 Claims. (Cl. 117—130)



1. The continuous process of chemically plating with nickel a body essentially comprising an element selected from the group consisting of iron, cobalt, nickel, aluminum, copper, silver, gold, palladium and platinum; which comprises providing an aqueous plating solution of the nickel cation-hypophosphite anion type and having an initial composition including a pH in a first given range from about 4 to about 7 and a nickel cation concentration in a second given range and a hypophosphite anion concentration in a third given range; holding a portion of said solution in a plating chamber at a plating temperature disposed below the boiling point thereof but well above room temperature; immersing said body in the portion of said solution in said plating chamber to effect nickel plating on the surface thereof; withdrawing said body from the portion of said solution in said plating chamber after a time interval corresponding to the thickness of the nickel plating on the surface of said body that is desired; said nickel plating of said body resulting from the reduction of nickel cations to metallic nickel with the corresponding oxidation of hypophosphite anions to phosphite anions, whereby during said time interval both nickel cations and hypophosphite anions are depleted and both hydrogen cations and phosphite anions are produced in the portion of said solution in said plating chamber, with the result that the portion of said solution in said plating chamber tends to depart substantially from said initial composition; withdrawing during said time interval a part of said solution from said plating chamber; treating during said time interval the withdrawn part of said solution to restore the same substantially to said initial composition; said treatment of the withdrawn part of said solution including removing therefrom by precipitation as ferric hypophosphite a major fraction of the contained hypophosphite anions and removing therefrom by precipitation as ferric phosphite a major fraction of the contained phosphite anions, without removing therefrom any more than a minor fraction of the contained nickel cations and without introducing thereinto any substantial foreign ions, followed by adding thereto sufficient hydroxyl anions to restore the pH thereof into said first range and sufficient nickel cations to restore the concentration thereof into said second range and sufficient hypophosphite anions to restore the concentration thereof into said third range; and returning during said time interval a portion of the restored part of said solution into said plating chamber.

2,872,355
PROCESS FOR IMPARTING FLAME RESISTANCE TO SOLID INFLAMMABLE MATERIAL
Karl W. Müller, Leverkusen, and Detlef Delfs, Opladen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application February 24, 1954
Serial No. 412,396
Claims priority, application Germany February 26, 1953
1 Claim. (Cl. 117—136)

A process for imparting flame-resistance to a solid inflammable material which comprises treating the material in either order with a member selected from the group consisting of phosphoric acids having a smaller content of water than orthophosphoric acid and their water soluble salts and with a basic condensation product formed by contacting, in the presence of hydrochloric acid, a lower aliphatic aldehyde and a nitrogen containing compound selected from the group consisting of guanidine, dicyandiamide and dicyandiamidine.

2,872,356
LUBRICATION OF SYNTHETIC CELLULOSE FIBERS
Harry W. Ball, Midland, and Walter A. Fluke, Saginaw, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application June 2, 1955
Serial No. 512,852
3 Claims. (Cl. 117—139.5)

1. A sewing thread composed of synthetic cellulosic fibers, said thread being coated with a fluid organopolysiloxane in which the organic radicals are monovalent hydrocarbon radicals, said thread being more resistant to infusion breaks and more easily sewn than similar threads of the same composition which have not been treated with the siloxane.

2,872,357
METHOD OF FORMING A BLOCKING LAYER ON A SELENIUM RECTIFIER
Stanley S. Fry, North Chicago, Ill., assignor to Fansteel Metallurgical Corporation, a corporation of New York
No Drawing. Application June 4, 1952
Serial No. 291,769
11 Claims. (Cl. 117—200)

1. In the manufacture of a selenium rectifier assembly having a layer of selenium between the carrier electrode and counterelectrode with a blocking layer between the selenium and counterelectrode components, the method of forming the blocking layer which comprises applying a solution of a titanium compound which is capable of hydrolyzing to an oxygenated titanium compound of the class consisting of the oxide, hydroxide and hydrated oxide of titanium and mixtures thereof, as a thin film over a surface of one of said components, hydrolyzing and drying the film.

2,872,358
METHOD OF FORMING A BLOCKING LAYER ON A SELENIUM RECTIFIER
Stanley S. Fry, North Chicago, Ill., assignor to Fansteel Metallurgical Corporation, a corporation of New York
No Drawing. Application June 4, 1952
Serial No. 291,770
8 Claims. (Cl. 117—200)

1. In the manufacture of a selenium rectifier assembly having a layer of selenium between the carrier electrode and counterelectrode with a blocking layer between the selenium and counterelectrode components, the method of forming the blocking layer which comprises applying a solution of a titanium halide which is capable of hydrolyzing to an oxygenated titanium compound of the class consisting of the oxide, hydroxide and hydrated oxide of titanium and mixtures thereof, as a thin film over a surface of one of said components, hydrolyzing, and drying the film.

2,872,359
COPPER SENSITIZERS
Edward B. Saubestre, Elmhurst, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
No Drawing. Application December 3, 1956
Serial No. 625,616
3 Claims. (Cl. 117—213)

1. A method for sensitizing an insulator substrate which comprises the step of immersing said substrate in an alkaline solution containing at least one complex selected from the class consisting of the hydroxide complexes of gold ($HAuO_3^{-2}$), platinum ($Pt(OH)_6^{-2}$) and palladium ($Pd(OH)_6^{-2}$); and electrolessly depositing copper upon the substrate so treated.

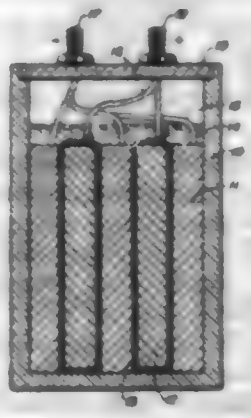
2,872,360
TOBACCO
Claude E. Teague, Jr., Winston-Salem, N. C., assignor to R. J. Reynolds Tobacco Company, Winston-Salem, N. C., a corporation of New Jersey
No Drawing. Application March 13, 1957
Serial No. 645,683
4 Claims. (Cl. 131—17)

1. An article of manufacture comprising tobacco and a small amount of γ-isobutyl-γ-butyrolactone.

2,872,361
STRIPPING METAL COATINGS
Howard T. Siefen, Jackson, Mich., and John M. Campbell, Burlington, Iowa, assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application April 2, 1946
Serial No. 659,134
5 Claims. (Cl. 134—7)

3. The method of removing aluminum-silicon alloy bonded to a metallic uranium article with an interface of aluminum-uranium-silicon alloy which comprises dissolving the aluminum-silicon alloy with hot aqueous caustic alkali solution to expose said interface of aluminum-uranium-silicon alloy, subjecting the interface alloy to treatment with hot concentrated nitric acid to partially dissolve it and embrittle undissolved portions, and shot-blasting the article to loose embrittled alloy from the uranium.

2,872,362
BATTERY ELECTROLYTE
Meyer Mendelsohn, New York, and Carl Horowitz, Brooklyn, N. Y., assignors to Ions Exchange & Chemical Corp., New York, N. Y., a corporation of New York
Application January 5, 1956, Serial No. 557,626
2 Claims. (Cl. 136—157)



1. In an alkaline battery, an electrolyte comprising a concentrated aqueous solution of potassium hydroxide

containing p,p′ isopropylidenediphenol, said isopropylidenediphenol being present in an amount substantially exceeding 0.1%, by weight, of said solution.

2,872,363

METHOD OF WORKING BERYLLIUM

Robert E. Macherey, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application July 14, 1948
Serial No. 38,750
11 Claims. (Cl. 148—11.5)

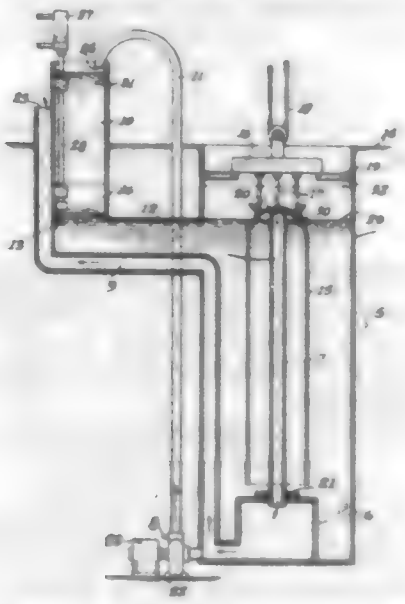
1. A method of working beryllium metal comprising subjecting beryllium metal to plastic deformation at a temperature between 300° and 400° C.

2,872,364

METHOD OF OIL QUENCHING END-CLOSED VESSELS

Robert C. Sherwood, Los Angeles, and Robert H. Lundquist, San Gabriel, Calif., assignors to California-Doran Heat Treating Co., Los Angeles, Calif., a corporation of California

Original application March 4, 1957, Serial No. 643,813. Divided and this application February 21, 1958, Serial No. 719,466
5 Claims. (Cl. 148—21.55)



1. A method for quenching an end-closed vessel that consists in lowering the vessel, closed end up into a quench bath while simultaneously evacuating air and gases from within the vessel to allow the liquid of the bath to freely enter the interior of the vessel through the lower open end, arresting the lowering of the vessel before the closed end thereof becomes submerged in the bath, then, raising the level of the bath to cover said closed end and, at the same time, continuing evacuation of air and gases from the interior of the vessel and then evacuating quench liquid as said bath level raises, and finally, continuing liquid evacuation to restore the lower level in the bath and, thereby, completing the method cycle preparatory to repetition thereof.

2,872,365

SELF-SUSTAINING ADHESIVE SHEET AND PROCESS FOR PRODUCING THE SAME AS WELL AS FOR UNITING SURFACES WITH IT

Norman Adrian de Bruyne, Duxford, Cambridge, George Saunders Newell, Cambridge, and Keith Richard Charles Perry, Sawston, Cambridge, England, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application December 8, 1954
Serial No. 474,032
Claims priority, application Great Britain December 10, 1953
6 Claims. (Cl. 154—79)

1. A process for producing a self-sustaining adhesive sheet which comprises applying a liquid heat-hardenable resin to two strippable facing sheets to form separate layers of said resin on said sheets, distributing discrete particles of a polyvinyl acetal on the surfaces of each of the resin layers to form a coating thereon of polyvinyl acetal particles, placing the two coated surfaces with their polyvinyl acetal coatings face to face and applying pressure thereto to form a single coherent adhesive sheet wherein the polyvinyl acetal particles are at least partially merged with and also coat the layers of the heat-hardenable resin, said formed adhesive sheet being capable of subsequent removal from the facing sheets as a self-sustaining adhesive sheet ready for use to unite surfaces by placing said sheet between the surfaces and applying heat and pressure.

2,872,366

METHOD OF LAMINATING VINYL CHLORIDE TO METAL WITH SYNTHETIC RESIN-RUBBER ADHESIVE AND RESULTANT ARTICLE

Conleth E. Kiernan, Naugatuck, and Walter K. Clark, Woodbury, Conn., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application July 20, 1956
Serial No. 599,010
5 Claims. (Cl. 154—129)

1. A laminate comprising an exterior film of vinyl chloride resin, an electrolytic zinc coated steel base, and an adhesive interposed between said resin film and metal base comprising (A) a rubbery terpolymer of 40–80% butadiene, 10–50% acrylonitrile and 2–25% methacrylic acid and (B) a resinous terpolymer of 5–20% vinyl acetate, 80–95% vinyl chloride, and 0.5–5% of an alpha, beta-olefinically unsaturated carboxylic acid, the proportions of (A) and (B) being 10–50 parts (A) and correspondingly 90–50 parts (B) per 100 parts of (A) and (B).

2,872,367

INSECTICIDAL COMPOSITIONS CONTAINING 9,9′-BIFLUORYLIDENE

Harry L. Haynes, Bronxville, and Anthony A. Sousa, Hastings, N. Y., and Bernard B. Lampert, North Plainfield, N. J., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application September 14, 1954
Serial No. 456,082
15 Claims. (Cl. 167—30)

6. A concentrate adapted to be diluted with an inert pesticidal adjuvant to yield an insecticide comprising, as a toxicant, a member of the group consisting of 9,9′-bifluorylidene, complexes of 9,9′-bifluorylidene and picric acid, complexes of 9,9′-bifluorylidene and 1,3,5-trinitrobenzene, complexes of 9,9′-bifluorylidene and 2,4,7-trinitrofluorenone and complexes of 9,9′-bifluorylidene and sulfur, together with a surface active agent.

2,872,368

EMULSIFIERS AND TOXICANTS CONTAINING THE SAME

Herbert L. Sanders, Edward A. Knaggs, and Marvin L. Nussbaum, Chicago, Ill.

No Drawing. Application May 3, 1954
Serial No. 427,382
13 Claims. (Cl. 167—42)

1. An agricultural and livestock composition for use in conjunction with organic solvent solutions of water-insoluble toxicants, which, upon the addition thereof to soft as well as hard waters, forms a fine dispersion therein of said toxicants, said composition containing (*a*) at least one nonionic emulsifier selected from the group consisting of higher molecular weight ethers and thio-

ethers of polyoxyethylene glycols and higher molecular weight carboxylic acid esters of polyoxyethylene glycols, the higher molecular weight radicals containing from 8 to 22 carbon atoms and the polyoxyethylene glycol radical having a molecular weight between about 200 and 6000, and (*b*) an oil-soluble compound corresponding to the formula

$$[(Alk)_n—Ar—SO_3]_2M$$

where Alk is an alkyl radical, *n* is an integer from 1 to 3, $(Alk)_n$ containing from 8 to 18 carbon atoms, Ar is a member selected from the group consisting of the naphthalene radical and its methyl and hydroxyl monosubstituents, and M is an alkaline earth metal selected from the group consisting of calcium and magnesium, said ingredient (*a*) and said ingredient (*b*) being present in proportions to each other ranging from about 9 to 1 to about 1 to 9.

2,872,369

VINYL LOWER ALKYL ETHER-MALEIC ANHYDRIDE COPOLYMER AS A PESTICIDE SOLUBILIZER

Gerald Robinson, Forest Hills, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 14, 1956
Serial No. 584,414
11 Claims. (Cl. 167—42)

7. A solution having a pH of not less than about 6.5 comprising a lower aliphatic alcohol of from 2 to 4 carbon atoms, a partial alkyl ester having from 1 to 4 carbon atoms in the alkyl radical of a copolymer of a vinyl alkyl ether having from 1 to 4 carbon atoms in the alkyl radical with maleic anhydride, said partial ester containing from about 35% to about 50% ester groupings therein and a compound selected from the group consisting of heavy metal organo compounds and organo sulfur compounds, said compound being present in excess of the amount which is normally soluble in the said lower aliphatic alcohol.

2,872,370

HYPNOTIC COMPOSITION CONTAINING ABOUT 1 TO 3 PARTS ACETOPHENETIDIN AND ABOUT 3 TO 1 PARTS SALICYLAMIDE

Frank M. Berger, Princeton, N. J., assignor to Carter Products, Inc., New York, N. Y., a corporation of Maryland

No Drawing. Application July 22, 1953
Serial No. 369,718
2 Claims. (Cl. 167—52)

1. A sleep-producing composition substantially free of stimulating agents containing as the active ingredients acetophenetidin in an amount of about 1 to about 3 parts by weight and salicylamide in an amount of about 3 to about 1 part by weight.

2,872,371

IMIDAZOLE COMPOSITION FOR TREATING COCCIDIOSIS

Edward F. Rogers, Middletown, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 26, 1957
Serial No. 705,082
29 Claims. (Cl. 167—53.1)

1. A composition useful against coccidiosis which comprises 4,5-imidazoledicarboxamide in intimate dispersion in a solid animal feed ingredient.

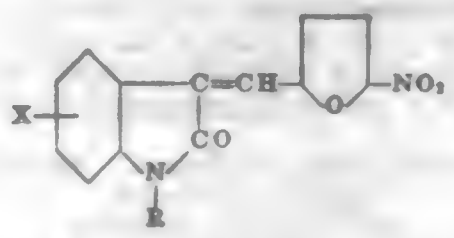
2,872,372

NEW INDOLE DERIVATIVES

Roy Hull, Manchester, England, assignor to Imperial Chemical Industries Limited, Millbank, London, England, a corporation of Great Britain

No Drawing. Application May 21, 1957
Serial No. 660,481
Claims priority, application Great Britain June 8, 1956
10 Claims. (Cl. 167—58)

2. Indole derivatives which are compounds of the formula:



wherein R stands for hydrogen, and X is selected from the group consisting of hydrogen, halogen, nitro, aliphatic acylamino containing up to nine carbon atoms, monocyclic aryl acyl amino, lower alkyl, hydroxy, lower alkoxy and carboxy radicals.

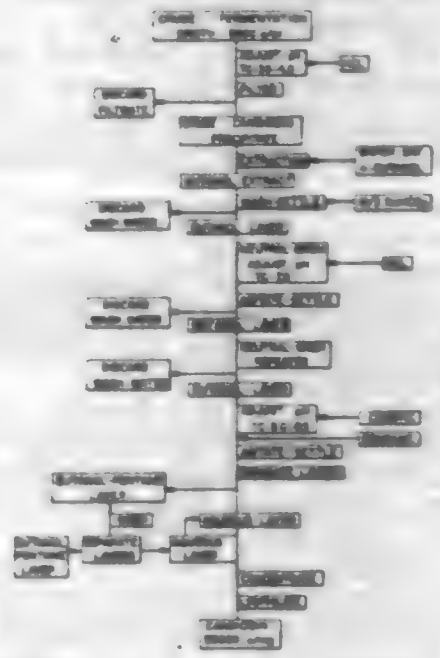
3. An antimicrobial composition comprising as the active ingredient, at least one indole derivative of the formula stated in claim 2, and an inert non-toxic carrier for said ingredient.

2,872,373

CANDICIDIN PURIFICATION

Paul Siminoff, Kalamazoo, Mich., assignor to S. B. Penick & Company, Incorporated, New York, N. Y., a corporation of Delaware

Application December 13, 1954, Serial No. 474,993
1 Claim. (Cl. 167—65)



In the production of candicidin having uniform water solubility and a potency of at least 35,000 units per milligram from a crude fermentation liquor containing candicidin, the steps which include: adjusting the pH of the crude fermentation liquor to between about 3.5 and about 4.0 to precipitate a candicidin-containing solid; extracting the candicidin from said solid with a substantially water-immiscible lower alkanol; adding aqueous material to the alcoholic extract to form a two-phase system; adjusting the pH of the aqueous phase to between about 8.0 and about 8.5; adding a substantially water-immiscible organic material selected from the group consisting of aliphatic hydrocarbons and lower-alkyl ethers to the alcoholic phase to squeeze the candicidin out of the organic alcoholic phase into the aqueous phase; and, recovering candicidin from said aqueous phase.

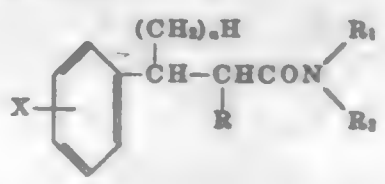
2,872,374

MUSCLE-RELAXING TRANQUILIZER COMPOSITIONS

Jay Morton Beiler, Whitemarsh, Robert R. Brendel, Oreland, and Gustav J. Martin, Philadelphia, Pa., assignors to The National Drug Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application February 2, 1955
Serial No. 485,886
3 Claims. (Cl. 167—65)

1. A composition comprising (1) hypnotic benzylacetamides of the formula:



wherein *n* is an integer from 0 to 7; X is a member of the group consisting of hydrogen, halogen, lower alkyl and lower alkoxy; R is a member of the group consisting of alkyl, cycloalkyl, alkenyl and cycloalkenyl; and R_1 and R_2 are each members of the group consisting of hydrogen, lower alkyl and allyl, and (2) a member of the group consisting of relaxant 1,3-dioxolanes, dithiolanes, and alpha glyceryl ethers, the ratio of benzylacetamide to the relaxant being approximately 1:4 in parts by weight.

2,872,375

STABILIZED PENICILLIN SALTS

Gustavo A. Weitnauer, Guido Gioia, and Arrigo Caporali, Torre Annunziata, Naples, Italy, assignors to Lepetit S. p. A., Milan, Italy

No Drawing. Application March 14, 1956
Serial No. 571,372
Claims priority, application Italy March 21, 1955
9 Claims. (Cl. 167—65)

2. Penicillin salt compositions stabilized against deterioration and discoloration, which comprise an intimate mixture of at least one penicillin salt with about 0.5 to 5% of at least one anhydrous alkaline earth metal chloride.

2,872,376

ATARACTIC COMPOSITION COMPRISING 10-(1-METHYL-3-PIPERIDYLMETHYL) - PHENOTHIAZINE AND 10-(3-DIMETHYL-AMINO-PROPYL)-2-CHLOROPHENOTHIAZINE

Henry Angus Bowes, Baie d'Urfée, Quebec, Canada, assignor to Warner-Lambert Pharmaceutical Company, Morris Plains, N. J., a corporation of Delaware

No Drawing. Application September 21, 1956
Serial No. 611,350
6 Claims. (Cl. 167—65)

1. An ataractic composition having as an active ingredient a mixture of substance A and substance B, said substance A being a member selected from the group consisting of 10-(1-methyl-3-piperidylmethyl)phenothiazine and the nontoxic salts thereof, and said substance B being a member selected from the group consisting of 10-(3-dimethylaminopropyl)-2-chlorophenothiazine and the nontoxic salts thereof, said composition also comprising a pharmaceutical carrier.

2,872,377

DIMETHYLANE-RESERPINE

Jay Morton Beiler, Wyndmoor, and Gustav J. Martin, Philadelphia, Pa., assignors to The National Drug Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application August 24, 1956
Serial No. 605,956
3 Claims. (Cl. 167—67)

1. A composition comprising (1) 0.1–1.0 mg. reserpine and (2) 250–1500 mg. of 2,2-diisopropyl-4-hydroxymethyl-1,3-dioxolane.

2,872,378

THERAPEUTIC COMPOSITIONS CONTAINING IODOPROPYLIDENEGLYCEROL

Lenel Lavan Manchey, Cheltenham, and Verne C. Bidlack, Jr., Levittown, Pa., assignors, by mesne assignments, to The Denver Chemical Manufacturing Company, Stamford, Conn., a corporation of Colorado

No Drawing. Application May 10, 1954
Serial No. 428,808
5 Claims. (Cl. 167—70)

1. A pharmaceutical composition containing a pharmaceutical carrier and an iodine-containing composition consisting essentially of 1,2-(2-iodopropylidene)glycerol and not more than about 50%, based on the 1,2-(2-iodopropylidene)glycerol, of 1,2-(3-iodopropylidene)glycerol, said pharmaceutical composition being substantially free from other iodine-containing compounds, being stable and, on administration, releasing iodide ion through metabolic action, said pharmaceutical carrier being one of the carriers (1) a comminuted carrier on which the iodine-containing composition is adsorbed and compressed into a tablet and (2) a solvent in which the iodine-containing composition is dissolved and the solution contained in a soft gelatin capsule.

2,872,379

AEROSOL ANTIPERSPIRANT COMPOSITION PREPARATION

Günther Neumann and August Kottler, Biberach (Riss), Germany, assignors to Dr. Karl Thomae G. m. b. H., Biberach (Riss), Germany, a corporation of Germany

No Drawing. Application December 30, 1955
Serial No. 556,430
Claims priority, application Germany April 22, 1955
3 Claims. (Cl. 167—90)

1. An antiperspirant anhydrous aerosol composition comprising from about 5 to about 20% by weight of an alkoxy aluminum chloride having the formula

$$Al_x(RO)_yCl_z$$

wherein R is an alkyl radical with 1 to 3 carbon atoms, *x* is an integer from 1 to 2, *y* is an integer selected from the group consisting of 1, 2 and 5 and *z* is an integer from 1 to 2, the sum of *y* and *z* being 3 when *x* is 1, and the sum of *y* and *z* being 6 when *x* is 2, an anhydrous propellant gas selected from the group consisting of difluoro-dichloro-methane and tetrafluoro-dichloro-ethane in an amount sufficient to produce an aerosol spray.

2,872,380

PROCESS FOR THE PRODUCTION OF 17-β HYDROXYSTEROIDS BY NEOCOSMOSPORA

Gilbert M. Shull, Huntington Station, N. Y., and John B. Routien, Tenafly, N. J., assignors to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 15, 1957
Serial No. 640,318
11 Claims. (Cl. 195—51)

1. A process for the degradation of the 17-side chain of a 3-keto steroid to yield a 3-keto-17β-hydroxysteroid, which comprises subjecting a 3-ketosteroid having a two carbon atom aliphatic side chain at the 17-position to the oxidative activity of an organism chosen from the genus Neocosmospora.

2,872,381

MICROBIOLOGICAL OXIDATION OF STEROIDS

Josef Fried, New Brunswick, David Perlman, Princeton, and Asger F. Langlykke, Highland Park, N. J., and Elwood O. Titus, Silver Spring, Md.

No Drawing. Original application August 31, 1954, Serial No. 453,411. Divided and this application August 13, 1958, Serial No. 758,640
6 Claims. (Cl. 195—51)

1. The method of converting a steroid into a 16α-hydroxy derivative thereof, which comprises subjecting a

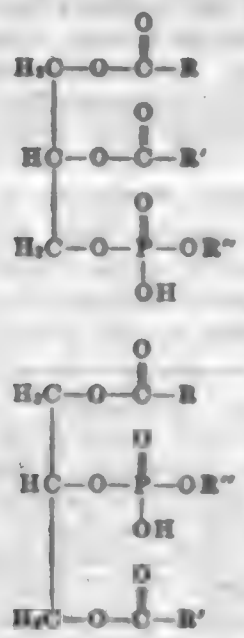
steroid selected from the group consisting of a steroid of the pregnane series and a steroid of the androstane series to the action of enzymes of *Pestalotia funerea*, under oxidizing conditions, and recovering the 16α-hydroxy steroid formed.

2,871,162
BIFIDOGENIC COMPOSITIONS

Johannes Keck, Biberach (Riss), Germany, assignor to Dr. Karl Thomae G. m. b. H., Biberach (Riss), Germany, a corporation of Germany

No Drawing. Application December 10, 1957
Serial No. 701,721
Claims priority, application Great Britain December 11, 1956
8 Claims. (Cl. 195—100)

1. A bifidogenic composition comprising a phosphatide compound having a structural formula selected from the group consisting of



and

wherein R and R′ are selected from the group consisting of saturated and unsaturated hydrocarbon radicals with 15 to 21 carbon atoms, and R″ is selected from the group consisting of choline, colamine, serine and hydrogen, and an amino acid selected from the group consisting of cystine and cysteine, the weight ratio between the amino acid and the phosphatide compound in said composition being within the range 1:0.33 to 1:20.

2,872,383
DESULFURIZATION OF HIGH SULFUR FLUID COKE PARTICLES

John J. Owen, Baton Rouge, La., and John Fedirko, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application July 7, 1954
Serial No. 441,951
2 Claims. (Cl. 202—31)

1. A process for desulfurizing coke particles containing a high percentage of sulfur, said particles having been produced by contacting a heavy petroleum oil coking charge stock at a coking temperature with a body of coke particles maintained in the form of a dense turbulent fluidized bed in a coking zone, wherein the oil is converted to product vapors and carbonaceous material is continuously deposited on the coke particles, removing product vapors from the coking zone, burning a portion of coke particles removed from the coking zone in a separate heating zone to increase the temperature of said coke particles, returning a portion of the heated coke particles from the heating zone to the coking zone and withdrawing product coke particles, which comprises contacting the product coke particles for a time interval of from about 30 minutes to 5 hours with hydrogen-containing gas in a treating zone maintained at a temperature in the range of about 1300° to 1500° F. and under a pressure in the range of about 50 to 250 p. s. i. g., the partial pressure of the hydrogen being in the range of about 25 to 250 p. s. i. g., and the amount of hydrogen introduced into said treating zone being in the range of about 1500 to 6000 v./v./hr., whereby the sulfur content of the product coke particles is reduced to below about 3 weight percent.

2,872,384
DESULFURIZATION OF FLUID COKE WITH HYDROGEN ABOVE 2400° F.

Joseph F. Nelson and Francis P. Ford, Westfield, and Addison W. Hubbard, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

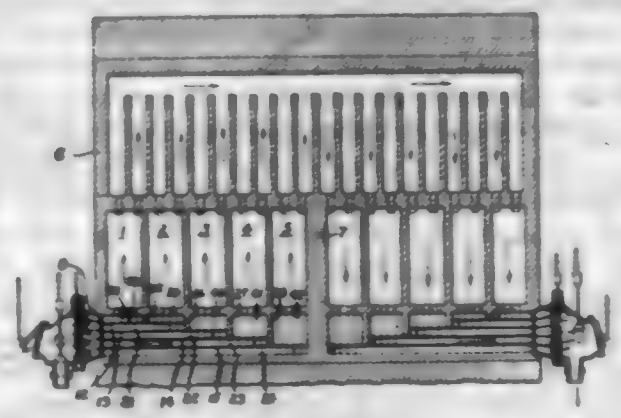
No Drawing. Application November 30, 1954
Serial No. 472,202
2 Claims. (Cl. 202—31)

1. A process for desulfurizing to a maximum sulfur content of 3 weight % and increasing the density of fluid coke particles containing a high percentage of sulfur, a minimum of about 5 weight %, said particles having been produced by contacting a heavy petroleum oil coking charge stock at a coking temperature with a body of fluidized coke particles in a reaction zone, wherein the oil is converted to product vapors and carbonaceous solids are continuously deposited on the coke particles, removing product vapors from the coking zone, heating a portion of the coke particles from the coking zone in a heating zone to increase the temperature of said fluidized particles, returning a portion of the heated coke particles from the heating zone to the coking zone and withdrawing product particles which comprises the step of contacting at about atmospheric pressure the product coke particles with about 100 to 2000 v/v/hr. of a gas consisting essentially, at least 85 volume % of hydrogen at a minimum temperature of 2400° F. for a treating time in the range of about 15 minutes to 3 hours.

2,872,385
APPARATUS FOR THE REGULABLE CHARGING OF REGENERATORS

Heinrich Hartewig, Essen-Haarzopf, Arthur Steding, Bochum, and Paul Eidel, Essen, Germany, assignors to Didier-Kogag-Hinselmann, Koksofenbau und Gasverwertung, A. G., Essen, Germany, a German firm

Application February 24, 1953, Serial No. 338,506
Claims priority, application Germany February 26, 1952
8 Claims. (Cl. 202—141)



1. In a regenerator for industrial furnaces having a plurality of cells and a bottom flue extending over the length of said regenerator to an outside wall thereof, the bottom flue having a plurality of sections and each section being connected with one of said cells through an aperture in said cell, the improvement comprising an apparatus for the regulable charging of the regenerator, said apparatus comprising at least one dosing member having a plurality of sets of dosing apertures therein of different sizes, said dosing member being positionable over the end of the bottom flue and the sections therein in sealing engagement with the outside wall of the regenerator, said dosing member comprising means for

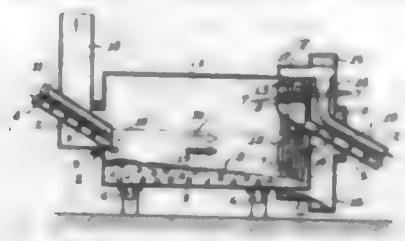
first placing one of said plurality of sets of dosing apertures in communication with the end of said bottom flue and then placing another of said plurality of sets of dosing apertures in communication with the end of said bottom flue.

2,872,386

HEAT-TREATMENT OF PIECE-SHAPED MATERIAL

Olof Erik August Aspegren, Stockholm, Sweden, assignor to The Oil Shale Corporation, Beverly Hills, Calif., a corporation of Nevada

Application April 14, 1952, Serial No. 282,159
1 Claim. (Cl. 202—136)



A device for the treatment of piece-shaped material by means of balls which are brought into direct contact with the material during its operation; said device comprising a cylindrical drum rotating about a generally horizontal axis; an annular end wall defining a central opening at each of the opposite ends of said drum; means for supporting said drum for rotation; a stationary inlet conduit for the balls extending into said drum through the first of said end walls; an upwardly open stationary outlet conduit for the balls extending out of said drum through the other of said end walls; a stationary inlet conduit for the material extending into said drum through the first of said end walls; at least one grate-like catching member secured to and projecting inwardly from the inner surface of the side wall of said drum adjacent the other of said end walls of said drum, the openings of said catching member having such size in relation to the size of the balls and the size of the pieces of material that when said catching member during rotation of said drum is moved through the balls and material, the balls are prevented from passing through said openings while the material passes freely through said openings, said catching members being inclined away from the radial in a direction to prevent the balls from rolling off until the grating members have rotated to a predetermined height above the lowest point of rotation so that during the rotation of the latter the balls are first lifted and then discharged from the catching member into said upwardly open outlet conduit when said catching member is disposed substantially above the latter; a transverse partition wall arranged in said drum adjacent to and spaced from the other of said end walls, the side wall of said drum between said partition and the adjacent end wall having a diameter larger than the remainder thereof; an upwardly open outlet conduit for the material extending out of the section of the drum between said partition and said adjacent end wall and through said other end wall; an outer shell of a diameter less than that of said large diameter portion of the side wall extending around and spaced from said side wall of the drum and opening endwise through said partition into said section of the drum between said partition and said adjacent end wall, openings in said side wall communicating radially with the space enclosed by said outer shell for passing material into said space, and pocket forming members between said partition and said adjacent end wall secured to the side wall for raising material passed through said openings into said space and hence into said drum section and discharging such material into said outlet conduit for the material.

2,872,387

ANODIC TREATMENT OF URANIUM

Morris Kolodney, New York, N. Y., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application May 12, 1948
Serial No. 26,712
16 Claims. (Cl. 204—1.5)

1. The method of effectively and efficiently dissolving uranium which comprises making the uranium anodic in a phosphoric acid solution containing nitrate ions furnished by a nitrate of the class consisting of ammonium, lithium, sodium, and potassium nitrates.

2,872,388

NUCLEAR FUEL ELEMENTS AND METHODS FOR MAKING SAME

Frederick Fahnoe, Morristown, and James J. Shyne, Arlington, N. J., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application July 30, 1954
Serial No. 446,952
10 Claims. (Cl. 204—1.5)

1. In a method of forming a fuel element, the steps of first electrophoretically depositing a porous coating of fissionable material out of liquid media on the surface of a cladding member, and thereafter electrolytically depositing bonding metal through the pores of said coating to bond said coating to said surface.

2,872,389

TREATMENT OF URANIUM SURFACES

Charles J. Stunder, Columbus, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application December 26, 1946
Serial No. 718,623
9 Claims. (Cl. 204—1.5)

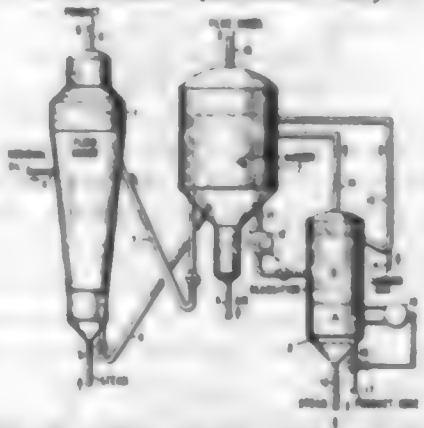
1. In the process of electroplating uranium, the step of anodizing the surface of the uranium in a bath comprising a solution of approximately 50 percent by weight of phosphoric acid containing about 20 cc. per liter of concentrated hydrochloric acid at a temperature of about 35° to 45° C. for approximately 10 minutes, the anodizing current density being about 0.5 ampere per square inch of said surface.

2,872,390

CLASSIFICATION OF PARTICULATE SOLIDS IN FLUID COKING

Bernard L. Schulman, Roselle, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application June 7, 1954, Serial No. 434,732
2 Claims. (Cl. 202—14)



1. A method of preferentially withdrawing coarse coke product from a hydrocarbon oil fluid coking process wherein a mass of coke produced by said process substantially under 1000 microns in size is used as a heat carrying medium, comprising withdrawing coke from said process, introducing the coke so withdrawn into a classification zone, passing a gasiform medium upwardly through said zone at a superficial velocity less than 0.3 ft./second and corresponding to the minimum fluid-

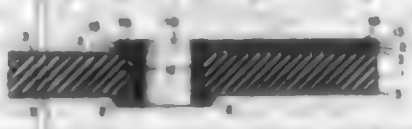
ization velocity of a coke particle 0.8 to 0.9 times the size of the smallest coke particle desired in said coarse coke product whereby a dense phase bed of particles composed of an upper relatively fine particle containing layer and lower, coarse particle-containing non-fluidized layer is formed, withdrawing from said upper layer relatively fine particles, returning said relatively fine particles to said process and withdrawing relatively coarse coke from said lower layer as said coarse product coke.

2,872,391

METHOD OF MAKING PLATED HOLE PRINTED WIRING BOARDS

John H. Hauser and Edward J. Lorenz, Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application June 28, 1955, Serial No. 518,462
4 Claims. (Cl. 204—15)



1. The process of forming electrically conductive metal portions extending over surfaces and through holes in an insulation backing comprising the steps of applying a plating resist over the metal surfaces of a sheet of foil clad insulation so as to cover all the surfaces except those forming a conductive pathway pattern, covering the plating resist and the exposed metal surfaces with a strippable film, forming holes through said foil clad insulation and said film in such a way that the ends of the holes are surrounded by foil which is not covered by said plating resist, applying a conductive coating not subject to migration to the walls of said holes, removing said strippable film, plating a first metal over said conductive coating and the surfaces of said foil not covered by said resist, said metal having the properties of high electrical and thermal conductivity and resistance to stress, plating a solder type metal over said first metal, removing said plating resist, and removing by chemical action attacking said foil but not said solder type metal all parts of said foil that had been covered by said plating resist.

2,872,392

ELECTRODEPOSITION OF NICKEL

Bernard P. Martin, Cleveland Heights, Ohio, assignor to The McGean Chemical Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 26, 1957
Serial No. 705,120
15 Claims. (Cl. 204—49)

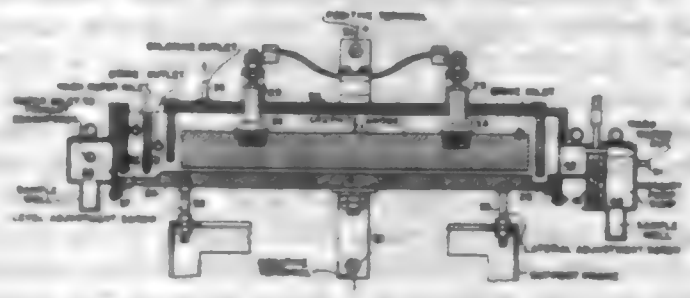
1. An electroplating bath for producing a bright nickel deposit on a base metal, which comprises an aqueous acid nickel electrolyte solution containing a predominating amount of a soluble inorganic nickel salt, said solution further containing, per liter, about 0.5 to 25.0 grams of an unalkylated aryl sulfo compound selected from the group consisting of naphthalene mono-, di- and tri-sulfonic acids and saccharin as a primary brightener and about 2 to 100 milligrams of a secondary brightening agent consisting of an amino poly aryl methane from the group consisting of fuchsin, reduced fuchsin, p,p' methylene dianiline and 2.2', 4.4' tetramino 5.5' dimethyl diphenylmethane, and a quick-brightening addition agent, said quick-brightening agent being present in amount of from 0.01 to 1.0 gram per liter and being selected from the group consisting of lignin sulfonic acid and its soluble salts wherein the degree of sulfonation is at least about 5%, said bath having a pH of from about 2.5 to 4.5.

2,872,393

PRODUCTION OF LITHIUM HYDROXIDE

William C. Gardiner, Niagara Falls, Hugh A. Mosher, Lewiston, and Walter J. Sakowski, Youngstown, N. Y., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application December 3, 1954, Serial No. 472,802
3 Claims. (Cl. 204—99)



1. A method for the production of chlorine and an aqueous solution of lithium hydroxide which comprises electrolyzing an aqueous solution of lithium chloride containing as an impurity at least one material selected from the group consisting of alkali metal chlorides and alkaline earth metal chlorides other than lithium chloride in a mercury cell to form chlorine and lithium amalgam, and partially decomposing the amalgam by contacting it with fresh water to form an aqueous solution of lithium hydroxide in a first decomposition stage and completing the decomposition of such amalgam with fresh water in at least one succeeding decomposition stage.

2,872,394

RECOVERY OF URANIUM FROM TUNGSTEN

Kenneth Newnam, Angola, Ind., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application August 1, 1946
Serial No. 687,720
6 Claims. (Cl. 204—105)

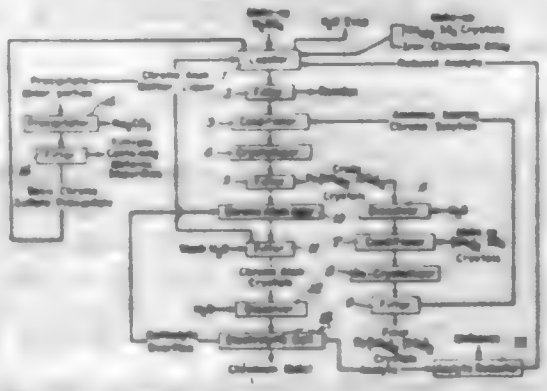
1. A method of reclaiming uranium from a tungsten article having uranium disposed in the outer portions thereof which comprises electrostripping said article in an aqueous alkali metal hydroxide solution to obtain a uranium containing solution admixed with insoluble material containing uranium, and recovering said uranium from said solution and said insoluble material.

2,872,395

LEAD REMOVAL IN THE ELECTROWINNING OF CHROMIUM

Michael C. Carosella, Niagara Falls, and James H. Jacobs, Lewiston, N. Y., and Thomas R. McNeill, Marietta, Ohio, assignors to Union Carbide Corporation, a corporation of New York

Application January 27, 1958, Serial No. 711,400
2 Claims. (Cl. 204—105)



1. In the electrowinning of chromium from chromium sulphate containing solution, the improvement which comprises removing minor amounts of lead impurities from said solution prior to the electrolysis of said solutions by treating said solution with at least one barium compound in sufficient quantity to co-precipitate from said solution said contained lead as lead sulphate.

2,872,396

CONVERSION PROCESS

Alexander T. Wilson, Whiting, Ind., and David A. McCaulay, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application November 3, 1955
Serial No. 544,828
6 Claims. (Cl. 204—162)

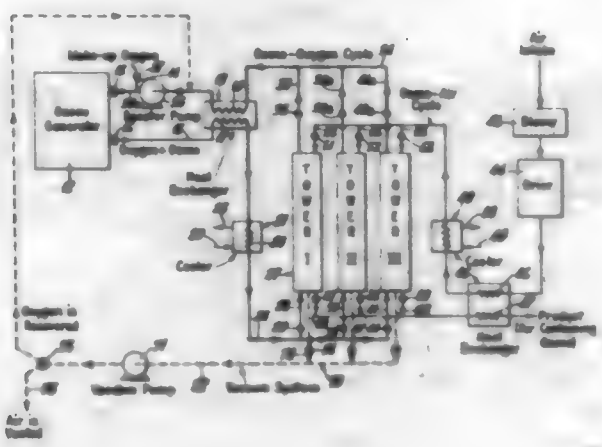
1. A process for the conversion of light paraffins to higher boiling liquid products which comprises charging a lower paraffin of 3 to 5 carbon atoms to a reaction zone, subjecting the paraffin in the reaction zone in the presence of an olefin of 4 carbon atoms to an amount in the range of about 10^6 to 10^9 REP of ionizing radiation at a rate of at least 2×10^6 REP per hour produced by nuclear reaction favoring interreaction of the paraffin and the olefin as a predominant reaction while maintaining the reactant mixture as a dense phase in the reaction zone, and separating the resulting product from the resulting reaction mixture.

2,872,397

METHOD AND APPARATUS FOR PRODUCING OZONE-CARRIER GAS MIXTURE

Alfred D. Kiffer, Kenmore, N. Y., assignor to Union Carbide Corporation, a corporation of New York

Application January 10, 1955, Serial No. 480,841
9 Claims. (Cl. 204—176)



1. A method of producing O_3 from O_2, comprising passing the oxygen through an ozone generator to produce a gas mixture of ozone in an oxygen carrier gas, cooling said gas mixture, flowing said cooled gas mixture through an adsorption zone containing as an ozone adsorbent, silica gel, removing from the adsorption zone substantially all of said oxygen carrier gas, replenishing said oxygen carrier gas with make-up oxygen in an amount substantially equal to that converted to ozone, and circulating said oxygen carrier gas and said make-up oxygen through said ozone generator, and desorbing by vacuum the ozone adsorbed on said adsorbent.

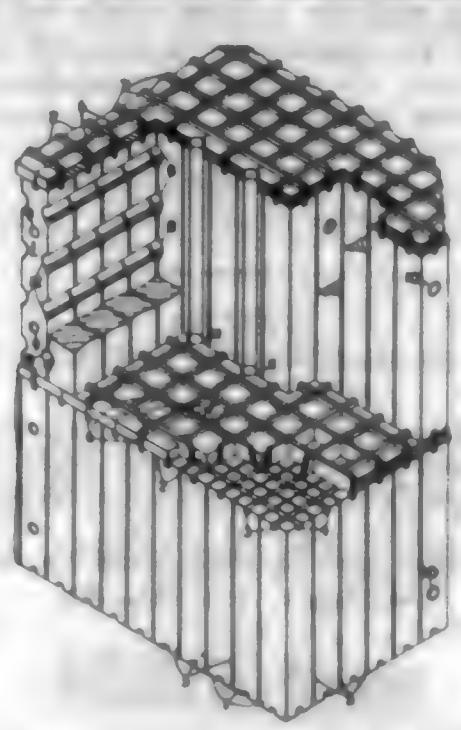
2,872,398

NEUTRON-IRRADIATED STRUCTURES

Edward Lionel Ashley, James Wilfred Ashley, Harry Whalley Bowker, Robert Hugh Hall, and James William Kendall, Strand, London, England, assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application March 7, 1950, Serial No. 148,042
11 Claims. (Cl. 204—193.2)

1. A structure, for irradiation in a nuclear reactor, made predominantly of moderating material having the property of substantial Wigner growth in one plane only, comprising a stack of prismatic blocks of said material and each having a major axis in the direction of negligible Wigner growth, said major axes being parallel, and means for interconnecting said blocks to maintain said blocks spaced from each other in directions transverse to said



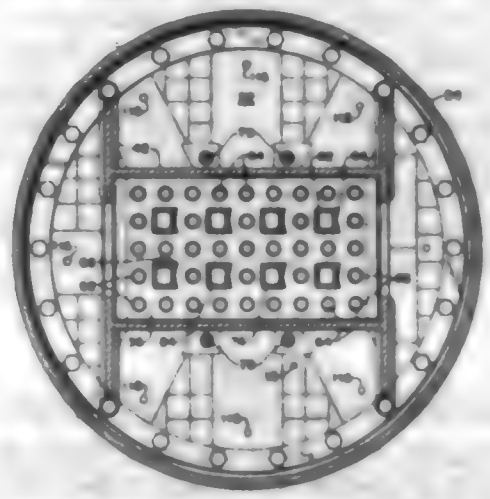
major axes so that space between said blocks remains for the Wigner growth of said blocks under irradiation.

2,872,399

SELF-REACTIVATING NEUTRON SOURCE FOR A NEUTRONIC REACTOR

Henry W. Newson, Durham, N. C., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application July 7, 1953, Serial No. 366,615
1 Claim. (Cl. 204—193.2)



In combination with a neutronic reactor of the type employing beryllium in a reflector region around the active portion, a self-reactivating neutron source comprising a quantity of antimony including both antimony —123 and antimony —124 fixedly positioned in said reflector region, for conversion of said antimony —123 to antimony —124 upon bombardment by neutrons from said reactor, said antimony —124 emitting gamma rays of sufficient energy to produce neutrons from said beryllium reflector.

2,872,400

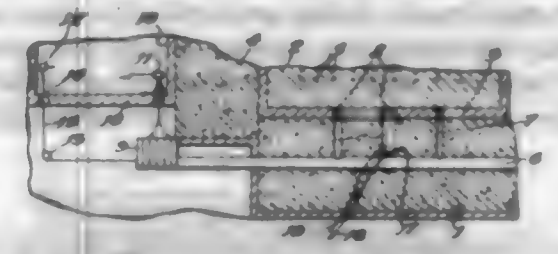
REACTOR MONITORING

Stuart J. Bugbee, Morgantown, W. Va., and Victor F. Hanson, Yorklyn, and Dale F. Babcock, Wilmington, Del., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 28, 1946, Serial No. 657,814
2 Claims. (Cl. 204—193.2)

1. In combination with a neutronic reactor active portion, the improvement comprising a tunnel beneath and spaced from the active portion and extending beyond opposite faces of the active portion, means forming a

passage for neutrons connecting the active portion and tunnel, a carriage in the tunnel, cables connected to said carriage and extending in opposite directions through



and out of the ends of the tunnel, and means spaced from opposite faces of the reactor and operable to move the cable in opposite directions selectively.

2,872,401
JACKETED FUEL ELEMENT

Eugene P. Wigner and Leo Szilard, Chicago, Ill., and Edward C. Creutz, Pittsburgh, Pa., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application May 8, 1946, Serial No. 668,110
2 Claims. (Cl. 204—193.2)

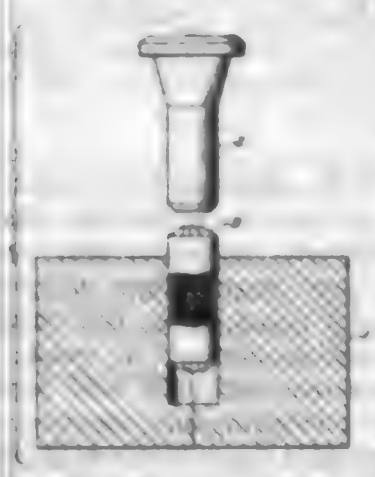


1. A fuel element for use in a neutronic reactor, said fuel element comprising an homogeneous metallic uranium body completely enclosed and sealed in an aluminum cover, and a layer of zinc located between said body and said cover and bonding them to one another.

2,872,402
METHOD OF PREPARATION OF MATERIAL FOR NEUTRON BOMBARDMENT

Chester L. Ura, Hamtramck, Mich., and Oscar Sisman and Robert B. Briggs, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 31, 1947, Serial No. 738,390
2 Claims. (Cl. 204—193.2)

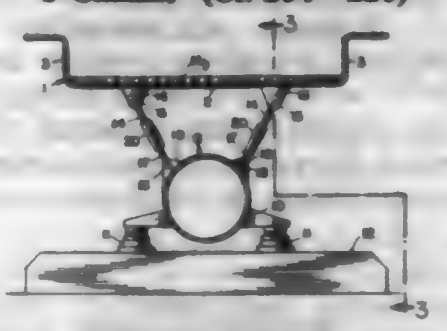


1. In the preparation of material for irradiation in a neutronic reactor, said material being originally in comminuted form which is not susceptible by itself to the formation of a rigid cartridge by compression, the steps of encasing a large number of particles of the comminuted material in a single metallic foil envelope, compressing said foil-enveloped material under sufficient pressure to form a rigid cartridge and sealing the cartridge in a metallic can.

2,872,403
ELECTROLYTIC CELL

Werner Honsberg, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

Application February 1, 1956, Serial No. 562,895
Claims priority, application Germany February 3, 1955
5 Claims. (Cl. 204—220)

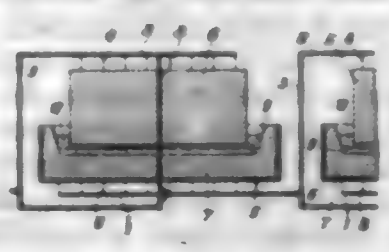


1. In an electrolytic cell in which a fluid cathode flows in a thin band covering the bottom surface of an elongated, inclined trough receptacle, the improvement which comprises: an elongated trough consisting essentially of a unitary, flat, thin, flexible bottom and side walls integral with said bottom, the weight exerted by and the relative flexibility of said bottom resulting in a normally excessive deflection thereof over an unsupported length corresponding to less than one-third of the total length of said trough, means secured at either end of said trough to hold said trough in an inclined plane; a plurality of individual adjustable supports spaced intermediately the ends of said trough and means at the top end of each support to secure the support to the flexible bottom of said trough, the distance between each of said supports being sufficiently small to prevent normal excessive deflection of said flexible bottom; and means to individually longitudinally adjust the height of each of said supports cooperating with said means securing each support to the bottom of said flexible trough for local reciprocal movement of the bottom of the trough corresponding to the longitudinally adjustable movement of the support, in order to correct local unevenness in the bottom of the trough.

2,872,404
BUS BAR ARRANGEMENT FOR LARGE ELECTROLYTIC CELLS

Günter Obermann, Grevenbroich (Lower Rhine), Germany, assignor to Vereinigte Aluminium-Werke Aktiengesellschaft, Bonn, Germany

Application May 31, 1956, Serial No. 585,462
Claims priority, application Germany June 3, 1955
15 Claims. (Cl. 204—244)

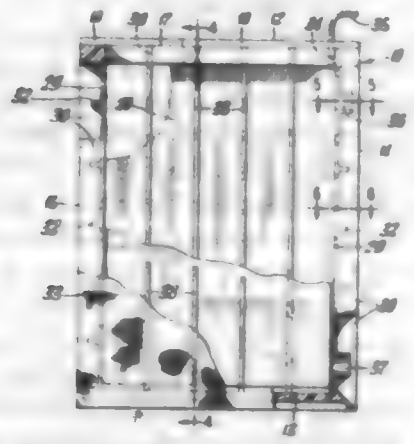


1. In an electrolytic arrangement, in combination, a pair of electrolytic cell units arranged in end to end relationship in one direction with respect to each other and each having an anode means and a cathode means and being adapted to contain an electrolyte for forming a liquid cathode on said cathode means; a cathode bus bar portion electrically connected to the cathode means of one unit; a pair of riser bus bar portions electrically connected to said cathode bus bar portion, one of said riser portions being located between the ends of said units and the other of said riser portions being located intermediate the ends of the other of said units; and an anode bus bar portion electrically connected to said riser portions and the anode means of said other unit, said cathode bus bar portion and said anode bus bar portion extending horizontally and in said direction.

2,872,405
LEAD DIOXIDE ELECTRODE
Henry C. Miller, Hatfield Township, Montgomery County, and John C. Grigger, Springfield Township, Montgomery County, Pa., assignors to Pennsalt Chemicals Corporation, a corporation of Pennsylvania
No Drawing. Application December 14, 1955
Serial No. 552,968
5 Claims. (Cl. 204—290)

1. An electrode for electrochemical processes comprising a metal screen presenting a large surface area relative to its volume having a coating of lead dioxide electrodeposited thereon, said electrodeposited lead dioxide completely filling the interstices of said screen.

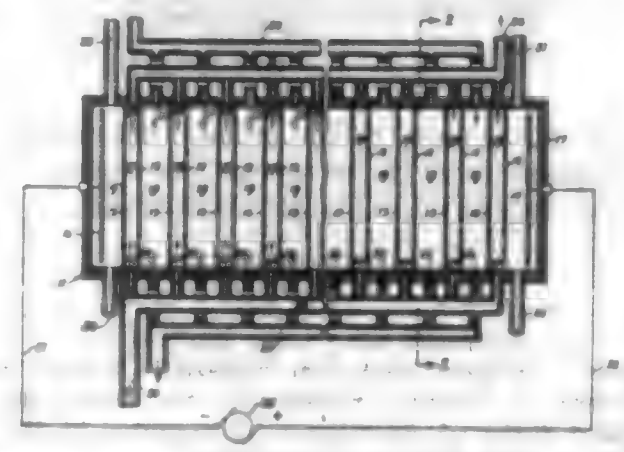
2,872,406
ANODE FRAME
David M. Buchanan, Woodside, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application September 23, 1954, Serial No. 457,933
1 Claim. (Cl. 204—295)



An anodic electrolytic cell adapted to be removably inserted in a frame unit of a cell tank with other like cells without swelling comprising a monolithic, hollow, rectangular frame of a styrene acrylonitrile copolymer base having chemical resistance to electrolytic solutions and high structural rigidity and dimensional stability at temperatures up to approximately 200° C., said frame comprising a pair of spaced vertical side walls, a lower wall integral with the lower ends of said side walls, and an upper wall integral with the upper ends of said side walls, said frame walls forming a pair of flat rectangular surfaces in parallel planes, a pair of liquid semi-permeable diaphragm coverings attached respectively to said surfaces and forming an enclosed compartment in the interior of said frame, an elongated slot in said upper wall adapted to loosely receive a flat rectangular electrode, a pair of openings in one of said side walls for circulating liquid electrolyte in said compartment, each of said frame walls comprising a central web and a pair of outwardly projecting end flanges, the inner surface of said web forming a part of the inside wall surface of said enclosed compartment, and the outer opposed surfaces of said projecting flanges forming a part of said flat rectangular surfaces, and a plurality of spaced rigid rods secured in said frame and disposed on opposite sides of said compartment for preventing contact between said diaphragm coverings and said electrode, whereby warpage and deterioration of said cell in an electrolyte solution is substantially avoided.

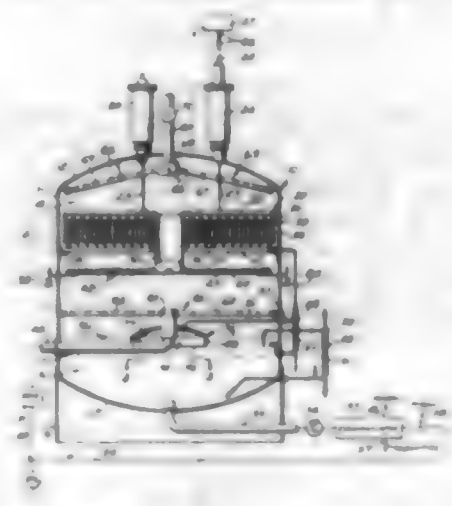
2,872,407
APPARATUS FOR MODIFYING THE CHEMICAL COMPOSITION OF FLUIDS BY ION TRANSFER
Paul Kollsman, New York, N. Y.
Application April 17, 1957, Serial No. 653,311
15 Claims. (Cl. 204—301)

9. An apparatus for ionically concentrating and deionizing liquids by ion transfer, comprising means forming a plurality of chambers in excess of four, the chambers being arranged side-by-side, and liquid separating ion permeable membranes between adjacent chambers for establishing a path for ions from one chamber into an adjacent chamber under the influence of a bias, alternating membranes being permeable to ions of one sign and the remaining membranes being permeable to ions of the opposite sign, and means for establishing a bias to drive ions from certain chambers through bordering



membranes into other chambers, characterized in that more than half of the membranes are inherently neutral in the sense that they per se are permeable to anions and cations, the remaining membranes being inherently selective in the sense that they are permeable to ions of one sign and passage-resistant to ions of the opposite sign, and permeable to ions of the opposite sign and passage-resistant to ions of the one sign, respectively.

2,872,408
ELECTRIC TREATER AND METHOD
Logan C. Waterman and William L. Shirley, Houston, Tex., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
Application October 19, 1955, Serial No. 541,406
7 Claims. (Cl. 204—302)



1. In an electric emulsion treater for electric treating operations of a type in which the electrically treated emulsion constituents separate into upper and lower phases in upper and lower zones within the treater with a layer of a third phase in an intermediate zone therebetween, the combination of: a treater tank providing said zones; electrode means in said upper zone of said tank; means for energizing said electrode means; conduit means having an inlet opening for delivering the emulsion to be treated to said upper zone for electric treatment producing said electrically treated constituents; walls positioned in said tank below the level of said inlet opening and defining an auxiliary settling space having a lower open end opening downwardly on said intermediate zone, said walls being spaced from said tank to define therebetween a passage in which said lower phase may settle to said lower zone, said walls including a deck closing the upper end of said auxiliary settling space and guiding to said passage the lower phase material settling down-

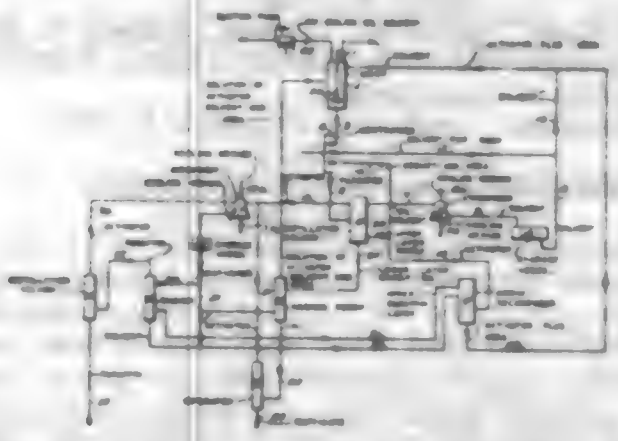
ward toward said auxiliary settling space; means for determining the upper and lower boundaries of said third phase material in said intermediate zone; pipe means for withdrawing material from the upper portion of said auxiliary settling space to the exterior of said tank; and additional pipe means for respectively withdrawing the upper and lower phases from the respective upper and lower zones of said tank.

2,872,409

METHOD OF SEPARATING n-PARAFFINS FROM HYDROCARBONS

Hermann Franz, Hans Langner, and Heinrich Westerhoff, Frankfurt am Main, Germany, assignors to Edeleanu Gesellschaft m. b. H., Frankfurt am Main, Germany, a corporation of Germany

Application September 21, 1954, Serial No. 457,400
Claims priority, application Germany September 23, 1953
5 Claims. (Cl. 208—25)



1. In a method of separating n-paraffins from hydrocarbon mixtures containing the same and also containing other hydrocarbons, the steps of mixing said hydrocarbon mixture with a solution of urea, in excess of the amount necessary for adduct formation with the n-paraffins, dissolved in a solvent which is an activator therefor and with a solvent for said other hydrocarbons, said solvent for said other hydrocarbons having a boiling point below the boiling point of said activator solvent for said urea, so as to cause reaction between said n-paraffins and said urea to form a crystalline adduct thereof, thereby forming a reaction mixture including said adduct, said other hydrocarbons dissolved in said solvent therefor and also including excess urea; separating said crystalline adduct from said reaction mixture; evaporating said solvent for said other hydrocarbons from said reaction mixture at a temperature below the boiling point of said activator solvent for said urea, thereby forming a two-layer residue, one of said layers consisting essentially of said other hydrocarbons and being substantially free of n-paraffins and the other of said layers consisting essentially of said activator solvent for said urea and excess urea; separating said other of said layers from said one of said layers; and decomposing said adduct into urea and n-paraffins whereby all of the n-paraffins are substantially completely separated from the other hydrocarbons and substantially all of the urea used in the separation is recovered.

2,872,410

IMPROVED SILICA-ALUMINA CATALYSTS AND THEIR USE IN HYDROCARBON CRACKING PROCESSES

Henry Erickson, Park Forest, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 3, 1954
Serial No. 447,641
6 Claims. (Cl. 208—120)

1. A silica-alumina catalyst comprising essentially a silica base containing from 27 to 35 weight percent of alumina based on the total weight of the final catalyst, said catalyst having been prepared by combining in an aqueous medium the essential aluminum content of the catalyst with the sodium silicate component before a silica hydrosol is gelled and in the presence of sufficient sulfuric acid to maintain the resulting mixture at a pH of not more than about 3, said aluminum content being dissolved in the aqueous medium, gelling the resulting mixture to form a silica hydrogel, adding a base to precipitate hydrated alumina in the hydrogel, washing, drying and calcining the hydrogel.

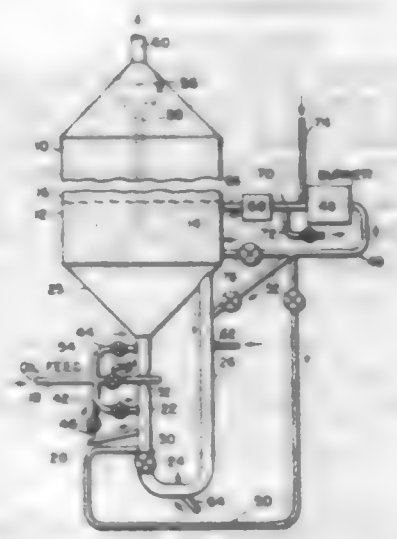
5. A method of cracking hydrocarbons which comprises contacting the hydrocarbons under cracking conditions with a catalyst comprising essentially a silica base containing from 27 to 35 weight percent of alumina based on the total weight of the final catalyst, said catalyst having been prepared by combining in an aqueous medium the essential aluminum content of the catalyst with the sodium silicate component before a silica hydrosol is gelled and in the presence of sufficient sulfuric acid to maintain the resulting mixture at a pH of not more than about 3, said aluminum content being dissolved in the aqueous medium, gelling the resulting mixture to form a silica hydrogel, adding a base to precipitate hydrated alumina in the hydrogel, washing, drying and calcining the hydrogel.

2,872,411

METHOD OF MIXING LIQUIDS AND SOLIDS IN A FLUIDIZED HYDROCARBON CONVERSION PROCESS

Robert W. Krebs, Baton Rouge, La., and James W. Brown, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 8, 1953, Serial No. 360,392
4 Claims. (Cl. 208—157)



1. A process for thermally cracking heavy hydrocarbon oils which comprises contacting hydrocarbon oil containing extremely high boiling constituents with inert solids in a dense fluidized highly turbulent bed of finely divided solids in a cracking zone maintained at a temperature between about 800° and 1600° F. to produce lower boiling hydrocarbons while depositing coke on the solids, removing inert solids from said dense bed and passing them first downwardly and later upwardly as a high velocity solids stream through a recycle passageway extending below said dense bed, introducing heavy hydrocarbon oil into the rapidly flowing solids stream contained in the vertical upflow portion of said passageway at a point thereof which is constricted in diameter, introducing a gas into said upflow portion of said passageway below the region of introduction of oil to increase the velocity of gases and solids passing therethrough and in part thereto a high turbulence, passing the resulting mixture into the bottom portion of said fluid dense bed, removing solids from said cracking zone and passing them through another conduit to a combustion zone for con-

tact with an oxygen-containing gas to burn coke and heat the solids particles to a temperature above that existing in the cracking zone, returning at least part of the heated solids from said combustion zone to said dense fluidized bed in said cracking zone to supply heat thereto and removing hot vaporous reaction products leaving said dense fluidized bed overhead.

2,872,412

PROCESS FOR THE FINISH SWEETENING OF MERCAPTAN-CONTAINING PETROLEUM HYDROCARBONS WITH AIR AND CAUSTIC ALKALI TREATED CHARCOAL

Eric McNeill, Sunbury-on-Thames, and Brian Robson, Cheltenham, England, assignors to The British Petroleum Company Limited, London, England, a British joint-stock corporation

No Drawing. Application May 17, 1955
Serial No. 509,112
Claims priority, application Great Britain May 21, 1954
3 Claims. (Cl. 208—203)

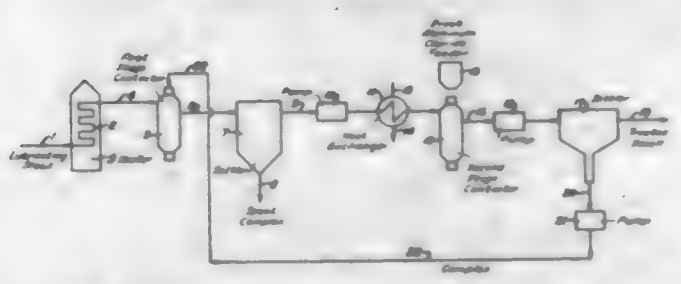
1. A process for the sweetening of a mercaptan-containing liquid hydrocarbon feedstock comprising extracting the most part of the mercaptans from the feedstock by contacting same with a caustic alkali solution to render the feedstock mercaptan-free as judged by the so-called doctor test, finish sweetening the treated feedstock by dissolving oxygen in the treated feedstock, and passing solely the oxygenated feedstock through a contact bed of charcoal which has been soaked in aqueous caustic alkali solution and the excess caustic alkali solution allowed to drain off, said feedstock being passed through said contact bed at a space velocity sufficient to prevent the feedstock from becoming fully saturated with water and not in excess of 20 v./v./hr.

2,872,413

TWO STEP PROCESS FOR REFINING OF LUBRICATING OILS WITH ALUMINUM CHLORIDE

Marshall Elliott and Leslie U. Franklin, Port Arthur, Tex., assignors to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application October 5, 1956, Serial No. 614,306
7 Claims. (Cl. 208—297)



1. In the refining of a hydrocarbon lubricating oil stock with anhydrous aluminum chloride, the continuous two-stage treating process that comprises: subjecting the lubricating oil stock in dry condition in a first treating stage to intimate contacting for a period within the approximate range of from four to ten minutes and at a temperature within the approximate range of from 180° F. to 215° F. with a complex formed by the reaction of anhydrous aluminum chloride with such lubricating oil stock, the said contacting being of a severity to consume power at the rate of at least three horsepower per barrel of lubricating stock charged per minute and at a rate to completely turn over the stock and complex at least ten times per minute; separating the said complex from the so-treated lubricating oil stock and discharging the separated complex from the system; subjecting to so-separated lubricating oil stock in a second treating stage to intimate contacting with fresh anhydrous aluminum chloride for a period within the approximate range of from four to ten minutes at a temperature within the approximate range of from 140° F. to 165° F., the said contacting being of a severity to consume power at the rate of at least three horsepower per barrel of lubricating stock charged per minute and at a rate to completely turn over the stock and complex at least ten times per minute, this contacting producing an aluminum-chloride treated lubricating oil stock and a complex of anhydrous aluminum chloride and lubricating oil stock; separating the said aluminum-chloride treated lubricating oil stock from the aluminum-chloride complex; distilling from the said aluminum-chloride treated lubricating oil stock any lower-boiling and lower viscosity components resulting from the action of aluminum chloride on said stock; and using the separated aluminum chloride complex from the second treating stage as the treating complex in the first treating stage.

2,872,414

PROCESS FOR TREATMENT OF BOILER FEED WATER

John Alan Gray, Northwich, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application December 8, 1955
Serial No. 551,734
Claims priority, application Great Britain December 20, 1954
5 Claims. (Cl. 210—55)

1. A process for generating steam in a boiler while avoiding the formation of non-free-flowing, adherent sludges using boiler feed water including at least one sludge-forming material selected from the group consisting of calcium, magnesium and silicon compounds, said process comprising the steps of adjusting the concentration of magnesium compound present in said feed water so that the value of the expression

$$\frac{100}{CaO}\left[\frac{MgO}{3}-\frac{2}{3}SiO_2\right]$$

in which CaO, MgO, SiO_2 are, respectively, the equivalents in moles of the calcium, magnesium and silicon compounds in the feed, is between 4 and 25, by adding to the feed water a readily water-soluble magnesium compound; and generating steam in said boiler from feed water having the thus adjusted concentration of magnesium compound whereby said sludge forming material is precipitated in said boiler in a free-flowing, non-adherent form.

2,872,415

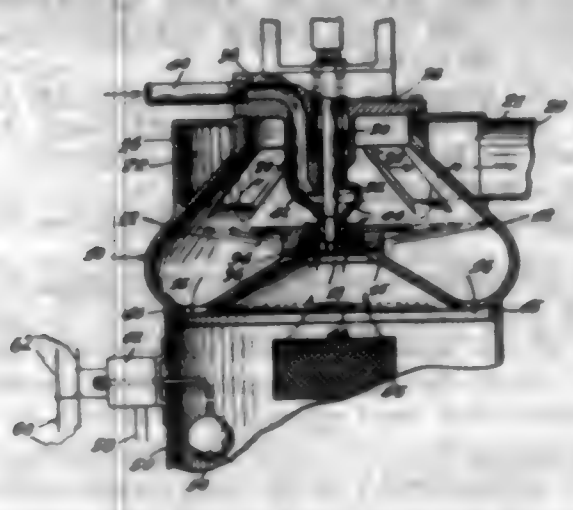
DOMESTIC WATER TREATMENT PROCESS

Victor Schleyer and Jack L. Henricks, Edgewood, and Robert Roy Baxter, Anderson, Ind., assignors to E. C. Schleyer Pump Company, Inc., Anderson, Ind., a corporation of Indiana

Original application April 13, 1954, Serial No. 422,811, now Patent No. 2,811,258, dated October 29, 1957. Divided and this application July 23, 1956, Serial No. 602,421
4 Claims. (Cl. 210—63)

1. The rapid process of treating water to remove hydrogen sulfide and soluble iron compounds, and substantially saturate the water with oxygen, which comprises feeding the water to the center of a rapidly rotating disk, discharging the water from the periphery of said disk to form an annularly expanding standing thin sheet of water, forcibly blowing into convergence with such standing sheet an expanding annular stream of fresh air at a rate exceeding about five cubic feet of air per gallon of water discharged, impinging the resulting mixture of water and air against a deflecting barrier, thereby atomizing the water and substantially saturating the water with oxygen from the air, removing the water from the mixing zone in the direction of deflection from said barrier and freely discharging the air and separated gases in an opposite direction, collecting the water and con-

stituents carried thereby, detaining the collected constituents in a detention tank for a detention time of at least



about twenty minutes to allow the dissolved oxygen to react with oxidizable contaminants, and subsequently filtering the water to remove suspended solids therefrom.

2,872,416

ANTI-FRICTION BEARING GREASE AND PREPARATION THEREOF

Arnold J. Morway, Clarktownship, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application September 30, 1953
Serial No. 383,393
7 Claims. (Cl. 252—33.2)

6. The process of preparing a high temperature grease having long lubrication life in anti-friction bearings which comprises preparing a base grease by heating a mixture of about 29 wt. percent on base grease, of rapeseed oil and about 32 wt. percent, on base grease, of a refined Coastal distillate oil of 500 S. S. U. viscosity at 100° F. and 40 viscosity index to about 150° F., adding about 0.8 wt. percent, on base grease, of sodium petroleum sulfonate, adding about 5.9 wt. percent, on base grease, of sodium hydroxide as a 40% aqueous solution, heating the mass to about 350° F. to dehydrate the same, adding about 31 wt. percent, on base grease, of said Coastal oil, raising the temperature to about 500° F., rapidly cooling the mass to about 275° F. within about 4 hours, adding about 1.5 wt. percent, on base grease, of inhibitors and further cooling to about 200° F.; blending the base grease so prepared with an about equal weight of a blend of about 8–9 wt. percent, based on total grease, of a solvent refined, propane precipitated Mid-Continent residuum of about 2200 S. S. U. viscosity at 100° F. and about 100 viscosity index with about 39–40 wt. percent, based on total grease, of a solvent refined Mid-Continent distillate of about 367 S. S. U. viscosity at 100° F. and about 102 viscosity index; and homogenizing the grease so prepared at high rates of shear of about 10,000–500,000 reciprocal seconds.

2,872,417

HIGH DROPPING POINT LITHIUM BASE GREASES

Terence B. Jordan and John P. Dilworth, Fishkill, and James R. Roach, Beacon, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application October 15, 1954
Serial No. 462,606
13 Claims. (Cl. 252—42.1)

1. A high dropping point grease comprising a lithium soap as the sole thickening agent, a liquid oleaginous lubricating base, 0.05 to 0.8 weight percent excess lithium hydroxide over the stoichiometric required for the reaction with the soap-forming component and 0.5–5 weight percent of a tri-C_1 to C_{18} hydrocarbon ester of phosphorus.

2,872,418

PRODUCTION OF ALUMINA-HALOGEN COMPOSITES

George L. Hervert, Downers Grove, and Herman S. Bloch, Chicago, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application December 29, 1952
Serial No. 328,507
7 Claims. (Cl. 252—442)

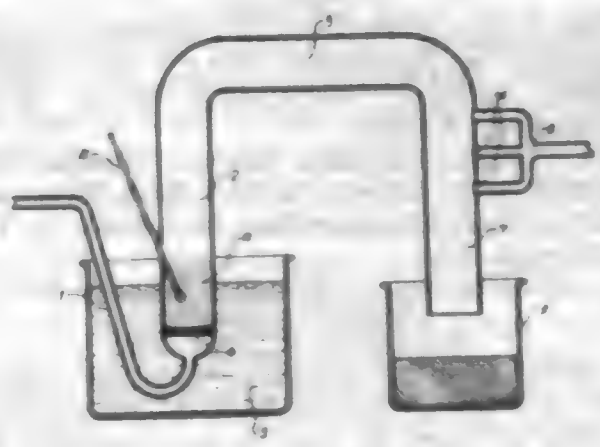
1. A process for producing halogen-centaining alumina which comprites reacting aluminum metal with water in the presence of an ammonium halide.

2,872,419

ACTIVATED BLEACHING CLAY

Joseph Redmond Farnand and Ira E. Puddington, Ottawa, Ontario, Canada, assignors to National Research Council, Ottawa, Ontario, Canada, a corporation of Canada

Application September 20, 1954, Serial No. 457,276
4 Claims. (Cl. 252—450)



1. In the method for the continuous activation of a free-flowing mixture of clay and 5–40% by weight of concentrated sulphuric acid, the improvement which comprises the steps in sequence of: (A), passing heated air through said free flowing mixture to heat said mixture to a temperature above about 95° C.; (B), contacting said heated, fluidized mixture with added saturated steam to activate said mixture substantially instantaneously; and (C), recovering the activated clay so formed.

2,872,420

PROCESS FOR RECLAIMING NYLON

Piet C. Kruyff, New York, N. Y., assignor, by mesne assignments, to Foster Grant Co., Inc., Leominster, Mass., a corporation of Delaware

No Drawing. Application July 18, 1956
Serial No. 598,527
7 Claims. (Cl. 260—2.3)

1. A method for preparing substantially pure linear polyamide from linear polyamide-containing stock, comprising dissolving the stock in 40 to 50 percent sulfuric acid at room temperature, removing any undissolved impurities, adding a small quantity of liquid alcohol selected from the group consisting of methyl alcohol, ethyl alcohol, propyl alcohol, isopropyl alcohol, the butyl alcohols, the amyl alcohols, ethylene glycol and glycerol adding sufficient water to reprecipitate the linear polyamide, washing the precipitate with a dilute aqueous solution of a base selected from the group consisting of hexamethylene diamine, ethylene diamine, morpholine and ammonia, washing the contacted precipitate with water and drying the precipitate; said polyamide being selected from the group consisting of polyamides of adipic acid-hexamethylene diamine, caprolactam, sebacic acid, and 10-amino-1-carboxy-decane.

2,872,421

PLYWOOD ADHESIVE COMPRISING UREA FORMALDEHYDE RESIN PROTEIN AND DISPERSING AGENT AND PROCESS FOR PREPARING SAME

Frederic James Shelton and Charles H. Chervenka, Seattle, Wash., assignors to Reichhold Chemicals, Inc., Detroit, Mich.

Application May 29, 1956, Serial No. 588,083
11 Claims. (Cl. 260—6)

1. A wet plywood adhesive comprising (1) a dispersion containing principally (*a*) a protein adhesive and (*b*) a relatively small quantity of a viscosity modifying reagent comprising a water soluble urea formaldehyde resin, and (*c*) water, dispersed with the aid of (2) an added strong alkaline dispersing agent comprising both alkaline earth and alkali metal hydroxides, the protein adhesive being selected from a group consisting of soy bean flour and blood adhesives and mixtures thereof, and the urea formaldehyde resin being used in the proportion of 0.5 to 2 parts urea resin solids per 100 parts protein adhesive.

2,872,422

ICE RELEASING COATING COMPOSITION COMPRISING NITROCELLULOSE, OIL MODIFIED ALKYD, VINYL POLYMER, WAX, AND ORGANIC SOLVENT

Clifford J. Rolle, Tuckahoe, Jerome Roteman, Brooklyn, and William D. Barnes, Jr., New York, N. Y., assignors to Interchemical Corporation, New York, N. Y., a corporation of Ohio

No Drawing. Application June 22, 1954
Serial No. 438,632
9 Claims. (Cl. 260—16)

1. An ice-releasing coating composition comprising a volatile organic solvent solution of nitrocellulose, and containing for each 10 parts of nitrocellulose; 10 to 20 parts non-drying vegetable oil modified glycerol phthalate resin, 2.5 to 5.0 parts of a copolymer of vinyl chloride and vinyl acetate, 0.1 to 0.3 part of a petroleum hydrocarbon wax and sufficient volatile organic solvent to give a spraying composition containing on the order of 20 to 25% non-volatile ingredients.

2,872,423

COMPOSITION COMPRISING A MIXTURE OF SYNTHETIC RESINS AND CELLULOSE ACETATE BUTYRATE FOR PRINTING ON VINYL PLASTICS

Gabriel F. Goldstein, New York, N. Y., assignor to Interchemical Corporation, New York, N. Y., a corporation of Ohio

No Drawing. Application May 6, 1955
Serial No. 506,665
6 Claims. (Cl. 260—16)

1. A composition for printing on vinyl plastics, comprising a volatile, organic solvent solution of (A) from 4.2 to 11.4 parts by weight of the total composition of a vinyl chloride-vinyl acetate copolymer, (B) from 3.6 to 22.5 parts by weight of the total composition of a member of the group consisting of (1) lower alkyl methacrylate resin, (2) a mixture of a lower alkyl methacrylate resin in which the alkyl contains up to six carbon atoms with 20–60% drying oil modified alkyd resin wherein the drying oil modifier is selected from the group of acids of the drying type consisting of dehydrated castor oil, soya oil, and linseed oil acids, and (3) a copolymer of a lower alkyl methacrylate in which the alkyl group contains up to six carbon atoms with a 20 to 60% drying oil modified alkyd resin wherein the drying oil modifier is selected from the group of acids of the drying type consisting of dehydrated castor oil, soya oil, and linseed oil acids, and (C) ½ second cellulose acetate butyrate in an amount not greater than about 15% by weight of the total composition.

2,872,424

FIBER-FORMING COMPOSITION COMPRISING CELLULOSE ACETATE AND ACRYLONITRILE COPOLYMER AND FIBER CONSISTING ESSENTIALLY OF SAME

Nelson W. Abernethy, Midland, Edward M. Diss, Sanford, and Theodore W. Sarge, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application December 16, 1954, Serial No. 475,844
2 Claims. (Cl. 260—17)

1. A fiber-forming composition comprising, as the fiber-forming constituents, (*a*) from 70 to 72 percent by weight of an acetone soluble acrylonitrile copolymer selected from the group consisting of copolymers of acrylonitrile and vinyl chloride that contain in the polymer molecule from 45 to 80 weight percent of vinyl chloride with from 55 to 20 weight percent of acrylonitrile and copolymers of acrylonitrile and vinylidene chloride that contain in the polymer molecule from 45 to 70 weight percent of vinylidene chloride and from 55 to 30 weight percent of acrylonitrile; (*b*) from 30 to 28 percent of cellulose acetate; and (*c*) a mutual solvent for said acrylonitrile copolymer and the cellulose acetate, said solvent being present in a quantity adequate to dissolve said fiber-forming constituents

2,872,425

PROCESS OF PREPARING UREA-FORMALDEHYDE MOLDING COMPOSITION

Alfred R. Paz, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 15, 1955
Serial No. 501,743
4 Claims. (Cl. 260—17.3)

1. A process for preparing a thermosetting resinous molding composition that comprises blending (*a*) a substantially unalkylated aqueous urea-formaldehyde resin syrup prepared by reacting urea and formaldehyde in a mol ratio of from 1:1 to 1:1.5, respectively, at a pH of from 6.0 to 6.2 and at an elevated temperature until the free formaldehyde content drops to less than 6.7% and (*b*) a substantially unalkylated aqueous urea-formaldehyde resin syrup prepared by reacting urea and formaldehyde in a mol ratio of from 1:1 to 1:2.1, respectively at reflux conditions and at a pH of from 7.9 to 8.2 until methylol ureas are formed, thereafter adjusting the pH within the order of 5.1 and 5.4 and continuing the reaction at reflux conditions until a viscosity within the order of 24 to 44 centipoises is obtained and finally adjusting the pH to within the order of 7.7 to 8.0, in the order of 80:20 to 60:40 parts of (*a*) to parts of (*b*), impregnating from about 15 to 25 parts of a filler with from about 85 to 75 parts of said blend, drying said resin impregnated filler and comminuting the dried material.

2,872,426

ANTISKINNING COMPOSITIONS CONTAINING UNSYMMETRICAL DIMETHYL-HYDRAZINE

Richard C. Harshman, Kenmore, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application February 4, 1955
Serial No. 486,273
2 Claims. (Cl. 260—19)

1. An air drying liquid film-forming composition containing esters of unsaturated fatty glyceride oil acids which dries by reaction with atmospheric oxygen when applied to a surface, said composition containing from 0.05 to 0.5 percent by weight unsymmetrical dimethylhydrazine.

2,872,427

POLYEPOXIDE EMULSIONS AND METHOD OF TREATING TEXTILES THEREWITH

Carl W. Schroeder, Orinda, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application October 4, 1954
Serial No. 460,272
20 Claims. (Cl. 260—29.2)

1. An oil-in-water emulsion comprising as the dispersed phase a polyepoxide and an aqueous dispersing phase containing an acid and alkali stable non-ionic emulsifying agent and a water-dispersible binding colloid, said emulsion being free of solvents and containing an epoxy curing agent.

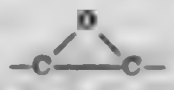
2,872,428

POLYEPOXIDE EMULSIONS AND METHOD OF TREATING TEXTILES THEREWITH

Carl W. Schroeder, Orinda, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application January 31, 1955
Serial No. 485,300
18 Claims. (Cl. 260—29.2)

1. A water repellent composition comprising an aqueous emulsion containing from 3% to 50% by weight of the water in the emulsion of a polyepoxide having a



equivalency greater than 1.0 and being selected from the group consisting of glycidyl polyethers of polyhydric phenols and glycidyl polyethers of polyhydric alcohols, and 30% to 150% by weight of the said polyepoxide of a dissimilar organic compound which has a continuous chain of at least 12 aliphatic carbon atoms and at least one functional group which is reactive with epoxy groups and is selected from the group consisting of a



group, an anhydride group, a phenolic hydroxyl group, a carboxyl group, an amino group, an N-substituted amino group, a mercapto group and an aldehyde group, said aqueous emulsion containing a non-ionic emulsifying agent and being free of solvents.

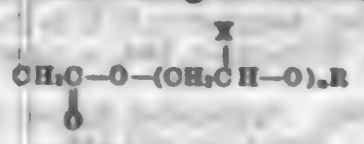
2,872,429

METHOD OF PREPARING ELASTOMERIC PLASTIGELS

Max M. Schwartz, Jersey City, N. J.; Minnie G. Schwartz, executrix of said Max M. Schwartz, deceased

No Drawing. Application August 15, 1956
Serial No. 604,056
7 Claims. (Cl. 260—30.6)

1. The method of preparing an elastomeric plastigel which consists of combining, at room temperature and atmospheric pressure, a powdered thermoplastic resin of the group consisting of vinyl chloride-vinyl acetate copolymers containing from 85 to 91.5 percent by weight of vinyl chloride, ethyl methacrylate-methyl methacrylate copolymers containing at least 35 percent by weight of ethyl methacrylate, and ethyl methacrylate homopolymers, with a compatible plasticizer for the thermoplastic resin and a sufficient quantity of at least one gelling accelerator of the group consisting of alkyl lactates having a vapor pressure at 20° C. of no greater than 0.4 mm. Hg and organic esters having the formula



in which X is a substituent selected from the group consisting of hydrogen and methyl, R is a substituent selected from the group consisting of hydrogen and acetyl, and a is an integer from 1 to 3, to form an elastomeric plastigel, said plastigel being combined in an amount of from 10% to 96% by volume of the total volume of said plasticizer and gelling accelerator, and said thermoplastic resin being combined in an amount of one gram to each 0.45 to 2.75 milliliters of the combined volume of said plasticizer and gelling accelerator.

2,872,430

COMPOSITION COMPRISING A DIISOCYANATE MODIFIED POLYESTER AND POLYMERIZED VINYL CHLORIDE

John A. Parker, Lancaster Township, Lancaster County, and John Vernuel, Manor Township, Lancaster County, Pa., assignors to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application July 31, 1956
Serial No. 601,113
7 Claims. (Cl. 260—45.4)

1. A binder system for surface covering materials comprising an intimately blended mixture of about 90%–40% by weight diisocyanate-modified polyester and about 10%–60% by weight polymerized vinyl chloride, said modified polyester being cured after being blended with said polymerized vinyl chloride by an organic peroxide able to withstand without decomposition a temperature of at least 200° F., said modified polyester being the reaction product of 0.6–0.9 equivalents 2,4-toluene diisocyanate per equivalent unmodified polyester to form an incipient gel, said unmodified polyester having an acid number in the range of about 2–7 and a hydroxyl number in the range of about 20–55 and being formed from a saturated glycol consisting of a hydrocarbon group having 4 carbon atoms with two hydroxyl groups attached thereto, a saturated dibasic carboxylic acid having 6–10 carbon atoms, and a dibasic carboxylic compound selected from the group consisting of acids and anhydrides thereof, said compound having 4–5 carbon atoms and having a single ethylenically unsaturated bond, said saturated acid and said unsaturated compound being present in a mole ratio of about 3:1.

2,872,431

COMPOSITIONS COMPRISING A RUBBER AND A HALOGENATED REACTION PRODUCT OF FURFURAL AND BUTADIENE

Mortimer T. Harvey, South Orange, and Edward Bremak, Garfield, N. J., assignors to Harvel Research Corporation, a corporation of New Jersey

No Drawing. Application October 4, 1954
Serial No. 460,245
4 Claims. (Cl. 260—45.5)

1. A novel composition of matter comprising an intimate combination of (A) a material selected from the group consisting of natural rubber, reclaimed rubber, normally solid polymers of chloroprene, normally solid homopolymers of butadiene 1,3, normally solid copolymers of styrene and butadiene 1,3 and normally solid copolymers of acrylonitrile and butadiene 1,3 and (B) halogenated organic reaction product of furfural and butadiene 1,3 said halogen selected from the group consisting of chlorine and fluorine and measuring at least 1% by weight of said product.

2,872,432

ANTISTATIC RESIN COMPOSITIONS

Alfred P. Metzger, Tampa, Fla., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application March 13, 1956
Serial No. 571,156
11 Claims. (Cl. 260—45.5)

1. As a new composition of matter, a polymer of a monovinylidene compound which has a tendency to accumulate electrostatic charges containing at least 1 part by weight per 100 parts of said polymer of the polymeric

reaction product of (A) the reaction product of an alkylene oxide having terminal epoxy groups with an organic compound having at least 2 primary alcoholic hydroxyl groups, and having an average molecular weight of at least 600 and (B) an organic polyepoxy compound selected from the group consisting of butadiene diepoxide, diglycidyl ether, and the diglycidyl ether of 2,2-bis(4-hydroxyphenyl) propane, said polymeric reaction product containing reacted therein between about 0.2 mole to about 2.0 moles of the organic polyepoxy compound per mole of the said reaction product of the said alkylene oxide.

2,872,433

STABILIZATION OF POLYMERIC N-VINYL PYRROLIDONES WITH SULFUROUS ACID OR ALKALI METAL SALTS THEREOF

Samuel A. Glickman, Easton, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 27, 1955
Serial No. 555,244
12 Claims. (Cl. 260—45.7)

1. A process of stabilizing a solid polymeric N-vinyl pyrrolidone against discoloration which comprises uniformly dispersing into a solution of the said pyrrolidone, in a solvent in which the said pyrrolidone is soluble, from 0.2 to 1% by weight of a reagent selected from the group consisting of sulfur dioxide, sulfurous acid and alkali metal salts of sulfurous acid, and recovering the stabilized solid polymer from said solvent.

2,872,434

BETA-ACETOXYETHYL SILOXANES

Garrett H. Barnes, Jr., Pittsburgh, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application August 1, 1956
Serial No. 601,366
4 Claims. (Cl. 260—46.5)

1. A polymeric organosiloxane containing polymeric units of the formula $(CH_2COOCH_2CH_2)R'SiO$ where R' is a monovalent hydrocarbon radical selected from the group consisting of methyl, ethyl and phenyl radicals.

2,872,435

(CYANOALKOXY)ALKYL SUBSTITUTED ORGANOSILICON COMPOUNDS

John L. Speier, Jr., Pittsburgh, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application August 15, 1956
Serial No. 604,059
7 Claims. (Cl. 260—46.5)

1. Compounds of the formula

$$R_{3-x}X_xSi(CH_2)_3O(CH_2)_3CN$$

where R is a monovalent hydrocarbon radical free of aliphatic unsaturation, X is selected from the group consisting of Cl, Br, and alkoxy radicals of from 1 to 3 inclusive carbon atoms, and x is an integer of from 1 to 3 inclusive.

2,872,436

HIGH MOLECULAR WEIGHT VINYLAROMATIC HYDROCARBON MALEIC ANHYDRIDE COPOLYMERS AND PROCESS FOR THEIR PREPARATION

Billy B. Hibbard, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 11, 1956
Serial No. 584,165
4 Claims. (Cl. 260—78.5)

1. A process for making a high molecular weight copolymer of maleic anhydride and at least one styrene selected from the group consisting of styrene, vinyltoluene, and vinylxylene, which process comprises polymerizing a mixture of approximately equimolecular proportions of the reactants at temperatures between 35° and 45° C. while in admixture with methylene chloride in amount sufficient to form a solution of the monomers in concentrations between 0.5 and 33 percent and in the presence of a catalytic amount of an organic peroxide until a copolymer having a weight average molecular weight of at least 700,000 is obtained, as determined by the light scattering method.

2,872,437

PRODUCTION OF OIL-SOLUBLE SULFONATES

Everett E. Gilbert and Benjamin Veldhuis, Morris Township, Morris County, N. J., assignors to Allied Chemical Corporation, a corporation of New York

No Drawing. Application June 22, 1955
Serial No. 517,354
6 Claims. (Cl. 260—79.3)

1. The process of preparing oil-soluble sulfonates which comprises reacting a synthetic petroleum resin having a molecular weight of at least about 800, said resin being formed by aluminum chloride catalyzed polymerization of a highly unsaturated liquid fraction obtained by cracking a liquid petroleum oil and fractionating the cracked product, said fraction being composed essentially of C_8, C_9 and C_7 hydrocarbons comprising aromatic hydrocarbons, olefinic hydrocarbons and conjugated diene hydrocarbons, the conjugated diene hydrocarbons comprising at least about 15% by weight of the fraction, with a sulfonating agent, in mol ratio of about 0.75 to 2.5 mols of sulfonating agent per mol of resin, at temperature of about 10° to 80° C. for a time sufficient to complete the reaction.

2,872,438

CONTINUOUS POLYMERIZATION PROCESS FOR PRODUCTION OF HIGH-SOLIDS LATEX

James H. Carroll, Phillips, and Robert S. Hammer, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

Application August 10, 1953, Serial No. 373,234
16 Claims. (Cl. 260—83.7)

1. A continuous emulsion polymerization process for the production of high-solids latex which comprises continuously introducing a polymerizable monomeric material selected from the group consisting of conjugated dienes, haloprenes, aryl olefins, vinyl naphthalenes, acrylic and methacrylic acids, acrylic and methacrylic nitriles, acrylic and methacrylic amides, acrylates, vinyl ketones, vinyl ethers, vinyl carbinols, vinyl acetates, vinyl furanes, vinyl carbazoles and vinyl acetylenes and mixtures of same and a micelle forming emulsifying agent under micelle forming conditions into a polymer initiation zone under polymerizing conditions for a residence time sufficient to effect a low degree of polymerization, not over 12 percent of the monomers supplied to said zone, whereby polymer particles are formed within the formed micelles, continuously withdrawing total stream containing said polymer particles in micelle form from said polymer initiation zone, and continuously introducing the said stream into a reactor under polymerization conditions for a residence time sufficient to effect the desired degree of polymerization.

2,872,439

POLYMERIZATION CATALYST AND PROCESS

William Frank Gresham and Nikolaus George Merckling, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 30, 1954
Serial No. 453,145
3 Claims. (Cl. 260—94.9)

1. The process of polymerizing ethylene which comprises contacting ethylene at a temperature of 0° to

300° C. in the presence of an inert liquid hydrocarbon with the reaction product formed on admixing a tungsten chloride with a quantity of tin tetraalkyl sufficient to reduce said tungsten, said alkyl groups having from 4 to 18 carbon atoms, said reaction product being employed in a quantity of 0.001 to 10% by weight of the said ethylene, and recovering a solid polymer of ethylene.

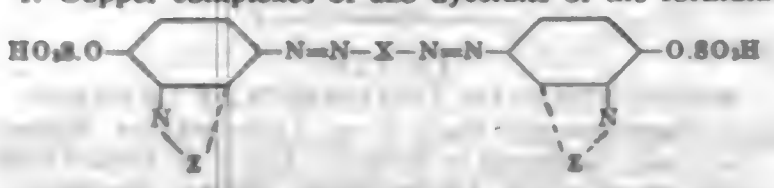
2,872,440

METALLISABLE AZO DYESTUFFS

Robert Ronald Davies, Manchester, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

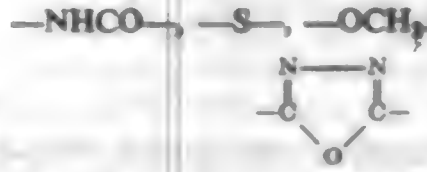
No Drawing. Application October 25, 1954
Serial No. 464,595
Claims priority, application Great Britain October 30, 1953
2 Claims. (Cl. 260—143)

1. Copper complexes of azo dyestuffs of the formula:



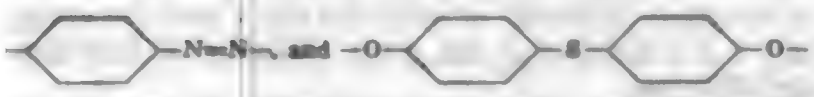
wherein X is the radical of a tetrazotisable aromatic diamine which is free from sulphonic acid and carboxylic acid groups and is selected from the class consisting of monocyclic aryl, dicyclic aryl, carbazole, acridine, fluorene, phenylbenzthiazole and $R_1—Y—R_2$ radicals wherein Y stands for a member of the group consisting of a direct linkage, —NH—, —NH—CO—NH—, —N=N—,





—NHCO—, —S—, —OCH_2CH_2O—, —SO_2—,

CH_2, —CH_2—CH_2—



and R_1 and R_2 stand for monocyclic aromatic nuclei and Z is a group of non-metallic atoms which together with the N-atom form a heterocyclic ring selected from the group consisting of 5- and 6-membered heterocyclic rings.

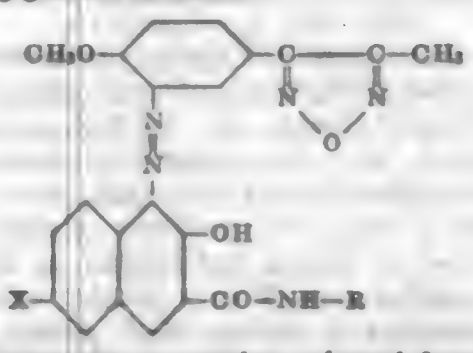
2,872,441

MONOAZO-DYESTUFFS INSOLUBLE IN WATER

Herbert Kracker, Reinhard Mohr, and Roland Bamberger, Offenbach (Main), Germany, assignors to Farbwerke Hoechst Aktiengesellschaft, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application May 27, 1957
Serial No. 661,610
Claims priority, application Germany June 6, 1956
6 Claims. (Cl. 260—157)

1. Water-insoluble monoazo-dyestuffs corresponding to the following general formula:



wherein R represents a member selected from the group consisting of phenyl, methoxyphenyl, dimethoxyphenyl, dimethoxy-chlorophenyl, methylmethoxyphenyl and naphthyl, and X stands for a member selected from the group consisting of hydrogen and bromine.

2,872,442

PURIFICATION PROCESS

Virgil V. Rogert, Garden City, N. Y., assignor to Chas. Pfizer & Co., New York, N. Y., a corporation of Delaware

No Drawing. Application November 27, 1957
Serial No. 699,172
4 Claims. (Cl. 260—210)

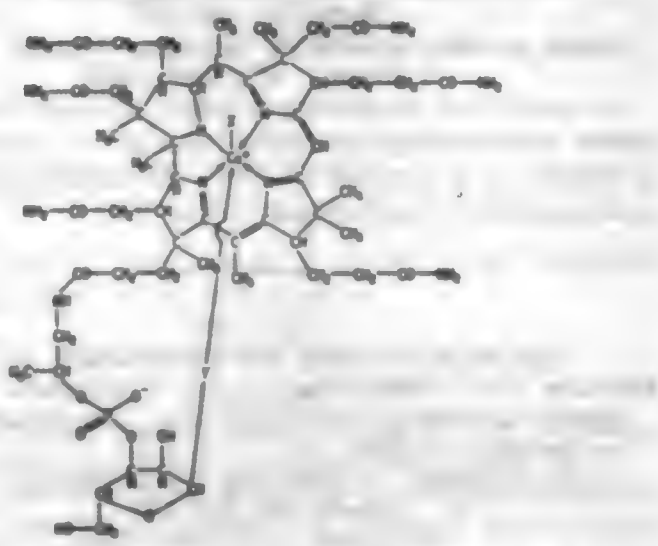
1. A process for removing streptidine from aqueous solutions of streptomycin and dihydrostreptomycin which comprises adding to impure aqueous mixtures of these containing streptidine a 2,6-dihalogenated-4-nitrophenol at a pH of from 5.8 to about 10.5 and removing resulting precipitate.

2,872,443

PREPARATION OF NEW COBALAMINS

David Perlman, Princeton, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

Application December 13, 1956, Serial No. 628,191
2 Claims. (Cl. 260—211.5)



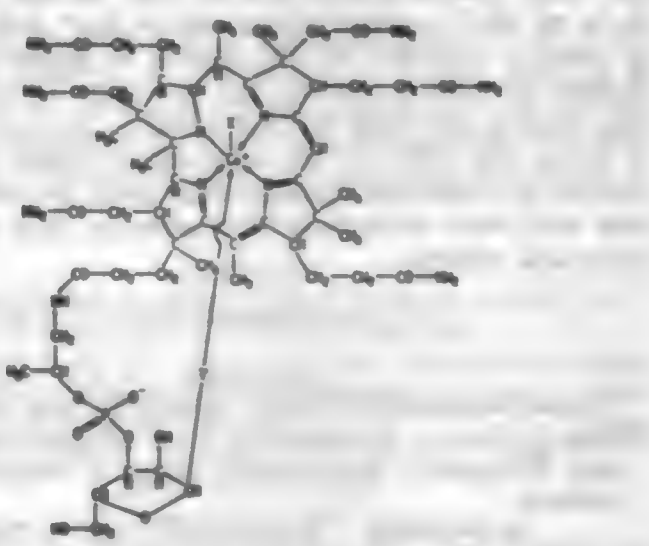
1. A compound selected from the class consisting of (3,4 - dihydro - 4 - oxoquinazolin - 1,3 - diyl) - hydroxocobalamin and the cyanide salt thereof.

2,872,444

NEW COBALAMINS

David Perlman, Princeton, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

Application January 22, 1957, Serial No. 635,298
7 Claims. (Cl. 260—211.5)



1. A compound of the class consisting of (phenazin-9,10-diyl)-hydroxo-cobalamin and the cyanide salts thereof.

2,872,445
PROCESS FOR THE PRODUCTION OF CYANURIC CHLORIDE

Adolf von Friedrich, Karl-Heinz Legrand, Paul Schmitz, and Hermann Holzrichter, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application December 14, 1955
Serial No. 552,978
Claims priority, application Germany December 24, 1954
8 Claims. (Cl. 260—248)

1. Process for the production of cyanuric chloride by polymerization of cyanogen chloride, which comprises maintaining cyanogen chloride in a body of catalyst-free cyanuric chloride at a temperature in excess of 200° C. to thereby polymerize cyanogen chloride to cyanuric chloride and recovering the cyanuric chloride formed.

2,872,446
MANUFACTURE OF CYANURIC CHLORIDE

Adolf von Friedrich and Theodor König, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application September 5, 1956
Serial No. 607,997
Claims priority, application Germany January 10, 1952
1 Claim. (Cl. 260—248)

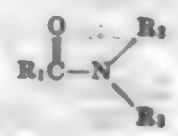
A method of preparing cyanuric chloride which comprises polymerizing cyanogen chloride in the absence of a catalyst at a pressure of 20 to 100 atmospheres within a temperature range between 150 to 700° C.

2,872,447
MANUFACTURE OF CYANURIC ACID

Herman Fred Oehlschlaeger, Jr., Cincinnati, Ohio, assignor to Emery Industries, Inc., Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application November 14, 1956
Serial No. 621,988
5 Claims. (Cl. 260—248)

1. A process for the manufacture of cyanuric acid by the thermal treatment of urea which comprises admixing urea with a solvent having the type formula



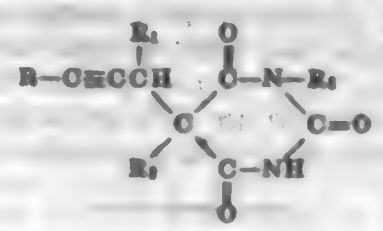
in which R_1 is a radical selected from the class consisting of hydrogen, ethyl, and methyl groups and R_2 is a radical selected from the class consisting of hydrogen and alkyl groups having one to four carbon atoms and R_3 is an alkyl radical having one to four carbon atoms, in quantity sufficient for the solvent to dissolve the urea, thereby forming a solution of the same in the solvent, and heating the said solvent solution at a temperature of from 130–220° C. for a period of from 4–6 hours thereby precipitating cyanuric acid from the solvent solution and then recovering the cyanuric acid precipitate from said solvent.

2,872,448
1,5,5-TRISUBSTITUTED BARBITURIC ACIDS

Wilbur J. Doran, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application April 4, 1956
Serial No. 575,966
6 Claims. (Cl. 260—257)

1. A compound selected from the group consisting of a barbituric acid and the pharmaceutically useful salts thereof, said barbituric acid represented by the formula



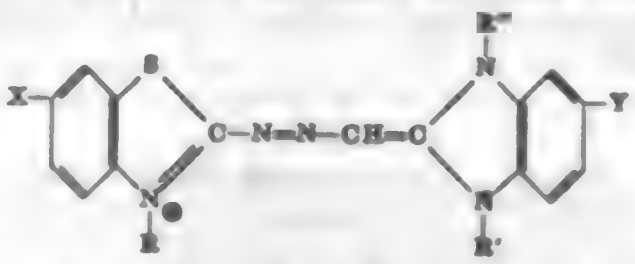
wherein R represents a radical of the group consisting of methyl, ethyl, n-propyl and n-butyl radicals, R_1 represents a member of the group consisting of hydrogen, methyl and ethyl radicals, R_2 represents a member of the group consisting of ethyl, propyl, isobutyl, allyl, 2-methallyl and crotyl radicals, R_3 represents a member of the group consisting of hydrogen and a methyl radical, and R_4 is ethyl when R is methyl.

2,872,449
PRODUCTION OF AZO DYESTUFF CATIONS

Hans Baumann and Emil Kern, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application July 2, 1957
Serial No. 669,461
Claims priority, application Germany July 4, 1956
6 Claims. (Cl. 260—157)

1. An azo dyestuff cation of the formula



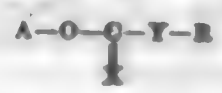
wherein R is a lower saturated alkyl radical, R' and R'' each are a member of the group consisting of lower saturated alkyl and lower aralkyl groups, X is a member of the group consisting of hydrogen and a methoxy group and Y is a member of the group consisting of hydrogen and chlorine.

2,872,450
THIO- AND DITHIO-CARBOXYLIC ACID ESTERS AND A PROCESS FOR THEIR MANUFACTURE

Klaus Sasse, Köln-Stammheim, Richard Wegler, Leverkusen, and Ferdinand Grewe, Köln-Stammheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application December 4, 1956
Serial No. 626,880
Claims priority, application Germany December 6, 1955
2 Claims. (Cl. 260—281)

1. Thio- and dithio-carboxylic acid esters of cyclic oximides of the formula



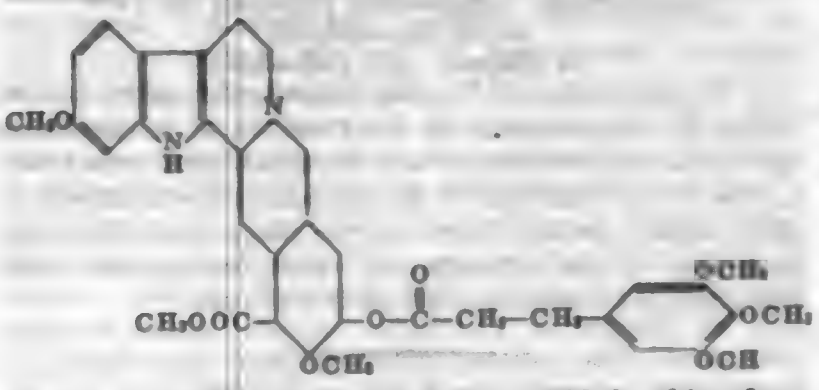
in which A is a member of the group consisting of N-phthalimido, N-naphthylimido, N-bromophthalimido, N-endomethylene-phthalimido, the ring-hydrogenated forms of these radicals, nitro-substituted N-phalimido, bromo-substituted N-phalimido, and chloro-substituted N-phthalimido; X and Y stand for members selected from the group consisting of oxygen and sulphur, at least one of them being sulphur; and R is a member selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl, amyl, hexyl, cyclohexyl, phenyl, 4-chlorophenyl, 4-nitrophenyl, and naphthyl.

2,872,451
DIHYDRORESCINNAMINE AND METHODS OF MAKING THE SAME

Hans Merz and Hans Weidlich, Ingelheim (Rhine), Germany, assignors to C. H. Boehringer Sohn, Ingelheim (Rhine), Germany, a partnership of Germany

No Drawing. Application September 4, 1957
Serial No. 681,881
Claims priority, application Germany September 14, 1956
1 Claim. (Cl. 260—287)

Dihydrorescinnamine, represented by the structural formula



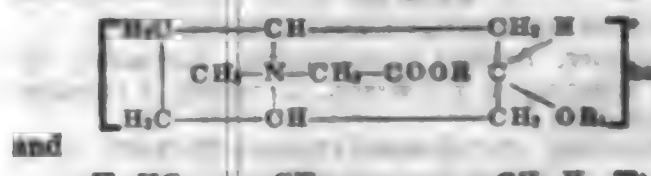
having a specific rotation $[\alpha]_D^{22}=-78°$ in chloroform solution, and a melting point of 176–177° C.

2,872,452
N-CARBOCYCLOHEXOXY- AND CERTAIN N-CARBOALKOXY-METHYL DERIVATIVES IN QUATERNARY TROPEINES

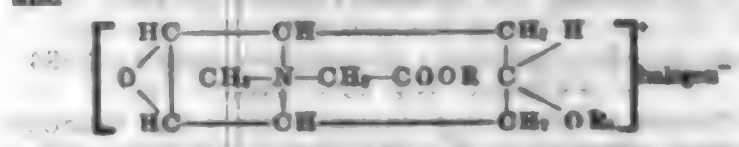
Karl Zeile, Franz Adickes, and Helmut Wick, Ingelheim (Rhine), Germany, assignors to C. H. Boehringer Sohn, Ingelheim (Rhine), Germany, a partnership of Germany

No Drawing. Application December 14, 1956
Serial No. 628,233
5 Claims. (Cl. 260—292)

1. Quaternary tropeine compounds having a structural formula selected from the group consisting of



and



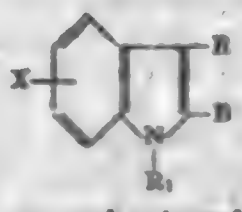
wherein R is selected from the group consisting of straight-chain and branched-chain alkyl radicals with 6 to 11 carbon atoms and cyclohexyl, and R_1 is selected from the group consisting of diphenyl-hydroxyacetyl and phenyl-methylhydroxy-acetyl.

2,872,453
INDOLE DERIVATIVES

Robert Michel Jacob, Ablon-sur-Seine, and Jean Clement Louis Fouche, Paris, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

No Drawing. Application December 13, 1956
Serial No. 628,092
Claims priority, application France December 16, 1955
6 Claims. (Cl. 260—293)

1. As a new composition of matter, a substance selected from the group consisting of the indole derivatives of the formula:



(wherein R and R_1 are each selected from the class consisting of hydrogen atoms and lower alkyl groups, X is selected from the class consisting of hydrogen and chlorine atoms, lower alkyl and lower alkoxy groups, and B is selected from the class consisting of the piperidyl, N-lower-alkylpiperidyl, N-benzylpiperidyl and N-lower-alkyl-1:2:5:6-tetrahydropyridyl groups attached to the indole nucleus at one of the 2- and 4-positions of the B nucleus, and the corresponding piperidyl and tetrahydropyridyl radicals formed by substituting in the nucleus a lower alkyl group) and the salts of the said indole derivatives having pharmaceutically acceptable anions.

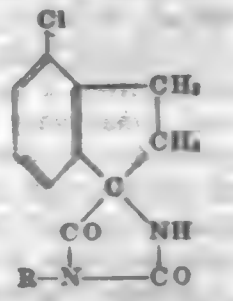
2. 2-(1-methyl-2-piperidyl)-3-ethylindole.

2,872,454
SPIRO-HYDANTOINS FROM 4-CHLORO-HYDRINDONE

Wilson Shaw Waring, Manchester, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application September 23, 1957
Serial No. 685,378
Claims priority, application Great Britain
October 18, 1956
3 Claims. (Cl. 260—309.5)

1. New hydantoin compounds of the formula:



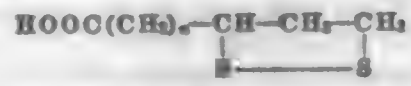
wherein R stands for a member of the group consisting of hydrogen and a lower alkyl radical.

2,872,455
PROCESS FOR THE PREPARATION OF DITHIA-CYCLOPENTYLALIPHATIC ACIDS

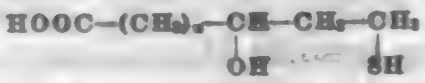
Milton W. Bullock, Pearl River, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 24, 1953
Serial No. 284,265
3 Claims. (Cl. 260—327)

1. A process of preparing compounds having the general formula:



in which n is a small whole number which comprises reacting a compound having the formula:



with excess thiourea and a hydrohalogen acid in which the atomic number of the halogen is greater than 16 to obtain the corresponding dithiol, mixing the said dithiol with an oxidizing agent of the group consisting of iodine and oxygen and recovering said compounds therefrom.

2,872,456
PROCESS FOR THE PRODUCTION OF CYCLIC AND NON-CYCLIC ESTERS

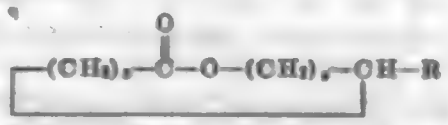
Donald M. Coyne and James C. Kirk, Ponca City, Okla., assignors to Continental Oil Company, Ponca City Okla., a corporation of Delaware

No Drawing. Application February 4, 1957
Serial No. 637,561
10 Claims. (Cl. 260—343)

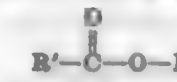
1. A process for the preparation of caprolactone by the ozonization of cyclohexanone which comprises passing an ozone containing gas through said cyclohexanone at a temperature within the range of —25 to 50° C. in

the presence of a catalyst selected from the group consisting of boron trifluoride, hydrogen fluoride and sulfuric acid.

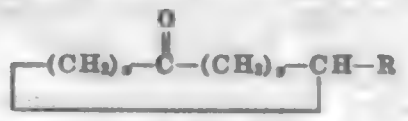
8. A process for the preparation of an ester selected from the group consisting of cyclic esters of the general formula:



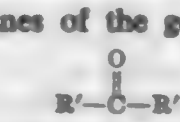
and non-cyclic esters of the general formula:



by the ozonization of a ketone selected from the group consisting of cyclic ketones of the general formula:



and non-cyclic ketones of the general formula:



wherein R is selected from the group consisting of hydrogen and alkyl radicals containing from 1 to 3 carbon atoms, R′ and R″ are selected from the group consisting of alkyl radicals having from 1 to 7 carbon atoms and benzyl radicals, *x* and *y* may vary from 0 to 5, and the sum of *x* and *y* equals 4 to 6 which comprises passing an ozone containing gas through said ketone at a temperature within the range of −25 to 50° C. in the presence of a catalyst selected from the group consisting of boron trifluoride, hydrogen fluoride, and sulfuric acid.

2,872,457

PROCESS FOR THE PREPARATION OF 4-HYDROXYCOUMARIN DERIVATIVES

Collin H. Schroeder, Madison, and Karl Paul Link, Middleton, Wis., assignors to Wisconsin Alumni Research Foundation, Madison, Wis., a corporation of Wisconsin

No Drawing. Application April 19, 1956
Serial No. 579,172
3 Claims. (Cl. 260—343.2)

1. The process of preparing 3-alkyl-4-hydroxycoumarin which comprises melting a mixture of molecular equivalents of 4-hydroxycoumarin and a compound represented by the formula

where R is selected from the group consisting of hydrogen and lower alkyl groups, X is selected from the group consisting of bromine and chlorine and R′ is selected from the group consisting of phenyl and benzyl groups.

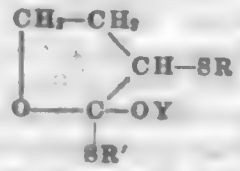
2,872,458

ADDITION PRODUCT OF A METAL HYDROCARBON MERCAPTIDE WITH AN ALPHA-HALO-GAMMA-BUTYROLACTONE

Arthur F. Wagner, Princeton, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Original application December 30, 1954, Serial No. 478,920. Divided and this application April 25, 1956, Serial No. 580,461
6 Claims. (Cl. 260—347.2)

1. A compound selected from the group consisting of compounds having the structure



where R is selected from the group consisting of lower alkyl, lower alkenyl, phenyl and benzyl radicals, R′ is a lower alkyl radical and Y represents ammonium, alkali metals and alkaline earth metals.

2,872,459

PROCESS FOR THE PREPARATION OF DIBENZANTHRONE

Arthur A. Baum, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 28, 1956
Serial No. 568,158
10 Claims. (Cl. 260—357)

1. In the process of forming dibenzanthrone by caustic fusion of benzanthrone in the presence of an oxidizing agent, the improvement which comprises performing said caustic fusion reaction in the presence of a mono-alkyl-ether solvent derived from a glycol taken from the group consisting of the ethylene and diethylene glycols, said alkyl radical containing 1 to 4 carbon atoms.

2,872,460

OXIDATION PROCESS

Gerald Scott, Manchester, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application January 2, 1957
Serial No. 631,998
Claims priority, application Great Britain January 4, 1956
6 Claims. (Cl. 260—364)

1. Process for the oxidation of benzanthrene to benzanthrone which comprises treating benzanthrene with aqueous nitric acid containing between 5% and 70% by weight of nitric acid.

2,872,461

PROCESS OF PRODUCING CHLORANIL

Joachim Mattner, Berlin-Charlottenburg, Germany, assignor to Schering A. G., Berlin, Germany, a corporation of Germany

No Drawing. Application October 15, 1957
Serial No. 690,193
Claims priority, application Germany October 21, 1954
6 Claims. (Cl. 260—396)

1. Process of producing chloranil from the resinous by-product obtained in the hydrolysis of hexachlorbenzene to pentachlorphenol by means of an alkaline agent and containing no isolatable residual pentachlorphenol, which comprises treating said by-product with from about 4.5 to 6 parts by weight of nitric acid of a concentration of at least 97% at a temperature below about 60° C.

2,872,462

ISOTHIOCYANO-STEROIDS AND METHODS OF PREPARING SAME

Wolfgang Loechel, Berlin-Spandau, and Martin Schenck, Berlin-Frohnau, Germany, assignors to Schering A. G., Berlin, Germany, a corporation of Germany

No Drawing. Application June 17, 1958
Serial No. 742,498
Claims priority, application Germany July 15, 1957
19 Claims. (Cl. 260—397.3)

1. Method for the preparation of isothiocyanosteroids in which the isothiocyano group is in the β-position relative to a keto group which comprises reacting α,β-unsaturated keto-steroids selected from the group consisting of the androstane series and the pregnane series with concentrated aqueous solutions of thiocyanic acid.

4. Isothiocyano-steroids selected from the group consisting of members of the androstane series and the pregnane series in which the isothiocyano group is in the β-position relative to a keto group.

2,872,463

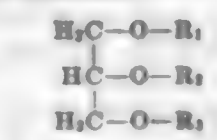
REARRANGEMENT OF LARD WITH METAL ALCOHOLATES

Leon A. Van Akkeren, Oak Park, Ill., assignor, by mesne assignments, to Swift & Company, a corporation of Illinois

No Drawing. Application January 14, 1954
Serial No. 404,141
25 Claims. (Cl. 260—410.7)

2. In a process for modifying lard wherein a reaction mixture of lard and an alkali metal salt of a monohydroxy alkane is heated at rearrangement temperature to produce rearranged lard containing a higher fatty acid ester of said alkane as a by-product, the improvement comprising carrying out said heating of the reaction mixture at a reduced pressure and in the presence of a glyceride containing at least one lower fatty acid radical of less than 5 carbon atoms, said glyceride being present in at least a stoichiometrical equivalent of said alkane, to form a lower fatty acid ester of said alkane in the reaction mixture of higher volatility than said higher fatty acid ester, said pressure being reduced sufficiently in relation to said rearrangement temperature to evolve said compound as a gas and shift the equilibrium to decrease the content of said higher fatty acid ester in the modified lard product.

17. A fatty rearrangement catalyst composition comprising essentially a metal glycerate and a glyceride represented by the type formula:



wherein R_1, R_2, and R_3 are selected from the group consisting of hydrogen and fatty acid radicals and at least one of said R's is selected from the group consisting of hydrogen and fatty acid radicals containing less than 5 carbon atoms, said glyceride being present in less than five percent by weight of the composition, said composition being substantially free from lower alkoxy radicals.

2,872,464

OBTAINING CORK ACIDS

Ruth Z. Brown and Benjamin Rosen, Baltimore, Md., assignors to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York

Application May 1, 1956, Serial No. 581,924
13 Claims. (Cl. 260—419)

1. A process of separating phloionic acid from phloionolic acid comprising extracting a solid mixture of these two materials with an aqueous solution of an alkaline salt having a pH in aqueous solution of 6.6, said extraction being repeated a plurality of times and recovering phloionic acid from the earlier extracts by acidification and phloionolic acid from the later extracts by acidification.

2,872,465

METHOD OF PROCESSING SOYBEAN OIL TO RETARD FLAVOR REVERSION

Rex J. Sims, La Grange, Karl F. Mattil, Downers Grove, and Werner J. Lehmann, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application November 10, 1954
Serial No. 468,152
4 Claims. (Cl. 260—423)

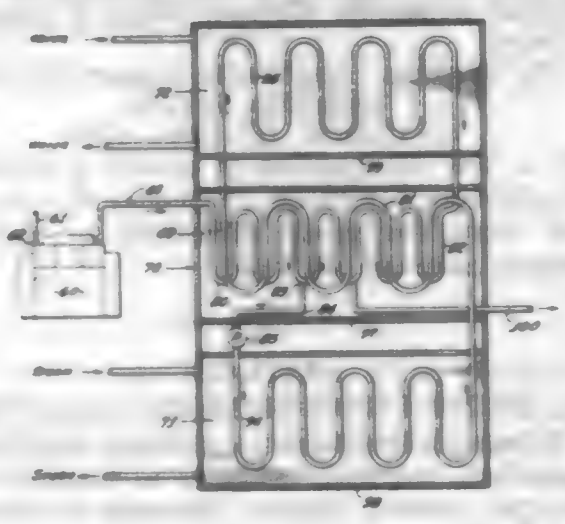
1. In the processing of soybean oil suitable for incorporation in an edible food stuff and wherein the oil is subjected to a refining operation to separate the free fatty acids therefrom and to a vacuum deodorization operation, the step of treating an unhydrogenated soybean oil with a mild oxidizing agent selected from the group consisting of dilute nitric acid, potassium dichromate, and potassium permanganate, in an amount from about 0.01% to about 0.5% based on the weight of the oil to substantially retard the development of a reversion flavor in said oil, said treatment being carried on at a temperature within the range of about 70° to 160° F.

2,872,466

PROCESS FOR REDUCING A THREE-PHASE FLUID SYSTEM TO A TWO-PHASE SYSTEM

George C. Cavanagh, Fresno, Calif., assignor to Ranchers Cotton Oil, Fresno, Calif.

Application November 27, 1956, Serial No. 624,701
9 Claims. (Cl. 260—428)



1. A process for reducing a three-phase fluid system having agglomerated solid constituents in a liquid, some of which agglomerated solid constituents are heavier than the liquid and others of which are lighter than the liquid because of buoyant volatile material entrapped therein comprising flowing the three-phase system through a closed conduit at a predetermined rate of flow, and successively heating and cooling the system in positions in spaced relation along the conduit whereby the system is agitated by successive acceleration and deceleration from said predetermined rate of flow caused by volumetric changes of the system due to the temperature changes concurrently respectively with heating and expansion of the agglomerated solid constituents and entrapped buoyant volatile material and cooling and contraction of said solid constituents and buoyant material.

2,872,467

PREPARATION OF OXALATES OF METALS OF ATOMIC NUMBER GREATER THAN 88

Robert B. Duffield, Champaign, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application December 10, 1948
Serial No. 64,711
10 Claims. (Cl. 260—429.1)

1. A method for the preparation of heavy metal oxalates which comprises reacting in the solid state a peroxide of a heavy metal having an atomic number greater than 88 with an aqueous acidic oxalate solution to form an insoluble heavy metal oxalate.

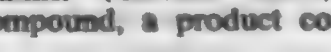
2,872,468

ORGANIC DERIVATIVES OF TETRAVALENT TIN

William E. Leistner, Brooklyn, and Arthur C. Hecker, Richmond Hill, N. Y., assignors to Argus Chemical Laboratory, Inc., a corporation of New York

No Drawing. Application October 16, 1952
Serial No. 315,182
7 Claims. (Cl. 260—429.7)

1. As a new compound, a product corresponding to the formula



wherein R stands for a radical selected from the group consisting of alkyl, phenyl, tolyl, xylyl, phenoxy, methyl-

phenoxy, dimethylphenoxy, furfuryl and tetrahydrofurfuryl, X for a radical of an ester of a mercapto alcohol having from 2–4 carbon atoms with an acid selected from the group consisting of a saturated dibasic aliphatic acid having from 6–12 carbon atoms and terephthalic acid, and *n* for an integer from 1–3, and wherein the sulfur of the mercapto alcohol is connected to the tin.

2,872,469

METAL SALTS OF ETHIONINE

Donna Stevens, Concord, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application January 23, 1956
Serial No. 560,896
5 Claims. (Cl. 260—429)

1. As a new composition of matter, a bivalent metal salt of ethionine, the metal substituent of said salt being selected from the group consisting of zinc, copper, manganese, cadmium and lead.

2,872,470

PRODUCTION OF METAL ALKYLS

Hugh Wilma Boulton Reed and William Roy Smith, Norton-on-Tees, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application May 28, 1956
Serial No. 587,444
Claims priority, application Great Britain June 6, 1955
14 Claims. (Cl. 260—448)

1. A process for the production of an alkali metal aluminium alkyl which comprises reacting an alkali metal aluminium hydride at elevated temperature and substantially in the absence of moisture and oxygen with at least one olefine containing less than 13 carbon atoms having the general formula $R.CH:CH_2$ in which R is a monovalent radical selected from the group consisting of hydrogen and alkyl radicals, in the presence of an inorganic salt selected from the group consisting of the halides, sulphates, nitrates, carbonates, cyanides and phosphates of ammonium and alkali metals said elevated temperature not exceeding the temperature at which the complex hydride decomposes and loss of olefine from the complex alkyl occurs under the conditions of the reaction.

2,872,471

PREPARATION OF ALKYL SILANES BY THE GRIGNARD REACTION EMPLOYING CYCLIC ETHERS

Hugh E. Ramsden, Metuchen, and Sanders D. Rosenberg, Plainfield, N. J., assignors to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application November 28, 1955
Serial No. 549,516
9 Claims. (Cl. 260—448.2)

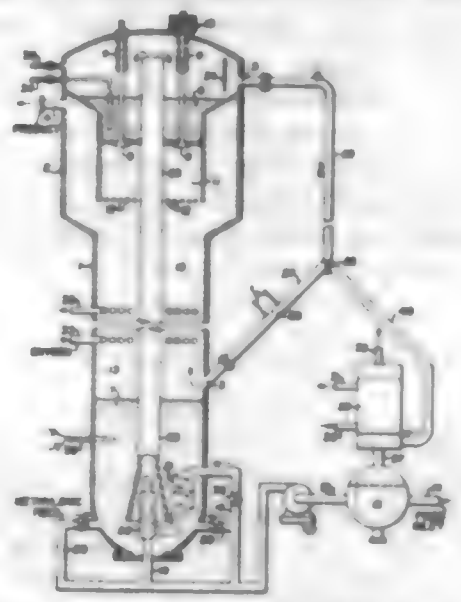
1. A process for producing organosilanes comprising reacting an alkylmagnesium chloride with a silicon reactant selected from the group consisting of silicon tetrahalides, silicon haloforms, organic orthosilicates, organohalosilanes, organoalkoxysilanes and organoaryloxysilanes to produce at least one organosilane selected from the group consisting of alkylsilanes, alkylhalosilanes, alkylalkoxysilanes and alkylaryloxysilanes, wherein the silicon atom in said silanes may not be bonded to an unsaturated carbon atom, and recovering said organosilane, said reactions, at least in part, being carried out in the presence of a compound Q as a reaction medium, said compound Q being an ether containing from 5 to 6 atoms in the ring and wherein (*a*) there is only one oxygen atom in the ring, (*a*) the other ring atoms are carbon, (*c*) one ring carbon separated from the oxygen atom in the ring by two carbon atoms may be replaced by an alkyl substituted nitrogen atom, (*d*) the ring contains not more than one double bond, (*e*) at least one carbon atom adjacent the oxygen atom in said ring being free of any substituents other than hydrogen, (*f*) said ether contains no substituent which reacts with organomagnesium chlorides or with other components or products of the reaction mixture.

2,872,472

OXIDATION OF ORGANIC COMPOUNDS

Merrell R. Fenske and Jennings H. Jones, State College, Pa., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application November 21, 1955, Serial No. 547,957
10 Claims. (Cl. 260—451)



7. In a partial oxidation of a reactive C_9 to C_{11} methylenic hydrocarbon by reaction with oxygen, the improvement which comprises introducing the hydrocarbon at least partially in liquid phase into a dense fluidized bed of solid particles which are inert with respect to the hydrocarbon and are maintained at a temperature in the range of 280° to 400° C. in the lower portion of a reaction zone, vaporizing the hydrocarbon in said fluidized bed and passing the vaporized hydrocarbon from said bed upwardly through the reaction zone, injecting oxygen-containing gas into the reaction zone at at least one point above said bed in an amount adjusted to form a reaction mixture having a local admixed oxygen-to-hydrocarbon molal ratio not above 0.5, passing a portion of the solid particles from said bed through a separate lift zone to the top of the reaction zone independently of said reaction mixture, scattering the solids evenly and downwardly through the reaction mixture in substantially a free-fall condition at a rate of about 5 to 50 lbs. solid per lb. of ascending hydrocarbon, removing heat of reaction from solid particles outside the reaction zone, and withdrawing resulting partial oxidation products in vapor form from an upper portion of the reaction zone.

2,872,473

METHOD FOR THE MANUFACTURE OF O-ARYL PHOSPHORODICHLORIDOTHIOATES

Henry Tolkmith, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application September 3, 1957
Serial No. 681,440
4 Claims. (Cl. 260—461)

1. A method for the manufacture of an O-aryl phosphorodichloridothioate which comprises reacting at at-

mospheric pressure and at a temperature at which hydrogen chloride of reaction is evolved a compound selected from the group consisting of phenol, mono- and poly-chlorophenols, and 2-chloro-4-loweralkylphenols with phosphorus thiochloride in the presence of a catalytic amount of a mixture of anhydrous magnesium chloride and anhydrous cuprous chloride.

2,872,474

REACTION PRODUCTS OF $NaBH_4$ AND CO_2

Richard K. Pearson, Zelienople, and Thomas Wartik, State College, Pa., assignors to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application June 22, 1955
Serial No. 517,382

10 Claims. (Cl. 260—462)

2. A method of preparing a reaction product of sodium borohydride and carbon dioxide selected from the group consisting of sodium formatomethoxyborate,

$$NaBO(OCH_3)(O_2CH)$$

and sodium triformatoborohydride, $NaBH(O_2CH)_3$, which comprises reacting sodium borohydride and dry carbon dioxide in the absence of air, in a molar ratio of carbon dioxide to sodium borohydride of at least 2 to 1 and at a temperature up to about 140° C., and recovering the resulting reaction product formed.

2,872,475

PRODUCTION OF BENZONITRILE

Glenn Elden Gaumer, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 17, 1958
Serial No. 715,516

6 Claims. (Cl. 260—465)

1. In a process for the production of benzonitrile by the reaction of benzene and hydrogen cyanide at a temperature of from about 500° to 1100° C. the improvement which comprises mixing with said benzene and hydrogen cyanide from about 0.03 to 1 mole of chlorine per mole of benzene prior to introduction of the reactants into said high temperature reaction zone.

2,872,476

NEW META-DIALKYLAMINOETHOXYBENZOIC ACID ESTERS, THEIR HYDROCHLORIDES, AND PROCESS FOR THEIR PREPARATION

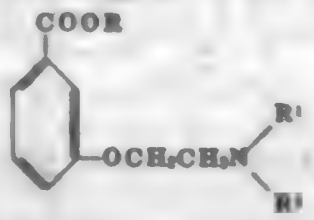
Diran Melkonian and Philippe Gold, Geneva, Switzerland, assignors, by mesne assignments, to Zyma S. A., Nyon, Switzerland

No Drawing. Application May 21, 1956
Serial No. 585,949

Claims priority, application Switzerland May 25, 1955

4 Claims. (Cl. 260—471)

1. As new compounds, compounds of the general formula



wherein R, R^1 and R^2 are selected from the group consisting of methyl, ethyl and propyl radicals and their non-toxic salts.

2,872,477

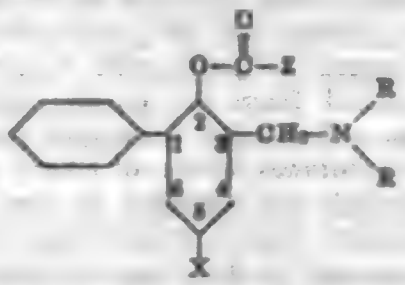
α-(DIALKYLAMINO)-6-PHENYL-O-CRESOL ESTERS

Raymond H. Rigterink, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 5, 1957
Serial No. 650,853

6 Claims. (Cl. 260—476)

1. A compound selected from the group consisting of (A) esters having the formula



wherein each R represents lower alkyl, Z represents a member of the group lower alkyl, lower alkenyl and phenyl, and X represents a member of the group hydrogen and chlorine, and (B) the mineral acid addition salts of said ester compounds.

2,872,478

SEPARATION OF ALCOHOLS FROM ESTERS

Harry Wechsler, Leominster, Philip Bernstein, Fitchburg, and Ralph L. Herbst, Worcester, Mass., assignors to The Borden Company a corporation of New Jersey

No Drawing. Application November 6, 1956
Serial No. 620,584

1 Claim. (Cl. 260—499)

In separating an alcohol that is infinitely soluble in water selected from the group consisting of methyl, ethyl, isopropyl, and n-propyl alcohols from an ester, of higher specific gravity, of the said alcohol with an acid selected from the group consisting of formic, acetic, propionic, acrylic, methacrylic, and carbonic acids, the ester having a boiling point below 140° C., the process which comprises contacting a mixture of the said alcohol and ester with (1) a water immiscible liquid chlorinated hydrocarbon of density greater than 1 that is a solvent for the ester, is a solvent for the alcohol in anhydrous condition, and forms two layers when in contact with a solution of the said alcohol in at least half its weight of water, the said hydrocarbon being present in amount at least approximately equal to half that of the said ester, and at the same time with (2) water in amount at least equal to approximately half of the said alcohol, maintaining contact of the said mixture with the chlorinated hydrocarbon and with the water until the chlorinated hydrocarbon dissolves and an aqueous phase separates, then separating the aqueous phase from the remaining water-extracted ester and chlorinated hydrocarbon phase, subsequently extracting the separated aqueous phase with an additional portion of the chlorinated hydrocarbon and separating the resulting additional ester phase from the thus re-extracted aqueous phase, extracting the said additional ester phase with an additional portion of water, separating the resulting additional aqueous phase from the said additional ester phase, distilling the separated aqueous phases to recover methanol therefrom, and distilling the separated ester phases to recover ester and chlorinated hydrocarbon therefrom, all the said separations being effected by difference of specific gravity of the layers being separated.

2,872,479

PREPARATION OF ORGANOBORON COMPOUNDS

Robert L. Letsinger, Wilmette, Ill., Ivan H. Skoog, St. Paul, Minn., and Nathaniel L. Remes, Crystal Lake, Ill., assignors to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application June 30, 1955
Serial No. 519,235
10 Claims. (Cl. 260—500)

1. A method of preparing organoboron compounds of the group consisting of dialkylhydroxyboranes and diarylhydroxyboranes having the general formula R_2BOH in which R is at least one member selected from the group consisting of alkyl and aryl which comprises treating a member selected from the group consisting of alkyl and aryl Grignard reagents with a boron-containing compound selected from the group consisting of trialkoxyboranes, 4,5-dihydro-2-alkoxy-2-bora-1,3-dioxoles and aryldialkoxyboranes where all alkoxy groups in any of said compounds are identical to one another, subjecting the resulting mixture to hydrolysis and then treating it with a member of the group consisting of ethylene glycol and ethanolamine to form an ethylene derivative, then subjecting the resultant derivative to hydrolysis and recovering the resulting organoboron compound.

2,872,480

OZONE PRODUCTION OF DIPHENIC ACID

Ruth M. Pentz, Bordentown, N. J., assignor to The Welsbach Corporation, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application July 18, 1955
Serial No. 522,875
5 Claims. (Cl. 260—523)

2. A process for producing diphenic acid from phenanthrene, the steps of dissolving about 9 parts phenanthrene in about 100 parts of a solvent, reacting gaseous ozone in oxygen at temperatures of approximately 25–30° C. with the resulting solution to form ozonized compounds, hydrolyzing the ozonized compounds by refluxing with about 10% water at approximately 100° C. for approximately one hour, oxidizing the hydrolyzed ozonized compounds with gaseous oxygen containing ozone, and precipitating diphenic acid therefrom.

2,872,481

PROCESS FOR PREPARING LOW MOLECULAR CARBOXYLIC ACID ANHYDRIDES

Wilhelm Vogt, Knapsack, near Koln, Germany, assignor to Knapsack-Griesheim Aktiengesellschaft, Knapsack, near Koln, Germany, a corporation of Germany

Application November 7, 1955, Serial No. 545,477
Claims priority, application Germany November 13, 1954
6 Claims. (Cl. 260—546)

1. A process of preparing acid anhydrides which comprises heating monobasic saturated aliphatic carboxylic acids of 2 to 4 carbon atoms under a pressure of about 2 to about 50 atmospheres and at a temperature of between about 180° C. and about 270° C. and distilling the water formed from the reaction mixture.

2,872,482

PROCESS OF MAKING THIOUREA DIOXIDE

Marguerite Emma Marie Josèphe Provoost, Paris, France, assignor to Société Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey, Paris, France

Application March 15, 1956, Serial No. 571,651
Claims priority, application France March 16, 1955
5 Claims. (Cl. 260—552)

1. The method of making thiourea dioxide that comprises admixing continuously with an inert liquid reaction medium a gas containing ozone as an essential ingredient, and thiourea, said thiourea being in proportion such that the reaction medium contains permanently at least the quantity of thiourea corresponding to the ozone present in the reaction medium, at a temperature below 20° C.

2,872,483

1,2,3,4,7,7-HEXACHLORO-5-N-ALKYL CARBOXAMIDE BICYCLO [2.2.1]-2-HEPTENE

Herman S. Bloch, Chicago, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application December 15, 1954
Serial No. 475,571
6 Claims. (Cl. 260—557)

6. A 1,2,3,4,7,7-hexachloro-5-N-alkyl carboxamide bicyclo [2.2.1]-2-heptene in which said alkyl group contains from 1 to 6 carbon atoms.

2,872,484

PREPARATION OF TETRAALKYL-ISOTHIOUREAS

Hans Z. Lecher, Plainfield, and Elizabeth M. Hardy, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 21, 1956
Serial No. 585,921
4 Claims. (Cl. 260—564)

1. In a process for preparing (lower)alkylisothioureas in which a N,N,N'-tri(lower)alkylthiourea, said alkyl substituents containing from one to two carbon atoms, is reacted with a dialkyl sulfate in an aqueous medium and the corresponding tetraalkylisothiourea is recovered, the improvement in combination therewith which comprises: carrying out the alkylation step in the presence of cold aqueous sulfuric acid at a temperature not greater than about 20° C. to recover substantially pure N,N,N',S-tetraalkylisothiourea.

2,872,485

PROCESS

Christoph J. Grundmann and Alfred Kreutzberger, Columbus, Ohio, assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application September 18, 1956
Serial No. 610,643
6 Claims. (Cl. 260—564)

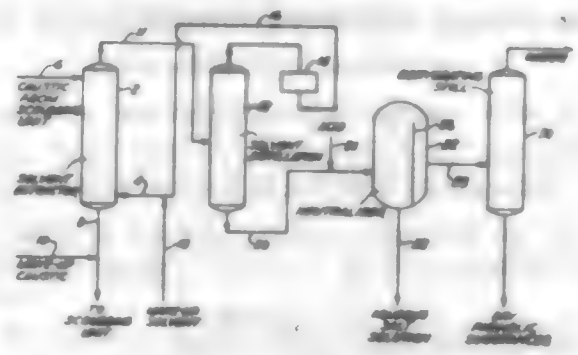
1. The method of preparing diformylhydrazine dihydrazone which comprises admixing 1,3,5-triazine with anhydrous hydrazine.

2,872,486

RECOVERY OF PHENOLIC SUBSTANCES

William I. Gilbert, Oakmont, Russell G. Hay, Fox Chapel, and John G. McNulty, Glenshaw, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application October 26, 1954, Serial No. 464,732
13 Claims. (Cl. 260—609)



1. The method for recovering phenolic substances from aqueous caustic solutions which have been employed to extract phenolic containing fractions which process comprises extracting the aqueous caustic solution with an

oxy solvent selected from the group consisting of dioxane, acetone and methyl ethyl ketone, whereby an aqueous caustic layer and a solvent layer containing dissolved salts of phenolic compounds are formed, separating the solvent layer from the aqueous caustic layer and separating phenolic substances from the solvent layer.

2,872,487

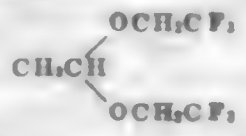
PREPARATION OF 2,2,2-TRIFLUOROETHYL VINYL ETHER

Louise Speers Croix, Summit, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application August 15, 1955
Serial No. 528,556
6 Claims. (Cl. 260—614)

1. The method which comprises reacting acetylene with 2,2,2-trifluoroethanol in the presence of a mercury catalyst and a strongly acid substance, neutralizing the reaction mixture, separating di-(2,2,2-trifluoroethyl) acetaldehyde acetal therefrom, heating the di-(2,2,2-trifluoroethyl) acetaldehyde acetal at a temperature between 200° C. and 400° C. in the presence of a dehydration catalyst and obtaining therefrom 2,2,2-trifluoroethyl vinyl ether.

6. The compound, di-(2,2,2-trifluoroethyl) acetaldehyde acetal, having the formula



2,872,488

1-(β-HYDROXYETHYL)- AND 1-(β-HALOETHYL)-2-METHYL - 5 - ISOPROPENYLCYCLOHEXENE - 1 AND PROCESS OF PRODUCTION

John Alexander Hogg and Robert Warren Jackson, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application May 8, 1952
Serial No. 286,824
9 Claims. (Cl. 260—617)

1. A compound selected from the group consisting of 1-(β-bromoethyl)-2-methyl-5-isopropenylcyclohexene - 1 and 1 - (β-chloroethyl) - 2 - methyl-5-isopropenylcyclohexene-1.

4. A process for the production of 1-(β-haloethyl)-2-methyl-5-isopropenylcyclohexene-1 which comprises: reacting d-dihydrocarvone with a lower-alkyl ester of bromoacetic acid in the presence of zinc followed by the decomposition of the organozinc complexes with acid to produce a lower-alkyl 1-hydroxy-2-methyl-5-isopropenylcyclohexaneacetate, reacting the thus-produced lower-alkyl 1 - hydroxy - 2 - methyl-5-isopropenylcyclohexaneacetate with a dehydrating agent to produce a lower-alkyl 2-methyl-5-isopropenyl-1-cyclohexene-1-acetate, reacting the thus-produced lower-alkyl 2-methyl-5-isopropenyl-1-cyclohexene-1-acetate with lithium aluminum hydride to produce 1-(β-hydroxyethyl)-2-methyl-5-isopropenylcyclohexene-1, and thereafter reacting the thus-produced 1-(β-hydroxyethyl) - 2 - methyl-5-isopropenylcyclohexene-1 with a subetitution halogenating agent capable of converting a hydroxy group to a halogen having an atomic weight from 35 to 80, inclusive, to produce 1-(β-haloethyl) - 2 - methyl - 5 - isopropenylcyclohexene-1.

5. A process for the production of 1-(β-haloethyl)-2-methyl-5-isopropenylcyclohexene-1 which comprises: reacting a lower-alkyl 1-hydroxy-2-methyl-5-isopropenylcyclohexaneacetate with a dehydrating agent to produce a lower-alkyl 2-methyl - 5 - isopropenyl-1-cyclohexene-1-acetate, reacting the thus-produced lower-alkyl 2-methyl-5-isopropenyl-1-cyclohexene-1-acetate with lithium aluminum hydride to produce 1-(β-hydroxyethyl)-2-methyl-5-isopropenylcyclohexene-1, and reacting the thus-produced 1-β-hydroxyethyl-2-methyl-5-isopropenylcyclohexane - 1 with a subetitution halogenating agent capable of converting a hydroxy group to a halogen having an atomic weight from 35 to 80, inclusive, to produce 1-(β-haloethyl)-2-methyl-5-isopropenylcyclohexene-1.

6. A process for the production of 1-(β-haloethyl)-2-methyl-5-isopropenylcyclohexene-1 which comprises: reacting a lower-alkyl 2 - methyl - 5 - isopropenyl-1-cyclohexene-1-acetate with lithium aluminum hydride to produce 1-(β-hydroxyethyl) - 2 - methyl-5-isopropenylcyclohexene-1, and reacting the thus-produced 1-(β-hydroxyethyl)-2-methyl-5-isopropenylcyclohexene-1 with a substitution halogenating agent capable of converting a hydroxy group to a halogen having an atomic weight from 35 to 80, inclusive, to produce 1-(β-haloethyl)-2-methyl-5-isopropenylcyclohexene-1.

8. 1-(β-hydroxyethyl) - 2 - methyl-5-isopropenylcyclohexene-1.

9. A process for the production of 1-(β-hydroxyethyl)-2-methyl-5-isopropenylcyclohexene-1 which comprises: reacting d-dihydrocarvone with a lower-alkyl ester of bromoacetic acid in the presence of zinc followed by the decomposition of the organozinc complexes with acid to produce a lower-alkyl 1-hydroxy-2-methyl-5-isopropenylcyclohexaneacetate, reacting the thus-produced lower-alkyl 1 - hydroxy-2-methyl-5-isopropenylcyclohexaneacetate with a dehydrating agent to produce a lower-alkyl 2-methyl-5-isopropenyl-1-cyclohexene-1-acetate, and reacting the thus-produced lower-alkyl 2-methyl-5-isopropenyl-1-cyclohexene-1-acetate with lithium aluminum hydride to produce 1-(β-hydroxyethyl)-2-methyl-5-isopropenylcyclohexene-1.

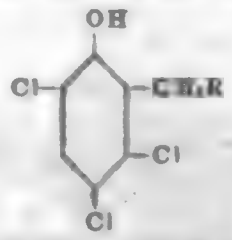
2,872,489

α-SUBSTITUTED CHLOROCRESOLS

Andrew J. Dietzler and Fred Bryner, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 13, 1956
Serial No. 577,962
3 Claims. (Cl. 260—619)

1. An α-substituted chlorocresol having the formula



wherein R represents a lower alkylphenyl radical.

2,872,490

INHIBITORS OF OXIDATION OF PHENOLS

Harry Clough, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application May 7, 1956
Serial No. 582,938
Claims priority, application Great Britain May 16, 1955
6 Claims. (Cl. 260—620)

1. A composition of matter consisting essentially of a phenol which is liable to oxidative deterioration and, as a stabilizer herefore, a small amount of disalicylideneethylene diamine.

2,872,491

CRUDE ETHANOL OPERATIONS

Samuel Winfield Wilson and Walter Henry Silver, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 19, 1957, Serial No. 666,532
6 Claims. (Cl. 260—639)

1. In a process for recovering ethyl alcohol from an acid extract feed produced by the hydration of ethylene

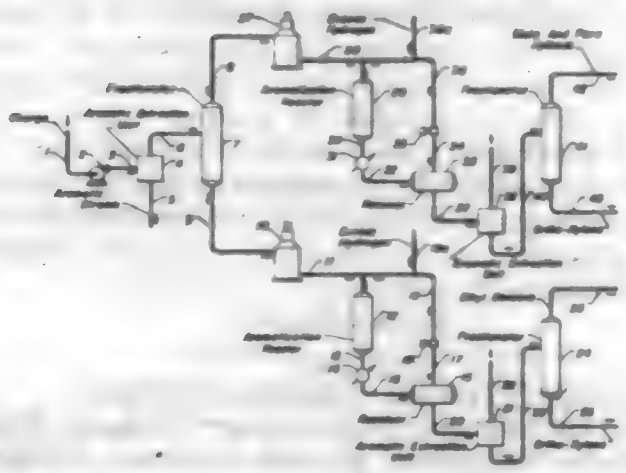
with concentrated sulfuric acid wherein said acid extract is fed into a stripping zone, the alcohol is removed overhead therefrom, acid-insoluble carbonaceous materials deposited in said stripping zone necessitating a periodic termination of said feed to said zone for the removal of said materials from said zone, the improvement which comprises passing dilute alcohol into said stripping zone and flushing said zone therewith, and removing said acid-insoluble carbonaceous materials from said stripping zone in solution with said dilute alcohol before normal process operations are resumed, said dilute alcohol being an alcohol consisting solely of carbon, hydrogen and oxygen constituents.

2,872,492

PRODUCTION OF AROMATICS IN THE PRESENCE OF NITROGEN COMPOUNDS

George R. Donaldson, North Riverside, and Vladimir Haensel, Hinsdale, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

Application March 29, 1956, Serial No. 574,893
7 Claims. (Cl. 260—668)



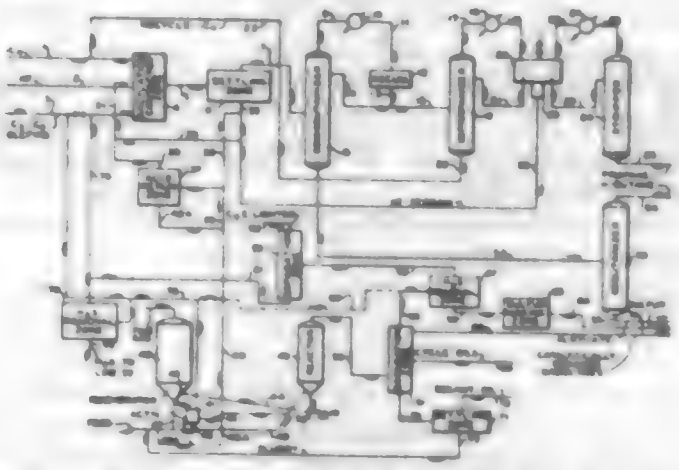
1. In a process wherein a hydrocarbon mixture containing 5-membered ring naphthenes and 6-membered ring naphthenes is contacted at aromatizing conditions with a platinum-containing aromatizing catalyst, the improvement which comprises adding to the hydrocarbon mixture a halogen-free, nitrogen-containing compound having basic properties at said conditions in sufficient amount to suppress dehydrogenation of the 5-membered ring naphthenes and to prevent isomerization of the aromatic hydrocarbons resulting from the aromatization of the 6-membered ring naphthenes.

2,872,493

UTILIZATION OF ALKYLATION BY-PRODUCTS

Paul D. Hann, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application March 6, 1956, Serial No. 569,881
3 Claims. (Cl. 260—677)



1. A method of activating silica-alumina type hydrocarbon cracking catalyst which comprises contacting the same under catalyst activating conditions with an HF alkylation catalyst acid soluble oil, said conditions including an elevated temperature sufficient to produce paraffin-free olefin and hydrogen sulfide from said soluble oil.

ELECTRICAL

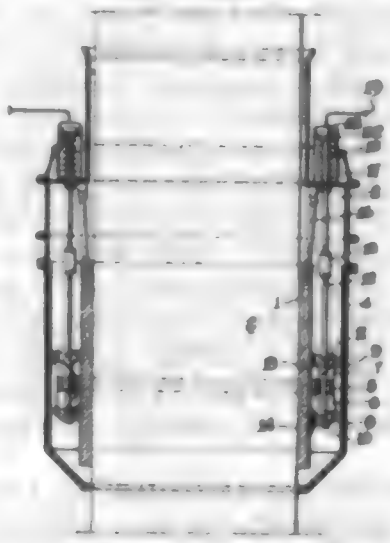
2,872,494

DEVICE FOR TIGHTENING AND LOOSENING CURRENT SUPPLY PLATES ON ELECTRODES IN ELECTRIC FURNACES

Alfred Rumberg and Wilhelm Dängeln, Hurth, near Koln, and Martin Thein, Fischenich, near Koln, Germany, assignors to Knapsack-Griesheim Aktiengesellschaft, Knapsack, near Koln, Germany, a corporation of Germany

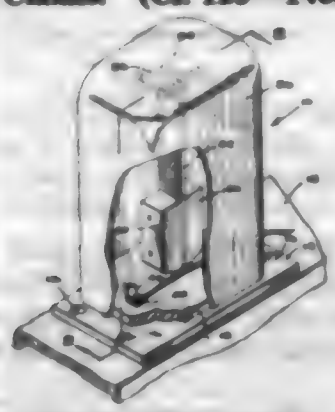
Application October 5, 1955, Serial No. 538,712
Claims priority, application Germany October 13, 1954
8 Claims. (Cl. 13—16)

1. Apparatus for holding and releasing an electrode in an electric furnace comprising a housing encompassing a vertically extending electrode, a plurality of current supply plates circumferentially surrounding the electrode and being individually supported by movable holding means connected to said housing, said holding means permitting movement of said current supply plates toward and away from the electrode, a ring circumferentially encompassing said current supply plates, and individual linkage means pivotally connecting each of said current supply plates to said ring, each of said linkage means including a pair of vertically spaced links wherein each link of the pair is pivotally connected, at one end, to its respective current supply plate and is pivotally connected, at its other end, to an element which is itself rigidly connected to the lower portion of a vertically reciprocable draw rod, there being a draw rod for each pair of vertically spaced links, the upper end of each of the draw rods being operatively connected with means for effecting longitudinal movement of said draw rods, movement



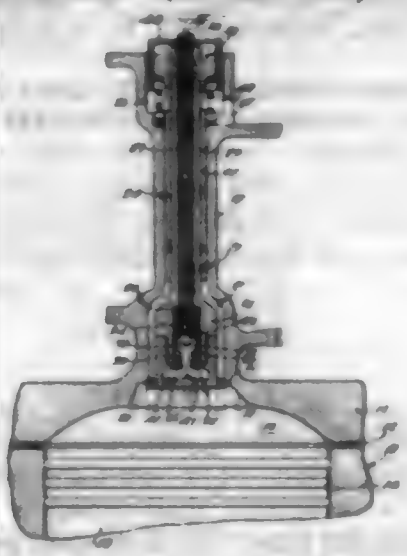
of said draw rods in one vertical direction simultaneously forcing the corresponding current supply plates into contact with the electrode while movement of the draw rods in the opposite vertical direction acts to withdraw the current supply plates away from the electrode.

2,872,495
COLLISION SAFETY SWITCH
Charles Ross Burgess, Toronto, Ontario, Canada; The Royal Trust Company, Elizabeth K. Burgess and Ralph E. Burgess, executors of said Charles R. Burgess, deceased
Application January 31, 1956, Serial No. 562,573
3 Claims. (Cl. 123—146.5)



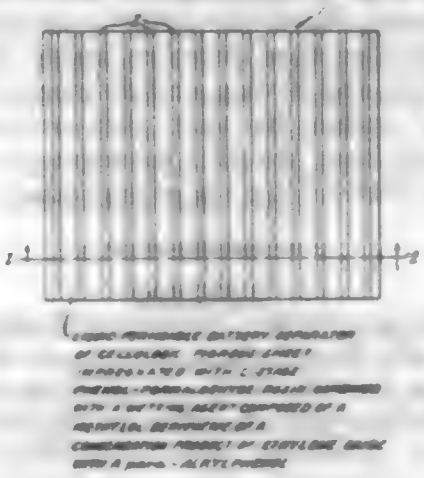
1. An ignition cut-out safety system comprising a collision actuated switch assembly, a control circuit connected to said switch assembly, solenoid-operated relay switch means in said control circuit operated in response to activation of said collision actuated switch assembly, an ignition circuit, and switch means in the ignition circuit controlled by said solenoid-operated relay switch means whereby said ignition circuit is deactivated in response to activation of said collision actuated switch assembly due to an inertia force resulting from a collision, said solenoid-operated relay switch means including a manually operable latch positively maintaining said relay switch means open in the ignition circuit, said collision actuated switch assembly comprising at least one electrical contact element disposed in the control circuit, a support member disposed in overlying relationship to said one electrical contact element, a depending leaf spring member displaceably supported on said support member in alignment with said one electrical contact element for momentary engagement therewith, said leaf spring member being electrically connected to said control circuit for activating the same when engaging the contact element, electrically-conducting inertia-responsive weight means on a lower portion of said leaf spring member whereby the force of inertia on the weight means during a collision momentarily closes the control circuit, activating the relay switch means and deactivating the ignition circuit.

2,872,496
RETRACTABLE IGNITER FOR INTERNAL COMBUSTION ENGINES
Simon K. Chen, Park Forest, Ill., assignor to International Harvester Company, Chicago, Ill., a corporation of New Jersey
Application April 4, 1957, Serial No. 650,610
11 Claims. (Cl. 123—169)

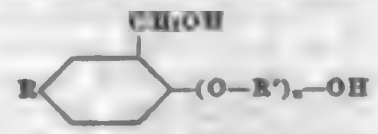


1. An internal combustion engine comprising a combustion chamber having a port, an ignition device including a reciprocating valve, a valve element reciprocally operative with said valve and with respect to said port for opening and closing the same, said valve having an opening spaced longitudinally from said valve element, an igniter on said valve projecting into said opening, and means for moving said valve to open said port whereupon said opening communicates with said combustion chamber and said igniter is in operative relation thereto.

2,872,497
BATTERY SEPARATORS
Oscar E. Beckvold, Jr., Lakewood, N. J., and Paul F. Hartman, Packanack Lake, N. J., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application October 28, 1955, Serial No. 543,383
2 Claims. (Cl. 136—146)



1. A liquid-permeable battery separator comprising a bibulous cellulosic air-permeable fibrous sheet having an alpha cellulose content of at least 90% and exhibiting uniform formation, the fibers of said sheet being coated with a C-stage phenol-formaldehyde resin chemically combined with a methylol derivative of a surface-active agent which is a condensation product of a para-alkylphenol with an alkylene oxide selected from the group consisting of ethylene oxide and propylene oxide and having the following structural formula:



wherein R is an alkyl group having from 1 to 20 carbon atoms, R′ is selected from the group consisting of —CH_2CH_2— and —C_3H_6— and n is an integer having a value of from 3 to 30, whereby said surface active agent is firmly bound into said separator.

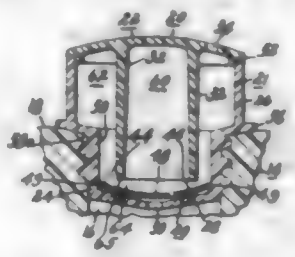
2,872,498
HIGH DENSITY BARRIER FILM SEPARATORS
Fred L. Granger, Cleveland, Ohio, assignor to Union Carbide Corporation, a corporation of New York
No Drawing. Application April 18, 1955
Serial No. 502,187
5 Claims. (Cl. 136—146)

1. A dry cell separator consisting of an anode-contacting film and a relatively smooth surfaced, ionically permeable, high density, super-calendered sheet of paper, formed from partially mechanically defibrillated cellulosic fibers and up to 40 percent by weight thereof of alkali soluble, partially water soluble, cellulosic ethers.

2,872,499
VENT PLUG AND METHOD OF USING SAME
Garth A. Rowls, Muncie, and Don G. Townsend, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 12, 1957, Serial No. 695,664
7 Claims. (Cl. 136—177)

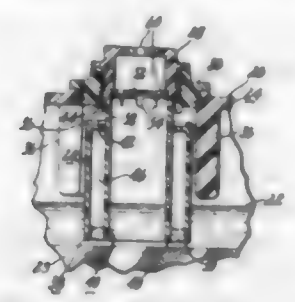
1. A method of sealing a battery which is shipped and stored in a dry condition after heating and drying out of

cells during manufacture, the steps comprising, providing completely within a vent plug of acid-resistant material a humidity restrictor of cellulose material that disintegrates due to battery electrolyte, fitting the vent plug with the enclosed humidity restrictor into a filler opening while each battery cell is still warm from the drying out, covering over a vent passage in the plug with the



humidity restrictor in complete sealing relationship to the vent passage due to atmospheric pressure outside the cell being greater than pressure inside the cooled cell during shipping and storing, and disintegrating the humidity restrictor within the vent plug with fumes and/or acid splashed from the cell subsequent to addition of electrolyte to each cell for use of the battery.

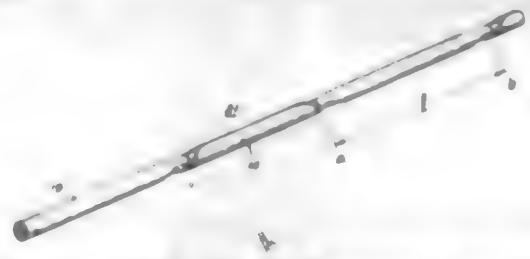
2,872,500
STORAGE BATTERY NON-OVERFILL DEVICE
Garth A. Rowls, Muncie, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 25, 1955, Serial No. 503,488
3 Claims. (Cl. 136—178)



1. A nonoverfill device for use in combination with a storage battery having a cell containing electrolyte and a cell cover including a threaded aperture therein that has a downwardly extending skirt means therearound, said nonoverfill device comprising; an annular plug having inner and outer threads wherein the outer threads are adapted to engage and screw into said threaded aperture, a seat at the lower end of said plug which is concentric with the cover skirt means when the plug is assembled with the cover, a float member adapted to float on said electrolyte and including an annular air chamber having concentric inner and outer walls and a top wall wherein the inner wall extends upwardly from the chamber and top wall and is freely slidably engaged in said annular plug, a valve on the top wall of the float which is engageable with the seat on the plug in the extreme upward position of the float relative to the plug, said float member having a maximum cross sectional radial dimension less than the maximum cross sectional radial dimension of said annular plug, and a vented cap adapted to thread into the inner threads of said plug to engage the float and to limit the upward movement of the float for preventing the valve from engaging the seat.

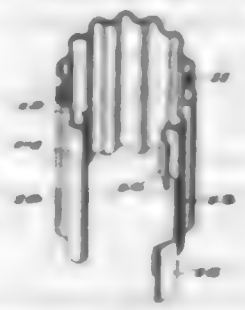
2,872,501
CONDUCTOR HAVING TRANSPOSITIONS
William McMahon, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 30, 1955, Serial No. 519,021
4 Claims. (Cl. 174—34)

2. A low loss electrical conductor comprising two elongated continuous members of conducting material, each member being built up of solid cylindrical portions and channel portions alternately along the length thereof, said channel portions being sufficiently large to include the cylindrical portions, said members having their axes coincident with the solid cylindrical portions of each



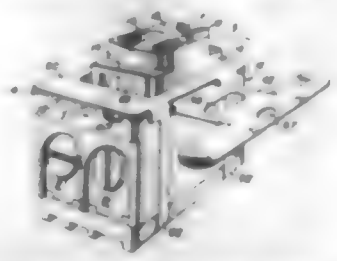
lying in the channel portion of the other and said channel portions being formed into hollow cylinders substantially surrounding said solid cylindrical portions of the other member, and means for insulating said members from each other.

2,872,502
TUBE SHIELD
Robert E. Ross, Cohasset, Mass.
Application July 13, 1956, Serial No. 597,720
1 Claim. (Cl. 174—35)



A tube shield construction comprising a shaped, longitudinally split, circumferentially flexible sleeve means having the longitudinally extending ends thereof spaced from one another when not in use, reversely bent complementary hooking means provided along each longitudinally extending end for securing said ends to one another in detachable relationship to close the shield, the first of said hooking means extending throughout only a portion of its associated longitudinally extending end, a portion of said associated longitudinally extending end derived from an area thereof adjacent said first hooking means being folded downwardly over a portion thereof more remote from said first hooking means, and extending below the lower edge of said circumferentially flexible sleeve means and constituting means for securing said sleeve means to a support.

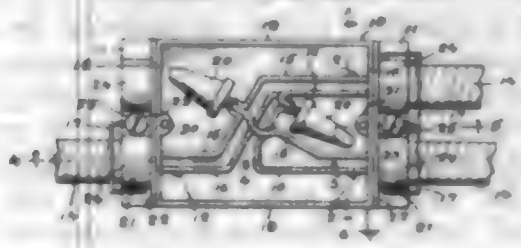
2,872,503
RECEPTACLE GROUNDING DEVICE
Paul H. Winter, Syracuse, N. Y., assignor to Pass & Seymour, Inc., Syracuse, N. Y., a corporation of New York
Application February 6, 1957, Serial No. 638,562
8 Claims. (Cl. 174—51)



1. In an interchangeable receptacle for mounting in a conduit box by means of a strap spanning the box, in combination, a receptacle shell having a neck extending forwardly from the front wall thereof to pass through said strap and apertured for attachment plug circuit blades and a grounding prong, contact springs in said shell for said blades, a contact element in said shell having a

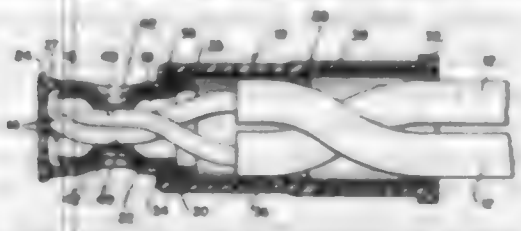
spring for engagement by said prong and a tang extending through said front wall, a grounding plate for said element including, a sheet metal frame on said front wall surrounding said neck and an integral tab extending in the plane of said frame in the direction of and underlying the end of said strap, and means holding said tang in electrical engagement with said frame.

2,872,504
ELECTRIC OUTLET BOX
Otto Woodring, Meadville, Pa.
Application February 28, 1956, Serial No. 568,344
3 Claims. (Cl. 174—65)



1. In an electric outlet box, a bottom wall, a pair of spaced apart bases secured to the outer surface of said bottom wall and extending beyond the ends of said bottom wall, there being a threaded aperture in each of said bases, the ends of the outlet box being provided with a plurality of circular openings, a clamp arranged contiguous to each end of the outlet box and including a vertically disposed plate, said plates being provided with apertures arranged in pairs and registering with the openings in the ends of the outlet box, a body member extending outwardly from said plate and including a flat web, a securing element extending through said web and engaging the apertures in said bases, and a pair of arcuate sections extending from said web.

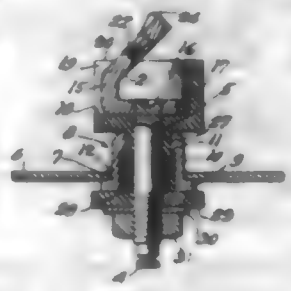
2,872,505
ELECTRICAL CONNECTOR
George Ustin, Verona, N. J., assignor to Buchanan Electrical Products Corporation, Hillside, N. J., a corporation of New Jersey
Application April 22, 1955, Serial No. 503,199
10 Claims. (Cl. 174—87)



1. A preinsulated splice cap assembly comprising first and second insulating members, said first member having a closed end, an open end and a deformable portion therebetween and further having a first position with respect to said second member in which said open end is within said second member and said closed end and said deformable portion are outside of said second member and a second position with respect to said second member in which said second member covers said portion, and a splice cap fixed with respect to said first member and deformable by force transmitted thereto through said first member when said first member is in said first position.

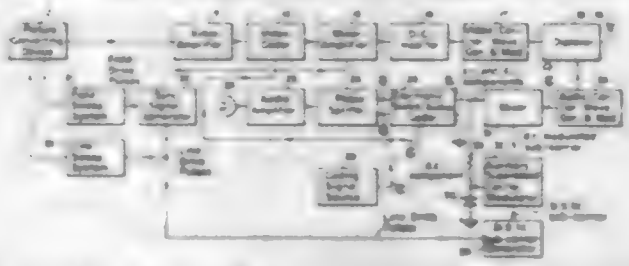
2,872,506
TERMINAL CONSTRUCTION
Charles H. Flubacker, Chicago, Ill., assignor, by mesne assignments, to Cook Electric Company, Chicago, Ill., a corporation of Delaware
Application May 17, 1951, Serial No. 226,877
1 Claim. (Cl. 174—153)

An insulated terminal mounting comprising a wall provided with an aperture, a bushing, oppositely extending shoulders on said bushing, one of said shoulders engaging and being fixed to the underside of said wall, the body of said bushing extending through said aperture, a chambered insulation member, a sleeve extending from said chambered member adapted to be drawn into said bushing body, a terminal lug positioned in said



chambered member, a post fixed to said terminal lug passing through said sleeve and said bushing, a gasket in said bushing adapted to be compressed by said sleeve and to be engaged by the other shoulder of said bushing, and means for drawing said sleeve against said gasket comprising an insulation washer and a threaded connection on the end of said post.

2,872,507
SYSTEM FOR TRANSLATING A D. C. COMPONENT
Walter S. Druz, Beneaville, Ill., assignor to Zenith Radio Corporation, a corporation of Delaware
Application June 7, 1955, Serial No. 513,757
12 Claims. (Cl. 178—5.1)

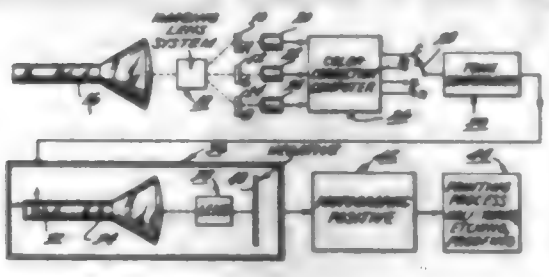


4. A receiver for utilizing a transmission representing an uncoded audio signal which has been subjected to a coding function and converted into a coded audio signal having an A. C. component and a D. C. component which components are individually represented by separate modulations of a main carrier wave included within said transmission, with the D. C. component modulated on a sub-carrier wave forming a D. C. modulated sub-carrier wave, said receiver comprising: a first demodulator for demodulating said main carrier wave to derive said A. C. component and said D. C. modulated sub-carrier wave; means, including a second demodulator, coupled to said first demodulator for demodulating said D. C. modulating sub-carrier wave to derive said D. C. component; decoding apparatus for performing a decoding function which is complementary to said coding function; and means, including said decoding apparatus, coupled to both of said demodulators for combining said A. C. and D. C. components and for deriving a signal corresponding to uncoded audio signal.

2,872,508
COLOR-CORRECTION SYSTEMS
Harry E. Rose, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application October 14, 1953, Serial No. 385,959
5 Claims. (Cl. 178—5.2)

1. In a system for obtaining a printed color reproduction of a subject having color characteristics, said color reproduction being produced by a colored-ink printing process having non-linear characteristics, the combination of means for scanning said subject to provide uncorrected electrical signals representative of the density values of color components of said subject, means for

generating color-corrected electrical signals in accordance with said uncorrected signals, a tone compensator circuit means responsive to said color-corrected signals for generating other electrical signals representative of a predetermined non-linear function of said corrected



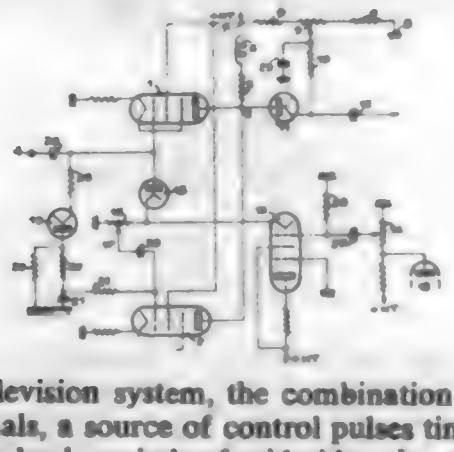
signals, different portions of said function having different slopes for compensating for different non-linear density characteristics of said printing process, signal responsive recording means, and means for applying said non-linear function signals to said recording means.

2,872,509

WAVE SHAPING NETWORK FOR TELEVISION EQUIPMENT

Jacques R. Donnay, Paris, France, assignor to Société Nouvelle de l'Outillage R. B. V. et de la Radio Industrie (R. B. V.-R. I.), Paris, France, a joint-stock company

Application March 13, 1953, Serial No. 342,205
6 Claims. (Cl. 178—7.1)



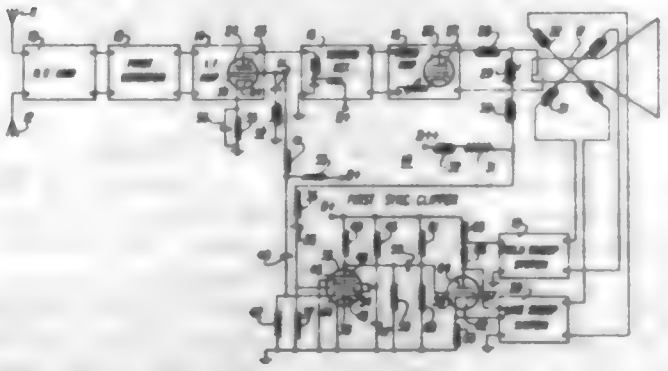
1. In a television system, the combination of a source of video signals, a source of control pulses timed to occur during the fly-back periods of said video signals, an output circuit, a limiter device for applying video signals from said source of video signals to said output circuit, means for applying control pulses to said output circuit through said limiting device, and means controlled by said video signals for varying the amplitude of the control pulses applied to said limiter device inversely in accordance with low frequency amplitude variations in said video signals.

2,872,510

TELEVISION RECEIVER

Richard A. Kraft, Chicago, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application April 28, 1953, Serial No. 351,615
1 Claim. (Cl. 178—7.3)



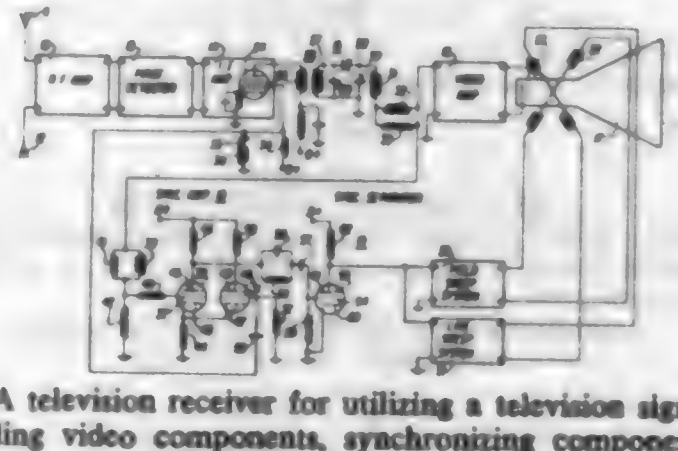
In a superheterodyne television receiver for utilizing a television signal including video components and synchronizing components having peak amplitudes exceeding the amplitudes of the video component, such receiver further being subject to translate undesired noise components having peak amplitudes exceeding those of the synchronizing components, the combination of an intermediate frequency amplifier circuit including an electron discharge device having non-linear characteristics for signal amplitudes corresponding to the peak amplitudes of the noise components, said electron discharge device having a plurality of electrodes including a cathode and a screen grid electrode, a series tuned circuit connected between said screen grid electrode and said cathode, said tuned circuit being resonant at the intermediate frequency to bypass the same so that the noise components are detected at said screen grid electrode to appear across said tuned circuit, detector circuit means connected to said intermediate frequency amplifier circuit for deriving the synchronizing components and the noise components, circuit means connected to said detector circuit means for utilizing the synchronizing components, said circuit means having a circuit portion translating the synchronizing components and the undesired noise components with a given polarity, and further circuit means connected between said screen grid electrode and said circuit portion for applying the undesired noise components from said intermediate frequency amplifier to said circuit portion with a polarity to cause cancellation thereof in said circuit portion.

2,872,511

TELEVISION RECEIVER

Garth J. Heisig, Arlington Heights, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
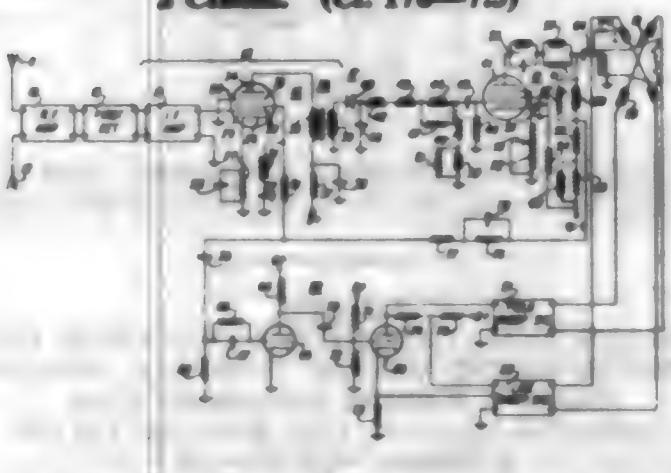
Application May 20, 1953, Serial No. 356,286
5 Claims. (Cl. 178—7.3)



1. A television receiver for utilizing a television signal including video components, synchronizing components having a peak amplitude exceeding that of the video components, and undesired noise components having peak amplitudes exceeding that of the synchronizing components, said receiver including in combination, a detector for producing in response to such a television signal a composite video signal including the aforesaid video, synchronizing and noise components with said synchronizing and noise components extending in a negative going direction, an amplifier for said composite video signal including a discharge device having an anode, a cathode, and a control electrode; an input circuit for said amplifier coupled to said detector for impressing the aforesaid composite video signal on said control electrode so that said noise components tend to decrease the space current in said device; a control circuit for said amplifier including a second discharge device having an anode, a cathode and a control electrode, the cathode of said second device being direct-current connected to the cathode of said first device, an impedance coupled in common to the cathodes of said first and second devices so that the space current in said first device is controlled in accordance with the current flow in said second device; direct-current potential supply means for energizing said anodes of said discharge devices; and means for deriving the aforesaid noise components with negative going polarity and for impressing the aforesaid noise components on said control electrode of said second device to decrease the current flow therethrough for the duration of each

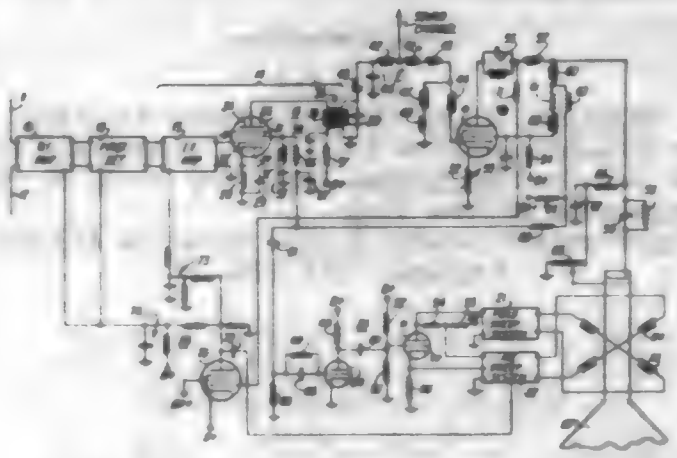
such noise component, thereby to increase the space current in said first-mentioned discharge device for the duration of each such noise component so as to compensate for the decrease in space current therein due to such noise components.

2,872,512
TELEVISION RECEIVER
Albert W. Mauman, Wheaton, and Richard A. Kraft, Chicago, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application October 19, 1953, Serial No. 386,891
2 Claims. (Cl. 178—7.3)



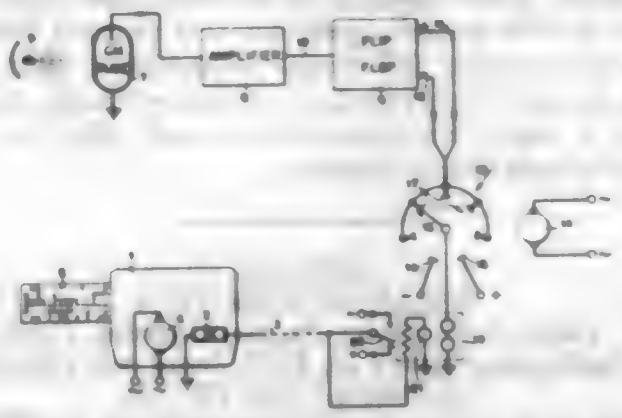
2. In a receiver for utilizing a modulated television signal which includes video frequency components and synchronizing components, and which signal may include undesirable noise components having amplitudes exceeding the amplitudes of the video and synchronizing components, the combination of an intermediate frequency amplifier for translating the television signal, said amplifier including a first electron discharge device having a cathode, a control electrode, a screen electrode and an anode, means for applying the television signal at an intermediate frequency to said cathode and control electrodes, said amplifier including means providing nonlinear response of said first electron discharge device for signal amplitudes of the undesired noise components, said amplifier further including a series tuned circuit resonant at the intermediate frequency and coupled between said screen electrode and said cathode to provide detection of the noise components with negative polarity at said screen electrode, means including a detector circuit coupled to said anode to derive the video frequency components and synchronizing components together with the undesired noise components, video amplifier means coupled to said detector circuit for translating the aforementioned components, said video amplifier means including a second electron discharge device having an output element and a direct current energization circuit therefor in which the undesired noise components appear with positive polarity, a synchronizing signal separator circuit including a third electron discharge device having input electrodes, said synchronizing signal separator circuit including a series input capacitor and a fixed resistor connected between said input electrodes, means connecting said direct current energization circuit to said capacitor for applying the synchronizing components to said third electron discharge device with positive going polarity whereby said resistor and capacitor provide a self-biasing network for said third electron discharge device, and passive circuit means connecting said screen electrode of said first electron discharge device to said direct-current energization circuit for said second electron discharge device whereby the undesired noise components are cancelled in the signal components supplied to said synchronizing signal separator through said capacitor so that only the video frequency components and synchronizing components are coupled to said third electron discharge device and said self-biasing network is not subjected to the undesired noise components.

2,872,513
TELEVISION RECEIVER
Richard A. Kraft, Elmhurst, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application November 1, 1954, Serial No. 465,775
7 Claims. (Cl. 178—7.3)



7. In a television receiver for utilizing television signals which may be accompanied by noise signals and which receiver includes an intermediate frequency amplifier stage, a detector stage, a video amplifier stage direct-current coupled to said detector stage and having a video amplifier tube with cathode and anode electrodes, and a synchronizing signal separator stage, the combination of a first source of positive direct current potential and a second source of higher positive direct current potential, a voltage divider connected between said sources, means direct current coupling said cathode electrode of said video amplifier tube to a reference point and said anode electrode thereof to a first point of said voltage divider, said intermediate frequency amplifier stage including a tube having a screen grid and circuit means coupled thereto for detecting noise signals accompanying a television signal, means direct current coupling said screen grid to a second point of said voltage divider of higher potential than that of said first point, circuit means for applying signals including noise signals from said video amplifier stage to said synchronizing signal separator stage, and circuit means for applying detected noise signals from said intermediate frequency amplifier stage to said synchronizing signal separator stage with a polarity to cause cancellation of noise signals applied thereto from said video amplifier stage.

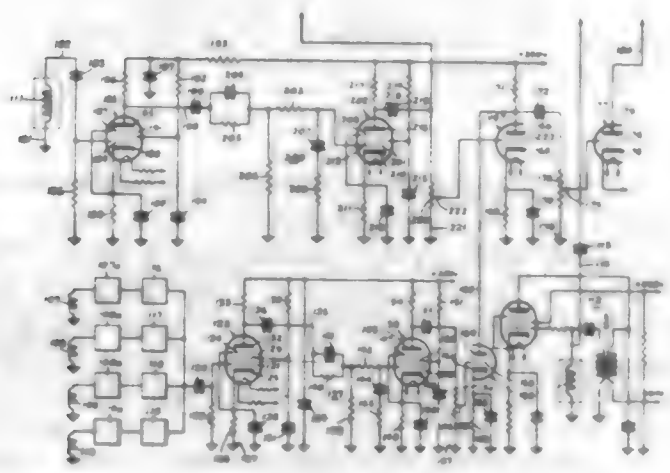
2,872,514
RANDOM SIGNAL GENERATOR
Franco Negri, Ivrea, Italy, assignor to Ing. C. Olivetti & C., S. p. A., Ivrea, Italy, a corporation of Italy
Application November 29, 1955, Serial No. 549,788
3 Claims. (Cl. 178—22)



1. In a device for producing random signals made up of binary code elements, the combination of a source of random pulses, a flip-flop circuit coupled to said source and responsive to said random pulses sequentially to

produce negative and positive output pulses, cyclical distributor means coupled to said flip-flop circuit to sense the output thereof at predetermined instances in the course of each cycle to produce a train of binary code pulses each of which is determined by the corresponding output pulse at the instant of sensing, and means to record said train of code pulses.

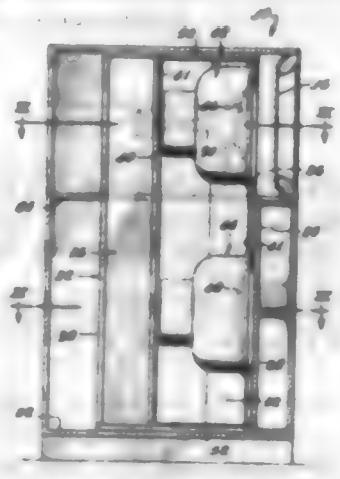
2,872,515
SYNTHETIC REVERBERATION SYSTEM
Peter C. Goldmark, New York, N. Y., assignor to Columbia Broadcasting System, Inc., New York, N. Y., a corporation of New York
Application September 2, 1954, Serial No. 453,847
8 Claims. (Cl. 179—1)



1. In synthetic reverberation apparatus, the combination of a direct signal channel having input terminal means adapted to receive an input signal and having output terminal means, and a reverberation signal channel comprising signal storage means, means responsive to said input signal for inserting in said storage means a representation of said input signal, a plurality of means responsive to said representation for producing a plurality of signals corresponding thereto, each of said signals being delayed in time from the others and being attenuated with respect to the preceding one, means setting the amplitudes of said respective signals to values corresponding to those required at the respective time occurrences of said time delayed signals for a selected normal reverberation decay characteristic, feedback means responsive to said representation for supplying a feedback signal to said inserting means to cause the insertion in said storage means of a representation corresponding thereto and the production by said respective representation responsive means of a second plurality of signals corresponding thereto, means permitting adjustment of said feedback signal over a range enabling adjustment of said second signals over ranges including values above and below those required at the respective time occurrences of said second signals for said selected reverberation characteristic, and means responsive to signals produced by said representation responsive means for combining a signal representative thereof with the signal output of said direct channel.

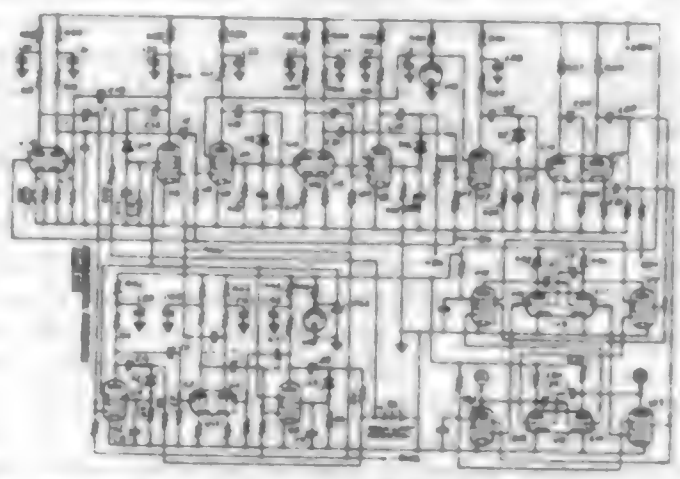
2,872,516
SPEAKER ASSEMBLY
James D. Hoffman, Pacific Palisades, Calif.
Application March 25, 1955, Serial No. 496,685
14 Claims. (Cl. 179—1)

1. In an acoustic speaker assembly, in combination: a housing having an airtight chamber therein; a first speaker including a diaphragm, said diaphragm constituting a portion of the walls defining said chamber; a second speaker including a diaphragm constituting a portion of the walls defining said chamber, said speakers having similar acoustic responses to an input signal; means for electrically driving said diaphragms by an in-



put signal in phase opposition; and acoustic horn means receiving and amplifying the output of said first speaker.

2,872,517
FUNDAMENTAL FREQUENCY SELECTOR FROM SPEECH SOUND WAVES (FOR ALL VOICES)
Meguer V. Kalfaian, Los Angeles, Calif.
Application March 24, 1958, Serial No. 723,498
6 Claims. (Cl. 179—1)



1. In speech sound waves where one cycle time reference points of variable fundamental frequencies are identified by major peaks of the waves, the system of exaggerating these peaks from minor peaks for selection of same, which comprises means for producing these speech sound waves; a first square-law gain-controllable amplifying means and means therefor for amplifying the produced sound waves; a first gain-suppressing unidirectional feedback coupling path between the amplified and produced sound waves and means therefor for feeding back the amplified waves for suppressing the gain of said amplifier in inverse proportion, and thereby compressing the higher amplified waves; a first gradually decaying storage means associated with said first gain-suppressing coupling path, whereby storing said unidirectional feedback waves in approximation of constant states, and thereby approximately equalizing the peak amplitude of said amplified sound waves; a second square-law gain-controllable amplifying means and means therefor for amplifying said amplitude equalized sound waves; a second gain-suppressing unidirectional feedback coupling path between the last said amplified and said amplitude equalized waves and means therefor for feeding back last said suppressing waves; a second gradually decaying storage means associated with the second coupling path for storing substantially the peak quantity of last said suppression waves, the decaying time constant of the second storage means being at least equal or longer than one cycle period of the average of said variable fundamental frequencies but short enough for the storage means to be capable of restoring a substantial quantity at successive arrivals of the major peaks, thereby causing sup-

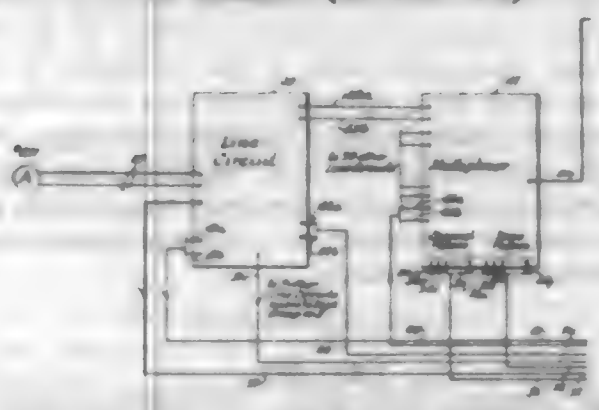
pression storage of the gain of said second amplifying means in larger magnified proportion at the beginning of each of said major peaks than at the minor peaks; and means for selecting the storage of larger proportions representative of said major peaks.

2,872,518

PARTY LINE TELEPHONE SYSTEM

Robert B. Trousdale, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application November 23, 1951, Serial No. 257,712
69 Claims. (Cl. 179—8.5)



1. In an automatic telephone system of the type having a plurality of lines over which subscriber controlled signals are transmitted, at least some of said lines having a plurality of substations associated therewith and identifiable by different party line ringing signals, electronic means directively controllable by subscriber controlled signals transmitted over any calling one of said lines for transmitting signals in both directions between a calling one of said lines and a called one of said lines, and electronic means directively controllable by said subscriber controlled signals for selectively transmitting a particular ringing signal over the called line in accordance with the identity of the called substation associated therewith.

66. In an automatic telephone system of the type having a plurality of lines over which subscriber controlled signals are transmitted, at least some of said lines having a plurality of substations associated therewith identifiable by ringing signals having different characteristics, means responsive to initiation of a call on one of said lines for developing pulses representing said calling line and distinguishable from pulses representing others of said lines, means for developing a plurality of ringing signals having said different characteristics, means responsive to said calling line pulses and directively controlled by subscriber controlled signals transmitted over said calling line for selecting one of said ringing signals having a characteristic identifying the called substation, and means for transmitting said selected ringing signal over the called line.

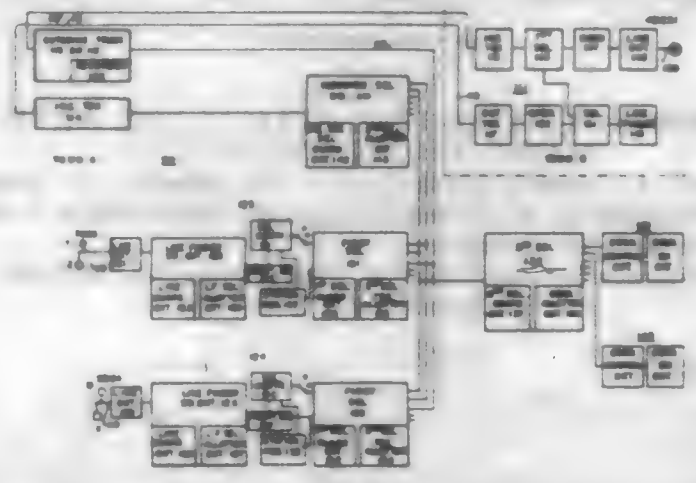
2,872,519

AUTOMATIC TELEPHONE SYSTEM

Arne Oxaal, Keuton, Ohio, assignor to North Electric Company, a corporation of Ohio

Application March 24, 1952, Serial No. 278,242
42 Claims. (Cl. 179—8.5)

1. An automatic telephone exchange having switching means for establishing connections between subscriber substations on lines associated therewith, and also to subscriber substations on lines in other exchanges, access to predetermined ones of said lines being restricted; impulse transmitting means at each subscriber substation for controlling operation of said switching means in the establishment of a connection to a desired one of the subscriber lines, line identification means connected at only certain of said subscriber substations for identifying the party line position of the calling subscriber concurrently with the transmission of operating impulses to the switching equipment, register means, means for registering the directory number of only said certain substations for recording purposes prior to the complete transmission of the first digit of the desired subscriber number, and selection means in said switching means operative to extend connections to said predetermined ones of said lines only in response to the receipt of the assigned operating impulses and a line identification signal indicating initiation of the call by one of said certain substations.



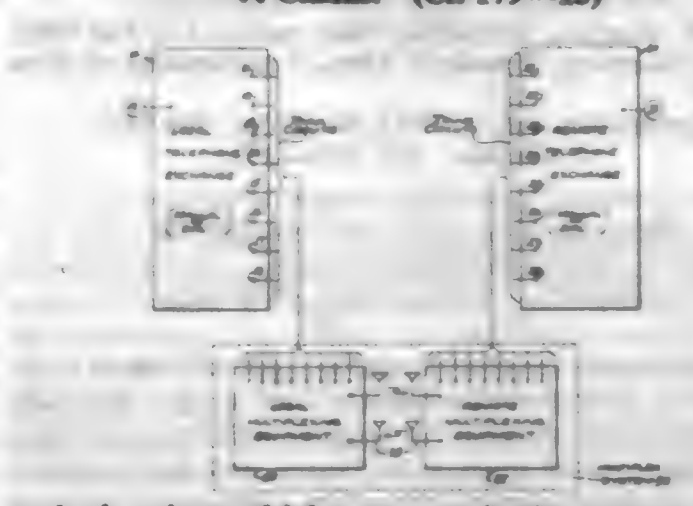
34. An automatic telephone exchange having a plurality of groups of subscriber lines, and means including a plurality of linefinder-selector links for establishing calls between local subscriber lines and also to subscriber lines in distant exchanges, register means for registering the assigned directory number of the calling line as a call is extended by a line over its associated link, and selector controller equipment common to two or more of said links connected for operation with the seizure of one of its assigned linefinder-selector links, means in the seized selector for controlling said selector controller equipment to concurrently accomplish registration of the identifying number for the calling party line on the register means and to also extend the connection to an indicated group of said subscriber lines, and release means in said controller for restoring said controller equipment thereafter to permit use thereof in a similar operation with the other links which are common thereto during the period the first seized selector is in use in the extension of said connection.

2,872,520

MULTIPLEX COMMUNICATION SYSTEM

Harold P. Field, Rochester, and James A. Krumhansl, Ithaca, N. Y., assignors, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application September 6, 1952, Serial No. 308,204
44 Claims. (Cl. 179—15)



1. A pulse multiplex communication system comprising a local station, a remote station, a plurality of lines associated with each of said stations, means for producing at said local station a first time base comprising a plurality of successive timing pulses in repetitive pulse frames, means for transmitting a synchronizing signal to said

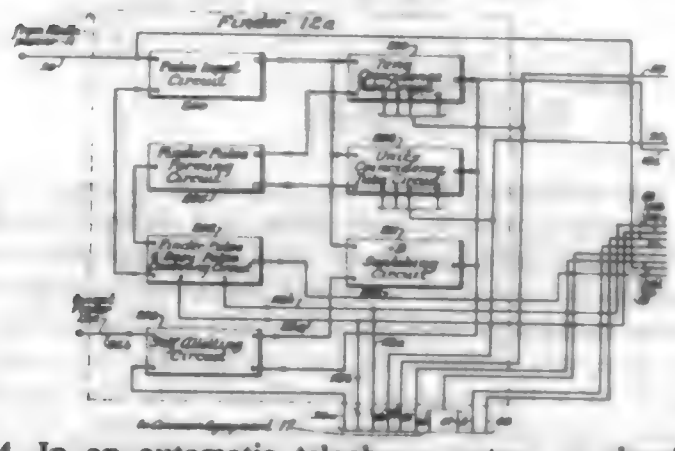
remote station during one of said timing pulses, means at said remote station and controlled by said synchronizing signal for producing a second time base comprising a plurality of successive timing pulses in repetitive pulse frames, means for varying the duration of said timing pulses to compensate for the delay in transmission between said stations, and means for setting up private two-way communication channels between calling and called lines of the system during predetermined ones of said timing pulses at said local and remote stations.

2,872,511

LINKAGE ALLOTTING SYSTEM FOR AUTOMATIC TELEPHONE SYSTEM

Frank A. Morris, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application September 6, 1952, Serial No. 308,260
9 Claims. (Cl. 179—15)



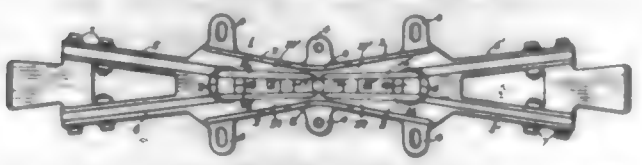
4. In an automatic telephone system, a plurality of lines, a plurality of line selecting links common to said lines and arranged to be taken into use in a predetermined order, means including said links for concurrently setting up connections between different pairs of said lines, a control signal path connecting all of said links in series in said predetermined order, means individual to each link for normally blocking said series path to prevent the transmission of signals therethrough, means normally supplying a repetitively produced electrical control signal to the first link in said path to render said first link available to the use of the first calling line of the system, and means individual to each link and responsive to seizure of the link by a calling line for unblocking said series path and diverting said control signal over said path to the next link in said order, whereby said links are assigned to successively initiated simultaneously calling lines of the system in said predetermined order.

2,872,511

OVERHEAD TROLLEY CROSSING

Samuel S. Matthes, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a corporation of New Jersey

Application July 9, 1953, Serial No. 366,889
5 Claims. (Cl. 191—37)



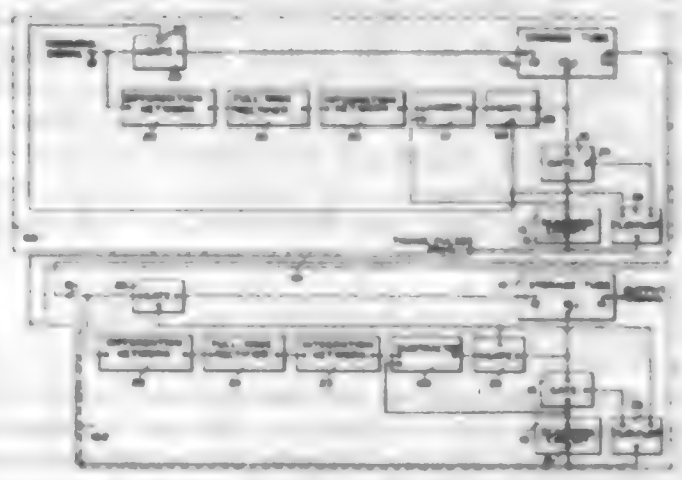
1. A crossover for electric trolleys, comprising an elongated body, four metallic runners fixed to the underside of the body and arranged in longitudinally aligned pairs spaced apart at the inner ends thereof and the longitudinal axes of the two pairs of runners crossing at an acute angle between the inner ends of the runners and means at the outer ends of the fixed runners for securing trolley conductors thereto, two bridging members, each comprising a pivot extending upwardly through the body adjacent the inner ends of the fixed runners at one end of the body, and a pair of spaced guide runners carried at the lower extremity of the pivot, the guide runners of the bridging members being spaced apart a distance substantially equal to the spacing of the adjacent fixed runners of the two pairs at the inner ends thereof, and each extending substantially to the middle part of the space between the fixed runners to bridge the space and carry a trolley collector from one to the other of the fixed runners of a pair in either of two aligned positions of the bridging members, bearing means on the body for each of the bridging members with the pivots received therein for supporting the bridging members to turn into alignment with either of the pairs of fixed runners, reversing means operatively interconnecting the bridging members for imparting a reverse movement to either of the bridging members upon movement of the remaining bridging member to bring both bridging members into alignment with one of the pairs of fixed runners, and spring means operatively actuated by the said bridging members and coacting with means fixed on the body to normally maintain both bridging members in a neutral position intermediate the aligned positions.

2,872,523

ELECTRONIC SYSTEM UTILIZING TIME MODULATION

Stephen Yando, Huntington, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application December 28, 1955, Serial No. 555,943
10 Claims. (Cl. 179—15.6)

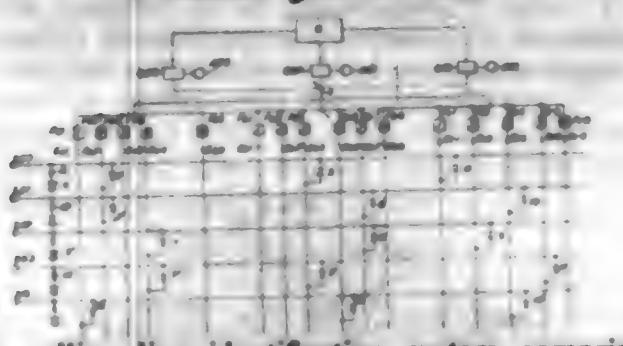


1. In combination, first and second transformation devices, each device adapted to perform a first time-domain, space-domain conversion on an incoming time sequenced signal and to perform a second space-domain, time-domain conversion on said converted signal to produce a time sequenced output signal; means coupled to said devices to initiate each conversion in sequence, the conversions for both devices being synchronized in such manner that the first conversion of the first device and the second conversion of the second device occur simultaneously; means to supply a first incoming signal to said first device; means responsive to said first incoming signal to derive therefrom a first control voltage; means to apply said first control voltage to said first device during said first conversion whereby the output signal yielded by said first device is a function both of said incoming signal and of said first control voltage; means to supply said first device output signal as a second incoming signal to said second device; means responsive to said second incoming signal to derive therefrom a second control voltage, said second control voltage being the inverse function of the first control voltage; means to supply said second control voltage to said second device during the first conversion whereby the output signal yielded by said second device is a function both of said second incoming signal and said second control voltage, the first incoming signal and the second device output signal being substantially identical.

2,872,524
CALLING CIRCUIT IDENTIFICATION

Pierre Raoul Roger Aigrain, Paris, France, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application March 24, 1954, Serial No. 418,266
Claims priority, application France April 16, 1953
3 Claims. (Cl. 179—18)

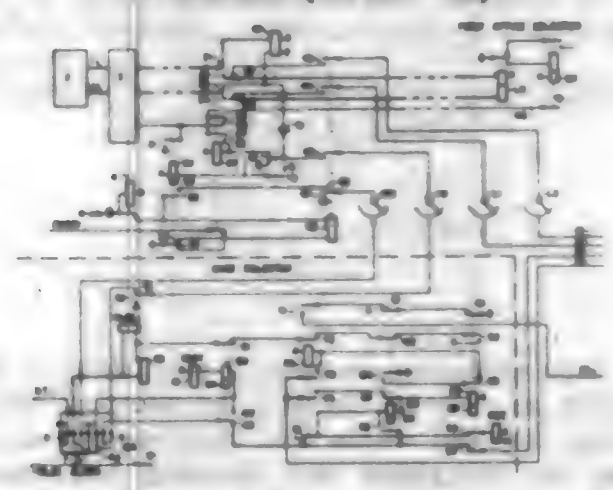


1. A calling line identification system comprising a plurality of lines, line circuits connected to said lines, a common conductor, means for generating a plurality of frequencies arranged in groups, means in each line circuit for applying a frequency from each group generated by said generating means to said common conductor when the line associated with said line circuit is calling, the combination of frequencies thus applied being different for each line circuit, a matrix of rectifiers having independent inputs corresponding respectively to said frequencies and a plurality of outputs there being one for each line, means for applying a potential to an input when the frequency corresponding to that input appears on said common conductor, and means so connecting the rectifiers of said matrix between said inputs and outputs that when a plurality of lines are calling causing a plurality of groups of frequencies to appear simultaneously on said conductor, only the outlets corresponding to said calling lines will have a potential applied thereto.

2,872,525
REGISTER-SENDER SYSTEM EMPLOYING MAGNETIC STORAGE

Harold J. McCreary, Lombard, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application May 21, 1956, Serial No. 586,234
25 Claims. (Cl. 179—18)

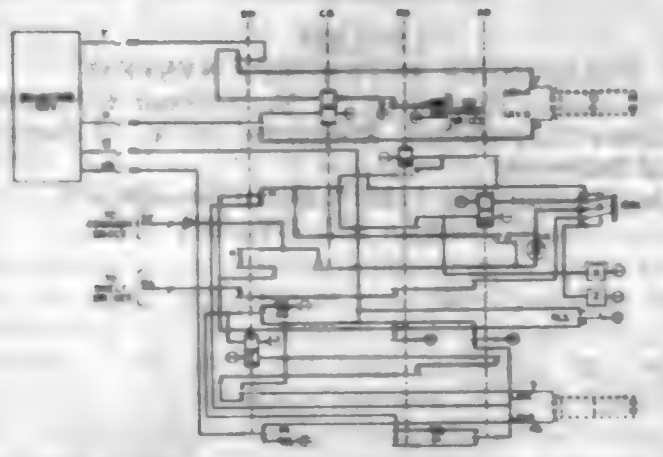


1. In a telephone system, a plurality of substations, each of said substations represented by a multi-digit directory telephone number, a storage unit comprising a plurality of semi-permanent magnets, means responsive to dialling one of said numbers at one of said substations for registering a plurality of digits in said storage unit as corresponding residual magnetizations, a first group of said plurality of digits being registered simultaneously in response to dialling a first group of digits of said one number and a second group of said plurality of digits being registered sequentially in response to dialling a second group of digits of said one number, and means for transmitting a plurality of series of impulses corresponding to the digit values of said magnetizations.

2,872,526
SELECTOR SWITCH CIRCUIT

George W. Killian, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application April 18, 1957, Serial No. 653,549
5 Claims. (Cl. 179—18)

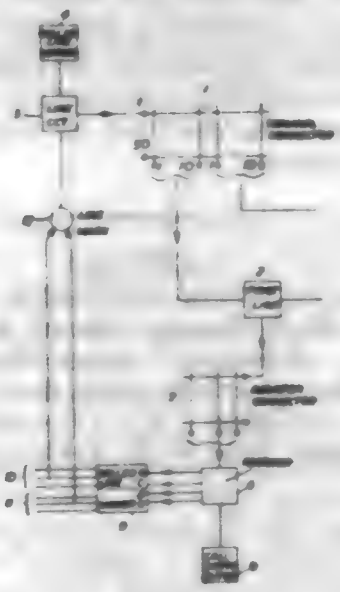


1. In a selector switch circuit, a two step relay having a pair of windings differentially wound with regard to each other, a plurality of contacts operated by a strong energization of said relay by a single one of said windings and including a certain of said contacts capable of also being operated by a feeble energization of said relay by the conjoint operation of both said windings, one of said windings terminating in a busy test circuit.

2,872,527
AUTOMATIC TELECOMMUNICATION EXCHANGES

Frederick Harry Bray and Ronald George Knight, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

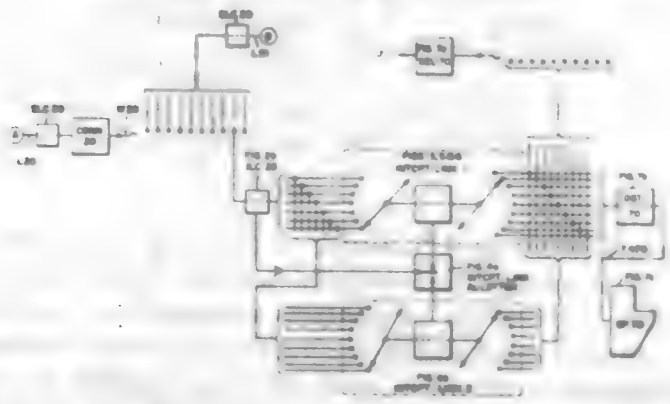
Application September 27, 1955, Serial No. 536,963
Claims priority, application Great Britain October 5, 1954
35 Claims. (Cl. 179—22)



1. An automatic telecommunication exchange comprising an odd number of stages of co-ordinate multi-switches, a set of inlets to each of said multi-switches and a set of outlets from each of said multi-switches, means for connecting the outlets of each multi-switch of any stage other than the last respectively to each of a corresponding number of different multi-switches of the next stage, means for connecting the inlets of each multi-switch of a stage other than the first respectively to a corresponding number of different multi-switches of the preceding stages, whereby the number of multi-switches in said stages and the number of the inlets and outlets thereof form a symmetrical arrangement about the central stage of multi-switches, test equipment common to said stages of multi-switches, means for operating said test equipment

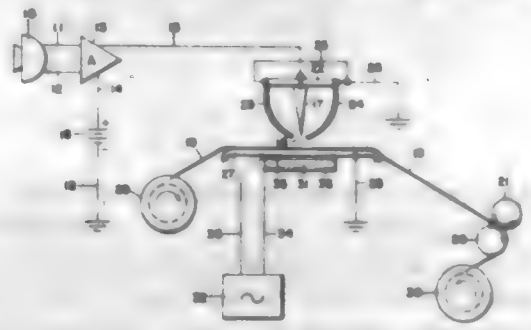
to test possible paths between an inlet to a multi-switch of the first stage and an outlet from a multi-switch of the last stage to which said inlet is to be connected, and means responsive to said test equipment finding a free path between an inlet and an outlet to be connected for setting up that free path via said stages of multi-switches.

2,872,528
TELEPHONE INTERCEPT SYSTEM
Robert K. Kaye, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware
Application May 1, 1957, Serial No. 656,351
11 Claims. (Cl. 179—27)



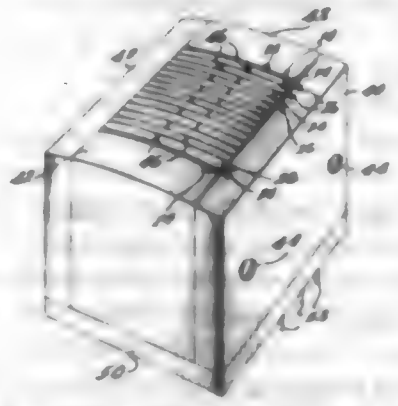
1. In a telephone system, an office, switching equipment for extending calls to apparatus terminated within said office, a plurality of trunk lines terminated at said office, a link having an incoming end including a finder and an outgoing end including a selector, said finder having a switch operative for extending a connection from said office terminated apparatus to said incoming link end, said selector having a switch operative for extending a connection from said outgoing link end to an idle one of said trunks, start means within said link operative in response to the extension of a call to said apparatus for rendering said finder and said selector switches simultaneously operative, and means thereafter operative for connecting said incoming and said outgoing link ends, whereby the time required for said finder and said selector switches to establish a connection between said office terminated apparatus and one of said trunk lines is reduced to a minimum.

2,872,529
APPARATUS FOR RECORDING SIGNALS
Hans E. Hollmann, Oxnard, and Otto G. Schwede, Ventura, Calif.
Application March 10, 1953, Serial No. 341,632
7 Claims. (Cl. 179—100.1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



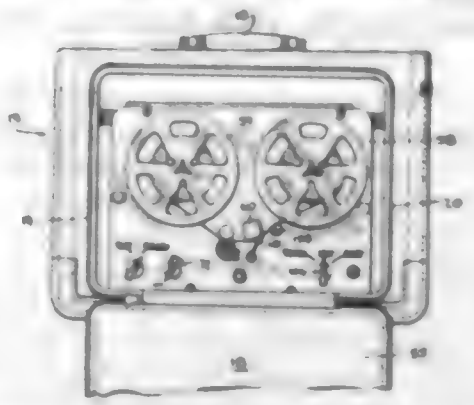
1. A signal recorder which comprises means for producing an electric field, signal storage means composed at least partially of a ferroelectric substance, means associated with and adapted to move said storage means relative to said first mentioned means such that successive portions of said storage means are disposed in operative relation to said first mentioned means, means associated with said first mentioned means and being adapted to vary said field in accordance with the signals to be recorded, and shield means associated with said first mentioned means and adapted to limit said electric field by preventing at least a portion of the stray field associated with said electric field from impinging upon said storage means.

2,872,530
MAGNETIC RECORD TRANSDUCER
Stuart T. Jolly, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 2, 1955, Serial No. 512,756
6 Claims. (Cl. 179—100.2)



1. A magnetic record transducer unit comprising a plurality of head elements arranged for cooperation with a plurality of parallel record tracks on a magnetic record medium, each of said head elements defining substantially a hollow plane figure, a signal coil on one portion of each of said head elements, adjacent ones of said head elements being oppositely disposed with respect to each other, indexing means on said oppositely disposed head elements whereby said portion carrying said coil of each of said head elements is positioned adjacent the hollow defined by the adjacent head element, and a unitary magnetic shield member positioned between adjacent ones of said head elements.

2,872,531
SOUND RECORDERS
Nathan M. Haynes, New York, N. Y.
Application October 25, 1955, Serial No. 542,568
7 Claims. (Cl. 179—100.2)



5. A tape recording mechanism comprising a leather case having an enclosed chamber, an electrical recording mechanism disposed within said chamber and including a circuit for energizing and actuating said recording mechanism, a closure member for said leather case, complementary locking means disposed on said closure member and an outer wall of said case respectively, a slider on said outer wall locking means, an electrical switch adapted to be closed by manual actuation of such slider whereby an electrical circuit to said recording mechanism may be closed thereby, said outer wall being formed with at least one opening therein, tongue means on the complementary locking means on said closure member for securing said closure member to said outer wall locking means through said opening, said tongue means comprising at least one spring loaded pin adapted to be received and engaged by said opening independently of the action of said slider, said recording mechanism

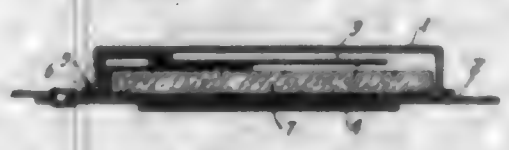
including a drive motor, an amplifier and a pair of rotatable reel members, brake means normally engaging at least one of said reel members for discouraging accidental rotation thereof, said switch being operative to energize said motor and amplifier and also disengage said brake means from said reel member, said electrical circuit including a relay controlled by said switch, said relay upon energization thereof operating to close electrical switch contacts for both energizing said motor and said amplifier, an armature on said relay, a metal link connected to said brake means, said armature, upon energization of said relay, actuating said link for removing said brake means from its said reel member so as to disengage said reel member.

2,872,532

CONDENSER LOUDSPEAKER

Gerhard Bochmann, Euthgen, near Pforzheim, and Roland Karolus, Pforzheim, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application August 8, 1955, Serial No. 527,101
Claims priority, application Germany August 26, 1954
7 Claims. (Cl. 179—111)



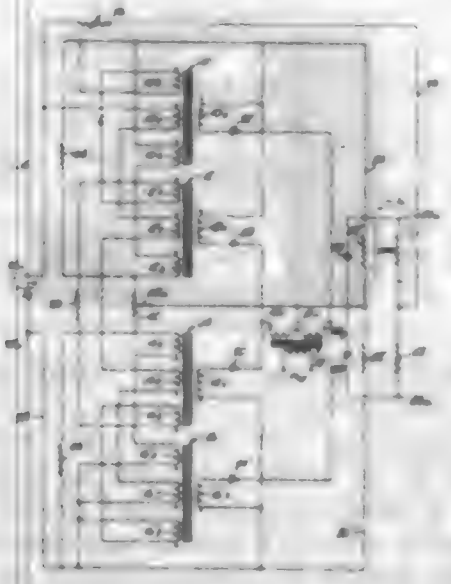
1. An electroacoustical transducer comprising a substantially flat perforated plate electrode, a resilient insulating membrane freely mounted adjacent said plate electrode, a thin metal layer electrode mounted adjacent said insulating membrane, a layer of elastic insulating material freely mounted adjacent said thin metal layer, a base insulating member, and means attaching said base member to said plate electrode, against a surface of said layer of elastic insulating material, the force produced by said base member against said elastic insulating material being sufficient to support said resilient insulating membrane and the metal electrode in mounted position.

2,872,533

MAGNETIC AMPLIFIERS

Robert M. Hubbard, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware

Application July 12, 1954, Serial No. 442,560
11 Claims. (Cl. 179—171)



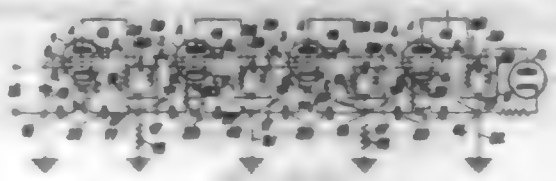
5. In a magnetic amplifier having two pairs of substantially similar variable reactance devices each including a separate ferromagnetic core, and input and output windings, opposing output conductors, a source of alternating voltage having a fixed neutral potential point, and circuit means including rectifier elements applying to one output conductor through the two output windings of one pair rectified potential of one polarity from respectively opposite sides of said source, and applying to the other output conductor through the two output windings of the other pair rectified potential of the same polarity from respectively opposite sides of said source, whereby the voltage between said output conductors may vary in either sense from zero in accordance with variations in the differential reactances of the pairs of output windings; the combination of control means energizable to vary the magnetization of said pairs of cores differentially in either sense in accordance with the magnitude and sense of a control signal applied to said means; and means substantially compensating for any core mismatch between variable reactance devices in the respective pairs including a first circuit means forming a closed circuit loop including the two input windings of one pair connected in series relationship with like polarity, and a second circuit means forming a closed circuit loop including the two input windings of the other pair connected in series relationship with like polarity, said closed circuit loops having predetermined values of impedance whereby induced circulatory currents permitted to flow in said pairs of input windings materially improve the linearity of response of said magnetic amplifier to variations in strength of control signal, said impedance values being approximately equal to the square of the ratio of input winding turns to output winding turns, multiplied by the unsaturated or maximum reactance of the output winding.

2,872,534

INTERSTAGE COUPLING CIRCUITS FOR HIGH FREQUENCY MULTIGRID VOLTAGE AMPLIFIERS

Imre Zakariás, Budapest, Hungary, assignor to Egyesült Izzólampa és Villamossági Részvénytársaság, Budapest, Hungary

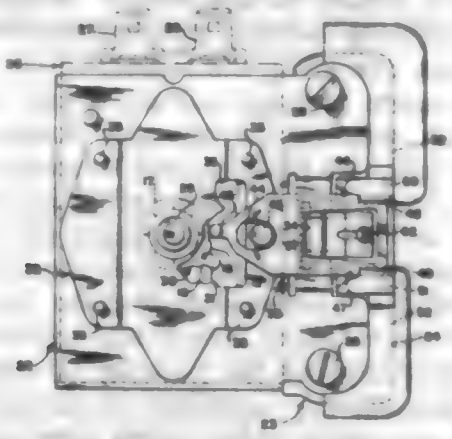
Application May 16, 1956, Serial No. 585,300
Claims priority, application Hungary May 20, 1955
6 Claims. (Cl. 179—171)



1. A circuit arrangement for amplifying voltages of very high frequency, comprising, in combination, a plurality of multi-grid amplifier tubes, each of said amplifier tubes having at least a plate, a cathode provided with at least two lead-in conductors, a control grid, a screen grid and a suppressor grid; a plurality of bypass capacitors, each of said bypass capacitors being connected to said screen grid of each of said amplifier tubes; means connecting said amplifier tubes in series combination, said means comprising tuned circuits each interconnecting adjacent amplifier tubes from the plate of the immediately foregoing amplifier tube to the control grid of the immediately subsequent tube; each of said tuned circuits having a cold point connected to the screen grid of said immediately subsequent tube by means of one of said bypass capacitors, and to one of the lead-in conductors of the cathode of the immediately foregoing tube by another of said bypass capacitors and being further directly connected to the suppressor grid of said immediately foregoing tube and to one of the lead-in conductors of the cathode of said immediately subsequent amplifier tube; alternate ones of said tuned circuits having their cold points directly grounded, said circuit arrangement further comprising separating resistors connecting said cold points of each of the remaining ones of said tuned circuits to ground so as to ensure that only one of said lead-in conductors of the cathode of each amplifier tube is directly grounded for high frequencies,

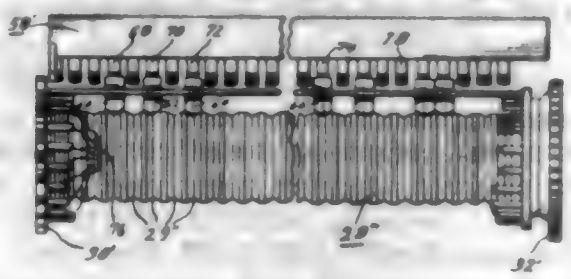
whereas the other of the lead-in conductors of the same said cathode of each amplifier tube is grounded across said separating resistor.

2,872,535
CIRCUIT REGULATING AND CONTROL MECHANISM
John V. S. Dahlgren, Fairhaven, N. J., assignor to The Wilcolator Company, Elizabeth, N. J., a corporation of Delaware
Application May 11, 1956, Serial No. 584,311
6 Claims. (Cl. 200—6)



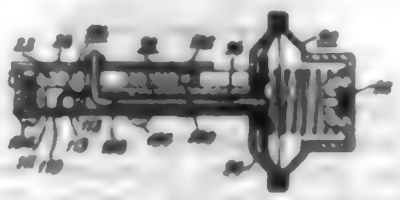
1. Apparatus for remotely actuating a movable switch contact arm of an electrical switch having a plurality of spaced switch points to be contacted by the arm, which apparatus comprises a switch housing and a frame fixed to one wall of said housing, a rotatable control shaft journaled in said frame, a cam fixed to said shaft for rotation therewith, and provided with a throw of different amplitude for each position of the contact arm, a cam follower slidably mounted on said housing adjacent said cam, a bell crank pivotally mounted on a wall of said housing and having one leg thereof in engagement with said follower and the other leg extending into said housing, and a contact arm actuator mounted within said housing to be reciprocably driven by the other leg of said crank, whereby rotation of said shaft causes said arm actuator to be displaced in accordance with the amplitudes of the cam throws engaged by the follower.

2,872,536
CONTROL APPARATUS
Charles E. Honeywell, Park Ridge, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application September 10, 1956, Serial No. 608,933
22 Claims. (Cl. 200—18)



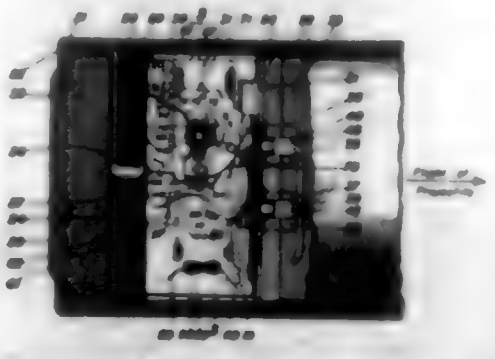
1. Means for selectively actuating preselected combinations of elements of a row of elements comprising a rotatable drum positioned adjacent said row of elements, said drum having a plurality of columns of depressions arranged substantially circumferentially around the surface thereof, a plurality of wire-like members, means rotatable with said drum for mounting said wire-like members substantially parallel to the axis of said rotatable drum at substantially equal distances from the surface of said drum and at substantially equal distances from each other, a plurality of clips self-supported between and slidably engaged between adjacent ones of said wire-like members to form a plurality of rows of clips, each of said clips constructed to have one end protrude beyond the wire-like members for actuating one of said elements and to have the other end seat in one of said depressions.

2,872,537
DISTRIBUTOR STRUCTURE
Herman L. Hartzell, David C. Redick, and Clarence L. Julian, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original application December 23, 1953, Serial No. 400,624, now Patent No. 2,769,047, dated October 30, 1956. Divided and this application September 6, 1956, Serial No. 608,275
3 Claims. (Cl. 200—31)



3. A distributor assembly comprising in combination, a base plate having an elongated aperture therethrough, a breaker plate carried by and rotatable on said base plate, a vacuum device including a vacuum sensitive means and an elongated attachment member associated therewith for attaching the device to said base on the side of the base plate opposite to the side carrying the breaker plate, a connecting rod located below said breaker plate having an upturned end portion passing through said aperture into engagement with the breaker plate and having its other end attached to said vacuum sensitive means, and an L-shaped member having an opening of predetermined size receiving the upturned portion of the connecting link for limiting movement of said connecting rod, said L-shaped member having its first leg portion clamped between said base plate and said attachment member and having its second leg portion positioned within a slot formed in said attachment member.

2,872,538
INERTIA ARMING SWITCH
William B. McLean, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Navy
Application November 29, 1944, Serial No. 565,782
2 Claims. (Cl. 200—61.45)
(Granted under Title 35, U. S. Code (1952), sec. 266)



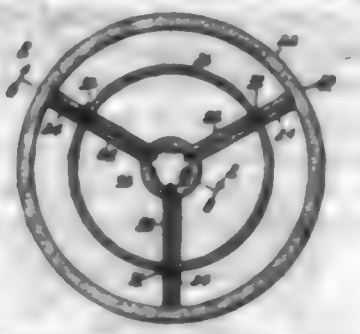
2. An inertia arming device comprising a switch-operating slide having a fixed stroke, a rack on the slide, a gear engaging the rack and normally holding the slide at one end of its stroke, an actuating member movable by inertia, a switch element biased toward one position, latching means normally locking said element in a second position and held in its locking position by the actuating member, said member being movable in one direction by inertia to release the latching means, a device operable upon release of the latching means to move the latching means for releasing the switch element and coupling the gear to the actuating member, and means operable upon substantial termination of the inertia force to move the

actuating member in the opposite direction and thereby move the slide through said gear to the opposite end of its stroke.

2,872,539
STEERING WHEEL

Phillip J. Berner, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 12, 1956, Serial No. 597,452
4 Claims. (Cl. 200—61.56)

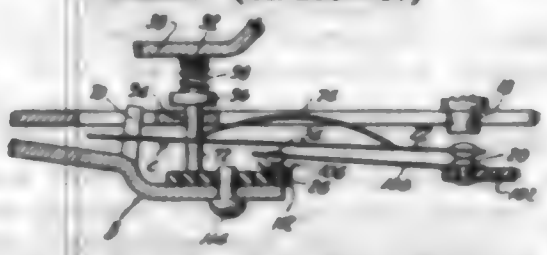


1. A safety steering wheel assembly comprising in combination: a rim, hub and connecting spokes, a horn blowing ring having portions of channel-like cross section in register with and at least partially covering said spokes, said portions terminating at their inner ends in a ring-like hub, a soft elastomeric covering for said horn ring and including cushions of said elastomer extending within and partially filling said channel-like portions and adapted to rest on said spokes, means for interlocking the horn blowing ring to said wheel hub, and a horn blowing switch carried within said ring hub, said switch being so dimensioned that it is held in open circuit position solely by said cushions and may be close circuited through pressure applied to the ring for depressing said cushions.

2,872,540
GOVERNOR SWITCH

Robert R. Hager, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application February 24, 1958, Serial No. 717,249
5 Claims. (Cl. 200—67)

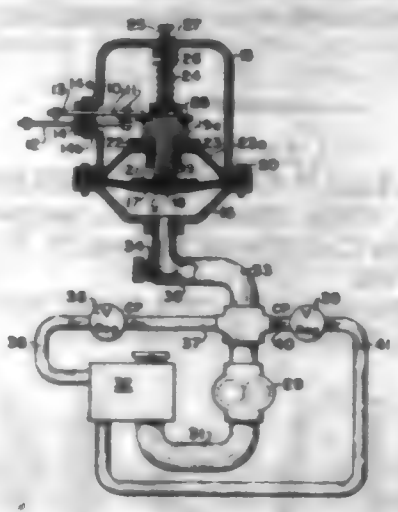


1. In a three-stage governor switch: first and second generally stationary contacts spaced apart in a first direction; a switch blade one end of which is positioned between said first and second contacts; third and fourth contacts normally spaced apart in said first direction and each being movable in said first direction; a control member movable generally in said first direction, to force said fourth contact into engagement with said third contact, snap action means operatively connecting said control member and said switch blade for snapping said blade out of engagement with said second contact into engagement with said first contact upon movement of said control member in said first direction, said movement taking place prior to the time that said movement of said control member causes said fourth contact to engage said third contact; an electrical conductor connecting said second and third contacts; and means causing said snap action means to snap said blade back into engagement with said second contact upon continued movement of said control member in said first direction after having caused said third and fourth contacts to engage each other.

2,872,541
ELECTRICAL SPEED-RESPONSIVE SWITCH WITH TIME-DELAY

Henry H. Oppenheim, Oakland, and Theodore Wilson Stevens, Hayward, Calif.

Application May 22, 1956, Serial No. 586,457
18 Claims. (Cl. 200—83)

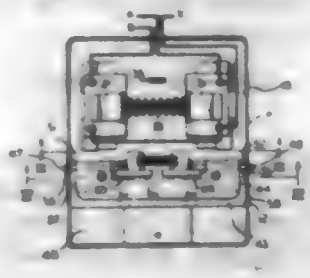


1. An electrical, speed-responsive, time-delay switch comprising: a pair of separable electrical switch contacts; means including a fluid displacement chamber and a movable wall exposed to fluid in said chamber for actuating said contacts; a pump; means for supplying fluid to said pump; flow means including a hydraulic coupling between said pump and said displacement chamber for delivering fluid to said chamber upon operation of the pump and for discharging fluid from the chamber; and means for restricting the rate of fluid flow through said flow means in at least one direction between said chamber and the outside of said chamber, thereby effecting a delay in the operation of said actuating unit following a change in the operation of the pump.

2,872,542
COMBINATION MOMENTARY MAINTAINED SWITCH

Clayton H. Thompson, Elgin, Ill.

Application April 29, 1958, Serial No. 731,834
10 Claims. (Cl. 200—86.5)



1. In a foot switch, a bottom housing, a top treadle pivotally mounted upon said housing for oscillation from one side to the other of said housing, a pair of switches in said housing, pivotal arms mounted upon each switch and responsive to the movement of said treadle, spring means interposed between said arms for biasing the free ends thereof into contact with said treadle, and control means for retaining said treadle in one or more inclined oscillated positions, said control means including a pair of latch control bars arranged transversely of said housing, spring means interposed between adjacent inner ends of said bars, said bars normally extending beyond the opposite sides of said housing and having end portions formed to allow the treadle to assume there above a horizontal inactive switch position, cam means mounted in said housing adjacent the inner ends of said bars, means on said cam means for contacting and actuating said bars, and an actuator mounted upon said treadle and having a portion thereof in engagement with said cam means, said actuator being vertically and rockably movable so that the depression of the actuator will cause

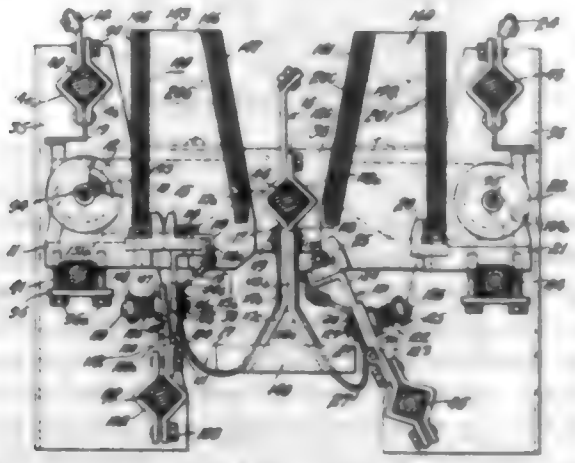
both of said bars to be drawn inwardly whereby the treadle can be oscillated in either direction, and whereby oscillation of the treadle will cause one bar to be moved inwardly and the other bar to be moved outwardly thereby allowing one side of the treadle to be lowered and the opposite side to be raised and retained upwardly by said outwardly extending bar, and the inclined treadle retaining one of the switches in active position and one in inactive position.

2,872,543

HIGH LOAD CURRENT SWITCH

Robert L. Clark, White Plains, N. Y., assignor to Ward Leonard Electric Co., Mount Vernon, N. Y., a corporation of New York

Application December 23, 1954, Serial No. 477,217
8 Claims. (Cl. 200—87)



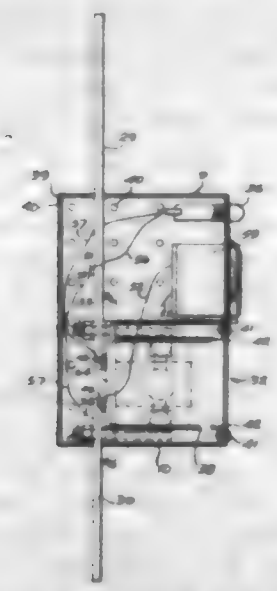
1. An electric switch comprising a first contact, a second contact movable into engagement with said first contact with a backing portion extending laterally to the direction of movement, a fixed member spaced rearwardly from said second contact and extending laterally to the direction of movement of said second contact, a flexible conductive strap connected to said second contact and formed in a loop with a portion normally adjacent said second contact and a section adjacent said fixed member, said strap bearing against said second contact and said member on occurrence of excessive current therethrough to exert pressure holding said second contact in engagement with said first contact.

2,872,544

BARREL PLATING SYSTEM

August R. Hoffman, Cleveland, Ohio

Application October 5, 1955, Serial No. 538,678
4 Claims. (Cl. 200—87)



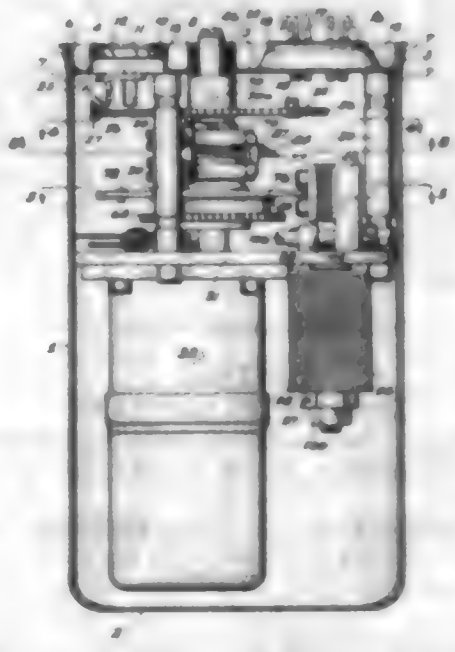
1. A heavy-current switching unit adapted to be connected in series with the cathode lead from an electroplating tank and the low potential side of a source of direct current to control the flow of plating current through the tank, said unit comprising in combination a pair of plates composed of high conductivity metal mounted in alignment and in spaced relation to each other end to end, with faces coplanar, and edges aligned, and an encased contactor unit having an insulating housing with an insulating base with protruding pairs of spaced connection bolts, one pair of connection bolts secured to one of said plates and the other pair of connection bolts secured to the other of said plates for maintaining the plates rigidly in alignment and supporting the contactor unit from the plates, the contactor unit having brackets each electrically and mechanically secured to one of said pairs of connection bolts and having fixed contacts on said bracket, and a solenoid actuated movable contact mounted within said insulated housing in operative relation to the fixed contacts, movable in a direction parallel to the faces of said plates but perpendicular to the edges thereof.

2,872,545

REMOTE CONTROLLED SWITCHING DEVICE

James C. Hobbs, Coral Gables, Fla., assignor of an undivided interest to the United States of America as represented by the United States Atomic Energy Commission

Application January 26, 1954, Serial No. 406,294
28 Claims. (Cl. 200—92)



1. A remote controlled switching device comprising a post having a fixed longitudinal axis and being adjustably rotatable thereabout, cam means mounted for rotation around said post, means rotatable around said post at a constant speed for rotating said cam means, a switch actuatable by said cam means, means engageable with the cam means to control its rotary movement and means for actuating said cam controlling means to permit rotation of the latter.

2,872,546

SELF-CENTERING RELAY

Stuart K. Babcock, Northridge, Calif.

Application February 3, 1956, Serial No. 563,362
12 Claims. (Cl. 200—93)



1. An electric current responsive device including a pivoted permanent magnet pivoted at a point intermediate its two poles, a stationary permanent magnet disposed

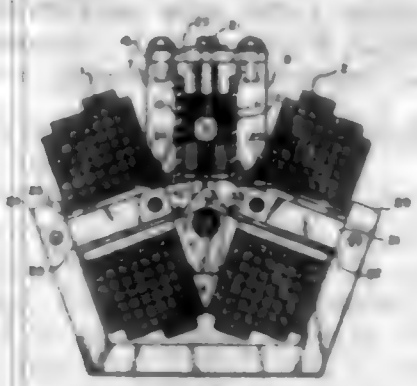
adjacent to said pivoted magnet, like poles of said pivoted and stationary magnets being disposed adjacent to each other in repelling relation, and an electromagnet having one pole magnetically connected with said stationary magnet intermediate its two poles.

2,872,547

HIGH-SPEED ELECTROMAGNETIC SWITCH

Edward J. Diebold, Palos Verdes Estates, Calif., assignor to the United States of America as represented by the Secretary of the Army

Application May 29, 1957, Serial No. 662,552
6 Claims. (Cl. 200—93)



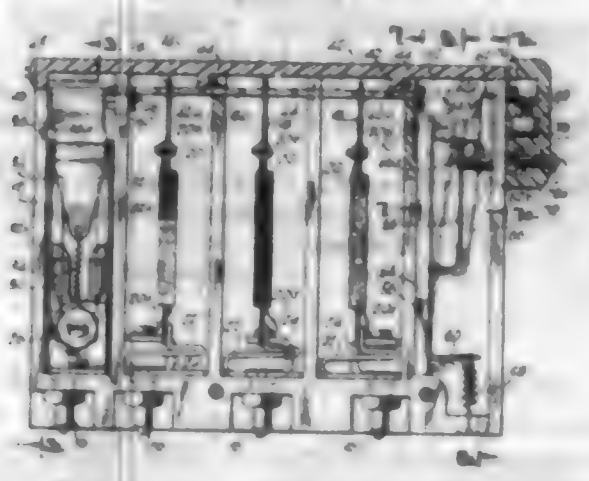
1. A structurally solid and compact electromagnetic switch containing a closing magnet subassembly, a rigid body member and an opening magnet subassembly, said closing magnet subassembly comprising closing core and coils and the closing terminal of the switch, said closing core, coils and terminal all mounted on said rigid body member, said opening magnet subassembly comprising an opening permanent magnet and poles therefor and the movable terminal of the switch, an armature of magnetic material carried by said movable terminal and normally held adjacent the poles of said opening permanent magnet, said opening magnet subassembly being adapted to fit in a recess provided in the rigid body member, with the closing terminal and the movable terminal of the switch in operative relation with each other.

2,872,548

MOTOR STARTERS

Paul M. Christensen, West Orange, N. J., assignor to Federal Pacific Electric Company, a corporation of Delaware

Application December 1, 1955, Serial No. 550,310
28 Claims. (Cl. 200—116)



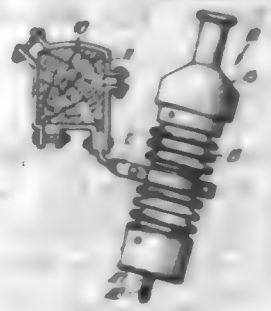
1. A circuit protector, including a pair of contacts and control mechanism therefor including a current-responsive thermal element effective to cause operation of the contacts automatically in response to overload, an ambient temperature compensating element, and selective means settable in one manner to interpose said compensating element in said mechanism to impose the influence of said compensating element on said control mechanism, said selective means also being settable in another manner to exclude said compensating element from said control mechanism and to render said control mechanism itself effective to cooperate said contacts in response to overload.

2,872,549

FUSE LINK CONSTRUCTION

Sigurd I. Lindell, Chicago, Ill., assignor to S & C Electric Company, Chicago, Ill., a corporation of Delaware

Application August 7, 1956, Serial No. 602,666
5 Claims. (Cl. 200—121)



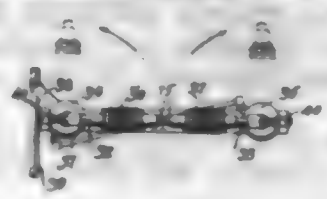
1. A fuse comprising, in combination, a fuse tube having terminals at its ends, one of said terminals having a longitudinal slot spaced from said fuse tube and extending generally along a projection of its longitudinal axis, and means interconnecting said terminals including a fuse link having terminals connected respectively to said fuse tube terminals and interconnected by fusible means, the fuse link terminal connected to said one fuse tube terminal being rod-like throughout its entirety and extending through said slot and having a shoulder at its outer end bearing against the outer ends of the sides of said slot, that portion of said rod-like terminal extending through said slot being flattened and terminating in said shoulder.

2,872,550

HIGH VOLTAGE CIRCUIT INTERRUPTING AND ISOLATING APPARATUS

August C. Schwager, Portland, Oreg., assignor to Schwager-Wood Corporation, Portland, Oreg., a corporation of Oregon

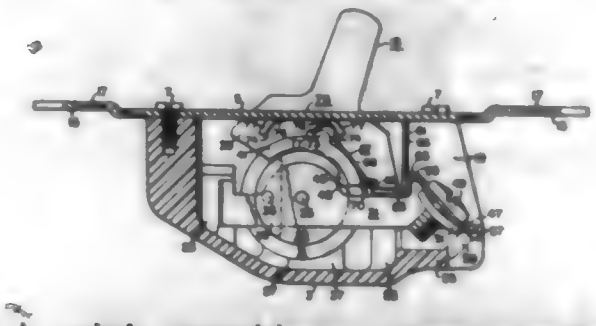
Application September 20, 1956, Serial No. 610,933
8 Claims. (Cl. 200—145)



1. In a high voltage arc interrupting and circuit isolating switch, the combination of a pair of spaced supporting insulators, a line terminal contact carried by each of said insulators for connection in a power line circuit to be interrupted, a circuit isolating switch blade mounted upon and extending from one of said supporting insulators and movable relative to the terminal contact carried by the other of said insulators upon rotation of said one insulator, a high voltage arc interrupting vacuum insulated circuit breaker unit including an evacuated envelope mounted upon and in co-extending relation at the end of said circuit isolating switch blade, said circuit breaker unit having a fixed contact enclosed within said evacuated envelope electrically connected to said switch blade and a movable contact normally biased into an open circuit position with an operating member sealed in and extending through a wall of said envelope, means disposed externally of said envelope forming an insulating support for an air break circuit controlling contact, an air break contact slidably mounted upon said means, and means responsive to movement of said air break contact adapted and arranged to overcome the bias upon the movable contact of said circuit breaker unit and establish a circuit through the contacts of said vacuum insulated circuit breaker when said air break contact is brought into en-

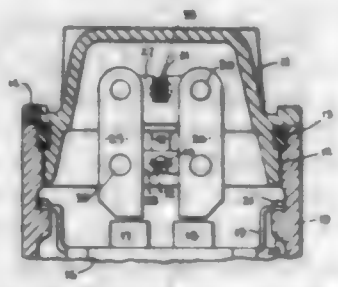
gagement with the line terminal contact carried by the other of said supporting insulators by a circuit closing operation of said circuit isolating switch blade.

2,872,551
ELECTRIC WIRING DEVICE
Clarence M. Smith, Trumbull, Conn., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 27, 1956, Serial No. 630,839
13 Claims. (Cl. 200—172)



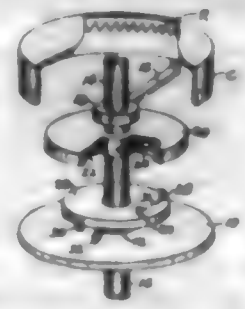
2. A switch comprising, a support member, circuit opening and closing means mounted on said support member, an operating handle member movably mounted on said support member for operating said circuit opening and closing means, indexing means comprising portions on said support and handle members, respectively, one of which is a leaf type indexing spring mounted on said handle member and biased into engagement with the other throughout movement of the said handle member, the other of said portions comprising a surface on said support member having an intermediate portion located closer to said one portion than its adjacent parts to exert additional stress on said one portion at a corresponding intermediate point in the path of travel of said handle member, said surface at each adjacent side of said intermediate portion receding from said one portion and having its end extremities more abruptly approaching said one portion to form a resilient stop for the handle member at its extreme positions.

2,872,552
EXPLOSION PROOF SWITCH HOUSING
Richard C. Berry, Camillus, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a corporation of New York
Application June 12, 1957, Serial No. 665,213
3 Claims. (Cl. 200—172)



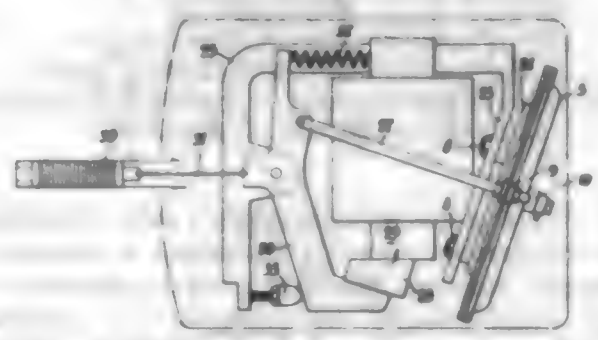
1. An enclosed switch housing for push button switches comprising a receptacle, a switch having a pair of push buttons mounted in said receptacle, a cover mounted on said receptacle, an aperture in said cover extending normal to the axis of said buttons, a stem mounted for oscillation in said aperture, a handle mounted on the outer end of said stem externally of said cover, push button actuating mechanism operatively connected to the inner end of said stem, said mechanism comprising a pair of links aligned respectively with said buttons, and means for selectively moving said links axially of said buttons into and out of engagement therewith upon oscillation of said stem, said means comprising upper and lower cross bars pivotally connected at each end to said links, a notch centrally located in the upper edge of said upper bar, and a notch centrally located on the lower edge of said lower bar, said stem being formed with a portion positioned in the notch in said upper bar and having operative connection thereto, whereby said bar will be oscillated when said stem is oscillated, a pivot member being received in said notch on the lower edge of said lower cross bar, said pivot member extending in a direction transversely to the axis of said buttons and being fixedly mounted in said cover, whereby said links will be selectively moved into and out of engagement with said buttons in a parallel linear pattern to selectively depress said buttons when said stem is oscillated.

2,872,553
MECHANICAL STOP FOR POTENTIOMETERS
Lester N. Hatfield, Flushing, N. Y., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware
Application September 19, 1955, Serial No. 535,195
1 Claim. (Cl. 201—48)



In a potentiometer of the type having an arcuate resistive element for contact by a wiper arm, the combination comprising a front bearing support having an opening therethrough, an actuator shaft positioned for rotation within said opening, a wiper arm mounted on said actuator shaft, a shaft stop plate between said wiper arm and said front bearing support, said shaft stop plate mounted on said actuator shaft for rotation with said shaft, a floating plate between said shaft stop plate and said front bearing support, said floating plate loosely mounted on said actuator shaft to permit free rotation of said shaft with respect thereto and having a pair of spaced independent stop elements projecting from one face at different angular positions and a single stop element projecting from its other face, and stop members on said stop plate and said front bearing support for coacting respectively with the stop elements projecting from the opposite faces of said disc.

2,872,554
ELECTROMAGNETIC CARBON-PILE REGULATORS
Andrew Stamberger, Brockley, London, England, assignor to J. Stone & Company (Deptford) Limited, Deptford, London, England
Application October 22, 1956, Serial No. 617,557
Claims priority, application Great Britain October 22, 1955
5 Claims. (Cl. 201—51)



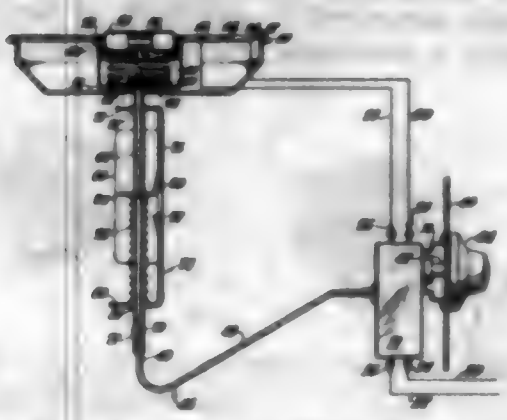
1. An electromagnetic carbon-pile regulator comprising a dashpot provided with a fixed-aperture vent, and further pressure-relief means for automatically relieving pressure inside the dashpot during operation of the regulator in one direction.

2,872,555

TEMPERATURE RESPONSIVE CONTROL DEVICE

Arnold A. Winslow, Greensburg, Pa., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

Application October 15, 1956, Serial No. 616,064
7 Claims. (Cl. 219—20)



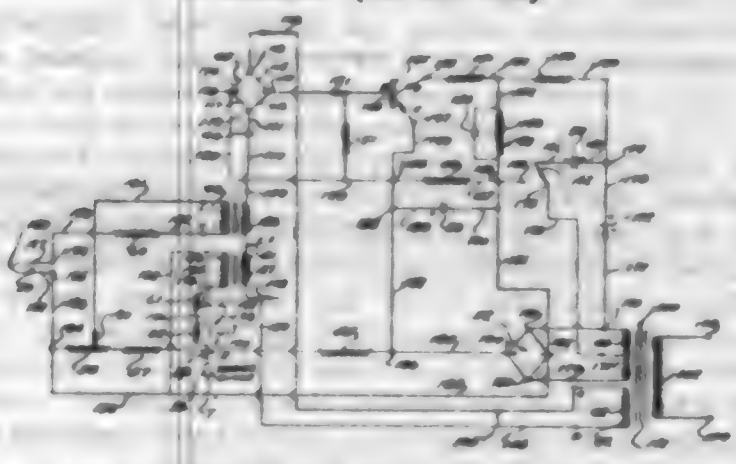
1. A control device for a heating appliance having a heater for heating a container, said device comprising a thermal sensing element adapted to be positioned adjacent the heater to contact the container, a capillary tube connected to said sensing element and having a coiled portion and a straight portion, a shield for said sensing element, a hollow rod secured to said shield for movement therewith, said coiled and straight portions of said tube being disposed in said shield and said rod respectively, locking means on said straight portion engaging said hollow rod to prevent relative movement between said straight portion and said hollow rod, a relatively stationary member having guide means to receive said hollow rod and direct its movement, a collar secured to said hollow rod, and yieldable means on said hollow rod engaging said collar and said stationary member to bias said hollow rod upwardly whereby said shield and said sensing element are adapted to be retained in surface alignment to contact the container.

2,872,556

HEATER CONTROL CIRCUITS

Alfred A. Obermaier, Park Ridge, Ill., assignor to Illinois Testing Laboratories, Inc., Chicago, Ill., a corporation of Illinois

Application July 23, 1957, Serial No. 673,647
10 Claims. (Cl. 219—20)



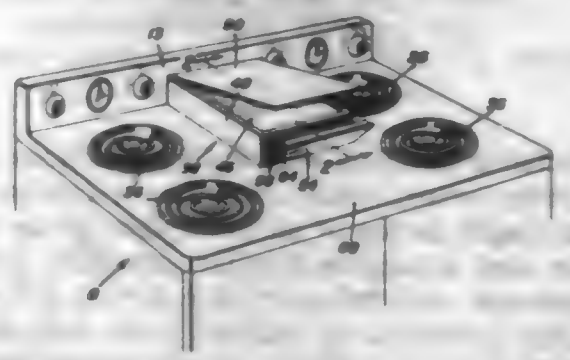
1. A heater control system comprising a heater, a temperature responsive element subjected to the temperatures produced by the heater, a saturable iron core reactor having windings energized by alternating current for producing a predetermined flux in the core reactor, said core reactor having a biasing winding, a control winding, a rectifier energized from the output of said core reactor, and a transistor having its base and emitter energized by said rectifier, said transistor having a collector connected to the winding of a control relay, the output of said transistor being normally insufficient to actuate said relay, and a condenser connected across the coil of said relay and connected to a rectifier to be charged by the output circuit sufficiently so that when it discharges through the relay coil its output is sufficient to actuate the relay and hold the relay energized during the period the control signal persists.

2,872,557

AUXILIARY OVEN FOR ELECTRIC STOVES

Clio M. Thresher, Angola, Ind.

Application January 7, 1957, Serial No. 632,791
2 Claims. (Cl. 219—35)



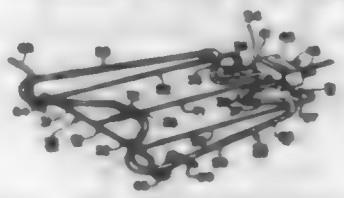
1. In combination, a stove having an exposed top wall equipped with accessible burners, and an auxiliary economy-type insulated oven operatively superimposed atop a limited areal portion of said top wall in a space and position out of the way of said burners but at a point of vantage and readily accessible, an underlying portion of said top wall constituting the bottom of said oven, said oven having a hingedly mounted easily accessible front wall serving as a door, the top wall of said oven comprising a flat heat absorbing and radiating plate suitably usable as an article supporting and warming surface, and a hinged top portion serving as a cover for said top wall.

2,872,558

OVEN HEATING APPARATUS

George E. Price, Mansfield, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application January 16, 1957, Serial No. 634,488
4 Claims. (Cl. 219—35)

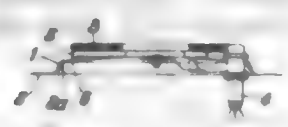


1. A heater assembly for an oven comprising a tubular sheathed electrical resistance heater, said heater being formed in a flat loop having two front corners and two rear corners, an electrical connector secured to said heater for making electrical connections thereto, a portion of said loop between said front corners being formed inwardly toward the center of said loop, a U-shaped wire member having its open end disposed adjacent the front of said loop and its closed end engaging the underside of said heater adjacent said rear corners to support the latter, the closed end of said U-shaped member being bent to provide downwardly extending feet engageable with the bottom wall of the oven, a cross member connected across the open end of said U-shaped member, said cross member having a central portion extending beneath the inwardly bent front portion of the heater, said cross portion being formed with spaced downwardly projecting feet engageable with the bottom wall of the oven, the end portions of said cross member being bent upwardly inside the front corners of said heater and then laterally outwardly thereabove, the outwardly projecting ends of said cross member being engageable with the side walls of the oven to centrally locate the front end of said heater therebetween.

2,872,559
DESIGN AND ARRANGEMENT OF ELECTRIC HOT-PLATES FOR ELECTRIC OVENS

Alfons Andreas Leicht and Todor Bakaloff, Pfungstadt, Hesse, Germany, assignors to Ettra KG Leicht & Trambauer, Pfungstadt, Hesse, Germany, a corporation of Germany

Application April 16, 1956, Serial No. 578,212
1 Claim. (Cl. 219—37)

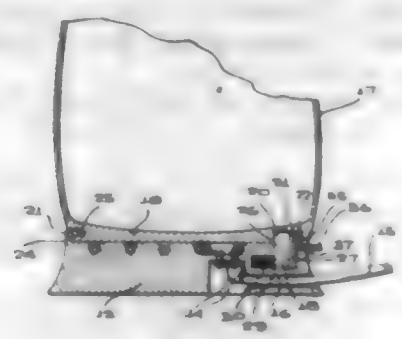


A radiation hot-plate with fixed connections, especially for electric ovens, which comprises a circular reflector plate arranged on top of an oven plate having a circular aperture and a peripheral collar extending upwardly of said aperture, said reflector plate having a downwardly depending peripheral lip adapted to fit over said collar, said reflector plate overlying the circular aperture including the collar, a heating element disposed above said reflector plate, means for supporting said heating element in spaced relationship with said reflector plate, and means for raising and lowering said heating element and for swinging the same away from said reflector plate in a horizontal plane about its connection to the source of supply, said means including a vertical bar adjacent the edge of said reflector plate.

2,872,560
COFFEE PERCOLATOR

Glen A. Bowles, Winston, Oreg.

Application November 1, 1957, Serial No. 693,945
2 Claims. (Cl. 219—43)



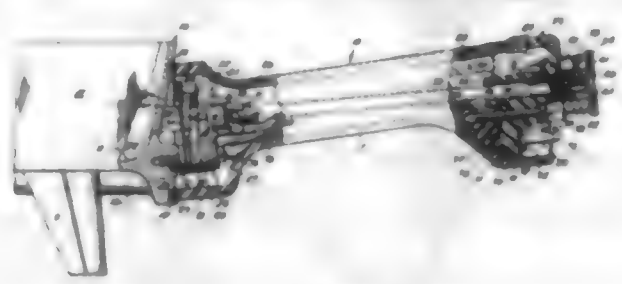
1. In a beverage making device, a base, an electric heating element mounted in said base, a beverage receptacle, the bottom of said receptacle being formed with a plurality of locking recesses having horizontal upper portions, upstanding means on said base having horizontal lug elements lockingly interengageable in said horizontal upper portions of the locking recesses and including an upstanding latch element slidably mounted in said base, and spring means biasing said latch element toward locking engagement in its locking recess.

2,872,561
ELECTRIC FRY PAN

Warren A. Humphrey, Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application April 26, 1956, Serial No. 580,938
6 Claims. (Cl. 219—44)

1. An electrically heated fry pan comprising, a fry pan body, an electrical heating element associated therewith, an adjustable thermostatic switch for controlling the temperature of said body, said thermostatic switch being mounted on the side of said body adjacent the terminals of said heating element and in good heat transfer relation to said body and having a rotary adjusting element, a hollow handle having an enlarged inner end removably attached to said body with said large inner end surrounding said thermostatic switch, a watertight seal between said large inner end of said handle and said body, a control shaft drivingly attached to said rotary adjusting element and extending through said hollow handle, a control knob drivingly connected to said shaft at the outer end of said handle, a watertight seal between said shaft and

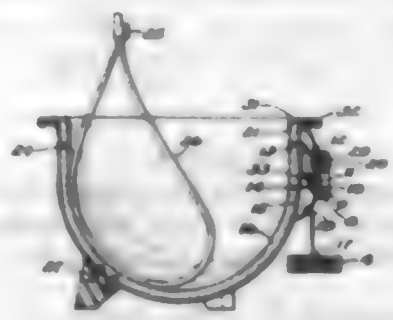


handle inwardly of said control knob, electric terminals secured to the outer end of said handle and being electrically connected by conductors extending through the hollow of said handle to said thermostatic switch and heating element, and sealing means between said terminals and the interior of said handle to prevent the entrance of water into the interior of said handle whereby the entire pan may be immersed during cleaning operations.

2,872,562
COOKING UTENSIL

Jack McNamara, Swisher, Iowa

Application September 17, 1956, Serial No. 610,349
1 Claim. (Cl. 219—44)



A combination cooking and mixing bowl comprising, a hemispherical shaped body portion, legs mounted on the body portion, an inner liner mounted within the body portion, heating elements mounted between the liner and the body portion, insulation material mounted between the body portion and the liner, an extension attached to the body portion, a threaded collar attached to the extension, a water-proof cap detachably connected to the collar, a thermostat within the extension, an electrical plug with one side connected to the thermostat and the other side connected to one side of the heating element, the other side of the heating element connected to the thermostat, and a temperature control knob connected to the thermostat and extending into the collar.

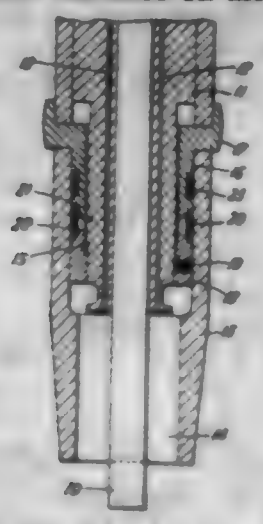
2,872,563
NOZZLE SECURING MEANS

Dennis Albert Thorp and Alfred Edward Usher, Middlesex, England, assignors to The British Oxygen Company Limited, a British company

Application November 8, 1957, Serial No. 695,414
Claims priority, application Great Britain November 14, 1956
6 Claims. (Cl. 219—75)

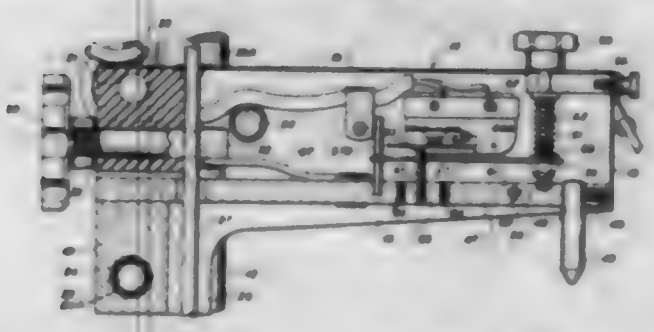
1. In a torch assembly for gas shielded arc welding, the combination of a torch body, a radially expansible gripping member mounted on said body, a nozzle member

having a plain bore encircling said gripping member, and an operating member mounted on the body for movement



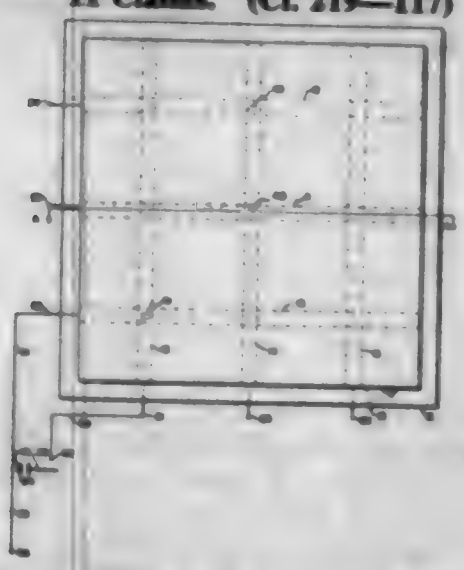
thereon to expend the gripping member into frictional engagement with the nozzle.

2,872,564
WELDING APPARATUS
Armand F. Du Freane and Franklin H. Page, Jr., Arcadia, Calif., assignors to Du Pa Co., Inc., Arcadia, Calif., a corporation of California
Application July 26, 1954, Serial No. 445,876
13 Claims. (Cl. 219—86)



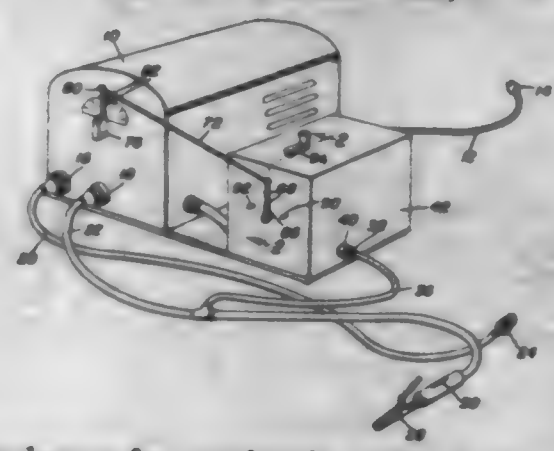
1. In a spot welder, the combination comprising a first electrode, a carrying head movable with respect to the first electrode, a second electrode displaceably mounted on the head, means for moving the head so that the two electrodes contact opposite sides of a piece of work disposed between them and the second electrode is displaced with respect to the head, a circuit for supplying current to the electrodes, and means operatively responsive to the displacement of the second electrode for controlling the circuit.

2,872,565
WELDING METHOD
Robert B. Brooks, St. Louis Park, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application April 28, 1955, Serial No. 504,543
11 Claims. (Cl. 219—117)



1. In the assembly of electrical circuits wherein printed wiring is used, the method of interconnecting two or more individual circuits at intersections of conductors included in the several circuits which comprises the placing of a thin dielectric material between the several circuits and applying a pulse of electrical energy, across the extremities of said conductors, to cause said dielectric material to break down and allow current to flow so as to effect a permanent welded bond between said conductors.

2,872,566
CONTROL FOR ARC WELDERS
Alexander Leppala, Watton, Mich.
Application September 11, 1956, Serial No. 609,206
1 Claim. (Cl. 219—132)

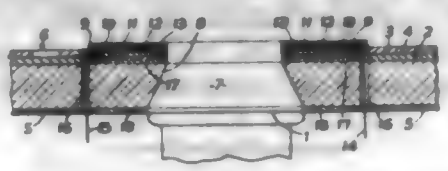


An attachment for an electric welder that has a control thereon, said attachment comprising a casing, a reversible electric motor in said casing, a switch arranged in circuit with said electric motor to operate said motor in either direction, a shaft mounted for rotation in said casing and having an end protruding therefrom, an arm fixed to said shaft, a link, means for connecting said link to said arm in selected positions on said arm, said link being connected to an amperage control whereby upon actuation of said arm the travel of said amperage control may be selected, mechanical means drivingly connecting said electric motor with said shaft, manually operable means carried by said casing and operatively connected with said shaft for overriding said motor in order to manually select a setting of said amperage control, the welder having a cable extending therefrom, a welding rod holder operatively connected on said cable, said switch being carried by said welding rod holder, an electrical conductor extending from said switch in said welding rod holder to said motor in said casing, said mechanical means including a first gear on said shaft, a spindle intermediate said shaft and said motor, an intermediate gear on said spindle meshed with said first gear, a first pulley on said spindle, an axle projecting from said motor, a second pulley on said axle, a belt disposed about and drivingly engaging said first and second pulleys whereby a drive between said motor and said shaft is provided, said manually operable means including a second gear on said shaft, a drive gear meshed with said second gear, a crank connected to said drive gear for actuating the latter and thus turning said shaft whereby said first gear drives said intermediate gear which causes said first pulley to turn and slip beneath said belt so that said manually operable means may override the motor.

2,872,567
INSTRUMENT PANEL ILLUMINATOR
John William Strange, London, England, assignor to Thorn Electrical Industries Limited, London, England
Application December 20, 1955, Serial No. 554,328
Claims priority, application Great Britain December 24, 1954
13 Claims. (Cl. 240—8.16)

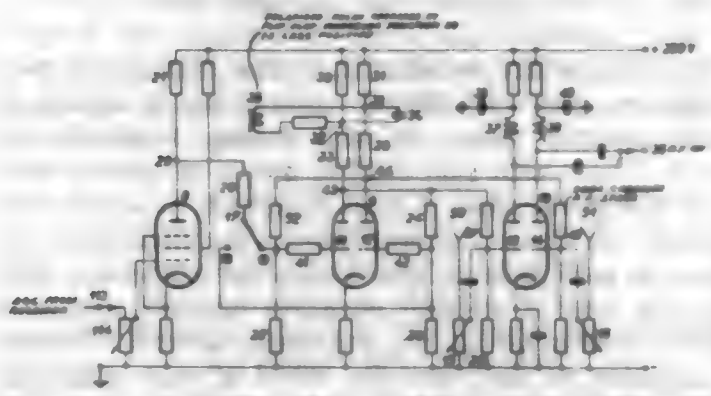
1. A panel comprising an apertured body of light-transmitting material, and an electroluminescent lamp disposed on the front surface of the panel at the edge of the aperture to direct the light emitted thereby into the

panel for the illumination of a member associated with the panel, the lamp including three layers, the first of said three layers being nearest the front face of the panel and being a light transmitting conductive electrode, the



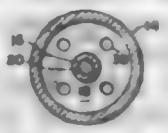
second of said three layers being a light producing layer of electroluminescent material intermediate the first and third of said three layers, and the third of said three layers being a conductive electrode superimposed on the said light producing layer.

2,872,568
DEVICE FOR SELECTIVE RECEPTION OF ELECTROMAGNETIC WAVES
Josef Provaz, Prague, Czechoslovakia, assignor to Tesla, narodni podnik, Prague, Czechoslovakia, a corporation of Czechoslovakia
Application April 21, 1954, Serial No. 424,697
Claims priority, application Czechoslovakia April 30, 1953
2 Claims. (Cl. 250—20)



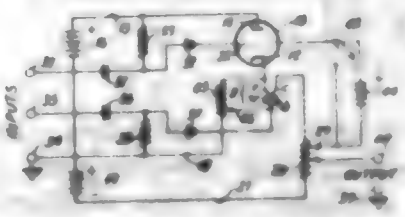
1. In a dual diversity receiving system; the combination of two different aerials having connecting stages, a receiver having a negative automatic gain control potential and common input means from said connecting stages, means including a combination of polarised relays and a flip-flop circuit, said polarised relays having two stable positions and at least one pair of fixed contacts connected to the control grids of said flip-flop circuit, and at least one moving contact connected at any instant to one of said fixed contacts, the windings of said polarised relays being connected between the anode circuits of the tubes of said flip-flop circuit so that the control voltage developed from said automatic gain control potential of the receiver is led, at any instant, to the control grid of the then conductive tube of said flip-flop circuit, each tube of said flip-flop circuit having a resistance for developing a voltage drop dependent on the anode current of the tubes of said flip-flop circuit, and means coupled to said resistance for controlling the connecting stages of said aerials by means of said voltage drop.

2,872,569
ANTENNA-DETECTOR COUPLING UNIT
Charles H. Bredall, Pacific Palisades, Calif.
Application September 16, 1955, Serial No. 534,900
2 Claims. (Cl. 250—20)
(Granted under Title 35, U. S. Code (1952), sec. 266)



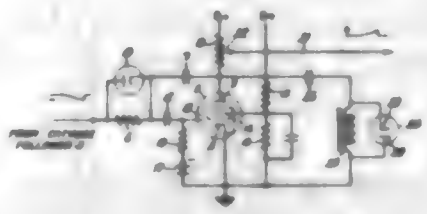
1. A compact antenna-detector unit comprising a tubular housing formed of electrically-conductive material; a transverse partition wall intermediate the ends of said housing; an antenna stub supported at least in part by said partition wall and positioned to one side thereof in longitudinal axial alignment with said housing, that portion of said housing lying to the same side of said partition wall as said antenna stub acting as a first quarter-wave choke at the frequency of the carrier energy to be received by said antenna stub, the said partition wall being located at a point of high carrier current and low impedance; a crystal detector positioned on the opposite side of said partition wall from said antenna stub and in axial alignment with said tubular housing; a hollow cylindrical filter acting as a second quarter-wave choke located between said crystal detector and said housing and in coaxial alignment with the latter, the said partition wall being likewise located at a point of high current and low impedance with respect to the detected energy; and means to electrically couple said antenna stub to said crystal detector, said coupling means including at least one opening spaced intermediate said axially-aligned antenna stub and the inner surface of said tubular housing and extending through said partition wall, whereby power transfer between the said antenna stub and said crystal detector is achieved through a sharing by these sections of said unit of the mutual impedance presented by said partition wall.

2,872,570
ELECTRONIC AMPLIFIER
Arthur H. Dickinson, Greenwich, Conn., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application August 3, 1950, Serial No. 177,447
26 Claims. (Cl. 250—27)



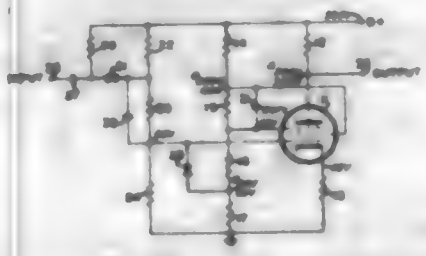
26. A bistable trigger circuit which has a low-current and a high-current quiescent position comprising a transistor device having a plurality of electrodes; a resistor connected to one of said electrodes; a biasing circuit arrangement connected to all of said electrodes; and a holding circuit connected to said one electrode having an asymmetrically conducting impedance device and a holding source.

2,872,571
WAVE FORMING CIRCUIT
Charles E. Lenz, Omaha, Nebr., assignor to General Electric Company, a corporation of New York
Application August 24, 1953, Serial No. 376,192
5 Claims. (Cl. 250—27)



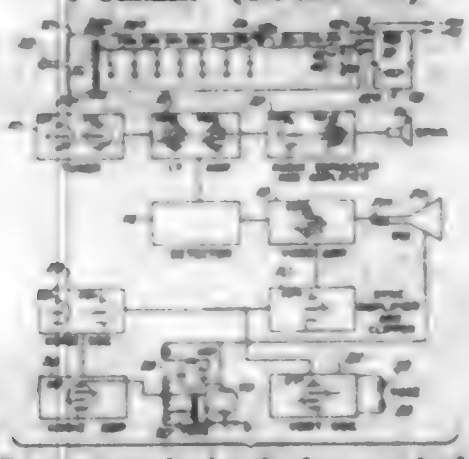
5. A self-resetting integrating circuit comprising, a charging condenser connected as an integrating element in an amplifier circuit; an inductance connected to be responsive to a given rate of change in a given direction of the charge on said condenser for inducing a voltage, and means responsive to said induced voltage for increasing said rate of change in said given direction.

2,872,572
BISTABLE CIRCUIT
James L. Burrows, Natick, Mass., assignor to Laboratory for Electronics, Inc., Boston, Mass., a corporation of Delaware
Application October 28, 1953, Serial No. 388,890
7 Claims. (Cl. 250—27)



1. A bistable electronic circuit comprising, a pentode electron tube having a cathode, plate, and control, screen and suppressor grids, means for applying unipolar trigger signals to said control grid for switching stable states, means including a capacitor coupling said screen and suppressor grid, and means including a normally non-conducting unilateral circuit element for coupling said control grid to said suppressor grid to apply alternate trigger signals to the latter.

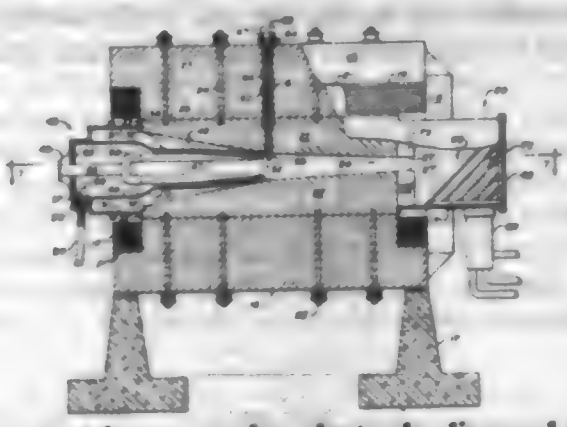
2,872,573
TV RECEIVER CIRCUIT
Rex C. Wilson, Glenview, Ill.
Application October 13, 1955, Serial No. 540,245
7 Claims. (Cl. 250—27)



7. An off-on control circuit for a television receiver or the like having a plurality of tubes with heaters, anodes, and cathodes and energized from an electric power source, the circuit comprising: means connecting the heaters to define an energizing circuit having two terminals between which the major portion of the voltage of the power source is required for normal operation; a voltage dividing means connected to said power source and having a tap to produce said major portion of the voltage when measured to one end of the voltage dividing means; means connecting one terminal of said energizing circuit to the tap; a switch selectively operable to "on" position connecting the other terminal of the energizing circuit to the other end of said voltage dividing means for standby operation; and means to produce cathode-anode space path voltage for said tubes, said last means being connected across said other end of the voltage dividing means and said other terminal of the energizing circuit.

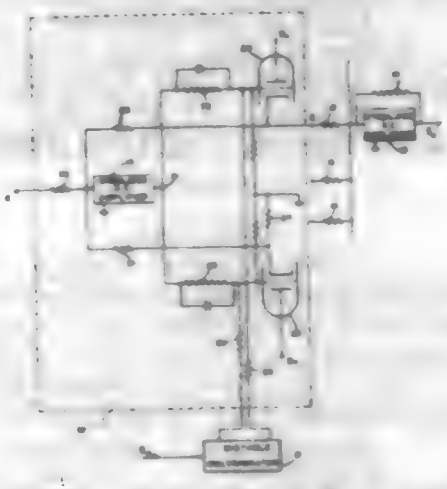
2,872,574
CLOVERLEAF CYCLOTRON
Edwin M. McMillan and David L. Judd, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application April 12, 1956, Serial No. 577,906
11 Claims. (Cl. 250—27)

1. In a cyclotron the combination comprising coaxial cylindrical magnet poles spaced apart to form a magnet gap, the proximal faces of said magnet poles having a nonplanar contour characterized by depressed sectors alternated with elevated sectors, the magnitude of said depressions and elevations increasing with radius, vacuum wall means sealing said magnet gap from external atmosphere, a source unit emitting charged particles into said



magnet gap, at least one dee electrode disposed between said magnet poles at an azimuthal position corresponding to one of the depressed sectors of said magnet pole faces, and electrical oscillator means energizing said dee electrode to produce an alternating electric field within said magnet gap.

2,872,575
ELECTRONIC SWITCH
Gunther J. Martin, Ridgefield, Conn., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas
Application July 23, 1956, Serial No. 599,533
3 Claims. (Cl. 250—27)

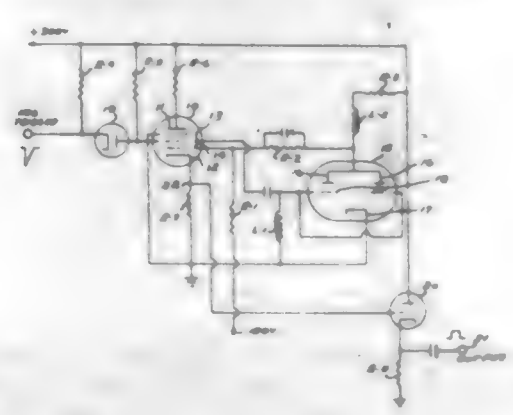


1. An electronic switch comprising: amplifier circuit means having input and output terminals for translating a signal to be switched; first and second cathode follower circuits each including an amplifying device having an anode, a control electrode, and a cathode; circuit means for coupling each of said control electrodes to the output terminal of said amplifier circuit means; first and second cathode impedances coupled between the cathodes of the respective amplifying devices and points of fixed reference potential; first and second feedback circuit means coupled between the cathodes of the respective amplifying devices and the input terminal of said amplifier circuit means; and circuit means for alternately biasing the amplifying devices to a nonconductive condition thereby to cause the signal to alternately appear at one or the other of the cathodes of the respective amplifying devices.

2,872,576
PULSE FORMING CIRCUIT
Joseph Frank Brumbaugh, Benton Harbor, and Allen H. Retzlaff, Watervliet, Mich., assignors to the United States of America as represented by the Secretary of the Air Force
Application May 28, 1957, Serial No. 662,305
5 Claims. (Cl. 250—27)

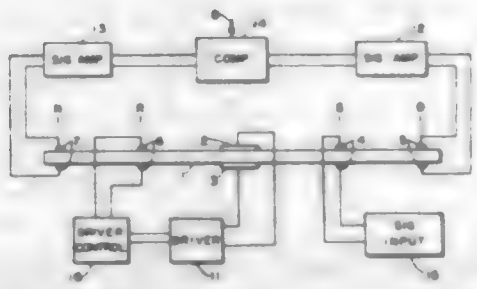
1. A pulse forming circuit comprising: a first tube which is normally nonconducting having an anode, a

cathode, a control grid and a screen grid, a second tube which is normally conducting having an anode, a cathode and a control grid, means for connecting the screen grid of said first tube to the control grid of said second tube, means for applying a negative trigger to the control grid of said second tube to thereby cut it off, means to apply the output of said second tube to the control grid of said



first tube to allow it to conduct when said second tube is cut off, a coil connected between the control grid and cathode of said second tube means for shock exciting said coil intb oscillation whereby said second tube is caused to start conducting by the first positive going voltage due to said oscillation, a cathode follower output circuit and means for applying the output of said first tube to said cathode follower.

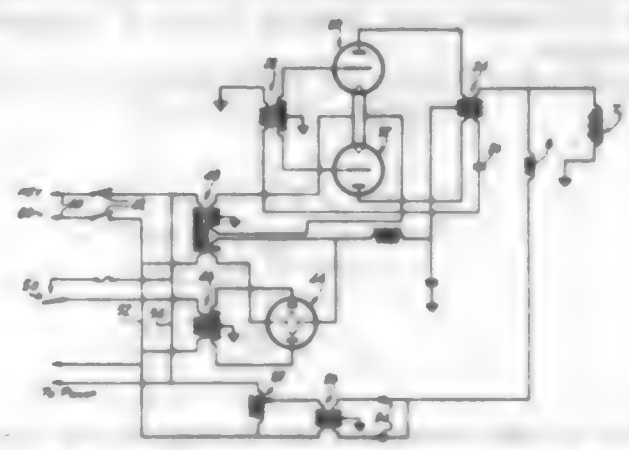
2,872,577
HIGH FREQUENCY INTEGRATING SIGNAL DETECTOR
Robert W. Hart, Lynn, Mass.
Application August 13, 1956, Serial No. 603,850
7 Claims. (Cl. 250—31)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An integrating signal detector comprising, a piezoelectric bar, means for establishing an alternating electric field across a driver volume of said bar, said bar including elongate portions extending from opposite sides of said driver volume, piezoelectric potential detecting means mounted on each of said portions adjacent the free end thereof, means for injecting a signal to be detected at a point on said bar intermediate said driver volume and one of said piezoelectric potential detecting means, and comparator means coupled to said detecting means, said comparator means being responsive to the difference in piezoelectric potentials detected by said detecting means.

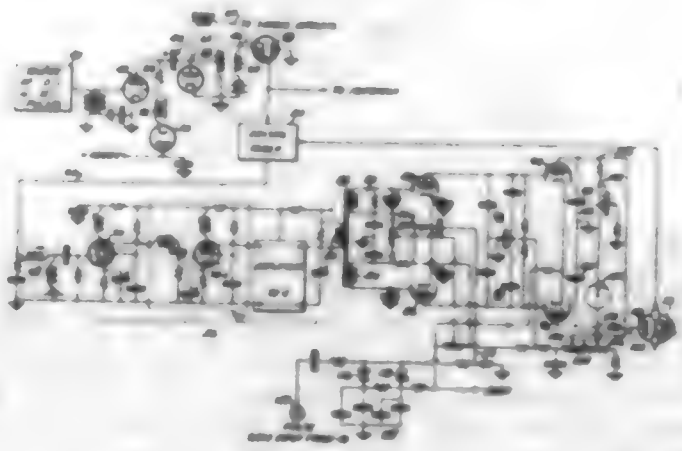
2,872,578
ELECTRO-MECHANICAL RESONANT SYSTEM
Jack Kaplan, Brooklyn, and Frank T. Turner, Hampton Bays, N. Y.
Application October 25, 1954, Serial No. 464,520
12 Claims. (Cl. 250—36)

1. An electro-mechanical resonant system comprising a source of electrical power, a magnetostrictive transducer having an energizing winding connected to said source for receipt of bias current therefrom, an amplifier energized from said source and having input and output terminals,



an output transformer having primary and secondary windings, the primary winding of said output transformer being connected across the output terminals of said amplifier, means coupling the secondary of said output transformer to the energizing winding of said transducer, and feedback and phase shifting means for impressing across the input terminals of said amplifier a voltage varying with the current through the winding of said transducer to cause oscillation of the system substantially at resonance.

2,872,579
FREQUENCY CONTROL
Harry Kihn, Lawrenceville, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 1, 1955, Serial No. 491,306
11 Claims. (Cl. 250—36)



1. A frequency control arrangement comprising, in combination, a source providing radio frequency pulses having a center frequency and pluralities of sideband frequencies on opposite sides of said center frequency; means coupled to said source for equally amplifying solely certain of said sideband frequencies on opposite sides of said center frequency equally spaced from said center frequency; and means coupled to said last-named means and to said source for deriving from said amplified sideband signals a control signal for controlling the frequency of said source.

2,872,580
NEGATIVE RESISTANCE OSCILLATOR
Leopold A. Horowitz, Erlton, and Richard W. Sonnenfeldt, Haddonfield, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application June 27, 1955, Serial No. 518,172
8 Claims. (Cl. 250—36)

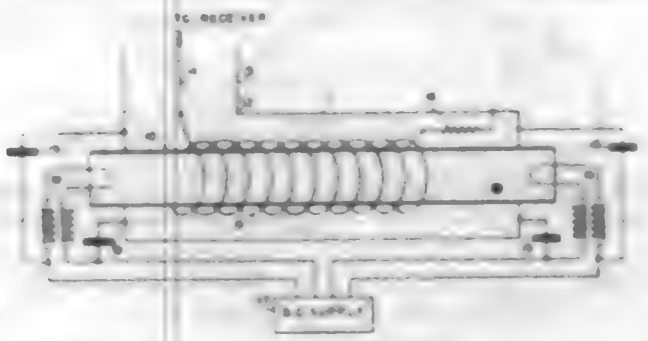
1. A negative resistance oscillator comprising, a vacuum tube including a cathode, a first grid, a second grid, a third grid and a fourth electrode spaced from said cath-

ode in the order named, a tuned circuit connected across said first and third grids, a grid return resistor connected from said first grid over a direct current path to said cathode to maintain said first and third grids at a negative



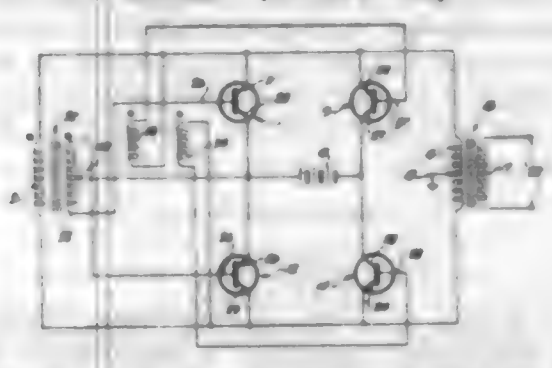
potential with respect to said cathode, and a source of unidirectional potential having a negative terminal connected over a direct current path to said cathode and having a positive terminal connected to said second grid and said fourth electrode.

2,872,581
BROADBAND NOISE SOURCE
Irving H. Page, Washington, D. C., and Hill Montague III, Alexandria, Va.
Application October 6, 1955, Serial No. 539,838
11 Claims. (Cl. 250—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



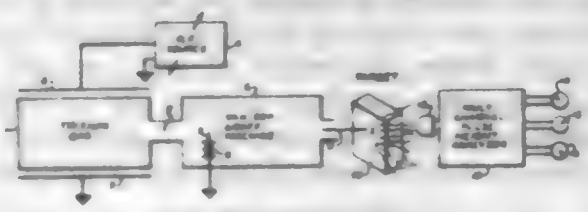
3. A random noise source having a constant output impedance over a broad band of frequencies comprising, a coaxial line section having an inner and outer conductor, an elongated gaseous discharge envelope coaxially disposed within said line section, the inner conductor of said line being in the form of a helix surrounding at least a portion of said elongated envelope, one end of said inner and outer conductors forming the output terminal of said noise source and the other end being terminated in the characteristic impedance of the line section.

2,872,582
CURRENT CONVERTER
Clyde J. Norton, Los Angeles, Calif., assignor to Transval Engineering Corporation, Culver City, Calif., a corporation of California
Application November 26, 1957, Serial No. 698,977
6 Claims. (Cl. 250—36)



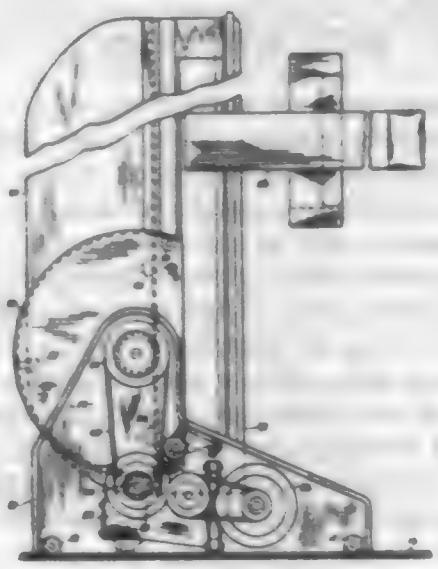
1. A system for converting direct current into alternating current comprising a transformer having a primary and a secondary winding, a first and a second input terminal adapted to have a direct current impressed thereon, first switching means for selectively directly connecting said first input terminal to a first terminal of said primary winding, second switching means for selectively directly connecting said second input terminal to the second terminal of said primary winding, third switching means for selectively directly connecting said second input terminal to said first terminal of said primary winding, fourth switching means for selectively directly connecting said first input terminal to said second terminal of said primary winding, and control means coupled to said transformer and to said switching means for alternately and cyclically closing in unison said first and second switching means and for closing in unison said third and fourth switching means, whereby an alternating current is developed across said secondary winding in response to the application of a direct current to said input terminals.

2,872,583
HYDROGEN CONTENT ANALYSES
George E. Owen, Baltimore, Md., assignor to Nuclear Corporation of America, Inc., New York, N. Y., a corporation of Michigan
Application June 5, 1956, Serial No. 589,531
5 Claims. (Cl. 250—43.5)



5. A method for quantitatively determining the hydrogen content of a specimen comprising generating tritons at a predetermined average rate, forming the tritons into a beam of known average energy content directed toward the specimen and determining the rate of generation of gamma rays having energies of approximately 23 m. e. v.

2,872,584
X-RAY APPARATUS
Ralph C. Schiring, Shaker Heights, and Oswald C. Hollstein, Cleveland, Ohio, assignors to Picker X-Ray Corporation, Waite Mfg. Div., Inc., Cleveland, Ohio, a corporation of Ohio
Application December 27, 1955, Serial No. 555,537
12 Claims. (Cl. 250—55)



1. An X-ray tilt-table comprising, a pedestal base, a table body adapted to be rotatably supported at one side on the pedestal base for tilting movement in either direction, table-tilting means operably supported on the pedestal base adjacent said one side of the table body, said table-tilting means including a driven member mounted for rotation on the tilt axis and having a plurality of spaced table supporting members engaging the table body adjacent the top and bottom of said one side, and means co-acting with said tilting means to simul-

taneously move the table body along said table supporting members and transverse relative to the tilt axis to maintain clearance between the floor and the table movement throughout the tilting movement in either direction.

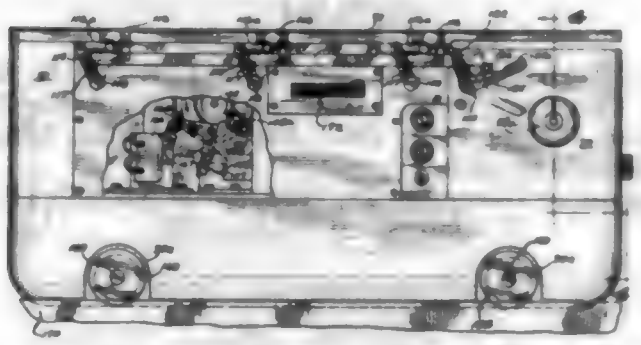
11. In an X-ray apparatus having an enclosed table frame supporting a carriage for longitudinal movement below the table top and provided with a longitudinal access opening along one side, a mechanism for automatically closing the portion of the opening exposed when the carriage is positioned towards either end of the table comprising, a pair of similar elongated plate members disposed in end to end relation overlying the table opening and having their adjacent ends overlapping in side by side relation adjacent the center of the table, a plurality of links spaced lengthwise along each plate member and each link having one end pivotally connected to the corresponding plate member and the other end pivotally connected to the table frame below the table opening, thereby permitting each plate member to be depressed below the table opening, resilient means independently coacting between the table frame and each plate member to urge the plate members upwardly in overlying relation over the table opening, and roller means carried by said carriage and adapted to engage the top edge of said plate members as the carriage is positioned longitudinally within the table frame, the weight of said carriage coacting through said roller means to depress one or both of said plate members when the carriage is positioned towards either end or at the center of the table respectively.

2,872,585

DEVICE FOR RAPIDLY MAKING X-RAY PICTURES

Karl J. Kallenberg and Robert Sardeson, Minneapolis, Minn., assignors to Pako Corporation, Minneapolis, Minn., a corporation of Delaware

Application July 5, 1955, Serial No. 519,794
20 Claims. (Cl. 250—66)



1. A machine used in connection with an X-ray apparatus for rapidly making X-ray films having in combination, a relay which is energized during the exposure period by current from a conductor forming part of said X-ray apparatus, a pair of contacts on said relay which are engaged when said relay is energized, means for moving a continuous strip of film between exposure periods to present a portion of unexposed film to said apparatus including a rotatable shaft, a second means for stopping said rotation of said shaft during said exposure period for rendering said means inoperative during the exposure period, and an electrical circuit closed by engagement of said pair of contacts for actuating said last mentioned means.

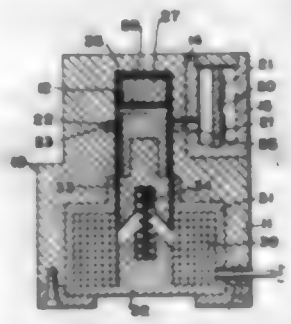
2,872,586

ELAPSED TIME INDICATOR

Andrew P. Papanek, Shaker Heights, Ohio, assignor to Jack & Heintz, Inc., Cleveland, Ohio, a corporation of Delaware

Application August 15, 1955, Serial No. 528,223
9 Claims. (Cl. 250—106)

1. An elapsed time indicator comprising a radioactive material, radiation receiving means having a characteristic which is permanently changed in accordance with the total amount of radiation that it receives from said radioactive material disposed to be subjected to radiation from said radioactive material, movable shielding means for blocking the passage of radiation from said radio-



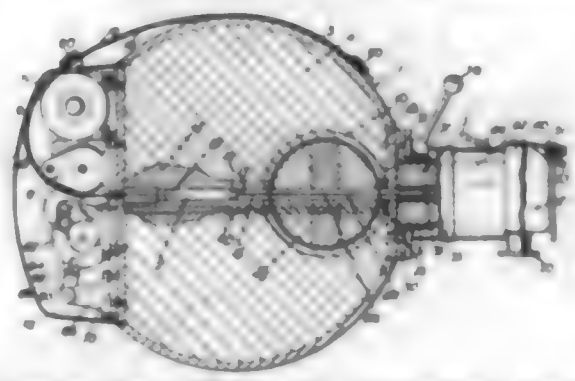
active material to said radiation receiving means and movable to a position permitting the passage of radiation, means for moving said shielding means, and means for indicating the amount of radiation received by said radiation receiving means.

2,872,587

RADIOACTIVE SOURCE APPARATUS

Stephen Stein, London, England

Application October 17, 1956, Serial No. 616,574
Claims priority, application Great Britain October 21, 1955
15 Claims. (Cl. 250—106)



1. Apparatus for utilising the emanations from radio active sources for medical therapy and other purposes, said apparatus comprising a main body for containing a radio-active source and shielding same in a completely safe manner when it is not being used in treatment, a neck member mounted on said main body, an applicator head carried by said neck member and into which the source may be moved when it is required for use in treatment, said applicator head being adapted to shape emanations from the source into a beam and to direct same in a desired direction and also being rotatable about the neck member, means for clamping the applicator head with respect to the neck member in any position to which it has been rotated, a shielded conduit along which said source will pass in moving from its shielded position in the main body to the applicator head and vice versa, said conduit passing through said neck member, shutter means in said main body for closing said conduit and shutting off the source from the neck and applicator when the source is disposed in its shielded position in the main body, and an operating mechanism mounted on said main body and adapted to effect the opening and closing of said shutter means and to move the source from the main body to the applicator head and vice versa.

2,872,588

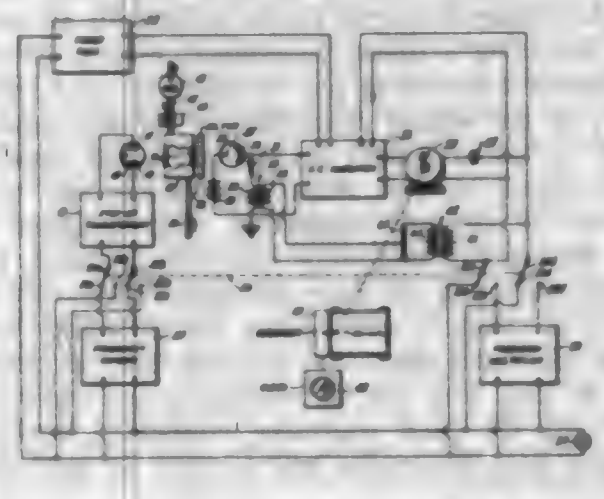
ANALYZER

Hugh M. Barton, Jr., Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application November 16, 1953, Serial No. 392,077
15 Claims. (Cl. 250—210)

1. An analyzer comprising a gas filled tube having a pair of spaced electrodes therein, means for applying

an alternating potential of a first frequency across said electrodes, a radiation detector disposed in the path of radiation emitted from said tube, a two phase induction servomotor, means responsive to said detector to apply a first signal to the first input of said motor of the same frequency as the frequency of the radiation impinging



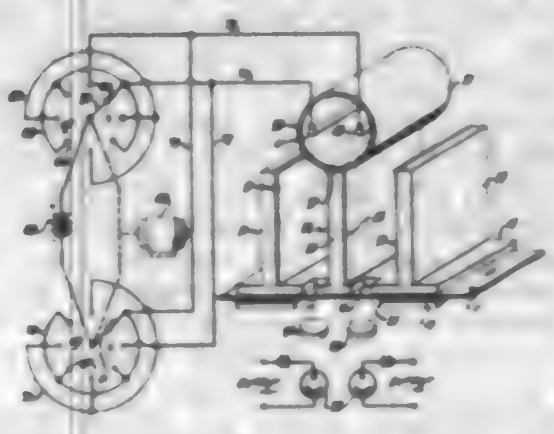
on said detector, means to apply a second signal to the second input of said motor which is of a frequency twice said first frequency, and means under control of said motor to vary the magnitude of the signal applied to the first input of said servomotor until rotation of said motor in terminated.

2,872,589

OPTICAL READING DEVICE

Donald D. Sitter, San Jose, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application January 11, 1957, Serial No. 634,683
8 Claims. (Cl. 250—217)



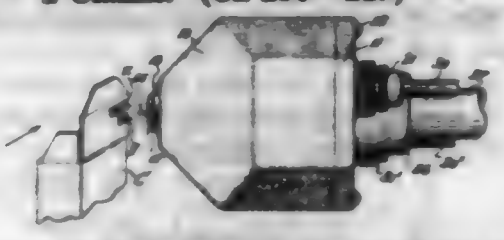
1. A sensing device comprising a platen having a pair of adjacent sensing apertures therein across which a marked record element is adapted to be moved, a barrier divider extending outwardly from the platen in a direction normal thereto, a light-producing tube supported with its tubular wall substantially adjacent to the barrier at its outer end, said light-producing tube having a pair of electrode elements therein so supported and arranged relative to the barrier that the electrode elements are carried at opposite sides of the barrier center so that each electrode element is located in a direct optical path relative to the aperture located upon the same side of the barrier and so that the barrier interrupts a direct light path between tube electrodes and apertures on opposite sides thereof, means to excite the light-producing tube alternately to initiate illumination in a region confined generally to the immediate area of one electrode to the exclusion of the other electrode whereby light from the light-producing tube alternately reaches each aperture of the pair at the selected switching rate, and means to sense the light penetrating each aperture.

2,872,590

PHOTOELECTRIC SCANNING DEVICE

William B. Leavens, Jr., Llewellyn Park, N. J., assignor to Wilkats Codes, Inc., Kearney, N. J., a corporation of New Jersey

Application November 12, 1954, Serial No. 468,299
2 Claims. (Cl. 250—219)



1. A compact photoelectric scanning unit for inspecting articles in movement relative thereto, said articles having code marks thereon arranged in adjacent parallel rows one above another, each row containing a predetermined number of marks on a contrasting surface whereby alternate dark and light portions of different light reflecting values are provided, said unit being adapted to simultaneously scan said rows of code marks, said unit comprising a casing, a plurality of photoelectric scanning systems contained within the casing, one system being disposed in a plane inclined relative to a plane intermediate said systems which is perpendicular to the plane of the code mark bearing faces of the articles to be scanned and directed toward the path of relative article movement at the level of an upper row of the article code marks, and another system being disposed in a plane oppositely inclined relative to said plane intermediate said systems and directed toward the path of relative article movement at the level of a lower row of the article code marks, said scanning systems being respectively focused in a common verticle plane perpendicular to the rows of code marks, whereby code marks of said respective rows thereof which are aligned in vertical plane are simultaneously exposed to scanning effect of said respective scanning systems, each said scanning system comprising a light directing lens system mounted in the front wall of the casing with its axis extending in the inclined plane of the system of which it forms a part, an electric lamp having an axial filament, means to support the lamp at an inclination which positions its filament perpendicular to and so as to intersect the axis line of said lens system, whereby to project an image of said filament in aligned impingement upon code marks of a row thereof moving across the light path, another lens mounted in the front wall of the casing with its axis divergent to the axis of the axis of said light directing lens system, whereby to transmit reflected light from said row of code marks, a phototube, and means to support the latter at an inclination adapted to position its axis perpendicular to the axis of said reflected light transmission lens, internal partitions dividing the interior of the casing to provide an individual chamber for the lamp of each scanning system and a common chamber for the phototube of each scanning system, whereby the phototube of one system is shielded from stray light emanating from the lamp of another system, and an external visor projecting externally from the front wall of the casing in a plane intermediate adjacent scanning systems, whereby incidences of projected and reflected light with respect to code marks of adjacent rows thereof simultaneously scanned are separated against interference.

2,872,591

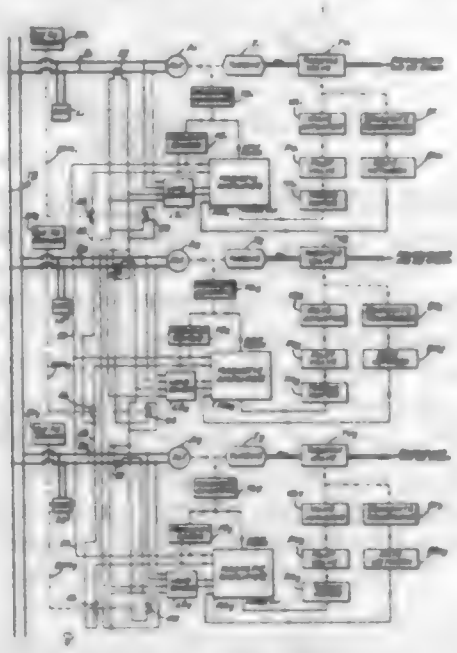
POWER EQUALIZATION APPARATUS FOR MULTIPLE ALTERNATOR SYSTEMS

Russell W. Stineman, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware

Application June 18, 1956, Serial No. 591,836
13 Claims. (Cl. 290—4)

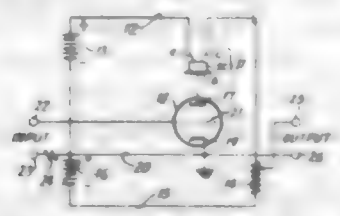
12. In a method of operating a plurality of alternators in parallel the step of increasing or decreasing prime

mover torque in accordance with both the difference between loading of the particular alternator and average loading of all the alternators, and the difference between alternator output frequency and a predetermined reference frequency, thereby to maintain equalization of real power and regulation of frequency of the alternators, and the step of varying the field excitation of the respec-



tive alternators up or down in accordance with both the difference between reactive power being delivered by the particular alternator and the average reactive power being delivered by all the alternators, and the difference between voltage of the alternators and a predetermined effective reference voltage, thereby to maintain equalization of reactive power and regulation of voltage of the alternators.

2,872,592
ELECTRONIC AMPLIFIER
Arthur H. Dickinson, Greenwich, Conn., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application August 3, 1950, Serial No. 177,446
15 Claims. (Cl. 307—88.5)



14. A circuit arrangement comprising an electron discharge device having output, cathode and grid electrodes, a transistor having emitter, collector and base electrodes, means for applying operating potentials to said electrodes including means connecting the cathode-output electrode path of said device and the emitter-base path of said transistor in a common current series path and including means to render said collector negative and said emitter positive with respect to said base, and means for applying an input signal to said grid electrode to control the amplitude of the current flow through said device and said transistor.

2,872,593
LOGICAL CIRCUITS EMPLOYING JUNCTION TRANSISTORS
Robert A. Henle, Hyde Park, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 18, 1953, Serial No. 399,094
1 Claim. (Cl. 307—88.5)

A logical circuit comprising a plurality of junction transistors, each having a body of semiconductive material including a central zone of one extrinsic conductivity type and two end zones of the opposite extrinsic conductivity type, said zones being separated by boundary junctions, a first base electrode in ohmically conductive relation with said central zone and second and third electrodes in electrically conductive relation with said end zones, said body and the boundary junctions therein providing asymmetrically conductive current paths between said second and third electrodes and said base electrode; common output circuit means for all said transistors including a linear impedance, means directly and conductively connecting one terminal of said linear impedance to the second electrodes of all the transistors in parallel, potential supply means connected between the other terminal of said linear impedance and the third electrodes of all said transistors, said potential supply means biasing the boundary junctions between the second electrodes and the base electrodes forwardly so that they act as emitters and biasing the boundary junctions between the third electrodes and the base electrodes reversely so that they act as collectors; and individual input circuits for each transistor connected between the respective base electrodes and a point in said common



output circuit means, each said input circuit comprising a source of unidirectional signal potential shiftable at times between a signal condition in which it supplies a potential having a polarity effective to send a current through said reversely biased junction in its reverse direction and through said forwardly biased junction in its forward direction, and a no-signal condition in which it supplies no potential of that polarity, each said signal source being operable independently of the other as to the times when it shifts between its signal and no-signal conditions, said base electrodes being connected only to said input circuits so that the base electrode currents are determined only by the input signal potentials and are unaffected by current flow in the common output circuit means, and signal output terminals connected to said output circuit means at points electrically associated with opposite ends of said common load impedance, said transistors cooperating to produce a predetermined signal potential at said terminals when one or more of said signal sources is in its signal condition, and to produce a no-signal potential at said terminals when and only when all signal sources are in their no-signal conditions.

2,872,594
LARGE SIGNAL TRANSISTOR CIRCUITS HAVING SHORT "FALL" TIME
Joseph C. Logue, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 31, 1953, Serial No. 401,569
1 Claim. (Cl. 307—88.5)



An electric circuit for large signal operation, comprising a transistor having a semi-conductive body, a first base electrode in ohmically conductive relation with said body, and second and third electrodes in conductive relation with said body at localities spaced from each other and

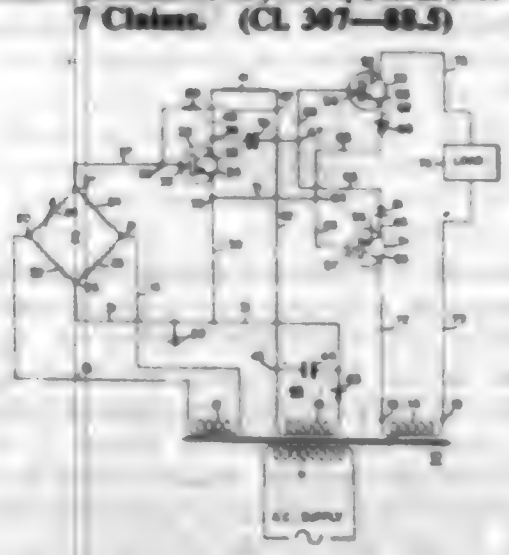
from said base electrode, said body providing asymmetrically conductive current paths between said second and third electrodes and said base electrode; a signal input circuit connected between said base electrode and said second electrode, said input circuit including a junction and a source of signal energy shiftable between a signal condition in which it supplies electrical energy at a substantial potential and of a polarity to produce a current flow through the asymmetrically conductive current path between said second electrode and said base electrode in the low impedance direction thereof and a no-signal condition in which it supplies substantially no energy of said polarity; load circuit means comprising two parallel branch circuits connected between said third electrode and said junction; one of said branch circuits comprising a load resistor, a first source of unidirectional electrical energy, and means connecting said resistor and said source in series between said third electrode and said junction, said first source having a polarity to bias the asymmetrically conductive path between said third electrode and said base electrode for current flow in its high impedance direction; the current from said signal source in its signal condition being effective to increase the current flow through said last-mentioned path from said first source, said increased current flow being effective to increase the potential drop across said load resistor and thereby to reduce the potential of said third electrode with respect to said junction, said semi-conductive body being subject to a saturation condition when the signal source is in its signal condition and the potential of said third electrode with respect to said junction falls below a characteristic value; the other of said two parallel branch circuits consisting of a second source of unidirectional electrical energy having a potential smaller than said first source but greater than said characteristic value, means directly connecting said junction to the terminal of the second source having the same polarity as the terminal of the first source connected to said junction, an asymmetrically conductive diode connected directly between said third electrode and the other terminal of said second source, said diode having substantially zero impedance in its low impedance direction and poled so that current from said second source flows therethrough in said low impedance direction, said diode and said second source cooperating to prevent excursions of the potential of said third electrode substantially below that of said second source, and thereby to prevent establishment of said saturation condition in said semi-conductive body and means for taking an output between said third electrode and said junction.

2,872,595

TRANSISTOR CONTROL APPARATUS

Balthasar Hubert Plackers, Hopkins, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application December 29, 1954, Serial No. 478,469
7 Claims. (Cl. 307—88.5)



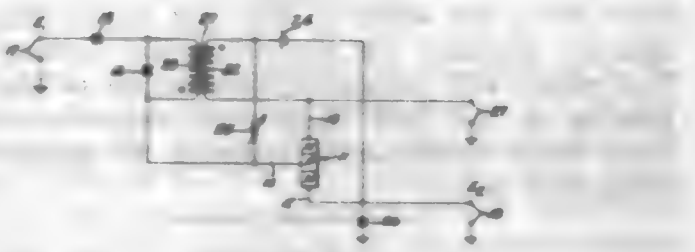
5. Control apparatus comprising: first and second transistors, each of said transistors having a collector electrode, a base electrode and an emitter electrode, two of said electrodes comprising input terminals; conductive coupling means directly connecting together the first transistor emitter electrode to the second transistor base electrode and also directly connecting together the second transistor emitter electrode to the first transistor base electrode; a source of alternating potential; means connecting said collector electrodes of said first and second transistors respectively to opposite terminals of said potential source; and means connecting a source of alternating signal of variable magnitude and reversible phase to the input terminals of said transistors.

2,872,596

TRANSISTOR VOLTAGE COMPARATOR

Richard A. Day and Lee J. Bateman, Los Angeles, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application March 31, 1955, Serial No. 498,290
5 Claims. (Cl. 307—88.5)



1. A voltage comparator circuit for producing an output pulse when the amplitudes of a first and a second input signal become substantially equal, comprising: a junction transistor having an emitter electrode, a collector electrode, and a base electrode in contact therewith; first and second rectifying means serially connected, said second rectifying means being connected to said base electrode; first and second input terminals across which said first input signal is to be applied, said first input terminal being connected to said first rectifying means and said second terminal being connected to a point of fixed potential for applying said first input signal between said base electrode and said point of fixed potential; third and fourth input terminals across which said second input signal is to be applied, said third terminal being connected to said emitter and said fourth terminal being connected to said point of fixed potential for applying said second input signal between said emitter electrode and said point of fixed potential; coupling means connected between said collector and base electrodes for feeding the developed output pulse back to said base electrode with reversed polarity; biasing means connected between said emitter electrode and said coupling means to cause said transistor to be conducting during quiescent conditions; and current biasing means connected between said collector and base electrodes to regulate the amount of current flowing through said transistor.

2,872,597

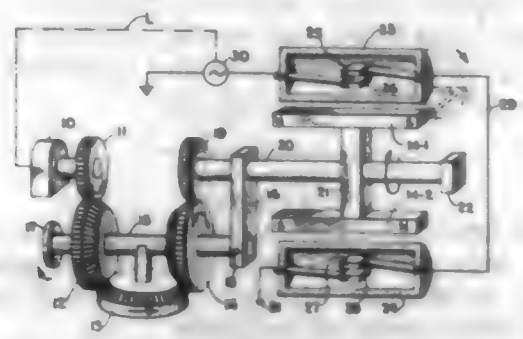
ADJUSTABLE GATING CIRCUIT

Alfred N. Ormond, Inglewood, Calif.

Application May 13, 1957, Serial No. 658,880
5 Claims. (Cl. 307—13.5)

3. An electro-mechanical gating circuit for periodically gating portions of a wave form generated by a wave form generator, comprising, in combination: a support member having magnets secured to its oppositely extending ends mounted for rotation about a transverse shaft passing perpendicularly through the midpoint of a line drawn between said magnets, whereby said magnets described a circular locus upon rotation of said shaft; first and second magnetic responsive switches adjacent diametrically opposite points on said circular locus; conductor means connecting said

switches in series and to the output of said wave form generator; a driving motor; a differential gear connected between said driving motor and said shaft; and a synchronizing link connecting said wave form generator to said driving motor for driving said motor at a speed proportional to the frequency of said wave form, whereby said first and second switches are periodically opened and



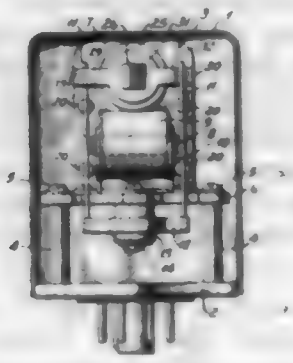
closed to provide a gate signal at the output of said series connected switches constituting a portion of said wave form, the width of said gate signal being adjustable by adjusting the circumferential position of said first switch with respect to said second switch, and the phasing of said gate signal with respect to said wave form being adjustable by adjusting the position of said differential gear.

2,872,598

VIBRATING REED OSCILLATOR CONTROLLER

Henry P. Birkemeier, Chicago, Ill., assignor, by mesne assignments, to Bell & Gossett Company, Morton Grove, Ill., a corporation of Illinois

Application December 11, 1956, Serial No. 627,595
11 Claims. (Cl. 310—25)



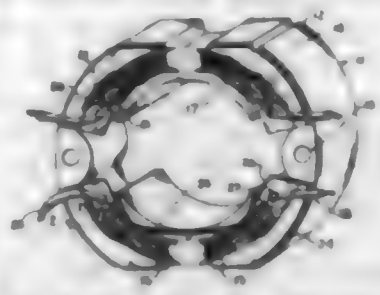
9. A vibratable reed controller comprising a base having a pair of substantially perpendicularly-extending portions, a pair of spaced parallel elongated ferromagnetic reeds, a rigid mounting plate to opposite ends of which one end of each reed is fixed, said mounting plate having a pair of holes therethrough, means for resiliently supporting the mounting plate comprising a pair of rubber grommets in said holes in the mounting plate and screws extending through the grommets and threaded into one of said pair of portions of the base, said resilient supporting means thereby reducing coupling between said reeds and said base, each of the reeds having an inner side and an outer side extending at an angle to the plane of vibratory movement of the reeds, permanent magnets extending from the other portion of the base adjacent sides of the reeds which are substantially perpendicular to said inner and outer sides, there being at least one magnet for each reed and the end of the magnet next adjacent one reed being of opposite polarity from the end of the magnet next adjacent the other reed, a ferromagnetic bar linking the opposite ends of the permanent magnets and attached to said other portion of the base, a first coil surrounding a first ferromagnetic core bar, means mounting said first coil and said first core bar between the reeds with one end of the bar adjacent the inner side of one reed and the opposite end of the bar adjacent the inner side of the other reed, so that pulsating current through said first coil will cause oscillating motion of the reeds in said plane, a magnetic pickup including a second coil surrounding a second ferromagnetic core bar, the second core bar and second coil being mounted on said other portion of the base and with the coil turns of the second coil and those of the first coil substantially perpendicular to each other so that current through the first coil has no appreciable effect on the second coil, the second coil having a ferromagnetic pole member at one end thereof having one end adjacent the inner side of one reed and another end adjacent the outer side of the other reed and a second ferromagnetic pole member at the opposite end of the second coil having one end adjacent the outer side of said one reed and another end adjacent the inner side of the other reed, whereby a voltage of frequency determined by the natural frequency of the vibrating reeds is induced in the second coil.

2,872,599

WINDING INSULATOR FOR ELECTRIC MOTOR

Roger E. De Young, Toledo, Ohio, assignor to American Electric Motors, Inc., Toledo, Ohio, a corporation of Ohio

Application March 1, 1957, Serial No. 643,445
6 Claims. (Cl. 310—71)



1. Means for anchoring the lead wires of a stator for an electric motor having a coil, lead wires connected to said coil, and field laminations forming a stator body, said means comprising, an end fiber shaped to conform generally with a portion of the field laminations, and having at least one end projection projecting radially inwardly, said end portion containing an opening adapted to frictionally secure a lead wire, means for preventing circumferential movement of said end fiber with respect to said field laminations, and means for preventing radial movement of said end fiber with respect to said field laminations.

2,872,600

FERROELECTRIC TRANSDUCER

David B. Peck, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts

Application April 14, 1953, Serial No. 348,646
3 Claims. (Cl. 310—8.7)



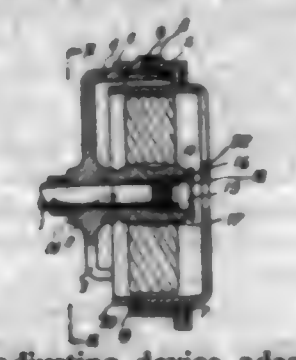
1. An electrically responsive device comprising a polycrystalline mass of a ferroelectric material polarized between at least two electrodes applied to the surface thereof, said device being fixedly mounted against the inner surface of a partially open metal housing and being held against said surface by means of a substantially rigid resinous material encasing said ferroelectric mass and bonded to the housing, said resinous material being cured in situ and of the thermosetting type that causes this curing to subject the ferroelectric mass to compression against the housing.

2,872,601

ADJUSTMENT DEVICES FOR MAGNETIC DRIVE, APPLICABLE NOTABLY TO TACHOMETERS

Pierre Ernest René Fauvelet, Ville-D'Avray, France, assignor to Societe Anonyme Etablissements Ed. Jaeger, Levallois-Perret, France

Application July 20, 1955, Serial No. 523,321
Claims priority, application France July 31, 1954
5 Claims. (Cl. 310—105)



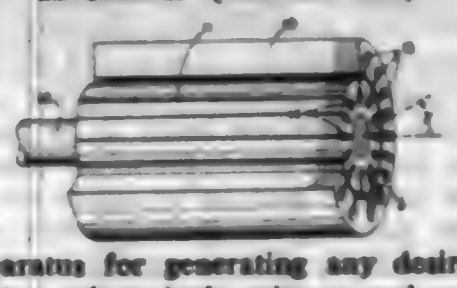
1. In a torque adjusting device adapted to an eddy-currents magnetic drive, in combination, a rotatably mounted magnet in the form of a disc and having a multiplicity of poles situated on the cylindrical edge of said disc, a coaxially rotatably movable member forming the seat of eddy-currents, said movable member being provided with a rim portion surrounding said cylindrical edge, an annular field-closing member surrounding said rim portion and internally provided with teeth the number of which is equal to that of said poles, fixing means coupling together said field-closing member and said magnet, and means for adjusting the relative radial positions of said magnet and of said field-closing member.

2,872,602

ARBITRARY FUNCTION GENERATORS

Donald L. Herr, Santa Monica, Calif.

Application June 13, 1955, Serial No. 514,882
12 Claims. (Cl. 310—111)



3. In apparatus for generating any desired arbitrary function having only a single value at each position along one of a pair of transverse axes, a first member, a second member movable relative to the first member, a first plurality of generating means disposed at spaced positions along the first member and a second plurality of generating means disposed at spaced positions along the second member, the generating means in the first plurality being interrelated and being provided with characteristics to generate, upon progressive displacements between the first and second members, the desired arbitrary function as indicated by a convolution product integral which represents the integral of the product of a pair of functions, one representing the characteristics of the signals generated by the first generating means upon progressive relative orientations of the first member and the other representing the characteristics of the signals generated by the second generating means upon progressive relative orientations of the second member.

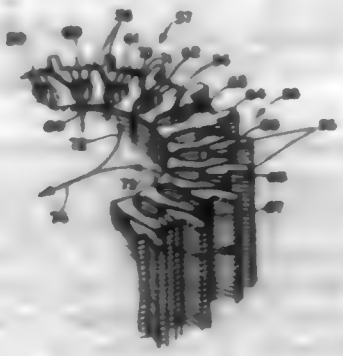
2,872,603

INDUCTION VOLTAGE AND TORQUE TRANSFER DEVICES

Donald L. Herr, Santa Monica, Calif.

Application June 13, 1955, Serial No. 514,924
15 Claims. (Cl. 310—111)

3. In an electromagnetic transfer device, a first member made from magnetically receptive material and provided with slots at spaced positions along one periphery of the member, a second member made from magnetically receptive material and provided with slots at spaced positions along a periphery contiguous to the slots in the first member and disposed relative to the first member to provide an air gap between the first and second members and disposed for movement relative to the first member, and a plurality of toroidal windings each extending through only one of the slots in the first member and through a different one of the slots with respect to the slots receiving the other windings and each having a plu-



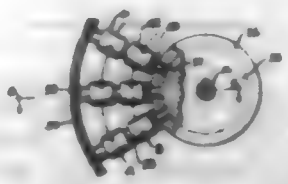
rality of turns directly controlling the increment in the intensity of the flux extending across the air gap at particular positions for the generation, upon progressive displacements between the first and second members, of an output signal having an incremental pattern directly related to the numbers of turns in the successive windings, the number of turns of the windings in adjacent slots being different in accordance with the incremental pattern of the flux to be produced at successive positions across the air gap for the generation of a particular arbitrary function.

2,872,604

DYNAMOELECTRIC MACHINE STRUCTURE

Peter J. Speth, Bellerose, N. Y.

Application March 12, 1954, Serial No. 415,731
9 Claims. (Cl. 310—166)



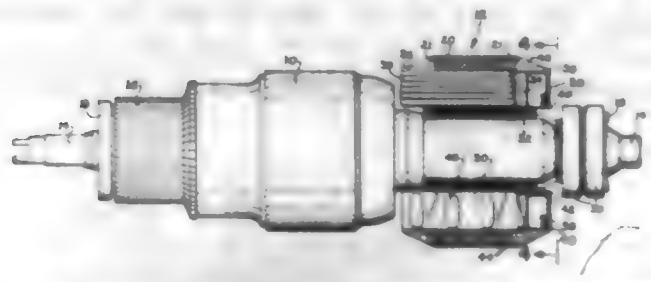
1. In an electric motor, a rotor comprising a shaft, means rotatably supporting said shaft and means rotatable with said shaft including a unitary, one-piece member of non-magnetic material having good electrical conductivity, a plurality of circumferentially spaced poles in and supported by said member, whereby said member forms a single short-circuited turn around each of said poles and means connecting one set of corresponding ends of said poles, said poles and connecting means therefor being of magnetic flux conducting material, and a stator mounted for operative cooperation with said rotor comprising a plurality of circumferentially arranged coil cores, means connecting one set of ends of said cores, said cores and end connecting means therefor being of magnetic flux conducting material, at least two sets of coils, one coil of each set being wound on each of said cores, and means for supplying alternating current electrical energy to each of said sets of coils, the latter being so wound in relation to each other and the energy supplied to one set being out of phase with the energy supplied to the other set so that the magnetic polarity of each said core is cyclically reversed and the magnetic flux cycle in each core is out of phase with the magnetic flux cycle in the cores adjacent thereto.

2,872,605

HIGH SPEED ROTOR FOR DYNAMO ELECTRIC MACHINES

Thomas W. Moore and Walter S. Wiseman, Dayton, Ohio, assignors to American Machine & Foundry Company, a corporation of New Jersey

Application September 29, 1954, Serial No. 459,112
2 Claims. (Cl. 310—183)



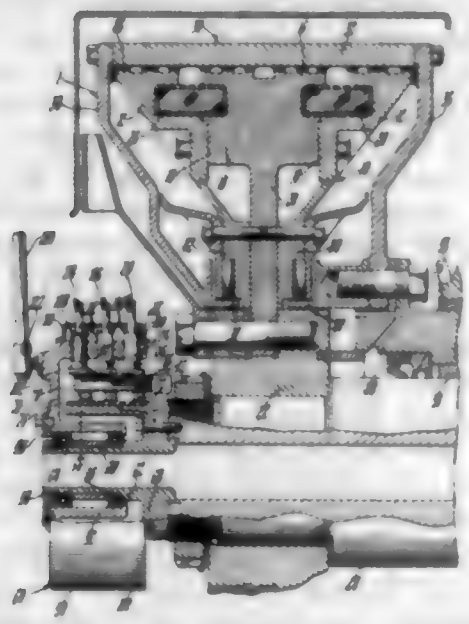
1. A high speed rotor for a dynamo electric machine comprising, a core having a plurality of axially assembled laminations forming a plurality of outwardly extending poles, each lamination having a substantially T-shaped head forming the free ends of said poles, said T-shaped heads being formed with an arcuate, exterior surface lying in the circumference of a common circle of rotation, a winding on each of said poles located beneath the under surface of each of said T-shaped heads for maintaining said windings in operative position on said core during its high speed rotation, winding support members disposed adjacent the ends of said axially assembled laminations and having laterally extending tab portions overlying said windings to provide additional support to said windings against outward movement thereof during rotation of said rotor, bars of non-magnetic conductive material axially disposed within said T-shaped heads and substantially on the outer surfaces thereof and extending longitudinally through said laminations with their free ends protruding therebeyond, and axially tapered brazements connecting said free ends of said bars and said tab portions and forming as an integral part of said T-shaped heads, arcuate, cantilever reinforcing extensions operative to coact with the under surfaces of said T-shaped heads in maintaining said windings in operative position on said rotor during its high speed rotation thereof.

2,872,606

SLIP RING AND BRUSH HOLDER CONSTRUCTION FOR ELECTRODYNAMIC MACHINERY

William E. Brill, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 26, 1956, Serial No. 593,888
6 Claims. (Cl. 310—239)



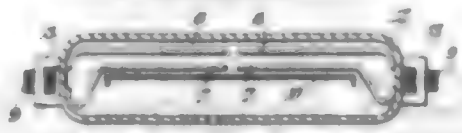
1. A slip ring and brush carrier construction for an electrodynamic machine having a rotatable magnetic armature including a magnetic field inducing coil, said construction comprising, in combination, a shaft mounting said armature member, a first turks-head shaped member having an inner cylindrical portion and an outer cylindrical portion joined by a radially-extending base portion, said base portion being secured to the end of the shaft, at least one slip ring mounted on said outer cylindrical portion and insulated therefrom, said slip ring electrically connected to said field coil, a second turks-head shaped member having an inner cylindrical portion rotatably mounted by said inner cylindrical portion of said first turks-head shaped member, said second turks-head shaped member having an outer cylindrical portion concentrically embracing the outer cylindrical portion of said first turks-head shaped member and said slip ring, said outer cylindrical portion of said second turks-head shaped member reciprocably mounting at least one contact brush for each of said slip rings, spring means carried by said second turks-head shaped member and biasing said contact brushes into bearing contact with the outer surface of said slip rings and a tie rod universally interconnecting said second turks-head shaped member to a stationary supporting structure.

2,872,607

MAGNETIC ELECTRON LENSES

Dennis Gabor, London, England, assignor to National Research Development Corporation, London, England, a corporation of Great Britain

Application October 22, 1957, Serial No. 691,660
Claims priority, application Great Britain October 25, 1956
9 Claims. (Cl. 313—77)



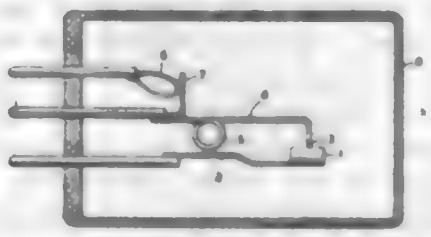
1. Electron lens comprising a magnetic assembly having front and rear magnetic flux carrying members supported in space, parallel relation and defining between them an elongated aperture constituting a lens region through which an electron beam to be operated on by the lens may pass, and means for so energising said members that the leakage field set up across the aperture has a component spanning the space between said members which is substantially zero at the centre of the aperture and increases substantially linearly towards either end of the aperture.

2,872,608

GLOW DISCHARGE TUBE

Arie Koelewijn, Eindhoven, Netherlands, assignor to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

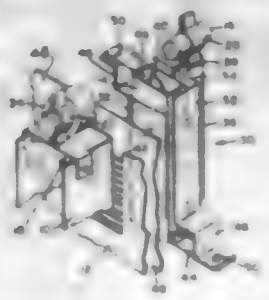
Application April 17, 1957, Serial No. 653,388
Claims priority, application Netherlands April 28, 1956
3 Claims. (Cl. 313—198)



1. An electric discharge tube compriting an envelope, an ionizable medium within said envelope, cathode and anode electrodes positioned within said envelope to define a main discharge path therebetween, and means connected in parallel with said anode and cathode electrodes to define a secondary discharge path through said ionizable medium, said means being spaced from said anode and cathode electrodes and positioned where the density of said ionizable medium remains substantially constant

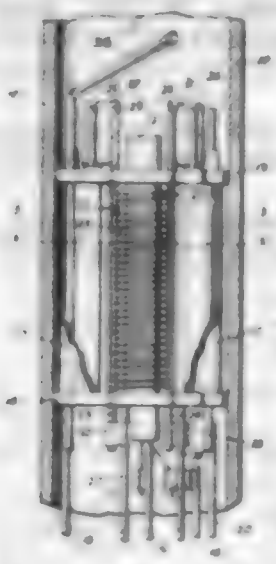
irrespective to the temperature of the medium whereby the breakdown potential of said secondary discharge path is substantially the same as the breakdown potential of the main discharge path when said tube is hot and the discharge which initiates in said secondary path is thereby transferred to said main discharge path.

2,872,609
CATHODE-GRID SPACING MEANS
William R. Wheeler, Wantagh, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application June 14, 1957, Serial No. 665,692
7 Claims. (Cl. 313—256)



1. An electrode assembly comprising a pair of parallel, spaced, insulated, support rods, electrodes spanning the rods with the rods passing through apertures in the ends of said electrodes, an additional support element having at least one clip surrounding each rod, said support element also having an ear, insulating spacers between the electrodes and between the additional support element and adjacent electrode, and an additional electrode having at least one strut secured to the ear of said additional support element by said strut.

2,872,610
THERMIONIC TUBES
Windsor H. Hunter, Auburndale, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application September 30, 1954, Serial No. 459,359
1 Claim. (Cl. 313—260)



Support means for a grid in a thermionic device comprising a pair of rods, a pair of dielectric spacers into which the rods are inserted and a strip of metal attached to the outside of each rod between the spacers and extending to either side beyond the rod.

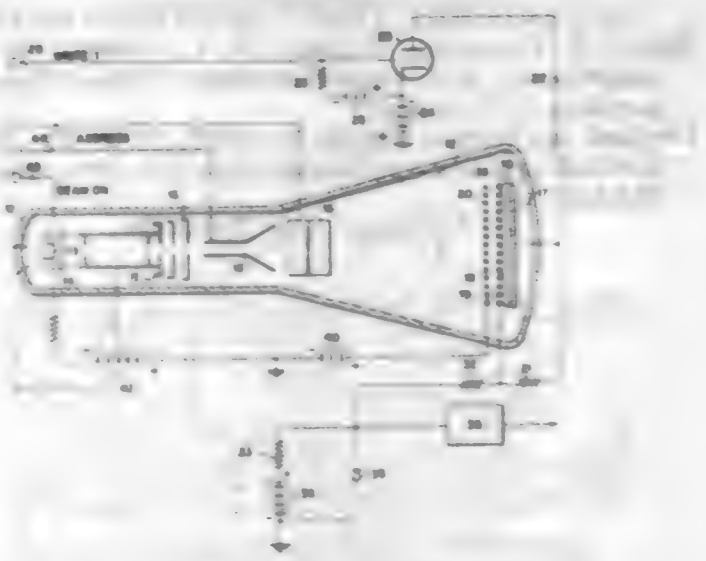
2,872,611
CATHODE
Donald R. Kerstetter, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application November 16, 1953, Serial No. 392,115
1 Claim. (Cl. 313—337)

A cathode for use in an electron discharge device comprising a tubular cathode sleeve of nickel, coatings of aluminum oxide on end-adjacent circumferentially-extending bands of the outer periphery of said sleeve,



and a coating of electron-emissive material on the outer periphery of said sleeve intermediate said bands.

2,872,612
NON-VOLATILE BARIUM TITANATE STORAGE TUBE
Ralph B. De Lano, Jr., and Donald R. Young, Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application March 28, 1955, Serial No. 497,164
8 Claims. (Cl. 315—12)

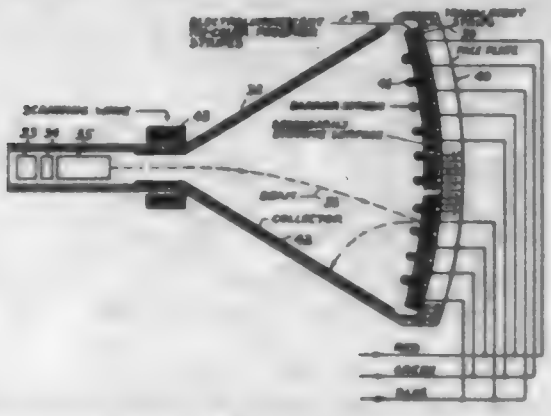


1. In combination, a cathode ray tube having electron emitting and focusing electrodes, a pair of beam deflecting electrodes, a ferroelectric crystal target having one face presented to the electron beam, a resistive coating electrode on said one face, a backplate electrode on the opposite target face, a collector electrode positioned intermediate said electron emitting electrodes and said target, and circuit means for applying potentials to said electrodes in selectively causing elemental regions of said ferroelectric target to assume one or the other stable state of residual polarization.

2,872,613
COLOR IMAGE SCREEN UTILIZING ELECTROLUMINESCENCE
Meguer V. Kalfaian, Los Angeles, Calif.
Application September 7, 1955, Serial No. 532,852
2 Claims. (Cl. 315—12)

1. An electroluminescent image forming device which comprises means for projecting a primary electron beam; a target of image forming elemental luminous capacitors in the path of said beam comprising a light-transparent electrode disposed plane-perpendicular with respect to the normal flow of said projected beam, an electroluminescent phosphor screen overlying upon said electrode, facing the beam, and an array of beam responsive elements over the surface area of said screen, facing the beam, each element adapted to produce secondary emission when struck by the primary beam, whereby forming elemental luminous capacitors, each capacitor comprising said light-transparent electrode, said screen, and one

of said emissive elements; a collector anode for collecting the electrons of secondary emission from any one of said elements under impact by said beam, whereby forming elemental electrical paths between said beam responsive elements and the collector; and an output terminal



means coupled to said light-transparent electrode for applying electrical video signals of various intensities between said terminal and the collector for individual excitation of said luminous capacitors in various intensities at points of primary impingement.

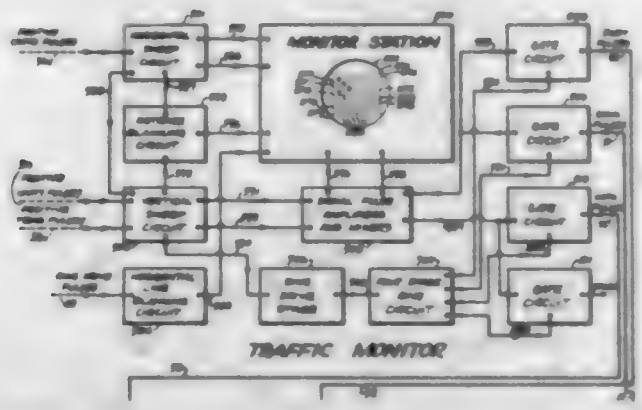
2,872,614

CATHODE RAY TUBE INDICATING DEVICE

Robert B. Tromsdale, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Original application March 18, 1955, Serial No. 495,158. Divided and this application June 29, 1956, Serial No. 594,960

7 Claims. (Cl. 315—24)



1. A cathode ray tube indicating device, comprising a first source of periodic control pulses, a cathode ray tube having a screen, means for developing a first sawtooth scanning waveform having a repetition rate equal to a sub-multiple of said control pulse rate, a second source of periodic control pulses having a repetition rate of one-tenth that of said first control pulses, a staircase voltage generator jointly controlled by said first and second control pulses for developing a staircase voltage having steps the duration of which is controlled by said first control pulses and having a total duration controlled by said second control pulses, means for deflecting the beam of said cathode ray tube horizontally in accordance with said first scanning waveform, and means for deflecting the beam of said cathode ray tube vertically in accordance with said staircase voltage.

2,872,615

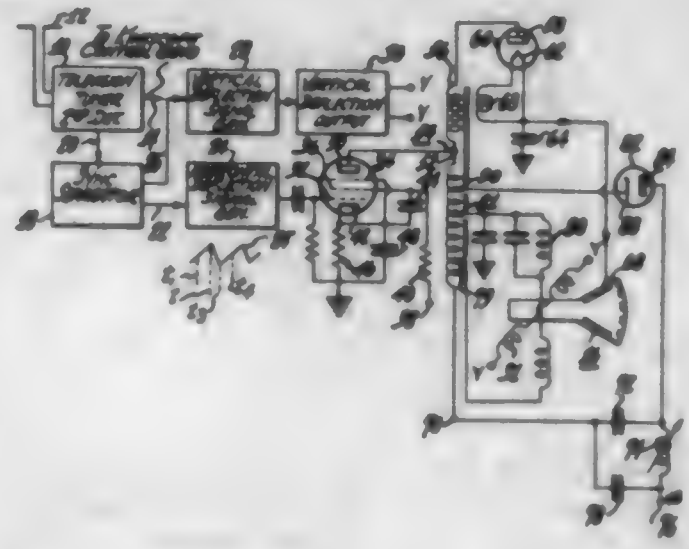
CATHODE RAY TUBE DEFLECTION AND HIGH VOLTAGE APPARATUS

Paul M. Lufkin and Daniel E. Stubbins, Findlay, Ohio, assignors to Radio Corporation of America, a corporation of Delaware

Application July 28, 1955, Serial No. 525,815

6 Claims. (Cl. 315—27)

1. A deflection and high voltage transformer for use in conjunction with a cathode ray tube and adapted to couple energy from a deflection amplifier to an electromagnetic deflection winding and to a rectifying circuit for producing a high unidirectional potential for application to an electrode of such tube, said transformer comprising: a cylindrical primary winding adapted for connection to both such amplifier and to such deflection winding; a cylindrical winding serially connected to said primary winding and adapted to couple energy to such recti-



fying circuit, said second winding being concentric with and around said primary winding; and a spacing member of insulating material disposed between said second and primary windings for providing a leakage inductance therebetween substantially greater in value than that available in the absence of a space, said spacing member being corrugated with its corrugations parallel to the common axis of said windings.

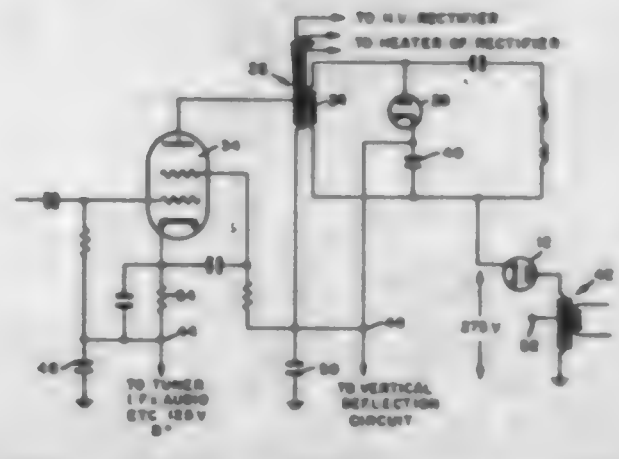
2,872,616

POWER SUPPLY

Elmer O. Stone, Seneca Falls, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application December 26, 1956, Serial No. 630,504

9 Claims. (Cl. 315—27)

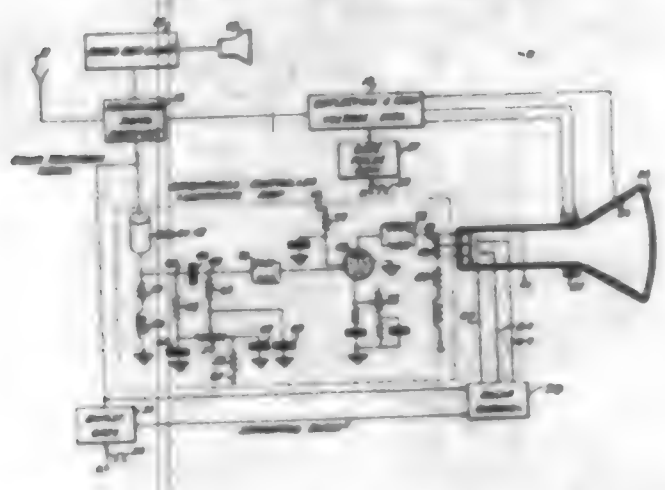


1. A cathode ray tube having an envelope, cathode ray deflection coils mounted on the envelope, a pulse transformer the secondary of which is connected to said coils by two conductors, a horizontal deflection driver tube having an anode, a cathode and a control grid, a diode having one terminal connected to one of the conductors and the other terminal connected via the primary of the transformer to the anode of the deflection tube, a capacitor between the anode of the diode and the deflection coils, the cathode of the deflection tube being connected via other circuit portions of the receiver to ground, and an alternating current supply having one lead connected to the other of the two conductors and the other lead connected to ground.

2,872,617
COLOR TELEVISION RECEIVER BRIGHTNESS CONTROL

John Stark, Jr., Woodbury, and Leonard Dietch, Haddonfield, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application April 26, 1956, Serial No. 580,933
8 Claims. (Cl. 315—30)
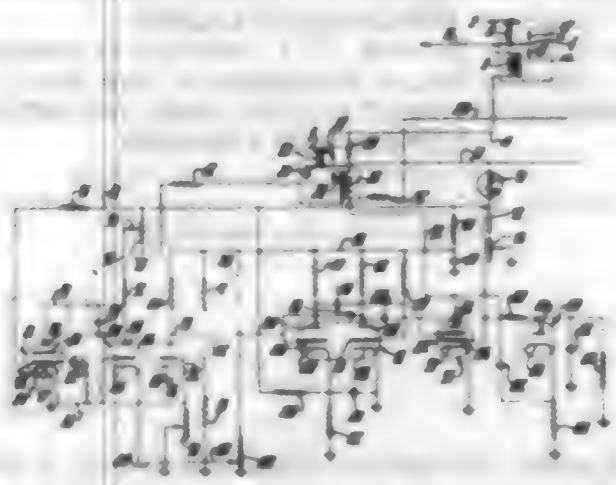


1. In a television receiver adapted to receive a brightness signal having both alternating current components and direct current components, a brightness control circuit, comprising in combination: an image reproducer; a brightness signal amplifier having an electron stream direct current coupled to drive said image reproducer and including a control electrode to control said electron stream; means to couple only the alternating components of said brightness signal to said control electrode; and means to apply both the direct current components of said brightness signal and a bias potential to said control electrode, said direct current component and bias applying means simultaneously controlling the amplitude of said direct current component and of said bias potential while said television receiver is in operation to provide control of the brightness of an image reproduced by said color image reproducer.

2,872,618
LOW VOLTAGE LIGHT SENSITIVE CONTROL SYSTEM

Eugene G. Mathias, Reisville, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 14, 1954, Serial No. 436,371
11 Claims. (Cl. 315—83)

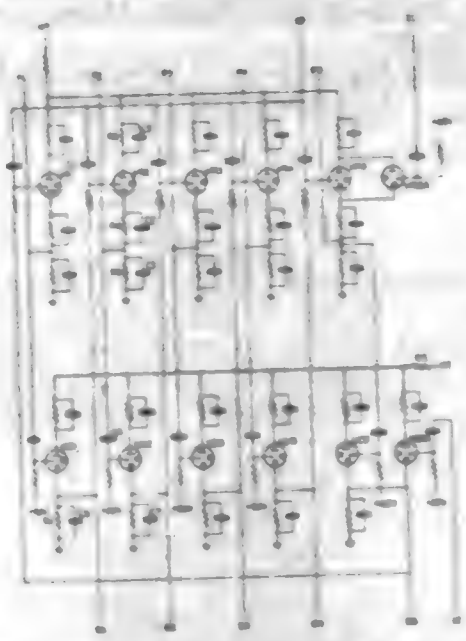


10. In a light sensitive control system, a voltage source, a pair of amplifying means each having an input and an output circuit, a voltage dropping impedance, said output circuits being connected across said voltage source through a common circuit path which includes said impedance, a photocell connected in the input circuit of the first amplifying means for controlling the conduction of its output circuit in accordance with the intensity of the light incident upon the photocell, the input circuit of the second amplifying means being connected to the output circuit of the first amplifying means so that the light-induced variations of said photocell produce a signal voltage in the input circuit of the second amplifying means, biasing means in the input circuit of the second amplifying means to prevent conduction in its output circuit until said signal voltage reaches a predetermined value, said output circuits being simultaneously conductive upon the occurrence of said value whereby the voltage drop across said impedance increases thereby decreasing the voltage across the output circuit of the first amplifying means to alter its sensitivity to changes in said photocell.

2,872,619
COUNTING CIRCUITS

Alan Davison and Ronald Threadgold, Liverpool, England, assignors to Automatic Telephone & Electric Company Limited, Liverpool, England, a British company

Original application January 25, 1955, Serial No. 483,985, now Patent No. 2,850,718, dated July 25, 1955. Divided and this application September 7, 1956, Serial No. 608,460
Claims priority, application Great Britain February 3, 1954
6 Claims. (Cl. 315—84.5)



1. A pulse counting circuit employing cold cathode gas discharge tubes provided with an anode, a cathode and an ignition electrode and having a plurality of stages each including a first and a second cold cathode gas discharge tube and comprising in addition a source of pulses, means connecting said source of pulses to the ignition electrodes of the first tubes of all stages, means connecting the cathode of each second tube to the ignition electrode of the first tube of the next succeeding stage, means connecting the cathode of each first tube to the ignition electrode of the second tube of the same stage and means for applying a permanent priming potential to the ignition electrodes of the second tubes of all said stages.

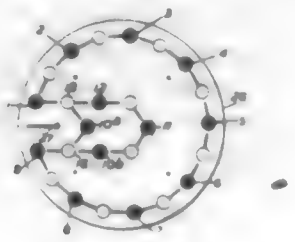
2,872,620
ELECTRIC DISCHARGE TUBES

Arnold Hugh William Beck and Thomas Meirion Jackson, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application May 12, 1954, Serial No. 429,321
Claims priority, application Great Britain May 19, 1953
10 Claims. (Cl. 315—84.6)

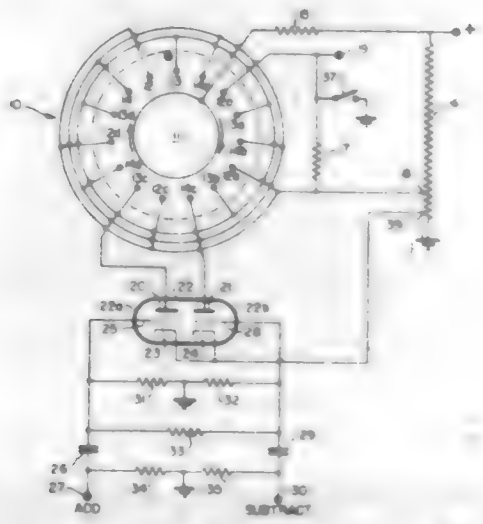
1. A circuit arrangement comprising a cold cathode gas filled electric discharge tube having electrodes defining discharge gaps positioned in ionisation coupling relationship in a plurality of cyclic sequences containing different numbers of gaps, circuit connections to said tube including a pulse input common to all of said gaps, means

for selecting one of said sequences, means for applying a given series of successive electric pulses to said common pulse input to cause sequential discharge of said gaps, means for maintaining a glow discharge at any discharge gap in the selected sequence whose position corresponds



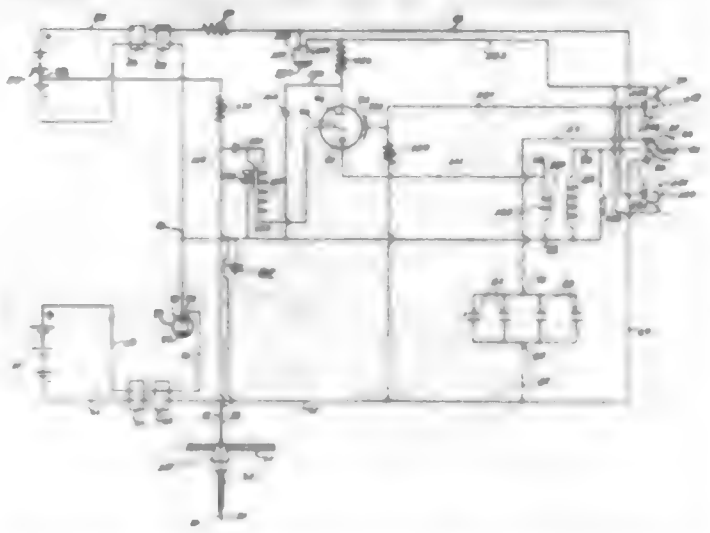
with the number of pulses of said given series which have been applied to said gaps, whereby the tube may be operated in cyclic manner with respect to series containing respective different total numbers of pulses, and means for deriving output from said tube.

2,872,621
ADDING AND SUBTRACTING DRIVE CIRCUIT FOR COUNTING TUBES
John E. Adams, Newtonville, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application September 27, 1956, Serial No. 612,533
12 Claims. (Cl. 315—84.6)



1. A pulse adding and subtracting drive circuit for a glow discharge transfer counting tube having an anode, a plurality of cathodes, a first plurality of electrodes each disposed adjacent one of said plurality of cathodes in a clockwise direction, and a second plurality of electrodes each disposed adjacent one of said plurality of cathodes in a counter-clockwise direction, said drive circuit comprising a first input terminal, means responsive to input pulses applied at said first input terminal for first driving said first plurality of electrodes more negative than said cathodes and said second plurality of electrodes and then driving said second plurality of electrodes more negative than said cathodes and said first plurality of electrodes, a second input terminal and means responsive to input pulses applied at said second input terminal for first driving said second plurality of electrodes more negative than said cathodes and said first plurality of electrodes and then driving said first plurality of electrodes more negative than said cathodes and said second plurality of electrodes, said glow discharge from said anode being transferred from one of said cathodes in a clockwise direction in response to input pulses applied at said first input terminal and in a counter-clockwise direction in response to input pulses applied at said second input terminal.

2,872,622
UNDERWATER FLASH PRODUCING SYSTEM
Harold E. Edgerton, Belmont, Mass.
Application June 18, 1954, Serial No. 437,647
9 Claims. (Cl. 315—157)



7. Apparatus of the character described comprising a housing containing an electric flash-producing system having a flash-tube, first condenser means connected to the flash-tube, a first electric circuit containing a source of energy for charging the first condenser means, a normally ineffective trigger discharge device, second condenser means connected to the trigger discharge device, a second electric circuit for charging the second condenser means, and means comprising photocell means for rendering the trigger discharge device effective to discharge the charged second condenser means therethrough, thereby to initiate the discharge of the first condenser means through the flash-tube to produce an electric flash; a pair of position-controlled switches adapted to open or close depending upon the position of the housing; and means for interposing one of the pair of switches in each of the first and second electric circuits in order, depending upon the position of the housing, either to complete the electrical connections of the electric circuits through the closed switches, thereby to render the system effective for the production of an electric flash, or to maintain the electric circuits incomplete at the open switches, thereby to render the system ineffective to produce an electric flash.

2,872,623
ELECTRICAL CIRCUIT FOR ELECTRICAL DISCHARGE LAMPS
Lester F. Bird, Newark, N. J., assignor to Engelhart Industries, Inc., a corporation of New Jersey
Application August 11, 1954, Serial No. 449,068
1 Claim. (Cl. 315—224)



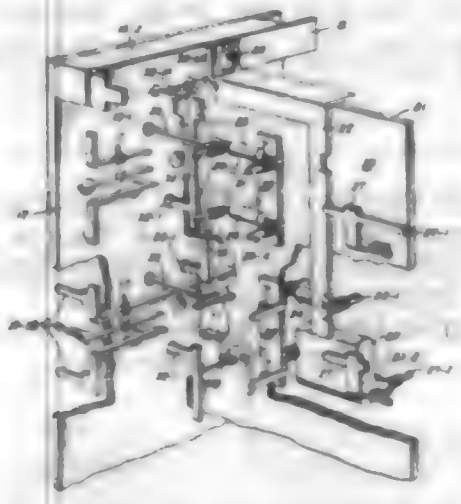
In a power consumption reduction system, a discharge lamp, a battery, and means for supplying pulses of current to said lamp at a rate above the optical perception flicker rate of about 25 cycles per second, said means including a ballast resistor and a relay having its coil in series with said resistor, said lamp and said battery, an armature associated with said relay, and circuit means for shorting out said resistor when said armature is in the unoperated position, said relay and resistor having a time constant of operation which is greater than said optical flicker rate.

2,872,624

MOUNTING AND CONNECTING APPARATUS

Emil Belek, New Hyde Park, N. Y., Herman A. Miloche, Teaneck, N. J., and Harry G. Reimels, Bethpage, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 15, 1957, Serial No. 659,273
1 Claim. (Cl. 317—99)



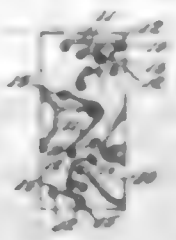
A panel assembly for mounting and interconnecting a multiplicity of electrical components comprising a frame, a panel, and a plurality of card assemblies, each of said card assemblies comprising an insulating sheet having mounted thereon a ground strap element and a plurality of first terminal members, said ground strap element including a plurality of second terminal members and end flange portions, which end portions respectively include fasteners, each of said card assemblies also including a plurality of electrical components connected to said first and second terminal members, said frame having said panel secured to one side thereof and an apertured ground strap member secured to the other side thereof, said panel comprising apertures and terminal elements, selected ones of said first terminal members of said card assemblies projecting beyond one edge of each card assembly in registry with the apertures in said panel, whereby when said selected first terminal members are extended through said panel apertures to extend beyond a surface of said panel, said ground strap fasteners extend into the apertures in said ground strap members, thereby both to mount the card assemblies in a mechanically secure fashion to said frame and to electrically connect said second terminal members to said ground strap member, whereby said selected terminal members are in position to be interconnected to said panel terminal elements.

2,872,625

TERMINAL CONNECTIONS FOR PRINTED WIRING ASSEMBLIES

Arthur Liebscher, Jenkintown, Pa.

Application August 7, 1956, Serial No. 602,646
8 Claims. (Cl. 317—101)



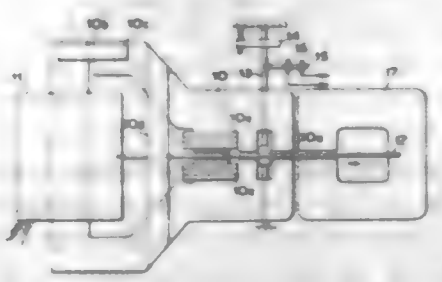
1. A wiring board having a printed wiring circuit on one side face thereof with an exposed outer face, said wiring circuit being solder adherent over its entire outer face and having integral terminal circuit portions and circuit connections between and connecting said terminal portions, all of said terminal portions being offset from said circuit connections in the same direction and providing solder trapping and retaining portions.

2,872,626

TIME-OVERCURRENT RELAYS

Eric Paddison, Stafford, England, assignor to The English Electric Company Limited, London, England, a British company

Application January 7, 1957, Serial No. 632,845
Claims priority, application Great Britain January 11, 1956
5 Claims. (Cl. 317—167)



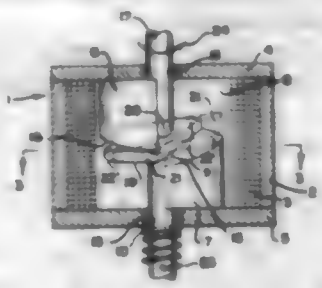
2. An electrical time-overcurrent relay of the kind comprising an electroconductive armature, a shaded pole drive electro-magnet adapted to urge said armature in a relay operating direction by electro-magnetic induction when energised by an operating current and permanent-magnetic damping means acting on said armature, said drive electro-magnet having a subsidiary air gap in series with a main air gap in which said armature moves, with a saturable magnetic bridge member across said subsidiary air gap and a further saturable magnetic bridge member across said main air gap, the latter bridge member being designed to saturate at a higher magnet-energising current than the first-mentioned bridge member.

2,872,627

ROTARY MAGNETIC ACTUATORS

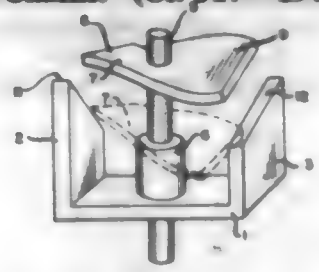
Arthur J. Buchtenkirch, Glen Cove, N. Y., assignor to North Atlantic Industries, Inc., Glen Cove, N. Y.

Application December 28, 1954, Serial No. 477,979
11 Claims. (Cl. 317—197)



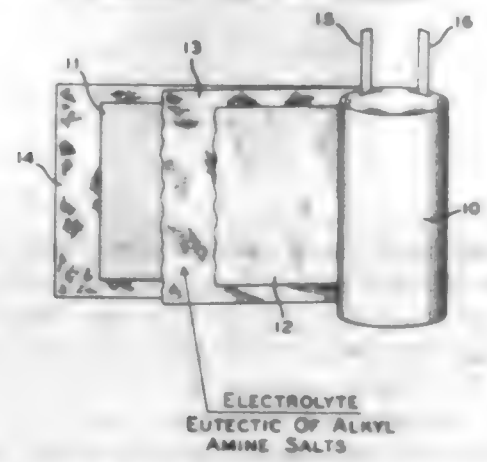
1. A rotary magnetic actuator comprising a pair of substantially identical pole pieces, each of said pole pieces being cylindrical in shape with one end being cut at an inclined angle to form an inclined surface relative to the axis of the cylindrical pole piece, and approximately one-half of said one end being cut away in an axial direction to provide an approximately one half of an elliptical shaped end surface pole face inclined relative to the pole piece with the inclination of one pole face being opposite to the inclination of the other; each of said pole pieces being centrally bored to provide a journal bearing for a shaft and a shaft journalled in said pole pieces with the two pole faces opposing one another and being positioned on opposite sides of the shaft relative to the shaft axis and spaced apart a predetermined distance axially of the shaft; an armature mounted on the shaft for rotation therewith and positioned in the space between the pole faces and having armature faces, each arranged to simultaneously make surface to surface contact with one of the pole faces when the shaft is rotated in one direction and to be spaced a maximum distance from its respective pole face when the shaft is rotated in the opposite direction, and means for magnetically energizing said pole pieces.

2,872,628
ROTARY MAGNETIC ACTUATORS
Arthur J. Buchtenkirch, Glen Cove, N. Y., assignor to North Atlantic Industries, Inc., Glen Cove, N. Y.
Application December 28, 1954, Serial No. 478,059
5 Claims. (Cl. 317—197)



1. A rotary magnetic actuator comprising a magnetic structure formed of a thin, flat, elongated plate of magnetizable material, having its opposite ends bent substantially normal to the plate to form a U-shape, with the legs of the U forming flat pole pieces which are spaced apart a considerable distance and with the planes of the legs being substantially parallel, the plate portion forming the base of the U being centrally apertured and a rotatable shaft extending through the aperture and between the pole pieces and being equidistantly spaced from and parallel to the pole pieces; the ends of each of the pole pieces being sloped, relative to the plane of the plate portion forming the base of the U, to form inclined pole faces facing away from the bottom of the U and with the slope of one pole face being opposite to that of the other pole face; and an armature consisting of a thin, flat plate centrally secured to the shaft to rotate therewith and having ends arranged to overlap the pole faces with these overlapping ends being twisted to slope at approximately the same angle as the slope of their respectively overlapped pole faces; and means to magnetize the pole pieces.

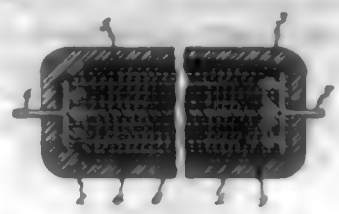
2,872,629
FUSED SALT ELECTROLYTE
Preston Robinson, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application May 28, 1953, Serial No. 358,183
2 Claims. (Cl. 317—230)



1. A new and improved electrolyte consisting essentially of a plasticized substantially eutectic mixture of equal parts of phenyl trimethyl ammonium picrate and ethyl trimethyl ammonium picrate in about 90% of methyl abietate.

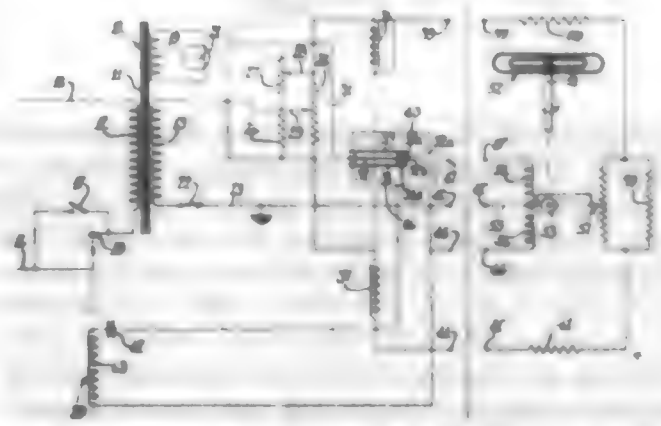
2,872,630
CAPACITOR AND DIELECTRIC MATERIAL THEREFOR
Alfred S. Cummin, Glens Falls, and John R. Hutzler, Fort Edward, N. Y., assignors to General Electric Company, a corporation of New York
Application February 8, 1956, Serial No. 564,339
10 Claims. (Cl. 317—258)

7. An electric capacitor comprising cooperating armatures and dielectric spacer material therebetween, said dielectric spacer material including the copolymerized product of a mixture of N-vinyl carbazole and about



0.2–10% of divinyl benzene by weight of the N-vinyl carbazole.

2,872,631
ROTATION CONTROL SYSTEM
Ralph C. Bleavelt, Willoughby, and Thomas J. Eppele, Cleveland, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application July 2, 1956, Serial No. 595,233
6 Claims. (Cl. 318—28)

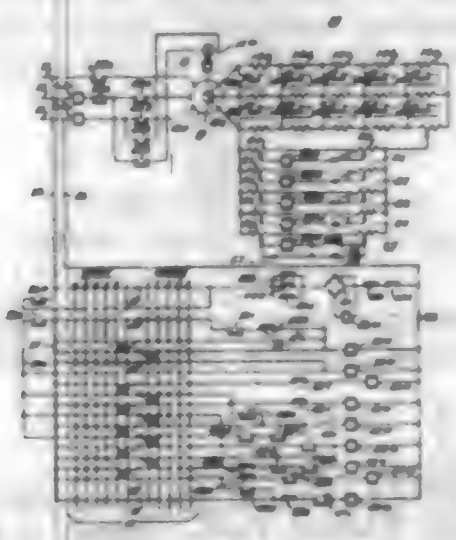


5. An antenna rotation control system comprising a split phase motor arranged to drive an antenna mast, a first potentiometer actuated by said motor, a second potentiometer remote from said first potentiometer, a differential relay assembly including a pair of relay coils, means connecting said potentiometers and said relay coils in parallel networks, each network comprising one relay coil and one potentiometer, means for applying a potential between the variable arms of said potentiometers, an armature in said differential relay assembly, a pair of contacts in said differential relay assembly selectively engageable by said armature when the currents in said networks are unbalanced, said armature engaging both said contacts when said currents are balanced, a transformer having a primary and a secondary winding, means connecting said secondary winding across opposed ends of said networks, a primary relay coil energized when said armature engages only one of said contacts and deenergized when said armature engages both said contacts, a capacitor in series with said primary relay coil and arranged to introduce an out of phase current into one of the windings of said split phase motor when said armature engages only one of said contacts, and switch means in said primary winding of said transformer actuated by said primary relay coil to de-energize said transformer when said primary coil is de-energized.

2,872,633
CONTROL SYSTEM FOR INDUCTION MOTOR
Paul G. White, Cleveland, Ohio, assignor to Square D Company, Detroit, Mich., a corporation of Michigan
Application July 25, 1956, Serial No. 600,873
4 Claims. (Cl. 318—204)

1. A hoist control system and electric motor combination comprising a polyphase wound rotor induction motor, a brake for said motor, control means movable from an off position into a hoisting position and a lowering position selectively, said lowering position including a counter-torque position adjacent said off position and a regenerative braking position adjacent said counter-torque position on the side remote from said off po-

sition, regenerative braking switching means operative upon movement of said control means to said regenerative braking position to connect said motor to a source of power for regenerative braking operation and to release said brake, counter-torque switching means operative upon movement of said control means into said counter-torque position from said regenerative braking position to connect said motor to said source for counter-torque operation and to maintain said brake released, means operative in conjunction with said control means upon movement of said control means into said off position from said counter-torque position to maintain said motor connected for counter-torque operation and said

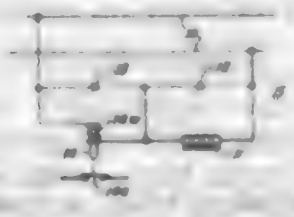


brake released, disconnecting means operative for disconnecting the motor from said source and setting said brake, speed responsive means responsive to the speed of said motor after the control means reaches the off position from a counter-torque position for rendering said disconnecting means so operative when the speed of said motor is in the neighborhood of zero to enable the counter-torque to substantially stop the load, and said counter-torque switching means including means operative to insure disconnection of said motor from said source independently of the operation of said speed responsive means upon movement of said control means from said counter-torque position through said off position into said hoisting position.

2,872,633
ELECTRIC MOTOR RESONANT CONTROL CIRCUIT

Charles Allan Schurr, Warrensville Heights, Ohio, assignor to Square D Company, Detroit, Mich., a corporation of Michigan

Application March 6, 1957, Serial No. 644,364
4 Claims. (Cl. 318—248)

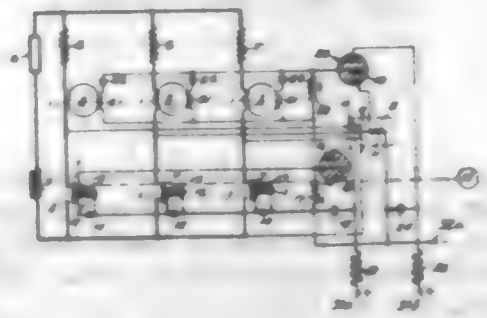


1. A control circuit consisting of a first capacitor and a first reactor which are connected in parallel and which are responsive to coexistent variations in the values of voltage and frequency, when said voltage and frequency are varying concurrently in the same direction, to change from one predetermined condition to a different predetermined condition, one of which conditions is parallel resonant and occurs at a first predetermined value of said voltage and frequency, and the other of which is not parallel resonant, and a second capacitor and a second reactor which are connected in parallel and which are responsive to said coexistent variations in the value of voltage and frequency to change from one predetermined condition to a different predetermined condition, one of which is parallel resonant and occurs at a second and different predetermined value of said voltage and frequency, and the other of which is not parallel resonant, means free from substantial operative impedance connecting said parallel combinations in series with each other, said combinations being related to each other in electrical characteristics so as to become series resonant with respect to each other at a third predetermined value of voltage and frequency, an electromagnetic relay adapted to be connected to, and to control, an extraneous circuit, one of said reactors being the coil of said electromagnetic relay, said coil and its parallel-connected capacitor being operative to become parallel resonant at one of said first and second predetermined values of voltage and frequency, and said control circuit being adapted to be connected to an electromagnetic device for energization in response to changes in the electrical condition of said electromagnetic device.

2,872,634
CONTACT CIRCUIT FOR SHORT CIRCUITING DEVICE

Hans-Joachim Kleinvogel, Berlin-Siemensstadt, and Dietrich von Haebler, Berlin-Charlottenburg, Germany, assignors to Siemens-Schuckertwerke A. G., Berlin and Erlangen, Germany, a corporation of Germany

Application March 13, 1956, Serial No. 571,295
Claims priority, application Germany March 16, 1955
8 Claims. (Cl. 321—11)



1. An energizing circuit for a short circuiter adapted to short circuit a pair of cooperating contacts; said pair of cooperating contacts having a commutating reactor connected in series therewith; said energizing circuit comprising a first and second measuring means; said first measuring means being constructed to measure the step interval of said commutating reactor; said second measuring means being constructed to measure the point of contact interruption of said pair of cooperable contacts and circuit connections for operating said short circuiter when said measured point of contact interruption is outside of said measured step interval of said commutating reactor.

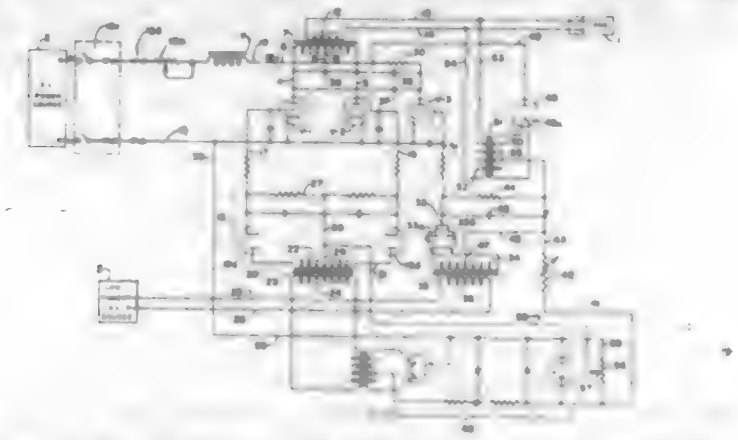
2,872,635
INVERTER

Francis Lawa, Freehold, N. J., assignor to Lawa Electronics Co. Inc., Freehold, N. J., a corporation of New York

Application July 26, 1955, Serial No. 524,329
19 Claims. (Cl. 321—18)

1. In an inverter, at least two gas tubes, commutating means connected between the tubes to cause the firing of one to extinguish the other, means to connect a load to one tube, said one tube comprising a power tube, means to energize said one tube from a D. C. source through the load, means independent of the load to energize the other tube from a D. C. source, said other tube comprising a control tube, means to fire the two tubes cyclically at different times comprising a comon source of firing control signals for both of said tubes, by delay means connected in series between said source and said

control tube, and means to adjust the delay interval of said time delay means to adjust the relative firing times



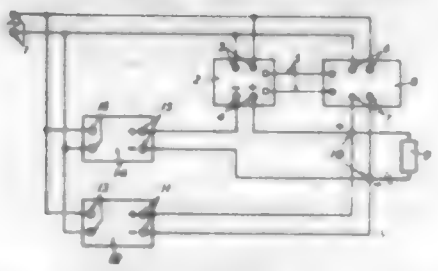
of the two tubes to control the output signal across the load.

2,872,636

APPARATUS FOR SUPPLYING INTERMITTENT OVERLOAD CURRENTS FROM VOLTAGE REGULATED RECTIFIER SETS

John Denis Wheatley, London, England, assignor to Westinghouse Brake & Signal Company Limited, London, England

Application July 16, 1954, Serial No. 443,863
Claims priority, application Great Britain July 24, 1953
3 Claims. (Cl. 321—27)



3. Apparatus for the supply of direct current to a load circuit from an alternating current source comprising, in combination, a main rectifier; a boost rectifier having its direct current output connected in series with the direct current output of the main rectifier across said load circuit; voltage regulating means for controlling the output of said boost rectifier in such a manner as to maintain the voltage across said load circuit at a constant value over a predetermined range of direct current supplied to said load circuit; and an overload rectifier having a no-load direct current output voltage below said constant value and having its direct current output connected across said load circuit in parallel with said main and boost rectifiers.

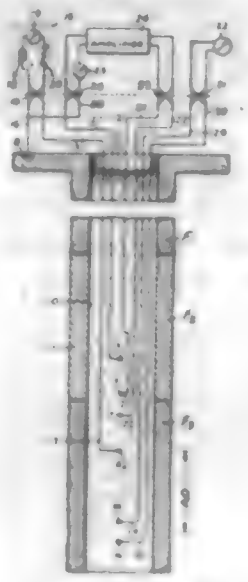
2,872,637

ELECTRICAL RESISTIVITY WELL LOGGING METHODS AND APPARATUS

Andre Blanchard, Houston, Tex., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas

Application July 29, 1953, Serial No. 371,036
17 Claims. (Cl. 324—1)

1. In a method for investigating the electrical resistivity of earth formations traversed by a bore hole containing a column of electrically conductive liquid, the steps of establishing a first electrical current distribution of known or constant intensity in one part of a given zone including a portion of the bore hole and surrounding formations, said first current distribution having a component directed longitudinally of the bore hole, establishing a second electrical current distribution in another part of said zone, said second current distribution having a component directed longitudinally of the bore hole the magnitude and polarity of which is selected to reduce substantially to zero the potential difference between a point in said zone and a reference point longitudinally spaced apart therefrom, and obtaining indications of potential difference between a reference point and a location in the path of said first current distribution that is longitudinally spaced apart from said



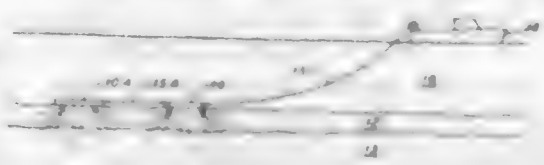
last-named reference point, neither said location nor said point being at the same potential as said point in said zone.

2,872,638

OCEAN BOTTOM STRATIGRAPHY SURVEYING

Stanley B. Jones, Whittier, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application March 31, 1955, Serial No. 498,309
4 Claims. (Cl. 324—1)



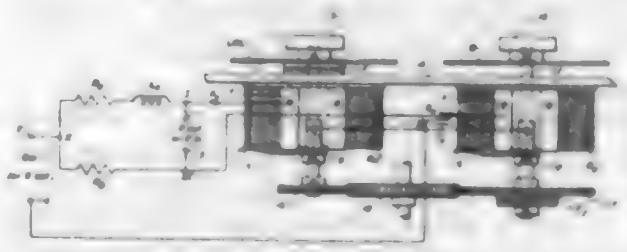
1. A method of exploring the stratigraphic structure of an underwater bottom which comprises the steps of positioning an array of radially displaced electrodes on said underwater bottom, applying an electrical potential between at least one of said electrodes and the body of water overlying said bottom, and applying another electrical potential to another of said electrodes displaced radially outward from said one electrode and said body of water to focus an electrical current downwardly into the underwater sediments, continuously traversing a predetermined course along said bottom with said electrode array, and continuously recording the changes in a measured electrical quantity due to variations in the electrical and physical characteristics of the sediments traversed, said recording being made in accordance with the position of said electrode array on said underwater bottom.

2,872,639

ELECTRICAL BRIDGE AND METHOD

Henry P. Hall, Lincoln, Mass., assignor to General Radio Company, Cambridge, Mass., a corporation of Massachusetts

Application October 19, 1956, Serial No. 617,049
10 Claims. (Cl. 324—57)



1. In an alternating-current bridge of the type that would normally provide a sliding-null balance condition

and in which this balance condition is represented by the generalized expression

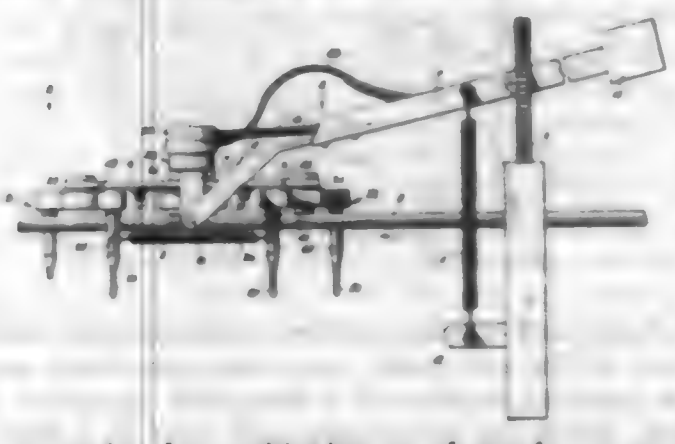
$$R_x+jX_x=M(R_s+jX_s)$$

where R_x and jX_x are respectively the real part and the imaginary part of an unknown impedance connected into a first arm of the bridge, j is equal to $\sqrt{-1}$, M is a real coefficient, and R_s and jX_s are the real and imaginary parts of a function of the impedances of electrical components of the bridge arms other than the said first arm, means for varying the value of M, means controlled by the variation in the value of M for simultaneously varying the value of R_s so as to maintain the product MR_s substantially constant, and means for varying the value of R_s independently of the means for varying the value of M.

2,872,640
POSITIONING DEVICE

Walter T. Eppler, Cranford, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application October 14, 1957, Serial No. 690,865
8 Claims. (Cl. 324—61)



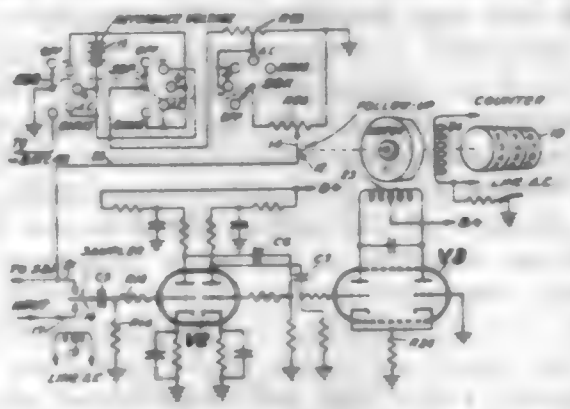
1. A device for positioning an electrode on an elongated element advancing longitudinally along a given path comprising a carriage, an electrode mounted on the carriage, a resilient support for urging the carriage toward said path to hold the electrode in operative relation with an element advancing therealong, connecting means between the support and the carriage to permit relative movement therebetween, a pair of carriage aligning means responsive to the instantaneous location of the advancing element, means for mounting the aligning means on the leading and trailing ends of the carriage, and means for holding the aligning means in operative relation with an element advanced along said path to locate the electrode in alignment with the portion of the advancing element between the aligning means.

2,872,641
DIGITAL METER

Harold R. Hudson, Upland, and William Q. Nicholson and Merton Carr Wilson, Pasadena, Calif., assignors to Hycon Mfg. Company, Pasadena, Calif., a corporation of Delaware

Application September 15, 1954, Serial No. 456,121
4 Claims. (Cl. 324—62)

2. An electric meter, comprising a bridge circuit including a first resistor connected in a first arm, a second resistor connected in a second arm, a third resistor connected in a third arm, and a fourth variable resistor connected in a fourth arm, said arms connected in series order to form said bridge, means for connecting an unknown resistance in parallel with said first resistor, a source of voltage connecting the common junctions of said second and third arms and said first and fourth arms, a vibratory sampler having a pair of input terminals connected to the common junctions of said first and second arms and said third and fourth arms, unbalance detecting means connected to said vibratory sampler output, a servo motor connected to and controlled by said unbalance detecting means, digital indicating means coupled to said motor, and a driving coupling between said motor and said fourth variable resistor, said servo motor being

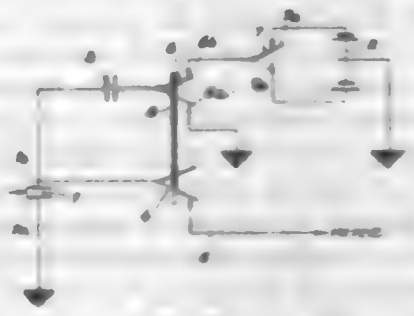


adapted to drive said indicating means and said variable resistor to reduce an unbalanced sampler output, whereby a reading is provided when said variable resistor is adjusted to balance said bridge according to the value of said unknown resistance.

2,872,642
MEASUREMENT OF VERY SMALL ELECTRIC POTENTIAL CHANGES

Ernst Gotthold Breuning, Gerlingen, Kreis Leonberg, Germany, assignor to Luftfechnischen Gesellschaft m. b. H., Stuttgart-Zuffenhausen, Germany, a corporation

Application February 27, 1952, Serial No. 273,743
Claims priority, application Germany July 6, 1951
7 Claims. (Cl. 324—111)



1. Method for the measurement of small electrical charges on a measuring condenser in which the alteration produced by the charge to be measured on a charge previously present on the measuring condenser is measured, which comprises inductively charging the condenser with an attraction charge, thereafter collecting the charge to be measured on one plate of the measuring condenser by exposing the charges to be measured to the influence of the inductively charged measuring condenser, removing the induced charge and measuring the charge collected on said condenser after removal of said inducted charge.

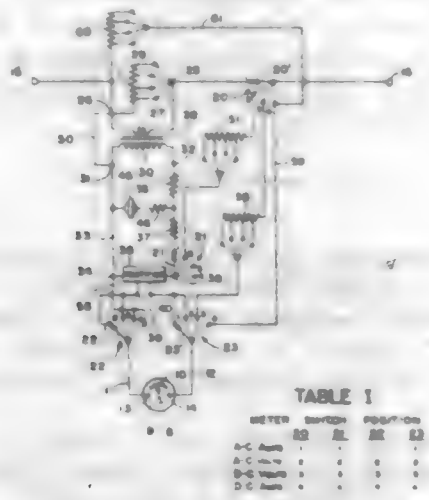
2,872,643
ELECTRICAL MEASURING INSTRUMENT

Ronald J. Rockwell, Cincinnati, Ohio, assignor to Crosby Broadcasting Corporation, Cincinnati, Ohio, a corporation of Ohio

Application May 7, 1956, Serial No. 582,991
1 Claim. (Cl. 324—119)

An instrument comprising: a single uniformly graduated scale for measuring alternating and direct current voltages; a permanent-magnet type meter movement having a moving coil and an indicating needle and two terminals; a pair of main input terminals adapted to be connected in series with the external circuit carrying the current to be measured; a transformer having a primary and a secondary; a direct conductive connection between one of said main input terminals and one side of said primary; a rectifier having a positive non-linear power-law resistance-versus-current characteristic and two rectifier input terminals and two rectifier output terminals,

one of said rectifier input terminals being connected to one side of said secondary; a Thyrite impedance having a negative non-linear power-law resistance-versus-current characteristic and permanently conductively connected in shunt with said secondary; a first selective switching means comprising a moving contact, a first fixed contact connected to an output terminal of said rectifier, and a second contact connected to said one rectifier input terminal; a second selective switching means comprising a moving contact, a first fixed contact connected to the other output terminal of said rectifier and a second fixed contact; the two terminals of said meter movement being individually connected to the above-mentioned moving contacts; a third selective switching means comprising a moving contact connected to the remaining main input terminal, a first fixed contact connected to the other



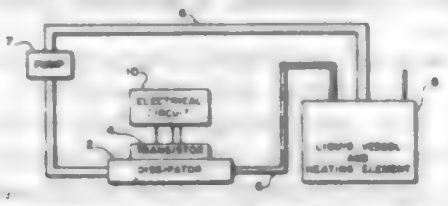
side of said primary, and a second fixed contact; a direct conductive connection between the second fixed contacts included in the second and third selective switching means; and a fourth selective switching means comprising a moving contact connected to the remaining input terminal of said rectifier and a first fixed contact connected to the other side of said secondary; said moving contacts being ganged to move in unison to an A.-C. amperes-measuring position, wherein all of the first fixed contacts and rectifier are active, or to a D.-C. amperes-measuring position, wherein all of the second fixed contacts are active and the first fixed contacts are inactive and the meter movement is connected directly to the main terminals; said rectifier and Thyrite impedance being so proportioned and arranged that their non-linear characteristics oppose each other.

2,872,644

MEASUREMENT OF TRANSISTOR THERMAL RESISTANCE

Bernard Reich, Wanamassa, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application December 10, 1956, Serial No. 627,520
3 Claims. (Cl. 324—158)
(Granted under Title 35, U. S. Code (1952), sec. 266)



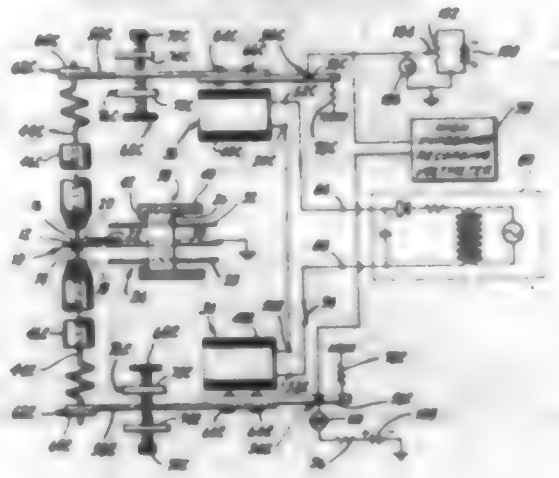
1. The method of measuring transistor thermal resistance comprising: applying normal operating polarity biases to the transistor; adjusting the transistor ambient temperature to a first value; adjusting the inter-electrode bias to provide a first selected value for collector power dissipation which is arbitrarily chosen within the known operating range of the transistor; periodically interrupting the emitter circuit during which interruption only collector cutoff current flows, the period of interruption being sufficiently short to prevent significant collector junction cooling; readjusting the transistor ambient temperature to a second value; and readjusting the inter-electrode bias to provide a second value for collector power dissipation which is such as will produce the same collector cutoff current for the same collector cutoff voltage as existed during the first adjusted condition; the difference between said ambient temperature divided by the difference between said values of power dissipation being the transistor thermal resistance.

2,872,645

MECHANICAL APPARATUS

Salvatore Santamaria, Philadelphia, and Alvin R. Tepfer, Ambler, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application August 23, 1957, Serial No. 679,815
10 Claims. (Cl. 324—158)



1. Apparatus for effecting low-resistance electrical connections to first and second electrodes respectively mounted on opposing surfaces of a body, said apparatus comprising: means for maintaining said body in a fixed position; first and second conductive probes; first means for constraining said first probe to be translatable substantially only along a line passing through each of said electrodes, to bring a portion of said first probe into abutting relationship with said first electrode; second means for constraining said second probe to be translatable substantially only along said line, to bring a portion of said second probe into abutting relationship with said second electrode; means for regulating the extent of said respective translatory motions of said first and second probes so as to prevent said portions of said probes from approaching each other more closely than a distance greater than the length of the segment of said line intercepted by said body, but also so as to permit said probes to approach each other by a distance smaller than the distance between said electrodes at their most widely spaced points along said line; first and second resilient means, respectively coupled to said first and second probes, for reducing the impact of said probes when said probes are urged into abutting relationship with said electrodes; and means controllable to urge said portions of said first and second probes substantially simultaneously into abutting relationship respectively with said first and second electrodes and also controllable to retract said first and second probes substantially simultaneously from contact with said first and second electrodes respectively.

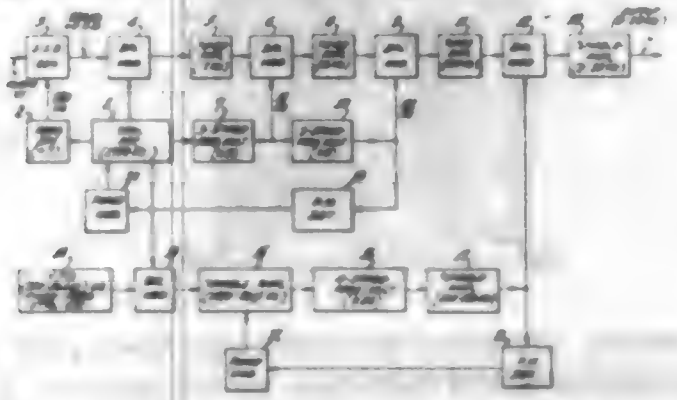
TRANSMITTER FREQUENCY GENERATION SYSTEM

Hallan E. Goldstine, Port Jefferson Station, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application November 13, 1956, Serial No. 621,599
5 Claims. (Cl. 332—41)

1. A transmitting system comprising a plurality of balanced modulators arranged in cascade, means for apply-

ing sideband energy resulting from modulation of a carrier to the first modulator, a source of energy of stable frequency, means for deriving from said source a plurality of carrier currents equal in number to the number of balanced modulators, means for applying respective ones of said derived carrier currents to each of said modulators, the frequencies of the respective applied carriers increasing in order with the order of the respective balanced modulator, means for selecting from the output of each modulator the upper sideband of the modulation components appearing therein, thereby to produce in the output of the last of said modulator sideband energy of a



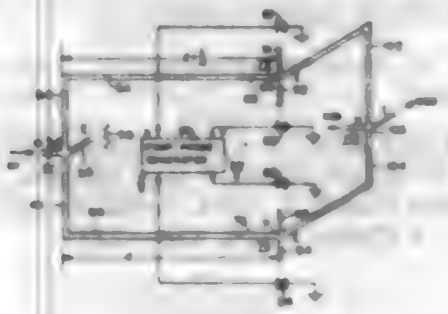
frequency which is high compared to that of said applied sideband energy, an oscillator, means for mixing energy from said oscillator with energy from said source to produce beat frequency energy, means for multiplying in frequency said beat frequency energy to produce a carrier current having a high frequency compared to the frequency of the carrier used to produce said applied sideband energy, means for mixing said high frequency sideband energy with said high frequency carrier current to produce sum and difference frequencies, and means for selecting the difference frequency produced in said mixing means.

2,872,647

MICROWAVE SINGLE-SIDEBAND MODULATOR

Lee D. Smith, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Army

Application June 13, 1955, Serial No. 515,267
1 Claim. (Cl. 332—45)
(Granted under Title 35, U. S. Code (1952), sec. 266)



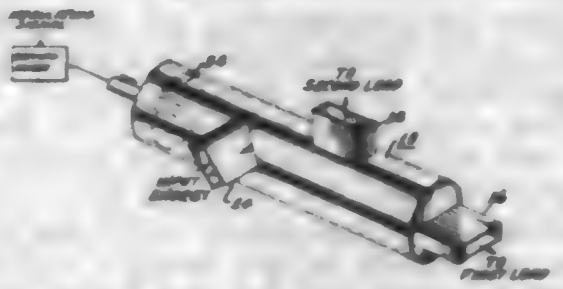
An improved microwave single-sideband device having a suppressed carrier output, said device comprising in combination: a hybrid T having an H arm, an E arm, and first and second side arms, all of said arms being joined at a junction, said H arm serving as an input and said E arm serving as an output; means for injecting a carrier microwave signal of frequency f_c into said H arm; first and second adjustable reflector backplates at the ends of said side arms; first and second crystal diodes mounted in said side arms between said backplates and said junction, the effective reflection of waves moving from said junction toward said ends being dependent upon the voltages applied to said diodes, the respective distances of said diodes from said junction differing by substantially one-eighth wavelength at said carrier signal frequency f_c; adjustable bias means applied to said diodes; and means for applying modulating signals of frequency f_m to said diodes, said modulating signals differing in phase by 90 degrees; said adjustable backplates and said adjustable bias means being adjusted to suppress said carrier microwave signal from appearing in said E arm, said output E arm thereby containing substantially only the lower sideband signal of frequency $f_c - f_m$.

2,872,648

POWER DIVIDER

John J. Gibson, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application November 13, 1953, Serial No. 392,000
6 Claims. (Cl. 333—6)



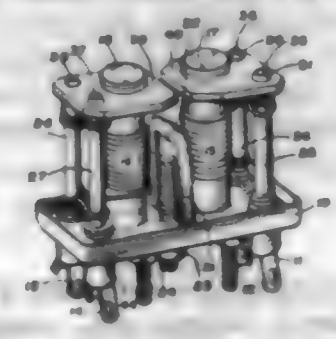
1. A waveguide circuit comprising, in combination, a circular waveguide dimensioned to support propagation of circularly polarized wave energy in a given frequency band; input means electrically coupled to said waveguide at a location intermediate the ends thereof for exciting circularly polarized waves therein having a given polarization sense, said circularly polarized waves being excited by said input means to travel down said circular waveguide in opposite directions with respect to said input means; a pair of output means in space quadrature relation electrically coupled to said waveguide on one side of said input means; a variable reactance device located in said waveguide on the other side of said input means for reflecting incident circularly polarized wave energy from said input means back toward said input means in a polarization sense opposite said given polarization sense, whereby said reflected wave energy combines with the input energy at said input means to form a linearly polarized wave propagated toward said output means having a direction of polarization which is a function of the value of reactance of said variable reactance means; and modulating means coupled to said variable reactance device for varying its effective reactance in accordance with a modulating signal, whereby the direction of polarization of said plane polarized energy also varies in accordance with said modulating signal.

2,872,649

INTERMEDIATE FREQUENCY TRANSFORMER

Alonzo M. Boothe, Cincinnati, Ohio, assignor to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware

Application October 25, 1955, Serial No. 542,747
1 Claim. (Cl. 333—77)



A double-tuned intermediate frequency transformer comprising, in combination: a rectangular copper base member; an open-mouthed copper shielding can including a transverse central copper partition having a slot formed therein, said slot opening into the mouth of the can, said can being removable from, but normally secured to, said base member with its mouth adjacent the

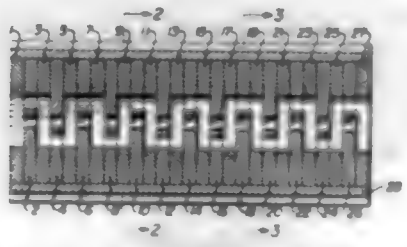
base member; first, second, third and fourth upwardly projecting terminal posts mounted adjacent the corners of said base member; first and second solenoid coils fixedly mounted on said base member, the central axis of each of said coils being disposed perpendicularly to said base member, said first solenoid coil being mounted adjacent said first and second posts, said second solenoid being mounted adjacent said third and fourth posts, said partition being located between said solenoids when the can is placed on said base member; first, second, third and fourth tubular capacitors concentrically mounted on said posts; means for interconnecting the first and second capacitors and the first solenoid in a primary tuned circuit; means for interconnecting the third and fourth capacitors and the second solenoid in a secondary tuned circuit, said tuned circuits being on opposite sides of said partition when the can is located on said base member; first and second insulating boards disposed with a gap therebetween, said first insulating board being disposed parallel to said base member and being apertured to receive and position in rigid assembly said first and second terminal posts, said first and second capacitors and said first solenoid coil; said second insulating board being disposed parallel to said base member and being apertured to receive and position in rigid assembly said third and fourth terminal posts, said third and fourth capacitors and said second solenoid coil; said transverse partition extending through said gap, and an adjusting screw projecting through said base member into said slot for adjusting the coupling between said primary tuned circuit and said secondary tuned circuit, the central axis of said screw being directed lengthwise of said slot; said tubular capacitors extending from said base to said insulating boards.

2,872,650

WAVEGUIDE

Richard H. Winkler, Palo Alto, Calif., assignor, by mesne assignments, to Monogram Precision Industries, Inc., Culver City, Calif., a corporation of California

Application February 16, 1956, Serial No. 565,891
10 Claims. (Cl. 333—95)



1. A double ridged waveguide with interdigital teeth on its ridges, comprising an elongate hollow electrically conductive member, two opposed longitudinal electrically conductive ridges within said member, and a plurality of electrically conductive teeth spaced along the length of each of said ridges, the teeth along each ridge extending toward and being interdigitated with the teeth spaced along the opposite ridge, said ridges and said teeth defining an open-sided serpentine passage within said elongate hollow member.

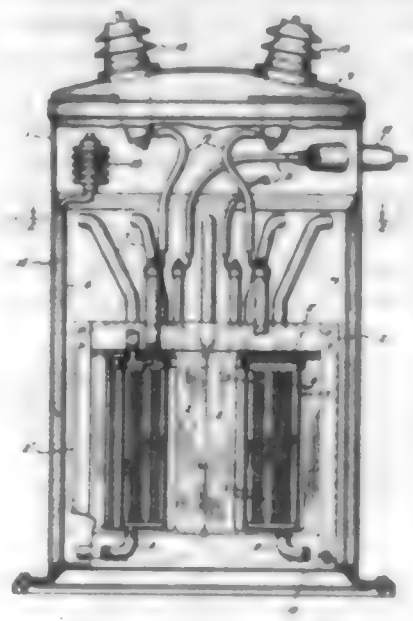
2,872,651

TRANSFORMER COOLING SYSTEM

Edward D. Treanor, Athens, Ga., assignor to General Electric Company, a corporation of New York

Application November 29, 1955, Serial No. 549,729
8 Claims. (Cl. 336—58)

1. A stationary electrical induction apparatus comprising a main tank having a magnetic core and mechanically linked electrical windings therein, only said electrical windings being housed within a container which is filled with electrical insulating liquid, said tank being filled with a gas which contacts said core, the sides of said tank being double walled and defining a radiator,



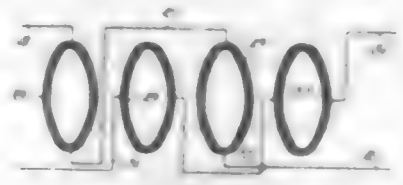
and conduits connecting the upper and lower parts of said container with said radiator.

2,872,652

COIL CONSTRUCTIONS

Kealy C. Bugg, Fort Wayne, Ind., assignor to Kendick Manufacturing Company, Inc., Fort Wayne, Ind., a corporation of Indiana

Application March 23, 1956, Serial No. 573,392
5 Claims. (Cl. 336—180)



1. An inductance comprising a plurality of coil units each comprising coils wound upon a toroidal core of magnetic material, said units each having uniform and equal coils upon each side of a polar diameter, said coils being connected in series in each unit and provided with connecting wires at each pole point, said units being assembled to form a hollow cylinder.

2,872,653

INTERCEPTOR TRANSFORMER

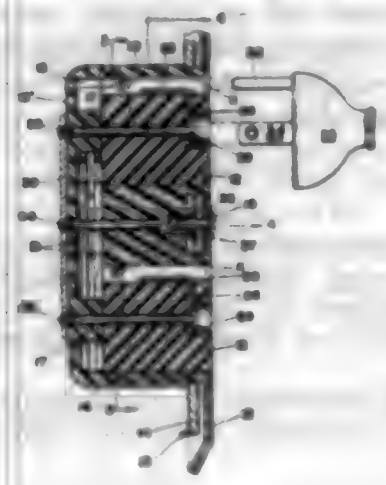
John R. Wiegand, North Valley Stream, N. Y.

Application March 7, 1956, Serial No. 570,160
4 Claims. (Cl. 336—221)



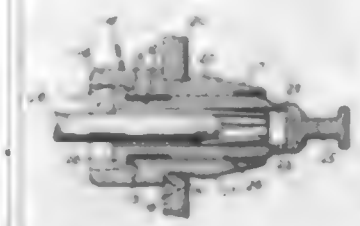
2. An electrical oscillation control device, comprising first and second substantially flat circular electrically conductive coils, said coils being interwoven and interlinked to cross each other at two diametrally spaced points thereof, a first pair of substantially circular magnetic cores interwoven and interlinked to cross each other at two diametrally spaced points thereof and encircling one intersection of said coils, and a second pair of substantially circular magnetic cores interwoven and interlinked to cross each other at two diametrally spaced points thereof and encircling the other intersection of said coils, all of said cores being so disposed on the coils that all of said diametrally spaced points occur on a substantially common diameter of said coils and said cores.

2,872,654
ELECTRICAL OUTLET FOR THREE-PRONG LOCKING PLUGS
Wilbur R. Smith, Clarkston, Wash.
Application August 4, 1955, Serial No. 526,414
2 Claims. (Cl. 339—14)



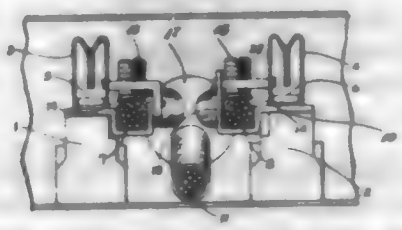
2. An electric outlet comprising a body having a cavity; a revolvable cylinder in said cavity; a conductive frame supporting said body and adapted to be physically and electrically connected to an outlet box; said cylinder having three prong-receiving sockets therein, two of which contain contact strips for electrically contacting two prongs of a three-prong electric plug, the third said socket having a contact strip therein for electrically contacting the third prong of a three-prong plug and extending to and terminating at the axis of said cylinder; means for connecting the two said contact strips to the opposite poles of an eletcrical system; locking means for alternately securing and releasing a plug having its prongs disposed in said sockets upon rotation of said cylinder; an electrical conductor extending through said cylinder at its axis and electrically connected to the contact strip terminating at the axis of the cylinder; and means electrically connecting said conductor to the conductive frame whereby said last named contact strip is electrically connected to said frame.

2,872,655
ELECTRICAL CONNECTORS AND ATTACHING MEANS THEREFOR
Neil F. Damon, Weston, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application August 31, 1956, Serial No. 607,417
2 Claims. (Cl. 339—59)



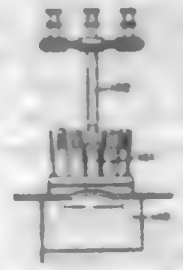
1. A detachable electrical connector comprising a tubular resilient insulating support member having a region of greater internal cross-sectional area near one end separated from the region of lesser cross section by a shoulder, a first conductive tubular member formed with a flange at the inner end mounted within said support member with the flange resting against the shoulder on the support member and a second conductive resilient tubular member formed with split and inwardly bent fingers at one end and having an outer uncompressed diameter slightly greater than that of the first tubular member mounted within said first tubular member with the fingered end inward.

2,872,656
ELECTRICAL CONNECTOR
George H. Phelps, Floral Park, N. Y., assignor to Murray Manufacturing Corporation, Brooklyn, N. Y.
Application December 28, 1956, Serial No. 629,741
8 Claims. (Cl. 339—192)



1. An enclosure for electrical mountings, comprising a base, side and top walls, the side wall having an opening adapted to accommodate a pair of line cables and a neutral cable, and in combination with said enclosure, a pair of insulating mounting blocks securely fastened to the base of said enclosure on either side of the opening, the blocks being of such height that the mounting surfaces thereof are at a level slightly higher than the mid point of the opening, a pair of electrical connectors, each comprising a U shaped portion for supporting a line cable and means secured to the mounting surface of a block, the U shaped portions of said connectors being positioned in front of the opening and shaped to extend a distance, less than the thickness of the cable, below the mounting surfaces of said blocks, each of said connectors including a member having a bridge portion extending across the U shaped portion, the bridge portion being located above the mounting surfaces of said blocks, and means mounted in said respective bridge portions for maintaining the cables in said U shaped portions, whereby the line cables lie approximately at the midpoint of the opening, thereby permitting the cable to be brought in through the opening and mounted in said U shaped portions without substantial bending of the cables.

2,872,657
APPARATUS FOR CONNECTING CIRCUIT ELEMENTS
Glen Peterson, Tulsa, Okla.
Application July 27, 1953, Serial No. 370,544
3 Claims. (Cl. 339—193)

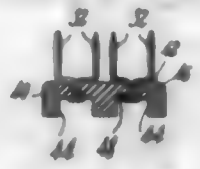


1. An arrangement for mounting and interconnecting circuit elements to minimize unwanted accessory impedances comprising in combination an electronic tube socket having lugs radially disposed about a centrally-located stem, and a conducting tubular pedestal which mates electrically and mechanically with the central stem of the tube socket and which supports a conductive platform, said platform comprising a substantially flat terminating sheet carrying an insulating sheet presenting at least one exposed portion, each exposed portion supporting terminal means.

2,872,658
MULTIPLE ELECTRIC CONNECTORS
Hugh W. Batcheller, Newton Highlands, Mass., assignor to Kent Mfg. Corp., Newton, Mass., a corporation of Massachusetts
Application May 16, 1955, Serial No. 508,551
1 Claim. (Cl. 339—220)

A multiple electric connector comprising a rigid slab of insulation having a channel in its rear face and a slot

narrower than said channel extending through said slab from the front face thereof to said channel, and a metal part of sheet stock having a doubled portion forming a rib slightly longer than the depth of said slot and a pair



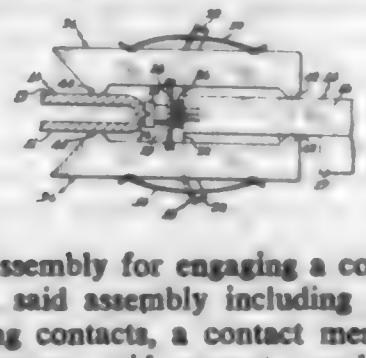
of parallel tongues laterally offset from said rib, said tongues projecting forward from the front face of said slab, the rear end of said rib being spread against the bottom of said channel to lock said metal part to said slab.

2,872,659

CONTACT ASSEMBLY

Ervin E. Wills, Affton, Mo., assignor to Electric Products Company, a corporation of Delaware

Application October 30, 1953, Serial No. 389,245
8 Claims. (Cl. 339—255)



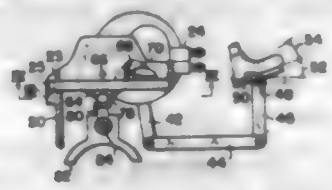
4. A contact assembly for engaging a companion conducting member, said assembly including a plurality of elongated bridging contacts, a contact member carrying said bridging contacts, said contact member having an end and having lateral surfaces adjoining said end, each of said bridging contacts being in wiping engagement with a lateral surface of said contact member, said end of said contact member being flanked by said bridging contacts, the bridging contacts projecting beyond said end for engagement with the companion conducting member, a retainer having interlocking engagement with said bridging contacts for retaining them against shifting longitudinally in relation to each other, said retainer having a portion disposed between said bridging contacts opposite said end of said contact member, and a lost-motion connecting element extending from said end of said contact member loosely through said retainer portion to the opposite side thereof and having an enlargement at said opposite side of said retainer portion, said enlargement being spaced from said end of said contact member by a distance greater than the thickness of said retainer portion for providing limited movement of the said bridging contacts as a unit with said retainer in relation to said contact member.

2,872,660

TRANSMISSION INDICATOR

Calvin J. Ireland, Turtle Creek, Pa.

Application September 11, 1956, Serial No. 609,121
2 Claims. (Cl. 340—52)



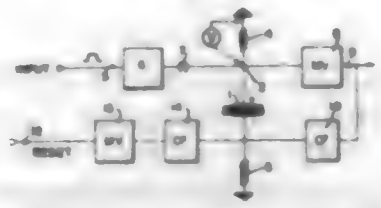
1. An indicator system for a motorcycle transmission including cover structure having gear-shifter gear and cam members meshing together therein to select the setting of the transmission, detent and current conducting elements transversely aligned with one another in said cover structure and extending therefrom into operative positions to index with points on said cam and gear members respectively, said gear being hobbed only part way generating only a partial set of teeth, there being at least one indented point on said cam member to receive the detent corresponding to neutral position, there being a corresponding point on said gear member which is raised on the unhobbed portion and arranged to wipe against and cause said current conducting means to make electrical contact when the transmisison is neutral, and a source of current and an indicator lamp in circuit with said current conducting element for lighting when the element makes electrical contact to visually indicate the neutral position of the transmission.

2,872,661

FERROELECTRIC COUNTER

Donald R. Young and Howard L. Funk, Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application November 17, 1953, Serial No. 392,616
13 Claims. (Cl. 340—173)



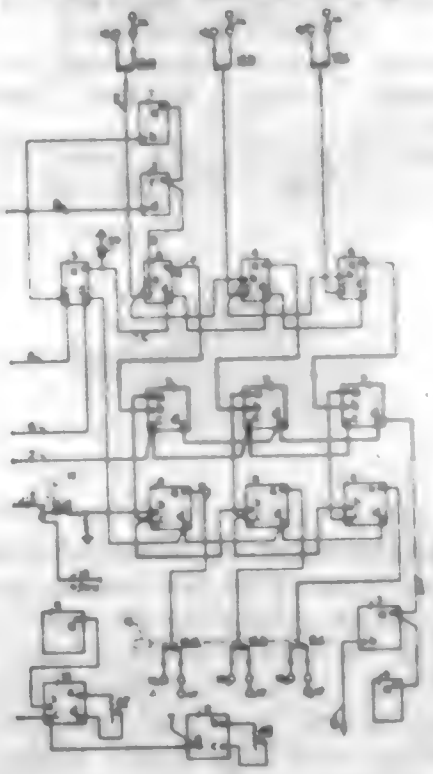
1. A memory device comprising a ferroelectric capacitor having a plurality of stable states of polarization between two limits, means for polarizing said ferroelectric condenser to one limiting state of polarization, means for polarizing said ferroelectric condenser in a direction opposed to said one limiting state, and means for producing an indication of the change necessary to return said ferroelectric condenser to said one limiting state.

2,872,662

ELECTRONIC STORAGE DEVICE

Roland Paul Dufour, Paris, France, assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

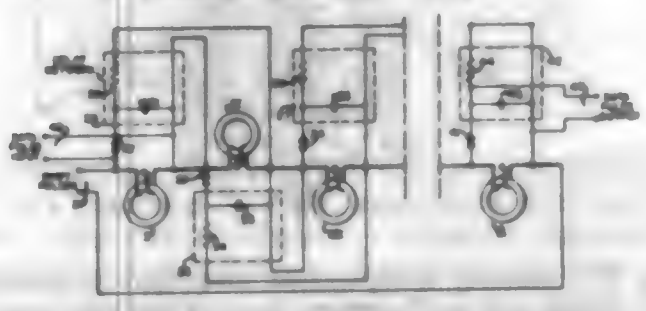
Application April 29, 1954, Serial No. 426,457
Claims priority, application France November 24, 1953
7 Claims. (Cl. 340—173)



1. A storage device for electrical pulses comprising: a capacitor, means for changing the state of charge of said capacitor in a plurality of steps in one direction between first and second values in a time interval corresponding to one operating cycle of said device, means

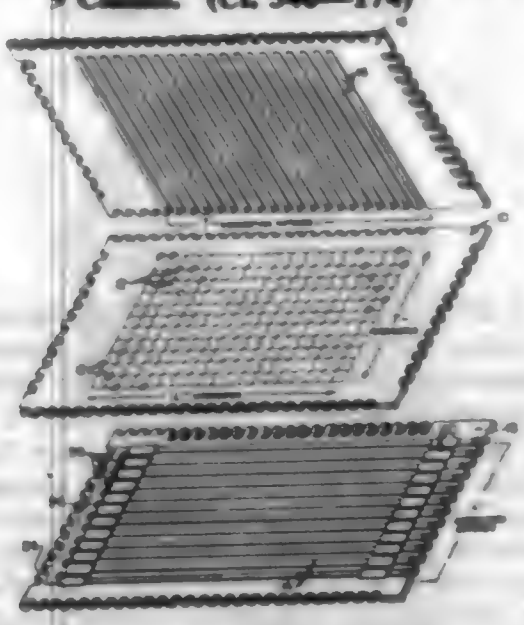
for initiating the change in charge of said capacitor in said one direction at a predetermined point in a given operating cycle, and means for reversing the direction of charge when said second value is reached and immediately restoring the state of charge to said first value in a single step.

2,872,663
MAGNETIC SHIFT REGISTERS
Robert C. Kelner, Concord, and Harvey Rubinstein, Somerville, Mass., assignors to Laboratory for Electronics, Inc., Boston, Mass., a corporation of Delaware
Application January 14, 1954, Serial No. 403,990
13 Claims. (Cl. 340—174)



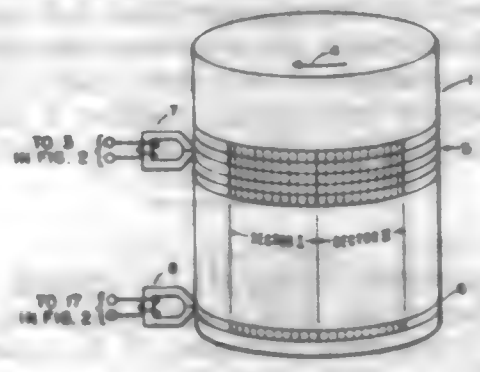
7. A magnetic shift register comprising, first and second toroidal bistable magnetic cores each having a single winding thereon, means connecting said windings of said first and second cores in series for the serial application of shift current pulses thereto, means coupling the winding on said first core to the winding on said second core including a rectifier and signal delay network in series, said rectifier being poled for the transmission of signals generated in the winding on said first magnetic core when said shift current reverses the magnetic state thereof, said coupling means being arranged whereby signals transferred through said rectifier and delay network flow through the winding on said second core in a direction opposite to the flow of shift current therethrough.

2,872,664
INFORMATION HANDLING
Otis Northrop Minot, Lexington, Mass.
Application March 1, 1955, Serial No. 491,470
9 Claims. (Cl. 340—174)



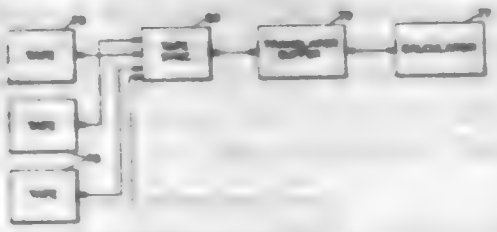
1. An information storage system comprising in combination a perforated sheet of insulating material having unidirectionally conductive connections in the form of thin rectifiers mounted within said perforations at selected locations in a predetermined coordinate field, a set of first conductive contactors at one side of the sheet defining one set of ordinates, each first contactor contacting one side of the connections located on the ordinate defined thereby, a set of second conductive contactors at the other side of the sheet defining a second set of ordinates, each second contactor contacting the other side of the connections located on the ordinate defined thereby, and means for making electrical connections selectively to each of the contactors.

2,872,665
INPUT/OUTPUT EQUIPMENT
Ralph Townsend, Manchester, and Herbert F. Ayres, Hingham, Mass., assignors, by mesne assignments, to Laboratory for Electronics, Inc., Boston, Mass., a corporation of Delaware
Application January 24, 1957, Serial No. 636,061
13 Claims. (Cl. 340—174)



1. Apparatus for transferring data between a plurality of data utilization devices and a data storage medium having sector divisions, said data consisting of individual data characters, respective sectors of said storage medium being allocated to respective ones of said plurality of data utilization devices, each of said sectors having a number of subdivisions, each subdivision being adapted to hold a single data character, respective sectors being in data transfer position during recurring time periods, a counter associated with said storage medium for counting the number of subdivisions in each of said respective sectors, means responsive to the transfer of data in each of said respective sectors to derive the number of the next sector subdivision relative to which data transfer will occur during the next recurring time period, means for storing respective ones of said last recited numbers pending the recurrence of the appropriate sector time period, means for comparing successive numbers appearing at the output of said storage means with the numbers indicated at the output of said counter, and means responsive to a predetermined relationship of said compared numbers to transfer data characters between respective ones of said data utilization devices and the appropriate subdivisions of their respective allocated sectors.

2,872,666
DATA TRANSFER AND TRANSLATING SYSTEM
Roger C. Greenhalgh, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 21, 1955, Serial No. 554,583
52 Claims. (Cl. 340—174)



1. In a data processing system, the combination of a data storage device for an intermixed group of numeric and alphabetic words comprising a plurality of data words, each of said words including a plurality of digit positions for storing data thereat in first preselected coded character representations with a character stored at each digit position or as a character occupying a plurality of related digit positions according to a predetermined notation, each of said data words including a control digit stored with said word to indicate a numeric or alpha-

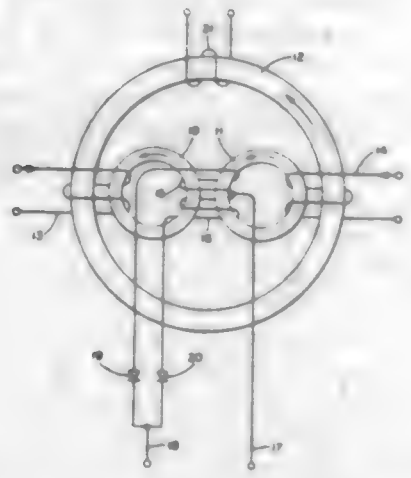
betic word, data receiving means for storing data in a second coded character representation, translating means disposed between said data storage device and said data receiving means, means for selectively directing the words of stored data to said data receiving means, means for blocking the delivery of the data from said storage device, and means for interrogating the control digit of each word to detect a numeric or alphabetic word, said last-named means acting on said blocking means to release said blocked word upon a numeric word indication for delivery of the characters through said translating means to said data receiving means for storage digit by digit in said second code representation and upon an alphabetic word indication for combining the related plurality of digit positions in said first code to represent the same character in a second code at a single digit position in said data receiving means.

2,872,667

MAGNETIC CORE HALF ADDER

Mao Chao Chen, Menlo Park, Calif., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application May 27, 1957, Serial No. 661,861
2 Claims. (Cl. 340—174)



1. A magnetic core binary device comprising, first and second magnetic switching cores requiring a first magnitude of magnetomotive force for switching and a third magnetic switching core requiring a second magnitude of magnetomotive force greater but not more than twice as great as said first magnitude for switching, a first input coil inductively related to said first and third cores, a second input coil inductively related to said second and third coils, first and second output coils each inductively related to both said first and second cores, a third output coil inductively related to said third core, and means connecting the first and second output coils together whereby the application of an input signal magnetomotive force of the first magnitude to only one of said first and second input coils in the direction to switch either said first or second cores will produce an output signal across said first and second output coils and when applied to both of said first and second input coils in the direction to switch said third core will produce an output signal only across said third output coil.

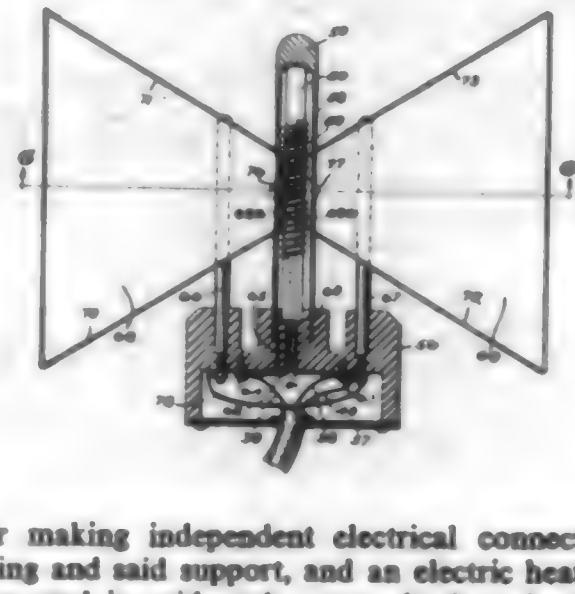
2,872,668

MOISTURE DETECTOR

Vincent I. Mason, Newton, Mass., assignor to Boston Manufacturing Company, Boston, Mass., a copartnership

Application October 3, 1955, Serial No. 537,981
9 Claims. (Cl. 340—235)

1. A liquid detector, of the type adapted to close an electrical circuit in response to presence of a conductive liquid, comprising an insulating base, a hollow casing of conductive material mounted on said base, said casing and said base forming a substantially continuous enclosure, a conductive support mounted on said base and spaced from said casing, a conductive member mounted on said support, said casing and said member defining a gap adapted to be bridged by the liquid, means on the



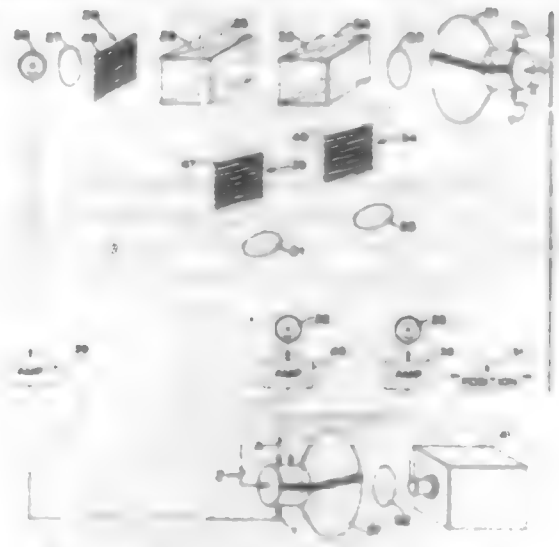
base for making independent electrical connections to said casing and said support, and an electric heating element mounted in said enclosure and adapted, when energized, to heat the casing to speed evaporation of liquid from said gap.

2,872,669

CATHODE RAY CHARACTER TRACER

Reynold B. Johnson, Palo Alto, and William C. Dersch, Jr., Menlo Park, Calif., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application April 15, 1954, Serial No. 423,582
11 Claims. (Cl. 348—324)



9. In a device of the class described having a multisignal voltage generator for generating plural voltages, the combination of an electron discharge device including means for producing cathode rays and a screen for emitting light energy radiations under the influence of said cathode rays, a plurality of masks having areas of transparent and opaque configurations, optical elements so constructed and arranged as to cause said radiations to impinge upon related areas in each of said masks concurrently, cathode ray deflecting means including sweep means for causing said cathode rays to move past a region of said screen proportional to one of said areas and positioning means for causing said cathode rays to sweep in a selected order a plurality of regions of said screen corresponding to a plurality of mask areas, generator output voltage means including a phototube for each of said masks, said phototube being positioned so as to be influenced by said radiations passing through an associated mask, and timing means for applying a predetermined blanking voltage to said electron discharge device during every period said cathode rays are caused to move from one screen region to another screen region.

2,872,670

DEVICE TO MANIFEST AN UNKNOWN VOLTAGE AS A NUMERICAL QUANTITY

Arthur H. Dickinson, Greenwich, Conn., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Original application May 26, 1951, Serial No. 228,432, now Patent No. 2,717,994, dated September 13, 1955. Divided and this application February 7, 1952, Serial No. 270,411

3 Claims. (Cl. 340—347)



1. A measuring device for manifesting an unknown voltage as a numerical quantity, comprising the combination of: a source of oscillations, a counter responsive to said oscillations, gating means interposed between said source and said counter and adapted to control the flow of oscillations therebetween, translating means directly responsive to said counter for developing a potential proportional in magnitude to the count contained in said counter, comparing means for comparing said potential with said unknown voltage and for de-energizing said gating means when said potential is substantially equal to said voltage, means for manifesting the count in said counter, first delay means responsive to said comparing means for subsequently resetting said counter to a predetermined value only after an equality is established, and further delay means responsive to said first delay means for energizing said gating means to enable a new measurement operation.

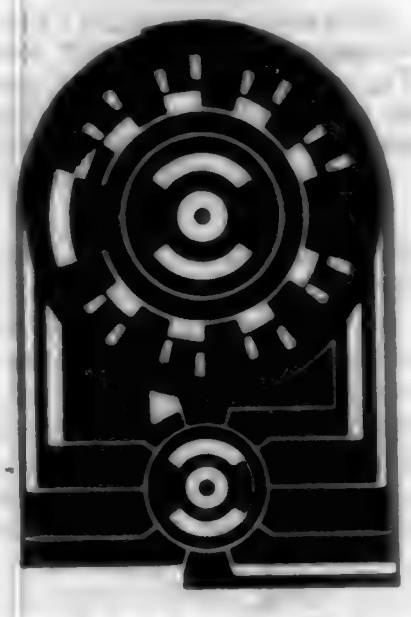
2,872,671

SHAFT POSITION INDICATING DEVICE

Charles A. Walton, Owego, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application August 9, 1956, Serial No. 603,000

2 Claims. (Cl. 340—347)



1. In a device of the class described, means forming a pattern of conductive elements including a circular array of higher order segments subtending equal angles, there being one such segment for each cardinal number of a number system, said pattern also including a circular array of groups of lower order segments concentric with the first mentioned array, each of said groups having an angular extent equal to the angular length of a single higher order segment, each group of lower order segments including a segment for each cardinal number of said number system, all lower order segments of like cardinal value being electrically connected to the respective higher order segments of the same cardinal value, said pattern including a circular common conductor pertaining to the higher order array of segments and a second common circular conductor pertaining to the lower order array of segments, rotary brush means for connecting the higher order segments individually to said higher order common conductor, and rotary brush means for connecting the lower order segments individually to said lower order common conductor.

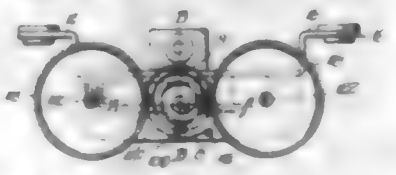
2,872,672

TELEPHONE RINGER AND THE LIKE

Alfred R. Lucas, Galion, Ohio, assignor to North Electric Company, a corporation of Ohio

Application June 30, 1953, Serial No. 365,025

5 Claims. (Cl. 340—392)



1. A frequency responsive device comprising a controlled member mounted for lateral movement in a substantially fixed plane, a spiral-coil type spring member disposed with its coils in encompassing relation with said controlled member having its outer end fixedly positioned and its inner end coupled to said controlled member to control the position thereof, said outer end being fixedly positioned on a line which extends through the approximate center point of the spring at an angle of substantially 45° to said plane of movement of the controlled member, means for pivotally supporting one end of said controlled member, means for applying operating forces to said controlled member to move the second end thereof laterally across the coils of said spring in said plane, and mass means attached to said controlled member to render the controlled member operative only responsive to the application of said operating forces at a predetermined frequency.

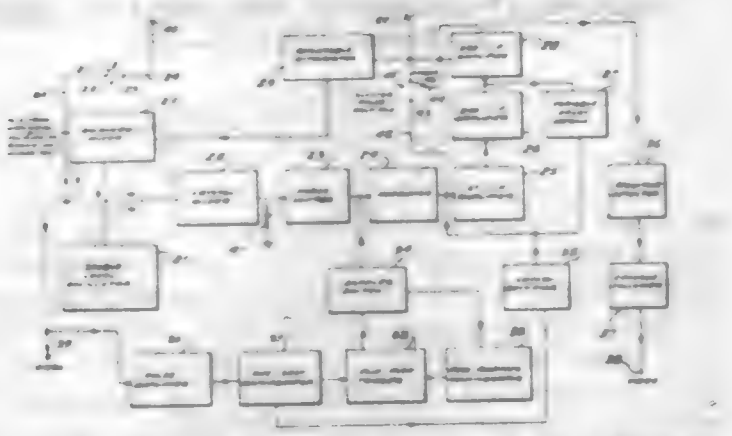
2,872,673

RADAR SIGNAL SIMULATOR

Myron Pleasure, New York, N. Y., assignor to Pitometer Log Corporation, New York, N. Y.

Application December 27, 1955, Serial No. 555,602

6 Claims. (Cl. 343—17.7)



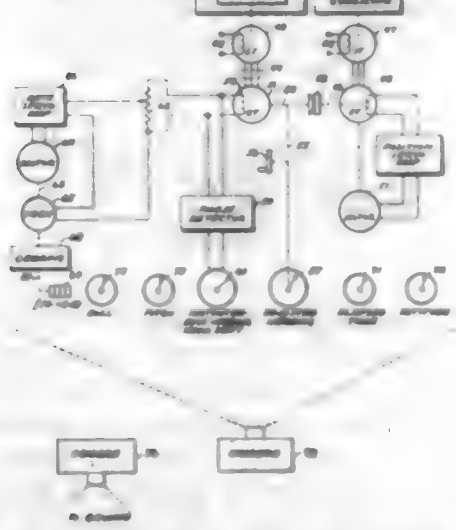
1. A radar signal simulator wherein voltage impulses are generated for simulating radar targets, comprising, in combination, receiver means adapted to be coupled to a radar unit for receiving carrier frequency radar impulses; and generating means coupled to said receiver means for producing at least a first and a second retarded carrier frequency impulses in synchronism with each of said received radar impulses respectively, said first produced retarded carrier frequency impulse corresponding to a fixed radar target and said second produced retarded carrier frequency impulse corresponding to a moving

radar target, said generating means including therein means for shifting the phases and amplitudes of said retarded carrier frequency impulses by predetermined amounts.

2,872,674
DRIFT CALIBRATION

Leslie R. Chapman, Jr., Thornwood, and John W. Gray and Carl H. Jacobson, Pleasantville, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York

Application June 22, 1956, Serial No. 593,161
14 Claims. (Cl. 343—17.7)

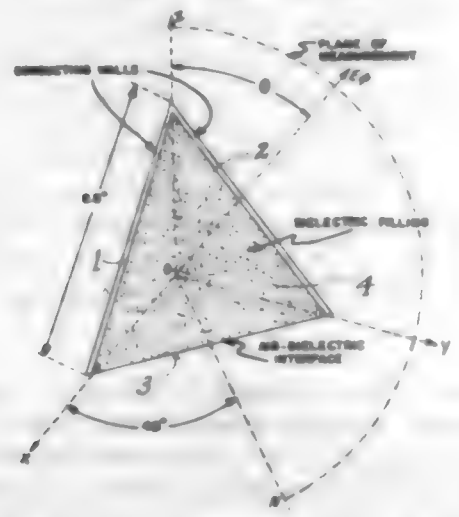


1. The method of obtaining data from which the drift calibration angle of an aerial navigation system can be computed comprising the steps of flying an aircraft containing the system under test over first and second predetermined points on the ground, averaging, over the period of the flight over said two points, the difference between a first angle, which is the angle between a fixed reference direction maintained on the aircraft and the longitudinal axis of the aircraft, and a second angle, which is the drift angle as determined by the system under test, and recording the angle between said reference direction on the aircraft and a reference line on the ground.

2,872,675
DIELECTRIC REFLECTOR

Edward M. Kennaugh, Columbus, Ohio, assignor to The Ohio State University Research Foundation, Columbus, Ohio, a corporation of Ohio

Application November 13, 1956, Serial No. 621,954
5 Claims. (Cl. 343—18)

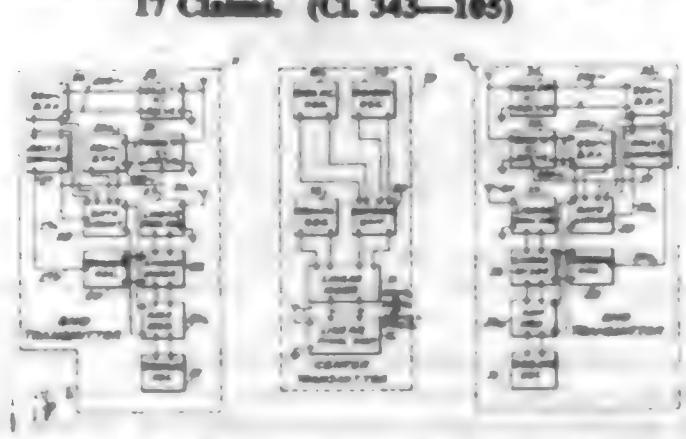


1. A corner reflector for use with circularly-polarized radars comprising a three-dimensional figure in the form of a regular triangular pyramid having lateral faces that are mutually orthogonal, said pyramid being constituted by a low-loss dielectric material, two of said lateral faces having electrically conducting coatings thereon and the third lateral face being uncoated, said coated faces comprising reflecting walls, and said uncoated face comprising an aperture for the passage of rays reflected by said coated faces.

2,872,676
RADIO LOCATION SYSTEM

William R. Hunsicker, Tulsa, Okla., assignor to Seismograph Service Corporation, Tulsa, Okla., a corporation of Delaware

Application April 23, 1954, Serial No. 425,271
17 Claims. (Cl. 343—105)

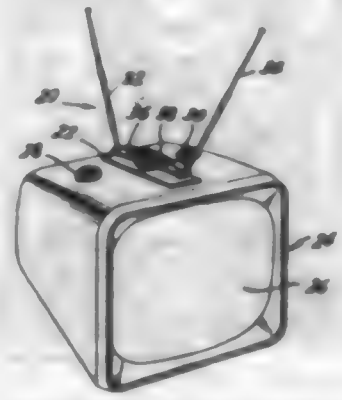


1. A wave signal transmission system comprising a pair of spaced transmitters each continuously radiating a signal of different frequency, a transmitting unit spaced from each of said transmitters and including means for alternately radiating first and second carrier waves, means at said transmitting unit for intermittently radiating a third carrier wave, means associated with said pair of transmitters for effecting the alternate radiation of an additional signal from each of said transmitters during the respective intervals when the transmitting unit is radiating said first and second carrier waves, means at each of said pair of transmitters respectively responsive to said first and second carrier waves for alternately modulating the signal continuously radiated from each transmitter with reference signals, and means at each of said transmitters responsive to said third carrier wave for intermittently modulating the signal continuously radiated from each transmitter with other reference signals.

2,872,677
BROADCAST RECEIVERS

Richard J. Whipple, Abington, and Henry E. Bowes, Wyncote, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

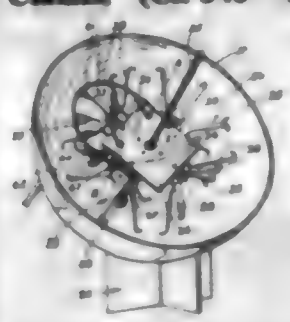
Application December 27, 1956, Serial No. 630,779
10 Claims. (Cl. 343—702)



1. An antenna handle for a portable television set, comprising a pivot member arranged for horizontal rotation on the set; a horizontally elongated holder secured to said pivot member; a pair of socket members disposed in the holder, separately mounted in end portions thereof for rotational adjustments at least including components in vertical planes; and a telescoping dipole antenna arm associated with each socket member, slidable therein, and insulated from the holder so that the telescoping arms can be collapsed into the holder, extended from end por-

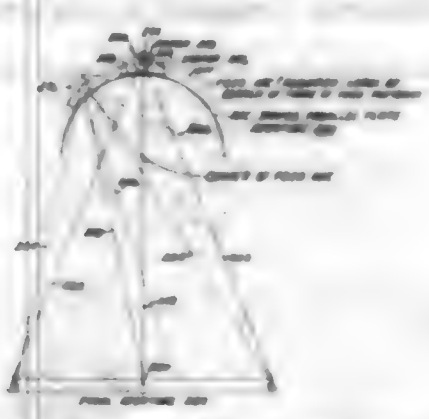
tions of the holder spaced apart by the approximate length of the collapsed arms, and oriented by manually rotating the holder without contacting the arms.

2,872,678
COMBINED GEOGRAPHICAL GLOBE AND ANTENNA STRUCTURE
John J. Braund, Washington, D. C.
Application August 31, 1956, Serial No. 607,405
9 Claims. (Cl. 343—720)



1. In combination, a hollow substantially spherical globe, a substantially spherically curved cradle for said globe and rendering it adjustable in all directions, a rod-like member secured to the globe and extending diametrically therethrough, an insulating supporting plate secured to the rod-like member near its longitudinal center, a plurality of antenna elements carried by said supporting plate inside of said globe, wiring interconnecting the antenna elements, and an antenna cable associated with the globe and electrically connected with the antenna elements and wiring.

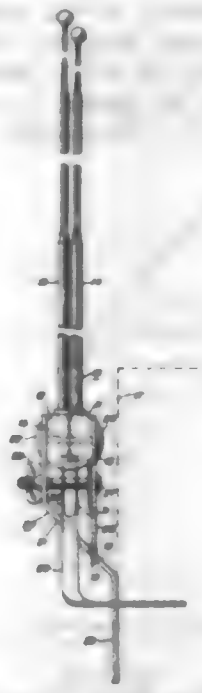
2,872,679
ANTENNA
Francis G. R. Warren and Zdzislaw A. Meltzak, Montreal, Quebec, Canada, assignors to Radio Corporation of America, a corporation of Delaware
Application September 13, 1956, Serial No. 611,407
8 Claims. (Cl. 343—754)



1. An antenna formed with an aperture through which energy may be received or emitted, and having a feed arc along which a directive beam may be scanned, the center of the radius of curvature of said feed arc being displaced from the center of said aperture, a feed element for receiving or emitting energy in a directive beam, said element being movable along said feed arc for scanning the received or emitted beam, and means operatively associated with said feed element for effectively directing said beam at the center of said aperture at all positions of said feed element along said feed arc.

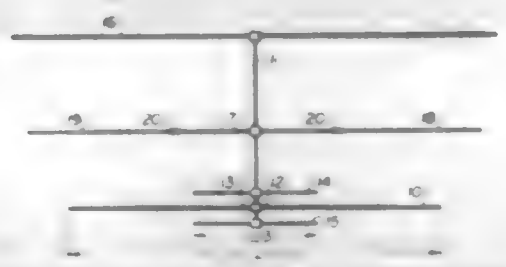
2,872,680
ANTENNA
Jack L. Stewart, Ashtabula, Ohio, assignor to The Antenna Specialists Company, Cleveland, Ohio, a corporation of Ohio
Application April 5, 1956, Serial No. 576,281
2 Claims. (Cl. 343—805)

1. A television antenna comprising, a composite spherical base composed of first and second spherical sections, each said first and second section having a cross-section flat face, said flat faces abutted as mutual bearing surfaces, means interlocking said sections for relative rotation with respect to one another around a common axis, first and second antenna rods carried by said first and second sections respectively, and a mount, said mount



comprising frictional grip members with means applying said grip members upon the exterior surfaces of the first and second sections respectively in a direction to urge the said mutual bearing surfaces together, said mount frictionally engaging with sufficient force to hold the composite base in any selected pivotal position.

2,872,681
V. H. F. TELEVISION ANTENNA
George P. Kearns, Chicago, Ill., assignor, by mesne assignments, to Finney Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application December 22, 1955, Serial No. 554,880
The terminal portion of the term of the patent subsequent to September 12, 1972, has been disclaimed
11 Claims. (Cl. 343—833)

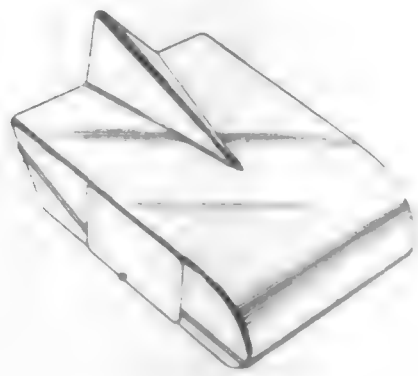


11. An antenna for operation throughout both an upper frequency band and a lower frequency band, said antenna comprising, in combination, a single driven element consisting of a dipole constructed of a high Q conductor and having a length substantially equal to a half wavelength at an intermediate frequency in said lower frequency band; and a pair of relatively short line conductors of substantially equal length which is a half wavelength at an intermediate frequency in the upper frequency band disposed in spaced relationship in front and in back of a central zone of the aforementioned dipole in such close proximity thereto that said line conductors and the dipole comprise a transmission line section resonant to an intermediate frequency in the aforementioned upper frequency band, such spacing being of the order of 4% of a half-wave length to which the dipole is resonant as a half-wave element.

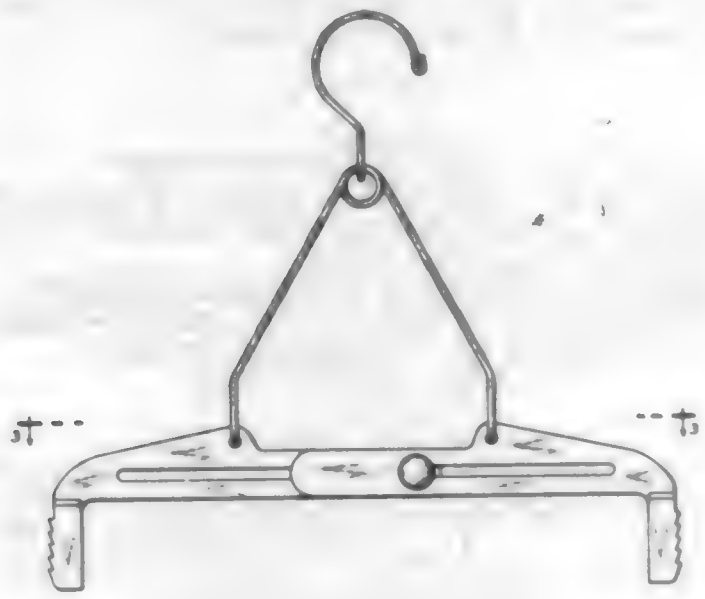
DESIGNS

FEBRUARY 3, 1959

184,327
VEHICLE LUGGAGE CONTAINER
Elmo Paul Allen, Ankeny, Iowa, assignor to Charles W. Petersen, Somers, Iowa
Application June 25, 1958, Serial No. 51,536
Term of patent 7 years
(Cl. D14—27)



184,328
HANGER FOR TROUSERS
Endy Anderson, Brooklyn, N. Y.
Application May 21, 1958, Serial No. 50,995
Term of patent 3½ years
(Cl. D80—8)



184,329
BILLIARD TABLE OR THE LIKE
Robert L. Anderson, Muskegon, Mich., Richard G. Reineman, Covina, Calif., and George E. Schaefer, Muskegon, Mich., assignors to The Brunswick-Balke-Collender Company, Chicago, Ill., a corporation of Delaware
Application March 26, 1958, Serial No. 50,189
Term of patent 14 years
(Cl. D34—3)



184,330
PORTABLE SHELTER
Donald F. Arbuckle, Canton, and Richard W. King, Massillon, Ohio; said King assignor to said Arbuckle
Application May 5, 1958, Serial No. 50,758
Term of patent 14 years
(Cl. D13—1)



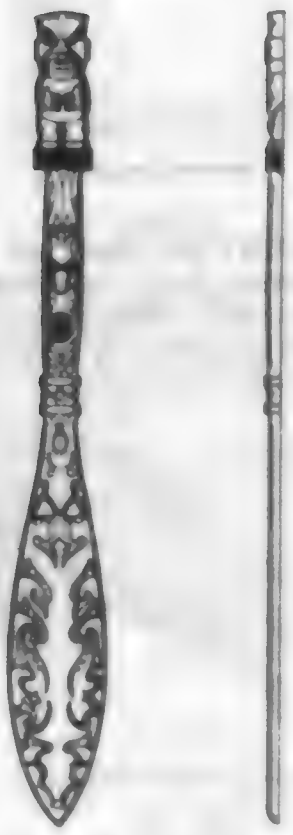
184,331
REPRODUCER ARM ASSEMBLY
Leo J. Aucoin, West Hartford, Conn., assignor to The Gray Manufacturing Company, a corporation of Connecticut
Application September 19, 1957, Serial No. 47,779
Term of patent 14 years
(Cl. D26—14)



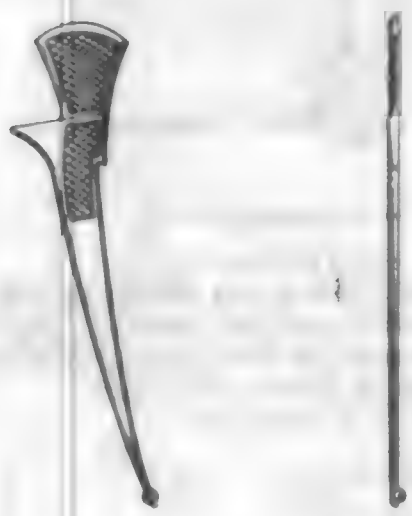
184,332
EXPANSIBLE LINK CHAIN FOR A BRACELET OR SIMILAR ARTICLE
Karl C. Augenstein, Cranston, R. I., assignor to Speidel Corporation, Providence, R. I., a corporation of Rhode Island
Application June 25, 1958, Serial No. 51,517
Term of patent 14 years
(Cl. D45—4)



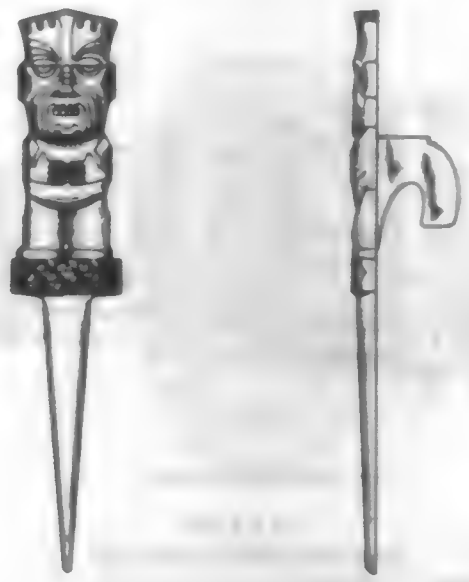
184,333
DRINK STIRRER
Victor J. Bergeron, Orinda, Calif.
Application July 9, 1958, Serial No. 51,709
Term of patent 14 years
(Cl. D44—1)



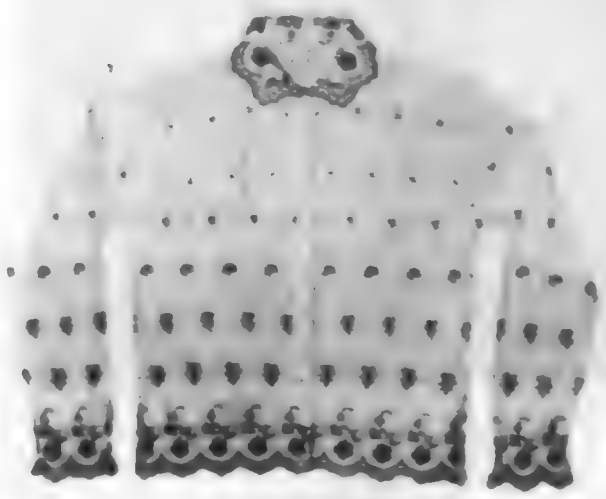
184,334
DRINK STIRRER
Victor J. Bergeron, Orinda, Calif.
Application July 9, 1958, Serial No. 51,710
Term of patent 14 years
(Cl. D44—1)



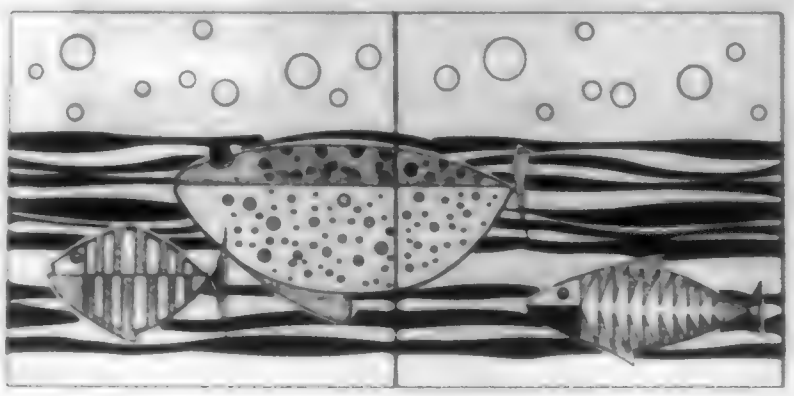
184,335
COCKTAIL PICK
Victor J. Bergeron, Orinda, Calif.
Application July 9, 1958, Serial No. 51,711
Term of patent 14 years
(Cl. D44—29)



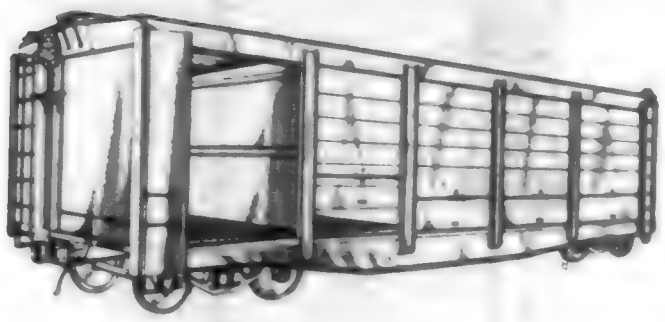
184,336
SWEATER
Hans Boepple, New York, N. Y.
Application May 7, 1958, Serial No. 50,791
Term of patent 3½ years
(Cl. D3—4)



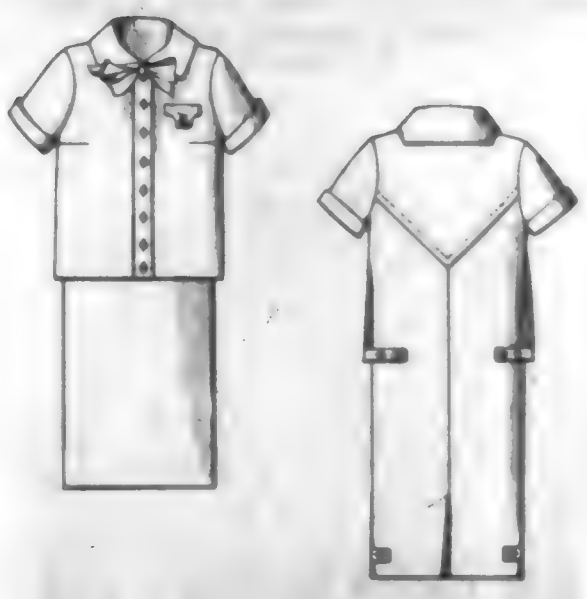
184,337
TILE UNIT
Glenn W. Bunday, Sunland, Calif., assignor to Ceratile Corporation, Paramount, Calif., a corporation of California
Application February 3, 1958, Serial No. 49,479
Term of patent 14 years
(Cl. D18—2)



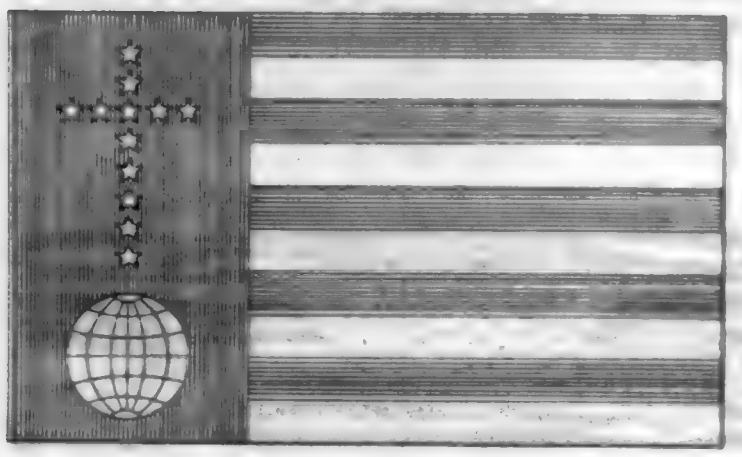
184,338
FREIGHT CAR
Frank E. Cheshire, Evansville, Ind., assignor to International Steel Company, Evansville, Ind., a corporation of Indiana
Application June 13, 1955, Serial No. 36,472
Term of patent 14 years
(Cl. D66—1)



184,339
MATERNITY DRESS
Edna Christelman, Wantaugh, N. Y.
Application February 19, 1958, Serial No. 49,696
Term of patent 3½ years
(Cl. D3—26)



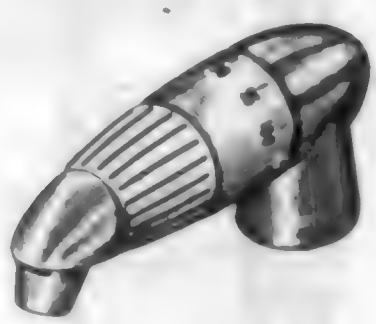
184,340
RELIGIOUS FLAG
Frank W. Clarke, Valley Stream, N. Y.
Application July 24, 1957, Serial No. 47,066
Term of patent 3½ years
(Cl. D29—17)



184,341
EYE GLASS FRAME
Avis Jean Coval, Dayton, Ohio, assignor to The Univis Lens Company, Dayton, Ohio, a corporation of Ohio
Application June 13, 1957, Serial No. 46,586
Term of patent 14 years
(Cl. D57—1)



184,342
MIXING FAUCET OR SIMILAR ARTICLE
Henry Dreyfuss, South Pasadena, Calif.
Application August 7, 1958, Serial No. 52,093
Term of patent 14 years
(Cl. D91—3)



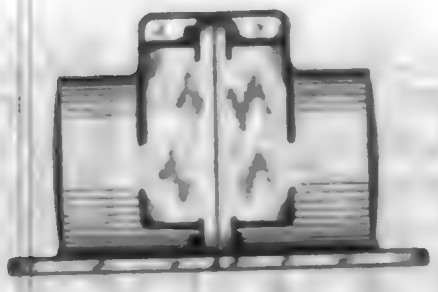
184,343
TRANSPORTABLE HOIST
George C. Durbin and Victor N. Kitchen, San Diego, Calif.
Application February 4, 1957, Serial No. 44,723
Term of patent 14 years
(Cl. D41—1)



184,344
MEDALLION OR SIMILAR ARTICLE
Robert Bruce Eaton, Des Moines, Iowa
Application January 23, 1957, Serial No. 44,575
Term of patent 3½ years
(Cl. D29—19)



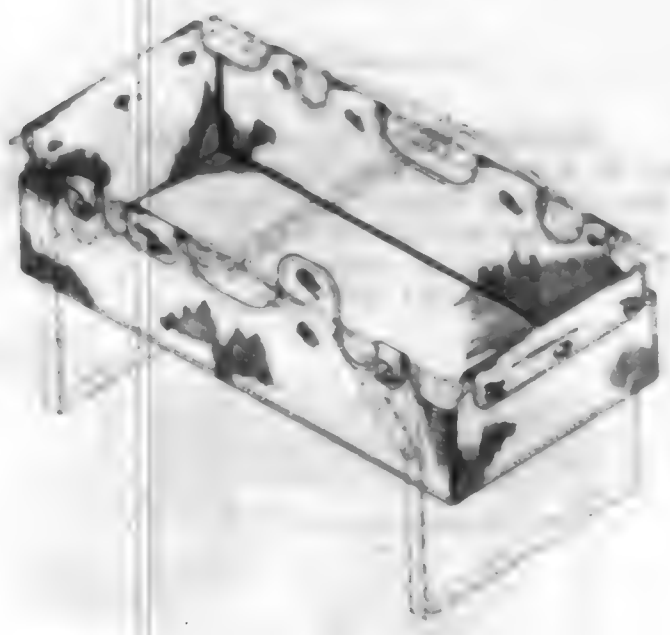
184,345
ELECTRIC VIBRATOR MOTOR
W Arthur Ernst, Racine, Wis.
Application May 22, 1958, Serial No. 51,016
Term of patent 14 years
(Cl. D26—5)



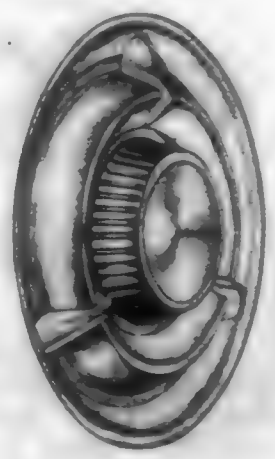
184,346
PULLEY OR SIMILAR ARTICLE
Howard F. Gerland, Bridgeport, Conn., assignor to Garden Specialties, Incorporated, Bridgeport, Conn., a corporation of Connecticut
Application December 7, 1955, Serial No. 39,193
Term of patent 14 years
(Cl. D41—1)



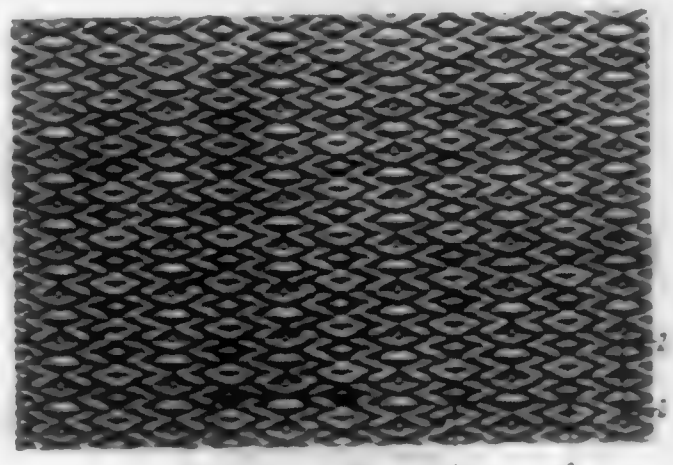
184,347
REMOVABLE CAR BED
Harold Gevartz, San Francisco, Calif.
Application July 15, 1957, Serial No. 46,928
Term of patent 3½ years
(Cl. D5—5)



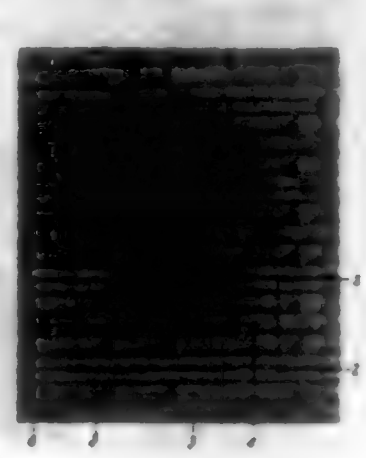
184,348
WHEEL COVER
Paul W. Gillan, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 17, 1958, Serial No. 49,685
Term of patent 3½ years
(Cl. D14—30)



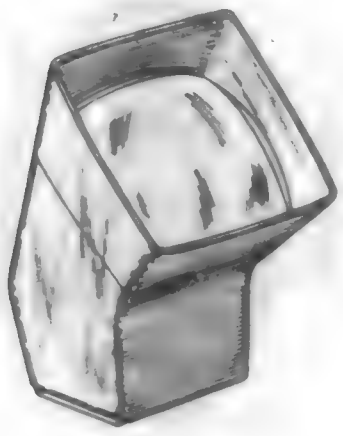
184,349
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application March 27, 1958, Serial No. 50,212
Term of patent 14 years
(Cl. D92—1)



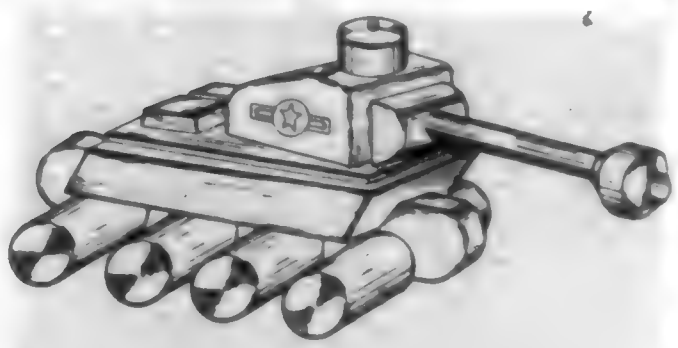
184,350
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application April 16, 1958, Serial No. 50,494
Term of patent 14 years
(Cl. D92—1)



184,351
TRANSPARENCY VIEWER
Raymond A. Grosso, Royal Oak, Mich., assignor to Sylvania Electric Products Inc., New York, N. Y., a corporation of Massachusetts
Application June 9, 1958, Serial No. 51,246
Term of patent 14 years
(Cl. D57—7)



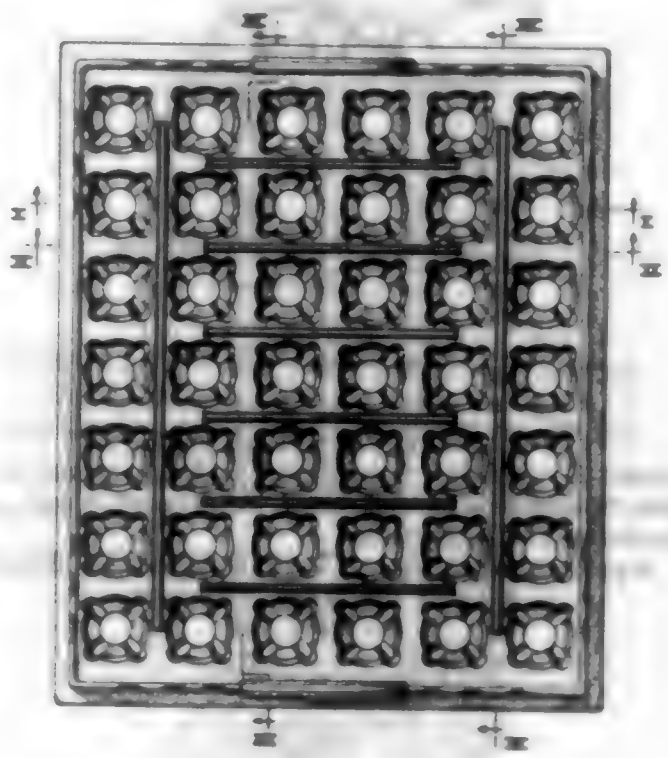
184,352
TOY TANK
Milan Gruber, Aliquippa, Pa.
Application February 18, 1958, Serial No. 49,695
Term of patent 3½ years
(Cl. D34—15)



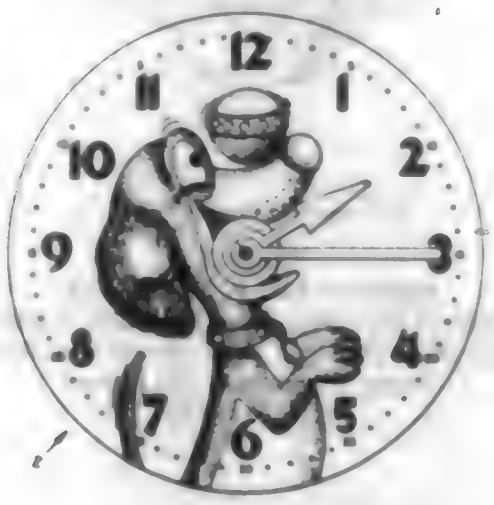
184,353
SOAP DISH
Julius Hurwitz, Bayside, N. Y.
Application December 3, 1957, Serial No. 48,750
Term of patent 3½ years
(Cl. D4—3)



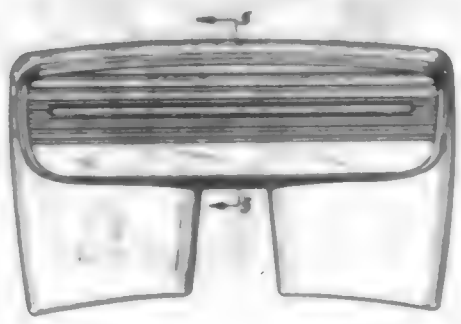
184,354
STORAGE AND SHIPPING TRAY FOR CONTAINERS
Edward F. Joyce 3rd, Boonton, N. J.
Application June 20, 1957, Serial No. 46,669
Term of patent 3½ years
(Cl. D58—13)



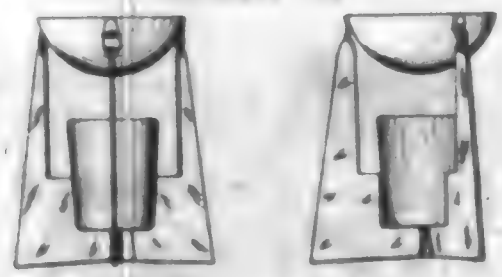
184,355
COMBINED DIAL AND HANDS FOR A CLOCK OR SIMILAR ARTICLE
William V. Judson, Dover, Mass., assignor to General Electric Company, a corporation of New York
Application November 21, 1957, Serial No. 48,591
Term of patent 3½ years
(Cl. D42—1)



184,356
STEREOSCOPIC SLIDE VIEWER
Thomas W. Kellogg, Duarte, Calif., assignor to Sawyer's Inc., Progress, Oreg., a corporation of Oregon
Application May 26, 1958, Serial No. 51,086
Term of patent 14 years
(Cl. D57—7)



184,357
BUTTER WARMER
John J. Kurtz, St. Louis, Mo.
Application May 27, 1958, Serial No. 51,096
Term of patent 3½ years
(Cl. D81—10)



184,358
DECANTER SET OR SIMILAR ARTICLE
Herbert Lagin, Great Neck, N. Y., assignor to Allen Frederic Corp., Bronx, N. Y., a corporation of New York
Application October 14, 1958, Serial No. 52,977
Term of patent 14 years
(Cl. D58—8)



184,359
TOY ANIMAL FIGURE
Mary L. Lawser, Radnor, Pa.
Application July 22, 1958, Serial No. 51,897
Term of patent 7 years
(Cl. D34—2)



184,360
SEAT FOR TRACTORS OR THE LIKE
Casimir E. Leja, Minooka, Ill.
Application February 25, 1958, Serial No. 49,796
Term of patent 14 years
(Cl. D14—6)



184,361
TRIPOD SUPPORT
Ray S. Lindenmeyer, Evanston, Ill.
Application October 1, 1956, Serial No. 43,153
Term of patent 14 years
(Cl. D15—8)



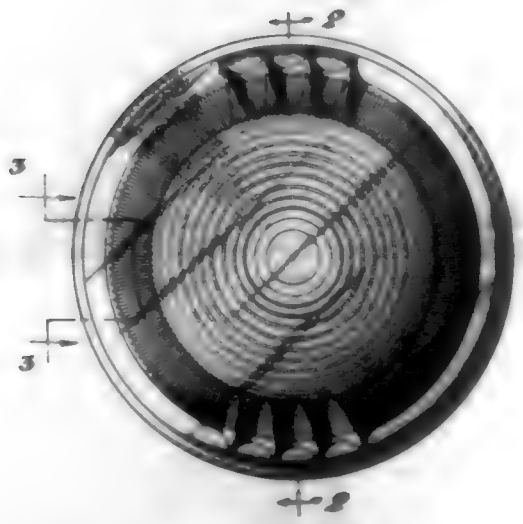
184,362
HANDLE
Morris Loeb, New York, N. Y.
Application May 2, 1958, Serial No. 50,728
Term of patent 14 years
(Cl. D10—8)



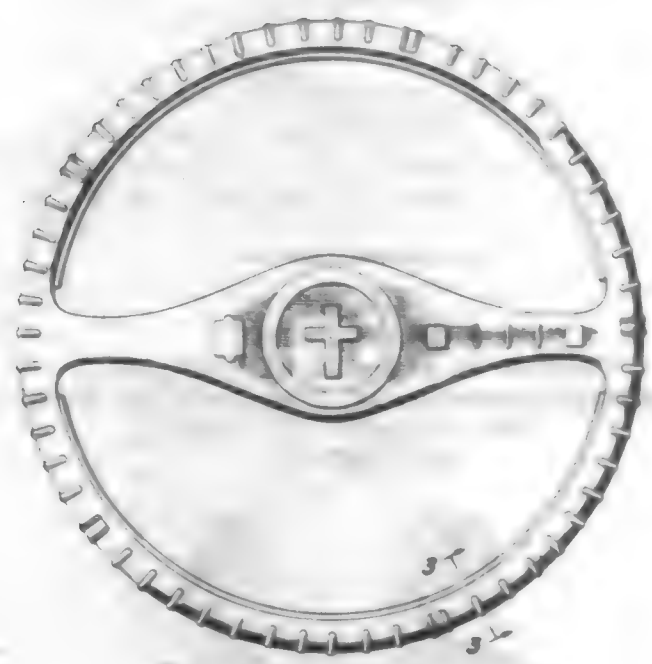
184,363
CHILD'S PURSE
Charlotte B. Mahnken, St. Louis, Mo.
Application September 18, 1958, Serial No. 52,687
Term of patent 3½ years
(Cl. D87—3)



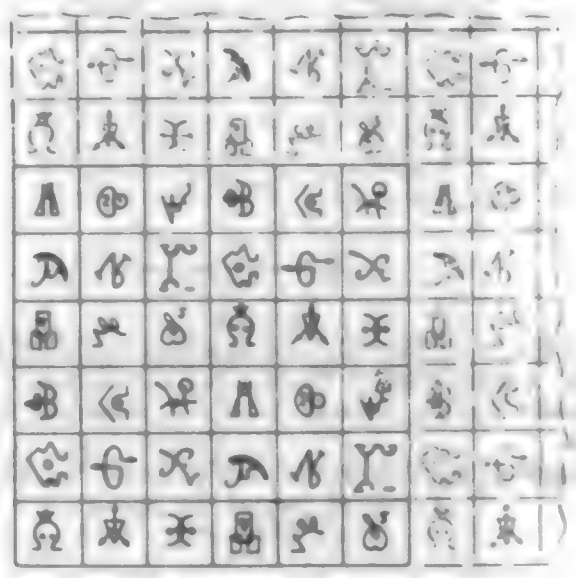
184,364
CLEARANCE MARKER LIGHT FOR VEHICLES
William L. Mappes, Cincinnati, Ohio, assignor to Northeast Capital Corporation, New York, N. Y., a corporation of New York
Application January 13, 1958, Serial No. 49,216
Term of patent 14 years
(Cl. D48—32)



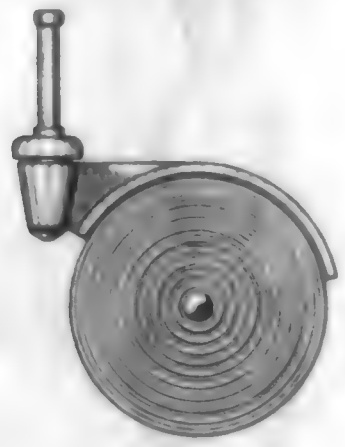
184,365
STEERING WHEEL COVER
Charles W. Marker, Fort Lauderdale, Fla.
Application October 9, 1956, Serial No. 43,280
Term of patent 3½ years
(Cl. D14—30)



184,366
BED COVER OR SIMILAR ARTICLE
Lillard Franklin McCloud, New York, N. Y., assignor to Pepperell Manufacturing Company, Boston, Mass., a corporation of Massachusetts
Application December 11, 1957, Serial No. 48,861
Term of patent 3½ years
(Cl. D92—2)



184,367
TEA WAGON CASTER
William H. Noelting, John A. Skupas, and Donald E. Dailey, Evansville, Ind., assignors to Faultless Caster Corporation, Evansville, Ind., a corporation
Application May 12, 1958, Serial No. 50,839
Term of patent 14 years
(Cl. D10—6)



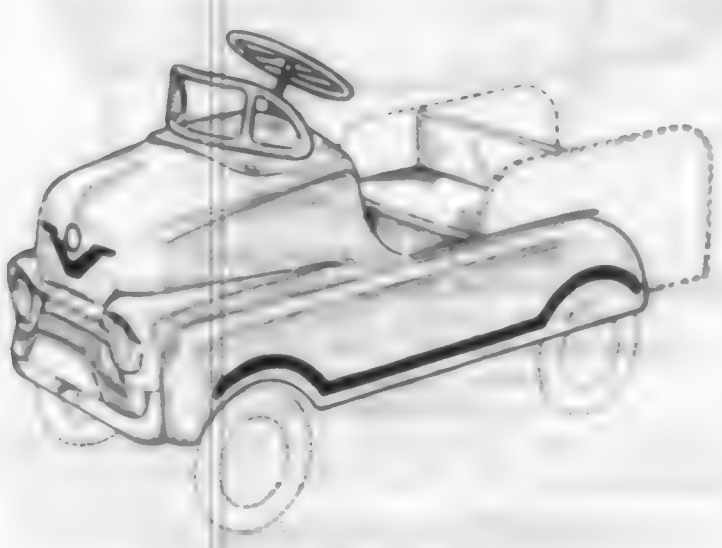
184,368
CABANA
Glenn R. Nunemaker, South Bend, Ind.
Application March 26, 1956, Serial No. 40,765
Term of patent 3½ years
(Cl. D13—1)



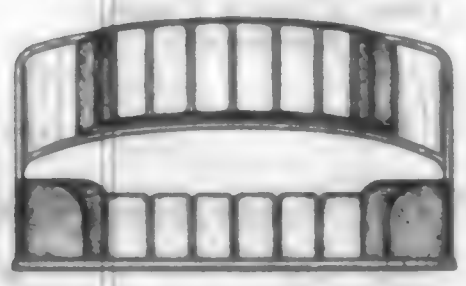
184,369
ARM CHAIR
Jim Peed, San Rafael, Calif.
Application February 28, 1958, Serial No. 49,849
Term of patent 3½ years
(Cl. D15—1)



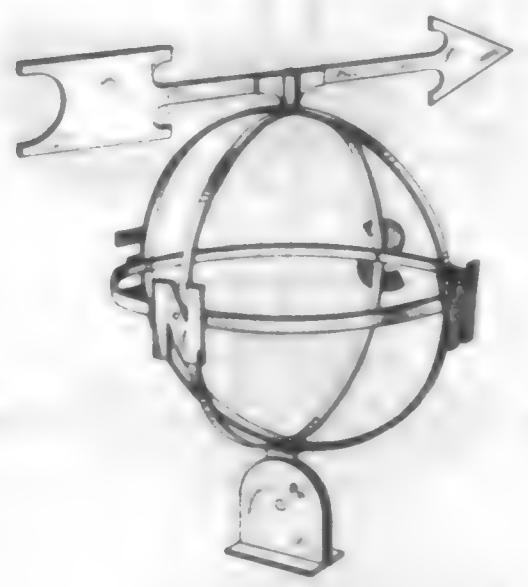
184,370
JUVENILE TRUCK
Carter E. Quisenberry, Kirkwood, N. Y., assignor to American Machine and Foundry Company, a corporation of New Jersey
Application October 29, 1956, Serial No. 43,551
Term of patent 14 years
(Cl. D34—15)



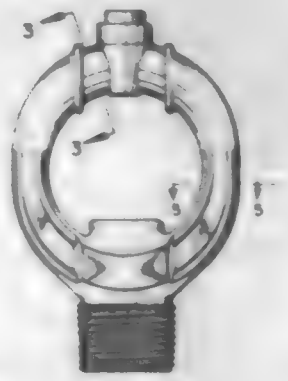
184,371
TRACTOR SEAT
Arthur O. Radke, Wauwatosa, Wis., assignor to Bostrom Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application May 19, 1958, Serial No. 50,952
Term of patent 14 years
(Cl. D14—6)



184,372
WEATHER VANE
John J. Richards, Wauwatosa, and Merlin E. Kottke, Milwaukee, Wis.
Application June 30, 1958, Serial No. 51,605
Term of patent 14 years
(Cl. D52—1)



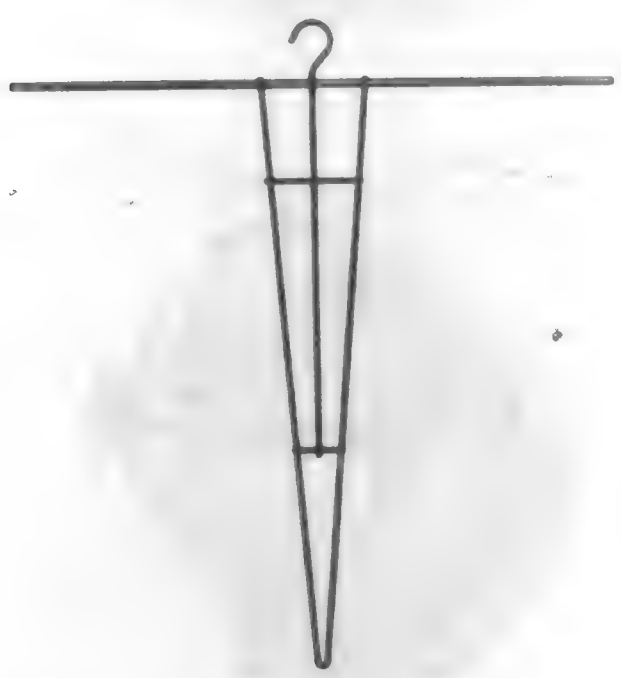
184,373
FRAME FOR A SPRINKLER HEAD OR SIMILAR ARTICLE
Harry N. Rider, Youngstown, Ohio, assignor to "Automatic" Sprinkler Corporation of America, Youngstown, Ohio, a corporation of Delaware
Application October 17, 1957, Serial No. 48,136
Term of patent 14 years
(Cl. D91—1)



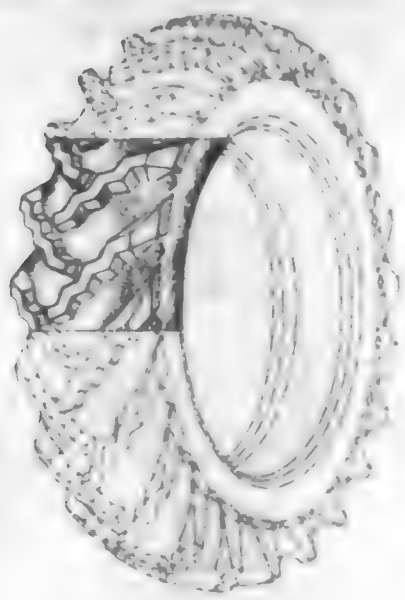
184,374
KEY
Fred J. Russell, Los Angeles, Calif.
Application December 17, 1957, Serial No. 48,935
Term of patent 14 years
(Cl. D50—4)



184,375
DISPLAY HANGER
Edward E. Schaefer, River Forest, Ill.
Application February 5, 1957, Serial No. 44,753
Term of patent 3½ years
(Cl. D80—8)



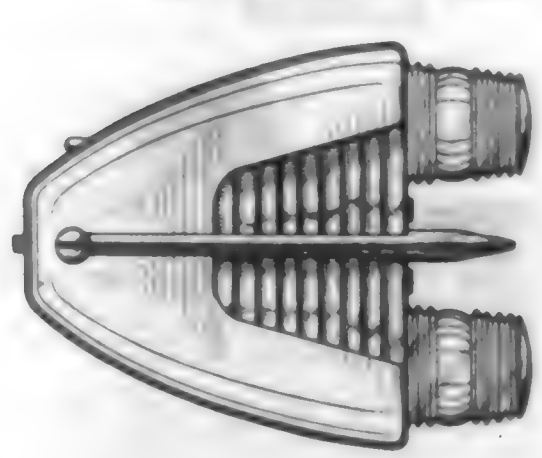
184,376
TIRE
Walter E. Shively and Kenneth R. Lewis, Akron, Ohio, assignors to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application June 3, 1957, Serial No. 46,470
Term of patent 14 years
(Cl. D90—20)



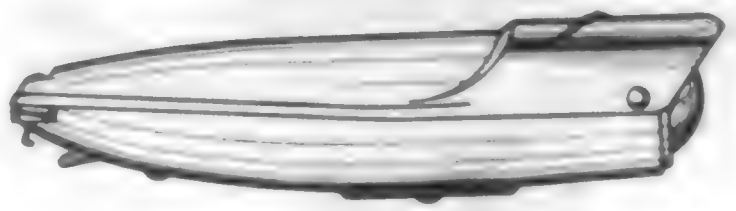
184,377
BICYCLE LAMP
John Smaltz, Marion, Ind., assignor to Delta Electric Company, Marion, Ind., a corporation
Application May 23, 1958, Serial No. 51,041
Term of patent 7 years
(Cl. D48—24)



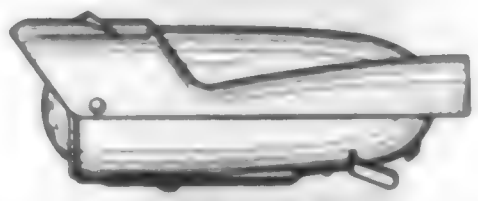
184,378
BICYCLE TAILLIGHT
John Smaltz, Marion, Ind., assignor to Delta Electric Company, Marion, Ind., a corporation
Application May 23, 1958, Serial No. 51,042
Term of patent 7 years
(Cl. D48—24)



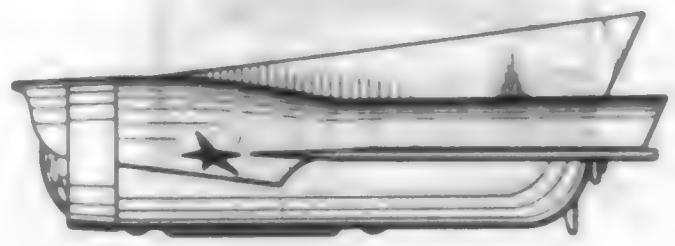
184,379
BICYCLE HEADLIGHT
John Smaltz, Marion, Ind., assignor to Delta Electric Company, Marion, Ind., a corporation
Application May 23, 1958, Serial No. 51,043
Term of patent 7 years
(Cl. D48—24)



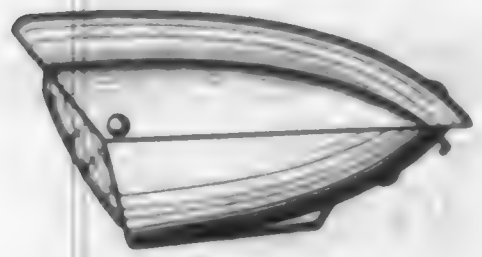
184,380
BICYCLE HEADLIGHT
John Smaltz, Marion, Ind., assignor to Delta Electric Company, Marion, Ind., a corporation
Application May 23, 1958, Serial No. 51,044
Term of patent 7 years
(Cl. D48—24)



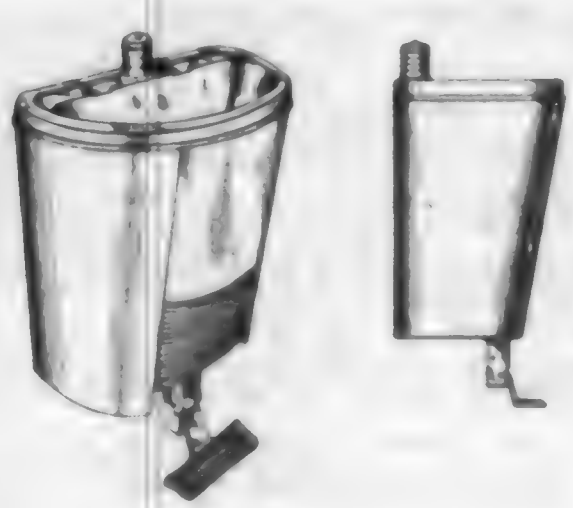
184,381
BICYCLE HEADLIGHT
John Smaltz, Marion, Ind., assignor to Delta Electric Company, Marion, Ind., a corporation
Application May 23, 1958, Serial No. 51,045
Term of patent 7 years
(Cl. D48—24)



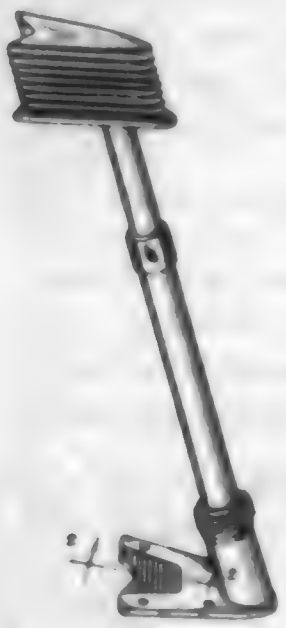
184,382
HEADLIGHT FOR BICYCLES
John Smaltz, Marion, Ind., assignor to Delta Electric Company, Marion, Ind., a corporation
Application May 23, 1958, Serial No. 51,046
Term of patent 7 years
(Cl. D48—24)



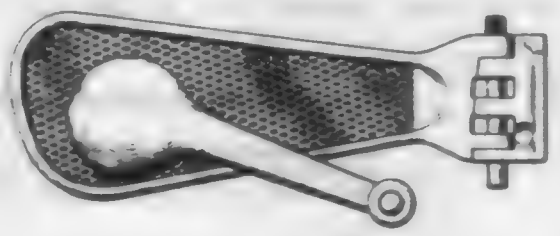
184,383
WASH FOUNTAIN
Brooks Stevens, Fox Point, Wis., assignor to Bradley Washfountain Co., Milwaukee, Wis., a corporation of Wisconsin
Application September 26, 1958, Serial No. 52,783
Term of patent 14 years
(Cl. D4—2)



184,384
BOAT STERN LIGHT
Clifford Brooks Stevens, Milwaukee, Wis., assignor to The Vollrath Co., Sheboygan, Wis., a corporation of Wisconsin
Application December 12, 1957, Serial No. 48,875
Term of patent 7 years
(Cl. D48—20)



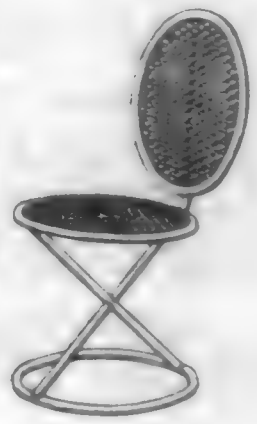
184,385
CAN OPENER
Henry J. Talge and Joseph L. Grant, Kansas City, Mo., assignors to John C. Hockery, Kansas City, Mo., as trustee
Application July 25, 1957, Serial No. 47,882
Term of patent 14 years
(Cl. D22—2)



184,386
TUBE TESTER
Carl D. Volpe, Westbury, N. Y.
Application January 14, 1958, Serial No. 49,258
Term of patent 3½ years
(Cl. D26—1)



184,387
CHAIR
William W. Williams, West Hollywood, Calif., assignor to Vista Furniture Company, Anaheim, Calif., a corporation of California
Application April 25, 1958, Serial No. 50,616
Term of patent 7 years
(Cl. D15—1)



LIST OF REISSUE PATENTEES

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NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

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Westman, Sydney E.: *See*—
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Dymond, Lawrence B., to Kelly Brothers Nurseries, Inc. Pear tree. 1,806, 2–3–59, Cl. 47—62.

Frazier, Loran R., and P. J. Jenkins, to E. J. Gilbert. Apple tree. 1,805, 2–3–59, Cl. 47—62.

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Frazier, Loran R., and Jenkins. 1,805.

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Ancoin, Leo J., to The Gray Mfg. Co. Reproducer arm assembly. 184,331, 2–3–59, Cl. D26—14.

Augenstein, Karl C., to Speidel Corp. Expansible link chain for a bracelet or similar article. 184,332, 2–3–59, Cl. D45—4.

"Automatic" Sprinkler Corp. of America: *See*—
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Nappes, William L., to Northeast Capital Corp. Clearance marker light for vehicles. 184,364, 2–3–59, Cl. D48—32.

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Smaltz, John, to Delta Electric Co. Bicycle headlight. 184,380, 2–3–59, Cl. D48—24.
Smaltz, John, to Delta Electric Co. Bicycle headlight. 184,381, 2–3–59, Cl. D48—24.
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TO WHOM

PATENTS WERE ISSUED ON THE 3RD DAY OF FEBRUARY, 1959

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Abernethy, Nelson W., E. M. Diss, and T. W. Sarge, to The Dow Chemical Co. Fiber-forming composition comprising cellulose acetate and acrylonitrile copolymer and fiber consisting essentially of same. 2,872,424, 2–3–59, Cl. 260—17.

Abramoska, Alfred A., and J. R. Cox, to The Bales Collet Mfg. Co. Indexing mechanism. 2,871,721, 2–3–59, Cl. 74—535.

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Adams, Clovis H. Pyrotechnic method for increasing the basicity of lead sulfate containing pigments. 2,872,333, 2–3–59, Cl. 106—256.

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Barg, Charles H., to Baker Oil Tools, Inc. Hydraulic expansible rotary well drilling bit. 2,872,160, 2–3–59, Cl. 255—76.

Barker, Melvin A., and A. J. Rooks. Automatic self-releasing adjustable torque wrench. 2,872,004, 2–3–59, Cl. 192—56.

Barnes, Garrett H., Jr., to Dow Corning Corp. Beta-acetoxyethyl siloxanes. 2,872,434, 2–3–59, Cl. 260—46.5.

Barnes, William D., Jr.: *See*—
Rolle, Clifford J., Roteman, and Barnes. 2,872,422.

Barrett, Robert F., to Fred W. Kerns. Apparatus for retracting mudguards. 2,872,211, 2–3–59, Cl. 280—154.5.

Barry, Lee, Laboratories, Inc.: *See*—
Lipari, Michael. 2,871,857.

Bartels, Alfred, and P. Jobmann, to Nordischer Maschinenbau Rud. Baader. Apparatus for feeding fish-dressing machines. 2,871,507, 2–3–59, Cl. 17—2.

Barth, Theodore H., to United States of America, Navy. Aiming angle sight. 2,871,565, 2–3–59, Cl. 33—46.5.

Bartlett, James L., Jr., H. T. Hertzog, and R. M. Pickard, to The Garrett Corp. Controls for an air conditioning system. 2,871,671, 2–3–59, Cl. 62—172.

Barton, Hugh M., Jr., to Phillips Petroleum Co. Analyzer. 2,872,588, 2–3–59, Cl. 250—210.

Bassist, Rudolph. Control method and electric system for textile machines. 2,871,685, 2–3–59, Cl. 66—86.

Batcheller, Hugh W., to Kent Mfg. Corp. Multiple electric connectors. 2,872,658, 2–3–59, Cl. 339—220.

Bateman, Lee J.: *See*—
Day, Richard A., and Bateman. 2,872,396.

Bates, Harold: *See*—
Grady, Dennis, Bates, and Fisher. 2,872,331.

Bathé, Charles G. Palm tree trimmer. 2,871,620, 2–3–59, Cl. 47—1.

Battey, Everett M., and I. S. Livney, to Infilco Inc. Quick-acting release valve. 2,872,149, 2–3–59, Cl. 251—25.

Battle Creek Packaging Machines, Inc.: *See*—
Forgo, Eric J. 2,871,639.

Baum, Arthur A., to E. I. du Pont de Nemours and Co. Process for the preparation of dibenzanthrone. 2,872,459, 2–3–59, Cl. 260—357.

Bauman, Joseph F. Skirt gage. 2,871,564, 2–3–59, Cl. 33—9.

Baumann, Hans, and E. Kern, to Badische Anilin- & Soda-Fabrik Akt. Production of azo dyestuff actions. 2,872,449, 2–3–59, Cl. 260—157.

Baxter, Robert R.: *See*—
Schleyer, Victor, Henricks, and Baxter. 2,872,415.

Beasley, French & Co. Ltd.: *See*—
French, Gordon W. 2,872,190.

Beaton & Cadwell Mfg. Co.: *See*—
Work, Erich W. 2,871,877.

Bechtel, Alfred R., Jr., to Ashworth Bros. Inc. Flat wire conveyor belt. 2,872,023, 2–3–59, Cl. 198—182.

Beck, Arnold H. W., and T. M. Jackson, to International Standard Electric Corp. Electric discharge tubes. 2,872,620, 2–3–59, Cl. 315—84.6.

Becker, Philip D., to United-Carr Fastener Corp. Plug button assembly. 2,871,591, 2–3–59, Cl. 40—20.

Beckvold, Oscar E., Jr., and P. F. Hartman, to United States Rubber Co. Battery separators. 2,872,497, 2–3–59, Cl. 136—146.

Bedford, Howard E., to The Pyrene Co. Ltd. Smoke-detecting and fire-extinguishing apparatus. 2,871,951, 2–3–59, Cl. 169—5.

Bedford, William A., Jr. Fastening device. 2,872,139, 2–3–59, Cl. 248—27.

Beecher, Donald J., to American Flexible Coupling Co. Shaft coupling. 2,871,681, 2–3–59, Cl. 64—9.

Beecroft, Robert J., and E. N. Fenton. Sound-propagating device. 2,871,971, 2–3–59, Cl. 181—31.

Behnen, William B., to International Harvester Co. Planter. 2,871,805, 2–3–59, Cl. 111—77.

Beiderbecke, Charles H., to International Business Machines Corp. Carriage tension release mechanism. 2,872,011, 2–3–59, Cl. 197—62.

Beiler, Jay M., R. R. Brendel, and G. J. Martin, to The National Drug Co. Muscle-relaxing tranquilizer compositions. 2,872,374, 2–3–59, Cl. 167—65.

Beiler, Jay M., and G. J. Martin, to The National Drug Co. Dimethylane-reserpine. 2,872,377, 2–3–59, Cl. 167—67.

Belek, Emil, H. A. Miloche, and H. G. Reimels, to Bell Telephone Laboratories, Inc. Mounting and connecting apparatus. 2,872,624, 2–3–59, Cl. 317—99.

Bell & Gossett Co.: *See*—
Birkemeier, Henry P. 2,872,598.

Bell & Howell Co.: *See*—
Badalich, Frank C. 2,871,760.

Bell Telephone Laboratories, Inc.: *See*—
Belek, Emil, Miloche, and Reimels. 2,872,624.
Goehner, William R. 2,872,193.
McMahon, William. 2,872,501.

Bendix Aviation Corp.: *See*—
Burnett, Richard T. 2,871,661.
Burnett, Richard T. 2,871,990.
Burnett, Richard T. 2,871,991.
Burnett, Richard T. 2,871,992.
Du Bois, William H. 2,871,987.
Hager, Robert R. 2,872,540.
Kaiser, Bernard D. 2,871,983.
Kasten, Walter. 2,872,044.
Price, Earl R. 2,871,828.
Spencer, Glenn S. 2,872,127.
Stamper, Hamilton A. 2,872,273.
Stanton, George E. 2,871,905.
Strebinger, Robert L. 2,871,996.
Wagner, Raymond W., and Sanders. 2,872,057.

Benedict, Stephen W.: *See*—
Scripture, Edward W., Jr., and Benedict. 2,872,329.

Bennett, John C., to Utility Trailer Mfg. Co. Trailer van with sloping floor. 2,872,240, 2–3–59, Cl. 296—28.

Bennett, Walter, and P. M. Heimmiller, to Utility Trailer Mfg. Co. Towing and braking assembly for trailers. 2,872,208, 2–3–59, Cl. 280—116.

Berg, Heinz, to Teves, Alfred, Maschinen-und Armaturenfabrik KG. Piston ring for internal combustion engines and the like. 2,872,258, 2–3–59, Cl. 309—46.

Bergdal, Ed. Set-back concrete-form tie with re-usable anchor pieces. 2,871,542, 2–3–59, Cl. 25—131.

Berger, Frank M., to Carter Products, Inc. Hypnotic composition containing about 1 to 3 parts acetophenetidin and about 3 to 1 parts salicylamide. 2,872,370, 2–3–59, Cl. 167—52.

Bergstrom, Lawrence R.: *See*—
Jones, Bryan. 2,871,898.

Berner, Phillip J., to General Motors Corp. Steering wheel. 2,872,539, 2–3–59, Cl. 200—61.56.

Bernstein, Isidor M.: *See*—
Goland, Marc, Goland, Low, and Bernstein. 2,872,347.

Bernstein, Philip: *See*—
Wechsler, Harry, Bernstein, and Herbst. 2,872,478.

Berry, Richard C., to Crouse-Hinds Co. Explosion proof switch housing. 2,872,552, 2–3–59, Cl. 200—172.

Bets Laboratories, Inc.: *See*—
Kahler, Harry L., and George. 2,872,281.

Beyer, Jeno: *See*—
Heijnis, James W. L., and Beyer. 2,872,128.

Bidlack, Verne C., Jr.: *See*—
Mancher, Lessel L., and Bidlack. 2,872,378.

Bien, Jack M. Portable roll and measure machine. 2,871,568, 2–3–59, Cl. 33—129.

Bigelow, Herbert L., to Baker Oil Tools, Inc. Apparatus for effecting operation of subsurface well bore devices. 2,871,946, 2–3–59, Cl. 166—64.

Binder, Alfred, to The Sherwin-Williams Co. Method of making a container. 2,871,553, 2–3–59, Cl. 29—451.

Bird, Lester F., to Engelhart Industries, Inc. Electrical circuit for electrical discharge lamps. 2,872,623, 2–3–59, Cl. 315—224.

Birkemeier, Henry P., to Bell & Gossett Co. Vibrating reed oscillator controller. 2,872,598, 2–3–59, Cl. 310—25.

Birmingham Small Arms Co. Ltd., The: *See*—
Marshall, Peter R., and Ridout. 2,872,311.

Birtwell, William C., and L. E. Harper, to B-I-F Industries, Inc. Feed controlling apparatus. 2,872,074, 2–3–59, Cl. 222—55.

Black Products Co.: *See*—
Lau, Erwin M. 2,871,891.

Blackhawk Mfg. Co.: *See*—
Flemate, Clarence L. 2,871,908.

Blackstone and Co. Ltd.: *See*—
Hallewell, George. 2,871,683.

Blair, Winton B., to Schlumberger Well Surveying Corp. Firing system for electrically detonated borehole equipment. 2,871,784, 2–3–59, Cl. 102—21.6.

Blanchard, Andre, to Schlumberger Well Surveying Corp. Electrical resistivity well logging methods and apparatus. 2,872,637, 2–3–59, Cl. 324—1.

Blanchard, Louis, to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de St. Gobain, Chauny & Cirey. Stabilizing sulphuric anhydride. 2,872,290, 2–3–59, Cl. 23—174.

Blaum, Ott-Heinrich, to Licentia Patent-Verwaltungs-G. m. b. H. Rapid braking arrangement for forward-and-reverse drives. 2,872,002, 2–3–59, Cl. 192—21.5.

Blauvelt, Ralph C., and T. J. Eppele, to Thompson Products, Inc. Rotation control system. 2,872,631, 2–3–59, Cl. 318—28.

Bley, William G., to Scott & Williams, Inc. Looping machines and methods, and in knitted fabrics seamed thereby. 2,871,806, 2–3–59, Cl. 112—25.

Bloch, Herman S.: *See*—
Hervert, George L., and Bloch. 2,872,418.

Bloch, Herman S., to Universal Oil Products Co. 1,2,3,4,7,7-hexachloro-5-N-alkyl carboxamide bicyclo [2.2.1]-2-heptene. 2,872,483, 2–3–59, Cl. 260—557.

Blomquist, Albert E., to Fairchild Engine and Airplane Corp. Variable armored sections for vehicles. 2,871,763, 2–3–59, Cl. 89—36.

Bloom, Samuel M., ⅓ to M. Nison. Fabric softener ejector. 2,872,076, 2–3–59, Cl. 222—70.

Bloomer Bros. Co.: *See*—
Tobey, Leon H. 2,871,641.
Truini, Richard C. 2,871,640.

Blough, John G.: *See*—
Fasold, George A., and Blough. 2,871,817.

Blubaugh, Bernard L. Implement transport having a vertical adjustable chassis. 2,872,204, 2–3–59, Cl. 280—44.

Bodine, Albert G., Jr. Petroleum well treatment by high power acoustic waves to fracture the producing formation. 2,871,943, 2–3–59, Cl. 166—42.

Boe, Robert C.: *See*—
McDonald, Donald C., Boe and Warshawsky. 2,871,660.

Boehringer, C. H.: *See*—
Merz, Hans, and Weidlich. 2,872,451.
Zelle, Karl, and Wick. 2,872,452.

Boeing Airplane Co.: *See*—
Hubbard, Robert M. 2,872,533.
Murphy, Richard J., Phillips, and Pakko. 2,872,063.
Seeger, Bernard I. 2,872,133
Stineman, Russell W. 2,872,591.
Wetland, Richard H. 2,872,120.
White, Roland J. 2,872,135.

Bogert, Virgil V., to Chas. Pfizer & Co. Purification process. 2,872,442, 2–3–59, Cl. 260—210.

Böhme Fettchemie G. m. b. H.: *See*—
Wedell, Hans. 2,872,351.

Bolkcom, Wilbur T., and W. E. Knapp. Manganese-nickel base brazing alloys. 2,872,309, 2–3–59, Cl. 75—134.

Boller, Ernest R.: *See*—
Eubank, Lowell D., and Boller. 2,872,343.

Bolton, John W., & Sons, Inc.: *See*—
Prevost, Bruno E. 2,871,769.

Bonsey, Frederick R., to The Sigma Instrument Co. Ltd. Apparatus for controlling a machine tool in response to dimensional changes of a workpiece. 2,871,629, 2–3–59, Cl. 51—165.

Boothe, Alonzo M., to Ayco Mfg. Corp. Intermediate frequency transformer. 2,872,649, 2–3–59, Cl. 333—77.

Borah, John E. Utility device. 2,871,615, 2–3–59, Cl. 45—28

Borden Co., The: *See*—
Wechsler, Harry, Bernstein, and Herbst. 2,872,478.

Bordner, Lawrence M., Jr. Safety release latch. 2,872,233. 2–3–59, Cl. 292—92.

Borgnon, Jean, to Diffusion Alloys Ltd. Rotary furnaces. 2,872,176, 2–3–59, Cl. 263—34.

Boston Machine Works Co.: *See*—
Vachon, Hubert J. 2,871,493.

Boston Mfg. Co.: *See*—
Mason, Vincent I. 2,872,668.

Bouchard, Leo E. Device for attachment to a collar. 2,871,483, 2–3–59, Cl. 2—132.

Bourassa, Hugues A., and E. Gunell. Pump. 2,871,797. 2–3–59, Cl. 103—161.

Bowen & Co., Inc.: *See*—
Kern, George R. 2,871,562.

Bower, Byron F., to Pines Engineering Co., Inc. Universal and adjustable mounting for a clamp die in a tube bending machine. 2,871,909, 2–3–59, Cl. 153—46.

Bowes, Henry A., to Warner-Lambert Pharmaceutical Co. Ataractic composition comprising 10-(1-methyl-3-piperidylmethyl)-phenothiazine and 10-(3-dimethylamino-propyl)-2-chlorophenothiazine. 2,872,376, 2–3–59, Cl. 167—65.

Bowes, Henry E.: *See*—
Whipple, Richard J., and Bowes. 2,872,677.

Bowker, Harry W.: *See*—
Ashley, Edward L. and J. W., Bowker, Hall, and Kendall. 2,872,398.

Bowles, Glen A. Coffee percolator. 2,872,560, 2–3–59, Cl. 219—43.

Bowness, George W., and J. Scott. Vehicle body extension. 2,872,239, 2–3–59, Cl. 296—26.

Boyd-Breat, Peter, to Harry Ferguson of India Ltd. Soft ground cultivator attachment for tractors and the like. 2,871,956, 2–3–59, Cl. 172—72.

Boydell, Kenneth R., to Rotol Ltd. Refrigeration systems. 2,871,672, 2–3–59, Cl. 62—172.

Boynton, A. J., & Co.: *See*—
Tietig, Rudolph, Jr., and Pollingue. 2,872,180.

Bradfield, William W., and R. F. Anderson to Rigidbilt Inc. Unit cooler. 2,871,677, 2–3–59, Cl. 62—285.

Brandt, Harry, to California Research Corp. Seismic cable lifting apparatus. 2,871,665, 2–3–59, Cl. 61—72.

Branick, Charles E. Curing and testing rim for pneumatic tire casings. 2,871,518, 2–3–59, Cl. 18—45.

Braund, John J. Combined geographical globe and antenna structure. 2,872,678, 2–3–59, Cl. 343—720.

Bray, Frederick H., and R. G. Knight, to International Standard Electric Corp. Automatic telecommunication exchanges. 2,872,527, 2–3–59, Cl. 179—22.

Bray, Geddes A., to Grinnell Corp. Pendent sprinkler. 2,871,953, 2–3–59, Cl. 169—37.

Bredall, Charles H. Antenna-detector coupling unit. 2,872,509, 2–3–59, Cl. 250—20.

Breham, Howard E., Jr., and A. F. Mitchell, to Hupp Corp. Adapter for inside installation of air conditioners of the window mounted type. 2,871,778, 2–3–59, Cl. 98—94.

Breil, Jules J. Excavating apparatus. 2,872,157, 2–3–59, Cl. 255—4.

Brendel, Robert R.: *See*—
Beller, Jay M., Brendel, and Martin. 2,872,374.

Breuning, Ernst G., to Lufttechnischen Gesellschaft m. b. H. Measurement of very small electric potential changes. 2,872,642, 2–3–59, Cl. 324—111.

Brevets Aero-Mecaniques S. A.: *See*—
Guerne, William. 2,871,788.

Breznak, Edward: *See*—
Harvey, Mortimer T., and Breznak. 2,872,431.

Bridgeport Hardware Mfg. Corp., The: *See*—
Coyle, John H., Wilson, and Vargonicnik. 2,871,899.

Briggs, Robert B.: *See*—
Ura, Chester L., Sleeman, and Briggs. 2,872,402.

Brill, William E., to General Motors Corp. Slip ring and brush holder construction for electrodynamic machinery. 2,872,606, 2–3–59, Cl. 310—239.

Bringelson, Roy W., and E. M. Katzenberg, to Robinson-Houchin, Inc. Lens edging machine. 2,871,627, 2–3–59, Cl. 51—127.

Brinton, Earl M., to United States of America, Air Force. Latch. 2,872,234, 2–3–59, Cl. 292—256.

British Celanese Ltd.: *See*—
Grady, Dennis, Bates, and Fisher. 2,872,331.
Page, Clifford E., and Downing. 2,871,512.

British Oxygen Co. Ltd., The: *See*—
Thorp, Dennis A., and Usher. 2,872,563.

British Petroleum Co. Ltd., The: *See*—
McNeill, Eric, and Robson. 2,872,412.

Bronson, James D., Jr., to Thomsen Research Co., Inc. Method of manufacturing extended pigments. 2,872,335, 2–3–59, Cl. 106—292.

Brooks, Robert B., to Minneapolis-Honeywell Regulator Co. Welding method. 2,872,565, 2–3–59, Cl. 219—117.

Brown, Chester A.: *See*—
Gibboney, James L., Brown, and Krueger. 2,872,196.

Brown, Edgar A., and C. C. Zuleeg, to International Business Machines Corp. Sealing means for roller bearings. 2,872,257, 2–3–59, Cl. 308—187.

Brown, Henry: *See*—
Weinberg, Max, and Brown. 2,871,550.

Brown, James W.: *See*—
Krebs, Robert W., and Brown. 2,872,411.

Brown, Ruth E., and B. Rosen, to Crown Cork & Seal Co., Inc. Obtaining cork acids. 2,872,464, 2–3–59, Cl. 260—419.

Brown, William H., to United Aircraft Corp. Vane retaining device. 2,872,156, 2–3–59, Cl. 253—78.

Brueder, Antoine, to Societe Anonyme Andre Citroen. Door operating system. 2,872,235, 2–3–59, Cl. 292—336.3.

Bruggmann, Albert, to Fiawil Ludi & Cie. Metallwarenfabriken. Test tube closure, particularly for bacteriological purposes. 2,872,064, 2–3–59, Cl. 215—38.

Brumbaugh, Joseph F., and A. H. Retzlaff, to United States of America, Air Force. Pulse forming circuit. 2,872,576, 2–3–59, Cl. 250—27.

Brüne, Herbert, and L. Koehn. Hollow stopper for bottles, tubes or the like or artificial material, preferably polyethylene. 2,872,060, 2–3–59, Cl. 215—47.

Brunner, Maxine S.: *See*—
Oates, Charles E., and Brunner. 2,871,657.

Brunswick-Balke-Collender Co., The: *See*—
Margetts, Hyrum R. and L. F. 2,872,192.

Bryner, Fred: *See*—
Dietzler, Andrew J., and Bryner. 2,872,489.

Buchanan, David M., to Union Carbide Corp. Anode frame. 2,872,406, 2–3–59, Cl. 204—295.

Buchanan Electrical Products Corp.: *See*—
Ustin, George. 2,872,505.

Buchmann, Gerhard, and R. Karolus, to International Standard Electric Corp. Condenser loudspeaker. 2,872,532, 2–3–59, Cl. 179—111.

Buchtenkirch, Arthur J., to North Atlantic Industries, Inc. Rotary magnetic actuators. 2,872,627, 2–3–59, Cl. 317—197.

Buchtenkirch, Arthur J., to North Atlantic Industries, Inc. Rotary magnetic actuators. 2,872,628, 2–3–59, Cl. 317—197.

Buckham, James A.: *See*—
Lemon, Ralph B., and Buckham. 2,872,296.

Budwig, Gilbert G. Valve. 2,872,152, 2–3–59, Cl. 251—75.

Buell, Ernest H. Lubricating cooling and oil sealing system for counter rotating engines. 2,871,982, 2–3–59, Cl. 184—6.

Bugbee & Niles Co.: *See*—
Chisholm, Alpin. 2,871,556.

Bugbee, Stuart J., V. F. Hanson, and D. F. Babcock, to United States of America, Atomic Energy Commission. Reactor monitoring. 2,872,400, 2–3–59, Cl. 204—193.2.

Bugg, Kenly C., to Kendick Mfg. Co., Inc. Coil constructions. 2,872,652, 2–3–59, Cl. 336—180.

Bulan, Edward P., to Sylvania Electric Products Inc. Etchant. 2,872,302, 2–3–59, Cl. 41—42.

Bull, Harry W., and W. A. Finke, to The Dow Chemical Co. Lubrication of synthetic cellulose fibers. 2,872,356, 2–3–59, Cl. 117—139.5.

Bullock, Milon W., to American Cyanamid Co. Process for the preparation of dithiacyclopentylaliphatic acids. 2,872,455, 2–3–59, Cl. 260—327.

Bulloff, Jack J., to Interstate Sanitation Co., Inc. Porous containers for thickened air odor control liquids. 2,871,526, 2–3–59, Cl. 21—108.

Bulova Research and Development Laboratories, Inc.: *See*—
Fischer, Franz L., and Werndl. 2,871,706.

Bulova Watch Co. Inc.: *See*—
Fachon, Emil E. 2,871,654.

Burch, Archie E. Hitch for an agricultural tool. 2,871,961, 2–3–59, Cl. 172—235.

Burdett, Henry S., to G. Stibbe & Co., Ltd. Circular knitting machines. 2,871,684, 2–3–59, Cl. 66—14.

Burgess, Charles R., deceased; The Royal Trust Co., E. K. and R. E. Burgess, executors of said C. R. Burgess. Collision safety switch. 2,872,495, 2–3–59, Cl. 123—146.5.

Burgess, Elizabeth K.: *See*—
Burgess, Charles R. 2,872,495.

Burgess, Ralph E.: *See*—
Burgess, Charles R. 2,872,495.

Burkhart, William H., to Monroe Calculating Machine Co. Electronic computer. 2,872,107, 2–3–59, Cl. 235—61.

Burkland, Theodore L., to Deere & Co. Shell molding apparatus. 2,871,531, 2–3–59, Cl. 22—90.

Burnett, Richard T., to Bendix Aviation Corp. Hydraulic torque converter. 2,871,661, 2–3–59, Cl. 60—54.

Burnett, Richard T., to Bendix Aviation Corp. Combination disc and transverse type wheel brake. 2,871,990, 2–3–59, Cl. 188—70.

Burnett, Richard T., to Bendix Aviation Corp. Brake. 2,871,991, 2–3–59, Cl. 188—70.

Burnett, Richard T., to Bendix Aviation Corp. Axially and transversely movable brake. 2,871,992, 2–3–59, Cl. 188—70.

Burns, Henry L., and R. L. Rollefson, to Alar Products, Inc. Valve seal. 2,872,221, 2–3–59, Cl. 286—26.

Burroughs Corp.: *See*—
Goodwin, Fil F. 2,871,638.

Burrows, Arthur T. C., to Geo. W. King, Ltd. Conveyor systems. 2,872,036, 2–3–59, Cl. 214—64.

Burrows, James L., to Laboratory for Electronics, Inc. Bistable circuit. 2,872,372, 2–3–59, Cl. 250—27.

Butler, Arthur N., and J. Graves, said Butler assor. to said Graves. Tubeless tire mounter. 2,871,929, 2–3–59, Cl. 157—1.21.

Butler, Edward J. Automatic timer and control unit. 2,871,938, 2–3–59, Cl. 161—1.

Butler Mfg. Co.: *See*—
Simpson, Harold G., and Rimmer. 2,871,997.

Butler, Robert E. Decorative outside framed awning. 2,871,525, 2–3–59, Cl. 20—37.5.

Butler, Wallace B., F. A. Prybyla, and J. J. Reardon, to Olin Mathieson Chemical Corp. Sear safety operated by loading cover and breech bolt. 2,871,606, 2–3–59, Cl. 42—70.

Buttner, Artur, to Schnellpressenfabrik Akt. Heidelberg. Sheet guard arrangement for cylinder printing presses. 2,871,782, 2–3–59, Cl. 101—279.

Cable, Clair A.: *See*—
Graves, Loinel R., Knapp, Guerreiro, Cable and Wheeler, 2,871,756.

Calamai, Edward A., to General Precision Laboratory Inc. Television camera iris control mechanism. 2,871,776, 2–3–59, Cl. 95—64.

Caldwell Mfg. Co., The: *See*—
Decker, Frederick J., and Gregg. 2,871,506.

Cal-Gas Equipment Corp.: *See*—
Rowles, Franklin M. 2,871,872.

California-Doran Heat Treating Co.: *See*—
Sherwood, Robert C., and Lundquist. 2,872,364.

California Research Corp.: *See*—
Brandt, Harry. 2,871,665.
Doe, Robert E., Daniel, and Alvey. 2,871,970.
Jones, Stanley B. 2,872,638.

Callery Chemical Co.: *See*—
Letsinger, Robert L., Skoog, and Remes. 2,872,479.
Pearson, Richard K., and Wartik. 2,872,474.

Camco Inc.: *See*—
Daffin, Douglas E. 2,872,238.

Cameron Machine Co.: *See*—
Rockstrom, Leonard, and Aaron. 2,872,126.

Campbell, John M.: *See*—
Siefen, Howard T., and Campbell. 2,872,361.

Caporali, Arrigo: *See*—
Weitnauer, Gustavo A., Gioia, and Caporali. 2,872,373.

Carado Inc.: *See*—
Glab, William T. 2,872,330.

Carborundum Co., The: *See*—
Taylor, Kenneth M. 2,872,327.

Carey, Philip, Mfg. Co., The: *See*—
Fasold, George A., and Blough. 2,871,817.

Caroselia, Michael C., J. H. Jacobs, and T. R. McNeill, to Union Carbide Corp. Lead removal in the electrowinning of chromium. 2,872,395, 2–3–59, Cl. 204—105.

Carraway, William M. Illuminated fishing indicator. 2,871,607, 2–3–59, Cl. 43—17.

Carriol, Louis A., to S. A. T. A. M., Societe Anonyme pour Tous Appareillages Appareillages Mecaniques. Filling apparatus with an automatic stop. 2,871,894, 2–3–59, Cl. 141—209.

Carroll, James H., and R. S. Hanmer, to Phillips Petroleum Co. Continuous polymerization process for production of high-solids latex. 2,872,438, 2–3–59, Cl. 260—83.7.

Cart, Theodore S. Bowling ball bag. 2,872,029, 2–3–59, Cl. 206—1.

Carter Products, Inc.: *See*—
Berger, Frank M. 2,872,370.

Casco Products Corp.: *See*—
Stahl, Gerald E. 2,871,814.

Case, J. I., Co.: *See*—
Dwyer, William J. 2,871,779.

Casten, Ray J. Navigational plotting instrument. 2,871,567, 2–3–59, Cl. 33—75.

Cavanagh, George C., to Ranchers Cotton Oil. Process for reducing a three-phase fluid system to a two-phase system. 2,872,466, 2–3–59, Cl. 260—428.

Celmer, Philip R., and R. V. Jensen, to Radio Corp. of America. Preparation of reactive materials in a molten non-reactive lined crucible. 2,872,299, 2–3–59, Cl. 23—301.

Central Fibre Products Co.: *See*—
Lambert, Harry E. 2,872,062.

Chamberlain Corp.: *See*—
D'Olive, Charles R. 2,872,270.
Kiffer, Desire A., and Orner. 2,871,789.

Chamberlin, Reginald H. D., D. H. Mallinson, and R. P. Probert, said Chamberlin assor. to D. Napier & Son Ltd., said Mallinson and said Probert assors. to Power Jets (Research and Development) Ltd. Flight-speed responsive fuel control system for jet propulsion power plant. 2,871,650, 2–3–59, Cl. 60—39.28.

Chaplin Corp.: *See*—
Chaplin, Merle P. 2,872,093.

Chaplin, Merle P., to Chaplin Corp. Molded pulp set-up box. 2,872,093, 2–3–59, Cl. 229—2.5.

Chapman, Leslie R., Jr., J. W. Gray, and C. H. Jacobson, to General Precision Laboratory Inc. Drift calibration. 2,872,674, 2–3–59, Cl. 343—17.7.

Chase Equipment Corp.: *See*—
Owen, Claude M. 2,872,019.

Chatham, Joshua D., and D. M. Clark, said Chatham assor. to said Clark. Body constraining suit for aviators. 2,871,849, 2–3–59, Cl. 128—1.

Check, Mathias M., to The Yale & Towne Mfg. Co. Tubular lock. 2,872,236, 2–3–59, Cl. 292—336.3.

Chen, Mao C., to General Dynamics Corp. Magnetic core half adder. 2,872,667, 2–3–59, Cl. 340—174.

Chen, Simon K., to International Harvester Co. Retractable igniter for internal combustion engines. 2,872,496, 2–3–59, Cl. 123—169.

Chervenka, Charles H.: *See*—
Shelton, Frederic J., and Chervenka. 2,872,421.

Childress, William C., to Signode Steel Strapping Co. Seal blank. 2,871,536, 2–3–59, Cl. 24—23.

Chisholm, Alpin, to Bugbee & Niles Co. Method of making mesh fabric. 2,871,550, 2–3–59, Cl. 29—513.

Christensen, Paul M., to Federal Pacific Electric Co. Motor starters. 2,872,548, 2–3–59, Cl. 200—116.

Chrysler Corp.: *See*—
Clark, William J., and Eddy. 2,871,505.
Elliott, Clifton M., Graham, and Nofts. 2,871,844.
Greenlee, Harry R. 2,871,904.
Hamilton, Francis W. 2,871,843.
Loofbourrow, Alan G. 2,871,907.

Churchill, George R., to George R. Churchill Co., Inc. Buffing roll. 2,871,631, 2–3–59, Cl. 51—193.

Churchill, George R., Co., Inc.: *See*—
Churchill, George R. 2,871,631.

Ciba Co., Inc.: *See*—
Wiseman, George. 2,872,279.

Ciba Ltd.: *See*—
De Bruyne, Norman A., Newell, and Perry. 2,872,365.

Cisle, Casimer J., to General Motors Corp. Independent dirigible wheel suspension. 2,872,206, 2–3–59, Cl. 280—96.2.

Cisinski, Bedrich. Ultracentrifuge. 2,872,104, 2–3–59, Cl. 233—23.

Clark, David M.: *See*—
Chatham, Joshua D., and Clark. 2,871,849.

Clark Equipment Co.: *See*—
Dence, Donald S. 2,871,724.
Dreitzler, Melvin E. 2,871,966.

Clark, Robert L., to Ward Leonard Electric Co. High load current switch. 2,872,543, 2–3–59, Cl. 200—87.

Clark, Walter K.: *See*—
Kiernan, Conleth E., and Clark. 2,872,398.

Clark, William J., and J. W. Eddy, to Chrysler Corp. Torsion bar hinge assembly. 2,871,505, 2–3–59, Cl. 16—180.

Clause, Edward P.: *See*—
La Rose, Royal J., and Clause. 2,871,645.

Clément, Jean: *See*—
Crabbé, René, and Clément. 2,872,291.

Clemson Bros., Inc.: *See*—
Schrade, William A., and Clemson. 2,871,647.

Clemson, Richard D.: *See*—
Schrade, William A., and Clemson. 2,871,647.

Cleveland Pneumatic Industries, Inc.: *See*—
Olson, Raymond G. 2,871,732.

Cline, John E. Brake locking mechanism. 2,871,995, 2–3–59, Cl. 188—152.

Close, Garth. Apparatus for dispensing stamps. 2,871,939, 2–3–59, Cl. 164—43.

Clough, Harry, to Imperial Chemical Industries Ltd. Inhibitors of oxidation of phenols. 2,872,490, 2–3–59, Cl. 260—620.

Cluett, Peabody & Co., Inc.: *See*—
Kwok, Chi T. 2,871,486.

Cobb, Leland D., to General Motors Corp. Demountable closure. 2,872,219, 2–3–59, Cl. 286—5.

Coelho, George. Crab trap. 2,871,613, 2–3–59, Cl. 43—92.

Coffin, Harry B. Mailing piece including return envelope forming portion. 2,872,100, 2–3–59, Cl. 229—92.1.

Colbeck, Eric W., to United States of America, Atomic Energy Commission. Sheathing uranium. 2,871,558, 2–3–59, Cl. 29—528.

Coles, Ralph V., F. L. Maltby, and J. W. Philippi, to Robertshaw-Fulton Controls Co. Capacity level control with adjustable span control. 2,871,874, 2–3–59, Cl. 137—392.

Colman, Edward, to Du-More Fixture Co., Inc. Check stand. 2,871,984, 2–3–59, Cl. 186—1.

Columbia Broadcasting System, Inc.: *See*—
Goldmark, Peter C. 2,872,515.

Columbia Ribbon & Carbon Mfg. Co., Inc.: *See*—
Newman, Douglas A., and Schlotzhauer. 2,872,340.

Columbian Carbon Co.: *See*—
Weaver, Jack A. 2,872,336.

Combustion Engineering, Inc.: *See*—
Epley, Frederic I. 2,871,832.

Commonwealth Engineering Co. of Ohio, The: *See*—
Homer, Howard J., and Whitacre. 2,872,350.
Nack, Herman R. 2,872,342.

Commonwealth Scientific and Industrial Research Organization: *See*—
Walsh, Alan. 2,871,757.

Compagnie de Pont-a-Mousson: *See*—
Guenst, Eraldo. 2,872,175.

Compagnie Internationale des Pieux Armes: *See*—
Pickman, Edgard. 2,871,666.

Comptometer Corp.: *See*—
Walker, Emil C., Jr. 2,872,225.

Conlee, George D., to McGraw-Edison Co. Water supply means for washing machines. 2,871,871, 2–3–59, Cl. 137—216.

Conrad, Earl W. Apparatus for fabricating porous walls for controlled flow direction and porosity. 2,871,546, 2–3–59, Cl. 29—25.

Continental Illinois National Bank & Trust Co. of Chicago: *See*—
Payne, Frank E. 2,872,220.

Continental Oil Co.: *See*—
Coyne, Donald M., and Kirk. 2,872,456.

Contraves AG: *See*—
Lattmann, Max E. 2,872,131.

Cook Electric Co.: *See*—
Flubacker, Charles H. 2,872,506.
McDonald, Donald C., Bee, and Warshawsky. 2,871,660.
McNaughton, John F., and Gottfried. 2,872,254.

Cooper, Jack H., and T. Freistat, to Great Western Heel Co., Inc. Cast aluminum heel with plastic filler. 2,871,583, 2–3–59, Cl. 36—40.

Cooper, John E. Adapter means for dental motor controls. 2,871,722, 2–3–59, Cl. 74—582.

Cooper, Ray D. Book storage apparatus. 2,872,048, 2–3–59, Cl. 211—148.

Cornelius, Richard T. Beverage cooler and dispenser. 2,871,675, 2–3–59, Cl. 62—258.

Cosmos, Alexander J. Rotative surfacing tool and tufted packs therefor and method of making such packs. 2,871,632, 2–3–59, Cl. 51—193.5.

Cotton, Robert B., and C. J. Daniels, to All American Engineering Co. Aircraft overrun barrier. 2,872,136, 2–3–59, Cl. 244—110.

Couch, Glenn F., to The Symington-Gould Corp. Quick wheel change truck. 2,871,801, 2–3–59, Cl. 105—197.

Courchesne, Joseph N. Wheel and tire construction. 2,871,906, 2–3–59, Cl. 142—418.

Cox, John R.: *See*—
Abramoska, Alfred A., and Cox. 2,871,721.

Cox, John R., and L. F. Surrkar, to The Balas Collet Mfg. Co. Adjustably tensioned pusher. 2,872,199, 2–3–59, Cl. 279—47.

Coyle, John H., A. Wilson, and J. L. Vargonicsik, to The Bridgeport Hardware Mfg. Corp. Tool handles. 2,871,899, 2–3–59, Cl. 145—61.

Coyne, Donald M., and J. C. Kirk, to Continental Oil Co. Process for the production of cyclic and non-cyclic esters. 2,872,456, 2–3–59, Cl. 260—343.

Crabbé, René, and J. Clément, to Solvay & Cie. Process and apparatus for the decomposition of alkali metal amalgams. 2,872,291, 2–3–59, Cl. 23—184.

Crane Packing Co.: *See*—
Payne, Frank E. 2,872,220.

Creuts, Edward C.: *See*—
Wigner, Eugene P., Szilard, and Creuts. 2,872,401.

Croix, Louise S., to Air Reduction Co., Inc. Preparation of 2,2,2-trifluoroethyl vinyl ether. 2,872,457, 2–3–59, Cl. 260—614.

Crosby, Glenn R. Scaffold end frame and adapter. 2,872,251, 2–3–59, Cl. 304—2.

Crosley Broadcasting Corp.: *See*—
Rockwell, Ronald J. 2,872,643.

Cross, Earl F., to The R. C. Mahon Co. Metal building construction. 2,871,998, 2–3–59, Cl. 189—34.

Crouse-Hinds Co.: *See*—
Berry, Richard C. 2,872,552.

Crown Cork & Seal Co., Inc.: *See*—
Brown, Ruth Z., and Rosen. 2,872,464.

Cummin, Alfred S., and J. R. Hutzler, to General Electric Co. Capacitor and dielectric material therefor. 2,872,630, 2–3–59, Cl. 317—258.

Curran, Frank J.: *See*—
Sundell, Harold C. 2,871,616.

Curtis, John C.: *See*—
Fish, Walter D., and Curtis. 2,871,826.

Dadd, Morris V., to General Motors Corp. Hydraulic lash adjuster. 2,871,838, 2–3–59, Cl. 123—90.

Daffin, Douglas E., to Camco Inc. Well pulling tool. 2,872,238, 2–3–59, Cl. 294—86.

Dahl, J., & Son A B: *See*—
Olsson, Axel O., and Dahl. 2,871,766.

Dahl, Johan J.: *See*—
Olsson, Axel O., and Dahl. 2,871,766.

Dahlgren, John V. S., to The Wilcolator Co. Circuit regulating and control mechanism. 2,872,535, 2–3–59, Cl. 200—6.

Dale, Harold E. Valve mounting means. 2,871,875, 2–3–59, Cl. 137—433.

Damgen, Wilhelm: *See*—
Rumberg, Alfred, Damgen, and Thein. 2,872,494.

Damm, Victor W.: *See*—
Wille, Herbert E., and Damm. 2,871,524.

Damon, Nell F., to Raytheon Mfg. Co. Electrical connectors and attaching means therefor. 2,872,655, 2–3–59, Cl. 339—59.

Damone, Thomas A. Eye protector. 2,871,642, 2–3–59, Cl. 54—80.

Danforth, Dirwood M.: *See*—
Gall, Francis A., and Danforth. 2,871,504.

Daniel, Robert E.: *See*—
Doe, Robert E., Daniel, and Alvey. 2,871,970.

Daniels, Charles J.: *See*—
Cotton, Robert B., and Daniels. 2,872,136.

Dann, Morris, and J. J. Peterson, to American Home Products Corp. Hinged syringe body. 2,871,858, 2–3–59, Cl. 128—218.

Davidson, Samuel H.: *See*—
Haslam, Robert, and Davidson. 2,871,786.

Davies, Robert E., to Imperial Chemical Industries Ltd. Metallizable azo dyestuffs. 2,872,440, 2–3–59, Cl. 260—148.

Davis, Charles A., to The Ohio Brass Co. Transformer valve. 2,872,153, 2–3–59, Cl. 251—96.

Davis & Furber Machine Co.: *See*—
Koolstra, John A. 2,871,650.

Davis, Hollie M. Question and answer device using multiple rotating discs. 2,871,577, 2–3–59, Cl. 35—9.

Davis, Roy S. Egg grading machine. 2,872,040, 2–3–59, Cl. 209—121.

Davison, Alan, and R. Threadgold, to Automatic Telephone & Electric Co. Ltd. Counting circuits. 2,872,619, 2–3–59, Cl. 315—84.5.

Dawson Carbide Industries: *See*—
Struber, Bernard K. 2,871,731.

Day, Richard A., and L. J. Bateman, to Hughes Aircraft Co. Transistor voltage comparator. 2,872,596, 2–3–59, Cl. 307—88.5.

Dazey Corp.: *See*—
Lehmann, George A., and Gundelfinger. 2,872,063.

De Bruyne, Norman A., G. S. Newell, and K. R. C. Perry, to Ciba Ltd. Self-sustaining adhesive sheet and process for producing the same as well as for uniting surfaces with it. 2,872,365, 2–3–59, Cl. 154—79.

Decker, Frederick J., and M. H. Gregg, to The Caldwell Mfg. Co. Removable mesh balance. 2,871,506, 2–3–59, Cl. 16—202.

De Claire, Alten G., Jr., and R. E. Leibold, to Holley Carbureter Co. Spark advance control mechanism for spark ignition internal combustion engines. 2,871,840, 2–3–59, Cl. 123—117.

Deere & Co.: *See*—
Burkland, Theodore L. 2,871,531.
Du Shane, Wallace H. 2,871,967.
Harris, Kenneth J., and Hess. 2,871,963.
Heitzbu, Daniel C., Vogelaar, and Rohweder. 2,871,646.
Kroll, Everett R. 2,872,200.
Rich, Barrett G. 2,871,663.

Deere, John, Plow Co. (Ltd.): *See*—
Toderick, Samuel L. 2,871,962.

Deere Mfg. Co.: *See*—
McClellan, Marcus E. 2,871,643.
Skromme, Arnold E. 2,871,780.

Delander, John B. Ironing board cover. 2,871,890, 2–3–59, Cl. 38—140.

De Lano, Ralph E., Jr., and D. R. Young, to International Business Machines Corp. Non-volatile barium titanate storage tube. 2,872,612, 2–3–59, Cl. 315—12.

De Laval Separator Co., The: *See*—
Schloesser, Johann C. 2,871,889.

Delfs, Detlef: *See*—
Müller, Karl W., and Delfs. 2,872,355.

Demarest, William C., and E. Malmstrom; said Malmstrom assor. to said Demarest. Portable traction device. 2,871,858, 2–3–59, Cl. 128—84.

Dempster Brothers, Inc.: *See*—
Standifer, Lafayette B., Jr., and Simpson. 2,872,227.

Dence, Donald S., to Clark Equipment Co. Vehicle drive means. 2,871,724, 2–3–59, Cl. 74—665.

Dennison Mfg. Co.: *See*—
Dumont, Donald C. 2,872,030.

Denver Chemical Mfg. Co., The: *See*—
Manchey, Lessel L., and Bidlack. 2,872,378.

Derach, William C., Jr.: *See*—
Johnson, Reynold B., and Derach. 2,872,669.

Desbrandes, Robert, to Schlumberger Well Surveying Corp. Borehole apparatus. 2,872,230, 2–3–59, Cl. 288—6.

Destato, Gene G. Lens-surfacing machine. 2,871,626, 2–3–59, Cl. 51—124.

De Young, Roger E., to American Electric Motors Inc. Winding insulator for electric motor. 2,872,590, 2–3–59, Cl. 310—71.

Dickinson, Arthur H., to International Business Machines Corp. Electronic amplifier. 2,872,570, 2–3–59, Cl. 250—27.

Dickinson, Arthur H., to International Business Machines Corp. Electronic amplifier. 2,872,592, 2–3–59, Cl. 307—88.5.

Dickinson, Arthur H., to International Business Machines Corp. Device to manifest an unknown voltage as a numerical quantity. 2,872,670, 2–3–59, Cl. 340—347.

Didier-Kogag-Hinselmann, Koksofenbau und Gasverwertung, A. G.: *See*—
Hartewig, Heinrich, Steding, and Eidel. 2,872,385.

Diebold, Edward J., to United States of America, Army. High-speed electromagnetic switch. 2,872,547, 2–3–59, Cl. 200—93.

Diehl, Gordon H., to General Motors Corp. Counter-flow warm air furnace. 2,871,847, 2–3–59, Cl. 126—110.

Dietch, Leonard: *See*—
Stark, John, Jr., and Dietch. 2,872,617.

Dietzler, Andrew J., and F. Bryner, to The Dow Chemical Co. α-substituted chlorocresols. 2,872,489, 2–3–59, Cl. 260—619.

Diffusion Alloys Ltd.: *See*—
Borgnon, Jean. 2,872,176.

Dilworth, John P.: *See*—
Jordan, Terence B., Dilworth, and Roach. 2,872,417.

Di Moin, Joseph, Jr. Automatic griddle cleaner. 2,871,636, 2–3–59, Cl. 51—241.

Diss, Edward M.: *See*—
Abernethy, Nelson W., Diss, and Sarge. 2,872,424.

Ditesheim, Bernard, to Fabriques Movado. Watch wound by enclosing sheath. 2,871,653, 2–3–59, Cl. 58—80.

Dix, Herbert. Jet operated rotary lifting vehicle. 2,871,954, 2–3–59, Cl. 170—135.4.

Doak, Lyle E. Fire extinguisher. 2,871,952, 2–3–59, Cl. 169—26.

Dobbratz, Edward J., and A. M. Ellington, ¼ to J. E. Dobbratz and ¼ to L. F. Ellington. Metallic slides for facilitating the extending of table tops and the like. 2,872,261, 2–3–59, Cl. 311—71.

Dobbratz, Janet E.: *See*—
Dobbratz, Edward J., and Ellington. 2,872,261.

Dobell, Curzon, to The Preload Co., Inc. Prestressed anchorage for tainter gate trunnions and method for doing same. 2,871,664, 2–3–59, Cl. 61—25.

Dodds, Irvine. Margin setting attachment for typewriters. 2,872,012, 2–3–59, Cl. 197—63.

Doe, Robert E., R. E. Daniel, and G. C. Alvey, to California Research Corp. Method and apparatus for amplifying seismic signals. 2,871,970, 2–3–59, Cl. 181—.5.

Doepke, Charles W., and B. S. Aston, to Nestler Corp. Dispensing mechanism. 2,872,058, 2–3–59, Cl. 214—314.

Dole Valve Co., The: *See*—
Kozel, James A., and Rimsha. 2,872,116.

D'Olive, Charles R., to Chamberlain Corp. Sliding refrigerator shelf. 2,872,270, 2–3–59, Cl. 312—332.

Dolza, John, to General Motors Corp. Charge forming means for an internal combustion engine. 2,871,842, 2–3–59, Cl. 123—119.

Donaldson, George R., and V. Haensel, to Universal Oil Products Co. Production of aromatics in the presence of nitrogen compounds. 2,872,492, 2–3–59, Cl. 260—668.

Donlan, Theodore R., to Esso Research and Engineering Co. Anti-stalling gasoline agent. 2,872,303, 2–3–59, Cl. 44—72.

Donnay, Jacques R., to Societe Nouvelle de l'Outillage R. B. V. et de la Radio Industrie (R. B. V.-R. I.). Wave shaping network for television equipment. 2,872,509, 2–3–59, Cl. 178—7.1.

Donovan, Bradford, and T. W. Neumann, to Northrop Aircraft, Inc. Self-integrating flicker control actuator. 2,871,709, 2–3–59, Cl. 74—54.

Doolittle, Donald B., to All American Engineering Co. Aircraft launching system. 2,872,132, 2–3–59, Cl. 244—63.

Doran, Wilbur J., to Eli Lilly and Co. 1,5 5-trisubstituted barbituric acids. 2,872,448, 2–3–59, Cl. 260—257.

Dormeyer Corp.: *See*—
Schwaneke, Fred C. 2,871,589.

Doughty, Robert T., to General Motors Corp. Engine cooling system with radiator by-pass. 2,871,836, 2–3–59, Cl. 123—41.1.

Dow Chemical Co., The: *See*—
Abernethy, Nelson W., Diss, and Sarge. 2,872,424.
Ansel, Gerhard, and Huffman. 2,872,037.
Bull, Harry W., and Finke. 2,872,356.
Dietzler, Andrew J., and Bryner. 2,872,489.
Gaumer, Glenn E. 2,872,475.
Hibbard, Billy B. 2,872,436.
Rigterink, Raymond H. 2,872,477.
Scott, Charles R., and Grenley. 2,872,325.
Stevens, Donna. 2,872,469.
Tolkmith, Henry. 2,872,473.
Walles, Wilhelm E., and Tousignant. 2,872,321.
Walles, Wilhelm E., and Tousignant. 2,872,322.

Dow Corning Corp.: *See*—
Barnes, Garrett H., Jr. 2,872,434.
Speier, John L., Jr. 2,872,435.

Downe, Edward R., and W. B. Travers, to The C. A. Olsen Mfg. Co. Gas pressure control means. 2,871,879, 2–3–59, Cl. 137—513.7.

Downing, John: *See*—
Page, Clifford E., and Downing. 2,871,512.

Dreisin, Alexander, and L. G. Kaplan, to Allis-Chalmers Mfg. Co. Pilot injection pump. 2,871,796, 2–3–59, Cl. 103—154.

Dreissen, Hubert H.: *See*—
Fontein, Freerk J., and Dreissen. 2,872,041.

Dreitzler, Melvin E., to Clark Equipment Co. Steering drive axle. 2,871,966, 2–3–59, Cl. 180—43.

Drever Co.: *See*—
Lindquist, Elmer W. 2,872,174.

Drow, Donald F., to Minneapolis-Honeywell Regulator Co. Fuel control mechanism for heat appliances. 2,871,930, 2–3–59, Cl. 158—131.

Drury, Frank R., to Northrop Aircraft, Inc. Incremental motor. 2,871,712, 2–3–59, Cl. 74—111.

Drus, Walter S., to Zenith Radio Corp. System for translating a D. C. component. 2,872,507, 2–3–59, Cl. 178—5.1.

Dubl-Chek Corp.: *See*—
Scura, Vincent G. 2,872 008.

Du Bois, William H., to Bendix Aviation Corp. Wheel and brake assembly. 2,871,987, 2–3–59, Cl. 188—18.

Duffield, Robert B., and R. W. Stoughton, to United States of America, Atomic Energy Commission. Method of separating tetravalent plutonium values from cerium sub-group rare earth values. 2,872,287, 2–3–59. Cl. 23—14.5.

Duffield, Robert B., and R. W. Stoughton, to United States of America, Atomic Energy Commission. Carbonate method of separation of tetravalent plutonium from fission product values. 2,872,288, 2–3–59, Cl. 23—14.5.

Duffield, Robert B., to United States of America, Atomic Energy Commission. Preparation of oxalates of metals of atomic number greater than 88. 2,872,467, 2–3–59, Cl. 260—429.1.

Dufour, Roland P., to International Business Machines Corp. Electronic storage device. 2,872,662, 2–3–59, Cl. 340—173.

Du Fresne, Armand F., and F. H. Page, Jr., to Du Pa Co., Inc. Welding apparatus. 2,872,564, 2–3–59, Cl. 219—86.

Dugan, John W., to Flo-Mix Fertilizers Corp. Apparatus for converting liquid annydrous ammonia to aqua ammonia. 2,872,297, 2–3–59, Cl. 23—285.

Dumont, Donald C., to Dennison Mfg. Co. Packages for displaying pens, pencils and the like. 2,872,030, 2–3–59, Cl. 206—45.14.

Du-More Fixture Co., Inc.: *See*—
Colman, Edward. 2,871,984.

Dunbar, George W., to Kusan Inc. Automatic coupling and uncoupling means for miniature trains. 2,872,051, 2–3–59, Cl. 213—75.

Duncan, Angus W., to The Mining Engineering Co. Ltd. Roof supports. 2,872,147, 2–3–59, Cl. 248—351.

Duncan, Richard F., to Minnesota Mining & Mfg. Co. Machine for making ornamental pompon bows. 2,872,086, 2–3–59, Cl. 223—46.

Dunham, George W.: *See*—
McDowell John R. 2,871,888.

Dunlap, Edwin V., to Aqua Matic Inc. Motor-operated valve. 2,871,883, 2–3–59, Cl. 137—633.

Dunn, Grace T. Sanitary belt arrangement. 2,871,859, 2–3–59, Cl. 128—289.

Du Pa Co., Inc.: *See*—
Du Fresne, Armand F., and Page. 2,872,564.

Du Pont de Nemours, E. I., and Co.: *See*—
Baum, Arthur A. 2,872,459.
Gresham, William F., and Merckling. 2,872,439.

Dupont, Paul, to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Apparatus for the pneumatic treatment of granular materials, particularly fertilizers. 2,871,575, 2–3–59, Cl. 34—57.

Durkoppwerke Akt.: *See*—
Quitter, Gerhard. 2,871,810.

Du Shane, Wallace H., to Deere & Co. Tractor with front mounted fuel tank. 2,871,967, 2–3–59, Cl. 180—54.

Dwyer, William J., to J. I. Case Co. Baler. 2,871,779, 2–3–59, Cl. 100—22.

Eads, David K., and G. P. Giusti, to Texas Gulf Sulphur Co. Production of sulfur from pyrites. 2,872,294, 2–3–59, Cl. 23—224.

Easter, George J., to Electro Refractories & Abrasives Corp. Ceramic ware support for use in kilns. 2,871,543, 2–3–59, Cl. 25—153.

Eastman Kodak Co.: *See*—
Starck, Clemens E. 2,872,318.

Eaton, John L., and G. E. Hinds, to Pennsalt Chemicals Corp. Odorized gas and method for odorizing the same. 2,872,304, 2–3–59, Cl. 48—193.

Eaves, Augustus J., to United States of America, Navy. Facsimile device. 2,872,276, 2–3–59, Cl. 346—101.

Eberbaugh, Robert M. Disposable razor with reenforced head. 2,871,560, 2–3–59, Cl. 30—47.

Eckhardt, Homer D., to Minneapolis-Honeywell Regulator Co. Control apparatus for aircraft and means for varying the limits of its gain control. 2,872,134, 2–3–59, Cl. 244—77.

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Edeleanu Gesellschaft m. b. H.: *See*—
Franz, Hermann, Langner, and Westerhoff. 2,872,409.

Edgerton, Harold E. Underwater flash producing system. 2,872,622, 2–3–59, Cl. 315—157.

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Edmund, John R., to Westinghouse Air Brake Co. Rate sensitive broken pipe protection valve apparatus. 2,871,876, 2–3–59, Cl. 137—484.

Edwards, Miles L. Pump assembly. 2,872,084, 2–3–59, Cl. 222—333.

Egyesült Izzólampa és Villamossagi Reszvenytarsag: *See*—
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Eidel, Paul: *See*—
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Electro Refractories & Abrasives Corp.: *See*—
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Elektriska Svetsningsaktiebolaget: *See*—
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Eliasson, Ivar, to Lidköpings Mekaniska Verkstads Aktiebolag. Sequential valve actuator. 2,871,882, 2–3–59, Cl. 137—622.

Ellerbeck, Grant C., to Friden, Inc. Multiplying calculator. 2,872,115, 2–3–59, Cl. 235—63.

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Ellington, Lois F.: *See*—
Dobbratz, Edward J., and Ellington. 2,872,261.

Elliott, Clifton M., R. P. Graham, and M. E. Nofts, to Chrysler Corp. Low pressure, continuous flow fuel injection system. 2,871,844, 2–3–59, Cl. 123—119.

Elliott, Marshall, and L. U. Franklin, to Gulf Oil Corp. Two step process for refining of lubricating oils with aluminum chloride. 2,872,413, 2–3–59, Cl. 208—297.

Elliott, Robert H., Jr.: *See*—
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Emmert, George W., to Federal Premium Service, Inc. Bed construction. 2,871,489, 2–3–59, Cl. 5—114.
Endreasz, William E. Detachable spiral conveyor ore classifier. 2,872,042, 2–3–59, Cl. 209—464.
Engelhart Industries, Inc.: *See*—
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English Electric Co. Ltd., The: *See*—
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Englund, Leonard H. Method of inhibiting corrosion in steam lines. 2,872,282, 2–3–59, Cl. 21—2.7.
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Erickson, Henry, to Sinclair Refining Co. Improved silica-alumina catalysts and their use in hydrocarbon cracking processes. 2,872,410, 2–3–59, Cl. 208—120.
Ernst, Clayton S. Animal watering device. 2,871,822, 2–3–59, Cl. 119—78.
Erson, Erik G., to Westinghouse Air Brake Co. Safety control brake apparatus. 2,872,250, 2–3–59, Cl. 303—19.
Esso Research and Engineering Co.: *See*—
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Furey, Michael J., and Westlund. 2,872,334.
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Eubank, Lowell D., and E. R. Roller, to United States of America, Atomic Energy Commission. Method of protectively coating uranium. 2,872,343, 2–3–59, Cl. 117—51.
Eubank, Lowell D., to United States of America, Atomic Energy Commission. Fused salt method for coating uranium with a metal. 2,872,348, 2–3–59, Cl. 117—71.
Euga, Arthur B. Brake motor. 2,871,827, 2–3–59, Cl. 121—38
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Fachon, Emil E., to Bulova Watch Co. Inc. Waterproof watch-case. 2,871,654, 2–3–59, Cl. 58—90.
Fahnoe, Frederick, and J. J. Shyne, to United States of America, Atomic Energy Commission. Nuclear fuel elements and methods for making same. 2,872,388, 2–3–59, Cl. 204—1.5.
Fairchild Camera and Instrument Corp.: *See*—
Hatfield, Lester N. 2,872,553.
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Fairchild Engine and Airplane Corp.: *See*—
Bloomquist, Albert E. 2,871,763.
Fairhaven Properties Corp.: *See*—
Pawelka, Gustav J. 2,871,898.
Faisandier, Jacques. Apparatus for training air pilots in shooting. 2,871,578, 2–3–59, Cl. 35—10.2.
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Fry, Stanley S. 2,872,358.
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Fasold, George A., and J. G. Blough, to The Philip Carey Mfg. Co. Nozzle for periodic ejecting caulking gun. 2,871,817, 2–3–59, Cl. 118—407.
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Feder, Harold M., M. Ader, and L. E. Ross, to United States of America, Atomic Energy Commission. Solvent extraction of uranium values. 2,872,285, 2–3–59, Cl. 23—14.5.
Federal Pacific Electric Co.: *See*—
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Federal Premium Service, Inc.: *See*—
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Ferguson, Lachlan G., and J. C. Fowler, to Northrop Aircraft, Inc. Elevating dolly. 2,872,052, 2–3–59, Cl. 214—1.
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Fields, George C., to Philco Corp. Clothes washing machine. 2,871,689, 2–3–59, Cl. 68—131.
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Finsel, Theron G., to United States of America, Atomic Energy Commission. Bismuth phosphate carrier process for Pu recovery. 2,872,286, 2–3–59, Cl. 23—14.5.
Fischer, Frans L., and E. F. Werndl, to Bulova Research and Development Laboratories, Inc. Frictionless free gyroscope. 2,871,706, 2–3–59, Cl. 74—5.7.
Fish, Walter D., and J. C. Curtis; said Fish assor. to Joy Mfg. Co. Hammer rock drill. 2,871,826, 2–3–59, Cl. 121—10.
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Flex-O-Lators, Inc.: *See*—
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Fried, Josef, D. Perlman, A. F. Langlykke, and E. O. Titus. Microbiological oxidation of steroids. 2,872,381, 2–3–59, Cl. 195—51.
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Fry, Stanley S., to Fansteel Metallurgical Corp. Method of forming a blocking layer on a selenium rectifier. 2,872,358, 2–3–59, Cl. 117—200.
Fuchs, Francis J., Jr., and C. L. Saunders, to Western Electric Co., Inc. Apparatus for heading tubular members. 2,871,734, 2–3–59, Cl. 78—17.
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Gardella, Adriano and C. Centrifugal can spinning units. 2,871,649, 2–3–59, Cl. 57—77.
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Gardella, Adriano and C. 2,871,649.
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Rowls, Garth A., and Townsend. 2,872,499.
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Gessner, William J. C. and E. H. Automatic ejection ash tray. 2,872,067, 2–3–59, Cl. 220—65.
Ghezzi, Giovanni. Weigh pan for use in infra-red drying. 2,871,696, 2–3–59, Cl. 73—76.
Giacosa, Dante, to Sira Societa Industriale Ricerche Automotoristiche. Luggage and spare wheel compartment structure on rear-engined vehicles. 2,871,968, 2–3–59, Cl. 180—54.
Gibboney, James L., C. A. Brown, and F. Krueger, to National Aluminate Corp. Rotary spreader for truck vehicle. 2,872,196, 2–3–59, Cl. 275—6.
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Gilbert, Everett E., and B. Veldhuis, to Allied Chemical Corp. Production of oil-soluble sulfonates. 2,872,487, 2–3–59, Cl. 260—79.3.
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Giri de Teramala, Piero M. Mechanically propelled or mechanically driven apparatus. 2,871,725, 2–3–59, Cl. 74—677.
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Goehner, William R., to Bell Telephone Laboratories, Inc. Sound track position compensation means for record drum-lead screw type translating device. 2,872,195, 2–3–59, Cl. 274—20.
Goetz, Alexander. Concentrometer. 2,871,695, 2–3–59, Cl. 73—61.
Gohlke, Rudolph A. Mower reel sharpening and actuating means. 2,872,222, 2–3–59, Cl. 287—53.
Goland, Lew: *See*—
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Goland, Marc and L., and I. M. Bernstein, to Printon Corp. Coated thermoplastic material and method of coating thermoplastic material. 2,872,347, 2–3–59, Cl. 117—65.
Golay, Donaven E., to Farmer Feeder Co., Inc. Milk line vacuum releaser. 2,871,821, 2–3–59, Cl. 119—14.7.
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Golde, Hans T., and J. K. Werner. Lock for a vehicle roof. 2,872,242, 2–3–59, Cl. 296—137.
Goldmark, Peter C., to Columbia Broadcasting System, Inc. Synthetic reverberation system. 2,872,515, 2–3–59, Cl. 179—1.
Goldsboll, Morton, to Abacus, Inc. Support hanger for pin-up boards. 2,872,145, 2–3–59, Cl. 248—223.
Goldstein, Gabriel F., to Interchemical Corp. Composition comprising a mixture of synthetic resins and cellulose acetate butyrate for printing on vinyl plastics. 2,872,423, 2–3–59, Cl. 260—16.
Goldstine, Hallan E., to United States of America, Navy. Transmitter frequency generation system. 2,872,646, 2–3–59, Cl. 332—41.
Goldsworthy, William B., and F. Landgraf, to Glastrusions, Inc. Apparatus for producing elongated articles from fiber-reinforced plastic material. 2,871,911, 2–3–59, Cl. 154—1.7.
Goodley, Charles E. Lace machines. 2,871,753, 2–3–59, Cl. 87—27.
Goodman, Walter, to L. A. Koren. Clothes hanger. 2,872,090. 2–3–59, Cl. 223—94.
Goodridge, Laurence M., and C. L. Martin. Pressure injection type carburetor. 2,871,841, 2–3–59, Cl. 123—119.
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Grannow, Carl A. Cable stripping tool. 2,871,739, 2–3–59, Cl. 81—9.5.
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Butler, Arthur N., and Graves. 2,871,929.
Graves, Loinel E., J. E. Knapp, A. M. Guerreiro, C. A. Cable, and R. C. Wheeler, to Northrop Aircraft, Inc. Mechano-optical method for inspecting transparent flat or contoured panels. 2,871,756, 2–3–59, Cl. 88—14.
Gray, John A., to Imperial Chemical Industries Ltd. Process for treatment of boiler feed water. 2,872,414, 2–3–59, Cl. 210—55.
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Green, Nathaniel P. Double blow drill. 2,872,158, 2–3–59, Cl. 255—8.
Greenhalgh, Roger C., to International Business Machines Corp. Data transfer and translating system. 2,872,666, 2–3–59, Cl. 340—174.
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Grisel, Yvan V., to Maison Technax Comptoir de la Parfumerie S. A. Lipstick holder. 2,872,033, 2–3–59, Cl. 206—56.
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Guenzi, Eraldo, to Compagnie de Pont-a-Mousson. Annealing furnace. 2,872,175, 2–3–59, Cl. 263—8.
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Obrebski, John, and Gusching. 2,871,887.
Gutzmer, Ernest R., to Intercompany Corp. Photo composing. 2,871,872, 2–3–59, Cl. 33—184.5.
Guzak, George P. Mathematical game. 2,871,581, 2–3–59, Cl. 35—31.
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Donaldson, George R., and Haensel. 2,872,492.
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Hamersley, Gordon D., to The Griscom-Russell Co. Head closure construction for heat exchangers. 2,872,065, 2–3–59, Cl. 220—40.
Hamilton, Francis W., to Chrysler Corp. Carburetor choke mechanism. 2,871,843, 2–3–59, Cl. 123—119.
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Harper, Lyndus E., to B-I-F Industries, Inc. Feed measuring and controlling apparatus. 2,872,073, 2–3–59, Cl. 222—55.
Harris, Kenneth J., and C. H. Hess, to Deere & Co. Multiple-function implement control system for agricultural tractor. 2,871,963, 2–3–59, Cl. 172—465.
Harris, Thomas R., to Malco Tool & Mfg. Co. Chain of combined terminal and support members for electrical elements. 2,871,551, 2–3–59, Cl. 29—193.5.
Harris, William H., to Scovill Mfg. Co. Lipstick container. 2,872,034, 2–3–59, Cl. 206—56.
Harshman, Richard C., to Olin Mathieson Chemical Corp. Antiskinning compositions containing unsymmetrical dimethyl-hydrazine. 2,872,426, 2–3–59, Cl. 260—19.
Hart, Robert W. High frequency integrating signal detector. 2,872,577, 2–3–59, Cl. 250—31.
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Harvey, Mortimer T., and E. Bremnak, to Harvel Research Corp. Compositions comprising a rubber and a halogenated reaction product of furfural and butadiene. 2,872,431, 2–3–59, Cl. 260—45.5.
Haschke, Fred. Plastic webbing for steamer deck chairs. 2,871,926, 2–3–59, Cl. 155—187.
Haslam, Robert, and S. H. Davidson, to Imperial Chemical Industries Ltd. Reutilisable blasting assemblies. 2,871,786, 2–3–59, Cl. 102—25.
Hasleau, William S. Non-choking plow roller. 2,871,955, 2–3–59, Cl. 172—63.
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Haynes, Nathan M. Sound recorders. 2,872,531, 2–3–59, Cl. 179—100.2.
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Herr, Donald L. Arbitrary function generators. 2,872,602, 2–3–59, Cl. 310—111.
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Hoffman, August R. Barrel plating system. 2,872,544, 2–3–59, Cl. 200—87.
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Holley, George M., Jr., to Holley Carburetor Co. Fuel injection system. 2,871,845, 2–3–59, Cl. 123—139.
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Homer, Howard J., and J. R. Whitacre, to The Commonwealth Engineering Co. of Ohio. Gaseous deposition of tungsten carbides. 2,872,350, 2–3–59, Cl. 117—106.
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Hooker, Philip O., to Arens Controls, Inc. Push-pull control. 2,871,719, 2–3–59, Cl. 74—503.
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Humphrey, Warren A., to The Hoover Co. Electric fry pan. 2,872,561, 2–3–59, Cl. 219—44.

Humphrey, Warren A., to The Hoover Co. Electric irons. 2,871,588, 2–3–59, Cl. 38—77.

Hunn, James V., and A. E. Ogren, to The Sherwin-Williams Co. Clamp for two-roll paint applicator. 2,871,500, 2–3–59, Cl. 15—246.

Hunn, James V., to The Sherwin-Williams Co. Gelled plastisol carving medium. 2,872,349, 2–3–59, Cl. 117—94.

Hunsicker, William R., to Seismograph Service Corp. Radio location system. 2,872,678, 2–3–59, Cl. 343—105.

Hunter, Windsor H., to Raytheon Mfg. Co. Thermionic tubes. 2,872,610, 2–3–59, Cl. 313—260.

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Cummin, Alfred S., and Hutzler. 2,872,630

Hunel, Dieter K., and R. M. Shuman, to North American Aviation, Inc. Process of liquefied gas pumping. 2,871,670, 2–3–59, Cl. 62—55.

Hycon Mfg. Co.: *See*—
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Whartman, Gerald W., and Hylland. 2,872,242.

I-T-E Circuit Breaker Co.: *See*—
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Illinois Clay Products Co.: *See*—
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Illinois Testing Laboratories, Inc.: *See*—
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Illinois Tool Works: *See*—
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Stern, William. 2,871,752.

Imperial Brass Mfg. Co., The: *See*—
Philippe, Howard L. 2,872,150.

Imperial Chemical Industries Ltd.: *See*—
Clough, Harry. 2,872,490.
Davies, Robert R. 2,872,440.
Gray, John A. 2,872,414
Haslam, Robert, and Davidson. 2,871,786.
Hull, Roy. 2,872,372.
Reed, Hugh W. B., and Smith. 2,872,470.
Scott, Gerald. 2,872,460.
Speakman, Raymond H. 2,871,511.
Swainson, Eric. 2,871,533.
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Woolley, John M. 2,872,317.

Improved Machinery, Inc.: *See*—
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Industrial Controls Corp.: *See*—
Thomas, Albert G. 2,871,767.

Inflico Inc.: *See*—
Battey, Everett M., and Livney. 2,872,149.

Ing. C. Olivetti & C., S. p. A.: *See*—
Negri, Franco. 2,872,514.

Ingraham, E., Co., The: *See*—
Tetro, Roland G. 2,871,702.

Inland Steel Co.: *See*—
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Interchemical Corp.: *See*—
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Rolle, Clifford J., Roteman, and Barnes. 2,872,422.

Intercompany Corp.: *See*—
Gutsmer, Ernest R. 2,871,572.

Interlake Iron Corp.: *See*—
Geiser, John D. 2,872,054.

International Business Machines Corp.: *See*—
Andersen, Just B. 2,872,038.
Belderbecke, Charles H. 2,872,011.
Brown, Edgar A., and Zuleeg. 2,872,257.
De Lane, Ralph B., Jr., and Young. 2,872,612.
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Greenhalgh, Roger C. 2,872,666.
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Kropp, Willis A. 2,872,185.
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International Harvester Co.: *See*—
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Chen, Simon K. 2,872,496.
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International Paper Box Machine Co., The: *See*—
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International Resistance Co.: *See*—
Singer, Robert J., and Lichtenberg. 2,871,622.
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International Standard Electric Corp.: *See*—
Aigrain, Pierre R. R. 2,872,524.
Beck, Arnold H. W., and Jackson. 2,872,620.
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Inventio A. G.: *See*—
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Ions Exchange & Chemical Corp.: *See*—
Mendelsohn, Meyer, and Horowitz. 2,872,362.

Ireland, Calvin J. Transmission indicator. 2,872,660, 2–3–59, Cl. 340—52.

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Jackson, Jesse A. Paper making machine. 2,871,770, 2–3–59, Cl. 92—38.

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Hogg, John A., and Jackson. 2,872,488.

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Jacob, Robert M., and J. C. L. Fouche, to Societe des Usines Chimiques Rhone-Poulenc. Indole derivatives. 2,872,453, 2–3–59, Cl. 260—293.

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James, Kenneth E., to United Concrete Pipe Corp. Mold for the end of concrete pipe and the like. 2,871,541, 2–3–59, Cl. 25—127.

Jansen, Willem J. B. Machine for winding spiral springs. 2,871,910, 2–3–59, Cl. 153—64.

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House, Ronald R., and Jen. 2,872,313.

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Jenkins, Radford G. and D. G. 2,871,935.

Jenkins, Gerald S.: *See*—
Robbins, Wilbur, and Jenkins. 2,872,169.

Jenkins, Radford G. and D. G. Panel construction. 2,871,935, 2–3–59, Cl. 160—199.

Jensen, Robert V.: *See*—
Celmer, Philip R., and Jensen. 2,872,299.

Jepson, Ivar, to Sunbeam Corp. Pressing iron. 2,871,587, 2–3–59, Cl. 38—77.

Jervis Corp.: *See*—
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Jessel, Jonas G. Apparatus for dispensing beverages. 2,871,892, 2–3–59, Cl. 141—100.

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O'Larte, Rudolph, and Polese. 2,871,655.

Jobmann, Paul: *See*—
Bartels, Alfred, and Jobmann. 2,871,507.

Johns, William H., and A. A. Perry, to United States Steel Corp. Apparatus for applying lubricant to wire. 2,872,027, 2–3–59, Cl. 205—19.

Johnson, Reynold B., and W. C. Dersch, Jr., to International Business Machines Corp. Cathode ray character tracer. 2,872,669, 2–3–59, Cl. 340—324.

Johnson, Robert E., to Jervis Corp. Key-operated latch mechanism. 2,871,690, 2–3–59, Cl. 70—146.

Johnson, Roy R., to Pressed Steel Tank Co. Double bottom compressed gas cylinder and method of making same. 2,872,068, 2–3–59, Cl. 220—69.

Johnson, Thomas A., to U. S. Rubber Reclaiming Co., Inc. Process of forming flooring surfaces with asphalt coated rubber pellets. 2,871,774, 2–3–59, Cl. 94—23.

Johnson, William E. P., to Power Jets (Research & Development) Ltd. Jet-diverting equipment. 2,871,656, 2–3–59, Cl. 60—35.54.

Jolly, Stuart T., to Radio Corp. of America. Magnetic record transducer. 2,872,530, 2–3–59, Cl. 179—100.2.

Jones, Bryan, ½ to L. E. Bergstrom. Combination chisel structure for mortising woodwork. 2,871,898, 2–3–59, Cl. 145—24.

Jones, Evan, to Henry Valve Co., Inc. Thermostatic control valve. 2,872,154, 2–3–59, Cl. 251—133.

Jones, Jennings H.: *See*—
Fenske, Merrell R., and Jones. 2,872,472.

Jones, Stanley B., to California Research Corp. Ocean bottom stratigraphy surveying. 2,872,638, 2–3–59, Cl. 324—1.

Jordan, Terence B., J. P. Dilworth, and J. R. Roach, to The Texas Co. High dropping point lithium base greases. 2,872,417, 2–3–59, Cl. 252—42.1.

Jorgensen, Bernhardt, to United Shoe Machinery Corp. Cement handling apparatus. 2,871,818, 2–3–59, Cl. 118—6.

Joy Mfg. Co.: *See*—
Fish, Walter D., and Curtis. 2,871,826.
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Kaiser Aluminum & Chemical Corp.: *See*—
Kilpatrick, Stanley A. 2,871,529.
Van Loenen, William F. 2,872,298.

Kaiser, Bernard D., to Bendix Aviation Corp. Greasing mechanism. 2,871,983, 2–3–59, Cl. 184—15.

Kaiser, Rudolf. Globe cock coupling, more particularly for fueling stations supplying liquid fuels. 2,872,216, 2–3–59, Cl. 284—9.

Kalb, Aaron. Blind fastener having locking stem retained in head by cammed lock washer. 2,871,749, 2–3–59, Cl. 85—2.

Kalfaian, Meguer V. Fundamental frequency selector from speech sound waves (for all voices). 2,872,517, 2–3–59, Cl. 179—1.

Kalfaian, Meguer V. Color image screen utilizing electroluminescence. 2,872,613, 2–3–59, Cl. 315—12.

Kallenberg, Karl J., and R. Sardeson, to Pako Corp. Device for rapidly making X-ray pictures. 2,872,585, 2–3–59, Cl. 250—66.

Kaller, Bo O.: *See*—
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Kalman, Peter G.: *See*—
Gabor, Dennis, and Kalman. 2,872,339.

Kamlukin, Igor, to Allis-Chalmers Mfg. Co. Planetary transmission. 2,871,726, 2–3–59, Cl. 74—769.

Kaplan, Jack, and F. T. Turner. Electro-mechanical resonant system. 2,872,578, 2–3–59, Cl. 250—36.

Kaplan, Louis G.: *See*—
Dreisin, Alexander, and Kaplan. 2,871,796.

Karolus, Roland: *See*—
Buchmann, Gerhard, and Karolus. 2,872,532.

Kasten, Walter, to Bendix Aviation Corp. Filter element supporting plate and ferrule assembly. 2,872,044, 2–3–59, Cl. 210—323.

Katz, Herman B. Clothes hanger. 2,872,088, 2–3–59, Cl. 223—91.

Katzenberg, Edgar M.: *See*—
Bringelson, Roy W., and Katzenberg. 2,871,627.

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Kaye, Robert K., to General Dynamics Corp. Telephone intercept system. 2,872,528, 2–3–59, Cl. 179—27.

Kazimierczak, Dyonizy. Rotary brush. 2,871,495, 2–3–59, Cl. 15—180.

Kearse, George P., to Finney Mfg. Co. V. H. F. television antenna. 2,872,681, 2–3–59, Cl. 343—833.

Keck, Johannes, to Dr. Karl Thomae, G. m. b. H. Bifidogenic compositions. 2,872,382, 2–3–59, Cl. 195—100.

Keck, William J., to United States of America, Navy. Sustainer exhaust gas deflector. 2,871,658, 2–3–59, Cl. 60—35.6.

Keller, Herbert L., to The Vendo Co. Mechanism for discharging generally cylindrical articles from the bottom of a staggered stack thereof. 2,872,071, 2–3–59, Cl. 221—67.

Kelley, Benjamin F. Hydraulic pipe tonging device. 2,871,743, 2–3–59, Cl. 81—53.

Kellinger, John. Game apparatus. 2,872,194, 2–3–59, Cl. 273—127.

Kelner, Robert C., and H. Rubinstein, to Laboratory For Electronics, Inc. Magnetic shift registers. 2,872,663, 2–3–59, Cl. 340—174.

Kendall, James W.: *See*—
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Bugg, Kenly C. 2,872,652.

Kennaugh, Edward M., to The Ohio State University Research Foundation. Dielectric reflector. 2,872,675, 2–3–59, Cl. 343—18.

Kennedy, Leo. Beverage dispenser. 2,872,078, 2–3–59, Cl. 222—131.

Kent Mfg. Corp.: *See*—
Batcheller, Hugh W. 2,872,658.

Kenyon Laboratories, Inc.: *See*—
Kenyon, Theodore W. 2,871,699.

Kenyon, Theodore W., to Kenyon Laboratories, Inc. Indicating instrument for helicopters or the like. 2,871,699, 2–3–59, Cl. 73—178.

Kerby, Lawrence L. Two speed cam shaft. 2,871,837, 2–3–59, Cl. 123—90.

Kern, Emil: *See*—
Baumann, Hans, and Kern. 2,872,449.

Kern, George R., to Bowen & Co., Inc. Rotary dental tool. 2,871,562, 2–3–59, Cl. 32—27.

Kerner, Charles A., to Northrop Aircraft, Inc. Gyroscopic top. 2,871,705, 2–3–59, Cl. 74—5.7.

Kerns, Fred W.: *See*—
Barrett, Robert F., and Kerns. 2,872,211.

Kerr, Charles E.: *See*—
Anderson, Gerald R., Hayes, Kerr, and Newburn. 2,872,017.

Kerstetter, Donald R., to Sylvania Electric Products Inc. Cathode. 2,872,611, 2–3–59, Cl. 313—337.

Kesling, Keith K.: *See*—
Miller, Edwin J., and Kesling. 2,871,676.

Kessler, Jack J., to UARCO, Inc. Deleaver. 2,872,187, 2–3–59, Cl. 271—2.1.

Khalil, Seyed. Variable backspacing mechanism for proportional spacing typewriters. 2,872,014, 2–3–59, Cl. 197—84.

Kiernan, Conleth E., and W. K. Clark, to United States Rubber Co. Method of laminating vinyl chloride to metal with synthetic resin-rubber adhesive and resultant article. 2,872,366, 2–3–59, Cl. 154—129.

Kiffer, Alfred D., to Union Carbide Corp. Method and apparatus for producing ozone-carrier gas mixture. 2,872,397, 2–3–59, Cl. 204—176.

Kiffer, Desire A., and L. D. Orser, to Chamberlain Corp. Pulse pumps. 2,871,780, 2–3–59, Cl. 103—44.

Kihn, Harry, to Radio Corp. of America. Frequency control. 2,872,579, 2–3–59, Cl. 250—36.

Killian, George W., to General Dynamics Corp. Selector switch circuit. 2,872,526, 2–3–59, Cl. 179—18.

Killian, Stanley C., and W. O. Edison, to H. K. Porter Co. Method of operating inspection sections in bus enclosures. 2,872,218, 2–3–59, Cl. 285—369.

Kilpatrick, Stanley A., to Kaiser Aluminum & Chemical Corp. Apparatus for casting of metal. 2,871,529, 2–3–59, Cl. 22—57.2.

Kindred, Raymond L., to Phillips Petroleum Co. Computer for solving simultaneous equations. 2,872,113, 2–3–59, Cl. 235—61.

Kindron, Robert R., to Food Machinery and Chemical Corp. Process of bleaching cellulose pulps by absorbing alkali in the pulp and then applying hydrogen peroxide. 2,872,280, 2–3–59, Cl. 8—104.

King, Donald M. Conveyors. 2,871,799, 2–3–59, Cl. 104—172.

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Burrows, Arthur T. C. 2,872,056.

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Coyne, Donald M., and Kirk. 2,872,456.

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Klassen, Bernard, to Klassen Enterprises, Inc. Electric can opener. 2,871,559, 2–3–59, Cl. 30—4.

Klassen Enterprises, Inc.: *See*—
Klassen, Bernard. 2,871,559.

Klaus, Murrel C.: *See*—
Hintze, Alma J., and Klaus. 2,871,785.

Klawitter, Charles. Boat mooring apparatus. 2,871,813, 2–3–59, Cl. 114—230.

Kleinvogel, Hans-Joachim, and D. von Haebler. Siemens-Schuckertwerke A. G. Contact circuit for short circuiting device. 2,872,634, 2–3–59, Cl. 321—11.

Kline, Herbert, Sr. Locking mechanism for legs of folding tables. 2,872,262, 2–3–59, Cl. 311—88.

Kling, Fred E. Hot gas filters. 2,871,977, 2–3–59, Cl. 183—45.

Klingspor, Carl. Grinding bodies. 2,871,633, 2–3–59, Cl. 51—207.

Klinsing, August F. Flight conveyor guide for barn cleaners. 2,872,022, 2–3–59, Cl. 198—137.

Knaggs, Edward A.: *See*—
Sanders, Herbert L., Knaggs, and Nussbaum. 2,872,368

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Vogt, Wilhelm. 2,872,481.

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Knorr-Bremse G. m. b. H.: *See*—
Hockel, Hans L., and Ueckert. 2,871,835.

Knudsen, Knud J., to The Lewis Engineering Co. Thermocouple cold junction compensator. 2,871,701, 2–3–59, Cl. 73—361.

Knutsson-Hall, Folke K.: *See*—
Hjelm, Arvid, and Knutsson-Hall. 2,871,637.

Kocen, Leonard A.: *See*—
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Koch, Paul H., to The Babcock & Wilcox Co. Method of and apparatus for vapor superheat temperature control with gas recirculation. 2,871,833, 2–3–59, Cl. 122—478.

Koehler, Robert B., to International Business Machines Corp. Gas tube accumulator carry circuit. 2,872,108, 2–3–59, Cl. 235—61.

Koehn, Lorenz: *See*—
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Koelewijn, Arie, to North American Philips Co., Inc. Glow discharge tube. 2,872,608, 2–3–59 Cl. 313—198.

Koivisto, Sulo C., and C. W. van't Veld. Portable refrigeration unit. 2,871,674, 2–3–59, Cl. 62—232.

Kolb, Walter J. Traffic signal adaptor unit. 2,871,599, 2–3–59, Cl. 40—131.

Kolcast Industries, Inc.: *See*—
Schilling, Lewis R. 2,871,528.

Kollsman, Paul. Apparatus for modifying the chemical composition of fluids by ion transfer. 2,872,407, 2–3–59, Cl. 204—301.

Kolodney, Morris, to United States of America, Atomic Energy Commission. Anodic treatment of uranium. 2,872,387, 2–3–59, Cl. 204—1.5.

König, Theodor: *See*—
Von Friedrich, Adolf, and König. 2,872,446.
Konkle, Raymond L. Servicing stand. 2,872,252, 2–3–59, Cl. 304—2.
Kooistra, John A., to Davis & Furber Machine Co. Means for mounting the top rolls of a spinning frame for quick threading of roving. 2,871,650, 2–3–59, Cl. 57—90.
Koskenmaki, Frans F. Cultivator. 2,871,959, 2–3–59, Cl. 172—197.
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Kosel, James A., and V. E. Rimsha, to The Dole Valve Co. Thermostatic mixing valve assembly. 2,872,116, 2–3–59, Cl. 236—12.
Kracker, Herbert, R. Mohr, and R. Bamberger, to Farbwerke Hoechst Akt. Monoazo-dyestuffs insoluble in water. 2,872,441, 2–3–59, Cl. 260—157.
Kraft Foods Co.: *See*—
Loew, Theodore. 2,871,515.
Kraft, Herman T., to The General Tire and Rubber Co. Method and apparatus for applying preformed bands to a tire building machine. 2,871,912, 2–3–59, Cl. 154—9.
Kraft, Richard A.: *See*—
Massman, Albert W., and Kraft. 2,872,512.
Kraft, Richard A., to Motorola, Inc. Television receiver. 2,872,510, 2–3–59, Cl. 178—7.3.
Kraft, Richard A., to Motorola, Inc. Television receiver. 2,872,513 2–3–59, Cl. 178—7.3.
Kratt, William. Plastic pitch pipe. 2,871,747, 2–3–59, Cl. 84—456.
Kratt, William. Pitch pipes. 2,871,748, 2–3–59, Cl. 84—456.
Kraus, Kurt A., and G. E. Moore, to United States of America, Atomic Energy Commission. Recovery of protoactinium. 2,872,284, 2–3–59, Cl. 23—14.5.
Krebs, Robert W., and J. W. Brown, to Esso Research and Engineering Co. Method of mixing liquids and solids in a fluidized hydrocarbon conversion process. 2,872,411, 2–3–59, Cl. 208—157.
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Grundmann, Christoph J., and Kreutzberger. 2,872,485.
Krieger, Alan T. Fire detecting device. 2,871,818, 2–3–59, Cl. 116—106.
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Miller, Harold, and Krigsman. 2,871,497.
Kroger, Rudolf W. Permanently installed dual storm window. 2,871,933, 2–3–59, Cl. 160—41.
Kroll, Everett R., to Deere & Co. Leveling control for hillside machines. 2,872,200, 2–3–59, Cl. 280—6.
Kropp, Willis A., to International Business Machines Corp. Card collecting rack. 2,872,185, 2–3–59, Cl. 270—58.
Krueger, Fred: *See*—
Gibboney, James L., Brown, and Krueger. 2,872,196.
Krumhansl, James A.: *See*—
Field, Harold P., and Krumhansl. 2,872,520.
Kruyff, Piet C., to Foster Grant Co., Inc. Process for reclaiming nylon. 2,872,420, 2–3–59, Cl. 260—2.3.
Kuiper, James B., to R. C. Allen Business Machines, Inc. Gyroscopic stabilizer. 2,871,707, 2–3–59, Cl. 74—5.22.
Kukla, Edward T. Boat lantern holder. 2,872,146, 2–3–59, Cl. 248—229.
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Allen, Joseph C., and Kunetka. 2,871,941.
Garrison, Allen D., and Kunetka. 2,871,942.
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Kwok, Chi T., to Cluett, Peabody & Co., Inc. Non-shrinking seam and method of making. 2,871,486, 2–3–59, Cl. 2—275.
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Townsend, Ralph, and Ayres. 2,872,665.
Lambert, Agard L. Car unloading device. 2,872,055, 2–3–59, Cl. 214—44.
Lambert, Harry E., to Central Fibre Products Co. Egg packing flats. 2,872,062, 2–3–59, Cl. 217—26.5.
Lambertsen, Christian J. Breathing apparatus. 2,871,854, 2–3–59, Cl. 128—142.
Lampert, Bernard B.: *See*—
Haynes, Harry L., Sousa, and Lampert. 2,872,367.
Landgraf, Fred: *See*—
Goldsworthy, William B., and Landgraf. 2,871,911.
Landis, Elmer K.: *See*—
Riser, Ralph B., and Landis. 2,871,787.
Landis, Jesse A. Glare shield. 2,871,482, 2–3–59, Cl. 2—12
Landis Machine Co.: *See*—
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Landrigan, Richard B., D. L. Fauser and R. E. Tom, to Haloid Xerox, Inc. Electrophotographic developing process. 2,872,338, 2–3–59, Cl. 117—17.5.
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Fried Josef, Perlman, Langlykke, and Titus. 2,872,381.
Langner, Hans: *See*—
Frans, Hermann, Langner, and Westerhoff. 2,872,409.
Lannetter, Saul. Watch and similar cleaning machines. 2,871,807, 2–3–59, Cl. 134—58.
La Rose, Royal J., and E. P. Chasse. Apparatus for mechanically handling sugar cane stalks during harvesting. 2,871,645, 2–3–59, Cl. 56—119.
Larson, Edward S., to Fairchild Camera & Instrument Corp. Automatic control mechanism for linecasting and composing machines. 2,872,026, 2–3–59, Cl. 199—61.
Lattmann, Max E., to Contraves AG. Rocket. 2,872,131, 2–3–59, Cl. 244—14.
Lau, Erwin M., to Black Products Co. Control for bag filling machine. 2,871,891, 2–3–59, Cl. 141—10.
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Lawn Electronics Co. Inc.: *See*—
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Lawn, Francis, to Lawn Electronics Co. Inc. Inverter. 2,872,635, 2–3–59, Cl. 321—18.
Lawson, Hollis E. Door check. 2,872,232, 2–3–59, Cl. 292—60.
Leavens, William B., Jr., to Wilkata Codes, Inc. Photoelectric scanning device. 2,872,590, 2–3–59, Cl. 250—219.
Lecher, Hans Z., and E. M. Hardy, to American Cyanamid Co. Preparation of tetraalkyl-isothioureas. 2,872,484, 2–3–59, Cl. 260—564.
Lee, Warren G., to General American Transportation Corp. Processes of continuous chemical nickel plating. 2,872,354, 2–3–59, Cl. 117—130.
Legrand, Karl-Heinz: *See*—
Von Friedrich, Adolf, Legrand, Schmitz, and Holzrichter. 2,872,445.
Lehmann, George A., and W. R. Gundelfinger, to The Dazey Corp. Lid actuating assembly. 2,872,063, 2–3–59, Cl. 220—36.
Lehmann, Werner J.: *See*—
Sims, Rex J., Mattil, and Lehmann. 2,872,465.
Leibold, Richard E.: *See*—
De Claire, Alton G., Jr., and Leibold. 2,871,840.
Leicht, Alfons A., and T. Bakaloff, to Ettra K G Leicht & Trambauer. Design and arrangement of electric hot-plates for electric ovens. 2,872,559, 2–3–59, Cl. 219—37.
Leistner, William E., and A. C. Hecker, to Argus Chemical Laboratory, Inc. Organic derivatives of tetravalent tin. 2,872,468, 2–3–59, Cl. 260—429.7.
Lemke, Frank C., to Pheoll Mfg. Co. Self-tapping screw having large chip cavity. 2,871,751, 2–3–59, Cl. 85—47.
Lemon, Ralph B., and J. A. Buckham, to United States of America, Atomic Energy Commission. Continuous dissolver extractor for processing metal. 2,872,296, 2–3–59, Cl. 23—283.
Lenz, Charles E., to General Electric Co. Wave forming circuit. 2,872,571, 2–3–59, Cl. 250—27.
Lepetit S. p. A.: *See*—
Weitnauer, Gustavo A., Gioia, and Caporali. 2,872,375.
Leppala, Alexander. Control for arc welders. 2,872,566, 2–3–59, Cl. 219—132.
Leptien, Elmer H., to St. Regis Paper Co. Anti-skid compositions and container material coated therewith. 2,872,094, 2–3–59, Cl. 229—3.5.
Lerner, Albert. Vending machine. 2,872,069, 2–3–59, Cl. 221—85.
Leech, Hans: *See*—
Hansel, Otto, and Leech. 2,872,020.
Letsinger, Robert L., I. H. Skoog, and N. L. Remes, to Callery Chemical Co. Preparation of organoboron compounds. 2,872,479, 2–3–59, Cl. 260—500.
Leuthesser, Frederick W., to American Radiator & Standard Sanitary Corp. Single control handle operated mixing faucet having a diverter valve associated therewith. 2,871,880, 2–3–59, Cl. 137—597.
Levey, Fred'k H., Co., Inc.: *See*—
Ravbuck, William B. 2,872,186.
Lewis Engineering Co., The: *See*—
Knudsen, Knud J. 2,871,701.
Licentia Patent-Verwaltungs-G. m. b. H.: *See*—
Blaum, Ott-Heinrich. 2,872,002.
Lichtenberg, Edward N.: *See*—
Singer, Robert J., and Lichtenberg. 2,871,622.
Lidköpings Mekaniska Verkstads Aktiebolag: *See*—
Eliasson, Ivar. 2,871,882.
Liebecher, Arthur. Terminal connections for printed wiring assemblies. 2,872,625, 2–3–59, Cl. 317—101.
Liguori, Thomas. Clicker block planer. 2,871,635, 2–3–59, Cl. 51—241.
Lilly, Eli, and Co.: *See*—
Doran, Wilbur J. 2,872,448.
Lindberg, Paul W. Display carton construction. 2,872,031, 2–3–59, Cl. 206—45.34.
Lindell, Sigurd L., to S & C Electric Co. Fuse link construction. 2,872,549, 2–3–59, Cl. 200—121.
Lindner, Herbert, G. m. b. H.: *See*—
Schultze, Kurt H. 2,871,634.
Stade, Gerhard. 2,871,716.
Lindquist, Elmer W., to Drever Co. Boiler furnace construction and method of maintenance operation. 2,872,174, 2–3–59, Cl. 263—6.
Link, Karl P.: *See*—
Schroeder, Collin H., and Link. 2,872,457.
Lipari, Michael, to Lee Barry Laboratories, Inc. Hypodermic and body fluids sampling syringes. 2,871,857, 2–3–59, Cl 128—218.
Lipe-Rollway Corp.: *See*—
Spase, Charles B. 2,872,005.
Litz, Norman G. Loop-forming machine. 2,872,231, 2–3–59, Cl. 289—1.
Litzenberg, David P. Motor driven pumps. 2,871,791, 2–3–59, Cl. 103—87.
Livingston & Haven, Inc.: *See*—
Flint, Alden C., Livingston, Haven, and Long. 2,871,519.
Livingston, Jack E.: *See*—
Flint, Alden C., Livingston, Haven, and Long. 2,871,519.
Livney, Ilya S.: *See*—
Battey, Everett M., and Livney. 2,872,149.
Locatelli, Ercole. Molten cheese, containing filaments of green organic substances, and a process for its production. 2,872,324, 2–3–59, Cl. 99—115.
Loechel, Wolfgang, and M. Schenck, to Schering A. G. Isothiocyano-steroids and methods of preparing same. 2,872,462, 2–3–59, Cl. 260—397.3.

Loew, Theodore, to Kraft Foods Co. Apparatus for forming articles from thermoplastic materials. 2,871,515, 2–3–59, Cl. 18—30.

Logue, Joseph C., to International Business Machines Corp. Large signal transistor circuits having short "fall" time. 2,872,594, 2–3–59, Cl. 307—88.5.

Long, John R.: *See*—
Flint, Alden C., Livingston, Haven, and Long. 2,871,519.

Loofbourrow, Alan G., to Chrysler Corp. Valve structure. 2,871,907, 2–3–59, Cl. 152—427.

Lorenz, Anton: *See*—
Schliephacke, Fridtjof F. 2,871,917.
Schliephacke, Fridtjof F. 2,871,918.
Schliephacke, Fridtjof F. 2,871,919.

Lorenz, Edward J.: *See*—
Hauser, John H., and Lorenz. 2,872,391.

Losinger & Co. A. G.: *See*—
Siegfried, Erwin. 2,871,554.

Lothrop, John W., and C. O. Rolando, to Polaroid Corp. Photographic apparatus including fluid-spreading and sheet-arresting mechanism. 2,871,777, 2–3–59, Cl. 95—89.

Lucas, Alfred R., to North Electric Co. Telephone ringer and the like. 2,872,672, 2–3–59, Cl. 340—392.

Ludi & Cie. Metallwarenfabriken, Flawil: *See*—
Bruggmann, Albert. 2,872,064.

Lufkin, Paul M., and D. E. Stubbins, to Radio Corp. of America. Cathode ray tube deflection and high voltage apparatus. 2,872,615, 2–3–59, Cl. 315—27.

Lufttechnischen Gesellschaft m. b. H.: *See*—
Breuning, Ernst G. 2,872,642.

Lundahl, Arthur C.: *See*—
Sawyer, Donald W., and Lundahl. 2,871,563.

Lundquist, Robert H.: *See*—
Sherwood, Robert C., and Lundquist. 2,872,364.

Lynn, Holmes W., and A. R. Geiszler, to The Wean Engineering Co., Inc. Strip inspecting apparatus. 2,872,039, 2–3–59, Cl. 209—111.

Macherey, Robert E., to United States of America, Atomic Energy Commission. Method of working beryllium. 2,872,363, 2–3–59, Cl. 148—11.5.

Machingo, William J., and A. T. Swimmer, to The General Fireproofing Co. Bookcase. 2,872,267, 2–3–59, Cl. 312—273.

Macinko, John: *See*—
Mann, Douglas, and Macinko. 2,871,669.

Magnesium Elektron Ltd.: *See*—
Fisher, Philip A. 2,872,179.

Mahon, R. C., Co., The: *See*—
Cross, Earl F. 2,871,998.

Maison Tschanz Comptoir de la Parfumerie S. A.: *See*—
Grisel, Yvan V. 2,872,033.

Malachowski, Harry M. Reinforced rolling mill rolls. 2,871,737, 2–3–59, Cl. 80—58.

Malco Tool & Mfg. Co.: *See*—
Harris, Thomas R. 2,871,551.

Malick, Franklin S. Control drive apparatus. 2,871,727, 2–3–59, Cl. 74—813.

Mallinson, Dennis H.: *See*—
Chamberlin, Reginald H. D., Mallinson, and Probert. 2,871,659.

Malmstrom, Edward: *See*—
Demarest, William C., and Malmstrom. 2,871,853.

Maltby, Frederick L.: *See*—
Coles, Ralph V., Maltby, and Philippi. 2,871,874.

Manchey, Lessel L., and V. C. Bidlack, Jr., to The Denver Chemical Mfg. Co. Therapeutic compositions containing iodopropylideneglycerol. 2,872,378, 2–3–59, Cl. 167—70.

Mann, Douglas, and J. Macinko, to United States of America, Navy. Radiation shield circulation system for large liquefied gas storage containers. 2,871,669, 2–3–59, Cl. 62—54.

Marble, Kingsley W. Rear view mirror attachment. 2,871,754, 2–3–59, Cl. 88—2.2.

Margetts, Hyrum R. and L. F., to The Brunswick-Balke-Collender Co. Basketball folding backstop. 2,872,192, 2–3–59, Cl. 273—1.5.

Margetts, Lynn F.: *See*—
Margetts, Hyrum R. and L. F. 2,872,192.

Marini, Herman R., to Pittsburgh Plate Glass Co. Method of bending glass. 2,871,623, 2–3–59, Cl. 49—84.

Marini, Thomas O. Baseboard radiator. 2,872,162, 2–3–59, Cl. 257—133.

Markwell, Harry D., to Harbor Plywood Corp. Veneer scarfing machine. 2,871,896, 2–3–59, Cl. 144—309.

Marley Co., The: *See*—
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Marshall, Peter R., and P. J. Ridout, to The Birmingham Small Arms Co. Ltd. Powder metal compacts. 2,872,311, 2–3–59, Cl. 75—200.

Mart, Leon T., to The Marley Co. Forced draft fan-in-base cooling tower. 2,872,168, 2–3–59, Cl. 261—30.

Marter, Clarence. Girder pocket form boxes. 2,871,692, 2–3–59, Cl. 72—108.

Martin, Bernard P., to The McGean Chemical Co. Electrodeposition of nickel. 2,872,392, 2–3–59, Cl. 204—49.

Martin, Carleton E., to United States of America, Navy. Three dimensional cam. 2,872,151, 2–3–59, Cl. 251—58.

Martin, Charles L.: *See*—
Goodridge, Laurence M., and Martin. 2,871,841.

Martin, Georgia W. Pneumatic conveyor for planting implement. 2,872,248, 2–3–59, Cl. 302—21.

Martin, Gunther J., to Schlumberger Well Surveying Corp. Electronic switch. 2,872,575, 2–3–59, Cl. 250—27.

Martin, Gustav J.: *See*—
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Beiler, Jay M., and Martin. 2,872,377.

Mason, Vincent I., to Boston Mfg. Co. Moisture detector. 2,872,668, 2–3–59, Cl. 340—235.

Massengale, John T., and R. H. Elliott, Jr., to Pennsalt Chemicals Corp. Chemical composition and process for aluminum etching. 2,872,301, 2–3–59, Cl. 41—42.

Massman, Albert W., and R. A. Kraft, to Motorola, Inc. Television receiver. 2,872,512, 2–3–59, Cl. 178—7.8.

Materi, Antonio. Rubber safety belt for automobiles. 2,871,927, 2–3–59, Cl. 155—189.

Mathiesen, Per N. Card file structure with magnetic card spreading. 2,871,862, 2–3–59, Cl. 129—16.

Matkins, Eugene G., to General Motors Corp. Low voltage light sensitive control system. 2,872,618, 2–3–59, Cl. 315—83.1.

Matthes, Samuel S., to The Ohio Brass Co. Overhead trolley crossing. 2,872,522, 2–3–59, Cl. 191—37.

Mattil, Kari F.: *See*—
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Mattner, Joachim, to Schering A. G. Process of producing chloranil. 2,872,461, 2–3–59, Cl. 260—396.

Maturas, Anthony J., to The Singer Mfg. Co. Sewing machine spool-pin supports. 2,871,806, 2–3–59, Cl. 112—218.

May, Edward M. Dirt shield for swivel joints. 2,872,217, 2–3–59, Cl. 285—45.

Mayer, Fred H. Volatile fumigant pad. 2,872,244, 2–3–59, Cl. 299—24.

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Grife, Richard A., and Mayhew. 2,872,332.

McCaulay, David A.: *See*—
Wilson, Alexander T., and McCaulay. 2,872,396.

McClellan, Marcus E., to Deere Mfg. Co. Agricultural crop-handling machine. 2,871,643, 2–3–59, Cl. 56—24.

McConnell, Joseph. Reading guides for figures in lines and columns. 2,871,816, 2–3–59, Cl. 116—119.

McCreary, Harold J., to General Telephone Laboratories, Inc. Register-sender system employing magnetic storage. 2,872,525, 2–3–59, Cl. 179—15.

McDonald, Donald C., R. C. Boe, and J. Warshawsky, to Cook Electric Co. Remote control system. 2,871,660, 2–3–59, Cl. 60—53.

McDowell, John R., to G. W. Dunham. Method and means for forming selvage. 2,871,888, 2–3–59, Cl. 139—127.

McEwen, Gerald F., and J. J. McGinley, to American Machine & Foundry Co. Slip stitching machine. 2,871,807, 2–3–59, Cl. 112—174.

McFarland, James E.: *See*—
Porter, Frank R., Hailey, and McFarland. 2,872,352.

McGean Chemical Co., The: *See*—
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McGinley, James J.: *See*—
McEwen, Gerald F., and McGinley. 2,871,807.

McGraw-Edison Co.: *See*—
Conlee, George D. 2,871,871.

McLean, William R., to United States of America, Navy. Inertia arming switch. 2,872,538, 2–3–59, Cl. 200—61.45.

McMahon, William, to Bell Telephone Laboratories, Inc. Conductor having transpositions. 2,872,501, 2–3–59, Cl. 174—34.

McMillan, Edwin M., and D. L. Judd, to United States of America, Atomic Energy Commission. Cloverleaf cyclotron. 2,872,574, 2–3–59, Cl. 250—27.

McNamara, Jack. Cooking utensil. 2,872,562, 2–3–59, Cl. 219—44.

McNaughton, John F., and P. Gottfried, to Cook Electric Co. Bearing assembly. 2,872,254, 2–3–59, Cl. 308—35.

McNeil Machine & Engineering Co., The: *See*—
Mueller, Carl H. 2,872,085.

McNeill, Eric, and B. Robson, to The British Petroleum Co. Ltd. Process for the finish sweetening of mercaptan-containing petroleum hydrocarbons with air and caustic alkali treated charcoal. 2,872,412, 2–3–59, Cl. 208—203.

McNeill, Roy L.: *See*—
Alspaugh, Paul L., Heimaster, and McNeill. 2,872,170.

McNeill, Thomas R.: *See*—
Carosella, Michael C., Jacobs, and McNeill. 2,872,395.

McNulty, John G.: *See*—
Gilbert, William I., Hay, and McNulty. 2,872,486.

McQueen, Malcolm M., to Whittaker Controls, a Division of Telecomputing Corp. Liquid level control valve with pre-check system. 2,871,873, 2–3–59, Cl. 137—390.

Mead-Atlanta Paper Co.: *See*—
Forrer, Homer W. 2,872,036.

Mead, Harold B. Hydraulic variable speed gear. 2,871,792, 2–3–59, Cl. 103—89.

Mees, Robert D., to General Electric Co. Process of impregnating a porous article. 2,872,344, 2–3–59, Cl. 117—61.

Mekkes, Lee T., to General Motors Corp. Self-contained hydraulic lash adjuster. 2,871,839, 2–3–59, Cl. 123—90.

Melkonian, Diran, and P. Gold, to Lyma S. A. New meta-dialkylaminoethoxybenzoic acid esters, their hydrochlorides, and process for their preparation. 2,872,476, 2–3–59, Cl. 260—471.

Melzak, Zdzislaw A.: *See*—
Warren, Francis G. R., and Melzak. 2,872,679.

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Robb John F. and F. B. 2,872,007.

Meopta, narodni podnik: *See*—
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Wagner, Arthur F. 2,872,458.

Merckling, Nikolaus G.: *See*—
Gresham, William F., and Merckling. 2,872,439.

Merry, Albert B., and P. F. Hastings. Motor power unit. 2,871,585, 2–3–59, Cl. 37—43.

Mertes, Thomas H., to Sun Oil Co. Apparatus and method for controlling the rate of flow of solid particles. 2,872,249, 2–3–59, Cl. 302—53.

Merz, Hans, and H. Weidlich, to C. H. Boehringer Sohn. Dihydrorescinnamine and methods of making the same. 2,872,451, 2–3–59, Cl. 260—287.

Messmore, Harold. Display device. 2,871,521, 2–3–59, Cl. 20—.5.

Metal & Thermit Corp.: *See*—
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Metalastik Ltd.: *See*—
Hirst, Archie J. 2,872,207.

Metevia, William P., to The L. S. Starrett Co. Friction thimble. 2,871,571, 2–3–59, Cl. 33—164.

Metheny, Donald E., to General American Transportation Corp. Processes of continuous chemical nickel plating. 2,872,353, 2–3–59, Cl. 117—130.

Metzger, Alfred P., to Union Carbide Corp. Antistatic resin compositions. 2,872,432, 2–3–59, Cl. 260—45.5.

Meunier, Frederick A., to Republic Steel Corp. Continuous control for strip mills and the like. 2,871,946, 2–3–59, Cl. 164—61.

Michie, John S., and W. E. Springer, to Robbins & Myers, Inc. Electric motor and pump combination. 2,871,793, 2–3–59, Cl. 103—118.

Miller, Adolph. Metal plating bath. 2,872,346, 2–3–59, Cl. 117—65.

Miller, Edwin J., and K. K. Kesling, to General Motors Corp. Refrigerating apparatus with magnetic latch. 2,871,676, 2–3–59, Cl. 62—264.

Miller, Eugene J. Flat bed trailer hitches. 2,872,059, 2–3–59, Cl. 214—506.

Miller, Harold, and H. Krigsman. Cleaning device. 2,871,497, 2–3–59, Cl. 15—244.

Miller, Henry C., and J. C. Grigger, to Pennsalt Chemicals Corp. Lead dioxide electrode. 2,872,405, 2–3–59, Cl. 204—290.

Miller, Joseph: *See*—
Perna, Lazzaro and E. D., and Miller. 2,871,480.

Miller, Leland D. Orthopedic device. 2,871,852, 2–3–59, Cl. 128—80.

Miloche, Herman A.: *See*—
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Milsco Mfg. Co.: *See*—
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Milton, Leslie M. Coin-freed vending apparatus. 2,872,010, 2–3–59, Cl. 194—79.

Mining Engineering Co. Ltd., The: *See*—
Duncan, Angus W. 2,872,147.

Minneapolis-Honeywell Regulator Co.: *See*—
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Dow, Donald P. 2,871,930.
Eckhardt, Homer D. 2,872,134.
Pinckaers, Balthasar H. 2,872,595.

Minnesota Mining & Mfg. Co.: *See*—
Duncan, Richard F. 2,872,066.

Minot, Otis N. Information handling. 2,872,664, 2–3–59, Cl. 340—174.

Minutilla, Leon C. Traction grip device for motor vehicle tires. 2,871,903, 2–3–59, Cl. 152—226.

Mitchell, Albert F.: *See*—
Brehm, Howard E., Jr., and Mitchell. 2,871,778.

Mohn, Elmer J.: *See*—
Mohn, Loren E. 2,871,612.

Mohn, Loren E., ¼ to E. J. Mohn. Fish hook release unit. 2,871,612, 2–3–59, Cl. 43—44.83.

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Kracker, Herbert, Mohr, and Bamberger. 2,872,441.

Monarch Machine Tool Co., The: *See*—
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Obrebski, John, and Gusching. 2,871,887.

Monogram Precision Industries, Inc.: *See*—
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Monroe Calculating Machine Co.: *See*—
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Wilson, Verne H. 2,872,114.

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Moore, Clyde M. Nested shipping drums with built-in pallet 2,872,079, 2–3–59, Cl. 222—143.

Moore, George E.: *See*—
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Moore, Thomas W., and W. S. Wiseman, to American Machine & Foundry Co. High speed rotor for dynamo electric machines. 2,872,605, 2–3–59 Cl. 310—183.

Moro, Antonio, to S. p. A. Fratelli Borletti. Cutter for the hook in sewing machines. 2,871,809, 2–3–59, Cl. 112—218.

Morris, Frank A., to General Dynamics Corp. Linkage allotting system for automatic telephone system. 2,872,521, 2–3–59, Cl. 179—15.

Morris, William C. Fatty acid screen vehicles. 2,872,326. 2–3–59, Cl. 106—19.

Morrow, John G., to Freeport Sulphur Co. Recovery of cobalt and nickel from ores. 2,872,306, 2–3–59, Cl. 75—101.

Morrow, Nolen C. Socket wrench adapter. 2,871,744, 2–3–59, Cl. 81—185.

Morway, Arnold J., to Esso Research and Engineering Co. Anti-friction bearing grease and preparation thereof. 2,872,416, 2–3–59, Cl. 252—33.2.

Moshacher, Bruce H., to Roper Industries, Inc. Gear pump or fluid motor. 2,871,794, 2–3–59, Cl. 103—128.

Moser, Herbert W.: *See*—
Faasse, Adrian L., Kunzman, and Moser. 2,871,868.

Mosher, Hugh A.: *See*—
Gardiner, William C., Mosher, and Sakowski. 2,872,393.

Motorola, Inc.: *See*—
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Kraft, Richard A. 2,872,510.
Kraft, Richard A. 2,872,513.
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Mott, Carl W., to Mott Corp. Lawn mower. 2,871,644, 2–3–59, Cl. 56—26.

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Motz, Carl H., to National Broach & Machine Co. Work holder. 2,872,198, 2–3–59, Cl. 279—46.

Moutet, Andre G. L., to Office National d'Etudes & de Recherches Aeronautiques O. N. E. R. A. Devices for measuring the temperature of a gaseous fluid and in particular of a flame. 2,871,758, 2–3–59, Cl. 88—22.5.

Mueller, Carl H., to The McNeil Machine & Engineering Co. Lubricating apparatus. 2,872,085, 2–3–59, Cl. 222—376.

Müller, Karl W., and D. Delfs, to Farbenfabriken Bayer Akt. Process for imparting flame resistance to solid inflammable material. 2,872,355, 2–3–59, Cl. 117—136.

Mumford, George V.: *See*—
Sherman, Orville B., and Mumford. 2,871,516.

Munker, Theo. Method and apparatus for heat treating materials in a continuous operating furnace. 2,872,173. 2–3–59, Cl. 263—3.

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Musser, Clair O. Toy musical instrument. 2,871,746, 2–3–59, Cl. 84—405.

Nack, Herman R., to The Commonwealth Engineering Co. of Ohio. Catalytic nickel plating. 2,872,342, 2–3–59, Cl. 117—50.

Nagel, Raymond H., and C. B. Rogers, to United States of America, Navy. Valve shuttle and parking brake. 2,871,662, 2–3–59, Cl. 60—54.5.

Napier, D., & Son Ltd.: *See*—
Chamberlin, Reginald H. D., Mallinson, and Probert. 2,871,659.

Naples, Angelo F.: *See*—
Nardulli, Michael J. 2,871,522.

Nardone, Romeo M. Aircraft-type winches. 2,872,130, 2–3–59, Cl. 242—158.2.

Nardulli, Michael J., to M. J. Nardulli, A. F. Naples, and P. F. Nardulli, trustees. Window structure. 2,871,522, 2–3–59, Cl. 20—12.

Nardulli, Peter F.: *See*—
Nardulli, Michael J. 2,871,522.

Nash, Daniel J., to Nash Inc. Wallet and removable pass case therefor. 2,871,901, 2–3–59, Cl. 150—39.

Nash Inc.: *See*—
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National Aluminate Corp.: *See*—
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Beiler, Jay M., and Martin. 2,872,377.

National Mine Service Co.: *See*—
Robbins, Wilbur, and Jenkins. 2,872,169.

National Research Council: *See*—
Farnand, Joseph R., and Puddington. 2,872,419.

National Research Development Corp.: *See*—
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Gabor, Dennis, and Kalman. 2,872,339.

National Standby Vendors, Inc.: *See*—
Ridings, Clements A., and Holstein. 2,872,009.

Navratil, Miroslav, and M. Prochazka. Device for calibrating indicators of torsional oscillations during rotation. 2,871,693, 2–3–59, Cl. 73—1.

Nebhuth, Karl-Heinz: *See*—
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Nedderman, Wendell H., to Gulf Oil Corp. Pile salvage ring. 2,871,667, 2–3–59, Cl. 61—80.

Negoro, Kaiji, to Rockford Factories, Inc. Storm door vent and automatic closure therefor. 2,871,523, 2–3–59, Cl. 20—16.

Negri, Franco, to Ing. C. Olivetti & C., S. p. A. Random signal generator. 2,872,514, 2–3–59, Cl. 178—22.

Nehring, Frederick L. Paper dispensers. 2,872,264, 2–3–59. Cl. 312—39.

Nelson, Laurie, and R. E. Stevens. Earth mover and dumper. 2,871,586, 2–3–59, Cl. 37—132.

Nelson, Brooks E., to The Osborn Mfg. Co. Brush strip construction. 2,871,496, 2–3–59, Cl. 15—182.

Nelson, John E., to The International Paper Box Machine Co. Machine and method for spot treating foldable sheets. 2,871,772, 2–3–59, Cl. 93—36.

Nelson, John S. Permanent mold and method for making cast chain link. 2,871,535, 2–3–59, Cl. 22—216.

Nelson, Joseph F., F. P. Ford, and A. W. Hubbard, to Esso Research and Engineering Co. Desulfurization of fluid coke with hydrogen above 2400° F. 2,872,384, 2–3–59, Cl. 202—31.

Nelson, Seddon C., to American Viscose Corp. Pulse dampening feed hose. 2,871,884, 2–3–59, Cl. 138—30.

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Neugebauer, Gerhart H., ¼ to P. O. Tobeler, d. b. a., Trans-Oceanic. Measuring closure for container. 2,872,082. 2–3–59, Cl. 222—249.

Neumann, Günther, and A. Kottler, to Dr. Karl Thomae, G. m. b. H. Aerosol antiperspirant composition preparation. 2,872,379, 2–3–59, Cl. 167—90.

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Newburn, Harold W.: *See*—
Anderson, Gerald R., Hayes, Kerr, and Newburn. 2,872,017.
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Newnam, Kenneth, to United States of America, Atomic Energy Commission. Recovery of uranium from tungsten. 2,872,394, 2–3–59, Cl. 204—105.
Newson, Henry W., to United States of America, Atomic Energy Commission. Self-reactivating neutron source for a neutronic reactor. 2,872,399, 2–3–59, Cl. 204—193.2.
Nichols, Charles R., Jr., and J. A. Arsenault. Combination table and folding chair. 2,871,920, 2–3–59, Cl. 155—123.
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Niiranen, John V., and P. H. Tanner, to United States of America, Navy. Surgical body-member simulacrum for teaching first aid. 2,871,579, 2–3–59, Cl. 35—17.
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North Atlantic Industries, Inc.: *See*—
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Ferguson, Lachlan G., and Fowler. 2,872,052.
Graves, Loinel R., Knapp, Guerreiro, Cable, and Wheeler. 2,871,756.
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Norton, Clyde J., to Transval Engineering Corp. Current converter. 2,872,582, 2–3–59, Cl. 250—36.
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Nussbaumer, Hubert, deceased; A. and H. Nussbaumer, heirs of said H. Nussbaumer, to I-T-E Circuit Breaker Co. Electromagnetic reversing clutch. 2,872,003, 2–3–59, Cl. 192—31.
Oates, Charles E., and M. S. Brunner, to Northrop Aircraft, Inc. Throttle control for use in a jet engine having an afterburner. 2,871,657, 2–3–59, Cl. 60—35.6.
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Obermaier, Alfred A., to Illinois Testing Laboratories, Inc. Heater control circuits. 2,872,556, 2–3–59, Cl. 219—20.
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Obrebski, John, and N. V. Gusching, to The Monarch Machine Tool Co. Manifolding. 2,871,887, 2–3–59, Cl. 138—87.
Oehlschlaeger, Herman F., Jr., to Emery Industries, Inc. Manufacture of cyanuric acid. 2,872,447, 2–3–59, Cl. 260—248.
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Olson, William N., to International Harvester Co. Spring equalizer for four-row planter. 2,871,964, 2–3–59, Cl. 172—624.
Olsson, Axel O., and J. J. Dahl, to J. Dahl & Son A B. Milling machine for cylindrical stereotype platens or the like. 2,871,766, 2–3–59, Cl. 90—20.
Oppenheim, Henry H., and T. W. Stevens. Electrical speed-responsive switch with time-delay. 2,872,541, 2–3–59, Cl. 200—83.
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Ostlund, Earl W. Retractable clothesline device. 2,872,047, 2–3–59, Cl. 211—119.15.
Ostrowski, Walter. Sharpening device for razor blades. 2,871,628, 2–3–59, Cl. 51—153.
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Ott, John E., and C. G. Heslet, to Acme Steel Co. Grain car door. 2,871,936, 2–3–59, Cl. 160—368.
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Owen, Claude M., to Chase Equipment Corp. Non-jamming vibratory hopper. 2,872,019, 2–3–59, Cl. 198—33.
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Pass & Seymour, Inc.: *See*—
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Patin, Pierre C. Internal gear machines. 2,871,831, 2–3–59, Cl. 121—68.
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Payne, Frank R., deceased: Continental Illinois National Bank & Trust Co. of Chicago, executor, to Crane Packing Co. Fluid seal. 2,872,220, 2–3–59, Cl. 286—11.15.
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Payne, Oscar D., Sr., and O. D. Payne, Jr. Tamper-proof television receiver installation. 2,872,006, 2–3–59, Cl. 194—1.
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Pearce, Howard R. Calendar with a current date indicator. 2,871,595, 2–3–59, Cl. 40—110.
Pearson, Richard K., and T. Wartik, to Callery Chemical Co. Reaction products of $NABH_4$ and CO_2. 2,872,474, 2–3–59, Cl. 260—462.
Peck, David E., to Sprague Electric Co. Ferroelectric transducer. 2,872,600, 2–3–59, Cl. 310—8.7.
Peckham, Arthur C. Orthopedic spinal brace. 2,871,850, 2–3–59, Cl. 128—78.
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Pentz, Ruth M., to The Welsbach Corp. Ozone production of diphenic acid. 2,872,480, 2–3–59, Cl. 260—523.
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Perlman, David, to Olin Mathieson Chemical Corp. New cobalamins. 2,872,444, 2–3–59, Cl. 260—211.5.
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Peterson, Glen. Apparatus for connecting circuit elements. 2,872,657, 2–3–59, Cl. 339—193.
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Pezza, Lazzaro and E. D., and J. Miller. Combined nail holder and punch. 2,871,490, 2–3–59, Cl. 1—47.
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Pickman, Edgard, to Compagnie Internationale des Pieux Armes Frankignoul, Societe Anonyme. Expansible mandrel including jacks, for driving tubes into the ground. 2,871,666, 2–3–59, Cl. 61—79.
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Pinckaers, Balthasar H., to Minneapolis-Honeywell Regulator Co. Transistor control apparatus. 2,872,595, 2–3–59, Cl. 307—88.5.
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Pohlenz, Jack B., to Universal Oil Products Co. Liquid-fluid contactor. 2,872,295, 2–3–59, Cl. 23—270.5.
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Pollingue, Daniel J., Jr.: *See*—
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Polo, Louis, to Radios S. A. Vacuum cleaners. 2,871,975, 2–3–59, Cl. 183—21.
Polovitch, Michael. Auxiliary safety braking attachment for motor vehicles. 2,871,986, 2–3–59, Cl. 188—5.
Polzin, Winfred J., to Will Ross, Inc. Identification bracelet. 2,871,592, 2–3–59, Cl. 40—21.
Poole, Marcus W. Intravenous therapy training aid. 2,871,584, 2–3–59, Cl. 35—17.
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Porter, Allan W. H., to F. N. F. Machinery Mfg. Co. Ltd. Warp knitting machinery. 2,871,686, 2–3–59, Cl. 66—86.
Porter, Frank R., J. W. Hailey, and J. E. McFarland, to Inland Steel Co. Method of producing articles for enamelling. 2,872,352, 2–3–59, Cl. 117—130.
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Pounds, Hoyle, J. H., and R. S., to Pounds Motor Co., Inc. Combined tree cultivator and fertilizer distributor. 2,871,804, 2–3–59, Cl. 111—11.
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Pounds, Russell S.: *See*—
Pounds, Hoyle, J. H., and R. S. 2,871,804.
Poupet, Bernard. Skinning method and apparatus. 2,871,509, 2–3–59, Cl. 17—45.
Power Jets (Research and Development) Ltd.: *See*—
Chamberlin, Reginald H. D., Mallinson, and Probert. 2,871,659.
Johnson, William E. P. 2,871,656.
Pratt, Edmond O. Ether volatiliser. 2,872,167, 2–3–59, Cl. 261—14.
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Price, Earl R., to Bendix Aviation Corp. Power-assisted actuator. 2,871,828, 2–3–59, Cl. 121—41.
Price, George E., to Westinghouse Electric Corp. Oven heating apparatus. 2,872,558, 2–3–59, Cl. 219—35.
Price, Ralph E., to Gardner Machine Co. Surface grinding machine. 2,871,625, 2–3–59, Cl. 51—118.
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Navratil, Miroslav, and Prochazka. 2,871,693.
Provaz, Josef, to Tesla, narodni podnik. Device for selective reception of electromagnetic waves. 2,872,568, 2–3–59, Cl. 250—20.
Provost, Marguerite E. M. J., to Société Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Process of making thiourea dioxide. 2,872,482, 2–3–59, Cl. 260—552.
Prybyla, Frank A.: *See*—
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Farnand, Joseph R., and Puddington. 2,872,419.
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Puster, Louis M., to Robertshaw-Fulton Controls Co. Thermostatically operated valve. 2,872,118, 2–3–59, Cl. 236—34.

Puster, Louis M., to Robertshaw-Fulton Controls Co. Thermostatically operated valve. 2,872,119, 2–3–59, Cl. 236—34.

Putnam, Robert C., and S. I. Hayes, Jr., to United Shoe Machinery Corp. Synthetic tannins from sulfomethylated yacca gum and process of tanning therewith. 2,872,278, 2–3–59, Cl. 8—94.32.

Pyrene Co. Ltd., The: *See*—
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Quitter, Gerhard, to Durkoppwerke Akt. Multiple-needle sewing machine. 2,871,810, 2–3–59, Cl. 112—221.

Radio Corp. of America: *See*—
Celmer, Philip R., and Jensen. 2,872,299.
Gibson, John J. 2,872,648.
Hanson, Eugene O., and Shrontz. 2,871,621.
Horowitz, Leopold A., and Sonnenfeldt. 2,872,580.
Jolly, Stuart T. 2,872,530.
Kihn, Harry. 2,872,579.
Lufkin, Paul M., and Stubbins. 2,872,615.
Rose, Harry E. 2,872,508.
Stark, John, Jr., and Dietch. 2,872,617.
Thall, Earle S. 2,872,028.
Warren, Francis G. R., and Melzak. 2,872,679.

Radios S. A.: *See*—
Polo, Louis. 2,871,975.

Ralston, Eldon K., to Thompson Products, Inc. Rocker arm. 2,871,720, 2–3–59, Cl. 74—519.

Ramey, Tom D. Clothes drier. 2,871,576, 2–3–59, Cl. 34—87.

Ramsden, Hugh E., and S. D. Rosenberg, to Metal & Thermit Corp. Preparation of alkyl silanes by the grignard reaction employing cyclic ethers. 2,872,471, 2–3–59, Cl. 260—448.2.

Ranchers Cotton Oil: *See*—
Cavanagh, George C. 2,872,466.

Randall, Frank E. Disposable container for liquid and holder for container. 2,872,081, 2–3–59, Cl. 222—183.

Randle, George W.: *See*—
Sirkin, Senia, and Randle. 2,871,687.

Ranstead, Norman H., to Universal Oil Products Co. Heat exchanger. 2,872,163, 2–3–59, Cl. 257—230.

Raver, Louis J., to General Motors Corp. Starting apparatus for internal combustion engines. 2,871,708, 2–3–59, Cl. 74—6.

Ray, Frederick. Expansion joints and plates therefor. 2,871,885, 2–3–59, Cl. 138—50.

Raybuck, William B., to Fred'k H. Levey Co., Inc. Folder for prin'ting presses. 2,872,186, 2–3–59, Cl. 270—69.

Raytheon Mfg. Co.: *See*—
Damon, Neil F. 2,872,655.
Hunter, Windsor H. 2,872,610.

Reardon, James J.: *See*—
Butler, Wallace B., Prybyla, and Reardon. 2,871,606.

Redick, David C.: *See*—
Hartzell, Herman L., Redick, and Julian. 2,872,337.

Redmon, Owen C.: *See*—
Fitzgerald, Joseph N., Gernhardt, and Redmon. 2,872,043.

Reed, Edwin E., to Phillips Petroleum Co. Underground storage. 2,871,668, 2–3–59, Cl. 62—54.

Reed, Edwin E., to Phillips Petroleum Co. Control system. 2,872,072, 2–3–59, Cl. 222—30.

Reed, Hugh W. B., and W. R. Smith, to Imperial Chemical Industries Ltd. Production of metal alkyls. 2,872,470, 2–3–59, Cl. 260—448.

Reich, Bernard, to United States of America, Army. Measurement of transistor thermal resistance. 2,872,644, 2–3–59, Cl. 324—158.

Reichhold Chemicals, Inc.: *See*—
Shelton, Frederic J., and Chervenka. 2,872,421.

Rektorys, Zdenek J. Liquid filling device. 2,871,895, 2–3–59, Cl. 141—290.

Remes, Nathaniel L.: *See*—
Letsinger, Robert L., Skoog, and Remes. 2,872,479.

Remington Arms Co., Inc.: *See*—
Hesse, Arno, Hedeen, and Sola. 2,871,897.

Republic Steel Corp.: *See*—
Meunier, Frederick A. 2,871,940.

Retzlaff, Allen H.: *See*—
Brumbaugh, Joseph F., and Retzlaff. 2,872,576.

Reynolds, R. J., Tobacco Co.: *See*—
Teague, Claude E., Jr. 2,872,360.

Reynolds, Schuyler. Competitive hammering toy apparatus. 2,871,618, 2–3–59, Cl. 46—1.

Rial, Eugene L. and L. C. Apparatus for storing and dispensing sheet material in roll form. 2,872,125, 2–3–59, Cl. 242—55.42.

Rial, Lawrence C.: *See*—
Rial, Eugene L. and L. C. 2,872,125.

Rich, Barrett G., to Deere & Co. Crankcase ventilating system and duplex air cleaner especially therefor. 2,871,663, 2–3–59, Cl. 60—97.

Richards, William V., and H. Rosen, to H. A. Phillips, d. b. a. H. A. Phillips Co., by W. Phillips, conservator of his estate. Liquid return system. 2,871,673, 2–3–59, Cl. 62—174.

Richardson, William D. Clothespin. 2,871,538, 2–3–59, Cl. 24—137.

Richardson, William F., to Flex-O-Lators, Inc. Edge roll for cushion spring assemblies. 2,871,925, 2–3–59, Cl. 155—184.

Ridge Tool Co.: *See*—
Lauck, William A. 2,871,733.

Ridings, Clements A., and A. W. Holstein, to National Standby Vendors, Inc. Coin apparatus. 2,872,009, 2–3–59, Cl. 194—10.

Ridout, Philip J.: *See*—
Marshall Peter R., and Ridout. 2,872,311.

Rieser, John D. Variable speed transmission mechanism and inclosed system of continual fluid wetting of actuating parts. 2,871,715, 2–3–59, Cl. 74—230.17.

Rigidbilt Inc.: *See*—
Bradfield, William W., and Anderson. 2,871,677.

Rigterink, Raymond H., to The Dow Chemical Co. α-(dialkylamino)-6-phenyl-o-cresol esters. 2,872,477, 2–3–59, Cl. 260—476.

Rimmer, Norman W.: *See*—
Simpson, Harold G., and Rimmer. 2,871,997.

Rimsha, Victor E.: *See*—
Kozel, James A., and Rimsha. 2,872,116.

Riser, Ralph B., and R. K. Landis. Nose initiator mounting. 2,871,787, 2–3–59, Cl. 102—70.2.

Roach, James R.: *See*—
Jordan, Terence B., Dilworth, and Roach. 2,872,417.

Robb, Frank B.: *See*—
Robb, John F. and F. B. 2,872,007.

Robb, John F. and F. B., to J. W. Menhall. Ticket dispensing parking meter. 2,872,007, 2–3–59, Cl. 194—7.

Robbins & Myers, Inc.: *See*—
Michie, John S., and Springer. 2,871,793.

Robbins, Wilbur, and G. S. Jenkins, to National Mine Service Co. Continuous mining by cutting and crushing. 2,872,169, 2–3–59, Cl. 262—7.

Roberts, Charles W. Electronic talking manikin. 2,871,593, 2–3–59, Cl. 40—28.3.

Roberts, Henry B., to Roberts Industries. Portable chicken and animal feed mixing and dispensing means. 2,872,166, 2–3–59, Cl. 259—9.

Roberts Industries: *See*—
Roberts, Henry B. 2,872,166.

Roberts, James R.: *See*—
Heritage, Clark C., and Roberts. 2,872,337.

Robertshaw-Fulton Controls Co.: *See*—
Coles, Ralph V., Maltby, and Philippi. 2,871,874.
Puster, Louis M. 2,872,117.
Puster, Louis M. 2,872,118.
Puster, Louis M. 2,872,119.
Winslow, Arnold A. 2,872,355.

Robinson, Gerald, to General Aniline & Film Corp. Vinyl lower alkyl ether-maleic anhydride copolymer as a pesticide solubilizer. 2,872,369, 2–3–59, Cl. 167—42.

Robinson-Houchin, Inc.: *See*—
Bringelson, Roy W., and Katzenberg. 2,871,627.

Robinson, Preston, to Sprague Electric Co. Fused salt electrolyte. 2,872,629, 2–3–59, Cl. 317—230.

Robinson, Thomas R. Tray loading mechanisms for transferring a sheet unit to a receiving surface. 2,872,189, 2–3–59, Cl. 271—54.

Robson, Brian: *See*—
McNeill, Eric, and Robson. 2,872,412.

Rockford Factories, Inc.: *See*—
Negoro, Kaiji. 2,871,523.

Rockstrom, Leonard, and C. Aaron, to Cameron Machine Co. Rewinding machine. 2,872,126, 2–3–59, Cl. 242—65.

Rockwell, Ronald J., to Crosley Broadcasting Corp. Electrical measuring instrument. 2,872,643, 2–3–59, Cl. 324—119.

Rockwell Standard Corp.: *See*—
House, Bryan E. 2,871,713.

Roff, William A. Ice fishing device. 2,871,614, 2–3–59, Cl. 43—15.

Rogers, Cyril B.: *See*—
Nagel, Raymond H., and Rogers. 2,871,662.

Rogers, Edward F., to Merck & Co., Inc. Imidazole composition for treating coccidiosis. 2,872,371, 2–3–59, Cl. 167—53.1.

Rohweder, Glen W.: *See*—
Heitshu, Daniel C., Vogelaar, and Rohweder. 2,871,646.

Rolando, Charles O.: *See*—
Lothrop, John W., and Rolando. 2,871,777.

Rolle, Clifford J., J. Roteman, and W. D. Barnes, Jr., to Interchemical Corp. Ice releasing coating composition comprising nitro-cellulose, oil modified alkyd, vinyl polymer, wax and organic solvent. 2,872,422, 2–3–59, Cl. 260—16.

Rollofson, Russell L.: *See*—
Burns, Henry L., and Rollofson. 2,872,221.

Rooks, Arthur J.: *See*—
Barker, Melvin A., and Rooks. 2,872,004.

Roper Industries, Inc.: *See*—
Mosbacher, Bruce H. 2,871,794.

Rose, Harry E., to Radio Corp. of America. Color-correction systems. 2,872,508, 2–3–59, Cl. 178—5.2.

Rosen, Benjamin: *See*—
Brown, Ruth E., and Rosen. 2,872,464.

Rosen, Herbert: *See*—
Richards, William V., and Rosen. 2,871,673.

Rosenberg, Sanders D.: *See*—
Ramsden, Hugh E., and Rosenberg. 2,872,471.

Ross, Charles, & Son Co.: *See*—
Teleky, Joseph G. 2,872,122.

Ross, Laurids E.: *See*—
Feder, Harold M., Ader, and Ross. 2,872,285.

Ross, Robert E. Tube shield. 2,872,502, 2–3–59, Cl. 174—35.

Ross, Will, Inc.: *See*—
Polzin, Winfred J. 2,871,592

Rossell, William T., to Transit Research Corp. Axle control means. 2,871,800, 2–3–59, Cl. 105—157.

Roteman, Jerome: *See*—
Rolle, Clifford J., Roteman, and Barnes. 2,872,422.

Roth, Edward M., Jr., to Food Machinery and Chemical Corp. Stabilizing hydrogen peroxide. 2,872,293, 2–3–59, Cl. 23—207.5.

Rotol Ltd.: *See*—
Boydell, Kenneth R. 2,871,672.

Roujob, Léopold A. G., to Societe Belge Prat-Daniel, Societe Anonyme. Apparatus for washing gases. 2,871,973, 2–3–59, Cl. 183—3.

Routien, John B.: *See*—
Shull, Gilbert M., and Routien. 2,872,380.
Rowles, Franklin M., to Cal-Gas Equipment Corp. Automatic safety control system for vehicles. 2,871,872, 2–3–59, Cl. 137—351.
Rowls, Garth A., and D. G. Townsend, to General Motors Corp. Vent plug and method of using same. 2,872,499, 2–3–59, Cl. 136—177.
Rowls, Garth A., to General Motors Corp. Storage battery non-overfill device. 2,872,500, 2–3–59, Cl. 136—178.
Royal McBee Corp.: *See*—
Harkins, Elza E., and Young. 2,872,188.
Royal Trust Co., The: *See*—
Burgess, Charles R. 2,872,493.
Rubinstein, Harvey: *See*—
Keiner, Robert C., and Rubinstein. 2,872,663.
Ruda, Edward P., to Garden City Plating & Mfg. Co. Panel support. 2,871,520, 2–3–59, Cl. 20—5.
Rumberg, Alfred, W. Damgen, and M. Theis, to Knapsack-Griesheim Akt. Device for tightening and loosening current supply plates on electrodes in electric furnaces. 2,872,494, 2–3–59, Cl. 13—16.
Rundle, Robert E.: *See*—
Wilhelm, Harley A., and Rundle. 2,872,307.
Runton, Leslie A., to The Russell Mfg. Co. Anti-fraction pad. 2,872,181, 2–3–59, Cl. 267—49.
Rushing, Frank C., to United States of America, Atomic Energy Commission. Rotor end cap. 2,872,105, 2–3–59, Cl. 233—27.
Russell, John D., to Joy Mfg. Co. Mining apparatus of the pivoted boom type. 2,872,171, 2–3–59, Cl. 262—29.
Russell Mfg. Co., The: *See*—
Runton, Leslie A. 2,872,181.
Rassi, Ralph F., Jr.: *See*—
Wilhelm, Harley A., Peterson, and Rassi. 2,872,310.
Ryba, Anton, to Stempel-Hermetik G. m. b. H. Electromagnetic compressor. 2,872,101, 2–3–59, Cl. 230—55.
Ryba, Anton, to Stempel-Hermetik G. m. b. H. Compressor. 2,872,102, 2–3–59, Cl. 230—55.
Rychlewski, Thaddeus V., and R. F. Wilson, to Sylvania Electric Products Inc. Method of producing patterns. 2,872,816, 2–3–59, Cl. 96—35.
S. A. T. A. M., Societe Anonyme pour Tous Appareillages Mecaniques: *See*—
Carriel, Louis A. 2,871,894.
S & C Electric Co.: *See*—
Lindell, Sigurd I. 2,872,549.
S. p. A. Fratelli Borletti: *See*—
More, Antonio. 2,871,809.
Saari, Oliver E., to Illinois Tool Works. Worm forming apparatus. 2,871,765, 2–3–59, Cl. 90—11.64.
Sackett, A. J., & Sons Co., The: *See*—
Sackett, Walter J. 2,871,510.
Sackett, Walter J., to The A. J. Sackett & Sons Co. Granulator. 2,871,510, 2–3–59, Cl. 18—1.
Safety Automatic Brake Corp.: *See*—
Hemphill, Stanley R. 2,871,999.
St. Regis Paper Co.: *See*—
Leptien, Elmer E. 2,872,094.
Sakowski, Walter J.: *See*—
Gardiner, William C., Mosher, and Sakowski. 2,872,393.
Sakagami, Tomihei. Driving mechanism capable of transmitting swinging and feathering motions. 2,871,710, 2–3–59, Cl. 74—70.
Samdahl, Russell H., to G. W. Forrand. Dance instruction device. 2,871,580, 2–3–59, Cl. 35—29.
Sams, Herbert W., to Scripto, Inc. Leakproof ink tube for ball point pen. 2,871,824, 2–3–59, Cl. 120—42.4.
Samuelson, Hans O., to Aktiebolaget Rosenblads Patenter. Process in recovering sulphur from waste sulphite lye. 2,872,289, 2–3–59, Cl. 23—129.
Sand, Darrel R.: *See*—
Herndon, Walter B., and Sand. 2,872,000.
Sandberg, Nels H., to Waldorf Paper Products Co. Method of making pulp. 2,872,314, 2–3–59, Cl. 92—6.
Sanders, Herbert L., E. A. Knaggs, and M. L. Nussbaum. Emulsifiers and toxicants containing the same. 2,872,368, 2–3–59, Cl. 167—42.
Sanders, Wilbur E., Sr.: *See*—
Wagner, Raymond W., and Sanders. 2,872,057.
Santamaria, Salvatore, and A. R. Topfer, to Philco Corp. Mechanical apparatus. 2,872,845, 2–3–59, Cl. 324—158.
Sardeson, Robert: *See*—
Kallenberg, Karl J., and Sardeson. 2,872,585.
Sarge, Theodore W.: *See*—
Abernethy, Nelson W., Diss, and Sarge. 2,872,424.
Sasse, Klaus, R. Wegler, and F. Grewe, to Farbenfabriken Bayer Akt. Thio- and dithio-carboxylic acid esters and a process for their manufacture. 2,872,450, 2–3–59, Cl. 260—281.
Saubestre, Edward B., to Sylvania Electric Products Inc. Copper sensitizers. 2,872,350, 2–3–59, Cl. 117—213.
Sauerman, Ernst C., to Gaw-O'Hara Envelope Co. Combination envelope. 2,872,096, 2–3–59, Cl. 229—72.
Saunders, Charles L.: *See*—
Fuchs, Francis J., Jr., and Saunders. 2,871,734.
Sawyer, Donald W., and A. C. Lundahl. Rotating plates for parallax measurement. 2,871,563, 2–3–59, Cl. 33—1.
Schenck, Martin: *See*—
Loechel, Wolfgang, and Schenck. 2,872,462.
Schenker, Abraham W. Angle measuring instrument. 2,871,573, 2–3–59, Cl. 33—207.
Schering A. G.: *See*—
Loechel, Wolfgang, and Schenck. 2,872,462.
Mattner, Joachim. 2,872,461.
Schilling, Lewis R., to Kolcast Industries, Inc. Method of and apparatus for forming frangible casting molds. 2,871,528, 2–3–59, Cl. 22—31.
Schiring, Ralph C., and O. C. Hollstein, to Picker X-Ray Corp., Waite Mfg. Div., Inc. X-ray apparatus. 2,872,584, 2–3–59, Cl. 250—55.
Schleyer, E. C., Pump Co., Inc.: *See*—
Schleyer, Victor, Henricks, and Baxter. 2,872,415.
Schleyer, Victor, J. L. Henricks, and R. R. Baxter, to E. C. Schleyer Pump Co., Inc. Domestic water treatment process. 2,872,415, 2–3–59, Cl. 210—63.
Schliephacke, Fridtjof F., to A. Lorenz. Leg rest control mechanism for seating units. 2,871,917, 2–3–59, Cl. 155—106.
Schliephacke, Fridtjof F., to A. Lorenz. Reclining chair and the like. 2,871,918, 2–3–59, Cl. 155—106.
Schliephacke, Fridtjof F., to A. Lorenz. Seating unit having adjustable leg rest. 2,871,919, 2–3–59, Cl. 155—106.
Schlosser, Johann C., to The De Laval Separator Co. Method and means for the automatic exchange of weft cops on looms. 2,871,889, 2–3–59, Cl. 139—241.
Schlotzhauer, Allan T.: *See*—
Newman, Douglas A., and Schlotzhauer. 2,872,340.
Schlumberger Well Surveying Corp.: *See*—
Blair, Winton B. 2,871,784.
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Martin, Gunther J. 2,872,575.
Schmitz, Paul: *See*—
Von Friedrich, Adolf, Legrand, Schmitz, and Holzrichter. 2,872,445.
Schmued, Edgar, to Northrop Aircraft, Inc. Rocket and launching mechanism. 2,871,762, 2–3–59, Cl. 89—1.7.
Schmutz, Julius, to Schmutz Mfg. Co., Inc. Printing roll and strip. 2,871,783, 2–3–59, Cl. 101—377.
Schmutz Mfg. Co., Inc.: *See*—
Schmutz, Julius. 2,871,783.
Schnellpressenfabrik Akt. Heidelberg: *See*—
Buttner, Artur. 2,871,782.
Schoonover, Silas M. Trowel filing tool. 2,871,729, 2–3–59, Cl. 76—82.
Schrade, William A., and R. D. Clemson, to Clemson Bros., Inc. Lawn mower wheel. 2,871,647, 2–3–59, Cl. 56—249.
Schrempp, Ernst, to Pitney-Bowes, Inc. Piece printing and ejecting device. 2,871,781, 2–3–59, Cl. 101—235.
Schroeder, Carl W., to Shell Development Co. Polyepoxide emulsions and method of treating textiles therewith. 2,872,427, 2–3–59, Cl. 260—29.2.
Schroeder, Carl W., to Shell Development Co. Polyepoxide emulsions and method of treating textiles therewith. 2,872,428, 2–3–59, Cl. 260—29.2.
Schroeder, Collin H., and K. P. Link, to Wisconsin Alumni Research Foundation. Process for the preparation of 4-hydroxycoumarin derivatives. 2,872,457, 2–3–59, Cl. 260—343.2.
Schroeder, Simon E., to Fox River Mfg. Co. Transmission wire or core for control mechanism. 2,871,718, 2–3–59, Cl. 74—501.
Schuck, Oscar H., to United States of America, Navy. Automatic relative position plotter. 2,872,272, 2–3–59, Cl. 346—8.
Schulman, Bernard L., to Esso Research and Engineering Co. Classification of particulate solids in fluid coking. 2,872,390, 2–3–59, Cl. 202—14.
Schultheiss, Alvin J.: *See*—
Piker, Herbert M., and Schultheiss. 2,872,066.
Schultze, Kurt H., to Herbert Lindner, G. m. b. H. Thread generating machine. 2,871,634, 2–3–59, Cl. 51—232.
Schurr, Charles A., to Square D Co. Electric motor resonant control circuit. 2,872,633, 2–3–59, Cl. 318—240.
Schwager, August C., to Schwager-Wood Corp. High voltage circuit interrupting and isolating apparatus. 2,872,550, 2–3–59, Cl. 200—145.
Schwager-Wood Corp.: *See*—
Schwager, August C. 2,872,550.
Schwaneke, Fred C., to Dormeyer Corp. Electric iron. 2,871,589, 2–3–59, Cl. 38—77.
Schwartz, Harold A., to Patchogue-Plymouth Corp. Twisted paper yarn. 2,871,652, 2–3–59, Cl. 57—167.
Schwartz, Max M., deceased; M. G. Schwartz, executrix. Method of preparing elastomeric plastigels. 2,872,429, 2–3–59, Cl. 260—30.6.
Schwartz, Minnie G.: *See*—
Schwartz, Max M. 2,872,429.
Schwede, Otto G.: *See*—
Hollmann, Hans E., and Schwede. 2,872,520.
Sciulle, Charles V., to The Waterbury Farrel Foundry & Machine Co. Method of forging a nut blank having a bore with a projecting key. 2,871,492, 2–3–59, Cl. 10—86.
Scofield, Raymond C., to Phillips Petroleum Co. Dehydration of gases containing acetylene and removal of acetylene therefrom. 2,871,979, 2–3–59, Cl. 183—115.
Sconce, Freddie O., and R. A. Tayler, Jr., ¼ to Stone Crest Studios, Inc. Contour analysis of stereo pairs of aerial photographs. 2,871,759, 2–3–59, Cl. 88—24.
Scott, Charles R., and D. G. Grenley, to The Dow Chemical Co. Process for coating perishable foodstuffs. 2,872,325, 2–3–59, Cl. 99—166.
Scott, Gerald, to Imperial Chemical Industries Ltd. Oxidation process. 2,872,460, 2–3–59, Cl. 260—364.
Scott, Jesse: *See*—
Bowness, George W., and Scott. 2,872,239.
Scott, Raymond. Keyboard operated electrical musical instrument. 2,871,745, 2–3–59, Cl. 84—1.25.
Scott & Williams, Inc.: *See*—
Bley, William G. 2,871,806.
Scovill Mfg. Co.: *See*—
Harris, William H. 2,872,034.
Havican, Raymond V. 2,872,087.
Screw Machine Products Co.: *See*—
Abbiati, Theodore H. 2,871,738.

Scripture, Edward W., Jr., and S. W. Benedict, to American-Marietta Co. Hydraulic cement compositions. 2,872,329, 2–3–59. Cl. 106—92.

Scura, Vincent G., to Dubl-Chek Corp. Coin-actuated electric numbering machine. 2,872,008, 2–3–59. Cl. 194—9.

Seavey, Roland W., to The Fellows Gear Shaper Co. Deburring device. 2,871,764, 2–3–59. Cl. 90—1.4.

Sebok, Frank, to Purolator Products, Inc. Air cleaner-intake silencer unit and filter element therefor. 2,871,976, 2–3–59. Cl. 183—44.

Seeger, Bernard L., to Boeing Airplane Co. Automatic fuel controls for regulating aircraft Mach No. in accordance with change of altitude. 2,872,133, 2–3–59. Cl. 244—76.

Segal, Samuel, to Wilson-Jones Co. Opening and closing levers for ring binders. 2,871,863, 2–3–59. Cl. 129—24.

Sehlow, Fenton. Readily threaded needle. 2,872,092, 2–3–59. Cl. 223—102.

Seismograph Service Corp.: *See*—
Hunsicker, William R. 2,872,676.

Seng Co., The: *See*—
Fox, Martin. 2,871,916.

Senne, Edgar P. Vacuum cleaner on-and-off switching devices. 2,871,503, 2–3–59. Cl. 15—327.

Sernetz, Helna. Vibratory machine. 2,872,024, 2–3–59. Cl. 198—220.

Seybolt, Alan U., to United States of America, Atomic Energy Commission. Metal compositions. 2,872,308, 2–3–59. Cl. 75—122.7.

Shaffer, William R., to Wald Industries, Inc. Stabilized trailer. 2,872,210, 2–3–59. Cl. 280—124.

Shallenberg, Robert L., to International Harvester Co. Fuel injector for internal combustion engines. 2,872,247, 2–3–59. Cl. 299—107.2.

Shannon, Jack F., to Bailey Meter Co. Fluid pressure control system. 2,871,878, 2–3–59. Cl. 137—486.

Shannon Ltd., The: *See*—
Posner, Bernard B. 2,871,861.

Sharpe, Arthur H., to Underwood Corp. Ribbon winding device for typewriters and the like. 2,872,016, 2–3–59. Cl. 197—151.

Shea, Frederick L., Jr., to Great Lakes Carbon Corp. Liquid oxygen explosive and methods for preparing same. 2,872,305, 2–3–59. Cl. 52—1.

Shearman, Spicer D., and B. E. Herbolsheimer, to Garrett Tubular Products, Inc. Extensible column for a stool or the like. 2,872,223, 2–3–59. Cl. 287—58.

Shelden, Charles H. Combined door and seat lock for automobiles. 2,872,241, 2–3–59. Cl. 296—65.

Shell Development Co.: *See*—
Schroeder, Carl W. 2,872,427.
Schroeder, Carl W. 2,872,428.

Shelly, Robert S., to Pack Mfg. Co. Multiple unit storage file. 2,872,265, 2–3–59. Cl. 312—107.

Shelton, Frederic J., and C. H. Chervenka, to Reichhold Chemicals, Inc. Plywood adhesive comprising urea formaldehyde resin protein and dispersing agent and process for preparing same. 2,872,421, 2–3–59. Cl. 260—6.

Shepard, Walter P., Jr. Bait mixer. 2,871,611, 2–3–59. Cl. 43—44.2.

Shephard, James A., to Universal Winding Co. Face cam and double follower. 2,871,723, 2–3–59. Cl. 74—567.

Sherman, Orville B., and G. V. Mumford, to Owens-Illinois Glass Co. Apparatus for feeding plasticized materials. 2,871,516, 2–3–59. Cl. 18—30.

Sherwin-Williams Co., The: *See*—
Binder, Alfred. 2,871,353.
Hunn, James V. 2,872,349.
Hunn, James V., and Ogren. 2,871,500.

Sherwood, Robert C., and R. H. Lundquist, to California-Doran Heat Treating Co. Method of oil quenching enclosed vessels. 2,872,364, 2–3–59. Cl. 148—21.55.

Shirley, William L.: *See*—
Waterman, Logan C., and Shirley. 2,872,406.

Shrom, Harry. Clasp hanger for garments. 2,872,069, 2–3–59. Cl. 223—93.

Shronts, James L.: *See*—
Hanson, Eugene O., and Shronts. 2,871,621.

Shull, Gilbert M., and J. B. Routien, to Chas. Pfizer & Co., Inc. Process for the production of 17-β-hydroxysteroids by neocosmospora. 2,872,380, 2–3–59. Cl. 195—51.

Shuman, Robert M.: *See*—
Husel, Dieter K., and Shuman. 2,871,670.

Shyne, James J.: *See*—
Fahnoe, Frederick, and Shyne. 2,872,388.

Siefen, Howard T., and J. M. Campbell, to United States of America, Atomic Energy Commission. Stripping metal coatings. 2,872,361, 2–3–59. Cl. 134—7.

Siegfried, Erwin, to Losinger & Co. A. G. Method for post-tensioning the re-inforcing of a prestressed concrete structure. 2,871,554, 2–3–59. Cl. 29—452.

Siemens-Schuckertwerke A. G.: *See*—
Kleinvogel, Hans-Joachim, and von Haebler. 2,872,634.

Sieven, Louis I. Spare tissue roll bracket. 2,872,124, 2–3–59. Cl. 242—55.3.

Sigma Instrument Co. Ltd., The: *See*—
Boosey, Frederick R. 2,871,629.

Signode Steel Strapping Co.: *See*—
Childress, William C. 2,871,536.

Silver, Walter H.: *See*—
Wilson, Samuel W., and Silver. 2,872,491.

Siminoff, Paul, to S. B. Penick & Co., Inc. Candicidin purification. 2,872,373, 2–3–59. Cl. 167—65.

Simpson, Fred S.: *See*—
Standifer, Lafayette B., Jr., and Simpson. 2,872,237.

Simpson, Harold G., and N. W. Rimmer, to Butler Mfg. Co. Low pitch rigid frame building. 2,871,997, 2–3–59. Cl. 189—1.

Sims, Rex J., K. F. Mattil, and W. J. Lehmann, to Swift & Co. Method of processing soybean oil to retard flavor reversion. 2,872,465, 2–3–59. Cl. 260—423.

Sinclair Refining Co.: *See*—
Erickson, Henry. 2,872,410.

Singer Mfg. Co., The: *See*—
Gall, Francis A., and Danforth. 2,871,804.
Happe, Reynold. 2,872,197.
Matunas, Anthony J. 2,871,806.

Singer, Robert J., and E. N. Lichtenberg, to International Resistance Co. Automatic filament cutter. 2,871,622, 2–3–59. Cl. 49—48.

Sira Societa Industriale Ricerche Automotoristiche: *See*—
Giacosa, Dante. 2,871,968.

Sirkin, Senia, and G. W. Randle, to Parkinson and Cowan Ltd. Blue flame wick burners for liquid fuel. 2,871,687, 2–3–59. Cl. 67—38.

Sisman, Oscar: *See*—
Ura, Chester L., Sisman, and Briggs. 2,872,402.

Skoog, Ivan H.: *See*—
Letsinger, Robert L., Skoog, and Remes. 2,872,479.

Skromme, Arnold B., to Deere Mfg. Co. Baler feeding means. 2,871,780, 2–3–59. Cl. 100—189.

Slater, Walter L. Shelf structure. 2,872,049, 2–3–59. Cl. 211—148.

Sliter, Donald D., to International Business Machines Corp. Optical reading device. 2,872,589, 2–3–59. Cl. 250—217.

Slotterbeck, Ober C., and M. A. Tucker, to Esso Research and Engineering Co. Curing air blown oils with SO_2. 2,872,345, 2–3–59. Cl. 117—62.

Slunder, Charles J., to United States of America, Atomic Energy Commission. Treatment of uranium surfaces. 2,872,389, 2–3–59. Cl. 204—1.5.

Smith, Blanchard D., Jr., to United States of America, Air Force. Multiplier-integrator circuit. 2,872,100, 2–3–59. Cl. 235—61.

Smith, Charles C. Fish line connector. 2,871,540, 2–3–59. Cl. 24—237.

Smith, Clarence M., to Westinghouse Electric Corp. Electric wiring device. 2,872,551, 2–3–59. Cl. 200—172.

Smith, David P., to General Motors Corp. Hydraulic power steering gear. 2,871,969, 2–3–59. Cl. 180—79.2.

Smith, Frederick R., to American Viscose Corp. Double acting diaphragm pump. 2,871,795, 2–3–59. Cl. 103—150.

Smith, Hiram P., to International Harvester Co. Lock for two-way plow. 2,871,960, 2–3–59. Cl. 172—328.

Smith, Joseph B. K.: *See*—
Hogan, Joseph L. 2,871,915.

Smith, Lee D., to United States of America, Army. Microwave single-sideband modulator. 2,872,647, 2–3–59. Cl. 332—45.

Smith, Ralph D., K. B. Swan, and K. F. Finlay, to Northrop Aircraft, Inc. Heat exchanger. 2,871,678, 2–3–59. Cl. 62—440.

Smith and Wesson Inc.: *See*—
Norman, Joseph W. 2,871,604.

Smith, Wilbur R. Electrical outlet for three-prong locking plugs. 2,872,654, 2–3–59. Cl. 339—14.

Smith, William R.: *See*—
Reed, Hugh W. B., and Smith. 2,872,470.

Smolar, Frantisek, to Meopta, narodni podnik. Centrifugally controlled governor device, more particularly for motion picture cameras. 2,872,177, 2–3–59. Cl. 264—16.

Smrekar, Larry F.: *See*—
Cox, John R., and Smrekar. 2,872,190.

Snow Corp.: *See*—
Faasse, Adrian L., Kunzman, and Moser. 2,871,868.

Snyder, Frank T. Automobile safety mirror. 2,871,761, 2–3–59. Cl. 88—86.

Snyder, Leonard S., and W. M. Wittenberg, to International Business Machines Corp. Flexible electronic commutator. 2,872,110, 2–3–59. Cl. 235—61.

Societe Anonyme Andre Citroen: *See*—
Brueder, Antoine. 2,872,285.

Societe Anonyme des Manufactures des Glaces et Produits Chimiques de St. Gobain, Chauny & Cirey: *See*—
Blanchard, Louis. 2,872,290.
Dupont, Paul. 2,871,575.
Provoost, Marguerite E. M. J. 2,872,482.

Societe Anonyme Etablissements Ed. Jaeger: *See*—
Fauvelot, Pierre E. R. 2,872,601.

Societe Belge Prat-Daniel, Societe Anonyme: *See*—
Roujob, Léopold A. G. 2,871,973.

Societe des Usines Chimiques Rhone-Poulenc: *See*—
Jacob, Robert M., and Fouche. 2,872,453.

Societe Nouvelle de l'Outillage R. B. V. et de la Radio Industrie (R. B. V.-R. I.): *See*—
Donnay, Jacques R. 2,872,509.

Sockman, Loy W. Metal flaw detection liquid. 2,871,697, 2–3–59. Cl. 73—104.

Soennecken, F.: *See*—
Stark, Walter. 2,871,711.

Sola, John B.: *See*—
Hesse, Arno, Hedeen, and Sola. 2,871,897.

Solum, James R.: *See*—
Wright, Kenneth A., and Solum. 2,872,226.

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Horowitz, Leopold A., and Sonnenfeldt. 2,872,580.

Sorensen, George E. Dimension averaging of overlength by underlength scale. 2,871,570, 2–3–59. Cl. 33—148.

Sorge, Raleigh C.: *See*—
Sorge, Rolland H., and R. C. 2,872,018.

Sorge, Rolland H., and R. C. Container pairing machine. 2,872,018, 2–3–59. Cl. 198—33.

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Haynes, Harry L., Sousa, and Lampert. 2,872,367.

Space, Charles B., to Lige-Rollway Corp. Drive mechanism. 2,872,005, 2–3–59, Cl. 192—104.
Speakman, Raymond H., to Imperial Chemical Industries Ltd. Melt spinning apparatus. 2,871,511, 2–3–59, Cl. 18—8.
Spearow, Ralph. Single casing multiple horizon oil production method. 2,871,945, 2–3–59, Cl. 166—52.
Speier, John L., Jr., to Dow Corning Corporation. (Cyanoalkoxy) alkyl substituted organosilicon compounds. 2,872,425, 2–3–59, Cl. 260—46.5.
Spencer, Glenn S., to Bendix Aviation Corp. Bobbin holder for spinning frames and the like. 2,872,127, 2–3–59, Cl. 242—130.2.
Speth, Peter J. Dynamoelectric machine structure. 2,872,604, 2–3–59, Cl. 310—166.
Sprague Electric Co.: *See*—
Peck, David H. 2,872,600.
Robinson, Preston. 2,872,629.
Springer, William E.: *See*—
Michie, John S., and Springer. 2,871,793.
Square D Co.: *See*—
Schurr, Charles A. 2,872,632.
Ward, Arthur L. 2,871,994.
White, Paul G. 2,872,632.
Stade, Gerhard, to Herbert Lindner, G. m. b. H. Device for adjusting and controlling the position of movable machine parts for example in machine tools. 2,871,716, 2–3–59, Cl. 74—472.
Stahl, Gerald E., to Cusco Products Corp. Offset fender guide. 2,871,814, 2–3–59, Cl. 116—28.
Stair, Raymond L., to Gadget-Of-The-Month Club, Inc. Cigarette extinguishing apparatus. 2,871,864, 2–3–59, Cl. 131—256.
Stamberger, Andrew, to J. Stone & Co. (Deptford) Ltd. Electromagnetic carbon-pile regulators. 2,872,554, 2–3–59, Cl. 201—51.
Stamicarbon N. V. *See*—
Fontein, Freerk J., and Dreimeen. 2,872,041.
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Wilson, Alexander T., and McCauley. 2,872,396.
Standifer, Lafayette B., Jr., and F. S. Simpson, to Dempster Brothers, Inc. Automatic hooks. 2,872,237, 2–3–59, Cl. 294—84.
Stanton, George E., to Bendix Aviation Corp. Tire inflating valve for aircraft wheel. 2,871,905, 2–3–59, Cl. 152—404.
Starck, Siemens E., to Eastman Kodak Co. Polystyrene film elements and subbing compositions therefor. 2,872,318, 2–3–59, Cl. 96—87.
Stark, John, Jr., and L. Dietch, to Radio Corp. of America. Color television receiver brightness control. 2,872,617, 2–3–59, Cl. 315—30.
Stark, Walter, to F. Soennecken. Loose leaf binder mechanisms. 2,871,711, 2–3–59, Cl. 74—97.
Starrett, L. S., Co., The: *See*—
Metevia, William P. 2,871,871.
Steding, Arthur: *See*—
Hartewig, Heinrich, Steding, and Eidel. 2,872,365.
Steele, Floyd G., to Northrop Aircraft, Inc. Tape cam computer system. 2,872,106, 2–3–59, Cl. 235—61.
Stein, Sidney J., to International Resistance Co. Method of providing an adherent metal coating on a fluorocarbon resin. 2,872,341 2–3–59, Cl. 117—47.
Stein, Stephen. Radioactive source apparatus. 2,872,587, 2–3–59, Cl. 250—106.
Steiner, Maurice, to Aktiebolaget Astra, Apotekarnes Kemiska Fabriker. Hypodermic syringe. 2,871,856, 2–3–59, Cl. 128—216.
Steiner, Robert T., to Northwest Automatic Products Corp. Dispenser timing apparatus. 2,872,075, 2–3–59, Cl. 222—70.
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Ryba, Anton. 2,872,102.
Stephenson, Hugh M.: *See*—
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Stern, William, to Illinois Tool Works. Screw having a drill point and serrated cutting edge. 2,871,752, 2–3–59, Cl. 85—47.
Stevens, Donna, to The Dow Chemical Co. Metal salts of ethionine. 2,872,469, 2–3–59, Cl. 260—429.9.
Stevens, Robert E.: *See*—
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Stevens, Theodore W.: *See*—
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Stewart, Jack L., to The Antenna Specialists Co. Antenna. 2,872,680, 2–3–59, Cl. 343—805.
Stibbe, G., & Co., Ltd.: *See*—
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Stone Crest Studios Inc.: *See*—
Sconce, Freddie O., and Taylor. 2,871,759.
Stone, Elmer O., to Sylvania Electric Products Inc. Power supply. 2,872,616, 2–3–59, Cl. 315—27.
Stone, J., & Co. (Deptford) Ltd.: *See*—
Stamberger, Andrew. 2,872,554.
Stoughton, Raymond W.: *See*—
Duffield, Robert B., and Stoughton. 2,872,287.
Duffield, Robert B., and Stoughton. 2,872,288.
Strange, John W., to Thorn Electrical Industries Ltd. Instrument panel illuminator. 2,872,567, 2–3–59, Cl. 240—8.16.
Strebinger, Robert L., to Bendix Aviation Corp. Brake shoe. 2,871,996, 2–3–59, Cl. 188—250.
Stroup, Earl L., to Overhead Door Corp. Upwardly acting doors having tracks inclined relative to the door frame. 2,871,932, 2–3–59, Cl. 160—40.
Stubbins, Daniel E.: *See*—
Lufkin, Paul M., and Stubbins. 2,872,615.
Stuber, Bernard K., to Dawson Carb.de Industries. Automatic recessing device. 2,871,731, 2–3–59, Cl. 77—58.
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Stubnitz, Maurice, and Stern. 2,871,922.
Stubnitz, Maurice, and Stern. 2,871,923.
Stubnitz, Maurice, and L. J. Stern, to Stubnitz Greene Corp. Vehicle cushion construction. 2,871,922, 2–3–59, Cl. 155—179.
Stubnitz, Maurice, and L. J. Stern, to Stubnitz Greene Corp. Spring structure. 2,871,923, 2–3–59, Cl. 155—179.
Stutz, Karl, to Inventio A. G. Lift control device. 2,871,985, 2–3–59, Cl. 187—29.
Sun Oil Co.: *See*—
Mertes, Thomas S. 2,872,249.
Sunbeam Corp.: *See*—
Jepson, Ivar. 2,871,587.
Sundell, Harold C., to F. J. Curran. Leveling device for furniture and the like. 2,871,616, 2–3–59, Cl. 45—139.
Sundstrand Machine Tool Co.: *See*—
Baits, Stephen S. 2,871,981.
Superior Sleeprite Corp.: *See*—
Balonick, Samuel A. 2,871,490.
Swainson, Eric, to Imperial Chemical Industries Ltd. Method and apparatus for melting and casting of high melting point metals or alloys. 2,871,533, 2–3–59, Cl. 22—200.
Swan, Allan O., to Talon, Inc. Extruded fastener. 2,871,539, 2–3–59, Cl. 24—201.
Swan, Kaye B.: *See*—
Smith, Ralph D., Swan, and Finlay. 2,871,678.
Swanson, Lawrence R. Therapeutic shoe for the prevention and correction of drop foot. 2,871,851, 2–3–59, Cl. 128—80.
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Rychlewski, Thaddeus V., and Wilson. 2,872,316.
Saubestre, Edward B. 2,872,350.
Stone, Elmer O. 2,872,616.
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Wheeler, William R. 2,872,608.
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Wigner, Eugene P., Szilard, and Creuts. 2,872,401.
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Tacke, Albert, and K. Haneklaus. Flexible shaft coupling. 2,871,682, 2–3–59, Cl. 64—9.
Tactair Inc.: *See*—
Harcum, William M. 2,871,704.
Talon, Inc.: *See*—
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Tanner, Paul H.: *See*—
Nilrapen, John V., and Tanner. 2,871,579.
Tarmann, Bruno, and R. Obauer, to Gebr. Bohler & Co. Akt. Process of making drop-forgings. 2,871,557, 2–3–59, Cl. 29—528.
Tatsch, Richard. Nested conduits. 2,872,035, 2–3–59, Cl. 206—65.
Taylor, Harry A. Holder for game sheets. 2,872,215, 2–3–59, Cl. 281—44.
Taylor, Kenneth M., to The Carborundum Co. Refractory bodies containing boron nitride and a boride, and the manufacture thereof. 2,872,327, 2–3–59, Cl. 106—55.
Taylor, Maurice C. Preparation of polymeric phosphonitrilic chloride. 2,872,283, 2–3–59, Cl. 23—14.
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Provaz, Josef. 2,872,568.
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Garrison Allen D., and Kunetka. 2,871,942.
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Texas Gulf Sulphur Co.: *See*—
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Thall, Earle S., to Radio Corp. of America. Getter structure. 2,872,028, 2–3–59, Cl. 206—.4.

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Rumberg, Alfred, Damgen, and Theis. 2,872,494.

Thene, Anthony A. Material spreading attachment for truck. 2,872,080, 2–3–59, Cl. 222—178.

Thienemann, Rolf A., to Fairchild Camera & Instrument Corp. Control unit for composing machines. 2,872,025, 2–3–59, Cl. 199—18.

Thies, Alfred F. B. Drier apparatus. 2,871,574, 2–3–59, Cl. 34—54.

Thoma, Hans J. Hydraulic power transmissions. 2,871,798, 2–3–59, Cl. 103—162.

Thomae, Dr. Karl, G. m. b. H.: *See*—
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Thomas, Albert G., to Industrial Controls Corp. Compensating system for drives. 2,871,767, 2–3–59, Cl. 90—22.

Thompson, Clayton H. Combination momentary maintained switch. 2,872,542, 2–3–59, Cl. 200—86.5.

Thompson, Paige W., to General Electric Co. Bearing arrangement. 2,872,255, 2–3–59, Cl. 308—132.

Thompson Products, Inc.: *See*—
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Thomsen Research Co., Inc.: *See*—
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Thonger, Thuriand G., to Poor & Co. Recessed tie plate. 2,872,121, 2–3–59, Cl. 238—306.

Thorn Electrical Industries Ltd.: *See*—
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Thorp, Dennis A., and A. E. Usher, to The British Oxygen Co. Ltd. Nozzle securing means. 2,872,563, 2–3–59, Cl. 219—75.

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Thrasher, Clio M. Auxiliary oven for electric stoves. 2,872,557, 2–3–59, Cl. 219—35.

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Davison, Alan, and Threadgold. 2,872,619.

Tietig, Rudolph, Jr., and D. J. Pollingue, Jr., to A. J. Boynton & Co. Apparatus for adding solid material to molten metal. 2,872,180, 2–3–59, Cl. 266—34.

Tillman, Edwin E., to Triple Seal Corp. Device for threading plugs through punctures in tires. 2,871,742, 2–3–59, Cl. 81—15.7.

Timoney, Robert E. Baby stair trainer. 2,871,914, 2–3–59, Cl. 155—22.

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Foote, Howland S., and Tino. 2,872,253.

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Tobeler, Paul O.: *See*—
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Tobey, Leon H., to Bloomer Bros. Co. Device for opening carton closure flaps. 2,871,641, 2–3–59, Cl. 53—382.

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Toggenburger, John, to Underwood Corp. Stepwise carriage positioning mechanism and related features. 2,872,015, 2–3–59, Cl. 197—01.

Tolkmith, Henry, to The Dow Chemical Co. Method for the manufacture of o-aryl phosphorodichloridothioates. 2,872,473, 2–3–59, Cl. 260—461.

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Santamaria, Salvatore, and Topfer. 2,872,645.

Tostado, Javier A. Mechanism for sealing bags. 2,872,061, 2–3–59, Cl. 216—29.

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Walles, Wilhelm E., and Tousignant. 2,872,322.

Townsend, Don G.: *See*—
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Townsend, Ralph, and H. F. Ayres, to Laboratory For Electronics, Inc. Input/output equipment. 2,872,663, 2–3–59, Cl. 340—174.

Transit Research Corp.: *See*—
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Trans-Oceanic: *See*—
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Transval Engineering Corp.: *See*—
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Treanor, Edward D., to General Electric Co. Transformer cooling system. 2,872,651, 2–3–59, Cl. 336—58.

Trembiay, Alphonse. Saw filing guide. 2,871,728, 2–3–59, Cl. 76—31.

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Triple Seal Corp.: *See*—
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Tripoli, Marino. Utility cart. 2,872,202, 2–3–59, Cl. 280—36.

Troden, Augustus C. Attachment for metal clothes hangers. 2,872,091, 2–3–59, Cl. 223—98.

Trousdale, Robert B., to General Dynamics Corp. Party line telephone system. 2,872,518, 2–3–59, Cl. 179—8.5.

Trousdale, Robert B., to General Dynamics Corp. Cathode ray tube indicating device. 2,872,614, 2–3–59, Cl. 315—24.

Trubitt, Philip S., to S. Pass. Adjustable arm and seat encasing slip cover. 2,871,924, 2–3–59, Cl. 155—182.

Truini, Richard C., to Bloomer Bros. Co. Means for opening carton folding closure flaps. 2,871,640, 2–3–59, Cl. 53—382.

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Turchan, Manuel: *See*—
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UARCO, Inc.: *See*—
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Uchida, Ryujiro, and C. Kurihara, to Pairotto Man-Nen-Hitsu Kabushiki Kaisha. Fountain pen. 2,871,825, 2–3–59, Cl. 120—46.

Udylite Research Corp., The: *See*—
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Ueckert, Ernest: *See*—
Hockel, Hans L., and Ueckert. 2,871,835.

Uldall, Faith H. Heel ornament mounting band for women's shoes. 2,871,602, 2–3–59, Cl. 41—10.

Ulrich, Jose R. Automatic card file system. 2,872,053, 2–3–59, Cl. 214—11.

Underwood Corp.: *See*—
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Wretlind, Karl A. J. Preparation of mixtures of amino acids. 2,872,320, 2–3–59, Cl. 99—14.
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Zuleeg, Charles C.: *See*—
Brown, Edgar A., and Zuleeg. 2,872,257.
Zyma S. A.: *See*—
Melkonian, Diran, and Gold. 2,872,476.

CLASSIFICATION OF PATENTS

ISSUED FEBRUARY 3, 1959

NOTE.—First number=class, second number=subclass, third number=patent number

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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

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TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 70,428. (See Reg. No. 134,317.)

Reg. No. 70,788. (See Reg. No. 134,317.)

Reg. No. 70,856. (See Reg. No. 134,317.)

Reg. No. 72,945 (LA GRISETTE), Strohmeyer & Arpe Co., Olive oil, macaroni, etc.; **Reg. No. 90,907** (CREAMETTES), The Creamette Co., Macaroni; **Reg. No. 216,574** (DESIGN OF A GIRL'S HEAD), same; **Reg. No. 548,602** (JUNIORETTES), same; **Reg. No. 548,176** (KIDETTES), same; **Reg. No. 548,177** (TOTETTES), same; **Reg. No. 576,129** (CREAMETTE), same, Macaroni shells, ready-cut spaghetti, etc.; **Reg. No. 604,634** (SAL-ETS THE PERFECT SALAD MACARONI), Quality Macaroni Co., Macaroni food for infants and children. **Filed** Dec. 5, 1958. D. C., W. D. Wash. (Seattle), Doc. 4746. *The Creamette Co. v. Major Italian Foods Co.*

Reg. No. 90,907. (See Reg. No. 72,945.)

Reg. No. 102,661 (CANADIAN CLUB), Hiram Walker & Sons, Inc., Whisky. **Filed** Dec. 8, 1958. D. C. Mass. (Boston), Doc. 58/1166. *Hiram Walker & Sons, Inc. v. M. S. Walker, Inc. et al.*

Reg. No. 134,317 (GILLETTE), Gillette Safety Razor Co., Safety-razors and safety-razor blades; **Reg. No. 70,428** (GILLETTE AND DESIGN), same, Shaving brushes; **Reg. No. 70,788**, same, Soap; **Reg. No. 70,856**, same, Razors and razor blades; **Reg. No. 496,255** (DIPLOMAT), same, Safety razors; **Reg. No. 546,296** (PAPER MATE), Frawley Corp., Inks, inking materials, etc.; **Reg. No. 565,961**, same, Ball-point pens; **Reg. No. 595,937** (PAPER MATE AND DESIGN), same, Writing instruments, etc., **Filed** Dec. 8, 1958. D. C., S. D. N. Y., Doc. 140/314. *The Gillette Co. et al. v. Gillette Pen Co., Inc.*

Reg. No. 142,253 (WINCHESTER), Winchester Repeating Arms Co., Firearms, etc.; **Reg. No. 224,874** (WESTERN), Western Cartridge Co., Shot shells, gun wads, etc., **Filed** Oct. 28, 1958. D. C., S. D. Iowa (Des Moines), Doc. 4/920. *Olin Mathieson Chemical Corp. v. Robinson Wholesale Co.* Order of permanent injunction issued Dec. 18, 1958.

Reg. No. 216,574. (See Reg. No. 72,945.)

Reg. No. 224,874. (See Reg. No. 142,353.)

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	10, 603
Date of oldest new application	June 11, 1958
Date of oldest amended application	Sept. 4, 1958

J. H. MEBCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest application: New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	8-25-58	9-15-58
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 38, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	8-11-58	9-4-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	7-3-58	9-4-58
Renewals (All Classes)	11-28-58	11-28-58
Sec. 12 (c) Publications (All Classes)	11-28-58	12-26-58

Applications Filed During the Month of December 1958—1,825

Registrations Issued	365—No. 673,320 to No. 673,684
Renewals Issued	59

For the quarter—October 1, 1958 through December 31, 1958

Applications filed	5338
Registrations issued	4099
Renewals issued	665
Cancellations under Section 8	1237

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $3.75 additional; single copies, 20 cents each.

Reg. No. 251,201 (ALLIGATOR), The Alligator Co., Coats, jackets, pants, hats, etc. for men, women and children, filed Nov. 5, 1958, D. C., S. D. N. Y., Doc. 139/305, *The Alligator Co. et al. v. Cluett, Peabody & Co., Inc. et al.* Stipulation and order of dismissal Dec. 11, 1958.

Reg. No. 270,774 (DESIGN OF A DOILIE), Schulse Baking Co., republished by Interstate Bakeries Corp., Bread and cake; **Reg. No. 512,319** (WEBER'S WHITE SLICED BREAD AND DESIGN), same, Bread; **Reg. No. 543,840** (BUTTER-NUT WHITE BREAD AND DESIGN), same; **Reg. No. 586,855** (DESIGN FOR A LOAF OF BREAD), same, filed Feb. 6, 1958, D. C., W. D. Mich. (Detroit), Doc. 3374, *Interstate Bakeries Corp. v. Roskam Baking Co.* Final consent judgment Dec. 18, 1958.

Reg. No. 353,008 (PALM SPRINGS AND DESIGN), Goodall Worsted Co., Goods made from combinations of mohair, cotton, wool, etc., filed Dec. 2, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1109/58, *Goodall-Sanford, Inc. et al. v. Executive Clothes, Ltd.*

Reg. No. 494,634. (See Reg. No. 72,945.)

Reg. No. 496,233. (See Reg. No. 134,317.)

Reg. No. 506,756 (WOODBURY), John H. Woodbury, Inc., Talcum powder, dental cream, etc.; **Reg. No. 514,144**, same, Facial soap and shaving soap, filed Nov. 28, 1954, D. C., E. D. N. Y. (Brooklyn), Doc. 14952, *Andrew Jergens Co. v. Allen Pharmacal Co., Inc. et al.* Judgment in favor of plaintiff Dec. 10, 1958.

Reg. No. 512,319. (See Reg. No. 270,774.)

Reg. No. 514,144. (See Reg. No. 506,756.)

Reg. No. 530,336 (MINERALS INTERNATIONAL CHEMICALS AND DESIGN), International Minerals & Chemical Corp., Fertilizers; **Reg. No. 530,342**, same, Double sulfate of potash and magnesia, etc.; **Reg. No. 543,595**, same, Potassium chloride; **Reg. No. 592,102**, same, Bulk phosphate rock; **Reg. No. 597,783**, same, Ferric acids, etc.; **Reg. No. 604,082**, same, Mixtures of clay, silica sand, gravel, etc., filed Dec. 27, 1955, D. C. Del. (Wilmington), Doc. 1777, *International Minerals & Chemical Corp. v. Texas International Minerals Corp.* Order of default judgment Feb. 8, 1957 (notice received Nov. 28, 1958).

Reg. No. 530,342. (See Reg. No. 530,336.)

Reg. No. 533,859 (ST. MARY'S AND DESIGN), St. Mary's Woolen Mfg. Co., Woolen blankets, filed Dec. 10, 1958, D. C., S. D. N. Y., Doc. 140/332, *St. Mary's Woolen Mfg. Co. v. Rainbow Girl Coat Co., Inc.*

Reg. No. 540,482. (See Reg. No. 72,945.)

Reg. No. 542,940. (See Reg. No. 270,774.)

Reg. No. 548,286. (See Reg. No. 134,317.)

Reg. No. 548,336. (See Reg. No. 530,336.)

Reg. No. 549,176. (See Reg. No. 72,945.)

Reg. No. 549,177. (See Reg. No. 72,945.)

Reg. No. 553,213 (RIVERBANK), Hardwood Products Corp., Soundproof doors, filed Feb. 25, 1954, D. C., N. D. Ill. (Chicago), Doc. 54c300, *Riverside Laboratories v. Hardwood Products Corp.* Final judgment; Commissioner authorized and directed to cancel Trademark June 26, 1958.

Reg. No. 565,961. (See Reg. No. 134,317.)

Reg. No. 576,139. (See Reg. No. 72,945.)

Reg. No. 586,855. (See Reg. No. 270,774.)

Reg. No. 592,102. (See Reg. No. 530,336.)

Reg. No. 595,931. (See Reg. No. 134,317.)

Reg. No. 597,783. (See Reg. No. 530,336.)

Reg. No. 602,267. (See Reg. No. 72,945.)

Reg. No. 604,082. (See Reg. No. 530,336.)

Reg. No. 609,337 (DESIGN FOR A BOTTLE), Societe Anonyme de la Benedictine Distillerie de la Liqueur de l'Ancienne Abbaye de Fecamp, Cordials, filed Dec. 10, 1958, D. C., S. D. N. Y., Doc. 140/338, *Societe Anonyme de la Liqueur de l'Ancienne Abbaye de Fecamp v. James M. McCann & Co., Inc.*

Reg. No. 617,345 (BLENDAIRE), The Barbizon Corp., Woven fabrics made of nylon, cotton, etc., filed Dec. 15, 1958, D. C., S. D. N. Y., Doc. 141/29, *Jaunty Fabrics Corp. v. American Enka Corp.*

Reg. No. 657,093 (SHAVER-JET), Waring Products Corp., Rectifiers for use with small electric appliances such as electric razors; 2,491,031, W. H. Burgess, Rectifier, filed Nov. 6, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1050/58-WB, *David A. Marcus et al. v. Robert M. Parks et al.*

Reg. No. 658,276 (WELBY), Welby Corp., Clocks and barometers, filed Dec. 16, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 19283, *Welby Corp. v. Wilby Corp.*

Selected Non-Proprietary Names

The Public Health Service has informed the Patent Office that the names listed below have been selected by WHO as recommended international non-proprietary names for pharmaceutical preparations.

The procedure for selection of these names, by WHO, including earlier publication in accordance with procedures published in the Chronicle of the World Health Organization, June-July 1955 issue, has been completed. WHO requests that these recommended names be recognized as the non-proprietary names for the substances concerned and that the necessary steps be taken to prevent acquisition of proprietary rights in the same.

Recommended International Non-Proprietary Name (*Latin, English*)	Chemical Name or Description
acetylmethadolum acetylmethadol	6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphacetylmethadolum alphacetylmethadol	α-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphamethadolum alphamethadol	α-6-dimethylamino-4,4-diphenyl-3-heptanol
anileridinum anileridine	1-[2-(p-aminophenyl)-ethyl]-4-phenylpiperidine-4-carboxylic acid ethyl ester
betacetylmethadolum betacetylmethadol	*B*-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
betamethadolum betamethadol	*B*-6-dimethylamino-4,4-diphenyl-3-heptanol
betaprodinum betaprodine	*B*-1,3-dimethyl-4-phenyl-4-propionoxypiperidine
desomorphinum desomorphine	dihydrodesoxymorphine
diethylthiambutenum diethylthiambutene	3-diethylamino-1,1-di-(2-thienyl)-1-butene
dimethylthiambutenum dimethylthiambutene	3-dimethylamino-1,1-di-(2-thienyl)-1-butene
dipipanonum dipipanone	4,4-diphenyl-6-piperidino-3-heptanone
ethoheptazinum ethoheptazine	1-methyl-4-carbethoxy-4-phenylhexamethyleneimine
ethylmethylthiambutenum ethylmethylthiambutene	3-ethylmethylamino-1,1-di-(2-thienyl)-1-butene
hydroxypethidinum hydroxypethidine	1-methyl-4-(3-hydroxyphenyl)-piperidine-4-carboxylic acid ethyl ester
levallorphanum levallorphan	*e*-3-hydroxy-*N*-allylmorphinan

levorphanolum levorphanol	*l*-3-hydroxy-*N*-methylmorphinan
metethoheptazinum metethoheptazine	1,2-dimethyl-4-carbethoxy-4-phenylhexamethyleneimine
metheptazinum metheptazine	1,2-dimethyl-4-carbomethoxy-4-phenylhexamethyleneimine
methyldesorphinum methyldesorphine	6-methyl-Δ^6-desoxymorphine
methyldihydromorphinum methyldihydromorphine	6-methyldihydromorphine
myrophinum myrophine	myristyl ester of benzylmorphine
normethadonum normethadone	4,4-diphenyl-6-dimethylamino-3-hexanone
oxpheneridinum oxpheneridine	1-(2-phenyl-2-hydroxyethyl)-4-carbethoxy-4-phenyl-piperidine
oxymorphonum oxymorphone	dihydrohydroxymorphinone
phenomorphanum phenomorphan	3-hydroxy-*N*-phenethylmorphinan
proheptazinum proheptazine	1,3-dimethyl-4-phenyl-4-propionoxyhexamethyleneimine
properidinum properidine	1-methyl-4-phenylpiperidine-4-carboxylic acid isopropyl ester
propoxyphenum propoxyphene	4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 2.101 to 2.105.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 11,709. Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed July 6, 1956.

AGA

Owner of Swedish Reg. Nos. 28,880, dated Aug. 26, 1924, and 43,632, dated June 11, 1934.

For Horn, Ivory, Ebony, Bone, Plastic Rods, Tubes and Sheets, Clay, Kieselguhr, Wood Pulp, Cellulose, and Compressed Air in Containers for Use in Industry.

SN 17,301. Michael Wood Products Inc., Garfield, N. J. Filed Oct. 11, 1956.



The drawing is lined for red.

For Sawdust, Woodflour, and Absorbent Clay.

First use May 1938.

SN 36,001. Kopparfors Aktiebolag, Ockelbo, Sweden. Filed Aug. 22, 1957.

NORRLAND



For Wood Pulp, Cellulose, and Paper Pulp.

First use Oct. 18, 1932; in commerce Oct. 18, 1932.

SN 39,228. George F. Hohman, d. b. a. Royal Jelly Enterprises, Napa, Calif. Filed Oct. 21, 1957.

QUEEN TESTED

For Royal Jelly.

First use Sept. 11, 1957.

SN 41,803. Emerson & Cuming, Inc., Canton, Mass. Filed Dec. 5, 1957.

ECCOSTOCK

For Plastics in Rod and Sheet Form.

First use Mar. 22, 1957.

SN 42,076. Joseph S. Sterling, Lake Placid, N. Y. Filed Dec. 9, 1957.

STERLING

For Fur Bearing Skins and Furs.

First use Feb. 26, 1935.

TM 4

SN 46,676. Vinyl Corporation of America, Dayton, Ohio Filed Feb. 26, 1958.

Vicoa Vinyl

"Vinyl" is disclaimed apart from the mark as shown.

For Vinyl Compounds for Molding Such Goods as Handle Grips, Streamers, Fender Flaps, Et Cetera.

First use Dec. 16, 1957.

SN 49,870. Plymouth Cordage Company, Plymouth, Mass. Filed Apr. 17, 1958.

SISALOK

For Chopped Sisal for Plastic Reinforcing.

First use Apr. 3, 1958.

SN 50,622. The Hubbard-Hall Chemical Company, Waterbury, Conn. Filed Apr. 29, 1958.

HH

The small lines in the drawing are a feature of the mark and do not represent color lining.

For Lawn Seed.

First use Jan. 7, 1957.

SN 51,238. U. S. Rubber Reclaiming Co., Inc., Cheektowaga, N. Y. Filed May 7, 1958.

RAMFLEX

For Rubber as a Compound for Use as a Raw Material To Be Incorporated in Asphalt, Asphalt Aggregates, and Other Applications.

First use on or about Mar. 18, 1958.

SN 53,489. John R. Evans & Co., Camden, N. J. Filed June 13, 1958.

TARTARKID

Owner of Reg. No. 361,911.

For Leather.

First use Aug. 1, 1937.

SN 54,154. Emerson & Cuming, Inc., Canton, Mass. Filed June 24, 1958.

ECCOCERAM

For Inorganic Plastic Material Useful as an Encapsulent for Electronic Components and Circuits.

First use Apr. 9, 1958.

SN 54,156. Emerson & Cuming, Inc., Canton, Mass. Filed June 24, 1958.

ECCOSPHERES

For Particulate Material Consisting of Hollow Glass Spheres of Micron Dimensions Useful as Fillers for Plastics, Raw Material for Bonded Rigid Foams, and Thermal Insulation.

First use Apr. 3, 1958.

SN 55,208. Armour and Company, Chicago, Ill. Filed July 14, 1958.

LIVORNO

For Upper Leather.

First use Apr. 29, 1958.

SN 55,259. N. V. Bloembollenhandel en Export Mij. L. Staasen, Jr., Hillegom, Netherlands. Filed July 14, 1958.

FLOROMATIC

Owner of Dutch Reg. No. 130,196, dated Feb. 25, 1958.

For Ornamental Plants, and Material for Their Sexual and A-Sexual Propagation : Cutflowers.

SN 55,362. William Amer Company, Philadelphia, Pa. Filed July 16, 1958.

FUR-BELLO

For Shoe Upper Leather

First use June 12, 1958.

SN 57 406. Nebraska Plastics, Inc., Cozad, Nebr. Filed July 16, 1958. Sec. 2(f).

COZAD

For Plastic Tubing.

First use in 1951

SN 55,798. Melvin D. Lovelace, Dinuba, Calif. Filed July 22, 1958. Sec. 2(f).

LOVELACE

For Turkey Hatching Eggs.

First use in December 1951.

SN 56,106. Evans Milling Company, Inc., Indianapolis, Ind. Filed July 28, 1958.

ME 3C

For Corn Flour for Industrial Use.

First use Aug. 6, 1957.

Class 2 — Receptacles

SN 11,698. National Can Corporation, Chicago, Ill. Filed July 6, 1956.



For Bread Boxes, Refuse Receivers, Towel Dispensing Receptacles, Salt and Pepper Shakers, Waste Baskets, Match Box Holders, Dust Pans, Trays, Canister Sets, and Picnic Baskets.

First use June 1953.

SN 30,530. Stevens Equipment Co., Salem, Oreg. Filed May 22, 1957.

FOLD-TOTE

For Collapsible Carton Type Containers for the Transport and Storage of Bulk Products Such as Frozen Vegetables, and Collapsible Reinforcing Frameworks Therefor.

First use May 2, 1957.

SN 32,383. Fashioncraft Products, Brooklyn, N. Y. Filed June 21, 1957.

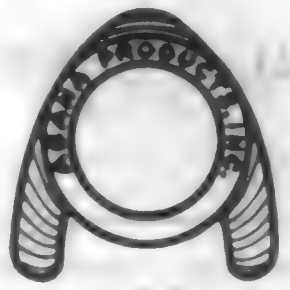
THERMO-TAINER

Owner of Reg. No. 323,074.

For Heat Insulated Bags.

First use July 16, 1948.

SN 33,111. Abana Products, Inc., Chicago, Ill. Filed July 3, 1957.



For Boxes and Cartons.

First use Jan. 27, 1955.

SN 38,679. Falls City Brewing Company, d. b. a. Falls City Brewing Co., Inc., Louisville, Ky. Filed Oct. 10, 1957.

CART-A-CASE

For Cartons for Beer.

First use June 21, 1950.

SN 38,847. Philco Corporation, Philadelphia, Pa. Filed Oct. 14, 1957.

MISTY CRISPER

No claim is made to the word "Crisper" apart from the mark as shown.

For Drawer To Be Used for the Storage of Vegetables in the Refrigerators.

First use Sept. 18, 1957.

SN 41,839. Sealright-Oswego Falls Corporation, Fulton, N. Y. Filed Dec. 5, 1957.

PLASTYLE

For Containers Formed Wholly or Partly of Plastic Material for the Packaging of Food Products, as Ice Cream, Eggnog Batter, Cottage Cheese and the Like.

First use Nov. 7, 1957.

SN 44,460. General Gummed Products, Inc., Linden, N. J. Filed Jan. 22, 1958.

HANDLE WRAP

For Dispensers for Gummed Tape.

First use Dec. 12, 1957.

SN 45,133. Daimler-Benz Aktiengesellschaft, Stuttgart-Untertuerkheim, Germany. Filed Feb. 3, 1958.

MERCEDES-BENZ

Owner of German Reg. No. 375,067, dated Oct. 7, 1927.

For (Based on Use in Commerce) Tool Bags; Casings for Shipping Radios; and Vacuum Containers for Shipping Goods.

For (Based on German Registration) Packing Material—Namely, Bags, Boxes, Crates, Cartons, Cases, Cardboard and

Paper for Wrapping; Sleeves Made of Wood; Baskets; and Receptacles for Compressed Liquids and Explosive Gases.

First use 1926; in commerce 1927; 1900 as to "Mercedes"; 1896 as to "Benz."

SN 49,837. Edward Can Company, Chicago, Ill. Filed Apr. 17, 1958.

Porta-GASOLINE-Can

Applicant makes no claim in or to the words "Gasoline Can," which is the name of the goods.

For Gasoline Cans.

First use on or about Mar. 1, 1958.

SN 50,278. American Can Company, Easton, Pa. Filed Apr. 24, 1958.

IMPERIAL SERVICE

For Paper Cups.

First use Apr. 14, 1958.

SN 50,883. Flexi Corporation, Oakland, Calif. Filed May 2, 1958.

FLEXI

For Neoprene Defect Card Holder and Log Book Holder for Railroad and Trucking Use.

First use Jan. 12, 1953.

SN 51,618. Sippit Cups, Inc., Brooklyn, N. Y., assignee of Michael Cohen, d. b. a. Sippit Cup Company, Flushing, N. Y. Filed May 14, 1958.

SIPPIT

For Plastic Cups With Attached Straws.

First use May 12, 1958.

SN 53,385. American Linen Supply Co., Chicago, Ill. Filed June 12, 1958.

STEINER

Owner of Reg. Nos. 583,919, 604,597, and others.

For Cabinets for Dispensing Cloth and Paper Towels.

First use Nov. 13, 1957.

SN 54,441. Trio Manufacturing Co., Griggsville, Ill. Filed June 27, 1958.

CHEF'S BATON

For Salt and Pepper Shakers for Use Outdoors.

First use on or about June 6, 1958.

SN 54,545. National Steel Container Corporation, Chicago, Ill. Filed June 30, 1958.

PERMA-LOK

For Fibre Drums.

First use in or about March 1953.

SN 54,546. National Steel Container Corporation, Chicago, Ill. Filed June 30, 1958.

PERMA-PLEX

For Fibre Drums.

First use in or about January 1957.

SN 54,547. National Steel Container Corporation, Chicago, Ill. Filed June 30, 1958.

PERMA-SEAL

For Fibre Drums.

First use in or about December 1957.

SN 54,804. American Can Company, Easton, Pa. Filed July 7, 1958.

MIRA-GLAZE

For Paper Cups.

First use June 16, 1958.

SN 54,832. Crown Zellerbach Corporation, San Francisco, Calif. Filed July 7, 1958.

Tymatic

Owner of Reg. No. 359,064.

For Toilet Tissue Dispensers.

First use May 5, 1958.

SN 55,060. Edward J. Dworetzky, d. b. a. J. P. Manufacturing Co., South Norwalk, Conn. Filed July 10, 1958.

"Bakers Choice"

For Paper Cups Used in Cake Baking.

First use July 1, 1958.

SN 55,434. F. W. Woolworth Co., New York, N. Y. Filed July 16, 1958.

HAPPY HOME

For Garment Bags.

First use June 6, 1958.

SN 55,876. A. O. Reynolds, d. b. a. A. O. Reynolds Company, Lebanon, Ind. Filed July 23, 1958.



For Plant Containers Which May Be Made Primarily of Peat Moss or Other Fibrous Material.

First use Mar. 11, 1958.

Class 4 — Abrasives and Polishing Materials

SN 40,978. Vereinigte Schmirgel- und Maschinen-Fabriken Aktiengesellschaft, Hannover, Germany. Filed Nov. 19, 1957.



Owner of German Reg. No. 533,067, dated June 7, 1941.
For Grinding Papers and Grinding Cloths, Grinding Material.

SN 40,979. Vereinigte Schmirgel- und Maschinen-Fabriken Aktiengesellschaft, Hannover, Germany. Filed Nov. 19, 1957.

KOHINUR

Owner of German Reg. No. 450,409, dated Nov. 21, 1932.
For Grinding Papers and Grinding Cloths.
First use Dec. 1, 1954; in commerce Dec. 1, 1954.

SN 40,980. Vereinigte Schmirgel- und Maschinen-Fabriken Aktiengesellschaft, Hannover, Germany. Filed Nov. 19, 1957.

VITEX

Owner of German Reg. No. 459,717, dated Sept. 28, 1933.
For Grinding Papers and Grinding Cloths.
First use Dec. 1, 1954; in commerce Dec. 1, 1954.

SN 42,536. Arnold Sampson, d. b. a. E-Z-Est Products Co., Oakland, Calif. Filed Dec. 16, 1957.

SHINEX

For Liquid Abrasive and Polishing Material Used for Cleaning Glass, Tile, Wood, and Enameled Surfaces.
First use in June 1957.

SN 43,376. Clinton Detergent Company, Chicago, Ill. Filed Jan. 3, 1958.

CARJOY

For Combined Cleansing and Polishing Materials.
First use June 1, 1956.

SN 52,03[illegible] E. A. Bromund Company, Boonton, N. J. Filed May [illegible]

WAX-SCENT

For Waxes, Particularly Furniture Wax and Industrial Floor Wax.
First use Apr. 15, 1958.

Class 5 — Adhesives

SN 51,580. Perry Enterprise, Charlotte, N. C. Filed May 13, 1958.



For Padding Adhesives.
First use Apr. 10, 1958.

Class 6 — Chemicals and Chemical Compositions

SN 36,163. The Chemithon Corporation, Seattle, Wash. Filed Aug. 26, 1957.

CHEMITHON

For Sulfonic Acids and Organic Sulfuric Acids and Salts and Formulations Thereof.
First use Aug. 2, 1954.

SN 39,382. Capco Chemical Corporation, Providence, R. I. Filed Oct. 23, 1957.

SHUR·STRIDE

For Chemical Maintainer for Composition and Terrazzo-Type Flooring.
First use on or about July 10, 1957.

SN 39,390. Fermco Laboratories, Inc., Chicago, Ill. Filed Oct. 23, 1957.

OXYBAN

For Compositions Containing Enzymes To Prevent Oxidation of Various Products, Particularly Foods, by the Removal of Oxygen From Surrounding Gaseous Media.
First use Oct. 8, 1957.

SN 49,401. American Cyanamid Company, New York, N. Y. Filed Apr. 10 1958.

CYZAC

Owner of Reg. No. 661,501.
For Catalyst.
First use Jan. 29, 1958.

SN 50,805. Philip A. Hunt Company, Palisades Park, N. J. Filed May 1, 1958.

GRAPH-O-MAT

For Chemical Solution for Making X-Ray Stop Baths.
First use Apr. 18, 1958.

SN 51,124. Goodridge-Heyt Research Co., Cleveland, Ohio. Filed May 6, 1958.



For Room Deodorizer in Liquid Form.
First use Mar. 7, 1958.

SN 51,573. Frank G. Marshall, d. b. a. Drop Dead Company, Pasadena, Calif. Filed May 13, 1958.



For Air Deodorant.
First use Aug. 1, 1954.

SN 51,810. Park & Tilford, New York, N. Y. Filed May 16, 1958.

BAC-ATAC

For Room Deodorant and Sanitizer in the Form of a Spray.
First use Apr. 22, 1958.

SN 51,840. Aceline Products Corporation, Rochester, N. Y. Filed May 19, 1958.

ADR

For Dog and Cat Repellent.
First use about Apr. 12, 1958.

SN 52,361. Union Carbide Corporation, New York, N. Y. Filed May 26, 1958.

UNION CARBIDE

Owner of Reg. Nos. 119,405 and 643,460.
For Chemical Compositions for Use in the Garden and on the Lawn To Control Crabgrass, Weeds, and Plant Diseases and for Use in the Home and Garden and on the Lawn To Control Insects.
First use Feb. 7, 1958.

SN 52,436. Societe Anonyme, Compagnie Francaise des Matieres Colorantes, Paris, France. Filed May 27, 1958

ESTEROPHILE

Owner of French Reg. No. 466,796, dated Aug. 14, 1957 (Seine); Natl. Inst. No. 94,720.
For Dyestuffs for Dyeing Polyester Fibres.

SN 52,720. Hascol Enterprises, Sharon, Pa. Filed June 2, 1958.

SAL-MET

For Chemically Compounded Soft Soldering Flux.
First use June 1949.

SN 52,725. Thomas J. Howard, d. b. a. Doble Drug Company, Memphis, Tenn. Filed June 2, 1958.

DOBIE

For Flea Powder Impregnated With Lanolin for Use on Dogs.
First use Jan. 30, 1958.

SN 52,956. The Harshaw Chemical Company, Cleveland, Ohio. Filed June 5, 1958.

CYNOREX

For Additives for Copper Electroplating Solutions.
First use May 9, 1958.

SN 53,021. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed June 6, 1958.

ZOBAR

For Weed Killing Compounds
First use May 22, 1958.

SN 54,222. Fries & Fries, Inc., Cincinnati, Ohio. Filed June 25, 1958.

RADAR

For Liquid Chemical Compound for Detecting Gas Leaks in Pipes.
First use May 22, 1958.

SN 54,354. Vulcan Materials Company, d. b. a. Frontier Chemical Company, Division of Vulcan Materials Company, Wichita, Kans. Filed June 26, 1958.

PER SEC

For Perchlorethylene Sold to the Dry Cleaning Trade in Bulk Form.
First use Apr. 9, 1958.

SN 54,660. American Cyanamid Company, New York, N. Y. Filed July 2, 1958.

NO-ODOROL

Owner of Reg. No. 333,904.
For Sulphonated Oil for Use in the Dyeing and Finishing of Textiles.
First use November 1933.

SN 54,797. Verona-Pharma Chemical Corporation, Union, N. J. Filed July 3, 1958.

PHORWITE

For Dyes and Dyestuffs.
First use Mar. 14, 1951

Class 7 — Cordage

SN 43,740. The Linen Thread Co., Inc., New York, N. Y. Filed Feb. 12, 1958.

PANTHER

For Cotton Twine.
First use Oct. 10, 1957

Class 10 — Fertilizers

SN 48,131. American Cyanamid Company, New York, N. Y. Filed Dec. 30, 1957.

AERO

Owner of Reg. Nos. 124,630, 632,030, and others.
For Urea Fertilizer Compound.
First use Dec. 5, 1957.

SN 48,362. Stauffer Chemical Company, San Francisco, Calif. Filed Mar. 24, 1958.

STAUFFER

Owner of Reg. Nos. 503,418, 409,493, and others.
For Fertilizers, Plant Hormones, and Soil Treating Agents.
First use in 1889.

SN 54,841. Dynamic Industrials, Inc., Pittsburgh, Pa. Filed July 7, 1958.

VITEX



For Fertilizers.
First use Sept. 26, 1957.

Class 12 — Construction Materials

SN 8,213. Fiberlux Products Inc., New York, N. Y. Filed May 14, 1956.

FIBERLUX

For Fiberglass Awnings, Canopies, and Patios
First use April 1955.

SN 11,710. Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed July 6, 1956.

AGA

Owner of Swedish Reg. Nos. 28,880 and 43,632, dated Aug. 26, 1924 and June 11, 1934, respectively.
For Glass Putty, Concrete, Plaster of Paris, Lime, Glass Windows.

SN 33,556. James A. Mackenzie, Ottawa, Ontario, Canada. Filed July 11, 1957.



Applicant disclaims the right to exclusive use of the word "System" apart from the mark. Owner of Canadian Reg. No. 110,722, dated July 4, 1958; and U. S. Reg. No. 613,764.
For Metal Structural Elements in the Form of Angles, Bars, and Plates Provided With Series of Holes.

SN 41,183. Plymouth Homes Corporation, Plymouth, Ind. Filed Nov. 22, 1957.

PLYMOUTH HOMES

The word "Homes" is disclaimed apart from the mark as shown.
For Prefabricated Houses Sold in Knock-Down Form, and Parts and Components of Houses and Other Buildings.
First use May 1, 1957.

SN 41,526. L. W. Ferdinand & Co., Inc., Newton Lower Falls, Mass. Filed Nov. 29, 1957.

DENTPAK

For Non-Metallic Compound for Filling Dents and Gouges.
First use Apr. 1, 1957.

SN 41,529. L. W. Ferdinand & Co., Inc., Newton Lower Falls, Mass. Filed Nov. 29, 1957.

FERDISEAL

For Liquid Marine Sealing and Caulking Compound.
First use Jan. 1, 1945.

SN 42,430. Armstrong Cork Company, Lancaster, Pa. Filed Dec. 16, 1957.

ARMATEMP

For Mineral Wool Insulation Material.
First use Apr. 7, 1955.

SN 42,750. Meridian Brick Co., Seattle, Wash. Filed Oct. 21, 1957.

"SAN JUAN"

For Brick Hangers for Veneer Construction.
First use Sept. 1, 1954.

SN 42,751. Meridian Brick Co., Seattle, Wash. Filed Oct. 21, 1957.

MERIDIAN

For Brick Hangers for Veneer Construction.
First use Sept. 1, 1954.

SN 42,990. Pennsalt Chemicals Corporation, Philadelphia, Pa. Filed Dec. 24, 1957.

FURALAC

For Cement Powders and Cement Resins Which Are Combined in Use To Form a Self-Hardening Mortar.
First use Sept. 4, 1957.

SN 43,041. Muskegon Motors Specialties Co., d. b. a. Woodlin Metal Products Division, Muskegon Motors Specialties Co., Jackson, Mich. Filed Dec. 26, 1957.



The drawing is ruled for red and blue. No claim is made to the words "Quality First" apart from the mark shown, but applicant does not relinquish any common law rights.
For Windows, Jalousie Windows, and Doors.
First use August 1954 on doors.

SN 44,370. Turen, Inc., Danvers, Mass. Filed Jan. 23, 1958.

FlexPort

For Ready Cut Pet and Delivery Doorway.
First use Nov. 15, 1956.

SN 45,067. Plibrico Company, Chicago, Ill. Filed Jan. 31, 1958.

PLICHROME

For Plastic Refractory Material.
First use July 9, 1952.

SN 46,822. Giant Portland Cement Company, Philadelphia, Pa. Filed Feb. 28, 1958.

GIANT-MIX

Owner of Reg. Nos. 48,614, 617,065, and others.
For Masonry Cement.
First use Dec. 16, 1957.

SN 49,159. Kaiser Gypsum Company, Inc., Oakland, Calif. Filed Apr. 7, 1958.

PANEL SHAKE

Owner of Reg. No. 541,618.
For Prefabricated Surfacing Sections for Exterior Wall Covering, Specifically Fabricated Shakes, Shake Panels, or Exterior Wall Sections Having a Shake-Like Surface.
First use on or about July 1948.

SN 51,046. Northwestern Flooring & Lumber Company, St. Paul, Minn. Filed May 5, 1958.

NOR TRIM

The word "Trim" is disclaimed apart from the mark as shown.
For Interior Trim Lumber.
First use Apr. 21, 1958.

SN 51,445. The Flintkote Company, New York, N. Y. Filed May 12, 1958.

FLINTROCK

Owner of Reg. No. 569,532.
For Gypsum Board and Gypsum Plaster.
First use Oct. 31, 1957.

SN 52,207. Deslauriers Column Mould Co., Inc., Chicago, Ill. Filed May 23, 1958.

Econ-O-mold

For Fibre Form for Round Concrete Columns.
First use May 12, 1958.

SN 53,078. United States Plywood Corporation, New York, N. Y. Filed June 6, 1958.

NOVOTEX

Owner of Reg. Nos. 395,787, 542,445, and 609,406.
For Wood and Lumber Products, i. e., Particle Board or Fiber Board.
First use Apr. 2, 1958.

SN 53,082. T. V. Walker & Son, Inc., Burbank, Calif. Filed June 6, 1958.

CONTINENTAL

Owner of Reg. No. 611,302.
For Sliding Glass Doors.
First use Nov. 22, 1955.

SN 53,090. Wheeling Corrugating Company, Wheeling, W. Va. Filed June 6, 1958.

DOUBLE-EX

For Corner Bead.
First use May 14, 1958.

SN 53,108. Bitulac, Limited, Newcastle-on-Tyne, England. Filed June 9, 1958.

BITULADECK

Owner of British Reg. No. 509,377, dated Jan. 10, 1930.
For Asphalt for Use in Surfacing Ships' Decks.

SN 53,142. John J. Foster Mfg. Co., Costa Mesa, Calif. Filed June 9, 1958.

FOSTER

For Honeycomb Core and Panel Fabricated Therefrom.
First use May 19, 1958.

SN 53,268. Kentile Inc., Brooklyn, N. Y. Filed June 10, 1958.

KENTILE CRYSTALITE

Owner of Reg. Nos. 344,243, 580,343, and others.
For Floor and Wall Tile.
First use Apr. 15, 1958.

SN 53,807. Lasting Products Company, Baltimore, Md. Filed June 18, 1958. Sec. 2(f).

LASTING PROTECTION

Owner of Reg. Nos. 422,843, 634,292, and others.
For Glazing and Caulking Compounds, Roof Coating, Asphalt and Asbestos Cement, Bituminous Plastic Cement, and Various Water Proofing, Damp Proofing Compositions for Concrete, Stucco, Brick, and Masonry.
First use in 1933

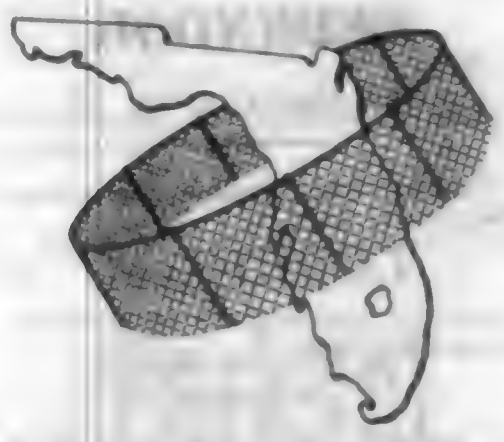
Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 11,712. Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed July 6, 1956.

AGA

Owner of Swedish Reg. Nos. 28,880 and 43,632, dated Aug. 26, 1924 and June 11, 1934.
For Tacks, Nails, Pins, Rivets, Nuts, Bolts, Screws, Joint Fasteners, Hinges, Door Closing Devices, Household and Kitchen Cooking Vessels, Pots and Pans, Gas and Air Pressure Regulators

SN 24,583. Florida Wholesale Fence, Inc., Tampa, Fla. Filed Feb. 18, 1957.



No claim is made to the fence shown in the drawing apart from the mark as shown.

For Fencing, Including Fence Fabric, Posts, Gates, Rails, and Fittings.

First use Aug. 2, 1955.

SN 40,309. Bell & Gossett Company, Morton Grove, Ill. Filed Nov. 8, 1957.

RED RING

For Pipe Fittings for Hot Water Heating Systems.

First use Oct. 17, 1957.

SN 41,425. Air Products, Inc., Emmaus, Pa. Filed Nov. 27, 1957.

JEEP

For Regulating Valves for Compressed Gases.

First use July 10, 1957.

SN 42,778. Samuel M. Kass, d. b. a. Kass Hardware, Philadelphia, Pa. Filed Dec. 20, 1957.

KASSWAY

For Mushroom Shaped Device To Be Placed on a Percolator Tube To Spread the Flow of Hot Water in a Coffee Percolator.

First use on or about June 29, 1957.

SN 42,779. Samuel M. Kass, d. b. a. Kass Hardware, Philadelphia, Pa. Filed Dec. 20, 1957.

KASSWAY

Owner of Reg. No. 657,996.

For Repair Adapter for Ballcock Lever Assembly.

First use on or about June 29, 1957.

SN 46,870. Allmetal Screw Products Company, Garden City, N. Y. Filed Mar. 3, 1958. Sec. 2(f).

ALLMETAL

For Stainless Steel Fasteners, to wit, Screws, Nuts, Bolts, Washers, Rivets, and Pins.

First use May 1930.

SN 48,885. United States Ceramic Tile Company, Canton, Ohio. Filed Apr. 1, 1958.

BATH-AID

For Bathroom Accessories—Namely, Soap Dishes and Holders, Soap Holder and Grab Fixtures, Tissue Holders, Tumbler Holders, Toothbrush Holders, Toothbrush and Tumbler Holders, Towel Bars and Brackets, and Towel Rings.

First use Mar. 5, 1958.

SN 49,232. Western Fire Equipment Co., San Francisco, Calif. Filed Apr. 7, 1958.

FORESTER

Owner of Reg. No. 364,351.

For Spark Arresters, Tractor Light Brackets, Suction Hose Strainers, Nozzles, Nozzle Screw Tips With Lugs, Water Ejectors, Fire Hose Couplings, Hose Line T's and Hose Line T Valves.

First use July 2, 1953.

SN 52,927. The Youngstown Sheet and Tube Company, Youngstown, Ohio. Filed June 4, 1958.



For Bolts.

First use May 22, 1958.

SN 53,493. The Fanner Manufacturing Company Division of Textron, Inc., Providence, R. I. Filed June 13, 1958.



For Preformed Helical Reinforcements and Gripping Devices for Cables and Electrical Lines.

First use Jan. 7, 1955.

SN 55,200. Jay-Way Company, Inc., Owatonna, Minn. Filed July 16, 1958.

JAY-WAY

For Door Holders.

First use about March 1936.

SN 56,665. Wm. Steinen Mfg. Company, Newark, N. J. Filed Aug. 5, 1958.

TAN-JET

For Spraying Nozzles for Industrial Machines, Washing Machines, Air-Conditioning Equipment and Agricultural Utilization for Spraying Chemicals, Fertilizers, Tars and Other Aqueous Materials, Emulsions, Dispersions and the Like.

First use June 2, 1958.

SN 57,070. General American Transportation Corporation, Chicago, Ill. Filed Aug. 12, 1958.

HI-THRED

For Self-Tapping Screws.

First use on or about July 7, 1958.

Class 14 — Metals and Metal Castings and Forgings

SN 31,529. Western Gold and Platinum Company, Belmont, Calif. Filed June 6, 1957.

INCURO

For Brazing Alloys.

First use on or about Apr. 19, 1957.

SN 31,530. Western Gold and Platinum Company, Belmont, Calif. Filed June 6, 1957.

INCUSIL

Owner of Reg. No. 658,971.
For Brazing Alloys.
First use on or about Apr. 19, 1957.

SN 50,542. Societe Lorraine de Laminage Continu "Sollac," Paris, France. Filed Apr. 28, 1958.

SOLZINC

Owner of French Reg. No. 470,207, dated Feb. 7, 1958 (Seine); Natl. Inst. No. 102,589.
For Galvanized Sheet Iron.

SN 53,900. Olin Mathieson Chemical Corporation, East Alton, Ill. Filed June 19, 1958.



For Copper and Its Alloys, Particularly Brass and Bronze in Sheet, Tube, and Rod Form.
First use May 1, 1958.

SN 54,164. The International Nickel Company, Inc., New York, N. Y. Filed June 24, 1958.

"K" MONEL

Owner of Reg. Nos. 58,191, 425,773, and others.
For Nickel-Copper Alloys, Including Age-Hardenable Nickel-Copper Alloys.
First use during 1925.

SN 54,165. The International Nickel Company, Inc., New York, N. Y. Filed June 24, 1958.

INCO-HARD

Owner of Reg. Nos. 128,408, 654,976, and others.
For Welding Electrodes.
First use Apr. 17, 1958.

Class 15 — Oils and Greases

SN 33,646. Ralph Shrader, Inc., Whittier, Calif. Filed July 12, 1957.



The words "Gum and Varnish Solvent" are disclaimed apart from the mark as shown. Owner of Reg. No. 628,430.
For Conditioner of the Fuel Additive Type for Removing Gum, Varnish, and Other Deposits From Marine Engines.
First use Jan. 26, 1956.

SN 40,402. Westville Oil & Manufacturing, Inc., Westville, Ind. Filed Nov. 8, 1957.

DEPENDOL

For Motor Oil.
First use on or about Sept. 15, 1957.

SN 53,366. Standard Motor Products, Inc., Long Island City, N. Y. Filed June 11, 1958.

LUBRICAM

For Lubricants for Ignition Parts and the Like.
First use September 1957.

SN 55,806. Pennsylvania Petroleum Products Company, Philadelphia, Pa. Filed July 22, 1958.

RAM'S HEAD

For Petroleum Lubricating Oils and Greases.
First use Dec. 8, 1957.

Class 16 — Protective and Decorative Coatings

SN 46,479. Professional Paints, Inc., d. b. a. Professional Paint Co., Denver, Colo. Filed Feb. 24, 1958.



For Paints.
First use Oct. 10, 1957.

SN 48,405. Joseph Dixon Crucible Company, Jersey City, N. J. Filed Mar. 25, 1958.

THERMOCONE

For Ready Mixed Paint.
First use Feb. 13, 1958.

SN 51,231. Tobias Paint Mfg. Company, Cleveland, Ohio. Filed May 7, 1958.

TOPACO

For Paints, Paint Primers, Paint Enamels, Raw Linseed Oil, Asphalt Products, Stains, Varnishes, Paint Thinners, and Paint Colors.
First use in December 1957.

SN 51,232. Tobias Paint Mfg. Company, Cleveland, Ohio. Filed May 7, 1958.

BLOK TITE

For Basement and Foundation Paint.
First use on or about Apr. 1, 1958.

SN 60,208. Corns, Cremer & Co., Hamburg, Germany. Filed Oct. 7, 1958.

WALUGA-CORROLESS

Owner of German Reg. No. 715,391, dated June 30, 1958.
For Antirusting Preparations, Including Those in Form of Coating Preparations.

SN 60,219. The Glidden Company, Cleveland, Ohio. Filed Oct. 7, 1958.

GLID-IRON

For Resinous Coating and Surfacing Compositions.
First use August 1955.

SN 60,309. The Parks Company, Somerset, Mass. Filed Oct. 8, 1958.

Parksol

Owner of Reg. No. 668,237.
For Solvent for Lacquer Type Floor Finishes.
First use Sept. 9, 1958.

SN 60,386. Akona Chemical Corporation, Anoka, Minn. Filed Oct. 10, 1958.

AKONA

Owner of Reg. No. 543,330
For Penetrating Surfacer and Sealer for Concrete Floors, Rubber Base Exterior Coating for Masonry Surfaces, and Rubber Base Non-Gloss Coating for Masonry Swimming Pools.
First use April 1952.

Class 17 — Tobacco Products

SN 58,753. Stephano Brothers, Philadelphia, Pa. Filed Sept. 10, 1958.

TREND

For Cigars.
First use Aug. 26, 1958; July 14, 1958, as to "Trend."

Class 18 — Medicines and Pharmaceutical Preparations

SN 31,503. Curtis Moore, Forest City, Iowa. Filed June 6, 1957.

Tip Top

For Pharmaceutical Preparation Used for Perspiration and Relief of Tired and Burning Feet, and Also Used To Relieve Discomfort Caused by Chafing.
First use May 8, 1957.

SN 42,624. Armour and Company, Chicago, Ill. Filed Dec. 18, 1957.

OSSAR

For Inorganic Matrix of Bone, Used for Bone Grafting.
First use Oct. 24, 1957.

SN 44,415. Sandos, Inc., Hanover, N. J. Filed Jan. 21, 1958.

pHan

For Medicinal Preparation Recommended for the Treatment of Hyperacidity and Gastric Ulcers.
First use Dec. 4, 1957.

SN 54,295. Curtis Laboratories, Inc., Kansas City, Kans. Filed June 26, 1958.

MULTI-SCOUR

For Veterinary Medicine Described as: A Multiple Action Oral Treatment for Diarrheas in Young Animals.
First use July 13, 1950.

SN 54,817. Broemmel Pharmaceuticals, San Francisco, Calif. Filed July 7, 1958.

BRO-B

Owner of Reg. No. 435,125.
For Intravenous Intramuscular Sterile Vitamin B Complex.
First use Nov. 1, 1936.

SN 55,588. Hoffmann-La Roche Inc., Nutley, N. J. Filed July 18, 1958.

TRIBURON

For Antimicrobial Agent.
First use July 1, 1958.

SN 56,277. Sterling Drug Inc., New York, N. Y. Filed July 29, 1958.

pHorac

For Medicated Preparation Used in the Treatment of Acne and Other Skin Diseases.
First use June 13, 1958.

SN 56,492. The Norwich Pharmacal Company, d. b. a. Eaton Laboratories, Norwich, N. Y. Filed Aug. 1, 1958.

ORA-BOLS

For Medicated Bolus for Veterinary Use.
First use Feb. 24, 1958.

SN 56,522. Barnes-Hind Ophthalmic Products, Inc., Sunnyvale, Calif. Filed Aug. 4, 1958.

BOTLET

For Sterile Ophthalmic Solution Sold in a Dropper Type Dispenser of Polyethylene.
First use May 21, 1958.

SN 56,574. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Aug. 4, 1958.

TRIOLEOTOPE

For Pharmaceutical Preparations Containing Radioactive Glyceryl Trioleate.
First use Jan. 31, 1958.

SN 56,654. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Aug. 5, 1958.

NEOBIOTIC

For Antibiotic Preparation.
First use Apr. 7, 1958.

SN 56,660. Schering Corporation, Bloomfield, N. J. Filed Aug. 5, 1958.

STEROTRIL

For Steroid-Tranquilizer Preparation.
First use June 3, 1958.

SN 56,661. Schering Corporation, Bloomfield, N. J. Filed Aug. 5, 1958.

POLARAMINE

For Anti-Allergenic Preparation.
First use June 30, 1958.

SN 56,888. Sterling Drug Inc., New York, N. Y. Filed Aug. 8, 1958.

SUPERINONE

For Surface-Active Agent for Internal Use as Stool Softener, Mucolytic Agent, and Like Purposes.
First use July 21, 1958.

SN 57,078. Imperial Chemical Industries Limited, London, England. Filed Aug. 12, 1958.

ETISUL

Owner of British Reg. No. 709,027, dated July 18, 1952.
For Pharmaceutical Preparation for the Treatment of Leprosy.

SN 63,672. A. H. Robins Company, Inc., Richmond, Va. Filed Dec. 4, 1958.

EXTENCAPS

Owner of Reg. Nos. 604,409, 622,956, and others.
For Capsule Form Extended Action Medicinal Preparation Providing for the Gradual Release of a Medicament in the Gastro-Intestinal Tract.
First use June 15, 1958.

Class 19 — Vehicles

SN 26,536. Evans Products Company, Plymouth Township, Mich. Filed Mar. 20, 1957.



The representation of the goods is disclaimed apart from the mark as shown.
For Permanent and Adjustable Equipment for Supporting and Bracing Merchandise—Namely, Equipment for Supporting and Bracing General Merchandise in Freight Cars.
First use on or about Dec. 28, 1956.

SN 46,329. L. W. Keeson & Co., Los Angeles, Calif. Filed Feb. 21, 1958.

KEESON

For Bicycles.
First use Nov. 1, 1957.

SN 46,395. American Mercantile Company Inc., New York, N. Y. Filed Feb. 24, 1958.

Capri

For Motor-Scooters, Motorcycles, and Any Other Motor Assisted Cycle.
First use Dec. 15, 1957.

SN 47,438. D. Sebel & Company Limited, Erith, Kent, England. Filed Mar. 10, 1958.

FOLD-A-BYE

Owner of British Reg. No. 739,330, dated Feb. 15, 1955.
For Strollers.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 42,152. McKaig Electronics Inc., Seattle, Wash. Filed Dec. 10, 1957.



For Electrically Powered Vehicle Accessories—Namely, a Warning Device Utilizing a Buzzer and/or a Light for Indicating That the Headlights Are On.
First use July 31, 1954.

SN 43,566. Tempo Instrument Incorporated, Hicksville, N. Y. Filed Jan. 7, 1958.

TEMPO

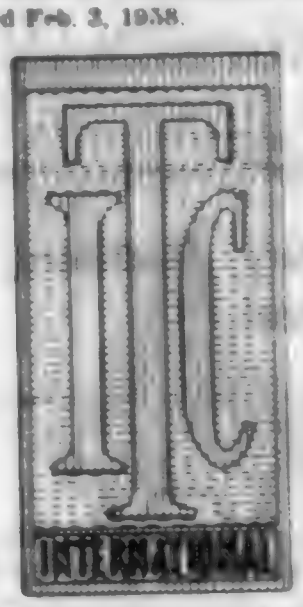
For Electrical Relays.
First use Apr. 11, 1957.

SN 44,276. Griffiths Electronics, Inc., Newark, N. J. Filed Jan. 20, 1958.

THE GOLDEN GRID

The word "Grid" is disclaimed apart from the mark as shown.
For Electron Guns for Television Tubes and Other Electronic Devices and for the No. 1 Grid for Such Tubes and Devices.
First use Oct. 14, 1957.

SN 45,170. International Transformer Corporation, Montebello, Calif. Filed Feb. 3, 1958.



The drawing is lined for maroon and gray, but color is not an essential feature of the mark.
For Electrical Transformers.
First use June 12, 1957.

SN 46,869. Aktiebolaget Inventing, Stockholm, Sweden. Filed Mar. 3, 1958.



Owner of Swedish Reg. No. 79,397, dated Dec. 9, 1955.
For Electro-Magnetic Device for Signaling a Warning and for Stopping Sheet Fed Machines When an Irregularity in the Automatic-Feeding Occurs.

SN 54,737. A. Cohen & Sons Corp., New York, N. Y. Filed July 8, 1958.

Kitchen Queen

For Electric Food Mixers, Electric Waffle Irons, and Electric Coffee Percolators.
First use Mar. 15, 1938.

SN 54,907. United States Camo Corporation, Kansas City, Mo. Filed July 7, 1958.

COLORLITER

For Power Supplies for Stroboscopic Lights Used in Photography.
First use Nov. 7, 1957.

SN 55,211. Auburn Spark Plug Co., Inc., Auburn, N. Y. Filed July 14, 1958.

AUBURN Imperial

For Spark Plugs.
First use June 26, 1958.

SN 55,286. Ultra-Violet Products, Inc., San Gabriel, Calif. Filed July 14, 1958.

PEN-RAY

For Quartz Ultra-Violet Lamps.
First use in January 1958.

SN 55,287. U. S. Electrical Motors, Inc., Los Angeles, Calif. Filed July 14, 1958.

REACTODYNE

For Speed Control Unit for Machines—Namely, Induction Motors.
First use May 2, 1958.

SN 55,407. New York Merchandise Co., Inc., New York, N. Y. Filed July 16, 1958.

BEAU-T-LITES

For Christmas Tree Lights.
First use June 6, 1957.

SN 55,551. Ronette Piezo-Electrische Industrie (Ronette P. E. I.) N. V., Amsterdam, Netherlands. Filed May 9, 1958.

BINOFLUID

Owner of Dutch Reg. No. 127,912, dated May 7, 1957.
For Microphones, Microphone Cases and Other Apparatuses for Converting Mechanical Vibrations Into Electrical Vibrations and Electrical Vibrations Into Mechanical Vibrations; Pick-Ups (So Called Pick-Up Elements), Pick-Ups (Pick-Up Elements Mounted in an Arm) and Other Apparatuses for Converting Mechanical Vibrations Into Electrical Vibrations; Coaxial Cables, Matching Transformers, Connecting and Terminal Plugs and Parts, Microphone Stands, Microphone Switches, Fastening Clips, Crystal Plates, Needle Holders Provided With a Sapphire Stylus, Plug Pins and Other Parts of and Accessories to the Said Apparatuses; Sound Recording and Reproducing Apparatuses.

SN 55,553. Ronette Piezo-Electrische Industrie (Ronette P. E. I.) N. V., Amsterdam, Netherlands. Filed May 9, 1958.

STEREOFLUID

Owner of Dutch Reg. No. 127,913, dated May 7, 1957.

For Microphones, Microphone Cases and Other Apparatuses for Converting Mechanical Vibrations Into Electrical Vibrations and Electrical Vibrations Into Mechanical Vibrations; Pick-Ups (So Called Pick-Up Elements), Pick-Ups (Pick-Up Elements Mounted in an Arm) and Other Apparatuses for Converting Mechanical Vibrations Into Electrical Vibrations; Coaxial Cables, Matching Transformers, Connecting and Terminal Plugs and Parts, Microphone Stands, Microphone Switches, Fastening Clips, Crystal Plates, Needle Holders Provided With a Sapphire Stylus, Plug Pins and Other Parts of and Accessories to the Said Apparatuses; Sound Recording and Reproducing Apparatuses.

Class 22—Games, Toys, and Sporting Goods

SN 18,968. Edward J. Sidler, d. b. a. Kenlin Pet Supply, Waldwick, N. J. Filed Nov. 8, 1956.

DAL BAR

For Rubber Bones, Balls, Animal Figures and Heads, and Similar Type Toys for Use by Animal Pets.
First use Sept. 4, 1956.

SN 33,644. David Warwick Sheagreen, d. b. a. Warwick & Co., Van Nuys, Calif. Filed July 12, 1957.

AQUA-BELL

For Vinyl Floating Dumb-Bell or Bar-Bell Toy.
First use Apr. 30, 1957.

SN 35,803. Charles F. Otterstrom and Richard C. Jaxon (joint owners), Burbank, Calif. Filed Aug. 19, 1957.

GAY-NOSES

For Play Noses.
First use Aug. 5, 1957.

SN 36,618. Otto Maier, Ravensburg, Germany. Filed Sept. 3, 1957. Sec. 2(f).

RAVENSBURG GAMES·TOYS

No claim of exclusive right is made to "Games+Toys" apart from the mark as shown.

For Toys and Game Equipment—Namely, Educational and Craft Toys, Cards, Dice, and Boards for Playing Games of Skill, Card Games, Craft Games, Board Games, and Games of Chance.

First use Dec. 24, 1925; in commerce Aug. 1, 1930.

SN 43,216. Strombeck-Becker Mfg. Co., Moline, Ill. Filed Dec. 30, 1957.

EGGBERT'S

For Infants' Toys of the Wheeled Push and Pull Variety.
First use Nov. 18, 1957.

SN 46,661. Sportsman's Golf Corporation, Melrose Park, Ill. Filed Feb. 26, 1958.

POWER ZONE

For Golf Clubs.
First use Jan. 10, 1957.

SN 48,521. Ernest J. Webber, d. b. a. Lucky Day Bait Co., Long Lake, Minn. Filed Mar. 26, 1958. Sec. 2(f).

WIGGLE-TAIL

For Artificial Fishing Lures.
First use May 1952.

SN 48,522. Ernest J. Webber, d. b. a. Lucky Day Bait Co., Long Lake, Minn. Filed Mar. 26, 1958. Sec. 2(f).

FLASH 'N' POP

For Artificial Fishing Lures.
First use May 1952.

SN 52,260. American Metal Specialties Corporation, Hatboro, Pa. Filed May 26, 1958.

L'AMSCO

Owner of Reg. Nos. 539,036, 539,703, and 632,165.
For Child's Cosmetic Set.
First use Mar. 3, 1958.

SN 54,107. South Bend Tackle Company, Inc., South Bend, Ind. Filed June 23, 1958.

NORSEMAN

For Fishing Reels.
First use June 11, 1958.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 11,719. Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed July 6, 1956

AGA

Owner of Swedish Reg. Nos. 28,880 and 43,632, dated Aug 26, 1924 and June 11, 1934.

For Machinery and Equipment for the Production and Distribution of Gas; Glass, Metal, and Wood Working Machines; Labeling and Packaging Machinery; Paper and Pulp Making Machinery; Foundry Machinery and Equipment; Motors, Engines, and Turbines; Agricultural and Dairy Implements and Machinery; Locomotives; Printing Machines; Typewriters and Duplicating Machines; Hand Tools; Razors and Shavers and Parts of Said Goods.

SN 29,163. Paillard Products, Inc., New York, N. Y. Filed Apr. 30, 1957.

HERMES REGENT

Owner of Reg. No. 346,923
For Typewriting Machines and Parts Thereof.
First use Jan. 7, 1957.

SN 32,472. The Danielson Manufacturing Company, Windham, Conn. Filed June 24, 1957.

DANCO

For Bobbins; Rawhide or Nylon Faced Hammers and Mallets; Nylon Bearings, Sleeves, Inserts, Gears, Pinions, Ratchets, Cams, Stops, and Spacers.
First use in 1937.

SN 33,052. Clark Equipment Company, Buchanan, Mich. Filed July 2, 1957.

STEPMATIC

For Transmissions and Parts Thereof.
First use May 29, 1957.

SN 46,227. International Machinery Development Corporation, Minneapolis, Minn. Filed Feb. 20, 1958.

PELL-O-MATIC

For Feed Pelletizing Machines.
First use on or about Oct. 21, 1957.

SN 47,465. Underwood Corporation, New York, N. Y. Filed Mar. 10, 1958.



For Typewriting Machines and Parts Thereof.
First use Nov. 6, 1957.

SN 49,087. Sigma Machinery Inc., New York, N. Y. Filed Apr. 4, 1958.



For Metal-Cutting and Metal-Working Machine Tools, Such as Lathes, Milling Machines, Grinding Machines, Planing Machines, Drilling Machines, Boring Machines, Sawing Machines, Presses, Casting Machines, and Accessories and Tooling for Above Mentioned Machines.
First use Mar. 10, 1958.

SN 53,390. Continental Machine Company, Newtonville, Mass. Filed June 16, 1958.

Accu Rail

For Contour Template Holder for Attachment to Automatic Reproducing Metal Working Machine Tools Including Horizontal Lathes, Milling Machines, Grinders, Shapers, Die Sinkers, Planers and the Like.
First use Apr. 24, 1958.

SN 55,194. Etablissements Neyrpic, Societe Anonyme, and Societe Anonyme des Anciens Etablissements de Hulster Faible & Cie, Paris, France. Filed June 26, 1958.

FORAMATIC

Owner of French Reg. No. 10349, dated Jan. 16, 1958 (Grenoble); Natl. Inst. No. 101,897.
For Apparatus for Automatic Control of Winding Drums for Descent of Boring-Trains in Bore-Holes.

SN 57,311. Yeomans Brothers Company, Melrose Park, Ill. Filed Aug. 15, 1958.

SPIRAHOFF

For Sewage Settling Equipment.
First use May 19, 1955.

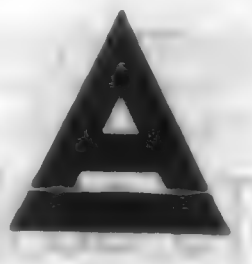
SN 60,134. Globe Venetian Blind Corporation, Baltimore, Md. Filed Oct. 6, 1958.

BLIND O MATIC

For Machines for Cutting Head Rails, Bottom Rails, U Rods, D Rods to Length, and for Cutting Out Cord and Tape Openings in Head Rails, All for Venetian Blinds.
First use Apr. 7, 1955.

Class 24—Laundry Appliances and Machines

SN 51,312. Arvin Industries, Inc., Columbus, Ind. Filed May 9, 1958.



For Collapsible Ironing Tables.
First use on or about Apr. 8, 1958.

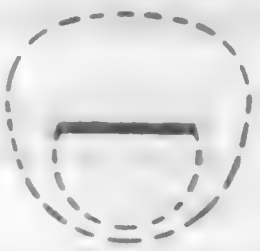
SN 53,429. Sears, Roebuck and Co., Chicago, Ill. Filed June 12, 1958.

DUREFLEX

For Ironing Board Covers.
First use on or about June 18, 1957.

Class 26—Measuring and Scientific Appliances

SN 7,294. The Univis Lens Company, Dayton, Ohio. Filed Apr. 27, 1956.



No claim is made to the representation of a multifocal ophthalmic lens nor to an internal line or shoulder bounding the top of the segment portion, as such, aside from the brownish pink coloration. The drawing is lined for brownish pink. The mark comprises a brownish pink coloration of the line or shoulder bounding the top of the segment portion of the multifocal lens.
For Multifocal Ophthalmic Lenses and Lens Blanks.
First use on or about Mar. 10, 1954.

SN 29,684. National Electronics Laboratories, Inc., Washington, D. C. Filed May 6, 1957.



For Electronic Products and Equipment—Namely, Transmitters, Receivers, Communication Systems, Test Sets.
First use 1947.

SN 31,728. General Dynamics Corporation, San Diego, Calif. Filed June 6, 1957.

CHARACTRON

Owner of Reg. Nos. 585,950, 617,164, and 626,131.
For Computer Readout for Visually Displaying Data.
First use Aug. 10, 1956.

SN 34,973. Minneapolis-Honeywell Regulator Company, Minneapolis, Minn. Filed Aug. 5, 1957.

SUPERVISORY DATACENTER

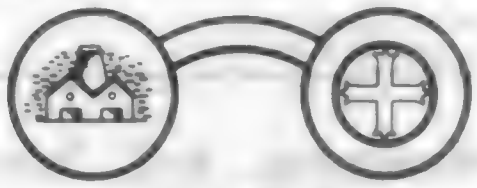
For Custom Built Control Panels Which Are Responsive to Variables.
First use Mar. 1, 1956.

SN 36,936. Lafayette Thomas, New Castle, Ind. Filed Sept. 9, 1957.

PICTO-SCOPE

For Anamorphic Lenses.
First use Mar. 28, 1956.

SN 38,483. Pilkington Brothers Limited, Liverpool, England. Filed Oct. 7, 1957.



Owner of British Reg. No. 762,169, dated Feb. 6, 1957; and U. S. Reg. Nos. 55,435 and 175,467.
For Optical Glass and Optical Lenses.

SN 39,832. Pennsylvania Scale Company, Bareville, Pa. Filed Oct. 30, 1957.



Owner of Reg. No. 555,857.
For Scales.
First use Mar. 1, 1957.

SN 40,432. Consolidated Electrodynamics Corporation, Pasadena, Calif. Filed Nov. 12, 1957.

DATARITE

For Photographic Data Recording Apparatus.
First use Sept. 5, 1957.

SN 40,515. Technical Operations, Inc., Burlington, Mass. Filed Nov. 12, 1957.

TECH OPS

For Radiography Apparatus, Components and Accessories—Namely, Carriers, Containers, Exchangers, Tubes and Control Cables and Boxes for Handling Radioactive Source Material, Panoramic and Directional Projectors, Encapsulated Radioactive Material, Radiation Survey Meters, Film Badges, Dosimeters, and Exposure Calculators, and Electronic Equipment—Namely, Tank Mine Simulators.
First use July 3, 1957, on panoramic and directional projectors.

SN 43,166. Hurley Screen Company Incorporated, Corona, N. Y. Filed Dec. 30, 1957.

NICHRO-WELD SEAM

Applicant disclaims the word "Seam" apart from the mark.
For Motion Picture Projection Screens Formed of a Plurality of Segments Which Are Seamed Together.
First use May 24, 1956.

SN 44,960. Fischer & Porter Company, Hatboro, Pa. Filed Jan. 30, 1958.

DIGI-CODER

For Electromechanical Converters for Converting Analogue Positions to Digital-Code Equivalents.
First use Feb. 8, 1954.

SN 48,709. Canadian Applied Research Limited, Toronto, Ontario, Canada. Filed Mar. 31, 1958.



The drawing is lined for orange-red. Owner of Canadian Reg. No. 111,927, dated Oct. 17, 1958.
For Photographic Equipment—Namely, Cameras, Camera Stands and Cone Assemblies, and Camera Magazines; Automatic Film Processors; Ice Detectors; Instruments and Components for R-Theta Navigation Computer Systems—Namely, Dead Reckoning Navigation Computers, General Speed Indicating Computers, Bench Test Stands for R-Theta Systems, Aircraft Portable Testers for Installed R-Theta Systems, Ground Speed Tracker Systems, and Universal Integrators; Intervalometer Rocket Testers; Gamble Plotters; Microwave Assemblies; High Speed Air Position Indicator Systems; High Speed Air Position Indicator Test Sets; De-Icing Controllers for Ice Shedding; Auroral Recorders; Airborne Magnetometers; Static Magnetometers; Airborne Profile Recorders; and High Speed Impulse Recorders.

SN 49,230. Western Fire Equipment Co., San Francisco, Calif. Filed Apr. 7, 1958.

FORESTER

Owner of Reg. No. 364,351.
For Azimuth Circle Printers, Pitot Tubes and Other Test Equipment, including Fire Weather Instruments—Namely, Moisture Scales, Anemometers, and Psychrometers.
First use July 18, 1956.

SN 50,010. Baird & Tatlock (London) Limited, London, England. Filed Apr. 21, 1958.

ANALMATIC

Owner of British Reg. No. 736,085, dated Nov. 12, 1954.
For Measuring and Scientific Appliances Including Analyzers, Transfer Pipette Units, Dispensing Pipette Units,

Titrators, Diaphragm Valves, Volumetric Metering Units, Analyzing and Recording Units, Co-Ordinative Sequence Controllers, Voltmeters, Ammeters, Manual Control Switches, Timing Pulse Units With Sequence Control Units, Power Supply Units, Flow Diagram Units, Recording Absorptiometers, Dissolved Oxygen Recorders, Colorimetric Analyzers, Uranium-in-Effluent Recorders, and the Like.

SN 51,234. Toledo Scale Corporation, Toledo, Ohio. Filed May 7, 1958.

REMOCON

For Control Equipment for Automatic Weighing, Measuring, and Batching Apparatus.
First use Mar. 12, 1958.

SN 52,210. Engineered Electronics Company, Santa Ana, Calif. Filed May 23, 1958.

MINISIG

The drawing is lined for grey or silver, but color is not claimed.
For Electronic Indicators, Electronic Circuit Plug-in Units, Electronic Circuit Computer Units, Amplifiers, Electronic Decimal Counters, Stepping Switches, Electronic Equipment Racks.
First use Mar. 26, 1958.

SN 53,560. Agfa Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed June 16, 1958.

SERIOTYP

Owner of German Reg. No. 496,310, dated Sept. 22, 1937; and U. S. Reg. Nos. 394,214 and 397,049.
For Physical, Electrotechnical, and Photographic Apparatus.

SN 54,199. Walter Wesolek, d. b. a. W. A. Walters Co., Chicago, Ill. Filed June 24, 1958.

PHASOMETER

For Electric Phase Sequence Indicators.
First use in April 1954.

SN 54,373. Brown & Sharpe Manufacturing Company, Providence, R. I. Filed June 27, 1958.

CEDA SIZE

For Apparatus Comprising Electronic Comparater Caliper Gage and Manual Feed Control Lever for Attachment to a Machine Tool for Producing and Controlling a Cross Feed of the Machine.
First use June 6, 1958.

SN 54,680. Eastman Kodak Company, Rochester, N. Y. Filed July 2, 1958.

PANALURE

For Sensitized Photographic Paper.
First use Feb. 1, 1958.

SN 54,735. The Bristol Company, Waterbury, Conn. Filed July 3, 1958. Sec. 2(f).

FREE VANE

Owner of Reg. No. 200,682.
For Indicating and/or Recording Controller Instruments for Controlling Temperature, Pressure, and Flow of Liquids, for Controlling Liquid Levels, Humidity, Motion and Operations, and Speed.
First use Mar. 23, 1932.

SN 54,747. Engineering Research Corp., Shreveport, La. Filed July 3, 1958.

FISHFONE

For Electronic Listening Apparatus for Detecting Sounds Emanating From Fish and Determining the Location, Depth, and Species of the Fish.
First use Apr. 8, 1958.

SN 55,673. Ideax Corporation, New York, N. Y. Filed July 21, 1958.

PHOTO-GENIE

For Light Measuring Apparatus—Namely, Exposure Indicating Apparatus for Photographic Enlarging Use.
First use July 17, 1958.

SN 55,744. Kenneth Smith, d. b. a. Kenneth Smith Golf Club Company, Kansas City, Mo. Filed July 21, 1958.

MICRO 6 WAY

For Weighing Scales.
First use July 17, 1958.

Class 28—Jewelry and Precious-Metal Ware

SN 55,991. Louis Fleischmann Corp., New York, N. Y. Filed July 25, 1958.

ALPINE CRYSTAL

The word "Crystal" is disclaimed separate and apart from the mark as shown.
For Silver Crystal Jewelry—Namely, Pendants, Earrings, Bracelets, Brooches, Finger Rings, and Necklaces.
First use Feb. 15, 1957.

Class 29—Brooms, Brushes, and Dusters

SN 36,494. Aesup Est., Vaduz, Liechtenstein. Filed Aug. 21, 1957.

broxodent

Priority claimed under Sec. 44(d) on Liechtenstein Reg. No. 705, dated June 7, 1957.
For Electrically Driven Toothbrush.

SN 40,373. Polychrome Corporation, Yonkers, N. Y. Filed Nov. 8, 1957.

POLY-WIPES

For Non-Woven Cellulosic Pads for Hand Application of Solutions to Lithographing Plates.
First use Sept. 30, 1957.

SN 50,297. Ernest S. Gunn, d. b. a. Starduster Mfg. Co., Tulsa, Okla. Filed Apr. 24, 1958.

STARDUSTER

For Dust Cloths.
First use in September 1937.

SN 53,599. Eklind Tool and Manufacturing Co., Chicago, Ill. Filed June 16, 1958.

FLOOR-WONDER

Owner of Reg. No. 666,871.
For Cleaning Implements—Namely, Dry Mops.
First use on or about Oct. 15, 1957.

SN 55,248. David Linzer & Sons, Inc., New York, N. Y. Filed July 14, 1958.

PREMIER

For Paint Brushes.
First use on or about July 1, 1948.

Class 31—Filters and Refrigerators

SN 27,094. Elgin Softener Corporation, Elgin, Ill. Filed Mar. 28, 1957. Sec. 2(f).

Elgin

Owner of Reg. Nos. 264,017 and 634,582.
For Water Softening Zeolites—Both Artificial and Natural—and Water Purifying, Clarifying, and Conditioning Compositions—Namely, Natural Ion Exchange Compositions, Artificial Sodium Aluminosilicate Cation Exchange Compositions, Artificial Resinous Cation and Anion Exchange Compositions, and Water Neutralizing Compositions.
First use August 1924.

SN 49,214. Thornhill-Craver Company, Inc., Houston, Tex. Filed Apr. 7, 1958.



The phrases "Self-Cleaning" and "Jet Strainer" are disclaimed apart from the mark as shown.
For Filters for Pipelines.
First use Feb. 18, 1958.

SN 49,447. Lee Filter Corp., North Arlington, N. J. Filed Apr. 10, 1958.

"MICRALYTIC"

For Air Filters.
First use in March 1937.

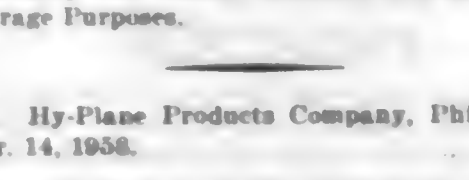
SN 60,432. Philco Corporation, Philadelphia, Pa. Filed Oct. 10, 1958.

BUDGETMASTER

For Refrigerators.
First use Oct. 1, 1958.

Class 32—Furniture and Upholstery

SN 34,064. Masonite Corporation, Chicago, Ill. Filed July 19, 1957. Sec. 2(f) as to "Peg-Board."



Owner of Reg. No. 563,975.
For Perforated Hardboard Panels for Display and Storage of Merchandise, and for Hardware for Use Therewith.
First use November 1950; on or about Jan. 27, 1948, as to "Peg-Board."

SN 39,199. Detector Industries, Inc., Newark, N. J. Filed Oct. 21, 1957.

DETECTOR REFLECTOR

For Reflecting Mirrors for Detecting Shoplifting.
First use Apr. 29, 1957.

SN 45,795. Otho A. Gibbons, Dartmouth, Nova Scotia, Canada. Filed Feb. 13, 1958.

OTHOMATION

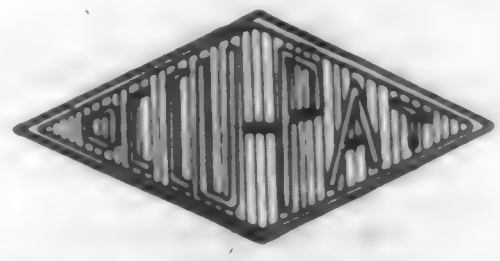
Priority claimed under Sec. 44(d) on Canadian application filed Jan. 29, 1958; Reg. No. 111,377, dated Aug. 29, 1958.
For Stationary and Mobile Shelving and Bins for Miscellaneous Storage Purposes.

SN 49,584. Hy-Plane Products Company, Philadelphia, Pa. Filed Apr. 14, 1958.

BEAUTY-TRIM

For Hanging Shelves; Magazine Racks; Combination Hanging Shelf and Towel Bar.
First use April 1957.

SN 51,043. Edwin R. Moore, New York, N. Y. Filed May 3, 1958.



The drawing is lined for red.
For Swivel Chairs.
First use May 3, 1956.

SN 52,954. Adolph Fruchter & Sons, Inc., Philadelphia, Pa. Filed June 5, 1958.

KITCHEN FAIR

For Kitchen Cabinets Made of Metal, Wood and/or Plastic.
First use June 14, 1957.

SN 55,284. Design and Production, Inc., Alexandria, Va. Filed July 16, 1958.

D&P

For Information Booths and Stands, Carrels, Display Panels, and Store Fixtures—Namely, Tables, Counters, and Showcases.
First use in August 1956.

SN 55,836. Blackburn Mattress and Box Spring Company, Incorporated, Richmond, Va. Filed July 23, 1958.



For Mattresses and Boxsprings
First use June 1948.

SN 56,895. Trobilt Cabinet Co., Inc., Brooklyn, N. Y. Filed Aug. 8, 1958.

compata

For Livingroom and Bedroom Furniture.
First use Mar. 19, 1958.

SN 57,980. Yawman and Erbe Manufacturing Company, Inc., Rochester, N. Y. Filed Aug. 27, 1958.

Pro-File

Owner of Reg. Nos. 40,325, 104,899, and 272,919
For Filing Cabinets
First use June 1, 1957.

SN 58,459. Sealy, Incorporated, Chicago, Ill. Filed Sept. 5, 1958.

Sealy

The drawing is lined for blue, but no claim as made to color.
Owner of Reg. Nos. 426,168, 629,077, and others.
For Mattresses, Box Springs, and Dual Purpose Sleeping Equipment.
First use July 29, 1938.

SN 59,609. Furnette, Inc., New York, N. Y. Filed Sept. 26, 1958.

SKETCHBOOK SERIES

The word "Series" is disclaimed apart from the mark as shown.
For Wood Furniture for the Living Room, Dining Room, and Bedroom.
First use in September 1954.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 11,708. Svenska Aktiebolaget Gasaccumulator, Stockholm, Lidingo, Sweden. Filed July 6, 1956.

AGA

Owner of Swedish Reg. Nos. 28,880 and 43,632, dated Aug. 26, 1924 and June 11, 1934.
For Fuel Burning Lighting Equipment, and Igniters, Burners, Carburetors, Mantels, and Mantel Exchanging Apparatus Therefor; Marine, Aircraft and Aerodrome Lighting and Signalling Apparatus; Annealing, Hardening, Welding, and Soldering Apparatus; Acetylene Generators; Melting Pots; Boilers; Fans; Coffee Roasters; and Parts and Accessories for the Foregoing.

SN 41,982. Blu-Burn-R Products, Inc., Monroe, Wis. Filed Dec. 9, 1957.

PORTA-FLAME

For Camp Stoves and Heaters.
First use Mar. 29, 1956.

SN 41,983. Blu-Burn-R Products, Inc., Monroe, Wis. Filed Dec. 9, 1957.

PORTA-PERK

For Coffee Pot With Self Contained Gas Burner.
First use Oct. 8, 1956.

SN 45,923. Stanwood Corporation, Chicago, Ill. Filed Feb. 14, 1958.

COR-WAL

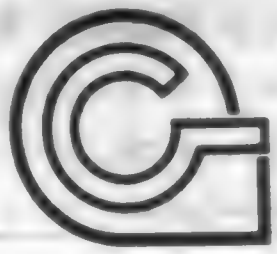
For Heat Treating Equipment, and Heating Equipment and Devices and Parts, and Accessories Therefor—Namely, Baskets, Trays, Fixtures, Retorts, Pots, Carburizing Boxes, and Furnace Parts.
First use Oct. 1, 1957.

SN 48,163. General Blower Company, Morton Grove, Ill. Filed Mar. 21, 1958.

General

For All Types of Centrifugal and Propeller Fans and Equipment for Industrial and Commercial Purposes Requiring the Movement of Air, Gases, or Material.
First use Aug. 12, 1953.

SN 53,705. Garden City Fan & Blower Company, Niles, Mich. Filed June 17, 1958.



For Industrial Ventilating and Exhaust Fans.
First use May 28, 1958.

SN 56,034. Modine Manufacturing Company, Racine, Wis. Filed July 25, 1958.

PERMA-LAP

For Perimeter Framing for Wall Recessed Heat Exchange Units.
First use July 17, 1958.

SN 56,848. Hammerware Products, Inc., Brooklyn, N. Y. Filed Aug. 8, 1958.

BAR-B-Q CHEF

For Small Outdoor Grilles.
First use Mar. 1, 1958.

SN 57,120. American Sitina Company, Dedham, Mass. Filed Aug. 13, 1958.

THE VACATION FIREPLACE

No claim is made to the word "Fireplace" apart from the mark as shown.
For Prefabricated Fireplace Units.
First use June 17, 1958.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 54,192. Seiberling Rubber Company, Barberton, Ohio. Filed June 24, 1958.

SEIBERLING

Owner of Reg. Nos. 172,503, 530,324, and others.
For Vehicle Tires, and Repair Kits for Tires and Tubes.
First use Apr. 1, 1939.

SN 55,803. Narricot Corporation, Philadelphia, Pa. Filed July 22, 1958.

NARRI-LAST

For Flexible Woven Fabric Used as Belting.
First use Mar. 21, 1958.

Class 36—Musical Instruments and Supplies

SN 40,791. James Welton, Los Angeles, Calif. Filed Nov. 15, 1957.



For Pre-Recorded Magnetic Tape and Grooved Phonograph Records.
First use Dec. 4, 1956.

SN 54,057. Don Merrill, Anthony J. Bellusci & Antoinette Bellusci, d. b. a. Samson Records, Hoopeston, Ill. Filed June 23, 1958.



For Phonograph Records.
First use May 12, 1958.
Subj. to Inf. with SN 54,867.

SN 54,867. Esther Kavalsky, Brooklyn, N. Y. Filed July 7, 1958.

Samson

For Grooved Phonograph Records.
First use Jan. 30, 1957.
Subj. to Intf. with SN 54,057.

SN 54,989. Jax Records Co., Jersey City, N. J. Filed July 7, 1958.



For Phonograph Records.
First use Jan. 10, 1958.

Class 37—Paper and Stationery

SN 54,784. Rexall Drug Company, d. b. a. Eastern Tablet Company, Los Angeles, Calif. Filed July 3, 1958.

STA-SEAL

For Envelopes.
First use June 17, 1958.

SN 54,830. Crown Zellerbach Corporation, San Francisco, Calif. Filed July 7, 1958.

Tymatic

Owner of Reg. No. 359,064.
For Toilet Tissue.
First use Apr. 25, 1958.

Class 38 — Prints and Publications

SN 20,921. Morgan Brothers (Publishers) Limited, London, England. Filed May 28, 1957. Sec. 2(f).

ELECTRONIC ENGINEERING

Owner of British Reg. No. 630,330, dated Sept. 28, 1942.
For Monthly Periodical.
First use in 1941; in commerce in 1942.

SN 38,161. Irma A. Poole, d. b. a. Round Robin Greeting Card Company, Grants Pass, Oreg. Filed Oct. 1, 1957.



The lining on the drawing is for shading purposes only. Applicant makes no claim to the words "Round Robin Greeting Card" apart from the mark as shown.
For Greeting Cards.
First use July 16, 1957.

SN 54,462. The Traffic Service Corporation, Washington, D. C. Filed June 27, 1958.

TRAFFIC BULLETIN

The term "Bulletin" is disclaimed apart from the mark as shown in the drawing.
For Periodical.
First use Apr. 13, 1907.

SN 54,981. Francis Beltrami, Marseille, Bouches-du-Rhone, France. Filed July 9, 1958.



Owner of French Reg. No. 43,439, dated Feb. 28, 1958 (Marseille); Natl. Inst. No. 104,298.
For Calendars.

SN 55,143. Harold E. Hays, d. b. a. United Swimming Pool Equipment Company, Los Angeles, Calif. Filed July 11, 1958.

MODERN POOL LIVING

For Magazine Published Annually and Concerning Swimming Pools and Accessories.
First use May 27, 1958.

SN 55,204. American Petroleum Institute, New York, N. Y. Filed July 14, 1958.



For Technical Publications and Information Bulletins Issued From Time to Time.
First use Aug. 20, 1924.

SN 55,440. Arcade Lithographing Corporation, Chattanooga, Tenn. Filed July 17, 1958.

POSTFOLIO

For Post Cards.
First use June 25, 1958.

SN 55,745. Topflight Corporation, York, Pa. Filed July 21, 1958.

FLEX-CAL

For Pressure-Sensitive Adhesive Labels Having a Protective Backing Strip or Sheet Removable Therefrom.
First use Sept. 12, 1957.

SN 55,905. William C. Copp, New York, N. Y. Filed July 24, 1958.



For Periodical—Monthly Magazine.
First use Jan. 10, 1958.

Class 39 — Clothing

SN 20,123. Selva and Sons, Inc., New York, N. Y. Filed Nov. 29, 1956.

SKINSHEEN

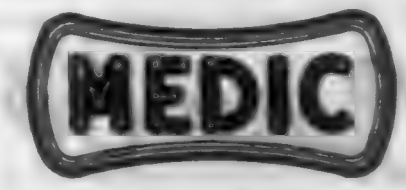
For Dancing Costumes.
First use Nov. 6, 1956.

SN 29,814. Nessi Creations, Inc., New York, N. Y. Filed May 10, 1957.

NESSI

For Women's Dresses and Apparel Comprising Ladies' Knitted and Woven Dresses and Sweaters.
First use Feb. 28, 1957.

SN 31,240. Medic Shoe Manufacturers, Inc., Philadelphia, Pa. Filed June 3, 1957.



For Babies', Infants', Children's, Misses', Youths', Girls', and Boys' Shoes.
First use in June 1956.

SN 36,921. Ronda-Wear Corporation, Wilkes, N. C. Filed Sept. 9, 1957.

BLUSH

For Women's Panties.
First use Mar. 16, 1957.

SN 37,275. Liberty Garment Manufacturing Co., Minneapolis, Minn. Filed Sept. 16, 1957.

Welshman

For Men's and Boys' Topcoats, Overcoats, Stormcoats, and Other Outer Coats.
First use March 1957.

SN 37,584. Merit Clothing Company, Mayfield, Ky. Filed Sept. 20, 1957.

NOBLE MANOR

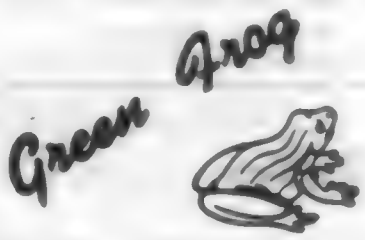
For Men's Suits.
First use Aug. 30, 1957.

SN 38,395. Truval Shirt Company, Inc., New York, N. Y. Filed Oct. 4, 1957.

Truval
AWARD GROUP

Owner of Reg. No. 93,306.
For Shirts.
First use Sept. 1, 1957.

SN 42,019. Good Luck Glove Company, Carbondale, Ill. Filed Dec. 9, 1957.



For Work Gloves.
First use Nov. 12, 1957.

SN 42,037. Adrienne P. Nash, Mathews, Va. Filed Dec. 9, 1957.

Bedettes
by ADRIENNE

For Bed Chamber Garments for the Ill in Homes, Nursing Homes, and Hospitals.
First use on or about June 1, 1956.

SN 43,219. Trundle Bundle Products Co., Duluth, Minn. Filed Dec. 30, 1957.

Cuddler Cub

For Infants' Sleepers, Sleeping Bags, and Infants' and Children's Snowsuits.
First use July 25, 1957.

SN 49,427. The Enro Shirt Company, Inc., Louisville, Ky. Filed Apr. 10, 1958.

Magicaire

For Dress, Negligee and Sport Shirts and Pajamas for Men.
First use in September 1956.

SN 52,159. Russ Togs, Inc., New York, N. Y. Filed May 22, 1958.

LANA D'ORO

The word "Lana" is disclaimed.
For Women's and Girls' Sportswear, Including Skirts, Jackets, Blouses, Shorts, Slacks and Combinations Thereof for Women and Girls.
First use May 13, 1958.

SN 52,750. Marylike Fashion Center, Inc., Berteleo, Ill. Filed June 2, 1958.

MARI-GYM

For Women's Athletic Garments—Namely, Gym Suits.
First use Sept. 8, 1956.

SN 53,165. L'Aiglon Apparel, Inc., Philadelphia, Pa. Filed June 9, 1958.

DAUPHINE

For Women's and Misses' Dresses.
First use May 28, 1958.

SN 54,269. Summit Sportwear Co., Boston, Mass. Filed June 25, 1958.



The words "Original" and "of Boston" are disclaimed apart from the mark as shown. Owner of Reg. Nos. 569,806, 660,162, and others.
For Ladies' and Misses' Sportswear—Namely, Skirts and Shorts.
First use on or before Mar. 1, 1958.

SN 55,469. Goodyear Rubber Company, Middletown, Conn. Filed July 17, 1958.



The drawing is lined for red.
For Rubber Boots and Shoes.
First use in January 1917.

SN 55,570. Catalina, Inc., Los Angeles, Calif. Filed July 18, 1958.

SEA LURE

Owner of Reg. No. 638,078.
For Sports Clothes—Namely, Play Suits, Swim Suits, Trunks, Shorts, Sweaters, Caps, Socks, Coats, Jackets, and Robes for Women, Men, Girls, and Boys, and Women's and Girls' Briefs or Panties To Be Worn Under Swim Suits or Sportswear.
First use on or about Nov. 1, 1955.

SN 55,918. Hummel-Landy Mfg. Co., Inc., Miami, Fla. Filed July 24, 1958.

Hiland

For Custom Made Men's Shirts.
First use June 2, 1958.

Class 40—Fancy Goods, Furnishings, and Notions

SN 53,233. Stanley Chasin, d. b. a. Stanley C. P. Company, New York, N. Y. Filed June 10, 1958.



For Combs.
First use Dec. 1, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 693,863. Wm. Simpson, Sons & Co. Inc., New York, N. Y. Filed Aug. 29, 1955.

SIMPSON'S SHAHPUR

Owner of Reg. Nos. 43,540, 63,671, and 222,372.
For Cotton Twill Fabric.
First use July 1955.

SN 28,948. Kagan Textiles Limited, Elland, England. Filed Apr. 26, 1957.



The English translation of the Latin inscription "Curantibus a Scientibus" is "to those who care from those who know."
For Piece Goods Wholly or Mainly of Wool or Worsted and Textile Motoring Rugs.
First use May 1, 1956; in commerce May 1, 1956.

SN 36,250. J. P. Stevens & Co., Inc., New York, N. Y. Filed Aug. 26, 1957.

MINIT PRESS

For Washable Cotton Fabrics Which Have Undergone a Particular Treatment for Wrinkle-Resistance.
First use May 9, 1957.

SN 37,796. Cluett, Peabody & Co., Inc., New York, N. Y. Filed Sept. 23, 1957.

ARROW CAMBRIDGE CLOTH

The word "Cloth" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 75,360 and 429,193.
For Piece Goods Sold Only in Cotton Outer Shirts for Men and Boys.
First use in March 1957.

SN 43,418. R. T. Barwick Mills, Inc., Chamblee, Ga. Filed Jan. 6, 1958.

FONTANA

For Fine Textured Carpets.
First use Sept. 3, 1957.

SN 57,214. Joanna Western Mills Company, Chicago, Ill. Filed Aug. 14, 1958.

REGALITE

For Window Shade Cloth.
First use in June 1957.

SN 57,226. J. P. Stevens & Co., Inc., New York, N. Y. Filed Aug. 14, 1958.

STEVETEEN

Owner of Reg. Nos. 84,763, 653,132, and others.
For Cotton Piece Goods.
First use July 11, 1958.

SN 57,254. John B. Ellison & Sons Co., Ltd., Los Angeles, Calif. Filed Aug. 15, 1958.

SETA ROYALE

The word "Seta," meaning "silk" in Italian, is disclaimed apart from the mark as shown.
For Silk Fabrics.
First use June 2, 1958.

SN 57,255. John B. Ellison & Sons Co., Ltd., Los Angeles, Calif. Filed Aug. 15, 1958.

SETA FRESCO

The word "Seta," meaning "silk" in Italian, is disclaimed apart from the mark as shown.
For Silk Fabrics.
First use June 2, 1938.

Class 44—Dental, Medical, and Surgical Appliances

SN 37,837. Wetzell Gummiwerke Aktiengesellschaft, Hildesheim, Germany. Filed Sept. 25, 1957.

Wetzell

Owner of German Reg. No. 705,879, dated Aug. 29, 1957.
For Hot Water Bottles Made of Rubber.

SN 43,594. Clopay Corporation, Cincinnati, Ohio. Filed Jan. 8, 1958.

MANITIPS

For Perforated Sheets of Plastic Colored Adhesive Film Shaped To Conform to the Shape of the Fingernails, for Use in Lieu of Fingernail Polishes.
First use Dec. 16, 1957.

SN 43,620. Les Vaporisateurs Marcel Franck, Societe Anonyme, Paris, France. Filed Jan. 8, 1958.

BRUMAIRE

Owner of French Reg. No. 376,032, dated Mar. 26, 1947 (Paris); Natl. Inst. No. 407,349.
For Gas Propelled Atomizers for Perfumes and Toilet Waters.

SN 44,369. The W. H. Bassett Company, Derby, Conn. Filed Jan. 21, 1958.

KUSTOM KING

For Manicure Instruments, Including Bladed Instruments.
First use March 1956.

SN 48,833. Ethicon, Inc., Sommerville, N. J., Filed Apr. 1, 1958.

ETHI-GRAFT

Owner of Reg. Nos. 270,970, 616,629, and others.
For Vascular Prothesis.
First use May 3, 1957.

SN 50,272. Arvesen Thermometer Corp., Brooklyn, N. Y. Filed Apr. 22, 1958.

ARTCO CYCLETEMP

For Clinical Thermometers.
First use Aug. 3, 1948.

SN 51,691. Clay-Adams, Inc., New York, N. Y. Filed May 15, 1958.

INTRAMEDIC

Owner of Reg. No. 607,088.
For Stub Adapters for the Attachment of Plastic Tubings to Surgical Fittings.
First use Apr. 17, 1958.

SN 51,868. The Dahlberg Company, Minneapolis, Minn. Filed May 19, 1958.

SOLAR-EAR

For Electronic Hearing Aids.
First use May 1, 1957.
Subj. to Intf. with SN 54,719.

SN 52,181. Wilmot Castle Company, Rochester, N. Y. Filed May 22, 1958.

ULTRA-FLEX

For Surgical Operating Tables.
First use Mar. 28, 1958.

SN 52,413. Hospitaline, Inc., New York, N. Y. Filed May 27, 1958.

GILCO

For Hypodermic Needles.
First use June 14, 1957.

SN 52,695. Helene Curtis Industries, Inc., Chicago, Ill. Filed June 2, 1958.

MIST-O-MATIC

For Steam Generating and Applying Apparatus for Use in Bleaching Hair on the Head.
First use on or about Mar. 21, 1958.

SN 54,719. Zenith Radio Corporation, Chicago, Ill. Filed July 2, 1958.

SOLARIS

For Hearing Aids.
First use Apr. 30, 1958.
Subj. to Intf. with SN 51,868.

Class 45—Soft Drinks and Carbonated Waters

SN 51,145. The Seven-Up Company, St. Louis, Mo. Filed May 6, 1958.

Nothing does it

like Seven-Up!

Owner of Reg. Nos. 252,350, 639,769, and others.
For Soft Drink Beverages.
First use July 27, 1955.

Class 46 — Foods and Ingredients of Foods

SN 689,221. Fisher Flouring Mills Company, Seattle, Wash. Filed June 9, 1955.

Fisher's

HIGH TIDE

The drawing is lined for red. Owner of Reg. Nos. 591,293, 88,863, and others.
For Wheat Flour.
First use in or about 1920 or 1921; in or about 1916 as to "Fisher's" in script superimposed upon a red circle; on or about May 31, 1911, as to "High Tide."

SN 691,800. Tulip Bell Products, New York, N. Y. Filed July 22, 1955.

TULIP BELL PRODUCTS

Applicant disclaims the word "Products."
For Bird Food.
First use Apr. 1, 1948.

SN 694,678. Trinity Packing Company, Inc., Fort Worth, Tex. Filed Sept. 14, 1955. CONCURRENT USE to be restricted to Alabama, Arizona, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, Missouri, New Mexico, Oklahoma, South Carolina, Tennessee, and Texas. Concurrent Use with Reg. No. 557,320 restricted to Connecticut, Delaware, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, and Wisconsin.

"Yummy"

For Vienna Sausage and Corned Beef Hash.
First use June 1, 1949.

SN 696,870. Chun King Sales, Inc., Duluth, Minn. Filed Oct. 21, 1955.

CHUN KING

Owner of Reg. Nos. 422,687 and 501,446.
For Chicken Chow Mein, Beef Chop Suey, and Mushroom Chow Mein.
First use January 1953.

SN 1,676. Food Specialty Co., Inc., Seattle, Wash. Filed Jan. 20, 1956. Sec. 2(f).

Kitty

For Cat Food.
First use 1924.
Subj. to Intf. with SN 28,868.

SN 16,542. Silver Skillet Brands, Inc., Skokie, Ill. Filed Sept. 27, 1956.

SILVER SKILLET

Owner of Reg. Nos. 833,973 and 387,329.
For Canned Chili Beans; Canned Spanish Rice; Canned Beef Gravy; Canned Spaghetti With Sauce and Spaghetti Sauces; Canned Beef Chop Suey; Frozen Corned Beef and Cabbage Dinner Containing Corned Beef, Cabbage, Potatoes, and Peas; Frozen Swiss Steak Dinner Containing Swiss Steak, Potatoes, Gravy, Corn, and Green Beans; and Canned and Frozen Prepared Meats and Beans.
First use on or about Nov. 9, 1955, on canned corned beef hash.

SN 19,678. Herbs by Miller, Angola, N. Y. Filed Nov. 21, 1956. Sec. 2(f).

HERBS BY MILLER

The word "Herbs" is disclaimed apart from the mark as shown.
For Herbs for Food Purposes and a Salt Seasoned With Such Herbs.
First use August 1946.

SN 26,500. Paul Schultz, d. b. a. Schultz Bros., Fort Myers, Fla. Filed May 3, 1957.

Black DIAMOND

The drawing is lined for red.
For Potatoes in Their Natural State.
First use January 1956.

SN 28,063. Philip R. Park, Inc., San Pedro, Calif. Filed Apr. 12, 1957.

SeaZun

For All-Purpose Seasoning.
First use Aug. 8, 1956; July 1955 as to name "Sea Zun."

SN 28,868. Laddie Boy Dog Foods, Inc., Glendale, N. Y. Filed Apr. 25, 1957.

KITTY KAT

For Cat Food.
First use June 1, 1930.
Subj. to Intf. with SN 1,676.

SN 28,936. Harry Glazer, d. b. a. State Products Co., Boston, Mass. Filed Apr. 26, 1957.

Gold Leaf

The drawing is lined for gold.
For Bottled Lime Juice.
First use June 1926.

SN 30,676. A. J. M. Sterneberg, d. b. a. Conimex, Baarn, Netherlands. Filed May 24, 1957.

CONIMEX

Owner of Dutch Reg. No. 127,697, dated Apr. 9, 1957.
For Rice, Spices, Crackers, Soy Sauce, Macaroni, Dehydrated Vegetables, Noodles, Lemon Grass, Chutney, Agar Agar, Chillies, Citrus Leaves, Garlic Powder, Sugar, Dried Salted Fish, Spices and Herbs, Shelled and Unshelled Nuts, Dried Shrimps, Onion Powder, Paprika, Shrimp Paste, Dried Lilly-flower.

SN 31,883. Cafe Chambord, Inc., d. b. a. Chambord Kitchen, New York, N. Y. Filed June 13, 1957.

LE CAFE CHAMBORD

For Pre-Cooked Prepared Frozen Food Products—Namely, Meats, Fishes, Shellfishes, Vegetables, Soups, Crepes Suzettes, Souffles, Cakes, Pies, and Gelatin Based Desserts; Sauce Bigarde, Sauce Bordelaise, Sauce Perigourdine, and Sauce Veronique.
First use 1936.

SN 32,652. Pride of Virginia Poultry Corporation, New Market, Va. Filed June 25, 1957.

STONY BROOK

For Fresh and Frozen Whole and Cut-Up Poultry.
First use Apr. 10, 1956.

SN 32,773. The Pillsbury Company, Minneapolis, Minn., by change of name from Pillsbury Mills, Inc., Minneapolis, Minn. Filed June 27, 1957.

OBELISK

Owner of Reg. No. 29,791.
For Wheat Flour.
First use Aug. 15, 1935.

SN 32,774. The Pillsbury Company, Minneapolis, Minn., by change of name from Pillsbury Mills, Inc., Minneapolis, Minn. Filed June 27, 1957.

OBELISK

Owner of Reg. No. 29,791.
For Wheat Flour.
First use Aug. 15, 1935.

SN 36,429. Comet Rice Mills, Houston, Tex. Filed Aug. 29, 1957.

COMET RELEASE

Owner of Reg. Nos. 77,427, 655,395, and others.
For Rice Oil.
First use June 17, 1957.

SN 36,442. The Jolly Rancher, Incorporated, d. b. a. The Candy Cowboys, Wheat Ridge, Colo. Filed Aug. 29, 1957.

THE CANDY COWBOYS

For Candy.
First use on or about June 1, 1952.

SN 36,628. Societa La Vittoria, Cosenza, Italy. Filed Sept 3, 1957.

LA VICTOIRE

The mark is translated as "the victory."
For Packaged, Dried Figs.
First use Oct. 1, 1956; in commerce Oct. 1, 1956.

SN 37,158. Gourmet Meat Co. Inc., New York, N. Y. Filed Sept. 13, 1957.

PROTECTOSEALED

For Fresh, Frozen, and Smoked Meats and Poultry Packaged in Vinyl Envelopes.
First use July 5, 1957.

SN 38,082. Pierce Packing Company, Billings, Mont. Filed Sept. 30, 1957.

PIERCE

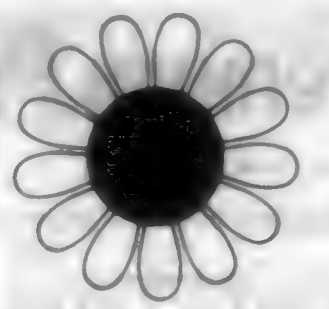
For Cured Meats.
First use Aug. 1, 1941; Nov. 13, 1930, as to "Pierce."

SN 38,099. Sunny Slope Farms, Gaffney, S. C. Filed Sept. 30, 1957.

SUNNY SLOPE

For Canned and Fresh Peaches and Apples.
First use 1911.

SN 38,145. Hawthorn-Mellody Farms Dairy, Inc., Chicago, Ill. Filed Oct. 1, 1957.



For Fluid Milk, Fluid Chocolate Milk, Fluid Cream, Ice Cream, Fluid Buttermilk, Fluid Whipped Cream Topping, Cottage Cheese, and Butter.
First use March 1948.

SN 38,601. Flavanilla Laboratories, Inc., Chicago, Ill. Filed Oct. 9, 1957.

FLAVANILLA

For Imitation Flavors for Bakery and Confectionery Products and Ice Cream.
First use Sept. 12, 1955.

SN 39,510. Bay State Milling Co., Winona, Minn. Filed Oct. 25, 1957.

PAUL Bunyan

The mark consists of the name of a famous legendary character in American folk literature.
For High Gluten Flour Sold Only to the Bakery Trade.
First use Oct. 11, 1957.

SN 39,812. Lane Products Co., Inc., Eugene, Oreg. Filed Oct. 30, 1957.

KING Charles

For Frozen Bakery Products, Particularly Frozen English Muffins.
First use Aug. 13, 1957.

SN 39,906. Ivan W. Smith, d. b. a. Ivan Smith & Sons, Mars Hill, Maine. Filed Oct. 31, 1957.

POTATO KID

No claim of exclusive right is made to "Potato" as used on potatoes.
For Fresh Potatoes.
First use Nov. 15, 1955.

SN 39,908. Standard Brands Incorporated, New York, N. Y. Filed Oct. 31, 1957. Sec. 2(f).

DR. PRICE'S

Owner of Reg. Nos. 16,438, 254,962, and others.
For Baking Powder.
First use 1853.

SN 40,700. Pet Food Company, Portland, Oreg. Filed Nov. 14, 1957.

SPACE RIDER

For Dog and Cat Food.
First use Oct. 31, 1957.

SN 41,017. The Haseret Company, Cleveland, Ohio. Filed Nov. 20, 1957.

LAKE SHORE

For Canned Pumpkin and Tomatoes.
First use 1868.

SN 43,882. Santiago Development Corporation, New York, N. Y. Filed Jan. 13, 1958.

KERY

Owner of Reg. No. 571,331.
For Canned Foods—Namely, Beans, Chickpeas, Papaya Fruit, Meat and Vegetable Stew, Meat and Vegetable Dumplings and Potato Dumplings.
First use Sept. 7, 1956.

SN 44,813. Frionor Kitchens, Inc., Mobile, Ala. Filed Jan. 28, 1958.

VISCOUNT

Applicant disclaims the word "Brand" apart from the mark as shown.
For Precooked Frozen Fish.
First use Nov. 20, 1957.

SN 46,370. Spaulding Bakeries Incorporated, Binghamton, N. Y. Filed Feb. 21, 1958. Sec. 2(f).

SPAULDING

Owner of Reg. Nos. 388,827, 523,458, and others.
For Bakery Goods—Namely, Bread, Cakes, and Cookies.
First use 1908.

SN 46,443. H. W. Given Co., Ardmore, Pa. Filed Feb. 24, 1958.

Ardmore FARMS

For Canned Fruits, Canned Vegetables, Canned Fruit Juices, Canned Vegetable Juices, Oleomargarine, Butter, Grape Juice, Honey, Vinegar, and Cheese.
First use Oct. 1, 1957.

SN 46,467. Loders & Nucoline Limited, London, England. Filed Feb. 24, 1958.

COBERINE

Owner of British Reg. No. 758,083, dated Oct. 1, 1956.
For Edible Vegetable Oils and Edible Vegetable Fats.

SN 46,468. Loders & Nucoline Limited, London, England. Filed Feb. 24, 1958.

EXTRACOA

Owner of British Reg. No. 718,031, dated May 20, 1953.
For Edible Vegetable Oils.

SN 46,551. Jack's Cookie Co., Inc., Baton Rouge, La. Filed Feb. 25, 1958.

SMILIN' FRESH!

Applicant disclaims exclusive rights to the word "Fresh" apart from the mark as shown.
For Cakes, Cookies, Pies, and Crackers.
First use September 1956.

SN 46,731. Clyde A. Harbin, d. b. a. J. C. Harbin's Freeze Rite Mix Company and as Harbin's Freeze Rite Mix Company, Memphis, Tenn. Filed Feb. 27, 1958.

THE GO GO STICK

For Malted Ice Milk Confection on a Stick.
First use Sept. 16, 1957.

SN 49,579. The Grand Union Company, East Paterson, N. J. Filed Apr. 14, 1958.

EARLY MORN

Owner of Reg. No. 334,974.
For Bacon and Margarine.
First use on or about Feb. 2, 1937, on bacon.

SN 51,670. Standard Brands Incorporated, New York, N. Y. Filed May 14, 1958.

STARFLO

For Cereal of Food Grade for Manufacturing Uses, Such as a Nonsticking Agent.
First use Feb. 14, 1958.

SN 51,671. Standard Brands Incorporated, New York, N. Y. Filed May 14, 1958. Sec. 2(f).

FLEISCHMANN'S

Owner of Reg. Nos. 151,760 and 544,843.
For Cereal of Food Grade for Manufacturing Uses, Such as a Nonsticking Agent.
First use June 6, 1957.

SN 51,858. Byron's, Incorporated, Gallatin, Tenn. Filed May 19, 1958.



For Food Products—Namely, Bar-B-Q Sauce, Sliced Beef With Gravy, Barbecued Pork, Sausage, Soups, Broth, Chicken Chow Mein, and Creole Shrimp, Both Frozen and Canned.
First use Mar. 1, 1956.

SN 51,916. J. Linwood Conselyea, d. b. a. Lin Conselyea, Medway, Ohio. Filed May 19, 1958.

BOOSTER BAR

The word "Bar" is disclaimed apart from the mark as shown.
For Candy.
First use Nov. 27, 1957.

SN 52,565. Food Manufacturers, Inc., Hackettstown, N. J. Filed May 29, 1958.

Premium Plus

Owner of Reg. No. 48,621.
For Candy.
First use Apr. 22, 1958.

SN 53,057. Safeway Stores, Incorporated, Oakland, Calif. Filed June 6, 1958.

TOWN HOUSE

Owner of Reg. Nos. 366,897 and 655,603.
For Tomato Catsup, Chili Sauce, Dried Fruits, Dried Vegetables, and Unpopped Popcorn.
First use December 1957 on tomato catsup.

SN 53,342. Mars, Incorporated, Chicago, Ill. Filed June 11, 1958.



Owner of Reg. Nos. 610,024, 659,611, and others.
For Candy.
First use Feb. 14, 1958.

SN 53,431. Sears, Roebuck and Co., Chicago, Ill. Filed June 12, 1958.

COUNTRY INN

For Candies, Fruit Cake, Candied Fruit, Nuts, Jams, Jellies.
First use on or about Oct. 15, 1950.

SN 53,656. H. A. Schultz, d. b. a. Schultz Poultry Farm, Huntland, Tenn. Filed June 16, 1958.

IRIS'

For Poultry Eggs.
First use Feb. 24, 1958.

SN 53,697. Thomas Carvel, Yonkers, N. Y. Filed June 17, 1958.

MAMAPALOOZA

Owner of Reg. Nos. 631,524 and 631,523.
For Frozen Confections Mounted on Either Sticks or in Edible Cones, Liquid Concentrates for Making the Same, Chocolate Coatings for Coating Frozen Confections, Frozen Custards, Ice Creams, Fruit Ices, and Fruit Juice Ices.
First use May 17, 1958.

SN 54,136. Bear State Packers, Inc., Sanger, Calif. Filed June 24, 1958.



No claim is made to the representation of the map of California. Owner of Reg. No. 572,112.
For Fresh Fruits.
First use June 11, 1958.

SN 54,417. Maryland Baking Company, Baltimore, Md. Filed June 27, 1958.

NUTTY BUDDY

For Ice Cream Cones.
First use on or about Oct. 6, 1949.

SN 54,418. Maryland Baking Company, Baltimore, Md. Filed June 27, 1958.

HOKY-POKY

For Ice Cream Cones.
First use on or about Mar. 20, 1953.

SN 54,419. Maryland Baking Company, Baltimore, Md. Filed June 27, 1958.

SKY-HI

For Ice Cream Cones.
First use on or about June 10, 1949.

SN 54,698. Multiforsa AG. (Multiforsa S. A.) (Multiforsa Ltd.), Steinhausen, Zug, Switzerland. Filed July 2, 1958.

BIOGERM-B

Owner of Swiss Reg. No. 166,596, dated Aug. 9, 1957.
For Food Additions of Wheat Germ.

SN 55,020. Orange Rice Milling Company, Orange, Tex. Filed July 9, 1958.

ORMCO

For Uncooked Rice.
First use Apr. 25, 1958.

SN 55,102. Anthony Abbate Fruit Distributors, Inc., Fresno, Calif. Filed July 11, 1958.

ROYAL BLUSH



For Fresh Fruits and Vegetables.
First use June 13, 1958.

SN 56,448. Buckeye Foods, Inc., Columbus, Ohio. Filed Aug. 1, 1958.

Prontos

For Corn Chips.
First use May 15, 1958.

Class 47 — Wines

SN 53,732. Schenley Industries, Inc., d. b. a. Roma Wine Company, New York, N. Y. Filed June 17, 1958.

"ALLO"
"PARIS"

For Wine.
First use May 14, 1958.

SN 55,104. Alta Vineyards Company, Fresno, Calif. Filed July 11, 1958.

ALTA
WHITE
MAGIC

Owner of Reg. No. 657,240.
For Wines.
First use June 17, 1958.

Class 48 — Malt Beverages and Liquors

SN 50,741. Sterling Brewers, Inc., Evansville, Ind. Filed Apr. 30, 1958.

HAVE A STERLING TIME

Owner of Reg. Nos. 112,495, 600,470, and others.
For Beer.
First use Jan. 23, 1958.

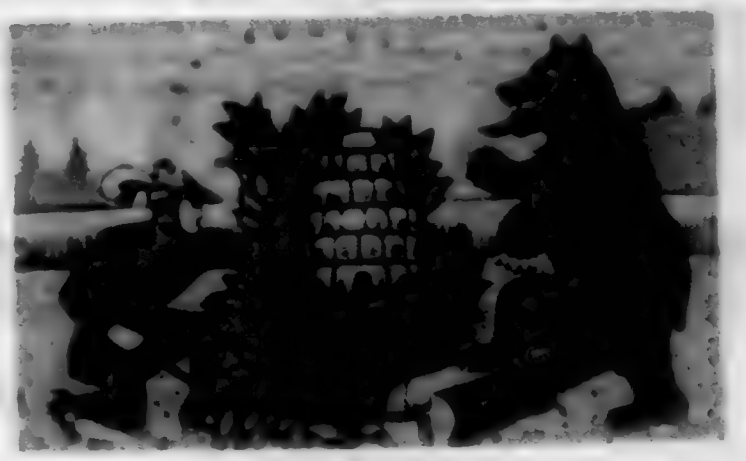
SN 56,394. Duquesne Brewing Company of Pittsburg, Pa., Pittsburgh, Pa. Filed July 31, 1958.

SPORT-I-DUKE

For Beer.
First use Apr. 25, 1958.

Class 49 — Distilled Alcoholic Liquors

SN 1,599. Teucke & Koenig, Hannover, Germany. Filed July 25, 1957.



The wreath design and trees shown in the background are green; the background and hive shown on the drawing are in yellow; the bear is colored brown; and the man is wearing a brown suit, red leggings and a green hood and hat. Owner of German Reg. No. 634,051, dated Feb. 12, 1953.

For Liqueurs.
First use Aug. 12, 1955; in commerce Aug. 12, 1955.

Class 50—Merchandise Not Otherwise Classified

SN 39,726. Hartford Textile Corporation, New York, N. Y. Filed Oct. 29, 1957.

COV-R-GRO

For Polyethylene Film Imprinted With a Grid for Use as a Mulching Sheet and as an Aid in Maintaining Uniformity of Rows and Spacing of Seeds, Seedlings, Plants, Etc.
First use Jan. 30, 1957.

SN 43,581. Aurora Plastics Corporation, West Hempstead, N. Y. Filed Jan. 8, 1958.

AURORA

For Hobby Kits Comprising Metal Plaques and Instructions for the Impression of Pictures on the Metal Plaques; and Hobby Kits Including Plastic Figures and Pieces for Assembly and Material Used in Such Assembly.
First use in 1951.

SN 44,110. The Paine & Williams Company, Cleveland, Ohio. Filed Jan. 16, 1958.

P QUALITY W

The term "Quality" is disclaimed apart from the mark as shown.
For Flexible Rubber Mats.
First use Dec. 4, 1957.

SN 45,185. Worthington Corporation, Milwaukee, Wis. Filed Feb. 3, 1958.

CLIMA-TEST

For Sales Kits for Heating and Cooling Equipment Comprising Folders Containing Selling and Advertising Materials in the Form of Cards, Survey Forms, Advertising Mats, Radio and Television Scripts, Direct Mailing Material, and Window Streamers.
First use Jan. 7, 1958.

SN 45,213. Eugene L. Selders, d. b. a. Eugene L. Selders Company, Kansas City, Mo. Filed Feb. 3, 1958.

GLO-RENT

For Non-Electrical Display Signs.
First use Nov. 13, 1957.

SN 47,705. Air Master Manufacturing Co., Inc., Philadelphia, Pa. Filed Mar. 14, 1958.

STAIR MASTER

For Ladder.
First use Dec. 11, 1957.

SN 32,047 Elnson-Freeman Co., Inc., Long Island City, N. Y. Filed June 5, 1958.

LIGHT THIEF

For Advertising Display Devices for Use Primarily in Stores and Store Windows, and Deriving Illumination From Overhead Light.
First use in April 1957.

SN 53,824. Rubbermaid Inc., Wooster, Ohio. Filed June 18, 1958.

MANORLUX

For Kitchen and Household Articles Made of Rubber Composition, Rubber-Like Composition, Plastic Composition, or the Like—Namely, Mats and Trays.
First use on or about Jan. 8, 1958.

SN 54,175. George E. Mousley, Inc., New York, N. Y. Filed June 24, 1958.

GLITREX

Owner of Reg. No. 547,871.
For Woven and Non-Woven Ornamented Fabrics for Decorative Use Such as a Base Covering Under Christmas Trees, a Table Covering, a Window Display Dressing, for Gift Wrapping, Etc.
First use Apr. 10, 1958

Class 51—Cosmetics and Toilet Preparations

SN 29,129. Apex News and Hair Company, Philadelphia, Pa. Filed Apr. 30, 1957.

APEX NATURALIZER

For Hair Pressing Cream Which Also Conditions and Grooms the Hair.
First use June 1956.

SN 32,249. Richard Hudnut, Morris Plains, N. J. Filed June 19, 1957.

ROYAL VELVET

For Liquid Makeup Used as a Foundation Base.
First use June 6, 1957.

SN 35,789. Alvin Lurie, d. b. a. Nyval Laboratories, Chicago, Ill. Filed Aug. 19, 1957.

Mira-Tex

Owner of Reg. No. 636,066.
For Hair Dressing Known as Hair Conditioner.
First use April 1956.

SN 36,082. Kay Preparations Co., New York, N. Y. Filed Aug. 23, 1957.

Lubricake

For Skin Conditioning Powder in Cake Form.
First use July 20, 1957.

SN 38,995. Johnson & Johnson, New Brunswick, N. J. Filed Oct. 16, 1957. Sec. 2(f).

JOHNSON'S

Owner of Reg. Nos. 88,088, 637,311, and others.
For Baby Powder.
First use 1894.

SN 41,032. Eugene Ligotti, d. b. a. L. D. L. Laboratories, College Point, N. Y. Filed Nov. 20, 1957.

E-Z-DENT

For Dental Cleanser for False Teeth.
First use Mar. 30, 1950.

SN 41,278. Richard Hudnut, Morris Plains, N. J. Filed Nov. 25, 1957.

NEW FACES

For Facial Cleansing Cream.
First use Nov. 14, 1957.

SN 43,094. The Gillette Company, d. b. a. The Toni Company, Boston, Mass. Filed Dec. 27, 1957.

CROWNING GLORY

Owner of Reg. No. 567,656.
For Hair Color Rinse.
First use Dec. 23, 1957.

SN 47,215. Ronson Corporation, Newark, N. J. Filed Mar. 6, 1958.

RONSON

Owner of Reg. Nos. 160,372, 500,467, and 604,190.
For Pre-Shave Lotion and After-Shave Lotion.
First use Jan. 25, 1958.

SN 47,341. Chesebrough-Pond's Inc., New York, N. Y. Filed Mar. 10, 1958.

SPAR

For Cologne, Hair Dressing, and Personal Deodorants.
First use Dec. 3, 1957.

SN 48,173. House of Westmore, Inc., New York, N. Y. Filed Mar. 21, 1958.

PERFECT TOUCH

For Cosmetic Skin Powder and Cosmetic Skin Cream.
First use Dec. 22, 1955.

SN 49,132. Cosmetic Exclusives, Malibu, Calif. Filed Apr. 7, 1958.

JAFRA

For Facial Creams, Eye Cream and Eye Shadow, Foot After Shave, Body and Facial Lotions, Cologne, Perfume, Personal Deodorants, Powder Bases, Face Powder, Rouge, Lipstick, Hair Dressing, Shampoo, and Hair Rinse.
First use Aug. 6, 1956.

SN 49,539. World Wide Industries, New York, N. Y. Filed Apr. 11, 1958.

STAR LINE

For Eye Brow Pencil.
First use Mar. 12, 1958.

SN 49,946. The Kurlash Company, Inc., Rochester, N. Y. Filed Apr. 18, 1958.

EE

For Eye Shadow Stick.
First use Mar. 11, 1958.

SN 50,284. Colgate-Palmolive Company, New York, N. Y. Filed Apr. 24, 1958.

LILY PAT

For Cream Deodorant and for Deodorant Pads Impregnated With a Body Deodorant Preparation.
First use Feb. 25, 1958.

SN 50,420. Suzanne Thierry, Paris, France. Filed Apr. 25, 1958.

BEAUROY

The mark may be translated as "handsome king." Owner of French Reg. No. 470,621, dated Feb. 27, 1958 (Paris); Natl. Inst. No. 103,728.
For Perfumes, Cosmetic Skin and Hair Lotions, Cosmetic Face and Body Powders, Rouge, and Perfume Extracts.

SN 51,032. Lew Lesnick, Brooklyn, N. Y. Filed May 5, 1958.

SPEAK UP

For Liquid Mouth Spray Freshener.
First use Apr. 30, 1958.

SN 51,965. The Princess Marcella Borghese, Inc., New York, N. Y. Filed May 19, 1958.

FORTE

For Base Coat for Fingernail Polishes.
First use Apr. 3, 1958.

SN 52,471. Chesebrough-Pond's Inc., New York, N. Y. Filed May 28, 1958.

SOFT-CONTROL

For Hair Spray.
First use Apr. 29, 1958.

SN 52,534. Var-B Co., Camden, N. J. Filed May 28, 1958.

Var-B

For Scalp and Hair Conditioner.
First use on or about May 7, 1958.

Class 52—Detergents and Soaps

SN 19,288. Arrow Chemical Products, Inc., Detroit, Mich. Filed Nov. 15, 1956.

ARODIP

For Detergent for Washing Glassware, Dishes, and Silverware.
First use on or about July 1, 1952.

SN 43,787. Star Dental Manufacturing Co., Inc., d. b. a. Star Dental Manufacturing Company, Inc., and Star Dental Mfg. Co. Inc., Philadelphia, Pa. Filed Jan. 10, 1958.

SPARKL

For Diamond Dental Instrument Cleaner.
First use on or about Dec. 18, 1957.

SN 49,737. Bardahl Manufacturing Corporation, Seattle, Wash. Filed Apr. 16, 1958. Sec. 2(f).

BARDAHL

Owner of Reg. No. 526,554.
For Chemical Composition for Radiators for Removing and Preventing Scale and Rust, Lubricates Water Pump and Stops Squeak, Cleans and Conditions Entire Cooling System.
First use May 3, 1956.

SN 49,773. The Penetone Company, Tenafly, N. J. Filed Apr. 16, 1958.

FERROTONE

For Rust and Scale Remover.
First use Dec. 9, 1943.

SN 50,606. Deltex Industries, Inc., New York, N. Y. Filed Apr. 29, 1958.

MI-DREAM

For Liquid Detergent for Household Use.
First use Mar. 17, 1958.

SN 55,154. F. M. Lundy, Jr., d. b. a. Ceramo Products Company, Houston, Tex. Filed July 11, 1958.

CERAMO

For Liquid Cleaner for Use on Ceramic Tile and the Like.
First use June 1, 1958.

SN 55,647. Conditionaire, Inc., Cleveland, Ohio. Filed July 21, 1958.

SPOTWICK

For Spot Remover.
First use on or about Oct. 21, 1953.

SN 56,131. J. I. Holcomb Manufacturing Company, Inc., Indianapolis, Ind. Filed July 28, 1958.

CHEMAGIC

For Concentrated, Liquid Synthetic Detergent.
First use July 7, 1958.

SN 58,418. Walter G. Glen, d. b. a. Walter G. Glen Company, Crownsville, Md. Filed Sept. 5, 1958. Sec. 2(f).

NUTYPE

Owner of Reg. No. 158,883.
For Liquid Cleaner for Cleaning Typewriter Type and Metallic or Rubber Rollers.
First use Sept. 15, 1921.

SERVICE MARKS

Class 101—Advertising and Business

SN 1,560. All American Stamp & Premium Corporation of New York, Buffalo, N. Y. Filed Jan. 27, 1956.

ALL AMERICAN "AA"

For Promotion of the Sale of Goods of Others Through the Issuance of Trading Stamps Redeemable in Merchandise or Other Recompense.
First use Dec. 28, 1955.

Class 103—Construction and Repair

SN 44,127. Ralph Nick Skrainka, St. Louis, Mo. Filed Jan. 16, 1958.

SWIM-RINK

For Designing, Engineering, Furnishing Plans and Construction of Multi-Purpose Sports Areas—Namely, Swimming Pools Which Are Convertible to Skating Rinks, Exhibition Floors for the Playing of Basketball, Tennis, Holding of Various Exhibitions and the Like, and in Certain Instances a Surrounding Viewing Stadium.
First use Nov. 2, 1957.

Class 105—Transportation and Storage

SN 43,400. Railway Express Agency, Incorporated, New York, N. Y. Filed Jan. 2, 1958. Sec. 2(f).

AIR EXPRESS

Applicant makes no claim to exclusive use of the word "Air" or of the word "Express" apart from the mark shown.
For Transportation of Property by Express Air Service and Service Incidental Thereto—Namely, Motor Carrier Pickup From Shippers, Terminal Handling, Labeling, Loading, Transporting by Air, Unloading and Motor Carrier Delivery to Consignees.
First use Oct. 25, 1957.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

673,320. KOLORBON. Bigelow-Sanford Carpet Company, Inc. SN 13,218. Pub. 6–11–57. Filed 8–1–56.

673,321. LYCRA. E. I. du Pont de Nemours and Company. SN 47,743. Pub. 11–18–58. Filed 3–14–58.

673,322. PLANTERS GOLD. Paramount Enterprises, Inc. SN 50,826. Pub. 11–18–58. Filed 5–1–58.

Class 2 — Receptacles

673,323. SAF-EG. Sutherland Paper Company. SN 18,920. Pub. 2–25–58. Filed 11–7–56.

673,324. PARTY HOUR AND DESIGN. Time Products, Inc. SN 28,076. Pub. 11–18–58. Filed 4–12–57.

673,325. FLOTAINER. Shell Chemical Corporation. SN 37,280. Pub. 7–1–58. Filed 9–17–57.

673,326. PYRAMID PAKS. Keyes Fibre Company. SN 37,661. Pub. 11–18–58. Filed 9–23–57.

673,327. MAILMATE. The Durafex Co. SN 47,589. Pub. 11–18–58. Filed 3–12–58.

673,328. LOVELITE. Frank E. Nemec, d. b. a. Lovelite Products. SN 48,315. Pub. 11–18–58. Filed 3–24–58.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

673,329. VELDORE. Veldorè Company. SN 34,193. Pub. 11–18–58. Filed 7–22–57.

673,330. LAVALIZE. U. S. Handbag Corp. SN 34,269. Pub. 11–18–58. Filed 7–23–57.

Class 4 — Abrasives and Polishing Materials

673,331. A=M AND DESIGN. American-Marietta Company, O'Cedar Division. SN 42,803. Pub. 11–18–58. Filed 12–23–57.

673,332. "SIR." Omega Shoe Polish Company. SN 48,950. Pub. 11–18–58. Filed 1–14–58.

673,333. GARRY'S. Garry Laboratories, Inc. SN 51,183. Pub. 11–18–58. Filed 5–7–58.

Class 5 — Adhesives

673,334. BARBEREX-HARTSER. Harry E. Glauser, d. b. a. The World's Greatest Barber Shop. SN 36,177. Pub. 11–18–58. Filed 8–26–57.

Class 6 — Chemicals and Chemical Compositions

673,335. RUGASOL. Fritz Schenker-Winkler, d. b. a. Kaspar Winkler & Co. SN 33,344. Pub. 11–18–58. Filed 7–8–57.

673,336. VEON. The Dow Chemical Company. SN 35,753. Pub. 11–18–58. Filed 8–19–57.

673,337. INVERTON. The Dow Chemical Company. SN 35,756. Pub. 11–18–58. Filed 8–19–57.

673,338. INSCO. Insect Control Sales & Service. SN 37,960. Pub. 11–18–58. Filed 9–27–57.

673,339. LONZAVYL. Lonza Electric and Chemical Works Ltd. SN 38,365. Pub. 11–18–58. Filed 10–4–57.

673,340. LONZAPOL. Lonza Electric and Chemical Works Ltd. SN 38,366. Pub. 11–18–58. Filed 10–4–57.

673,341. LONZALIT. Lonza Electric and Chemical Works Ltd. SN 38,367. Pub. 11–18–58. Filed 10–4–57.

673,342. TROLENE. The Dow Chemical Company. SN 39,288. Pub. 11–18–58. Filed 10–22–57.

673,343. COOLANOL. Monsanto Chemical Company. SN 43,326. Pub. 11–18–58. Filed 1–2–58.

673,344. AIRMIST. Consolidated Royal Chemical Corporation. SN 44,378. Pub. 11–18–58. Filed 1–21–58.

673,345. BRINE BUTTONS. International Salt Company. SN 44,544. Pub. 11–18–58. Filed 1–23–58.

673,346. CUSOL. The Seymour Manufacturing Company. SN 44,926. Pub. 11–18–58. Filed 1–29–58.

673,347. NARLENE. The Dow Chemical Company. SN 45,545. Pub. 11–18–58. Filed 2–10–58.

673,348. ELECTROMARK AND DESIGN. The Electromark Corp. SN 46,302. Pub. 11–18–58. Filed 2–21–58.

673,349. FUMETROL. Metal & Thermit Corporation. SN 46,337. Pub. 11–18–58. Filed 2–21–58.

673,350. PAROSTATIK. Cecil Ernest Watts. SN 46,515. Pub. 11–18–58. Filed 2–24–58.

673,351. CAMETTE AND DESIGN. Strouse, Inc. SN 46,575. Pub. 11–18–58. Filed 2–25–58.

673,352. PENTIOL. Hoffmann-La Roche Inc. SN 47,114. Pub. 11–18–58. Filed 3–5–58.

673,353. TABATREX. Glenn Chemical Company, Inc. SN 48,986. Pub. 11–18–58. Filed 4–3–58.

673,354. STOP-IT. Safety Products Co. SN 49,303. Pub. 11–18–58. Filed 4–8–58.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

673,355. BLACK DIAMOND. American Cyanamid Company. SN 52,027. Pub. 11–18–58. Filed 5–21–58.

673,356. TROMAX. Trojan Powder Company. SN 53,440. Pub. 11–18–58. Filed 6–12–58.

Class 10 — Fertilizers

673,357. HH AND DESIGN. The Hubbard-Hall Chemical Company. SN 50,620. Pub. 11–18–58. Filed 4–29–58.

673,358. SUPERGRO. Northern Field Seed Co. SN 52,378. Pub. 11–18–58. Filed 5–23–58.

Class 11 — Inks and Inking Materials

673,359. PLASTICHROME. Reuben R. Frankel, d. b. a. The Kleer-Rite Company. SN 19,362. Pub. 4–15–58. Filed 11–16–56.

673,360. STENOGRAPH. Stenographic Machines, Inc. SN 42,074. Pub. 11–18–58. Filed 12–9–57.

673,361. PROTYPE. Phillips Process Co., Inc. SN 49,776. Pub. 11–18–58. Filed 4–16–58.

Class 12 — Construction Materials

673,362. MEDLEY. The Mosaic Tile Company. SN 20,473. Pub. 11–18–58. Filed 12–5–56.

673,363. POMPEIAN. The Mosaic Tile Company. SN 22,450. Pub. 11–18–58. Filed 1–11–57.

673,364. NAVAJO. The Mosaic Tile Company. SN 22,451. Pub. 11–18–58. Filed 1–11–57.

673,365. EGYPTIAN. The Mosaic Tile Company. SN 22,452. Pub. 11–18–58. Filed 1–11–57.

673,366. NORTHERN LITE. Insulation Engineers, Inc. SN 31,491. Pub. 11–18–58. Filed 6–6–57.

673,367. MOJAVE. Louisiana Concrete Products, Inc. SN 32,190. Pub. 11–18–58. Filed 6–18–57.

673,368. OMNI. Ralph L. Dugger, d. b. a. Omnico. SN 36,865. Pub. 11–18–58. Filed 9–9–57.

673,369. CELCURE. American Celcure Wood Preserving Corporation. SN 37,845. Pub. 11–18–58. Filed 9–26–57.

673,370. RIJTEX. Manhattan Terrasso Brass Strip Co., Inc. SN 39,539. Pub. 11–18–58. Filed 10–25–57.

673,371. HI AND DRI. The Reardon Company. SN 43,340. Pub. 11–18–58. Filed 1–2–58.

673,372. PRE-PAK. Caldwell Lumber Sales. SN 45,116. Pub. 11–18–58. Filed 2–3–58.

673,373. TRU HEX AND DESIGN. Honeycomb Company of America, Inc. SN 48,992. Pub. 11–18–58. Filed 4–3–58.

673,374. EVERGRAIN. United States Plywood Corporation. SN 50,562. Pub. 11–18–58. Filed 4–28–58.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

673,375. METALOOM AND DESIGN. F. P. Smith Wire & Iron Works. SN 30,695. Pub. 11–18–58. Filed 5–24–57.

673,376. TTP AND DESIGN. Chemetron Corporation, by change of name from National Cylinder Gas Company. SN 36,099. Pub. 11–18–58. Filed 8–23–57.

673,377. SYRACO. The Syracuse Stamping Co., Inc. SN 42,554. Pub. 11–18–58. Filed 12–16–57.

673,378. LULU. Indianapolis Reed Co., Inc. SN 48,744. Pub. 11–18–58. Filed 3–31–58.

673,379. MACKENZIE STEAM KING. William H. MacKenzie. SN 49,171. Pub. 11–18–58. Filed 4–7–58.

673,380. HUSKY AND DESIGN. Eugene G. Sutcliffe, d. b. a. Sutcliffe Specialty Company. SN 49,530. Pub. 11–18–58. Filed 4–11–58.

673,381. CLEARFLOR. Chicago Pottery Company. SN 50,024. Pub. 11–18–58. Filed 4–21–58.

673,382. MUD KING. Drilling Equipment Manufacturing Company. SN 50,462. Pub. 11–18–58. Filed 4–28–58.

673,383. HALCOWARE AND DESIGN. Harold Leonard & Co. Inc. SN 50,497. Pub. 11–18–58. Filed 4–28–58.

673,384. INTERNATIONAL AND DESIGN. The International Silver Company. SN 51,351. Pub. 11–18–58. Filed 5–9–58.

673,385. MSK. William H. MacKenzie. SN 51,477. Pub. 11–18–58. Filed 5–12–58.

673,386. KYOVA. Kyova Fiber Pipe Company. SN 51,801. Pub. 11–18–58. Filed 5–16–58.

Class 14 — Metals and Metal Castings and Forgings

673,387. A AND DESIGN. Alloy Steel and Metals Company. SN 36,145. Pub. 11–18–58. Filed 8–26–57.

673,388. AMZIRC. American Metal Climax, Inc. SN 47,997. Pub. 11–18–58. Filed 3–19–58.

673,389. THERMOWELD. Continental Industries, Incorporated, d. b. a. Continental Industries Inc. SN 48,828. Pub. 11–18–58. Filed 4–1–58.

673,390. UNIMACH. Universal-Cyclops Steel Corporation. SN 49,018. Pub. 11–18–58. Filed 4–3–58.

673,391. POWER-FLIGHT 100 ETC. AND DESIGN. United Refining Company. SN 30,284. Pub. 3–18–58. Filed 5–17–57.

Class 15 — Oils and Greases

673,392. PEL-STATE AND DESIGN. Pel-State Oil Company, Inc. SN 44,750. Pub. 11–18–58. Filed 1–27–58.

673,393. VISCRETE. The American Oil Company. SN 46,798. Pub. 11–18–58. Filed 2–28–58.

673,394. COGREASE. Continental Oil Company. SN 46,905. Pub. 11–18–58. Filed 3–3–58.

673,395. CONOLITH. Continental Oil Company. SN 46,906. Pub. 11–18–58. Filed 3–3–58.

673,396. PRE-LUXE. Harley-Davidson Motor Co. SN 47,855. Pub. 11–18–58. Filed 3–17–58.

673,397. STUART AND DESIGN. D. A. Stuart Oil Co., Limited. SN 47,980. Pub. 11–18–58. Filed 3–18–58.

673,398. RUB-R-EZE. Power Petroleum Products. SN 48,659. Pub. 11–18–58. Filed 3–28–58.

Class 16 — Protective and Decorative Coatings

673,399. PEARLESSENCE. Donald F. Duncan, Incorporated. SN 9,962. Pub. 11–18–58. Filed 6–11–56.

673,400. KARKOTE AND DESIGN. Insul-Mastic, Inc. SN 44,824. Pub. 11–18–58. Filed 1–28–58.

673,401. SILA-CHEK. The Sherwin-Williams Company. SN 45,348. Pub. 11–18–58. Filed 2–5–58.

673,402. COAL CAT. Pittsburgh Plate Glass Company. SN 52,429. Pub. 11–18–58. Filed 5–27–58.

673,403. RAYBAKE. Pittsburgh Plate Glass Company. SN 55,511. Pub. 11–18–58. Filed 7–17–58.

673,404. RAYBAKE PLASTOX. Pittsburgh Plate Glass Company. SN 55,512. Pub. 11–18–58. Filed 7–17–58.

673,405. ROSENTHAL'S. Rosenthal Cleans-Quick Company. SN 55,727. Pub. 11–18–58. Filed 7–21–58.

Class 18 — Medicines and Pharmaceutical Preparations

673,406. B-SAVER. Schering Corporation. SN 700,531. Pub. 11–18–58. Filed 12–23–55.

673,407. REPRESENTATION OF RING MASTER. Frank B. Sewell, d. b. a. Sewell Enterprises. SN 24,640. Pub. 11–18–58. Filed 2–18–57.

673,408. REALETS. Carter Products, Inc. SN 31,816. Pub. 11–18–58. Filed 6–12–57.

673,409. CONTINULES. Carter Products, Inc. SN 31,818. Pub. 11–18–58. Filed 6–12–57.

673,410. ELSIX. Warner-Lambert Pharmaceutical Company. SN 34,387. Pub. 11–18–58. Filed 7–25–57.

673,411. CHRONOTABS. White Laboratories, Inc. (1957) (New Jersey corporation), assignee of Schering Corporation, from White Laboratories, Inc. (New Jersey corporation). SN 34,830. Pub. 11–18–58. Filed 8–1–57.

673,412. FAUNAMYCIN. Chas. Pfizer & Co., Inc. SN 37,107. Pub. 11–18–58. Filed 9–12–57.

673,413. ANTISEPTIGEN. Curts Laboratories, Inc. SN 37,868. Pub. 11–18–58. Filed 9–26–57.

673,414. SENODROPS. The Purdue Frederick Company. SN 43,113. Pub. 10–7–58. Filed 12–27–57.

673,415. GROTESQUE FIGURE OF HUMAN HEAD. Vick Chemical Company. SN 44,777. Pub. 11–18–58. Filed 1–27–58.

673,416. PAVULON. Organon Inc. SN 48,043. Pub. 11–18–58. Filed 3–19–58.

673,417. MODUMATE. Abbott Laboratories. SN 50,855. Pub. 11–18–58. Filed 5–2–58.

673,418. EUFADERM. Norman Dartell, d. b. a. Dartell Laboratories. SN 50,936. Pub. 11–18–58. Filed 5–5–58.

673,419. LICORT. Frankay Laboratories, Inc. SN 51,006. Pub. 11–18–58. Filed 5–5–58.

673,420. STERECIDE. Jensen-Salsbery Laboratories, Inc. SN 51,019. Pub. 11–18–58. Filed 5–5–58.

673,421. STEREOMIDE. Jensen-Salsbery Laboratories, Inc. SN 51,020. Pub. 11–18–58. Filed 5–5–58.

673,422. PILOMIOTIN. The Iso-Sol Company, Inc. SN 51,129. Pub. 11–18–58. Filed 5–6–58.

673,423. RESILAX. White Laboratories, Inc. SN 52,084. Pub. 11–18–58. Filed 5–21–58.

673,424. SUPROMENE. The E. Berghausen Chemical Co. SN 52,092. Pub. 11–18–58. Filed 5–22–58.

673,425. TENOC. Hinz Pharmacal Company, Inc. SN 52,206. Pub. 11–18–58. Filed 5–26–58.

673,426. DECADRON. Merck & Co., Inc. SN 52,322. Pub. 11–18–58. Filed 5–26–58.

673,427. HIBIMAL. American Cyanamid Company. SN 52,456. Pub. 11–18–58. Filed 5–28–58.

Class 19—Vehicles

673,428. THE TROPHY TRAILER AND DESIGN. R. C. Albertson, d. b. a. Albertson Manufacturing Co. SN 28,007. Pub. 11–18–58. Filed 9–30–57.

673,429. POLECAT AND DESIGN. Wilson, Nuttall, Raimond Engineers, Inc. SN 43,644. Pub. 11–18–58. Filed 1–8–58.

673,430. KIT STATELINER. Kit Manufacturing Company. SN 48,753. Pub. 11–18–58. Filed 3–31–58.

673,431. APACHE. Vesely Manufacturing Company. SN 51,068. Pub. 11–18–58. Filed 5–5–58.

Class 20—Linoleum and Oiled Cloth

673,432. VERSA-VINYL. Bonnide Mills, Inc. SN 49,345. Pub. 11–18–58. Filed 4–9–58.

Class 21—Electrical Apparatus, Machines, and Supplies

673,433. SOLAR SHINGLE. Hoffman Electronics Corporation. SN 24,988. Pub. 11–18–58. Filed 2–25–57.

673,434. THE ROYALTY OF TELEVISION. Zenith Radio Corporation (Delaware corporation), assignee of Zenith Radio Corporation (Illinois corporation). SN 26,141. Pub. 11–18–58. Filed 3–13–57.

673,435. THE ROYALTY OF HIGH FIDELITY. Zenith Radio Corporation (Delaware corporation), by merger from Zenith Radio Corporation (Illinois corporation). SN 26,142. Pub. 11–18–58. Filed 3–13–57.

673,436. LOEWE OPTA AG AND DESIGN. Loewe Opta Aktiengesellschaft. SN 36,524. Pub. 11–18–58. Filed 5–30–57.

673,437. GRUNDIG. Grundig Radio-Werke G. m. b. H. SN 37,402. Pub. 11–18–58. Filed 9–19–57.

673,438. MICROTEL. Lenkurt Electric Co., Inc. SN 39,536. Pub. 11–18–58. Filed 10–25–57.

673,439. MODULUME. Lam Workshop Inc. SN 40,238. Pub. 11–18–58. Filed 11–7–57.

673,440. ZEB. Zünderwerke Ernest Brün, Zweigniederlassung der Wasag-Chemie AG. SN 41,343. Pub. 11–18–58. Filed 10–14–57.

673,441. ELDEMA. Eldema Corporation. SN 41,698. Pub. 11–18–58. Filed 12–3–57.

673,442. SKODA. Zavody V. I. Lenina Plzen, Narodni Podnik. SN 45,363. Pub. 11–18–58. Filed 2–5–58.

673,443. PHON-O-MATIC. Notifier Corporation. SN 45,590. Pub. 11–18–58. Filed 2–10–58.

673,444. PAP AND DESIGN. Pacific Automation Products, Inc. SN 45,700. Pub. 11–18–58. Filed 2–11–58.

673,445. MAGNA-STRIP. Organic Development Corporation. SN 46,001. Pub. 11–18–58. Filed 2–17–58.

673,446. STACO. Standard Electrical Products Company. SN 46,500. Pub. 11–18–58. Filed 2–24–58.

673,447. EXPLORER. The H. J. Ashe Co., Inc. SN 47,321. Pub. 11–18–58. Filed 3–10–58.

673,448. PARTIAL REPRESENTATION OF CLOCK FACE. Paragon Electric Company. SN 47,415. Pub. 11–18–58. Filed 3–10–58.

673,449. SCOTCHWELD. Minnesota Mining and Manufacturing Company. SN 47,502. Pub. 11–18–58. Filed 3–12–58.

673,450. HI-SEL. Sorensen & Company, Inc. SN 47,787. Pub. 11–18–58. Filed 3–14–58.

673,451. MEAL SENTRY. Borg-Warner Corporation. SN 48,694. Pub. 11–18–58. Filed 3–31–58.

673,452. DYNASLIDE. Robertshaw-Fulton Controls Company. SN 49,193. Pub. 11–18–58. Filed 4–7–58.

673,453. ARMORIB. W. R. Grace & Co. SN 49,924. Pub. 11–18–58. Filed 4–18–58.

673,454. CROWN LITE AND DESIGN. Luxo Lamp Corporation. SN 50,590. Pub. 11–18–58. Filed 1–28–58.

Class 22—Games, Toys, and Sporting Goods

673,455. DIAL-A-SCORE. Superior Industries Corp. SN 28,294. Pub. 11–18–58. Filed 4–16–57.

673,456. TRIPLE PLAY. Catharine B. Pfeiffer. SN 36,471. Pub. 11–18–58. Filed 8–29–57.

673,457. MAC-DAN. Mac-Dan Co. SN 45,988. Pub. 11–18–58. Filed 2–17–58.

673,458. WEEDLER. Williams Gold Refining Company, Inc. SN 47,616. Pub. 11–18–58. Filed 3–12–58.

673,459. ANDIA AND DESIGN. Andia Progress Company, Inc. SN 49,068. Pub. 11–18–58. Filed 4–15–58.

673,460. SKI-CHAMP. Ru-Son Products Co. SN 49,788. Pub. 11–18–58. Filed 4–16–58.

673,461. "CUDDLES." Alexander Doll Company, Inc., d. b. a. Madame Alexander. SN 49,804. Pub. 11–18–58. Filed 4–17–58.

673,462. RAMBLER. United Metal Products Corp. SN 50,127. Pub. 11–18–58. Filed 4–21–58.

673,463. KANDO. Albert Kandarian, Jr., d. b. a. Kando Enterprises. SN 50,232. Pub. 11–18–58. Filed 4–23–58.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

673,464. HELICARB AND GEOMETRICAL DESIGN. Seaport Tool and Manufacturing Company. SN 664,269. Pub. 5–24–55. Filed 4–9–54.

673,465. MODERNAIR. Modernair Corporation. SN 27,709. Pub. 11–18–58. Filed 4–8–57.

673,466. POWERMITE. Tuthill Pump Company. SN 29,672. Pub. 11–26–57. Filed 5–8–57.

673,467. SAF-TURN. Abbott Laboratories. SN 32,160. Pub. 11–18–58. Filed 6–18–57.

673,468. NYCAL ETC. AND DESIGN. The Nycal Company, Inc. SN 37,176. Pub. 11–18–58. Filed 9–13–57.

673,469. ROCKET-CACTUS. B & J Manufacturing Co. SN 37,547. Pub. 11–18–58. Filed 9–20–57.

673,470. PAG. Pag Presswerk Aktiengesellschaft. SN 41,564. Pub. 11–18–58. Filed 11–29–57.

673,471. DESIGN OF CAT. New Era Muffler Corporation. SN 42,523. Pub. 11–18–58. Filed 12–16–57.

673,472. PORTER PUNCHES. Porter Precision Products Company, d. b. a. Porter Precision Products. SN 44,756. Pub. 11–18–58. Filed 1–27–58.

673,473. SPRINGMATIC. Societe Bertin & Cie. SN 45,647. Pub. 11–18–58. Filed 1–20–58.

673,474. THOR. Bristol Aero-Engines Limited. SN 46,202. Pub. 11–18–58. Filed 2–20–58.

673,475. DESIGN OF ABBOT AND CAT. The Abbott Ball Company. SN 48,075. Pub. 11–18–58. Filed 3–20–58.

673,476. EASY-WAY. Standard Steel Works, Inc. SN 48,591. Pub. 11–18–58. Filed 3–27–58.

673,477. AUTO-VAC. National Tool Company, assignee, by mesne assignments, of Auto-Vac Company. SN 50,008. Pub. 11–18–58. Filed 4–21–58.

673,478. DEXTER DE FLOREZ AND DESIGN. Michle-Goss-Dexter, Incorporated. SN 50,375. Pub. 11–18–58. Filed S. R. 4–25–58. Am. P. R. 9–30–58.

673,479. "RIB JOINT." Kelsey-Hayes Company. SN 51,385. Pub. 11–18–58. Filed 5–9–58.

673,480. MULL-ALL. Pettibone Mulliken Corporation. SN 54,430. Pub. 11–18–58. Filed 6–27–58.

673,481. TRILLIUM. Wallace Silversmiths, Inc. SN 55,619. Pub. 11–18–58. Filed 7–18–58.

673,482. STAR STREAM. Wallace Silversmiths, Inc. SN 55,620. Pub. 11–18–58. Filed 7–18–58.

673,483. HEAVENLY STAR. Wallace Silversmiths, Inc. SN 55,621. Pub. 11–18–58. Filed 7–18–58.

673,484. STAR SWEPT. Wallace Silversmiths, Inc. SN 55,622. Pub. 11–18–58. Filed 7–18–58.

673,485. STAR CREST. Wallace Silversmiths, Inc. SN 55,623. Pub. 11–18–58. Filed 7–18–58.

673,486. SWIRLING STAR. Wallace Silversmiths, Inc. SN 57,518. Pub. 11–18–58. Filed 8–19–58.

Class 24 — Laundry Appliances and Machines

673,487. CUSTOMATIC. Bishop David Freeman Co. SN 48,088. Pub. 11–18–58. Filed 3–20–58.

673,488. SPEEDO. Weisbrod-Zürrer Sohne. SN 48,524. Pub. 11–18–58. Filed 3–26–58.

673,489. SWEETHEART. Trio Mills Mfg. Corp. SN 49,099. Pub. 11–18–58. Filed 4–4–58.

Class 25 — Locks and Safes

673,490. MEDALIST. National Lock Co. SN 48,196. Pub. 11–18–58. Filed 3–21–58.

Class 26 — Measuring and Scientific Appliances

673,491. SOLARTRON. The Solartron Electronic Group Limited. SN 13,550. Pub. 11–18–58. Filed 8–7–58.

673,492. LGP–30. Librascope, Incorporated. SN 28,357. Pub. 11–18–58. Filed 4–17–57.

673,493. CATHANODE. Sabins-Dohrmann Co. SN 29,826. Pub. 11–18–58. Filed 5–10–57.

673,494. ROTOLITE. Rotolite Corporation. SN 34,867. Pub. 11–18–58. Filed 8–2–57.

673,495. BABCOCK & WILCOX. The Babcock & Wilcox Company. SN 38,419. Pub. 11–18–58. Filed 10–7–57.

673,496. PARTLOW. The Partlow Corporation. SN 38,707. Pub. 11–18–58. Filed 10–10–57.

673,497. GILBARCO. Gilbert & Barker Manufacturing Company. SN 38,990. Pub. 11–18–58. Filed 10–16–57.

673,498. VIBRA-TINE. The Gyrex Corporation. SN 47,762. Pub. 11–18–58. Filed 3–14–58.

673,499. SPIRACRIT. Biological Research, Inc. SN 48,079. Pub. 11–18–58. Filed 3–20–58.

673,500. SOUNDCRAFT. Reeves Soundcraft Corp. SN 48,433. Pub. 11–18–58. Filed 3–25–58.

673,501. WALRUS. Walrus Manufacturing Company. SN 49,639. Pub. 11–18–58. Filed 4–14–58.

673,502. MONSANTO AND LETTER M. Monsanto Chemical Company. SN 50,376. Pub. 11–18–58. Filed 4–25–58.

673,503. TILT-A-MITE. Minneapolis-Honeywell Regulator Company. SN 50,502. Pub. 11–18–58. Filed 4–28–58.

673,504. PRESSMASTER. Minneapolis-Honeywell Regulator Company. SN 50,506. Pub. 11–18–58. Filed 4–28–58.

673,505. DICTOGRAPH. Dictograph Products Company, Inc. SN 50,606. Pub. 11–18–58. Filed 4–29–58.

673,506. WINDPATROL. Rett Products Co. SN 51,056. Pub. 11–18–58. Filed 5–5–58.

673,507. ROTO-GUARD. The Bin-Dicator Company. SN 51,169. Pub. 11–18–58. Filed 5–7–58.

673,508. ECONOMIX. Lehn & Fink Products Corporation. SN 51,728. Pub. 11–18–58. Filed 5–15–58.

673,509. MINILUX. Sterling-Howard Corporation. SN 51,750. Pub. 11–18–58. Filed 5–15–58.

673,510. VOLDICON. Adage, Inc. SN 51,970. Pub. 11–18–58. Filed 5–20–58.

673,511. SUNBEAM. Sunbeam Corporation. SN 52,527. Pub. 11–18–58. Filed 5–28–58.

Class 28 — Jewelry and Precious-Metal Ware

673,512. REVERE. Taunton Pearl Works. SN 47,528. Pub. 11–11–58. Filed 2–11–58.

Class 31 — Filters and Refrigerators

673,513. CYCLONE. Cyclone Filter Corporation. SN 18,451. Pub. 11–18–58. Filed 9–11–58.

673,514. DURALIFE AND DESIGN. Donaldson Company, Inc. SN 41,697. Pub. 11–18–58. Filed 12–3–57.

Class 32 — Furniture and Upholstery

673,515. KARPEN DUO-FOAM AND DESIGN. Schnadig Corporation, by merger from International Furniture Company. SN 658,114. Pub. 11–18–58. Filed 12–17–53.

673,516. KARPEN DUO-REST AND DESIGN. Schnadig Corporation, by merger from International Furniture Company. SN 658,115. Pub. 11–18–58. Filed 12–17–53.

673,517. PROP-A-SEAT. Alfred J. Ouellette. SN 19,803. Pub. 11–18–58. Filed 11–23–56.

673,518. SKY LINE. Howard Parlor Furniture Company. SN 41,315. Pub. 11–18–58. Filed 11–25–57.

673,519. POLY-U. Herbert Glatt, d. b. a. Magla Products. SN 46,444. Pub. 11–18–58. Filed 2–24–58.

673,520. MARSHALLAN. Marshallan Mfg. Company. SN 50,814. Pub. 11–18–58. Filed 5–1–58.

673,521. CROWN FLEX. Percy A. Rose, d. b. a. Crown Flex Corporation. SN 50,926. Pub. 11–18–58. Filed 5–2–58.

673,522. BLUE GOOSE. Schadt and Mathewson. CONSOLIDATED CERTIFICATE. SN 51,945, pub. 11–11–58, filed 5–19–58, Cl. 32; SN 51,946, pub. 11–11–58, filed 5–19–58, Cl. 42.

673,523. REST GUARD. Slumber Products Corporation, d. b. a. Sealy Mattress Company. SN 56,885. Pub. 11–18–58. Filed 8–8–58.

Class 34 — Heating, Lighting, and Ventilating Apparatus

673,524. REGAL AND DESIGN. Wright Manufacturing Company. SN 48,519. Pub. 11–18–58. Filed 2–24–58.

673,525. SID HARVEY'S AND DESIGN. Sid Harvey, Inc. SN 48,279. Pub. 11-18-58. Filed 3-24-58.

673,526. SH AND DESIGN. Sid Harvey, Inc. SN 48,280. Pub. 11-18-58. Filed 3-24-58.

673,527. RITE-FLO AND DESIGN. Lemly Manufacturing Co. Inc. SN 49,590. Pub. 11-18-58. Filed 4-14-58.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

673,528. DILL'CO. The Dill Manufacturing Company. SN 50,988. Pub. 11-18-58. Filed 5-5-58.

Class 36—Musical Instruments and Supplies

673,529. JOY AND DESIGN. Joy Records, Corp. SN 22,056. Pub. 11-18-58. Filed 1-3-57.

673,530. DUST BUG. Cecil Ernest Watts. SN 46,516. Pub. 11-18-58. Filed 2-24-58.

673,531. SPIN-A-TUNE. Mold Craft, Inc. SN 46,771. Pub. 11-18-58. Filed 3-31-58.

Class 37—Paper and Stationery

673,532. GLENDURA. Imperial Paper and Color Corporation. SN 30,586. Pub. 11-18-58. Filed 8-23-57.

673,533. STA-KOLD. Union Bag-Camp Paper Corporation. SN 38,503. Pub. 11-18-58. Filed 10-7-57.

673,534. LITHO-PRINT. Eberhard Faber Pencil Company. SN 40,929. Pub. 11-18-58. Filed 11-19-57.

673,535. WAXON. Waxon-Carboff, Inc. SN 41,783. Pub. 11-18-58. Filed 12-4-57.

673,536. CARBOFF. Waxon-Carboff, Inc. SN 41,784. Pub. 11-18-58. Filed 12-4-57.

673,537. MARVALON. Kimberly-Clark Corporation. SN 47,866. Pub. 11-18-58. Filed 3-17-58.

Class 38—Prints and Publications

673,538. CHILDREN'S SAFETY PROGRAM. John B. Healy, assignee of National Safety Book Publishers. SN 37,285. Pub. 11-18-58. Filed 9-16-57.

673,539. GOODETIX IDENTIFIERS. Goodrex Products Corporation. SN 41,701. Pub. 11-18-58. Filed 12-3-57

673,540. LIFE CONSISTS OF MANY AN IF AND DESIGN. Roscoe C. Boswell. SN 42,630. Pub. 11-18-58. Filed 12-18-57.

673,541. MOTTOGRAM. The Stevens-Davis Company. SN 44,933. Pub. 11-18-58. Filed 1-29-58.

673,542. THE LIVING WILDERNESS. The Wilderness Society. SN 49,102. Pub. 11-18-58. Filed 4-4-58.

673,543. JINGO. Oliver D. Rogers and John C. Kennedy. SN 51,303. Pub. 11-18-58. Filed 4-28-58.

Class 39—Clothing

673,544. CROWN COLONY AND DESIGN. John Bell, d. b. a. Bell Importing Company. SN 18,722. Pub. 11-5-57. Filed 9-10-56.

673,545. SAVINO. City Stores Company. SN 26,686. Pub. 8-18-58. Filed 3-22-57.

673,546. FRAMEX. Framex International. SN 31,316. Pub. 11-18-58. Filed 6-4-57.

673,547. SUSIE LONG LEGS. S. Augstein & Co., Inc. SN 34,280. Pub. 8-18-58. Filed 7-24-57.

673,548. MATERNITY SASH. Le Monde Corset Company. SN 35,274. Pub. 11-18-58. Filed 8-9-57.

673,549. ROCK-KNIT. Goodstein Bros. & Co., Inc. SN 35,928. Pub. 11-18-58. Filed 8-21-57.

673,550. SANISHIELD PRODUCTS COMPANY AND DESIGN. Harry H. Lerner, d. b. a. Sani-Shield Products Company. SN 37,886. Pub. 11-18-58. Filed 9-26-57.

673,551. TAPE-O-LAST. Her Majesty Underwear Company. SN 40,172. Pub. 11-18-58. Filed 11-6-57.

673,552. FREELITE. Arthur H. Freedberg Co. SN 41,014. Pub. 11-18-58. Filed 11-20-57.

673,553. STAY THERE! Hollywood-Maxwell Co. SN 42,128. Pub. 11-18-58. Filed 12-10-57.

673,554. BAN-LON. Joseph Bancroft & Sons Co. SN 42,574. Pub. 11-18-58. Filed 12-17-57.

673,555. LLAMALOOM. Hickey-Freeman Company. SN 44,069. Pub. 11-18-58. Filed 1-16-58.

673,556. DRI-GARD AND DESIGN. John Yeargain, Inc. SN 45,297. Pub. 11-4-58. Filed 2-4-58.

673,557. WHITE BULL AND DESIGN. Good Luck Glove Company. SN 45,387. Pub. 11-18-58. Filed 2-6-58.

673,558. STEMTITE. Capezio, Inc. SN 46,706. Pub. 11-18-58. Filed 2-27-58.

673,559. RUTHENE. Co-Pilot, Inc. SN 47,045. Pub. 11-18-58. Filed 3-4-58.

673,560. DADEDO. Wispee Corp. SN 47,542. Pub. 11-18-58. Filed 3-11-58.

673,561. ANN ARBER. Harold Levy. SN 48,378. Pub. 11-18-58. Filed 3-24-58.

673,562. SUZY OF PARIS. United Mills Corporation. SN 48,519. Pub. 11-18-58. Filed 3-26-58.

673,563. WILLIAM LESLIE. Irving Rosen. SN 48,584. Pub. 11-18-58. Filed 3-27-58.

673,564. MR. JOHN. Mr. John, Inc. SN 48,638. Pub. 11-18-58. Filed 3-28-58.

673,565. CHEMBATH. Flexnit Company, Inc. SN 48,978. Pub. 11-18-58. Filed 4-3-58.

673,566. KAYLON. Kaylon Incorporated. SN 49,161. Pub. 11-18-58. Filed 4-7-58.

673,567. TOMMIES. Kaylon Incorporated. SN 49,162. Pub. 11-18-58. Filed 4-7-58.

673,568. KIT-CRAFT. Max Udell Sons & Co. Inc. SN 49,721. Pub. 11-18-58. Filed 4-15-58.

673,569. MR. PHILIP. Argo Knitting Mills, Inc. SN 49,896. Pub. 11-18-58. Filed 4-18-58.

673,570. BETTY HOPE. H. B. I. Knitting Mills, Inc. SN 50,050. Pub. 11-18-58. Filed 4-21-58.

673,571. WEE BIT. Lowel Manufacturing Co., Inc. SN 50,074. Pub. 11-18-58. Filed 4-21-58.

673,572. "ONE-TWENTY-ONE." La Jolla Sportswear Company. SN 50,167. Pub. 11-18-58. Filed 4-22-58.

673,573. JELLY BEAN. Shoe Corporation of America. SN 50,737. Pub. 11-18-58. Filed 4-30-58.

673,574. SLIM JIM. Shoe Corporation of America. SN 50,738. Pub. 11-18-58. Filed 4-30-58.

673,575. HALF-BREED. G. H. Bass & Co. SN 50,867. Pub. 11-18-58. Filed 5-2-58.

673,576. PLUS FIFTY. Protective Footwear Service Limited. SN 51,372. Pub. 11-18-58. Filed 5-9-58.

673,577. SUGAR PLUM. International Latex Corporation. SN 51,568. Pub. 11-18-58. Filed 5-13-58.

673,578. JOSHUA. Petite Miss Co. SN 51,656. Pub. 11-18-58. Filed 5-14-58.

673,579. MIMINCK. Petite Miss Co. SN 51,657. Pub. 11-18-58. Filed 5-14-58.

673,580. SHORT STORIES. O'Bryan Bros., Inc. SN 51,933. Pub. 11-18-58. Filed 5-19-58.

673,581. DISCREET. Formald Co. SN 51,934. Pub. 11-18-58. Filed 5-20-58.

673,582. FANCIFUL REPRESENTATION OF HUMAN. Haymaker Sports, Inc. SN 52,043. Pub. 11-18-58. Filed 5-21-58.

Class 40—Fancy Goods, Furnishings, and Notions

673,583. SPOOL POOL. Edward C. Koch, d. b. a. Koch Products. SN 51,718. Pub. 11–18–58. Filed 5–15–58.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

673,522. CONSOLIDATED CERTIFICATE. See Class 32.

673,584. THUNDERBIRD. McCampbell & Company, Inc. SN 2,303. Pub. 3–4–58. Filed 2–8–56.

673,585. STURDI-KROME. Simon Kunst & Co. Inc. SN 37,505. Pub. 11–18–58. Filed 9–19–57.

673,586. GUARAN-TONED. Shulman Fabrics, Inc. SN 37,525. Pub. 11–18–58. Filed 9–19–57.

673,587. ROYAL PARIS AND DESIGN. Etablissements Steiner Freres Societe Anonyme. SN 45,728. Pub. 11–18–58. Filed 2–12–58.

673,588. GARIGUE. Edmund Garigue. SN 46,929. Pub. 11–18–58. Filed 3–3–58.

673,589. EVERGLAZE AND DESIGN. Joseph Bancroft & Sons Co. SN 48,958. Pub. 11–18–58. Filed 4–3–58.

673,590. HALLMARK CARPETS. Jesse F. Callaway, Jr., d. b. a. Hallmark Carpet House. SN 50,020. Pub. 11–18–58. Filed 4–21–58.

673,591. WELLINGTON. Beacon Manufacturing Company. SN 50,209. Pub. 11–18–58. Filed 4–23–58.

673,592. NORTHWEAVE. A. Sagner's Son. SN 51,292. Pub. 11–18–58. Filed 5–8–58.

673,593. TAPISRUG. Edward Fields Incorporated. SN 51,556. Pub. 11–18–58. Filed 5–13–58.

673,594. TACUBA. Reliable Textile Company, Inc. SN 51,813. Pub. 11–18–58. Filed 5–16–58.

673,595. SINGALLA. Reliable Textile Company, Inc. SN 51,814. Pub. 11–18–58. Filed 5–16–58.

673,596. UMBRIA. Reliable Textile Company, Inc. SN 51,815. Pub. 11–18–58. Filed 5–16–58.

673,597. TIROLIO. Reliable Textile Company, Inc. SN 51,816. Pub. 11–18–58. Filed 5–16–58.

Class 43—Thread and Yarn

673,598. TEVIRON. Teikoku Rayon Company Limited. SN 24,475. Pub. 11–18–58. Filed 2–15–57.

673,599. SPUN BLACK. Industrial Rayon Corporation. SN 41,207. Pub. 11–18–58. Filed 6–17–57.

673,600. FLEECE GOLD. Oregon Worsted Company. SN 45,432. Pub. 11–18–58. Filed 2–3–58.

673,601. LYCRA. E. I. du Pont de Nemours and Company. SN 47,744. Pub. 11–18–58. Filed 3–14–58.

Class 44—Dental, Medical, and Surgical Appliances

673,602. THEREXERCISE. Herman Krauss. SN 34,438. Pub. 11–18–58. Filed 7–26–57.

673,603. STYLEX. Don Baxter, Inc. SN 46,273. Pub. 11–18–58. Filed 2–21–58.

673,604. PEERLESS. Brooks Appliance Company, Inc. SN 49,042. Pub. 11–18–58. Filed 4–4–58.

Class 45—Soft Drinks and Carbonated Waters

673,605. JC AND DESIGN. Crystal Spring Bottling Works Limited, d. b. a. John Collins of Canada. SN 10,406. Pub. 11–18–58. Filed 6–16–58.

673,606. BIG 12 AND DESIGN. Kist Double Cola Bottling Company, Inc. SN 39,568. Pub. 11–18–58. Filed 10–14–57.

Class 46—Foods and Ingredients of Foods

673,607. MOGEN DAVID AND DESIGN OF STAR. Mogen David Wine Corporation, assignee of Asher Scharfstein, d. b. a. Mogen David Candy Co. SN 669,806. Pub. 1–24–56. Filed 7–12–54.

673,608. CRANSWEETS. Wisconsin Alumni Research Foundation. SN 677,469. Pub. 6–26–56. Filed 11–29–54.

673,609. TOPMOST. General Grocer Company. SN 689,620. Pub. 2–26–57. Filed 6–16–55.

673,610. JOE & NEMO. Joe & Nemo, Inc. SN 694,999. Pub. 11–18–58. Filed 9–20–55.

673,611. TWISTETTI. V. Arena & Sons, Inc. SN 11,900. Pub. 11–18–58. Filed 7–11–56.

673,612. SPREDZ. Weston Biscuit Company Inc., d. b. a. Southern Biscuit Company. SN 14,374. Pub. 6–11–57. Filed 8–21–56.

673,613. SOUTHERN CROSS. Wilbur-Ellis Company, assignee of The Tupman Thurlow Co., Inc. SN 15,649. Pub. 12–31–57. Filed 9–13–56.

673,614. FRUIT COCKTAIL. Ferrara Candy Co. SN 20,172. Pub. 4–22–58. Filed 11–30–56.

673,615. PEANUT FLUFF. Sunshine Biscuits, Inc., assignee of Peanut Fluf Company. SN 20,294. Pub. 11–18–58. Filed 12–3–56.

673,616. BY BRUNETTO AND DESIGN. Brunetto Cheese Co., Inc. SN 21,870. Pub. 11–18–58. Filed 12–31–56.

673,617. LAND MARK AND DESIGN. The Farm Bureau Cooperative Association, Inc. SN 45,466. Pub. 11–18–58. Filed 2–7–58.

673,618. NEO-CEBITABS. Merck & Co., Inc. SN 50,308. Pub. 11–18–58. Filed 4–24–58.

673,619. TURBO. The Pillsbury Company, by change of name from Pillsbury Mills, Inc. SN 50,920. Pub. 11–18–58. Filed 5–2–58.

673,620. LADY MARGHERITE. Stella D'Oro Biscuit Co., Inc. SN 51,150. Pub. 11–18–58. Filed 5–6–58.

673,621. HEALTHCO. Healthco, Inc. SN 52,044. Pub. 11–18–58. Filed 5–21–58.

673,622. TENDERFROST. Tenderfrost, Inc. SN 52,355. Pub. 11–18–58. Filed 5–26–58.

673,623. ITALASE. Dairyland Food Laboratories, Inc. SN 52,478. Pub. 11–18–58. Filed 5–28–58.

Class 47—Wines

673,624. BERINGER THE GUEST QUALITY WINE. Beringer Bros., Inc. SN 26,762. Pub. 11–18–58. Filed 3–25–57.

673,625. LAS VEGAS. E. & J. Gallo Winery. SN 45,967. Pub. 11–18–58. Filed 2–17–58.

Class 48—Malt Beverages and Liquors

673,626. CARLSBERG. Carlsberg Bryggerierne, Indehaver Carlsbergfondet, d. b. a. The Carlsberg Breweries. SN 38,590. Pub. 11–18–58. Filed 10–9–57.

673,627. DESIGN OF ELEPHANTS. Carlsberg Bryggerierne, Indehaver Carlsbergfondet. SN 38,592. Pub. 11–18–58. Filed 10–9–57.

Class 49 — Distilled Alcoholic Liquors

673,628. PRECIOUS HEATHER. Campbells (Distillery) Limited. SN 42,923. Pub. 11-18-58. Filed 1-14-58.

Class 50 — Merchandise Not Otherwise Classified

673,629. SPARKLE BRITE. Standard Cellulose & Novelty Co. Inc. SN 2,199. Pub. 3-12-57. Filed S. R. 2-6-56. Am. P. R. 1-8-57.

673,630. DELANO AND DESIGN. Delano Granite Works, Inc. SN 17,709. Pub. 11-18-58. Filed 10-18-56.

673,631. HOUSE OF FUN. Arthur L. Harris, d. b. a. North Shore Figurine Co. SN 28,992. Pub. 11-18-58. Filed 10-18-57.

673,632. ULTI-MAT. Samuel Furiness Mat Co., Inc. SN 46,219. Pub. 11-18-58. Filed 2-20-58.

673,633. CLEARLITE. William A. Borba, d. b. a. Borba Manufacturing Co. SN 48,606. Pub. 11-18-58. Filed 3-25-58.

Class 51 — Cosmetics and Toilet Preparations

673,634. HI! Kenneth Henderson, d. b. a. Andrea Gail. SN 24,694. Pub. 11-18-58. Filed 2-19-57.

673,635. MASCOTA. Ferdinand Mülhens, d. b. a. Eau de Cologne- & Parfümerie-Fabrik Glockengasse No. 4711 gegenüber der Pferdepost von Ferd. Mülhens. SN 31,341. Pub. 11-18-58. Filed 6-4-57.

673,636. HOLLYWOOD 7. Anthony De Falco, d. b. a. De Falchis Company. SN 32,929. Pub. 11-18-58. Filed 7-1-57.

673,637. CILCOLOR. Conte, Societe Anonyme. SN 34,593. Pub. 11-18-58. Filed 7-30-57.

673,638. FOOT PAL. La Bora, Inc. SN 38,547. Pub. 11-18-58. Filed 10-8-57.

673,639. MACROFLOR. Albert Verley & Company. SN 40,289. Pub. 11-18-58. Filed 11-7-57.

673,640. MACROFIX. Albert Verley & Company. SN 40,290. Pub. 11-18-58. Filed 11-7-57.

673,641. CHECK CHECK AND DESIGN. Dorothy Perkins Company, Inc. SN 40,961. Pub. 11-18-58. Filed 11-19-57.

673,642. DELAGAR. Delagar Products, Inc. SN 42,204. Pub. 11-18-58. Filed 12-11-57.

673,643. CENT FLEURS. Natone Company. SN 43,866. Pub. 11-18-58. Filed 1-13-58.

673,644. EMBELLIR. G. A. Davis Incorporated. SN 44,696. Pub. 11-18-58. Filed 1-27-58.

673,645. THE DEVIL. H. R. Laboratories, Inc., d. b. a. H. R. Labs., Gourielli, and Gourielli, Division of H. R. Laboratories, Inc. SN 45,321. Pub. 10-7-58. Filed 2-5-58.

Class 52 — Detergents and Soaps

673,646. CRYPTAN. Sandoz, Inc. SN 38,770. Pub. 11-18-58. Filed 10-11-57.

673,647. ZALPON. Newton, Chambers & Company Limited. SN 39,889. Pub. 11-18-58. Filed 10-31-57.

673,648. SPD. Pennsylvania Refining Company. SN 48,430. Pub. 11-18-58. Filed 3-25-58.

673,649. TYPEX. Wright Chemical Corporation. SN 48,598. Pub. 11-18-58. Filed 3-27-58.

673,650. ROUX AND REPRESENTATION OF TEAR DROPS. Roux Laboratories, Inc. SN 49,388. Pub. 11-18-58. Filed 4-9-58.

673,651. AMAZING. William E. Sievers. SN 50,539. Pub. 11-18-58. Filed 4-28-58.

673,652. SPIRIT AWAY. Kee Lox Manufacturing Company. SN 36,404. Pub. 11-18-58. Filed 7-31-58.

Service Marks

Class 101 — Advertising and Business

673,653. WISE-O. Wise-O-Services, Inc. SN 10,504. Pub. 11-18-58. Filed 6-18-56.

673,654. DOMINO. Loblaw, Inc. SN 20,638. Pub. 11-18-58. Filed 12-7-56.

673,655. DMR. Decision, Inc. SN 22,166. Pub. 11-18-58. Filed 1-7-57.

Class 102 — Insurance and Financial

673,656. SECUR-O-MATIC. Security Benefit Life Insurance Company. SN 38,305. Pub. 11-18-58. Filed 10-3-57.

673,657. DESIGN OF BUFFALO AND OVAL. North American Life and Casualty Company. SN 40,364. Pub. 11-18-58. Filed 11-8-57.

Class 104 — Communication

673,658. VIA GLOBE. Globe Wireless Ltd. SN 36,709. Pub. 11-18-58. Filed 9-5-57.

Class 105 — Transportation and Storage

673,659. TRANS-VANS. Trans-American Van Service, Inc. SN 46,779. Pub. 11-18-58. Filed 2-27-58.

Class 106 — Material Treatment

673,660. DESIGN OF GROTESQUE HUMAN. Federal Stamping Company, d. b. a. Federal Tool and Manufacturing Co. SN 36,365. Pub. 11-18-58. Filed 8-28-57.

Class 107 — Education and Entertainment

673,661. AMERICAN BANDSTAND. Triangle Publications, Inc. SN 37,826. Pub. 11-18-58. Filed 9-25-57.

673,662. PM. Peoples Broadcasting Corporation. SN 42,717. Pub. 5-13-58. Filed 12-19-57.

Collective Membership Mark

Class 200

673,663. AMERICAN COUNCIL ETC. AND DESIGN. American Council of Independent Laboratories, Inc. SN 47,545. Pub. 11-18-58. Filed 3-12-58.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

673,664. Louisville Cap Corporation, Louisville, Ky. SN 45,985. Filed P. R. 2–17–58. Am. S. R. 10–8–58.

"KAP-KIT"

For Portable Carrying Case for Caps, Insignia, Cuff Links, and Personal Jewelry.
First use about Sept. 30, 1957.

Class 6 — Chemicals and Chemical Compositions

673,665. Virginia Smelting Company, West Norfolk, Va. SN 39,559. Filed P. R. 10–25–57. Am. S. R. 11–18–58.

DRI-BATH

For Animal Insecticides in the Nature of Shampoo.
First use Jan. 18, 1957.

Class 12 — Construction Materials

673,666. Sheffield Brick & Tile Company, Sheffield, Iowa. SN 40,190. Filed P. R. 11–6–57. Am. S. R. 12–3–58.

HI-BOND SHEFFIELD BUILDING TILE

For Tile Building Blocks.
First use Oct. 16, 1957.

Class 18 — Medicines and Pharmaceutical Preparations

673,667. C. L. Claycomb, Pittsburgh, Pa. SN 27,282. Filed P. R. 4–1–57. Am. S. R. 8–15–58.

"PILE GONE"

For Medicinal Preparation for the Relief of Hemorrhoids and Piles.
First use on or about June 20, 1955.

673,668. Professional Aids Corp., d. b. a. Professional Products, Port Washington, N. Y. SN 38,485. Filed P. R. 10–7–57. Am. S. R. 10–30–58.

Slim-aids

For Pharmaceutical Tablets To Be Taken as an Aid in Weight Reduction and Appetite Control.
First use September 1955.

673,669. Colonial Dames Company, Ltd., Los Angeles, Calif. SN 48,243. Filed 11–20–58.



For Vitamin Capsules.
First use Oct. 10, 1957.

Class 19 — Vehicles

673,670. Linden Equipment Corporation, Los Angeles, Calif. SN 12,039. Filed P. R. 7–12–56. Am. S. R. 11–20–58.

Motocart

For Motorized Carry-All.
First use Nov. 9, 1955.

Class 22 — Games, Toys, and Sporting Goods

673,671. Adams Action Models, Hawthorne, Calif. SN 45,510. Filed P. R. 2–10–58. Am. S. R. 12–3–58.

ADAMS

For Model Kits for Constructing Toy Replicas of Vehicles and Weapons.
First use Nov. 19, 1957.

Class 23—Cutlery, Machinery, and Tools, Class 46—Foods and Ingredients of Foods and Parts Thereof

673,672. St. John & Co., Chicago, Ill. SN 10,922. Filed P. R. 6-25-58. Am. S. R. 8-18-58.



The drawing is lined for blue, gray, and orange.
For Meat Processing and Packing Equipment.
First use Mar. 1, 1955.

Class 38—Prints and Publications

673,673. Hill Specialties Inc., New York, N. Y. SN 42,647. Filed P. R. 12-16-57. Am. S. R. 11-26-58.

KUPON KALENDAR

For Calendars.
First use Nov. 15, 1957.

673,674. Heating Publishers, Inc., New York, N. Y. SN 31,564. Filed P. R. 5-13-58. Am. S. R. 11-21-58.

GAS HEAT
and comfort cooling

For Periodical Publication.
First use September 1957; in June 1950 as to "Gas Heat."

Class 39—Clothing

673,675. S. D. S. Inc., Los Angeles, Calif. SN 40,378. Filed P. R. 11-8-57. Am. S. R. 10-29-58.

Bra's OF HOLLYWOOD

For Corsets, Brassieres, Bandeaux, Girdles, Corset-Combinations, and Garter Belts.
First use Oct. 18, 1957.

Class 45—Soft Drinks and Carbonated Waters

673,676. The J. R. Watkins Company, Winona, Minn. SN 37,833. Filed P. R. 9-25-57. Am. S. R. 9-10-58.

FRESH-ADE

For Beverage Base for Soft Drinks.
First use Aug. 22, 1957.

673,677. L. S. Heath & Sons, Inc., Robinson, Ill. SN 19,967. Filed P. R. 11-27-56. Am. S. R. 7-15-58.



For Candy.
First use Oct. 15, 1956.

673,678. Melvin D. Lovelace, Dinuba, Calif. SN 35,665. Filed P. R. 8-16-57. Am. S. R. 7-22-58.

THE BEST IN BROAD BREASTS

For Dressed Turkeys.
First use September 1952.

Class 47—Wines

673,679. Nouvelle Maison Cauvieres, Alpes-Maritimes, France. SN 47,208. Filed P. R. 5-6-58. Am. S. R. 11-17-58.



Owner of French Reg. No. 900, dated Jan. 19, 1954 (Cannes); Natl. Inst. No. 28,308.
For Wines.

Class 49—Distilled Alcoholic Liquors

673,680. Robert McNish and Company, Limited, Glasgow, Scotland. SN 38,703. Filed P. R. 10-10-57. Am. S. R. 9-2-58.



The mark consists of the conformation of a bottle used as the container for applicant's whisky.
For Whisky.
First use July 31, 1957; in commerce July 31, 1957.

Class 51—Cosmetics and Toilet Preparations

673,681. Ingram Menthol Company, Inc., New York, N. Y. SN 26,098. Filed P. R. 3–13–57. Am. S. R. 11–28–58.

INGRAM

For Men's Deodorant.
First use Mar. 3, 1957.

673,682. Aloe Creme Laboratories, Inc., Fort Lauderdale, Fla. SN 32,031. Filed P. R. 6–17–57. Am. S. R. 12–1–58.

TWIN SKIN CARE

For Packaged Unit Containing a Jar of Tanning Lotion and a Jar of Skin Lotion for Use on the Skin After Exposure to the Sun and Wind.
First use June 1956.

673,683. Revlon, Inc., New York, N. Y. SN 37,373. Filed P. R. 9–17–57. Am. S. R. 11–21–58.

RED CAVIAR

For Lipstick and Nail Enamel.
First use Aug. 20, 1957.

673,684. Revlon, Inc., d. b. a. Revlon, New York, N. Y. SN 43,627. Filed P. R. 1–8–58. Am. S. R. 11–12–58.

ORANGE FLIP

For Lipstick and Nail Enamel.
First use Oct. 14, 1957.

TRADEMARK REGISTRATIONS RENEWED

123,678. 88. WHITE. Cl. 18. 11–19–18.
124,102. MOTOR BOATING AND DESIGN. Cl. 38. 1–14–19.
124,111. ACIDTRINE. Cl. 45. 1–14–19.
124,268. LAMADOWN. Cl. 43. 1–28–19.
124,339. BLACK HAWK. Cl. 40. 2–4–19.
124,440. MILKY WAY. Cl. 46. 2–18–19.
124,461. CORNER STONE. Cl. 46. 2–18–19.
124,834. DESIGN OF ROPE AND HANDS. Cl. 7. 3–18–19.
125,000. METALEATHER. Cl. 13. 4–1–19.
125,043. DERBY AND DESIGN. Cl. 39. 4–8–19.
355,440. SWEET SIXTEEN. Cl. 45. 2–15–38.
360,142. SECURALOY. Cl. 13. 9–6–38.
360,499. RED CLOVER AND DESIGN. Cl. 1. 9–20–38.
360,760. AVIEX AND DESIGN. Cl. 15. 9–27–38.
362,241. KEEN KOOKER. Cl. 34. 11–15–38.
362,391. FERRO-VI-MANG. Cl. 18. 11–15–38
362,598. ZIP. Cl. 2. 11–22–38.
362,696. STAINLESS-STITCH. Cl. 14. 11–29–38.
362,739. MORDO AND REPRESENTATION OF CHEF. Cl. 46. 11–29–38.
362,764. TRI-CANIN. Cl. 18. 11–29–38.
362,809. COLLINA. Cl. 46. 11–29–38.
362,984. PHELAN'S 1–2 HOUSE PAINTING SYSTEM. Cl. 16. 12–6–38.
363,104. LEVELBEST. Cl. 2. 12–13–38.
363,107. LIEBFRAUMILCH AUS DEM KLOSTERKELLER. Cl. 47. 12–13–38.
363,198. THE LITTLE PLUMBER IN THE CAN AND DESIGN. Cl. 6. 12–13–38.
363,258. PALCO WOOL. Cl. 12. 12–20–38.
363,273. CITRUSTRAP. Cl. 13. 12–20–38.
363,364. GLYDE. Cl. 23. 12–20–38.
363,404. IKAROL. Cl. 16. 12–27–38.
363,619. FOXCO. Cl. 18. 1–3–39.
363,829. STREAMLINE. Cl. 29. 1–10–39.
364,875. BLUE CROSS AND REPRESENTATION OF CROSS. Cl. 6. 1–31–39.
364,633. STYLETONE. Cl. 37. 2–7–39.
364,760. SOL-O-LITE AND DESIGN. Cl. 50. 2–14–39.
365,105. REPRESENTATION OF HAND. Cl. 48. 2–21–39.
365,220. INTENSIFIED. Cl. 48. 2–28–39.
365,296. SELFIX. Cl. 39. 3–7–39.
365,908. DESIGN OF RED AND YELLOW COLORS. Cl. 35. 3–21–39.
366,019. LUCKY LADY. Cl. 46. 3–28–39.
366,393. MAGIC PRINT. Cl. 43. 4–11–39.
366,514. DEWAXIT. Cl. 52. 4–18–39.
366,566. DU PONT. Cl. 52. 4–18–39.
366,685. SEN-SEN AND REPRESENTATION OF DIAGONAL RIBBON. Cl. 46. 4–25–39.
366,851. DU PONT. Cl. 9. 5–2–39.
366,863. WAVETONE. Cl. 51. 5–2–39.
366,882. RUGLYDE. Cl. 15. 5–2–39.
366,922. K & M. Cl. 6. 5–2–39.
367,051. PRINCESS. Cl. 46. 5–9–39.
367,069. OSCAR MAYER. Cl. 46. 5–9–39.
367,127. HI-HO. Cl. 29. 5–9–39.
367,143. SHIP GRAND TURK ETC. AND DESIGN. Cl. 51. 5–9–39.
367,144. DU-FLEX. Cl. 39. 5–9–39.
367,148. PALTERETTES. Cl. 39. 5–9–39.
367,150. PALTER YOUTHFULS. Cl. 39. 5–9–39.
367,247. THE PRINCESS GARDNER. Cl. 8. 5–9–39.
367,297. BLEM. Cl. 4. 5–9–39.
367,303. UNILINE. Cl. 21. 5–9–39.
367,325. SHUR-TRED. Cl. 16. 5–9–39.
367,464. MONARCH. Cl. 37. 5–16–39.

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353,274. NIOX. Cl. 9. 12–28–37.

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38,700. PREMIER. Cl. 35. 7–29–02.
181,744. FANSTEEL. Cl. 6. 3–25–24.
293,954. KODAPAK. Cl. 1. 5–10–32.
299,339. LES CHARMES DU PRINTEMPS. Cl. 5. 11–29–32.
355,192. STATE CENTER. Cl. 46. 3–8–38.
392,192. STATE O GOLD. Cl. 46. 12–16–41.
393,563. CONVOY. Cl. 47. 2–17–42.
416,726. FANWELD. Cl. 14. 9–25–45.
441,060. PLATAMO. Cl. 21. 10–19–48.

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567,885. SAVON DE LA CREME SIMON. Cl. 52.
567,887. DIXIE LEADER ETC. AND DESIGN. Cl. 39.
567,890. INSTA-FREEZE. Cl. 46.
567,892. "THE DRESS THAT CLICKS" AND DESIGN. Cl. 39.
567,895. MELCO. Cl. 46.
567,897. TRAV L BORD AND DESIGN. Cl. 24.
567,903. BLUM-DERFUL. Cl. 46.
567,904. ANATHION. Cl. 18.
567,908. TAPE RITER. Cl. 21.
567,912. FLEXIBLE KONE. Cl. 44.
567,914. RAVING BEAUTY. Cl. 22.
567,916. AMADON ETC. AND DESIGN. Cl. 12.
567,917. VINTON'S ORIGINAL PANSIES. Cl. 39.
567,923. DUNDERRY OF ROCKFORD. Cl. 42.
567,928. 2020. Cl. 39.
567,931. FANCIES. Cl. 7.
567,935. KATOBESOL. Cl. 46.

567,944. AEROPLEX. Cl. 6.
567,946. FRYOLUX. Cl. 14.
567,956. IMPERIAL DANISH I D AND DESIGN. Cl. 46.
567,959. ZERO-KNIT. Cl. 39.
567,961. COSTERMONGER. Cl. 39.
567,962. SHIRLYNN. Cl. 39.
567,965. RARITAN. Cl. 39.
567,966. UNALOY. Cl. 14.
567,968. LUSTER-BAK. Cl. 52.
567,969. HARVESOL. Cl. 14.
567,970. MARLIN. Cl. 39.
567,971. KURTH. Cl. 21.
567,973. NOBILITY. Cl. 39.
567,976. RAYTHEON. Cl. 21.
567,978. HOSE ITE AND DESIGN. Cl. 5.
567,980. MONARCH. Cl. 25.
567,981. BLACK PANTHER. Cl. 21.
567,982. SHOE TIME AND DESIGN. Cl. 39.
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567,989. THERGOT. Cl. 18.
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567,998. TIM'S RANCH. Cl. 39.
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568,030. 88 AND DESIGN. Cl. 18.
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568,041. BLADE WINTERS. Cl. 38.
568,043. POP CILLAN. Cl. 18.
568,045. ORADIOL. Cl. 18.
568,048. "KRINKLELANE." Cl. 42.
568,052. THE ORANGE DISCOURSE ETC. AND DESIGN. Cl. 38.
568,058. SCREENING THE SPORTS. Cl. 38.
568,059. YOUR TV INVESTIGATOR AND DESIGN. Cl. 38.
568,060. KIDS KORNER. Cl. 38.
568,061. ACKET. Cl. 18.
568,062. TV CLINIC. Cl. 38.
568,069. EASY SQUEEZY PARTY. Cl. 39.
568,075. ELMORENE FORMULA 246. Cl. 18.
568,081. HER-TEX. Cl. 39.
568,082. Q. Cl. 18.
568,085. REPRESENTATION OF A MAN COUGHING. Cl. 18.
568,092. VISCURIL. Cl. 7.
568,093. LIGNETTE. Cl. 39.
568,095. ALDINAMIDA. Cl. 18.
568,099. BUCCANEER. Cl. 43.
568,100. CORDEX. Cl. 43.
568,101. FLAGSHIP. Cl. 43.
568,102. HERALD. Cl. 43.
568,103. INTREPID. Cl. 43.
568,111. AUNT MARY BIRTHDAY CLUBS OF AMERICA AND DESIGN. Cl. 100.
568,113. PATRICIA LEE. Cl. 103
568,117. NARTB SEAL OF GOOD PRACTICE ETC. AND DESIGN. Cl. 104.
568,120. MELON HEARTS. Cl. 46.
568,123. REVERSIT. Cl. 29.
568,125. DOLL-E-BATH. Cl. 22.
568,126. BOYSE AND DESIGN. Cl. 29.
568,127. SLIDE-A-DOOR AND DESIGN. Cl. 12.
568,131. LA HABRA. Cl. 46.
568,132. CUT-EASE. Cl. 15.
568,136. LITCHFIELD. Cl. 20.
568,137. RIDGEWAY. Cl. 28.

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410,313. THERMO. Cl. 4. 11-21-44.
566,912. BERTRAM. Cl. 26. 11-18-52.
572,274. DOUBLE PRISMATIC SQUARE. Cl. 26. 8-24-53.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

269,334. BEGIN THE DAY WITH PY.CO.PAY. Cl. 51. 4-1-30. Pycopa Incorporated, Jersey City, N. J. Amended to appear:

BEGIN
THE DAY
WITH

Py·co·pay

349,927. SPRAYMASTER. Cl. 23. 9-14-37. Chicago Flexible Shaft Company. Sunbeam Corporation, Chicago, Ill. Amended: In the statement, column 1, lines 8, 9, and 10, "for moistening laundry, for cleaning windows, for sterilization and disinfection, and" is deleted.

363,492. TATOMIX. Cl. 46. 12-27-38. David Dalsey, doing business as Dalsey Co., Chicago, Ill. Amended:

TATOMIX

565,485. MAKITAKE. Cl. 11. 10-21-52. Wunder Chemical Company, Inc., New York, N. Y. Corrected: In the heading, signature, certificate, lines 3 and 14, and statement, column 1, line 1, after "Company", *Inc.* should be inserted.

565,486. TAKEOVER. Cl. 11. 10-21-52. Wunder Chemical Company, Inc., New York, N. Y. Corrected: In the heading, signature, certificate, lines 3 and 14, and statement, column 1, line 1, after "Company", *Inc.* should be inserted.

568,418. HEAT-LOK. Cl. 2. 12-23-52. Oneida Paper Products, Inc., Clifton, N. J. Corrected: In the statement, column 1, line 6, before "cellophane" *paper and* should be inserted.

596,476. THE FRIENDLY GIANT AND DESIGN. Cl. 12. 2-9-54. Gate City Steel Works, Inc. Gate City Steel, Inc.—Omaha, Omaha, Nebr. Amended to appear:



627,703. HUB'S CHUB. Cl. 22. 5-29-56. Warren D. Hubbard, Jr., Indianapolis, Ind. Corrected: In the certificate, column 2, line 4, "1054" should be deleted and *1954* should be inserted.

647,783. NATIONALINE. Cl. 23. 7-2-57. National Plumbing Stores Corporation, Columbus, Ohio. Amended: In column 1, line 3, after "St.", *now of City Park and Thurman Avenues* is inserted, and in lines 5 and 6, "motor driven pumps for shallow and deep wells" is deleted and *lightweight motor driven pumps for domestic and agricultural use in pumping shallow and deep water wells* is inserted.

653,158. EUPHRATES. Cl. 46. 10-15-57. Charles Movsesian, doing business as Euphrates Bakery, Watertown, Mass. Corrected: In the statement, column 2, line 2, "Aug. 25, 1956", both occurrences, should be deleted and *in 1930* should be inserted.

670,516. ANACARDIOL. Cl. 18. 12-2-58. Mrs. Loredana Lorenzini Cremisini, doing business as Istituto Biochimico Italiano, Milan, Italy. Corrected: In the certificate, column 1, line 1, before "Loredana" *Mrs.* should be inserted, and "Instituto" should be deleted and *Istituto* should be inserted.

670,603. FOIBOS. Cl. 31. 12-2-58. General Engineering Co. Aktiebolag, Stocksund, Sweden. Corrected: In the certificate, column 2, line 1, before "separating" *apparatus for filtering and straining and other apparatus for* should be inserted.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 1—Raw or Partly Prepared Materials

378,725. June 18, 1940. Chromium Mining & Smelting Corporation, Limited, Hamilton, Ontario, and Sault Ste. Marie, Ontario, Canada. Pub. by registrant.

CHROM-X

For Exothermic Metallurgical Chrome Alloying Materials.

401,542. May 25, 1943. Chromium Mining & Smelting Corporation, Limited, Sault Ste. Marie, Ontario, Canada. Pub. by registrant.

NICKEL-X

For Exothermic Metallurgical Nickel Alloying Materials.

401,543. May 25, 1943. Chromium Mining & Smelting Corporation, Limited, Sault Ste. Marie, Ontario, Canada. Pub. by registrant.

SIL-X

For Exothermic Metallurgical Silicon Alloying Materials.

405,123. Jan. 11, 1944. Chromium Mining & Smelting Corporation, Limited, Sault Ste. Marie, Ontario, Canada. Pub. by registrant.

MAN-X

For Exothermic Metallurgical Manganese Alloying Materials.

411,522. Jan. 23, 1945. Chromium Mining & Smelting Corporation, Limited, Sault Ste. Marie, Ontario, Canada. Pub. by registrant.

SLAG-X

For Exothermic Metallurgical Slag Forming Materials.

Class 19—Vehicles

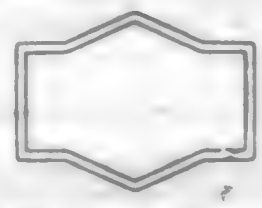
425,928. Dec. 10, 1946. Tucker & Sons, Grass Valley, Calif. Pub. by Tucker and Sons (Inc.), Grass Valley, Calif.

SNO-CAT

For Automotive Vehicles for Traveling Over Snow.

Class 21—Electrical Apparatus, Machines, and Supplies

366,253. Apr. 4, 1939. Cutler-Hammer, Inc., Milwaukee, Wis. Pub. by registrant.



For Electrical Control Apparatus, Electrical Machines, and Electrical Supplies, Consisting of: Controllers for Dynamo-Electric Machines—to-wit, Starting, Stopping, Reversing, and Speed Regulating Apparatus for Motors, and Voltage and Current Regulating Apparatus for Generators, and Like Control Apparatus for Rotary Converters; Current Breakers; Magnetic Brakes for Various Types of Machines; Lifting Magnets and Controls Therefor; Solenoids, Safety Switches, Meter Service and Entrance Switches; Float, Pressure and Other Special Switches; Insulating Bases and Supports for Switches and the Like; Automatic Valve Control Units; Solenoid-Operated Valves; Fuse Panels; Terminal Lugs; Wiring Fixtures and Conduit Fittings Comprising Switches, Switch Boxes and Covers, Attachment Plugs, Taps, Receptacles, Caps, Lamp Sockets, and Cord Connectors; Elevator Control Apparatus, Consisting of Limit Switches, Door Switches, Transfer Switches, and Floor Selector Switches; Speed Regulating and Other Current Control Resistors; Rheostats; Relays; Contactors; Switch Panels; Control Panels; Push Button Switches for Machine Tool Controllers; Motor Starters; Speed Controllers and Regulators Especially Adapted for Marine Service; Resistance Units for Space Heaters; Industrial Heaters; Ovens, and Immersion Water Heaters; Battery Chargers; Starters and Speed Regulators for Fire Pumps, Printing Presses, Paper Making Machines and Oil Well Pumps; Crane and Hoist Controls; Electronic Control Apparatus; Electric Welding Controllers and Electric Refrigerator Control Devices.

Class 22—Games, Toys, and Sporting Goods

363,363. Dec. 20, 1938. Hoover Products, Inc., Youngstown, Ohio. Pub. by Plakie Toys, Inc., Youngstown, Ohio.

PLAKIES

For Child's Rattle.

Class 28—Jewelry and Precious-Metal Ware

431,728. Aug. 5, 1947. Brite Specialty Company, New York, N. Y. Pub. by Brite Manufacturing Co., Providence, R. I.

BRITE

For Leather Wrist Watch Straps and Bracelets, and for Buckles and Metal Findings Made of Base Metal or Plastic for Wrist Watch Straps.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

434,307. Nov. 18, 1947. Atlas Supply Company, Newark, N. J. Pub. by registrant.

ATLAS

For Flexible Fuel and Oil Lines for Use on Automobiles, Being in the Nature of Hose of Small Diameter and Composed of a Plastic Core and a Cover of Plastic Impregnated Braid.

Class 36—Musical Instruments and Supplies

361,603. Oct. 25, 1938. Targ & Dinner Inc., Chicago, Ill. Pub. by registrant.

Olympian

For Musical String, Wind and Percussion Instruments, Consisting of Violins, Guitars, Ukeleles, Mandolins, Banjos, Tenor Banjos, Banjo Mandolins, Cornets, Trumpets, Trombones, Saxophones, Horns, Alto Horns, Baritones, Bass Horns, French Horns, Mellophones, Sousaphones, Clarinets, Alto Clarinets, Bass Clarinets, Flutes, Piccolos, Bassoons, Oboes, English Horns, Bugles, Accordions, Piano Accordions, Drums, Mouth Harmonicas, Xylophones, and Accessories, Consisting of Gut Strings, Steel Strings; Picks for Guitars, Mandolins, and Banjos; Guitar Steels, Extension Nuts, Bridges for Guitars, Mandolins, Banjos, and Violins; Guitar Capos, Rosin, Mutes for Violins, Trumpets, Trombones, and Cornets; Music Stands, Reeds, Pads, Drum Traps, Tambourines, and Jew's Harps.

Class 37—Paper and Stationery

360,231. Sept. 13, 1938. The Northwest Paper Company, Cloquet, Minn. Pub. by registrant.

PEDIGREED

For Paper—Namely, Book, Text, Label, Poster, Drawing, Offset, Bond, Ledger, "Mimeograph," Writing, Manila, Printing, Bristol, Postcard, Sign, Wrapping, and Embossed Paper.

Class 38—Prints and Publications

270,787. May 13, 1930. The Philadelphia Inquirer Co., Philadelphia, Pa. Pub. by Triangle Publications, Inc., Philadelphia, Pa.

The Philadelphia Inquirer

For Daily Newspaper.

Class 39—Clothing

347,593. June 29, 1937. Russeks Fifth Avenue Inc., New York, N. Y. Pub. by registrant.

"WOMAN IN WHITE"

For Clothing for Women—Namely, Ladies' and Misses' Dresses, Coats, Suits, Evening Gowns, Afternoon Dresses, and Dinner Gowns, the Same Being Made of Silk, Satin, Rayon, Wool, Cotton, Knit Goods, Combination of Silk and Wool, or Worsteds.

360,111. Sept. 6, 1938. J. Schoeneman, Inc. (Maryland corporation), Baltimore, Md. Pub. by J. Schoeneman, Incorporated (Delaware corporation), Baltimore, Md.

8 Harness

For Coats, Vests, and Trousers for Men, Youths, and Boys.

362,367. Nov. 15, 1938. The H. A. Seinsheimer Company, Cincinnati, Ohio. Pub. by registrant.

Breezers

For Poplin Suits for Men and Young Men.

362,387. Nov. 15, 1938. The H. A. Seinsheimer Company, Cincinnati, Ohio. Pub. by registrant.

Twinway

For Overcoats or Top Coats for Men and Young Men.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

356,375. Apr. 26, 1938. Graf Co. (partnership), Union City, N. J. Pub. by Graf Company (New Jersey corporation), Union City, N. J.



For Bedspreads.

360,322. Sept. 13, 1938. Sterling Textile Printers, Inc., New York, N. Y. Pub. by Sterling Textile Printers Co., New York, N. Y.



For Silk, Rayons, and Cotton Goods in the Piece.

360,323. Sept. 13, 1938. Sterling Textile Printers, Inc., New York, N. Y. Pub. by Sterling Textile Printers Co., New York, N. Y.



For Silk, Rayons, and Cotton Goods in the Piece.

Class 46—Foods and Ingredients of Foods

122,983. Oct. 1, 1918. The Nulomoline Company, New York, N. Y. Pub. by American Molasses Company, New York, N. Y.

Nilocrystal

For Sugar-Syrups.

361,182. Oct. 11, 1938. The Griffith Laboratories, Inc., d. b. a. Griffith Laboratories, Chicago, Ill. Pub. by registrant.

ZERO

For Salt Composition for Use in Curing Meats and Like Animal Products.

363,926. Jan. 10, 1939. Clarence E. Opperman, d. b. a. L. R. Opperman & Son, Birmingham, Ohio. Pub. by Clarence Opperman, Jr., d. b. a. Opperman Fruit Products Company, Birmingham, Ohio.

Orchard Gold

For Apple Juice and Apple Cider.

Class 49—Distilled Alcoholic Liquors

330,834. Dec. 17, 1935. Booth's Distilleries Limited, London, England. Pub. by The Rum Company (Jamaica) Ltd., Kingston, Jamaica, British West Indies.

ENCORE

For Whiskey.

Class 50—Merchandise Not Otherwise Classified

364,874. Feb. 14, 1939. Boston Woven Hose and Rubber Company, Cambridge, Mass. Pub. by American Biltrite Rubber Co., Inc., Chelsea, Mass.

BULL DOG

For Rubber Coverings for Tension or Take-Off Rolls or Press Rods of Looms.

Class 51 — Cosmetics and Toilet Preparations

356,032. June 28, 1938. Sunbeam Laboratories, Los Angeles, Calif. Pub. by Vonett Sales Company, Los Angeles, Calif.

Nailife

For Fingernail Preserver and Tonic, Nail Polishes, Nail Polish Remover, Nail White, Cuticle Softener, and Cuticle Remover.

442,432. Apr. 12, 1949. Leo Haber, d. b. a. Equalife Laboratories, Los Angeles, Calif. Pub. by Vonett Sales Company, Los Angeles, Calif.

BLUE CROSS

For Liquid Cuticle Remover.

INDEX OF REGISTRANTS

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Abbott Ball Co., The, Hartford, Conn. 673,475, pub. 11–18–58. Cl. 22.
Abbott Laboratories, North Chicago, Ill. 673,417, pub. 11–18–58. Cl. 18.
Abbott Laboratories, North Chicago, Ill. 673,467, pub. 11–18–58. Cl. 22.
Acme Steel Co., Chicago, Ill. 362,696, ren. 11–29–58. Cl. 14.
Acme Steel Co., Chicago, Ill. 363,273, ren. 12–30–58. Cl. 13.
Adage, Inc., Cambridge, Mass. 673,510, pub. 11–18–58. Cl. 26.
Adams Action Models, Hawthorne, Calif. 673,671. Cl. 22.
Aerojet Engineering Corp., Azusa, Calif. 567,944, canc. Cl. 6.
Albertson Mfg. Co.: *See*—
Albertson, R. C.
Albertson, R. C., d. b. a. Albertson Mfg. Co., Pasadena, Calif. 673,428, pub. 11–18–58. Cl. 19.
Alexander Doll Co., Inc., d. b. a. Madame Alexander, New York, N. Y. 673,461 pub. 11–18–58. Cl. 22.
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Alloy Steel and Metals Co., Los Angeles, Calif. 673,387, pub. 11–18–58. Cl. 14.
Aloe Creme Laboratories, Inc., Fort Lauderdale, Fla. 673,662. Cl. 51.
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American Biltrite Rubber Co., Inc.: *See*—
Boston Woven Hose and Rubber Co.
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American Brake Shoe and Foundry Co., The.
American Brake Shoe and Foundry Co., The, also d. b. a. American Brakeblok Division of The American Brake Shoe and Foundry Co., New York, N. Y., and Detroit, Mich., to American Brake Shoe Co., New York, N. Y. 365,908, ren. 3–21–59. Cl. 35.
American Brake Shoe Co.: *See*—
American Brake Shoe and Foundry Co., The.
American Celcure Wood Preserving Corp., Jacksonville, Fla. 673,369, pub. 11–18–58. Cl. 12.
American Chicle Co., Long Island City, N. Y. 306,683, ren. 4–25–59. Cl. 46.
American Council of Independent Laboratories, Inc., New York, N. Y. 673,663, pub. 11–18–58. Cl. 200.
American Cyanamid Co., New York, N. Y. 568,095, canc. Cl. 18.
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American Grease Stick Co.: *See*—
Rosen, Florence.
American Grease Stick Co., Muskegon, Mich. 568,133, canc. Cl. 15.
American-Marietta Co., O'Cedar Division, Chicago, Ill. 673,231, pub. 11–18–58. Cl. 4.
American Metal Climax, Inc., New York, N. Y. 673,288, pub. 11–18–58. Cl. 14.
American Metal Specialties Corp., also known as American Metal Specialties Corp., Hatboro, Pa. 568,125, canc. Cl. 22.
American Molasses Co.: *See*—
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Anderson, Gustav I., d. b. a. Boyse Mfg. Co., Chicago, Ill. 568,126, canc. Cl. 29.
Andia Progress Co., Inc., White Plains, N. Y. 673,469, pub. 11–18–58. Cl. 22.
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Arena, V., & Sons, Inc., Norristown, Pa. 673,611, pub. 11–18–58. Cl. 46.
Argo Knitting Mills, Inc., Schuylkill Haven, Pa. 673,589, pub. 11–18–58. Cl. 39.
Artisan Novelty Co., Gardena, Calif. 567,914, canc. Cl. 22.
Arvey Corp.: *See*—
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Augstein, S., & Co., Inc., College Point, N. Y. 673,547, pub. 2–18–58. Cl. 39.
Aunt Mary's Birthday Clubs of America: *See*—
Ramsey, Lisle.
Auto-Vac Co.: *See*—
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Avon Sole Co., Avon, Mass. 367,144, ren. 5–9–59. Cl. 39.
B & J Mfg. Co., Chicago, Ill. 673,469, pub. 11–18–58. Cl. 23.
Babcock & Wilcox Co., The, New York, N. Y. 673,495, pub. 11–18–58. Cl. 26.
Badenoch, J. J., Co., Chicago, Ill., to The Great Atlantic and Pacific Tea Co., New York, N. Y. 124,440, ren. 2–18–59. Cl. 46.
Bancroft, Joseph, & Sons Co., Wilmington, Del. 673,554, pub. 11–18–58. Cl. 39.
Bancroft, Joseph, & Sons Co., Wilmington, Del. 673,589, pub. 11–18–58. Cl. 42.
Bass, G. H., & Co., Wilton, Maine. 673,575, pub. 11–18–58. Cl. 39.
Baxter, Don, Inc., Glendale, Calif. 673,603, pub. 11–18–58. Cl. 44.
Beacon Mfg. Co., Swannanoa, N. C. 673,591, pub. 11–18–58. Cl. 42.
Beck, Anita, d. b. a. Anita Beck Designs, Minneapolis, Minn. 567,931, canc. Cl. 7.
Beck, Anita, Designs: *See*—
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Bell, John, d. b. a. Bell Importing Co., Long Beach, Miss. 673,544, pub. 11–5–57. Cl. 39.
Berghausen, E., Chemical Co., The, Cincinnati, Ohio. 673,424, pub. 11–18–58. Cl. 18.
Beringer Bros., Inc., St. Helena, Calif. 673,624, pub. 11–18–58. Cl. 47.
Best & Co. Inc., New York, N. Y. 367,127, ren. 5–9–59. Cl. 39.
Bigelow-Sanford Carpet Co., Inc., New York, N. Y. 673,320, pub. 6–11–57. Cl. 1.
Bin-Dictator Co., The, Detroit, Mich. 673,507, pub. 11–18–58. Cl. 26.
Biological Research, Inc., St. Louis, Mo. 673,489, pub. 11–18–58. Cl. 26.
Black Panther Tool Co., Philadelphia, Pa. 567,981, canc. Cl. 21.
Blum's, San Francisco, Calif. 567,903, canc. Cl. 46.
Bonafide Mills, Inc., New York, N. Y. 673,482, pub. 11–18–58. Cl. 20.
Booth's Distilleries Ltd., London, England, by The Rum Co. (Jamaica) Ltd., Kingston, Jamaica, B. W. I. 330,834, 12(c) pub. 2–3–59. Cl. 49.
Borba Mfg.: *See*—
Borba, William A.
Borba, William A., d. b. a. Borba Mfg., South San Francisco, Calif. 673,633, pub. 11–18–58. Cl. 50.
Borg-Warner Corp., Chicago, Ill. 673,451, pub. 11–18–58. Cl. 21.
Boston Woven Hose and Rubber Co., Cambridge, by American Biltrite Rubber Co., Inc., Chelsea, Mass. 364,874, 12(c) pub. 2–3–59. Cl. 50.
Boswell, Roscoe C., Utica, N. Y. 673,540, pub. 11–18–58 Cl. 38.
Bourjois, Inc., New York, N. Y. 299,339, canc. Cl. 51.
Boyse Mfg. Co.: *See*—
Anderson, Gustav I.
Bristol Aero-Engines Ltd., Bristol, England. 673,474, pub. 11–18–58. Cl. 22.
Brite Mfg. Co.: *See*—
Brite Specialty Co.
Brite Specialty Co., New York, N. Y., by Brite Mfg. Co., Providence, R. I. 431,723, 12(c) pub. 2–3–59. Cl. 28.
Brooks Appliance Co., Inc., Marshall, Mich. 673,604, pub. 11–18–58. Cl. 44.
Brunette Cheese Co., Inc., Yonkers, N. Y. 673,616, pub. 11–18–58. Cl. 46.
Bunte Brothers, Chicago, Ill. 568,088, canc. Cl. 18.
Caldwell Lumber Sales, Sacramento, Calif. 673,372, pub. 11–18–58. Cl. 12.
Call, A. F., Estate, to Call Ranch, a co-partnership composed of Lucy T. Kirkley and Mary Call Quilici, to Corona Foothill Lemon Co., Corona, Calif. 367,061, ren. 5–9–59. Cl. 46.
Call Ranch: *See*—
Call, A. F., Estate.
Callaway, Jesse F., Jr., Hallmark Carpet House, Dalton, Ga. 673,590, pub. 11–18–58. Cl. 42.
Campbells (Distillery) Ltd., Glasgow, Scotland. 673,628, pub. 11–18–58. Cl. 49.
Capezio, Inc., New York, N. Y. 673,556, pub. 11–18–58. Cl. 39.
Carbonated Beverages, Inc.: *See*—
Oxford Club Beverage Co.
Carlsberg Breweries, The: *See*—
Carlsberg Bryggerierne, Indehaver Carlsbergfondet.
Carlsberg Bryggerierne, Indehaver Carlsbergfondet, Copenhagen, Denmark. 673,627, pub. 11–18–58. Cl. 48.
Carlsberg Bryggerierne, Indehaver Carlsbergfondet, d. b. a. The Carlsberg Breweries, Copenhagen, Denmark. 673,626, pub. 11–18–58. Cl. 48.
Carpenter Paper Co.: *See*—
Nation Wide Papers, Inc.
Carter Products, Inc., New York, N. Y. 673,406–8, pub. 11–18–58. Cl. 18.
Cash Economy Wholesale Grocery Co.: *See*—
Wilson, John M.

Chemetron Corp., by change of name from National Cylinder Gas Co., Chicago, Ill. 673,376, pub. 11–18–58. Cl. 13.
Chicago Flexible Shaft Co. Sunbeam Corp., Chicago, Ill. 349,927. Am. 7(d). Cl. 23.
Chicago Pottery Co., Chicago, Ill. 673,381, pub. 11–18–58. Cl. 13.
Chromium Mining & Smelting Corp., Ltd., Hamilton, Ontario, and Sault Ste. Marie, Ontario, Canada. 378,725, 12(c) pub. 2–3–59. Cl. 1.
Chromium Mining & Smelting Corp., Ltd., Sault Ste. Marie, Ontario, Canada. 401,542, 12(c) pub. 2–3–59. Cl. 1.
Chromium Mining & Smelting Corp., Ltd., Sault Ste. Marie, Ontario, Canada. 401,543, 12(c) pub. 2–3–59. Cl. 1.
Chromium Mining & Smelting Corp., Ltd., Sault Ste. Marie, Ontario, Canada. 405,123, 12(c) pub. 2–3–59. Cl. 1.
Chromium Mining & Smelting Corp., Ltd., Sault Ste. Marie, Ontario, Canada. 411,522, 12(c) pub. 2–3–59. Cl. 1.
Church Chemical Co., Chicago, Ill. 567,989, canc. Cl. 18.
City Stores Co., Philadelphia, Pa. 673,545, pub. 3–18–58. Cl. 39.
Claycomb, C. L., Pittsburgh, Pa. 673,667. Cl. 18.
Clayton & Lambert Mfg. Co., Louisville, Ky. 567,980, canc. Cl. 25.
Clayton & Lambert Mfg. Co., Louisville, Ky. 567,984, canc. Cl. 25.
Cohan, Henry, New York, N. Y. 568,012, canc. Cl. 44.
Collins, John, of Canada: *See*—
Crystal Spring Bottling Works Ltd.
Colonial Dames Co., Ltd., Los Angeles, Calif. 673,669. Cl. 18.
Colton Razor Blade Co., Boston, Mass. 363,364, ren. 12–20–58. Cl. 28.
Consolidated Royal Chemical Corp., Chicago, Ill. 673,344, pub. 11–18–58. Cl. 6.
Conte, Societe Anonyme, Paris, France. 673,637, pub. 11–18–58. Cl. 51.
Continental Industries, Inc., d. b. a. Continental Industries Inc., Tulsa, Okla. 673,389, pub. 11–18–58. Cl. 14.
Continental Oil Co., Ponca City, Okla. 673,394–5, pub. 11–18–58. Cl. 15.
Co-Pilot, Inc., New York, N. Y. 673,559, pub. 11–18–58. Cl. 39.
Corona Foothill Lemon Co.: *See*—
Call, A. F., Estate.
Creme Simon, Anciennement J. Simon & Cie, Societe Anonyme, Lyon, France. 567,885, canc. Cl. 52.
Cremisini, Loredana L., Mrs., d. b. a. Istituto Biochimico Italiano, Milan, Italy. 670,516, cor. Cl. 18.
Crown Flex Corp.: *See*—
Ross, Percy A.
Crystal Spring Bottling Works Ltd., d. b. a. John Collins of Canada, Waterloo, Quebec, Canada. 673,605, pub. 11–18–58. Cl. 45.
Curcio, V. J., Co.: *See*—
Curcio, Vincent J.
Curcio, Vincent J., d. b. a. V. J. Curcio Co., to Vincent J. Curcio Co., Inc., Jersey City, N. J. 366,863, ren. 5–2–59. Cl. 51.
Curcio, Vincent J., Co., Inc.: *See*—
Curcio, Vincent J.
Curts Laboratories, Inc., Kansas City, Kans. 673,413, pub. 11–18–58. Cl. 18.
Cutler-Hammer, Inc., Milwaukee, Wis. 366,253, 12(c) pub. 2–3–59. Cl. 21.
Cyclone Filter Corp., Longmont, Colo. 673,513, pub. 11–18–58. Cl. 31.
Dairyland Food Laboratories, Inc., Waukesha, Wis. 673,623, pub. 11–18–58. Cl. 46.
Dalsey Co.: *See*—
Dalsey, David.
Dalsey, David, d. b. a. Dalsey Co., Chicago, Ill. 363,492. Am. 7(d). Cl. 46.
Dartell Laboratories: *See*—
Dartell, Norman.
Dartell, Norman, d. b. a. Dartell Laboratories, Los Angeles, Calif. 673,418, pub. 11–18–58. Cl. 18.
Davis, G. A., Inc., San Francisco, Calif. 673,644, pub. 11–18–58. Cl. 51.
Dawnelle, Inc., New York, N. Y. 568,093, canc. Cl. 39.
Decision, Inc., Cincinnati, Ohio. 673,655, pub. 11–18–58. Cl. 101.
De Falchia Co.: *See*—
De Falco, Anthony.
De Falco, Anthony, d. b. a. De Falchia Co., Chicago, Ill. 673,636, pub. 11–18–58. Cl. 51.
Delagar Products, Inc., Rouses Point, N. Y. 673,642, pub. 11–18–58. Cl. 51.
Delano Granite Works, Inc., Delano, Minn. 673,630, pub. 11–18–58. Cl. 50.
Dictograph Products Co., Inc., Jamaica, N. Y. 673,505, pub. 11–18–58. Cl. 26.
Dill Mfg. Co., The, Cleveland, Ohio. 673,528, pub. 11–18–58. Cl. 35.
Dolge, C. B., Co., The, Westport, Conn. 363,198, ren. 12–13–58. Cl. 6.
Donaldson Co., Inc., St. Paul, Minn. 673,514, pub. 11–18–58. Cl. 31.
D'oro, Stella, Biscuit Co., Inc., New York, N. Y. 673,620, pub. 11–18–58. Cl. 46.
Dow Chemical Co., The, Midland, Mich. 673,336–7, pub. 11–18–58. Cl. 6.
Dow Chemical Co., The, Midland, Mich. 673,342, pub. 11–18–58. Cl. 6.
Dow Chemical Co., The, Midland, Mich. 673,347, pub. 11–18–58. Cl. 6.
Dresser Operations, Inc.: *See*—
Security Engineering Co, Inc.
Drilling Equipment Mfg. Co., Oklahoma City, Okla. 673,382, pub. 11–18–58. Cl. 13.
Drug Products Co., Inc., The, Brooklyn, N. Y. 362,891, ren. 11–15–58. Cl. 18.
Dugger, Ralph L., d. b. a. Omnico, Minneapolis, Minn. 673,368, pub. 11–18–58. Cl. 12.
Duncan, Donald F., Inc., Chicago, Ill. 673,389, pub. 11–18–58. Cl. 18.
Dunne Products Co., Miami, Fla. 567,978, canc. Cl. 5.
Du Pont, E. I. de Nemours and Co., Wilmington, Del. 353,274, canc. Cl. 9.
Du Pont, E. I. de Nemours and Co., Wilmington, Del. 366,566, ren. 4–18–59. Cl. 52.
Du Pont, E. I. de Nemours and Co., Wilmington, Del. 366,851, ren. 5–2–59. Cl. 9.
Du Pont, E. I. de Nemours and Co., Wilmington, Del. 673,321, pub. 11–18–58. Cl. 1.
Du Pont, E. I. de Nemours and Co., Wilmington, Del. 673,601, pub. 11–18–58. Cl. 43.
Duraflex Co., The, Miami, Fla. 673,327, pub. 11–18–58. Cl. 2.
Eagle Clothes, Inc., New York, N. Y. 567,928, canc. Cl. 39.
Eastman Kodak Co., Flemington, N. J., and Rochester, N. Y. 567,985, canc. Cl. 42.
Eastman Kodak Co., Rochester, N. Y. 293,954, canc. Cl. 1.
Eau de Cologne-& Parfumerie-Fabrik: *See*—
Mulhens, Ferdinand.
Eberhard Faber Pencil Co., Crestwood, Wilkes-Barre, Pa. 673,534, pub. 11–18–58. Cl. 37.
86 Distributing Co., Sherman Oaks, Calif. 568,030, canc. Cl. 18.
Eldema Corp., El Monte, Calif. 673,441, pub. 11–18–58. Cl. 21.
Electromark Corp., The, Cleveland, Ohio. 673,348, pub. 11–18–58. Cl. 6.
Elmorene Co.: *See*—
Miller and Co.
Empire Mfg. Co., Winder, Ga. 567,887, canc. Cl. 39.
Equalife Laboratories: *See*—
Haber, Leo.
Ercona Camera Corp., New York, N. Y. 572,274, canc. Cl. 26.
Erlanger, Theodor D., Kew Gardens, N. Y. 566,912, canc. Cl. 26.
Etablissements Steiner Freres Societe Anonyme, Paris, France. 673,587, pub. 11–18–58. Cl. 42.
Euphrates Bakery: *See*—
Movsesian, Charles.
Falls City Mills Co., Louisville, Ky., to Interwoven Stocking Co., New Brunswick, N. J. 125,043, ren. 4–6–59. Cl. 39.
Fansteel Metallurgical Corp., North Chicago, Ill. 416,726, canc. Cl. 14.
Fansteel Metallurgical Corp., North Chicago, Ill. 441,060, canc. Cl. 21.
Fansteel Products Co., Inc., North Chicago, Ill. 181,744, canc. Cl. 6.
Farina, Orlando E., Stockton, Calif. 362,800, ren. 11–29–58. Cl. 46.
Farm Bureau Cooperative Association, Inc., The, Columbus, Ohio. 673,617, pub. 11–18–58. Cl. 46.
Federal Stamping Co., d. b. a. Federal Tool and Mfg. Co., Minneapolis, Minn. 673,609, pub. 11–18–58. Cl. 106.
Federal Tool and Mfg. Co.: *See*—
Federal Stamping Co.
Ferrara Candy Co., Chicago, Ill. 673,614, pub. 4–22–58. Cl. 46.
Fibreboard Paper Products Corp.: *See*—
Fibreboard Products Inc.
Fibreboard Products Inc., to Fibreboard Paper Products Corp., San Francisco, Calif. 362,598, ren. 11–22–58. Cl. 2.
Fibreboard Products Inc., to Fibreboard Paper Products Corp., San Francisco, Calif. 363,104, ren. 12–13–58. Cl. 2.
Fields, Edward, Inc., New York, N. Y. 673,593, pub. 11–18–58. Cl. 42.
Fisk Rubber Co., Chicopee Falls and Springfield, Mass. 38,700, canc. Cl. 35.
Flexnit Co., Inc., Elizabeth, N. J. 673,565, pub. 11–18–58. Cl. 39.
Formaid Co., Boston, Mass. 673,581, pub. 11–18–58. Cl. 39.
Foto Fashions, Newark, N. J. 567,892, canc. Cl. 39.
Fox, G., & Co., Inc., Hartford, Conn. 363,619, ren. 1–8–59. Cl. 18.
Framex International, New York, N. Y. 673,546, pub. 11–18–58. Cl. 39.
Frankay Laboratories, Inc., Harrison, N. J. 673,419, pub. 11–18–58. Cl. 18.
Frankel, Reuben R., d. b. a. The Kleer-Rite Co., Chicago, Ill. 673,359, pub. 4–15–58. Cl. 11.
Freedberg, Arthur H., Co., Boston, Mass. 673,552, pub. 11–18–58. Cl. 39.
Freeman, Bishop David, Co., Evanston, Ill. 673,487, pub. 11–18–58. Cl. 24.
Fry's Metal Foundries, Ltd., London, England. 567,946, canc. Cl. 14.
Furiness, Samuel, Mat Co., Inc., Union, N. J. 673,632, pub. 11–18–58. Cl. 50.
Gallo, E. & J., Winery, Modesto, Calif. 673,625, pub. 11–18–58. Cl. 47.
Gardner, P. A., Jr., d. b. a. Prince Gardner, to Prince Gardner Co., Inc., St. Louis, Mo. 367,247, ren. 5–9–59. Cl. 3.
Garigue, Edmund, London, England. 673,588, pub. 11–18–58. Cl. 42.
Garry Laboratories, Inc., Buffalo, N. Y. 673,333, pub. 11–18–58. Cl. 4.
Gate City Steel, Inc.—Omaha: *See*—
Gate City Steel Works, Inc.
Gate City Steel Works, Inc. Gate City Steel, Inc.—Omaha, Omaha, Nebr. 586,476. Am. 7(d). Cl. 12.

General Engineering Co. Aktiebolag, Stocksund, Sweden. 670,608, cor. Cl. 31.
General Grocer Co., St. Louis, Mo. 673,509, pub. 2–26–57. Cl. 46.
Gilbert & Barker Mfg. Co., West Springfield, Mass. 673,497, pub. 11–18–58. Cl. 26.
Glatt, Herbert, d. b. a. Magla Products, Newark, N. J. 673,519, pub. 11–18–58. Cl. 22.
Glauser, Harry E., d. b. a. The World's Greatest Barber Shop, Lawrence Park, Pa. 673,334, pub. 11–18–58. Cl. 5.
Glenn Chemical Co., Inc., Chicago, Ill. 673,358, pub. 11–18–58. Cl. 6.
Globe Wireless Ltd., San Francisco, Calif. 673,658, pub. 11–18–58. Cl. 104.
Godefroy Mfg. Co., St. Louis, Mo. 568,028, canc. Cl. 52.
Good Luck Glove Co., Carbondale, Ill. 673,557, pub. 11–18–58. Cl. 39.
Goodrea Products Corp., Englewood, N. J. 673,539, pub. 11–18–58. Cl. 38.
Goodstein Bros. & Co., Inc., New York, N. Y. 673,549, pub. 11–18–58. Cl. 39.
Grace Electronics Inc., New York, N. Y. 567,906, canc. Cl. 21.
Grace, W. R., & Co., Cambridge, Mass. 673,453, pub. 11–18–58. Cl. 21.
Graf Co., by Graf Co., Union City, N. J. 356,375, 12(c) pub. 2–3–59. Cl. 42.
Grandpa Brands Co.: *See*—
Lehman-Rosenfeld Co., The.
Great Atlantic and Pacific Tea Co., The: *See*—
Badenoch, J. J., Co.
Grierson, Oldham & Co. Ltd., London, England, to J. A. Harth & Co., Oppenheim am Rhine, Germany. 363,107, ren. 12–18–58. Cl. 47.
Griffith Laboratories, Inc., The, Chicago, Ill. 361,182, 12(c) pub. 2–3–59. Cl. 46.
Groves Thread Co., Inc., Gastonia, N. C. 568,099, canc. Cl. 43.
Groves Thread Co., Inc., Gastonia, N. C. 568,100, canc. Cl. 43.
Groves Thread Co., Inc., Gastonia, N. C. 568,101, canc. Cl. 43.
Groves Thread Co., Inc., Gastonia, N. C. 568,102, canc. Cl. 43
Groves Thread Co., Inc., Gastonia, N. C. 568,103, canc. Cl. 43.
Grundig Radio-Werke G. m. b. H., Fuerth, Bayern, Germany. 673,437, pub. 11–18–58. Cl. 21.
Gusler, L. G., d. b. a. Gusler Products Co., Fort Sumner, N. Mex. 410,313, canc. Cl. 4.
Gusler Products Co.: *See*—
Gusler, L. G.
Gyrex Corp., The, Santa Monica, Calif. 673,498, pub. 11–18–58. Cl. 26.
H. B. I. Knitting Mills, Inc., Brooklyn, N. Y. 673,570, pub. 11–18–58. Cl. 39.
H. R. Laboratories, Inc., d. b. a. H. R. Labs, Gourielli, and Gourielli, Division of H. R. Laboratories, Inc., New York, N. Y. 673,643, pub. 10–7–58. Cl. 51.
H. R. Labs, Gourielli, and Gourielli, Division of H. R. Laboratories, Inc.: *See*—
H. R. Laboratories, Inc.
Haber, Lee, d. b. a. Equalife Laboratories, by Vonett Sales Co., Los Angeles, Calif. 442,432, 12(c) pub. 2–3–59. Cl. 51.
Hallmark Carpet House: *See*—
Gallaway, Jesse F., Jr.
Halsey Drug Co., Inc., Brooklyn, N. Y. 364,375, ren. 1–31–59. Cl. 6.
Hanlon & Goodman Co., Belleville, N. J. 363,829, ren. 1–10–59. Cl. 29.
Harley-Davidson Motor Co., Milwaukee, Wis. 673,396, pub. 11–18–58. Cl. 15.
Harris, Arthur L., d. b. a. North Shore Figurine Co., Lynn, Mass. 673,631, pub. 11–18–58. Cl. 50.
Harth, J. A., & Co.: *See*—
Grierson, Oldham & Co. Ltd.
Harvey, Sid, Inc., Valley Stream, N. Y. 673,525–6, pub. 11–18–58. Cl. 24.
Hayes Track Appliance Co., Richmond, Ind. 568,023, canc. Cl. 14.
Haymaker Sports, Inc., New York, N. Y. 673,582, pub. 11–18–58. Cl. 39.
Healthco, Inc., Franklin Square, N. Y. 673,621, pub. 11–18–58. Cl. 46.
Healy, John B., North Lake, from National Safety Book Publishers, Chicago, Ill. 673,538, pub. 11–18–58. Cl. 38.
Hearst Corp., The: *See*—
International Magazine Co.
Heath, L. S., & Sons, Inc., Robinson, Ill. 673,677. Cl. 46.
Heating Publishers, Inc., New York, N. Y. 673,674. Cl. 38.
Henderson, Kenneth, d. b. a. Andrea Gail, New York, N. Y. 673,634, pub. 11–18–58. Cl. 51.
Her Majesty Underwear Co., Mauldin, S. C. 673,551, pub. 11–18–58. Cl. 39.
Hickey-Freeman Co., Rochester, N. Y. 673,555, pub. 11–18–58. Cl. 39.
Hill Specialties Inc., New York, N. Y. 673,673. Cl. 38.
Hiss Pharmacal Co., Inc., New Hartford, N. Y. 673,425, pub. 11–18–58. Cl. 18.
Hoffman Electronics Corp., Los Angeles, Calif. 673,433, pub. 11–18–58. Cl. 21.
Hoffmann-La Roche Inc., Nutley, N. J. 673,352, pub. 11–18–58. Cl. 6.
Hollywood-Maxwell Co., Los Angeles, Calif. 673,553, pub. 11–18–58. Cl. 39.
Honeycomb Co. of America, Inc., Bridgeport, Conn. 673,373, pub. 11–18–58. Cl. 12.
Hooven & Allison Co., The, Xenia, Ohio. 124,834, ren. 3–18–59. Cl. 7.
Hoover Products, Inc., by Plakie Toys, Inc., Youngstown, Ohio. 363,368, 12(c) pub. 2–3–59. Cl. 22.
Howard Parlor Furniture Co., Chicago, Ill. 673,518, pub. 11–18–58. Cl. 32.
Hubbard-Hall Chemical Co., The, Waterbury, Conn. 673,357, pub. 11–18–58. Cl. 10.
Hubbard, Warren D., Jr., Indianapolis, Ind. 627,703, cor. Cl. 22.
Imperial Paper and Color Corp., Glen Falls, N. Y. 673,532, pub. 11–18–58. Cl. 37.
Ind Coope & Allsopp, Ltd., London and Burton-On-Trent, England. 365,106, ren. 2–21–59. Cl. 48.
Indianapolis Reed Co., Inc., Indianapolis, Ind. 673,378, pub. 11–18–58. Cl. 13.
Industrial Rayon Corp., Cleveland, Ohio. 673,599, pub. 11–18–58. Cl. 43.
Ingram Menthol Co., Inc., New York, N. Y. 673,681. Cl. 51.
Insect Control Sales & Service, Candor, N. C. 673,338, pub. 11–18–58. Cl. 6.
Insta-Freeze Corp., San Francisco, Calif. 567,890, canc. Cl. 46.
Insulation Engineers, Inc., Minneapolis, Minn. 673,366, pub. 11–18–58. Cl. 12.
Insul-Mastic, Inc., Summit, Ill. 673,400, pub. 11–18–58. Cl. 16.
International Furniture Co.: *See*—
Schnadig Corp.
International Harvester Co., Chicago, Ill. 567,969, canc. Cl. 14.
International Latex Corp., Dover, Del. 673,577, pub. 11–18–58. Cl. 39.
International Magazine Co., to The Hearst Corp., New York, N. Y. 124,102, ren. 1–14–59. Cl. 38.
International Salt Co., Scranton, Pa. 673,345, pub. 11–18–58. Cl. 6.
International Silver Co., The, Meriden, Conn. 673,384, pub. 11–18–58. Cl. 13.
Interwoven Stocking Co.: *See*—
Falls City Mills Co.
Interwoven Stocking Co., New Brunswick, N. J. 567,996, canc. Cl. 39.
Iso-Sol Co., Inc., The, Lindenhurst, N. Y. 673,422, pub. 11–18–58. Cl. 18.
Istituto Biochimico Italiano: *See*—
Cremisini, Loredana L., Mrs.
Jacoby-Bender, Inc., New York, N. Y. 568,137, canc. Cl. 28.
Jensen-Salsbery Laboratories, Inc., Kansas City, Mo. 673,420–1, pub. 11–18–58. Cl. 18.
Joe & Nemo, Inc., Boston, Mass. 673,610, pub. 11–18–58. Cl. 46.
Johnson, S. C., & Son, Inc., Racine, Wis. 367,297, ren. 5–9–59. Cl. 4.
Johnson, S. C., & Son, Inc., Racine, Wis. 367,325, ren. 5–9–59. Cl. 16.
Jones, Brown, Abrams Co., d. b. a. Shirlynn Mfg. Co., Dallas, Tex. 567,962, canc. Cl. 39.
Joy Records Corp., Durham, N. C. 673,529, pub. 11–18–58. Cl. 36.
Kandarian, Albert, Jr., d. b. a. Kando Enterprises, North Attleboro, Mass. 673,463, pub. 11–18–58. Cl. 22.
Kando Enterprises: *See*—
Kandarian, Albert, Jr.
Kaspar Winkler & Co.: *See*—
Schenker-Winkler, Fritz.
Kaye-Halbert Corp., Culver City, Calif. 567,992, canc. Cl. 21.
Kaylon Inc., New York, N. Y. 673,566–7, pub. 11–18–58. Cl. 39.
Keasbey & Mattison Co., Ambler, Pa. 366,922, ren. 5–2–59. Cl. 6.
Keco Milling Co.: *See*—
Wilson, John M.
Kee Lox Mfg. Co., Rochester, N. Y. 673,652, pub. 11–18–58. Cl. 42.
Kelsey-Hayes Co., Detroit, Mich. 673,479, pub. 11–18–58. Cl. 23.
Keyes Fibre Co., Waterville, Maine. 673,226, pub. 11–18–58. Cl. 2.
Kimberly-Clark Corp., Neenah, Wis. 673,537, pub. 11–18–58. Cl. 37.
Kirkley, Lucy T., and Mary Call Quilici: *See*—
Call, A. F., Estate.
Kist Double Cola Bottling Co., Inc., Macon, Miss. 673,606, pub. 11–18–58. Cl. 45.
Kit Mfg. Co., Long Beach, Calif. 673,430, pub. 11–18–58. Cl. 19.
Kleer-Rite Co., The: *See*—
Frankel, Reuben R.
Koch, Edward C., d. b. a. Koch Products, Highland, Ill. 673,583, pub. 11–18–58. Cl. 40.
Koch Products: *See*—
Koch, Edward C.
Kordol Corp. of America, New York, N. Y. 568,061, canc. Cl. 18.
Krauss, Herman, Toledo, Ohio. 673,602, pub. 11–18–58. Cl. 44.
Kunst, Simon & Co. Inc., New York, N. Y. 673,585, pub. 11–18–58. Cl. 42.
Kurth, Fred F., Bakersfield, Calif. 567,971, canc. Cl. 21.
Kyova Fiber Pipe Co., Ironton, Ohio. 673,380, pub. 11–18–58. Cl. 13.
La Born, Inc., Chicago, Ill. 673,638, pub. 11–18–58. Cl. 51.
Laboratory Products Co., Chicago, Ill. 568,082, canc. Cl. 18.
La Grange Mills, Red Wing, Minn. 124,461, ren. 2–18–59. Cl. 46.
La Habra Citrus Association, The, La Habra, Calif. 568,131, canc. Cl. 46.
La Jolla Sportswear Co., Los Angeles, Calif. 673,572, pub. 11–18–58. Cl. 39.

Lam Workshop Inc., Wakefield, Mass. 673,439, pub. 11–18–58. Cl. 21.
Lehman-Rosenfeld Co., The, to Grandpa Brands Co., Cincinnati, Ohio. 124,111, ren. 1–14–59. Cl. 45.
Lehn & Fink Products Corp., Bloomfield, N. J. 673,506, pub. 11–18–58. Cl. 26.
LeMonde Corset Co., Saginaw, Mich. 673,548, pub. 11–18–58. Cl. 39.
Lenkurt Electric Co., Inc., San Carlos, Calif. 673,438, pub. 11–18–58. Cl. 21.
Lenly Mfg. Co. Inc., Los Angeles, Calif. 673,527, pub. 11–18–58. Cl. 34.
Leonard, Harold, & Co. Inc., New York, N. Y. 673,383, pub. 11–18–58. Cl. 13.
Lerner, Harry H., d. b. a. Sani-Shield Products Co., New York, N. Y. 673,550, pub. 11–18–58. Cl. 39.
Levy, Harold, New York, N. Y. 673,561, pub. 11–18–58. Cl. 39.
Lewel Mfg. Co., Inc., New York, N. Y. 673,571, pub. 11–18–58. Cl. 39.
Libenson, Leon, Aspinwall, Pa. 567,904, canc. Cl. 18.
Librascope, Inc., Glendale, Calif. 673,492, pub. 11–18–58. Cl. 26.
Linden Equipment Corp., Los Angeles, Calif. 673,670. Cl. 19.
Little Bo Peep Kiddie Co., Inc., New York, N. Y. 568,069, canc. Cl. 39.
Loblaw, Inc., Buffalo, N. Y. 673,654, pub. 11–18–58. Cl. 101.
Loewe Opta Aktiengesellschaft, Berlin-Steglitz, Germany. 673,436, pub. 11–18–58. Cl. 21.
Lonza Electric and Chemical Works Ltd., Basel, Switzerland. 673,339–41, pub. 11–18–58. Cl. 6.
Louisiana Concrete Products, Inc., Baton Rouge, La. 673,367, pub. 11–18–58. Cl. 12.
Louisville Cap Corp., Louisville, Ky. 673,664. Cl. 3.
Lovelace, Melvin D., Dinuba, Calif. 673,678. Cl. 46.
Lovelite Products: *See*—
Nemec, Frank E.
Lubin-Weeker Co., Inc., New York, N. Y. 567,959, canc. Cl. 39.
Lusterway Sales Co.: *See*—
McCleary Associates, Inc.
Luxo Lamp Corp., Tuckahoe, N. Y. 673,454, pub. 11–18–58. Cl. 21.
Mac-Dan Co., San Bernardino, Calif. 673,457, pub. 11–18–58. Cl. 22.
MacKenzie, William H., New York, N. Y. 673,379, pub. 11–18–58. Cl. 13.
MacKenzie, William H., New York, N. Y. 673,385, pub. 11–18–58. Cl. 13.
Manhattan Terrazzo Brass Strip Co., Inc., Norwalk, Conn. 673,370, pub. 11–18–58. Cl. 12.
Magla Products: *See*—
Glatt, Herbert.
Margolin, Harry, Shirt Corp., New York, N. Y. 567,970, canc. Cl. 39.
Mark Cross Co., New York, N. Y. 567,961, canc. Cl. 39.
Marshallan Mfg. Co., Cleveland, Ohio. 673,520, pub. 11–18–58. Cl. 32.
Mayer, Oscar, & Co., Inc., Chicago, Ill. 367,069, ren. 5–9–59. Cl. 46.
McCampbell & Co., Inc., New York, N. Y. 673,584, pub. 3–4–58. Cl. 42.
McCleary Associates, Inc., d. b. a. Lusterway Sales Co., Memphis, Tenn. 567,968, canc. Cl. 52.
McNish, Robert, and Co. Ltd., Glasgow, Scotland. 673,680. Cl. 49.
Medex Supply Co., The, Denver, Colo. 567,912, canc. Cl. 44.
Melville Confections, Inc.: *See*—
Woodson, Harris, Co., Inc.
Mennel Milling Co., The, Toledo, Ohio. 362,759, ren. 11–29–58. Cl. 46.
Merck & Co., Inc., Rahway, N. J. 673,426, pub. 11–18–58. Cl. 18.
Merck & Co., Inc., Rahway, N. J. 673,618, pub. 11–18–58. Cl. 46.
Meridian Grain & Elevator Co.: *See*—
Wilson, John M.
Metal & Thermit Corp., Woodbridge Township, N. J. 673,349, pub. 11–18–58. Cl. 6.
Miehle-Goss-Dexter, Inc., Chicago, Ill. 673,478, pub. 11–18–58. Cl. 23.
Miller and Co., d. b. a. Elmorene Co., Chicago, Ill. 568,075, canc. Cl. 18.
Milnot Co., Inc., Litchfield, Ill. 568,136, canc. Cl. 30.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. 673,503–4, pub. 11–18–58. Cl. 26.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 673,449, pub. 11–18–59. Cl. 21.
Mr. John, Inc., New York, N. Y. 673,564, pub. 11–18–58. Cl. 39.
Modernair Corp., San Leandro, Calif. 673,465, pub. 11–18–58. Cl. 23.
Mogen David Candy Co.: *See*—
Mogen David Wine Corp.
Mogen David Wine Corp., Chicago, Ill., from A. Scharfstein, d. b. a. Mogen David Candy Co., New York, N. Y. 673,607, pub. 1–24–56. Cl. 46
Mold Craft, Inc., Chicago, Ill. 673,531, pub. 11–18–58. Cl. 36.
Monarch Marking System Co., The, Dayton, Ohio. 367,464, ren. 5–16–59. Cl. 37.
Monsanto Chemical Co., St. Louis, Mo. 673,343, pub. 11–18–58. Cl. 6.
Monsanto Chemical Co., St. Louis, Mo. 673,502, pub. 11–18–58. Cl. 26.
Mosaic Tile Co., The, Zanesville, Ohio. 673,362–5, pub. 11–18–58. Cl. 12.
Mossesian, Paul A., & Sons, Inc., Fresno, Calif. 355,192, canc. Cl. 46.
Mossesian, Paul A., & Son, Inc., Fresno, Calif. 392,192, canc. Cl. 46.
Movsesian, Charles, d. b. a. Euphrates Bakery, Watertown, Mass. 653,158, cor. Cl. 46.
Muinems, Ferdinand, d. b. a. Eau de Cologne-& Parfumerie-Fabrik, Cologne O/Rhine, Germany. 673,635, pub. 11–18–58. Cl. 51.
Nation Wide Papers, Inc., Chicago, Ill., to Carpenter Paper Co., Omaha, Nebr. 364,633, ren. 2–7–59. Cl. 37.
National Association of Radio and Television Broadcasters, Inc., Wilmington, Del., and Washington, D. C. 568,117, canc. Cl. 104.
National Cylinder Gas Co.: *See*—
Chemetron Corp.
National Lock Co., Rockford, Ill. 673,490, pub. 11–18–58. Cl. 25.
National Plumbing Stores Corp., Columbus, Ohio. 647,783. Am. 7(d). Cl. 23.
National Safety Book Publishers: *See*—
Healy, John B.
National Tool Co., Cleveland, Ohio, from Auto-Vac Co., Bridgeport, Conn. 673,477, pub. 11–18–58. Cl. 23.
Natone Co., Los Angeles, Calif. 673,642, pub. 11–18–58. Cl. 51.
Neilson Chemical Co.: *See*—
Neilson, Howard R.
Neilson, Howard R., d. b. a. Neilson Chemical Co., Detroit, to Neilson Chemical Co., Ferndale, Mich. 366,514, ren. 4–18–59. Cl. 52.
Nemec, Frank E., d. b. a. Lovelite Products, San Gabriel, Calif. 673,328, pub. 11–18–58. Cl. 2.
Neuwirth, Robert S., Floral Park, N. Y. 568,043, canc. Cl. 18.
New Era Muffler Corp., Rochester, Mich. 673,471, pub. 11–18–58. Cl. 23.
Newton, Chambers & Co. Ltd., Thorncliffe, near Sheffield, England. 673,647, pub. 11–18–58. Cl. 52.
North American Life and Casualty Co., Minneapolis, Minn. 673,657, pub. 11–18–58. Cl. 102.
North Shore Figurine: *See*—
Harris, Arthur L.
Northern Field Seed Co., Winona, Minn. 673,358, pub. 11–18–58. Cl. 10.
Northwest Paper Co., The, Cloquet, Minn. 360,231, 12(c) pub. 2–3–59. Cl. 37.
Notifier Corp., Lincoln, Nebr. 673,443, pub. 11–18–58. Cl. 21.
Nouvelle Maison Cauvieres, Alpes-Maritimes, France. 673,679. Cl. 47.
Nulomoline Co., The, by American Molasses Co., New York, N. Y. 122,983, 12(c) pub. 2–3–59. Cl. 46.
Nycal Co., Inc., The, Hackensack, N. J. 673,468, pub. 11–18–58. Cl. 23.
O'Brien Milling Co., The, Greenville, Ohio. 365,220, ren. 2–28–59. Cl. 46.
O'Bryan Bros., Inc., Chicago, Ill. 673,580, pub. 11–18–58. Cl. 39.
O-Cel-O, Inc., Buffalo, N. Y. 568,123, canc. Cl. 29.
Omega Shoe Polish Co., Los Angeles, Calif. 673,332, pub. 11–18–58. Cl. 4.
Omnico: *See*—
Dugger, Ralph L.
Oneida Paper Products Inc., Clifton, N. J. 568,418, cor. Cl. 2.
Opperman, Clarence E., d. b. a. L. R. Opperman & Son, by Clarence Opperman, Jr., d. b. a. Opperman Fruit Products Co., Birmingham, Ohio. 363,926, 12(c) pub. 2–3–59. Cl. 46.
Opperman, Clarence, Jr.: *See*—
Opperman, Clarence E.
Opperman Fruit Products Co.: *See*—
Opperman, Clarence E.
Opperman, L. R., & Son: *See*—
Opperman, Clarence E.
Oregon Worsted Co., Portland, Oreg. 673,600, pub. 11–18–58. Cl. 43.
Organic Development Corp., Garden Grove, Calif. 673,445, pub. 11–18–58. Cl. 21.
Organon Inc., Orange, N. J. 673,416, pub. 11–18–58. Cl. 18.
Oxford Club Beverage Co., to Carbonated Beverages, Inc., Detroit, Mich. 355,440, ren. 3–15–58. Cl. 45.
Pacific Automation Products, Inc., Glendale, Calif. 673,444, pub. 11–18–58. Cl. 21.
Pacific Lumber Co., The, San Francisco, Calif. 363,258, ren 12–20–58. Cl. 12.
Pacific Sales & Equipment Co.: *See*—
Proffitt, Norman A.
Pag Presswerk Aktiengesellschaft, Essen, Germany. 673,470, pub. 11–18–58. Cl. 23.
Palter, Dan, New York, N. Y., to Samuels Shoe Co., St. Louis, Mo. 367,148, ren. 5–9–59. Cl. 39.
Palter, Dan, New York, N. Y., to Samuels Shoe Co., St. Louis, Mo. 367,150, ren. 5–9–59. Cl. 39.
Paragon Electric Co., Two Rivers, Wis. 673,448, pub. 11–18–58. Cl. 21.
Paramount Enterprises, Inc., New York, N. Y. 673,822, pub. 11–18–58. Cl. 1.
Pass & Seymour, Inc., Syracuse, N. Y. 367,303, ren. 5–9–59. Cl. 21.
Partlow Corp., The, New Hartford, N. Y. 673,496, pub. 11–18–58. Cl. 26.
Payne Coal Sales Co., Inc., Wilkes-Barre, Pa. 568,052, canc. Cl. 28.
Peanut Fluf Co.: *See*—
Sunshine Biscuits, Inc.
Peoples Broadcasting Corp., Columbus, Ohio. 673,662, pub. 5–13–58. Cl. 107.
Pel-State Oil Co., Inc., Shreveport, La. 673,392, pub. 11–18–58. Cl. 15.
Pennsylvania Refining Co., Cleveland, Ohio. 673,648, pub. 11–18–58. Cl. 52.

Perkins, Dorothy, Co., Inc., Newark, N. J. 673,641, pub. 11–18–58. Cl. 51.
Pettibone Mulliken Corp., Chicago, Ill. 673,480, pub. 11–18–58. Cl. 23.
Petite Miss Co., New York, N. Y. 673,578–9, pub. 11–18–58. Cl. 39.
Pfeiffer, Catharine B., York, Pa. 673,456, pub. 11–18–58. Cl. 22.
Pfeiffer's Food Products, Inc., Buffalo, N. Y. 567,956, canc. Cl. 46.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 673,412, pub 11–18–58. Cl. 18.
Phelan-Faust Paint Mfg. Co., to Phelan-Faust Paint Mfg. Co., St. Louis, Mo. 362,964, ren. 12–6–58. Cl. 16.
Philadelphia Inquirer Co., The, by Triangle Publications, Inc., Philadelphia, Pa. 270,787, 12(c) pub. 2–3–59. Cl. 38.
Phillips Process Co., Inc., Rochester, N. Y. 673,361, pub. 11–18–58. Cl. 11.
Phoenix Laundry & Dry Cleaning, Inc., Phoenix, Ariz. 568,113, canc. Cl. 103.
Pillsbury Co., The: *See*—
Pillsbury Mills, Inc.
Pillsbury Mills, Inc., now by change of name The Pillsbury Co., Minneapolis, Minn. 673,619, pub. 11–18–58. Cl. 46.
Pittsburgh Plate Glass Co., Pittsburgh, Pa. 673,402–4, pub. 11–18–58. Cl. 16.
Plakie Toys, Inc.: *See*—
Hoover Products, Inc.
Porter Precision Products Co., Cincinnati, Ohio. 673,472, pub. 11–18–58. Cl. 23.
Power Petroleum Products, Dallas, Tex. 673,396, pub. 11–18–58. Cl. 15.
Prentice-Lane, Inc., New York, N. Y. 563,043, canc. Cl. 42.
Prince Gardner: *See*—
Gardner, P. A., Jr.
Prince Gardner Co., Inc.: *See*—
Gardner, P. A., Jr.
Professional Aids Corp., d. b. a. Professional Products, Port Washington, L. I., N. Y. 673,566. Cl. 18.
Professional Laboratories, Inc., New York, N. Y. 362,764, ren. 11–29–58. Cl. 18.
Professional Products: *See*—
Professional Aids Corp.
Proffitt, Norman A., d. b. a. Pacific Sales & Equipment Co., San Francisco, Calif. 568,127, canc. Cl. 12.
Protective Footwear Service Ltd., Bristol, England. 673,576, pub. 11–18–58. Cl. 39.
Publishers Syndicate, Chicago, Ill. 563,041, canc. Cl. 38.
Purdue Frederick Co., The, New York, N. Y. 673,414, pub 10–7–58. Cl. 18.
Pycope Inc., Jersey City, N. J. 269,234. Am. 7(d). Cl. 51.
Quellette, Alfred J., St. Paul, Minn. 673,517, pub. 11–18–58. Cl. 32.
Ramsey, Lisle, d. b. a. Aunt Mary's Birthday Clubs of America, Kansas City, Mo. 568,111, canc. Cl. 100.
Raritan Shirt Co., Inc., Perth Amboy, N. J. 567,945, canc. Cl. 39.
Rath Packing Co., The, Waterloo, Iowa. 124,239, ren. 2–4–59. Cl. 46.
Raytheon Mfg. Co., Newton, Mass. 567,976, canc. Cl. 21.
Reardon Co., The, St. Louis County, Mo. 673,571, pub. 11–18–58. Cl. 12.
Reeves Soundcraft Corp., New York, N. Y. 673,500, pub. 11–18–58. Cl. 26.
Reliable Textile Co., Inc., New York, N. Y. 673,594–7, pub. 11–18–58. Cl. 42.
Rett Products Co., Detroit, Mich. 673,566, pub. 11–18–58. Cl. 26.
Revlon: *See*—
Revlon, Inc.
Revlon, Inc., New York, N. Y. 673,683. Cl. 51.
Revlon, Inc., d. b. a. Revlon, New York, N. Y. 673,684. Cl. 51.
Robertshaw-Fulton Controls Co., Richmond, Va. 673,452, pub. 11–18–58. Cl. 21.
Rockford Textile Mills, Inc., Rockford, Ill. 567,922, canc. Cl. 42.
Rocky Ford Food Products Co., Rocky Ford, Colo. 568,120, canc. Cl. 46.
Rogers, Oliver D., and John C. Kennedy, Chicago, Ill. 673,542, pub. 11–18–58. Cl. 28.
Rosen, Florence, d. b. a. American Grease Stick Co., to American Grease Stick Co., Muskegon Heights, Mich. 366,882, ren. 5–2–59. Cl. 15.
Rosen, Irving, New York, N. Y. 673,562, pub. 11–18–58. Cl. 39.
Rosenthal Cleans-Quick Co., Oak Park, Mich. 673,466, pub. 11–18–58. Cl. 16.
Ross, Percy A., d. b. a. Crown Flex Corp., Los Angeles, Calif. 673,521, pub. 11–18–58. Cl. 32.
Rotolite Corp., Stirling, N. J. 673,494, pub. 11–18–58. Cl. 26.
Roux Laboratories, Inc., New York, N. Y. 673,650, pub. 11–18–58. Cl. 52.
Ruberoil Co., The: *See*—
Vermont Asbestos Corp.
Rum Co. (Jamaica) Ltd., The: *See*—
Booth's Distilleries Ltd.
Ru-Son Products Co., Jersey City, N. J. 673,469, pub. 11–18–58. Cl. 22.
Russeks Fifth Avenue Inc., New York, N. Y. 347,592, 12(c) pub. 2–3–59. Cl. 39.
S. D. S. Inc., Los Angeles, Calif. 673,675. Cl. 39.
S. S. White Dental Mfg. Co., The, Philadelphia, Pa. 122,678, ren. 11–19–58. Cl. 18.
Sabins-Dohrmann Co., San Diego, Calif. 673,495, pub. 11–18–58. Cl. 26.
Safety Products Co., Carrollton, Mo. 673,354, pub. 11–18–58. Cl. 6.
Safe Bros. Co. Inc., New York, N. Y. 563,036, canc. Cl. 42.
Sagner's, A., Son, Frederick, Md. 673,592, pub. 11–18–58. Cl. 42.
St. John & Co., Chicago, Ill. 673,672. Cl. 23.
Samuels Shoe Co.: *See*—
Palter, Dan.
Sandoz, Inc., New York, N. Y. 673,646, pub. 11–18–58. Cl. 52.
Sani-Shield Products Co.: *See*—
Lerner, Harry H.
Schadt and Mathewson, Detroit, Mich. 673,522, pub. 11–11–58. Cl. 32 and 42.
Scharfstein, Asher: *See*—
Mogen David Wine Corp.
Schenker-Winkler, Fritz, d. b. a. Kaspar Winkler & Co., Zurich, Switzerland. 673,335, pub. 11–18–58. Cl. 6.
Schenley Import Corp., New York, N. Y. 393,563, canc. Cl. 47.
Schering Corp.: *See*—
White Laboratories, Inc. (1957).
Schering Corp., Bloomfield, N. J. 568,001, canc. Cl. 18.
Schering Corp., Bloomfield, N. J. 673,406, pub. 11–18–58. Cl. 18.
Schnadig Corp., by merger from International Furniture Co., Chicago, Ill. 673,515–16, pub. 11–18–58. Cl. 32.
Schoeneman, J., Inc., by J. Schoeneman, Inc., Baltimore, Md. 360,111, 12(c) pub. 2–3–59. Cl. 39.
Sealy Mattress Co.: *See*—
Slumber Products Corp.
Sears, Roebuck and Co., Chicago, Ill. 567,973, canc. Cl. 39.
Security Benefit Life Insurance Co., Topeka, Kans. 673,656, pub. 11–18–58. Cl. 102.
Security Engineering Co. Inc., Whittier, Calif., to Dresser Operations, Inc., Dallas, Tex. 360,142, ren. 9–6–58. Cl. 13.
Seinsheimer, H. A., Co., The, Cincinnati, Ohio. 362,367, 12(c) pub. 2–3–59. Cl. 39.
Seinsheimer, H. A., Co., The, Cincinnati, Ohio. 362,387, 12(c) pub. 2–3–59. Cl. 39.
Sewell Enterprises: *See*—
Sewell, Frank B.
Sewell, Frank B., d. b. a. Sewell Enterprises, Detroit, Mich. 673,407, pub. 11–18–58. Cl. 18.
Seymour Mfg. Co., The, Seymour, Conn. 673,346, pub. 11–18–58. Cl. 6.
Shapleigh Hardware Co.: *See*—
Simmons Hardware Co.
Sheffield Brick & Tile Co., Sheffield, Iowa. 673,606. Cl. 12.
Shell Chemical Corp., New York, N. Y. 673,325, pub. 7–1–58. Cl. 2.
Sherwin-Williams Co., The, Cleveland, Ohio. 673,491, pub. 11–18–58. Cl. 16.
Shirlynn Mfg. Co.: *See*—
Jones, Brown, Abrams Co.
Shoe Corp. of America, Columbus, Ohio. 673,573–4, pub. 11–18–58. Cl. 39.
Shulman Fabrics, Inc., Paterson, N. J. 673,586, pub. 11–18–58. Cl. 42.
Shulton, Inc., Clifton, N. J. 367,143, ren. 5–9–59. Cl. 51.
Sievers, William E., Long Beach, Calif. 673,651, pub. 11–18–58. Cl. 52.
Simmons Hardware Co., to Shapleigh Hardware Co., St. Louis, Mo. 362 241, ren. 11–15–58. Cl. 34.
Slumber Products Corp., d. b. a. Sealy Mattress Co., Memphis, Tenn. 673,522, pub. 11–18–58. Cl. 32.
Smith, F. P., Wire & Iron Works, Chicago, Ill. 673,375, pub. 11–18–58. Cl. 13.
Societa Anonaria Primo Istituto Dietetico Italiano Rinaldo Rossi, Milan, Italy. 567,935, canc. Cl. 46.
Societe Bertin & Cie., Paris, France. 673,473, pub. 11–18–58. Cl. 23.
Solartron Electronic Group Ltd., The, Thames Ditton, England. 673,491, pub. 11–18–58. Cl. 26.
Sol-O-Lite Mfg. Co., to Arvey Corp., Chicago, Ill. 364,760, ren. 2–14–59. Cl. 50.
Sonnet Tool and Mfg. Co., Hawthorne, Calif. 673,464, pub. 5–24–58. Cl. 23.
Sorensen & Co., Inc., South Norwalk, Conn. 673,350, pub. 11–18–58. Cl. 21.
Southern Biscuit Co.: *See*—
Weston Biscuit Co. Inc.
Standard Cellulose & Novelty Co. Inc., Richmond Hill, N. Y. 673,629, pub. 3–12–57. Cl. 50.
Standard Electrical Products Co., Dayton, Ohio. 673,446, pub. 11–18–58. Cl. 21.
Standard Steel Works, Inc., North Kansas City, Mo. 673,476, pub. 11–18–58. Cl. 22.
Stenographic Machines, Inc., Chicago, Ill. 673,366, pub. 11–18–58. Cl. 11.
Sterling-Howard Corp., New York, N. Y. 673,509, pub. 11–18–58. Cl. 26.
Sterling Textile Printers Co.: *See*—
Sterling Textile Printers, Inc.
Sterling Textile Printers, Inc., to Sterling Textile Printers, Co., New York, N. Y. 360,322, 12(c) pub. 2–3–59. Cl. 42.
Sterling Textile Printers, Inc., by Sterling Textile Printers Co., New York, N. Y. 360,322, 12(c) pub. 2–3–59. Cl. 42.
Stevens-Davis Co., The, Chicago, Ill. 673,541, pub. 11–18–58. Cl. 38.
Strouse, Inc., Norristown, Pa. 673,351, pub. 11–18–58. Cl. 6.
Stuart, D. A., Oil Co., Ltd., Chicago, Ill. 673,397, pub. 11–18–58. Cl. 15.
Sunbeam Corp., Chicago, Ill. 673,511, pub. 11–18–58. Cl. 26.
Sunbeam Laboratories, by Vonett Sales Co., Los Angeles, Calif. 358,032, 12(c) pub. 2–3–59. Cl. 51.
Sunshine Biscuits, Inc., Long Island City, N. Y., from Peanut Fluf Co., Detroit, Mich. 673,615, pub. 11–18–58. Cl. 46.
Superior Industries Corp., Bronx, N. Y. 673,455, pub. 11–18–58. Cl. 22.

Sutcliffe, Eugene G., d. b. a. Sutcliffe Specialty Co., St. Louis, Mo. 673,380, pub. 11–18–58. Cl. 13.
Sutcliffe Specialty Co.: *See*—
Sutcliffe, Eugene G.
Sutherland Paper Co., Kalamazoo, Mich. 673,323, pub. 2–25–58. Cl. 2.
Syracuse Stamping Co., Inc., The, Syracuse, N. Y. 673,377, pub. 11–18–58. Cl. 13.
Tack, H. C., Co., The, Cleveland, Ohio, to Atlas Tack Corp., Fairhaven, Mass. 125,000, ren. 4–1–59. Cl. 13.
Targ & Dinner Inc., Chicago, Ill. 361,603, 12(c) pub. 2–3–59. Cl. 36.
Taunton Pearl Works, Taunton, Mass. 673,312, pub. 11–11–58. Cl. 28.
Teikoku Rayon Co. Ltd., Nishi-ku, Osaka, Japan. 673,398, pub. 11–18–58. Cl. 43.
Television Guide, Inc., New York, N. Y. 568,058, canc. Cl. 38.
Television Guide, Inc., New York, N. Y. 568,059, canc. Cl. 38.
Television Guide, Inc., New York, N. Y. 568,060, canc. Cl. 38.
Television Guide, Inc., New York, N. Y. 568,062, canc. Cl. 38.
Tenderfrost, Inc., Brockport, N. Y. 673,622, pub. 11–18–58. Cl. 46.
Time Products, Inc., Indianapolis, Ind. 673,324, pub. 11–18–58. Cl. 2.
Trans-American Van Service, Inc., Chicago, Ill. 673,659, pub. 11–18–58. Cl. 105.
Triangle Publications, Inc.: *See*—
Philadelphia Inquirer Co., The.
Triangle Publications, Inc., Philadelphia, Pa. 673,661, pub. 11–18–58. Cl. 107.
Trio Mills Mfg. Corp., New York, N. Y. 673,489, pub. 11–18–58. Cl. 24.
Trojan Powder Co., Allentown, Pa. 673,356, pub. 11–18–58. Cl. 9.
Tropical & Western Lumber Co., Los Angeles, Calif. 567,916, canc. Cl. 12.
Tucker and Sons (Inc.): *See*—
Tucker & Sons.
Tucker & Sons, by Tucker and Sons (Inc.), Grass Valley, Calif. 425,928, 12(c) pub. 2–3–59. Cl. 19.
Tupman Thurlow Co., Inc., The: *See*—
Wilbur-Ellis Co.
Tuthill Pump Co., Chicago, Ill. 673,466, pub. 11–26–57. Cl. 23.
Udell, Max, Sons & Co. Inc., New York, N. Y. 673,568, pub. 11–18–58. Cl. 39.
Ulmann, Bernhard, Co., Inc., Long Island City, N. Y. 124,268, ren. 1–28–59. Cl. 43.
Ulmann, Bernhard, Co., Inc., Long Island City, N. Y. 366,393, ren. 4–11–59. Cl. 43.
Union Bag-Camp Paper Corp., New York, N. Y. 673,533, pub. 11–18–58. Cl. 37.
Union Mfg. Co., New Britain, Conn. 567,966, canc. Cl. 14.
United Mfg. Co., San Francisco, Calif. 567,998, canc. Cl. 39.
United Metal Products Corp., Detroit, Mich. 673,462, pub. 11–18–58. Cl. 22.
United Mills Corp., Mount Gilead, N. C. 673,562, pub. 11–18–58. Cl. 39.
United Refining Co., Warren, Pa. 673,391, pub. 3–18–58. Cl. 15.
United States Aviex Co.: *See*—
United States Aviex Corp.
United States Aviex Corp., Long Island City, N. Y., to United States Aviex Co., Niles, Mich. 360,760, ren. 9–27–58. Cl. 15.
U. S. Handbag Corp., New York, N. Y. 673,330, pub. 11–18–58. Cl. 3.
United States Plywood Corp., New York, N. Y. 673,374, pub. 11–18–58. Cl. 12.
Universal-Cyclops Steel Corp., Bridgeville, Pa. 673,390, pub. 11–18–58. Cl. 14.
Van Pelt and Brown, Inc., Richmond, Va. 568,045, canc. Cl. 18.
Veldore' Co., Houston, Tex. 673,329, pub. 11–18–58. Cl. 3.
Verley, Albert, & Co., Linden, N. J. 673,639–40, pub. 11–18–58. Cl. 51.
Vermont Asbestos Corp., Hyde Park, Vt., and New York, N. Y., to the Ruberoil Co., New York, N. Y. 360,499, ren. 9–20–58. Cl. 1.
Vesely Mfg. Co., Lapeer, Mich. 673,431, pub. 11–18–58. Cl. 19.
Vick Chemical Co., New York, N. Y. 673,415, pub. 11–18–58. Cl. 18.
Vinton's, Menomonie, Wis. 567,917, canc. Cl. 39.
Virginia Smelting Co., West Norfolk, Va. 673,665. Cl. 6.
Vistex Corp., New York, N. Y. 568,092, canc. Cl. 7.
Vonett Sales Co.: *See*—
Haber Leo.
Sunbeam Laboratories.
Wallace Silversmiths, Inc., Wallingford, Conn. 673,481–6, pub. 11–18–58. Cl. 23.
Walrus Mfg. Co., Decatur, Ill. 673,501, pub. 11–18–58. Cl. 26.
Warnecke & Bohm, Schliersee/Obb, Germany. 363,404, ren. 12–27–58. Cl. 16.
Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 673,410, pub. 11–18–58. Cl. 18.
Watkins, J. R., Co., The, Winona, Minn. 673,676. Cl. 45.
Watts, Cecil E., Sunbury-on-Thames, Middlesex, England. 673,350, pub. 11–18–58. Cl. 6.
Watts, Cecil E., Sunbury-on-Thames, Middlesex, England. 673,530, pub. 11–18–58. Cl. 26.
Waxon-Carboff, Inc., Rochester, N. Y. 673,535–6, pub. 11–18–58. Cl. 37.
Weisbrod-Zurrer Sohne, Hausen am/Albis, Switzerland. 673,488, pub. 11–18–58. Cl. 24.
Weston Biscuit Co. Inc., d. b. a. Southern Biscuit Co., Richmond, Va. 673,612, pub. 6–11–57. Cl. 46.
White Laboratories, Inc.: *See*—
White Laboratories, Inc. (1957).
White Laboratories, Inc., Kenilworth, N. J. 673,423, pub. 11–18–58. Cl. 18.
White Laboratories, Inc. (1957), from Schering Corp., from White Laboratories, Inc., Kenilworth, N. J. 673,411, pub. 11–18–58. Cl. 18.
Wilbur-Ellis Co., San Francisco, Calif., from The Tupman Thurlow Co., Inc., New York, N. Y. 673,613, pub. 12–31–57. Cl. 46.
Wilderness Society, The, Washington, D. C. 673,542, pub. 11–18–58. Cl. 38.
Williams Gold Refining Co., Inc., Buffalo, N. Y. 673,458, pub. 11–18–58. Cl. 22.
Wilson, John M., d. b. a. Meridian Grain & Elevator Co., Meridian, Miss., to Cash Economy Wholesale Grocery Co., d. b. a. Keco Milling Co., McKenzie, Tenn. 366,018, ren. 3–28–59. Cl. 46.
Wilson, Nuttall, Raimond Engineers, Inc., Chestertown, Md. 673,429, pub. 11–18–58. Cl. 19.
Wisconsin Alumni Research Foundation, Madison, Wis. 673,608, pub. 6–26–56. Cl. 46.
Wise-O-Services, Inc., Kansas City, Mo. 673,653, pub. 11–18–58. Cl. 101.
Wispeee Corp., New York, N. Y. 673,560, pub. 11–18–58. Cl. 39.
Womble-Campbell Mfg. Co., Hereford, Tex. 568,061, canc. Cl. 39.
Woodson, Harris, Co., Inc., from Melville Confections, Inc., Lynchburg, Va. 567,895, canc. Cl. 46.
World's Greatest Barber Shop, The: *See*—
Glauser, Harry E.
Worswick, Elizabeth B., Berkeley, Calif. 567,982, canc. Cl. 39.
Wright Chemical Corp., Chicago, Ill. 673,649, pub. 11–18–58. Cl. 52.
Wright Mfg. Co., Phoenix, Ariz. 673,524, pub. 11–18–58. Cl. 34.
Wunder Chemical Co., Inc., New York, N. Y. 565,485, cor. Cl. 11.
Wunder Chemical Co., Inc., New York, N. Y. 565,486, cor. Cl. 11.
Yeargain, John, Inc., New York, N. Y. 673,556, pub. 11–4–58. Cl. 39.
Zavody V. I. Lenina Plzen, Narodni Podnik, Plzen, Czechoslovakia. 673,442, pub. 11–18–58. Cl. 21.
Zenith Radio Corp., by merger from Zenith Radio Corp., Chicago, Ill. 673,434–5, pub. 11–18–58. Cl. 21.
Zunderwerke Ernest Brun, Zweigniederlassung der Wasag-Chemie Ag, Krefeld-Linn, Germany. 673,440, pub. 11–18–58. Cl. 21.

U. S. GOVERNMENT PRINTING OFFICE 0—1959

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

February 10, 1959 Volume 739 Number 2

PATENTS

NOTICES

Selected Non-Proprietary Names

The Public Health Service has informed the Patent Office that the names listed below have been selected by WHO as recommended international non-proprietary names for pharmaceutical preparations.

The procedure for selection of these names, by WHO, including earlier publication in accordance with procedures published in the Chronicle of the World Health Organization, June-July 1955 issue, has been completed. WHO requests that these recommended names be recognized as the non-proprietary names for the substances concerned and that the necessary steps be taken to prevent acquisition of proprietary rights in the same.

Recommended International Non-Proprietary Name (*Latin, English*)	Chemical Name or Description
acetylmethadolum acetylmethadol	6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphacetylmethadolum alphacetylmethadol	*α*-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphamethadolum alphamethadol	*α*-6-dimethylamino-4,4-diphenyl-3-heptanol
anileridinum anileridine	1-[2-(p-aminophenyl)-ethyl]-4-phenylpiperidine-4-carboxylic acid ethyl ester
betacetylmethadolum betacetylmethadol	*β*-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
betamethadolum betamethadol	*β*-6-dimethylamino-4,4-diphenyl-3-heptanol
betaprodinum betaprodine	*β*-1,3-dimethyl-4-phenyl-4-propionoxypiperidine
desomorphinum desomorphine	dihydrodeoxymorphine
diethylthiambutenum diethylthiambutene	3-diethylamino-1,1-di-(2-thienyl)-1-butene
dimethylthiambutenum dimethylthiambutene	3-dimethylamino-1,1-di-(2-thienyl)-1-butene
dipipanonum dipipanone	4,4-diphenyl-6-piperidino-3-heptanone
ethoheptazinum ethoheptazine	1-methyl-4-carbethoxy-4-phenylhexamethyleneimine
ethylmethylthiambutenum ethylmethylthiambutene	3-ethylmethylamino-1,1-di-(2-thienyl)-1-butene
hydroxypethidinum hydroxypethidine	1-methyl-4-(3-hydroxyphenyl)-piperidine-4-carboxylic acid ethyl ester
levallorphanum levallorphan	*l*-3-hydroxy-*N*-allylmorphinan
levorphanolum levorphanol	*l*-3-hydroxy-*N*-methylmorphinan
metethoheptazinum metethoheptazine	1,3-dimethyl-4-carbethoxy-4-phenylhexamethyleneimine
metheptazinum metheptazine	1,3-dimethyl-4-carbomethoxy-4-phenylhexamethyleneimine
methyldesorphinum methyldesorphine	6-methyl-Δ^6-deoxymorphine
methyldihydromorphinum methyldihydromorphine	6-methyldihydromorphine
myrophinum myrophine	myristyl ester of benzylmorphine
normethadonum normethadone	4,4-diphenyl-6-dimethylamino-3-hexanone
oxpheneridinum oxpheneridine	1-(2-phenyl-2-hydroxyethyl)-4-carbethoxy-4-phenyl-piperidine
oxymorphonum oxymorphone	dihydrohydroxymorphinone
phenomorphanum phenomorphan	3-hydroxy-*N*-phenethylmorphinan
proheptazinum proheptazine	1,3-dimethyl-4-phenyl-4-propionoxyhexamethyleneimine
properidinum properidine	1-methyl-4-phenylpiperidine-4-carboxylic acid isopropyl ester
propoxyphenum propoxyphene	4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane

New Applications Received During December 1958

Patents	7,212
Designs	431
Plant Pats	14
Reissues	18
Total	7,675

Issue

Patents	704	No. 2,872,682 to No.	2,873,445, incl.
Designs	28	No. 184,388 to No.	184,415, incl.
Plant Pats	3	No. 1,808 to No.	1,810, incl.
Reissues	2	No. 24,598 to No.	24,599, incl.
Total	797		

Erratum

All references to Patent No. 2,870,371 to Philo T. Farnsworth, assignor to International Telephone and Telegraph Corporation, for Radiation Translating Device, appearing in the OFFICIAL GAZETTE of January 20, 1959, should be deleted as the application was withdrawn from issue and the patent was not issued.

Trademark Laws

A compilation of trademark laws in force as of January 1, 1950, is now available in a separate publication entitled *Trademark Laws*. This matter, which was heretofore contained in the publication *Trademark Rules of Practice of the Patent Office, With Forms & Statutes* will not be included in the next edition of that publication.

Trademark Laws may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., for 20 cents per copy.

Adjudicated Patents

(C. A. Okla.) Richardson Patent No. 2,599,661 (171—95), for suspension galvanometer and magnet assembly, *Held* invalid and not infringed. *Consolidated Electrodynamics Corp. v. Midwestern Instruments, Inc.*, 260 F.2d 811; 119 USPQ 231.

(D. C. Ill.) Zysset Patent No. 2,782,826 (146—160), for vegetable shredder. Claims 1 and 2 *Held* valid and infringed. *Zysset v. Popell Bros., Inc.*, 167 F. S. 362; 119 USPQ 116.

Disclaimer

2,760,107.—*Ernest J. Sternglass*, Pittsburgh, Pa. COLOR TELEVISION. Patent dated Aug. 21, 1956. Disclaimer filed Jan. 5, 1959, by the assignee, *Westinghouse Electric Corporation*.

Hereby enters this disclaimer to claim 3 of said patent.

Patents Available for Licensing or Sale

Eastman Kodak Company announces that, in accordance with its policy, non-exclusive licenses upon reasonable terms are available to domestic applicants (under the circumstances prevailing at the time) under the following 103 U. S. patents:

2,271,562. Camera Shutter.
2,274,707. Camera.
2,282,850. Camera.
2,356,880. Reflex Camera.
2,380,610. Camera.
2,624,674. Photographic Emulsion Sensitized With Gold Compounds and Sulfur Sensitizers.
2,624,747. Manufacture of Quinone.
2,625,082. Camera Bellows Folding Machine.
2,625,088. Shutter Opening Device for Focusing.
2,625,475. Stabilization of Photographic Developers.
2,625,476. Photographic Silver Halide Developing Solutions Containing Calcium Precipitation Inhibitors.
2,625,477. Bleaching Silver Images With p-Sulfophenyl Quinones or p-Nitroso Phenols.
2,629,295. Method of Making Paper.
2,629,302. Tape-Controlled Camera Shutter and Release.
2,629,563. Two-Way Film-Metering Device.
2,629,671. Photothermography Printing Sheet and Printing Ink Therefor.
2,629,762. Rapid-Change Flash Lamp Socket.
2,632,004. Resin Azo Dye.
2,632,357. Combined Range and View Finder.
2,632,369. Film Measuring Mechanism.
2,632,545. Double Sheet Stop for Photographic Copying Apparatus.
2,632,643. Apparatus for Handling and Photographically Copying Documents.
2,632,699. Manufacture of High Wet Strength Paper.
2,632,701. Ultraviolet Filter on Photographic Layers.
2,632,702. Pyrazolone Couplers for Color Photography.
2,632,704. Method of Preparing Silver-Halide Dispersions.
2,635,374. Changeable Display Apparatus.
2,635,505. Photographic Objective Consisting of Two Outer Negative Doublets and Two Inner Positive Singlets.
2,635,961. Supersensitization of Photographic Emulsions With Complex Merocyanine Dyes.
2,635,962. Dimensionally Stable Cellulose Ester Lithographic Printing Plates.
2,635,970. Translucent Paper Base.
2,636,035. Synthesis of Lepidinium Salts.
2,638,827. Printer Platen Construction.
2,639,147. Sprocket Enclosing System.
2,639,219. Noncaking Potassium Bromide for Photographic Developers.
2,639,221. Noncaking Sodium and Potassium Hydroxide for Photographic Developer Powders.
2,639,234. Antistatic Photographic Film.
2,639,254. Method of Mounting 35-Millimeter Slides to Prevent Film Buckle During Projection.
2,639,282. Resin-Dyes of the Cyanine Type.
2,640,776. Sensitized Photographic Emulsion Containing Color Couplers.
2,641,954. Protective Coatings for Optical Elements and Methods for Applying Them.
2,641,956. Film-Perforation Pitch Gauge.
2,641,961. Film Drive Compensatory Mechanism.
2,641,962. Intermittent Film-Feeding Mechanism.
2,641,979. Photographic Printing Frame.
2,642,169. Combined Electromagnetically Actuated Clutch and Brake.
2,642,361. Photographic Silver Halide Emulsions Sensitized With Water-Insoluble Gold Compounds.
2,642,362. Light-Sensitive Baryta-Coated Photographic Paper.
2,642,419. Preparation of Polyvinyl Alcohol.
2,642,420. Preparation of Polyvinyl Alcohol.
2,646,353. Removal of Volatile Products From Photographic Emulsions.
2,646,365. Backing Paper for Roll Photographic Film.
2,646,366. Backing Paper for Roll Photographic Film.
2,646,409. Asymmerocarbocyanine Dyes.
2,646,421. Polymeric Pyrazolone Couplers.
2,646,426. Preparation of Photographic Emulsions.
2,646,430. Quinoline Dyes of the Polymethine Series and Process of Preparation.
2,646,433. Synthesis of Quinaldinium Salts.
2,649,018. Control Mechanism for Photographic Copying Apparatus.
2,649,026. Four Component Apochromatic Copying Objective.
2,649,303. Sheet-Feeding and Turning Apparatus.
2,649,374. Antistatic Photographic Film.
2,649,375. Light-Sensitive Photographic Element.
2,649,376. Single Powder Developers Containing Stabilized Alkali Hydroxides.
2,649,387. Method of Forming Nonreflecting Coating on Glass.
2,649,459. 2-Thiohydantoins Containing a Carboxyaryl Group and Method of Preparation.
2,649,517. Document-Actuated Device for Effectively Delaying a Switching Interval.
2,651,566. Display Sign and Method of Making the Same.
2,651,965. Shutter-Governor Assembly for Motion-Picture Apparatus.
2,652,208. Film-Winding Device.
2,652,209. Film Metering Mechanism.
2,652,210. Film Metering and Phasing Mechanism.
2,652,327. Photographic Color Reproduction Process.
2,652,329. Color Couplers Containing Isophthalic Acid Radicals.
2,652,330. Supersensitization of Photographic Emulsions With Complex Merocyanine Dyes.
2,652,331. 4-Amino-N,N-Dialkyl-3-Dialkylamino-Anilines as Developers for Photographic Silver Halide Emulsions.

2,652,345. Method of Setting Protein Containing Coatings With Ammonium.

2,652,351. Paper Adhesive Tape.

2,652,394. Bis-Cyanine Dyes and Method of Preparation.

2,652,397. Sensitising Dyes Containing a 3-Acylamino-5(4)-Thiazolone Nucleus.

2,652,428. N-Alkyl-N-(β-Methylsulfonamidoethyl)-P-Aminophenols.

2,653,873. Light-Sensitive Photographic Element.

2,655,092. Mold for Framing Lenses in a Plastic Mounting.

2,655,849. Film Hanger Rack.

2,656,196. Document Straightening Means for Photographic Copying Apparatus.

2,656,271. Photographic Developers Containing Diamino-Propanol Tetracetic Acid.

2,656,351. Trinuclear Dyes Containing a 5-Thiazolidone Nucleus.

2,656,352. Quaternary Salt Dyes Derived From 2-Tertiary-amino-5(4)-Thiazolones.

2,656,353. Sensitising Dyes Containing a 2-Thio-2,5(3,4)-Thiazoledione Nucleus.

2,657,134. Photographic Emulsion With Colored Couplers Containing Isophthalic Ester Groups.

2,657,135. Photographic Emulsions and Solutions Containing Thioglycolic Acid Derivatives.

2,657,136. Photographic Antiplumming Agents and Compositions Containing Them.

2,659,103. Knee Action Dope Hopper Finger.

2,659,542. Rewind Core Holder.

2,659,665. Reticles.

2,659,680. Preparation of Photographic Paper Having Good Curl Characteristics.

2,663,234. Double-Exposure Prevention Device.

2,663,235. High-Speed Shutter.

2,663,732. (Alkylsulfonamido) Arylhydrazines.

2,771,817. Seven-Element Gauss Type Objective Comprising Two Negative Meniscus Components Enclosed by Two Positive Components.

2,828,001. Device for Transporting Discrete Elements.

2,835,609. Method for Coating Cellulose Ester Films.

2,843,288. Multiple Compartment Receptacle.

Applications for license may be addressed to: Director, Patent Department, Eastman Kodak Company, 343 State St., Rochester 4, N. Y.

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1958

Total number of pending applications (excluding Designs)	201,063
Total number of pending Design applications	7,062
Total number of applications awaiting action (excluding Designs)	84,659
Total number of Design applications awaiting action	2,780
Date of oldest new application	Jan. 16, 1958
Date of oldest amended application	Jan. 2, 1958

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 36, 42, 48, 50, 56, 59, 60, 62, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 43, 44, 49, 51, 54, 60.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 37, 38, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 29, 30, 33, 38, 40, 41, 55.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 46, 58, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders; Harrows and Diggers; Plows.	5-23-55	5-19-58
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	5-16-58	5-19-58
3. (VII) MARMELSTEIN, N., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	6-6-58	6-6-58
4. (VI) FALLER, E. A. (SCHULZ, H. O., acting), Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	5-20-58	5-20-58
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	3-26-58	3-22-58
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	1-19-58	1-28-58
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	6-2-58	6-2-58
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	6-2-58	3-24-58
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	6-4-58	5-2-58
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	5-20-58	1-15-58
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	3-21-58	3-26-58
12. (III) SPINTMAN, S. (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	4-30-58	3-27-58
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	5-6-58	5-8-58
14. (III) WILTZ, W. A., (acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	1-16-58	1-3-58
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus	5-2-58	5-15-58
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	4-11-58	3-22-58
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	7-9-58	5-27-58
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	5-19-58	5-15-58
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	5-29-58	5-15-58
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	5-29-58	5-29-58
21. (III) MADER, R. C., Textiles	4-15-58	4-21-58
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	5-15-58	5-19-58
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	2-4-58	2-3-58
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	5-1-58	7-14-58
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	7-1-58	5-13-58
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	6-3-58	5-13-58
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	7-2-58	7-1-58
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	5-19-58	5-16-58
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	4-1-58	4-26-58
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling; Refrigeration	5-15-58	5-15-58

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	7-16-58	7-14-58
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	5-23-58	5-26-58
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements; Roofs	5-19-58	5-5-58
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	5-1-58	5-1-58
35. (IV) DEMBO, L. J., Dispensing; Filling Receptacles; Toilet; Sheet Feeding	5-1-58	5-1-58
36. (V) EVANS, R. L., Measuring and Testing; Automatic Weighers; Weighing Scales	5-5-58	5-5-58
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	2-10-58	1-24-58
38. (I) PARKER, C. B., (acting). Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthracenes, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	7-10-58	7-30-58
39. (IV) WEIL, L., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	7-15-58	7-15-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5-2-58	5-5-58
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	5-6-58	5-5-58
42. (II) REYNOLDS, S. R., Electric Signaling; Telegraphy (part)	5-21-58	5-17-58
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	5-2-58	6-2-58
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	1-20-58	1-6-58
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	5-19-58	5-26-58
46. (I) WILES, W. G. (CAMPBELL, E. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	5-6-58	5-1-58
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	5-16-58	5-16-58
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	5-15-58	5-15-58
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Concentrating Evaporators; Glass	5-16-58	5-16-58
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber; Synthetic Resins (part) (e. g., Butadiene Polymers and Copolymers, Polyacrylonitriles, Acrylate Polymers and Copolymers)	4-25-58	4-18-58
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas; Oscillators	5-15-58	5-19-58
52. (V) LE ROY, C. A., Supports and Racks	5-16-58	5-16-58
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	5-5-58	5-15-58
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	7-23-58	7-15-58
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	1-15-58	3-10-58
56. (I) SPECK, J. E., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	5-4-58	5-16-58
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Cutting and Punching	5-2-58	4-21-58
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part); Selective Punching	5-2-58	5-21-58
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	5-20-58	5-16-58
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	5-13-58	5-19-58
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Railway Mail Delivery; Feeding of Indefinite Lengths	4-25-58	4-25-58
62. (IV) LOWE, D. E., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	5-17-58	5-16-58
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	5-16-58	5-16-58
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	5-1-58	4-1-58
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	5-15-58	5-16-58
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	5-1-58	6-3-58
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	7-1-58	6-30-58
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CLASS. DIVS. IV—BERLOWITZ, W., Earth Boring	7-21-58	7-1-58
CLASS. DIVS. V—ANGEL, C. D., Scaffolds; Masonry and Concrete Structures; Time-Controlling Apparatus; Packed Rod Joints; Joint Packings	5-26-58	5-26-58
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part) i. e., Polyethylenes	5-17-58	5-15-58
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DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	6-3-58	6-3-58

*Established August 23, 1957, by order of the Commissioner—723 O. G. 218.

The following divisions have been abolished: 51 and 55

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during February 1959, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,271,510 to 2,274,631, inclusive
Plant Patents ..... Numbers 502 to 503, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE DEVINE

No. 6395. Decided December 1, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. APPEAL TO THE U. S. COURT OF CUSTOMS AND PATENT APPEALS—ASSUMPTION FROM ABSENCE OF REJECTION ON A BASIC REFERENCE ALONE.

Where no rejection of claims to a blind bolt reciting a "pivot ledge" was predicated upon a basic reference, alone, *Held* that "we may reasonably assume that the Board of Appeals felt that it would not be obvious to one skilled in the art to modify" the structure of that reference to include a "pivot ledge" without further teaching.

2. PATENTABILITY—CROWDED ART—FASTENER ART.

"The fastener art can aptly be described as 'crowded,' • • •."

3. SAME—DOUBT RESOLVED IN FAVOR OF APPLICANT.

"Doubt as to patentability should be resolved in favor of the applicant."

4. SAME—PARTICULAR SUBJECT MATTER—BLIND BOLT.

Claim to blind bolts *Held* patentable over the cited prior art, with expression of the view that appellant's "improvement in blind bolts is neither disclosed nor fairly suggested by the references individually or in combination" and that though "the modification over the prior art to achieve applicant's novel result seems slight in the light of hindsight wisdom, we believe the claimed subject matter did not rise merely from the ordinary skill of the art."

APPEAL from the Patent Office. Serial No. 241,029.

REVERSED.

Robert A. Lavender (*Richard G. Radue* of counsel) for Devine.

Clarence W. Moore (*D. Kreider* of counsel) for the Commissioner of Patents.

Before O'CONNELL, *Acting Chief Judge*, and WORLEY, RICH, and MARTIN, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This appeal is from the Patent Office Board of Appeals which affirmed the Examiner's rejection of claims 1, 4, 6, 7, 9, 12, 15, 16, 22, 27, and 28 of appellant's application entitled "Bolts," Serial No. 241,029, filed August 9, 1951. No claims are allowed.

Appellant's application relates to so-called "blind bolts" for securing one member to another where one of the bolt-contacting surfaces is inaccessible. Three species are disclosed. Claim 1, which is generic to all disclosed species, reads:

1. A screw bolt including: a threaded head portion and a shank portion extending axially said head portion; the said shank portion being of less cross-sectional area than said head portion at the juncture of said head portion and said shank portion, whereby a pivot ledge is formed; the said shank portion having one longitudinal part thereof parallel to the axis of said head portion; a toe extending radially said one part of said shank portion and having a flat surface paralleling and facing said ledges; the other longitudinal part of said shank portion being tapered at an angle to said ledge such that the greatest transverse dimension in the plane of said flat surface is substantially equal to the greatest transverse dimension in said shank portion in the plane of said ledge.

The first species is of unitary construction, termed a "solid bolt," the second is of split construction comprising two longitudinal sections with a ball pivot engaging the flat surfaces of the sections so that the sections may slide over each other (like scissors) into engaging position, termed a "slide bolt," and the third species is a dual section bolt, termed a "spread bolt," which differs from the second species in that the two sections swing away from each other at one end into clamping position about a ball pivot instead of sliding into such position, so that the flat surfaces of the shank portions are in contact only when the bolt is in collapsed position for insertion into the hole.

The second species or "slide bolt" represents the elected species, but the Board of Appeals acted on the merits of claims to all of the embodiments. All the claims were rejected as unpatentable over the prior art. The question before us is whether the state of the art provides a proper basis for the rejection of appellant's claims.

Each of the claims includes a recitation directed to the difference in cross-sectional dimensions of the threaded head and the shank portion of the bolt which results in the formation of a shoulder which appellant designates a "pivot ledge" on which the bolt pivots when the ledge contacts the edge of the hole, which aids in seating the toe. Appellant states in his brief:

Thus, the essence of this invention, which is common to the three types of bolts described is:

A ledge formed in the plane common to the head and an axially extending shank, and a pivot in that plane.

To be more specific, the head portion of applicant's bolt is threaded and of greater diameter than the hole through which the shank and toe are to be inserted. The shank, therefore, is of lesser diameter than the head portion so that a shoulder is formed at the juncture. One side of the shank extends at right angles to the shoulder, and this side terminates in the toe which is shaped to engage the surface inaccessible to the operator. The other side of the shank is tapered longitudinally to permit the toe to be inserted without jamming. To insert the bolt into the hole, the head must be cocked slightly in relation to the surface facing the operator. This means that one point on the shoulder will contact the upper plate before any other point on the shoulder. Appellant terms movement about this point pivoting, and that portion of the shoulder the "pivot ledge." The "pivot ledge" forms a fulcrum about which the bolt pivots until the toe moves into position to engage the rim of the hole on the inaccessible side.

The bolt would now be ready to receive the nut. If the plates to be bolted are in a horizontal plane the entire operation may be performed simply by dropping the bolt into the hole and placing the nut thereon. In other positions the bolt would, of course, have to be held with the pivot ledge in contact with the plate surface surrounding the hole.

The references relied on are:

Kennedy, 551,931, Dec. 24, 1895.
Glauber, 594,526, Nov. 30, 1897.
Kling, 1,055,330, Mar. 11, 1913.
Knapik, 1,400,364, Dec. 13, 1921.
Griffin (British patent), 175,707, Mar. 2, 1922.

Generic claims 1 and 27, and claims 4 and 6 which are specific to the "solid bolt," were rejected as unpatentable over Knapik in view of Kennedy or Glauber. Knapik discloses a solid blind bolt which is generally similar to the "solid bolt" shown and described by

appellant, but *lacks a shoulder* at the juncture of the head and shank portions. Kennedy discloses a stove pipe and metal joint fastener suitable for blind use formed of two sliding sections joined by a transverse pivot, the "toe" of the fastener formed by the shank of each section being bent at nearly a right angle to the axis of the threaded end. The threaded ends of the sections are of larger diameter than the unthreaded portions with the result that a *shoulder is formed* at the junction of the two portions. Glauber shows a pipe coupling comprising two longitudinal sections each having a threaded portion and a shank portion of lesser diameter extending axially therefrom, thereby *forming a shoulder*. The ends of the shank portions include toe portions extending radially therefrom in opposite directions for engagement with the inside surface of the article to which the coupling is to be secured. The two sections of the coupling are in pivotal engagement at a point below the threaded portion, but operate like appellant's "spread bolt" rather than like his "slide bolt." The Board in rejecting claims 1, 4, 6 and 27 relied on the latter two patents as suggesting that the threaded head portion of the Knapik bolt be formed with a larger diameter than the shank portion, thereby providing an integral shoulder or ledge at the juncture. Appellant contends, however, that Knapik is ineffective as even a basic reference because, (1) Knapik lacks a ledge between the shank and the threaded portion, (2) there is no contemplation by Knapik of "a toe with a flat surface paralleling and facing said ledge with a greatest transverse dimension substantially equal to the greatest transverse dimension of the shank portion in the plane of said ledge," (3) the taper of the Knapik bolt starts within the plate being bolted, making it "inoperative for the purpose intended by appellant," and (4) if a nut is screwed down on Knapik to form a ledge at the plane common to the head and the shank, the ledge thus formed will *prevent* the bolt from being inserted.

We are constrained to disagree with all four of appellant's contentions. There appears to be no essential difference between the disclosure of the Knapik bolt and appellant's bolt except the "pivot ledge" formed at the junction between the threaded portion and the shank. Appellant's limitation to a "toe • • • with a greatest transverse dimension substantially equal to the greatest transverse dimension of the shank portion in the plane of said ledge" appears to be nothing more than the preferred proportions of Knapik which would be obvious to one skilled in the art, since it is clearly desirable to have both the toe and the shank of the largest possible diameter for strength, and at the same time both the toe and the shank must fit through the same hole, resulting in substantially equal transverse dimensions. By the same token, a modification of the Knapik bolt so that the shank taper starts just outside the plate being bolted (at the "pivot ledge" location) would not require the unobvious, for one skilled in the art would quickly realise that this is necessary to allow the bolt to fit into the hole without excessive sacrifice of shank diameter and corresponding strength reduction. No merit is seen in appellant's fourth contention that screwing down a nut on Knapik to the point where the shank begins will prevent the bolt from being inserted, for it is evident that one need not even have the skill of the nut and bolt art to realise that the distance between the toe and the toe-facing surface of the nut must be at least equal to the depth of the hole before the bolt will work, and one would simply choose a bolt with a longer shank if he desired the threaded portion to remain outside the hole. For the above reasons we feel that Knapik is at least valid as a basic reference, albeit there are differences. [1] No rejection was predicated upon Knapik alone, so we may reasonably assume that the Board of Appeals felt that it would not be obvious to one skilled in the art to modify Knapik's structure to include a "pivot ledge" without further teaching.

We now examine the Kennedy and Glauber patents to determine whether they can properly be combined with the basic reference, Knapik, to suggest that the threaded head portion of Knapik be made of greater diameter than the shank to provide a "pivot ledge." Kennedy's fastener appears to be analogous art, i. e. a blind fastener, and a ledge or shoulder is clearly seen between the threaded head and the shank, but because there is no teaching of the use of the ledge as a pivot point about which to move the "toe" into engagement position, we feel that Kennedy cannot be said to suggest what appellant is claiming. Glauber's structure is a pipe coupling (for connecting a pipe to a vessel) rather than a bolt, raising doubts as to whether it is analogous art. Even if analogous, we feel that Glauber cannot properly be combined with Knapik to reject appellant's claims 1, 4, 6, and 27 because, as in Kennedy, there is no indication that the ledge formed by the enlarged threaded section can be used as a "*pivot point*"; rather, it appears that the enlarged threaded section of Glauber's structure merely prevents the coupling from falling through the hole *after* it has been fully opened into its operating position. We hold, therefore, that claims 1, 4, 6, and 27 were not properly rejected as unpatentable over Knapik in view of either Kennedy or Glauber.

Claims 1, 7, 9, 12, 22, and 27 were also rejected as unpatentable over either Glauber or Griffin. The rejection based on Glauber may be dismissed for the reasons set forth above, i. e., there is no teaching of the use of the ledge as a "pivot point" to aid in engaging the "toe." Griffin discloses several species of two-piece blind spread bolts, but, like the references previously discussed, lacks the teaching of a "pivot ledge" as used by appellant. Griffin has a projection or collar between the shank and the threaded portion but his reason for using it is only "To prevent the bolt slipping through the bolt hole before the nut is screwed on • • •."

Claims 1, 6, 7, 9, 12, 15, 16, 22, 27, and 28 were also rejected as unpatentable over Kling in view of Kennedy or Glauber. Kling discloses several species of blind slide bolts but, again, lacks a teaching of a "pivot ledge." Both Kennedy and Glauber have been discussed, supra, and shown not to supply this lack.

Appellant's improvement in blind bolts is neither disclosed nor fairly suggested by the references individually or in combination. Though the modification over the prior art to achieve applicant's novel result seems slight in the light of hindsight wisdom, we believe the claimed subject matter did not arise merely from the ordinary skill of the art. [2] The fastener art can

aptly be described as "crowded," but applicant seeks protection only on a narrow improvement which we feel merits a patent. [3] Doubt as to patentability should be resolved in favor of the applicant. *In re Hummer*, 44 C. C. P. A. (Patents) 814, 241 F.2d 742, 113 USPQ 66.

[4] The decision of the Board of Appeals is reversed. REVERSED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,119,155, A. Faitelowitz, Method of reducing potatoes and other starch-containing vegetables to the form of a dry powder; **2,352,670**, Z. Volpertas, Art of dried starch bearing food; **2,520,391**, E. J. Rivoche, Drying of starchy foodstuffs; **2,630,391**, R. A. S. Templeton, Drying of vegetables, filed Dec. 29, 1958, D. C. Del. (Wilmington), Doc. 2072, *Templeton Patents Limited* v. *R. T. Frence Co. et al.*

2,289,439, F. Kogl, Method of precasting concrete stair structures; **2,353,676**, same, filed Dec. 22, 1958, D. C., W. D. La. (Shreveport), Doc. 7278–S, *Frank Kogl et al.* v. *Babineaux Concrete Products.*

2,352,670. (See 2,119,155.)

2,353,676. (See 2,289,439.)

2,360,067. (See Re. 22,988.)

2,372,373, J. L. Gilson, Method and apparatus for freezing foods, filed Dec. 31, 1958, D. C., N. D. Ind. (Hammond), Doc. 2513, *Gordon Johnson Equipment Co.* v. *Land O'Goshen, Inc.*

2,420,771, Crawford and Crawford, Knitting machine and method; **2,466,885**, E. T. Floyd, Stockings; **2,473,677**, Crawford and Crawford, Knitting machine; **Reg. No. 422,356** (MORPUL), Morpul, Inc., Men's hosiery; **Reg. No. 634,114**, same, Hosiery, filed Dec. 17, 1958, D. C., M. D. Ga. (Macon), Doc. 406, *Morpul, Inc.* v. *Smith & Hunt Machine Works.*

2,466,885. (See 2,420,771.)

2,473,677. (See 2,420,771.)

2,482,082, J. Baer, Excavating tooth, filed Dec. 22, 1958, D. C., N. D. Ind. (Hammond), Doc. 2525, *Electric Steel Foundry Co.* v. *American Steel Foundries.*

2,501,793, A. F. Sperry, Electric alarm system; **2,701,872**, R. J. Marmorstone, Annunciator system; **Re. 24,681**, same; **2,708,249**, A. F. Sperry, Instrument units for process alarm systems, filed Dec. 30, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c2211, *Penellit, Inc.* v. *Scam Corp. et al.*

2,630,391. (See 2,119,155.)

2,532,854, Brink and Folkers, 5,6-dimethylbenzimidazole and acid salts thereof; **2,595,488**, Wood and Hendlin, Process for production of vitamin B12; **2,708,203**, Rickes and Wood, Vitamin B12-active composition and process of preparing same, filed Dec. 23, 1958, D. C., S. D. Iowa (Des Moines), Doc. 2/423, *Merck & Co., Inc.* v. *Grain Processing Corp.*

2,534,500, C. F. Boe, Emulsion containing a liquefied propellant gas under pressure, etc., filed Dec. 30, 1958, D. C., E. D. Pa. (Philadelphia), Doc. 25734, *S. C. Johnson & Son, Inc.* v. *Carsten F. Boe.* Same, D. C., S. D. N. Y., Doc. 141/207, *S. C. Johnson & Son, Inc.* v. *Carter Products, Inc. et al.*

2,582,124, R. S. Holmes, Ammunition, filed Dec. 30, 1958, D. C. Del. (Wilmington), Doc. 2074, *Olin Mathieson Chemical Corp.* v. *Remington Arms Co., Inc.*

2,595,489. (See 2,522,854.)

2,600,689, R. D. Henderson, Axially compressing type tire dismounting apparatus, filed Oct. 17, 1952, D. C., S. D. Ohio (Columbus), Doc. 3020, *Coats, Loaders & Stackers, Inc.* v. *Egbert D. Henderson et al.* Final judgment; patent held not infringed Dec. 29, 1958.

2,630,391. (See 2,119,155.)

2,663,625, P. L. Born, Oil gas process and apparatus, filed Dec. 29, 1958, D. C., E. D. Pa. (Philadelphia), Doc. 25744, *Gas Machinery Co.* v. *United Gas Improvement Co. et al.*

2,701,872. (See 2,501,793.)

2,701,881. (See 2,522,854.)

2,708,218. (See 2,501,793.)

2,714,812. (See 2,771,759.)

2,730,945, G. Miller, Transparency viewer combined ejector and light switch, filed Dec. 23, 1958, D. C., S. D. N. Y., Doc. 141/134, *Gustave Miller* v. *Service Photo Suppliers, Inc. et al.*

2,736,945. (See 2,771,759.)

2,742,119, Combe and Combe, Prefabricated metal window assembly, filed Dec. 19, 1958, D. C., W. D. Wash. (Seattle), Doc. 4756, *Van Tone Millwork Co.* v. *H & D Mill Work, Inc.*

2,771,733. (See 2,771,759.)

2,771,756. (See 2,771,759.)

2,771,759, Leath and Bobo, Jr., Textile product and method; **2,771,733**, same, Yarn and method of producing the same; **2,714,812**, same, Method of controlling wildness of twisted yarn during delivery to a knitting operation; **2,771,756**, Burleson and Holmes, Knitting; **2,736,945**, same, Process for knitting, filed Dec. 30, 1958, D. C. N. H. (Concord), Doc. 1984, *Patentex, Inc.* v. *M. K. M. Knitting Mills, Inc.*

2,791,096, R. G. Hilbert et al., Textile spindle; **2,866,165**, Stoddard and Seem, Apparatus for processing textile yarns, filed Dec. 29, 1958, D. C., M. D. N. C. (Greensboro), Doc. C/235/g/58, *Universal Winding Co.* v. *Madison Throwing Co. et al.*

2,866,165. (See 2,791,096.)

2,830,113, Lewis and Schmier, Electrical switching device, filed Dec. 30, 1958, D. C., E. D. Pa. (Philadelphia), Doc. 25751, *Redale Mfg. Co., Inc.* v. *Arrow-Hart & Hegeman Co., Inc.*

Re. 22,988 (of **2,360,067**), W. S. McLeish, Anchors, filed Dec. 22, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1194/58–BH, *Rio-Wil, Inc.* v. *Temploc, Inc. et al.*

Re. 24,681. (See 2,501,793.)

Re. 24,454, K. H. Wilson, Folding sectional table, filed Dec. 23, 1958, D. C. Minn. (St. Paul), Doc. 3/58/447, *Kermit H. Wilson* v. *Heidemen-Hemme Mfg. Co.*

Des. 178,833, I. Greene, Lady's hat or similar article; **Des. 178,834**, same, filed Dec. 30, 1958, D. C., S. D. N. Y., Doc. 141/208, *Fashion Demonstrations, Inc.* v. *Jepco Corp.*

Des. 178,834. (See Des. 178,833.)

REISSUES

FEBRUARY 10, 1959

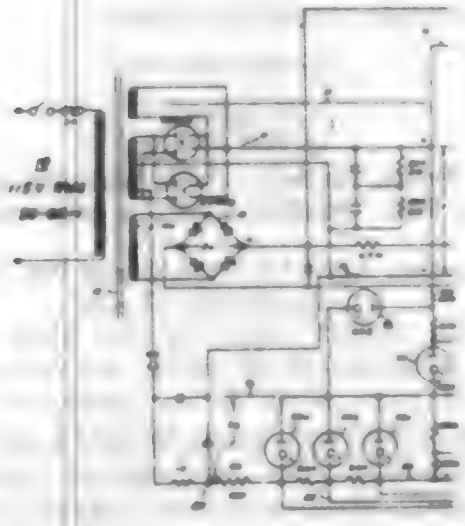
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,598
DIRECT CURRENT POWER SOURCE

Conrad G. De Biasio, Red Bank, N. J.

Original No. 2,847,636, dated August 12, 1958, Serial No. 605,133, August 20, 1956. Application for reissue October 20, 1958, Serial No. 768,507

11 Claims. (Cl. 323—22)



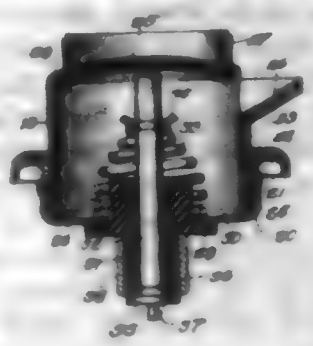
1. In a direct current power source of the character described, lines respectively positive and negative, a control element series-connected in said positive line, means for supplying and applying direct current input voltage across the respective input terminals of said lines, the potential at said negative line being permanently fixed equivalent to a ground, a third line, means for supplying and applying across said negative line and said third line a reference potential under the condition whereat the potential of said third line is always negative with respect to the potential of said negative line, a first resistance and a second resistance series-connected with respect to each other and constituting jointly a constant-current divider connected across said third line and the output terminal of said positive line, said power source embodying an electrical bridge configuration wherein said input voltage with said control element and with said reference potential forms one arm of said bridge and wherein said first and second resistances form the other arm of said bridge, an input balanced detector tube constituting a comparator and having grid and plate circuits, said grid circuit being connected to said constant-current divider accordingly to be responsive to occurring variations in output voltage across the respective output terminals of said positive line and said negative line, an amplifier tube having grid and plate and screen circuits, means connecting the plate circuit of said detector tube to the grid circuit of said amplifier tube thereby to render said amplifier tube responsive to signals from said detector tube, means connecting said amplifier tube to operate with relatively low screen voltage and very small plate current thus to permit only small changes in the plate current of said amplifier tube during operation of said power source, and means electrically connecting said amplifier tube and said control element.

24,599
DISPENSING VALVE STRUCTURE FOR AEROSOL CONTAINER

Albert B. Campbell, Du Page County, Ill., assignor to Campbell Products Co., a corporation of Illinois

Original No. 2,766,915, dated October 16, 1956, Serial No. 296,359, June 30, 1952. Application for reissue May 19, 1958, Serial No. 736,420

7 Claims. (Cl. 222—394)



7. An aerosol dispenser assembly having a container, valve assembly and cap, which comprises: a dispenser container having an upper opening for receiving a dispensing valve assembly; a dispensing valve assembly comprising a valve housing having an opening; said housing having means for being attached to said container at said container opening; substantially vertically extending fluid passage means with an upper outlet positioned above said container and a lower inlet communicating with the confines of said container; a vertically extending, vertically reciprocative valve stem having an upper portion extending above said container; and sealing means for selectively opening and sealably closing said fluid passage means; said sealing means, valve stem and passage means being operatively associated with each other so that said sealing means normally closes said passage means and thereby prevents the egress of contents of said container through said passage outlet, and movement of said stem from its normal position permits the egress of contents of said container through said passage outlet; and an integral flexible removable plastic cap comprising a cylindrical noncollapsible skirt portion normally detachably secured to said container and normally circumscribing said passage means and said upper portion of the reciprocative valve stem; the lower end of said skirt having retaining means for permitting the cap to be secured to said valve housing; said skirt portion having a fluid outlet extending at an angle to the axis of said stem through which the container contents is adapted to spout; said cap having a substantially flat flexible top spaced above said skirt and overlying said upper portion of the valve stem which, when depressed, moves said valve stem from its normal position towards said container opening thereby permitting the egress of contents of said container through said passage outlet; a substantially vertical upstanding wall extending above said flexible top and said skirt for preventing accidental depression of said flexible top and said valve stem; said flexible top being capable of being depressed independently of said upstanding wall and said skirt but only by selective pressure applied within the boundary of the upstanding wall.

PLANT PATENTS

GRANTED FEBRUARY 10, 1959

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,308

MINIATURE ROSE PLANT

Ralph S. Moore, Visalia, Calif.

Application May 19, 1958, Serial No. 736,418

1 Claim. (Cl. 47—61)

A new and distinct variety of miniature rose plant of bush type, substantially as described and illustrated, characterized by a hardy, dwarf, bushy, much branched, vigorous growing plant which propagates easily and rapidly, strikes roots quickly from either hard or soft wood, and grows rapidly to maturity; further characterized by very double, red, abundantly borne, very double flowers which open well in all weather, become in full bloom nearly as deep as broad, and have a moderate apple scent; and additionally characterized—in comparison to the Oakington Ruby, by faster growth, and by flowers which are produced more freely, more double, and of a brighter red color.

1,309

ROSE PLANT

Herbert C. Swim, Ontario, Calif., assignor to Armstrong Nurseries, Inc., Ontario, Calif., a corporation of California

Application March 17, 1958, Serial No. 722,189

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by the unique combination of very vigorous, upright and relatively floriferous habits of growth, large, attractive, glossy dark green foliage, a habit of usually bearing flowers singly on long stems, long, attractive urn-shaped buds, usually semi-double but sometimes double flowers, and a general color tonality of the flowers corresponding to near Claret Rose, with a variable blend of yellow and pink on the reverse side of the flower petals.

1,310

ROSE PLANT

Herbert C. Swim, Ontario, Calif., assignor to Armstrong Nurseries, Inc., Ontario, Calif., a corporation of California

Application April 15, 1958, Serial No. 728,758

1 Claim. (Cl. 47—61)

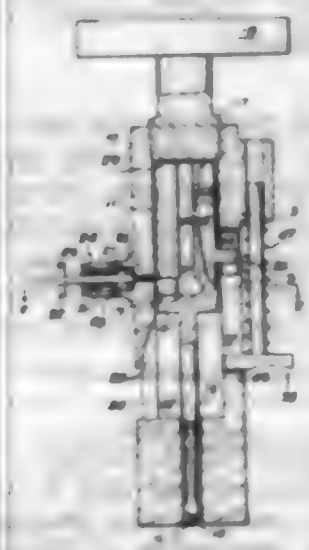
A new and distinct variety of rose plant of the polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its unique combination of vigorous, much-branched, semi-dwarf and attractive rounded, bushy and compact plant habits, attractive, glossy, disease-resistant foliage ranging from small to medium size and covering the plant well, very floriferous and ever-blooming flowering habit, with the flowers borne in many clusters of from medium to large size and almost completely covering the plant when in peak bloom, small, single flowers of attractive ruffled form when fully open, and a distinctive general color tonality of the flowers ranging from white to very pale yellow, shaded or tinged with pink.

PATENTS

GRANTED FEBRUARY 10, 1959

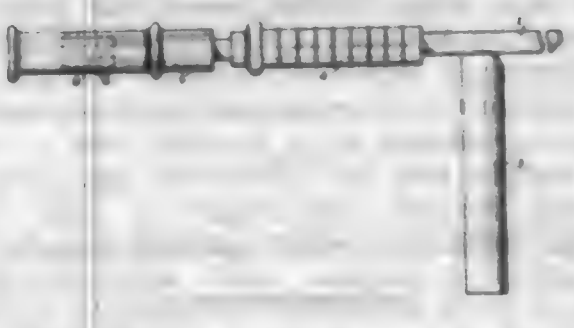
GENERAL AND MECHANICAL

2,872,682
CARTRIDGE ACTUATED TOOL
Karl W. Maier, Cheshire, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application April 25, 1957, Serial No. 655,131
5 Claims. (Cl. 1—44.5)



3. A cartridge actuated tool comprising a barrel having a closed end and having a combined cartridge loading and cartridge ejection port, a piston slidably disposed in the barrel, said piston having a cartridge chamber formed therein, said chamber communicating with the closed end of the barrel, said piston being movable relative to said barrel from a loading position wherein said chamber is accessible through said port for inserting a cartridge to a firing position wherein a cartridge so inserted is breeched against the barrel wall and means for firing said cartridge whereby hot gases generated upon firing are directed towards the closed end of the barrel effective to drive the piston towards said port to allow the spent cartridge to be ejected by the blow back action.

2,872,683
STAPLE DRIVING MECHANISM
Walter Henry Holley, St. Mary Cray, Kent, England, assignor to McGarry and Cole Limited, London, England, a British company
Application February 5, 1958, Serial No. 713,588
Claims priority, application Great Britain February 18, 1957
1 Claim. (Cl. 1—49)



In a staple-driving mechanism of the type in which staples are fed consecutively from a magazine into a staple guideway in the body of the mechanism when the blade of a staple driver is raised sufficiently to clear the magazine, a catch mechanism for preventing the introduction of a further staple into the staple guideway, the said catch mechanism comprising a catch member carried by the staple driver and a sliding sleeve movable through a limited distance lengthwise of the staple driver and over the catch member, the sleeve rendering the catch member inoperative at the upper position of the sleeve and releasing the catch member at its lower position, upper and lower stops being positioned in the body to co-operate with said sleeve, the lower stop being positioned to engage the sleeve and move it lengthwise up the driver and over the catch as the driver reaches the bottom of its travel and the upper stop being positioned to engage the sleeve and move it lengthwise down the driver to uncover the operative upper end of the catch member as the driver reaches the top of its travel and to engage the catch member on upward movement of the driver with the sleeve in its lower position so as to arrest the driver before the blade uncovers the magazine.

2,872,684
COLLAR BRACE
Frank A. Weeks, Holly Springs, Miss.
Application November 30, 1956, Serial No. 625,469
2 Claims. (Cl. 2—132)

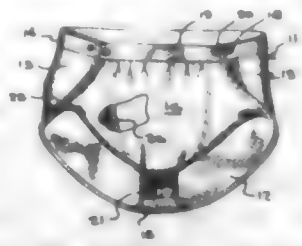


1. A collar brace comprising an elongated tube having a slot in one side and extended upwardly from the lower end, a spring in the tube, a head having a tab extended from one side slidably mounted in the tube in engagement with one end of said spring and positioned with the tab extended through the slot of the tube, a point carried by the head and extended through the lower end of the tube, a vertically disposed rod having a head on one end slidably positioned in the tube with the head in engagement with the opposite end of said spring, a horizontally disposed rod extending from the outer end of said vertically disposed rod at approximately right angles thereto, an angularly disposed rod connected at one end to the outer end of said horizontally disposed rod and at the opposite end to said vertically disposed rod and the horizontally disposed rod having vertically disposed relatively spaced points thereon for anchoring the bracket in the material on the under surface of the collar.

2,872,685
MAN'S UNDERGARMENT
Weldon O. Denbo, Port Arthur, Tex.
Application August 31, 1956, Serial No. 607,416
5 Claims. (Cl. 2—224)

1. In a man's undergarment, a tubular body of yieldable fabric material comprising an upper back portion of relatively large width, respective side wing portions merging with said back portion, a waist band on the top margin of said upper portion and side wing portions, a rela-

tively narrow crotch portion extending from the mid portion of the bottom margin of said back portion, a front flap defined by inverting the front portion of said body, said inverted front portion extending upwardly and being formed and arranged to overlap the margins of said side wing portions, said inverted front portion being substantially smaller in width than said back portion, said in-



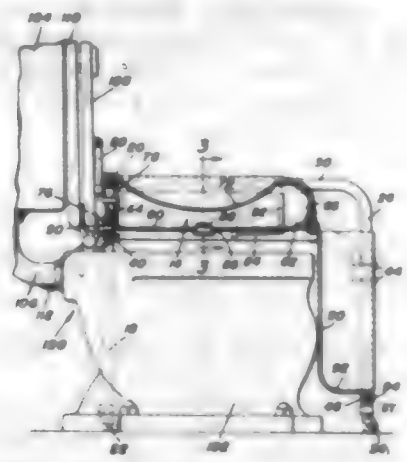
verted front portion tapering upwardly in width, whereby its top margin is substantially shorter than its bottom margin, an elastic band secured between said crotch portion and the bottom edge of said inverted front portion, and interengaging fasteners on the top corner portions of said inverted front portion and the end portions of said waist band.

2,872,686

SITZ BATH FOR TOILET SEAT

George E. Osborn and Harry C. Matthews, Saginaw, Mich.

Application November 8, 1956, Serial No. 621,043
3 Claims. (Cl. 4—6)



1. The combination of a water closet and a sitz bath wherein said sitz bath comprises a supporting frame, a tub carried by an upper part of said supporting frame, said tub being disposed at a height to overlie said water closet, spaced patient supporting straps carried by said supporting frame overlying said tub and depending partially thereinto, said tub including a fitting for attachment to a water tap, overflow means mounted in the bottom of said tub in such a position as not to interfere with a user, said overflow means adapted for directing water into the water closet whereby water may be circulated through said tub and maintained at constant level, casters on said supporting frame rendering said supporting frame readily portable, strap means carried by said supporting frame for anchoring said supporting frame to and above said water closet.

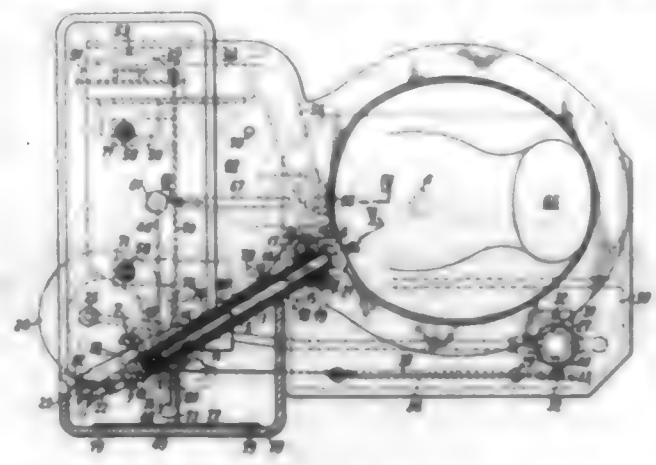
2,872,687

WATER CLOSET APPLIANCE

Hans Maurer, Zollikerberg, Zurich, Switzerland

Application September 11, 1957, Serial No. 683,309
Claims priority, application Switzerland September 14, 1956
13 Claims. (Cl. 4—7)

4. A water closet appliance comprising in combination: a flushing bowl, a sprayer device arranged on the said bowl for washing the lower body parts of the user, a water pressure pump attached on the said bowl and an electric motor in driving connection with the said pump, and electric circuit containing the said motor, the said sprayer device having a cylinder attached to the said bowl and hydraulically connected to the said pump, a tube mounted slidably in the said cylinder, a sprayer head arranged on the outer end of the said tube and an obturator means arranged on the inner end of the said tube, the said tube being displaced by water pressure



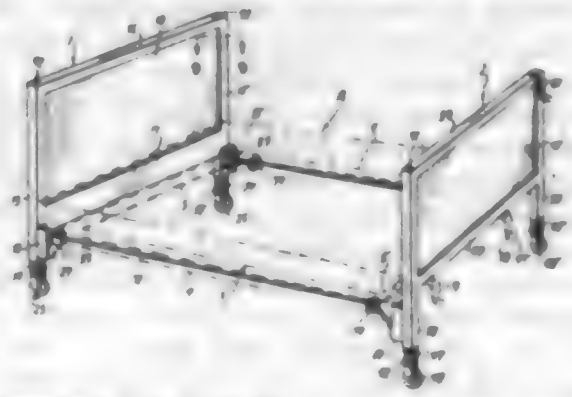
applied by the said pump to the said cylinder in the sense of projecting from the latter and into the said bowl, the said sprayer head then being in its operative position, and the said obturator means then being opened by the said water pressure, and the water flowing through the said tube and being sprayed at least partly in an upward direction by the said sprayer head.

2,872,688

HOSPITAL BEDS

Allan S. Reichert, Clayton, and Roy T. Adolphson, Webster Groves, Mo., assignors to Shampaine Company, St. Louis, Mo., a corporation of Missouri

Application February 15, 1954, Serial No. 410,214
5 Claims. (Cl. 5—63)



1. A hospital bed including a headboard and a footboard, each having tubular leg-receiving elements, a leg shiftably mounted in each leg-receiving element, each leg being slidably keyed within the leg-receiving element in which it is mounted so as to be non-rotative about its longitudinal axis, spaced parallel side rails rigidly connected at their ends to the headboard and footboard, said side rails being respectively located adjacent the outer lateral margins of the bed, a pulley means operatively located adjacent to each end of each side rail, flexible cable means trained around the pulley means and connecting the several legs for simultaneous shifting movement, a jack-screw rotatably mounted in one of the leg-receiving elements, the leg in said last-named leg receiving element being provided with a nut operatively engaged with said jack-screw, and crank means for rotating the jack-screw whereby to cause the headboard and fotboard to move upwardly together.

2,872,689

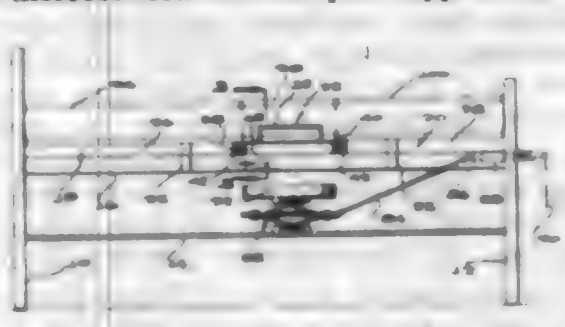
HOSPITAL BED HAVING LATERALLY ADJUSTABLE SPRING SECTIONS

Marie R. Fournet, Lake Charles, La.

Application January 18, 1957, Serial No. 634,946
1 Claim. (Cl. 5—90)

In a hospital bed comprising a support frame including side rails one at least of which is formed with

a side wall and with a top flange extending laterally inwardly from said wall, a pair of end spring sections carried by and spaced longitudinally of the frame, bed pan support means mounted on the frame below the space between the end sections, and a pair of center sections mounted on the end sections in the space between the same for relative adjustment transversely of the frame between contacting inner positions and outer positions in which the center sections are spaced apart sufficiently to expose therebetween the bed pan support means, the



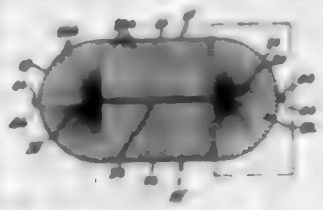
improvement which comprises: a locking plate pivoted upon the inner side of the side wall, said top flange having a slot through which said plate is pivotally movable between locking and unlocking positions respectively, one center section having notches spaced apart along one side thereof, each of which notches receives the locking plate in a selected position to which said one section is adjusted, said locking plate being pivoted on its axis for movement from one side to the other of said axis, so as to remain in selected positions of pivotal movement by gravity action.

2,872,690

INFLATABLE DEVICE OF PREDETERMINED SURFACE CONTOUR AND METHOD OF MAKING SAME

Charles Eugene Neisler, Jr., and Paul Mauney, Kings Mountain, N. C., assignors to Neisler Brothers, Incorporated, a corporation of North Carolina

Application August 15, 1955, Serial No. 528,426
13 Claims. (Cl. 5—349)



1. An inflatable device of predetermined surface contour, comprising a fluid-impervious inflatable flexible casing having an outer peripheral wall and being provided with means disposed internally thereof for internally reinforcing said casing, said means comprising a series of flexible elements extending internally into said casing from said outer peripheral wall thereof and secured at their opposite ends to opposite outer peripheral wall portions, respectively, of said casing, and means extending transversely of said flexible elements for orienting at least several of the latter in a predetermined disposition and for retaining said several elements in said disposition in the inflated condition of said casing.

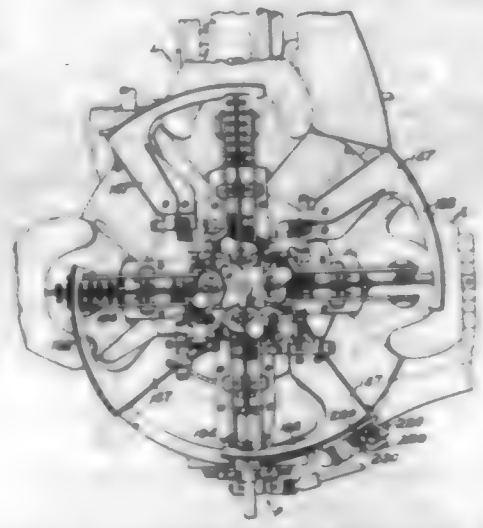
2,872,691

MACHINE FOR OPERATING UPON SHOE UPPERS

Joseph Fossa, Lynn, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application December 19, 1952, Serial No. 326,948
34 Claims. (Cl. 12—51)

1. In a machine for operating upon shoe uppers having a plurality of shoe upper operating and locating devices at a plurality of stations, a machine base, a work transfer device mounted to rotate about an axis from the base for transferring supported shoe uppers from one to another of said stations which transfer device comprises a rotatable turret small radially as compared with and projecting a substantial distance above said base about which transfer device said stations are grouped, a workholder supported from the turret for movement to successive stations and having cooperating clamping elements spaced for clamping between them the lacing margins of the shoe upper in an opened-out edge-facing relation and with the toe projecting radially outwardly from the turret, and a guideway on which the workholder is movable radially outwardly from its retracted position toward the rotational axis of said turret to a position where it is supported



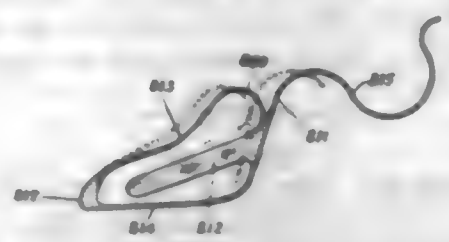
from and extends radially outwardly from the turret, said guideway and workholder while held in said retracted position projecting radially outwardly from the turret to substantially the outer limits of the base, and further being located substantially above said base to permit an upper to be positioned with the inside surface of the vamp facing upwardly and alternatively with the outside surface of the vamp facing upwardly and with the quarter portion of the upper encircling said guideway and holder, and said upper to be moved radially inwardly of the turret for locating the upper with the lacing margins in an opened-out edge-facing position on the workholder.

2,872,692

FLEXIBLE TYPE SHOE TREE WITH FREE END MEMBRANES

Charles Moses, Long Beach, N. Y.

Original application December 20, 1955, Serial No. 554,252, now Patent No. 2,787,013, dated April 2, 1957. Divided and this application February 13, 1957, Serial No. 639,884
1 Claim. (Cl. 12—115.8)



In a shoe tree for a shoe, a sole engaging base member in the form of a strip, a toe portion having a flexible top central portion at the forward end of said base member and opposed side flexible membranes for supporting the vamp of the shoe, and a resilient shank portion extending upwardly and rearwardly, a heel portion integral with said shank portion, said heel portion extending downwardly and upwardly from the rear of said shank member, said shank member and heel members being undulating and wave-like in form, said opposed side membranes having free ends, said membranes exerting the greatest degree of flexibility at said free ends, said top central portion extending upwardly and

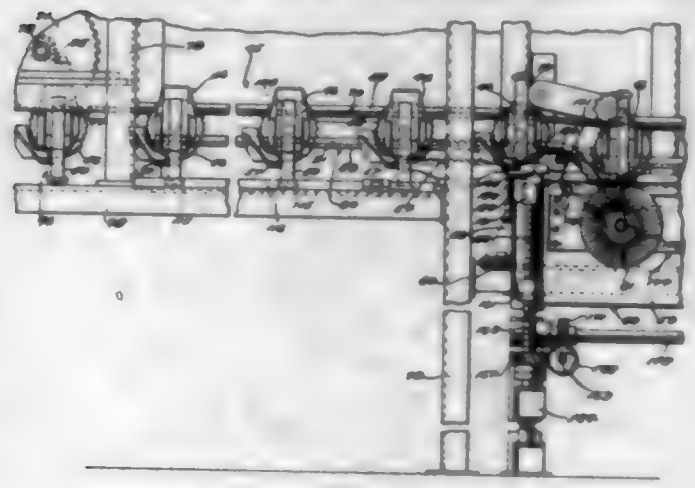
rearwardly and terminating in a downwardly directed curved free end, said free end of said top central portion almost touching said shank portion, said shank portion when resiliently compressed for adaptability to different shoe sizes moves said top central portion forwardly and upwardly for supporting the vamp of the shoe.

2,872,693

APPARATUS FOR CLEANING RELAYS

Paul E. Anderson and Clarence R. Fischrupp, Hinsdale, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application April 27, 1956, Serial No. 581,113
15 Claims. (Cl. 15—21)



10. In an apparatus for cleaning contacts of relays, a tank for holding a pool of cleaning liquid, a plurality of holders for supporting relays, a conveyor for supporting the holders for movement thereon to and from first and second positions and for movement therewith through a predetermined path to immerse portions of the relays in the pool of cleaning liquid, means on the conveyor for separating the contacts on the relays in response to movement of the holders to the second position, and means for moving the holders to the second position at a predetermined point in their path of movement.

12. In an apparatus for cleaning contacts of relays, an open tank for holding a pool of cleaning liquid, a rotary brush mounted in the tank and pool of cleaning liquid, a plurality of holders for supporting relays, a conveyor for supporting the holders for movement thereon to and from first and second positions and for movement therewith through a predetermined path to move the relays into the pool of cleaning liquid and the contacts into engagement with the brush, means on the conveyor for separating the contacts on the relays in response to movement of the holder from the first position to the second position, drive means for actuating the conveyor and rotating the brush, and means for moving the holders on the conveyor from the first position to the second position on the conveyor at a predetermined point in their path of movement.

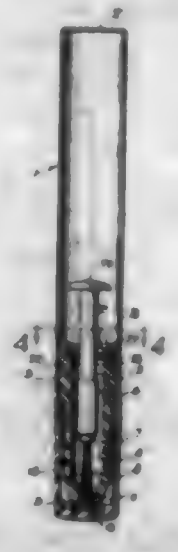
2,872,694

LIQUID APPLICATOR DEVICE

Cecil L. Hopkins, Galion, Ohio

Application January 11, 1955, Serial No. 481,093
2 Claims. (Cl. 15—139)

1. In a liquid applicator device having a tubular nozzle formed with a through passage and having inlet and discharge openings at opposite ends, a stem extending through the passage, a brush tuft on one end and a head on the other end of the stem, cooperating seat and valve elements respectively on the inside of the nozzle surrounding the passage inwardly of the discharge opening and on and movable with the stem; said stem, tuft and head being an assembly shiftable axially relative to the nozzle between an advanced use position in which the tuft projects from the discharge opening, the valve and seat elements are engaged to seal the passage and the head closes the inlet opening, and a displaced position in which the valve and seat elements are disengaged to open the passage and the head is spaced from the nozzle to open the inlet opening; partition means fixed in the passage between and spaced from the ends of the nozzle dividing the passage into an entry chamber between the inlet opening and the partition means and a supply chamber between the partition means and the seat element, the partition means closely surrounding the stem in guiding relation and for easy sliding of the stem and being formed with orifice means regulating and constituting the sole communicating means for the flow of liquid between the chambers, said stem being shiftable from said use position toward the displaced position by the application of endwise pressure to the tuft when the device in use is held with the discharge opening of the nozzle directed downwardly simultaneously to open the inlet opening for flow of liquid into the entry chamber and to open the passage at the seat element for the flow of liquid from the supply chamber out the discharge opening and onto the tuft, the effective area of the discharge opening and of the opening



in the passage between the displaced valve and the seat element each being greater than that of the orifice means to provide continuous flow of liquid from the inlet opening through the nozzle passage and onto the tuft at a predetermined rate governed by the orifice means while the device is maintained in said nozzle down position and the stem is kept in retracted position in use, a predetermined quantity of liquid being measured in the entry chamber between the head and the partition means by said head closing the entry upon release of endwise stem displacing pressure from the tuft for return of the assembly to use position while maintaining the device in said nozzle down position, such measured liquid then flowing by gravity at a predetermined rate through the orifice means and into the supply chamber during continued use of the device in said nozzle down position in readiness for release onto the tuft upon subsequent displacement of the stem in use, and, upon such subsequent displacement, the liquid in readiness running out the discharge opening at a faster rate than liquid runs into the supply chamber through the orifice means.

2,872,695

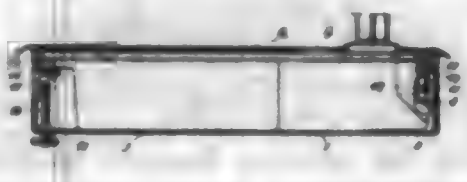
ADJUSTABLE DOOR CLOSER

Reinhold Voester, Stuttgart-Degerloch, Walter Voester, Stuttgart, and Wolfgang Schmid, Stuttgart-Feuerbach, Germany, assignors to Vereinigte Baubeschlagfabriken Gretsch & Co., Stuttgart-Feuerbach, Germany

Application June 19, 1957, Serial No. 666,685
Claims priority, application Germany June 21, 1956
9 Claims. (Cl. 16—55)

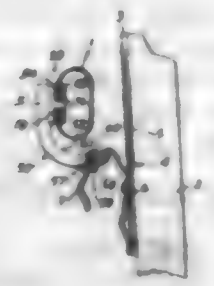
1. For use in an adjustable door closer or the like, in combination, an outer casing having a plurality of side walls extending from an end wall of said outer casing and having a pair of corners located at the ends of one of said side walls; an inner casing smaller than and located

within said outer casing for adjustable shifting movement therein, said inner casing having an end wall engaging said end wall of said outer casing and a side wall opposite said one side wall of said outer casing, said inner casing having at the ends of said side wall thereof respectively a pair of outer faces directed away from said end walls and respectively inclined from said ends of said inner casing side wall away from said end walls and toward the center of said inner casing; a pair of adjusting members located respectively adjacent said corners of said outer casing and within the latter and respectively having a pair of faces of the same inclination as said inner casing faces and opposite the latter faces; manually operable



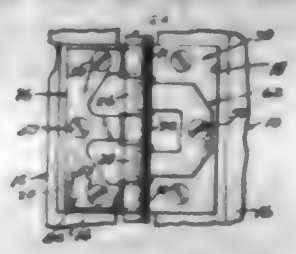
means carried by said outer casing and cooperating with said adjusting members for shifting the same toward or away from said end wall of said outer casing so that said inner casing will be shifted within said outer casing by engagement of said face of either of said adjusting members with the opposed face of the inner casing while the other adjusting member is disengaged from the other opposed face of the inner casing or freed for movement within said outer casing by disengagement of said faces of said adjusting members with respect to said faces of said inner casing; and means carried by said outer casing and cooperating with said inner casing for releasably fixing the same in an adjusted position within said outer casing.

2,872,696
DRAPERY HOOK SUPPORT
Samuel Perlmutter, Newton, Mass.
Application October 17, 1956, Serial No. 616,492
3 Claims. (Cl. 16—87.4)



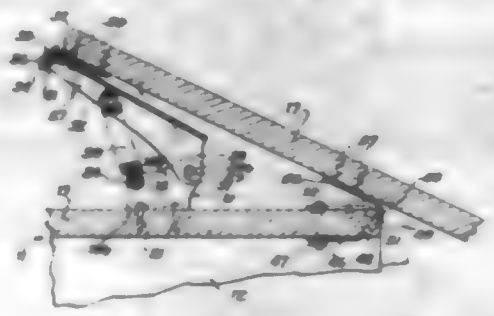
2. In combination with a telescopically formed channel type traverse rod having a C-shaped cross-section opening rearwardly towards its supporting wall; a slide support for a drapery hook comprising a body having a horizontal and a vertical arm joined at the bottom of the vertical arm and the rear of the horizontal arm, a horizontally elongated head formed at the top of the vertical arm and running along the outside of the rear of the channel rod, a horizontally elongated button spaced from and parallel to the head and of substantially the same height and width as the head, said button fitting within the channel rod, a horizontally elongated neck interconnecting the button and the head and extending through the opening in the rod, and a mass formed at the forward end of said horizontal arm having an opening extending therethrough with said opening being wider at the bottom than at the top, said opening also being formed with diverging front and rear walls with said front wall being substantially vertical whereby angular sections of hook members may be readily passed through said opening.

2,872,697
FRICTION-BRAKED HINGE ASSEMBLIES
George Hizsa, Jr., Roselle, N. J.
Application October 19, 1956, Serial No. 617,122
13 Claims. (Cl. 16—142)



1. A hinge assembly comprising first and second hinge leaves having inner edges and outboard and inboard sides, interdigitated barrel means on said inner edges, a hinge pin extending through the barrels thereof, brake means comprising resilient spring finger means having outer and inner ends, said finger means being located at the outboard side of said first hinge leaf, offset brake shoe means on the inner end of said finger means frictionally engaged with the barrel means of the second hinge leaf, means securing the outer end of the finger means to the first hinge leaf, the part of the finger means between the brake shoe means and said securing means being bowed away from the first hinge leaf under tension.

2,872,698
HINGE CONSTRUCTION
John P. Gommels, Quincy, Ill.
Application September 22, 1954, Serial No. 457,711
11 Claims. (Cl. 16—163)

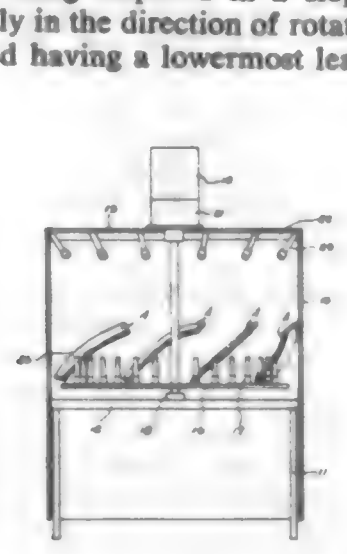


11. A hinge structure comprising, in combination, a hinge base, a link in the form of an arm having one end connected to the base for swinging movement about a fixed axis between door opening and closing positions, resilient means having spaced ends and adapted to produce tension along a straight line passing through said spaced ends, means for mounting one of said ends in fixed relation to the hinge base and spaced with respect to the said fixed axis, and means for pivotally mounting the other of said ends on the link member spaced from said fixed axis and with the line of action of said resilient means lying on opposite sides of the said fixed axis in open and closed positions respectively, a door leaf connected to the other end of the link for swinging movement relative to the link, and a torsion spring biasing the door leaf in one direction of rotation relative to the link.

2,872,699
POULTRY PROCESSING EQUIPMENT
Flournoy Corey, Cedar Rapids, Iowa
Application December 2, 1955, Serial No. 550,521
2 Claims. (Cl. 17—11.1)

1. A poultry picking machine comprising a vertically disposed casing having the upper end thereof open to receive feathered poultry, a horizontally disposed rotatable circular platform adjacent the lower end of said casing, platform supporting and rotating means operatively connected to said platform for supporting and rotating the same, a plurality of resilient feather rubbing members extending from a major portion of said circular

platform adjacent the periphery thereof towards the interior of said casing, and a plurality of elongated, flat, resilient mould board members extending inwardly from the interior surface of said casing, said mould board members each being disposed in a sloping position extending upwardly in the direction of rotation of said circular platform and having a lowermost leading end and an



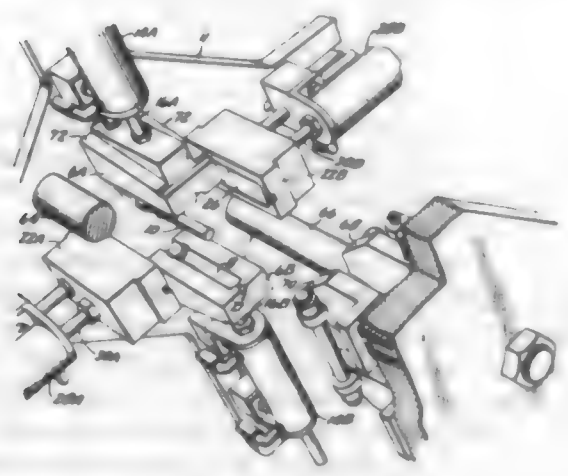
uppermost trailing end, said lowermost leading end of each mould board being of reduced width and located at a point on the interior surface of said casing below the peripheral edge of said circular platform, said uppermost trailing end of each mould board being spaced above and overlying the lowermost leading end of the next adjacent mould board member.

2,872,700

APPARATUS FOR INJECTION MOLDING OF PLASTIC BOTTLES

Edward R. Knowles, Fairfield, Conn., assignor, by mesne assignments, to The Specialty Papers Company, Dayton, Ohio, a corporation of Ohio

Application April 19, 1955, Serial No. 502,283
5 Claims. (Cl. 18—5)



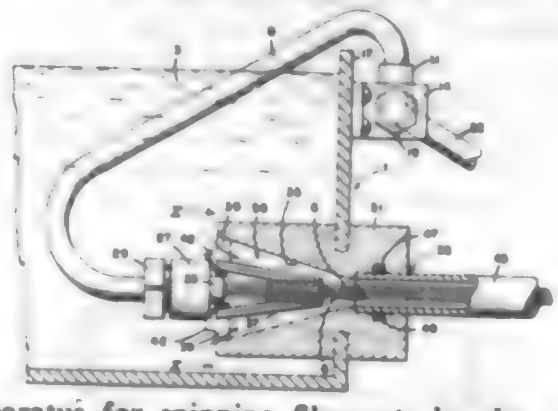
1. Molding apparatus comprising a supporting carriage, a track slidably supporting said carriage, drive means arranged to move said carriage along said track between first and second positions, a parison mold comprising two separable parts, means movably securing the parts of said parison mold to said carriage, power means for opening and closing said parison mold, jaw means arranged to encompass said parison mold when said carriage is in said second position, plastic injection means arranged to force plastic into said parison mold while it is encompassed by said jaws, an article mold comprising two separable parts, means movably securing the parts of said article mold to said carriage, and power means for opening and closing said article mold, said article mold being arranged for opening and closing movements along paths at right angles to the direction of opening and closing movements of said parison mold.

2,872,701

ARTIFICIAL YARN PRODUCING APPARATUS

Christel Pistor, Drexel Hill, and Henry J. McDermott, Collingdale, Pa., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application November 14, 1955, Serial No. 546,403
6 Claims. (Cl. 18—8)



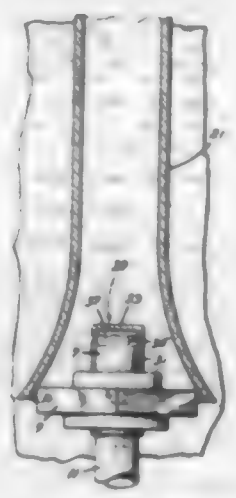
1. Apparatus for spinning filaments by the wet-spinning process comprising a coagulating bath container, a supply conduit for the spinning solution which conduit is pivotally mounted externally of the coagulating bath container whereby the conduit is swingable into and out of the container, a spinnerette secured to the free end of the conduit, a first duct member extending through one wall of the container, a smaller duct member of shorter length and of smaller diameter than the first duct member positioned concentrically within and terminating at a point along the length of the first duct but prior to the discharge end of the first duct member whereby a channel is formed between the inner wall of the first duct member and the periphery of the smaller duct member, the mouth of said smaller duct being of slightly larger diameter than that of the spinneret for receiving the spinnerette when the spinnerette and its supporting conduit are swung into their lowermost position within the bath, means extending from the first duct member for supporting the smaller duct in place, and a spinning tube of larger diameter than the smaller duct positioned within the discharge end of the first duct member which tube extends externally of the duct with the mouth of the tube spaced apart from the discharge end of the smaller duct whereby the filaments issuing from the spinnerette will pass through the smaller duct and into the spinning tube along with the streams of coagulating bath which flow from the container through the channel and through the smaller duct.

2,872,702

APPARATUS FOR LACING SPINNING TUBES

William Dunlap, Boothwyn, and Henry J. McDermott, Collingdale, Pa., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application November 19, 1956, Serial No. 622,928
10 Claims. (Cl. 18—8)



10. In an apparatus for making artificial filaments by extruding a filament-forming material into a liquid spin bath, a spinneret for extruding the filament-forming ma-

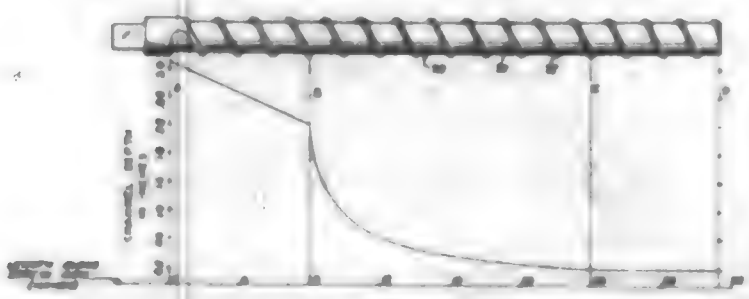
terial into the spin bath as a plurality of individual streams, said spinneret having an annular wall and a perforated face across one end thereof, and a protective cap formed of material which is buoyant in the liquid spin bath and including a resilient annular wall having a smooth internal surface frictionally engaging with the annular wall of said spinneret and an end wall formed integrally with said cap annular wall and extending across one end thereof in a plane substantially parallel to the perforated face of said spinneret, said cap annular wall having an internal diameter slightly less than the external diameter of the spinneret annular wall.

2,872,703

EXTRUSION APPARATUS

Richard D. Gambrill, Idlewylde, and Alvin N. Gray, Edgewood, Md., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application January 24, 1955, Serial No. 483,664
5 Claims. (Cl. 18—12)



1. Apparatus for simultaneously advancing and working a plastic compound, which comprises an extrusion cylinder having a longitudinally extending cylindrical bore formed therein, and an extrusion screw fitting closely within the bore and having a helical channel extending substantially from one end to the other end thereof, the channel along the initial portion of the bore being relatively deep and the depth of the channel along a subsequent portion of the bore decreasing substantially hyperbolically according to the equation:

$$h_x = \frac{1}{\left[\frac{\frac{1}{h_C} - \frac{1}{h_B}}{l_{BC}}\right] X + \frac{1}{h_B}}$$

where:

X=the distance along the screw axis from the beginning of the hyperbolically-tapered portion,
h_x=the depth of the channel at any point (X) along the hyperbolically-tapered portion,
h_B=the depth of the channel at the beginning of the hyperbolically-tapered portion,
h_C=the depth of the channel at the end of the hyperbolically-tapered portion, and
l_{BC}=the length of the hyperbolically-tapered portion.

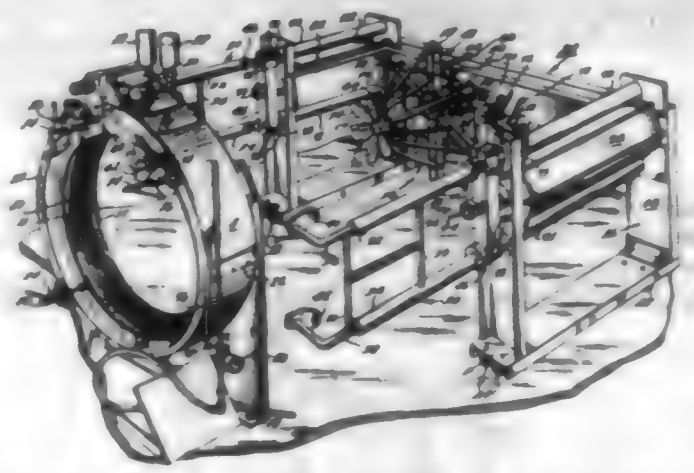
2,872,704

RECAPPING MACHINE

Charles S. Schaevitz, Haddon Township, Camden County, N. J., assignor to Schaevitz Bros., Inc., a corporation of New Jersey

Application July 9, 1956, Serial No. 596,468
3 Claims. (Cl. 18—18)

1. A retread machine comprising a mold unit adapted to hold a retread mold with its axis horizontal, a tire spreader unit comprising a framework, a group of rear arms each having an individual claw, said rear arms being mounted on said framework and arranged about a horizontal axis, a group of front arms each having an individual claw, said front arms being mounted on said framework on opposite sides of said rear arms axis, said units being movable with respect to each other and including guide means, said arms being mounted on said framework to open so that said spreader unit may be moved with said axes at about the same height and guided into near alignment in a horizontal plane by said guide means, said arms being mounted on said framework to open so that said spreader unit may be moved into said position and said arms thereafter closed to embrace said mold unit and a tire held therewithin, and



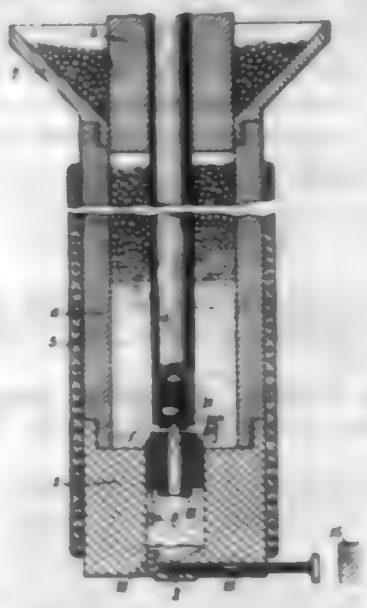
means for increasing the distance between said front arm claws and said rear arm claws along said axis with said rear arm claws rearwardly of said front arm claws, for spreading said tire when engaged by said claws, said guide means comprising a pair of outwardly facing plates on said mold unit and a pair of inwardly facing plates on said spreader unit positioned to engage said outwardly facing plates when said units are moved together.

2,872,705

APPARATUS FOR INJECTION MOULDING OF PLASTIC MATERIAL

Maurice Laberre, Paris, France, assignor to Specialites Alimentaires Bourguignonnes (S. A. B.), Dijon, France, a societe anonyme of France

Application February 1, 1954, Serial No. 407,420
Claims priority, application France November 14, 1953
7 Claims. (Cl. 18—30)



5. An apparatus of the type described comprising a reservoir of material to be injection moulded, an injection chamber, an output valve in said injection chamber actuated open by increased pressure within said chamber and actuated closed by decreased pressure within said chamber, a piston extending into said injection chamber, an input valve opening in the side of said piston connecting the reservoir and injection chamber, a shoulder portion on said piston shortly above said valve opening, a coaxial sleeve surrounding said piston and in tight-fitting but slidable relation with said piston and the walls of the injection chamber, said sleeve being slidable on the injection stroke of said piston to a position tightly abutting the shoulder on said piston and covering the input valve

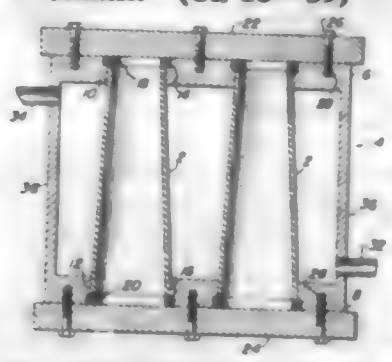
opening, whereby on the injection stroke of said piston said input valve is covered by the coaxial sleeve and a tight seal achieved between said sleeve, said shoulder and the portion of the piston between said shoulder and the input valve opening, and whereby on a reverse stroke of said piston a negative pressure is created in said injection chamber by said sleeve sliding relative to said piston before uncovering said input valve opening and any drop of liquid will be sucked into said chamber from said output valve before the latter closes.

2,872,706

APPARATUS FOR POLYMERIZING VINYL MONOMERS

Donald Gifford Jordan, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application September 10, 1954, Serial No. 455,252
3 Claims. (Cl. 18—39)



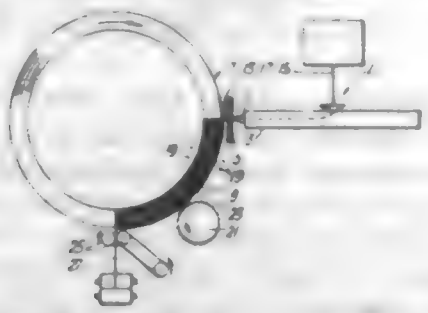
1. A reactor for bulk polymerizing liquid monomers containing a terminal ethylenic group to a solid polymer which comprises a sealable rigid casing, the upper and lower sides of said casing containing aligned openings and elongated rigid tapered mold positioned in said casing and axially aligned with the openings in said casing's sides, said mold being uniformly tapered, at least 0.25 inch per foot of length and having at least one transverse dimension not exceeding about 4 inches at any point along the length of said mold, recesses around the openings in said upper and lower sides, sealing gasket members in said recesses, removable closure plates adapted to be fastened on said upper and lower casing sides to seal said tapered molds in conjunction with said gasket members, fastening means for said closure plates and means communicating with the interior of said casing to provide indirect heating means for said tapered mold by circulating heat exchange fluid through said casing.

2,872,707

THE PRODUCTION OF SLIVERS OF STAPLE FIBRES FROM TOWS OF CONTINUOUS FILAMENTS

Jack Clarkson, Sydney, Australia, assignor to British Nylon Spinners Limited, Pontypool, Monmouthshire, England

Application September 29, 1954, Serial No. 459,158
9 Claims. (Cl. 19—.51)



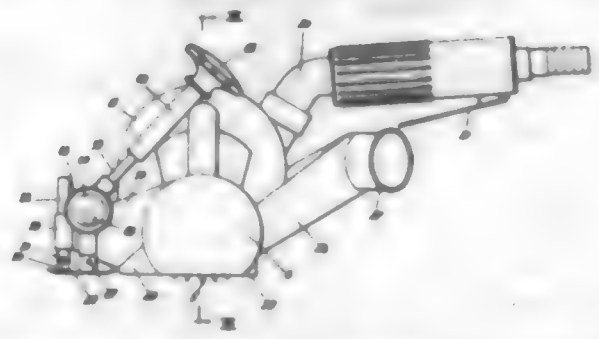
1. A process for the production of a sliver of staple fibres from a single tow of continuous filaments comprising the steps of: centrifugally rotating end portions of said tow so as to cause continuous forward feeding thereof; cutting said end portions and substantially immediately thereafter impaling said cut end portions in laterally overlapping and longitudinally co-terminous formation in a tow-receiving zone which is rotatable in a plane substantially normal to the continuous feeding of said end portions; regulating the rotation of said tow receiving zone and the centrifugal feeding and cutting of said end portions so that successive end portions of said tow laterally overlap; and thereafter withdrawing fibres comprising said cut end portions from said receiving zone by gripping the ends of said fibres successively and forming a sliver thereof.

2,872,708

CLEANING APPARATUSES FOR CARDING MACHINES

Kurt Josef Harry Jeppson and Knut Erik Olson, Malmo, and Otto Richard Paul Altmann, Limhamn, Sweden, assignors to Manufaktur Aktiebolaget i Malmo, Malmo, Sweden, a corporation of Sweden

Application June 4, 1956, Serial No. 589,043
Claim priority, application Sweden November 29, 1955
3 Claims. (Cl. 19—109)



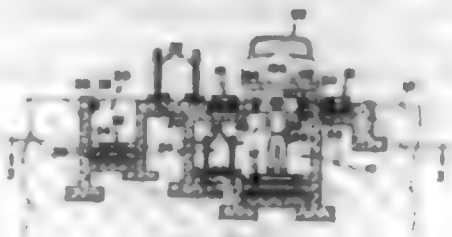
1. An apparatus for removing card waste from the card clothing on rotatable drums in carding machines, comprising a cylinder, teeth mounted on the periphery of said cylinder, a housing for said cylinder, means rotatably mounting said cylinder in said housing, means defining a slot in said housing uncovering an arc portion of the cylinder and extending along the whole length thereof, a compressed air turbine mounted in said housing, means drivingly connecting said turbine to said cylinder, and a suction conduit opening into said housing adjacent that margin of said slot at which said teeth of said cylinder leave the slot during the rotation of said cylinder.

2,872,709

CONTINUOUS SERVICING PLANT FOR AUTOMOBILES OR THE LIKE

Jack W. Brem, San Diego, Calif.

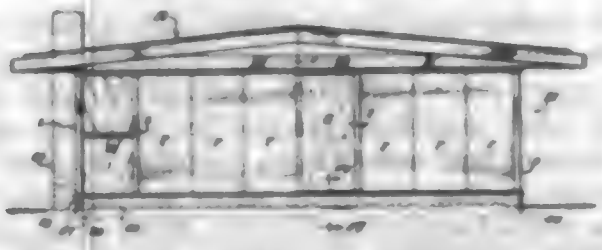
Application August 25, 1953, Serial No. 376,315
1 Claim. (Cl. 20—.8)



A servicing plant for automobiles or the like, including a rectangular elongated pit having therein an endless lower conveyor, endless upper conveyors at each side of said pit at the upper edges thereof, a lower cart conveyor in said pit at one side of said lower conveyor, an upper cart conveyor at one side of one of said upper conveyors, an endless tow chain mounted along one upper edge of said pit, a motor driving all of said conveyors, said cart conveyors and said tow chain in one direction at one speed, and a return conveyor at one side of the plant, said return conveyor being operatively connected to said motor to move in the opposite direction to and at a greater speed than the other conveyors said cart conveyors each including a plurality of

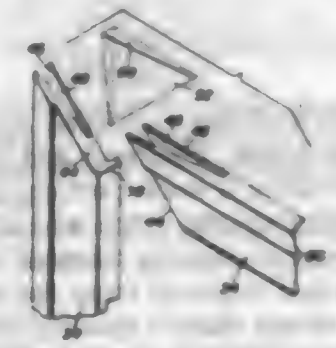
carts, said carts each comprise a wheeled carriage having thereon a lubricant reservoir, an air-actuated pump mounted on said carriage, endless air hoses attached to said lower and upper cart conveyors, said air hoses communicating with each of said pumps, stationary air pressurizing means at one side of the plant, rotatable hose reels operatively connected to said pressurizing means, extensible hoses on said hose reels, said hoses being connected to said endless air hoses, whereby pressurized air is supplied to each of said pumps continuously, each pump being operatively connected to extract lubricant from the reservoir, and a lubricant dispensing gun communicating with said pump.

2,872,710
CONSTRUCTION PANEL PROVIDING SOUND AND HEAT INSULATION
Henry C. Cox, Garden Grove, Calif.
Application August 5, 1954, Serial No. 448,113
7 Claims. (Cl. 20—2)



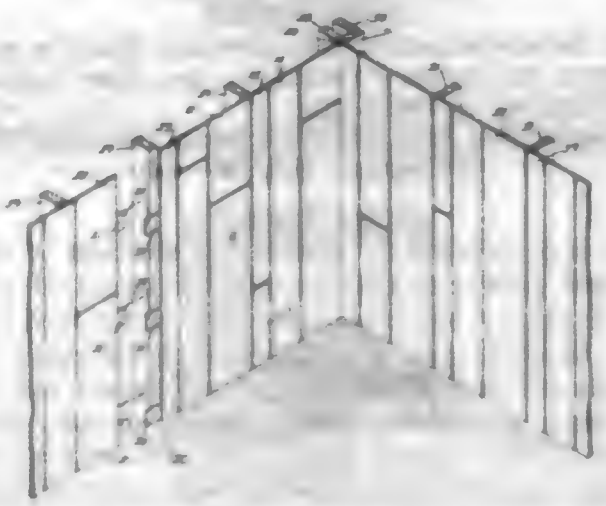
3. A rectangular structural member which includes: a rigid frame formed from two parallel, laterally spaced stiles, and an upper rail and a bottom rail connected to the end portions of said stiles; two rectangular panels of rigid sheet material that are affixed to opposite sides of said frame; a plurality of parallel, vertically spaced, horizontal rigid reinforcing ribs disposed within the confines of said frame and extending between the inner surfaces of said stiles, with the vertical surface portions of said reinforcing ribs contacting but one of the inner surfaces of said panels; means that maintain said reinforcing ribs in fixed spaced position relative to said stiles and panels; and a plurality of strips of sound insulating material of rectangular transverse cross section disposed between said reinforcing ribs and extending substantially the distance between said stiles, said strips being of lesser width than that of said reinforcing ribs and intermediately spaced between said panels.

2,872,711
DOOR FRAME CONSTRUCTION
Jessie O. Killebrew, Albuquerque, N. Mex.
Application January 24, 1956, Serial No. 561,007
4 Claims. (Cl. 20—11)



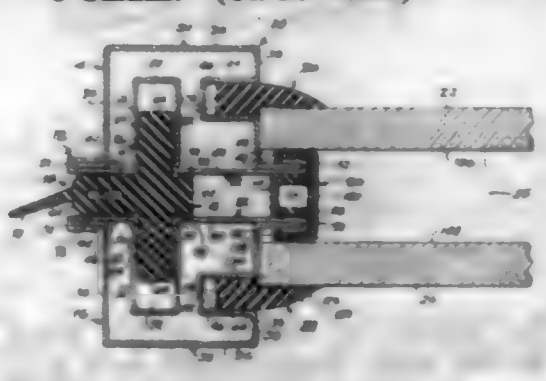
1. A joint comprising a pair of members disposed in intersecting relation, the adjacent end of each member having an inwardly extending transverse wedge-shaped groove having inwardly converging side walls, said grooves being in alignment, and a wedge-shaped insert having inwardly converging side walls disposed in said grooves for joining the members, the adjacent ends being mitered with the grooves disposed at the outer corner thereof and being generally triangular in shape, said insert being generally triangular in shape and equal in area to said grooves thereby completely filling said grooves, and an adhesive coating on said insert for bonding the insert to the walls of the grooves thereby forming a rigid mitered joint.

2,872,712
WALL BOARD CONSTRUCTION
John H. Brown and Charles J. Johnson, Lewiston, Idaho, assignors to Potlatch Forests Inc., Lewiston, Idaho, a corporation of Maine
Application September 17, 1956, Serial No. 610,121
8 Claims. (Cl. 20—15)



1. A wall panel construction comprising a plurality of lumber pieces of random length and width laid together to form a rectangular panel, the meeting sides of said pieces being matched and overlapped and the meeting ends of said pieces being matched and interlocked, a plurality of backing members comprising spaced apart lumber pieces extending transversely of the first named pieces and having end portions projecting beyond the side edges of the panels and serving as nailing and interfitting pieces between adjacent panels in a wall, the end portions being bevelled on one side face, each of said first named pieces being secured by adhesive to each of the backing members that crosses it, said backing members each having transverse grooves therein beneath the free edges of the outer first named pieces of the panel.

2,872,713
INSULATED METAL-FRAMED WINDOW SASH
Glenn E. Haas, Oak Harbor, Ohio, assignor to Window Products, Inc., Oak Harbor, Ohio, a corporation of Ohio
Application July 19, 1956, Serial No. 598,942
6 Claims. (Cl. 20—56.5)



1. An insulated metal-framed window sash comprising a pair of open-centered metal window frame structures disposed in spaced parallel relationship with one another, each of said frame structures including a channel-shaped external member of sheet material and an internal closure member of sheet material secured thereto across the channel thereof in closing relationship therewith, each internal member having an elongated channel portion disposed in the channel of said external member in spaced relationship therewith, said internal closure members in each pair of frame structures being

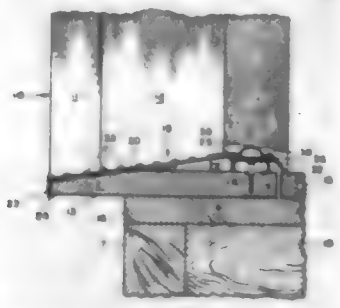
disposed in spaced parallel relationship with the mouths of their channel portions facing one another, an elongated insulating spacing member of heat-insulating material having a central rib disposed in the space between said frame structures and having oppositely-directed side ribs disposed substantially perpendicular to said central rib and seated in said channel portions, and a window pane mounted in the open center of each of said frame structures in sealed engagement therewith and in spaced parallel relationship with each other.

2,872,714

THRESHOLD

John C. Odegaard and Horace Grobert, Fort Payne, Ala., assignors to Lumber Fabricators, Inc., Fort Payne, Ala., a corporation of Delaware

Application May 14, 1956, Serial No. 584,739
2 Claims. (Cl. 20—64)



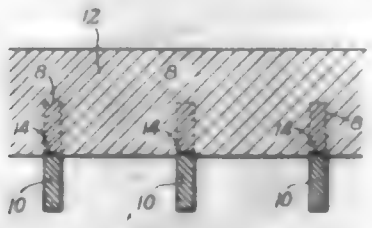
1. A threshold comprising a unitary structure fitting over a wooden cantilver sill projecting outwardly from the sub-flooring of a building and having a level lower surface and on its upper surface a level inner portion and a slightly beveled outer portion, said threshold comprising a rear portion and a forward sloping element terminating in a depending front wall having a lower inturned lip, said forward element fitting flush against the beveled surface of said sill, said front wall and lip engaging the beveled end and level lower surface of said sill, said forward element having a thickened rib part with a level lower surface resting on the level inner portion of the sill, said rear portion comprising a sealing strip to abut against the bottom of a door, means for fastening said sealing strip to said threshold and means for fastening said threshold to the inner portion of said sill.

2,872,715

METHOD OF CASTING METAL AROUND SHEET METAL INSERTS

Morris M. Bean, Yellow Springs, Ohio, assignor to Morris Bean and Company, Yellow Springs, Ohio

Application October 22, 1954, Serial No. 464,061
8 Claims. (Cl. 22—202)



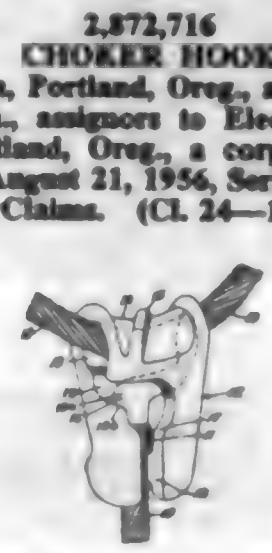
5. The method of casting molten metal around the roots of thin metal inserts which melt at a temperature lower than the pouring temperature of the molten metal comprising the step of applying by spraying on the surface of a root portion of each insert a layer of the order of 1 mil thickness of a finely divided suspension of a refractory material having a thermal conductivity much lower than that of said insert and which does not fuse, does not decompose and does not dissolve in the molten metal, the step of removing substantially all of the volatile products from said layer prior to contacting it with the molten metal, and the step of pouring molten metal around said inserts at a temperature high enough for proper casting and cooling it to solidify there being a flush seal at the junctions of the inserts and the cast metal and the inserts remaining firmly anchored therein.

2,872,716

CHOKER HOOK

Leslie G. Ehmann, Portland, Oreg., and Herbert Nelson, Spokane, Wash., assignors to Electric Steel Foundry Company, Portland, Oreg., a corporation of Oregon

Application August 21, 1956, Serial No. 605,294
6 Claims. (Cl. 24—123)



1. A choker hook for assembly with a cable having a ferrule-equipped end, comprising a metallic body having at its upper end a slip sleeve adapted to hold the cable therein when providing a noose for engaging an object to be drawn, said body having centrally disposed therein a through opening extending below said slip sleeve and a portion thereof separating said slip sleeve from said opening, said body having at the lower end thereof a socket for retaining the ferrule, said body having also an entrance slot establishing communication between said through opening and said slip sleeve, said slot being narrow and leading angularly from the upper portion of said through opening, whereby a cable within said opening must be rotated upon itself to move through said slot into said slip sleeve, and said body providing shoulders adjacent said slot for supporting said cable in said slip sleeve when the cable is rotated into alignment with said slip sleeve.

2,872,717

SAFETY HOOK

Leon P. Kelley, Long Beach, Calif.

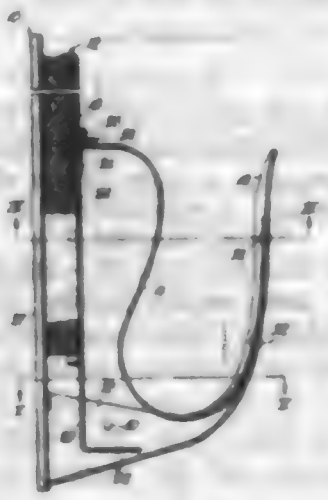
Application January 10, 1955, Serial No. 480,895
2 Claims. (Cl. 24—232)



1. A lifting hook device, including, a body having a substantially upright shank, the lower end of the shank being arcuate and providing a hook portion, the tip end of the hook portion being spaced from said shank and defining therewith a re-entrant opening through which a cable may be inserted into and removed from the hook portion, said shank having a recess therein opening into said re-entrant opening, and retainer means carried within said recess and consisting of a latch element pivoted within said recess and projecting into the re-entrant opening for movement to a first position to engage beneath said tip end so as to close said opening and retain the cable in said hook portion, and to a second retracted position to allow insertion into and removal of the cable from the hook portion through said opening, and manually operable means for pivoting said latch element to said retracted position, said manually operable means consisting of a stud on said latch

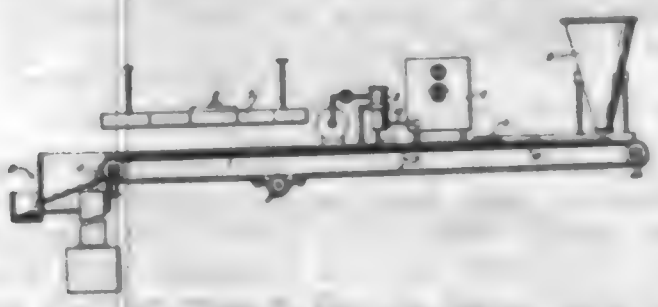
element projecting laterally outwardly through an arcuate slot in the shank arranged concentrically of the pivot of said element, and guard means on said body for protecting said projecting stud.

2,872,718
VENT CLAMP FOR USE WHEN CLEANING COATS
Nolan C. Jackson and Christie L. Schroeder, Wichita, Kans., assignors to Wichita Precision Tool Company, Inc., Wichita, Kans., a corporation of Kansas
Application November 25, 1955, Serial No. 549,169
4 Claims. (Cl. 24—252)



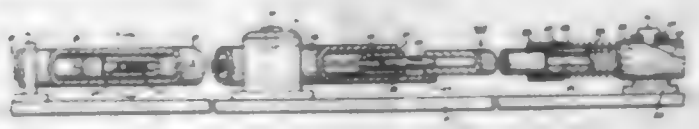
1. For use in the finishing of garments, a portable hand clamp comprising a pair of elongated, normally upright jaws; a handle having a lowermost portion rigidly secured to one face of one of said jaws at the lowermost end of the latter and extending laterally therefrom, terminating in an integral upright portion spaced from the other of said jaws; a spring interposed between said upright portion of the handle and said other jaw for yieldably biasing the latter toward said one jaw; means rigidly attaching the spring to said upright portion of the handle; and means remote from said lowermost portion of the handle pivotally attaching said other jaw to the spring for support thereby and vertical swinging movement relative to the spring transversely of the longitudinal axis of said other jaw in a direction to present a V-shaped, upwardly-facing, garment-receiving mouth between the jaws at the uppermost ends of the latter when the spring is bent toward said upright portion of the handle, said spring having an upwardly-facing loop provided with a pair of legs and a bight, one of the legs having said rigid attachment to the handle, the other of said legs having said pivotal attachment to said other jaw, whereby said other leg and said upright portion of the handle may be hand-squeezed to bend the spring at said bight.

2,872,719
METHOD OF FABRICATING SMALL SPHERICAL PELLETS
Henry Clay Brassfield, Fosters, Ohio, and Carl T. Durham, Jr., Roanoke, Va., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application September 25, 1957, Serial No. 686,268
13 Claims. (Cl. 25—156)



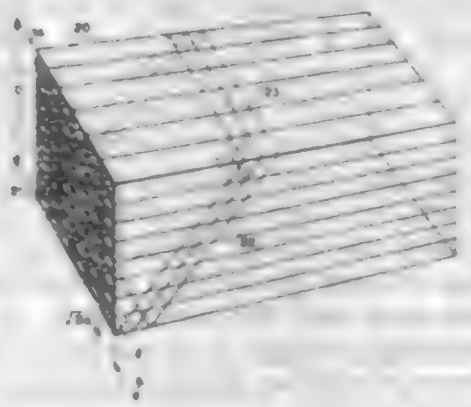
1. A process for producing spherical pellets of material, which consists of powdering the material to be pelletized, forming a suspension of this powdered material in a liquid carrier or vehicle, causing small drops of this suspension to rest upon a surface of liquid repellent powder, drying the drops of suspension, and collecting and firing the spherical pellets thus formed.

2,872,720
RIFLING DEVICE
Marcus Ramsay, New Haven, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application May 6, 1957, Serial No. 657,212
2 Claims. (Cl. 29—1.1)



1. In a machine for rifling 22 caliber gun barrels wherein the barrel is advanced over the rifling tool, a fixture for backing up the tool comprising a table, a casing rigidly mounted to the table, a rod disposed in the casing, key means for locking the rod to the casing to preclude relative motion therebetween, a guide tube disposed within the casing and snugly surrounding the rod to support the rod against lateral bending, said guide tube being formed with a pair of opposed elongated openings for receiving said key means and said guide tube being movable relative to the rod in reciprocatory fashion along the longitudinal axis of the rod, said barrel being operable to support the rod as the guide tube is moved.

2,872,721
ELECTRON IMAGE MULTIPLIER APPARATUS
James Dwyer McGee, London, England
Application April 11, 1957, Serial No. 652,295
Claims priority, application Great Britain April 12, 1956
7 Claims. (Cl. 29—25.14)

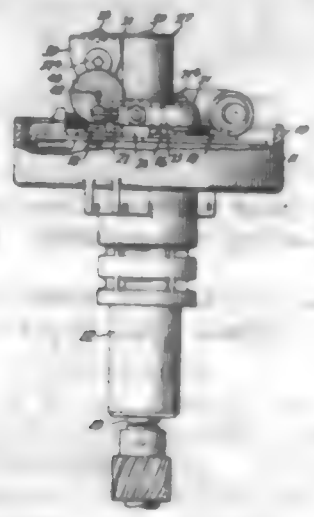


1. A method of forming a dynode which comprises assembling rectangular section thin walled tubes into a stack, said tubes having two opposite sides of equal length and longer than the other sides which are also of equal length, cutting a slice from said stack in a direction parallel to the long sides and at such an angle to the short sides that the cross-section of the cells formed by the tube sections is approximately square.

2,872,722
DISTRIBUTOR REPAIR DEVICE
Ralph L. Ewing, Chicago, Ill.
Application June 3, 1957, Serial No. 663,139
14 Claims. (Cl. 29—76)

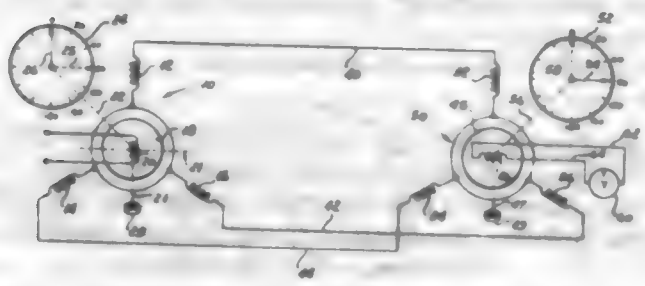
1. A device for repairing distributor points in situ comprising a frame removably engageable with a portion of said distributor for mounting said device, file means rotatably mounted on said frame, means associated with

said frame for rotating said file means, and means on said frame for removably engaging a second portion of said



distributor to stabilize the mounting of said frame on said distributor.

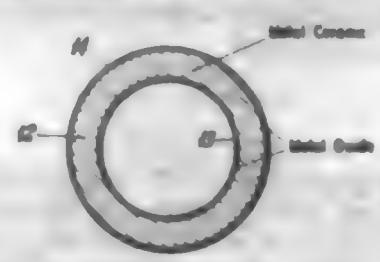
2,872,723
METHOD OF BALANCING SYNCHRO-TIE DEVICES
Bernard Levine, Malverne, Aaron M. Harris, Brooklyn, and Martin M. Brod, New York, N. Y., assignors, by mesne assignments, to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application May 23, 1955, Serial No. 510,082
10 Claims. (Cl. 29—155.5)



1. A method of balancing a pair of synchro-tie devices each of which has a polyphase stator winding and a single phase rotor winding including the steps of interconnecting the respective polyphase windings of a synchro-generator stator and a synchro-motor stator, energizing the generator rotor winding, displacing the motor rotor ninety degrees from the position of the generator rotor, measuring the voltage induced across the motor rotor winding, varying the relative displacement between the generator rotor and the motor rotor to reduce the induced motor-rotor voltage to zero, measuring the direction and amount of relative displacement from the ninety-degree displaced position to ascertain the relative deviation of the motor stator magnetic field and varying the reluctance of the magnetic circuit between the motor rotor and stator to shift the motor stator magnetic field to reduce the deviation.

2,872,724
OXIDIZED CHROMIUM-ALUMINA METAL CERAMIC PROTECTIVE TUBE
Louis A. Conant, Tonawanda, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application July 31, 1953, Serial No. 371,601
8 Claims. (Cl. 29—182.5)

1. In a sintered metal ceramic consisting substantially of chromium and alumina and having a combined chromium and alumina content constituting at least 62.8 percent by weight of said metal ceramic, the improvement, which increases the resistance of said metal ceramic to penetration by molten metals, comprising a continuous metal oxide coating on a surface of said metal ceramic of alumina and oxide of interdispersed continuous phase metal which is in at least a substantial part



chromium oxide, said metal oxide coating having an electrical resistance of at least about 100 megohms.

2,872,725
CHROMIUM BASE REFRACTORY COMPOSITIONS
Edward W. Golber, Oakland, Mich., assignor to General Electric Company, a corporation of New York
No Drawing. Application May 27, 1954
Serial No. 432,933
6 Claims. (Cl. 29—182.5)

1. A sintered composition having high strength and resistance to oxidation, consisting essentially of chromium and an oxide of titanium, from about 55 to about 85%, by weight of the composition, being chromium, from about 4.2 to about 33%, by weight of the composition, being titanium, and the balance oxygen.

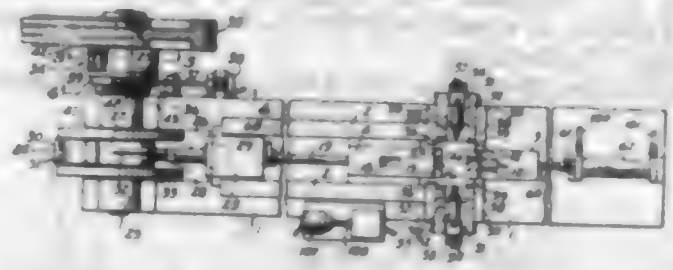
2,872,726
SINTERED HARD COMPOSITIONS
Edward W. Golber, Royal Oak, Mich., assignor to General Electric Company, a corporation of New York
No Drawing. Application January 4, 1955
Serial No. 479,861
3 Claims. (Cl. 29—182.5)

1. A sintered, strong and hard composition consisting essentially of a lower oxide of titanium alumina and chromium, the chromium being present in percentages up to about 60 percent, by weight of the composition, the remainder being titanium, aluminum and oxygen in proportions such that the aluminum titanium atomic ratio is from about .8 to about 5, and the oxygen content is such that the atomic ratio,

$$\frac{O-3/2\ Al}{Ti}$$

lies between .6 and 1.3.

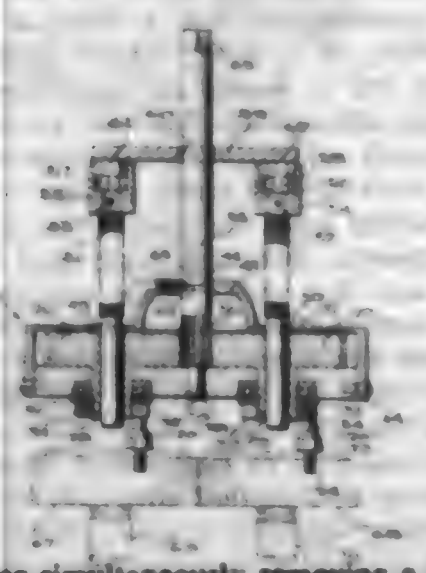
2,872,727
MACHINE FOR ASSEMBLING RESILIENT BUSHINGS
Howard R. Sigler, Monticello, William Gordon Myers, Kewanna, and William F. Harrison, Logansport, Ind., assignors to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio
Application July 28, 1953, Serial No. 370,783
14 Claims. (Cl. 29—235)



8. A machine for assembling resilient tubular bushings that have an outer sleeve, an inner tubular core and a tubular elastic rubber insert under radial compression between the sleeve and core comprising work pressing means having a pair of work pressing members having opposed clamping faces and mounted for relative linear movement toward and away from one another and into

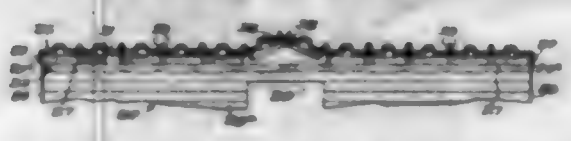
and out of work gripping position, one of said work pressing members having a bore of a size to receive said core with a sliding fit and extending in the direction of said linear movement, a plunger slidably fitting in said bore and movable toward and away from work held between the gripping faces of said members, means for supporting a sleeve and an insert in axially spaced relation between said work pressing members and in axial alinement with said bore, means for actuating said work pressing means to press said insert into said sleeve and to clamp said sleeve and insert between said work pressing members in axial alinement with said bore, means for delivering a core into said bore between said plunger and said sleeve and insert, and means for actuating said plunger to advance the same into engagement with said core and to force said core into said insert clamped in said sleeve by said work pressing members.

2,872,728
DUAL PURPOSE GEAR PULLER AND DRIVER
Clark L. Fraser, Bremerton, Wash.
Application March 8, 1957, Serial No. 644,941
2 Claims. (Cl. 29—256)



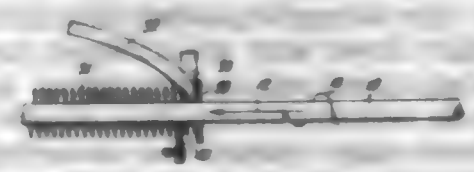
1. Means for simultaneously removing a pair of gears from a pair of parallel shafts comprising a frame, a pair of gear wheels journaled in said frame on parallel axes spaced the same distance as said parallel shafts, means formed and arranged to secure said frame to said gears with the gear wheels in axial alignment therewith, respective abutment rods threadedly engaged axially through said gear wheels, means holding said rods against rotation relative to said frame, and a pinion gear member journaled in said frame and meshing with said gear wheels, said pinion gear member being provided with a shaft portion projecting externally from the frame for rotating the pinion gear member, said pinion gear member being arranged to rotate said gear wheels simultaneously in a direction to advance said rods, whereby said rods will be urged against the ends of the parallel shafts to exert axial pulling force on the gears relative to said shafts.

2,872,729
CAR ROOF ASSEMBLY METHOD
Arthur A. Logunsan, Michigan City, Ind., and Francis M. Hess, Riverdale, Ill., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application July 26, 1954, Serial No. 445,756
2 Claims. (Cl. 29—407)



1. The method of applying flexible sheet metal roof elements to a roof opening defined by side and end walls of a railway freight car structure which comprises placing an end roof element of said material on each end of the opening and securing said elements to the car structure, placing a plurality of intermediate roof elements on said roof opening adjacent the end elements and abutting each other so as to leave an aperture centrally of said opening, said roof elements having outwardly flared upturned resilient seam flanges formed on their edges and the flanges of abutting elements being engaged in acute angular relation, whereby the central aperture is formed with a length less than the length of two unstressed roof elements, placing a pair of roof elements in the aperture, pushing down on the adjacent sides of said two roof elements so as to deform the upturned flanges of all of the roof elements into substantially parallel relation whereby the two center roof elements will be forced into position on the side walls of the car structure completely closing the opening, installing seam caps over said flanges, and then securing said intermediate and center elements to the car structure.

2,872,730
METHOD OF PRODUCING FINNED TUBING
Dougan L. Jones, Lee's Summit, Mo., assignor to The Marley Company, Kansas City, Mo., a corporation of Delaware
Application January 18, 1954, Serial No. 404,512
4 Claims. (Cl. 29—496)



1. A method of brazing an aluminum fin to a tube having an outer surface of copper comprising the steps of initially coating said outer surface of the tube with cadmium and a fluxing material, said fluxing material being adapted to remove interfering films and oxides; applying the fin to the tube with the inner edge surface thereof in close abutting relationship to said outer surface of the tube; and heating the finned tubing to a brazing temperature only, said temperature being above the melting point of the cadmium and below the melting point of the fin and the tube, said material including a metal compound which is capable of chemically reacting with the fin at said temperature to produce an intermediate brazing metal which combines with the molten cadmium to produce a bonding alloy, said bonding alloy flowing into said butt joint between the inner edge surface of the fin and said outer surface of the tube by capillary action and uniting with the fin and the tube to thereby present, upon cooling of the components, a sound interconnection of high heat conductivity between the fin and the tube.

2,872,731
BEARING-SUPPORTED ROUTER
John W. Greenwood, Oakland, Calif.
Application February 3, 1955, Serial No. 485,905
1 Claim. (Cl. 30—276)



A cutting tool for a power-driven cast cutter comprising a router having a shank end and a free end; said shank end being adapted to be affixed to and driven by

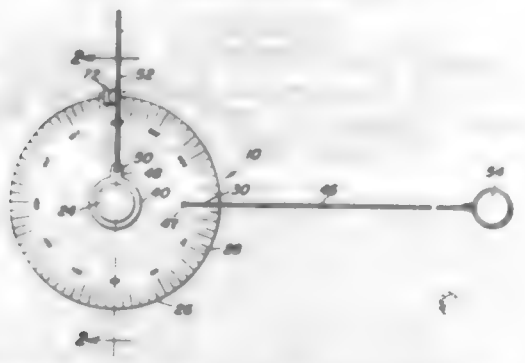
motor means; a safety disc mounted on, fixed to, and carried by the free end of said router in bearing relation thereto, with the diameter of the disc extending transverse to the longitudinal axis of the router and at least part of the body of said disc lying further axially remote from the shank end of said router than does the free end of said router in such a manner that the disc spaces the free end of the router from the flesh lying beneath a cast to be cut and prevents the free end of the router from touching the flesh while the disc rests on the flesh.

2,872,732
LAWN EDGER
John B. Arrowood, Baltimore, Md.
Application October 4, 1957, Serial No. 688,221
3 Claims. (Cl. 30—314)



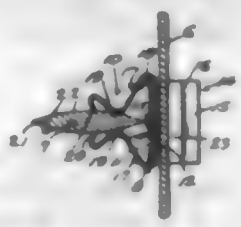
1. A lawn edger comprising a semi-circular frame plate having a straight lower edge and an upper semi-circular peripheral edge, a pair of opposed spaced apart blade engaging blocks secured to one face of said plate adjacent the lower edge thereof and extending laterally therefrom, said plate having a bore intermediate said blocks adjacent said lower edge, said plate having a plurality of bores arranged equidistantly inwardly from the peripheral edge thereof in circumferentially spaced relation, a shaft mounted for rotation in said first named bore in said plate, a wheel journaled on said shaft, a handle mounted on said shaft intermediate the other side of said plate and said wheel, means extending through one of the plurality of bores in said plate and through said handle releasably locking said handle to said plate, and a cutter blade engaged over said shaft against said plate, said cutter blade bearing against one of said blocks and projecting below said wheel at an angle to the vertical, said blade being rotatably shiftable on said shaft to a reverse position bearing against the other of said blocks.

2,872,733
LAYOUT INSTRUMENT
Clarence W. Chew, Brighton, Ill.
Application March 13, 1956, Serial No. 571,341
1 Claim. (Cl. 33—1)



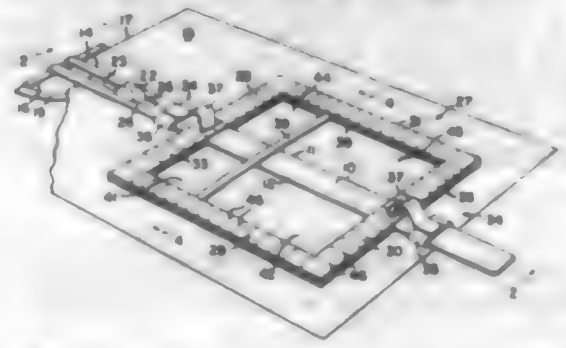
A layout instrument for laying out building foundations and the like, said layout instrument comprising a support, a dial carried by said support, means on said dial for the terminal attachment of a first layout line, a line retainer mounted on said support above said dial for rotation about said support and relative to said dial, means carried by said line retainer for the terminal attachment of a second layout line, and a guide for the second layout line, the guide including a base having clamp means for clampingly attaching said guide to said dial in an adjusted position, and a line guide element projecting upwardly from said base, said dial including indicia, said line guide element presenting a flat face alignable with the indicia on said dial and engageable with said second layout line to facilitate the positioning of the second layout line from a remote point.

2,872,734
TROUSERS' LEG MEASURING DEVICE
Louis Rosen, Daytona Beach, Fla.
Application January 11, 1957, Serial No. 633,728
1 Claim. (Cl. 33—8)



In a garment measuring device of the character described, the combination with a piece of tailor's chalk and a yardstick, of a chalk holder comprising a first spring clamp and a second spring clamp, said spring clamps having substantially flat base portions, fastening means connecting said base portions together in abutting engagement, each of said spring clamps including a pair of spaced resilient jaws, the jaws of the two clamps extending in opposite directions from said base portions, the jaws of said first spring clamp extending from side edges of the base portion thereof for resiliently engaging portions of the side edges of the yardstick for resiliently mounting the chalk holder thereon with the base portion disposed in a plane substantially parallel to the plane of the yardstick, the jaws of said second spring clamp projecting from top and bottom edges of the base portion thereof and being disposed crosswise to the jaws of the first spring clamp and having opposed outer portions between which a part of the piece of tailor's chalk is resiliently gripped for supporting an outer marking edge of the tailor's chalk substantially crosswise to the longitudinal axis of the yardstick and with the plane of the chalk disposed substantially perpendicular to the plane of the yardstick, the resilient jaws of said second spring clamp including opposed inwardly bowed intermediate portions between which a part of the piece of chalk is resiliently gripped, and inwardly turned back terminal portions inclined in directions toward said intermediate portions and including free edge portions which penetrate opposite sides of the piece of chalk for releasably anchoring the chalk between the jaws of the second clamp.

2,872,735
SCRIBING DEVICE
Mary A. Roberts, Los Angeles, Calif.
Application November 8, 1956, Serial No. 621,056
8 Claims. (Cl. 33—95)



1. A scribing device comprising a T-square having an elongated main arm and a cross arm attached to said

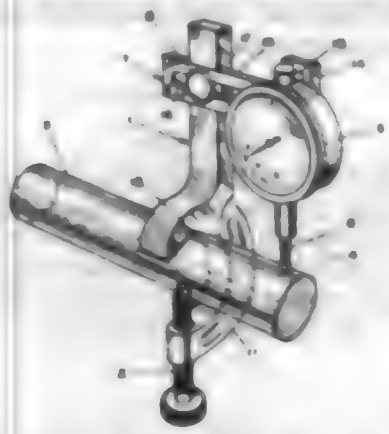
main arm at right angles thereto, clamp means associated with said T-square for releasably gripping a sheet of material with one edge of said sheet abutting said cross arm and with said sheet underlying said main arm, an open rectangular frame structure carried by said main arm and slideable longitudinally and mounted laterally relative thereto, releasable clamping means for locking said frame in any selected position on said main arm, and a lateral guide extending across said frame normal to said main arm and moveable within said frame relatively longitudinally with respect to said main arm whereby to provide within said frame four quadilateral areas separated from each other by said main arm and said lateral guide.

2,872,736

TOOL SETTING GAGE FOR BORING MACHINES AND THE LIKE

George V. Abbott, Woodstock, Ill.

Application October 17, 1955, Serial No. 540,774
1 Claim. (Cl. 33—172)



A tool setting gage for accurately gaging and adjusting a cutting bit mounted on an arbor for cutting an opening of a predetermined diameter in a work piece, consisting of a clamping bracket to be clamped about the arbor and provided with a substantially V-shaped groove for accurately locating the arbor in centered position in said bracket, a clamping screw carried by the bracket in position for seating and retaining the arbor in said groove, a vertical projection on said bracket provided with a transverse slot in its face, a dial indicator for indicating the adjustment of the cutting edge of said bit and provided with a spindle having a free end adapted to contact the cutting edge of the bit for accurately locating the position of said cutting edge, the axis of the arbor being centered in relation to the axis of the indicating spindle when the arbor is located in said groove, a supporting bracket for supporting the indicator and its spindle in operative position on but spaced laterally of said clamping bracket including a flat arm horizontally and conformably received and adjustable transversely in the slot of the projection of said clamping bracket and axially of said arbor and an arm for adjustably mounting said indicator and spindle radially of said arbor, means for anchoring said first mentioned arm of said supporting bracket in adjusted position in the slot on said clamping bracket and means for anchoring the indicator and its spindle in adjusted position on said second mentioned arm whereby said indicator and its spindle are adjustable both radially and axially of said arbor.

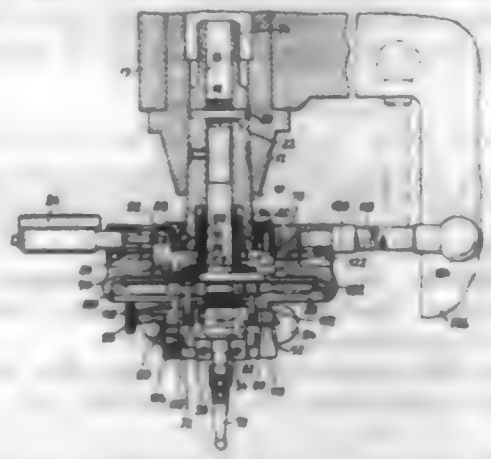
2,872,737

LEVER GAGE ASSEMBLY

Hanns Müller, Munich, Germany, assignor to Hans Deckel, Munich-Solln, Germany, and Friedrich Wilhelm Deckel, Zug, Switzerland

Application June 14, 1956, Serial No. 591,342
Claims priority, application Germany June 23, 1955
5 Claims. (Cl. 33—172)

1. A lever gage assembly insertable into a rotary spindle, comprising a rotary shaft carried by said spindle, a non-rotary stationary part in which said shaft is rotatably mounted and which carries a dial gage, a swinging feeler lever associated with said shaft, the bearing for swinging said feeler lever being transversely displaceable with respect to the axis of rotation of said shaft, motion transmitting means for transmitting movement from the feeler lever to the dial gage mounted on said stationary part, comprising an oblong swinging plate pivotally mounted parallel to the direction of displacement of the feeler lever said plate being rotatable around its longitudinal axis, the feeler lever being disposed in engage-



ment with one longitudinal side of said swinging plate, a bridge-shaped member having a pair of spaced arm, and a pair of transmission members separately engaging the arms of said bridge-shaped member for transmitting movements from said feeler lever to said dial gage, each transmission member being associated with one arm of the bridge-shaped member and extended in the same direction whereby either the one transmission member or the other transmits the movement from the bridge-shaped member to the dial gage according to whether the feeler lever is swung away from the zero-position in the one direction or in the other.

2,872,738

BUTTON HOLE GUIDE

Louis E. Rogers, Oklahoma City, Okla.

Application March 27, 1958, Serial No. 724,455
4 Claims. (Cl. 33—190)



1. A button hole guide, comprising: a square base member having substantially parallel upper and lower surfaces, said base member having a vertical slot extending inwardly from one side thereof, the walls of said base member defining the slot converging upwardly; a fixed element carried by and projecting upwardly of the upper surface of said base adjacent the inwardly disposed end of the slot; an elongated movable element, substantially T-shaped in cross section, slidably carried longitudinally by the walls of said base defining the slot, the top portion of the T-shape projecting outwardly of the lateral limits of the slot in contact with the upper surface

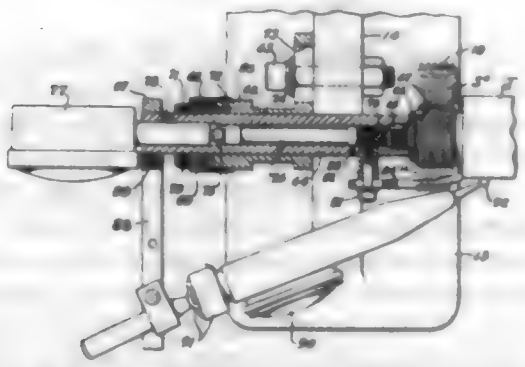
of said base, said movable element having an upstanding projection extending upwardly from the upper surface of said T-shape adjacent its inwardly disposed end for movement toward and away from said fixed element permitting the engagement on the upper surface of said base member between said fixed member and said upstanding projection of buttons of varying diameter, the spacing between said fixed element and said upstanding projection indicating the minimum length of button hole required for the particular button and forming in co-operation with the walls of the slot an opening through said base outlining the position of the required button hole; and a shoulder, arcuate in cross section, surrounding the slot in said base and depending from the lower surface of the latter.

2,872,739

GAGING ATTACHMENT FOR TESTING THE CENTRICITY OF A SURFACE WITH RESPECT TO A THREAD OR OTHER SURFACE

Paul W. Johnson, Bloomfield, Conn., assignor to The Johnson Gage Development Company, Bloomfield, Conn., a corporation of Connecticut

Application December 12, 1955, Serial No. 552,616
19 Claims. (Cl. 33—199)



1. A gaging attachment adapted to be used with a thread gage for testing squareness or centricity of a surface of an externally threaded test part with respect to the thread or another surface comprising a frame having a guide therein, a hollow sleeve slidably received in the guide and adapted to receive an indicator within one end thereof having a contactor, contacting means carried by the other end of the sleeve adapted to contact a surface of the test part, means retaining the sleeve against rotation in the guide, spring means propelling the sleeve axially in the guide, a push pin mounted for axial movement within the hollow sleeve having one end adapted to engage the indicator contactor and having the other end adjacent the other end of the sleeve, and means retaining the push pin against rotation and associated with said other end of the push pin to move the same axially relatively to the sleeve and of a relatively small dimension to engage a surface of the test part to be gaged.

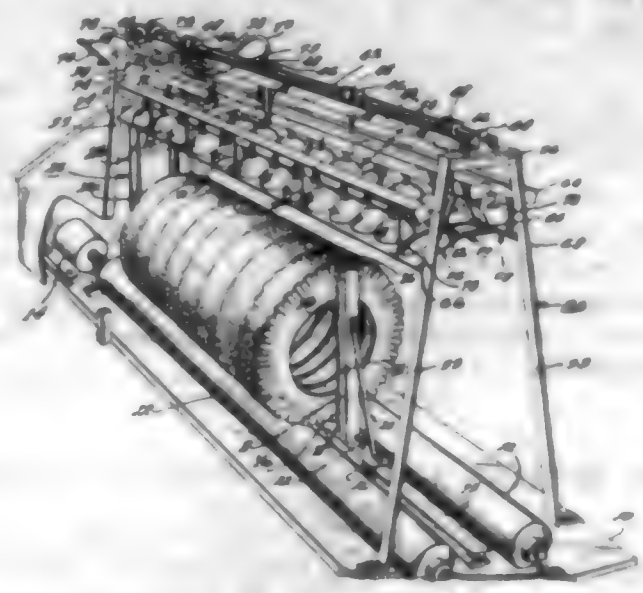
2,872,740

DRYING MACHINE

Charles S. Schaevitz, Haddon Township, Camden County, N. J., assignor to Schaevitz Bros., Inc., a corporation of New Jersey

Application March 22, 1956, Serial No. 573,271
6 Claims. (Cl. 34—68)

1. A drying machine for drying tire-like objects and comprising a pair of support rollers having parallel axes and spaced uniformly apart to receive said objects for rotation on said rollers and supporting said objects upon them, a first split roller at one end having two oppositely rotatable portions with aligned axes of rotation, the axes of rotation of said split roller being normal to the plane including those of said support rollers, a second split roller at the other end having two oppositely rotatable portions with aligned axes of rotation, the said aligned axes being normal to the said plane and parallel to those of said first split roller, said second split roller being mounted for adjustment along the direction of the axes of said support rollers, and a means for supplying



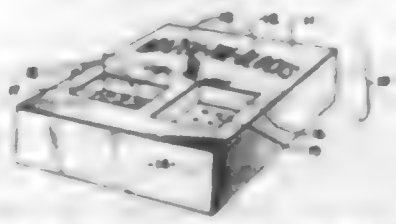
drying heat mounted for adjustment at a desired distance from said pair of support rollers.

2,872,741

EDUCATIONAL PUZZLE GAME

Harvey F. Krueger and Ruth F. Krueger, Richland, Wash., assignors of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California

Application October 15, 1956, Serial No. 615,994
11 Claims. (Cl. 35—9)



1. A puzzle device, comprising: a cabinet enclosing an electric buzzer, a power source and a first and second set of multiple switches and mounting an electric lamp and socket therefor with said electric lamp being in a position visibly observable from the exterior of said cabinet; said cabinet having a flat top surface; first and second recesses, of different shapes, disposed inwardly from the top surface of said cabinet and terminated inwardly in perforated bottom panels, said first and second sets of multiple switches being respectively disposed interiorly of said bottom panels of said first and second recesses; a first and a second plurality of plug members having body portions adapted in conformation to interfit respectively within said first and second recesses, and each one of said plugs having a wedge member extended outwardly from the undersurface of said body portion thereof receivable in a different one of said perforations in said bottom panels and engageable with said switch means disposed interiorly thereof; circuit means communicating from each one of said first set of switches with one different switch of said second set, and circuit means communicating between said power source, switches, lamp and buzzer, and being effective to direct current to said lamp when two communicating switches are engaged by plug members, and to direct current to and sound said buzzer when non-communicating switches are engaged.

2,872,742

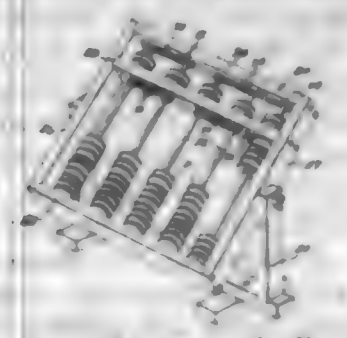
ABACUS WITH MAGNETIC MEANS FOR HOLDING UNIT COUNTERS IN POSITION

Andrew F. Schott, Milwaukee, Wis.

Application December 10, 1954, Serial No. 474,357
7 Claims. (Cl. 35—33)

1. In an abacus having a counting unit and a spindle

along which said unit is adjustable, said unit and said



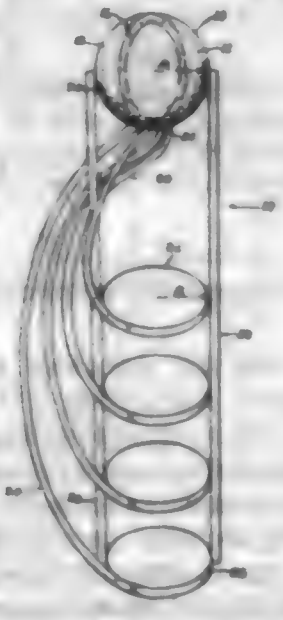
spindle having mutually magnetically attractive material whereby movement of the unit along the rod is reluctant.

2,872,743

DEMONSTRATOR FOR THE FORMULA FOR THE SURFACE OF A SPHERE

Herbert J. Feldhake, Chicago, Ill.

Application March 7, 1957, Serial No. 644,700
12 Claims. (Cl. 35—34)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A device for providing a physical demonstration of the mathematical formula for the area of the surface of a sphere comprising, in combination: a pair of concentric spheres, the inner sphere being spaced from the outer sphere; four hollow cylinders, each having an inner radius equal to the outer radius of said inner sphere and a rectangular cross-section in a normal plane through a diameter, the internal depth of said rectangular cross-section being equal to that of the space between said concentric spheres; freely mobile fluid material in sufficient quantity to completely occupy the inner-spherical space; and means providing communication between said inter-spherical space and each of said cylinders, said means being of sufficient dimension to permit transfer of said freely mobile fluid material between said inter-spherical space and said cylinders.

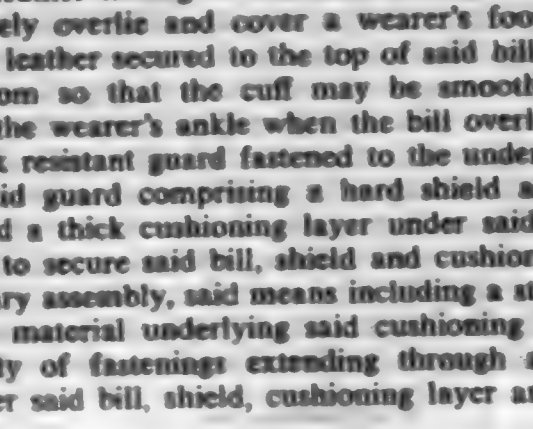
2,872,744

REMOVABLE AND REVERSIBLE COMBINED CHALKBOARD AND DISPLAY BOARD

Robert D. Dallen, Great Neck, N. Y., assignor to Austral Products Corporation, New York, N. Y., a corporation of New York

Application January 28, 1955, Serial No. 484,773
2 Claims. (Cl. 35—63)

2. In a chalkboard construction, support means including operatively connected top and bottom rails, said top rail having a single downwardly open groove and said bottom rail having a plurality of upwardly open grooves including an innermost groove in the vertical plane of the groove of the top member and a removable and reversible panel having a bottom edge adapted to fit selectively into any of the grooves of the bottom rail and having a top edge adapted to fit into the groove of the top rail, said top rail groove being deep enough and wide enough to permit the top edge of the panel to be



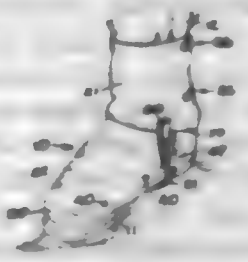
moved thereinto while the bottom edge is moved selectively into the grooves of the bottom rail and to enclose the top edge while the bottom edge is positioned in any of the grooves of the bottom rail.

2,872,745

SPAT-TYPE PROTECTOR

James Charles Finegan, Danville, Ill., assignor to Jess A. Brewer, Danville, Ill.

Application August 8, 1956, Serial No. 602,815
2 Claims. (Cl. 36—2)



1. A foot and ankle protector comprising a bill of tough leather having a "duckbill" configuration adapted to closely overlie and cover a wearer's foot, a cuff of pliable leather secured to the top of said bill and angled therefrom so that the cuff may be smoothly wrapped about the wearer's ankle when the bill overlies the foot, a shock resistant guard fastened to the underside of said bill, said guard comprising a hard shield adjacent said bill and a thick cushioning layer under said shield, and means to secure said bill, shield and cushioning layer in a unitary assembly, said means including a strip of tough pliable material underlying said cushioning layer and a plurality of fastenings extending through and drawing together said bill, shield, cushioning layer and strip.

2,872,746

SHOEMAKING

Fred Maccarone, Brooklyn, N. Y.

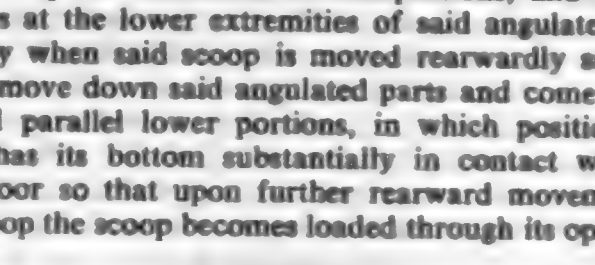
Application February 1, 1957, Serial No. 637,785
2 Claims. (Cl. 36—76)



1. In an open back shoe including an outsole, an insole, and a shank stiffener, the combination of an elongated metal spring having apertured lateral tabs at its rear end, fastening elements passing through the apertured tabs and into the insole, said fasteners straddling the rear end of the shank stiffener, and a piece of cushioning material dis-

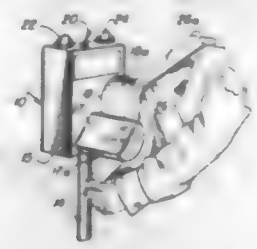
posed upon the forward portion of the spring, the forward end of the cushioned spring extending freely above the shank portion of the insole and terminating adjacent the ball line.

2,872,747
SHUTTLE CAR
Emmett Cline, Baisden, W. Va.
Application October 13, 1955, Serial No. 540,233
5 Claims. (Cl. 37—124)



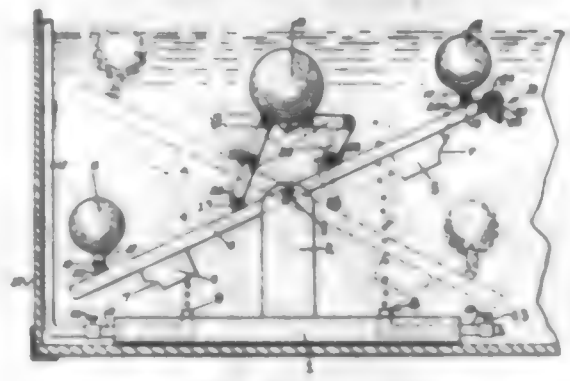
1. A self-loading coal truck for use in a mine shaft that has a floor and a ceiling, said truck comprising a frame that has a pair of spaced approximately parallel legs and cross members at the forward ends thereof, a rearwardly opened scoop having side walls, a front wall and a bottom, said scoop being located between said spaced legs, wheels carried by said frame, means carried by said frame and connected with said wheels for propelling said frame in the mine shaft, means connected to said frame and said scoop for actuating said scoop in order to load the same, and means for constraining the movement of said scoop, said movement constraining means being carried by said scoop and said legs of said frame and comprising on each side of said scoop a pair of cam followers which are both horizontally and vertically spaced from each other, a first and a second cam with which said cam followers are respectively engageable, said cams having short parallel portions which, when said cam followers are engageable thereon, retain said scoop in an approximately horizontal position and slightly spaced from the floor of the mine shaft whereby the truck is adapted to be transported, said cams having downwardly angulated parts connected to said portions, and parallel portions at the lower extremities of said angulated parts whereby when said scoop is moved rearwardly said followers move down said angulated parts and come to rest on said parallel lower portions, in which position said scoop has its bottom substantially in contact with the mine floor so that upon further rearward movement of said scoop the scoop becomes loaded through its open end.

2,872,748
IRONING DEVICE
Harry Rosenthal, Chicago, Ill.
Application May 31, 1956, Serial No. 588,401
2 Claims. (Cl. 38—99)



1. A pressing device for ironing the edge portions of pieces of fabric including in combination, a vertical support stand, a control box on said support stand, first and second ironing members each comprising an elongated tubular shell affixed at one end to said control box and extending outwardly therefrom and each having a free end, said tubular shells having all parts thereof in fixed positions with respect to said support stand and having semi-cylindrical pressing surfaces facing away from each other and disposed on opposite sides of a common tangent therebetween, said ironing members being spaced diagonally with respect to said vertical stand in positions to receive the edge of the fabric between said ironing members so that the fabric may be manually tensioned around said semi-cylindrical pressing surfaces and along the common tangent thereof, electric heating elements in said first and second ironing members, and an energizing circuit connected to said heating elements, said energizing circuit including thermostat means to open and close said energizing circuit to maintain the temperature of said ironing members within an operating range and to open said energizing circuit when said ironing members reach a maximum temperature.

2,872,749
AQUARIUM DISPLAY DEVICE
Ames E. Bixenman, Winter Haven, Fla.
Application July 16, 1957, Serial No. 672,250
10 Claims. (Cl. 40—37)

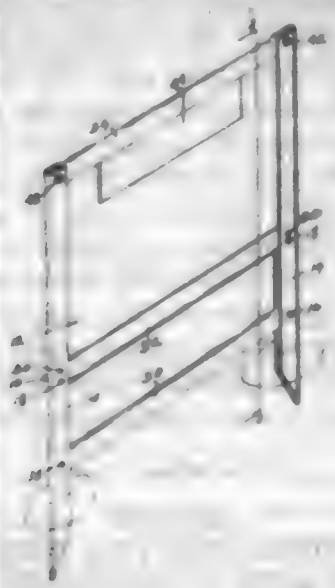


1. A display device for agitating and aerating the water in an aquarium comprising a base member, an elongated member, means mounting the elongated member on the base member for up and down swinging pivotal movement about a generally horizontal axis, a downwardly open air cup member carried by the elongated member at a point remote from the pivotal axis thereof, means causing the elongated member normally to assume a position adjacent to the lower limit of its range of up and down swinging movement, means for charging air into said cup when the elongated member is near the lower limit of its downward range of swinging pivotal movement whereby when the apparatus is submerged in water, said air will be trapped within the cup, rendering it buoyant and causing the elongated member to swing upwardly about said pivot, and means for discharging said trapped air from said cup near the upper limit of swinging pivotal movement of said elongated member thereby causing said elongated member to return to its normal position for recharging the cup with air.

2,872,750
SIGN
Willis C. Holcomb, Kettering, Ohio
Application September 9, 1957, Serial No. 682,875
8 Claims. (Cl. 40—125)

1. A demountable frame assembly for displaying a sheet material sign, said frame including a pair of channel posts extending vertically, the channels being directed towards each other, a plurality of rivets mounted in the posts, one of the rivets in each post being located in spaced relation to two other rivets arranged one above the other in close relation to each other, a plurality of cross bears, one of said cross bars having diagonally disposed notches in each end thereof, said notches being positioned on said one rivet in each post, the diagonal notch preventing removal of the bar due to the diagonal notches when the posts are parallel to each other, a second bar having a vertically disposed notch near each end thereof, said notches in the second bar being seated upon said two closely spaced rivets, a third channel

bar having the channel directed downwardly with the upper margin of the sign projecting upwardly into the



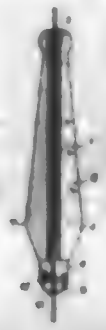
channel of the third bar, and means for removably attaching the third bar to the posts.

2,872,751
LINE GUIDE FOR FISHING RODS
Burleigh M. Mayfield, Kansas City, Mo.
Application February 4, 1955, Serial No. 486,115
10 Claims. (Cl. 43—24)



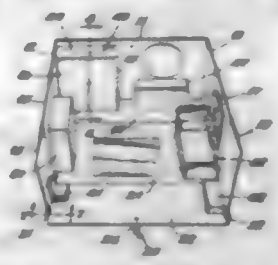
8. A line guide for fishing rods comprising a single, relatively long, thin thread of highly resilient, strong, tough spring wire capable of recovering its original shape after being distorted and having an ovoidal loop provided with a large end and a small end and consisting of a pair of oppositely bowed legs terminating in juxtaposed ends, a line-receiving eye at the large end of the loop consisting of a single, median convolution of a spiral coil and disposed substantially within the plane of the loop, and a pair of aligned feet integral with said ends of the legs and extending in opposite directions in perpendicular relationship to said legs and said plane and substantially parallel with the axis of the eye.

2,872,752
FISHING-LINE LEADING BOB
Karl Salzmann, Winterthur, Switzerland
Application May 8, 1956, Serial No. 583,448
Claims priority, application Switzerland May 10, 1955
1 Claim. (Cl. 43—44.9)



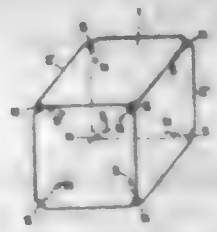
In a fishing tacke and in combination with the fishing line, the improved line-leading bob comprises a longitudinally slotted conically tapered body, said body having at its smaller end an enlarged indicating portion destined to project above the water level, a metal bar rotatably accommodated in said slotted body and provided with a longitudinal groove, said bar at its end situated in said enlarged body portion being conically enlarged to afford a seat therein and said bar near its other end carrying a slotted ring, and a centrally bored cap loosely mounted on said other bar end and said ring, and slidable on said line, said line passing through the bar groove and the ring and the cap, and the arrangement being such that said line is introduceable into the detached bob through the registering slots in said body and ring and bar and lockable in said bob by rotating said bar relatively to said body by means of said ring to bring said slots out of register.

2,872,753
COLLAPSIBLE DOLL HOUSE CONSTRUCTION
Russell S. Fenton, Northfield, Ill.
Application February 20, 1956, Serial No. 566,532
4 Claims. (Cl. 46—12)



4. A collapsible toy house comprising in combination a base structure having a back panel, a bottom panel and two side panels secured together along their respective edges so as to form the walls and floor of a doll house leaving the top and front of such base structure open, each of said side panels having first wings and second wings serially hinged thereto so as to unfold outwardly and of corresponding height, said first wings having a total length which is substantially equal to the length of the back panel and said second wings each having a length which is substantially equal to the depth of the side panels to permit the first wings to be swung inwardly into a position parallel with said back panel with the second wings lying side by side nested in said base structure, a front panel hingedly attached to the forward edge of the bottom panel so as to unfold downwardly to a flat position and having dimensions corresponding to the back panel for upward folding parallel to the latter, a top panel hingedly secured to the front panel and having dimensions corresponding to the dimensions of the bottom panel for folding parallel to the latter to place the device in a fully collapsed condition, said serially connected first and second wings when unfolded in combination with the unfolded front panel forming walls and floor comprising an extension to the doll house defined by the base structure, and box-like furniture elements secured to at least one of said wings, front and top, panels in such position as to brace the walls of the doll house extension for reinforcing and rigidifying the same and arranged for registered nesting when the device is in its collapsed state.

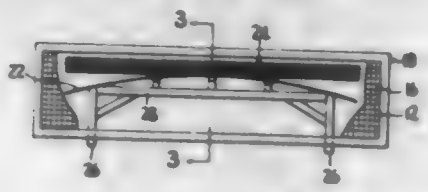
2,872,754
MAGNETIC TOY BUILDING BLOCKS
Luther Carl Cronberger, Tulsa, Okla.
Application July 28, 1955, Serial No. 525,052
10 Claims. (Cl. 46—26)



6. A magnetic toy building block comprising a supporting structure of non-magnetic material substantially in the shape of a prism having six sides and eight corners, eight permanent bar magnets each projecting from one of said eight corners into said structure in such a way as to

enclose an acute angle with three of said six sides, said eight bar magnets being oriented to form with outer poles thereof a cyclic pattern of poles of alternating polarity on each of said six sides of said supporting structure.

2,872,755
APPARATUS FOR BENDING GLASS
Paul C. Lawson, New Kensington, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application January 25, 1954, Serial No. 405,734
1 Claim. (Cl. 49—67)



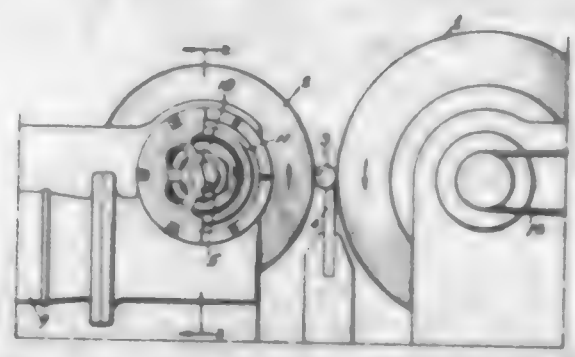
In an apparatus for arcuately bending a plurality of superimposed stacked glass sheets in a lehr wherein dirt-laden hot gaseous convection currents are present and on a bending mold comprising a frame of at least four vertically extending side members and a convex shaping surface secured to the uppermost ends of said side members which permits the ends of said glass sheets to separate in spaced relation during bending and expose portions of the surfaces of each glass sheet to the dirt carried by said hot gaseous convection currents; the improvement which comprises an outwardly laterally extending arm secured to each of said frame vertical side members at the lowermost ends of said side members and having a horizontally disposed supporting surface spaced above the lowermost end of the adjacent side member, an open frame comprising spaced upper and lower rectangular frame members, said upper and lower frame members being secured to one another at corresponding corners by vertical members to provide an upper frame member and four side frame members surrounding the glass sheets on said convex bending surface and a screen secured to and extending across said upper frame member and each of said four side frame members, said lower rectangular frame member removably engaging the supporting surfaces of said laterally extending arms and said screens having a mesh in the range of 100 to 200, whereby dirt is excluded from the exposed portions of said glass sheets while permitting the flow of hot gaseous convection currents over said exposed portions.

2,872,756
APPARATUS FOR FORMING CURVED GLASS PANES
Joseph E. Jendrisak, Northville, Mich., assignor to Shatterproof Glass Corporation, Detroit, Mich., a corporation of Michigan
Application February 7, 1955, Serial No. 486,562
9 Claims. (Cl. 49—67)



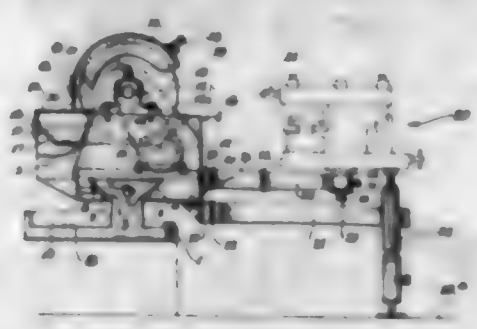
3. Apparatus for forming curved glass panes by gravity bending of the panes while heated comprising a mold having a central section and vertically swinging end sections having a hinge connection to the ends of said central section, said mold having a smoothly curved longitudinally concave shaping surface when said end sections are in their uppermost molding positions, said end sections having pane supporting ledges at their free ends, supporting members carried by said central section on opposite sides thereof and adjacent each of its ends, said members being movable up and down from and to a position below said surface and having portions engageable with the side edges of a pane and with the bottom face of the pane adjacent said edges, means for moving said supporting members laterally during their downward movements to shift the pane relative to said mold, a counterbalancing connection between each of said end sections and the two adjacent supporting members constraining said end sections and said supporting members to movements in opposite directions whereby the weight imposed on said supporting members by a heated pane sagging between said ledges imparts an upward movement to said end sections to move them to their molding positions.

2,872,757
DRIVING MECHANISM FOR THE REGULATING WHEELS OF CENTERLESS GRINDING MACHINES
Carl Gustaf Ekholm, Lidkoping, Sweden, assignor to Lidköpings Mekaniska Verkstads Aktiebolag, Lidkoping, Sweden, a corporation of the Kingdom of Sweden
Application March 8, 1957, Serial No. 644,769
Claims priority, application Sweden March 9, 1956
5 Claims. (Cl. 51—103)



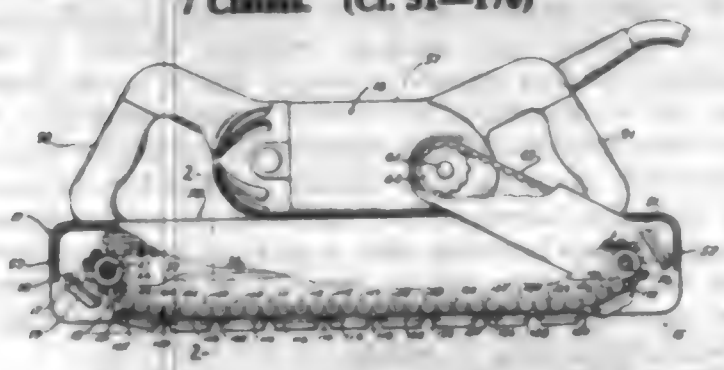
1. In drive mechanism for the regulating wheels of centerless grinding machines and in combination with the primary drive means for said wheel, an auxiliary drive means for exerting a torque upon the said regulating wheel in the same direction as the torque exerted on the regulating wheel through the work by the grinding wheel, said auxiliary driving torque acting continuously upon the regulating wheel during contact of the grinding wheel with the work.

2,872,758
MOUNTING FOR GRINDING DEVICES
Valentine Nickolas Hoerst, Cincinnati, Ohio
Application October 3, 1957, Serial No. 687,943
3 Claims. (Cl. 51—166)



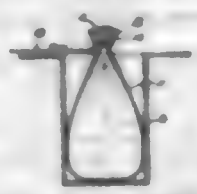
1. In a grinding apparatus having a grinding wheel and a tool holding device, a mounting therefor comprising a base, a frame mounted on said base and supporting said grinding wheel, an arm arranged to carry thereon said tool holding device, a link hinged to said frame and to said arm to permit adjustment of the arm independently hinged to said frame, and a jack carried by said second arm and arranged to engage and support said tool holding device.

2,872,759
METAL FINISHING MACHINE
Charles L. Hagerty, El Monte, Calif.
Application March 6, 1957, Serial No. 644,231
7 Claims. (Cl. 51—170)



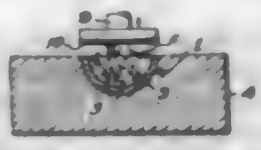
1. A portable hand-held power-driven metal finishing machine comprising, a wheel, an endless assembly of articulated abrading segments entrained around said wheel, power-driven means drawing said assembly in tension from said wheel over an elongated course defining a work area, each of said segments being formed with a flat side and being carried around said wheel with the leading edge and intermediate portion of said side inscribing spaced concentric orbits, and means providing an elongated fulcrum mounted parallel to said sides and intermediate said orbits so as to intercept each of said segments at its said side intermediate its leading edge and intermediate portion and cooperating with said power-driven means for swinging the trailing edge of each of said segments outwardly in the direction of the course of said work area.

2,872,760
METHOD FOR PACKAGING FLUID MATERIALS
William E. Meissner, New York, N. Y., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application June 26, 1953, Serial No. 364,397
4 Claims. (Cl. 53—28)



1. Method of packaging flowable materials in a fluid-tight rigid container including the steps of providing a gob of plastic film-forming material, disposing an open end of a rigid container adjacent to the gob of plastic film-forming material, delivering a flowable material to be packaged into the gob of plastic material to expand the same within the rigid container and line the internal walls thereof, and sealing the expanded film-forming material at the point of delivery of the flowable material.

2,872,761
METHOD OF LOADING SMALL ITEMS INTO CONSTRICTED SPACE
Louis S. Michael, Springfield, Va.
Application June 3, 1958, Serial No. 739,637
5 Claims. (Cl. 53—24)
(Granted under Title 35, U. S. Code (1952), sec. 266)



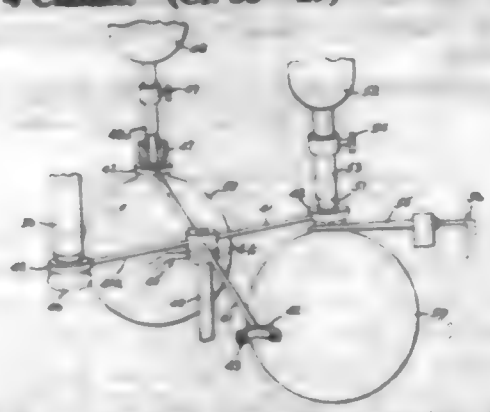
1. A method of loading small elongated objects into a constricted space, the steps of feeding said objects into a pair of identical semi-cylindrical canister halves, said objects being fed alternately and in side by side relation from both sides of each said half and being disposed on one side in reversed position with respect to said objects being fed from the other side, covering one said canister half with a thin septum, abutting said canister halves to form a completed loaded cylindrical canister, removing said septum, inserting said completed canister into an open ended container, then sealing said container.

2,872,762
FORMING AND FILLING PACKAGES AND APPARATUS THEREFOR
Jack Dreeben, Philadelphia, Pa.
Application September 27, 1956, Serial No. 612,557
8 Claims. (Cl. 53—28)



1. The method of making packages from a continuous web of sheet material which comprises advancing the sheet material and forming the same under tension into a vertical tube with the longitudinal edges in overlapped relation and with the tube having a lower transverse seal, inserting an article into the tube in close engagement with the inner face of the tube and supported by the transverse seal and the tension of the tube, and vertically longitudinally heat sealing said edges together with the article providing an interior support for the longitudinal sealing, the portion of the tube at which the sealing of the edges is effected being free from sidewise restraint other than that of its own tension.

2,872,763
PROCESS AND APPARATUS FOR PACKAGING FLOWABLE MATERIALS
William E. Meissner, New York, N. Y., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application December 24, 1953, Serial No. 400,293
4 Claims. (Cl. 53—29)



4. A method for packaging flowable materials including the steps of disposing a gob of plastic material onto an annular member, maintaining said material in a softened condition while simultaneously inflating the same to form a hollow container having an opening at its point of connection with said annular member, filling said hollow container with a flowable material, and sealing said container opening while simultaneously removing said filled container from said annular member.

2,872,764
METHOD OF FILLING SMALL VESSELS
Helmut Friedhoff, Koln-Raderthal, Germany, assignor to Firma Walther & Cie. Aktiengesellschaft, Koln-Dellbruck, Germany
No Drawing. Application June 5, 1958
Serial No. 739,974
Claims priority, application Germany June 8, 1957
10 Claims. (Cl. 53—37)

8. A method of producing a temperature responsive device, consisting essentially of a closed vessel adapted

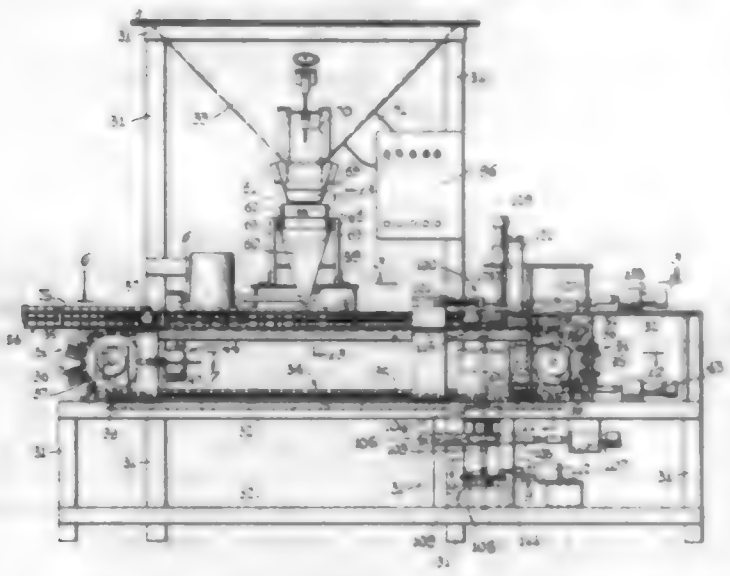
to burst upon being subjected to a predetermined degree of inner pressure, and of a liquid substantially filling said vessel, said liquid being adapted to expand, upon being subjected to a predetermined elevated temperature, so as to subject said vessel to said predetermined degree of inner pressure, comprising the steps of introducing an auxiliary liquid into a vessel adapted to burst upon being subjected to said predetermined degree of inner pressure and being formed with a capillary opening, so as to fill a small portion only of said vessel with said auxiliary liquid, said auxiliary liquid having a boiling point below the boiling point of a first liquid adapted to expand upon being subjected to said predetermined elevated temperature so as to create said predetermined degree of pressure and being soluble in said first liquid; immersing said vessel containing said small quantity of said auxiliary liquid in a bath of said first liquid; subjecting said vessel containing said small quantity of said auxiliary liquid in said bath to a temperature above the boiling point of said auxiliary liquid and below the boiling point of said first liquid, so as to evaporize said auxiliary liquid in said vessel; cooling said bath of first liquid to below the boiling point of said auxiliary liquid, whereby the vapors of auxiliary liquid within said vessel immersed in said bath will be condensed at least partially, thus creating a partial vacuum within said vessel causing passage of first liquid from said bath through said capillary opening into said vessel, whereby auxiliary liquid originally introduced into said vessel will be dissolved in said first liquid and the same will at least substantially fill said vessel; and closing said capillary opening of said vessel, thereby forming a closed vessel substantially filled with said first liquid which upon being subjected to said predetermined elevated temperature will create an overpressure sufficient to cause bursting of said vessel.

2,872,765

APPARATUS FOR MEASURING QUANTITIES OF SMALL ARTICLES AND PACKAGING SAME

Carl P. Michlein, Shelton, Conn., assignor to The Shelton Tack Company, Shelton, Conn., a corporation of Connecticut

Application January 12, 1955, Serial No. 481,361
15 Claims. (Cl. 53—64)



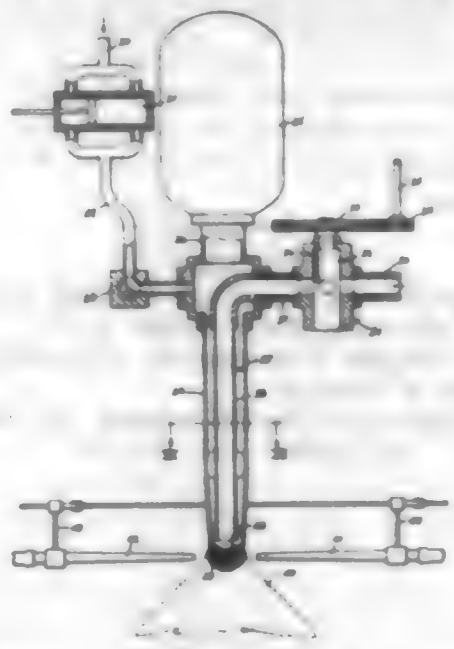
1. Apparatus for measuring and packaging quantities of small articles, comprising vibratory feed means for feeding continuously said articles from a source of supply to a stationary loading station; means at said station for collecting the articles into measured quantities and periodically dumping the measured quantities while beginning collection of a subsequent measured quantity, said means including a rotatably mounted paddle wheel having compartments which are consecutively loaded with the articles, with the compartments being formed by outwardly extending portions so that the wheel has a normal, loading position wherein the outermost portion of one partition is disposed at the top of the wheel placing the compartment being loaded at one side of the axis of the wheel and means periodically imparting a turning movement to the wheel through part of a revolution; carrier means for transporting open packages one after another to said stationary loading station to receive said dumped quantities; and a delayed-action motive means controlled by said collecting means and triggered substantially concurrently with dumping of a quantity of articles, for causing a delayed, advancing movement of the carrier means, said movement occuring after a package has been loaded with said dumped articles, thereby to present another open package at the loading station for loading with a subsequent quantity of articles.

2,872,766

APPARATUS FOR PACKAGING FLUID FLOWABLE MATERIALS

William E. Meissner, New York, N. Y., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application November 4, 1953, Serial No. 390,156
1 Claim. (Cl. 53—140)



In an apparatus for packaging flowable materials in a flexible plastic container, the combination of the nozzle having an inner and outer fluid passage, means for delivering a gob of plastic film-forming material through the outer passage of said nozzle so as to close one end thereof, means for delivering flowable materials through the inner passage of said nozzle and against the gob of plastic film-forming material to expand said gob into the form of a container and fill the same, and a pair of opposing air jets disposed adjacent to said one end of said nozzle, said air jets being mounted for movement in opposite directions so as to effect a twisting and sealing of and seal the opened end of said filled container.

2,872,767

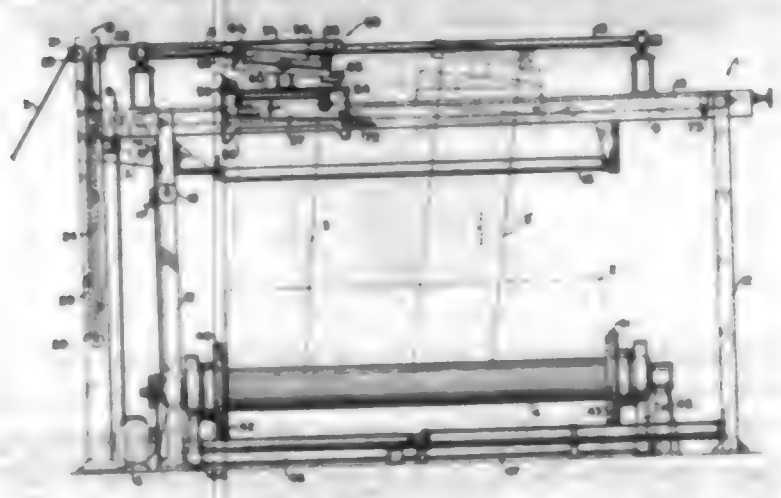
SPIRAL WRAPPING MACHINE

Everett W. Clem, Shrewsbury, Mass., assignor to Rice Barton Corporation, Worcester, Mass., a corporation of Massachusetts

Application December 1, 1954, Serial No. 472,389
5 Claims. (Cl. 53—198)

1. In a machine for helically wrapping cylindrical articles with a webbed wrapping material, roller means for supporting and rotating the cylindrical article to be wrapped, a carriage movable longitudinally of said cylindrical article and in timed relation with the rotation thereof, guide means on said carriage for guiding said webbed wrapping material over said cylindrical article, cam means on said carriage for changing the angle of inclination of

said guide means to said cylindrical article in order to vary the lead of the helical wrap, speed changing means for varying the speed of longitudinal travel of said carriage



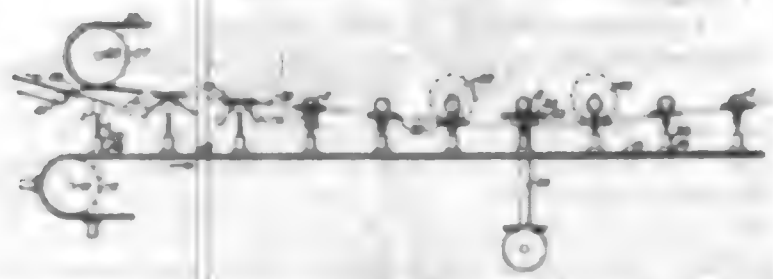
in direct proportion to the change of said angle of inclination, and means interconnecting said cam means and said speed-changing means so that adjustment of one will effect a simultaneous corresponding adjustment of the other.

2,872,768

APPARATUS FOR WRAPPING LOLLIPOPS AND THE LIKE

Ross Shapler, Hershey, Pa.

Application November 9, 1954, Serial No. 467,753
1 Claim. (Cl. 53—200)



Apparatus for wrapping articles having an enlarged head portion and a slender stem portion; said apparatus comprising an endless conveyor; means carried by said endless conveyor for supporting each of the articles to be wrapped with its enlarged head projecting therefrom; means for placing a piece of wrapping material on the enlarged head of each of said articles as it is advanced by said endless conveyor; a second endless conveyor adapted for generally parallel movement with respect to said first-mentioned endless conveyor; the path of said second endless conveyor slightly converging onto and diverging from said first-mentioned endless conveyor; said second endless conveyor belt carrying a series of apertured elements, each of said apertured elements being adapted to move into embracing relationship with respect to the head of one of said articles during the aforementioned convergent movement of said second endless conveyor, thereby forcing the piece of wrapping material around the head of said article; and a pair of cooperating, peripherally recessed, rotary elements disposed to gather that portion of the wrapping material which projects beyond the enlarged head of the article and seal it about the slender stem portion thereof.

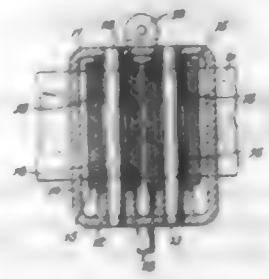
2,872,769

FALSE TWISTING DEVICES FOR TEXTILE YARNS AND THE LIKE

Ernest P. R. Scragg and Austin Dobson, Macclesfield, England, assignors to Ernest Scragg & Sons Limited, Macclesfield, England, a British company

Application September 10, 1956, Serial No. 608,883
Claims priority, application Great Britain September 16, 1955
3 Claims. (Cl. 57—77.45)

1. A spinner assembly for use in the false twisting of textile fibers comprising, in combination with a vertically disposed belt, an open sided housing with top and bottom flanges and mounted with its open side facing the belt and movable toward and from the belt, a pair of spaced parallel rollers rotatably mounted in the flanges of said housing, the flanges of the housing having registering holes therein with the center line of the holes in a vertical plane midway between the axes of the rollers and between the plane of said axes and the open side of the housing, a spinner tube disposed in said holes and engage-



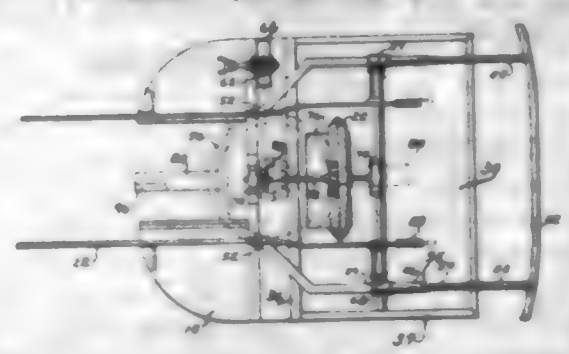
able with said rollers and having a diameter less than that of the holes to provide a substantial clearance for the spinner tube in the holes and permit the tube to move into and out of engagement with the rollers, the tube having an enlarged flange-engaging head on its upper end with a lower conical portion disposed to be engaged by the belt for axially raising the spinner tube as the housing is moved to cause the tube to engage the belt and be moved into engagement with the rollers.

2,872,770

BRUSH CUTTER

Bynum E. Murphy and William L. Brewer, Jr., Minden, and Andrew E. Melton, Heflin, La., assignors to Dealer Associates, Inc., Minden, La., a corporation of Louisiana

Application April 30, 1957, Serial No. 656,143
1 Claim. (Cl. 56—25.4)



A cutter of the type having a horizontal bedplate and horizontally rotating blades, means for mounting and driving said blades beneath said bedplate comprising a rotatable shaft vertically journaled in said bedplate, a circular blade carrying member connected to said shaft beneath said plate, said blade carrying member being a unitary dished structure having a marginal flange for receiving said blades, a central portion for attaching said member to said shaft, an intermediate inwardly and upwardly sloping annular frusto-conical portion integrally connecting the inner edge of said marginal flange to the outer edge of said central portion, and an upwardly and outwardly sloping skirt integral with the outer edge of said flange, a vertically disposed cone pulley journaled on the upper surface of said bedplate and extending through an opening in said bedplate into frictional engagement with said frusto-conical portion, and power means for rotating said pulley to drive said blade-carrying member.

2,872,771

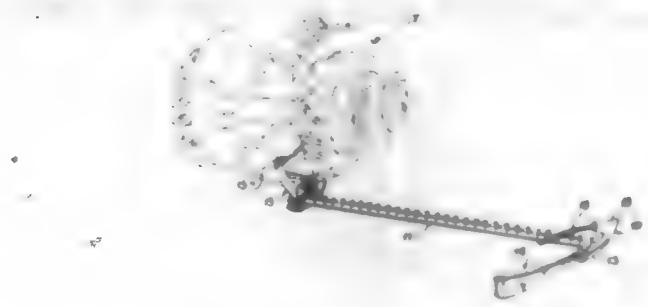
NON-CHOKE MOWER GUARD SHOE

Carlos W. Bentz, Deadwood, S. Dak.

Application April 29, 1955, Serial No. 504,949
5 Claims. (Cl. 56—314)

1. A shoe assembly for a mowing machine comprising a shoe provided with a forward end portion extending

ahead of the assembly to divide the grass to be cut from the standing grass and a dividing bar extending back from said forward end portion for turning the grass to be cut away from the standing grass, sickle means mounted on said shoe for cutting the grass, a sole provided with a forward end portion slidably attached to said shoe, connecting means connecting the rearward end of the shoe



and said sole at a point spaced from the forward end thereof, said connecting means providing vertical adjustment of said shoe relative to said sole, and a grassboard adjustably pivoted to the rearward end of said sole, said dividing bar being spaced vertically above said shoe assembly and defining with said shoe assembly a rearwardly open air gap above and extending rearwardly from said sickle means.

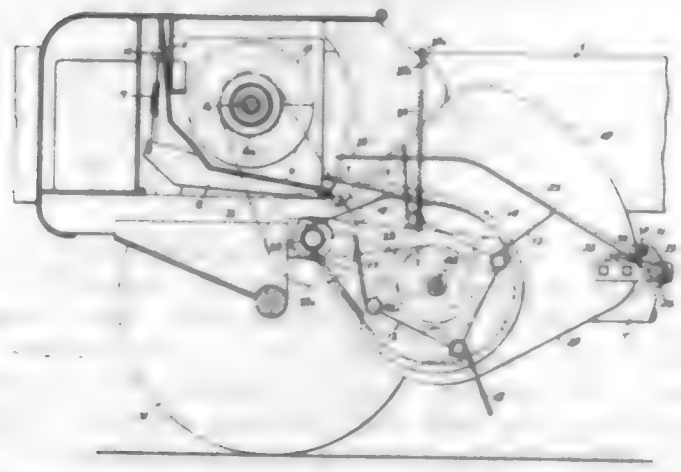
2,872,772

ADJUSTABLE WIND-GUARD FOR BALER PICK-UP

Edwin B. Nolt, New Holland, Pa., assignor to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware

Original application October 30, 1951, Serial No. 253,783, now Patent No. 2,757,602, dated August 7, 1956. Divided and this application February 23, 1956, Serial No. 567,342

3 Claims. (Cl. 56—364)



1. Windguard means for holding down material on the floor of a pick-up having a pair of spaced side walls, comprising a pair of forwardly projecting support arms, one connected to each side wall, a bar supported at its ends in said support arms for pivotal movement about a fixed longitudinal axis, a plurality of rods carried on said bar and extending rearwardly over said pick-up, each of said rods having a free end spaced from said floor, and means for selectively limiting the pivotal movement of said bar in one direction to thereby regulate the space between said free ends and said floor, said means comprising a cam member, and means connecting said cam member to said bar in one of a plurality of selective positions, said cam member being engageable with one of said support arms on pivotal movement of said bar in said one direction, the portion of said cam member engaging said support arm varying according to the selective position of adjustment of the member.

2,872,773

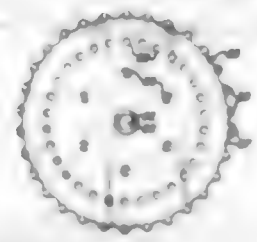
RESILIENT ROTARY RAKING WHEEL

Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely N. V.

Application November 5, 1956, Serial No. 620,384

Claims priority, application Netherlands November 29, 1955

14 Claims. (Cl. 56—377)



1. A raking element of the wheel type comprising a freely rotatable disc at least in part of pliant material and raking elements on and extending laterally of the disc whereby the disc can be flexed to present a lateral surface thereof to the ground so that the raking elements can engage material lying on the ground and the disc thereby rotated.

2,872,774

MOUNTING FOR A SPINDLE BASE OF A SPINNING AND TWISTING SPINDLE IN A TEXTILE MACHINE

Heinrich Fink, Esslingen, Hegenberg, Germany, assignor to SKF Kugellagerfabriken G. m. b. H., Schweinfurt, Germany

Application March 22, 1956, Serial No. 573,121

Claims priority, application Germany March 23, 1955

1 Claim. (Cl. 57—129)



In a spinning and twisting machine, in combination, a spindle rail formed with an opening passing therethrough; an elongated spindle base extending with clearance through said opening to opposite sides of said rail; a double walled resilient sleeve surrounding said base on one side of said rail and having an outer wall engaging said rail and maintained by the same against axial displacement and an inner wall having a free end adjacent said rail and surrounding said base, said inner and outer walls of said double walled sleeve joining each other at a portion of said sleeve distant from said rail; and nut means threadedly carried by said base and engaging said portion of said sleeve for adjusting the stress of at least said outer wall of said sleeve.

2,872,775

WATCH MOVEMENT

Georges Maire, Tavannes, Switzerland, assignor to Tavannes Watch Co. S. A., Tavannes, Switzerland, a firm

Application June 15, 1955, Serial No. 515,753

Claims priority, application Switzerland June 17, 1954

8 Claims. (Cl. 58—59)

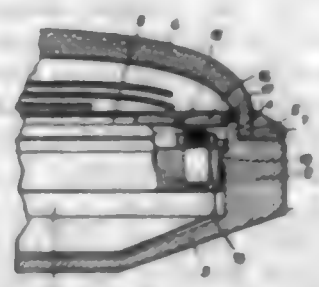
1. In a watch movement, the combination of a toothed barrel, a center wheel pinion controlled by the barrel teeth, an intermediate wheel controlled by the center wheel pinion, a minute wheel controlled by the intermediate wheel, a third gear including a wheel and a pinion controlled by the minute wheel and coaxial with the intermediate wheel, two seconds wheels each removably positioned with its axis in register with the center wheel pinion and with a predetermined eccentric location respectively, for operative engagement with said wheel

of the third gear and an escape wheel adapted to engage either operatively positioned seconds wheel and the distance of the axis of which from the axis of the center wheel pinion is equal to that between last mentioned axis



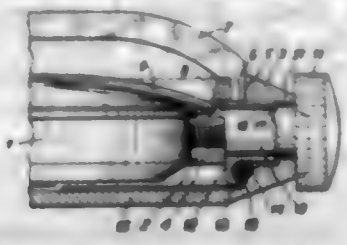
and the axis of the third wheel, the eccentric location for the axis of a seconds wheel lying at equal distances from the axis of the escape wheel and from the axis of the third wheel.

2,872,776
WATCH
Raoul H. Erard, La Chaux-de-Fonds, Switzerland
Application August 12, 1955, Serial No. 528,006
6 Claims. (Cl. 58—67)



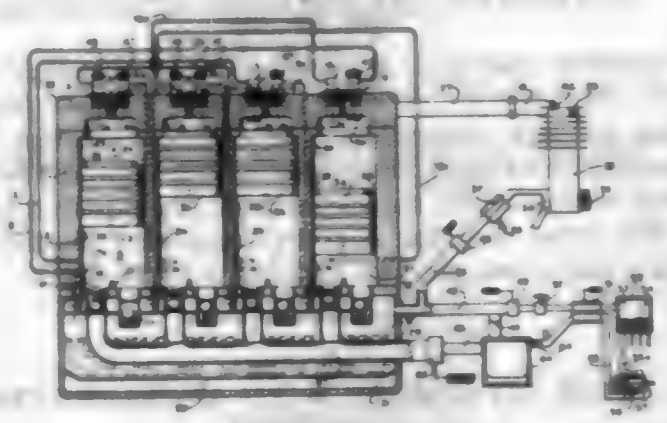
1. In a watch, in combination, a one-piece case including a case-band and a bottom; a movement frame having a periphery formed with a cylindrical opening; a dial disc fixed to and being of a smaller diameter than said frame and partly covering the latter, said opening being located beyond said disc; a winding stem formed with a groove; a setting lever having a stud extending into said groove for retaining said winding stem in position and said setting lever having a pivot pin extending freely into said cylindrical opening at the periphery of said movement frame, from the dial disc side thereof, and serving as a pivot for said setting lever; and an annuclear piece removably fixed to said case, forming an extension of said dial disc, and having an inner part surrounding said dial disc and extending above said movement frame directly over said pin for retaining said pivot pin axially in said opening of said movement frame, whereby said setting lever is not entirely covered by said dial disc so that after said annular piece is removed from said case said setting lever may be lifted to an extent which disengages said stud from said groove.

2,872,777
WATERTIGHT WRIST-WATCH CASE
Willy Kessi, La Chaux-de-Fonds, Switzerland, assignor to Stila S. A., La Chaux-de-Fonds, Switzerland, a joint-stock company
Application March 7, 1957, Serial No. 644,666
Claims priority, application Switzerland March 10, 1956
1 Claim. (Cl. 58—90)



In a watertight case for a wrist-watch movement having a usual winding and hand setting stem, the combination of: a first outer part forming both the case bottom and the caseband and having a notch to enable passage of said stem; a second inner part carrying the watch movement and provided with an opening to enable the passage of said stem, said inner part being set in said outer part and having an annular peripheral rim hiding said notch; a waterproof gasket interposed between said both parts at a level comprised between said opening for the stem and the bottom of said outer part; and a glass tightly fixed to said inner part.

2,872,778
INTERNAL COMBUSTION POWERED FLUID MOTOR AND HYDRAULIC PROPULSION SYSTEM
Harold B. Dane, Wheaton, Md.
Application December 27, 1955, Serial No. 555,479
5 Claims. (Cl. 60—12)

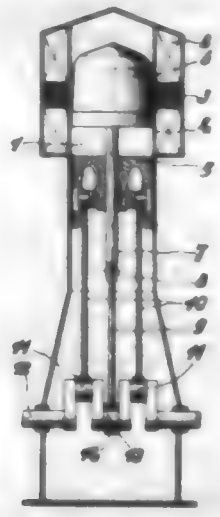


1. A fluid power system including in combination, a two cycle internal combustion engine comprising at least three cylinders, each cylinder having a combustion zone and a coaxial fluid pressure zone, a free floating piston separating said zones and disposed for reciprocation between and into said zones, each combustion zone having separate ignition means and normally closed intake and exhaust valves, each pressure zone having inlet and discharge ports, normally closed valves in said ports, a common high pressure fluid reservoir connected to said discharge ports for storing fluid under the pressure developed in said pressure zones by the reciprocation of respective pistons, a fluid operated motor, a fluid line connecting said motor to said reservoir, means for returning said fluid to said pressure zones through said inlet ports to cause the return strokes of respective pistons, a compressor for charging a fuel-air mixture into said combustion zones through their intake valves, pressure responsive actuating means for the intake and exhaust valves of respective combustion zones, pressure transmitting means leading from the pressure zone of each cylinder, respectively, to the actuating means for the exhaust valve of the cylinder fired in immediate preceding order, and to the actuating means for the intake valve of the cylinder to be charged in next succeeding order, and separate means in each pressure zone for controlling the ignition means of the cylinder to be fired in next succeeding order.

2,872,779
SINGLE-ACTING HOT-GAS RECIPROCATING ENGINE
Jacob Willem Laurens Köhler, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application September 15, 1953, Serial No. 380,335
Claims priority, application Netherlands September 24, 1952
1 Claim. (Cl. 60—24)

A single-acting hot-gas reciprocating engine comprising a cylinder, a piston and a displacer mounted for reciprocable movement in said cylinder, a crankshaft, crank and connecting rod means connecting both said piston

and displacer to said crankshaft, the displacer and piston both having crank heads, the crank head of said displacer being heavier than the crank heads of said piston, said heavy crank head being at the end of the connecting rod connecting said displacer with said crankshaft and



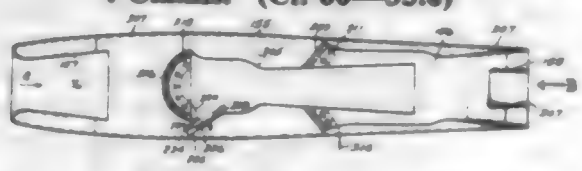
being of such dimensions that during operation of the displacer the radial component of the resultant force exerted on the crank means remains continually operative in the same direction thereby preventing clattering between said crank pin and said heavy crank head.

2,872,780

PULSE JET ENGINE WITH ACCELERATION CHAMBER

Paul Schmidt, Munich, Germany

Application April 7, 1953, Serial No. 347,274
Claims priority, application Germany April 12, 1952
4 Claims. (Cl. 60—35.6)



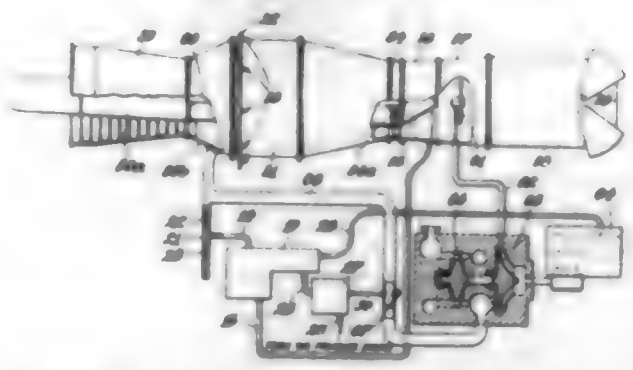
1. In an internal combustion engine of the gas-jet type particularly for aircraft, the combination, comprising, an elongated combustion chamber having an inlet end and an open outlet end, said combustion chamber being of convergent-divergent shape, with the angle of divergence not more than 5°, means carried by the inlet end of the combustion chamber feeding thereinto intermittently separate charges of a starting fuel-air mixture, sparking means in the combustion chamber for igniting the mixture, valves mounted on the inlet end of the chamber and admitting fresh air into said chamber and reflecting pressure waves of the gases burned therein, means for supplying fuel to said combustion chamber, an acceleration chamber having an intermediate portion surrounding the combustion chamber outlet end in spaced relation thereto, said acceleration chamber having an outlet end portion subdivided by walls aligned with the flow direction and covered with material absorbing sound and shockwaves, means feeding into the acceleration chamber a second gas in separate charges and intermittently and in a phase relation opposite to that of the first mentioned feeding means, said last mentioned means comprising a second gas inlet disposed upstream of the outlet end portion of the combustion chamber and admitting the second gas and reflecting it toward the combustion chamber outlet and positioned at such a distance from the combustion chamber outlet end as to cause the vibration frequency of the second gas column to resonate with the burned gas leaving the combustion chamber outlet end, and tubular means surrounding the combustion chamber and acceleration chamber and admitting air at its front end to the inlets of both said chambers and sealingly connected at its rear end to the acceleration chamber to compel the air admitted at the front end to pass solely through the combustion chamber and acceleration chamber.

2,872,781

GAS-TURBINE ENGINE REHEAT FUEL SUPPLY SYSTEM WITH AIR TURBINE DRIVEN FUEL PUMP

David Omri Davies, Kingsway, Derby, England, assignor to Rolls-Royce Limited, Derby, England, a British company

Application April 29, 1954, Serial No. 426,320
Claims priority, application Great Britain May 5, 1953
1 Claim. (Cl. 60—35.6)



In a fuel system for a gas-turbine engine having a compressor, main combustion equipment, a turbine, reheat combustion equipment, and a propelling nozzle connected in flow series, the fuel system comprising a fuel pump connected to deliver fuel to the reheat combustion equipment, an air turbine connected to drive the fuel pump, a source of compressed air, and an air-supply-controlling throttle connected to control the supply of compressed air from the source to the air turbine thereby to control the rotational speed of the turbine, a pressure-sensitive device comprising fluid flow means having an inlet, a first pressure point in the engine between the compressor and the turbine and to which said inlet is connected, a second pressure point in the engine between the turbine and the propelling nozzle, means to produce in the fluid flow means an auxiliary pressure source such that the ratio of the auxiliary pressure to the pressure at the first pressure point is equal to the desired ratio of the pressure at the second pressure point to that at the first pressure point, the said means to produce the auxiliary pressure comprising a conduit connected at one end to the first pressure point, three restricting orifices in flow series in said conduit, the upstream orifice being a variable-area orifice, the intermediate orifice being a fixed-area orifice and the downstream orifice being a venturi, and the restrictions of the orifices being selected so that the ratio of the pressure at the throat of the venturi to the pressure at the first point is the desired ratio of the pressure at the second point to the pressure at the first point, and a flexible diaphragm connected to be loaded on one side by the pressure at the throat of the venturi and on the other side by the pressure at the second pressure point and adapted to control adjustment of the throttle in a manner to maintain the pressure at said second pressure point equal to the auxiliary pressure whereby the throttle is adjusted upon sensing a departure of the actual ratio of the pressure at the first pressure point to the pressure at the second pressure point from the desired ratio.

2,872,782

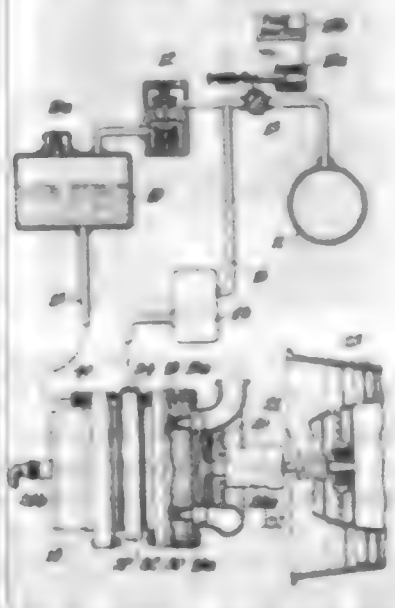
STARTERS FOR PRIME MOVERS

Francis Murray Johnson, London, and Vernon Wallace Greenhough, Derby, England, assignors to Rolls-Royce Limited, Derby, England, a British company

Application November 15, 1954, Serial No. 468,962
Claims priority, application Great Britain December 11, 1953
1 Claim. (Cl. 60—39.14)

A combustion starter comprising a combustion chamber including an outer cup-like casing, an inner cup-like casing nested within said outer casing, said casings each having a base portion and a side wall portion, the base portions and side wall portions of the casings be-

ing spaced apart from one another to define a space therebetween, and said casings having rims in sealed engagement, and means to supply fuel and air to said combustion chamber in approximately the stoichiometric ratio comprising an air manifold secured to said outer casing and connected to said space adjacent the rims to feed air thereto, a fuel manifold secured to the outer casing adjacent its midlength, and a plurality of tubes extending radially from the fuel manifold across said space between the side walls and projecting within the inner casing, said tubes being formed with a first set of perforations in their portions between the walls and a



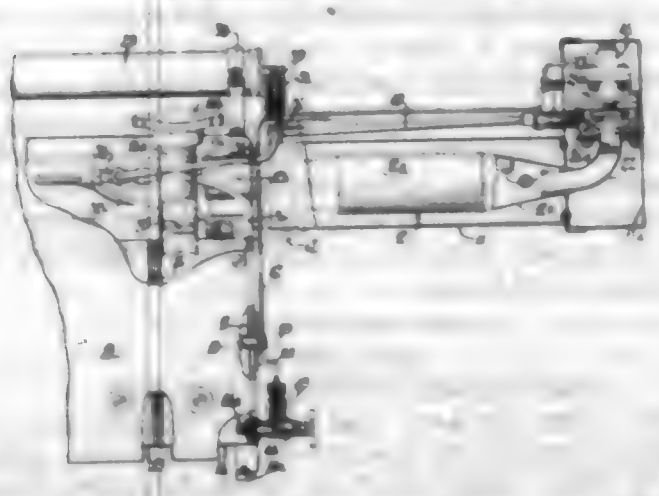
second set of perforations in their portions within the inner casing, and the base of the inner casing being perforated, the air flowing from said air manifold through said space between the walls past said first set of perforations to receive combustion fuel and then turning into a reverse path to pass into the inner casing through its perforated base, which acts as a combustion stabiliser, so that in the inner casing combustion occurs at the base end and the combustion products flow past the second set of perforations, the further fuel there injected serving to cool said combustion products, a thermo-mechanical transducer, and means to conduct the cooled combustion products to said transducer.

2,872,783

JET PULSE ENGINE AND STARTING AND RUNNING FUEL SYSTEM

Paul A. Frank, Bedford, and Russell R. Curtis, Bedford Heights, Ind., assignors to Curtis Automotive Devices, Inc., Bedford, Ind., a corporation of Ohio

Application May 9, 1955, Serial No. 506,784
13 Claims. (Cl. 60—39.14)



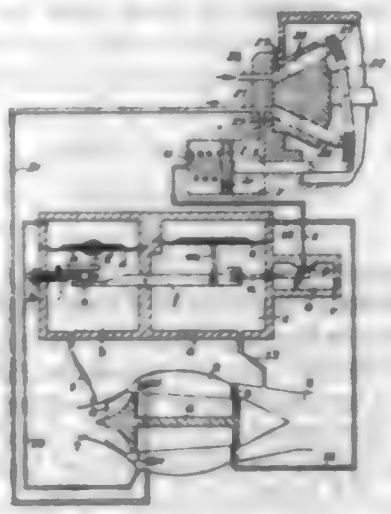
1. A pulse jet engine including an elongated tubular body having an elongated exhaust tube portion, an enlarged combustion chamber portion communicating with said tube portion on one side thereof and a tapered diffuser passage portion converging from the opposite side of said combustion chamber portion, an antechamber communicating on one side with said diffuser passage through an elbow fitting and on the other side with a fuel and air control valve, a venturi section leading to said valve, a fuel regulating valve communicating with said venturi section through a restricted orifice, a fuel tank, said regulating valve connected to said tank, a hand pump for starting said engine being line connected to deliver air to said fuel tank and said antechamber, a check valve preventing the backflow of air to said pump, and a choke valve regulating the distribution of air from the pump to the antechamber and fuel tank air lines, whereupon after the starting of the engine pressure in the fuel tank is maintained through the antechamber and fuel tank air lines by the self-induced pressure in the antechamber.

2,872,784

LIQUID FUEL CONTROL MEANS FOR JET ENGINES

Owen Napier Lawrence, Dorridge, England, assignor to Joseph Lucas (Industries) Limited, Birmingham, England

Application March 31, 1953, Serial No. 345,940
7 Claims. (Cl. 60—39.28)



1. For use with a jet engine to which air is supplied by a turbine-driven blower, and fuel is supplied by a pump, apparatus for preventing a temporary excess supply of fuel to the engine during acceleration thereof, comprising in combination with a liquid-operated servo-mechanism for controlling the rate of fuel supply to the engine, a valve for controlling the servo-mechanism, a lever for actuating the valve, a pair of differentially movable members operable by fluid pressure differences associated with the air blower and turbine, means operable by the said members for controlling movement of the lever whilst enabling at least one of the said members to act on and impart movement to the lever, and means divided by the said members into compartments for enabling each of the said members to be subjected at opposite sides respectively to opposed fluid pressures derived from two of the fluid pressures created at the blower inlet and outlet and the turbine inlet and outlet.

2,872,785

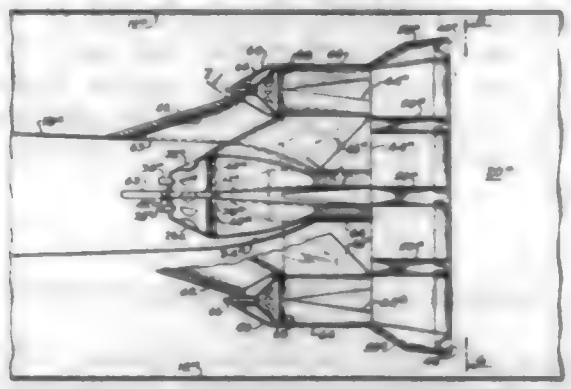
JET ENGINE BURNER APPARATUS HAVING MEANS FOR SPREADING THE PILOT FLAME

Hillard E. Barrett, East Orange, and William F. Payne, Cedar Grove, N. J., assignors to Curtiss-Wright Corporation, a corporation of Delaware

Application June 6, 1951, Serial No. 230,212
19 Claims. (Cl. 60—39.72)

1. In combustion apparatus having a combustion chamber and means for supplying a combustible mixture to said chamber; the combination therewith of means for igniting said main combustible mixture; said igniting means comprising pilot burner means including a burner tube from which the pilot flame emanates; annular channel

means co-axial with said pilot burner tube and disposed within said chamber for flow of said mixture from a point upstream therefrom over the radially inner and outer annular sides of said annular channel means, said annular channel means having an open side facing downstream relative to said flow and having a diameter larger than the diameter of said pilot burner tube at its discharge end; and a plurality of linear channel members extending



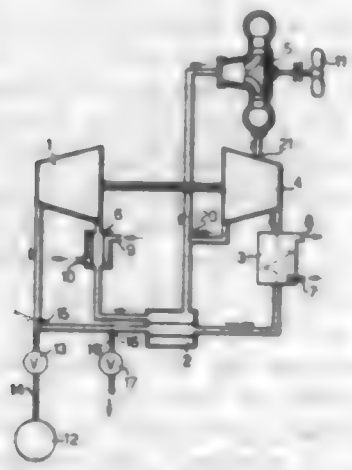
from said pilot burner tube to said annular channel means and being circumferentially-spaced about the axis of said annular channel means for flow of at least a portion of said mixture therebetween, each said linear channel member having an open side facing in the direction of the flow over said member and the channel of each linear channel member communicating at one end with said pilot burner tube and at its other end with the channel of said annular channel means.

2,872,786

THERMAL POWER PLANT HAVING A VARIABLE-SPEED OUTPUT TURBINE

Mehmet Sahabettin Ergenç, Zurich, Switzerland, assignor to Aktiengesellschaft fuer Technische Studien, Zurich, Switzerland, a corporation of Switzerland

Application September 21, 1956, Serial No. 611,296
Claims priority, application Switzerland October 12, 1955
2 Claims. (Cl. 60—59)



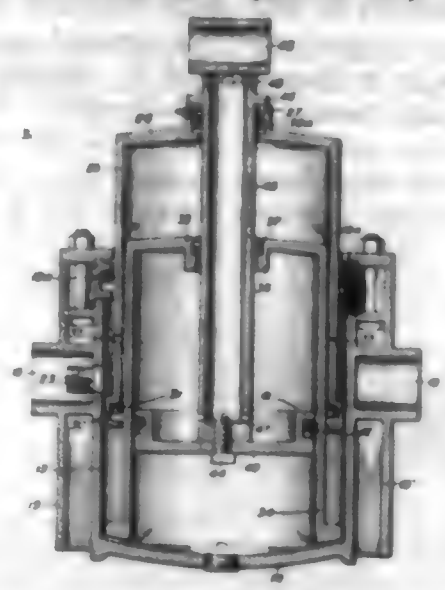
1. In a thermal power plant comprising compressing means in which a gaseous working medium is brought to an elevated pressure, heating means in which the so-compressed working medium is heated, a stage turbine in driving connection with said compressing means, and flow connections leading said working medium serially through said compressing means, then through said heating means and then through at least the first stage of said turbine in which the working medium is caused to expand while doing work; a variable speed output turbine having at least one stage of the radially inward flow type; and a flow connection branching off from a point of the said turbine driving the compressing means situated between the first and the last stage thereof and leading a part of the working medium to said variable speed output turbine in which said part is caused to expand further while doing work, the remaining part of the working medium being caused to expand in at least one stage beyond said branching off point of said turbine driving the compressing means.

2,872,787

FLUID OPERATED POWER LIFTING UNIT FOR DUMPING VEHICLES

Daniel Fort Flowers, Findlay, Ohio

Application July 12, 1954, Serial No. 442,495
7 Claims. (Cl. 60—97)



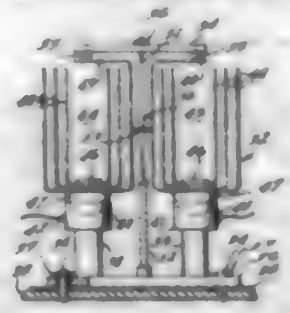
1. A fluid operated power lift comprising an outer cylinder, an inner cylinder telescoping therein, a booster cylinder telescopingly disposed between said inner and outer cylinders, said inner cylinder and said booster cylinder having closure heads at the outer ends thereof, a piston within said inner cylinder, a piston rod attached to said piston and extending through both of said heads, said piston rod having a means fixed thereto against which the booster head bears while being moved outwardly, means for venting the chamber between the piston and the head of the inner cylinder, and means for simultaneously directing fluid pressure against said piston and between said heads for forcibly moving the piston rod and the booster head outwardly on the power stroke.

2,872,788

THERMOELECTRIC COOLING APPARATUS

Nils E. Lindenblad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application February 23, 1956, Serial No. 567,111
11 Claims. (Cl. 62—3)



4. A thermocouple element for a thermoelectric heat pump comprising a plate of conductive material, a pair of bodies of dissimilar thermoelectric material mounted on said plate at one end thereof, members providing for the transfer of heat between said thermocouple element and the ambient, and means extending from said plate for supporting said members, said members being supported from said plate in abutting relationship with the other ends of said bodies.

2,872,789

GAS LIQUEFYING APPARATUS

Cornelius Otto Jonkers and Jacob Willem Laurens Köhler, Emmasingel, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application January 12, 1955, Serial No. 481,406
Claims priority, application Netherlands January 15, 1954
4 Claims. (Cl. 62—6)

1. A cold-gas refrigerator being capable of condensing a gaseous mixture comprising a cylinder, two pistons in

said cylinder, means operating said pistons in said cylinder with a constant phase difference, said two pistons and cylinder defining two chambers; a high temperature heat rejector for one of said chambers, a regenerator, and a low temperature heat absorber for the other of said two chambers, a gaseous medium of invariable chemical composition within the cylinder, the volume of the gaseous medium in said chambers varying continuously while one of the chambers has a low temperature whereby a closed thermodynamic cycle is performed therein, a housing spaced from and surrounding said heat absorber and



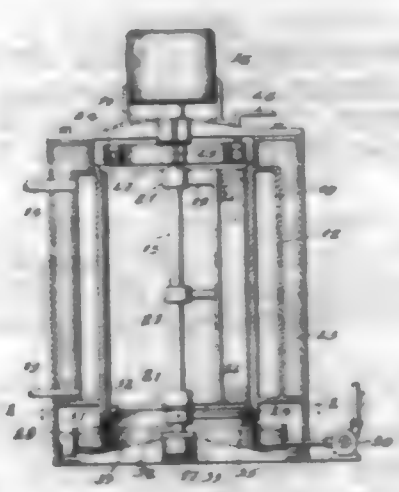
provided with an opening therethrough, a wall in said housing adjacent to said heat absorber having a flanged end part extending substantially parallel to the longitudinal axis of said heat absorber, said wall forming at least one condenser space extending in a substantially vertical direction, said gaseous mixture supplied through said opening entering said condenser space at the bottom thereof, and means in the top of said condenser space for conducting away non-condensed gases of said gas mixtures, and a drain in the bottom of said housing for drawing off the condensate in said condenser.

2,872,791
REFRIGERATOR FOR USE IN CONNECTION WITH ENGINES UTILIZING VOLATILE FUEL.
Arthur A. Simpson and Herbert H. Denmark, New Orleans, La.
Application February 8, 1956, Serial No. 564,286
11 Claims. (Cl. 62—7)



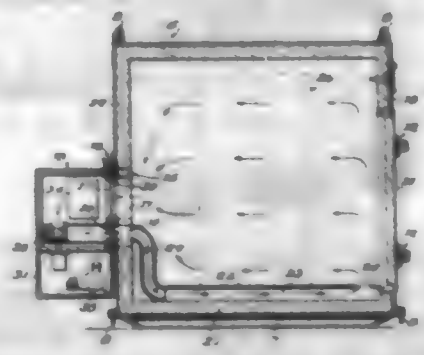
14. A refrigerating cabinet for use in conjunction with an engine utilizing a volatile fuel and provided with a fuel feed line and a vacuum line connected to its intake manifold, said cabinet comprising an inner box, a primary heat exchange tube open at one end to the atmosphere and at the other into a container serving as a drier, a vacuum tube adapted to be connected at one end to said vacuum line which extends in heat exchange relationship with said primary heat exchange tube through said drier, and then divides into two branches, each of which terminates at one end of a secondary heat exchange tube which is in heat exchange relationship with a wall of said inner box, a mixer tube attached at one end to the other end of each secondary heat exchange tube, a fuel intake tube adapted to be connected at one end to said fuel feed line which extends along in heat exchange relationship with said primary heat exchange tube and then divides into two branches, one of which extends in heat exchange relationship along with each vacuum tube and each secondary heat exchange tube into each mixer tube and opens into said mixer tube intermediate the ends thereof, and air intake means connecting the other end of each mixer tube to said drier, said mixer tube being larger in diameter than said intake tubes so that fuel drawn thereinto by the lower pressure in said vacuum tubes expands and vaporizes within said mixer tube, forming with said air a cooling mixture which is drawn out through said secondary heat exchange tubes to cool said box, through said drier, where it cools and condenses moisture from the incoming air, and thence to said engine.

2,872,791
ICE MACHINE
William Kent Tomlinson, Chicago, Ill.
Application February 23, 1956, Serial No. 567,194
5 Claims. (Cl. 62—347)



1. In a flake ice machine the combination of a vertical cylinder having a cylindrical surface on which water may be frozen to form a thin ice layer, means for supplying water to the upper margin of said surface, a rotor and means carried thereby for dislodging ice flakes from said surface, an annular trough positioned below said cylinder for indirectly collecting water falling from and adjoining said surface, a stationary flexible baffle having a circumferentially continuous frustro-conical surface extending inwardly of a vertical projection of the ice layer and extending outwardly over said trough and positioned to deflect said falling water into said annular trough, and means carried by said rotor progressively engageable with successive portions of said baffle beneath and adjoining said ice dislodging means for deflecting the engaged portion of the baffle out of the path of ice falling through a vertical zone adjacent said ice dislodging means.

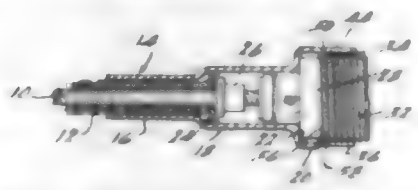
2,872,792
REFRIGERATING MEANS
Sebastien S. Corbasidis, Athens, Greece
Application November 15, 1955, Serial No. 546,933
Claims priority, application Greece December 27, 1954
1 Claim. (Cl. 62—419)



A portable refrigerator for use with a portable refrigeration unit, an insulated housing including an air inlet opening underlying an air outlet opening in one wall for respectively communicating with the air outlet and inlet openings of the portable refrigeration unit, an access

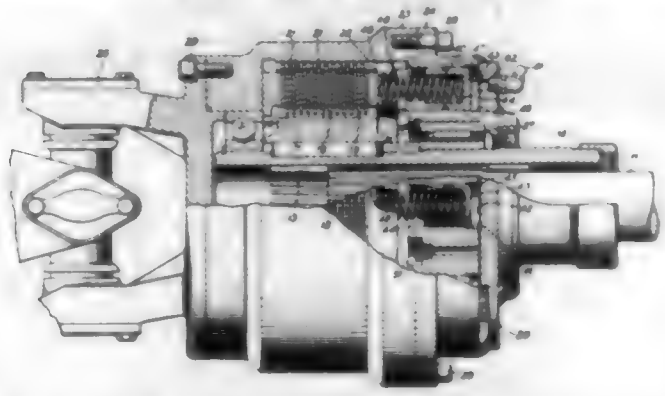
door through a wall of the housing remote from said one wall, said housing including a bottom portion, a floor spaced above said bottom portion and extending from inner marginal portions of said housing defining a plenum chamber above said bottom portion, duct means communicating between said air inlet opening and said plenum chamber remote from the wall including the access door, and an elongated cooled air egress slot portion in the floor across the base of said wall including the access door, said egress slot portion providing the sole means of escape for the cooled air passing into the housing from the plenum chamber and discharging above the floor, said slot causing the cooled air to pass in a vertical path first across the inner surface of the wall including the access door, and out of the said housing through said air outlet for maintaining a maximum low temperature adjacent said wall including said access door.

2,872,793
SPEEDOMETER CABLE FITTING
Alfred Botti, Detroit, Mich., assignor to C. M. Hall Lamp Co., Detroit, Mich., a corporation of Michigan
Application March 21, 1957, Serial No. 647,703
12 Claims. (Cl. 64—4)



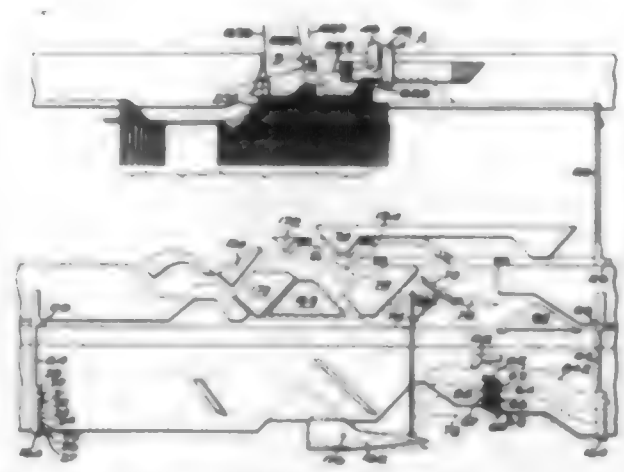
1. In a control cable assembly for repeated assembly to and disassembly from a longitudinally apertured stud having an external thread extending into proximity with one end thereof, a flexible casing, a flexible core supported within said casing and having an end portion insertable in the longitudinal aperture of the stud, a tubular ferrule secured to said casing and coaxial with said core and having an end portion slidable over the thread on the stud, and a plurality of discrete, circumferentially spaced thread elements on the inner surface of said end portion of said ferrule, said thread elements being disposed helically at the lead angle of the thread on the stud, said thread elements being engageable with the thread on the stud.

2,872,794
FRICTION DISC CLUTCH
Joseph J. Slomer, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application February 21, 1956, Serial No. 566,805
2 Claims. (Cl. 64—30)



1. In an adjustable torque limiting clutch, a casing having an interior splined portion, an end plate for said casing, a sleeve rotatably journaled within said casing and end plate and having an externally splined portion associated therewith, a plurality of friction discs alternately splined to the splined portions of said casing and sleeve for transmitting power from one member to the other, an annular pressure plate engageable with the outer of said friction discs, and means loading said pressure plate and discs to slip at preselected torque loads comprising a plurality of circumferentially spaced compression springs seated on said pressure plate, individual pistons loading said springs, a plurality of individual circumferentially spaced bored portions in said end plate defining fluid pressure cylinders for said pistons, an annular fluid pressure passageway having communication with said cylinders adjacent the outer ends thereof, and a check valved grease fitting having communication with said passageway and cylinders, and accommodating a grease gun and the like to supply grease under pressure to said cylinders and uniformly load said springs and friction discs to slip at a preselected torque load.

2,872,795
CIRCULAR KNITTING MACHINE
Joseph Lionel Blais, New Ipswich, N. H., assignor to Tricuit Hosiery Mill, New Ipswich, N. H., a partnership
Application May 29, 1953, Serial No. 358,480
18 Claims. (Cl. 66—40)

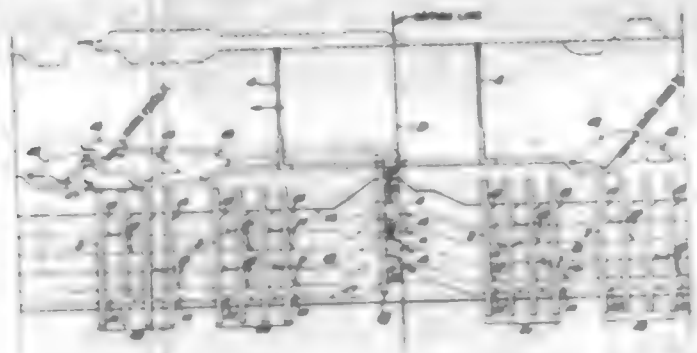


1. In a circular knitting machine, apparatus for producing knitted fabric comprising means for knitting a backing yarn continuously and a face yarn in plating relation thereto, means for feeding said backing yarn in one location and each of a plurality of said face yarns in different locations, said circular knitting machine having a circular independent needle series, needle selecting means operable to select and to raise selected needles in a yarn taking wave at one of said plating yarn feeding locations, other non-selected needle activating and raising means operable to select and raise all non-selected needles in a second yarn taking wave at a second plating yarn feeding location, and means moving all of said needles in a knitting wave at said backing yarn feeding location whereby each needle loop is formed of said backing yarn and one of said face yarns.

2,872,796
JACK SELECTION MECHANISM FOR CIRCULAR KNITTING MACHINES
Robert Peel, Philadelphia, Pa., assignor to Fidelity Machine Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application September 19, 1957, Serial No. 684,950
9 Claims. (Cl. 66—50)

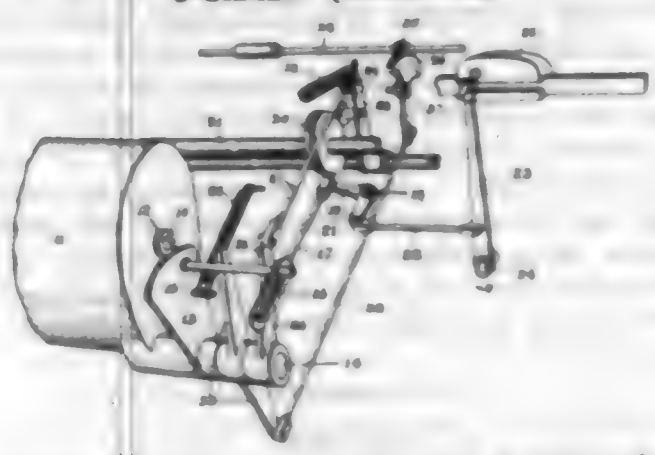
1. In a circular knitting machine for producing a patterned mesh fabric composed of tuck stitches interspersed with plain stitches, the combination with the cylinder and cylinder needles of said machine and with stitch cams operative on said needles to form the knitted stitches, of means including needle jacks in the cylinder for directing the needles to the stitch cams at knitting and tucking levels selectively, a main butt on each jack, said butts being systematically arranged in a plurality of different levels, a jack cam for each butt level individually insertable and retractable into and from engagement with

the butts in its particular level, said cams being arranged in vertical series in a common camming station, means for so inserting and retracting the cams in predetermined sequence with at least one said cam in its inserted position when another of the cams is in transition between



positions of insertion and retraction, and an auxiliary butt on each of a consecutive number of said jacks adapted when its main butt cam is in the said transition stage to engage another of the cams which is then inserted to actuate the jack at the camming station independently of its main butt.

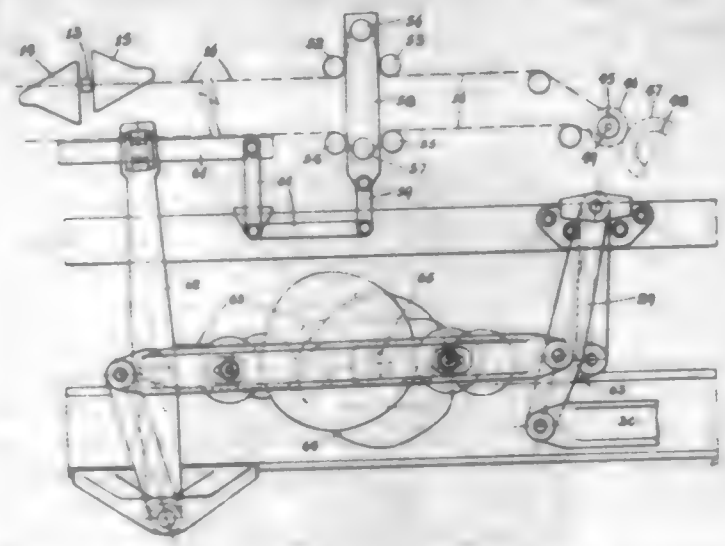
2,872,797
SPEED CONTROLLING MECHANISM FOR STRAIGHT-BAR KNITTING MACHINES
Samuel Arthur Monk, Gedling, and Dennis Matthews, Mansfield, England, assignors to S. A. Monk (Sutton in Ashfield) Limited, Sutton-in-Ashfield, England
Application March 5, 1956, Serial No. 569,576
3 Claims. (Cl. 66—82)



1. Motor speed control mechanism for a straight-bar knitting machine comprising a motor speed control shaft, a pinion thereon, a toothed member engaging therewith, a pin on the toothed member, a longitudinally movable member connected to a part of the machine which is moved when the length of the draw is altered, a spring to normally hold the pin in engagement with the said longitudinally movable member, an arm engageable with the pin, an operative connection between the arm and a manually operated speed control shaft and a second arm engageable with the pin and means to move said second arm to move the pin to or prevent its movement beyond a predetermined position when the machine is carrying out a fashioning operation.

2,872,798
DRAW MECHANISM FOR STRAIGHT-BAR KNITTING MACHINES
Dennis Matthews, Mansfield, and Barry Frederick Swannick, Stevenage, England, assignors to S. A. Monk (Sutton in Ashfield) Limited, Sutton-in-Ashfield, England
Application December 19, 1955, Serial No. 554,030
9 Claims. (Cl. 66—110)

1. In a straight-bar knitting machine the combination of a thread carrier bar, a driving member connected thereto, a pair of chains having a driver carried between them to engage with the driving member, sprockets to carry the chains, a rack to reciprocate the chains, a tie bar connected with the rack, means to reciprocate the rack and means to adjust the position of the driver rela-



tively to the tie bar between successive transversing movements of the latter so that the thread carrier bar maintains the required lead over the tie bar.

2,872,799
KNITTING MACHINERY
Allan William Henry Porter and Stephen Thomas Sheppard, Burton-on-Trent, England, assignors to F. N. F. Machinery Manufacturing Company Limited, a British company
Application June 17, 1955, Serial No. 516,086
Claims priority, application Great Britain June 17, 1954
11 Claims. (Cl. 66—120)

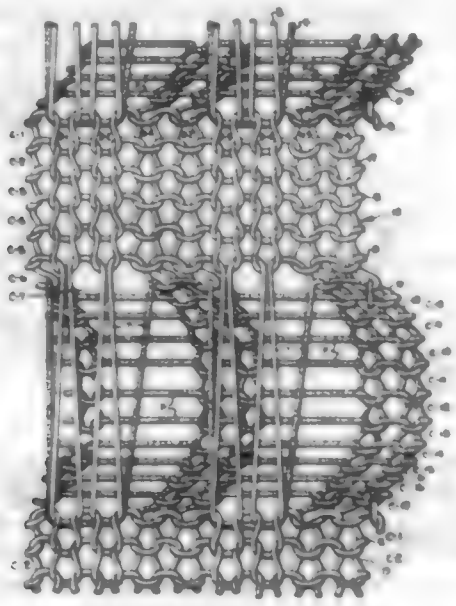


1. The combination of a spring bearded knitting needle comprising a shank and an elongated hook formed on one end of said shank and having a resilient beard extending toward said shank, and a closing member slidable relative to the needle along the axis of the shank having a cam surface sloping from said shank outwards towards said beard in the direction away from the hook end of said needle, said cam surface being adapted to engage the tip of the beard between it and said shank.

2,872,800
CIRCULAR KNIT FABRIC WITH RAISED AREAS
Lysander C. Davis, Jr., and James W. Richardson, Cleveland, Tenn., assignors to Charleston Hosiery Processing Company, Inc., Cleveland, Tenn., a corporation of Tennessee
Application February 4, 1958, Serial No. 713,343
6 Claims. (Cl. 66—172)

1. A tubular knit fabric comprising a plurality of walewise spaced annular portions of inwardly facing and out-

wardly facing wales of relatively highly twisted body yarn, intervening ornamental annular portions between adjacent pairs of said first-mentioned portions, said intervening portions comprising outwardly facing wales only knit of a bulky stretch yarn having substantially



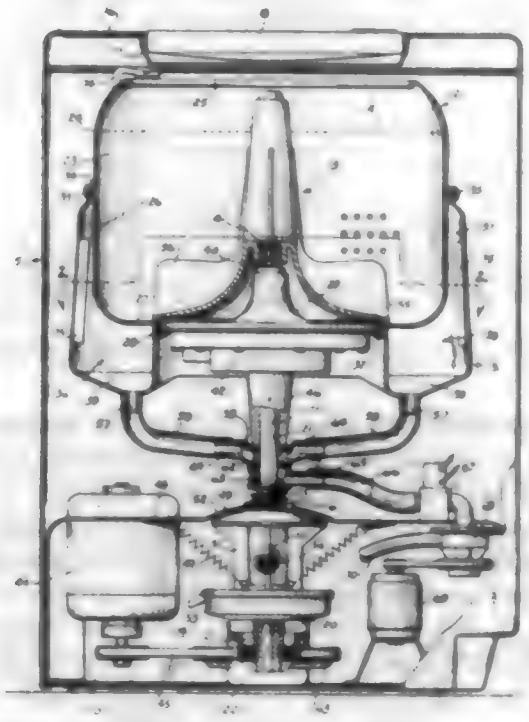
less twist therein and a softer hand and feel than the body yarn and being floated coursewise in those wales corresponding to said inwardly facing wales of the first-mentioned portions, with held loops extending between and connecting said adjacent pairs of the first-mentioned portions, inwardly of the floated portions of bulky yarn.

2,872,801

SINGLE ROTARY TUB CONSTRUCTION FOR WASHING MACHINES

Thomas R. Smith, Newton, Iowa, assignor to The Maytag Company, Newton, Iowa, a corporation of Delaware

Application October 5, 1953, Serial No. 383,955
26 Claims. (Cl. 68—23)



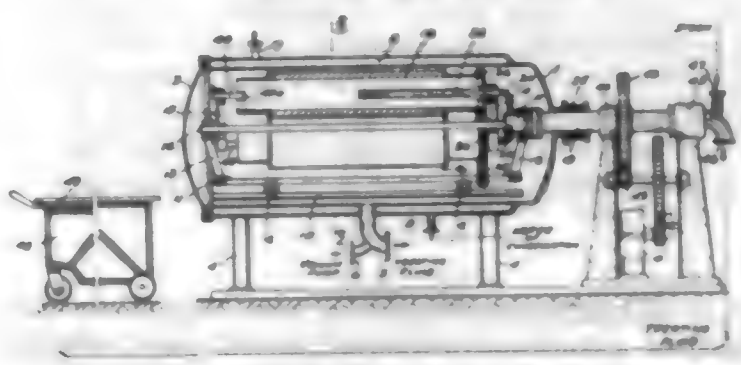
22. In a washing machine, a unitary tub assembly comprising, a wall member defining an upstanding fluid container, a perforate member spaced inwardly from the bottom of said container to define therewith a fluid receiving chamber, a fluid outlet in said container leading from said chamber, upstanding revoluble shaft means connected to said container for rotating said container, and a fluid distributing manifold encircling said shaft means beneath said container and connected to said fluid outlet for draining fluids from said container.

2,872,802

APPARATUS AND SYSTEMS FOR TREATING TEXTILE MATERIALS

Eugen Bellmann, deceased, late of Hagen, Germany, by Emma Elfriede Bellmann, Ruth Kronsbein, and Friedhelm Bellmann, heirs, Hagen, Germany

Application November 15, 1955, Serial No. 546,934
Claims priority, application Germany May 18, 1955
6 Claims. (Cl. 68—158)



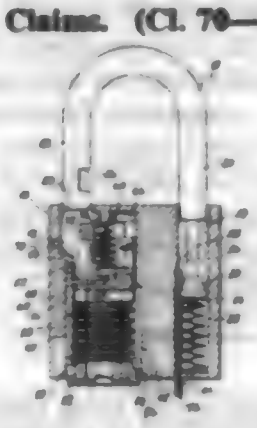
4. In a treating apparatus for textile materials the combination of a substantially cylindrical tank extending substantially horizontally defining a treating chamber, a hollow driving shaft projecting through said tank into the inside thereof and adapted to admit treating fluid into said tank, a carriage on wheels inside of said tank, a plurality of substantially cylindrical perforated supports for textile materials rotatably supported by said carriage inside of said tank and arranged with the axes thereof parallel to said hollow driving shaft, a system of wheels comprising a sun wheel and planet wheels arranged on said carriage, said sun wheel being fixedly mounted on said carriage in coaxial relation to said hollow driving shaft and each of said planet wheels being arranged in coaxial relation to one of said plurality of supports and adapted to be coupled with one of said plurality of supports, means on said hollow driving shaft for driving said sun wheel, and a plurality of hollow shafts each supporting one of said planet wheels, each of said plurality of hollow shafts being connected to said hollow driving shaft to form a passage for delivering fluid from said hollow driving shaft into each of said plurality of supports.

2,872,803

SHACKLE RETAINING MEANS FOR A PADLOCK

Gunnar E. Swanson, Middletown, Conn.

Original application December 16, 1954, Serial No. 475,631, now Patent No. 2,759,350, dated August 21, 1956. Divided and this application July 6, 1955, Serial No. 520,261
14 Claims. (Cl. 70—38)



1. In a padlock, the combination of a U-shaped shackle having a recess in the hinge leg thereof which recess provides an upwardly facing shoulder, a unitary one-piece body having a vertical hole therein which extends downwardly from the top and in which said hinge leg of the shackle is entered, said body having a recess therein extending upwardly from the bottom and adapted for receiving a locking cylinder and said body also having a channel therein which is entirely separate from said recess and which extends upwardly from the bottom and

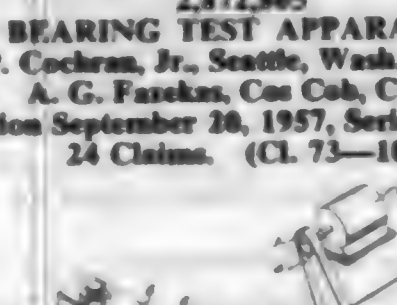
has an upper portion that terminates at said shackle hole, and a continuous unitary retainer entered in and substantially fitting the lower portion of said channel and positioned with its lower end substantially flush with the bottom of the body, said unitary retainer being secured in place in said channel and having a portion at the upper end thereof which projects from said channel and into said shackle hole and is located above said shoulder on the hinge leg of the shackle so as to limit upward movement of said shackle.

2,872,804

TILE CONSTRUCTIONS AND MORTARLESS MOUNTING THEREOF

Nicholas T. Baldanza, Rutherford, N. J.

Application September 17, 1956, Serial No. 610,244
7 Claims. (Cl. 72—19)



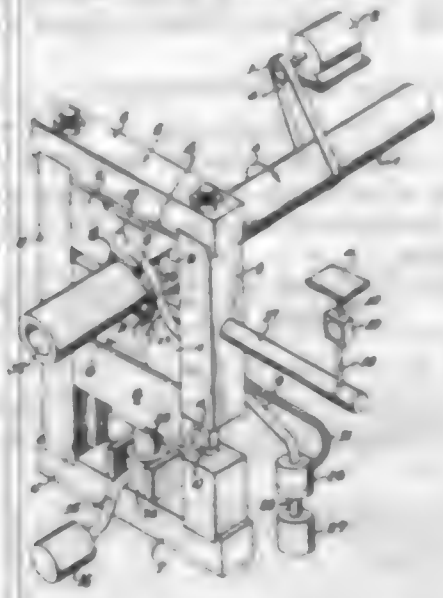
1. A tile surface construction comprising a fixedly mounted supporting structure having holes extending therethrough spaced from each other in a predetermined relation over a tile mounting surface formed by said structure, a plurality of tiles covering said mounting surface, each of said tiles having a front face and integrally formed stiffening members extending from a rear side serving as bearing means for mounting the tile against said mounting surface, said stiffening members forming a border for a plurality of sections recessed on said rear side, integrally formed pegs extending rearwardly from some of said sections into and through said holes and having means engaging a rear side of said supporting structure for mounting said tile in position on said surface, said tile being formed of material having properties imparting semi-rigid resiliency to said sections in an area surrounding each peg to permit axial movement of the peg with respect to said bearing means on application of finger pressure on the tile front face in the region opposite the peg to permit clearance by said peg means of the rear side of said supporting structure and facilitate said engagement therewith on release of said pressure.

2,872,805

BEARING TEST APPARATUS

Elvin P. Cochran, Jr., Seattle, Wash., and Gabriel A. G. Fanchas, Cos Cob, Conn.

Application September 20, 1957, Serial No. 685,276
24 Claims. (Cl. 73—10)



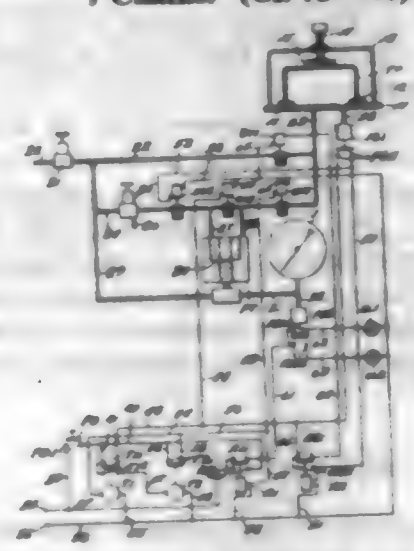
1. Test apparatus comprising a motor fixedly mounted relative to the earth and a shaft connected thereto and oriented horizontally, means for supplying a lubricant to the bearing space of said shaft, a substantially rigid frame having guiding slideways, opposed members between which said shaft extends, formed to receive between them and hold a test journal bearing, and mounted in said slideways of said frame for relative movement toward and from each other to apply a variable bearing pressure between the shaft and test journal bearing, said frame and opposed members being supported solely by said shaft through said test journal bearing and free to rotate about said shaft, fluid actuated means on said frame and operable between said frame and one of said members to cause relative approach of said members and an increase of bearing pressure between the test journal bearing and said shaft, a torque arm secured to said frame, a force measuring means fixedly mounted relative to the earth and positioned for operation by the free end of said torque arm, and operable to restrain rotation of said frame, members and test journal with said shaft.

2,872,806

LEAK TESTING APPARATUS

Charles Louis Mamzic, Philadelphia, Pa., assignor to Moore Products Co., Philadelphia, Pa., a corporation of Pennsylvania

Application May 23, 1956, Serial No. 586,789
7 Claims. (Cl. 73—40)



1. Leak test apparatus comprising a work piece receiving member for a work piece having an opening, said member having a work piece engaging portion for sealing engagement at said opening, means for supplying filling pressure fluid at a predetermined pressure level to said member and interiorly of said work piece, means for supplying test pressure fluid at a different predetermined pressure level to said member, pressure sensitive means responsive to pressure changes at said member for controlling the supplying of pressure fluid by one of said supplying means, additional pressure sensitive means for controlling the other of said supplying means, and pressure responsive means responsive to the drop in pressure at said work piece receiving member due to leakage from the work piece.

2,872,807

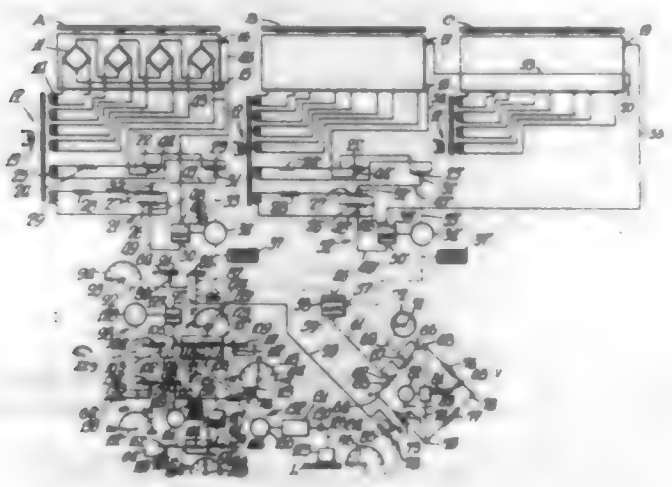
EQUIPMENT FOR DETERMINING THE CENTER OF GRAVITY OF AN AIRCRAFT

Emil Kolisch, New York, N. Y., assignor to Continental Electrolog Corp., a corporation of New York

Application July 13, 1954, Serial No. 442,982
19 Claims. (Cl. 73—65)

5. Equipment for determining the position of the center of gravity of an aircraft of the type having two sets of supporting gear, one set comprising the main gear and the other set an additional gear, said equipment comprising variable impedance means respectively calibrated for response proportional to the weight carried by such sets of supporting gear, an additional impedance means,

means controlled by the variable impedance means for one of the sets of supporting gear to set said additional impedance means to an effective value that corresponds to the weight on said associated set of supporting gear, a second additional impedance means, means controlled by the variable impedance means to set said second additional impedance means to an effective value that corresponds to the combined weight on the two sets of supporting gear, a further impedance means comprising a resistor of value corresponding to distance between the additional set of supporting gear and the main set of



supporting gear, a balancing circuit having four arms including said additional, said second additional and said further impedance means together with a fourth variable impedance means the setting of which is determined by unbalance of said balancing circuit, with said additional and second additional impedance means in different arms, and said further and said fourth impedance means in different arms, a selectively controlled variable compensating impedance means comprising a manually adjustable resistor connected in series with the further impedance means and calibrated according to the formula

$$\frac{WB}{\text{cosine angle } ``a''} - WB$$

where WB corresponds to the distance between the additional gear and the main gear of the aircraft and "a" equals the angle of inclination of the longitudinal axis of the aircraft, means mounted within the aircraft to provide an impulse of value proportional to the angle of inclination, a servo-motor controlled by such impulse to be set to a position related to such angle of inclination, said variable compensating impedance means having a control arm operatively connected to said servo-motor to be set thereby, and means controlled by a current through the arms of the balancing circuit to adjust said fourth variable impedance means until the balancing circuit is in balance whereby said fourth variable impedance means will be set to a value correlated with the compensated distance of the center of gravity of the aircraft from the set of supporting gear other than that associated with the additional impedance means.

2,872,808

TENSION COMPONENT MEASURING MEANS

Edward P. Ney and Rudolph B. Thornes, Minneapolis, and John R. Winckler, St. Paul, Minn., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application October 6, 1955, Serial No. 539,039
12 Claims. (Cl. 73—144)

1. In a mechanism of the character described, a lever comprising a pair of plates, a bar fixed to and between and extending beyond said plate, a pair of members between which a tensioned line may extend between said plates, said members being secured by and extending between said plates and being so positioned that upon swinging of said lever pursuant to a pull thereon said members contact the line to produce an offset in the line,



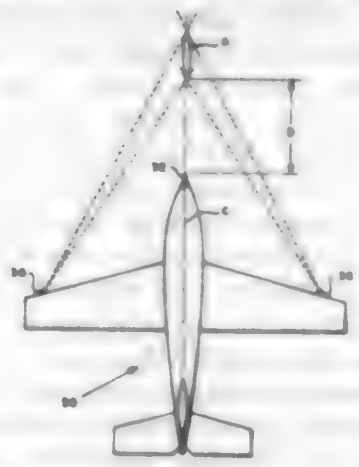
and pull-measuring means engaged with the outer end of said bar for measuring said pull.

2,872,809

METHOD FOR DETERMINING ANGLES OF ATTACK AND SKID OF AN AIRCRAFT

Raphael O. Yavne, Philadelphia, Pa.

Application August 6, 1956, Serial No. 602,478
10 Claims. (Cl. 73—189)
(Granted under Title 35, U. S. Code (1952), sec. 266)



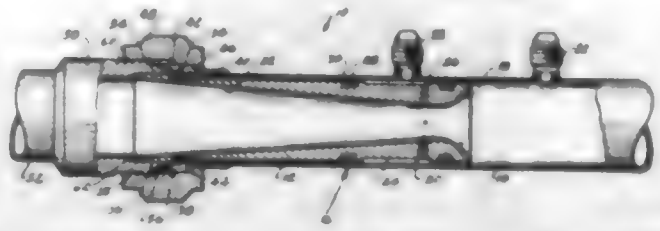
1. The method of determining the angles of attack and skid for an aircraft which comprises the steps of flying said aircraft through a medium of suspended particles, recording a projected tracing of said particles in an area in front of said aircraft over a predetermined interval of time thereby producing a plurality of streaks caused by said particles, said streaks extending from an apparent center representing a point on the true path of said aircraft, and measuring the separation between said apparent center and a point representing a point on the axis of said aircraft from which said angles are measured for calculating the values of said angles of attack and skid.

2,872,810

VENTURI FLOW METER

Perry Shaffer, Claremont, Calif., assignor to the United States of America as represented by the Secretary of the Air Force

Application February 14, 1956, Serial No. 565,519
1 Claim. (Cl. 73—213)



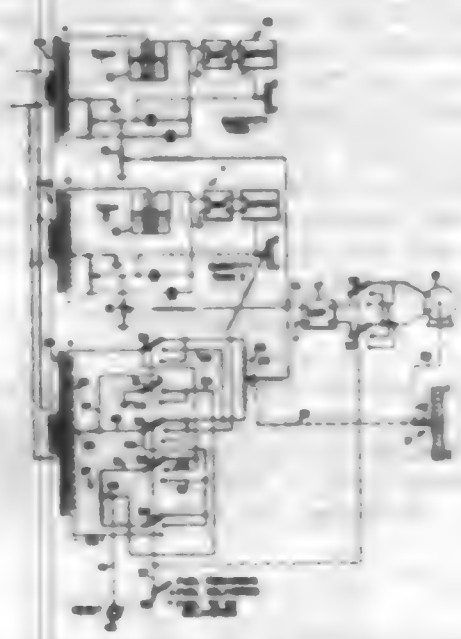
In a venturi apparatus of the character described, a two-part conduit, each of said parts being adapted for removable connection to each other by a flared tube type

coupling including an annular sleeve secured to the end of the first of said conduit parts having external threads on the periphery thereof and the end of said sleeve having a tapered end face adapted to engage the flared end of the second of said conduit parts, a nut adapted to be threaded onto said sleeve and to exert clamping pressure on said second conduit flared end to effect a fluid tight seal, an annular groove on the underside of said sleeve extending longitudinally through the tapered end face thereof, a venturi tube adapted to be inserted in said conduit parts, said venturi tube having a first cylindrical head portion at the outlet end thereof adapted to fit into the annular groove on said conduit sleeve and to be clamped therein by assembly of said coupling, said venturi tube having a second cylindrical head portion adjacent the throat thereof and adapted to fit closely into the interior of said second conduit part, said second head portion having a pair of annular grooves symmetrically spaced with respect to the venturi throat, resilient packing elements in said grooves adapted to seal said second head against the second conduit part inner wall, an annular recess in said second head portion between said packing grooves, a plurality of orifices connecting said annular recess with the venturi throat, and a lateral conduit secured to said second conduit part adapted to communicate with the annular recess in said second head portion.

2,872,811
REFUELING APPARATUS

Raymond L. Bergeson, St. Paul, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application November 3, 1954, Serial No. 466,609
11 Claims. (Cl. 73—304)

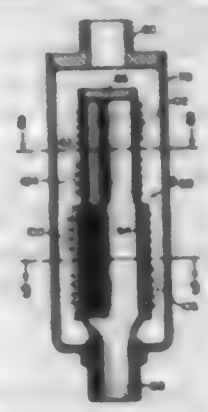


1. Supervisory apparatus for use with liquid storage means comprising; liquid quantity sensing means associated with the storage means to provide a signal voltage of a first sense indicative of the quantity of liquid therein; first manually operable means having three positions of operation, a source of voltage, a potentiometer having a resistance element and a movable tap, circuit means controlled by said first manually operable means connecting the resistance element of said potentiometer to said source of voltage in a first manner when said first manually operable means is in the first or third position and connecting the resistance element in a second manner when said first manually operable means is in the second position, the voltage on said potentiometer tap being of an opposite sense to said first sense when the first manually operable means is in the first or third position and being of said first sense when the first manually operable means is in the second position; a further source of voltage, second manually operable means connected to control the magnitude of the voltage of said further source of voltage; circuit means controlled by said first manually operable means to connect said further source of voltage to said potentiometer to effect the voltage at the tap thereof, said last named circuit being effective only when said first manually movable means is in said second and third position; voltage responsive indicating means connected to control the position of said potentiometer tap and having means to indicate liquid quantity, and circuit means connecting said quantity sensing means and said potentiometer tap to said voltage responsive means to apply a resultant signal voltage thereto, said voltage responsive means being effective to move said potentiometer tap to reduce said resultant voltage substantially to zero whenever it is other than zero, said indicator indicating liquid quantity in the storage means when said first manually operable means is in the first position, said indicator being caused to read zero quantity by movement of said second manually operable means when said first manually operable means is in the second position and to subsequently indicate the quantity of liquid withdrawn from the liquid storage means, and said indicator being caused to read a predetermined quantity to be subsequently withdrawn from the liquid storage means by movement of said second manually operable means when said first manually operable means is in the third position and to subsequently indicate zero when this predetermined quantity has been withdrawn from the liquid storage means.

2,872,812
PRESSURE MEASURING MEANS

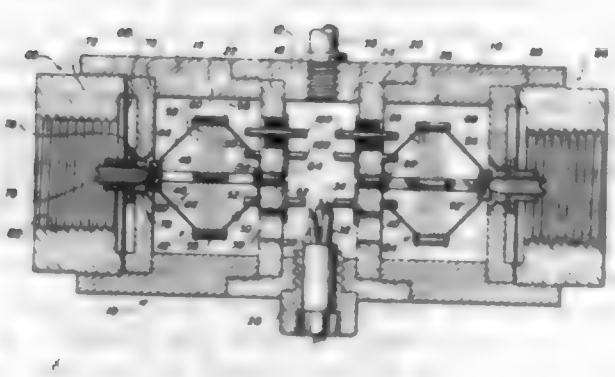
William A. Jones, Newtonville, and Joseph F. Huff, Hyde Park, Mass., assignors, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware

Application January 5, 1954, Serial No. 402,265
2 Claims. (Cl. 73—398)



1. A pressure measuring means comprising a first chamber, a second chamber juxtaposed with said first chamber in fluid communication therewith, a plurality of concave walls defining said first chamber forming a plurality of longitudinally disposed corners at their intersections, a pair of electrical conductors wound in tension about said first chamber engaging each of said corners in unbonded relationship with said concave walls, a plurality of straight walls defining said second chamber joined together to form a second plurality of longitudinally disposed corners, mounting pins positioned externally of said second chamber longitudinally disposed on each of said second corners, a second pair of electrical conductors wound in tension about said second chamber engaging said mounting pins in unbonded relationship to said straight walls, all of said conductors together forming an electrical bridge circuit, means for introducing a fluid under pressure into each of said chambers whereby the pressure of said fluid will exert a force against said walls defining said chambers to alter the distance between the corners of said walls, and means electrically connected to said bridge circuit for measuring the effect of said pressure on said conductors.

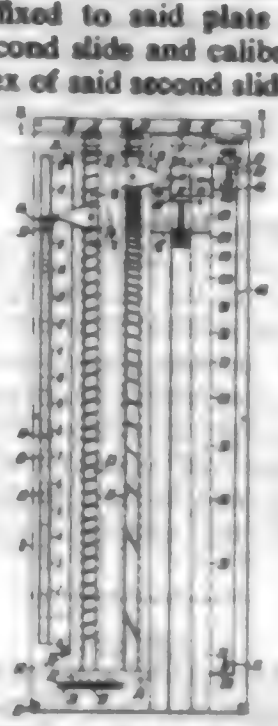
2,872,813
SYMMETRICAL TRANSDUCER
Donald E. Lovelace, Arcadia, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application July 14, 1955, Serial No. 522,880
1 Claim. (Cl. 73—398)



In a differential pressure transducer including two diaphragms which deflect with pressure and two sensing elements each having a pair of strain sensitive wires and responsive to the deflection of the respective diaphragms for changing the electrical characteristics of the wires in accordance with pressure variations, the improvement which comprises a substantially hollow housing, means positioning the respective diaphragms across opposite ends of the housing, a pair of spaced interior walls dividing the interior of the housing into three main compartments, two end compartments and a central compartment, each interior wall having an opening through it so that the three compartments communicate with each other, the two sensing elements being respectively mounted in the two end compartments, a plurality of insulated electrical feedthroughs extending through said interior walls and electrically connected to the strain sensitive wires of the sensing elements for permitting electrical access to said wires from the central compartment, means electrically interconnecting said electrical feedthroughs in the central compartment so that the respective strain sensitive wires are arranged in the respective arms of a four-arm electrical bridge, electrical terminal means sealed through the exterior wall of the central compartment of the housing and connected to said feedthroughs for making exterior electrical connections to a power supply and to a recorder for the four-arm electrical bridge, and a pressure fitting extending through the exterior wall of the central compartment of the housing so that a reference pressure can be supplied to the interior of the housing by way of the central compartment.

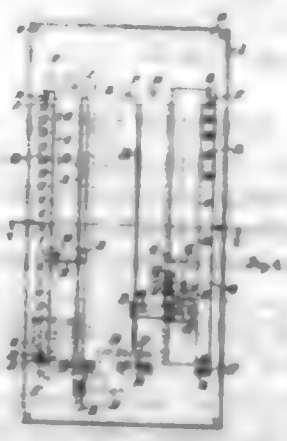
2,872,814
FLUID FLOW MEASURING GAUGE
Royce N. Brown, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application April 1, 1957, Serial No. 649,753
6 Claims. (Cl. 73—401)

5. A fluid flow measuring gauge comprising a plate, a liquid filled manometer tube responsive to a pressure differential of a compressible fluid and affixed to said plate, a linear scale graduated in inches affixed to said plate and adjacent and parallel to said manometer tube, a linear lead screw adjacent and parallel to said linear scale and rotatably affixed to said plate, a logarithmic lead screw adjacent and parallel to said linear lead screw and rotatably affixed to said plate, a first follower consisting of a sliding block with a pointer and attached to one of said screws, a second follower movable by said logarithmic screw, a pair of juxtapositioned slides affixed to said plate and adjacent and parallel to said logarithmic lead screw, the first of said slides having thereon a logarithmic pressure scale calibrated in barometric inches of mercury and having an index coordinated with the follower of said logarithmic lead screw, the second of said slides having thereon a logarithmic temperature scale calibrated in degrees of temperature and having an index, a logarithmic standard flow scale affixed to said plate and adjacent and parallel to said second slide and calibrated in volumetric flow units, the index of said second slide to be coordinated



with said flow scale, motion translating means between said screws, means to actuate said linear lead screw to adjust the follower thereon relative to the height of the liquid in said manometer tube resulting in the corresponding movement of the follower on the logarithmic lead screw through said motion translating means as the log of the follower on said linear lead screw, the relative disposition of the scales being such that the aligning of pressure and temperature conditions on said first and second slides and aligning of said index on said first slide with the follower on said logarithmic lead screw the index on said second slide will directly indicate the flow rate on said logarithmic standard flow scale.

2,872,815
FLUID FLOW MEASURING GAUGE
Russell W. John, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application April 1, 1957, Serial No. 649,754
4 Claims. (Cl. 73—401)



3. A fluid flow measuring gauge comprising a plate, a linear scale graduated in inches affixed to said plate, a liquid filled manometer tube responsive to a pressure differential of a compressible fluid underflow and affixed to said plate and adjacent and parallel to said linear scale, a linear lead screw adjacent and parallel to said manometer tube and rotatably affixed to said plate, a cylindrical drum adjacent and parallel to said linear lead screw and rotatably affixed to said plate, a follower

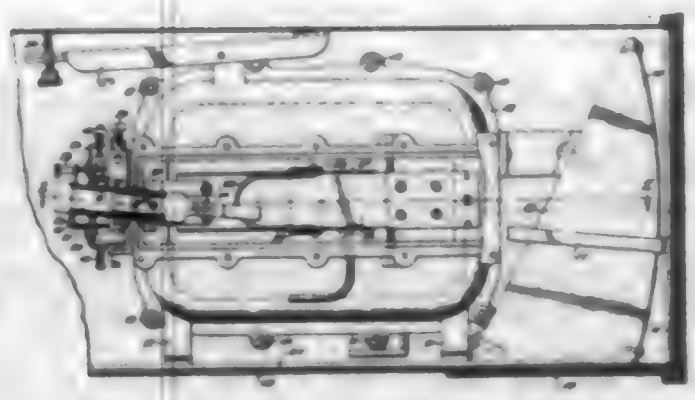
attached to said linear lead screw and having a sliding block with a pointer, a handwheel for turning said linear lead screw to adjust the follower thereon relative to the height of liquid in said manometer tube, intermeshing gears arranged to move the cylindrical drum on movement of the linear lead screw through turning of said handwheel, a logarithmic curve on the circumferential wall of said cylindrical drum, a first and a second slide affixed to said plate and adjacent and parallel to said cylindrical drum, said first slide having thereon a logarithmic pressure scale calibrated in barometric inches of mercury and having an index coordinated with the logarithmic curve on said cylindrical drum, said second slide having thereon a logarithmic temperature scale calibrated in degrees of temperature and having an index, a logarithmic standard flow scale affixed to said plate and adjacent and parallel to said second slide and calibrated in cubic feet per minute, said index on said second slide to be coordinated with said flow scale, the relative disposition of the scales being such that upon turning of said handwheel adjusting the follower on said linear lead screw to the indicated height of liquid in said manometer tube, the height will be transposed to log functions through the corresponding movement of the cylindrical drum with the logarithmic curve by said intermeshing gears, the aligning of pressure and temperature conditions on said first and second slides and aligning of said index on said first slide with the indicated logarithmic value on said cylindrical drum, the index on said second slide will directly indicate the flow rate on said logarithmic flow scale.

2,872,816

LINKAGE MECHANISM FOR INDICATING INSTRUMENT

Albert J. Rosenberger, Chicago, Ill., assignor, by mesne assignments, to Republic Flow Meters Company, Chicago, Ill., a corporation of Delaware

Application February 23, 1954, Serial No. 411,765
8 Claims. (Cl. 73—406)



1. An indicating instrument comprising a body, an element in the body movable in response to changes in a condition to be indicated, a pointer movable in a plane normal to the direction of movement of the element, a support for the pointer pivoted on the body on an axis parallel to the direction of movement of the element, an operating member pivoted on the body on an axis perpendicular to the pivotal axis of the support, means connecting the operating member to the element to turn the operating member as the element moves, an elongated substantially straight first pin secured to the operating member and lying generally parallel to and spaced from the axis of the support, an elongated substantially straight second pin secured to the support and lying generally parallel to and spaced from the axis of the operating member and slidably engaging the first pin, adjusting means to move one of the pins in a direction normal to the other pin to adjust the zero position of the pointer, and adjusting means to move one of the pins lengthwise of the other pin to calibrate the instrument.

2,872,817

FLUID SAMPLER

William A. Pitts, Bellaire, Tex., assignor, by mesne assignments, to Jersey Production Research Company, Tulsa, Okla., a corporation of Delaware

Application June 1, 1956, Serial No. 588,687
11 Claims. (Cl. 73—422)



1. A device for sampling fluids in a receptacle comprising a body member mounted on said receptacle provided with a valve chamber and first and second passageways, a valve member slidably arranged in said chamber having first and second positions, biasing means arranged in said chamber adapted to urge said valve member to said first position, a piston housing mounted on said receptacle provided with spaced apart ports each fluidly communicating the interior and exterior of said housing, a shaft arranged in said housing having a third passageway therein, an open-ended sample tube slidably arranged on said shaft having first and second positions, a piston head connected to said tube movable therewith between said spaced apart ports, said tube being provided with ports and a shoulder adjacent one end thereof, a plug member movable in said tubing, said tube engagedly connecting with said valve member to move said valve member to said second position when said tube moves to said second position, said first passageway fluidly communicating said tube ports with the exterior of said body when said tube is in said second position, said second passageway fluidly communicating the interior of said receptacle and said valve chamber, said third passageway fluidly communicating the interior of said tube and the interior of said housing when said tube is in said second position and fluid pressure means operative in said housing adapted to move said piston.

2,872,818

LIQUID SAMPLING SYSTEM

Julius Theodore Johnson, Clinton, Iowa

Application September 2, 1955, Serial No. 532,304
11 Claims. (Cl. 73—423)

1. A liquid sampling and measuring valve comprising a chamber having an overflow opening and a sample outlet therein, and a relatively movable measuring cup therein having a sample outlet for communication with said

chamber sample outlet, said cup being relatively movable from a filling position with the respective said sample outlets out of communication to a discharge position



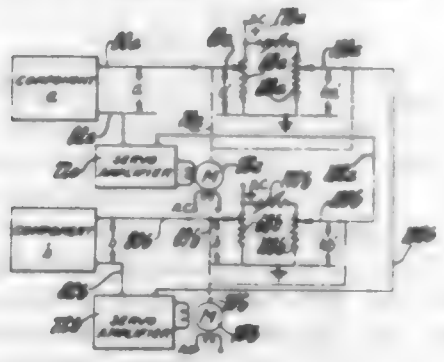
with the outlets in communication, said cup being constructed for cooperation with said overflow opening to vary the cup capacity dependent on the relative position of the cup.

2,872,819

APPARATUS FOR COMPENSATING QUADRATURE RESOLVED UNBALANCE COMPONENTS

William F. King, Oak Park, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 1, 1954, Serial No. 420,280
5 Claims. (Cl. 73—462)



1. The combination with apparatus for analyzing an unbalance force of an unbalanced rotating body into two components and including vibration pickup means developing an electrical signal having characteristics related to said unbalance and component analyzing means resolving said unbalance force into two quadrature related components, said analyzing means being connected to said vibration pickup means and having a pair of branch circuits providing signal outputs corresponding in magnitude to said quadrature related components, of means for modifying said quadrature related components to permit balance correction for said unbalance force at a pair of fixed points on said body having an included angle different from 90 degrees therebetween comprising an adjustable compensating network having a pair of circuit branches cross-connected in the output circuits of said component analyzing means.

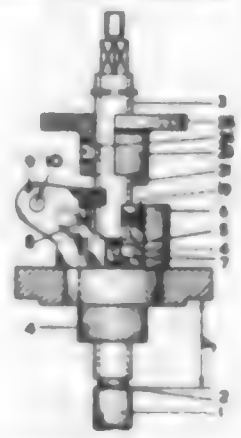
2,872,820

STOP VALVE ACTUATING MECHANISM

Douwe Janse Cupedo, Leidschendam, Netherlands

Application February 18, 1957, Serial No. 640,848
Claims priority, application Netherlands March 9, 1956
5 Claims. (Cl. 74—2)

1. An actuating mechanism comprising a threaded spindle, a nut threaded on said spindle, a casing in which said nut is rotatable and is slidable in the direction of the axis of said spindle, spring means in said casing and connected to said spindle urging said spindle axially in one direction, said casing having at least one slot therein parallel to the axis of said spindle and having a tangential enlargement in the end thereof opposite the end toward which said spring means urges said



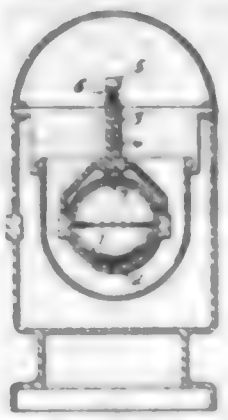
spindle, at least one radially projecting stud on said nut projecting into said slot, and a locking lever pivoted in said casing and engageable with said stud for holding said stud in said tangential enlargement and urging the said stud out of said tangential enlargement and into said slot when said lever is moved from the locking position.

2,872,821

CAGING DEVICE FOR GYROCOMPASSES HAVING A FLOATING SENSITIVE ELEMENT

Agostino Daniele Derossi, Turin, Italy

Application May 17, 1954, Serial No. 430,358
Claims priority, application Italy May 19, 1953
5 Claims. (Cl. 74—5.1)



1. In combination with a hollow spherical servo element and a spherical gyroscopic element freely movably immersed in a liquid contained within said servo element and normally concentrically disposed with respect to said servo element, the provision of caging means for said gyroscopic element, said caging means comprising movable locking pin means passing freely slidably into the interior of said servo element for engagement of an end portion of said pin means with a polar portion of said gyroscopic element; and pressing means for pressing said pin means to engage and displace said gyroscopic element into caging engagement with a portion of the internal surface of said servo element at a zone diametrically opposite said polar portion for movement therewith in all directions of rotation thereof.

2,872,822

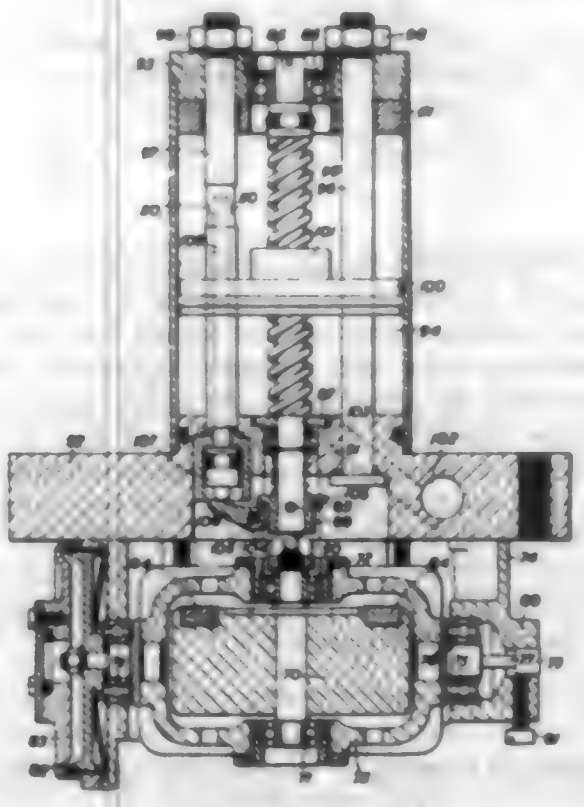
GYROSCOPES

Jack Alexander Brown and Edward Henry Norman Watson, Hayes, England, assignors to The Fairey Aviation Company Limited, Hayes, England, a British company

Application November 22, 1957, Serial No. 698,077
Claims priority, application Great Britain November 26, 1956
11 Claims. (Cl. 74—5.12)

1. Mechanism for spinning a gimbal-mounted gyroscope rotor up to speed which comprises an axially mov-

able rotary clutch member mounted coaxially with the rotor in bearings so positioned as to permit the clutch member to be advanced into coupling engagement with the rotor, means for rotating the clutch member when so coupled to spin the rotor, the said means comprising a pneumatic cylinder, a lead screw mounted coaxially within the cylinder and having a quick screw thread, a correspondingly threaded driving nut threaded on to the lead screw, a piston slidable in the cylinder and secured to the nut whereby axial movement of the piston in the cylinder rotates the lead screw, means for preventing the rotation of the nut in the cylinder about the axis of the lead screw, coupling means between the lead screw and the clutch member, the said coupling means transmitting rotation



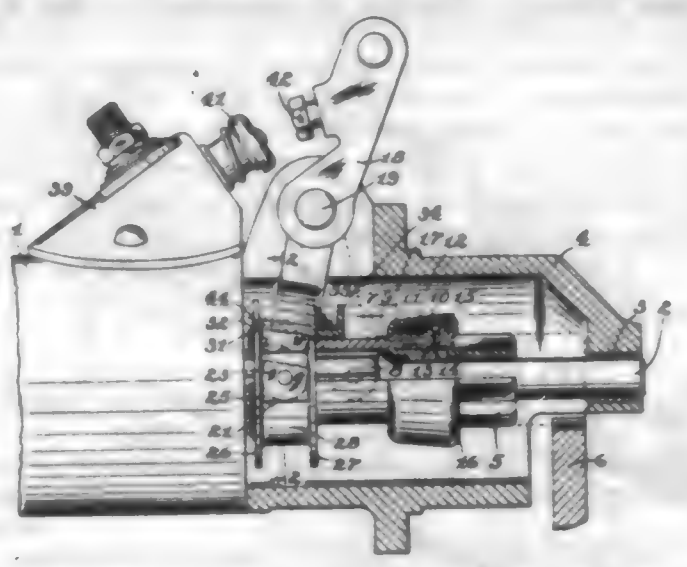
of the lead screw to the clutch member but incorporating a lost-motion sliding connection permitting the axial movement of the clutch member into and out of clutching engagement with the rotor, means for admitting compressed air into the cylinder on one side of the piston to drive the piston along the cylinder to rotate the lead screw and the clutch member with the latter coupled to the rotor, and automatic retraction means acting on the clutch member to retract it from the rotor when the latter has been run up to speed, the retraction means being responsive to the movement of the piston in the cylinder for automatic actuation thereby to retract the clutch member from the rotor on the arrival of the piston at a predetermined point adjacent the end of its stroke in the cylinder.

2,872,813
ENGINE STARTER GEARING

Glenn S. Spencer, Horseheads, N. Y., assignor to Bendix Aviation Corporation, Elmira Heights, N. Y., a corporation of Delaware

Application August 30, 1957, Serial No. 681,260
4 Claims. (Cl. 74—6)

1. In starter gearing for internal combustion engines a motor shaft, a pinion slidably journalled thereon for movement into and out of mesh with a gear of the engine to be started, a sleeve splined on the motor shaft, a swivel and overrunning clutch connection from the sleeve to the pinion, a flanged collar mounted on the sleeve, means transmitting rotary and axial movement of the collar to the sleeve, a pivoted forked lever having tines engaging said collar, and means on at least one of said tines for rotating the collar while shifting the collar axially; in which the means for rotating the collar comprises an over-

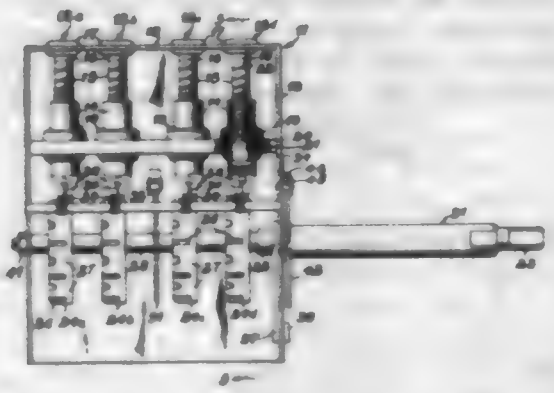


running clutch connection from said tine of the forked lever to the collar.

2,872,824
RADIO FREQUENCY TUNER HAVING FINE TUNING MEANS

Louis E. Centermash, Norwalk, Conn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois

Application April 5, 1955, Serial No. 499,269
10 Claims. (Cl. 74—10.6)



1. In a radio frequency tuner, the combination comprising a rotatable tuning shaft, a fixed bearing rotatably supporting the rear end portion of said shaft, a rotatable fine tuning sleeve telescopically received over the front end portion of said shaft, a cam mounted on said sleeve and rotatable thereby, a fixed cam follower engaging said cam, and means for biasing said sleeve in one lateral direction and thereby maintaining said cam in engagement with said follower.

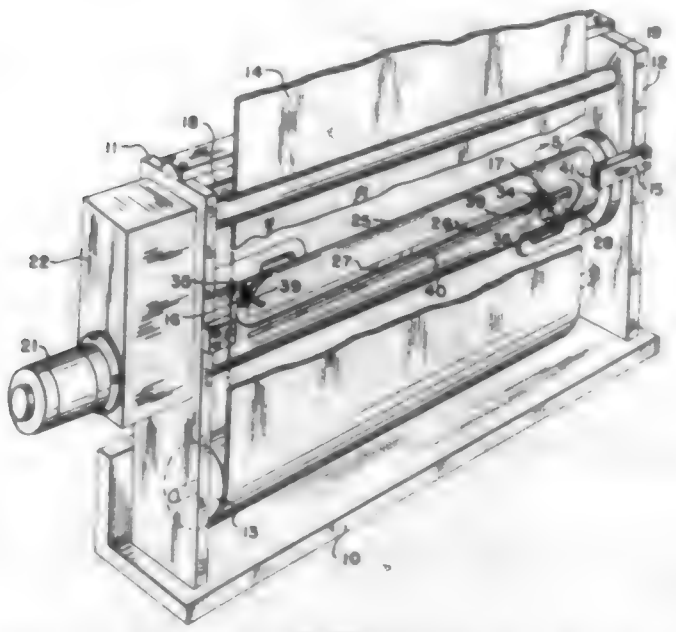
2,872,825
FACSIMILE SCANNER

Phillip T. Van Doren, Falls Church, Va., assignor, by mesne assignments, to Calvin K. Claser, Chicago, Ill.

Application August 4, 1954, Serial No. 447,734
6 Claims. (Cl. 74—56)

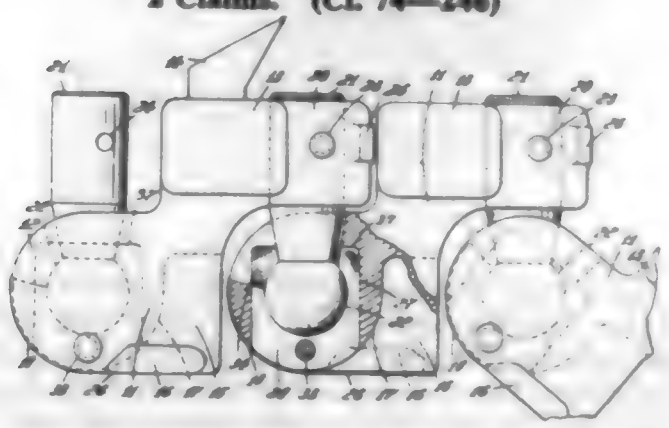
6. In a scanning mechanism, a scanning element and means for periodically moving said element in one direction along a predetermined path comprising a tubular member having a longitudinally extending slot therein defining said path and a return slot passing around said member and joining the opposite ends of the first said slot, the opposite ends of said return slot intersecting opposite sides of the first said slot, said scanning element being movably supported in said slot; rotatable cam means within and coaxial with said tubular member for moving said scanning element along the first said slot comprising a member having first thread means for moving said scanning element in said one direction along the first said slot

and second helical thread means for moving said scanning element along said return slot, said second thread means having a number of turns equal to the number



of turns of said first thread means less the number of turns said return slot makes in passing around said tubular member; and means for rotating said cam means relative to said tubular member.

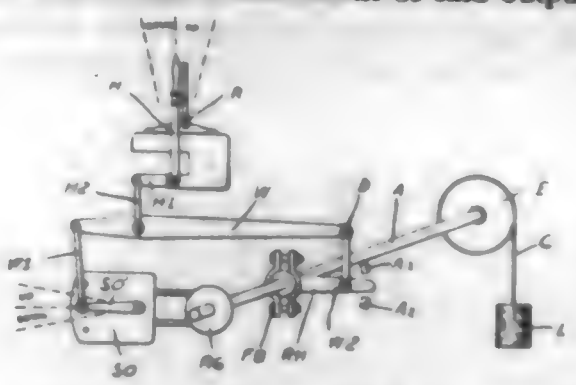
2,872,826
TOOL-CARRYING CHAINS
Sidney Ernest Proctor, Saunderton, High Wycombe, England, assignor to Austin Hoy and Company Limited, High Wycombe, England, a British company
Application April 30, 1956, Serial No. 581,617
Claims priority, application Great Britain December 6, 1955
2 Claims. (Cl. 74—246)



1. A tool-carrying chain comprising in combination links having bases with flanges to run in the chain guides of a coal cutter jib, which links carry sockets at one end and bosses at the other, which bosses overlie the sockets of the neighboring links, ball stems extending from the bosses toward the bases of the neighboring links and into the sockets thereof, balls on the stems which lie within the sockets, the socket portion of each such link having a bore extending from the base of the link upwards and terminating in a flat shoulder within the body of the link, two half liners divided in the plane of their axis in each bore having recesses to fit the ball therein below said shoulder, and fixing means to secure each of the two half-liners in the bore with the ends of the half-liners abutting against said flat shoulder.

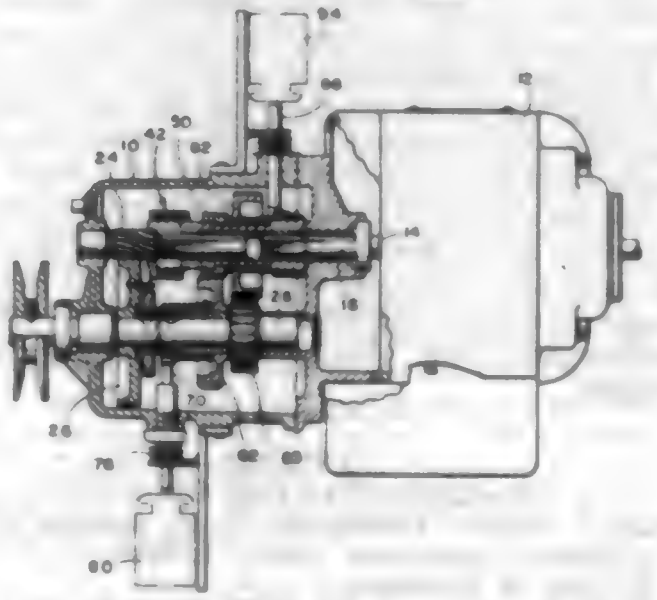
2,872,827
CONTROL MEANS FOR INFINITELY VARIABLE TRANSMISSIONS
Hans Thoma, Zurich, Switzerland
Application April 19, 1956, Serial No. 579,381
9 Claims. (Cl. 74—335)

1. Control means for infinitely variable power transmissions which have power input means and power output means and a control organ to adjust the drive ratio of said transmission from zero to a maximum in either direction, said control means comprising a manually operated member and connections therefrom to said control organ so constituted and arranged that said manually operated member causes said control organ to control the transmission for substantially zero drive ratio when the manually operated member is in an intermediate position and to cause the control organ to control the transmission for gradually increasing drive ratio as the manually operated member is moved away from said intermediate position, the direction of movement of said output mem-



ber being determined by the direction of movement of said manually operated means from its zero position, together with supplemental control means for said control organ, effective when said manually operated member is in zero position, so operated by the output means of said transmission that upon the occurrence of any movement of said output means while the manually operated member is in zero position the control organ will be adjusted in a direction to terminate such motion of the output means, and to cause the output means to return to the position it occupied when said manually operated member was placed in the zero position.

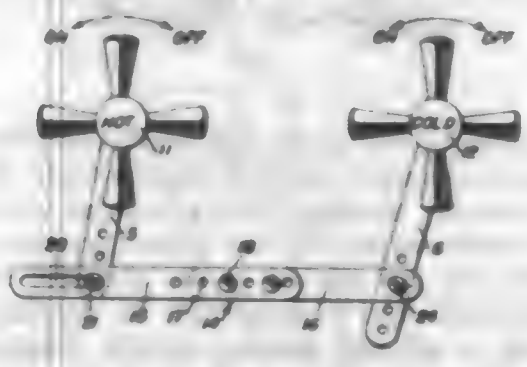
2,872,828
VARIABLE SPEED WASHING MACHINE TRANSMISSION
Harold F. Brogdon, Cincinnati, Ohio, assignor, by mesne assignments, to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application June 6, 1956, Serial No. 589,794
4 Claims. (Cl. 74—368)



1. In a variable speed transmission, a driving shaft, a first driving gear rotated by said driving shaft, a sleeve rotatably journaled on said driving shaft, a second driving gear journaled on said sleeve, a third driving gear rotatably journaled on said sleeve, means for selectively connecting said third driving gear to said sleeve in driving relationship, a driven shaft spaced from and parallel to said driving shaft, a first driven gear rotatably journaled on said driven shaft and positioned for meshing engagement with said first driving gear, means for connecting

said first driven gear to said driven shaft in driving relationship, a second driven gear rotatably journaled on said driven shaft and positioned for meshing engagement with said second driving gear, means for selectively connecting said second driven gear to said driven shaft for driving engagement, a third driven gear splined to said driven shaft and meshing with said third driving gear, and a coupling device interposed between said driving shaft and sleeve, said device including a single yieldable, resilient member drivingly interconnecting said driving shaft and said sleeve and also drivingly interconnecting said driving shaft and second driving gear.

2,872,829
TEMPERATURE CONTROL MEANS FOR FAUCETS
Edward A. Belmont, Granada Hills, Calif.
Application September 28, 1954, Serial No. 457,287
3 Claims. (Cl. 74—480)



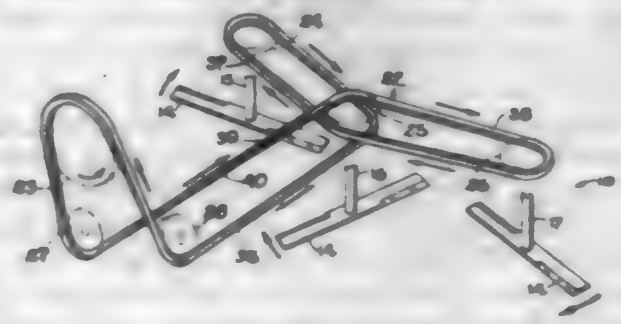
2. A mixing control for faucets comprising in combination a pair of valve stems, each having a handle, a pair of arms, each having an eye at one end in which the valve stems are respectively received, means carried by the eyes securing the latter to the stems for turning the latter upon a swinging movement of the arms, a link connecting the arms to each other, said link being connected to one of the arms for movement therewith when the related valve stem is turned in either direction, and a pin and slot connection between the other end of the link and the other of said arms for independent actuating movement of the latter in one direction.

2,872,830
MECHANISM CONTROL
Robert S. Hinsey, Toledo, Ohio, assignor, by mesne assignments, to The Bingham-Herbrand Corporation, a corporation of Ohio
Application January 21, 1953, Serial No. 332,183
4 Claims. (Cl. 74—540)



3. Mechanism control including, in combination, a relatively stationary support, a lever construction fulcrumed on the support and having a foot pad portion formed on one end thereof, a plurality of ratchet teeth formed on the other end of the lever construction, a pawl pivotally mounted on the support and adapted for cooperation with the ratchet teeth for holding the lever construction in adjusted position, means connecting said lever construction with mechanism to be controlled, a foot-operated arm articulately supported by the lever construction, said arm having operative connection with the pawl to effect disengagement of the pawl with the ratchet teeth, and resilient means for normally biasing the pawl into engagement with the ratchet teeth.

2,872,831
BELT DRIVE FOR MULTIPLE SPINDLE TRACTOR ATTACHMENTS
Mervel E. Wood, Oregon, Ill., assignor to Wood Brothers Manufacturing Company, Oregon, Ill., a corporation of Illinois
Application January 2, 1958, Serial No. 706,814
9 Claims. (Cl. 74—665)

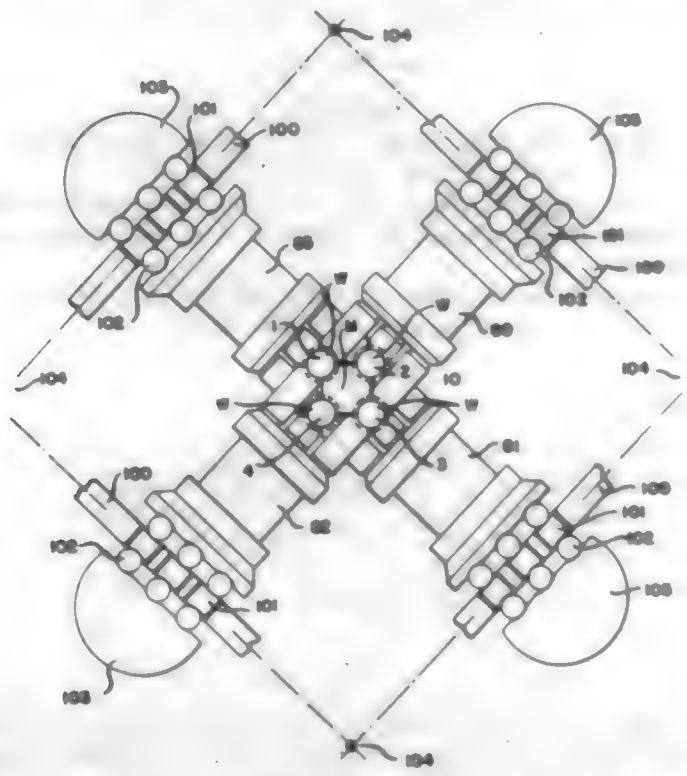


1. For use with a tractor having a horizontal power driven shaft, a vertical driving pulley secured to said shaft and two laterally spaced idler pulleys mounted on a shaft extending transversely of said power driven shaft and disposed beneath said driving pulley, the combination of, a frame adapted to be attached to said tractor, first and second vertical spindles, an intermediate vertical spindle disposed between said first and second spindles, means journaling said three spindles on said frame, first, second and intermediate horizontal driven pulleys mounted respectively on said first, second and intermediate spindles, said driven pulleys being disposed in a common plane generally alined with said idler pulleys, said first and second driven pulleys having a belt receiving groove formed therein and said intermediate driven pulley having three belt receiving grooves formed thereon, an endless belt extending around said driving pulley, around a first one of said idler pulleys, around a first one of said grooves in said intermediate driven pulley, around the groove in said first driven pulley, across a second one of said grooves in said intermediate pulley, around the groove in said second driven pulley, back around the third groove in said intermediate pulley, around the other idler pulley, and back to said driving pulley, said belt being twisted along the section extending between said intermediate pulley and said other idler pulley, and means for turning said driving pulley in a direction to advance said belt from the driving pulley toward said other idler pulley whereby the twist is in a slack portion of the belt.

2,872,832
PLURAL WORKPIECE FORGING MACHINES
Gerhard H. Appel and Erich Flaker, Windsor, Ontario, Canada, assignors to Appel Process, Ltd., Windsor, Ontario, Canada, a corporation of Canada
Application November 15, 1956, Serial No. 622,293
2 Claims. (Cl. 78—24)

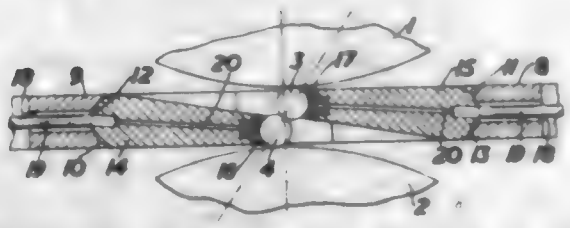
1. A forging machine for simultaneously forging a plurality of workpieces comprising an elongated anvil having a plurality of elongated grooves each extending the operating length of the anvil and adapted to cooperate with one workpiece; said grooves arranged in pairs around the anvil, the grooves of each pair being in alignment on

opposite sides of said anvil; a plurality of movable dies cooperating with a portion of each anvil groove to form therewith a workpiece throat; one of said dies moving in said direction of alignment and the other of said dies moving in the direction of alignment of another pair of grooves; each plurality of movable dies and their cooperating anvil grooves successively located at alternate different localities along the length of said grooves so



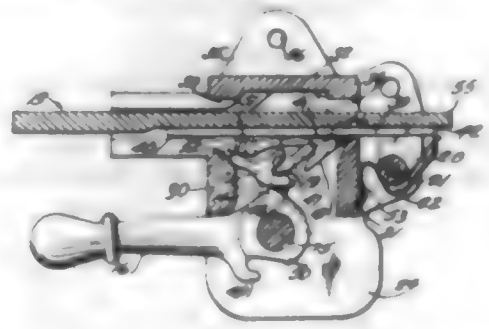
that only a portion of each groove forms a workpiece throat; an actuator for said dies grouped in pairs; each pair being associated with a pair of grooves; the actuator of one pair located on one side of said anvil and the other actuator of said pair located on the other side of said anvil; each actuator engaging and moving all dies located on its side of the anvil that are moving in its direction of movement.

2,872,833
COLD ROLLING MILLS
George William Lord, Wembley, England, assignor to National Research Development Corporation, London, England, a statutory corporation
Application January 10, 1955, Serial No. 480,856
Claims priority, application Great Britain January 14, 1954
4 Claims. (Cl. 80—38)



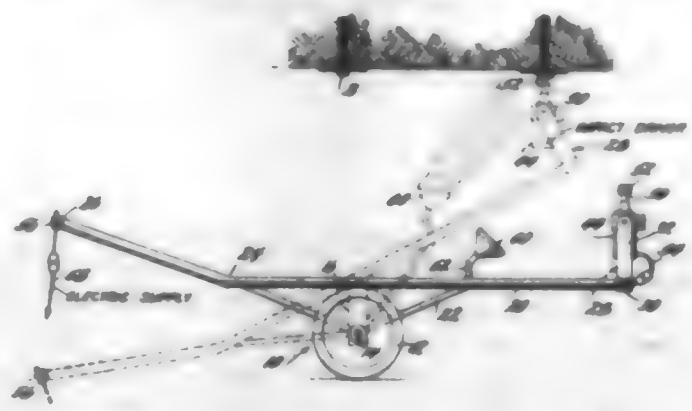
1. A reversible four high cold rolling mill comprising in combination two backing rolls, means for supporting said backing rolls with their axes in spaced parallel relationship in the same plane, first and second work rolls, and a single unitary framework supporting both of said work rolls between said backing rolls with the axes of the work rolls being positioned parallel to those of the backing rolls in a plane intersecting said plane of said backing roll axes at an acute angle, the two work roll axes lying on opposite sides of the plane of said backing roll axes and the line of contact between said work rolls lying within said last mentioned plane, said framework being positioned symmetrically with respect to said line of contact and comprising two end members which run parallel to the axes of the rolls and transverse tie bars rigidly connecting said end members, said end members being provided with bearing means extending along the inner sides thereof parallel to said work rolls, said bearing means and tie bars defining a recess dimensioned to receive said work rolls, and said end members laterally supporting through said bearing means each of said work rolls on the side furthest from the plane of said backing roll axes.

2,872,834
AUTOMATIC VISE
Elijah Manul Chapman, Wortham, Tex.
Application August 2, 1956, Serial No. 601,714
1 Claim. (Cl. 81—26)



In an automatic vise of the type which comprises a housing having a stationary jaw extended upwardly therefrom, a tongue slidably mounted in the housing and having a boss with serrations on the face thereof positioned on one side, a movable jaw carried by the extended end of the tongue and positioned to coact with the stationary jaw of the housing, a serrated gripper slidably mounted in the housing and positioned to coact with the serrations of the boss of the tongue, a dog mounted in the housing, a key positioned between the dog and gripper, a hand lever having a hub thereon pivotally mounted in the housing, said hub having a cam positioned to engage the dog for actuating the gripper through the key, said hub also having a hook on one side adapted to engage the dog to move the dog to a released position, resilient means for urging the gripper to a released position with serrations thereof spaced from the serrations of the boss of the tongue, the improvement which comprises a latch pivotally mounted on the housing and having serrations thereon positioned in confronting relation to said serrations of the boss of the tongue so as to coact with the serrations of the boss of the tongue, a spring for urging the latch with the serrations thereof in engagement with the serrations of the boss of the tongue, and a finger for actuating the latch to a position wherein the serrations thereof are spaced from the serrations of the boss of the tongue.

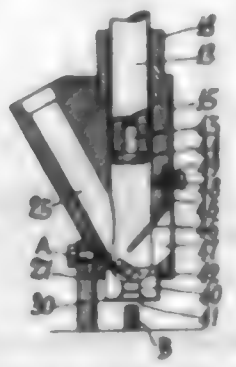
2,872,835
ROOF BOLT EXTRACTOR MACHINE
Harry W. Talkington, Rocky Mount, N. C.
Application August 6, 1957, Serial No. 676,584
4 Claims. (Cl. 81—54)



4. Apparatus for driving large, headed threaded fasteners in an overhead location comprising a mobile carriage, an elongated frame member rockably supported near its mid point upon the carriage, a driving motor having a drive shaft, means adjacent one end of the frame

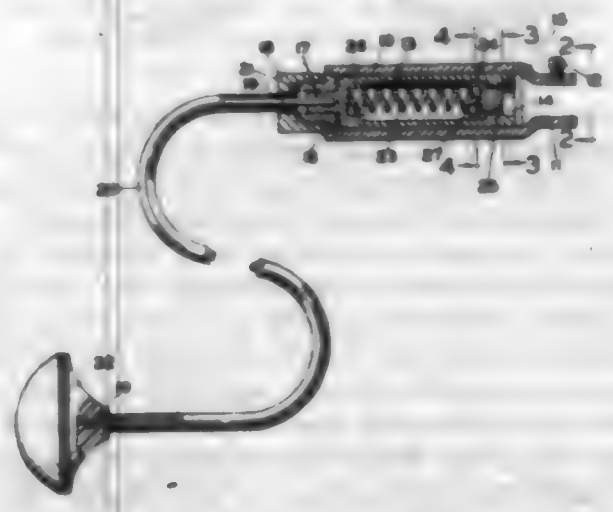
suspending the driving motor to freely pivot with its drive shaft in constant vertical position, means on the end of the drive shaft for engaging the head of a fastener, an operating handle upon the end of the frame member opposite the motor suspension for tilting the frame member to bring the head engaging means into operative position and a control for the motor mounted on the operating handle, the motor being inoperative without a human operator at the control and the frame member being of greater length than the arm spread of an adult human, thereby to avoid the possibility of injury to the operator through his presence at the operative head of the apparatus while it is in motion.

2,872,836
POWER OPERATED NUT RUNNER
Andrew S. Zakrzewski, Toronto, Ontario, and George S. Ashby, Port Credit, Ontario, Canada, assignors to Pneuma-Serve Limited, Ontario, Canada
Application August 15, 1957, Serial No. 678,381
12 Claims. (Cl. 81—54)



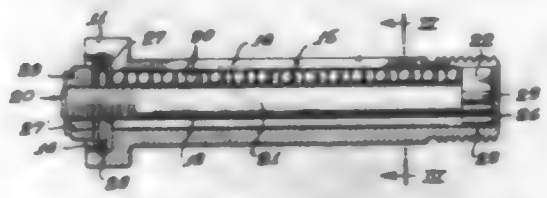
1. A body member having an axial bore, a pair of jaw members pivoted to said body member adjacent to an end thereof and having jaw portions adapted to abut in a plane through the axis of said bore, said jaw portions having semi-circular openings cooperating to form a reduced continuation of said axial bore, means for depositing individual nuts into said axial bore, the upper ends of the openings in said jaw portions comprising a counterbore having a generally spherical contour, whereby the walls thereof at the upper portion are approximately vertical and at the lower portion adjacent to the reduced continuation portion are tapered, whereby nuts falling to said spherical contour counterbore in generally edgewise position are cammed thereby to a generally flatwise position.

2,872,837
REMOTELY OPERATED WRENCH ADAPTER
William J. Klee, Columbus, Ohio
Application August 28, 1957, Serial No. 679,278
5 Claims. (Cl. 81—55)



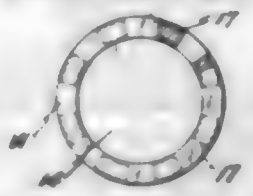
1. A wrench adapter comprising a tubular casing having a socket portion at its forward end for receiving a first member carrying a second member to be adjusted axially relative thereto, clamping means on said socket portion for clamping the first member therein, and a socket wrench rotatably disposed within the casing for receiving a third member on said second member to be adjusted axially relative thereto.

2,872,838
CONTROLLABLY EXPANDABLE AND REMOVABLE FASTENER
Alvin R. Vogel, Los Angeles, Calif.
Application May 24, 1954, Serial No. 431,631
15 Claims. (Cl. 85—2)



1. A fastening device adapted to expand radially in non-linear fashion comprising: a metallic body provided with an axially extending bore, a longitudinally extending internal recess formed in the body and communicating with the bore, said recess being of smaller width than said bore, a narrow longitudinal slit communicating with the recess, a longitudinally extending relief groove in said body communicating with said bore and angularly displaced with respect to said recess; mobile, pressure-distributing means carried within the recess, and a pin means within said bore, said pin means including a head bearing upon said pressure-distributing means to subject the latter to regulatable pressure and produce radial expansion of said body in accordance with varying diameters of bores of members in which said device is positioned.

2,872,839
ANTI-FREEZE WASHER WHICH IS READILY SEPARABLE BY CUTTING TO RELIEVE A THREADED JOINT
Gordon W. Valentine, Owosso, Mich.
Application May 19, 1955, Serial No. 509,524
1 Claim. (Cl. 85—50)

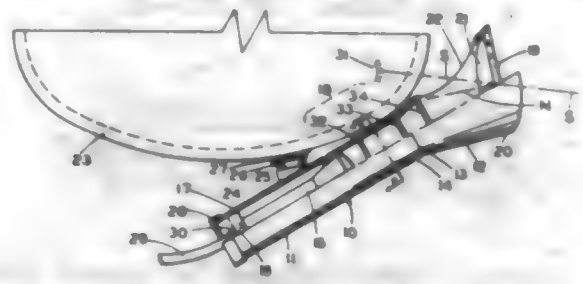


A washer adapted to be positioned on a threaded shaft or the like to space apart a pair of normally relatively movable members mounted on the same shaft and at least one of which is threaded on said shaft, said washer comprising an annulus having flat, opposite faces and a central opening of such size as snugly to accommodate said shaft, said annulus being composed of a pair of identical rings mounted back to back and spaced from one another by segment shaped portions spaced circumferentially of said rings, said segment shaped portions having radial dimensions less than the corresponding dimensions of said rings and being so located relatively to the latter as to provide a circumferential groove at both the inner and outer periphery of said annulus, each of said grooves being of such width as to accommodate a hacksaw blade.

2,872,848
PRESENTATION DEVICES FOR VISUAL INFORMATION
Austin N. Stanton, Garland, Tex.
Application December 23, 1953, Serial No. 399,908
1 Claim. (Cl. 88—1)

A presentation device for use as a visual information aid which is conjunctive to the normal visual perception

of a viewer comprising: a viewer's headpiece adapted to be secured to a viewer's head and having forehead portions and side portions for engaging the viewer's head when the device is in position for use; an elongated tubular housing mounted on said headpiece portions at an oblique angle to the line of vision of the viewer, said housing being flared at the forward end, said flared portion being opposite the eye of the viewer; a small cathode ray tube which is adapted for receiving and displaying visual information received from a remote source disposed in said housing at one end thereof remote from



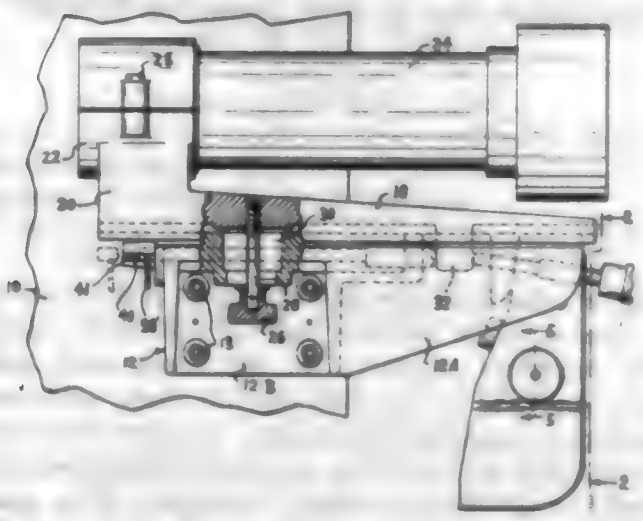
said flared end; a semi-transparent, semi-reflecting lens mounted in said flared portions, said flared portion having a viewing aperture in line with the lens, said lens reflecting light from the small cathode ray tube to the eye of the viewer and transmitting light from the normal field of view to the eye of the viewer; an optical lens means disposed in said housing between said cathode ray tube and said semi-transparent, semi-reflecting lens to project the visual information from said cathode ray tube to said semi-transparent, semi-reflecting lens whereby the said visual information is continuously superposed in the normal field of vision of the viewer at an infinite focus.

2,872,841

OPTICAL PROJECTION APPARATUS

Milton R. Thorburn, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application July 28, 1956, Serial No. 599,110
8 Claims. (Cl. 88—16)



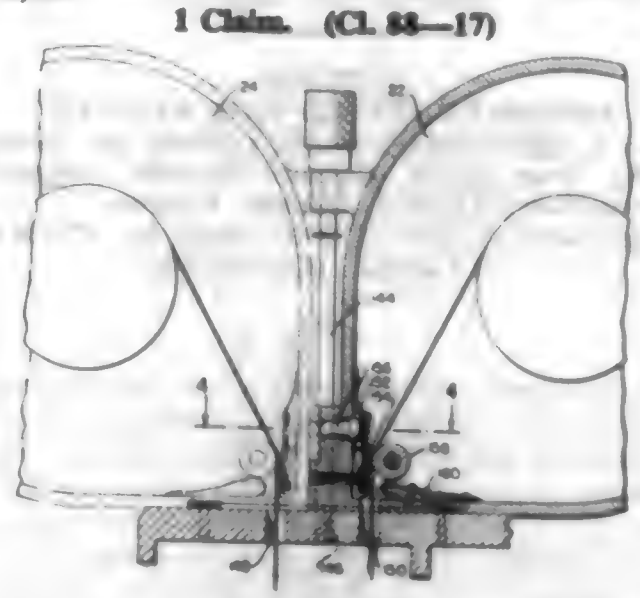
1. A film projector having an axially movable objective carried thereby and arranged to focus image-forming light rays upon an associated viewing screen, said objective possessing expansion characteristics which change as the temperature of the objective changes during each warm-up period of said projector and tend to cause a change in focus of the image being projected thereby, compensating means carried by said projector and operatively connected to said objective for continuously maintaining said image in focus during said warm-up period, said compensating means comprising cam means for axially moving said objective in a predetermined direction and an electric motor for actuating said cam during said warm-up period, said cam means having a camming surface of such length and predetermined contour as to compensate for the expansion characteristics of said objective during said warm-up period, and means for initiating the operation of said compensating means at the time the projector starts to transmit said light rays through said objective, whereby substantially no appreciable change in focus in the image being projected onto said screen will occur during said warm-up period.

2,871,342

FILM HOLDING DEVICE FOR CAMERAS

Albert M. Grass, Quincy, Mass.

Original application April 1, 1952, Serial No. 279,761, now Patent No. 2,754,721, dated July 17, 1956. Divided and this application April 2, 1956, Serial No. 575,496
1 Claim. (Cl. 88—17)



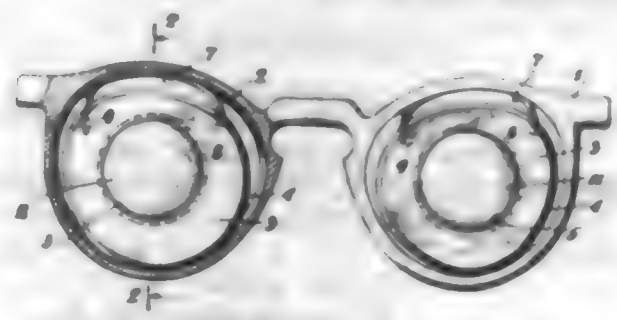
In a camera, a supply magazine, a take-up magazine, a frame on which the magazines may be mounted, each magazine having a pivoted light trap, a spring for each light trap normally urging it toward closed position, and pins carried by the magazines, each engaging its light trap at the end opposite the spring and operated by engagement with the other magazine to open its light trap when the magazines are positioned on the frame.

2,872,843

TEST LENS HOLDER FOR EYEGLASS FRAMES

Alexander Koso, Woodside, N. Y., assignor, by mesne assignments, to Koso Manufacturing Co. Inc., Woodside, N. Y., a corporation of New York

Application May 2, 1955, Serial No. 505,131
2 Claims. (Cl. 88—28)

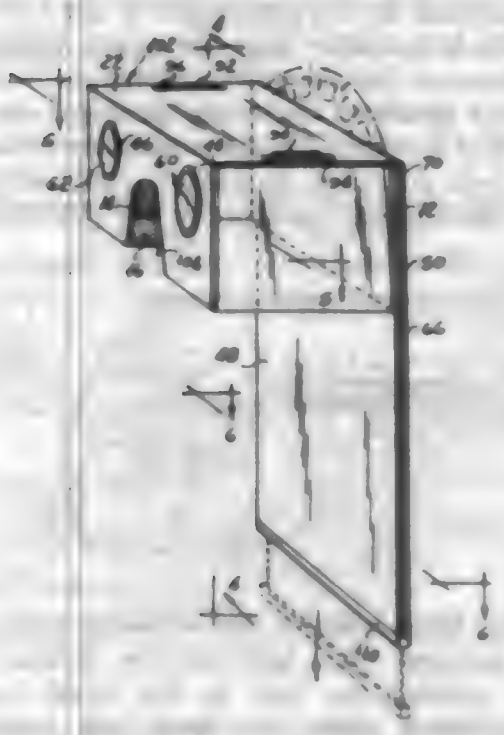


2. A test lens holder adapted to be removably mounted in a spectacle frame comprising a transparent body portion having a peripheral edge and a lens-supporting opening therein, said opening having lens-retaining means to permit a test lens to be removably mounted therein, the zone of said body portion between said opening and said peripheral edge being solid and uninterrupted, said body portion being substantially equal in size to the size of the lens opening of a frame, said body portion having a portion of its peripheral edge slightly flattened so as to be spaced from the frame lens opening when mounted therein and a spring mounted on said slightly flattened portion of said peripheral edge and having a portion protruding therefrom and flexibly engageable with the spectacle frame to permit said holder to be removably inserted in said frame.

2,872,844
UNIVERSAL COLLAPSIBLE TRANSPARENCY VIEWER

Sidney Van Tuyl, Fort Pierce, Fla.

Application May 4, 1956, Serial No. 582,891
6 Claims. (Cl. 88—29)



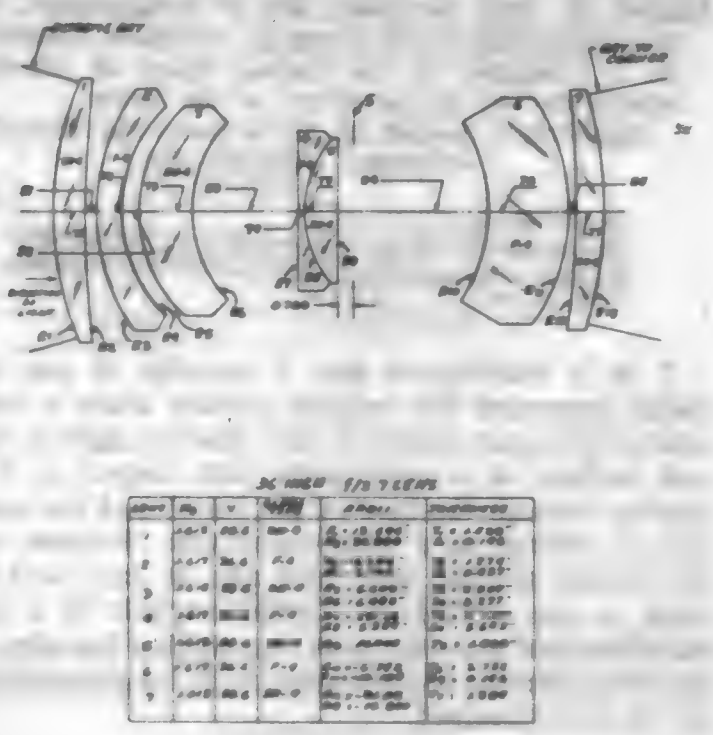
1. A universal collapsible transparency viewer for viewing transparencies supported in a carrier including in combination an integral collapsible housing comprising a bottom wall carrying a pair of end walls having tongues, a front wall formed with a pair of lens-receiving apertures and a top wall formed with openings to receive said tongues to erect said housing, and an integral elongated sleeve having a first side formed integrally with said top wall and having a second side, means for securing said bottom wall to said sleeve so that a portion of said sleeve forms a back wall of said housing, said sleeve sides being formed with pairs of aligned light-admitting openings in said sleeve portion forming said back wall, said sleeve being proved with means for guiding said carrier to a position at which a pair of transparencies are aligned with said light-admitting openings.

2,872,845
36-INCH F/3.7 LENS

James G. Baker, Winchester, Mass., assignor to the United States of America as represented by the Secretary of the Air Force

Application April 5, 1956, Serial No. 576,508
10 Claims. (Cl. 88—57)

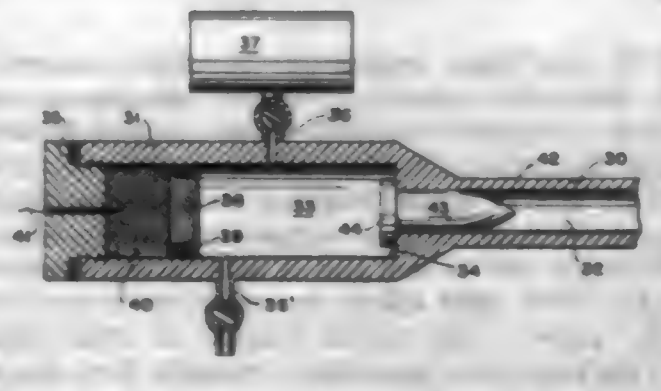
1. An optical objective made of glass components throughout and corrected for coma, astigmatism, field curvature, distortion, chromatic aberration and both axial and oblique spherical aberrations comprising a substantially symmetrical lens system, said lens system including front and rear outer components of net collective effect, a central stop, a negative meniscus component for correcting lower rim rays without introducing chromatic spherical aberrations, said negative meniscus component including two spaced menisci, one negative and one positive, the separation of the menisci being within 0.2% and 2% of the focal length of the lens system, the length of either radius of curvature of the adjacent surfaces of the menisci being within 15% to 23% of the focal length of the system, said menisci positioned so that the vertices of the adjacent surfaces of said spaced menisci lie in front of the stop a distance greater than the length of the largest radius of curvature of the said adjacent surfaces, said lens system further including a centrally disposed hyperchromatic cemented doublet, said doublet having an optical power for yellow light between —7% and +15% of the optical power of the entire lens system and wherein the length of the radius of curvature of the common cemented optical surface lies in a range between 10% and 20% of the focal length of the system.



2,872,846
HIGH VELOCITY GUN

William D. Crozier, Socorro, N. Mex., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application July 7, 1954, Serial No. 441,962
5 Claims. (Cl. 89—7)



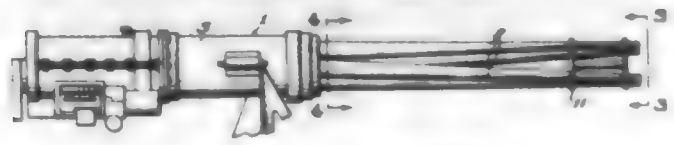
1. In combination, a gun comprising a forward barrel portion and an after breech portion, the bore of the barrel opening at its after end into a breech chamber formed in said breech portion, a source of gas having a relatively low molecular weight and having substantially adiabatic expansion properties communicated with said breech chamber, a piston in said breech chamber and means including an explosive charge for causing said piston to move against the gas in said chamber and operative to compress said gas to a desired relatively high value; a projectile comprising a body portion adapted to be propelled forwardly through the bore under the force of gas in said chamber; and means integral with said projectile for preventing the leakage of gas through said bore and for preventing propulsion of the projectile body through said bore under the force of said gas until the pressure of the gas in the chamber has been increased to a predetermined value; said projectile body, upon the gas pressure attaining said predetermined value, being adapted to be propelled at a relatively high velocity through the bore by direct force exerted on said projectile by the gas.

2,872,847

MULTIBARREL GUN WITH SKEWED BORE AXES

Harold M. Otto, deceased, late of Schenectady, N. Y., by Schenectady Trust Company, executor, Schenectady, N. Y., assignor to the United States of America as represented by the Secretary of the Army

Application August 18, 1954, Serial No. 450,827
6 Claims. (Cl. 89—12)



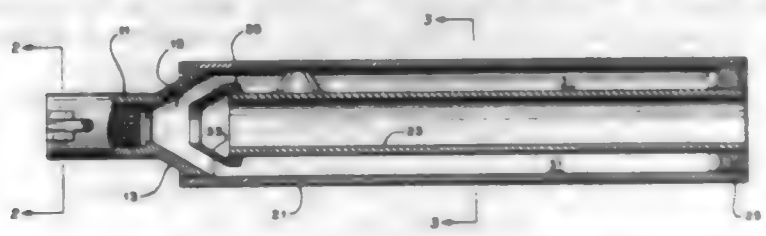
2. In a multi-barrel gun, a plurality of gun barrels rigidly connected for conjoint rotation about a common central axis, each barrel of said plurality having its bore axis inclined at a small angle with respect to a plane passing through the base of the barrel and the common axis to diverge in a counterclockwise direction toward the muzzle thereof, said bore axis of each said barrel lying in one surface of a respective side of a regular parallelepiped and with each axis making the same angle to a line forming a right angle with the respective sides of the parallelepiped.

2,872,848

GUN BLAST SUPPRESSOR

Karl E. Schuessler, Philadelphia, Pa., assignor to the United States of America as represented by the Secretary of the Navy

Application December 1, 1954, Serial No. 472,537
3 Claims. (Cl. 89—14)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A gun blast suppressor assembly, comprising a first elongated cylindrical hollow imperforate tubular member, a second relatively larger elongated cylindrical hollow imperforate tubular member disposed concentrically of and in spaced relation to said first member, a generally conical hollow supporting element connected at its larger end to one end of said second member and attached at its other end to the muzzle of a gun barrel to fixedly support said second member in axial alignment with the barrel and projecting forwardly from the muzzle end thereof, an imperforate annular end plate sealably and fixedly interconnecting said first and said second tubular members at the end of said second tubular member remote from the conical supporting element, said annular end plate having a radially curved annular depression upon its inner face, and a tapered annular deflector element attached at its larger end to the end of said first member nearest the supporting element, said deflector element being spaced from and disposed concentric of said supporting element to define an annular venturi type passage therebetween adjacent the muzzle of a gun.

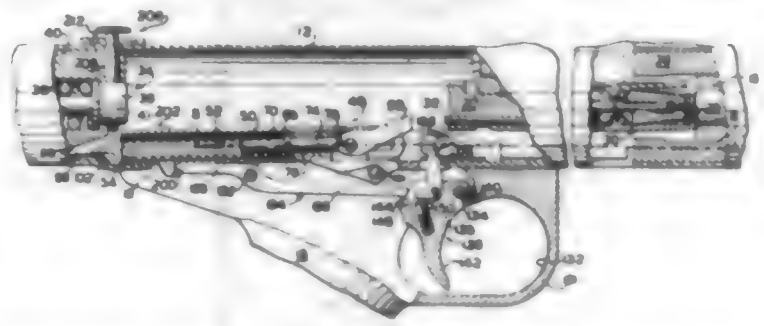
2,872,849

CLOSED AND OPEN FIRE CONTROL MECHANISM

Clarence E. Simpson, Wilbraham, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application July 11, 1956, Serial No. 597,310
5 Claims. (Cl. 89—140)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. For a firearm provided with a bolt reciprocable between a recoil and a battery position, a sleeve for rotatably locking the bolt in the battery position and a firing pin slidingly mounted in the bolt, a fire control mechanism for selectively firing the firearm from open or closed bolt position and for automatic or semiautomatic operation including a hammer biased for engagement with the firing pin and actuated by the bolt to a retracted position during movement of the bolt to the recoil position, a secondary sear device for releasably holding said hammer in the cocked position forwardly of the retracted position and being arranged for cooperation with said hammer for the automatic release thereof when the bolt is locked in battery position, a sear for releasably holding said hammer in the retracted position,



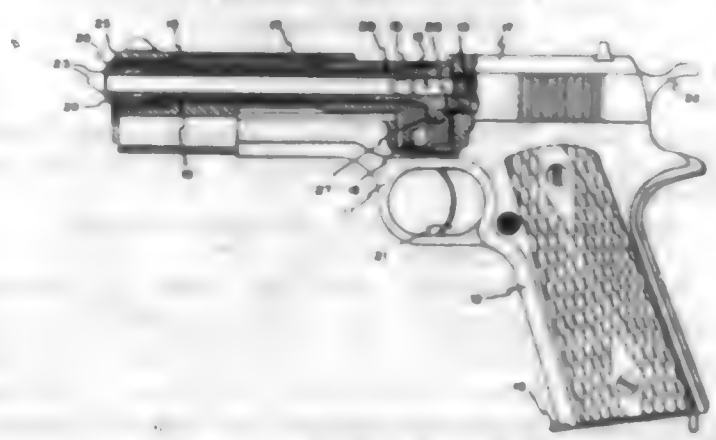
a detachable trigger device for actuating said sear to release said hammer when held thereby, pivotal means for releasably holding the bolt in the recoil position for firing the firearm from the open bolt position, lever means actuatable by said trigger device for pivoting said pivotal means to release the bolt and to hold said lever means away from the bolt holding position to effect automatic firing by said secondary sear device, and a bolt release member for pivoting said pivotal means when said trigger device is detached from the firearm to fire the firearm automatically and to hold said lever means away from the bolt holding position to enable semiautomatic firing from closed bolt position through the cooperation of said sear and said trigger device.

2,872,850

SUB-CALIBER MECHANISM INCLUDING A MOVABLE SUB-CALIBER BARREL

Ross G. Davenport, Rochester, N. Y.

Application June 27, 1955, Serial No. 518,153
2 Claims. (Cl. 89—159)



1. A sub-caliber mechanism for a self-reloading firearm comprising a replacement sleeve for rigid attachment to the frame of the firearm and adapted to be housed within the frame, a sub-caliber barrel and sub-caliber cartridge chamber as a single unit positioned to float in the sleeve, said unit having an enlarged surrounding shoulder at the cartridge chamber end substantially coextensive with the cartridge casing of a bullet in the chamber, said replacement sleeve being substantially coextensive and extending about said unit and being spaced slightly from said enlarged shoulder providing a slight gap between said sleeve and said enlarged shoulder, gas escape means in the walls of said unit in registration with said gap between said sleeve and said enlarged shoulder, said unit being adapted to move backward to impart suffi-

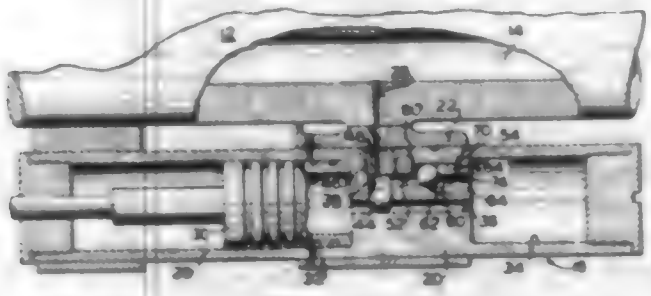
cient impetus to actuate a recoil cycle of the firearm when actuated by gas passing to said gap through said gas escape means on firing of a bullet in said unit, and means to stop rearward movement of the barrel chamber unit.

2,872,851

DOUBLE EXPANSION BALL FLOAT GAS SYSTEM FOR A FIREARM

David L. Katz, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application May 16, 1957, Serial No. 659,738
1 Claim. (Cl. 89—193)
(Granted under Title 35, U. S. Code (1952), sec. 266)



In a firearm having a barrel with a radially-disposed port for bleeding gases therefrom, a housing mounted to the barrel and including a cylinder with a cooperating piston, a chamber for storing gases, a passageway to provide communication between said cylinder and said chamber, a cylindrical well for receiving gases bled through the port, a semispherical portion terminating from said well and disposed to interrupt said passageway, a pair of diametrically-opposed orifices formed by the junction of said semispherical portion with said passageway, a ball movably disposed in said well and said semispherical portion to releasably block said orifices and said passageway through the pressure of the gases bled from the barrel when greater than that of the gases in said chamber, a bore extending from said well through an elliptical opening extending therefrom to said chamber, a sphere, an elongated channel intersecting said bore and said elliptical opening and disposed to rollingly receive said sphere for reciprocation between the front and rear ends of said channel, a front mouth formed by the intersection of said channel with said elliptical opening and disposed to pass gases from the barrel into said chamber past said sphere when the pressure of the gases in the barrel is greater than that in said chamber and said sphere is moved against said front mouth by the greater gas pressure in the barrel, and a rear mouth formed at the rear end of said channel by the intersection of said channel with said bore and disposed for cooperation with said sphere to block said bore when the gas pressure in said chamber is greater than that in the barrel.

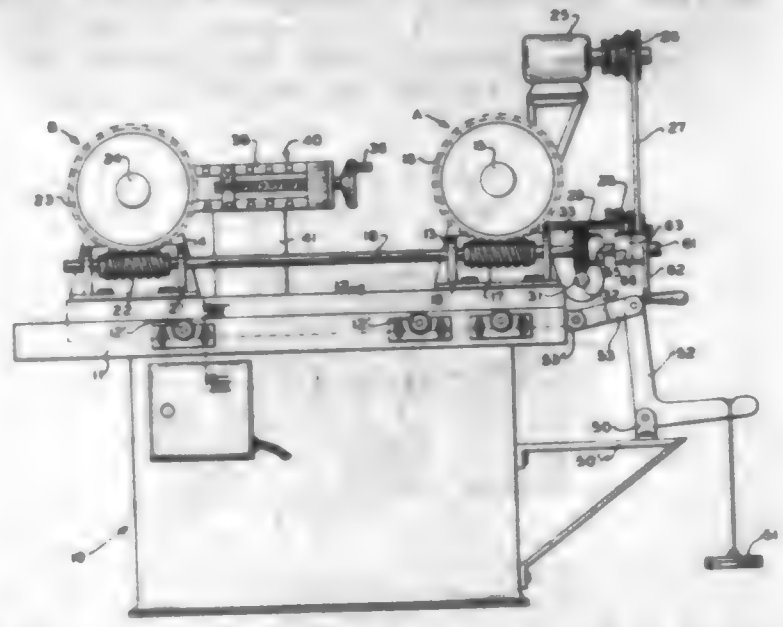
2,872,852

CAM CUTTING MACHINES

Peter Meyer, Watchung, N. J.

Application August 15, 1955, Serial No. 528,273
7 Claims. (Cl. 90—13.4)

1. A cam cutting machine in combination with a pattern cam and a cam blank, a support for said pattern cam, a support for said cam blank, means for rotating said supports through a complete cycle of rotation, a cutting tool, means for holding said blank in cutting relation to said tool, a guide member, means for holding said guide member normally in contact with said pattern cam to control the operation of said cutting tool during contact between said guide member and said pattern cam, and means for terminating the operation of said cutting tool upon movement of said guide member out of contact with said pattern cam at any part of said cycle of rotation, said blank



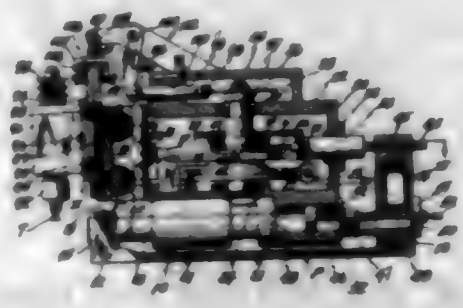
and tool being retained at the position where operation terminated ready for resumption of operation thereat.

2,872,853

MILLING AND BORING MACHINE

Joseph H. Hoern, Saginaw, Mich., assignor, by mesne assignments, of small percentages to various assignees

Application December 28, 1953, Serial No. 400,531
6 Claims. (Cl. 90—15)



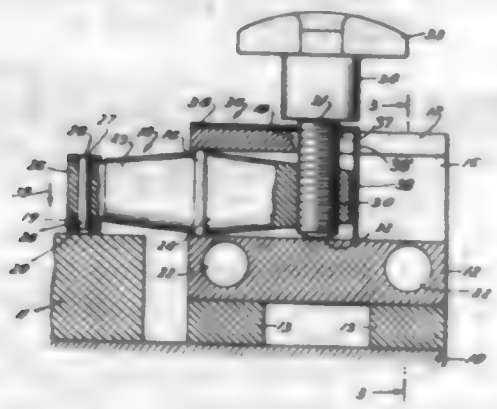
3. In a contouring machine tool; a frame a carriage movable longitudinally thereon; cross-slide means movable transversely on said carriage; slide means movable on said cross-slide means in a direction substantially perpendicular to the paths of movement of said carriage and cross-slide means; a holder on said slide means; a cam shaft rotatably journaled in and carried by said carriage; means for driving said cam shaft, cam means on said cam shaft and carriage; a follower part on said frame cooperable with said cam means and fixed on said frame so that said cam means causes longitudinal movement of said carriage responsive to the configuration of said cam means and relative to said frame; said carriage being biased to hold said cam means in operative engagement with said part and accordingly return as permitted by said cam means; a second cam means on said cam shaft; a slide tappet carried by said carriage in the plane of said second cam means for reciprocating movement in a linear path in line with the axis of said cam shaft; a lever carried on said carriage; said lever having one end in engagement with said tappet and another end in operative engagement with said cross-slide means for causing movement thereof transversely responsive to said second cam means; said cross-slide means being biased so as to be held in operative engagement with said lever; a third cam means on said cam shaft; a second slide tappet carried by said carriage in the plane of said third cam means for reciprocating movement in a linear path; and a second lever carried by said carriage with one end engaging said second tappet and the other operatively engaging said slide means; said slide means being biased so as to be held in operative engagement with said second lever.

2,872,854

WORKPIECE SUPPORTING CLAMP

Ho Chow, New York, N. Y., assignor to Central Technical, Inc., Yonkers, N. Y., a corporation of New York

Application January 23, 1957, Serial No. 635,746
11 Claims. (Cl. 90—59)



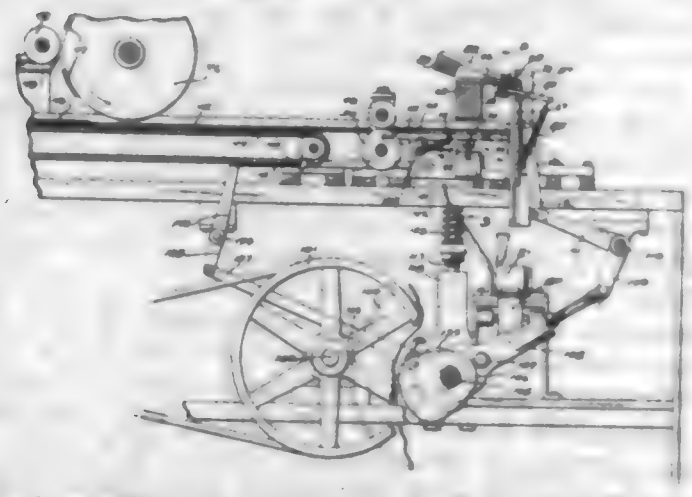
1. A clamp of the character described, comprising a block having a longitudinal bore opening through opposed ends of the block, the block being apertured to receive fastening devices for mounting the block in connection with a support, one wall of the block having an elongated aperture opening into said bore and extending to the central portion of the bore, a clamping element having, centrally thereof, a pivot portion fitting snugly, but freely, in the bore of said block, said element having an outer workpiece engaging end and an inner threaded aperture end disposed within the bore of said block, and means arranged in the elongated aperture of the block and in threaded engagement with the threaded aperture of said element and operatively engaging the block within the bore for moving the outer end of the element into clamping engagement with a workpiece.

2,872,855

MACHINE AND METHOD FOR ERECTING A CARTON AND INTEGRAL COVER ON ONE OPERATION

Willard J. Fahrenkrug, Peshtigo, Wis., assignor to Badger Paper Mills, Inc., Peshtigo, Wis., a corporation of Wisconsin

Application August 10, 1953, Serial No. 373,268
14 Claims. (Cl. 93—51)



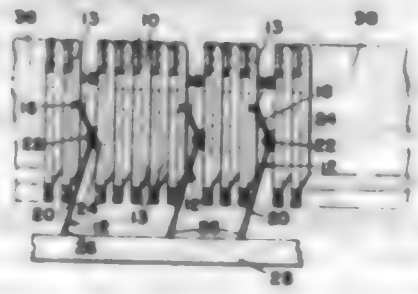
6. A machine for erecting wall and wall flap portions of a blank for a box having an integrally connected cover and tray, each provided with wall portions and corner flaps, the cover comprising a top in hinged connection with wall portions of the tray, said machine including a feed table, means for advancing the blank thereover, means for applying adhesive in the course of such advance to wall portions of the tray and cover which are to lap flap portions aforesaid, a die constituting an extension of the feed table and having laterally spaced arms provided with notches opening into the intervening space and forming wall supporting portions in said arms, front and rear forming bars spanning such space, a movable mount for the rear forming bar and upon which the rear forming bar is retractable, means for arresting the movement of the blank in a position in which the tray bottom registers with the space between said arms and between the front and rear forming bars, and a forming plunger movable through said space in registry with the tray bottom for carrying the tray bottom through the die and between said bars, and means for retracting the rear forming bar in synchronism with the advance of said plunger.

2,872,856

SPACER FOR JUSTIFYING LINES OF TYPE

William J. Ruberti, Clinton, Mass.

Application September 26, 1957, Serial No. 686,437
6 Claims. (Cl. 95—4.5)



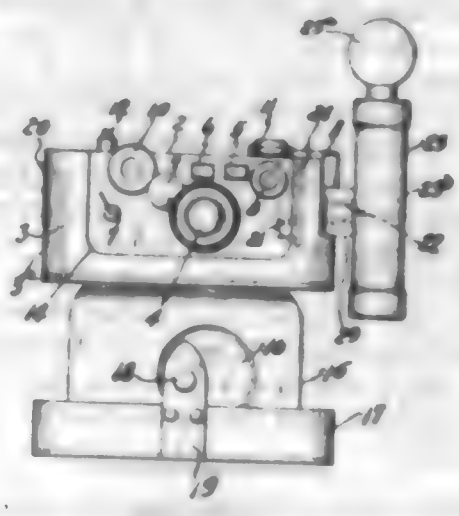
1. A justifying space comprising a body portion, a movable member hinged thereto and capable of lateral motion with respect thereto to engage the next adjacent matrix in line, said movable member including a portion depending below the main body portion of the space in position to be engaged and spread the member laterally, said movable member comprising a pair of articulated elements.

2,872,857

ADAPTOR PLUGS FOR CAMERAS

Edward L. Rich and Russell H. Turner, Bay City, Mich.; said Rich assignor to said Turner

Application July 27, 1953, Serial No. 370,474
5 Claims. (Cl. 95—11.5)



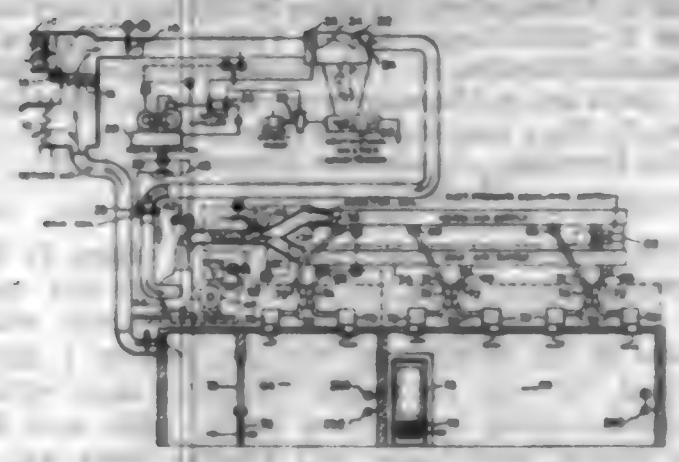
1. A flash bulb unit supporting adaptor plug in combination with a camera having sockets in a wall covered by a carrying case which has an open section adjacent the wall, comprising; a member having a leg disposed inside the case in engagement with said wall of the camera and a portion disposed outwardly of the case, said leg extending out from the open section of said case, contactor prongs on said leg for accommodation in said sockets, sockets in the portion of said member disposed outwardly of the case to accommodate the contactor prongs of a flash bulb unit, and wire conductors embedded in said member connecting the prongs on said leg and the sockets in said member.

2,872,858

METHOD AND APPARATUS FOR PRESSURIZED SUPPLY AND HIGH VELOCITY AIR CONTROL

William J. Caldwell, Independence, Mo., assignor to Townsend F. Beaman, Jackson, Mich.

Application September 28, 1950, Serial No. 187,258
11 Claims. (Cl. 98—33)



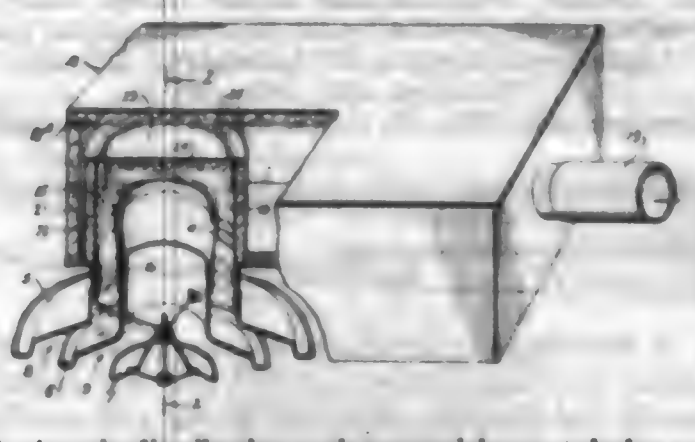
1. A method of pressurized supply high velocity air control comprising the steps of pressurizing conditioned air, distributing the pressurized air at velocities in the order of 5,000 to 12,000'/min., reducing the velocity of the air by a primary expansion to the order of 2,500'/min. at a point adjacent a zone of consumption, and conducting the air from the point of primary expansion and reduced velocity to a point of secondary expansion, effecting a secondary expansion of the air and discharging the same into the zone of consumption to provide a high degree of diffusion principally by the kinetic energy of the discharged air being transferred into the ambient air of said area, the initial commingling of said discharged air with the interior air of said zone taking place within said zone.

2,872,859

AIR DISTRIBUTION UNIT

Walter W. Kennedy, Rockford, Ill., assignor to Barber-Colman Company, Rockford, Ill., a corporation of Illinois

Application March 2, 1954, Serial No. 413,551
6 Claims. (Cl. 98—38)



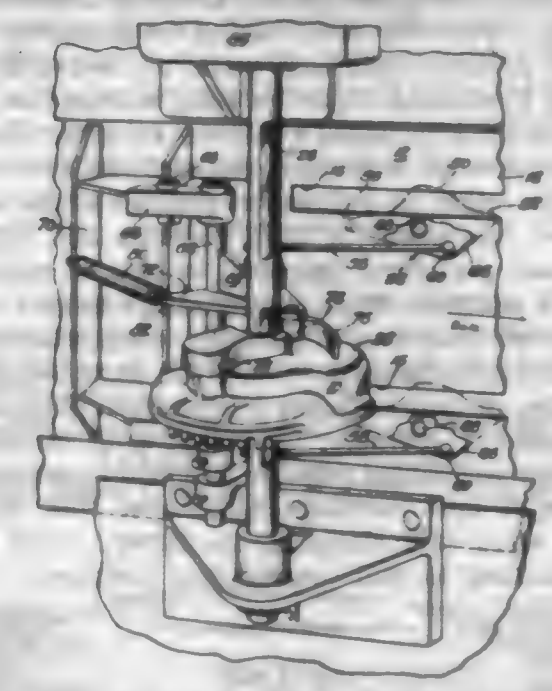
5. An air distribution unit comprising a tubular member, a tubular casing encircling said member and having an outlet end and an inlet end extending beyond one end of the member, the outer surface of said member and the inner surface of said casing converging toward said inlet end to define a passage having a reduced section at said one end of the member and increasing in cross sectional area toward said outlet end, means supporting said member in said casing, a wall axially spaced from said one end and covering the inlet end of said casing, and an annular nozzle opening through said wall around the periphery and terminating at a point between said wall and said reduced portion to direct incoming air into the reduced portion of said passage and thereby to create a Venturi action inducing a reverse flow of aspirated air through said member, around said one end of the member, along said nozzle and into said passage.

2,872,860

BALER TYING MECHANISM

Carlisle F. Smith, Knoxville, and Robert B. Skromme, Rockford, Ill., assignors to J. I. Case Company, Racine, Wis., a corporation of Wisconsin

Application August 19, 1953, Serial No. 375,126
8 Claims. (Cl. 100—22)



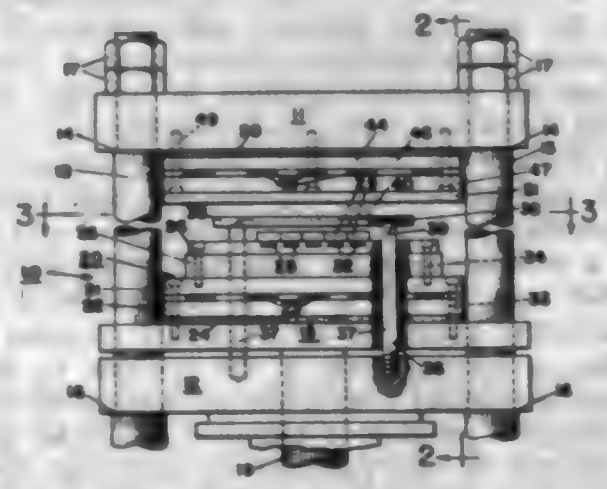
1. In a baler having a baling chamber, means for encircling a bale with a tying strand, and tying means adjacent said baling chamber for forming a knot in the ends of the tying strand, an improved strand guide means positioned between the baling chamber and the tying means, said guide means comprises a member having an edge disposed generally transversely of the path of the strand extending between the tying mechanism and the baling chamber for engagement with the strand, said edge including a projecting mid-portion, and means supporting said member for rotation through a path generally transversely of the strand engaged thereby, whereby a strand engaged by one section of said edge is restrained by said projecting mid-portion from movement therepast along said edge, and whereby rotation of said member affords movement of said strand past said projecting mid-portion on to the other section of said edge to thereby present additional slack in the strand for use in forming the knot.

2,872,861

FORMING OR MOLDING APPARATUS

John R. Smith and Albert J. Cirauskas, Pittsburgh, Pa., assignors to the Commonwealth of Pennsylvania

Application January 31, 1955, Serial No. 484,986
8 Claims. (Cl. 101—27)



1. Material-forming apparatus comprising a forming die including a pair of mating die parts relatively movable into and out of forming engagement, one of said parts being of composite construction and including a peripheral member having an aperture therethrough and

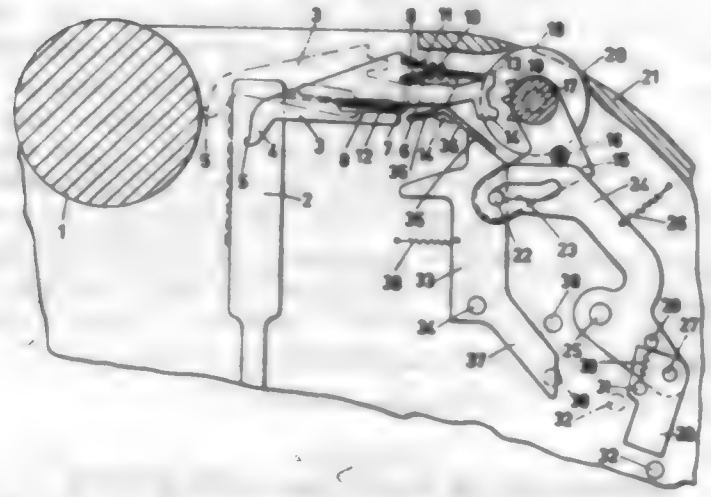
a separable cooperating member, said members being relatively movable between an assembled position wherein said cooperating member closes said aperture and a disassembled position wherein said cooperating member is removed from said aperture, said cooperating member being provided with guides for the reception of removable and interchangeable slides carrying character-forming indicia, a press for said forming die including opposed, separated pressure elements relatively movable toward and away from each other between a compression position and a fully retracted position, a support fixed with respect to one of said elements and slidable with respect to the other in a direction parallel to the direction of relative movement of said elements and freely supporting said peripheral member in spaced relation between said elements when the latter are in said retracted position, said cooperating member being secured to one of said elements, the other of said die parts being secured to the other of said elements in operative alignment with said peripheral member, whereby said members are brought into assembled position and said assembled members brought into forming engagement with said other die part when said elements are moved from said retracted position to said compression position.

2,872,862

SYMBOL PRINTING MECHANISMS IN LISTING CALCULATING MACHINES AND THE LIKE

John Lydfors, Malmo, Sweden, assignor to Aktiebolaget Addo, Malmo, Sweden, a corporation of Sweden

Application October 9, 1956, Serial No. 614,985
Claims priority, application Sweden October 14, 1955
4 Claims. (Cl. 101—93)



1. In a listing machine having a platen and a series of spaced digit type members movable into engagement with the platen, a symbol printing mechanism comprising a series of symbol type carriers arranged in the spaces between the digit type members and individually movable between an inoperative position spaced from the platen and an operative position in printing engagement with the platen, spring means tending to move said carriers towards the operative position, locking means for each said carrier normally holding said carrier in the inoperative position against the action of said spring means, a releasing member extending along said series of symbol type carriers so as to be adjacent to all of them, actuating means for actuating said releasing member during a printing cycle of the machine by shifting said releasing member from a normal inoperative position to an operative position, a plurality of spaced engagement members on said releasing member, one for each said carrier, and adjusting means for moving said releasing member into different positions of adjustment in each of which a different one of said engagement members is effective for releasing a corresponding one of said carriers from its locking means by the engagement of said one of said engaging members with the respective one of said carriers during the shifting of said releasing member from its inoperative position to its operative position upon the actuation of said actuating means.

2,872,863

HECTOGRAPH DUPLICATING

Douglas A. Newman and Harrison W. Boylan, Glen Cove, Allan T. Schlotzhauer, Locust Valley, and Stephen J. Sunatiak, Hicksville, N. Y., assignors to Columbia Ribbon and Carbon Manufacturing Company, Inc., Glen Cove, N. Y., a corporation of New York

No Drawing. Application December 2, 1954
Serial No. 472,772
7 Claims. (Cl. 101—149.4)

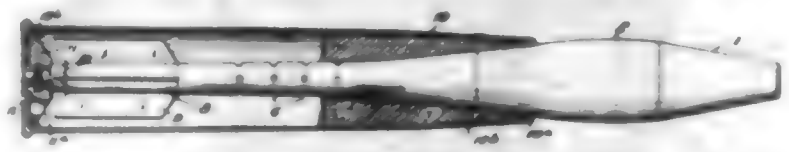
1. The method of producing duplicate copies by the hectograph process using on a master sheet and copy sheets complementary chemical reagents which when combined in the presence of moisture develop a color; comprising the steps of coating a transfer sheet with a transferable coating composition having gallic acid dispersed therein; superposing said transfer sheet with a master sheet in face-to-face contact with said transfer coating on said transfer sheet; subjecting said superposed sheets to an imaging force to release from said transferable coating imaged portions and adhere them on said master sheet; dispersing iron salts and glycerine in a coating composition including cellulose acetate; coating at least one surface of said copy paper with said composition containing said metallic salt; wetting said copy paper with a solution including a solvent for the gallic acid and moisture insufficient to cause limpness in said copy paper; contacting said imaged master sheet and a coated copy paper to transfer and adhere a portion of said transfer coating including said gallic acid in image form on said copy paper whereby when said copy paper and master sheet are out of contact a visible image will instantaneously develop on said copy paper due to the presence of the moisture from said wetting solution and that provided by the glycerine on said copy paper.

2,872,864

CENTER-GUIDE FOR FIN-STABILIZED FIXED ROUND AMMUNITION

Gladeon M. Barnes, Philadelphia, and Nelson R. Droulard, Ambler, Pa., assignors to the United States of America as represented by the Secretary of the Army

Application January 8, 1952, Serial No. 265,436
10 Claims. (Cl. 102—38)
(Granted under Title 35, U. S. Code (1952), sec. 266)



8. A fixed round comprising, a casing having a base, a tubular stud fixed centrally of said base and extending forwardly and centrally along said casing, a fin-stabilized projectile including a tubular tail portion slidably fitting said tubular stud, and a rigid connection between said stud and tail portion adjacent said base, said tail portion having a frangible section immediately forward of said connection.

2,872,865

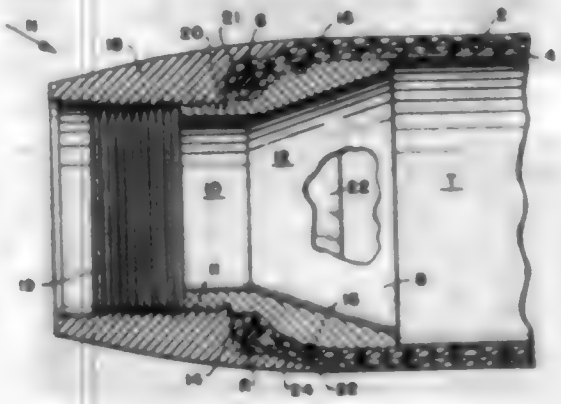
HIGH STRENGTH FIBER GLASS-METAL CONSTRUCTION AND PROCESS FOR ITS MANUFACTURE

Karsten S. Skaar, China Lake, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application September 29, 1955, Serial No. 537,593
9 Claims. (Cl. 102—56)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A tubular construction comprising a tubular main body formed of originally flexible fabric sleeving folded

back upon itself to form a plurality of plies joined by a fold, a reinforcing ring member positioned between said plies at the fold to form a thickened end, a rigid tubular end structure, said end structure having means to clampingly engage said thickened end to join said main body and said end structure to form a unitary tubular construction, said flexible fabric being impregnated with shape retaining plastic material for giving said impregnated fabric a high order of rigidity and strength, said rigid tubular end structure comprising an inner flange member and an outer clamping piece, said inner flange member having a skirt portion to support the walls of said main body member adjacent the thickened end



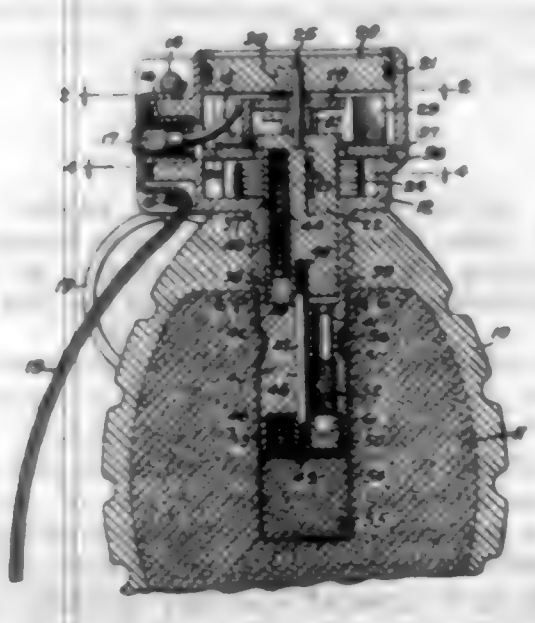
thereof and having an externally screw threaded portion extending outwardly through said thickened end, said outer clamping piece having an internally screw threaded portion for cooperation with the external threads on said inner flange member, an outwardly directed shoulder at the rearward end of said threaded portion and a rearwardly directed skirt portion complementary to that of the inner flange whereby the thickened end of said main body may be clamped between said shoulder and the cooperating adjacent forward ends of said two skirt portions, and the main body wall adjacent said thickened end may be clamped between said two skirt portions when said inner flange member and said outer clamping piece are screw threadedly engaged with one another.

2,872,866

GRENADE FUZE

Julius L. Brown, Mount Vernon, N. Y., Silvio J. Odierno, Dover, N. J., and Jack Schwarzschild, Vladimir Vlasmensky, and Harold G. Wenig, New York, N. Y., assignors to the United States of America as represented by the Secretary of the Army

Application September 22, 1954, Serial No. 457,801
6 Claims. (Cl. 102—64)



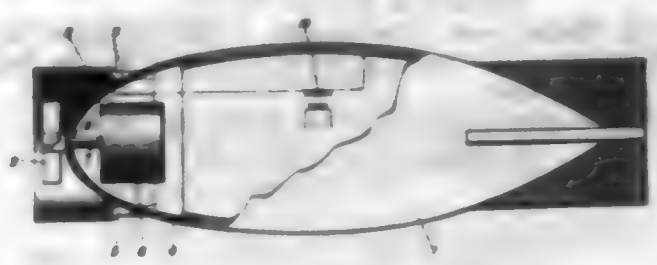
3. A time delay fuze for a hand grenade comprising a body member, a rotor extending within said body member, a firing pin carried by said rotor and radially displaced from the axis of rotation thereof, a lead charge depending from said rotor in coaxial relation with said firing pin, the said firing pin and lead charge normally separated by a portion of said body member extending therebetween, a means to apply torque to said rotor, means to resist said torque whereby the said rotor turns at a predetermined rate, a passage extending through said body, a detonator in said passage, means depending from said rotor normally obstructing said passage and removable therefrom whereby in final ready position of said rotor the said firing pin and the said lead charge respectively register at opposite ends of said passage to form a fire passage to said detonator.

2,872,867

ORDNANCE CONSTRUCTION

Robert D. Huntoon, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application May 31, 1944, Serial No. 538,172
8 Claims. (Cl. 102—70.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



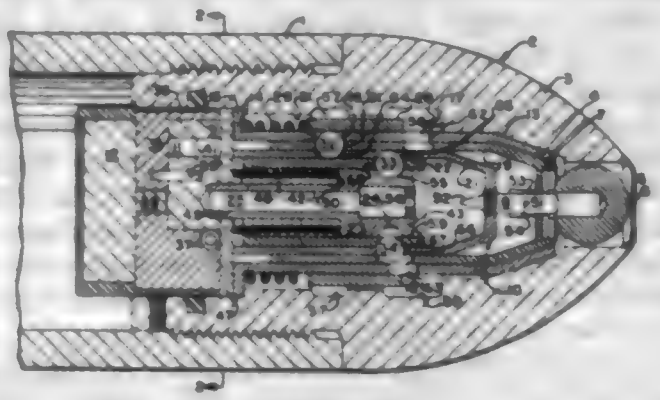
1. A bomb construction comprising a metallic body, an insulating nose portion attached thereto, a tubular metallic shield carried by said nose portion and insulated thereby from the body, a generator in said nose portion, generator driving means including a rotor rotatable in said shield, and exciting means powered by said generator and having output portions connected to said body and to said shield.

2,872,868

MISSILE NOSE FUZE

William J. Donahue, Jr., Takoma Park, Md., and Lawrence E. Burkhardt, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Navy

Application July 11, 1955, Serial No. 521,428
7 Claims. (Cl. 102—78)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A nose fuze for a missile comprising a fuze casing adapted to be secured to the missile; an arming rotor rotatably supported within said casing in an initially safe position and being rotatable to an armed position; a slideable sleeve system axially supported within said casing in an initially telescoped condition for maintaining said arming rotor in a safe position and for allowing rotation of said rotor to an armed position upon expansion thereof, said system including an inner slide sleeve, an inter-

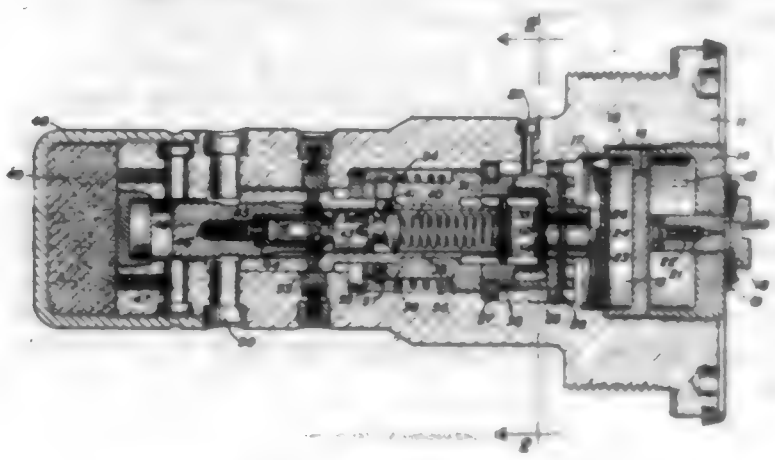
mediate slide sleeve conformingly encircling said inner slide sleeve, an an outer slide sleeve conformingly encircling said intermediate slide sleeve, each of said slide sleeves having a plurality of recesses formed thereon and initially in telescoped relationship with each other, resilient means acting on said slideable sleeve system and tending to expand the telescoped slideable sleeve system, a plurality of detent balls disposed in said recesses for maintaining said system in a telescoped condition until discrete displacement of said detent balls from said recesses, and camming means for displacing said detent balls thereby allowing the expansion of said telescoped system by said resilient means; inertial safety means for locking said system in said initial telescoped condition until the missile is launched; intrusively coacting means for effecting a predetermined metered expansion of said system upon release thereof from said initial telescoped condition; and detonating means for firing said fuze when said arming rotor is in said armed position.

2,872,869

ROCKET BASE FUZE

Volney K. Rasmussen, San Marino, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application May 24, 1948, Serial No. 28,952
6 Claims. (Cl. 102—81)



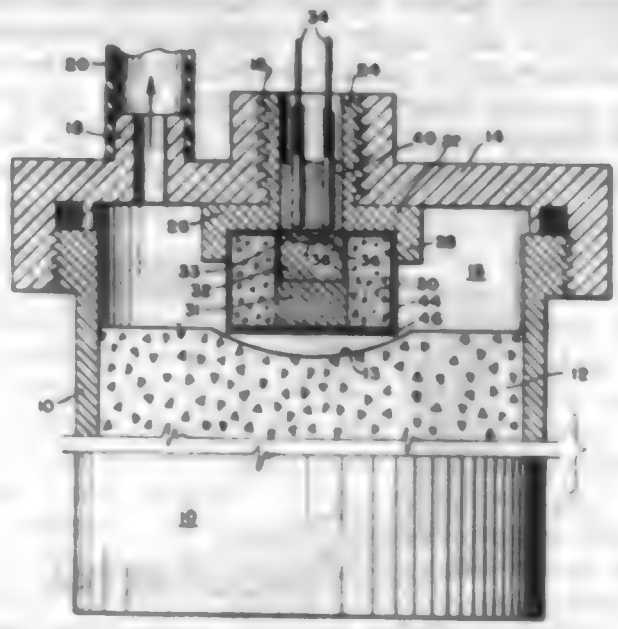
4. In a deceleration discriminating rocket fuze, a fuze body containing a fixed explosive train; a detonator plunger initially held against longitudinal movement and containing a firing pin, a compressed firing pin spring, locking means for the firing pin, and a detonation train initially remote from the fixed explosive train; a trigger block frictionally engaging the detonator plunger and maintaining the locking means in engagement with the firing pin; a trigger spring engaging the block; trigger latch means holding the trigger spring compressed; an arming sleeve; a shear wire fastening the sleeve to the body; a rotor rotatively engaging the sleeve, the plunger and the block; a torsion spring under tension engaging the rotor; a pressure chamber in the body; a flexible permeable diaphragm adjacent one end of the sleeve and forming one wall of the chamber; and an inlet valve in a wall of the chamber connected to a rocket motor; whereby the fuze is armed by propellant gases under pressure entering the chamber through the valve forcing the diaphragm against the sleeve to shear the shear wire thereby freeing the rotor to turn the plunger to radially align the detonation train with the fixed train and to free the plunger for longitudinal movement, the fuze is cocked by rapid deceleration moving the plunger to longitudinally align the detonation train with the fixed train and to release the trigger latch means, and the fuze is detonated at a predetermined reduced deceleration by the trigger spring overcoming the reduced inertia force of the trigger block to move the block to release the firing pin to set off the detonation train to fire the fixed explosive train.

2,872,870

IGNITER SQUIB

William A. Gey, China Lake, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application September 30, 1955, Serial No. 537,907
3 Claims. (Cl. 102—86.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An igniter squib assembly comprising a supporting and housing member of annular configuration having a longitudinally extending hollow cylindrical neck portion, said neck portion terminating in an outwardly directed flange portion having a downwardly turned skirt portion extending in the opposite direction from said neck portion; a cylindrical booster grain of propellant supported within the skirt portion of said housing member and having the inboard end thereof abutting against said flange portion and the opposite free end thereof extending beyond the extent of said skirt portion, said booster grain having a central bore aligned with said hollow cylindrical neck portion, flame inhibiting means placed upon said booster grain about its outer periphery and inboard end and extending substantially into the central bore thereof to limit initial flame production to the outer free end of said bore to better initiate end burning of said booster grain, means for securing said booster grain within said skirt portion, the central bore of said booster grain containing a plurality of compressed black powder pellets in direct contact with each other and which substantially fill said bore, means attached to said free end of the booster grain serving as a closure to retain said black powder pellets in said bore and for protection from deterioration, said closure means being destroyed by burning of the igniter propellants, means for initiating burning of said black powder pellets operable to ignite said booster grain.

2,872,871

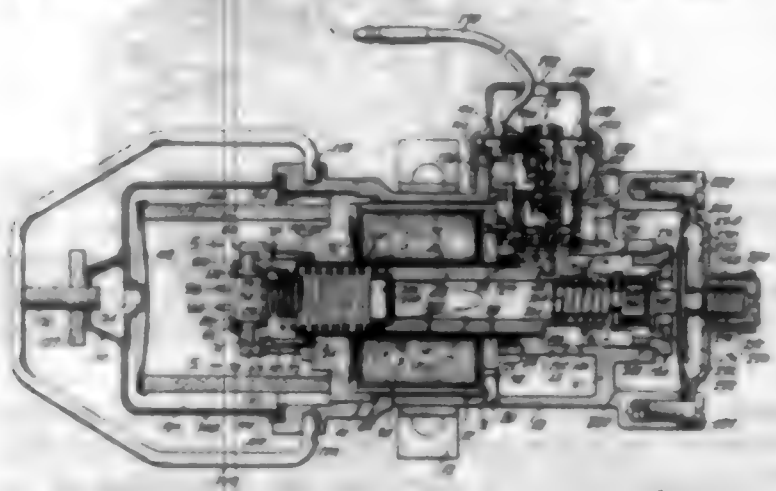
HIGH CAPACITY FUEL PUMP

Arthur C. Allen, Chicago, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia

Application May 10, 1956, Serial No. 584,093
13 Claims. (Cl. 103—37)

1. For supplying fuel to an internal combustion engine carburetor, a high capacity fuel pump comprising, in combination, a reciprocable magnetic plunger, means including one end of said plunger defining a plenum chamber, means including the opposite end of said plunger defining a pumping chamber, means including a fuel intake check valve connected to supply fuel to said pumping chamber, a solenoid operating assembly including two spaced circuit members disposed in adjacent relation to said plunger to urge the latter magnetically toward an overlapping position with respect to both circuit members, a powerful operating spring connected to said

plunger to urge the latter away from said position in a direction for expanding said pumping chamber, said plunger defining a passageway extending therethrough between said pumping chamber and said plenum chamber, a check valve mounted on said plunger to prevent reverse flow of fluid through said passageway toward the pumping chamber end thereof, electric power supply means connected to said solenoid assembly and mounted in association with said plunger to energize the solenoid assembly as an incident to predetermined spring produced movement of the plunger toward said plenum chamber and to deenergize the solenoid assembly as an incident to predetermined magnetically produced movement of



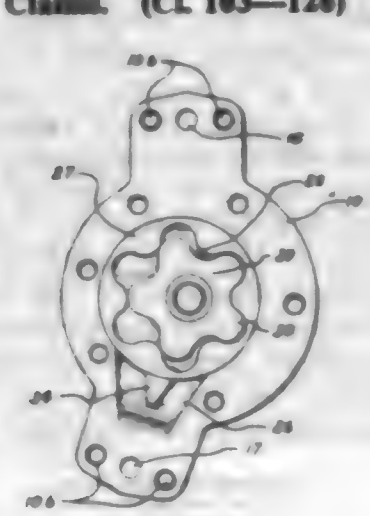
the plunger toward said pumping chamber, means defining a fuel discharge chamber and including yieldable means preconditioned to move reversibly in response to changing fluid pressure withi.. the discharge chamber, a control valve connecting said plenum chamber to said discharge chamber, and means coacting with said control valve and with said yieldable discharge chamber defining means to effect closing of the control valve as an incident to movement of said yieldable means by an increase in pressure within said discharge chamber to a predetermined value and to quickly open the control valve as an incident to movement of said yieldable means in response to a slight decrease in the discharge chamber pressure below said predetermined value.

2,872,873

HYDRAULIC PUMP OR MOTOR

Bartholomew F. Quintilian, Baltimore, Md., assignor to Gerotor May Corporation of Maryland, a corporation of Maryland

Application November 23, 1954, Serial No. 470,696
3 Claims. (Cl. 103—126)



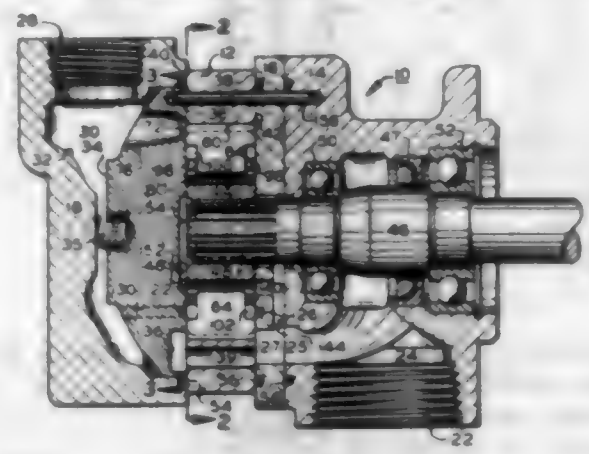
1. A hydraulic pump or motor comprising a cylindrical casing having a central bore; an outer rotor having a plurality of inwardly extending radial teeth disposed within said bore with its peripheral outer surface in sliding contact with the face of said bore; an inner rotor having at least one less peripheral tooth than the outer rotor, said rotors being eccentrically mounted with respect to each other and with the teeth of one in constant sealing contact with the teeth of the other to provide, together with the end walls of said bore, a series of sealed compartments of continuously varying dimensions constituting pumping chambers; and intake and exhaust passages within said casing communicating with said series of sealed compartments on diametrically opposite sides of said cylindrical casing and in wide arcuate segment, said intake passage being formed in part by interrupting the arcuate segment of the same to break communication between said passage and said outer rotor through a portion of the wide arcuate segment of the same and provides space for foreign particles appearing in the fluid being pumped.

2,872,873

POWER TRANSMISSION

Duncan B. Gardiner, Detroit, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan

Application November 1, 1954, Serial No. 465,940
3 Claims. (Cl. 103—136)



1. A fluid energy translating device comprising a stator including a vane track, a rotor rotatably mounted within the track, a plurality of vanes, each being substantially T-shape in cross section, slidably mounted in the rotor, each vane having a track engaging surface and the intervane spaces adjacent the track undergoing during a cycle of the device alternate expansion and contraction phases as the rotor turns, fluid passages in the stator for conducting fluid to and from the intervane spaces, one of which is a low pressure passage and the other a high pressure passage, means forming a plurality of pressure chambers for each vane, each vane having a surface in each of its associated pressure chambers effective under pressure to urge the vanes in contact with the track, means for transmitting the cyclically changing intervane pressure to one of the chambers of each vane, passage means for connecting the high pressure passage to the other chambers of each vane on the intervane space expansion phase of the device, and means forming a restricted flow path from the other chambers of each vane on the intervane space contraction phase of the device.

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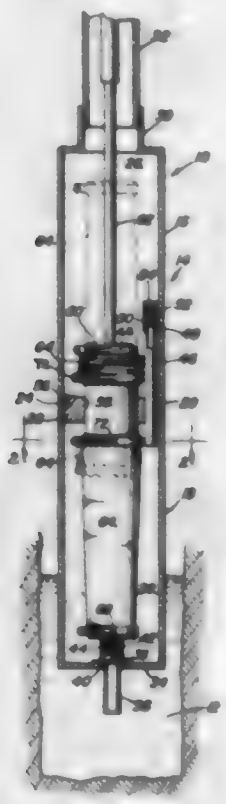
PISTON PUMP

Frank Richard Small, Bartlesville, Okla.

Application August 23, 1955, Serial No. 529,997
1 Claim. (Cl. 103—148)

A pump construction for pumping fluids containing suspended abrasives comprising an elongated hollow body member including spaced lower and upper chambers, said lower chamber being sealed from said upper chamber, fluid inlet and outlet means communicating with said lower chamber, said fluid inlet and outlet means including oppositely acting pressure responsive valves respectively controlling fluid flow through said lower chamber, said outlet means communicating with said upper chamber for conducting pressurized fluid thereto,

a fluid conduit communicating with said upper chamber for conducting the fluid therefrom, a transverse partition member extending between said chambers, a piston support sleeve extending longitudinally between said chambers in sealed relationship through said partition member, an elongated piston reciprocably supported coaxially in said sleeve and including an effective displacement portion reciprocable in said lower chamber for alternately overcoming the valve means and raising fluid through said inlet means into the lower chamber and urging the same out of said outlet means into the upper chamber, means connected to said piston for reciprocating the same, a first elongated longitudinally collapsible sleeve circumposed about the portion of said



piston in said upper chamber and sealingly secured to the upper ends of said piston and support sleeve, and a second longitudinally collapsible sleeve circumposed about the portion of said piston in said lower chamber and sealingly secured to the lower ends of said piston and said sleeve, said sleeves being alternately collapsed into an "accordion-like" fashion during alternate intake and exhaust strokes of said piston, said piston having a length greater than the overall length of either of said chambers, the length of stroke of said piston being substantially equal to the length of one of said collapsible sleeves, and clamp means sealingly securing the ends of the collapsible sleeves to the adjacent ends of said support sleeve and piston in the respective lower and upper chamber.

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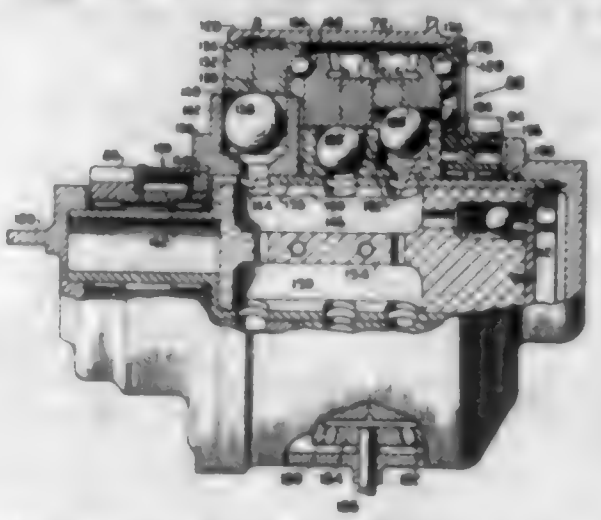
HYDRAULIC POWER UNITS

Joseph M. Mergen, Verona, and Robert K. Tiedeman, Packanack Lake, N. J., assignors to Curtiss-Wright Corporation, a corporation of Delaware

Original application June 24, 1948, Serial No. 34,984, now Patent No. 2,699,220, dated January 11, 1955. Divided and this application June 3, 1954, Serial No. 434,272

2 Claims. (Cl. 103—161)

1. A unidirectionally driven hydraulic pump comprising a non-rotating shaft having pairs of alternatively arranged conduits in the surface thereof, a member journalled on said shaft, means to rotate said member, said member having tandem rows of radial cylinders formed therein, there being a plurality of cylinders in each row, said member including a passage from each cylinder to the member bore where it is journalled on the shaft to connect the corresponding cylinder to one or another of said shaft conduits according to the rotational position of said member on said shaft, a piston slidable in each cylinder, substantially annular members each having a substantially elliptical internal cam track, one such member embracing each row of cylinders and engaged with the pistons thereof, movable means connected to said annular members operable to adjust them simultaneously and in opposite directions, said movable



means being operable to adjust the major axes of the ellipses of said cam tracks between parallelism for full pumping action in one direction and parallelism on a plane 90° from the first plane of parallelism for full pumping action in the opposite direction; said cam tracks being adjustable to right angled relation of the major axes of their ellipses for zero net flow of the pump but for interflow of working fluid between the cylinders of the two rows.

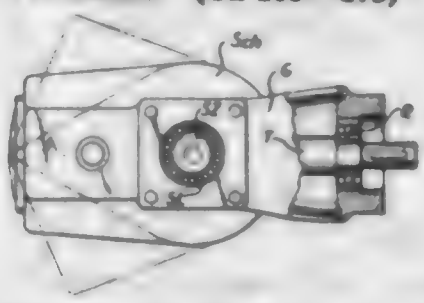
2,872,876

HYDROSTATIC TRANSMISSION

Hans Thoma, Baisthal, Switzerland

Application March 21, 1955, Serial No. 495,727

6 Claims. (Cl. 103—173)



1. In a hydrostatic transmission; a swash plate pump including a swash plate fixed to one end of a drive shaft extending freely from said swash plate, covering means including a swivel housing enclosing in its interior all of said pump except an elongated portion of said drive shaft, a pair of opposed, coaxial swivel bearing means operatively connected to said housing and providing therefor a swivel axis normal to the axis of said drive shaft, an outer radial bearing operatively connected to said elongated portion of said drive shaft beyond said swivel housing, a one-piece substantially rigid member connecting said radial bearing to said pair of swivel bearing means solely forming a direct support for said radial bearing and said pair of swivel bearing means, and means for connecting said one-piece member with said covering means.

2,872,877

FUEL PUMP

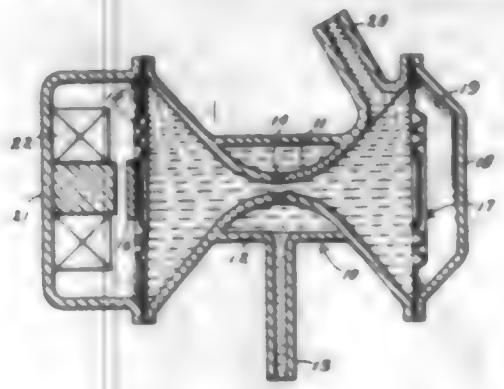
Richard D. Brewer, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application January 6, 1955, Serial No. 480,211

3 Claims. (Cl. 103—258)

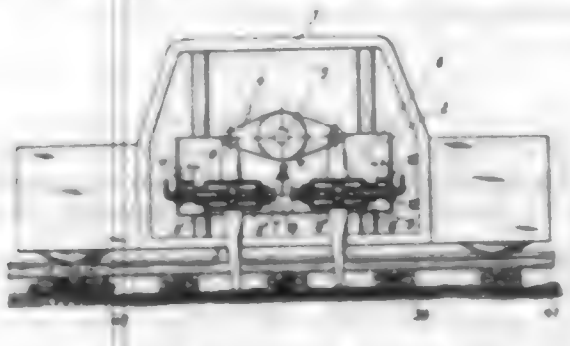
1. A fluid pump comprising a stationary venturi, closure means for the ends of said venturi, said venturi and

closure means forming a chamber adapted to be filled with fluid, an intake conduit, a connection between the intake conduit and the throat of the venturi, a discharge conduit, a connection between the discharge conduit and the venturi at a location remote from the throat and



fluid displacement means having a fluid connection with said venturi for causing an oscillating flow of fluid through the throat of the venturi when said chamber is filled with fluid whereby a pressure differential is generated between said intake and discharge conduits.

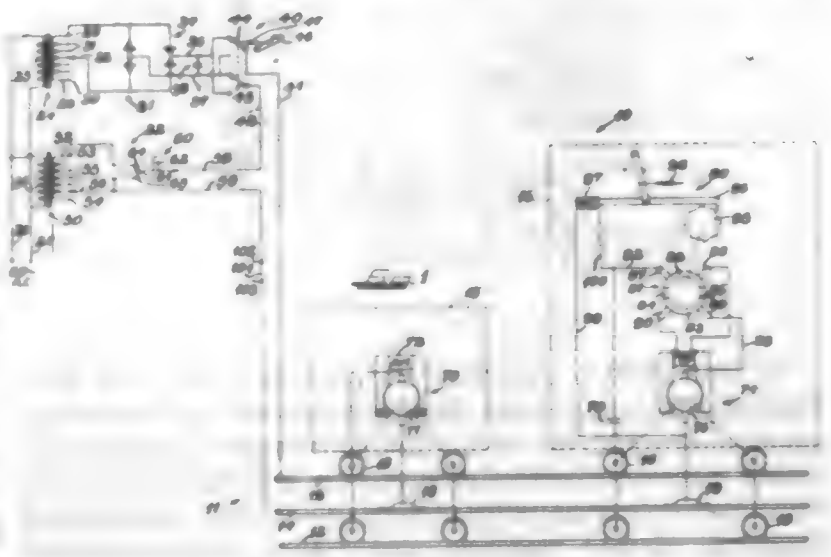
2,872,878
TRACK TAMPING MACHINE
Franz Plasser and Josef Theurer, Vienna, Austria
Application December 18, 1956, Serial No. 629,183
Claims priority, application Austria December 23, 1955
3 Claims. (Cl. 104—12)



1. In a track tamping machine which comprises pairs of tamping tools carried by a vertically adjustable carrier and linked to respective elements which may be moved in the direction of the track to vary the mutual distance of the tools of each pair, whereby the tools may be moved from an open position into a closed position to tamp ballast therebetween and under a tie positioned between the tools: adjustable stop means arranged to move from inoperative position permitting a greater width of opening between the tamping tools into an operative position adjacent each movable element to limit the outward movement of the tamping tools according to the width of the tie to be tamped, mechanical means for the selective adjustment of the adjustable stop means, means for controlling the maximal pressure applied against the tamping tool moving elements in said closed position, and means operatively connecting the mechanical means and the pressure control means for adjusting the maximal pressure control means in response to the adjustment of the stop means, the maximal pressure upon said tamping tool moving elements being increased when the stop means is in the inoperative position.

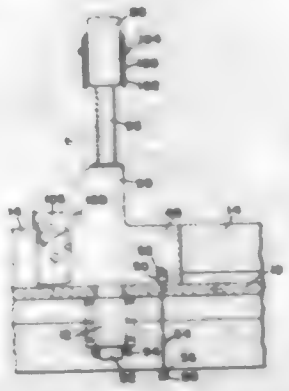
2,872,879
MODEL RAILWAY SYSTEM
Robert L. Vierling, Chicago, Ill.
Application May 10, 1954, Serial No. 428,412
2 Claims. (Cl. 104—149)

1. In a model railroad system, the combination comprising rail means including a pair of conductor rails, a first locomotive movable along said rail means and having reversible traction motor means connected to said rails and operable by direct current only for propelling said locomotive, a second locomotive movable along said rail means and having second traction motor means connected to said rails and operable by alternating current only for propelling said second locomotive, said second locomotive also including a capacitor connected in series with said second motor means to block direct current therefrom, said second locomotive also having means connected to said rails and operable by de-energization and subsequent re-energization of said rails with alternating current to reverse the direction of operation of said second motor means, direct current supply means and



alternating current supply means connected in series across said rails, a capacitor shunted across said direct current supply means for bypassing alternating current, said direct current supply means including a reversing switch for reversing the polarity of the direct current output thereof and thereby reversing the direction of travel of said first locomotive, said alternating current supply means including interrupting switch means for controlling the direction of operation of said second locomotive, said alternating current supply means including means for maintaining conductive continuity thereacross and thereby bypassing direct current therearound when said interrupting switch means is operated.

2,872,883
FLAT DECK CONVEYANCES
Charles L. Madden, Minneapolis, Minn.
Application July 27, 1953, Serial No. 370,329
4 Claims. (Cl. 105—368)



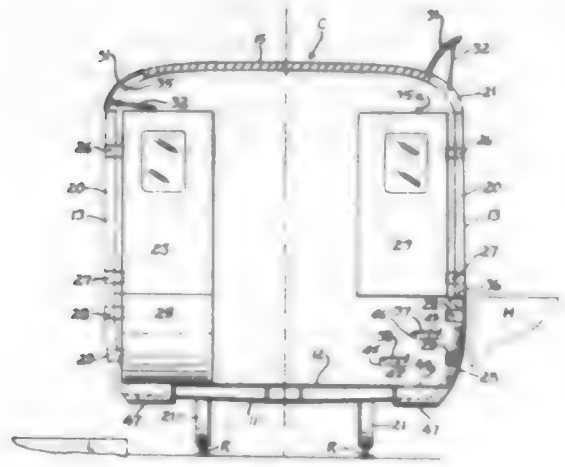
3. In combination with a carrier vehicle having a load supporting floor for transporting at least one wheeled vehicle, a wheeled vehicle, stake pockets positioned along the sides of the carrier vehicle, jacks removably secured in selected stake pockets of the carrier vehicle and assisting in supporting said wheeled vehicle during transit, hold down cables attached to the jacks and to the wheeled vehicle whereby the cables are tightened upon the raising of the jacks to support the wheeled vehicle.

2,872,881

ENTRANCE FOR RAILWAY PASSENGER CARS

John R. Furrer, Buffalo, N. Y., assignor to A. C. F. Industries, Incorporated, New York, N. Y., a corporation of New Jersey

Application June 9, 1954, Serial No. 435,593
5 Claims. (Cl. 105—443)



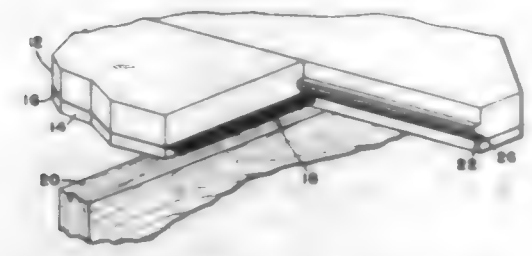
5. In a railway passenger car having a low level floor beneath the tops of the supporting wheels, side walls, a roof joining the side walls, and a passenger loading vestibule, the improvement comprising said side walls and roof being formed with aligned openings constituting a doorway of said vestibule, and a three part door comprising an upper roof conforming section, intermediate and lower side wall conforming sections for closing the opening and each of said sections being hingedly mounted on the car for independent swinging movement to an open position, said intermediate and lower sections swinging inwardly, a step tread formed on the lower section adjacent the top edge thereof, and other step treads hingedly carried by the car and swingable into operative position blocking swinging movement of the lower section, said step treads forming a stairway leading to the low level floor and giving access to said vestibule over the top of the lower section when the intermediate and roof conforming sections are open.

2,872,882

VAPOR RESISTING ROOF STRUCTURE

Robert E. Paul, Minneapolis, Minn., assignor to Minnesota and Ontario Paper Company, Minneapolis, Minn.

Application May 13, 1954, Serial No. 429,561
2 Claims. (Cl. 108—6)



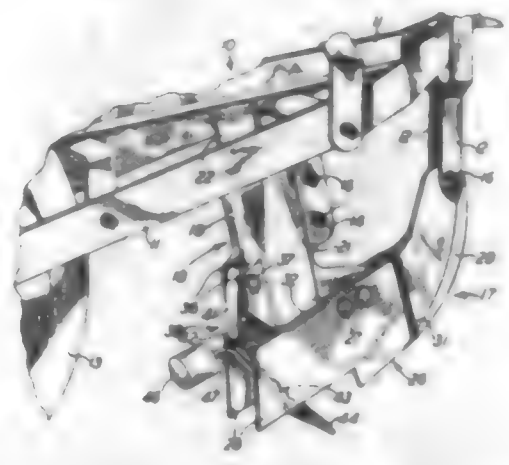
1. The roof deck assembly comprising the combination of exposed beams and a series of substantially rectangular insulating units secured thereto, each unit comprising a series of laminated fiberboard with a face board providing a finish ceiling surface, a vapor barrier membrane interposed between two layers of the fiberboard, said membrane having free-ends extending beyond the end edges and contacting the ends of spaced adjacent units and an elastic vapor barrier material positioned in a groove in the longitudinal edge of each unit and contacting the vapor barrier in adjacent units in the roof deck assembly.

2,872,883

PLANTER RUNNER GUARD

John R. Padrick, Anniston, Ala., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin

Application April 20, 1954, Serial No. 424,331
2 Claims. (Cl. 111—86)



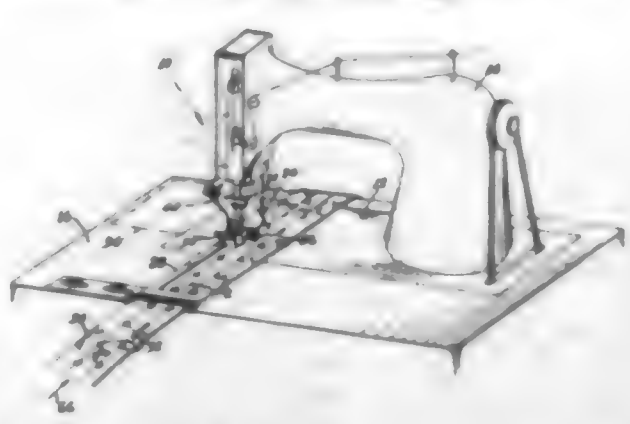
1. A planter having a body, a pair of spaced vertically-positioned plates mounted thereon, and a seed discharge means extending intermediate said plates and having a downwardly directed opening, in combination, a guard pivotally mounted on said body and depending intermediate said plates, a counterweight secured to said guard in a manner so as to urge the latter forwardly intermediate said plates to a position directly under and blocking said opening, said guard projecting downwardly below said plates so as to engage the soil and urge said guard rearwardly to uncover said opening when said planter is transported forwardly.

2,872,884

SEWING MACHINE ATTACHMENT

George Peck, Elizabeth, N. J., assignor, by mesne assignments, to Scovill Manufacturing Company, Waterbury, Conn.

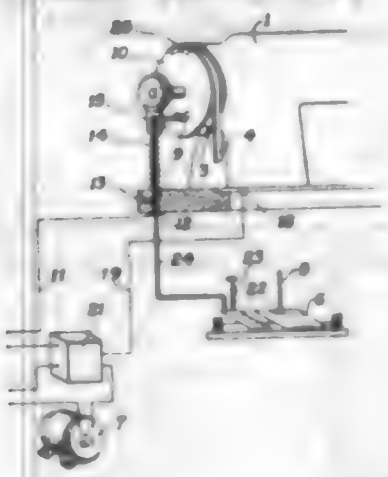
Application March 22, 1956, Serial No. 573,162
3 Claims. (Cl. 112—2)



1. In a sewing machine having a stationary head including a vertically reciprocable needle holder, a needle, a work support and a presser foot, an attachment for operation with said needle holder to engage and remove from the needle path needle-impervious elements positioned in the path of movement of the needle, said attachment comprising, a vertically extending lever disposed in front of said needle and pivotally connected to said head at its upper end for movement relative thereto in a vertical plane parallel to the line of feed, a finger carried at the lower end of said lever and extending rearwardly therefrom toward said presser foot and disposed adjacent the path of movement of said needle, means biasing said finger toward said presser foot so as to dispose it above the work support in a retracted position, said lever having a part disposed in the path of said needle holder and engageable by the latter during the vertical movement of the needle for pivoting said finger from said retracted position toward the front of the machine during which movement said finger is adapted

to engage and dislodge from the needle path a needle-impervious element disposed by the work in the needle path.

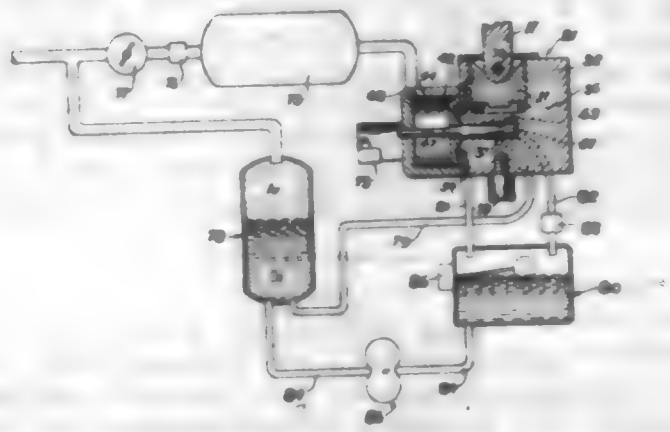
2,872,885
ELECTRIC SEWING MACHINES
Max Schwab, Schwetzingen, Baden, Germany; Olga Brunhilde Schwab, nee Bonner, sole devisee of said Max Schwab, deceased
Application October 2, 1953, Serial No. 383,837
Claims priority, application Germany February 6, 1953
6 Claims. (Cl. 112—219)



4. In an electric power source for a sewing machine which enables the operator to stop the sewing machine with the needle bar in one of two preelective positions, the said power source comprising a main drive and a slow auxiliary drive as well as electric circuit means including a cut-out for the main drive causing the auxiliary drive to rotate the sewing machine, the improvement comprising as part of said electric circuit means one rotary electric conductor attached to the main shaft of the sewing machine, one fixed electric conductor mounted in operative contact with the said rotary conductor, two dielectric inlays angularly offset against each other in one of said conductors, and pedal operated means for shifting the contact path of the other of said conductors from passing over one of said dielectric inlays to passing over the other of said dielectric inlays, and said rotary conductor including a conductor disk fastened to the main shaft of the sewing machine, the said conductor disk having a first of said dielectric inlays at a predetermined distance from the center of rotation and a second of said dielectric inlays at a greater distance from the center of rotation and angularly offset against said first dielectric inlay, and said fixed conductor including a brush holder fixedly mounted adjacent to said conductor disk, a brush fitted movably into the said brush holder, said shifting means comprising a spring held pedal with connecting means for shifting said brush from a position in which it will contact the first of said dielectric inlays upon rotation of said conductor disk into a position in which it will contact said second of said dielectric inlays upon rotation of said conductor disk, and a circuit passing current actuating said auxiliary drive from said brush through said conductor disk until the dielectric inlay which is in alignment with said brush attains an angular position whereby said circuit is interrupted.

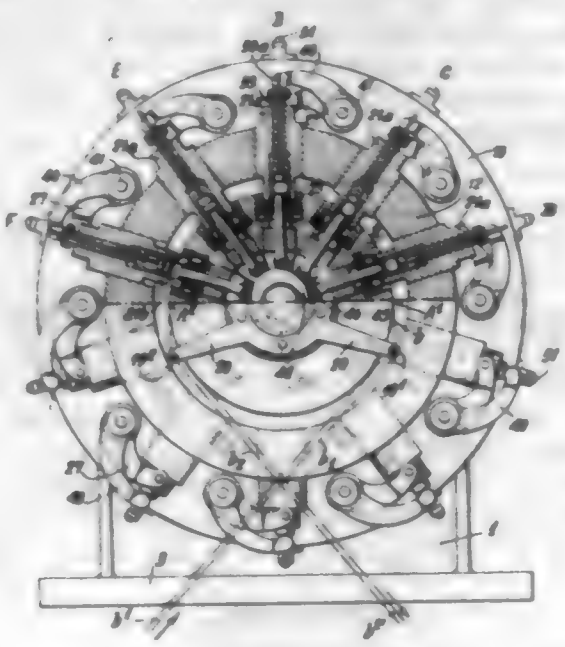
2,872,886
PRESS APPARATUS
William F. Longfield, Warren, Ohio, assignor to The Federal Machine and Welder Company, Warren, Ohio, a corporation of Ohio
Application September 16, 1954, Serial No. 456,426
2 Claims. (Cl. 113—38)

1. In a double action press, the combination of a press frame supporting a fixed part of a draw die, a blankholder slidably carried by said frame for reciprocation toward and away from said fixed die part, said blankholder being operable to clamp a work blank between it and said fixed die part during drawing operations of said press, a first liquid cylinder fixedly carried by said blankholder, drive means including a mechanical member for reciprocating said blankholder and carrying a first piston working in said cylinder for displacing fluid therefrom by movement of said piston relative to said cylinder when said blankholder exceeds predetermined pressure engagement with the work blank on said fixed die part, a second liquid cylinder in communication with said first cylinder for receiving fluid displaced from said first cylinder, a second piston within said second cylinder and



moved therein by fluid displaced from said first cylinder, a third piston rigidly connected to said second piston and movable therewith, said third piston working in an air cylinder, an air storage tank, valve means for controlling delivery of air under pressure to said air storage tank, a conduit for delivering air from said air storage tank to said air cylinder, the volume of said air storage tank being considerably larger than the volume of said air cylinder whereby movement of said third piston in said air cylinder does not appreciably vary the pressure of air in said air storage tank, and control means operated when said third piston has moved a predetermined amount to stop operation of said drive means.

2,872,887
ROTARY PRESS COMPRISING A PLURALITY OF TOOL GROUPS
Joseph Praturlon, Asnieres, France
Application March 2, 1954, Serial No. 413,663
Claims priority, application France March 6, 1953
3 Claims. (Cl. 113—42)



1. Apparatus for punching and stamping articles from strip material, comprising a frame, a support journaled on a stationary shaft mounted on said frame and having radially spaced inner and outer rims of different diameters defining annular slot therebetween, said rims being located concentrically one within the other in the same plane perpendicular to the shaft, said inner rim having a

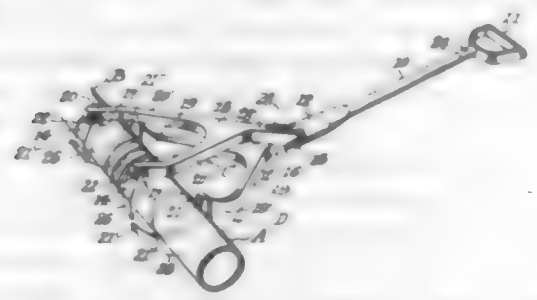
circular periphery concentric with the axis of rotation of said support and forming an anvil, means for rotating said support, a plurality of cooperative pairs of unlike tool means disposed radially on said support and including radially movable tool elements cooperatively supported by both the inner and outer rims respectively, means for actuating said cooperative tool elements in predetermined cooperative relation in successive stages as said support is rotated, and guide means on said frame in fixed relation to said support and extending into said slot and having inclined surfaces for guiding strip material from one side of said support into and from said slot and in concentric engagement with a predetermined portion of the anvil forming periphery of said inner rim and between said cooperative tool elements, whereby said support may be continuously rotated with the strip material continuously fed over the operative anvil portion of said inner rim periphery and said tool means are successively operated to punch and press articles from the strip.

2,872,825

PIPE ALIGNING TOOL

George W. Kearney, Arlington, Va.

Application January 5, 1956, Serial No. 557,615
2 Claims. (Cl. 113—102)
(Granted under Title 35, U. S. Code (1952), sec. 266)



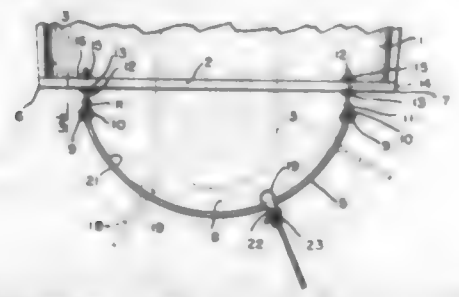
1. In a hand tool for aligning and supporting sections of pipe to be interconnected, a fulcrum member comprising a plurality of planar members having upper and lower edges, aligned pipe receiving recesses in said upper edges, said lower edges being arcuately shaped at one end thereof and intersecting each of said recesses at one side thereof to provide wedge-like tips and curved fulcrum surfaces, the other side of each of said recesses intersecting its respective upper edge to form abutment stops for restraining the pipe sections in the recesses, an elongated lever member connected to said fulcrum member, and a complemental pipe engaging and retaining member pivotally connected to the end of said fulcrum member opposite the arcuately shaped ends of said planar members.

2,872,889

WATER SKI TOW DEVICE

Charles T. Johnson, Saginaw, Minn.

Application August 26, 1954, Serial No. 452,306
7 Claims. (Cl. 114—235)



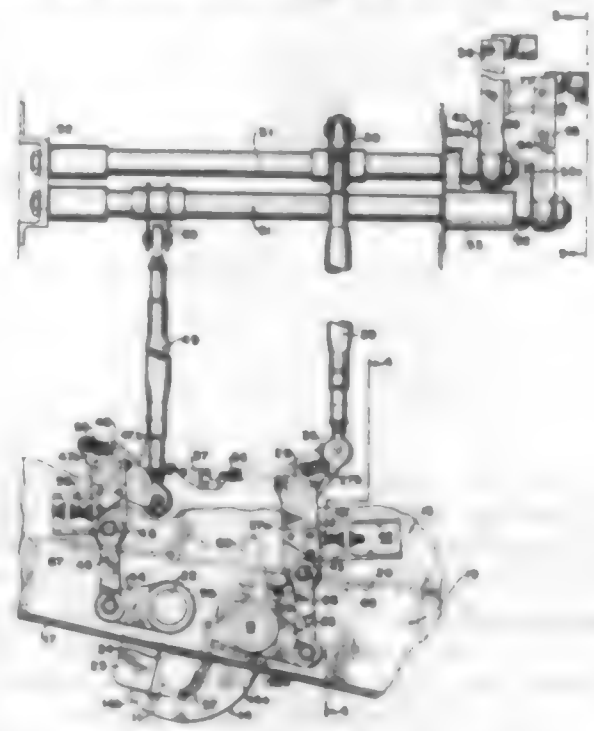
2. In combination with a boat transom, means for towing water skiers and the like comprising: a pair of hook members secured to said transom near opposite lateral edges thereof, an arcuate tow bar having an eye formed at each end thereof, one of said eyes being pivotally mounted on each of said hooks, means to retain said eyes in said hooks, and a pulley carried on said tow bar between said eyes to ride on said bar, and means on said pulley to receive one end of a tow rope.

2,872,890

TOWING HOOK FOR SEAPLANES

Thaddeus M. Kurek, Idlewylde, and Robert G. Popp, Rosedale, Md., and Daniel C. Jones, Cuyahoga Falls, Ohio, assignors to The Martin Company, a corporation of Maryland

Application January 31, 1956, Serial No. 571,120
8 Claims. (Cl. 114—235)
(Filed under Rule 47(a) and 35 U. S. C. 116)



1. A towing hook mechanism for a seaplane or the like comprising a hook pivotally mounted on the hull of the plane and movable forwardly into an operative position in which the lower portion of the hook extends forwardly below the hull, a latch pivotally mounted on the hull and movable rearwardly into an operative position closing off the opening into the hook, independently-operable actuating linkages for said hook and latch, said linkages being movable through dead-center positions to move the hook and latch into operative positions, stop means engaging the linkages upon their moving through their respective dead-center positions, and over-center spring means operative when the linkages move to dead-center positions to urge them against their respective stop means, said springs also being operative to urge the hook and latch into a retracted position upon the linkages being drawn through their dead-center positions in a direction away from their respective stop means.

2,872,891

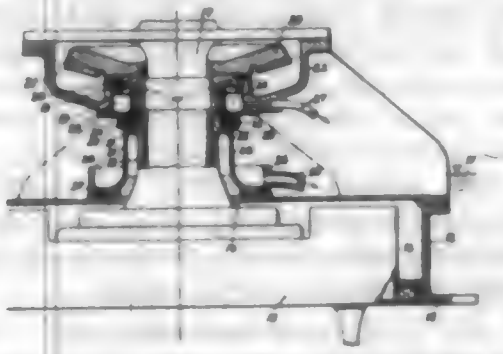
SEALING MEANS FOR THE DRIVING SHAFT OF CYCLOIDAL BOAT PROPELLERS

Gunther Franz, Heidenheim (Brenz), Germany, assignor to J. M. Voith G. m. b. H., Maschinenfabrik, Heidenheim (Brenz), Germany, a corporation of Germany

Application May 23, 1955, Serial No. 510,328
In Germany October 1, 1948
Public Law 619, August 23, 1954
Patent expires October 1, 1968
11 Claims. (Cl. 115—50)

1. In a vessel driven by cycloidal propellers being positioned at a low depth relative to the waterline and having a driving shaft disposed substantially vertically relative to the waterline, an impeller, an impeller housing, and an oil-filled bevel gear transmission case; in combination first sealing means for said driving shaft comprising an integral elongated collar having an upper open end, said collar projecting above the waterline and surrounding said driving shaft so as to form a

free chamber between the latter and said collar, and a narrow gap between the shaft and said upper open collar end, said collar being stationary with its lower end mounted on said housing, below the waterline when the vessel is in horizontal position; a downwardly opening cup-shaped member covering the upper end of said stationary sealing collar; and second sealing means for



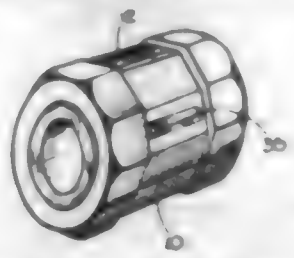
said transmission case, said sealing means being provided with an oil-collecting groove having an outlet and surrounding the upper end of said driving shaft so as to form a gap therewith; said second sealing means being arranged separately and spacedly from said first sealing means, said oil-collecting groove being arranged spaced from the upper end of said collar, said groove being separated from said collar by said cup-shaped member.

2,872,872

COUNTING DEVICES FOR USE WITH KNITTING NEEDLES

Norman Thomas Sanders, Mappleborough Green, Studley, England, assignor to Needle Industries Limited, Birmingham, England, a British company

Application January 21, 1958, Serial No. 710,330
7 Claims. (Cl. 116—133)



1. In a counting device for use in association with a knitting needle compriting an inner sleeve having an axially extending bore, numerals circumferentially spaced around the outer surface of said inner sleeve and retaining means associated with said bore for locating said device axially on a knitting needle inserted into the bore; the provision in combination of an elastically deformable outer sleeve rotatably mounted on said inner sleeve and having a viewing aperture adapted to expose said numerals and means on the inner sleeve co-operating with the outer sleeve to deform said outer sleeve to a diameter which is different from its natural unrestrained diameter, the relative dispositions of at least a part of one of the two circumferential surfaces of the deformable outer sleeve and an adjacent part of the inner sleeve being such as to provide frictional engagement between them so that the two sleeves are yieldably retained against inadvertent relative rotation.

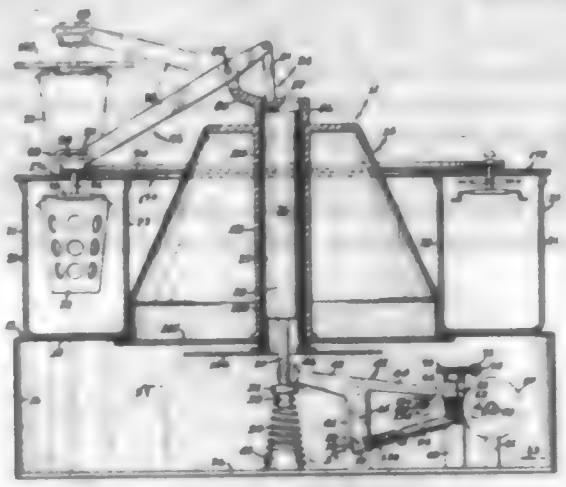
2,872,893

AUTOMATIC IMMERSION APPARATUS

Nelson G. Kling, Roslyn, N. Y., assignor to Technicon International Ltd., New York, N. Y., a corporation of New York

Application December 9, 1954, Serial No. 474,138
36 Claims. (Cl. 118—10)

1. In automatic immersion apparatus having a conveyor movable up and down and laterally for moving a material holder into and out of a plurality of receptacles arranged laterally of each other, said conveyor having a downwardly extending portion, means operatively connected to a lower part of said downwardly extending portion of said conveyor for vertically moving said conveyor so that said material holder moves out of and into said receptacles, and means for moving said



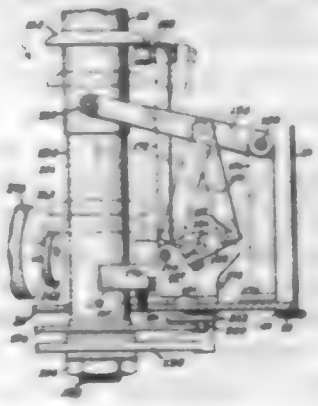
conveyor laterally so that said material holder moves from a position over one receptacle to a position over another receptacle, said last mentioned means comprising a Geneva gear operatively connected to a lower part of said downwardly extending portion of said conveyor.

2,872,894

AUTOMATIC IMMERSION APPARATUS

Jack Ireeli, Tuckahoe, N. Y., assignor to Technicon International, Ltd., New York, N. Y., a corporation of New York

Application December 9, 1954, Serial No. 474,210
94 Claims. (Cl. 118—10)



1. In automatic immersion apparatus having conveyor means for moving a material holder into and out of each of a plurality of receptacles; means for raising and lowering said conveyor to raise and lower said holder for moving it out of one receptacle and into another, means for intermittently moving the conveyor horizontally for moving the raised material holder from a position over one receptacle to a position over another receptacle so that it may be lowered into the latter releasable means operatively connectable with said conveyor for retaining the latter temporarily in its raised position for maintaining the holder temporarily above the receptacle from which the holder is widthdrawn to permit draining of entrained liquid in such receptacle before the holder is moved to the next receptacle, and means operable in timed relation to the means for moving the conveyor horizontally for operatively connecting said conveyor-retaining means to and disconnecting it from said conveyor.

2,872,895

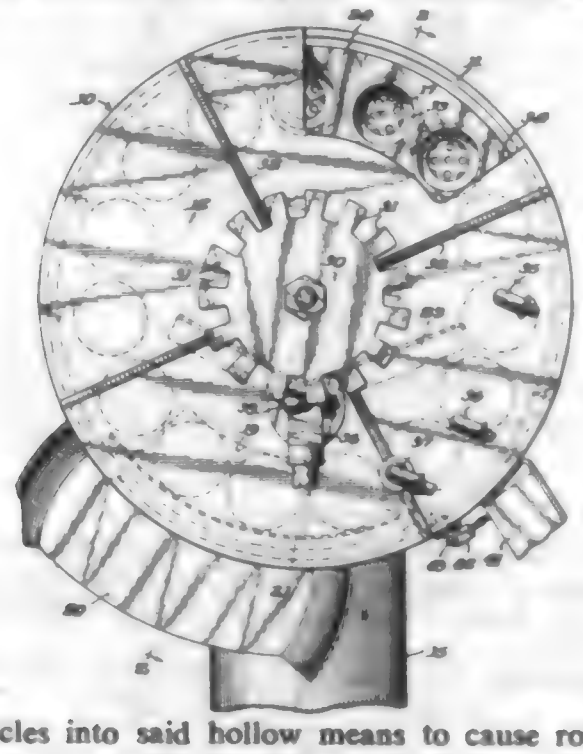
PARTS WASHER

William D. Carrie, Lisle, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois

Application December 12, 1955, Serial No. 552,516
4 Claims. (Cl. 118—73)

1. A device for interior cleaning of tubular articles, comprising a casing defined by top and bottom plates

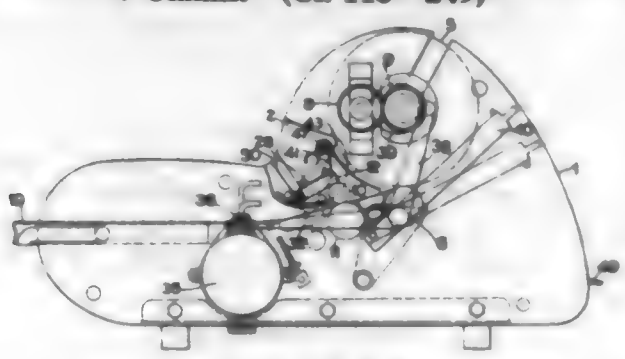
and an enclosing wall, a hollow support for the casing secured to the bottom plate, a drain aperture in the bottom plate placing the casing in communication with said support, an inclined disk mounted in the casing for rotation about an inclined axis, a perforated support plate secured in the casing below and parallel to said disk, a plurality of spaced apertures in the disk arranged circularly about the center thereof, hollow means mounted in each of said disk apertures extending between the disk and support plate dimensioned to receive an article therethrough for support by the support plate, an article insertion opening in the casing top plate at a location over an elevated portion of the disk for insertion



of articles into said hollow means to cause rotation of the disk by gravity for movement of the article in an inclined arcuate path over the support plate to a lower position, an aperture in the support plate in said path and underlying a lower portion of the disk, an article discharge opening in the bottom plate underlying said support plate aperture, a plurality of fluid inlet means opening through the casing top plate into the casing above the disk disposed along an arc registering with said path and including at least one injecting inlet means for admitting fluid under considerable pressure into the casing, means for controlling operation of said injecting inlet means, and cam means rotatable with the disk engaging said control means for actuation thereof.

2,872,896
LIQUID SUPPLYING MEANS FOR HECTOGRAPHIC COPYING MACHINES

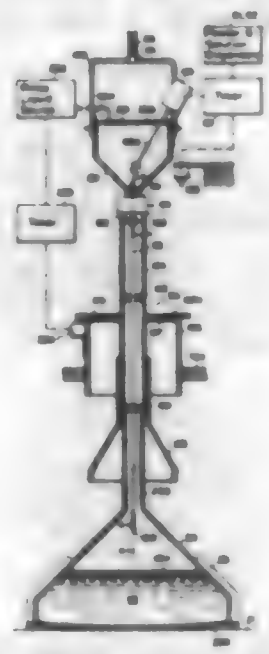
Roland Brown, London, England, assignor to Block & Anderson Limited, London, England, a British company
Application March 1, 1954, Serial No. 413,327
7 Claims. (Cl. 118—249)



1. In a rotary hectographic copying machine of the kind wherein copies are taken from a master sheet having a mirroscript image formed in spirit-soluble transfer material wrapped round a printing drum, the combination with said drum of a pair of copy sheet feed rollers positioned before the printing drum, the upper one of the said pair being a moistening roller, moistening means comprising an upwardly inclined capillary pad adapted to contact the said moistening roller, a holder for the capillary pad, a perforated supply conduit for moistening liquid connected to said pad holder, an inlet at one end of said conduit, outlet means movably mounted at the other end of said conduit and shaped to permit overflow of excess moistening fluid when the capillary pad is in contact with the moistening roller, an obturating pad normally out of contact with the said outlet means, said capillary pad holder and conduit being pivotable about an axis parallel to the drum axis and having a normal position and a priming position, said priming position being achieved by pivotal movement of said capillary pad holder and conduit to remove the capillary pad from contact with the moistening roller and into contact with the obturating pad whereby discharge of fluid from said outlet means is checked or prevented.

2,872,897
CATHODE-RAY TUBE MANUFACTURING APPARATUS

Jerome J. O'Callaghan, Skokie, Ill., assignor to The Rauland Corporation, a corporation of Illinois
Application September 17, 1956, Serial No. 610,099
6 Claims. (Cl. 118—317)



1. Apparatus for dispensing a substance into a cathode-ray tube bulb supported with its neck portion uppermost comprising: a vertically disposed conduit, including at least a portion of non-magnetic material, for conveying said substance; means for moving said conduit between a lower position and an upper position to project and withdraw the lower end thereof into and out of said bulb through said neck portion; valve means, including a valve stem of ferro-magnetic material, movable upwardly and downwardly relative to said conduit to open and close said valve means, disposed in said non-magnetic portion of said conduit; a magnet slidably mounted on the outside of said conduit adjacent said valve stem; means for limiting movement of said magnet in one direction relative to said conduit to a position at which the magnet holds said valve-means closed; and means engageable with said magnet as said conduit is moved from said upper position toward said lower position for moving said magnet in the opposite direction relative to said conduit thereby opening said valve means.

2,872,898
POULTRY DRINKING FOUNTAIN

Virgil R. Du Mond, Nixon, Tex.
Application June 13, 1957, Serial No. 665,552
7 Claims. (Cl. 119—74)

1. In a poultry drinking fountain, a base, a plurality of trays tiltably supported by said base, and means for supplying a quantity of fluid to said trays, whereby when

a predetermined quantity of fluid is received in the trays, the trays will tilt and dump the contents therefrom into the base, said base including a bottom wall and spaced parallel vertically disposed end walls, and an inverted V-shaped body member extending between said end walls



and secured thereto, said trays positioned below said body member, and an anti-roosting member rotatably supported by the upper portions of said end walls, the means for supplying said fluid to said trays comprising a water supply line mounted in one of said end walls and extended over said V-shaped body member.

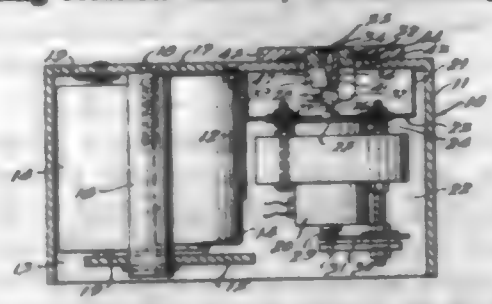
2,872,839
WRITING INSTRUMENT
Basilio Trespalacios, Mexico City, Mexico
Application December 2, 1957, Serial No. 700,089
1 Claim. (Cl. 120—45.6)



In a writing instrument, a tubular barrel provided with a fluid holding reservoir therein, a shoulder in said barrel provided with a central aperture for the passage therethrough of fluid from said reservoir, an internally threaded neck projecting from an end of said barrel, a support member including a first cylindrical portion arranged in threaded engagement with said neck, said support member further including a second threaded portion of greater diameter than said first portion, there being a central bore in said body member and said bore communicating with said aperture, said support member further including a third portion terminating in a pointed tip, there being a plurality of spaced parallel channels in said third portion and said channels defining therebetween spaced parallel ribs, the third portion of said support member being provided with a plurality of spaced apart slots, and a body member having its inner threaded section threadedly engaging the second threaded portion of said support member, said body member having an end portion which tapers to a point, there being a plurality of spaced apart slits in the pointed end of said body member.

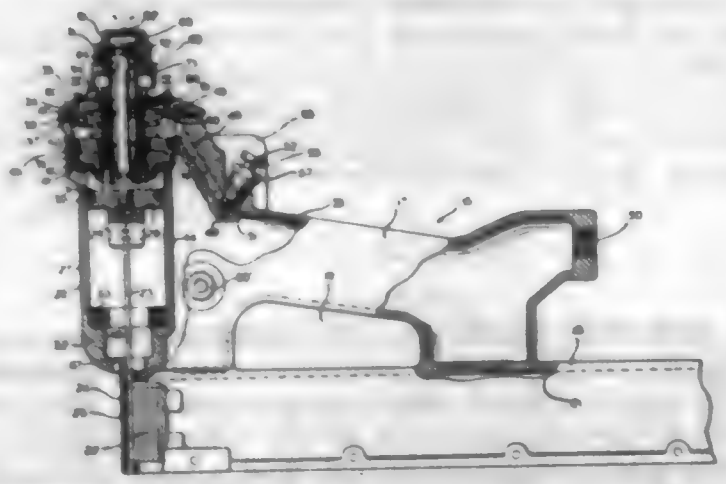
2,872,980
POWER OPERATED DRAWING-LEAD SHARPENER
Henry Merz, Detroit, Mich.
Application August 22, 1957, Serial No. 679,632
5 Claims. (Cl. 120—96)

4. A sharpener adapted to sharpen unencased drawing-leads comprising a housing having top and side walls, a tray member secured to the underside of the top wall of said housing and forming a compartment adapted to receive drawing-lead particles resulting from the sharpening process, an electric motor suspended from the under side of said tray member with the upper end of its shaft projecting into said compartment, a ball member mounted on said upper end, a cutter head having a socket in the lower end thereof adapted to fit over said ball member whereby said cutter head is swivelly supported on said motor shaft, said cutter head being provided with a conical bore therein contoured to the desired shape to be obtained on said drawing-lead, a cutter blade having a single cutting edge forming a part of said cutter head and adapted to engage a drawing lead within said bore in sharpening relation thereto, means drivingly connect-



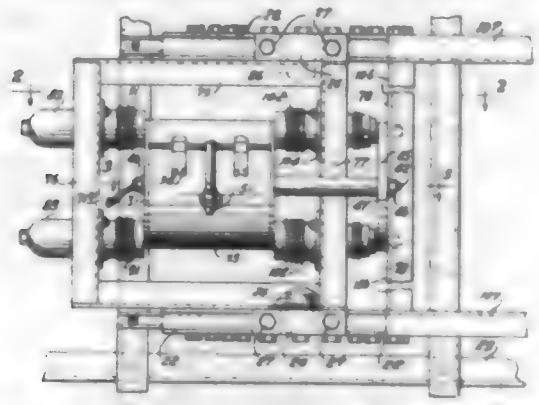
ing said cutter head to said motor shaft for rotation therewith, the swivel support of said cutter head permitting the latter to compensate for any axial misalignment of the drawing-lead being sharpened relative to the axis of the motor shaft, and floating seal means effective to limit said cutter head to a predetermined degree of axial misalignment, and switch means responsive to axial movement of the motor shaft induced by pressure on said cutting head caused by insertion of the drawing-lead within said bore to control the operation of said motor, said bore being open at the bottom thereof whereby the sharpened end of said drawing-lead will contact the upper surface of said ball thereby preventing further downward continued feeding movement of the now sharpened drawing-lead.

2,872,991
PNEUMATIC FASTENER DRIVING MACHINE
John E. Goldring, San Leandro, and Arthur E. Kremiller, Walnut Creek, Calif., assignors to Moderair Corporation, San Leandro, Calif., a corporation of California
Application May 16, 1958, Serial No. 735,862
10 Claims. (Cl. 121—13)



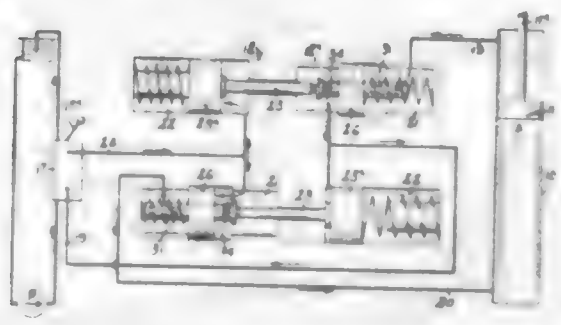
1. In a driving machine, a driving member, a pneumatic piston for actuating said driving member, a cylinder reciprocably housing said piston, and means providing a reservoir of fluid under substantially constant pressure to which said cylinder is exposed, means for closing the cylinder but operable to open the cylinder to the full effect of the fluid pressure within the reservoir for driving the piston in a fastener driving stroke, and pneumatic return means for the piston communicating with said reservoir and having a differential pressure relationship to the side of the piston that is exposed to the pressure reservoir upon opening of the cylinder so that in the closed condition of the cylinder the pneumatic return means maintains the piston in returned position.

2,872,902
VIBRATOR
Thomas H. Morgan, Dallas, Tex.
Application February 20, 1956, Serial No. 566,518
1 Claim. (Cl. 121—17)



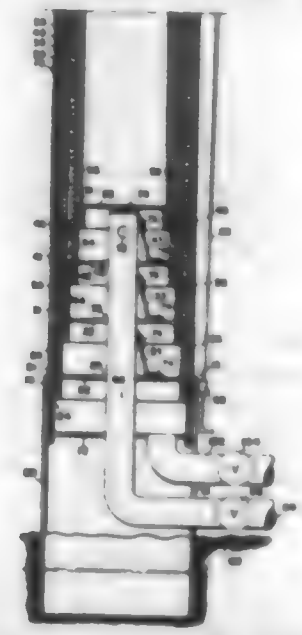
A vibrator including a cylinder and a piston reciprocable therein, said cylinder and piston having coacting ports and passages operable to supply fluid to the cylinder to reciprocate the piston to produce vibrating motion: and means on the piston acted on by the fluid for producing rotation of the piston in the cylinder about an axis parallel to the reciprocable movement of the piston, support means for said cylinder permitting limited reciprocal movement of said cylinder relative to said support means in a direction parallel to saix axis, and means for connecting said cylinder to a structure which is to be vibrated, and means adjustably pivotally mounting said support means on a fixed structure, whereby said support means may be pivotally adjusted about an axis perpendicular to the reciprocable movement of the piston.

2,872,903
FLUID LOCK VALVE
David M. Richey, Woodbridge, Conn., assignor, by mesne assignments, to Emhart Manufacturing Company, Hartford, Conn., a corporation of Delaware
Application November 13, 1956, Serial No. 621,956
7 Claims. (Cl. 121—40)



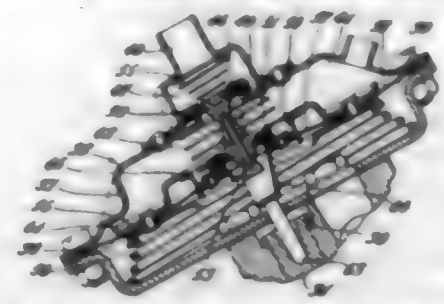
1. In a valve mechanism for controlling the ingress and egress of fluid from a hydraulic cylinder, a pressure source, means defining fluid passages from the pressure source to the respective ends of the hydraulic cylinder, primary means interposed in each fluid passage normally closing the passage and responsive to fluid pressure to open the passage when fluid flows in the latter in one direction or the other, and secondary means interposed in each one of said fluid passages and responsive to fluid pressure to control the primary means in the other fluid passage so that fluid may normally escape from the hydraulic cylinder through the other fluid passage only when the fluid pressure in said one of the passages reaches a predetermined degree, to inhibit the formation of a vacuum in the hydraulic cylinder, the primary means comprising a spring-biased piston member and a poppet valve extending into the piston member and being slidable therein, and the secondary means comprising a spring-biased plunger engageable with the poppet valve.

2,872,904
TELESCOPING MAST
Jan H. Van den Bermt, Jarrettown, Pa.
Application May 18, 1953, Serial No. 355,612
12 Claims. (Cl. 121—46)



1. A telescoping mast comprising means providing a plurality of mast tubes in telescoping relation, means for closing off the lower ends of each of said tubes, means for successively applying fluid pressure to the undersides of said closing means for moving said tubes successively from a collapsed relation to an extended relation starting with the innermost closing means and tube, and means for limiting the degree of extension of each of said tubes.

2,872,905
VALVE DEVICES FOR CONTROLLING SERVO-DEVICES OF THE DIFFERENTIAL AIR PRESSURE TYPE
Leslie Cyril Chouings, Leamington Spa, England, assignor to Automotive Products Company Limited, Leamington Spa, England
Application June 24, 1957, Serial No. 667,600
Claims priority, application Great Britain June 25, 1956
1 Claim. (Cl. 121—46.5)



In a fluid pressure system control valve mechanism of the type described; a casing, a diaphragm mounted in the casing and separating the casing into a first and a second chamber, each of said chambers being connected to one end of a vacuum cylinder, said first chamber also being connected to a source of suction, said diaphragm being provided at its center with an aperture to interconnect the two chambers, a first valve head controlling said aperture, a second valve head movable as a unit with the first valve head, said second chamber having a port connecting said chamber to the atmosphere with the port being controlled by the second valve head, a rigid ring connected to said diaphragm and dividing it into inner and outer concentric portions, an abutment in the second chamber, a spring urging said ring into engagement with the abutment, a lighter spring acting on the inner portion of the diaphragm to urge it in the opposite direction, the inner portion of the diaphragm being movable by an applied liquid pressure against the lighter spring to cause the valve heads to close the aperture in the diaphragm and open the port leading to the atmosphere with the atmospheric air thus admitted to the second chamber acting on the diaphragm

in opposition to the liquid pressure to allow the second valve head to close the port leading to the atmosphere under the influence of a return spring, the air pressure being effective only over the area of the inner portion of the diaphragm until it attains a value sufficient to overcome the spring acting on the rigid ring and a rigid plate secured to the center of the diaphragm and overlapped by the inner periphery of the rigid ring, the overlapping portions providing for positive transmission of thrust exerted by the air pressure on the outer portion of the diaphragm to the rigid plate.

2,872,906

METHOD FOR THE OPERATION OF A BOILER AND APPARATUS THEREFOR

Eugene J. Houdry, Ardmore, Pa., assignor to Oxy-Catalyst, Inc., a corporation of Pennsylvania

Application February 10, 1954, Serial No. 409,334
11 Claims. (Cl. 122—4)



1. In a boiler having a furnace for burning a fuel in the presence of air, and having a heat exchange system providing heat exchange surfaces over which the boiler gases flow, and in which the heat exchange surfaces of said system are divided into a plurality of sections arranged in series with one another with respect to the flow of boiler gases such that said boiler gases traverse the heat exchange surfaces in said sections successively in a plurality of passes, the improvement comprising means for distributing an auxiliary fuel into the stream of boiler gases, said distributing means being disposed within said boiler between two of said sections of the boiler heat exchange system thereby to distribute said fuel into the stream of said boiler gases as said gases flow from one of the said sections to the next section in series therewith, and a bed of oxidation catalyst arranged across the path of flow of the boiler gases such that said gases flow through said bed in direct contact with said catalyst, said bed of catalyst being operative to catalytically oxidize said auxiliary fuel and being situated downstream from said distributing means and upstream from at least one section of the boiler heat exchange system, means for controlling the flow of auxiliary fuel to said distributing means, said controlling means comprising temperature sensing means disposed in the vicinity of said distributing means for sensing the temperature of said boiler gases, and means operatively coupled with said temperature sensing means for preventing the flow of auxiliary fuel when the temperature of boiler gas at said distributing means is below a predetermined minimum temperature.

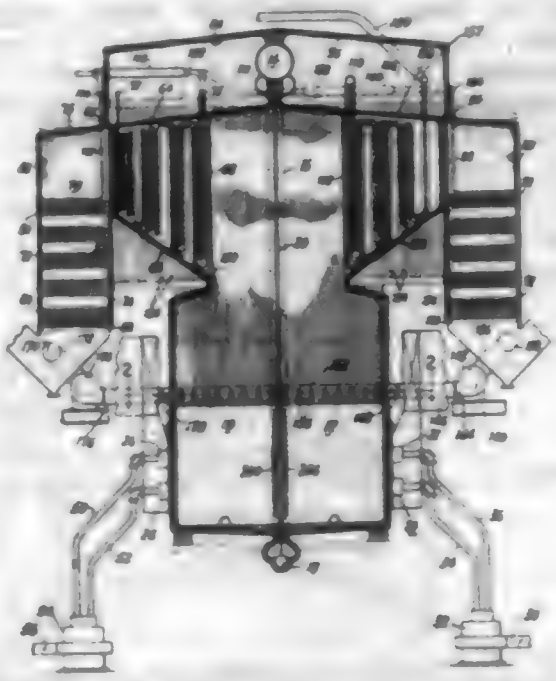
2,872,907

MULTIPLE FURNACE VAPOR GENERATOR WITH UNITARY REHEATER AND SUPERHEATER CONTROL BY GAS RECIRCULATION

Charles S. Smith, Westfield, and Charles H. Woolley, deceased, late of Cranford, by Margaret S. Chamberlin, executrix, Cranford, N. J., assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application March 9, 1953, Serial No. 348,948
2 Claims. (Cl. 122—240)

1. A vapor generating, superheating and reheating unit comprising walls defining a setting, means defining a division wall dividing said setting into side-by-side vertically elongated combustion chambers having laterally extending separate heating gas passes opening through opposite walls of said combustion chambers and extending in opposite directions, a vapor generating section comprising rows of upright vapor generating tubes in said division wall and the combustion chamber walls opposite said division wall and a horizontally arranged vapor and liquid separating drum in the upper part of said unit having its longitudinal axis substantially parallel to the plane of said division wall and arranged to receive vapor and liquid from the upper ends of said rows of vapor generating tubes, a bank of vapor superheating tubes in one of said gas passes, a bank of vapor reheating tubes in the other gas pass, a second bank of



vapor superheating tubes in said other gas pass downstream of said bank of vapor reheating tubes, vapor conduit means connecting the second bank of vapor superheating tubes to said first bank of vapor superheating tubes, means for independently firing said separate combustion chambers, and means for independently controlling vapor superheat and reheat temperatures comprising means for recirculating heating gases from each of said gas passes at points downstream of said first bank of superheating tubes and said bank of reheating tubes respectively and separately introducing said recirculated gases into the corresponding combustion chambers at points remote from the heating gas pass connection thereto, and means for independently controlling the amount of recirculated gases introduced into each of said combustion chambers.

2,872,968

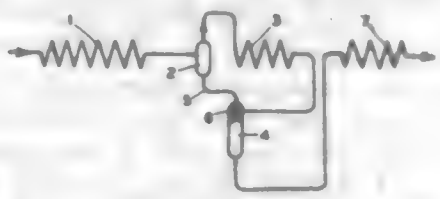
ONCE-THROUGH VAPOR GENERATOR

Robert Jantscha and Johann Kolling, Oberhausen, Rhineland, Germany, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application April 6, 1955, Serial No. 509,237
In Germany May 9, 1949
Public Law 619, August 23, 1954
Patent expires May 9, 1969
3 Claims. (Cl. 122—459)

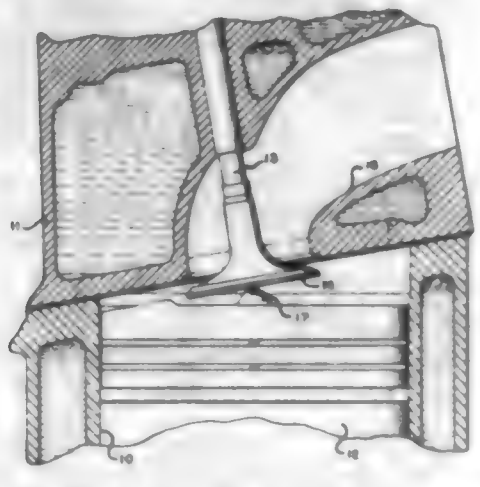
1. In a once-through type vapor generator including a heat source, a conduit presenting heating surfaces wherein a vaporizable fluid is heated until there is a vapor-liquid mixture consisting of predominantly vapor and the last remnants of liquid, a vapor-liquid separator receiving and separating said vapor-liquid mixture, a vapor superheater supplied with and arranged to superheat the separated vapor, a contact heat exchanger, means conducting the separated last remnants of liquid and a sufficient quantity of said superheated vapor to the con-

tact heat exchanger to effect the complete evaporization of said last remnants of liquid, and means conducting



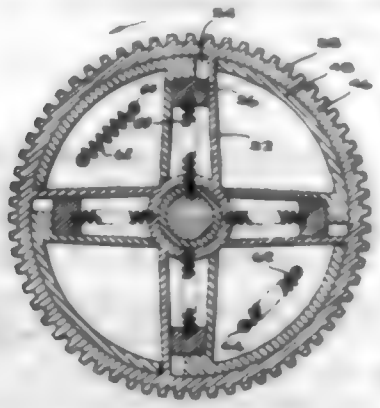
dry vapor from said heat exchanger, whereby solids in said liquid become entrained in the dry vapor.

2,872,909
PISTON
Joseph M. Stout, Lincoln Park, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application March 10, 1958, Serial No. 720,479
15 Claims. (Cl. 123—90)



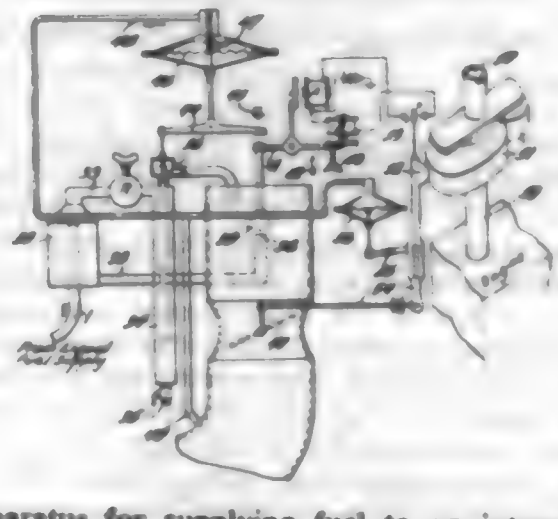
1. In an overhead valve engine, the combination comprising a cylinder, a head closing one end of said cylinder, a pair of reciprocating poppet valves slidingly mounted in the head portion closing said cylinder, and a piston reciprocable in said cylinder, said piston having a pair of projections aligned with said poppet valves whereby the piston projections will strike said poppet valves in event of their sticking.

2,872,910
VARIABLE TIMING GEAR FOR INTERNAL COMBUSTION ENGINES
Ralph H. Catha, Birmingham, Ala.
Application April 18, 1958, Serial No. 729,410
5 Claims. (Cl. 123—90)



1. In an internal combustion engine including a crankshaft having a timing gear on one end thereof, and a valve actuating rotatable cam shaft, the improvement consisting in variable valve timing means connecting said gear to said cam shaft, said means comprising a hub fixedly secured to one end of said cam shaft, a sleeve circumposed about said hub and slidable thereon, a first drum having one end open and the other end closed carried by said hub, a second drum having one end open and the other end closed positioned so that the periphery thereof is circumposed about the periphery of said first drum with the open end of said first drum within said second drum and in abutting engagement with the closed end of said second drum, a rib projecting perpendicularly from the inner face of the closed end of said first drum and extending from said hub to the periphery of said first drum, there being an opening in the periphery of said first drum adjacent to and spaced from said rib, another rib projecting perpendicularly from the inner face of the closed end of said second drum and having a portion adjacent one end extending loosely through said opening, said ribs being in face to face spaced relation and having the ends adjacent the peripheries of said first and second drums converging toward each other, and a wedge positioned between and slidably engaging the confronting faces of said ribs, said wedge being movable outwardly of said sleeve responsive to centrifugal force when said cam shaft is rotated and operable to shift said another rib away from said first-named rib, and teeth extending about the outer periphery of said second drum in meshing engagement with said timing gear.

2,872,911
LIQUEFIED PETROLEUM GAS PRESSURE MIXER
Piero Botto, Rome, Italy, assignor to Officine Botto-Meccanica di Precisione-Societa a. r. l., Rome, Italy, a limited company
Application March 22, 1955, Serial No. 495,847
Claims priority, application Italy March 29, 1954
7 Claims. (Cl. 123—120)

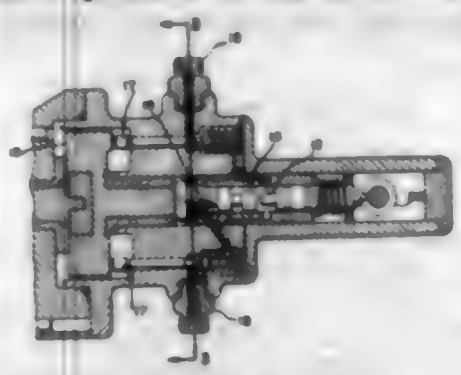


1. Apparatus for supplying fuel to an internal combustion engine including an intake manifold having a vacuum therein, which apparatus comprises a common source of liquid and gaseous fuel, the latter being maintained under super atmospheric pressure, separate conduits for feeding said fuels to said manifold, a needle valve in said gaseous fuel conduit, a diaphragm connected to said needle valve and communicating with said manifold to position said valve in accordance with the vacuum in said manifold, a vaporizing nozzle at the termination of said liquid fuel conduit within said manifold, a closure member for said nozzle, and means for rapidly opening and closing said member at a frequency varying in response to the operating conditions of said engine.

2,872,912
FUEL INJECTION SYSTEM
Paul E. Braun, Birmingham, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application February 27, 1956, Serial No. 567,830
6 Claims. (Cl. 123—139)

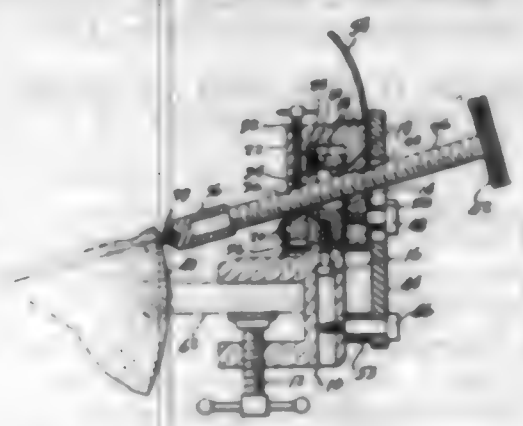
1. A fuel metering and distributing apparatus for an internal combustion engine having combustion cylinders comprising a cylinder, a piston freely and axially movable in said cylinder, means limiting the axial motion of the piston in the cylinder, at least one of said motion limiting means being adjustable, a fuel inlet passageway leading from said cylinder on one side of said piston

to a source of fuel under pressure, a second fuel inlet passageway leading from the cylinder on the other side of said piston to a source of fuel under pressure, each of said passageways being controlled by a separate poppet valve, and a plurality of separate fuel outlet pas-



sageways one each for each combustion cylinder leading alternately from the cylinder on one side of the piston and from the cylinder on the other side of the piston, each of said fuel outlet passageways being separately controlled by a separate poppet valve.

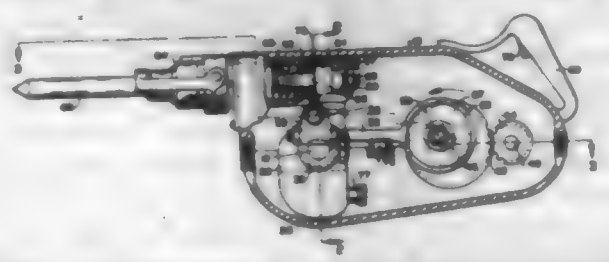
2,872,913
ABRADING WHEEL DRESSING APPARATUS
Edward A. Rosier, Los Angeles, Calif.
Application February 7, 1958, Serial No. 713,977
1 Claim. (Cl. 125—11)



An abrading wheel dressing apparatus comprising a base adapted to be secured to a work support, an upstanding block member superimposed upon and fixedly secured to said base, said block member having a longitudinally extending closed slot, a carriage mounted on said block member for back and forth longitudinal movement, a transversely disposed shank extending at an angle to the horizontal through said carriage and the slot of said block member and connected to said carriage for rotational movement in clockwise and counterclockwise directions, said shank having the portion adjacent one end projecting beyond one side of said base and having the portion adjacent the other end also projecting beyond the other side of said base with the part of the shank within said block member slot upon engagement with the closed ends of said slot limiting the back and forth movements of said carriage, a dressing tool projecting from said one end and adapted to engage an abrading wheel to be dressed, hand operable means on the other end of said shank for effecting the rotational movement of the latter, and an arm pivotally connected to said base and operatively connected to said carriage for effecting the movement of the latter.

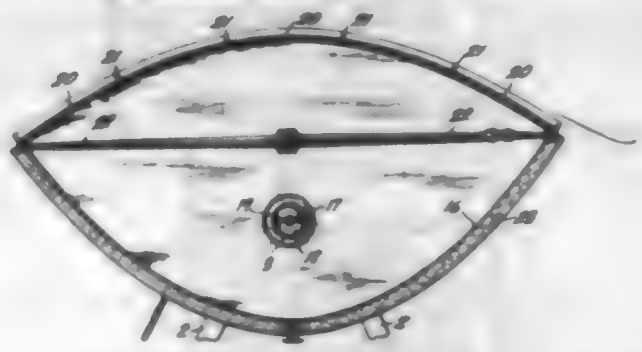
2,872,914
PERCUSSION MACHINE
Walter Fahrni, Vancouver, British Columbia, Canada
Application January 22, 1957, Serial No. 635,475
13 Claims. (Cl. 125—33)

1. A percussion machine comprising a rocker arm mounted for rotation about an axis spaced from the ends thereof, a hammer head at one end of the arm moved through an arcuate path by said arm, a counterweight at the opposite end of the arm, a hammer shaft having an inner end aligned with the hammer head arcuate path, a tool holder in engagement with the shaft, a pin mounted for reciprocation through a short stroke, a source of power connected to the pin for causing rapid reciprocation thereof, a link extending from the pin to the rocker arm and connected to the latter, and resilient



means connecting the pin to the link so that reciprocation of the pin reciprocates the rocker arm rapidly around its axis through back and forth strokes to cause said arm rapidly to strike the end of the hammer shaft aligned therewith, said shaft end being so located that it is struck each time by the hammer head just before the rocker arm reaches the end of a stroke during reciprocation thereof.

2,872,915
SOLAR ENERGY APPARATUS
William Spencer Bowen, Westfield, N. J.
Application February 2, 1956, Serial No. 563,899
3 Claims. (Cl. 126—271)

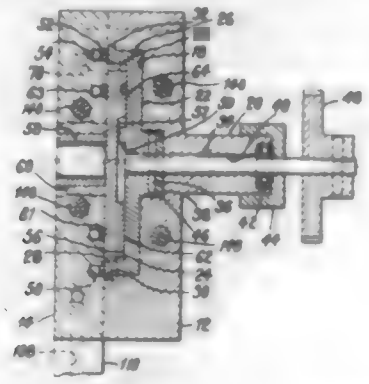


1. In apparatus for collecting solar energy, a primary semicylindrical parabolic mirror, a secondary transparent semicylindrical parabolic partial mirror forming a closure over and having the same axis of principal focus as the primary mirror, a heat receiving tube positioned coaxially with the common axis of principal focus, a portion of the heat radiated from the lower half of the heat receiving tube being reflected by the primary mirror to the secondary mirror and reflected therefrom to the heat receiving tube, and a portion of the heat radiated from the upper half of the heat receiving tube being reflected by the secondary mirror to the primary mirror and reflected therefrom to the heat receiving tube.

2,872,916
CEMENT HANDLING APPARATUS
Hans C. Paulsen, Lexington, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application July 31, 1956, Serial No. 601,166
4 Claims. (Cl. 126—343.5)

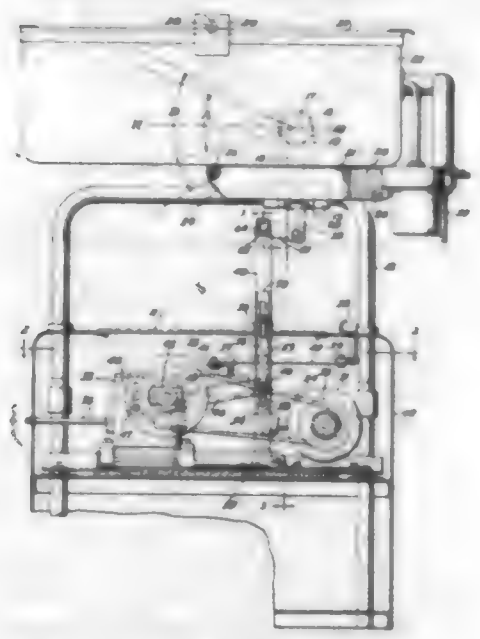
1. A cement handling apparatus comprising a heated hollow casing including a pair of members secured together in face to face relation, one of said members being provided with a circular recess and having a cup-shaped melting and feeding disk journaled therein and fitted within said recess and the other of said members having a circular projection extending into the open end of said cup-shaped disk and eccentrically disposed relatively thereto to provide a substantially crescent-shaped annular space between its outer surface and an inner surface on the disk, said casing being provided with an

inlet and an outlet each in communication with said space, said space gradually decreasing in cross section in the vicinity of said outlet, means for feeding a solid strip of



thermoplastic cement into said space through the inlet, and means for rotating said disk to cause it to melt and feed the cement as the cement is progressively heated and to deliver the melted cement directly to the outlet.

2,872,917
ROCKING BED MECHANISM
James R. Grosholz, Wayne, Pa., assignor to Air-Shields, Inc., Bucks County, Pa., a corporation of Delaware
Application May 7, 1954, Serial No. 428,238
8 Claims. (Cl. 128—28)



1. A rocking bed having an enclosed cabinet, a frame extending above said cabinet, a bed unit supported on said frame by a transverse pivot, drive mechanism including power means and speed varying means housed in said cabinet, a vertical rod pivotally supported at its lower end extending from said cabinet, said rod being connected to the under side of said bed unit by means of a horizontal connecting rod, a motion producing connecting device attached to said vertical rod including position adjusting means for changing the location of said device on said vertical rod to change the amplitude of oscillating movement of said rod, said horizontal connecting rod having a pivot structure attaching it to said vertical rod, said position adjusting means including a bracket attached to said vertical rod, a threaded adjusting rod supported on said bracket, said threaded rod being in engagement with said pivot structure.

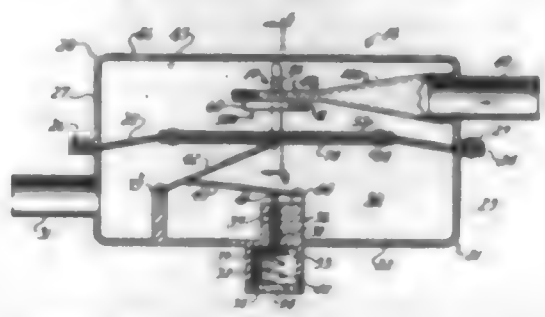
2,872,918
TRUSS FOR HUMAN BODY
Russell Fogg, Idaho Falls, Idaho
Application January 15, 1958, Serial No. 709,085
5 Claims. (Cl. 128—121)

1. A truss for use on the human body, said truss comprising a generally U-shaped body spring having uncovered ends, a front pad for the injury adjustably mounted on one of said ends, and a back pad adjustably mounted on the other end, said front pad consisting of a disk-like rigid member having a transverse passageway and an opening bisecting said passageway, a collar having a set screw in said opening, one of said uncovered spring ends extending into said passageway and through said collar,



said back pad having a longitudinal passageway and an opening bisecting said last-mentioned passageway, a second collar having a set screw in said last-mentioned opening, said front and back pads being each longitudinally and rotatably adjustable relative to the respective end on which it is mounted and held in its longitudinal adjustment only by its respective collar and set screw.

2,872,919
DIVER'S BREATHING APPARATUS
Pierre Rouset, Paris, France, assignor, by mesne assignments, to La Spirotechnique, Paris, France, a joint-stock company
Application July 12, 1956, Serial No. 597,544
4 Claims. (Cl. 128—142)



1. A regulator for controlling flow of breathable gas from a source of such gas under pressure to a fitting that is attachable to a diver's face in communication with his lungs, through an inhalation conduit extending from the regulator to such fitting, and for controlling the escape of expired gas from said fitting into a body of water in which the diver is immersed, through an exhalation conduit extending from said fitting to said regulator, comprising: a casing having an inlet for receiving the compressed gas from said source and an outlet for delivering the gas to said inhalation conduit; a diaphragm cooperating with said casing to define a transfer chamber in communication with said inlet and outlet, through which the compressed gas is metered from said source to said inhalation conduit in response to suction applied to said chamber by the diver's inhalation; a normally closed metering valve controlling the flow through said inlet; means for opening said metering valve in response to inhalation-induced inward movement of said diaphragm; a cover attached to said casing and securing said diaphragm thereto in sealed relation thereto, said cover defining an exhalation chamber and having an opening through which the water will fill said exhalation chamber; a normally open exhalation escape valve supported by said cover within said exhalation chamber; a union extending through the wall of said cover, communicating with said escape valve, and providing for connection of said exhalation conduit thereto; and an actuator attached to the outer side of said diaphragm, moving therewith and operable, in response to said inhalation induced inward movement of the diaphragm, to mechanically actuate

said escape valve to a closed condition; said escape valve being of flexible tubular form, including a normally free flexible outlet end portion; said actuator including a shaft fixed to said diaphragm and projecting axially therefrom and a finger extending laterally from said shaft across said flexible outlet end portion of the escape valve; and a saddle fixed to said cover and positioned to provide a seat against which said outlet end portion is adapted to be pressed by said finger to close said escape valve.

2,872,920

DIVER'S BREATHING REGULATOR WITH FLOATING DIAPHRAGM

Pierre Rosset, Fontenay sur Roses (Seine), France, assignor, by mesne assignments, to La Spirotechnique, Paris, France, a joint-stock company

Application October 22, 1956, Serial No. 617,602
8 Claims. (Cl. 128—142)



5. A regulator for controlling flow of breathable gas from a source of such gas under pressure to a fitting that is attachable to a diver's face in communication with his lungs, through an inhalation conduit extending from the regulator to such fitting, and for controlling the escape of expired gas from said fitting into a body of water in which the diver is immersed, through an exhalation conduit extending from said fitting to said regulator comprising: a casing having an inlet for receiving gas from said source and an outlet for delivering the gas to said inhalation conduit; a diaphragm cooperating with said casing to define a transfer chamber in communication with said inlet and outlet, through which the compressed gas is metered from said source to said inhalation conduit in response to suction applied to said chamber by the diver's inhalation, said diaphragm having a buoyant central section of less weight in air than the weight of the water displaced thereby when submerged, with a predetermined measure of buoyancy to approximate normal breathing conditions by rendering said diaphragm virtually weightless when under water and therefore eliminating the expending by the diver of extra effort in lifting the weight of the diaphragm when breathing; a normally closed metering valve controlling the flow through said inlet; and means for opening said metering valve in response to inhalation-induced inward movement of said diaphragm.

2,872,921

BREATHING REGULATOR WITH FLOAT-ASSISTED EXHALATION VALVE

René Charles Rémy, Paris, France

Application November 26, 1957, Serial No. 699,002
10 Claims. (Cl. 128—142)



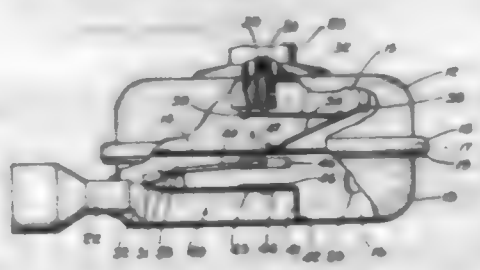
1. In a regulator for controlling flow of breathable gas from a source of such gas under pressure to a fitting that is attachable to a diver's face in communication with his lungs, through an inhalation conduit extending from the regulator to such fitting, and for controlling the escape of expired gas from said fitting into a body of water in which the diver is immersed, through an exhalation conduit extending from said fitting to said regulator, in combination: a casing having an inlet for receiving the compressed gas from said source and an inhalation outlet for delivering the gas to said inhalation conduit; a diaphragm cooperating with said casing to define an inhalation chamber in communication with said inlet and outlet, through which the compressed gas is metered from said source to said inhalation conduit in response to suction applied to said chamber by the diver's inhalation; a normally closed demand valve controlling the flow through said inlet; means for opening said demand valve in response to inhalation-induced inward movement of said diaphragm; and exhalation-escape valve mechanism disposed externally of said inhalation chamber, including a throat connected to said exhalation conduit, said throat having a valve seat defining an escape port facing in the direction of said inhalation-induced inward movement of said diaphragm, a valve adapted to engage said seat to close said escape port, means for positioning said valve with respect to said seat, a float, and means retaining said float in opposed relation to said valve element, rendering said float operable to assume a floating position withdrawn from operative association with said valve element when the regulator is in a normal upright position wherein said inhalation chamber is above the diaphragm and to engage the valve element and lift it into engagement with said valve seat when the regulator is in an inverted underwater position.

2,872,923

BREATHING REGULATOR WITH EXHALATION VALVE ASSISTED BY GRAVITY RESPONSIVE MEANS

René Charles Rémy, Paris, France

Application November 26, 1957, Serial No. 699,003
6 Claims. (Cl. 128—142)



1. In a regulator for controlling flow of breathable gas from a source of such gas under pressure to a fitting that is attachable to a diver's face in communication with his lungs, through an inhalation conduit extending from the regulator to such fitting, and for controlling the escape of exhaled gas from said fitting into a body of water in which the diver is immersed, through an exhalation conduit extending from said fitting to said regulator, in combination: a casing having an inlet for receiving the compressed gas from said source and an inhalation outlet for delivering the gas to said inhalation conduit; a diaphragm cooperating with said casing to define an inhalation chamber in communication with said inlet and outlet, through which the compressed gas is metered from said source to said inhalation conduit in response to suction applied to said chamber by the diver's inhalation; a normally closed demand valve controlling the flow through said inlet; means for opening said demand valve in response to inhalation-induced inward movement of said diaphragm; an exhalation valve disposed on the opposite side of the plane of the diaphragm from said inhalation chamber, said exhalation valve seat defining an escape port facing toward the plane of said diaphragm, and including a valve element adapted to engage said seat to close said escape port, and gravity-responsive means arranged for movement between a position removed from said valve element when the regulator is in a normal upright underwater position wherein said escape valve is

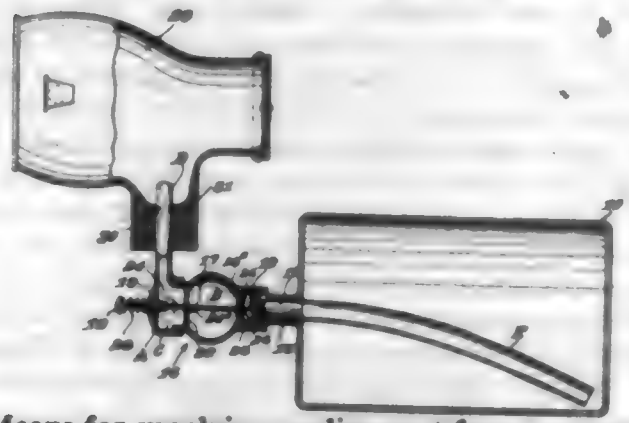
below the level of the diaphragm and a position engaging the valve element and applying a closing load thereto for holding it in engagement with said valve seat when the regulator is in an inverted underwater position.

2,872,923

MEANS FOR ADMINISTERING PRESSURIZED MEDICAMENTS, GASES, COMBINATIONS THEREOF AND LIQUIDS INTO BODY CAVITIES

Herbert M. Birch, Bethesda, Md., and Daniel H. Gattone, Drexel Hill, Pa., assignors to Birch and Gattone, Incorporated, Washington, D. C., a corporation of Delaware

Application March 20, 1957, Serial No. 647,352
10 Claims. (Cl. 128—184)



1. Means for supplying medicament from a pressurized container into the respiratory system of the human body, said means comprising a mask having an air inhalation valve means, an exhalation valve means, a medicament inlet having the bore formed with an annular coupling ring, and manually opened and pressure closed valve means in said container having a tubular extension with an exterior groove adapted to receive the said coupling ring of said mask inlet, said valve means being a metered valve.

2,872,924

APPARATUS FOR MIXING AND ADMINISTERING MEDICINES

Alvin B. Salisbury, Jr., Fairborn, Ohio, assignor to Ankh Laboratories, Inc., Fairborn, Ohio, a corporation of Ohio

Application July 23, 1956, Serial No. 599,500
7 Claims. (Cl. 128—216)



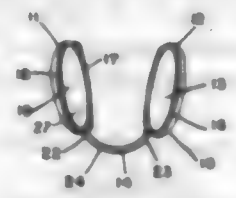
1. The combination of, a syringe comprising a collapsible body of flexible material defining a fluid chamber and having a neck portion with a hollow needle supported in and extending outwardly beyond the neck portion, an elongated tubular sheath closed at one end and having its other end open, the open end of said sheath receiving and telescoping closely with said neck portion to enclose said needle within the sheath, and an ampoule of puncturable material connected integrally with and extending laterally from an intermediate portion of said sheath between said ends thereof and providing a fluid tight chamber, said intermediate portion of said sheath being puncturable by the projecting end of said needle for establishing communication between said chambers through the needle while the portion of the latter beyond said neck portion remains substantially covered by the sheath against contact with unsterile surfaces.

2,872,925

MEDICAMENT APPLICATOR FOR THE TONGUE

Ernest Lindahl, Minneapolis, Minn.

Application July 29, 1954, Serial No. 446,535
8 Claims. (Cl. 128—260)



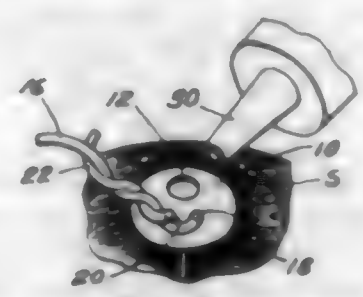
7. An applicator for applying medicine to the lateral taste buds of the tongue comprising two spaced medicine holders and a U-shaped connector therebetween, said connector having spaced legs and a bridge therebetween, said legs being adapted to lie along the lateral margins of the tongue and said bridge forwardly of the frenum of the tongue and below the tongue, and means acting between the ends of said legs and said holders and rotatably supporting said holders to position the same in proper relation to the lateral taste buds of the tongue.

2,872,924

ELECTROENCEPHALOGRAPHIC ELECTRODE

Jerome E. Alderman, deceased, late of Syracuse, by Freida B. Alderman, executrix, Syracuse, N. Y.

Application November 20, 1957, Serial No. 697,610
1 Claim. (Cl. 128—410)



An electroencephalographic electrode comprising a circular rigid disc of conductive metallic material, convex on its outside face and concave on its inside face, said disc being formed of substantially uniformly thick sheet material and being substantially a circular segment of a spherical surface having an arc diameter of about 60°, said disc having a smooth rounded rim edge and having a single central aperture through which may be injected an electrolyte paste, and said disc having a flexible lead wire bonded thereto, and leading away from an annular area of the convex face of the disc intermediate said rim and aperture.

2,872,927

GIRDLE STRUCTURE

Olga Erteszek, Los Angeles, Calif.

Application September 19, 1957, Serial No. 684,887
4 Claims. (Cl. 128—548)



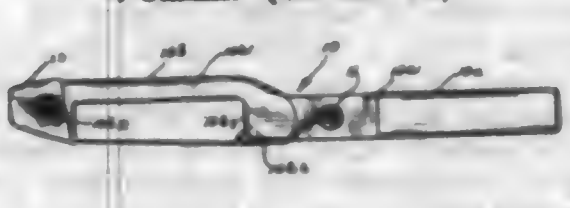
1. A girdle comprising a girdle body adapted to extend about and confine a wearer's body at the hip location and at least partially formed of elastic material,

said girdle body having a forward portion adapted to extend across the front of a wearer's stomach, the bottom of said girdle body being defined by a lower edge which extends across the bottom of said forward portion at a relatively high location to allow full leg freedom and which is adapted to extend across the back of the wearer at a lower level to effectively confine the lower portion of the buttocks, said lower edge being inclined downwardly as it extends from the front of the girdle body to the rear, there being elastic reinforcing material attached to and reinforcing said girdle body and forming at each side thereof a strip of material occupying a major extent of the vertical dimension of said front portion of the girdle body and extending from near the top of said front portion downwardly and rearwardly along the sides and then at least partially across the back bottom portion of the girdle body near its lower edge where the reinforcing material occupies a minor extent of the vertical dimension of the girdle body.

2,872,928
MEANS AND METHODS FOR EXTRACTING FROM TOBACCO SMOKE DELETERIOUS INGREDIENTS
John Ross, Mount Vernon, N. Y., assignor to Combustion Research, Inc., New York, N. Y., a corporation of New York
No Drawing. Application November 8, 1957
Serial No. 695,236
6 Claims. (Cl. 131—208)

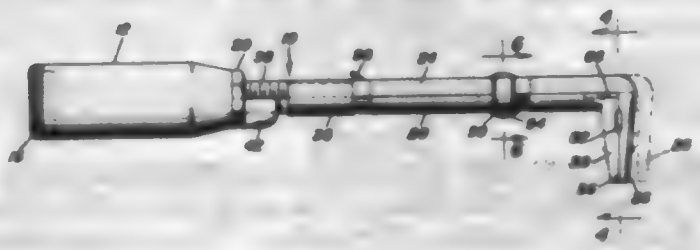
1. A filter or trap for removing deleterious hydrocarbons from tobacco smoke comprising in combination a filter medium, a softening agent and a member selected from the group consisting of desoxycholic acid and its salts, said member being in substantially anhydrous condition, whereby to fix said hydrocarbons in the solid state, in the form of choleic acids.

2,872,929
DEVICE FOR CLEANING TEETH
John H. Rice, Minneapolis, Minn.
Application July 30, 1956, Serial No. 601,008
4 Claims. (Cl. 132—91)



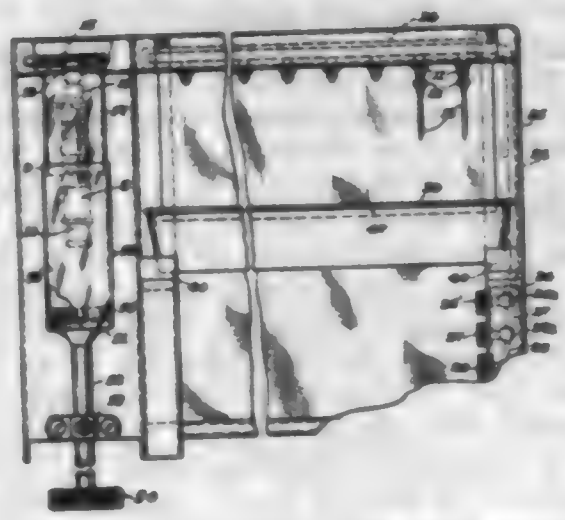
1. A device of the type described comprising an elongated handle portion substantially elliptical in vertical cross section, a substantially U-shaped intermediate portion and a head portion tapering somewhat in vertical dimension and having its sides tapering substantially to an edge, said head portion having a grooved upper inner end portion and said head portion having a passage extending transversely therethrough for receiving a tooth cleansing agent therein, said handle portion having a lip formed at its upper inner end portion extending somewhat over said intermediate portion, said last mentioned inner end portion and said lip portion having an aperture inclined upwardly therethrough, said handle having a portion of reduced transverse dimension adjacent said intermediate portion, a tooth polishing member formed to fit over said head portion, a strand of dental floss extending across said intermediate portion having one end secured to said last mentioned member and to be disposed in said groove and having its other end disposed through said aperture and to extend to said reduced handle portion, and a button-like member formed on said reduced handle portion for having said dental floss secured thereabout.

2,872,930
DENTAL FLOSS HOLDER
Everett E. Patterson, Jackson, Miss.
Application November 20, 1956, Serial No. 623,478
8 Claims. (Cl. 132—192)



8. A dental floss holder comprising a handle, a threaded fitting on the forward end of said handle, a first pair of spaced parallel arms, a second pair of spaced parallel arms, said first and second pairs of arms being in overlying relation, a transverse connector connecting together rear portions of said first pair of arms, a transverse block connecting together rear portions of said second pair of arms, first jaws depending from forward ends of said first arms, second jaws depending from forward ends of said second arms in cooperating relation with said first jaws, a threaded extension on said transverse connector being threadedly engaged with said threaded fitting, said transverse block being in abutment with said threaded fitting whereby rotation of said handle results in the relative movement of said jaws, said handle being hollow and forming a dental floss receptacle, said handle having a removable rear cap.

2,872,931
HYPODERMIC NEEDLE CLEANING AND DRYING APPARATUS
William Lampe and Joseph L. Terranova, Rockford, Ill., said Terranova assignor to said Lampe
Application November 23, 1953, Serial No. 393,752
28 Claims. (Cl. 134—99)



1. An apparatus for cleaning tubular articles such as hypodermic syringe needles and the like comprising, in combination, a manifold having a single all-purpose duct therein and having a plurality of outlet or discharge adapters extending therefrom constructed for detachable fluid and air tight coupling connection with the ends of said tubular articles, said manifold also having a plurality of inlet connections each of which includes an outwardly seating check valve, air tight containers for cleaning and rinsing fluids each having a fluid discharge pipe communicating with the bottom portion thereof and connected with related ones of said inlet connections, said containers each having an air inlet pipe connected therewith for admission of compressed air to the upper portion thereof, said manifold also having an air inlet pipe extending from one of its inlet connections, a source of compressed air, and a series of manually operable valves all connected on the one side with said source and each connected on the other side with a related one of

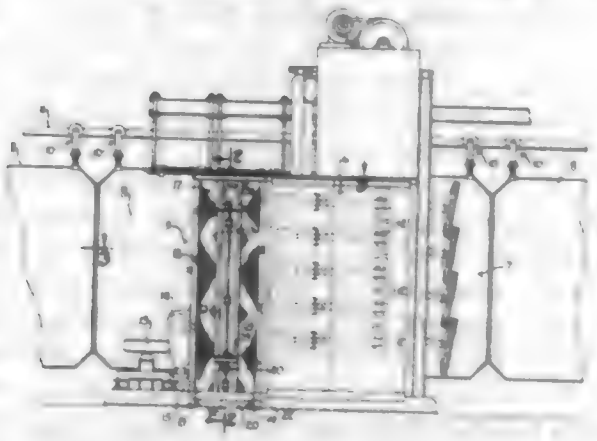
said air inlet pipes, whereby compressed air or a selected fluid under pressure may be discharged through the articles attached to the manifold, said check valves preventing back flow in any of the other of said inlet connections when fluid or air is supplied to said manifold through a selected one of said inlet connections past the check valve therein.

2,872,932

APPARATUS FOR SOAKING PASTING PLATES

Ralph J. Stehling, Milwaukee, Wis., assignor to The Chas. H. Stehling Company, Milwaukee, Wis., a corporation of Wisconsin

Application January 20, 1956, Serial No. 560,409
2 Claims. (Cl. 134—22)



1. Apparatus for soaking pasting plates after hides have been removed therefrom, as the plates travel edgewise in vertical positions along a defined path, comprising: conveyor means to carry the plates in vertical positions along said defined path; means forming opposing upright soaking chambers of a height at least equal to the vertical dimension of the plates to be soaked, each of said chambers having an open side facing a vertical plane in said path along which the plates travel, and each of said chambers comprising upright front and rear walls which extend a substantial distance outwardly from locations close to said plane to have their outer vertical edges remote from said plane; a plurality of vertically spaced inwardly facing spray nozzles mounted adjacent to the outer vertical edges of said front and rear walls, each of said nozzles having an atomizing jet facing inwardly into its respective chamber and towards said plane; duct means connected with all of said nozzles for communicating the same with a source of detergent solution under pressure so that such detergent solution issues from said atomizing jets in the form of a fog-like mist to thoroughly coat the opposite faces of a pasting plate passing between the chambers; and a common bottom wall extending across the bottoms of both chambers to serve as a drip basin in which detergent solution which runs down from the walls of said chambers may be collected.

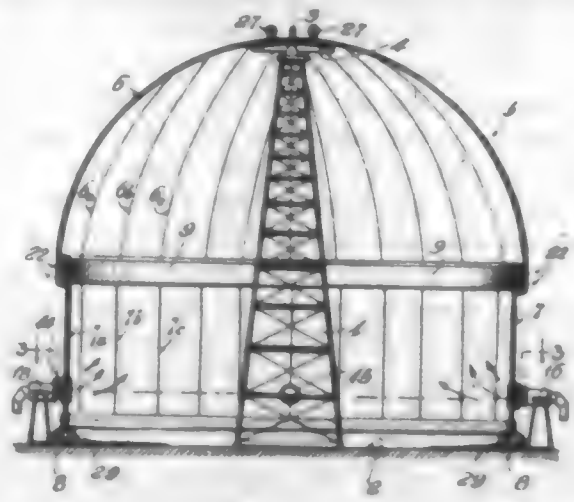
2,872,933

AIR-INFLATED DRILLING RIG COVER

William H. Mackey, Libertyville, Ill., assignor to Cid Air Structures Company, Chicago, Ill., a corporation of Illinois

Application August 5, 1957, Serial No. 676,271
3 Claims. (Cl. 135—1)

1. An air-inflated drilling rig cover comprising a cover material substantially impervious to air and moisture and having a substantially circular contour terminating in a seal adapted to establish substantially air-tight sealing connections with the surface surrounding an oil well drilling rig adapted to be protected by said material, means for dividing said cover material into a dome-shaped section and a cylindrical section and means for continuously supplying air under pressure through said cylindrical section for inflating both of said sections in a position around the oil well drilling rig, wherein the dome-shaped section of said cover material has a stabilizer cap cemented to the center of said material, said stabilizer cap



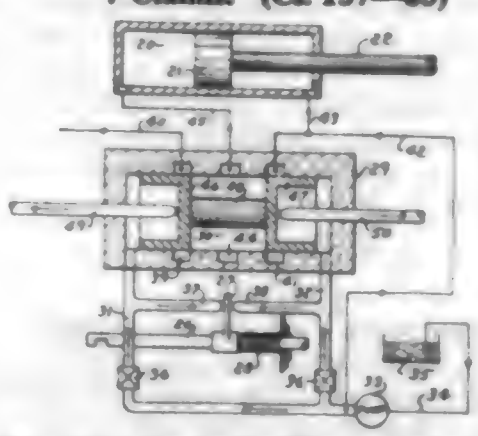
including means for effecting connection with the top of the oil well drilling rig for distributing the cover material uniformly around the rig.

2,872,934

CONTROL SYSTEM FOR FLUID OPERATED POWER DEVICE

Donald P. Eckman, Cleveland Heights, Ohio, assignor to The Warner & Swasey Company, Cleveland, Ohio, a corporation of Ohio

Application February 21, 1955, Serial No. 489,369
7 Claims. (Cl. 137—85)



1. A pilot valve for controlling a motor and comprising a housing having a chamber therein operatively connected with said motor, conduit means continuously connecting one end of said chamber to a source of fluid pressure, a shiftable valve body in said chamber and including at its opposite ends lands slidable therein, a control nozzle connected to said conduit means, a control element cooperating with the outlet free end of said control nozzle and movable from a normal position toward or away from the said outlet end to throttle or accelerate the escape of pressure fluid therefrom, a feedback nozzle extending into said one end of said chamber and connected to drain and having an inlet end cooperating with the valve body land that is in said one end of said chamber, and means in the other end of said chamber exerting pressure on the land in said other end of a magnitude that maintains said valve body in a central or neutral position in said chamber with the inlet end of the feed-back nozzle spaced a predetermined distance from its cooperating valve body land when said control element is in its normal position relative to the outlet end of said control nozzle.

2,872,935

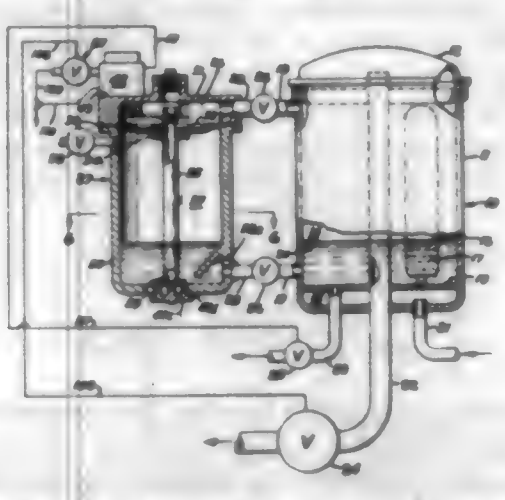
VALVE MECHANISM

Robert W. Kenney, South Pasadena, Calif.

Application February 28, 1955, Serial No. 491,031
15 Claims. (Cl. 137—172)

1. A diaphragm control comprising a casing having a cavity therein, a movable flexible diaphragm extending

substantially horizontally across said cavity and making a continuous fluid-tight seal with the casing so as to divide the cavity into an upper chamber and a lower chamber, an open stand pipe affixed to and passing through said diaphragm and projecting a substantial distance downwardly into said lower chamber and create a region around said stand pipe beneath said diaphragm in which a lighter fluid can be trapped by the rising of a heavier liquid



beneath it, fluid flow directly between said two chambers being possible only through said standpipe at any position of the diaphragm, whereby said entrapped lighter liquid acts as a float to raise the diaphragm as the heavier liquid rises in the standpipe, a first port through said casing communicating with the lower chamber, and a second port through said casing communicating with the upper chamber.

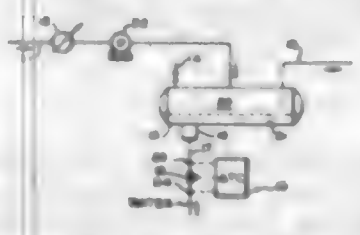
2,872,936

LIQUID PHASE SEPARATION CONTROL

Joseph D. Richardson, Old Ocean, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

Application November 19, 1956, Serial No. 622,877

9 Claims. (Cl. 137—172)



1. In a flow control operation for separating a heavy liquid phase from a light liquid phase more volatile than the heavy liquid phase of a 2-phase system, the improvement comprising passing said heavy liquid phase through a flow control zone, subsequently passing said light liquid phase through said zone and flash vaporizing said light liquid phase therein thereby decreasing temperature downstream of said flow control zone and producing a temperature differential across said zone, and regulating the flow of said light liquid phase through said zone in response to said temperature differential.

7. An apparatus comprising a vessel for containing liquid under pressure, an inlet to said vessel for admission of liquid, an outlet for outlet of liquid from the upper portion of said vessel, a conduit for outlet of liquid from the lower portion of said vessel, a flow restricting means in said conduit, a first temperature responsive device in thermal communication with said conduit intermediate said flow restricting means and said vessel, a second temperature responsive device in thermal communication with said conduit on the side of said flow restricting means opposite said first thermal responsive device, and a differential temperature controller operatively communicating with said first and second temperature responsive devices and said flow restricting means in such a manner as to operate the latter to restrict flow of liquid therethrough in response to a decrease in temperature as indicated by said second temperature responsive device with respect to the temperature indicated by said first temperature responsive device.

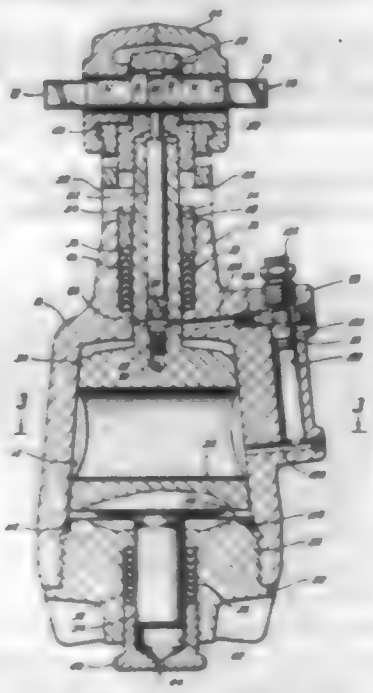
2,872,937

VALVE ASSEMBLY

Gordon C. Housworth, Houston, Tex., assignor, by direct and mesne assignments, to Russel A. Myers, Houston, Tex.

Application February 13, 1956, Serial No. 565,168

2 Claims. (Cl. 137—246.11)



1. A valve assembly comprising a valve casing having a flowway therethrough and an internal bore intersecting said flowway and forming a valve seat, a valve in the bore whose length is less than the depth of said bore and having a passageway therethrough, said valve being rotatable to move said passageway into and out of alignment with said flowway and also being movable longitudinally in the bore into and out of seating engagement with said seat, said valve having an external, annular, lubricant receiving groove surrounding said passageway and positioned to be closed by said seat when the valve is seated, a tubular stem on the valve rotatably extended through the casing, a plunger movably positioned in the stem, said valve having a passageway in communication with said groove and with the interior of the stem beneath the plunger, means for introducing a lubricant into said stem beneath the plunger, means on the casing for actuating said stem to move said valve longitudinally and positioned for coaction with the casing and said plunger to hold the plunger against longitudinal movement in the direction of stem movement upon seating movement of the valve.

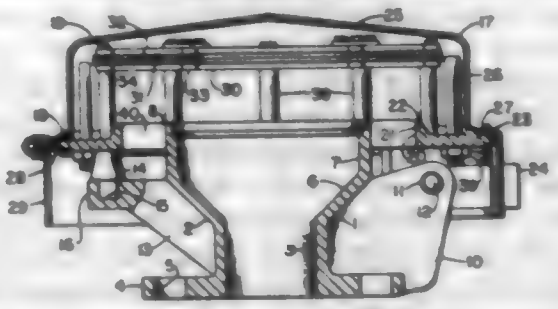
2,872,938

RELIEF VALVE

Franklin A. Hansen and John H. Boetjer, Kansas City, Mo., assignors to Black, Sivalls & Bryson, Inc., Kansas City, Mo., a corporation of Delaware

Application April 12, 1956, Serial No. 577,782

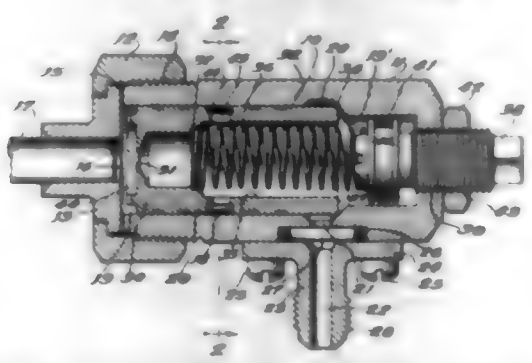
4 Claims. (Cl. 137—493.9)



1. In a pressure and vacuum relief valve comprising a valve body having an annular upstanding seat, a cover,

a cover base having an annular upstanding seat spaced radially from and level with said annular seat on said valve body, means movably connecting said cover base to said valve body, the improvement including an annular floating valve plug positioned on said upstanding seats when seated comprising an upper annular diaphragm member, a lower annular seating member, clamping means securing the inner and outer peripheral edges of said diaphragm member and said seating member, and apertures in said seating member.

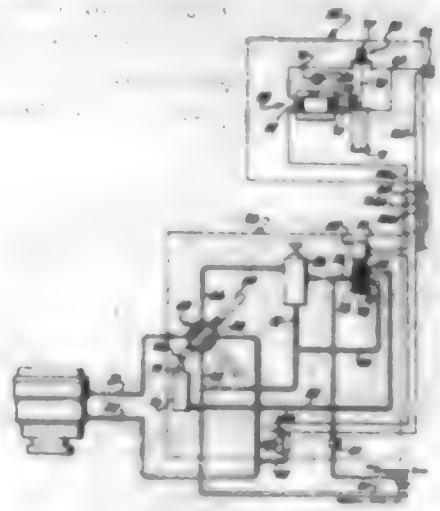
2,872,939
FLOW CONTROL VALVE
Charles M. Terry, Decatur, Ill., assignor to A. W. Cash Valve Manufacturing Corporation, a corporation of Illinois
Application December 10, 1954, Serial No. 474,444
4 Claims. (Cl. 137—504)



1. A flow control valve comprising: a housing having a longitudinal chamber formed by a cylindrical wall and two end walls; a fluid inlet port in the housing adapted to direct fluid under pressure through one end wall into said chamber; the opposite end wall of said chamber being tapered inwardly in a direction away from the inlet port to form an annular bevelled seat facing said inlet port; an annular groove in the cylindrical wall of the chamber having one side thereof formed by the outermost portion of the bevelled seat; a fluid outlet port in said housing communicating with said annular groove; a hollow cylindrical member slidably mounted in said chamber and having a perforate end wall adjacent the inlet port, the opposite end of said cylindrical member having an end wall extending laterally across the cylindrical member, said end wall having an outer annular edge forming an annular valve member of the same outer diameter as the cylindrical member to close with line contact against the bevelled seat with the outermost portion of the bevelled seat lying outwardly of the valve member; and a spring for urging said cylindrical member to open position.

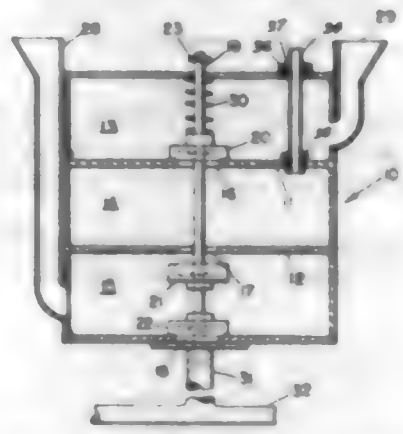
2,872,940
ELECTRICAL CONTROL AND INDICATING SYSTEM
George E. Lewis, Arcadia, Calif., assignor to Hydril Company, Los Angeles, Calif., a corporation of Ohio
Application October 17, 1956, Serial No. 616,568
23 Claims. (Cl. 137—554)

1. Apparatus for actuating a fluid operated well blowout preventer comprising a valve for controlling the passage of actuating fluid, electrically operated means controlling said valve, an electric circuit for feeding actuating current to said means and including a switch connected in series therewith to energize said means and thereby open said valve upon closure of said switch, a shunt circuit across said switch through which a reduced current flows in series with said valve controlling means when the switch is open, an indicator energized by said reduced current in the shunt circuit to test the circuit through said valve controlling means, a transformer having a first coil connected in series with said switch and said means and having a second coil energizing said indicator when the switch is closed, an automatic switch connected in series with said first switch, said means and said first coil of the transformer, and means for actuating said automatic switch in response to the pressure of actuating fluid on the



outlet side of said valve and adapted to automatically open said automatic switch to deenergize the indicator when said valve outlet pressure increases to a predetermined value.

2,872,941
SYNCHRONIZED LIQUID FEED CONTROL
Harold J. Soucy, Worcester, Mass.
Application February 14, 1957, Serial No. 640,284
5 Claims. (Cl. 137—576)

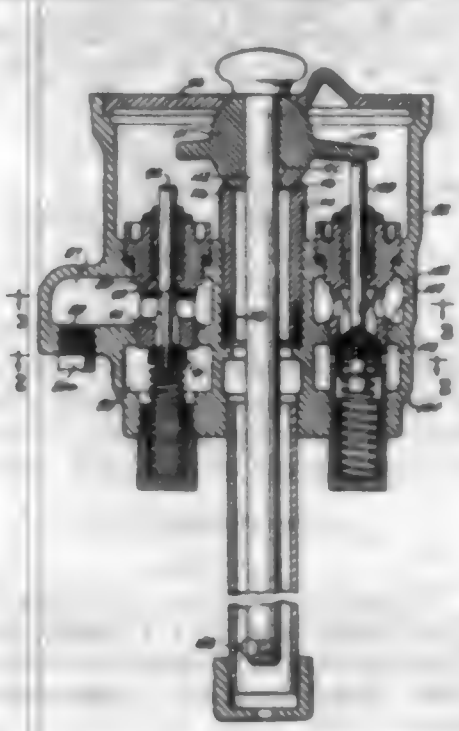


1. A fluid system comprising, a fluid reservoir having partitions dividing it into upper, intermediate and lower chambers, a port in the bottom of each chamber, valves controlling the ports, means for supplying fluid to the upper chamber, separate means for supplying a fluid of a different kind to the lower chamber, a valve stem connected to the said valves, the valves in the upper and the lower chamber seating downwardly upon their seats and the valve controlling the port in the bottom of the intermediate chamber seating upwardly upon its seat to close the latter port, a solenoid for operating the valve stem, said solenoid when energized lifting the valve stem to close the valve for the bottom port of the intermediate chamber and when deenergized causing closing of the valve controlling the ports in the bottoms of the upper and the lower chambers, and a cyclic control for successively energizing the said solenoid.

2,872,942
FLOOR LEVEL LIFT CONTROL MECHANISM
Ion V. K. Hott and Robert J. Haddix, Dayton, Ohio, assignors to The Joyce-Cridland Company, Dayton, Ohio, a corporation of Ohio
Original application November 24, 1958, Serial No. 197,274. Divided and this application December 1, 1952, Serial No. 323,391
4 Claims. (Cl. 137—622)

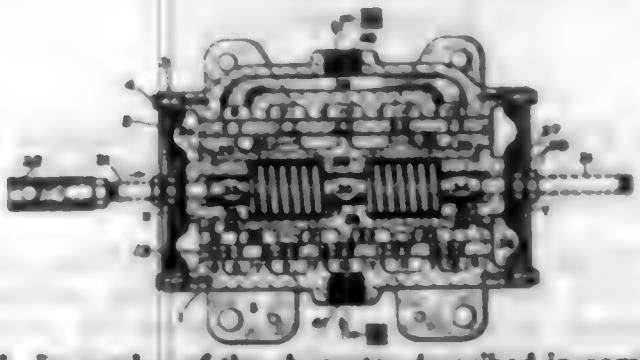
1. A valve unit including a cylindrical casing, said cylindrical casing having a vertically and centrally located apertured portion provided with a shoulder, a

plurality of valves arranged in substantially equal radial distance from the said aperture, each of said valves communicating with inlet and outlet passages, each of said valves being biased upwardly into closed position by a compression spring, at least some of the valves having upwardly directed valve stems mounted for "up" and "down" reciprocatory movement, a capping member for the casing, said capping member having a centrally located hole having a surface on the under side thereof forming a sector of a sphere, a tubular member seated in said aperture and biased upwardly by a compression spring seated on said shoulder, the upper end of the tubular member forming a spherical sector, a wobble plate-like member merging into a spherical



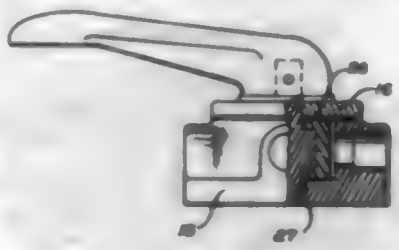
member seated between the spherical sector of the capping member and the spherical sector of the tubular member, said spherical member being provided with a hole, said last mentioned compression spring resiliently supporting the wobble plate-like member and the spherical member between the tubular member and the capping member, said spherical member cooperating with the tubular member and the capping member to form a ball and socket joint, and a handle having a rod portion projecting through the hole in the spherical member, the oscillation of the handle actuating the wobble plate-like member to actuate one or more of said valve stems downwardly to open said valve or valves.

2,872,943
SPRING BALANCED FLUID PRESSURE CONTROL VALVE
Elmer W. Easter, Pittsburgh, Pa., assignor to Drave Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 2, 1954, Serial No. 433,860
6 Claims. (Cl. 137—622)



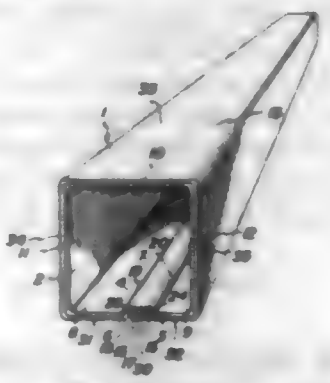
1. In a valve of the character described in combination, a valve housing, a valve member slidably mounted within the housing for axial movement relative thereto in controlling passage of fluid pressure through the housing and valve member, internal spaced compartments within the valve member receiving fluid pressure to actuate the valve, a compression spring mounted in each valve compartment, an operating member extending through the housing, the valve member and the springs for movement relative thereto, means secured adjacent each end of the operating member and extending within the spring compartment compressing the adjacent spring and disposed in spaced overlapping relation to the adjacent end of the valve member permitting limited movement of the means relative to the valve member, selective movement of said operating member causing imbalance between said springs resulting in movement of the sliding valve member to re-establish a balanced compression of the springs and selectively actuating the valve member through fluid pressure in one spring compartment.

2,872,944
HAND VALVE
Walter D. Ludwig, Oak Park, Mich.
Application December 4, 1953, Serial No. 396,092
2 Claims. (Cl. 137—625.47)



2. A valve of the class described, comprising: a housing, a cylindrical chamber in said housing having top and bottom enclosure walls; inlet and outlet ports in said housing communicating with said chamber; an oblong stop cock rotatably mounted in said cylindrical chamber for opening and closing said ports; a layer of yieldable material covering the outer surfaces of said stop cock; the dimensions of said yieldable material in the free state being larger than the corresponding dimensions of said cylindrical chamber, whereby said yieldable material will be in compression in said chamber and will continuously engage the chamber walls and sides, and divide the chamber into two portions which are sealed from each other at all positions of the stop cock.

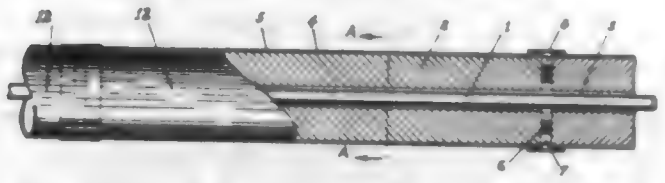
2,872,945
LOCK SEAM TUBING WITH MULTIPLE INDEPENDENT PLIES
Howard A. Burleson, Upland, Calif.
Application March 7, 1956, Serial No. 570,151
2 Claims. (Cl. 138—62)



1. A double-ply metallic tube comprising an outer tube formed from a strip of sheet metal with the longitudinal edges of said strip being provided with interlocked hooked portions forming a lock seam and an inner tube fitting snugly within said outer tube to eliminate any relative movement therebetween and formed from metal plate having straight longitudinal edges separated from each other and dimensioned to receive therebetween the outer tube lock seam, the distance between said separated longi-

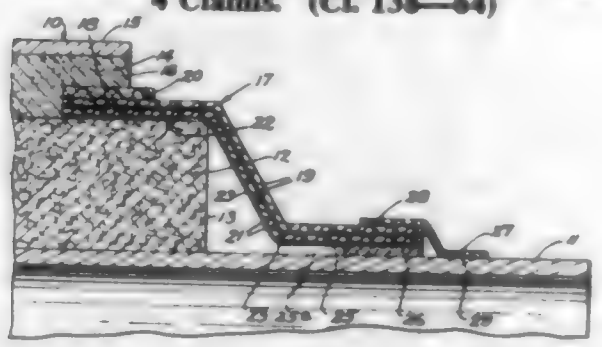
tudinal edges of said inner tube being greater than the width of said lock seam so that said lock seam is independent of said inner tube.

2,872,946
THERMAL INSULATION SYSTEM
Harry K. Stueber, Baltimore, Md.
Application June 20, 1955, Serial No. 516,416
4 Claims. (Cl. 138—64)



1. A preformed insulation unit for insulating a fluid carrying pipe, the inner contours of said unit generally conforming to the outer configuration of the pipe with which it is to be used, expandable means on said inner contours of said unit, being adapted to expand after assembly of said unit upon the pipe to fill any voids therebetween, and an outer sheath surrounding said unit to form a support therefor.

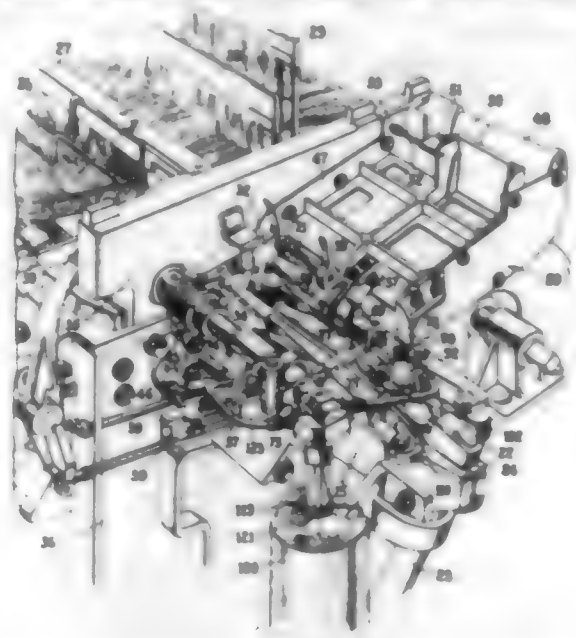
2,872,947
PROTECTIVE HOOD ENCLOSURES FOR ENDS OF THERMALLY INSULATED PIPE UNITS
Alexander H. Isenberg, Woodside, Calif.
Application April 2, 1956, Serial No. 575,608
4 Claims. (Cl. 138—64)



3. In a thermally insulated conduit unit having an elongated tubular outer casing, and having within said casing a conveyor pipe enclosed within a layer of thermal insulating material which is in turn enclosed within a layer of moisture impervious material, the terminal ends of said conveyor pipe and respective layers being in stepped relation whereby the thermal insulation has an exposed end portion, the combination therewith of a closure means at an end of the conduit unit comprising a hood of a plurality of overlying circumferentially wrapped layers of flexible water-proofed tearable strip fabric circumferentially enclosing the exposed end portion of the thermal insulation, one edge portion of the hood being circumferentially secured between the outer face of the thermal insulation layer and the inner face of the moisture impervious layer, and the opposite edge portion of the hood being secured circumferentially of the conveyor pipe, an intermediate portion of said hood covering the exposed stepped end portion of the layer of thermal insulation.

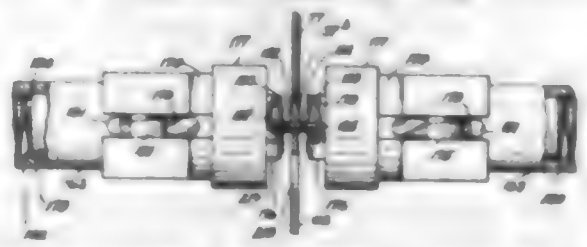
2,872,948
AUTOMATIC BOBBIN REPLENISHING LOOM
John L. Newbegin, Champlain, N. Y., and Waldo H. Banks, Hopedale, Mass., assignors to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application August 31, 1956, Serial No. 607,420
22 Claims. (Cl. 139—247)

1. In combination in a loom for weaving, a bobbin feeding means for retaining and presenting for transfer to a loom shuttle a supply of bobbins having filling wound thereon an end of which is wound in the form of a tip bunch adjacent the bobbin end, transfer means for moving the leading one of said supply of bobbins into the shuttle upon call for replenishment, a thread cutter and binder for severing and holding the end of filling from the exhausted bobbin and a temple thread cutter, a means



for engaging and pulling the tip bunch from the bobbin being transferred to the shuttle, and a pneumatic means for holding said tip bunch and filling end from said bobbin further effective for disposing of the bunch and end when the latter is cut at the fabric selvage.

2,872,949
TENSION SPRING MACHINE
William Leroy Reiter, Stanley J. Gartner, and Henry W. Roeber, Emporium, Pa., assignors to Sylvania Electric Products Inc., Emporium, Pa., a corporation of Massachusetts
Application April 11, 1945, Serial No. 587,674
34 Claims. (Cl. 140—71)



2. The combination, in a machine of the character described, wire gripping means, means for supporting said wire gripping means at a first and a second position, means for feeding a predetermined length of wire into said wire gripping means, means for cutting the wire, means at one station for doubling the wire upon itself to provide a connecting portion and side legs, rotating means at another station for winding a coil in each of said legs, said gripping means at said first named station functioning as an arbor over which the wire is bent and at the other of said stations as a support against which said legs are yieldingly held while said coils are wound, and means for effecting intermittently the movement of said gripping supporting means between said stations.

2,872,950
DISPENSING DEVICE
Charles Castelli, New Brunswick, N. J., assignor to Johnson & Johnson, a corporation of New Jersey
Application March 12, 1954, Serial No. 415,721
12 Claims. (Cl. 141—24)

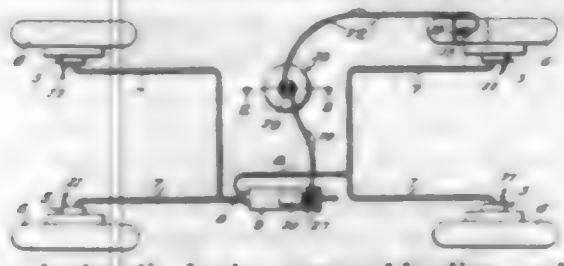
1. A dropper, for use in dispensing liquids from a container, which includes a cap with depending peripheral skirt defining a chamber to accommodate the portion of the container to be capped, a hollow, resilient bulb formed integrally with the cap and communicating with the chamber, a dropper tube with a bore extending throughout its length and having a flange of a given outer

size at its upper end fitting within the cap chamber and sloping means on the cap skirt and on the dropper tube flange cooperating to effect a substantially air tight passageway between the interior of the bulb and the bore



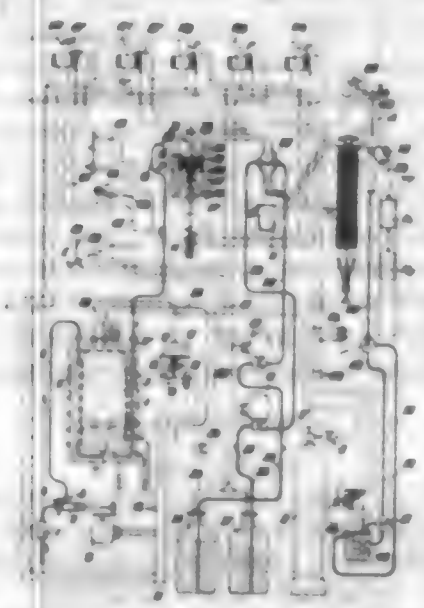
of the dropper tube, said sloping means on the cap skirt defining an opening of a size smaller than the size of said flange whereby the parts may be snapped into engagement with each other.

2,872,951
HYDRAULIC BRAKE SYSTEM BLEEDING AND REFILLING APPARATUS
Edward D. Wilkerson, Livingston, N. J.
Application September 21, 1956, Serial No. 611,244
3 Claims. (Cl. 141—94)



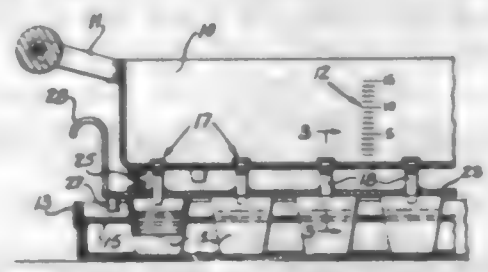
1. In a hydraulic brake system bleeding and refilling apparatus of the general type comprising an air pressure line, a brake fluid conducting line, and a fluid reservoir connected to one end of the brake fluid conducting line; the improvement consisting of a transparent reservoir connected to the air pressure line and to the other end of the brake fluid conducting line, and in the provision of visible indicating lines on said transparent reservoir and arranged to define four equal predetermined fluid volumes and enable the operator to supply equal quantities of brake fluid to each of the usual four line branches of the brake system.

2,872,952
APPARATUS FOR PRODUCING AND AUTOMATICALLY DELIVERING FRUIT-FLAVOURED SODA WATER INTO DRINKING VESSELS
Karl-Heinz Kreissler, Schoningen, near Braunschweig, Germany
Application June 10, 1954, Serial No. 435,825
Claims priority, application Germany August 30, 1952
15 Claims. (Cl. 141—105)



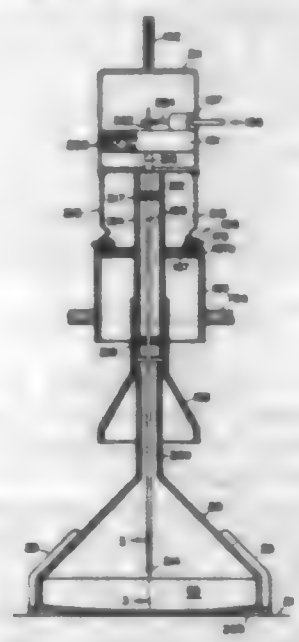
1. In an apparatus for the production and automatic delivery of fruit flavored soda water in drinking beakers, the combination comprising a beaker stack, means for separating and removing the uppermost beaker from said stack, supply means for a plurality of different fruit juice supplements and soda water, a series of electronic time relays, a first one of said relays responsive to the insertion of a coin to control the operation of said separating and removing means and to connect a second of said relays to control said supply means in dependence on one another, and pre-selector means for the fruit juice supplements operable by an operator of the apparatus, the said relays having respective time delays to produce a locking circuit upon coin insertion.

2,872,953
LIQUID DISPENSING DEVICE
James O. Duncan, Hyattsville, Md.
Application April 30, 1957, Serial No. 655,974
8 Claims. (Cl. 141—237)



1. A wine dispensing device for filling simultaneously all glasses in a holder tray comprising a bowl having a multiplicity of valved nipples slidably mounted through its bottom, a common support plate for simultaneously lifting said nipples to open position, said nipples being arranged in the same pattern in said bottom and spaced like the glass spaces in the tray to be serviced, each nipple having integrally formed therewith the movable part of its valve, spring means for normally biasing said plate downwardly to hold the nipples in valve closed position, and manually operated means on said plate, responsive to pressure of the bowl over the glasses in said tray to move said nipples upwardly with respect to said bowl into valve opened position for simultaneously filling all the glasses in said tray, said bowl having handles extending from opposite sides to facilitate the dispensing operation.

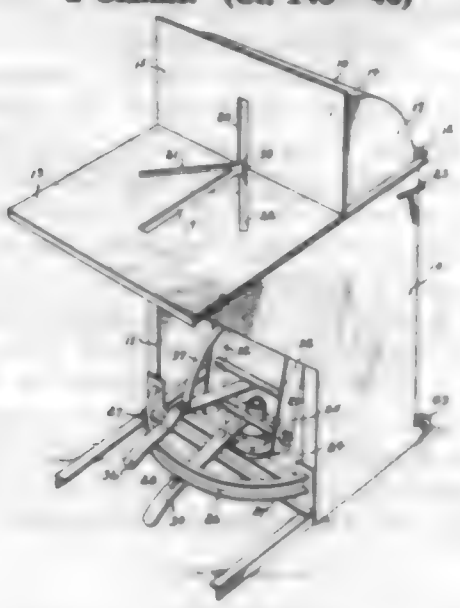
2,872,954
AUTOMATIC CATHODE-RAY TUBE MANUFACTURING APPARATUS
James S. Bailey, Chicago, Ill., assignor to The Rauland Corporation, a corporation of Illinois
Application September 17, 1956, Serial No. 610,102
1 Claim. (Cl. 141—263)



An apparatus for dispensing a liquid film solution, under conditions which inhibit turbulence, onto a settling

solution contained within a cathode-ray tube bulb supported with its neck portion uppermost comprising: a constant pressure reservoir for storing a body of film solution; a first conduit having a passageway of predetermined cross-sectional area coupled to and depending downwardly from said reservoir; a second conduit having a passageway smaller in cross-sectional area than that of said first conduit and depending in coaxial alignment therefrom; valve means interposed between said first and second conduits for discharging said film solution from said reservoir to said second conduit; a third conduit constituting the discharge outlet of said apparatus, depending in coaxial alignment from said second conduit and having a passageway with a cross-sectional area large with respect to that of said second conduit and said passageway having a length such that a column of said liquid supported therein by the surface tension of the liquid at the lower extremity of the passageway will not break the surface at said extremity; and means for projecting and withdrawing the lower end of said third conduit into and out of said bulb neck portion.

2,872,955
COMBINATION FOOT CONTROLLED SWING CUT-OFF MITER AND RIP SAW
James E. Schmitz and Vincent O. Schmitz, Cerro Gordo, Iowa
Application March 19, 1956, Serial No. 572,351
2 Claims. (Cl. 143—46)



1. In a power saw, a frame housing, a table top having a plurality of slots, an enclosed hood having a width substantially that of the width of said table top, having a forward side, two ends and a flat side operatively hingedly secured to one side of said table top; said flat side of said hood having a slot communicating with the slots of said table top, a saw frame horizontally hingedly mounted to said frame housing, a circular saw rotatably mounted on said saw frame and capable of being selectively moved into and out of any one of said first slots from said second mentioned slot when said flat side of said hood is perpendicular to said table top by the swinging action of said saw frame, a prime mover operatively secured to said circular saw, and a foot lever operatively secured to said saw frame.

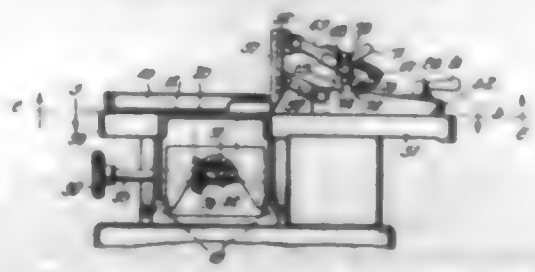
2,872,956
SAW CHAIN
Austin Gudmundsen, Inglewood, Calif., assignor to McCulloch Motors Corporation, Los Angeles, Calif., a corporation of Wisconsin
Application June 6, 1955, Serial No. 513,305
7 Claims. (Cl. 143—135)

1. In a saw chain: a plurality of cutting units, each cutting unit comprising a leading link and a following link connected thereto in overlapping, articulated relation, one of said links being a side link and the other being a center link, a leading cutter on said leading link comprising a shank portion and a toe portion adapted to lift one side of a ribbon from the bottom of a kerf, and a finishing cutter on said following link comprising a shank portion and a toe portion adapted to lift the remaining side of said ribbon; depth gauges for said lead-



ing cutters, said finishing cutter being arranged close to said leading cutter so that the leading cutter acts as a depth gauge for the finishing cutter; and link means connecting said cutting units in spaced relation so as to provide ribbon conveying chambers following the cutter units.

2,872,957
TABLE AND FENCE ADJUSTING MEANS FOR A JOINTER
William A. Eschenburg, South Beloit, Ill., assignor to Yates-American Machine Company, Beloit, Wis., a corporation of Delaware
Application December 24, 1956, Serial No. 630,299
5 Claims. (Cl. 144—253)

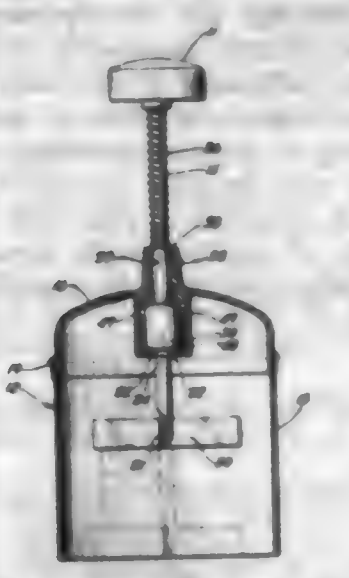


1. In a jointer for material cutting operations which is characterized by fixed and movable table sections having work supporting surfaces arranged on opposite sides of a rotatably mounted cylindrical cutter head which has its axis of rotation extending parallel to said work supporting surfaces and transversely of the longitudinal axis thereof, said cutter head having cutting blades with the cutting edges parallel to the axis of rotation of the head, an elongate guide fence having a work guiding surface which extends in a longitudinal direction along said table sections, and a mounting means for said guide fence comprising a support bracket attached to one side of the fixed table section and having a top horizontal surface in the same plane as the work surface of said fixed table section, a guide bar fixed on the top surface of said support bracket and extending parallel with the axis of rotation of said cutter head, and a mounting plate having the guide fence pivotally connected thereto, said mounting plate having a bottom surface for slidably engaging the top surface of said support bracket, said bottom surface having a guide groove for receiving said guide bar which guide groove extends perpendicular to the longitudinal axis of the work guiding surface on said fence, and said bottom surface having a second guide groove for receiving said guide bar which second guide groove is inclined relative to said first guide groove, whereby said mounting plate may be adjusted on said support bracket for positioning the longitudinal axis of the work surface of said fence either perpendicular to the axis of the cutter head or diagonal relative thereto.

2,872,958
FOOD CHOPPER
Samuel J. Popell, Chicago, Ill.
Application July 16, 1957, Serial No. 672,286
5 Claims. (Cl. 146—160)

1. In a food chopper having a reciprocating shaft with chopping blades at one end of the shaft and a housing

which journals the shaft for reciprocation, a random indexing mechanism comprising in combination, a cylindrical sleeve, said sleeve having inwardly integral extending uniform fins said fins forming a plane parallel with the sleeve axis, a plurality of teeth on the shaft aligned axially along the shaft; the sleeve fins, and teeth being proportioned and oriented for contact between the teeth and fins to provide overrunning action in one direction and locking engagement in the other when the sleeve is rotated with respect to the shaft; and co-operating means on the housing and the sleeve for imparting a rotational motion to the sleeve with respect to the reciprocating shaft at the forepportion of the shaft downstroke.



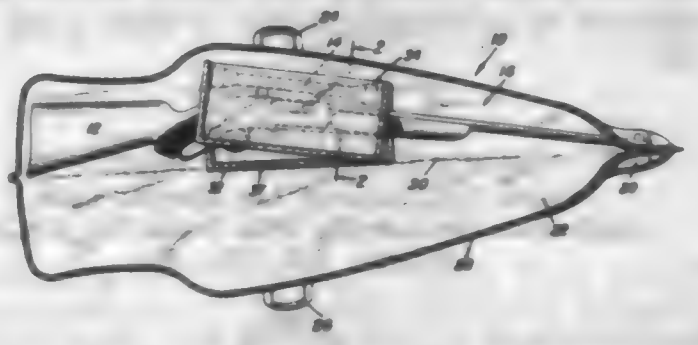
2,872,955
QUIVER SILENCER
Harry C. Stockfleth, Chatham, N. J.
Application May 14, 1957, Serial No. 659,177
2 Claims. (Cl. 150—1.5)



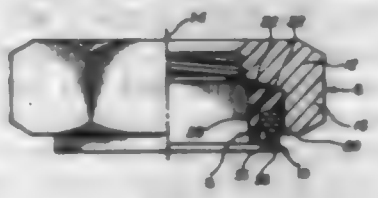
1. A silenced arrow quiver comprising: a tubular body open at its upper end and having a peripheral side wall; and arrow silencer means in the form of an elongated brush including a flexible backing member and bristles projecting from one side face of said backing member, said silencer means being mounted as a circumferential ring inside the quiver body with its backing member abutting the inner periphery thereof and the bristles inwardly presented in radial relation to the axis of said body to intervene between the shafts of arrows carried by the quiver to prevent rattling contact of each arrow with the others adjacent thereto, the length of the bristles being in excess of one-half the inside diameter of the quiver body, whereby the bristles overlap at different angles to each other in a secure shaft-engaging arrangement.

2,872,960
FIREARM CASE ATTACHMENT
Howard H. Kolpin, Berlin, Wis.
Application October 31, 1956, Serial No. 619,568
1 Claim. (Cl. 150—52)

A firearm case comprising a padded flexible protective sheet foldable about a central longitudinal line to form a casing substantially conforming to the contours of a firearm, and a flexible padded panel secured to said sheet for encompassing a telescopic sight on said firearm, said flexible padded panel having an inner edge thereof lying on and in longitudinal alignment with said central longitudinal line, a slide fastener extending about the peripheral edge of said sheet, said panel being rectangular in shape and having a width greater than one-half the greatest width of the sheet when it is spread out in open position for folding into enclosing relation to a telescopic sight, said panel being secured to said sheet by stitches adjacent to and along said inner edge thereof.



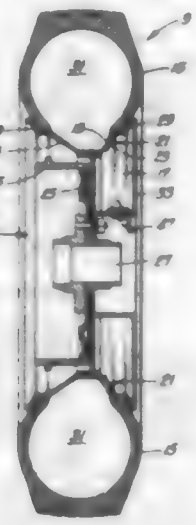
2,872,961
FASTENING DEVICE WITH MEANS FOR SEALING AGAINST BOTH A THREADED COMPANION FASTENER AND A WORKSURFACE
Malcolm E. Mills, Glen Rock, and Charles C. Faroni, Morris Plains, N. J., assignors to Elastic Stop Nut Corporation of America, Union, N. J., a corporation of New Jersey
Application June 30, 1954, Serial No. 440,514
4 Claims. (Cl. 151—7)



2. A fastening device comprising a nut member having a threaded portion defining an axis, a cylindrical coaxial first surface of larger diameter than the thread and axially spaced from said threaded portion, a washer face perpendicular to said axis at the end of said first surface remote from said threaded portion and extending outwardly from said first surface, and a frusto-conical second surface joining the threads and the end of said first surface adjacent said threaded portion, said first and second surfaces defining a recess, a generally annular plunger having a top portion having a third surface generally facing said second surface, a bottom portion having an inner cylindrical fourth surface concentric with said axis, and an end face perpendicular to said axis and normally outside said recess, said plunger further having a cylindrical fifth surface in sliding relation with said first surface, said plunger being axially slidable in said recess to move said third surface toward and away from said second surface, and a generally cylindrical sealing element of thread impressionable elastic rubber-like material, having a top portion having a part conforming to and engaging said first, second and third surfaces, a bottom portion having an end face perpendicular to said axis and normally less far outside said recess than the end face of said plunger, an inner normally cylindrical sixth surface concentric with said axis and throughout its length having a diameter slightly greater than the major diameter of the thread of said nut member, and said bottom portion of said sealing element having an outer cylindrical seventh surface concentric with said axis and of smaller diameter than said fourth surface, said bottom portion of said plunger thus normally spaced radially outwardly from said bottom portion of said element,

such that when said washer face is drawn against a mating surface by a companion externally threaded fastener said plunger will be driven by said mating surface so that material from the top portion of said sealing element will be displaced inwardly against the thread of said companion fastener in locking and sealing fashion and the bottom portion of said sealing element will be deformed by said mating surface to effect a seal therewith.

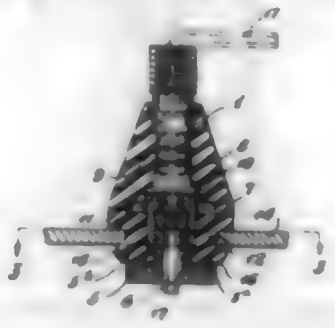
2,872,962
SHOCK CUSHIONING WHEEL
André J. M. Laurent, Los Alamos, Calif.
Application October 30, 1956, Serial No. 619,240
1 Claim. (Cl. 152—10)



A shock cushioning vehicle wheel comprising a hub having a peripheral flanged rim adapted for mounting a tubeless pneumatic tire, said hub being formed to provide an annular fluid tight chamber and a plurality of circumferentially spaced passages communicating with said chamber and terminating at said rim for communication with the interior of said tire, a plurality of valve members hingeably mounted along one side thereof on shafts secured to said hub for swinging movement between first and second positions closing off and opening said passages respectively, a helical spring wound about each of said shafts having an extension perpendicular to the axis of said spring at one end thereof lying against each of said valves and having a second extension perpendicular to the axis of said spring at the second end thereof lying against said hub resiliently biasing said members toward said first position, said members being adapted to swing toward said second position against the bias of said spring means in response to increases in fluid pressure in said tire, each of said members being formed with a bleeder passage therethrough smaller than said first named passage for slowly equalizing fluid pressures in said chamber and tire, and valve means in said chamber opening to the exterior thereof for the addition of fluid thereto.

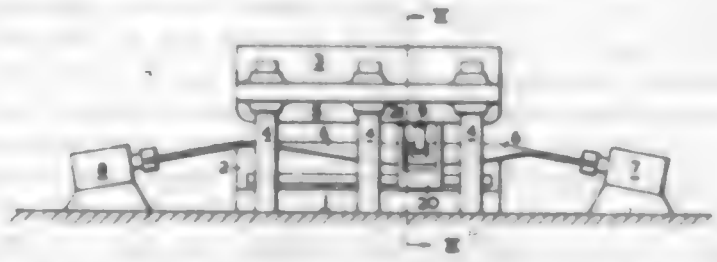
2,872,963
VALVE STEM FOR TUBELESS TIRES
Ralph K. Boyer, Cleveland, Ohio, assignor to The Dill Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application December 4, 1953, Serial No. 396,220
1 Claim. (Cl. 152—427)

A valve stem for tubeless tires which as a unit can be mounted in or removed from the standard size rim opening of a tubeless tire when a tubeless tire is mounted on the rim and comprising a rigid insert having a bore extending from one end of the insert and shaped and threaded to receive a valve insides or core and communicating adjacent the opposite end of the insert with a threaded counterbore therein, a rubber body surrounding said insert and extending from adjacent said one end thereof toward said opposite end thereof and bonded thereto, said body having an enlarged diameter portion of a diameter greater than the diameter of the rim opening and an integral cylindrical extension projecting longitudinally from said enlarged portion and bonded to said insert at said opposite end thereof and projecting beyond said opposite end and of a diameter interfitting and passable through the rim opening, and a securing member having a head engageable with the free end of said cylindrical extension of the body and substantially of the same diameter as that of said extension, said member having a tubular externally threaded portion screwing into said threaded counterbore in said insert, said cylindrical extension of said body being spaced radially outwardly of said externally threaded tubular portion of said member prior to the installation of said valve



stem as a unit in the rim opening, said member being provided with wrench surface means cooperating with similar means on a tool insertable in said insert and rotatable to rotate said member relative to said insert whereby said valve stem can be secured to said rim as a unit when a tire is mounted on the rim by passing said cylindrical extension of said body through the rim opening until the outside of the rim is engaged by the enlarged portion of said body and then turning the tool extending through the insert to rotate said securing member and cause said head to exert a longitudinal pressure on the free end of said cylindrical extension of the body to compress the same longitudinally and expand it diametrally beyond its normal diameter and into engagement with the inner side of the rim within the tire and with said tubular portion of said member.

2,872,964
FORMING BLOCK WITH SHIFTABLE CLAMPING ELEMENT FOR APPARATUS FOR WORKING METAL STOCK
William Stephen Hollis, Banstead, England, assignor to National Research Development Corporation, London, England, a British corporation
Application November 1, 1955, Serial No. 544,234
Claims priority, application Great Britain November 3, 1954
5 Claims. (Cl. 153—48)



1. A machine for making a component of tapering cross-section by stretching and forming from aluminum and other metal stock having similar working characteristics and which stock is in the form of a sheet or slab having a cross-sectional area which varies progressively along a given dimension, comprising a holding element for application to the stock at one end of said dimension, combined forming and clamping elements including a forming block, a clamping element, supporting means for

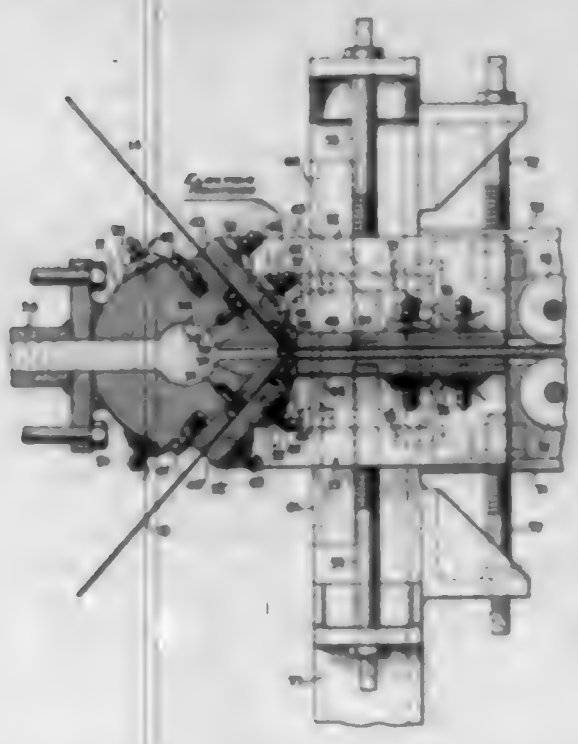
said clamping element along which the latter is movable along said dimension so as to be capable of forming and clamping the stock upon the forming block at successive positions therealong and at progressively decreasing distances from said holding element, and means causing relative movement between said combined forming and clamping elements and said holding element along said dimension to stretch the progressively reducing length of stock held by said holding element and extending between combined forming and clamping elements thereby permitting substantially equal extensions to be made to said stock per unit of length along said dimension.

2,872,963

METHODS AND APPARATUS FOR FORMING SANDWICHES OF A FOAMED PLASTIC LAYER INTERPOSED BETWEEN WEBS OF SHEET MATERIAL

James B. Simon, Carthage, N. Y., assignor to St. Regis Paper Company, New York, N. Y., a corporation of New York

Application September 15, 1954, Serial No. 456,253
3 Claims. (Cl. 154—1)



2. Apparatus for forming sandwich constructions of a layer of foamed plastic material between sheets of flexible material, which apparatus comprises in combination: means respectively for guiding and confining two continuously advancing webs of the sheet material in a predetermined opposed closely-spaced relation and thence along in a more widely spaced opposed confined relation; means for heating said guiding means to preheat the webs as they approach such closely-spaced relation and as same advance in such opposed confined relation; an extruder having heating means therefor and having an orifice between said webs at their positions of closely spaced relation for extruding a continuous layer of foaming plastic material heated at its surfaces substantially to bonding temperature, directly onto and under confinement between said webs at their closely-spaced position as the material is extruded from said orifice and whereby the extruded heated plastic is then allowed to expand to foamed condition and bond itself to said webs filling the space between the webs including where same are more widely spaced, said guiding means being shaped and positioned to cause the webs slidably to engage opposite sides of the orifice of the extruder to thereby confine the emerging foaming plastic to the space defined by the webs; and means for pulling the resulting sandwich through the apparatus thereby also to pull the sheets into the apparatus.

2,872,966

MECHANICS STOOL

Abe Chamness, Dallas, Tex.

Application October 22, 1956, Serial No. 617,476
1 Claim. (Cl. 155—2)



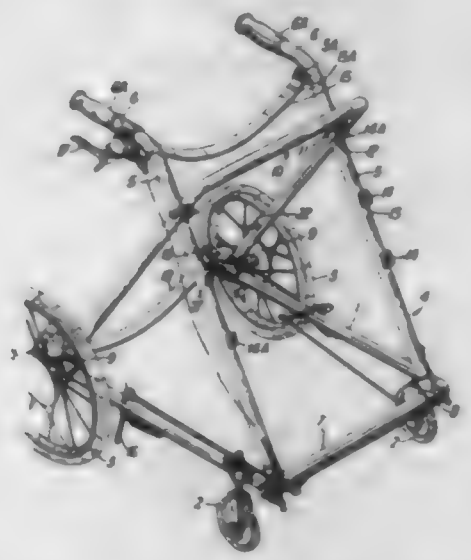
A wheeled stool comprising a tubular frame including a base consisting of a normally horizontally disposed U shaped member, bent substantially 180 degrees intermediate its ends and having a pair of forwardly extending, parallel end portions, and a seat support consisting of a pair of elongated members, each rigidly connected at one end to the base, rearwardly of the end portions, and curved upwardly, rearwardly and inwardly, and then upwardly, forwardly and inwardly relative thereto, a seat, means adjustably and removably connecting the seat to the upper ends of the elongated members, a pair of casters positioned below the base and connected thereto adjacent its ends, a caster positioned below the base and connected thereto intermediate its ends, and a pair of foot rests on the base adjacent its ends.

2,872,967

WALKING-AID APPARATUS

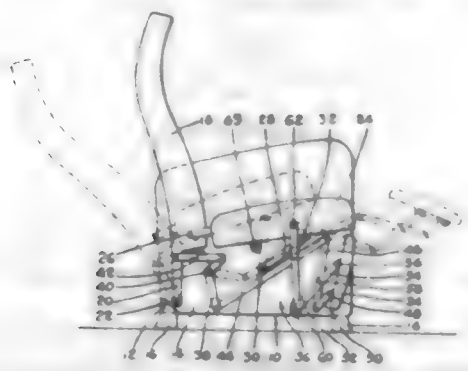
Vida E. Kirkpatrick, Ballymoney, Northern Ireland

Application November 13, 1956, Serial No. 621,849
4 Claims. (Cl. 155—22)



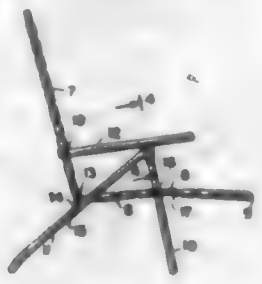
1. Walking-aid apparatus comprising laterally interspaced handles, a wheeled base open at the end below said handles and comprising two horizontal and interspaced members, a first substantially U-shaped frame, the closed end of which is attached to the front end of said base members and which at its open end presents said handles and is pivotal between an upwardly and rearwardly inclined in-use position and a collapsed position in which it lies substantially parallel with said base members, a second substantially U-shaped frame of which the open end is attached to the rear end of said base members and lies outside the first frame, said second frame being pivotal between an upwardly and forwardly inclined in-use position and a position in which it lies substantially parallel with said base members, and means for releasably interlocking said first and second frames at various inclinations so that the height of the handles may be varied.

2,872,968
ARTICLE OF REPOSE FOR SUPPORTING THE BODY OF A PERSON
Anton Lorenz, Ocean Ridge, Fla.
Application November 26, 1954, Serial No. 471,375
10 Claims. (Cl. 155—106)



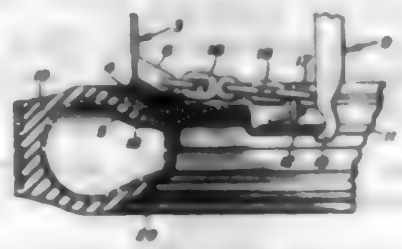
3. A reclining chair comprising a base member, a back-rest pivotally mounted on said base member, a seat member pivotally mounted at its rear end on said back-rest at a point above the pivotal connection of the latter with said base whereby said seat moves rearwardly with said back-rest, a double-armed lever swingably mounted on said base, link means pivotally connecting one end of said double-armed lever with said back-rest at a point above the pivotal connection of the back-rest to said base member, whereby said link means pulls said one arm of the double-armed lever rearwardly when the back-rest is pivoted rearwardly, control means between a portion of said chair and the forward portion of said seat for raising said seat forward portion when the seat is moved rearwardly with the back-rest, a leg-rest, and a leg-rest controlling linkage including a plurality of interconnected links movable in dependence on each other, the controlling linkage being supported by at least one of said seat and base members and being operatively connected to the other arm of said double-armed lever, said leg-rest being pivoted at spaced points thereof to two links of said linkage.

2,872,969
ADJUSTABLE FOLDING CHAIR
Morton I. Thomas, Monroe, N. Y.
Application March 10, 1958, Serial No. 720,195
1 Claim. (Cl. 155—117)



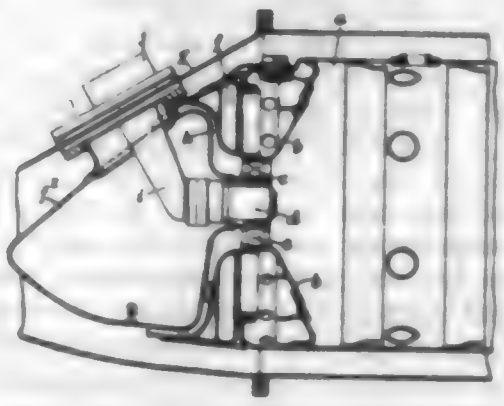
A folding chair comprising front and back leg frames pivotally connected together at their upper ends, a seat frame pivotally connected at its forward end to said front leg frame, a back frame pivotally connected at its lower end to said back leg frame and to the rearward end of said seat frame, arm rests pivotally connected to said back frame and extending forwardly therefrom over the tops of the front and back leg frames, inverted channel brackets having bight portions connecting dependent side walls and forming channels engaged over the upper ends of said front and back leg frames, pivot studs extending across said channels and through the upper ends of said front and back leg frames, said bight portions of the channel brackets having upward extensions at the rearward ends of the same providing lugs and said lugs having stop shoulders at the lower ends of the same, reduced shanks above said stop shoulders and laterally extended cross heads at the upper ends of said shanks, said arm rests being of tubular formation and having slots in the undersides of the same slightly wider than said reduced shanks, said cross heads being located within said tubular arm rests with the reduced shanks disposed in said slots and said arm rests having widened openings at the rear ends of the slots therein providing shoulders engageable over said stop shoulders on the lugs.

2,872,970
TIRE BEAD BREAKING TOOL
William F. Bedingfield, Jennings, Okla.
Application June 1, 1956, Serial No. 588,689
1 Claim. (Cl. 157—1.17)



A tool for breaking a tire bead from a flanged rim of a wheel having a central opening therein, said tool comprising, in combination, a flat metallic bar of a uniform width throughout its length, said bar including an obtusely rearwardly angled lower end portion terminating in a reversely bent blade engageable on the tire for introduction between the bead thereof and the rim flange, a forwardly projecting apertured arm on the bar immediately adjacent said rearwardly angled lower end portion thereof, a chain having one end connected to the arm, said chain including a swivel at an intermediate point, a hand lever including a hook on its lower end engageable in the opening for swingably anchoring said lever to the wheel, and a second hook on the lever adjacent the first named hook and engageable selectively with the chain links of the other end portion of the chain for adjustably and detachably connecting said lever to the lower end portion of the bar for pulling the blade between the bead and the flange when the lever is swung away from the bar and said bar is held against swinging movement, the juncture of said blade with said rearwardly angled lower end portion of the bar providing a fulcrum for said bar operable on the tire upon rearward swinging movement of the bar for separating the bead from the flange after the blade is inserted therebetween.

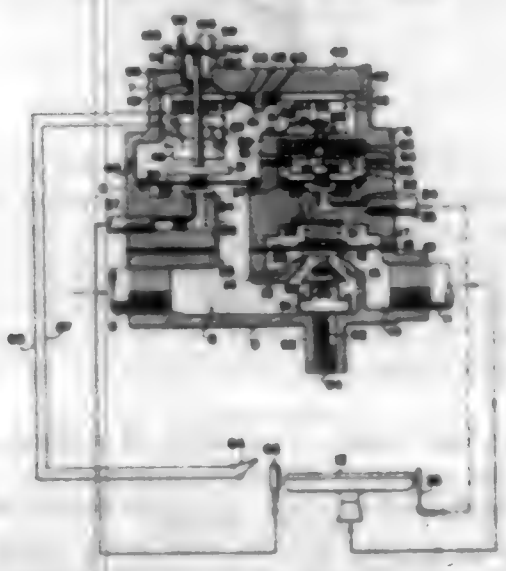
2,872,971
COMBUSTION CHAMBERS FOR JET PROPULSION ENGINES, GAS TURBINES, OR OTHER APPARATUS
John Stanley Clarke, Blacko, near Nelson, and Squire R. Jackson, Burnley, England, assignors to Joseph Lucas (Industries) Limited, Birmingham, England
Application January 10, 1955, Serial No. 480,954
Claims priority, application Great Britain January 15, 1954
1 Claim. (Cl. 158—4)



An air-jacketed combustion chamber having in combination with an air entrance at one end of the chamber,

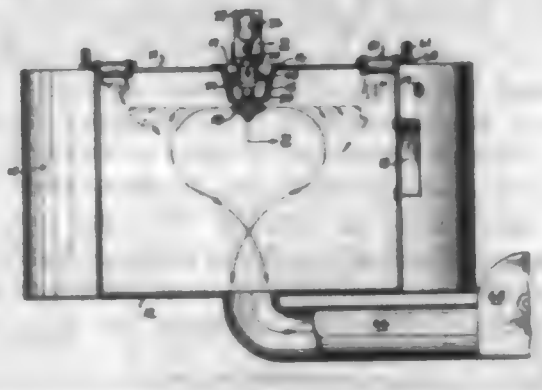
a coaxially arranged fuel nozzle surrounded by an annular air passage, and a hollow air-directing nose of progressively varying diameter extending from the air-entrance end of the chamber with the larger end of the nose adjacent to the said end of the chamber, the said nose being composed of a pair of hollow parts having adjacent faces shaped to provide through the nose a second annular air passage which has an air inlet end around the nose at a position between the ends of the nose, and an outlet end of smaller external diameter than the inlet end in communication with the first mentioned annular air passage around the fuel nozzle, so that some of the air flowing over the nose enters the second air passage and flows therethrough to the first mentioned air passage.

2,872,972
FUEL FLOW CONTROL DEVICE
Russell B. Matthews, Wauwatosa, Wis., assignor to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin
Application April 23, 1956, Serial No. 580,112
15 Claims. (Cl. 158—129)



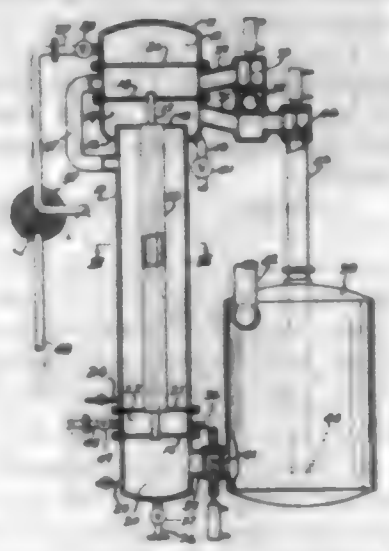
1. A fluid flow control device comprising a control body having an inlet passage and first and second outlet passages, a first flow controlling member having flow-permitting and flow-preventing positions only with respect to fluid flow from said inlet to said first outlet passage, a second flow controlling member having flow-permitting and flow-preventing positions with respect to fluid flow from said inlet to said second outlet passage, fluid pressure operated means for actuating said second flow controlling member, means including cooperating magnetic members having attracted relation providing a low reluctance flux path, means biasing said magnetic members toward separated relation, said magnetic members being operatively associated with said first flow controlling member to effect disposition thereof in one controlling position when said members are in attracted relation and in another controlling position when said members are in separated relation, means tending to establish magnetic flux flow through said flux path at a first density level sufficient to hold said magnetic members in attracted relation against said bias and through the same path at a predetermined higher density level, said low reluctance flux path means including a portion having a cross-sectional area of a size permitting flux flow therethrough at said first density level and saturable by flux flow therethrough at less than said predetermined higher density level, wherefore on flux flow through said flux path means at said higher density level flux is shunted from said flux path adjacent said saturable portion, and pilot valve means for controlling said actuating means including a magnetic control member positioned to be linked by said shunted flux and to be actuated thereby from a first to a second controlling position for actuation of said second flow-controlling member to one of its flow controlling positions.

2,872,973
SPRAY DRYING APPARATUS FOR LIQUID MATERIAL
Garret J. Nieuwenhuis and Charles C. Harrison, Seattle, Wash.
Application September 19, 1955, Serial No. 535,185
4 Claims. (Cl. 159—4)



4. In drying apparatus, a housing providing a circular drying chamber having a longitudinal center axis extending between an inlet end wall and an outlet, said end wall having a plurality of elongated air inlet openings therethrough radiating from said axis in spaced relation thereto, a blower having its suction side communicating with said chamber outlet for drawing air through said inlet openings and thence through said chamber, respective elongated combination fuel introducing and air diverter means located in said inlet openings in spaced relation to most of the length of the longitudinal side edges thereof and producing flame fronts firing directly into said chamber, said means and flame fronts being so tilted in a common circumferential direction with respect to a plane transverse to said axis as to cause said air to have a whirling travel path through said chamber, and centrifugal spray means mounted proximal said end wall for rotation about said longitudinal axis and operative to spray the material to be dried into said air travel path adjacent said flame fronts whereby moisture in the sprayed material is absorbed by said air and the dried material thereupon drawn from the chamber with the saturated air by said blower.

2,872,974
EVAPORATOR
James Mair, Birmingham, Ala., assignor to Goslin-Birmingham Manufacturing Company, Inc., a corporation of Alabama
Application August 7, 1952, Serial No. 303,060
4 Claims. (Cl. 159—20)



2. In an evaporator, a shell, upper and lower transverse tube sheets mounted in the shell in position to form therewith upper and lower chambers, upper and lower intermediate transverse tube sheets mounted in the shell and spaced inwardly of the upper and lower tube sheets to form therewith upper and lower intermediate chambers,

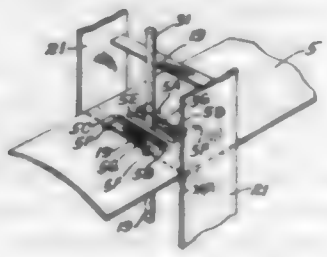
an inner tube mounted in the upper and lower tube sheets and extending through both intermediate tube sheets, an outer tube mounted in the intermediate tube sheets only and surrounding the inner tube to form an annular passage therewith opening into the upper and lower intermediate chambers, a by-pass conduit connecting the upper chamber with the shell, means to introduce liquor to be evaporated into the lower intermediate chamber during one cycle of operation to pass upwardly through the outer tube toward the upper intermediate chamber, means to introduce a heating medium into the upper chamber during said cycle of operation to pass downwardly through the inner tube and through the by-pass conduit into the shell in heat exchange relation with the outer tube, a vapor body, and means providing communication between the upper intermediate chamber and the vapor body during said cycle of operation.

2,872,975

VENETIAN BLIND SLAT ROUTE

Brooks Walker, Piedmont, Calif.

Application June 5, 1953, Serial No. 359,733
2 Claims. (Cl. 160—173)



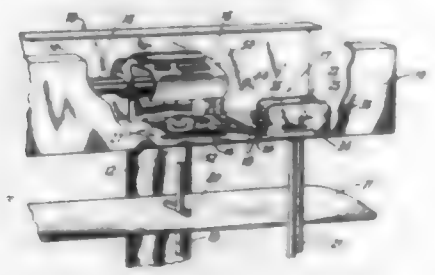
1. A Venetian blind slat provided with a lift cord receiving opening intermediate the opposite side edges thereof and being elongated transversely of said edges, said slat being further provided with a pair of tape rung receiving openings and which openings are disposed at one side of and adjacent opposite ends of said lift cord receiving opening and which are elongated longitudinally of the slat, a relatively narrow bar disposed between said lift cord receiving opening and adjacent ends of said rung receiving openings and being unitary with said slat, and a flexible rung engaging tongue unitary with said slat with opposite side edges thereof defining adjacent edges of said rung receiving openings, and the free end of said tongue being disposed adjacent said bar.

2,872,976

CORD LOCK FITTING

Hans K. Lorentzen, Montclair, N. J., assignor to Lorentzen Hardware Mfg. Corp., New York, N. Y., a corporation of New York

Original application October 17, 1951, Serial No. 251,707, now Patent No. 2,670,038, dated February 23, 1954. Divided and this application November 27, 1953, Serial No. 394,605
4 Claims. (Cl. 160—173)



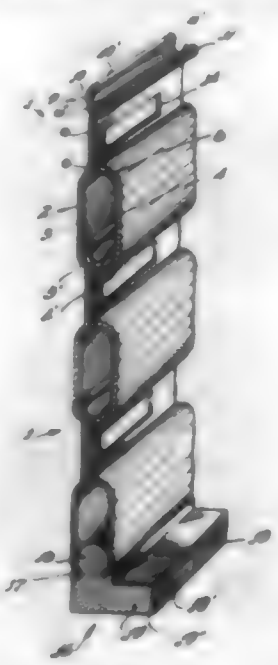
1. A unitary cord-lock fitting for an elongated Venetian blind head bar, said fitting comprising: a one-piece sheet-metal stamping having a generally flat elongated base, the end portions of the base being laterally offset from one another and being connected together by a diagonally-disposed intermediate portion, one of said end portions of the base having an opening for the passage of a single lift cord, and the other of said end portions of the base having an opening for the passage of a plurality of lift cords; means to guide a cord passing from one of said openings to the other; and cord-locking means adjacent to the opening for the passage of a plurality of lift cords.

2,872,977

ROLL-UP BLINDS

Berardo Paglaccetti and Domingo Vicente Curzio, Buenos Aires, Argentina

Application May 16, 1955, Serial No. 508,746
2 Claims. (Cl. 160—220)



1. In a roll-up blind, a plurality of hollow flat members, each flat member having a substantially U shaped main body portion including an outer arm and an inner arm, each arm having a stop, said arms being substantially the same length and substantially symmetrical with regard to a plane of symmetry, a base portion, said arms being linked to said base portion, a web having a first end and a second end, said first end being integral with said base portion, said web being located in a plane substantially parallel to and laterally spaced from said plane of symmetry and adjacent said outer arm, an enlarged portion integral with said second end, said hollow flat members being connected to each other by endwise insertion of said enlarged portion of one of said flat members between said arms of the next flat member, said enlarged portion having a larger cross-section than the space between said stops and a smaller cross-section than the space between said inner arm and said outer arm whereby said enlarged portion will be slidably disposed between said arms and the downward movement of said enlarged portion will be limited by said stops and the angular displacement of said flat members when said enlarged portion is adjacent said stops will be limited to one rotational direction in which an exaggerated angular displacement is permitted and said blind will present a flat appearance from the outside both when opened and when closed, the free ends of said arms lying in a plane substantially perpendicular to said plane of symmetry whereby said blind will be self-supporting in its closed position.

2,872,978

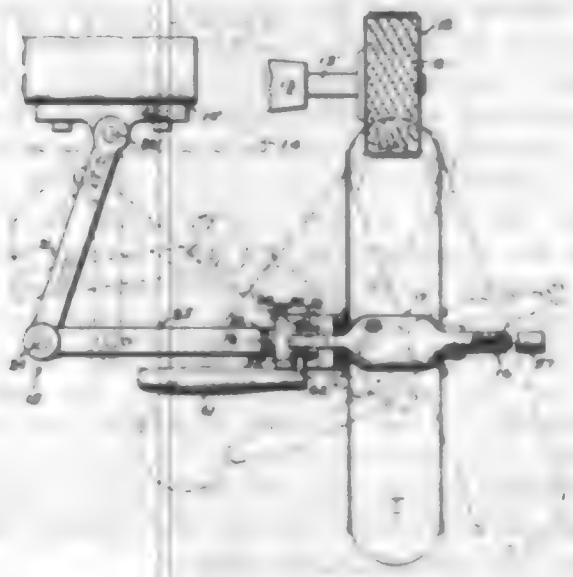
TIRE-BUFFING MACHINE

John W. Bakke, Oakland, Calif., assignor, by decree of final distribution, to Norman W. Bakke and Jack W. Bakke, both of Oakland, Calif.

Application December 21, 1953, Serial No. 399,285
7 Claims. (Cl. 164—10.2)

1. In a tire-buffing machine, a support frame, a drive shaft fixedly mounted on said frame in horizontal disposi-

tion, a rotary buffing drum fixedly mounted on said shaft and having a cylindrical working face, a tire-support wheel of rigid structure having a continuous tire-mounting rim coaxially carried by a central hub and arranged to mount an inflated pneumatic tire, a support spindle fixedly engaged with the wheel hub in axially extending relation thereto, and a support arm swingably carried by the frame



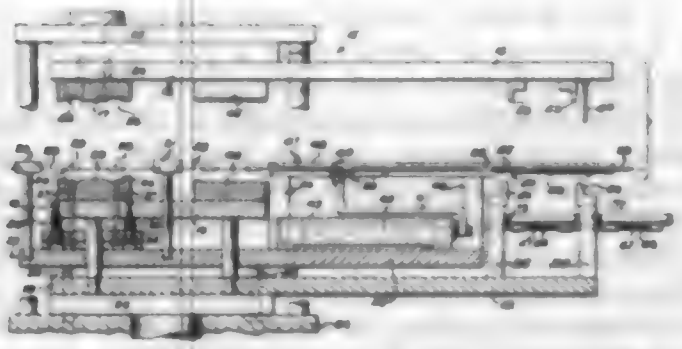
and rotatably mounting the extending spindle portion for its swinging adjustment in solely a horizontal plane for the disposal of the tread of an inflated wheel-carried tire with its periphery in circumferentially tangent engagement with the drum periphery for inducing a rotation of the tire with the spindle and an abrasion of its tread by reason of the engagement of the tread with the rotating drum.

2,872,979

ARTICLE SEVERING AND DISCHARGING MECHANISM

Frank A. Schultz, La Grange, and Robert W. Strickland, Chicago, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application March 30, 1954, Serial No. 419,828
6 Claims. (Cl. 164—48)



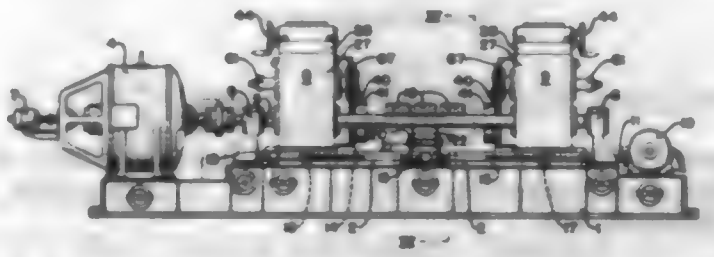
1. In an apparatus for forming a continuous composite strip, the combination of a guide for supporting the composite strip for horizontal movement as it comes from the apparatus, a pair of longitudinally spaced upper cutters and a pair of longitudinally spaced lower cutters operable for simultaneously severing a pair of sections from said strip, means for intermittently advancing said strip a predetermined distance to feed successive portions thereof into the path of the cutters, means for moving the lower cutters and for effecting relative movement between the cutters and the guide to cause the severance of a pair of said sections from said strip, said guide having a discharge opening for said sections adjacent said cutters, a plate pivotally mounted on said guide between said longitudinally spaced cutters for closing the discharge opening in said guide, means for yieldably retaining said plate in a closed position to support the strip for movement over said discharge opening, and an element engageable with said plate in response to the actuation of said cutters for moving said plate to an open position for discharging said pair of severed sections.

2,872,980

APPARATUS FOR TRIMMING STRIP

Sterling O. Perrine, Warren, Ohio, assignor to The Wean Engineering Company, Inc., Warren, Ohio, a corporation of Ohio

Application February 20, 1956, Serial No. 566,439
8 Claims. (Cl. 164—60)



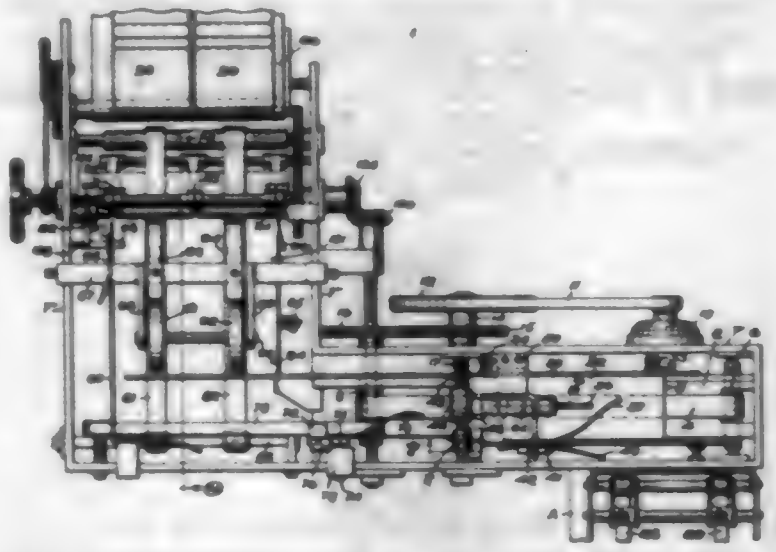
1. In a strip trimmer, a housing, an arbor mounted in the housing, a carriage placed in the housing and vertically movable with respect thereto, means for vertically adjusting the carriage relative to the housing, a chuck mounted on the carriage and keyed thereto for horizontal movement with respect to the carriage, the keys being replaceably inserted within the assembly of the carriage and chuck for realignment of the chuck in the carriage, means for horizontally adjusting the chuck relative to the carriage and an arbor mounted in the chuck.

2,872,981

METHOD AND APPARATUS FOR EDGE FORMING SHEET MATERIAL

William B. Fitzpatrick, Brookline, Mass., assignor to Harrison-Simpson Company, Boston, Mass., a corporation of Massachusetts

Application December 31, 1956, Serial No. 631,895
3 Claims. (Cl. 164—61)



1. In a machine for cutting a folded blank to provide decorative edge portions of the form employed in greeting cards and stationery, a frame, a cutting apparatus mounted in the frame and including a rotary cutting die and an anvil member supported below the rotary die in cutting relationship therewith, a conveyor for receiving the folded blank and advancing it between the rotary die and the anvil, a stationary guide located at one side of the conveyor in a position to slidably guide the folded edge of said blank in predetermined spaced relationship to the rotary cutting die whereby a strip of waste material is removed to form a decorative edge, means extending above the conveyor for engaging the top layer of said folded blank in varying positions of angularity with respect to the bottom layer of the blank and progressively depressing the top layer against the bottom layer, a movable guide for engaging against those edges of the

said top and bottom layers which are parallel to the line of folding of the blank and pressing the blank against the stationery guide while the top and bottom layers are in a compacted position, and stripper means for removing a strip of waste material produced by the cutting die out of the path of travel of the blank and including a shaft for driving said rotary cuting die, power driven means for turning said shaft, an oscillating cam mechanism supported on the shaft in close proximity to the rotary die, an arm fixed to said cam mechanism and having said movable guide support at the extremity thereof.

2,872,582

METHOD FOR IMPROVING PRODUCTION OF OIL WELLS

Robert C. Wade, Ipswich, Mass., assignor to Metal Hydrides Incorporated, Beverly, Mass., a corporation of Massachusetts

No Drawing. Application August 1, 1957
Serial No. 675,546
2 Claims. (Cl. 166—38)

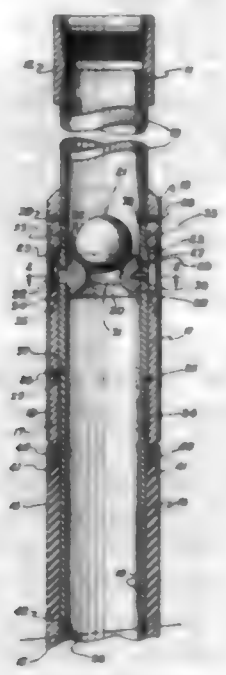
1. The method of treating oil wells which comprises introducing a solution of an alkali metal borohydride into the well in an amount at least sufficient to contact substantially all the oil-bearing formation surrounding the well, introducing oil into the well to provide a column of oil superimposed on said solution, introducing into the well an amount of acid sufficient to decompose a portion only of the alkali metal borohydride and thereby generating a substantial volume of hydrogen, trapping the generated hydrogen above and in contact with said column of oil, thereby imposing substantial pressure upon said solution and causing said solution to penetrate into and impregnate the pores of said oil-bearing formation, and thereafter introducing acid to react with the alkali metal borohydride in said pores to generate hydrogen therein and thereby loosen and forcibly remove from the pores substances clogging the same.

2,872,983

HYDRAULIC CEMENT RETAINING SHOE

Ralph R. Renouf, Tulsa, Okla., assignor to Larkin and Company Inc., Butler, Pa.

Application October 20, 1955, Serial No. 541,657
6 Claims. (Cl. 166—141)



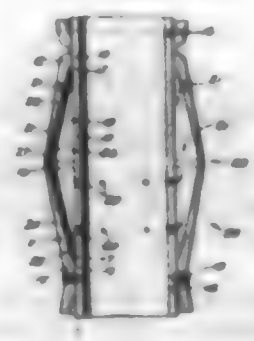
5. A hydraulic cement retaining shoe comprising a mandrel having openings through the wall thereof and positioned in the intermediate part, a collar threaded on the lower end of the mandrel, a stop ring positioned in the collar on the lower end of the mandrel, a packing rubber on the outer surface of the mandrel and positioned with the lower end against a collar threaded on the lower end of the mandrel, a check valve in the intermediate part of the mandrel and positioned to provide a closure for the openings through the wall of the mandrel, shear pins extended through the wall of the mandrel and into said check valve, the pins being formed to shear upon the application of pressure to the upper side of the check valve whereby the check valve is released and driven against the stop ring in the lower end of the mandrel, an inner sleeve slidably mounted on the mandrel and actuated by continued application of pressure for expanding the packing rubber to seal a hole in which the mandrel is positioned, an outer sleeve mounted on the mandrel at a point positioned above the openings through the wall thereof and providing a confined area above the upper end of the inner sleeve and into which the openings in the wall of the mandrel lead, shear pins extended into the mandrel for retaining the outer sleeve in position over the inner sleeve, the downward movement of the check valve opening the openings through the wall of the mandrel admitting pressure to said confined area, shearing the pins retaining the outer sleeve in position and driving the outer sleeve upwardly whereby cement is extruded through the mandrel into an area around the outside of the shoe.

2,872,984

PERFORATED PIPE STRUCTURE

Donald W. Fether, Encino, Calif.

Application September 6, 1955, Serial No. 532,442
6 Claims. (Cl. 166—235)



1. A pipe structure adapted to be lowered into a well bore, comprising: a central pipe, a plurality of barrel-shaped collars fixed to each other on the outer surface of the pipe in end-to-end relationship, each collar having relatively small diameter end portions and a relatively large diameter central portion therebetween, each collar cooperating with the pipe to form an annular chamber, each collar having a first tapered portion extending from the large diameter central portion to the lower end portion thereof and forming a smooth external trowelling surface for contact with the wall surface of the well, each collar having a second tapered portion extending from said central portion to the upper end portion thereof, said tapered portions providing an annular wall which is of minimum thickness at said large diameter central portion and which increases in thickness toward each end portion of the collar.

2,872,985

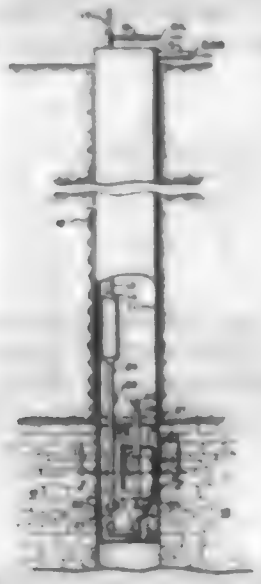
CYCLONE GAS ANCHOR

Andrew F. Bertuzzi and Mehmet R. Tek, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application December 26, 1956, Serial No. 630,678
5 Claims. (Cl. 166—243)

1. An apparatus comprising, in combination, a well packer, an oil production tubing extending operatively through said packer, a cyclone separator disposed below said packer, said cyclone separator having an apex pointing away from said packer, the separa-

tor at its apex being in fluid communication with said production tubing, and a vent tube communicating the



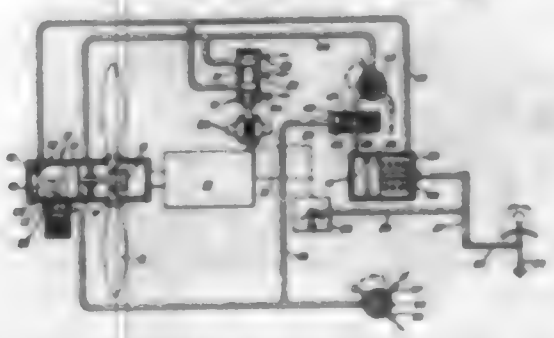
central portion of said separator with a space on the side of said packer opposite said separator.

2,872,986

CONTROL APPARATUS FOR AIRCRAFT PROPULSION UNITS EMBODYING VARIABLE PITCH CONSTANT SPEED AIRSCREWS

Herbert K. Cartwright, Harpenden, England, assignor to D. Napier & Son Limited, London, England, a British company

Application April 26, 1956, Serial No. 580,920
5 Claims. (Cl. 170—135.74)



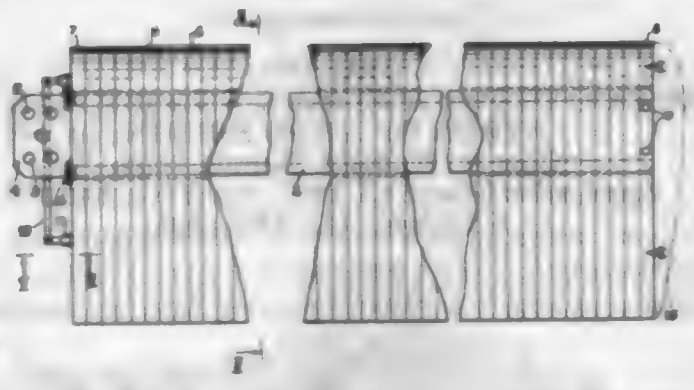
1. Control apparatus for an aircraft engine driving a variable pitch airscrew, comprising airscrew pitch control apparatus, a governor driven by said engine, an operative connection between said governor and said pitch control apparatus for influencing said pitch control apparatus to adjust the airscrew pitch so as to maintain constant engine speed at any governor setting, at least one removable stop associated with said pitch control apparatus, means for removing said stop into an inoperative position from an operative position in which said stop prevents movement of said pitch control apparatus in the fine pitch direction beyond a relatively coarse pitch position, power control mechanism for said engine, a control member operatively connected to said power control mechanism and adjustable between an inoperative position in which it does not effect said power control mechanism and an operative position in which it restrains said power control mechanism from setting an engine power output below a value capable of maintaining stable engine operation at the relatively coarse airscrew pitch determined by said removable stop, and an interconnection between said pitch control apparatus and said control member for moving said control member into its operative position when said governor influences said pitch control apparatus in the sense of reducing the aircrew pitch but the response of said pitch control apparatus to such influence is prevented by said removable stop being in its operative position.

2,872,987

FLEXIBLE AIRFOIL

Charles Lester Gahagan, Greensburg, Pa.

Application May 22, 1953, Serial No. 356,827
4 Claims. (Cl. 170—159)



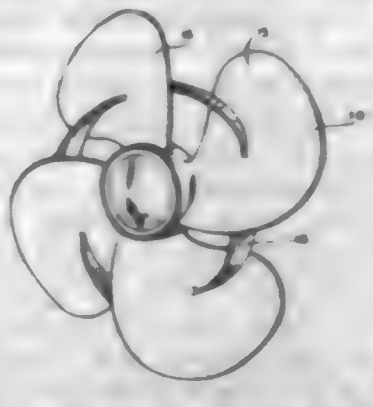
1. An airfoil comprising a spar, the width of which in a horizontal direction exceeds its vertical thickness whereby it is more flexible in a vertical direction than in a horizontal direction, a series of individual narrow parallel foil sections arranged in face-to-face relation along the length of the spar, each section having a transverse opening therethrough of substantially the same contour as the spar through which the spar passes, said sections constituting a single airfoil surface in which relative vertical motion of the sections may take place with the flexing of the spar in a vertical direction, means at the outer end of the spar for retaining the sections on the spar, the openings through the sections providing sufficient clearance around the spar to permit tilting of each section in a direction transverse to the fore-and-aft length of the section, and means at the inner end of the spar for effecting such tilting motion of the sections.

2,872,988

AIR TRANSLATING APPARATUS

Gustav H. Koch and Remington S. Radcliffe, Springfield, Mass., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

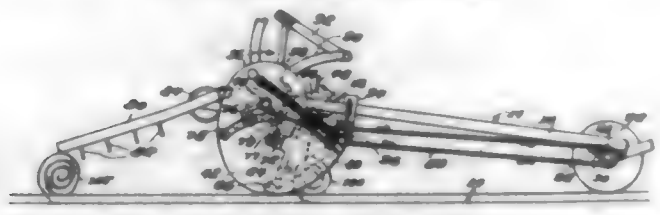
Application September 10, 1954, Serial No. 455,304
4 Claims. (Cl. 170—169)



1. A free air propeller fan integrally constructed of molded thermoplastic material and comprising a hub, a plurality of blades connected to said hub and extending radially outwardly therefrom, said blades being disposed in an annular row and each blade being disposed in a generally helical direction, a portion of each blade adjacent the leading edge being so formed that, in a plane containing the axis of rotation, the blade diverges rearwardly with respect to a plane normal to the axis of rotation, and a portion of each blade adjacent the trailing edge being so formed that, in a plane containing the axis, the blade diverges forwardly with respect to a plane normal to the axis, whereby centrifugal force imposes forward and rearward thrust on said leading and trailing edges, respectively, and a member connected to one blade on the fan outlet side for a substantial distance from a point adjacent the leading edge toward the trailing edge and connected to the adjacent blade on the fan inlet side for a substantial distance from a point adjacent the trail-

ing edge toward the leading edge, said member having its length extending in a generally circular direction and its width extending axially, there being a plurality of said members disposed in the region midway between the inner and outer peripheries of the blades.

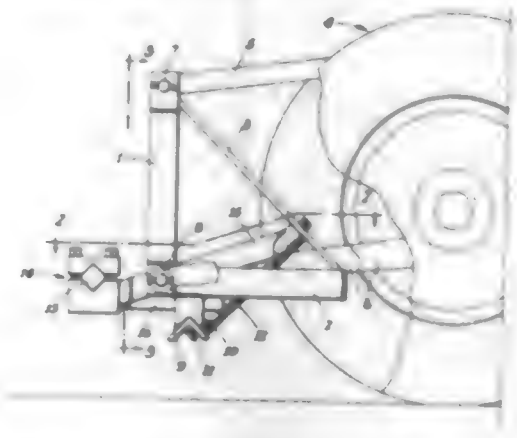
2,872,989
APPARATUS FOR SEVERING AND ROLLING UP STRIPS OF A SOD RIBBON
Glen R. Hadfield, Detroit, Mich.
Application March 15, 1957, Serial No. 646,399
5 Claims. (Cl. 172—20)



1. Apparatus for severing strips of predetermined lengths from a ribbon of sod while lying in a flat strip and successively rolling up the severed strip comprising a horizontally disposed frame having a forward end and a rearward end, a rotatable ground engaging roller extending transversely of said frame and supporting the forward end of said frame adapted to rollably engage and travel along said ribbon, said roller being rotatable in a clockwise direction, a rotatable ground engaging element positioned along and outwardly of each side of said frame adjacent the rearward end thereof and supporting the rearward end of said frame, a horizontally disposed rotatable hub arranged transversely of said frame positioned between and forwardly of and adjacent said ground engaging elements, a plurality of spade-like members projecting in radial relation from the periphery of said hub, said ground engaging elements being adapted to engage a ground surface adjacent said ribbon and the spade-like members of said hub being adapted to successively lift and at least partially roll up a cut piece of said ribbon when said ground engaging roller is traveling along said ribbon, means connecting said hub and said ground engaging elements to said ground engaging roller for rotary movement of said hub in a counterclockwise direction and rotary movement of said ground engaging elements in clockwise direction responsive to the clockwise rotary movement of said roller, and means on each of said ground engaging elements engageable upon execution of part of one revolution of its rotary movement with the ground surface adjacent said ribbon when said ground engaging roller is traveling along said ribbon to in turn simultaneously elevate the rearward end of said frame and move said hub to a position in which one of said spade-like members is in a vertical position facing said ribbon and return the rearward end of said frame to its horizontal position and penetration of said one spade-like member through and making a cut in said ribbon, said one spade-like member and the other spade-like members successively lifting and at least partially rolling up the severed piece from the cut end when the ground engaging elements are executing the remaining part of said one revolution after the rearward end of said frame has been returned to the horizontal position.

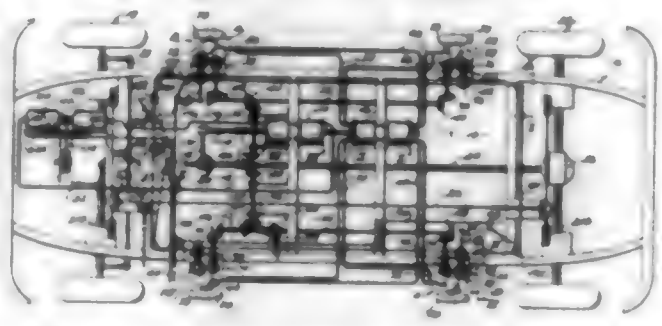
2,872,990
HITCH
Frank M. Fraga, Fresno, Calif.
Application April 8, 1955, Serial No. 500,116
3 Claims. (Cl. 172—449)

1. A hitch adapted to be secured to a tractor having transversely spaced, lower lift links, and a central upper compression link, all of said links projecting rearwardly from the tractor; said hitch comprising an upstanding frame, means connecting said links at their rear ends to corresponding points on the upstanding frame, another frame rigid with and projecting forwardly from the lower portion of said upstanding frame, a rigid diagonal brace between the front portion of said other frame and the top portion of the upstanding frame, said other frame having a cross bar secured thereto adjacent the rear,



a turnable element journaled between the cross bar and brace for turning about an axis disposed at a forward and upward incline, a transverse normally level tool bar positioned rearwardly of the upstanding frame, and a rigid longitudinal arm structure connecting between said tool bar intermediate its ends and said turnable element.

2,872,991
PARKING STRUCTURE FOR AUTOMOTIVE VEHICLES
Rawlings H. Collins, Kansas City, Mo.
Application April 8, 1957, Serial No. 651,333
3 Claims. (Cl. 180—1)

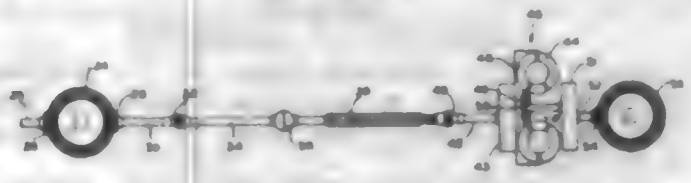


2. In an automotive vehicle having a chassis, a pair of wheel and axle assemblies normally supporting the chassis, and a prime mover carried by the chassis for driving one of said assemblies, the other of said assemblies being provided with steering mechanism, the improvement comprising a plurality of lifting units mounted on said chassis and each including a double-acting, fluid, piston and cylinder device having a vertically reciprocable ram, a gear axially fixed and rotatably mounted on the ram, a radial shaft carried by said gear, and a wheel rotatably mounted on said shaft for swinging movement about the axis of reciprocation of the ram; means operably connecting said prime mover with the wheels of said units to rotate the same when the rams are lowered to a position raising the chassis, thereby supporting the latter by the wheels of said units independently of said assemblies; and means operably connecting said mechanism with said gear whereby to swing the wheels of said units and thereby guide the vehicle when the latter is moved by the wheels of said units through the power of said prime mover.

2,872,992
DRIVE MECHANISM FOR TRAILER
Walter E. Schirmer, Buchanan, Mich., assignor to Clark Equipment Company, a corporation of Michigan
Application January 27, 1955, Serial No. 484,510
7 Claims. (Cl. 180—14)

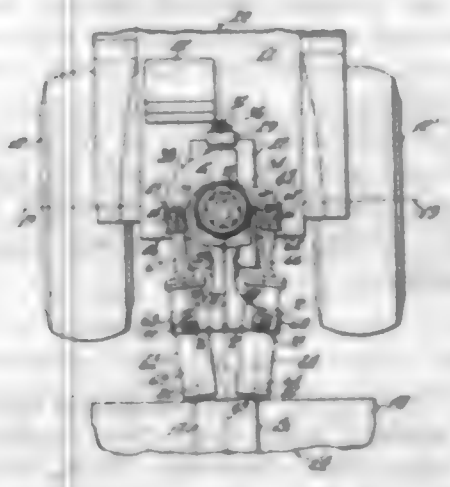
4. A drive mechanism for a plurality of drive axles, comprising first shaft means for operating a first drive

axle, second shaft means driven by said first shaft means at a speed proportional to the speed of the said first shaft means, hydrodynamic torque transmitting means driven by the said second shaft means, and an overrunning



clutch connected between the said hydrodynamic means and a second drive axle for transmitting torque to the said second axle whenever the relation between speed of the said second shaft means and the speed of the said second axle exceeds a predetermined ratio.

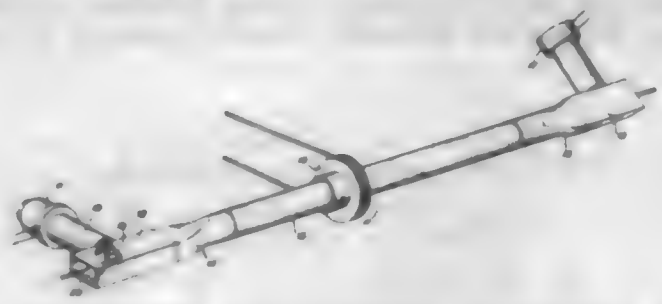
2,872,993
POWER STEERING MECHANISM
Michael Toth, Springfield, Ill., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application October 30, 1956, Serial No. 619,148
9 Claims. (Cl. 180—79.2)



1. A steering mechanism for an articulated vehicle having pivotally interconnected front and rear units for relative angular movement about a common vertical pivot axis, said mechanism comprising: a pair of torque transmitting elements operatively connected, respectively with said front and rear units, a floating frame pivotally mounted about said pivot axis in a horizontally rotatable relation to both said units, a first expansible and contractible jack having one of its opposite ends pivotally connected to one of said torque transmitting elements and having the other of its opposite ends pivotally connected to said frame and a second expansible and contractible jack in approximate lateral alignment relative to said first expansible and contractible jack and having one of its opposite ends pivotally connected to the other of said torque transmitting elements and having the other of its opposite ends pivotally connected to said frame, said jacks being disposed rearwardly from said pivot axis.

2,872,994
ACOUSTIC TRANSMISSION SYSTEMS
Winston E. Kock, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 29, 1952, Serial No. 323,175
22 Claims. (Cl. 181—.5)

11. An acoustic system comprising a sound source having a predetermined frequency, an elongated closed acoustic channel having a rectangular cross-section and having an aperture in a side thereof which is small with respect to the wavelength of sound at said frequency, means coupling said sound source to said aperture, and means for enhancing the propagation of transverse acoustic waves in said acoustic channel.

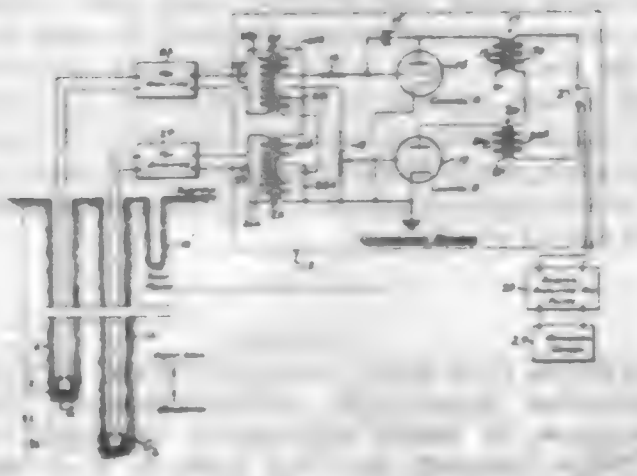


21. In combination, a source of polarized acoustic waves and an acoustic wave polarization rotator coupled to said source, said polarization rotator having a length equal to

$$\frac{\theta}{360}\times\frac{c}{n}$$

where θ equals 90 degrees, c is the velocity of sound in the rotator, and n is the angular velocity in revolutions per unit time of the polarized acoustic waves in said rotator.

2,872,995
SEISMIC REFLECTION PROSPECTING TECHNIQUE
Alfred Wolf, Tulsa, Okla., assignor to Geophysical Research Corporation, New York, N. Y., a corporation of New Jersey
Application May 13, 1957, Serial No. 658,574
8 Claims. (Cl. 181—.5)



4. Apparatus for reflection seismic prospecting comprising two matched geophones responsive to vertical motion only and adapted to be placed at vertically spaced positions below a shot point; an amplifying and recording device coupled to said geophones; and a compensating network interposed between said geophones and said device for annuling the effect of direct waves from said shot point, said network including two parallel channels, one of said channels having an adjustable volume control therein, means to apply as an input to said one of said channels a voltage representing the sum of the output signals of said geophones, means to apply as an input to said other of said channels a voltage representing the output signal of the lower geophone minus the output of the upper geophone, said other channel incorporating an integrating network, and means additively to combine the outputs of said channels to produce a compensated signal indicative of reflected waves from a geophysical discontinuity below said geophones.

2,872,996
SEISMIC WAVELET CONTRACTION
Richard J. Runge, La Habra, Calif., assignor to Pan American Petroleum Corporation, Tulsa, Okla., a corporation of Delaware
Application October 17, 1957, Serial No. 690,786
3 Claims. (Cl. 181—.5)

1. The method of contracting seismic wavelets contained in a seismic geophysical data trace recorded in

phonographically reproducible form, which method comprises the step of making a plurality of pairs of playbacks starting with said trace; each of said playbacks comprising reproducing the last prior recorded trace as a corresponding electric wave, passing said electric wave successively through an attenuator, a differentiator, and a flat-response amplifier having constants chosen to represent K and successive values of $1/n$ in the infinite series expansion

$$e^{Kw^2}=1+Kw^2+\frac{(Kw^2)^2}{2!}+\cdots+\frac{(Kw^2)^n}{n!}+\cdots$$

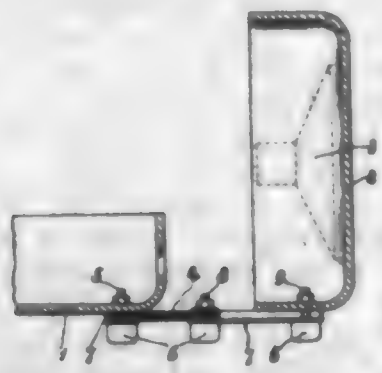
where w is frequency in radians per second, and recording the resultant electric wave as a new phonographically reproducible trace; said playback pairs each consisting of one forward and one reverse playback in which the events of the electric wave occur in sequences respectively the same as and opposite to the sequence of the corresponding seismic events in time; and the step of recording a final trace representing the sum of said data trace plus all of the traces recorded during the second playback of each pair of playbacks.

2,872,997

HOUSING FOR ELECTRO-ACOUSTIC APPARATUS

Maximilian Scheerbarth, Berlin-Zehlendorf, Germany, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application September 15, 1953, Serial No. 380,242
Claims priority, application Germany September 20, 1952
3 Claims. (Cl. 181—31)



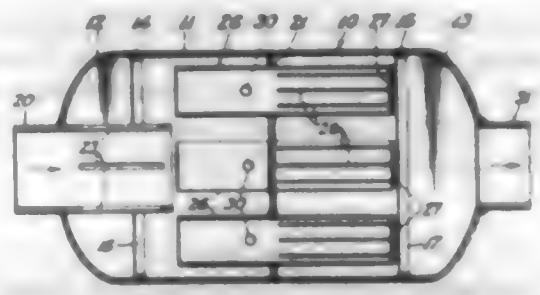
1. A housing for at least one amplifier and an associated loudspeaker comprising a receptacle for said amplifier having an opening in the top thereof, a cover fitting over said receptacle, said cover having said loudspeaker mounted thereon, and at least one elastic band operatively connected at one end to said cover and secured at the other end to the bottom of said receptacle, said cover in the closed position thereof forming a closure for said receptacle and in the open position thereof being vertically disposed relative to said receptacle and acoustically separated from said receptacle and supported on a side thereof and a U-shaped clamping strap enclosing a portion of said elastic band and provided with a plurality of foot members for supporting said cover in its open position.

2,872,998

ACOUSTICAL SILENCER

Townsend Tinker, Orchard Park, N. Y., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware

Application March 30, 1954, Serial No. 419,711
8 Claims. (Cl. 181—53)



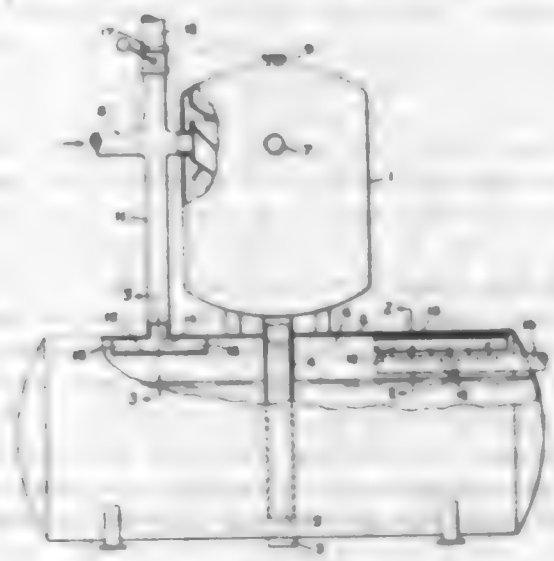
1. A silencer comprising a pair of adjoining chambers, an entry tube extending into one of said chambers from the end thereof remote from the other chamber, a plurality of tubular members forming passages between the chambers, said tubular members having their axes offset from the axis of said entry tube and each being disposed partly in each chamber and having an entry portion in said one chamber and a discharge portion in said other chamber, the discharge portion of each tubular member having a closed end and a plurality of lateral discharge passages, said lateral discharge passages providing substantially the entire discharge passage means from said tubular members.

2,872,999

DEAERATING FEEDWATER HEATER

Warren P. Spining, Short Hills, N. J., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware

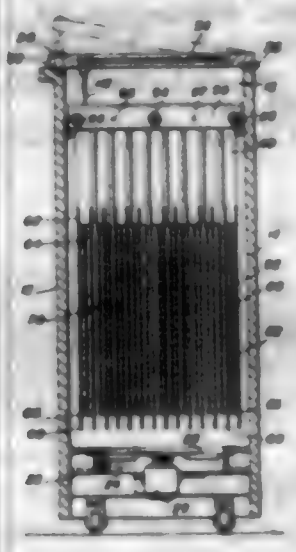
Application May 21, 1957, Serial No. 660,680
2 Claims. (Cl. 183—2.5)



1. In combination, a steam-jet type heating and degasifying apparatus including a shell, a storage tank, means connected to said shell for flowing untreated water into said shell, means connected at one end to an independent source of steam and at its other end connected to said shell for flowing steam into said shell for direct heat exchange and degasifying relationship with said untreated water, first conduit means connected between said shell and storage tank for flowing treated water from said shell into said storage tank, means connected at one end to an independent source of high temperature condensate and at its other end connected to said storage tank and extending into the area of said storage tank above the

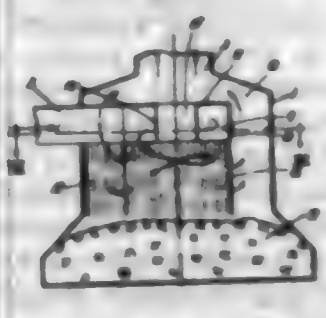
level of treated water normally maintained therein for flowing high temperature condensate into said storage tank, and second conduit means connected between said storage tank and shell for flowing steam flashing from said high temperature condensate in said storage tank to said shell.

2,873,099
ELECTROSTATIC PRECIPITATOR
Lowell S. Elam, Boise, Idaho
Application May 8, 1956, Serial No. 583,435
6 Claims. (Cl. 183—7)



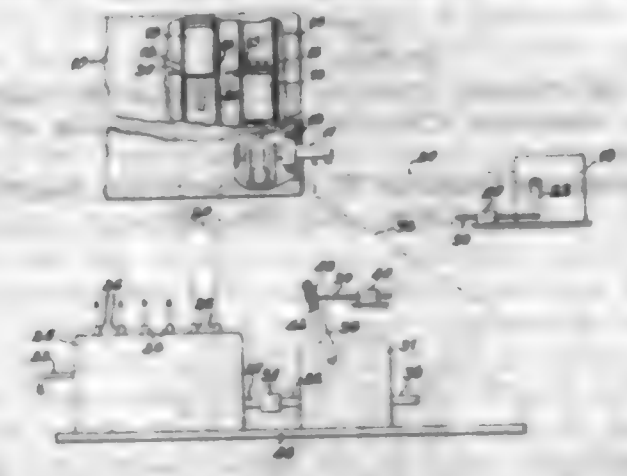
1. An electrostatic precipitator comprising a casing having an air inlet and an air outlet, electrically insulating side walls defining communicating ionizing and collection chambers in said casing and in registry with said inlet and outlet, a power pack which includes a transformer, and a voltage doubler circuit connected therewith, an ioniser unit which includes small diameter wires and larger diameter bars, strips to which said bars and wires are secured, connectors in the high voltage side of said circuit and carried by one of said walls, flexible connectors on the outer edge of one of said strips and electrically connected with said wires and bars, said connectors frictionally holding said strips fastened to said walls and establishing electrical continuity between said circuit and said wires and bars.

2,873,041
CYCLONE APPARATUSES FOR SEPARATING SOLIDS FROM FLOWING AIR OR OTHER GASES
Poutus Lauritz Gerdman, Malmo, Sweden, assignor to Aktiebolaget Åstrink & Co., Limhamn, Sweden, a corporation of Sweden
Application October 31, 1955, Serial No. 543,930
Claims priority, application Sweden November 8, 1954
5 Claims. (Cl. 183—58)



1. A cyclone apparatus comprising a container having top, bottom and side walls and flared at its lower end to provide at said end a lower chamber for the collection of solids, the top wall of the container having a centrally-located air outlet of substantial size, a cyclone chamber located within the container and positioned below the top wall thereof to thereby provide spacing in the form of an upper chamber between the top of the cyclone chamber and the top wall of the container, the cyclone chamber having a tangentially-arranged air inlet having its entrance outwardly of said container, a top wall, a centrally-located annular wall defining an air passage from said cyclone chamber through the top wall thereof of less diameter than the air outlet in the top wall of the container, said passage being co-axial with the air outlet, the cyclone chamber having a wall arranged concentrically to and spaced outwardly from the annular wall, both the annular wall and the wall arranged concentrically thereto being of substantially the same depth and being connected at the top by said top wall of the cyclone chamber, wall arranged concentrically to said annular wall being provided with a dependent curtain of flexible chains, which chains are attached at their upper ends only to the lower end of said wall and are free to vibrate, move and frictionally contact one another for cleaning purposes, said curtain being spaced from the side and bottom walls of the container whereby an air space is provided between said curtain and said wall of the container, which air space is in communication with the chamber located between the top of the cyclone chamber and the top wall of the container.

2,873,901
VARIABLE DELIVERY LUBRICANT SUPPLY MEANS FOR ENGINES
Ervin L. Dahland, Beloit, Wis., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application February 14, 1956, Serial No. 565,449
3 Claims. (Cl. 184—6)

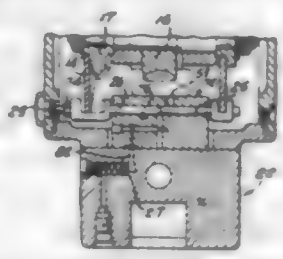


1. In a cylinder wall lubrication system for an internal combustion engine having a cylinder provided with lubricant admission port means, lubricant supply means connected to said port means, said supply means including a variable speed pump operable to supply lubricant under pressure and in quantity proportional to pump speed, pump drive means including a transmission device having a variable speed drive element in driving connection to the pump, the transmission device having a control member for determining the speed of said drive element, an engine driven governor settable at fixed speeds, a control element positionable by the governor in response to changes in engine loading at said fixed speeds, and means connecting said control element to said control member for actuation thereof, whereby to determine said variable pump speed in accordance with control element position.

2,873,003
LUBRICANT DISTRIBUTING PUMP
Arno Meinelt, Grumpenna, Germany, assignor to VEB Sprie-Werke, Holzhausen, near Leipzig, Germany
Application August 17, 1956, Serial No. 604,782
Claims priority, application Germany June 28, 1956
8 Claims. (Cl. 184—27)

1. In a lubricant pump constructed for connection to both a single-line lubricating system and a twin-line lubricating system, and having lubricant-displacing piston means, cam plate means operatively connected to

said piston means for driving the same, and drive means connected to said cam plate means for actuating the latter; means provided with two spaced main ducts of a twin-line system and with a lubricant feed line arranged to have lubricant forced therethrough by at least a part of said piston means, a control valve operable when in a first position to establish communication between said feed line and only one of said main ducts, and operable when in a second position to establish communication between said feed line and only the other of said main



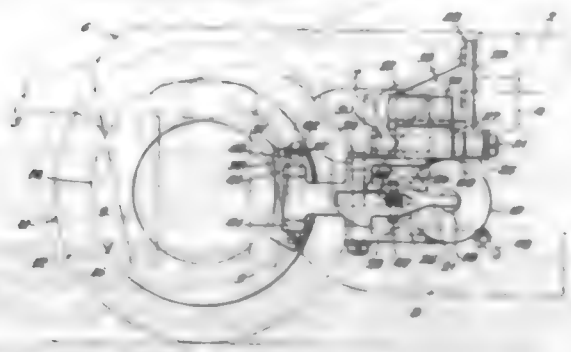
ducts, mechanical transmission means connecting said drive means to said control valve to enable said drive means to displace said control valve back and forth between said first and second positions thereof, and hydraulic means responsive to predetermined lubricant pressure conditions in said feed line for alternately and hydraulically at said first and second positions of said control valve rendering the connection of said transmission means to said control valve operative and inoperative in the transfer to the latter of the driving action of said drive means.

2,873,004

ROTOR BRAKE

Walter R. Polanin, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey

Application February 13, 1956, Serial No. 564,995
1 Claim. (Cl. 188—59)



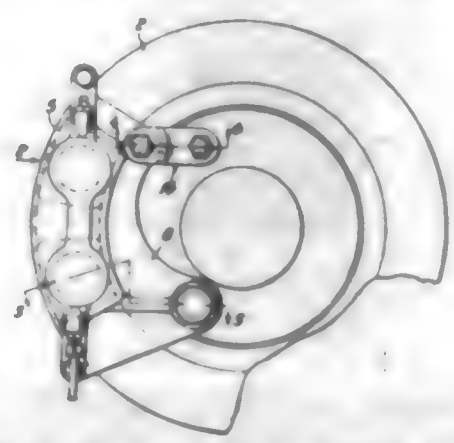
In a brake arrangement for a railway car truck having a truck frame, a supporting wheel and axle assembly, and oppositely facing rotatable brake surfaces on said assembly; the combination of: a brake unit comprising a brake frame, spaced bearings on one of the frames, another bearing on the other frame received between said spaced bearings, a pair of mutually facing abutment surfaces carried by one of the frames at opposite sides of a vertical plane approximately perpendicular to the rotational axis of said assembly and bisecting said bearings, said brake frame comprising a cylinder having top and bottom webs attached thereto and extending toward the assembly, said unit comprising brake levers between said webs and fulcrumed thereto, said unit comprising brake shoes actuated by said levers into engagement with respective surfaces, another pair of abutment surfaces on the other frame between and facing respective of said first-mentioned abutment surfaces, resilient pads between said first-mentioned abutment surfaces having faces compressed thereagainst and against said second-mentioned abutment surfaces, readily removable means extending through and pivotally interconnecting said bearings, and spacer means on said removable means between said other bearing and at least one of the first-mentioned bearings for adjustably determining the distance between said shoes and said axis, one pair of said abutment surfaces being movable with the brake frame toward and away from said axis when said spacer means are removed, at least one pair of said abutment surfaces and the engaged pad faces being substantially vertical and being slidably interengaged.

2,873,005

DISC BRAKE FOR VEHICLES

Henry James Butler, Sutton Coldfield, England, assignor to Dunlop Rubber Company Limited, London, England, a British company

Original application November 12, 1952, Serial No. 319,972, now Patent No. 2,784,811, dated March 12, 1957. Divided and this application January 3, 1957, Serial No. 632,280
3 Claims. (Cl. 188—73)



1. A disc brake assembly for vehicles or the like comprising a disc normally rotatable in a vertical plane, a non-rotatable housing having members on opposite sides of the disc connected together adjacent a periphery of the disc, friction pads associated with said members to frictionally engage the braking surfaces of said disc, a mechanism to effect said frictional engagement, wherein said housing comprises a pressure member and a reaction member each extending chordally across and on opposite sides of said disc and being joined together at their opposite ends adjacent the periphery of said disc, said pressure member having one or more friction pads rigidly associated therewith, and said reaction member having said mechanism axially-slidably associated therewith, and having at least one friction pad rigidly associated with said mechanism, and wherein said reaction member comprises a radially-inwardly extending flange having at one end thereof a part-spherical hole, a part-spherical bush located in said hole and a pin secured to a non-rotatable portion of said vehicle and extending axially through said bush, a link associated with the other end of said flange and extending radially-inwardly therefrom, a part-spherical hole in the free end of said link, a part-spherical bush in said hole and a pin secured to said non-rotatable portion of said vehicle and extending axially through said bush, said link at the end thereof associated with said flange being bifurcated to straddle a portion of said flange, a further part-spherical hole in said flange and lying between said bifurcation, a part-spherical bush in said hole, and a pin secured in said bifurcations and passing axially through said latter-named part-spherical bush, whereby said reaction member is free to be moved substantially axially and angularly with respect to the normal vertical plane of said disc upon actuation of said mechanism.

2,873,006

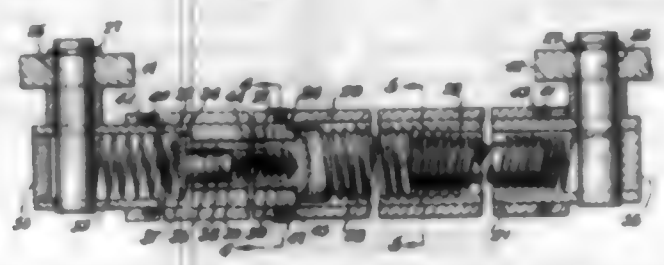
BRAKE ADJUSTMENT MECHANISM

Roy Phillips, Redington Beach, Fla.

Application September 11, 1957, Serial No. 683,363
1 Claim. (Cl. 188—196)

A brake adjusting device comprising a sleeve, a first and a second member connected by said sleeve for relative reciprocable movement toward and from each other,

a third member threaded into said first member and projecting therefrom toward said second member, means on said second and third members limiting relative movement therebetween in the direction toward each other, spring means connected between said first and third members biasing said third member for rotation relative to said first member in a direction to move said third member toward said second member, one of said second and third members being provided with an enlarged axially extending counterbore forming a shoulder spaced from the end of said member facing said other member and having an axially extending aperture of smaller diameter extending between the bottom of said counterbore and said end of said member, the other of said members having a counterbored projection extending into said aperture the end of which comprises an abutment means extending into said counterbore a predetermined distance



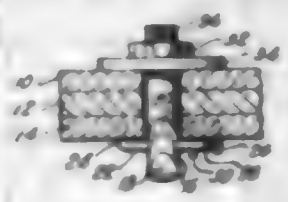
when said second and third members are at the limit of their movement toward each other, a fourth member reciprocable in said counterbore, means biasing said fourth member toward said shoulder formed by said counterbore and into engagement with the end of said projection forming said abutment means for holding said third member against rotation by said spring means relative to said first member while the end of said projection projects into said counterbore, a plug-like member in the counterbored end of said projection, means biasing said plug-like member outwardly of said counterbored end of said projection and in a direction toward said fourth member, and a low temperature melting point material interposed between said plug-like member and the wall of said projection within which it is positioned and fixedly securing said plug-like member to said projection at temperatures below the melting temperature of said material.

2,873,097

FASTENING DEVICE

John P. Francis, Haverhill, Mass.

Application February 10, 1955, Serial No. 487,477
17 Claims. (Cl. 189—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



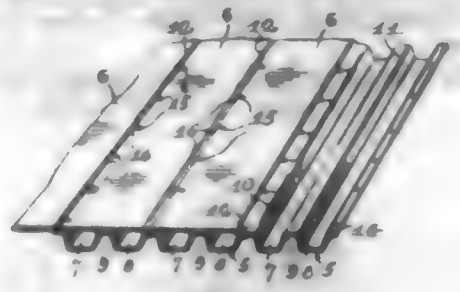
1. In combination, a plate-like member having a hole, a locking bar, one end of said locking bar being pivotally secured to said plate-like member adjacent the hole for movement about an axis substantially perpendicular to said plate-like member, said locking bar extending transversely relative to its pivot axis and close to and parallel with the adjacent face of said member whereby it is adapted to assume one position where it extends across the hole and another position arcuately spaced therefrom about its pivot axis where it does not extend across the hole, means including stop means and spring means secured to plate-like member adjacent said hole and to the other end of said locking bar for normally retaining said locking bar in said one position, a bolt of slightly smaller diameter than the hole having a head at one end thereof which is movable axially of said bolt and which is of greater dimension than the diameter of the hole, said bolt formed with a transverse groove adjacent its other end extending into said bolt toward its said other end obliquely relative to the axis of said bolt, said other end of said bolt being formed as a cam surface substantially parallel to the transverse groove, said bolt being adapted to removably fasten said plate-like member to another plate-like member having a similar sized hole.

2,873,551

BUILDING PANEL UNITS AND ROOFS OR WALLS MADE THEREFROM

Herbert William Ashman, West End, Esher, England, assignor, by mesne assignments, to Keasbey & Mattison Company, Ambler, Pa.

Application January 3, 1956, Serial No. 557,158
Claims priority, application Canada August 26, 1955
2 Claims. (Cl. 189—36)



1. A building roof or wall structure formed of units of sheet material each comprising a corrugated section and a flat section integrally formed therewith, said corrugated section being formed to provide a plurality of troughs of equal depth including at least two troughs having their open faces on one side of said sheet and another trough intermediate said two troughs and inverted relatively thereto, said flat section extending laterally from one side of said corrugated section along a plane spaced outwardly from and parallel to the upper plane of said corrugated section a distance substantially equal to the thickness of the sheet material and an outwardly directed flange extending from the side of said corrugated section remote from the flat section, each of said units being arranged with their flat sections extending unidirectional and overlying the corrugated section of an adjacent succeeding unit to conjointly form a substantially flat surface on one side of the structure, said units being successively arranged with a substantial surface of the marginal portion of a flat section of a preceding unit and a substantial portion of the flange remote from the flat section of a succeeding unit in flat abutting engagement on opposite sides of a substantial portion of the flange between the trough and the flat section of an intermediate unit, and with marginal portions of said succeeding and preceding units in overlapping relation to one another to provide a reinforced structure joint.

2,873,669

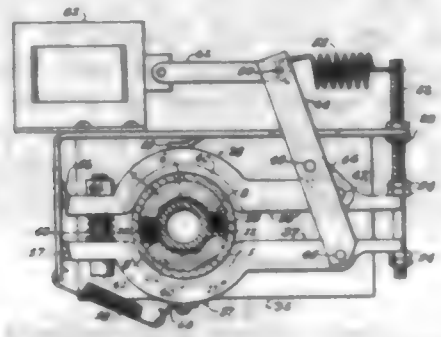
BRAKING SYSTEM FOR ELEVATORS

William Stelzer, Summit, N. J.

Application November 15, 1955, Serial No. 546,913
9 Claims. (Cl. 192—2)

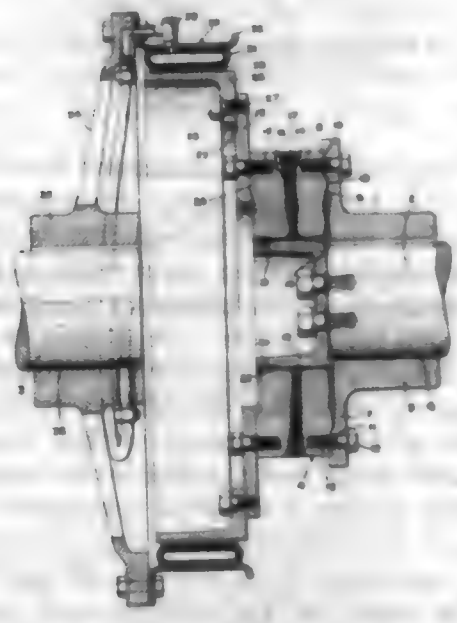
1. In a braking system for an elevator having an electric motor and a transmission shaft to drive the car of said elevator, in combination, a rotary member, means to revolubly suport said rotary member, a friction type slipping clutch coupled with said motor and aranged to be coaxial with said rotary member to transmit torque between said rotary member and said motor, means to transmit torque between said rotary member and said transmission shaft, a brake arranged to arrest said rotary member, resilient means to apply said brake, and means

to release said brake so that torque can be transmitted between said motor and said transmission shaft through



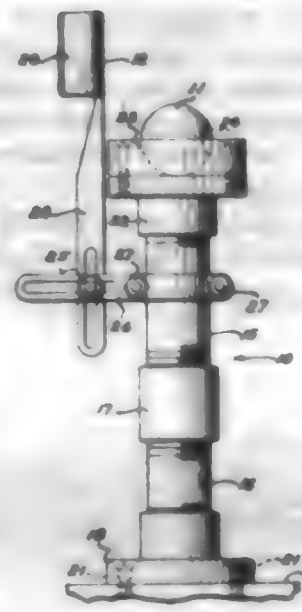
said slipping clutch, said rotary member, and said means to transmit torque.

2,873,010
FLEXIBLE COUPLING
Herbert F. Alma, East Aurora, N. Y., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application April 20, 1954, Serial No. 424,358
1 Claim. (Cl. 192—88)



A flexible coupling disposed between adjacent ends of rotary elements comprising the combination of, a friction clutch having a friction drum, and ring means including flexible means disposed radially thereabout and adapted to permit radial movement of the drum, with a rubber sandwich coupling including annular rings and a rubber portion bonded between the respective faces of said annular rings, the face of one of said rings being substantially perpendicular to the axis of the rotary elements and the face of the other ring being tapered, the opposite face of at least one of said annular rings including an annular lateral projection, means coacting with said annular projection for rigidly connecting the rubber sandwich coupling between the rotary elements, and said means for coacting with said annular projection and for rigidly connecting the rubber sandwich coupling between the rotary elements comprising a hub means connected to one of said rotary elements, said hub including a flange for connection to and coaction with the annular ring having the annular lateral projection, a spacer ring, a support element in said rubber sandwich and connected at one end to the rotary element having the hub mounted thereon and at the other end abutting said spacer ring, said spacer ring abutting and supporting the other annular ring whereby said spacer ring maintains the rubber sandwich concentric with the last mentioned rotary element during the operation thereof, and a spacer element for rigidly connecting the rubber sandwich coupling to the friction drum.

2,873,011
CONVEYOR
Maurice D. Canning, Wheaton, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application August 22, 1956, Serial No. 605,621
2 Claims. (Cl. 193—35)



1. A conveyor unit comprising a two section pedestal, a threaded coupling engaging the two sections of the pedestal for adjusting the length of said pedestal, a rotatably mounted spheroid positioned within a recess in the upper terminus of the pedestal, a flange secured to the lower terminus of the pedestal for securing said pedestal to a fixed support, a slotted bracket detachably and rotatably mounted to one pedestal section and laterally extending therefrom, a second bracket having an elongated slot therein, selectively fastenable means passing through both slots for securing said brackets together, and a guide member secured to said second bracket and positioned above said spheroid.

2,873,013
VENDING MACHINES
Eugene J. Lux, Atlanta, Ga.
Application April 1, 1958, Serial No. 725,566
1 Claim. (Cl. 194—2)



A vending machine for pencils and similar articles comprising, a hopper for holding the articles, a spout pivoted at the outlet end of the hopper and holding a plurality of the articles in superimposed, stacked relation, said spout having an open lower end and a rear wall

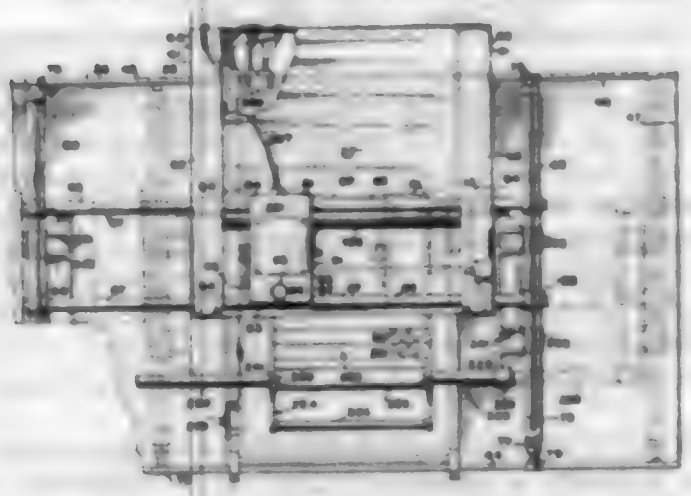
provided with an aperture in its lower end for the passage of one of the articles, said rear opening being of a size to permit passage of a pencil through it only when the spout is in an inclined position, a support located below the spout for retaining the stack of articles therein while said spout is in a predetermined vertical position of rest, manually-operated means for swingably moving the spout to an inclined dispensing position and causing the lowermost pencil therein to be moved through the aperture in the rear wall of the spout, said support having an aperture through which the lowermost article in the spout will fall when the spout is pivotally moved to said inclined position, a fixed cut-off member entering through the aperture in the rear wall of the spout when the spout is moved to its inclined position, thereby to hold back articles in the spout other than the dispensed lowermost one, a coin chute for positioning a coin to render operable said manually-operated means, coin-blocking means for the chute, said coin-blocking means being positioned to hold a blocked position in the chute while no articles are located in the spout or when the spout is in said inclined dispensing position.

2,873,013

PRINTING MACHINE

Carl G. Thiese, Pasadena, and Bernard G. Bostrom, Van Nuys, Calif., assignors to Reynolds Pen Company, Paoima, Calif., a corporation of Florida

Application February 8, 1957, Serial No. 639,040
14 Claims. (Cl. 197—2)



14. A printing machine comprising a stationary frame having a horizontal bed means, a movable frame means mounted for movement in a horizontal plane on said stationary frame and spaced upwardly from said bed means, said movable frame means including a type-carriage means, a plurality of individual type means in said type-carriage means mounted for individual vertical reciprocating movement relative to said bed means, type-actuating means on said movable frame means for individually selectively actuating said individual type means for printing on said bed means, and indicator means on said movable frame means adapted to index said individual type means respectively with a desired position on the bed means.

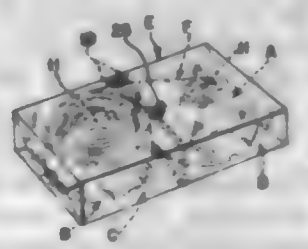
2,873,014

SEPARABLE CARTRIDGE FOR AN INKED PRINTING RIBBON

Harry Long Lambert, West Hartford, Conn., assignor to Royal McBee Corporation, New York, N. Y., a corporation of New York

Application February 7, 1956, Serial No. 563,974
9 Claims. (Cl. 197—151)

1. A cartridge for an inked printing ribbon comprising: a pair of substantially closed containers; a rotatable support in each container; an inked printing ribbon having its ends attached to said rotatable supports respectively and wound upon at least one of said supports; and



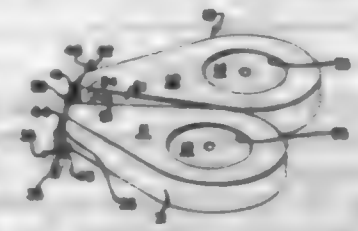
removable means adapted to initially hold said containers in close proximity to one another.

2,873,015

TYPEWRITER RIBBON CHANGING APPARATUS

James Able Gray, Fort Jay, N. Y., assignor to Royal McBee Corporation, Port Chester, N. Y., a corporation of New York

Substituted for abandoned application Serial No. 381,359, September 21, 1953. This application May 17, 1957, Serial No. 659,903
2 Claims. (Cl. 197—151)



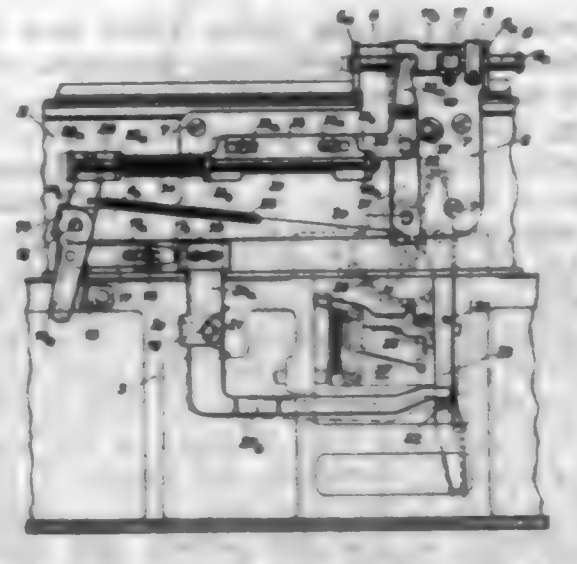
1. An apparatus for typewriting machines adapted to facilitate ribbon changes without the necessity for touching the ribbon compriting a cartridge having two separably joined containers, an elevator frame, a ribbon threaded through said frame, spools prewound with said ribbon within said containers, and means on said containers for holding said ribbon threaded frame between said containers.

2,873,016

BRAKING DEVICE FOR PAPER CARRIAGE OF OFFICE WRITING MACHINES

Hans Hess, Wilhelmshaven, Germany, assignor to Olympia Werke A. G., Wilhelmshaven, Germany

Application December 27, 1955, Serial No. 555,710
Claims priority, application Germany April 25, 1955
3 Claims. (Cl. 197—183)



1. The combination with an office writing machine of the type comprising a paper carriage and a stepping mechanism for the carriage including a shift wheel and loose shift pawl for controlling said shift wheel; of a device for braking the carriage during the carriage shift in the

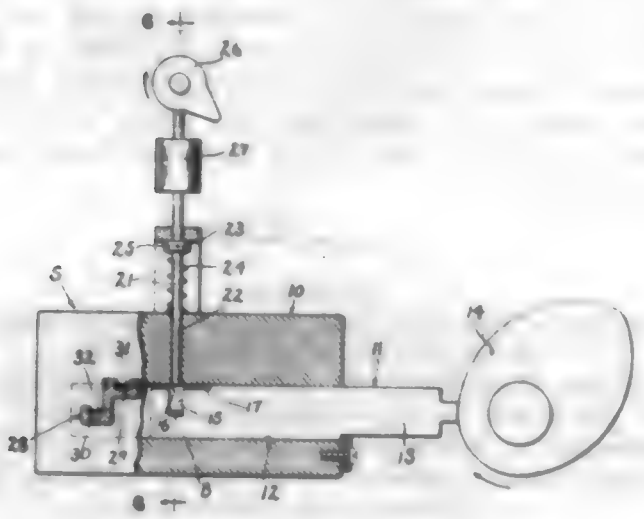
zone of the line start position, said device comprising a lever arm assembly including first and second lever systems, braking spring means interconnecting said systems, means coupling said first lever system to the loose shift pawl of the carriage stepping mechanism for disconnecting said pawl from the shift wheel of said mechanism, a stop on the frame of said machine, means on said carriage for actuating said second lever system as said carriage initially exceeds the line start position in the carriage return movement, actuation of said second lever system being effective through said interconnecting spring means to actuate said first lever system to a position against said stop and simultaneously cause said loose shift pawl to be disconnected from said shift wheel, the remaining kinetic energy in said carriage effecting continued movement of said second lever system accompanied by an energy storing change in said interconnecting spring means which thereby gradually brakes said carriage to a momentary halt, the movement of said carriage then being reversed towards said line start position by the energy stored in said interconnecting braking spring means, and restoring spring means connected to said lever arm assembly for then restoring said assembly to its initial position whereupon said loose shift pawl reconnects with said shift wheel and holds said carriage in said line start position.

2,873,017

METHODS OF AND APPARATUS FOR SORTING

Peter W. Allen, Cortland, and Grant L. Cavender, Warren, Ohio, assignors to The Federal Machine and Welder Company, Warren, Ohio, a corporation of Ohio

Application March 29, 1954, Serial No. 419,126
12 Claims. (Cl. 198—33)



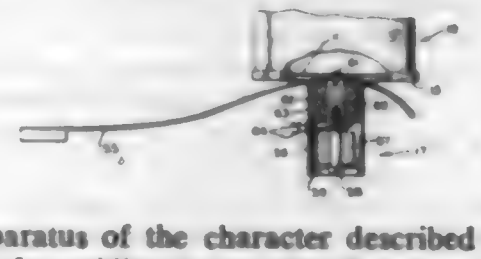
1. Apparatus for sorting bodies which have two or more surfaces differing in magnetic properties, comprising means providing two spaced-apart stations, a member having spaced portions one or the other of which is engageable with said body, said member being shiftable from a first position wherein said portions are adjacent said stations to a second position wherein said portions are spaced from said stations, magnetic means aligned with one of said portions in the second position of said member, said magnetic means being shiftable transversely of said member toward and away from said one portion and providing a magnetic field of sufficient strength to attract said body disposed at said one portion and displace it therefrom and support it adjacent said other portion in the event said body is disposed in a certain manner at said one portion, and means for shifting said member to said first position to engage said body with said one or the other portions of said member to transfer said body to one or the other of said stations depending upon whether said body was attracted by said magnetic means.

2,873,018

CAN HANDLING APPARATUS

Edmond R. Dudley and John H. Quast, Santa Clara, Calif., assignors to Peerless Equipment Company, Mountain View, Calif., a corporation of California

Application September 13, 1956, Serial No. 609,646
12 Claims. (Cl. 198—33)



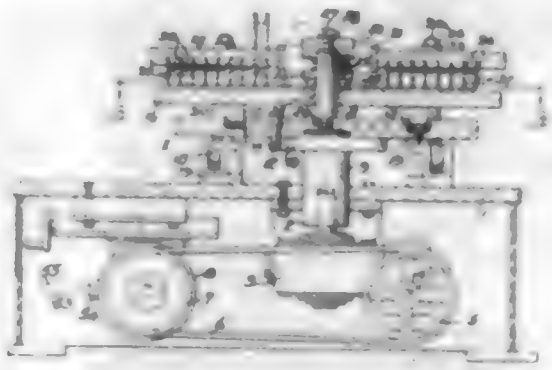
1. Apparatus of the character described comprising a guideway for guiding cans or the like along a defined path and sensing means for sensing end coding on the cans, such coding being in the form of surface irregularities, said sensing means comprising a sensing element at a sensing station located along said path and having a contact member resiliently mounted to contact an end of each can as it passes by said sensing station and to vibrate in response to surface irregularities on such can ends; said sensing means also including electromagnetic means for inducing an electromotive force in response to such vibration.

2,873,019

DEVICES FOR RECEIVING, STORING AND DISCHARGING WORKPIECES OR MACHINE PARTS

John G. Kay, Detroit, and John K. Rye, Southfield Township, Oakland County, Mich., assignors to F. Jos. Lamb Company, Detroit, Mich., a corporation of Michigan

Application July 13, 1955, Serial No. 521,827
14 Claims. (Cl. 198—37)



1. A device for receiving, storing and discharging workpieces, including a stand, a vertical shaft supported for rotation thereon, means for turning the shaft, a driving disc mounted on the shaft for rotation therewith and having an annular groove in its upper face, a drive ring secured in said groove, a carrier disc supported for rotation over the driving disc, a driven ring depending from the carrier disc and bearing upon the drive ring, adjustable means for increasing and decreasing pressure upon the carrier disc to increase or decrease the tendency of the carrier disc to turn with the driving disc, a resilient helical guide supported by the stand over and spaced from the carrier disc for guiding workpieces thereon along a helical path between adjacent convolutions as the carrier disc rotates, conveying means for delivering the workpieces onto the carrier disc between two adjacent convolutions toward one extremity of the helical guide, and another conveying means extending from adjacent the opposite extremity of the helical guide for receiving and discharging the workpieces from the carrier disc.

2,873,020

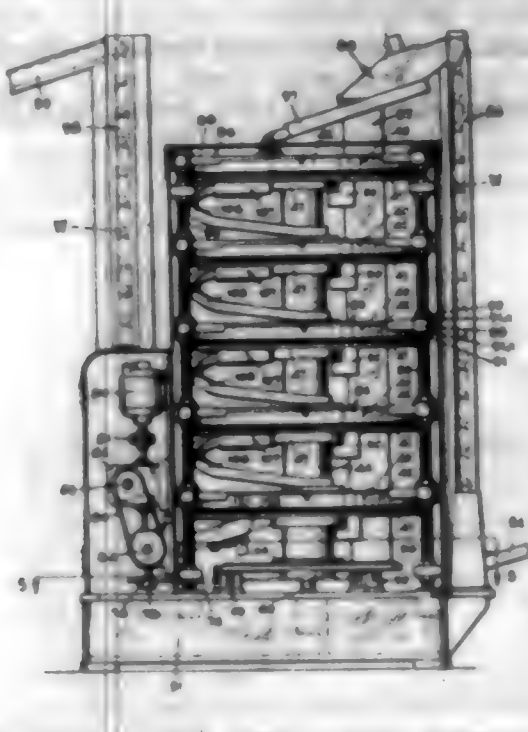
STORAGE AND DELIVERY APPARATUS

John G. Kay, Detroit, Mich., assignor to F. Joseph Lamb Company, Detroit, Mich., a corporation of Michigan

Application November 19, 1956, Serial No. 623,164
28 Claims. (Cl. 198—103)

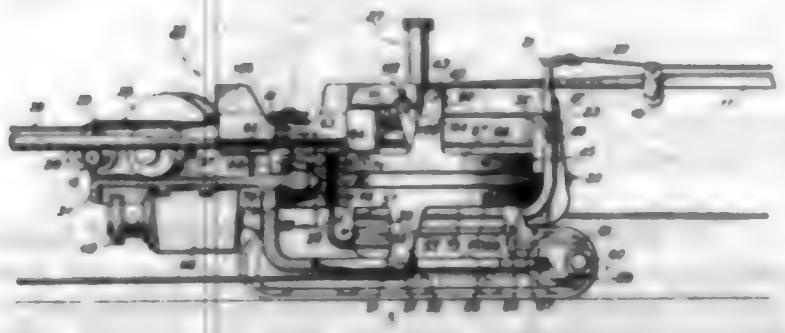
1. In an apparatus for receiving work pieces from one machine, storing said work pieces, and thereafter deliv-

ering said work pieces to another machines as required, the combination comprising a plurality of vertically spaced storage units each having a spiral guideway thereon, each said guideway having an inlet at one end and an outlet at the other end, means for moving the work pieces through each said guideway in a direction from the inlet to the outlet, the direction of movement of said work pieces through one said guideway being the same as the direction of movement of said work pieces through the other said guideways, means for delivering work pieces to the inlet of the uppermost storage unit, means
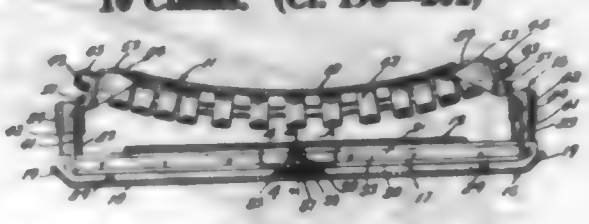


extending between the outlet of one storage unit to the inlet of the next lower storage unit and forming a guideway through which the work pieces may gravitate, said inlets being located adjacent the centers of said spiral guideways and said outlets being located at the outer ends of said spiral guideways, means for receiving the work pieces from the lowermost unit and delivering them to a machine comprising means for elevating said work pieces in succession, and an inclined track having its upper end connected to the outlet of the lowermost storage unit and its lower end connected to said latter means.

2,873,021
BELT CONVEYOR AND ARTICULATOR THEREFOR
Cedric E. McWhorter, Hinsdale, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application August 23, 1956, Serial No. 605,885
14 Claims. (Cl. 198—109)



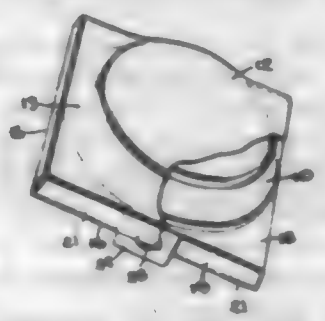
1. In an articulator for conveyors, an endless conveyor belt, an articulator frame positioned intermediate the ends of the conveyor belt and forming a support for the upper and lower runs thereof and accommodating lateral adjustment of the inby end of the belt with respect to the outby end thereof, vertically spaced sets of first and second idler means on said articulator frame forming longitudinally spaced bights in the upper and lower runs of the belt, means angularly moving the first of said idler means with respect to the second of said idler means to angularly form the bights of the belt formed about the first of said idler means to extend at half the angle of adjustable movement of the belt upon the lateral adjustment thereof, means holding said articulator frame in stationary relation with respect to the ground, and flexible cables reacting against said articulator frame in opposite directions and maintaining tension on the inby and outby ends of the belt.

2,873,022
SELF-ALIGNING BELT IDLER
Donald D. Murphy, New Philadelphia, Ohio, assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application May 21, 1954, Serial No. 431,414
10 Claims. (Cl. 198—202)



1. In a self-aligning belt idler, a base frame, an idler-supporting frame, means on said base frame for supporting said idler-supporting frame for pivotal movement upon an upright axis, belt-supporting idler means on said supporting frame for the active run of a conveyor belt, and belt-supporting means on said base frame for the return run of the belt, said belt-supporting means on said base frame providing underlying support for the return run of the belt at a level above the top of the means on the base frame for supporting the idler-supporting frame for pivotal movement upon an upright axis and including members having adjacent their opposite ends post-like elements, and said idler-supporting frame having spaced upstanding brackets for supporting idler means for supporting the active run of a belt, said brackets spaced apart a greater distance than the distance apart of said post-like elements.

2,873,023
TRANSPARENT DISPLAY CONTAINER
Karl H. Erickson, Rockford, Ill., assignor to Amerock Corporation, a corporation of Illinois
Application December 22, 1955, Serial No. 554,755
3 Claims. (Cl. 206—45.34)



1. A container enclosing an article to be displayed comprising a hollow dome drawn from a sheet of transparent plastic and having a top and a continuous peripheral side wall integral therewith and flaring downwardly around its entire periphery to a lower edge defining a rectangular bottom opening, a bottom closure comprising a sheet of multiple ply cardboard fitting snugly within said wall and spaced inwardly from said dome edge, and flanges depending from the side edges of said sheet and separated from each other, each of said flanges being integral with and hinged to the edges of said cardboard sheet and individually flexed outwardly and lying in full face to face contact with the tapered internal surface of said wall along said dome edge, and a plurality of thermo pressure seals spaced around said wall and integrally uniting a plu-

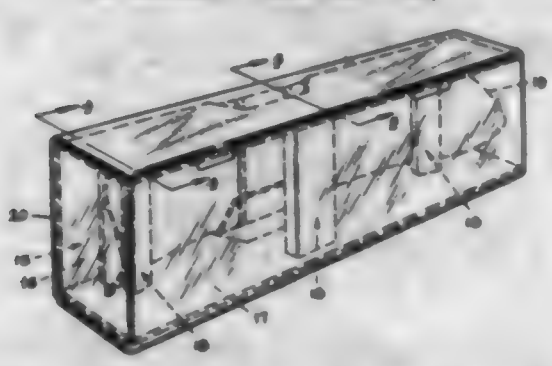
rality of said flanges to the opposed areas of said wall below said sheet, at least one of said flanges being unsealed and separable from said wall to form a tab to be grasped for tearing said sheet and the inner plies of said sealed flanges out of said dome.

2,873,024

SHIPPING CONTAINER FOR GLASS SHEETS

Melvin C. Koester, Toledo, Ohio, assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio

Application January 2, 1957, Serial No. 632,187
12 Claims. (Cl. 206—62)



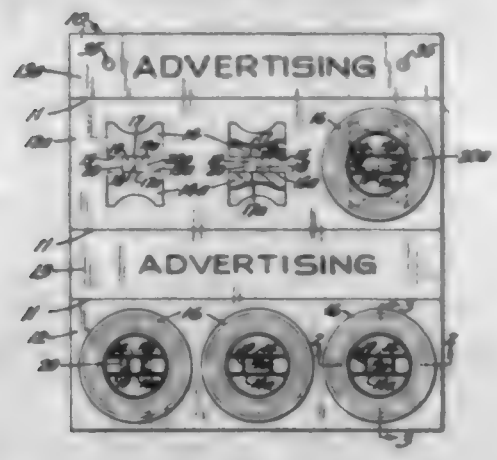
1. A package unit containing a frangible member having one or more areas of curvature change which unit includes a container, a substantially U-shaped interliner unit inserted into said container and a frangible member contained within the hollow interior defined by said U-shaped interliner, said interliner unit including a base wall, at least two wing walls integrally joined to said base wall, means securing the intermediate portion of said frangible member to the intermediate portion of said base wall, first bracing means extending between said wing walls adapted to positively retain the interliner in its U-shape and second bracing means extending between said wing walls to fixedly support the extremities of said frangible member out of contact from said base wall whereby movement of the extremities of said frangible member is prevented.

2,873,025

PACKAGING DEVICE

Robert D. Rollie, White Bear Township, Ramsey County, Minn., assignor to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware

Application January 23, 1956, Serial No. 560,549
8 Claims. (Cl. 206—65)



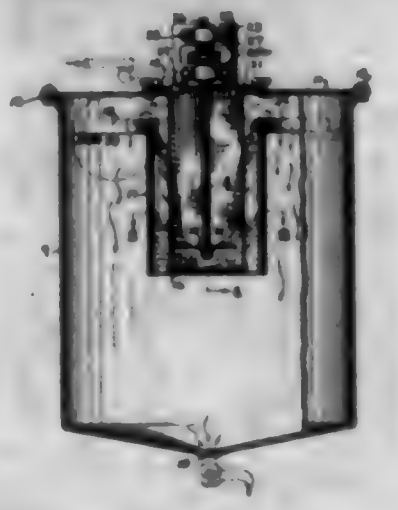
1. A packaging pad suitable for releasably retaining thereon articles of annular shape, said pad having at least one pair of opposed wings integral with and hingedly affixed to said pad at their adjacent edges along spaced parallel fold lines, each pair of wings forming a mounting post when the wings thereof are folded away from said pad along said fold lines, and locking means for urging said wings into article retaining position, said locking means comprising at least one locking tab positioned between the wings of each pair on a fold line perpendicular to said parallel fold lines, said tab, when moved away from said pad into operative position, having its side edges in engagement with said wings and serving to urge the same apart when said wings have been folded away from said pad to form a mounting post, said tab when moved to said operative position forming an opening through said pad between said wings.

2,873,026

METHOD AND APPARATUS FOR PREPARING AND FILTERING ANIMAL BLOOD FOR DRYING

Gerrut J. Nieuwenhuis and Charles C. Harrison, Seattle, Wash.

Application August 29, 1955, Serial No. 531,885
11 Claims. (Cl. 210—67)



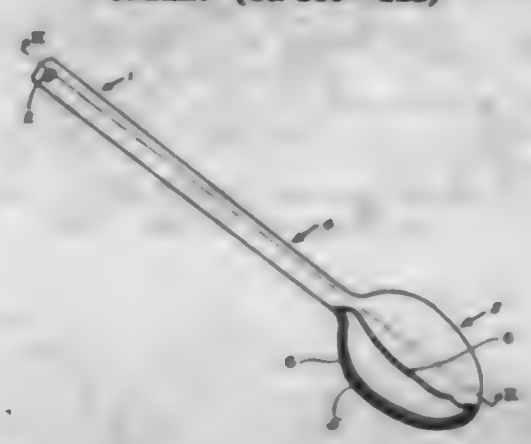
1. In a method of processing blood after it has been drawn, storing the blood until it has completely coagulated, thoroughly mixing the clotted portion of the coagulated blood and the liquid portion thereof together and dissecting the blood clots, and passing the blood along with its dissected clots through a filter screen.

2,873,027

MAGNETIC SPOON FOR REMOVING FERROMAGNETIC PARTICLES FROM A MEDIUM

Carol J. Dohner, Penns Grove, N. J.

Application August 29, 1955, Serial No. 531,822
2 Claims. (Cl. 210—222)



1. A stirring spoon comprising a longitudinal handle portion, a shank portion, and a bowl portion, said bowl portion comprising magnetic means for retaining and removing ferromagnetic particles from the material being stirred.

2,873,028

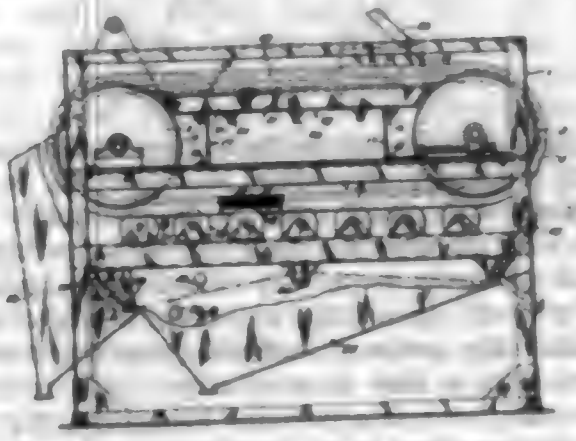
FILTERS

Henry Francis Bried, Wilmington, Del.

Application September 6, 1955, Serial No. 532,525
5 Claims. (Cl. 210—401)

1. Vacuum filtering apparatus of the conveyor type comprising, a frame, a pair of horizontally disposed spaced apart drums mounted on said frame, each of said

drums having a similar circumferential groove of substantially less width than said drum, an endless carrier belt mounted on said drums for rotational movement and having upper and lower flights, means for rotating said drums, a plurality of rigid rectilinear grids having a bottom wall and fixedly attached to the outer peripheral surface of said carrier belt, each of said grids extending transversely across said carrier belts, an endless filtering medium carried in superposed relation on the upper flight of said carrier belt, a vacuum box fixedly supported on said frame beneath said upper flight of said carrier belt, said vacuum box having the plane of its top wall spaced from said carrier belt and parallel therewith, said vacuum box having a slot in its top wall in longitudinal alignment with said circumferential grooves in said pair of spaced apart drums, an endless valve member, having a plurality of valve openings spaced along its longitudinal centerline, mounted in said grooves of said drums



and having a width substantially equal to the width of said grooves, said valve member bridging the space between said carrier belt and said vacuum box, each of said grids having an opening in its bottom wall, all of said openings in said bottom walls of said plurality of grids being in longitudinal alignment with the valve openings of said valve member, said carrier belt having a plurality of openings therethrough registering with said openings in the bottom walls of said grids, and a rigid tube fixedly attached in said opening in the bottom wall of said grid and extending therefrom through one of said openings in said carrier belt and into said valve opening in said valve member, whereby said opening in said bottom wall of said grid, said opening in said carrier belt and said valve opening in said valve member are held in registry during rotation of said drums and said valve openings are held in alignment with said slot of said vacuum box as said valve member slidingly traverses said top wall of said vacuum box.

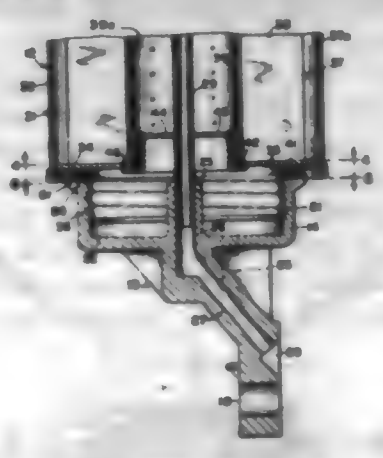
2,873,029

SCREW NECK TYPE FILTER

Kingsley E. Humbert, Jr., Gastonia, N. C., assignor to Wix Corporation, Gastonia, N. C., a corporation of North Carolina

Application March 29, 1955, Serial No. 497,606
15 Claims. (Cl. 210—440)

1. A filter for attachment to a mounting support of the character described, comprising a can shell having a closed end wall and an opposite end wall provided with an opening, a threaded neck carried by said opposite wall and encircling the opening, an annular pleated filter element of substantial length in the casing having an axial passage therethrough and resting at one end upon said opposite end wall, said element being spaced from the encircling can shell wall, a gasket secured within and across the end of the axial passage adjacent to said closed end wall and having a central opening of materially smaller diameter than the passage, the opposite end of the passage providing an outlet for filtered liquid of larger diameter than said central opening, and means interposed between said closed end wall and the adjacent end of the



filter element for holding the filter element in position on said opposite end wall.

2,873,030

FILTER

Philip E. Ashton, Meriden, Conn., assignor to Cuno Engineering Corporation, Meriden, Conn., a corporation of Connecticut

Application May 4, 1954, Serial No. 427,416
1 Claim. (Cl. 210—444)



A hollow cartridge for filtration of liquids comprising a central shaft and a plurality of substantially flat discs of major and minor sizes stamped from thin plain sheets of metal of uniform thickness alternately mounted thereon in contact with one another, each of said discs having a rim with opposite flat faces, the exterior diameter of the rim of each disc of minor size being substantially equal to the interior diameter of the rim of each disc of major size, whereby the rims of said discs of major and minor sizes, respectively, have inwardly and outwardly presented filtering edges which are in substantial longitudinal alignment with one another, the mounting of the discs on said shaft being such that there are trios of contiguous discs arranged throughout the length of the cartridge consisting, in each trio, of a major disc and contiguous minor discs arranged on each side of said major disc, each adjacent pair of trios including a common minor disc, the major disc of each trio having a plurality of circumferentially spaced, radially extending spokes, each of said spokes having a crimped portion preformed in its manufacture to provide projections extending outwardly in the direction of the axis of the cartridge to a minute degree on opposite faces thereof, the rim of the minor discs being free of projections on both faces thereof and contacting the projections on the spokes of the associated major discs to thereby define the longitudinal amplitude of the filtering openings between said edges on opposite sides of the major discs.

2,873,031

COFFEE PERCOLATOR STRAINER SUPPORT

William T. Boyce, Washington, D. C.

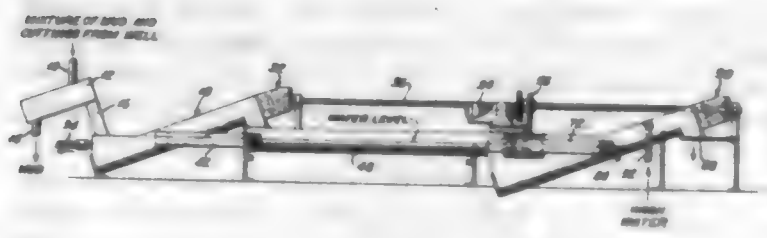
Application May 18, 1956, Serial No. 585,713
5 Claims. (Cl. 210—480)

1. A support for use in a percolator having an upper container with a neck and having an annular recess in said neck, a rigid support having radially disposed arms that are positioned in the same horizontal plane extended

across the neck and mounted with the ends of the arms positioned in the annular recess, said arms having upwardly extending end sections and reinforcing corruga-

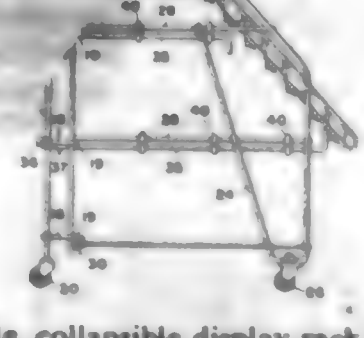
tions at the intermediate portions thereof extending along the longitudinal axis of said arms, and a cloth strainer mounted on the support and positioned with edges thereof in the annular recess.

2,873,032
APPARATUS FOR WASHING OIL WELL DRILLING CUTTINGS
Robert R. Henry, Houston, Tex., assignor to Link-Belt Company, a corporation of Illinois
Application July 22, 1957, Serial No. 673,443
1 Claim. (Cl. 210—524)



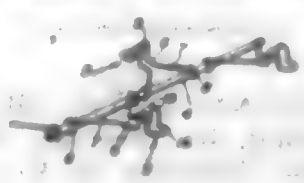
A washer for well drilling cuttings comprising a first and a second dewatering conveyor, each of said conveyors including an inclined trough for containing a quantity of bath water, said trough having an inlet and an outlet, and a helical ribbon conveyor flight in said trough adapted upon rotation to move cuttings along said trough from said inlet to said outlet, a horizontally elongated enclosed trough of substantially uniform depth throughout the length thereof extending between said conveyors and connecting the outlet of said first dewatering conveyor with the inlet of said second dewatering conveyor, a shaft rotatably supported within said enclosed trough and extending parallel to the longitudinal axis thereof, a plurality of scrubbing paddles secured to said shaft in inclined relationship with the longitudinal axis thereof so as to exert both a scrubbing and a conveying action on the material in said enclosed trough upon rotation of said shaft, a plurality of baffles in said enclosed trough to provide a sinuous flow path therethrough, and means for flowing wash water in sequence through said second dewatering conveyor, said enclosed trough, and said first dewatering conveyor in a direction generally countercurrent to the direction in which cuttings are conveyed therethrough, said baffles tending to prevent the diffusion of muddy water in an upstream direction in said enclosed trough while permitting the flow of cuttings in said upstream direction and the flow of mud and water in the opposite direction.

873,033
AY RACK
Herbert V
Cross
corpo
Ap
Rochester, N. Y., assignor to
on, East Rochester, N. Y., a
956, Serial No. 602,867
(Cl. 211—2)



1. A convertible, collapsible display rack having a substantially vertically extending back portion, a series of substantially horizontal shelf portions hingedly attached to said back portion and movable to a horizontal position and upwardly to a vertical collapsed position substantially overlying said back portion, a pair of generally triangular side portions inclined generally downwardly and forwardly at their forward edges from top to bottom of said rack, said side portions being hingedly attached to said back portion and adapted to be moved to a position substantially at right angles to said back portion, said shelf portions having progressively increasing depth from top to bottom of said rack to correspond with the triangular shape of said side portions and means for supporting said shelf portions, said side portions being movable to a collapsed position enclosing said shelf portions between said side portions and said back portion for compact storage of said rack, and a display member comprising a cellular tray hingedly attached to the top of said back portion and movable to an inoperative position substantially overlying the back portion and to an operative position overlying said shelves for provision of an alternate display means.

2,873,034
BICYCLE RACK
George F. Laing, Brattleboro, Vt.
Application November 1, 1955, Serial No. 544,295
1 Claim. (Cl. 211—17)



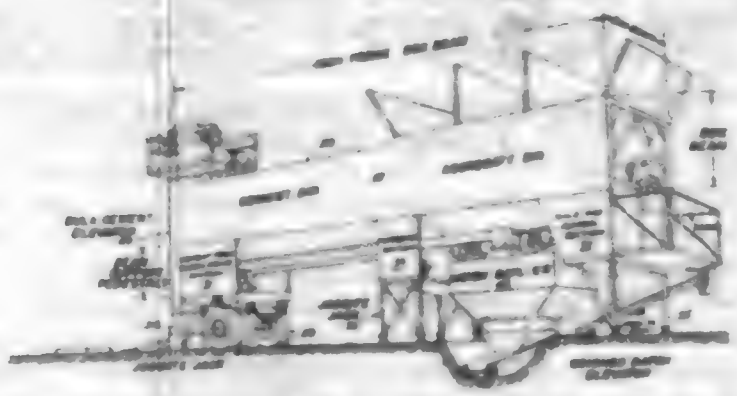
A rack for bicycles of the type including a steering post, an arm on the upper end portion of the post and a handle bar mounted transversely on said arm, said rack comprising a horizontal shaft, and a substantially U-shaped holder of resilient wire journaled for swinging movement in a vertical plane on said shaft and engageable with the handle bar for supporting the bicycle in an upright position, said holder comprising spaced parallel legs including upstanding, substantially inverted U-shaped intermediate loops for transversely receiving the handle bar astraddle the arm, said holder further comprising a bight portion for embracing the post and engageable therebehind for stabilizing the holder on the handle bar and for anchoring the bicycle against rearward movement.

2,873,035
METAL TABLE CONSTRUCTION
Max J. Unis, Philadelphia, Pa.
Application November 1, 1956, Serial No. 619,772
4 Claims. (Cl. 211—1.5)



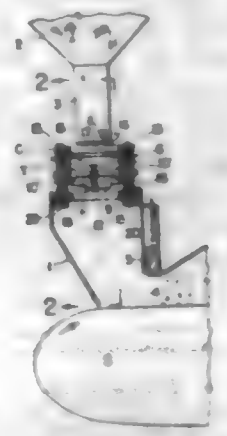
1. A metal table comprising in combination, a top and legs, said top having rounded edges and corners and further including integral perimetrical side aprons; said aprons terminating at each side of said corners in an inwardly bent generally L-shaped vertical flange, the first leg of said flange constituting a seating portion and the second leg of said flange constituting a stopping portion, said stopping portion being at approximately right angles to its contiguous seating portion and the free edge of the stopping portions on each side of said corners being opposed; said legs being of substantially arcuate cross-section each having substantially the same width and radius of curvature as said corners and said legs further including relatively narrow vertical strengthening flanges on each side thereof bent inwardly in the direction of curvature of said legs; said legs when seated flush in said corners causing said strengthening flanges to be in face to face contact with said seating portion, and the free edges of said strengthening flanges to be in contact with said stopping portions; corner clamping members each positioned beneath the top and in contact with said stopping portions, on the side of the L-shaped vertical flanges which is opposite said leg, said corner clamping members further including vertical flanges on each side thereof, said flanges being bent so as to be opposed to each other, and in face to face contact with said seating portions; bolts connecting each of said corner clamping members with a leg; and means for retaining said bolts.

2,873,036
PORTABLE BATCHING PLANT
Jack D. Noble, Lafayette, Calif.
Application December 16, 1954, Serial No. 475,738
9 Claims. (Cl. 214—2)



6. A portable wheel-mounted aggregate batcher having a high main body portion extending generally fore and aft and composed of a unitary horizontally disposed hollow main box beam generally rectangular in cross-sectional shape, having vertical side walls and inwardly sloping bottom walls, said beam extending the full length of the batcher and constituting the main frame thereof, said vertical and inwardly sloping side walls forming both the principal strength members and the sides of bins for granular components, said bins having gates therein; said body portion being divided by vertical lateral walls into a plurality of said bins, one of which comprises a horizontally extending fine aggregate silo, with feed screw means extending the full horizontal length thereof, others of which comprise vertically extending coarser aggregate bins; a weigh hopper under said aggregate bins and under the outlet of said feed screw; and pedestal support members depending at the ends of said box beam, adapted to be secured to wheel-mounted units for movement on the roads, or to jacks when in place at the jobsite.

2,873,037
APPARATUS FOR UNIFORM DISTRIBUTION OF DIVIDED SOLIDS
Adalbert Fischer, Stuttgart-Bad Cannstatt, Germany, assignor to Kohlenscheidungs-Gesellschaft m. b. H., a corporation of West Germany
Application December 13, 1954, Serial No. 474,901
9 Claims. (Cl. 214—17)

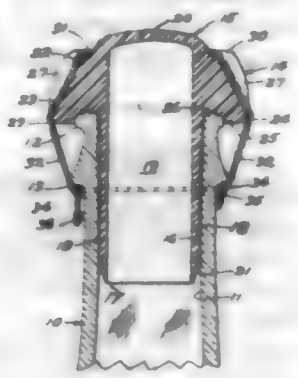


1. In apparatus for distributing divided material substantially uniformly along a path of given length, the combination of an endless chain drag conveyor arranged parallel and above said given path and having an upper run and a lower run; a movable table positioned below said upper run in contacting and supporting relation therewith and being movably supported by said lower run, the length of said table extending over at least half of the length of said path; means for anchoring said lower run at a point intermediate the ends of said path; driving means for simultaneously moving said table and the upper run of said chain drag to and fro in direction of said given path at respective velocities having a ratio of 1:2; means for feeding material onto said table at a point approximately midway of the length of said path; and means associated with said conveyor chain for pushing off said material over the downstream end of said conveyor in the material flow sense while said table advances in said downstream direction.

2,873,038
STOPPER FOR WIRE-HOODED BOTTLES
Robert F. Schuler, Millbrae, and Fred McFarland, Redwood City, Calif., assignors to L. F. Schuler Company, Inc., San Francisco, Calif., a corporation of California
Application August 13, 1956, Serial No. 603,693
5 Claims. (Cl. 215—47)

1. A bottle closure comprising an integral stopper of plastic material having a head, a hollow shank of lesser diameter than the head extending from the underface of the head and thereby providing a shoulder circumferentially of the head, the body of the head being solid between the shoulder and the shank, said head having at its opposite upper face a central convex portion having a substantially annular crown groove radially spaced from the axis of said central convex portion for receiving therein a crown strand of a wire hood circumferentially

of the convex portion, the head having a side wall portion the outer face of which tapers radially outwardly and downwardly from said groove toward the circumferential shoulder, the said side wall portion having a plurality of flutes circumferentially spaced relatively and radiating from the crown groove substantially to the circumferential shoulder, the radially inner end of the flutes being raised substantially above the plane of the crown groove and defining an outer circumferential wall around the crown groove and the opposite radial side edges of

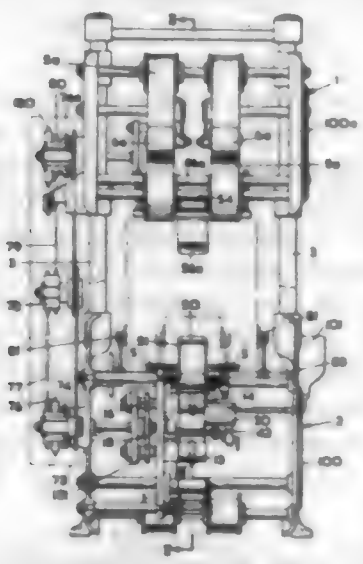


the flutes diverging relatively from said crown groove, the spacing of the flutes providing radial channels therebetween the inner ends of which are open at the crown groove and the opposite ends of which extend substantially to the outer ends of the flutes, the valleys of the channels at said inner ends being substantially in the same plane as the valley of the crown groove whereby legs of a wire hood may be turned from the crown groove into said channels at the plane of the crown groove and the crown strand therein.

2,873,039
PACKING

William Sydney Powel, Newcastle-on-Tyne, England, assignor to Adams Powel Equipment Limited, Gateshead, England, a British company

Application April 30, 1956, Serial No. 581,641
Claims priority, application Great Britain April 29, 1955
5 Claims. (Cl. 216—25)

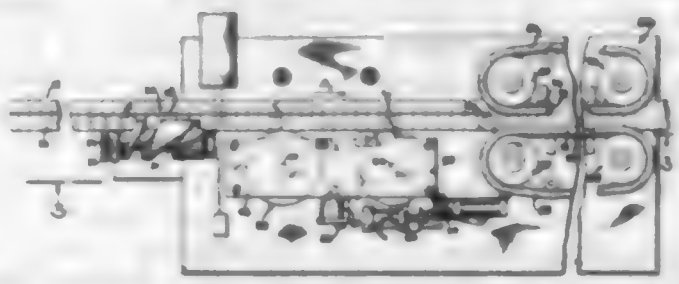


1. A taping machine comprising, in combination, conveyor means for moving an article past a tape dispenser, said dispenser having means for feeding tape into the path of movement of the article comprising a first pair and a second pair of feed rollers, each of said first and second pairs of feed rollers having profile portions defining V-shaped bites lying along a common tangent, drive means for rotating said rollers, moistening means associated with said second pair of feed rollers for moistening the tape after passing said first pair of feed rollers, cutter means disposed intermediate said first pair of feed rollers and said moistening means, sensing means associated with said drive means responsive to the passage of an article into initial taping position with the taping dispenser for initiating said feeding of said tape, said sensing means being further responsive to the passage of the article beyond a subsequent taping position to arrest said feed and to actuate said cutter means to sever the tape, a pivotally supported member for trapping the leading end of the tape against the leading face of an article subsequently to movement thereof beyond said initial taping position, said pivotally supported member in response to the advancement of the article being arranged to move with respect to that face to press the tape thereagainst, presser means for pressing the tape against the trailing face of the article, said presser means comprising a rotatable member having a plurality of individual pressers supported for rotation into the path of movement of the article about an axis normal to such path of movement, and means sequentially rotating each of said pressers individually into pressing engagement with the trailing end of successive articles.

2,873,040
LABEL APPLYING MEANS

Herman D. Manas, Brooklyn, N. Y., assignor to M. R. M. Machinery Co., Inc., Brooklyn, N. Y., a corporation of New York

Application April 5, 1957, Serial No. 650,968
4 Claims. (Cl. 216—55)

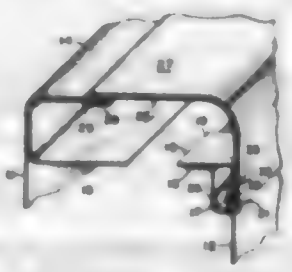


1. In a labeling machine, means for completely adhering a label to a container including an adhesive distributing member, a rotary member, an adhesive stripe applying member carried by the rotary member to swivel relative thereto, means for swiveling said adhesive stripe applying member relative to said rotary member, said stripe applying member being movable by movement of said rotary member into contact with said distributing member to receive adhesive therefrom and then being movable with said rotary member and by said swiveling means into contact with said container to apply an adhesive stripe thereto, and means for positioning an adhesive bearing label having a non-adhesive area so that the latter and said stripe are aligned and adhered and means for effecting complete adhesion of the label and container.

2,873,041
BREAKER STRIP CONSTRUCTION

William A. Allen, Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Application December 3, 1956, Serial No. 625,777
1 Claim. (Cl. 220—9)



Refrigerated cabinet construction comprising an outer shell having top, rear and side walls and an open side, an inwardly extending flange formed on the front edge of said shell, a liner having top, side and rear walls mounted within said shell in spaced relation to the top,

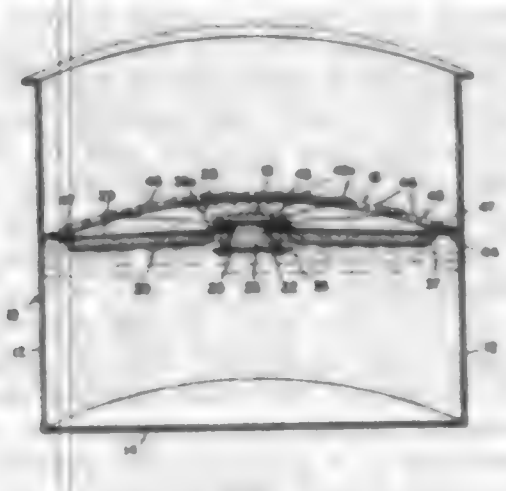
side and rear walls thereof, a flange extending outwardly from the forward edge of said liner, a step interposed between said flange and said liner wall; clips spacedly arranged along said step and secured to said liner flange, said clips being formed with a hook-shaped portion with an engaging tip and a portion overhanging said engaging tip; a breaker strip arranged between the forward edges of said liner and said shell to close off the opening therebetween, said breaker strip comprising: a body portion extending between said flange on said shell and the step on said liner, a first lip arranged along a marginal edge of said body portion and overlying same to form a pocket therewith, a second lip formed on the opposite marginal edge of said body portion and overlying same to form a pocket therewith, and a biasing lip contacting the lower face of said overlying portion spaced adjacent said second lip, said biasing lip being operative to afford relative sliding engagement between the clip and the biasing lip after the pocket formed by the second lip engages the tip of the clip, as the breaker strip is rotated to effect connection between the shell flange and the pocket formed by the first lip on the breaker strip.

2,873,042

ADJUSTABLE FLOATING ROOF

Alexander F. Fino, Warren, Pa., assignor to Hammond Iron Works, Warren, Pa., a corporation of Pennsylvania

Application November 19, 1956, Serial No. 622,865
4 Claims. (Cl. 220—26)



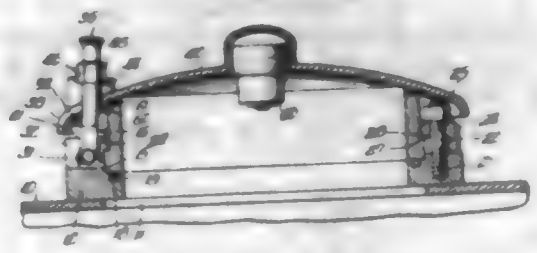
4. In a liquid storage tank having a wall, a roof construction floating on the liquid to rise and fall with changes in the liquid level having a conical buoyant center section, a series of buoyant sector bodies extending radially from the center section and constituting a floating ring around the center section substantially occupying the annular space between the center section and the tank wall while being dimensioned to maintain edgewise contact at their inner ends upon the conical face of the center section and thereby assuming a slight downward outward inclination, said sector bodies adjusting themselves to irregularities of the tank wall as the level falls and rises by undergoing corresponding variations of their inclination accompanied by corresponding changes of immersion of the center section with the sector sections shiftable relative to one another and their inner ends moving up and down the conical face of the center section, vertical guide means carried by said center section and effective to provide for limited radial as well as up-and-down movement of each of the inner ends of respective sector bodies while substantially preventing lateral displacement thereof, said guide means having a bottom flange and a top flange provided upon said center section, and a guide pin extending between said flanges for each sector body and passing through respective radially-extending slots in the inner ends of the sector body.

2,873,043

COVER ASSEMBLY FOR TANKS

Clyde H. Folmsbee, Charlevoix, Mich., assignor to Union Tank Car Company, Chicago, Ill., a corporation of New Jersey

Application March 16, 1956, Serial No. 572,031
6 Claims. (Cl. 220—55)



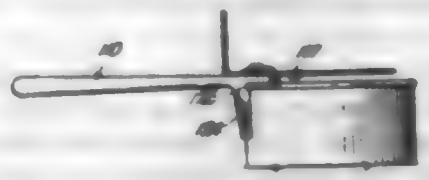
1. A cover assembly for a tank comprising a base member secured around an opening in a tank, said base the inner periphery thereof, an upwardly facing base member groove in said shoulder, a sealing member in said base member groove, a sealing ring member with a groove on the upper end seated on said shoulder of said base member, a sealing member in said sealing ring member groove, said sealing ring member having a shoulder formed on the outer periphery thereof adjacent its lower end, an annular retainer member removably fastened to said base member engaging said shoulder on said sealing ring member for holding said sealing ring member on said base member, a cover member over said sealing ring member, and means pivoted on said retainer member securing said cover member against said sealing member on said sealing ring member.

2,873,044

PAINT CAN HOLDER AND SCRAPER

Richard Earl Rutledge, Sr., Kansas City, Mo.

Application July 5, 1955, Serial No. 519,930
3 Claims. (Cl. 220—90)



1. In a paint can holder and scraper for an open top container having a handle assembly engageable with the beaded upper edge of the can, and a scraper member mounted on the handle for disposition entirely above the open top of the can whereby to drop collected paint thereinto when in use, said scraper comprising a split ring-shaped body of wire having the ends thereof secured to said handle assembly, the said handle and said scraper cooperating to provide a continuous uninterrupted edge above the open top of the can against which to draw a brush to remove excess paint therefrom.

2,873,045

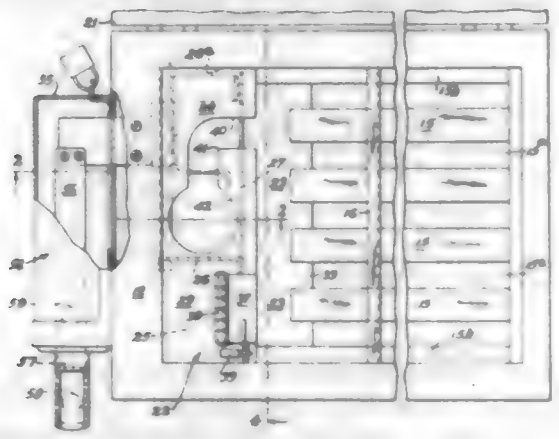
COIN-OPERATED BOTTLE DISPENSER APPARATUS

William P. Rosa, San Francisco, Calif.

Application May 25, 1955, Serial No. 511,019
11 Claims. (Cl. 221—133)

1. A bottle dispensing apparatus including a dispensing compartment having a bottle trap therein for receiving a bottle, a slotted dispensing plate overlying the said compartment, said compartment and plate being adapted for mounting within a suitable cabinet which has side walls providing an open top, a rim unit adapted for demountable seating on the upper edge face at the top of the said side walls of the cabinet and supporting the dispensing compartment within the cabinet, and a connecting arm means passing through the demountable rim,

one end portion of said connecting arm means having connection with said bottle trap for moving the bottle trap into dispensing relationship relative to the slot of the dispensing plate, and the other end portion of said



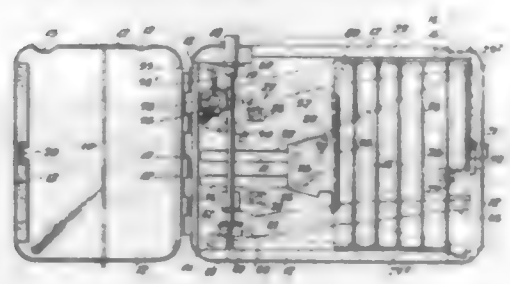
connecting arm means being connectible to coin-operated mechanism mounted on the rim exterior of the cabinet whereby the movement of the connecting arm means may be locked and unlocked.

2,873,046

CIGARETTE CASES

Wing G. Cheng, Kowloon, Hong Kong

Application February 20, 1957, Serial No. 641,413
Claims priority, application Great Britain September 17, 1956
3 Claims. (Cl. 221—227)



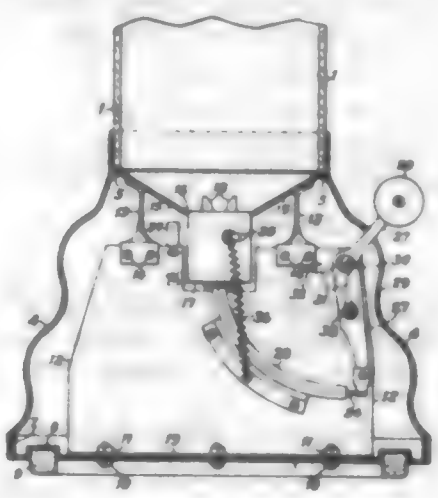
1. A cigarette case comprising a casing formed on one side edge with a delivery aperture and made in two substantially symmetrical parts, means for hingeably connecting together said two parts along one pair of adjacently disposed side edges, means located at the pair of side edges opposite respectively to those hingeably connected together for fastening the two parts of the casing together in the closed position, a plate fitted into one of said casing parts on which plate cigarettes loaded into the case are placed, said fastening means comprising two complementary parts, one of which is fixed to one edge of one of said symmetrical parts of said casing, and the other of which is slidably mounted along an edge of said plate so as to be engageable with said fixed part when the case is closed, means mounted on said plate for successively feeding cigarettes placed thereon into alignment with said delivery aperture, said feeding means comprising a spring pressed pusher member arranged to bear on the cigarettes on the side thereof most remote from the delivery aperture, means for retaining said spring pressed pusher member in an inoperative position on the side of the casing remote from the delivery side thereof in order to enable cigarettes to be readily loaded into the case between the pusher member and the delivery side of the case, said retaining means comprising a spring pressed pawl pivotally mounted on said plate and adapted to engage and hold the pusher member in the inoperative position, and means for releasing said retaining means, said release means comprising a two armed release lever one end of which is operatively connected to said spring pressed pawl and the other end of which is disposed in the path of said slidably mounted part of said fastening means so as to be automatically actuated by said slidably mounted part when said case is closed to move the pawl against its spring pressure in a direction to release the pawl from the pusher member, and ejector means also mounted on said plate and operable when it is desired to withdraw a cigarette from the case to project the cigarette in line with the delivery aperture through this aperture so that it can be readily withdrawn from the case.

2,873,047

HOLDER FOR DRINKING STRAWS

Filiberto González Cepero, Havana, Cuba, assignor to Porta Sorbedores Ygienic, Sociedad Anonima, Havana, Cuba, a corporation of Cuba

Application May 7, 1956, Serial No. 583,945
Claims priority, application Cuba March 9, 1956
2 Claims. (Cl. 221—260)



1. In a holder for drinking straws, comprising a frustro-conical bottom base member having a lower floor plate and an annular flange directed inwardly on its upper open end, a cylindrical receptacle for holding a plurality of straws vertically on end and removably supported on said frustro-conical base member with its lower edge resting upon said inwardly directed flange, a vertical partition in said base member supported on said floor plate and extending upwardly and diametrically therefrom, a conical bottom wall for said straws receptacle supported on the upper edge of said partition with its outer peripheral edge in registry with the inner edge of said annular flange and having an enlarged central opening, an arcuately curved tube supported on said partition and arranged in a plane parallel therewith with its upper end axially aligned with the center of said cylindrical receptacle and terminating in its upper end in a bearing support beneath the opening in said conical bottom wall, a cylindrical solid body having a central opening rotatably mounted on said bearing support to rotate on the upper end of said arcuately curved tube, anti-friction bearing members interposed between said bearing support and said cylindrical body, said cylindrical body being arranged in the central opening of the conical bottom wall of said straws receptacle and having a concave surface forming a continuation of the taper of said bottom wall, a pair of vertical agitator lugs on said cylindrical body in diametrically opposed relation with respect to the center of said cylindrical body to project into said straws receptacle and above the lower edge of said conical bottom wall, a manual operating lever pivotally mounted on said partition with its axis arranged on the center of the arc of said arcuate tube, a flexible strip of metal movably and slidably mounted in said tube with its lower end attached to the inner end of said operating lever and arranged with its upper end projecting into said cylindrical body member, the upper end of said flexible metal strip being twisted about its longitudinal axis to provide a sectional screw thread adapted to move through a restricted opening in the solid cylindrical member such that operation of said manual operating lever will cause to and fro movement of said

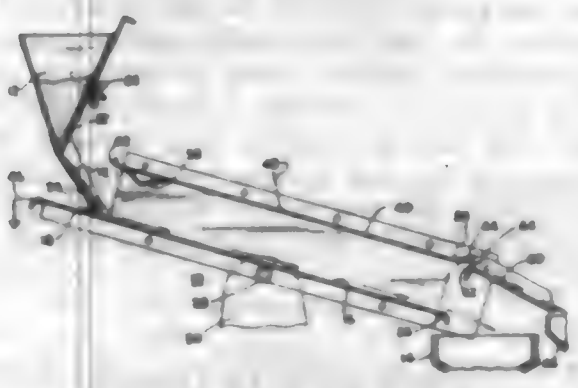
metal strip and will rotate said cylindrical member in opposite directions, a pointed straw engaging portion formed on the upper end of said flexible metal strip adapted to engage the lower end of a centrally disposed straw and project the same upwardly through an opening in the upper end of said straws receptacle, the arrangement being such that actuation of the control lever will simultaneously eject a straw and agitate the centralmost straws in the straws receptacle in the area adjacent the ejected straw, the free end of said manual operating lever being arranged to extend through an opening in the side of said frustro-conical base member and conveniently positioned for manual operation.

2,873,848

ELECTROSTATIC CONVEYING

Eli C. Gear, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware

Application October 23, 1953, Serial No. 387,993
11 Claims. (Cl. 222—1)



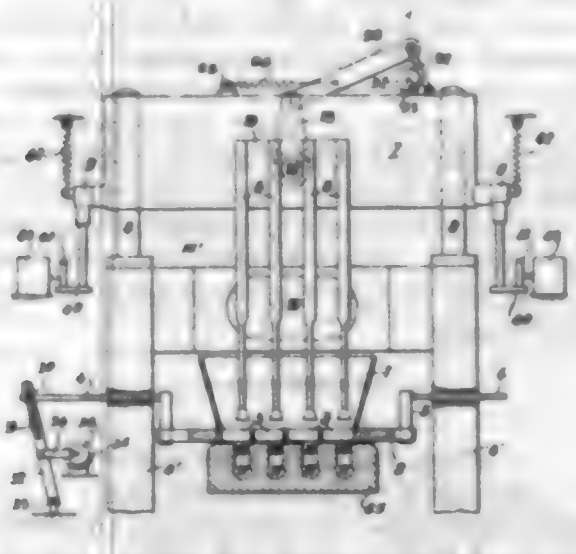
2. A method for feeding and dispensing particulate materials which comprises: passing said particulate material from a source of supply onto a downwardly sloping substantially planar, imperforate surface, adjusting the angle of slope of said surface to slightly less than the angle of repose of said particulate material, and subjecting the particles fed to said sloping surface to an electrostatic field whose lines of force cut across said surface, whereby said particulate material is caused to move down said sloping surface and to be dispensed over the lower end of said surface in a dispersed condition.

2,873,849

PROCESS AND APPARATUS FOR DISTRIBUTING A FLUIDIZED SOLID MATERIAL

Fritz Schäfer, Silschede uber Gevelsberg, and Alfons Brockmann, Sythen uber Haltern, Germany, assignors to Schäfer-Flottmann & Co. G. m. b. H., Silschede uber Gevelsberg, Westphalia, Germany

Application May 21, 1956, Serial No. 586,195
Claims priority, application Germany May 20, 1955
8 Claims. (Cl. 222—1)



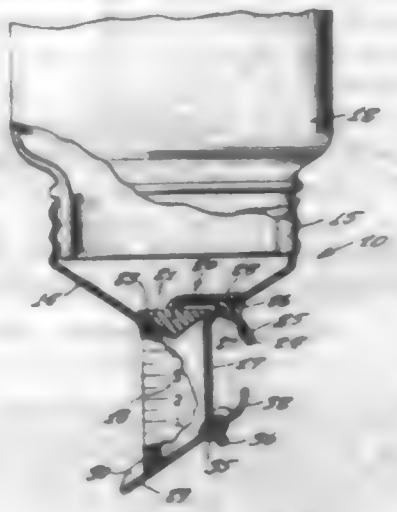
5. In a process for distributing a fluidized solid material, the steps of reciprocating a hopper in a horizontal direction transverse to the direction of flow of the fluidized solid material therethrough; and simultaneously reciprocating in a horizontal direction a ramming means which extends into said hopper and which performs its ramming action by movement in a vertical direction.

2,873,850

MEASURING AND DISPENSING DEVICE

Kenneth L. Halverson, Onalaska, Wis.

Application September 23, 1957, Serial No. 685,471
1 Claim. (Cl. 222—158)



A measuring and dispensing closure cap comprising, in combination, a hollow conical main body portion having an internally threaded cylindrical base at one end for threaded engagement with a jar and circular discharge opening at the opposite end, a circular cylindrical spout integral with said opposite end of said main body portion in communication with the interior of said main body portion, means for selectively controlling the passage of a fluent mass into said spout from said main body portion, means for measuring the quantity of said fluent mass passing into said spout, and means for selectively dispensing said measured fluent mass from said spout, said means for selectively controlling the passage of said fluent mass comprising a plunger valve, said measuring means comprising an indicia carried by said spout, said dispensing means comprising a dispensing valve plate pivotally carried by the outer end of said spout, said plunger valve comprising a flexible stem, a conical head at one end of said stem, a finger plate at the opposite end of said stem, a grommet integral with the mid portion of said stem for supported engagement upon said main body portion, and a resilient stiffener member within said stem normally urging said valve head into closed engagement with the opening defining portion of said spout.

2,873,851

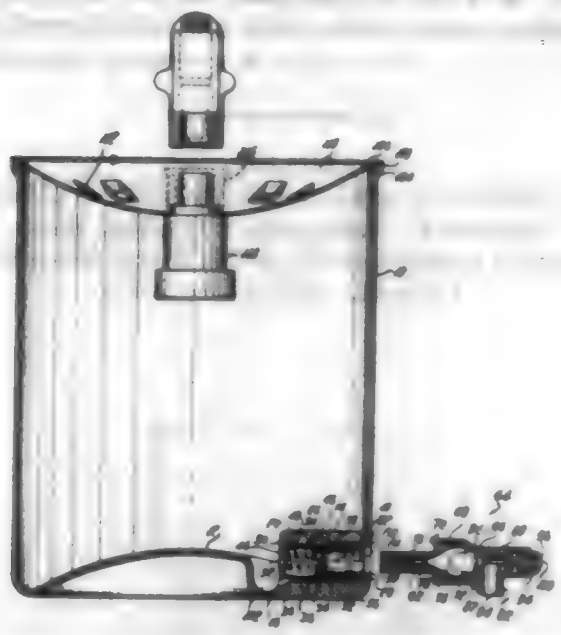
BEVERAGE DISPENSER

Henry F. Hamburg, Stratford, and Anthony Faugno, Darien, Conn.

Application May 11, 1956, Serial No. 584,266
12 Claims. (Cl. 222—396)

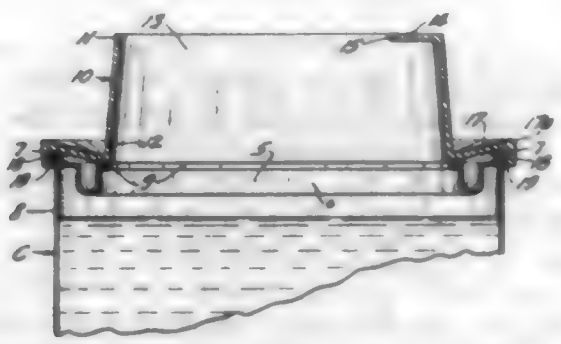
1. A container for carbonated beverages comprising an open mouthed container having a mouth of substantially the same diameter as the container, a removable cover closing said open mouth, a valve containing spigot removably mounted in an aperture in a lower portion of said container, valve means associated with said aperture for closing said aperture when said spigot is removed, charging valve means mounted on said cover, means on said charging valve means for receiving a high pressure

gas vessel, and means associated with said charging valve means for admitting said high pressure gas to said con-



tainer to maintain a substantially constant pressure in said container as beverage is withdrawn therefrom.

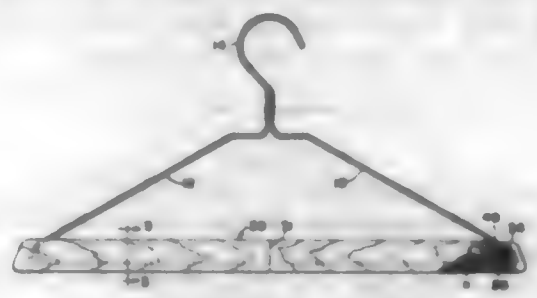
2,873,852
PAINT CAN ATTACHMENT
William A. Atherton, Minneapolis, Minn.
Application November 1, 1954, Serial No. 465,868
4 Claims. (Cl. 222—570)



1. A paint can attachment comprising a tubular member having an upper and lower end portion, said tubular member having a resilient annular flange at the lower end portion thereof extending outwardly therefrom, said annular flange having an inner portion adjacent said tubular member and an outer portion spaced outwardly of said tubular member, said inner portion having a lower surface for engaging the upper surface of the inner edge of the rim of a paint can or the like, said outer portion including a downwardly extending annular support member, said downwardly extending support member having a lower portion including an inwardly extending resilient flange, said last mentioned resilient flange having an upper surface for engaging the under surface of the bead on a paint can or the like, said upper surface of said last mentioned resilient flange being positioned upwardly of the lower surface of said inner portion of said first mentioned flange when said attachment is in unattached position, whereby when said attachment is attached in operative position on a paint can or the like, said lower surface is resiliently urged into sealing engagement with the upper surface of the inner edge of the rim of the paint can or the like.

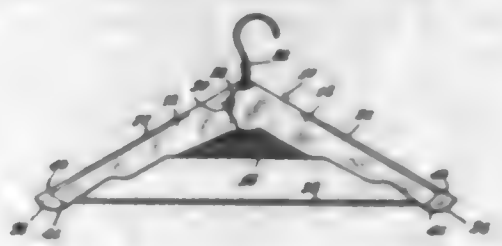
2,873,853
COAT HANGER
Theodore A. Seegrist, McLean, Va.
Application June 17, 1954, Serial No. 437,385
3 Claims. (Cl. 223—98)

1. The combination with a wire coat hanger having a straight base bar and two side bars forming a triangle, of a trousers hanging attachment for the hanger comprising a rod of rigid material having at each end two laterally spaced longitudinally extending projections and a lateral shoulder between the projections, the rod being detachably mounted above and along the base bar with each side bar of the hanger fitting between the spaced projections at the end of the rod adjacent the side bar, the lateral shoulders at the two ends of the rod being of such a distance apart that the lateral shoulders engage tightly against the side bars, thus to form a rigid structure with the upper portion of the rod adapted to support a folded trousers hung thereover, said rod having a longitudinal groove in its bottom portion in which the base



bar fits and being vertically divided in the central portion forming two pieces, whereby the rod is installed by positioning it on the base bar with the central portion raised from its installed position, with the pieces in contact as a fulcrum at the lower portion of their adjacent ends, and with the side bars in position each between its spaced projections and bearing against its lateral shoulder, and then by forcing the rod at the central portion towards the base bar to snap it past dead centre into its installed position.

2,873,854
COAT-HANGER COVER
Clarence C. Zintel, Indianapolis, Ind.
Application December 27, 1955, Serial No. 555,499
6 Claims. (Cl. 223—98)

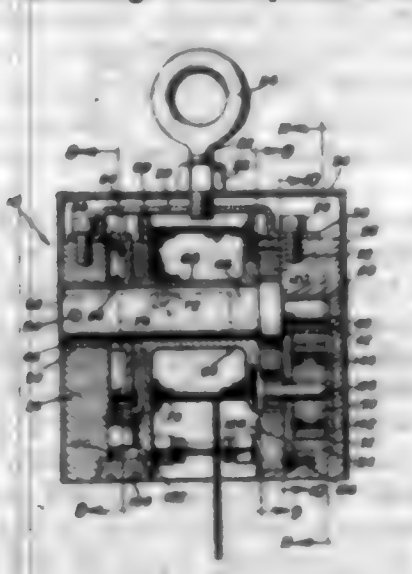


1. A cover for a coat hanger having a pair of diverging arms and a hook supporting such arms, comprising a generally triangular sheet of foldable material provided with a notch at its apex and two sets of divergent score lines extending obliquely downward from said notch and separating the sheet into a rear wall and two flaps adapted to be folded about said score lines to form a front wall, one of said flaps having a slot and the other a tongue adapted to be received in such slot for locking said cover over the hanger, said sheet being provided near its lower corners with supplemental score lines transverse to the divergent score lines and defining end flaps adapted to be folded upwardly about said supplemental score lines to provide hook-like stops for the straps of garments which are supported by means of straps, the opposite end portions of said transverse score lines diverging inward at acute angles to the shoulder center line, whereby when said flaps are folded upward, pressure such as would be exerted by garment straps downward on the edges of the sheet adjacent to said flaps will tend to bend said flaps further inward.

2,873,855
FIRE ESCAPE DEVICE
Joseph H. Hill, Frankfort, Ky.
Application November 28, 1955, Serial No. 549,310
5 Claims. (Cl. 227—30)

1. A fire escape device comprising a mounting bracket adapted to be attached to a support, a reel rotatably

mounted on said bracket, a flexible line wound upon said reel, means on the free end of the line for attachment to a person to be lowered by unwinding the line from the reel, brake means for said reel for retarding rotation of the reel thereby retarding the rate of descent of the person being lowered, said brake means including a brake drum secured to said reel, a brake band mounted on said bracket for engaging said drum, and means for urging the band into frictional contact with the drum, said last named means including a fluid pressure actuated piston



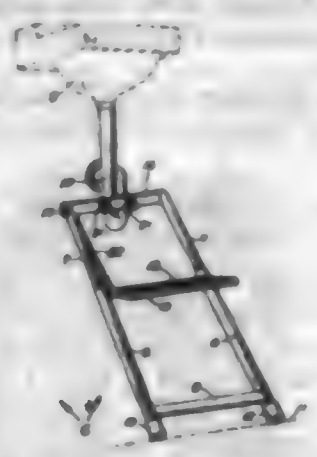
and cylinder arrangement, a fluid pump supplying pressured fluid to said arrangement for expanding the piston against the band for forcing the band into frictional engagement with the drum, said pump being driven from said reel, said pump being of the positive displacement type whereby the fluid pumped and the pressure exerted against the brake drum by the band is directly responsive to the speed of rotation of the reel and the speed of descent of the person being lowered thereby controlling the speed of descent of the person being lowered.

2,873,056

TELESCOPIC LAVATORY SAFETY PLATFORM

James R. Gratton, Reseda, Calif., assignor of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California

Application July 22, 1957, Serial No. 673,496
2 Claims. (Cl. 228—48)



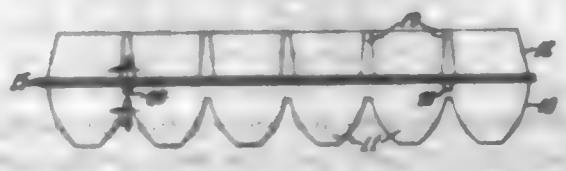
1. A telescopic lavatory safety platform for a child, comprising: longitudinal telescopic means including a duplex of spacedly opposed outer telescopic tube members provided with inner telescopic tube members, said telescopic means being cooperable for limited pivotal movement about a horizontal axis and having a retracted and an extended position; a cross-bar joining said outer telescopic tube members near the bottom thereof; resilient floor engaging means on the base ends of said outer telescopic tube members; a transverse flat platform fixedly mounted to said outer telescopic tube members adjacent the upper ends thereof, said flat platform being substantially parallel with respect to the floor when in said extended position and being non-parallel with respect to the floor when in said retracted position; said telescopic means and said flat platform being underneath the lavatory when in said retracted position; transverse mounting means cooperable for pivotally mounting said inner telescopic tube members with respect to the drain pipe of a lavatory, said mounting means including fastening means and a channel bar which is pivotally mounted at its ends with respect to the upper ends of said inner telescopic tube members; said channel bar having a rearwardly directed concave recessed section in the center, for positioning against the convex forward portion of the drain pipe, and a forwardly directed aperture on each side of said recessed section; said fastening means including U-bolt means having a forwardly directed concave central portion shaped to encircle the convex rear of the drain pipe, having two substantially parallel similar exteriorly threaded bolt portions extending forwardly through said apertures beyond said channel bar, and having an individual interiorly threaded nut threadedly engaged on each of said forwardly directed bolt portions for rigidly fastening said channel bar to the drain pipe, the parts of each of said bolt portions projecting forwardly beyond said channel bar being positioned for underlying supporting cooperation with the rear edge of said flat platform when said telescopic means is pivotally swung upwardly into an upper storage position with said flat platform above said parts and when said telescopic means is then shortened to the maximum extent; stop means cooperable for limiting travel of said inner telescopic tube members, said stop means comprising a chain fixedly attached to said flat platform at one end and to said channel bar at the opposite end.

2,873,057

CONTAINER WITH COVER LOCK

Paul D. Friday, Portland, Oreg., assignor to Paper Mald, Inc., Portland, Oreg., a corporation of Oregon

Application March 29, 1955, Serial No. 497,608
7 Claims. (Cl. 229—2.5)



1. A molded paper pulp carton comprising a body section and a cover section, rim flanges on said sections, a D-shaped opening in one of said flanges, and a hollow conical stud projecting in a perpendicular direction from the other flange in a position to enter said opening, said stud being formed of pulp integral with said other flange and having a flat notch at its base adjacent said flange receiving the straight side of said D-shaped opening, said stud having a diameter at said notch exceeding the width of said opening and requiring inward deformation of the wall of the stud into the hollow interior of the stud in penetrating said opening sufficiently to engage the straight side of said opening in said notch.

2,873,058

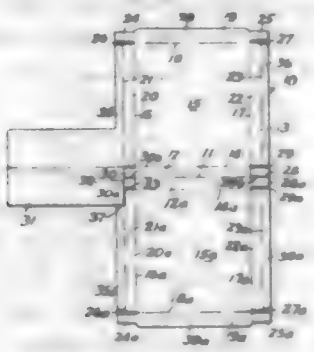
ONE PIECE HINGED CASE

Harry Jansen, Bronxville, N. Y.

Application August 28, 1957, Serial No. 680,694
8 Claims. (Cl. 229—27)

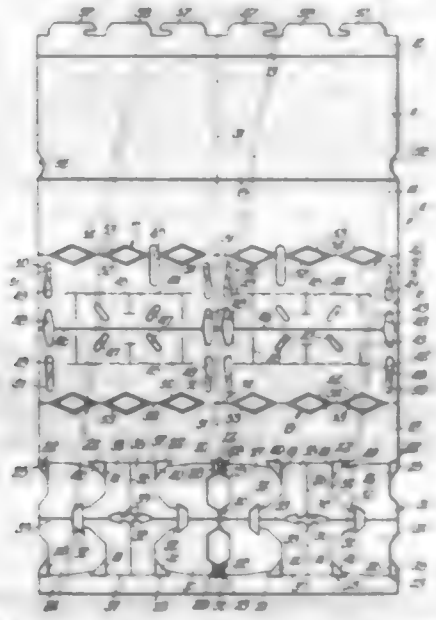
1. A one piece paper case comprising an upper case half and a lower half, a rear wall on each half adjacent the rear wall of the other half and pivoted thereto along a common fold line, a pair of opposed side walls on each half, a rim flap on each side wall extending inwardly from an edge of the side wall toward the opposite side wall, a top wall on the upper half, a bottom wall on the lower half, and a pocket-forming wall secured to the rim flaps in substantially parallel relation to the top and bottom

walls to form a pocket in each half, the pocket-forming wall having a fold line dividing said wall into two parts,



one for each half, said fold line being in registration with the common fold line of the rear walls.

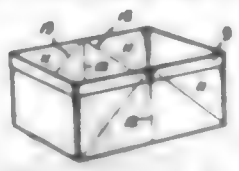
2,873,059
EGG CARTON
Richard F. Reifers, Chicago, Ill., assignor to Diamond Gardner Corporation, a corporation of Delaware
Continuation of abandoned application Serial No. 415,878, March 12, 1954. This application March 26, 1957, Serial No. 648,539
13 Claims. (Cl. 229—28)



1. A divisible paperboard egg carton formed of a one-piece paperboard blank and comprising upstanding side walls, a bottom connected to the lower margins of said side walls and converging upwardly and inwardly of said margins to provide an upstanding longitudinal partition structure of inverted V cross-section which parallels said side walls, a medial score line laterally dividing said carton into two symmetrical halves, each half having parallel, upright cross partitions depending from integral hinges adjacent the upper margins of said side walls, said cross partitions in each half including two full depth partition members spaced substantially from one another longitudinally of the carton, and a pair of further upright, longitudinally and successively spaced partition members of lesser depth disposed between said full depth partition members, which lesser depth partition members are hinged to swing oppositely from one another to upright position, an upright, longitudinal partition-forming part of said bottom and longitudinal partition structure being provided beneath and spaced from its top with openings in which portions of said lesser depth partition members are received and restrained against swing, said top extending continuously and uninterruptedly between points spaced substantially outwardly from the respective planes of said lesser depth partition members, said openings in said structure being in the form of elongate slots extending diagonally in relation to the plane of the first named upright cross partitions and having wedging engagement with edge portions of said lesser depth partition members, said longitudinal partition forming part having slots opening upwardly through said top thereof which are longitudinally spaced to receive portions of said full depth partition members, said full depth partition members having interlocked engagement with said bottom and longitudinal partition structure beneath said top

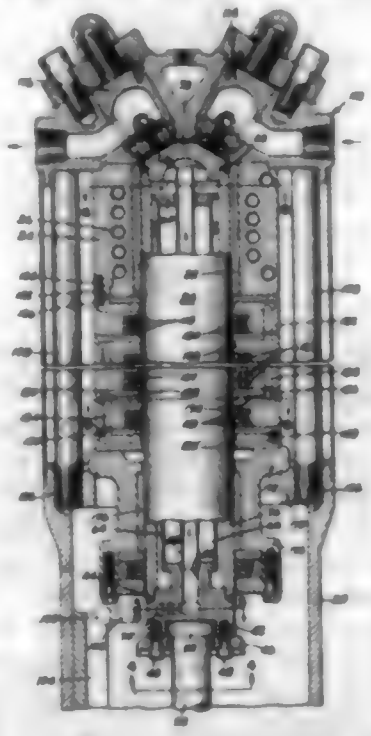
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2,873,060
RECEPTACLE LINER
Daniel O. Inman, Blackhawk, Ill.
Application April 18, 1955, Serial No. 501,893
1 Claim. (Cl. 229—31)



A liner for snug and interlocking engagement in a receptacle having a rectangular bottom of a length twice as long as its breadth with sides and ends extending upwardly therefrom with the height of the sides equal to the width of the bottom, comprising a flat rectangular sheet of foldable material three times as wide as said bottom and twice the length thereof, a pair of spaced parallel fold lines extending longitudinally of said sheet and parallel with the side edges thereof and each spaced inwardly therefrom a distance equal to the height of the side walls of the receptacle, a pair of end fold lines disposed transversely of said sheet parallel to each other and to the end edges of said sheet and disposed inwardly from said edges a distance equal to the height of the receptacle ends, a median fold line extending transversely of said sheet intermediate and parallel with said ends, fold lines extending from the intersection of said longitudinal and transverse end fold lines to the adjacent corners of said sheet, fold lines extending from the intersection of the median line with the side edges of the sheet and the intersection of the end fold lines with said longitudinal fold lines, and flaps on said sheet ends coextensive therewith and projecting beyond the edges thereof to provide aprons to fold over the edges of the sides and ends of said receptacle throughout its perimeter and to meet midway the ends of the receptacle.

2,873,061
COMPRESSOR
Esper Kodra, Michigan City, Ind., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 13, 1953, Serial No. 385,833
3 Claims. (Cl. 230—212)



1. For use in cooling and packing of an elongated reciprocating cylindrical member, a plurality of annular

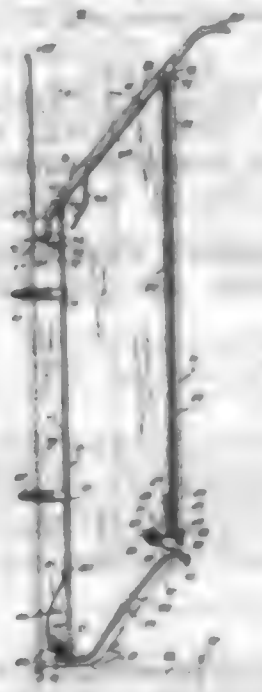
elements arranged side by side and each having a groove therein extending outwardly from its inner periphery for receiving a sealing unit therein, each of said annular elements having a circumferential passage, at least a pair of connecting passages connected to said circumferential passage, one of said pair of connecting passages including an inlet portion and the other of said pair of connecting passages including an outlet portion, said inlet portion of one of said annular elements communicating with the outlet portion of the next preceding annular element and said outlet portion of said one annular element communicating with said inlet portion of the next successive annular element whereby coolant can flow progressively through said passages of the various annular elements.

2,873,862

MAIL OR LIKE BOX

George W. Cornell, Miami, Fla., assignor of one-half to W. Elder Cornell, Jr., Miami, Fla.

Application November 13, 1957, Serial No. 696,186
14 Claims. (Cl. 232—17)



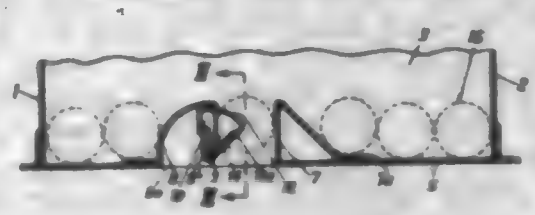
14. An improved mail or like box container comprising an assembly composed solely of an extruded one-piece, open ended aluminum body of generally rectangular channel shaped configuration in cross section having longitudinal panel receiving grooves formed in the inner opposed faces of the channel side walls adjacent their free edges and longitudinally continuous, laterally spaced hinge pintle flanges formed on the back face of the channel base wall and provided adjacent their upper and lower ends with oppositely aligned pairs of pintle openings; an extruded aluminum bottom closure member of generally planar form in cross section having an upstanding hinge flange extending part way along one longitudinal edge and formed with a longitudinally continuous hinge pintle receiving opening extending therethrough and also having along its opposite longitudinal edge a longitudinally continuous combined bumper and hand grip flange extending in cross T relation to said outer edge; an extruded aluminium top closure member of generally planar form in cross section having a depending hinge flange extending part way along one longitudinal edge and formed with a longitudinally continuous hinge pintle receiving opening extending therethrough and also having along its opposite longitudinal edge a longitudinally continuous hand grip flange; an extruded aluminum front panel support and bottom closure member abutment member fixedly mounted in spanwise relation between the bottom free edges of said channel side walls in vertical alignment beneath said grooves; a closure panel slidingly disposed in said panel receiving grooves and comprising a resin coated metal sheet dimensioned to extend from side-to-side into said grooves and from said front panel support and bottom closure member abutment member upwardly to the upper ends of said channel side walls to provide a front closure for the open channel side at said free edges of said channel side walls; said top and bottom closure member hinge flanges being disposed to extend between said hinge pintle flanges with their respective hinge pintle receiving openings aligned respectively with said upper and lower aligned pairs of pintle openings in said hinge pintle flanges, headed pairs of pintle pins for each of said pairs of pintle openings having shanks extending inwardly therethrough into the ends of the pintle receiving openings of said top and bottom closure members to hingedly mount said closure members in position to respectively close the top and bottom open ends of said open ended body; and means for normally releasably retaining said bottom closure member in its closed position.

2,873,863

COLLECTOR FOR YARN BOBBINS

Walter Schweiter, Horgen, Switzerland, assignor to Maschinenfabrik Schweiter A. G., Horgen, Switzerland, a Swiss company

Application March 29, 1954, Serial No. 419,549
Claims priority, application Switzerland April 8, 1953
6 Claims. (Cl. 232—43.1)



5. In a collector device having side walls and a bottom wall defining a storage space for objects and having an opening in one of said walls for feeding said objects into said storage space; displaceable flap means located adjacent said opening and arranged to at least partially obstruct the same in closed position of said flap means, guide channel means extending from said opening into said storage space, and object deflecting means adjacent said guide channel means and extending laterally thereof into said storage space, said guide channel means defining a path of feed for said objects from said opening into said storage space, said flap means being displaceable relative to said deflecting means and projecting into said path intermediate said opening and said storage space, said object deflecting means being so constructed as to remove an object fed along said path away from said flap means and to orient said object into said storage space to permit unimpeded displacement of said flap means to said closed position.

2,873,864

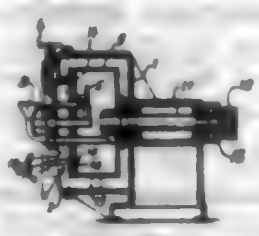
CENTRIFUGAL DECANTER WITH HORIZONTAL AXIS, SEPARATING DRUM AND DISCHARGE OF RESIDUES BY MEANS OF A SCRAPER

Attilio Diefenbach, Monza, Italy

Application May 3, 1955, Serial No. 505,817
Claims priority, application Italy May 13, 1954
1 Claim. (Cl. 233—10)

A centrifuge comprising a fixed casing, a drive shaft rotatably mounted in said casing, a hollow drum rotatable about a horizontal axis and located within said casing with a space formed between said drum and said casing, said drum being in driving connection with said drive shaft and having an inwardly extending flange-shaped end wall with a central opening, said flange-shaped end wall having a series of orifices therethrough, supply means extending through said central opening into said drum for delivering a substance having solid, water and oil constituents which upon rotation of said drum

about its horizontal axis form horizontal strata with said solid constituent located outermost and said oily constituent positioned innermost with respect to each other, said water containing constituent being disposed intermediate said stratum of oily constituent and said stratum of solid constituent and being in direct communication with said orifices, scraper means, suction means, both said scraper means and said suction means extending through said central opening into the interior of said drum, first movable means connected with said scraper means to displace said scraper means within said drum for contact with said stratum of solid constituent to facilitate removal thereof from said drum, second mov-



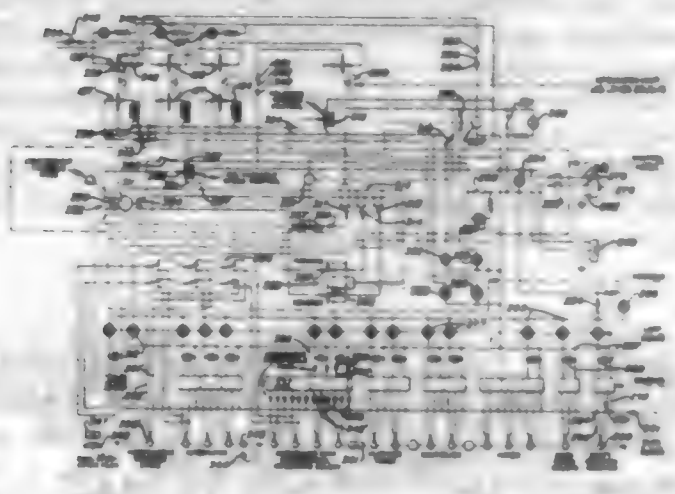
able means connected to said suction means for placing said suction means in contact with and above said stratum of said oily constituent to facilitate withdrawal of said oily constituent only from with in said drum during rotation thereof, said first and second movable means being supported by said casing, and a flange member located exteriorly of and fixed to said end wall and forming a chamber between said flange member and said end wall, said chamber being connected via said orifices with the interior of said drum for receiving said water constituent through said orifices and opening toward said horizontal axis, the inner peripheral edge of said flange member defining a central aperture of greater diameter than the diameter of said central opening, so that said water constituent in said chamber will overflow over said flange member into the space between said drum and said casing for discharge therefrom.

2,873,065

DIFFERENTIAL ANALYZER

Earl G. Sorensen, Albany, and Carroll M. Gordon, San Pablo, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application August 19, 1953, Serial No. 382,497
14 Claims. (Cl. 235—182)



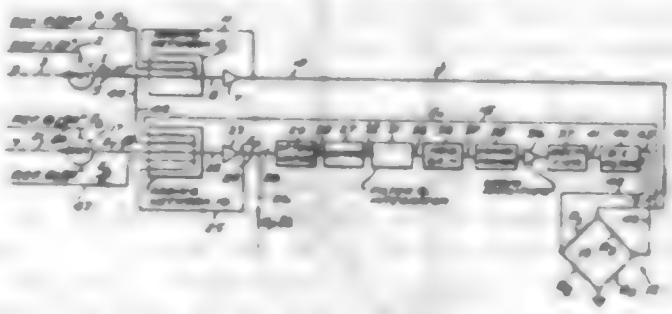
1. A differential analyzer comprising in combination a plugboard element having a plurality of electrical terminals disposed thereon, a plurality of mechanical integrators each having a first selsyn and a second selsyn adapted to coact with the input shafts thereof and a third selsyn adapted to coact with the output shaft thereof, each of said selsyns being electrically connected to a selected plurality of terminals on said plugboard, a plurality of multipliers each having a first selsyn adapted to coact with the input shaft thereof and a second selsyn adapted to coact with the output shaft thereof, each of said multiplier selsyns being electrically connected to a selected plurality of terminals on said plugboard, a plurality of adders each having a differential selsyn adapted to coact with the input shafts thereof and a second selsyn adapted to coact with the output shaft thereof, each of said adder selsyns being electrically connected to a selected plurality of terminals on said plugboard, a variable speed drive motor, a selsyn adapted to be driven by said drive motor and electrically connected to a selected plurality of terminals on said plugboard, a plurality of selsyns each being adapted to manual control and each being electrically connected to a selected plurality of terminals on said plugboard, a plurality of rotation recording means each having coacting therewith at least one selsyn electrically connected to a selected plurality of terminals on said plugboard, and a plurality of electrically conducting cables adapted to make connections between selected terminals on said plugboard whereby driving impulses may be transmitted from said drive motor and said manually controllable selsyns through a selected sequence of said integrators and said multipliers and said adders to said plurality of recording means in accordance with a mathematical expression to be evaluated.

2,873,066

ELECTRICAL MULTIPLIER

Henry F. McKenney, Weston, Mass., assignor to Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware

Application November 5, 1956, Serial No. 620,553
2 Claims. (Cl. 235—185)



1. An electric multiplier comprising an adding network, means for introducing a reference and an analog voltage to said adding network, voltage attenuating means connected to the output of said adding network, a second adding network connected to the output of said voltage attenuating means, means for introducing into said second adding network a second analog voltage having a ninety degree phase difference from the analog voltage placed in the first adding network, a phase sensitive demodulator and amplifier connected to the output of said second adding network and in control of said voltage attenuating means, said demodulator being set to pass voltages in phase with the analog voltage placed in said second adding network, there being means for setting into said second adding network a preselected fraction of the reference and analog voltages placed into the first adding network whereby the multiplier is adapted to yield the product of the analog voltage placed in the first adding network and positive or negative analog voltage placed in the second adding network.

2,873,067

FUZE SETTING ORDER COMPUTER

George A. Crowther, Manhasset, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

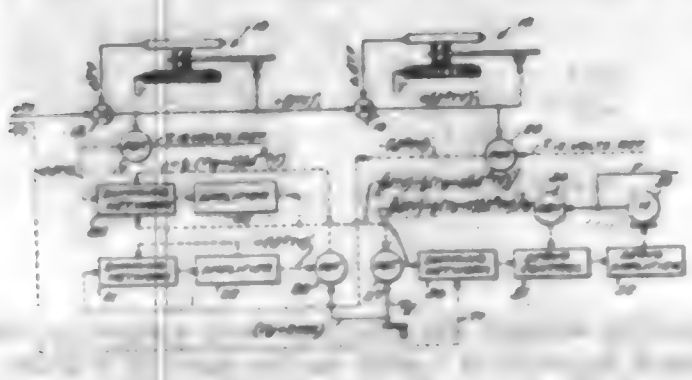
Application February 26, 1954, Serial No. 412,747
2 Claims. (Cl. 235—61.5)

1. A device for determining fuze setting order in a gun fire control system comprising means for continuously mechanizing the equation

$$F=Tf+[(dTf)'+\tfrac{1}{2}(Tg+2K)\ (d^2Tf)']Tg$$

wherein F represents the fuze setting order, Tf the time

of flight, Tg the dead time and d the differential operator d/dt, to obtain continuously the quantity F, said mechanizing means comprising a rate network for combining time and Tf as mechanical inputs to form mechanical quantity $(dTf)'$ the computed rate of change of Tf, a rate network for combining the mechanical quantity $(dTf)'$



and mechanical time to form the mechanical quantity $(d^2Tf)'$ the computed rate of change of $(dTf)'$, means for converting the mechanical quantities $(dTf)'$ and $(d^2Tf)'$ into corresponding voltage quantities, means for converting the mechanical quantity Tg into (Tg+2 sec.), potentiometer means for multiplying the voltage $(d^2Tf)'$ by the mechanical quantity $(Tg+2)$ to form the voltage $\frac{1}{2}(Tg+2)(d^2Tf)'$, means for adding the latter voltage to voltage $(dTf)'$ to obtain voltage

$$(dTf)'+\tfrac{1}{2}(Tg+2)(d^2Tf)'$$

potentiometer means for multiplying the latter voltage by mechanical quantity Tg to obtain voltage

$$[(dTf)'+\tfrac{1}{2}(Tg+2)(d^2Tf)']Tg$$

summing means for adding together the latter voltage and the quantity Tf in the form of voltage to obtain the voltage

$$Tf+[(dTf)'+\tfrac{1}{2}(Tg+2)(d^2Tf)']Tg$$

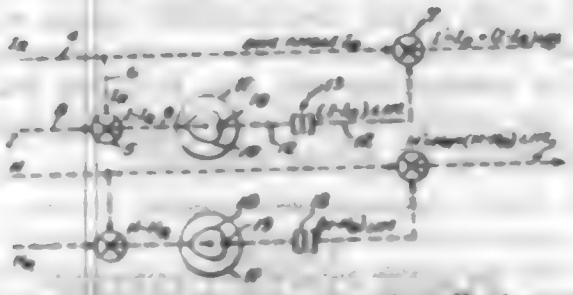
and a servo mechanism at the output of the last mentioned summing means for reducing the error therefrom and to obtain F as a mechanical quantity.

2,873,068

BOMB COMPUTER

Norman J. Zabb, Brooklyn, Henry F. McKenney, Valley Stream, and William H. Newell, Mount Vernon, N. Y., assignors to Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware

Application July 27, 1956, Serial No. 600,615
7 Claims. (Cl. 235—61.5)



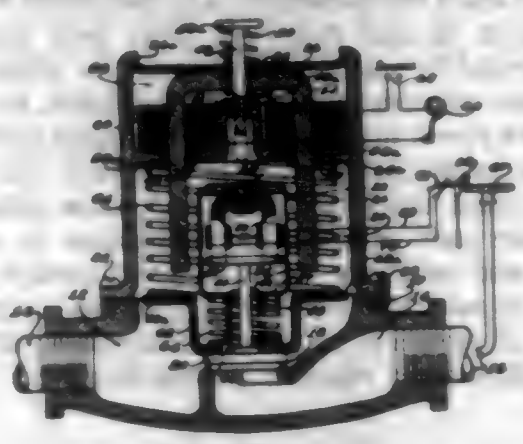
1. A computer of the character described comprising a first shaft settable in accordance with a first independent variable, a second shaft settable in accordance with a second independent variable, adding means to which said first shaft is connected, subtracting means connected to said first and second shafts by which the value imparted to said first shaft is subtracted from the value imparted to said second shaft, means connecting the output of said subtracting means to said adding means, and limiting means interposed in said connecting means by which the input to said adding means is limited to some selected value, whereby said adding means is adapted to make available to its output the values set onto said second shaft or the values within limits which are placed onto the first shaft in accordance with the equation $I'=I_R+(I-I_R)_{LIM}$, where I' is the output value, I_R is the independent variable on said first shaft and I is the independent variable on said second shaft.

2,873,069

FLOW CONTROL DEVICES

Russell B. Matthews, Wauwatosa, Wis., assignor to Bass Inc., Milwaukee, Wis., a corporation of Wisconsin

Application April 22, 1955, Serial No. 503,312
5 Claims. (Cl. 236—1)



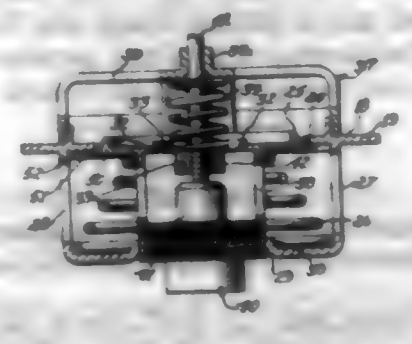
1. In a fluid flow control device, in combination, a flow control member movable between controlling positions, operating means for said flow control member comprising, a first movable member operatively associated with said flow control member for movement thereof between its said controlling positions, a second movable member having attracted and unattracted relative positions with respect to said first movable member, means biasing said first and second movable members to separated relation and hence said flow control member to one of its controlling positions, means for resetting said movable members to attracted relation against said bias, means for coupling said first and second movable members when in said attracted relation, condition responsive means including an actuator movable from a first position to a second position in response to a given condition, and connection means operatively associated with said actuator and said movable members for effecting, by coupling of said movable members, movement of said movable members and said flow control member with said actuator whereby, when said movable members are coupled, said flow control member is moved from said one to another of its controlling positions by movement of said actuator from its first to its second position, said biasing means and said connection means, on release of said coupling means, rendering said actuator incapable of moving either of said movable members and hence said flow control member even though said actuator is permitted to move from its first to its second position in response to said given condition.

2,873,070

DOUBLE OPENING WATERLINE THERMOSTAT

Harold B. Drapeau, Oak Park, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

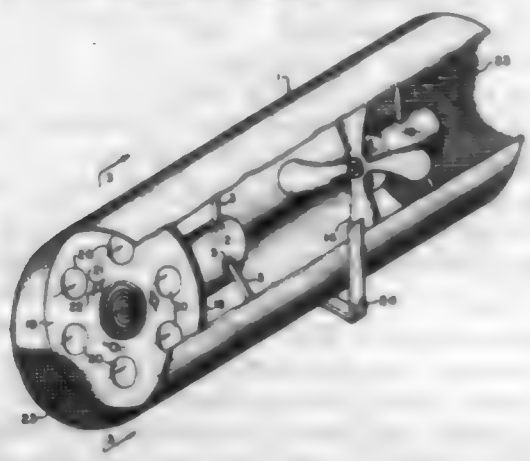
Application December 20, 1954, Serial No. 476,168
5 Claims. (Cl. 236—34)



1. A thermostatic valve assembly for the water circulatory system of an internal combustion engine, comprising

a composite valve having a relatively small port and having a relatively large port, a main valve member for controlling flow through said relatively large port, a main spring urging said main valve member toward closing relation to said relatively large port, an auxiliary valve member controlling flow through said relatively small port, an auxiliary spring operatively connected to said auxiliary valve member for urging the auxiliary valve member toward closing relation to said small port, the closing force exerted by said main spring on said main valve member when the main valve member is in maximum flow restricting relation to said relatively large port exceeding the force exerted by said auxiliary spring in urging said auxiliary valve member toward closing relation, and a thermal responsive power unit comprising relatively movable members one connected with said auxiliary valve member and the other connected with said main valve member, said power unit upon an initial increase in temperature moving said auxiliary valve member toward fully open relation to said relatively small port and upon a further increase of temperature moving said main valve member toward fully open relation to said relatively large port.

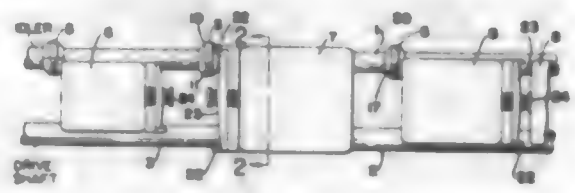
2,873,071
ROOM AIR HEATER AND PURIFIER
Alfred I. Bratton, Broomall, Pa., assignor to Oxy-Catalyst, Inc., a corporation of Pennsylvania
Application September 15, 1954, Serial No. 456,254
8 Claims. (Cl. 237—2)



1. A method for simultaneously heating and purifying air within an enclosed space comprising the steps of withdrawing a stream of air from said space, flowing the major portion of said stream through a first passage, while flowing a minor portion of said stream through a second passage in parallel with said first passage, said major and minor streams being isolated from one another and thereby prevented from mixing while flowing through said passages, passing said minor stream in direct contact with a heated oxidation catalyst disposed in said second passage, heating said minor stream during its flow through said second passage to a temperature of at least 350° F. and catalytically oxidizing the oxidizable impurities in said minor stream at said elevated temperature through contact with said oxidation catalyst, flowing said major stream through said first passage without any substantial heating thereof, mixing said heated and purified minor stream from said second passage with said unheated major portion from said first passage and thereafter discharging the mixed streams at a temperature suitable for space heating air to said enclosed space.

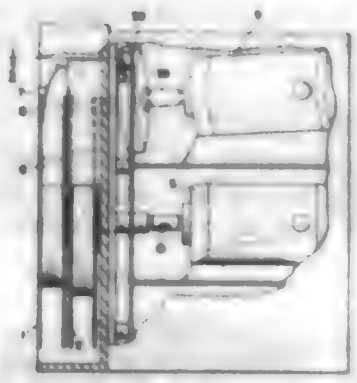
2,873,072
JAR MILL
Howard Farkas, New York, N. Y., assignor to The United States Stoneware Co., Tallmadge, Ohio, a corporation of Ohio
Application June 13, 1957, Serial No. 665,407
1 Claim. (Cl. 241—178)

The improvement in jar mills with jar stops releasably fastened at intervals along at least one of the rotatable means thereof, which improvement consists in each jar stop being composed of hard rubber and made in two halves with the ends of the respective halves united to form an annulus of the halves which tightly embraces the rotatable means, one of the joined ends of each half being provided with a threaded opening, and an opening



extending through the other end with a shoulder therein adapted to serve as a stop for the head of a screw, and screws joining the two halves with the threads of the respective screws engaged in the threaded openings with their heads drawn against the shoulders of the other openings, the side walls of each half sloping inwardly from its inner diameter to its outer diameter.

2,873,073
TAPE RECORDER AND TRANSCRIBER DRIVE SYSTEM
John P. Lekas, Hollywood, Calif., assignor to North American Aviation, Inc.
Application October 18, 1952, Serial No. 315,548
4 Claims. (Cl. 242—55.12)



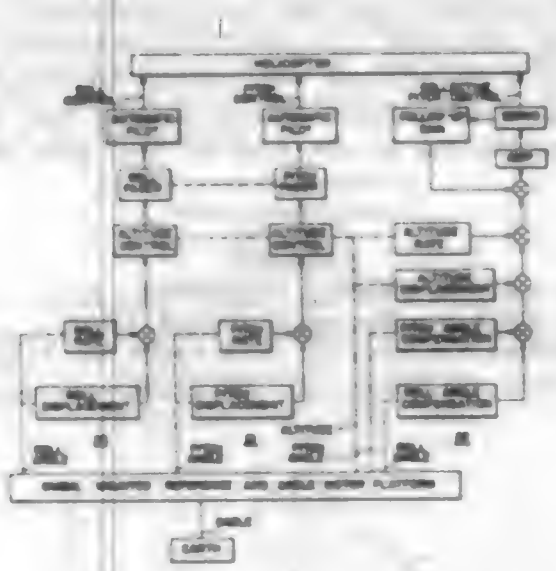
1. A tape recorder and transcriber drive system comprising a first and second reel, a shaft, said first and second reels being mounted on said shaft, slip clutch means connected to cause said shaft to drive said reels, said slip clutch means simultaneously urging rotation of both said reels, a magnetic tape wound upon said reels, means for transporting said tape from the first of said reels to the second of said reels, means for driving said tape, and means for driving said shaft.

2,873,074
FLIGHT CONTROL SYSTEM
Herbert Harris, Jr., Rockville Centre, Edmund B. Hammond, Jr., Merrick, Walter T. White, New Hyde Park, and Raoul M. Giullamelli, North Bellmore, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware
Application October 9, 1953, Serial No. 385,224
16 Claims. (Cl. 244—14)

1. A flight control apparatus for a dirigible craft subject to substantially constant acceleration along its longitudinal axis comprising means for providing a signal dependent upon accelerations normal to the longitudinal axis of the craft, means for providing a signal dependent upon the angle of displacement of the longitudinal axis of the craft from a reference direction, means for combining such signals, a control surface for controlling the orientation of the craft longitudinal axis, and a servomotor

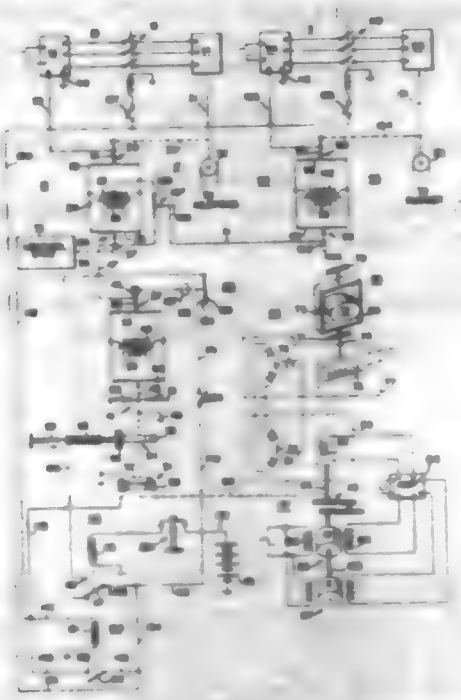
coupled with said surface and controlled by said combining means for positioning said control surface in accordance with said signals such that the total craft acceleration is directed parallel to the reference direction.

2,873,075
AUTOMATIC HOVERING CONTROL SYSTEM
Alden J. Mooers and Clarence E. Vogel, Minneapolis, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application May 24, 1954, Serial No. 431,858
16 Claims. (Cl. 244—17.13)



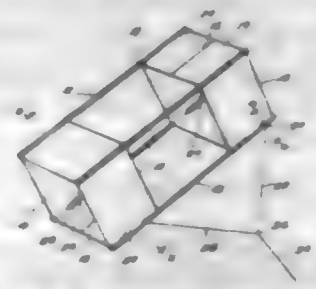
1. In combination with a rotary wing aircraft having blade pitch changing means for control of altitude thereof and a second blade pitch changing means for control of lateral and longitudinal displacement thereof, automatic means to maintain the height of the aircraft with respect to the earth's surface including cable means adapted to be fed out of the aircraft and into contact with the earth's surface and cable tension means sensing the position of the cable with respect to the earth's surface servo means controlled by said automatic means and operatively connected to the aircraft blade pitch changing means to correct for changes in altitude of the aircraft as sensed by said cable tension means, means including lateral and longitudinal displacement sensing means associated with said cable means and operated by displacement of said cable means longitudinally and laterally relative to said aircraft, and servo means connected to said second blade pitch changing means and controlled by said last named means for positioning the aircraft with respect to a point on the surface of the earth.

2,873,076
AIRCRAFT AUTOMATIC CONDITION CONTROL APPARATUS
John W. Anderson, Edina, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application April 1, 1954, Serial No. 420,265
17 Claims. (Cl. 244—77)



1. Flight control apparatus for an aircraft, having aileron and rudder control surfaces, said apparatus comprising position maintaining means for detecting changes in heading of the craft, a heading error signal generator, means connecting said heading change detecting means and said signal generator comprising a releasable clutch and brake means; a balanceable servomotor system for operating said ailerons, a balanceable servomotor system for operating said rudder, means for controlling both systems from said signal generator, each said servo system including a follow-up signal generator for limiting the operation of its respective control surface in accordance with heading error; manual means for changing craft heading including a signal generator connected to both servo systems; means connected with the manual means for releasing said clutch upon operation of the manual means; restraining means for retaining the heading error signal generator in its adjusted position during manual changes in heading; and further means for alternatively releasing said clutch and moving said heading error signal generator to unoperated position while removing the influence of the restraining means on said signal generator.

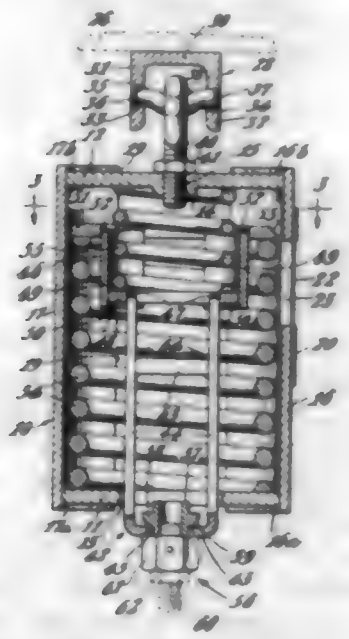
2,873,077
BOX KITE
William A. Corbin, Harmony, R. I.
Application April 20, 1956, Serial No. 579,467
2 Claims. (Cl. 244—153)



1. A demountable box kite comprising a plurality of longitudinally extending elongated body sticks disposed so as to form the corners of a rectangular body, a flexible covering extending around said body sticks whereby to define a rectangular enclosure, said covering at each corner having a loop-like portion completely surrounding the adjacent body stick, said body sticks being slidably

received in said loop-like portions, an opening in each of said loop-like portions exposing a part of the inwardly disposed surface of said body sticks, and a pair of disconnected oppositely disposed diagonal cross sticks within said enclosure, said cross sticks having notched ends for making releasable pressure engagement through said openings with said exposed parts of diagonally opposed body sticks whereby to maintain said kite in set-up condition with the covering taut.

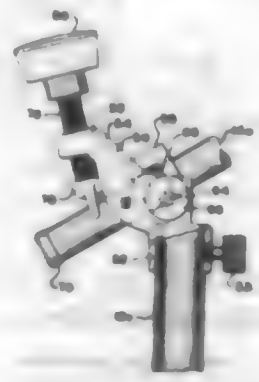
2,873,078
COMBINED SPRING HANGER AND SHOCK ABSORBER
Leonard S. Suozzo, Hackensack, N. J., assignor to Bergen Pipesupport Corp., New York, N. Y., a corporation of New York
Application May 3, 1955, Serial No. 505,688
1 Claim. (Cl. 248—54)



In a combined spring hanger and shock absorber for supporting pipes and the like, a housing including top, bottom and side walls, said housing having a window defined at least in part by the side and top walls, said bottom wall having a through aperture, a device positioned in and movable vertically relative to the housing, said device comprising a U-shaped member registering with the aperture in the bottom wall and including a web and a pair of arms, a spring support cage attached to the ends of the arms remote from the web, and a spring plate secured to the cage and projecting laterally therebeyond, a first spring within the housing and bearing against the plate and the housing bottom wall, said spring normally and yieldingly urging the device upwardly relative to the housing, and a second spring carried by the cage and extending thereabove, said second spring being substantially coaxial with the first spring and being at least partly within the confines of the first spring, said second spring being adapted to yieldingly bias the device downwardly relative to the housing against the action of the first spring upon predetermined upward movement of the device, said first spring being substantially stronger than the second spring, said device and springs being accessible through the window.

2,873,079
ADJUSTABLE STAND
Anthony Carogana, Gus Levy, and Frank Zarel, New York, N. Y., assignors to American Photographic Instrument Co., Inc., New York, N. Y., a corporation of New York
Application March 25, 1954, Serial No. 418,597
10 Claims. (Cl. 248—125)

3. A stand for microphones, lighting equipment and the like comprising, in combination, two sections constituting a principal portion of the supporting structure of said stand and means connecting together said sections to permit one of said sections to be either a substantially continuous extension of the other or a boom mounted upon the other, said connecting means comprising a bracket rigidly secured to one end of a first of said sections, a connecting element having a recess therein for slidably mounting the second of said sections, means mounting said connecting element for pivotal and transverse movement relative to said bracket, said connecting element, in a first position thereof, having the axis of the recess therein so related to the axis of said first section that said second section is a substantial extension of said



first section and, in a second position thereof, being displaced transversely and angularly with respect to said first position and having the axis of said recess so inclined to the axis of said first section that said second section is angularly disposed relative to said first section, said mounting means for said connecting element comprising a pair of slots on opposite sides of said element, a pair of pins carried by said bracket in sliding engagement with said slots, said pins being substantially coaxial and having their axes substantially perpendicular to the axis of said recess and said slots having their longitudinal axes substantially parallel to one another and substantially perpendicular to the axes of said pins and said recess.

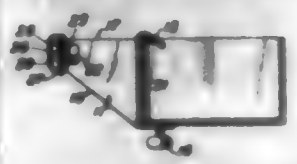
2,873,859
MAILBOX SUPPORT
Eli Julius Beauregard, Mabel, Minn.
Application February 25, 1958, Serial No. 717,395
4 Claims. (Cl. 248—146)



1. A mailbox support comprising an elongated fence post, an elongated tubular pipe telescopically engaged over said fence post, means in said pipe engaging the upper end of said fence post for limiting the penetration of said fence post in said pipe, a generally rectangular plate, means securing one end of said plate to said tubular pipe, an elongated flexible chain having one end secured to said tubular pipe and the opposite end secured to the outer end of said plate for supporting said plate, a mail-

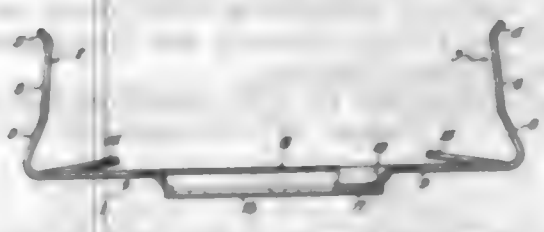
box, means securing said mailbox to said plate in depending relation thereto, and means securing the lower end of said mailbox to said tubular pipe.

2,873,681
DRAPERY HANGER
Virgil R. Halliday, Mount Dora, Fla.
Application April 13, 1955, Serial No. 501,831
4 Claims. (Cl. 248—262)



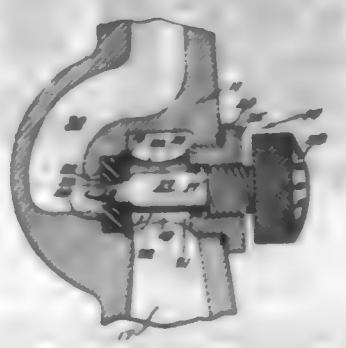
1. A drapery hanger comprising a bracket having a substantially rectangular mounting portion with a hook-forming extension at its upper end and a lateral ledge-forming extension at its lower end so that said bracket may be engaged over the upper portion of the boxing of a Venetian blind with said lateral ledge-forming extension located beneath said boxing, an integral arm disposed at right angles to said mounting portion and having a substantially horizontally disposed upper edge and an inclined lower edge, an integral substantially rectangular rod-engaging portion of reduced size at the outer end of said arm and with its upper and lower ends curved to conform to the curvature of a hollow oval-shaped draping rod having a slot along one side, said rod-engaging portion having an opening, a wing screw in said opening, a clamping nut adapted to be engaged by said wing screw, said clamping nut having lateral offset portions of a width to be disposed in said slot in said rod for supporting the edges of said nut and for preventing rotation of said nut so that when said wing screw is rotated said nut will engage the interior of said rod at opposite sides of said slot and clamp said rod into contact with the rod-engaging portion of said bracket.

2,873,682
CLIP
Daniel C. Gillespie, Oak Park, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application March 11, 1955, Serial No. 493,673
12 Claims. (Cl. 248—300)



6. A device of the type adapted to mount capacitor containing enclosure upon an electric motor comprising a generally U-shaped bracket of resilient material having a longitudinally extending body portion terminating on both ends in outwardly projecting and integral arms, slot defining means on both end portions of said body and respectively extending outwardly a substantial distance into the adjacent arm, each of said slot defining means comprising a resilient finger attached at one end to the adjacent arm and including a free end portion normally projecting toward the opposite arm at a small acute angle to said body portion in a manner to engage the underside of the capacitor containing enclosure when it is disposed in said bracket, means defining openings in each of said arms adapted to receive projections extending from said capacitor containing enclosure, said fingers forcing said capacitor containing enclosure into tight engagement with said last-mentioned means whereby objectionable rattling noises are eliminated, means defining openings in said fingers adapted to receive electrical leads connected to the capacitor, and means defining a longitudinally extending slot in said body portion adapted to receive fastening means for holding the bracket to an electrical motor.

2,873,683
FLOW CONTROL VALVE
Victor E. Rimsha, Chicago, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application October 28, 1953, Serial No. 388,771
1 Claim. (Cl. 251—121)

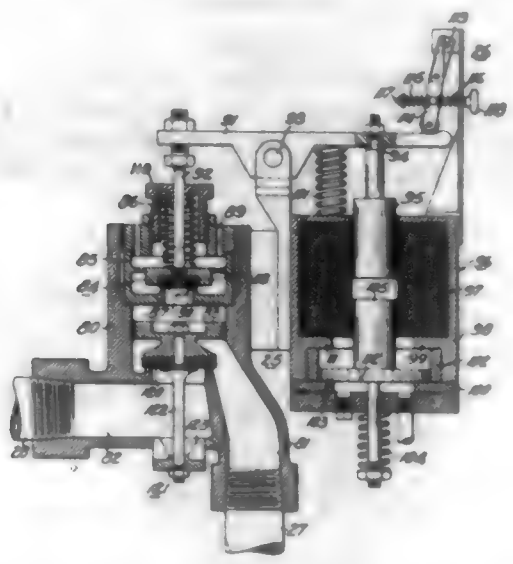


In a variable orifice constant rate of flow control device including a casing having a fluid inlet and an outlet, a resilient annular flow control member having a central deformable orifice, an annular seat in said casing the inner margin of which is of a greater diameter than the diameter of said orifice and supporting said flow control member in the path of the flow of fluid along said casing, said flow control member being deformable within the inner margin of said seat toward the outlet in response to variations in pressure on said flow control member, a plunger-like element having an axial portion aligned with and projecting into said orifice from the inlet side of said flow control member for cooperation therewith in controlling the rate of flow through said outlet, means for moving said plunger portion relatively to said orifice to change the controlled rate of flow, said axial plunger portion having an external annular tapered surface telescopingly cooperating with said orifice for effecting a given rate of flow for each movement of change in the relative changes of position of said plunger portion with respect to said orifice, and an annular retaining member on the upstream side of said flow control member for assisting in the retention of said flow control member in position, the open portion of said annular retaining member being of a larger diameter than the diameter of said orifice and forming a valve seat for cooperation with said plunger portion to shut off the flow of fluid to the outlet.

2,873,684
CONTROL SYSTEM FOR FLUID OPERATED MECHANISM
Julius W. Timmerman, Waukesha, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Original application January 2, 1952, Serial No. 264,370. Divided and this application March 27, 1953, Serial No. 345,969
8 Claims. (Cl. 251—239)

1. In combination, a valve, valve holding means connected to said valve for holding said valve closed against fluid under pressure, electromagnetic means including a coil, means defining a magnetic flux path linked with said coil comprising a core provided with a first pole surface and a second pole surface, a pole member engaging said first pole surface and held against said first pole surface responsive to energization of said coil, and an armature connected to said valve holding means and disposed in a first position to cooperate with said pole member to define an air gap, said armature being

responsive to energization of said coil to move toward said pole member into a second position for actuating said valve holding means to cause fluid under pressure acting against said valve to open said valve, and means for



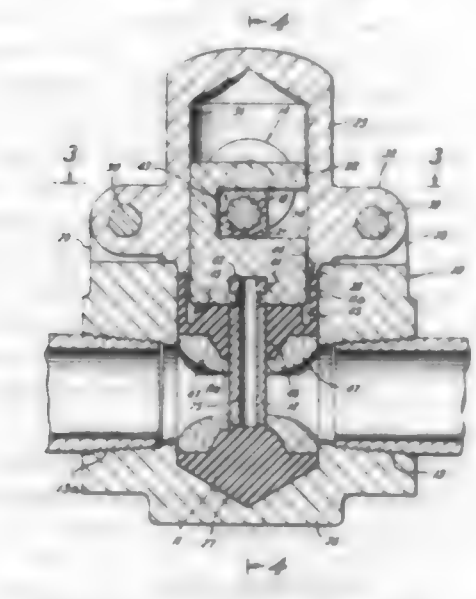
disengaging said pole member from said first pole surface and engaging said pole member with said second pole surface to cause said pole member to engage said armature to return said armature to said first position.

2,873,085

VALVE

Herbert Allen, Houston, Tex., assignor to Cameron Iron Works, Inc., Houston, Tex., a corporation of Texas

Application April 9, 1956, Serial No. 577,051
2 Claims. (Cl. 251—261)



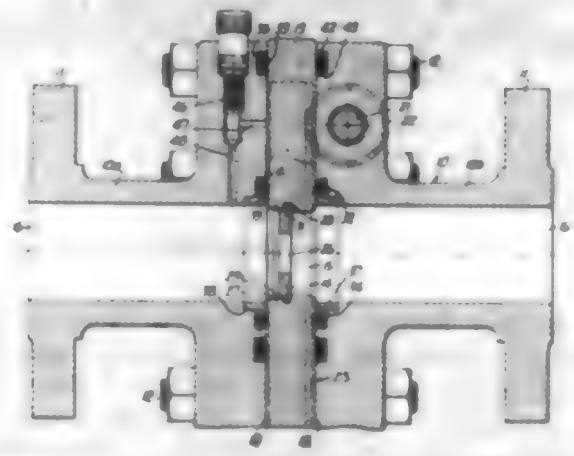
2. A gate valve, comprising a valve casing having a flow passageway therethrough, a gate movable within the valve casing to open and close the passageway, a valve seat transverse the passageway in position to be distorted by the gate as it is moved into closed position, an actuator shaft journaled in the casing for rotation about an axis normal to the movement of the gate, means including a crank part mounted eccentrically of the axis of the actuator shaft and engaging said gate to move it between opened and closed positions in response to rotation of the shaft, the axis of the crank part being movable, in closing the gate, toward and away from the passageway from one side of a line normal to and passing through the axis of the shaft and parallel to the movement of the gate to the other side of said line, respectively, and a stop positioned to limit said movement of the crank part away from the passageway and lock the gate in closed position due to the force of the distorted valve seat acting thereacross.

2,873,086

ORIFICE FITTING

Austin U. Bryant, Walnut Creek, Calif., assignor, by mesne assignments, to Walworth Company, New York, N. Y., a corporation of Massachusetts

Application September 8, 1953, Serial No. 378,721
3 Claims. (Cl. 251—282)



1. An orifice fitting of the character described comprising a body having flow passages adapted to be connected with associated piping, a flat plate-like valve member fitted within the body and adapted to be moved in opposite directions laterally of said passages, said valve member having a port therethrough adapted to be brought into registry with the passages for flow of fluid therethrough, said valve member being movable to a position to shift the port to a location exterior of the body, said port being adapted to accommodate an orifice metering fitting, means forming continuous seals between both sides of the valve member and the body sealing off regions embracing the flow passages, and additional means of the O-ring type forming continuous seals between both sides of the valve member and the body sealing off regions which generally embrace said first named regions, and are spaced outwardly from the same, spacing between said seal means on one side of the passage being greater than the diameter of the port in the valve member whereby the valve member can be disposed with said port located exterior of the first regions and within the second regions for closed position of the valve member.

2,873,087

MEANS FOR COOLING GAS TURBINES

Basil Joseph Terrell and Frederick John Bayley, Monkseaton, England, assignors to The Parsons and Marine Engineering Turbine Research and Development Association, Wallsend, England

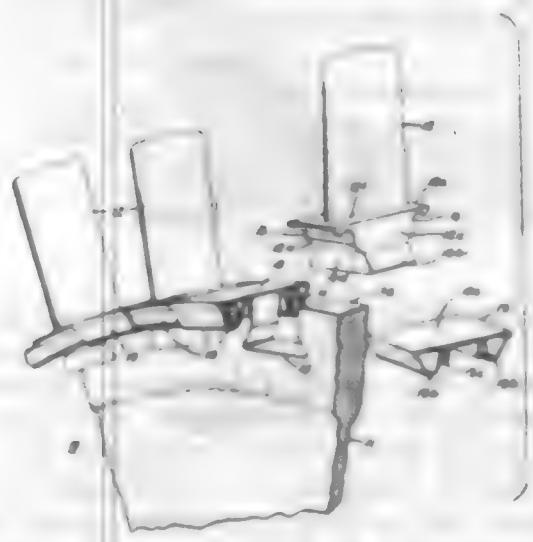
Application July 16, 1953, Serial No. 368,402
7 Claims. (Cl. 253—39.15)



1. A gas turbine rotor comprising blades constituting a blade row and said blades having solid inner end portions and spaced wall portions of relatively thin cross-sectional area extending radially outwardly therefrom, and means constituting an enclosed channel in the rotor periphery, the solid inner end portions being located radially inward of the channel with the wall portions of thin cross-sectional area extending through the channel and terminating outwardly of the channel, the parts of the wall portions of relatively thin cross-sectional area lying within the channel being spaced from the sides of

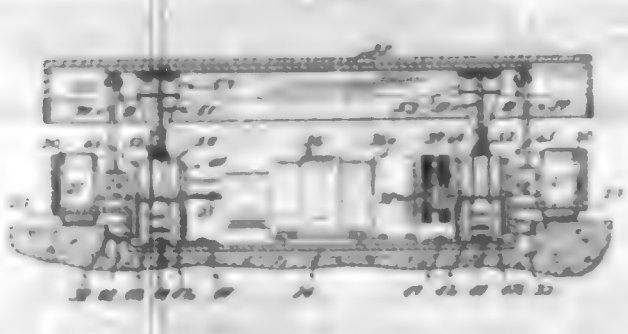
the channel to afford surfaces for the transference of heat from said wall portions to coolant circulated through the said channel.

2,873,088
LIGHTWEIGHT ROTOR CONSTRUCTION
Gerhard Neumann, Cincinnati, Ohio, assignor to General Electric Company, a corporation of New York
Application May 21, 1953, Serial No. 356,497
7 Claims. (Cl. 253—77)



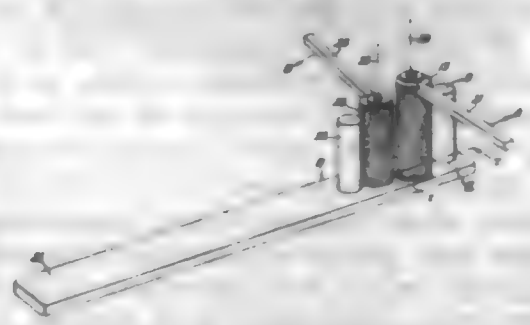
4. In combination, a rotor disk, blading and platform fillers having a smooth outer surface thereon, said disk having a relatively large diameter and a relatively narrow rim, said blading being attached to said rim and having a platform portion extending beyond the periphery thereof, and said platform fillers being disposed between said blading and fastened thereto by locking means extending around the periphery of said disk, said fillers thereby forming an aerodynamic surface between said blading, said fillers having resilient faces engaging opposite sides of the rotor disk rim.

2,873,089
SHUTTLE FOR CARRYING AUTOMOTIVE VEHICLES
William J. Porter, Spokane, Wash., assignor to Parkmaster Systems Inc., Spokane, Wash., a corporation of Washington
Application May 19, 1955, Serial No. 509,539
6 Claims. (Cl. 254—5)



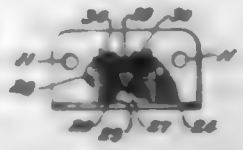
1. A shuttle vehicle for lifting and transporting automobiles, etc., comprising a body member, wheels supporting the member, a plurality of spaced apart wedge members having inclined surfaces fixed to said body member, a supporting platform overlying the body member, inverted wedges having inclined surfaces mounted to the bottom of said platform above said wedge members, rollers between said wedge members and said inverted wedges and supporting said inverted wedges on the wedge members, said rollers aligned with said inverted wedges and wedge members to roll up and down their adjacent inclined surfaces, power means on the body member connected to said rollers operable to move the rollers along the inclined surfaces of said inverted wedges and wedge members whereby to raise and lower the platform, and links connecting the platform to the body member to restrain the platform against horizontal movement in relation to the body member.

2,873,090
STRAP-TIGHTENING TOOL
Fred H. Hale, Baldwinsville, N. Y., and Robert Homer Page, Burbank, Calif., assignors to General Electric Company, a corporation of New York
Application December 6, 1952, Serial No. 324,564
2 Claims. (Cl. 254—79)



1. A strap-tightening tool comprising a base, a pair of stop elements fixed to said base and extending from one surface thereof, a pair of shafts fixed to said base extending from said one surface thereof, and each disposed adjacent a respective one of said stop elements, a first clamp member having a bore receiving one of said shafts and having an essentially cylindrical outer surface disposed eccentrically relative to said bore and surface of one of said stop elements, said member thereby movable from a release position out of engagement with one of said stop elements to a clamping position in incipient engagement therewith with rotation of said first clamp member in one direction, and a second clamp member having a bore receiving the other of said shafts and having an essentially cylindrical outer surface disposed eccentrically relative to said bore and surface of second of said stop elements, and said second clamp member thereby movable from a release position out of engagement with the other of said stop elements to a clamping position in incipient engagement therewith with rotation of said second clamp member in a direction opposite to said one direction.

2,873,091
PULLEY WITH PUNCHED BRACKET
Clarence W. Kinsman, New York, N. Y.
Application October 29, 1957, Serial No. 693,143
9 Claims. (Cl. 254—191)

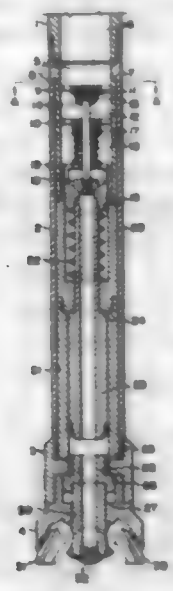


5. A pulley device of the check or free running type comprising a bracket having two bases extending at right angles to each other and integral along a bending axis formed by their connected edges and having side edges, an ear carried by each base and integral with its base along a bending axis formed by an edge extending at right angles to the connecting edge of the bases, each ear extending at right angles to the bases and a non-integral edge being adjacent to or in contact with the other base, the ears being spaced from and parallel to each other, each base having an opening generally central of the side edges of the base and at or adjacent the connecting edge and corresponding in shape to the ear projected therefrom, bearing means carried by each ear in alignment with each other, and means carried by each base for securing the bracket in place; and a pulley rotatably mounted on the bearing means.

2,873,092
JET DEFLECTION METHOD OF DEVIATING A BORE HOLE
Roy P. Dwyer, Venice, La.
Application November 14, 1957, Serial No. 696,383
6 Claims. (Cl. 255—1.6)

1. The method of directionally drilling a well bore into an earth formation by jet drilling method with a drill bit that includes a plurality of rotary cutters and a plurality of fluid-ejecting nozzles adapted to direct drilling fluid against the bottom and wall of a borehole intermediate said cutters which comprises the steps of restricting drilling fluid flow through all but one of said plurality of nozzles, orienting said drill bit with said one unrestricted nozzle positioned relative to the earth in the direction of desired deviation of the bore-hole, and supplying drilling fluid under pressure through at least said one nozzle to erode said well bottom and wall in the direction of orientation of said unrestricted nozzle, at the same time periodically reciprocating said drill bit into and out of contact with the bottom of the well bore, said reciprocation being performed without rotation of said drill bit.

2,873,093
COMBINED ROTARY AND PERCUSSION DRILLING APPARATUS
Alexander B. Hildebrandt, Tulsa, Okla., and Cay G. Weinel, Jr., Florissant, Mo., assignors, by mesne assignments, to Jersey Production Research Company
Application September 19, 1956, Serial No. 610,746
5 Claims. (Cl. 255—3)



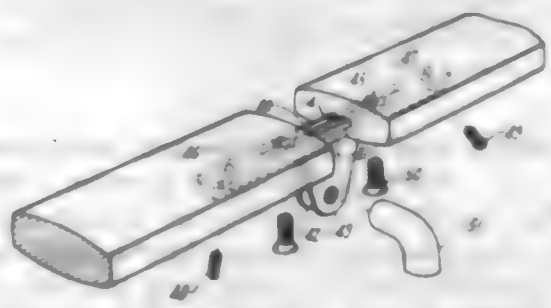
1. Apparatus for drilling bore holes comprising in combination a main housing adapted to be connected to a rotary drill string; a collar member connected to said housing and having an internal shoulder; an annular rotary drill bit having an axial bore and connected to said collar and containing an internal flange in the bore thereof; an anvil member slideable vertically in the bore of said rotary bit above said flange and of a character to be retained therein by said flange and said shoulder, and having a fluid passage therethrough, movement of said anvil being limited by said shoulder of said collar and said flange; a percussion drill bit connected to said anvil and extending downward through said flange, said percussion bit having a fluid passage therethrough and being of a character to impact the formation on the cutting plane of said rotary bit when said anvil is disposed at an intermediate position; a tubular hammer slideable axially in said housing and adapted to impact said anvil; a valve; a slideable stem axially aligned with said hammer and connected to said valve; the valve being biased to close the bore of said hammer whereby said hammer moves downward responsive to a pressure of drilling fluid in said housing; means for limiting downward movement of said stem whereby said valve is opened as said hammer moves downward; and means for normally biasing said hammer upwardly.

2,873,094
FENCE ASSEMBLY WITH PANELS
Louis Blum, Pittsburgh, Pa.
Application November 19, 1956, Serial No. 623,260
2 Claims. (Cl. 256—31)



1. In a composite panel, rail and post assembly, spaced posts supporting a pair of vertically spaced rails, said posts having T-slots extending longitudinally of the axis of the posts, bolts having rail mounting and clamping brackets for said rails mounted for sliding movement in the T-slots of said posts, said pair of rails having oppositely disposed T-slots within which said brackets are disposed and mounted, and panels disposed between said rails with the upper and lower edges of said panels disposed within the slots, L-shaped liners in the T-slot of the upper rail disposed between the upper edge of said panel and said rail and strip metal liners disposed in the T-slot of the lower rail between the lower edge of said panel and said rail to center the panel in said slot.

2,873,095
TERMINAL, CORNER AND SPLICE CONNECTORS FOR ORNAMENTAL RAIL STRUCTURES
Louis Blum, Pittsburgh, Pa.
Application January 24, 1957, Serial No. 636,123
4 Claims. (Cl. 256—65)



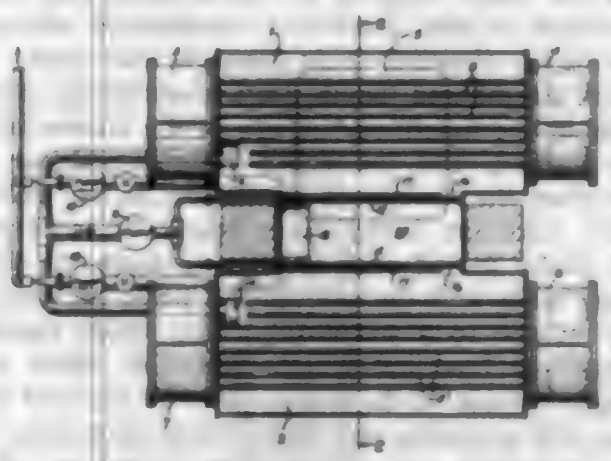
1. In an ornamental rail structure, two rail pieces having their ends abutting and having slots therebeneath with the walls of the slots in alignment and a splice bar of the shape of said slots disposed in said slots, said splice bar having threaded holes disposed at converging angles and screws in said holes for engaging the bottom surface of the slots of the rails to assert a converging force in the direction of their abutting ends.

2,873,096

STEAM CONDENSER DEAERATION

Alton Kirkpatrick, Brighton, Mass., assignor to Stone & Webster Engineering Corporation, Boston, Mass., a corporation of Massachusetts

Application November 18, 1955, Serial No. 547,667
2 Claims. (Cl. 257—24)



1. A steam condensing and deaerating system comprising a divided condenser unit having a pair of separate interconnected condenser sections each having a condensate collecting section; a steam distributor interconnecting said condenser sections; wall means forming a condensate deaerating and collecting chamber between said condensate collecting sections, said means having wall openings for the gravity flow of condensate between said chamber and said condensate collecting sections; means overlying said chamber for spraying condensate to be deaerated into the path of flow of steam being distributed to said condenser sections; pump means for circulating condensate to be deaerated from said condensate collecting sections to said spraying means, and separate pump means for withdrawing deaerated condensate from said condensate collecting chamber, said circulating pump means having a greater capacity than said withdrawal pump means.

2,873,097

ADDITIONAL AIR SUPPLY FOR RADIATORS

Otto Heinz Brandi, Koln, Germany

Application June 12, 1956, Serial No. 590,858
Claims priority, application Germany June 14, 1955
13 Claims. (Cl. 257—137)



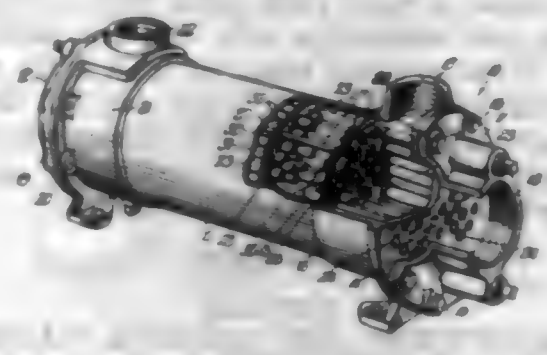
1. In an air conditioning system, a room including a vertical wall, a chamber including a back wall integral with said vertical wall, end and bottom walls integral with said back wall projecting into said room, a cover member overlying said back and end walls and projecting into said room, said cover member, end and bottom walls defining an opening in said chamber, radiator means extending across said opening between said end walls and in laterally spaced relationship from said back wall, said radiator means being disposed angularly relative to said back wall and diverging upwardly from said bottom wall toward said cover member, said chamber including air-egress portions adjacent upper and lower portions of said radiator means, and means communicating preasurized air into said chamber for forcing conditioned air out of said chamber across inner and outer surfaces of said radiator means.

2,873,098

HEAT EXCHANGE APPARATUS

Jack L. Morgan, Beloit, Wis., assignor to Yates-American Machine Company, Beloit, Wis., a corporation of Delaware

Application October 3, 1955, Serial No. 538,090
3 Claims. (Cl. 257—236)



1. A heat exchange unit having an outer elongated shell provided with header plates having first fluid conduit means associated therewith, a plurality of tubes within said shell and extending longitudinally thereof with their ends sealed within apertures in said header plates, said tubes being in communication with said first conduit means, a plurality of spaced baffle plates of lightweight resilient metallic material mounted on said tubes within said shell, each of said baffle plates including a plurality of apertures extending therethrough each being defined by a circumferentially continuous flange extending axially with respect to said tubes, said flanges being closely spaced to impart rigidity to the main portion of their associated baffle plates, each of said flanges internally receiving a tube and having its inner peripheral surface in resiliently flexed sealing engagement with the outer peripheral surface of its associated tube, each of said baffle plates being in sealing engagement with the inner surface of said shell along a substantial portion of its outer periphery by reason of an outer radial flange integral therewith which is inclined axially relative to the longitudinal axis of said shell, said outer flange being in flexed resilient sealing engagement with said shell, and second fluid conduit means associated with said shell for communication thereinto for fluid contact with said baffle plates and the outer surfaces of said tubes.

2,873,099

APPARATUS FOR BURNING FUEL

Ernest C. Wittke, Westbury, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application June 16, 1954, Serial No. 437,155
3 Claims. (Cl. 158—73)



3. In a fuel burner operating under variable load requirements, burning finely divided fuel and having a burner throat of bell mouth shape for discharging air and fuel for combustion into a furnace, means for causing a spiral flow through said burner throat of a quantity of air and fuel corresponding to a predetermined maximum fuel discharge capacity, said spiral flow having tangential and axial velocity components of sufficient magnitude to produce a flame cone having a desired flame angle within the limits of 45° and 120°, said burner throat having an inner surface of revolution produced by revolving a curved line around the longitudinal axis of

said burner throat, said curved line having an outlet end, a substantial portion thereof being defined by the formula

$$y=\sqrt{R^2+(x\cdot\tan F/2)^2}$$

wherein the variable y is the distance of each curve point from the longitudinal axis of said orifice, the variable x is the distance of each curve point from a line perpendicular to said longitudinal axis, said line constituting a diameter of the so-called break circle, R is the minimum internal radius of said burner throat and F is the desired flame angle in degree within said limits; whereby said flame angle can be maintained substantially constant at the desired value over a wide load range.

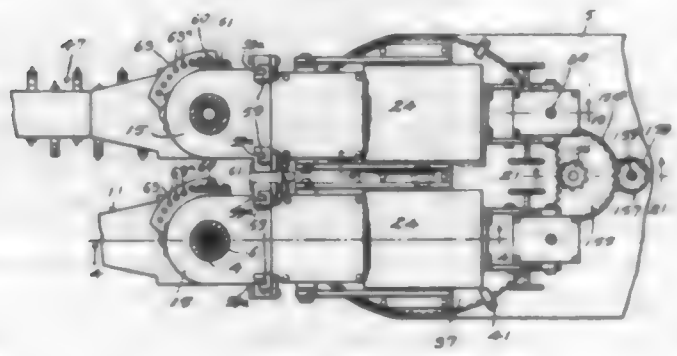
2,873,100

COAL CUTTING AND LOADING MACHINE

Frank J. Jones, West Terre Haute, Ind., assignor of one-third to H. Dale Baker, West Terre Haute, Ind.

Continuation of application Serial No. 761,849, July 18, 1947. This application April 9, 1954, Serial No. 422,097

2 Claims. (Cl. 262—9)



1. A coal mining machine comprising a carriage, a cutter head assembly including upper and lower cutters mounted upon said carriage for rotation about a vertical axis and extending forwardly from said carriage, and a puncher assembly mounted upon the carriage for rotation about a vertical axis and extending forwardly from said carriage, said puncher assembly having its forward end positioned rearwardly of the forward end of said cutter head, said puncher assembly including an elongated carrier arm, gear means for rotating said arm about its longitudinal axis, a plurality of outwardly extending pneumatically operated puncher elements each pivoted at its inner end to said arm, and gear means carried by said arm and connected to said puncher elements for adjustably moving said puncher elements about their pivots.

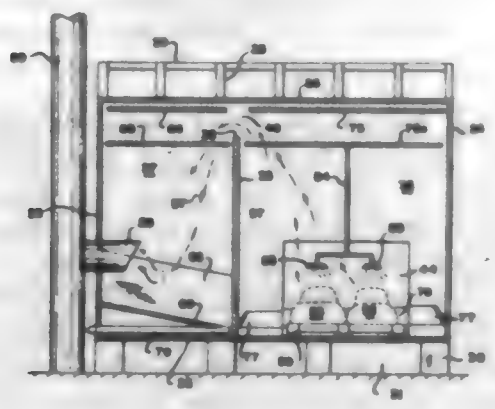
2,873,101

INCINERATORS

Samuel Babcock, Detroit, Mich.

Application April 8, 1957, Serial No. 651,311

6 Claims. (Cl. 263—2)



1. An incinerator for burning old automobile bodies comprising a large box having side walls, end walls and a ceiling, and divided vertically by a substantially imperforate baffle plate or partition parallel to the end walls to provide a combustion chamber adapted to contain automobile bodies to be burned and a smoke washing chamber, with the partition having its upper edge a short distance below the ceiling to provide an upper passage between the upper edge of the baffle plate and the ceiling for smoke to pass from the combustion chamber into the washing chamber only through said upper passage, the box height and length dimensions being at least several times the height and length of the automobile bodies being burned, and the depth dimension being at least larger than the maximum dimension of the bodies being burned, said box being made solely of large area thin metal plates joined edge to edge to form the side walls, the end walls and the ceiling, the walls forming the box being secured to a structural frame which rigidifies and supports the box and which comprises frame members arranged outside of the box so as to be exposed to atmosphere, and including side wall frame members, end wall frame members and ceiling frame members, all outside the box walls, the box having in its side walls alined openings large enough to permit one or more automobile bodies to be entered horizontally through these openings in the side walls, these openings being located in the combustion chamber part of the box a considerable distance from the washing chamber, water spray means in the upper part of the combustion chamber and the washing chamber which sprays water on the walls and partition of the box for cooling these walls and partition, and for spraying water downwardly into the washing chamber from above it to wash the smoke in the washing chamber and for spraying water into the combustion chamber from above it for forming a water fog for cooling the ceiling of the combustion chamber, an exhaust opening in the end wall of the washing chamber and an exhaust stack outside the box and supported independently of the box and connected at its lower end to the exhaust opening of the washing chamber which is also near the lower edge of the washing chamber end wall.

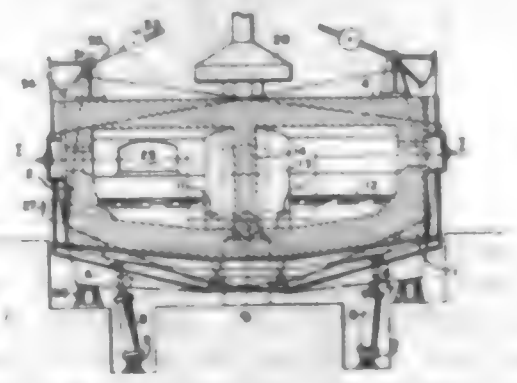
2,873,102

METHOD OF MELTING METAL

Richard Tripmacher and Karl Leopold, North Rhine-Westphalia, Germany

Continuation of application Serial No. 394,154, November 24, 1953. This application November 8, 1956, Serial No. 621,124

4 Claims. (Cl. 263—52)



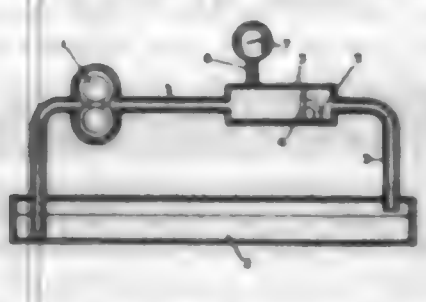
1. The herein described method of melting metal in two spaced chambers having a communicating passage therebetween, which consists in heating each of the chambers, simultaneously rocking the chambers in the same direction, and continuously feeding fresh material into the passage communicating with the chambers so that the molten material alternately passes from one chamber to the other and the fresh material is continuously mixed with the molten material as the latter moves from one chamber to the other so as to preheat the fresh material.

2,873,103
SEISMOLOGICAL INSTRUMENTS
Rudolph F. Hautly, University City, Mo., assignor to W. F. Sprengnether Instrument Company, Inc., St. Louis, Mo., a corporation of Missouri
Application October 7, 1953, Serial No. 384,701
11 Claims. (Cl. 264—1)



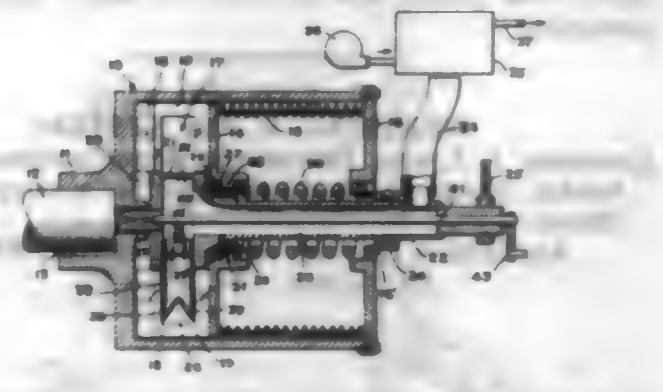
1. In a torsional vibration system of the type having a wire and an eccentric weight on the wire, means for damping torsional vibration of the wire comprising a cylindrical sleeve of nonmagnetic electrically conductive material on the wire, and means for establishing a magnetic field concentrated on the sleeve, the eccentric weight being substantially outside the concentration.

2,873,104
FLUID GOVERNORS
Norman Horwood, Birmingham, England, assignor to The Austin Motor Company Limited, Birmingham, England
Application April 12, 1956, Serial No. 577,879
Claims priority, application Great Britain May 16, 1955
1 Claim. (Cl. 264—14)



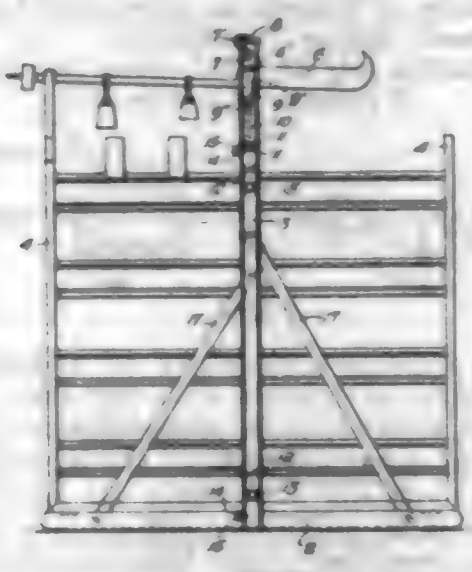
A fluid governor or speed indicator comprising a pressure-responsive variable restriction valve, an engine-driven pump of the positive displacement type, said valve being subjected to and actuated by the delivery pressure of said pump, and a static pressure tapping taken from the delivery side of the pump at a position upstream of said variable restriction valve, wherein the pressure responsive variable restriction valve comprises a flexible disc rigidly mounted at its centre concentrically within a circular pump delivery pipe which it controls or restricts, said disc being of progressively decreasing axial thickness from the center to the periphery, the said periphery of said disc being free to distort or flex under the influence of pump delivery pressure in such manner that an annular space defined between said periphery and said delivery pipe increases progressively with pump delivery pressure but at a decreasing rate such as to maintain a static pressure in said tapping which varies directly with engine speed.

2,873,105
GOVERNOR
Rolf H. Roeder, Wuerzburg, Germany, assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application August 28, 1956, Serial No. 606,742
4 Claims. (Cl. 264—19)



1. A variable governor adapted to control the speed of a rotatable shaft at more than one speed setting comprising, a vessel fixed to and rotatable with said shaft, means slidably disposed in said vessel to form a compartment for receiving actuating fluid, vane means disposed to rotate the fluid in said compartment in accordance with the rotational speed of said shaft whereby said fluid will act to move said means in one direction, tension means to urge the slidable means in a direction opposite and proportional to any reduction in force exerted by the actuating fluid, a non-rotatable governor control rod connected to said slidable means to be moved axially relative to said vessel, a container at one end of said governor rod forming a fluid supply chamber disposed in said compartment, a passage providing communication between said fluid supply chamber and a source of actuating fluid, a nozzle element slidably mounted in said fluid supply chamber and extending radially into said compartment, said nozzle having axially disposed openings to provide means for supplying fluid to said liquid compartment, and means to adjust the relative radial position of said axially disposed openings to regulate the quantity of actuating fluid in said compartment during operation of the governor and to stabilize the action of said actuating fluid.

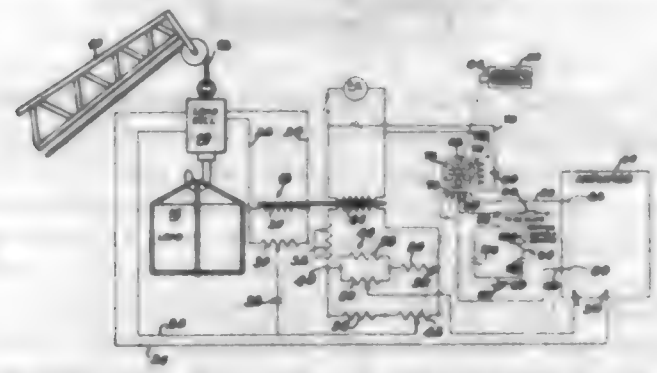
2,873,106
APPARATUS FOR WEIGHING LIVESTOCK
Werner B. Fassbinder, Elkader, Iowa
Application June 20, 1957, Serial No. 666,945
2 Claims. (Cl. 265—52)



1. Apparatus for weighing livestock, comprising a fixed frame having a horizontal base provided with opposite vertically extending side portions, a generally horizontal crate disposed between said side portions, weighing mechanism comprising means fulcrumed on said fixed frame for weighing said crate, and stabilizing means comprising

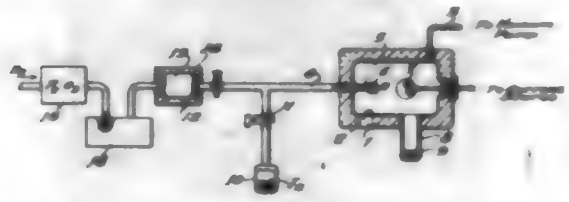
a pair of upper and lower generally horizontally disposed parallel movement transverse stabilizer bars, one bar of said pair of bars being pivotally connected at one of its ends to one side of said fixed frame and at its other end to the opposite side of the crate, the other bar of said pair of bars being similarly connected to the remaining sides of said fixed frame and said crate, whereby transverse crate tilting due to uneven weight distribution is prevented.

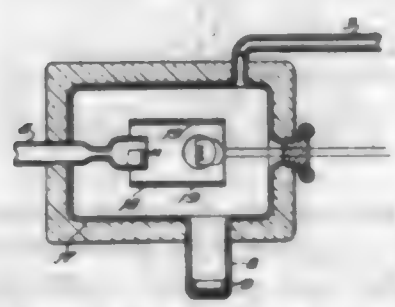
2,873,107
WEIGHING SCALE SYSTEM
Lawrence J. Lyons, Davenport, Iowa, assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application May 17, 1955, Serial No. 508,905
10 Claims. (Cl. 265—70)



1. In a weighing scale system, a load cell producing a first voltage representative of a load weight, an amplifier connected to said load cell, a motor having a control winding connected to the output of said amplifier, a balance bridge having a potentiometer driven by said motor, said balance bridge producing a second voltage proportional to the extent said potentiometer is driven from an initial position, means connecting said balance bridge, load cell and amplifier with said second voltage in opposition to said first voltage whereby the difference between said voltages appears in an amplified condition at the amplifier output, a weight indicator driven by said motor, a plate circuit in said amplifier, said plate circuit including said control winding, a switch in said plate circuit, an electrical network means connected to said plate circuit, and a capacitor in said network adapted to retain plate voltage at a diminishing rate in said plate circuit after said switch is opened.

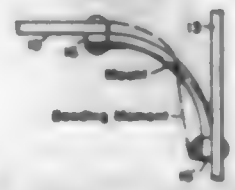
2,873,108
APPARATUS FOR HIGH PURITY METAL RECOVERY
Theodore T. Magel, Cambridge, Mass., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application July 23, 1947, Serial No. 761,840
8 Claims. (Cl. 266—15)





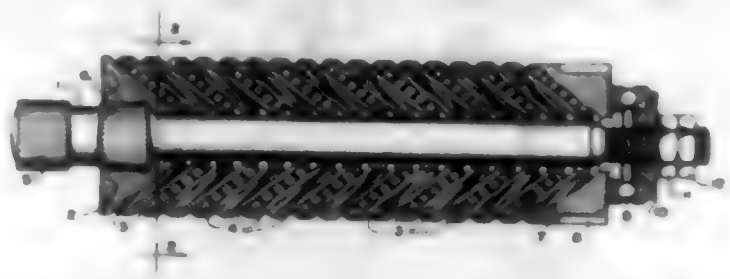
1. In an apparatus for the purpose described, the combination of a furnace; gas inlet means connected to said furnace at one side end; a support means connected to and within said furnace a metal-carrying means held by said support means adjacent to said gas inlet means and in the direct path of said entering gas; a body having a non-metallic refractory surface connected to and within said furnace arranged in alignment with said inlet means and said support means; outlet means connected to said furnace at a position to remove gas after contact with said body; a refractory container for receiving molten metal arranged in said furnace at its bottom vertically underneath said body and protruding outwardly from said furnace; and means for heating said body.

2,873,109
VIBRATION ISOLATING MOUNTS
Raymond G. Hartenstein, Ferndale, and James J. Kerley, Jr., Cheverly, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 23, 1956, Serial No. 560,481
5 Claims. (Cl. 267—1)



5. An article of manufacture adapted for use in damping transmission of vibration and shock from one body to another and comprising a pair of parallel elongated members adapted for attachment to the two bodies, respectively, projections on said members, a continuous flexible cable woven between said projections and forming a plurality of longitudinally-spaced-apart cable sections extending transversely between said members, and elastic material surrounding each of said cable sections to form a composite elastic sheet embedded with said woven cable and anchored through the medium of same to said members.

2,873,110
TORSION SPRING
Einar Jonnson, New York, N. Y.
Application October 25, 1954, Serial No. 464,357
7 Claims. (Cl. 267—57.1)

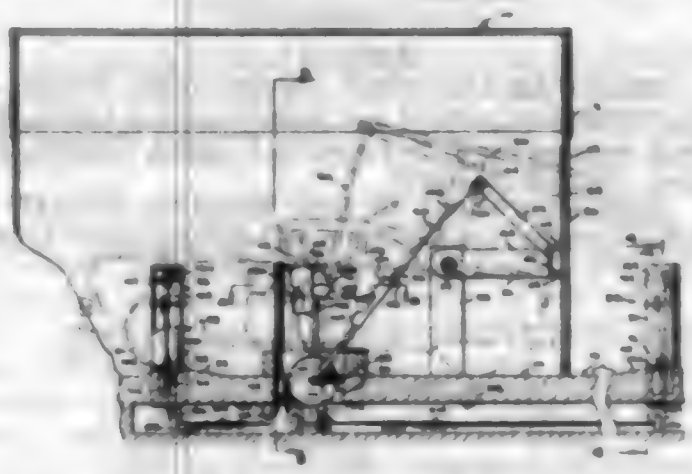


1. A torsion spring comprising a rod, a plurality of corrugated frusto-conical rubber collars mounted on said rod, said corrugations running parallel with the surface of the cone relative to its longitudinal axis, and means at each end of the rod for applying stress to the collars.

2,873,111
VEHICLE ACTUATED MECHANISM FOR GARAGE DOORS
Elmer W. Vess, Wagoner, Okla.
Application March 8, 1957, Serial No. 644,879
3 Claims. (Cl. 268—37)

1. In combination, a garage comprising sidewalls, a floor, a front wall having a door opening therein, a driveway in front of said front wall, a door mounted to swing from a closed vertical position in the door opening to a rearward overhead open position, a door-operat-

ing lever assembly comprising a transverse shaft journalled on said floor behind the door, a pulley fixed on said shaft, a normally forwardly inclined lever having a lower end fixed on said shaft and an upper end operatively connected to the door, said lever having thereon a transverse latch plate and a yoke plate spaced thereabove, a latch assembly mounted on said floor behind said lever, said latch assembly comprising an upstanding housing, laterally spaced first and second latch levers pivoted on said housing, spring means normally depressing said latch levers, said latch levers having rear and forward ends, depending hooks on the forward ends of the latch levers having forwardly facing cam surfaces thereon, said latch plate having an upper edge, said lever being arranged to be swung rearwardly from its normally forwardly inclined position wherein said door is in its closed position toward a vertical position wherein said door is in a rearward overhead open position, a front treadle assembly on said driveway and spaced forwardly from the front wall of the garage, a rear treadle assembly in the garage and spaced rearwardly from said latch assembly, first operating connection means con-



nected between said front treadle assembly and said pulley and said first and second latch levers for elevating said first latch lever and swinging the door operating lever rearwardly as the front treadle assembly is depressed by wheels of a vehicle, rearward movement of the door operating lever producing engagement of the latch plate with the cam surface of the second latch lever and engagement of its hook over the upper edge of the latch plate and retaining engagement of the yoke plate with the cam surface of the first latch lever in the elevated position thereof, whereby the door operating lever is retained in its rearward vertical position, second operating connection means connected between said rear treadle assembly, the pulley of the door operating assembly and said first and second latch levers for elevating said second latch lever so as to disengage its hook from the upper edge of the latch plate as the rear treadle assembly is depressed by wheels of a vehicle in the garage as the vehicle is backed out of the garage and thereby free the door operating lever to be swung downwardly toward its normal position by the weight of the door moving toward the closed position.

2,873,112

APPARATUS FOR PRODUCING MAGAZINES AND THE LIKE

Curtis S. Crafts, Oak Park, and Henry L. McWhorter, Riverside, Ill., assignors to Miehle-Goss-Dexter, Incorporated, Wilmington, Del., a corporation of Delaware

Application June 29, 1955, Serial No. 518,842
7 Claims. (Cl. 270—12)

1. In a machine for producing magazines or the like of the type comprising a plurality of signatures folded one within another, the combination comprising means for supplying a plurality of printed webs, a plurality of folders for receiving the webs and cutting and folding signatures therefrom, an elongated saddle of inverted V-shaped cross-section extending in an outbound leg to each of said folders in successive order and returning in an inbound leg to said folders in reverse order, each of said folders having means for depositing the signatures partly unfolded astride said outbound and inbound legs



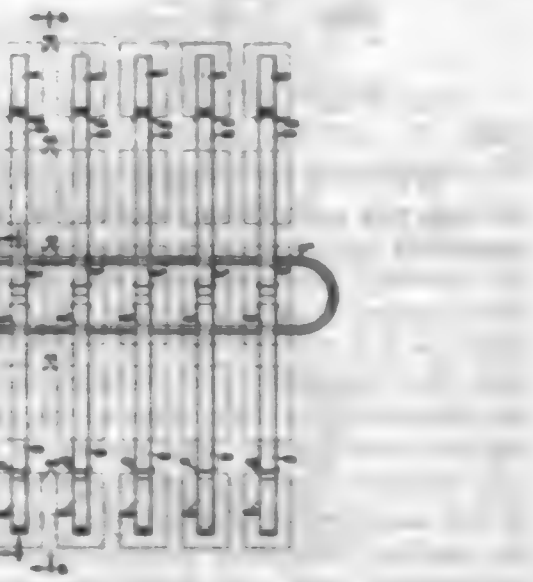
of said conveyor alternately, means for carrying said signatures along said saddle in timed relation to the operation of said folders so that each of the successive signatures will be deposited astride its predecessors to form assembled magazines, and means along said saddle for binding the assembled magazines along the fold.

2,873,113

APPARATUS FOR PRODUCING MAGAZINES AND THE LIKE

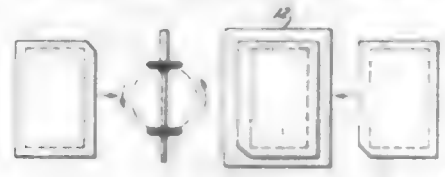
Henry L. McWhorter, Riverside, Ill., assignor to Miehle-Goss-Dexter, Incorporated, Wilmington, Del., a corporation of Delaware

Application June 29, 1955, Serial No. 518,857
8 Claims. (Cl. 270—12)



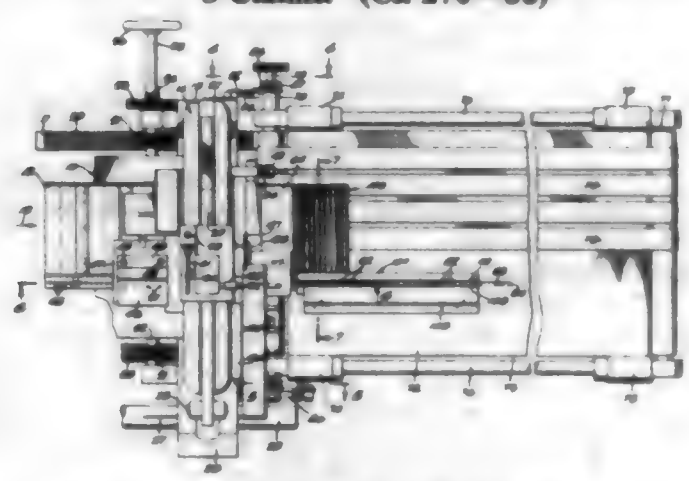
1. In a machine for producing magazines or the like of the type consisting of a plurality of signatures, the combination comprising an endless conveyor having outbound and inbound legs for receiving stacks of assembled signatures, means for supplying a plurality of webs on each of which two signatures for the magazine are printed alternately, a plurality of folders disposed at intervals along the conveyor for receiving said webs and cutting and folding the signatures therefrom, each of said folders having means for delivering the signatures alternately to the outbound and inbound legs of the conveyor so that each folder will contribute two signatures to each magazine.

2,873,114
FEEDING DEVICES FOR RECORD CARD MACHINES
Michael Maul, Schwabach, near Nurnberg, Germany
Application July 19, 1954, Serial No. 444,279
14 Claims. (Cl. 270—58)



6. In a machine controlled by cards provided with controlling marks and having top and bottom faces, in combination, a card receiving pocket; first and second feeding means for feeding cards with said top faces on top in opposite feeding directions along first and second aligned feeding paths toward and into said receiving pocket; and card turning means located in said first feeding path for turning fed cards through an angle of 180° about an axis transverse to said top and bottom faces so that said cards are deposited in said receiving pocket in corresponding positions with said top faces on top.

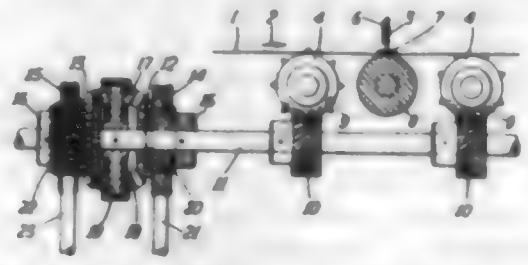
2,873,115
CHECK SHINGLING ATTACHMENT FOR A PRINTING PRESS
Theodore P. Dusenbury, Los Angeles, and Charles G. Warren, South Gate, Calif., assignors, by direct and mesne assignments, to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application April 4, 1955, Serial No. 499,072
3 Claims. (Cl. 270—58)



1. Apparatus for forming shingled sheets from a continuous web comprising: means for feeding a continuous apertured web, a knife including actuating means therefor for severing the apertured web into sheets, a collating table having a surface thereof positioned to receive each sheet as it is severed from the web, a series of advanceable pins carried by said collating table, a transfer member disposed over the surface of the collating table receiving the severed sheets with certain of said pins underlying said transfer member, means operative in timed relation to the actuation of the knife for reciprocating said transfer member against a severed sheet to move same into engagement with said underlying pins and to cause the apertures of same to be received by said underlying pins, and means for advancing said series of pins in timed relation to the actuation of the knife for receiving and maintaining the severed sheets in sequential, overlapping relation.

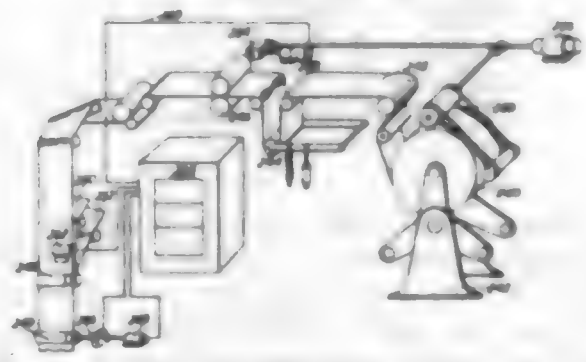
2,873,116
PAPER-FEEDING MECHANISM
Donald Rudolf Lambert, Carshalton, England, assignor to Powers-Samas Accounting Machines Limited, London, England, a British company
Application October 30, 1957, Serial No. 693,410
22 Claims. (Cl. 271—2.4)

1. Paper-feeding mechanism comprising continuously operable driving means co-operating with paper-feeding elements to effect continuous feeding of paper at a constant linear speed, normally inactive auxiliary driving means co-operating with said continuously operable driving means, and control means co-operating with said auxiliary driving means to effect operation thereof and said control means being operable automatically to determine by which of a number of predetermined time



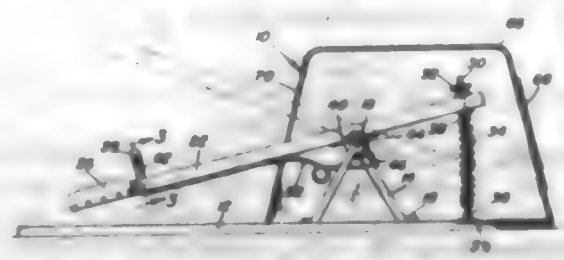
intervals the auxiliary driving means shall co-operate with said continuously operable driving means to increase the rate of operation of the paper-feeding elements thereby to effect a temporary increase in the linear speed of paper fed by the paper-feeding elements to determine the spacing effected between successive lines of imprinting made on the paper.

2,873,117
REGISTER CONTROL OF MOVING WEBS
John Fothergill Crosfield and Daniel Gold, London, England, assignors to J. F. Crosfield Limited, London, England, a British company
Application March 30, 1956, Serial No. 575,277
Claims priority, application Great Britain April 1, 1955
17 Claims. (Cl. 271—2.6)



1. Apparatus for the automatic control of register error of continuous moving webs, including web driving means, correcting means controlling said web driving means and operating periodically to reduce the register error, and means responsive to the magnitude of the error and the change in error during a short period for adjusting the correcting means to vary the magnitude of the applied correction in accordance with both the magnitude of the error and the change in the error during a short period preceding an adjustment of the register correction means.

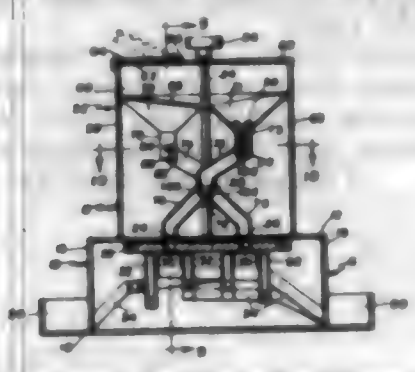
2,873,118
SPRING OPERATED TEETER TOTTER
James C. Dimitriadis, Portland, Oreg.
Application January 17, 1957, Serial No. 634,769
4 Claims. (Cl. 272—55)



1. A teeter totter comprising a base, a pair of transversely spaced upstanding support frames on said base, a teeter totter board pivotally supported on the upper ends of said supporting frames and extending to each side thereof into aligning relation with the base, spring means interconnecting one end of the board and the base,

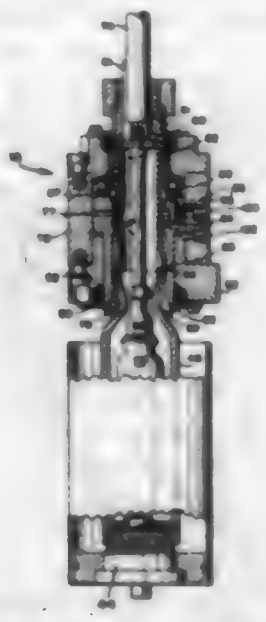
a seat on the other end of the board, means for locking the board in a predetermined angular position, said locking means including a ratchet gear rigid with the board at the pivot axis, a pivotal latch for engagement with said ratchet gear, and control means for said pivotal latch with the control means being operable from a point adjacent the seat.

2,873,119
VARIABLE RESULT GAME APPARATUS
Neil W. O'Rourke, La Jolla, Calif.
Application July 1, 1955, Serial No. 519,547
6 Claims. (Cl. 273—138)



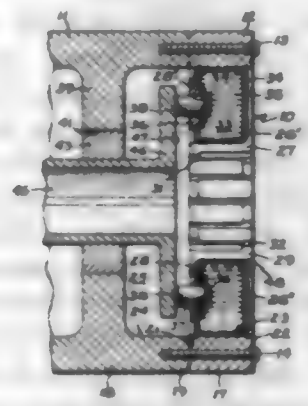
1. A game apparatus for opposing players comprising; a casing having a plurality of score bins; a plurality of ball receiving exterior openings in said casing and simultaneously visible to said opposing players; ball receivers below and adjacent each of said openings; ducts communicating from said receivers to said score bins such that a ball dropped in any one of said openings can be directed to any one of a plurality of said score bins; and a rotatable selector mounted between said receivers and said openings; said selector having a plurality of channels therethrough; said channels being disposed so that a ball from one of said openings can be directed into any one of the receivers adjacent that opening at one position of said selector for directing balls from said openings into said receivers selectively, said ducts and selector being in part hidden from the view of the players so that the path of said ball cannot be fully determined visually.

2,873,120
HYDRAULICALLY OPERATED CHUCKING APPARATUS
Henry E. Stein, Worthington, and Henry V. Mog and John W. Stertzer, Columbus, Ohio, assignors, by mesne assignments, to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Original application April 29, 1952, Serial No. 284,876, now Patent No. 2,743,604, dated May 1, 1956. Divided and this application June 13, 1955, Serial No. 515,096
13 Claims. (Cl. 279—4)



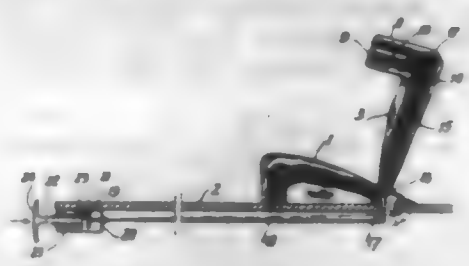
1. In a machine for handling articles, a chuck means for gripping and revolving an article, said chuck means including a body; means for mounting said body against rotation; article engaging jaws supported for rotary movement relative to said body; fluid pressure responsive means disposed in said body for rotary and axial movement with respect thereto and for axial movement with respect to said jaws to cause movement of the latter relative to one another to grip an article, and motor means for imparting rotary movement to said fluid pressure responsive means and said jaws.

2,873,121
CHUCKING DEVICE
Robert S. Hahn, Northboro, Mass., assignor to The Heald Machine Company, Worcester, Mass., a corporation of Delaware
Application October 11, 1957, Serial No. 689,606
14 Claims. (Cl. 279—4)



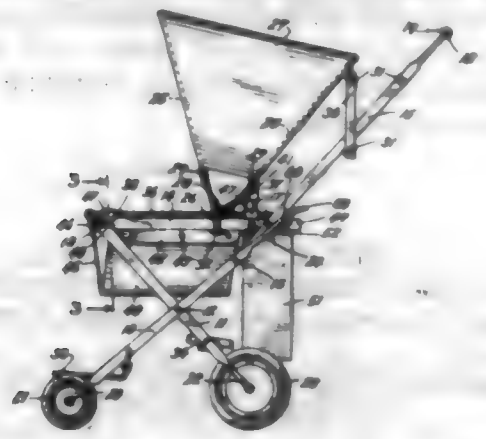
1. A chucking device comprising an annular ring, sector members lying in substantially the same plane and extending radially inwardly of the ring, a jaw member located on the inner end of each sector member, the jaw members extending in the same axial direction for substantial distances, the only connection of each sector member and its respective jaw member with the other sector and jaw members being through the annular ring, and means for deflecting the sector members simultaneously in the same direction to move the jaw members radially.

2,873,122
SAFETY SEAT FOR MOTOR VEHICLES
Lucien Péras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France, and Roger Petrignani, La Rochelle, France
Application October 9, 1956, Serial No. 614,843
Claims priority, application France October 17, 1955
6 Claims. (Cl. 280—29)



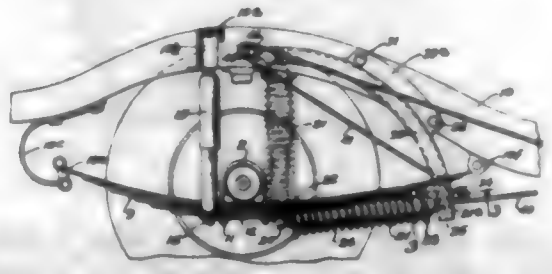
1. A safety seat for a vehicle comprising, a seat portion, a back rest provided with a substantially arcuately configured upper end portion for supporting the shoulders of a person in said seat, a pair of arcuately configured restraining arms telescopically movable into and from opposite ends of said upper shoulder-supporting portion, means arranged for selectively actuating said arms to extended position for partially encircling the person in the seat and restraining his movement away from the back rest, and automatic latch means for normally holding the restraining arms in a retracted position and for automatically releasing them incident to an impact of a predetermined force on the vehicle.

2,873,123
BABY CARRIAGES
Charles E. Eppinger, Denver, Colo.
Application October 8, 1956, Serial No. 614,685
2 Claims. (Cl. 280—41)



2. A portable, foldable wheeled frame for a baby carriage having two side frame structures, each side frame structure comprising: a first frame bar extending upwardly and forwardly; a second frame bar extending upwardly and rearwardly across said first frame bar; a first pivot member pivotally securing said two frame bars together at their middles; a horizontal frame bar pivotally secured at its forward extremity to the upper extremity of said first frame bar; means extending between the two side frame structures and maintaining the latter in parallel spaced relation; an inverted U-shaped handle member pivotally mounted adjacent each of its lower extremities to one of said horizontal frame bars and extending downwardly therefrom, each of said horizontal frame bars extending rearwardly from the pivotal mounting of said handle member; a second pivot member in each side frame structure pivoting one of the downwardly extending extremities of said handle member to the second frame bar in said structure adjacent the upper extremity of the latter, each of said second frame bars extending upwardly from said second pivot; and an inwardly extending hooked portion formed in the upper extremity of each of said second side frame members, each of said inwardly extending hooked portions being adapted to be hooked over the rearwardly extending extremity of one of said horizontal frame members rearward of said handle member when said side frame structures are erected to lock said frame members in the erected position.

2,873,124
AUXILIARY VEHICLE SUSPENSION
Brooks Walker, Piedmont, Calif.
Application February 26, 1954, Serial No. 412,864
6 Claims. (Cl. 280—124)



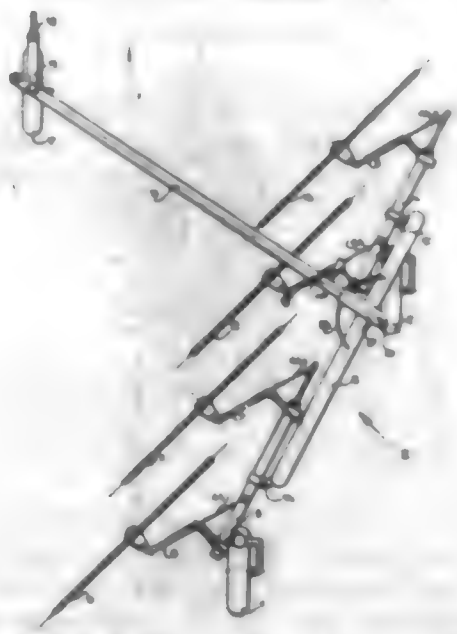
3. In a vehicle having at least a wheel supporting structure connected to its frame by resilient suspension means, the combination therewith of auxiliary resilient overload means pivotally connected at one end to the wheel supporting structure to permit movement of the other end in an arcuate path, the radial center of the path being fixed relative to the frame and on the same side of the path as said pivotal connection, the resilient overload means being movable between substantially horizontal and vertical positions, remote control means connected to said overload means for moving and holding said overload means in any adjusted position and further means mounted on the frame and inseparably connected to the said other end of the overload means to secure said other end against independent radial movement relative to the frame and to confine the said other end to movement in the arcuate path fixed relative to the frame, said overload means thus supporting said frame and aiding in the support of the wheel supporting structure when depending from the frame.

2,873,125
LINKAGE MECHANISM FOR THE ATTACHMENT OF MOUNTED IMPLEMENTS TO TRACTORS AND THE LIKE
James Edward Bywater, Barking, England, assignor to Ford Motor Company Limited, London, England
Application April 23, 1956, Serial No. 579,974
Claims priority, application Great Britain April 25, 1955
7 Claims. (Cl. 280—461)



1. In a tractor, a link pivot arranged to accommodate in a working position a ball of a link forming part of a linkage mechanism for the attachment of a mounted implement, such link pivot having first and second portions of dimensions to accommodate respectively first and second sizes of ball, said first and second portions being adapted to be located selectively in said working position, whereby a ball of either said first size or said second size may be accommodated on said tractor by said link pivot.

2,873,126
LATERALLY ADJUSTABLE DRAFT MEMBER
Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely N. V., Maasland, Netherlands, a Dutch limited-liability company
Application July 5, 1955, Serial No. 520,017
Claims priority, application Netherlands July 5, 1954
2 Claims. (Cl. 280—462)



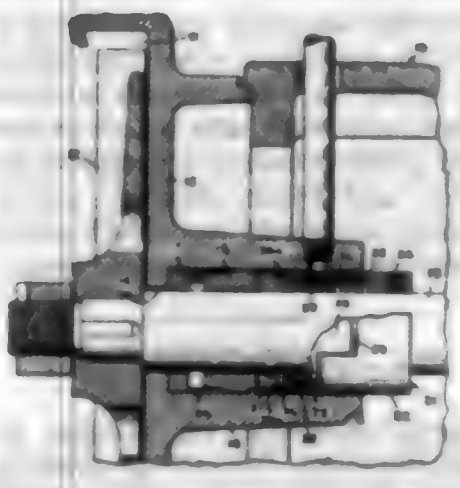
1. A hinge connection adapted to be coupled to a generally horizontal frame member comprising a draw arm

including opposite extremities one of which constitutes a hitch section; a pivot, a support rigidly fixed to said frame member and accommodating said pivot with a substantially vertical attitude adjacent one side of the frame member, an arcuate strip fixed to said frame member in a generally horizontal plane at the other side of said member, and a U-shaped device including a transverse member rigidly connected to the other extremity of the draw arm and two legs extending from said transverse member, said device defining between its legs an elongated opening and having its legs coupled to said pivot with the arcuate strip and frame member accommodated in said opening, the hitch portion being positioned at a lower level than said U-shaped device whereby said strip resists vertical displacements of said draw arm.

2,873,127
MECHANICAL SEAL

Ward E. Pratt, deceased, late of West Orange, N. J., by M. Marguerite Pratt, executrix, Sedalia, Colo., and Charles L. Farr, deceased, late of Mountainside, N. J., by Charles L. Farr, Jr., executor, Basking Ridge, N. J., assignors to Worthington Corporation, Harrison, N. J., a corporation of Delaware

Application March 1, 1956, Serial No. 568,887
1 Claim. (Cl. 286—11.15)

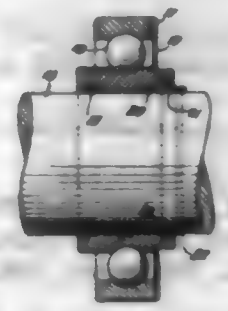


In a seal for a rotatable shaft which extends through an axial opening in a wall of a liquid-containing vessel and through an axial counterbore in a sleeve formed integral with said wall, said seal comprising two stationary sealing rings disposed about the shaft in the sleeve counterbore adjacent the vessel wall, one of said sealing rings having a laterally extending circumferential portion forming a recess therein and the other sealing ring having a tapered outer surface extending into the said recess, a seal rotor element including a back-up member fixedly connected to the shaft at a prescribed distance from the sealing rings, an axially slidable annular collar detachably connected to the back-up member for rotation therewith, a deformable gasket and ceramic insert element disposed in a force fit in an axial bore in said collar for rotation therewith, said gasket being disposed between the ceramic insert element and collar to form a fluid-tight seal, an annular flange formed in an end of the ceramic insert element adapted to engage with the stationary sealing ring nearest to it, and flexible means disposed between the back-up member and annular collar to bias the said annular flange against the said stationary sealing ring, whereby the said laterally extending circumferential portion of the one sealing ring is forced radially outward and the tapered outer surface of the other sealing ring forced radially inward, each in sealing engagement with respectively adjacent elements.

2,873,128
LOCKING MEANS FOR SECURING A BEARING TO A SHAFT

Fayette Leister, New Britain, Conn., assignor to The Fafnir Bearing Company, New Britain, Conn., a corporation of Connecticut

Original application September 14, 1950, Serial No. 184,730, now Patent No. 2,697,622, dated December 21, 1954. Divided and this application June 25, 1954, Serial No. 439,361
2 Claims. (Cl. 287—52.09)

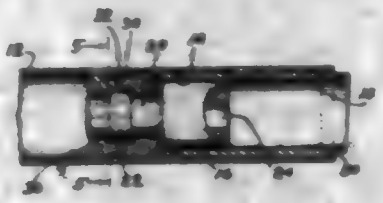


1. An article of manufacture, a bearing ring assembly including an inner bearing ring, locking means for anchoring said inner bearing ring to a shaft, the inner bearing ring being formed with a bore for a shaft and having an eccentric locking counterbore at one end, said locking means comprising a rounded longitudinally projecting element of effective thickness less than the difference between the radii of the bore and the counterbore, resilient means wrapping around and embracing a part of said inner bearing ring and supporting said element in said counterbore, said element comprising a pin and said resilient means including a portion loosely surrounding a part of said pin to support the same for rotation.

2,873,129
LOCK FOR TELESCOPIC CONNECTIONS

Warren F. Edmondson, Van Nuys, Calif., assignor to Tubelock Company, a corporation of California

Application August 29, 1955, Serial No. 530,959
5 Claims. (Cl. 287—58)



1. A lock for two telescopic tubular connections comprising a fitting fixed in one of the connections, an extension integral with the fitting, an eccentric forming part of the extension, a plurality of locking lugs grouped about the eccentric and extension, the eccentric comprising an enlargement of the extension and the lugs being interiorly recessed to receive the eccentric.

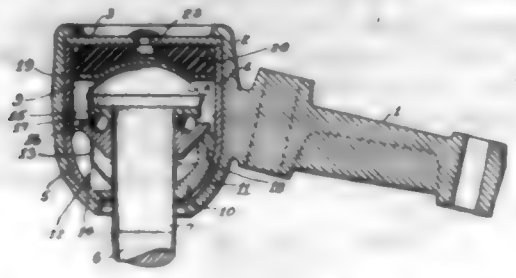
2,873,130
BALL JOINT ASSEMBLY

Milton A. Moskovitz, Richmond Heights, Mo., assignor of one-half to Harry Frankel, St. Louis, Mo.

Application October 22, 1953, Serial No. 387,646
5 Claims. (Cl. 287—90)

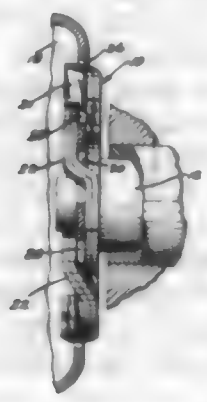
5. A joint structure comprising a socket member having an opening therethrough and having a concave bearing surface at one end, a closure across the other end of said opening, a stud axially movable in said socket member and having a radially enlarged head within said opening, a bushing having a lengthwise split therethrough and tiltably seated between said head and bearing surface and provided with a convex bearing surface opposed to said concave bearing surface to engage the latter, one end of said bushing being more expandible radially than

the other, and axially movable wedge means engaging said bushing at said more expandible end and said head



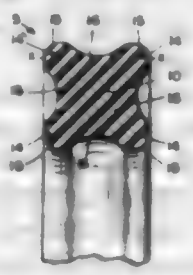
actuated by axial movement of said stud to urge radial expansion of said bushing at said end that is more expandible.

2,873,131
SPRING METAL MOUNTING CLUTCH
Francis M. Metrailer, Fort Wayne, Ind., assignor to Kitchen-Quip, Inc., Waterloo, Ind., a corporation of Indiana
Application June 15, 1954, Serial No. 436,871
2 Claims. (Cl. 287—103)



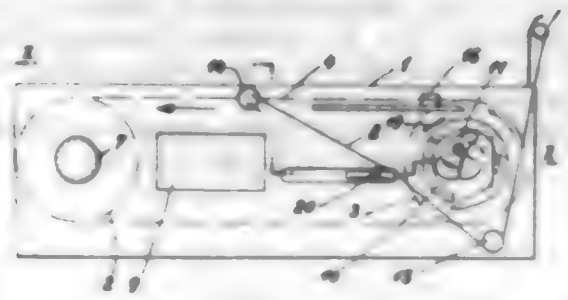
1. In a food cutting and slicing machine having a cutting cone of relatively thin deep drawn metal construction with a flat end wall having a series of circumferentially spaced openings radially spaced wiith respect to the axis of said cone, the combination with a driving and clutch member in the form of a flat disc of spring metal having driving and clutching ears integrally formed from and disposed out of the general flat plane of said disc slightly less than the thickness of said end wall, said ears corresponding in spacing to said series of openings and shaped to be inserted into said series of openings upon relative axial movement between said end wall and said disc, said flat end wall abutting said flat disc with said ears disposed in said series of openings, upon relative rotation between said end wall and said disc, portions of said wall adjacent said openings being engaged upon one side of said wall by flat portions of said disc and upon the other side by said ears to clamp said wall and disc together with spring pressure.

2,873,132
FLUID PRESSURE SEAL RING
Charles L. Tanner, Los Angeles, Calif., assignor to Tanner Engineering Co., Los Angeles, Calif., a co-partnership
Application April 23, 1954, Serial No. 425,089
2 Claims. (Cl. 288—19)



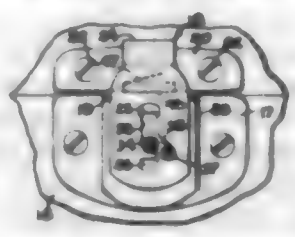
1. A pressure seal ring comprising a one piece annular body of generally X-shaped cross-section, said body being composed of uniformly resilient, flowable, rubber-like material and, when considered in cross-section, having its outer surface defined by semicircular convexly curved, circumferentially extending corner lobe portions and intervening, circumferentially extending, concavedly curved surface portions each tangentially merging with the contiguous lobe portions; the radius of each of said lobe portions being substantially one half the radius of each of said concavedly curved surface portions.

2,873,133
DEVICE FOR TYING A THREAD ROUND AN OBJECT AND FOR KNOTTING THE THREAD ENDS
Friedrich Wieser, Vienna, Austria, assignor to Hytakos A. G., Zug, Switzerland, a Swiss company
Application August 2, 1956, Serial No. 601,681
Claims priority, application Switzerland November 23, 1955
11 Claims. (Cl. 289—5)



11. A device for wrapping and knotting a thread to be delivered from a supply source; comprising a support, spaced wheel means on said support, a driven member operatively associated with said wheel means, a thread drawer on said driven member, a rotatable knotter hook located adjacent said driven member, and a stationary thread guide cam operatively associated with said driven member and encompassing said knotter hook.

2,873,134
SASH LOCK
Axel W. Ahlgren, Rockford, Ill., assignor to Amerock Corporation, Rockford, Ill., a corporation of Illinois
Application April 25, 1957, Serial No. 655,046
6 Claims. (Cl. 292—111)

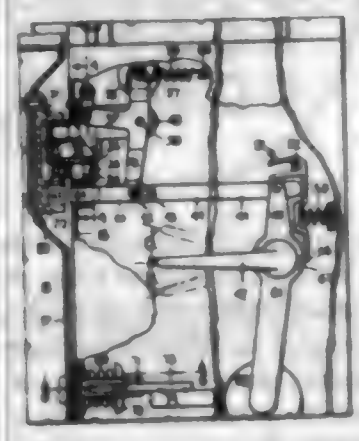


3. A sash lock having, in combination, a strike adapted to be mounted on one sash of a window, a base adapted to be mounted on another sash of the window, a bolt supported by said base to swing into and out of engagement with said strike, a spring acting between said base and said strike and urging the bolt out of engagement with said strike, first and second parts connected respectively to said base and said bolt and operable when brought into active relationship with respect to each other to hold the bolt against turning under the action of said spring, and yieldable means operable when the bolt engages the strike to hold said parts in active relationship.

2,873,135
AUTOMOBILE DOOR LOCK CONTROL
Jules Haltenberger, Rancho Santa Fe, Calif.
Application August 9, 1955, Serial No. 527,213
1 Claim. (Cl. 292—280)

In an automobile body having a door opening and a cooperating door hinged adjacent thereto, and a lock

structure including a toothed rack on said body and an operatively disposed toothed pinion on said door, a ratchet-wheel rigidly connected to said pinion for simultaneous movement thereof, a spring-biased ratchet-wheel-engaging pawl operatively disposed on a stationary pivot on said door, a door-opening handle on said door, a pawl-releasing lever on a stationary fulcrum on said door and having a slotted operative connection with said door-opening handle, and means connecting said pawl-releasing lever to said pawl for simultaneous movement of said lever and pawl; the improvement which comprises an arm on said lever extending substantially perpendicularly to the



direction of forward movement of said automobile body and also in a direction, with respect to said body, which is opposite to the direction of movement of said means during unlatching movement of said pawl from holding engagement with said ratchet-wheel, and a mass on said arm having a moment of inertia about said stationary fulcrum which is greater than the combined moments of inertia of all of said lock structure elements which would tend to release said pawl during deceleration of said automobile body during forward movement whereby said mass tends to hold said pawl more firmly engaged with said ratchet-wheel during said forward movement deceleration of said automobile body.

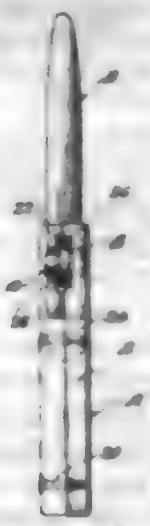
2,873,136

MAGNETIC SPATULA

Eugene L. Bennet, St. Joseph, Mich., assignor to Laboratory Equipment Corporation, St. Joseph, Mich., a corporation of Michigan

Application October 7, 1955, Serial No. 539,144

6 Claims. (Cl. 294—65.5)



1. In a spatula: a handle, a diametrically magnetized cylindrical permanent magnet disposed within said handle and journaled for rotation about its cylindrical axis, a blade formed of magnetic material, one end of said blade being free and the other end thereof extending into said handle to a position such that it touches a portion of the cylindrical surface of said magnet so that rotation of said magnet about its cylindrical axis changes the disposition of the poles of said magnet relative to said blade, and means for rotating said magnet.

2,873,137

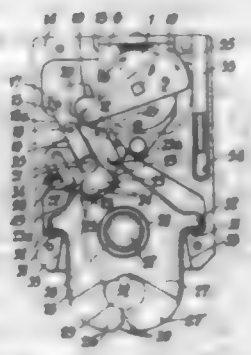
PARACHUTE AND LIKE RELEASE MECHANISM

Hugh Graham Conway and Kenneth Roy Sherbod, Belfast, Ireland, assignors to Short Brothers & Harland Limited, Belfast, Ireland

Application May 29, 1956, Serial No. 588,177

Claims priority, application Great Britain June 6, 1955

6 Claims. (Cl. 294—83)



1. Parachute and like release mechanism of the kind set forth comprising a housing, a pair of hook-carrying members in said housing pivotally mounted relative to each other and provided with hooks having free end portions extending toward each other at locations spaced from their respective pivots, whereby said hooks cooperate, in closed condition, to engage and hold an element to be released by the mechanism, said hook-carrying members each extending beyond their respective pivots opposite their hook ends and being formed on the oppositely extending portions with abutment walls facing each other, a toggle linkage mounted in said housing and having its links pivoted relatively to each other, roller means connected to one end of the said toggle linkage and engageable, when the said linkage is in its extended condition, between said opposed abutment walls on said hook-carrying members for locking the said hooks in the said closed position, an electromagnetic torque motor mounted in said housing adjacent said toggle linkage, a radius arm operatively connected to the said motor and rockable thereby between a position in which it is located substantially perpendicular to the plane containing the pivotal axes of said toggle-linkage when the said linkage is in the extended condition and in which the said arm engages the toggle linkage for holding the latter in the said extended condition and a position in which the said arm encounters one of the links of the linkage and acts to break the said linkage, thereby permitting opening of the hooks, the said radius arm being mechanically balanced about its axis, the said opposed abutment walls on said hook-carrying members being located substantially parallel to said plane when said hooks are in the said closed position so that any forces exerted on the said roller means by the said opposed abutment walls are substantially perpendicular to the said plane and fully balanced, whereby the mechanism is insensitive to forces, due to acceleration or shocks, liable to cause release of the hooks from the closed condition.

2,873,138

MANUAL AND AUTOMATIC LATCH MECHANISM

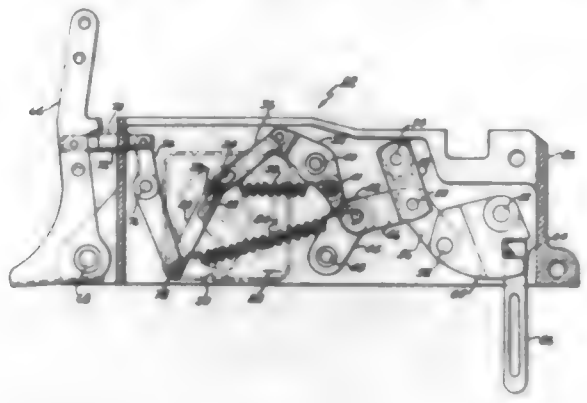
Quinton C. Johnson, Torrance, Calif., assignor to the United States of America as represented by the Secretary of the Air Force

Application January 17, 1957, Serial No. 634,892

4 Claims. (Cl. 294—83)

1. A holding mechanism for releasing objects temporarily attached to aircraft comprising a latch member mounted for rotation about a fixed pivot, said latch member being movable between a holding position and a releasing position, a first pair of links, one end of each of said pair being connected by a floating pivot, the opposite end of one link having a fixed pivot and the opposite end of the other link having a pivotal connec-

tion to said latch member, a second pair of links, an end of each of said second pair being connected by a floating pivot, the other end of one of said second pair having a fixed pivot while the opposite end of the other link of said second pair is connected to the floating pivot of said first pair, a roller forming part of the floating pivot



of said second pair, biasing means acting on said roller and through both pairs of links to urge said latch member to its releasing position, a centrally pivoted detent engaging said roller and holding the latter against said biasing means, and electromagnetic means pivoted to one end of said detent for disengaging said detent from said roller.

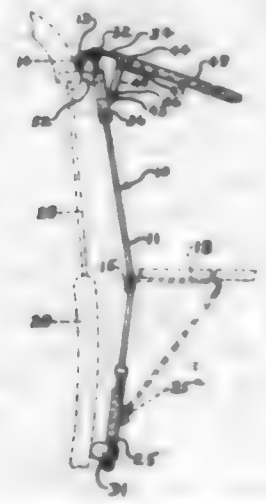
2,873,139

CANOPY FOR AUTOMOBILE SERVING TRAY HOLDER

Robert L. Borders, Jr., and Geraldine Sitz, Gadsden, Ala.

Original application July 22, 1955, Serial No. 523,649, now Patent No. 2,774,641, dated December 18, 1956. Divided and this application October 22, 1956, Serial No. 617,496

4 Claims. (Cl. 296—44)



1. In a canopy for a serving tray holder for use with an automobile having a window with a gutter above it, a pair of vertically extending arms, hook members at the upper ends of said arms disposed to hook over the gutter, a cover member hingedly connected to said arms adjacent the upper ends thereof, a supporting brace member pivotally connected at one end to the cover member and at the other end pivotally and yieldably connected to the arms whereby the cover member may be folded downwardly against the arms and when folded the first mentioned pivoted connection moves past dead center with respect to the other pivotal connection, and catch members mounted on the arms and disposed to engage beneath the gutter and co-act with the hook members to secure the arms to the gutter when the cover member is folded upwardly from the arms.

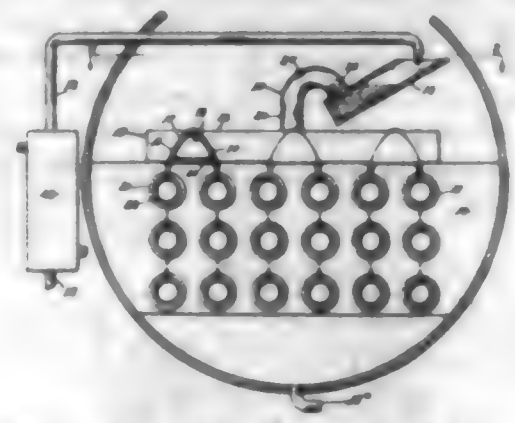
2,873,140

LIQUID DISTRIBUTION SYSTEM

Richard H. Merrick, East Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Application March 31, 1954, Serial No. 419,960

1 Claim. (Cl. 299—25)



A distribution system for liquids comprising dispersion means including a tube having at least one restricted discharge opening in an upper portion thereof, a supply pipe operatively connected to said dispersion means in substantially the same plane therewith, a liquid receiver above said dispersion means and having a pipe of inverted U form operatively connected at one end to a lower portion of said receiver and at the other end to said supply pipe, whereby when liquid is introduced to said receiver the same will flow, through said supply pipe and dispersion means by siphoning action.

2,873,141

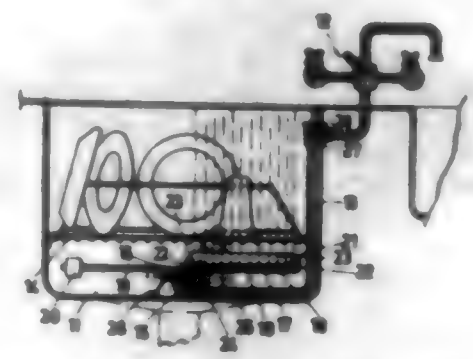
LIQUID SPRAYING MECHANISMS, PARTICULARLY FOR DISH WASHING MACHINES

Sven Bertil Myllenberg and Karl-Erik Wärnström, Halsingborg, Sweden

Application December 17, 1956, Serial No. 628,821

Claims priority, application Sweden December 28, 1955

1 Claim. (Cl. 299—71)



A dishwashing machine comprising a basin, a horizontal spray pipe mounted for oscillation between limits of swinging movement about a vertical axis through the center of said basin, said pipe extending outwardly from said axis and having an outer end proximate the side wall of said basin, a vane mounted on and above said pipe and extending parallel thereto from a point proximate said vertical axis to a point proximate said outer end of said pipe, said pipe having nozzle openings spaced all along its upper side for delivering liquid spray jets vertically against said vane, said vane being mounted for rotation about a tilt axis spaced above said pipe and parallel thereto and having its center of gravity spaced above said tilt axis, said vane being tiltable about said tilt axis between two inclined positions for deflecting said liquid jets alternately toward the respective lateral sides of said pipe to impart a swinging movement to said pipe first in one direction and then in the other, a pair of limbs depending from said vane, one on each side of said pipe, each of said limbs in turn engaging fixed structure just before said spray pipe reaches one of said limits of swinging movement to shift the inclination of said

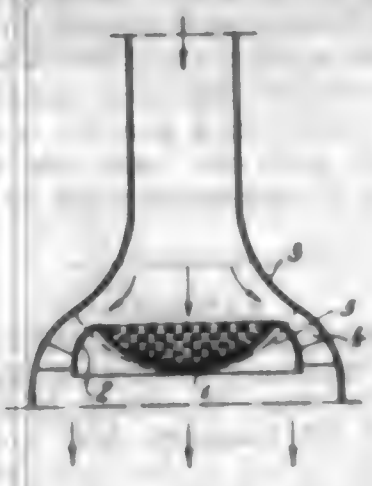
vane from one of said inclined positions to the other and thereby reverse said swinging movement, said limbs alternately engaging said spray pipe to hold said vane alternately in said two inclined positions.

2,873,143

DIFFUSER FOR SUB-CRITICAL FLOW

Karl-Axel Zetterström, Trollhattan, Sweden, assignor to Svenska Flygmotor Aktiebolaget, Trollhattan, Sweden

Application September 16, 1955, Serial No. 534,859
2 Claims. (Cl. 299—141)



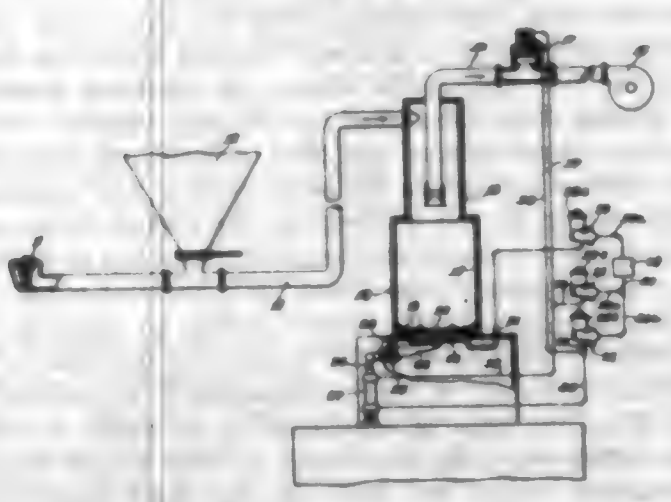
1. A diffuser for sub-critical flow comprising a tube-like wall forming a main diffuser channel closed all around its circumference, said wall having an end portion which is widened in cup-like form, a perforated dished shield disposed in said widened portion, said perforated dished shield comprising a substantially spherically curved perforated central portion and a non-perforated annular circumferential portion curved substantially in conformity with the curvature of the surrounding portion of the diffuser wall though of a small radius of curvature as compared with that of said end portion of said wall, said shield being so positioned with relation to the surrounding portion of the main wall as to divide the diffuser channel as a whole into a central passage of a cross sectional area gradually increasing in the direction of flow and an annular passage of a cross sectional area also gradually increasing in the direction of flow so as to form a partial diffuser concentrically surrounding said inner passage.

2,873,143

APPARATUS FOR AND METHOD OF HANDLING FINE PULVERULENT MATERIAL IN A VACUUM CONVEYOR

Orville A. Williams, Mount Prospect, Ill., assignor to United Conveyor Corporation, a corporation of Illinois

Application April 1, 1957, Serial No. 649,723
5 Claims. (Cl. 302—17)



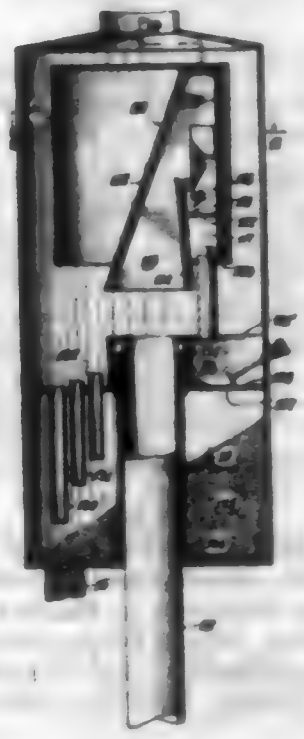
1. In a vacuum conveyor system for handling fine pulverulent material, in combination: a material receiving chamber having a bottom provided with a discharge opening; a discharge gate for said opening; aerating means for fluidizing material in the lower part of the chamber; vacuum conveyor means operable at negative pressures substantially below —16 inches Hg, said conveyor means including a separator for depositing material in the receiving chamber; and timer controlled means for cyclically delivering material to the chamber with the aerating means inoperative and the discharge gate closed and then opening the gate while operating the aerating means and stopping the vacuum means.

2,873,144

GAS-SOLIDS SEPARATION IN A PNEUMATIC LIFT

Eric V. Bergstrom, Short Hills, and Robert D. Drew, Wenonah, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application August 26, 1952, Serial No. 306,386
25 Claims. (Cl. 302—53)



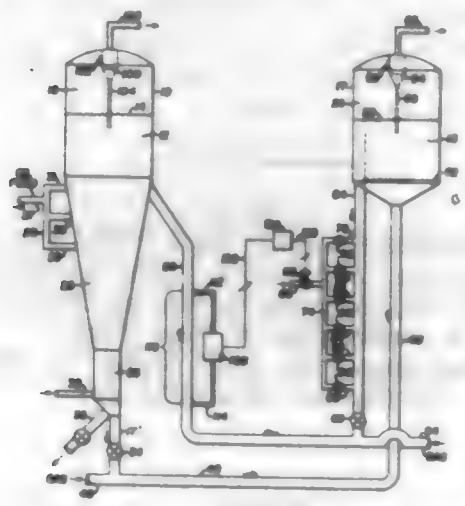
1. In a process for converting hydrocarbons in the presence of a granular solid contact material in which the contact material is gravitated as a substantially compact mass through reaction and reconditioning zones and the gravitating mass of solids is contacted with hydrocarbons in the reaction zone and air in the reconditioning zone, the improved method of transferring the contact material from a first location beneath one of the zones to a second location above the other of said zones which comprises: suspending the granular material in a lift gas and transferring the suspended material upwardly through a confined lift passage from said first location to said second location, discharging the suspended material upwardly from the upper end of the lift passage into a receiving zone of substantially larger horizontal cross-sectional area than said lift passage, whereby the contact material upward velocity is rapidly decreased, deflecting the contact material issuing from said lift passage onto a supporting surface in said receiving zone, located substantially above the upper end of the lift passage and a substantial distance above a bed of the contact material about the lift passage, and flowing the contact material downwardly from said surface onto said bed of contact material while imposing a hindrance to the flow throughout a substantial portion of the vertical distance to the bed, whereby at least most of the granular material is delivered onto the bed with a force substantially less than if permitted to fall freely.

2,873,145

CIRCULATING FINELY DIVIDED SOLIDS

John Frederick Moser, Jr., Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application June 11, 1956, Serial No. 590,700
4 Claims. (Cl. 302—53)



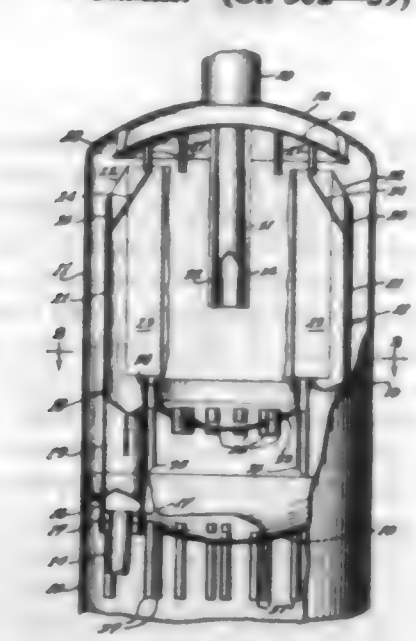
1. In a method for circulating finely divided solids between vessels by means of standpipes and risers and wherein proper fluidity of the finely divided solids in the standpipe is necessary to build up pressure for circulating the solids, the improvement which comprises measuring the density of the upflowing fluidized solids in one riser and controlling the amount of aerating gas introduced into fluidized solids flowing down through the standpipe directly associated with and feeding solids to said one riser in response to changes in density of the upflowing fluidized solids in said one riser.

2,873,146

LIFT DISENGAGER

Willis J. Cross, Jr., Media, and Albert Wesley Hoge, Swarthmore, Pa., assignors to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

Application December 19, 1957, Serial No. 703,958
5 Claims. (Cl. 302—59)



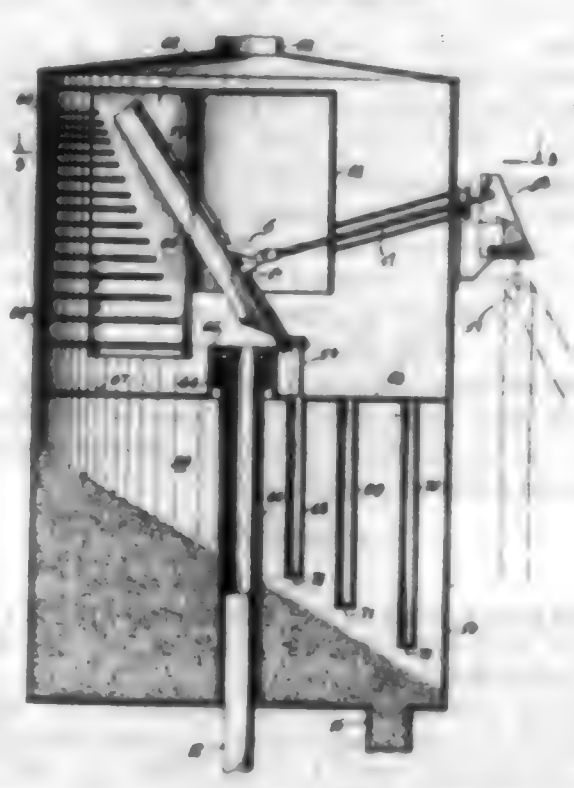
1. A solids disengager for a multiple pneumatic lift having a plurality of lift pipes discharging at uniformly spaced locations in a horizontal circular row comprising: a disengager vessel adapted to encompass such discharge locations at its lower end; guide sleeves set in the bottom of said vessel so as to receive in sliding engagement the discharge ends of said lift pipes, said guide sleeves being of substantially greater diameter than said lift pipes; a plurality of solids-deflecting hoods individual to and secured to the upper ends of said guide sleeves, said hoods opening inwardly toward the axis of said vessel along the major upper portion of their length and having parallel vertical plate members extending inwardly toward the axis of said vessel from the vertical sides of said openings and an inclined upper end portion converging toward said axis, whereby solids discharging upwardly and inwardly from said hoods reverse their direction of flow and descend wholly within the central region of said vessel and substantially out of contact with the rising streams of solids; a central lift gas outlet at the upper end of said vessel; a horizontal baffle spaced from the upper end of said vessel and overhanging the circular row of hoods, whereby lift gas discharging from said hoods and directed toward the upper central region of said vessel is first deflected outwardly by said baffle to the peripheral region thereof and then caused to flow upwardly and inwardly over the top of said horizontal baffle to said lift gas outlet; and a plurality of solids draw-off tubes distributed about the lower end of said vessel adapted to drain the disengaged solids by free fall from said vessel.

2,873,147

GAS SOLIDS SEPARATION IN A PNEUMATIC LIFT

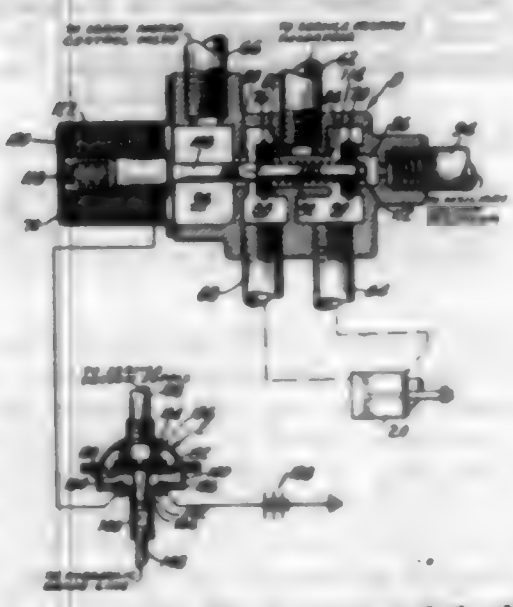
John W. Payne, Woodbury, Frederick E. Ray, Glen Rock, and Howard W. Shea, Woodbury, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Continuation of abandoned application Serial No. 399,664, December 22, 1953, which in turn is a division of abandoned application Serial No. 306,455, August 26, 1952. This application January 13, 1958, Serial No. 708,483
11 Claims. (Cl. 302—59)



1. Improved apparatus in a pneumatic lift for separating a granular solid from a supporting lift gas, which comprises in combination: a separator located about the upper end of the lift pipe, baffle means for diverting granular solids issuing from the top of the lift pipe laterally out of the vertical projection of the pipe, a series of vertically-spaced shelves located on the inner wall of said separator at levels above the top of the pipe, the shelves being projected inwardly in increasing amounts from top to bottom, so that an imaginary line drawn in a vertical plane and touching the edges of the shelves makes an angle of not more than 75 degrees with the horizontal, the shelves being spaced vertically so that an imaginary line drawn inwardly from the edge of each shelf at an angle of about 25–40 degrees with the horizontal will not hit the wall of the separator below the level of the shelf thereabove, means for withdrawing lift gas from the upper portion of the separator and means for withdrawing solids from the lower portion of the separator.

2,873,145
AUTOMATIC BRAKING DEVICE
Walter E. Schock, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application July 2, 1956, Serial No. 595,193
9 Claims. (Cl. 303—63)



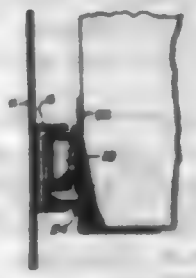
1. In an automotive braking system and the like powered by fluid pressure differential: a brake; a brake actuating fluid pressure motor having opposed chambers into which pressures of different intensity are admitted to apply the brake; a first source of pressure; a second source of pressure, said second source normally differing from said first source but being variable to approach the pressure of said first source; an auxiliary supply of said second pressure; and control means which in its deactivated condition supplies said second pressure to both opposing chambers, which in its actuated condition supplies said first pressure to one of said opposing chambers and said second pressure to the other of said opposing chambers to actuate the fluid pressure motor, and which when the pressure differential between said first and second pressures falls below a predetermined level automatically communicates said second pressure to said one of said opposing chambers and said auxiliary pressure to said other of said opposing chambers to apply the brake by an amount generally inversely proportional to the pressure differential between said first and second sources.

2,873,149
CULTIVATOR TOOL HOLDER
Emery C. Redetzke, Greenville, Mich., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application October 21, 1954, Serial No. 463,648
12 Claims. (Cl. 306—1.5)



1. A tool clamp for connecting a tool standard to a tool bar comprising a pair of clamping members positionable in opposed clamping relationship with respect to said tool bar, each of said clamping members having formed therein a tool standard receiving opening, means for holding said clamping members in predetermined spaced-apart relationship at one end thereof, a connector securing the other end of said clamping members, said means and said connector being positioned on opposite sides of said tool bar to urge said clamping members into a clamping position on said tool bar, and a force transmitter carried by said means between said clamping members and bearable against said tool standard when the latter is received in said standard receiving openings for tightly holding said tool standard against the ends of each of said openings.

2,873,153
ROLLER SUSPENSION FOR A CABINET DRAWER
Howard E. Hutzelman, Corry, Pa., assignor to Corry-Jamestown Manufacturing Corporation, Corry, Pa., a corporation of New York
Application January 6, 1955, Serial No. 480,257
2 Claims. (Cl. 308—3.8)



1. A roller interposed between a pair of members relatively movable in the direction of their length, flanges on said members in superposed parallel relationship, said roller serving to transmit the load of one flange to the other and comprising a wide rolling surface, one edge of said surface being defined by a radial flange engageable with said member flanges and limiting lateral movement of said members during their normal movement, and an elastomeric ring on said surface remote from said radial flange, said ring assuring rotation of said roller during movement of said members.

2,873,151
PILLOW BLOCK
Fayette Leister, New Britain, Conn., assignor to The Fafnir Bearing Company, New Britain, Conn., a corporation of Connecticut
Application November 16, 1955, Serial No. 547,093
2 Claims. (Cl. 308—28)

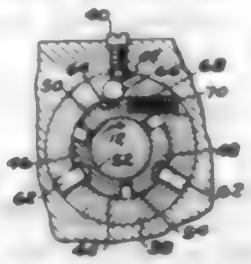


1. In a bearing mounting, an outer bearing ring, means rotatably supported within said bearing ring, a rubber body ring surrounding said bearing ring and housing the same therein, a coil of stiffly resilient wire extending completely around said outer ring and supporting the same and separated therefrom by a part of said rubber body ring, and feet formed integrally from the wire of said coil and extending outwardly of said rubber body ring, outer portions of said feet being formed for securing to a support, whereby when secured, said bearing ring will be resiliently supported by the outwardly extending portions of said wire.

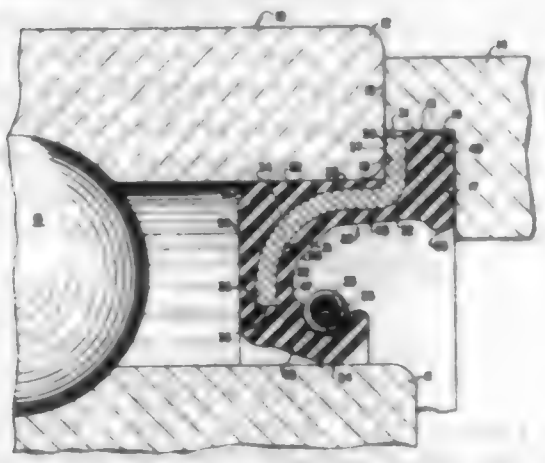
2,873,152
BEARING
Earl A. Thompson, Ferndale, Mich.
Application December 6, 1955, Serial No. 551,256
8 Claims. (Cl. 308—73)

1. A bearing comprising inner and outer annular races, said inner race comprising a plurality of arcuate segments

spaced circumferentially around and within said outer race, means on said outer race and at least one of said segments forming a circumferentially extending spiral cam face and a cam follower engageable therewith, said cam and cam follower being arranged so that said segment is displaced radially when rotated within said outer race, means yieldably biasing said segment circumferentially in a direction within said outer race so as to normally urge said segment radially inwardly and means for adjusting the biasing influence of said biasing means to a predetermined fixed amount.

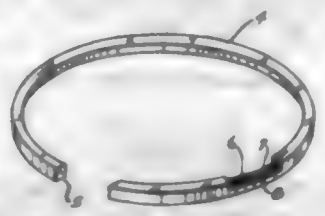


2,873,153
BEARING SHAFT SEAL
Robert N. Haynie, Mountain View, Calif., assignor to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan
Application June 29, 1956, Serial No. 594,827
7 Claims. (Cl. 308—187.2)



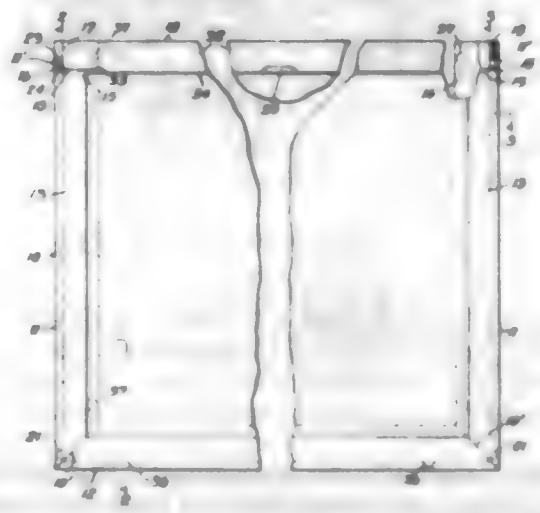
1. A fluid seal, including in combination: a metal ring having an outer radial flange and an inner radial flange connected by a generally axially extending portion; a resilient member bonded to and covering said metal ring except for one face of said outer radial flange on the side nearer said inner flange and having a thickened portion covering the opposite face of said outer radial flange and extending beyond the outer periphery thereof, with chamfered edges adapted to serve as a thrust seal, said resilient member having a portion providing a sealing lip lying radially inwardly from said inner radial flange and axially toward said outer flange; and a garter spring urging said lip radially inwardly.

2,873,154
PISTON PACKING RINGS AND METHOD OF PRODUCING SAME
Harold F. Marker, Charleston, Ill.
Application January 4, 1954, Serial No. 402,012
16 Claims. (Cl. 309—29)



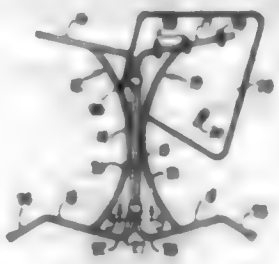
1. A piston packing ring comprising an inner, an intermediate, and an outer portion, said intermediate portion being of a different substance than said inner portion and of greater hardness than said inner and outer portions.

2,873,155
COLLAPSIBLE TRAY TABLE AND FRAME ASSEMBLAGE
Morton Suben, Mount Vernon, N. Y., assignor of one-half to Max Caplan, East Hills, N. Y.
Application November 1, 1957, Serial No. 693,985
9 Claims. (Cl. 311—18)



1. A collapsible tray table and frame assemblage comprising a substantially U-shaped channelled supporting frame defined by side and bottom members, a tray table unit collapsible and detachably coupled with the frame, said unit comprising a rectangular frame having a deep tray surface, and a shallow panel surface, opposed sides of the unit, adjacent one end thereof, having projecting pivot and coupling pins slidable in opposed side channel members of said supporting frame, means at the upper end portions of the side channel members of the supporting frame engaging said pins and unit for fixedly supporting the unit in horizontal projected position with respect to the supporting frame, and said frame having means clearing the pins of the unit to facilitate detachable coupling of the unit with respect to the frame.

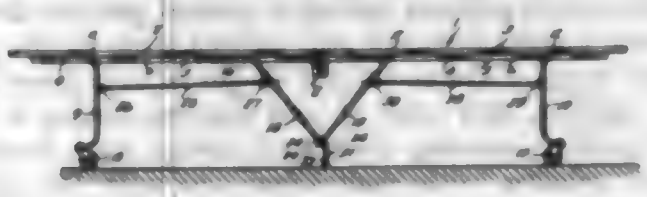
2,873,156
FOLDABLE TABLE WITH HINGED TOP
Irlin Botnick, Cleveland, Ohio, assignor to The Kromex Corporation, Cleveland, Ohio
Application October 21, 1957, Serial No. 691,350
1 Claim. (Cl. 311—90)



A foldable table comprising in combination, a pair of substantially U-shaped tubular supporting members consisting of a vertical body portion and upper and lower horizontal portions, each lower horizontal portion being bent upwardly at the body portion and downwardly at its free end to form spaced feet, two body portions being held in tangential contact along their entire length by means of spaced spring clips, the so joined body portions being free to rotate on their vertical axes, and a table top hingedly mounted on the horizontal portion of one of the members, having locking means engageable with the horizontal portion of the other of said members, when the two members are angularly disposed to one another, with the table top supported

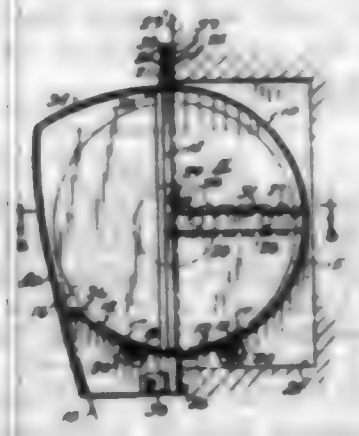
therebetween, the said table top being collapsed against the body portion of the first supporting member when the second supporting member is folded thereagainst.

2,873,157
FOLDING TABLE
Kermit H. Wilson, Minneapolis, Minn.
Application September 20, 1957, Serial No. 685,140
3 Claims. (Cl. 311—92)



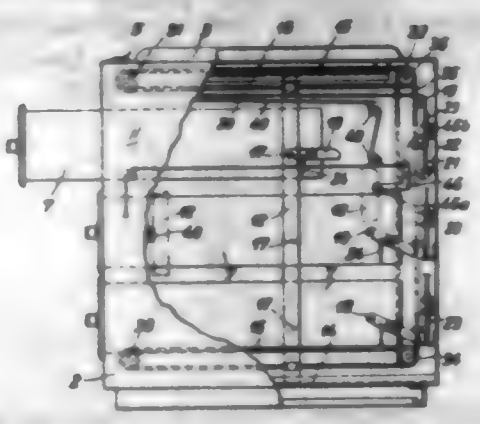
1. In a portable folding table, a pair of table top sections having adjacent ends pivotally connected for relative swinging movements of the table top sections from operative aligned generally horizontal positions to inoperative upstanding positions, a pair of outer leg structures each pivotally connected to a different one of the table top sections intermediate the free end of its associated top section and the pivotal connection between said top sections with each outer leg structure being adjacent the free end of its associated top section, a pair of rigid control arms each pivotally connected adjacent an upper end thereof to a different one of said table top sections intermediate the pivotal connection of the outer leg structure of that respective table top section and the pivotal connection between said table top sections with each said upper end being pivotally connected to its associated top section adjacent to and in spaced relationship with the pivotal connection between said table top sections, means pivotally connecting the lower ends of said control arms for relative swinging movements, said control arms forming generally a variable V-shape with the pivotally connected lower ends thereof generally underlying the pivotal connection between said top sections, the lower ends of said control arms having a floor engageable portion rigid with one thereof, that intermediate portion of said table top sections between the upper ends of said control arms being free and unsupported except for said pivotal connection between the top sections and the inner ends of said table top sections being supported in operative position by said control arms and floor engageable portion.

2,873,158
DISPENSER FOR ROLLED TISSUES
William A. Pinkham, Jr., Fort Worth, Tex.
Application January 29, 1954, Serial No. 406,947
2 Claims. (Cl. 312—39)



1. A wall receptacle for rolled toilet tissue comprising a substantially semi-cylindrical housing receivable in a recess provided therefor in a wall surface, the housing having a pair of semi-circular end portions, the straight edges of which are adapted to be aligned with the wall surface, and a continuous arcuate wall portion connecting the arcuate edges of the end portions and extending outwardly and upwardly substantially 45 degrees beyond the lower ends of the straight edges of the end portions, a pair of laterally spaced longitudinal slots being formed in the under side of the wall portion, a pair of longitudinal rollers, one of the rollers being positioned in each of the slots and each of the rollers being pivotally connected at its ends to a pair of depending tabs formed on the wall portion adjacent the ends of the corresponding slot, and a hinged cover for the receptacle, the end portions of the housing each having an outwardly projecting, normally horizontal elongated boss for sliding engagement with a corresponding bracket attachable to an end wall of the recess, whereby the housing may be slidably inserted in the recess, the bracket being substantially U-shaped in transverse section and having a tab formed on its outer end for attachment to the housing.

2,873,159
SELECTIVELY POWER-OPERATED DRAWER STRUCTURE
Otto Alfred Becker, Saarbrucken, Saar Territory
Application June 5, 1956, Serial No. 589,475
Claims priority, application Germany June 13, 1955
14 Claims. (Cl. 312—223)

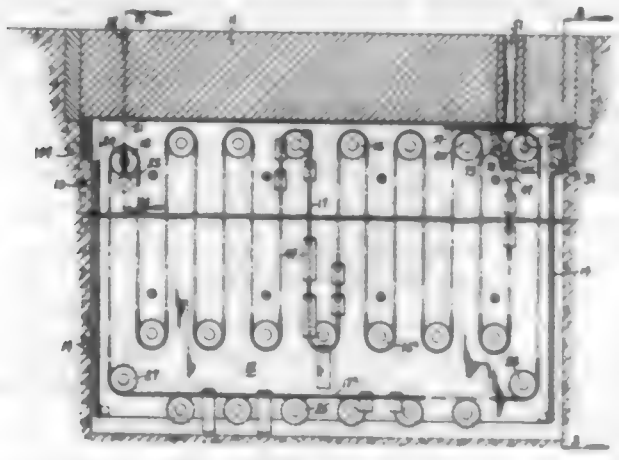


1. Equipment for extending and retracting a plurality of vertically stacked slidable elements in a piece of furniture; said equipment comprising a prime mover and transmitting means; said transmitting means including flexible drive means, a driving member, and a plurality of driven members; a portion of said flexible drive means being disposed longitudinally with respect to the length of said slidable elements alongside the said elements; the said driving member being drivable by said drive means and being disposed transversely with respect to the length of the said slidable elements alongside the said elements; said driven members being mounted respectively on each of the said elements and being operatively positioned to engage said driving member; said driving member extending across the driven members of all the elements of the said vertical stack.

2,873,160
STORAGE MECHANISMS FOR RADIOACTIVE MATERIAL
Samuel S. Board, Jr., Snyder, N. Y., assignor to Farrel-Birmingham Company, Incorporated, Ansonia, Conn., a corporation of Connecticut
Application August 15, 1956, Serial No. 604,217
10 Claims. (Cl. 312—268)

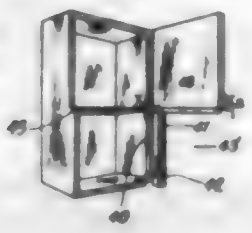
1. Storage mechanism for containers of material comprising a shielding chamber having side and end walls and a shielding cover member, a frame within said chamber, a pair of endless chains supported in spaced relation by said frame, tray members extending between said chains and swiveled at their ends to the chains, openings in said cover member through which containers may be inserted into and withdrawn from said trays, means to drive said chains to bring a selected one of said trays below said openings, a shutter member movably connected to said cover for closing said

openings, manually operated means for moving said shutter to open position, and means responsive to the



movement of a tray below the openings to render said manually operated means effective.

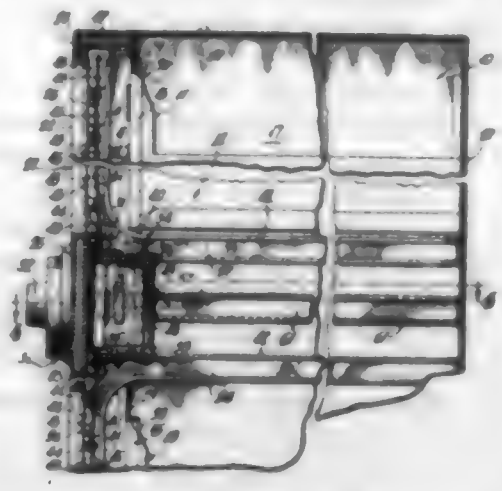
2,873,161
WALL CABINET
Henri Jacques Marc Lambert and Georges Paul Mongin, Seine-et-Oise, France
Application June 20, 1955, Serial No. 516,516
Claims priority, application France June 8, 1955
6 Claims. (Cl. 312—292)



1. A cabinet designed to be arranged on a side wall of a room, said cabinet having a main body space and a front face, the whole surface of which is adapted to be opened, said cabinet being designed to be placed at such a height above the floor of said room that user's access to said main body space of said cabinet is most facilely achieved through its lowermost portion from thereof, shelf means for dividing said body space into an upper spare volume and a lower working volume, a vertically hinged door for closing said front face, the upper full portion of said door is restricted to a narrow projection extending downwardly from said full portion at the hinged edge thereof, a vertical door substantially of the same width as said front face being slidably mounted on said vertically hinged door so as to slide along said projection substantially in the plan of said full portion and give access to said working volume when concealed inside said full portion in its open position, said projection being equipped with groove means intended to guide said sliding door during the upward and downward movements thereof, and with locking means for stopping said sliding door, when in its upper position.

2,873,162
SECURITY MEANS FOR CLOSURE CABINETS
Harry C. Miller and James L. Taylor, Rochester, N. Y., and Howard M. McCoy, Severna Park, Md.
Application September 19, 1956, Serial No. 610,758
5 Claims. (Cl. 312—297)

4. In a security file cabinet of the type having a vertical front wall having an even number of vertically aligned drawer openings and horizontally reciprocative drawers supported in said drawer openings for movement normal to said front wall, a marginal frame for said front wall projecting forwardly of the plane of said front wall having a medial transverse parting plate located between the pair of drawer openings adjacent the bisecting axis of said front wall and lying in the plane of said marginal frame to define an upper access opening for the drawers above said bisecting axis and a lower access opening for the drawers below said bisecting axis, upper and lower opposed inwardly opening slideway grooves fixed within said cabinet associated respectively with said upper and lower access openings, said upper grooves having a vertical portion rising from a point adjacent said parting plate within the plane of said marginal frame for the height of said upper access opening and said lower grooves having a vertical portion depending from a point adjacent said parting plate in the plane of said marginal frame for the height of said lower marginal opening, and each of said grooves having a horizontal portion receding from said parting plate in spaced parallel relation with each other and with the normal plane of said parting plate and a curved portion interconnecting said horizontal portions with said vertical portions to form continuous channel slideways, a flexible curtain associated with each of said access openings slid-

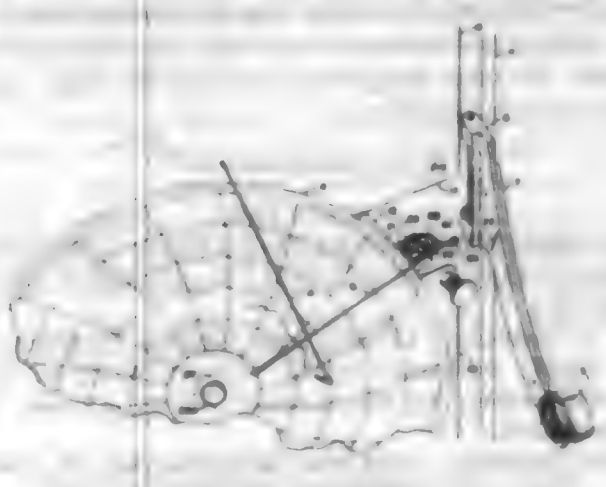


ably mounted in said grooves for movement from a vertical cabinet closing position overlying said drawers to a receded position in the curved and horizontal portions of said groove out of the path of movement of said drawers, a slide carriage interconnecting said curtains for coordinating movement of the same under control of said slide carriage, a pair of transversely aligned tracks in said cabinet lying between said horizontal groove portion and extending rearwardly from said parting plate for guiding said carriage, rollers supporting said carriage on said tracks for rectilinear reciprocative movement from a first limit position adjacent said parting plate wherein said curtains are retained in a common vertical plane covering said access openings to a second rearwardly spaced limit position wherein said curtains are withdrawn into receded position, said slide carriage having a keeper thereon, and lock means mounted on said parting plate having a reciprocative bolt projectable into interlock relation with said keeper when said slide carriage is at said first limit position to lock said curtains in cabinet closing position.

2,873,163
PEN LIFTING AND CHART SUPPORT FOR RECORDING METERS
Michael Panich, Mayfield Heights, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Application June 16, 1954, Serial No. 437,025
2 Claims. (Cl. 346—68)

1. A recording instrument, comprising, an instrument casing, a motor-driven shaft for a circular chart mounted on said casing for rotation relative thereto, a chart clamp body of magnetically attractive material carried on the end of said motor-driven shaft and having a seating surface for the chart, a marking pen engageable with the chart and having an elongated arm pivotally mounted at one end thereof at a position outwardly of the periphery of the chart, a lift bar pivotal toward and away from

said chart substantially in a plane perpendicular thereto, said lift bar underlying said pen arm and engageable



therewith upon pivotal movement to move said pin out of engagement with the chart, pivot means for said pivotal lift bar positioned outwardly of the periphery of the chart, spring means associated with said pivot means to urge said lift bar toward an outward position away from the chart, a hinged arm pivoted at one end on an axis parallel to the plane of the chart, a hand-operated chart clamping hub rotatably mounted on the other free end of said hinged arm for engaging and applying a clamping pressure to the chart on the chart seating surface upon pivotal movement of said hub into engagement with the chart, said clamping hub having a magnetic body mounted therein adapted to be magnetically attracted to said clamping body, and an abutment on said lift bar adapted to be engaged by said hinged arm upon pivotal movement thereof toward the chart to pivot said lift bar toward the chart against the bias of said biasing means to move the same out of engagement with said pen arm, said hinged arm being movable out of engagement with said abutment upon outward movement thereof away from the chart to release said lift bar and effect pivotal movement of said lift bar under said bias to lift said pen out of engagement with the chart.

CHEMICAL

2,873,164

PROCESS OF BLEACHING POLYACRYLONITRILE TEXTILES WITH STRONG MINERAL ACID PRETREATMENT AND THEN ACIDIFIED SODIUM CHLORITE

Walter H. Hindle, Decatur, Ala., assignor to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware

No Drawing. Application February 28, 1955
Serial No. 491,215

6 Claims. (Cl. 8—168)

1. A process for bleaching textile materials formed from polymeric compositions compriting in polymerized form at least 80 percent by weight acrylonitrile, up to 18 percent of other mono-olefinic monomers copolymerizable therewith, and from two to ten percent of an N-heterocyclic monomer containing a polymerizable alkenyl group which comprises, immersing said materials in an aqueous solution of a strong mineral acid of from 0.05 to 0.5 percent by weight concentration for from 15 to 40 minutes at a temperature in the range of 185° to 212° F. and thereafter immersing the said materials in an aqueous solution containing from 2.5 to 6.0 percent sodium chlorite, based on the weight of the materials treated, at a temperature in the range of 140° to 180° F. until no further bleaching occurs.

2,873,165

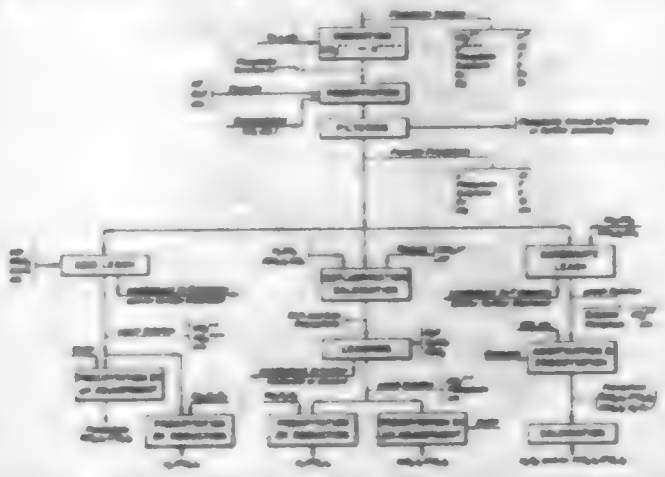
URANIUM RECOVERY PROCESS

Richard H. Baltes, Walnut Creek, Ray S. Long, Vallejo, Robert S. Olson, San Francisco, and Herbert O. Kerlinger, Berkeley, Calif., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application May 26, 1950, Serial No. 164,566

14 Claims. (Cl. 23—14.5)

1. The method of recovering uranium values from a phosphatic solution containing impurity materials the fluorides of which are insoluble in said phosphatic solution comprising reducing the uranium to the uranous state in the solution, adding a soluble calcium coprecipitant compound to said solution, adding a soluble fluoride to said solution, whereby said coprecipitant and some of said impurities are coprecipitated with the uranium to form a complex fluoride precipitate, leaching uranium from the



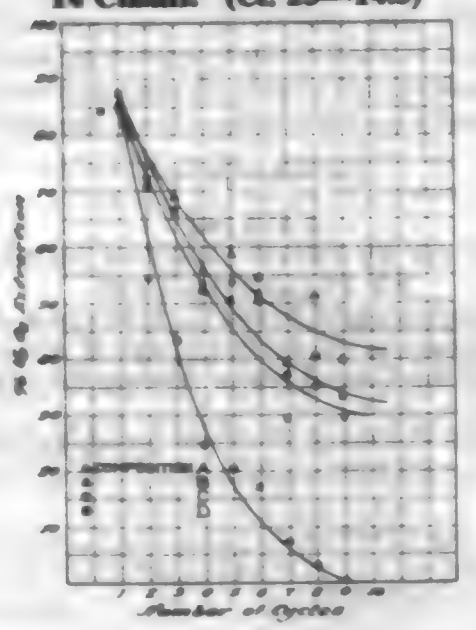
complex fluoride precipitate, and recovering uranium from the leach solution.

2,873,166

PROCESS FOR THE RECOVERY OF METAL VALUES

William R. Bowen, Lakeland, Fla., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application July 7, 1953, Serial No. 366,605
14 Claims. (Cl. 23—14.5)



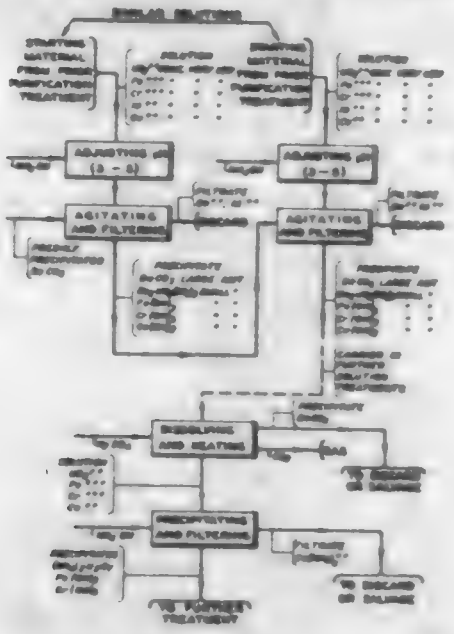
1. In a process of recovering uranium values from aqueous solution containing tetravalent uranium values by

liquid-liquid extraction with an alkyl acid ester of a phosphoric acid selected from the group consisting of orthophosphoric acid and pyrophosphoric acid organic solvent, the steps which comprise treating the organic solvent with an aqueous mixture comprising predominantly sulfuric acid having a concentration between about 5% and about 60% by weight and hydrofluoric acid to precipitate the tetravalent uranium, separating the aqueous acid phase and precipitate from the organic solvent phase, returning the organic phase to the extraction system and separately recovering the uranium precipitate and the aqueous acid mixture.

2,873,167
PROCESSES OF RECLAIMING URANIUM FROM SOLUTIONS

Lloyd R. Zumwalt, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application September 9, 1944, Serial No. 553,430
9 Claims. (Cl. 23—14.5)



2. In a process for recovering uranium values from a very dilute salvage solution containing uranyl ions and ions of the group consisting of Fe^{+++}, Cr^{+++}, Cu^{++}, Ni^{++}, and Mn^{++} ions, the steps comprising contacting the solution with a metallic reductant of the group consisting of iron and zinc to reduce the cupric ions to the metal state which adheres to the reductant and is removed from the solution and whereby uranyl ions are reduced to the uranous state, contacting the reduced solution with a relatively large quantity of a previously prepared precipitate of the group consisting of barium carbonate and zinc hydroxide to precipitate and carry uranium, iron, and chromium ions away from Ni^{++} and Mn^{++} ions in the solution, separating said precipitate carrying uranium, iron and chromium from the solution, and recovering the uranium from the precipitate.

2,873,168
RECOVERY OF Pu FROM CERIUM TRIFLUORIDE BY FLUORINATION

Harrison S. Brown and Edward G. Bohlmann, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application February 27, 1945, Serial No. 580,047
6 Claims. (Cl. 23—14.5)



1. An improved process for the recovery of plutonium from a solution containing the same which comprises precipitating cerous fluoride in said solution for effecting carrier precipitation of plutonium, drying the resulting carrier precipitate, and subjecting said precipitate to fluorination within the temperature range between about 500° and 600° C., for separating plutonium from said precipitate by volatilization.

2,873,169
BASIC PEROXIDE PRECIPITATION METHOD OF SEPARATING PLUTONIUM FROM CONTAMINANTS

Glenn T. Seaborg, Albany, and Isadore Perlman, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

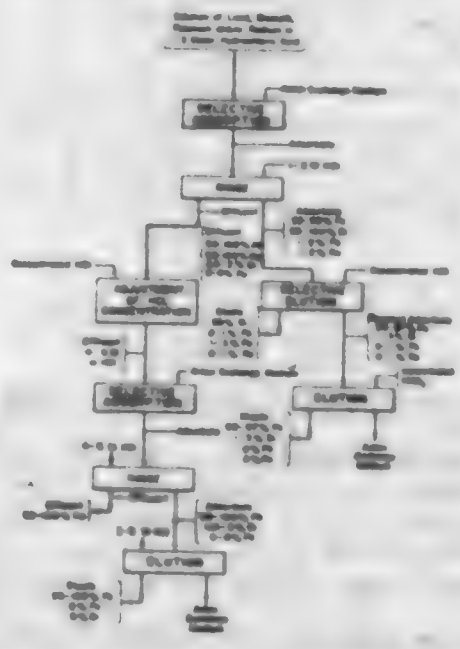
No Drawing. Application November 26, 1946
Serial No. 712,248
13 Claims. (Cl. 23—14.5)

1. A process of separating uranyl values, plutonium values of a maximum valence of +4 and fission product values contained in an aqueous solution from each other, comprising adjusting the pH value of said aqueous solution to between 2.5 and 8; adding hydrogen peroxide to said solution whereby uranium peroxide precipitates and said plutonium values are carried on said uranium peroxide while said fission produce values preferentially remain in solution; separating said uranium peroxide precipitate from said solution; dissolving said precipitate in an aqueous solution of an inorganic acid; incorporating a second carrier into said acid solution, said second carrier having an anion that forms a water-insoluble salt with plutonium but a water-soluble salt with uranium, whereby plutonium is selectively precipitated; and separating said plutonium-containing precipitate from said solution.

2,873,170
ANION EXCHANGE METHOD FOR SEPARATION OF METAL VALUES

Earl K. Hyde, Berkeley, Calif., and Bruce A. Raby, Dayton, Ohio, assignors to the United States of America as represented by the United States Atomic Energy Commission

Application June 17, 1954, Serial No. 437,597
16 Claims. (Cl. 23—19)



1. In a method for separating radium, bismuth, polonium and lead values from a mixture thereof, the steps comprising producing a solution of said mixture having therein hydrochloric acid with a concentration in the range of 1 to 2 molar, thereby forming anionic poly-chloro complexes with the polonium and bismuth, contacting said solution with a first anion exchange resin to selectively adsorb the polonium and bismuth leaving at least the radium and lead in the effluent, adding hydrochloric

acid to said effluent to increase the hydrochloric acid concentration therein to within the range of 4 to 6 molar, then contacting said effluent with a second anion exchange resin to selectively adsorb the lead thereon leaving the radium in the effluent, recovering the radium from said effluent, contacting the adsorbate of said second exchange resin with 2 to 3 molar hydrochloric acid solution thereby eluting the lead values, contacting the adsorbate of said first anion exchange resin with hydrochloric acid of above about 8.0 molar concentration to elute the bismuth values therefrom, and finally contacting the residual adsorbate of said first resin with concentrated nitric acid to elute the polonium values therefrom.

2,873,171

PREPARATION OF ISOCYANATES

Leslie Hugh Jenkins, Oak Ridge, Tenn., and Daniel Scott Sears, Henrico County, Va., assignors to Virginia-Carolina Chemical Corporation, Richmond, Va., a corporation of Virginia

No Drawing. Application July 3, 1956
Serial No. 595,682
6 Claims. (Cl. 23—75)

1. Process for the preparation of compounds of the general formula

$$(Cl)_X A(NCZ)_Y$$

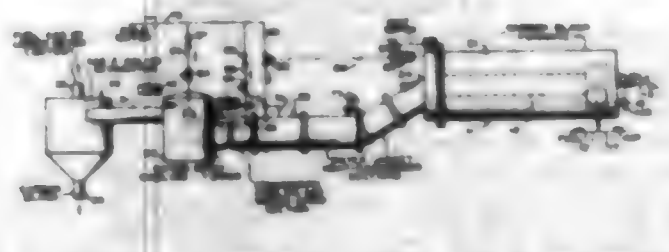
wherein A is selected from the group consisting of silicon and trivalent phosphorus, X is an integer from 0 to 3, Y is an integer from 1 to 4, the sum of X and Y is equal to the valence of A, and Z is selected from the group consisting of oxygen and sulfur, which comprises mixing a compound of the general formula ACl_n, wherein n is the valence of A with a compound of the formula LiNCZ and heating the mixture.

2,873,172

PROCESS AND APPARATUS FOR MAKING CARBON BLACK AND QUENCHING SMOKE FROM CARBON BLACK FURNACES

Robert W. Leslie and George Peter Jennings, Bristol, England, assignors to Phillips Petroleum Company, Bartlesville, Okla., a corporation of Delaware

Application November 23, 1955, Serial No. 548,683
16 Claims. (Cl. 23—209.4)



1. A process of making carbon black comprising in combination pyrolyzing a hydrocarbon in a carbon black furnace to form an effluent smoke of carbon black particles suspended in a fuel gas, quenching said effluent smoke below the temperature of further pyrolytic reaction by first passing the same in countercurrent indirect heat exchange with liquid water having a temperature below its boiling point at its pressure without directly contacting said smoke with water during said indirect heat exchange, then passing said smoke through a zone in indirect heat exchange with the atmosphere and spraying water directly into said smoke in said zone, cooling the smoke further in said zone by indirect heat exchange with the atmosphere, cooling the smoke still further in said zone by spraying water directly into it, and separating said smoke into carbon black and fuel gas.

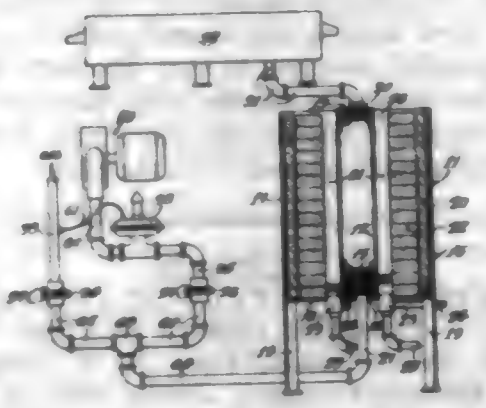
5. A quench system for a carbon black furnace having an outlet for effluent smoke, comprising in combination an unobstructed generally cylindrical substantially uniform internal diameter effluent smoke conduit adapted to be connected in communication with said outlet of said furnace, a water jacket around said conduit on the end adapted to be connected to said furnace, said water jacket having a water outlet adjacent said furnace and a water inlet adjacent the other end of said water jacket, a first water spray in the unjacketed portion of said conduit adjacent said water jacket, a second water spray in the unjacketed portion of said conduit, means to supply water to said inlet of said water jacket and to each of said sprays in controlled amounts, temperature sensitive control means for regulating the water supply to said water jacket inlet to maintain a constant temperature adjacent said water jacket outlet, and separate temperature sensitive control means for regulating the water supply to each of said sprays to maintain a constant temperature at a control point downstream of each said respective spray.

2,873,173

ENDOTHERMIC GAS GENERATOR

Martin John Neumeyer, Addison, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois

Application April 8, 1955, Serial No. 500,113
2 Claims. (Cl. 23—281)



1. An endothermic gas generator having a retort containing catalyst material, a pair of conduits connected to said retort to deliver a mixture of air and gas to said retort, metering orifices in said air and said fuel conduits, the openings in said orifices in said air and fuel conduits being of such size as to maintain a predetermined air fuel ratio at a selected rate of flow of said mixture, a differential pressure regulator connected in said air conduit on the up-stream side of the air conduit metering orifice, means connecting said differential pressure regulator to respond to the difference in pressures between the air in said air conduit and the fuel in said fuel conduit immediately up-stream of said orifices, and said differential pressure regulator being constructed to continuously increase said air fuel ratio in proportion to the flow rate of said mixture as the flow decreases below said selected rate of flow as a result of solids depositing in said catalyst material from an excess of fuel in said mixture.

2,873,174

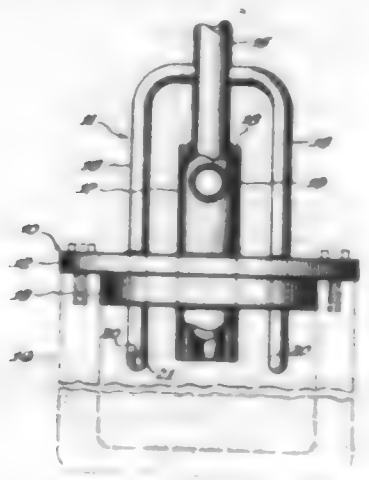
REACTOR NOZZLE ASSEMBLY

Fred C. Capeder, Cincinnati, Ohio, and Jerold R. Dearwater, Park Hills, Ky., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application November 21, 1956, Serial No. 623,714
4 Claims. (Cl. 23—284)

1. A combination cover-and-nozzle construction for a reaction vessel for converting UF_6 to UF_4, said construction comprising a plate, a first tube for dissociated NH_3 projecting through the plate and having two openings spaced 180° from one another and located outward of the plate, a second tube for UF_6 surrounding the first tube

in spaced relation thereto and projecting through and secured to the plate, means outward of the plate securing one end of the second tube to a region of the first tube between the two openings therein and the plate to close said one end of second tube and to mount the first tube in the second tube, the second tube having an open end inward of the plate, and third and fourth tubes connected



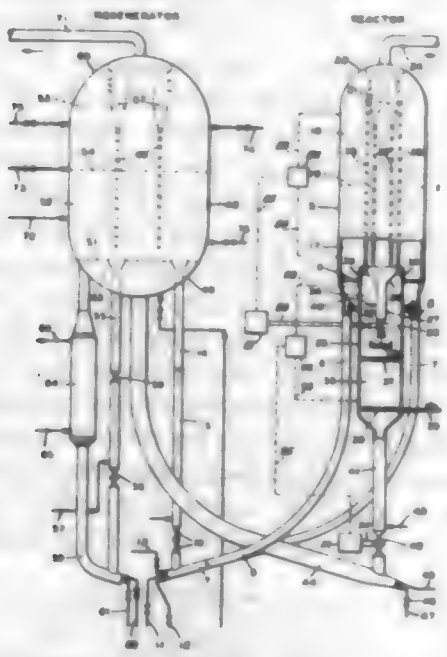
to the two openings in the first tube and extending outwardly from the first tube in opposite directions from each other and thence parallel to one another and terminating in open ends inside of and parallel to the plate in opposed parallel relation to one another, the said open ends of the third and fourth tubes and the ends of the first and second tubes on the same side of the plate all being about equally spaced from the plate.

2,873,175

APPARATUS FOR CATALYTIC CONVERSION OF HYDROCARBON FLUIDS

Robert M. Owens, Ozone Park, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application September 10, 1952, Serial No. 308,747
7 Claims. (Cl. 23—288)



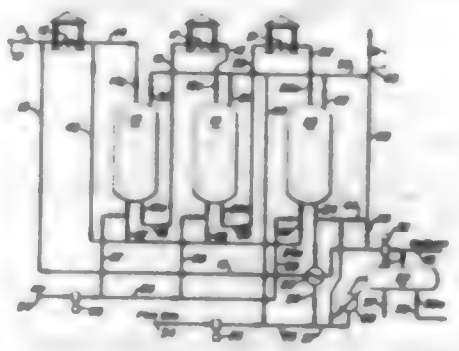
1. In a fluid catalytic conversion apparatus which includes a reactor vessel, cyclone separators for withdrawing effluent suspended in the upper region of the interior of said vessel, a substantially horizontal grid floor in the lower part of said vessel, a bottom head forming the bottom of said vessel below said grid floor, and conduit means for introducing fluid into said bottom head under said grid floor, an improved means for withdrawing spent catalyst and stripping said catalyst of reactant gases which includes: a vertically elongated stripping vessel supported in said bottom head substantially coaxially with said reactor vessel, upwardly projecting into the interior of said reactor vessel above said grid floor, and downwardly projecting externally to said reaction vessel below the intersection of said bottom head with said stripping vessel; a substantially vertical standpipe of restricted cross-section concentrically positioned in the upper part of said stripping vessel, and providing communication between the lower part of said reactor vessel and the interior of said stripping vessel at an elevation below said intersection between said bottom head and said stripping vessel; a plurality of vertical conduits providing communication between the upper part of the interior of said stripping vessel and the upper interior of said reactor vessel at the elevation of said cyclone separating means; a substantially horizontal baffle means positioned concentrically within said stripping vessel below the outlet of said standpipe, and presenting a horizontal cross-sectional area not less than that of said standpipe but not larger than one half the internal horizontal cross-sectional area of said stripping vessel; a slide valve in the lower end of said standpipe to control the flow therefrom onto said substantially horizontal baffle; control rod means for operating said slide valve extending through the wall of said stripping vessel below the intersection of said bottom head and said stripping vessel; means for introducing stripping gases into said stripping vessel at an elevation below said valve a greater distance than the diameter of said stripping vessel; a second subetantially vertical standpipe downwardly extending from the bottom of said stripping vessel; and a second valve means in said second standpipe for controlling the rate of withdrawal of stripped catalyst from said stripping zone.

2,873,176

REACTION-REGENERATION SYSTEM FOR HYDROFORMING NAPHTHA WITH PLATINUM-ALUMINA CATALYST

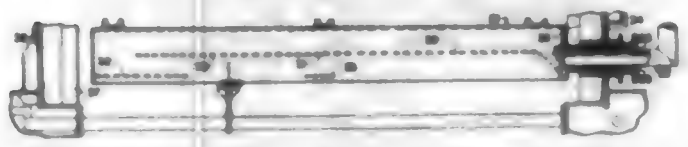
Robert J. Hengstebeck, Valparaiso, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application March 14, 1955, Serial No. 493,862
3 Claims. (Cl. 23—288)



1. A platinum catalyst hydroforming system which comprises a first heater, a first reactor, a second heater, a second reactor, a third heater, a third reactor, a heat exchanger, a cooler, a separator, a recycle gas compressor and connecting lines for passing a gaseous stream in series through the named elements and thence through the heat exchanger back to the inlet of the first heater, each of said reactors containing a bed of platinum hydroforming catalyst, separate lines, each containing a valve, for introducing air in controlled amounts to connecting lines leading to the respective reactors, a line for introducing flue gas to the connecting line which enters the cooler, separate lines connecting the outlet side of each reactor directly to the line for introducing flue gas, a gas vent line containing a valve on the downstream side of the compressor and at least one liquid draw-off line from the bottom of the separator.

2,873,177
MULTI-ZONE KILN
Eric V. Bergstrom, Short Hills, and Robert D. Drew, Wesonah, N. J., and John G. Mitchell, Larchmont, N. Y., assignors to Socony Mobil Oil Company, Inc., a corporation of New York
Application September 4, 1956, Serial No. 607,776
2 Claims. (Cl. 23—288)



1. In a multi-stage kiln adapted for the regeneration of a gravitating bed of spent catalyst composed of a vertical vessel having inlet at top and outlet at bottom, inverted gas introduction channels located substantially horizontally disposed across the vessel at staged levels and gas outlet located at staged levels intermediate the gas inlets, gas introduction means projected through one wall of the vessel to supply gas directly under and at one end of each of the gas introduction channels, the improvement comprising: means located beneath the gas introduction channel to confine the gas out of direct contact with the catalyst from the point of gas introduction under the channel to the opposite end of the channel, at least one aperture in said means located at at least one suitable location along the length of the channel, to bypass a restricted portion of the gas from said means for direct introduction into the catalyst bed beneath the channel, said aperture being sized to provide substantially uniform catalyst temperature beneath the channel, substantially uniform gas flow into the bed at all points along the length of the channel and substantially uniform heat transfer to the gas at all locations along the length of the channel, whereby irregular temperature distribution across the bed of catalyst at various levels in the kiln is avoided.

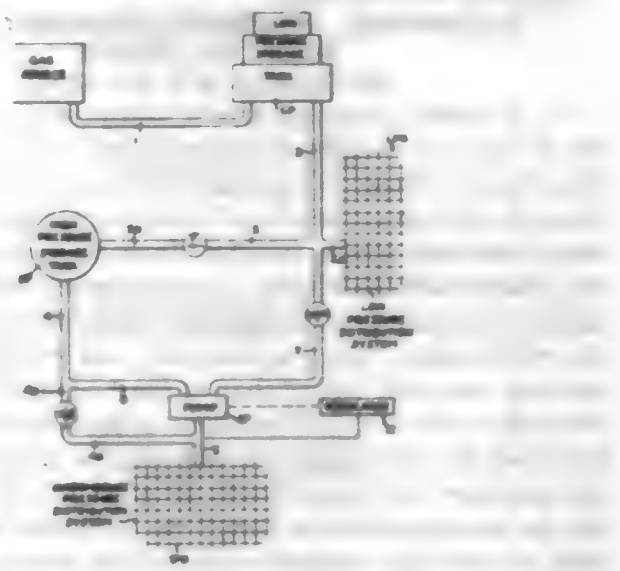
2,873,178
PROCESS FOR GELLING DISTILLATE HYDROCARBON FUELS
Charles Bedford Biswell, Woodstown, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application August 28, 1956
Serial No. 606,581
6 Claims. (Cl. 44—7)

1. A process for gelling liquid hydrocarbon fuels boiling in the gasoline and fuel oil range, which process consists of incorporating into said fuel at least 0.05% by weight of cupric copper, said copper being added as a fuel-soluble cupric carboxylate, and, at least 0.05% by weight of mercaptan sulfur, said sulfur being taken from the group consisting of a primary aliphatic mercaptan of at least 4 carbon atoms and a mixture of said aliphatic mercaptan with an aromatic mercaptan, said mixture containing at least about an equal part of primary aliphatic mercaptan sulfur.

2,873,179
GASOLINE COMPOSITION
George A. Weingerber, Iselin, and Fred B. Fischl, Springfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application May 5, 1955
Serial No. 506,382
14 Claims. (Cl. 44—59)

1. An improved aviation gasoline fuel composition comprising a major proportion of a stable dyed gasoline, said dye being a mixture of 1,4-dialkyl amino anthraquinone and paradimethyl aminoazobenzene, a minor proportion of a rust inhibitor sufficient to prevent the rusting of metals that come in contact with said fuel composition, said rust inhibitor consisting of mixed hydrocarbon-soluble ammonium salts of a hydrocarbon sulfonic acid and an alkyl phosphoric acid in a ratio of about 1:3 to 1:1 by weight, and a minor but color-stabilizing proportion of ethylene diamine.

2,873,180
GAS DISTRIBUTION MEANS
Thomas M. Gilbert, Pelham Manor, N. Y., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Continuation of application Serial No. 391,483, November 12, 1953. This application March 14, 1957, Serial No. 646,172
2 Claims. (Cl. 48—191)



1. In a system for distributing at low pressure and at intermediate pressure gas supplied at low pressure, in combination, a gas source, a low pressure gas storage tank connected to said source, a high pressure gas storage tank, a conduit connecting said low pressure tank to said high pressure tank, a compressor pump in said conduit for compressing gas received from said low pressure tank and storing the same in said high pressure tank at high pressure, a low pressure distribution system connected to said low pressure tank for receiving gas and distributing the same at low pressure, an intermediate pressure distribution system connected to both said low pressure tank and said high pressure tank for receiving gas therefrom, and means responsive to flow of gas from said high pressure tank into said intermediate pressure distribution system for pumping low pressure gas from said low pressure tank into said intermediate pressure distribution system and maintaining the gas pressure in said intermediate pressure distribution system at a predetermined value, said means comprising a pumping device having a plurality of jet type compressors operating at maximum efficiency and of sizes to afford a change in the rate at which gas is pumped into said intermediate pressure distribution system in the manner of a geometrical progression, a low pressure conduit having a check valve therein connecting said low pressure tank to said pumping device, a high pressure conduit connecting said high pressure tank to said pumping device for supplying high pressure gas to operate said pumping device, an intermediate pressure conduit connecting said pumping device to said intermediate pressure distribution system for supplying gas at an intermediate pressure, regulating means responsive to variations in the pressure of the gas in said intermediate pressure distribution system from said predetermined value for rendering selected one of said jets operative dependent upon the direction of said pressure variations to maintain said predetermined value of gas pressure, a by-pass conduit connecting said high pressure tank to said intermediate pressure distribution system for admitting high pressure gas directly to said intermediate

pressure distribution system, and a normally closed regulating valve in said by-pass conduit operable to open in response to variable downstream pressure for supplying gas from said high pressure tank into said intermediate pressure distribution system at a pressure not lower than said predetermined value when said pumping device is unable to maintain said predetermined value of pressure in said intermediate pressure distribution system.

2,873,181

COATED ABRASIVE ARTICLE AND METHOD OF MAKING

Carlton M. Hanford, Buffalo, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a corporation of Delaware

No Drawing. Application September 1, 1954 Serial No. 453,691

10 Claims. (Cl. 51—298)

1. A coated abrasive article comprising a backing having a layer of abrasive grain attached to a surface thereof by a bond consisting essentially of (*a*) a material selected from the group consisting of animal glue and a heat hardened synthetic resin selected from the group consisting of phenol-formaldehyde, urea-formaldehyde and melamine-formaldehyde resins, and (*b*) a substantial amount of wollastonite; the particles of said wollastonite being of such size and shape that at least about 80% will pass through a 325 mesh screen and at least about 70% of the particles by count shall be less than 4 microns in length, the particles having a length greater than 4 microns having an average ratio of length to diameter of at least 3:1 and an average diameter within the range of about 4–8 microns.

2,873,182

MOTOR FUEL

Milton Kosmin, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 29, 1953 Serial No. 401,893

20 Claims. (Cl. 52—.5)

1. An improved motor fuel which comprises from 5% to 60% of hydrocarbons boiling in the motor fuel boiling range, emulsified with 22% to 94.8% of water as the disperse phase in the presence of the combination of (*a*) 0.1% to 6% of an alkaline salt of dihexyl sulfophthalate together with (*b*) 0.1% to 6% of an alkaline salt of a sulfated condensation product of ethylene oxide with a mixture of highly-branched monohydric primary alcohols having the molar configuration of an alcohol produced by the Oxo process from an olefin of the class consisting of polyisobutylenes and polypropylenes, and (*c*) 0.1% to 6% of an ethylene oxide condensation product with an alcohol described in (*b*) which has been condensed in the presence of an alkaline catalyst selected from the group consisting of caustic soda and caustic potash.

2,873,183

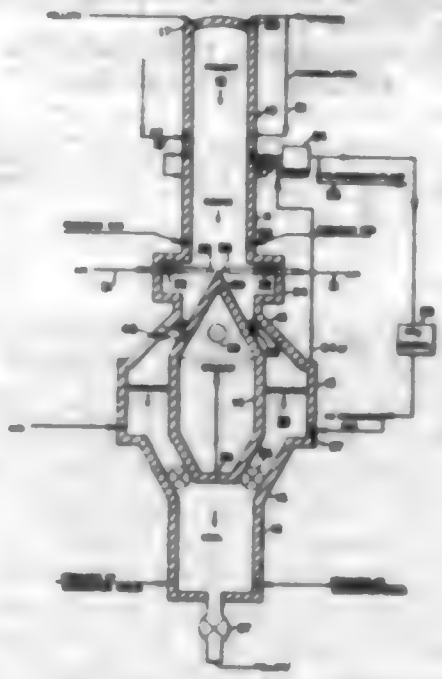
CONTINUOUS IRON ORE REDUCTION PROCESS

Robert D. Pike, Greenwich, Conn.; Kenneth B. Ray and The Stamford Trust Company, executors of said Robert D. Pike, deceased

Application July 7, 1954, Serial No. 441,724

9 Claims. (Cl. 75—35)

1. A process of continuously reducing iron oxide ore without fusion and carburizing the same along a path of flow through a furnace, which consists of heating the ore to a temperature suitable for reduction in a first zone, separately passing a hot exothermic reducing gas substantially free of hydrocarbon containing endothermic and exothermic components, the latter being CO, through the heated oxide at a temperature between 1650–2000° F. in a second zone to reduce the greater part of it to metallic iron by gaseous reduction, vibrating the reduced ore to prevent incipient fusion, separately passing another relatively cool reducing gas containing CO through the reduced oxide in a third zone, thereby cooling the



oxide and carburizing it by the reaction of the $2CO=CO_2+C$ so that at least sufficient carbon is deposited to reduce the unreduced oxide and then completing the cooling under non-oxidizing conditions in a fourth zone.

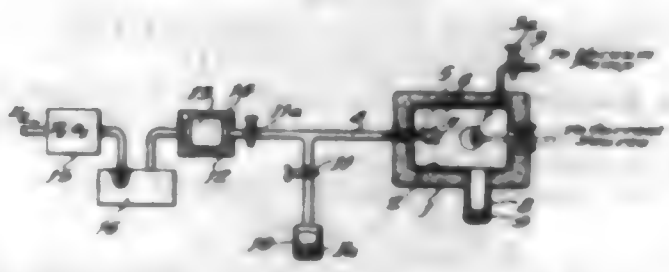
2,873,184

THERMAL DECOMPOSITION OF URANIUM COMPOUNDS

Theodore T. Magel, Cambridge, Mass., and Leo Brewer, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 25, 1947, Serial No. 737,152

7 Claims. (Cl. 75—84)



1. A method of preparing uranium metal of high purity, consisting in contacting impure uranium metal with halogen vapor at a temperature of between 450° and 550° C. whereby uranium halide vapor is formed; contacting said uranium halide vapor, in the presence of hydrogen, with a refractory surface of a temperature above the melting point of uranium whereby said uranium halide is thermally decomposed and molten uranium deposited on said surface, said surface consisting of material non-reactive with molten uranium; collecting the molten uranium dripping from said surface; and maintaining a subatmospheric pressure of below 1 mm. mercury during the entire operation.

2,873,185

DEPOSITION OF METAL ON NONMETAL FILAMENT

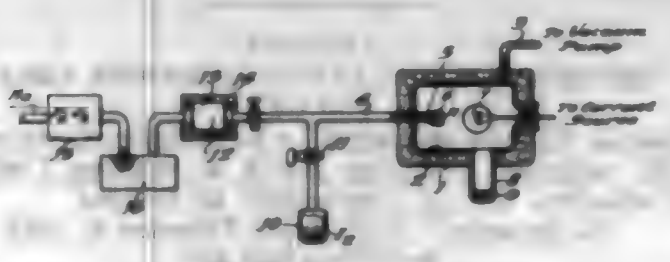
Theodore T. Magel, Cambridge, Mass., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application July 23, 1947, Serial No. 762,839

10 Claims. (Cl. 75—84)

1. The method of preparing uranium of extremely high purity from impure uranium consisting in passing a halogen continuously over the mass to form uranium

halide vapor, and immediately passing the halide vapor into contact with a non-metallic refractory surface having a temperature above the melting point of uranium and



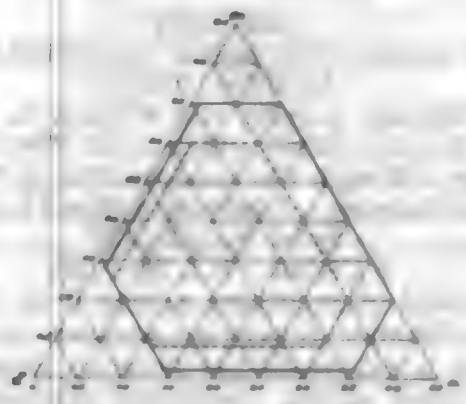
which is substantially unreactive to the uranium above said melting point thereby decomposing the halide, splitting off elemental halogen and precipitating the uranium in molten form.

2,873,186

THORIUM-SILICON-BERYLLIUM ALLOYS

Frank G. Foote, Plandome, N. Y., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application June 9, 1948, Serial No. 31,923
5 Claims. (Cl. 75—122.7)



1. An alloy consisting essentially of thorium, silicon and beryllium.

2,873,187

AUSTENITIC ALLOYS

Wasil W. Dyrkacz, Newtonville, George Aggus, Colonie, and Edward E. Reynolds, Albany, N. Y., assignors to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania

No Drawing. Application December 7, 1956
Serial No. 626,824
7 Claims. (Cl. 75—124)

1. An austenitic precipitation hardening alloy consisting of, up to 0.15% carbon, up to 1.5% manganese, up to 1.5% silicon, from about 10.0% to about 20% chromium, from about 30% to about 55% nickel, from about 2.5% to about 5.0% of the sum of aluminum and titanium, the aluminum being present in an amount of at least 0.5% and the titanium being present in an amount of at least 1.0%, from about 1.0% to about 8.0% molybdenum, from about 2.0% to about 15.0% tungsten, traces to 1.5% vanadium, and from about 20.0% to about 48.0% iron with incidental impurities.

2,873,188

PROCESS AND AGENT FOR TREATING FERROUS MATERIALS

Chester E. Bieniosek, Jersey City, N. J., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application February 10, 1956
Serial No. 564,631
6 Claims. (Cl. 75—130)

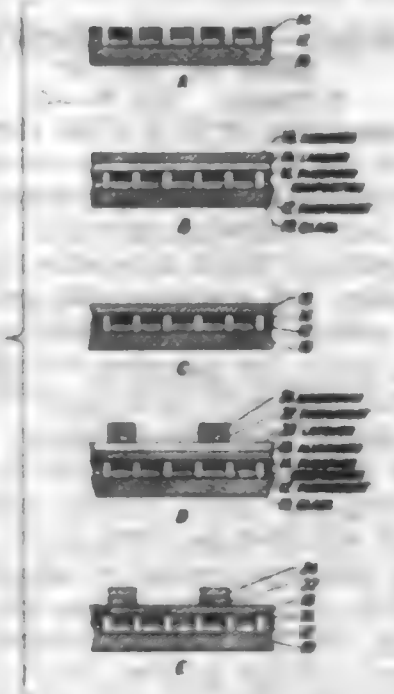
1. A powdered treating agent for improving the tensile strength and ductility of cast iron, said agent comprising a mixture of a comminuted nodulizing agent, a comminuted inoculant and a comminuted refractory material, said refractory material constituting not more than 10% by weight of said mixture and having particles not more than 200 mesh in size, said refractory material forming a coating on the particles of said nodulizing agent and said inoculant, said coating shielding said treating agent from the effects of heat preliminary to its introduction into said cast iron.

2,873,189

CATHODE RAY TUBE SCREEN PROCESS

Lyle W. Evans and Hugh P. La Bue, Seneca Falls, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts

Application February 24, 1956, Serial No. 567,499
3 Claims. (Cl. 96—35)



1. In a process of making a screen for an image reproduction device having a viewing panel, the steps comprising forming a fluorescent material layer on said panel, depositing a sensitized light hardenable composition atop said layer, exposing said composition to light through a pattern negative from the composition coated side of said panel, vaporizing magnesium onto said composition, developing the exposed light hardenable composition and adhering magnesium pattern by removing the unexposed portions of said composition, and subsequently oxidizing said magnesium.

2,873,190

DETOXIFYING COTTONSEED MEAL

William H. King, Metairie, La., assignor to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application October 27, 1955
Serial No. 543,282
9 Claims. (Cl. 99—2)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process of reducing the free gossypol content of a desolventized, substantially oil-free, organic solvent-extracted cottonseed meal containing in excess of about 0.4% free gossypol to a free gossypol content not exceeding about .01%, comprising forming a mixture containing said meal, aqueous alkali, and a hot water-miscible, volatile organic solvent, said aqueous alkali being present in the mixture in sufficient quantity to adjust the pH of the wet meal to at least about 7, said water-miscible solvent being present in the mixture in sufficient quantity to adjust the moisture content of the meal to about from 5 to 14%, separating the resulting meal from the mixture, extracting the meal with a hot water-miscible, volatile organic solvent until the free gossypol content of the meal does not exceed about .01%, and then freeing the meal of liquid and desolventizing it, said hot water-miscible,

volatile organic solvents being inert to cottonseed, cottonseed oil, and water, and being capable of removing water from said meal, of rupturing the pigment glands contained in said meal, and of extracting the pigments including gossypol released as a result of said rupture of the pigment glands.

2,873,191

PREPARATION OF COTTONSEED MEAL SUITABLE FOR UNRESTRICTED USE IN LAYING HEN DIETS

William H. King, Metairie, and Aaron M. Altschul and Joseph M. Dechary, New Orleans, and Vernon L. Frampton, Metairie, La., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application March 18, 1957
Serial No. 646,939
3 Claims. (Cl. 99—4)

(Granted under Title 35, U. S. Code (1952), sec. 266)

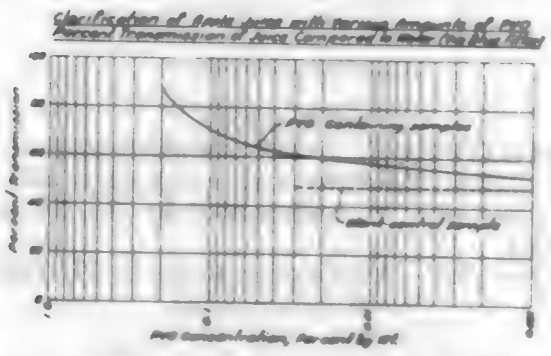
1. A process for treating raw decorticated flaked and unextracted cottonseed meats to produce a cottonseed meal, which meal following extraction of the oil will contain "free gossypol" in an amount less than 0.01% and which meal when fed in unrestricted amounts to laying hens will not produce egg yolk discoloration, comprising the following steps: (*a*) adjusting the moisture content of the cottonseed flakes to from about 20 to 50% with water containing at least enough stearyl amine to react with the "free gossypol" present in the flakes; (*b*) dehydratively heating the amine treated flakes at 125° F. with continued agitation for from about 20 to 60 minutes until the moisture content is reduced to not more than about 25%; (*c*) continuing the agitation and dehydrative heating until the moisture content of the heated flakes has been reduced to from about 7 to 13%; (*d*) cooling the treated flakes to ambient temperature and extracting the oil from the treated flakes.

2,873,192

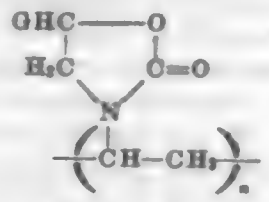
CLARIFICATION OF BEVERAGES

Wilhelm E. Walles and William F. Tousignant, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application December 9, 1957, Serial No. 701,377
15 Claims. (Cl. 99—28)



1. Process for treating essentially clear beverages to materially clarify them and render them stabilized against hazing which process comprises adding to the beverage being treated a minor proportion of between about 0.0001 and 1 percent by weight, based on the weight of the beverage, of a coagulating and precipitating agent for haze-inducing ingredients in the beverage, which agent consists of an N-vinyl-2-oxazolidinone polymer of the structure:



wherein G is selected from the group consisting of hydrogen and methyl, and *n* is an integer having a positive value of at least about 25; whereupon the haze-inducing ingredients are coagulated and precipitated from said beverage.

2,873,193

METHOD OF ISOLATING CARAMEL COLOR VALUES

James E. Cleland and Alvin Le Roy Meyer, Granite City, Ill., assignors to Union Starch & Refining Company, Columbus, Ind., a corporation of Indiana

No Drawing. Application February 6, 1956
Serial No. 563,407
4 Claims. (Cl. 99—148)

1. A process for separating the color bodies from caramelized carbohydrate solutions comprising the steps of providing a caramelized sugar solution containing caramel color bodies, residual uncaramelized sugar and fermentation inhibiting constituents formed in situ when the sugar is caramelized, removing the fermentation inhibiting constituents, thereafter inoculating the solution with an organism adapted to change the residual uncaramelized sugar to a different material of lower molecular weight, and separating the said different material of low molecular weight from the caramel color bodies.

2,873,194

VITAMIN FORTIFIED CANNED-FISH ANIMAL FOOD

George Wilkinson, Lomita, and William A. Eaton, Palos Verdes Estates, Calif., assignors to The Quaker Oats Company, Chicago, Ill., a corporation of New Jersey

No Drawing. Application May 11, 1956
Serial No. 584,189
3 Claims. (Cl. 99—188)

1. A method of producing a food from fish naturally containing thiamine destroying enzymes including: preparing such a fish stock for canning; mixing with the fish stock hard pellets containing thiamine, the hard pellets having the characteristic of resisting substantial inroads of hot moisture from the fish for about two hours; packing the fish-pellets mixture into cans; closing the cans; and retorting the cans and fish contents for one-half to two hours at temperatures approximating 250° F. to kill the thiaminases.

2,873,195

RUST INHIBITING COMPOSITION

Martin Ganzler, Edison Township, Middlesex County, and Gerard Wachtel, Glen Ridge, N. J., assignors to Chesebrough-Pond's, Inc., a corporation of New York

No Drawing. Application November 17, 1955
Serial No. 547,562
6 Claims. (Cl. 106—14)

1. A semi-solid rust inhibiting composition consisting essentially of at least 90 percent by weight of a petrolatum having a melting point in the range of 100 to 140 degrees F., about 0.1 to 1 percent of an alkyl phenoxy tetraethoxyethanol in which the alkyl group contains from 5 to 10 carbon atoms, and over 4 percent of oil-soluble petroleum sulfonates selected from the group consisting of alkali and alkaline earth sulfonates and having an average molecular weight above 400 computed as sodium sulfonate and characterized by the essential absence of water soluble sulfonate, said composition containing less than 0.5 percent water.

2,873,196

RUST PREVENTATIVE AND ANTI-RUST STABILIZING COMPOSITIONS

Melvin M. Reevsky, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 16, 1956
Serial No. 578,178
9 Claims. (Cl. 106—14)

1. An alcoholic stabilizing composition for the prevention of rust formation the active ingredients of which

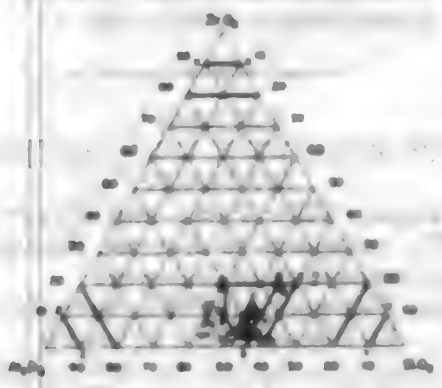
consist essentially of (A) an aliphatic acid ester of ortho-phosphoric acid, the aliphatic radicals of which contain from 8 to 22 carbon atoms, said aliphatic radicals being taken from the group consisting of n-alkyl and n-alkenyl radicals of the corresponding aliphatic alcohol, and, (B) a reducing agent selected from the group consisting of sodium hypophosphite and stannous chloride, said reducing agent being present in the amount of .1% to 10% of the said acid ester of ortho-phosphoric acid.

2,873,197

REFRACTORY FIBROUS MATERIAL

John C. McMullen, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a corporation of Delaware

Application January 21, 1955, Serial No. 483,371
15 Claims. (Cl. 106—50)



1. An inorganic fiber material consisting essentially of 40 to 60 percent by weight silica, 20 to less than 45 percent by weight alumina and 3½ to 20 percent by weight zirconia, the silica to alumina ratio by weight being at least 1.

2,873,198

HARD REFRACTORY COMPOSITIONS

Edward W. Goliber, Royal Oak, Mich., assignor to General Electric Company, a corporation of New York

No Drawing. Original application January 4, 1955, Serial No. 479,861. Divided and this application April 17, 1958, Serial No. 729,061
1 Claim. (Cl. 106—65)

A sintered strong and hard composition consisting essentially of a lower oxide of titanium and alumina and in which composition the aluminum titanium atomic ratio is from about .8 to about 20, and the oxygen content is such that the atomic ratio

$$\frac{O-3/2\,Al}{Ti}$$

lies between .25 and 1.4.

2,873,199

EMULSION COATING COMPOSITION CONTAINING SYNTHETIC DRYING OIL AND PROCESS OF MAKING IT

John F. McKay, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application March 23, 1956
Serial No. 573,347
9 Claims. (Cl. 106—158)

1. The preparation of a synthetic latex from a polymeric mass obtained by the polymerization of a conjugated diolefin of 4 to 6 carbon atoms which comprises treating said polymeric mass with oxygen at a temperature between 20° and 250° C. in the presence of a hydrocarbon solvent and emulsifying a solution of said oxidized polymer in the same solvent in which it was treated with oxygen by agitating it with water in the presence of a mixture of sodium lauryl sulfate and a polyether alkylated phenol emulsifier having the formula $R(OCH_2CH_2)_nOH$ where R is chosen from the group consisting of $C_9H_{19}.C_6H_4$— and $C_9H_{17}.C_6H_4$—, and n associated with $C_9H_{19}.C_6H_4$— is chosen from the group consisting of 5 and 8 to 10, and n associated with $C_9H_{17}.C_6H_4$— is 4.

2,873,200

RESINOUS COATING COMPOSITIONS AND PROCESS OF MAKING THEM

Sylvan O. Greenlee, Racine, Wis., assignor to S. C. Johnson & Son, Inc., Racine, Wis.

No Drawing. Application October 13, 1954
Serial No. 462,118
5 Claims. (Cl. 106—218)

1. A coating composition comprising paint and varnish resins dissolved in an organic solvent therefor, characterized by improved water repellency and mar and abrasion resistance and having dissolved therein 0.5 to about 10% by weight, based on the coating resin content, of a synthetic wax compatible with said resin, said synthetic wax being a diester of a dihydroxy phenol having no more than two aromatic nuclei and only the elements carbon, hydrogen, oxygen, and halogen and a straight chain saturated aliphatic monocarboxylic acid of 16 to 30 carbon atoms.

2,873,201

LINOLEUM COMPOSITION AND PROCESS OF MAKING IT

Lawrence H. Dunlap and John A. Parker, Lancaster Township, Lancaster County, Pa., assignors to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application February 28, 1955
Serial No. 491,182
12 Claims. (Cl. 106—228)

1. A linoleum composition containing 55%–80% by weight fillers and pigments, the balance comprising a cured linoleum cement obtained by (1) reacting at elevated temperatures dilinoleic acid with pentaerythritol in amounts such that initially the hydroxyl groups in pentaerythritol are present in slight excess over the carboxyl groups in said acid, said reaction being terminated at an acid number between about 65–90, and (2) subsequently curing said cement in the presence of said fillers and pigments at a temperature in the range of about 170°–210° F.

2,873,202

WATER REPELLENT AND MAR RESISTANT COATING COMPOSITION CONTAINING A WAXY DIALKYL ETHER

Francis E. Chapman, Racine, Wis., assignor to S. C. Johnson & Son, Inc., Racine, Wis.

No Drawing. Application February 23, 1956
Serial No. 567,053
6 Claims. (Cl. 106—230)

1. A permanent coating composition of the class comprising an organic paint and varnish coating resin dissolved in an organic solvent therefor characterized by improved water repellency and mar and abrasion resistance, said composition having dissolved therein 0.25 to about 10% by weight, based on the resin content, of a synthetic wax compatible with said resin, said synthetic wax being a saturated straight-chain dialkyl ether wherein each alkyl radical contains from 12–32 carbon atoms.

2,873,203

LIQUID ROSIN SIZES CONTAINING ANTI-STRATIFYING AGENT

William C. Hopkins, Valdosta, Ga., and John G. Seness, Jr., South Charleston, W. Va., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 25, 1954
Serial No. 412,636
5 Claims. (Cl. 106—238)

1. A liquid rosin size which is a uniform aqueous dispersion containing from about 60% to 80% rosin size solids by weight, and 5% to 25% of free rosin acids based on the weight of said solids, said size being inhibited against stratification on storage by the presence of an

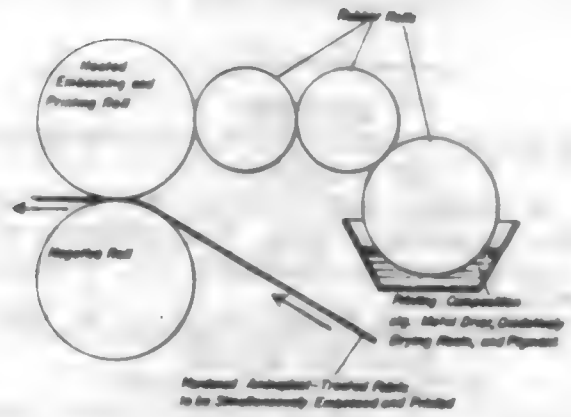
effective amount between 0.7% and 5%, based on the weight of said solids, of sodium chloride dissolved therein, the amount of said sodium chloride being insufficient to salt out said size.

2,873,204

PROCESS FOR PRODUCING EMBOSSED PRINTS

Ernst Hochuli, Basel, Hans Oeolin, Ariesheim, Anton Schuerch, Munchenstein, and Heinz Zumstein, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

Application March 10, 1955, Serial No. 493,573
Claims priority, application Switzerland March 17, 1954
4 Claims. (Cl. 117—11)



1. A process for producing an embossed print on a fabric treated with a hardenable aminoplast, which comprises simultaneously embossing and applying a printing composition to the said fabric by means of a heated embossing roller, the said printing composition consisting essentially of a pigment, a metal drier and a resin which is capable of undergoing oxidative drying in presence of the said drier and is selected from the group consisting of an allyl ether of a polymethylol-melamine containing more than three allyl ether groups, an esterified polyhydroxy compound containing more than three linseed oil fatty acid radicals, and a glycidyl ether of a dihydric phenol esterified with linseed oil fatty acid containing more than three radicals of the said acid.

2,873,205

PROCESS FOR FORMING LUMINESCENT SCREENS

Rinse Dijkstra, Jelis de Jonge, and Hendrik Anne Klasens, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application March 22, 1956
Serial No. 573,097
Claims priority, application Netherlands March 24, 1955
5 Claims. (Cl. 117—33.5)

1. In the process of forming a luminescent screen by depositing the luminescent material from an aqueous settling bed having a pH of more than 9.5 and containing said luminescent material, a silicate selected from the group consisting of potassium and sodium silicate and a compound selected from the group consisting of alkali metal and alkaline earth compounds other than said silicate on a surface thus forming a luminescent screen, and then adding to said settling bed a solution of an organic film forming material having a specific gravity lower than that of the settling bed, and removing the settling bed to form a thin coherent organic film on the luminescent screen, the improvement which comprises reducing the pH of the settling bed to a value between about 5 and 8.5 by the addition of an acidic substance after the formation of the luminescent screen but before the organic film forming material is added to the settling bed.

2,873,206

PROCESS FOR THE OPTICAL BRIGHTENING OF POLYESTER FIBERS

Wilhelm Geigy, Binningen, and Eduard Weber, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application December 14, 1956
Serial No. 628,241
Claims priority, application Switzerland
December 20, 1955
8 Claims. (Cl. 117—33.5)

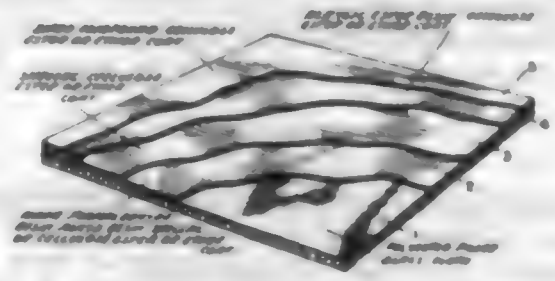
1. A process for the optical brightening of polyester fibers, which comprises applying to these fibers in an aqueous medium at a temperature of a maximum of 75° C. in the presence of a surface-active substance a brightening agent which is free from water-solubilizing groups and contains at least one heterocyclic ring condensed with a benzene ring, and then subjecting the fibers to a dry heat treatment at a temperature above 100° C.

2,873,207

DIAZOTYPE REPRODUCTION MATERIAL AND METHOD

Ralph P. Weegar, Villa Park, and Henry C. Unkauf, Chicago, Ill., assignors to Eugene Dietzgen Co., Chicago, Ill., a corporation of Delaware

Application February 21, 1955, Serial No. 489,439
13 Claims. (Cl. 117—34)



1. The method for providing a light-sensitive diazotype layer on an impervious unsaturated polyester resin surface of a photographic base material which comprises providing on said surface a coat of an amine-formaldehyde resin and a solvent-soluble material serving to increase the solvent sensitivity of the coat while retaining its adhesiveness, providing on said coat an overcoat of shellac and a member selected from the class consisting of cellulose esters and cellulose ethers, and applying to the coated surface a coat of a light-sensitive diazo compound and a member of the class consisting of cellulose esters and ethers.

2,873,208

DEPOSITION OF REFRACTORY METALS AND ALLOYS THEREOF

Maurice George Charlton, Purley, George Leonard Davis, Coulsdon, and Charles Harold Raymond Gentry, Carshalton, England, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application September 26, 1955
Serial No. 536,728
Claims priority, application Great Britain
September 27, 1954
5 Claims. (Cl. 117—58)

1. A process for the deposition of a layer of at least one metal selected from the group consisting of tungsten and molybdenum on a base article formed of a material other than said metal and capable of resisting temperatures at least as high as those used in this process comprising the steps, heating a source of one of said metals to a temperature higher than about 1900° C. but below the melting point of said metal, heating the base article to a temperature of about 500° to 1400° C., bringing said heated source into the vicinity of, but not in con-

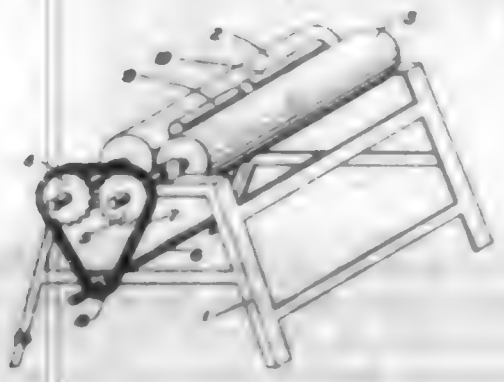
tact with, said base article, and filling the space between said source and said article with an atmosphere containing hydrogen and water vapor.

2,873,209

LEVELING METAL COATINGS

Harold A. Gage, East Cleveland, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

Application February 12, 1945, Serial No. 577,382
2 Claims. (Cl. 117—51)



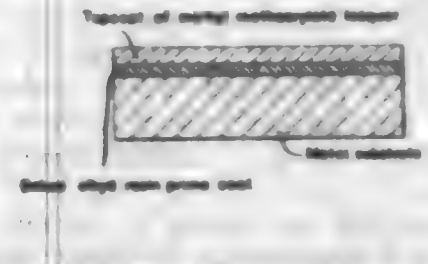
1. In the application of metallic coatings to cylindrical uranium articles by hot dipping, the method of providing a level metal coating completely encasing said article which comprises dipping the article in a molten bath of a metal of the group consisting of zinc, lead, tin, cadmium, and aluminum and alloys thereof, placing the article while the coating is yet molten between a pair of driven, horizontal, closely spaced parallel rollers having smooth unyielding surfaces of low thermal conductivity extending at least the full length of said article, rotating said rollers in the same direction at substantially the same peripheral speed whereby the article is rotated and the molten metal coating smoothed, exposing said article to a cooling atmosphere at a temperature below the melting point of the coating metal, and continuing said rotation until the coating has solidified.

2,873,210

ALKYD RESIN COMPOSITION AND METALS COATED THEREWITH

Edward Joseph Barrett, Jr., Media, and David Flitter, Havertown, Pa., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application January 17, 1957, Serial No. 634,652
13 Claims. (Cl. 117—75)



1. A metal article having a multi-layer coating comprising an undercoat and superposed dried topcoat of methyl methacrylate lacquer in adherent contact therewith, said undercoat comprising a baked layer of a coating composition comprising an alkyd resin formed by the reaction of (A) a dicarboxylic acid component comprising at least about 25 mole percent of hexachloroendomethylenetetrahydrophthalic acid (B) at least one of the group consisting of tall oil, semi-drying oils, drying oils and fatty acids derivable therefrom and (C) at least one polyol, said alkyd resin being characterized by having an oil length of about from 20 to 45, an acid number of less than about 50 and unreacted hydroxyl equivalent to about from 0.5 to 5.0 percent by weight of glycerol based on the total weight of alkyd resin.

2,873,211

CARBOXYLIC-NITRILE-ACRYLATE ESTER COATING COMPOSITION, PROCESS AND COATED PRODUCT

Gerald P. Roeser, Fallsington, Pa., assignor, by mesne assignments, to American-Marietta Company, Stoner-Mudge Co. Division, Chicago, Ill., a corporation of Illinois

No Drawing. Application October 26, 1955
Serial No. 543,031
17 Claims. (Cl. 117—103)

11. The process of obtaining a durably adhesive protective covering on a metallic sheet which comprises coating said sheet with a copolymer made by copolymerizing in solution in non-reactive organic solvent components A, B and C at a temperature in the range of −20° C. to 150° C. in the presence of a free-radical generating polymerization catalyst to obtain a copolymer which is soluble in said organic solvent and which is thermosetting per se, said components being in proportions in the polymer of about 5–27 mol percent of component A, 35–59 mol percent of component B, and 30–52 mol percent of component C, component A being a compound selected from the group consisting of acrylic acid, methacrylic acid, itaconic acid, crotonic acid, monobutyl maleate, monomethyl maleate, maleic anhydride and itaconic anhydride, and mixtures thereof; component B being a compound selected from the group consisting of acrylonitrile and fumaronitrile, and mixtures thereof; and component C being an acrylate ester; and thereafter heating the coated sheet to temperature in the range of 250° to 600° F. and converting the coating to the thermoset condition in the absence of any extraneous cross-linking agent.

2,873,212

CARBOXYLIC-NITRILE-VINYL ETHER COATING COMPOSITIONS, PROCESS AND COATED PRODUCT

Gerald P. Roeser, Fallsington, Pa., assignor, by mesne assignments, to American-Marietta Company, Stoner-Mudge Co. Division, Chicago, Ill., a corporation of Illinois

No Drawing. Application October 26, 1955
Serial No. 543,095
17 Claims. (Cl. 117—103)

11. The process of obtaining a durably adhesive protective covering on a metallic sheet which comprises coating said sheet with a copolymer made by copolymerizing in solution in non-reactive organic solvent components A, B and C at a temperature in the range of −20° C. to 150° C. in the presence of a free-radical generating polymerization catalyst to obtain a copolymer which is soluble in said organic solvent and which is thermosetting per se, said components being in proportions in the copolymer of about 5–63 mol percent of component A, 32–64 mol percent of component B, and 2–38 mol percent of component C, component A being a compound selected from the group consisting of acrylic acid, methacrylic acid, itaconic acid, crotonic acid, monobutyl maleate, monomethyl maleate, maleic anhydride and itaconic anhydride, and mixtures thereof; component B being a compound selected from the group consisting of acrylonitrile and fumaronitrile, and mixtures thereof; and component C being an alkyl vinyl ether; and thereafter heating the coated sheet to temperature in the range of 250° F. to 600° F. and converting the coating to the thermoset condition in the absence of any extraneous cross-linking agent.

2,873,213

PERACETIC ACID TREATMENT OF VULCANIZED RUBBER

Bernard K. Easton, Williamsville, and Norbert Weinberg, Buffalo, N. Y., and Albert Peniston Shutts, Wyckoff, N. J., assignors to Food Machinery and Chemical Corporation, San Jose, Calif.

No Drawing. Application October 24, 1956
Serial No. 617,916
3 Claims. (Cl. 117—118)

1. Method of detackifying and improving the surface luster of a vulcanized rubber workpiece, which method comprises immersing said workpiece for from about 4 to 10 minutes in an aqueous solution of peracetic acid having a peracetic acid concentration of about 1 to 4% and having a pH of less than about 7, said solution being maintained during the immersion at a temperature of about 130° to 155° F.

2,873,214

METHOD OF CHEMICALLY PLATING METALS

George L. Schnable, Lansdale, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application March 21, 1956
Serial No. 572,828
7 Claims. (Cl. 117—130)

3. The method of displacing a base metal comprising at least one of the metals selected from the group consisting of zinc, cadmium and manganese with a lower melting metal which comprises immersing said base metal in a liquid, non-aqueous bath comprising salt of metal other than the selected base metal and more noble than the selected base metal until at least a portion of said base metal has been displaced by said more noble metal forming an alloy therewith in molten form, said bath being at a temperature below the solidus point of the base metal and below the solidus point of said more noble metal but above the liquidus point of said alloy.

2,873,215

COATED IRON AND METHOD AND COMPOSITIONS FOR PREPARING THE SAME

Fred K. Quigley, Jr., Midland, and Harold A. Walters, Beaverton, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 19, 1956
Serial No. 616,943
14 Claims. (Cl. 117—132)

1. A method for providing iron with an adherent coating which comprises coating a surface of metallic iron with a thin layer of an aqueous colloidal dispersion comprising a polymer of an aliphatic conjugated diolefin, which aqueous dispersion is characterized by a degree of acidity corresponding to a pH value not greater than 5, and drying that layer.

2,873,216

METHOD OF CHEMICALLY PLATING METALS

George L. Schnable, Lansdale, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application March 21, 1956
Serial No. 572,827
15 Claims. (Cl. 117—200)

3. The method of coating aluminum with a cadmium-indium alloy which comprises immersing said aluminum in a molten salt bath comprising zinc chloride, cadmium chloride and a chloride of indium in which the indium is in a valent state below 3, until at least a portion of said aluminum has been displaced by cadmium-indium alloy in molten form, said molten salt bath being at a temperature below the melting point of the aluminum but above the melting point of said cadmium-indium alloy displacing said aluminum.

2,873,217

METHOD FOR MANUFACTURING A HOLLOW ELECTRON-EMISSIVE ELECTRODE

Pierre Lemaigre-Voreaux, Paris, France, assignor to Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares-Etablissements Claude-Paz & Silva, Paris, France

Application May 10, 1955, Serial No. 507,285
Claims priority, application France May 20, 1954
7 Claims. (Cl. 117—201)



1. In a method for making a seamed hollow electrode of a gaseous electric discharge device, which hollow electrode is provided on the inside wall thereof only with electron-emissive material resulting from a process comprising melting on said wall a subetance which produces the electron-emissive material, one end of the hollow electrode being open to permit the discharge to pass, and the wall being formed of at least two pieces of sheet metal impervious to liquid and nested one within the other thereby forming a seam, the steps of heating enamel to a flowable temperature, permitting said enamel to enter said seam on the whole length thereof, allowing said enamel to solidify, and then introducing into said hollow electrode and upon the inside wall thereof only the substance which when melted will produce the electron-emissive material.

2,873,218

METHOD OF MAKING AN ELECTRON EMITTER

Dietrich Dobischek and John A. Schweitzer, Asbury Park, N. J., and Perry T. Ward, Chicago, Ill., assignors to the United States of America as represented by the Secretary of the Army

Application April 16, 1957, Serial No. 653,259
2 Claims. (Cl. 117—223)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. The method of making an electron emitter comprising the steps of depositing upon a metal base a coating including a suspension of magnesium oxide light in amyl acetate in the proportion of 2–10 grams magnesium oxide light to 100 milliliters amyl acetate, heating said coating to remove said amyl acetate thereby leaving on said metal base a highly porous coating of magnesium oxide, and activating said emitter by heating it for about five minutes at a temperature of about 800° C. in an atmosphere of air at a pressure of about 150 millimeters of mercury.

2,873,219

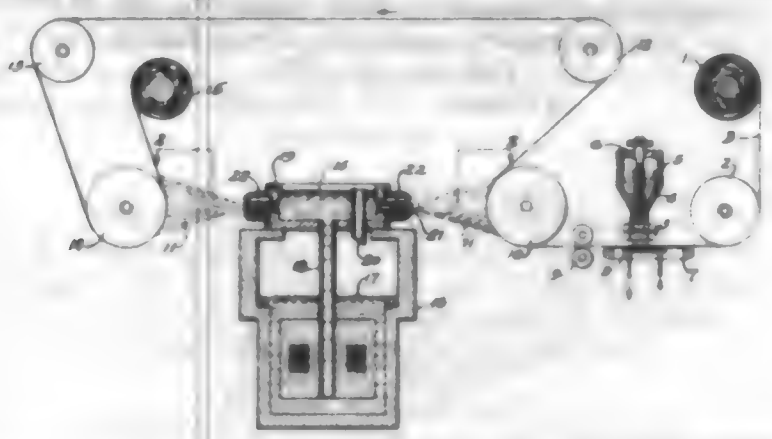
METAL-COATED BATT AND METHOD AND APPARATUS FOR PRODUCING SAME

Joseph B. Brennan, Cleveland, Ohio

Application December 20, 1954, Serial No. 476,519
8 Claims. (Cl. 117—227)

4. The method of forming a porous electrically conductive strip which comprises providing a porous strip

of fibrous base material predominantly comprised of longitudinally extending fibers, intermingling discrete particles of metal having at least the surfaces thereof molten with the fibers in a discontinuous relationship of the metal particles with each other so that the strip of base material having metal particles therein is not rendered



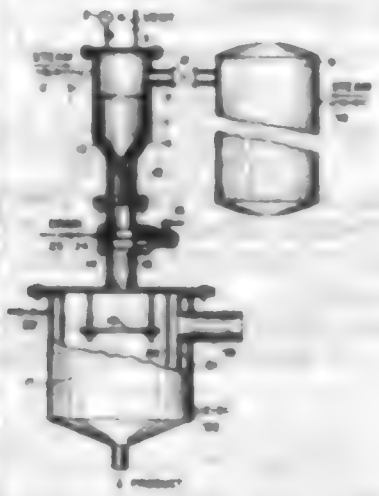
electrically conductive throughout, compressing the base material and particles to strengthen the bond therebetween for reinforcing the strip and such that the said strip remains porous, and spraying particles of molten metal onto the compressed base material to render the strip conductive throughout and with sufficient velocity to impregnate the base material.

2,873,220
PROCESSING OF SUGAR BEETS

Lloyd E. Brownell and Stefan A. Zieminski, Ann Arbor, Mich., assignors to the United States of America as represented by the Secretary of Agriculture

Original application October 14, 1953, Serial No. 386,141, now Patent No. 2,807,560, dated September 24, 1957. Divided and this application May 28, 1957, Serial No. 665,366

2 Claims. (Cl. 127—4)

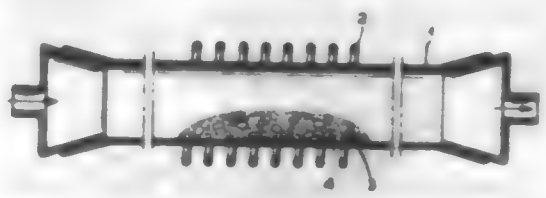


1. An apparatus for rupturing the cell walls of sugar beets to liberate the juice in the cells which comprises: a vessel for holding beets; a tank for receiving beets discharged from said vessel, said tank having a volume at least several times that of said vessel; a conduit attached at one end to the bottom of said vessel and at the other end to said tank; an open container within said vessel for retaining beets, said container being spaced from the walls of said vessel, the bottom of said container tapering to a nozzle of restricted cross-sectional area; a baffle in said tank disposed in the path of the beets discharging into said tank; means for cooling said tank; and means for explosively discharging the beets from said vessel and container through said nozzle into said tank by application of a sudden burst of a gaseous medium at superatmospheric pressure to the beets, said means including a chamber for holding the gaseous medium under pressure, said chamber having a volume at least several times that of said vessel, a conduit connecting said chamber and vessel and a quick-acting valve in said conduit.

2,873,221
METHOD OF TREATING SEMI-CONDUCTIVE BODIES

Louis Marius Nijland, and Pieter Willem Haaijman, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 29, 1956, Serial No. 618,889
Claims priority, application Netherlands November 5, 1955
5 Claims. (Cl. 148—1.5)



1. A method of effecting a change in the character of a portion of a semi-conductive monocrystalline body selected from the group consisting of silicon and germanium, comprising bring into contact with said body portion a powdery mixture comprising as a major constituent a refractory, inert substance whose melting point substantially exceeds that of the semi-conductive body and as a minor constituent an active impurity substance capable of effecting the change desired when incorporated in the body portion, and heating said contacting body portion and powdery mixture in an inert atmosphere and at a temperature below the fusion temperature of the inert substance and at which active substance is freed from the mixture and caused to diffuse into the body portion and thereby effect the change desired.

2,873,222
VAPOR-SOLID DIFFUSION OF SEMICONDUCTIVE MATERIAL

Lincoln Derick, Colonia, and Carl J. Frosch, Summit, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 7, 1957, Serial No. 695,110
13 Claims. (Cl. 148—1.5)

1. A process comprising the steps of successively contacting a first atmosphere comprising at least one gas selected from the group consisting of H_2 and CO to a trioxide selected from the group consisting of Ga_2O_3 and In_2O_3, which trioxide is maintained at an elevated temperature, and then to an extrinsic crystalline semiconductive body maintained at an elevated temperature, and following said first atmosphere with a second atmosphere comprising a non-reducing gas.

2,873,223
METHOD OF INCREASING THE WORK FUNCTION OF METAL PARTS FOR EXAMPLE FOR ELECTRIC DISCHARGE TUBES

Wilfrid Franz Konrad Johann Niklas, New York, N. Y., assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

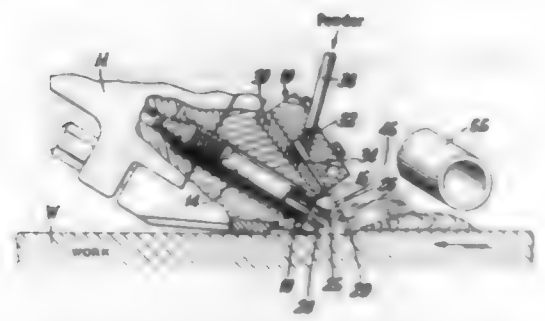
No Drawing. Application November 22, 1954
Serial No. 470,554
Claims priority, application Netherlands December 1, 1953
1 Claim. (Cl. 148—4)

A method of increasing the work function of the surface of a metal member, which comprises first electrolytically polishing the surface of said member adapted for use as an electrode of an electric discharge tube, and thereafter immersing said member in a non-oxidizing liquid bath and subjecting it to ultrasonic radiation while in said bath to increase the work-function of said electrode.

2,873,224
PROCESS AND APPARATUS FOR DESURFACING A REFRACTORY METAL BODY

Ivan P. Thompson, Elizabeth, William Allmang, Bloomfield, Carl E. Hartmann, Florham Park, Charles E. Winter, East Keansburg, and Robert W. Blackbourn, Union, N. J., assignors to Union Carbide Corporation, a corporation of New York

Application May 6, 1955, Serial No. 506,532
4 Claims. (Cl. 148—9.5)



1. Process of desurfacing a refractory metal body, which comprises applying preheat to a local surface portion of such body, discharging a relatively flat stream of oxidizing gas at an acute angle against such heated portion, projecting a row of streams of powdered solid fuel-laden gas at an acute angle against coplanar surfaces of hard erosion resistant carbide material, discharging the resultant separate flat stream of gas containing uniformly transversely distributed powdered solid fuel at an acute angle toward such oxidizing gas stream, so that the central planes of such streams in the direction of flow thereof form dihedral angles with one another and with such surface portion of the body, and relatively moving such streams and the body so that successive surface portions thereof are progressively removed thermochemically by the scarfing action of the combined powdered solid fuel and oxidizing gas stream.

3. Apparatus for desurfacing a refractory metal body, which comprises means for applying preheat to a local surface portion of such body, means for discharging relatively flat stream of oxidizing gas at an acute angle against such heated portion, means for projecting a row of streams of powdered solid fuel-laden gas at an acute angle against coplanar surfaces of hard erosion resistant carbide material, means for discharging the resultant separate flat stream of gas containing uniformly transversely distributed powdered solid fuel at an acute angle toward such oxidizing gas stream, so that the central planes of such streams in the direction of flow thereof form dihedral angles with one another and with such surface portion of the body, and means for relatively moving such streams and the body so that successive surface portions thereof are progressively removed thermochemically by the combined scarfing action of the powdered solid fuel and oxidizing gas stream.

2,873,225
MAGNETIC FLAKE CORE

Edmond Adams, Silver Spring, John F. Haben, Hyattsville, and Albert M. Sycles, Silver Spring, Md., assignors to the United States of America as represented by the Secretary of the Navy

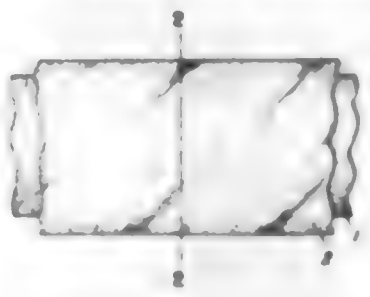
No Drawing. Application May 20, 1957
Serial No. 660,429
4 Claims. (Cl. 148—105)
(Granted under Title 35, U. S. Code (1952), sec. 266)

3. A method of preparing magnetic material by rolling a powder of an alloy containing 4–7% aluminum, 7–14% silicon, the balance essentially iron at a temperature from about 200° C. to the melting point of the alloy powder to form flakes of the alloy.

2,873,226
METHOD OF MAKING GLASS REINFORCED PLASTIC ARTICLES

Drury Norman Davies, Englefield Green, and Leslie Francis Bull, Southgate, London, England, assignors to The Distillers Company Limited, Edinburgh, Scotland, a British company

Application February 4, 1955, Serial No. 486,228
Claims priority, application Great Britain February 11, 1954
8 Claims. (Cl. 154—83)



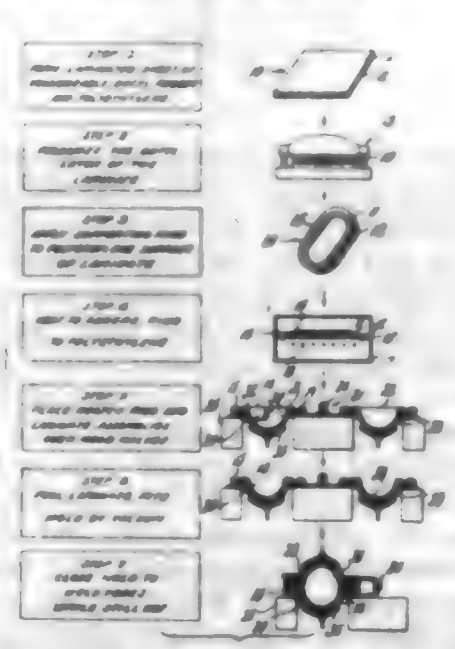
1. A process for the production of a fibrous glass reinforced plastic article, which comprises laminating a layer of a liquid unsaturated polyester resin composition containing fibrous glass reinforcement, a monomeric styrene compound and a curing catalyst therefor, onto a forming member consisting of a polymerized styrene, and bonding said layer to said forming member by polymerizing the layer to form a hard unitary plastic article of the desired shape, whereby the resultant polymerized styrene in said layer is integrated with the polymerized styrene in said forming member and the latter constitutes an integral part of the article produced.

6. A shaped article comprising a body of fibrous glass material bonded together by a cured unsaturated polyester resin laminating composition containing an initially monomeric styrene compound and a curing catalyst therefor and being directly integrated on one surface thereof with a correspondingly shaped layer consisting of a polymerised styrene compound.

2,873,227
METHOD OF MAKING RESIN-LINED RUBBER CONTAINERS

Mark W. Olson, Allendale, Valmar Fournier, Wallington, and Ira D. Dobbs, Allendale, N. J., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application March 21, 1955, Serial No. 495,648
6 Claims. (Cl. 154—83)



1. A method of making a firmly adhered laminate of polyethylene and rubber of a desired shape comprising the steps of first forming a laminate of said polyethylene

with a layer of vulcanizable rubber, heating the laminate to a temperature in excess of the softening temperature of the polyethylene, thereafter vacuum drawing the heated laminate to the desired shape, the vulcanized rubber layer of the laminate serving to keep the polyethylene from rupturing, and maintaining the laminate in the said shape while cooling it to a form-sustaining temperature, the polyethylene layer after said cooling serving to maintain the previously vulcanized rubber layer in the said desired shape.

2,873,218

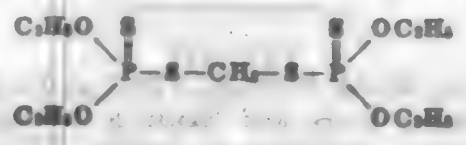
PESTICIDAL PHOSPHORUS ESTERS

Joe R. Willard and John F. Henahan, Middleport, N. Y., assignors to Food Machinery and Chemical Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 16, 1956
Serial No. 597,886
3 Claims. (Cl. 167—22)

2. A method for controlling mite and insect pests and ova which comprises contacting said pests and ova with an effective concentration of the compound bis(S-[diethoxyphosphinothioyl]mercapto)methane.

3. Bis(S - [diethoxyphosphinothioyl]mercapto)methane, having the formula



2,873,229

THREE-PHASE LIPSTICK COMPOSITION

Waldemar J. Wick, Wauwatosa, Wis., assignor to Kolmar Laboratories, Inc., Milwaukee, Wis., a corporation of Delaware

No Drawing. Application July 15, 1954
Serial No. 443,716
5 Claims. (Cl. 167—85)

1. A lipstick composition, consisting essentially of about 14.1% to 26.1% by weight of a wax selected from the group consisting of carnauba, ozokerite, paraffin, candelilla, ceresin, spermaceti, and mixtures thereof, about 7.2% to 9.4% of a dye to provide the composition with color and pigment, about 8.1% to 16.7% of a hydrophilic dye solvent characterized by being a liquid below 35° C. and selected from the group consisting of glycerols and glycols, said dye solvent being present in a quantity less than required for solution of said dye, and 47.8% to 70.6% by weight of a thin liquid carrier immiscible with both said wax and said dye solvent and selected from the group consisting of oleyl alcohol and propylene glycol monolaurate and characterized by having sufficient fluidity to facilitate application of the lipstick to the skin and to bleed out of the wax base phase after application to the skin where the same can be wiped away and thereby leave a hard wax deposit on the skin.

2,873,230

PURIFICATION OF VINYLENE CARBONATE

Robert M. Thomas, Niagara Falls, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application April 2, 1956
Serial No. 575,342
1 Claim. (Cl. 202—66)

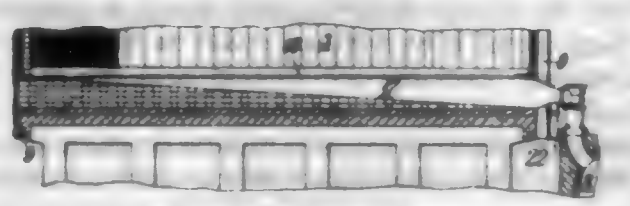
A method for the removal from vinylene carbonate of impurities which inhibit the polymerization of the vinylene carbonate which comprises heating the vinylene carbonate at a temperature of about 200° C. to about 450° C. in vapor phase and thereafter fractionally distilling the heat-treated vinylene carbonate and recovering purified vinylene carbonate.

2,873,231

REGENERATORS OF COKE OVENS

Julius Walther Hiby, Aachen, Germany, and Friedrich Karl Hiby, Cheadle Hulme, England, assignors to Simon-Carves Limited, Stockport, England, a British company

Application November 2, 1955, Serial No. 544,508
Claims priority, application Great Britain November 8, 1954
3 Claims. (Cl. 202—141)



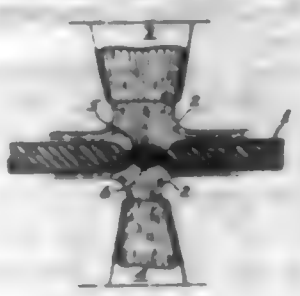
1. A regenerator, for use in a coke oven, having a regenerative space, vertically extending walls beneath said regenerative space providing a bus flue, and a longitudinally extending partition dividing said bus flue into an upper part and a lower part, said partition comprising a plurality of spaced, stepwise aligned, bar-shaped members, each of said bar-shaped members having an outwardly curved leading edge and an inwardly curved trailing edge to provide a multiplicity of curved ducts betwen said bar-shaped members, the lower part of said bus flue having a floor inclined with respect to said partition so that the cross sectional area of said lower part is decreased at the lower opening of each of said curved ducts by substantially the cross sectional area of said opening.

2,873,232

METHOD OF JET PLATING

Elizabeth M. Zimmerman, Sharon Hill, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application June 18, 1956, Serial No. 591,917
14 Claims. (Cl. 204—15)



1. In the jet plating of a deposit of metal selected from the group consisting of indium and gallium onto another surface involving directing a stream of electrolyte comprising an aqueous solution of salt of said metal to be deposited against the surface onto which the deposit is to be applied and completing the circuit between the jet device and the surface through the electrolyte stream whereby the said surface is the cathode and the jet device is the anode in the system, the improvement which comprises conducting such plating with a compound selected from the group consisting of ethylenediaminetetraacetic acid and salts thereof dissolved in said electrolyte while maintaining a current density during said plating whereby the plated deposit has a cross-sectional area less than that of the jet orifice.

2,873,233

METHOD OF ELECTRODEPOSITING METALS

George L. Schnable, Lansdale, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application March 21, 1956
Serial No. 572,826
9 Claims. (Cl. 204—32)

1. The method of electroplating readily-oxidized, difficultly-soldered base metals which comprises immersing

said base metal as an electrode in a molten salt bath comprising ions of metal having a melting point below the base metal, said metal ions being in a concentration of at least 0.2 atomic percent of the cations, iodide ions in a concentration of at least 0.2 atomic percent of the anions, and fluoride ions in a concentration of at least 0.5 atomic percent of the anions, at a temperature above the melting point of the lower-melting metal but below the melting point of the base metal, providing another electrode, completing the circuit with the base metal as anode whereby the base metal is etched and oxide on the surface thereof is removed, reversing the current with the base metal as cathode in said molten salt bath whereby the lower-melting metal deposits thereon in molten form until the desired amount of lower-melting metal has been so deposited.

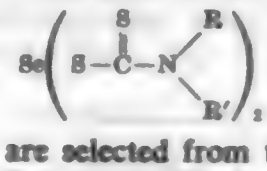
2,873,234

ELECTRODEPOSITION OF COPPER

Frank Passal, Detroit, Mich., assignor to Metal & Thermit Corporation, Woodbridge Township, N. J., a corporation of New Jersey

No Drawing. Application June 19, 1957
Serial No. 666,766
9 Claims. (Cl. 204—52)

1. An alkyline-cyanide bath for bright copper plating comprising copper cyanide and, as a brightening agent more than 0.001 g./l. of at least one selenium bisdithiocarbamate having the general formula:



wherein R and R′ are selected from the class consisting of hydrogen and alkyl groups having up to six carbon atoms.

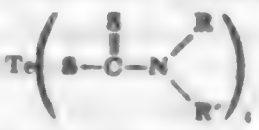
2,873,235

ELECTRODEPOSITION OF COPPER

Frank Passal, Detroit, Mich., assignor to Metal & Thermit Corporation, Woodbridge Township, N. J., a corporation of New Jersey

No Drawing. Application June 19, 1957
Serial No. 666,784
9 Claims. (Cl. 204—52)

1. An alkaline-cyanide bath for bright copper plating comprising copper cyanide and, as a brightening agent more than 0.001 g./l. of at least one tellurium dithiocarbamate having the general formula:



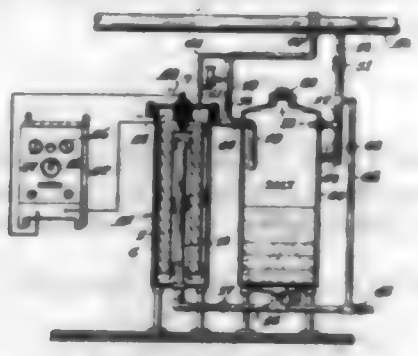
wherein R and R′ are selected from the class consisting of hydrogen and alkyl groups having up to six carbon atoms.

2,873,236

METHOD FOR PRODUCING HYPOCHLORITE OF SODA IN AN ELECTRONIC CELL

Donald Edward Ferris, Dartmouth, Nova Scotia, Canada

Application May 10, 1951, Serial No. 225,573
3 Claims. (Cl. 204—95)



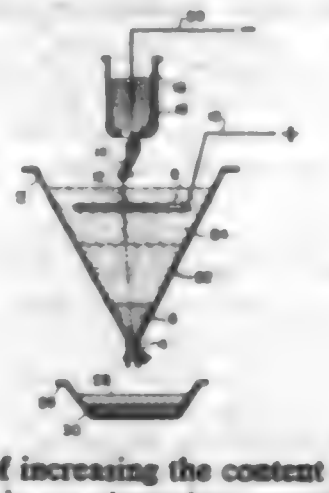
2. A single cell method of producing sodium hypochlorite which comprises providing a hollow cathodic casing having a hypochlorite solution outlet at one end, arranging a hollow anodic electrode, closed at one end and open at the other end, within the casing with the open end of the anodic electrode opposed to but spaced from the end of the casing remote from the hypochlorite solution outlet and with the outer surface of the anodic electrode spaced from the surrounding surface of the casing, continuously flowing a relatively cool stream of an aqueous solution of sodium chloride into said anodic electrode from the open to the closed end of said electrode and confining said stream to a path of flow spaced from the surrounding wall of said electrode, reversing the flow of said stream at the closed end of the electrode to produce a counterflowing stream to the open end of said electrode between the first mentioned stream and the surrounding inner surface of the electrode, then reversing the flow of said second stream at the open end of said electrode to produce a further reversely flowing stream flowing between the outer surface of said electrode and the surrounding inner surface of said casing to and through said hypochlorite solution outlet, connecting said anodic electrode to the positive terminal of a source of electrical energy and connecting said cathodic casing to the negative terminal of said source of electrical energy.

2,873,237

METHOD OF SEPARATING ISOTOPES

Jean Lamberton, Paris, and Henri de Lacheisserie, Versailles, France, assignors to Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieries d'Ugine, Paris, France, a corporation of France

Application November 21, 1956, Serial No. 623,692
Claims priority, application France November 24, 1955
3 Claims. (Cl. 204—125)



1. The method of increasing the content of one isotope to another isotope in an electrolyte containing said isotopes, which comprises passing an electric current from an anode to a cathode through said electrolyte, periodically substantially increasing and decreasing said electric current, thereby, at each increase in current, increasing the concentration of ions of one isotope relative to the concentration of ions of another isotope in the portion of the electrolyte adjacent the electrodes, and removing from the main body of electrolyte the ions of said isotopes in the portion of the electrolyte adjacent the electrodes.

2,873,238

METHOD OF MAKING JACKETED FISSIONABLE SLUG

Leo A. Ohlinger, Chicago, Ill., and Gale J. Young, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application July 11, 1946, Serial No. 682,956
3 Claims. (Cl. 204—154.2)

1. The method of forming a canned or jacketed fissionable slug which comprises the steps: forming a housing therefor, tinning the interior of the housing, coating the fissionable slug, placing the fissionable slug within the

housing, forming end closures for the housing, coating the end closures, and completing the seal by forcing the



housing into serrations on the end closures while said tinning is liquid.

2,873,239

PROCESS FOR MAKING 2-MERCAPTOETHYL ETHERS OF DIOLS

William R. Nummy and Giffin D. Jones, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 23, 1956
Serial No. 579,772
8 Claims. (Cl. 204—158)

1. A process for effecting the abnormal addition of hydrogen sulfide to a vinyl ether of a diol, which comprises reacting a vinyl ether of a diol having the general formula:

$$H_2C{=}CHO(C_nH_{2n}O)_m{-}X$$

wherein X represents a member of the group consisting of hydrogen and the vinyl radical, *n* is an integer from 2 to 4 and *m* is an integer from 1 to 4, with hydrogen sulfide at temperatures between −20° and 50° C. in the presence of a sensitizing agent consisting of at least one aromatic compound selected from the group consisting of anthracene, fluorene, polyvinyl aromatic hydrocarbons of the benzene series and nuclear polychlorinated monovinyl aromatic hydrocarbons of the benzene series, in amount corresponding to from 0.01 to 5 percent based on the weight of the vinyl ether starting material, and effecting the reaction under the influence of light consisting predominantly of wave lengths between 3000 and 4000 Angstrom units.

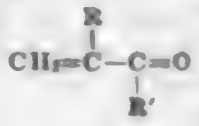
2,873,240

PREPARATION OF GRAFT COPOLYMERS

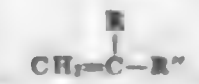
Mary L. Miller, New York, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 22, 1956
Serial No. 605,472
14 Claims. (Cl. 204—158)

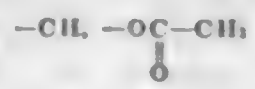
1. A process for preparing graft copolymers which comprises preparing a backbone polymer by polymerizing in the presence of α-chloroacrylonitrile, a monomer selected from the group of compounds having the general formulas



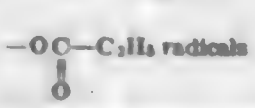
and



wherein R is a substituent selected from the group consisting of hydrogen and $-CH_3$ and $-C_2H_3$ radicals, R′ is a substituent selected from the group consisting of hydrogen, $-NH_2$ $-OH$, $-OCH_3$ and $-OC_2H_3$ radicals and R″ is a substituent selected from the group consisting of



and



said α-chloroacrylonitrile being present in amounts of from about 0.1% to 5% based on the weight of said monomers; dissolving the resulting backbone polymer, together with a dissimilar monomer to be used to make the graft, in a suitable solvent; and generating free radicals by photolyzing the solution of chlorine containing backbone polymer and dissimilar monomer thereby grafting said dissimilar monomer on said backbone polymer, said dissimilar monomer being selected from the group of polymerizable monomers containing a $CH_2{=}C<$ group and a boiling point of at least 60° C.

2,873,241

PROCESS FOR IMPROVING THE ADHESIVENESS OF LACQUERS AND PRINTING COLOURS ON POLYETHYLENE PRODUCTS

Anton Strzyzewski and Willi Gellenkirchen, Krefeld, Germany

No Drawing. Application March 13, 1956
Serial No. 571,150
Claims priority, application Germany March 23, 1955
10 Claims. (Cl. 204—163)

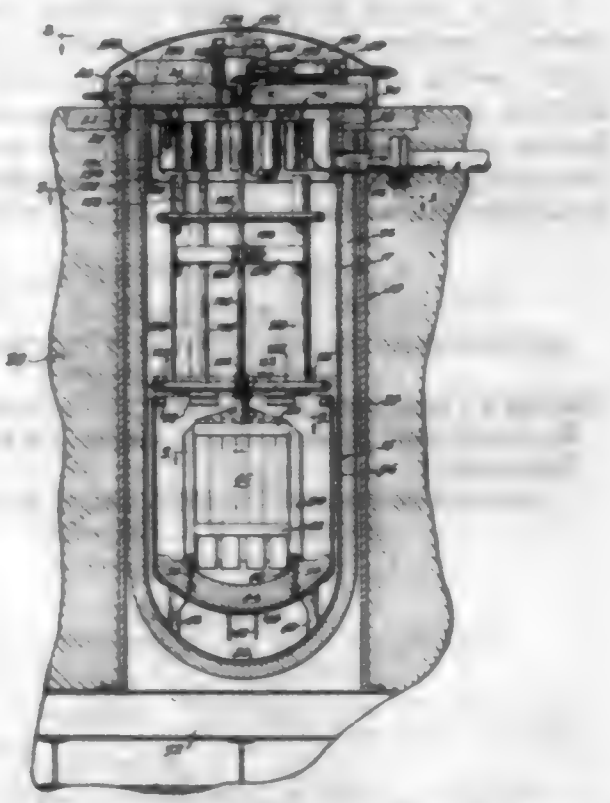
1. The process of improving lacquer and printing color adhesion to polyethylene which comprises contacting the surface of a polyethylene product at a temperature of from about 0 to about 75° C. with a chlorinated hydrocarbon containing a total of up to about 10 carbon atoms and a total of up to about 6 chlorine substituents while simultaneously irradiating said surface with ultra-violet light.

2,873,242

NEUTRONIC REACTOR SYSTEM

Michael Treshow, Hinsdale, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application June 29, 1956, Serial No. 595,831
7 Claims. (Cl. 204—193.2)



1. A neutronic reactor system comprising a pressure vessel, a steam load connected to the pressure vessel, a mass of steam-forming liquid disposed within the pressure vessel, a core containing material fissionable by neutrons of thermal energy submerged in the steam-forming liquid and having a plurality of vertical channels, a first perforated distribution ring of greater diameter than the core horizontally disposed between the top of the core and the surface of the liquid mass, a second perforated distribution ring disposed horizontally within the pressure vessel substantially above the surface of the liquid mass, a source of steam-forming liquid, and means connected between the source of steam-forming

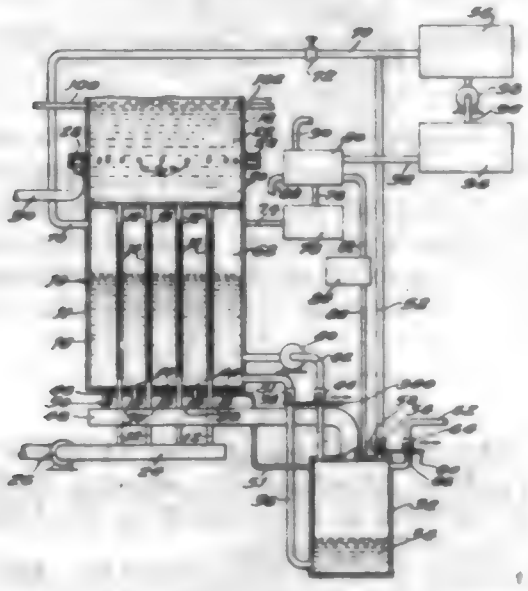
liquid and the two distribution rings, said means regulating the proportion of steam-forming liquid flowing from the source to each of the two distribution rings responsive to the steam demand of the load, the proportion of steam-forming liquid flowing to the submerged distribution ring being proportional to the steam demand of the load.

2,873,243

MEANS FOR SHIELDING AND COOLING REACTORS

Eugene P. Wigner, Oak Ridge, Tenn., Leo A. Ohlinger, Chicago, Ill., and Gale J. Young and Alvin M. Weinberg, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application October 8, 1946, Serial No. 701,910
3 Claims. (Cl. 204—193.2)



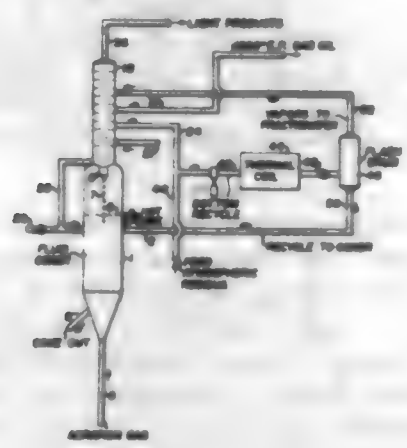
1. In a system of the class described, means for sustaining a nuclear fission chain reaction comprising heavy water having vertical passages therethrough and thermal neutron fissionable material in said passages, a coolant flowing through said passages and into a container above the passages, and a hydrocarbon shielding fluid floating on the coolant above the passages.

2,873,244

HIGH PRESSURE THERMAL CRACKING AND FLUID COKING

Charles E. Hemminger, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application August 23, 1955, Serial No. 529,988
3 Claims. (Cl. 208—50)



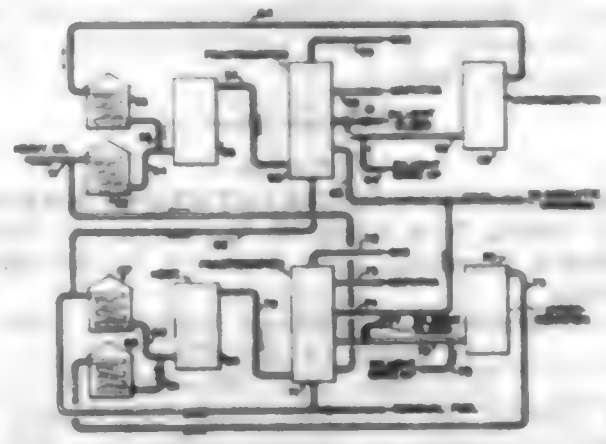
1. A process for pyrolytically upgrading a long residuum containing appreciable amounts of 700 to 1000° F. virgin gas oil and having a Conradson carbon in the range of 2 to 15 wt. percent, obtained by the atmospheric distillation of a whole crude, which comprises the steps of: combining said long residuum with a solids free heavy residual fraction obtained as hereinafter described; thermally cracking the resulting admixture in liquid phase in a thermal cracking zone at a temperature in the range of 850 to 950° F. and a pressure in the range of 100 to 1000 p. s. i.; distilling the resulting cracked products to segregate an overhead gas oil boiling below about 930° F. and a heavy bottoms fraction; passing said overhead gas oil directly to a scrubbing-fractionation zone; injecting said heavy bottoms fraction into a body of fluidized inert particulate solids maintained at a coking temperature of 850 to 1200° F. in a separate fluid coking reaction zone; circulating said particulate solids through an external heating zone and back to said fluid coking reaction zone to maintain said coking temperature; passing the resultant vapors from said fluid coking reaction zone directly to said scrubbing-fractionation zone; recovering product fractions from said scrubbing-fractionation zone and two heavy residual fractions boiling predominantly above 1000° F.; one of said heavy residual fractions containing coke fines entrained from said fluid coking reaction zone with said vapors; combining the substantially solids free heavy residual fraction with said long residuum, and recycling the other coke fine containing heavy residual fraction to said coking zone.

2,873,245

HEAVY OIL CONVERSION PROCESS

Charles E. Thompson, Fanwood, Joseph Stewart, Crawford, and Arthur W. Langer, Jr., Nixon, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 15, 1954, Serial No. 475,484
3 Claims. (Cl. 208—56)



1. A heavy oil conversion process which comprises the steps of: thermally cracking in the absence of a solid catalyst a heavy oil admixed with a light hydrogen donor diluent boiling in a range within the limits 400° to 700° F., at 1000° F. conversions in the range of 40 to 70 vol. percent so as to produce gas oils, separating the cracked mixture to obtain naphthas, spent light diluent, heavier gas oils and residue, subjecting said residue to a second stage of thermal cracking in the absence of a solid catalyst in admixture with a heavy hydrogen donor diluent boiling in a range within the limits of 700° to 1150° F., separating the effluent from the second stage to obtain further amounts of naphthas, gas oils boiling below said heavy diluent and spent heavy diluent, catalytically cracking said gas oils to obtain naphthas of motor fuel quality and cycle stocks, regenerating said light and heavy hydrogen donor diluents by partially catalytically hydrogenating portions of said spent light and heavy diluents along with make-up diluent obtained from said cycle stocks, and repeating the process.

2,873,246

HYDROCRACKING CATALYST AND PROCESS

Rowland C. Hansford, Fullerton, and Dean Arthur Young, Whittier, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application April 18, 1955
Serial No. 502,232
10 Claims. (Cl. 208—68)

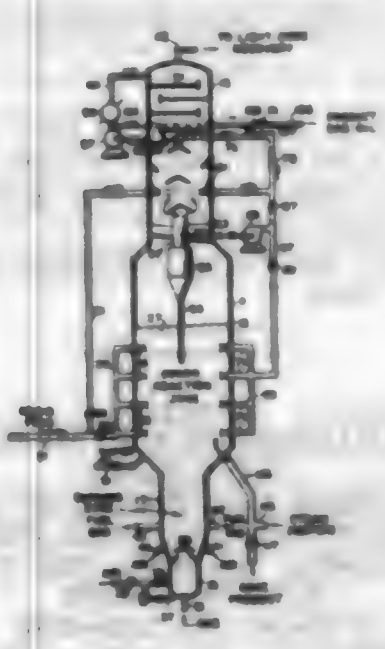
1. A process for hydrocracking a mineral oil feed stock boiling above the gasoline range to produce gasoline-boiling range hydrocarbons which comprises contacting said feed stock with a hydrocracking catalyst in the presence of between about 1000 and 10,000 s. c. f. of hydrogen per barrel of feed, and under hydrocracking conditions, said hydrocracking catalyst comprising as essential active ingredients coprecipitated titanium oxide and silicon oxide in intimate admixture, the TiO_2/SiO_2 ratio in said catalyst being between about 95/5 and 20/80 by weight, said hydrocracking conditions comprising temperatures between about 750° and 1050° F., hydrogen pressures between about 500 and 5,000 p. s. i. g., and space velocities between about 0.1 and 10.0 volumes of liquid feed per volume of catalyst per hour.

2,873,247

SINGLE VESSEL COKING PROCESS

Daniel S. Borey, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application September 21, 1953, Serial No. 381,173
3 Claims. (Cl. 208—95)



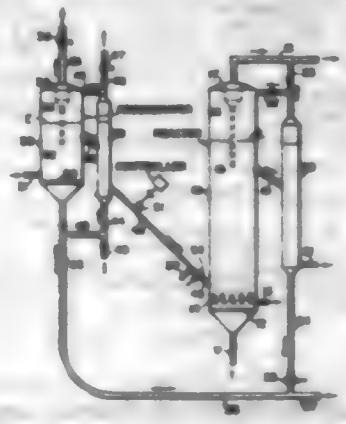
1. The process of converting hydrocarbon oils to produce lower boiling products, which comprises establishing a mass of coke particles in a reaction zone of reduced cross-section at the bottom and larger cross-section in a region above the bottom, said reduced and enlarged cross-sections being in open field communication with each other, introducing air into the coke particles in the bottom region at a velocity in the range of about 3 to 7 ft./sec. to fluidize the portion of reduced cross-section vigorously, to heat said coke substantially and cause it to fluidize less vigorously in the larger cross-sectional portion, introducing the hydrocarbon oil feed directly into the less vigorously fluidized upper portion of the mass, to convert said feed to lower boiling products and coke, withdrawing the product coke from the less actively fluidized zone, introducing a stream of water countercurrently to the withdrawn coke to cool said coke and to form a stream of stripping steam for stripping hydrocarbon vapors from the withdrawn coke, and injecting the stripping steam and stripped hydrocarbon vapors into the less actively fluidized bed to provide additional fluidizing vapors.

2,873,248

METHOD OF CONTROLLING OXIDATION STATE OF HYDROFORMING CATALYSTS

Roger W. Tate, Westfield, Walter A. Rex, deceased, late of Westfield, by Virginia C. Rex, administratrix, Westfield, and Charles E. Hemminger, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application September 3, 1953, Serial No. 378,328
3 Claims. (Cl. 208—136)



1. In a process for hydroforming petroleum naphthas in contact with finely divided alumina-supported molybdenum catalyst particles in accordance with the fluidized solids technique wherein fouled catalyst is regenerated by burning carbonaceous deposits therefrom at elevated temperatures and then pretreated with hydrogen to partially reduce the molybdenum catalyst from its highest valence to a lower, more catalytically active form, the improvement which comprises the steps of passing the stream of hot partly reduced catalyst from the pretreating step past a fixed light source arranged to reflect light from the surface of said catalyst onto a photosensitive element; measuring thereby the extent of color change in said partly reduced catalyst characteristic of the reduction of molybdic oxide to MoO_2 treating the regenerated catalyst with hydrogen under reducing conditions responsive to said color measurements to reduce the molybdenum to an average valency of between about 4.5 and 5.0.

2,873,249

METHOD FOR INHIBITING THE FORMATION AND GROWTH OF SLIME IN WATER SYSTEMS

Herbert Schwartz, Vineland, N. J.

No Drawing. Application September 23, 1957
Serial No. 685,460
6 Claims. (Cl. 210—64)

1. A method of inhibiting the formation and growth of slime in a paper mill water system comprising an aqueous dispersion of paper-making fibres which comprises introducing to the system bis-1,4-bromacetoxy-2-butene.

2,873,250

COMPOSITION FOR PLUGGING HIGHLY PERMEABLE FORMATIONS

Platho P. Scott, Jr., Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

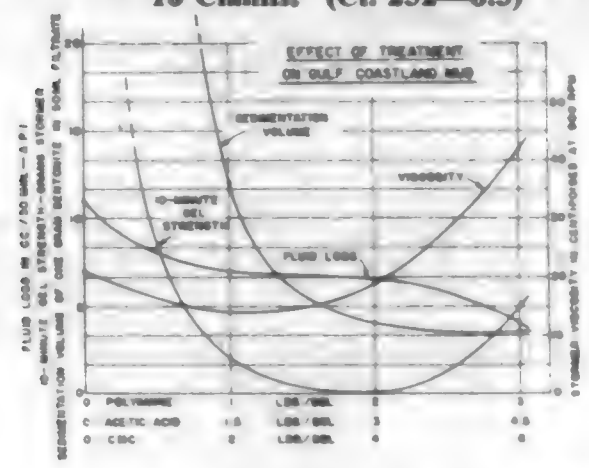
Application December 28, 1953, Serial No. 400,538
6 Claims. (Cl. 252—8.5)

1. A composition for temporarily plugging highly permeable zones penetrated by a well comprising from about 1 to about 3 parts of a granular synthetic hydrocarbon resin having a gradation of particles throughout the range 10–100 mesh and about 1 part of a strong woody granular material having a gradation of particles throughout the range 4–10 mesh, said synthetic hydrocarbon resin being substantially completely soluble in C_{10}—C_{12} paraffinic hydrocarbons whereby the impermeable plug produced with said composition may be permeabilized by flowing petroleum hydrocarbons therethrough.

2,873,251
NON-CLAY-REACTIVE DRILLING FLUID

Frank O. Jones, Jr., Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

Application September 19, 1956, Serial No. 611,092
18 Claims. (Cl. 252—8.5)



1. A drilling fluid comprising water, suspended solids, a minor amount of a water-soluble salt of a water-soluble polyamine sufficient to render the drilling-fluid filtrate substantially non-clay-reactive, and a minor amount of at least one carboxylated polymer selected from the group consisting of alkali metal and ammonium carboxymethylcelluloses and polyacrylates, sufficient to render the fluid-loss, viscosity, and gel strength of said fluid satisfactory for drilling.

2,873,252
METHOD OF INHIBITING CORROSION OF FERROUS METAL SURFACES

Gustave K. Kohn, Berkeley, Calif., assignor to California Spray-Chemical Corporation, Richmond, Calif., a corporation of Delaware

No Drawing. Application June 24, 1954
Serial No. 439,158
5 Claims. (Cl. 252—8.55)

1. A method of inhibiting the corrosion of ferrous metals subject to contact with aqueous solutions of carbon dioxide which comprises introducing into contact with said ferrous metals a water-miscible reaction product of As_2O_3 and a polyhydric alcohol obtained at reaction temperatures of at least about 100° C. and below the boiling point of said polyhydric alcohol, said reaction product containing at least one free hydroxyl radical.

2,873,253
METHOD OF INHIBITING THE DEPOSITION OF FORMALLY SOLID PARAFFINS FROM A PETROLIFEROUS FLUID CONTAINING SAME

Roy D. Stanphill, Pasadena, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

No Drawing. Application October 22, 1957
Serial No. 691,558
10 Claims. (Cl. 252—8.55)

1. A method for inhibiting the deposition of normally solid paraffins from a petroliferous fluid containing the same which comprises incorporating a fatty acid derivative into said petroliferous fluid in an amount sufficient to inhibit deposition of a substantial portion of said normally solid paraffins, said derivative having been prepared by reacting a water insoluble fatty acid with an amine selected from the group consisting of primary and secondary amines having attached, to the nitrogen of the amine, organic radicals containing not more than about 2 carbon atoms per radical, at a temperature of not more than about 200° F., said amine being reacted with said fatty acid in an amount sufficient to provide a reaction product forming a colorless 5 volume percent solution in (*a*) mixtures of at least 55 volume percent of isopropyl alcohol with water and (*b*) mixtures of at least 55 volume percent of toluene with iso-octane.

2,873,254
EXTREME PRESSURE LUBRICANTS

George Wolfram, Des Plaines, and Allan Manteuffel, Union, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application August 1, 1952
Serial No. 302,232
8 Claims. (Cl. 252—46.6)

1. An extreme pressure lubricant additive consisting essentially of (*a*) 3–5 parts by weight of a sulfurized ester of tall oil acids and a straight chain C_1–C_8 aliphatic, saturated, monohydric alcohol, said sulfurized ester containing 3–10% by weight of sulfur, and (*b*) 1 part by weight of the reaction product of phosphorus sesquisulfide and a substance selected from the group consisting of glyceryl trioleate, ethylene glycol dioleate, propylene glycol dioleate, butylene glycol dioleate, and a lard oil containing a low content of polyunsaturated constituents, said reaction product having a phosphorus content of 0.6–2.5 wt. percent.

2,873,255
ALKYL ESTERS OF ALKOXY-ACYLOXY STEARIC ACID

Lyle E. Gast, John C. Cowan, and Howard M. Teeter, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application November 25, 1955
Serial No. 549,205
12 Claims. (Cl. 252—56)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A compound having the following structural formula:

$$CH_3-(CH_2)_7-\underset{\underset{OR}{|}}{CH}-\underset{\underset{OR}{|}}{CH}-(CH_2)_7-COOR'$$

of which R′ is an alkyl group of from 1 to 8 carbon atoms, one R is an alkyl radical of from 1 to 8 carbon atoms and the other R is an acyl group of a lower aliphatic carboxylic acid.

7. A process comprising lubricating parts with the compound of claim 1.

2,873,256
RUST ERADICATOR AND METHOD OF USING SAME

Howard E. Hatch, Long Beach, Calif., assignor to Aris P. Saris, Long Beach, Calif.

No Drawing. Application May 5, 1955
Serial No. 506,388
1 Claim. (Cl. 252—136)

A rust eradicator consisting of an 85 percent solution of syrupy phosphoric acid, a small quantity of trisodium phosphate and a small quantity of zinc in globule form, said zinc being dissolved in said solution, and said ingredients being mixed in the approximate proportions of one ounce of trisodium phosphate and one ounce of zinc per gallon of phosphoric acid.

2,873,257
METHOD OF CATALYST PREPARATION

Edward Allen Hunter, Baton Rouge, and Elroy Merle Gladrow, East Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 14, 1955
Serial No. 515,544
7 Claims. (Cl. 252—465)

1. A method of preparing a cobalt molybdate catalyst in which aqueous solutions of cobalt acetate and ammonium molybdate in weight ratio of cobalt acetate to ammonium molybdate within the range of about 0.12:1 to about 2:1 are rapidly mixed together with an activated catalyst carrier at a temperature above about 120° F.

2,873,258

POLYMERIZATION PROCESS FOR OLEFIN OXIDES

Alexej Bohumil Borkovec, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application June 6, 1957
Serial No. 663,879
8 Claims. (Cl. 260—2)

1. Process for polymerizing a lower vicinal olefin oxide that does not contain more than 4 carbon atoms in its molecule to form a solid polymeric material which comprises mixing the oxide with a minor proportion of a catalyst compound that consists of a partially hydrolyzed ferric compound that has been derived by incomplete hydrolysis of a parent ferric compound which is a reaction product of a ferric halide and propylene oxide corresponding to the empirical formula $FeX_3 \cdot (C_3H_6O)_n$, wherein X is a halogen of atomic number from 17 to 35 and n has a value from 2 to 6; and heating the mixture to maintain it at a temperature between about 40° C. and 100° C. for a sufficient period of time to polymerize the oxide.

2,873,259

RUBBERY FLEXIBLE CLOSED CELL PRODUCT

Lawrence Clark, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application January 17, 1957
Serial No. 634,619
9 Claims. (Cl. 260—2.5)

1. A composition of matter comprising a flexible cellular substantially closed cell blend prepared by the process of blending relative proportions of about 100 parts by weight of a rubbery butadiene-styrene copolymer, about 60–115 parts by weight of a rubbery butadiene-acrylonitrile copolymer, about 35–75 parts by weight of polystyrene, and about 20–30 parts by weight of a vinyl chloride polymer, said cells being formed by the thermal decomposition of p,p'-oxybis (benzene sulfonyl hydrazide) at a temperature in the range of about 250°–330° F.

2,873,260

UREA-FORMALDEHYDE GAP-FILLING ADHESIVE

John F. Corwin, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware

No Drawing. Application June 16, 1955
Serial No. 516,049
5 Claims. (Cl. 260—17.3)

1. A craze-resistant, acid-hardenable, gap-filling adhesive comprising a water-soluble urea-formaldehyde condensate, a cellulosic filler to increase the consistency thereof and about 31% to about 38% by weight of dry condensate of dimethyl formamide, the molar proportion of urea to formaldehyde in said condensate ranging between 1:1.75 to 1:1.9.

2,873,261

HAMMERED METAL FINISH COMPOSITIONS AND METHOD OF MAKING THE SAME

Burton E. Lederman, Dayton, Ohio, assignor to Commonwealth Engineering Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 9, 1956
Serial No. 596,413
2 Claims. (Cl. 260—18)

1. A sprayable coating composition adapted for application and drying to produce a simulated hammered metal finish on a base by a single spray application thereof to the base and drying thereof on the base, and consisting essentially of a pigmented paste having finely divided metallic particles suspended therein and a resin obtained by heat reacting about 100 parts by weight of a resinous, film-forming cross-linking polymeric condensation product of p,p'-dihydroxy diphenyl dimethyl methane and epichlorhydrin with 70 parts by weight of soyabean oil fatty acids and 20 parts by weight of rosin, then introducing about 7.5 parts by weight of phthalic anhydride into the molten resinous mass, and incorporating a metallic drier therein consisting of a mixture of lead naphthenate, manganese naphthenate, cobalt naphthenate, and adding organic solvent thinner thereto to produce a sprayable composition, the total solids content of said composition being between 25% and 50% weight and a Zahn #3 spary viscosity of 20 to 50 seconds.

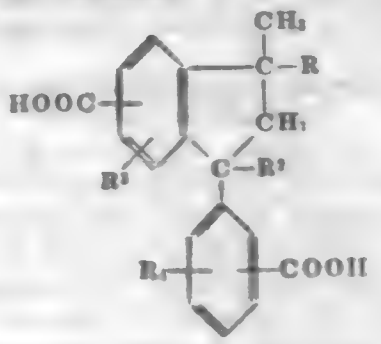
2,873,262

NOVEL ALKYD RESINS PREPARED FROM INDANDICARBOXYLIC ACIDS AND THE PROCESS OF PREPARING THE SAME

John C. Petropoulos, Norwalk, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 10, 1955
Serial No. 539,646
15 Claims. (Cl. 260—22)

1. A process for the preparation of an alkyd resin comprising reacting a polyhydric alcohol with a compound having the general formula:



wherein R^1 and R^2 are members selected from the group consisting of alkyl groups containing from 1 to 4 carbon atoms, and halo groups and R^3 and R^4 are members selected from the group consisting of hydrogen, alkyl groups containing from 1 to 4 carbon atoms and halo groups.

2,873,263

POLYMERIZATION OF UNSATURATED COMPOUNDS IN THE PRESENCE OF BACTERICIDAL PHENATES OF PHENOLS AND THIOPHENOLS

Joginder Lal, Philadelphia, Pa., assignor to H. D. Justi & Son, Inc., Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application August 6, 1954
Serial No. 448,382
7 Claims. (Cl. 260—45.4)

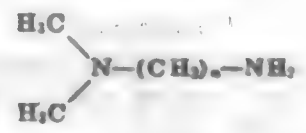
1. A method for uniformly incorporating an antibacterial metal phenate into a polymer comprising, adding from about 3.3 percent to about 5 percent of a metal salt of a phenol to 100 parts of a polymerizable material, said polymerizable material being selected from the group consisting of acrylic acid, methacrylic acid, esters of said acids, nitriles of said acids, vinyl esters, styrene, vinyl toluene, polyethylene glycol maleate, polydiethylene glycol maleate, and mixtures thereof, said metal salt being a phenate and said phenol being selected from the group consisting of phenols and thiophenols, said phenate being free from a compound which is a member of the group consisting of phenols and thiophenols which inhibit polymerization of said polymerizable material, and polymerizing said material in bulk in the presence of a polymerization catalyst therefor.

2,873,264
VINYL AROMATIC POLYMERS STABILIZED WITH DIMETHYLALKYLENE DIAMINES

William K. Schweitzer, Jr., Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 2, 1956
Serial No. 595,065
5 Claims. (Cl. 260—45.9)

1. A composition of matter consisting essentially of a polymerized monovinyl aromatic hydrocarbon of the benzene series and, as a stabilizing agent therefor, from 0.5 to 5 percent, based on the weight of the polymer, of at least one N,N-dimethylalkylene diamine having the general formula:



wherein n is an integer from 2 to 5.

2,873,265
PROCESS FOR PREPARING COPOLYMERS OF ORGANO SILICON DERIVATIVES

John B. Rust, Verona, N. J., assignor, by direct and mesne assignments, of one-half to Montclair Research Corporation, Montclair, N. J., a corporation of New Jersey, and one-half to Ellis-Foster Company, a corporation of New Jersey

No Drawing. Application May 12, 1950
Serial No. 161,731
18 Claims. (Cl. 260—46.5)

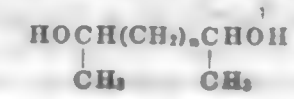
1. The method of preparing copolymers which comprises cohydrolyzing by water the halogen only of an organosilicon halide having an Si—H bond with a non-Si—H containing organosilicon halide having organo and halogen groups only attached to silicon, all valences of silicon other than in Si—H bond being attached to halogen and to carbon of organo groups the ratio of the reactants being from 2:1 to 1:3 by weight.

2,873,266
POLYMERIC MATERIALS AND METHOD OF PRODUCING SAME

Subbaraju Venkataramaraj Urs, Chicago, Ill., assignor, by mesne assignments, to Union Carbide Corporation, a corporation of New York

No Drawing. Application December 27, 1955
Serial No. 555,235
6 Claims. (Cl. 260—77.5)

1. A method of producing thermoplastic polymeric materials soluble in phenol, cresol, dimethyl formamide, pyridine, cyclohexanol, and insoluble in acetone, methanol, and benzene, and being suitable for the production of self-plasticized films which comprises reacting a glycol mixture containing a primary aliphatic glycol having the formula $HO(CH_2)_nOH$ wherein n is an integer from 4 to 10 in a mole amount of 90% to 80% and a secondary aliphatic glycol having the formula



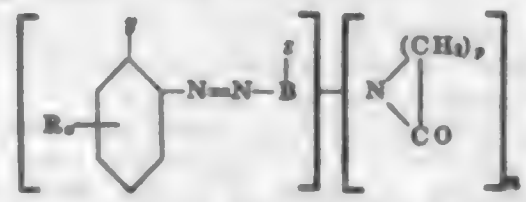
wherein n is an integer from 2 to 4 in a corresponding mole amount of 10% to 20%, with an aliphatic diiso compound containing only two reactive groups, said groups being separated by at least 4 carbon atoms, each of said reactive groups being of the formula —N=C=X, where X is an element selected from the class consisting of oxygen and sulphur, said aliphatic compound being present in a mole amount to give complete reaction with said glycol mixture.

2,873,267
MONOAZO DYESTUFFS AND THEIR METAL COMPLEX COMPOUNDS

Willy Steinemann, Basel, Switzerland, assignor to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application July 12, 1957
Serial No. 671,426
Claims priority, application Switzerland July 20, 1956
9 Claims. (Cl. 260—146)

1. A member selected from the group consisting of monoazo dyestuffs of the general formula



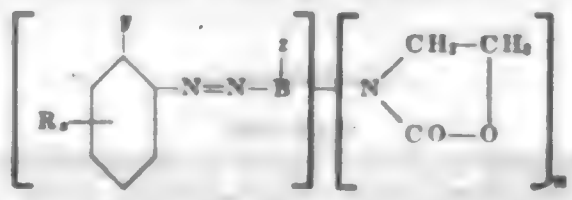
and the chromium and cobalt complex compounds thereof, wherein y represents a substituent capable of metal complex formation and stands in ortho-position to the azo group, z represents a member selected from the group consisting of a phenolic hydroxy group, an enolic hydroxy group, an unsubstituted amino group and a methylamino group and a phenylamino group and stands in ortho-position to the azo group, n represents one of the integers 1 and 2, p represents one of the integers 3 and 4, the sum of the two p's being at most 7 when n=2, wherein R represents a member selected from the group consisting of H, chloro, nitro, lower alkyl, acetyl, acetylamino, sulfo, sulfonic acid amide, sulfonic acid lower alkylamide, sulfonic acid di-lower alkylamide, sulfonic acid lower hydroxyalkylamide, sulfonic acid di-(lower hydroxyalkyl)-amide, sulfonic acid lower alkoxyalkylamide, sulfonic acid mononuclear arylamide, sulfonic acid cyclohexylamide, sulfonic acid benzylamide, sulfonic acid morpholide, sulfonic acid pyrrolidide, and methylsulfonyl radicals, B represents the radical of a coupling component coupling in ortho-position to the substituent z and selected from the group consisting of a hydroxynaphthalene, an aminonaphthalene, a methylaminonaphthalene, a phenylaminonaphthalene, an acetoacetylaminooctane, an acetoacetylaminobenzene, an acetoacetylaminonaphthalene, a 1-phenyl-3-methyl-5-pyrazolone and a 1-naphthyl-3-methyl-5-pyrazolone.

2,873,268
MONOAZO DYESTUFFS AND THEIR METAL COMPLEX COMPOUNDS

Willy Steinemann, Basel, Switzerland, assignor to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application July 12, 1957
Serial No. 671,427
7 Claims. (Cl. 260—146)

1. A member selected from the group consisting of monoazo dyestuffs of the general formula



and the chromium and cobalt complex compounds thereof, wherein R represents a member selected from the group consisting of H, chloro, nitro, lower alkyl, acetyl, acetylamino, sulfo, sulfonic acid amide, sulfonic acid lower alkylamide, sulfonic acid di-lower alkylamide, sulfonic acid lower hydroxyalkylamide, sulfonic acid di-(lower hydroxyalkyl)-amide, sulfonic acid lower alkoxyalkylamide, sulfonic acid mononuclear arylamide, sulfonic acid cyclohexylamide, sulfonic acid benzylamide, sulfonic acid morpholide, sulfonic acid pyrrolidide, and methylsulfonyl radicals, B represents the radical of a

coupling component coupling in ortho-position to the substituent *z* and selected from the group consisting of a hydroxybenzene bearing an alkyl group in the 4-position, a hydroxynaphthalene, an aminonaphthalene, a methylaminonaphthalene, a phenylaminonaphthalene, an acetoacetylaminooctane, an acetoacetylaminobenzene, an acetoacetylaminonaphthalene, a 1-phenyl-3-methyl-5-pyrazolone and a 1-naphthyl-3-methyl-5-pyrazolone, *x* represents a numeral from 1 to 3, *y* represents a substituent capable of metal complex formation and stands in ortho-position to the azo group, *z* represents a member selected from the group consisting of a phenolic hydroxy group, an enolic hydroxy group, an unsubstituted amino group and a methylamino group and a phenylamino group, and stands in ortho-position to the azo group, and *n* represents one of the integers 1 and 2.

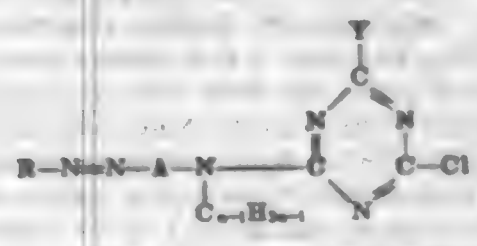
2,873,269

MONOAZO-DYESTUFFS

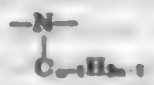
Alfred Fasciati, Bottmingen, Raymond Ganst, Binningen, Henri Rist, Arlesheim, and Karl Seitz, Neu-Allschwil, Switzerland, assignors to Cba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application September 9, 1957
Serial No. 682,584
Claims priority, application Switzerland September 14, 1956
12 Claims. (Cl. 260—153)

1. A monoazo-dyestuff corresponding to the formula



wherein R represents an at least monocylic and at most bicyclic aromatic radical, *n* represents a whole number of at most 3, A represents the radical of a naphthalene sulfonic acid bound to the azo linkage in vicinal position of a hydroxyl group and to the



group in β-position of the naphthalene nucleus and Y represents an amino group containing up to 12 carbon atoms, at least one of the radicals R and Y containing a member selected from the group consisting of carboxylic and sulfonic acid groups.

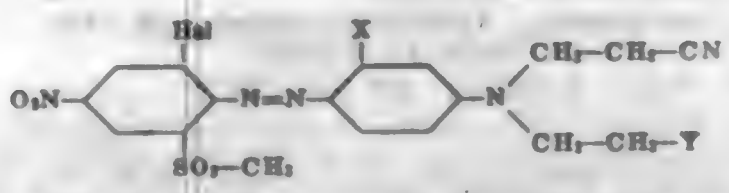
2,873,270

MONOAZO DYESTUFFS

Ernst Merian, Allschwil, near Basel, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandor trust

No Drawing. Application January 12, 1953
Serial No. 330,890
Claims priority, application Switzerland January 18, 1952
6 Claims. (Cl. 260—205)

1. A monoazo dyestuff which corresponds to the formula



wherein Hal stands for a member selected from the group consisting of chlorine and bromine, X stands for a member selected from the group consisting of hydrogen, chlorine and methyl, and Y stands for a member selected from the group consisting of hydrogen and hydroxyl.

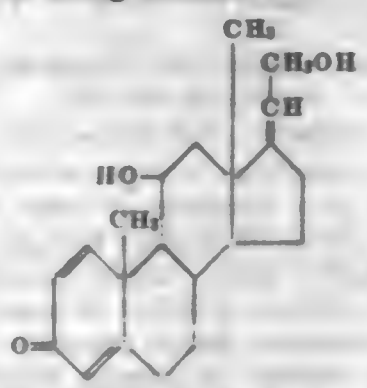
2,873,271

1,4,17(20)-PREGNATRIENES

Jerome Korman, Portage Township, Kalamazoo County, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Original application January 31, 1955, Serial No. 485,316. Divided and this application December 6, 1955, Serial No. 551,231
6 Claims. (Cl. 260—239.5)

1. A compound selected from the group consisting of (1) 11β,21-dihydroxy-1,4,17(20)-pregnatriene-3-one represented by the following formula:



(2) 21-organic carboxylic acid esters thereof wherein the acyl radical contains from one to twelve carbon atoms, inclusive, (3) the 3-pyrrolidyl enamine thereof, and (4) 3-cyclic ketals thereof of lower aliphatic alkylene glycols.

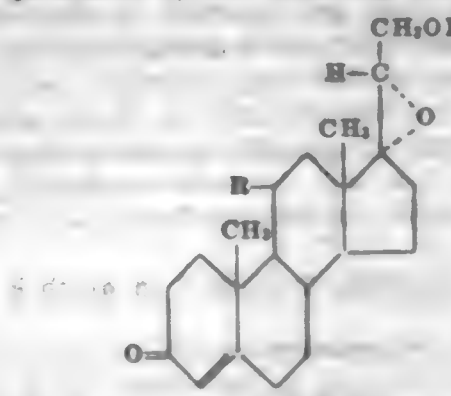
2,873,272

11-OXYGENATED-17α,20α-EPOXY-4-PREGNENES

Gunther S. Fonken and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application July 13, 1955
Serial No. 521,912
5 Claims. (Cl. 260—239.55)

1. An 11-oxygenated-17α,20α-epoxy-21-oxy-4-pregnen-3-one represented by the following formula:



wherein R is selected from the group consisting of hydroxy and keto and R′ is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

2,873,273

STEROIDS

Pietro de Ruggieri and Carlo Ferrari, Milan, Italy

No Drawing. Application September 29, 1958
Serial No. 763,798
3 Claims. (Cl. 260—239.55)

2. 3β-acetoxy-androst-5-ene-17β-cyano-17α-(2′-tetrahydropyranyloxy).

2,873,274

PREPARATION OF PIPERAZINE

Andrew Campbell, Jr., Wallingford, Pa., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 29, 1956
Serial No. 606,797
4 Claims. (Cl. 260—268)

1. The method which comprises heating a mixture consisting essentially of diethylene triamine and from about

0.2% to about 25% boric acid to a temperature in the range of 200 to 900° F. in the presence of granular silica-alumina, and recovering piperazine from the reaction products by steps comprising fractional distillation.

2,873,275

PROCESS OF REACTING ACID DERIVATIVES WITH SPECIFIED ORGANOMAGNESIUM CHLORIDES

Hugh E. Ramsden, Metuchen, N. J., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application November 28, 1955
Serial No. 549,543
6 Claims. (Cl. 260—295)

1. A process comprising reacting an acid derivative selected from the class consisting of ethyl malonate, ethyl succinate, ethyl phthalate, methyl formate, ethyl acetate, butyl laurate, methyl oleate, diethyl oxalate, dibutyl succinate, dimethyl adipate, dimethyl sebacate, diethyl maleate, diethyl terephthalate, methyl benzoate, methyl anisate, methyl furoate, methyl nicotinate, butyl 2,4-dichlorophenoxyacetate, methyl levulinate, monoethyl succinate, diethyl sebacate, ethyl perfluorobutyrate, ethyl perfluorocaprate, ethyl trichloroacetate, dioctyl oxalate, ethyl trifluoroacetate, butyl acetate, methyl acrylate, acetyl chloride, butyryl chloride, benzoyl chloride, oxalyl chloride, adipoyl dichloride, furoyl chloride, acetonitrile, butyronitrile, benzonitrile, acrylonitrile and fumaronitrile, with an organomagnesium chloride in the presence of compound Q; said organomagnesium chloride being prepared by reacting an organic chloride of the formula RCl wherein R is selected from the class consisting of aryl, vinyl and aromatic-heterocyclic radicals, with magnesium in compound Q; wherein said compound Q is selected from the class consisting of tetrahydrofuran, tetrahydropyran, 2-ethoxy-tetrahydropyran, dihydropyran, tetrahydro furfuryl ethyl ether and 2-methyl tetrahydrofuran; wherein said aromatic-heterocyclic radical is selected from the class consisting of 2-thienyl, 2-pyridyl, α-furyl, 5-chloro - 2-thienyl, 2 - benzothiazolyl, 2 - benzoxazolyl, 2-methyl-5-benzothiazolyl, 2-quinolyl, 6-quinolyl, 8-quinolyl, 6-chloro-2-methoxy-9-acridyl, 4-chloro-6-pyrimidyl, 4,5,6-trichloro - 2 - pyrimidyl, 4,6-dichloro-2-pyrimidyl and N-methylpyrryl.

2. The process according to claim 1 in which R is the vinyl radical.

2,873,276

ANTIBIOTIC PURIFICATION AND COMPLEX COMPOUNDS

Edwin W. Blase, Huntington Station, N. Y., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application May 18, 1956
Serial No. 585,627
4 Claims. (Cl. 260—295)

1. A process for the recovery of oxytetracycline from an aqueous solution thereof obtained from a fermentation broth, which comprises treating said aqueous solution in the presence of polyvalent metal ions at a pH of at least about 5.5 and up to about 10 with at least an excess of one organic base selected from the group consisting of (*a*) primary alkyl amines having from 6 to 12 carbon atoms; (*b*) secondary alkyl amines wherein two alkyl groups having between 6 and 9 carbon atoms each are attached to the nitrogen; (*c*) 1-short chain alkyl-2-long chain alkyl imidazolines wherein the short chain alkyl group has between 1 and 4 carbon atoms and the long chain alkyl has between 7 and 17 carbon atoms; (*d*) 1-short chain hydroxyalkyl-2-long chain alkyl imidazolines wherein the short chain hydroxyalkyl has between 1 and 4 carbon atoms and the long chain alkyl has between 7 and 17 carbon atoms; (*e*) primary phenylalkyl amines wherein the alkyl group has between 1 and 3 carbon atoms; (*f*) long chain alkyl tri-short chain alkyl ammonium halides wherein the long chain alkyl has between 8 and 18 carbon atoms and the short chain alkyl has between 1 and 3 carbon atoms and the halide is chosen from the group consisting of chloride, bromide, and iodide; (*g*) long chain alkyl di-short chain alkyl benzyl ammonium halides wherein the long chain alkyl group has between 8 and 18 carbon atoms, the short chain alkyl group has between 1 and 3 carbon atoms and the halide is chosen from the group consisting of chloride, bromide, and iodide; (*h*) medium chain alkyl benzyl tri-short chain alkyl ammonium halides wherein the medium chain is attached to the benzyl group and has between 4 and 8 carbon atoms and the short chain alkyl group has between 1 and 3 carbon atoms; (*i*) di-medium chain alkyl-di-short chain alkyl ammonium halides wherein the medium chain alkyl group has between 6 and 18 carbon atoms and the short chain alkyl group has between 1 and 3 carbon atoms and the halide is chosen from the group consisting of bromide, chloride and iodide; (*j*) 1-short chain alkyl-2-long chain alkyl-3-short chain alkyl imidazolinium halides wherein the short chain alkyl group has from 1 to 4 carbon atoms, the long chain alkyl group has from 7 to 17 carbon atoms, and the halide is chosen from the group consisting of chloride, bromide and iodide; (*k*) 1-short chain alkyl-2-long chain alkyl-3-benzyl imidazolinium halides wherein the short chain alkyl group has from 1 to 4 carbon atoms and the long chain alkyl group has from 7 to 17 carbon atoms; (*l*) 1-short chain hydroxyalkyl-2-long chain alkyl-3-short chain alkyl imidazolinium halides wherein the short chain hydroxyalkyl groups have from 1 to 4 carbon atoms, the long chain alkyl group has from 7 to 17 carbon atoms, and the halide is chosen from the group consisting of chloride, bromide, and iodide; (*m*) (medium chain alkyl) phenoxyethoxyethyl di-short chain alkylbenzylammonium halides wherein the medium chain alkyl group has from 6 to 12 carbon atoms, the short chain alkyls have between 1 and 3 carbon atoms each, and the halide is chosen from the group consisting of chloride, bromide, and iodide; (*n*) N,N'-di-((medium chain alkylbenzyl) dimethyl ammonium acetyl) ethylenediamine dihalides wherein the medium chain alkyl group has from 6 to 12 carbon atoms and the halide is chosen from the group consisting of chloride, bromide, and iodide; (*o*) N-(long chain alkanoyl ethanolaminoformylmethyl)pyridinium halides wherein the long chain alkanoyl group has from 8 to 18 carbon atoms and the halide is chosen from the group consisting of chloride, bromide and iodide; and recovering the metal ion-organic base-oxytetracycline antibiotic complex thereby precipitated.

2,873,277

MANUFACTURE OF N-ALKYL- AND N-CYCLOALKYLBIS (2-BENZOTHIAZOLESULFEN) AMIDES

Norman K. Sundholm, Naugatuck, Conn., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application September 28, 1956
Serial No. 612,589
6 Claims. (Cl. 260—306.6)

1. A method of preparing N-alkyl- and N-cycloalkyl-bis(2-benzothiazolesulfen) amides which comprises the substantially concurrent addition to a reaction zone of a member of the group consisting of the corresponding monoalkylamine and monocycloalkylamine, and 2-benzothiazolesulfenyl chloride in approximately a 3:2 molar ratio, respectively, and carrying out the reaction in the presence of an inert organic solvent.

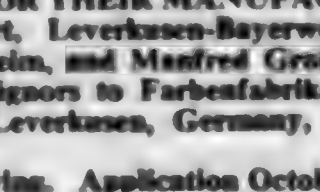
2,873,278

CERTAIN 4-ACYL-1,2-DIPHENYL-3,5-DIOXOPYRAZOLIDINES

Willy Logemann and Francesco Lauria, Milan, Italy, assignors to Carlo Erba S. p. A., Milan, Italy, a firm

No Drawing. Application June 3, 1955
Serial No. 513,148
Claims priority, application Italy June 9, 1954
5 Claims. (Cl. 260—310)

5. Compounds of the formula



wherein R is alkyl of 1 to 3 carbon atoms.

2,873,279

HALOGENATION OF PHTHALOCYANINES

David I. Randall, New Vernon, and John Taras, Alpha, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 18, 1956
Serial No. 603,228
13 Claims. (Cl. 260—314.5)

1. A process comprising treating a phthalocyanine compound selected from the group consisting of phthalocyanine and metallic phthalocyanines with elemental chlorine in a melt consisting of aluminum chloride and, for each part thereof, about 0.3 to 1.3 parts of an inorganic compound of sulfur selected from the group consisting of sulfur dioxide, thionyl chloride and sulfuryl chloride and mixtures thereof at a temperature of about 60 to 200° C. until more than 14 and up to 16 chlorine atoms have been introduced into said phthalocyanine compound.

2,873,280

PHTHALOCYANINE-SULFONAMIDES AND PROCESS FOR THEIR MANUFACTURE

Berthold Biedert, Leverkusen-Bayerwerk, Kurt Breig, Koln-Stammheim, and Manfred Graß, Koln-Mulheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application October 9, 1956
Serial No. 614,798
Claims priority, application Germany October 11, 1955
5 Claims. (Cl. 260—314.5)

1. Phthalocyanine-amide corresponding to the formula

$$Pc(R—R_1)_n$$

wherein Pc stands for a phthalocyanine radical, R means a radical selected from the group consisting of —SO_2— and —CO—, R_1 stands for a radical selected from the groups consisting of aminophenyl pyrazolone, aminobenzoyl acetic acid anilide, aceto acetic acid (aminophenyl)-amide, 2-hydroxynaphthalene-3-carboxylic acid (aminophenyl)-amide and amino-hydroxynaphthalene radicals, said radical being linked to the radical R via the amino-group and containing a coupling position, and *n* stands for an integer from 1 to 4.

2,873,281

PREPARATION OF BIS-QUATERNARY AMMONIUM COMPOUNDS

William Edward Rosen, Summit, N. J., assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J., a corporation of New Jersey

No Drawing. Application July 5, 1957
Serial No. 669,979
3 Claims. (Cl. 260—319)

1. Process for the preparation of 2-(N,N-di-lower alkyl-amino-lower alkyl)-benz-polychloro-isoindoline dimethochlorides which comprises treating in a closed vessel a solution of a member of the group consisting of a 2-(N,N-di-lower alkyl-amino-lower alkyl)-benz-polychloro-isoindoline and the corresponding monomethochloride in formamide with an excess of methyl-chloride at an elevated temperature.

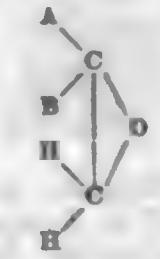
2,873,282

CATALYTIC PROCESS FOR PRODUCING ALKYLENE CARBONATES

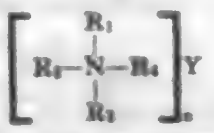
Paul P. McClellan, Old Greenwich, Conn., assignor to Jefferson Chemical Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application April 5, 1952
Serial No. 280,853
14 Claims. (Cl. 260—340.2)

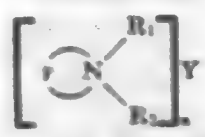
1. A process for the manufacture of an alkylene carbonate which comprises reacting an alkylene oxide of the oxirane system having the formula



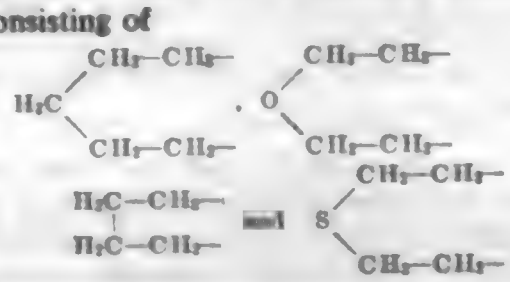
in which A and B are from the group consisting of hydrogen, phenyl, alkyl containing from 1 to 20 carbon atoms, alkenyl containing from 1 to 20 carbon atoms and haloalkyl containing from 1 to 20 carbon atoms with carbon dioxide in the presence of a catalyst from the group consisting of quaternary ammonium compounds having the following structural formula



in which R_1, R_2, R_3, and R_4 are from the group consisting of alkyl, aralkyl, aminoalkyl and alkenyl radicals each containing from 1 to 20 carbon atoms, the sum of the carbon atoms in R_1, R_2, R_3 and R_4 is not less than 4 and not more than 40, Y is a radical from the group consisting of hydroxide, carbonate and bicarbonate and the value of *n* is equal to the valence of Y, quaternary ammonium compounds having the following structural formula



in which R_1, R_2, *n* and Y have the same meaning as set forth above and *r* is a divalent radical from the group consisting of



and ion exchange resins having quaternary ammonium groups.

2,873,283

EPOXIDATION PROCESS

Chang-Tsing Yang, New York, N. Y., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application December 13, 1954, Serial No. 474,884
6 Claims. (Cl. 260—348.5)

2. In a process for epoxidizing a member of the group consisting of mono- and di-olefinic polycyclic hydrocarbons and chloro-hydrocarbons having fused rings of 5 to 6 carbon atoms by reacting a two phase mixture comprising an aqueous phase containing a lower fatty peracid of 1 to 4 carbon atoms and a separate phase con-

taining said olefinic compound, the improvement which comprises carrying out said reaction in a plurality of reaction stages, intimately dispersing the feed of said olefinic polycyclic compound in a first reaction stage with an aqueous phase containing said peracid from a later reaction stage of the series to effect partial epoxidation of said olefinic polycyclic compound, separating the phases of the reaction mixture, further reacting the olefinic compound-containing phase with an aqueous solution of said fatty peracid in a later reaction stage in which incomplete conversion of said peracid is effected, separating the phases of the resulting reacted mixture, feeding thus separated aqueous fatty peracid-containing phase to said first reaction stage and recovering epoxidation product from the last of the reaction stages.

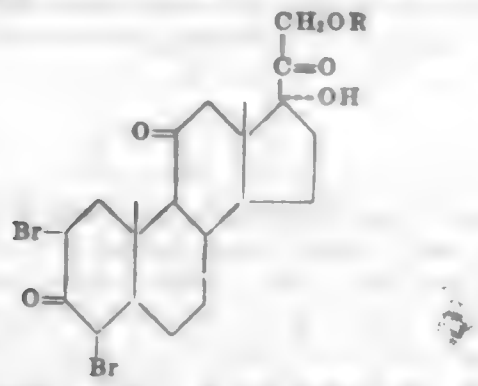
2,873,284

N,N-DIALKYL ACYLAMIDE SOLVATE OF 1,4-PREGNADIENE-17α,21-DIOL-3,11,20-TRIONE-21-ACYLATE AND PROCESS OF PREPARING SUCH

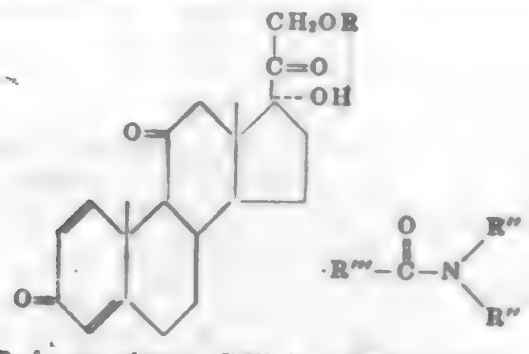
John T. Day, North Plainfield, Raymond L. Erickson, Plainfield, and Russell H. Pettebone, Fanwood, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application August 10, 1955
Serial No. 527,657
9 Claims. (Cl. 260—397.45)

2. The process which comprises reacting a compound of the formula—

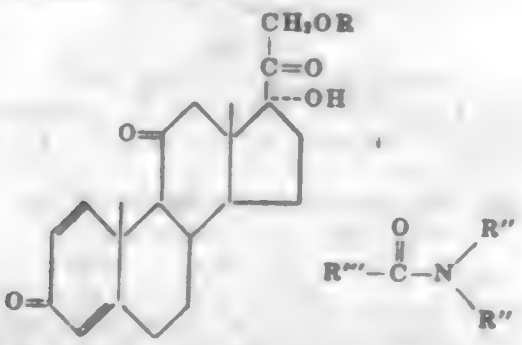


wherein R is lower acyl with an N,N-di-lower alkyl lower acylamide in the presence of an acid binding agent to form a compound of the formula—



wherein R is as above, R‴ is selected from the group consisting of hydrogen and lower alkyl, and R″ is a lower alkyl radical and heating the compound to remove the N,N-di-lower alkyl lower acylamide to form 1,4-pregnadiene-17α,21-diol-3,11,20-trione-21-lower acylate.

9. A compound of the formula—



wherein R is lower acyl, R‴ is selected from the group consisting of hydrogen and lower alkyl, and R″ is a lower alkyl radical.

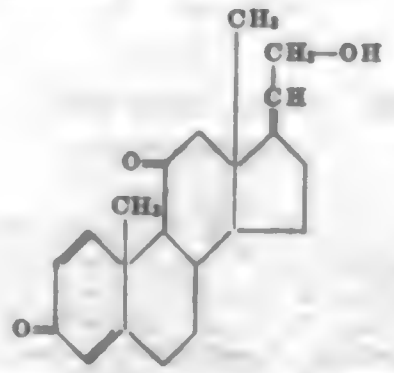
2,873,285

1,4,17(20)-PREGNATRIENES

Jerome Korman, Portage Township, Kalamazoo County, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Original application January 31, 1955, Serial No. 485,317. Divided and this application December 6, 1955, Serial No. 551,230
4 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of (1) 21-hydroxy-1,4,17(20)-pregnatriene-3,11,dione represented by the following formula:



(2) 21-organic carboxylic acid esters thereof wherein the acyl radical contains from one to twelve carbon atoms, inclusive, (3) the 3-pyrrolidyl enamine thereof and (4) 3-cyclic ketals thereof of lower aliphatic alkylene glycols.

2,873,286

ORGANIC COMPOUNDS AND PROCESS

J. Allan Campbell, Kalamazoo Township, Kalamazoo County, John C. Babcock, Portage Township, Kalamazoo County, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 14, 1957
Serial No. 640,090
5 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 3β,11β,17β-trihydroxy - 17α - methyl - 5 - androsten, 3β,-11β,17β - trihydroxy - 17α - methyl - 5 - androstene 3β-acylates, 3β,11β,17β - trihydroxy - 17α - methyl - 5 - androstene 11β,17β - diacylates, 3β,11β,17β - trihydroxy-17α-methyl - 5 - androstene 3β,11β,17β - triacylates, 3β,17β-dihydroxy - 17α - methyl - 5 - androsten - 11 - one, 3β,17β-dihydroxy - 17α - methyl - 5 - androsten-11-one 3β-acylate, 3β,17β - dihydroxy - 17α - methyl - 5 - androsten - 11-one 3β,17β - diacylate, wherein the acyl radical is of a hydrocarbon carboxylic acid containing from one to nine carbon atoms, inclusive.

2,873,287

PROCESS FOR PREPARING VINYLTIN COMPOUNDS

Hugh E. Ramsden, Scotch Plains, N. J., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 9, 1956
Serial No. 583,612
9 Claims. (Cl. 260—429.7)

1. In a process for the preparation of a vinylic tin compound which comprises reacting a vinylic magnesium chloride compound with a tin compound having a tin atom bonded to at least one halogen atom, the step which comprises carrying out the reaction in the presence of at least one mole of a cyclic ether for every mole of vinylic magnesium chloride used, said cyclic ether being selected from the class consisting of tetrahydrofurans, tetrahydropyrans, dihydropyrans, and N-methylmorpholines, with the further restriction that said cyclic ethers contain not more than one double bond in the ring and that at least one carbon atom adjacent the oxygen atom in said cyclic ether is free of any substituents other than hydrogen.

2,873,288
PROCESS FOR THE PREPARATION OF VINYL TIN COMPOUNDS

Sanders D. Rosenberg, North Plainfield, and Ambrose J. Gibbons, Jr., East Brunswick Township, Middlesex County, N. J., assignors to Metal & Thermit Corporation, Rahway, N. J., a corporation of New Jersey

No Drawing. Application September 18, 1956
Serial No. 610,664
9 Claims. (Cl. 260—429.7)

1. The process of preparing monovinyltin trihalides, divinyltin dihalides, and trivinyltin monohalides by a disproportionation reaction comprising mixing stoichiometric amounts of a halide selected from the class consisting of tin tetrahalide, divinyltin dihalide and vinyltin trihalide, with a vinyltin compound selected from the class consisting of tetravinyltin, divinyltin dihalide, and trivinyltin monohalide, said halide being selected from the class consisting of chlorides and bromides to yield the stoichiometrically determined vinyltin halide, wherein when said halide is a vinyl trihalide, said vinyltin compound is selected from the class consisting of tetravinyltin and trivinyltin monohalide, and wherein when said halide is a divinyltin dihalide, said vinyltin compound is tetravinyltin.

2,873,289
MANUFACTURE OF MERCURIC ACETATE

Donald G. MacKellar, Kenmore, N. Y., assignor to Food Machinery and Chemical Corporation, San Jose, Calif.

No Drawing. Application April 22, 1957
Serial No. 654,031
10 Claims. (Cl. 260—431)

1. In the method of making mercuric acetate by reacting metallic mercury with peracetic acid, the improvement comprising forming the peracetic acid in situ in the metallic mercury containing reaction environment, by reaction of acetic acid with hydrogen peroxide in the presence of, as a catalyst, a strong acid which forms water soluble reaction products with mercury.

2,873,290
ALKOXIDE SYNTHESIS

Donald L. Esmay, Munster, and Carl E. Johnson, Griffith, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application January 18, 1955
Serial No. 482,656
11 Claims. (Cl. 260—448)

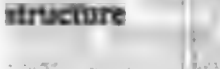
1. A process for the preparation of an alkoxide of a compound selected from the class consisting of alkali metal boroalkyls and alkali metal aluminoalkyls, wherein each alkyl group contains at least 2 carbon atoms, which process comprises contacting a compound of said class in the presence of an inert liquid hydrocarbon diluent with molecular oxygen under conditions to produce a substantial yield of said alkoxide.

2,873,291
PROCESS FOR PREPARING BIS(CHLOROFORMATES) OF 1,2-DIOLS

Louis Spiegler, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 5, 1957
Serial No. 669,963
5 Claims. (Cl. 260—463)

1. In the process of preparing bis(chloroformates) of 1,2-diols by separately adding a fluid 1,2-diol of the structure



wherein R is taken from the group consisting of acyclic hydrocarbon radicals, acyclic hydrocarbon radicals substituted by halogen, acyclic hydrocarbon radicals substituted by an alkoxy radical, and, liquid phosgene in a molar ratio of not more than 1:2 to agitated liquid phosgene, the unreacted glycol and the said agitated liquid phosgene existing as a single phase, said agitated liquid phosgene being present in at least molar equivalents to the maximum amount of the bis(chloroformate) present, the improvement consisting of minimizing the formation of cyclic 1,2-carbonate by adding 0.0025 to 0.0125 mol of a tertiary amine for each mol of said agitated liquid phosgene, the reaction temperature being between about 0° C. to 8° C.

2,873,292
PREPARATION OF METHYL AND ETHYL ESTERS OF AROMATIC CARBOXYLIC ACIDS

Delbert H. Meyer, Highland, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application May 31, 1957, Serial No. 662,869
7 Claims. (Cl. 260—475)

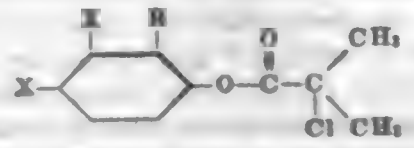
1. A non-catalytic process for making dialkylphthalates which comprises contacting a phthalic acid, an alkyl-group affording alcohol selected from the class consisting of methanol and ethanol, in a molar ratio of alcohol to acid of between about 3 and 50, at a temperature between about 260° C. and 350° C., said contacting zone containing added alkylphthalate ester in an amount between about 35 and 50 parts by weight per 100 parts of said phthalic acid reactant charged, for a time such that substantially equilibrium conversion of carboxyl groups present in the contacting zone is attained and separating dialkyl phthalate from unreacted alcohol.

2,873,293
BIS(α-CHLORO-ISOBUTYRATES) OF DIHYDROXY-BENZENES

Donald G. Kundiger, Manhattan, Kans., and Elwin B. W. Oviet, Park Forest, Ill., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 6, 1956
Serial No. 602,414
3 Claims. (Cl. 260—479)

1. Bis(α-chloro-isobutyrates) of dihydroxy-benzenes having the formula



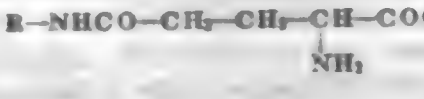
wherein one X represents an α-chloro-isobutyryloxy radical, the other X represents chlorine and R is selected from the group consisting of hydrogen and methyl.

2,873,294
PROCESS FOR SYNTHESIZING GLUTAMINE

Granville Bruce Kline, Greenwood, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

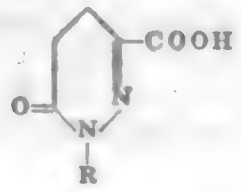
No Drawing. Application June 9, 1958
Serial No. 740,585
7 Claims. (Cl. 260—518)

1. The process of preparing a glutamine represented by the following formula:



in which R represents a member of the group consisting of hydrogen, an alkyl group having from 1 to 8 carbon atoms, a monocarbocyclicaryl group and a monocarbo-

cyclicaryl-lower alkyl group, which process comprises hydrogenating in the presence of a palladium catalyst at a superatmospheric hydrogen pressure and a temperature below about 40° C., a dispersion of a 1,4,5,6-tetrahydro-6-oxo-3-pyridazinecarboxylic acid represented by the following formula:



in which R has the same significance as hereinabove.

2,873,295

PROCESS FOR THE PURIFICATION OF 2-ETHYL-CIS-CROTONYLUREA

Albert P. Centolella, Zeeland, Mich., assignor to Miles Laboratories, Inc., Elkhart, Ind., a corporation of Indiana

No Drawing. Application March 31, 1958 Serial No. 724,808

7 Claims. (Cl. 260—553)

5. A process for the purification of 2-ethyl-cis-crotonylurea which comprises contacting the hot reaction mixture subsequent to the dehydrohalogenation reaction with an amount of a base equimolar in amount to the cadmium oxide used, cooling the reaction mixture to precipitate 2-ethyl-cis-crotonylurea, slurrying said precipitate with a 1% solution of acetic acid, continuously mixing said slurry until said precipitate is thoroughly wetted with said solution, and filtering said slurry to obtain the desired final product substantially free of residual cadmium ions.

2,873,296

CYCLOHEXANONE

Karl T. Nilsson, Montville, and John Vitrone, Jr., West Paterson, N. J., assignors to Allied Chemical Corporation, a corporation of New York

Application February 28, 1958, Serial No. 718,377

3 Claims. (Cl. 260—586)

1. A continuous process for catalytically hydrogenating phenol to cyclohexanone with concomitant formation of by-product cyclohexanol and separation and removal of the by-product cyclohexanol from unreacted phenol which comprises continuously passing hydrogen into a mixture maintained at a temperature within the range of about 100–200° C. of cyclohexanone, phenol and cyclohexanol in the presence of a palladium catalyst, said mixture comprising 30–80% by weight cyclohexanone, 10–40% by weight phenol and an amount of cyclohexanol in excess of 39% by weight of the phenol, to catalytically hydrogenate the phenol to cyclohexanone with concomitant formation of a small amount of by-product cyclohexanol, continuously withdrawing from said mixture crude product comprising cyclohexanone, unreacted phenol and cyclohexanol, continuously introducing phenol and cyclohexanol into said mixture to maintain the concentration of cyclohexanone at 30–80%, the concentration of phenol at 10–40% and the concentration of cyclohexanol in excess of 39% by weight of the phenol, subjecting the crude product to rectification under subatmospheric pressure to remove as vapor substantially pure cyclohexanone and leave as bottoms a mixture of phenol and cyclohexanol, subjecting said bottoms to a second rectification under subatmospheric pressure to remove as vapor cyclohexanol uncontaminated by phenol, and returning bottoms containing unreacted phenol from the second rectification for further hydrogenation to cyclohexanone.

2,873,297

PROCESS OF REACTING OLEFIN OXIDES WITH SPECIFIED ORGANOMAGNESIUM CHLORIDES

Hugh E. Ramsden, Metuchen, N. J., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application November 28, 1955 Serial No. 549,570

7 Claims. (Cl. 260—613)

1. A process which comprises reacting at between room temperature and reflux temperature an ethylenic oxide selected from the class consisting of ethylene oxide, propylene oxide, vinylethylene oxide, styrene oxide and 2,3-butylene oxide with an organomagnesium chloride in the presence of compound Q; said organomagnesium chloride being prepared by reacting an organic chloride of the formula RCl, wherein R is selected from the class consisting of aryl, vinyl and aromatic-heterocyclic radicals, with magnesium in compound Q; wherein said compound Q is selected from the class consisting of tetrahydrofuran, tetrahydropyran, 2-ethoxytetrahydropyran, dihydropyran, tetrahydrofurfuryl ethyl ether and 2-methyl tetrahydrofuran; and wherein said aromatic-heterocyclic radical is selected from the class consisting of α-thienyl, 5-chloro-2-thienyl, 2-pyridyl, 2-furyl, 2-benzothiazolyl, 2-benzoxazolyl, 2-methyl-5-benzothiazolyl, 2-quinolyl, 6-quinolyl, 8-quinolyl, 4,5,6-trichloro-2-pyrimidyl and 2-N-methylpyrryl.

2,873,298

PRODUCTION OF GLYCERINE

Kenneth B. Cofer, Pasadena, Tex., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application April 5, 1957, Serial No. 651,038

6 Claims. (Cl. 260—636)

1. In a process for producing glycerine by hydrolysis of a trichloropropane-containing aqueous chlorohydrin feed, the improvement which comprises adjusting the water content of said aqueous feed so that the concentration of chlorohydrins in the mixture is between about 5% and about 15% by weight and an aqueous phase containing the major portion of the chlorohydrin content and a denser phase comprising the trichloropropane content and remainder of the chlorohydrin, separating said phases, removing a portion of the chlorohydrin content from the separated denser phase, then extracting said denser phase with water, removing said denser phase from the system after said extraction, and hydrolyzing the recovered chlorohydrin and the chlorohydrin content of said separated aqueous phase.

2,873,299

HALOMETHYLATION OF AROMATIC COMPOUNDS

Louis A. Mikeska, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 9, 1954 Serial No. 474,295

6 Claims. (Cl. 260—651)

1. A process for preparing bis (halomethyl) aromatic compounds which comprises reacting a benzene hydrocarbon with at least 2 moles per mole of hydrocarbon of a halomethyl alkyl ether having the general formula, $ROCH_2X$, wherein R is an alkyl group and X is a halogen selected from the group consisting of chlorine and bromine, in the liquid phase in the presence of at least

2 moles of an acylating agent per mole of benzene hydrocarbon, said acylating agent is selected from the group consisting of anhydrides and chlorides of monocarboxylic aliphatic acids of 2 to 3 carbon atoms.

2,873,300

SELECTIVE SULFONATION PROCEDURE FOR SEPARATING A 1,3,5-TRIALKYLBENZENE FROM BENZENE HYDROCARBONS

Ben Bennett Corson and Louis H. Schwartzman, Pittsburgh, Pa., assignors to Koppers Company, Inc., a corporation of Delaware

No Drawing. Application February 24, 1956
Serial No. 567,484
7 Claims. (Cl. 260—674)

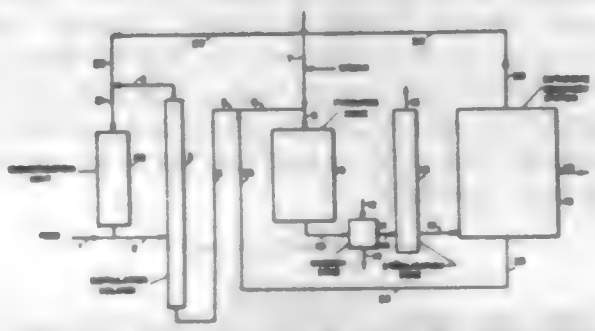
1. In a selective sulfonation process for separating a 1,3,5-trialkylbenzene from alkylbenzene mixtures containing other alkylbenzenes having up to three alkyl substituents, the steps which include reacting said hydrocarbon mixture at about 50° C.–200° C. with concentrated sulfuric acid containing from about 94 to 96% of sulfuric acid for a time sufficient and in amount at least sufficient to sulfonate said other alkylbenzenes and up to substantially equimolar proportions, based on moles of total hydrocarbon, and separating a raffinate 1,3,5-trialkylbenzene from the reaction medium, said 1,3,5-trialkylbenzene being free of tertiary-alkyl substituents.

2,873,301

THERMAL PROCESS FOR PREPARING BUTADIENE FROM BUTENE-2

Willis C. Keith, Lansing, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

Application April 9, 1956, Serial No. 577,157
6 Claims. (Cl. 260—680)



1. A method for the manufacture of butadiene which comprises heating in the absence of a catalyst a C_4 hydrocarbon fraction to a temperature within the range from 1200° F. to 1700° F. while the hydrocarbon fraction is in admixture with from 5 to 40 moles of an inert diluent gas per mole of butene-2 for a period of time such that the conversion, based upon the disappearance of normal butenes, does not exceed 70 percent, said hydrocarbon fraction containing at least 80 mole percent of normal butenes and at least 80 percent of the normal butenes being butene-2.

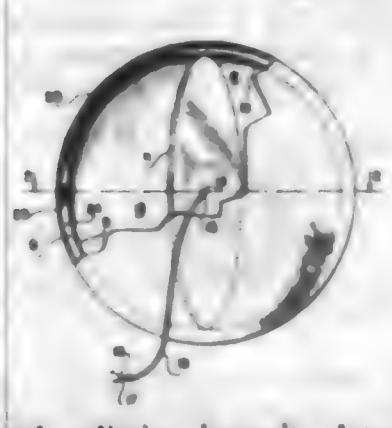
ELECTRICAL

2,873,302

RADIATION INTENSITY DETECTOR

Edmond E. Gibbens, Hollywood, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.

Application May 14, 1956, Serial No. 584,612
5 Claims. (Cl. 136—4)



2. In a thermal radiation intensity detector, the combination comprising, a pair of hollow spherical containers of different sizes concentrically arranged in spaced relationship so that the smallest container resides within the larger, the smallest of the containers being a good heat conductor, partition means dividing the hollow of the smaller container into two equal hemispheres and having its periphery attached to the container, and thermo-electric means substantially equidistant from all points of the interior surface of the spherical container carried by the partition means responsive to the temperature of the partition means.

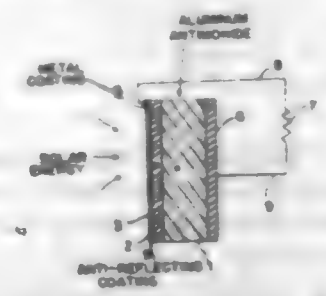
2,873,303

PHOTOVOLTAIC DEVICE

Edmund S. Rittner, White Plains, N. Y., assignor to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 1, 1954, Serial No. 466,010
4 Claims. (Cl. 136—89)

1. As a photovoltaic solar energy converter, a p-type portion of semi-conductive aluminum antimonide containing about 10^{18} atoms/cm.^{3} of p-type producing elements and an n-type portion of semi-conductive aluminum antimonide containing about 10^{18} atoms/cm.^{3} of n-type producing elements in intimate contact with one another and forming a p-n junction therebetween, and



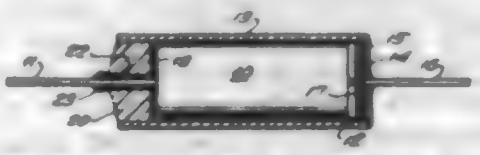
electrical connections to said p- and n-type portions, one of said portions having a surface area adapted to receive solar energy, the thickness of said one portion underlying said receiving surface being less than the minority carrier diffusion length in said one portion.

2,873,304

SEALING MEANS FOR CAPACITORS

Ronald Davidson, Hounslow, England, assignor to Cornell-Dubilier Electric Corporation, South Plainfield, N. J., a corporation of Delaware

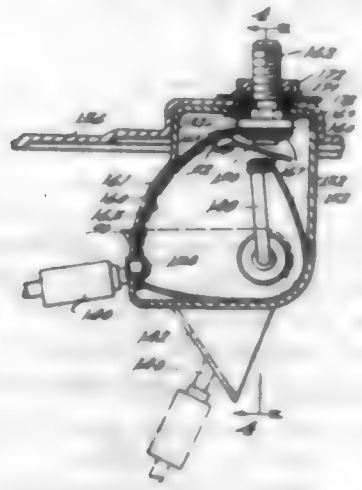
Application May 2, 1952, Serial No. 285,693
1 Claim. (Cl. 174—52)



In combination, a container for an electrical capacitor having an open end and a space to receive a capacitor unit at a distance from said open end, closure means for said open end, including an insulating washer disposed in substantially liquid-tight engagement with the side walls of said container at a location inwardly spaced

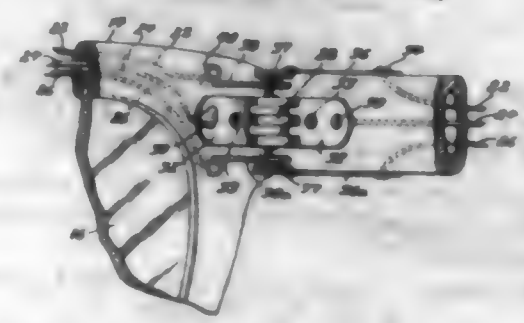
from the open end thereof, a hollow eyelet sleeve supported by said washer and extending through said washer to the open end of the container, an insulating sealing plug disposed between the washer and the open end of the container comprising a hardened and permanently thermoset resin bonded to the washer, the inner walls of the container and the outer walls of the eyelet sleeve, said eyelet sleeve having a central channel extending from the space in the container, to receive the capacitor, to the outside of the closure means whereby the terminal of a capacitor, received in the space, may extend through said channel and said capacitor may be impregnated through said channel.

2,873,305
LIQUID LEVEL INDICATING DEVICE
Leonard Boddy, Ann Arbor, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan
Original application August 5, 1949, Serial No. 108,733, now Patent No. 2,835,885, dated May 20, 1958. Divided and this application December 28, 1954, Serial No. 476,504
1 Claim. (Cl. 174—52)



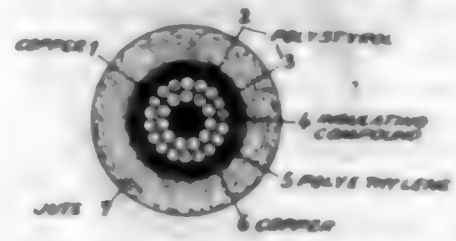
In a device for modulating electrical energy in accordance with the fuel level in a fuel tank having an aperture therein, a generally cup-shaped casing having an aperture therein, electrical energy modulating means within and supported by said casing, a mounting plate having a central cavity defining a plurality of wall portions and adapted to be secured to the fuel tank over the aperture therein, a threaded stud electrically connected to said means and supported by said mounting plate, a nut threadedly engaging said stud for securing said stud to said mounting plate, insulating means disposed between said nut and said mounting plate for insulating said nut from said mounting plate, an insulating washer engaging the aperture in said casing and said stud and insulating said stud from said casing, means preventing rotation of said washer relative to said casing, means preventing rotation of said stud relative to said washer, means including said stud for securing said casing to and in direct mechanical and electrical engagement with said mounting plate, a portion of said casing seating within the central cavity in said mounting plate and lying above the level of the aperture in the fuel tank, means including said wall portions for fixing said casing in position relative to said mounting plate, cover plate means cooperating with said casing to enclose said electrical energy modulating means, a portion of said cover plate means being disposed between said casing and one of said wall portions, and means for detachably securing said cover plate means to said casing, said cover plate being removable from said casing while said casing is secured to said mounting plate.

2,873,306
HEARING AID
Frederic C. Smith, Philadelphia, Pa.
Application May 8, 1956, Serial No. 583,531
1 Claim. (Cl. 174—52)



A combined eye glass and hearing aid including a lens supporting frame, a pair of enlarged temple pieces containing the component parts of a hearing aid, a first wire extending through said frame, a corresponding first wire in each of said temple pieces leading from the component parts in the respective temple piece, a pair of hinges articulately connecting said temple pieces to the opposite ends of said lens supporting frame and electrically connecting said first wire in said frame with the corresponding first wires in said temple pieces, a pair of binding posts at each end of said frame, a pair of wires extending through said frame and connected to said binding posts, a coil spring carried by each of said binding posts, a pair of binding posts carried by the ends of the temple pieces adjacent said hinges, and a pair of wires extending through each of said temple pieces and connected to the binding posts carried by the corresponding temple piece.

2,873,307
DEEP SEA SUBMARINE CABLE
Heinz Horn, Koln-Mulheim, Germany, assignor to Felten & Guilleaume Carlswerk Aktiengesellschaft, Koln-Mulheim, Germany
Application May 7, 1954, Serial No. 428,280
Claims priority, application Germany August 26, 1953
2 Claims. (Cl. 174—102)

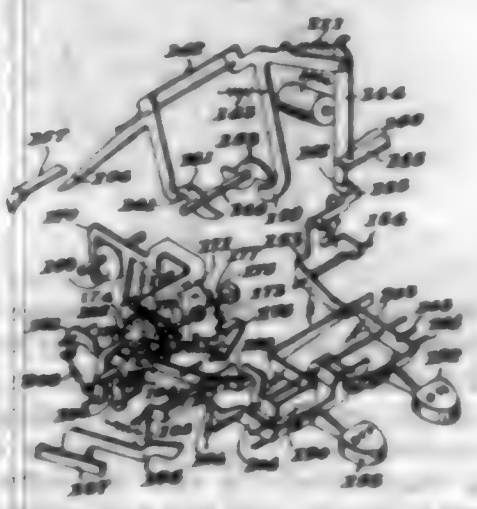


1. As a new article of manufacture, a deep submarine cable without the usual protective covering, consisting of an inner conductor, a combined insulation and tension-absorbing armouring means around said conductor consisting of inner and outer superimposed layers of polystyrene profiled strands stretched on both sides with different lay directions and a relatively long laying length and of such great tensile strength to serve also as an armor for the cable without the use of additional armouring steel wires, a water-tight sheathing around said insulation, a viscous insulating mixture of polyethylene and polyisobutylene in the spaces between the said strands, the inner conductor, and the sheathing, and an outer return coeductor around the water-tight sheathing.

2,873,308
SWITCHING ARRANGEMENT FOR AN ELECTRIC MOTOR
Ronald G. Griffith, Montreal, Quebec, Canada
Application May 2, 1955, Serial No. 505,481
Claims priority, application Great Britain May 3, 1954
13 Claims. (Cl. 178—4.1)

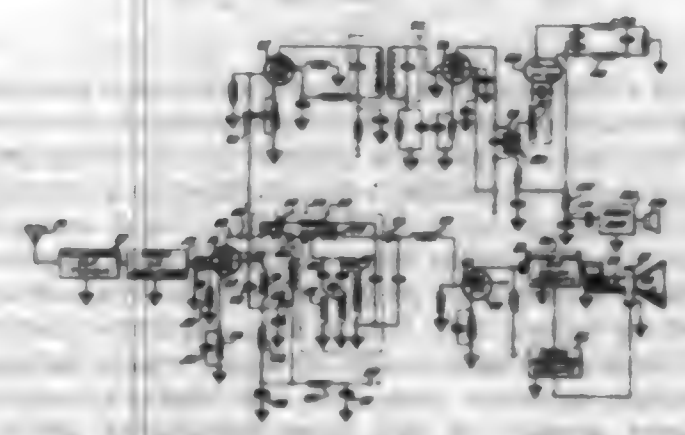
1. In a teleprinter, the combination of an electric motor for driving said teleprinter, a switch for switching said

motor on and off, a bail, means driven by said motor to oscillate said bail through a complete cycle during a complete cycle of operation necessary to record a signal code combination received by said teleprinter, means for opening said switch by the operation of said bail comprising a member movable between an inactive position free of said bail and active position to be operated by said bail and thereby to switch off said motor, a delay



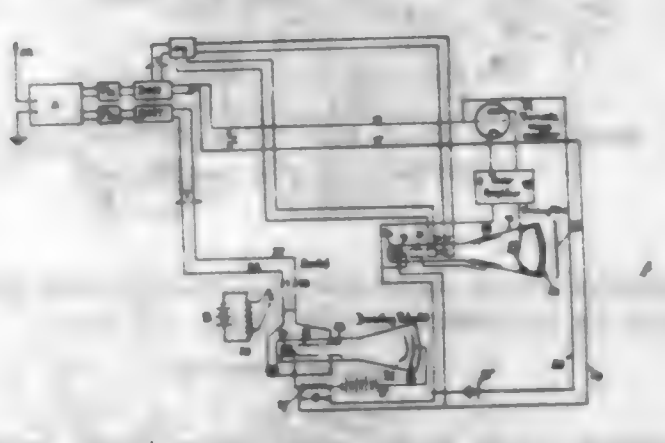
device controlled by said motor and being operative, after a predetermined time delay following receipt by the teleprinter of the last signal combination, both to move said member into said active position and to initiate said complete printing cycle of operation, means for storing energy derived from said motor, and means rendered operative on subsequent receipt of an incoming signal by said teleprinter to effect closing of said switch by said stored energy.

2,873,309
RADIO COMMUNICATIONS SYSTEMS
Earl J. Sass, Oaklyn, and Alton J. Torre, Woodbury, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application August 2, 1952, Serial No. 302,332
7 Claims. (Cl. 178—5.4)



1. In a television signal receiving system adapted to receive and utilize a composite television signal embracing a plurality of carrier and subcarrier components, and including means for utilizing heterodyne components representative of the beat between two of said signal components, the cross modulation between one of said two signal components and another but different component of said signal being undesirable, the combination of an amplifier stage responsive to said received composite television signal and adapted to communicate signal frequencies representing all of said components, means providing a takeoff circuit for said heterodyne components and comprising a parallel resonant circuit coupled to an output of said amplifier stage and tuned to the frequency of the beat between said two signal components, means including a passive network coupled to an output of said amplifier stage for attenuating one of said two signal components, a detector stage, and means for coupling the output of said attenuating means to the input of said detector stage.

2,873,310
COLOR TELEVISION RECEIVER
Georges Valensi, Geneve, France
Application July 22, 1957, Serial No. 673,454
Claims priority, application France August 14, 1952
1 Claim. (Cl. 178—5.4)

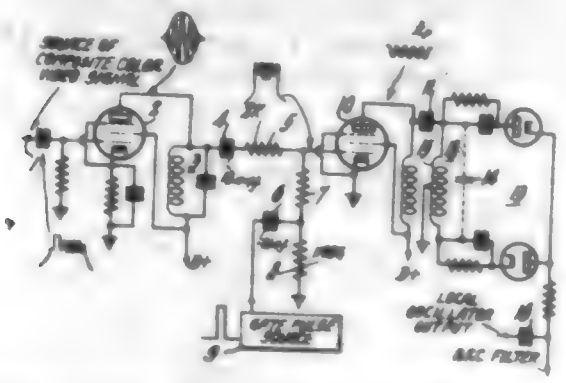


A fully compatible color television receiver adapted to receive from a transmitting station, a luminance signal f proportional to the brightness of the element of the televised object scanned at a given instant, and a chrominance signal T proportional in a predetermined manner to the predominant wave length and the factor of colorimetric purity corresponding to the color of the element of the televised object, comprising, in combination, a color decoding tube including an emitter of electrons, means for deflecting the electron beam, said means being electrically controlled by said chrominance signal, a decoding mask for intercepting part of the electrons, a collector of electrons and output signal means connected between said emitter and collector of electrons for developing an output signal θ across said output means; a variable slope amplifying tube, the grid of which is biased by said output signal θ and is submitted to the controlling action of said luminance signal f; power amplifier means connected to the output of said variable slope amplifying tube; and a viewing cathode ray tube for the reproduction of color or black and white pictures including an emitter of electrons, an electrode for modulating the intensity of the electron beam, said electrode being electrically controlled by said output signal θ produced by said decoding tube itself under control of said chrominance signal T, a fluorescent screen composed of a mixture of fluorescent substances, said mixture being homogeneous and having a constant thickness on the whole surface of said screen, the color of said mixture varying with the value of the electron beam density and the brightness of said mixture depending on the velocity of the electrons which impinge upon the fluorescent screen, a brightness equalizing filter in front of said fluorescent screen, and a post accelerating electrode electrically connected to the output of said power amplifier means and being controlled by said luminance signal f, whereby at any instant the luminous spot produced by the electron beam on said fluorescent screen of said viewing tube has the same brightness and the same color as the element of the televised object which is scanned at this instant.

2,873,311
COLOR TELEVISION SYNCHRONIZATION
Richard W. Sonnenfeldt, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 20, 1953, Serial No. 343,757
9 Claims. (Cl. 178—5.4)

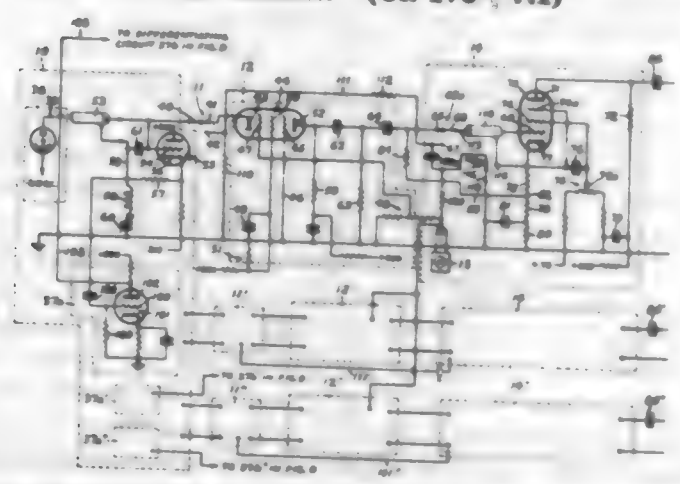
1. Apparatus for reducing the effects of phase and amplitude distortion introduced when a burst of a signal having a designated frequency is applied to a tuned circuit resonant to said frequency, said apparatus including means coupled to said tuned circuit for rectifying

said burst of signal and for clipping said rectified burst at a relatively low level of amplitude, and frequency



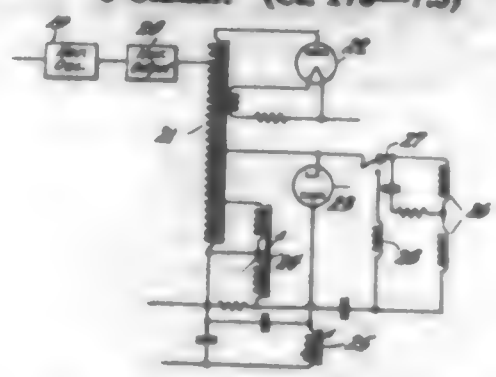
responsive means coupled to said rectifying and clipping means for reconstituting said burst.

2,873,312
MODULATOR WITH PHOTOELECTRIC SIGNAL SOURCE AND COMPRESSOR FOR FACSIMILE
William West Moe, Stratford, Conn., assignor to Time, Incorporated, New York, N. Y., a corporation of New York
Application October 18, 1951, Serial No. 251,898
15 Claims. (Cl. 178—7.1)



4. In scanner apparatus, the combination of photoelectric means having anode means, said photoelectric means being adapted for scanning elemental areas of a photographic positive subject to provide electric signals varying according to intelligence embodied in said subject, first electron tube means having cathode means, plate means and a plurality of grid electrode means, circuit means including first conductor means coupling said anode means with said cathode means of said first tube means to thereby form a plate-cathode circuit for said electron tube means through said photoelectric means, means to produce unidirectional current through said tube means, from said cathode means to said anode means and then through said photoelectric means, a conducting shield for said conductor means, means supplying a high frequency signal to one of said grid electrode means whereby said photoelectric means and said electron tube means provide by virtue of the serial coupling thereof a conjoint output in the form of said high frequency signal modulated as a function of said electric signals, second conductor means connecting another of said grid electrode means to ground, a tuned circuit resonating substantially at said high frequency and connected to said conducting shield and to ground, second electron tube means having cathode, control grid and plate electrode means, circuit elements connected to the cathode and plate electrode means of said second tube means and cooperating therewith to form a cathode follower, an electrical connection from said first conductor means to the control electrode means of said second tube means, an electrical connection from the cathode means of said second tube means to said conducting shield and condenser means connected to the cathode means of said second tube means and to said conducting shield.

2,873,313
METHOD AND SYSTEM FOR ADJUSTING TELEVISION
Joseph J. Kusnko, Ford City, Pa.
Application March 16, 1953, Serial No. 342,528
8 Claims. (Cl. 178—7.5)



1. The method of adjusting an image reproducer having a screen and a pair of orthogonal deflection circuits, which includes the steps of rendering one of said deflection circuits inoperative thereby producing a substantially uni-dimensional image, adjusting a characteristic of said image, rendering said one deflection circuit operative, rendering the other of said deflection circuits inoperative thereby producing a substantially uni-dimensional image, adjusting a characteristic of said last mentioned image, and rendering said other deflection circuit operative.

2,873,314
NOISE IMMUNE SIGNAL PROCESSING CIRCUIT
Jack Avins, Staten Island, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application January 5, 1954, Serial No. 402,369
7 Claims. (Cl. 178—7.5)

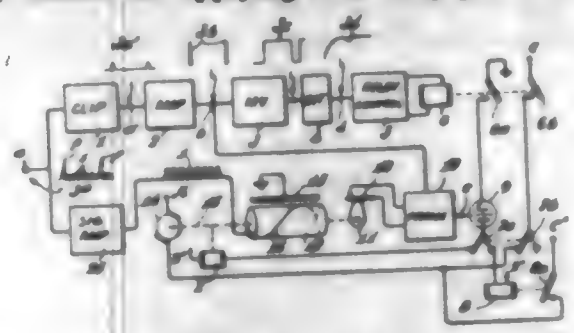


1. In a television receiver having an image reproducing device which includes a signal input terminal, direct current level setting apparatus adapted to clamp the peaks of recurrent synchronizing pulses included in a composite television signal to a fixed potential, said composite signal further including video signals of lesser amplitude and noise impulses of greater amplitude than said synchronizing pulses, said level setting apparatus comprising: a source of such composite signal; means including a coupling capacitor connecting said source to said signal input terminal of said image-reproducing device; a unilaterally conductive device having a conduction controlling electrode means connecting said unilaterally conductive device between the point of such fixed potential and said input terminal of said image reproducing device in such manner as to be rendered conductive by said recurrent pulses; and means coupling said signal source to said electrode for rendering said unilaterally conductive device non-conductive in response to noise pulses of greater amplitude than said synchronizing pulses.

2,873,315
AUTOMATIC START-STOP CIRCUIT FOR FACSIMILE RECORDERS
Richard E. Fricks, Bedford, Mass., assignor to Alden Products Co., Brockton, Mass., a corporation of Massachusetts
Application March 30, 1955, Serial No. 497,892
12 Claims. (Cl. 178—69.5)

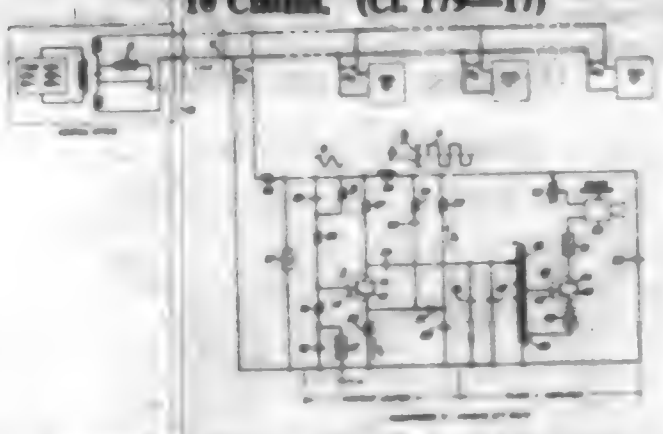
1. In a motor operated recorder receiving facsimile signals including a cyclic pulse recurring at a regular

interval, an automatic start-stop circuit comprising a facsimile signal input terminal, connected to said terminal a multivibrator responsive to said cyclic pulse to produce a relatively long pulse, an integrator converting said long pulse into a substantially constant control voltage, means for applying said long pulse to said in-



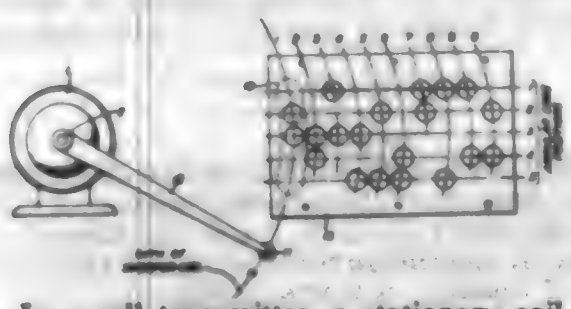
tegrator, relay means operative to complete a power connection to said motor, and connections between said integrator and relay means, whereby when said control voltage is applied to said relay means said motor is caused to start and run so long as said cyclic pulse recurs substantially regularly.

2,873,316
PARTY LINE LOCK-OUT CIRCUIT
James R. Power, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 29, 1956, Serial No. 574,718
10 Claims. (Cl. 179—17)



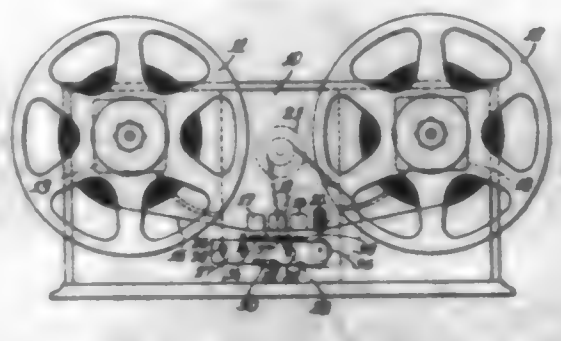
3. In combination: a plurality of telephone sets connected by a common transmission line to a central office, a source of direct current at said central office, each of said telephone sets including a sound radiator and a breakdown diode connected in series across said line, the line voltage at each of said sets having a first value when all sets are on-hook and a second value when any set is off-hook, said diodes each having a breakdown voltage intermediate said first and second values and each poled to operate in its breakdown region in response to applied voltages of said first value.

2,873,317
CALL TRANSMITTER
Henry E. Hill, Livingston, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 3, 1954, Serial No. 434,156
15 Claims. (Cl. 179—90)



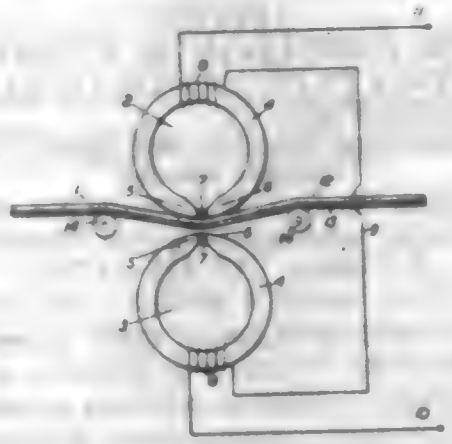
1. In a call transmitter, a stationary coil, a source of potential connected to said stationary coil, a movable coil, means for moving said movable coil past the end of said stationary coil closely adjacent thereto, means interposed between said stationary coil and said movable coil for controlling magnetic coupling therebetween at predetermined times as said movable coil moves past said stationary coil and means responsive to said magnetic coupling for producing a plurality of signal pulses.

2,873,318
MAGNETIC RECORDER
Clarence C. Moore, Elkhart, Ind.
Application November 25, 1953, Serial No. 394,260
14 Claims. (Cl. 179—100.2)



1. A tape recorder and reproducer including in combination, first and second reels supporting a magnetic tape therebetween, first and second motors individually connected to said reels for driving the same, magnetic head means positioned along said tape between said reels, tape driving means including a capstan extending along said tape and a motor for driving the same, power supply means providing potential to said first and second motors for driving said reels and thereby winding said tape thereon, pressure means movable into an operating position for holding said tape adjacent said head means and in engagement with said capstan to be driven at operating speed thereby, and control means including a single control element for operating said pressure means and for controlling the application of potential from said power supply means to said motors, said control means including a portion connected to said pressure means and operating to move said pressure means into and out of said operating position as said tape is driven at operating speed and at faster speeds for winding the same on said reels.

2,873,319
MAGNETIC TAPE RECORDING AND REPRODUCING SYSTEM AND APPARATUS
Charles Denis Mee, Langley, England, assignor to M. S. S. Recording Company Limited, Colnbrook, England, a British company
Application August 7, 1956, Serial No. 602,531
2 Claims. (Cl. 179—100.2)



1. An electro-magnetic transducing instrument comprising a tape including a non-magnetic portion and, on one surface thereof, a layer of magnetic material, two similar transducer heads positioned one on each side of

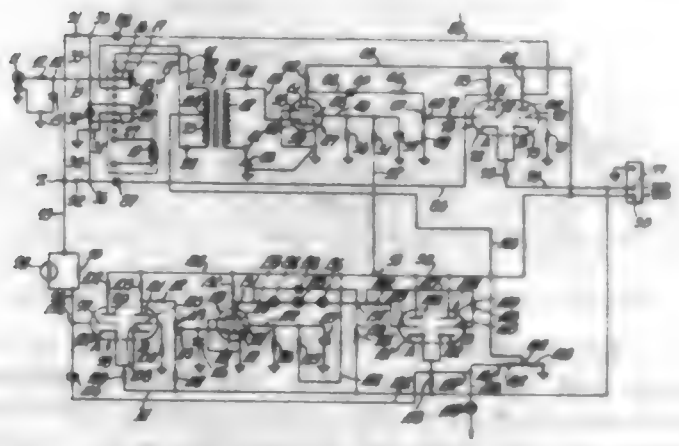
the tape and with their windings additively connected together, and spacer means maintaining the layer of magnetic material spaced from each head by a distance substantially equal to the thickness of the non-magnetic portion of said tape.

2,873,320

DIRECT CURRENT AMPLIFIER

Joseph Gill, Hicksville, and Milton Sackin, New York, N. Y., assignors, by mesne assignments, to Hagan Chemicals & Controls, Inc., Pittsburgh, Pa., a corporation of Pennsylvania

Application August 7, 1956, Serial No. 602,587
5 Claims. (Cl. 179—171)



1. A D. C. amplifier comprising a transformer having a center tapped primary and a secondary, means alternately to apply a D. C. signal to the respective ends of said primary, a phase splitting device electrically connected to the secondary of said transformer to provide two signals 180 degrees out of phase and each of amplitude proportional to the input signal to said primary, means in synchronization with the means alternately to apply the D. C. signal to the primary, to rectify said two out of phase signals to provide a continuous D. C. signal of amplitude proportional to the input signal, an output, a filter between said rectifying means and said output, said filter comprising a resistor having a relatively high ohmic value and a capacitor, a voltage responsive resistor connected in parallel with said filter resistor, the resistance of said voltage responsive resistor being inversely proportional to the voltage applied thereto, means to feed a signal proportional to said rectified D. C. to said output, a voltage divider connected to said output and across which an output signal is developed, said voltage divider having means to provide a signal of amplitude a given fraction of said output signal and means to feed back said fractional signal to the center tap of said primary to oppose the input signal applied thereto.

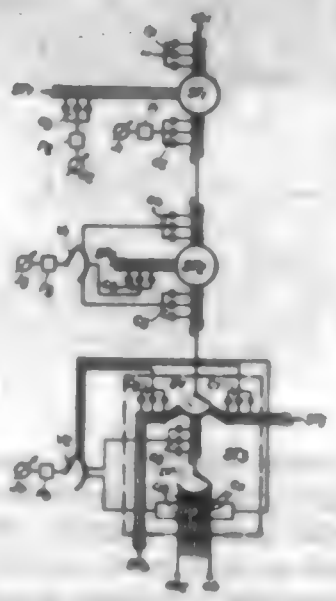
2,873,321

DEVICE FOR INDICATION OF A CERTAIN COMMUNICATION PATH AND/OR ITS ELECTRICAL CHARACTERISTICS

Dag V. L. Lindström, Bromma, and Axel G. G. Cronsten, Lidingo, Sweden

Application March 9, 1954, Serial No. 415,092
Claims priority, application Sweden March 12, 1953
29 Claims. (Cl. 179—175.2)

1. In a system having a plurality of communication channels each comprising one or more connections, each of said connections including a plurality of switching elements movable to different positions to correspond to a selected one of said communication channels, a source of electrical tracing voltage, means connecting said source to said communication channel at a first location, an indicator, a scanning device, means coupled to said communication channels at a plurality of predetermined ones of said connections and connected through said scanning device to said indicator to indicate at which elements the voltage from said source occurs thus identifying the elements and connections forming the selected communication channel.

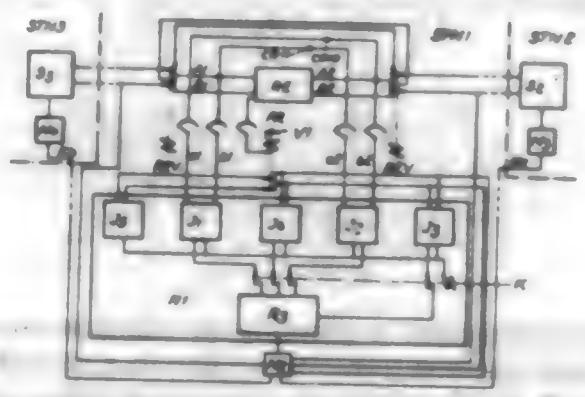


2,873,322

AUTOMATIC SERVICE CONTROL SYSTEM WITH FAULT RECORDING

Sten Daniel Vigren, Stockholm, and Per Harry Elias Claesson, Danderyd, Sweden

Application December 28, 1954, Serial No. 478,122
Claims priority, application Sweden December 30, 1953
15 Claims. (Cl. 179—175.2)



1. An arrangement in an electric communication system containing a plurality of exchanges including means for establishing telecommunication connections through the exchanges selectively operable in response to controlling signals, supervisory equipment for detecting faulty operation selectively connectable to lines forming part of said communication connections running through said exchanges comprising indicating means operable in response to switching signals transferred through said lines for the establishment of a communication connection to the called subscriber's station and to signals provided by said called station upon establishment of said communication circuit, and recording means including recording members selectively operable in response to the conditions of said indicating means for recording the conditions of the indicating means on a recording medium, said indicating means being arranged to be rendered operative for recording on the recording medium in response to predetermined factors as detected by said indicating means.

2,873,323

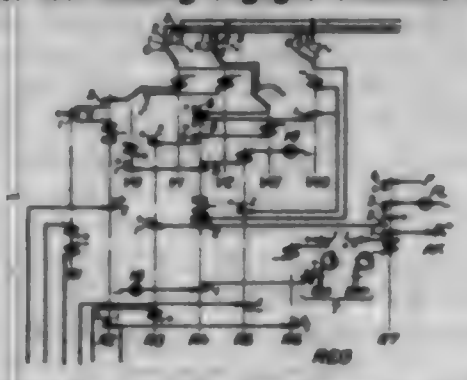
AUTOMATIC TELECOMMUNICATION SYSTEMS

Karl Arne Anulf, Nasbypark, Sweden

Application August 12, 1955, Serial No. 528,022
Claims priority, application Sweden August 13, 1954
7 Claims. (Cl. 179—175.2)

1. In a telecommunication system, selectors for establishing connections between calling and called circuits,

control means for operating said selectors, means for connecting said control means to one of said circuits in response to calling condition on said one circuit, means in said selectors for sending return signals to said control means in case of proper function of the selectors, holding means for holding engaged selectors in engaged



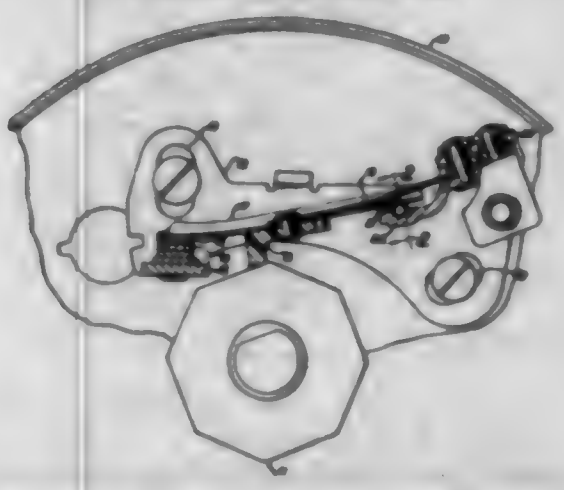
condition irrespective of the continuance of the calling condition on said one circuit, means for releasing said holding means in response to said return signals, timing means for measuring the duration of the operated condition of said holding means, and indicating means operable by said timing means in the case that said duration exceeds a predetermined time.

2,873,324

DISTRIBUTOR MECHANISM

Edwin C. McRae, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application April 24, 1956, Serial No. 580,316
2 Claims. (Cl. 200—31)



1. A distributor mechanism comprising a base plate, a fixed contact supported by the base plate, a bracket and a leaf spring supported by the base plate at a location remote from the fixed contact, said bracket and leaf spring being electrically insulated from the base plate, a rigid contact carrying member supporting a movable contact adjacent one of its ends and secured to the leaf spring at a position remote from the bracket and intermediate the ends of the rigid contact carrying member, a rubbing block secured to the rigid contact carrying member intermediate its ends and a single bearing ball positioned between the bracket and the end of the rigid contact carrying means which is remote from the movable contact, said bearing ball supporting the end of the rigid contact carrying means upon the bracket while permitting free longitudinal movement of the rigid contact carrying member and free torsional flexure of the leaf spring.

2,873,325

SNUBBER FOR QUICK BREAK ATTACHMENT

Walter B. Kelly, New Stanton, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application May 14, 1954, Serial No. 429,916
6 Claims. (Cl. 200—48)

1. In a switch arrangement comprising a flexible arcing horn, a snubber for said horn comprising an element disposed at an angle of less than 90° to the normal path of motion of said horn, so as to change the plane of motion



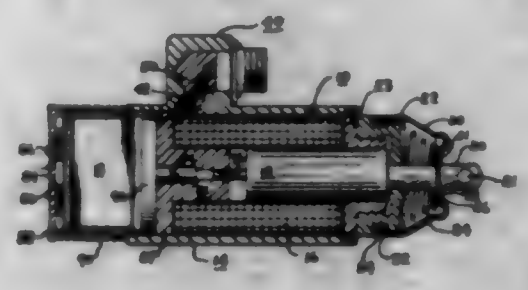
of said horn at a predetermined point in the travel thereof.

2,873,326

ELECTRICAL APPARATUS

James F. Kurtis, Niles, Mich., assignor to Koontz-Wagner Electric Co., Inc., South Bend, Ind., a corporation of Indiana

Application May 28, 1957, Serial No. 660,155
10 Claims. (Cl. 200—104)



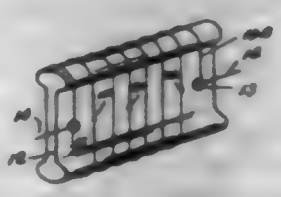
1. An electrical apparatus, comprising a solenoid having a reciprocal core, a circuit for said solenoid, a circuit for a signal light, a switch mechanism in said circuits including a pair of fixed semi-disc shaped members composed of carbon and being spaced from one another, leads in said solenoid circuit connected to said members, a disc shaped means having an axial shaft thereon with a longitudinal hole therethrough for retaining said members in fixed position, a cup shaped member having an axial stem thereon extending through the hole in said shaft and reciprocating therein, said last mentioned member having a disc shaped carbon contact on one side thereof adapted to contact said members, two spaced contacts connected to said signal circuit, springs for urging said contacts toward the other side of said last mentioned member, a metal disc element on said other side of the last mentioned member adapted to engage said two spaced contacts, a means operated by said solenoid for opening said carbon switch and closing said spaced contact switch, and a spring for closing said carbon switch and opening said spaced contacts.

2,873,337

COMBINED FUSE AND CURRENT LIMITING RESISTOR

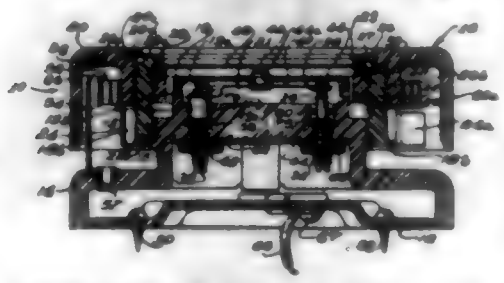
Elliot Bernstein, Cedarhurst, N. J.

Application April 19, 1956, Serial No. 579,385
5 Claims. (Cl. 200—135)



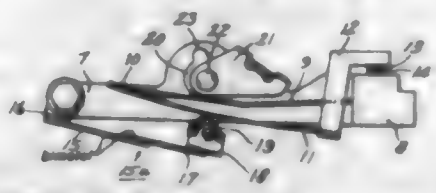
5. A combined fuse and current limiting resistor comprising a coil of resistance wire and a form on which said coil is wound, said form having a recessed portion and said coil having runs of wire disposed across said recessed portion; and a bead of material rapidly decomposable under predetermined heat conditions on each of a plurality of said runs.

2,873,328
THERMOSTAT FOR LOW POWER CIRCUITS
Charles E. Hajny, Milwaukee, Wis., assignor to Baso Inc., a corporation of Wisconsin
Application August 29, 1955, Serial No. 531,205
24 Claims. (Cl. 200—138)



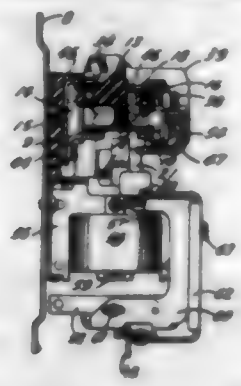
4. In a control device for low power circuits having low and variable resistance contacts, an adjustable control point setting member having a throat portion, a base member having a portion engaging said throat portion to close off one end of the latter, and a bi-metallic contact actuating member mounted in the opposite end of said throat portion to close off the other end of the latter, said base portion, throat portion and bi-metallic member defining an enclosure for said low resistance contacts.

2,873,329
THERMOSTAT CALIBRATION MEANS
Alfred G. Swenson, Ontario, Calif., assignor to General Electric Company, a corporation of New York
Application October 15, 1957, Serial No. 690,235
7 Claims. (Cl. 200—139)



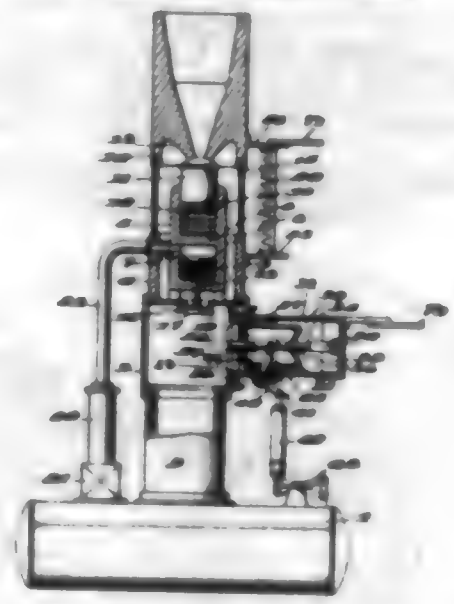
1. In an electric flatiron including a heating element, adjustable temperature control means comprising: a switch having a movable contact carried by a plurality of connected movable arms, at least one of which is resilient; a cam in engagement with one of said switch arms for varying the relative position of said one switch arm for temperature selection; manually adjustable means associated with a fixed scale connected to said cam; a bimetallic element movable responsive to iron operating temperature; and adjustable calibration means interposed between and movable with said bimetallic element and another of said switch arms; said calibration means comprising a spring clip carrying an eccentric cam with detent means for releasably holding said eccentric cam in calibrated position.

2,873,330
CONTACTORS
Joseph J. Gribble, Fox Point, Wis., assignor to Square D Company, Detroit, Mich., a corporation of Michigan
Application September 14, 1955, Serial No. 534,227
2 Claims. (Cl. 200—144)



1. In a contactor of the character described, the combination comprising; an insulating base providing a support for spaced pairs of stationary line and load contacts, a movable contact for each pair of line and load contacts arranged for engagement therewith, means including an insulating yoke for moving said movable contacts into and from engagement with the stationary line and load contacts, a separate insulating block securable to said base said separable block being formed of deionizing material, said block having a substantially flat bottom surface with slots therein arranged to provide spaced separated internal chambers for enclosing the line contacts and providing an opening for exposing the load contacts and an arcuate wall in said chambers arranged for directing ionizing gases away from the line contacts and from said chamber when the movable contacts move from engagement therewith and spaced barriers on the yoke arranged for extending through the slots for directing the ionizing gases from adjacent line contacts.

2,873,331
COMPRESSED AIR ACTUATED ELECTRIC SWITCH
Hans Thommen, Baden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint stock company
Application October 29, 1957, Serial No. 693,185
Claims priority, application Switzerland October 30, 1956
7 Claims. (Cl. 200—148)

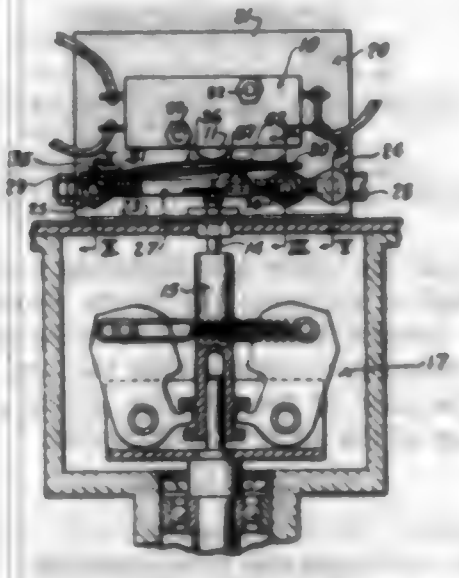


1. A compressed gas actuated electric switch comprising a supply tank containing gas under pressure, a switch contact assembly comprising normally closed main contact means and which are separated upon application thereto of compressed gas, means forming a primary passageway interconnecting said supply tank and main contact means, normally closed valve means controlling flow of compressed gas through said passageway, auxiliary contact means arranged within an arcing chamber, means for charging said chamber with compressed gas from said tank to the pressure prevailing in said tank when said valve is closed, means forming a secondary passageway leading from said chamber to and intersecting said primary passageway at an angle thereby to establish an aspirating effect on the compressed gas in said chamber, said secondary passageway being normally closed but which is open upon separation of said auxiliary contact means subsequent to opening of said valve to initiate gas flow through said primary passageway, said compressed gas blowing on said auxiliary contact means as it leaves said chamber and flows through said secondary passageway.

2,873,332
ADJUSTABLE DIFFERENTIAL SWITCH ACTUATOR
William J. Williams, Wilmette, Ill.
Application February 1, 1956, Serial No. 562,849
7 Claims. (Cl. 200—166)

1. In an adjustable switch operating mechanism, adapted to be operated by a condition responsive device

to operate the closing of the contacts of a switch dependent on a predetermined condition and the opening of said switch dependent upon different conditions, the combination of a pair of cooperating movable levers; means to pivotally support in fixed position of adjustment



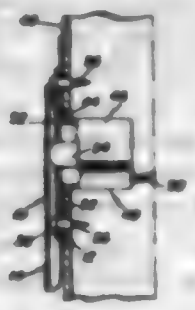
both said levers, one of said levers adapted to operate the switch, the other lever arranged for operating said first mentioned lever, the effective operative relation of the fulcrums of said levers being adjustable; and means controlled by said responsive device to actuate said second lever.

2,873,333

MOUNTING CLIP AND COVER FOR DOOR JAMB SWITCH

Emilio N. Jaceman, Laredo, Tex.

Application June 11, 1957, Serial No. 665,070
6 Claims. (Cl. 200—168)



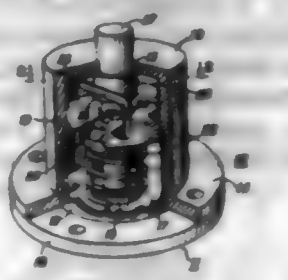
3. In combination with a door jamb switch assembly including a door jamb, a door jamb switch mounted on said door jamb and having a body projecting therethrough, said door jamb switch having an escutcheon plate disposed exteriorly of said door jamb, fastening means extending between said escutcheon plate and said door jamb mounting said door jamb switch on said door jamb, said door jamb switch also including a retractible spring loaded push button actuator normally projecting through and outwardly of said escutcheon plate; a mounting clip and cover assembly, said mounting clip comprising a flat body portion, said switch body and said fastening means passing through said flat body portion and said escutcheon plate engaging said flat body portion in face-to-face relation and clamping said mounting clip against said door jamb, said flat body portion having side edges, opposed trackways along said side edges, said cover being of a bowed cross-section to clear said escutcheon plate and including side flanges, said side flanges being seated in said trackways for sliding movement, said cover having a push button receiving opening whereby said cover may be selectively positioned for the normal operation of said door jamb switch or for retaining said push button actuator in a depressed position and said door jamb switch in an open condition.

2,873,334

LOCKING PUSH BUTTON MECHANISM

Robert E. Wirsching, Greenfield, Ind., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 14, 1957, Serial No. 696,546
7 Claims. (Cl. 200—169)



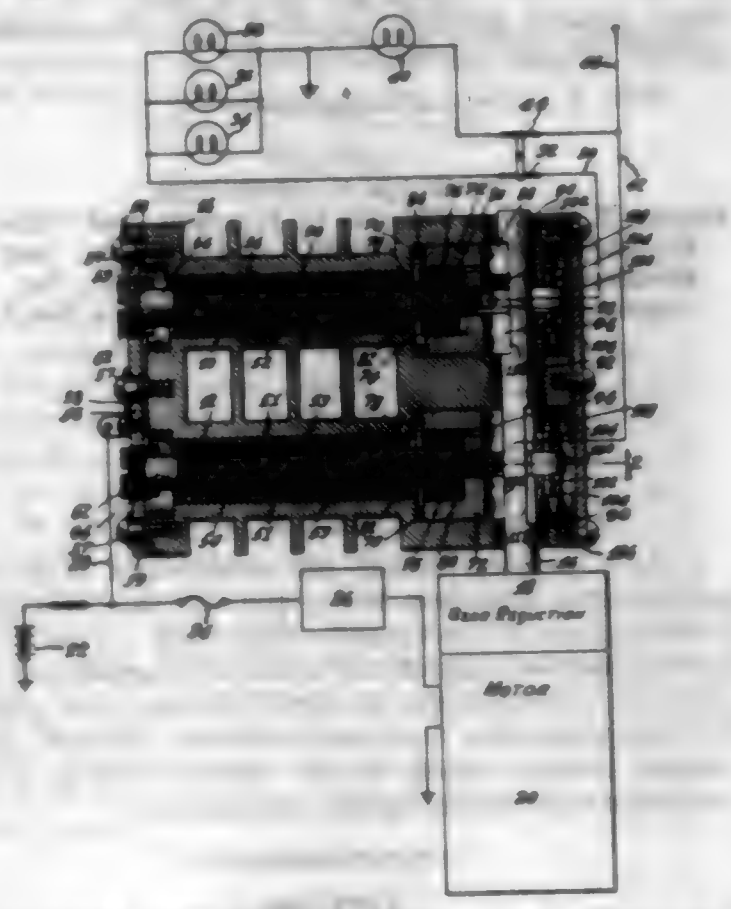
1. A push button mechanism comprising a housing having an aperture in one wall, a push button having an outer end projecting through the aperture, an inner end connected to and urged outwardly by biasing means, and an enlarged shouldered section intermediate the ends thereof; a diaphragm mounted within the housing and encircling said button adjacent the inner end thereof, a latching member embracing the enlarged section and secured to the diaphragm, said latching member being biased against the enlarged section by virtue of its attitude on the diaphragm, whereby a partial movement of the button against the biasing means allows the latching member to rest on a shoulder of the enlarged section of the button to latch the button, and whereby further movement of the button in the same direction deflects the diaphragm to urge the latching member away from the button to unlatch the button.

2,873,335

VARIABLE RESISTANCE CIRCUIT CONTROLLER

Robert O. Lewis, Jr., Indianapolis, Ind.

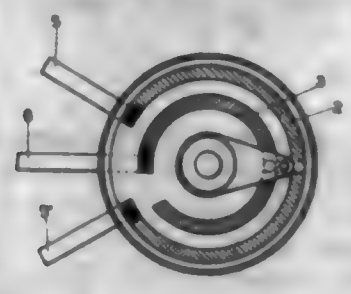
Application May 14, 1954, Serial No. 429,958
4 Claims. (Cl. 201—51)



1. A circuit controller, comprising a carbon-disk pile, a contactor therefor, a thrust member for applying pile-compressive force to said contactor, means urging said member toward said contactor with a predetermined high force, means controlling the position of said member and movable between a position in which it supports said member out of pressure-applying relation with said contactor and a position in which it frees said mem-

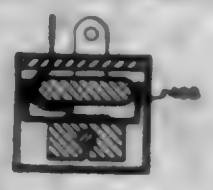
ber for exertion of said predetermined force on said contactor, and means to maintain a pile-preserving low-compression force on said contactor when said member is withdrawn.

2,873,336
CONTINUOUS VARIATION POTENTIOMETER
Luigi Tassara, Milan, Italy, assignor to Metal-Lux S. r. l., Milan, Italy, a corporation of Italy
Application December 13, 1955, Serial No. 552,946
Claims priority, application Italy December 13, 1954
4 Claims. (Cl. 201—55)



1. A potentiometer comprising an insulating support member, at least one layer of electrically resistant material on said support member in the form of a first elongated band having its opposite ends spaced from each other to define a resistance element, a collector element defined by at least one layer of electrically resistant material on said support member in the form of a second elongated band extending parallel to said first band and also having its opposite ends spaced from each other, contact means simultaneously engaging in a conductive relationship said resistance and collector elements, means supporting said contact means for movement along said first and second bands, first and second terminals connected to the opposite ends of said first elongated band of the resistance element, and at least a third terminal connected to one of the ends of said second elongated band of the collector element so that the latter can act as both a collector for current conducted from said resistance element by said contact means and as an additional variable resistance in series with the variable resistance of said resistance element.

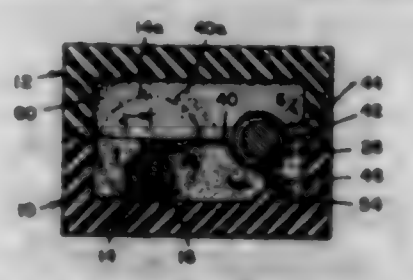
2,873,337
VARIABLE RESISTOR
Marian E. Bourns, Marvin E. Harrison, and Wilbur T. Hardison, Riverside, Calif.; said Harrison and said Hardison assignors to Bourns Laboratories, Inc.
Application November 14, 1955, Serial No. 546,634
4 Claims. (Cl. 201—62)



1. In a variable resistor, the combination of an elongated resistance element having one edge thereof rounded, a shorting bar of sheet metal cylindrically curved to conform to said one edge of said resistance element and overlying the same in close proximity thereto, said shorting bar being insulated from said resistance element, and a slidable contact wiping on an exposed portion of said resistance element and on said shorting bar.

2,873,338
POTENTIOMETER
George H. Elliott, Burbank, Calif., assignor to Dale Electronics Corporation, Burbank, Calif., a corporation of California
Application July 2, 1956, Serial No. 595,386
6 Claims. (Cl. 201—62)

1. A potentiometer comprising a two-part hollow case, a resistance bar having a winding thereon fixed in the case, a screw threaded bar rotatably mounted in the case in parallel relationship with the resistance bar, a wiper arm on the screw threaded bar adapted for movement therealong when the bar is turned, said wiper arm including an extension adapted to contact and travel along the



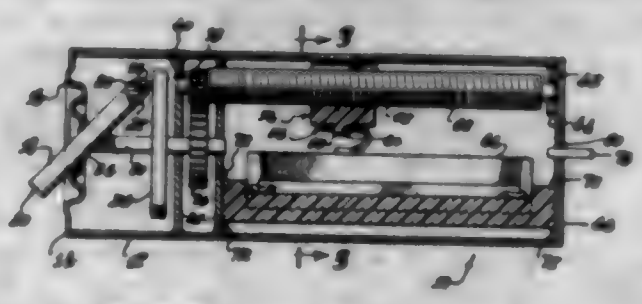
resistance bar, the wiper arm including a cylindrical portion adapted to surround the screw threaded bar, and having an integral loop for maintaining spring pressure and for positioning the arm on the bar, and a longitudinal ledge in one part of the case for sliding contact of the integral loop of the wiper arm therewith.

2,873,339
VARIABLE RESISTOR
Marian E. Bourns and Alan G. Richards, Riverside, Calif., said Richards assignor to Bourns Laboratories, Inc., a corporation of California
Application November 19, 1956, Serial No. 622,872
4 Claims. (Cl. 201—62)



1. A variable resistor comprising a housing having a cavity formed therein, a resistance element mounted within said cavity, a flexible bellows secured to one end of said housing and sealing said cavity, operating means attached to said bellows and extending into said cavity, said operating means having a contact wiping on said resistance element, a leadscrew rotatably mounted on said housing and having threaded engagement with said operating means, said leadscrew being constrained against endwise movement with respect to said housing, and guide means on said housing slidably supporting said operating means.

2,873,340
VARIABLE RESISTOR
Marian E. Bourns and Wilbur T. Hardison, Riverside, Calif.; said Hardison assignor to Bourns Laboratories, Inc., a corporation of California
Application December 28, 1956, Serial No. 631,385
5 Claims. (Cl. 201—62)



1. An electrical instrument which includes: a housing having an end; a diaphragm mounted on said end of said housing so as to seal said housing; shaft means secured of said diaphragm at the center thereof so as to extend from both sides of said diaphragm; rotary means positioned within said housing, said rotary means being designed to be engaged by an end of said shaft means within said housing; threaded shaft means operatively connected to said rotary means within said housing, said

threaded shaft means being rotatably mounted within said housing; an electrical instrument assembly mounted within said housing adjacent to said threaded shaft means; and means carried by said shaft means for adjusting said electrical instrument assembly.

2,873,341
ELECTRIC STRAIN GAUGE AND RESISTANCE UNITS THEREFOR
Ali Umit Kutnay, Norwalk, Conn.
Application August 3, 1955, Serial No. 526,286
7 Claims. (Cl. 201—63)



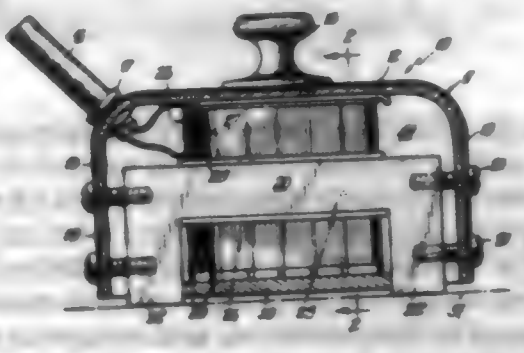
1. An electrical strain gauging device comprising, in combination, an elongated body of extensible and compressible material and having a longitudinal zone to be subjected to measured strain, and a solid cylindrical electrical resistance unit embedded in said body and lying at substantially the neutral longitudinal axis thereof, said unit being bonded to said body throughout the longitudinal extent of said zone, whereby said unit is directly subject to changes due to extension and compression of said body in said zone whereby the electrical resistance of said unit is varied.

2,873,342
ELECTRIC HEATING
Lester D. Drugmand, Pittsburgh, Pa., assignor to The Edwin L. Wiegand Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 5, 1955, Serial No. 551,853
1 Claim. (Cl. 201—67)



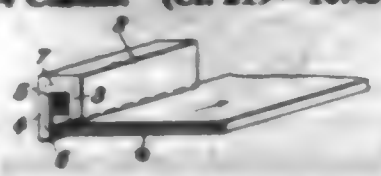
The method of producing an electric heater having a resistance conductor disposed in a tubular sheath and surrounded by an electric insulating heat-conducting material, comprising disposing said conductor and said material within said tubular sheath in position wherein a terminal end portion of said conductor is disposed in spaced lateral relation with an end opening of said tubular sheath and said material stops short of completely filling said sheath to provide an open pocket therein adjacent said end opening, placing an essentially dry cement powder in said pocket, and disposing a moistened bushing having dielectric and hygroscopic properties over said terminal end portion of said conductor and into said pocket in generally closely fitting relation with the inner peripheral wall of said sheath end opening and the adjacent exterior surface of said terminal end portion, the moisture contained by said bushing wetting said cement powder sufficiently to cause it to adhere to adjoining surfaces of said sheath end opening and the terminal end portion of said conductor.

2,873,343
ELECTRO-MAGNETIC HEATER
Joseph P. Collopy, Phoenix, Ariz., assignor to Collopy Electro-Soil Company, Phoenix, Ariz., a corporation of Delaware
Application June 4, 1957, Serial No. 663,455
2 Claims. (Cl. 219—6.5)



2. A heater for application to the housing of a transmission or the like, comprising, an electro-magnetic coil comprising plural adjacent pancake coil elements connected in series circuit relation, a core member of magnetic material surrounded by said coil whereby the same is magnetized by energizing said coil, extending arm portions on said core for engaging the housing to be heated, said coil constituting an electric resistance heater, and means for conducting heat generated by said coil to the object to be heated comprising metal disc elements extending substantially between said pancake coil elements and the object to be heated.

2,873,344
INDUCTOR DEVICE
Friedrich Kocks and Artur Hinkel, Duesseldorf, Germany
Application July 19, 1956, Serial No. 598,782
Claims priority, application Germany August 4, 1955
4 Claims. (Cl. 219—10.43)

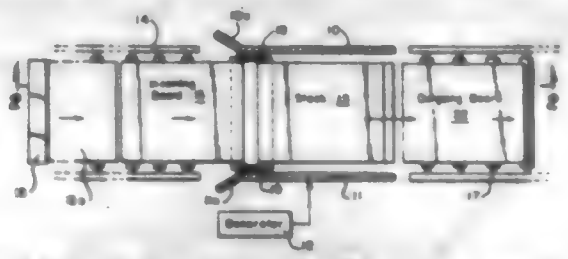


1. An inductor device, for use in heating an edge of a band shaped metal plate, comprising a channel-shaped rod of magnetically permeable material forming the yoke of a magnetic circuit, means surrounded by said channel-shaped rod and adapted to generate a magnetic field therein, the shanks of said rod having pole faces defining a gap between each other, said gap being adapted to receive a portion of said metal plate including said edge, one of said pole faces being disposed substantially vertically, its plane intersecting the plane containing the other one of said pole faces at an angle approximately equalling the angle between the faces of said metal plate where they intersect at said edge to be heated, the lower edge of said one pole face being disposed below said other pole face.

2,873,345
ARC MINIMIZERS
George E. Gard, East Hempfield Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
Application August 15, 1957, Serial No. 678,362
12 Claims. (Cl. 219—10.43)

1. In a dielectric heating system, a pair of substantially planar electrodes disposed in spaced substantially parallel relation to one another, support means disposed substan-

tially transverse to the planes of said electrodes for supporting a substantially planar dielectric workpiece to be heated, means cooperating with said support means for moving said substantially planar workpiece in said transverse plane from a first position external of said electrodes to a second position between said electrodes, and means for reducing the tendency of arc formation during move-



ment of said workpiece toward said second position comprising a pair of dielectric members carried by said pair of electrodes respectively adjacent the paths of movement of the opposed edges of said moving workpiece, said pair of dielectric members being disposed at limited locations adjacent the imtial point of entry of said moving workpiece between said electrodes as said workpiece moves between said electrodes toward said second position.

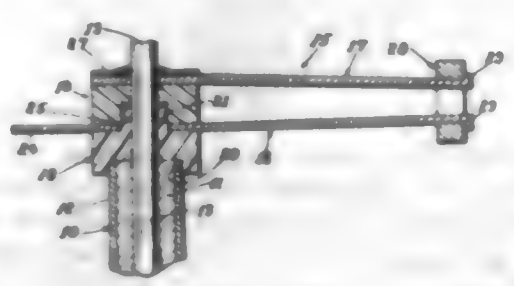
2,873,346
SEALING MACHINE
Roy Sidney Sennett, Toronto, Ontario, Canada, assignor to North American Philips Co., Inc., New York, N. Y.
Application March 8, 1957, Serial No. 644,820
Claims priority, application Canada December 4, 1956
9 Claims. (Cl. 219—10.53)



1. A sealing head adapted for the sealing of two fusible parts through the medium of a metal ring heated by high frequency currents comprising a centre post having one end secured to a base support, a cup-shaped member of good heat conducting material adapted to hold one of said parts and hinged at its closed end to the free end of said centre post, a movable tubular member surrounding said centre post and spring biased towards said base support, pin means secured to said cup-shaped member and spring biased to contact said movable tubular member to tilt said cup-shaped member at an angle to said centre post when said movable member is displaced from said base support and a non-conducting locating member secured to the end of the tubular member remote from said base support adapted to hold the other of said two parts so that said two parts are normally pressed together by the spring biasing of said tubular member toward said base support.

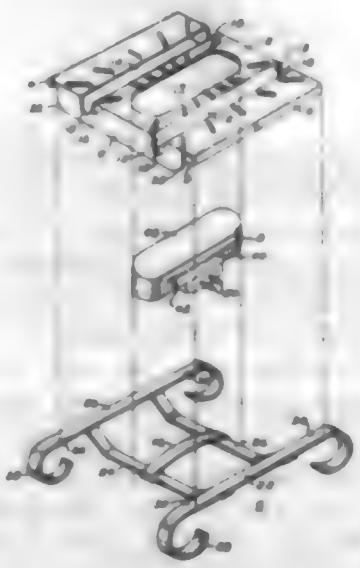
2,873,347
THERMAL RESPONSIVE DEVICE
Albea C. Boggs, Pittsburgh, Pa., assignor to Edwin L. Wiegand Company, Pittsburgh, Pa., a corperation of Pennsylvania
Application May 2, 1955, Serial No. 505,189
5 Claims. (Cl. 219—19)

1. In combination, an electric heating element adapted to be subjected to the temperature modifying effects of a heat absorbing medium and a protective device for interrupting current flow to said heating element when the temperature of the medium rises to a predetermined value, said heating element comprising a sheathed embedded element having a current carrying terminal pin extending therefrom and said protective device comprising a pair of members carried by and extending transversely of the exposed portion of said terminal pin, said members being resiliently biased away from each other to electrically insulated relation and one of said members being electrically insulated from said terminal pin and being adapted to be connected to a source of electrical energy and the other of said members being electrically connected to said terminal pin, said protective device further comprising a fusible element extend-



ing between and maintaining said members in juxtaposition against the biasing force and providing for electrical contact between said members, said fusible element being apertured to receive said members when the latter are shifted to juxtaposition against the biasing force and said fusible element possessing sufficient ultimate strength at normal temperatures to maintain said members in juxtaposition, said fusible element losing sufficient strength when its temperature rises to a predetermined value that the biasing force exceeds the ultimate strength of said fusible element and such biasing force thereupon interrupting electrical contact between said members by tearing said fusible element apart and shifting said members away from each other to electrically insulated relation to thereby interrupt current flow to said heating element.

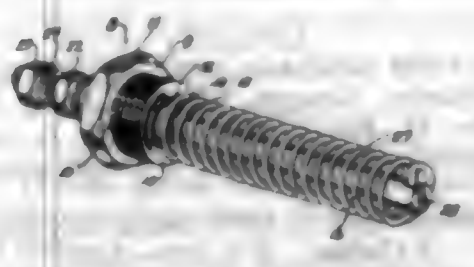
2,873,348
SUPPORTING AND HEATING DEVICE FOR CASSEROLES AND THE LIKE
Ray E. Troendly, Elkton, Oreg., assignor to Troendly Illinois Corporation, Melrose Park, Ill., a corporation of Delaware
Application July 17, 1957, Serial No. 672,469
1 Claim. (Cl. 219—37)



A device for supporting casseroles and the like on a table or other structure and supplying heat thereto, comprising a member having a flat supporting surface and walls depending from the opposite ends thereof, legs sup-

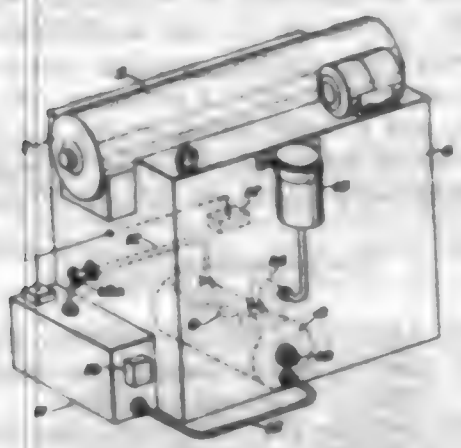
porting said member, said flat supporting surface having two spaced, elongated, narrow, parallel openings therein which extend from end wall to end wall, and said end walls having openings therein aligned with and extending downwardly from the two openings in said flat supporting surface and terminating above the lower edges of the end walls, whereby the openings in said supporting surface and end walls form parallel troughs for the reception of spaced parallel parts of a casserole holder or the like, said flat supporting surface having a central opening therein between said parallel openings therein, a heating element movably mounted for vertical movement within said central opening and having a flat upper surface, and resilient means constantly urging said heating element upwardly to a position in which its upper surface is above said flat supporting surface.

2,873,349
INTERNAL COMBUSTION ENGINE MANIFOLD HEATER
Le Roy E. Clark, Racine, Wis.
Application October 4, 1957, Serial No. 688,187
4 Claims. (Cl. 219—38)



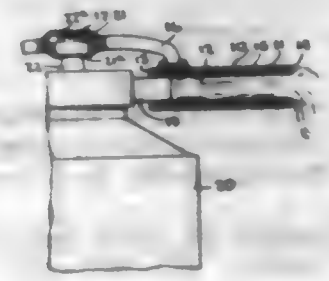
4. An electric heater for an internal-combustion engine manifold comprising, a body having a threaded portion for connection to said manifold, a stem insulatingly extending through said body and having a free end adapted to be in said manifold, means at the other end of said stem for the attachment of an electrically hot wire, a wire heating coil wound around said stem and welded at one end to said stem free end, said body including a cylindrical hub, said coil at its other end being wound around said hub and welded thereto and extending tangentially from the hub periphery whereby vibratory strains are distributed through the coil.

2,873,350
HEATING ELEMENT
Rolland D. Barnes, Bagley, Iowa
Application March 21, 1957, Serial No. 647,723
6 Claims. (Cl. 219—39)



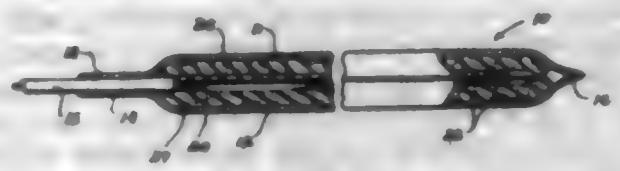
2. A heating element for viscous fluids in a tank, comprising a closed container having a plurality of cylindrical passageways through said container, said container submerged in said tank of viscous fluid, a heat transfer media, said heat transfer media enclosed in said closed container, means for raising the temperature of said media, and control means regulating the temperature of said media whereby said viscous fluid is heated to a desired temperature.

2,873,351
OUTLET HEATER FOR AEROSOL-TYPE DISPENSER
Paul Lannert, Brooklyn, N. Y.
Application March 14, 1958, Serial No. 721,580
10 Claims. (Cl. 219—39)



3. A heating device removably affixable to the outlet member of a valve-operated aerosol-type fluid dispenser, comprising a body portion having a passageway extending through said body portion, an inlet means on said passageway adapted for interconnection with said outlet member whereby the said fluid can be dispensed through said passageway; heating means on said body portion for heating the fluid in said passageway comprising an electrical heating element disposed along said body portion adjacent said passageway, insulated electric switch means for selectively interconnecting said element with a power source and disposable against the control valve on said dispenser for actuation therewith; and an outlet means on said passageway for dispensing the heated fluid therefrom for use.

2,873,353
WATERPROOF PLASTIC HEATING PAD
Vincent B. Franco, West New York, N. J., assignor to Vincraft Inc., Hoboken, N. J., a corporation of New Jersey
Application June 17, 1957, Serial No. 665,915
3 Claims. (Cl. 219—46)



1. An electric heating pad comprising a heating element having an insulated conductor cable for supplying power thereto, an outside cover including a front panel comprising a sheet of waterproof plastic material, a rear panel comprising a different sheet of waterproof plastic material, the sheets being of similar size and each sheet being of substantially uniform thickness throughout its entire area, and the sheets having confronting faces which contact with one another around the edge regions of the panels where the confronting faces are parallel to one another, the confronting faces of the panels being bonded to one another where they contact and then diverging from one another at a dihedral angle as the panels extend inwardly away from the edges, the panels contacting with one another, around the entire perimeter of the panels except at the location of said conductor, the contacting edge regions of the front and rear panels being bonded directly to one another up to the conductor on both sides thereof, and said edge regions of the panels being bonded to the insulation of the conductor when they pass over and under the conductor, different heat distributing pads in front of and behind the heating element and extending into the dihedral angle, and tabs extending from an edge of each of the front and rear panels at corresponding locations, the tabs being parts of the respective sheets from which they extend and said tabs being bonded together along their side edges all

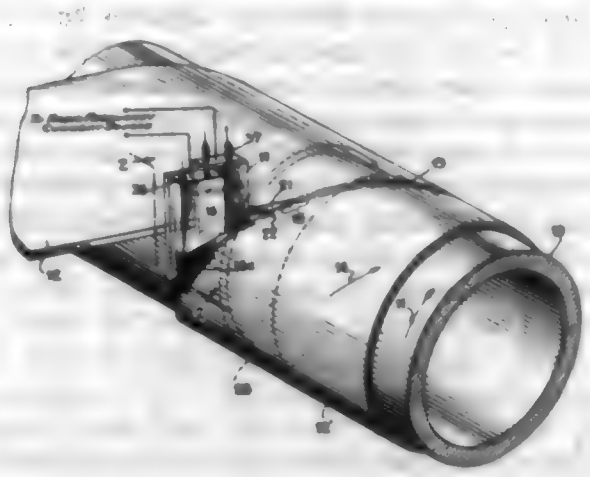
the way to the junction of the tabs with the edges of the panels so that the tabs form a sleeve into which the conductor fits snugly and through which the conductor passes, the confronting faces of the sleeve over at least the end regions remote from the panels being bonded to the outside surface of the conductor.

2,873,353

WELDING OF HELICALLY FORMED TUBING

Wallace C. Rudd, Larchmont, N. Y., assignor to Magnetic Heating Corp., New Rochelle, N. Y., a corporation of New York

Application November 30, 1955, Serial No. 549,986
6 Claims. (Cl. 219—62)



1. In a method for forming metal tubing by helically winding a metal ribbon to form successive convolutions joined together at their edges by a helical butt-welded seam, the combination of steps which comprises: advancing the ribbon generally tangentially and flatwise onto a mandrel with the edges of the ribbon positioned at an angle to the axis of the mandrel corresponding to the pitch of the desired helically welded seam; forming the ribbon into a succession of convolutions with abutting edges and embracing the mandrel while advancing said convolutions longitudinally along on the mandrel; welding at a substantially fixed weld point the trailing edge of each convolution to the forward edge of the ribbon substantially as the ribbon starts to form into a convolution about the mandrel, by applying contacts respectively to the edges which are to be welded together shortly in advance of said weld point, said contacts respectively being connected to the terminals of a source of current of the frequency of 100,000 cycles per second or higher, whereby said current flows from said contacts along said edges to and from substantially the weld point, the resulting resistance heating of such edges being substantially concentrated along such edges and acting to increase the temperature thereof until same come into contact adjacent the weld point and whereby said forward edge of the ribbon then wipes across said trailing edge into its final butt-welded position in respect thereto; and applying pressure to said ribbon in a direction longitudinally of the mandrel means for forcing the forward edge thereof under pressure against said trailing edge at the weld point.

2,873,354

METHOD OF MAKING A HEAT EXCHANGER

Thomas E. Shoup, Amherst, Ohio, assignor to Gregory Industries, Inc., Detroit, Mich., a corporation of Michigan

Application August 23, 1954, Serial No. 451,338
2 Claims. (Cl. 219—104)

1. In a method of manufacturing a heat exchanger wherein welding is possible only from the exterior of an enclosure, the steps of; forming the enclosure from wall means of weldable material, providing said wall means with at least one through passage hole, mechanically fitting one end of a metal member in said hole with the member extending into the enclosure, thereafter positioning a stud having a cross-sectional area at least equal to that of the member into the external opening of said hole in electrical relationship and in coaxial



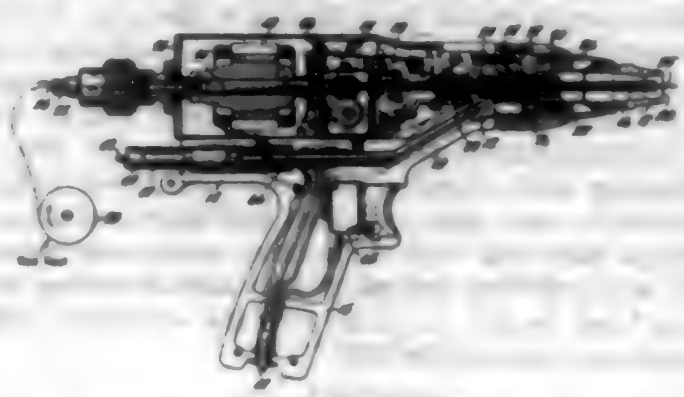
alignment with the end of the member, thereafter weld melting the end of the member and the wall around the member and the entire adjacent end of the stud, and finally allowing the welded molten portions to solidify to integrally join the member to the stud throughout their cross-sectional area and to the wall means entirely around the periphery of the member with a single mass of weld metal.

2,873,355

GAS SHIELDED METAL ARC WELDING TORCH

Peter R. Schaefer, Newark, and Thaddeus J. Wojciak and Stanley H. Royer, Elizabeth, N. J., assignors to Union Carbide Corporation, a corporation of New York

Application April 5, 1957, Serial No. 651,071
7 Claims. (Cl. 219—130)



1. In an inert gas shielded metal arc welding gun comprising a barrel, an electrode wire guide tube in said barrel, a gas directing nozzle surrounding the outer end of said guide tube and extending therebeyond to a discharge orifice, feed rolls journaled in said gun behind said guide tube for pushing the electrode wire through said guide tube and on out through said discharge orifice, means for supplying electric welding current through said barrel to said guide tube, a collector ring on one of said feed rolls, and a brush for supplying welding current through said brush and collector ring to said feed roll to energize said wire electrode before it reaches said guide tube.

2,873,356

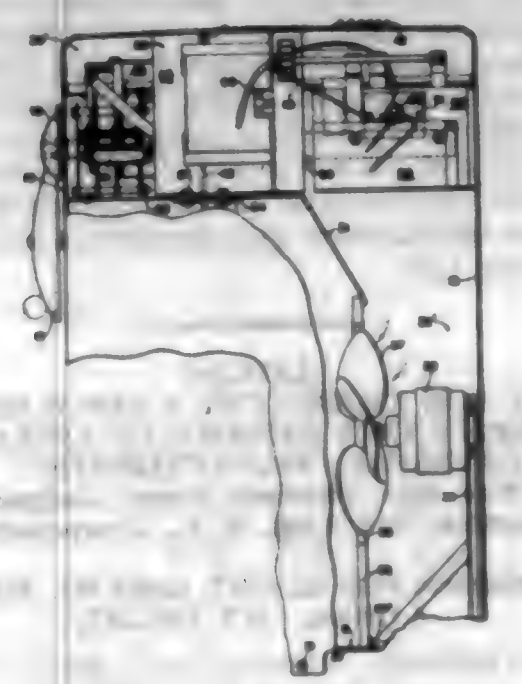
ELECTRIC ARC WELDING POWER SUPPLY

John E. Carroll, South Euclid, and John G. Murray, Willoughby, Ohio

Application October 17, 1955, Serial No. 540,975
9 Claims. (Cl. 219—131)

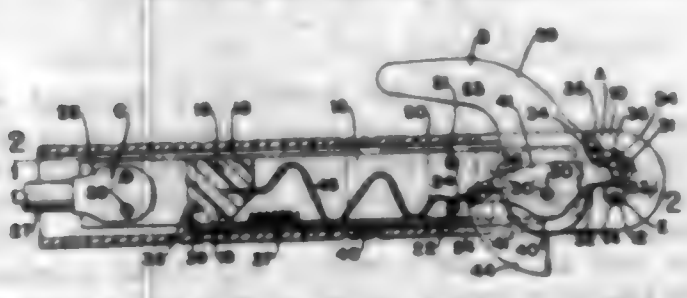
1. Electric arc welding apparatus comprising in combination a housing, a base, alternating current power supply apparatus on said base and including a transformer and reactors positioned in the lower front portion of said housing, a baffle over the top and rear of said power source and spaced from the top and rear of said housing providing a compartment having intersecting horizontal and vertical portions, ventilating louvres in the lower

front of said housing, and in the upper part of said housing above said top baffle, fan means in the vertical por-



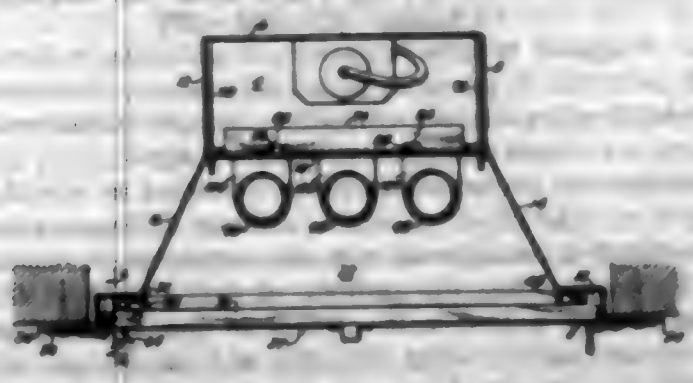
tion of said baffle, and a dry disc type rectifier at the intersecting portion of said vertical and horizontal portions.

2,873,357
ELECTRODE HOLDER
George G. Landis, South Euclid, Ohio, assignor to The Lincoln Electric Company, Cleveland, Ohio, a corporation of Ohio
Application January 18, 1955, Serial No. 482,901
13 Claims. (Cl. 219—138)



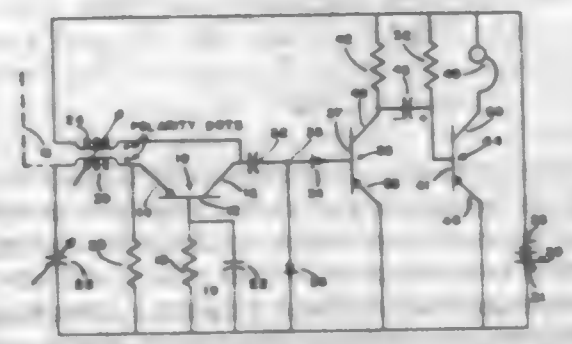
1. An arc-welding electrode holder comprising, in combination, manually operable electrode clamping means, electrical contacts for controlling the energization of an electrode in said means and operatively associated therewith to de-energize an electrode in said means when said means are manually operated to the unclamped position and other manually operable means for holding said contacts in the means de-energized position after manipulation of said clamping means to receive and clamp an electrode.

2,873,358
VAPOR-TIGHT LAMP FIXTURE
Josef Dunker, Detroit, Mich., assignor to Ajem Laboratories, Inc., Detroit, Mich.
Application November 20, 1953, Serial No. 393,339
6 Claims. (Cl. 240—51.11)



4. A lighting fixture including a housing having one open side, a cover having a hollow edge portion and a glass panel positioned adjacent said open side of the housing, a resilient gasket mounted between said cover and said housing, and hinge means swingably supporting said cover on said housing and including a plurality of hinge brackets having transverse openings therein and positioned on said housing and extending at spaced points into the interior of said hollow edge portion of said cover, and a hinge pin extending throughout the length of said hollow edge portion and through the openings in said brackets, said openings being substantially larger than the diameter of said hinge pin to permit lateral movement of said cover toward and away from said housing, said hinge pin extending beyond at least one end of said cover and being removable therefrom by longitudinal movement along the length of the cover.

2,873,359
TRANSISTORIZED RADIO RECEIVER
Paul W. Cooper, Highland Park, and Joseph F. O'Brien, Long Branch, N. J.
Application June 10, 1954, Serial No. 435,776
1 Claim. (Cl. 250—20)



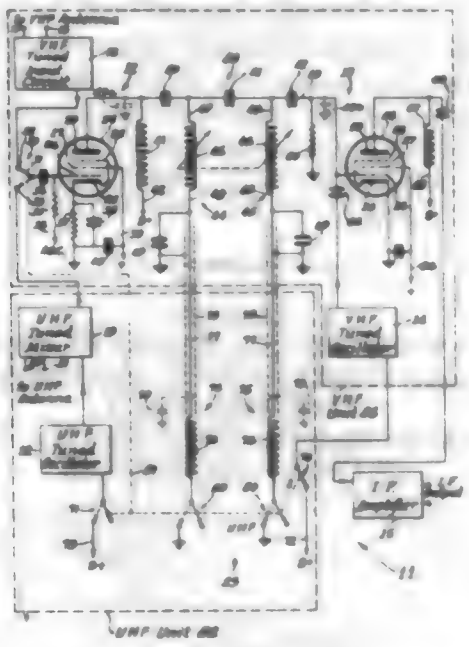
A miniaturized receiver comprising a first transistor having a first emitter, base, and collector electrodes, a direct current potential source for applying a negative bias to said collector, a parallel combination of a first resistor and a first capacitor in circuit between said base and the positive terminal of said potential source, a second resistor having one end thereof connected to said emitter and its other end to the positive terminal of said potential source, a first inductor in circuit between said collector and the negative terminal of said potential source, whereby a negative bias applied to said collector causes a direct current to flow through the resistor of said parallel combination and the resistor between said emitter and said positive terminal thereby providing a positive bias current for said emitter, a series combination of a variable capacitor and a second inductor connected between said other end of said second resistor and said emitter, said first and second inductors being variably mutually coupled, a second junction transistor consisting of a semiconductor body having at least second emitter, collector, and base electrodes, a series combination of a second capacitor and a first semiconductor diode connected between said first collector and said second base electrodes whereby said second capacitor and said first inductor constitute a broadly parallel tuned circuit for said first collector and a broadly series tuned circuit for said first rectifier, a second semiconductor rectifier connected between said positive terminal and a point intermediate said second capacitor and said first rectifier, both of said rectifiers being poled in the same direction, second emitter being connected to said positive terminal, a third resistor connected between said negative terminal and said second collector, a third junction transistor having third emitter, base, and collector electrodes, said third emitter being connected to said positive terminal, a third capacitor connected between said second collector and said third base electrodes, a fourth resistor connected between said negative terminal and said third base electrode, a high impedance magnetic auditory device connected between said third collector and said third negative terminal.

2,873,360

VERY HIGH FREQUENCY TUNER CONVERTIBLE TO INTERMEDIATE FREQUENCY AMPLIFIER

Harold T. Lyman, Milford, Conn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois

Application November 29, 1955, Serial No. 549,793
7 Claims. (Cl. 250—20)



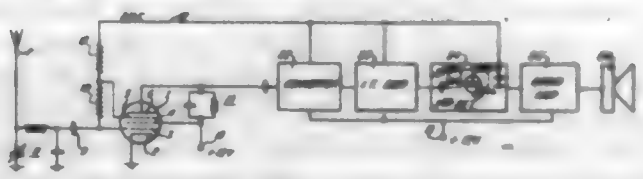
2. In a receiver for a plurality of frequency bands, the combination comprising a radio frequency amplifier, a mixer, an intermediate frequency amplifier having its input coupled to the output of said mixer and operable at a predetermined intermediate frequency, coupling means connected between said amplifier and said mixer for coupling the output of said amplifier to the input of said mixer, said coupling means including a resonant circuit tunable over a band above said intermediate frequency, said resonant circuit including an inductance coil and a capacitor in series with said coil and connected between one end thereof and ground, transfer means for shifting the resonant frequency of said resonant circuit to said intermediate frequency for operating said amplifier and mixer as additional intermediate frequency amplifiers, said transfer means including a supplementary inductance coil, a lead extending between one end of said supplementary coil and said one end of said first mentioned coil, a shield around said lead and connected to ground so that the capacitance between said lead and said shield augments the capacitance of said capacitor, a switch operable between open and closed positions and being effective in said closed position to connect the other end of said supplementary coil to ground so as to introduce the inductance of said supplementary coil into said resonant circuit and thereby shift the resonant frequency thereof to said intermediate frequency, said supplementary coil effectively being out of said resonant circuit with said switch in said open position.

2,873,361

RADIO RECEIVER

Louis E. Pepperberg, Highland Park, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application April 4, 1956, Serial No. 576,826
8 Claims. (Cl. 250—20)



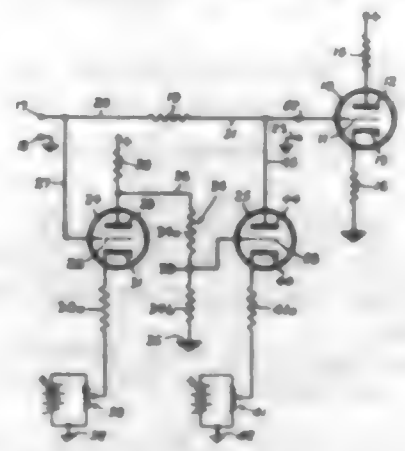
1. In a radio receiver which includes a source of automatic gain control bias, the combination of a radio frequency amplifier tube of the pentode type having a cathode, an anode and control, screen and suppressor grids, resistor means connecting said control grid to said suppressor grid, means including capacitor means coupled between said control grid and said cathode for applying a radio frequency signal to said control grid and through said resistor means to said suppressor grid, means for applying the automatic gain control bias to said suppressor grid and through said resistor means to said control grid, said control grid and said cathode forming a rectifier when said radio frequency signal reaches a predetermined value to increase the automatic gain control bias and reduce the gain of said tube.

2,873,362

CIRCUIT FOR PRODUCING A LOCALIZED NON-LINEARITY IN A GENERALLY LINEAR VOLTAGE TRANSFER CHARACTERISTIC

William West Moe, Stratford, Conn., assignor to Time, Incorporated, New York, N. Y., a corporation of New York

Application May 28, 1953, Serial No. 358,154
4 Claims. (Cl. 250—27)



1. A control circuit for producing a localized nonlinearity between a first and second potential in an otherwise generally linear input-output voltage transfer characteristic comprising resistance means having an input terminal adapted to be connected to an input voltage source and an output terminal; one signal translating means having at least a control element and a plate, said plate being connected to said output terminal of said resistance means and adapted to be energized therethrough by said input voltage source; biasing means for making said signal translating means conductive whenever the potential of said input voltage source is above said first potential, thereby to produce a voltage drop across said resistance means; and means connected to said input terminal and responsive to said input voltage source to render said signal translating means nonconductive, thereby to eliminate said voltage drop.

2,873,363

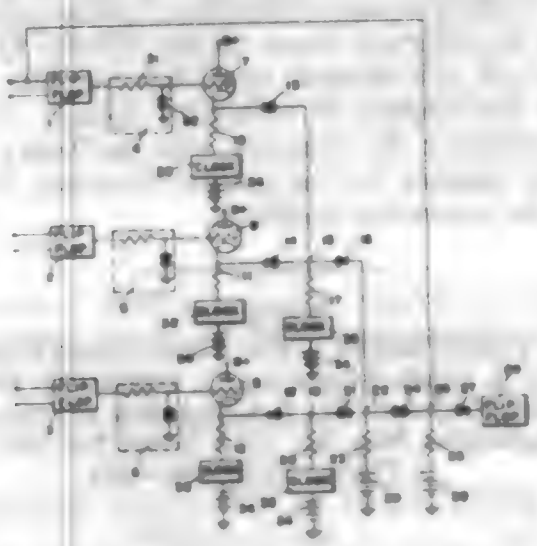
LOGICAL GATING SYSTEM FOR DIGITAL COMPUTERS

Cravens L. Wanlass, Whittier, Calif., assignor to North American Aviation, Inc.

Application January 18, 1954, Serial No. 404,448
7 Claims. (Cl. 250—27)

2. A logical system comprising a plurality of flip-flops each adapted to provide digital information expressed as potentials of two levels, respective cathode followers each having a cathode and anode, respective signal delay means adapting said respective cathode followers to receive the output of said flip-flops, each cathode follower adapted to conduct in accordance with the output of its respective flip-flop only when the cathode of said cathode follower is negatively pulsed with respect to the anode thereof, respective diodes having cathodes and anodes and whose anodes are connected to receive the output of said cathode followers, means for negatively pulsing the cathodes of said cathode followers and said diodes, respective output

diodes having cathodes and anodes and whose cathodes are connected to receive the output of one or more of said preceding diodes, a voltage source connected to place a positive potential on the anodes of said output diodes, a capacitor connected on one side to receive the output of



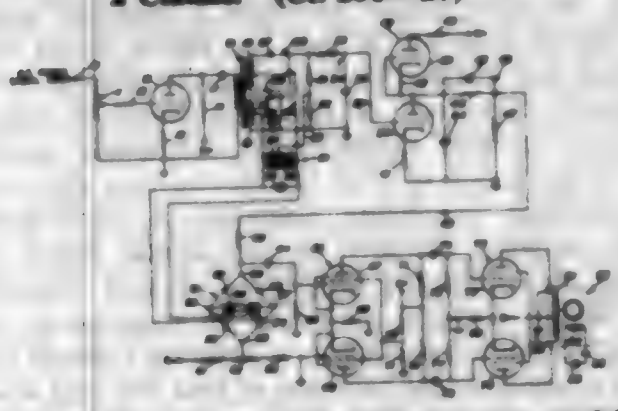
said output diodes, a voltage source connected at its positive end to the other side of said capacitor, feedback means from the other side of said capacitor to at least one of said flip-flops, a final diode connected to said capacitor on the same side as said voltage source, and a flip-flop responsive to the output of said final diodes.

2,873,364

SUBMINIATURE SERVOMECHANISM AMPLIFIER

Frank J. Huddleston, Millersville, and David H. Mooney, Jr., Glen Burnie, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application July 13, 1954, Serial No. 443,186
2 Claims. (Cl. 250—27)



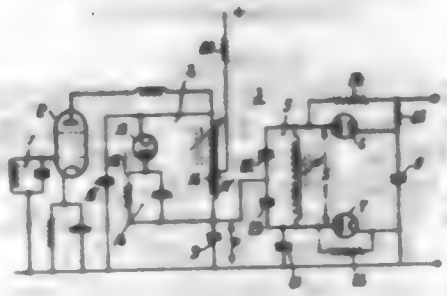
1. A circuit for a servomotor which is actuated by an alternating current voltage error signal but employs differentiating networks for stabilization, said circuit comprising: means for coupling an alternating current voltage error signal to said circuit; means connected to the coupling means for phase detecting and demodulating said alternating current voltage error signal and for producing a first direct current voltage having a magnitude and polarity which is a function of the amplitude and phase of the alternating current voltage error signal; differentiating means for converting said first direct current voltage into a second direct current voltage having a magnitude which is proportional to said first direct current voltage plus the rate of change of said first direct current voltage; modulating means for modulating said second direct current voltage and thereby producing an alternating current voltage having the proper frequency, magnitude and phase for the operation and stabilization of the servomotor; a series compensated direct current amplifier connected between said differentiating means and said phase detecting and demodulating means for isolating said differentiating means from said phase detecting and demodulating means and output terminals for connecting said alternating current voltage to the servomotor.

2,873,365

FREQUENCY DEMODULATOR

Peter Johannes Hubertus Janssen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 21, 1955, Serial No. 548,201
Claims priority, application Netherlands December 11, 1954
3 Claims. (Cl. 250—37)



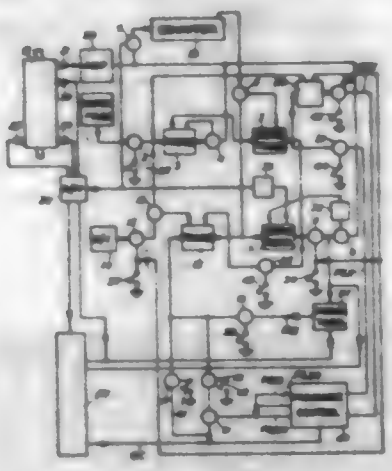
1. A circuit for demodulating frequency-modulated signals subject to having undesired distortion and amplitude modulation, comprising a resonant primary circuit connected to receive said signals and having an inductor and at least two capacitors connected in series and tuned to comprise a filter for attenuating said undesired distortion, a common junction between two of said capacitors being connected to a source of reference potential, a resonant secondary circuit coupled capacitively to said primary circuit, a detector comprising a pair of rectifiers respectively connected to said secondary circuit to receive a push-pull signal therefrom, signal conducting means connected between one of said capacitors and said secondary circuit to apply a co-phase signal to said rectifiers, and a limiter connected across at least a portion of said inductor to partially limit said undesired amplitude modulation across said inductor, thereby producing a desired amount of distortion of said signals, whereby said primary circuit attenuates said undesired distortion without attenuating said desired distortion.

2,873,366

ELECTRONIC COMPUTING APPARATUS

Lorin Knight, Watertown, Mass., assignor to The British Tabulating Machine Company Limited, London, England

Application February 5, 1957, Serial No. 638,273
Claims priority, application Great Britain February 23, 1956
12 Claims. (Cl. 250—27)



1. Electronic calculating apparatus including an arithmetic unit, a timing unit controlling the operation of the arithmetic unit, a first pulse source generating a first train of master clock pulses, a first control means rendering the timing unit operative in response to the master clock pulses, a counter operated by the master clock pulses to produce an output pulse in response to the occurrence of a predetermined number of master clock pulses, a second independently operable pulse source of

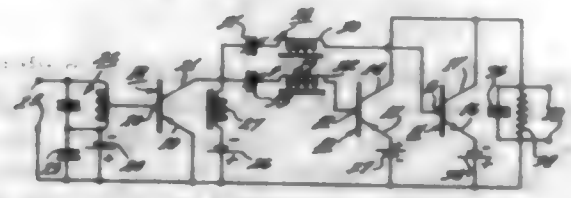
a frequency lower than the first pulse source, signal gating means controlled by pulses from the first and second sources and by said output pulses and operative to pass a pulse from the first source on coincidence of an output pulse and a pulse from the second source for forming a second pulse train, and second control means operable to render the timing unit responsive to pulses passed by the signal gating means and to render the first control means inoperative.

2,873,367

ANGLE MODULATION DETECTOR

Jakob Zaweis, Capetown, Cape of Good Hope, Union of South Africa, assignor to Radio Corporation of America, a corporation of Delaware

Application November 19, 1953, Serial No. 393,147
8 Claims. (Cl. 250—31)



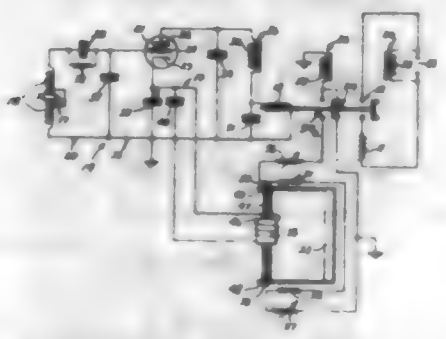
1. An angle modulation detector for deriving from angle modulated signal waves output voltages having a relative magnitude dependent upon the angular modulation of said waves and comprising in combination; a pair of semi-conductor devices of opposite conductivity type each including base, collector and emitter electrodes one of said base and emitter electrodes of each of said transistors being connected to signal ground; a signal wave input circuit referenced with respect to said signal ground; circuit means connected between a common ungrounded point in said input circuit and each one of the ungrounded one of said base and emitter electrodes and providing a series resonant circuit therebetween; and an output circuit across which said voltages are developed connected in common between said collector electrodes and said signal ground.

2,873,368

ELECTRICAL CONTROL APPARATUS

Oscar L. Welker, Rockford, and Lester F. Hetchler, Loves Park, Ill., assignors to Barber-Colman Company, Rockford, Ill., a corporation of Illinois

Application May 3, 1955, Serial No. 505,674
18 Claims. (Cl. 250—36)



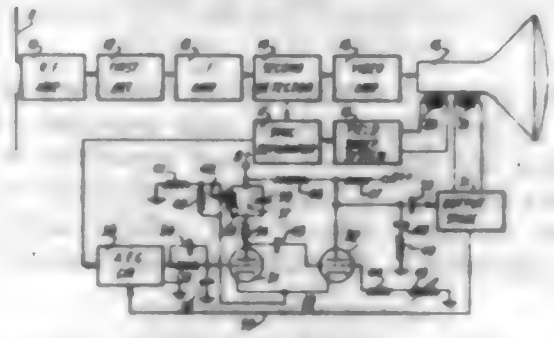
3. In control apparatus, the combination of, an oscillator having an output circuit and a tuned circuit including a variable reactance element, means for varying the oscillatory condition of said oscillator and the current flow in said output circuit thereof in response to changes in opposite senses of a condition being controlled, said oscillatory condition also varying in response to changes of reactance of said element, a member of conductive material, means supporting said element and said member adjacent each other and including spaced bimetal strips mounted to flex in opposition to each other and to shift the element and the member in opposite directions relative to each other to vary the reactance of the element in response to differential heating of the two strips, separate heaters supported in heat transfer relation with the respective bimetal strips, separate energizing circuits for said heaters, a selectively variable impedance in each of said energizing circuits, and means responsive to said current in said output circuit and operable to complete said energizing circuits alternately in response to different values of the current to shift said member and said element relatively and vary the reactance of the element to anticipate changes of the controlled condition by changing said oscillatory condition in senses opposite to the changes resulting from variation of the controlled condition.

2,873,369

TELEVISION SYNCHRONIZATION

Richard A. Kraft, Elmhurst, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application May 12, 1955, Serial No. 507,884
1 Claim. (Cl. 250—36)



In an indirectly synchronized sweep-signal generating system for a television receiver in which there is provided a unidirectional automatic frequency control voltage varying with respect to a reference potential, a multivibrator comprising first and second electron discharge devices each having anode, cathode and control electrodes, an input circuit including a capacitor connecting said control electrode of said first device to the reference potential and means for applying the control voltage to the control electrode of said first device to control the frequency of said multivibrator, an anode circuit connecting the anode of said first device to a first source of unidirectional energizing potential, a parallel-resonant ringing network included in said anode circuit for stabilizing the controlled frequency of said multivibrator, said ringing network including an inductance coil and a shunt-connected capacitor, a common cathode feedback circuit connecting the cathodes of said first and second devices to the reference potential, an inductance winding included in said cathode circuit and inductively coupled to said inductance coil in said ringing network for feeding energy from said anode circuit to said cathode circuit in regenerative phase to assist in the stabilization of said multivibrator, capacitor means coupling said anode of said first device to said control electrode of said second device, grid load means coupling said last mentioned control electrode to the reference point, and an output circuit coupled to said anode of said second device and including a connection to a second source of uni-directional energizing potential higher than said first source.

2,873,370

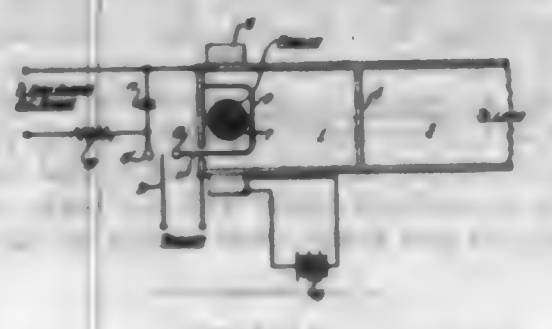
MICROWAVE PULSE GENERATOR

Robert V. Pound, Arlington, Mass., assignor to Levinthal Electronics Products, Inc., Redwood City, Calif., a corporation of California

Application August 15, 1955, Serial No. 528,415
4 Claims. (Cl. 250—36)

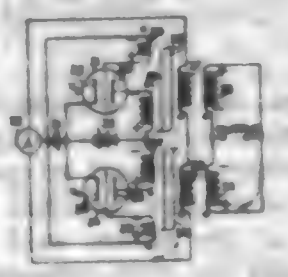
1. A generator of high power pulses of microwave energy comprising a body of a material having a known gyromagnetic ratio γ, means for establishing a polarizing magnetic field through said body, means for suddenly subjecting said body to a magnetizing field having a com-

ponent of intensity H transverse to said polarizing field, a cavity resonator surrounding said body and having a



resonant mode of electrical angular velocity ω equal to γH coupled with said body, and a load circuit coupled to said cavity resonator.

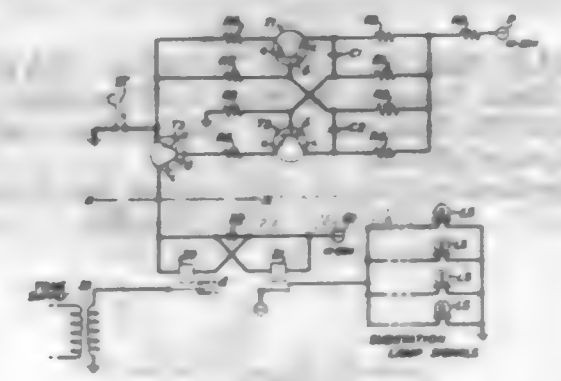
2,873,371
VARIABLE FREQUENCY TRANSISTOR OSCILLATOR
Roland L. Van Allen, Alexandria, Va.
Application November 18, 1955, Serial No. 547,874
5 Claims. (Cl. 250—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A variable frequency magnetic multivibrator operative in accordance with a variable input comprising first and second pluralities of windings wound on first and second cores, respectively; each of said first and second pluralities including at least first and second windings wound in opposite rotational sense; each of said first and second cores having a substantially rectangular hysteresis loop characteristic; a first energy source; first and second on-off switching means coupled to said first winding in said first and second pluralities, respectively, and to said first energy source; said first and second switching means being adapted to drive their respective cores to saturation in continuous alternate order; means intercoupling said second winding in each of said first and second pluralities such that a portion of the energy operative to bring one core to saturation is simultaneously operative to reset the other core; current limiting means for controlling the amount of current flow in said second windings in accordance with a variable input; and output means responsive to the frequency of operation of said switching means.

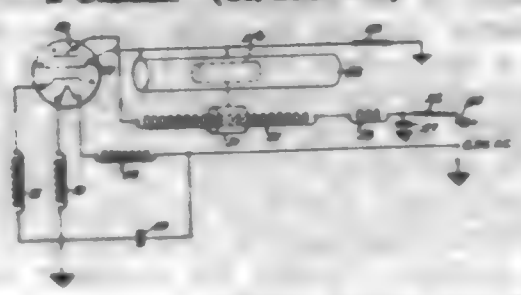
2,873,372
ELECTRIC CIRCUIT INTERRUPTERS
Fay H. Chase, Short Hills, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 12, 1957, Serial No. 702,346
4 Claims. (Cl. 250—36)

1. An interrupter circuit for intermittently operating signal devices comprising first and second transistors each having base, collector and emitter electrodes, a first capacitor connecting the collector electrode of said first transistor to the base electrode of the second transistor, a second capacitor connecting the collector electrode of said second transistor to the base electrode of said first transistor, a start switch, a source of supply potential, means effective incident to the operation of said switch for applying biasing potentials to the electrodes of said transistors whereby said circuit operates as a free-running multivibrator and said first capacitor attains a peak potential of predetermined magnitude, means effective prior to the operation of said switch for maintaining said first capacitor at the said peak potential of predetermined magnitude, said means comprising a resistor connecting



one plate of said capacitor and the base electrode of said second transistor to ground and the other plate of said capacitor to said source of supply potential, and signal control means included in the emitter circuit of said second transistor.

2,873,373
WIDE-RANGE RADIO-FREQUENCY TUNER
Harold T. Lyman, Milford, and Milton M. Tupper, Norwalk, Conn., assignors to Aladdin Industries, Incorporated, Chicago, Ill., a corporation of Illinois
Application April 29, 1953, Serial No. 351,868
2 Claims. (Cl. 250—40)



2. A tunable resonant circuit for radio-frequency currents comprising a stationary elongated inductance coil, one end of said coil having a portion forming a first circuit terminal for establishing an external circuit connection to said one end of said coil, a generally cylindrical conductive energy-transfer element adapted to interchange radio-frequency energy with the coil and mounted around and closely adjacent the coil for movement longitudinally along the coil, insulating means spacing said transfer element from said coil and operative to limit energy transfer therebetween to capacitive energy exchange, a stationary low-inductance elongated conductor, having large surface area, extending parallel to said coil a distance substantially less than a quarter wavelength at the highest frequency to be attained by said tuner and being fixed relative to said coil, a conductive electrode movable with said transfer element and along said elongated conductor in close surface-to-surface proximity thereto over the entire range of movement of said transfer element, and second insulating means separating said electrode and said conductor and operative to limit energy transfer therebetween substantially to capacitive energy exchange, means for moving the transfer element along the coil, and a portion at one end of said conductor forming a second circuit terminal for establishing an external circuit connection to said conductor, said first and second circuit terminals being at corresponding ends of said coil and conductor and being closely adjacent each other to minimize the minimum inductance of said coil and conductor, the inductance of said coil and said conductor being decreased concurrently by movement of said energy-transfer element toward said one end of said coil, said conductor being a hollow generally cylindrical tube with a longitudinal slot therein, said electrode being a gener-

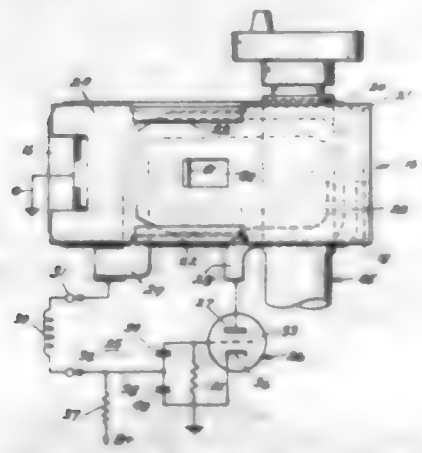
ally cylindrical member slidable within said tube and having an arm extending outwardly through said slot and connected to said energy-transfer element.

2,873,374

ELECTRICAL FINE TUNING DEVICE

Morris Glenn Gossard, Burbank, Calif., assignor to Standard Coil Products Co. Inc., Los Angeles, Calif., a corporation of Illinois

Application May 27, 1955, Serial No. 511,642
4 Claims. (Cl. 250—40)



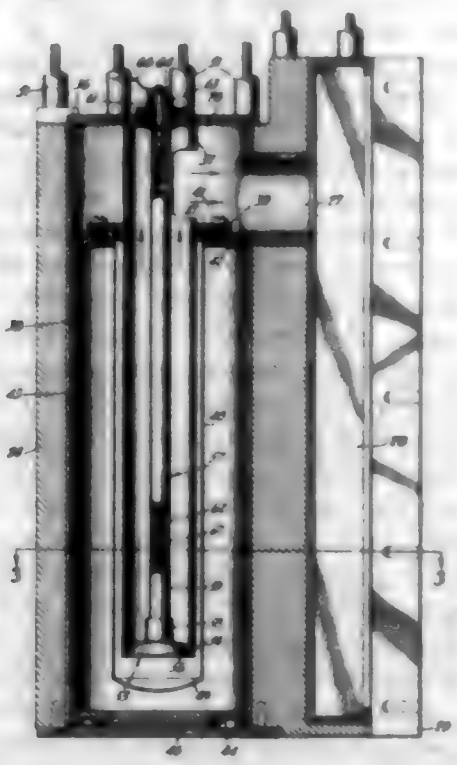
1. A fine tuning device of the character described for an oscillator tunable over a wide frequency range comprising an inductive member constructed in a plane and connectable in the oscillator circuit, a body of insulation material carrying the plane inductive member parallel to a flat surface thereof, a blade of spring material supported at one end in said body at an angle above said member and surface, said blade being capacitatively related to said inductive member and angularly displaceable with respect thereto about said one end through biased juxtapositioning of its other end, against a cammed control member whereby the oscillator frequency is varied by said control member.

2,873,375

THERMALLY OPERATED VAPOR VALVE

John G. Dorward, Jr., Alameda, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application February 14, 1946, Serial No. 647,438
5 Claims. (Cl. 250—41.9)



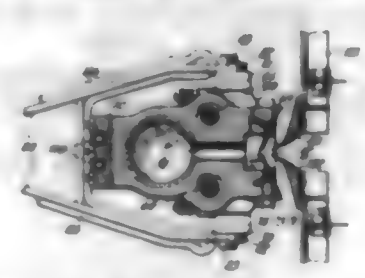
5. A calutron comprising a closed tank having a wall, means for evacuating said tank, a source of vapor within said tank, means within said tank for ionizing said vapor, means within said tank for conducting vapor from said source to said ionizing means, a valve within said tank for controlling flow through said conducting means, thermally-responsive means within said tank for actuating said valve, an electric heater within said tank for supplying heat to said thermally-responsive means, and electric conductors passing through the wall of said tank and included in an electrical circuit with said heater for supplying energy to said heater from outside of said tank.

2,873,376

ION PRODUCING MECHANISMS

William M. Brobeck, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application February 21, 1946, Serial No. 649,403
6 Claims. (Cl. 250—41.9)



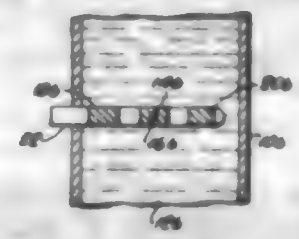
5. In a calutron, an ion generator comprising the combination of a block having an elongated recess therein, an electron emitter disposed at one end of the recess, an electron interceptor attached to said block at the opposite end of the recess, said interceptor comprising a substantially flat plate mounted in a plane substantially perpendicular to the path of travel of electrons and an electric circuit for projecting electrons from the emitter through the recess toward the interceptor the combination being characterized by the configuration of the interceptor wherein the points of attachment of the interceptor to the block are separated from the body of the interceptor by parallel slits extending inwardly from opposite sides of the interceptor and past each other to obtain a low heat transfer from the body of the interceptor to the points of attachment to the block.

2,873,377

METHOD OF ANALYZING COMPOSITIONS

Alexander S. McKay, Bellaire, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application December 27, 1954, Serial No. 477,819
16 Claims. (Cl. 250—43.5)



1. The method of determining changes in the concentrations of two elements in a material in a vessel, which comprises first bombarding with neutrons in said vessel a similar material containing known concentrations of said elements, simultaneously measuring the counting rates of thermal neutrons passing through different distances in said similar material, plotting a family of crossed curves showing the variation in density of each of said elements in said similar material as a function of the variations in density of another of said elements for predetermined different counting rates at each of said distances, repeating the aforementioned steps of bombarding with neutrons and measuring thermal neutrons with said first mentioned material in said vessel to obtain the counting rates at said two distances, and then referring to said

curves to obtain the densities of said elements in the first mentioned material, the points of intersection of the curves for the counting rates subsequently obtained at said different distances with the first mentioned material constituting an indication of the densities of the two elements being measured.

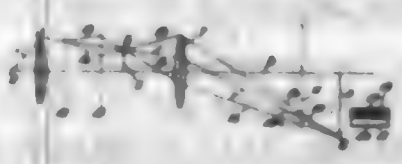
8. An apparatus for measuring the concentrations of two elements in a fluid composition contained in a vessel comprising an elongated housing adapted to be inserted in said composition within the vessel, a source of neutrons within said housing, a detector of thermal neutrons within said housing in the immediate vicinity of said source and at least one other similar thermal neutron detector in said housing and spaced from said source by a distance such that neutrons measured thereby will have traversed an amount of said composition having the equivalent slowing down power of at least three inches of water.

2,873,378

METHOD OF EXAMINING THE QUALITY OF ELECTRON-OPTICAL IMAGES AND DEVICES FOR CARRYING OUT THIS METHOD

Jan Bart Le Poole, Delft, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application June 20, 1955, Serial No. 516,727
Claims priority, application Netherlands July 15, 1954
6 Claims. (Cl. 250—49.5)



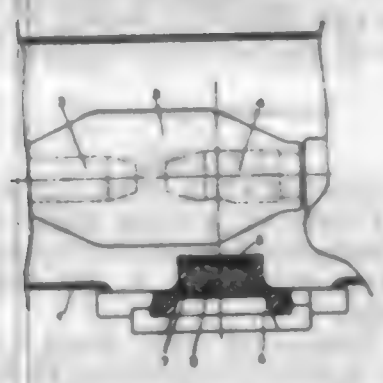
1. A device for determining the image plane of an electron-optically produced image of an object comprising, means to project a beam of electrons striking a given region of the object exhibiting a variation in contrast different from that of an adjacent region, means to deflect the electron beam so as to vary in succession the directions in which the beam strikes said region of the object thereby causing movement of the image of said region in a plane non-coincident with the image plane, a boundary element in said non-coincident plane having an edge forming an angle with the direction of movement of said image region in said non-coincident plane, and means to convert the image in said non-coincident plane as it traverses said boundary into an electrical signal having variations indicative of the extent of movement of said image region in said non-coincident plane.

2,873,379

PROTECTING ENVELOPE FOR X-RAY TUBES

Werner Berends, Hamburg, Germany, assignor to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application June 19, 1957, Serial No. 666,536
Claims priority, application Germany July 19, 1956
3 Claims. (Cl. 250—90)



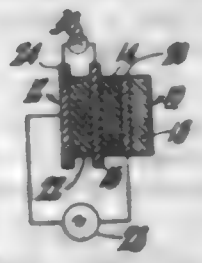
1. A protecting envelope for use in X-ray tubes, the wall of which comprises a window of insulating material for the passage of the rays, said window being connected with a re-entrant edge to the wall of the envelope defining therewith an enclosed space which is at least partially filled with high-grade insulating material containing a great number of individual air-bubbles.

2,873,380

ELECTROLUMINESCENT DEVICE

Benjamin Kazan, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application October 28, 1952, Serial No. 315,696
13 Claims. (Cl. 250—213)



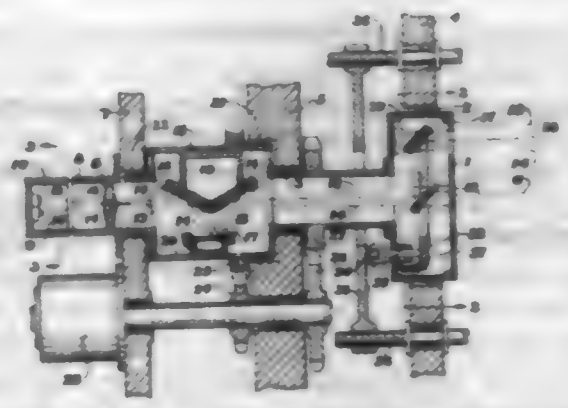
13. An electroluminescent device comprising an electroluminescent body, a variable reactance member adapted to have its impedance varied by an applied electric field and connected in series with said body, and electrode means electrically connected to said body and member for establishing an alternating electric field therecross.

2,873,381

ROTARY SCANNING DEVICE

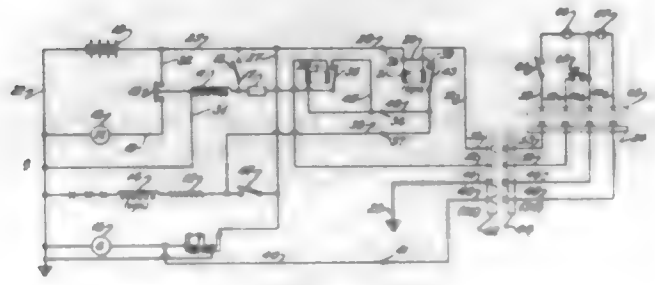
Thomas J. Lasroesch, Rochester, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application August 29, 1957, Serial No. 681,151
2 Claims. (Cl. 250—236)



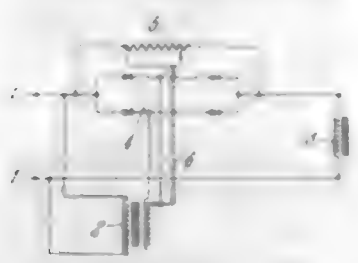
1. A scanning system comprising a scanning head mounted for rotation about a predetermined axis, a pair of energy detectors located adjacent said axis on oppotite sides thereof and spaced longitudinally of said axis from said scanning head, said scanning head including a first energy reflecting surface offset laterally from said axis and arranged to sweep about said axis upon rotation of said scanning head and to direct rays of energy intercepted thereby during such rotation generally radially toward said axis, and a second energy reflecting surface positioned on said axis and arranged to direct said rays reflected by said first surface generally along said axis toward said detectors, a derotator located in the path of said rays between said scanning head and said detectors and mounted for rotation about said axis, said derotator comprising an odd number of serially arranged energy reflecting surfaces adapted to intercept and mutually reverse the relative position of said rays and to redirect them generally along said axis toward said detectors, and means for conjointly rotating said scanning head at one rate and said derotator in the same direction but at one half said rate.

2,873,382
REMOTE CONTROL STARTING ASSEMBLY
Henry H. Herring, Kinston, N. C.
Application October 16, 1956, Serial No. 616,246
3 Claims. (Cl. 290—37)



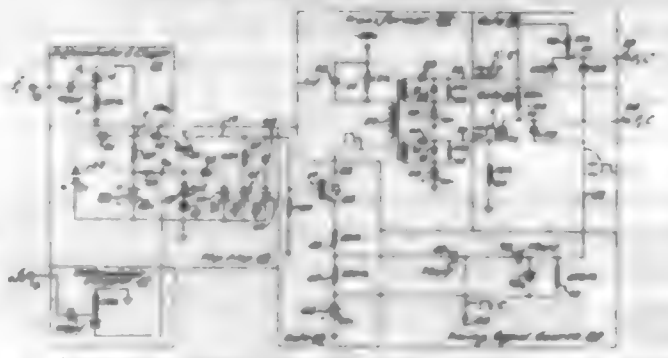
1. A system for remote control of the starting mechanism of a vehicle having a storage battery, a starter motor, a starter switch, an ignition system having an ignition coil, and a generator, comprising a solenoid operated switch controlling current to said starter motor, a starter relay having a coil, an ignition relay having a coil and an ignition switch, a remote control assembly including a toggle switch, a spring pressed switch, an ignition signal and a generator signal; wires for connecting the coil of the starter relay to the battery through the ignition relay and through the spring pressed switch to ground; wires connecting the ignition relay coil with the battery and the ignition signal; wires connecting the starter switch with said solenoid operated switch controlling the starter motor; wires connecting the generator to the generator signal; and wires connecting the switch of the ignition relay with the battery and the ignition coil; said toggle switch connecting the ignition relay coil with the ignition signal and ground, and said spring pressed switch completing a circuit through the coil of the starter relay and starting the motor.

2,873,383
MEANS FOR GENERATING PULSATING DIRECT CURRENTS
George Pollard Dennis, Liverpool, England, assignor to Lockers (Engineers) Limited
Application July 13, 1956, Serial No. 597,729
1 Claim. (Cl. 307—1)



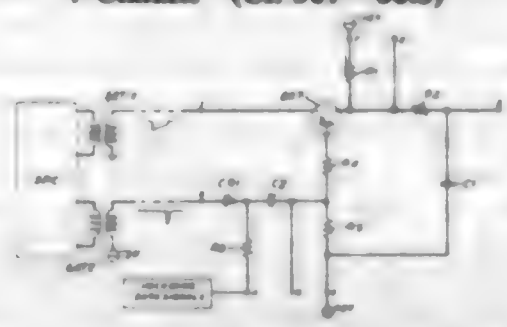
Apparatus for supplying a variable alternating current with a variable direct current component superimposed thereon, comprising input terminals for connection to an A. C. supply, output terminals for connection to a load circuit, a rectifier bridge poled in one direction connected between one input terminal and the corresponding output terminal, the other input terminal being directly connected to its corresponding output terminal, a variable resistance connected between the output and input terminals in parallel with the rectifier bridge, a continuously variable transformer having its primary winding connected to the input terminals and its secondary winding connected across the rectifier bridge, and a mechanical coupling between the variable resistance and the variable transformer, such that the transformer does not supply any power to the rectifier when the resistance is short-circuited.

2,873,384
DYNAMIC PULSE GATING TRANSISTOR CIRCUITRY
Seymour Schoen and Charles A. Krause, Los Angeles, Calif., assignors to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland
Application February 4, 1955, Serial No. 486,158
11 Claims. (Cl. 307—88.5)



1. A bistable state circuit arrangement comprising a transistor flip-flop circuit; a timing signal source; a pair of gating circuits, each having an input, an output, and a control lead, each said input lead responsive to signals from said timing signal source; and alternating current coupled means including switching means responsive to said flip-flop circuit and signals from said timing signal source to generate oppositely phased signals on said control leads for controlling said gating circuits, whereby timing signals from said source are sensed on the output of one or the other of said gating circuits dependent on the state of said flip-flop circuit.

2,873,385
TRANSISTOR DATA STORAGE AND GATE CIRCUIT
Bernard Ostendorf, Jr., Stamford, Conn., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 6, 1955, Serial No. 538,937
7 Claims. (Cl. 307—88.5)

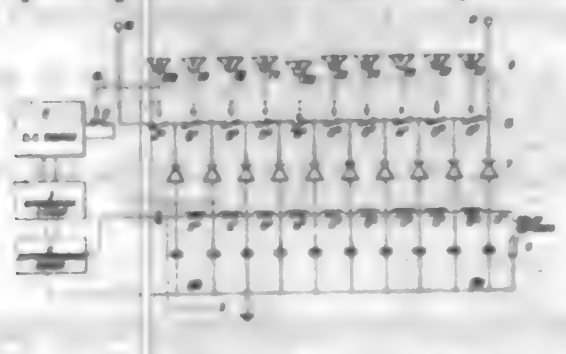


1. A shift register unitary storage circuit for storing electrical conditions defining the condition of a single signal element in a multielement permutation code signal combination, said circuit comprising a single transistor and a single diode, means connected to said transistor for first setting said transistor in a first current carrying condition at the beginning of each signal interval to connote a first condition of a signal element, and means including said diode, responsive to the application of a signal element of a second condition thereto during any signal interval for changing said transistor to a second current carrying condition during the remainder of said signal interval to connote said second signal condition.

2,873,386
PROCESS AND DEVICE FOR GENERATING ELECTRICAL PULSE GROUPS
Rudolf Schlei, Berlin-Lichterfelde-Ost, Germany, assignor to Kienzle Apparate G. m. b. H., Villingen, Black Forest, Germany
Application October 10, 1955, Serial No. 539,637
Claims priority, application Germany October 11, 1954
7 Claims. (Cl. 307—88.5)

1. Apparatus for the generation of pulse series containing a desired number of pulses or a multiple of such

series comprising a pulse generator, a time delay circuit, said time delay circuit being fed by said pulse generator, a plurality of decoupling circuits, a unilateral element contained in each of said decoupling circuits, each decoupling circuit having two terminals, one terminal of each of said decoupling circuits being connected to electrically spaced points on said time delay circuit, an out-



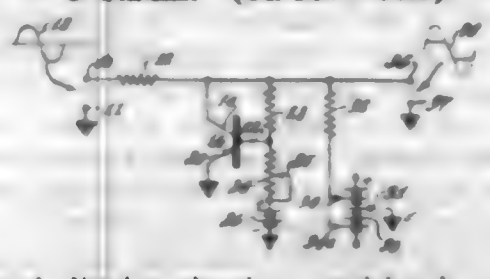
put line introducing substantially no time lag, the other terminal of said decoupling circuits being connected to said output line, a plurality of normally closed switching means arranged on said output line, each one of said switching means being arranged between each two of said other terminals of said decoupling circuits, and being adapted to divide said output line into separate portions when being operated.

2,873,387

CONTROLLABLE TRANSISTOR CLIPPING CIRCUIT

Marshall C. Kidd, Haddon Heights, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application December 17, 1956, Serial No. 628,807
5 Claims. (Cl. 307—88.5)



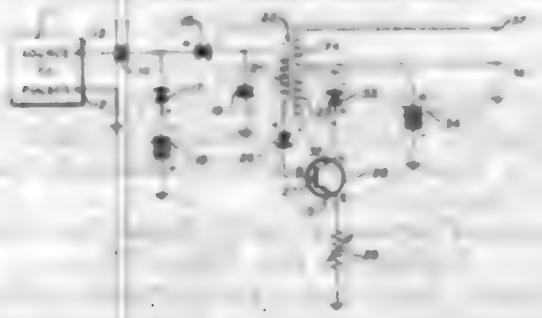
1. A signal clipping circuit comprising in combination, a signal input terminal and a signal output terminal, means providing a resistive impedance element connected between said signal input and signal output terminals, a transistor having base, emitter and collector electrodes, means connecting the collector-to-emitter circuit of said transistor between said signal output terminal and a point of reference potential for said circuit, means connected for applying a variable energizing potential between said collector and emitter electrodes, and means for applying a variable bias potential to said base electrode.

2,873,388

PULSE COUNTER

Donald E. Trumbo, Pleasant Hill, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application May 10, 1957, Serial No. 658,473
5 Claims. (Cl. 307—88.5)



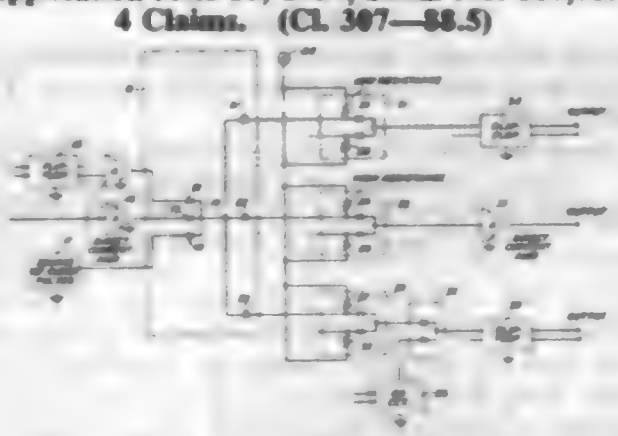
1. In a counter circuit, the combination comprising a source of random pulses of uniform magnitude, a storage capacitor having one side connected to ground, a unidirectional device connected between said source and a second side of said capacitor to pass pulses having a positive value, a transformer having at least a primary and a secondary with one terminal of the latter connected to the second side of said capacitor, a transistor having a base electrode, an emitter electrode, and a collector electrode, means connected between a second terminal of said secondary and said base electrode to isolate said base electrode from a negative charge on said capacitor, a variable resistor having one side connected to said emitter electrode, said collector electrode connected to one terminal of said primary, a source of operating potential connected between a second terminal of said primary and a second side of said resistor, and means coupled to said capacitor to limit the maximum value of a negative charge accumulated during conduction of said transistor.

2,873,389

LOGIC CIRCUIT

William B. Cagle, Madison, N. J., and Werner Ulrich, New York, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 25, 1957, Serial No. 667,759
4 Claims. (Cl. 307—88.5)



1. In an electronic switching circuit, a plurality of diode Or circuits, a diode And circuit connected to said plurality of Or circuits, a plurality of load circuits having different input impedances connected to the outputs of said Or circuits, a plurality of means for supplying different amounts of current to the leads interconnecting said And circuit and each of said Or circuits, and a decoupling diode poled in opposition to the diodes in said Or circuits connected in series with each of said leads between the And circuit and each of said current supplying means, the only electrical components directly connected to each of said current supplying means being one of said decoupling diodes and one of the diodes in each of said Or circuits.

2,873,390

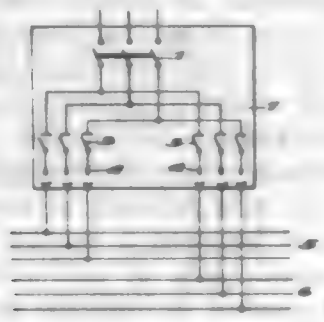
HEAVY DUTY ELECTRIC SWITCH

Lorenzo Ubezio, Wettingen, and Hans Thommen, Baden, Switzerland, assignors to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company

Application September 20, 1957, Serial No. 685,258
Claims priority, application Switzerland September 18, 1956
8 Claims. (Cl. 307—149)

8. In a device for switching a branch circuit to or from a particular pole of an electrical supply system, the combination comprising a first set of pin and socket switching members for said branch circuit and a similar first set of pin and socket switching members for said pole, means for mounting one of said switching members of each of said sets in spaced relation on a stationary support, means mounting the other of said switching members of each set in a similar spaced relation on a movable upright support whereby said switching members of said

first sets may be simultaneously engaged or disengaged by movement of said movable support towards or away from said stationary support, a second set of enclosed separable switching members for and connected in series with said first set of switching members associated with said branch circuit, said second set of switching mem-



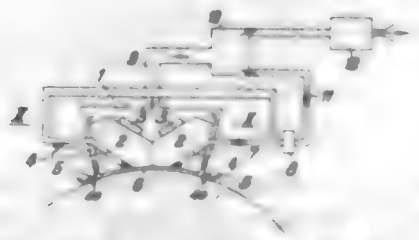
bers being mounted on said movable upright support, means electrically connecting said second set of switching members to that switching member of said first set on said movable upright support which connects with said pole, and means for actuating said switching members of said second set thereby to connect and disconnect said branch circuit relative to said pole.

2,873,391

METHODS AND MEANS FOR COUPLING AN ULTRASONIC TRANSDUCER TO A TEST SPECIMEN

Harald Schulze, Bochum, Germany, assignor to Sperry Products Inc., Danbury, Conn.

Application November 4, 1955, Serial No. 545,871
1 Claim. (Cl. 310—8.3)



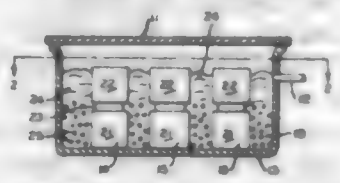
Apparatus for transmitting sound, comprising, a sound transducer adapted to be held spaced from an adjacent surface of a test specimen, liquid inlet means opening into the space between said sound transducer and said adjacent surface, a sealing strip of resiliently yielding material formed at the rim of said sound transducer and constructed and arranged to inhibit an escape of liquid out of said space and permitting an ingress of air from the outside below said strip, and means for removing liquid from said space adjacent to said rim, said sealing strip having an absorbent lower rim to cause drying of said adjacent surface of the test specimen by capillary action upon relative movement between said sound transducer and said adjacent surface.

2,873,392

SUPPORTS FOR MECHANICAL VIBRATORS

Stanley R. Rich, West Hartford, Conn.

Application April 19, 1957, Serial No. 653,944
18 Claims. (Cl. 310—26)



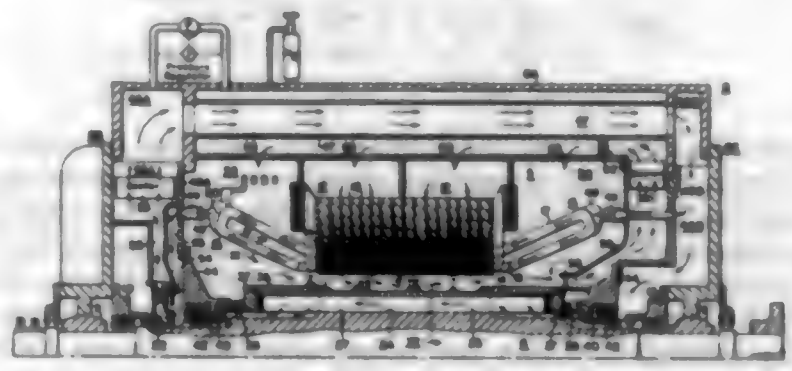
1. Method of mounting a mechanical vibrator in a housing comprising the steps of securing one end of the vibrator to the bottom of the housing, partly filling the housing with loosely-packed solid particles until the vibrator is partly immersed therein, and surrounding the free end of the vibrator with a mix of a liquid material which foams and forms a cellular solid, said material in liquid form having a thickness such that it will not substantially pass into the spaces between the loosely-packed particles.

2,873,393

DUAL-VENTILATION HYDROGEN-COOLED GENERATORS

René A. Baudry, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application March 28, 1957, Serial No. 649,141
8 Claims. (Cl. 310—55)



1. A synchronous dynamo-electric machine having a stator member, a rotor member, a substantially gas-tight housing within which said rotor member rotates, said housing having a filling of a gas having a molecular weight lower than 14; said stator member comprising a stator-core having a bore and conductor-receiving core-slots in said bore, and an alternating-current stator-winding consisting of a plurality of coils having ground-insulated coil-side portions lying in the respective conductor-receiving slots of the stator-core; at least said coil-side portions of the stator-winding comprising stacks of lightly insulated conductors dividing the current between them, and further comprising means for providing open-ended stator-winding cooling-ducts in good heat-exchanging relation to said lightly insulated stator-winding conductors; said rotor member comprising a cylindrical rotor-core having conductor-receiving rotor-slots therein, and a direct-current field-winding having coil-side portions lying in the respective rotor-slots; a housing-gas cooling-system including means for recirculating and cooling the gas which fills said housing; a separate gas-tight cooling-system which is separate, and substantially hermetically sealed, from the gas-filled space within said housing, said separate gas-tight cooling-system being filled with substantially the same kind of gas as said housing, and comprising also a cooler and a means for recirculating its gas in closed paths including its cooler and said stator-winding cooling-ducts; and a compressor-means for providing a pumping-connection from the gas which fills said housing to the gas which fills said separate cooling-system, whereby the gas in said separate cooling-system may be maintained at a higher pressure than the gas in the rest of the housing-space, and whereby any gas-leakage from said separate cooling-system into the rest of the housing-space would be substantially unobjectionable within the limits of the capacity of the compressor-means.

2,873,394

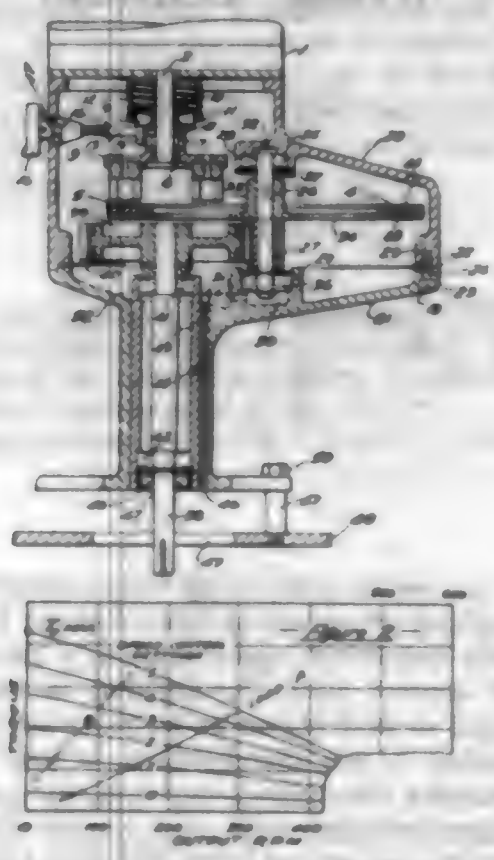
VARIABLE MAGNETIC DRIVE FOR AGITATORS

Igor V. Zomlin, Vancouver, British Columbia, Canada, assignor to Tormag Transmissions Limited, Vancouver, British Columbia, Canada

Application February 12, 1957, Serial No. 639,882
5 Claims. (Cl. 310—105)

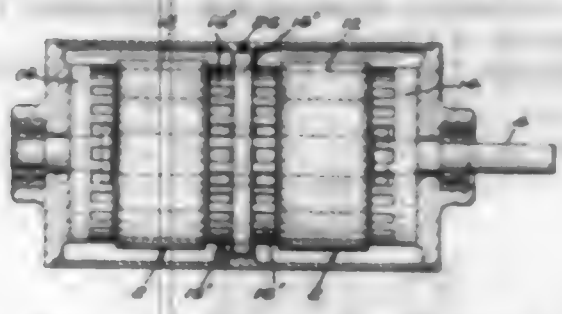
1. An agitator comprising in combination with a housing having a vertical final drive shaft, a magnetic drive mechanism including a magnetic drive rotor and a driven rotor, said drive rotor being connected to the

shaft of a motor carried by the housing and being mounted for vertical sliding movement thereon, said driven rotor being mounted upon a vertical shaft within the housing, said driven rotor having an armature formed of an annular member of magnetic material and an



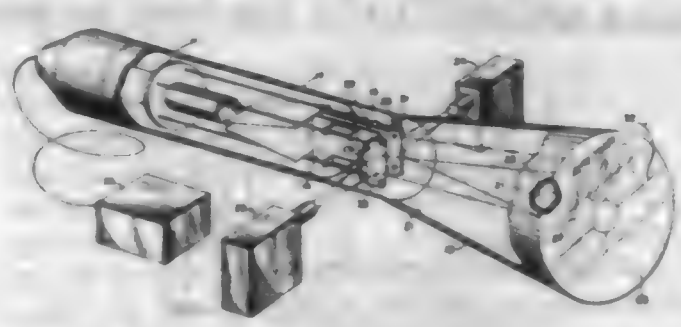
overlying annular member of non-magnetic material of high electrical conductivity, spring means for urging the drive rotor downwardly towards the armature and a manually operable cam for raising the drive rotor away from the armature.

2,873,395
DYNAMOELECTRIC MACHINE
William Kober, Fairport, N. Y., assignor to TKM Electric Corp., Rochester, N. Y.
Application April 23, 1954, Serial No. 425,874
2 Claims. (Cl. 310—112)



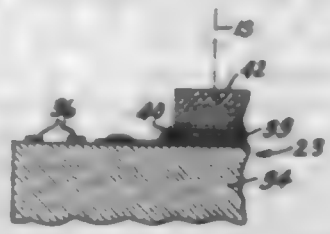
1. An axial air gap generator comprising a series of field structures comprising rotor bodies mounted in axially spaced apart relation for rotation about a common axis, each of said rotor bodies having a magnet carrying portion of highly electrically conductive material possessing substantial mechanical strength, permanent magnet members extending through said magnet carrying body portions generally lengthwise of said axis, said body portions completely surrounding said magnet members for substantially the full length thereof and thereby providing a strong mechanical support for said magnet members along the length thereof against centrifugal force while simultaneously encircling said magnet members with a highly electrically conductive path for protecting the magnetic state thereof from overload and short circuit armature reaction, first armature means interposed between adjacent of said rotor bodies and having working surfaces axially spaced from and facing the adjacent end faces of said adjacent rotor bodies, second armature means adjacent the opposite ends of said series of rotor bodies and having working surfaces axially spaced from and facing the opposite end faces thereof, and pole piece structures at the ends of said magnet members at each end face of said rotor bodies for transferring magnetic flux between the ends of said magnet members and the adjacent armature working surfaces, said first armature means providing substantially only an axial path between adjacent of said rotor bodies for magnetic flux, and said second armature means providing a return path for magnetic flux.

2,873,396
COMPOSITE INDICATOR
Alan W. Baldwin, Oxon Hill, Md.
Application June 2, 1955, Serial No. 512,908
2 Claims. (Cl. 313—64)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In combination, a cathode ray tube having an envelope comprising a cylindrical neck portion of normal diameter and a transparent phosphor viewing screen, electron gun means within said tube operative by electron beam excitation to establish a video pattern on said phosphor screen, said gun means comprising two pair of deflection plates, first and second mirror means positioned within said tube and secured to said pair of deflection plates mounted nearest said viewing screen, said mirrors positioned in optical relation to said phosphor viewing screen and outside the electron path from said gun to said screen, said first mirror means operative to superimpose by reflection a visual image onto said phosphor viewing screen from a point outside said tube perpendicular to said neck portion and on the same side of the electron beam path, said second mirror means operative to reflect a combined video pattern and superimposed visual image through said neck portion to a point outside said tube perpendicular to said neck portion and on the same side of the electron beam path, and said first and second mirror means operative to function without obstruction to end viewing of said video pattern and the superimposed visual image reflected onto said phosphor viewing screen.

2,873,397
COLOR FILTERS
Sidney Gray, Somerville, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 24, 1955, Serial No. 496,478
5 Claims. (Cl. 313—65)



1. A pickup tube comprising an envelope, means for producing an electron beam in one end of said envelope, a target comprising a transparent support member in the other end of said envelope, said target further including a plurality of color filter strips arranged in clusters on a surface of said support member toward said means, one

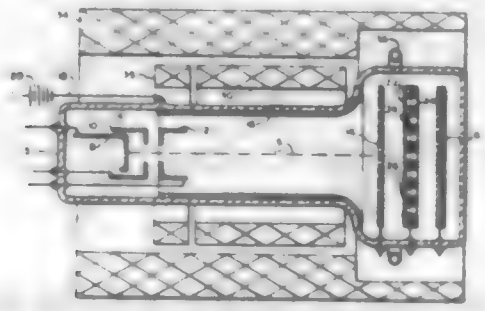
of said clusters being formed by three color filter strips each of which transmits a different one of three primary colors, at least one color filter in each of said clusters comprising successive layers of alternate high and low index of refraction material, and the layer of material toward said means being a low index of refraction material, and a different transparent conductive signal strip on each of said filters and between said means and said filters.

2,873,398

DIRECT VIEWING MOVING TARGET INDICATOR CATHODE-RAY STORAGE TUBE

Munsey E. Crost, Loch Arbour, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application January 4, 1956, Serial No. 557,426
11 Claims. (Cl. 313—66)
(Granted under Title 35, U. S. Code (1952), sec. 266)



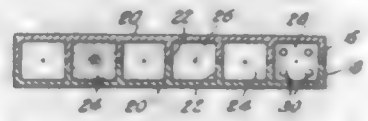
10. A cathode ray tube comprising an electron gun including a cathode for emitting electrons and means for controlling the intensity of emission of said electrons from said cathode, a fluorescent anode, a grid interposed between said electron gun and anode and comprising a metallic mesh having a dielectric coating on the side thereof facing said electron gun, and means to apply a positive-going signal to said mesh, said grid being adapted to be biased at a potential near that of the cathode, the secondary emission ratio of said grid being less than unity whereby, upon impression of said positive-going signal on said mesh, electrons from said gun will strike said grid causing a negative charge to develop in the region of impact and thereby tend to cut off the further flow of electrons therethrough, and unilateral discharge means associated with said grid to dissipate said negative charge at a desired rate.

2,873,399

RADIATION DETECTOR

Allen D. Garrison, Houston, Tex., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware

Application May 27, 1954, Serial No. 432,654
5 Claims. (Cl. 313—93)



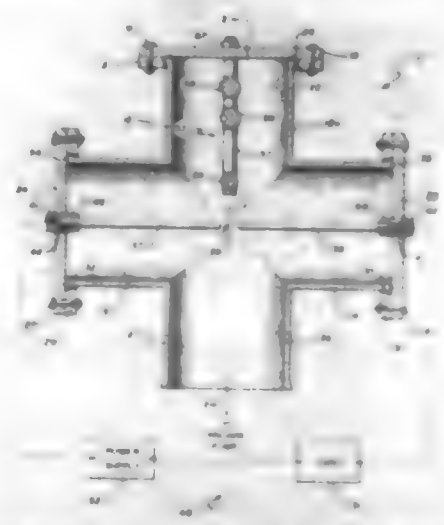
1. A radiation detector comprising a sealed housing, cathode and anode electrodes in said housing and adapted to be connected to a source of high potential, said cathode being formed of a pair of elements each of which comprises a flat plate portion with laterally projecting parallel fins along one of its side surfaces, the outer edges of the fins of one element being adapted to engage the outer edges of the fins of the other element, so as to provide a plurality of elongated openings substantially square in cross section, and said anode comprising a wire disposed along the longitudinal axis of each of said openings, the arrangement being such that a substantially uniform electric field is provided between each anode wire and the cathode elements with a minimum of dead space.

2,873,405

ION SWITCH

Buford Cook, Livermore, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application November 4, 1955, Serial No. 545,137
11 Claims. (Cl. 313—231)



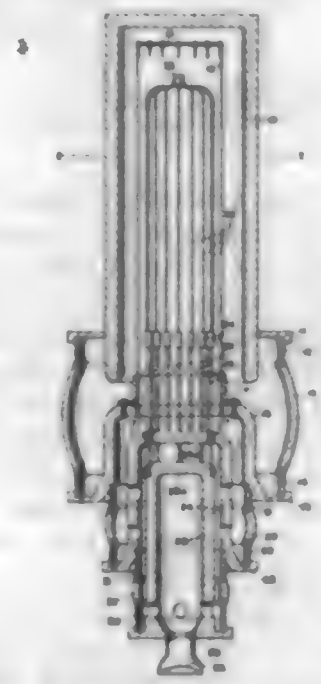
10. An ion switch comprising a cross-shaped envelope, a vacuum pump connected to said envelope for establishing a highly evacuated region therein, a pair of slender cylindrical control electrodes secured in said envelope and arranged in said region in collinear spaced relationship providing a gap therebetween, a pair of parallel spaced clamping electrodes secured in said envelope and arranged perpendicular with said control electrodes directly opposite and spaced from said gap, a plasma emitter constructed of interleaved hydrogenated metallic and dielectric discs, said plasma emitter being secured perpendicularly between said clamping electrodes adjacent said gap, and an electrical pulse generator connected between said clamping electrodes for establishing an electrical discharge across said plasma emitter and thereby generating a hydrogen isotopic ionic cloud to provide a conduction path across said gap.

2,873,441

ELECTRON DISCHARGE DEVICES

Howard D. Doolittle, Stamford, Conn., assignor to Machlett Laboratories, Incorporated, Springdale, Conn., a corporation of Connecticut

Application December 12, 1956, Serial No. 627,834
6 Claims. (Cl. 313—298)



1. An electron tube having a high amplification factor comprising an envelope containing an anode, a cathode and a control grid, the control grid having a plurality of parallel wires positioned substantially parallel with and at predetermined distances from and between the

anode and cathode and spaced apart a distance which is greater than the grid-to-cathode spacing whereby a variable mu is produced across the cathode, which mu varies from relatively high levels adjacent each grid wire to relatively low levels in areas adjacent the spaces between the grid wires, the cathode having a plurality of spaced parallel electron emitting portions positioned in the areas where the mu across the cathode is relatively high, and the grid wires each being located in the shortest path between a respective cathode emitting portion and the nearest surface of the anode for controlling the flow of electrons from the cathode to the anode.

2,873,402

ELECTRIC ARC WELDING SYSTEMS

James Christopher Needham, Greenford, England, assignor to E. R. A. Patents Limited, Leatherhead, Surrey, England, a company of Great Britain

Application July 6, 1954, Serial No. 441,429
8 Claims. (Cl. 314—135)



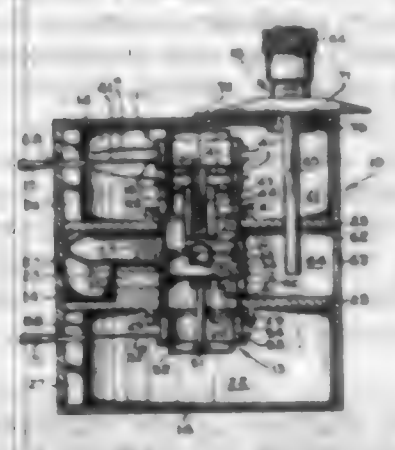
1. In an electric arc system for operating upon a work-piece, comprising in combination means for feeding a consumable electrode towards the work-piece at a preset rate and a power supply circuit connected to supply to the arc current which changes in value with change in the length of the arc so that the arc is self-adjusting in length, a control circuit connected between said electrode and said work-piece and comprising in series a source of direct current potential arranged in opposition to the voltage of the arc and having the value required in the arc and electrical control means, said electrical control means being connected to vary the current in said power supply circuit upon changes of voltage of the arc from the required value and thus provide a control supplementing the self-adjustment of the length of the arc.

2,873,403

ELECTRON DISCHARGE DEVICE

Wilson S. Geisler, Jr., Atherton, Calif.

Application January 5, 1955, Serial No. 479,925
14 Claims. (Cl. 315—5.21)



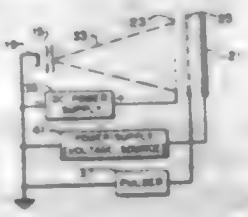
1. A klystron comprising a unitary metallic body portion of generally cubical outline having a small central bore therethrough, means forming a counterbore defining an annular seat on said body portion adjacent the end of said small bore and coaxial therewith, a cavity structure supported within said small central bore and defining a cavity having a capacitive gap, and means including an electron gun having a tubular member secured on said annular seat for producing and directing a beam of electrons through said capacitive gap, said electron gun being within the cubical outline of said body portion.

2,873,404

MEANS FOR ELIMINATION OF LOSS OF CONTRAST IN DIRECT VIEW STORAGE TUBES

Robert P. Stone, Lancaster, Pa., assignor to the United States of America as represented by the Secretary of the Army

Application May 28, 1957, Serial No. 662,388
8 Claims. (Cl. 315—12)



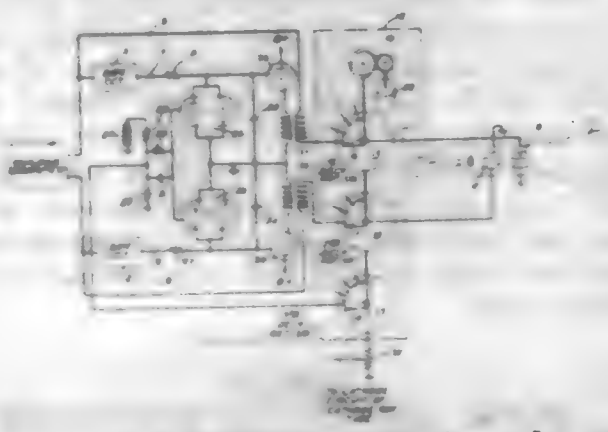
8. In a direct view storage tube having at least a storage grid and a luminescent screen, a pulser connected between said storage grid and ground, said pulser supplying erasing pulses, and means comprising a cyclically varying voltage source connected between said luminescent screen and ground, the output of said cyclically varying voltage source having a period substantially equal to that of said erasing pulses and being adjusted in phase so that the most negative portions are substantially coincident in time with said erasing pulses.

2,873,483

SYMBOL GENERATOR FOR CATHODE RAY TUBES

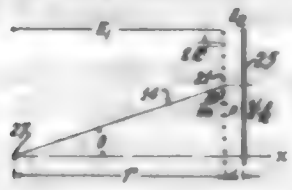
Marvin C. Iwerks, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 23, 1956, Serial No. 624,025
8 Claims. (Cl. 315—22)



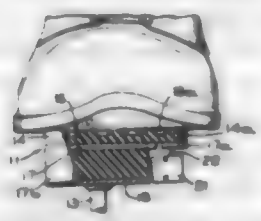
1. Apparatus for producing on the face of a cathode ray tube having cathode and deflection circuits straight line indications whose origin, length and direction may be varied to correspond to a vector quantity comprising, a first two sources of voltages representing respectively the rectangular coordinates of the origin of the vector quantity, a second two sources of voltages representing respectively the rectangular coordinates of the magnitudes of the components of the vector quantity, means for intermittently connecting the voltages from the first two sources to the deflection circuits corresponding to the coordinate represented by the voltage, two identical time constant circuits each including a capacitor to receive from said second sources a voltage indicative of the magnitude of a predetermined vector component, discharge means connected across said capacitors, a source of tube unblanking voltage, means for intermittently rendering said discharge means inoperative and connecting the source of unblanking voltage to the cathode circuit to activate the electron beam of said tube, and means for combining the capacitor voltages with the respective voltage of such first two sources in the same coordinate of the indication.

2,873,406
COLOR TELEVISION SWITCHING CIRCUITS
Eugene O. Keizer, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application February 12, 1954, Serial No. 409,887
17 Claims. (Cl. 315—26)



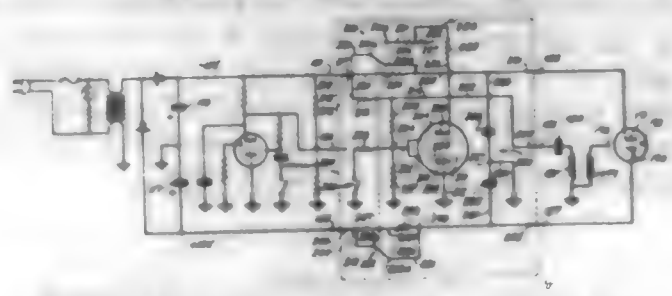
8. In a sequential color display kinescope system, said sequential color display kinescope employing an image plate having a sequence of strips of phosphors of component colors arranged in a prescribed sequence and employing a two-terminal system of switching grids for directing the kinescope electron beam to the prescribed phosphor strips at corresponding instants, means for applying an appropriate switching voltage across said two-terminal system of switching grids, comprising in combination, a first potential divider network including a circuit opening switching means at a prescribed potential point, a second potential divider network including a circuit opening switching means at a prescribed potential point having a prescribed relationship with respect to the prescribed potential point of said first potential divider network, a high potential terminal, a low potential terminal, means for connecting said first potential divider network and said second potential divider network in parallel between said high potential terminal and said low potential terminal, means for connecting said two-terminal system of switching grids between the low potential side of said switching means on said first potential divider network and said second potential divider network, a pair of condenser discharge circuit means, means for cross-connecting said pair of condenser discharge circuit means across said switching means of said first potential divider network and said second potential divider network, and means for alternately opening and closing the switching means of said first potential divider network and said potential divider network at a prescribed rate corresponding to the development of a prescribed waveform across said two-terminal system of switching grids.

2,873,407
PEDAL AND SWITCH STRUCTURE FOR VEHICLES
Thomas E. Leonard, San Jose, Calif.
Application February 7, 1955, Serial No. 486,325
10 Claims. (Cl. 315—80)



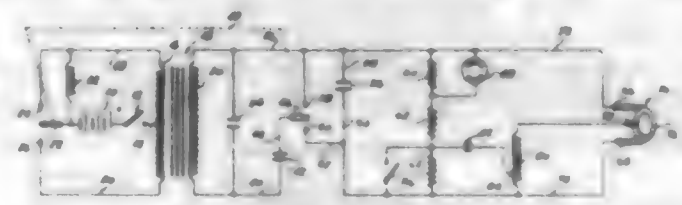
1. In an automobile, an accelerator pedal having means for mounting on the floor board of the automobile, said pedal also having a main portion and a hinged portion movable with respect to said main portion, electrical contact means carried by said accelerator pedal, and an electrical circuit connected to said contact means, said contact means being adapted to control said electrical circuit in response to movement of said hinged portion with respect to said main portion.

2,873,408
LIGHT FLASH PRODUCING SYSTEM
Harry L. Parker, St. Albans, and Maksymilian Anthony Michalski, Woodside, N. Y., assignors to American Speedlight Corporation, Middle Village, N. Y.
Application April 5, 1957, Serial No. 651,072
6 Claims. (Cl. 315—183)



1. An electrical control circuit for an electrical system including a main condenser, a discharge device and a discharge circuit through which the main condenser may be discharged into the discharge device in single pulses, said discharge means including a triggering circuit and a triggering condenser, a control circuit operative so that the discharge device may be selectively discharged in single or repetitive pulses, the control circuit comprising current limiting means adapted to be connected in series with the main condenser, a pulsing condenser connected to the discharge device, means adapted to be connected to the triggering condenser and oscillatory therewith for the repetitive charging and discharging thereof, means operative to render ineffective the current limiting means for the main condenser and said oscillating means, and means adapted to be connected to and operative to discharge said triggering condenser.

2,873,409
PORTABLE HIGH VOLTAGE POWER SUPPLY
David Most, Brooklyn, N. Y., assignor, by mesne assignments, to Rush Instrument Co., Inc., New York, N. Y., a corporation of New York
Application November 24, 1954, Serial No. 470,886
10 Claims. (Cl. 315—219)

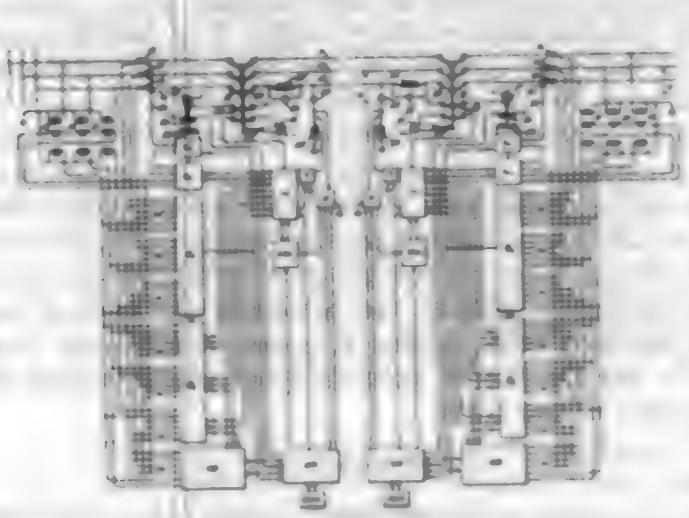


1. A photoflash assembly for firing an electronic photoflash tube including in combination an impedance, generating means adapted to be actuated alternately to produce a voltage of a given polarity across said impedance and for producing a voltage having a polarity opposite to said given polarity across said impedance, a first capacitor, a second capacitor, means adapted to be actuated alternately to connect said first capacitor across said impedance and to connect said first and second capacitors in series across said impedance, means for actuating said generating means and said capacitor connecting means in unison, and a triggering system connected between said second capacitor and said photoflash tube.

2,873,410
ELECTRONIC RELAY ARRANGEMENT FOR AN ELECTRIC POWER TRANSMISSION LINE PROTECTIVE SYSTEM
Merwyn E. Hodges, Philadelphia, Pa., assignor to General Electric Company, a corporation of New York
Application November 29, 1954, Serial No. 471,593
18 Claims. (Cl. 317—28)

1. In a fault responsive protective relaying system for an electric power transmission line having spaced apart terminals each including electroresponsively tripped circuit interrupting means for coupling said transmission line

in an alternating current electric power system, a signal transmitting and a signal receiving means at each terminal, signal channel means coupling each said transmitting means to all said receiving means, a first fault detecting means at each terminal responsive to ground faults in said electric power system for producing a first control voltage, second fault detecting means at each terminal responsive to phase faults in said electric power system for producing a second control voltage, first directional responsive means at each terminal responsive to a ground fault located in the direction of the protected transmission line for producing a third control voltage, second directional responsive means at each terminal responsive to a phase fault located in the direction of the protected transmission line for producing a fourth control voltage, first control means at each terminal responsive to either said first or second control voltage for substantially instantaneously energizing the associated said signal transmitting means, second control means at each terminal responsive to either said third or fourth control voltage for substantially instantaneously produc-



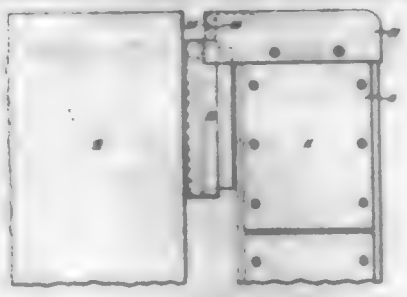
ing both stopping and tripping signal voltages, means supplying said stopping signal voltage to the associated first control means to deenergize the associated signal transmitting means, third control means at each terminal operable in response to said tripping signal voltage substantially instantaneously to initiate tripping operation of the associated circuit interrupting means, said third control means being rendered inoperable by the associated said signal receiving means upon receipt of a signal from a remote transmitting means, blocking means at each terminal for suppressing said tripping signal voltage in delayed response to either said first or said second control voltage, time delay means responsive to either said third or fourth control voltages for disabling said blocking means, said time delay means being rendered inactive by the associated said signal receiving means upon receipt of a signal from a remote transmitting means, and auxiliary means at each terminal coupled to said first control means for supplying thereto a control voltage thereby to energize the associated signal transmitting means.

2,873,411
VIBRATION-ATTENUATING SEALING STRUCTURE

Warren J. Donaldson, Upper Darby, and James C. Jacobs, Jr., Newtown Square, Pa., assignors to General Electric Company, a corporation of New York

Application September 21, 1955, Serial No. 535,720
7 Claims. (Cl. 317—99)

2. In a unit substation comprising a transformer, an adjacent switchgear unit, and conductive means extending therebetween, a compartment enclosing said conductive means and comprising a pair of axially-spaced frameworks connected respectively to said transformer and said switchgear unit, a first one of said frameworks comprising spaced-apart axially-projecting flanges defining a groove surrounding said conductive means, the other of said frameworks comprising an axially-projecting tongue surrounding said conductive means and extending into said groove, a resilient insert attached to said tongue and having opposed peripheral portions at least one of which extends into sealing relationship with one of said

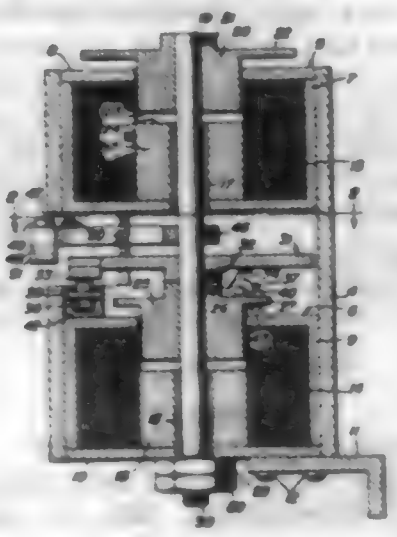


flanges, said insert while positioned between said tongue and flanges having an axial thickness in the region adjacent said flanges amounting to only a minor portion of the overall axial thickness of the insert and substantially less than its axial thickness in the region adjacent said tongue.

2,873,412
ROTARY SOLENOID

Haraden Pratt, Springdale, Conn., assignor, by mesne assignments, to Bell & Gossett Company, Morton Grove, Ill., a corporation of Illinois

Application September 7, 1956, Serial No. 608,475
4 Claims. (Cl. 317—192)



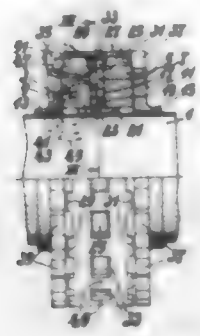
1. A rotary solenoid comprising a casing, a magnet coil having a core fixed within said casing, a shaft extending through said core and being both longitudinally and angularly movable relative thereto, an armature fixed to said shaft, a flange on said armature positioned to engage said casing to positively limit longitudinal movement of said shaft in the power stroke direction of movement of said shaft, stop means fixed to said shaft and positioned to engage said casing to positively limit longitudinal movement of said shaft in the return stroke direction thereof, a plurality of rollers pivotally mounted at one end of said casing on fixed axes disposed radially relative to said shaft, an actuating plate fixed to said shaft, a plurality of portions of said actuating plate sloping therefrom to form camming surfaces positioned to engage said rollers, said camming surfaces cooperating with said rollers to cause angular movement of said shaft in one angular direction upon longitudinal movement of the shaft in the direction of its power stroke, cushioning means limiting further angular movement of said shaft in said one angular direction at the end of the power stroke as determined by engagement of said flange with said casing, and spring means urging said shaft angularly in the opposite direction whereupon said rollers and camming surfaces move said shaft longitudinally for its return stroke upon de-energization of said coil.

2,873,413

MAGNETIC-FIELD-PRODUCING DEVICE

Maximilien Felix Reynst, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 30, 1955, Serial No. 550,115
Claims priority, application Netherlands December 4, 1954
7 Claims. (Cl. 317—200)



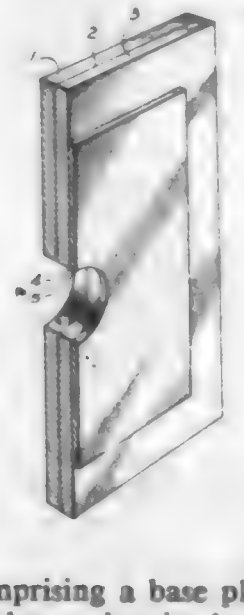
1. A magnetic-field-producing device comprising two, annular, coaxial, closely spaced, permanent magnets each magnetized in its axial direction so that like poles face each other, a first annular soft ferromagnetic member disposed between and coaxially with the two magnets, and a second annular soft ferromagnetic member arranged coaxially relative to the magnets and adjacent the first soft ferromagnetic member and the magnets, said first and second soft ferromagnetic members having portions facing each other in a radial direction and defining an air-gap therebetween and forming, in accordance with their relative positions, reluctance paths of different magnitude, said air-gap being located substantially between said two magnets and lying substantially within an area encompassed by the outer and inner diameters of the annular magnets, said first and second soft ferromagnetic members being relatively movable so as to vary the reluctance path for the flux produced by said magnets, whereby magnetic fields with a wide range of intensities are obtainable.

2,873,414

SELENIUM RECTIFIER

William B. Roberts, Bloomington, Ind., assignor to Sarkes Tarzian, Inc., Bloomington, Ind., a corporation of Indiana

Application June 16, 1955, Serial No. 515,945
7 Claims. (Cl. 317—241)



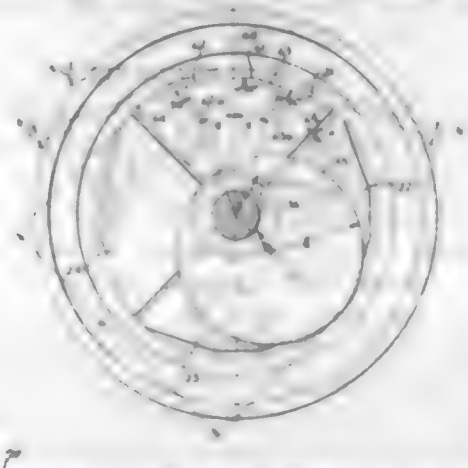
1. A rectifier comprising a base plate, a layer of selenium on said base plate, a barrier layer on said selenium layer formed by coating the selenium layer with a solution containing a urea and an aldehyde in an aqueous volatile organic solvent at a pH in the range of 6.5 to 7.5, and a counter electrode layer on said barrier layer.

2,873,415

PHASE-SHIFTING CAPACITOR

Peter J. Nilsen, Lombard, Ill., assignor to Nilsen Mfg. Co., Addison, Ill., a corporation of Illinois

Application August 30, 1956, Serial No. 607,211
3 Claims. (Cl. 317—253)



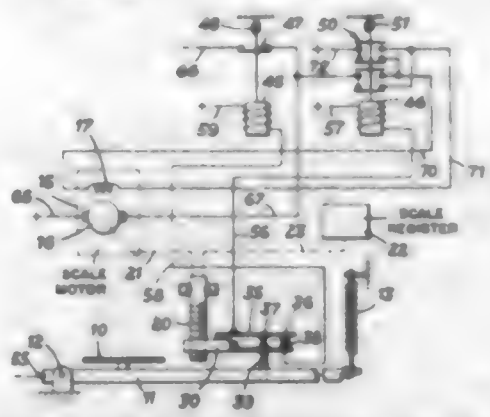
1. In a phase shifting capacitor for use in a continuous phase shifter having a source of quadrature voltages, the combination comprising a first annular stator plate, a second annular stator plate having four sector-shaped sections mounted parallel to the first plate and having provision for connection to the quadrature voltages respectively, a rotor in the form of a circular disc of high dielectric material eccentrically mounted for rotation between the plates to pass through a circular sweep area, each of said sector-shaped sections being of symmetrical shape having three flatted portions arranged chordwise on the periphery thereof, the perpendicular radii of said flatted portions being spaced at equal angles in the range 18–23°, and the flatted portions lying wholly within the sweep area of the rotor.

2,873,416

WEIGHING SCALE ADAPTED SERVOMOTOR SYSTEM

Kenneth C. Allen, Dayton, Ohio, assignor to The Hobart Manufacturing Company, Troy, Ohio, a corporation of Ohio

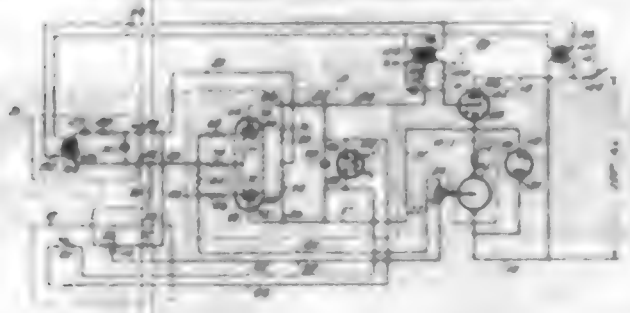
Application March 5, 1956, Serial No. 569,448
10 Claims. (Cl. 318—31)



1. A follow-up control for following the movements of an element independently movable in two directions, comprising a follow-up carriage associated with said element, first and second contact members facing in the same direction and spaced from each other, a bridging member adapted to bridge said contact members and capable of movement with respect to either thereof while maintaining engagement with the other thereof, means mounting one of said contact and bridging members on said carriage and another for movement by said element with respect to said carriage, mounting means for the third of said members in fixed relation with one of the other two said members, reversible drive means for driving said carriage, means responsive to bridging engagement of said bridging member with both said contact members for stopping said drive means, means for establishing said bridging engagement of said members only when said carriage is in a predetermined reference

position with respect to said element, means responsive to movement of said element in the first of said directions from said reference position for causing separating movement of said bridging member from said second contact member while maintaining engagement of said bridging member with said first contact member, means responsive to said separation of said bridging member from said second contact member for causing said drive means to drive said carriage in said first direction. means responsive to movement of said element in the second of said directions from said reference position for causing separating movement of said bridging member from said first contact member while maintaining engagement of said bridging member with said second contact member, and means responsive to said separation of said bridging member from said first contact member for causing said drive means to drive said carriage in said second direction.

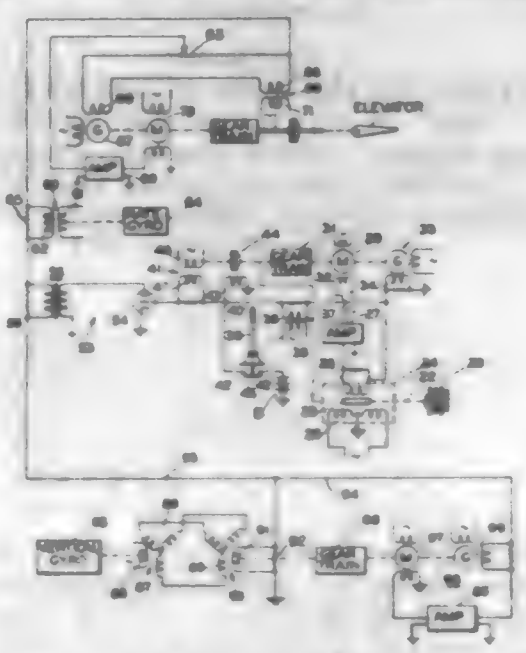
2,873,417
ADJUSTABLE-SPEED ELECTRIC MOTOR CONTROL SYSTEM
Floyd V. Wilkins, Packanack Lake, N. J.
Application April 6, 1955, Serial No. 499,599
14 Claims. (Cl. 318—327)



1. An electric motor speed control system comprising a D. C. motor, controllable unidirectional current means connected to said motor and transmitting electrical power thereto, a D. C. tachometer responsive to the speed of said motor and generating a unidirectional signal as a function of motor speed, an adjustable source of direct voltage corresponding to the desired motor speed, first circuit means comparing said signal and adjustable voltages and producing a unidirectional current error signal as a function of the difference therebetween, a push-pull amplifier including first and second substantially identical amplifier units arranged in push-pull relationship, said first circuit means coupling said error signal to said amplifier, said first amplifier unit amplifying said error signal and any ripple components thereof with a first phase relationship, said second amplifier unit amplifying said error signal and any ripple components thereof with a second phase relationship opposite to said first phase relationship, capacitance means in circuit across corresponding portions of said first and second amplifier units producing effective combination of said ripple components being amplified in phase opposition for cancellation thereof, and second circuit means coupling the output of said first and second amplifier units to said controllable unidirectional current means, said controllable current means being responsive to the output of said units and controlling the amount of power transmitted to said motor in response thereto.

2,873,418
SERVOSYSTEM PITCH CONTROL FOR AIRCRAFT
John C. Owen, Grand Rapids, Mich., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application September 22, 1955, Serial No. 535,858
13 Claims. (Cl. 318—489)

1. A control system for an aircraft comprising means for developing an electrical signal corresponding to a measured rate of climb or dive, means for developing an electrical signal corresponding to a commanded rate of climb or dive, power means for changing the pitch attitude of said craft, means combining said signals to provide a resultant signal for controlling said power means, whereby said resultant signal corresponds to the error between the measured rate of climb or drive and



commanded rates of climb or dive and controls said power means to change the pitch attitude of said craft to reduce said signal to zero, and means for developing a pitch attitude signal to oppose said resultant signal including means for slowly reducing said last-mentioned pitch attitude signal to zero.

2,873,419
ARC-BACK PREVENTION CIRCUIT
Armand Brandt, Wettingen, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company
Application September 21, 1956, Serial No. 611,235
Claims priority, application Switzerland September 22, 1955
7 Claims. (Cl. 321—48)



1. In an electrolysis system wherein a contact converter supplies direct current to power mains through a direct current switch, means for preventing arc-back upon the reduction of voltage in the supply mains to the converter comprising a choke coil connected in series with the switch, said choke coil being premagnetized in a direction to counteract the operating current normally passing therethrough and having an inductive capacity designed according to the formula

$$Fw \geqq \frac{U_n(\alpha-\beta)t.10^8}{2B}$$

where

F=iron cross-section
w=winding turns
Un=rated direct current voltage of the converter
α=ratio of the inverse potential of the electrolysis to the rated direct current voltage of the converter
β=ratio of the power line voltage during the greatest drop to the rated power line voltage
t=switch characteristic time
B=maximum induction in the region of the saturation bend,

said choke coil producing an inductive pulse which

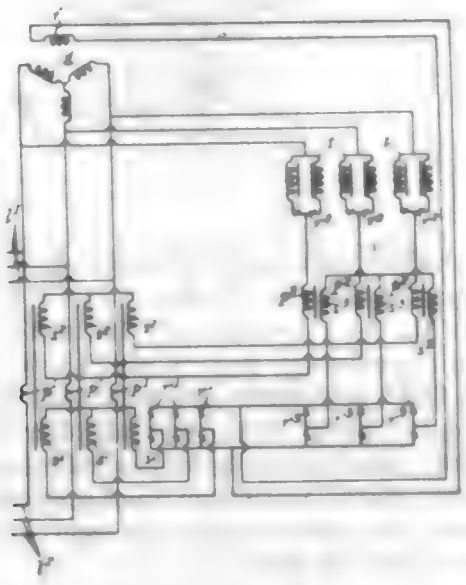
temporarily prevents passage of the arc-back current to the converter upon the lowering of the supply voltage until the coil is completely demagnetized, and means associated with said choke coil for opening the direct current switch within the period of demagnetization of said choke coil.

2,873,420

EXCITATION MEANS FOR ALTERNATING ELECTRIC CURRENT GENERATORS

Eric Ernest Robinson, North Wembley, England, assignor to Rotax Limited, London, England

Application March 22, 1957, Serial No. 647,881
1 Claim. (Cl. 322—27)



An alternating electric current system comprising in combination a generator designed to deal with a given normal load, normal-load main circuital means, temporary-load branch circuital means connected to the main circuital means, exciting-current circuital means, the generator being connected to the main circuital means for supplying current to both the main and branch circuital means, and having a field winding forming a part of the exciting-current circuital means, a transductor connected to and energisable by current from the generator, rectifier means connected between the transductor and the exciting-current circuital means for enabling the latter to be supplied with exciting current through the transductor, a current transformer energisable by current supplied by the generator to the branch circuital means, rectifier means connected to the current transformer and exciting-current circuital means for enabling the current transformer to inject into the exciting-current circuital means a current at a higher voltage than that supplied to the exciting-current circuital means through the transductor, and thereby enable the generator to deal with an occasional transient load through the branch circuital means, and means energisable by current supplied by the generator to the branch circuital means for boosting the voltage of the current supplied through the transductor to the exciting-current circuital means during the injection into the latter of current from the transformer.

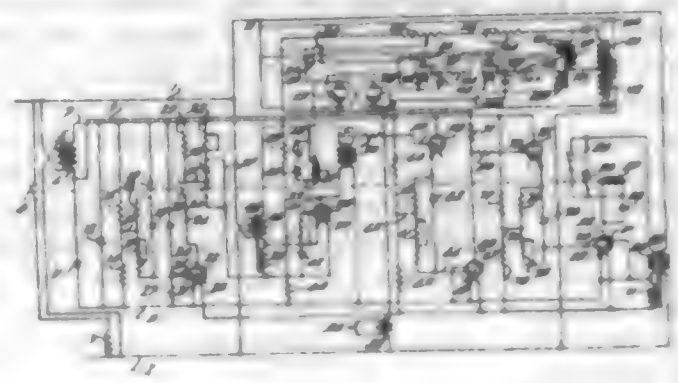
2,873,421

ELECTRIC WELDER CONTROL SYSTEM

Robert C. Mierendorf, Wauwatosa, Wis., assignor to Square D Company, Detroit, Mich., a corporation of Michigan

Application April 25, 1955, Serial No. 503,611
11 Claims. (Cl. 323—58)

2. In a control circuit for effecting the passage of alternating current to a load, a pair of electronic discharge tubes connected to pass alternate half cycles of current, means for selectively rendering said discharge tubes conducting, a phase back circuit controlling the point on the supply voltage wave at which said discharge tubes are rendered conducting, means operating to render the first of said discharge tubes conducting at a point determined by the initial constants of said phase back circuit to initiate current flow with a minimum transient, means operating after initiation of conduction of said first



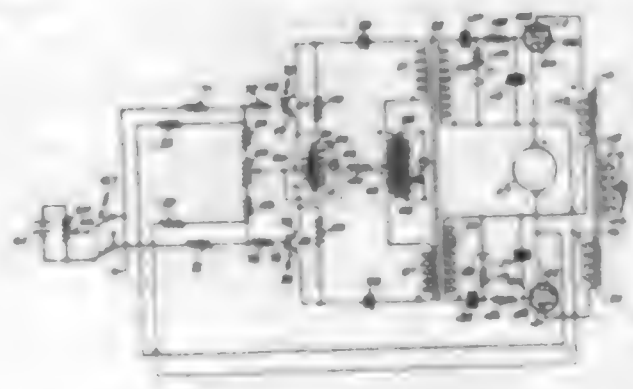
discharge tube to change the constants of the phase back circuit to effect subsequent tube conduction at a normal operating point on the voltage wave, and means rendering the second discharge tube and the first tube after the first half cycle conducting at said normal operating point.

2,873,422

MAGNETIC AMPLIFIER PULSE GENERATORS

Harvey A. Miller, Natick, and Henry Elsler, Brighton, Mass., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application January 31, 1958, Serial No. 712,411
3 Claims. (Cl. 323—89)



3. In a magnetic amplifier, a saturable magnetic core, first and second windings on said core, a source of alternating supply voltage having first and second half cycles connected in series with said first and second windings through rectifying means operative to drive said core toward saturation in one direction during the first half cycle, and in the opposite direction during the second half cycle, a transistor means connected in series with each winding for opposing the magnetizing of the core.

2,873,423

WELL LOGGING METHOD

John W. Graham, Bellaire, and Frederick Myers Perkins, Jr., Charles L. Prokop, and Richard A. Salathiel, Houston, Tex., assignors, by mesne assignments, to Jersey Production Research Company, Tulsa, Okla., a corporation of Delaware

Application August 22, 1956, Serial No. 605,671
27 Claims. (Cl. 324—1)

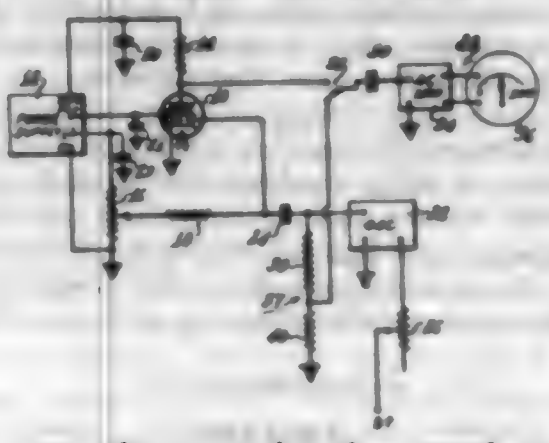
1. A method for logging a well bore penetrating subsurface earth formations for the presence of hydrocarbons in said earth formations which comprises obtaining the electrical resistivity of said earth formations, contacting said earth formations with a solution containing a surface active agent consisting of a water soluble cationic salt which causes preferential wetting of said earth forma-

tions by any hydrocarbons present therein and then obtaining the electrical resistivity of said contacted earth



formations whereby the presence of hydrocarbons in said earth formations is indicated.

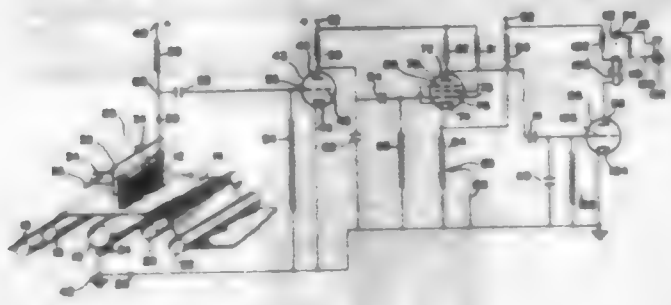
2,873,424
TUBE TESTER
John M. Lowery, Barrington, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 1, 1954, Serial No. 440,619
10 Claims. (Cl. 324—26)



10. A tester for measuring the mutual conductance of an electron discharge device having at least three electrodes, said testor comprising means including a resistor connected to one of said electrodes to apply a source of operating potentials to said device to cause conduction therethrough, means to capacitively bypass said potentials, a voltage divider, means to apply a relatively high frequency continuous wave signal to another of said electrodes only and across said voltage divider, a multi-position switch, means including said switch in one position thereof connected in series with a portion of said voltage divider and in parallel with the remainder thereof to indicate the conductance of said portion of said voltage divider, said portion being of a known conductance, the impedance of said resistor and of said remainder being substantially the same, and means including said switch in another position thereof to connect said indicating means in series with the path between said one electrode and said another electrode of said device and in parallel with said resistor whereby to compare the conductance of said path with the known conductance of said portion.

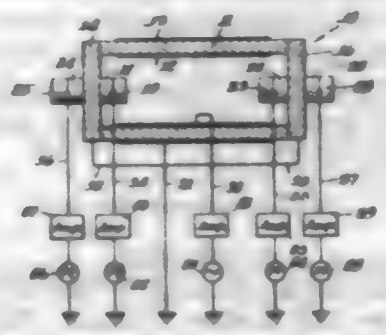
2,873,425
APPARATUS AND METHOD FOR DETECTING VOIDS IN DIELECTRIC SHEET MATERIAL
William H. Huggins, Clinton, Conn.
Application April 24, 1956, Serial No. 580,319
5 Claims. (Cl. 324—54)

1. Apparatus for detecting voids and conducting particles in advancing sheet material, comprising a pair of opposed electrodes for yieldably engaging opposite surfaces of said material as it advances, one of said electrodes including portions which may extend through a void in said material and engage the other electrode, circuit means including said electrodes and a voltage source for generating voltage pulses having a duration determined by the length of said void sensed by said electrodes, voltage-modifying means coupled to said circuit means for generating voltage variations the amplitude of which



is determined by the duration of said voltage pulses, said last-mentioned means including a pulse-clipping device having an input circuit, a condenser coupling said input circuit to said circuit means, and a charging condenser responsive to said pulse-clipping device, and output circuit means including an indicating device, coupled to said voltage-modifying means, said output circuit means being responsive to said voltage variations only if greater than a predetermined amplitude.

2,873,426
CALIBRATING SYSTEM FOR ACCELEROMETERS
Abraham I. Draaetz, Metuchen, N. J., assignor to Gulton Industries, Inc., a corporation of New Jersey
Application March 23, 1954, Serial No. 418,117
18 Claims. (Cl. 324—56)



5. In a calibrating system for calibrating accelerometers over a high frequency testing range, an elongated vibrator member constructed for vibration in its longitudinal direction, means electrically connected to the vibrator member and including an alternating voltage source which is adjustable as to frequency and voltage for vibrating the vibrator member at frequencies within the high frequency testing range, a standard accelerometer mounted on each end of the vibrator member, each standard accelerometer having a resonant frequency far in excess of the highest frequency of the testing range, means on each end of the vibrator member for mounting an accelerometer under test, the resonant frequency of the assembly including the vibrator member and standard and test accelerometers being far in excess of the highest frequency of the testing range, means including acoustically soft pads mounting the vibrator member so that the vibrator member is vibrated only against inertia, means electrically connected to the standard accelerometers for measuring the electrical output thereof, and means electrically connected to the accelerometers under test for measuring the electrical output thereof.

2,873,427

SUSPENSION GALVANOMETER

John R. Tavis, Los Angeles, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application October 19, 1953, Serial No. 386,873
6 Claims. (Cl. 324—97)



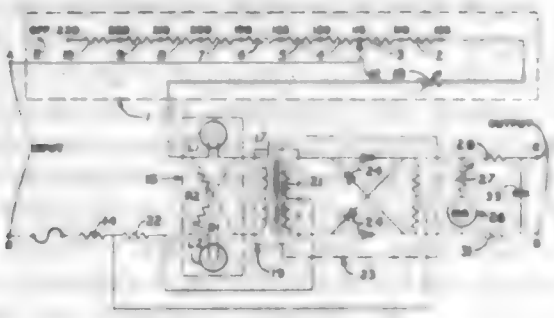
3. A galvanometer comprising an upright elongated coil having an open central section, an upper elongated and upright suspension means rigidly attached at its lower end to the upper end of the coil, a lower upright and elongated suspension means rigidly attached at its upper end to the lower end of the coil, a case enclosing the coil and two suspension means, means for producing a magnetic field with lines of flux transverse to the longitudinal axis of the coil, stiffening means rigidly attached to the upper end of the coil and the adjacent portion of the upper suspension means, a mirror rigidly mounted on the first stiffening means, a separate damping tube disposed around the lower suspension means and the coil and entirely disposed within the case, means for anchoring the lower end of the lower suspension at the lower end of the tube, and means for sealing the bottom end of the tube to make it fluid tight.

2,873,428

EXPANDED SCALE VOLTMETER

Anthony Bruno and Herbert Galman, Philadelphia, Pa.

Application August 11, 1953, Serial No. 373,696
7 Claims. (Cl. 324—131)
(Granted under Title 35, U. S. Code (1952), sec. 266)



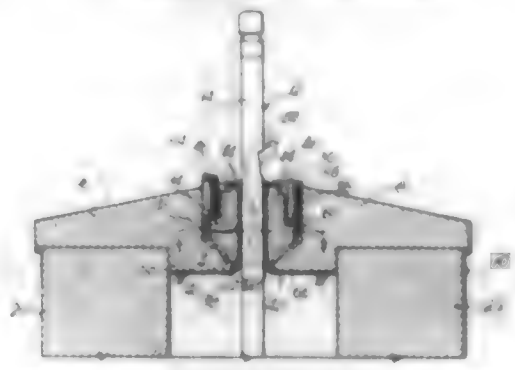
6. Voltage monitoring apparatus comprising a bridge having a non-linear element in at least one leg and having input terminals for connection to the voltage to be monitored and output terminals, voltage dividing means connected to the output terminals of the bridge and having an intermediate tap thereon, a bridge rectifier having input terminals connected to the output terminals of the first bridge and output terminals, indicating means connected to the last said output terminals, voltage dividing means having an intermediate tap connected to the last said output terminals of the bridge rectifier and means connected with said intermediate taps and with the input voltage for applying a voltage between the intermediate taps that is proportional to the input voltage, said intermediate taps being adjustable to produce balanced operation of said bridge rectifier.

2,873,429

MAGNETIC ASSEMBLY HAVING GALVANOMETERS PROVIDED WITH ADJUSTABLE LOCKS

Raymond D. Atchley and Wayne E. Harrison, Tulsa, Okla., assignors to Midwestern Geophysical Laboratory, Tulsa, Okla., a corporation of Delaware

Application June 3, 1953, Serial No. 359,294
6 Claims. (Cl. 324—154)



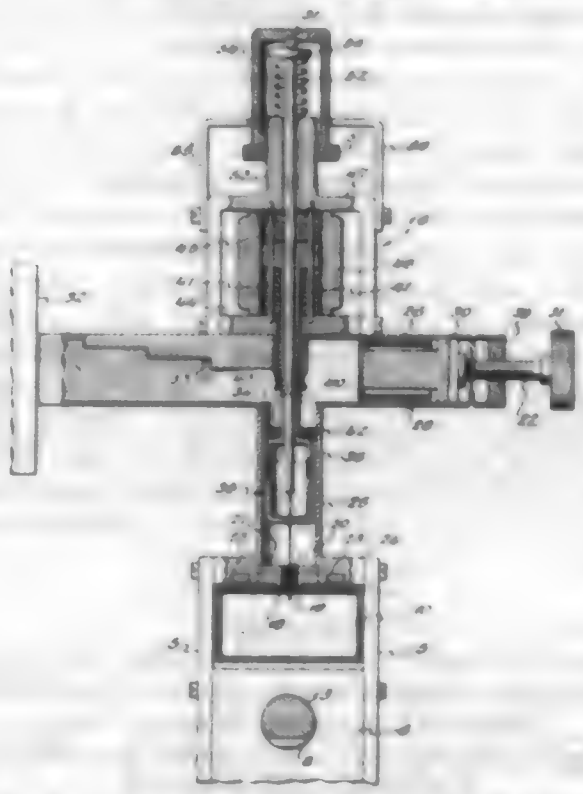
1. In a current responsive instrument having an elongated, tubular galvanometer and a magnet provided with a pair of spaced poles, structure for mounting the galvanometer on the magnet comprising a pole piece for each pole respectively and adapted for attachment to the latter in spaced relationship, each pole piece having a concave innermost edge; a mounting element rotatably carried by the pole pieces therebetween and provided with a pair of opposed legs, said element having convex edges complementally engaging said concave edges of the pole pieces, and being provided with an opening adapted to rotatably receive said galvanometer; and releasable means engaging said legs for holding the element against rotation relative to the pole pieces and clamping the legs against the galvanometer when the latter is in the opening.

2,873,430

ELECTRIC FIELD PROBE

Kiyo Tomiyasu, Flushing, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

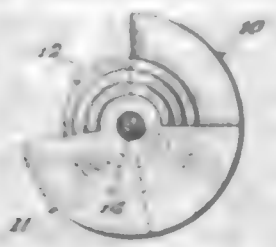
Application March 9, 1954, Serial No. 414,979
12 Claims. (Cl. 333—35)



12. In a probe, a length of coaxial line comprising inner and outer conductors, the inner conductor at one

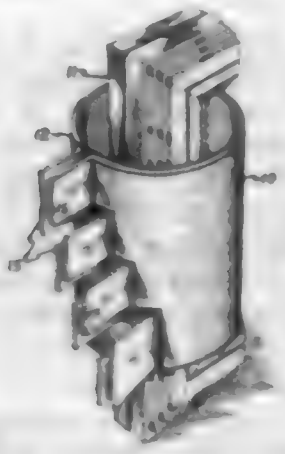
end of the coaxial line being adapted for insertion in a wave guide, output means at the other end of said coaxial line, and a quarter wave tuning slug surrounding said inner conductor near said one end and electrically connected thereto, there being a relatively large ratio between the outside diameter of said inner conductor and the inside diameter of said outer conductor at said one end to give a high characteristic impedance, there being a relatively low ratio between the outside diameter of said inner conductor and the inside diameter of said outer conductor at the other end of said coaxial line to provide a low characteristic impedance, said tuning slug being arranged to provide a resulting high VSWR at said one end.

2,873,431
VARIABLE INDUCTOR
Richard E. Marsh, Oak Park, Ill., assignor to The Hallicrafters Co., a corporation of Delaware
Application July 12, 1954, Serial No. 442,872
2 Claims. (Cl. 336—135)



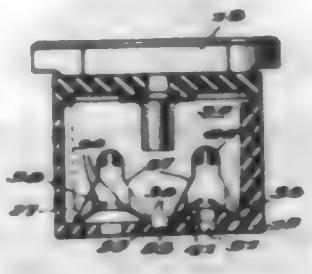
1. A variable inductor of the character described, including: a first core segment comprising a base element having the shape of a sector of a circle, and being cut out to have an arcuate channel defining a cylindrical center portion and a peripheral portion, the center portion being slightly higher than the peripheral portion; a coil wound on said cylindrical center portion and filling said channel, the coil terminating below the top of said peripheral portion; and a second core segment comprising a planar cap element having the shape of a sector of a circle, said second segment being rotatably secured to said first segment and fitting tightly against said center portion, there being a gap between said cap element and the peripheral portion of said base element, rotation of said cap effecting a change in the inductance of said coil.

2,873,432
WINDING FOR ELECTRICAL APPARATUS
Andrew Glassanos, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application October 24, 1957, Serial No. 692,223
8 Claims. (Cl. 336—192)



8. A stationary electrical induction apparatus comprising a magnetic core having a winding leg, and a winding surrounding said leg and insulated therefrom, said winding comprising a hollow cylindrical conducting member having a gap extending from one end to the other end thereof, the ends of said gap being circumferentially displaced, a plurality of flanges extending radially from said member on each side of said gap, and a bar lead extending axially of said winding from each flange, the flanges being circumferentially displaced so that alternate bar leads are connected to flanges on opposite sides of said gap.

2,873,433
CONVENIENCE OUTLET WITH IMPROVED WIRE AND PLUG BLADE GRIPPING MEANS
Victor R. Despard, Syracuse, N. Y., assignor to Pass & Seymour, Inc., Syracuse, N. Y., a corporation of New York
Application September 26, 1957, Serial No. 686,459
14 Claims. (Cl. 339—95)



9. Electric wiring apparatus including in combination, an insulating housing, a contact in said housing and means for connecting a conductor to said contact comprising a flat strip of resilient metal connected to the contact, resting against a rigid wall of the housing and provided with integral facing wings bordering a slit in the strip, said wings being bent outwardly from said wall to be spread by a conductor wire introduced between them through an entrance hole in said wall to thereby grip the conductor and resist its withdrawal, and means integral with said wall adjacent the entrance hole positioned beneath the wings and shaped to be engaged by said wings on excess conductor wire withdrawal effort to hold the slit edges apart sufficiently to prevent conductor cutoff thereby.

2,873,434
INSULATION PIERCING TERMINAL
Raymond F. Drum, Choconut, Pa., and Leslie A. Wenn, Binghamton, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 31, 1954, Serial No. 479,117
2 Claims. (Cl. 339—97)

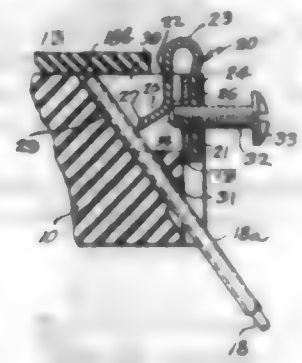


1. A solderless terminal for insulated electrical conductors comprising a plurality of integral conductor-gripping portions each of relatively rigid yet deformable substantially U-shaped cross section with common base portions; one of said portions having parallel conductor-gripping arms of substantially shorter longitudinal and arm lengths than, and being symmetrically positioned within, the arms of the other portion and being provided with elongated relatively blunt parallel ends spaced by a value substantially equal to the conductor transverse dimension to strip sections of the insulation from and bare the side portions of an insulation covered electrical conductor forceably inserted between the arms of said one portion; and said arms of said other portion being spaced by the insulated conductor transverse dimension to guide an insulated conductor symmetrically into said one pair of arms during said insertion thereof.

2,873,435
STRIPLESS WIRING FOR ELECTRICAL WIRING DEVICES

Harvey Hubbell, Southport, Conn., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn., a corporation of Connecticut

Application December 24, 1956, Serial No. 630,150
6 Claims. (Cl. 339—97)

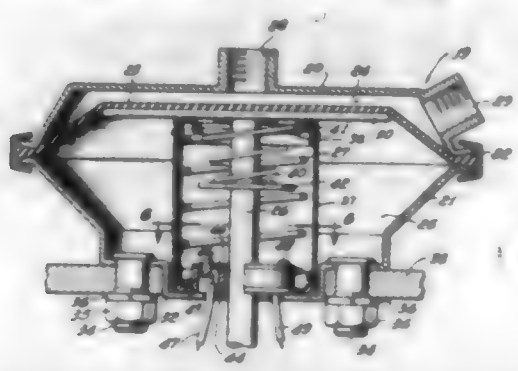


2. In an electrical wiring device, an insulating body member, a conductor bar mounted in the body, means for connecting an insulation covered lead wire to said bar comprising a spring strip bent to substantially U-shape with legs side by side one of which legs is secured to the bar and the other of which is located at the inner side of the bar, said latter leg including a free end portion extending inwardly away from and inclined to the bar and provided with a notched free end having a knife edge, means in the body member for positioning and retaining an insulation covered lead wire adjacent and in alignment with said notched end, a screw threaded in and extending through the bar with its free end in back of the inner leg of the strip, and said free end of the screw operable by camming action on said latter leg to force the knife edge into the insulation on the wire and then along the wire to strip the insulation therefrom and then clamp the free end of the screw against the stripped wire for electrical contact therewith.

2,873,436
BRAKE TRAVEL INDICATOR

Walter C. Avrea, Rivera, Calif., assignor to Sierra Precision, Inc., Monrovia, Calif., a corporation of California

Application April 4, 1957, Serial No. 650,660
8 Claims. (Cl. 340—52)

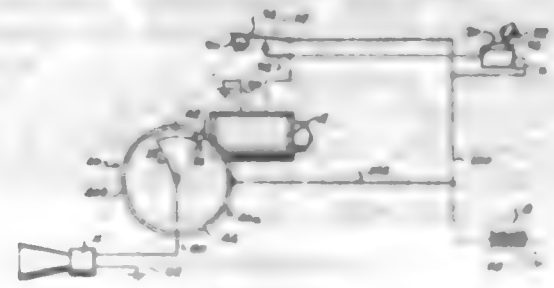


1. In a brake having an actuating plunger therefor adapted upon actuation to apply the brake throughout a range of travel of the plunger the combination of an indicator system indicative of a pre-set remaining amount of plunger travel operable to set the brake, said system comprising a housing, an electric indicator contact, a resilient collapsible element secured to the plunger, said element having an effective extended dimension equal to a pre-set amount of remaining plunger travel sought to be indicated, a contact closing member on the collapsible element adapted to interconnect said contact and ground when the plunger is actuated through a brake setting cycle wherein the brake remains unset until contact is made, and an electrically actuated warning signal having one terminal grounded and another terminal connected to said contact.

2,873,437
VEHICLE BACK-UP WARNING SIGNAL ACTUATOR

Leroy J. Greiner, Long Beach, and Donald L. Ebbage, Paramount, Calif., assignors to Macco Corporation, Paramount, Calif., a corporation of California

Application December 31, 1957, Serial No. 706,417
4 Claims. (Cl. 340—70)

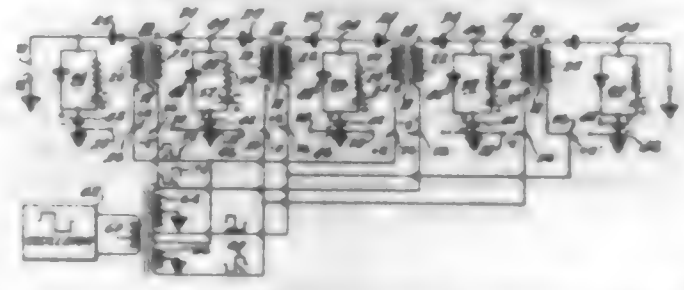


1. In a vehicle back-up warning system that includes an element movable when the vehicle is to be reversed, a source of electric current, an electric motor that drives a signal generator, a warning device, conductor means connecting said signal generator with said source of electric current and with said warning device, second conductor means connecting said electric motor with said source of electric current, and a back-up switch interposed in said second conductor means, said switch being open during forward motion of the vehicle with said element effecting the closing of said switch when the vehicle is to be reversed, the combination of: a motor control switch interposed in said second conductor means in parallel with said back-up switch; and means driven by said electric motor for successively opening and closing said motor control switch during operation of said electric motor whereby electric current will flow to said electric motor so long as either said back-up switch or said motor control switch is closed and upon opening of said back-up switch said electric motor will continue to operate until it has effected opening of said motor control switch.

2,873,438
MAGNETIC SHIFT REGISTER

Wladyslaw J. Bieganski and Lester M. Glickman, Camden, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application February 24, 1956, Serial No. 567,488
7 Claims. (Cl. 340—174)



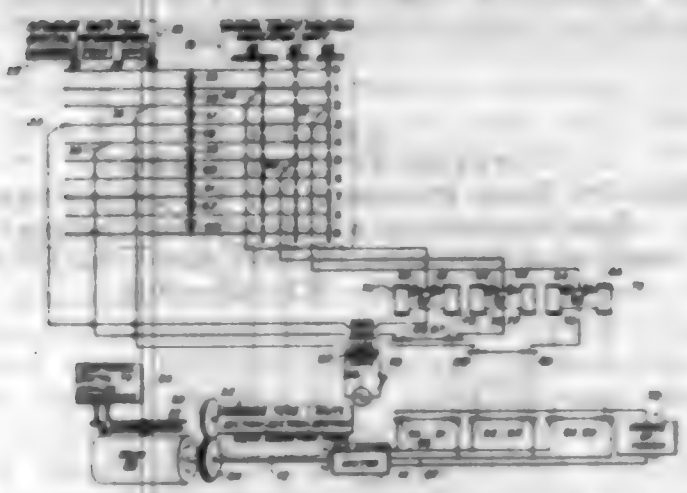
1. A magnetic circuit comprising a plurality of saturable magnetic elements each having appreciable remanence; separate windings linked to said elements; and circuit means coupling said winding of a first one of said elements to said winding of a second one of said elements, said circuit means including two series circuits, each of said series circuits including a different unilateral impedance, a different means for applying voltage pulses, and a load impedance in common with the other of said two series circuits all connected in series with a different one of said first and second element windings; said common load impedance including a unilateral impedance, and means for biasing said load unilateral impedance to tend to draw current therethrough in a forward direction; said circuit means further including means in at least one of said series circuits for supplying a voltage in a direction to neutralize the effect of a forward voltage drop across said load unilateral impedance.

2,873,439

DIGITAL TO ANALOG CONVERTING APPARATUS

Arvo A. Lahti, Pasadena, and Duncan N. MacDonald, Arcadia, Calif., assignors, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application July 6, 1954, Serial No. 441,276
5 Claims. (Cl. 340—347)



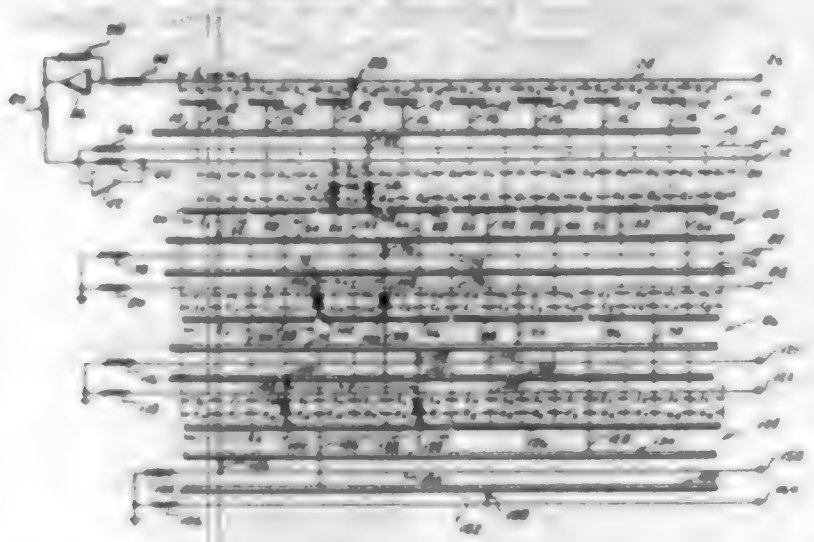
5. Digital to analog converting apparatus comprising a first switching means for storing digital information, a movable element for representing an analog function of the digital information stored by the first switching means, a second switching means coupled to the movable element for registering digital information representative of the position of the movable element, a plurality of unidirectional conductors serially interconnecting the first and second switching means, a source of alternating current coupled serially with said first and second switching means, and polarity sensitive means responsive to the passage of half-cycles of alternating current from said source through the serially connected first and second switching means and unidirectional conductors for controlling the position of said movable element, whereby the position of the movable element is adjusted until the digital information in the second switching means equals that stored in the first switching means.

2,873,440

ANALOGUE-TO-DIGITAL CONVERTER

Jack B. Speller, White Plains, N. Y., assignor, by mesne assignments, to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application October 26, 1954, Serial No. 464,774
28 Claims. (Cl. 340—347)



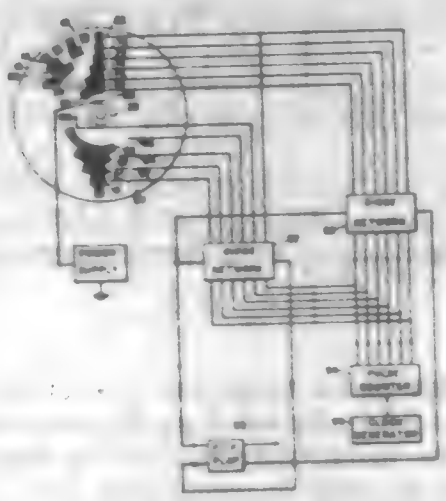
1. An analogue-to-digital converter for producing a binary digital representation of the relative movement between two members including in combination a first member, a first row of elements mounted on the first member, a second member, means mounting the first and second members for relative movement, a source of excitation voltage, means including means mounted on the second member for coupling the excitation voltage to the first row, means for deriving two outputs from the first row, one of said first row outputs representing a one in the binary code when the other of said outputs represents a zero in the binary code and the other of said outputs representing a one in the binary code when said one of the outputs represents a zero in the binary code such that said first row outputs are complementary to one another, a second row of elements mounted on the first member, means including means mounted on the second member for electrically coupling the two complementary outputs to the second row, and means for deriving an additional output from the second row.

2,873,441

CONVERTER

Carl A. Miller, Van Nuys, Calif., assignor to Librascope, Incorporated, Glendale, Calif., a corporation of California

Application February 18, 1955, Serial No. 489,010
10 Claims. (Cl. 340—347)



8. In combination for converting an analogue quantity into a plurality of signals representing the quantity in digital form, a plurality of brushes disposed into first and second groups, the brushes in the first group being disposed in aligned relationship with respect to one another, an information member movable relative to the brushes in representation of the analogue quantity to be converted, and a plurality of first and second portions disposed in tracks on the information member in alternate arrangement, the portions in each particular track having substantially equal lengths and lengths increasing in a progressive geometric relationship with respect to the lengths of the portions in the preceding tracks, each of the brushes in the second group being associated with a brush in the first group and being separated from the brush in the first group by a distance related to the length of the portions in the associated track.

2,873,442

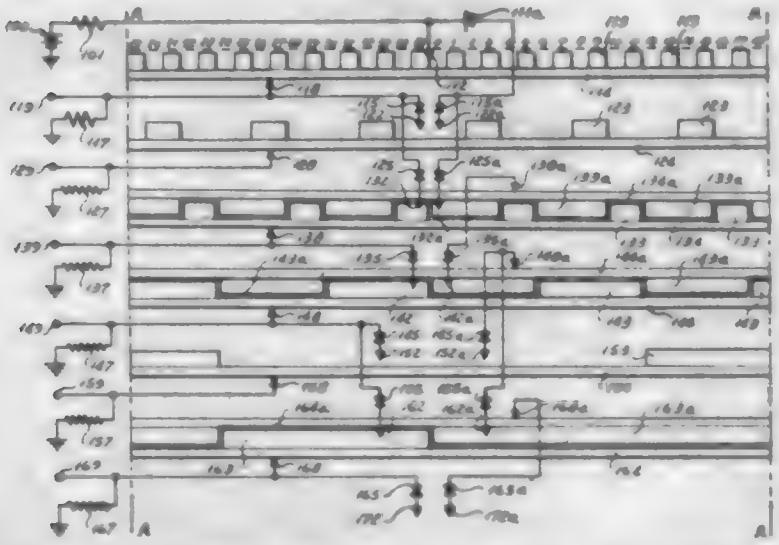
ANALOGUE TO BINARY CODED SYSTEM CONVERTER

Martin Ziserman, Hartsdale, N. Y., assignor, by mesne assignments, to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application June 6, 1956, Serial No. 589,624
20 Claims. (Cl. 340—347)

1. An analogue to digital converter for providing a digital representation in any binary coded even-numbered system of the relative displacement between two members including in combination a first member, a second member, means mounting the first and second members for relative movement, a first plurality of consecutive rows of conductive elements mounted on the first member, a source of input excitation voltage, means for obtaining two outputs complementary to one another from each but the last row of the first plurality of rows, means

including means mounted on the second member of coupling to each but the first row of the first plurality of rows two inputs complementary to one another and derived directly from the two complementary outputs of the immediately preceding row, means including means mounted on the second member for coupling the input excitation voltage to the first row of the first plurality of rows, a second plurality of consecutive rows of conductive elements mounted on the first member where the first row of the second plurality of rows is the last row of the first plurality of rows, means for obtaining an output from each but the last row of the second plurality of rows, means including means mounted on the second member for coupling two complementary inputs to each but the first row of the second plurality of rows, the two



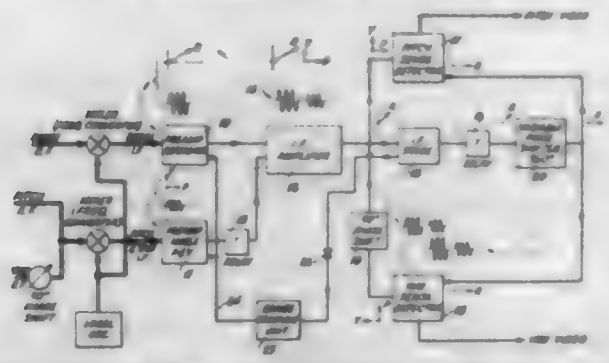
complementary inputs to the last row of the second plurality of rows being derived from the two complementary outputs of the penultimate row of the first plurality of rows, a third plurality of consecutive rows of conductive elements mounted on the first member where the first row of the third plurality of rows is the last row of the second plurality of rows, means for obtaining two complementary outputs from each but the last row of the third plurality of rows, means for obtaining an output from the last row of the third plurality of rows, and means including means mounted on the second member for coupling to each but the first row of the third plurality of rows two complementary inputs derived directly from the two complementary outputs of the immediately preceding row.

2,873,443

RADAR SYSTEM

Bernard Raboy, Glencoe, Md., assignor to The Martin Company, Middle River, Md., a corporation of Maryland

Application November 4, 1955, Serial No. 544,964
5 Claims. (Cl. 343—16)



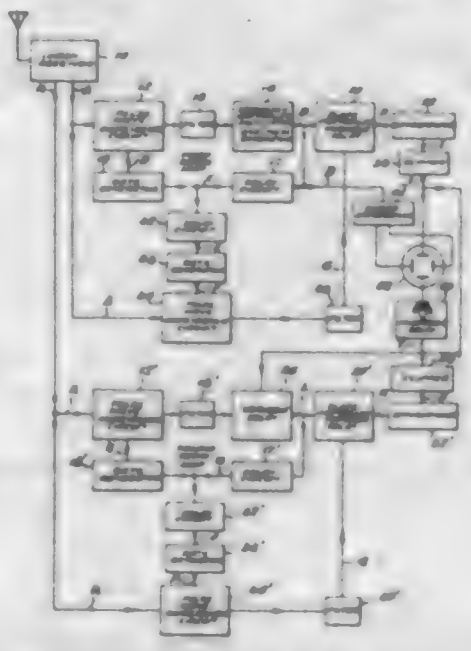
1. In a monopulse echo position indicating system, the improvement comprising a single I. F. amplifier adapted to concomitantly amplify three aspects of positional information, means for feeding a first aspect of positional information to said I. F. amplifier to serve as a reference, means for combining the second and third aspects of positional information in quadrature, means for delaying said second and third aspects of positional information with respect to said first aspect, and for feeding said delayed information to said I. F. amplifier, means connected to the output of said I. F. amplifier for delaying and adjusting said first aspect to serve as a reference by re-establishing the original time relationships existing between said first aspect, and said second and third aspects, and sense detector means operative in conjunction with said reference for converting said I. F. positional information into video positional information.

2,873,444

PULSE SYNCHRONIZER

Walter N. Dean, Hempstead, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application September 15, 1949, Serial No. 117,917
17 Claims. (Cl. 343—103)



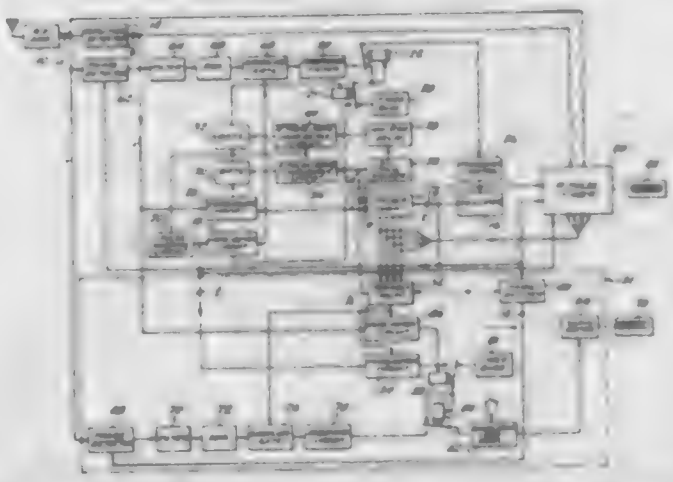
1. In combination, a receiver for receiving and detecting recurrent pulses of electromagnetic energy, means connected to the output of said receiver for producing a signal which varies in accordance with the rate of increase in the magnitude of the respective control pulses, and pulse generator means having an input circuit connected to the output of said receiver and having a control circuit responsive to said signal and having an output circuit for producing a series of pulses in synchronism with said control pulses.

2,873,445

HYPERBOLIC NAVIGATION RECEIVER

Winslow Palmer, Amityville, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application March 28, 1956, Serial No. 574,475
10 Claims. (Cl. 343—103)



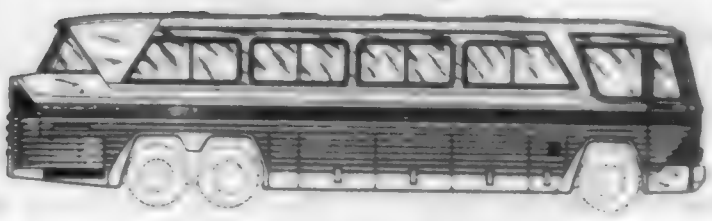
1. Receiving apparatus for measuring and indicating the time interval between a pair of received pulses of radio frequency energy transmitted from a master station and a slave station respectively, the two stations transmitting pulses continuously at a fixed repetition rate

and the phase relationship between the carrier and pulse envelope of the transmitted signals being fixed, said receiving apparatus comprising means for generating a first local signal having substantially the same frequency as the carrier of the received signals from the master and slave stations, means synchronized with said first local signal generating means for generating first local pulses having substantially the same repetition rate as the pulses of the received signals and a correspondingly fixed phase relationship to the first local signal as established at the transmitting stations between the pulse envelopes and the carrier, a first servo loop including means for generating an error signal in response to the time difference between the pulses received from the master station and said first local pulses and means responsive to said error signal for varying the output frequency of said first local signal generating means to bring the first local pulses into substantial coincidence with the received master pulses, a second servo loop including means for generating an error signal in response to the phase difference between the carrier of the received master pulses and said first local signal and means responsive to said error signal for varying the output frequency of said first local signal generating means to bring the first local signal into phase coherence with the carrier of the received master pulses, first switching means controlled by the error signal producing means in the first servo loop for shifting control of the first local signal generating means from the first servo loop to the second servo loop when the first local pulses are in substantial coincidence with the received master pulses, means for generating a second local signal having substantially the same frequency as the carrier of the received signals, means synchronized with said second local signal generating means for generating second local pulses having substantially the same repetition rate as the received pulses and the correspondingly fixed phase relationship to the second local signal as established at the transmitting stations between the pulse envelopes and the carrier, a third servo loop including means for generating an error signal in response to the time difference between the pulses received from the slave station and said second local pulses and means responsive to said error signal for varying the output frequency of said second local signal generating means to bring the second local pulses into substantial coincidence with the received slave pulses, a fourth servo loop including means for generating an error signal in response to the phase difference between the second local signal and carrier of the received slave pulses and means responsive to said error signal for varying the output frequency of said second local signal generating means to bring the second local signal into phase coherence with the carrier of the received slave pulses, second switching means for shifting control of the second local signal generating means from the third servo loop to the fourth servo loop when the second local pulses are in substantial coincidence with the received slave pulses, and indicator means responsive to the time difference between the first and second local pulses and the phase difference between the first and second local signals for indicating the time difference between the master and slave signals as received.

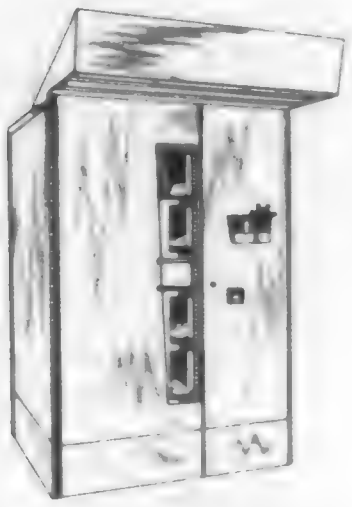
DESIGNS

FEBRUARY 10, 1959

184,388
BUS
Robert E. Bourke, Westport, Conn., assignor to Mack Trucks, Inc., Plainfield, N. J., a corporation of New York
Application June 25, 1958, Serial No. 51,514
Term of patent 14 years
(Cl. D14—3)



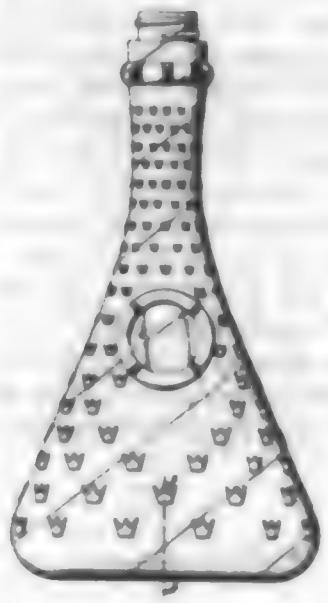
184,389
EGG VENDING MACHINE
Heinz Braunsberg, Bristol, Conn.
Application July 5, 1957, Serial No. 46,851
Term of patent 14 years
(Cl. D52—3)



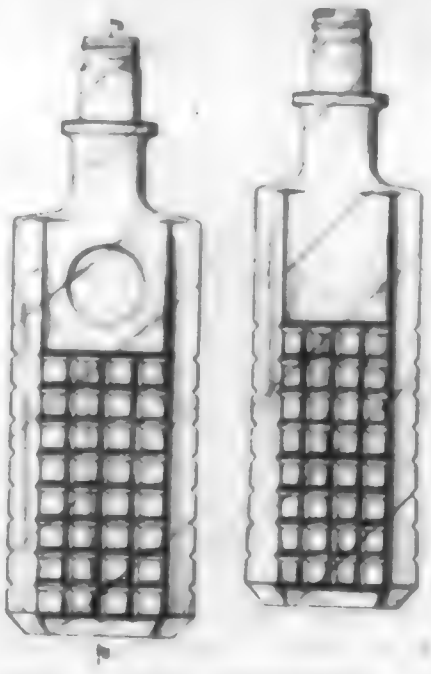
184,390
COMBINED STEP AND STOOL
Harold W. Cramer, Hickman Mills, Mo.
Application October 14, 1958, Serial No. 52,973
Term of patent 14 years
(Cl. D15—8)



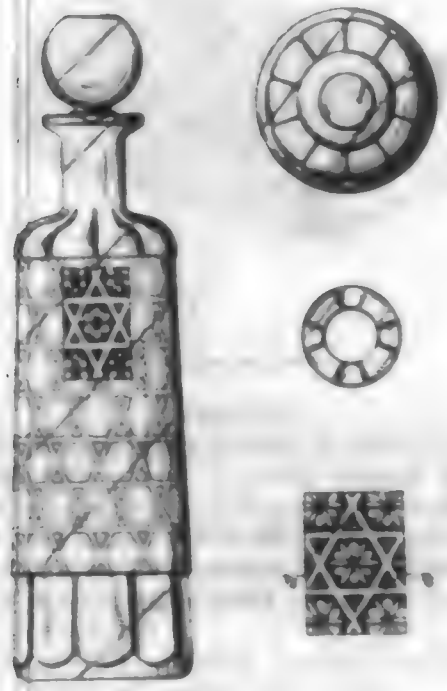
184,391
DECANTER
Ernest L. Du Pree, New York, N. Y., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application August 12, 1958, Serial No. 52,176
Term of patent 14 years
(Cl. D58—6)



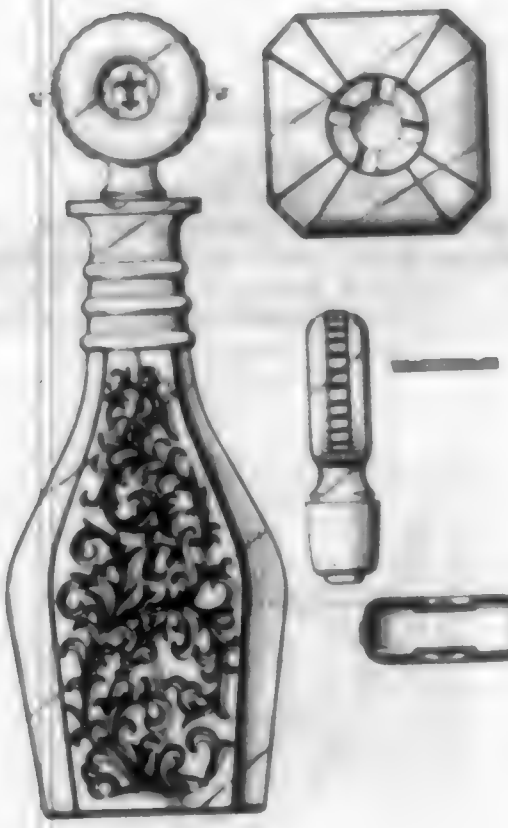
184,392
DECANTER
Ernest L. Du Pree, New York, N. Y., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application August 12, 1958, Serial No. 52,181
Term of patent 14 years
(Cl. D58—6)



184,393
DECANTER
Ernest L. Du Pree, New York, N. Y., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application August 12, 1958, Serial No. 52,182
Term of patent 14 years
(Cl. D58—8)



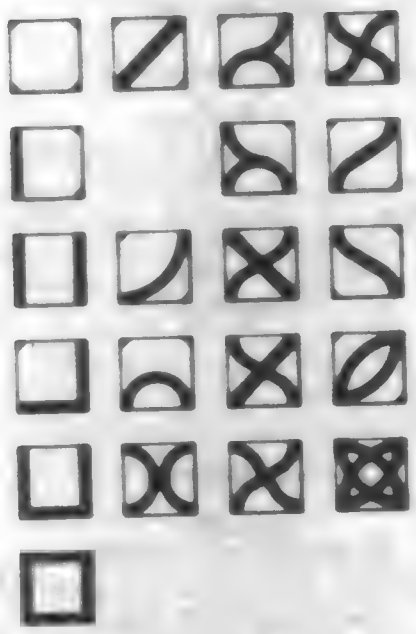
184,394
DECANTER
Ernest L. Du Pree, New York, N. Y., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application September 30, 1958, Serial No. 52,822
Term of patent 14 years
(Cl. D58—6)



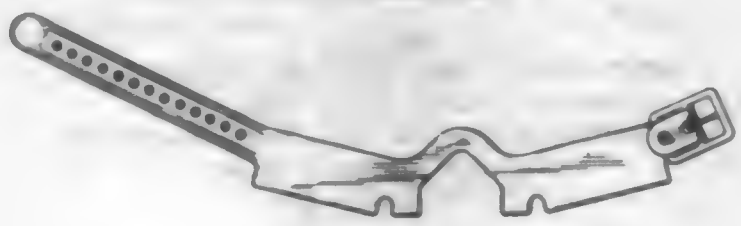
184,395
COMBINED FRONT ORNAMENT AND EAR PIECE FOR EYEGLASSES
Robert Gross, Hackensack, N. J., assignor to Carl Schleicher, doing business as Geneva Products Company, New York, N. Y.
Application May 17, 1957, Serial No. 46,254
Term of patent 14 years
(Cl. D57—1)



184,396
SET OF EDUCATIONAL TILES
Micah Jenkins, Ridgefield, Conn.
Application May 21, 1957, Serial No. 46,260
Term of patent 14 years
(Cl. D25—1)



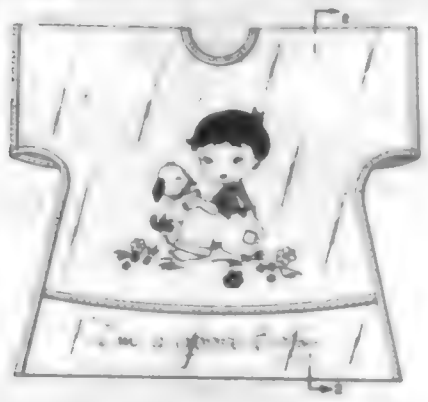
184,397
SKATE STRAP
Charles E. Jones, Chicago, and William G. Crowle, Berwyn, Ill.
Application June 2, 1958, Serial No. 51,144
Term of patent 14 years
(Cl. D34—14)



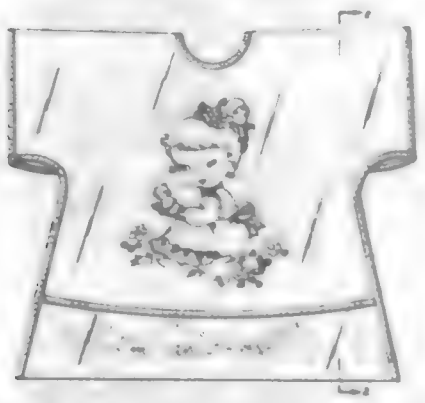
184,398
SKATE STRAP
Charles E. Jones, Chicago, and William G. Crowle, Berwyn, Ill., assignors to Manning Manufacturing Corporation, Chicago, Ill., a corporation of Illinois
Application June 2, 1958, Serial No. 51,166
Term of patent 14 years
(Cl. D34—14)



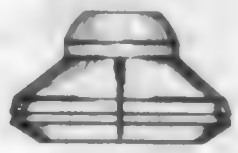
184,399
BIB
Bess Kaye, New York, N. Y.
Application November 20, 1957, Serial No. 48,560
Term of patent 7 years
(Cl. 3—26)



184,400
BIB
Bess Kaye, New York, N. Y.
Application November 20, 1957, Serial No. 48,561
Term of patent 7 years
(Cl. D3—26)



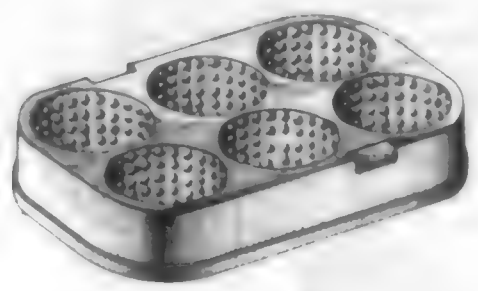
184,401
FURNITURE GLIDE
David R. Knowlton, Beverly, and Julius B. Wilhelmi, Nantasket, Hull, Mass.
Application October 6, 1958, Serial No. 52,874
Term of patent 14 years
(Cl. D10—6)



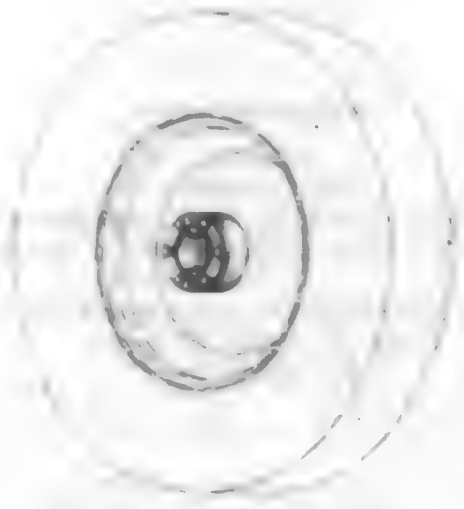
184,402
SPLIT CORE VOLTMETER-AMMETER
Samuel J. Koch, Great Neck, N. Y.
Application August 16, 1957, Serial No. 47,405
Term of patent 7 years
(Cl. D26—1)



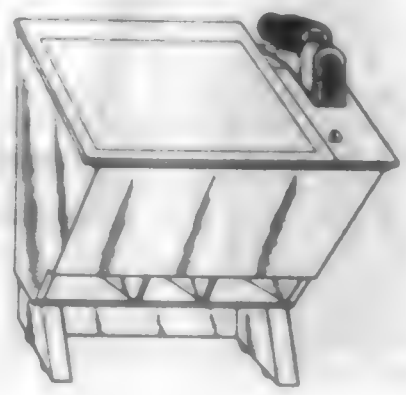
184,403
GOLF BALL BOX
Martin Krone, Brooklyn, N. Y., assignor to Pyro Plastics Corporation, Union, N. J., a corporation of New Jersey
Application May 22, 1957, Serial No. 46,288
Term of patent 14 years
(Cl. D58—13)



184,404
SELECTIVELY FREE WHEELING HUB
James Russell Lloyd, Denver, Colo., assignor to Cutlas Tool & Mfg. Co., Lyons, Ill., a corporation of Illinois
Application March 10, 1958, Serial No. 49,986
Term of patent 14 years
(Cl. D14—30)



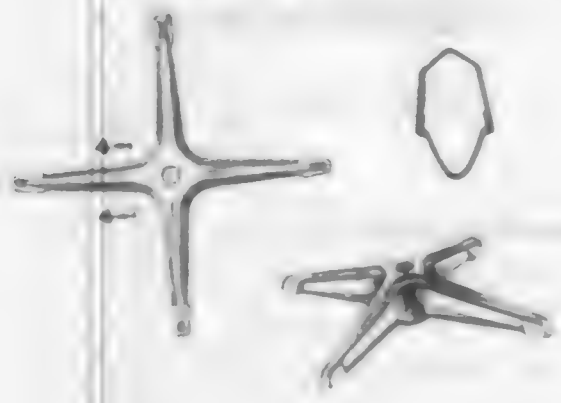
184,405
MICROFILM READER
Frederic Luther, Indianapolis, Ind.
Application April 18, 1957, Serial No. 45,782
Term of patent 3½ years
(Cl. D61—1)



184,406
FENDER AND DUAL HEADLAMP UNIT FOR AGRICULTURAL VEHICLE
Richard O. Malven, Waterloo, Iowa, assignor, by mesne assignments, to Deere & Company, a corporation of Delaware
Application April 11, 1958, Serial No. 50,435
Term of patent 14 years
(Cl. D14—6)



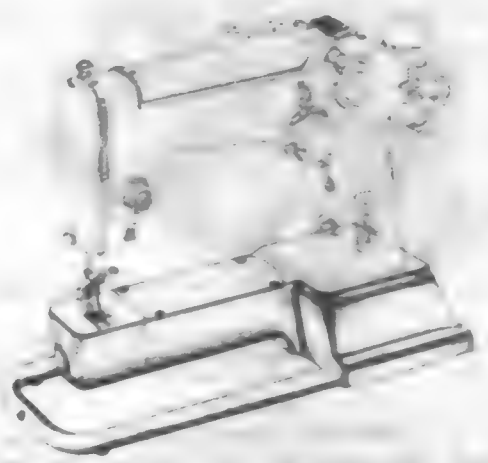
184,407
CHAIR BASE
William H. McKinley, Youngstown, Ohio, assignor to The General Fireproofing Company, Youngstown, Ohio, a corporation of Ohio
Application April 2, 1958, Serial No. 50,292
Term of patent 14 years
(Cl. D15—8)



184,408
CHILD'S TOILET SEAT
Curtis F. Pearl, West Englewood, N. J., assignor to Zadek Feldstein Co. Inc., New York, N. Y., a corporation of New York
Application September 24, 1958, Serial No. 52,749
Term of patent 14 years
(Cl. D4—5)



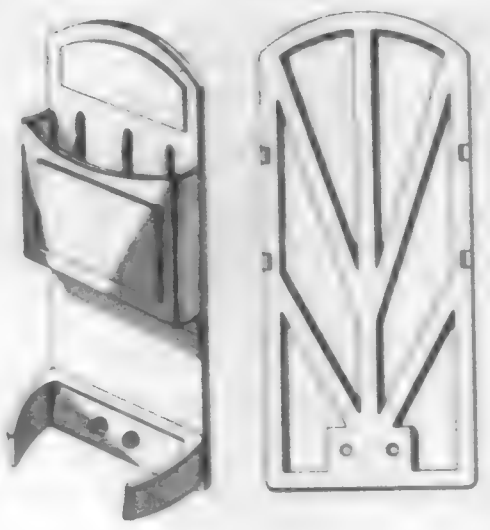
184,409
SEWING MACHINE OR SIMILAR ARTICLE
Martin R. Perla, Fairfield, Conn., and Malcolm S. Park, Verplanck Point, N. Y., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application December 11, 1957, Serial No. 48,859
Term of patent 14 years
(Cl. D70—1)



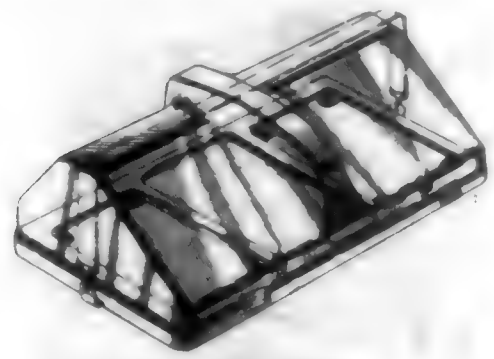
184,410
ONE PIECE SPORT SHIRT
George Ranieri, Riverside, Conn., assignor to Wings Boyswear, Inc., New York, N. Y., a corporation
Application May 7, 1958, Serial No. 50,790
Term of patent 14 years
(Cl. D3—25)



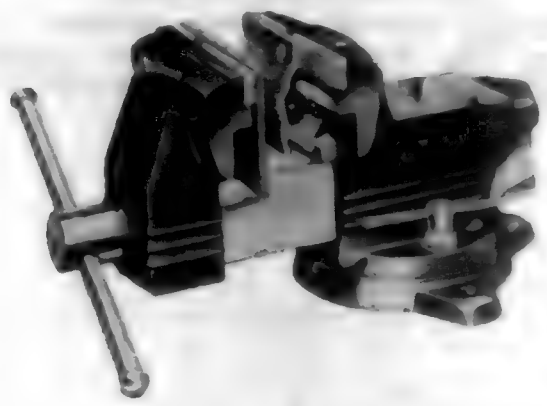
184,411
COMBINED TELEPHONE HOLDER, NOTE AND INDEX RECEPTACLE OR SIMILAR ARTICLE
Edward Schoen, Minneapolis, Minn.
Application October 23, 1957, Serial No. 48,216
Term of patent 14 years
(Cl. D26—14)



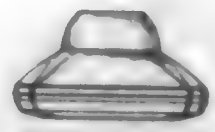
184,412
DISPLAY CARRYING UNIT FOR COLOR TELEPHONE SETS
Henry G. Turner, Atlanta, Ga., assignor to American Telephone and Telegraph Company, New York, N. Y., a corporation of New York
Application January 10, 1958, Serial No. 49,189
Term of patent 14 years
(Cl. D80—5)



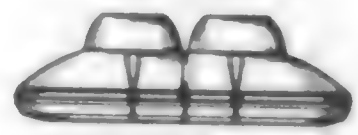
184,413
SWIVEL BASE VISE
Hugh W. Vogl, Northbrook, Ill., assignor to Wilton Tool Manufacturing Co., Inc., a corporation of Illinois
Application February 14, 1957, Serial No. 44,874
Term of patent 7 years
(Cl. D54—13)



184,414
FURNITURE GLIDE
Julius B. Wilhelmi, Nantasket, Hull, Mass.
Application October 6, 1958, Serial No. 52,872
Term of patent 14 years
(Cl. D10—6)



184,415
TWIN FURNITURE GLIDE
Julius B. Wilhelmi, Nantasket, Hull, Mass.
Application October 6, 1958, Serial No. 52,873
Term of patent 14 years
(Cl. D10—6)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 10TH DAY OF FEBRUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Campbell, Albert B., to Campbell Products Co. Dispensing valve structure for aerosol container. Re. 24,599, 2–10–59, Cl. 222—394.

Campbell Products Co.: *See*—
Campbell, Albert B. Re. 24,599.

De Blasio, Conrad G. Direct current power source. Re. 24,598, 2–10–59, Cl. 323—22.

LIST OF PLANT PATENTEES

Armstrong Nurseries, Inc.: *See*—
Swim, Herbert C. 1,809.
Swim, Herbert C. 1,810.

Moore, Ralph S. Miniature rose plant. 1,808, 2–10–59, Cl. 47—61.

Swim, Herbert C., to Armstrong Nurseries, Inc. Rose plant. 1,809, 2–10–59, Cl. 47—61.

Swim, Herbert C., to Armstrong Nurseries, Inc. Rose plant. 1,810, 2–10–59, Cl. 47—61.

LIST OF DESIGN PATENTEES

American Telephone and Telegraph Co.: *See*—
Turner, Henry G. 184,412.

Bourke, Robert E., to Mack Trucks, Inc. Bus. 184,388, 2–10–59, Cl. D14—4.4.

Braunsberg, Heinz. Egg vending machine. 184,389, 2–10–59, Cl. D32—3.

Cramer, Harold W. Combined step and stool. 184,390, 2–10–59, Cl. D15—8.

Crowle, William G.: *See*—
Jones, Charles E., and Crowle. 184,397.
Jones, Charles E., and Crowle. 184,398.

Cutlas Tool & Mfg. Co.: *See*—
Lloyd, James R. 184,404.

Deere & Co.: *See*—
Malven, Richard O. 184,406.

Du Pree, Ernest L., to Schenley Industries, Inc. Decanter. 184,391, 2–10–59, Cl. D58—8.

Du Pree, Ernest L., to Schenley Industries, Inc. Decanter. 184,392, 2–10–59, Cl. D58—6.

Du Pree, Ernest L., to Schenley Industries, Inc. Decanter. 184,393, 2–10–59, Cl. D58—8.

Du Pree, Ernest L., to Schenley Industries, Inc. Decanter. 184,394, 2–10–59, Cl. D58—6.

General Fireproofing Co., The: *See*—
McKinley, William H. 184,407.

Geneva Products Co.: *See*—
Gross, Robert. 184,395.

Gross, Robert, to C. Schleicher, d. b. a. Geneva Products Co. Combined front ornament and ear piece for eyeglasses. 184,395, 2–10–59, Cl. D37—1.

Jenkins, Micah. Set of educational tiles. 184,396, 2–10–59, Cl. D25—1.

Jones, Charles E., and W. G. Crowle. Skate strap. 184,397, 2–10–59, Cl. D34—14.

Jones, Charles E., and W. G. Crowle, to Manning Mfg. Corp. Skate strap. 184,398, 2–10–59, Cl. D34—14.

Kaye, Bess. Bib. 184,399, 2–10–59, Cl. D3—26.

Kaye, Bess. Bib. 184,400, 2–10–59, Cl. D3—26.

Knowlton, David R., and J. B. Wilhelmi. Furniture glide. 184,401, 2–10–59, Cl. D10—6.

Koch, Samuel J. Split core voltmeter-ammeter. 184,402, 2–10–59, Cl. D26—1.

Krome, Martin, to Pyro Plastics Corp. Golf ball box. 184,403, 2–10–59, Cl. D38—13.

Lloyd, James R., to Cutlas Tool & Mfg. Co. Selectively free wheeling hub. 184,404, 2–10–59, Cl. D14—30.

Luther, Frederic. Microfilm reader. 184,405, 2–10–59, Cl. D61—1.

Mack Trucks, Inc.: *See*—
Bourke, Robert E. 184,388.

Malven, Richard O., to Deere & Co. Fender and dual headlamp unit for agricultural vehicle. 184,406, 2–10–59, Cl. D14—6.

Manning Mfg. Corp.: *See*—
Jones, Charles E., and Crowle. 184,398.

McKinley, William H., to The General Fireproofing Co. Chair base. 184,407, 2–10–59, Cl. D15—6.

Park, Malcolm S.: *See*—
Perla, Martin R., and Park. 184,409.

Pearl, Curtis F., to Zadek Feldstein Co. Inc. Child's toilet seat. 184,408, 2–10–59, Cl. D4—5.

Perla, Martin R., and M. S. Park, to The Singer Mfg. Co. Sewing machine or similar article. 184,409, 2–10–59, Cl. D70—1.

Pyro Plastics Corp.: *See*—
Krome, Martin. 184,403.

Ranieri, George, to Wings Boyswear, Inc. One piece sport shirt. 184,410, 2–10–59, Cl. D3—25.

Schenley Industries, Inc.: *See*—
Du Pree, Ernest L. 184,391.
Du Pree, Ernest L. 184,392.
Du Pree, Ernest L. 184,393.
Du Pree, Ernest L. 184,394.

Schleicher, Carl: *See*—
Gross, Robert. 184,395.

Schorn, Edward. Combined telephone holder, note and index receptacle or similar article. 184,411, 2–10–59, Cl. D26—14.

Singer Mfg. Co., The: *See*—
Perla, Martin R., and Park. 184,409.

Turner, Henry G., to American Telephone and Telegraph Co. Display carrying unit for color telephone sets. 184,412, 2–10–59, Cl. D60—5.

Vogl, Hugh W., to Wilton Tool Mfg. Co., Inc. Swivel base vise. 184,413, 2–10–59, Cl. D34—13.

Wilhelmi, Julius B.: *See*—
Knowlton, David R., and Wilhelmi. 184,401.

Wilhelmi, Julius B. Furniture glide. 184,414, 2–10–59, Cl. D10—6.

Wilhelmi, Julius B. Twin furniture glide. 184,415, 2–10–59, Cl. 10—6.

Wilton Tool Mfg. Co., Inc.: *See*—
Vogl, Hugh W. 184,413.

Wings Boyswear, Inc.: *See*—
Ranieri, George. 184,410.

Zadek Feldstein Co. Inc.: *See*—
Pearl, Curtis F. 184,408.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 10TH DAY OF FEBRUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

A. C. F. Industries, Inc.: *See*—
Furrer, John R. 2,872,881.

Abbott, George V. Tool setting gage for boring machines and the like. 2,872,736, 2–10–59, Cl. 33—172.

Adams, Edmond, J. F. Haben, and A. M. Syeles, to United States of America, Navy. Magnetic flake core. 2,873,225, 2–10–59, Cl. 148—105.

Adams Powel Equipment Ltd.: *See*—
Powel, William S. 2,873,039.

Adolphson, Roy T.: *See*—
Reichert, Allan S., and Adolphson. 2,872,688.

Aggen, George: *See*—
Dyrkacz, Wasil W., Aggen, and Reynolds. 2,873,187.

Ahlgren, Axel W., to Amerock Corp. Sash lock. 2,873,134, 2–10–59, Cl. 292—111.

Air-Shields, Inc.: *See*—
Grosholz, James R. 2,872,917.

Ajem Laboratories, Inc.: *See*—
Dunker, Josef. 2,873,358.

Aktiebolaget Addo: *See*—
Lydfors, John. 2,872,862.

Aktiebolaget Asbrink & Co.: *See*—
Gerdman, Pontus L. 2,873,001.

Aktiengesellschaft Brown, Boveri & Cie.: *See*—
Brandt, Armand. 2,873,419.
Thommen, Hans. 2,873,331.
Ubezio, Lorenzo, and Thommen. 2,873,390.

Aktiengesellschaft Fuer Technische Studien: *See*—
Ergenc, Mehmet S. 2,872,786.

Aladdin Industries, Inc.: *See*—
Coutermash, Louis E. 2,872,824.
Lyman, Harold T. 2,873,360.
Lyman Harold T., and Tupper. 2,873,373.

Alden Products Co.: *See*—
Fricks, Richard E. 2,873,315.

Alderman, Freida B.: *See*—
Alderman, Jerome E. 2,872,926.

Alderman, Jerome E., deceased, by F. B. Alderman, executrix. Electro encephalographic electrode. 2,872,926, 2–10–59, Cl. 128—410.

Allegheny Ludlum Steel Corp.: *See*—
Dyrkacz, Wasil W., Aggen and Reynolds. 2,873,187.

Allen, Arthur C., to Stewart-Warner Corp. High capacity fuel pump. 2,872,871, 2–10–59, Cl. 103—37.

Allen, Herbert, to Cameron Iron Works, Inc. Valve 2,873,085, 2–10–59, Cl. 251—261.

Allen, Kenneth C., to The Hobart Mfg. Co. Weighing scale adapted servomotor system. 2,873,410, 2–10–59, Cl. 318—31.

Allen, Peter W., and G. L. Cavender, to The Federal Machine and Welder Co. Methods of and apparatus for sorting. 2,873,017, 2–10–59, Cl. 198—33.

Allen, William A., to Carrier Corp. Breaker strip construction. 2,873,041, 2–10–59, Cl. 220—9.

Allied Chemical Corp.: *See*—
Nilsson, Karl T., and Vitrone. 2,873,296.

Allis-Chalmers Mfg. Co.: *See*
Brown, Royce N. 2,872,814.
John, Russell W. 2,872,815.
Timmerman, Julius W. 2,873,084.
Toth, Michael. 2,872,993.

Allmang, William: *See*—
Thompson, Ivan P., Allmang, Hartmann, Winter, and Blackbourn. 2,873,224.

Alma Herbert F., to Worthington Corp. Flexible coupling. 2,873,010. 2–10–59, Cl. 192—88.

Altmann, Otto R. P.: *See*—
Jeppson, Kurt J. H., Olson, and Altmann. 2,872,708.

Altschul, Aaron M.: *See*—
King, William H., Altschul, Dechary, and Frampton. 2,873,191.

American Brake Shoe Co.: *See*—
Stein Henry E., Mog and Stertzer. 2,873,120.

American Cyanamid Co.: *See*—
Hopkins, William C., and Senese. 2,873,203.
Jordan, Donald G. 2,872,706.
Miller, Mary L. 2,873,240.
Petropoulos, John C. 2,873,262.

American-Marietta Co., Stoner-Mudge Co. Division: *See*—
Roeser, Gerald P. 2,873,211.
Roeser Gerald P. 2,873,212.

American Optical Co.: *See*—
Thorburn, Milton R. 2,872,841.

American Photographic Instrument Co., Inc.: *See*—
Carogana, Anthony, Levy and Zarel. 2,873,079.

American Radiator & Standard Sanitary Corp.: *See*—
Jones, William A., and Huff. 2,872,812.
Tinker, Townsend. 2,872,998.

American Speedlight Corp.: *See*—
Parker, Harry L. and Michalski. 2,873,408.

American Steel Foundries: *See*—
Polanin, Walter R. 2,873,004.

American Viscose Corp.: *See*
Dunlap, William, and McDermott. 2,872,702.
Meissner, William E. 2,872,760.
Meissner, William E. 2,872,763.
Meissner, William E. 2,872,766.
Pistor Christel, and McDermott. 2,872,701.

Amerock Corp.: *See*
Ahlgren, Axel W. 2,873,134.
Erickson, Karl H. 2,873,023.

Anderson, John W., to Minneapolis-Honeywell Regulator Co. Aircraft automatic condition control apparatus. 2,873,076, 2–10–59, Cl. 244—77.

Anderson, Paul E., and C. R. Fischrupp, to Western Electric Co., Inc. Apparatus for cleaning relays. 2,872,693, 2–10–59, Cl. 15—21.

Ankh Laboratories, Inc.: *See*—
Salisbury, Alvin B., Jr. 2,872,924.

Anulf, Karl A. Automatic telecommunication systems 2,873,323, 2–10–59, Cl. 179—175.2.

Appel, Gerhard H., and E. Tlaker, to Appel Process, Ltd. Plural workpiece forging machines. 2,872,832, 2–10–59, Cl. 78—24.

Appel Process, Ltd.: *See*—
Appel, Gerhard H., and Tlaker. 2,872,832.

Armstrong Cork Co.: *See*
Clark, Lawrence. 2,873,259.
Dunlap, Lawrence H., and Parker. 2,873,201.
Gard, George E. 2,873,345.

Arrowood, John B. Lawn edger. 2,872,732, 2–10–59, Cl. 30—314.

Ashby, George S.: *See*—
Zakrzewski, Andrew S., and Ashby. 2,872,836.

Ashman, Herbert W., to Keasbey & Mattison Co. Building panel units and roofs or walls made therefrom. 2,873,008, 2–10–59, Cl. 189—86.

Ashton, Philip E., to Cuno Engineering Corp. Filter. 2,873,030 2–10–59, Cl. 210—444.

Atchley, Raymond D., and W. E. Harrison, to Midwestern Geophysical Laboratory. Magnetic assembly having galvanometers provided with adjustable locks. 2,873,429, 2–10–59, Cl. 324—154.

Atherton, William A. Paint can attachment. 2,873,052, 2–10–59, Cl. 222—570.

Austin Hoy and Co. Ltd.: *See*—
Proctor, Sidney E. 2,872,826.

Austin Motor Co. Ltd., The: *See*—
Horwood, Norman. 2,873,104.

Austral Products Corp.: *See*—
Dallen, Robert D. 2,872,744.

Automotive Products Co. Ltd.: *See*—
Chouinga, Leslie C. 2,872,905.

Avins, Jack, to Radio Corp. of America. Noise immune signal processing circuit. 2,873,314, 2–10–59, Cl. 178—7.5.

Avrea, Walter C., to Sierra Precision, Inc. Brake travel indicator. 2,873,436, 2–10–59, Cl. 340—52.

Baarsgard, Eli J. Mailbox support. 2,873,080, 2–10–59, Cl. 248—146.

Babcock, John C.: *See*
Campbell, J. A., Babcock, and Hogg. 2,873,286.

Babcock, Samuel. Incinerators. 2,873,101, 2–10–59, Cl. 263—2.

Babcock & Wilcox Co., The: *See*—
Jantscha, Robert, and Kolling. 2,872,908.
Smith, Charles S., and Woolley. 2,872,907.

Badger Paper Mills, Inc.: *See*
Fahrenkrug, Willard J. 2,872,855.

Baevsky, Melvin M., to E. I. du Pont de Nemours and Co. Rust preventative and anti-rust stabilizing compositions 2,873,196, 2–10–59, Cl. 106—14.

Bailes, Richard H., E. S. Long, E. S. Olson, and H. O. Kerlinger, to United States of America, Atomic Energy Commission. Uranium recovery process. 2,873,165, 2–10–59, Cl. 23—14.5.

Bailey, James S., to The Rauland Corp. Automatic cathode ray tube manufacturing apparatus. 2,872,954, 2–10–59, Cl. 141—283.

Bailey Meter Co.: *See*—
Panich, Michael. 2,873,163.

Baker, H. Dale: *See*
Jones, Frank J. 2,873,100.

Baker, James G., to United States of America, Air Force. 36-inch f/3.7 lens. 2,872,845, 2–10–59, Cl. 88—57.

Bakke, Jack W.: *See*
Bakke, John W. 2,872,978.

Bakke, John W., to N. W. and J. W. Bakke, by decree of final distribution. Tire-buffing machine. 2,872,978, 2–10–59, Cl. 164—10.2.

Bakke, Norman W.: *See*
Bakke, John W. 2,872,978.

Baldanza, Nicholas T. Tile constructions and mortarless mounting thereof. 2,872,804, 2–10–59, Cl. 72—19.

Baldwin, Alan W. Composite indicator. 2,873,396, 2–10–59, Cl. 313—64.

Banks, Waldo H.: *See*—
Newbegin, John L., and Banks. 2,872,948.

Barber-Colman Co.: *See*—
Kennedy, Walter W. 2,872,859.
Welker, Oscar L., and Hetchler. 2,873,368.

Barnes, Gladeum M., and N. R. Droulard, to United States of America, Army. Center-guide for fin-stabilized fired round ammunition. 2,872,864, 2-10-59, Cl. 102—38.

Barnes, Rolland D. Heating element. 2,873,250, 2-10-59, Cl. 219—39.

Barrett, Edward J., Jr., and D. Flitter, to E. I. du Pont de Nemours and Co. Alkyd resin composition and metals coated therewith. 2,873,210, 2-10-59, Cl. 117—75.

Barrett, Hillard E., and W. F. Payne, to Curtiss-Wright Corp. Jet engine burner apparatus having means for spreading the pilot flame. 2,872,785, 2-10-59, Cl. 60—39.72.

Baso Inc.: *See*—
Hajny, Charles E. 2,873,328.
Matthews, Russell B. 2,872,972.
Matthews, Russell B. 2,873,069.

Baudry, René A., to Westinghouse Electric Corp. Dual-ventilation hydrogen-cooled generators. 2,873,593, 2-10-59, Cl. 310—55.

Bayley, Frederick J.: *See*
Terrell, Basil J., and Bayley. 2,873,687.

Beaman, Townsend P.: *See*—
Caldwell, William J. 2,872,858.

Bean, Morris, and Co.: *See*
Bean, Morris M. 2,872,715.

Bean, Morris M., to Morris Bean and Co. Method of casting metal around sheet metal inserts. 2,872,715, 2-10-59, Cl. 22—202.

Becker, Otto A. Selectively power-operated drawer structure. 2,873,159, 2-10-59, Cl. 312—228.

Bedingfield, William F. Tire bead breaking tool. 2,872,970, 2-10-59, Cl. 157—1.17.

Bell & Gossett Co.: *See*—
Pratt, Haraden. 2,873,412.

Bell Telephone Laboratories, Inc.: *See*—
Cagle, William B., and Ulrich. 2,873,389.
Chase, Fay H. 2,873,372.
Derick, Lincoln, and Frosch. 2,873,222.
Hill, Henry E. 2,873,317.
Iwerks, Marvin C. 2,873,405.
Kock, Winston E. 2,872,994
Ostendorf, Bernard, Jr. 2,873,383.
Power, James R. 2,873,316.
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Bellmann, Emma E.: *See*—
Bellmann, Eugen. 2,872,802.

Bellmann, Eugen, deceased, by E. E. Bellmann, R. Kronsbein, and F. Bellmann, heirs. Apparatus and systems for treating textile materials. 2,872,802, 2-10-59, Cl. 68—150.

Bellmann, Friedhelm: *See*—
Bellmann, Eugen. 2,872,802.

Belmont, Edward A. Temperature control means for faucets. 2,872,829, 2-10-59, Cl. 74—480.

Bendix Aviation Corp.: *See*—
Owen, John C. 2,873,418.
Schock, Walter E. 2,873,148.
Spencer, Glenn S. 2,872,823

Bennet, Eugene L., to Laboratory Equipment Corp. Magnetic spatula. 2,873,136, 2-10-59, Cl. 294—65.5.

Bentz, Carlos W. Non-choke mower guard shoe. 2,872,771, 2-10-59, Cl. 56—314.

Berends, Werner, to North American Philips Co., Inc. Protecting envelope for X-ray tubes. 2,873,379, 2-10-59, Cl. 250—99.

Bergen Pipesupport Corp.: *See*—
Sparzo, Leonard S. 2,873,078

Bergeson, Raymond L., to Minneapolis-Honeywell Regulator Co. Refueling apparatus. 2,872,811, 2-10-59, Cl. 73—304.

Bergstrom, Eric V., and R. D. Drew, to Socony-Mobil Oil Co., Inc. Gas-solids separation in a pneumatic lift. 2,873,144, 2-10-59, Cl. 302—53.

Bergstrom, Eric V., R. D. Drew, and J. G. Mitchell, to Socony Mobil Oil Co., Inc. Multi-zone kiln. 2,873,177, 2-10-59, Cl. 23—288.

Bernstein, Elliot. Combined fuse and current limiting resistor. 2,873,327, 2-10-59, Cl. 200—135.

Bertuzzi, Andrew P., and M. R. Tek, to Phillips Petroleum Co. Cyclone gas anchor. 2,872,985, 2-10-59, Cl. 166—243.

Bieganski, Wladyslaw J., and L. M. Glickman, to Radio Corp. of America. Magnetic shift register. 2,873,438, 2-10-59, Cl. 340—174.

Bienert, Berthold, K. Breig, and M. Groll, to Farbenfabriken Bayer Akt. Phthalocyanine-sulfonamides and process for their manufacture. 2,873,280, 2-10-59, Cl. 260—314.5.

Bienioek, Chester E., to Union Carbide Corp. Process and agent for treating ferrous materials. 2,873,188, 2-10-59, Cl. 75—130.

Bingham-Herbrand Corp., The: *See*
Hinney, Robert S. 2,872,830.

Birch and Gattone, Inc.: *See*—
Birch, Herbert M., and Gattone. 2,872,923

Birch, Herbert M., and D. H. Gattone, to Birch and Gattone, Inc. Means for administering pressurized medicaments, gases, combinations thereof and liquids into body cavities. 2,872,923, 2-10-59, Cl. 128—184

Bixwell, Charles B., to E. I. du Pont de Nemours and Co. Process for gelling distillate hydrocarbon fuels. 2,873,178, 2-10-59, Cl. 44—7.

Bixenman, Amos E. Aquarium display device. 2,872,749, 2-10-59, Cl. 40—37.

Black, Sivalls & Bryson, Inc.: *See*—
Hansen, Franklin A., and Boetjer. 2,872,938.

Blackbourn, Robert W.: *See*—
Thompson, Ivan P., Allmang, Hartmann, Winter, and Blackbourn. 2,873,224.

Blais, Joseph L., to Tricnit Hosiery Mill. Circular knitting machine. 2,872,795, 2-10-59, Cl. 66—40.

Blase, Edwin W., to Chas. Pfizer & Co., Inc. Antibiotic purification and complex compounds. 2,873,276, 2-10-59, Cl. 260—295.

Block & Anderson Ltd.: *See*—
Brown, Roland. 2,872,896.

Blum, Louis. Fence assembly with panels. 2,873,094, 2-10-59, Cl. 256—31.

Blum, Louis. Terminal, corner and splice connectors for ornamental rail structures. 2,873,093, 2-10-59, Cl. 256—65.

Board, Samuel S., Jr., to Farrel-Birmingham Co., Inc. Storage mechanisms for radioactive material. 2,873,160, 2-10-59, Cl. 312—268.

Boddy, Leonard, to King-Seeley Corp. Liquid level indicating device. 2,873,303, 2-10-59, Cl. 174—32.

Boetjer, John H.: *See*—
Hansen, Franklin A., and Boetjer. 2,872,938.

Boggs, Alben C., to Edwin L. Wiegand Co. Thermal responsive device. 2,873,347, 2-10-59, Cl. 219—19.

Bohlmann, Edward G.: *See*—
Brown, Harrison S., and Bohlmann. 2,873,168.

Bonner, Olga B.: *See*—
Schwab, Max, and Bonner. 2,872,885.

Borders, Robert L., Jr., and G. Sitz. Canopy for automobile serving tray holder. 2,873,139, 2-10-59, Cl. 296—44.

Borey, Daniel S., to Esso Research and Engineering Co. Single vessel coking process. 2,873,247, 2-10-59, Cl. 208—95.

Borg-Warner Corp.: *See*—
Gillespie, Daniel C. 2,873,082.

Borkovec, Alexej B., to The Dow Chemical Co. Polymerization process for olefin oxides. 2,873,258, 2-10-59, Cl. 260—2.

Bostrom, Bernard G.: *See*—
Thieme, Carl G., and Bostrom. 2,873,013.

Botnick, Irlin, to The Kromex Corp. Foldable table with hinged top. 2,873,156, 2-10-59, Cl. 311—60.

Botti, Alfred, to C. M. Hall Lamp Co. Speedometer cable fitting. 2,872,793, 2-10-59, Cl. 64—64.

Botto, Piero, to Officine Botto-Meccanica di Precisione-Societa a r. l. Liquefied petroleum gas pressure mixer. 2,872,911, 2-10-59, Cl. 123—120.

Bourns Laboratories, Inc.: *See*—
Bourns, Marian E., and Hardison. 2,873,340.
Bourns, Marian E., M. E. Harrison and W. T. Hardison. 2,873,337.
Bourns, Marian E., and Richards. 2,873,339.

Bourns, Marian E., M. E. Harrison and W. T. Hardison: said Harrison and said Hardison assignors to Bourns Laboratories, Inc. Variable resistor. 2,873,337, 2-10-59, Cl. 201—62.

Bourns, Marian E., and A. G. Richards; said Richards assor. to Bourns Laboratories, Inc. Variable resistor. 2,873,339, 2-10-59, Cl. 201—62.

Bourns, Marian E., and W. T. Hardison; said Hardison assor. to Bourns Laboratories, Inc. Variable resistor. 2,873,340, 2-10-59, Cl. 201—62.

Bowen, William R., to United States of America, Atomic Energy Commission. Process for the recovery of metal values. 2,873,166, 2-10-59, Cl. 23—14.5.

Bowen, William S. Solar energy apparatus. 2,872,915, 2-10-59, Cl. 126—271

Boyce, William T. Coffee percolator strainer support. 2,873,031, 2-10-59, Cl. 210—480.

Boyer, Ralph K., to The Dill Mfg. Co. Valve stem for tubeless tires. 2,872,963, 2-10-59, Cl. 152—427.

Boylan, Harrison W.: *See*—
Newman, Douglas A., Boylan, Schlotzhauer, and Smatlak. 2,872,863.

Brandi, Otto H. Additional air supply for radiators. 2,873,097, 2-10-59, Cl. 237—137.

Brandt, Armand, to Aktiengesellschaft Brown, Boveri & Cie. Arc-back prevention circuit. 2,873,419, 2-10-59, Cl. 321—48.

Brassfield, Henry C., and C. T. Durham, Jr., to United States of America, Atomic Energy Commission. Method of fabricating small spherical pellets. 2,872,719, 2-10-59, Cl. 25—156.

Bratton, Alfred J., to Oxy-Catalyst, Inc. Room air heater and purifier. 2,873,071, 2-10-59, Cl. 237—2.

Braun, Paul E., to Ford Motor Co. Fuel injection system. 2,872,912, 2-10-59, Cl. 123—139.

Breig, Kurt: *See*—
Bienert, Berthold, Breig, and Groll. 2,873,280.

Brem, Jack W. Continuous servicing plant for automobiles or the like. 2,872,709, 2-10-59, Cl. 20—8.

Brennan, Joseph B. Metal-coated batt and method and apparatus for producing same. 2,873,219, 2-10-59, Cl. 117—227.

Brewer, Jess A.: *See*—
Finegan, James C. 2,872,745.

Brewer, Leo: *See*—
Magel, Theodore T., and Brewer. 2,873,184.

Brewer, Richard D., to Ford Motor Co. Fuel pump. 2,872,877, 2-10-59, Cl. 103—258.

Brewer, William L., Jr.: *See*—
Murphy, Bynum E., Brewer, and Melton. 2,872,770.

Bried, Henry F. Filters. 2,873,028, 2-10-59, Cl. 210—401.

British Nylon Spinners Ltd.: *See*—
Clarkson, Jack. 2,872,707.

British Tabulating Machine Co. Ltd., The: *See*—
Knight, Lorin. 2,873,366.

Brobeck, William M., to United States of America, Atomic Energy Commission. Ion producing mechanisms. 2,873,376, 2-10-59, Cl. 250—41.9.

Brockmann, Alfons: *See*—
Schafer, Fritz, and Brockmann. 2,873,049.

Brod, Martin M.: *See*—
Levine, Bernard, Harris, and Brod. 2,872,723.

Brogdon, Harold F., to Philco Corp. Variable speed washing machine transmission. 2,872,828, 2–10–59, Cl. 74—368.

Brown, Harrison S., and E. G. Bohlmann, to United States of America, Atomic Energy Commission. Recovery of Pu from cerium trifluoride by fluorination. 2,873,168, 2–10–59, Cl. 23—14.5.

Brown, Jack A., and E. H. N. Watson, to The Fairey Aviation Co. Ltd. Gyroscopes. 2,872,822, 2–10–59, Cl. 74—5.12.

Brown, John H., and C. J. Johnson, to Potlatch Forest Inc. Wall board construction. 2,872,712, 2–10–59, Cl. 20—15.

Brown, Julius L., S. J. Odierno, J. Schwarzchild, V. Viasmensky and H. G. Wenig, to United States of America, Army. Grenade fuze. 2,872,866, 2–10–59, Cl. 102—64.

Brown, Roland, to Block & Andreson Ltd. Liquid supplying means for hectographic copying machines. 2,872,896, 2–10–59, Cl. 118—249.

Brown, Royce N., to Allis-Chalmers Mfg. Co. Fluid flow measuring gauge. 2,872,814, 2–10–59, Cl. 73—401.

Brownell, Lloyd E., and S. A. Zieminski, to United States of America, Agriculture. Processing of sugar beets. 2,873,220, 2–10–59, Cl. 127—4.

Bruno, Anthony, and H. Galman. Expanded scale voltmeter. 2,873,428, 2–10–59, Cl. 324—131.

Bryant, Austin U., to Walworth Co. Orifice fitting. 2,873,086, 2–10–59, Cl. 251—282.

Bull, Leslie F.: *See*—
Davies, Drury N., and Bull. 2,873,226.

Burkhardt, Lawrence E.: *See*—
Donahue, William J., Jr., and Burkhardt. 2,872,868.

Burleson, Howard A. Lock seam tubing with multiple independent plies. 2,872,945, 2–10–59, Cl. 138—62.

Burroughs Corp.: *See*—
Dusenbury, Theodore P., and Warren. 2,873,115.

Butler, Henry J., to Dunlop Rubber Co. Ltd. Disc brake for vehicles. 2,873,003, 2–10–59, Cl. 188—73.

Bywater, James E., to Ford Motor Co. Ltd. Linkage mechanism for attachment of mounted implements to tractors and the like. 2,873,125, 2–10–59, Cl. 280—461.

Cagle, William B., and W. Ulrich, to Bell Telephone Laboratories, Inc. Logic circuit. 2,873,389, 2–10–59, Cl. 307—88.5.

Caldwell, William J., to T. F. Beaman. Method and apparatus for pressurized supply and high velocity air control. 2,872,858, 2–10–59, Cl. 98—33.

California Spray-Chemical Corp.: *See*—
Kohn, Gustave K. 2,873,252.

Cameron Iron Works, Inc.: *See*—
Allen, Herbert. 2,873,085.

Campbell, Andrew, Jr., to Houdry Process Corp. Preparation of piperazine. 2,873,274, 2–10–59, Cl. 260—268.

Campbell, J Allan, J. C. Babcock, and J. A. Hogg, to The Upjohn Co. Organic compounds and process. 2,873,286, 2–10–59, Cl. 260—397.45.

Canning, Maurice D., to Western Electric Co., Inc. Conveyor. 2,873,011, 2–10–59, Cl. 193—35.

Caplan, Max: *See*—
Suben, Morten. 2,873,155.

Capuder, Fred C., and J. R. Dearwater, to United States of America, Atomic Energy Commission. Reactor nozzle assembly. 2,873,174, 2–10–59, Cl. 23—284.

Carborundum Co., The: *See*—
Hanford, Carlton M. 2,873,181.
McMullen, John C. 2,873,197.

Carlo Erba S. p. A.: *See*—
Logemann, Willy, and F. Lauria. 2,873,278.

Carogana, Anthony, G. Levy, and F. Zarel, to American Photographic Instrument Co., Inc. Adjustable stand. 2,873,079, 2–10–59, Cl. 248—125.

Carrie, William D., to Crane Co. Parts washer. 2,872,893, 2–10–59, Cl. 118—73.

Carrier Corp.: *See*—
Allen, William A. 2,873,041.
Merrick, Richard H. 2,873,140.

Carroll, John E., and J. G. Murray. Electric arc welding power supply. 2,873,356, 2–10–59, Cl. 219—131.

Cartwright, Herbert K., to D. Napier & Son Ltd. Control apparatus for aircraft propulsion units embodying variable pitch constant speed airscrews. 2,872,986, 2–10–59, Cl. 170—135.74.

Case, J. I., Co.: *See*—
Padrick, John R. 2,872,883.
Redetzke, Emery C. 2,873,149.
Smith, Carlisle F., and Skromme. 2,872,860.

Cash, A. W., Valve Mfg. Corp.: *See*—
Terry, Charles M. 2,872,939.

Castelli, Charles, to Johnson & Johnson. Dispensing device. 2,872,950, 2–10–59, Cl. 141—24.

Catha, Ralph H. Variable timing gear for internal combustion engines. 2,872,910, 2–10–59, Cl. 123—90.

Cavender, Grant L.: *See*—
Allen, Peter W., and Cavender. 2,873,017.

Centolella, Albert P., to Miles Laboratories, Inc. Process for the purification of 2-ethyl-cis-crotonylurea. 2,873,295, 2–10–59, Cl. 260—553.

Central Technical, Inc.: *See*—
Chow, Ho. 2,872,854.

Cepero, Filberto G., to Porta Sorbedores Ygienic, Sociedad Anomina. Holder for drinking straws. 2,873,047, 2–10–59, Cl. 221—260.

Chamberlin, Margaret S.: *See*—
Smith, Charles S., and Woolley. 2,872,907.

Chamness, Abe. Mechanics stool. 2,872,966, 2–10–59, Cl. 155—2.

Chapman, Elijah M. Automatic vise. 2,872,834, 2–10–59, Cl. 81—26.

Chapman, Francis E., to S. C. Johnson & Son, Inc. Water repellent and mar resistant coating composition containing a waxy dialkyl ether. 2,873,202, 2–10–59, Cl. 106—230.

Charleston Hosiery Processing Co., Inc.: *See*—
Davis, Lysander C., Jr., and Richardson. 2,872,800.

Charlton, Maurice G., G. L. Davis, and C. H. R. Gentry, to North American Philips Co., Inc. Deposition of refractory metals and alloys thereof. 2,873,208, 2–10–59, Cl. 117—50.

Chase, Fay H., to Bell Telephone Laboratories, Inc. Electric circuit interrupters. 2,873,372, 2–10–59, Cl. 250—36.

Chemstrand Corp., The: *See*—
Hindle, Walter H. 2,873,164.

Cheng, Wing G. Cigarette cases. 2,873,046, 2–10–59, Cl. 221—227.

Chesebrough-Pond's, Inc.: *See*—
Ganzler, Martin, and Wachtel. 2,873,195.

Chew, Clarence W. Layout instrument. 2,872,733, 2–10–59, Cl. 33—1.

Chouinga, Leslie C., to Automotive Products Co. Ltd. Valve devices for controlling servo-devices of the differential air pressure type. 2,872,906, 2–10–59, Cl. 121—46.5.

Chow, Ho., to Central Technical, Inc. Workpiece supporting clamp. 2,872,854, 2–10–59, Cl. 90—59.

Ciba Ltd.: *See*—
Fasciati, Alfred, Gunst, Riat, and Seitz. 2,873,209.
Geigy, Wilhelm, and Weber. 2,873,206.
Hochuli, Ernst, Osolin, Schuerch, and Zamstein. 2,873,204.

Ciba Pharmaceutical Products, Inc.: *See*—
Rosen, William E. 2,873,281.

Cid Air Structures Co.: *See*—
Mackey, William H. 2,872,933.

Ciauskas, Albert J.: *See*—
Smith, John R., and Ciauskas. 2,872,861.

Claesson, Per H. E.: *See*—
Vigren, Sten D., and Claesson. 2,873,322.

Clark Equipment Co.: *See*—
Schirmer, Walter E. 2,872,992.

Clark, Lawrence, to Armstrong Cork Co. Rubbery flexible closed cell product. 2,873,259, 2–10–59, Cl. 260—2.5.

Clark, Le Roy E. Internal combustion engine manifold heater. 2,873,349, 2–10–59, Cl. 219—38.

Clarke, John S., and S. R. Jackson, to Joseph Lucas (Industries) Ltd. Combustion chambers for jet propulsion engines, gas turbines, or other apparatus. 2,872,971, 2–10–59, Cl. 158—4.

Clarkson, Jack, to British Nylon Spinners Ltd. Production of slivers of staple fibers from tows of continuous filaments. 2,872,707, 2–10–59, Cl. 19—.51.

Clauer, Calvin K.: *See*—
Van Doren, Phillip T. 2,872,823.

Cleland, James E., and A. L. Meyer, to Union Starch & Refining Co. Method of isolating caramel color values. 2,873,193, 2–10–59, Cl. 99—148.

Clem, Everett W., to Rice Barton Corp. Spiral wrapping machine. 2,872,767, 2–10–59, Cl. 53—198.

Cline, Emmett. Shuttle car. 2,872,747, 2–10–59, Cl. 37—124.

Cochran, Elvin P. Jr., and G. A. G. Fazekas. Bearing test apparatus. 2,872,805, 2–10–59, Cl. 73—10.

Cofer, Kenneth B, to Shell Development Co. Production of glycerine. 2,873,298, 2–10–59, Cl. 260—636.

Collins, Rawlings H. Parking structure for automotive vehicles. 2,872,991, 2–10–59, Cl. 180—1.

Collopy Electro-Soil Co.: *See*—
Collopy, Joseph P. 2,873,343.

Collopy, Joseph P., to Collopy Electro-Soil Co. Electromagnetic heater. 2,873,343, 2–10–59, Cl. 219—6.5.

Columbia Ribbon and Carbon Mfg. Co., Inc.: *See*—
Newman, Douglas A., Boylan, Schlotzhauer, and Smatlak. 2,872,863.

Combustion Engineering, Inc.: *See*—
Wittke, Ernest C. 2,873,099.

Combustion Research, Inc.: *See*—
Ross, John. 2,872,928.

Commonwealth Engineering Corp.: *See*—
Lederman, Burton E. 2,873,261.

Conant, Louis A., to Union Carbide Corp. Oxidized chromium-alumina metal ceramic protective tube. 2,872,724, 2–10–59, Cl. 29—182.5.

Consolidated Electrodynamics Corp.: *See*—
Lahti, Arvo A., and MacDonald. 2,873,439.
Lovelace, Donald E. 2,872,813.
Tavis, John R. 2,873,427.

Continental Electrolog Corp.: *See*—
Kollsch, Emil. 2,872,807.

Conway, Hugh G., and K. R. Sherhod, to Short Brothers & Harland Ltd. Parachute and like release mechanism. 2,873,137, 2–10–59, Cl. 294—83.

Cook, Buford, to United States of America, Atomic Energy Commission. Ion switch. 2,873,400, 2–10–59, Cl. 313—231.

Cooper, Paul W., and J. F. O'Brien. Transistorized radio receiver. 2,873,359, 2–10–59, Cl. 250—20.

Corbin, William A. Box kite. 2,873,077, 2–10–59, Cl. 244—153.

Corey, Flournoy. Poultry processing equipment. 2,872,699, 2–10–59, Cl. 17—11.1.

Corhanidis, Sebastien S. Refrigerating means. 2,872,792, 2–10–59, Cl. 62—419.

Cornell-Dubilier Electric Corp.: *See*—
Davidson, Ronald. 2,873,304.

Cornell, George W., ½ to W. E. Cornell, Jr. Mail or like box. 2,873,062, 2–10–59, Cl. 232—17.

Cornell, W. Elder, Jr.: *See*—
Cornell, George W. 2,873,062.

Corry-Jamestown Mfg. Corp.: *See*—
Hutzelman, Howard E. 2,873,150.

Corson, Ben B., and L. H. Schwartzman, to Koppers Co., Inc. Selective sulfonation procedure for separating a 1,3,5-trialkylbenzene from benzene hydrocarbons. 2,873,300, 2–10–59, Cl. 260—674.

Corwin, John F., to Koppers Co., Inc. Urea-formaldehyde gap-filling adhesive. 2,873,260, 2–10–59, Cl. 260—17.3.

Coutermash, Louis E., to Aladdin Industries, Inc. Radio frequency tuner having fine tuning means. 2,872,824, 2–10–59, Cl. 74—10.6.

Cowan, John C.: *See*—
Gast, Lyle E., Cowan, and Treter. 2,873,255.

Cox, Henry C. Construction panel providing sound and heat insulation. 2,872,710, 2–10–59, Cl. 20—2.

Crafts, Curtis S., and H. L. McWhorter, to Miehle-Goss-Dexter, Inc. Apparatus for producing magazines and the like. 2,873,112, 2–10–59, Cl. 270—12.

Crane Co.: *See*—
Carrie, William D. 2,872,895.

Cronberger, Luther C. Magnetic toy building blocks. 2,872,754, 2–10–59, Cl. 46—26.

Cronsten, Axel G. G.: *See*—
Lindstrom, Dag V. L., and Cronsten. 2,873,321.

Crosfield, J. F., Ltd.: *See*—
Crosfield, John F., and Gold. 2,873,117.

Crosfield, John F., and D. Gold, to J. F. Crosfield Ltd. Register control of moving webs. 2,873,117, 2–10–59, Cl. 271—2.6.

Crosman Seed Corp.: *See*—
Mapstone, Herbert W. 2,873,033.

Cross, Willis J., Jr., and A. W. Hoge, to Houdry Process Corp. Lift disengager. 2,873,146, 2–10–59, Cl. 302—59.

Crost, Munsey E., to United States of America, Army. Direct viewing moving target indicator cathode-ray storage tube. 2,873,398, 2–10–59, Cl. 313—66.

Crowther, George A., to Sperry Rand Corp. Fuze setting order computer. 2,873,067, 2–10–59, Cl. 235—61.5.

Crozier, William D., to United States of America, Navy. High velocity gun. 2,872,846, 2–10–59, Cl. 89—7.

Cuno Engineering Corp.: *See*—
Ashton, Philip E. 2,873,030.

Cupedo, Douwe J. Stop valve actuating mechanism. 2,872,820, 2–10–59, Cl. 74—2.

Curtis Automotive Devices, Inc.: *See*—
Frank, Paul A., and Curtis. 2,872,783.

Curtis, Russell R.: *See*—
Frank, Paul A., and Curtis. 2,872,783.

Curtiss-Wright Corp.: *See*—
Barrett, Hillard E., and Payne. 2,872,785.
Mergen, Joseph M., and Tiedeman. 2,872,875.

Currie, Domingo V.: *See*—
Pagliaccetti, Berardo, and Currie. 2,872,977.

Cutler-Hammer, Inc.: *See*—
Gilbert, Thomas M. 2,873,180.

Dahlund, Ervin L., to Fairbanks, Morse & Co. Variable delivery lubricant supply means for engines. 2,873,062, 2–10–59, Cl. 184—6.

Dale Electronics Corp.: *See*—
Elliott, George H. 2,873,338.

Dallen, Robert D., to Austral Products Corp. Removable and reversible combined chalkboard and display board. 2,872,744, 2–10–59, Cl. 35—63.

Dane, Harold B. Internal combustion powered fluid motor and hydraulic propulsion system. 2,872,778, 2–10–59, Cl. 60—12.

Davenport, Ross G. Sub-caliber mechanism including a movable subcaliber barrel. 2,872,850, 2–10–59, Cl. 89—159.

Davidson, Ronald, to Cornell-Dubilier Electric Corp. Sealing means for capacitors. 2,873,304, 2–10–59, Cl. 174—52.

Davies, David O., to Rolls-Royce Ltd. Gas-turbine engine reheat fuel supply system with air turbine driven fuel pump. 2,872,781, 2–10–59, Cl. 60—35.6.

Davies, Drury N., and L. F. Bull, to The Distillers Co. Ltd. Method of making glass reinforced plastic articles. 2,873,226, 2–10–59, Cl. 154—83.

Davis, George L.: *See*—
Charlton, Maurice G., Davis, and Gentry. 2,873,206.

Davis, Lysander C., Jr., and J. W. Richardson, to Charleston Hosiery Processing Co., Inc. Circular knit fabric with raised areas. 2,872,800, 2–10–59, Cl. 66—172.

Day, John T., R. L. Erickson, and R. H. Pettebone, to Merck & Co., Inc. N,N-dialkyl acylamide solvate of 1,4-pregnadiene-17α, 21-diol-3,11,20-trione-21-acylate and process of preparing such. 2,873,284, 2–10–59, Cl. 260—397.45.

Dealer Associates, Inc.: *See*—
Murphy, Bynum E., Brewer, and Melton. 2,872,770.

Dean, Walter N., to Sperry Rand Corp. Pulse synchronizer. 2,873,444, 2–10–59, Cl. 343—103.

Dearwater, Jerold R.: *See*—
Capudet, Fred C., and Dearwater. 2,873,174.

Dechary, Joseph M.: *See*—
King, William H., Altschel, Dechary, and Frampton. 2,873,191.

Deckel, Friedrich W.: *See*—
Muller, Hanns. 2,872,737.

Deckel, Hans: *See*—
Muller, Hanns. 2,872,737.

De Jonge, Jelis: *See*—
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De Lachelsserie, Henri: *See*—
Lamberton, Jean, and de Lachelsserie. 2,873,237.

Denbo, Weldon O. Man's undergarment. 2,872,685, 2–10–59, Cl. 2—224.

Denmark, Herbert H.: *See*—
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Dennis, George P., to Lockers (Engineers) Ltd. Means for generating pulsating direct currents. 2,873,388, 2–10–59, Cl. 307—1.

Derick, Lincoln, and C. J. Frosch, to Bell Telephone Laboratories, Inc. Vapor-solid diffusion of semiconductive material. 2,873,222, 2–10–59, Cl. 148—1.5.

Derossi, Agostino D. Caging device for gyrocompasses having a floating sensitive element. 2,872,821, 2–10–59, Cl. 74—5.1.

De Ruggieri, Petro, and C. Ferrari. Steroids. 2,873,273, 2–10–59, Cl. 260—239.55.

Despard, Victor R., to Pass & Seymour, Inc. Convenience outlet with improved wire and plug blade gripping means. 2,873,433, 2–10–59, Cl. 339—95.

Diamond Gardner Corp.: *See*—
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Diefenbach, Attilio. Centrifugal decanter with horizontal axis, separating drum and discharge of residues by means of a scraper. 2,873,064, 2–10–59, Cl. 233—10.

Dietzgen, Eugene, Co.: *See*—
Weegar, Ralph P., and Umkauf. 2,873,207.

Dijkstra, Rinse, J. de Jonge, and H. A. Klasens, to North American Philips Co., Inc. Process for forming luminescent screens. 2,873,205, 2–10–59, Cl. 117—33.5.

Dill Mfg. Co., The: *See*—
Boyer, Ralph K. 2,872,963.

Dimitriadis, James C. Spring operated teeter totter. 2,873,118, 2–10–59, Cl. 272—55.

Distillers Co. Ltd., The: *See*—
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Doblechek, Dietrich, J. A. Schweitzer, and P. T. Ward, to United States of America, Army. Method of making an electron emitter. 2,873,218, 2–10–59, Cl. 117—222.

Dobson, Austin: *See*—
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Dole Valve Co., The: *See*—
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Donahue, William J., Jr., and L. E. Burkhardt, to United States of America, Navy. Missile nose fuse. 2,872,868, 2–10–59, Cl. 102—78.

Donaldson, Warren J., and J. C. Jacobs, Jr., to General Electric Co. Vibration-attenuating sealing structure. 2,873,411, 2–10–59, Cl. 317—99.

Dorward, John G., Jr., to United States of America, Atomic Energy Commission. Thermally operated vapor valve. 2,873,375, 2–10–59, Cl. 250—41.9.

Dow Chemical Co., The: *See*—
Borkovec, Alexej B. 2,873,258.
Kundiger, Donald G., and Oviat. 2,873,293.
Nummy, William R., and Jones. 2,873,239.
Quigley, Fred K., Jr., and Walters. 2,873,215.
Schweitzer, William K., Jr. 2,873,264.
Wallis, Wilhelm E., and Tousignant. 2,873,192.

Dranetz, Abraham I., to Gulton Industries, Inc. Calibrating system for accelerometers. 2,873,428, 2–10–59, Cl. 324—56.

Drapeau, Harold B., to The Dole Valve Co. Double opening waterline thermostat. 2,873,070, 2–10–59, Cl. 236—34.

Draper Corp.: *See*—
Newbegin, John L., and Banks. 2,872,948.

Drave Corp.: *See*—
Easter, Elmer W. 2,872,943.

Dreeben, Jack. Forming and filling packages and apparatus therefor. 2,872,762, 2–10–59, Cl. 53—28.

Drew, Robert D.: *See*—
Bergstrom, Eric V., and Drew. 2,873,144.
Bergstrom, Eric V., Drew, and Mitchell. 2,873,177.

Droulard, Nelson R.: *See*—
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Dragmond, Lester D., to Edwin L. Wiegand Co. Electric heating. 2,873,342, 2–10–59, Cl. 201—67.

Drum, Raymond F., and L. A. Wenn, to International Business Machines Corp. Insulation piercing terminal. 2,873,434, 2–10–59, Cl. 339—97.

Dudley, Edmond R., and J. H. Quast, to Peerless Equipment Co. Can handling apparatus. 2,873,018, 2–10–59, Cl. 198—33.

Du Mond, Virgil R. Poultry drinking fountain. 2,872,898, 2–10–59, Cl. 119—74.

Duncan, James O. Liquid dispensing device. 2,872,953. 2–10–59, Cl. 141—237.

Dunlap, Lawrence H., and J. A. Parker, to Armstrong Cork Co. Linoleum composition and process of making it. 2,873,201, 2–10–59, Cl. 106—228.

Dunlap, William, and H. J. McDermott, to American Viscose Corp. Apparatus for lacing spinning tubes. 2,872,702, 2–10–59, Cl. 18—8.

Dunlop Rubber Co. Ltd.: *See*—
Butler, Henry J. 2,873,005.

Du Pont de Nemours, E. I., and Co.: *See*—
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Barrett, Edward J., Jr., and Flitter. 2,873,210.
Biswell, Charles R. 2,873,178.
Sniegier, Louis. 2,873,291.

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Dusenburg, Theodore P., and C. G. Warren, to Burroughs Corp. Check shingling attachment for a printing press. 2,873,115, 2–10–59, Cl. 270—58.

Dwyer, Roy P. Jet deflection method of deviating a bore hole. 2,873,092, 2–10–59, Cl. 255—1.6.

Dyrkacz, Wasil W., G. Aggen, and E. E. Reynolds, to Allegheny Ludlum Steel Corp. Austenitic alloys. 2,873,187, 2–10–59, Cl. 75—124.

E. R. A. Patents Ltd.: *See*—
Needham, James C. 2,873,402.

Easter, Elmer W., to Dravo Corp. Spring balanced fluid pressure control valve. 2,872,943, 2–10–59, Cl. 137—622.
Easton, Bernard K., N. Weinberg, and A. P. Shutts, to Food Machinery and Chemical Corp. Peracetic acid treatment of vulcanized rubber. 2,873,213, 2–10–59, Cl. 117—118.
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Eckman, Donald P., to The Warner & Swasey Co. Control system for fluid operated power device. 2,872,934, 2–10–59, Cl. 137—85.
Edmundson, Warren F., to Tubelock Co. Lock for telescopic connections. 2 873,129, 2–10–59, Cl. 287—58.
Ehmann, Leslie G., and H. Nelson, to Electric Steel Foundry Co. Choker hook. 2,872,716, 2–10–59, Cl. 24—123.
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Miller, Harvey A., and Eisler. 2,873,422.
Ekholm, Carl G., to Lidkopings Mekaniska Verkstaas Aktiebolag. Driving mechanism for the regulating wheels of centerless grinding machines. 2,872,757, 2–10–59, Cl. 51—103.
Elam, Lowell S. Electrostatic precipitator. 2,873,000, 2–10–59, Cl. 183—7.
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Eppinger, Charles E. Baby carriages. 2,873,123, 2–10–59, Cl. 280—41.
Erard, Raoul H. Watch. 2 872,776, 2–10–59, Cl. 58—67.
Ergenc, Mehmet S., to Aktiengesellschaft Fuer Technische Studien. Thermal power plant having a variable-speed output turbine. 2,872,786, 2–10–59, Cl. 60—59.
Erickson, Karl H., to Amerock Corp. Transparent display container. 2,873,023, 2–10–59, Cl. 206—45.34.
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Day, John T., Erickson, and Pettebone. 2,873,284.
Erteszek, Olga. Girdle structure. 2,872,927, 2–10–59, Cl. 128—348.
Eschenburg, William A., to Yates-American Machine Co. Table and fence adjusting means for a jointer. 2,872,957, 2–10–59, Cl. 144—253.
Esmay, Donald L., and C. E. Johnson, to Standard Oil Co. Alkoxide synthesis. 2 873,290, 2–10–59, Cl. 260—448.
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Evans, Lyle W., and H. P. La Buff, to Sylvania Electric Products Inc. Cathode ray tube screen process. 2,873,189, 2–10–59, Cl. 96—35.
Ewing, Ralph L. Distributor repair device. 2,872,722, 2–10–59, Cl. 29—76.
F. N. F. Machinery Mfg. Co. Ltd.: *See*—
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Fahrenkrug, Willard J., to Badger Paper Mills, Inc. Machine and method for erecting a carton and integral cover on one operation. 2,872 855, 2–10–59, Cl. 93—51.
Fahrni, Walter. Percussion machine. 2,872,914, 2–10–59, Cl. 125—33.
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Fenton, Russell S. Collapsible doll house construction. 2,872,753, 2–10–59, Cl. 46—12.
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Fink, Heinrich, to SKF Kugellagerfabriken G. m. b. H. Mounting for a spindle base of a spinning and twisting spindle in a textile machine. 2,872,774, 2–10–59, Cl. 57—129.
Fino, Alexander F., to Hammond Iron Works. Adjustable floating roof. 2,873,042, 2–10–59, Cl. 220—26.
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Flowers, Daniel F. Fluid operated power lifting unit for dumping vehicles. 2,872,787, 2–10–59, Cl. 60—97.
Fogg, Russell. Truss for human body. 2,872,918, 2–10–59, Cl. 128—121.
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Fonken, Gunther S., and J. A. Hogg, to The Upjohn Co. 11-oxygenated-17α,20α-epoxy-4-pregnenes. 2,873,272, 2–10–59, Cl. 260—239.55.
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Fournet, Marie R. Hospital bed having laterally adjustable spring sections. 2,872,689, 2–10–59, Cl. 5—90.
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Fraser, Clark L. Dual purpose gear puller and driver 2,872,728, 2–10–59, Cl. 29—256.
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Friday, Paul D., to Paper Maid, Inc. Container with cover lock. 2,873,057, 2–10–59, Cl. 229—2.5.
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Gage, Harold A., to United States of America, Atomic Energy Commission. Leveling metal coatings. 2,873,209, 2–10–59, Cl. 117—51.
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Ganzler, Martin, and G. Wachtel, to Chesebrough-Pond's, Inc. Rust inhibiting composition. 2,873,195, 2–10–59, Cl. 106—14.
Gard, George E., to Armstrong Cork Co. Arc minimizers. 2,873,345, 2–10–59, Cl. 219—10.43.
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Garrison, Allen D., to Texaco Development Corp. Radiation detector. 2,873,390, 2–10–59, Cl. 313—93.
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Gerdman, Pontus L., to Aktiebolaget Asbrink & Co. Cyclone apparatuses for separating solids from flowing air or other gases. 2,873,001, 2–10–59, Cl. 183—58.
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Gey, William A., to United States of America, Navy. Igniter squib. 2,872,870, 2–10–59, Cl. 102—86.5.
Gibbens, Edmund E., to Lockheed Aircraft Corp. Radiation intensity detector. 2,873,302, 2–10–59, Cl. 136—4.
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Gilbert, Thomas M., to Cutler-Hammer, Inc. Gas distribution means. 2,873,180, 2–10–59, Cl. 48—191.
Gill, Joseph, and M. Sackin, to Hagan Chemicals & Controls, Inc. Direct current amplifier. 2,873,320, 2–10–59, Cl. 179—171.
Gillespie, Daniel C., to Borg-Warner Corp. Clip. 2,873,082, 2–10–59, Cl. 248—300.
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Goliber, Edward W., to General Electric Co. Chromium base refractory compositions. 2,872,725, 2–10–59, Cl. 29—182.5.
Goliber, Edward W., to General Electric Co. Sintered hard compositions. 2,872,726, 2–10–59, Cl. 29—182.5.
Goliber, Edward W., to General Electric Co. Hard refractory compositions. 2,873,198, 2–10–59, Cl. 106—65.
Gommels, John P. Hinge construction. 2,872,698, 2–10–59, Cl. 16—168.
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McWhorter, Cedric E. 2,873,021.
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Gossard, Morris G., to Standard Coil Products Co. Inc. Electrical fine tuning device. 2,873,374, 2–10–59, Cl. 250—40.
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Grass, Albert M. Film holding device for cameras. 2,872,842, 2–10–59, Cl. 88—17.
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Hajny, Charles E., to Baso Inc. Thermostat for low power circuits. 2,873,328, 2–10–59, Cl. 200—138.
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Hanford, Carlton M., to The Carborundum Co. Coated abrasive article and method of making. 2,873,181, 2–10–59, Cl. 51—298.
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Hansford Rowland C., and D. A. Young, to Union Oil Co. of California. Hydrocracking catalyst and process. 2,873,246, 2–10–59, Cl. 208—68.
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Heald Machine Co., The: *See*—
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Hiby, Julius W. and F. K., to Simon-Carves Ltd. Regenerators of coke ovens. 2,873,231, 2–10–59, Cl. 202—141.
Hildebrandt, Alexander B., and C. G. Weinel, Jr., to Jersey Production Research Co. Combined rotary and percussion drilling apparatus. 2,873,093, 2–10–59, Cl. 255—3.
Hill, Henry E., to Bell Telephone Laboratories, Inc. Call transmitter. 2,873,317, 2–10–59, Cl. 179—90.
Hill, Joseph H. Fire escape device. 2,873,055, 2–10–59, Cl. 227—30.
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Hochuli, Ernst, H. Osolin, A. Schuerch, and H. Zumstein, to Ciba Ltd. Process for producing embossed prints. 2,873,204, 2–10–59, Cl. 117—11.
Hodges, Merwyn E., to General Electric Co. Electronic relay arrangement for an electric power transmission line protective system. 2,873,410, 2–10–59, Cl. 317—28.
Hoern, Joseph H.; assor. of small percentages to various assignees. Milling and boring machine. 2,872,853, 2–10–59, Cl. 90—15.
Hoerst, Valentine N. Mounting for grinding devices. 2,872,758, 2–10–59, Cl. 51—166.
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Fonken, Gunther S., and Hogg. 2,873,272.
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Korman, Jerome, and Hogg. 2,873,285.
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Holley, Walter H., to McGarry and Cone Ltd. Staple driving mechanism. 2,872,683, 2–10–59, Cl. 1—49.
Hollis, William S., to National Research Development Corp. Forming block with shiftable clamping element for apparatus for working metal stock. 2,872,964, 2–10–59, Cl. 153—48.
Hopkins, Cecil L. Liquid applicator device. 2,872,604, 2–10–59, Cl. 15—139.
Hopkins, William C., and J. G. Senese, Jr., to American Cyanamid Co. Liquid rosin sizes containing anti-stratifying agent. 2,873,203, 2–10–59, Cl. 106—238.
Horn, Heinz, to Felten & Guilleaume Carlswerk Akt. Deep sea submarine cable. 2,873,307, 2–10–59, Cl. 174—102.
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Houdry, Eugene J., to Oxy-Catalyst, Inc. Method for the operation of a boiler and apparatus therefor. 2,872,906, 2–10–59, Cl. 122—4.
Houdry Process Corp.: *See*—
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Housworth, Gordon C., to R. A. Myers. Valve assembly. 2,872 937, 2–10–59, Cl. 137—246.11.
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Huddleston, Frank J., and D. H. Mooney, Jr., to United States of America, Navy. Subminiature servomechanism amplifier. 2,873,364, 2–10–59, Cl. 250—27.
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Humbert, Kingsley E., Jr., to Wix Corp. Screw neck type filter. 2,873,029, 2–10–59, Cl. 210—440.
Hunter, Edward A., and E. M. Gladrow, to Esso Research and Engineering Co. Method of catalyst preparation. 2,873,257, 2–10–59, Cl. 252—465.
Huntoon, Robert D., to United States of America, Navy, Ordnance construction. 2,872,867, 2–10–59, Cl. 102—70.2.
Hutzelman, Howard E., to Correy-Jamestown Mfg. Corp. Roller suspension for a cabinet drawer. 2,873,150, 2–10–59, Cl. 308—3.8.
Hyde, Earl K., and E. A. Raby, to United States of America, Atomic Energy Commission. Anion exchange method for separation of metal values. 2,873,170, 2–10–59, Cl. 23—19.
Hydril Co.: *See*—
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I-T-E Circuit Breaker Co.: *See*—
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Inman, Daniel O. Receptacle liner. 2,873,060, 2–10–59, Cl. 229—31.
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Isrelli, Jack, to Technicon International, Ltd. Automatic immersion apparatus. 2,872,894, 2–10–59, Cl. 118—10.
Iwerks, Marvin C., to Bell Telephone Laboratories, Inc. Symbol generator for cathode ray tubes. 2,873,405, 2–10–59, Cl. 315—22.
Jacaman, Emilio N. Mounting clip and cover for door jamb switch. 2,873,333, 2–10–59, Cl. 200—168.
Jackson, Nolan C., and C. L. Schroeder, to Wichita Precision Tool Co., Inc. Vent clamp for use when cleaning coats. 2,872,718, 2–10–59, Cl. 24—252.
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Donaldson, Warren J., and Jacobs. 2,873,411.
Janson, Harry. One piece hinged case. 2,873,058, 2–10–59, Cl. 220—27.
Janssen, Peter J. H., to North American Philips Co., Inc. Frequency demodulator. 2,873,365, 2–10–59, Cl. 250—27.
Jantscha, Robert, and J. Kolling, to The Babcock & Wilcox Co. Once-through vapor generater. 2,872,906, 2–10–59, Cl. 122—459.
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Jendrisak, Joseph R., to Shatterproof Glass Corp. Apparatus for forming curved glass panes. 2,872,786, 2–10–59, Cl. 49—67.
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Jersey Production Research Co.: *See*—
Graham, John W., Perkins, Prokop, and Saisthiel. 2,873,423.
Hildebrandt, Alexander B., and Weinel. 2,873,093.
Pitts, William A. 2,872,817.
John, Russell W., to Allis-Chalmers Mfg. Co. Fluid flow measuring gauge. 2,872,815, 2–10–59, Cl. 73—401.
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Johnson, Francis M., and V. W. Greenhough, to Rolls-Royce Ltd. Starters for prime movers. 2,872,782, 2–10–59, Cl. 60—39.14.
Johnson Gage Development Co., The: *See*—
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Castelli, Charles. 2,872,950.
Johnson, Julius T. Liquid sampling system. 2,872,818, 2–10–59, Cl. 73—422.
Johnson, Paul W., to The Johnson Gage Development Co. Gaging attachment for testing the centricity of a surface with respect to a thread or other surface. 2,872,739, 2–10–59, Cl. 33—199.
Johnson, Quinton C., to United States of America, Air Force. Manual and automatic latch mechanism. 2,873,138, 2–10–59, Cl. 294—83.
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Chapman, Francis E. 2,873,202.
Greenlee, Sylvan O. 2,873,200.
Jones, Daniel C.: *See*—
Kurek, Thaddeus M., Popp, and Jones. 2,872,890.
Jones, Dougan L., to The Marley Co. Method of producing finned tubing. 2,872,730, 2–10–59, Cl. 29—496.
Jones, Frank J., ½ to H. D. Baker. Coal cutting and loading machine. 2,873,100, 2–10–59, Cl. 262—9.
Jones, Frank O., Jr., to Pan American Petroleum Corp. Non-clay-reactive drilling fluid. 2,873,251, 2–10–59, Cl. 252—8.5.
Jones, Giffin D.: *See*—
Nummy, William R., and Jones. 2,873,230.
Jones, William A., and J. F. Huff, to American Radiator & Standard Sanitary Corp. Pressure measuring means. 2,872,812, 2–10–59, Cl. 73—398.
Jonkers, Cornelius O., and J. W. L. Köhler, to North American Philips Co., Inc. Gas liquefying apparatus. 2,872,789, 2–10–59, Cl. 62—6.
Jonsson, Einar. Torsion spring. 2,873,110, 2–10–59, Cl. 267—57.1.
Jordan, Donald G., to American Cyanamid Co. Apparatus for polymerizing vinyl monomers. 2,872,706, 2–10–59, Cl. 18—39.

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Murphy, Donald D. 2,873,022.

Joyce-Cridland Co., The: *See*—
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Justi, H. D., & Son, Inc.: *See*—
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Katz, David L., to United States of America, Army. Double expansion ball float gas system for a firearm. 2,872,851, 2-10-59, Cl. 89—193.

Kay, John G., and J. K. Rye, to F. Jos. Lamb Co. Devices for receiving, storing and discharging workpieces or machine parts. 2,873,019, 2-10-59, Cl. 198—37.

Kay, John G., to F. Joseph Lamb Co. Storage and delivery apparatus. 2,873,020, 2-10-59, Cl. 198—103.

Kazan, Benjamin, to Radio Corp. of America. Electroluminescent device. 2,873,380, 2-10-59, Cl. 250—213.

Kearney, George W. Pipe aligning tool. 2,872,886, 2-10-59, Cl. 113—102.

Keasbey & Mattison Co.: *See*—
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Keith, Willis C., to Sinclair Refining Co. Thermal process for preparing butadiene from butene-2. 2,873,301, 2-10-59, Cl. 260—680.

Keiser, Eugene O., to Radio Corp. of America. Color television switching circuits. 2,873,406, 2-10-59, Cl. 315—28.

Kelley, Leon P. Safety hook. 2,872,717, 2-10-59, Cl. 24—232.

Kellogg, M. W., Co., The: *See*—
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Kelly, Walter B., to I-T-E Circuit Breaker Co. Snubber for quick break attachment. 2,873,325, 2-10-59, Cl. 200—48.

Kennedy, Walter W., to Barber-Colman Co. Air distribution unit. 2,872,859, 2-10-59, Cl. 98—35.

Kenney, Robert W. Valve mechanism. 2,872,935, 2-10-59, Cl. 137—172.

Kerley, James J., Jr.: *See*—
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Kessi, Willy, to Stila S. A. Watertight wrist-watch case. 2,872,777, 2-10-59, Cl. 58—90.

Kidd, Marshall C., to Radio Corp. of America. Controllable translator clipping circuit. 2,873,387, 2-10-59, Cl. 307—88.5.

Kienzle Apparate G. m. b. H.: *See*—
Schiel, Rudolf. 2,873,386.

Kilbebrew, Jessie O. Door frame construction. 2,872,711, 2-10-59, Cl. 20—11.

King-Seeley Corp.: *See*—
Boddy, Leonard. 2,873,206.

King, William F., to General Motors Corp. Apparatus for compensating quadrature resolved unbalance components. 2,872,819, 2-10-59, Cl. 73—462.

King, William H., to United States of America, Agriculture. Detoxifying cottonseed meal. 2,873,190, 2-10-59, Cl. 99—2.

King, William H., A. M. Altschul, J. M. Dechary, and V. L. Frampton, to United States of America, Agriculture. Preparation of cottonseed meal suitable for unrestricted use in laying hen diets. 2,873,191, 2-10-59, Cl. 99—4.

Kinsman, Clarence W. Pulley with punched bracket. 2,873,091, 2-10-59, Cl. 254—191.

Kirkpatrick, Alton, to Stone & Webster Engineering Corp. Steam condenser deaeration. 2,873,096, 2-10-59, Cl. 157—24.

Kirkpatrick, Vida E. Walking-aid apparatus. 2,872,947, 2-10-59, Cl. 155—22.

Kise, William J. Remotely operated wrench adapter. 2,872,837, 2-10-59, Cl. 81—55.

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Metrailer, Francis M. 2,873,121.

Klaarus, Hendrik A.: *See*—
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Kline, Granville B., to Eli Lilly and Co. Process for synthesizing glutamine. 2,873,294, 2-10-59, Cl. 260—518.

Kling, Nelson G., to Technicon International Ltd. Automatic immersion apparatus. 2,872,893, 2-10-59, Cl. 118—10.

Knasko, Joseph J. Method and system for adjusting television. 2,873,313, 2-10-59, Cl. 178—7.5.

Knight, Lorin, to The British Tabulating Machine Co. Ltd. Electronic computing apparatus. 2,873,366, 2-10-59, Cl. 250—27.

Knowles, Edward R., to The Specialty Papers Co. Apparatus for injection molding of plastic bottles. 2,872,700, 2-10-59, Cl. 18—5.

Kober, William, to TKM Electric Corp. Dynamoelectric machine. 2,873,395, 2-10-59, Cl. 310—112.

Koch, Gustav H., and R. S. Radcliffe, to Westinghouse Electric Corp. Air translating apparatus. 2,872,968, 2-10-59, Cl. 170—169.

Kock, Winston E., to Bell Telephone Laboratories, Inc. Acoustic transmission systems. 2,872,994, 2-10-59, Cl. 181—.5.

Kocks, Friedrich, and A. Hinkel. Inductor device. 2,873,344, 2-10-59, Cl. 219—10.43.

Kodra, Esper, to Joy Mfg. Co. Compressor. 2,873,061, 2-10-59, Cl. 230—212.

Koester, Melvin C., to Libbey-Owens-Ford Glass Co. Shipping container for glass sheets. 2,873,024, 2-10-59, Cl. 206—62.

Kohle-scheidungs-Gesellschaft m. b. H.: *See*—
Fischer, Adalbert. 2,873,037.

Köhler, Jacob W. L.: *See*—
Jonkers, Cornelius O., and Köhler. 2,872,789.

Köhler, Jacob W. L., to North American Philips Co., Inc. Single-acting hot-gas reciprocating engine. 2,872,779, 2-10-59, Cl. 60—24.

Kohn, Gustave K., to California Spray-Chemical Corp. Method of inhibiting corrosion of ferrous metal surfaces. 2,873,252, 2-10-59, Cl. 252—8.55.

Koltsch, Emil, to Continental Electroleg Corp. Equipment for determining the center of gravity of an aircraft. 2,872,807, 2-10-59, Cl. 73—65.

Kolling, Johann: *See*—
Jantsche, Robert, and Kolling. 2,872,906.

Kolmar Laboratories, Inc.: *See*—
Wick, Waldemar J. 2,873,229.

Kolpin, Howard H. Firearm case attachment. 2,872,960, 2-10-59, Cl. 150—52.

Kono, Alexander, to Kono Mfg. Co. Inc. Test lens holder for eyeglass frames. 2,872,843, 2-10-59, Cl. 88—20.

Kono Mfg. Co. Inc.: *See*—
Kono, Alexander. 2,872,843.

Koontz-Wagner Electric Co., Inc.: *See*—
Kurtis, James F. 2,873,326.

Koppers Co., Inc.: *See*—
Corson, Ben B. and Schwartzman. 2,873,300.
Corwin, John F. 2,873,260.

Korman, Jerome, and J. A. Hogg, to The Upjohn Co. 1,4,17(20)-pregnatrienes. 2,873,271, 2-10-59, Cl. 260—397.3.

Korman, Jerome, and J. A. Hogg, to The Upjohn Co. 1,4,17(20)-pregnatrienes. 2,873,285, 2-10-59, Cl. 260—397.45.

Kosmin, Milton, to Monsanto Chemical Co. Motor fuel. 2,873,182, 2-10-59, Cl. 52—.5.

Kraft, Richard A., to Motorola, Inc. Television synchronization. 2,873,369, 2-10-59, Cl. 250—36.

Krause, Charles A.: *See*—
Schoen, Seymour, and Krause. 2,873,384.

Kreissler, Karl-Heinz. Apparatus for producing and automatically delivering fruit-flavoured soda water into drinking vessels. 2,872,932, 2-10-59, Cl. 141—105.

Kremiller, Arthur E.: *See*—
Goldring, John E., and Kremiller. 2,872,901.

Kromex Corp., The: *See*—
Botnick, Irlin. 2,873,156.

Kronsbein, Ruth: *See*—
Bellmann, Eugen. 2,872,802.

Krueger, Harvey F. and R. F., ½o to Gadget-Of-The-Month Club, Inc. Educational puzzle game. 2,872,741, 2-10-59, Cl. 35—9.

Krueger, Ruth F.: *See*—
Krueger, Harvey F. and R. F. 2,872,741.

Kundiger, Donald G., and R. R. Oviatt, to The Dow Chemical Co. Bis(α-chloro-isobutyrates) of dihydroxybenzenes. 2,873,293, 2-10-59, Cl. 260—479.

Kurek, Thaddeus M., R. G. Popp, and D. C. Jones, to The Martin Co. Towing hook for seaplanes. 2,872,890, 2-10-59, Cl. 114—235.

Kurtis, James F., to Koontz-Wagner Electric Co., Inc. Electrical apparatus. 2,873,326, 2-10-59, Cl. 200—104.

Kutsay, Ali U. Electric strain gauge and resistance units therefor. 2,873,341, 2-10-59, Cl. 201—63.

Labarre, Maurice, to Specialties Alimentaires Bourguignonnes (S. A. B.). Apparatus for injection moulding of plastic material. 2,872,706, 2-10-59, Cl. 18—30.

Laboratory Equipment Corp.: *See*—
Bennet, Eugene L. 2,873,136.

La Buff, Hugh P.: *See*—
Evans, Lyle W., and La Buff. 2,873,189.

Lahti, Arvo A., and D. N. MacDonald, to Consolidated Electrodynamics Corp. Digital to analog converting apparatus. 2,873,439, 2-10-59, Cl. 340—347.

Laing, George F., Bicycle rack. 2,873,034, 2-10-59, Cl. 211—17.

Lal Joginder, to H. D. Justi & Son, Inc. Polymerization of unsaturated compounds in the presence of bactericidal phenates of phenols and thiophenols. 2,873,263, 2-10-59, Cl. 260—45.4.

Lamb, F. Jos., Co.: *See*—
Kay, John G., and Rye. 2,873,019.

Lamb, F. Joseph, Co.: *See*—
Kay, John G. 2,873,020.

Lambert, Donald R., to Powers-Samas Accounting Machines Ltd. Paper-feeding mechanism. 2,873,116, 2-10-59, Cl. 271—2.4.

Lambert, Harry L., to Royal McBee Corp. Separable cartridge for an inked printing ribbon. 2,873,014, 2-10-59, Cl. 197—151.

Lambert, Henri J. M., and G. P. Mongin. Wall cabinet. 2,873,161, 2-10-59, Cl. 312—292.

Lamberton Jean, and H. de Lachelaserie, to Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieries d'Ugine. Method of separating isotopes. 2,873,237, 2-10-59, Cl. 204—125.

Lampa, William, and J. L. Terranova; said Terranova, assor. to said Lampa. Hypodermic needle cleaning and drying apparatus. 2,872,931, 2-10-59, Cl. 134—99.

Landis, George G., to The Lincoln Electric Co. Electrode holder. 2,873,337, 2-10-59, Cl. 219—138.

Langer, Arthur W., Jr.: *See*—
Thompson, Charles E., Stewart, and Langer. 2,873,243.

Lannert, Paul. Outlet heater for aerosol-type dispenser. 2,873,351, 2-10-59, Cl. 219—39.

Larkin and Co. Inc.: *See*—
Renouf, Ralph R. 2,872,983.

La Spiratechnique: *See*—
Rosset, Pierre. 2,872,919.
Rosset, Pierre. 2,872,920.

Laurent, Andre J. M. Shock cushioning wheel. 2,872,962, 2-10-59, Cl. 152—10.

Lauria, Francesco: *See*—
Legrmann, Willy, and Lauria. 2,873,278.

Laurosch, Thomas J., to United States of America, Navy. Rotary scanning device. 2,873,381, 2-10-59, Cl. 250—236.

Lawrence, Owen N., to Joseph Lucas (Industries) Ltd. Liquid fuel control means for jet engines. 2,872,784, 2-10-59, Cl. 60—39.28.

Lawson, Paul C., to Pittsburgh Plate Glass Co. Apparatus for bending glass. 2,872,735, 2-10-59, Cl. 49—67.

Lederman, Burton E., to Commonwealth Engineering Corp. Hammered metal finish compositions and method of making the same. 2,873,261, 2–10–59, Cl. 260—18.

Leister, Fayette, to The Fafnir Bearing Co. Locking means for securing a bearing to a shaft. 2,873,128, 2–10–59, Cl. 287—52.09.

Leister, Fayette, to The Fafnir Bearing Co. Pillow block. 2,873,151, 2–10–59, Cl. 308—28.

Lekas, John P., to North American Aviation, Inc. Tape recorder and transcriber drive system. 2,873,073, 2–10–59, Cl. 242—55.12.

Lemaigre-Voreaux, Pierre, to Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares-Etablissements Claude-Paz & Silva. Method for manufacturing a hollow electron-emissive electrode. 2,873,217, 2–10–59, Cl. 117—201.

Leonard, Thomas E. Pedal and switch structure for vehicles. 2,873,407, 2–10–59, Cl. 315—80.

Le Poole, Jan B., to North American Philips Co., Inc. Method of examining the quality of electron-optical images and devices for carrying out this method. 2,873,378, 2–10–59, Cl. 250—49.5.

Leslie, Robert W., and G. P. Jennings, to Phillips Petroleum Co. Process and apparatus for making carbon black and quenching smoke from carbon black furnaces. 2,873,172, 2–10–59, Cl. 23—209.4.

Leupold, Karl: *See*—
Tripmacher, Richard, and Leupold. 2,873,102.

Levine, Bernard, A. M. Harris, and M. M. Brod, to United Aircraft Corp. Method of balancing synchro-tie devices. 2,872,723, 2–10–59, Cl. 29—155.5.

Levinthal Electronics Products, Inc.: *See*—
Pound, Robert V. 2,873,370.

Levy, Gus: *See*—
Carogana, Anthony, Levy, and Zarel. 2,873,079.

Lewis, George E., to Hydril Co. Electrical control and indicating system. 2,872,940, 2–10–59, Cl. 137—554.

Lewis, Robert O., Jr. Variable resistance circuit controller. 2,873,335, 2–10–59, Cl. 201—51.

Libbey-Owens-Ford Glass Co.: *See*—
Koester, Melvin C. 2,873,024.

Librascope, Inc.: *See*—
Miller, Carl A. 2,873,441.

Lidkopings Mekaniska Verkstaas Aktiebolag: *See*—
Ekholm, Carl G. 2,872,737.

Lilly, Eli, and Co.: *See*—
Kline, Granville B. 2,873,294.

Lincoln Electric Co., The: *See*—
Landis, George G. 2,873,357.

Lindahl, Ernest. Medicament applicator for the tongue. 2,872,925, 2–10–59, Cl. 128—260.

Lindenblad, Nils E., to Radio Corp. of America. Thermoelectric cooling apparatus. 2,872,788, 2–10–59, Cl. 62—3.

Lindstrom, Dag V. L., and A. G. G. Cronsten. Device for indication of a certain communication path and/or its electrical characteristics. 2,873,321, 2–10–59, Cl. 179—175.2.

Link-Belt Co.: *See*—
Henry, Robert R. 2,873,032.

Lockers (Engineers) Ltd.: *See*—
Dennis, George P. 2,873,383.

Lockheed Aircraft Corp.: *See*—
Gibbens, Edmond E. 2,873,302.

Logemann, Willy, and F. Lauria, to Carlo Erba S. p. A. Certain 4-acyl-1,2-diphenyl-3,5-dioxopyrazolidines. 2,873,278, 2–10–59, Cl. 260—310.

Logmann, Arthur A. and F. M. Hess, to Pullman-Standard Car Mfg. Co. Car roof assembly method. 2,872,729, 2–10–59, Cl. 29—407.

Long, Ray S.: *See*—
Bailes, Richard H., Long, Olson, and Kerlinger. 2,873,165.

Longfield, William F. to The Federal Machine and Welder Co. Press apparatus. 2,872,886, 2–10–59, Cl. 113—38.

Lord, George W., to National Research Development Corp. Cold rolling mills. 2,872,833, 2–10–59, Cl. 80—38.

Lorentzen, Hans K., to Lorentzen Hardware Mfg. Corp. Cord lock fitting. 2,872,976, 2–10–59, Cl. 160—173.

Lorentzen Hardware Mfg. Corp.: *See*—
Lorentzen, Hans K. 2,872,976.

Lorens, Anton. Article of repose for supporting the body of a person. 2,872,968, 2–10–59, Cl. 155—106.

Lovelace, Donald E., to Consolidated Electrodynamics Corp. Symmetrical transducer. 2,872,813, 2–10–59, Cl. 73—398.

Lowery, John M., to Radio Corp. of America. Tube tester. 2,873,424, 2–10–59, Cl. 324—26.

Lucas, Joseph (Industries), Ltd.: *See*—
Clarke, John S., and Jackson. 2,872,971.
Lawrence, Owen N. 2,872,784.

Ludwig, Walter D. Hand valve. 2,872,944, 2–10–59, Cl. 137—625.47.

Lumber Fabricators, Inc.: *See*—
Odegaard, John C., and Grohert. 2,872,714.

Lux, Eugene J. Vending machines. 2,873,012, 2–10–59, Cl. 194—2.

Lydfors, John, to Aktiebolaget Addo. Symbol printing mechanisms in listing calculating machines and the like. 2,872,862, 2–10–59, Cl. 101—93.

Lyman, Harold T., to Aladdin Industries, Inc. Very high frequency tuner convertible to intermediate frequency amplifier. 2,873,360, 2–10–59, Cl. 250—20.

Lyman, Harold T., and M. M. Tupper, to Alladin Industries, Inc. Wide-range radio-frequency tuner. 2,873,373, 2–10–59, Cl. 250—40.

Lyons, Lawrence J., to Fairbanks, Morse & Co. Weighing scale system. 2,873,107, 2–10–59, Cl. 265—70.

M. R. M. Machinery Co., Inc.: *See*—
Manas, Herman D. 2,873,040.

M. S. S. Recording Co. Ltd.: *See*—
Mee, Charles D. 2,873,319.

Maccarone, Fred. Shoemaking. 2,872,746, 2–10–59, Cl. 36—76.

Macco Corp.: *See*—
Greiner, Leroy J., and Ebbage. 2,873,437.

MacDonald, Duncan N.: *See*—
Lahti, Arvo A., and MacDonald. 2,873,439.

Machlett Laboratories, Inc.: *See*—
Doolittle, Howard D. 2,873,401.

MacKellar, Donald G., to Food Machinery and Chemical Corp. Manufacture of mercuric acetate. 2,873,289, 2–10–59, Cl. 260—431.

Mackey, William H., to Cid Air Structures Co. Air-inflated drilling rig cover. 2,872,933, 2–10–59, Cl. 135—1.

Madden, Charles L. Flat deck conveyances. 2,872,880, 2–10–59, Cl. 105—368.

Magel, Theodore T., to United States of America, Atomic Energy Commission. Apparatus for high purity metal recovery. 2,873,108, 2–10–59, Cl. 266—13.

Magel, Theodore T., and L. Brewer, to United States of America, Atomic Energy Commission. Thermal decomposition of uranium compounds. 2,873,184, 2–10–59, Cl. 75—84.

Magel, Theodore T., to United States of America, Atomic Energy Commission. Deposition of metal on nonmetal filament. 2,873,185, 2–10–59, Cl. 75—84.

Magnetic Heating Corp.: *See*—
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Maier, Karl W., to Olin Mathieson Chemical Corp. Cartridge actuated tool. 2,872,682, 2–10–59, Cl. 1—44.5.

Mair, James, to Goslin-Birmingham Mfg. Co., Inc. Evaporator. 2,872,974, 2–10–59, Cl. 159—20.

Maire, Georges, to Tavannes Watch Co. S. A. Watch movement. 2,872,775, 2–10–59, Cl. 58—30.

Mamzic, Charles L., to Moore Products Co. Leak testing apparatus. 2,872,806, 2–10–59, Cl. 73—40.

Manas, Herman D., to M. R. M. Machinery Co., Inc. Label applying means. 2,873,040, 2–10–59, Cl. 216—55.

Manteuffel, Allan: *See*—
Wolfram, George, and Manteuffel. 2,873,254.

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Jeppson, Kurt J. H., Olson, and Altmann. 2,872,706.

Mapstone, Herbert W., to Crosman Seed Corp. Display rack. 2,873,033, 2–10–59, Cl. 211—2.

Marker, Harold F. Piston packing rings and method of producing same. 2,873,154, 2–10–59, Cl. 309—29.

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Jones, Dougan L. 2,872,730.

Marsh, Richard E., to The Hallicrafters Co. Variable inductor. 2,873,431, 2–10–59, Cl. 336—135.

Martin Co., The: *See*—
Kurek, Thaddeus M., Popp, and Jones. 2,872,880.
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Monk, Samuel A., and Matthews. 2,872,797.

Matthews, Dennis, and B. F. Swannick, to S. A. Monk, Ltd. (Sutton in Ashfield). Draw mechanism for straight-bar knitting machines. 2,872,798, 2–10–59, Cl. 66—110.

Matthews, Harry C.: *See*—
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Matthews, Russell B., to Bass Inc. Fuel flow control device. 2,872,972, 2–10–59, Cl. 158—129.

Matthews, Russell B., to Bass Inc. Flow control devices. 2,873,060, 2–10–59, Cl. 236—1.

Maul, Michael. Feeding devices for record card machines. 2,873,114, 2–10–59, Cl. 270—58.

Mauney, Paul: *See*—
Neisler, Charles E., Jr., and Mauney. 2,872,690.

Maurer, Hans. Water closet appliance. 2,872,687, 2–10–59, Cl. 4—7.

Mayfield, Burleigh M. Line guide for fishing rods. 2,872,751, 2–10–59, Cl. 43—24.

Maytag Co., The: *See*—
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McClellan, Paul P., to Jefferson Chemical Co., Inc. Catalytic process for producing alkylene carbonates. 2,873,282, 2–10–59, Cl. 260—340.2.

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Miller, Harry C., Taylor, and McCoy. 2,873,162.

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McDermott, Henry J.: *See*—
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McFarland, Fred: *See*—
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McGee, James D. Electron image multiplier apparatus. 2,872,721, 2–10–59, Cl. 29—25.14.

McKay, Alexander S., to The Texas Co. Method of analyzing compositions. 2,873,377, 2–10–59, Cl. 250—43.5.

McKay, John F., to Esso Research and Engineering Co. Emulsion coating composition containing synthetic drying oil and process of making it. 2,873,199, 2–10–59, Cl. 106—138.

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McKenney, Henry F., to Sperry Rand Corp., Ford Instrument Co. Division. Electrical multiplier. 2,873,066, 2–10–59, Cl. 235—185.

McMullen, John C., to The Carborundum Co. Refractory fibrous material. 2,873,197, 2–10–59, Cl. 106—50.

McRae, Edwin C., to Ford Motor Co. Distributor mechanism. 2,873,324, 2–10–59, Cl. 200—31.

McWhorter, Cedric E., to Goodman Mfg. Co. Belt conveyor and articulator therefor. 2,873,021, 2–10–59, Cl. 198—109.

McWhorter, Henry L.: *See*—
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McWhorter, Henry L., to Miehle-Goss-Dexter, Inc. Apparatus for producing magazines and the like. 2,873,113, 2–10–59, Cl. 270—12.
Mee, Charles D., to M. S. S. Recording Co. Ltd. Magnetic tape recording and reproducing system and apparatus. 2,873,319, 2–10–59, Cl. 179—100.2.
Meinelt, Arno, to VEB Sprio-Werke. Lubricant distributing pump. 2,873,003, 2–10–59, Cl. 184—27.
Meissner, William E., to American Viscose Corp. Method for packaging fluid materials. 2,872,760, 2–10–59, Cl. 53—20.
Meissner, William E., to American Viscose Corp. Process and apparatus for packaging flowable materials. 2,872,763, 2–10–59, Cl. 53—29.
Meissner, William E., to American Viscose Corp. Apparatus for packaging fluid flowable materials. 2,872,766, 2–10–59, Cl. 53—140.
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Mergen, Joseph M., and R. K. Thoreman, to Curtiss-Wright Corp. Hydraulic power units. 2,872,875, 2–10–59, Cl. 103—161.
Merian, Ernst, to Saul & Co., as nominee of Fidelity Union Trust Co., executive trustee under Sanden Trust. Monoazo dyestuffs. 2,872,270, 2–10–59, Cl. 260—205.
Merrick, Richard H., to Carrier Corp. Liquid distribution system. 2,873,140, 2–10–59, Cl. 299—25.
Mers, Henry. Power operated drawing-lead sharpener. 2,872,900, 2–10–59, Cl. 120—96.
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Meyer, Delbert H., to Standard Oil Co. Preparation of methyl and ethyl esters of aromatic carboxylic acids. 2,873,292, 2–10–59, Cl. 260—475.
Meyer, Peter. Cam cutting machines. 2,872,852, 2–10–59, Cl. 90—13.4.
Michael, Louis S. Method of loading small items into constricted space. 2,872,761, 2–10–59, Cl. 53—24.
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Mierendorf, Robert C., to Square D Co. Electric welder control system. 2,873,421, 2–10–59, Cl. 323—58.
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Miller, Carl A., to Librascope, Inc. Converter. 2,873,441, 2–10–59, Cl. 340—347.
Miller, Harry C., J. L. Taylor, and H. M. McCoy. Security means for closure cabinets. 2,873,162, 2–10–59, Cl. 312—297.
Miller, Harvey A., and H. Eisler, to Raytheon Mfg. Co. Magnetic amplifier pulse generators. 2,873,422, 2–10–59, Cl. 313—89.
Miller, Mary L., to American Cyanamid Co. Preparation of graft copolymers. 2,873,240, 2–10–59, Cl. 204—158.
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Minneapolis-Honeywell Regulator Co.: *See*—
Anderson, John W. 2,873,076.
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Minnesota Mining & Mfg. Co.: *See*—
Rollie, Robert D. 2,873,025.
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Paul, Robert E. 2,872,882.
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Moe, William W., to Time, Inc. Modulator with photoelectric signal source and compressor for facsimile. 2,873,312, 2–10–59, Cl. 178—7.1.
Moe, William W., to Time, Inc. Circuit for producing a so-called non-linearity in a generally linear voltage transfer characteristic. 2,873,362, 2–10–59, Cl. 250—27.
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Monk, Samuel A., and Matthews. 2,872,797.
Monk, Samuel A., and D. Matthews, to S. A. Monk (Sutton in Ashfield) Ltd. Speed controlling mechanism for straight-bar knitting machines. 2,872,797, 2–10–59, Cl. 66—82.
Monsanto Chemical Co.: *See*—
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Montclair Research Corp.: *See*—
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Mooers, Alden J., and C. E. Vogel, to Minneapolis-Honeywell Regulator Co. Automatic hovering control system. 2,873,075, 2–10–59, Cl. 244—17.13.
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Morgan, Jack L., to Yates-American Machine Co. Heat exchange apparatus. 2,873,098, 2–10–59, Cl. 257—236.
Morgan, Thomas H. Vibrator. 2,872,902, 2–10–59, Cl. 121—17.
Moser, John F., Jr., to Esso Research and Engineering Co. Circulating finely divided solids. 2,873,145, 2–10–59, Cl. 502—53.
Moses, Charles. Flexible type shoe tree with free end membranes. 2,872,692, 2–10–59, Cl. 12—115.8.
Moskovitz, Milton A., ½ to H. Frankel. Ball joint assembly. 2,873,130, 2–10–59, Cl. 287—90.
Most, David, to Rush Instrument Co., Inc. Portable high voltage power supply. 2,873,409, 2–10–59, Cl. 315—219.
Motorola, Inc.: *See*—
Kraft, Richard A. 2,873,369.
Pepperberg, Louis E. 2,873,361.
Muller, Hanns, to H. and P. W. Deckel. Lever gage assembly. 2,872,737, 2–10–59, Cl. 33—172.
Murphy, Bynum E., W. L. Brewer, Jr., and A. E. Melton, to Dealer Associates, Inc. Brush cutter. 2,872,770, 2–10–59, Cl. 56—25.4.
Murphy, Donald D., to Joy Mfg. Co. Self-aligning belt idler. 2,873,022, 2–10–59, Cl. 198—202.
Murray, John G.: *See*—
Carroll, John E., and Murray. 2,873,356.
Myers, Russel A.: *See*—
Hemsworth, Gordon C. 2,872,937.
Myers, William G.: *See*—
Sigler, Howard R., Myers, and Harrison. 2,872,727.
Myllenberg, Sven B., and K. Warnstrom. Liquid spraying mechanisms, particularly for dish washing machines. 2,873,141, 2–10–59, Cl. 299—71.
Napier, D., & Son Ltd.: *See*—
Cartwright, Herbert K. 2,872,886.
National Cash Register Co., The: *See*—
Schoen, Seymour, and Krause. 2,873,384.
National Research Development Corp.: *See*—
Hollis, William S. 2,872,964.
Lord, George W. 2,872,833.
Needham, James C., to E. R. A. Patents Ltd. Electric arc welding systems. 2,873,402, 2–10–59, Cl. 314—135.
Needle Industries Ltd.: *See*—
Sanders, Norman T. 2,872,892.
Neisler Bros., Inc.: *See*—
Neisler, Charles E., Jr., and Mauney. 2,872,690.
Neisler, Charles E., Jr., and P. Mauney, to Neisler Bros., Inc. Inflatable device of predetermined surface contour and method of making same. 2,872,690, 2–10–59, Cl. 5—348.
Nelson, Herbert: *See*—
Ehmann, Leslie G., and Nelson. 2,872,716.
Neumann, Gerhard, to General Electric Co. Lightweight rotor construction. 2,873,088, 2–10–59, Cl. 253—77.
Neumeyer, Martin J., to Sunbeam Corp. Endothermic gas generator. 2,873,173, 2–10–59, Cl. 23—281.
Newbegin, John L., and W. H. Banks, to Draper Corp. Automatic bobbin replenishing loom. 2,872,948, 2–10–59, Cl. 139—247.
Newell, William H.: *See*—
Zabb, Norman J., McKenney, and Newell. 2,873,068.
Newman, Douglas A., H. W. Boylan, A. T. Schlotzhauer, and G. J. Smatlak, to Columbia Ribbon and Carbon Mfg. Co., Inc. Hectograph duplicating. 2,872,862, 2–10–59, Cl. 101—149.4.
Ney, Edward P., R. B. Thorness, and J. R. Winckler, to United States of America, Navy. Tension component measuring means. 2,872,808, 2–10–59, Cl. 73—144.
Nieuwenhuis, Garmt J., and C. C. Harrison. Spray drying apparatus for liquid material. 2,872,973, 2–10–59, Cl. 159—4.
Nieuwenhuis, Garmt J., and C. C. Harrison. Method and apparatus for preparing and filtering animal blood for drying. 2,873,026, 2–10–59, Cl. 210—67.
Nijland, Louis M., and P. W. Haaijman, to North American Philips Co., Inc. Method of subjecting semi-conductive bodies to a thermal treatment under the action of foreign material. 2,873,221, 2–10–59, Cl. 148—1.5.
Niklas, Wilfrid F. K. J., to North American Philips Co., Inc. Method of increasing the work function of metal parts for example for electric discharge tubes. 2,873,223, 2–10–59, Cl. 148—4.
Nilsen Mfg. Co.: *See*—
Nilsen, Peter J. 2,873,413.
Nilsen, Peter J., to Nilsen Mfg. Co. Phase-shifting capacitor. 2,873,413, 2–10–59, Cl. 317—253.
Nilsson, Karl T., and J. Vitrone, Jr., to Allied Chemical Corp. Cyclohexanone. 2,873,296, 2–10–59, Cl. 260—586.
Noble, Jack D. Portable batching plant. 2,873,036, 2–10–59, Cl. 214—2.
Nolt, Edwin B., to Sperry Rand Corp. Adjustable windguard for baler pick-up. 2,872,772, 2–10–59, Cl. 56—364.

North American Aviation, Inc.: *See*—
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Wanlass, Cravens L. 2,873,363.

North American Philips Co., Inc.: *See*—
Sennett, Ro[illegible]. 2,873,346.
Berenda, Werner. 2,873,379.
Charlton, Maurice G., Davis, and Gentry. 2,873,208.
Dijkstra, Rinse, de Jonge, and Klasens. 2,873,205.
Janssen, Peter J. H. 2,873,365.
Jonkers, Cornelius O., and Köhler. 2,873,780.
Köhler, Jacob W. L. 2,872,779.
Le Poole, Jan B. 2,873,378.
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Nummy, William R., and G. D. Jones, to The Dow Chemical Co. Process for making 2-mercaptoethyl ethers of diols. 2,873,239, 2–10–59, Cl. 204—158.

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O'Callaghan, Jerome J., to The Rauland Corp. Cathode-ray tube manufacturing apparatus. 2,872,897, 2–10–59, Cl. 118—317.

Odegaard, John C., and H. Grobert, to Lumber Fabricators, Inc. Threshold. 2,872,714, 2–10–59, Cl. 20—64.

Odierno, Silvio J.: *See*—
Brown, Julius L., Odierno, Schwarzschild, Viasmensky, and Wenig. 2,872,866.

Officine Botto-Meicanica di Precisione-Societa a. r. l.: *See*—
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Ohlinger, Leo A.: *See*—
Wigner, Eugene P., Ohlinger, Young, and Weinberg. 2,873,243.

Ohlinger, Leo A., and G. J. Young, to United States of America, Atomic Energy Commission. Method of making jacketed fissionable slug. 2,873,238, 2–10–59, Cl. 204—154.2.

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Maier, Karl W. 2,872,682.
Ramsay, Marcus. 2,872,720.
Thomas, Robert M. 2,873,230.

Olson, Knut E.: *See*—
Jeppson, Kurt J. H., Olson, and Altmann. 2,872,706.

Olson, Mark W., V. Fournier, and I. D. Dobbs, to United States Rubber Co. Method of making resin-lined rubber containers. 2,873,227, 2–10–59, Cl. 154—83.

Olson, Robert S.: *See*—
Bailey, Richard H., Long, Olson, and Kerlinger. 2,873,165.

Olympia Werke A. G.: *See*—
Hess, Hans. 2,873,016.

O'Rourke, Neil W. Variable result game apparatus. 2,873,119, 2–10–59, Cl. 273—138.

Osborn, George E., and H. C. Matthews. Sitz bath for toilet seat. 2,872,686, 2–10–59, Cl. 4—6.

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Hochuli, Ernst, Osolin, Schnerch, and Zumstein. 2,873,204.

Ostendorf, Bernard, Jr., to Bell Telephone Laboratories, Inc. Transistor data storage and gate circuit. 2,873,385, 2–10–59, Cl. 307—88.5.

Otto, Harold M. deceased (by Schenectady Trust Co., executor), to United States of America, Army. Multibarrel gun with skewed bore axes. 2,872,847, 2–10–59, Cl. 89—12.

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Kundiger, Donald G., and Ovist. 2,873,293.

Owen, John C., to Bendix Aviation Corp. Servosystem pitch control for aircraft. 2,873,418, 2–10–59, Cl. 318—489.

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Oxy-Catalyst, Inc.: *See*—
Bratton, Alfred I. 2,873,071.
Houdry, Eugene J. 2,872,906.

Padrick, John R., to J. I. Case Co. Planter runner guard. 2,872,883, 2–10–59, Cl. 111—86.

Page, Robert H.: *See*—
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Pagliaccetti, Berardo, and D. V. Curzio. Roll-up blinds. 2,872,977, 2–10–59, Cl. 160—220.

Palmer, Winslow, to Sperry Rand Corp. Hyperbolic navigation receiver. 2,873,445, 2–10–59, Cl. 343—103.

Pan American Petroleum Corp.: *See*—
Jones, Frank O., Jr. 2,873,251.
Runge, Richard J. 2,872,996.
Scott, Platho P., Jr. 2,873,250.

Panich, Michael, to Bailey Meter Co. Pen lifting and chart support for recording meters. 2,873,163, 2–10–59, Cl. 346—68.

Paper Maid, Inc.: *See*—
Friday, Paul D. 2,873,057.

Parker, Harry L., and M. A. Michalski, to American Speedlight Corp. Light flash producing system. 2,873,406, 2–10–59, Cl. 315—183.

Parker, John A.: *See*—
Dunlap, Lawrence H., and Parker. 2,873,201.

Parkmaster Systems Inc.: *See*—
Porter, William J. 2,873,089.

Parsons and Marine Engineering Turbine Research and Development Association: *See*—
Terrell, Basil J., and Bayley. 2,873,087.

Pass & Seymour, Inc.: *See*—
Despard, Victor R. 2,873,433.

Passal, Frank, to Metal & Thermit Corp. Electrodeposition of copper. 2,873,234, 2–10–59, Cl. 204—52.

Passal, Frank, to Metal & Thermit Corp. Electrodeposition of copper. 2,873,235, 2–10–59, Cl. 204—52.

Patterson, Everett R. Dental floss holder. 2,872,930, 2–10–59, Cl. 132—192.

Paul, Robert R., to Minnesota and Ontario Paper Co. Vapor resisting roof structure. 2,872,882, 2–10–59, Cl. 105—6.

Paulsen, Hans C., to United Shoe Machinery Corp. Cement handling apparatus. 2,872,916, 2–10–59, Cl. 126—343.5.

Payne, John W., F. R. Ray, and H. W. Shea, to Socony Mobil Oil Co., Inc. Gas solids separation in a pneumatic lift. 2,873,147, 2–10–59, Cl. 302—59.

Payne, William F.: *See*—
Barrett, Hillard R., and Payne. 2,872,785.

Peck, George, to Scovill Mfg. Co. Sewing machine attachment. 2,872,884, 2–10–59, Cl. 112—2.

Peel, Robert, to Fidelity Machine Co., Inc. Jack selection mechanism for circular knitting machines. 2,872,796, 2–10–59, Cl. 66—50.

Peerless Equipment Co.: *See*—
Dudley, Edmond R., and Quast. 2,873,018.

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Smith, John R., and Ciasuskas. 2,872,861.

Pepperberg, Louis E., to Motorola, Inc. Radio receiver. 2,873,361, 2–10–59, Cl. 250—20.

Péras, Lucien, to Regie Nationale des Usines Renault, and R. Petrignani. Safety seat for motor vehicles. 2,873,122, 2–10–59, Cl. 280—29.

Perkins, Frederick M., Jr.: *See*—
Graham, John W., Perkins, Prokop, and Salathiel. 2,873,423.

Perlman, Isadore: *See*—
Seaborg, Glenn T., and Perlman. 2,873,160.

Perlmutter, Samuel. Drapery hook support. 2,872,894, 2–10–59, Cl. 16—87.4.

Perrine, Sterling O., to The Wean Engineering Co., Inc. Apparatus for trimming strip. 2,872,980, 2–10–59, Cl. 164—60.

Petropoulos, John C., to American Cyanamid Co. Novel alkyd resins prepared from indan-dicarboxylic acids and the process of preparing the same. 2,873,262, 2–10–59, Cl. 260—22.

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Day, John T., Erickson, and Pettebone. 2,873,284.

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Blase, Edwin W. 2,873,276.

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Schnable, George L. 2,873,214.
Schnable, George L. 2,873,216.
Schnable, George L. 2,873,232.
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Leslie, Robert W., and Jennings. 2,873,172.
Richardson, Joseph D. 2,872,936.

Phillips, Roy. Brake adjustment mechanism. 2,873,006, 2–10–59, Cl. 188—196.

Pike, Robert D., deceased (The Stamford Trust Co., executor), and K. B. Ray. Continuous iron ore reduction process. 2,873,183, 2–10–59, Cl. 75—35.

Pinkham, William A., Jr. Dispenser for rolled tissues. 2,873,158, 2–10–59, Cl. 312—39.

Pistor, Christel, and H. J. McDermott, to American Viscose Corp. Artificial yarn producing apparatus. 2,872,701, 2–10–59, Cl. 18—8.

Pitts, William A., to Jersey Production Research Co. Fluid sampler. 2,872,817, 2–10–59, Cl. 73—422.

Pittsburgh Plate Glass Co.: *See*—
Lawson, Paul C. 2,872,755.

Plasser, Franz, and J. Theurer. Track tamping machine. 2,872,878, 2–10–59, Cl. 104—12.

Pneuma-Serve Ltd.: *See*—
Zakrzewski, Andrew S., and Ashby. 2,872,838.

Polanin, Walter R., to American Steel Foundries. Roter brake. 2,873,004, 2–10–59, Cl. 188—59.

Popell, Samuel J. Food chopper. 2,872,958, 2–10–59, Cl. 146—160.

Popp, Robert G.: *See*—
Kurek, Thaddeus M., Popp, and Jones. 2,872,890.

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Cepero, Filiberto G. 2,873,047.

Porter, Allan W. H., and S. T. Sheppard, to F. N. F. Machinery Mfg. Co. Ltd. Knitting machinery. 2,872,790, 2–10–59, Cl. 66—120.

Porter, William J., to Parkmaster Systems Inc. Shuttle for carrying automotive vehicles. 2,873,089, 2–10–59, Cl. 254—5.

Potlatch Forest Inc.: *See*—
Brown, John H., and Johnson. 2,872,712.

Pound, Robert V., to Levinthal Electronics Products, Inc. Microwave pulse generator. 2,873,370, 2–10–59, Cl. 250—36.

Powel, William S., to Adams Powel Equipment Ltd. Packing. 2,873,089, 2–10–59, Cl. 216—025.

Power, James R., to Bell Telephone Laboratories, Inc. Party line lock-out circuit. 2,873,316, 2–10–59, Cl. 179—17.

Powers-Samas Accounting Machines Ltd.: *See*—
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Pratt, Haraden, to Bell & Gossett Co. Rotary solenoid. 2,873,412, 2–10–59, Cl. 317—192.

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Pratt, Ward E., and Farr. 2,873,127.

Pratt, Ward E., deceased (by M. M. Pratt, executrix), and C. L. Farr, deceased (by C. L. Farr, Jr., executor), to Worthington Corp. Mechanical seal. 2,873,127, 2–10–59, Cl. 286—11.15.

Praturlon, Joseph. Rotary press comprising a plurality of tool groups. 2,872,887, 2–10–59, Cl. 113—42.

Proctor, Sidney E., to Austin Hoy and Co. Ltd. Tool-carrying chains. 2,872,826, 2–10–59, Cl. 74—246.

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Logmann, Arthur A., and Hess. 2,872,729.
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Wolfram, George, and Manteuffel. 2,873,254.
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Wilkinson, George, and Eaton. 2,873,194.
Quast, John H.: *See*—
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Quigley, Fred K., Jr., and H. A. Walters, to The Dow Chemical Co. Coated iron and method and compositions for preparing the same. 2,873,215, 2–10–59, Cl. 117—132.
Quintilian, Bartholomew F., to Gereter May Corp. of Maryland. Hydraulic pump or motor. 2,872,872, 2–10–59, Cl. 103—126.
Raboy, Bernard, to The Martin Co. Radar system. 2,873,443, 2–10–59, Cl. 343—16.
Raby, Bruce A.: *See*—
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Avins, Jack. 2,873,314.
Bieganski, Wladyslaw J., and Glickman. 2,873,438.
Gray, Sidney. 2,873,397.
Kazan, Benjamin. 2,873,380.
Keizer, Eugene O. 2,873,406.
Kidd, Marshall C. 2,873,387.
Lindenblad, Nils E. 2,872,788.
Lowery, John M. 2,873,424.
Sass, Earl J., and Torre. 2,873,309.
Sonnenfeldt, Richard W. 2,873,311.
Zawels, Jakob. 2,873,367.
Ramsay, Marcus, to Olin Mathieson Chemical Corp. Rifling device. 2,872,720, 2–10–59, Cl. 29—1.1.
Ramsden, Hugh E., to Metal & Thermit Corp. Process of reacting acid derivatives with specified organomagnesium chlorides. 2,873,275, 2–10–59, Cl. 260—293.
Ramsden, Hugh E., to Metal & Thermit Corp. Process for preparing vinyl tin compounds. 2,873,287, 2–10–59, Cl. 260—429.7.
Ramsden, Hugh E., to Metal & Thermit Corp. Process of reacting olefin oxides with specified organomagnesium chlorides. 2,873,297, 2–10–59, Cl. 260—613.
Randall, David I., and J. Taras, to General Aniline & Film Corp. Halogenation of phthalocyanines. 2,873,279, 2–10–59, Cl. 260—314.5.
Rasmussen, Volney K., to United States of America, Navy. Rocket base fuse. 2,872,869, 2–10–59, Cl. 102—81.
Rauland Corp., The: *See*—
Bailey, James S. 2,872,954.
O'Callaghan, Jerome J. 2,872,897.
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Ray, Kenneth B.: *See*—
Pike, Robert D. 2,873,183.
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Redetzke, Emery C., to J. I. Case Co. Cultivator tool holder. 2,873,149, 2–10–59, Cl. 306—1.5.
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Reichert, Allan S., and R. T. Adolphson, to Shampaine Co. Hospital beds. 2,872,688, 2–10–59, Cl. 5—63.
Reifers, Richard F., to Diamond Gardner Corp. Egg carton. 2,873,060, 2–10–59, Cl. 229—25.
Reiter, William L., S. J. Gartner, and H. W. Roeber, to Sylvania Electric Products Inc. Tension spring machine. 2,872,949, 2–10–59, Cl. 140—71.
Rémy, René C. Breathing regulator with float-assisted exhalation valve. 2,872,921, 2–10–59, Cl. 128—142.
Rémy, René C. Breathing regulator with exhalation valve assisted by gravity responsive means. 2,872,922, 2–10–59, Cl. 128—142.
Renouf, Ralph R., to Larkin and Co. Inc. Hydraulic cement retaining shoe. 2,872,983, 2–10–59, Cl. 166—141.
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Tate, Roger W., Rex, and Hemminger. 2,873,248.
Rex, Walter A.: *See*—
Tate, Roger W., Rex, and Hemminger. 2,873,248.
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Fasciati, Alfred, Gunst, Riat, and Reitz. 2,873,289.
Rice Barton Corp.: *See*—
Clem, Everett W. 2,872,767.
Rice, John H. Device for cleaning teeth. 2,872,929, 2–10–59, Cl. 132—91.
Rich, Edward L., and R. H. Turner; said Rich assor. to said Turner. Adaptor plugs for cameras. 2,872,857, 2–10–59, Cl. 95—11.5.
Rich, Stanley R. Supports for mechanical vibrators. 2,873,392, 2–10–59, Cl. 310—26.
Richards, Alan G.: *See*—
Bourns, Marian E., and Richards. 2,873,239.
Richardson, James W.: *See*—
Davis, Lysander C., Jr., and Richardson. 2,872,800.
Richardson, Joseph D., to Phillips Petroleum Co. Liquid phase separation control. 2,872,936, 2–10–59, Cl. 137—172.
Richey, David M., to Embart Mfg. Co. Fluid lock valve. 2,872,903, 2–10–59, Cl. 121—40.
Rimaha, Victor E., to The Dole Valve Co. Flow control valve. 2,873,083, 2–10–59, Cl. 251—121.
Rittner, Edmund S., to North American Philips Co., Inc. Photovoltaic device. 2,873,303, 2–10–59, Cl. 136—89.
Roberts, Mary A. Scribing device. 2,872,735, 2–10–59, Cl. 33—95.
Roberts, William B., to Sarkes Tarzian, Inc. Selenium rectifier. 2,873,414, 2–10–59, Cl. 317—241.
Robinson, Eric E., to Rotax Ltd. Excitation means for alternating electric current generators. 2,873,420, 2–10–59, Cl. 322—27.
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Reiter, William L., Gartner, and Roeber. 2,872,949.
Roeder, Rolf H., to Worthington Corp. Governor. 2,873,103, 2–10–59, Cl. 264—19.
Roeser, Gerald P., to American-Marietta Co., Stoner-Mudge Co. Division. Carboxylic-nitrile-acrylate ester coating composition, process and coated product. 2,873,211, 2–10–59, Cl. 117—103.
Roeser, Gerald P., to American-Marietta Co., Stoner-Mudge Co. Division. Carboxylic-nitrile-vinyl ether coating compositions, process and coated product. 2,873,212, 2–10–59, Cl. 117—103.
Rogers, Louis E. Button hole guide. 2,872,738, 2–10–59, Cl. 33—190.
Rollie, Robert D., to Minnesota Mining & Mfg. Co. Packaging device. 2,873,025, 2–10–59, Cl. 206—65.
Rolls-Royce Ltd.: *See*—
Davies, David O. 2,872,781.
Johnson, Francis M., and Greenhough. 2,872,782.
Ross, William P. Coin-operated bottle dispenser apparatus. 2,872,045, 2–10–59, Cl. 221—133.
Rosen, Louis. Trousers' leg measuring device. 2,872,734, 2–10–59, Cl. 33—8.
Rosen, William E., to Ciba Pharmaceutical Products, Inc. Preparation of bis-quaternary ammonium compounds. 2,873,281, 2–10–59, Cl. 260—319.
Rosenberg, Sanders D., and A. J. Gibbons, Jr., to Metal & Thermit Corp. Process for the preparation of vinyl tin compounds. 2,873,288, 2–10–59, Cl. 260—429.7.
Rosenberger, Albert J., to Republic Flow Meters Co. Linkage mechanism for indicating instrument. 2,872,816, 2–10–59, Cl. 73—406.
Rosenthal, Harry. Ironing device. 2,872,748, 2–10–59, Cl. 38—99.
Rosier, Edward A. Abrading wheel dressing apparatus. 2,872,913, 2–10–59, Cl. 125—11.
Ross, John, to Combustion Research, Inc. Means and methods for extracting from tobacco smoke deleterious ingredients. 2,872,928, 2–10–59, Cl. 131—208.
Rosset, Pierre, to La Spirotechnique. Diver's breathing apparatus. 2,872,919, 2–10–59, Cl. 128—142.
Rosset, Pierre, to La Spirotechnique. Diver's breathing regulator with floating diaphragm. 2,872,920, 2–10–59, Cl. 128—142.
Rotax Ltd.: *See*—
Robinson, Eric E. 2,873,420.
Royal McBee Corp.: *See*—
Gray, James A. 2,873,015.
Lambert, Harry L. 2,873,014.
Royennr, Stanley H.: *See*—
Schaefer, Peter R., Wojciak, and Royennr. 2,873,235.
Ruberti, William J. Spacer for justifying lines of type. 2,872,850, 2–10–59, Cl. 95—4.5.
Rudd, Wallace C., to Magnetic Heating Corp. Welding of helically formed tubing. 2,873,353, 2–10–59, Cl. 219—62.
Runge, Richard J., to Pan American Petroleum Corp. Seismic wavelet contraction. 2,872,996, 2–10–59, Cl. 181—.5.
Rush Instrument Co., Inc.: *See*—
Most, David. 2,873,409.
Rust, John B., ½ to Montclair Research Corp., and ½ to Ellis-Foster Co. Process for preparing copolymers of organo silicon derivatives. 2,873,265, 2–10–59, Cl. 260—46.5.
Rutledge, Richard E., Sr. Paint can holder and scraper. 2,873,044, 2–10–59, Cl. 220—90.
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Salisbury, Alvin B., Jr., to Ankh Laboratories, Inc. Apparatus for mixing and administering medicines. 2,872,924, 2–10–59, Cl. 128—216.
Salzmann, Karl. Fishing-line leading bob. 2,872,752, 2–10–59, Cl. 43—44.9.
Sanders, Norman T., to Needle Industries Ltd. Counting devices for use with knitting needles. 2,872,892, 2–10–59, Cl. 116—133.
Sandoz A. G.: *See*—
Steinemann, Willy. 2,873,267.
Steinemann, Willy. 2,873,268.
Sandoz Trust: *See*—
Merian, Ernst. 2,873,270.
Saris, Aris P.: *See*—
Hatch, Howard R. 2,873,256.
Sarkes Tarzian, Inc.: *See*—
Roberts, William B. 2,873,414.
Sass, Earl J., and A. J. Torre, to Radio Corp. of America. Radio communications systems. 2,873,309, 2–10–59, Cl. 178—5.4.
Saul & Co.: *See*—
Merian, Ernst. 2,873,270.

Schaefer, Peter R., T. J. Wojciak, and S. H. Royennr, to Union Carbide Corp. Gas shielded metal arc welding torch. 2,873,353, 2–10–59, Cl. 219—130.

Schaevitz Bros., Inc.: *See*—
Schaevitz, Charles S. 2,872,704.
Schaevitz, Charles S. 2,872,740.

Schaevitz, Charles S., to Schaevitz Bros., Inc. Recapping machine. 2,872,704, 2–10–59, Cl. 18—18.

Schaevitz, Charles S., to Schaevitz Bros., Inc. Drying machine. 2,872,740, 2–10–59, Cl. 34—68.

Schafer-Flottmann & Co. G. m. b. H.: *See*—
Schafer, Fritz, and Brockmann. 2,873,049.

Schafer, Fritz, and A. Brockmann, to Schafer-Flottmann & Co. G. m. b. H. Process and apparatus for distributing a fluidized solid material. 2,873,049, 2–10–59, Cl. 222—1.

Scheerbarth, Maximilian, to North American Philips Co., Inc. Housing for electro-acoustic apparatus. 2,872,997, 2–10–59, Cl. 181—31.

Schirmer, Walter E., to Clark Equipment Co. Drive mechanism for trailer. 2,872,992, 2–10–59, Cl. 180—14.

Schlei, Rudolf, to Kienzle Apparate G. m. b. H. Process and device for generating electrical pulse groups. 2,873,386, 2–10–59, Cl. 307—88.5.

Schlotzhauer, Allan T.: *See*—
Newman, Douglas A., Boylan, Schlotzhauer, and Smatlak. 2,872,863.

Schmid, Wolfgang: *See*—
Voester, Reinhold and W., and Schmid. 2,872,695.

Schmidt, Paul. Pulse jet engine with acceleration chamber. 2,872,780, 2–10–59, Cl. 60—35.6.

Schmitz, James E. and V. O. Combination foot controlled swing cut-off miter and rip saw. 2,872,955, 2–10–59, Cl. 143—46.

Schmitz, Vincent O.: *See*—
Schmitz, James E. and V. O. 2,872,955.

Schnable, George L., to Philco Corp. Method of chemically plating metals. 2,873,214, 2–10–59, Cl. 117—130.

Schnable, George L., to Philco Corp. Method of chemically plating metals. 2,873,216, 2–10–59, Cl. 117—200.

Schnable, George L., to Philco Corp. Method of electrodepositing metals. 2,873,233, 2–10–59, Cl. 204—32.

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Schnier, I. F., Co., Inc.: *See*—
Schnier, Robert F., and McFarland. 2,873,038.

Schnier, Robert F., and F. McFarland, to I. F. Schnier Co., Inc. Stopper for wire-hooded bottles. 2,873,038, 2–10–59, Cl. 215—047.

Schock, Walter E., to Bendix Aviation Corp. Automatic braking device. 2,873,148, 2–10–59, Cl. 303—63.

Schoen, Seymour, and C. A. Krause, to The National Cash Register Co. Dynamic pulse gating transistor circuitry. 2,873,384, 2–10–59, Cl. 307—88.5.

Schott, Andrew F. Abacus with magnetic means for holding unit counters in position. 2,872,742, 2–10–59, Cl. 35—33.

Schroeder, Christie L.: *See*—
Jackson, Nolan, C. and Schroeder. 2,872,718.

Schuerch, Anton: *See*—
Hochuli, Ernst, Osolin, Schuerch, and Zumstein. 2,873,204.

Schuessler, Karl E., to United States of America, Navy. Gun blast suppressor. 2,872,848, 2–10–59, Cl. 89—14.

Schultz, Frank A., and R. W. Strickland, to Western Electric Co., Inc. Article severing and discharging mechanism. 2,872,979, 2–10–59, Cl. 164—48.

Schulze, Harald, to Sperry Products Inc. Methods and means for coupling an ultrasonic transducer to a test specimen. 2,873,391, 2–10–59, Cl. 310—8.3.

Schwab, Max, deceased; O. B. Schwab, nee Bonner, sole devisee of said M. Schwab. Electric sewing machines. 2,872,885, 2–10–59, Cl. 112—219.

Schwab, Olga B.: *See*—
Schwab, Max and O. B. 2,872,885.

Schwartz, Herbert. Method for inhibiting the formation and growth of slime in water systems. 2,873,240, 2–10–59, Cl. 210—64.

Schwartzman, Louis H.: *See*—
Corson, Ben B., and Schwartzman. 2,873,300.

Schwarzschild, Jack: *See*—
Brown, Julius L., Odierno, Schwarzschild, Viasmensky, and Wenig. 2,872,866.

Schweiter, Walter, to Maschinenfabrik Schweiter A. G. Collector for yarn bobbins. 2,873,063, 2–10–59, Cl. 232—43.1.

Schweitzer, John A.: *See*—
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Schweitzer, William K., Jr., to The Dow Chemical Co. Vinyl aromatic polymers stabilized with dimethylalkylene diamines. 2,873,264, 2–10–59, Cl. 260—43.9.

Scott, Platho P., Jr., to Pan American Petroleum Corp. Composition for plugging highly permeable formations. 2,873,250, 2–10–59, Cl. 252—8.5.

Scovill Mfg. Co.: *See*—
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Scragg, Ernest P. R., and A. Dobson, to Ernest Scragg & Sons Ltd. False twisting devices for textile yarns and the like. 2,872,769, 2–10–59, Cl. 57—77.45.

Scragg, Ernest, & Sons Ltd.: *See*—
Scragg, Ernest P. R., and Dobson. 2,872,769.

Seaborg, Glenn T., and I. Perlman, to United States of America, Atomic Energy Commission. Basic perocide precipitation method of separating plutonium from contaminants. 2,873,169, 2–10–59, Cl. 23—14.5.

Sears, Daniel S.: *See*—
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Seegrist, Theodore A. Coat hanger. 2,873,053, 2–10–59, Cl. 223—98.

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Shampaine Co.: *See*—
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Shaffer, Perry, to United States of America, Air Force. Venturi flow meter. 2,872,810, 2–10–59, Cl. 73—213.

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Shea, Howard W.: *See*—
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Shell Development Co.: *See*—
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Yang, Chang-Tsing. 2,873,283.

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Shepler, Ross. Apparatus for wrapping lollipops and the like. 2,872,768, 2–10–59, Cl. 53—200.

Sheppard, Stephen T.: *See*—
Porter, Allan W. H., and Sheppard. 2,872,799.

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Easton, Bernard K., Weinberg, and Shutts. 2,873,313.

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Sigler, Howard R., W. G. Myers, and W. F. Harrison, to The General Tire and Rubber Co. Machine for assembling resilient bushings. 2,872,727, 2–10–59, Cl. 29—235.

Simon-Carves Ltd.: *See*—
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Simpson, Arthur A., and H. H. Denmark. Refrigerator for use in connection with engines utilizing volatile fuel. 2,872,790, 2–10–59, Cl. 62—7.

Simpson, Clarence E., to United States of America, Army. Closed and open fire control mechanism. 2,872,849, 2–10–59, Cl. 89—140.

Sinclair Refining Co.: *See*—
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Sisson, James B., to St. Regis Paper Co. Methods and apparatus for forming sandwiches of a foamed plastic layer interposed between webs of sheet material. 2,872,965, 2–10–59, Cl. 154—1.

Sitz, Geraldine: *See*—
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Skaar, Karsten S., to United States of America, Navy. High strength fiber glass-metal construction and process for its manufacture. 2,872,865, 2–10–59, Cl. 102—56.

Skromme, Robert E.: *See*—
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Small, Frank R. Piston pump. 2,872,874, 2–10–59, Cl. 103—148.

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Hoern, Joseph H. 2,872,853.

Smatlak, Stephen J.: *See*—
Newman, Douglas A., Boylan, Schlotzhauer, and Smatlak. 2,872,863.

Smith, Carlisle F., and R. B. Skromme, to J. I. Case Co. Baler tying mechanism. 2,872,860, 2–10–59 Cl. 100—22.

Smith, Charles S., and C. H. Woolley, deceased (by M. S. Chamberlin, executrix), to The Babcock & Wilcox Co. Multiple furnace vapor generator with unitary reheater and superheater control by gas recirculation. 2,872,907, 2–10–59, Cl. 122—240

Smith, Frederic C. Hearing aid. 2,873,206, 2–10–59, Cl. 174—52.

Smith John R., and A. J. Ciauskas, to The Commonwealth of Pennsylvania. Forming or molding apparatus. 2,872,881, 2–10–59, Cl. 101—27.

Smith, Thomas R., to The Maytag Co. Single rotary tub construction for washing machines. 2,872,801, 2–10–59, Cl. 68—23.

Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares-Etablissements Claude-Paz & Silva: *See*—
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Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieries d'Ugine: *See*—
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Bergstrom, Eric V., and Drew. 2,873,144.
Bergstrom, Eric V., Drew, and Mitchell. 2,873,177.
Payne, John W., Ray, and Shea. 2,873,147.

Sonnenfeldt, Richard W., to Radio Corp. of America. Color television synchronization. 2,873,311, 2–10–59, Cl. 178—5.4.

Sorensen, Earl G., and C. M. Gordon, to United States of America Atomic Energy Commission. Differential analyser. 2,873,065, 2–10–59, Cl. 235—182.

Soucy, Harold J. Synchronized liquid feed control. 2,872,941, 2–10–59, Cl. 137—576.

Specialties Alimentaires Bourguignonnes (S. A. B.): *See*—
Labarre, Maurice. 2,872,705.

Specialty Papers Co., The: *See*—
Knowles Edward R. 2,872 700.

Speller, Jack B., to United Aircraft Corp. Analogue-to-digital converter. 2,873 440, 2–10–59, Cl. 340—347.

Spencer, Glenn E., to Bendix Aviation Corp. Engine starter gearing. 2,872,823, 2–10–59, Cl. 74—8.

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Sperry Rand Corp.: *See*—
Crowther, George A. 2,873,067.
Dean, Walter N. 2,873,444.
Harris, Herbert, Jr., Hammond, White, and Giulianelli. 2,873,074.
Nolt, Edwin B. 2,872,772.
Palmer, Winslow. 2,873,445.
Tomiyasu, Kiyo. 2,873,430.
Sperry Rand Corp., Ford Instrument Co.: *See*—
McKenney, Henry F. 2,873,066.
Zabb, Norman J., McKenney, and Newell. 2,873,068.
Spiegler, Louis, to E. I. du Pont de Nemours and Co. Process for preparing bis(chloroformates) of 1,2-diols. 2,873,291, 2-10-59. Cl. 260—463.
Spining, Warren P., to Worthington Corp. Deserating feedwater heater. 2,872,998, 2-10-59. Cl. 183—2.5.
Spreagnether, W. F., Instrument Co., Inc.: *See*—
Hautly, Rudolph F. 2,873,103.
Square D Co.: *See*—
Gribble, Joseph J. 2,873,330.
Mierendorf, Robert C. 2,873,421.
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Pike, Robert D. 2 873,183.
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Gossard, Morris G. 2,873,374.
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Heugstebeck, Robert J. 2,872,176.
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Stanphill, Roy D., to Esso Research and Engineering Co. Method of inhibiting the deposition of formally solid paraffins from a petroliferous fluid containing same. 2,873,253, 2-10-59. Cl. 252—8.55.
Stanton, Austin N. Presentation devices for visual information. 2,872,849, 2-10-59. Cl. 88—1.
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Stebling, Ralph J., to The Chas H. Stebling Co. Apparatus for soaking pasting plates. 2,872,932, 2-10-59. Cl. 134—22.
Stein, Henry E., H. V. Meg, and J. W. Stertzer, to American Brake Shoe Co. Hydraulically operated checking apparatus. 2,873,120, 2-10-59. Cl. 279—4.
Steinemann, Willy, to Sandoz A. G. Monoazo dyestuffs and their metal complex compounds. 2,873,267, 2-10-59. Cl. 260—146.
Steinemann, Willy, to Sandoz A. G. Monoazo dyestuffs and their metal complex compounds. 2,872,268, 2-10-59. Cl. 260—146.
Stelzer, William. Braking system for elevators. 2,873,033, 2-10-59. Cl. 192—2.
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Stewart-Warner Corp.: *See*—
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Stiln S. A.: *See*—
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Stockfleth, Harry C. Quiver silencer. 2,872,950, 2-10-59. Cl. 150—1.5.
Stone, Robert P., to United States of America, Army. Means for elimination of loss of contrast in direct view storage tubes. 2,873,404, 2-10-59. Cl. 315—12.
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Stout, Joseph M., to Ford Motor Co. Piston. 2,872,909, 2-10-59. Cl. 123—90.
Strickland, Robert W.: *See*—
Schultz, Frank A., and Strickland. 2,872,979.
Struyerwski, Anton, and W. Gelsenkirchen. Process for improving the adhesiveness of lacquers and printing colours on polyethylene products. 2,873,241, 2-10-59, Cl. 204—163.
Stueber, Harry K. Thermal insulation system. 2 872,946, 2-10-59. Cl. 138—64.
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Sundholm, Norman K., to United States Rubber Co. Manufacture of N-alkyl- and N-cycloalkylbis(2-benzothiazolesulfen)amides. 2,873,277, 2-10-59, Cl. 260—306.6.
Suozzo, Leonard S., to Bergen Pipesupport Corp. Combined spring hanger and shock absorber. 2,873,078, 2-10-59, Cl. 248—54.
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Swanson, Gunnar E. Shackle retaining means for a padlock. 2,872,803, 2-10-59, Cl. 70—38.
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Talkington, Harry W. Roof bolt extracter machine. 2,872,835, 2-10-59, Cl. 81—54.
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Tate, Roger W., W. A. Rex, deceased (V. C. Rex, administratrix), and C. E. Hemminger, to Esso Research and Engineering Co. Method of controlling oxidation state of hydroforming catalysts. 2,873,248, 2-10-59, Cl. 208—136.
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Thoma, Hans. Control means for infinitely variable transmissions. 2,872,827, 2-10-59, Cl. 74—335.
Thoma, Hans. Hydrostatic transmission. 2,872,876, 2-10-59, Cl. 103—173.
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Thompson, Charles E., J. Stewart, and A. W. Langer, Jr., to Esso Research and Engineering Co. Heavy oil conversion process. 2,873,245, 2-10-59, Cl. 208—56.
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Troendly, Ray E., to Troendly Illinois Corp. Supporting and heating device for casseroles and the like. 2,873,348, 2-10-59, Cl. 219—37.
Trumbo, Donald E., to United States of America, Atomic Energy Commission. Pulse counter. 2,873,388, 2-10-59, Cl. 307—88.5.
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Ubezio, Lorenzo, and H. Thommen, to Akt. Brown, Boveri & Cie. Heavy duty electric switch. 2,873,390, 2–10–59, Cl. 307—149.
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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

February 10, 1959 Volume 739 Number 2

TRADEMARKS

NOTICES

Trademark Laws

A compilation of trademark laws in force as of January 1, 1959, is now available in a separate publication entitled *Trademark Laws*. This matter, which was heretofore contained in the publication *Trademark Rules of Practice of the Patent Office, With Forms & Statutes* will not be included in the next edition of that publication.

Trademark Laws may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., for 20 cents per copy.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 108,168 (JOHNSON'S), S. C. Johnson & Son, Inc., Powdered wax, prepared wax, wood-dye, etc.; **Reg. No. 176,668**, same, Polishing brushes; **Reg. No. 200,874** (JOHNSON'S AND DESIGN), same, Wax for coating and polishing wood, etc.; **Reg. No. 210,726**, same; **Reg. No. 216,257**, same; **Reg. No. 231,268**, same; **Reg. No. 290,114**, same, Liquid wax polish for finishing and coating furniture, etc.; **Reg. No. 341,668**, same, Combination cleaning and wax polishing preparation for automobiles, etc., **filed** May 2, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 15479, *S. C. Johnson & Son, Inc.* v. *Gaston Johnston Corp.* Order of discontinuance Dec. 17, 1958.

Reg. No. 176,668. (See Reg. No. 108,168.)

Reg. No. 195,800 (CHANEL), Chanel, Inc., Face powder, perfume, cologne, etc.; **Reg. No. 302,890**, same, Soap; **Reg. No. 215,556** (NO. 5), same, Perfume and toilet water; **Reg. No. 232,407**, same, **filed** Nov. 20, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1082/58-WM, *Chanel, Inc.* v. *Albert Zuk et al.* Consent judgment; defendants restrained (notice Dec. 23, 1958).

Reg. No. 199,516 (DUPONT), E. I. du Pont de Nemours & Co., Bronzing liquids, bronze powders, paint enamels, etc.; **filed** Dec. 24, 1958, D. C. Md. (Baltimore), Doc. 11086, *E. I. du Pont de Nemours & Co.* v. *Du Pont Painting Co.*

Reg. No. 215,556. (See Reg. No. 195,800.)

Reg. No. 216,966 (SHALIMAR), Guerlain Perfumery Corp. of New York, Perfumes, **filed** Nov. 20, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1081/58-WM, *Guerlain, Inc.* v. *Albert Zuk et al.* Consent judgment; defendants restrained (notice Dec. 23, 1958).

Reg. No. 216,467. (See Reg. No. 195,800.)

Reg. No. 220,274. (See Reg. No. 108,168.)

Reg. No. 222,690. (See Reg. No. 195,800.)

Reg. No. 218,718. (See Reg. No. 108,168.)

Reg. No. 226,587. (See Reg. No. 108,168.)

Reg. No. 232,568. (See Reg. No. 108,168.)

Reg. No. 232,177 (EDWARDS AND DESIGN), J. Edwards & Co., Leather shoes; **Reg. No. 232,178**, same; **Reg. No. 232,402**, same; **Reg. No. 236,912** (EDWARDS), same; **Reg. No. 422,118** (IN CHILDREN'S SHOES EDWARDS IS THE NAME), same; **Reg. No. 422,123**, same; **Reg. No. 424,067** (BEST OF ALL EDWARDS SURE TO FIT), same; **Reg. No.**

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	10,603
Date of oldest new application	June 11, 1958
Date of oldest amended application	Sept. 4, 1958

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION

	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 13, 15, 14, 16, 19, 21, 22, 24, 25, 26, 31, 33, 34, 35, 36, 50	6-19-58	9-15-58
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	6-11-58	9-8-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	7-9-58	9-4-58
Renewals (All Classes)	11-20-58	12-26-58
Sec. 12 (c) Publications (All Classes)	11-20-58	12-26-58

Applications Filed During the Month of December 1958—1,825

Registrations Issued	327—No. 673,685 to No. 674,011
Renewals Issued	50

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $3.75 additional; single copies, 20 cents each.

424,071 (THE BIG HOUSE EDWARDS FOR LITTLE SHOES), same; Reg. No. 436,771 (EDWARDS TODLINS), same; Reg. No. 521,827 (EDWARDS), same; Reg. No. 567,241 (EDWARDS SHOES FOR CHILDREN AND DESIGN OF A SHOE BOX), same, filed Dec. 18, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 19288, *Edwards Shoes, Inc.* v. *Edward's Shoes, Inc.*

Reg. No. 382,178. (See Reg. No. 382,177.)

Reg. No. 382,468. (See Reg. No. 382,177.)

Reg. No. 386,912. (See Reg. No. 382,177.)

Reg. No. 399,113. (See Reg. No. 106,108.)

Reg. No. 419,573. (See Reg. No. 536,612.)

Reg. No. 423,113. (See Reg. No. 382,177.)

Reg. No. 422,123. (See Reg. No. 382,177.)

Reg. No. 424,067. (See Reg. No. 382,177.)

Reg. No. 424,071. (See Reg. No. 382,177.)

Reg. No. 423,356 (MORPUL), Morpul, Inc., Men's hosiery; Reg. No. 624,114, same, Hosiery; 2,420,771, Crawford and Crawford, Knitting machine and method; 2,466,885, R. T. Floyd, Stockings; 2,473,677, Crawford and Crawford, Knitting machine, filed Dec. 17, 1958, D. C., M. D. Ga. (Macon), Doc. 406, *Morpul, Inc.* v. *Smith & Hunt Machine Works.*

Reg. No. 436,771. (See Reg. No. 382,177.)

Reg. No. 521,827. (See Reg. No. 382,177.)

Reg. No. 532,578 (ONE A DAY AND DESIGN), Miles Laboratories, Inc., Vitamin tablets; Reg. No. 624,318 (ONE A DAY), same, filed Dec. 19, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 19300, *Miles Laboratories, Inc.* v. *Vitamin Center, Inc.*

Reg. No. 536,612 (POLY-VI-SOL), Mead Johnson & Co., Liquid vitamin preparation containing vitamins A, B, C, etc.; Reg. No. 548,618, same; Reg. No. 619,573 (POLY-VI-CAPS), same, Vitamin product used as a dietary supplement, filed Dec. 19, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 19293, *Mead Johnson & Co.* v. *The Vitamin Center, Inc.*

Reg. No. 541,000. (See Reg. No. 106,108.)

Reg. No. 548,618. (See Reg. No. 536,612.)

Reg. No. 567,241. (See Reg. No. 382,177.)

Reg. No. 624,114. (See Reg. No. 423,356.)

Reg. No. 624,318. (See Reg. No. 532,578.)

Reg. No. 646,178 (SPILL AND SPELL), Jean M. Smith, Educational spelling game played with cubes, filed Dec. 16, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c2067, *Phillips Publishers, Inc.* v. *Toycraft Corp.* Consent judgment; defendants enjoined (notice Dec. 29, 1958).

Reg. No. 664,878 (SNO-MIT), Templeton Glove Co., Inc., Gloves and mittens, filed Dec. 23, 1958, D. C., E. D. N. Y., Doc. 141/131, *Air Baby, Inc.* v. *Franklin Tru-Fit Glove Co.*

Selected Non-Proprietary Names

The Public Health Service has informed the Patent Office that the names listed below have been selected by WHO as recommended international non-proprietary names for pharmaceutical preparations.

The procedure for selection of these names, by WHO, including earlier publication in accordance with procedures published in the Chronicle of the World Health Organization, June-July 1955 issue, has been completed. WHO requests that these recommended names be recognized as the non-proprietary names for the substances concerned and that the necessary steps be taken to prevent acquisition of proprietary rights in the same.

Recommended International Non-Proprietary Name (*Latin, English*)	Chemical Name or Description
acetylmethadolum acetylmethadol	6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphacetylmethadolum alphacetylmethadol	α-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphamethadolum alphamethadol	α-6-dimethylamino-4,4-diphenyl-3-heptanol
anileridinum anileridine	1-[2-(p-aminophenyl)-ethyl]-4-phenylpiperidine-4-carboxylic acid ethyl ester
betacetylmethadolum betacetylmethadol	*B*-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
betamethadolum betamethadol	*B*-6-dimethylamino-4,4-diphenyl-3-heptanol
betaprodinum betaprodine	*B*-1,3-dimethyl-4-phenyl-4-propionoxypiperidine
desomorphinum desomorphine	dihydrodeoxymorphine
diethylthiambutenum diethylthiambutene	3-diethylamino-1,1-di-(2-thienyl)-1-butene
dimethylthiambutenum dimethylthiambutene	3-dimethylamino-1,1-di-(2-thienyl)-1-butene
dipipanonum dipipanone	4,4-diphenyl-6-piperidino-3-heptanone
ethoheptazinum ethoheptazine	1-methyl-4-carbethoxy-4-phenylhexamethyleneimine
ethylmethylthiambutenum ethylmethylthiambutene	3-ethylmethylamino-1,1-di-(2-thienyl)-1-butene
hydroxypethidinum hydroxypethidine	1-methyl-4-(3-hydroxyphenyl)-piperidine-4-carboxylic acid ethyl ester
levallorphanum levallorphan	l-3-hydroxy-*N*-allylmorphinan
levorphanolum levorphanol	l-3-hydroxy-*N*-methylmorphinan
metethoheptazinum metethoheptazine	1,3-dimethyl-4-carbethoxy-4-phenylhexamethyleneimine
metheptazinum metheptazine	1,2-dimethyl-4-carbomethoxy-4-phenylhexamethyleneimine
methyldesorphinum methyldesorphine	6-methyl-Δ^6-desoxymorphine
methyldihydromorphinum methyldihydromorphine	6-methyldihydromorphine
myrophinum myrophine	myristyl ester of benzylmorphine
normethadonum normethadone	4,4-diphenyl-6-dimethylamino-3-hexanone
oxpheneridinum oxpheneridine	1-(2-phenyl-2-hydroxyethyl)-4-carbethoxy-4-phenyl-piperidine
oxymorphonum oxymorphone	dihydrohydroxymorphinone
phenomorphanum phenomorphan	3-hydroxy-*N*-phenethylmorphinan

proheptazinum
proheptazine — 1,3-dimethyl-4-phenyl-4-propionoxyhexamethyleneimine

properidinum
properidine — 1-methyl-4-phenylpiperidine-4-carboxylic acid isopropyl ester

propoxyphenum
propoxyphene — 4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 2.101 to 2.105.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 42,006. Albert Engbers, d. b. a. Le Mars Hatchery, Le Mars, Iowa. Filed Dec. 9, 1957.



For Baby Chicks.
First use Oct. 23, 1957.

SN 47,457. L. Teweles Seed Co., Milwaukee, Wis. Filed Mar. 10, 1958.

BADGER CLOVAMOR

Owner of Reg. No. 54,585.
For Red Clover Seed.
First use Feb. 19, 1958.

SN 50,183. Pennington Grain & Seed Inc., Madison, Ga. Filed Apr. 22, 1958.



The drawing is lined for red and green.
For Lawn Seed.
First use on or about Mar. 8, 1958.

SN 51,711. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed May 15, 1958.

PLIOPRENE

For Synthetic Rubber.
First use Apr. 30, 1958.

SN 52,533. Union Wadding Company, Pawtucket, R. I. Filed May 28, 1958.

JIFFY PLANTER

For Flower Seeded Mat.
First use May 16, 1958.

TM 54

SN 53,253. Geilich Tanning Company, Taunton, Mass. Filed June 10, 1958.

CAMBI-RIKRAK

For Leather.
First use in May 1958.

SN 54,155. Emerson & Cuming, Inc., Canton, Mass. Filed June 24, 1958.

ECCOSHIELD

For Loaded Plastic Material Useful for Nuclear Radiation Shielding, in the Form of Sheet Stock and as Casting Resins.
First use Apr. 22, 1958.

SN 54,889. Raybestos-Manhattan, Inc., Manheim, Pa. Filed July 7, 1958.

PYROTEX

Owner of Reg. No. 503,411.
For Reinforced Plastic Laminates and Molding Compounds.
First use Mar. 27, 1956.

SN 55,284. Stone Mountain Grit Co., Inc., Lithonia, Ga. Filed July 14, 1958.



Owner of Reg. No. 386,353.
For Poultry Grit.
First use Jan. 1, 1940.

SN 56,212. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed July 28, 1958.

RTV

For Mineral Rubber.
First use June 10, 1958.

SN 56,846. Goochland Nurseries, Inc., Pembroke, Fla. Filed Aug. 8, 1958.



For Ornamental Plants and Shrubs, Both Flowering and Nonflowering, Palms, and Citrus Plants.
First use in July 1957.

Class 2—Receptacles

SN 11,716. Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed July 6, 1956.

AGA

Owner of Swedish Reg. Nos. 28,880 and 42,632, dated Aug. 26, 1924 and June 11, 1934, respectively.

For Receptacles, Such as Boxes, Bags, Baskets, Oxygen Tanks, Accumulators and Cylinders, for Use in Connection With Minerals, Fuels, Gases, and Raw Materials.

SN 23,071. West Virginia Pulp and Paper Company, New York, N. Y., assignee of The Hinde & Dauch Paper Company, Sandusky, Ohio. Filed July 2, 1957.

CORABRITE

For Boxes and Cartons Made of Corrugated Paperboard.
First use Apr. 28, 1956.

SN 46,378. Tribe Manufacturing Corporation, New York, N. Y. Filed Feb. 21, 1958.

TRINE

For Mail Boxes.
First use October 1945.

SN 46,685. Aladdin Industries, Incorporated, Nashville, Tenn. Filed Feb. 27, 1958.

Dehydrite

For Lunch Boxes and Lunch Kits, With or Without Vacuum Bottles, and Vacuum Bottles.
First use on or about Jan. 2, 1958.

SN 48,705. Beanstalk Shelving Limited, Chichester, Sussex, England. Filed Mar. 31, 1958.

BEANSTALK

Owner of British Reg. Nos. 716,129, 716,130, and 716,131, dated Mar. 25, 1953.

For Trays of Metal and/or Wire and Assemblies Thereof.

SN 49,419. Cochran Continental Container Corporation, Louisville, Ky. Filed Apr. 10, 1958.

LIQUI-LOK

For Foil Containers and Closures Therefor.
First use Feb. 27, 1958.

SN 50,326. Texas Plastics, Inc., Elsa, Tex. Filed Apr. 24, 1958.



No claim is made to the words "Texas Plastics" apart from the mark.

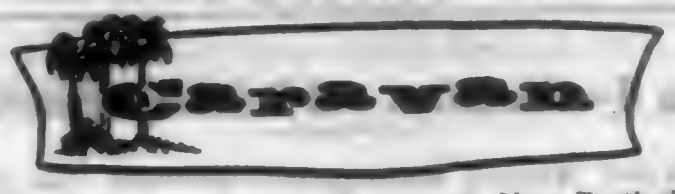
For Plastic Bags.
First use on or about Sept. 1, 1954.

SN 52,091. Continental Can Company, Inc., New York, N. Y. Filed June 2, 1958.

FIBERPAK

Owner of Reg. No. 361,265.
For Shipping Drums.
First use in 1930.

SN 52,906. Richards & Conover Hardware Corporation, Kansas City, Mo. Filed June 4, 1958.



For Sporting and Camping Equipment, More Particularly, Camp and Picnic Boxes and Chests, Vacuum Jugs and Bottles, and Lunch Kits.
First use Jan. 8, 1958.

SN 55,933. Maryland Cup Co., Baltimore, Md. Filed July 24, 1958.

"TRU-TASTE"

For Plastic Coated Paper Cups.
First use on or about Mar. 24, 1958.

SN 56,187. Arthur Schiller and Son, Inc., d. b. a. Rayburn Mfg. Div., Chicago, Ill. Filed July 28, 1958.

CUPSAVER

For Plastic Separating Trays for Stacking and Carrying Drinking Cups.
First use Feb. 10, 1958.

SN 56,322. Hi-Jac Corporation, Fort Payne, Ala. Filed July 30, 1958.

THERMA-JAC

Owner of Reg. Nos. 615,543 and 617,659.
For Coasters for Drinking Glasses and the Like, Made of Fibrous Bodies With Textile Coverings.
First use July 17, 1957.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 25,752. Briefcase, Inc., Chicago, Ill. Filed Mar. 8, 1957.

MARVELUX

For Briefcases, Attache Cases, and Salesmen's Cases.
First use Feb. 8, 1957.

SN 38,292. Leader Products Proprietary Limited, Carlton, near Melbourne, Victoria, Australia. Filed Oct. 3, 1957.

LEADER

For Identification Tags for Attachment to Sheep, Cattle, and Other Animals for Indicating Ownership and/or Other Data or Information.
First use in July 1950; in commerce July 25, 1956.

SN 38,293. Leader Products Proprietary Limited, Carlton, near Melbourne, Victoria, Australia. Filed Oct. 3, 1957.

LEADERTAG

For Identification Tags for Attachment to Sheep, Cattle, and Other Animals for Indicating Ownership and/or Other Data or Information.
First use in July 1950; in commerce July 25, 1956.

Class 4 — Abrasives and Polishing Materials

SN 32,546. Myron E. Schwartz, Inc., Milwaukee, Wis. Filed June 24, 1957.

kleentest

Owner of Reg. Nos. 415,734 and 603,964.
For Chemically Treated Cleaning and Polishing Cloths.
First use Nov. 8, 1955.

SN 41,486. The Standard Oil Company, Cleveland, Ohio. Filed Nov. 27, 1957.

So-clear

Owner of Reg. No. 395,196.
For Chemical Solutions for Cleaning and Polishing Smooth Surfaces, Glass, and the Like.
First use Mar. 25, 1941.

SN 41,769. Magic Spray Shine Corporation, Kansas City, Mo. Filed Dec. 4, 1957.

MAGIC

For Shoe Polish.
First use Oct. 17, 1957.

SN 54,892. Reynolds Distributing Company, Inc., Lincoln, Nebr. Filed July 7, 1958.



For Spray Type Shoe Shining Polish.
First use May 14, 1958.

SN 55,028. Sandpaper Incorporated, Rockland, Mass. Filed July 9, 1958.

POLYBOND

Owner of Reg. Nos. 534,283 and 403,582.
For Abrasive Paper.
First use in January 1957.

SN 55,029. Sandpaper Incorporated, Rockland, Mass. Filed July 9, 1958.

PHENOWET

Owner of Reg. Nos. 569,305 and 403,582.
For Abrasive Cloths.
First use July 27, 1948.

SN 55,313. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed July 15, 1958.

JET STREAM

For Polishes Acting as Dirt and Grease Removers and Cleaning Materials for Automobiles.
First use May 20, 1958.

SN 55,885. J. C. Sivak, Brooklyn, N. Y. Filed July 22, 1958.

EVERFLO

For Abrasive Suspending Liquid Vehicle.
First use Oct. 29, 1957

Class 5 — Adhesives

SN 55,380. Clarence E. Cleveland, d. b. a. C. E. Cleveland Lithichrome Company, Fort Scott, Kans. Filed July 16, 1958.

GRITWELD

For Adhesive for Affixing Abrasive Materials to Belts.
First use in January 1957.

SN 56,650. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Aug. 5, 1958.

CORBOND

For Adhesive Tape.
First use May 28, 1958.

Class 6 — Chemicals and Chemical Compositions

SN 52,409. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany. Filed May 27, 1958.

LAMPRECID

Owner of German Reg. No. 711,326, dated Feb. 25, 1958.
For Agents for Combating Animal Pests.

SN 57,247. Cliffs Dow Chemical Company, Marquette, Mich. Filed Aug. 15, 1958.

SENTINEL

For Anti-Freeze Preparation.
First use Oct. 6, 1936.

Class 8—Smokers' Articles, Not Including Tobacco Products

SN 52,840. Katherine Whittelsey, New York, N. Y. Filed June 3, 1958.

LIDWELL

For Ashtrays.
First use May 29, 1958.

Class 9—Explosives, Firearms, Equipments, and Projectiles

SN 43,236. Jet Line Gun Company, Incorporated, Charlotte, N. C. Filed Dec. 31, 1957.

JET LINE

For Launchers for Compressed Gas Cartridges, Line Packages, Line Containers, Launcher Attachments, Cartridge Nose Cones, Entrance Adapters, Cartridge Catchers.
First use Nov. 27, 1957.

Class 10—Fertilizers

SN 18,883. The Woodville Lime Products Company, Toledo, Ohio. Filed Nov. 5, 1956.

Blubag

Owner of Reg. No. 226,086.
For Agricultural Hydrated Lime.
First use Aug. 22, 1956.

Class 12—Construction Materials

SN 34,586. California Redwood Association, San Francisco, Calif. Filed July 30, 1957. COLLECTIVE MARK.

CRA

Owner of Reg. Nos. 299,375, 347,060, and 365,641.
For Lumber.
First use in January 1928.

SN 36,439. Gladding, McBean & Company, Los Angeles, Calif. Filed Aug. 29, 1957.

CERA-CIRCUIT

For Ceramic Panels or Boards of Dielectric Characteristics Adapted To Carry Electrically Conductive Metal Patterns.
First use May 17, 1957.

SN 38,091. Seattle Cedar Lumber Manufacturing Co., Seattle, Wash. Filed Sept. 30, 1957.

SHADO/EDGE

For Cedar Siding as a Construction Material.
First use Aug. 21, 1957.

SN 41,527. L. W. Ferdinand & Co., Inc., Newton Lower Falls, Mass. Filed Nov. 29, 1957.

POLYSEAMSEAL

For Plastic Seam Sealer, Caulking and Bedding Compound.
First use Jan. 1, 1955.

SN 41,571. Poloron Products, Inc., New Rochelle, N. Y. Filed Nov. 29, 1957.

LIFETEX

For Sheet Materials Having Plastic Bonded to Metal.
First use Nov. 4, 1957.

SN 42,442. The Celotex Corporation, Chicago, Ill. Filed Dec. 16, 1957.

HUSH-TONE

For Sound Absorbing Ceiling Tile.
First use Dec. 4, 1957.

SN 42,829. The Celotex Corporation, Chicago, Ill. Filed Dec. 23, 1957.

SUPRACOUSTIC

For Sound Absorbing Ceiling Panels Comprised Principally of Glass Fiber.
First use Dec. 4, 1957.

SN 42,870. Earl J. Erickson, d. b. a. Erickson Enterprises, Detroit, Mich. Filed Dec. 23, 1957.

Fiber-Stone

For Imitation Stone Siding Made of Pressed Fiberglass.
First use Apr. 23, 1957.

SN 42,927. G. T. Schjeldahl Company, Northfield, Minn. Filed Dec. 23, 1957.

SCHJELDOME

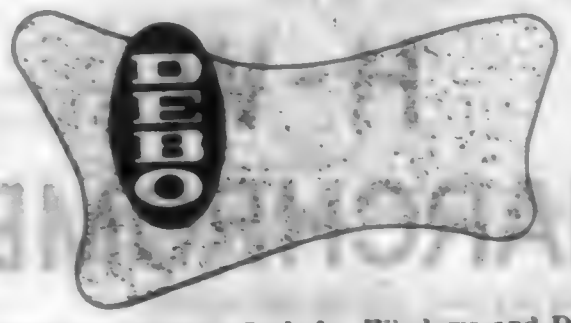
For Inflatable Sheet Plastic Building.
First use Sept. 26, 1957.

SN 46,865. Weber & Wirth, Kommanditgesellschaft, Holsen, near Schwerte (Ruhr), Germany. Filed Mar. 28, 1958.

PRESTOLITH

Owner of German Reg. No. 704,814, dated July 24, 1957.
For Non-Metallic Plastic Auto Repair Preparations and/or Kits.

SN 47,351. Debo Corporation, Piqua, Ohio. Filed Mar. 10, 1958.



For Screens and Storm Sash for Windows and Doors.
First use on or about Oct. 20, 1957; prior to Sept. 15, 1955, as to "Debo."

SN 48,861. Miraplas Tile Company, Columbus, Ohio. Filed Apr. 1, 1958.



The words "Tile" and "Trim" are disclaimed apart from the mark as shown. Owner of Reg. No. 437,136.

For Decorative Wall Tile Grouting and Waterproofing Compound of a Polyvinyl Acetate Emulsion Type for Use as Tile Trim and Tub Caulk.

First use Mar. 19, 1958.

SN 51,035. Macomber, Incorporated, Canton, Ohio. Filed May 5, 1958.



No claim is made to the representation of the goods apart from the mark as shown.

For Fabricated Structural Members and Steel Framing Members for Buildings—Namely, Columns, Girders, Joists, Beams, Purlines, Bridging Trusses, Bow String Roof Trusses, Tie Plates, Nailable Steel Girts, Sleeve Plates, Sag Rods, Sway Bracing Rods, Ribbed Steel Roofing and Ribbed Roof Decking.

First use Apr. 21, 1958.

SN 51,108. Babbitt Pipe Co., Inc., West Hanover, Mass. Filed May 6, 1958.

AGRILITE

For Rigid Pipe Composed of Impregnated Cellulosic or Fibrous Materials, and Used Primarily for Irrigation Purposes.

First use Mar. 25, 1958.

SN 51,998. Kosmos Portland Cement Co., Louisville, Ky. Filed May 20, 1958.

KOSMORTAR

For Mortar Cement Containing Portland Cement.

First use in or about 1922.

SN 52,118. Harbison-Walker Refractories Company, Pittsburgh, Pa. Filed May 22, 1958.

H-W HARCHROME

Owner of Reg. Nos. 321,533 and 643,136.

For Castable Refractory Used in Metallurgical Furnace Bottoms.

First use Nov. 30, 1957.

SN 52,275. Cement Enamel Development, Inc., Detroit, Mich. Filed May 26, 1958.

EMALUX

For Cold Glazed Wall Surfacing.

First use on or about Nov. 8, 1951.

Subj. to Intf. with SN 50,083.

SN 53,322. Elliott Bay Mill Company, Seattle, Wash. Filed June 11, 1958.

SAKAR

For Plywood, Lumber, Solid Wood Panelings, and Wood Moldings.

First use June 9, 1953.

SN 53,403. General Plastics Corporation, Marion, Ind. Filed June 12, 1958.

Vista·Glo

For Luminous Ceilings.

First use Apr. 25, 1958.

SN 53,411. Kaiser Gypsum Company, Inc., Oakland, Calif. Filed June 12, 1958.

FIRKOTE

For Expansion Joint Material for Fibrous Building and Insulating Boards.

First use Feb. 28, 1958.

SN 53,592. Curtis Companies Incorporated, Clinton, Iowa. Filed June 16, 1958

STYLE-TREND

Owner of Reg. No. 650,256.

For Millwork—Namely, Doors and Cabinets.

First use Mar. 3, 1958, on doors.

SN 53,596. Dwyer Lumber Co., Portland, Oreg. Filed June 16, 1958.

HEMNO-PLY

For Plywood.

First use May 28, 1958.

SN 53,982. A-1 Industries, Inc., Redwood City, Calif. Filed June 23, 1958.

CASTLEWOOD

For Folding or Contractible Doors, Closures, and Room or Space Dividers.

First use June 13, 1958.

SN 54,574. Sun Valley Industries, Inc., Sun Valley, Calif. Filed June 30, 1958.

IMPALA

For Sliding Glass Doors.

First use June 17, 1958.

SN 54,596. Baldwin-Hill Company, Trenton, N. J. Filed July 1, 1958.

PANATONE

For Acoustical Sheets and Perforated Metal Panels for Supporting Such Sheets.

First use Mar. 2, 1958.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 42,153. National Machine Products Company, Utica, Mich. Filed Dec. 10, 1957.

CONELOK

For Locking Nuts.
First use Oct. 1, 1957.

SN 42,772. Gustin-Bacon Manufacturing Company, Kansas City, Mo. Filed Dec. 20, 1957.

RIGI-GRIP

For Pipe Couplings.
First use Sept. 19, 1957.

SN 45,193. Phyirich Corporation, Los Angeles, Calif. Filed Feb. 3, 1958.

KWEE-VER

For Robe Hooks, Soap Dishes, Glass Holders, Towel Rings, Paper Holders, Hand-Towel Bars, Faucets, Drawer and Cabinet Pulls, Door Knockers.
First use Aug. 1, 1957.

SN 45,849. The Bassick Company, Bridgeport, Conn. Filed Feb. 14, 1958. Sec. 2(f).

FLOATING HUB

Owner of Reg. No. 286,248.
For Casters for Furniture and Trucks.
First use on or about Jan. 15, 1940.

SN 51,390. Youngstown Steel Car Corporation, Niles, Ohio. Filed May 9, 1958.

YSC YOUNGSTOWN 'SAFE CARGO'

The drawing is lined for yellow and blue, but color is not an integral portion of the mark.
For Anchor Pins for Holding Lading Straps in Freight Cars.
First use November 1957.

SN 52,723. Hi-Shear Rivet Tool Company, Torrance, Calif. Filed June 2, 1958.

BLIND BOLTS

For Fasteners, in Particular Fasteners of the Type Which Are Set by Drawing an Internally Threaded Expander Into the End of a Tubular Shank.
First use Mar. 31, 1955.

SN 52,724. Hi-Shear Rivet Tool Company, Torrance, Calif. Filed June 2, 1958.

BLIND NUTS

For Fasteners, in Particular Fasteners of the Type Which Are Set by Drawing an Internally Threaded Expander Into the End of a Tubular Shank.
First use June 14, 1955.

SN 52,242. Dresser Industries, Inc., Dallas, Tex. Filed June 10, 1958.

360

For Pipe Clamps.
First use Mar. 31, 1958.

SN 52,851. Amerace Corporation, New York, N. Y. Filed June 19, 1958.

HERCULES

For Caster Wheels.
First use Mar. 14, 1958.

SN 52,852. Amerace Corporation, New York, N. Y. Filed June 19, 1958.

HONEST JOHN

For Marine Toilets and Replacement Parts Therefor.
First use Feb. 12, 1958.

SN 53,739. Clayton Mark & Company, Evanston, Ill. Filed July 24, 1958.

For Tubing, Pipe, Unions for Connecting Pipes or Rods, and Filters.
First use May 1, 1958.

SN 56,017. Nixdorff-Krein Manufacturing Company, St. Louis, Mo. Filed July 25, 1958.

EXTRACTOR

For Tractor Chains.
First use June 1, 1938.

SN 56,018. Nixdorff-Krein Manufacturing Company, St. Louis, Mo. Filed July 25, 1958.

NU-WAY

For Tractor Chains.
First use June 1, 1938.

SN 56,666. Wm. Steinen Mfg. Company, Newark, N. J. Filed Aug. 5, 1958.

FLO-JET

For Spraying Nozzles for Industrial Machines, Washing Machines, Air-Conditioning Equipment and Agricultural Utilization for Spraying Chemicals, Fertilizers, Tars and Other Aqueous Materials, Emulsions, Dispersions and the Like.
First use June 2, 1958.

SN 56,794. Price-Pfister Brass Mfg. Co., Los Angeles, Calif. Filed Aug. 7, 1958.

ADJUSTA-FIT

For Manually Operated Valves for Tubs and Showers.
First use July 23, 1958.

SN 56,958. General American Transportation Corporation, Chicago, Ill. Filed Aug. 11, 1958.

RIMGUARD

For Weld Screws.
First use on or about Mar. 31, 1958.

SN 57,036. Watts Regulator Company, Lawrence, Mass. Filed Aug. 11, 1958. Sec. 2(f).

WATTS

Owner of Reg. Nos. 563,758, 564,008, and 566,796.
For Feed-Water Regulators, Pressure Regulators, Temperature Regulators, Reducing Valves, Relief Valves, Pressure and Vacuum Valves, Siphon Vacuum Breakers, Check Valves, Tempering-Mixing Valves, Strainers, Water Level Controls, Water Feeders, Low Water-Cut-Offs, Gas Shut-Off Valves, Gas-Line Filters, and Gas-Line Lubricators.
First use in 1929; 1874 as to "Watts."

Class 14 — Metals and Metal Castings and Forgings

SN 41,289. P. R. Mallory & Co. Inc., Indianapolis, Ind. Filed Nov. 25, 1957.

ANVILOY

For Electrode Metals, Metal Alloys and Materials Forming Electrodes for Hot Upsetting and Metal Gathering.
First use Sept. 12, 1957.

Class 15 — Oils and Greases

SN 53,390. Chemtech, Incorporated, Miami, Fla. Filed June 12, 1958.

CHEMLUBE

For Chemical Lubricant Used To Reduce Friction on Windows, Doors, Catches, Wood, Rubber, Glass, Etc.
First use Apr. 2, 1958.

SN 53,864. Esso Standard Oil Company, New York, N. Y. Filed June 19, 1958.

VITANE

Owner of Reg. No. 536,863.
For Motor Fuel Additives.
First use at least as early as May 11, 1956; on June 30, 1949, in a different display.

Class 16 — Protective and Decorative Coatings

SN 42,827. Cataphote Corporation, Toledo, Ohio. Filed Dec. 23, 1957.

CATALINE

For Liquid Plastic Coating for Highway Striping.
First use March 1955.

SN 42,828. Cataphote Corporation, Toledo, Ohio. Filed Dec. 23, 1957.

CATATHERM

For Liquid Plastic Coating for Highway Striping.
First use April 1957.

SN 51,022. S. C. Johnson & Son, Inc., Racine, Wis. Filed May 5, 1958.

STEP AHEAD

For Preparation for Polishing and Coating Floor Surfaces of All Types.
First use Apr. 10, 1958.

SN 54,682. Odis C. Galloway & Co., Inc., Beaumont, Tex. Filed July 2, 1958.



The drawing is lined for red.
For Coating Compositions for Application to Interior Surfaces of Iron Pipe for Preventing Corrosion and Deposition of Solids Thereon.
First use Jan. 15, 1955.

SN 59,923. Spraylat Corporation, New York, N. Y. Filed Oct. 1, 1958.

BOOTH-STRIP

For Water Dispersion Film Forming Material Used as Strippable Coating for Protection of Spray Booths.
First use May 1, 1958.

SN 60,352. W. J. Lynch Paint & Varnish Co., Inc., East Providence, R. I. Filed Oct. 9, 1958.

ACRYLYNCH

For Exterior Acrylic Masonry Paint.
First use June 1, 1958.

SN 60,389. Atlantic Laboratories of Delaware, Inc., Wilmington, Del. Filed Oct. 10, 1958.

GRAYGUARD

For Rust Inhibitor and Protective Coating for Metal Surfaces.
First use June 18, 1958.

SN 60,893. Breinig Brothers, Inc., Hoboken, N. J. Filed Oct. 10, 1958.

MULTICHROME

For Paints.
First use June 11, 1958.

SN 60,452. Van Dale, Inc., Long Lake, Minn. Filed Oct. 10, 1958.

VANGUARD

For Chemical Composition for Coating Cement, Wood or Metal.
First use Mar. 21, 1958.

SN 60,740. The Lowe Brothers Company, Dayton, Ohio. Filed Oct. 16, 1958.

LOWE-POXY

Owner of Reg. Nos. 58,562, 648,804, and 666,757.
For Varnish and Activator Therefor.
First use Sept. 23, 1958.

SN 60,754. The Martin-Senour Company, Chicago, Ill. Filed Oct. 16, 1958.

TWIN-THIN

For Lacquer and/or Acrylic Thinner.
First use Aug. 8, 1958.

Class 18 — Medicines and Pharmaceutical Preparations

SN 57,222. Professional Pharmacal Co., Inc., San Antonio, Tex. Filed Aug. 14, 1958.

VERNACEL

For Ophthalmic Preparation.
First use Aug. 2, 1958.

SN 57,278. Lloyd Brothers, Inc., Cincinnati, Ohio. Filed Aug. 15, 1958.

DUADACIN

For Medicinal Preparation for Relief of Such Symptoms as Pain, Headache, Fever, Nasal Congestion and Nasal Discharge, Produced in Capsule and Fluid Form.
First use on or about June 20, 1958.

SN 57,279. Lloyd Brothers, Inc., Cincinnati, Ohio. Filed Aug. 15, 1958.

DOXICAL

For Medicinal Preparation for Treatment of Temporary Constipation, Produced in Fluid and Tablet Form.
First use on or about July 15, 1958.

SN 57,314. Benjamin Zirin, d. b. a. Zirin Enterprises, Hialeah, Fla. Filed Aug. 15, 1958.

MUSCLAX

For Veterinarian Preparation—Namely, for Relaxing Muscle Spasm and Producing Muscular Relaxation on Skeletal or Involuntary Muscle Irregularities.
First use January 1956.

SN 57,315. Benjamin Zirin, d. b. a. Zirin Enterprises, Hialeah, Fla. Filed Aug. 15, 1958.

TITEN-ZEM

For Veterinarian Preparation—Namely, as a Topically Applied Skin Massaging Liquid for Relief of Wind Puffs, Bursitis, Suspensory Trouble, Tendonitis, Spavins, Gonciots, and Muscle Soreness.
First use January 1956.

Class 19 — Vehicles

SN 43,042. Muskegon Motors Specialties Co., d. b. a. Woodlin Metal Products Division, Muskegon Motors Specialties Co., Jackson, Mich. Filed Dec. 26, 1957.

WOODLIN
QUALITY FIRST

The drawing is lined for red and blue. No claim is made to the words "Quality First" apart from the mark shown, but in making this disclaimer, applicant does not relinquish any of its common law rights.
For Marine Windows, Bus Windows, and Items for Use in Mobile Homes—Namely, Windows, Jalousie Windows, Storm Windows, Window Screens, Window Awnings, Window and Door Visors, Garnish and Body Moldings, and Porch Light With Grab Handle.
First use January 1952.

SN 43,820. Hubert E. Crane, d. b. a. The Pneumatic Seat Company, Los Angeles, Calif. Filed Jan. 13, 1958.

FLEX-AIR

For Seats Embodying a Special Vibration Absorbing and Other Vibration Developing Apparatus, for Use in Automotive Vehicles Such as Trucks, Moving Vans, Trailer Locomotives, Hauling Scrapers and Other Road Working Vehicles.
First use Oct. 26, 1956.

SN 47,084. Jack T. Watts, d. b. a. Jack's Trailer Service, Gardena, Calif. Filed Mar. 4, 1958.

Scotsman

For House Trailers.
First use May 15, 1951.

SN 55,477. D. P. Harris Hardware & Manufacturing Co., Inc., New York, N. Y. Filed July 17, 1958.

SPACE RACER

For Bicycles.
First use May 28, 1958.

SN 55,504. Peninsular Fiberglass Products, Inc., Hialeah, Fla. Filed July 17, 1958.

VANGUARD

For Boats.
First use Mar. 1, 1956.

SN 55,716. Power Cat Boat Corporation, Paramount, Calif. Filed July 21, 1958.

POWER CAT

For Boats.
First use on or before Nov. 30, 1956.

SN 56,508. Tour-A-Home Manufacturing Corporation, Flint, Mich. Filed Aug. 1, 1958.

TOUR-A-HOME

For Mobile Homes.
First use June 15, 1956.

SN 56,625. Cushman Motor Works, Inc., Lincoln, Nebr. Filed Aug. 5, 1958.

Cushman GOLFER

Owner of Reg. No. 594,814.
For Small Motor Vehicles Adapted for Carrying Players and Sporting Equipment.
First use Feb. 11, 1958.

SN 56,973. Richard C. Le Bron, d. b. a. Le Bron Manufacturing Company, Omaha, Nebr. Filed Aug. 11, 1958.

SNORKLE

For Automobile Radiator Grills.
First use July 19, 1958.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 19,336. Standard Instrument Corporation, New York, N. Y. Filed Nov. 15, 1956.

REV-SWITCH

For Electro-Magnetic Actuated Rotational Speed Switch.
First use Sept. 15, 1955.

SN 23,769. AMP Incorporated, Harrisburg, Pa. Filed Feb. 5, 1957.

AMP

Owner of Reg. Nos. 405,714, 624,890, and others.
For Condensers, Capacitors, Transformers, Pulse Forming Networks, Rectifiers, Coils, Modulators, Electrical Filters, and Parts of the Aforesaid Goods.
First use Nov. 19, 1943, on condensers.

SN 23,774. Communication Products, Inc., Marlboro, N. J. Filed Feb. 5, 1957.

SKY-TOP

For Antenna Towers.
First use on or about Oct. 1, 1955.

SN 26,612. De Mornay-Bonardi, Pasadena, Calif. Filed Mar. 21, 1957.

ULTRAMICROWAVE

For Millimeter Waveguide Equipment—Namely, Standing Wave Detectors, Cavity Wave Meters, Phase Shifters, Movable Shorts, E–H Plane Tuners, Waveguide Antennas, Low Power Terminations, Variable Attenuators, Crystal Detector Mounts, and Waveguide Rotating Joints.
First use Jan. 21, 1956.

SN 29,346. Elise Mercantile of New York, Inc., New York, N. Y. Filed May 3, 1957.

ELIZE

For Radios.
First use July 11, 1956.

SN 32,850. Salescaster, Incorporated, Forest Hills, N. Y. Filed June 28, 1957.

TAPE-O-GRAM

For Continuous Belt With Perforations Which Reproduce Worded Messages When Placed in an Electric Advertising Sign.
First use May 22, 1957.

SN 38,613. Imperial Lighting Products Co., Latrobe, Pa. Filed Oct. 9, 1957.

velux

For Illuminated Glassware and Accessories.
First use Aug. 30, 1957.

SN 42,736. Sperry Rand Corporation, New York, N. Y. Filed Dec. 19, 1957.

(SS)

For Semiconductor Diodes and Transistors.
First use Apr. 1, 1957.

SN 44,192. Frank H. McIntosh, Washington, D. C. Filed Jan. 17, 1958.

McIntosh LecTour

For Low Frequency Short Range Multi-Channel Broadcast System With Radio Receivers.
First use Mar. 29, 1957.

SN 46,341. Meter Devices Company, Canton, Ohio. Filed Feb. 21, 1958.

ROTO-TEST

For Electric Control Switches.
First use in 1930.

SN 49,948. Lotran, Incorperated, Baton Rouge, La. Filed Apr. 18, 1958.

LOTRAN

For Electrical Power Outage Locators in the Nature of Radio Transmitters Which Are Operated Automatically in Response to the Opening of an Associated Recloser, Fuse, Circuit Breaker or Sectionalizing Device.
First use Mar. 1, 1958.

SN 51,478. The Magnavox Company, Fort Wayne, Ind. Filed May 12, 1958.

STEREORAMA

For Combination Radio-Phonographs and Electrical Phonographs.
First use Apr. 16, 1958.

SN 53,026. General Motors Corporation, Detroit, Mich. Filed June 6, 1958.

VIBACALL

For Electronic Paging Systems.
First use Apr. 14, 1958.

SN 55,967. Berns Air King Corporation, Chicago, Ill. Filed July 25, 1958.

HOLLIWOOD

Owner of Reg. Nos. 389,692 and 547,176.
For Electrical Heating and Cooking Appliances—Namely, Broilers, Grills, Barbecues, Rotisseries, Frying Vessels, Hot Plates, Toasters, and Waffle Irons.
First use Nov. 12, 1940.

SN 55,984. The Dayton Rubber Company, Dayton, Ohio. Filed July 25, 1958.

DR

Owner of Reg. No. 310,345.
For Electrical Insulating Tape.
First use on or about July 1958.

SN 55,985. The Deutsch Company, Los Angeles, Calif. Filed July 25, 1958.

DEUTSCH

For Electrical Connectors.
First use on or about Aug. 1, 1943.

SN 56,252. Robbins & Myers, Inc., Springfield, Ohio. Filed July 30, 1958.

R&M HUNTER

Owner of Reg. Nos. 660,735 and 660,793.
For Portable and Built-in Electric Space Heaters.
First use June 12, 1958.

SN 56,610. Vitalic Battery Company, Inc., Dallas, Tex. Filed Aug. 4, 1958.

PLASTIGLAS

Owner of Reg. No. 577,778.
For Storage Batteries.
First use Mar. 16, 1951.

Class 22 — Games, Toys, and Sporting Goods

SN 36,840. Helen B. Becker (Mrs. William D. Becker), d. b. a. W. D. Becker Manufacturing Company, Marine City, Mich. Filed Sept. 9, 1957.

AQUASCOPE

For Non-Reflective, Portable Viewing Tubes Through Which One Above the Surface of the Water Can Look Below the Surface.
First use Aug. 1, 1955.

SN 37,277. Magnetics Mfg., Inc., Clayton, Mo. Filed Sept. 16, 1957.

PERKY POODLE

Without waiver of its common law rights, applicant makes no claim to exclusive right to use the word "Poodle" apart from the mark as shown.
For Magnetically Actuated Articulated Toy Dogs.
First use Sept. 3, 1957.

SN 37,761. Charles W. White, Baltimore, Md. Filed Sept. 24, 1957.

PONDER

For Board and Playing Pieces for Playing a Board Type Game.
First use May 15, 1957.

SN 38,577. Asrak-Hamway, Inc., New York, N. Y. Filed Oct. 7, 1957.

AHI

For Friction Toy Vehicles and a Flying Helicopter Doll.
First use January 1955.

SN 42,505. Luderus Bros., Milwaukee, Wis. Filed Dec. 16, 1957.

STAX

For Rack Used in Various Card Games To Hold Separate Portions of a Deck of Playing Cards.
First use Aug. 8, 1940.

SN 43,430. Diamond Tool and Horseshoe Co., Duluth, Minn. Filed Jan. 6, 1958.



Owner of Reg. Nos. 168,676, 577,668, and 577,669.
For Pitching Shoes.
First use Nov. 1, 1931.

SN 43,512. R. C. Hansinger, d. b. a. Nu-Cushion Products Company, Keene, Tex. Filed Jan. 2, 1958.

BROOM TAIL

For Toy Stick Horses.
First use Oct. 9, 1957.

SN 46,190. Apwood Products, Inc., Silver Spring, Md. Filed Feb. 20, 1958.

HandiAngler

For Fishing Float Containing a Line, Hook, and Sinker.
First use Feb. 10, 1938.

SN 46,667. Sportsman's Golf Corporation, Melrose Park, Ill. Filed Feb. 26, 1958.

Sportsman

For Golf Clubs and Golf Bags.
First use Dec. 15, 1948.

SN 46,866. Tony Accetta & Son, Riviera Beach, Fla. Filed Mar. 3, 1958.

JIGIT

For Artificial Fishing Lures.
First use July 1, 1950.

SN 47,402. Master Plug Co., Azusa, Calif. Filed Mar. 10, 1958.

MASTER

For Kits for Plugging Bowling Balls.
First use Jan. 17, 1958.

SN 47,926. Amloid Company, Saddle Brook, N. J. Filed Mar. 18, 1958.

CINDERELLA

For Toy Slippers.
First use Mar. 14, 1958.

SN 48,706. Cadaco-Ellis, Inc., Chicago, Ill. Filed Mar. 31, 1958.

ALL AMERICAN

For Component Parts of a Football Game Comprising a Game Board, Cards, and Spinner.
First use Mar. 19, 1958.

SN 49,459. The Perfect Parts Co., Baltimore, Md. Filed Apr. 10, 1958. Sec. 2(f).

PERFECT

For Accessory Parts for Model Airplanes, Trains, Boats, and Other Hobby Items.
First use Mar. 12, 1950.

SN 50,978. Colorforms, Norwood, N. J. Filed May 5, 1958.

COLORFORMS

For Educational Toys—Namely, Kits Utilizing Interchangeable Design Stickers and Pre-Cut Materials of Plastic, Wood, and Similar Material.
First use in June 1952.

SN 51,634. Ideal Toy Corporation, Hollis, N. Y. Filed May 14, 1958.

IDEAL'S CREAM PUFF

Owner of Reg. No. 295,982.
For Dolls.
First use May 1, 1958.

SN 52,348. South Bend Tackle Company, Inc., South Bend, Ind. Filed May 26, 1958.

HUSH PUPPY

For Artificial Fishing Lures.
First use May 12, 1958.

SN 52,467. Milton Bradley Company, Springfield, Mass. Filed May 28, 1958.

CHECKOUT

For Game Apparatus Comprising a Game Board Having Thereon Representations of Shelves Carrying Movable Representations of Various Packaged Foods, and Playing Pieces Movable on the Game Board.
First use May 12, 1958.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 19,262. Pattie Louise Moore Plant, Duluth, Minn., executrix of the estate of Leland G. Plant, deceased. Filed Nov. 14, 1956.

CARQUAKE

For Hopper Car Unloaders.
First use on or about Sept. 15, 1951.

SN 37,053. Tokheim Corporation, Fort Wayne, Ind. Filed Sept. 11, 1957.

TOKHEIM

Owner of Reg. Nos. 178,253, 515,859, and others.
For Submerged Motor-Pump Pumping Systems, and Submerged Motor-Pump Units and Parts Thereof—Namely, Conduit and Electric Conductor Connecting Manifolds, Current Relays, and Motor Controllers.
First use May 27, 1952.

SN 39,216. Freeman Chemical Corporation, Port Washington, Wis. Filed Oct. 21, 1957.

PAK-N-FOAM

For Urethane Foam Resin Packaging Machine.
First use June 3, 1957.

SN 44,787. Porter Precision Products Company, Cincinnati, Ohio. Filed Jan. 27, 1958.

Porter

For Piercing and Extruding Punches and Die Buttons.
First use Feb. 1, 1948.

SN 45,535. Dana Corporation, Toledo, Ohio. Filed Feb. 10, 1958.

SYNCHRO-MASTER

For Transmission Mechanisms—Namely, Multi-Speed Gear Boxes and Controls Therefor and Parts Thereof.
First use on or about Aug. 19, 1957.

SN 47,758. Leighton Company, Inc., Kalamazoo, Mich., assignee of Fuller Manufacturing Company, Kalamazoo, Mich. Filed Mar. 14, 1958.

FULLAIR CONTROL

Owner of Reg. No. 527,995.
For Air Operated, Shift Control Units for Vehicle Transmissions.
First use Jan. 23, 1958.

SN 53,646. Saf-T-Boom, Inc., Little Rock, Ark. Filed June 16, 1958.

SAF-T-BOOM

For Insulating Guards for the Booms of Cranes, Etc.
First use May 3, 1958.

SN 53,747. Tarrant Manufacturing Company, Saratoga Springs, N. Y. Filed June 17, 1958.

LITTER-GETTER

For Street Cleaning Machines.
First use June 12, 1957.

SN 53,748. Tarrant Manufacturing Company, Saratoga Springs, N. Y. Filed June 17, 1958.

LITTER SHARK

For Street Cleaning Machines.
First use June 26, 1957.

SN 54,234. International Salt Company, Scranton, Pa. Filed June 25, 1958.

BRINOMAT

For Brine Dispensing Machine.
First use May 27, 1958.

SN 54,836. The Deming Company, Salem, Ohio. Filed July 7, 1958.

Fianite

For Thermo-Setting Plastic Impellers and Diffusers for Water Pumps.
First use on or about June 6, 1958.

SN 55,174. The Union Chain & Manufacturing Company, Sandusky, Ohio. Filed July 11, 1958.

UNION CHAINS

No claim is made to the word "Chains" apart from the mark as shown. Owner of Reg. No. 617,364.
For Chains, Sprockets, and Flexible Couplings.
First use in 1950.

SN 55,857. Timesavers Sanders, Minneapolis, Minn. Filed July 23, 1958.

SPEEDBELT

For Sanding Machines.
First use Apr. 28, 1958.

SN 56,150. Martin Miller Aktiengesellschaft, Vienna, Austria. Filed July 28, 1958.

TIKON

Priority claimed under Sec. 44(d) on Jan. 31, 1958; Reg. No. 38,814, dated May 6, 1958.
For Saw Blades and Blanks for Making Such Blades.

SN 56,207. Underwood Corporation, New York, N. Y. Filed July 28, 1958.

DIPLOMAT

For Typewriting Machines.
First use Mar. 6, 1957.

SN 56,267. National Band and Tag Company, Newport, Ky. Filed July 29, 1958.

POWR-CEPS

For Band Applicators.
First use June 23, 1958.

SN 56,523. Borg-Warner Corporation, Chicago, Ill. Filed Aug. 4, 1958.

Jib Master

For Industrial Cranes and Parts Thereof for Replacement and Repair.
First use on or prior to July 11, 1958.

SN 60,378. Sprout, Waldron & Company, Inc., Muncy, Pa. Filed Oct. 9, 1958.

PNEU-PAC

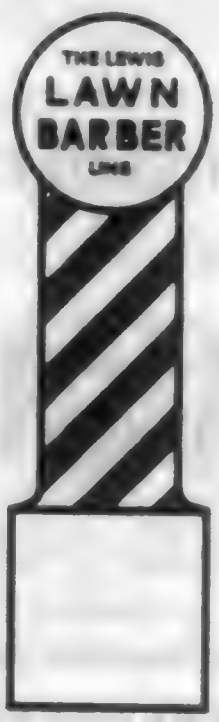
For Pneumatic Conveying Systems for Bulk Material.
First use Sept. 10, 1958.

SN 60,400. Cleveland Pneumatic Industries, Inc., Cleveland, Ohio. Filed Oct. 10, 1958.

Rekco-Line

For Pumps, Valves, and Actuators for Machinery, and Parts Thereof, and Controls and Attachments Therefor.
First use July 11, 1958.

SN 60,418. The Lewis Engineering & Mfg. Co., Alliance, Ohio. Filed Oct. 10, 1958.



The drawing is lined for red.
For Grass Shears.
First use Sept. 8, 1958.

SN 60,581. R. G. Staude Manufacturing Company, Inc., St. Paul, Minn. Filed Oct. 13, 1958. Sec. 2(f).

STAUDE

For Packaging Equipment and Printing Presses—Namely, Blank Cutting Apparatus, Box Folding and Assembling Apparatus, Wrapping Apparatus, Machinery for Making Envelopes, Gluers, Box Welding Apparatus, Dewaxers, Carton Window Applying Apparatus, Splicers, and Material Handing Apparatus; and Printing Presses.
First use in 1903.

SN 60,645. Armstrong-Blum Manufacturing Company, Chicago, Ill. Filed Oct. 15, 1958.

SURE-LINE

For Blade Control Devices for Saws.
First use Dec. 6, 1957.

SN 60,718. Ariens Company, Brillion, Wis. Filed Oct. 16, 1958.

ARIENS GARD-N-YARD

Owner of Reg. Nos. 510,552, 631,261, and 396,784.
For Wheeled, Motor Operated Tillers, and Mowers, and Blade and Tool Attachments Therefor.
First use Sept. 1, 1958; in 1932 as to "Ariens."

Class 26—Measuring and Scientific Appliances

SN 17,939. Jake Levin and Son, Inc., Kansas City, Mo., assignee of Jake Levin and Son, Kansas City, Mo. Filed Oct. 22, 1956.

Forecaster

For Barometers, Hygrometers, and Thermometers.
First use Aug. 25, 1956.

SN 21,677. Coleman Instruments, Inc., Maywood, Ill. Filed Dec. 27, 1956. Sec. 2(f).

PHOTOFLUOROMETER

For Analytical Instruments for the Quantitative Measurement of Fluorescence.
First use about Sept. 30, 1941.

SN 38,234. Salem-Brosius, Inc., Pittsburgh, Pa. Filed Oct. 2, 1957.

SABRO

For Portable Laboratory Equipment Such as Bacteriological Analysis Equipment.
First use in August 1957.

SN 41,231. Benson-Lehner Corporation, West Los Angeles, Calif. Filed Nov. 25, 1957.

FLIP

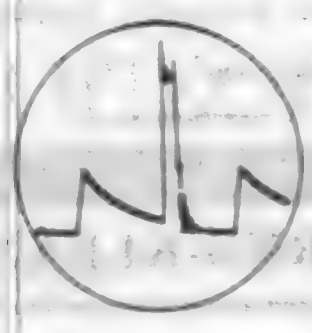
For Automatic Film Searching Machines.
First use June 18, 1957.

SN 44,222. Tiffen Marketing Company, Roslyn Heights, N. Y. Filed Jan. 17, 1958.

ROTOPOL

For Rotating Polarizing Unit in Photography.
First use on or about Oct. 21, 1957.

SN 45,620. Snap-On Tools Corporation, Kenosha, Wis. Filed Feb. 10, 1958.



For Engine Ignition System Analyzers and Testing Equipment of the Oscilloscope Type.
First use Oct. 29, 1957.

SN 46,310. Donald L. Golden, Detroit, Mich. Filed Feb. 21, 1958.

OcuLettes

For Contact Lenses.
First use Dec. 1, 1957.

SN 53,684. Rayex Corporation, Flushing, N. Y. Filed June 13, 1958.

MINALITE

For Sunglasses.
First use Sept. 15, 1957.

SN 54,184. Bailey Meter Company, Cleveland, Ohio. Filed June 24, 1958.

METROTYPE

Owner of Reg. No. 540,773.
For Automatic Printing and Totalising Metering Apparatus Used for Determining and Recording Characteristics of a Plurality of Electrical Circuits, Such as Current, Voltage, Power, Pulse Frequency, and/or Quantity, Integrated Changes in Voltage or Current, and the Like.
First use Sept. 23, 1949.

SN 54,529. Julie Research Laboratories, Incorporated, New York, N. Y. Filed June 30, 1958.

J·R·L

For Research Laboratory Equipment—Namely, Resistors, Resistance Ratio Standards, Decade Resistance Standards, Binary Resistance Sets, Binary Decimal Resistance Sets, Time Constant Networks, Operational Amplifier Summing Networks, Voltage Dividers, Precision Potentiometers, Resolver Bridges, Precision Voltage Supplies, Primary Standard Absolute Voltage References, Digital-Analog Converter Networks.
First use in November 1955.

Class 28 — Jewelry and Precious-Metal Ware

SN 45,480. Joseph H. Meyer Bros., Brooklyn, N. Y. Filed Feb. 7, 1958.

PEBBLE-TONE

For Necklaces and Earrings.
First use Jan. 21, 1958.

SN 50,049. Stephen N. Green, d. b. a. The Gem Exchange, Bayfield, Colo. Filed S. R. Apr. 21, 1958. Am. P. R. Nov. 17, 1958.

TELOLITH

Freely translated, the word "Telolith" means a stone or gem having an effect at a distance.
For Semi-Precious Stones Sold Unmounted and Incorporated Into Various Pieces of Jewelry Including Finger-Rings, Earrings, Pendants, Brooches, and the Like.
First use on or about Feb. 1, 1957.

SN 51,270. Gorham Manufacturing Company, Providence, R. I. Filed May 8, 1958.

SEA ROSE

Applicant disclaims the exclusive right to the word "Rose" apart from the trademark as used.
For Sterling Silver Flatware and Table Cutlery.
First use Mar. 10, 1958.

SN 51,645. Marvella Pearls, Inc., New York, N. Y. Filed May 14, 1958.

MARVELLIER

Owner of Reg. Nos. 324,839, 641,378, and others.
For Costume Jewelry—Namely, Necklaces, Bracelets, Pins, Earrings, Charms, Pearl Jewelry and Beads.
First use Jan. 2, 1958.

SN 57,006. Stella J. Reed, d. b. a. Stella, New York, N. Y. Filed Aug. 11, 1958.

STELLA'S LUCKY STAR

For Jewelry Either in the Shape of a Star or Displaying a Star Such as Finger Rings, Bracelets, Pendants, Charms, Cuff Links, and Brooches.
First use Jan. 5, 1956.

SN 57,007. Stella J. Reed, d. b. a. Stella, New York, N. Y. Filed Aug. 11, 1958.

LUCKY STAR

For Jewelry Either in the Shape of a Star or Displaying a Star Such as Finger Rings, Bracelets, Pendants, Charms, Cuff Links, and Brooches.
First use Jan. 5, 1956.

Class 29 — Brooms, Brushes, and Dusters

SN 54,778. Ox Fibre Brush Company, Inc., Frederick, Md. Filed July 3, 1958.

Sanicare

For Mops.
First use July 20, 1955.

SN 55,072. Los Angeles Brush Mfg. Corp., Los Angeles, Calif. Filed July 10, 1958.

"Mermaid"

For Brushes for Swimming Pools.
First use Feb. 14, 1958.

SN 56,678. Morris Harris, New York, N. Y. Filed June 24, 1958.

TITAN

For Paint Brushes.
First use Apr. 14, 1948.

Class 30—Crockery, Earthenware, and Porcelain

SN 36,483. Stetson China Co., Inc., Lincoln, Ill. Filed Aug. 29, 1957.

STETSON

Owner of Reg. Nos. 370,398 and 635,921.
For China Dinnerware.
First use Mar. 1, 1933.

Class 31—Filters and Refrigerators

SN 42,607. The Pyramid Rubber Company, Ravenna, Ohio. Filed Dec. 17, 1957.

EVENFLO

For Filtering and Straining Apparatus.
First use on or about Nov. 8, 1954.

SN 47,536. The E. L. Wagner Company, Incorporated, Darien, Conn. Filed Mar. 11, 1958.

WAGNER

The drawing is lined for different shades of blue.
For Filtering Systems for Swimming Pools.
First use during November 1954.

SN 55,186. Junkers & Co. Gesellschaft mit beschränkter Haftung, Wernau (Neckar), Germany. Filed June 18, 1958.

JUNKERS

Owner of German Reg. No. 631,327, dated Dec. 10, 1952.
For Refrigerators and Refrigerating Apparatus Operated by Artificial Cooling; Cooling Machines for Domestic and Industrial Purposes; Air Coolers, Air Cleaners.

SN 60,257. Baltimore Aircoil Company, Inc., Baltimore, Md. Filed Oct. 8, 1958.

BAC

For Cooling Towers, Evaporative Condensers and Components Thereof.
First use in September 1949.

SN 60,603. The Cuno Engineering Corporation, Meriden, Conn. Filed Oct. 14, 1958.

TURNO-KLEAN

For Filtering Apparatus and Components Thereof, Including Filter Cartridges.
First use Oct. 13, 1958.

SN 60,604. The Cuno Engineering Corporation, Meriden, Conn. Filed Oct. 14, 1958.

SUPER TURNO-KLEAN

For Filtering Apparatus and Components Thereof, Including Filter Cartridges.
First use Oct. 13, 1958.

SN 60,638. Sel-Rex Corporation, Nutley, N. J. Filed Oct. 14, 1958.

SELBESTOS

For Filtering Media.
First use Nov. 29, 1955.

Class 32—Furniture and Upholstery

SN 58,495. Buffalo-Eclipse Corporation, North Tonawanda, N. Y. Filed Sept. 8, 1958.

BOLT KING

For Display Racks for Bolts, Nuts, Washers, and Like Articles.
First use May 12, 1958.

SN 61,226. William J. Watkins, d. b. a. Watkins Industries, Canfield, Ohio. Filed Oct. 23, 1958.

ACOUSTOR

For Acoustically Treated Booths for the Isolation of Sound.
First use June 10, 1953.

SN 61,452. Tiffany Stand Company, St. Louis, Mo. Filed Oct. 27, 1958.

TIFFANY

For Metal Stands for Business Machines.
First use in 1921.

SN 61,482. Comfort Spring Corporation, Baltimore, Md. Filed Oct. 28, 1958.

LIVEWIRE

For Springs Adapted for Incorporation in the Seats and Backs of Furniture and Accessories Used Therewith.
First use in the fall of 1948.

SN 61,517. Sperry Rand Corporation, New York, N. Y. Filed Oct. 28, 1958.

TREASURE CHEST

For File Cabinets—Namely, Insulated Boxes or Chests for Receiving and Storing Paper Files and Valuables.
First use Jan. 15, 1935.

SN 61,937. Vision Associates Incorporated, South San Francisco, Calif. Filed Nov. 4, 1958.

horizons

For Tables and Upholstered Furniture.
First use Aug. 18, 1958.

Class 34 — Heating, Lighting, and Ventilating Apparatus

SN 29,595. Borg-Warner Corporation, Chicago, Ill. Filed May 8, 1957. Sec. 2(f).

Headquarters for Mechanical Cooling
SINCE 1905

For Air Conditioning Machinery and Apparatus—Namely, Air-Dehumidifiers; Air Washers; Air Cooling Units; Combined Heating, Cooling, and Dehumidifying Units and Self-Contained Air Conditioning Units Including Dehumidifier Coils, Compressors, Condensers, and Controls and Parts Thereof for Replacement and Repair.
First use prior to Dec. 31, 1948.

SN 37,323. Harry J. Walpole, Leonia, N. J. Filed Sept. 16, 1957.

CONDOSTAT

For Air Ducts and Air Diffusers for Air-Conditioning Apparatus.
First use Dec. 26, 1956.

SN 42,853. Duro-Dyne Corporation, Farmingdale, N. Y. Filed Dec. 23, 1957.

VANE-RAIL

For Mounting Fixture Used in the Formation of an Air Turning Vane Assembly.
First use May 9, 1953.

SN 42,959. Wright Manufacturing Company, Phoenix, Ariz. Filed Dec. 23, 1957.



For Air Coolers.
First use Oct. 25, 1957.

SN 42,981. The Goldware Corp., Chicago, Ill. Filed Dec. 24, 1957.

MagicGlass

For Automatic Gas and Electric Water Heaters.
First use Sept. 9, 1957.

SN 43,043. Muskegon Motors Specialties Co., a s. a. Woodlin Metal Products Division, Muskegon Motors Specialties Co., Jackson, Mich. Filed Dec. 26, 1957.



The drawing is lined for red and blue. Applicant makes no claim to the words "Quality First" apart from the mark shown, but does not relinquish its common law rights.
For Power Driven Ventilators, Stacks for Heating Stoves, Roof and Wall Type Gravity Ventilators, Cook Stove Ventilator Hoods, Stacks for Plumbing Ventilation, and Air Conditioners.
First use March 1952 on power driven ventilators.

SN 43,164. General Blower Company, Morton Grove, Ill. Filed Mar. 21, 1958.

GENERAL

For All Types of Centrifugal and Propeller Fans and Equipment for Industrial and Commercial Purposes Requiring the Movement of Air, Gases, or Material.
First use Dec. 31, 1945.

SN 43,612. Columbia Electric & Manufacturing Co., Spokane, Wash. Filed Mar. 28, 1958.

KOLDBOND

For Light Diffusing Louvers for Lighting Equipment.
First use Mar. 18, 1938.

SN 43,269. General Blower Company, Morton Grove, Ill. Filed Apr. 8, 1958.

DURA-TEMP

For All Types of Centrifugal and Propeller Fans and Equipment for Industrial and Commercial Purposes Requiring the Movement of Air, Gases, or Material.
First use Oct. 31, 1957.

SN 56,364. Stewart-Warner Corporation, Chicago, Ill. Filed July 30, 1958.

SW

Owner of Reg. No. 647,461.
For Heating and Air Conditioning Apparatus for General Industrial Application.
First use on or about March 1952.

SN 56,603. Thomas Industries, Inc., Louisville, Ky. Filed Aug. 4, 1958.

IL

For Residential Lighting Fixtures.
First use Nov. 8, 1957.

SN 56,604. Thomas Industries, Inc., Louisville, Ky. Filed Aug. 4, 1958.

INSPIRATION LIGHTING

For Residential Lighting Fixtures.
First use Nov. 8, 1957.

SN 56,746. Vapor Heating Corporation, Chicago, Ill. Filed Aug. 6, 1958.

VAPOR PERMA-FRACT

Owner of Reg. Nos. 576,567, 653,650, and 663,469.
For Refractory Rings for Boilers and Steam Generators.
First use Aug. 4, 1958.

SN 56,832. Burn-Zol Company, Minneapolis, Minn. Filed Aug. 8, 1958.

BURN-ZOL

For Incinerators.
First use Jan. 17, 1956.

SN 57,341. Carnes Corporation, Verona, Wis. Filed Aug. 18, 1958.

CURTAINAIRE

For Air Diffusers for Blanketing Surfaces With Warm, Cold, and/or Conditioned Air.
First use July 29, 1958.

SN 58,425. Rodney Hunt Machine Company, Orange, Mass. Filed Sept. 5, 1958.

HYDRA-FILM

For Thin Film Evaporators.
First use July 31, 1958.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 55,754. United States Steel Corporation, Pittsburgh, Pa. Filed July 21, 1958.

USS

For Packing for Swivel Wash Pipes and Pump Liners.
First use July 8, 1955.

SN 56,073. Aldens, Inc., Chicago, Ill. Filed July 28, 1958.
Owner of Reg. No. 574,471.

ALDENENTAL

For Automobile Tires.
First use Dec. 19, 1956.

SN 57,267. J. H. Fenner & Co. Limited, Marfleet, Hull, England. Filed Aug. 15, 1958.

FENAPLAST

Priority claimed under Sec. 44(d) on British Reg. No. 775,027, dated Mar. 6, 1958.
For Conveyor Belting.

Class 37—Paper and Stationery

SN 700,266. Sooty Concessions Limited, London, England. Filed Dec. 19, 1955.

SOOTY

Priority claimed under Sec. 44(d) on British Reg. No. 743,609, dated June 21, 1955.
For Paper Stationery and Paper Serviettes.

SN 34,430. International Paper Company, New York, N. Y. Filed July 26, 1957.

REDDISTRIP

For Multi-Wall Paper Bags.
First use June 14, 1957.

SN 40,555. Carolina Paper Mills, Inc., Rockingham, N. C. Filed Nov. 13, 1957.

LACE

For Toilet Paper.
First use July 10, 1957.

SN 40,673. Eastern Tablet Corporation, Albany, N. Y. Filed Nov. 14, 1957.

PEN PRIDE

For Memorandum Note Books, Writing Paper Tablets, Envelopes, and Writing Papers, Typewriter Paper, Filler Paper for Loose Leaf Binders, Writing Paper Pads, Stenographer Note Books, Composition Books.
First use in 1954.

SN 41,502. Roger Allan, Paris, France. Filed Nov. 29, 1957.

PEN-UP

Owner of French Reg. No. 467,867, dated Oct. 24, 1957 (Seine); Natl. Inst. No. 97,215.
For Ball Point Pen.

SN 43,286. Aero Mayflower Transit Company, Inc., Indianapolis, Ind. Filed Jan. 2, 1958.

PRIDE PAK

For Paper Products, Especially Wrapping and Cushioning Materials, Used in Packing Breakable Articles.
First use on or about Sept. 18, 1956.

SN 45,147. Di-Noc Chemical Arts, Inc., Cleveland, Ohio. Filed Feb. 8, 1958.

DINOFOIL

Owner of Reg. Nos. 196,223, 610,657, and others.
For Drafting Paper Having an Aluminum Core.
First use in April 1951.

SN 46,655. Simpson Timber Company, Seattle, Wash. Filed Feb. 28, 1958. Sec. 2(f).

Simpson

The drawing is lined for red. Owner of Reg. No. 656,840.
For Book and Fine Paper.
First use Apr. 30, 1957, as to the diamond design.

SN 48,556. Graham Paper Company, St. Louis, Mo. Filed Mar. 27, 1958.

Message

Owner of Reg. No. 350,223.
For Mimeograph Paper.
First use May 27, 1937.

SN 48,557. Graham Paper Company, St. Louis, Mo. Filed Mar. 27, 1958.

Safe-T-Shade

Owner of Reg. No. 380,699.
For Ledger Paper.
First use May 1, 1937.

SN 49,126. Crown Zellerbach Corporation, San Francisco, Calif. Filed Apr. 7, 1958. Sec. 2(f).

Gaylord

Owner of Reg. Nos. 206,963, 524,428, and others.
For Paper Bags and Sacks.
First use Mar. 20, 1935.

SN 49,827. Crown Zellerbach Corporation, San Francisco, Calif. Filed Apr. 17, 1958. Sec. 2(f).

Gaylord

Owner of Reg. Nos. 206,963, 524,428, and others.
For Wrapping Paper.
First use in June 1936.

SN 52,882. Seal-O-Matic Dispenser Corporation, Newark, N. J. Filed June 3, 1958.

LABELMASTER

For Manually Operated Envelope and Label Moistenors.
First use Sept. 8, 1957.

SN 54,318. Kalamazoo Vegetable Parchment Company, d. b. a. The KVP Company, Kalamazoo, Mich. Filed June 26, 1958.

Tree-Craft
PAPER PRODUCTS

Applicant claims no exclusive rights in paper products as the name of goods identified herein.
For Wrapping Paper.
First use May 9, 1958.

SN 55,600. Ozark Pencil Co., Lewisburg, Tenn. Filed July 18, 1958.

SERV-WEL

For Pencils and Ball-Point Pens.
First use in 1911.

SN 55,602. Ozark Pencil Co., Lewisburg, Tenn. Filed July 18, 1958.

TROPIC

For Pencils.
First use in 1911.

SN 55,949. William Seaver, Mayagues, Puerto Rico. Filed July 24, 1958.

EVERITE

For Ball Point Pens.
First use May 1, 1958.

SN 59,846. Picture Paper Products Corp., New York, N. Y. Filed Sept. 30, 1958.

STA-KLEEN

For Paper Napkins, Bibs, Place Mats.
First use July 25, 1958.

SN 60,029. Ekonomik, Inc., Tacoma, Wash. Filed Oct. 3, 1958.

EK

For Check Registers and Checks.
First use Dec. 1, 1957.

SN 60,108. The Charmin Paper Products Company, Cincinnati, Ohio. Filed Oct. 6, 1958.

CLOUD SPUN

For Facial Tissue, Paper Napkins, Paper Towels, and Toilet Tissue.
First use Sept. 3, 1958, on facial tissue and paper napkins.

SN 60,110. The Charmin Paper Products Company, Cincinnati, Ohio. Filed Oct. 6, 1958.

white cloud

Owner of Reg. No. 318,626.
For Toilet Paper, Paper Towels, Paper Napkins, and Facial Tissue.
First use June 21, 1934, on toilet paper, paper towels, and paper napkins.

SN 60,157. Linton Brothers & Co., Inc., Fitchburg, Mass. Filed Oct. 6, 1958.

Polaris

For Bristol Board.
First use Aug. 30, 1958.

Class 38 — Prints and Publications

SN 39,606. Eastman Kodak Company, Rochester, N. Y. Filed Oct. 28, 1957.

Kodak

Owner of Reg. No. 195,218.
For Photographic Prints.
First use Oct. 10, 1957.

SN 40,358. Metalcraft Corp., Chicago, Ill. Filed Nov. 8, 1957.

METALCRAFT

For Framed Pictures.
First use in June 1933.

SN 45,500. Societe d'Etudes et de Publications Economiques, S. A. R. L., Paris, France. Filed Feb. 4, 1958.

Réalités

For Magazines Published Monthly in English and French.
First use February 1946; in commerce October 1952.

SN 48,728. Enthusiast Publications, Inc., Playa Del Rey, Calif. Filed Mar. 31, 1958.

Eve

For Magazines.
First use Feb. 11, 1958.

SN 48,929. Soiltest, Inc., Chicago, Ill. Filed Apr. 2, 1958.

THE TESTING WORLD

For Company News Letter.
First use Nov. 20, 1957.

SN 54,195. The Stevens-Davis Company, Chicago, Ill. Filed June 24, 1958.

SALES MOTIVATION

For Sales Training Booklets Issued From Time to Time.
First use Apr. 30, 1958.

SN 55,854. Implement & Tractor International Corp., Kansas City, Mo. Filed July 23, 1958.

World Farming

For Magazine.
First use July 11, 1958.

SN 56,355. Rose Patch and Label Company, Grand Rapids, Mich. Filed July 30, 1958.

ROSTAY

For Cloth Labels.
First use July 10, 1957.

SN 56,519. The American Sportsman, Inc., Berwyn, Ill. Filed Aug. 4, 1958.

AMERICAN SPORTSMAN

For Reproductions of Wild Life Suitable for Ornamental Display.
First use Nov. 1, 1956.

SN 56,999. Pen and Brush Studio Inc., St. Paul, Minn. Filed Aug. 11, 1958.

Pen-n-Brush

For Greeting Cards.
First use Apr. 26, 1958.

SN 57,131. Clement and Sirrine, Bridgeport, Conn. Filed Aug. 13, 1958.

CLEON OF CORINTH

For Comic Strip.
First use July 30, 1958.

Class 39 — Clothing

SN 30,909. International Latex Corporation, Dover, Del. Filed May 28, 1957.

COTTON-PRETTY

For Brassieres.
First use May 9, 1957.

SN 33,561. Mine Safety Appliances Company, Pittsburgh, Pa. Filed July 11, 1957.

SHOCKGARD

For Protective Headgear.
First use at least as early as Aug. 17, 1955.

SN 38,313. Edward Van Baerle, Chicago, Ill. Filed Oct. 3, 1957.

DRENCH COAT

Applicant claims no exclusive rights in "Coat" as the name of the goods identified herein.
For Raincoats.
First use June 7, 1937.

SN 48,491. John W. Lohrens, Long Beach, Calif. Filed Mar. 26, 1958.

SHOC-SHELL

For Protective Helmet.
First use May 15, 1946.

SN 48,612. Joseph H. Osbey & Sons Inc., New York, N. Y. Filed Mar. 28, 1958.

TWEADSHIRE

For Men's and Women's, and/or Children's Clothing—Namely, Topcoats and Overcoats.
First use July 1, 1936.

SN 49,670. Blue Bell, Inc., Greensboro, N. C. Filed Apr. 15, 1958.

POWDER HORN

For Men's, Boys', and Children's Western Jeans, Western Jackets and Western Shirts.
First use Feb. 25, 1958.

SN 49,671. Blue Bell, Inc., Greensboro, N. C. Filed Apr. 15, 1958.

BULL HORN

For Men's, Boys', and Children's Western Jeans, Western Jackets and Western Shirts.
First use Feb. 25, 1958.

SN 49,672. Blue Bell, Inc., Greensboro, N. C. Filed Apr. 15, 1958.

COPPER COIN

For Men's Coveralls and Lined and Unlined Coats; Men's and Boys' Pants, Shirts, and Lined Jackets, Men's, Boys', and Children's Bib Overalls and Dungarees; and Children's Elastic Waist Slacks.
First use Feb. 25, 1958.

SN 49,673. Blue Bell, Inc., Greensboro, N. C. Filed Apr. 15, 1958.

TOP TEN

For Men's Coveralls, Lined and Unlined Work Coats and Sport Slacks; Men's and Boys' Pants, Work Shirts, Ivy League Pants, Bermuda Shorts, Western Shirts and Lined Jackets; Men's, Boys', and Children's Bib Overalls, Dungarees, Sport Shirts, Sport Jackets, and Western Jeans and Jackets; Children's Elastic Waist Slacks; and Boys' and Children's Half Elastic Back Slacks and Elastic Waist Shorts.
First use Feb. 25, 1958.

SN 49,674. Blue Bell, Inc., Greensboro, N. C. Filed Apr. 15, 1958.

BLUE GIANT

For Men's Coveralls and Lined and Unlined Coats; Men's and Boys' Pants, Shirts, and Lined Jackets; Men's, Boys', and Children's Bib Overalls and Dungarees; and Children's Elastic Waist Slacks.
First use Feb. 25, 1958.

SN 49,675. Blue Bell, Inc., Greensboro, N. C. Filed Apr. 15, 1958.

FIRE BALL

For Men's Coveralls and Lined and Unlined Coats; Men's and Boys' Pants, Shirts, and Lined Jackets; Men's, Boys', and Children's Bib Overalls and Dungarees; and Children's Elastic Waist Slacks.
First use Feb. 25, 1958.

SN 50,790. The Goodimade Waist and Dress Co., Philadelphia, Pa. Filed May 1, 1958.

Jo-Mar

For Children's Blouses, Skirts, Shorts, and Pedal Pushers.
First use Apr. 9, 1958.

SN 51,384. The United States Shoe Corporation, Cincinnati, Ohio. Filed May 9, 1958.

Selby FIFTH AVENUE

Owner of Reg. Nos. 55,321, 635,993, and others.
For Women's Shoes Made From Leather, Fabric, Rubber, or Combinations of These Materials.
First use May 1, 1958.

SN 51,455. Impermeabili San Giorgio, Società per Azioni, Genoa-Sturla, Italy. Filed May 12, 1958.

SAN GIORGIO

The translation of "San Giorgio" is "Saint George."
For Water-Proof Garments—Namely, Raincoats.
First use September 1938; in commerce September 1957.

SN 52,716. John-Frederics, Inc., New York, N. Y. Filed June 17, 1958.

CHARMERETTE

Owner of Reg. No. 595,198.
For Women's and Children's Hats.
First use Jan. 31, 1958.

SN 53,717. John-Frederics, Inc., New York, N. Y. Filed June 17, 1958.

MISS FREDERICS OF JOHN FREDERICS

For Women's and Children's Hats.
First use September 1957.

SN 53,926. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed June 20, 1958.

BEXLEY

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use June 18, 1958.

SN 54,060. The Millville Manufacturing Company, Philadelphia, Pa. Filed June 23, 1958.

MERNIZED

Owner of Reg. Nos. 311,358 and 637,231.
For Diapers.
First use Sept. 11, 1956.

SN 55,071. Leighton Manufacturing Co., Inc., Dallas, Tex. Filed July 10, 1958.

MR. MAC JRS.

The notation "Jrs." is disclaimed apart from the mark as shown.
For Ladies' Dresses, Skirts, and Blouses.
First use Oct. 21, 1957.
Subj. to Intf. with Reg. No. 671,585.

SN 55,750. Troutman Shirt Company, Inc., Troutman, N. C. Filed July 21, 1958.

HONEST JOHN

For Men's and Boys' Work, Sport, and Dress Shirts.
First use June 16, 1958.

SN 56,424. Timely Clothes, Inc., Rochester, N. Y. Filed July 31, 1958.

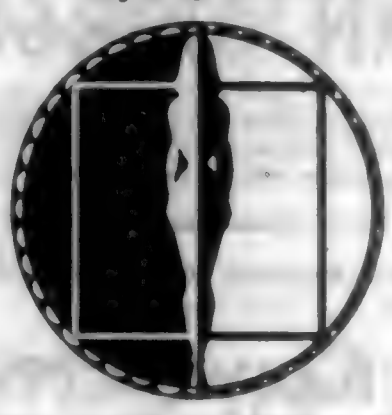
DC-8

For Men's Suits, Sport Coats, Slacks, and Outer Coats.
First use about June 23, 1958.

Class 41—Canes, Parasols, and Umbrellas

SN 55,456. Ward L. Court, d. b. a. Hawaiian Rattan Craft, Redondo Beach, Calif. Filed July 17, 1958.

Shady Lady Umbrella



Applicant claims no exclusive rights in "Umbrella" as the name of the goods identified herein.
For Umbrella.
First use May 21, 1958.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 30,651. J. P. Stevens & Co. Inc., New York, N. Y., assignee of D. B. Fuller & Co., Inc., New York, N. Y. Filed May 24, 1957.

SARASOTA

For Textile Fabrics in the Piece of Rayon, Synthetic Fibres, and Combinations Thereof for Use in Women's Dresses and Blouses.
First use Dec. 3, 1956.

SN 35,713. Westminster Carpets Proprietary Limited, Dandenong, Victoria, Australia. Filed Aug. 16, 1957.

CORROBOREE

Owner of Australian Reg. No. 132,515, dated June 12, 1957.
For Textile Carpets and Rugs.

SN 51,418. Blue Ridge Textile Co., Inc., Bangor, Pa. Filed May 12, 1958.

CROWN VOCAMA

For Tricot Knit Fabric Sold by the Yard for Making Into Coats, Suits, Sport Jackets, and the Like.
First use Aug. 23, 1957.

SN 57,562. Pacific Mills Domestics Corp., New York, N. Y. Filed Aug. 20, 1958.

PACIMATIC

For Bed Sheets, Made of Cotton and/or Synthetic Fibres.
First use Aug. 8, 1958.

Class 43—Thread and Yarn

SN 55,375. Burlington Industries, Inc., Greensboro, N. C. Filed July 16, 1958.

Bur Mil-lon

Owner of Reg. No. 506,306.
For Yarn.
First use Mar. 31, 1958.

SN 57,497. Readicut Wool Company Limited, Horbury, England. Filed Aug. 19, 1958.

TWILIGHT

For Precut Lengths of Worsted or Wool Yarn.
First use 1930; in commerce Feb. 2, 1938.

Class 44—Dental, Medical, and Surgical Appliances

SN 46,800. Chase Bottle & Supply Corp., New York, N. Y. Filed Feb. 28, 1958.

TEMP-KIT

For Clinical Thermometers Packaged With a Non-Tippable Sterilizing Jar.
First use Jan. 7, 1958.

SN 48,625. The B. F. Goodrich Company, Akron, Ohio. Filed Mar. 28, 1958.

B.F.Goodrich

Owner of Reg. Nos. 64,996, 427,173, and others.
For Surgical, Therapeutic, Pharmaceutical, and Hospital Supplies—Namely, Water Bottles, Fountain Syringes, Combination Syringes, Bulb Syringes, Ice Bags, Ice Caps, Throat Bags, Hospital Sheeting, Hospital Crib Sheets, Hospital Contour Sheets, Surgeons' Gloves, Catheters, Intravenous Tubing, Drainage Tubing, Laboratory Aprons, Urinals, and Invalid Rings.
First use about January 1957.

SN 51,244. Abbott Laboratories, North Chicago, Ill. Filed May 8, 1958.

TRANSPAK

For Empty Disposable Unit for Collection, Storage, and Intravenous Administration of Fluids.
First use Mar. 24, 1958.

SN 52,762. J. A. Preston Corporation, New York, N. Y. Filed June 2, 1958.

DENSIFOAM

For Gymnasium Mats, Treatment Table Pads, and Wheelchair Pads.
First use May 28, 1958.

SN 53,903. The Kendall Company, Boston, Mass. Filed June 18, 1958.

QUADRO

For Elastic Bandages.
First use Apr. 14, 1958.

SN 53,830. Julius Schmid, Inc., New York, N. Y. Filed June 18, 1958.

Ramses

Owner of Reg. Nos. 247,841, 560,813, and others.
For Vaginal Diaphragms (Pessaries), Pessary Introducers, Prophylactic Rubber and Membranous Articles for the Prevention of Contagious Diseases, and Vaginal Jelly Applicators.
First use 1924 on vaginal diaphragms.

Class 46—Foods and Ingredients of Foods

SN 22,851. Algarve Exportador Lda., Lisbon, Portugal. Filed Jan. 18, 1957.

TRIDENT

Owner of U. S. Reg. No. 543,896.
For Canned Sardines and Canned Anchovies.
First use July 2, 1946; in commerce July 2, 1946.

SN 28,773. Falbisch Corporation, New York, N. Y. Filed Apr. 24, 1957.

TJAP KEPALA KUDA

TJAP KEPALA KUDA

HORSE HEAD BRAND

The words "Tjap Kepala Kuda" mean "Horse Head Brand" in the Indonesian language. Applicant disclaims the words "Tjap" and "Brand."
For Hard Flour.
First use Jan. 1, 1947.

SN 30,776. High's Dairy Products Corp., Washington, D. C. Filed May 27, 1957.



"Family of Four"

HIGH'S

For Fluid Milk.
First use Mar. 27, 1957.

SN 35,876. Penick & Ford, Ltd., Incorporated, New York, N. Y. Filed Aug. 20, 1957.

Penick P&F

Owner of Reg. Nos. 54,577, 551,986, and others.
For Starch Used in Processing Food Products.
First use July 24, 1937.

SN 37,137. Brooks Foods, Inc., Collinsville, Ill. Filed Sept. 18, 1957. Sec. 2(f).

Boone County

Owner of Reg. Nos. 512,005 and 649,426.
For Mexican Style Beans, Tomato Catsup, Barbecue Sauce, Chili Sauce, Tomato Puree, Tomato Paste, and Tomato Soup.
First use 1916 on Mexican style beans.

SN 44,888. E-Z Spuds, Inc., Chicago, Ill. Filed Jan. 29, 1958.

E-Z SPUDS

Applicant disclaims the word "Spuds."
For Raw Potatoes Which Have Been Peeled and Preserved or Have Been Peeled, Sliced, and Preserved.
First use May 1953.

SN 45,656. Ralph Schwartz, d. b. a. American Bean & Rice Co., Brooklyn, N. Y. Filed Feb. 10, 1958.



The words "Rey de Habs" is the Spanish translation of the English words "king of beans."
For Packaged Dry Beans.
First use May 1, 1957.

SN 46,412. Bozeman Canning Co., Inc., Bozeman, Mont. Filed Feb. 24, 1958.



For Canned Mixed Peas and Carrots.
First use October 1957.

SN 50,931. Sixty Second Shops, Inc., Cincinnati, Ohio. Filed May 2, 1958.

BIG SIXTY

For Hamburger Sandwiches.
First use November 1952.

SN 52,566. Food Manufacturers, Inc., Hackettstown, N. J. Filed May 29, 1958.

Secret

For Candy.
First use Apr. 22, 1958.

SN 53,715. Jacobs, Malcolm & Burtt, d. b. a. North American International Company, San Francisco, Calif. Filed June 17, 1958.

Ocean Floor

For Canned Abalone.
First use Apr. 28, 1958.

SN 54,244. Melnot L. McBride, d. b. a. Uncle Matt's Hot Cake & Batter Co., Wendell, Idaho. Filed June 25, 1958.



For Refrigerated Buttermilk Hot Cake and Waffle Batter.
First use May 9, 1958.

SN 54,522. Henri's Food Products Co., Inc., Milwaukee, Wis. Filed June 30, 1958.



Owner of Reg. No. 666,666.
For Salad Dressings.
First use Sept. 1, 1935.

SN 56,200. Sunkist Growers, Inc., Los Angeles, Calif. Filed July 28, 1958.

DARI-BOX

For Fruit Punch and Concentrate for Making the Same.
First use May 1, 1958.

SN 56,498. Quality Dairy Company, St. Louis, Mo. Filed Aug. 1, 1958.

TEEN AGE

For Fruit Punch.
First use July 10, 1958.

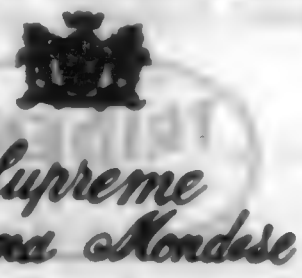
SN 56,889. The Sucher Packing Company, Dayton, Ohio. Filed Aug. 8, 1958.

SLIM JIM

For Wieners.
First use Sept. 9, 1957.

Class 47—Wines

SN 48,948. Supreme Wine Co., Inc., Boston, Mass. Filed Apr. 2, 1958.



The letters "S" and "W" appear within the crest design. No claim is made to the word "Crema" apart from the mark shown for the purposes of this registration; but no common

law or other rights are otherwise waived. The drawing is lined for the colors red and gold. Owner of Reg. Nos. 352,620 and 623,659.

For Wine.

First use on or about Jan. 30, 1957.

SN 53,262. Horowitz Bros. & Margareten, Long Island City, N. Y. Filed June 10, 1958. Sec. 2(f).

HOROWITZ MARGARETEN

Owner of Reg. Nos. 131,941, 350,763, and others.

For Wines.

First use Oct. 10, 1947.

Class 48—Malt Beverages and Liquors

SN 56,916. Borun Bros., Los Angeles, Calif. Filed Aug. 11, 1958.

OLD GIBRALTAR

For Beer.

First use Oct. 4, 1954.

Class 49—Distilled Alcoholic Liquors

SN 47,974. Schenley International Corporation, New York, N. Y. Filed Mar. 18, 1958.

Canadian Cousin

Applicant asserts exclusive rights in the word "Canadian" only in combination with the word "Cousin" as shown.

For Canadian Whiskey.

First use Mar. 12, 1958.

SN 52,769. Schenley Industries, Inc., New York, N. Y. Filed June 2, 1958.



The drawing is lined for brown and red. Exclusive use of the word "Rum" is disclaimed. Owner of Reg. Nos. 334,748, 344,317, and 367,271.

For Rum.

First use Dec. 28, 1938.

SN 56,882. Schenley Industries, Inc., New York, N. Y. Filed Aug. 8, 1958.

SCHENLEY'S AMERICANA

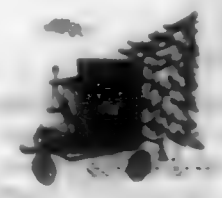
Owner of Reg. Nos. 610,493, 632,395, and others.

For Distilled Dry Gin.

First use July 1, 1958.

Class 50—Merchandise Not Otherwise Classified

SN 40,446. Flowerized Presentations, Inc., New York, N. Y. Filed Nov. 12, 1957.



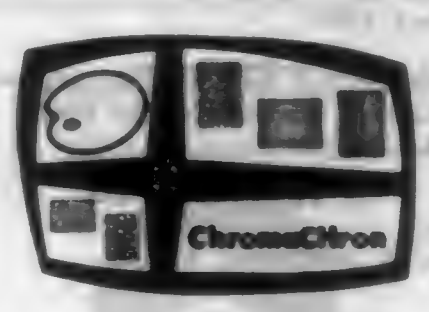
"Mr. Christmas"

Owner of Reg. No. 16,876.

For Christmas Ornaments and Decorations.

First use Aug. 1, 1954.

SN 41,239. The Chronicle Publishing Company, San Francisco, Calif. Filed Nov. 25, 1957.



The drawing is lined for yellow, blue, red, green, and orange.

For Kits Containing a Color Wheel, Color Chips, a Palette, Gray Scales, Paints and a Book of Instructions Used in the Determination of Color Values That May Be Used in Color Telecasting.

First use Oct. 3, 1957.

SN 41,240. The Chronicle Publishing Company, San Francisco, Calif. Filed Nov. 25, 1957.

CHROMACHRON

For Kits Containing a Color Wheel, Color Chips, a Palette, Gray Scales, Paints and a Book of Instructions Used in the Determination of Color Values That May Be Used in Color Telecasting.

First use Oct. 3, 1957.

SN 43,919. Charles Bruning Company, Inc., Mount Prospect, Ill. Filed Jan. 14, 1958.

MARK-ONE

For Stationary Surveying Monuments.

First use Apr. 8, 1957.

Class 52—Detergents and Soaps

SN 11,980. UHU-Werk H. U. H. Fischer, Buehl, Baden, Germany. Filed July 11, 1956.

UHU

Owner of German Reg. No. 656,425, dated Apr. 21, 1954; and U. S. Reg. Nos. 624,718 and 631,547.

For Alkaline and Acid Washing and Cleansing Agents, Soaps in Liquid, Solid, Flake, and Powder Form, Liquid and Solid Detergents and Spot Removers.

SN 38,700. Mal Manufacturing Co., Akron, Ohio. Filed Oct. 10, 1957.

MALCO

For Laundry Detergent, Scrub Soap, Hand Dishwashing Powders, Machine Dishwashing Powders, All Purpose Cleaner, Powdered Scrub Soap, Bowl Cleaner, Liquid Floor Cleaner, Liquid Bowl Cleaner, Liquid Dishwashing Detergent, Glass Rince, Coconut Oil Base Soaps, Dust Mop Treatment, Floor Wax, Neutral Cleaner, Liquid Hand Soap, Powdered Hand Soap, Bubble Solution, Tile Cleaner, Leather and Plastic Cleaner, White Sidewall Cleaner, Windshield Solvent, Glass Cleaner, Powdered Car Wash, Liquid Car Wash, Rust Remover, Chrome Cleaner, Rubber Conditioner, Tar Solvent, Bug Remover, Upholstery Cleaner, Garage Floor Cleaner, Mechanics' Hand Soap, Carburetor Cleaner, and Frost and Ice Remover.

First use June 1, 1953.

SN 46,548. Richard Hudnut, Morris Plains, N. J. Filed Feb. 25, 1958.

FREEDOM

For Shampoo.

First use Dec. 30, 1957.

SN 49,599. Nassour Studios, Inc., d. b. a. Nassour Co, Ltd., Los Angeles, Calif. Filed Apr. 14, 1958.

ROYALTY

For Soap.

First use Jan. 7, 1958.

SN 54,848. Fine Laboratories, Inc., Freeport, Ill. Filed July 7, 1958.

NOW!

The words "Fine Lab" appear above the word "Now!"

Owner of Reg. No. 658,618.

For Liquid Detergent for General Cleaning Purposes.

First use Nov. 11, 1957.

SN 55,201. New Castle Fluid Chemical Co., New Castle, Pa. Filed July 14, 1958.

Penna

For Household Liquid Detergent.

First use June 26, 1958.

SN 57,018. Soap Specialties, Inc., Philadelphia, Pa. Filed Aug. 11, 1958.

FORCE

For Cleaner-Disinfectant for Hospital and Institutional Use.

First use on or about Oct. 1, 1957.

SERVICE MARKS

Class 100—Miscellaneous

SN 39,053. Farrington Manufacturing Company, Needham Heights, Mass. Filed Oct. 17, 1957.

CHARGA-CARD

Owner of Reg. No. 537,626.

For Advisory Services in Connection With the Installation and Maintenance of Credit Identification Systems.

First use Feb. 14, 1953.

Class 101—Advertising and Business

SN 36,502. Dayton Tech Art Company, Dayton, Ohio. Filed Aug. 30, 1957.

tech art

For Preparation and Production of Technical and Advertising Literature, Including All Technical Services Required, Such as Writing, Illustrating, and Reproduction.

First use Nov. 12, 1956; October 1949 as to "Tech Art."

SN 48,098. Just One Break, Inc., New York, N. Y. Filed Mar. 20, 1958.

Just One Break, inc.

For Selective Placement of the Physically Handicapped in Productive Jobs.

First use Apr. 18, 1952.

Class 102—Insurance and Financial

SN 25,368. Valley State Bank, Salt Lake City, Utah. Filed Mar. 1, 1957.



No claim is made to the words "Ready Reserve" apart from the mark as shown.

For Banking Services, Specifically the Setting Up and Maintaining of Special Savings Accounts for Customers and the Making of Loans to Such Customers Based on the Collateral Value of the Savings Accounts.

First use Dec. 30, 1956.

Class 103—Construction and Repair

SN 47,622. Ace Exterminators, Inc., Fairmont, W. Va. Filed Mar. 13, 1958.



For Pest Exterminating Services.

First use Feb. 7, 1955.

Class 105—Transportation and Storage

SN 34,201. Aktiebolaget Svenska Amerika Linien, d. b. a. Swedish American Line & Svenska Amerika Linien, New York, N. Y. Filed June 25, 1938.

THE WHITE VIKING FLEET

For Services Rendered in the Transportation of Passengers, Cargo, Mail, Packages, and Baggage by Steamships and Motor Vessels.

First use Mar. 31, 1946; in commerce Mar. 31, 1946.

Class 106—Material Treatment

SN 53,853. Colebert L. Andrus, d. b. a. Androe Chemical Company, Minneapolis, Minn. Filed June 19, 1958.



The term "Pole-Check Service," when used apart from the mark as shown, is disclaimed.

For Continuous Pole Checking and Treating Service To Prevent Decay Thereof.

First use Mar. 10, 1958.

Class 107—Education and Entertainment

SN 31,706. The Gideons International, Chicago, Ill. Filed May 15, 1958.



Owner of Reg. No. 631,335.

For Dissemination of Bibles, Testaments, and Literature to Individuals, Hotels, Schools, Hospitals, Penal Institutions, Armed Forces, Nurses, Motels, Airplanes, Trains, and Steamships.

First use Oct. 20, 1955; June 8, 1902, as to "Gideon"; Aug. 15, 1911, as to design.

COLLECTIVE MEMBERSHIP MARKS

Class 200

SN 32,378. Alpha Chi, San Marcos, Tex. Filed May 27, 1938.

For Indicating Membership in Applicant.

Alpha Chi



First use Feb. 22, 1934.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

673,685. SVELTE. Armour and Company. SN 32,891. Pub. 11–25–58. Filed 7–1–57.

673,686. HONEYCOMB CALF. A. F. Gallun & Sons Corporation. SN 44,897. Pub. 11–25–58. Filed 1–29–58.

673,687. SILTEMP. Haveg Industries, Inc. SN 50,298. Pub. 11–25–58. Filed 4–24–58.

673,688. ADANO. Armour and Company. SN 52,188. Pub. 11–25–58. Filed 5–23–58.

Class 2—Receptacles

673,689. LIQUEFREEZE. The Union Stock Yard and Transit Company of Chicago. SN 22,348. Pub. 11–25–58. Filed 1–9–57.

673,690. PAN TRAY AND DESIGN. John T. Raisin Corporation. SN 36,228. Pub. 11–25–58. Filed 8–26–57.

673,691. REX. Ames Safety Envelope Company. SN 36,554. Pub. 11–25–58. Filed 9–3–57.

673,692. DIXIE VENDALITE CUP. American Can Company. SN 38,250. Pub. 11–25–58. Filed 10–3–57.

673,693. LURON. United States Borax & Chemical Corporation. SN 38,776. Pub. 11–25–58. Filed 10–11–57.

673,694. QUARTER PAK. Philadelphia Steel and Wire Corporation. SN 47,139. Pub. 11–25–58. Filed 3–5–58.

673,695. PACK WITH PACKY AND DESIGN. The Hollinger Corporation. SN 47,500. Pub. 11–25–58. Filed 3–11–58.

673,696. GLITTER LITTER BUG AND DESIGN. Glitter Bug Products Company. SN 47,853. Pub. 11–25–58. Filed 3–17–58.

673,697. CCC. Continental Can Company, Inc. SN 47,940. Pub. 11–25–58. Filed 3–18–58.

673,698. BRACON AND DESIGN. The Bradley Container Corporation. SN 48,006. Pub. 11–25–58. Filed 3–19–58.

673,699. PORTA-TRAY. Hamilton-Sketch Corporation. SN 48,741. Pub. 11–25–58. Filed 3–31–58.

673,700. FIBERMETAL. Stone & Smith, Inc. SN 48,878. Pub. 11–25–58. Filed 4–1–58.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

673,701. KRESSLINE. Enger-Kress Company. SN 45,382. Pub. 11–25–58. Filed 2–6–58.

Class 4—Abrasives and Polishing Materials

673,702. ROYAL COACH. Royal Coach Products, Inc. SN 52,340. Pub. 11–25–58. Filed 3–26–58.

Class 6—Chemicals and Chemical Compositions

673,703. A BETTER START FOR YOUR FINISH. Pennsalt Chemicals Corporation, by change of name from The Pennsylvania Salt Manufacturing Company. SN 19,498. Pub. 11–25–58. Filed 11–19–56.

673,704. AROMALOK. Fritzsche Brothers, Inc. SN 19,764. Pub. 7–30–57. Filed 11–23–56.

673,705. SYL-GARD. Dow Corning Corporation. SN 30,149. Pub. 11–25–58. Filed 5–16–57.

673,706. PENTA PETE AND DESIGN. Colebert L. Andrus, d. b. a. Andrue Chemical Company. SN 39,031. Pub. 11–25–58. Filed 10–17–57.

673,707. UNION CARBIDE AND DESIGN. Union Carbide Corporation. SN 39,690. Pub. 11–25–58. Filed 10–28–57.

673,708. PDO 40. Sun Oil Company. SN 39,844. Pub. 11–25–58. Filed 10–30–57.

673,709. GREEN STUFF AND DESIGN. Krieger Color & Chemical Co., Inc. SN 39,966. Pub. 11–25–58. Filed 11–1–57.

673,710. CLAROSOL. General Aniline & Film Corporation. SN 40,339. Pub. 11–25–58. Filed 11–8–57.

673,711. FOUR-PAC. Four Pac Chemical Corporation. SN 42,642. Pub. 11–25–58. Filed 12–18–57.

673,712. UNICO AND DESIGN. United Co-Operatives, Inc. SN 42,792. Pub. 11–25–58. Filed 12–20–57.

673,713. NOPCOSANT. Nopco Chemical Company. SN 43,199. Pub. 11–25–58. Filed 12–30–57.

673,714. JETROL. Monsanto Chemical Company. SN 43,327. Pub. 11–25–58. Filed 1–2–58.

673,715. RESISTAIN. John B. Stetson Company. SN 44,653. Pub. 11–25–58. Filed 1–24–58.

673,716. DION-180 AND DESIGN. Chemical Process Company. SN 45,120. Pub. 11–25–58. Filed 2–3–58.

673,717. SERSEAL. Imperial Chemical Industries Limited. SN 45,167. Pub. 11–25–58. Filed 2–3–58.

673,718. PLASTAIR. Fritz Schenker-Winkler, d. b. a. Kaspar Winkler & Co. SN 46,762. Pub. 11–25–58. Filed 2–27–58.

673,719. NEOLITE. The Goodyear Tire & Rubber Company. SN 52,304. Pub. 11–25–58. Filed 5–26–58.

673,720. LIVING LIGHT. Ultra-Violet Products, Inc. SN 53,210. Pub. 11–25–58. Filed 6–9–58.

673,721. AERO-SOLABSOLUTE. Albert Verley & Company. SN 53,545. Pub. 11–25–58. Filed 6–13–58.

673,722. AERO-SOLFLAVROMES. Albert Verley & Company. SN 53,546. Pub. 11–25–58. Filed 6–13–58.

673,723. AERO-SOLBASEAROMES. Albert Verley & Company. SN 53,547. Pub. 11–25–58. Filed 6–13–58.

673,724. AERO-SOLAROMES. Albert Verley & Company. SN 53,548. Pub. 11–25–58. Filed 6–13–58.

673,725. UNION CARBIDE AND DESIGN. Union Carbide Corporation. SN 55,038. Pub. 11–25–58. Filed 7–9–58.

Class 9—Explosives, Firearms, Equipments, and Projectiles

673,726. AIRBREAKER. Olin Mathieson Chemical Corporation. SN 36,785. Pub. 11–25–58. Filed 8–7–58.

673,727. DOUBLE-NINE. The High Standard Manufacturing Corporation. SN 37,271. Pub. 11–25–58. Filed 8–15–58.

Class 10—Fertilizers

673,728. BERRY-SET. Science Products Company, Inc. SN 37,422. Pub. 11–25–58. Filed 8–18–58.

Class 12—Construction Materials

673,729. MOSAIC MEDLEY AND DESIGN. The Mosaic Tile Company. SN 36,910. Pub. 11-25-58. Filed 9-9-57.

673,730. GLAS-GLAZ. American Vitrified Products Company. SN 38,322. Pub. 11-25-58. Filed 10-4-57.

673,731. BEAU-MYTE. Richard P. Kahn. SN 42,389. Pub. 11-25-58. Filed 12-17-57.

673,732. SIMPSON AND DESIGN. Simpson Timber Company. SN 45,921. Pub. 11-25-58. Filed 2-14-58.

673,733. DURAMIC. Hanley Company, Inc. SN 46,729. Pub. 11-25-58. Filed 2-27-58.

673,734. F FILON. Filon Plastics Corporation. SN 46,923. Pub. 11-25-58. Filed 3-3-58.

673,735. LOMANCO. Louver Mfg. & Supply Co. SN 51,034. Pub. 11-25-58. Filed 5-5-58.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

673,736. RBS. Carlon Products Corporation. SN 36,851. Pub. 11-25-58. Filed 9-9-57.

673,737. DORLON. John L. Doré, Inc. SN 47,182. Pub. 11-25-58. Filed 3-6-58.

673,738. SEALOC. The Lamson & Sessions Company. SN 47,395. Pub. 11-25-58. Filed 3-10-58.

673,739. FLAVOR QUEEN. Merton J. Gillies. SN 48,915. Pub. 11-25-58. Filed 4-2-58.

673,740. B-W ETC. AND DESIGN. Borg-Warner Corporation. SN 52,357. Pub. 11-25-58. Filed 5-26-58.

673,741. TRIO. Trio Manufacturing Co. SN 52,357. Pub. 11-25-58. Filed 5-26-58

Class 14—Metals and Metal Castings and Forgings

673,742. OA. Olin Mathieson Chemical Corporation. SN 48,429. Pub. 11-25-58. Filed 3-25-58.

673,743. STRATALLOY. Crucible Steel Company of America. SN 48,547. Pub. 11-25-58. Filed 3-27-58.

673,744. SILNIC. Chase Brass & Copper Co. Incorporated. SN 49,486. Pub. 11-25-58. Filed 4-11-58

Class 15—Oils and Greases

673,745. FARGOLENE. Fargo Mfg. Company, Inc. SN 38,273. Pub. 11-25-58. Filed 10-3-57.

673,746. FINA. American Petrofina, Incorporated. SN 41,009. Pub. 8-12-58. Filed 12-2-57.

673,747. ROMONTA. Strohmeyer & Arpe Company. SN 48,367. Pub. 11-25-58. Filed 3-24-58.

Class 16—Protective and Decorative Coatings

673,748. CYZAC. American Cyanamid Company. SN 41,738. Pub. 11-25-58. Filed 12-4-57.

673,749. IRCO SEAL. The International Rustproof Corporation. SN 56,402. Pub. 11-25-58. Filed 7-31-58.

673,750. ATTACOTE. Minerals & Chemicals Corporation of America. SN 56,646. Pub. 11-25-58. Filed 8-5-58.

673,751. 3M. Minnesota Mining and Manufacturing Company. SN 56,649. Pub. 11-25-58. Filed 8-5-58.

673,752. ROTO-LAC. The Sherwin-Williams Company. SN 56,743. Pub. 11-25-58. Filed 8-6-58.

Class 17—Tobacco Products

673,753. CINCO. Bayuk Cigars Incorporated. SN 43,660. Pub. 11-25-58. Filed 1-9-58.

Class 18—Medicines and Pharmaceutical Preparations

673,754. VAPO-FLUID. Magna, Inc. SN 28,260. Pub. 11-25-58. Filed 4-17-57.

673,755. SPECIAL FORMULA NO. 17900. The Upjohn Company. SN 29,319. Pub. 11-25-58. Filed 5-2-57.

673,756. ALL-IN-ONE. National Boulevard Bank of Chicago, assignee of Lanolin Plus, Inc. SN 31,935. Pub. 11-25-58. Filed 7-11-57.

673,757. STERI-UNITS. Alcon Laboratories, Inc. SN 32,442. Pub. 11-25-58. Filed 6-24-57.

673,758. SLIM VIMS AND DESIGN. Paul F. Beich Company. SN 36,273. Pub. 11-25-58. Filed 8-27-57.

673,759. MEDICANULS. Fort Dodge Laboratories, Inc. SN 36,366. Pub. 11-25-58. Filed 8-28-57.

673,760. SINAXAR. Armour and Company. SN 38,326. Pub. 11-25-58. Filed 10-4-57.

673,761. PRO ACTASE. Ortho Pharmaceutical Corporation. SN 38,628. Pub. 11-25-58. Filed 10-9-57.

673,762. RODOON. Rodoon, Inc. SN 39,277. Pub. 11-25-58. Filed 10-21-57.

673,763. BARIATRIC. Bariatric Corporation. SN 39,702. Pub. 11-25-58. Filed 10-29-57.

673,764. BARIATRICIAN. Bariatric Corporation. SN 39,704. Pub. 11-25-58. Filed 10-29-57.

673,765. NEO-BARINE. Bariatric Corporation. SN 39,705. Pub. 11-25-58. Filed 10-29-57.

673,766. TENSOFF. Louisana, Inc., d. b. a. Louisana Pharmaceuticals. SN 42,035. Pub. 11-25-58. Filed 12-9-57.

673,767. ANIMAL HEALTH ASSOCIATES ETC. AND DESIGN. United Pharmacal Company of Missouri, Inc., d. b. a. Animal Health Associates. SN 42,410. Pub. 11-25-58. Filed 12-13-57.

673,768. BIO-ADD. Broemmel Pharmaceuticals. SN 45,114. Pub. 11-25-58. Filed 2-3-58.

673,769. REMIN. Eli Lilly and Company. SN 45,173. Pub. 11-25-58. Filed 2-3-58.

673,770. X-TRAVITS. S. O. Barnes and Son, Inc. SN 46,878. Pub. 11-25-58. Filed 3-3-58.

673,771. VITAWELL. William L. Ruttledge, d. b. a. Vita Well Products Co. SN 46,997. Pub. 11-25-58. Filed 3-3-58.

673,772. TRICHOCIN. The Upjohn Company. SN 47,474. Pub. 11-25-58. Filed 3-10-58.

673,773. VITACREST. Max Derfler, d. b. a. Nutrition Control Products. SN 49,832. Pub. 11-25-58. Filed 4-17-58.

673,774. NU-API. Nu-Vita, Incorporated. SN 50,514. Pub. 11-25-58. Filed 4-28-58.

673,775. GLUTAZYME-PF. The Purdue Frederick Company. SN 52,011. Pub. 11-25-58. Filed 5-20-58.

673,776. HONCO AND DESIGN. Enzyme Process Company, Inc., d. b. a. Doctor's Specialties Laboratories. SN 53,306. Pub. 11-25-58. Filed 5-6-58.

673,777. MINCARD. G. D. Searle & Co. SN 53,426. Pub. 11-25-58. Filed 6-12-58.

Class 19—Vehicles

673,778. E-Z GLIDER & BASKET. Folding Carrier Corporation, d. b. a. E-Z Glider & Basket Co. SN 38,914. Pub. 11-25-58. Filed 10-15-57.

673,779. WINE. The Wine Railway Appliance Company. SN 44,425. Pub. 11-25-58. Filed 1-21-58.

673,780. ALCO AND DESIGN. Auto Lamp Manufacturing Company. SN 49,546. Pub. 11–25–58. Filed 4–14–58.

673,781. TAIL-WIND. B-T Company, Inc. SN 51,412. Pub. 11–25–58. Filed 5–12–58.

Class 21—Electrical Apparatus, Machines, and Supplies

673,782. HOWARDUCT. The National Supply Company, assignee, by mesne assignment, of Howard Electric Company. SN 25,988. Pub. 11–25–58. Filed 3–12–57.

673,783. ENFLON. Enflo Corp. SN 30,006. Pub. 11–25–58. Filed 5–14–57.

673,784. EMCO. David E. Emerson, d. b. a. Emco Sales Co. SN 35,642. Pub. 4–8–58. Filed 8–16–57.

673,785. FLEXALARM. The Gamewell Company. SN 38,142. Pub. 11–25–58. Filed 10–1–57.

673,786. NESTLE CHOCOLATOR. The Nestlé Company, Inc. SN 38,373. Pub. 11–25–58. Filed 10–4–57.

673,787. BURLINK. Burndy Corporation. SN 41,615. Pub. 11–25–58. Filed 12–2–57.

673,788. HYTAP. Burndy Corporation. SN 41,743. Pub. 11–25–58. Filed 12–4–57.

673,789. HYTEE. Burndy Corporation. SN 41,744. Pub. 11–25–58. Filed 12–4–57.

673,790. MALCO. Malco Tool & Mfg. Co. SN 44,190. Pub. 11–25–58. Filed 1–17–58.

673,791. SPECTRA-TWIST. Organic Development Corporation. SN 46,000. Pub. 11–25–58. Filed 2–17–58.

673,792. VERILOCAP. Organic Development Corporation. SN 46,002. Pub. 11–25–58. Filed 2–17–58.

673,793. RANGER. Skelly Oil Company. SN 47,444. Pub. 11–25–58. Filed 3–10–58.

673,794. REALTONE. Realite Co. SN 48,051. Pub. 11–25–58. Filed 3–19–58.

673,795. BURGER CHEF. Burger Chef Systems, Inc. SN 49,119. Pub. 11–25–58. Filed 4–7–58.

673,796. CORDS LTD. Essex Wire Corporation. SN 49,429. Pub. 11–25–58. Filed 4–10–58.

673,797. TONEPAK. Lee Electric, Inc. SN 49,444. Pub. 11–25–58. Filed 4–10–58.

673,798. MULLENBACH. Electric Machinery Mfg. Company. SN 49,561. Pub. 11–25–58. Filed 4–14–58.

Class 22—Games, Toys, and Sporting Goods

673,799. SKITO REEL AND DESIGN. R. B. M. Manufacturing Co. SN 29,822. Pub. 11–25–58. Filed 5–10–57.

673,800. SACKET. Sacket Sporting Goods Company. SN 31,266. Pub. 11–18–58. Filed 6–3–57.

673,801. RENWAL BLUEPRINT MODELS AND DESIGN. Renwal Toy Corporation. SN 31,793. Pub. 11–25–58. Filed 6–11–57.

673,802. CELLUSOIL. Oberlin Canteen Co. SN 37,587. Pub. 11–25–58. Filed 9–20–57.

673,803. PUTT-A-GAME. James R. Neiler. SN 40,073. Pub. 11–25–58. Filed 11–4–57.

673,804. PEEKO. Joseph E. White. SN 40,903. Pub. 11–25–58. Filed 11–18–57.

673,805. PAUTZKE'S ETC. AND DESIGN. Otto Keith Williams. SN 41,205. Pub. 11–25–58. Filed 11–22–57.

673,806. ASHAWAY MULTI-PLY. Ashaway Products, Inc. SN 44,796. Pub. 11–25–58. Filed 1–28–58.

673,807. SHERIFF. Milton Bradley Company. SN 47,491. Pub. 11–25–58. Filed 3–11–58.

673,808. BONE-A-PART. The Ka-Klar Cloth Toy Company. SN 48,997. Pub. 11–25–58. Filed 4–3–58.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

673,809. AJAX DIHEDRAL AND DESIGN. Ajax Flexible Coupling Co. Inc. SN 25,144. Pub. 11–25–58. Filed 2–27–57.

673,810. AJAX DIHEDRAL. Ajax Flexible Coupling Co. Inc. SN 25,145. Pub. 11–25–58. Filed 2–27–57.

673,811. DIHEDRAL. Ajax Flexible Coupling Co. Inc. SN 25,146. Pub. 11–25–58. Filed 2–27–57.

673,812. DIVERSEY TRANSPRAY. The Diversey Corporation. SN 33,402. Pub. 11–25–58. Filed 7–9–57.

673,813. M AND DESIGN. Mikron Machine Works Ltd. SN 37,743. Pub. 11–25–58. Filed 9–24–57.

673,814. ROYAL-VAC. Royal Packaging Equipment, Inc. SN 39,281. Pub. 11–25–58. Filed 10–21–57.

673,815. TY-SAW. Ty-Sa-Man Machine Company. SN 40,096. Pub. 11–25–58. Filed 11–4–57.

673,816. TRUE PIERCE POINT AND DESIGN. Brewer Sewing Supplies Company. SN 46,596. Pub. 11–25–58. Filed 2–26–58.

673,817. LAUKHUFF AND DESIGN. Laukhuff-Pratt Mfg. Corp. SN 46,958. Pub. 11–25–58. Filed 3–3–58.

673,818. WORLDEX. Louis R. Baptista, d. b. a. World Export Mfg. Co., Ltd. SN 50,866. Pub. 11–25–58. Filed 5–2–58.

673,819. ROLLAIRE. James K. Hoover, d. b. a. Jim Hoover Electric Company. SN 51,014. Pub. 11–25–58. Filed 5–5–58.

673,820. AUTO-SIGNAMATIC. Toledo Scale Corporation. SN 51,381. Pub. 11–25–58. Filed 5–9–58.

673,821. USS. United States Steel Corporation. SN 51,755. Pub. 11–25–58. Filed 5–15–58.

673,822. VLIER. Vlier Engineering Corporation. SN 51,834. Pub. 11–25–58. Filed 5–16–58.

673,823. SELECT-O-POINT. Alina Corporation. SN 51,843. Pub. 11–25–58. Filed 5–19–58.

673,824. NOPAK ETC. AND DESIGN. Galland-Henning Manufacturing Company. SN 54,034. Pub. 11–25–58. Filed 6–23–58.

673,825. RANCH-HAND. Superior Separator Company, assignee of Livestock Sprayer Mfg. Co. SN 54,242. Pub. 11–25–58. Filed 6–25–58.

673,826. FLEXIGAS. Pettibone Mulliken Corporation. SN 54,427. Pub. 11–25–58. Filed 6–27–58.

673,827. HYDRA-MOLD. Pettibone Mulliken Corporation. SN 54,428. Pub. 11–25–58. Filed 6–27–58.

673,828. MARVEL-X. Marvel Specialty Company, Inc. SN 54,772. Pub. 11–25–58. Filed 7–3–58.

673,829. ACCUMITE. Stewart-Warner Corporation. SN 56,365. Pub. 11–25–58. Filed 7–30–58.

673,830. APMEW. Apmew, Inc. SN 56,382. Pub. 11–25–58. Filed 7–31–58.

673,831. RINGBLASTER. Olin Mathieson Chemical Corporation. SN 56,572. Pub. 11–25–58. Filed 8–4–58.

673,832. POWERMET. Buehler Ltd. SN 56,691. Pub. 11–25–58. Filed 8–6–58.

673,833. BOTTOMS-UP. The Karl Kiefer Machine Company. SN 56,857. Pub. 11–25–58. Filed 8–8–58.

673,834. ACE. Ace Rubber Company. SN 56,904. Pub. 11–25–58. Filed 8–11–58.

673,835. MOLE-GUN. Gardner-Denver Company. SN 56,957. Pub. 11–25–58. Filed 8–11–58.

Class 26—Measuring and Scientific Appliances

673,836. BERTRAM. Ernst und Wilhelm Bertram, Fabrik Phototechnischer Messgeraete. SN 24,914. Pub. 9–2–58. Filed 2–25–57.

673,837. THE MEETING MASTER. The Jam Handy Organization, Inc. SN 39,060. Pub. 11–25–58. Filed 10–17–57.

673,838. TALYLIN. Taylor, Taylor & Hobson Limited. SN 42,670. Pub. 11–25–58. Filed 12–18–57.

673,839. DETECTOLAB. Borg-Warner Corporation. SN 43,585. Pub. 11–25–58. Filed 1–6–58.

673,840. GYREX. The Gyrex Corporation. SN 47,049. Pub. 11–25–58. Filed 3–4–58.

673,841. VITOMATIC. Voigtlander A. G. SN 47,477. Pub. 11–25–58. Filed 3–19–58.

673,842. DIGITROL. Electro Precision Corporation. SN 51,703. Pub. 11–25–58. Filed 5–15–58.

673,843. CENTURY. The Brearley Company. SN 51,851. Pub. 11–25–58. Filed 5–19–58.

673,844. DESIGN FORMING LETTER T. Topp Industries, Inc. SN 52,447. Pub. 11–25–58. Filed 5–27–58.

Class 27—Horological Instruments

673,845. SPARTUS. Herold Products Company, Inc. SN 37,956. Pub. 11–25–58. Filed 9–27–57.

Class 28—Jewelry and Precious-Metal Ware

673,846. JUNO LITE. Eric Weinberger, d. b. a. Juno Products Company. SN 41,682. Pub. 11–25–58. Filed 12–3–57.

Class 29—Brooms, Brushes, and Dusters

673,847. DEWPRO. Delta Waste Products Corporation. SN 41,999. Pub. 11–25–58. Filed 12–9–57.

Class 30—Crockery, Earthenware, and Porcelain

673,848. CALIFORNIA CASUAL. Stetson China Co., Inc. SN 48,946. Pub. 11–25–58. Filed 4–3–58.

Class 31—Filters and Refrigerators

673,849. CESCO AND DESIGN. Chemical Engineering & Softener Corporation. SN 35,084. Pub. 11–25–58. Filed 8–6–57.

673,850. KOOL-RITE ETC. AND DESIGN. The Kool-Rite Company. SN 54,532. Pub. 11–25–58. Filed 6–30–58.

673,851. LINEMASTER SPECIAL. Mueller Brass Co. SN 56,169. Pub. 11–25–58. Filed 7–28–58.

673,852. LINEMASTER. Mueller Brass Co. SN 56,170. Pub. 11–25–58. Filed 7–28–58.

673,853. DRYMASTER. Mueller Brass Co. SN 56,171. Pub. 11–25–58. Filed 7–28–58.

673,854. SAFETYMASTER. Mueller Brass Co. SN 56,172. Pub. 11–25–58. Filed 7–28–58.

673,855. SIGHTMASTER. Mueller Brass Co. SN 56,173. Pub. 11–25–58. Filed 7–28–58.

673,856. SILO. Siegas Metallwarenfabrik Wilhelm Loh K. G. SN 56,192. Pub. 11–25–58. Filed 7–28–58.

673,857. LIBERATOR MICRATOMIC. Liberty Industries, Inc. SN 56,862. Pub. 11–25–58. Filed 8–6–58.

Class 32—Furniture and Upholstery

673,858. JAYLIS. James Hirashiki, d. b. a. Universe Products Co. SN 44,282. Pub. 11–25–58. Filed 1–29–58.

673,859. VENTILIGHTER. Simon Ventilighter Company, Inc. SN 50,841. Pub. 11–25–58. Filed 5–1–58.

673,860. EXELLA. Alca Manufacturing Corporation. SN 52,377. Pub. 11–25–58. Filed 5–27–58.

673,861. RESIFRAME. The Buckstaff Company. SN 55,973. Pub. 11–25–58. Filed 7–25–58.

673,862. BASSETT FURNITURE INDUSTRIES, INC. ETC. AND DESIGN. Bassett Furniture Industries, Inc. SN 56,294. Pub. 11–25–58. Filed 7–30–58.

Class 34—Heating, Lighting, and Ventilating Apparatus

673,863. HOLIDAY. Rheem Manufacturing Company. SN 36,623. Pub. 11–25–58. Filed 9–3–57.

673,864. WE KEEP OTHERS IN HOT WATER. The Sims Company. SN 39,096. Pub. 11–25–58. Filed 10–17–57.

673,865. MULTITHERM. Clarage Fan Company. SN 44,601. Pub. 11–25–58. Filed 1–24–58.

673,866. BRAZO AND DESIGN. Western Clay Products Co., Inc. SN 48,375. Pub. 11–25–58. Filed 3–24–58.

673,867. ACK-O-MATIC AND DESIGN. Southern Assets Corp. SN 49,027. Pub. 11–25–58. Filed 4–3–58.

673,868. THERMOLITE. Progress Manufacturing Company, Inc. SN 50,922. Pub. 11–25–58. Filed 5–2–58.

673,869. THE PURITAN LINE AND DESIGN. Wallace Silversmiths, Inc. SN 52,179. Pub. 11–25–58. Filed 5–22–58.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

673,870. MVS AND DESIGN. Manheim Manufacturing & Belting Company. SN 45,566. Pub. 11–25–58. Filed 2–10–58.

Class 36—Musical Instruments and Supplies

673,871. GEMINI-TWINS AND DESIGN. Frank S. Justman. SN 26,554. Pub. 11–25–58. Filed 3–20–57.

673,872. FIORI MUSICALI. Lucien de Lacour-Editions Costallat. SN 27,969. Pub. 11–25–58. Filed 4–10–57.

673,873. OVALIGHT. Fidelitone, Incorporated, by change of name from Permo, Incorporated. SN 44,308. Pub. 11–25–58. Filed 1–20–58.

673,874. BEE RECORDS AND DESIGN. Grover A. Barbour, d. b. a. Bee Record Co. SN 45,306. Pub. 11–25–58. Filed 2–5–58.

673,875. HAWKEYE. Hawkeye Records, Inc. SN 49,848. Pub. 11–25–58. Filed 4–17–58.

673,876. BLUE NOTE. Alfred W. Lion, d. b. a. Blue Note Records. SN 49,947. Pub. 11–25–58. Filed 4–18–58.

673,877. NASCO AND DESIGN. Nashboro Record Co., Inc. SN 49,962. Pub. 11–25–58. Filed 4–18–58.

673,878. EXCELLO AND DESIGN. Nashboro Record Co., Inc. SN 49,963. Pub. 11–25–58. Filed 4–18–58.

673,879. SOLO ESSER. Chris-Kratt Instrument Co., Inc. SN 50,025. Pub. 11–25–58. Filed 4–21–58.

673,880. LIN. Leonard Productions Inc. SN 50,073. Pub. 11–25–58. Filed 4–21–58.

Class 37—Paper and Stationery

673,881. EDG-PAK. Flex-O-Lators, Inc. SN 29,350. Pub. 11–25–58. Filed 5–3–57.

673,882. SWEET LIFE. Sweet Life Brands, Inc. SN 41,490. Pub. 11–25–58. Filed 11–27–57.

673,883. GLATEX. P. H. Glatfelter Co. SN 42,017. Pub. 11–25–58. Filed 12–9–57.

673,884. SURE-GRIP. A. W. Faber-Castell Pencil Co., Inc SN 42,279. Pub. 11–25–58. Filed 12–12–57.

673,885. SCOTT PAPER AND DESIGN. Scott Paper Company. SN 42,316. Pub. 11–25–58. Filed 12–12–57.

673,886. SURE KOPY AND DESIGN. P & R Reproduction Supply Corporation. SN 45,270. Pub. 11–25–58. Filed 2–4–58.

673,887. FORGET-NO. Frank Chesley, d. b. a. Chesco Products. SN 47,920. Pub. 11–25–58. Filed 2–13–58.

673,888. "DIG." A. J. Siris Products Corp. SN 49,525. Pub. 11–25–58. Filed 4–11–58.

673,889. TRANSO. Arvey Corporation. SN 49,809. Pub. 11–25–58. Filed 4–17–58.

Class 38 — Prints and Publications

673,890. DIABETES. American Diabetes Association, Inc. SN 33,858. Pub. 11–25–58. Filed 7–17–57.

673,891. S. K. FIELDERS. Smith Kline & French Laboratories. SN 40,508. Pub. 11–25–58. Filed 11–12–57.

673,892. S. K. FOLKS. Smith Kline & French Laboratories. SN 40,509. Pub. 11–25–58. Filed 11–12–57.

673,893. WESTERN 4. Western 4 Trading Stamp Corporation. SN 44,330. Pub. 11–25–58. Filed 1–20–58.

673,894. BALENE SELECTION. Irene Bartlett, d. b. a. American Bride Publications. SN 45,108. Pub. 11–25–58. Filed 2–3–58.

673,895. GOODSTIX PRODUCT IDENTIFIERS AND DESIGN. Goodrem Products Corporation. SN 45,476. Pub. 11–25–58. Filed 2–7–58.

673,896. YOUR FAMILY'S FINANCES. New York Herald Tribune Inc. SN 45,488. Pub. 11–25–58. Filed 2–7–58.

673,897. NURSING WORLD AND DESIGN. Nursing World. SN 46,850. Pub. 11–25–58. Filed 2–28–58.

673,898. SMCO. Spaulding-Moss Company. SN 47,903. Pub. 11–25–58. Filed 3–17–58.

673,899. TELETYPE NEWS. Teletype Corporation. SN 49,097. Pub. 11–25–58. Filed 4–4–58.

673,900. MARINA. Marina Publications, Inc. SN 49,451. Pub. 11–25–58. Filed 4–10–58.

673,901. THE NUCLEUS. Nuclear-Chicago Corporation. SN 49,965. Pub. 11–25–58. Filed 4–18–58.

673,902. GREEK LETTER PSI AND DESIGN. The Psychological Corporation. SN 49,972. Pub. 11–25–58. Filed 4–18–58.

673,903. THE PSYCHOLOGICAL CORPORATION ETC. AND DESIGN. The Psychological Corporation. SN 49,973. Pub. 11–25–58. Filed 4–18–58.

673,904. LEISURE. Godfrey-Stone International Publications, Inc. SN 50,891. Pub. 11–25–58. Filed 5–2–58.

673,905. HALOID XEROX. Haloid Xerox Inc. SN 50,893. Pub. 11–25–58. Filed 5–2–58.

673,906. STYLED BY HAMPSHIRE AND DESIGN. Doehla Greeting Cards, Incorporated. SN 50,989. Pub. 11–25–58. Filed 5–5–58.

673,907. HAMPSHIRE AND DESIGN. Doehla Greeting Cards, Incorporated. SN 50,991. Pub. 11–25–58. Filed 5–5–58.

Class 39 — Clothing

673,908. BLIZZAND ETC. AND DESIGN. Comptoir de l'Industrie Cotonniere, Etablissements Boussac, Société à Responsabilité Limitée. SN 9,114. Pub. 11–25–58. Filed 5–28–56.

673,909. LAMPACA. New York Knitting Mills, Inc. SN 23,936. Pub. 11–25–58. Filed 2–6–57.

673,910. PORON. United Shoe Machinery Corporation. SN 30,967. Pub. 11–25–58. Filed 5–28–57.

673,911. MALCO AND DESIGN OF GROTESQUE STORK. Malone Knitting Company. SN 34,712. Pub. 11–25–58. Filed 7–31–57.

673,912. DESIGN OF PENGUIN. Munsingwear, Inc. SN 39,655. Pub. 11–25–58. Filed 10–28–57.

673,913. "SPUTKAP." David E. Rumble, d. b. a. Sputkap. SN 45,439. Pub. 11–25–58. Filed 2–6–58.

673,914. SWEETIE PANTS. Sel-Good Undergarment Corp. SN 45,497. Pub. 11–25–58. Filed 2–7–58.

673,915. PIXIE SLIP-ONS. Robert Hosiery Mills, Inc. SN 48,436. Pub. 11–25–58. Filed 3–25–58.

673,916. SUMMER COMFORT. Robert Hall Clothes, Inc. SN 50,051. Pub. 11–25–58. Filed 4–21–58.

673,917. SEA STARS. Sears, Roebuck and Co. SN 50,402. Pub. 11–25–58. Filed 4–25–58.

673,918. NITEY NITE AND DESIGN. The Perry Knitting Company. SN 50,519. Pub. 11–25–58. Filed 4–28–58.

673,919. NITEY NITE AND DESIGN. The Perry Knitting Company. SN 50,521. Pub. 11–25–58. Filed 4–28–58.

673,920. NITEY NITE. The Perry Knitting Company. SN 50,522. Pub. 11–25–58. Filed 4–28–58.

673,921. FALCON. S. H. Kress and Company. SN 50,708. Pub. 11–25–58. Filed 4–30–58.

673,922. LANCELOT AND DESIGN. S. H. Kress and Company. SN 50,709. Pub. 11–25–58. Filed 4–30–58.

673,923. TIROLUX. Merit Clothing Company. SN 50,714. Pub. 11–25–58. Filed 4–30–58.

673,924. PLAIDMASTER. Pendleton Woolen Mills. SN 50,827. Pub. 11–25–58. Filed 5–1–58.

673,925. WESTERLY. Pendleton Woolen Mills. SN 50,828. Pub. 11–25–58. Filed 5–1–58.

673,926. VENUS SHERMA. Alfred Dutubek, d. b. a. U. S. & South American Trading Co. SN 51,114. Pub. 11–25–58. Filed 5–6–58.

673,927. MISS AMERICA. Miss America Corporation. SN 51,212. Pub. 11–25–58. Filed 5–7–58.

673,928. BEACHERS. A–1 Manufacturing Co. SN 51,304. Pub. 11–25–58. Filed 5–9–58.

673,929. "SWIM-SHIFT." Rose Marie Reid. SN 51,492. Pub. 11–25–58. Filed 5–12–58.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

673,930. SHEPARDENE. American Silk Mills, Inc. SN 28,479. Pub. 11–25–58. Filed 4–19–57.

673,931. NYLOSORB. Vanity Fair Mills, Inc. SN 31,712. Pub. 11–25–58. Filed 6–10–57.

673,932. MELOTWIST. Hockmeyer Bros., Inc. SN 38,538. Pub. 11–25–58. Filed 10–8–57.

673,933. THERMO-SAN. Collin S. J. McKelvey. SN 45,804. Pub. 11–25–58. Filed 2–14–58.

673,934. WALES. New York Merchandise Co., Inc. SN 48,772. Pub. 11–25–58. Filed 3–31–58.

673,935. WINDSOR. Beacon Manufacturing Company. SN 50,208. Pub. 11–25–58. Filed 4–23–58.

673,936. MULTATONE. Warren Woolen Co. SN 52,081. Pub. 11–25–58. Filed 5–21–58.

673,937. BRIDGETTE. Isofoam Corporation. SN 52,312. Pub. 11–25–58. Filed 5–26–58.

673,938. TORTILLA. Reliable Textile Company, Inc. SN 52,338. Pub. 11–25–58. Filed 5–26–58.

673,939. SLINGSHOT. Dan River Mills, Incorporated. SN 52,392. Pub. 11–25–58. Filed 5–27–58.

673,940. LAKESHORE. Monarch Rug Mills, Inc. SN 52,423. Pub. 11–25–58. Filed 5–27–58.

Class 43 — Thread and Yarn

673,941. MOTTEX. Fair-Tex Distributing Co. SN 39,134. Pub. 11–25–58. Filed 10–18–57.

673,942. GROVE THROWN YARN. Grove Silk Company. SN 46,222. Pub. 11–25–58. Filed 2–20–58.

Class 44—Dental, Medical, and Surgical Appliances

673,943. DISPACK. Becton Dickinson and Company, assignee of Omega Precision Medical Instrument Co., Inc. SN 38,976. Pub. 11–4–58. Filed 9–10–57.

673,944. SCOTT DISPOS-A-GLOVE. The Scott Company. SN 38,287. Pub. 11–25–58. Filed 10–2–57.

673,945. EVACU-EZE. Medical Accessories Co. SN 43,469. Pub. 11–25–58. Filed 1–6–58.

673,946. STERI-COOL. Binky Baby Products Company. SN 47,179. Pub. 11–25–58. Filed 3–6–58.

Class 45—Soft Drinks and Carbonated Waters

673,947. HYGEIA. Joe A. Stanley, Jr., d. b. a. Hygeia Purified Water Company. SN 38,644. Pub. 11–25–58. Filed 10–9–57.

Class 46—Foods and Ingredients of Foods

673,948. RYETTES. Ryette Company, assignee of Timely Foods, Inc. SN 7,647. Pub. 11–25–58. Filed 5–3–56.

673,949. SLENDERELLA INTERNATIONAL AND DESIGN. Slenderella Systems, Inc., d. b. a. Slenderella International. SN 14,099. Pub. 11–25–58. Filed 8–16–56.

673,950. DANDY. National Biscuit Company. SN 32,973. Pub. 11–25–58. Filed 7–1–57.

673,951. ASTOR. B. Fischer & Co., Inc. SN 33,408. Pub. 11–25–58. Filed 7–9–57.

673,952. SONA. Sona Food Products Co. SN 35,099. Pub. 11–25–58. Filed 8–16–57.

673,953. CAPE COD COOKS AND DESIGN. Cape Cod Cooks, Inc. SN 38,527. Pub. 11–25–58. Filed 10–8–57.

673,954. BEDFORD. National Dairy Products Corporation. SN 38,625. Pub. 11–25–58. Filed 10–9–57.

673,955. SPARKLING BURGUNDY. James W. Young, d. b. a. Rancho de la Canada. SN 39,930. Pub. 11–25–58. Filed 10–31–57.

673,956. MRS. FILBERT'S QUIK-DRINK. J. H. Filbert, Inc. SN 40,934. Pub. 11–25–58. Filed 11–19–57.

673,957. IGA. Independent Grocers' Alliance Distributing Company. SN 43,676. Pub. 11–25–58. Filed 1–9–58.

673,958. VAL VERDE. Cullum & Jones. SN 43,822. Pub. 11–25–58. Filed 1–13–58.

673,959. TREAT TIME AND DESIGN. All American Nut Company, Inc. SN 45,668. Pub. 11–25–58. Filed 2–11–58.

673,960. BOLERO. Brett, Young & Company Limited. SN 46,024. Pub. 11–25–58. Filed 2–17–58.

673,961. NALLEY'S AND DESIGN. Nalley's, Inc. SN 46,360. Pub. 11–25–58. Filed 2–25–58.

673,962. J. D. MARTIN. Martin Ranch, d. b. a. J. D. Martin Ranch. SN 47,268. Pub. 11–25–58. Filed 3–7–58.

673,963. CROSETTE. Federated Department Stores, Inc., d. b. a. Bloomingdale's. SN 47,366. Pub. 11–25–58. Filed 3–10–58.

673,964. COLFLO. National Starch Products Inc. SN 47,596. Pub. 11–25–58. Filed 3–17–58.

673,965. B'N W. B and W Canning Company, Inc. SN 47,627. Pub. 11–25–58. Filed 3–18–58.

673,966. LIVELY CUP. Standard Brands Incorporated. SN 47,904. Pub. 11–25–58. Filed 3–17–58.

673,967. OLD TRUSTY. Standard Brands Incorporated. SN 47,905. Pub. 11–25–58. Filed 3–17–58.

673,968. WYTASE 52. J. R. Short Milling Company. SN 53,059. Pub. 11–25–58. Filed 6–6–58.

Class 47—Wines

673,969. MAGAZZIN. Priv. Fabbrica Maraschino "Excelsior" Girolamo Luxardo S. p. A. SN 38,230. Pub. 11–25–58. Filed 10–2–57.

Class 48—Malt Beverages and Liquors

673,970. BRADING'S. Brading Breweries Limited. SN 43,424. Pub. 11–25–58. Filed 1–6–58.

Class 50—Merchandise Not Otherwise Classified

673,971. PERMA-LIFE AND DESIGN. Aquarium Supply Company, Inc. SN 33,190. Pub. 9–2–58. Filed 7–5–57.

673,972. FILMAGIC. The Distributors Group Inc. SN 37,148. Pub. 11–25–58. Filed 9–13–57.

673,973. LEPAGE'S. Johnson & Johnson, assignee of Le Page's Inc. SN 45,327. Pub. 11–25–58. Filed 2–5–58.

Class 51—Cosmetics and Toilet Preparations

673,974. BREE. Gibbs & Company. SN 38,142. Pub. 11–25–58. Filed 10–1–57.

673,975. DANITA. Les Parfums de Dana, Inc., d. b. a. Dana. SN 42,498. Pub. 11–25–58. Filed 12–16–57.

Class 52—Detergents and Soaps

673,976. PINESOLA. Dumas Milner Corporation, by change of name from Milner Products Company. SN 644,333. Pub. 11–25–58. Filed 3–27–53.

673,977. SUPERBATH. Brookfield Laboratories. SN 40,024. Pub. 12–2–58. Filed 11–4–57.

673,978. WOOLYN. Calusa Chemical Co. SN 15,349. Pub. 11–25–58. Filed 9–16–56.

673,979. A-BEN-A-QUI. Alfred L. Young, d. b. a. Klean-Aid Products. SN 37,706. Pub. 11–25–58. Filed 9–23–57.

673,980. BLUETONIC. Lingner-Werke G. m. b. H. SN 46,840. Pub. 11–25–58. Filed 2–28–58.

673,981. SANDRA. Emma Jane Fouque, d. b. a. Sandra Cosmetiques Supreme. SN 47,187. Pub. 11–25–58. Filed 3–6–58.

673,982. ACTINITE. Chemical Service of Baltimore, Inc. SN 49,681. Pub. 11–25–58. Filed 4–15–58.

673,983. FRY-KLEEN. American-Marietta Company, O-Cedar Division. SN 50,203. Pub. 11–25–58. Filed 4–23–58.

673,984. BEAUTY IN THE MORNING AND DESIGN. Sydney Wickham, d. b. a. Sidney Wickham & Associates. SN 52,995. Pub. 11–25–58. Filed 5–2–58.

673,985. CRUSADER. Hair Strate, Inc. SN 54,853. Pub. 11–25–58. Filed 7–7–58.

673,986. PRINCESS KITTEN. Hair Strate, Inc. SN 54,854. Pub. 11–25–58. Filed 7–7–58.

673,987. BANZOIL. The Hallakahn Co. SN 58,193. Pub. 11–25–58. Filed 9–2–58.

Service Marks

Class 100—Miscellaneous

673,988. YOUTH UNLIMITED. Youth Unlimited Foundation. SN 35,411. Pub. 11–25–58. Filed 8–12–57.

673,989. THE TRADERS. Victor J. Bergeron. SN 45,944. Pub. 11–25–58. Filed 2–17–58.

Class 101—Advertising and Business

673,990. "A. G. E." American Geriatric Enterprises. SN 15,000. Pub. 11–25–58. Filed 9–4–56.

673,991. "OPEN TIME." Eugene S. Turngren, d. b. a. "Open-Time." SN 29,765. Pub. 11–25–58. Filed 5–9–57.

673,992. PRESSURE POINT. Shattuck, Clifford & McMillan, Inc. SN 30,114. Pub. 11–25–58. Filed 5–15–57.

Class 102—Insurance and Financial

673,993. ALL FAMILY. California-Western States Life Insurance Company. SN 38,734. Pub. 11–25–58. Filed 10–11–57.

673,994. COLUMBIAN MUTUAL. Columbian Mutual Life Insurance Company. SN 42,114. Pub. 11–25–58. Filed 12–10–57.

Class 103—Construction and Repair

673,995. LUSTRE-CRAFT. Hand-Craft One Hour Cleaners, Inc. SN 24,347. Pub. 11–25–58. Filed 2–13–57.

673,996. "KISS OF BEAUTY." Magikist Service Corporation. SN 38,932. Pub. 11–25–58. Filed 10–15–57.

673,997. LAWN GOLF TURFGRASS ENGINEERS AND DESIGN. Lawn Golf, Turfgrass Engineers. SN 42,702. Pub. 11–25–58. Filed 12–19–57.

673,998. JOLLY. Jolly, Inc. SN 43,508. Pub. 11–25–58. Filed 12–31–57.

673,999. KSH AND DESIGN. Kuhn, Smith & Harris, Inc. SN 44,716. Pub. 11–25–58. Filed 1–27–58.

Class 105—Transportation and Storage

674,000. ACTIVE RENT-N-U-DRIVE AND DESIGN. Active Trailer Service. SN 11,993. Pub. 11–25–58. Filed 7–12–56.

674,001. GOLDEN EAGLE AND DESIGN. Transcontinental Bus System, Inc. SN 24,878. Pub. 11–25–58. Filed 2–21–57.

674,002. IR DESIGN. Ryder System, Inc. SN 31,687. Pub. 11–25–58. Filed 6–10–57.

674,003. COLUMBIA AND DESIGN. Columbia Terminals Company. SN 35,331. Pub. 11–25–58. Filed 8–12–57.

Class 106—Material Treatment

674,004. KODAK AND DESIGN. Eastman Kodak Company. SN 38,810. Pub. 11–25–58. Filed 10–14–57.

Class 107—Education and Entertainment

674,005. TODD-AO. The Todd-Ao Corporation. SN 697,998. Pub. 11–25–58. Filed 11–9–55.

674,006. SCREEN DIRECTORS PLAYHOUSE AND DESIGN. Screen Directors Guild of America. SN 18,025. Pub. 11–25–58. Filed 10–23–56.

674,007. BRIDE TO BE. Grant's Bridal Shoppe, Inc. SN 42,476. Pub. 11–25–58. Filed 12–16–57.

Collective Membership Mark

Class 200

674,008. ASSOCIATION OF DIESEL SPECIALISTS ETC. AND DESIGN. Association of Diesel Specialists, Inc. SN 41,610. Pub. 11–25–58. Filed 12–2–57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 37—Paper and Stationery

674,009. Double Envelope Corporation, Roanoke, Va. SN 693,813. Filed P. R. 8–29–55. Am. S. R. 10–6–58.

PHOTO PAK

For Envelopes and Folders.
First use November 1953.

Class 46—Foods and Ingredients of Foods

674,010. Home Brand of America, Inc., Chicago, Ill. SN 29,723. Filed 5–9–57.

HOME BRAND ON THE LABEL MEANS GOOD FOOD ON THE TABLE

For Olives and Coffee.
First use Dec. 1, 1945.

Class 47—Wines

674,011. Osborne & Cia., S. A., Puerto de Santa Maria Cadiz, Spain. SN 39,741. Filed P. R. 10–29–57. Am. S. R. 9–12–58.

OSBORNE

Owner of Spanish Reg. No. 65,883, dated Sept. 15, 1947.
For Sherry.

TRADEMARK REGISTRATIONS RENEWED

124,184. MON DESIR. Cl. 51. 1-14-19.
124,219. TOP NOTCH AND DESIGN. Cl. 39. 1-28-19.
124,381. MALTESE CROSS DESIGN. Cl. 35. 2-11-19.
124,426. VACMUL. Cl. 15. 2-11-19.
124,526. TWINITY. Cl. 40. 2-25-19.
124,704. HARMONY. Cl. 40. 3-11-19.
124,799. SOLVAC. Cl. 15. 3-11-19.
124,903. FANCIFUL REPRESENTATION OF MALE. Cl. 38. 3-18-19.
125,413. REGENT. Cl. 14. 5-20-19.
125,458. COMFIT. Cl. 39. 5-20-19.
356,873. MARBON. Cl. 16. 5-17-38.
357,498. SUSIE-Q. Cl. 38. 6-7-38.
360,295. BIRTHDAY. Cl. 47. 9-13-38.
361,029. GLIDER. Cl. 50. 10-4-38.
361,034. WOVINTONE. Cl. 42. 10-4-38.
362,510. HATTIE CARNEGIE. Cl. 39. 11-15-38.
362,695. COLORSTITCH. Cl. 14. 11-29-38.
362,793. COLORTEX. Cl. 37. 11-29-38.
362,870. BU. Cl. 32. 12-6-38.
362,890. CAMPUS SQUARE AND DESIGN. Cl. 39. 12-6-38.
362,914. LA MARCHE AND DESIGN. Cl. 47. 12-6-38.
362,963. DURALACE. Cl. 39. 12-6-38.
363,046. BU. Cl. 38. 12-13-38.
363,166. ALKYDAL. Cl. 1. 12-13-38.
363,303. CHICKEN IN THE ROUGH. Cl. 46. 12-20-38.
363,552. COUNTERFLOW. Cl. 23. 1-3-39.
363,561. THE SHINGLE. Cl. 38. 1-3-39.
363,592. NAIL-COTE AND DESIGN. Cl. 51. 1-3-39.
363,625. MILANO. Cl. 18. 1-3-39.
363,910. MICROPAR. Cl. 15. 1-10-39.
364,050. HI-HARD. Cl. 23. 1-17-39.
364,079. OLD ROCKET. Cl. 49. 1-17-39.
364,095. HITEX. Cl. 21. 1-17-39.
364,096. ULTREX. Cl. 21. 1-17-39.
364,612. HITEX. Cl. 26. 2-7-39.
364,613. ULTREX. Cl. 26. 2-7-39.
364,850. PEARLEX. Cl. 26. 2-14-39.
364,931. DEMOCRAT. Cl. 23. 2-21-39.
365,059. MARYKA. Cl. 46. 2-21-39.
365,067. MICROMET. Cl. 6. 2-21-39.
365,653. VITRISEALS. Cl. 33. 3-14-39.
365,661. THE GRAPEVINE AND DESIGN. Cl. 38. 3-14-39.
365,693. TRIFLEX. Cl. 13. 3-14-39.
366,229. COMMANDER. Cl. 19. 4-4-39.
366,230. OLYMPIC. Cl. 19. 4-4-39.
366,337. EVANAIR. Cl. 19. 4-11-39.
366,373. DUTI-DUDS. Cl. 39. 4-11-39.
366,426. BARNEY GOOGLE AND SNUFFY SMITH. Cl. 38. 4-11-39.
366,484. NEATRO. Cl. 14. 4-11-39.
366,643. ROCKCOTE. Cl. 16. 4-25-39.
366,733. HAMMER. Cl. 37. 4-25-39.
366,833. TRINESIUM. Cl. 18. 5-2-39.
366,843. DOVRE AND SKIER. Cl. 22. 5-2-39.
366,859. MOSSPEED. Cl. 23. 5-2-39.
367,147. PALTER DEBS. Cl. 39. 5-9-39.
367,212. PAN-AIRE. Cl. 39. 5-9-39.
367,218. THE FRESHEST THING IN TOWN! AND DESIGN. Cl. 38. 5-9-39.
367,246. FACIAL SCULPTURE. Cl. 51. 5-9-39.
367,372. GRO-PUP. Cl. 46. 5-16-39.
367,404. RECTICHARGER. Cl. 21. 5-16-39.

TRADEMARK REGISTRATIONS CANCELED

Section 7(d)

670,633. SORORITY DEBS. Cl. 39. 12-2-58.

Section 8

296,983. YARDLEY'S. Cl. 52. 8-30-32.
352,100. HI-HAT AND DESIGN. Cl. 11. 11-16-37.
410,441. PIPE DREAMS. Cl. 38. 11-28-44.
420,809. RED POINTS. Cl. 46. 5-7-46.
542,200. HEET-RITE. Cl. 24. 5-8-51.
568,134. CASA DE NICTOLIS ETC. AND DESIGN. Cl. 46. 12-16-52.

The following registrations issued Dec. 23, 1952

568,141. PILOT. Cl. 19.
568,142. ELECTRO-RINSE. Cl. 23.
568,146. EVERTAUT. Cl. 32.
568,159. BLUE CROSS AND DESIGN. Cl. 46.
568,163. DUNLAP AND DESIGN. Cl. 52.
568,165. GENERAL FARMS. Cl. 1.
568,168. SORTAG. Cl. 37.
568,178. PAMPCO. Cl. 13.
568,179. PRESTO. Cl. 8.
568,180. H-D HANDY DANDY AND DESIGN. Cl. 23.
568,181. DIAMOND QUALITY AND DESIGN. Cl. 37.
568,182. V-JET WITHIN DESIGN. Cl. 23.
568,185. W WESECO AND DESIGN. Cl. 34.
568,198. AIR SEAL CORP DESIGN. Cl. 12.
568,199. STARLIGHT. Cl. 32.
568,202. LAITO. Cl. 46.
568,209. HYDROKELT. Cl. 27.
568,211. KEY ETC. AND DESIGN. Cl. 18.
568,220. "DUCHESS." Cl. 29.
568,224. EVERYONES AND DESIGN. Cl. 2.
568,231. CHIKARA-MOCHI (JAPANESE CHARACTERS). Cl. 46.
568,234. NU CONTROL AND DESIGN. Cl. 52.
568,237. DIGESTONICO DR. VICENTE. Cl. 18.
568,245. TERGAMINE. Cl. 18.
568,246. HEAVENLY SOLES AND DESIGN. Cl. 39.
568,247. TRISON. Cl. 23.
568,250. REGAL. Cl. 32.
568,251. SUPERIOR. Cl. 44.
568,259. HOMESTEAD. Cl. 34.
568,263. IPANA. Cl. 18.
568,266. BLACK PANTHER. Cl. 13.
568,283. TEPLAT. Cl. 32.
568,289. INSECT ENEMY #1 AND DESIGN. Cl. 6.
568,291. ELSWICK. Cl. 32.
568,296. TRIP-MODE. Cl. 3.
568,302. PEMBERTON. Cl. 39.
568,304. NO-IF. Cl. 18.
568,305. PERMA-TIME. Cl. 27.
568,311. RANCHO GRASS SEED DESIGN. Cl. 1.
568,315. SEA DOG. Cl. 27.
568,319. TOGETHER AND DESIGN. Cl. 37.
568,320. ZORACH AND DESIGN. Cl. 34.
568,334. PROPLASVAL. Cl. 18.
568,339. LOVE OF CALIFORNIA AND DESIGN. Cl. 39.
568,340. MYSTERIA. Cl. 1.
568,343. BLACK PHANTOM. Cl. 46.
568,349. ARGYLE. Cl. 34.
568,351. PLASTIC MASTERS. Cl. 32.
568,352. THE MYSTERIOUS STRANGER. Cl. 38.
568,357. ROSINELLA AND DESIGN. Cl. 46.
568,362. STATUE OF WOMEN. Cl. 27.
568,365. FAIRY DEVICE. Cl. 46.
568,368. DEVILCLAW. Cl. 13.
568,369. JR. LAVANETTE. Cl. 13.
568,379. SPONGEX. Cl. 35.
568,383. JOHNNIE'S ETC. AND DESIGN. Cl. 46.
568,385. FRENCHIES. Cl. 46.
568,386. PLASDEX. Cl. 18.
568,390. JONCA. Cl. 42.
568,393. REYNARDA. Cl. 42.
568,398. MIRABEAU. Cl. 42.
568,399. DURELL. Cl. 18.
568,403. MERITONE. Cl. 106.
568,416. LOCK LINE. Cl. 23.

568,419. BELMONT. Cl. 27.
568,420. PRINCE COUPON AND DESIGN. Cl. 46.
568 422. MOOSEHEAD MINNY. Cl. 22.
568,425. NO-DRAFT. Cl. 12.
568,426. CEDAR-WALL. Cl. 16.
568,429. FIRESTOP BESTWALL ETC. AND DESIGN. Cl. 12.
568,430. VENT-VUE. Cl. 12.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

245,212. CLASSMATE. Cl. 39. 8–7–28. Ideal Shoe Mfg. Co. Mid-States Shoe Company, Milwaukee, Wis. Amended to appear:

CLASSMATE

627,961. DESIGN OF POLICEMAN. Cl. 46. 5–29–56. Phelan & Taylor Produce Company, Oceano, Calif. Corrected: In the certificate, lines 4 and 15, and in column 1, line 1, "Co., Inc." should be deleted and *Company* should be inserted.

628,389. PHELAN-FINE. Cl. 46. 6–5–56. Phelan & Taylor Produce Company, Oceano, Calif. Corrected: In the certificate, lines 3, 4, and 14, and in column 1, line 1, "Co., Inc." should be deleted and *Company* should be inserted.

644,827. TAYLOR MADE AND DESIGN. Cl. 46. 4–30–57. Edwin M. Taylor. Phelan & Taylor Produce Company, Oceano, Calif. Corrected: In column 1, line 4, "Co., Inc." should be deleted and *Company* should be inserted.

651,602. ULTRAPAS. Cl. 1. 9–17–57. Dynamit-Actien-Gesellschaft vormals Alfred Nobel & Co., Troisdorf, near Koln, Germany. Corrected: In the statement, column 1, line 1, after "Gesellschaft" *vormals Alfred Nobel & Co.* should be inserted.

670,134. ANABUFF. Cl. 18. 11–25–58. Warner-Lambert Pharmaceutical Company, Morris Plains, N. J., assignee of Hiss Pharmacal Company, Inc., doing business as Genesee Drug Company. Corrected: In the certificate, column 1, line 1, before "Hiss" *Warner-Lambert Pharmaceutical Company (Delaware Corporation), Tabor Rd., Morris Plains, N. J., assignee of* should be inserted.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(e), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

444,631. STAR GLOW ELECTRIC PRODUCTS AND DESIGN. Cl. 21. Star Glow Electric Products, Inc. 1–8–52. New Cert. Sec. 7(e), to Berns Air King Corporation, Chicago, Ill., 2–10–59.

575,777. LIRA. Cl. 26. James L. Waters, Inc. 6–16–53. New Cert. Sec. 7(e), to Mine Safety Appliances Company, Pittsburgh, Pa., 2–10–59.

594,458. HAMPDEN. Cl. 27. Hampden Watch Company. 8–31–54. New Cert. Sec. 7(e), to Clinton Watch Company, Chicago, Ill., 2–10–59.

635,438. CYSCOL. Cl. 18. Martin A. Coopersmith, 10–9–56. New Cert. Sec. 7(e), to Benjamin K. Feldman, Crompound, N. Y., 2–10–59.

658,893. BERNCASTLER DOCTOR ETC. AND DESIGN. Cl. 47. Weingut J. Lauerburg, Fam. G. m. b. H., 2–25–58. New Cert. Sec. 7(e), to H. Eichel & Sons, Inc., New York, N. Y., 2–10–59.

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Abbott Laboratories, North Chicago, Ill. 366,833, ren. 5–2–59. Cl. 18.
Ace Rubber Co., Muskogee, Okla. 673,834, pub. 11–25–58. Cl. 23.
Acme Steel Co., Chicago, Ill. 363,686, ren. 11–29–58. Cl. 14.
Active Trailer Service, Chicago, Ill. 674,000, pub. 11–25–58. Cl. 105.
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Hochmeyer Bros., Inc., New York, N. Y. 673,932, pub. 11–25–58. Cl. 42.
Holland Orchards, to H. C. Dodd, Kelseyville, Calif. 365,059, ren. 2–21–59. Cl. 46.
Hollinger Corp., The, Arlington, Va. 673,695, pub. 11–25–58. Cl. 2.
Home Brand of America, Inc., Chicago, Ill. 674,010. Cl. 46.
Hoover, James K., d. b. a. Jim Hoover Electric Co., Huntington, W. Va. 673,819, pub. 11–25–58. Cl. 23.
Hoover, Jim, Electric Co.: *See*—
Hoover, James K.
Howard Electric Co.: *See*—
National Supply Co., The.
Howells, David J., Calgary, Alberta, Canada. 568,234, canc. Cl. 52.
Hygrin Purified Water Co.: *See*—
Stanley, Joe A., Jr.
Hy-Pure Laboratories, Inc., Cincinnati, Ohio. 568,251, canc. Cl. 44.
I. G. Farbenindustrie Aktiengesellschaft, Frankfort-on-the-Main, to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 363,166, ren. 12–13–58. Cl. 1.
Ideal Shoe Mfg. Co., Mid-States Shoe Co., Milwaukee, Wis. 245,212. Am. 7(d). Cl. 39.
Illinois Fiber Specialty Co., Chicago, Ill. 568,283, canc. Cl. 32.
Illinois Watch Case Co., Elgin, Ill. 568,305, canc. Cl. 27.
Imperial Chemical Industries Ltd., London, England. 673,717, pub. 11–25–58. Cl. 6.
Independent Grocers' Alliance Distributing Co., Chicago, Ill. 673,957, pub. 11–25–58. Cl. 46.
Independent Rustproof Corp., The, Euclid, Ohio. 673,749, pub. 11–25–58. Cl. 16.
Insfoam Corp., New York, N. Y. 673,937, pub. 11–25–58. Cl. 42.
Jam Handy Organization, Inc., The, Detroit, Mich. 673,837, pub. 11–25–58. Cl. 26.
Jantzen, William L., Elmsford, New York, N. Y. 568,348, canc. Cl. 39.
Johnson & Johnson, New Brunswick, N. J., from Le Page's Inc., Gloucester, Mass. 673,973, pub. 11–25–58. Cl. 50.
Jolly, Inc., Belleville, N. J. 673,966, pub. 11–25–58. Cl. 103.
June Products: *See*—
Weinberger, Eric.
Justman, Frank S., Chicago, Ill. 673,871, pub. 11–25–58. Cl. 26.
Kahn, Richard P., Silverdale, Pa. 673,731, pub. 11–25–58. Cl. 12.
Ka-Klar Cloth Toy Co., The, Manchester, Conn. 673,806, pub. 11–25–58. Cl. 22.
Kaspar Winkler & Co.: *See*—
Schenker-Winkler, Fritz.
Kelbert Watch Co., New York, N. Y. 568,269, canc. Cl. 27.
Kellogg Co., Battle Creek, Mich. 367,372, ren. 5–16–59. Cl. 46.
Kiefer, Karl, Machine Co., The, Cincinnati, Ohio. 673,535, pub. 11–25–58. Cl. 23.
King Features Syndicate, Inc., to The Hearst Corp., New York, N. Y. 366,426, ren. 4–11–59. Cl. 36.
Klau, J., Co.: *See*—
Klau, Justin.
Klau, Justin, d. b. a. J. Klau Co., New York, N. Y. 568,224, canc. Cl. 3.
Kleen-Aid Products: *See*—
Young, Alfred L.
Knox Hat Co., Inc., New York, N. Y., to Hat Corp. of America, Norwalk, Conn. 125,458, ren. 5–20–59. Cl. 39.
Kool-Rite Co., The, River Falls, Wis. 673,856, pub. 11–25–58. Cl. 31.
Kotake Co., Ltd., Honolulu, Hawaii. 568,231, canc. Cl. 46.
Kraft Foods Ltd.: *See*—
Kraft Walker Cheese Co. Proprietary Ltd.
Kraft Walker Cheese Co. Proprietary Ltd., now by change of name Kraft Foods Ltd., South Melbourne, Victoria, Australia. 568,202, canc. Cl. 46.
Kress, S. H., and Co., New York, N. Y. 673,921–2, pub. 11–25–58. Cl. 50.
Krieger Color & Chemical Co., Inc., Los Angeles, Calif. 673,709, pub. 11–25–58. Cl. 6.
Kroeger, Ellwyn C., d. b. a. Le Claire Mfg. Co., Le Claire, Iowa. 568,180, canc. Cl. 23.
Kruse, Marie, Nurseries: *See*—
Owen, James W.
Kuhn, Smith & Harris, Inc., New York, N. Y. 673,899, pub. 11–25–58. Cl. 103.
Lamson & Sessions Co., The, Cleveland, Ohio. 673,738, pub. 11–25–58. Cl. 13.
Lanolin Plus, Inc.: *See*—
National Boulevard Bank of Chicago.
Lauerburg, Weingut J., to H. Sichel & Sons, Inc., New York, N. Y. 458,895, new cert. Cl. 47.
Laukhuff-Pratt Mfg. Corp., Milwaukee, Wis. 673,817, pub. 11–25–58. Cl. 23.
Lawn Golf, Turfgrass Engineers, Washington, D. C. 673,997, pub. 11–25–58. Cl. 103.
Le Claire Mfg. Co.: *See*—
Kroeger, Ellwyn C.
Lee Electric, Inc., West New York, N. J. 673,797, pub. 11–25–58. Cl. 21.
Leonard Productions Inc., Gainesville, Tex. 673,880, pub. 11–25–58. Cl. 36.
Le Page's Inc.: *See*—
Johnson & Johnson.
Les Parfums de Dana, Inc., d. b. a. Dana, New York, N. Y. 673,975, pub. 11–25–58. Cl. 51.
Liberty Industries, Inc., Brooklyn, N. Y. 673,857, pub. 11–25–58. Cl. 31.
Lilly, Eli, and Co., Indianapolis, Ind. 673,769, pub. 11–25–58. Cl. 18.
Lily Bay Corp., Kokadjo, Maine. 568,422, canc. Cl. 22.
Lingner-Werke G. m. b. H., Duesseldorf, Germany. 673,980, pub. 11–25–58. Cl. 52.
Lion, Alfred R., d. b. a. Blue Note Records, New York, N. Y. 673,876, pub. 11–25–58. Cl. 36.
Livestock Sprayer Mfg. Co.: *See*—
Superior Separator Co.
Louisons, Inc., d. b. a. Louisons Pharmaceuticals, Evansville, Ind. 673,766, pub. 11–25–58. Cl. 18.
Louisons Pharmaceuticals: *See*—
Louisons, Inc.
Louver Mfg. & Supply Co., Minneapolis, Minn. 673,735, pub. 11–25–58. Cl. 12.
Love, Joseph, Inc., New York, N. Y. 568,339, canc. Cl. 39.
Lucien de Lacour–Editions Costallat, Paris, France. 673,872, pub. 11–25–58. Cl. 36.
Magikist Service Corp., Chicago, Ill. 673,996, pub. 11–25–58. Cl. 103.
Magna, Inc., Bensenville, Ill. 673,754, pub. 11–25–58. Cl. 16.
Maico Tool & Mfg. Co., Chicago, Ill. 673,790, pub. 11–25–58. Cl. 21.
Malone Knitting Co., Springfield, Mass. 673,911, pub. 11–25–58. Cl. 39.
Manheim Mfg. & Belting Co., Manheim, Pa. 673,870, pub. 11–25–58. Cl. 35.
Marbon Corp., to Borg-Warner Corp., Chicago, Ill. 356,873, ren. 5–17–58. Cl. 18.
Marina Publications, Inc., New York, N. Y. 673,990, pub. 11–25–58. Cl. 38.
Martens, René G., Geneva, Switzerland. 568,365, canc. Cl. 46.
Martin, J. D., Ranch: *See*—
Martin Ranch.
Martin Ranch, d. b. a. J. D. Martin Ranch, Fresno, Calif. 673,962, pub. 11–25–58. Cl. 46.
Marvel Specialty Co., Inc., Paducah, Ky. 673,828, pub. 11–25–58. Cl. 23.
McKelvey, Collin S. J., Vancouver, British Columbia, Canada. 673,933, pub. 11–25–58. Cl. 42.
Mears, Richard O., Sacramento, Calif. 568,385, canc. Cl. 46.
Medical Accessories Co., New York, N. Y. 673,945, pub. 11–25–58. Cl. 44.
Merit Clothing Co., Mayfield, Ky. 673,923, pub. 11–25–58. Cl. 39.
Merit National Shrinking Works, Inc., New York, N. Y. 568,403, canc. Cl. 106.
Mid-States Shoe Co.: *See*—
Ideal Shoe Mfg. Co.
Mikron Machine Works Ltd., Biel/Kanton Bern, Switzerland. 673,813, pub. 11–25–58. Cl. 23.
Milano Chemical Co., to Park Drug Co., New York, N. Y. 363,625, ren. 1–3–59. Cl. 18.
Millen, Edward L., d. b. a. Edward L. Millen Co., Brookline, Mass. 568,426, canc. Cl. 16.
Millen, Edward L., Co.: *See*—
Millen, Edward L.
Milner Products Co.: *See*—
Dumas Milner Corp.
Mine Safety Appliances Co.: *See*—
Waters, James L., Inc.
Minerals & Chemicals Corp. of America, Menlo Park, N. J. 673,750, pub. 11–25–58. Cl. 16.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 673,751, pub. 11–25–58. Cl. 16.
Miron Mills, Inc., Clinton, Mass. 568,396, canc. Cl. 42.
Miss America Corp., New York, N. Y. 673,927, pub. 11–25–58. Cl. 39.
Monarch Rug Mills, Inc., Dalton, Ga. 673,940, pub. 11–25–58. Cl. 42.
Monsanto Chemical Co., St. Louis, Mo. 673,714, pub. 11–25–58. Cl. 6.
Mosaic Tile Co., The, Zanesville, Ohio. 673,729, pub. 11–25–58. Cl. 12.
Mossberg Pressed Steel Corp., Attleboro, Mass., to Wanskuck Co., Providence, R. I. 366,859, ren. 5–2–59. Cl. 23.
Motive Equipment Manufacturers, Inc., Chicago, Ill. 568,141, canc. Cl. 19.
Mueller Brass Co., Port Huron, Mich. 673,851–5, pub. 11–25–58. Cl. 31.
Munsingwear, Inc., Minneapolis, Minn. 673,912, pub. 11–25–58. Cl. 39.
Nalley's, Inc., Tacoma, Wash. 673,961, pub. 11–25–58. Cl. 46.
Nashboro Record Co., Inc., Nashville, Tenn. 673,877–8, pub. 11–25–58. Cl. 36.
National Biscuit Co., New York, N. Y. 673,950, pub. 11–25–58. Cl. 46.
National Boulevard Bank of Chicago, from Lanolin Plus, Inc., Chicago, Ill. 673,756, pub. 11–25–58. Cl. 18.

National Carbon Co., Inc., to Union Carbide Corp., New York, N. Y. 364,095, ren. 1–17–59. Cl. 21.
National Carbon Co., Inc., to Union Carbide Corp., New York, N. Y. 364,096, ren. 1–17–59. Cl. 21.
National Carbon Co., Inc., to Union Carbide Corp., New York, N. Y. 364,612, ren. 2–7–59. Cl. 26.
National Carbon Co., Inc., to Union Carbide Corp., New York, N. Y. 364,613, ren. 2–7–59. Cl. 26.
National Carbon Co., Inc., to Union Carbide Corp., New York, N. Y. 364,859, ren. 2–14–59. Cl. 26.
National Comics Publications, Inc., New York, N. Y. 568,852, canc. Cl. 38.
National Dairy Products Corp., New York, N. Y. 673,964, pub. 11–25–58. Cl. 46.
National Starch Products Inc., New York, N. Y. 673,964, pub. 11–25–58. Cl. 46.
National Supply Co., The, Pittsburgh, Pa., from Howard Electric Co., Melrose Park, Ill. 673,782, pub. 11–25–58. Cl. 21.
Neller, James R., Olean, N. Y. 673,803, pub. 11–25–58. Cl. 22.
Nestle Co., Inc., The, White Plains, N. Y. 673,786, pub. 11–25–58. Cl. 21.
New York Herald Tribune Inc., New York, N. Y. 673,896, pub. 11–25–58. Cl. 38.
New York Knitting Mills, Inc., New York, N. Y. 673,909, pub. 11–25–58. Cl. 39.
New York Merchandise Co., Inc., New York, N. Y. 673,934, pub. 11–25–58. Cl. 42.
Nopco Chemical Co., Harrison, N. J. 673,718, pub. 11–25–58. Cl. 6.
Norcross, New York, N. Y. 357,498, ren. 6–7–58. Cl. 38.
Northam Warren Corp.: *See*—
Glazo, Inc.
Nuclear-Chicago Corp., Chicago, Ill. 673,901, pub. 11–25–58. Cl. 38.
Nursing World, Passaic, N. J. 673,897, pub. 11–25–58. Cl. 38.
Nutrition Control Products: *See*—
Derfler, Max.
Nu-Vita, Inc., Kenosha, Wis. 673,774, pub. 11–25–58. Cl. 18.
Oberlin Canteen Co., Oberlin, Ohio. 673,802, pub. 11–25–58. Cl. 22.
Oil Well Supply Co., Dallas, Tex., United States Steel Corp., Pittsburgh, Pa. 364,050, ren. 1–17–59. Cl. 23.
Olin Mathieson Chemical Corp., East Alton, Ill. 673,726, pub. 11–25–58. Cl. 9.
Olin Mathieson Chemical Corp., East Alton, Ill. 673,742, pub. 11–25–58. Cl. 14.
Olin Mathieson Chemical Corp., East Alton, Ill. 673,831, pub. 11–25–58. Cl. 23.
Omega Precision Medical Instrument Co., Inc.: *See*—
Dickinson, Becton, and Co.
"Open-Time": *See*—
Turngren, Eugene S.
Organic Development Corp., Garden Grove, Calif. 673,791–2, pub. 11–25–58. Cl. 21.
Ortho Pharmaceutical Corp., Raritan, N. J. 673,761, pub. 11–25–58. Cl. 18.
Osborne, Beverly, d. b. a. Beverly's and Beverly's Drive-In, Oklahoma City, Okla. 363,303, ren. 12–20–58. Cl. 46.
Osborne & Cia., S. A., Puerto de Santa Maria (Cadiz), Spain. 674,011. Cl. 47.
Owen, James W., d. b. a. Marie Kruse Nurseries, Bloomington, Ill. 568,340, canc. Cl. 1.
P & R Reproduction Supply Corp., Los Angeles, Calif. 673,886, pub. 11–25–58. Cl. 37.
Paddington Corp., The, New York, to Dan Harris and Victor J. Dumbra, Cambria Heights and New York, N. Y. 360,296, ren. 9–13–58. Cl. 47.
Palter, Dan, New York, N. Y., to Samuels Shoe Co., St. Louis, Mo. 367,147, ren. 5–9–59. Cl. 39.
Pan American Metal Products Co., Inc., Miami, Fla. 568,178, canc. Cl. 13.
Park Drug Co.: *See*—
Milano Chemical Co.
Park & Tilford: *See*—
Yardley & Co., Ltd.
Paul, Jon, Pharmaceutical Distributing Co., Inc., Chicago, Ill. 568,399, canc. Cl. 18.
Pawtucket Spinning Ring Co., The: *See*—
Victor Shaw Ring Traveler Co.
Pendleton Woolen Mills, Portland, Oreg. 673,924–5, pub. 11–25–58. Cl. 39.
Pennsalt Chemicals Corp., by change of name from Pennsylvania Salt Mfg. Co., The, Philadelphia, Pa. 673,703, pub. 11–25–58. Cl. 6.
Pennsylvania Salt Mfg. Co., The: *See*—
Pennsalt Chemicals Corp.
Perez, Johnnie R., d. b. a. Einnhoj Co., Dallas, Tex. 568,388, canc. Cl. 46.
Permo, Inc.: *See*—
Fidelitone, Inc.
Perry Knitting Co., The, Perry, N. Y. 673,918–20, pub. 11–25–58. Cl. 39.
Peters & Russell, Inc., Springfield, Ohio. 568,182, canc. Cl. 23.
Pettibone Mulliken Corp., Chicago, Ill. 673,826–7, pub. 11–25–58. Cl. 23.
Phelan & Taylor Produce Co.: *See*—
Taylor, Edwin M.
Phelan & Taylor Produce Co., Oceano, Calif. 627,961, cor. Cl. 46.
Phelan & Taylor Produce Co., Oceano, Calif. 628,389, cor. Cl. 46.
Philadelphia Bar Association, Philadelphia, Pa. 363,561, ren. 1–3–59. Cl. 38.
Philadelphia Steel and Wire Corp., Philadelphia, Pa. 673,694, pub. 11–25–58. Cl. 2.
Phillips Process Co. Inc., Rochester, N. Y. 352,100, canc. Cl. 11.
Pincus, Irving & Brothers, Inc., Philadelphia, Pa. 568,202, canc. Cl. 39.
Presto Lighters Ltd., Montreal, Quebec, Canada. 568,179, canc. Cl. 8.
Prince Macaroni Mfg. Co., Lowell, Mass. 568,420, canc. Cl. 46.
Priv. Fabrica Maraschino "Excelsior" Girolamo Luxardo S. p. A., Padova, Italy. 673,969, pub. 11–25–58. Cl. 47.
Progress Mfg. Co., Inc., Philadelphia, Pa. 673,968, pub. 11–25–58. Cl. 34.
Psychological Corp., The, New York, N. Y. 673,902–3, pub. 11–25–58. Cl. 38.
Purdue Frederick Co., The, New York, N. Y. 673,775, pub. 11–25–58. Cl. 18.
Pure Drug and Chemical Corp., New York, N. Y. 568,304, canc. Cl. 18.
R. B. M. Mfg. Co., Carmichael, Calif. 673,799, pub. 11–25–58. Cl. 22.
Raisin, John T., Corp., San Francisco, Calif. 673,690, pub. 11–25–58. Cl. 2.
Ramos Drug Co.: *See*—
Ramos, William.
Ramos, William, d. b. a. Ramos Drug Co., Reno, Nev. 568,343, canc. Cl. 46.
Rancho de la Canada: *See*—
Young, James W.
Raytheon Mfg. Co., Newton, Mass. 367,404, ren. 5–16–59. Cl. 21.
Realite Co., New York, N. Y. 673,794, pub. 11–25–58. Cl. 21.
Reid, Rose M., Los Angeles, Calif. 673,929, pub. 11–25–58. Cl. 39.
Reliable Textile Co., Inc., New York, N. Y. 673,938, pub. 11–25–58. Cl. 42.
Renwal Toy Corp., Mineola, N. Y. 673,801, pub. 11–25–58. Cl. 22.
Rheem Mfg. Co., Richmond, Calif. 673,963, pub. 11–25–58. Cl. 34.
Riffe, John A., d. b. a. John Riffe Hatcheries, Shenandoah, Iowa. 568,165, canc. Cl. 1.
Riffe, John, Hatcheries: *See*—
Riffe, John A.
Robert Hosiery Mills, Inc., Collegeville, Pa. 673,915, pub. 11–25–58. Cl. 39.
Rockcote Paint Co.: *See*—
Rockford Paint Mfg. Co.
Rockford Paint Mfg. Co., to Rockcote Paint Co., Rockford, Ill. 366,643, ren. 4–25–59. Cl. 16.
Rodoon, Inc., Joplin, Mo. 673,762, pub. 11–25–58. Cl. 18.
Ross, Harold M., d. b. a. Ross Mfg. Co., San Francisco, Calif. 568,416, canc. Cl. 23.
Ross Mfg. Co.: *See*—
Ross, Harold M.
Royal Coach Products, Inc., Hollywood, Calif. 673,702, pub. 11–25–58. Cl. 4.
Royal Packaging Equipment, Inc., Fort Lee, N. J. 673,814, pub. 11–25–58. Cl. 22.
Rumble, David E., d. b. a. Sputkap, Copenhagen, N. Y. 673,912, pub. 11–25–58. Cl. 39.
Ruttledge, William L., d. b. a. Vita Well Products Co., Sawyer, Mich. 673,771, pub. 11–25–58. Cl. 18.
Ryder System, Inc., Miami, Fla. 674,002, pub. 11–25–58. Cl. 105.
Ryette Co., from Timely Foods, Inc., St. Louis, Mo. 673,948, pub. 11–25–58. Cl. 46.
Sacket Sporting Goods Co., Los Angeles, Calif. 673,800, pub. 11–18–58. Cl. 22.
Sam's Cut Rate, Inc., to Sam's Inc., Detroit, Mich. 362,890, ren. 12–6–58. Cl. 39.
Sam's Inc.: *See*—
Sam's Cut Rate, Inc.
Samuels Shoe Co.: *See*—
Palter, Dan.
Sandra Cosmetiques Supreme: *See*—
Fouque, Emma J.
Savoy Watch Co., Inc., New York, N. Y. 568,362, canc. Cl. 27.
Schenker-Winkler, Fritz, d. b. a. Kaspar Winkler & Co., Zurich, Switzerland. 673,718, pub. 11–25–58. Cl. 6.
Schering Corp., Bloomfield, N. J. 568,334, canc. Cl. 18.
Science Products Co., Inc., Chicago, Ill. 673,728, pub. 11–25–58. Cl. 10.
Scott Co., The, Omaha, Nebr. 673,944, pub. 11–25–58. Cl. 44.
Scott, O. M., & Sons Co., Marysville, Ohio. 568,311, canc. Cl. 1.
Scott Paper Co., Chester, Pa. 673,885, pub. 11–25–58. Cl. 37.
Scott, Young & Co. Ltd., Glasgow, Scotland. 673,960, pub. 11–25–58. Cl. 46.
Screen Directors Guild of America, Inc., Hollywood, Calif. 674,006, pub. 11–25–58. Cl. 107.
Searle, G. D., & Co., Skokie, Ill. 673,777, pub. 11–25–58. Cl. 18.
Sears, Roebuck and Co., Chicago, Ill. 568,163, canc. Cl. 52.
Sears, Roebuck and Co., Chicago, Ill. 673,917, pub. 11–25–58. Cl. 39.
Sel-Good Undergarment Corp., New York, N. Y. 673,914, pub. 11–25–58. Cl. 39.
Shattuck, Clifford & McMillan, Inc., Boston, Mass. 673,992, pub. 11–25–58. Cl. 101.
Sherwin-Williams Co., The, Cleveland, Ohio. 673,752, pub. 11–25–58. Cl. 16.
Short, J. R., Milling Co., Chicago, Ill. 673,968, pub. 11–25–58. Cl. 46.
Sichel, H., & Sons, Inc.: *See*—
Lauerburg, Weingut J.

Siegas Metallwarenfabrik Wilhelm Loh K. G., Siegen, Westphalia, Germany. 673,856, pub. 11–25–58. Cl. 31.
Simon Ventilighter Co., Inc., New York, N. Y. 673,859, pub. 11–25–58. Cl. 32.
Simpson Timber Co., Seattle, Wash. 673,732, pub. 11–25–58. Cl. 12.
Sims Co., The, Erie, Pa. 673,864, pub. 11–25–58. Cl. 34.
Siris, A. J., Products Corp., New York, N. Y. 673,888, pub. 11–25–58. Cl. 37.
Skelly Oil Co., Tulsa, Okla. 673,793, pub. 11–25–58. Cl. 21.
Slenderella International: *See*—
Slenderella Systems, Inc.
Slenderella Systems, Inc., d. b. a. Slenderella International, Stamford, Conn. 673,949, pub. 11–25–58. Cl. 46.
Smith Kline & French Laboratories, Philadelphia, Pa. 673,891–2, pub. 11–25–58. Cl. 38.
Society of Former Special Agents of the Federal Bureau of Investigation, Inc., New York, N. Y. 365,661, ren. 3–14–59. Cl. 38.
Socony Mobil Oil Co., Inc.: *See*—
Socony-Vacuum Oil Co., Inc.
Vacuum Oil Co.
Socony-Vacuum Oil Co., Inc., to Socony Mobil Oil Co., Inc., New York, N. Y. 363,910, ren. 1–10–59. Cl. 15.
Soltanoff, Rhoda, Brooklyn, N. Y. 568,211, canc. Cl. 18.
Soma Food Products Co., Los Alamitos, Calif. 673,952, pub. 11–25–58. Cl. 46.
Southern Assets Corp., Fort Lauderdale, Fla. 673,867, pub. 11–25–58. Cl. 24.
Spaulding-Moss Co., Boston, Mass. 673,898, pub. 11–25–58. Cl. 38.
Spiegel, Inc., Chicago, Ill. 568,250, canc. Cl. 24.
Sponge Rubber Products Co., The, Shelton, Conn. 568,379, canc. Cl. 35.
Sputkap: *See*—
Rumble, David E.
Standard Brands Inc., New York, N. Y. 673,966–7, pub. 11–25–58. Cl. 46.
Stanley, Joe A., Jr., d. b. a. Hygeia Purified Water Co., Lubbock, Tex. 673,947, pub. 11–25–58. Cl. 45.
Star Glow Electric Products, Inc., to Berns Air King Corp., Chicago, Ill. 444,631, new cert. Cl. 21.
Stetson China Co., Inc., Lincoln, Ill. 673,848, pub. 11–25–58. Cl. 30.
Stetson, John B., Co., Philadelphia, Pa. 672,715, pub. 11–25–58. Cl. 8.
Stewart-Warner Corp., Chicago, Ill. 673,829, pub. 11–25–58. Cl. 23.
Stone & Smith, Inc., Los Angeles, Calif. 673,709, pub. 11–25–58. Cl. 2.
Strohmeyer & Arpe Co., New York, N. Y. 673,747, pub. 11–25–58. Cl. 15.
Strong, Cobb and Co., Inc., Cleveland, Ohio. 568,245, canc. Cl. 18.
Sun Oil Co., Philadelphia, Pa. 673,708, pub. 11–25–58. Cl. 6.
Superior Separator Co., Hopkins, Minn., from Livestock Sprayer Mfg. Co., San Jose, Calif. 673,825, pub. 11–25–58. Cl. 23.
Superior Switchboard & Devices Co., The, Canton, Ohio. 365,653, ren. 3–14–59. Cl. 33.
Sweet Life Brands, Inc., Schenectady, N. Y. 673,882, pub. 11–25–58. Cl. 37.
Taylor, Edwin M. Phelan & Taylor Produce Co., Oceano, Calif. 644,827, cor. Cl. 46.
Taylor, Taylor & Hobson Ltd., Leicester, England. 673,828, pub. 11–25–58. Cl. 26.
Teletype Corp., Chicago, Ill. 673,899, pub. 11–25–58. Cl. 38.
Thor Corp., Chicago, Ill. 568,142, canc. Cl. 23.
Todd-AO Corp., The, New York, N. Y. 674,006, pub. 11–25–58. Cl. 107.
Toledo Desk and Fixture Co., The, to Toledo Desk & Fixture Corp., Maumee, Ohio. 568,360, canc. Cl. 13.
Toledo Desk & Fixture Corp.: *See*—
Toledo Desk and Fixture Co., The.
Toledo Scale Corp., Toledo, Ohio. 673,820, pub. 11–25–58. Cl. 23.
Topp Industries, Inc., Beverly Hills, Calif. 673,844, pub. 11–25–58. Cl. 26.
Transcontinental Bus System, Inc., Dallas, Tex. 674,001, pub. 11–25–58. Cl. 105.
Trio Mfg. Co., Griggsville, Ill. 673,741, pub. 11–25–58. Cl. 13.
Trip-Mode Mfg. Co., New York, N. Y. 568,296, canc. Cl. 8.
Trisco Mfg. Co., Jersey City and Newark, N. J. 568,247, canc. Cl. 23.
Turngren, Eugene S., d. b. a. "Open-Time," Chicago, Ill. 673,991, pub. 11–25–58. Cl. 101.
Ty-Sa-Man Machine Co., Knoxville, Tenn. 673,815, pub. 11–25–58. Cl. 23.
Ultra-Violet Products, Inc., San Gabriel, Calif. 673,720, pub. 11–25–58. Cl. 6.
Union Carbide Corp.: *See*—
National Carbon Co., Inc.
Union Carbide Corp., New York, N. Y. 673,707, pub. 11–25–58. Cl. 6.
Union Carbide Corp., New York, N. Y. 673,725, pub. 11–25–58. Cl. 8.
Union Stock Yard and Transit Co. of Chicago, The, Chicago, Ill. 673,689, pub. 11–25–58. Cl. 2.
United Distillers (of America), Ltd., Baltimore, Md., to Joseph S. Finch and Co., Schenley, Pa. 364,079, ren. 1–17–59. Cl. 49.
United Co-Operatives, Inc., Alliance, Ohio. 673,712, pub. 11–25–58. Cl. 6.
United Pharmacal Co. of Missouri, Inc., St. Joseph, Mo. 673,767, pub. 11–25–58. Cl. 18.
United Shoe Machinery Corp., Boston, Mass. 673,910, pub. 11–25–58. Cl. 39.
United States Borax & Chemical Corp., Los Angeles, Calif. 673,692, pub. 11–25–58. Cl. 2.
United States Paper Co., to Consolidated Paper Mfg. Co., Los Angeles, Calif. 362,793, ren. 11–29–58. Cl. 37.
United States Rubber Co.: *See*—
Beacon Falls Rubber Shoe Co., The.
U. S. & South American Trading Co.: *See*—
Dziubek, Alfred.
United States Steel Corp.: *See*—
Oil Well Supply Co.
United States Steel Corp., Pittsburgh, Pa. 673,821, pub. 11–25–58. Cl. 23.
Universal Concrete Pipe Co., Columbus, Ohio. 410,441, canc. Cl. 38.
Universe Products Co.: *See*—
Hirashiki, James.
Upjohn Co., The, Kalamazoo, Mich. 673,772, pub. 11–25–58. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 673,755, pub. 11–25–58. Cl. 18.
Vacuum Oil Co., to Socony Mobil Oil Co., Inc., New York, N. Y. 124,426, ren. 2–11–59. Cl. 15.
Vacuum Oil Co., to Socony Mobil Oil Co., Inc., New York, N. Y. 124,799, ren. 2–11–59. Cl. 15.
Vanadium-Alloys Steel Co., Latrobe, Pa. 366,484, ren. 4–11–59. Cl. 14.
Vanity Fair Mills, Inc., Reading, Pa. 673,931, pub. 11–25–58. Cl. 42.
Velveray Corp.: *See*—
Velveray Corp. of America.
Velveray Corp. of America, New York, N. Y., to Velveray Corp., Clifton, N. J. 361,034, ren. 10–4–58. Cl. 42.
Verley, Albert, & Co., Linden, N. J. 673,721–4, pub. 11–25–58. Cl. 6.
Victor Shaw Ring Traveler Co., Providence, to The Pawtucket Spinning Ring Co., Central Falls, R. I. 124,903, ren. 3–18–59. Cl. 38.
Vita Well Products Co.: *See*—
Ruttledge, William L.
Vlier Engineering Corp., Los Angeles, Calif. 673,822, pub. 11–25–58. Cl. 23.
Voigtlander A. G., Braunschweig, Germany. 673,841, pub. 11–25–58. Cl. 26.
W & S Packing Co., Salinas, Calif. 420,899, canc. Cl. 46.
Waldes Kohinoor, Inc.: *See*—
Federal Snap Fastener Corp.
Wallace Silversmiths, Inc., Wallingford, Inc., Wallingford, Conn. 673,869, pub. 11–25–58. Cl. 34.
Wanskuck Co.: *See*—
Moosberg Pressed Steel Corp.
Warner-Lambert Pharmaceutical Co. of Tabor Rd., Morris Plains, N. J., from Hiss Pharmacal Co., Inc., d. b. a. Genesee Drug Co. 670,134, cor. Cl. 18.
Warren Woolen Co., Post-Borough of Stafford Springs, Tolland County, Conn. 673,936, pub. 11–25–58. Cl. 42.
Waters, James L., Inc., to Mine Safety Appliances Co., Pittsburgh, Pa. 575,777, new cert. Cl. 26.
Weinberger, Eric, d. b. a. Juno Products, Cleveland, Ohio. 673,846, pub. 11–25–58. Cl. 28.
Western Clay Products Co., Inc., Phoenix, Ariz. 673,866, pub. 11–25–58. Cl. 34.
Western 4 Trading Stamp Corp., Oregon City, Oreg. 673,893, pub. 11–25–58. Cl. 38.
Western Sealant, Inc., Culver City, Calif. 568,185, canc. Cl. 34.
White, Joseph E., Rockford, Ill. 673,804, pub. 11–25–58. Cl. 22.
Wickham, Sidney, & Associates: *See*—
Wickham, Sydney.
Wickham, Sydney d. b. a. Sidney Wickham & Associates, Dallas, Tex. 673,984, pub. 11–25–58. Cl. 52.
Willett, Consider H., Louisville, Ky. 568,291, canc. Cl. 32.
Williams, Otto K., Ellensburg, Wash. 673,805, pub. 11–25–58. Cl. 22.
Wilson, Ralph W., Co.: *See*—
Wilson, Ralph W., Co., Inc.
Wilson, Ralph W., Co., Inc., New York, N. Y., to Ralph W. Wilson Co., Springdale, Conn. 361,029, ren. 10–4–58. Cl. 50.
Wine Railway Appliance Co., The, Toledo, Ohio. 673,779, pub. 11–25–58. Cl. 19.
Wohl Shoe Co., St. Louis, Mo. 670,633, canc. Cl. 39.
Woodings-Verona Tool Works, Verona, Pa. 365,693, ren. 3–14–59. Cl. 13.
World Export Mfg. Co., Ltd.: *See*—
Baptista, Louis E.
Yardley & Co. Ltd., London, England. 296,993, canc. Cl. 52.
Yardley & Co., Ltd., London, England, to Park & Tilford, New York, N. Y. 124,184, ren. 1–14–59. Cl. 51.
Young, Alfred L., d. b. a. Kleen-Aid Products, Bellows Falls, Vt. 673,979, pub. 11–25–58. Cl. 52.
Young, James W., d. b. a. Rancho de la Canada, Pena Blanca, N. Mex. 673,955, pub. 11–25–58. Cl. 46.
Youth Unlimited Foundation, Eaton Rapids, Mich. 673,986, pub. 11–25–58. Cl. 100.
Ziv, Frederic W., Co.: *See*—
Ziv, Frederic W., Inc.
Ziv, Frederic W., Inc., to Frederic W. Ziv Co., Cincinnati, Ohio. 367,218, ren. 5–9–59. Cl. 38.

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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

February 17, 1959 Volume 739 Number 3

PATENTS

NOTICES

Selected Non-Proprietary Names

The Public Health Service has informed the Patent Office that the names listed below have been selected by WHO as recommended international non-proprietary names for pharmaceutical preparations.

The procedure for selection of these names, by WHO, including earlier publication in accordance with procedures published in the Chronicle of the World Health Organization, June-July 1955 issue, has been completed. WHO requests that these recommended names be recognized as the non-proprietary names for the substances concerned and that the necessary steps be taken to prevent acquisition of proprietary rights in the same.

Recommended International Non-Proprietary Name (*Latin, English*)	Chemical Name or Description
acetylmethadolum acetylmethadol	6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphacetylmethadolum alphacetylmethadol	α-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphamethadolum alphamethadol	α-6-dimethylamino-4,4-diphenyl-3-heptanol
anileridinum anileridine	1-[2-(p-aminophenyl)-ethyl]-4-phenylpiperidine-4-carboxylic acid ethyl ester
betacetylmethadolum betacetylmethadol	*B*-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
betamethadolum betamethadol	*B*-6-dimethylamino-4,4-diphenyl-3-heptanol
betaprodinum betaprodine	*B*-1,3-dimethyl-4-phenyl-4-propionoxypiperidine
desomorphinum desomorphine	dihydrodeoxymorphine
diethylthiambutenum diethylthiambutene	3-diethylamino-1,1-di-(2-thienyl)-1-butene
dimethylthiambutenum dimethylthiambutene	3-dimethylamino-1,1-di-(2-thienyl)-1-butene
dipipanonum dipipanone	4,4-diphenyl-6-piperidino-3-heptanone
ethoheptazinum ethoheptazine	1-methyl-4-carbethoxy-4-phenylhexamethyleneimine
ethylmethylthiambutenum ethylmethylthiambutene	3-ethylmethylamino-1,1-di-(2-thienyl)-1-butene
hydroxypethidinum hydroxypethidine	1-methyl-4-(3-hydroxyphenyl)-piperidine-4-carboxylic acid ethyl ester
levallorphanum levallorphan	l-3-hydroxy-*N*-allylmorphinan
levorphanolum levorphanol	l-3-hydroxy-*N*-methylmorphinan
metethoheptazinum metethoheptazine	1,3-dimethyl-4-carbethoxy-4-phenylhexamethyleneimine
metheptazinum metheptazine	1,2-dimethyl-4-carbomethoxy-4-phenylhexamethyleneimine
methyldesorphinum methyldesorphine	6-methyl-Δ⁶-deoxymorphine
methyldihydromorphinum methyldihydromorphine	6-methyldihydromorphine
myrophinum myrophine	myristyl ester of benzylmorphine
normethadonum normethadone	4,4-diphenyl-6-dimethylamino-3-hexanone
oxpheneridinum oxpheneridine	1-(2-phenyl-2-hydroxyethyl)-4-carbethoxy-4-phenyl-piperidine
oxymorphonum oxymorphone	dihydrohydroxymorphinone
phenomorphanum phenomorphan	3-hydroxy-*N*-phenethylmorphinan
propheptazinum propheptazine	1,3-dimethyl-4-phenyl-4-propionoxyhexamethyleneimine
properidinum properidine	1-methyl-4-phenylpiperidine-4-carboxylic acid isopropyl ester
propoxyphenum propoxyphene	4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane

New Applications Received During December 1958

Patents	7,212
Designs	431
Plant Pats	14
Reissues	18
Total	7,675

Issue

Patents	937	No. 2,873,446 to No. 2,874,382, incl.
Designs	55	No. 184,416 to No. 184,470, incl.
Plant Pats	1	No. 1,811
Reissues	6	No. 24,600 to No. 24,605, incl.
Total	[illegible]	

Notice to Attorneys

It has been brought to my attention by the court that some of the attorneys who practice before this bar, when citing in their briefs decisions of this court, published either in the Federal Reporter or in the United States Patent Quarterly, fail to cite the CCPA volume and page numbers, as required under Rule 9 of the rules of the United States Court of Customs and Patent Appeals.

It is very essential that all attorneys fully comply with Rule 9 in this matter and their cooperation is solicited.

CABELL N. PRYOR,
Clerk, United States Court of Customs and Patent Appeals.

Adverse Decisions in Interferences

In the designated interferences involving the indicated claims of the following patents final decisions have been rendered that the respective patentees were not the first inventors with respect to the claims listed.

Pat. 2,532,402, R. J. Herbold, Navigating instrument for craft and pilot guidance, decided Nov. 14, 1958, Interference No. 88,153, claim 6.

Pat. 2,689,529, L. W. Wightman, Submersible pump-motor, decided Oct. 1, 1958, Interference No. 87,790, claim 8.

Pat. 2,720,588, S. S. D. Jones, Radio antennae, decided Sept. 16, 1958, Interference No. 88,012, claims 1 and 8.

Pat. 2,721,293, J. D. Gow, Control circuit for color television display tubes, decided Sept. 22, 1958, Interference No. 87,894, claims 1, 2, 3, and 6.

Pat. 2,726,282, J. F. Bigelow, Television synchronizing system, decided Nov. 28, 1958, Interference No. 87,959, claims 2, 3, 4, 5, and 13.

Pat. 2,729,994, E. E. Hewitt, R. J. Bush, and W. B. Jeffrey, Hose clamp applying machine, decided Jan. 12, 1959, Interference No. 88,500, claims 1, 2, and 3.

Pat. 2,732,434, K. G. Johnson, Device for identification of numbers, decided Sept. 23, 1958, Interference No. 88,021, claims 1 and 2.

Pat. 2,746,034, A. F. Hasbrook, Positioning determining system, decided Jan. 15, 1959, Interference No. 89,125, claims 1 and 2.

Pat. 2,757,862, R. E. Boyden, W. F. Collison, K. F. Oldenburg, and F. N. Schwend, Read-out apparatus for an impulse actuated accumulating device, decided Jan. 16, 1959, Interference No. 89,845, claim 14.

Pat. 2,767,259, R. W. Peter, Noise compensation in electron beam devices, decided Jan. 5, 1959, Interference No. 88,884, claims 1, 2, 4, 5, 6, 12, 13, 14, 17, and 18.

Pat. 2,772,799, L. J. Bridinger, Boat loader, decided Sept. 30, 1958, Interference No. 88,799, claim 1.

Pat. 2,791,028, P. Bidin, Hydraulically operated hand tools, decided Nov. 19, 1958, Interference No. 88,928, claim 1.

Pat. 2,792,620, W. M. Kohring, Sealed resistors, decided Dec. 10, 1958, Interference No. 89,499, claims 2 and 3.

Pat. 2,797,795, J. R. West, Reversible ratchet drive mechanism, decided Jan. 5, 1959, Interference No. 89,151, claims 1, 2, 3, 4, and 5.

Disclaimers

2,688,695.—*Alexander Douglas Odell*, Aldwych, London, England. ELECTRICAL SWITCHING CIRCUITS. Patent dated Sept. 7, 1954. Disclaimer filed Jan. 12, 1959, by the assignee, *International Standard Electric Corporation*.

Hereby enters this disclaimer to claims 1 and 5 of said patent.

2,853,609.—*Richard L. Ropiequet*, Portland, and *John R. Kobbe*, Beaverton, Oreg. MULTIVIBRATOR HOLD OFF CIRCUIT. Patent dated Sept. 23, 1958. Disclaimer filed Sept. 17, 1958, by the assignee, *Tektronix, Inc.*

Hereby enters this disclaimer to claim 10 of said patent.

Patents Available for Licensing or Sale

2,623,751. Fertilizer Spreader. Folke Fyrk, Rural Route 4, Box 349, Rockford, Ill.

2,825,448. Safety Match and Folder. Roy H. Myers, Route 3—162, East El Roblar Drive, Ojai, Calif.

2,842,168. Swingable Power Saw Support and Guide. William Truchan, 2742 Benvenue Ave., Berkeley, Calif.

2,846,911. Pivotable Wrench Jaw Having Quick Slidable Adjustment. Charles M. Smiddy, Fort Covington, N. Y.

2,869,899. Combination Check and Cash Disbursement Book. Bessie Benbassat, 781 E. 52d St., Brooklyn 3, N. Y.

General Electric Company is prepared to grant non-exclusive licenses upon reasonable terms to domestic manufacturers under the following 25 patents.

Applications for license under the following 6 patents may be addressed to: General Electric Company, Patent Counsel, Measurements and Industrial Products Division, 1000 Western Ave., West Lynn 3, Mass.

2,547,635. High Frequency Induction Heating Apparatus.

2,834,202. Apparatus for Measuring Hardness.

2,834,203. Apparatus for Measuring Hardness.

2,846,586. Drift Compensator for Direct-Coupled Amplifier.

2,855,551. Servomotor System Adapted for Measuring.

2,857,761. Mass Flow Meter.

Applications for license under the following 2 patents may be addressed to: General Electric Company, Patent Counsel, Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,837,494. Silicone Rubber of Improved Thermal Stability Containing Triorganophosphine Oxide.

2,854,424. Silicone Water-Repellents Containing Stannous Salts and Process of Treating Textiles Therewith.

Applications for license under the following 17 patents may be addressed to: Patent Counsel, Appliance & Television Receiver Division, General Electric Company, Appliance Park, Louisville 1, Ky.

2,720,756. Heat Pump, Including Fixed Flow Control Means.

2,846,776. Clothes Dampener.

2,847,190. Air Conditioning Apparatus Having Automatic Defrost.

2,847,884. Heating and Cooling Arrangement Using a Heat Pump.

2,851,789. Control System for Clothes Dryers.

2,851,790. Temperature Control Means for Clothes Dryer.

2,851,791. Clothes Conditioner.

2,851,866. Room Cooler.

2,851,909. Transmission for Washing Machines or the Like.

2,852,328. Refrigerator Door Inner Liner.

2,855,494. Electric Incinerator.

2,858,678. Room Air Conditioner Having Vent Control Means.

2,859,493. Refrigerator Cabinet Including Closure Sealing Means.

2,860,778. Method and Apparatus for Testing Magnets.

2,960,942. Adjustable Support.

2,861,590. Flow Control Device.

2,862,093. Thermostatically Controlled Heating Apparatus.

Classification Order No. 268

The following transfer is hereby ordered to take effect on Monday, February 2, 1959:

From Division 38 to Division 17
Class 53, PACKAGE MAKING
Subclasses 26, 78 to 110, 147 to 166, 235 to 369.

M. C. ROSA,
Director, Patent Examining Operation.

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1958

Total number of pending applications (excluding Designs)	201,063
Total number of pending Design applications	7,062
Total number of applications awaiting action (excluding Designs)	84,659
Total number of Design applications awaiting action	2,780
Date of oldest new application	Jan. 16, 1958
Date of oldest amended application	Jan. 2, 1958

M. C. ROSS, Director, Patent Examining Operation

PATENT EXAMINING GROUPS AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 21, 23, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 45, 51, 54, 60.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 27, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES	7, 11, 17, 27, 34, 35, 38, 38, 62
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 26, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
1. (VI) GOLDBERG, A. J., Brakes; Harvesting; Planting; Plant Husbandry; Scattering Unloaders; Harrows and Diggers; Plows	5-20-58	5-19-58
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Turtle Wringers; Buckles, Buttons and Clasps	5-15-58	5-19-58
3. (VII) MARMELSTEIN, N., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	6-5-58	6-3-58
4. (VI) FALLER, E. A. (SCHULZ, H. O., acting), Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	5-20-58	5-20-58
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminuters; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	2-25-58	2-21-58
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	5-15-58	5-20-58
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	6-2-58	6-2-58
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	6-2-58	3-24-58
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	6-4-58	6-2-58
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	5-20-58	5-16-58
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	5-21-58	5-26-58
12. (III) SPINTMAN, S. (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	4-30-58	3-27-58
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	5-6-58	5-6-58
14. (III) WILTZ, W. A., (acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	1-16-58	1-2-58
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus	5-2-58	5-19-58
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	4-11-58	3-22-58
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Amputation or Folding	5-9-58	5-27-58
18. (VI) BLUM, A., Power Plants; Fluid Transmission; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	5-19-58	5-19-58
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	5-20-58	5-15-58
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	5-23-58	5-23-58
21. (III) MADER, E. C., Textiles	4-15-58	4-25-58
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	5-15-58	5-19-58
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	3-4-58	3-3-58
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	5-1-58	5-14-58
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	7-1-58	6-15-58
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	6-3-58	5-13-58
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	7-3-58	7-1-58
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyors; Pressure Modulating Relays; Wheel Substitutes	5-19-58	5-16-58
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	4-1-58	4-26-58
30. (VII) O'LEARY, E. A., Illuminating Burners; Comminuters; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling; Refrigeration	5-15-58	5-15-58

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	7-15-56	7-14-58
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	5-23-56	5-20-58
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements; Roofs	5-15-56	5-5-58
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	5-1-56	5-1-58
35. (IV) DEMBO, L. J., Dispensing; Filling Receptacles; Toilet; Sheet Feeding	5-1-56	5-1-58
36. (V) EVANS, R. L., Measuring and Testing; Automatic Weighers; Weighing Scales	2-3-56	2-3-58
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	5-10-56	1-24-58
38. (I) PARKER, C. B., (acting). Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	7-10-56	7-30-58
39. (IV) WEIL, L., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	7-15-56	7-15-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	6-2-56	6-3-58
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	6-4-56	6-3-58
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	5-21-56	5-17-58
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	6-2-56	6-2-58
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	1-20-56	1-6-58
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	5-19-56	5-26-58
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	5-6-56	5-1-58
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	5-15-56	5-15-58
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	5-15-56	5-15-58
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Concentrating Evaporators; Glass	5-16-56	5-14-58
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber; Synthetic Resins (part) (e. g., Butadiene Polymers and Copolymers, Polyacrylonitriles, Acrylate Polymers and Copolymers)	4-23-56	4-18-58
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas; Oscillators	5-15-56	5-15-58
52. (V) LE ROY, C. A., Supports and Racks	5-15-56	5-15-58
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	5-6-56	5-15-58
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	7-21-56	7-16-58
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	5-16-56	5-19-58
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	6-4-46	5-15-58
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Cutting and Punching	5-2-56	5-27-58
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part); Selective Punching	6-2-56	5-22-58
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	5-20-56	5-15-58
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	5-12-56	5-19-58
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Railway Mail Delivery; Feeding of Indefinite Lengths	4-26-56	4-26-58
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	6-17-56	5-15-58
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	5-15-56	5-15-58
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	4-1-56	5-1-58
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	5-15-56	5-15-58
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	5-1-56	5-3-58
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	7-1-56	5-30-58
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CLASS. DIVS. IV—BERLOWITZ, W., Earth Boring	7-21-56	7-7-58
CLASS. DIVS. V—ANGEL, C. D., Scaffolds; Masonry and Concrete Structures; Time-Controlling Apparatus; Packed Rod Joints; Joint Packings	5-28-56	5-28-58
71. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part) i. e., Polyethylenes	5-17-56	5-15-58
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*Established August 22, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 66

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during February 1959, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,271,510 to 2,274,631, inclusive
Plant Patents ..... Numbers 502 to 503, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE HERRMANN ET AL.

No. 6981. Decided December 15, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. EVIDENCE—UNQUESTIONED STATEMENT OF APPELLANTS.

"Appellants point out that the flanges which form the walls of the raceway in the Bott construction extend only about half way from the bottom of the raceway to the pitch circle, and that approximately half of the bearing cage lies on each side of the pitch circle, and argue that because of these features in Bott's operation 'roller end areas moving in opposite directions engage the same radial surface which cannot wash out the opposed forces and, thus, the roller end areas tend to move along such radial surface and create friction, heat and the skewing action * * *,' which does not occur in appellants' design because the radial surfaces of the flange and the cage meet at the pitch circle. Before further considering Bott as a reference we should remark that though the mechanical phenomenon causing this alleged advantage is not very well explained, it is stated by appellants that their bearing configuration results in substantially greater service life and load carrying capacity. This statement was not questioned by the Examiner or the Board of Appeals, so we are constrained to accept it at face value, at least so far as it applies to 'needle' bearings, since appellant has stated that his alleged improvements are especially applicable to such bearings because of their particular susceptibility to roller 'cocking.'"

2. PATENTABILITY—CRITICAL LIMITATION.

"It thus appears to us that the rejection is not well founded, insofar as the claimed invention is limited to needle bearings, but as the Patent Office Solicitor points out, the appeal includes claims 2, 5 and 7 which do not have the 'needle' roller limitation. The Solicitor says this tempers somewhat appellants' argument for patentability based on asserted benefits in 'needle' bearings, citing *In re Ripper*, 38 CCPA (Patents) 743, 171 F.2d 297. This case was apparently cited for the proposition that a limitation which is not found in all the claims cannot be considered to be 'critical.' We do not think this proposition has any applicability to the present case. The difference between the two groups of claims here is that one group is limited to 'needle' bearings, the type of bearings to which alone appellants' invention relates, and the other group is broad enough, due to the absence of this limitation, to read on roller bearings generally, including the type having 'square' rollers. This is not a question of criticality at all but one of scope and of so defining what was actually invented as to patentability distinguish from the prior art. We think *In re Ripper* is inapposite."

3. SAME—PARTICULAR SUBJECT MATTER—NEEDLE ROLLER BEARINGS.

Certain claims limited to "needle" roller bearings *Held* patentable over the cited art; and certain other claims not so limited *Held* properly rejected as unpatentable over the prior art.

APPEAL from the Patent Office. Serial No. 244,486.

MODIFIED.

Joseph G. Denny, III for Herrmann et al.

Clarence W. Moore (*S. Wm. Cochran* of counsel) for the Commissioner of Patents.

Before O'CONNELL, *Acting Chief Judge*, and WORLEY, RICH, and MARTIN, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This appeal is from the decision of the Patent Office Board of Appeals affirming the Primary Examiner's rejection of claims 2, 4, 5, 7, 8, 12, and 13 of the application of Karl L. Herrmann, Victor L. Barr, and Gerald A. Henwood, Serial No. 244,486, filed August 31, 1951, entitled "Needle Roller Bearings." Six claims stand allowed. Claim 8, which is representative of the appealed claims, reads:

8. A cylindrical roller bearing comprising a symmetrical race ring having side ribs thereon spaced to form a raceway between them and provided with annular bearing surfaces, a tubular cage making a loose slip fit with said annular surfaces and having slots therein forming roller windows said windows extending entirely across but not beyond said raceway and having bars between them each having throughout greater circumferential width than radial thickness and forming side walls for the respective windows having substantially parallel surfaces over at least a portion of their radial thickness, and cylindrical, symmetrical rollers in said raceway and windows and having their centers of rotation in a pitch circle approximately coincident with said annular surfaces, said rollers each having a length several times its diameter and being guided by contact at approximately the pitch circle of its circumferential surface with portions of said parallel walls adjacent to the corners formed thereby with a circumferential surface of said cage.

Claims 4, 8, 12, and 13 are limited to "needle" roller bearings, while claims 2, 5, and 7 are expressed in broader terms.

The subject matter of appellants' application is a roller bearing of the so-called "needle" type in which the rollers have a length at least three times as great as their diameter and their diameter does not ordinarily exceed 5 mm. It is well known that "needle" bearings have distinct advantages for some applications over so-called "square" roller bearings which have rollers of smaller length to diameter ratio. Appellants contend that some of the advantages of "needle" bearings have heretofore been offset by a tendency of the rollers to skew under load and to jam with the roller spacing cage, resulting in greater friction and loss of bearing life. This skewing tendency is claimed to be eliminated by appellants' bearing design which includes a roller spacing cage that "floats" with respect to the rollers rather than riding on the rollers and which contacts the rollers in allegedly more desirable areas for guiding purposes.

As shown and described, appellants' bearing comprises rollers arranged in a circle between inner and outer cylindrical race rings. The outer member or ring is provided with inwardly extending flanges which are spaced apart at their inner radial surfaces approximately equal to the length of the rollers, to provide a raceway. The height of the flanges from the load bearing surface of the raceway is equal to one-half the diameter of the rollers so that each flange terminates in a circle passing through the axis of the rollers, known as the pitch circle. Thus substantially half of each roller lies in and half out of the raceway. The rollers are held in spaced relationship by means of a tubular roller cage which comprises a cylindrical member having spaced roller-receiving windows, each having a length substantially equal to that of the rollers and a width substantially equal to the roller diameter, with appropriate clearances in each direction. The outer cylindrical surfaces at the ends of the cage beyond the windows are continuous rims which rest with a slip fit on the cylindrical surfaces of the race ring flanges so that the cage is rotatable with respect to them. The cage is thus supported in running contact with the flanges of the outer race ring.

The line of contact between the cage rims and the flanges is preferably coincident with the pitch circle, but may vary within a zone having a radial width on either side of the pitch circle not exceeding 10% of the diameter of a roller. Each roller end area thus contacts, substantially at the pitch circle, a radial end wall formed by the cage at the inner radial surface of the end of its window and the inner radial surface of the race ring flange, these two roller-contacting areas moving in opposite directions with respect to each other, and essentially on opposite sides of the pitch circle. There is also disclosed a bearing wherein the flanges are on the inner race ring but operating on the same principles.

The claims were rejected as not patentably distinguishing over prior art references. The sole issue before us is the propriety of this rejection.

The references relied on are:

Bott, 1,765,648, June 24, 1930.
Heim, 2,044,168, June 16, 1936.
Reiss, 2,503,070, April 4, 1950.

The Bott patent discloses a bearing comprising cylindrical rollers each having a length approximately equal to its diameter, so-called "square" rollers. The rollers are arranged in a circle about the inner race ring which is provided with spaced outwardly extending flanges forming a raceway in which the rollers are received. The height of the flanges is approximately one-fourth the roller diameter. The rollers are held in spaced relation by a cylindrical cage member provided with roller receiving windows. The cage is provided with continuous rims at the ends of the windows and the inner cylindrical surfaces of the ends of the cage rest upon the raceway flanges.

The patent to Heim discloses a roller bearing generally similar to that of Bott, but the flanges which form the raceway have a height apparently equal to one-half the roller diameter and therefore terminate in the pitch circle. The continuous rims of Heim's cage, however, do not rest on the flanges of the raceway, but are spaced radially outwardly therefrom, the cage being supported by the rollers and not by the raceway flanges.

The Reiss patent was cited merely to show a roller bearing of the "needle" type, wherein the length of the rollers is more than three times their diameter, which bearing also includes a cage.

Claims 2, 5, and 7 were rejected on Bott in view of Heim, and the remainder of the appealed claims, 4, 8, 12, and 13, were rejected on the same references in view of the "needle" roller bearing shown by Reiss.

The two features upon which appellants rely for patentability are found in varying breadth in all of the appealed claims: (1) support of the roller guiding cage on the raceway ribs at the pitch circle, and (2) arrangement of the structure so that the rollers are guided by contact at the pitch circle.

The Bott patent is the basic reference. [1] Appellants point out that the flanges which form the walls of the raceway in the Bott construction extend only about half way from the bottom of the raceway to the pitch circle, and that approximately half of the bearing cage lies on each side of the pitch circle, and argue that because of these features in Bott's operation "roller end areas moving in opposite directions engage the same radial surface which cannot wash out the opposed forces and, thus, the roller end areas tend to move along such radial surface and create friction, heat and the skewing action * * *," which does not occur in appellants' design because the radial surfaces of the flange and the cage meet at the pitch circle. Before further considering Bott as a reference we should remark that though the mechanical phenomenon causing this alleged advantage is not very well explained, it is stated by appellants that their bearing configuration results in substantially greater service life and load carrying capacity. This statement was not questioned by the Examiner or the Board of Appeals, so we are constrained to accept it at face value, at least so far as it applies to "needle" bearings, since appellant has stated that his alleged improvements are especially applicable to such bearings because of their particular susceptibility to roller "cocking."

Claims 4, 8, 12, and 13 are limited to "needle" bearings. Bott discloses only bearing rollers of the "square" type with which cocking is not a serious problem, raising doubts as to its basic pertinency. Bott is combined with the disclosure of another "square" type bearing, Heim, as support for the proposition that it would be obvious to modify Bott so as to guide his rollers at the pitch circle, and that Bott *as thus modified* would suggest to one skilled in the art that it would be advantageous to so guide "needle" bearing rollers to prevent cocking. We do not agree. The essential suggestion is lacking.

[2] It thus appears to us that the rejection is not well founded, insofar as the claimed invention is limited to needle bearings, but as the Patent Office Solicitor points out, the appeal includes claims 2, 5, and 7 which do not have the "needle" roller limitation. The Solicitor says this tempers somewhat appellants' argument for patentability based on asserted benefits in "needle" bearings, citing *In re Ripper*, 36 CCPA (Patents) 743, 171 F.2d 297. This case was apparently cited for the proposition that a limitation which is not found in all the claims cannot be considered to be "critical." We do not think this proposition has any applicability to the present case. The difference between the two groups of claims here is that one group is limited to "needle" bearings, the type of bearings to which alone appellants' invention relates, and the other group is broad enough, due to the absence of this limitation, to read on roller bearings generally, including the type having "square" rollers. This is not a question of criticality at all but one of scope and of so defining what was actually invented as to patentably distinguish from the prior art. We think *In re Ripper* is inapposite.

In the instant case it is clear that the new and useful results flowing from appellants' invention are limited to "needle" bearings and that the problems solved are peculiar to bearings of that type. We feel that the claims so limited distinguish from the cited art. The Board of Appeals is therefore reversed as to claims 4, 8, 12, and 13.

The remaining claims 2, 5, and 7 are not limited to "needle" bearings and the Bott and Heim references are, therefore, more pertinent, at least so far as the *claimed* structure is concerned. We are of the opinion that the difference expressed in these broader claims over the cited references is merely one of degree.

Appellants' application states that, for many purposes, the junction between the flanges of the race ring and the cage rims may lie on either side of the pitch circle by as much as ten percent of the roller diameter, which clearly indicates that a certain amount of contact between a cage or flange and portions of a roller end surface moving in opposite directions is permissible, and the permissible amount must certainly vary according to the design of the bearing. Heim shows it to be old to locate the raceway flange on one side of the pitch circle with the cage rim on the other side. We are in agreement with the Patent Office that it would not be unobvious to one skilled in the art, in view of Heim, merely to extend Bott's cage supporting race flanges to terminate at the pitch circle. We see no patentable significance, in the consideration of these broad claims, in the fact that Heim does not show contact between his bearing cage and his flange. Heim's general arrangement is so similar to that of Bott that the above modification would readily suggest itself to the skilled worker in the art with respect to the type of bearing disclosed by Bott and Heim. Nevertheless, this would not suggest either the problems which existed in needle bearings or the solutions thereto which appellants have taught.

[3] For the above reasons, the rejection of claims 2, 5, and 7 is affirmed and the rejection of claims 4, 8, 12, and 13 is reversed.

MODIFIED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,151,033, M. L. Jones, Folding partitions; 2,180,112, same, Partition doors, filed Mar. 15, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 16360, *Richards-Wilcox Mfg. Co. v. Torjesen, Inc.* Consent judgment (notice Jan. 5, 1959).

2,180,112. (See 2,151,033.)

2,282,654, W. L. Horner, Apparatus for determining fluid contents of solids; 2,296,812, same, Earth exploration; 2,337,042, same, Method and apparatus for measuring porosity of solids; 2,345,525, same, Method of determining porosity; 2,361,944, same, Method for determining fluid contents of solids; 2,617,296, J. D. Wisenbaker, Process for treating core samples, filed Dec. 30, 1958, D. C., N. D. Tex. (Fort Worth), Doc. 1366, *Core Laboratories, Inc. v. Riley G. Maxwell Co.*

2,296,812. (See 2,282,654.)

2,337,042. (See 2,282,654.)

2,345,525. (See 2,282,654.)

2,361,944. (See 2,282,654.)

2,358,650, B. E. Kiest, Beet harvester, filed Jan. 5, 1959, D. C. N. J. (Camden), Doc. 9/59, *Bert E. Kiest v. International Harvester Co.*

2,435,902, F. C. Reggio, Fuel metering device; 2,673,536, same, Engine fuel control, filed Jan. 5, 1959, Ct. Cls., Doc. 5/59, *Ferdinando Carlo Reggio v. The United States.* Same, Doc. 6/59, *Pratt & Whitney Co., Inc. v. The United States.*

2,452,529, J. L. Snoek, Magnet core; 2,452,530, same; 2,452,531, same, filed July 1, 1955, D. C. Del. (Wilmington), Doc. 1723, *Hartford National Bank & Trust Co. et al. v. General Ceramics Corp.* Order of dismissal by stipulation without prejudice Jan. 6, 1959.

2,452,530. (See 2,452,529.)

2,452,531. (See 2,452,529.)

2,483,364, P. N. Sitton, Septic tank, filed Mar. 7, 1957, D. C. Kans. (Wichita), Doc. W-1325, *Philip Sitton Septic Tank Co. v. Midwest Sanitation Co.* Patent held invalid and not infringed Nov. 19, 1958.

2,696,668. (See Re. 24,318.)

2,617,296. (See 2,282,654.)

2,646,703, Easley and Swayze, Etching; 2,838,194, Hopkins and Easley, same, filed Jan. 7, 1959, D. C., S. D. N. Y., Doc. 141/231, *Dow Chemical Co. v. Lafayette Photo Engraving Corp.*

2,672,659, Graeff and McAuley, Sprocket chain, filed Jan. 6, 1959, D. C. N. J. (Camden), Doc. 10/59, *McAuley Mfg., Inc. v. Rudolph Poultry Equipment Co.*

2,673,536. (See 2,435,902.)

2,700,645, T. J. Kearney, Degreasing apparatus; 2,852,417, same, Cleaning method and apparatus; 2,862,476, same, Cleaning apparatus; 2,862,788, same, Method of cleaning; 2,881,785, same, Method and apparatus utilizing focused ultrasonic transducers, etc.; 2,771,892, same, Apparatus for treatment with solvents; 2,842,143, same, Apparatus for ultrasonic cleaning of parts with a solvent, filed Jan. 2, 1959, D. C., S. D. N. Y., Doc. 141/222, *Detrex Chemical Industries, Inc. v. Randall Mfg. Co., Inc.*

2,703,083, W. J. Gross, Adhesive bandages, filed Dec. 31, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c2213, *Johnson & Johnson v. Rexall Drug Co.*

2,748,193, H. A. Traub, Back up washer, filed Oct. 21, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 1207/57-PH, *Douglas Aircraft Co., Inc. v. Dodge-Wasmund, Inc.* Stipulation and order of dismissal (notice Dec. 30, 1958).

2,771,896. (See 2,700,645.)

2,771,832, E. F. Doskocil, Cultivator attachment; 2,793,579, same, Clamp for weeder attachment, filed Dec. 22, 1958, D. C., N. D. Tex. (Fort Worth), Doc. 2718, *Edward F. Doskocil v. Connally Implement Supply Co.*

2,782,251, Ebel and D'Ascoli, Cables for high frequency use; 2,816,998, R. D. Maddox, Electrical cable, filed Feb. 11, 1958, D. C. N. J. (Newark), Doc. 175/58, *Belden Mfg. Co. v. Rego Insulated Wire Co.* Consent judgment; patents held valid (notice Jan. 8, 1959).

2,784,378. (See 2,771,832.)

2,807,414. (See 2,700,645.)

2,862,738. (See 2,700,645.)

2,814,696. (See 2,782,251.)

2,838,194. (See 2,646,703.)

2,881,785. (See 2,700,645.)

2,842,143. (See 2,700,645.)

2,869,417. (See 2,700,645.)

2,855,641, J. Stein, Electric air purifier, filed Jan. 7, 1959, D. C., S. D. N. Y., Doc. 141/270, *Joseph Stein and Puritron Corp. v. Bond Stores, Inc.*

2,862,258, S. D. Nelson, Floor construction, filed Jan. 2, 1959, D. C., N. D. Ill. (Chicago), Doc. 59c5, *Conner Lumber & Land Co. v. Sexton D. Nelson.*

2,862,468, R. E. Johnson, Ornamental stitch sewing machines, filed Jan. 5, 1959, D. C., S. D. N. Y., Doc. 141/237, *Singer Manufacturing Co. v. Brother International Corp.*

Re. 24,318 (of 2,696,668), R. L. Pattinson, Method of storing gases or liquids, filed Nov. 21, 1958, D. C., N. D. Tex. (Fort Worth), Doc. 2708, *Sid W. Richardson v. Shelly Oil Co.*

Des. 177,793, A. L. Buschman, Prismatic pendant for a lamp or similar article, filed Jan. 5, 1959, D. C., S. D. N. Y., Doc. 141/240, *Bohemia Import Co., Inc. v. A. L. Buschman, Inc. et al.*

Des. 178,232, I. Greene, Lady's hat or similar article; Des. 178,234, same, filed Jan. 5, 1959, D. C., S. D. N. Y., Doc. 141/241, *Jopco Corp. v. Michael A. Greene et al.*

Des. 178,234. (See Des. 178,233.)

REISSUES

FEBRUARY 17, 1959

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

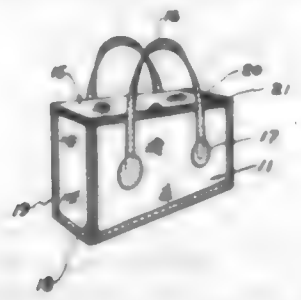
24,600

INSULATED BAG

Henry Ziff, Detroit, Mich.

Original No. 2,857,949, dated October 28, 1958, Serial No. 685,735, September 23, 1957. Application for reissue November 19, 1958, Serial No. 775,088

4 Claims. (Cl. 150—52)



1. In an insulated carrying case having front, rear, end and bottom walls, a horizontally disposed U-shaped reinforcing frame interposed between the end walls and against the front wall upon their interiors, spaced below their upper ends and secured thereto, said frame [being covered with material forming a part of said walls and] defining a cover supporting and sealing ledge below the open end of said case, a cover forming an extension of said rear wall and connected thereto, frame elements secured within the outer margins of said cover inwardly of its edges with the free ends of the cover frame elements hingedly connected to the free ends of the case frame, and spring means forming a part of said hinge connection adapted to resiliently bias the cover to closed position on said ledge when it is open less than 45 degrees to the horizontal and bias the cover to an upright open position when it is open less than 45 degrees to the vertical.

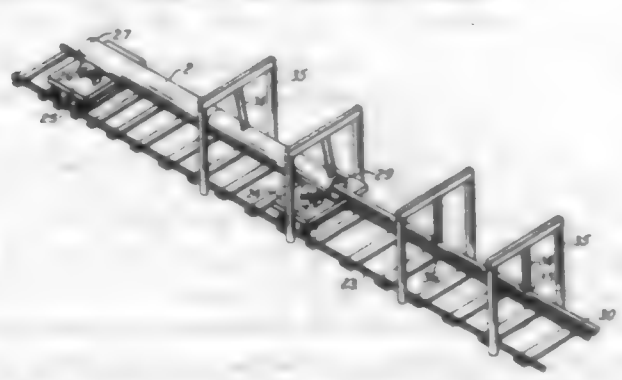
24,601

METHOD OF PROCESSING PIPES

Jesse M. Lewis, Tulsa, Okla., assignor to Williams Brothers Company, Tulsa, Okla., a corporation of Nevada

Original No. 2,734,832, dated February 14, 1956, Serial No. 190,856, October 18, 1950. Application for reissue January 28, 1957, Serial No. 636,847

6 Claims. (Cl. 117—96)



1. In a method of internally coating [a pipe section of unusual length for flow of petroleum products] *multiple lengths of connected pipe for pipe lines for flow of fluids* therethrough by use of a coating boom having a spray head on the outer end thereof and consisting of suspending the boom in an essentially horizontal position at a plurality of releasably longitudinally spaced supporting positions, telescoping the pipe over the spray head and boom, simultaneously releasing the suspended boom progressively as the pipe passes the spaced supporting positions during the telescoping operation, supplying the spray head with coating material through the boom, spraying the coating material onto the inner walls of the pipe while moving the pipe off of the boom, simultaneously rotating the pipe in timed relation with the rectilinear movement thereof to apply the coating material in a helical path, and continuing the rotation of the pipe after removal from the boom until the coating material solidifies thereon, *re-engaging the boom progressively at the plurality of spaced supporting positions for re-suspending the boom.*

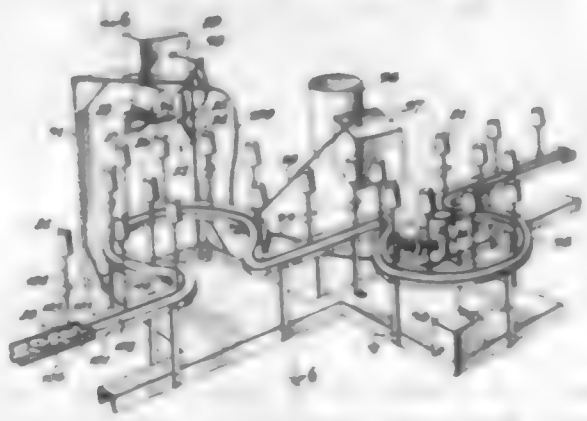
24,602

ELECTROSTATIC METHOD AND APPARATUS FOR SPRAY COATING OF ARTICLES

Charles Curtis Simmons, Skokie, Ill., assignor to Ransburg-Electro-Coating Corp., a corporation of Indiana

Original No. 2,808,343, dated October 1, 1957, Serial No. 274,909, March 5, 1952. Application for reissue September 29, 1958, Serial No. 764,483

21 Claims. (Cl. 117—93)



21. Apparatus for coating a plurality of articles from exteriorly thereof, comprising a spraying device for providing an expanding spray of coating material radiating from said device as a center; conveyor means including a plurality of spaced article-supports for bodily transporting said articles and positioning them in spaced relation within at least a portion of the spray pattern and along a predetermined arcuate path concave toward the axis of said spraying device, said conveyor means being so constructed and arranged that a plurality of [article-supports] *supported articles* simultaneously lie within said arcuate path and in said spray pattern; and means for maintaining a substantial difference of electrical potential between the articles on said conveyor and said spraying device to cause electrical charging of the spray particles and deposition of the charged particles on the articles.

24,603

THERMAL ROCK PIERCING

Robert B. Aitchison, New York, N. Y., and George H. Smith, Indianapolis, Ind., assignors, by mesne assignments, to Union Carbide Corporation, a corporation of New York

Original No. 2,694,550, dated November 16, 1954, Serial No. 47,214, September 1, 1948. Application for reissue September 20, 1956, Serial No. 611,414

4 Claims. (Cl. 255—1.8)

1. In a method for thermally piercing an elongated vertical hole in a mineral body by the application thereto of high temperature flame and a quenching fluid issued

from a piercing blowpipe, wherein said blowpipe is suspended above a mineral body and flame and quenching fluid are applied from the lower end of said blowpipe against said body to remove material therefrom and form a hole therein, the improvement which comprises employing a piercing blowpipe having a length less than the depth of the hole to be pierced and supplied with the piercing fluids through flexible conduits whereby the length of said blowpipe does not limit the depth to which said hole can be pierced normally advancing the flame from said blowpipe at a desired feed rate downwardly to form and deepen said hole until a plug of fused material is encountered at the bottom of said hole, elevating and releasing said blowpipe thereby causing it to fall under the acceleration of gravity to deliver a mechanical impact against said plug, continuing said elevating and releasing steps until said plug is removed through the combined effect of mechanical impact and high temperature flame application, and thereafter continuing said normal advancement of said blowpipe to deepen said hole.



24,604

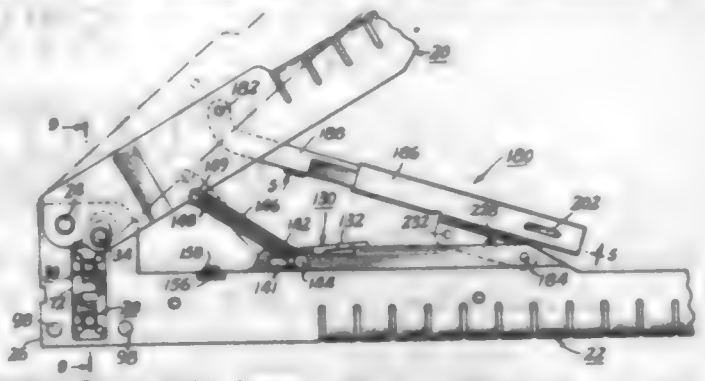
MAGAZINE TYPE HAND TOOL FOR CRIMPING ELECTRICAL CONNECTORS

George S. Reider, Jr., Highspire, Pa., assignor to AMP Incorporated, a corporation of New Jersey

Original No. 2,777,345, dated January 15, 1957, Serial No. 350,338, April 22, 1953. Application for reissue January 10, 1958, Serial No. 708,738

19 Claims. (Cl. 81—15)

1. A hand tool for crimping electrical connectors comprising, in combination, a pair of pivoted handles, a pair of cooperating relatively movable crimping jaws respectively connected to said handles for movement of said handles toward or away from each other to cause corresponding movement of said crimping jaws and a ratchet mechanism interconnecting said handles, said ratchet mechanism including a rack connected to one handle and a housing connected to the other handle and telescoping with said rack, said housing having a reversible pawl mounted therein to cooperate with said rack, a disalignable section on said rack for disengaging said rack from said pawl upon disalignment and movement of said handles and jaws to an intermediate connector releasing position, and means operative upon movement of said handles from said intermediate position to opened and closed position respectively to align and disalign said section.



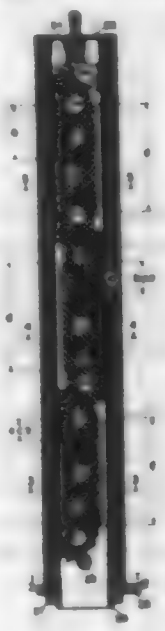
24,605

HIGH-VOLTAGE ARC-SPINNING ARRESTER

Ralph R. Pittman, Pine Bluff, Ark.

Original No. 2,569,192, dated September 25, 1951, Serial No. 165,317, May 31, 1950. Application for reissue September 13, 1952, Serial 309,570

20 Claims. (Cl. 313—231)



1. A lightning arrester construction comprising a tube of insulating material closed at one end and vented at the other end, normally insulated conducting electrodes mounted at the respective ends of said tube, a plurality of alternately axially-offset fillers of insulating material disposed within said tube in end-to-end abutting relationship, each of said fillers having a diameter less than the internal diameter of said tube, resilient means holding said fillers in alternately axially-offset positions to provide alternate diametrically opposed line-of-abutment engagement of alternate fillers with the inner surface of said tube, and structural means for causing sparkover between said conducting electrodes to occur within said tube and along a predetermined path which includes serially the diametrically opposed lines of abutment between said fillers and said tube, said structural means including a conducting member mounted on each filler and extending along the associated line of abutment for a distance less than the total length of said associated line of abutment, the conducting member associated with the filler adjacent to the closed end of said tube being shorter than the conducting members associated with any other filler.

PLANT PATENTS

GRANTED FEBRUARY 17, 1959

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,811

RED DELICIOUS APPLE TREE

John Duncan Hamilton, Sr., Wenatchee, Wash., assignor to The J. D. Hamilton Orchard Company, Incorporated, Wenatchee, Wash., a corporation of Washington

Application January 2, 1958, Serial No. 706,884

1 Claim. (Cl. 47—62)

The new variety of Red Delicious apple tree characterized by its distinctive color and early coloring habit as illustrated and described.

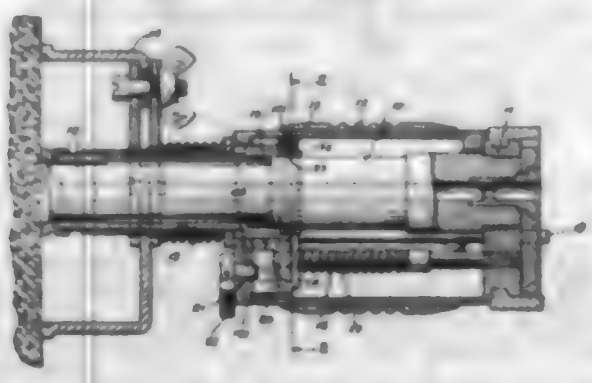
554

PATENTS

GRANTED FEBRUARY 17, 1959

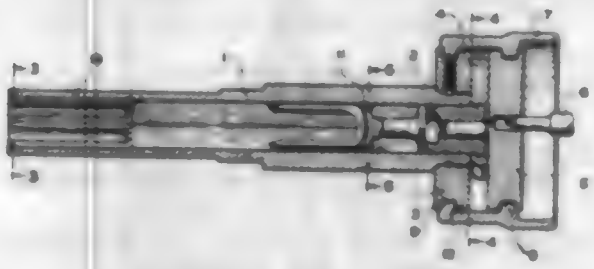
GENERAL AND MECHANICAL

2,873,446
ATTACHMENT OF SAFETY SHIELD TO A POWDER ACTUATED TOOL
Robert T. Catlin, Trumbull, and Arthur J. Landa, Huntington, Conn., assignors to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware
Application December 16, 1955, Serial No. 553,475
6 Claims. (Cl. 1—44.5)



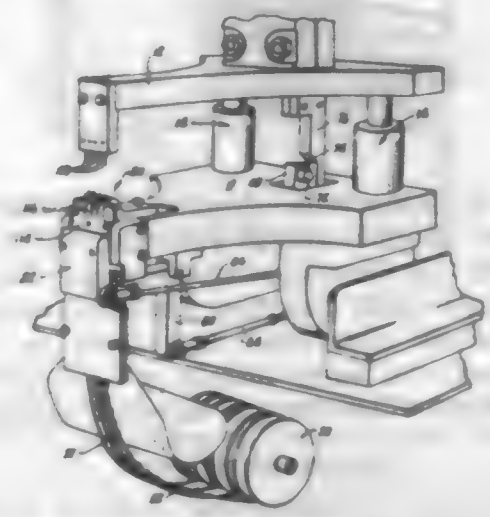
1. In a powder actuated tool comprising a frame, a barrel secured thereto and a guard assembly for the muzzle end of said barrel, a detachable connection for said guard assembly comprising a member supported on said frame, said member and said guard assembly comprising counterpart annular recesses, a resilient element biased to normally occupy portions of both of said recesses, thereby joining said guard assembly and said member, and a manipulative device engaging said resilient element and enabling the displacement of said element into one of said recesses.

2,873,447
CARTRIDGE-OPERATED STAPLE-DRIVING TOOL
Robert T. Catlin, Trumbull, and Arthur J. Landa, Huntington, Conn., assignors to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware
Application April 5, 1956, Serial No. 576,456
9 Claims. (Cl. 1—44.5)



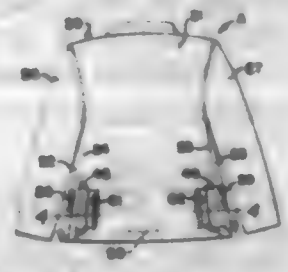
1. A tool for driving staple-type fastening devices with the power derived from an explosive cartridge comprising in combination a barrel having a bore, a breech end in which the explosive cartridge is exploded to produce propellant gases, a re-usable removable driving piston having at least a portion of polygonal cross section for gas sealing engagement with the bore of said barrel, said bore having a polygonal cross section adapted to receive and guide the legs of a bifurcated staple in diagonally opposite corners of the bore to prevent rotation of the staple with respect to the bore, said driving piston being formed with a concave forward face substantially matching and supporting without deformation the curvature of the head portion of the bifurcated staple while transmitting the force of the propellant gases in the barrel to the staple as the piston and staple are accelerated through the bore under the action of the explosive cartridge.

2,873,448
TERMINAL APPLICATORS
Quentin Berg, New Cumberland, Pa.
Application February 24, 1956, Serial No. 567,521
8 Claims. (Cl. 1—177)



1. Apparatus for securing the lead terminal of a strip terminal to a board provided with a cutout, said apparatus comprising an anvil, a guide defining a path of movement for said strip terminal adjacent but along one side of said anvil, feed means operable for advancing the strip of terminals through said guide so as to position the lead terminal of said strip adjacent said anvil at one side thereof, a cutoff comprising cooperable cutting edges on said anvil and guide, said guide and anvil being mounted for relative movement in a direction transversely of said path for moving the lead terminal transversely of said path so as to position the lead terminal of said strip in staking position on said anvil to receive a board to be assembled with said lead terminal with the lead terminal projecting through said cutout in said board, die means cooperable with said anvil to stake said terminal to said board and thereby to secure said lead terminal in said cutout in said board, and means for actuating said cutoff to sever said lead terminal from said strip.

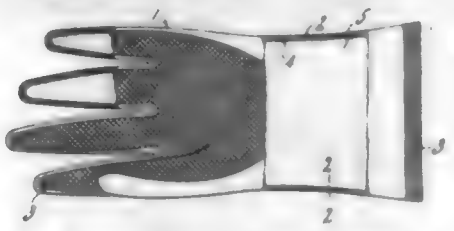
2,873,449
GAME CARRIER
Robert E. Herbert, St. Joseph, Mo.
Application April 26, 1957, Serial No. 655,309
1 Claim. (Cl. 2—94)



In game carrying equipment, the combination of a hunting coat defining a game receiving pocket having an aperture leading thereinto, a pocket interliner positioned within said pocket, said interliner comprising a body portion of material impervious to fluid and defining a fluid-proof chamber therein, and a sleeve member of material impervious to fluid secured to said body portion in proximity to that portion of said interliner adjacent the aperture in said coat, said sleeve member defining a passageway opening into said chamber and being of a length sufficient

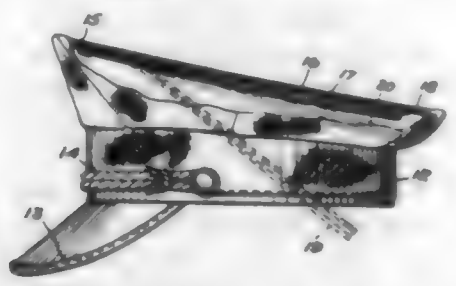
to extend from said interliner through the aperture in said coat, and beyond the main body of said coat so that game may be introduced into said pocket interliner through said sleeve without contacting the coat.

2,873,450
WORK GLOVE
Edouard A. Brodeur, Jr., Greenville, R. I., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application October 8, 1956, Serial No. 614,522
4 Claims. (Cl. 2—167)



1. A glove, comprising an outer vinyl film comprising polyvinyl chloride, dioctyl phthalate and didecyl adipate, an inner transition layer comprising a thermoplastic resin compatible with polyvinyl chloride, rubbery butadiene-acrylonitrile copolymer, and flock, and an inner lining of flock, the outer surface of said glove having certain portions which have a non-skid design thereon.

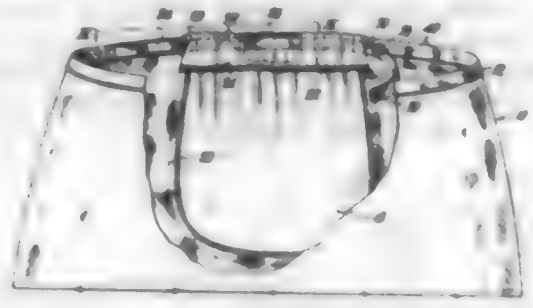
2,873,451
CAP WITH ENVELOPE CROWN PROTECTOR
Bernard Weinstein, Waban, Mass., assignor to Bancroft Cap Company, Framingham, Mass., a corporation of Massachusetts
Application March 27, 1956, Serial No. 574,147
2 Claims. (Cl. 2—199)



1. A uniform cap comprising a headband, a crown attached to and overhanging said headband and having a relatively flat top, and a flat bag disposed across the inside of said top, said bag having closed sides, a closed end, and a mouth, said closed end being secured to said top and the remainer of the bag being free of said top, and said bag extending outward beyond said headband in the direction opposite said closed end so that said mouth lies in a portion of the crown which overhangs said band, said bag being swingable about said closed end between an up position, in which said mouth is above said headband, and a down position, in which said mouth is below said headband, and being normally retained in said up position by reason of its extension beyond said headband.

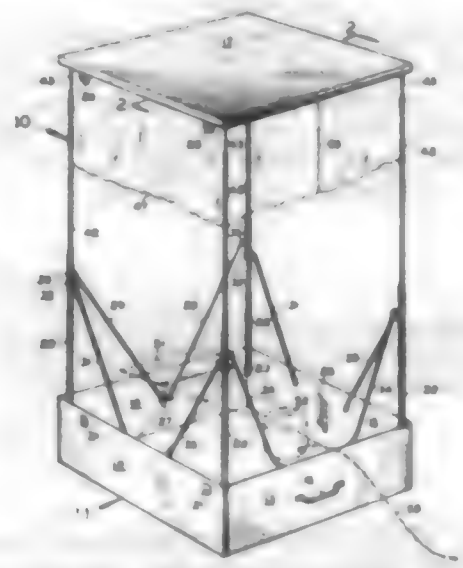
2,873,452
MATERNITY GARMENT
Phillip Jacobs, Kansas City, Mo., assignor to Phil Jacobs Co., Inc., Kansas City, Mo., a corporation of Missouri
Application July 9, 1956, Serial No. 596,502
3 Claims. (Cl. 2—221)

1. In a maternity garment, the combination of a tubular skirt having a split waistband provided with a pair of spaced ends at the front thereof, there being an opening in the front of the skirt extending downwardly from said ends of the waistband to accommodate the abdomen of the wearer when enlarged by reason of pregnancy; an elastic panel secured to the body in covering relationship to said opening and provided with a tubular hem at the uppermost end thereof above said opening in alignment with the spaced ends of the waistband; an elastic strap slidably encased in said hem and having a length at each end of the same extending beyond corresponding adjacent ends of the hem and said waistband in partial overlapping relationship to the innermost face of the latter, there being a plurality of spaced fasteners on said face of the waistband adjacent each of said ends thereof; a fastener secured to the face of each of said lengths of the strap normally proximal to the waistband and selectively engageable with respective fasteners on the waistband; and readily removable at-



taching means releasably securing each end respectively of said waistband to corresponding lengths of the strap after selective interengagement of said fasteners whereby the girth of the skirt at the waistband may be gradually increased as said abdomen continues to enlarge by intermittently removing said attaching means from at least one of said ends of the waistband followed by increasing of the distance between said ends of the waistband as interengagement between certain of the fasteners on said one end of the waistband and the corresponding length of the strap is altered and the attaching means securing said one end of the waistband to the corresponding length of the strap replaced.

2,873,453
COLLAPSIBLE STEAM CABINET
Benjiman Kirschner, Miami, Fla.
Application December 23, 1957, Serial No. 704,604
1 Claim. (Cl. 4—160)



A collapsible cabinet for steam baths comprising a substantially rectangularly shaped receptacle having side walls, a front and rear wall and a bottom wall, a plurality of extensible tubular members positioned adjacent corners of said receptacle, pivot means mounting said extensible tubular members on opposed side walls whereby said extensible tubular members may be pivoted to a horizontal position adjacent said opposed side walls, a clip mounted on each of said opposed side walls in the path of said swinging tubular member for securing said extensible tubular members, a brace pivotally secured at one end to each of said extensible tublular members and extending in a direction diagonally away from said opposed side walls to an intermediate position between said opposed side walls adjacent said rear and front walls, a bracket

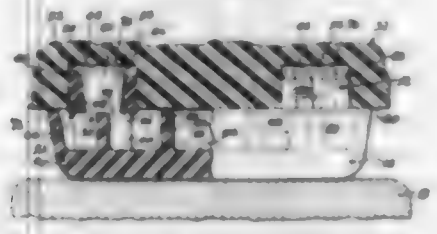
mounted on a mid portion of said rear wall, a pivot pin mounted on said bracket and engaging the other end of a pair of said braces for pivotal movement thereof, a pair of brackets mounted on said front wall in spaced relation to the mid position of said front wall, a pivot pin mounted on each of said last named brackets and engaging the other end of the other pair of said braces, a further brace pivotally secured at one end to each of said extensible tubular members and extending to said opposed side walls, a plurality of pins mounted on said opposed side walls, said further braces having a recess at the other end adapted to engage said pins for supporting said extensible tubular members in an upright position, a removable cover, releasable fastening means mounted on said cover and said side walls for securing said cover on said receptacle, a plurality of sockets mounted on an inner wall of said cover for receiving the free ends of said extensible tubular members and a curtain secured to said inner wall of said cover for forming an enclosure, said curtain having an opening at said mid position of said front wall of said receptacle for providing access to said enclosure.

2,873,454

BUMPER FOR TOILET SEAT OR COVER

David Phillips, Detroit, Mich., assignor to Swedish Crucible Steel Company, Detroit, Mich., a corporation of Michigan

Application December 7, 1956, Serial No. 627,065
4 Claims. (Cl. 4—248)



1. A bumper for a toilet seat or cover having a socket therein, said bumper comprising a bumper body of resilient material having thereon an upstanding stem of wedge-shaped form and of elastic deformable material, and an expansible member disposed on said stem in substantially encircling engagement therewith, said stem having an approximately conical external expanding surface thereon flared outwardly away from said bumper body, and said expansible member having an approximately conical internal expansible surface also flared outwardly away from said bumper body and expandingly engageable with said external expanding surface.

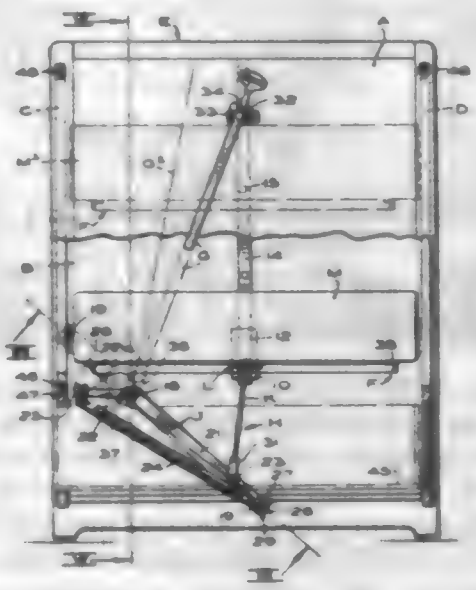
2,873,455

INFANT'S CRIB WITH AN ADJUSTABLE MATTRESS-SUPPORTING FRAME

Robert S. Davis, Ajo, Ariz.

Application May 10, 1956, Serial No. 584,021
5 Claims. (Cl. 5—63)

1. In an infant's crib with a height adjustable mattress-supporting frame: a pair of spaced-apart end panels arranged parallel with one another; sides interconnecting these panels and coacting therewith to provide a crib structure; a vertically-extending runner secured to the inner surface of each end panel, substantially midway between the sides of the crib structure; a mattress-supporting frame disposed in the crib structure and having slides secured thereto; the slides engaging with the runners for guiding the mattress-supporting frame between depressed and elevated positions; a shaft extending lengthwise of the crib structure, and being supported by the end panels for turning movement; a pair of swingable levers fixed intermediate their ends to the shaft so as to swing in unison; these levers being swingable in planes extending transversely of the crib structure; each lever defining long and short arms; a pair of links, each having a lower end pivotally attached to the long arm of one of the swingable levers; each of these links having an upper end swingably attached to the mattress-supporting frame adjacent to one of the slides; a pair of fixed brackets secured to the end panels; and a pair of counterbalancing



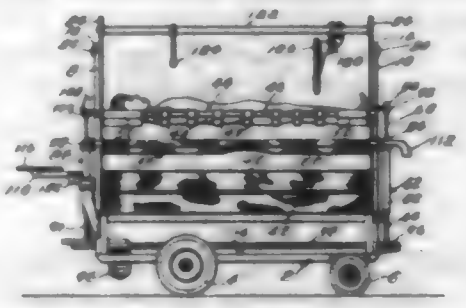
springs, each having one of its ends connected to a short arm of one of the swingable levers and its other end anchored to one of the fixed brackets; each lever and its link being movable into substantial alignment with one another, when the mattress-supporting frame is fully elevated, to thereby hold said frame in elevated position.

2,873,456

BED WITH INVALID LIFT

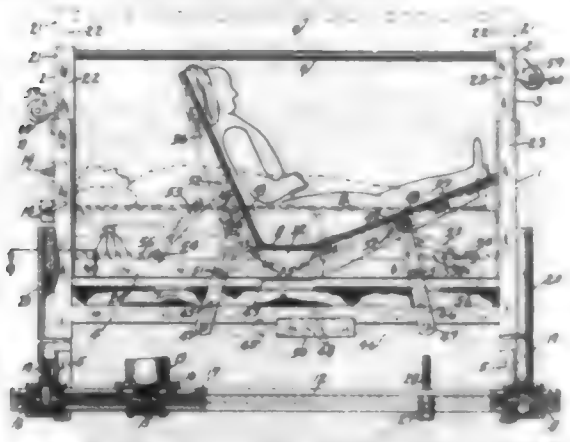
Joseph F. Joy, Pittsburgh, Pa.

Continuation of application Serial No. 137,103, January 6, 1950. This application November 5, 1954, Serial No. 467,083
2 Claims. (Cl. 5—65)



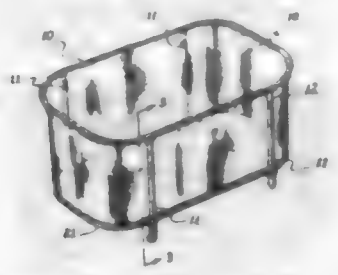
1. In combination: a frame having upright end members; a mattress carried by the frame; an intermediate stretcher having side members and positioned above the mattress and movable relative thereto; means to move the stretcher vertically relative to said mattress, said moving means including a transverse member at each end of the bed in engagement with said stretcher side members, a set of cooperating relatively rotatable threaded members at each end of the bed, means operatively connecting one threaded member of each set to its adjacent transverse member, and means to rotate the rotatable threaded member of each set, said last mentioned means being connected to rotate said rotatable threaded members in unison; a second stretcher mounted on the first and movable vertically therewith by said moving means; and a headboard and footboard secured to said end members and having recesses engaged by said second stretcher to hold the latter above said mattress and spaced from the mattress and said intermediate stretcher, said moving means being operable to move said intermediate stretcher vertically relative to said second stretcher while the latter remains supported by said headboard and footboard.

2,873,457
BED WITH ADJUSTABLE INVALID LIFT
Joseph F. Joy, Pittsburgh, Pa.
Application February 25, 1955, Serial No. 490,450
2 Claims. (Cl. 5—83)



1. A bed of the character disclosed comprising a bed-frame having a horizontal portion supporting a mattress, a stretcher overlying said mattress and having a frame supported on said bed-frame, said stretcher frame including a tiltable portion, power operated mechanism mounted on said bed-frame for elevating and lowering said stretcher with respect to said mattress, a releasable adjustable element on said bed-frame and when in operative position engaging said tiltable frame portion for causing tilting of said tiltable frame portion as the result of lowering of said stretcher by said power operated mechanism and while said horizontal portion of said bed-frame remains horizontal, and additional adjustable means for locking said tiltable frame portion in tilted position independently of said adjustable element whereby said tiltable frame portion may be held in any of its tilted positions when said adjustable element is released.

2,873,458
COLLAPSIBLE PLAY PEN
John Q. Adamson, Phoenix, Ariz.
Application June 24, 1957, Serial No. 667,630
1 Claim. (Cl. 5—98)



A collapsible play pen comprising, a horizontally disposed top rail, a series of vertically disposed legs supporting said top rail including, vertically disposed downwardly depending upper portions rigidly secured at their upper ends to the underside of said top rail, vertically disposed bottom portions engaging a floor, a hinge connection mounted on the lower inner edge of each said upper portion for vertical inward swinging movement of said legs, and horizontally disposed abutment surfaces on the lower ends of said upper portions and the top ends of said bottom portions to limit outward swinging of said bottom portions to vertical aligned position with said upper portions, a horizontal floor member of load supporting rigid material having an outer edge vertically slidably fitting between the vertical inner surfaces of said depending legs when in vertically disposed position to positively hold said bottom portions in vertically disposed position until said floor is raised to fully up position above said hinge connections and inside of said rigid upper portions of said legs, a netting fixed at its upper edge to said top rail extending downwardly on the inner vertical surfaces of said upper portions and said vertically disposed bottom portions, said netting extending downwardly over said outer edge of said floor member, a floor rail vertically slidably fitting between said vertically disposed inner surfaces of said legs, means in said floor rail movable horizontally to engage said inside surfaces of said legs to vertically limit the position of said floor rail and floor member on said legs, and draw string means in the lower edge of said netting located under said floor member for maintaining proper tension in said netting for any vertical position of the floor member on said legs, said upper portions of said legs projecting vertically downward from said top rail a distance equal to the vertical thickness of said floor member and said floor rail so that said legs may be folded vertically inwardly under said floor member and floor rail when said floor member is positioned up against the underside of said top rail.

2,873,459
INFLATABLE BOAT
Otto März, Munich, Germany, assignor to Metzeler Gummiwerke A. G., Munich, Germany
Application January 17, 1956, Serial No. 559,721
Claims priority, application Germany January 21, 1955
3 Claims. (Cl. 9—2)

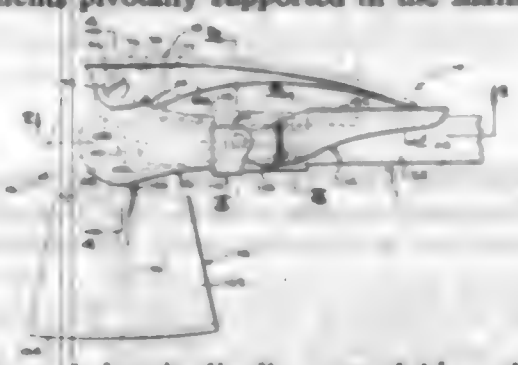


1. An inflatable boat comprising a hull including an inner skin and an outer skin forming together the side and bottom walls of the hull, each of said skins consisting of a single integral piece of water-tight flexible material, means connecting said skins along lines extending generally longitudinally of the boat, said connecting means comprising flexible elongated members of I-shaped cross-section having the outer faces of the flanges secured to the inside faces of the skins, means securing said skins along their longitudinal edges to form a water-tight structure having a series of tubular air cells therein, means connecting the front and rear edges of the skins to form the bow and stern of the boat, said hull normally having a tendency to lie flat when deflated, and a closure comprising a third piece of a water-tight flexible material permanently structurally connected with and extending from one longitudinal edge of the skins to the other, said closure being narrower than said skins so as to hold the skins in concave form when inflated, said closure having an opening therein for access to the interior of the boat.

2,873,460
MULTI-PURPOSE CONVERTIBLE HAND TOOL
Jean P. Delpierre, Hazebrouck, France
Application December 28, 1956, Serial No. 631,215
2 Claims. (Cl. 7—14.55)

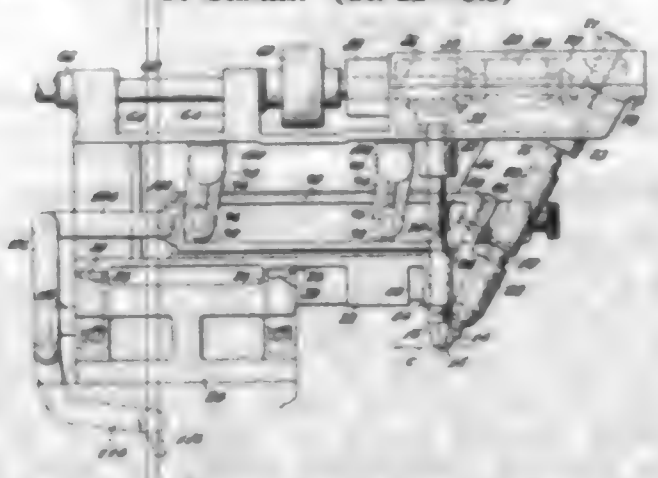
1. A multiple purpose convertible hand tool comprising an elongated handle assembly including a longitu-

dinally aligned shank and hand-grip portion, and a tool blade member supported in rotational and pivotal relationship on a terminal end of the shank portion, said shank portion including thereon adjustable retaining means engageable between the shank portion and tool blade member providing a plurality of different tools depending in adjusted relationship and permitting storage of the blade member in longitudinal alignment extending through the shank portion of the handle assembly, said shank portion including an internal cylindrical socket portion on the terminal end thereof, a longitudinal slot extending through the shank portion in communication with one side of the cylindrical socket portion, the blade member including a lower cutting edge and an upper spherical mounting ball, said mounting ball being rotatably and pivotally received in the socket portion of the shank portion, said cylindrical ball portion including a plurality of peripheral notches for determining the various adjusted positions of the blade member, the adjustable retaining means comprising a pair of elongated tongue elements pivotally supported in the shank portion



in laterally and longitudinally extendable relationship relative to the slot portion through said shank portion, said tongue elements being pivotal toward each other along the longitudinal axis of said shank portion with juxtaposed end portions thereof extending into the notches of the mounting ball portion of the blade member for retaining the blade member in adjusted positions, a sleeve retainer slidably disposed on the shank portion and in engagement with the tongue element, and a retaining lever positioned longitudinally behind the sleeve retainer and slidably disposed on the shank portion and connected to the sleeve retainer for movement from the longitudinal position to a position at an angle to the longitudinal position, said lever when in the longitudinal position maintaining the blade member in an operative position, and said lever upon being moved to the angular position permitting the blade member to be moved from an operative position to a stored position between the shank portion and maintaining said blade member in the stored position upon return of said lever to the longitudinal position.

2,873,461
LASTING MACHINE
Jacob S. Kamborian, West Newton, Mass.
Application September 27, 1954, Serial No. 458,462
16 Claims. (Cl. 12—8.3)



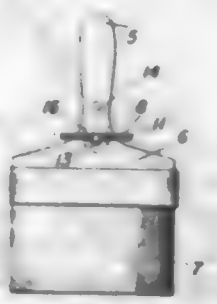
4. In a lasting machine of the continuous type for tensioning the lasting margin of an upper mounted on a last substantially perpendicular to the last bottom, a pair of oppositely rotating feeding and updrafting rolls having opposed portions which grip the lasting margin therebetween, the inner roll having a portion adapted to be engaged by the lateral edge of the insole at the shoulder of the last and to constitute an edge gauge limiting the position of the shoe with respect to the nip of the rolls and another portion to project therebeyond inwardly between the shoulder and tensioned upper for holding the lasting margin away from the shoulder.

2,873,462
AXIALLY COMPRESSIBLE ROTATABLE SPONGE MOP
Emmett M. Green, San Marino, Calif.
Application September 26, 1955, Serial No. 536,475
7 Claims. (Cl. 15—119)



1. An improved mop, comprising a sponge in the form of a cylinder, support means for the sponge including a rod extending axially therethrough and about which the sponge is freely rotatable and an elongated handle extending substantially normal to the axis of the sponge in spaced relation thereto for controlling rolling application thereof to a surface to be mopped, said rod being in the form of a cantilever and being connected to said handle, a stop carried by the rod opposite one end of the sponge for blocking axial displacement thereof on the rod toward the stop, and an annular member mounted on the rod at the opposite end of the sponge and movable toward said stop to collapse the sponge thereagainst and thereby to effect squeezing of contained liquid from the sponge, said rod having a substantially right angular bend between said sponge and handle for supporting the mop against the side of a basin with the sponge overhanging the basin.

2,873,463
PAINT BRUSH CONSTRUCTION
Ernest Nunes, Sausalito, Calif.
Application November 25, 1957, Serial No. 698,660
1 Claim. (Cl. 15—145)



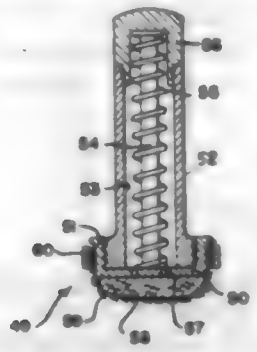
In combination with a paint brush having a bristle-carrying base and a separable handle, the bristles of said brush extending in the same direction as the elongated axis of said handle, a plate positioned between said base and said handle and having a pin extending through said plate and engaging said base and said handle, means carried by said plate to prevent rotation of said base and said handle with respect to each other, said plate having a downwardly turned edge, said edge being provided with extensions formed on the diametrically opposed sides thereof.

2,873,464

STENCILING DEVICES

Sidney N. Rosenthal, Richmond Hill, N. Y.

Application March 19, 1956, Serial No. 572,519
1 Claim. (Cl. 15—209)



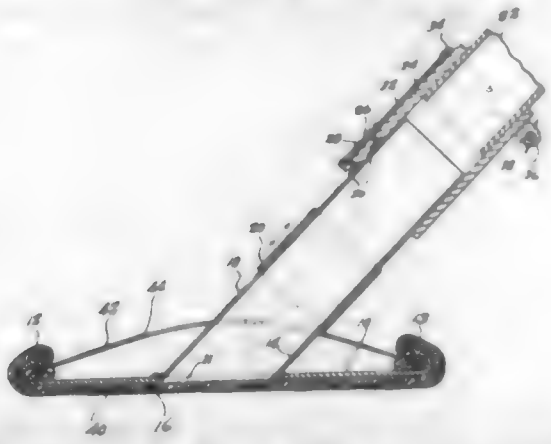
A stenciling nib for applying ink upon a surface to be stenciled, said nib comprising a support base having a flat face, an auxiliary ink storing means in the form of a blotter pad positioned in face to face contact with the support base face, a primary ink storing means in the form of a felt pad positioned over the blotter pad in face to face contact therewith, and a napped pile fabric positioned over and in face to face contact with the felt pad, with its nap exposed, and being stretched taut around the edge of the base; and means to tightly secure said pile fabric to the base to hold the pads in position; a handle secured to the support base opposite to its flat face for manually manipulating the nib and for rubbing the fabric nap against a surface to be stenciled; the felt pad primary ink storing means functioning to normally store ink for stenciling, with the ink passing through the pile fabric to the surface to be stenciled when the fabric is rubbed against the surface to be stenciled, and the auxiliary ink storing means normally functioning to absorb ink from the felt pad when excess pressure is applied between the fabric and the surface to be stenciled and to release the ink to the felt pad upon release of the excess pressure; and the nap of the fabric being of individual hairs which are electrically charged so that they repel one another and remain normal to the surface of the fabric, particularly during contact between the fabric and the surface to be stenciled.

2,873,465

FLOOR POLISHING ATTACHMENT FOR VACUUM CLEANERS

George J. Miller, Windsor, Conn.

Application March 25, 1955, Serial No. 496,786
1 Claim. (Cl. 15—231)



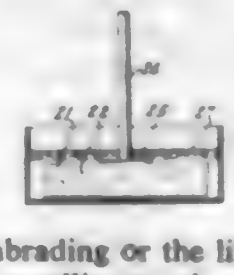
In a floor waxing attachment for a vacuum cleaner, a rectangular flat plate having forward and rear edges, inturned forward and rear flanges on said edges and projecting above said plate, a flexible air pervious bonnet extending along the underside of said plate and having edge portions trained around said flanges and having portions positioned between the flanges and the plate, a relatively short rearwardly inclined suction tube having lower and upper ends, said plate having a central suction hole therethrough and the lower end of the tube being directly secured to the upper side of the plate around said suction hole, a rectangular resilient plate overlying said flat plate, said resilient plate having forward and rear edges engaging said portions of said bonnet edge portions and holding the same engaged between the inturned flanges and the flat plate, said resilient plate being wider than the distance between said flanges and being upwardly bowed relative to said flat plate, said resilient plate having an opening therein through which said tube extends.

2,873,466

STEEL WOOL GRINDING AND POLISHING WHEEL

Norman E. Bigelow, West Granby, Conn., assignor of one-third to George C. Graham and one-third to I. Jerdan Kunik, New York, N. Y.

Application December 1, 1954, Serial No. 472,274
2 Claims. (Cl. 15—230)



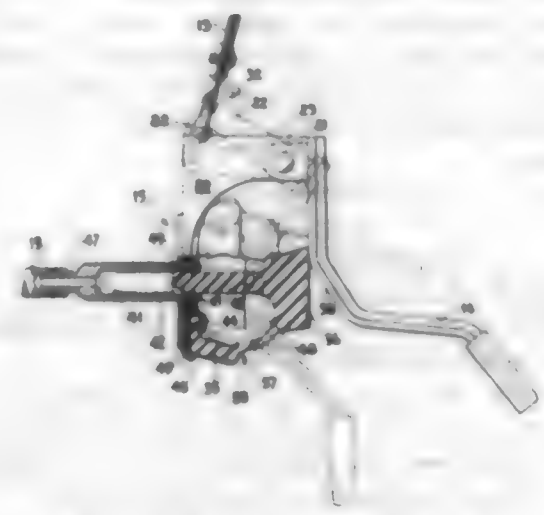
1. A device for abrading or the like, comprising a plurality of elongated metallic strands, said strands being intertwined at least at some parts thereof with each other into a reticular mass, a sufficient amount of binder rigidly connecting said strands at only the intersecting areas thereof to form a matrix, said reticular mass having between said intertwined strands a plurality of open spaces substantially uniformly distributed throughout said matrix, said strands constituting the major mass of said matrix and performing the principal abrading function thereof, said matrix being shaped in the form of a rigid wheel that is substantially self-supporting when rotated around a spindle at high speed.

2,873,467

WINDSHIELD CLEARING SYSTEM

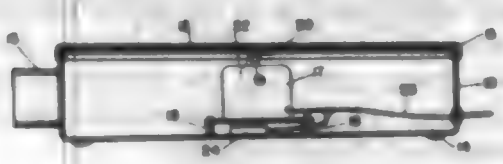
John R. Oishei, Buffalo, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.

Application April 8, 1955, Serial No. 500,194
16 Claims. (Cl. 15—250.4)



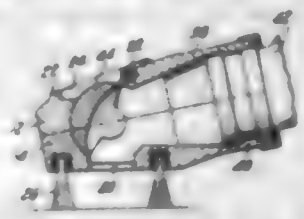
1. A windshield cleaner comprising a wiper unit and a washer unit, the wiper unit having a motor and a control therefor, the washer unit having a pump with a washing cycle and a refilling cycle and an actuator control therefor, means operatively connecting the controls for joint operation of both units during initial movement of said actuator control on a washing cycle, and means operable during the initial portion of the washing cycle for subsequently freeing the wiper unit from the actuator control and so holding the wiper unit free until near the end of the refilling cycle.

2,873,468
MOP SHAKER
Serino Fuglestad Smith, West New York, N. J.
Application September 24, 1956, Serial No. 611,791
2 Claims. (Cl. 15—311)



1. A mop shaker of the character described comprising a housing of the approximate shape and size of the average dry mop, said housing having a tubular connection for a standard vacuum cleaner hose; a floating screen forming the top cover of said housing, said screen being loosely mounted on said housing and free to move in all directions in a horizontal plane; a small motor mounted in the bottom of said housing with its shaft in a vertical position, said motor shaft having an eccentric pin in driving engagement with said floating screen, and means including a switch responsive to pressure on said screen for operating said small motor when pressure is applied to said screen.

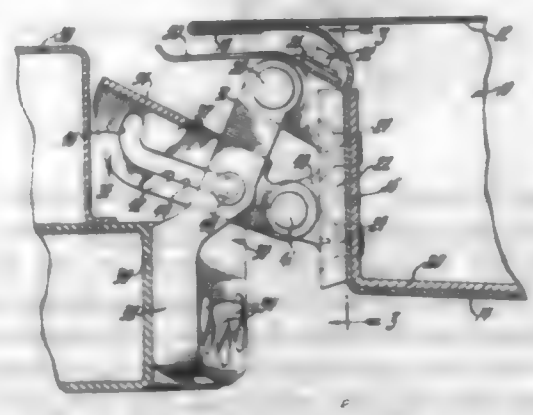
2,873,469
MULTIPURPOSE SUCTION CLEANING TOOL
Leon P. Borkoski, Stamford, Conn., assignor to Electrolux Corporation, Old Greenwich, Conn., a corporation of Delaware
Application May 2, 1955, Serial No. 505,317
5 Claims. (Cl. 15—417)



3. A suction cleaning tool comprising an elongated body of relatively low height capable of being used for cleaning under objects having little clearance beneath the same, said body having cleaning nozzles on opposite sides of the same and with passages therefrom terminating in a recess disposed lengthwise within said body, said body having an opening from said recess through the rear of said body for connection with a source of suction, said recess having wall structure coinciding with a portion of the circumference of a right circular cylinder, and a valve member of complementary size and shape and mounted on substantially the same axis as the cylinder with the surface of said valve member and the surface of said cylinder in intimate relation at all times to exclude foreign matter which might interfere with the operation of the valve member and spring biasing means for maintaining said valve member in a position that one of said passages is open and the other closed at all times.

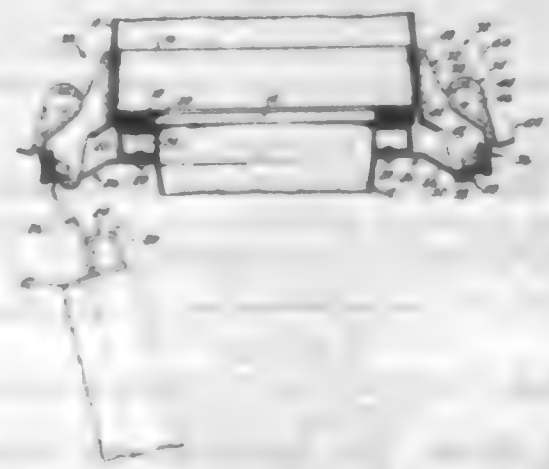
2,873,470
HINGE AND HOLD-OPEN
Mario J. De Dona, Lincoln Park, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 20, 1956, Serial No. 592,605
2 Claims. (Cl. 16—146)

1. A hinge and hold-open assembly comprising, in combination, a first hinge strap connected to a door; a second hinge strap connected to a body member, one of said straps having an opening therethrough; means pivotally connecting said straps together at one end to permit swinging said door between opened and closed positions; a link pivotally connected to the other of said straps at a point spaced from the pivotal connection between said straps and extending at an angle to said one strap through the opening therein, said link having an elongated slot with a straight stem portion extending longitudinally of the link, an intermediate curved portion, and a short terminal portion merging from said curved portion adjacent the end of the link remote from the pivotal mounting thereof, said terminal portion extending at substantially a right angle to the stem portion in the general direction of the pivotal interconnection of said straps; a pin on said one strap projecting into the slot in said link and being located in the straight stem



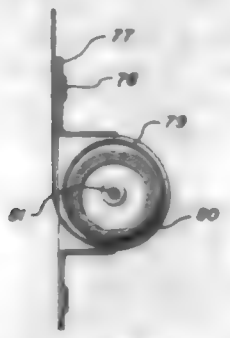
portion of said slot when the door is closed and in the terminal portion of the slot when the door is open; and a leaf spring mounted on said other strap adjacent the pivotal connection between said straps and extending at an acute angle to said one strap when the door is closed, said spring having a free end which is adapted to bear against said link when the door is in open position to yieldably urge the terminal end portion of the slot into engagement with the pin, the free end of the spring being out of engagement with the link when the door is closed to permit unrestrained movement of the pin in the slot.

2,873,471
HINGE CATCH
Gunnar E. Swanson, Middletown, Conn.
Application April 30, 1956, Serial No. 581,573
5 Claims. (Cl. 16—147)



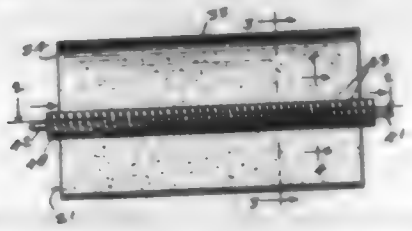
4. A releasable hinge catch for an enclosure which comprises a housing and a cover therefor, the said structure comprising a latch frame attached to the housing adjacent the cover and defining a concave seat, a strike attached to the cover adjacent the latch frame and comprising a hook with the convex side thereof entered in the latch frame seat, and a pair of toggle latch links associated with the latch frame and strike, one of the said links comprising a lever pivotally attached to the latch frame and the other link comprising a generally U-shaped wire spring pivoted at its ends to the said lever so that its crosspiece portion will enter the concave side of the hook in operation of the lever to press the said hook into the seat whereby to pivotally retain the cover on the housing, the said crosspiece portion serving as a pintle to accommodate swinging movement of the hook and cover.

2,873,472
SPRING SASH BALANCE
Edwin E. Foster, Austin, Tex.
Application June 3, 1955, Serial No. 513,087
4 Claims. (Cl. 16—197)



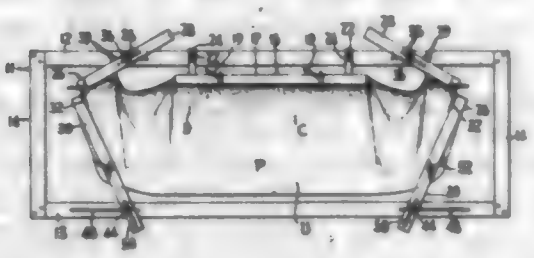
1. A sash balance comprising a pre-stressed, tightly wound and self-coiling spring, a mounting base, a cup-shaped member having a slot mounted on the base, said coiled spring being mounted in the cup-shaped member and projecting out through the slot, and means secured to the base and the cup-shaped member to adjust the latter to a desired position relative to the slot, said spring coiling and uncoiling in the cup-shaped member to provide a constant counterbalance force for the window.

2,873,473
SEA FOOD PROCESSING APPARATUS
Melroy M. Martinez, New Orleans, La.
Application August 27, 1956, Serial No. 606,298
2 Claims. (Cl. 17—2)



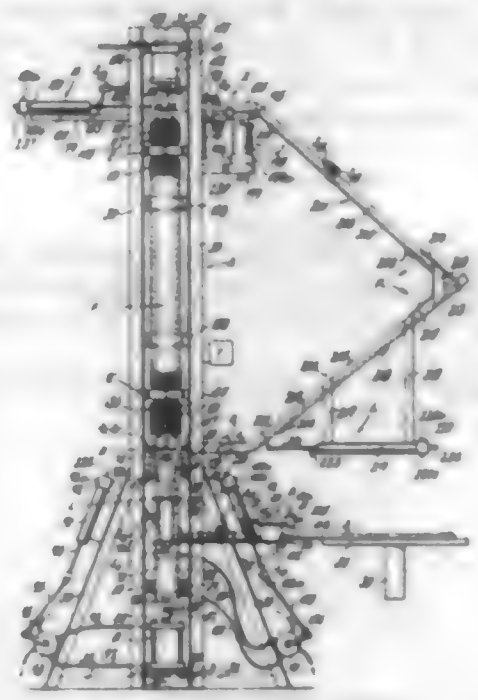
1. A sea food processing apparatus including a rotating cylindrical member, an abrading surface formed internally of said cylindrical member, a conical shaft having its axis extending at an angle to the axis of said cylindrical member with the surface of said shaft adjacent said cylindrical member arranged in parallel closely spaced proximity to the abrading surface of said rotating cylindrical member, said shaft having the surface thereof spirally grooved to feed shrimp therealong in contact with said abrading surface in said rotating cylindrical member.

2,873,474
APPARATUS FOR STRETCHING PLASTIC INTERLAYERS
George B. Shields, New Kensington, and Richard D. Stepp, Kittanning, Pa., assignors to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Original application April 12, 1955, Serial No. 500,743, now Patent No. 2,817,117, dated December 24, 1957. Divided and this application April 9, 1957, Serial No. 651,755
3 Claims. (Cl. 18—1)



1. An apparatus for stretch forming a partially colored thermoplastic interlayer for a laminated glass assembly which comprises a rigid frame, a clamping bar, means securing the clamping bar to the top of the frame, said clamping bar being engageable with and securable to the central portion of the top margin of the interlayer, a pair of jointed clamps, means for pivotally securing the jointed clamps at their upper portion to the top of the frame and means for pivotally and slidably securing the jointed clamps at their lower portion to the bottom of the frame, said jointed clamps being engageable with and securable to the side margins of the interlayer.

2,873,475
AUTOMATIC RUBBER MOLDING MACHINE
Erwin F. Linhorst, Fort Wayne, Ind., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application October 25, 1955, Serial No. 542,659
35 Claims. (Cl. 18—4)



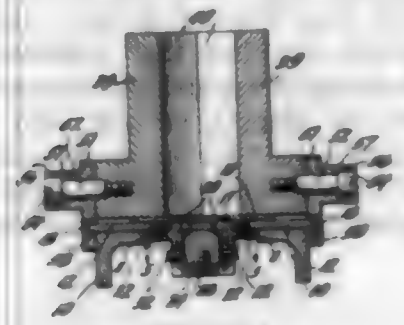
19. An automatic molding machine comprising a frame, means on said frame for releasably engaging and supporting a movable column of stacked molds filled with moldable stock, each of said molds comprising at least one cavity plate and at least one plug plate, means on said frame adjacent one end of said column for providing a landing for the mold plates, when unassembled, power operated means reciprocable on said frame adjacent said landing means for assembling said plates in said column, for moving said column in one direction, and for injecting said stock into a cavity plate, power operated means adjacent said reciprocable means for feeding said stock thereto, power operated means on said frame adjacent the other end of said column for moving said column in an opposite direction and for disassembling said mold plates from said column, means adjacent said disassembling means for receiving the disassembled mold plates therefrom, power operated means adjacent said disassembling means for removing said disassembled plates therefrom and for repositioning the same on said receiving means, power operated means adjacent said receiving means for ejecting molded articles from said cavity plates, means extending from said receiving means to said landing means for transporting said disassembled plates away from said receiving means, power operated means on said transporting means adjacent said landing means for feeding said disassembled plates thereto, and electrical control means interconnecting each of the aforesaid power operated means with said supporting, landing, receiving and transporting means to actuate said power operated means in proper sequence and timed relation for continuous and automatic operation of said machine.

2,873,476

COMBINED MOLD AND ALIGNMENT FIXTURES

Charles H. Trimble, Winston-Salem, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application October 19, 1953, Serial No. 386,855
2 Claims. (Cl. 18—5)



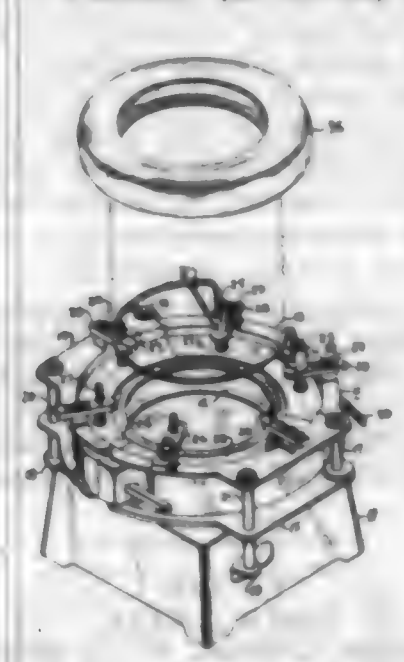
1. A fixture for pretesting and encapsulating electrical components including conducting wire leads, which comprises an insulated support having recesses therein, the support forming a mold bottom, a conducting chuck in each of said recesses for slidably receiving said leads, a contact connected to each of said conducting chucks and disposed on said support whereby said contacts may be associated with an external test circuit to permit pretesting of the connections and characteristics of the said components before they are encapsulated, and a hollow mold including walls detachably secured to the mold bottom formed by the support to surround said components but leave bared the terminal portions of the wire leads and receive an encapsulating plastic in a liquid state, said support and walls being removable from the encapsulated components after said plastic material has solidified.

2,873,477

TIRE RECAPPING MOLD

John E. Paretta, Bristol, Conn.

Application December 6, 1955, Serial No. 551,324
3 Claims. (Cl. 18—18)



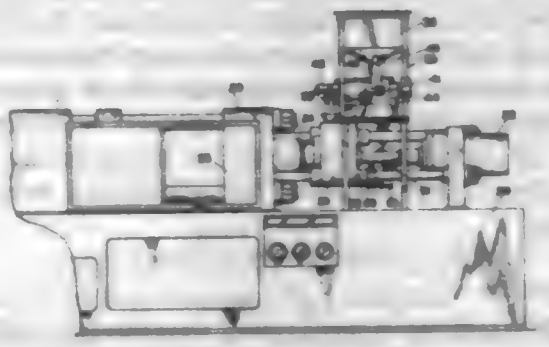
1. A tire recapping mold comprising an openable molding chamber for receiving a first tire, means for impressing a tread design thereon, heating means for heating said tire, and means for supporting a second tire immediately above said molding chamber whereby said second tire is pre-heated by radiated and convected heat from said molding chamber while said first tire is being vulcanized, said second tire-supporting means comprising a rod-like tire supporting portion of generally circular configuration extending in a plane generally parallel to the plane of said first tire when in the molding chamber and having its center substantially directly above the center of said first tire.

2,873,478

INJECTION MOLDING MACHINE WITH WEIGH-FEEDER AND PLUNGER POSITION CONTROL

Warren J. Schieser, John F. Kelley, and Donald G. Marshall, Columbus, Ohio, assignors to National Industrial Products Company, a corporation of Ohio

Application February 18, 1957, Serial No. 640,939
2 Claims. (Cl. 18—30)



1. An injection molding machine having a plunger movable between injecting and non-injecting positions, a weigh-feeder for weighing and supplying charges to the plunger, said weigh-feeder including weighing mechanism and electrically operated material-feeding mechanism for feeding material thereto, electrically operated first-control means comprising a first-feed switch actuated by said weighing mechanism for controlling said material-feeding mechanism for causing said weigh-feeder to feed an underweight charge of material to the plunger, means in said first-control means adjustable to vary the size of the underweight charge fed by said feeding mechanism, electrically operated second control means actuated by the plunger for causing said weigh-feeder to feed an additional amount of material when needed to a successive charge in accordance with the injecting position of said plunger to thereby control the position of the plunger in a successive injecting operation, said second control means including a limit switch actuated by said plunger when it moves to a predetermined position in its injecting stroke to start the additional feed and a cut-off switch actuated by said weighing mechanism when it reaches required weight position to interrupt said additional feed, and means in said second control means adjustable to vary said additional amount of material fed by said feeding mechanism.

2,873,479

CURING FLAP FOR RECAPPING PNEUMATIC TIRES

Henry Di Pietro, Morgantown, W. Va., assignor to Andy Brothers Tire Shop, Morgantown, W. Va.

Application August 17, 1956, Serial No. 604,699
1 Claim. (Cl. 18—45)



A tire recapping machine comprising a pair of confronting mold halves, a tread-impressing die enclosed therein, said mold halves having confronting, curved well portions forming a seat for only the outer half of the cross section of a tire to be recapped, the inner half of the tire being unsupported by said mold halves, a tire curing flap extending across substantially the center of the tire interior and comprising a thick rubber ring of bowed cross-section with the convex portion confronting the interior wall of the tread-impressing die and having

angularly outwardly disposed feathered edge portions forming seals with the inner sidewall surfaces of the tire, said edge portions forming, with said ring, a substantially U-shaped cross-section, an air inlet tube extending through a central portion of said ring for introducing air under pressure, reinforcing metallic means embedded in said ring and edge portions, the portion of said reinforcing metallic means contained in said ring portion being bowed in the direction of said die for facilitating collapse of said ring portion for preventing buckling of said ring portion as a consequence of air pressure build up between the flap and the tire interior wall, and whereby tires of different sizes may be recapped by said machine without the necessity of additional metallic support rings.

2,873,480

METHOD OF MOLDING FOUNDRY CORE DRIER SUPPORTS

Osborn Ayers, Westfield, and Michael Homiak, Bound Brook, N. J., assignors to Johns-Manville Corporation, New York, N. Y., a corporation of New York

No Drawing. Application June 18, 1954
Serial No. 437,866
10 Claims. (Cl. 18—47.5)

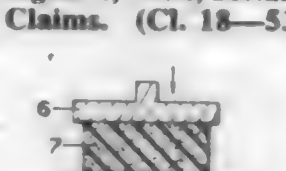
1. The method of restraining dimensional changes in precisely molded, fiber reinforced calcium silicate bodies during steam curing which comprises forming an aqueous slurry containing staple reinforcing fiber, finely divided lime and finely divided siliceous aggregate, molding and dewatering said slurry to produce a handleable, precisely dimensioned body having a wet density equivalent to a dry density within the range of approximately 20–70 lbs. per cu. ft., drying the thus molded body to remove approximately 10–50% by volume of the water therein, then curing the partially dried, molded body by exposing the same to steam at elevated temperatures and pressures to develop a hydrous calcium silicate matrix therein, and then drying the cured body.

2,873,481

METHOD OF MANUFACTURING A CELLULAR ARTICLE

Stephen T. Semegen, Cuyahoga Falls, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application August 4, 1954, Serial No. 447,909
8 Claims. (Cl. 18—53)



1. The method for making a flexible closed cell composition useful for shoe soles which comprises filling a mold with a solid, vulcanizable unvulcanized expandable composition having a density of from about 1.23 to 1.60 in an amount at least sufficient to essentially completely fill said mold when closed, said composition containing from about 20 to 60 parts by weight of a compatible thermoplastic synthetic resin per 100 parts by weight of rubber, a vulcanizing agent in an amount of from about 2 to 5 parts by weight per 100 parts by weight of said rubber to provide a vulcanized flexible composition on vulcanization and a blowing agent in an amount of from about 2 to 10 parts by weight per 100 parts by weight of said rubber to form an expanded closed cell composition on decomposition of said blowing agent and on release of said composition from said mold, closing said mold, applying sufficient heat to said composition in said closed mold to vulcanize said composition, to plasticize said resin and to decompose said blowing agent, releasing said composition from said mold while said composition is at an elevated temperature above the softening point of said resin and permitting it to expand to form a cellular composition, compressing said cellular composition having a temperature not less than the softening point of said thermoplastic resin in at least one direction without the application of additional external heat to obtain a density for said composition of from about 0.45 to 1.15 and which is greater than that obtained at the end of said expansion step but less than that exhibited by said unvulcanized vulcanizable expandable composition and to obtain an even and smooth surface, and allowing said pressed composition to cool under pressure to a temperature below the softening point of said thermoplastic resin, said densities being based on water having a density of one.

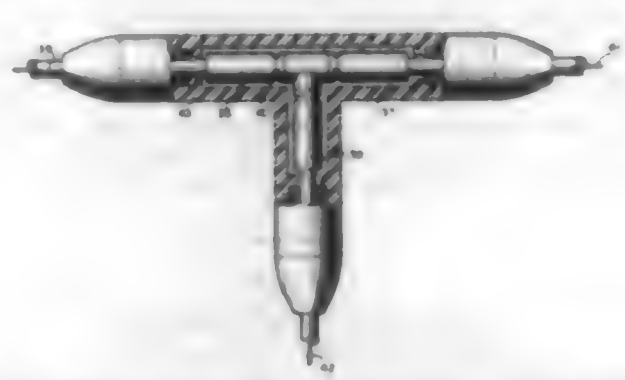
2,873,482

METHOD OF MAKING A PLASTIC ENCASED ARTICLE

Richard B. Bridge, Greenbelt, Md., Thomas E. Marshall III, Sterling, Va., and Walter A. Von Wald, Jr., Hillcrest Heights, Md., assignors to the United States of America as represented by the Secretary of the Navy

Original application July 28, 1953, Serial No. 370,904. Divided and this application April 2, 1958, Serial No. 726,018

6 Claims. (Cl. 18—59)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. The method of forming a cylindrical casing of thermoplastic material having a relatively high temperature coefficient of expansion about a cylindrical object having a relatively low thermal coefficient of expansion, which comprises molding the cylindrical casing about the object in a suitable mold and under suitable known temperature and pressure, removing the molded encasement and enclosed object from the mold while at a temperature sufficiently below molding temperature to permit handling without undue distortion of the casing, and longitudinally stretching the casing to move the interior ends away from the object to produce a clearance between the ends of the object and the casing and loosen the casing away from the object, and maintaining the casing in the stretched condition while cooling to a temperature below 180° F.

2,873,483

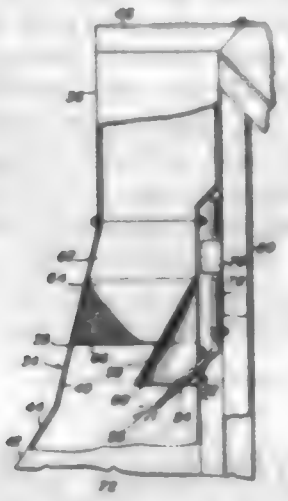
FIBER TINTER

Kenneth G. Lytton, Gastonia, N. C., assignor to Fiber Controls Corporation, Gastonia, N. C., a corporation of North Carolina

Application January 8, 1954, Serial No. 402,981
8 Claims. (Cl. 19—66)

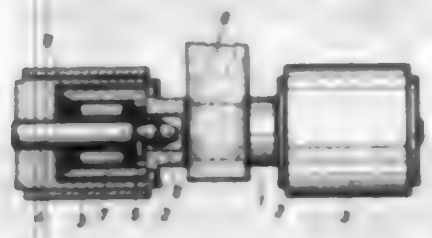
1. Apparatus for tinting opened textile fibers comprising: nozzle means mounted for emitting a generally outwardly-directed sheet-like spray of finely-divided dye; shield means overlying said nozzle means, tapering upwardly to an apex, and provided with an uninterrupted smooth upper surface, whereby fibers falling onto said shield means do not collect thereon, the lower peripheral edge of said shield means being spaced radially outwardly from said nozzle means and above the sheet-like spray issuing therefrom; and means confining

fibers for uninterrupted fall in a curtain-like stream past said lower edge of said shield means, the velocity of



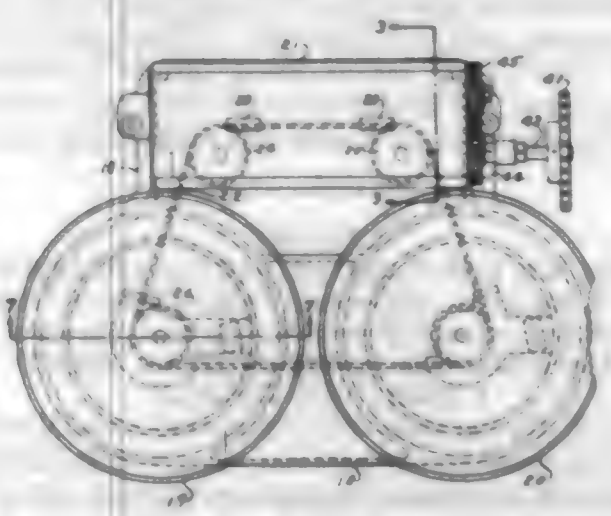
said spray being insufficient to carry the fibers against said confining means.

2,873,484
TOP ROLLS FOR DRAWING SYSTEMS OF RING SPINNING FRAMES
Eugen Maurer, Murrhardt, Germany, assignor to Rollenlager-Spindelfabrik "Spintex" G. m. b. H., Stuttgart-Bad Cannstatt, Germany
Application July 8, 1954, Serial No. 442,043
4 Claims. (Cl. 19—142)



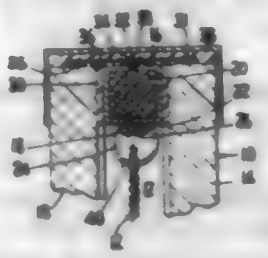
1. A top roll assembly for drawing systems of ring spinning frames comprising a hollow roll holder, a roll body, a lining on the outside of said roll body, bearings and a journal rotatably supported in said bearings in said roll holder, said journal having a free end and being fixedly secured with its other end in said roll body, and a resilient retaining ring mounted on said journal and adapted for releasably connecting said journal to said roll holder as well as for securing said roll body against axial displacement with respect to said roll holder.

2,873,485
REVERSING COILER DRIVE
Harry H. Leckler, Lakewood, Ohio, assignor to The Warner & Swasey Co., Cleveland, Ohio, a corporation of Ohio
Application March 19, 1952, Serial No. 277,520
11 Claims. (Cl. 19—159)



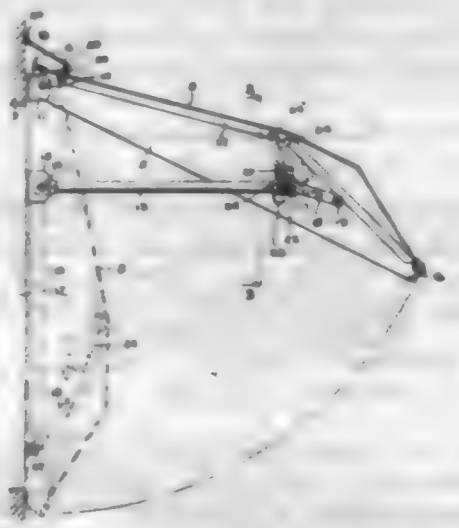
1. Apparatus for turning a sliver container comprising a support member, a turntable mounted for rotation on said support member, reversing drive means for said turntable including a sprocket associated with the turntable, two reverse-running screws adapted to be driven from a source of power, a half-nut engageable with either screw for reciprocation in alternate directions, and a drive chain passing over the turntable sprocket and connected to the half-nut for turning the sprocket in alternate directions in accordance with the reciprocation of the half-nut and clutch means connected between said sprocket and said turntable comprising a ratchet wheel and ratchet means engageable with the wheel and operable to advance the movement of the turntable relative to the support member.

2,873,486
MULTIPLE GLAZED UNIT
Thomas H. Hughes, Sarver, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application December 10, 1956, Serial No. 627,362
6 Claims. (Cl. 20—56.5)



1. A multiple glazed unit comprising a plurality of sheets of glass separated by a marginal edge spacer element having a longitudinal seam extending along one side of the element, a light modifying screen composed of horizontal slats held in spaced relation by vertical supporting means, said screen being held in rigid planar position between the sheets by a series of clips passing through the screen and fastening to the seam, and means for holding the glass sheets and spacer element in fixed relationship to each other.

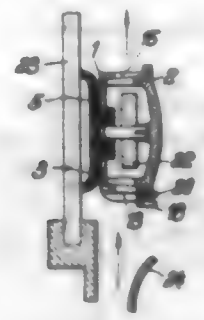
2,873,487
SUPPORTING MEANS FOR AWNING SHUTTERS
Donn C. Blanchard, North Miami, Fla.
Application October 9, 1957, Serial No. 689,103
5 Claims. (Cl. 20—57.5)



1. A combined awning shutter of the character described that comprises end panels and a connecting cover, the awning being hingedly connected to a wall to extend outwardly over a wall opening, brace arms pivotally connected at one end to the wall at opposite sides of the opening to support the awning in the extended position, link means pivotally connected to the forward ends of the brace arms and to the end panels, the brace arms and the links being shiftable upward to a past center position to support the awning against downward movement, latch means for retaining the brace arms

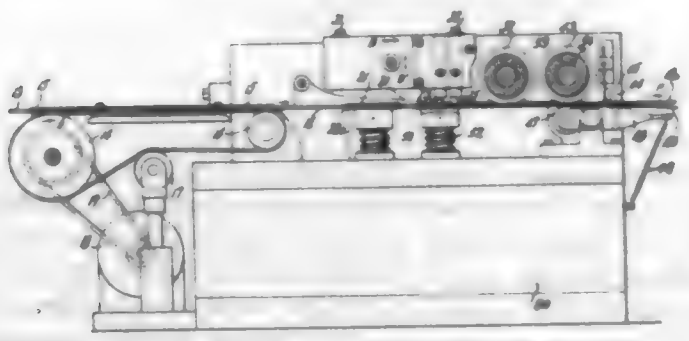
and links in their upper past center position, the awning being shiftable downwardly when the braces and links are shifted to a lower past center position to overlie the wall opening.

2,873,488
DEODORIZING DEVICE
Bertram Schäfer, Osnabruck, Germany
Application January 8, 1957, Serial No. 633,154
Claims priority, application Germany January 9, 1956
1 Claim. (Cl. 21—108)



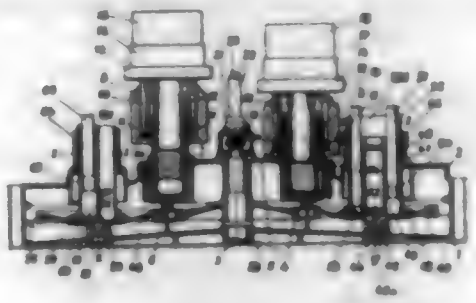
In a deodorizing device adapted to hold active material and including a substantially cylindrical open-top receptacle for said material; a cover member telescopingly and rotatably engaging said receptacle; a central opening in the bottom of the receptacle; and at least one aperture each in the contacting cylindrical walls of the receptacle and of the cover member adapted to register upon mutual rotational displacement of said receptacle and said cover member; the improvement comprising connecting or coupling means for said receptacle and said cover member; said connecting or coupling means including a stem made of resilient material and tightly penetrating said central opening in the bottom of the receptacle; a suction cup integral with said stem on one end thereof and located outside the receptacle back to back thereto; a button-like head within the receptacle integral with said stem at the other end thereof and adapted to engage the bottom of the receptacle and to retain the same in back to back contact with said suction cup; a cavity axially extending into said stem from the inside of the receptacle; an annular lip at the mouth of said cavity extending inwardly thereinto; a bolt-like projection integral with the cover member and centrally extending therefrom towards the said cavity of the stem; and a button-shaped head at the end of said projection adapted to enter said cavity through the mouth thereof and beyond said annular lip to engage the same.

2,873,489
MEANS FOR PRODUCING FLINT RODS
Isidor S. Hirschhorn, West Orange, N. J., assignor to New Process Metals, Inc., Newark, N. J.
Application October 26, 1955, Serial No. 542,854
5 Claims. (Cl. 22—1)



1. A machine for separating the envelope from a flint rod cast in said envelope; comprising a horizontally extending housing, means for feeding and guiding said envelope with said flint rod in a linear path along said housing, a slitting tool, a plow positioned rearwardly of said slitting tool, a support for said slitting tool and said plow arranged along said path and above said housing, first roller means placed along said path and gripping said envelope exteriorly and laterally thereof to force said envelope against said slitting tool and thereafter to said plow, respective second roller means along said path for contacting the slitted ends of said envelope and bending same away from said rod and flattening said envelope, and means for separating said rod from said flattened envelope, said first roller means having axes extending perpendicular to said housing, said second roller means having axes directed parallel with respect to said housing.

2,873,490
SYSTEM FOR PRODUCING MOULDS ON FOUNDRY MACHINERY WITH TWO OR MORE MOULD FORMING STATIONS
Erwin Bührer, Schaffhausen, Switzerland
Application April 14, 1954, Serial No. 423,137
Claims priority, application Switzerland August 8, 1953
9 Claims. (Cl. 22—21)

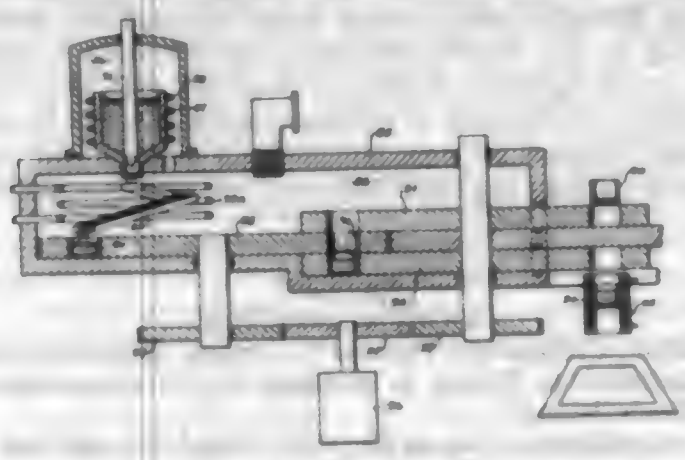


1. A system for producing moulds on foundry machinery which is equipped with two or more mould forming stations; comprising a turntable on which a cyclic mould forming operation is to be carried out, first means constituting mould pattern means on said turntable and adapted for continuous use in said cyclic forming operation, second means constituting jolting means on said turntable and adapted to be twice placed in operation during said cyclic forming operation, said pattern means and said jolting means being, respectively, coordinated with each other and constituting the respective number of said stations on said turntable, a plurality of devices grouped around and spaced from said turntable and from each other, the angular relationship of said devices to each other being selected in accordance with the number of stations on said turntable, said devices being adapted to be only once actuated during said cyclic forming operation and including means for feeding an empty mould box to the respective station, sand supply means for said mould, squeeze means for final compaction of said mould and cooperable with said jolting means, means for removing said box with a finished mould from the respective station; and means for imparting relative movement between said turntable and at least some of said devices, said jolting means being further operable for precompacting said mould prior to the final compaction thereof by said squeeze means and said jolting means.

2,873,491
APPARATUS FOR CASTING METALLIC ARTICLES
Joseph B. Brennan, Cleveland, Ohio; Helen E. Brennan, executrix of said Joseph B. Brennan, deceased
Application May 2, 1955, Serial No. 505,099
1 Claim. (Cl. 22—57.2)

Metal de-gassing apparatus comprising a vacuum chamber having a vacuum connection thereto, a molten metal receptacle in said chamber, and means for introducing molten metal into said chamber in discrete particulate form for degassing and for collection as a pool of degassed metal in said receptacle, said means comprising a

metal feed member, heating means for melting the metal, and a member along which the melted metal flows as a



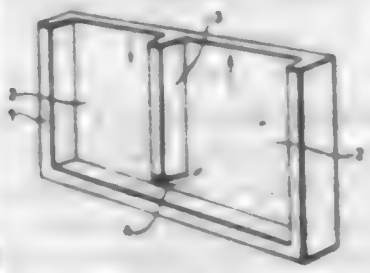
thin layer and from which it is discharged into said receptacle in particulate form.

2,873,492

HOT TOPS, FEEDERS OR SINKING HEAD BOXES

Esa Vallak, Geneva, Switzerland

Application August 21, 1956, Serial No. 605,346
1 Claim. (Cl. 22—147)



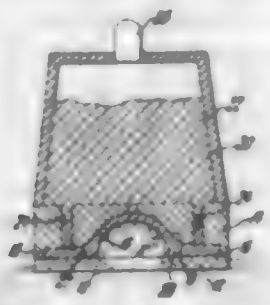
A hot top plate, for use in connection with an ingot mold having an encircling wall, said plate including combustible material and being adapted to be disposed adjacent the internal surface of said wall, said plate including two side flanges and a bottom flange connected therebetween, and an upright ridge between said side flanges extending from the top of said plate to a point spaced from said bottom flange for a certain distance, said plate with its flanges and ridge being adapted to define with said internal wall surface an upright U-shaped air channel having two upright branches and a connecting branch therebetween, said certain distance being inferior to the distance between said ridge and either side flange whereby the connecting branch will have a smaller cross section than the upright branches, both upright branches being open on top.

2,873,493

SHELL MOLDING

Robert F. Thomson, Grosse Pointe Woods, Raymond S. Amala, Oak Park, and Charles M. Eberhardt, Berkley, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 18, 1954, Serial No. 411,062
3 Claims. (Cl. 22—193)



1. A method of shell molding which comprises forming a shell mold by contacting a heated pattern with a loose mixture of finely divided refractory oxides and thermosetting resin to fuse said resin and form a thin shell on said heated pattern, the percentage of resin ranging up to about 3½% by weight of the mixture, simultaneously applying heat and pressure to the back of said shell while it is on said heated metal pattern to form the back of the shell to a predetermined configuration and to compact and reduce the thickness of the shell by about 20 to 25% and to cure the same, said compacted shell having a thickness not over about 5/32", stripping the cured shell from said heated pattern, forming a second pattern conforming with the back of said cured shell, applying to the last mentioned pattern a slurry consisting of a refractory cement, refractory oxide and water, curing said slurry to form a dry, rigid back-up having a surface conforming to the back of a said shell to be supported thereby, supporting a said shell by said back-up during a metal casting operation and reusing said back-up to support other similarly shaped shells for forming a multiplicity of similar metal castings.

2,873,494

DRYER FELT CONNECTION

John R. L. Santos, Baltimore, Md., assignor to William E. Hooper and Sons Company, Woodberry, Baltimore, Md.

Application June 24, 1954, Serial No. 439,081
5 Claims. (Cl. 24—33)



1. A drier felt end fastening construction comprising an elongated fabric belt of single thickness and a single added fabric member, the belt and member forming together belt joining ends of triple thickness, each end having a portion folded back upon itself to constitute two of the three fabric thicknesses and a row of looped clips attached to each end portion folded upon itself, each end portion folded upon itself having a row of stitches along and adjacent the fold and within the looped clips and a pintle connecting the clips of the respective end portions together, the third fabric thickness extending over said clips to cover the same, stitches passing through the triple thickness of fabric on the leading side of the fastening construction with respect to the direction of belt travel, to securely hold the three thicknesses of fabric all together, the looped clips on at least one end of the belt passing through a back fold of the fabric belt itself, the back folded portions of both the belt and added fabric member being of the same weave pattern as the other portions, whereby the clips and stitching within the clips have the reinforcement of the woven material to effect the hold of the clips on the belt and added member.

2,873,495

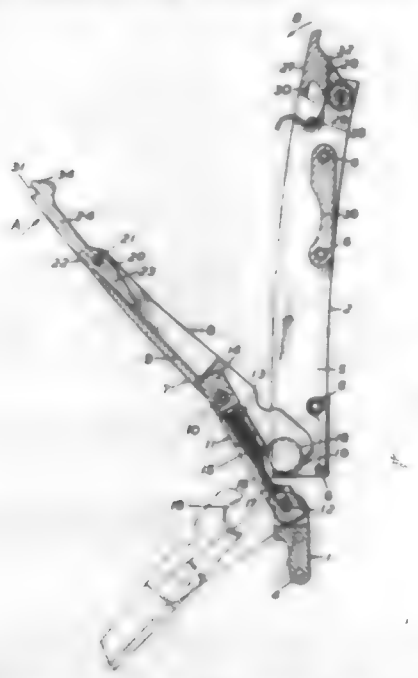
TOGGLE FASTENERS

John Love, Langside, Glasgow, Scotland, assignor to K. A. C. Limited, Glasgow, Scotland, a British company

Application April 12, 1954, Serial No. 422,623
Claims priority, application Great Britain December 2, 1953
4 Claims. (Cl. 24—68)

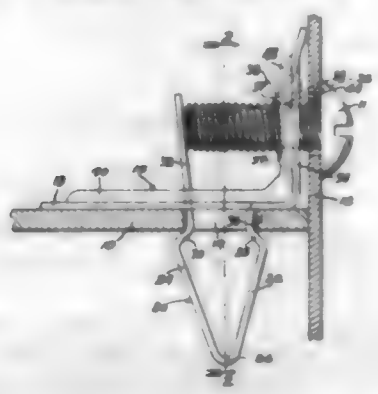
1. A toggle fastener comprising a primary part and a secondary part for mounting respectively on each of two relatively separable members, said secondary part comprising a recessed housing; a link pivoted at one end to said primary part; a toggle lever, pivoted between its ends to the free end of said link, including a bifurcated end part and an operating arm; an arcuate fulcrum member within and at each side of said housing recess for engagement by said bifurcated end part of the toggle lever for partial rotation of such lever therearound to bring the latter into a locking position in which its front surface lies flush with

the front surface of said secondary part and closes part of the recess in said housing, and in which the pivot of said link with the toggle lever is positioned to the rear of the plane containing the pivot of said link with said primary part and the centres of curvature of said fulcrum members: an extension lever pivoted to the operating arm of said toggle lever and rockable to a position in which it forms an extension of said operating arm to provide increased leverage for moving the toggle lever to said locking position, said extension lever lying, when the toggle lever is in said locking position, within said housing recess with its ex-



posed surface flush with the front surface of said secondary part; a latch plate closing the remainder of said housing recess for retaining the toggle lever in said locking position, said latch plate being rockable to release the toggle lever and having means responsive to such rocking to eject part of the extension lever out of the housing recess; and ejector means on said secondary part and said extension lever for effecting forward movement of said operating arm out of said housing recess upon further rocking of said extension lever part out of said housing recess following ejection of such part by rocking of said latch plate.

2,873,496
FASTENER
Edwin F. Elms, Roseville, Mich.
Application February 13, 1956, Serial No. 565,050
1 Claim. (Cl. 24—73)



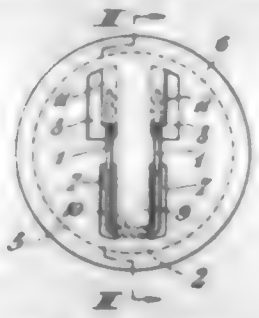
A fastener for securing a part to an apertured supporting panel, said part extending in a plane at an angle to the plane of said supporting panel, comprising a fastener having a body portion, an integral strip struck out of the body portion having a bend providing a pair of spaced relatively yieldable leg members projecting downwardly from said body for insertion through an aperture in the supporting panel, inwardly off-set shoulders carried by said legs, for engagement with the under side of the panel, an extension on said body portion extending upwardly in a plane parallel to the plane of said part to be supported, an extension formed by the free end of said strip projecting upwardly through and above said body portion, said first named extension being provided with a screw threaded receiving aperture having its axis intersecting said second named extension, and screw threaded means for securing said first named extension to said part to be supported, said screw threaded means adapted for engagement with said second extension for urging it away from said first named extension.

2,873,497
CUFF FASTENER
Philip F. Cronan and Francis P. Cronan, Attleboro, Mass., assignors to Dolan & Bullock Co., a corporation of Rhode Island
Application August 20, 1956, Serial No. 605,042
2 Claims. (Cl. 24—100)



1. A cuff fastener comprising a flat link with spaced arms and having a bridging bar across the free end of said arms so as to define a central elongated opening, said bar having a rectangular cross-section, a button head connected to said link at the end opposite said bar, a generally U-shape staple having spaced arms and a second head bridging said arms, said second head being of a size to extend beyond the ends and sides of said staple, the bight of said staple being spaced from said second head a distance less than the diagonal of the cross-section of said bridging bar, said staple passing through said central opening, there being a central recess in the bight of said staple in which said bridging bar may be positioned to pivotally move said second head about said bridging bar, said elongated opening being of a length substantially equal to the distance between the arms of said staple whereby upon swinging of said second head about said bridging bar one arm of said staple may be passed through said opening and moved along said opening to engage the inner end of said opening to position the bridging bar adjacent the other arm of said staple so as to hold said second head engaged flatwise along said link.

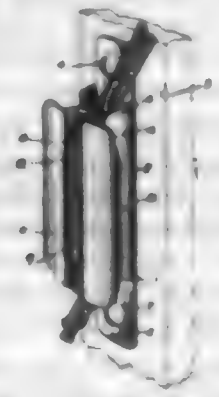
2,873,498
FASTENING MEANS FOR BUTTONS
Nils Reinhold Nääs, Norstinden, near Falun, Sweden
Application April 27, 1953, Serial No. 351,132
1 Claim. (Cl. 24—103)



In a button releasably fastenable to a fabric, in combination, a base member, a front cover plate connected to said base member, and a fastening member tiltably connected to said base member and comprising a cross piece and two pins integral with said cross piece, said base member having a transversely extending recess submerged below the exposed surface of said member to form

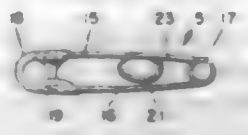
a bearing for journalling said cross piece for tilting movement of said fastening member about the axis of said cross piece between a normal rest position and a fastening position at an angle thereto, said base member including a bridge and having formed adjacent the opposite lateral edges of said bridge two pairs of substantially parallel slots, including a first pair of slots formed adjacent said recess and extending to the exterior for receiving the rear portions of the pins of the fastening member, and a second pair of slots each including an open portion extending to the exterior and a longitudinal covered portion off-set laterally and inwardly from, and communicating with, said open portion, each pin comprising a straight rear part normally disposed in a slot of said first pair, an elongated pointed end part normally disposed throughout the major extent of its length in a covered portion of a slot of the second pair and separated by said bridge and insertable into the normal position by a downward inwardly directed motion and, respectively, removable by an outward upwardly directed motion, and an intermediate part bent outwardly so as to form an arc outside the bridge, said arc being so dimensioned as to allow the fabric, after fastening of the button thereto by forcing the pointed ends of the fastening wire through the fabric and bringing them into engagement with the second pair of slots of the base member of the button, to extend in a plane parallel with the exposed surface of the front cover plate of the button, at a distance from the rear surface of the base member sufficient to leave a play between said rear surface and said fabric.

2,873,499
CLEAT
Harvey L. Bartholomew, Kansas City, Mo.
Application April 19, 1955, Serial No. 502,430
1 Claim. (Cl. 24—130)



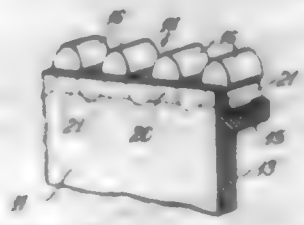
A cleat made from a single sheet of resilient metal comprising, an elongate substantially flat base member having means for securing same to a wall and the like in a position to receive a rope to be secured, elongate side members on opposite sides of the base member with each of said side members having a juncture along a substantial portion of the length of the base plate, said side members having end edges spaced from the ends of the base plate, said side members extending from the base plate in spaced apart converging relation and terminating in outwardly curved portions whereby the side members and base member cooperate to define an elongate center channel open remotely of the base with said opening being a slot defined by the outwardly curved portions to permit the ready entrance of a rope into said center channel, each of said side members having rope receiving recesses opposite each other at the end portions thereof between the base plate and the outwardly curved portions, elongate lateral extensions on said outwardly curved portions of the respective side members and having a juncture along the length of said outwardly curved portions, said lateral extensions extending outwardly in opposite directions from the respective side member and toward the plane of the base member whereby each lateral extension cooperates with the respective side member to form elongate side channels therebetween, said elongate side channels being parallel to each other and to the center channel, said lateral extensions terminating in edges spaced from the base plate and the respective side members and defining elongate slots therebetween for entrance of a rope into the respective side channels whereby a rope may be inserted through the slot to the center channel to extend therethrough and then belayed around said side members in securing said rope.

2,873,500
SAFETY PIN
John E. Glover, Los Angeles, Calif.
Application March 9, 1956, Serial No. 570,636
1 Claim. (Cl. 24—161)



A safety pin comprising a top leg portion and a bottom leg portion normally disposed in spaced juxtaposition to each other whereby to receive therebetween a portion of a garment to be pinned, said leg portions being resiliently secured together at one end, and releasably engageable with each other at their other ends, and said top leg portion presenting between its ends a pair of opposite, laterally downwardly and outwardly disposed resilient projections, whereby to yieldably press said portion of said garment downwardly towards the bottom leg portion to prevent loosening of said safety pin in said garment.

2,873,501
TUBULAR CONVEYOR BELT
Elmer J. Reaner, Aurora, Ill., assignor to The Stephens-Adamson Mfg. Co., a corporation of Illinois
Application December 31, 1954, Serial No. 479,163
2 Claims. (Cl. 24—204)

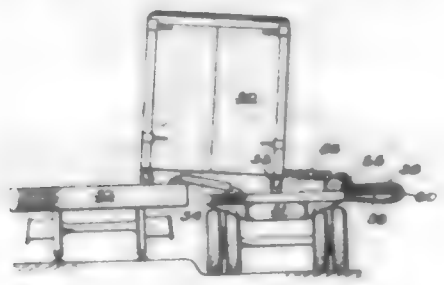


1. A tubular conveyor belt for conveying bulk materials comprising an endless flexible tube formed at least in part by longitudinally extending side walls terminating in edges that are adapted to be positioned in juxtaposed relation, said side walls being formed with zipper-like interlocking teeth along said edges, whereby when said teeth are interlocked, said tube is formed, said side walls also each being formed with an endless and imperforate sealing web projecting away from the side wall along said edges thereof, said webs of each side wall extending parallel to the plane of said teeth of the side wall, said webs being proportioned to abut each other, when said teeth are interlocked, to form a seal against leakage from the conveyor, said teeth and said web of each side wall being integrally formed with the side wall, and being positioned closely adjacent each other, said web of each side wall being disconnected from each tooth of the side wall by a slit formed in the side wall between the respective teeth and the web, whereby, when said side walls are flexed to spread said teeth of each side wall to lock and unlock same, the tension forces created in said web are uniformly distributed along the lengths of said webs.

2,873,502
SYSTEM AND APPARATUS FOR HANDLING TRANSPORTABLE CONTAINERS

William C. Hodges and Alexander L. Robb, Redwood City, Calif., assignors to Hodges Research and Development Company, Redwood City, Calif., a corporation of California

Application October 31, 1949, Serial No. 124,592
2 Claims. (Cl. 214—516)

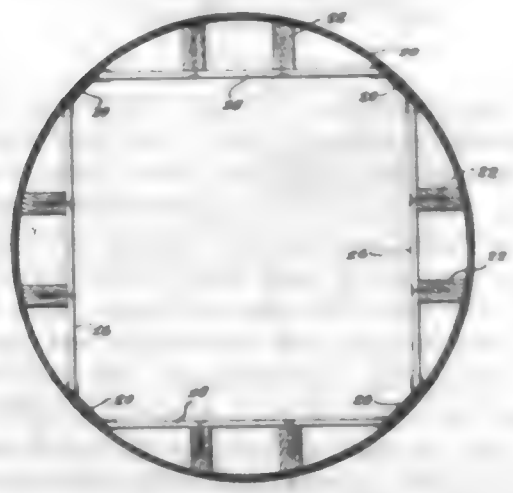


1. In a transfer system as described in combination, a container, casters mounted at each corner of said container, hydraulic means for retracting said casters above and extending said casters below the floor of said container, transportation means for said container, means for circulating hydraulic fluid to and from said hydraulic means including means for controlling the movement of said casters, tracks mounted on said transportation means, hydraulically powered self-propelled means removably attached to said container and mounted on said tracks supplying power to transfer said container, means for circulating hydraulic fluid to and from said powered self-propelled means including means for controlling the speed and direction of movement of said powered means, a single source of hydraulic power for said hydraulic means and for said hydraulically powered self-propelled means and removable track extensions for extending said track beyond the edge of said transportation means upon which said powered means are mounted to initiate transfer of said container from said transportation means and to complete transfer of said container to said transportation means.

2,873,503
CONCRETE COLUMN FORM FOR SQUARE COLUMNS

Arthur E. Davis, Chicago, Ill., assignor to Sonoco Products Company, a corporation of South Carolina

Application June 13, 1956, Serial No. 591,237
8 Claims. (Cl. 25—118)

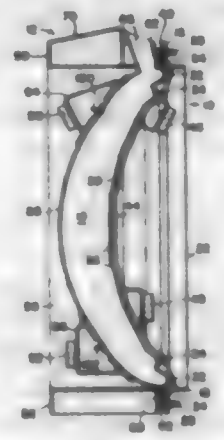


6. A concrete form adapted for use in molding square concrete columns comprising an outer, circular, tubular paper body, an inner, substantially square form arranged within said outer, tubular paper body and contacting the outer tubular body at the corners of said inner form, and filler means between said inner form and said outer paper body for supporting the inner form and transmitting internal pressure from the inner form to the outer paper body.

2,873,504
MANUFACTURE OF BURIAL VAULT LIDS

Edward J. Lager, Davenport, Iowa

Application September 16, 1955, Serial No. 534,662
1 Claim. (Cl. 25—130)



A mold for the making of concrete burial vault lids, comprising: a first form having a rectangular frame made up of a pair of long and a pair of short frame members and a rectangular plate within and secured to said frame, said members having marginal coplanar edge portions providing a peripheral flange bordering the plate and said plate being of arcuate section across the short dimension of the frame so that marginal portions of said plate proximate to the frame members are relatively adjacent to the plane of said flange and the peak of the arc of said plate is outwardly of said plane; a second form having a frame of rectangular shape congruent with the first frame and made up of a pair of long and a pair of short frame members having inner edge portions coplanar in an inner plane to afford a peripheral flange abutting the first form flange, said second form members being relatively wide in a direction normal to and outwardly from the plane of the first form flange to have outer edge portions coplanar in an outer plane spaced outwardly a substantial distance from and parallel to the aforesaid plane, said second form further having a rigid rectangular plate bordered by and secured to the second frame and of arcuate section across the short dimension thereof so as to be generally concentric with and spaced outwardly of the first form plate, said second plate having the peak of its arc within said outer plane of the outer edge portions of the second form frame members, said second form long frame members and the respectively adjacent portions of the second plate affording outwardly facing pockets running lengthwise of said long members and within said outer plane and within the width of said long members; means for removably securing the forms together with their flanges abutting, at least one of said forms having at one edge thereof an opening through which concrete may be introduced between the plates; and vibration receivers on the second form in the aforesaid pockets.

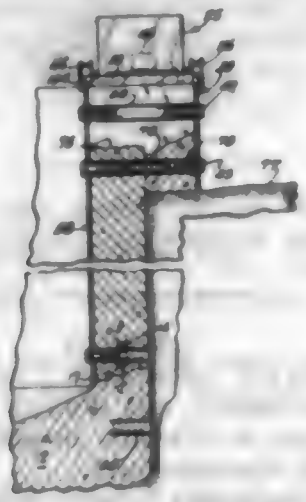
2,873,505
METHOD FOR POURING CONCRETE STRUCTURES

Arnold Sheldon, Glen Gardner, N. J.

Application November 26, 1954, Serial No. 471,380
1 Claim. (Cl. 25—155)

The method of casting a curved concrete wall comprising the steps of casting a footing having at least one vertical face defining the desired curvature of one surface of the completed wall, securing a flexible sheet against said face to conform to the curvature of said face, curving a second flexible sheet to conform to said first sheet and securing said second flexible sheet to said first sheet at a first uniform distance from said first sheet, casting a wall portion therebetween on top of said footing, removing said first sheet, supporting a third flexible sheet at a second

greater uniform distance from said second sheet than was said first sheet backfilling adjacent said third sheet, and



casting a top portion of said wall between the top of said second sheet and said third sheet.

2,873,506
TREATMENT OF LOW LOSS CERAMIC MATERIALS

Harold Rawson, Rugby, and Jean Eleanor Jamieson Dods, Clifton-upon-Dunsmore, England, assignors to The British Thomson-Houston Company Limited, a British company

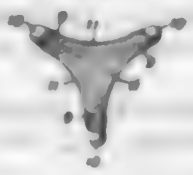
No Drawing. Application August 16, 1954
Serial No. 450,254
Claims priority, application Great Britain August 24, 1953
2 Claims. (Cl. 25—157)

1. The method of improving the power factor of a fired ceramic material consisting of a major content of Al_2O_3, MgO and SiO_2 in the proportions by weight of 1–10%, 30–60%, 40–70% respectively, which consists in subjecting the material, after firing, to heating at a temperature of between 850–1100° C. for a period of at least 20 hours in an oxidising atmosphere.

2,873,587
FELTING NEEDLE

John J. Kelson, Torrington, Conn., assignor to The Torrington Company, Torrington, Conn., a corporation of Maine

Application March 6, 1956, Serial No. 569,879
3 Claims. (Cl. 28—4)



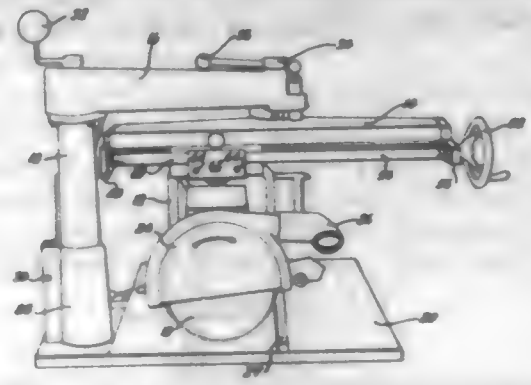
1. A felting needle having three angularly spaced ribs having thick rounded outer edges and intermediate fiber-receiving longitudinal recess and forwardly directed barbs on each rib.

2,873,588
FEED MECHANISM FOR RADIAL SAW

Arden V. Candler, South Bend, Ind.

Application April 24, 1957, Serial No. 654,868
4 Claims. (Cl. 29—69)

4. In a radial saw having a saw carriage mounted on a track, a screw arranged longitudinally of said track, a means for rotating said screw, a feed mechanism comprising: a block adjacent to said screw connected rigidly to the saw carriage, a second block movable laterally from said screw having a threaded portion thereon adapted to engage said screw, two parallel levers pivotally connected to the corresponding sides of said blocks, a handle for lifting said last mentioned block from engagement with said screw, a projection on said first mentioned block, and a resilient lever on said second mentioned block having a hole therein for slipping over

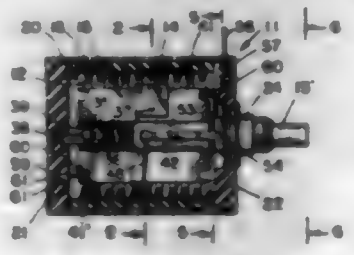


said projection to lock said second mentioned block into engagement with said screw.

2,873,589
METHOD OF MAKING A VARIABLE RESISTOR

Adelbert Paul Sorber, deceased, late of Los Angeles, Calif., by Gordon Paul Sorber, administrator, Los Angeles, Calif., assignor, by mesne assignments, to Librascope, Incorporated, a corporation of California

Application March 18, 1955, Serial No. 495,226
3 Claims. (Cl. 29—155.5)



1. In a method of making a resistor having a helically coiled resistance element, the steps of winding the resistance element and a flat strip of non-conductive backing member for said resistance element in the form of a helix on a segmented expansible mandrel with said flat strip lying between said resistance element and said mandrel to bridge and support the resistance element at the gaps between the mandrel segments, anchoring the resistance element at one end thereof and maintaining the free end taut, electrically contacting said resistance element at the starting end adjacent the anchored point and at a second point adjacent the free end on the mandrel, measuring the resistance between said points with a resistance measuring instrument to determine the resistance value of the element for the full length thereof between said points of contact, uniformly and simultaneously adjusting the full length of said resistance element by adjusting said mandrel while maintaining fixed contact of said resistance measuring instrument with said starting end and maintaining sliding contact of said resistance measuring instrument with said resistance element at said free end until a required resistance value between said points is obtained, and subsequently anchoring said free end.

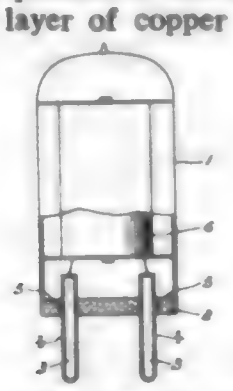
2,873,510
METHOD OF MANUFACTURING SEALS FOR ELECTRIC DISCHARGE TUBES

Johannes Christiaan Duran, Martinus Antonius Maria Bakker, and Pieter Geert van Zanten, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application September 6, 1955, Serial No. 532,520
Claims priority, application Netherlands
September 8, 1954
5 Claims. (Cl. 29—155.55)

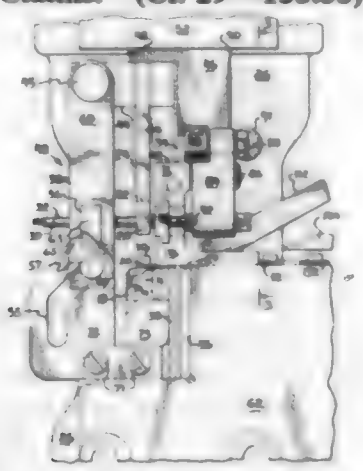
1. A method of providing a metal contact member sealed in a glass wall of a discharge tube, comprising the steps of coating said metal member with a layer consist-

ing of AuCu; placing a portion of said coated metal member in contact with said glass wall; thereafter heating the member to convert a portion of the copper in said AuCu into a thin external layer of copper oxide and simulta-



neously to fuse the member into the glass wall, and to dissolve in said glass substantially all of the copper oxide in the seal region; and thereafter removing the copper oxide from the portion of the member projecting from the wall.

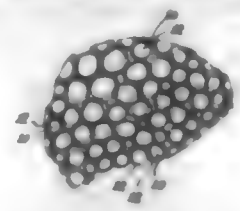
2,873,511
INSULATION STRIPPING APPLICATOR AND METHODS OF APPLICATION
Earl E. Folkenroth, Harrisburg, Pa., assignor to AMP Incorporated
Application February 28, 1956, Serial No. 577,956
2 Claims. (Cl. 29—155.55)



1. The method of forming electrical connections by applying electrical connectors to the ends of insulated stranded wires respectively in successive cycles, each cycle including the steps of disposing a connector in a crimping zone and an insulated wire in a stripping zone, severing the insulation adjacent the end of the wire to define an end segment of insulation, withdrawing the wire relatively from the end segment of insulation so as to strip the segment off the wire, passing the thus stripped insulation segment through a defined path a part of which is sensitive to the presence of metal to detect any strands of wire cut in the severing operation, disposing the stripped wire in the crimpable portion of the connector in the crimping zone and crimping the connector into intimate engagement therewith, removing the wire and applied connector from the crimping zone, whereby a signal generated during said cycle in response to any such metal detection, during said cycle prior to removal of the wire and applied connector, indicates and identifies the production of each faulty connection and the thus identified faulty connections may be discarded and the repetitive cycling stopped for corrective purposes before the further production of substandard parts.

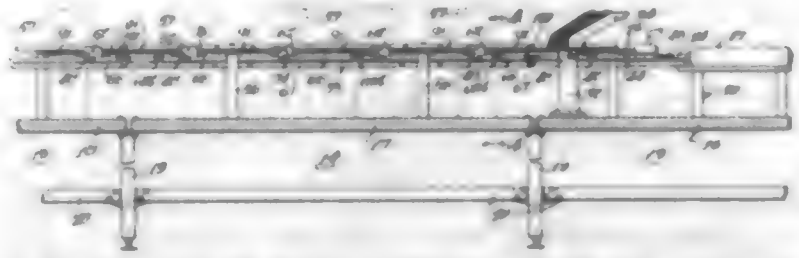
2,873,512
FERRO MAGNETIC CORE MATERIALS AND METHODS OF PRODUCING SAME
Preston Robinson, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application October 13, 1955, Serial No. 540,238
6 Claims. (Cl. 29—182.5)

1. A magnetic circuit component comprising an assembly of thin ferromagnetic metal individual finely divided particles less than about 40 mils thick, the elements



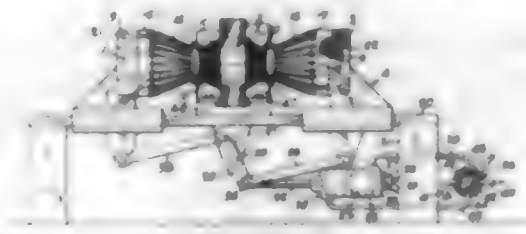
being electrically insulated from each other by surface coatings less than 1 mil thick of magnetic ferrites.

2,873,513
AUTOMATIC ASSEMBLY APPARATUS
Carl F. Carlzen, Buffalo, and William L. Lehner, Snyder, N. Y., assignors to Sylvania Electric Products, Inc., a corporation of Massachusetts
Application September 9, 1954, Serial No. 454,964
7 Claims. (Cl. 29—203)



1. Apparatus for sequentially transferring to a plurality of stations, each of which includes a mechanism for performing a particular operation, a plurality of articles having accurately located positioning means thereon, said apparatus comprising conveyor means for effecting step-by-step movement of said articles in a path along which a plurality of said stations are positioned, positioning and locking means adjacent each of said stations for engaging said positioning means on said articles upon movement of said articles to said stations to lock said articles in proper predetermined positions at said stations, and interlock means at each station for selectively preventing the operation of the respective mechanism if the article at the respective station is improperly positioned and for permitting the operation of the ones of said mechanisms located at those stations at which the articles are properly positioned.

2,873,514
CAM-ACTUATED COIL INSERTER
Stephen Dwight Mills, Troy, Ohio, assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application December 31, 1954, Serial No. 479,197
4 Claims. (Cl. 29—205)



1. In a fixture for mechanically inserting prewound windings into slots extending in the inner periphery of an annular core, a bobbin having longitudinal circumferentially spaced radial slots extending inwardly therein from the outer periphery of the bobbin and disposed complementary to the slots of the annular core to receive the prewound windings, a radially movable blade disposed in each slot beneath said windings, two sets of a plurality of circumferentially spaced separate actuating means disposed at axially opposite ends of the blades and engaging opposite ends of each blade, means to simultaneously actuate said actuating means to move said blades radially outwardly and thereby transfer the windings from the slots in the bobbin to the slots in the

annular core, a support for said core and bobbin, and clamping means extending over the assembled core and bobbin into engagement with the core to rigidly clamp the core to the core and bobbin support and prevent shifting of the core and bobbin during transfer of the windings from the bobbin to the core.

2,873,515
COIL INSERTER

Bertil G. Winstrom, Thiensville, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York

Application January 3, 1955, Serial No. 479,263
7 Claims. (Cl. 29—205)

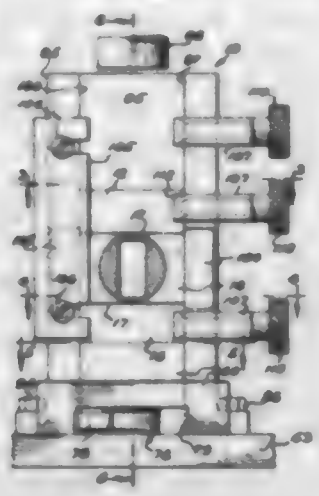


1. In a fixture for mechanically inserting prewound windings into slots extending in the inner periphery of an annular core, a generally cylindrical member having longitudinal circumferentially spaced radial slots extending inwardly therein from the periphery of said member and disposed complementary to the slots of the annular core to receive prewound windings, a plurality of circumferentially spaced separate means adapted to engage the windings in the slots of the annular core to move the windings radially outwardly, a plurality of circumferentially spaced pivotal generally L-shaped arms adapted upon pivotal movement to simultaneously actuate said spaced separate means to move the windings radially outwardly and transfer the windings from the slots in the cylindrical member to the slots of the annular core, means for bodily shifting said pivotal arms toward and away from said cylindrical member and means to effect pivotal movement of said pivotal means.

2,873,516
ALIGNING FIXTURE FOR ASSEMBLING PARTS OF A MAGNETRON TUBE

Cecil C. McCain, Glen Ellyn, and Emil Sirp, Naperville, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application September 14, 1954, Serial No. 455,872
7 Claims. (Cl. 29—287)

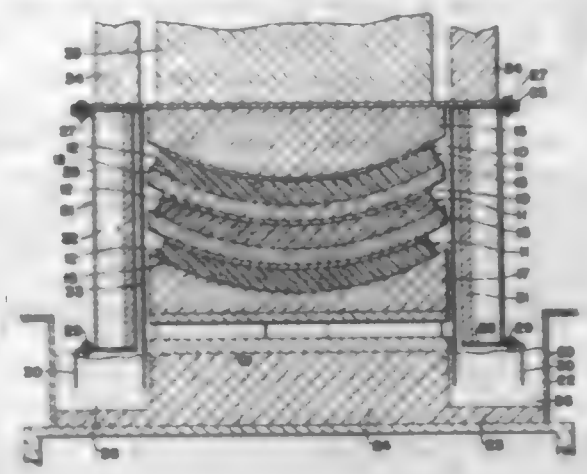


1. A fixture for aligning and assembling a plurality of loosely positioned parts including an upper part and a lower part and for tightening a clamping means associated with the parts for clamping the parts in assembled relation comprising a platen, a ram, a lower member slidably supported on said platen and having a seat engageable with the lower part for supporting the assembly of parts, an upper member engageable with the ram and having a seat engageable with the upper part of said assembly, means on the platen for aligning the members and assembly of parts relative to each other and beneath the ram whereby the ram may be actuated to compress the parts, and means on one of said members for actuating the clamping means on said assembly of parts to retain the assembled parts in their compressed state.

2,873,517
METHOD OF MAKING SINTERED METAL BRAKE BLOCKS

Samuel K. Wellman, Cleveland Heights, Ohio, assignor to The S. K. Wellman Company, Cleveland, Ohio, a corporation of Ohio

Application November 4, 1953, Serial No. 390,178
11 Claims. (Cl. 29—420.5)



1. A method of making an arcuate bi-metallic brake shoe of maximum width and thickness which comprises the steps of providing powdered materials comprising metals predominantly, compacting said powders to provide narrow arcuate segments by means of pressure applied parallel to the ultimate wear faces thereof, providing a mating curved metallic backing plate, assembling the segments in juxtaposition to the backing plate, and bonding the segments to the plate by applying heat and applying pressure at right angles to the segment wear faces at the centers of their arcuate lengths.

2,873,518
WIRE ELECTRODE FOR ELECTRIC DISCHARGE LAMPS

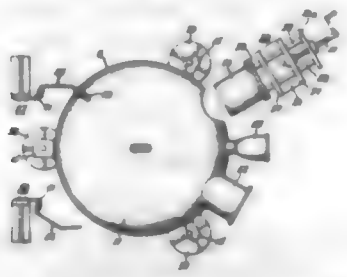
Werner Schilling, Heidenheim (Brenz), Siegfried Bahrs, Berlin, and Hans Wiedenmann, Heidenheim (Brenz), Germany, assignors to Patent-Treuhand-Gesellschaft für Elektrische Glühlampen m. b. H., Munich, Germany

Application February 14, 1955, Serial No. 487,926
Claims priority, application Germany February 26, 1954
2 Claims. (Cl. 29—420.5)



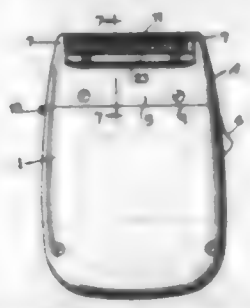
1. A method of manufacturing a wire electrode which method consists in sintering metallic powders selected from the group consisting of tungsten and molybdenum to produce a rod or wire, reducing and elongating said wire to produce a fiber structure of the wire crystals parallel to the longitudinal axis of the wire, distorting the wire along its longitudinal axis at a simultaneous heating up to 250° C. so that the outer fibers of the wire are running against its axis within an angle of 15 to 70° whereby cracks and spaces are formed by separation of the crystal fibers on the wire surface over its whole length, thereby forming a rough surface to which the emission material can well adhere.

2,873,519
METHOD OF CONSTRUCTING A TANK FOR ELECTRIC APPARATUS
James M. Milne, Swarthmore, Pa., assignor to General Electric Company, a corporation of New York
Application July 21, 1954, Serial No. 444,811
11 Claims. (Cl. 29—463)



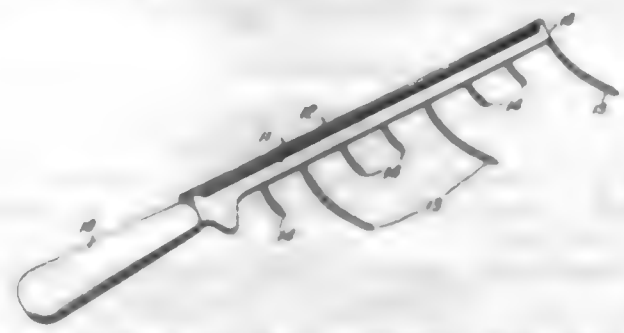
1. A method of constructing a tank for electrical apparatus comprising the following steps: providing a pair of domes having mating rims, welding together said mating rims along a peripheral seam, positioning said assembly adjacent a preset jig structure with said peripheral seam disposed in a generally horizontal plane, cutting a circular hole in a non-planar portion of said periphery by cutting means guided for reciprocation and rotated about a horizontal axis fixed with respect to said jig structure, positioning a cylindrical housing with its longitudinal axis coinciding with said horizontal axis, translating said housing along said horizontal axis into a predetermined position with respect to said assembly and thereafter welding said housing in said predetermined position.

2,873,520
POWER DRIVEN SHAVER AND HAIR TRIMMER
James Schnapp, Bronx, N. Y., and Heinz Werner, Stamford, Conn., assignors, by mesne assignments, to Ronson Corporation, Newark, N. J., a corporation of New Jersey
Application March 14, 1956, Serial No. 571,395
4 Claims. (Cl. 30—34)



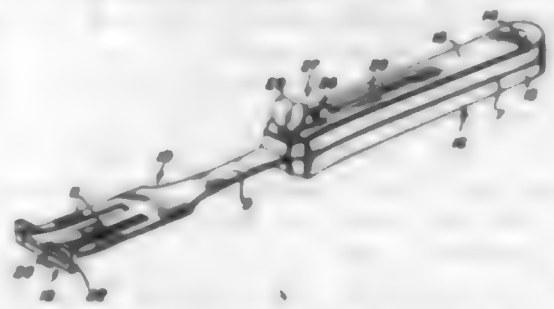
1. A power driven shaver including a main casing, a power driven actuating member carried thereby and disposed at the upper portion thereof, a head frame, said casing and head frame having means detachably interengaging therebetween whereby the head frame may be engaged with the upper portion of the main casing in either of two reversed positions with respect to the casing, a stationary cutter of the close shaving type carried by said head frame to afford detachment thereof along with the head frame, a cooperating movable cutter interposed between said first mentioned cutter and said actuating member, a stationary cutter of the long hair cutting type carried by said head frame, a movable cutter cooperating with said last mentioned stationary cutter and also carried by said head frame, and means detachably engaging said last mentioned movable cutter in driving relation to said actuating member and so arranged with relation to the casing that said last mentioned movable cutter is engaged in driving relation with said actuating member when said head frame is engaged in one of its aforesaid positions with respect to the main casing, and disengaged from said driving relation when said head frame is engaged in the other of its aforesaid positions with respect to the main casing.

2,873,521
CANNED FOOD EXTRACTOR
Howard M. Cortner, Hanna City, Ill.
Application January 3, 1958, Serial No. 707,064
2 Claims. (Cl. 30—124)



1. In an implement for extracting bulk food from cans, a handle, an elongated blade secured to said handle and having an arcuate configuration, a cutting edge formed on one side of said elongated blade and a plurality of spaced teeth formed on the other side of said blade, said teeth being arcuate in shape and having a radius of curvature substantially the same as said blade, said teeth being longer than the lateral dimension of said blade and adapted to deeply penetrate into said food during the food extracting operation.

2,873,522
SERVING FORK
Richard Louis Homola, Northampton, Pa.
Application May 29, 1957, Serial No. 662,452
2 Claims. (Cl. 30—129)



1. A serving fork comprising an elongated plate having a handle portion at one end which is flat and provided with a central longitudinal slot relatively restricted in width, the other end of said plate having a fork head with prongs and the median portion of the plate providing a shank, a bottom bar having a flat top surface provided with a lengthwise groove providing a spring accommodating channel terminating short of the respective forward and rearward ends of said bottom bar, said handle portion of said plate being superimposed upon the channeled side of said bottom bar and the slot therein registering with the open side of said channel, said channel being of a cross-sectional width appreciably greater than the width of said slot, a manually actuatable sliding stripper for said prongs embodying a rod parallel with said fork head and shank and extending through a restricted hole in said bar registering with the forward end of said channel, a slide having a lower portion slidingly keyed in said channel, said slide having an arm with a grooved median portion keyed for sliding in and along said slot, said arm also having an upper end portion, a coil spring wholly confined in said channel and bearing at one end against one end of the channel and having the other end surrounding said rod and bearing against the lower portion of the slide, said coil spring being of a cross-section suitable for operation in said channel but greater than the width of the slot in that portion of said plate overhanging said channel, a top bar similar to the bottom bar and superimposed on the top side of the handle portion of said plate and secured to said plate and bar and having a lengthwise slot through and upwardly beyond which said upper end portion of said slide is extended for accessibility and operation, and manually shiftable operating means for said stripper having an

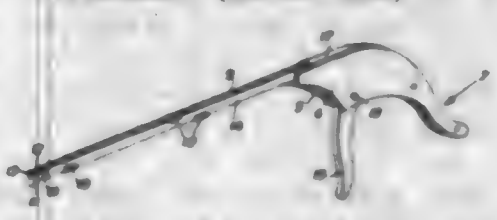
elongated cover member normally covering the slot last named and provided at its forward end with an integral thumbpiece, said thumbpiece being spaced rearwardly from an adjacent forward end of said top bar.

2,873,523
TILE CUTTING AND FUSING TOOL
Charles J. Garland and Delmer Wayne Turner, Oakland, Calif., assignors to Merritt Engineering Co., Oakland, Calif., a corporation of California
Application September 21, 1953, Serial No. 381,292
2 Claims. (Cl. 30—140)



1. A plastic tile cutting tool including a shank and an integrally formed longitudinally extending head member, said head member having a narrow thickness relative to the thickness of said shank, said head member further having a relatively flat upper surface and a forwardly and upwardly directed lower surface extending from adjacent an end of said shank, said head member having a semi-circular cut out concave portion having an end thereof adjacent the distal portion of said lower surface and the other end thereof continuing in a relatively straight portion substantially normal to the axis of said shank, said concave portion having a sharpened edge, and means on said shank for connection to an electrical source for heating said shank and head member and for mounting said tool in a manually engageable handle.

2,873,524
WIRE CUTTER
Warren R. Freeman, Berkeley, Calif.
Application November 12, 1957, Serial No. 695,740
2 Claims. (Cl. 30—182)



1. A wire cutter comprising: a pistol-type handle embodying a pair of similarly shaped flat plates opposed to each other in spaced parallel separable relationship, an elongated relatively narrow bar flat on at least one face coplanar with and projecting forwardly from a forward edge of one of said plates and having an anvil integrally formed on the forward end of said bar, an upper edge portion of said bar adjacent to said anvil having a recess therein for retentive reception of the wire to be cut, longitudinally spaced guides carried by and projecting laterally beyond said flat face, a flat knife bar slidably contacting the flat face of said bar, said knife bar being of a length greater than said narrow bar and slidingly connected with said guides, the forward end of said narrow bar provided with a cutting blade movable toward and from and coplanar with said anvil, the rearward end of said knife bar extending into the space between said plates and having a right angularly bent actuating flange positioned for movement between said plates, a lever having a median portion pivotally mounted between said plates, a lower portion of said lever depending below adjacent lower portions of the plates and providing a handle coplanar with and movable toward and from said first named handle, an upper portion of the lever being bifurcated and defining a fork, the furcations of said fork straddling said actuating flange, the median pivoted portion of said lever having a rearwardly projecting coplanar lug confined for movement between said plates, and spring means mounted in the space between said plates and operatively cooperating with said lug.

2,873,525
SHEARS
Edward Wallace, Longmeadow, Mass.
Application December 30, 1957, Serial No. 705,912
4 Claims. (Cl. 30—248)



1. Shear construction comprising in combination, a stationary blade and a handle integral therewith, a movable blade, a pivotal connection between the rear ends of said blades for the swinging of said movable blade between open and closed positions relative to said stationary blade, a movable handle pivoted to the first-named handle for swinging towards and away therefrom, an elongated pushing element having a rear end pivotally connected to said movable handle and a forward end portion disposed beneath a rear end portion of said movable blade and being pivotally connected thereto whereby as said pushing element is pushed forwardly by movement of said movable handle towards the first-named handle the forward end portion of said pushing element pulls said movable blade downwardly and simultaneously swings said movable blade to closed position.

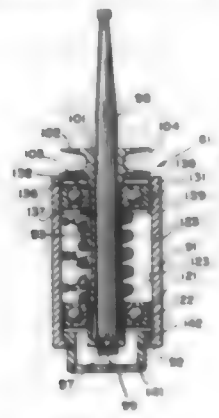
2,873,526
SCISSORS
Otto Visconti, Milan, Italy
Application May 6, 1957, Serial No. 657,345
Claims priority, application Italy January 21, 1957
2 Claims. (Cl. 30—254)



1. An improved bandage scissors comprising two members pivotally connected together and each including a blade terminating in a forward end, each of said blades having an inner shearing face terminating in a cutting edge, said inner faces cooperating in a shearing plane for cutting upon pivotal movement of said members, one of said blades having its forward end extending beyond the forward end of the other of said blades, a projection on the forward end of said one blade for protecting adjacent surfaces when cutting with said scissors,

said projection having one edge in alignment with the inner face of said one blade and extending only laterally from said shearing plane in the direction of the other of said blades.

2,873,527
HIGH SPEED ANGLE HAND PIECE
Lloyd P. Flatland, San Francisco, Calif.
Application October 1, 1956, Serial No. 613,223
5 Claims. (Cl. 32—27)



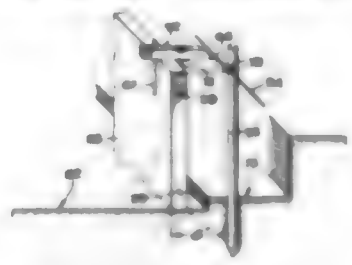
1. A high speed angle hand piece comprising a hollow convergingly tapered conical sheath, a substantially cylindrical body mounted on the smaller end of said sheath and angularly inclined thereto, said body including a hollow cylindrical tube portion and an elongated block portion, a spindle unit mounted transversely on said block portion, said spindle unit including a hollow cylindrical housing open at both ends, a first anti-friction bearing mounted in said housing at one end thereof, a collet extending through said housing and mounted in said first anti-friction bearing, a second anti-friction bearing adjacent the other end of said housing and slidably disposed therein, said second anti-friction bearing encircling the adjacent end of said collet, a helical spring interposed between said bearings, a push-button mounted on said other end of said housing and movable toward and away from said second bearing, a pulley mounted on the end of said collet away from said push-button, and an endless motor-driven cord disposed within said sheath and said body and reeved about said pulley for rotation of said collet.

2,873,528
MOUTHPIECE ASSEMBLY FOR DENTAL SUCTION EVACUATORS
Elbert O. Thompson, Salt Lake City, Utah
Application September 19, 1956, Serial No. 610,774
12 Claims. (Cl. 32—33)



1. A mouthpiece assembly for dental suction evacuators, comprising a length of flexible tubing formed into an elongate flexible loop having a closed loop end provided by an intermediate portion of said length of tubing and an open end provided by opposite end portions of said length of tubing which are disposed in mutual adjacency; an adapter fitting having a pair of branch tubes to which said opposite end portions of the length of tubing are connected, respectively, in fluid-flow relationship, and having tubular means communicating in fluid-flow relationship with said branch tubes and providing connection for a suction hose of a suction evacuator, the rectilinear length of said flexible loop in normal repose condition being sufficiently greater than the maximum rectilinear distance within a normal human mouth to locate said adapter fitting completely outside said mouth when the mouthpiece assembly is in working position, said length of tubing being perforated for fluid intake intermediate its said opposite end portions; and jaw spacing and supporting means removably anchored in said flexible tubing through perforations thereof.

2,873,529
METHOD OF AND APPARATUS FOR SETTING CONCRETE FORMS TO TRUE LINE AND GRADE
Eric E. Hogan and Robert S. Malloch, Riverside, Calif.
Application December 17, 1954, Serial No. 476,040
15 Claims. (Cl. 33—1)

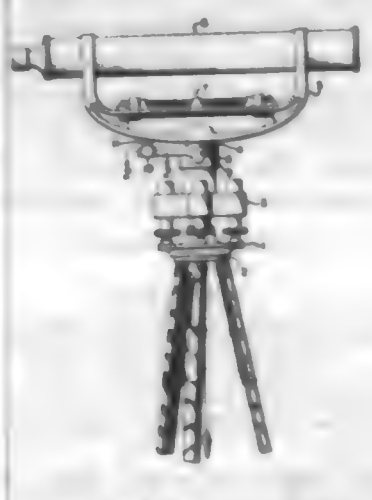


1. A method of setting the backboard of a concrete form in conformity with the survey data contained in a row of surveyor's hubs and cut-or-fill notes relative thereto, which comprises: power grading the soil adjacent said row of hubs along a path parallel thereto, to produce a rough grade of said soil inclusive of the area to be occupied by said form; positioning a string line stake vertically over said rough graded soil opposite each of said hubs, with the line of said stakes uniformly spaced from the line of said hubs and outside the area to be occupied by said form; driving said stakes vertically into the soil as so positioned; stretching a string between said stakes the level of which thereon is determined by reference to said survey data so as to be parallel with the correct plan line for the upper inner edge of said backboard and in a given vertical relation with the predetermined true grade level for said upper inner edge of said backboard; power grading the soil of said form area by constant visual reference to the relation of the level of the soil grade being produced and the level of said string to produce a sub-grade in said soil uniformly slightly lower than necessary to support said backboard vertically with its upper inner edge at said true grade level; erecting said backboard to lie in a vertical plane on its side edge on said sub-graded soil and spaced from said string to bring its inner face in the vertical plane of its true plan line; driving stakes vertically into the soil in supporting contact with the outer face of said backboard; elevating said backboard by reference to said string to bring the top edge of said backboard into conformity with the true grade level therefor while maintaining said board positioned vertically; and providing support for said board, so as to set said board in the true position indicated therefor by said survey data.

2,873,538
TANGENT ADJUSTMENT FOR DUMPY LEVELS AND THE LIKE
Maurice J. Flynn, San Francisco, Calif.
Application October 17, 1955, Serial No. 540,848
2 Claims. (Cl. 33—46)

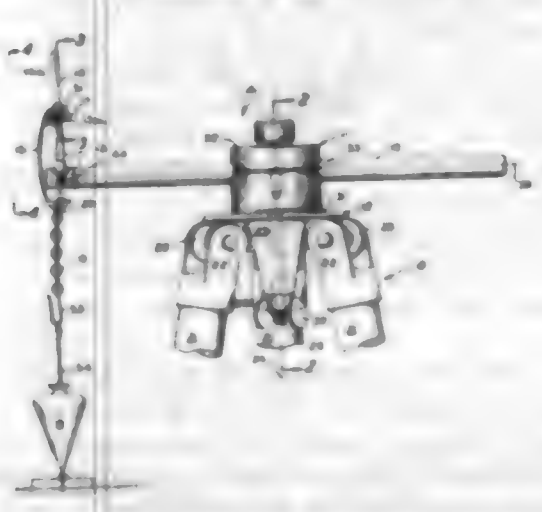
1. An adjusting device comprising a member having a cylindrical hole with a shoulder therein, an end of said hole opposite said shoulder being internally threaded, a hollow cylindrical gasket of deformable material fitted into said hole and abutting against said shoulder, a hollow externally threaded compression nut mating with said threaded end of said hole and abutting against said gasket, and an externally threaded screw extending through said hollow nut and said hollow gasket, said deformable gasket being compressed between said shoulder

and said nut so that it engages the threads of said screw and forms a nut therefor, said gasket being the only part in mating engagement with the threads of said screw, so



that the engagement of said gasket with the screw thread solely produces and controls a longitudinal movement upon rotation of said screw relative to said gasket.

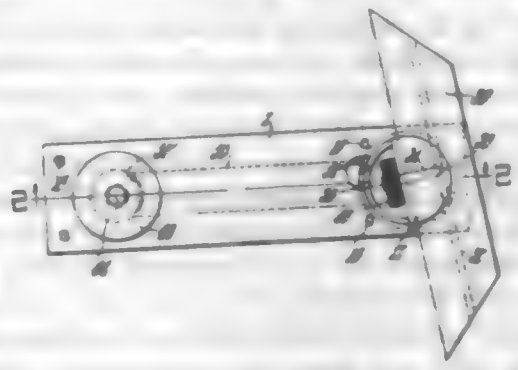
2,873,531
CHAINING DEVICE FOR SURVEYORS
Frank H. Chick, Los Altos, Calif.
Application January 17, 1956, Serial No. 559,576
4 Claims. (Cl. 33—74)



2. A surveyor's chaining device comprising a support rod, means for mounting the support rod in axially and rotatively adjusted position, a chaining point pin secured to project radially from one end of the support rod and pointed on a projecting end thereof, a sighting pin having a recess coaxially thereof for mounting on the point of the chaining point pin thereby to position the axis of the sighting pin coincident with the point of the chaining point pin, a plumb bob support member secured to the sighting pin and extending laterally around and below the chaining point pin and clear of other contact therewith, and a plumb bob connection on the opposite side of the plumb bob support member from the sighting pin and axially aligned therewith whereby the weight of a plumb bob suspended centrally from said connection with the point of the chaining point pin directed upwardly and seated in said recess maintains the sighting pin with its axis erect, intersecting the point of the chaining point pin, and coincident with the axis of such plumb bob.

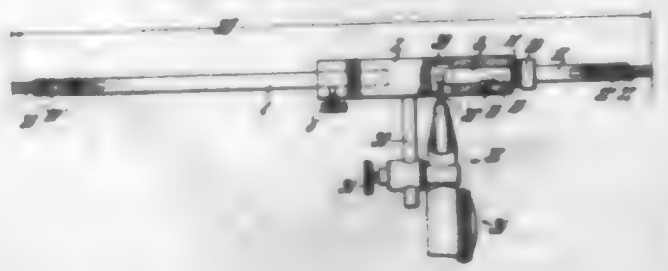
2,873,532
BEVEL
Charles Psholka, Agawam, Mass.
Application March 19, 1956, Serial No. 572,513
1 Claim. (Cl. 33—102)

A bevel tool comprising in combination, an elongated straight-sided body provided with parallel upper and lower flat horizontal faces and having a pivot bore and a stud opening through forward and rear ends thereof with axes disposed transverse relative to the planes of said faces, the lower face of the body provided with a recess around said pivot bore, a pivot member rotatable in said bore having an annular flange rotatably seated in said recess, an elongated bottom plate secured to the lower face of said body engaging and holding the flange of the pivot member in said recess and thereby the pivot member against axial displacement from said pivot bore, a threaded stud having a lower end fixed to said bottom plate and extending upwardly in the opening of the body, said body provided on the lower face thereof with a longitudinally extending groove extending between the pivot bore and stud opening thereof, a lock bar slidable in said groove having a forward end for bearing on the periphery



of the flange of said pivot member to lock the same against rotation, the rear end of said lock bar provided with a bevel, a nut on said stud having a bevel for engaging said bevel of the lock bar to urge the said lock bar in forward locking direction, said pivot member provided with an axial opening and a slot in a side thereof disposed adjacent the upper face of the body and transverse to the axis of said opening, an elongated blade reciprocable in said slot of the pivot member having a groove extending longitudinally thereof, a threaded hook member in said pivot member having a hook in the groove of the blade, and a nut disposed in the axial opening of the pivot member in threaded engagement with the hook member whereby to lock the blade against movement in said slot.

2,873,533
INSIDE DIAMETER COMPARATOR
George D. Wilson, Holyoke, Mass.
Application December 19, 1957, Serial No. 703,824
2 Claims. (Cl. 33—147)



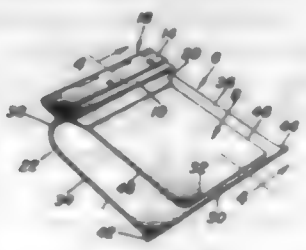
1. A tool of the class described comprising in combination, an elongated body, a dimension bar secured in and extending from one end of said body, a plunger reciprocable in an opposite end of said body and having a flange outside the said opposite end of said body and a dimension bar extending outwardly therefrom, said plunger and dimension bars being in axial alignment, sizing screws adjustable in the outer ends of said dimension bars and having outer crowned ends and being on the longitudinal axes of said bars, nuts on said screws for abutting outer ends of said bars for locking said screws in adjusted positions, a post for a dial gauge fixed to and extending outwardly from said body transversely relative to the axes of said bars, said body provided with a bore to receive the actuating lever of a dial gauge for engagement with the inner end of said plunger, a spring between said opposite end of said body and flange for urging said plunger outwardly, and means limiting outward movements of said plunger.

2,873,534

RUBBER BASE TEMPLET

Clarke E. Purviance, Eugene, Oreg., assignor of forty percent to David F. Lentz, Eugene, Oreg.

Application November 14, 1956, Serial No. 622,173
3 Claims. (Cl. 33—174)



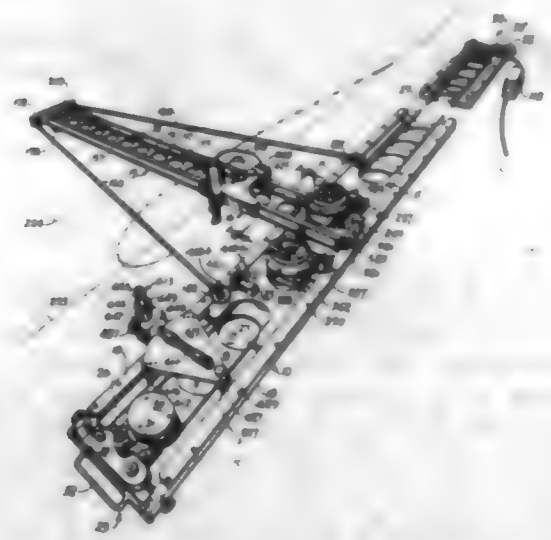
1. For use in clamping and releasably holding an end portion of a strip of a piece of molded rubber or composition base in a given position while enabling a user to lay out, miter, and otherwise fashion the terminal of said base for ready inside or outside corner-joint installation requirements a hand-type templet comprising a pair of plates generally rectangular and essentially flat superimposed one on the other and hingedly connected together and functioning to permit the end portion of said base to be sandwiched between the plates and clampingly held with one hand, the respectively opposite marginal end portions of said plates being formed with selectively usable spaced parallel left and right implement guiding edges primarily straight, as required, the top plate being narrower than the underlying bottom plate and centered on the bottom plate with its guiding edges spaced inwardly from the respective guiding edges on said bottom plate, the mating faces of said plates being contoured so that one face conforms to one face of the base and the other face conforms to the other face of said base, said top plate having marginal edges which are shaped to give an outside corner and the bottom plate having edges shaped to give an inside corner cut.

2,873,535

DRAFTING APPARATUS

Garland R. Gordon and Guy Savage, Jr., Fort Worth, Tex., assignors to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware

Application September 27, 1955, Serial No. 537,081
9 Claims. (Cl. 33—189)



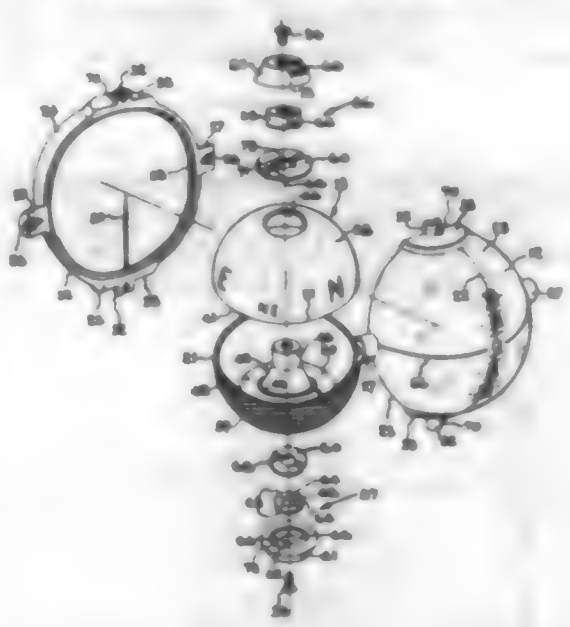
1. A drafting machine comprising a primary track, movable primary endless means having first position indicia thereon and normally fixedly carried by said primary track, a primary carriage movable along said primary track, a secondary track mounted upon said primary carriage, secondary endless means having second position indicia thereon and movably carried by said secondary track, a secondary carriage normally fixedly engaged with said secondary endless means and actuable thereby for movement along said secondary track, a primary control in operative engagement with said primary endless means and mounted on said primary carriage for effecting movement of said primary carriage along said primary track, and a secondary control mounted on said secondary track and in operative engagement with said secondary endless means for effecting movement of said secondary endless means, said first position indicia and said second position indicia serving to indicate the moved positions, respectively, of said primary carriage and said secondary carriage.

2,873,536

COMBINED COMPASS, INCLINOMETER AND ACCELEROMETER

Frederic L. Rieger, Dayton, Ohio, assignor to Thermometer Corporation of America, Springfield, Ohio, a corporation of Ohio

Application March 24, 1955, Serial No. 496,488
10 Claims. (Cl. 33—225)



8. In a compass, a housing of non-magnetic material, a main magnet journalled for movement about a vertical axis in said housing, means for compensating said main magnet for semicircular deviation comprising compensating assemblies supported in fixed relation to said housing at positions above and below the main magnet, each of said compensating assemblies comprising a compensating magnet mounted so that its poles pivot about an axis parallel to the axis of rotation of the main magnet, a non-magnetic member rigidly positioned on said housing, a shield of magnetically permeable material supported on said non-magnetic member having a non-magnetic gap which in the upper compensating assembly is disposed at an angle of 90 degrees relative to disposition of the non-magnetic gap in the lower compensating assembly, and means mounting said compensating magnets on the sides of said shields remote from said main magnet.

2,873,537

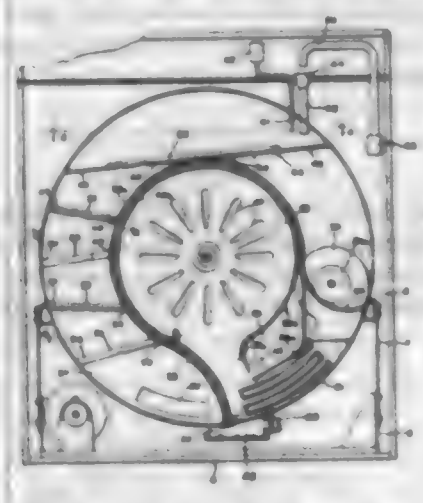
COMBINATION WASHER AND DRYER WITH CONDENSER MEANS

Walter E. Gray, Jr., Erie, Pa., and Otis P. Falkenstein, Jeffersonville, Ind., assignors to General Electric Company, a corporation of New York

Application December 19, 1956, Serial No. 629,384
5 Claims. (Cl. 34—75)

1. A combination clothes washing and drying machine comprising an imperforate casing, a vertically extending partition dividing said casing into front and rear compartments, a perforated clothes drum mounted for rotation in said front compartment, and an air inlet opening from said rear compartment through said partition into said front compartment and an air outlet opening from said front compartment through said partition into said rear compartment, means including a blower and duct

means in said rear compartment for circulating air through said openings and said compartments in a closed path during the drying operation of said machine, thereby to pass air through said drum to dry the clothes therein, a heater disposed between said blower and said air inlet opening in said partition, a condensing means upstream from said heater for condensing moisture from said moist air leaving said front compartment, a water inlet for introducing water into said condensing means, said condensing means including a plurality of water trays disposed one above the other in said duct means,



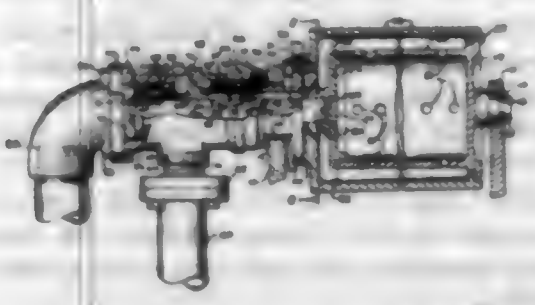
alternate ones of said trays slanting in one direction and intermediate trays slanting in the other direction to cause condensed water to flow in cascade-fashion from the upper end of one tray along said tray to the upper end of the next lower tray, each of said trays having a plurality of dams formed transversely of the length thereof to cause said condensate water to flow in a serpentine path thereon, said trays also arranged within said duct to cause said air stream to flow in a tortuous path over said trays, and drain means in the lower portion of the casing for draining said condenser water and said wash water from said machine.

2,873,538

LIQUID-TIGHT AND GAS-TIGHT ROTATING TUBULAR JOINTS

Ephraim H. Shumaker, Sterling, Ill., assignor to Rotherm Engineering Company, Inc., Chicago, Ill., a corporation of Illinois

Application July 27, 1956, Serial No. 600,466
6 Claims. (Cl. 34—124)



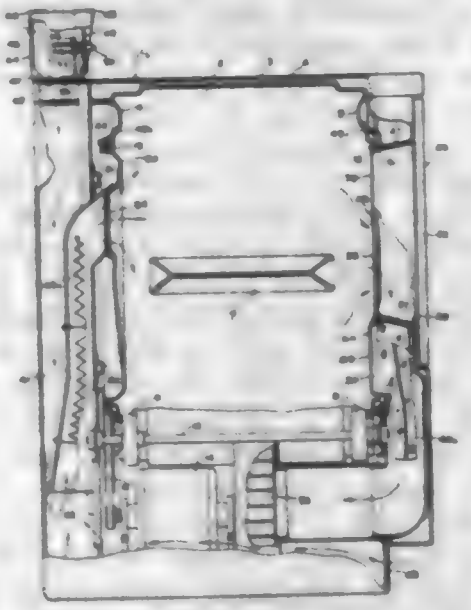
1. A rotating liquid-tight and gas-tight joint assembly comprising a support provided with bearings, a steam-heated rotating member rotatably mounted on one of said bearings and having a hollow trunnion provided with a bore, said trunnion being provided at its inner end with a radially extending thrust flange having a plane surface on its end, a second rotating member rotatably mounted on one of said bearings and located in the first rotating member, said second rotating member having a tube carried by its end and located in said trunnion bore, said tube being provided at its end with a radially extending thrust flange having a plane thrust surface, a main housing comprising a substantially tubular metal member provided with a pair of counterbores, one at each end, and each counter-bore surrounding said thrust flanges and tube and having a spring seat, and said housing having a first laterally extending conduit for connection to a fixed pipe, said housing also having at the end of said tube, a closure member with a second conduit adapted to be attached to another fixed pipe, the first of said conduits being used for conveying condensate out of said rotating members, and the second of said conduits being used for conveying steam into said rotating members, a floating rigid carbon graphite annular member located in each of said counter-bores and having a plane annular surface slidably engaging each of said thrust flanges, said floating member having provided on its inner side, in each case, with an annular partially spherical surface, a metal follower member for engaging each of said floating members, the metal follower member, in each case, having a concave annular partially spherical surface engaging said floating graphite member, said follower member, in each case, having an outer curved surface forming an outwardly tapering groove between the follower member and the counter-bore, and a non-metallic, flexible, resilient, thin, wedge shaped annular sealing member located in each of said tapering grooves and engaged by a spring reacting against its seat, in each case, for establishing a liquid-tight seal between the follower and the walls of its counter-bore, in each case.

2,873,539

CLOTHES DRYER WITH CLOTHES ODORIZING MEANS

Everett D. Morey, Louisville, Ky., assignor to General Electric Company, a corporation of New York

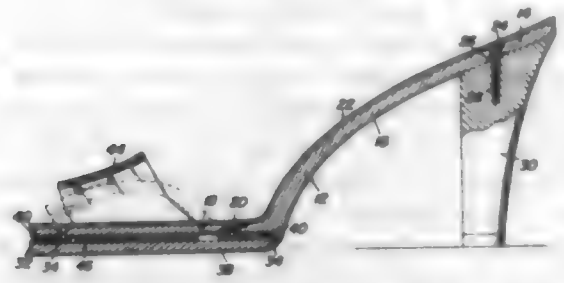
Application February 27, 1958, Serial No. 718,058
3 Claims. (Cl. 34—133)



1. A clothes drying machine comprising a clothes tumbling receptacle; inlet and outlet air conduits leading respectively to and from said receptacle; a heater in said inlet conduit; an air circulating device for forcing air over said heater through said conduits and said receptacle; a housing cabinet enclosing said receptacle, said conduits, said heater, and said air circulating device; means on said cabinet forming openings therein communicating with each of said conduits respectively; a backsplasher housing secured to said cabinet; means on said backsplasher housing forming one opening communicating with atmosphere and a second opening communicating with the interior of said cabinet and said inlet conduit means, at least one of said backsplasher housing openings being substantially smaller than either of said cabinet openings; and an airtight pressurized container of clothes treating fluid mounted on said backsplasher housing, said container having a normally closed valve outlet within said backsplasher housing and having manually operable means outside said backsplasher housing for opening said valve outlet to spray atomized fluid into said backsplasher housing, the air flow from

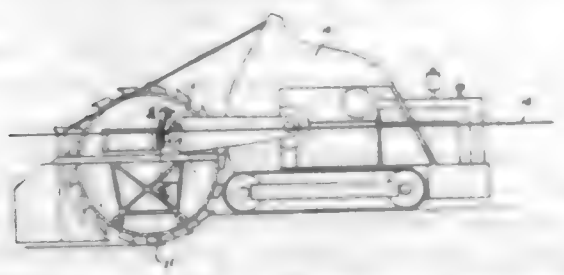
said backsplasher housing into said cabinet being small relative to the flow through said receptacle because of the relative dimensions of said openings and being proportioned to carry the fluid sprayed out of said container into contact with the clothes substantially throughout the drying operation.

2,873,540
SHOE WITH CHANGEABLE ELEMENTS
Venus Ramey Murphy, Stanford, Ky.
Application August 2, 1955, Serial No. 526,021
1 Claim. (Cl. 36—2.5)



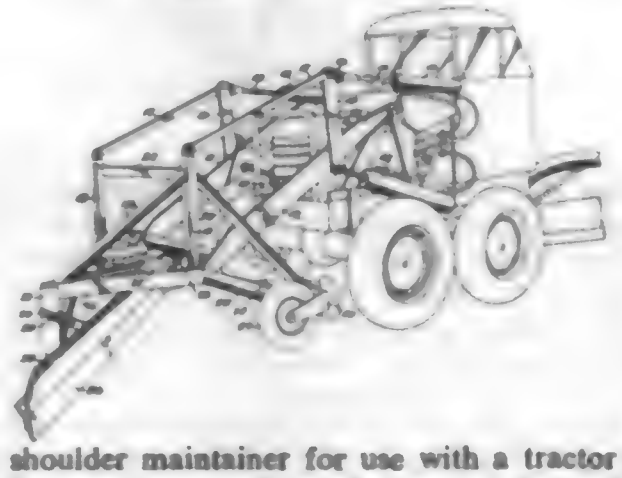
A shoe construction comprising an elongated main sole including a heel portion, a shank portion, and a generally horizontal ball portion, a depending supporting heel on said heel portion, means detachably connecting said heel to said heel portion of the main sole for permitting replacement thereof, an outer sole underlying the ball portion of the main sole and generally coextensive therewith, said outer sole having an inner edge generally in registry with the juncture between the ball portion and the shank portion, means for detachably securing said outer sole to the ball portion of said main sole, and a detachable upper for receiving the forward portion of a foot, said means for securing the outer sole to the main sole including a pair of longitudinally spaced and aligned brackets on the undersurface of the main sole, each of said brackets having a projecting plate extending longitudinally of the main sole in spaced parallel relation thereto, said plates extending from said brackets in opposite directions, a pair of longitudinally spaced and aligned loop-shaped brackets on the upper surface of said outer sole for sliding interlocking engagement with the plates on the main sole, the ball portion of the main sole being resiliently flexible for permitting the distance between the plates to be shortened for engaging the plates with the loop-shaped brackets, said upper being generally cylindrical and provided with a longitudinal resilient insert with a portion of the upper having the insert being frictionally retained between the main sole and outer sole for permitting replacement of the upper and variation in effective size thereof.

2,873,541
CONTROL MEANS FOR ESTABLISHING PREDETERMINED SURFACES
Kay E. Eliason, Jefferson, Iowa
Application January 16, 1956, Serial No. 559,420
7 Claims. (Cl. 37—97)



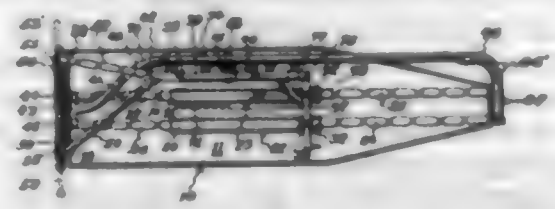
1. In combination, a wheel supported machine having an electrically controlled vertically adjustable ground surface processing unit, a supported metallic wire independent of said machine, a source of electric energy, and a surface control device, comprising, two spaced apart metallic rod members operatively secured to said machine and extending above and below said supported wire respectively; an electric conductor slidably engaging said supported wire and operatively electrically connected to said source of electric energy and said unit, an electric circuit associated with said source of electric energy, one of said rods and said electrically controlled vertically adjustable ground surface processing unit whereby when said rod is engaged by said supported wire said unit will be lowered relative to said machine, and a second electric circuit associated with said source of electric energy, said other rod and said electrically controlled vertically adjustable ground surface processing unit whereby when said other rod is engaged by said supported wire said unit will be raised relative to said machine.

2,873,542
TRACTOR MOUNTED SHOULDER MAINTAINER
James B. Codlin, Deerfield, Ill., assignor to Tractomotive Corporation, Deerfield, Ill., a corporation of Illinois
Application August 5, 1953, Serial No. 372,542
2 Claims. (Cl. 37—155)



1. A shoulder maintainer for use with a tractor comprising linkage connected to the tractor for swinging in a vertical plane and including vertically spaced substantially parallel links, a frame connected at vertically spaced points thereon to the links, the linkage maintaining the frame in substantially the same angular position relative to vertical and horizontal planes therethrough regardless of the elevation thereof, a blade carried by the frame at an acute angle to said vertical plane as projected on a horizontal plane, one end of the blade terminating at a point longitudinally beyond the frame and the other end at a point longitudinally between the frame and the tractor, a ground-engaging wheel carried by the frame on an axis parallel to said vertical plane to support the frame above the ground, said other end of the blade lying substantially in alignment with the axis of the wheel, and power means operable from the tractor to shift one of the links lengthwise to tilt the frame about a horizontal axis thereby to change the angle of the blade to the horizontal, the wheel maintaining said other end of the blade at a substantially constant distance above the ground as the frame is tilted.

2,873,543
IRONING BOARD AND AUTOMATICALLY UNFOLDING SUPPORTING LEGS THEREFOR
Alpha Perry Lantz, Washington, D. C.
Application January 13, 1954, Serial No. 403,690
9 Claims. (Cl. 38—121)



1. In an ironing table including an elongated board having forward and rear edges, large and small ends, a

supporting means for the table comprising a pair of pivotally interconnected leg elements positioned adjacent the rear edge of said table, said leg elements crossing near their mid-points and projecting downwardly below the table and in the direction of the ends thereof, said leg elements having substantially straight portions intermediate their ends, the upper ends of said leg elements curving upwardly and obliquely toward the central longitudinal axis of the table, the upper ends of the leg elements terminating in tubular T-heads extending transversely of the table, means for hingedly connecting the T-head of one leg element adjacent the larger end of the table; a pair of guides on the under surface of the table intermediate the ends thereof and terminating short of said ends and, extending longitudinally thereof, detent means extending along one guide, slides operable in said guides, means hingedly connecting the second T-head to said slides, said leg elements being substantially cylindrical in cross section, one leg element terminating in an elbow foot portion extending transversely of the table, the lower portion of the second leg element extending downwardly obliquely below the board and terminating in a foot portion extending transversely of the table, said lower portion having a branch connection to the other end of the foot portion, locking means slidably and rotatably mounted in said second T-head for cooperating with said detent means.

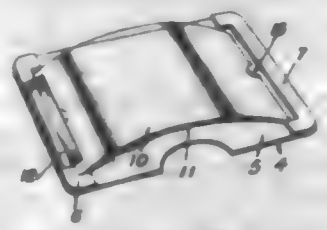
2,873,544
IRONING BOARD COVER
Thomas G. Boman, Pataskala, Ohio
Application February 16, 1954, Serial No. 410,505
1 Claim. (Cl. 38—140)



An ironing board cover of the class described comprising, a piece of material having a hem extending completely therearound, said hem having openings at either end thereof, and three openings along each side thereof, an elastic extending completely around the hem and having its ends fastened together so as to tension the elastic when the cover is initially placed upon its board, each of the several openings being of sufficient size to receive a bight portion of the elastic which is passed therethrough, hook means for each of the said bights, each hook means having a hole therein to slidably receive the elastic and a hook portion for engaging either another hook portion or a portion of the said board, the elastic being of sufficient length to permit the hooks from oppositely disposed bights to be hooked together, and also to permit each of the end hooks to be hooked onto the adjacent set of the side hooks.

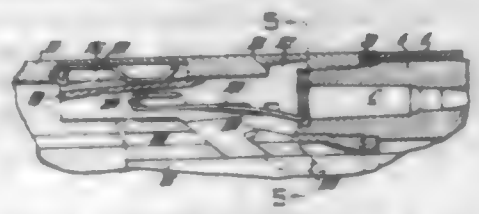
2,873,545
THREE DIMENSIONAL PICTURE
Alfred E. Noel, San Diego, Calif.
Application June 3, 1954, Serial No. 434,211
1 Claim. (Cl. 40—160)

A picture device comprising a rigid rectangular base having at one end a U-shaped frame member, a pair of transparent rectangular superposed sheets of flexible material having corresponding ends fitting in said frame member and adhesively hingedly secured together and to said frame member, said sheets having pictures delineated thereon in relatively offset relation for three-dimensional viewing thereof through said sheets, and a tab on the other end of said base under which the other ends of



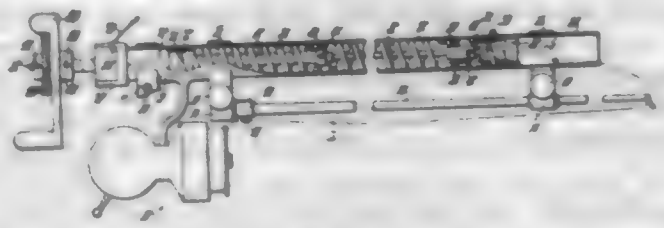
said sheets are inserted, said tab being spaced from said adhesively secured ends of said sheets a distance less than the length of the sheets to arch said sheets upwardly for admitting light onto the same to facilitate viewing therethrough, said hinged ends providing for upward arching of said sheets without bending the sheets at said hinged ends, and said frame and tab holding said sheets in arched engaging position.

2,873,546
FIREARM
Harold D. Allyn, Springfield, Mass.
Application June 25, 1957, Serial No. 667,892
8 Claims. (Cl. 42—25)



1. In a firearm having a barrel and receiver and breech bolt reciprocable in the receiver and a rim retainer mounted in the breech bolt and being engageable with the rim of a shell for supporting the shell relative to the barrel, the improvement in a self-retaining ejector comprising, an elongated spring-like wire member bent intermediate its ends in the form of a horizontally disposed U having rearward free extremities in the form of transversely extending ears pivotally receivable in complemental slots in the receiver, the U portion of said wire member defining a finger extending from the points of pivotal engagement with the receiver forwardly and inwardly toward the center of the receiver in position for yieldingly pressing downwardly onto the breech bolt as the breech bolt is in the forward position and for resilient engagement with the outer circumference of a shell being extracted from the barrel and being engaged by the rim retainer as the breech bolt is moved rearwardly thereby to yieldingly deflect the extracted shell from the receiver.

2,873,547
CASTING DEVICE
George Coelho, Elizabeth, N. J.
Application August 29, 1957, Serial No. 680,966
1 Claim. (Cl. 43—19)



A gun mechanism attachable to and supported by a reel-equipped fishing rod for projecting a combination

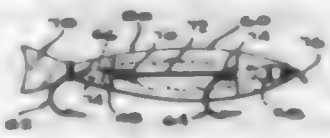
line and sinker forwardly therefrom without a casting movement of the rod comprising, a plurality of clamps securable at longitudinally-spaced positions along the fishing rod, an open-ended barrel releasably supported by the clamps of said plurality thereof in spaced parallelism with the fishing rod, a compressible spring constrained to straight fore and aft movements within said barrel between an extended fixed position and a compressed ready-to-fire position, said barrel having an elongated longitudinal slot through the wall thereof, a firing pin fixed to said spring and being reciprocal therewith within said barrel between fixed and ready-to-fire positions, a guide means fixed to said firing pin and having an upstanding extremity slidably receivable within the slot in said barrel for the control of movement of said firing pin between the fired and ready-to-fire positions, an elongated rod longitudinally disposed within said spring and disengageably connected to said firing pin, a screw cooperating with said rod for compressing said spring and retracting said firing pin into ready-to-fire position, said screw being disposed within said spring and provided with a longitudinal bore through which said rod is receivable, a bifurcated receiver securable within said barrel at the rearmost extremity thereof, the rear extremity of said spring being fixed to said receiver, a rotatable handle fixed to said screw for effecting the rotation thereof, a spring actuated trigger pivotally mounted in the slot of said receiver and having a lower end releasably engageable with said screw and an upper finger for manually maintaining said trigger in locking engagement with said screw whereby said screw and rod and firing pin may be retracted rearwardly under compression relative to said barrel preparatory to the release of said firing pin from said rod for the release of said spring from its compressed position and the forward propulsion of said firing pin forwardly to strike the sinker and project the same with the line thereon for casting purposes.

2,873,548
TRIPLE FISH HOOK
Joseph H. Reeder, Bayside, N. Y.
Application November 25, 1957, Serial No. 698,676
3 Claims. (Cl. 43—37)



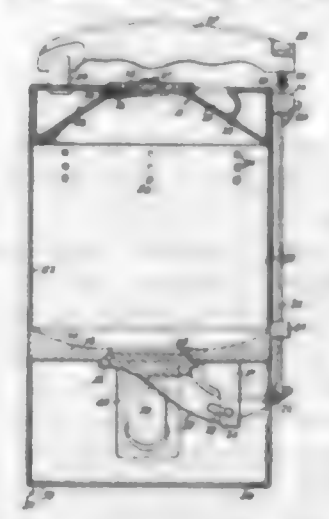
1. A triple action trap hook comprising; in combination, a rigid main shank having means at one end for securement to the end of a flexible line, a pair of arms rotatably supported each at one end upon the opposite end of said main shank from said line securing end, a yoke supported slidably upon said arms, a main hook, means supporting said hook upon said yoke intermediate said arms, spring means secured at one end to said main shank and at the opposite end to said arms normally urging said arms in a direction away from said main hook, said arms being rotatable between an open position substantially perpendicular to said main shank and a closed position substantially parallel thereto, said spring means comprising a pair of tension coil springs, said one end of each of said tension coil springs being secured to said shank, and the opposite end of said tension coil spring comprising a ring slidably receiving said respective arms.

2,873,549
ADJUSTABLE ARTIFICIAL LURES
Dana W. Bartlett, Bar Harbor, Maine
Application June 22, 1956, Serial No. 593,291
1 Claim. (Cl. 43—42.22)



An adjustable artificial fish lure comprising a first and a second fishhook, each of said fishhooks having a shank having forward and rear ends, a leader attaching eye on said forward end of each fishhook, a barbed portion on the rear end of each of said fishhooks, a longitudinal cord having one end secured to the forward end of the shank of said first fishhook and having the other end secured to the rear end of the shank of said second fishhook, a single feather having a spine having a forward end, said feather extending along the shanks and trailing behind the shank of said second fishhook, a first winding securing the forward end of the spine on the shank near the eye of said first fishhook, a second winding circumposed on said feather and the shank of said second fishhook at the rear end of the shank and securing the feather to said second shank, said second winding embracing said feather so as to define a body portion forwardly of the second winding and a tail portion behind the second winding, a coating enclosing the tail portion and the body portion, said coating being normally hard and relatively rigid but capable of being temporarily softened by immersing in hot liquid to enable reforming the body and/or tail portions and angulating the tail portion relative to the body portion and capable of resuming its hard and relatively rigid form upon cooling and drying, and a barb on the rear end of the shank of said second fishhook, said first winding being on the forward end of the shank of said first hook, and said second winding being on the rear end of the shank of said second hook.

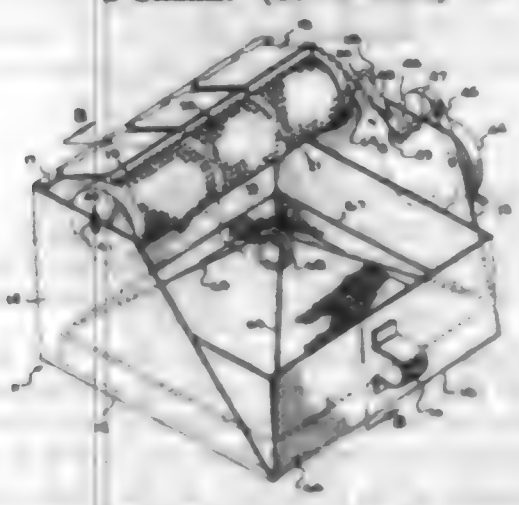
2,873,550
MINNOW BUCKET
Cecil A. Wooldridge, Tulsa, Okla.
Application August 28, 1957, Serial No. 679,197
2 Claims. (Cl. 43—57)



1. In a fish holding device, a hollow container including an annular side wall, a bottom wall provided with a central opening therein, means for pivotally mounting a plug on said bottom wall adjacent said opening for movement into and out of closing relation with respect to said opening, said means comprising a support member depending from said bottom wall, and an arm secured to said plug and pivotally connected to said support member, a vertically disposed rod having its lower end pivotally connected to said arm, bearing blocks on said side wall engaging said rod for maintaining said rod in parallel relation to said side wall, a handle pivotally connected to the upper end of said rod and provided with a slot

therein defining a lip, and a lug extending upwardly from the top of said container and provided with a finger for selective engagement by said lip.

2,873,551
INSECT TRAP
Stephen R. Misko, New Orleans, La.
Application September 27, 1957, Serial No. 686,773
2 Claims. (Cl. 43—111)



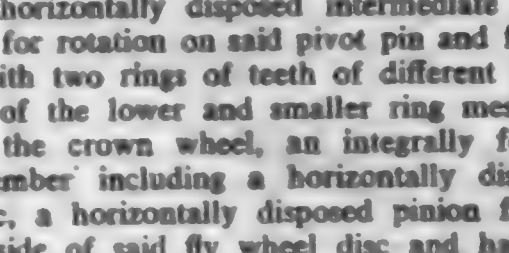
1. In an insect trap, a support, a perforated cylinder adapted to contain bait material journaled on said support, a trap receptacle beneath said cylinder, a scraping blade mounted on said support and engaging the surface of said cylinder substantially along its entire length, an electric motor mounted on said support, outwardly projecting escapement lugs mounted on and spaced evenly around said cylinder, a stop member mounted on said support transverse to the plane of said lugs and outwardly adjacent said escapement lugs, and a resilient escapement arm drivingly connected to said motor and being engageable with said stop member, said arm being formed and arranged to intermittently disengage from said stop member and strike one of said lugs, whereby to intermittently rotate said cylinder.

2,873,552
DETACHABLE NESTABLE THREE-PIECE MUSIC STAND
Richard Jewell, Seal Beach, Calif.
Application February 26, 1957, Serial No. 642,490
2 Claims. (Cl. 45—121)



1. A detachable, nestable, three-piece stand including a disc-like base member, a vertical cylindrical standard, a head affixed to the upper end of said standard, said head having at least one planar face, a relatively short flat-topped key centrally affixed to the planar face of said head, said key having two non-parallel opposing sides presenting a V-shape when viewed from the top and a truncated V-shape when viewed in cross-sectional elevation, and a desk member composed of substantially rigid and relatively thin sheet material formed to present upper and lower surfaces of substantially identical configurations whereby a plurality of desks formed identically to said desk may be nested together in such manner that the upper surface of one desk contacts substantially all of the lower surface of the upwardly adjoining desk, said desk having a centrally located V-shaped aperture formed to receive said key, and the material forming the V-like edges of said V-shaped aperture having a slightly upward slope from the surrounding material constituting the desk.

2,873,553
DRIVING MECHANISM FOR TOYS
Henry Ullman, Northampton, England, assignor to The Mettoy Company, Northampton, England, a British company
Application March 15, 1957, Serial No. 646,286
2 Claims. (Cl. 46—209)

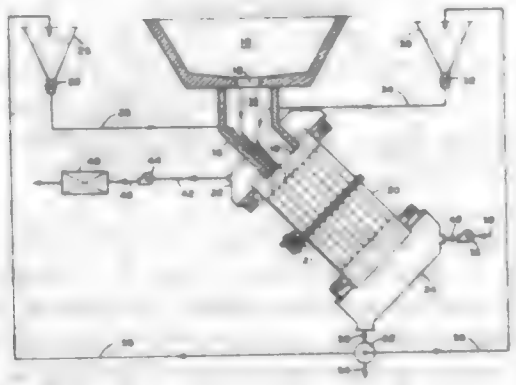


1. A toy vehicle comprising a base plate extending substantially horizontally from front to rear of the vehicle and including a transversely extending upwardly arched portion providing a transversely extending groove on the underside of the vehicle and having at its crest a centrally disposed upwardly projecting pivot pin, said base plate being formed with an aperture intersecting said arched portion to one side of said pivot pin and with an integral upwardly projecting hollow boss disposed forwardly of said arched portion and constituting a substantially cylindrical cup, a bearing ball having a diameter slightly less than that of said cup resting freely in said cup, a bridge member secured at its ends to the upper side of the base plate at points forward of said cup and rearward of said arched portion respectively, an intermediate portion of said bridge member being spaced upwardly from the upper surface of the base plate and being formed with an aperture located vertically above said cup, a horizontal transversely disposed axle fitting rotatably within said groove and projecting at its ends beyond the base plate, a pair of road wheels fast on the two ends of said axle, a crown wheel fast to said axle at a point intermediate its ends with the upper part of its periphery projecting through said aperture in the base plate, a downwardly dished cover member secured against the underside of the base plate to close said groove and retain said axle therein and to enclose the lower part of the periphery of the crown wheel, a horizontally disposed intermediate gear disc supported for rotation on said pivot pin and formed integrally with two rings of teeth of different diameters, the teeth of the lower and smaller ring meshing with those of the crown wheel, an integrally formed fly wheel member including a horizontally disposed fly wheel disc, a horizontally disposed pinion formed on the underside of said fly wheel disc and having teeth meshing with those of the larger and upper ring of said intermediate gear disc, and a pair of aligned vertical stub spindles, the one projecting downwardly from the underside of said pinion and resting with its lower end upon said bearing ball, whereby to support said fly wheel member, and the other projecting upwardly from the upper face of said fly wheel disc and passing rotatably through said aperture in the bridge member, whereby to maintain the axis of said fly wheel member vertical.

2,873,554
APPARATUS FOR AND A METHOD OF RECOVERING HEAT FROM MOLTEN SLAG
Andreas Sifrin and Hermann Hennecke, Oberhausen, Rhineland, Germany, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application May 15, 1956, Serial No. 584,916
14 Claims. (Cl. 49—1)

1. The method of recovering heat from a stream of molten slag formed by the burning of a solid fuel which

comprises introducing the stream of molten slag into direct heat transfer relation with a stream of granulated slag so that the molten slag gives up a substantial portion of its latent heat of fusion to the granulated slag, causing the resulting slag mass to break and granulate while passing a stream of air in direct heat transfer relation therewith to absorb a substantial portion of the heat content of the slag, thereby producing a descending temperature gradient in the slag and an ascending temperature gradient in the air stream, and collecting and removing the slag thus cooled.



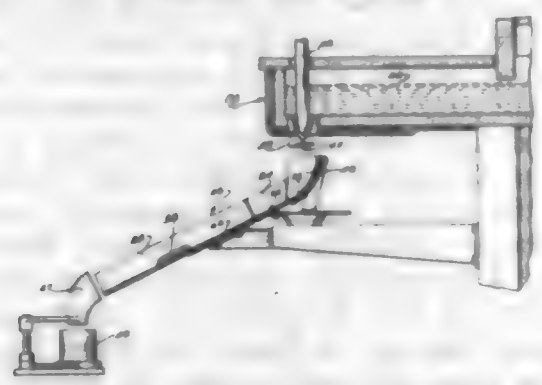
8. Apparatus for recovering heat from a stream of molten slag formed by the burning of a solid fuel which comprises means for introducing a stream of molten slag in direct heat transfer relation with a stream of granulated slag so that the molten slag gives up a substantial portion of its latent heat of fusion to the granulated slag, means for causing the resulting slag mass to break and granulate, means for passing a stream of air in direct heat transfer relation with the slag while being broken and granulated to absorb a substantial portion of the heat content of the slag, thereby producing a descending temperature gradient in the slag and an ascending temperature gradient in the air stream, and means for collecting and removing the slag thus cooled.

2,873,555

CHUTE FOR CONVEYING MOLTEN GLASS

Keith Conrad, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application January 27, 1954, Serial No. 406,398
4 Claims. (Cl. 49—14)



1. Apparatus for receiving and delivering a gob of molten glass which comprises a chute structure having an inclined glass guiding surface, and heat-bonded to said surface a coating consisting essentially of an intimate mixture of a thermo-setting resin, graphite, and not less than 10% by weight nor more than 50% by weight of sulphur.

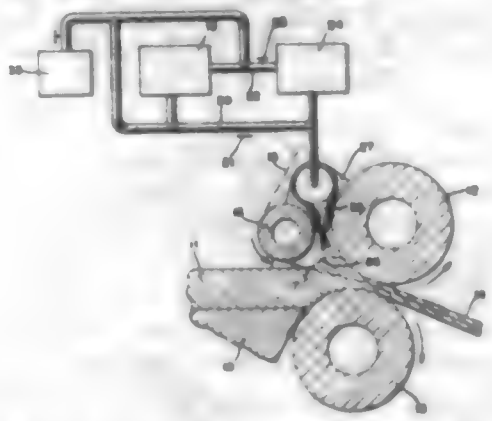
2,873,556

PROCESS OF MAKING ARMORED GLASS

Georg Hainke, Stolberg, Germany, assignor to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain Chauny & Cirey, Paris, France

Application June 17, 1954, Serial No. 437,429
Claims priority, application France June 22, 1953
8 Claims. (Cl. 49—86)

7. The method of making armored glass that comprises delivering a mass of molten glass to sheet-forming machinery, enclosing armor in the glass before the glass reaches the sheet-forming machinery, maintaining through the armor at the place where it enters the glass mass a flow of non-oxidizing gas so directed as to sweep oxidizing gases out of the armor, and maintaining the armor in the flow of non-oxidizing gas until it has become submerged in and covered by the glass.



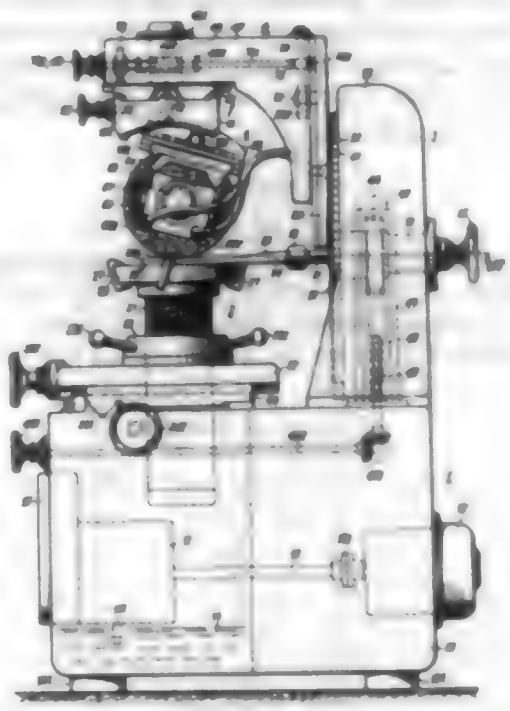
8. A method of making armored glass that comprises enclosing the armor in a non-oxidizing atmosphere, heating the armor while enclosed in said non-oxidizing atmosphere to a temperature higher than that which it naturally attains by reason of its proximity to the glass, and maintaining the armor in said non-oxidizing atmosphere until it is embedded in the glass.

2,873,557

GRINDING MACHINE

Adolf Markle, Tubingen, Germany, assignor to Firma Montanwerke Walter Aktiengesellschaft, Tubingen, Germany

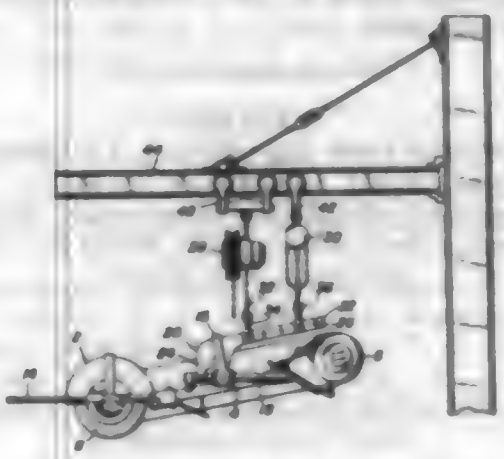
Application December 13, 1954, Serial No. 474,761
16 Claims. (Cl. 51—33)



1. In a grinding machine, in combination, a machine base; a turnable supporting member turnably mounted on said machine base for turning movement about an axis; a support mounted on said machine base and adapted to support a cutter having a face including two straight face portions and a curved face portion connecting said straight face portions and having a center of curvature adapted to be arranged in said axis; a supporting arm mounted on said turnable member movable in radial direction with respect to said axis; first slide means mounted on said supporting arm for rectilinear movement in a direction transverse to the direction of said axis; second slide means mounted on said first slide means for oscillating movement in the direction of movement of said first slide means; grinding means supported on said second slide means and adapted to engage said face of the cutter and to move along said straight face

portions during movement of said first slide means and to move along said curved face portion of the cutter during turning of said turnable supporting member about said axis while oscillating with said second slide means; adjusting means for adjusting the position of said supporting arm on said turnable member; first operating means for moving said first slide means; second operating means for oscillating said second slide means on said first slide means at a speed higher than the speed of movement of said first slide means; and third operating means for turning said turnable supporting member.

2,873,558
SWING GRINDER SUSPENSION
Richard Olsen, Chicago, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
Application September 10, 1957, Serial No. 683,099
1 Claim. (Cl. 51—99)



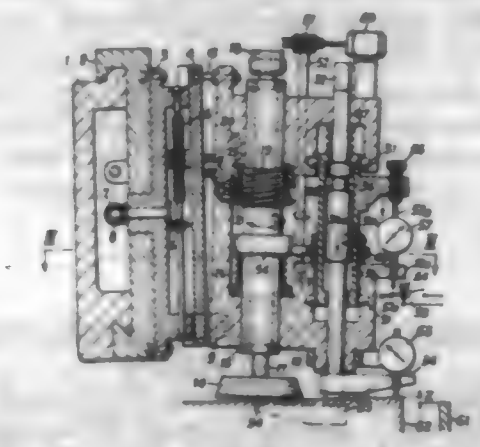
In a swing grinder adapted to be hung by a first and second suspension means from an overhanging support, said grinder having an elongated frame, a motor carried by said frame adjacent one end thereof, a grinding wheel rotatably journaled on said frame adjacent the end thereof remote from said motor, and a suspension bracket pivotally mounted on said frame adjacent the center of gravity thereof the improvement therewith of a substantially L-shape fulcrum arm attached to said bracket, the long leg of said L-shape fulcrum arm extending substantially parallel with said frame toward said motor, the short leg of said L-shape fulcrum arm extending substantially normal to said long leg on the side of said bracket toward said grinding wheel, said short leg normally engaging said frame, said long leg of said fulcrum arm having a plurality of attaching means along the length thereof for selectively receiving said first suspension means substantially at the center of gravity of said frame and said second suspension means at a selected position between said center of gravity and motor end of said frame.

2,873,559
FIN GRINDING MACHINE
William M. Sherts, Sewickley, Jack E. Tatnak, Templeton, and Walter E. Zarney, Kittanning, Pa., assignors to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application October 18, 1957, Serial No. 690,975
1 Claim. (Cl. 51—135)



Apparatus for removing fins and projections on a molded glass article formed during a molding operation comprising, an inclined table for receiving such glass articles with the fins or projections in contact with its surface, means defining a transverse trough in said table, an endless flexible abrasive belt received in said trough with its upper surface substantially level with said table surface, means to move the articles across said belt with the fins or projections in contact therewith whereby the fins or projections are ground off, said means to move the articles comprising a vibrator connected to said table for imparting vibrations thereto, and means connected to said table for guiding the articles as they move across said belt.

2,873,560
GRINDING MACHINE
Otto Bretscher, Gerlafingen, Switzerland, assignor to Gesellschaft der Ludw. von Roll'schen Eisenwerke A. G., Gerlafingen, Switzerland, a Swiss company
Application August 9, 1954, Serial No. 448,461
Claims priority, application Switzerland August 10, 1953
16 Claims. (Cl. 51—165)

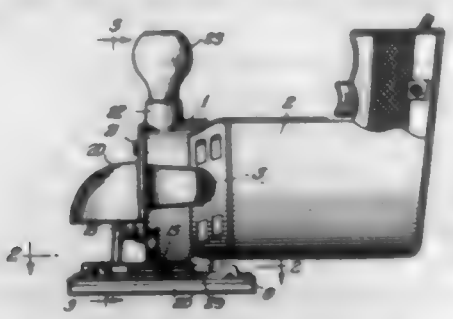


1. An apparatus for automatically feeding, in the direction of a workpiece, a grinding wheel of a grinding machine having a rest, and a dresser for trueing said wheel; comprising a first bush arranged in said rest for axial displacement relative thereto and constituting bearing means for said grinding wheel, said bearing means supporting said wheel for rotation about its axis while restraining movement of said wheel lengthwise of its axis, whereby said grinding wheel may be fed in the direction of said workpiece upon axial displacement of said first bush in one direction, a second bush arranged in said rest for axial displacement relative to said rest and parallel to said first bush, said second bush constituting bearing means for said dresser and supporting the latter for rotary and axial movement relative to said second bush and substantially coaxially therewith, whereby said dresser may be moved, respectively, toward and away from said grinding wheel upon axial and rotary movement with respect to said second bush for trueing said wheel in a predetermined position thereof, drive means operatively connected to both said first bush and said second bush for axially displacing same jointly equal distances in the same direction, whereby both said wheel and said dresser are moved axially to the same extent, gauging means operatively connected to one of said bushes for indicating the extent of displacement of said one bush in the direction of said workpiece and thus the extent of feed of said grinding wheel in the direction of said workpiece during grinding operation, and control means operatively interconnected between said gauging means and said drive means for interrupting operation of the latter upon attainment of a predetermined extent of feed of said grinding wheel corresponding to a predetermined extent of grinding of said workpiece.

2,873,561
SANDER
Aaron J. Levine, Chicago, Ill.
Application March 18, 1957, Serial No. 646,599
8 Claims. (Cl. 51—170)

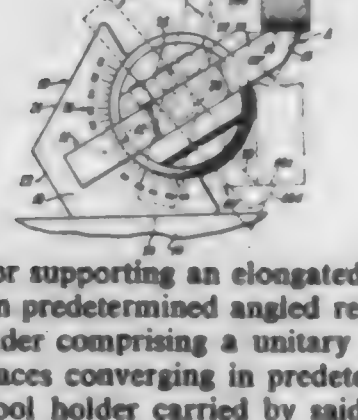
1. A power sander for attachment to the motor casing of a portable electric drill, comprising a bracket detach-

ably secured to the casing at the shaft end thereof and having a perforation through which the shaft projects; a driving wheel fixed upon the shaft and inclined with respect to the axis of the shaft; feet upon said bracket; a base plate; ribs upstanding from said base plate and engaging said feet to position the plate with respect to the bracket in a direction at right angles to the axis of



the shaft; means securing said base plate upon the bracket, said means permitting limited movements of the plate with respect to the bracket in directions parallel to the axis of the shaft; means for establishing a driving connection between said driving wheel and base plate; an abrasive member upon the base plate; and means for securing said abrasive member upon said base plate.

2,873,562
FIXTURE FOR HOLDING A TOOL SUBJECT TO GRINDING
Nicholas S. Stanford, North Hollywood, and Edward N. Bosco, Granada Hills, Calif.
Application August 2, 1956, Serial No. 601,677
9 Claims. (Cl. 51—220)



1. A fixture for supporting an elongated thread-cutting tool on a table in predetermined angled relationship with respect to a grinder comprising a unitary body having a pair of side surfaces converging in predetermined angled relationship, a tool holder carried by said body and rotatable about an axis substantially normal to a plane passing through corresponding side edges of said side surfaces and located in the plane bisecting the angle of said converging side surfaces, means for locking said tool holder in predetermined angled relationship with respect to said side surfaces, and means for rigidly fixing said tool with said tool holder in a position to extend transversely of said axis of said tool holder whereby a predetermined cutting edge can be formed on one end of said tool by shaping one face of said cutting edge when said tool is supported on said table on one of its side surfaces and the other face of said cutting tool can be formed when said body is turned over and supported on said table on its other side surface.

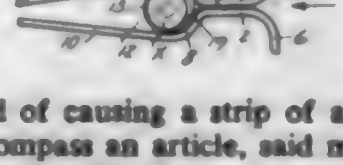
2,873,563
PUMPING APPARATUS FOR LAPPING MACHINE
George W. Thompson, Jr., West Allis, Wis., assignor to Empire Corporation, West Allis, Wis., a corporation of Wisconsin
Application November 14, 1956, Serial No. 622,069
4 Claims. (Cl. 51—263)

1. In a lapping machine, an apparatus for recirculating an abrasive suspension which comprises, a sump to contain an abrasive mixture, a disc mounted for rotation about the central axis thereof and disposed with a portion of the periphery thereof within said sump, means for rotating said disc through said sump with said mixture adhering to the disc and being lifted from the sump, tubular means disposed outside of the sump for remov-



ing said mixture from the disc and conducting said mixture to the lapping surface of the lapping machine, and means connected to a side surface of the disc and extending outwardly from said surface in an axial direction for continually agitating the mixture within the sump while the disc is rotating.

2,873,564
METHOD FOR WRAPPING AN OBJECT WITH ADHESIVE TAPE
Bernard E. Bogeshev, Minneapolis, Minn.
Application September 9, 1957, Serial No. 682,805
2 Claims. (Cl. 53—3)

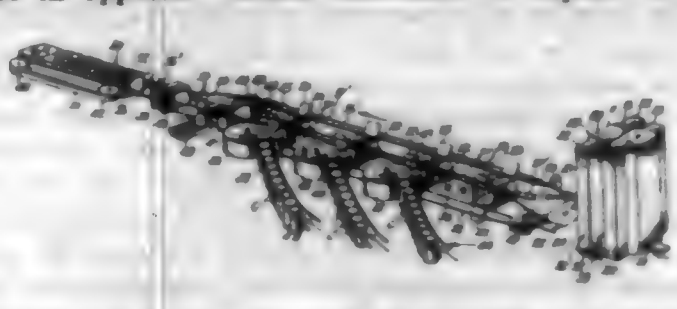


1. The method of causing a strip of adhesive tape to substantially encompass an article, said method comprising, first causing the initial engagement of said article with the adhesive surface of said strip of tape intermediate the ends thereof and in a manner to create relatively short and relatively long tongues which project angularly outwardly from the adjacent surface portion of the article in generally opposite directions, causing said article to pass between and through cooperating jaw elements which are biased in a direction toward engagement with each other, whereby through wiping action to cause said tape to partially encompass said article with said short tongue totally in adhesive engagement with said article and with the free end of said long tongue in adhesive engagement with one of said jaw elements, and while restraining said article against rotation causing said article to pass backwardly through said jaw elements whereby to cause disengagement of the free end of said relatively long tongue from said jaw element and wrapping engagement thereof with said article throughout its entire length.

2,873,565
METHOD AND APPARATUS FOR PACKAGING CANS AND THE LIKE
Lawrence E. Arneson, Morris, Ill., assignor, by mesne assignments, to Federal Paper Board Company, Inc., Bogota, N. J., a corporation of New York
Original application January 7, 1954, Serial No. 402,628. Divided and this application January 3, 1955, Serial No. 479,391
6 Claims. (Cl. 53—39)

4. A method of packaging cans and like articles in a collapsible paperboard container featuring hingedly articulated top, bottom and side panels and pairs of opposed end wall flaps hinged to opposite extremities of said top and bottom panels, comprising advancing a lowermost, flat, knocked-down container from a stack thereof with the flaps on said top panel trailing those on said bottom panel, engaging said top panel flaps from beneath the lower forward edges thereof and progressively elevating

said top panel and vertically restraining the bottom panel by slidingly engaging the same from above while continuing forward travel of said container whereby to urge said container toward a rectangular cross sectional outline, swinging a pair of corresponding top and bottom panel flaps in opposite vertical directions to expose an open



end of the container, inserting a complement of articles into said open end to completely fill the container and folding and sealing said corresponding end flaps in vertically overlapped relation by pressure applied along a longitudinal line and in a vertical zone of the package located substantially midway of its height.

2,873,566

MERCHANDISE CONTAINER AND METHOD OF MAKING A MERCHANDISE PACKAGE THEREFROM

John D. Sylvester, Garden City, and Edwin E. Messmer, Roslyn Heights, N. Y., assignors to Amsco Packaging Machinery, Inc., Long Island City, N. Y., a corporation of New York

Application July 1, 1957, Serial No. 669,253
3 Claims. (Cl. 53—29)



3. A method of making a merchandise package of the character described, which consists in first making a merchandise container in the form of a tubular body open at both ends and provided at one of said ends with a turned-back protective flap; said tubular body being made by arranging a pair of sheets of seamable container material in superposed relation with the side edges of one sheet in registry with the corresponding side edges of the other, providing a flap-defining elongation on one of said sheets at one end thereof and turning it back to overlie the adjacent end of the other sheet, and seaming together the contiguous side edges of said sheets and causing said seams also to engage the lateral edges of said turned-back flap; then introducing merchandise into said tubular body through the end opposite said flap; and finally seaming together the margins of said sheets at said filling end.

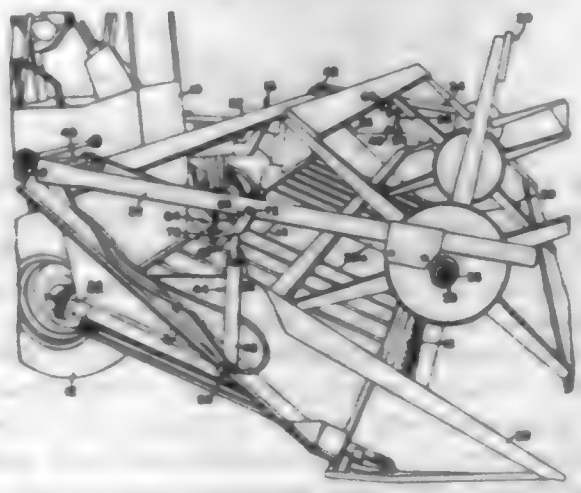
2,873,567

ADJUSTABLE REEL MOUNT FOR HARVESTER

Bernard F. Vogelaar and Carl W. Dalley, Moline, Ill., assignors, by mesne assignments, to Deere & Company, a corporation of Delaware

Application March 4, 1957, Serial No. 643,687
11 Claims. (Cl. 56—221)

1. Reel adjusting mechanism for a harvester having a frame and cutting mechanism carried thereby and a reel disposed over the cutting mechanism and supported at opposite ends respectively by a pair of reel supports vertically movably connected to the frame, comprising: a pair of force-exerting means carried by the frame respectively adjacent to the reel supports, each unit including a selectively vertically extendible and retractable force-transmitting member having a free end portion adjacent to the respective reel support; means for simultaneously actuating the force-exerting means to simultaneously extend or retract the force-transmitting members; a pair of means respectively connecting the unit members at their end portions to the reel supports, each connecting means including a connector element having a first end including a horizontal pivot to the associated reel support, an intermediate portion connected in force-receiv-



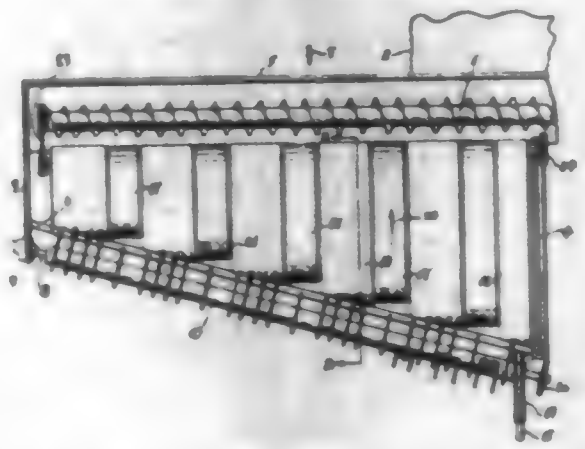
ing relation to the end portion of the associated member, and a second end portion spaced below the respective reel support, and each connecting means further including an adjusting device between the respective reel support and the second end portion of the associated connector element for swinging the connector element about its pivot to the reel support and thereby to vary the spacing between said reel support and the second end portion of said associated connector element whereby the reel supports may be selectively adjusted vertically independently of each other and independently of the force-exerting means.

2,873,568

GRAIN SWATH PICK-UP ASSEMBLY FOR COMBINES AND THE LIKE

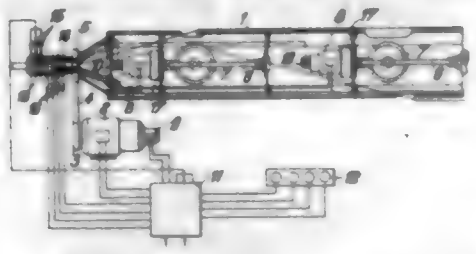
Adam H. Legary, Pilot Mound, Manitoba, Canada

Application October 5, 1954, Serial No. 460,433
1 Claim. (Cl. 56—345)



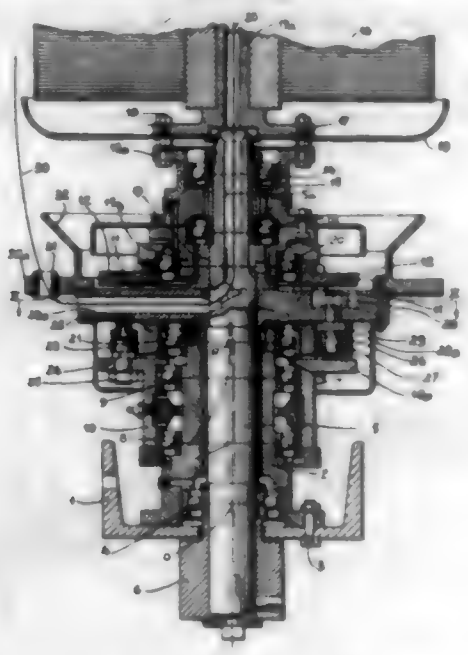
In a swath pick-up device for combines, the combination of a pair of spaced parallel side members of unequal length adapted to be secured at one end thereof to the front of a combine and extend forwardly therefrom, a cross member secured to the front ends of said side members and extending obliquely of the space between the same, an elongated pick-up drum rotatably journalled in the front ends of the side members and disposed forwardly of and parallel to said cross member, and a set of spaced parallel conveyor belts extending rearwardly from said cross member in the space between said side members and parallel to the latter.

2,873,569
STRANDING MACHINE ARRANGEMENT
Hans-Werner Schinke, Rheinhausen, and Helmut Otto Lutcke, Dusseldorf-Ratingen, Germany, assignors to Aktiengesellschaft fuer Unternehmungen der Eisen- und Stahlindustrie, Essen, Germany
Application November 28, 1956, Serial No. 624,837
Claims priority, application Germany December 6, 1955
6 Claims. (Cl. 57—58.32)



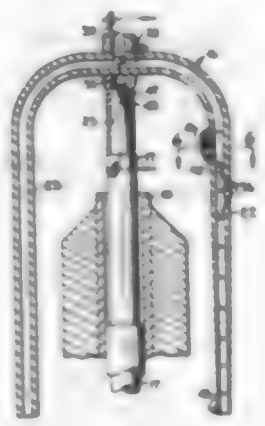
1. In a stranding machine for stranding cables and the like from a plurality of individual strands, a rotating body, a plurality of bobbins corresponding substantially to the number of strands to be used, cradle means supporting said bobbins and rotatably mounted in said rotating body, respective drive means for said rotating body and said cradle means, separate tacho-dynamometer means associated with each of said respective drive means, an electric control unit in circuit with said tacho-dynamometer means and said respective drive means, whereby rotation of said tacho-dynamometer means supplies a control current to said control unit wherein the measured value of the number of revolutions of the drive means corresponding to said control current is compared with a rated value to thereby indicate the speed ratio between the rotating body and the bobbins.

2,873,570
DOUBLE TWIST SPINDLES
Paul Sage, Caluire, France, assignor to Societe a responsabilite limitee: "Societe des Mecaniques Verdol," Lyon, France, a limited-liability company of France
Application April 4, 1957, Serial No. 650,781
Claims priority, application France April 12, 1956
6 Claims. (Cl. 57—58.72)



3. A double twist spindle for yarns and the like comprising a fixed supporting column; a spindle shaft rotatably carried by said fixed column to rotate about its own axis, said shaft being formed with a yarn passage extending from the upper end thereof to a point of the periphery of said shaft spaced from said upper end; a drum member rotatably mounted on the periphery of said fixed column to rotate about an axis substantially parallel to, but slightly spaced from the axis of said spindle shaft, said drum member being disposed below the lower end of said yarn passage; an upper annular member disposed above said drum member in co-axial and spaced relation therewith; means to connect said upper annular member with said drum member to cause same to form a single substantially rigid outer unit, said means leaving a lateral passage for the yarn issuing from the lower end of the yarn passage of said shaft; an intermediate support mounted on the upper end of said spindle shaft above said annular member so as to rotate relatively to said spindle shaft about the axis thereof, and also mounted on said annular member so as to rotate relatively to said member about the axis thereof, said intermediate support being thus retained stationary irrespective of the rotational movements of said spindle shaft and of said annular member, and said intermediate support being adapted to carry the yarn to be twisted; and a homokinetic joint interposed between said sprindle shaft and the outer unit formed by said annular member and said drum member to cause said unit to rotate in unison with said shaft.

2,873,571
FLYER
Elvin B. Robinson, Gastonia, N. C., assignor to Ideal Industries, Inc., Bessemer City, N. C., a corporation of North Carolina
Application April 7, 1955, Serial No. 499,863
12 Claims. (Cl. 57—117)

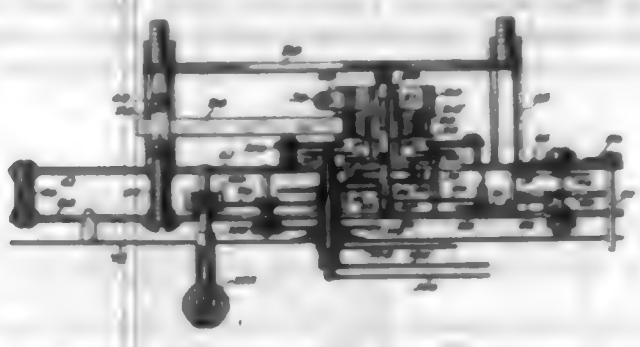


1. An improved flyer for roving frames and the like comprising a tubular body having opposite ends bent to extend in parallel relationship and in perpendicular relationship to the central portion of the tubular body to form first and second legs thereon, a pilot member fixed on the central portion of the tubular body, said tubular body having an opening in the side of the central portion opposite from said legs, said pilot member having an axially extending hole therein coinciding with the opening in the central portion of the tubular body, said first leg being tapered for at least a substantial part of its length and being of lesser diameter at its free end than the diameter of the remaining portion of the tubular body, said first leg also being provided with a slot extending throughout its length for threading a strand of roving into said leg and through the opening in the body and the first-named hole in the pilot member, and a presser assembly loosely mounted on the first leg of the tubular body and having a presser foot thereon for feeding the strand of roving from the free end of the first leg of the tubular body to a bobbin.

2,873,572
MOTOR-DRIVEN CLOCK
Thomas B. Gibbs, Delavan, and Jean Fink, Janesville, Wis., assignors, by mesne assignments, to Hamilton Watch Company, Lancaster, Pa., a corporation of Pennsylvania
Application February 11, 1955, Serial No. 487,612
10 Claims. (Cl. 58—41)

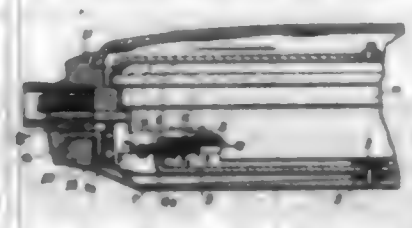
2. In a self-winding electric clock having a drive gear wheel for operating an associated gear train and including

an electromagnet and drive elements periodically controlled thereby for producing torque for driving said drive gear wheel, said elements being assembled to form a unit for mounting in said clock and being as a unit removable therefrom, said assembled elements comprising a shaft, a driving member disposed rotatably on said shaft, a mainspring for applying upon unwinding torque to said



driving member to rotate it in one direction of rotation thereof, a driven member keyed to said shaft, a helical cylindrical clutch spring for coupling said driven member for rotation with said driving member when said driving member is rotated responsive to the torque applied thereto by said mainspring upon unwinding thereof, and means for coupling said drive gear wheel for rotation with said driven member.

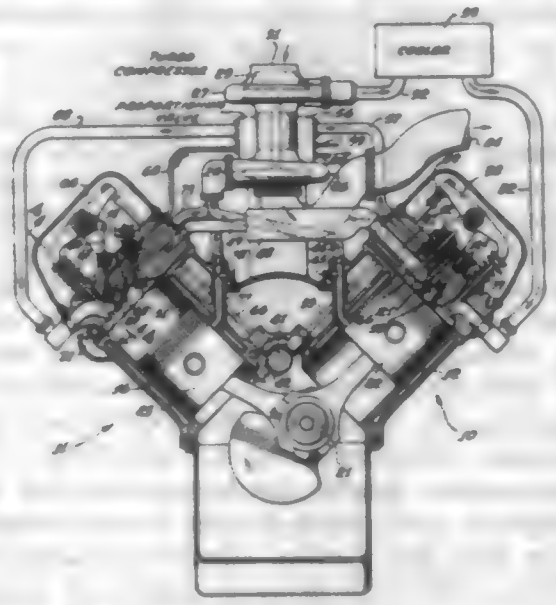
2,873,573
ALARM-TIMEPIECE
John Simon, Tramelan, Switzerland
Application November 8, 1955, Serial No. 545,674
Claims priority, application Switzerland November 11, 1954
3 Claims. (Cl. 58—57.5)



1. In an alarm time-piece including a striking mechanism, the combination of a case including a case bottom having a thickness decreasing from the centre towards the periphery, an oscillatable hammer controlled by said striking mechanism and including two operative sections facing opposite ends of the direction of said oscillation of said hammer and a vibratory member secured to the central thicker section of the case bottom and including two sections adapted to be hit in alternation by the two sections of the hammer respectively at the ends of the oscillatory strokes of said hammer in corresponding directions.

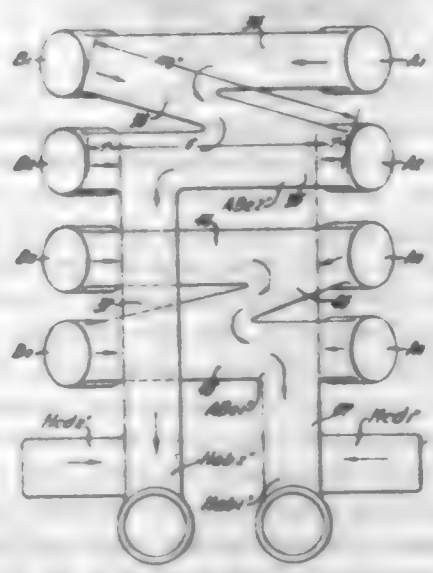
2,873,574
COMBINATION HOT AIR AND INTERNAL COMBUSTION ENGINE
Leon C. Webb, Van Nuys, Calif., assignor of forty percent to Clara M. Long, Van Nuys, Calif.
Application May 16, 1956, Serial No. 585,214
15 Claims. (Cl. 60—13)

13. A combination hot air and internal combustion engine, which comprises a plurality of compressor cylinders and a plurality of power cylinders disposed in V relationship with the compressor cylinders on one side of the V and the power cylinders on the other side thereof, compressor and power pistons mounted one in each of said compressor and power cylinders and connected to a common crankshaft, each of the power pistons being so connected to said crankshaft that it is 90 degrees ahead of an associated compressor piston, a plurality of hot air conduits each directly connecting a compressor cylinder to its associated power cylinder, valve means to permit flow of air through each of said hot air conduits when the corresponding compressor piston is approaching top dead center and the corresponding power piston is moving downwardly away from top dead center, a turbo-compressor, conduit and manifold means to conduct air from the compressor portion of said turbo-compressor to said compressor cylinders, conduit and manifold means to conduct exhaust-gases from said power cylinders to the turbine portion of said turbo-compressor, a proportioning



valve, means to conduct air at regulated pressure from said compressor cylinders to said proportioning valve and then from said proportioning valve to said power cylinders, means to supply fuel to said proportioning valve and thence to said power cylinders, and valve means to permit inflow of fuel and air from said proportioning valve to each of said power cylinders during upstroke of the power piston therein.

2,873,575
INTAKE AND EXHAUST MANIFOLD SYSTEM
John Dickson, Huntington Woods, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 18, 1954, Serial No. 450,645
3 Claims. (Cl. 60—29)



1. An exhaust manifold system for a 16-cylinder X-type two-cycle engine, said engine having four inline banks, A, B, C and D of four cylinders each, a crankshaft journaled in said engine having a crank throw for each of said cylinder banks and said crank throws being so arranged on said crankshaft to give even firing of all cylinders throughout 360° of crankshaft rotation in the order A1, C2, B4, D3, B1, D2, C4, A3, C1, A2, D4, B3, D1, B2, A4 and C3, and each of said cylinders having exhaust means associated therewith for sequentially exhausting combustion gases therefrom in phased relation to its firing order, said exhaust manifold system comprising a plurality of exhaust manifolds ABe2, ABe1,

CDe1 and CDe2, each of said manifolds being connectable to atmosphere and interconnecting the exhaust means of pairs of inline cylinders on adjacent inline banks, viz. A1, A2, B1 and B2; A3, A4, B3 and B4; C1, C2, D1 and D2; and C3, C4, D3 and D4, respectively, the sequential exhausting of the combustion gases for the several cylinders interconnected by each of said manifolds tending to set up exhaust impulse pressure waves in the manifold connected thereto and each of said manifolds being of such acoustical dimension intermediate the cylinders connected thereto that the exhaust means of each cylinder connected thereto will be subjected to a single exhaust impulse reaction during the gas exhausting portion of its operating cycle, said single reaction occurring at said last-mentioned exhaust means at substantially the same phase of its operating cycle as the exhaust impulse reactions occurring at the exhausting means of each of the other cylinders of the engine during the gas exhausting portions of their respective operating cycles, and means for connecting said manifolds to atmosphere including a first exhaust header interconnecting the manifolds ABe1 and CDe1, a second exhaust header interconnecting the manifolds ABe2 and CDe2, and a third header interconnecting said first and second headers, said third header being connected at one end to said first header adjacent its connection to the manifold ABe1 and being connected at its opposite end to said second header intermediate its connections to the manifolds ABe2 and CDe2, and said third header being connectable to atmosphere intermediate its ends.

2,873,576

MEANS FOR CONTROLLING THE ROTATIONAL SPEED OF THE LOW-PRESSURE COMPRESSOR ROTOR OF GAS TURBINE ENGINES

Adrian Albert Lombard, Quarndon, England, assignor to Rolls-Royce Limited, Derby, England, a British company

Application January 30, 1953, Serial No. 334,259
Claims priority, application Great Britain February 6, 1952
19 Claims. (Cl. 60—35.6)



1. A gas-turbine engine comprising a high-pressure compressor rotor and low-pressure compressor rotor driven respectively by a high-pressure turbine and a low-pressure turbine, the high-pressure compressor and its associated turbine being capable of rotating independently of the low-pressure compressor and its associated turbine, and comprising also first control means arranged to control the rotational speed of the low-pressure compressor rotor to maintain substantially a preselected value of the function $N/\sqrt{T_1}$, where N is the actual rotational speed of the compressor rotor and T_1 is the inlet temperature of the low-pressure compressor system, and second control means operating independently of said first control means and arranged to control the rotational speed of the high-pressure compressor independently of the rotational speed of the low-pressure compressor.

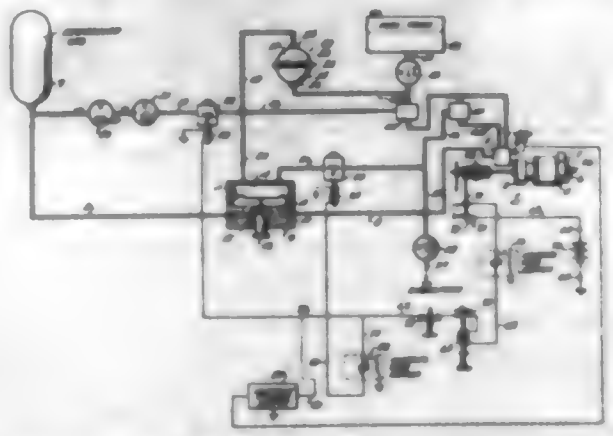
2,873,577

COMBUSTION SYSTEM FOR JET ENGINE STARTERS

John Terence Kenney, North Reading, Mass., and Sooren Edward Gamarekian, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

Application May 9, 1955, Serial No. 507,012
7 Claims. (Cl. 60—39.14)

7. In a fluid feeding system for a combustion chamber, a source of pressurized fuel, a source of pressurized combustion supporting fluid, first fluid conduit means connecting said source of pressurized combustion supporting fluid to said combustion chamber, a main regulator valve in series flow relation with said first conduit means for regulating the fluid pressure in said conduit means downstream therefrom in accordance with the fluid pressure in a chamber in said valve, second conduit means connecting said source of pressurized fuel and said combustion chamber, said second conduit means including a pair of branch conduits each connected to a separate inlet



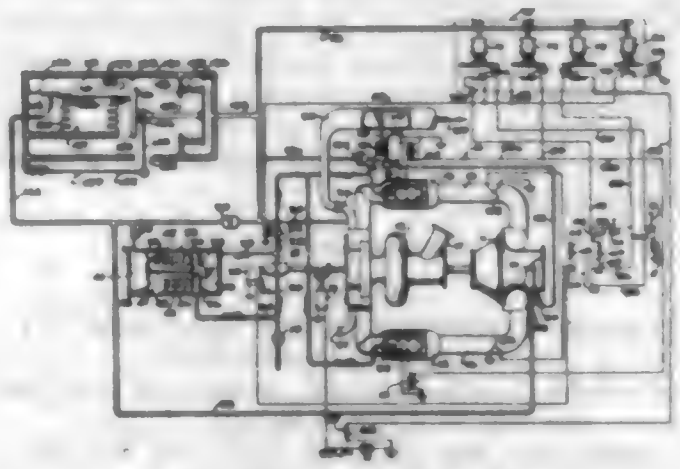
to said combustion chamber, a fluid selector valve in series flow relation with one of said branch conduits, said fuel selector valve including means to actuate it in response to a fluid pressure supplied to a chamber therein, control means to supply fluid from one of said sources to said regulator valve chamber at a first predetermined pressure value, and control means to simultaneously change the pressure of the fluid supplied to said pressure regulator chamber and supply pressurized fluid from said one of said sources to said fuel selector valve chamber.

2,873,578

FUEL-AIR RATIO CONTROL APPARATUS FOR GAS DRIVEN PRIME MOVERS

Donald A. Dotson, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Original application March 13, 1951, Serial No. 215,287, now Patent No. 2,808,702, dated October 8, 1957. Divided and this application December 28, 1953, Serial No. 400,665
1 Claim. (Cl. 60—39.28)



In power apparatus including a fuel pump and air compressor for furnishing a combustible mixture to a hot gas prime mover, valve means for controlling a by-pass around the fuel pump, said valve means comprising: a hollow casing; a wall within the casing having a flow opening therein, the opposite sides of said wall being adapted for connection respectively with the inlet and outlet of said fuel pump; a movably supported valve member for controlling flow through said opening; spaced apart movable wall structures in the casing having an actuating connection with said valve member, the confronting sides of said movable wall structures being adapted to be subjected to ambient atmospheric pressure,

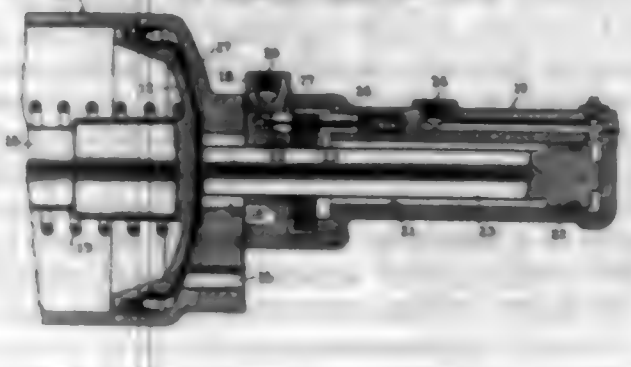
while the other side of one of said movable wall structures is adapted to be subjected to fuel pump pressure acting to move the valve member toward open position, and the other side of the other movable wall structure is adapted to be subjected to air pressure from the compressor outlet acting to move the valve member toward closed position, said movable wall structures having effective areas acted upon by said air and fuel pressures, and being so relatively proportioned as to provide a substantially constant ratio of fuel to combustion air.

2,873,579

DUAL BRAKE CYLINDER WITH LOCK

Lewis A. Safford, Watertown, N. Y., assignor to The New York Air Brake Company, a corporation of New Jersey

Application November 9, 1955, Serial No. 545,910
1 Claim. (Cl. 60—97)



A dual brake motor comprising in combination a pneumatically actuated piston motor having a working space to and from which pressure fluid may be supplied and exhausted; an hydraulically actuated piston motor; a piston rod connected with said hydraulically actuated motor and extending into said working space and normally into thrust engagement with the piston of said pneumatic motor, the portion of the piston rod extending into said working space in any position of said hydraulically actuated piston motor being of uniform diameter; supply and exhaust means for said hydraulic motor; a cant ring lock encircling said piston rod; continuously effective spring means biasing the ring lock toward an inactive position; and means operable to shift the ring lock to an active position in which it holds said piston rod against movement in a brake-releasing direction, said ring lock once shifted being held in the active position by the force acting in a brake-releasing direction on said piston rod.

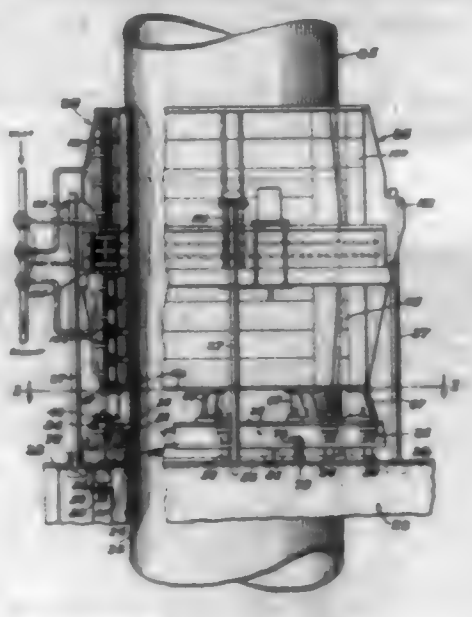
2,873,588

RELEASABLE GRIPPER AND LOCKING ASSEMBLY FOR LAND AND MARINE SUPPORTING COLUMNS

George E. Sederow, New York, N. Y., assignor to De Long Corporation, a corporation of Delaware

Application September 29, 1953, Serial No. 382,948
14 Claims. (Cl. 61—46.5)

1. In apparatus of the type described, the combination comprising: a platform; a supporting leg for supporting said platform; guide means mounting said supporting leg on said platform for relative substantially vertical movement in either direction with respect thereto; a jack mechanism for selectively restraining or effecting relative vertical movement in either direction between said platform and said supporting leg, said jack mechanism comprising a pair of holding means mounted for vertical movement with respect to each other and for releasable engagement with said supporting leg, and power-actuated means for effecting relative movement between said pair of holding means; a holding assembly for restraining relative vertical movement between said platform and said supporting leg independent of the restraint of said jack mechanism, said assembly including supporting leg engaging means movable between a retracted position and an extended position in engagement with said supporting leg to restrain vertical movement; and means movable from a position permitting independent operation of said jack mechanism into a position operable to



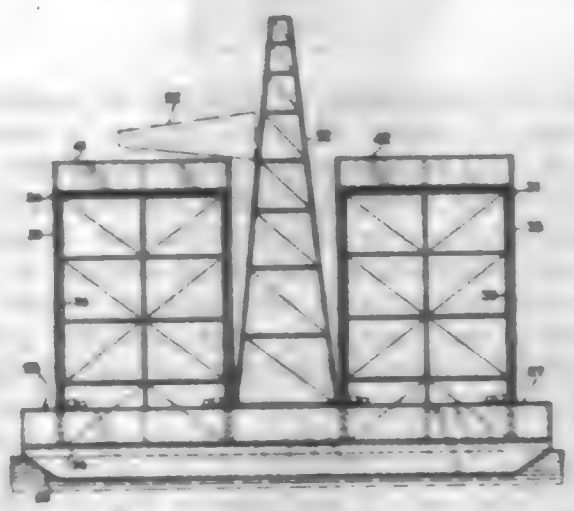
transmit relative vertical movement between said pair of holding means to said supporting leg engaging means so as to move the latter into its extended position in engagement with said supporting leg.

2,873,581

MARINE PLATFORM

John T. Hazak, New York, N. Y., assignor to Raymond International Inc., a corporation of New Jersey

Application August 16, 1954, Serial No. 449,998
5 Claims. (Cl. 61—46.5)



1. A mobile marine platform comprising in combination a buoyant facilities barge and a normally buoyant anchorage barge positioned therebelow, said anchorage barge being adapted to be flooded with water and thereby caused to sink to the sea bottom when it is desired to anchor the platform and also adapted to be emptied of water and thereby caused to rise to the surface when it is desired to move the platform to a new location, telescoping tower support means interconnecting said barges, said telescoping tower support means comprising a plurality of sections which are adapted to nest within each other when the platform is in the mobile condition, connection means for securing one section to the facilities barge as the anchorage barge sinks to the sea bottom whereby another section secured to the anchorage barge telescopes at least partially out of such nesting relationship, said facilities barge having sufficient buoyancy to support the section secured thereto, means for securing said sections together when the desired degree of telescopic movement has been achieved, said connection means between the one section and the facilities barge being releasable when desired, whereby continued downward movement of the anchorage barge will cause the

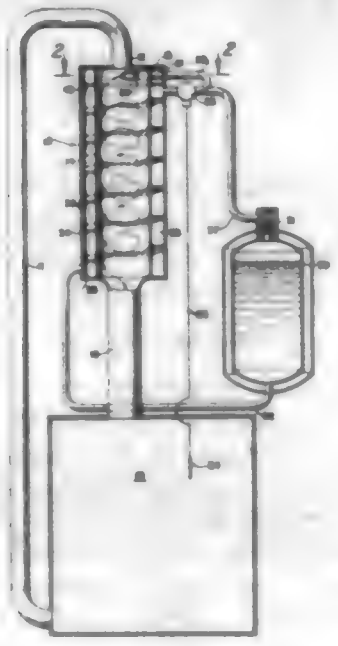
sections to move downwardly with respect to the facilities barge and form a continuous rigid support extending upwardly from said anchorage barge to the facilities barge, platform means provided at the top of said tower support means, and means connected to the facilities barge and to the tower support means for raising the facilities barge above the surface of the water to the level of said tower platform means so as to thereby form therewith an elevated working deck space.

2,873,582

AIR CONDITIONING SYSTEM FOR SPACE SHIPS

Frederick H. Green, Palos Verdes Estates, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application January 25, 1957, Serial No. 636,358
12 Claims. (Cl. 62—5)



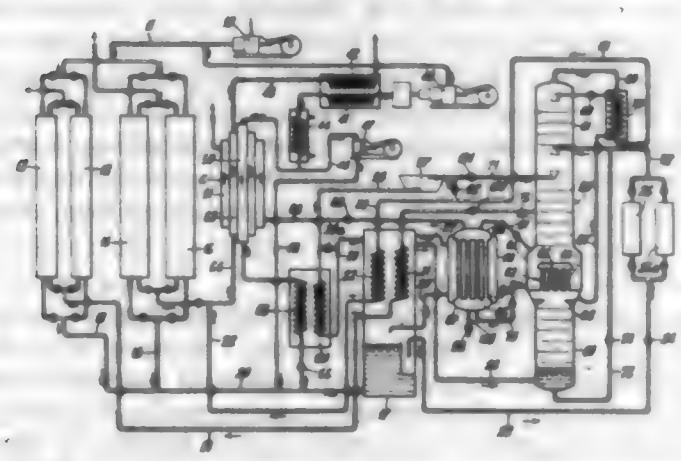
1. An air conditioning system for an enclosed space comprising: a source of liquid oxygen; a vortex tube having an inlet orifice, and suction and discharge openings; circulating means for conducting said liquid oxygen from said source over the outer surface of said vortex tube while maintaining said liquid oxygen in heat exchange relationship with said surface; conduit means connected to said circulating means and said inlet orifice and means for connecting said suction and discharge openings to said enclosure.

2,873,583

DUAL PRESSURE CYCLE FOR AIR SEPARATION

Lawrence D. Potts, Eggertsville, and Edward F. Yendall, Kenmore, N. Y., assignors to Union Carbide Corporation, a corporation of New York

Application May 4, 1954, Serial No. 427,556
34 Claims. (Cl. 62—14)



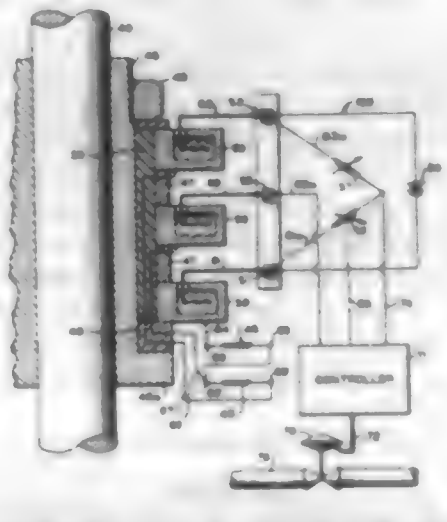
1. In a process for the separation of a gas mixture by low temperature rectification in a multipressure cycle in which portions of the gas mixture are provided at a condensation pressure and at a high pressure, the steps comprising cooling the condensation pressure portion by heat exchange with a portion of the separation products to a temperature close to its condensation temperature; cooling one part of the high pressure portion by expansion with production of external work to about said condensation pressure; cooling the other part of the high pressure portion by a heat exchange including heat exchange with another portion of the separation products to a low temperature and expanding the thus cooled other part to about said condensation pressure; effecting partial liquefactions of the vapor portions of the resulting streams at about the condensation pressure to provide liquid feeds for the rectification and a vapor remainder; superheating said vapor remainder to a temperature such that after work expansion thereof to rectification pressure it is in about the dry saturated state at the rectification pressure; expanding the superheated vapor with production of external work; providing for the passage at will of desired amounts of such expanded vapor to the rectification and to join with the effluent lower boiling product of the rectification; withdrawing from the rectification at a rate adjustable between a high rate and zero, a gaseous separation product containing mainly the higher boiling component of the gas mixture; and withdrawing from the rectification at a controlled rate adjustable between a low and a high rate, a liquid separation product containing mainly the higher boiling component of the gas mixture.

2,873,584

CONTACTOR AND TORQUE CONTROL DEVICE

Harry N. Claudy, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application December 2, 1954, Serial No. 472,577
12 Claims. (Cl. 62—135)



1. In combination, a rotating shaft subject to torsional stress, a plurality of unbonded electrical strain gages mounted about the periphery of said shaft, the impedance of said strain gages varying in response to variations in the torsional stress on said shaft whereby said stress is converted to an electrical signal, a plurality of annular contactors mounted for rotation with said shaft, said contactors containing an electrically conductive liquid, means electrically connecting said liquid with said strain gages for transmission of said signal, control means responsive to said signal, and means operatively connecting said control means to the source of the torsional stress, whereby the torsional stress on said shaft is controlled in accordance with the electrical signal produced therefrom.

2,873,585

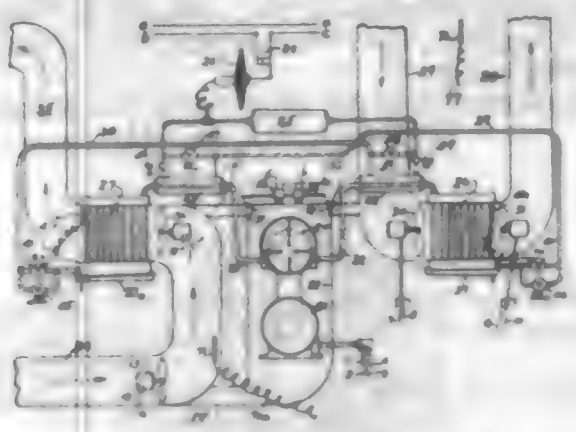
AIR CONDITIONING SYSTEMS, COMBINED COOLING AND WARMING

Adiel Y. Dodge, Rockford, Ill.

Application October 12, 1954, Serial No. 461,707
5 Claims. (Cl. 62—179)

5. An air warming and cooling system comprising a pair of heat exchanger units, a compressor connected in

circuit with the units to circulate a refrigerating medium in sequence therethrough, flow restricting means in the circuit adjacent each heat exchanger unit to cause expansion of refrigerating medium entering the unit, by-passes around the flow restricting means, check valves in the by-passes opening in opposite directions, a motor connected to the compressor, means to reverse the sequence of circulation through the units whereby they function alter-



nately as evaporators and as condensers, ducts enclosing the units to circulate air thereover respectively from a space to be conditioned and from atmosphere, a pair of air circulating fans in each duct, a pair of temperature sensing devices responsive to temperature of the space and of the atmosphere respectively, and means jointly responsive to the temperature sensing devices to control operation of the fans.

2,873,586
FINGER RING HAVING TWO INTERNAL FINGER GRIPPING MEANS WITH DIVERGING ENDS
Sidney Krandall, Detroit, Mich.
Application October 29, 1953, Serial No. 389,881
1 Claim. (Cl. 63—15.6)



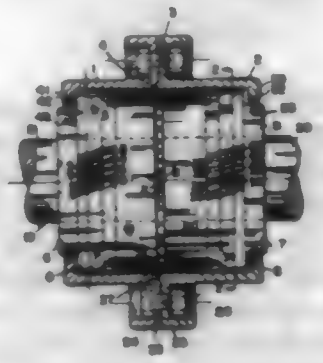
A finger ring comprising a body portion having a generally circular finger encircling portion provided with a setting at the top side thereof, said finger encircling portion being generally of increasing width in a direction upwardly from the bottom side thereof to said setting, a pair of leaf spring members secured to the inner periphery of said finger encircling portion at the bottom side thereof, said spring members being generally U-shaped with the bight portion thereof secured to the bottom portion of the ring and each spring member being provided with a pair of arcuate spring legs extending upwardly from the bottom portion of the ring only slightly beyond the central portion of the ring, the free ends of said spring legs of each leaf spring being spaced apart a distance greater than the radius of the ring and being spaced radially inwardly from the adjacent inner face portions of the finger encircling portion of the ring, said spring legs being relatively thin as compared with the finger encircling portion of the ring and having a generally flat inner surface, said leaf springs being secured to the bottom side of said finger encircling portion of the ring in side-by-side relation and diverging in the direction of the free ends thereof, said spring legs lying entirely within the confines of said finger encircling portion whereby when said ring is placed upon the wearer's finger, said spring legs tend to maintain the ring in an upright position.

2,873,587
COMBINATION SPARE AND SERVICE TAIL SHAFT ASSEMBLY
Nikolaos Lyritzis, New York, N. Y.
Application December 27, 1957, Serial No. 705,556
7 Claims. (Cl. 64—1)



1. A repairable shaft assembly comprising a tail shaft having a tail portion at one end thereof for mounting a propeller and a coupling portion at the other end thereof, an intermediate shaft engageable with said coupling portion to transmit rotary motion to said propeller, and an insert having an axial length corresponding substantially to that of said tail portion and adapted to intercouple said coupling portion with said intermediate shaft to restore the length of said assembly to its initial value in the event it is necessary to sever the existing tail portion and to reform said tail portion on said tail shaft.

2,873,588
FLEXIBLE COUPLING
John H. Crankshaw, Erie, Pa., assignor to American Flexible Coupling Company, Erie, Pa., a corporation of Pennsylvania
Application September 19, 1955, Serial No. 534,912
3 Claims. (Cl. 64—9)

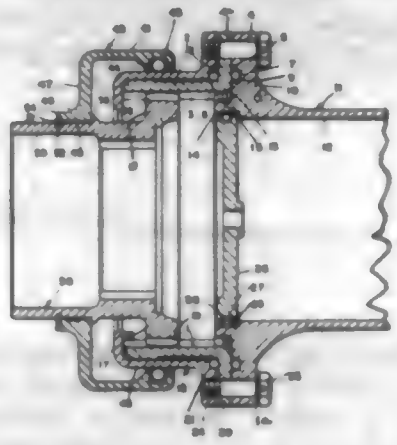


1. A coupling for transmitting torque between two shafts having the axes thereof disposed at an angle to each other, said coupling comprising a sleeve member having two spaced sets of internal helical teeth disposed at an angle to each other, a hub having crowned helical teeth thereon mating with each said set of internal teeth, one said hub being attached to a drive member and the other said hub being attached to a driven member, said hubs being adapted to slide toward each other when one hub is driven in a first direction, and means to hold said hub members in spaced relation to each other, said means comprising a spherical shaped member on the end of each said hub adjacent each other, said spherical members adapted to engage each other whereby the axial movement of said shafts is limited.

2,873,589
FLEXIBLE COUPLING SLEEVE WITH SPACER CONNECTION
John H. Crankshaw, Erie, Pa., assignor to American Flexible Coupling Company, Erie, Pa., a corporation of Pennsylvania
Application October 24, 1955, Serial No. 542,144
5 Claims. (Cl. 64—9)

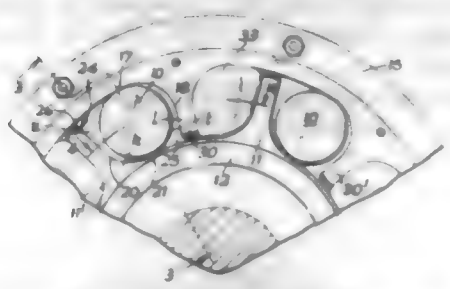
4. A coupling comprising a hub having external teeth thereon, a coupling sleeve having internal teeth and an outwardly directed flange, a shaft having an outwardly directed flange extending radially therefrom, said shaft

flange being bolted to said coupling sleeve flange, and an end portion of said shaft extending into said coupling



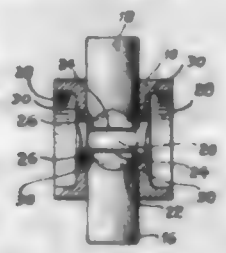
sleeve, and external teeth on said end portion engaging said coupling sleeve teeth.

2,873,590
FLEXIBLE COUPLINGS, DAMPERS, GEARWHEELS AND LIKE DEVICES
Louis P. Croset, Fixby, Huddersfield, England
Application December 5, 1956, Serial No. 626,360
Claims priority, application Great Britain December 16, 1955
3 Claims. (Cl. 64—14)



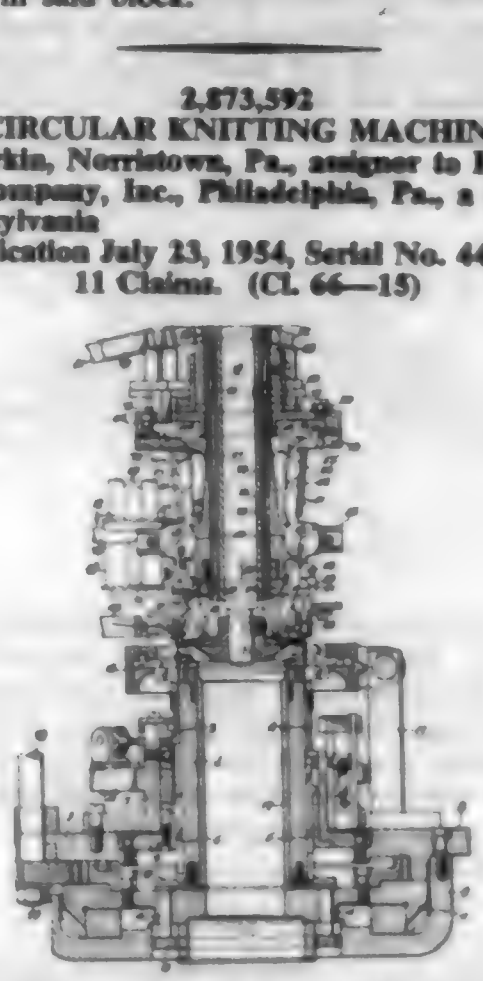
1. A flexible vibration damping apparatus comprising two approximately co-axial members, two sets of blades which extend radially and axially of said members and which blades are connected alternately in the circumferential direction to one and the other of said co-axial members, an outer drum surrounding the blades so as to form cells, blocks of elastic material in said cells, each block and the roots of the blades being of correspondingly shaped curvature at two opposite parts of the block, one of said parts of the block having an arc of contact of more than 90°, the other of less than 90° around the block, leaving two oppositely disposed parts, extending over similar or smaller angles, out of contact with the cell but movable into engagement with the cell under increasing load by an approximately rolling engagement, said blades each having parallel sides at its free end whereby spaces are provided when the blocks are unloaded which spaces are substantially filled by the blocks when these are deformed under load.

2,873,591
PINNING CONSTRUCTION FOR UNIVERSAL JOINT
George B. Stillwagon, Jr., Dayton, Ohio, assignor of one-half to Kenneth G. Fraser, Dayton, Ohio
Application May 5, 1955, Serial No. 506,239
5 Claims. (Cl. 64—17)



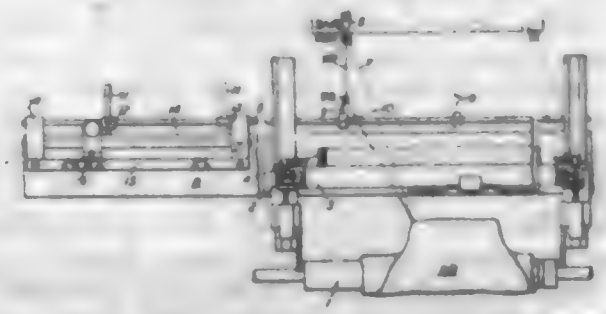
5. A pinning construction for universal joints comprising a block provided with a plurality of borings, arms disposed in said borings and protruding from said block, said block having swaged portions projecting into said borings, and detent means integral with said arm engaging the swaged portions of said block for securing said arms in said block.

2,873,592
CIRCULAR KNITTING MACHINE
Walter Larkin, Norristown, Pa., assignor to Fidelity Machine Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application July 23, 1954, Serial No. 445,295
11 Claims. (Cl. 66—15)



1. In a circular knitting machine having a rotary needle cylinder and a rotary needle dial, needles in said cylinder and dial, and relatively fixed cylinder needle and dial needle actuating cams, mechanism for rotating the cylinder, a dial-supporting shaft extending upwardly from the dial, a spool rack mounted on the upper end of the shaft, a plurality of spools on the rack, yarn wrap fingers operatively associated with the cylinder needles, means for mounting said fingers in annular series on the said shaft above the dial, relatively fixed and axially adjustable cam means for actuating said fingers, transmission means for operatively connecting the cylinder rotating mechanism with the shaft at a point between the spools and the said fingers, and yarn guide means rotatable with the shaft for conducting the yarn from the respective spools to the individual fingers.

2,873,593
STRAIGHT BAR KNITTING MACHINE
Ernest Start, Wilford, and Raymond Blood, Shepshed, England, assignors to William Cotton Limited, Loughborough, England
Application June 22, 1956, Serial No. 593,191
Claims priority, application Great Britain July 1, 1955
9 Claims. (Cl. 66—82)



1. In a knitting machine for successively producing knitted blanks from the same yarn by the employment of means including a row of needles, at least one thread carrier traversing to and fro along the row of needles,

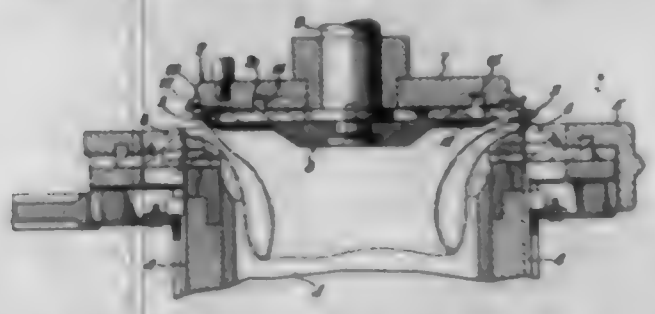
and means for pressing-off each blank so that a length of the yarn extends from the thread carrier to the pressed-off blank, yarn deflector means comprising a hook fixed on a carrier member, the carrier member being linearly displaceable in a direction parallel to the row of needles for engagement of the hook with the yarn extending from the thread carrier and to deflect the yarn and locate that part of it which is adjacent the row of needles into an attitude extending substantially normal to the row of needles, and also being angularly displaceable transverse to said direction to deflect said yarn and locate that part of it into an attitude extending between the sinkers.

2,873,594

DIAL FOR KNITTING MACHINES

Walter Larkin, Norristown, Pa., assignor to Fidelity Machine Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application January 31, 1958, Serial No. 712,376
3 Claims. (Cl. 66—95)



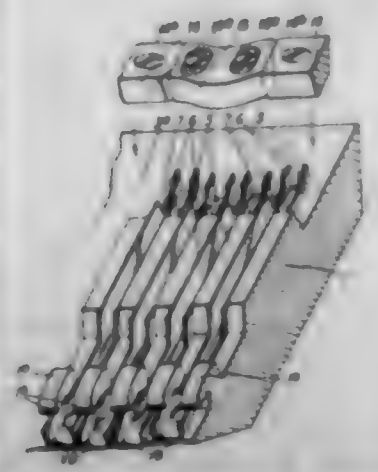
1. For knitting machines of the type comprising cylinder and dial elements and cooperative knitting instrumentalities in said cylinder and dial, a dial structure including upper and lower members relatively movable about a central axis normal to the respective upper and lower confronting faces of the members, the said lower member containing in the upper face thereof radial slots for reception of said dial instrumentalities, said dial instrumentalities having longitudinal channels in the under edges thereof, guard elements at the outer peripheral edge of said lower dial member projecting upwardly into said slots in alignment with the longitudinal recesses of said instrumentalities, and a circumferential recess in the upper face of said lower dial member at the inner ends of said guard elements.

2,873,595

INSTRUMENT BEDS FOR KNITTING MACHINES

Arthur Shortland, Leicester, England

Application December 27, 1955, Serial No. 555,660
Claims priority, application Great Britain January 3, 1955
9 Claims. (Cl. 66—115)



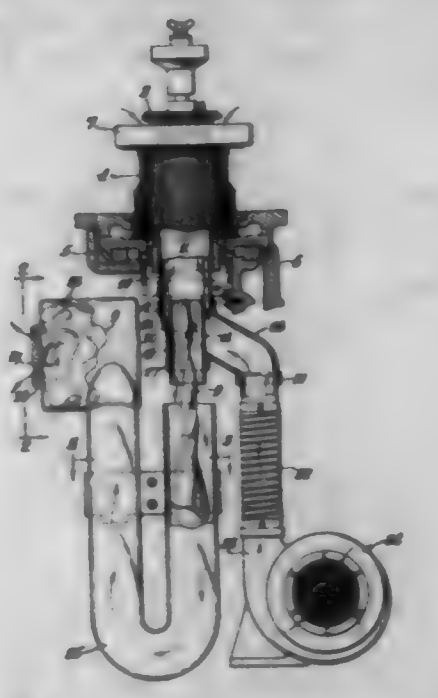
1. For a knitting machine, an instrument bed which has formed therein a series of grooves in each of which is inserted an individual channel-shaped trick element for the support and guidance of a longitudinally movable knitting instrument, said element being bent to shape from an initially flat sheet-metal blank and comprising two spaced side walls connected by an integral transverse portion forming the back of the trick and cooperating means on said elements and said grooves for holding down said elements.

2,873,596

PNEUMATIC TAKE UP FOR CIRCULAR KNITTING MACHINES

Walter Larkin, Norristown, Pa., assignor to Fidelity Machine Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application December 27, 1955, Serial No. 555,475
15 Claims. (Cl. 66—149)



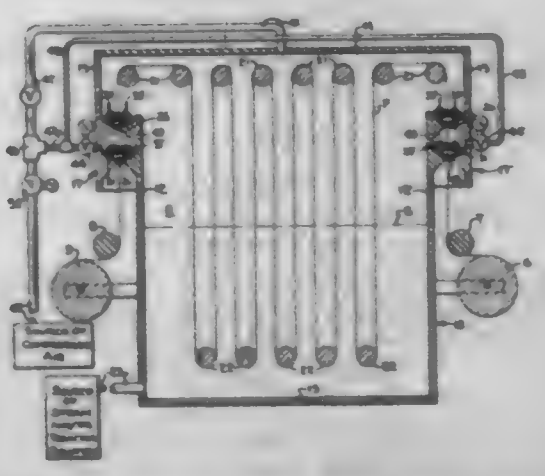
1. In a circular knitting machine having an annular series of knitting needles and mechanism for actuating the needles to form the stitches of a circular knit fabric at a stitch-forming station, take up means for said fabric comprising devices operative during the knitting operation to set up a flow of air at the outside of and in contact with the fabric and in direction away from the needles so as to impose a longitudinal drawing and tensioning force on the web tending to withdraw it from the stitch-forming station, said air flow devices comprising a tubular duct for the fabric, a source of pressure air, and means for directing air from said source directly into the space between the inner wall surface of the duct and the fabric and in direction longitudinally of the duct.

2,873,597

APPARATUS FOR SEALING A PRESSURE VESSEL

Victor T. Fahringer, Clarksville, Va.

Application August 8, 1955, Serial No. 527,646
17 Claims. (Cl. 68—5)



17. In an apparatus for treating material having a pressure vessel provided with ingress and egress openings for

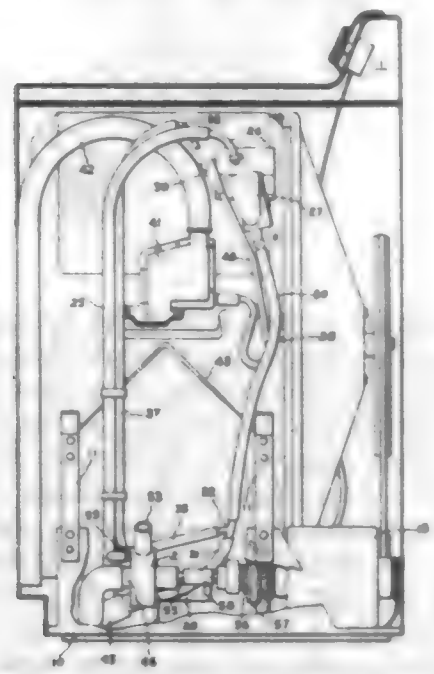
the material to pass therethrough and having means for maintaining a pressure in the vessel above atmospheric pressure; sealing means provided adjacent the ingress and egress openings of the vessel for engaging opposed surfaces of the material passing therethrough and to prevent the escapement of pressure from the vessel comprising a pair of normally contacting sealing rollers positioned adjacent and extending across each of said openings in the vessel, means provided adjacent said openings for engaging peripheral portions of said sealing rollers, said engaging means contacting the vessel adjacent each opening to form a seal between the vessel and each of said peripheral portions, and each of said sealing rollers comprising a plurality of juxtapositioned movable rings forming its periphery to permit the rings to move independently of each other inwardly or outwardly dependent upon the thickness of the material passing between each of said pair of rollers.

2,873,593

DRAIN PUMP SYSTEM FOR LAUNDRY MACHINES

Walter J. Raczynski and Joseph C. Worst, Louisville, Ky., assignors to General Electric Company, a corporation of New York

Application November 21, 1956, Serial No. 623,601
7 Claims. (Cl. 68—20)



1. In a washing machine including a liquid containing tub, a centrifugal drain pump for draining liquid from said tub, said pump having an inlet connected to said tub and an outlet adapted for connection to a drain, and means for preventing air locking of said pump comprising a bleed opening from said pump, and conduit means extending at a substantial angle to the horizontal connected intermediate its ends to said bleed opening, said conduit means connecting said bleed opening both to said tub at the lower end thereof and to the surrounding atmosphere at the upper end thereof, whereby air-locking of said pump is avoided by the bleeding of air from said pump to said atmosphere without there being any discharge of liquid thereto.

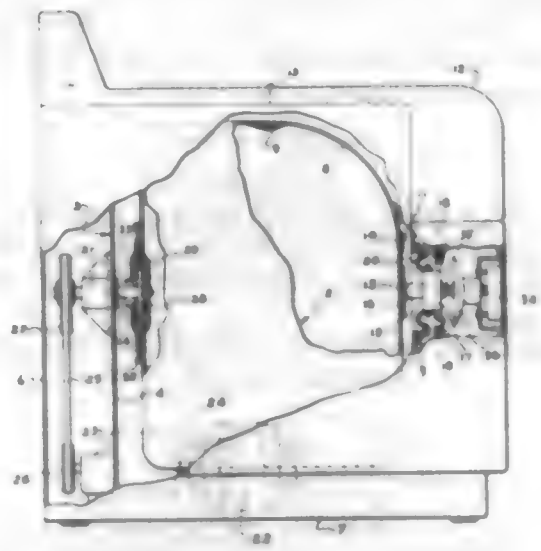
2,873,599

BASKET MOUNTING ARRANGEMENT FOR LAUNDRY MACHINE

William R. Buechler, Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application June 7, 1956, Serial No. 590,036
3 Claims. (Cl. 68—24)

1. In a laundry machine, a rigid cabinet and base assembly; a substantially cylindrical clothes basket within said assembly having two opposed end walls; an imperforate tub positioned about said clothes basket and rigidly secured to said cabinet and base assembly; driving means for said clothes basket comprising a drive motor, a transmission assembly operated by said motor, and a drive shaft coaxial with said basket and rotatable about a generally horizontal axis by said transmission assembly, said driving means being secured in rigid relationship to said cabinet and base assembly; means securing the end of said drive shaft to a first end wall of said basket comprising a rigid member secured to the end of said



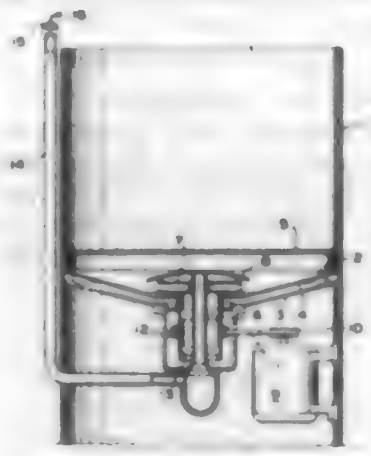
drive shaft, a relatively thick elastomeric shell surrounding said rigid member and connected thereto, and clamping means attaching said first end wall of said basket directly to the outer surface of said elastomeric shell whereby said basket is driven from said drive shaft through said rigid member and said shell; and means flexibly and rotably connecting the second of said basket end walls to said cabinet and base assembly.

2,873,600

MEANS FOR WASHING AND THE LIKE OPERATIONS

Jules Demaret, Marcinelle, Belgium

Application June 21, 1955, Serial No. 516,901
Claims priority, application Belgium June 29, 1954
1 Claim. (Cl. 68—183)



A washing machine comprising a vat adapted to be filled with an aqueous medium and to contain the articles to be washed, a pulsator member having a vertical axis, a hollow shaft coaxially rigid with the pulsator member, a bent air intake pipe, means through which said intake pipe communicates with the bore in said shaft, an extension for said air intake pipe extending up to a point above the uppermost level of the aqueous medium in the vat and opening into the atmosphere, an adjustable closing member for the upper end of said extension, a pipe adapted to convey a heating fluid in heat exchanging relationship with said closing member, means for rotating said pulsator member round its vertical axis to stir the aqueous medium inside the vat and to produce at its pe-

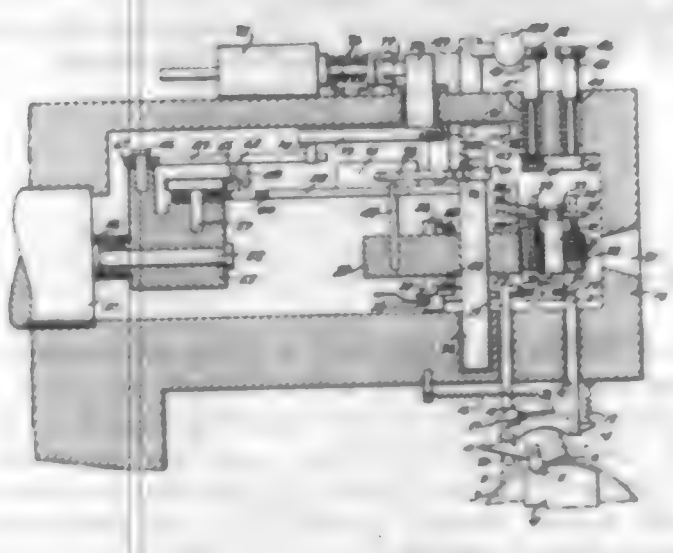
riphery a succession of alternatingly high and low pressure areas in said medium, means extending through the rotary member and adapted to feed the air admitted through the bore in the shaft into the different low pressure areas and means controlling the input of said air into last mentioned means.

2,873,601

SHEET CUTTING APPARATUS

Kurt Hacker, Stuttgart, and Dieter Braun, Stuttgart-Heumaden, Germany, assignors to Firma Fortuna-Werke Spezialmaschinenfabrik A.-G., Stuttgart-Bad Cannstatt, Germany

Application October 3, 1956, Serial No. 613,707
Claims priority, application Great Britain October 4, 1955
6 Claims. (Cl. 69—9.5)



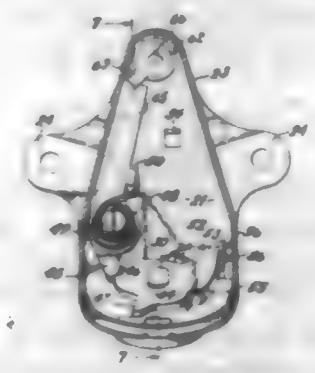
1. In a machine having parts which are adapted to be set at a plurality of different operating positions, in combination, support means; a drum turnably carried for rotation about its axis by said support means, said drum being operatively connected with the machine parts which are to be set at different operating positions for setting said parts at different operation positions when said drum is in different angular positions, respectively, with respect to its axis; a plurality of pins fixed to said drum and extending parallel to the axis thereof, said pins being equal to the number of angular positions of said drum and being uniformly distributed about the axis thereof; a first solenoid carried by said support means and having a reciprocable armature; a pair of engaging means carried by said armature for reciprocating movement therewith and each being movable with respect to said armature to and from an operating position adapted to engage said pins for turning said drum, one of said engaging means when it is in its operating position engaging one of said pins during reciprocation of said armature to turn said drum in one direction and the other of said engaging means when it is in its operating position engaging one of said pins to turn said drum in an opposite direction during reciprocation of said armature; positioning means carried by said armature for reciprocation therewith and cooperating with said engaging means for placing one or the other of said engaging means in its operating position; lever means cooperating with said positioning means for actuating the latter to place a selected one of said engaging means in its operating position; and a second solenoid operatively connected with said lever means for placing the latter in a position acting on said positioning means to locate one of said engaging means in its operating position when said second solenoid is energized and for placing the other of said engaging means in its operating position when said second solenoid is unenergized.

2,873,602

LOCK STRUCTURE FOR A VEHICLE DECK LID OR THE LIKE

Rollin C. France, Cleveland, and Harold P. Wade, Rocky River, Ohio, assignors to The Standard Products Company, Cleveland, Ohio, a corporation of Ohio

Application June 11, 1952, Serial No. 292,826
3 Claims. (Cl. 70—139)



1. In locking mechanism for releasably retaining a closure structure in closed position relative to an adjacent structure, a plate-like member having an upper portion adapted to be secured to one of said structures and having a lower portion disposed at a substantial angle to said upper portion, a shaft journalled in the lower portion of said plate-like member and extending transversely thereof, a locking member of disc-like form rigidly mounted on one end of said shaft for locking cooperation with keeper means adapted to be secured to the other of said structures, a member having a shoulder, said shouldered member being rigidly mounted on the other end of said shaft, a detent member movably mounted on said plate-like member for detaining engagement with the shoulder of said shouldered member, said detent member having an upper portion extending alongside the upper portion of said plate-like member, resilient means for normally maintaining said detent member in engagement with said shouldered member, and manually operable means cooperable with the upper portion of said detent member for moving said detent member out of engagement with the shoulder of said shouldered member.

2,873,603

METHOD OF TESTING HERMETIC CONTAINERS

Lyle B. Borst, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 5, 1946
Serial No. 674,652
4 Claims. (Cl. 73—52)

1. A method of testing hermetic containers enclosing material capable of chemical combination with a fluid at an elevated temperature which comprises weighing said container, immersing said container in said fluid, heating said immersed container to a temperature sufficiently high for said chemical combination to occur for a definite period of time and weighing said container to determine the rate of change of weight for differentiating between acceptable and unacceptable containers.

2,873,604

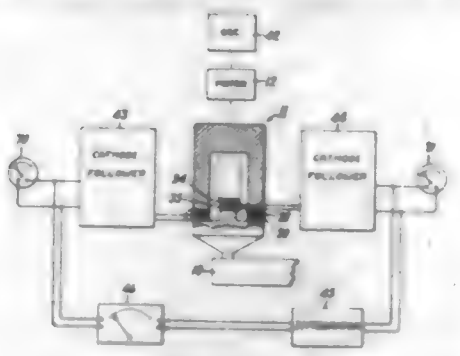
APPARATUS FOR DETERMINING VIBRATION CHARACTERISTICS

Richard W. Samuel, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application April 28, 1954, Serial No. 426,241
16 Claims. (Cl. 73—67.1)

11. In apparatus for determining vibration characteristics of an object, the combination comprising a housing, a base mounted at one end of said housing and disposed in contact with said object, vibrator means coupled to the other end of said housing, force sensitive means mounted annularly between said housing and said base for provid-

ing an electrical signal proportional to force applied to said object by said vibrator means, vibration sensitive means mounted centrally on said base within said housing and including signal generating means substantially in lateral alignment with said force sensitive means for providing an electrical signal proportional to vibration of



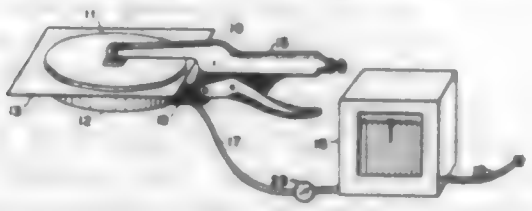
said object, circuit means connected to said signal generating means for producing an electrical signal proportional to the velocity of said object in response to said signal porportional to vibration, and means connected to said circuit means and said force sensitive means for indicating the ratio of the signals therefrom.

2,873,605

APPARATUS FOR MEASURING EQUILIBRIUM HUMIDITY OF PAPER

Roger M. Warner, Hamilton, Ohio, assignor to The Champion Paper and Fibre Company, Hamilton, Ohio, a corporation of Ohio

Application July 15, 1954, Serial No. 443,610
2 Claims. (Cl. 73—73)



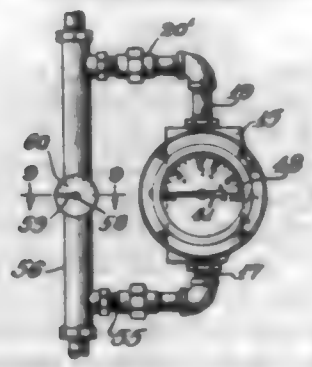
1. A device for measuring the moisture content of paper in terms of the relative humidity with which it is in equilibrium, which comprises: a container of width substantially greater than its depth, which is open on one of its larger sides; a substantially flat cover for said open side; toggle means connected with said container and said cover for clamping said cover in place to seal a sample of paper within and across the open side of said container, beneath said cover; a humidity-variable-electrical-resistance type of humidity sensing element enclosed within said container adapted for external indication; means for electrically connecting the humidity sensing element to an electrical measuring instrument while the container remains sealed.

2,873,606

FLOWMETERS PARTICULARLY FOR GASES

Regner A. Ekstrom, Jr., Harvey, Ill.

Application March 27, 1956, Serial No. 574,117
4 Claims. (Cl. 73—228)



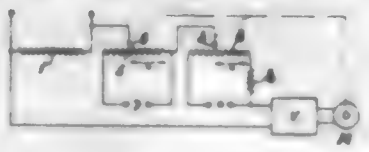
1. A flowmeter consisting of a casing having an upright inner cavity, with an inlet at the bottom and an outlet at the top, an imperforate vane pivotally mounted at one side of the cavity for vertical oscillation, a baffle formed of flexible material secured to the wall of the cavity and coacting with the vane for regulating the passageway through the casing, said baffle having a flange extending inwardly along the lower edge for limiting the downward movement of the vane, means for adjusting the baffle toward and away from the vane for regulating the space between the baffle and the vane, and means for indicating the movement of the vane.

2,873,607

DEVICE FOR MEASURING A PHYSICAL QUANTITY

Henricus Josephus Louis van Kuyk, Emmasingel, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 6, 1954, Serial No. 473,343
Claims priority, application Netherlands December 17, 1953
8 Claims. (Cl. 73—335)



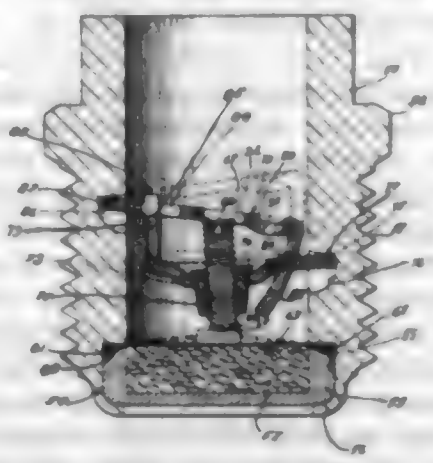
1. A device for measuring a physical quantity comprising means for deriving a first voltage dependent upon the magnitude of said physical quantity, means for deriving a second voltage dependent upon the magnitude of said physical quantity, means for varying the amplitude of said second voltage comprising a first potentiometer having a control member, means for producing a reference voltage, means for varying the amplitude of said reference voltage comprising a second potentiometer having a control member, means for combining the said variable second and reference voltages with said first voltage thereby to produce a difference voltage, an electrically energized adjusting member coupled to the said control members of said first and second potentiometers and means responsive to said difference voltage for applying said difference voltage to said adjusting member to displace the control members of said first and second potentiometers to positions at which said difference voltage is substantially zero, the extent of the adjustment of the control member of either of said potentiometers constituting the measurement of said physical quantity.

2,873,608

THERMAL RESPONSIVE ELEMENT

Samuel G. Eskin, Chicago, and Thomas B. Legeza, Westchester, Ill., assignors to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

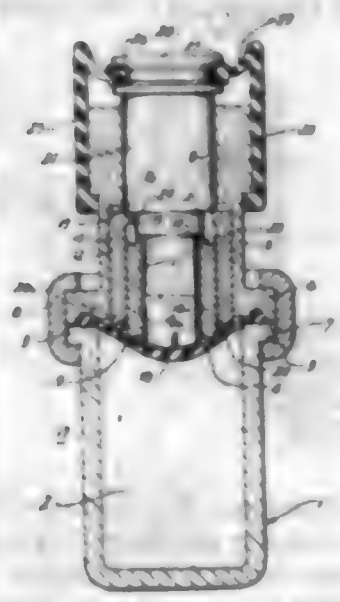
Application August 28, 1954, Serial No. 451,185
3 Claims. (Cl. 73—358)



1. In a device of the class described, a housing, a thermostatic element contained within said housing com-

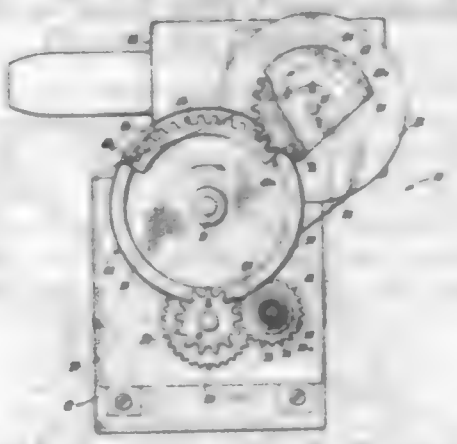
prising a casing containing a fusible thermally expansible material and a flexible metal disk within said housing and containing the thermally expansible material within said casing, said housing having an inner wall having a notch formed therein and also having a diametrically opposed notch formed therein at a different level from said first notch, a reaction lever having engagement with said flexible disk adjacent the center thereof, and having two arms, one forming a reaction arm and extending within and fulcruming about said second notch and the other arm extending at right angles to said reaction arm at the opposite side of the center of said reaction member from said reaction arm and having a central prong and bearing shoulders on opposite sides thereof, and an amplifying lever fulcruming about said first notch and carried on said prong and engaged by said bearing shoulders, and also having an arcuate guide arm depending therefrom having guiding engagement with said reaction arm of said reaction lever, and having a socket inwardly of said guide arm forming a connecting member for a device to be operated.

2,873,609
THERMALLY RESPONSIVE DEVICE
Adolf Von Wangenheim, Detroit, Mich., assignor, by mesne assignments, to Antioch College, Yellow Springs, Ohio, a corporation of Ohio
Application April 19, 1955, Serial No. 502,412
1 Claim. (Cl. 73—358)



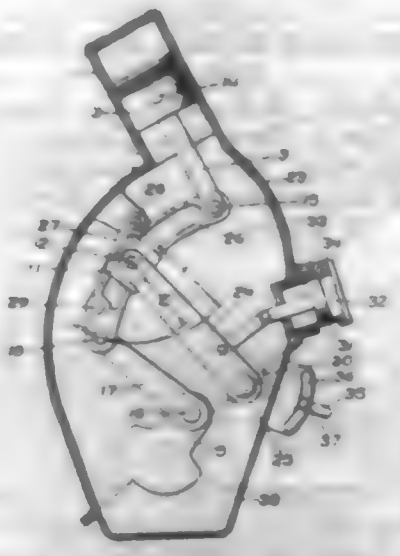
The combination comprising a vessel having a wall opening; pressure-producing material in said vessel; a diaphragm closing the wall opening; a housing overlying the diaphragm; said housing having a relatively large diameter bore extending axially from adjacent the diaphragm and a relatively small diameter bore extending axially from the outer end of the first bore, the juncture between said bores defining a shoulder; a first bushing slidably engaging the wall of the first bore and having a lesser axial length than the spacing between the diaphragm and shoulder whereby to have limited axial movement in the large diameter bore; said first bushing having a projection extending radially inward from its outer end; a second bushing slidably engaging the internal face of the first bushing and having its inner end engaged with the diaphragm; said second bushing having its outer end spaced from the registering surface of the projection by a distance greater than the movement distance of said first bushing, whereby said second bushing has a greater movement distance than said first bushing; a piston having a large diameter section slidably engaged in said small diameter bore and having a small diameter section slidably engaged with the internal face of the second bushing; said piston also having an intermediate diameter section located between its aforementioned sections, the juncture between the small diameter section and intermediate diameter section forming a first annular abutment surface in registry with the second bushing, the juncture between the intermediate diameter section and large diameter section forming an annular abutment surface in registry with the first bushing; the small diameter piston section being free of projecting portions, whereby the diaphragm is enabled to move from an inwardly convexed position to an outwardly convexed position with the piston undergoing the greatest travel and the first bushing undergoing the least travel.

2,873,610
TUNER AND CONTROL
Theo W. Williams, Buffalo, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application December 15, 1954, Serial No. 475,456
17 Claims. (Cl. 74—10.45)



1. In a television receiver, a U. H. F. tuner including station selector means, a V. H. F. tuner including station selector means, a main tuning shaft operatively connected to said station selector means of said V. H. F. tuner for tuning said V. H. F. tuner through multiple positions between the low end of said V. H. F. band and the high end of said V. H. F. band, and gearing means operatively connected between said main tuning shaft and said station selector means of said U. H. F. tuner, said gearing means being engaged in response to operation of said main tuning shaft and upon tuning of said V. H. F. tuner to the high end of said V. H. F. band and being arranged to provide a driving connection between said main tuning shaft and said station selector means of said U. H. F. tuner.

2,873,611
VARIABLE STROKE MECHANISMS
Arnold E. Biermann, Fairview Park, Ohio
Application July 1, 1955, Serial No. 519,316
10 Claims. (Cl. 74—40)



1. In a variable-stroke piston mechanism having a frame, a cylinder and piston in said frame, a combination comprising a crank journaled in said frame, a stroke-change arm pivotably mounted on said frame, a pivot

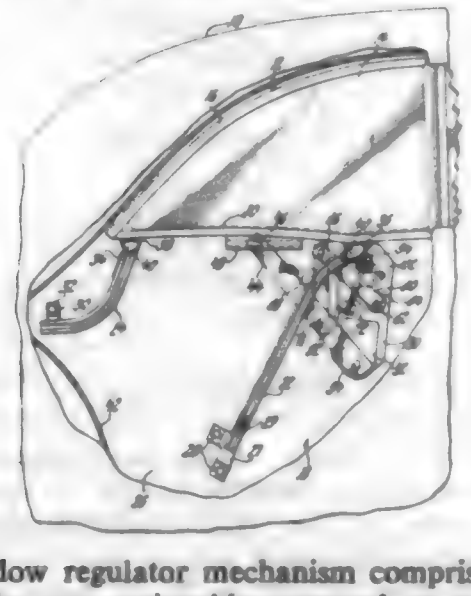
on said stroke-change arm, a rocker lever mounted to oscillate on said pivot, a link connecting said piston and said rocker lever, a connecting rod connecting said crank and said rocker lever, means for guiding said rocker lever, said pivot being movable along said arcuate rocker lever for varying the stroke of said piston, the location of the center of the radius of said curve of said rocker lever being offset from said mounting pivot of said stroke-change arm an amount sufficient to provide a preselected variation of compression ratio with change of piston stroke length.

2,873,612

WINDOW REGULATOR MECHANISM

Edward A. Schneidewind, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 7, 1956, Serial No. 590,031
5 Claims. (Cl. 74—89)



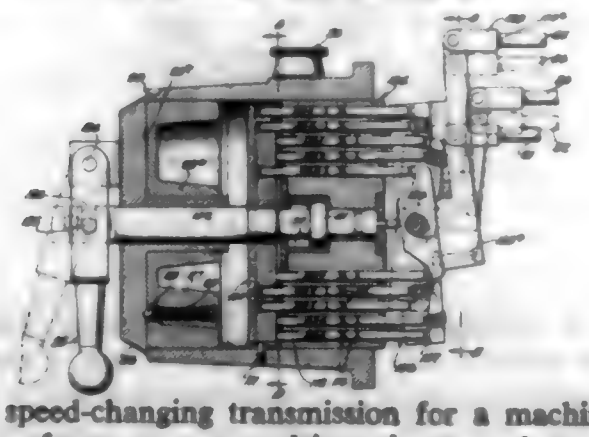
1. A window regulator mechanism comprising, a support, a driving arm swingably mounted on said support, articulated linkage means having one link thereof pivotally mounted on said support and another link thereof pivotally secured to said driving arm, rotatable operating means mounted on said support for swinging movement relative thereto, and means movable axially of said operating means upon rotation thereof and operatively secured to one of said links intermediate the ends thereof to swing said one link about its pivot and thereby fold and unfold said linkage means to swing said driving arm relative to said support, said operating means swinging relative to said support upon axial movement of said means to allow said means to move in an arc defined by said pivot of said one of said links.

2,873,613

MAIN SPINDLE DRIVE FOR LATHES AND THE LIKE

Clifford L. Schulte, Bell, John G. Schwarzbeck, South Gate, and Martin Hust, San Gabriel, Calif., assignors to U. S. Industries, Inc., a corporation of Delaware

Application September 11, 1956, Serial No. 609,189
38 Claims. (Cl. 74—334)



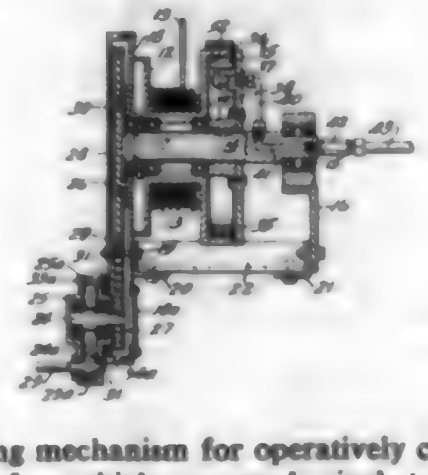
1. A speed-changing transmission for a machine tool having a frame, a power-driven input and a spindle, comprising: a gear train interposed between said input and said spindle; a plurality of clutches for selectively interconnecting the gears of said gear train so as to vary the speed of said spindle; force-transfer means supported on said frame and operatively connected to said clutches for selectively engaging any desired number thereof; a pin body on said frame; a plurality of selector pins supported for axial movement in said pin body, one end of said selector pins being operatively connected to said force-transfer means whereby the axial position of said pins will control the movement of said force-transfer means; a shaft supported in said frame for selective axial and rotational movement therein; a selector plate keyed to said shaft and movable upon axial movement of said shaft toward and away from said pin body, said selector plate being formed with a pattern of apertures to receive certain of said selector pins when said selector plate is adjacent said pin body so as to vary the axial positions of said pins, the rotational position of said plate relative to said frame determining which of said selector pins will enter said apertures when said selector plate is moved to a position adjacent said pin body; and unitary handle means on said shaft for effecting selectively, said rotation or said axial movement thereof.

2,873,614

VEHICLE MOUNTED WINCH

Leo L. Heikkinen, Prentice, Wis.

Application October 23, 1956, Serial No. 617,857
5 Claims. (Cl. 74—389)



1. In driving mechanism for operatively connecting the drum shaft of a vehicle mounted winch to power take-off shafts variously located on vehicles, the winch having a frame adapted to support said drum shaft in parallel relation to the vehicle power take-off shaft, the improvements which comprise, an intermediate shaft having an axis disposed in substantially parallel relation to said drum shaft and power take-off shaft, a first transmission means operatively connecting said power take-off shaft to said intermediate shaft, a second transmission means operatively connecting said intermediate shaft to said drum shaft, a first housing enclosing said first transmission means and movable angularly about the axis of said intermediate shaft, a second housing enclosing said second transmission means and movable angularly about the axis of said drum shaft, means for rigidly securing said first housing to said second housing in selected angular positions about the axis of said intermediate shaft, and means for rigidly securing said second housing to said frame in selected angular positions about the axis of said drum shaft.

2,873,615

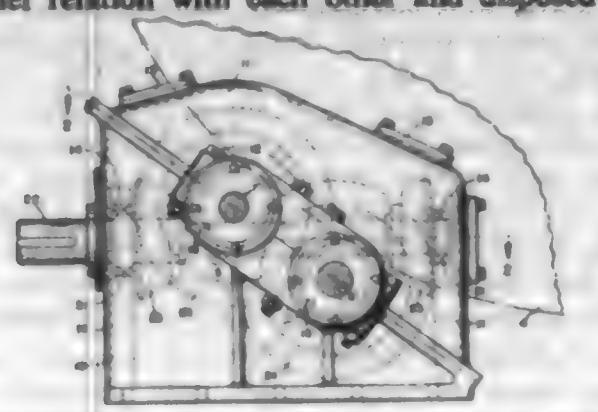
DIVIDED POWER TRANSMISSIONS

Ralph Wiken, Bayside, Wis., assignor to The Falk Corporation, Milwaukee, Wis., a corporation of Wisconsin

Application August 7, 1957, Serial No. 676,757
4 Claims. (Cl. 74—410)

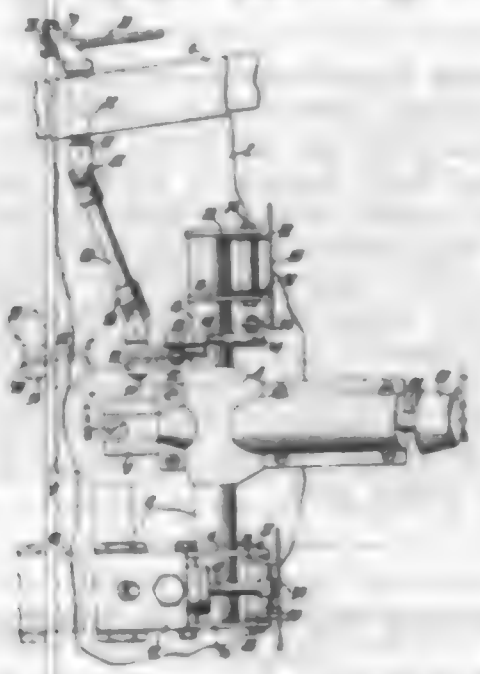
1. In a power transmission, the combination of a housing having spaced aligned bores, a drive shaft journaled

in said housing and free to float axially in said bores and having a power applicator end projecting from said housing, a pair of driven shafts journaled in said housing in parallel relation with each other and disposed at an



angle to said drive shaft, and intermeshing hypoid gears on said drive shaft and said driven shafts to drivingly connect said drive shaft with said driven shafts and so arranged that the thrusts interposed by said gears are transmitted to said drive shaft in opposite directions.

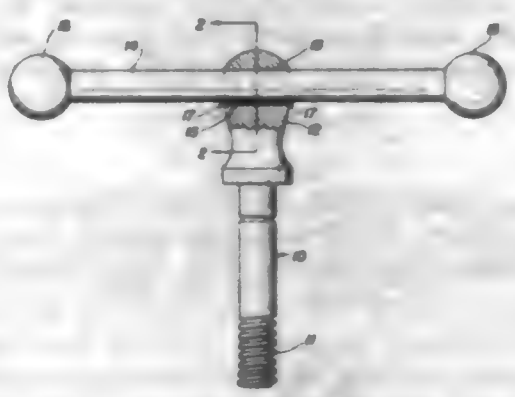
2,873,616
ADJUSTABLE CONTROL MECHANISM
Robert Schilling, Bloomfield Hills, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 13, 1954, Serial No. 403,761
4 Claims. (Cl. 74—478)



1. In a motor vehicle or the like equipped with a pedal control element, the combination therewith of a base member pivotally supporting said element and longitudinally movable to a plurality of selected positions, a control member rotatable in a fixed support laterally spaced from said element and means operably interconnecting said element and said control member, said means including a lever located forwardly of said element and linked thereto by means pivotally connected both to said lever and said element, transversely extending means journalled in means carried by said base member and rotatable by said element through said lever, and linkage means interconnecting said transversely extending means and said control member through a pair of universal joints, located one at either end of said linkage means.

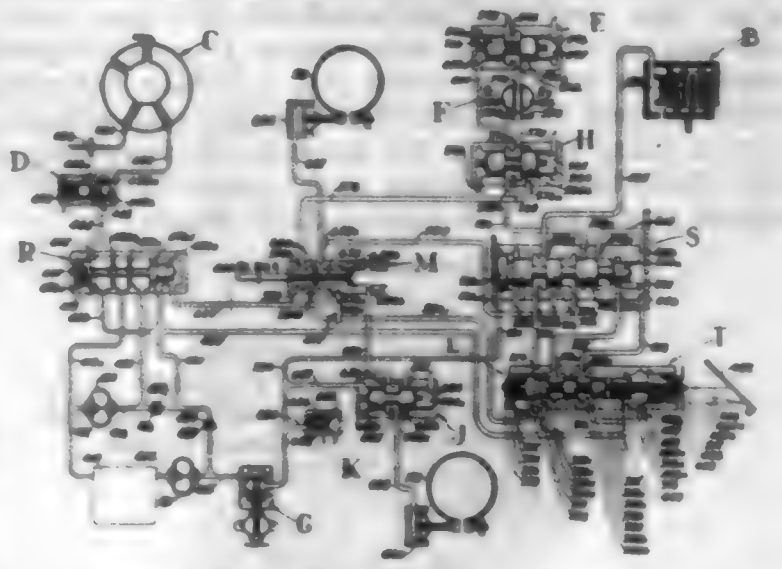
2,873,617
VISE HANDLES
Edward G. Baer, Orrville, Ohio, assignor to The Wilbert Company, Orrville, Ohio, a corporation of Ohio
Application May 11, 1953, Serial No. 354,286
1 Claim. (Cl. 74—548)

A vise handle structure including a vise screw having a threaded inner end and an enlraged head at its outer end, there being a straight cylindric diametric bore located entirely through said head, a straight lever slidably located through said bore, said lever comprising a round bar of smaller diameter than said bore and having an enlargement at each end thereof, a bowed leaf spring located entirely through said bore, the central portion of said spring frictionally contacting the adjacent side of



the lever and the end portions of the spring frictionally contacting opposite end portions of the bore, integral hooks at opposite ends of the spring, said hooks being disposed in a direction away from the lever and arranged to contact opposite sides of the exterior of said head beyond the opposite ends of the bore, whereby the lever may be adjusted longitudinally in the bore and frictionally held in adjusted position solely by said spring.

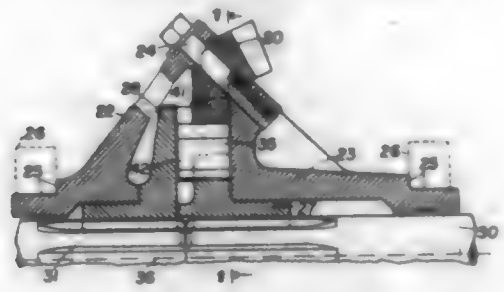
2,873,618
TRANSMISSION
John Z. De Lorean, Grosse Pointe Woods, Mich., assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application January 19, 1956, Serial No. 560,139
7 Claims. (Cl. 74—645)



1. A vehicle transmission and control system for throttle controlled engines comprising a fluid torque converter, first, second and third actuatable means to engage different driving speed ratios, a fluid pressure supply means, a shift valve means movable in one position to admit fluid pressure to the second actuatable means and movable in another position to admit fluid pressure to the third actuatable means, a manual selector valve means having a plurality of forward speed selector positions connecting with the supply means, the shift valve means and the first actuatable means, which is adapted to admit fluid pressure to the first actuatable means when in any of its forward speed selector positions, said selector valve means also having a manual low selector position for admitting fluid pressure to the shift valve means to thereby engage the third actuatable means when the shift valve means is in said another position, said selector valve means having a coast brake position adapted to admit fluid pressure to the second actuatable means and also to the shift valve means tending to move the latter to said another posi-

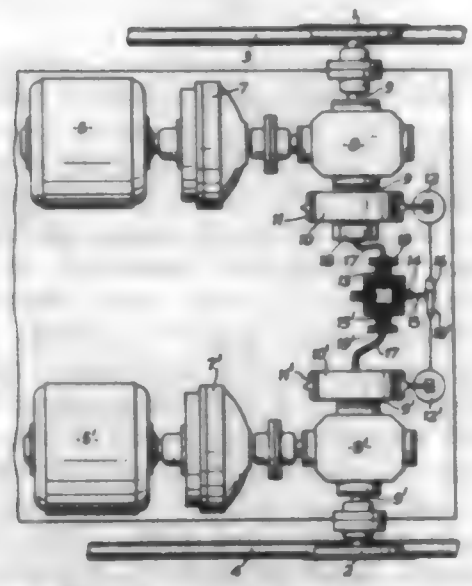
tion to thereby engage said third actuatable means, speed responsive governor means connecting with the supply means adapted to admit proportional governor pressure with respect to vehicle speed to the shift valve means, tending to move the latter to said one position, and a throttle responsive valve means connecting with the supply means adapted to admit a proportional throttle pressure with respect to the throttle position to the shift valve means, tending to move the latter to said another position in opposition to the governor pressure.

2,873,619
CAM-TYPE DIFFERENTIAL
Ernest Wildhaber, Brighton, N. Y.
Application November 9, 1956, Serial No. 621,220
9 Claims. (Cl. 74—650)



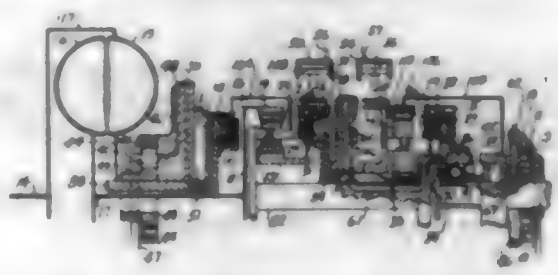
1. A cam-type differential comprising three coaxial and relatively rotatable members, namely a cage member and two cam members, said cam members having an internal and an external cam track respectively, one of said three members being the driver and the two other members being driven members adapted to transmit torque, guide ways provided on said cage member, a plurality of sliding blocks movable in said guide ways towards and away from the axis of said members in engagement with said cam tracks, said sliding blocks having an axial width larger than the axial face width of said cam tracks, and each of said guide ways having a portion aligned axially with said cam tracks and a portion extending axially beyond the associated cam tracks, said extending portion being longer in the direction of movement of said blocks than the portion of the guide way which is aligned axially with said associated cam tracks.

2,873,620
CONTROL MECHANISMS
Harold Sinclair, Windsor, England
Application February 10, 1954, Serial No. 409,419
Claims priority, application Great Britain February 11, 1953
7 Claims. (Cl. 74—665)



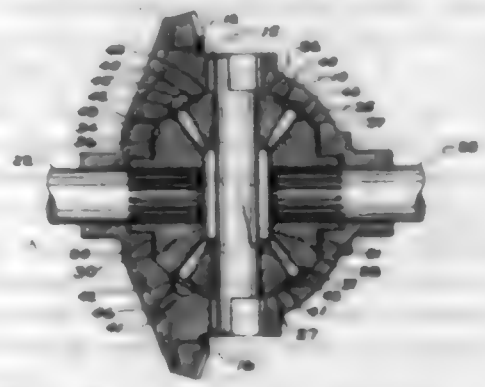
1. Control mechanism comprising, in combination, a first movable member, means individual to said first movable member operable at a substantially constant speed for driving said first movable member, a slippable coupling in the driving connection between said driving means and said first movable member, a second movable member, means individual to said second movable member operable at a substantially constant speed for driving said second movable member at a mean speed substantially equal to that of said first movable member, a second slippable coupling in the driving connection between said means for driving said second movable member and said second movable member, speed detecting means for detecting relative changes in the speed of both of said movable members, and means controlled by said speed detecting means for automatically varying the relative slip in said couplings to oppose said changes in the speeds of said movable members.

2,873,621
PLANETARY TRANSMISSION FOR SELF-PROPELLED VEHICLES
Howard W. Simpson, Dearborn, Mich.
Application January 17, 1955, Serial No. 482,102
32 Claims. (Cl. 74—677)



1. A variable speed transmission for a self-propelled vehicle comprising a power input member, a load member, a first planetary gear set having an element driven by said power input member, a second planetary gear set having an element adapted to drive said load member, a selectively engageable clutch connection between second elements of each of said planetary sets, a selectively engageable clutch connection between third elements of each of said planetary sets, selectively engageable brake connections for holding said second and third elements of said second set stationary, and a selectively engageable clutch connection between an element of said first set and said output shaft.

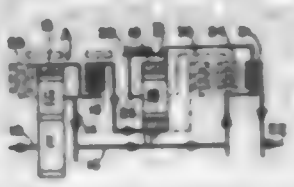
2,873,622
TOOTH SPACER FOR NON-SLIP DIFFERENTIAL GEARING
Edward L. Nash, Ferndale, Mich., assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application May 25, 1956, Serial No. 587,262
8 Claims. (Cl. 74—711)



1. A differential mechanism comprising in combination a rotatable differential case, two axially aligned bevel side gears rotatably mounted in said case with at least one of said side gears being axially movable relative to said case, clutch surface means on each axially movable side gear, clutch surface means carried by and in fixed relation to said case for frictional engagement with said clutch surface means on each axially movable side gear, a pinion shaft having an outer end operably engaging

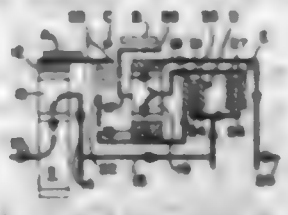
said case, means for moving said pinion shaft laterally relative to said case in the direction of said side gears, a bevel pinion gear journaled on said pinion shaft for lateral movement with said pinion shaft and being disposed in meshing engagement with said side gears, said side gears and said pinion gear each having an annular flange, an annularly shaped load washer for transmitting forces from said pinion geag to said side gears for moving said side gears axially thereof into clutching engagement with said case, said washer having an inner and an outer periphery, and said load washer being mounted on one of said gears with the inner periphery thereof in surrounding and abutable relation to the flange on that gear and the outer periphery thereof in abutable relation to the flange on each adjacent gear in mesh with the gear on which the washer is mounted.

2,873,623
SIX SPEED TRANSMISSION
Howard W. Simpson, Dearborn, Mich.
Application April 4, 1957, Serial No. 651,127
28 Claims. (Cl. 74—759)



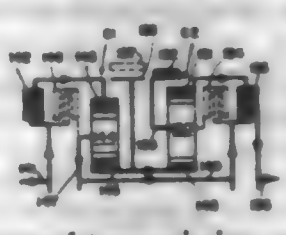
1. In a variable speed transmission comprising power input and load members, a first planetary gearset having a first element driven by said input member, a second planetary gearset, selectively engageable clutch means for coupling a second element of the first gearset to a first element of the second gearset, brake means for holding a third element of the first gearset, brake means for holding a second element of the second gearset and a driving connection between a third element of the second gearset and said load member whereby, when said clutch means are engaged and both brakes are applied, a compound reverse drive is obtained; selective engageable clutch means between the third element of the first gearset and the first element of the second set, selectively engageable clutch means between the second element of the first gearset and the load member whereby, when the last mentioned brake is applied and the two last-mentioned clutch means are engaged, a forward reduction ratio drive is obtained between the input and load members.

2,873,624
PLANETARY TRANSMISSION
Howard W. Simpson, Dearborn, Mich.
Application August 26, 1957, Serial No. 680,338
13 Claims. (Cl. 74—759)



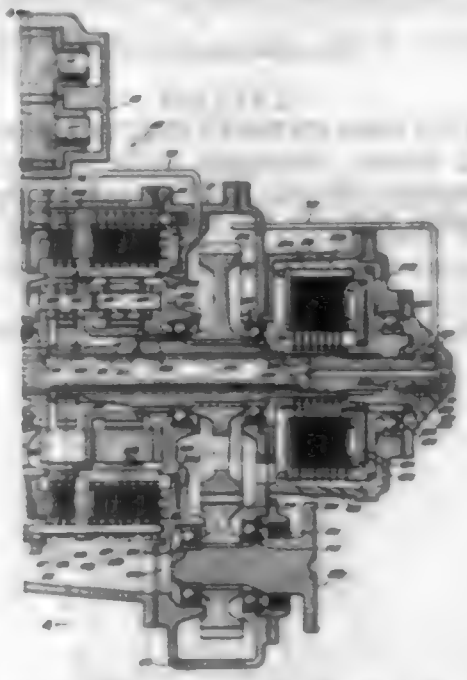
1. In a variable speed transmission having input and output members, first and second planetary gear sets, each set having a sun gear, a ring gear, at least one planet gear meshing with said sun gear and with said ring gear, and a planet gear carrier, means for coupling the input member to a member of the first gear set, means for coupling the output member to the ring gear of the second gear set, releasable means for coupling the carrier members of each gear set together, releasable means for coupling the sun gear of the second gear set to the carrier of the first gear set and releasable means for holding a third member of the first gear set as a reaction member.

2,873,625
PLANETARY TRANSMISSION FOR SELF-PROPELLED VEHICLES
Howard W. Simpson, Dearborn, Mich.
Application April 4, 1957, Serial No. 651,126
8 Claims. (Cl. 74—763)



1. In a variable speed transmission comprising a power input member, a load member, a first planetary gearset having a first element adapted to be driven by said power input member, a second planetary gearset having a first element adapted to drive said load member, selectively engageable clutch means between said first element of the first gearset and a second element of the first gearset, selectively engageable clutch means between said first element of the second gearset and a second element of the second gearset, selectively engageable clutch means between said second elements of each gearset, a driving connection between third elements of each gearset, a brake for holding said third elements and a brake for holding the second element of the second gearset.

2,873,626
TRACTOR LOADERS
Thorvald G. Granryd, Libertyville, Ill., assignor to The Frank G. Hough Co., a corporation of Illinois
Original application September 10, 1956, Serial No. 608,989, now Patent No. 2,842,273, dated July 8, 1958. Divided and this application October 17, 1957, Serial No. 696,395
11 Claims. (Cl. 74—765)



1. In a vehicle having traction means and having an engine for operating said traction means, a power train from said engine to said traction means to operate said traction means selectively in the forward and reverse directions at two different speeds, said power train including a transmission comprising four planetary sets, each of said planetary sets having a sun gear, a planet gear carrier, a plurality of planet gears journalled on said carrier, and a ring gear, each of said sun gears being formed of the same size, each of said planet gears being formed of the same size, and each of said ring gears being formed of the same size, said source of power being connected to drive the sun gears of the first and second planetary sets, a selectively operable brake for the carrier of said first set, the ring gear of said first set being connected to drive the carrier of said second set, a selectively

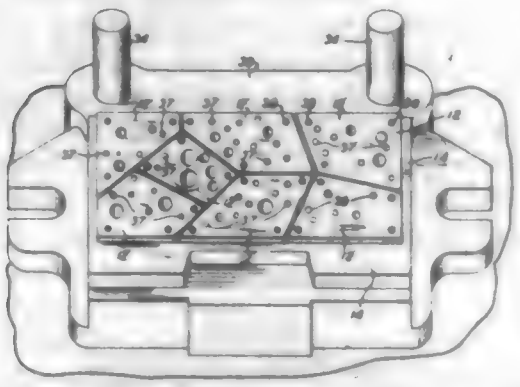
operable brake for the ring gear of said second set, said carrier of said second set being connected to drive the carrier of said third set and the sun gear of said fourth set, a selectively operable brake for the ring gear of said third set, a selectively operable brake for the ring gear of said fourth set, and the sun gear of said third set and the carrier of said fourth set being connected to drive said traction means in the forward and reverse directions at two different speeds dependent upon the operation of said brakes.

2,873,627

MULTIPLE PUNCH AND DIE SETS

William J. Smith, Lavallette, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application March 2, 1956, Serial No. 569,142
4 Claims. (Cl. 76—107)



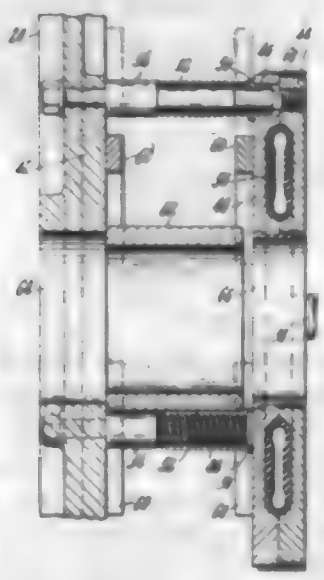
1. The method of forming a multiple die comprising securing a die plate and a back-up plate together, drilling a plurality of aligned pairs of holes in the plates, dividing the die plate into a plurality of individual members, heat-treating the die members to harden them, and securing the die members in their respective positions to the back-up plate.

2,873,628

APPARATUS FOR OPERATING ON WORK PIECES

Meredith R. Stuart, Mechanic Falls, Maine, assignor to Brown Company, Berlin, N. H., a corporation of Maine

Application January 23, 1956, Serial No. 560,696
8 Claims. (Cl. 77—21)



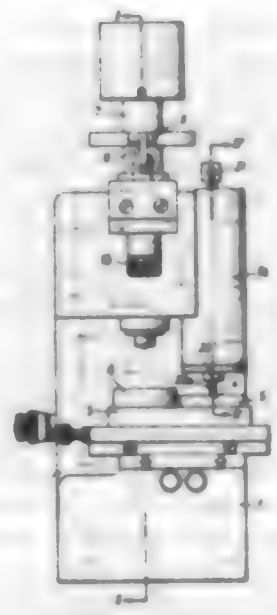
1. Apparatus for operating on a work piece comprising a conveyor mounted for stepwise rotation about an axis, a plurality of work-holding chucks mounted on said conveyor in circular array about said axis for movement through a plurality of stations including a loading station, an operating station and an unloading station, means for rotating said conveyor intermittently to advance said chucks stepwise from station to station, each chuck comprising a pair of spaced-apart work-gripping members, at least one of said pair of members being mounted for movement toward the other to grip the work therebetween and away from the other to release the work, a fluid pressure operated flexible expansible bladder mounted for movment with each chuck and operating in timed relation to the rotation of said conveyor to move said one gripping member of each chuck toward the other to grip the work while said chuck is advancing adjacent said loading station and to move said one gripping member away from the other to release the work while said chuck is advancing adjacent the unloading station, a tool mounted for movement toward and away from a position to operate on the work when the work is at the operating station, and means operating in timed relation to the rotation of said conveyor to move said tool to and from operating position while each piece of work is at said operating station.

2,873,629

FLUID-CONTROLLED BORING MACHINE

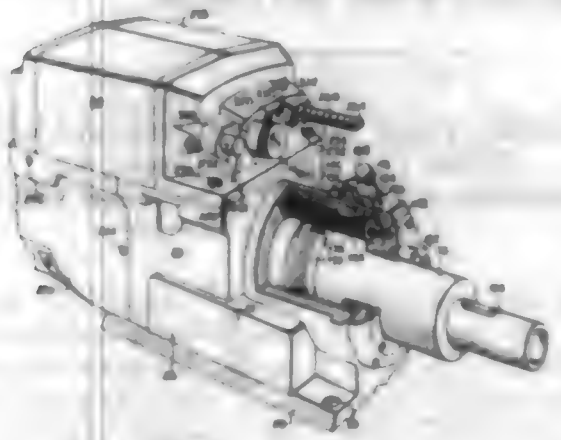
André Frautschi and Louis Monney, Bienne, Switzerland

Application May 3, 1955, Serial No. 505,593
Claims priority, application Switzerland May 8, 1954
4 Claims. (Cl. 77—32.2)



1. In a boring machine comprising a frame, a table moving freely in a horizontal plane with reference to the frame and adapted to carry a template provided with a centering recess and a work, the combination of a vertical quill shiftably carried by the frame to move vertically with reference to a point of the table within the location of the work, a boring spindle revolubly mounted in said quill, a fluid-operated system including a pilot cylinder, a piston in said cylinder and a piston rod on the piston, a lever, three pivotal connections of which two include an intermediate arm, pivotally connecting the lever with a point of the frame, with the quill and with the piston rod respectively, the piston rod controlling through the lever the vertical movement of the quill with reference to the work, a feeler rod shiftably carried by the frame above a point of the table within the location of the template for engagement with the recess in the template upon a shifting of the table bringing said recess into accurate vertical register with the feeler rod, a hand operable control lever pivotally connected with the feeler rod and controlling the vertical position of the latter, and electric means through which the operative movement of the control lever produces operation of the fluid-operated system and therethrough a downward shifting of the quill and of the boring spindle therein.

2,873,630
POWER FEED MECHANISMS
William A. Eschenburg, Plainfield, N. J., David D. Pettigrew, Milwaukee, Wis., and Clarence Johnson, South Euclid, Ohio, assignors, by mesne assignments, to The Hartford Special Machinery Company, Hartford, Conn., a corporation of Connecticut
Application May 19, 1953, Serial No. 355,922
23 Claims. (Cl. 77—33.5)



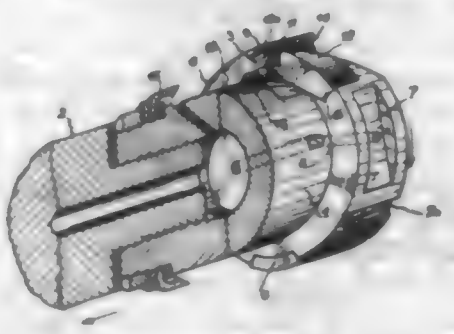
1. In a machine tool wherein a tool carrying assembly is advanced and retracted relative to a stationary housing to perform machining operations by the selective application and removal of a force to one side of a piston disposed in a power cylinder and connected to said assembly and the rate of movement of said piston is governed by the flow of a body of substantially incompressible fluid transiently occupying said power cylinder on the opposite side of said piston: a closed system for controlling the rate of expulsion from and return to said other end of the power cylinder of said incompressible fluid comprising a freely expansible chamber, conduit means adapted to conduct said fluid to said chamber, said conduit means including a circuit having two branches connected in parallel in said conduit, means limiting the flow in the branches of said circuit to single, opposite directions and for individually adjusting the rate of flow in each branch, a second free expansible chamber, second and third conduit means placing said first and second expansible chambers in flow communication, means for selectively adjusting the rate through said second conduit means, means normally closing said third conduit means and adapted to open when the fluid pressure in said second expansible chamber exceeds that in said first mentioned conduit means, and means for simultaneously contracting said expansible chambers and removing the force applied to said piston.

2,873,631
DRUM BEARING SHIELD
Bernard L. Michaelson, Sioux City, Iowa
Application August 9, 1956, Serial No. 603,143
1 Claim. (Cl. 77—55)



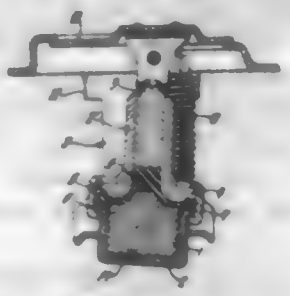
A drum bearing shield for turning lathes comprising an annular end ring having a resilient facing for bearing against a drum hub end, a further ring abutting against said end ring, said end ring and said further ring having different sized central openings for accommodating different sized fittings, a still further ring spaced from said end ring and said further ring, a cylindrical guard receiving all of said rings, peripherally and equally spaced bolts attached to said further end ring, said bolts passing through said still further ring, helical springs receiving said bolts and bearing against said further ring and said still further ring, nuts attached to the inner terminals of said bolts for limiting movement of said still further ring, said end ring and said further ring being secured to said cylindrical shield, said still further ring having a central opening in longitudinal alignment with said different sized openings.

2,873,632
APPARATUS FOR BORING TUBULAR WORK
Jacques Bissey, Tarbes, France
Application November 1, 1955, Serial No. 544,323
Claims priority, application France November 17, 1954
6 Claims. (Cl. 77—58)



1. In apparatus for boring a tubular workpiece, an elongated draft member, a boring head supported on the end of said member, means exerting a draft force on the member to draw the head axially, means imparting rotational movement to said member whereby to impart relative rotation between the member and workpiece, a tool supported on the head and having a cutting edge, said cutting edge being capable of projecting into cutting engagement with the workpiece to cut a bore therein and being located on the side of said head adjacent to said bar, and recessed means on said head defining a longitudinal passage of progressively increasing transverse sectional area from said cutting edge in a direction away from the draft member for discharge of cuttings in substantially unbroken ribbon form rearwardly of said boring head.

2,873,633
POWER ELEMENTS FOR THERMOSTATS
Howard F. May, Medina, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 7, 1952, Serial No. 319,289
1 Claim. (Cl. 73—358)



A power element for thermostats including a cylinder, a plunger reciprocable in said cylinder, a flowable material confined within said cylinder, a restricted zone of said material acting upon said plunger and urging the latter to move in one direction, said material being expansible and contractible with the application and removal of heat and comprising crystalline wax, metallic particles and a plasticizer for said wax, said plasticizer being in an amount sufficient to reduce the viscosity of said wax within a predetermined temperature range in which said power element is operable, the amount of plasticizer being such as sufficiently to reduce the viscosity to a degree which will permit gravitational precipitation of the metal particles upon said material entering said temperature range and at the same time the material

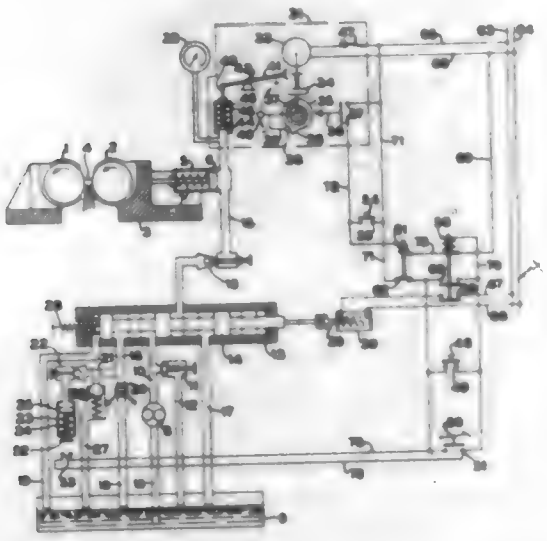
being sufficiently viscous upon cooling to maintain the redispersed condition of the particles caused by the turbulence set up by the action of the plunger.

2,873,634

ROLLING MACHINES AND CONTROL MEANS THEREFOR

Ernst Fritz Wilhelm Moeltzner, Berlin-Charlottenburg, Germany, assignor, by mesne assignments, to Landis Machine Company, Waynesboro, Pa., a corporation of Pennsylvania

Application June 30, 1953, Serial No. 365,048
5 Claims. (Cl. 80—6)



1. A machine tool comprising a working member movable through an advance stroke under the influence of fluid pressure and a retract stroke when said pressure is relieved; a valve movable between first and second positions to selectively connect said working member to a source of fluid pressure and to exhaust; an electrical control circuit including a solenoid for actuating said valve adapted to be connected to a source of electrical energy, and, when energized, to energize said solenoid to shift said valve to said first position to advance said working member; first switch means in said electrical control circuit; a pressure responsive timer operable a predetermined time after said valve is shifted to said first position to actuate said switch to deenergize said solenoid whereby said valve is shifted to said second position to connect said working member to exhaust; second switch means in said electrical control circuit; and fluid pressure switch control means operable a predetermined time after said valve is shifted to said second position to close said second switch to reenergize said solenoid to shift said valve to said first position to again apply fluid to advance said working member, said valve including means to connect said switch control means to said source of fluid pressure when said valve is in said second position.

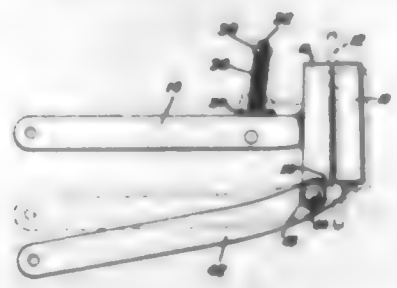
4. In a thread rolling machine having a first threading roll mounted for movement toward and away from a second threading roll; a power cylinder containing a piston connected to said first roll and adapted to move said first roll toward said second roll upon the application fluid pressure to said cylinder and spring biased to move said first roll away from said second roll when said fluid pressure is relieved; a valve movable between first and second positions to selectively connect said cylinder to a source of fluid under pressure and exhaust, said valve being spring biased to said second position; an electrical control circuit including a solenoid adapted to move said valve to said first position; first switch means in said control circuit adapted, when actuated, to deenergize said solenoid; actuating means for said first switch means including a pressure responsive element connected to said cylinder and effective a predetermined time after the application of pressure thereto to actuate said first switch means to deenergize said solenoid whereby said valve is moved to said second position; additional switch means in said circuit adapted, when actuated, to reenergize said solenoid; and operating means for said second switch means including a pressure responsive element and effective a predetermined time after connection of said cylinder to exhaust to reenergize said solenoid to move said valve to said first position.

2,873,635

BENDING TOOL FOR WIRE ROD HANGERS

Gerald T. Waldron, Roanoke, Va.

Application April 29, 1957, Serial No. 655,703
3 Claims. (Cl. 81—15)



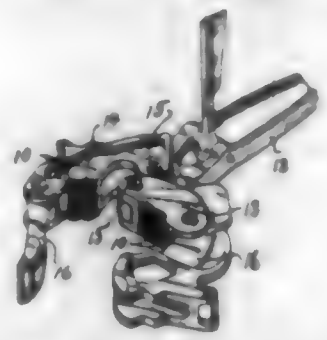
1. A tool for bending the free end of a wire rod hanger into substantially U-shaped configuration for receive a ceiling supporting channel disposed with the web thereof in vertical position, said tool comprising an elongated stationary handle, a transversely extending die on one end of said stationary handle, a movable die, means supporting the movable die on the stationary die in facing relation for movement in relation thereto for receiving the wire rod therebetween, spring means engaging the stationary handle and the supporting means for the movable die for urging the movable die towards the stationary die for clamping the wire rod hanger therebetween, an elongated handle pivotally supported on one end of said movable die, and a wire rod engaging abutment on the pivotally supported handle for engaging the wire rod and bending the wire rod around the end of said movable die upon pivotal movement of the handle, said dies being generally rectangular in shape thereby forming a generally U-shaped bend in the wire rod.

2,873,636

PIPE WRENCHES

Loyd B. Sherman, Odessa, Tex.

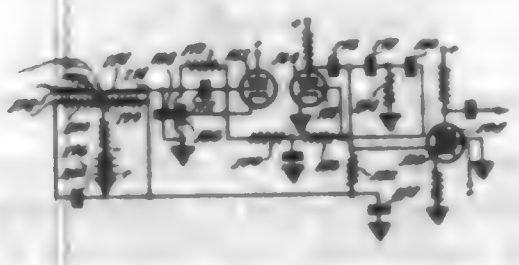
Application March 3, 1958, Serial No. 718,809
2 Claims. (Cl. 81—180)



1. A rotary tong having jaws adapted to be brought into engagement with pipe to apply torque to the pipe, each of said jaws being provided with a plurality of dies, each die consisting of a rectangular metal block, the dies being so mounted in the jaws as to have their longitudinal dimensions parallel with the axis of the pipe, each die having a number of sharp ridges on its gripping surface adapted to serve as teeth to bite into the pipe, said ridges being curved and concentric with respect to each other.

2,873,637
TOUCH CONTROL FOR POLYPHONIC MUSICAL INSTRUMENTS

Edward W. Herold, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 26, 1954, Serial No. 419,004
The terminal fifteen years of the term of the patent to be granted has been disclaimed
2 Claims. (Cl. 84—1.04)



1. In a polyphonic musical instrument, the combination comprising a tone generator having an electrical audio-frequency signal output, a utilization circuit, means for applying said audio signal output to said utilization circuit, a radio-frequency oscillator circuit to develop a bias, means for applying said bias to maintain said tone generator normally inoperative, a control circuit for varying the operation of said radio frequency oscillator, means connecting said control circuit to said oscillator, means associated with said control circuit having a variable electrical characteristic, said last named means being accessible to the finger of an operator, whereby a touch of the finger of an operator is effective to vary said electrical characteristic to render said radio frequency oscillator inoperative thereby reducing said bias to permit operation of said tone generator, and means for varying said audio signal output from said tone generator to said utilization circuit.

2,873,638
PIANO ABSTRACT AND ASSEMBLY

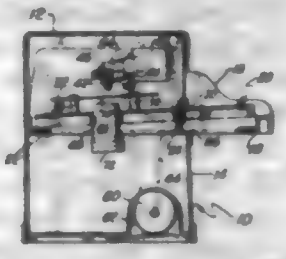
Merton D. Corwin, Cincinnati, Ohio, assignor to The Baldwin Piano Company, Cincinnati, Ohio, a corporation of Ohio
Application January 27, 1955, Serial No. 484,382
2 Claims. (Cl. 84—243)



1. An abstract for a musical instrument consisting of a one-piece die cast metallic element having an elongated substantially cylindrical body terminating at its upper end in an angularly related ledge, said cylindrical body terminating at its lower end in a flat portion of lesser thickness than said body and a fork at the lower end of said flat portion, said flat portion and said fork extending in prolongation of said cylindrical body with the plane of said fork lying at substantially right angles with respect to the direction of extension of said ledge.

2,873,639
TOY PIANO HAVING KEY MOUNTED TONE BARS

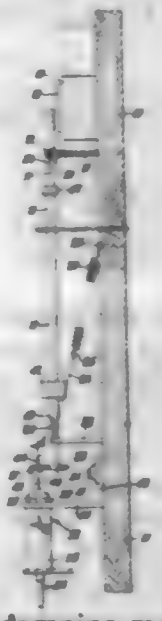
Clair Omar Musser, Studio City, Calif.
Application October 20, 1958, Serial No. 767,981
12 Claims. (Cl. 84—404)



1. A toy musical instrument of the class described which includes: a housing having a front side formed with an elongated slot located therein; a key support ledge attached to said front side of said housing so as to project generally parallel to said slot; a plurality of projections capable of serving as fulcrums mounted on said housing adjacent to said slot so as to project upwards from the lower edge thereof; a support member positioned within said housing so as to project generally parallel to said slot; a plurality of keys, each having a top and a bottom and a recess located in the bottom thereof positioned so as to project through said slot into said housing with each of said recesses receiving one of said projections, said keys being supported in a normal position by said projections and said support member located within said housing, said keys being capable of being engaged on the outside of said housing so as to be pushed into engagement with said key support ledge so as to rotate said keys about said projections to a playing position; a tone bar resiliently attached to each of said keys so as to be moved to a playing position when said keys are moved to a playing position; a shaft rotatably mounted within said housing above said tone bars, said shaft being generally parallel to said slot; means operatively associated with said shaft and mounted in said housing for rotating said shaft; a plurality of arms attached to said shaft so as to project therefrom, each of said arms being located generally above one of said tone bars; means operatively associated with each of said arms for periodically striking one of said tone bars when said keys are actuated so as to rotate about said projections to a playing position.

2,873,640
STRIKING MECHANISM FOR MUSIC INSTRUMENT

Jacob T. Kunz, North Hills, Pa., assignor to Schulmerich Electronics, Incorporated, Sellersville, Pa., a corporation of Pennsylvania
Application June 3, 1955, Serial No. 513,061
13 Claims. (Cl. 84—405)



1. In a striker and damping mechanism for an electric music instrument, the combination comprising a bar

vibrator having a portion adapted to be struck, a striker plunger adjacent said portion normally resting against a stop, an electromagnetic means for moving said striker plunger into contact with said portion when energized, and spring-like damping means extending from said plunger toward said portion, said damping means being in slidable contact with said portion when said plunger is in a deenergized position and away from said portion and is freed from said portion when said plunger is moved toward said portion upon energization of said electromagnetic means, said damping means progressively increasing damping action as it slidably engages said vibrator.

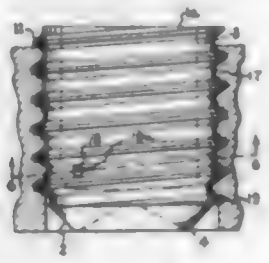
2,873,641

SCREW WITH CUTTER TO CHANGE FEMALE THREAD SHAPE

Edwin R. Evans, Detroit, Mich., assignor to Lock Thread Corporation, a corporation of Delaware

Continuation of abandoned application Serial No. 98,139, June 9, 1949. This application April 5, 1954, Serial No. 420,849

2 Claims. (Cl. 85—47)



1. A screw having a male thread and leading and trailing ends and a socket opening in its trailing end, said thread having a root face of a width at least approximately equal to the base width of the thread, and having a passage extending, in proximity to the leading end of the screw, from the root face to the socket, a cutting edge being formed at the intersection of said face and passage by the rotatively trailing portion of such intersection, and being substantially confined to said face, for removing material from the crest of a female thread engaged by the male thread, and said passage delivering such material to the socket.

2,873,642

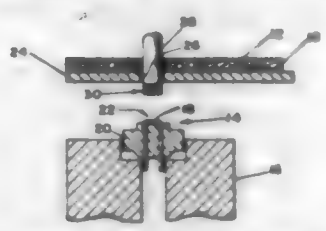
METHOD OF APPLICATION OF MICRO-PRIMING SPOTS

Richard H. Weingrad, Rockville, and Peter B. Ferrara and William P. Smith, Jr., Silver Spring, Md., assignors to the United States of America as represented by the Secretary of the Army

Application April 18, 1957, Serial No. 653,718

1 Claim. (Cl. 86—1)

(Granted under Title 35, U. S. Code (1952), sec. 266)



A method of applying micro-priming spots, said method comprising the steps of: supporting two electrical terminals in close proximity to one another and incorporating a conductive bridge therebetween; applying a binder lacquer to said bridge; punching a disc from a carrier having a cured coating of a primer lacquer thereon; continuing the punching movement so that said disc is carried to said bridge and pressed thereagainst with said coating of conductive material in contact with said binder lacquer; spraying the assembled structure with a consumable lacquer; and oven-drying said assembled structure to provide a rigid resultant structure.

2,873,643

DEVICES FOR VIEWING WITH MAGNIFICATION RELIEF IMAGES ON LENTICULATED FILMS

Anne Henri Jacques de Lassus St-Geniès, Paris, France

Application March 23, 1954, Serial No. 418,206

Claims priority, application France March 25, 1953

2 Claims. (Cl. 88—1)



1. Portable optical system for direct viewing in correct relief with magnification, lenticulated films of small size which have recorded reversed or correct relief, comprising two optical lens systems L_1 and L_2, the said optical lens system L_1 having a diameter at least as great as the interpupillary distance of the observer's eyes and being capable of magnifying about three times the image borne by the film oriented towards the L_1 lens system by its lenticulated face, and placed at a definite distance from the film less than its focal distance f_1, this said optical lens system L_1 forming a virtual magnified image in correct relief for the observer placed at the other side of the film at a definite distance T' of about 30 to 50 cm. from this optical lens system L_1 and viewing in binocular vision, said optical lens system L_2 being placed in close relationship to the lenticulated surface of the film and being a negative lens and so designed and computed that it places an image of the film pupil (pupil which is the aerial image of the exit pupil of the taking objective and lies in a plane at the distance t in front of the film) in a plane which lies at a distance from the lens system L_1 which is conjugate with the distance T' as defined hereinbefore in the system, whereby the film may be viewed in proper relief.

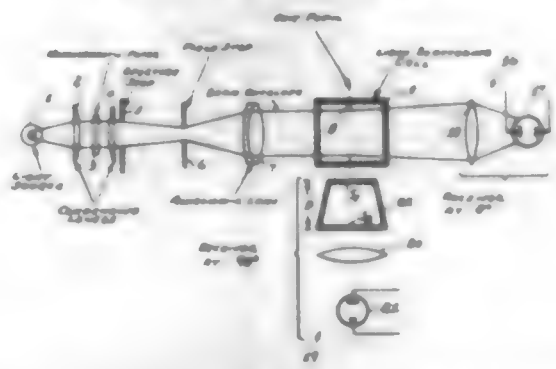
2,873,644

OPTICAL SYSTEM FOR THE MEASUREMENT OF TURBIDITY

Jerome Kremen and Justin J. Shapiro, Silver Spring, Md., assignors to American Instrument Co., Inc., Silver Spring, Md.

Application February 8, 1955, Serial No. 486,957

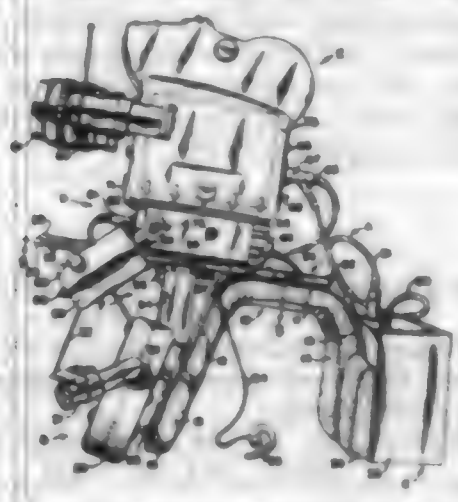
5 Claims. (Cl. 88—14)



1. In a turbidity measuring apparatus, a transparent vessel adapted to contain material to be tested having light scattering properties, a light source, an aperture stop located between said source and said vessel, means providing uniform irradiance in the light beam across the plane of said aperture stop, a field stop between the aperture stop and the vessel, means focussing an image of the source on the field stop, a lens between the field stop and the vessel, said field stop being located between the lens and its focal point, said lens being formed and arranged to form an image of the aperture stop of uniform irradiance in the intermediate portion of the vessel, and flux-measuring means formed and arranged to receive the direct flux of said beam, said flux-measuring means being further formed and arranged to receive light flux scattered by the material along an axis extending from

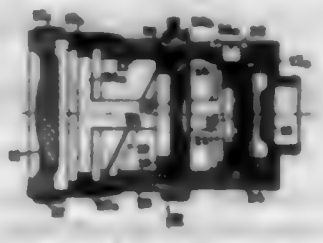
the intermediate portion of the vessel normal to the beam and including a pair of spaced parallel stop windows on said last-named axis between the flux-measuring means and said vessel, the distance between the stop windows being large compared to their transverse dimensions and the stop windows being smaller than the transverse area of the scattered light beam, at least one of the stop windows being removable to measure said direct flux.

2,873,645
PORTABLE SOUND RECORDING MOVING PICTURE APPARATUS
William A. Horton, Oklahoma City, Okla.
Application May 23, 1957, Serial No. 661,882
7 Claims. (Cl. 88—16)



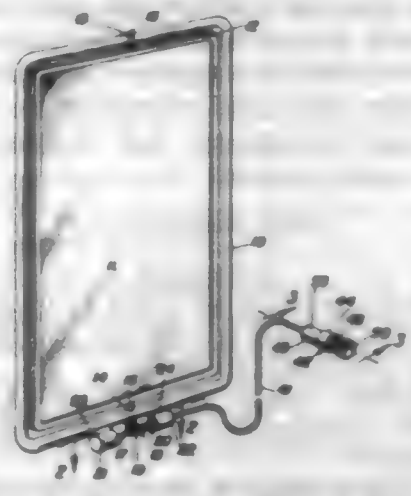
2. In apparatus for the portable support of sound recording moving picture equipment, the combination of moving picture equipment including a sound recording camera, a microphone unit, an amplifier, and a power supply, all of said equipment being interconnected in an operable manner; and a shoulder bracket shaped to fit over one shoulder of an operator, said shoulder bracket having an upper portion and downwardly depending front and rear portions, said power supply being mounted upon said rear portion of said bracket and having its weight distributed to the rear of said bracket, said microphone unit being mounted upon said front portion of said bracket and having its weight distributed to the front of said bracket, said amplifier being mounted upon the upper portion of said bracket and extending over said front portion of said bracket with its weight distributed to the front of said bracket, and a camera mounted upon said amplifier and extending over said front portion of said bracket with its weight distributed to the front of said bracket, such distribution of weight locating the center of gravity of the motion picture equipment over the upper portion of said shoulder bracket and providing an evenly balanced shoulder supported portable unit.

2,873,646
MECHANISM FOR VARIABLE FOCAL LENGTH OBJECTIVE
Pierre Angenieux, Paris, France
Application September 1, 1955, Serial No. 531,859
Claims priority, application France October 22, 1954
4 Claims. (Cl. 88—57)



1. Mechanism for variable focal length objective of the type comprising on a common axis two fixed optical elements and between said fixed optical elements two movable optical elements, both movable axially according to a law such that the objective gives of an object situated at a fixed distance an image of which the distance from said fixed elements remains constant whereas its magnification varies continuously, said mechanism comprising a fixed supporting tube having said fixed optical elements mounted at its ends, a first barrel supporting one of said movable optical elements which is fitted on and adapted to rotate concentrically to said supporting tube, said first barrel being operatively connected through a curved cam slot guide mechanism to said fixed supporting tube so that to each rotational movement of said first barrel there corresponds the desired axial movement thereof; a second barrel supporting the other movable optical element which is fitted on and adapted to rotate concentrically to said supporting tube, said second barrel being operatively connected through another curved cam slot guide mechanism to said supporting tube so that to each rotational movement of said second barrel there corresponds the desired axial movement thereof; said first barrel and second barrel being positively interconnected inside the said fixed supporting tube whereby said barrels may rotate bodily with each other without interfering with their respective axial movements, and control means actuatable by hand from outside said supporting tube for rotatably driving one of said barrels.

2,873,647
REMOTELY ADJUSTABLE REAR-VIEW MIRROR
William D. Bach, Montgomery, Ala.
Application August 1, 1956, Serial No. 601,554
7 Claims. (Cl. 88—93)

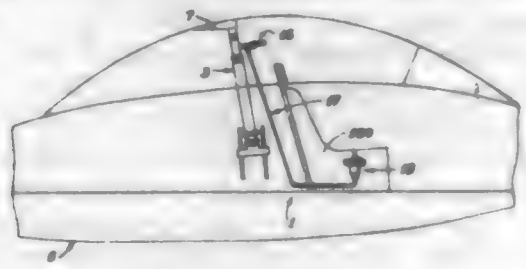


1. A rear-view mirror comprising a frame adapted to be mounted in a vehicle, a mirror mounted on the frame in a plane substantially vertical to the line of sight, said mirror being provided with vertically spaced shafts journalled in the frame whereby the mirror may be rotated thereon about an axis containing said shafts, and means for rotating one of said shafts, said means comprising a movable piston mounted adjacent said one shaft, means on said one shaft cooperating with said movable piston to rotate said mirror upon movement of the piston in one direction, compression means for urging said movable piston in a reverse direction for rotating said mirror in a reverse direction, hydraulic fluid for actuating said piston and remote pumping means for urging said fluid against said piston.

2,873,648
REMOTE CONTROL FLUID PRESSURE RESPONSIVE ACTUATOR
C Walton Musser and Francis W. Dietsch, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of the Army
Application May 7, 1953, Serial No. 353,702
2 Claims. (Cl. 89—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In an apparatus for mechanically moving a load where said apparatus is out of reach of an operator, the

combination therewith of the improvement for eliminating the need for mechanical linkage between an operator and a load with changes in direction and friction in said linkage, said improvement including a cartridge actuated thruster for moving a load, a firing pin for said thruster, a lock for said firing pin, a spring for moving said firing pin when unlocked to fire a cartridge and actuate said thruster, a cartridge actuated initiator adjacent said operator for generating fluid pressure, means adjacent said thruster and lock for unlocking said firing pin and including an exactor having a cylindrical casing, said lock being constituted by a pin, said pin being secured to a piston movable in said casing to withdraw said pin into said casing for unlocking said thruster firing pin, an auxiliary piston mounted on said pin axis, a second spring in cooperation with said casing and auxiliary piston and adapted to be compressed on movement of said auxiliary piston oppositely to the first mentioned piston, a fluid pressure line from said initiator to the inside of said casing, and means for securing said locking pin to said casing and said pistons against separation prior to arrival of fluid pressure in said casing, said last mentioned means releasing said pistons in response to the supply of fluid pressure from said initiator through said line to said casing between said pistons and to movement of the auxiliary piston under fluid pressure before release of the first mentioned piston from said casing for its movement for withdrawing said locking pin into the casing from said firing pin for said thruster.

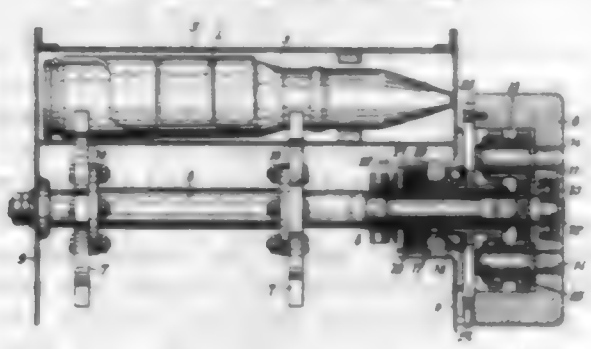


2,873,649

FEED DEVICES FOR AUTOMATIC GUNS SUPPLIED WITH AMMUNITION IN THE FORM OF A CARTRIDGE BELT

Bernard Maillard, Geneva, Switzerland, assignor to Brevets Aéro-Mécaniques S. A., Geneva, Switzerland, a Swiss society

Application December 9, 1955, Serial No. 552,133
Claims priority, application Luxembourg December 16, 1954
8 Claims. (Cl. 89—33)



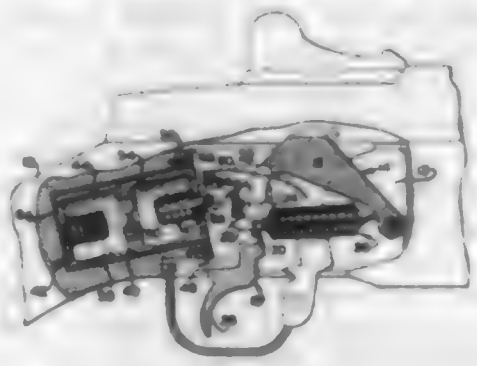
3. In combination, a framework, an automatic gun carried by said framework and including a belt feed mechanism for feeding said gun with ammunition, said ammunition being in the form of a belt comprising cartridges and flexible links interconnecting said cartridges, said belt feeding mechanism intermittently pulling said belt at least once every time a shot is fired, a shaft extending at right angles to the direction of movement of said belt toward said belt feeding mechanism, said shaft being journalled in said framework, at a distance from said belt feed mechanism, at least one sprocket wheel fixed to said shaft, said sprocket wheel being in mesh with the cartridges of said belt on their way toward said feed mechanism, a belt guiding passage rigid with said framework, extending between said feed mechanism and said sprocket wheel, arranged to cooperate with said cartridge belt to cause the forward movement of the portion of said belt in mesh with said sprocket wheel to be stopped in response to stopping of said belt feed mechanism, a fly-wheel coaxial with respect to said shaft, a plurality of spindles carried by said fly-wheel parallel to said shaft and distributed about the axis of said shaft at equal distances therefrom, a plurality of pairs of planet-wheels, the two planet-wheels of each pair being rigid and in line with each other and being rotatable about one of said spindles respectively, a sun-wheel rigid with said shaft and in mesh with one planet-wheel of each of said pairs of planet-wheels, a sleeve coaxially surrounding said shaft and freely rotatable with respect thereto, a second sun-wheel rigid with said sleeve and in mesh with the other planet-wheel of said pairs of planet-wheels, and means for fixing said sleeve with respect to said framework.

2,873,650

FLUID TRANSFER RATE CONTROL FOR A FIRING MECHANISM

Harry E. Pinkerton, Jr., Oyster Bay, N. Y., assignor to the United States of America as represented by the Secretary of the Army

Application May 24, 1957, Serial No. 661,550
3 Claims. (Cl. 89—131)



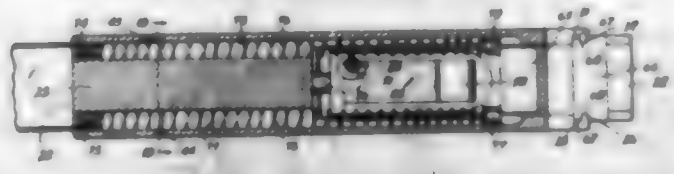
1. For a firearm having a firing member reciprocable between a firing and a cocked position and a sear for releasably latching the firing member in the cocked position, a device for effecting automatic fire at a controlled repetitive rate including a resilient member, means actuable by the firing member for energizing said resilient member, hook means for converting the energy in the resilient member to actuation of the sear for releasing the firing member, and a fluid transfer device engaged for cooperation with said hook means for controlling the time interval between the actuation of said energizing means by the firing member and the actuation of the sear by said hook means to release the firing member.

2,873,651

RECOIL SELECTOR MECHANISM FOR FIREARMS

Ralph D. Lambert, St. Louis, Mo.

Application July 22, 1955, Serial No. 523,768
12 Claims. (Cl. 89—198)



1. In a firearm of the type described, a reciprocal slide movable to a forward and a rearward position on said firearm, said slide being adapted to be moved to the rearward position by recoil force when the firearm is fired, recoil biasing means urging said slide to the forward position, said recoil biasing means including a multi-

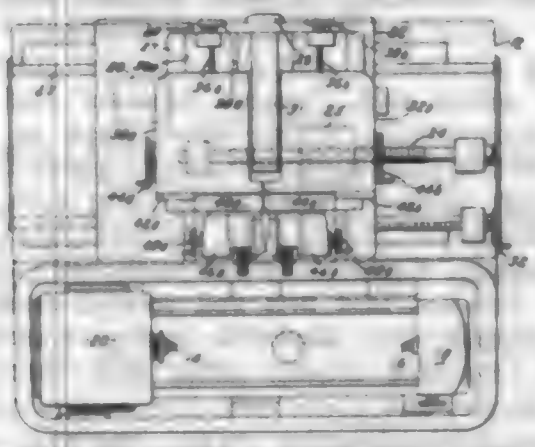
plicity of recoil biasing members, and selector means for varying the effective force of said recoil biasing means by separately disengaging a part of said recoil biasing members.

2,873,652

MACHINE FOR SHAVING HERRINGBONE GEARS

Thomas S. Gates, Grosse Pointe Woods, and Arthur B. Bassoff and Kenneth J. Davis, Detroit, Mich., assignors to National Broach & Machine Company, Detroit, Mich., a corporation of Michigan

Application November 28, 1956, Serial No. 623,432
7 Claims. (Cl. 90—1.6)



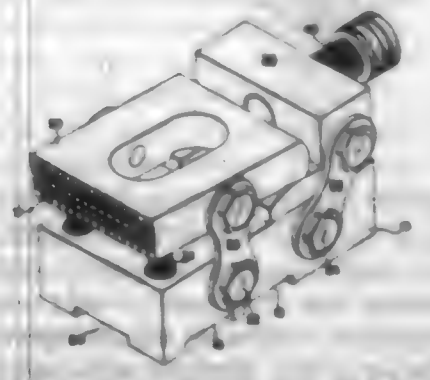
1. A machine for finishing herringbone gears comprising a frame, a rotary work support on said frame for supporting a herringbone gear, a cross slide mounted on said frame for traverse substantially parallel to the axis of said work support, a feed slide mounted on said cross slide for movement thereon toward and away from said work support, a pair of main tool slides mounted on said feed slide for independent adjustment along parallel paths thereon toward and away from said work support, the amount of adjustment provided for said main tool slides being sufficient to move a gear-like tool carried by either completely out of mesh with the associated section of a herringbone gear work piece a tool sub-slide mounted on each of said main slides and independently adjustable thereon in a direction parallel to the axis of said work support, a rotary tool support on each of said tool sub-slides for supporting a gear-like finishing tool, means for driving one of said supports in rotation, and means for moving said cross slide in traverse strokes.

2,873,653

METHOD AND MEANS OF SECURING MACHINE WORK AGAINST A MACHINE TABLE

Arthur D. Wilson, Seattle, Wash., assignor of one-half to Jim V. Karras, Seattle, Wash.

Application November 13, 1956, Serial No. 621,863
1 Claim. (Cl. 90—59)



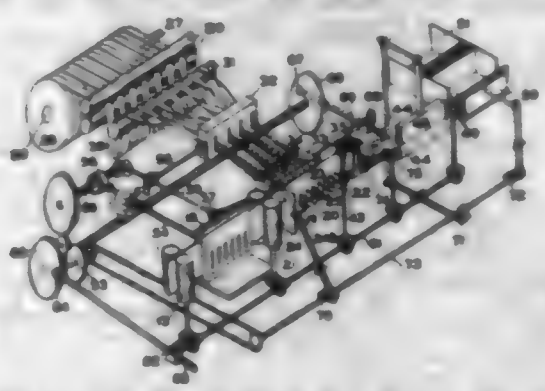
Means for assisting in securing machine work against a machine table, comprising: a two-way clamp having a base adapted to be bolted to a machine table, a clamp block, having a rear, vertically curved surface disposed substantially parallel to said base and secured to the base by two parallel-positioned links one on each side of said block, resilient means urging the outer end of said clamp block upwardly, a movable cam block secured to said base by two rearwardly inclined parallel positioning links and having a clamp screw, threaded therein, disposed to engage the curved inboard end of said clamp block, a curved lower rear surface normally supporting said cam block, an extension of said cam block having an upper cam surface extending under the inboard end of said clamp block and disposed to lower the workpiece-engaging outer end surface of said clamp block when said clamp screw is tightened.

2,873,654

MACHINES FOR MANUFACTURE OF EGG CARTONS

James Arthur MacCallum, Johannesburg, Union of South Africa, assignor to Gummed Tapes (Proprietary) Limited, Johannesburg, Union of South Africa, a South African company

Application March 2, 1956, Serial No. 569,018
12 Claims. (Cl. 93—37)



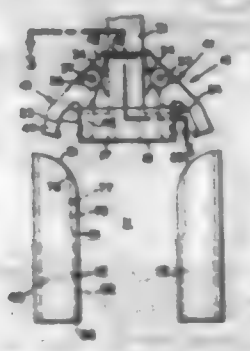
1. A machine for manufacturing from a supply of body roll stock and a separate supply of partition roll stock cellular cartons of the type which consist each of a body in the form of a length of sheet material adapted to be folded to form cellular compartments divided by transverse partitions fitting through slots in the body and interlocking with the body said machine comprising an assembly gate, means for forming a plurality of slots through and intermittently feeding from the supply of body roll stock a continuous doubled length of sheet material for operative positioning of successive portions thereof in said assembly gate, means for synchronously and intermittently feeding from the partition roll stock a plurality of further continuous lengths of sheet material and simultaneously inserting the free ends of said lengths transversely through respective slots, parting devices operating synchronously with the feeding means and subsequent to such insertion of the free ends of said lengths of partition stock for parting the two supplies of roll stock to form separate body portions and partitions, and an assembly device operating synchronously with the feeding means and acting to press the partitions into engagement with the slots in the doubled sheet material.

2,873,655

CARTON LOCKING MECHANISM

Al Johnson and Fred W. Ganger, Stockton, Calif., assignors to Al Johnson, doing business as Valley Pattern & Mfg. Co., Stockton, Calif.

Application December 13, 1956, Serial No. 628,190
6 Claims. (Cl. 93—51)



1. A carton erecting and locking machine comprising a die, plunger movable through said die and separated

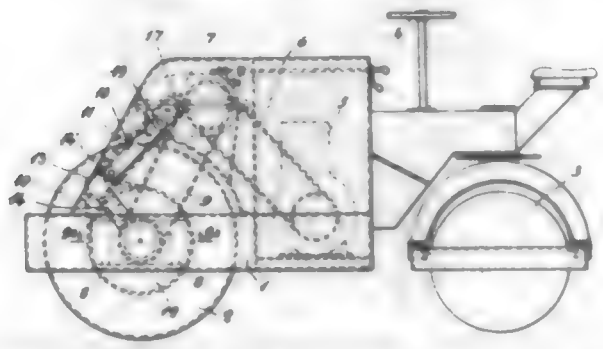
therefrom by a clearance space of predetermined width, said die and said plunger having formed therein in facing relation a slot and a recess, respectively, a leg rockably mounted on said plunger and extending into said slot, a finger rockably mounted on said plunger and extending into said recess, and means for rocking said leg and said finger in dependence upon the location of said plunger in said die between a first position wherein said finger extends into said clearance space and a second position wherein said leg extends into said clearance space.

2,873,656

CHAIN DRIVE FOR VIBRATING PLANING ROLLERS

Karl Olov Börje Andersson, Ljungby, Sweden, assignor to Vibro-Plus Corp., Woodside, N. Y., a corporation of Delaware

Application November 22, 1954, Serial No. 470,435
4 Claims. (Cl. 94—50)



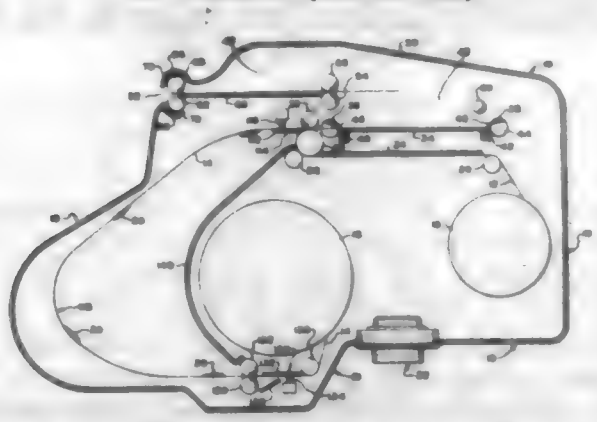
1. Vibrating roller mechanism comprising a frame, a roller drum rotatably mounted on a shaft, means resiliently fastening the drum shaft to the frame, a weight in the roller drum rotated by the drum shaft to generate vibrations, power means carried by the frame coupled to the drum shaft to provide rotation thereof, an arm carrying a rotatable shaft in one of its ends, means journaling the other end of the arm concentrically with the drum shaft for swinging movement relative thereto, a drive pulley coupled to the power means, a bar angularly related to the shaft carrying end of said arm, said bar being pivotally connected at one of its ends to said arm and at its other end to a pivot adjacent to the drive pulley, a pair of pulleys secured to the rotatable arm shaft, an endless and elongated substantially inelastic flexible element connecting the drive pulley and one of the shaft pulleys, a pulley on said roller drum, and means coupling said drum pulley to the other of said shaft pulleys for rotating the drum.

2,873,657

PHOTOGRAPHIC APPARATUS

Philip D. Bartlett, Worcester, Donald R. Bishop, Westwood, Sidney B. Whittier, Concord, and Albert L. H. Wright, Wellesley, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application March 3, 1955, Serial No. 491,982
31 Claims. (Cl. 95—13)



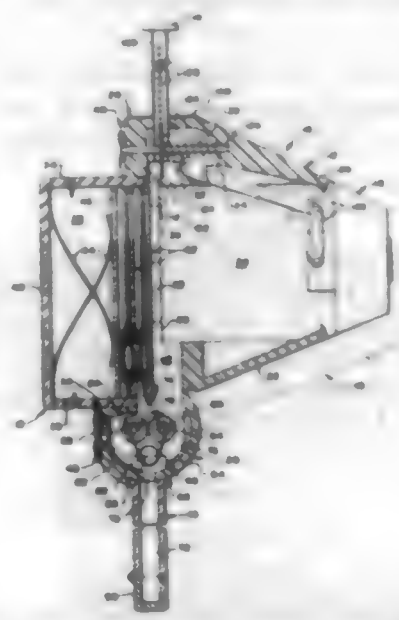
1. In photographic apparatus for exposing and thereafter processing successive frames of a photosensitive strip, in combination, means defining a processing chamber within which each exposed frame of a photosensitive strip is retained during a predetermined processing period, pressure-applying means positioned intermediate the ends of said processing chamber for superposing each successive exposed frame of said photosensitive strip with an area of another strip to form a sandwich comprising said strips and a processing composition so distributed between the outer surfaces of said strips as to be capable of performing said processing, the last-mentioned means advancing said sandwich into said processing chamber toward one end thereof, first cutting means mounted within said processing chamber adjacent said pressure-applying means for severing said sandwich from the remaining portions of said strips, second cutting means mounted within said chamber adjacent said one end thereof substantially in the same plane as said first cutting means and predeterminedly spaced therefrom, said second cutting means cooperating with said first cutting means for cutting said sandwich to a predetermined length, support means positioned within said chamber between said first and second cutting means for positioning said sandwich during severance, first sandwich-advancing means within said chamber positioned adjacent and above said first cutting means, and second sandwich-advancing means operative independently of said first sandwich-advancing means and mounted within said chamber adjacent the other end thereof and spaced from said first sandwich-advancing means by a distance less than the distance between said first and second cutting means.

2,873,658

PHOTOGRAPHIC APPARATUS

Edwin H. Land, Cambridge, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application July 5, 1956, Serial No. 595,989
14 Claims. (Cl. 95—13)



1. Photographic apparatus comprising, in combination, means defining a chamber capable of housing a plurality of photographic assemblages arranged in stacked relation, means for locating the foremost of said assemblages in position for exposure, exposure means operable to effect the photoexposure of the photosensitive element of said foremost assemblage positioned for exposure within said chamber, means defining an opening in one side of said chamber adjacent an edge of said foremost assemblage and being so dimensioned as to admit the passage of said foremost assemblage, a pair of pressure-applying members associated with said opening for engaging and applying compressive pressure to said foremost assemblage as it is moved through said opening following exposure in order to effect the release of a processing composition

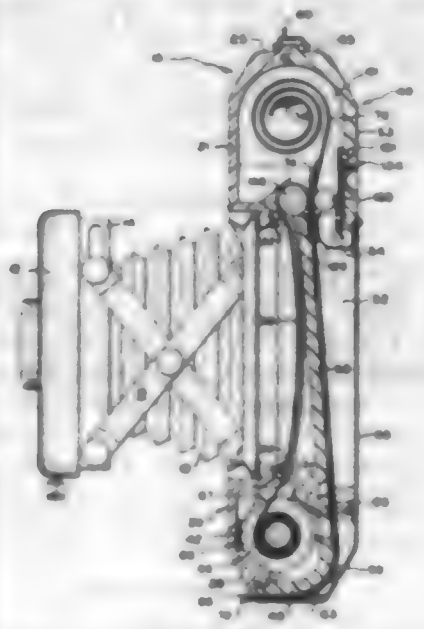
carried by said assemblage, pusher means within said chamber and mounted for movement therein between a first position adjacent the side of said chamber opposite said opening and a second position within said opening, said pusher means being adapted, during movement from said first to said second position, to engage and push said foremost assemblage completely through said opening between said pressure-applying members, and means connected with said pusher means and responsive to movement thereof from said first to said second position for rendering said exposure means operative to expose said foremost assemblage during the initial movement of said pusher means and prior to movement of said assemblage by said pusher means.

2,873,659

PHOTOGRAPHIC APPARATUS FOR EXPOSING AND PROCESSING FILM

Herbert A. Bing, Wellesley, Richard R. Wareham, Marblehead, and Otto E. Wolff, Weston, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application September 6, 1956, Serial No. 608,386
12 Claims. (Cl. 95—13)



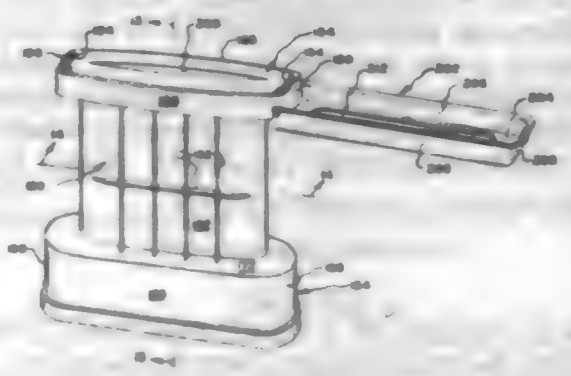
1. Photographic apparatus of the type wherein successive frames of a first sheet of photosensitive material are exposed and thereafter processed in conjunction with a second sheet by a fluid processing composition distributed between said sheets, said apparatus comprising, in combination, a casing including two sections separable from one another, means releasably securing said sections together, one of said sections including means for exposing successive frames of a first sheet of photosensitive material and cooperating with the other of said sections to provide an exposure chamber, and a unitary device mounted within said casing on the other of said sections, said device comprising a fluid-spreading mechanism including a pair of pressure-applying members mounted for movement toward and away from one another and means for urging said members toward one another, an indexing mechanism including at least a pair of engagement members, one of which is movable toward and away from the other, said engagement members being mounted for coacting in opposition to one another for engaging at least portions of one of said first and second sheets between said engagement members for arresting the movement of said sheets between said engagement members, said other section including means providing a processing chamber into which said sheets are advanced from between said pressure-applying members and a single support member mounted on said other section and providing means for mounting said fluid-spreading mechanism and said indexing mechanism intermediate said exposure and processing chambers.

2,873,660

PHOTOGRAPHIC DEVICE FOR TREATING PHOTOGRAPHIC PRINTS WITH A LIQUID

Edwin H. Land, Cambridge, and Vaito K. Eloranta, Needham, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application March 15, 1957, Serial No. 646,472
18 Claims. (Cl. 95—89)



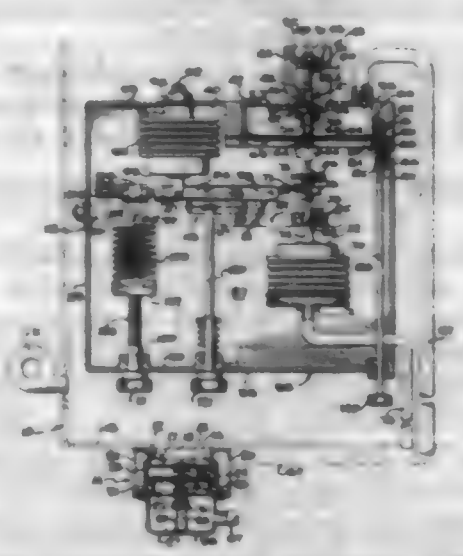
1. A photographic device for containing a liquid and treating photographic sheet materials with said liquid, said device comprising, in combination, a container having a first section for holding a photographic sheet and containing a liquid in sufficient quantity to completely immerse the portion of said sheet held in said first section, and a second section providing an opening in said container through which said photographic sheet may be introduced into said first section, a flexible closure element secured in said opening between portions of said second section and having an elongated slit through which a photographic sheet may be introduced into said container, portions of said closure element comprising the sides of said slit being deformable between an open position wherein said sides of said slit are bowed apart to form an elongated opening tapering toward its ends for guiding said sheet into said container without contacting the surfaces of said sheet intermediate its margins, and a closed position wherein the sides of said slit are in close contact with one another to form a tight seal, resilient means coupled with said closure element for urging said sides of said slit into one of said open and closed positions, and retaining means for engaging said second section and retaining said slit in closed position.

2,873,661

CABIN PRESSURE CONTROL MECHANISM

Richard A. Fischer, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

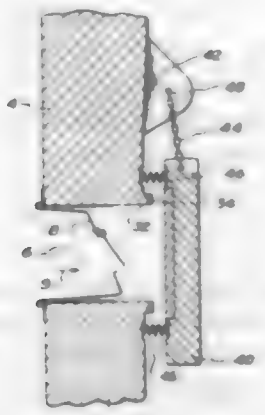
Application February 5, 1954, Serial No. 408,355
18 Claims. (Cl. 98—1.5)



1. In pressure control mechanism: means defining a pair of chambers, one of said chambers being a control pressure chamber having an inlet passage and an outlet passage; means, including a valve for controlling one of said passages; differential pressure responsive means for

controlling said valve, said differential pressure responsive means having one side subjected to the pressure in the control pressure chamber and the opposite side subjected to the pressure in the other chamber; means defining a restricted connection between said chambers; and ratio control means for controlling said valve, said ratio control means comprising an absolute pressure responsive device subjected to pressure in said other chamber, a differential pressure responsive device having one side subjected to the pressure in said other chamber and having its opposite side subjected to ambient atmospheric pressure; and means, including lever means, interconnecting said absolute pressure responsive device and said differential pressure responsive device.

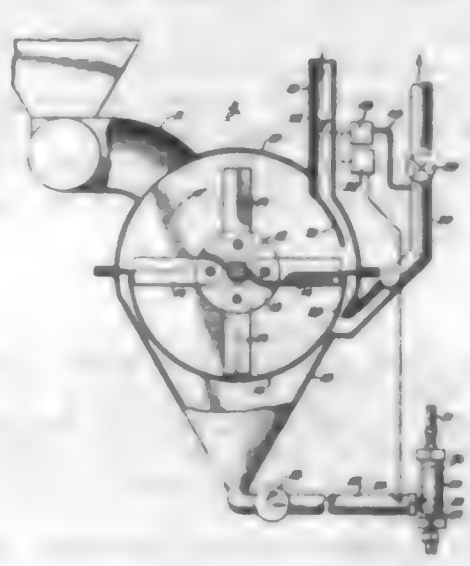
2,873,662
SHOCK PRESSURE VALVE FOR SHELTERS
Otto Heinrich Dräger, Lubeck, Germany
Application June 10, 1955, Serial No. 514,677
Claims priority, application Germany February 24, 1955
2 Claims. (Cl. 98—119)



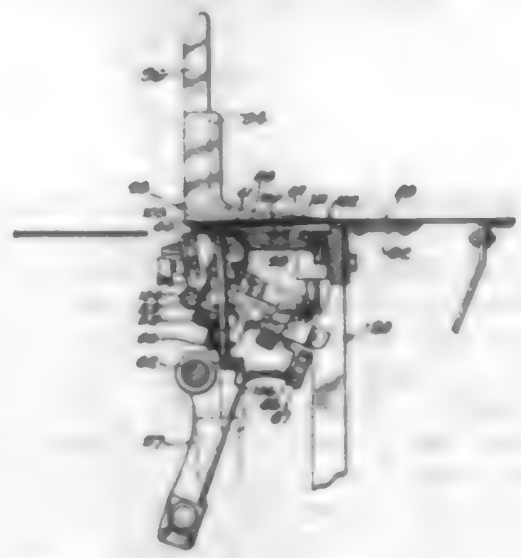
1. In a shelter having a wall with an inside surface and an outside surface exposed to the atmosphere, an exhaust duct passing through said wall, and an excess pressure air exhaust valve mounted in said duct, the improvement comprising a heavy flap valve chain means for hanging said flap valve upon the outside surface of said wall and overlying in spaced relationship the outlet of said duct and being adapted to close said outlet under the impact of outside pressure, and spring means between the flap valve and the outside surface of said wall for holding said flap valve spaced from the outlet of said duct under normal pressures.

2,873,663
APPARATUS FOR PROCESSING FOOD AND THE LIKE
Le Roy R. Hawk, Hayward, Calif., and Elmer G. Magnus and Dewey A. Manion, Chicago, Ill., assignors to W. J. Fitzpatrick Company, Chicago, Ill., a corporation of Illinois
Application April 30, 1956, Serial No. 581,682
4 Claims. (Cl. 99—234)

1. Apparatus for processing fruits, vegetables and meats containing a substantial proportion of solids comprising a comminuting chamber, a rotor in the chamber having a series of radially extending sharpened blades thereon to cut solid particles in the material in the chamber, an inlet conduit connected to the upper part of the chamber, pump means to force material to be processed under positive pressure through the inlet conduit into the chamber, a connection to the upper part of the chamber to supply steam under pressure thereto, a curved screen in the lower part of the chamber through which comminuted material must pass, an elongated closed discharge conduit connected to the chamber below the screen to receive comminuted material passing through the screen, a steam vent connection to the chamber beneath the screen, an imperforate sheet overlying the vent connection to block direct discharge of solid material therethrough, a control valve in the steam supply connection, control means responsive to pressure in the chamber to control the valve to maintain a predetermined pressure in the chamber whereby the material will be comminuted in an atmosphere of steam under pressure, and a pressure responsive discharge valve in the discharge conduit to maintain a predetermined pressure on the material in the discharge conduit and opening suddenly in response to a predetermined pressure to release the pressure on the material suddenly.

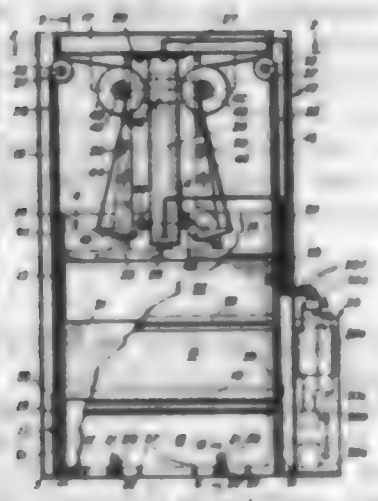


2,873,664
BUNDLE TYING MACHINE
Benjamin H. Bunn, Chicago, Ill., assignor to B. H. Bunn Company, Chicago, Ill., a corporation of Illinois
Application March 25, 1954, Serial No. 418,587
4 Claims. (Cl. 100—27)



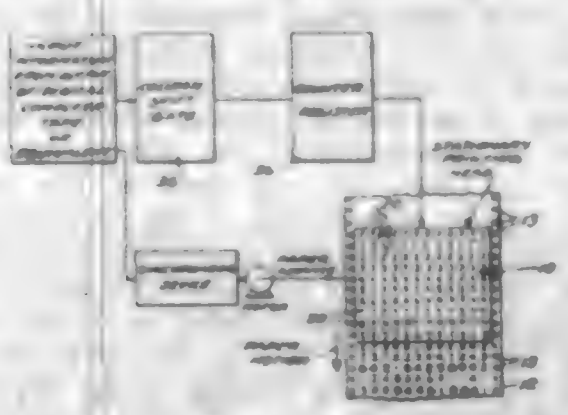
1. In a tying machine for bundles of stacked envelopes and the like which are compressible at their marginal regions, said machine having means for wrapping a reach of twine around the bundle, said bundle being thicker at its center regions than at its ends, and means for tying a knot in the ends of the wrapped twine at a position on the bottom of the bundle disposed inwardly of the end of the bundle and substantially under the thicker region of the bundle; a platform for supporting the bundle while a reach of twine is wrapped therearound said platform being formed at the region adjacent the knot with a contour which substantially follows the contour of the bundle and being flexible at said region, said knot tying means being disposed to pass through a space normally occupied by the flexible region of the platform, and means for raising the flexible region of the platform in timed relation to the movement of the tying means to permit the tying means to pass through said space as aforesaid.

2,873,665
BALING PRESS
Ami L. Young, Compton, Calif.
Application December 3, 1956, Serial No. 625,927
5 Claims. (Cl. 100—215)



1. A baling press comprising a main frame having a base, side and end walls, doors forming part of the side walls of the lower portion of the frame, means for locking said doors in closed position, slidable gates forming part of the upper portions of said side walls, said gates being normally biased to a lowered position to provide a material receiving opening through the upper portions of said side walls, a ram, ram-rod and piston for compressing the material in the frame, means for automatically raising the slidable gates when the ram is depressed, hydraulic means for operating the piston, ram-rod and ram, said hydraulic means including a cylinder, a motor, a supply of fluid, conduits and valves, the means for raising the gates in unison with the ram including cables connected at one of their ends to said gates and at their other end to means on the cylinder, sheaves and pulleys mounted on said frame over which said cables are directed and cam elements on the ram adapted to cooperate with the means on the cylinder for controlling the cables in their movement over the pulleys.

2,873,666
HIGH SPEED PRINTER
Rudy C. Stiefel, Woodside, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application June 16, 1955, Serial No. 515,900
9 Claims. (Cl. 101—93)



1. A printer controlled by input signals of intelligence from the output of a high speed digital computer or from a magnetic, perforated or photographic tape, comprising a stationary printing head having a bank of movable type carriers arranged into two cross sets of parallel lines, the types in each line of one set representing duplicate characters, the types in each line of the other set representing different characters, means for moving a record sheet past said printing head opposite said type carriers and automatically in time relation with the rate of input of said signals, and means responsive to said input signals for automatically selecting and operating type carriers corresponding to said signals into imprinting position against said sheet but at a sequence different from that in which said input signals are received to accommodate for the changes in position of said sheet in relation to said printing head and to record on said sheet characters representing said input signals in predetermined tabular sequence corresponding to their sequence in said intelligence.

2,873,667
STEAM SATURIZING MEANS FOR OFFSET PRESS
Elliot Mandel, Brooklyn, and William Goldsborough, New York, N. Y.; said Goldsborough assignor to said Mandel
Application January 22, 1958, Serial No. 710,430
9 Claims. (Cl. 101—147)



1. A moistening unit for a duplicating machine having at least one cylinder to be moistened, comprising a container for a vaporizable liquid, a conduit within said container having an outlet for steam to be directed against the surface of the cylinder, a lid for the container having a passage communicating with the conduit for movement of steam through the passage into the conduit, means for supplying liquid to said container, and means for producing steam within the container in a space that is in communication with said passage.

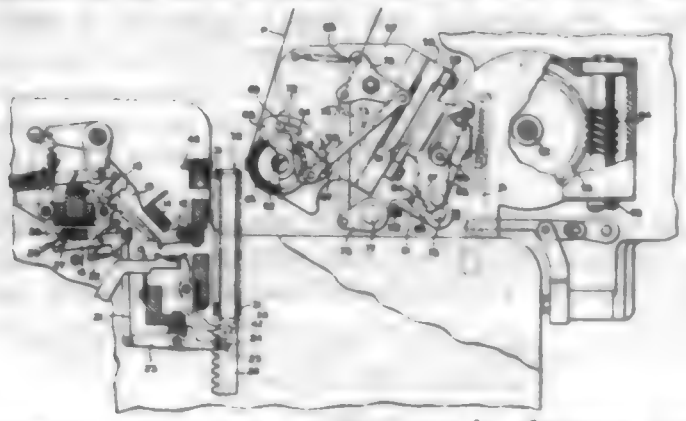
2,873,668
AZO DYE DUPLICATING PROCESS
Robert J. Klimkowski, Chicago, and Robert T. Florence, Park Ridge, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois
No Drawing. Application April 13, 1953
Serial No. 348,584
10 Claims. (Cl. 101—149.4)

1. The method of producing copy with a master imaged with a composition containing an acidic medium and an amine compound capable of diazotization, comprising the steps of wetting the surface of an impression paper with a fluid containing a solvent for the diazotizable amine and acid and also containing a nitrite and a coupler, and contacting the imaged surface of the master with the wetted surface of the impression paper, whereby some of the diazotizable amine compound transfers from the imaged portion of the master to the impression paper for reaction to form the azo dyestuff.

2,873,669
TABULATING MACHINE FOR BILLING
John J. Lynch, East Norwalk, Conn., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application August 24, 1954, Serial No. 451,802
8 Claims. (Cl. 101—93)

1. In a tabulating machine, for printing on a web of paper divided into forms, having means for feeding the web line by line and form by form, racks selectively movable in tabulating and total computing operations for positioning the type of carriers mounted on said racks at horizontally aligned locations to print one line of bill data at a time on said forms including a total of the bill

amounts, a firing pin for projecting each type and a hammer for operating each firing pin; the combination with alternate racks of means for mounting the associated type carriers to space the type thereof a one line increment



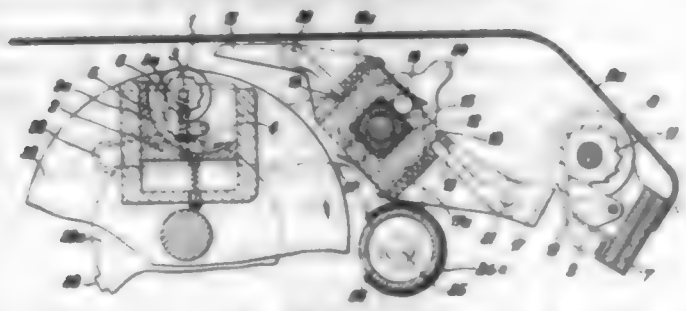
vertically with respect to the type in alternate carriers, and alternate pins being shaped to project the spaced type where the pins are struck by said hammers, whereby printing on two horizontal levels is done simultaneously without affecting the total taking operations of said racks.

2,873,670

PRINTING ARRANGEMENT FOR ROTARY DUPLICATORS

Wilhelm Ritzerfeld, Berlin-Dahlem, and Gerhard Ritzerfeld, Berlin-Grunewald, Germany

Application May 19, 1955, Serial No. 509,592
In Germany October 1, 1948
Public Law 619, August 23, 1954
Patent expires October 1, 1968
15 Claims. (Cl. 101—132)



1. In a rotary duplicator, in combination, a rotary duplicating roller having a position of rest; movable holding means mounted in a recess of said duplicating roller and having at least one holding portion for holding a duplicating form and at least one recessed portion; additional printing means arranged in said recessed portion of said holding means, said additional printing means being shiftable between a plurality of positions; a supporting frame supporting said roller; shiftable indicating means arranged spaced from said additional printing means on said supporting frame and being shiftable between a plurality of positions corresponding to said positions of said additional printing means; and operating means on said supporting frame spaced from said duplicating roller and mounted shiftable between an inoperative position and an operative position, said operating means in said operative position cooperating with said additional printing means and said indicating means only in said position of rest of said roller for simultaneously shifting said additional printing means and said indicating means between corresponding positions.

2,873,671

COPY PROCESS AND MATERIALS FOR USE IN SAME

Robert T. Florence, Park Ridge, Ill., assignor to A. B. Dick Company, Niles, Ill., a corporation of Illinois

No Drawing. Application May 11, 1955
Serial No. 507,739
15 Claims. (Cl. 101—149.4)

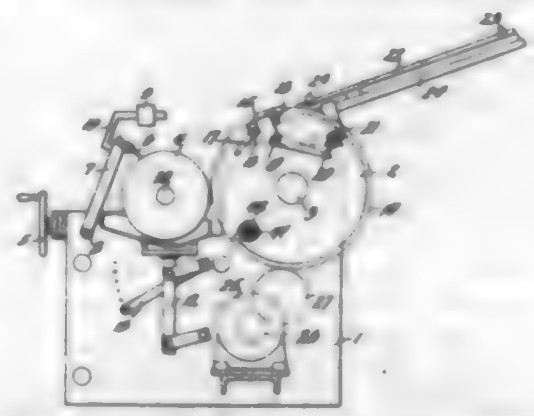
12. The method of producing copy by spirit duplication with a master imaged with a material containing a large proportion of a coupler-stabilized diazo complex compound lacking in color transfer value and which is incapable of coupling reaction without adjustment of pH, comprising contacting the imaged surface of the master with copy sheets wetted with a fluid containing a solvent for the coupler-stabilized diazo complex compound and a compound for adjustment of the pH to a level where reaction can take place between the coupler and diazo components of the compound to form the corresponding azo dyestuff whereby some of the coupler-stabilized diazo complex compound transfers from the imaged areas of the master to the copy sheet upon contact where reaction takes place to form the azo dyestuff.

2,873,672

DRIVE MECHANISM FOR PROOFING PRESS

Willy Säuberlich, Darmstadt-Eberstadt, and Alfred Hickethier, Hannover, Germany, assignors to Maschinenfabrik Goebel G. m. b. H., Darmstadt, Germany

Application May 10, 1955, Serial No. 507,450
Claims priority, application Germany May 15, 1954
8 Claims. (Cl. 101—153)



1. A press for use as a proofing press in photogravure printing and for transferring pigment paper and carbon tissue, comprising a frame, an impression cylinder mounted to rotate in the frame, a disc mounted to rotate with the impression cylinder and having a gear segment carried by the disc in the periphery thereof and the impression cylinder and gear segment rotating together, a gravure cylinder rotatably mounted in the frame, a disc secured to rotate with the gravure cylinder, a gear mounted adjacent the disc of the gravure cylinder to rotate therewith, said gear segment of the impression cylinder being of such diameter that it can mesh with the gear of the gravure cylinder which are normally out of mesh means connected to the gear of the gravure cylinder to rotate the latter, means mounted on the disc of the impression cylinder and cooperating with the disc of the gravure cylinder whereby the gear segment of the first-mentioned disc will be momentarily rotated to mesh with the gear of the gravure cylinder to initiate the rotation of the impression cylinder with the gravure cylinder last-mentioned means including an opening in the second-mentioned disc, and a slide mounted for substantial radial movement on the side of the first-mentioned disc so that when the slide engages in the opening the rotation of the impression cylinder will be initiated.

2,873,673

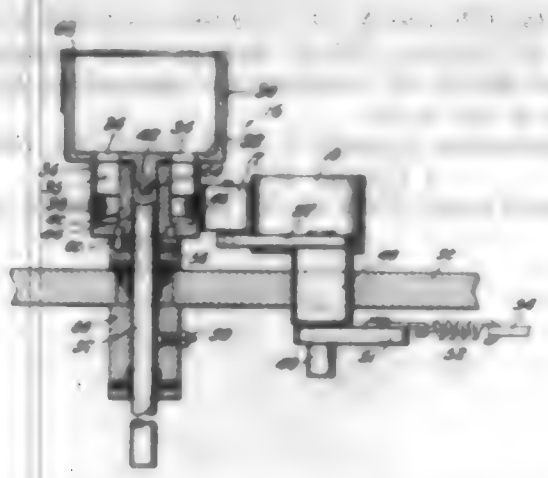
INKING

Wendell H. Stickney, Wilbraham, Mass., assignor to Dimond Gardner Corporation, a corporation of Delaware

Application June 21, 1957, Serial No. 667,099
13 Claims. (Cl. 101—350)

1. An inking device for rotary printing apparatus, comprising a pair of cylindrical roll sections superposed in closely spaced axial alignment and internally containing a supply of ink, sealing means mounted between said

sections for normally preventing the escape of ink, said sealing means being capable of opening when it is radially compressed at one point on its periphery to cause inward displacement thereof, a cylindrical transfer roll mounted



adjacent to said roll sections, and means for moving the transfer roll laterally into tangential contact with said roll sections and into compressing relationship with the sealing means, thereby opening the sealing means to permit the ink to flow.

2,873,674

BOMB TAIL CONSTRUCTION

George Albert Lyon, Detroit, Mich.

Application December 11, 1953, Serial No. 397,643

1 Claim. (Cl. 102—2)



In a bomb structure, a cone skin shell member of substantially cup shape having a rear wall and a side tubular wall projecting forwardly therefrom on a symmetrical taper and having forward end means for attachment to a body shell, and a generally cup-shaped tail fin member comprising a one-piece sheet metal structure having a forward base wall attached concentrically to said cone skin shell base wall, said tail fin member having an elongated rearwardly projecting side wall collapsed toward the axis of the tail member and providing radial fins projecting substantially beyond the diameter of said tail fin member end wall and converging thereto, with generally lance-shaped segmental intermediate strut portions converging rearwardly from the diameter of said end wall and maintaining the fins against spreading open, said segmental strut portions conforming symmetrically to the taper of the cone skin shell to effect a streamlined relationship toward a point of convergence beyond the rear end of the assembly.

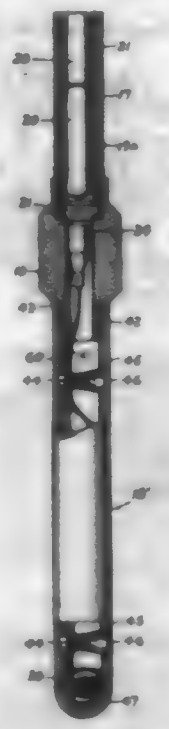
2,873,675

METHOD AND APPARATUS FOR DETONATING EXPLOSIVE DEVICES IN BORE HOLES

Maurice P. Lebourg, Houston, Tex., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application June 17, 1953, Serial No. 362,214

3 Claims. (Cl. 102—20)



1. In apparatus for use in a well having a string of narrow diameter tubing set therein, the combination of means forming a perforated portion at the lower end of said tubing, a hollow tubular housing secured to said tubing in alignment therewith and below said perforated portion, explosive jet frangible closure means sealing off said housing below said tubing perforated portion, at least one shaped explosive charge device in said housing, explosive means at the lower end of said housing for rupturing the same, means for detonating said shaped explosive charge device and said explosive means, means in said housing immediately subjacent to said closure means actuatable by an explosive jet for initiating said detonating means, and explosive jet producing means lowerable inside said tubing from the surface and adapted to direct an explosive jet through said closure means and into impingement with said initiating means for rupturing said closure means and actuating said initiating means.

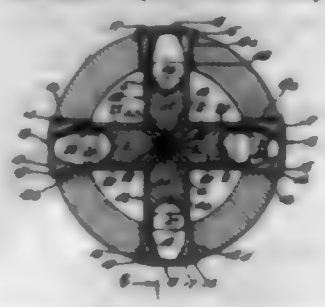
2,873,676

MULTIPLE SHAPED CHARGE ASSEMBLY

Blake M. Caldwell, Fort Worth, Tex., assignor, by mesne assignments, to Welex, Inc., Fort Worth, Tex., a corporation of Delaware

Application August 31, 1953, Serial No. 377,394

6 Claims. (Cl. 102—20)



1. A shaped charge assembly for a perforating gun comprising in combination a substantially cylindrical primary shaped charge unit having diametrically opposed outwardly facing shaped charges therein and including opposed, outwardly directed intermediate radial recesses, a pair of secondary shaped charge units each including a shaped charge and a terminal end portion received within the recesses of said primary unit to form an assembly in which the shaped charges of said pri-

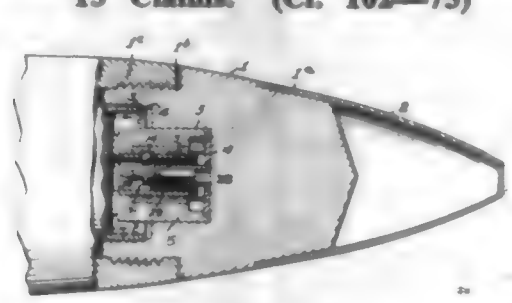
mary and secondary units lie in a single plane and are directed radially outward at a circumferential angularity of 90° with respect to each other, said primary shaped charge unit having a fuse aperture therein in firing communication with the shaped charges of said primary and secondary shaped charge units, and a gun carrier supporting said primary and secondary shaped charge units.

2,873,677

CONCRETE PIERCING FUSE

John A. Taylor, Rockaway, N. Y., Selim S. Podnos, Washington, D. C., and Herbert C. Frazer, Manchester, Conn., assignors to the United States of America as represented by the Secretary of the Army

Application December 21, 1951, Serial No. 262,776
13 Claims. (Cl. 102—75)



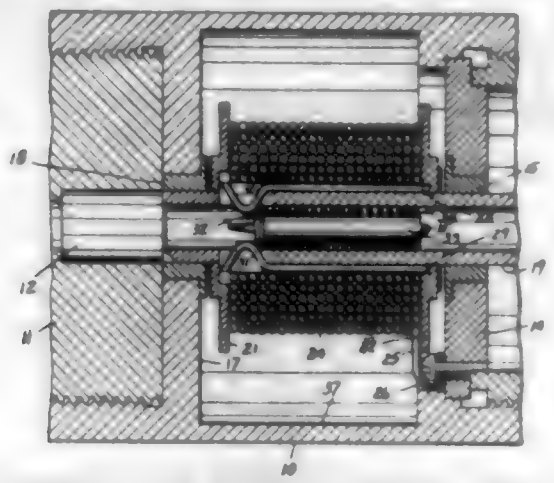
11. In a deceleration activated spin stabilized fuse for a projectile, a body portion, an axial bore in said body portion, inner and outer concentric sleeves forwardly axially slidable in said bore, a firing pin reciprocable within said inner sleeve from safe position forwardly to armed position at impact, then rearwardly after impact to firing position, resilient means biasing said pin into firing position, a detent, said inner and outer sleeves jointly co-acting with said detent to lock said firing pin in safe position, said inner and outer sleeves, said detent and said firing pin being unitarily slidable at impact to armed position, means responsive to impact including additional forward movement of said outer sleeve for releasing said outer sleeve from said detent and said inner sleeve, and means after impact including said resilient means responsive to said additional forward movement for releasing said pin from said detent and said inner sleeve for movement to firing position.

2,873,678

POWER GENERATING DEVICE FOR PROJECTILES

John C. Koonz, Fort Wayne, Ind., assignor to The Magnavox Company, Fort Wayne, Ind., a corporation

Application February 25, 1955, Serial No. 490,593
1 Claim. (Cl. 102—70)



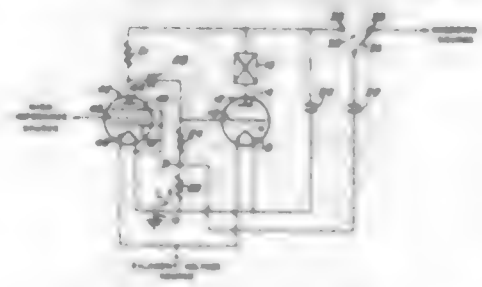
A power generating device for projectiles or other spinning devices comprising a casing member, a spool rotatably mounted within said casing, a linear mass wound on said spool and secured at one end to a portion of said casing, said mass being responsive to spinning of said casing to unwind from said spool, a spring biased mechanism mounted within said spool, and a release device comprising a wire loop projecting into the path of movement of said mechanism and confined in such position by said wound linear mass for release after said mass unwinds.

2,873,679

ORDNANCE FUZE FIRING CIRCUIT

Harold F. Gibson, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Army

Application January 9, 1958, Serial No. 708,055
1 Claim. (Cl. 102—70.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



An ordnance fuze firing circuit comprising in combination the following elements: a thyratron having a plate, grid, and cathode, said cathode being connected to circuit ground, a detonator adapted to be fired when said thyratron triggers, a first capacitor effectively connected between the thyratron plate and circuit ground, first and second resistors, one end of said first resistor being connected to said grid and one end of said second resistor being connected to circuit ground, the other ends of said resistors being connected together to form a junction, a single-pole, double throw switch having a movable arm and first and second terminals between which said movable arm may be switched, said movable arm being initially connected to said first terminal, said first terminal being connected to a charging source and said second terminal being connected to the junction between said detonator and said first capacitor, a second capacitor connected between said movable arm and the junction between said first and second resistors, said capacitor being initially charged to a predetermined voltage by said charging source, a pentode having a plate, suppressor grid, screen grid, control grid and cathode, the pentode suppressor grid, control grid and cathode being connected to circuit ground, said screen grid serving as an input, a third resistor connected between said second terminal and the plate of said pentode, and a third capacitor serving as a coupling capacitor connected between the plate of said pentode and the grid of said thyratron; the elements of said circuit being constructed and arranged so that when said movable arm is switched to said second terminal, the charging of said first capacitor causes a decaying negative voltage to appear at the grid of said thyratron preventing triggering of said thyratron for a predetermined time, the charging of said third capacitor causing said pentode to conduct and pass a current through said second resistor to produce an essentially steady-state holding bias, said holding bias being produced before said decaying negative voltage falls below the triggering voltage of said thyratron, said holding bias slowly decaying at a rate determined by the discharge rate of said second capacitor to self-fire said thyratron in the event that a sufficient input signal to cause thyratron triggering does not appear within a predetermined time.

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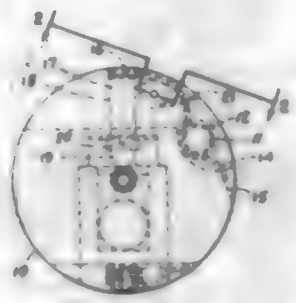
MEANS FOR INITIATION OF DETONATOR

Ralph H. Severance, Fort Wayne, Ind., assignor to The Magnavox Company, Fort Wayne, Ind., a corporation

Application May 19, 1954, Serial No. 430,923
5 Claims. (Cl. 102—73)

1. Apparatus for initiating a detonator of a weapon comprising a cup member having a rear threaded portion

for receiving a propellant containing casing, a forward threaded portion for receiving a war head, and a mid portion connecting said forward and rear threaded portions and having a relatively thin wall portion adapted to flex in response to impact of said war head with a target; a detonator supporting block supported within the rear threaded portion of said cup member; a firing mechanism comprising a pin mounted in said block and a

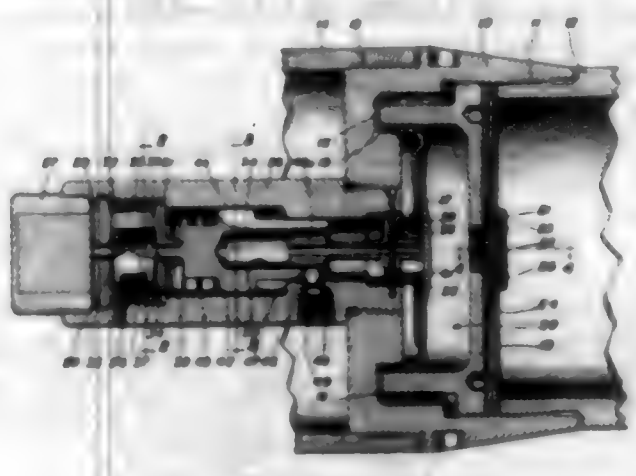


spring for moving said pin through a certain path; said block including a socket adjacent said path and a ball supported in said socket in off center relation to the rear of said firing mechanism and in its path of movement; and an actuating pin mounted in said block to form the rear wall of said socket and engaging the rear portion of said cup member for dislodging said ball in response to flexure of said thin wall portion.

2,873,681
FUZE

Charles C. Lauritsen, Pasadena, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application February 3, 1945, Serial No. 576,119
1 Claim. (Cl. 102—81)

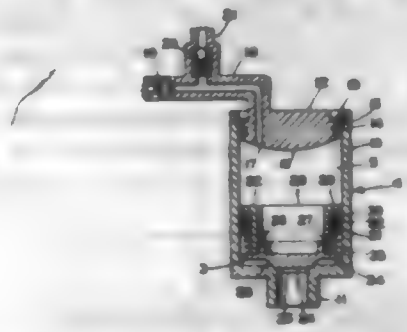


A fuze mount consisting of a fitting deeply recessed and having a central opening leading to the recess, a cup-shaped partition member secured in one end of the fitting and having a cup-flange extending into the recess, the partition portion of the member having a port, a snap-action diaphragm clamped between the fitting and said member, being distanced from each to define a space next to the fitting and a chamber next to the partition portion with which chamber the port is in communication, a fuze having a casing secured in the central opening and carrying a detonator, a locking rod slidable in the casing, having one end crossing the space to contact the diaphragm, a firing pin having means for urging it into an armed position with respect to the detonator, and latch means initially restraining the firing pin from assuming its armed position, being held in the restrained position by the lock rod until displacement of the lock rod by permanent collapse of the diaphragm into the space by an accumulation of pressure gas in the chamber through said port.

2,873,682
ACCUMULATOR

Richard J. Mason, Lyndhurst, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application September 8, 1953, Serial No. 378,898
1 Claim. (Cl. 103—52)

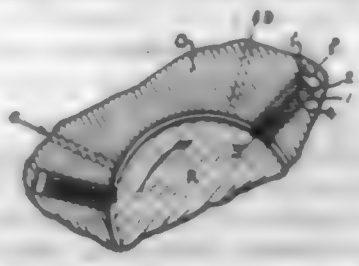


The accumulator combination comprising a housing having cylindrical inner wall, a free piston movable axially in said housing and dividing said housing into a first section for receiving an aromatic fluid fuel and a second section for receiving a fluid under pressure for actuating said piston to force said aromatic fuel from said first section, said piston including a pair of short outwardly extending circumferential flanges spaced apart axially on said piston and a cylindrical central portion, both of said flanges being spaced from the inner wall of said housing, a plurality of V-shaped sealing rings of a polytetrafluoroethylene self-lubricating material and slidably mounted on said piston between said flanges, retaining rings slidably mounted on said central portion and at opposite sides of said sealing rings, said retaining rings being in proximity to the inner wall of said housing, one of said piston flanges being positioned on said piston adjacent the first fuel section and the other of said piston flanges being positioned on said piston adjacent the second pressure section of the housing, said V-shaped sealing rings having an apexed side thereof bearing on one of said retaining rings, the other of said retaining rings having a flat side abutting the opposite open-V side of said sealing rings, a cylindrical spring between the other of said piston flanges and the other of said retaining rings at the opposite open-V side of said sealing rings, said spring biasing said retaining rings and V-shaped sealing rings toward said one piston flange adjacent the first aromatic fluid fuel section and compressing said V-shaped seal between said retaining rings so as to cause the V-shaped sealing rings to spread outwardly providing a riding surface between said free piston and said housing and a slidable seal between the first aromatic fluid fuel section and the second fluid pressure section to prevent leakage of fluid between said sections and to accommodate thermal expansion of fuel.

2,873,683
FLOATING NON-STICKING BLADES

Walter A. Sherwood, Hempstead, N. Y., assignor to The Farmingdale Corporation, Farmingdale, N. Y., a corporation of New York

Application June 5, 1956, Serial No. 589,529
8 Claims. (Cl. 103—84)



1. In a fluid pump, a fluid motor, journal bearing or the like comprising a rotor of circular cross-section and a stator separated by a substantially uniform clearance space of constant volume to which fluid is supplied and

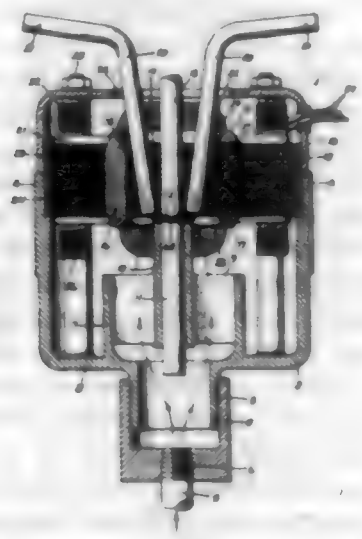
from which it is delivered under pressure, a doctor blade construction which includes, a slot formed in the stator and opening only into said clearance space, and a doctor blade of substantially rectangular cross-sectional outline located and movable in said slot with a close sliding fit, said blade having its bottom surface disposed adjacent to the surface of the rotor without contacting said surface, and being provided with at least one fluid passage opening at one end to said bottom surface intermediate between the upstream and downstream edges thereof, considered with respect to the direction of movement of the rotor surface while operating as a pump, and at the other end to a point on another surface of the blade within said slot.

2,873,684

PUMP MOTOR ASSEMBLY

Hugo C. Kaeding, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York

Application March 27, 1956, Serial No. 574,224
2 Claims. (Cl. 103—87)



1. An electric pump-motor assembly including a motor casing, a stator having a coil formed therein, a shaft, and a rotor mounted on said shaft in concentric and rotatable relation to said stator, unit bearings means at one end of said rotor rotatably mounting said shaft, said motor having its axis of rotation substantially vertical with said bearing means below said rotor, said rotor and said stator being adapted to have one end immersed in a liquid and said bearing means being adapted to be immersed in the liquid, said rotor having a plurality of substantially axially extending slots formed therein adjacent the periphery thereof, windings positioned in said slots, said rotor further having a passage formed therein extending from one end thereof to the other in radially spaced relation to said shaft and being spaced between said shaft and said slots, said passage being open to said liquid at its lower end and being formed to pump said liquid during rotation of said rotor, and unitary pipe means arranged in said passage communicating substantially from said end of the rotor immersed in liquid to a point beyond said motor casing, thereby causing liquid to be pumped during rotation of the rotor from said end of the rotor beyond said motor casing without substantial leakage of liquid in said rotor during such pumping action.

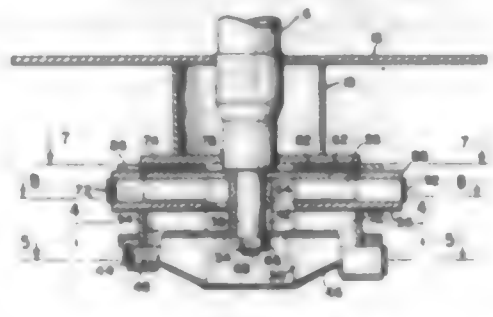
2,873,685

CENTRIFUGAL PUMP

Emil Umbricht, Jackson, Mich., assignor to Ajem Laboratories, Inc., Detroit, Mich.

Application October 18, 1954, Serial No. 462,661
10 Claims. (Cl. 103—105)

1. A multiple stage pump comprising a housing having first and second scroll sections and a casing joining said scroll sections and defining an annular transfer chamber positioned between said first and second scroll sections and connecting said scroll sections, said annular transfer chamber communicating with said first scroll section along the full length of said first scroll section, first and second impellers positioned respectively within said first and second scroll sections, a drive shaft extending into said scroll sections and supporting said first and second impellers, said first impeller including an impeller plate secured to said drive shaft and rotatable therewith and a plurality of impeller vanes secured to the lower surface of said impeller plate, said impeller plate being positioned near the upper portion of said first scroll section and separating said first scroll section from said annular transfer chamber, the upper surface of said impeller plate engaging the medium being pumped in said annular transfer chamber, and means spaced from said housing rotatably supporting said drive shaft, said housing having inlet means and low pressure outlet means communicating with said first scroll section and high pressure outlet means communicating with said second scroll section.

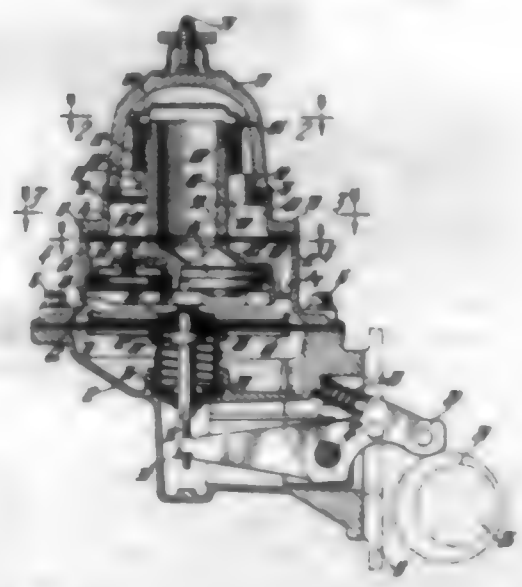


2,873,686

OSCILLATABLE DIAPHRAGM PUMPS

Gordon W. Harry, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 29, 1953, Serial No. 383,099
11 Claims. (Cl. 103—150)



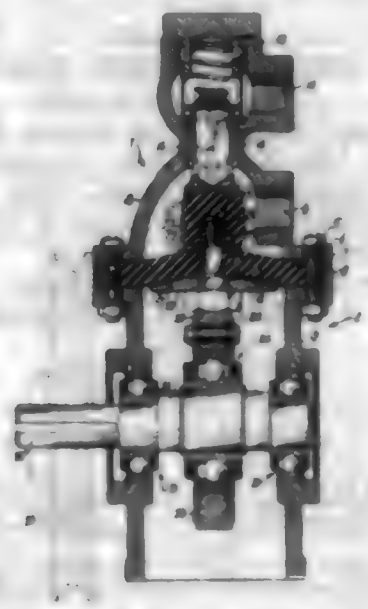
1. A pump having a body, an oscillatable pump diaphragm inclosed in said body, three chambers arranged in said body on one side of said pump diaphragm, a yielding member, the first and third of said chambers constituting inlet and outlet chambers respectively and being partitioned and separated from each other by said yielding member, the second of said chambers being partially defined by said pump diaphragm, a passage controlled by a pressure operated valve and connecting the said first and second chambers, a second passage controlled by a pressure operated valve and connecting the second and third of said chambers, and said body having an inlet and an outlet communicating with the interior of said body at opposite sides of said yielding member.

2,873,687

DIAPHRAGM PUMP

Clarence L. Pritchard, San Leandro, Calif., assignor to Maisbary Manufacturing Company, Oakland, Calif., a corporation of California

Application May 12, 1955, Serial No. 507,888
4 Claims. (Cl. 103—150)



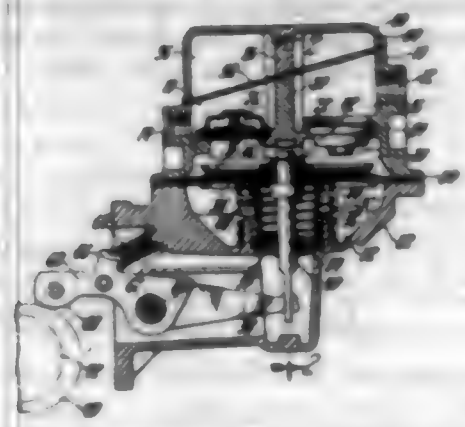
2. In a diaphragm pump, a housing having a pump chamber with an intake port and an exhaust port, a diaphragm mounted in the wall of the chamber with freedom of reciprocating movement for alternate drive strokes and suction strokes, an abutment mounted in the chamber in spaced and confronting relation to a central section of the diaphragm and free to allow liquid to pass around the same, means active on the diaphragm for effecting the drive strokes, and a heavy solid rubber bumper interposed between the abutment and the diaphragm and adapted to be compressed by the drive strokes and to effect the suction strokes, the diaphragm having plates on opposite sides thereof, a bolt extending through the plates and the diaphragm, and a nut threaded upon the bolt from the inside of the chamber, and the rubber bumper having a socket in the lower portion thereof adapted for clamping upon the nut to cause the bumper to become a fixed part of the diaphragm, with the major portion of the bumper projecting above the nut.

2,873,688

PUMP WITH OBLIQUE PULSATOR DIAPHRAGM

Gordon B. Elder, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 18, 1955, Serial No. 547,807
8 Claims. (Cl. 103—150)



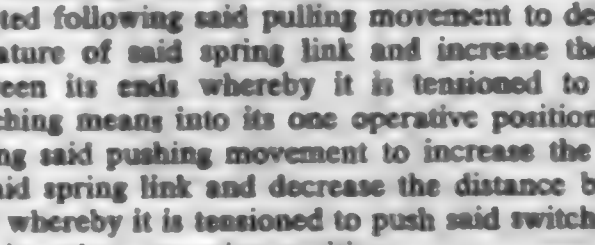
1. A pump having a pump body with a pump chamber and inlet and outlet chambers, a pumping diaphragm partially defining said pump chamber, a partition separating said pump chamber from the said inlet and outlet chambers and provided with ports connecting the latter chambers to said pumping chamber, one-way valves arranged to control said ports, recessed means fixed to said pump body and defining pulsator chambers, diaphragm means extending obliquely with respect to said partition and through said pump to separate said body from said recessed means, and said inlet chamber being larger than said outlet chamber.

2,873,689

CONVEYOR SWITCH DEVICE

Arthur Claud-Mantle, Trumbull, Conn., assignor, by mesne assignments, to Tangel Material Handling Equipment, Inc., Long Island City, N. Y., a corporation of New York

Application February 14, 1955, Serial No. 487,804
6 Claims. (Cl. 104—103)



3. A switch device to connect a single track rod to either of a pair of branch track rods, comprising a frame, means depending from the frame for supporting said single track rod and said branch track rods with the ends of said branch track rods longitudinally spaced an equal distance from said single track rod, switching means including a switching track rod section, means mounting said switching track rod section for movement between respective operative positions wherein the switching track rod section in one position extends in connecting relation between the end of said single track rod and one of said branch track rods, and in the other position extends in connecting relation between said single track rod and the other of said branch track rods, actuating means for imparting movement to said switching track rod section comprising a manually operable toggle lever mounted on said frame at one side, an arcuate spring link member connected between said lever and said switching means adapted in one direction of turning of said lever to pull said switching means to one of its operative positions and in the other direction of turning of said lever to push said switching means to the other of its operative positions, continued turning of said lever to a past dead center position following movement of said switching means to its respective operative positions adapted following said pulling movement to decrease the curvature of said spring link and increase the distance between its ends whereby it is tensioned to pull said switching means into its one operative position, and following said pushing movement to increase the curvature of said spring link and decrease the distance between its ends whereby it is tensioned to push said switching means into its other operating position.

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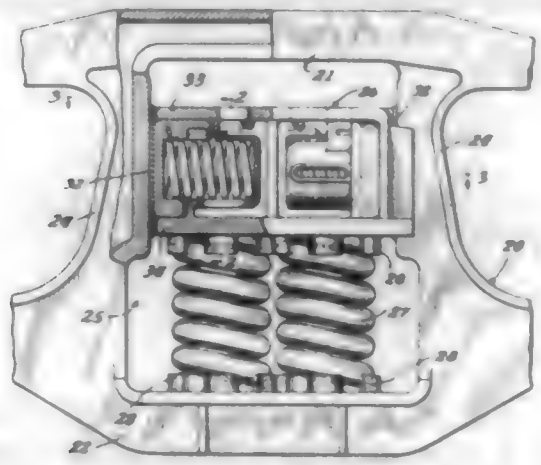
BOLSTER DAMPING ARRANGEMENT FOR RAILWAY CAR TRUCKS

Cal W. Wulff, Chicago, Ill., assignor to Holland Company, Chicago, Ill., a corporation of Illinois

Application February 2, 1956, Serial No. 562,993
3 Claims. (Cl. 105—197)

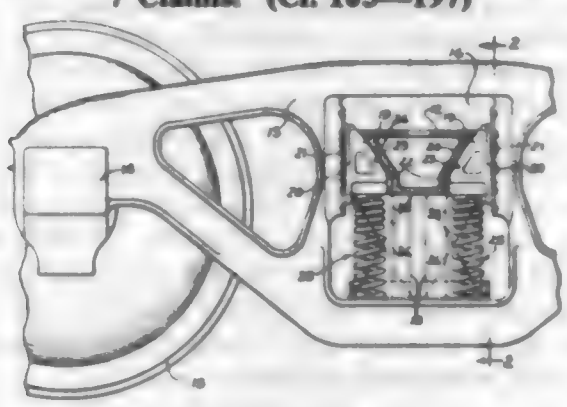
1. In a railway car truck of the type including a cast steel bolster having side, top, and bottom walls, said bolster having each of its ends resting on a plurality of springs for vertical movement between the columns that flank the bolster opening of the side frame and with a friction producing device incorporated in each bolster end for cooperative engagement with a wear plate provided on the adjacent side frame column, which friction device includes a non-circular friction block filling substantially the full height of the bolster, and a substantially horizontal control spring urging the friction block

outwardly against said wear plate, the combination with said bolster end of a housing forming a friction block chamber facing said wear plate through an opening extending the full height of the bolster side wall and a spring chamber communicating with said friction block chamber, and comprising vertically extending internal housing walls integrally formed with the side, top, and bottom walls of the bolster, said housing walls forming spaced apart vertical webs which extend first transversely toward the longitudinal bolster center line throughout the full



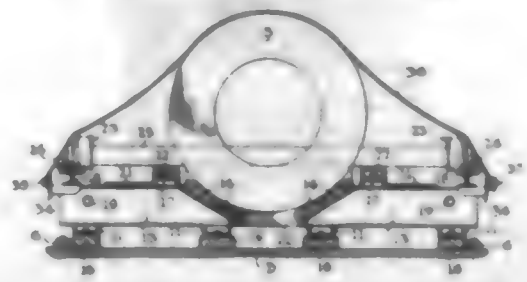
height thereof to flank said friction block chamber, then toward each other throughout the full height of the bolster to form a rear wall for said friction block chamber, with said rear wall having a central passage for receiving said control spring, said webs having spaced apart complemental extension portions then extending transversely from adjacent said central passage toward the longitudinal bolster center line to flank said spring chamber and again toward each other to merge and form a rear wall for said spring chamber, said housing providing integral internal reinforcement structure bridging the opening in the bolster side wall.

2,873,691
STABILIZING STRUCTURE FOR RAILWAY CAR SPRING SUSPENSION
Sergei G. Guins, Olmstead Falls, Ohio
Application July 24, 1956, Serial No. 599,776
7 Claims. (Cl. 105—197)



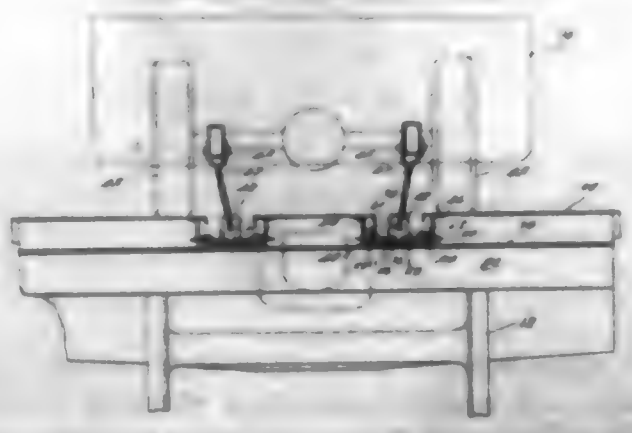
1. In combination with a railway car spring suspension including a group of load supporting springs, a first truck element on which said spring group is supported and a second truck element movable relative to said first element and supported on said spring group for transmitting the load weight of the car to said spring group, of a stabilizing structure for applying variable frictional forces to one of said elements to damp vibrations of variable frequencies induced in said load springs by various movements of the railway car under various load weights and operating conditions comprising a friction wedge interposed between said first and second truck elements, and means for forcing said wedge into wedging engagement with one of said truck elements and into frictional engagement with the other comprising a stabilizer spring structure seated at one end on said first truck element with its other end engaging said wedge with resilient pressure; the said stabilizing spring structure having a group of convolutions having one rate of deflection for damping oscillations induced in the load springs below their natural frequency of vertical vibrations and another group having a different rate of deflection for damping oscillations induced in said load springs above their natural rate of vertical vibrations.

2,873,692
LOAD CONFINING SKID FOR USE IN RAILWAY CARS
Robert Schey and Robert Evan James, Cleveland, Ohio, assignors to The New York, Chicago and St. Louis Railroad Company, Cleveland, Ohio, a consolidated railroad corporation of the States of New York, Pennsylvania, Ohio, Indiana and Illinois
Application February 3, 1955, Serial No. 485,972
3 Claims. (Cl. 105—366)



1. A load-retaining and shock absorbing skid for mounting on the deck of a car said skid comprising a generally rectangular elongated frame having longitudinal runners upon which it is supported said runners being arranged to extend longitudinally of the car deck; supports for lading comprising members defining a V-shaped longitudinal channel within the margins of, and supported by said frame to receive and aline cylindrical objects, and longitudinal bearers also supported by said frame and extending along the sides of and substantially at the upper margins of said channel-defining members whereby the bearers may support objects having a plane lower face; guides carried by said frame and extending along the lateral margins of said frame; beam-retaining pockets slidably engaging and shiftable along said guides; beams sustained at their ends by said pockets and extending transversely of said frame and across said longitudinal bearers; and means for fixing said pockets in adjusted positions on said guides.

2,873,693
RESILIENTLY MOUNTED TIE-DOWN SUPPORT RAILS
Harvey W. Chapman, Detroit, and Henry L. Dunlap, Dearborn, Mich., assignors to Evans Products Company, Plymouth, Mich., a corporation of Delaware
Application April 8, 1955, Serial No. 500,074
9 Claims. (Cl. 105—368)



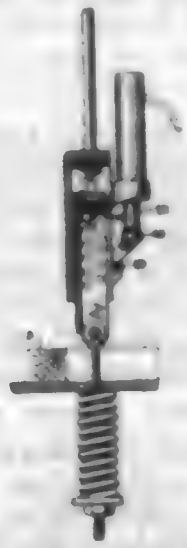
3. In a carrier for automotive vehicles, a main supporting structure having a flat deck surface provided with a longitudinal trough having substantially vertical side walls, two angle-shaped members each having the vertical leg thereof affixed to one of the side walls of said trough, the horizontal legs of each member extending to-

ward each other and defining a slot therebetween spaced beneath the top of said trough, a plurality of resilient blocks affixed to the underside of each of said horizontal legs, a plurality of rail supporting members extending transversely between said horizontal legs each having the ends thereof affixed to the underside of said resilient blocks, and a pair of longitudinally extending angle-shaped members disposed within said slot with the vertical legs thereof mounted on said transverse supporting members and the horizontal legs thereof extending toward each other and defining a second slot within said first slot whereby a tie-down device may be slidably mounted on the horizontal legs defining said second slot with a portion thereof extending through said slot and engaging the underside of said legs to prevent the removal thereof.

2,873,654
ROD TIGHTENER

Frank T. Jaskowiak, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York

Application September 12, 1955, Serial No. 533,848
3 Claims. (Cl. 105—369)



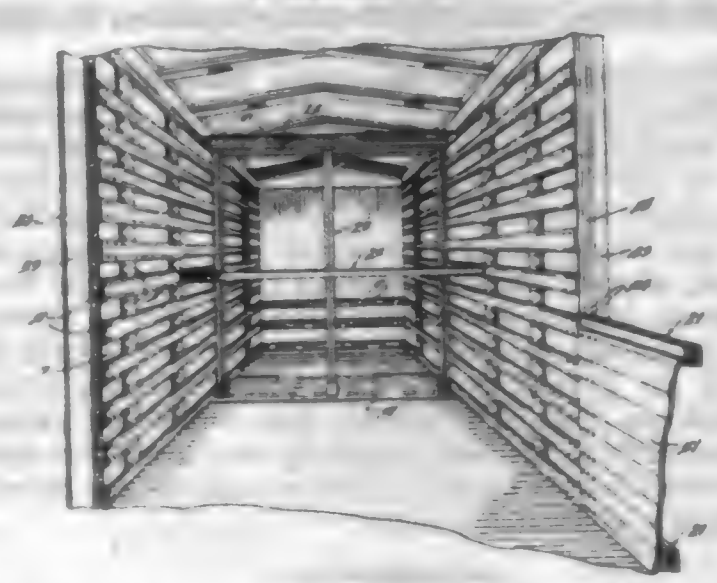
1. In an apparatus for securely holding articles to the floor of a flat car, a holddown member disposed across the top of said articles, a plurality of tie rods with each of said tie rods secured at one end to the opposite end portions of the holddown member and extending downwardly from the latter, an elongated channel member secured to the other end of each tie rod and being U-shaped in a plane transverse to the longitudinal length thereof, a plurality of lugs secured to each side portion of the U-shaped channel member, a second channel member of the same general U-shape as the first named channel member slidably disposed within the first named channel member, plate means secured across one end of the second channel member and connecting the sides of said second channel member, means resiliently connecting the other end of the second channel member to a flat car, means engageable with said lugs and said plate means to telescope the two channel members together against the force of said resilient means to urge each tie rod downwardly, and means to lock the channel members in telescope relation.

2,873,693
FREIGHT LOADING APPARATUS

Kenneth J. Tobin, Sarasota, Fla., assignor to Evans Products Company, Plymouth, Mich., a corporation of Delaware

Continuation of application Serial No. 258,403, November 27, 1951. This application January 24, 1956, Serial No. 561,026
12 Claims. (Cl. 105—369)

9. A freight bracing bar adapted to extend between and be supported at opposite ends on support structure, said bar comprising an elongated body having a plurality of elongated substantially flat freight engaging sides extending substantially the entire length of the bracing bar, support means on the bar at opposite ends thereof having portions extending longitudinally of the bar body and operative to nonrotatively attach the bar to the support structure in any one of a plurality of axially rotative angular positions, said support means having a center which is offset with respect to the longitudinal axis of

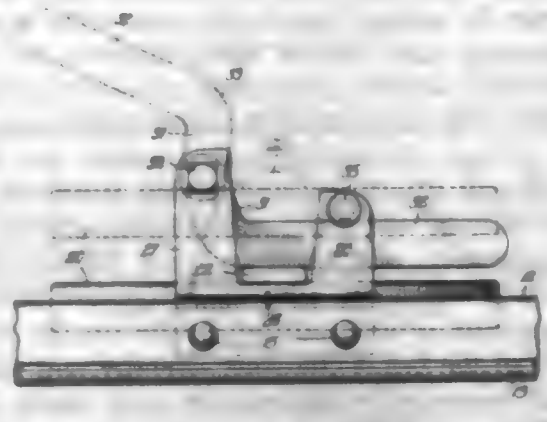


said bar and located different distances respectively from each one of said plurality of sides and in an area enclosed by said bar body, means on the bar for permanently fixing each of said support means against movement that is not parallel to the length of the bar, said bar being axially rotatable in angular increments to successively position each one of said plurality of sides to face in one direction, each one of said plurality of sides being located in different laterally spaced parallel positions when facing in said one direction.

2,873,696
HATCH COVER LOCK

Edward S. Cisco, Highland, Ind., assignor to Standard Railway Equipment Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application September 27, 1954, Serial No. 458,467
5 Claims. (Cl. 105—377)



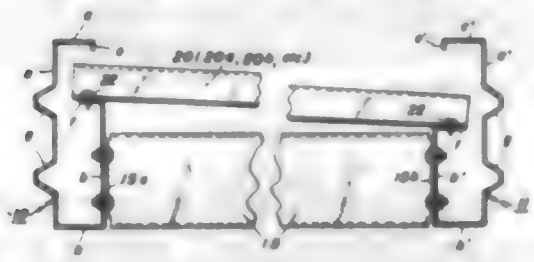
3. In a railway freight car having a roof embodying a plurality of transversely extending roof sheets having upstanding side flanges, adjacent flanges secured together by a seam cap, the combination therewith of a hatch frame secured to and projecting above a roof sheet, a hatch cover hinged at one side to said frame, one element of said hinge comprising a strap extending over and projecting beyond the opposite side of said cover and over the adjacent seam cap, a bracket secured to said seam cap, having upstanding spaced arms on opposite sides of the path of movement of said strap to receive the projecting end of said strap therebetween in the closed position of said cover, and a cam lever pivotally mounted to one arm of said bracket, and swingable over the projecting end of said strap to force said strap down

between said arms and thereby said cover to closed position, and a locking pin engageable with the other arm of the bracket to secure the strap between said arms.

2,873,697
PROCESS FOR MAKING BAKING DOUGH
Hans Strahmann, Wentorf, Post Reinbek, Germany
No Drawing. Application July 24, 1956
Serial No. 599,698
Claims priority, application Germany September 30, 1952
9 Claims. (Cl. 107—54)

1. A method of producing dough, comprising the step of subjecting flour together with a quantity of an aqueous liquid sufficient to hydrolyze all of the starch granules of said flour for a period of less than one minute to intensive kneading action so as to transform said flour and said liquid during said period into a homogeneous dough, whereby the homogeneous condition of the thus produced dough is substantially reached prior to formation of a gluten network and the development of fermentation gas in said dough, said kneading action being carried out with such intensity that during said period substantially each starch granule in said flour is brought in contact with a quanity of water sufficient for hydrolyzation of said starch granule.

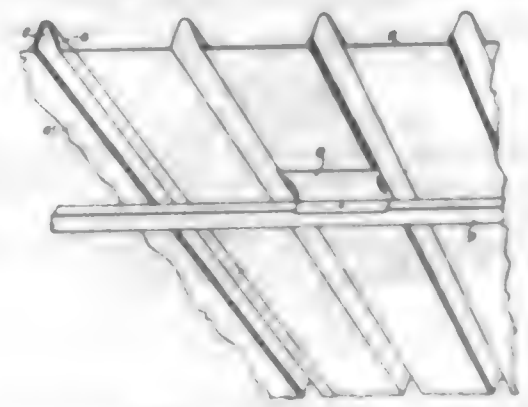
2,873,698
FREE-STANDING ROOF STRUCTURES
Edward J. Hartman and John N. Janes, Houston, Tex., assignors to Childers Manufacturing Company, Houston, Tex., a corporation of Texas
Application January 24, 1956, Serial No. 560,929
2 Claims. (Cl. 108—1)



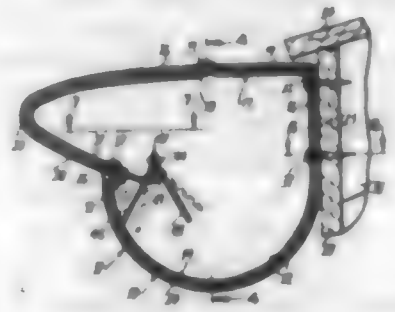
1. A roof structure for use as a carport and the like comprising, in combination, a rectangular roof frame including spaced front and rear fascine of G-section whereby each fascia has the form of a closed top channel defined in part by spaced inner and outer walls and having a side opening, said fasciae being disposed in mutually facing relation whereby the channel side-openings face one another, the corresponding outer walls of the fascia channels having substantially equal height and the inner wall of the rear fascia channel having lesser height than the inner wall of the front fascia channel, roof sheets extending between said front and rear fasciae with their opposite ends extending into the channels thereof and being supported at said opposite ends on the respective inner walls of the fascia channels whereby said roof sheets are sloped rearwardly-downwardly and drain into the channel of the rear fascia, and supporting columns affixed to said roof frame and supporting same at a fixed level above the ground.

2,873,699
ROOFING AND SIDING SHEETS
William Cookson, Fareham, England, assignor of one-third to Julius Cato Vredenburg-Inglesby, London, England
Application November 30, 1953, Serial No. 395,215
Claims priority, application Great Britain
December 16, 1952
3 Claims. (Cl. 108—22)

2. A roofing sheet and purlin bracket assembly, comprising a roofing sheet of relatively stiff sheet material and formed at one edge portion with a male rib of inverted U section upstanding from the plane of the sheet and the two opposite walls of the rib being upwardly convergent, an external locking ledge formed in the wall of the rib remote from the free edge of the sheet and providing an internal groove, the wall portion above said locking ledge being directed to form a ramp extending downwardly and outwardly in relation to the rib, a female rib of inverted U section upstanding from the plane of the sheet formed at the opposite edge portion thereof, the two opposite walls of the rib being upwardly convergent, a hooked lip provided at the free edge of said opposite edge portion, at least one medially extending rib upstanding from the plane of the sheet between the female rib and the male rib and parallel thereto, said medially extending rib being of inverted U section and the two opposed walls thereof being upwardly convergent, an external locking ledge formed in one of the walls of the medially extending rib and providing an internal groove, a purlin bracket extending underneath the sheet at a medially extending rib, bent-up ends on the purlin bracket for slidably engaging in internal grooves provided by the said locking ledges, the female rib being pressable downwardly onto the male rib of another sheet for the ribs to nest, the hooked lip of the female rib of the one sheet riding over the ramp and engaging under the locking ledge of the male rib of the other sheet.

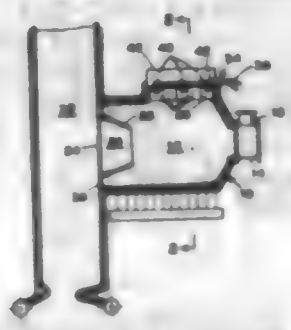


2,873,766
SHIELDED EAVES TROUGHS
Henry C. Heier, Imperial, Mo.
Application August 28, 1953, Serial No. 377,165
4 Claims. (Cl. 108—28)



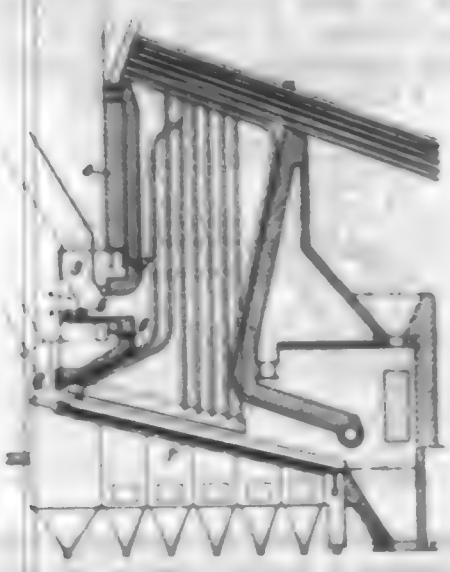
1. An eaves trough structure in the nature of a covered gutter, the covering element of which is attached to the gutter and so formed as to slope downwardly and outwardly laterally of the gutter, the outer portion of the cover consisting of a curved reentrant element extending to an end margin located in the trough and being arranged in spaced relation to the trough to provide a water inlet port to the trough, and a closure swingably mounted within the structure and adjacent said inlet port, the closure having a wall normally abutting a wall surface of the trough between the water inlet port and abutting the said end margin of the reentrant element.

2,873,701
FLUID FUEL BURNER
Ralph E. Hohman, Morristown, N. J., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application August 4, 1955, Serial No. 526,488
8 Claims. (Cl. 110—28)



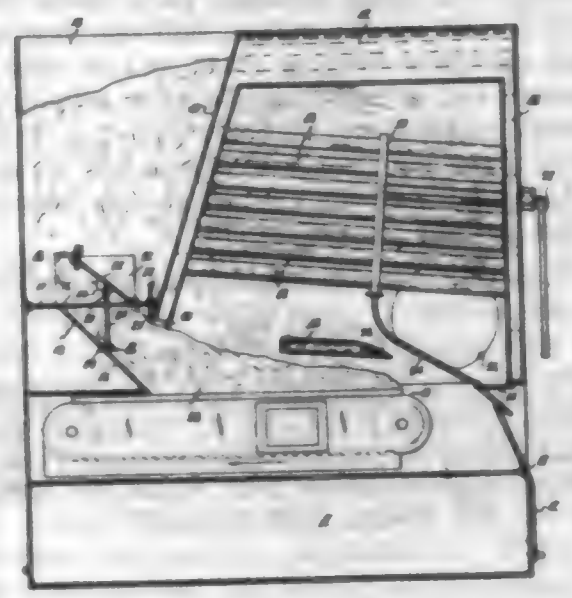
1. A cyclone furnace having walls defining a combustion chamber of substantially circular cross-section, fluid cooling means for said walls, a restricted gas outlet in one end of said combustion chamber, means for introducing combustion air in a longitudinally extending stream tangentially to the circumferential wall of said combustion chamber, a series of longitudinally spaced nozzle ports extending through the circumferential wall of said combustion chamber, a fluid fuel supply assembly including a supply pipe having a plurality of longitudinally spaced fuel nozzles arranged to project through said nozzle ports into said chamber, each of said nozzles having an orifice arranged to discharge fluid fuel into said chamber tangentially to the circumferential wall thereof, and means for supporting said supply pipe constructed and arranged to allow said nozzles to be rotated from a fuel nozzle operative position within to a fuel nozzle inoperative position outside of said combustion chamber and to allow retraction and insertion of said supply pipe.

2,873,702
SHAKING GRATES ESPECIALLY FOR BURNING DIFFERENT KINDS OF FUEL
Wilhelm Schulte, Gummersbach, Germany, assignor to L. & C. Steinmuller G. m. b. H., Gummersbach, Germany, a firm
Application October 28, 1954, Serial No. 465,335
6 Claims. (Cl. 110—101)



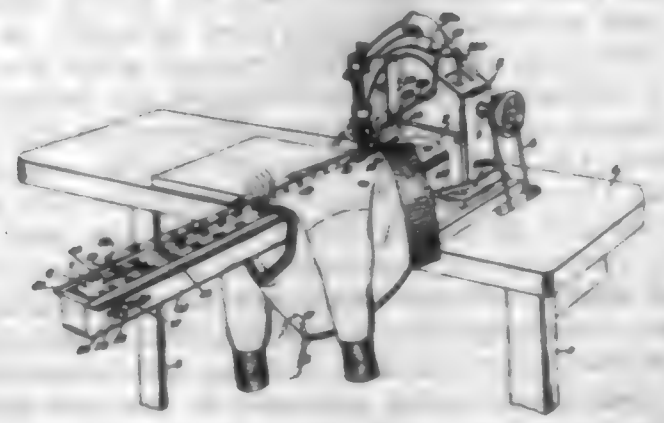
1. A method of feeding two different kinds of fuel into a furnace provided with a shaking grate, comprising the steps of delivering a first kind of fuel from a first supply station to said shaking grate, intermittently feeding a second kind of fuel from a second supply station toward a downwardly directed path leading to said shaking grate at predetermined intervals during operation of said shaking grate, blowing a first stream of air against said second kind of fuel during free fall thereof along said path to thereby effect separation of light-weight particles from relatively heavier particles of said second kind of fuel prior to arrival of the latter at said shaking grate, and periodically interrupting the shaking action of said grate to bring the latter repeatedly into standstill condition, said step of intermittently feeding said second kind of fuel being carried out only during intervals in which said grate is maintained in said standstill condition.

2,873,703
SAFETY DEVICE FOR PREVENTING HOPPER FIRES IN COAL FURNACES
George E. Valentine and Joseph H. Eubanks, Schuylkill Haven, Pa., assignors to V. & E. Products, Inc., Schuylkill Haven, Pa., a corporation of Pennsylvania
Application June 2, 1955, Serial No. 512,726
3 Claims. (Cl. 110—108)



1. In combination, a furnace having a moving grate; a coal hopper disposed at an elevation higher than said moving grate; an inclined coal chute extending from the floor of said hopper downwardly toward said moving grate whereby coal feeds from the hopper onto the moving grate; a fire door hinged on the floor of said hopper and biased to a position closing the entrance to said chute; and support means positioned in said inclined coal chute normally holding said door open during passage of coal therethrough, said support means including a support member being made of a material combustible at a high temperature lower than the combustion temperature for coal.

2,873,704
MECHANISM FOR OPERATING ON TUBULAR BLANKS
William Bleicher, Packanack Lake, N. J., assignor to Trim-Master Corporation, Reading, Pa., a corporation of Pennsylvania
Application December 19, 1955, Serial No. 553,873
10 Claims. (Cl. 112—2)



1. A machine which comprises an endless belt conveyor which has a longitudinal top run, a support which has turnable pulleys on which said conveyor is mounted, said conveyor having a front end and a rear end, said

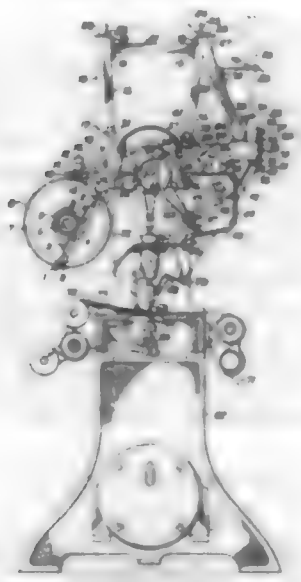
conveyor being shaped to extend through a tubular blank and to support the top of said blank on said top run, a sewing machine held at a sewing station in fixed position at said rear end, said sewing machine having sewing means, slitting means held at a slitting station located behind said sewing machine, said slitting means having a knife which is movable back-and-forth, said sewing machine having a front feed-dog and a rear feed-dog, said front feed-dog being located and operative only in front of said sewing means to feed only said blank from said top run towards said sewing means, laterally-spaced tape-guides located in front of said sewing means, said tape-guides being shaped to bend normally flat tapes into angular shapes which have blank-abutting parts abutting said blank in the sewing machine and to have spaced parts which are spaced from said blank in said sewing and slitting stations, said blank-abutting parts being sewed to said blank in said sewing station, said rear dog being located and operative both in front and in rear of said sewing means and in said slitting station, actuating means for actuating said top run and said feed-dogs in intermittent rearward feeding strokes in unison and for operating said knife in intermittent cutting strokes between said intermittent feeding strokes.

2,873,705

TUFTING MACHINES

James A. Cobble, Sr., Harrison, and James A. Cobble, Jr., Chattanooga, Tenn., Gordon C. Leonard, Rossville, Ga., and James A. Pardue, Chattanooga, Tenn.

Application February 25, 1955, Serial No. 490,504
2 Claims. (Cl. 112—79)



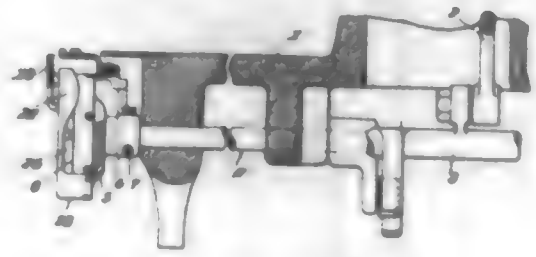
1. In a tufting machine the combination of a revolving member containing an embossed pattern, a yarn actuating bar reciprocating respectively to said pattern, an upper yarn locking rod between the yarn actuating bar and the yarn supply spindle, said rod having thereon two pins projecting outwardly and upwardly in the same transverse section thereof, between which pins the yarn is adapted to form a hitch around said locking rod that unlocks upon the actuating movement of the yarn actuating bar and locks upon the reverse movement thereof, a lower yarn locking rod between the yarn actuating bar and the needle, having thereon two pins projecting outwardly and downwardly in the same transverse section thereof, between which pins the yarn is adapted to form a hitch around said locking rod in reverse direction to that upon the upper locking rod, which hitch locks upon the actuating movement of the yarn actuating bar, concurrently with the downward movement of the needle, and unlocks upon the reverse movement of the yarn actuating bar, concurrently with the upward movement of the needle, for regulating the supply of yarn to the needle in conformity with said pattern.

2,873,706

SEWING MECHANISM OF SEWING MACHINE

Toshio Tateishi, Fuse-shi, Japan, assignor to Nippon Mishin Seizo Kabushiki Kaisha, Hottadori, Mizuho-ku, Nagoya-shi, Japan, a Japanese joint-stock company

Application January 23, 1956, Serial No. 560,839
2 Claims. (Cl. 112—181)



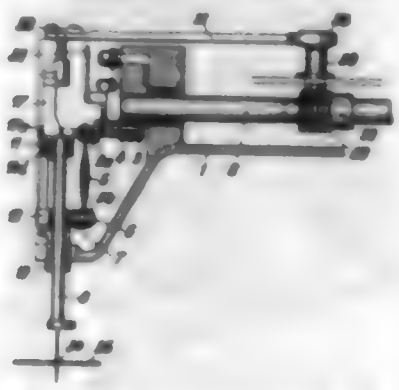
1. An oscillatory loop-taker for a sewing machine cooperating with a vertically reciprocable thread carrying needle comprising, an oscillatory shaft, a cup-shaped member having its closed side secured to one end of said shaft and projecting axially therefrom, a needle thread engaging hook mounted on said cup-shaped member, a bobbin supporting ring provided with a bobbin thread guide disposed adjacent the line of needle reciprocation, and a bobbin thread deflecting cam supported by said cup-shaped member which comprises a bobbin thread engaging surface opposed to the open side of said cup-shaped member, said surface being convex toward the cup-shaped member, the highest point of said surface being disposed toward the cup-shaped member beyond the plane comprising the line of needle reciprocation and perpendicular to the axis of said shaft, and the movement of said loop-taker being so synchronized with the needle reciprocation that the highest point of said cam surface is in uppermost position when the lower end of the needle is positioned between the uppermost position and the work resting surface of the machine at the downward stroke of the needle and operating to push the bobbin thread toward said cup-shaped member in order to move the needle in front of the bobbin thread.

2,873,767

NEEDLE BAR OSCILLATOR ADJUSTING MEANS IN SEWING MACHINES

Wolfgang Engel, Bielefeld, and Ernst Broedner, Heberge uber Bielefeld, Germany, assignors to Phoenix-Nahmaschinen A. G., Baer & Rempel, Bielefeld, Germany

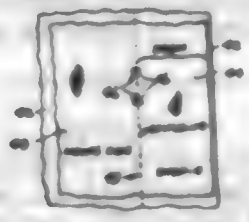
Application January 24, 1957, Serial No. 636,069
Claims priority, application Germany January 31, 1956
4 Claims. (Cl. 112—221)



1. In a zig-zag sewing machine including a housing and a drive shaft having a crank mounted in said housing, a needle bar operably connected to said crank on said drive shaft, a needle bar oscillator pivotally mounted in said housing and having a pivot axis extending in a plane disposed perpendicular to the longitudinal axis of the machine and drive mechanism for reciprocating said oscillator connected to said drive shaft, adjusting means for said needle bar oscillator comprising means for adjusting the needle bar oscillator in the direction of said pivot axis transversely of said housing and means including a lever secured at one end to said oscillator concen-

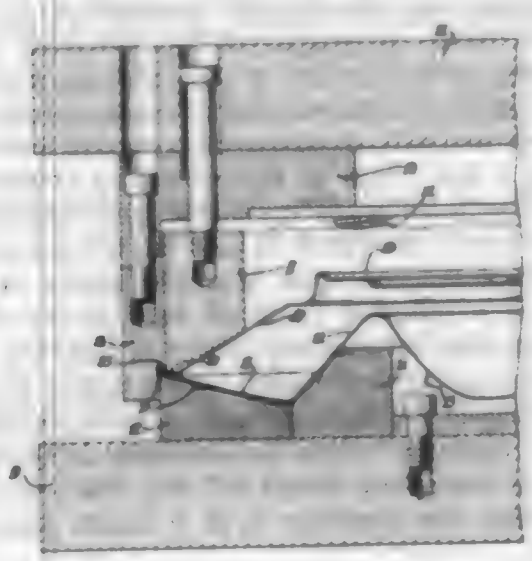
trically with respect to said pivot axis and adjacent thereto, and angularly adjustable relative to said pivot axis and connected at the other end to the said oscillator drive mechanism.

2,873,708
PIN FOR FABRICS
Helen Boltach, Detroit, Mich.
Application August 20, 1956, Serial No. 605,040
1 Claim. (Cl. 112—262)



The method of sewing consisting of the following steps: pinning together at a plurality of points from the right sides a pair of parallel overlapped strips of fabric at right angles to the edge of one strip parallel to and adjacent which said strips are to be stitched together defining a proposed stitch line, with the pins parallel to and adjacent the sides of the strips, said edge of said one strip being above the other strip, said pins being twice threaded through each strip, partially withdrawing said pins respectively through the material of said strips until their one ends register with said edge, inserting the pins along the proposed stitch line into and through the other strip, longitudinally projecting the respective pins in the same direction so as to slidably disengage the opposite ends of said pins from both of said strips at the intitial point of insertion thereinto, and stitching from the wrong side of the strips along a line passing through the said strips and over the exposed intermediate portions of said pins.

2,873,709
COATED DIE STRUCTURE AND METHOD
Michael J. Celovsky, Detroit, Mich., assignor to Lyon, Incorporated, Detroit, Mich., a corporation of Delaware
Application June 24, 1953, Serial No. 363,856
2 Claims. (Cl. 113—49)



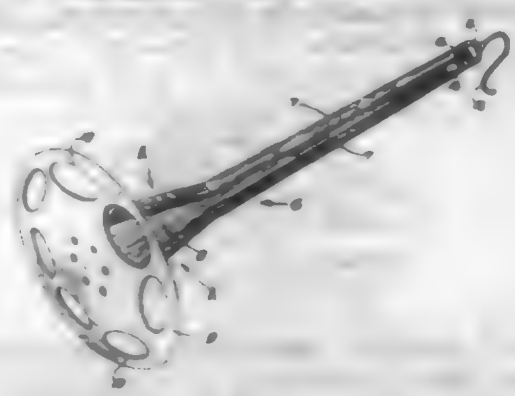
1. In a die structure, a circular die member having an annular surface receptive of a highly polished complementary surface of a sheet metal member and against which annular die surface the sheet metal member must be pressed with substantial pressure for holding the sheet metal member immovable while forming operation is effected upon the sheet metal member by yet other die means, said annular surface having thereon, except for a narrow annular marginal portion thereof, and thoroughly bonded thereto a highly pressure resistant but satisfactorily resilient and chip-proof layer of a substantially pure unmodified alkyd resin enamel free from driers and fused by baking, and effective as a cushion to prevent abrasion or pressure damage of the polished sheet metal article surface pressed thereagainst, said narrow marginal portion being highly polished for receiving thereagainst a corresponding narrow annular portion of the surface of the sheet metal member against which forming pressure is applied in excess of the pressure applied against that portion of the sheet metal surface opposed by the baked enamel cushion.

2,873,710
SUBMARINE ATTITUDE CONTROL SYSTEM
Stanley L. Morel, Stanhope, N. J.
Application March 6, 1956, Serial No. 569,948
1 Claim. (Cl. 114—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A device for controlling attitude changes in the operation of a submarine comprising, in combination with a submarine, a first shaft extending downwardly substantially perpendicular from the bottom of said submarine, a pair of steering arm units fixedly mounted to the upper end of said shaft, means located in said steering arms for controlling the rotary disposition of the steering arm units, a second shaft, bearing means for coupling the second shaft substantially perpendicular to the axis of the first shaft so that the second shaft rotates with the first shaft about the longitudinal axis of the first shaft and is permitted independent rotary motion relative to its own longitudinal axis, a pair of elevator action arms mounted on the second shaft, propellers mounted at the opposite ends of the second shaft, drive means to rotate the propellers, rudders mounted on each side of the drive means so that with a minimum of resistance and a high degree of sensitivity both the horizontal and elevation controls can be operated at the same time thereby simultaneously producing a change in azimuth and elevation of the vessel.

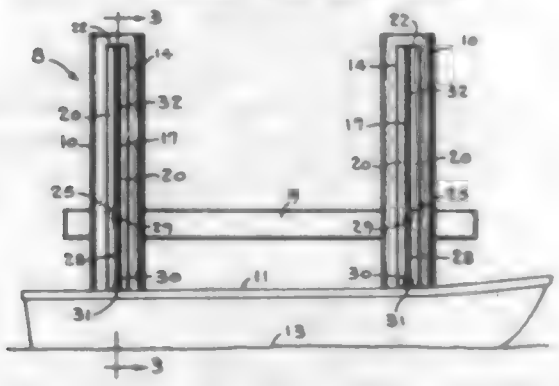
2,873,711
DE-FOULING ANCHOR
John E. Hancock, Long Beach, Calif., assignor of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California
Application December 24, 1956, Serial No. 630,177
3 Claims. (Cl. 114—206)



1. An anchor for securing vessels of any shape or size and adapted for controllable disengagement from a fouled or hooked position, comprising: a longitudinal shank consisting of a central longitudinal web portion and two spaced longitudinal flange portions carried by opposite longitudinal edges of said web portion; each of said flange portions having side edges extending, transversely to the longitudinal direction of said shank, beyond said web portion; said web portion being provided

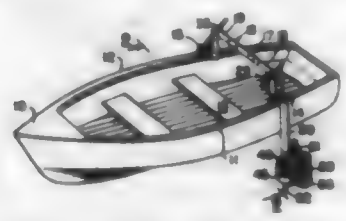
with transversely directed stop means at a first end of said longitudinal shank; the spaced flanges at a second end of said shank being divergingly outwardly flared with respect to each other and the web portion therebetween being correspondingly divergingly outwardly flared in a manner providing a flared shank end; an earth-penetrable anchor fluke affixed to said flared shank end; and a slidable link adapted for attachment to a tensile member and including two opposed laterally spaced engaging members having similar oppositely inwardly directed lower end portions, said opposed laterally spaced engaging members being slidably removably positioned on each side of one of said flange portions and said similar oppositely inwardly directed lower end portions slidably underlying said flange portion and mounting said link for slidable movement along said flange portion from said stop means at said first end of said shank to said flared end of said shank immediately adjacent said anchor fluke for extracting said anchor from a fouled position.

2,873,712
BOAT MOORING APPARATUS
Martin J. Gossen, Bayside, Wis.
Application November 7, 1957, Serial No. 694,967
6 Claims. (Cl. 114—230)



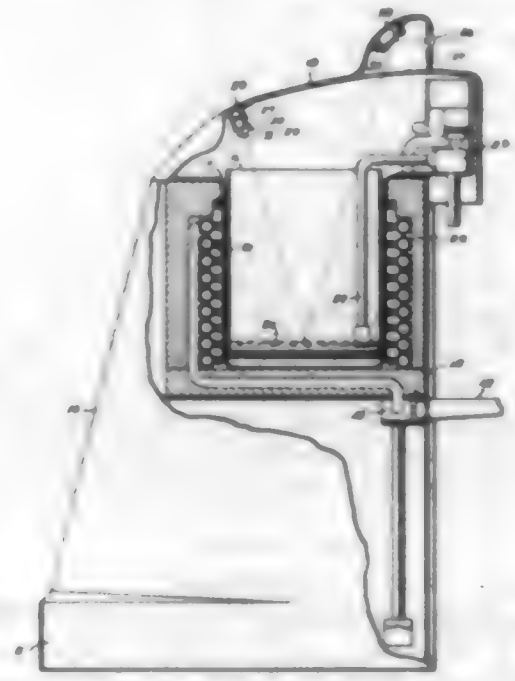
1. In a boat mooring apparatus, the combination of a pair of appropriately spaced upright supports, a vertically extending metal rail mounted on each support and extending along the same within the limits of tide variation of the water level, a slide member slidably mounted in each rail, a mooring line connecting each slide member to the boat to be moored, and means acting on each slide member to tension its associated mooring line for varying positions of said boat relative to said uprights under varying water level conditions.

2,873,713
HAND-OPERATED MECHANISM FOR PROPELLING BOATS AND CANOES
Aage I. Baastrup, Rutherford, N. J.
Application December 1, 1955, Serial No. 550,290
5 Claims. (Cl. 115—28)



1. A hand operated mechanism for propelling boats and canoes which comprises a transversely-extending handle bar assembly, propelling arms connected at their ends to the handle bar assembly and adapted to be respectively attached to the respective sides of the boat for fore and aft swinging movement, a pair of hingeably collapsible paddle blades connected to the lower ends of each propelling arm for angular adjustment about a horizontal axis between forward and reverse propulsion and neutral positions, and hand operable means upon the handle bar assembly and propelling arms connected respectively to each pair of paddle blades whereby said blades may be angularly swung or adjusted between the forward, neutral and reversing positions upon the handle bar assembly and while the propelling arms are being swung, the lower end of the propelling arm being bifurcated and the swingable member being disposed therebetween, and said hand operable means including pulley members connected to the swingable member and a lever mounted for pivotal adjustment on the upper end of said arm and cable cords extending downwardly through the propelling arm and connected respectively to the respective pulleys respectively in opposite directions thereover.

2,873,714
LIQUID LEVEL INDICATOR
Carl C. Bauerlein, Lincolnwood, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application August 15, 1956, Serial No. 604,194
1 Claim. (Cl. 116—118)

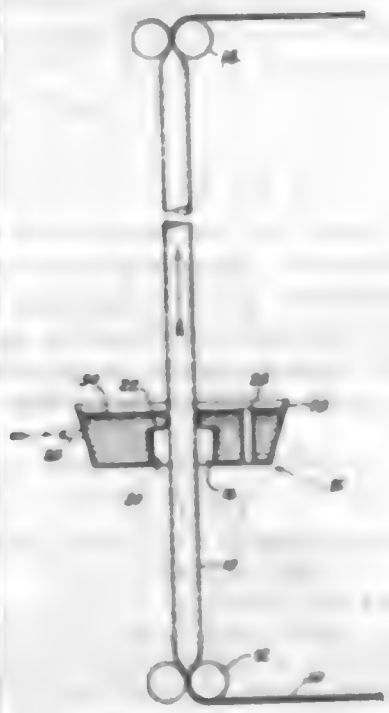


In a liquid container, a casing for said container, a cover for said casing and container, means associated with said container for effecting the removal of liquid therefrom, and means on said cover for indicating a substantially empty condition of said container comprising a source of light mounted on said cover on the inside thereof adjacent one side of said container and having a lens projecting a thin beam of light into said container in an angular direction toward the center and bottom thereof, indicating means mounted on said cover adjacent the opposite side of the container from the source of light for intercepting a reflected beam of light projected by said lens, the spacing between the source of light and the indicating means being determined by the angles of incidence and reflection of the beam of light from liquid in the bottom of the container when the container is nearly empty, whereby the indicating means will only intercept the beam of light when the container is in a nearly empty condition.

2,873,715
APPARATUS FOR COATING INFLATABLE TUBULAR MATERIALS
Ralph J. Signer, Villa Park, Ill., assignor, by mesne assignments, to Union Carbide Corporation, a corporation of New York
Application October 12, 1955, Serial No. 539,983
3 Claims. (Cl. 118—34)

1. An apparatus for applying a continuous coating to the entire exterior wall of an inflated tubing which comprises means to continuously feed upwardly a tubing in an inflated state, a reservoir having a chamber for con-

taining a coating composition and an opening in said chamber through which the inflated tubing can pass with clearance, said reservoir being positioned in the path of travel of said inflated tubing, an elastic rubber seal enclosing said opening in the chamber, said seal having a central passage of a diameter normally smaller than the inflated tubing and adapted to ride on and follow the contour of the entire peripheral wall of successive sections of said inflated tubing contacting it to provide a



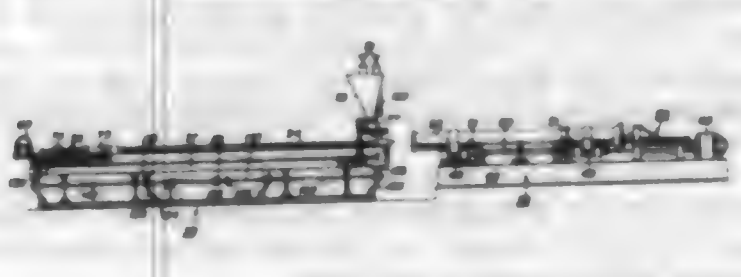
leak-proof seal between the peripheral tubing wall and the opening in the reservoir chamber, means to supply a coating composition to said reservoir chamber, and means to maintain the coating composition at a constant level above but adjacent to the elastic rubber seal and providing at least meniscus contact with the peripheral wall surface of said inflated tubing but below that which will exert such hydrostatic pressure as will prevent said rubber seal from following the surface contour of the inflated tubing.

2,873,716

APPARATUS FOR LINING CENTRIFUGAL CASTING MOLDS

Kenneth R. Daniel, James O. Patton, Jr., and Stanley V. Vines, Birmingham, Ala., assignors to American Cast Iron Pipe Company, Birmingham, Ala., a corporation of Georgia

Application December 28, 1955, Serial No. 555,934
24 Claims. (Cl. 118—55)



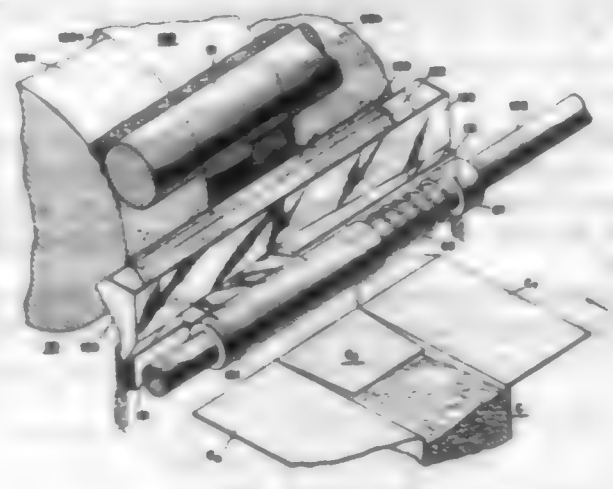
1. A machine for centrifugally lining cylindrical articles comprising means for supporting a cylindrical article with its axis in a substantially horizontal position and for rotating said article about said axis, means movable into and out of said article while it is being rotated for delivering a quantity of lining material to the interior of said article, including a container for said material, a supporting frame on which said container is reciprocable in a substantially horizontal path, and means for raising and lowering said frame relative to said article supporting and rotating means to adjust the elevation of the path of movement of said container for operation with articles of different sizes.

2,873,717

APPARATUS FOR APPLYING ADHESIVE TO PREDETERMINED AREAS OF A SERIES OF ARTICLES

William K. Griffin, Jr., and John F. Killion, Philadelphia, Pa., assignors, by mesne assignments, to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

Application July 7, 1953, Serial No. 366,452
12 Claims. (Cl. 118—204)



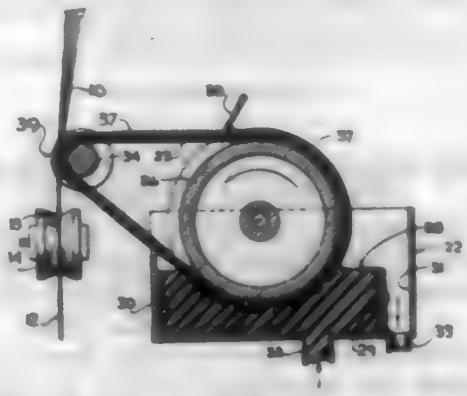
1. In a system for applying a predetermined adhesive pattern comprising adhesive areas spaced apart in the direction of advancement by a non-adhesive area to each article in a series of individual articles, a conveyor for supporting a succession of articles arranged on said conveyor in a spaced series of a given pitch, means for continuously driving said conveyor to advance the articles successively to and past an adhesive applying station at a predetermined linear velocity, an adhesive conveyor, and means for arranging adhesive of uniform thickness on said adhesive conveyor in pattern form at spaced locations having a pitch corresponding with that of the articles, the surface areas of said adhesive conveyor between said spaced locations being free of adhesive for a distance in the direction of advancement of the articles corresponding with the spacing of said spaced apart areas of the individual articles said adhesive conveyor being mounted adjacent to said article conveyor at said station and adapted to advance said adhesive in pattern form through said station at a linear velocity substantially the same as that of the articles to effect successive transfer of the predetermined adhesive pattern to the individual articles.

2,873,718

APPARATUS FOR COATING CONTINUOUSLY PRODUCED FILAMENTS

Richard H. Brautigam, Anderson, S. C., assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware

Application June 15, 1955, Serial No. 515,651
5 Claims. (Cl. 118—234)



1. Apparatus for applying a liquid coating to longitudinally moving, continuous, filamentary material, said apparatus comprising, in combination, a liquid supply tank having an open top, a driven roller journalled on a horizontal axis and positioned with at least a substantial

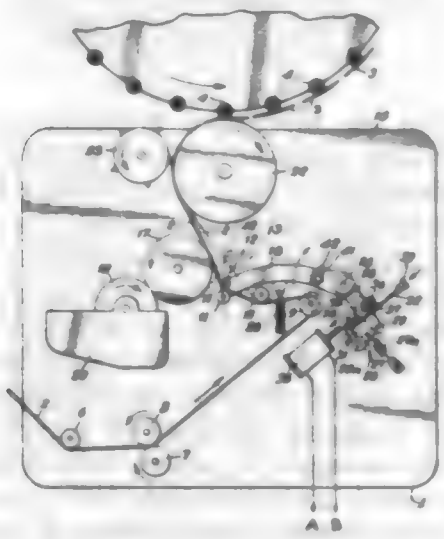
portion of its periphery within said tank and beneath the surface of the supply of liquid therein, means for rotating said roller, a belt guide positioned laterally of said roller, said belt guide having a cylindrically curved outer surface of diameter substantially smaller than the diameter of said roller, a continuous belt extending around said roller and said belt guide and driven by said roller over said belt guide and a filament guide positioned beneath said belt guide for guiding said filamentary material into substantially tangential contact with the outer surface of said belt at the outer side of said belt guide.

2,873,719

CONVEYING AND GLUING APPARATUS FOR FILTER CIGARETTE TIP WRAPPERS

Bernhard Schubert, Hamburg-Sasel, Germany, assignor to Kurt Korber & Co. K.-G., Hamburg-Bergedorf, Germany

Application March 7, 1956, Serial No. 570,178
Claims priority, application Germany April 6, 1955
8 Claims. (Cl. 118—247)



1. A conveying and gluing apparatus for the manufacture of glue coated wrappers for filter tip cigarettes wherein the wrappers are cut from a glue coated strip which passes over a suction pressure roller with the glue coated face up which comprises, a glue coating means disposed to engage said moving strip, movable guide rollers between which said strip passes, a pivotally mounted lever mounting said guide rollers for movement between operative and inoperative positions engaging and disengaging said strip with said glue coating means, a spring engaged with said lever and biasing said lever to said operative position to engage said strip with said glue coating means, electro-magnetic means for moving said lever to said inoperative position and to move said strip out of engagement with said glue coating means, and manual actuating means associated with said electro-magnetic means adapted to be optionally actuated for moving said lever to said inoperative position to disengage said strip from said glue coating means independently of said electro-magnetic means.

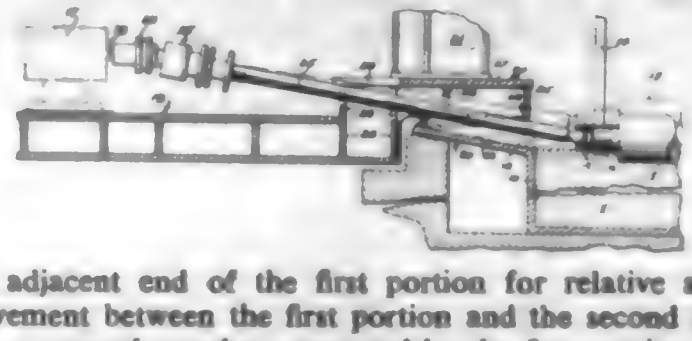
2,873,720

DRIVING MEANS FOR CONTINUOUS METAL COATING APPARATUS

Lucien A. Fugassi, Jr., Weirton, W. Va., assignor to National Steel Corporation, a corporation of Delaware

Application December 1, 1954, Serial No. 472,309
15 Claims. (Cl. 118—258)

1. In a continuous metal coating apparatus including a tank adapted for containing a bath of molten metal, a rotatable coating roll mounted in the tank and driving means disposed adjacent the tank opposite one end of the coating roll, an elongated spindle for forming a driving connection between the driving means and the coating roll, the spindle including a first portion and a second portion positioned in axial alignment with their adjacent ends connected by a coupling device, the unconnected ends of the first portion and the second portion adapted to be universally connected to the driving means and the coating roll, the coupling device including a first member connected to the adjacent end of the second portion and provided with a bore for slidably receiving



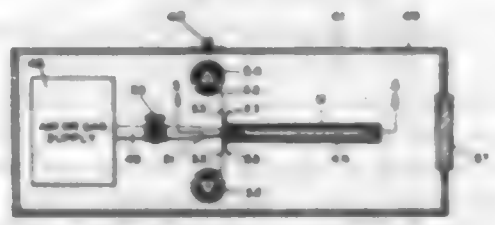
the adjacent end of the first portion for relative axial movement between the first portion and the second portion, a second member supported by the first portion and adjustably secured to the first member for determining the length of the spindle between the unconnected ends of the first and second portions, and means for establishing a driving connection between the first portion and the first member.

2,873,721

MICROMANIFOLD FOR POWDER CLOUD DEVELOPMENT

Paul G. Andrus and Lewis E. Walkup, Columbus, Ohio, assignors, by mesne assignments, to Haloid Xerox Inc., Rochester, N. Y., a corporation of New York

Application November 3, 1954, Serial No. 466,576
3 Claims. (Cl. 118—637)



1. Apparatus for developing an electrostatic image on an electrically insulating layer comprising in combination an electrically conductive development electrode having a surface conforming to the shape of said layer, means to support said layer in opposite, spaced, substantially parallel relation above said development electrode to provide a development zone between said electrode and said layer, a strip-like block positioned at one end of the development electrode and extending substantially completely across one edge of the development zone, a multiplicity of fine ducts positioned along the length of said block and extending through the block from the development zone, the diameter of the ducts being less than 0.020-inch, means for generating and flowing a gas suspension of finely-divided development material from said generating means sequentially through said ducts and the development zone, the restricted diameter of the ducts producing turbulent flow in the powder cloud serving to simultaneously deagglomerate the development material and electrically charge the material through triboelectric contact with the walls of said ducts.

2,873,722

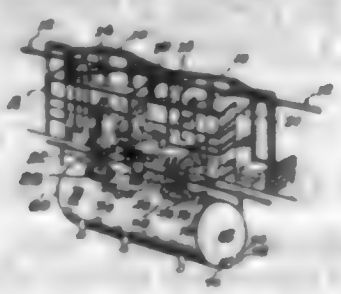
BULK MILK TANK AND WASHER THEREFOR

Leon L. Duncan, Lloyd P. Duncan, and George R. Duncan, Sr., Washington, Mo., assignors to Zero Manufacturing Company, Washington, Mo., a company of Missouri

Application November 22, 1957, Serial No. 698,299
11 Claims. (Cl. 119—14.09)

1. A milking system comprising milk withdrawing means, a cylindrical, horizontal-axis, milk cooling tank, conduit means interconnecting said milk withdrawing means and said tank, said tank having a conduit line

inspection opening in a top portion thereof, said opening having an upwardly extending peripheral flange, the upper portion of said flange lying in a curved surface



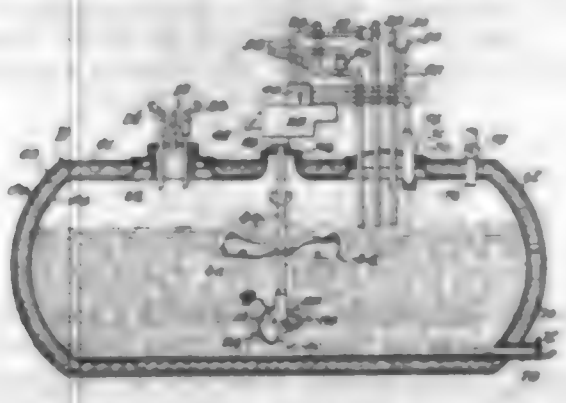
which is substantially coaxial with that of said tank, whereby an observer from outside said tank can see substantially the entire interior of said tank.

2,873,723

VACUUM BULK MILK TANK WITH AGITATORS

Lloyd P. Duncan, Leon L. Duncan, and George R. Duncan, Sr., Washington, Mo., assignors to Zero Manufacturing Company, Washington, Mo., a company of Missouri

Application April 26, 1957, Serial No. 655,224
13 Claims. (Cl. 119—14.18)



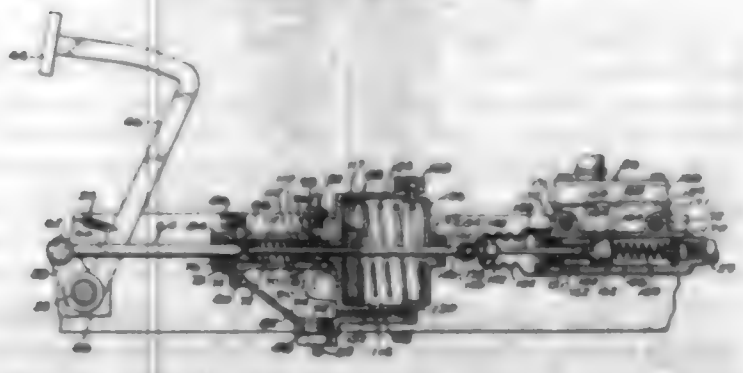
1. A milking system for milking a farm animal comprising a set of teat cups, a bulk milk cooler tank, a milk conduit interconnecting said teat cups with said cooler tank, a vacuum conduit operatively connected to said cooler tank, stirrer means in said cooler tank, variable speed power means operatively connected to said stirrer means, said stirrer means comprising a substantially vertically disposed shaft and propeller-type paddles on said shaft, whereby when said shaft is turned at slow speed, the milk will be agitated and when cleaning fluid is introduced to said tank and said shaft rotated at high speed, the said tank will be cleaned.

2,873,724

PUSH-THROUGH TYPE POWER BRAKE MECHANISM

Charles R. Olshausen, St. Clair Shores, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan

Application July 1, 1953, Serial No. 365,392
4 Claims. (Cl. 121—41)



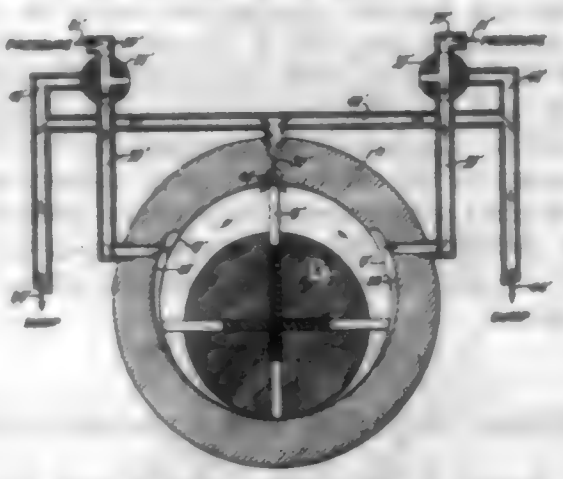
1. In a device of the character described, a power brake cylinder having a pressure movable piston element therein, a reduced tubular extension at one end thereof, a valve element in the extension engageable at times against and yieldably connected for limited coordinated initial movement with the piston element, and stationary fluid passage means in the extension in the path of the limited initial movement of the valve element and controllable thereby to control the application of pressure fluid against the piston for continuing movement of the same under power, said valve and piston element being relatively relieved in the vicinity of their portions of engagement with one another to expose at least one valve area to the pressure fluid being applied contingently with the initial movement so as to bodily displace and separate the piston engaging valve from the piston under continuing movement of the latter, and arrest motion of the valve in a yieldably balanced position in passage controlling adjacency to the stationary fluid passage means.

2,873,725

POSITIONING DEVICE

Paul A. Gilovich, Santa Clara County, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application May 8, 1958, Serial No. 733,902
15 Claims. (Cl. 121—86)



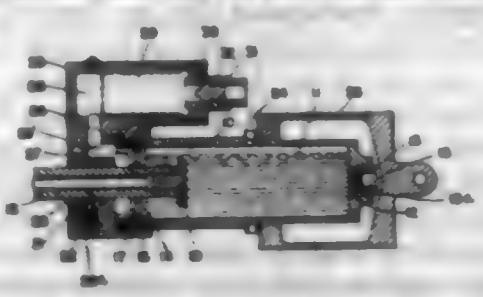
8. A positioning device comprising a cylinder closed at each end, a rotor within said cylinder, said rotor including a plurality of vanes extending outwardly therefrom, said vanes being arranged to follow the inner contour of the cylinder during rotation of said rotor, means for providing a fluid pressure differential across one of said vanes to drive said rotor, and means for arresting said rotor, said arresting means including an exhaust port in the wall of said cylinder, and means for discharging fluid from said cylinder via said exhaust port simultaneously from opposite sides of one of said vanes to arrest said one of said vanes at a predetermined discrete radial position thereof.

2,873,726

TENSION THRUSTER WITH BUFFER

Albert M. Stott, Aldan-Clifton Heights, Pa.

Application July 18, 1958, Serial No. 749,567
5 Claims. (Cl. 123—24)
(Granted under Title 35, U. S. Code (1952), sec. 266)



5. The combination of means forming an enclosure with a floating piston at one end and an aperture covered by a rupturable diaphragm at the other end, a buffer liquid partially filling said enclosure, a load moving member held in place by a shear pin and arranged to be coupled to

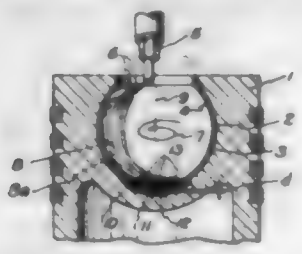
said piston at a predetermined point in its travel, and means including an explosive cartridge arranged to apply to said piston a pressure whereby said pin is sheared, said diaphragm is ruptured and said liquid is ejected from said enclosure.

2,873,727

COMBUSTION CHAMBER FOR FUEL INJECTION INTERNAL COMBUSTION ENGINE

Siegfried Meurer, Nurnberg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg A. G., Nurnberg, Germany

Application September 16, 1957, Serial No. 684,185
Claims priority, application Germany September 18, 1956
12 Claims. (Cl. 123—32)



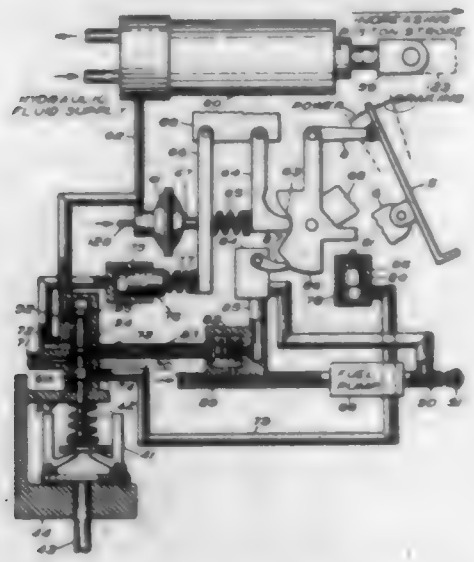
1. In combination with the combustion chamber for a fuel injection internal combustion engine in which the major portion of the fuel is deposited as a film on the wall of said chamber, then vaporized and mixed with an air swirl, and said chamber having a heat throttling liner supported by the wall of the combustion chamber against the pressure of the combustion gases, comprising a member positioned adjacent said liner over a limited localized area of said liner where the temperature of the localized area is to be maintained higher than that of the remainder of the liner.

2,873,728

CONTROL SYSTEMS FOR VARIABLE STROKE ENGINES

Arnold E. Biermann, Fairview Park, Ohio

Application February 20, 1956, Serial No. 566,693
8 Claims. (Cl. 123—48)



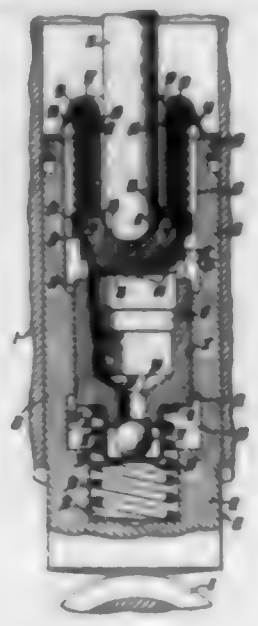
1. A control mechanism for an internal combustion engine comprising a frame, a cam pivoted on said frame, an input control lever for actuating said cam, spring return means for actuating said cam, a cam follower lever fulcrummed on a slide rod mounted in said frame, a servomotor having an input rod and an output rod, a link connecting said cam follower lever to the input rod of said servomotor, a speed sensor driven by said internal combustion engine, hydraulic valving means controlled by said speed sensor, a fuel supply system for said internal combustion engine, fuel bypass valves in series in said fuel supply system, one of said fuel bypass valves being actuated by hydraulic fluid from said speed sensor valve, an hydraulic valve actuated from said cam, one of said fuel bypass valves being actuated by hydraulic fluid from said cam valve, the elements comprising said speed sensor, said input rod and the output rod from said servomotor being connected with linkage means which will modulate the position of said output rod from said servomotor as a function of the output from said speed sensor.

2,873,729

SELF-CONTAINED TYPE HYDRAULIC VALVE LIFTER

Louis J. Van Slooten, Holland, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 22, 1954, Serial No. 470,385
9 Claims. (Cl. 123—90)



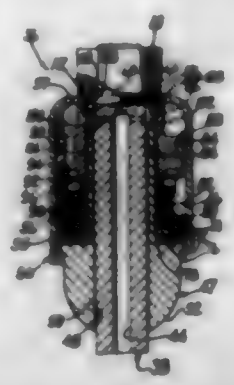
1. In an automatically extensible and contractible thrust transmitting device of the self-contained-fluid type having a cylinder and a plunger reciprocable therein, a body of fluid within the cylinder, said cylinder and plunger having means respectively movable therewith presenting facing longitudinally spaced apart surfaces, one of said surfaces being formed at least in part by a body of relatively low melting point material, and a bellows expandible longitudinally of the cylinder having at least one of its ends defined by a surface facing and parallel to said one surface and a flange, said bellows surface being in abutment with said one surface and said flange being embedded in said material.

2,873,730

FULCRUM ADJUSTER

Charles R. Kilgore, Cleveland, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application July 2, 1957, Serial No. 669,512
17 Claims. (Cl. 123—90)



1. A lash preventing device for a valve operating linkage having a bearing surface for pivotally supporting a rocker arm whereby the rocker arm is held in non-lash engagement with its operating push rod and operated valve stem comprising a bearing member adapted to pivotally support a valve rocker arm, a reaction mem-

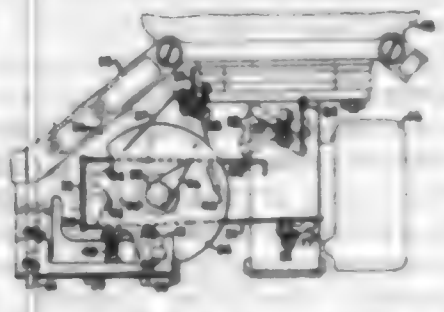
ber having a hollow cylindrical interior for slidably receiving the bearing member and defining an oil pressure chamber within the interior whereby the bearing member is urged in a direction to prevent valve lash, a supporting post extending upwardly from the engine and passing through the bearing member whereby the bearing member slidably reciprocates on the post, a narrow cylindrical oil escape passageway defined between the bearing member and the reaction member and communicating with the pressure chamber for the controlled escape of oil when the rocker arm exerts a pressure on the bearing member, an oil supply passageway leading to the pressure chamber for the supply of oil to the pressure chamber for replenishing oil lost through the escape passageway, and valve means in the oil supply passageway preventing the escape of oil when the engine valve is being opened and the rocker arm exerts a reaction force on the bearing member and opening the valve to permit replenishing oil to the pressure chamber when the engine valve is closing and the reactive force between the rocker arm on the bearing member diminishes.

2,873,731

ENGINE CONTROL DEVICE

John W. Richardson, Milwaukee, Wis., assignor, by mesne assignments, to Tecumseh Products Company, Tecumseh, Mich., a corporation of Michigan

Application February 27, 1956, Serial No. 567,992
14 Claims. (Cl. 123—99)



14. A device for selectively controlling the positions of the choke and throttle valves of an internal combustion engine through their respective levers, said device comprising, a support, a pair of elongated members mounted on said support and having corresponding swinging ends extending into proximity with the choke and throttle levers respectively, said member ends being normally biased toward each other, and a control element mounted on said support for movement relative thereto and being cooperable with said members upon movement thereof for selectively swinging said member ends out of their normal positions to positively actuate the choke and throttle levers.

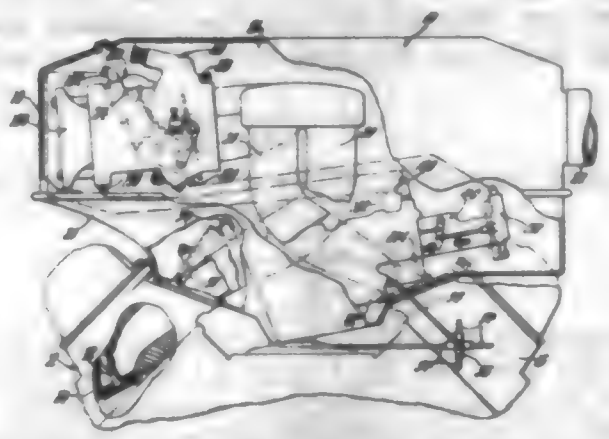
2,873,732

FUEL INDUCTION SYSTEM

Elmer Olson, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 10, 1956, Serial No. 608,797
10 Claims. (Cl. 123—119)

2. A fuel control system comprising an induction passage; a venturi in said passage; valve means for controlling the flow of air through said passage; means for bypassing air around said valve when the valve is closed for idling operation, said bypass means including a first passage communicating with the induction passage posteriorly of the throttle, a second passage communicating with the induction passage anteriorly of the throttle and connecting with the first passage, and a third passage connected to said second passage; a nozzle posterior of said valve for supplying fuel to said induction passage; a control device for supplying fuel to said nozzle, said device including a fuel metering valve, a pump supplying fuel to said valve in proportion to engine speed, and diaphragm means connected to said valve and adapted to control the fuel flow therethrough in proportion to the mass of air flowing through said induction passage; first conduit means connecting said third passage with said diaphragm means;



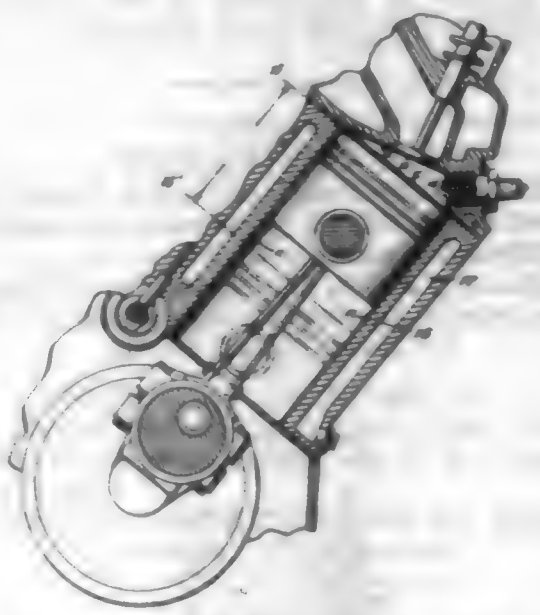
second conduit means communicating with said venturi and similarly connecting with said diaphragm means; and means provided in said first conduit for restricting the rate of vacuum change between said diaphragm means and the third passage.

2,873,733

INTERNAL COMBUSTION ENGINES

Jarvis Byron Hicks, Euclid, Ohio

Application March 6, 1956, Serial No. 569,717
15 Claims. (Cl. 123—191)



1. An internal combustion engine having a combustion chamber the internal surfaces of which, exposed to radiant energy from the combustion of fuel within the combustion chamber, are composed of a metal that is more resistant than copper or aluminum to the action of heat, corrosion, and mechanical abrasion and stresses within the combustion chamber, and that has higher reflective properties in the infra-red or heat portion of the spectrum than iron, whereby radiant energy that is generated by said combustion and radiated outwardly to said internal surfaces is reflected and reradiated inwardly, and heat otherwise lost by radiation is conserved within the combustion chamber.

2,873,734

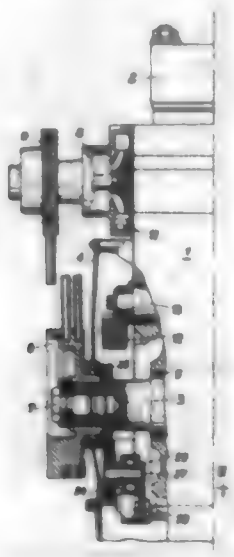
ARRANGEMENT OF THE LUBRICATING-OIL PUMP ON INTERNAL COMBUSTION ENGINES

Andreas Scheiterlein and Othmar Skatsche, Graz, Austria, assignors to Gustav Ospelt, Vaduz, Liechtenstein

Application December 20, 1955, Serial No. 554,296
Claims priority, application Austria December 23, 1954
1 Claim. (Cl. 123—195)

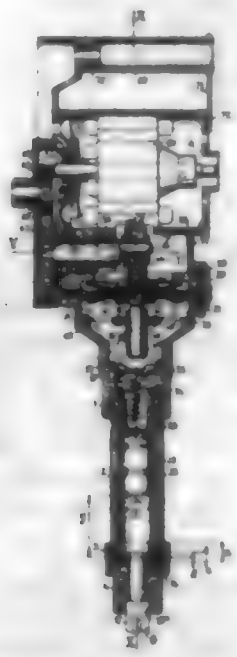
In an internal combustion engine with cylinders arranged in a row, the combination comprising a crankcase having a planar front side and including a wall with a

delivery duct for lubricating oil opening through the front side of the crankcase, a cover including a surface of attachment to the crankcase front side coplanar with the front side of the crankcase, a lubricating oil pump of the gear type and including a housing separate from the cover and disposed between the crankcase and the cover and having an attaching surface coplanar with the



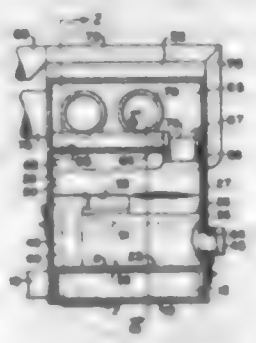
front side of the crankcase and a chamber for the pump gear, the pump housing containing a delivery duct in registry with the first delivery duct and also containing a suction duct opening at the front side of the crankcase, and a closing plate covering the gear chamber and having a surface of attachment to the pump housing coplanar with the front side of the crankcase.

2,873,735
ELECTRIC HAMMER
Maurice Jules Deliot, Neuilly-sur-Seine, France, assignor to Societe: Peugeot & Cie, Audincourt (Doubs), France, a French body corporate
Application July 9, 1957, Serial No. 670,765
Claims priority, application France July 13, 1956
6 Claims. (Cl. 125—33)



1. Electric hammer comprising, disposed in a housing, a movable driving member having a travel of a given amplitude, a striking mass formed by a slidable piston, hydraulic motion converting means interposed between said driving member and said piston, said means being such that the travel of the driving member causes a longer travel of the piston which slightly exceeds the length of travel said piston must effect to strike against the shank of the tool, damping means combined with said converting means for absorbing the difference between the travel that said driving member is capable of imparting to said piston and the effective travel of the latter and for damping the reactions due to the impact of said piston against said tool, and driving means for driving said driving member.

2,873,736
HOT AIR FURNACE
Richard W. Ross, Winfield, British Columbia, Canada
Application July 9, 1956, Serial No. 596,719
8 Claims. (Cl. 126—116)



1. In a hot air furnace, an outer casing having front, back and side walls, and a top, an open-topped fire box within the casing extending from the front wall and spaced from the side and back walls thereof, said fire box having a bottom and side and end walls, the end wall of the fire box spaced from the outer casing back wall having an outlet opening therein; a shallow relatively wide casing forming a main heating chamber resting on the top of the fire box and completely closing said top, said heating chamber casing projecting beyond the side walls and said end wall of the fire box to the side and back walls of the outer casing, a wall spaced a little above the heating chamber and extending to the outer casing walls to form therebelow a shallow secondary combustion chamber above said heating chamber, and thereabove a plenum chamber within the outer casing at the top of the latter, passage means extending from the outlet opening of the fire box through but completely separate from the heating chamber to the secondary combustion chamber, means connected to the secondary chamber to remove combustion gases therefrom, said heating chamber casing having air openings therein on opposite sides of the passage means and near the outer casing back and side walls, passage means extending upwardly from the opposite end of the heating chamber casing past the secondary combustion chamber to the plenum chamber, and means connected to the outer casing near the top thereof to remove hot air from the plenum chamber.

2,873,737
REMOVABLE OVEN DOOR STRUCTURE
George R. Sherman, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application December 28, 1956, Serial No. 629,517
8 Claims. (Cl. 126—191)



1. A door structure for a range oven or the like comprising a body defining the front opening of the oven, an oven door adapted to close said opening, a first hinge member rigidly secured to said body at the bottom edge of said

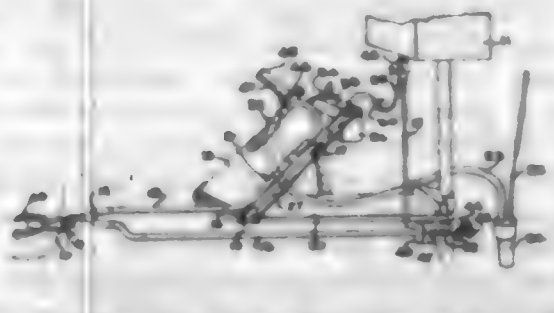
opening, a second hinge member pivotally secured to said first hinge member and adapted to support said door for movement between its closed position and a partially open position and a fully open position, a door supporting member secured to said door and arranged to removably engage said second hinge member, a stop formation on said first hinge member, a spring biased stop element on said second hinge member, engageable with said stop formation when said second hinge member is in said partially open position and said door is removed therefrom, and means on said door supporting member for disengaging said stop element from said stop formation when said door is in place on said second hinge member.

2,873,738
REVERSIBLE GARMENT
Samuel Stark, Brooklyn, N. Y.
Application January 9, 1958, Serial No. 707,927
8 Claims. (Cl. 128—159)



1. Reversible garment of the kind described comprising, in combination, a reversible main body portion and a support, said main body portion including a first outer cover and a second outer cover, said first and second outer covers being peripherally connected together to define a common waist opening and a pair of common leg openings, each of said covers being extended beyond said waist opening to form a protruding tubular portion and said support being secured at the free peripheral edges of the covers forming the tubular portion.

2,873,739
COLONIC DEVICE
Jesse P. Whann, Los Angeles, Calif.; Myra D. Whann, administratrix of said Jesse P. Whann, deceased
Application November 15, 1952, Serial No. 320,649
37 Claims. (Cl. 128—227)



1. In a device for cleansing the colon with liquid from a supply: induction means for delivering a liquid from the supply into the colon at a controlled rate; outflow tube means connected so that it will carry liquid away from the colon comprising a riser and a drain tube connected to the riser; and a vacuum breaking means connected to said riser so that said riser can be alternately connected to and closed off from the atmosphere.

2,873,740
DISPOSABLE URINE DRIP ABSORBING DEVICE
Richard B. Wainwright, Brooklyn, N. Y.
Application September 28, 1956, Serial No. 612,637
3 Claims. (Cl. 128—295)

1. A disposable urine drip absorber comprising a belt, a cup member removably secured to the belt, said cup member having a flexible, resilient, waterproof shell and an absorbent disposable liner removably mounted in the shell, said shell having an upper end portion adapted to fold over the upper end portion of the liner and into



the shell, said upper end portion of the shell being spaced from the lower end of the liner.

2,873,741
SLIDE FASTENER CLOSURE WITH QUICK-OPERABLE INSTALLATION CONNECTOR MEANS
John Shearman Donaldson, Chatham, N. J.
Application November 23, 1954, Serial No. 470,777
13 Claims. (Cl. 128—303)



6. A surgical well comprising: an elongated bag-shaped body of thin-walled flexible impervious material open at one end for finger and instrument penetration and with the opposite end open to form a base opening having free circumferential edges; an annular connector element including gripping means arranged in a circumferential closed curve for detachable fluid-tight engagement with the lip of a surgical incision; and annular fluid-tight quickly-operable means to connect said connector element communicably in fluid-tight manner to the circumferential edge of the base opening in the body of the surgical well.

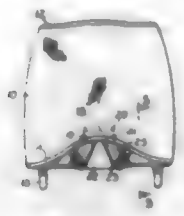
2,873,742
SURGICAL INSTRUMENTS
Charles Hunter Shelden, Pasadena, Calif., assignor to Research Corporation, New York, N. Y., a corporation of New York
Application July 14, 1954, Serial No. 443,275
5 Claims. (Cl. 128—305)



1. Surgical instruments for tracheotomy including in combination a tubular guide needle provided with a longitudinal guide slot in the wall thereof from a point adjacent the proximal end thereof throughout its distal end, said needle adapted for insertion into the trachea, a cutting trocar including an arcuate shaft provided with a plurality of angularly disposed cutting knives and a ball tip on the extended distal end thereof, said ball tip being releasably engaged in the guide slot of said needle for movement therein to permit said knives to make an incision into the trachea, and an arcuate cannular tracheotomy tube telescopically releasably engaged over the distal end of said trocar to be positioned adjacent the proximal end thereof, and said tube being

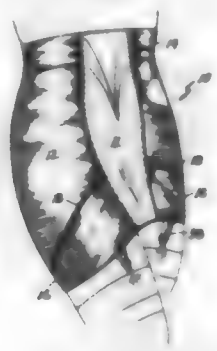
movable on said trocar to bring the distal end of said tube into an inserted position through said trocar incision within the trachea.

2,873,743
UNDERGARMENT
Emil Frei, Hackensack, N. J.
Application June 29, 1954, Serial No. 440,102
3 Claims. (Cl. 128—524)



1. A girdle having an elastic bottom edge adapted to engage outer portions of the thighs of a wearer, and a crotch piece secured to front and back portions of the girdle adjacent its elastic bottom edge and adapted to extend across the crotch of the wearer, said crotch piece being provided with elastic bands along its side edges which are adapted to engage inner portions of the thighs of the wearer, the side edges of said crotch piece being concavely curved to enable the elastic bands thereon to conform to the curvature of the inner thigh portions of the wearer, fastener elements being provided to attach the ends of said elastic bands to said girdle adjacent its elastic bottom edge to enable said elastic bands to cooperate with the elastic bottom edge of the girdle and to form substantially continuous elastic band means with said elastic bottom edge to encircle the thighs of the wearer.

2,873,744
GIRDLES
Patrick J. Morano, Newark, N. J., assignor to Even-Pul Foundations, Inc., New York, N. Y., a corporation of New York
Application December 6, 1955, Serial No. 551,414
2 Claims. (Cl. 128—554)



1. In a torso constricting and molding undergarment, an abdomen encircling member including a vertically elongated front panel, a pair of elastic side panels secured to opposite side edges of said front panel and yieldable circumferentially of the garment, said side panels having upwardly convergent lower edges, and a pair of tapered substantially triangular elastic lower panels having inner end edges secured to the opposite side edges of said front panel and downwardly divergent upper edges secured to the lower edges of the respective side panels, said lower panels extending obliquely from said front panel laterally and downwardly to opposite sides of the garment over the thighs of the user and being yieldable substantially in parallel to the directions in which they extend, tapered end portions of said lower panels being disposed at the sides of the garment and projecting rearwardly beyond the outer side edges of said side panels, the apices of said tapered end portions being disposed at the lower edge of opposite sides of the garment.

2,873,745
CIGARETTE MACHINES AND THE LIKE
Thomas A. Banning, Jr., Chicago, Ill.
Application June 20, 1955, Serial No. 516,633
49 Claims. (Cl. 131—59)



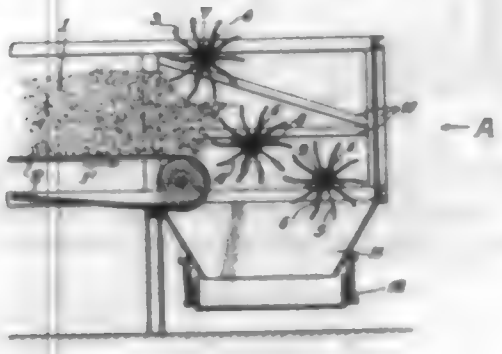
1. A cigarette roller including in combination a cigarette former comprising a sheet metal blank of generally rectangular elongated shape one end thereof comprising a tubular horn producing portion for a horn having its axis extending in a direction non-parallel to the longitudinal axis of the blank by an angle substantially equal to the angle of spiral of a spirally wrapped cigarette to be produced by use of said cigarette former, a portion of said blank comprising the end horn producing portion and the proximate lower forward corner portion of the blank, being cylindrically curled on a radius the same as the radius of the horn, and the diameter of the horn being substantially the same as the diameter of a cigarette to be produced by said cigarette former, said so-curled corner portion of the blank merging with the non-curled and flat portion of the blank on a line lying parallel to the axis of the horn, the axis of said tubular horn portion and said curled portion being non-parallel to the longitudinal axis of the blank by an angle substantially equal to the angle of spiral of a spirally wrapped cigarette to be produced by use of said cigarette former, said non-curled and flat portion of the blank comprising a paper strip entrance portion of the cigarette former, a substantially rectangular housing enclosure having parallel side walls separated from each other a distance to accommodate the diameter of the paper roll and the diameter of the horn and the curled portion of the blank, said housing including a top and a bottom and a front wall, the cigarette former being seated within the lower portion of the housing and in proximity to the housing bottom with the flat portion of the cigarette former substantially parallel to one of the side walls of the housing and with the axis of the horn and the curled portion substantially parallel to the bottom of the housing and with the central axis of the paper roll supporting section at a substantial angle to the bottom of the housing, and a floor extending across the width of the housing enclosure above the curled portion of the cigarette former commencing substantially at the location of the tubular horn and extending substantially to the location of the paper strip entrance portion of the cigarette former, said floor being provided with an opening adjacent to the flat portion of the cigarette former and establishing communication from a tobacco containing space within the housing enclosure above said floor to the cigarette former for feed of tobacco from said space to a paper strip lying and travelling within the former.

2,873,746

DEVICE FOR LOOSENING UP TOBACCO

Hilbert Schlossmacher, Hamburg-Bergedorf, Germany, assignor to Kurt Körber & Co., K.-G., Hamburg-Bergedorf, Germany

Application June 8, 1955, Serial No. 514,053
Claims priority, application France June 9, 1954
4 Claims. (Cl. 131—109)



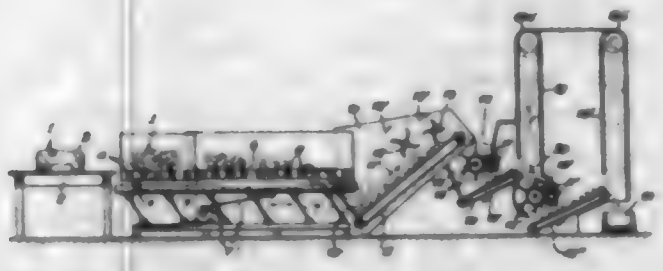
1. In a device for loosening cut tobacco which is deposited in the form of a thick layer upon a slowly moving endless conveyor band and at one end of the latter is discharged into a funnel, a frame arranged at the discharge end of said conveyor band and above said funnel, a plurality of rake wheels rotatably supported in said frame in a downwardly stepped fashion above and in front of the discharge end of said conveyor band, the uppermost rake wheel being arranged to engage and loosen substantially the upper half of said tobacco layer as it reaches said discharge end, the next lower rake wheel being arranged to engage and loosen substantially the lower half of said tobacco layer as it reaches said discharge end, and another rake wheel being arranged in a still lower plane for receiving and loosening tobacco previously loosened by said two first mentioned rake wheels before said tobacco drops into said funnel.

2,873,747

METHOD AND APPARATUS FOR SEPARATING AND LOOSENING TOBACCO LEAF BUNDLES

Hubert Schlossmacher, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co., K.-G., Hamburg-Bergedorf, Germany

Application August 26, 1955, Serial No. 530,763
13 Claims. (Cl. 131—149)



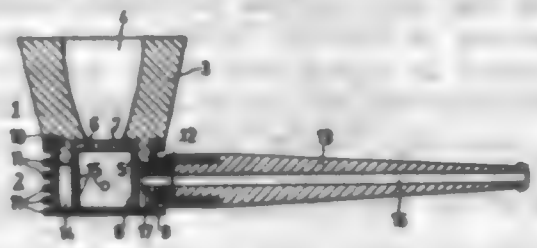
3. Apparatus for separating, agitating and loosening tobacco leaf bundles comprising oscillating grates having transverse spaced grate bars on which the tobacco bundles are placed, inclined guide springs supporting said oscillating grates, conveyor means disposed beneath said oscillating grates to receive tobacco material passing through said grates, an inclined conveyor adjacent the discharge end of said conveyor means disposed to receive tobacco material discharged from said conveyor means, a roller at the discharge end of said inclined conveyor for removing tobacco therefrom, rotatable agitating means adapted to receive tobacco material from the discharge end of said inclined conveyor, and sifter means adapted to receive tobacco material from said rotatable agitating means.

2,873,748

TOBACCO PIPE

Göran Jacob Fredrik Hård af Segerstad, Bromma, Sweden

Application September 24, 1956, Serial No. 611,546
Claims priority, application Sweden September 29, 1955
2 Claims. (Cl. 131—194)



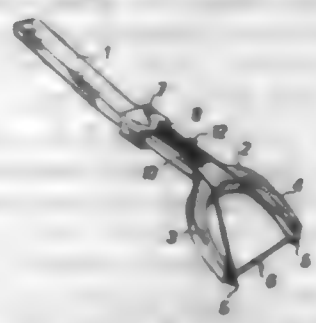
1. A tobacco pipe comprising a combustion bowl made of a non-metallic material having poor heat-conducting properties, said combustion bowl having a vertical bore passing therethrough, a perforated plate transversely mounted in the lower portion of said bore, a tubular metallic inner sleeve colinearly positioned below said combustion bowl, the upper portion of said sleeve extending within said bore with the upper extremity of said sleeve in contiguous engagement with said plate, a cylindrical tubular condensation member made of a metal having good heat-conducting properties concentrically arranged about and spaced from said tubular sleeve, said condensation member having a closed bottom wall in contiguous engagement with the lower annular extremity of said inner tubular sleeve, the lower portion of the outer periphery of said combustion bowl having screw threads in engagement with screw threads on the upper portion of the inner periphery of said condensation member, said inner sleeve having a plurality of peripheral apertures therein, and a pipe stem mounted at one end in a peripheral opening in said condensation member whereby tobacco smoke is withdrawn by suction through the opening in the bottom of the bowl axially into the inner tubular sleeve, through the perforations of said inner sleeve into the annular space intermediate said tubular sleeve and said condensation member, and through the bore of the pipe stem.

2,873,749

TOOTH CLEANING DEVICE

Bergtor Gjerde, Minde, near Bergen, Norway

Application March 2, 1956, Serial No. 569,037
Claims priority, application Norway March 17, 1955
1 Claim. (Cl. 132—91)



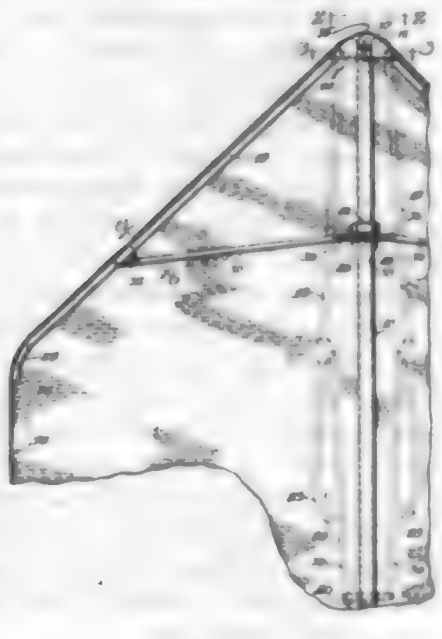
A tooth cleaning device for use with a cleaning thread forming a closed loop, said device comprising a handle, a pair of fork arms integral with said handle and located at one end thereof to form a fork extending substantially in the direction of said handle and constituting a continuation thereof, each of said fork arms having a terminal end having formed therein a recess extending transversely to the direction of the fork arm for receiving the closed loop of the cleaning thread, whereby a portion of the closed loop constituting the active cleaning portion extends between the recesses of the two fork arms transversely to the longitudinal direction of said handle, said handle having formed therein notches which are integral with the handle and

which extend in a row in the longitudinal direction of said handle, a sleeve enclosing said handle and slidable thereon, and a resilient protruding member integral with said sleeve and comprising an outwardly directed lug for receiving said closed loop in a stretched condition, said loop extending between said recesses and behind said lug, said resilient protruding member further comprising an inwardly directed tooth facing said row of notches to engage one of the notches thereof, said tooth being adapted to be disengaged from the notch by manually raising said resilient protruding member, and to be shifted into engagement with another notch by the resiliency of said protruding member.

2,873,750
UMBRELLA TENT

Joseph W. McCarthy, Evanston, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York

Application June 14, 1955, Serial No. 515,390
11 Claims. (Cl. 135—1)



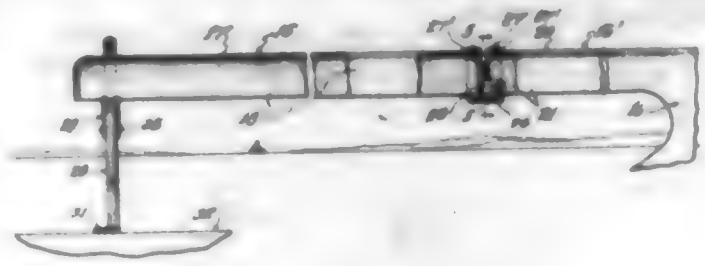
1. A tent, comprising a supporting structure and a flexible cover, said supporting structure comprising a plurality of outwardly and downwardly extending substantially straight ridge poles, each of said ridge poles having a free lower end portion downwardly bent with respect to the upper straight portion of said ridge poles, said downwardly bent portion being of sufficient resiliency to permit inward flexing thereof when the cover supported thereon shrinks, said flexible cover being supported freely by said ridge poles and disposed freely over said free lower end portions of said ridge poles, said cover extending below said free lower end portions toward the ground, the lower end of said cover being adapted to be secured to the ground, the entire supporting structure being internal of said cover.

2,873,751
BOAT CANOPY

Kibbey W. Couse, Newark, and Robert D. Keehn, Hillside, N. J., assignors to Couse Manufacturing, Inc., Newark, N. J., a corporation of New Jersey

Application November 27, 1956, Serial No. 624,545
6 Claims. (Cl. 135—6)

1. In combination in a canopy and canopy supporting structure: a canopy comprising an elongated, transversely arched roof member; substantially vertically positioned spaced side members extending longitudinally of the said roof member; a canopy supporting structure having a transversely arched roof member and substantially vertically positioned spaced side members, the said canopy and canopy supporting structure having substantially identically shaped and spaced ends; means pivotally connecting the said canopy and canopy supporting structure side members; a flexible sealing member attached to the said roof members and forming a transversely arched



channel portion therebetween when the said canopy roof member is positioned a parallel spaced distance from the said canopy supporting structure roof member.

2,873,752
CRUTCH

James Frazier Senour, deceased, late of Santa Clara, Calif., by Ruth S. Maxwell, administratrix, San Francisco, Calif., assignor to Mary M. Senour, heir of James F. Senour

Application February 24, 1958, Serial No. 717,031
2 Claims. (Cl. 135—52)

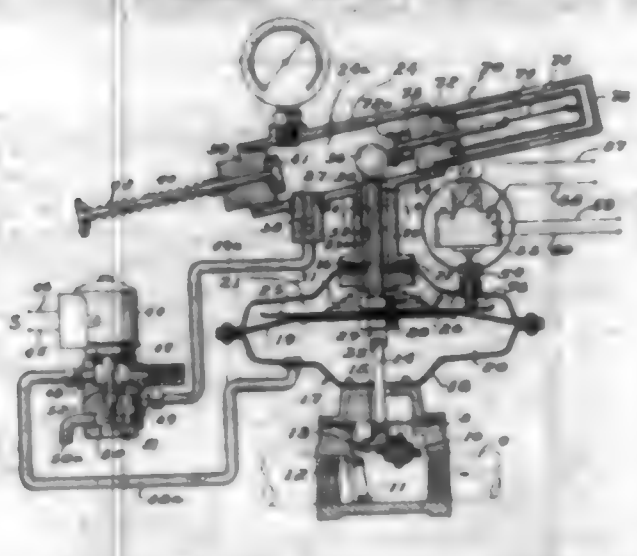


1. In a crutch: a staff adapted to be used by a patient as a walking aid; the staff defining a pair of coplanar supports having their lower ends connected together; the upper portions of the supports being spaced one from the other; and an elongated platform mounted between the upper portions of the supports fastening means securing an intermediate portion of the platform to the supports; the platform being arranged at substantially right angles relative to the length of the staff; the platform being disposed at substantially the elevation of the patient's elbow, when the patient is standing in upright position and the lower end of the staff rests on a supporting surface on which the patient is standing, whereby the patient's forearm may rest on the platform with ease; the platform having a length about the same as that of the patient's forearm, whereby the patient's elbow may rest near one end of the platform, while the opposite end of the platform is grasped by the patient's hand on the same forearm; the length of the platform projecting substantially equal distances on opposite sides of the plane of the coplanar supports, thus giving good balance to the crutch; the upper portions of the supports projecting above the platform to thereby prevent the patient's forearm from slipping laterally from the platform during the use of the crutch; the platform being solid faced throughout its entire length and width to thus constitute a firm rest for the entire length of the patient's forearm; and rigid brace means provided between the platform and the supports to maintain the platform against swinging in either direction about said fastening means while the platform is in use by the patient.

2,873,753
TEMPERATURE AND EARTHQUAKE RESPONSIVE SAFETY CUT-OFF VALVE

Timothy J. Sullivan, Butte, Mont., assignor to Sullivan Valve and Engineering Company, Butte, Mont., a corporation of Montana

Application August 30, 1957, Serial No. 681,303
3 Claims. (Cl. 137—39)

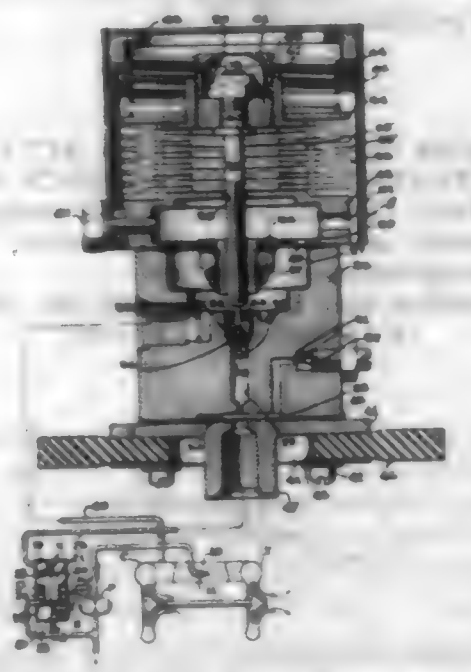


1. A safety cut-off valve for use in a pressure gas line comprising a valve casing divided into an inlet chamber and an outlet chamber by a partition provided with a valve seat; a valve member in said inlet chamber cooperating with said valve seat; a pressure motor above said valve casing and an inclined ball valve chamber above said pressure motor, said pressure motor having a flexible diaphragm therein dividing said pressure motor into an upper and a lower chamber, said pressure motor upper chamber being in communication with the upper portion of said ball valve chamber and said pressure motor lower chamber being in communication with the valve casing inlet chamber; first spring means urging said diaphragm downwardly to a lowered position in opposition to the fluid pressure in said valve casing inlet chamber; a hollow stem secured to and extending through said diaphragm, said hollow stem extending upwardly and terminating in a valve seat within said ball valve chamber when said diaphragm is in a raised position, the bore of said hollow stem communicating at its lower end with said pressure motor lower chamber; means connecting said hollow stem to said valve member so that when said diaphragm is in a raised position said valve member is lifted to an open position with respect to its seat and when said diaphragm is in its lowered position said valve member is closed upon its seat; an opening in the lower portion of said ball valve chamber; a ball valve adapted to seat upon the valve seat at the upper end of said hollow stem or alternatively upon said ball valve chamber opening; electrically-controlled solenoid valve means for connecting said ball valve chamber and said pressure motor lower chamber when the electric power to said solenoid is removed so that when said ball is upon said hollow stem seat and the electrical power to said solenoid is removed the pressure in said upper and lower pressure motor chambers will be equalized through the solenoid connections and said diaphragm will be moved to its lower position by said first spring means; and temperature responsive means for displacing said ball from said hollow stem valve seat upon excessive temperature when said ball is positioned on said hollow stem valve seat and the valve member is in an open condition comprising an actuating rod slidably mounted in the wall of said ball valve chamber adjacent the upper portion thereof, said rod having a portion adapted to contact the ball valve when said ball is seated upon said hollow stem valve seat, second spring means urging said rod in a direction to displace said ball from its seat, and means including a fusible link element connecting said rod to said ball valve chamber wall to prevent movement of the rod relative thereto, whereby upon breakage of said fusible link element due to excessive temperature, said rod is moved by said second spring means to displace the ball from its seat with the result that the pressure in the upper and lower pressure motor chambers will be equalized and said diaphragm will move downwardly to close said valve member.

2,873,754
TEMPERATURE-COMPENSATED PNEUMATIC GOVERNOR

Reece J. Dunaway, South Gate, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application May 2, 1952, Serial No. 285,817
6 Claims. (Cl. 137—81)

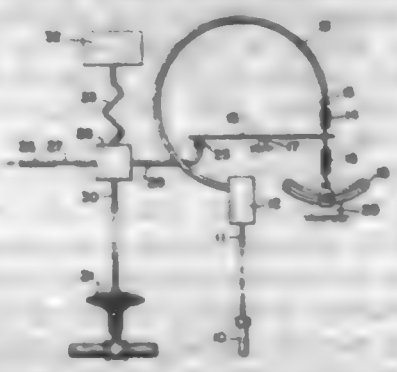


1. A pneumatically actuated governor for regulating fuel flow to a combustion engine, comprising: a casing having a chamber therein; a diaphragm dividing said chamber, said diaphragm being responsive to a fluid differential pressure; means modifying the operation of said diaphragm in accordance with barometric and temperature variations; a passage communicating with one side of said diaphragm adapted for connection with a pneumatically controlled fuel device, said passage having a restricted flow orifice therein; a valve actuated by said diaphragm in said passage on one side of said orifice for controlling passage flow; and an adjustable atmospheric bleed connection with said passage on the opposite side of said orifice, whereby a predetermined pressure level may be established in the fluid delivered to said device.

2,873,755
AIR-PRESSURE-OPERATED RELAY

Robert C. Whitehead, Jr., Oreland, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application January 11, 1954, Serial No. 403,415
5 Claims. (Cl. 137—85)



1. A pressure transmitter comprising a Bourdon spiral having a pressure input for deflecting one end

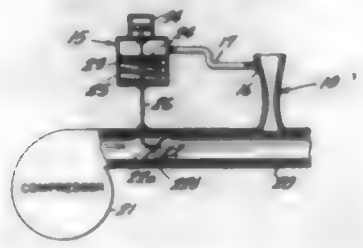
thereof by an amount proportional to the input pressure, an air-pressure-controlling valve comprising a flapper and a cooperating nozzle having an outlet air stream positioned to strike said flapper and to create a reaction force on said flapper, a first resilient member connected to said spiral at the deflecting end thereof and to said flapper and constituting the sole means for applying a force from said spiral to said flapper, said force being proportional to the deflection of the movable end of said spiral, a second resilient member connected at one end to said flapper and at the other end to a base member which is fixed relative to said flapper, said second resilient member creating a force on said flapper which is in opposition to the force from said first resilient member, and means permitting adjustment of said second resilient member and for holding said second resilient member in adjusted position.

2,873,756

DEVICE FOR CONTROLLING AN ACTUATOR BY THE TRANSLATION OF A SHOCK WAVE

Henry L. Pool, East Hampton, N. Y., assignor to Fairchild Engine and Airplane Corporation, Bay Shore, N. Y., a corporation of Maryland

Application May 14, 1956, Serial No. 584,518
6 Claims. (Cl. 137—87)



1. In a pressure-regulating system, a main conduit in the system for conducting a fluid under pressure therethrough, a nozzle, the inlet end communicating with the fluid within the main conduit and the discharge end communicating with a pressure which is relatively constant and substantially less than the pressure in said main conduit, the pressure differential between said inlet and outlet ends producing a bleed from the main conduit through the nozzle to create a shock wave therein, said shock wave being characterized by a sharp increase in pressure downstream of the shock wave, the position of which varies in response to variation in the pressure to be regulated, a pressure-regulating device, an actuator for controlling the operation of said pressure-regulating device, a pressure tap in the wall of the nozzle, and a passage connecting the pressure tap and the actuator, whereby when the position of the shock wave is upstream of the pressure tap high pressure will be transmitted to the actuator through said passage, and when the plane of the shock wave is downstream of said pressure tap low pressure will be transmitted to the actuator through said passage.

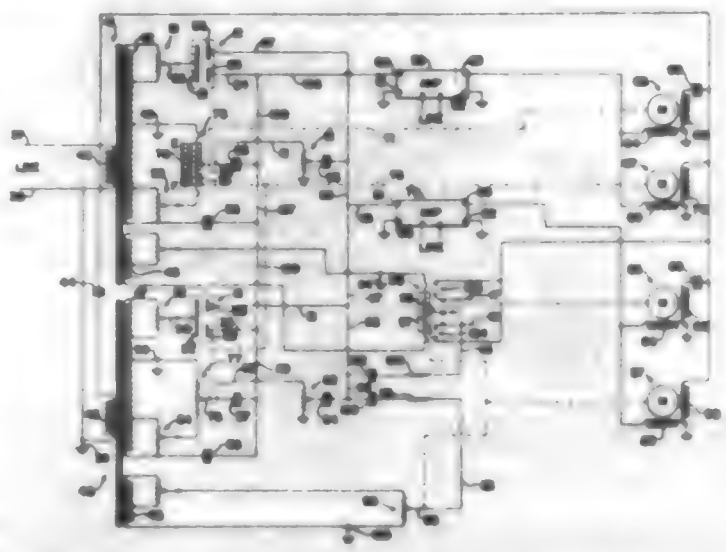
2,873,757

CONTROL APPARATUS

Arthur W. Lindemann, Columbia Heights, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application October 8, 1956, Serial No. 614,637
13 Claims. (Cl. 137—101.25)

1. Control apparatus for use with a pair of liquid containers comprising; a pair of impedance type liquid quantity sensors arranged to be located one in each of the containers and to have an impedance value which varies as a function of the quantity of liquid in the container, a source of alternating voltage of a first characteristic, current responsive means, circuit means connecting a first of said liquid quantity sensors to said first source of voltage and to said current responsive means to cause an electrical current to flow to said current responsive means which is of said first characteristic and of a magnitude indicative of the quantity of liquid in one of the containers, a second source of voltage of a second characteristic, circuit means connecting the other of said liquid quantity sensors to said second voltage source and said current responsive means to cause an electrical current to flow to said current responsive means which is of said second characteristic and of a magnitude which varies as



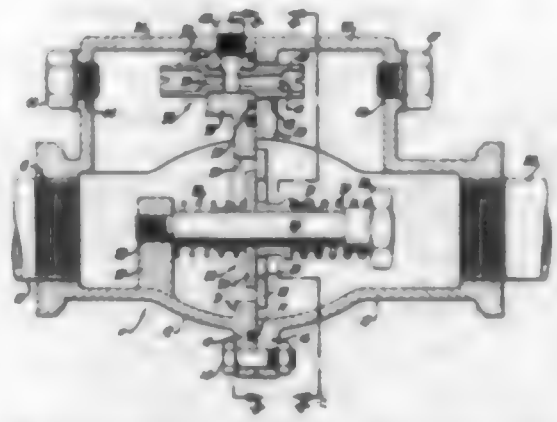
a function of the quantity of liquid in the other of the containers, first motive means responsive only to currents of said first characteristic, second motive means responsive only to currents of said second characteristic, said first and second motive means connected to said current responsive means to be controlled thereby, and further means connected to said motive means jointly controlled thereby and operable to provide a signal in accordance with the total quantity of liquid in the containers.

2,873,758

VALVE FITTING FOR PUMP PRESSURE SYSTEMS

Adolph Nielsen, Oakland, Calif.

Application January 4, 1957, Serial No. 632,435
1 Claim. (Cl. 137—209)



A valve for constant pressure water supply systems in which a pump operates to direct water into a reserve supply tank under an air cushion automatically maintained therein at a predetermined pressure, comprising: a valve body having a main flow passage therethrough, said flow passage and its inlet and outlet being in axial alignment, a by-pass passage within said valve body spaced from the main flow passage and communicating between opposite ends thereof, a venturi removably mounted within said bypass with the axis of said venturi being spaced from the axis of said main passage, an opening through said valve body from the exterior thereof into said by-pass passage, said opening being of larger diameter than said venturi and said opening and said venturi being in axial alignment whereby said venturi may be removed from said valve body through said opening for servicing, removable means normally closing said opening, an air duct communicating with said by-pass passage adjacent the restricted area of said venturi, a check valve

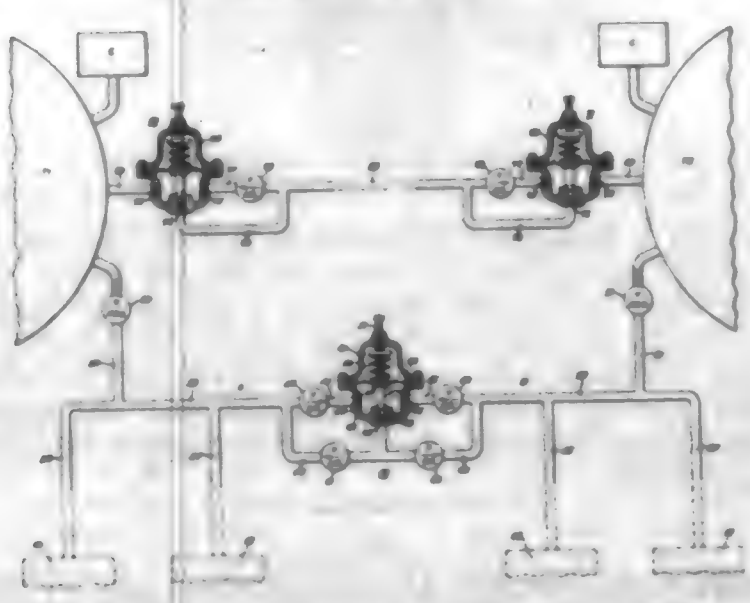
supporting shaft mounted in said main passage coaxially therewith, a valve seat formed in said main passage, an apertured plate mounted on said shaft and spring urged to seat upon said valve seat, and a closure plate mounted in said shaft and spring urged to seat upon the apertured plate for closing the apertures thereof, said closure plate being movable with said apertured plate in one direction and away therefrom in the opposite direction.

2,873,759

FAULT-RESPONSIVE SECTIONALIZING VALVE ARRANGEMENT

Vincent L. Tilli, Philadelphia, and Arthur L. Bohlinger, Havertown, Pa., assignors to General Electric Company, a corporation of New York

Application May 4, 1955, Serial No. 505,976
8 Claims. (Cl. 137—266)



1. In a valve arrangement for sectionalizing a fluid supply system into two distinct portions in response to the occurrence of a fault in one of said portions, a regulator valve comprising a casing forming a chamber, a pair of inlet ports and an outlet port communicating with said chamber, means responsive to fluid pressure in said chamber for closing off said outlet port when the pressure in said chamber falls below a predetermined value and for opening said outlet port when the pressure in said chamber exceeds a predetermined value, a first supply line interconnecting one of said inlet ports and one portion of the system, a second supply line interconnecting the other of said inlet ports and the other portion of said system, a check valve in each of said supply lines permitting fluid to flow therethrough toward said chamber but blocking reverse flow therethrough, a first discharge line interconnecting said first supply line and said outlet port and bypassing the check valve in said first supply line, a second discharge line interconnecting said second supply line and said outlet port and bypassing the check valve in said second supply line, and a check valve in each of said discharge lines permitting flow therethrough only in a direction away from said outlet port.

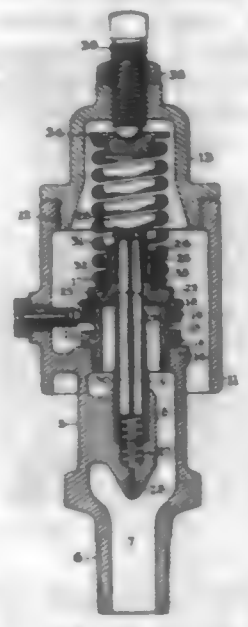
2,873,760

SAFETY VALVE

Lewis A. Safford, Watertown, N. Y., assignor to The New York Air Brake Company, a corporation of New Jersey

Application January 6, 1958, Serial No. 707,189
3 Claims. (Cl. 137—529)

1. A pressure relief valve comprising in combination, a body having an annular seat which surrounds a flow port; a poppet valve having an annular surface adapted to seal against said annular seat and close said flow port, said seal lying at least approximately in a plane hereinafter called the sealing plane and separating the pressure side from the discharge side of the valve; guiding means located on the pressure side of the valve and comprising means affording two guideways which are aligned and normal to the sealing plane when the valve is closed, one a fixed guideway carried by the body and extending nearly to the sealing plane and the other a movable guideway formed in the valve and extending nearly to the sealing plane; a guide stem making a close sliding fit in the fixed guideway and a slightly looser fit in the



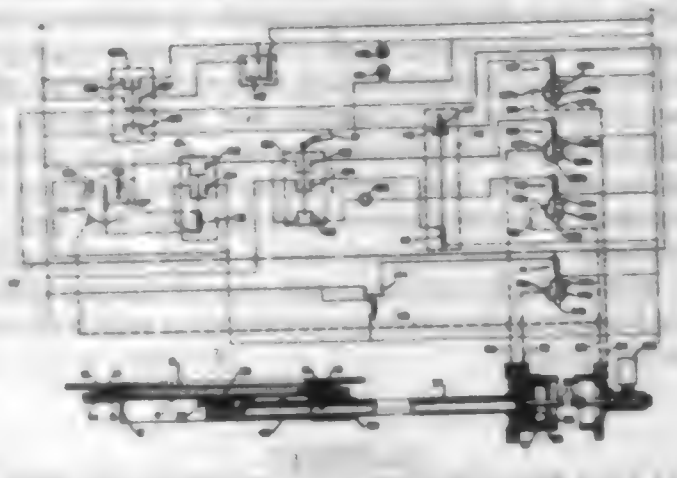
movable guideway, said stem having, wholly within the movable guideway, an end taper dimensioned to limit tilt of the valve and extending to a thrust surface on the end of the stem, said surface being adapted to engage a thrust surface carried by the movable guideway; dominant yielding means urging the valve toward the seat; and yielding meant urging the guide stem into thrust engagement with the valve.

2,873,761

FLOW CONTROL APPARATUS

Henri Tailleferre, Paris, France, assignor to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey, Paris, France

Application July 25, 1956, Serial No. 600,090
Claims priority, application France July 26, 1955
30 Claims. (Cl. 137—553)



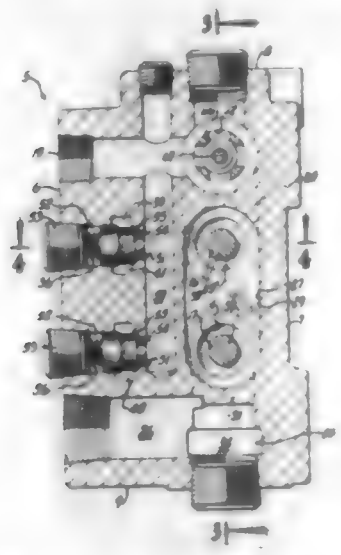
1. Flow control valve apparatus comprising a casing member having a passage therethrough, a valve member movable with respect to the casing member between a closed position in which it spans said passage and an open position in which it is at least partially retracted from the passage, fluid pressure actuated sealing means interposed between said casing member and the valve member around said passage to interrupt flow through said passage, means for moving the valve member between open and closed positions, means selectively subjecting the sealing means to pressure, and control means for the last two named means so constructed and arranged that the sealing means can be subjected to pressure only when the valve member is in closed position.

2,873,762

CONTROL VALVE FOR FLUID PRESSURE OPERATED MECHANISMS

Francis H. Tennis, Milwaukee, Wis., assignor to Hydraulic Unit Specialties Co., Waukesha, Wis., a corporation of Wisconsin

Application June 27, 1955, Serial No. 518,296
11 Claims. (Cl. 137—621)



11. In a control valve: a valve body having a plurality of spaced parallel bores, a pair of high pressure outlet passages connecting with each bore and each leading to a motor port at the exterior of the body, and exhaust passage means communicable through each of said bores with both of its motor ports; a valve element in each bore, movable axially therein from a neutral position to either of two operating positions to selectively govern communication between its motor ports and the exhaust passage means; said body having an inlet and an outlet connected by a through passage which crosswise intersects all of the bores, and through which pressure fluid supplied to the body inlet flows freely to the body outlet when all of the valve elements are in their neutral positions, but which through passage is blocked by any one of the valve elements when it is in either operating position thereof; said body having supply passage means therein which includes all of said high pressure outlet passages and is communicated with the body inlet, and into which supply passage means pressure fluid is diverted as a consequence of blocking of the through passage by one of said valve elements, said supply passage means including a feeder passage common to the high pressure outlet passages of each bore, and through which feeder passage all of the pressure fluid flowing to either one of the motor ports associated with any one bore travels when the valve element in said one bore is in an operating position communicating the other motor port for said one bore with the exhaust passage means; and a single check valve in each of said feeder passages, all of said check valves being at locations spaced from the bores in which the valve elements operate.

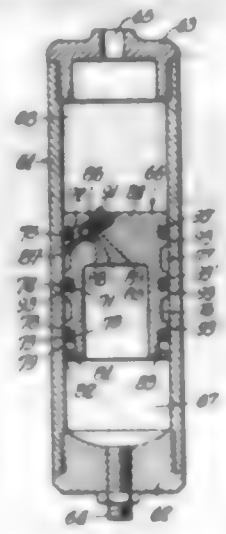
2,873,763

SEALING MEANS FOR A SLIDABLE MEMBER IN A PRESSURE UNIT

Jean Mercier, New York, N. Y.

Original application January 22, 1954, Serial No. 405,581, now Patent No. 2,774,619, dated December 18, 1956. Divided and this application February 13, 1956, Serial No. 565,025
3 Claims. (Cl. 138—31)

2. Equipment of the character described comprising a container having a pair of ports, a piston slidably mounted in said container between said ports and defining a chamber on each side thereof in communication respectively with said ports, said piston having three spaced annular grooves therein with a resilient seal ring annular in cross section in each of said three grooves, and having an additional pair of grooves between the three spaced grooves respectively, one of the three spaced grooves at one end of the piston being of length greater than the diameter of the associated sealing ring, said groove being of width at its inner end slightly less than the diameter of the resilient ring and of width at its outer end greater than the diameter of said resilient ring, said piston end



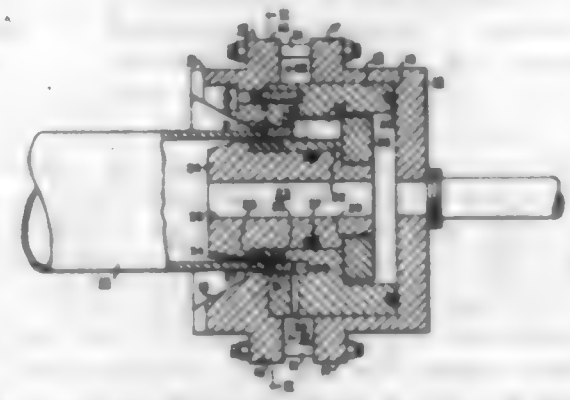
having a passageway therethrough leading from the adjacent chamber into the outer end of said groove, and the other end of said piston has a passageway leading from the adjacent chamber into one of said grooves of said additional pair near said other end of said piston and one-way valve means controls said last named passageway permitting flow of fluid in direction only from said groove.

2,873,764

PIPE END SEALING APPARATUS FOR USE IN THE PRESSURE TESTING OF PIPES AND TUBES

Daniel L. Lombard, Youngstown, and William R. Jackson, Poland, Ohio, assignors to Lombard Corporation, Youngstown, Ohio, a corporation of Ohio

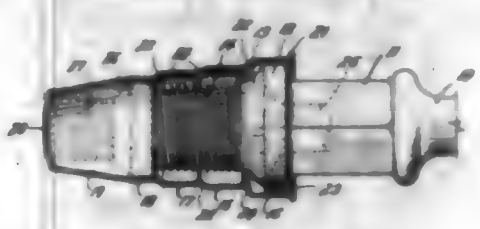
Application July 6, 1955, Serial No. 520,189
7 Claims. (Cl. 138—90)



1. In a tube end sealing device for use in the pressure testing of pipes and tubes and of the type having means to forcibly sealingly engage with the internal side walls of the tube upon movement of the device into pressure contact with the end of the tube, and having further means operative in response to the application of testing fluid pressure internally of the tube to increase the sealing force, the combination of a housing having a bored internal flange therein, a sealing mandrel slidably received in said bored internal flange, said housing being open at one end, said mandrel having an enlarged head portion projecting from the housing at said open end thereof, said enlarged head portion and said internal flange defining opposite end walls of a recess, a deformable sealing ring received in said recess and adapted to be deformed in an axial direction upon movement of the enlarged head portion of said mandrel in a first direction toward said internal flange, means operative by movement of a tube to be tested into testing position within said housing and over said mandrel to cause said mandrel to be moved in said first direction, means to admit fluid pressure to said

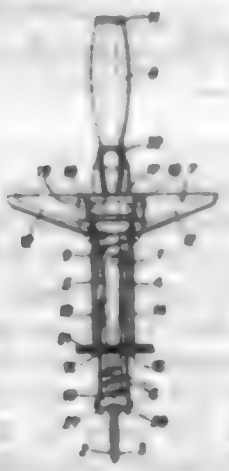
tube and to portions of said mandrel on opposite sides of said internal flange, a sealing member engaging said flange and said mandrel, and a venting bore in said housing extending radially through said flange to said mandrel and located intermediate said sealing ring and sealing member.

2,873,765
THREAD PROTECTORS FOR WELL SUCKER-RODS
Elmer O. Gregory, Denver, Colo., assignor of one-half to E. A. Polumbus, Jr., Denver, Colo.
Application February 27, 1957, Serial No. 642,766
3 Claims. (Cl. 138—96)



2. A thread protector for well sucker-rods of the type having a terminal flange from which a threaded stud projects, comprising: a flexible plastic protector having: a first cylindrical portion; a second cylindrical portion of less diameter than the first portion; a first conically tapered portion joining said first cylindrical portion to the second cylindrical portion; a third cylindrical portion of less diameter than said second portion; a second conically tapered portion joining said second cylindrical portion to said third cylindrical portion; a fourth cylindrical portion; a third conically inclined portion joining said third cylindrical portion to said fourth cylindrical portion; a fourth conically inclined portion joined to and extending concentrically from said fourth cylindrical portion; and a bottom disc closing said fourth cylindrical portion.

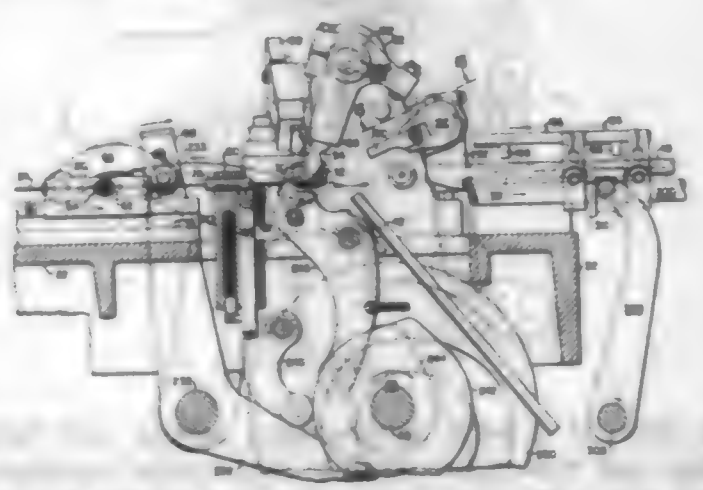
2,873,766
METHOD OF AND APPARATUS FOR INSERTING PILE TUFTS INTO A FABRIC
Hubert Jeandupeux, Delemont, Switzerland
Application February 27, 1957, Serial No. 642,878
10 Claims. (Cl. 139—1)



1. A method for inserting a pile tuft into a fabric consisting of setting pulling means behind a thread portion by passing them on one side of said thread portion while keeping a central strand portion before said thread portion, setting pushing means together with said strand end behind said thread portion to seize said strand end by means of said pulling means, by passing the pushing means together with the strand end on the other side of said thread portion, retiring first said pushing means alone and then said pulling means together with the strand end to pull said strand end before said thread portion thereby bending said strand end around said thread portion.

6. An apparatus for inserting a pile tuft into a fabric, comprising in combination a support carrying strand holding and strand pulling means, a slide shiftably mounted on said support, and strand pushing means mounted on said slide and arranged to engage said pulling means upon shifting said slide on said support towards a determined position.

2,873,767
MACHINE FOR MAKING SPRING CLIP CLOTHESPINS
Leslie W. Barnes, Trumbull, Conn., assignor to Forster Mfg. Co., Farmington, Maine, a corporation of Maine
Application December 14, 1953, Serial No. 397,911
10 Claims. (Cl. 140—1)

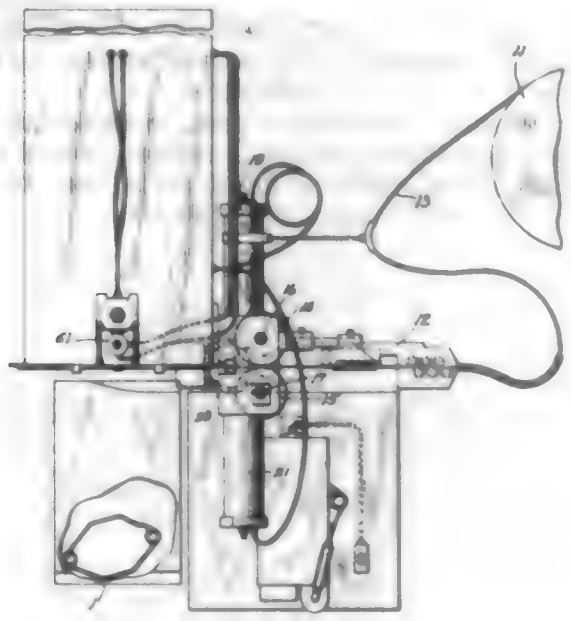


1. A machine for making spring clip clothespins comprising a spring forming station having operating instrumentalities for forming a spring from wire stock, said instrumentalities comprising cooperating mandrels between which the spring coil is formed and an arm having a surface over which the spring ends are bent, one of said mandrels having projecting means for engaging the wire stock to wind the spring upon rotation of the mandrel, an arbor within said mandrel on which the spring is wound, means for severing the wire stock on completion of the winding, the arm for supporting the spring for in-bending of the spring ends having spaced jaws, means for positioning the arm intermediate the spring ends, with the jaws embracing the coil portion of the spring, bending members disposed on oblique axes for inward movement toward said surface on the arm, means for actuating said bending members to turn the spring ends into contiguous parallel relation on the surface of the arm, means for actuating said arm to carry the formed spring to the assembly station for assembly with a pair of woods, said assembly station having cooperating mandrels to engage the spring and open the spring arms to receive the woods, means for extending the arm upon engagement by the spring by the assembly mandrels to release the in-turned spring ends from the adjacent surface of the arm and for thereafter retracting the arm to release the jaws from the body of the spring, and means for actuating one of the assembly mandrels to rotate the spring to remove the in-turned spring ends from the arm while the arm is extended.

2,873,768
WIRE SHAPING MACHINE
Edward L. Bronstien, Jr., St. Paul, and Richard A. Fisher, Golden Valley, Minn., assignors to The United States Bedding Co., St. Paul, Minn., a corporation of Minnesota
Application November 9, 1953, Serial No. 391,016
9 Claims. (Cl. 140—71)

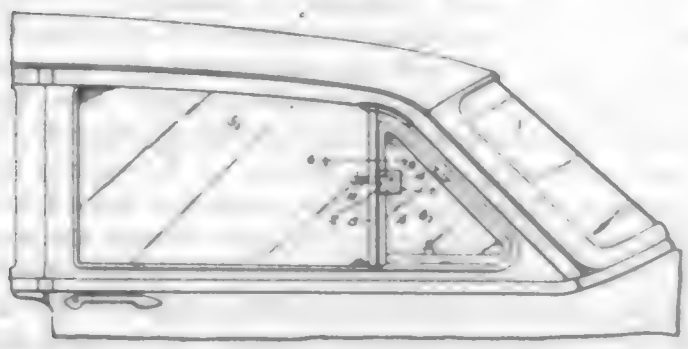
1. A wire shaping machine comprising a frame, a central shaping die having cooperating dies at opposite ends thereof, said dies being movably mounted on said frame for movement relatively toward and away from each other, means for feeding predetermined lengths of wire between two of said dies, said two dies having their opposed ends shaped to bend the ends of the wire therebetween toward said third die, a hollow tube positioned

at opposite sides of said central shaping die having a coiling member rotatably mounted in the end thereof and extending radially outward therefrom, means for moving said two dies relatively toward each other to bend



the ends of a wire therebetween against said hollow tubes, and means for rotating said coiling members to bend said wire about said tubes and toward said third die.

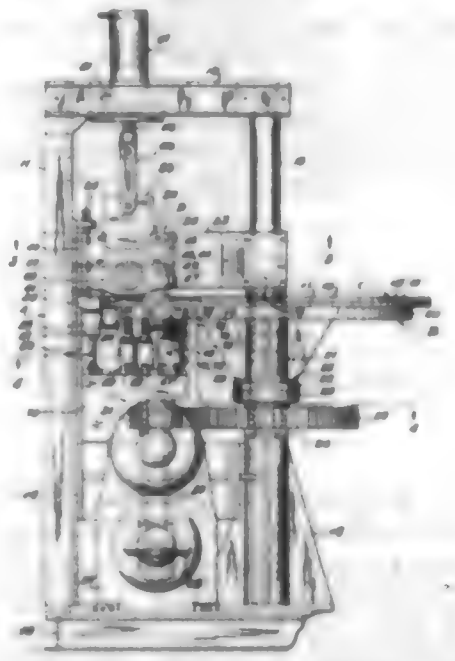
2,873,769
PORTABLE LOCK FOR MOTOR VEHICLE PIVOTED WINDOWS
Bernard Turteltaub, Englewood, N. J.
Application January 12, 1956, Serial No. 558,669
1 Claim. (Cl. 292—288)



A portable motor vehicle ventilator window lock comprising a substantially U-shaped body adapted to be fitted over one edge of a ventilator window mounted adjacent to a vertical sliding window, a locking arm pivotally connected to said body adapted to swing to a horizontal position in contact with the adjacent sliding window, in locking said ventilating window in its closed position, and right angularly related pairs of lugs extending inwardly from said U-shaped body with which said arm contacts, securing said arm in either a locked position or released position.

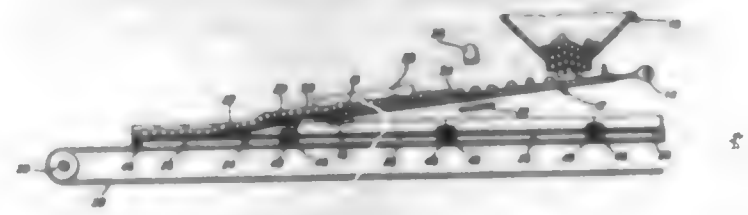
2,873,770
BATTERY PASTING MACHINE
Charles A. Young and Fred R. Kerns, Cleveland Heights, Ohio, assignors to The Electric Storage Battery Company, Philadelphia, Pa., a corporation of New Jersey
Application March 30, 1955, Serial No. 498,075
6 Claims. (Cl. 141—32)

1. A machine for applying a paste material to a battery grid or the like comprising, a frame, a grid carrier member movably supported by said frame and having a plurality of grid receiving recesses therein, said recesses being shaped to receive the grids in a position with the side surface of the grid to which paste is to be applied facing outwardly of the carrier member and having a depth at least as great as the thickness of the grids, means for moving said carrier member whereby grids carried thereby are moved in a predetermined path, paste feed mechanism slidingly engaging said carrier member and overlying said path of the grids for feeding paste thereto, said paste feed mechanism having a paste receiving chamber in communication at one end with the surface which slidingly engages said carrier member, a ram mounted for reciprocation in the other end of said chamber, a slide in



said paste feed mechanism positioned transversely of said paste receiving chamber and having a ram receiving opening therethrough forming a part of said paste receiving chamber, said slide being adapted for transverse movement relative to said ram to bring its ram receiving opening externally of the paste feed mechanism when the ram is withdrawn from said opening.

2,873,771
TRAY LOADING APPARATUS
William L. Gerrans, Saratoga, Calif.
Application September 26, 1955, Serial No. 536,615
6 Claims. (Cl. 141—131)

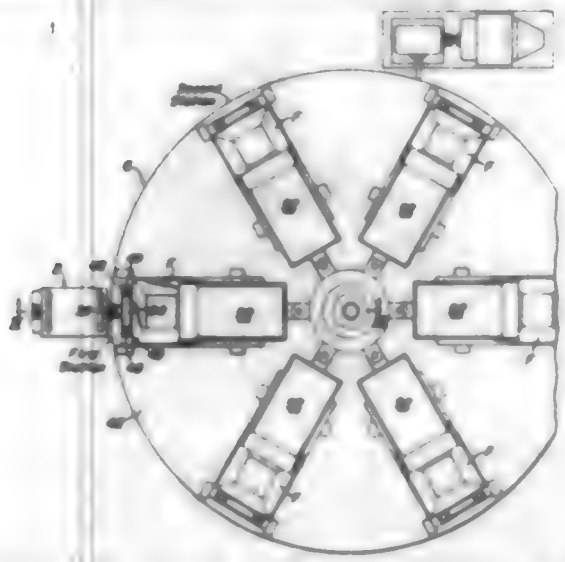


1. Apparatus for loading fruit or the like onto trays which comprises means for conveying trays continuously along a predetermined path, a feeder apron adapted to conduct fruit thereacross onto said trays, means pivotally supporting said apron on an axis substantially parallel to the fruit-supporting surface of the conveyed trays, transverse to the path of tray movement and immediately adjacent the same so that minimum clearance is maintained between said axis and the path of tray movement, said apron being dimensioned so that its free end is adapted to move into engagement with the fruit-supporting surface of said trays.

2,873,772
POWER OPERATED LIFTER
Joseph Prenk, Antioch, Calif.
Application April 24, 1956, Serial No. 580,389
2 Claims. (Cl. 141—147)

1. In apparatus for filling containers, the combination with a rotary table having a plurality of container-holding means thereon spaced around the perimeter thereof, a filling funnel and means mounting it for vertical movement adjacent each container-holding means, of lifter means laterally adjacent the perimeter of said table com-

prising a frame extending upwardly from the level of the tops of the containers, a carriage slidable vertically in said frame, means for raising and lowering said carriage, and means mounted on said carriage for projecting and retract-

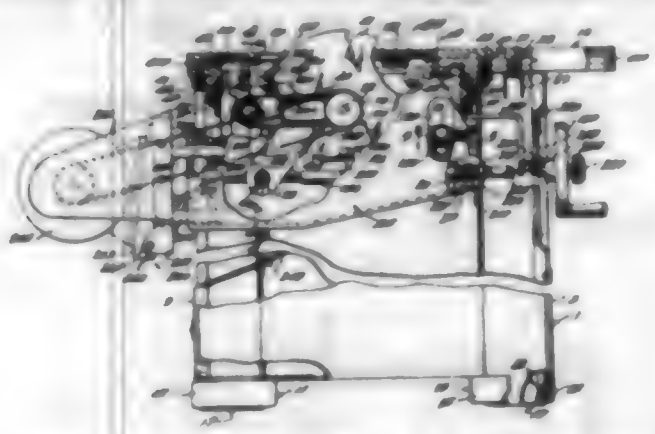


ing movement in a substantially horizontal plane, said last named means being adapted when projected to engage under the one of said funnel-mounting means in alignment with said frame whereby to lift the funnel from a filled container.

2,873,773
SHIFTABLE MOTOR DRIVE FOR TILTING ARBOR SAW

Walter L. Gaskell, Ypsilanti, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan

Application June 14, 1954, Serial No. 436,450
1 Claim. (Cl. 143—36)



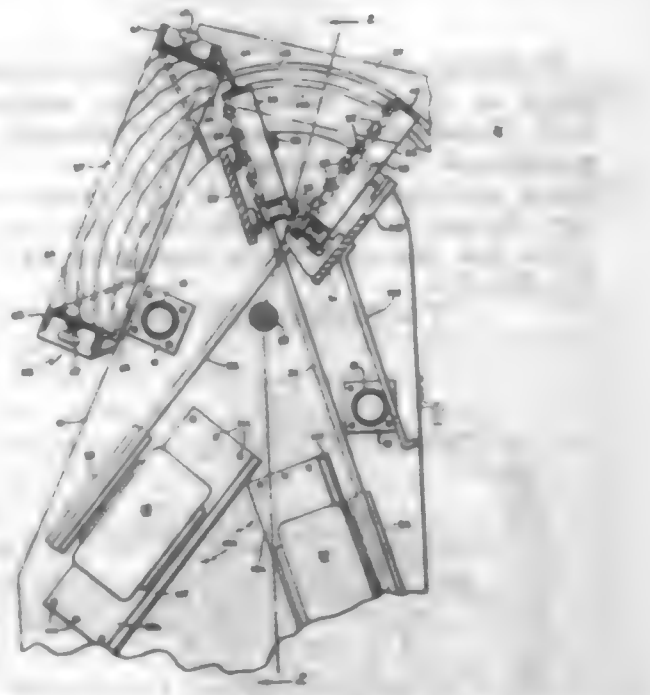
In a tilting arbor wood saw or the like, a cabinet having a table top, a laterally tiltable frame within said cabinet having an arbor arm thereon movable up and down, an arbor carried by said arbor arm, a motor, a belt drive between said arbor and motor, a horizontal rod mounted adjacent the back wall of the cabinet and extending parallel to the surface of the table and to a plane defined by the arbor, a pad slidable back and forth on said rod, said motor being carried by said pad and having its axis parallel to the rod, said pad having a vertical plate pivoted thereon and located adjacent the back face of the frame, and a stud projecting out of the frame and working in a vertical slot in said plate and acting to slide the pad and motor on the rod when the frame tilts.

2,873,774
POWER SAW FOR FORMING OVAL BOWLS OR THE LIKE

Robert S. Condon, Berlin, Conn., assignor to Adirondack Bowls, Inc., Old Forge, N. Y., a corperation of New York

Application March 7, 1957, Serial No. 644,540
12 Claims. (Cl. 143—85)

1. In a power saw, a support frame, a carriage pivotally mounted on said frame and adapted to move a work piece in an arcuate path about the carriage pivot point, air operated means to drive said carriage, hydraulic means to control the drive of said air operated means, a pair of ring members rotatably mounted in said frame with a portion of each member extending into the path of the work piece, cutting means supported by each of said ring members and engageable with said work piece to cut an arcuate kerf therein, said members being angu-

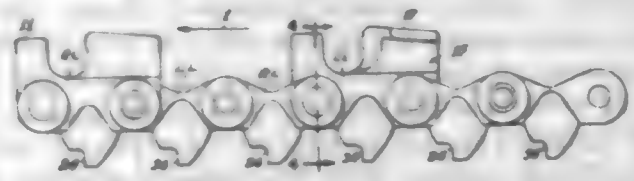


larly displaced from one another with the plane of each being substantially normal to a tangent to the arcuate path of the work piece, one of said ring members having a smaller diameter than the other member and being located ahead of the other members in the work piece path, and power operated means to rotate said members and move said cutting means to cut said arcuate kerf during movement of said carriage.

2,873,775
SAW CHAINS

John Allen Abbott, Stamford, Conn., assignor to Textron, Inc., Providence, R. I., a corporation of Rhode Island

Continuation of application Serial No. 172,488, July 7, 1950. This application August 6, 1956, Serial No. 602,213
17 Claims. (Cl. 143—135)



1. A saw chain adapted to run on a guide bar having a slot extending along its edge and spaced guiding faces on opposite sides of said slot and composed solely of right and left links disposed alternately on opposite sides of a median plane parallel with the guide bar in predetermined sequences, each sequence comprising a right hand cutter link having an inner face lying in said median plane, a bottom edge surface adapted to slide on one of said guide faces and a tooth portion projecting outwardly and away from said plane and then inwardly to said plane at its outer end, and a left hand cutter link having an inner face lying in the same median plane, a bottom edge surface adapted to slide on the opposite guide face and a tooth portion projecting upwardly and away from said plane on the opposite side from the tooth portion of the right hand cutter and then inwardly to said plane at its outer end, the front edges of the tooth portions being sharpened, and the end portions of each link being perforated, the links of the chain being arranged with the rear end of each single link overlapping the front end of the next succeed-

ing single link only and at least certain links having offset driving lugs projecting downward below said bottom edge portions and entering the slot between the guiding faces, and pivot pins extending through the overlapped perforated ends of the links to connect the links pivotally together, said pins having enlarged head portions extending to the lower edges of the links and adapted to bear on the said guiding faces of the guide bar.

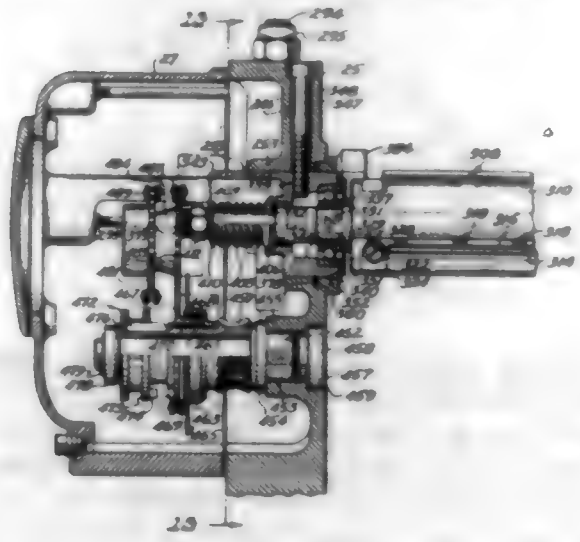
2,873,776

PLANER AND ATTACHMENTS THEREFOR

Richard A. Buttke, Milwaukee, Wis., assignor to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Original application October 8, 1951, Serial No. 250,345, now Patent No. 2,792,036, dated May 14, 1957. Divided and this application September 28, 1956, Serial No. 616,114

4 Claims. (Cl. 144—252)



1. In a planing machine, a pair of vertical support columns fixed in spaced relation, work guide means extending between and supported by said columns, a workpiece feed roller extending crosswise of and supported at its ends from said columns and adapted to engage a workpiece to feed it over said guide means, power transmission mechanism on at least one of said columns coupled to and adapted to drive said roller, enclosure means for said mechanism, a support bearing at each end of said roller, the bearing at the power transmission mechanism end of said roller being mounted on and for limited vertical movement relative to said enclosure means, the other bearing being supported by the other of said columns for aligned vertical movement, means for resiliently biasing each of said bearings toward said guide means, and a shield mounted on said transmission mechanism end bearing in sliding contact with the adjacent surface of said enclosure means for preventing entrance of dust particles into said enclosure around said bearing.

2,873,777

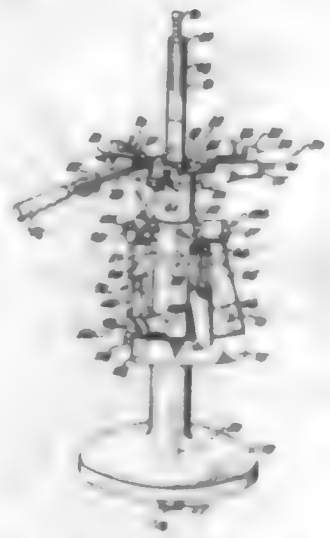
WHEEL SUPPORTING AND CLAMPING DEVICE

Lewis D. Thostenson, Inglewood, Calif., assignor to Salsbury Corporation, Los Angeles, Calif., a corporation of California

Application March 7, 1956, Serial No. 570,114

2 Claims. (Cl. 144—288)

1. In an apparatus for changing tires on a vehicle wheel, the combination of: a support post; a plurality of radially extending blocks carried by said support post and positioned to support a horizontally disposed vehicle wheel, said blocks being slideable in a horizontal plane relatively to said support post, each of said blocks including means for engaging the rim of the vehicle wheel; a cam rotatably mounted on said support post and contacting said blocks, said cam having a pivot point and opposed impact surfaces positioned outward from said pivot point; spring means for urging said blocks into contact with said cam, the rotation of said cam in a predetermined direction moving said blocks outward and moving said means for engaging the rim into



engagement with the rim; and handle means for rotating said cam, said handle means being pivotally mounted at said pivot point and including opposed striking surfaces positioned to engage said impact surfaces respectively when moved in opposite directions about said pivot point.

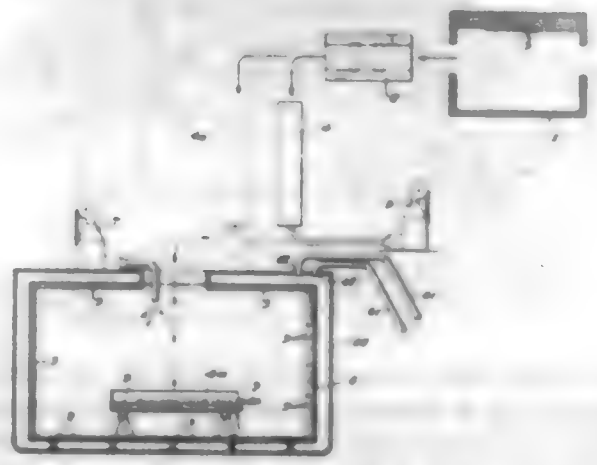
2,873,778

METHOD AND APPARATUS FOR CONTROLLING ATMOSPHERIC CONDITIONS DURING INSTALLATION

Sterling Beckwith, Lake Forest, Ill., assignor, by mesne assignments, to Comstock Liquid Methane Corporation, a corporation of Delaware

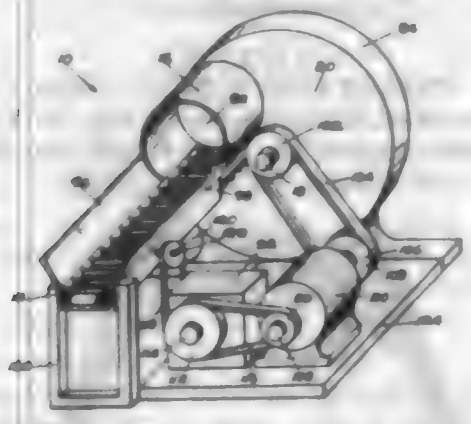
Application January 12, 1955, Serial No. 481,382

1 Claim. (Cl. 144—309)



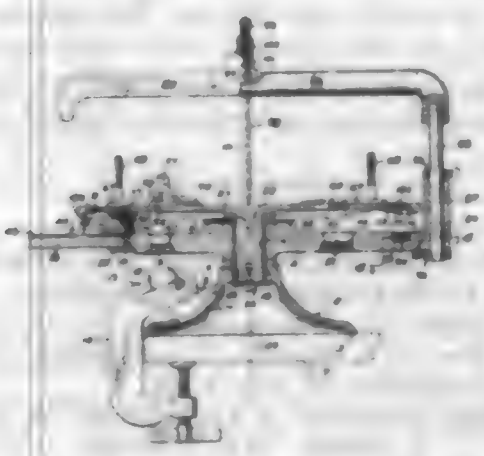
The method of installing a lining in a metal tank which consists in drying and shrinking a multiplicity of separately prepared segments of insulating material, machining each segment while in a dried and shrunken condition to predetermined size and shape, discharging the segments to a storage zone, before they have had time to absorb substantial amounts of moisture, maintaining the atmosphere in the storage zone at such moisture content and temperature as will prevent substantial absorption of moisture by the segments and after a suitable number of segments have been placed in the storage zone conveying the zone with the segments therein to and placing them in the tank, then assembling a plurality of such segments to form a lining for the tank while maintaining in the tank an atmosphere of such moisture content and temperature as to prevent substantial absorption of moisture by the segments and after the lining has been completely installed, causing such change in the moisture content of the atmosphere in the tank as will permit absorption of moisture by the segments with resultant compression of the lining.

2,873,779
BALED HAY CHOPPER
Roy D. Eykamp, Lake Preston, S. Dak.
Application June 21, 1956, Serial No. 592,886
3 Claims. (Cl. 146—107)



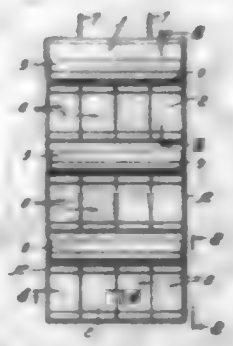
1. In a baled hay chopper, the combination which comprises a horizontally disposed shaft, means for rotatably mounting the shaft, a vertically positioned disc mounted on the shaft, one side of the disc providing a face, a pair of long cutting blades mounted on the face of the disc and positioned in spaced parallel relation thereto, the long cutting blades being in spaced parallel planes and said planes being on opposite sides of the axis of the disc and spaced equidistantly from said axis, tangentially disposed short cutting blades also mounted on the face of the disc and arranged in a spiral, the cutting edges of the short cutting blades being in a plane parallel to and spaced from the face of the disc and said plane being the same as that in which the long cutting blades are positioned, a tangentially disposed short cutting blade also mounted on the face of the disc and extended beyond the periphery thereof, a radially disposed blade mounted on the face of the disc and extended from the periphery of the disc, and oppositely disposed paddles mounted on the face of the disc and extended from the periphery thereof.

2,873,780
PIE CUTTER
Joseph Schor, San Francisco, Calif.
Application November 12, 1954, Serial No. 468,446
3 Claims. (Cl. 146—150)



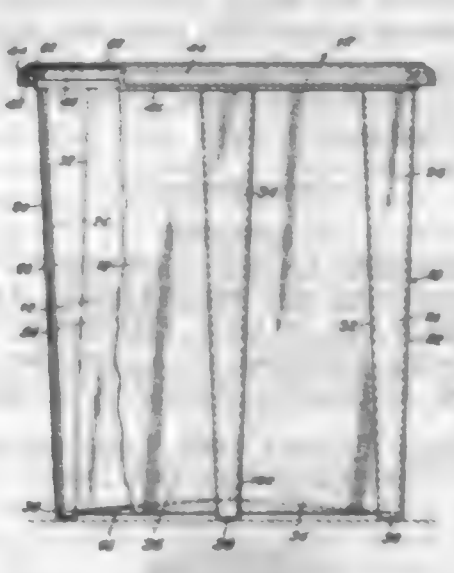
1. A device to facilitate knife cutting of pies into a selected number of equal sectors comprising, a base, a turntable journaled on the base, means on the turntable for centering and holding thereon the pie to be cut, selector means on the base for selecting the number of sectors to be cut, means on the underside of the turntable correlated with said selector means for interrupting rotation of the turntable at equal intervals defining the size of the sectors, said means being automatically released in response to further rotation of the turntable, guide means on the base rotatable horizontally and spaced above the turntable for guiding the knife in making the cuts, and a spring pressed detent pin interposed between the base and the guide means to normally limit rotation of said guide means in one direction and to retain the guide means in operative position.

2,873,781
SHOE BAG
Sara F. Langley, Los Angeles, Calif.
Application October 22, 1957, Serial No. 691,679
8 Claims. (Cl. 150—1)



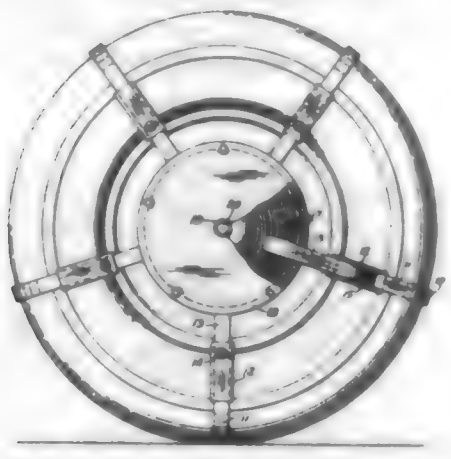
1. In a shoe bag wherein a backing panel of flexible material and an elongated pocket forming strip of flexible material are combined to form a row of pockets extending across said panel, with each pocket having an open end: the improvement which includes means providing a continuous free longitudinal edge portion on said pocket forming strip across said row of pockets in outwardly spaced relation to said backing panel; an elongated closure strip of flexible material secured along one longitudinal edge to said backing panel so that the other longitudinal edge thereof is free; a pair of end pieces each of which is secured to a side edge of said backing panel; each end piece being joined to an end edge of said closure strip and to said pocket forming strip respectively, and means extending along said free edges of said closure strip and said pocket forming strip respectively, cooperable for detachably joining said free edges across said row of pockets.

2,873,782
CLOTHES HAMPER
Paul C. Gunn, Fort Worth, Tex., assignor to Lonna Plastics, Inc., Fort Worth, Tex., a corporation of Texas
Application November 26, 1956, Serial No. 624,287
12 Claims. (Cl. 150—48)



1. In a container, such as a clothes hamper or the like, a body with side walls, an open upper end, and a bottom wall closing the lower end, a top connected to the body by hinges, each hinge including two elements, one on the body and the other on the top, one element being a partially open socket with concave spherical portions and the other element being a ball with convex spherical portions matching the concave spherical portions of the socket, the ball being split and including spaced, relatively flexible lobes, and an insertable wedge element in the ball split holding the convex spherical portions of the ball in the concave spherical portions of the socket.

2,873,783
ANTI-SKID DEVICE FOR TIRES
Michael O'Higgins, Washington, D. C.
Application December 6, 1954, Serial No. 473,273
1 Claim. (Cl. 152—218)



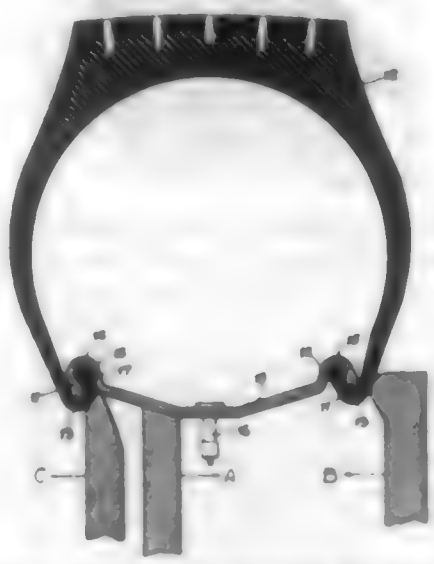
A removable non-skid attachment for an automobile wheel comprising a plurality of traction hooks having extension shafts with racks on their end portions, said racks comprising arcuate transverse lands and grooves, a central frame applicable to the outer face of the hub of the wheel and having a rotatable plate with spiral threads on one face mounted therein, and having radial openings equally spaced around its periphery for slidably receiving said end portions with the lands and grooves of said racks engaging said threads, said plate having means for engagement by a hand wrench to turn said plate in said frame and thereby simultaneously move all the rack end portions radially in or out to tighten said traction hooks over a tire or loosen them and remove the attachment from the wheel respectively, depending on the direction of turning, a plurality of said lands and grooves being always in engagement with said spiral threads, each of said extension shafts including a radially extending sleeve fixed to said end portion outside of said frame, and a shaft portion integral with said traction hook slidably fitting in the outer end of said sleeve and overlapping the outer end of said end portion, said end and said shaft portion being hooked over each other to provide a limit to the outward movement of said shaft portion relative to the sleeve, and resilient means urging said shaft portions toward said limit, said resilient means being a compression spring mounted in said sleeve between the outer end of said end portion and a shoulder on said shaft portion.

2,873,784
BUTYL RUBBER LIGHT COLORED VULCANIZATE, PROCESS OF PREPARING SAME, AND TIRE SIDEWALL MADE THEREFROM
Roger S. Hawley, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application August 8, 1956, Serial No. 602,751
14 Claims. (Cl. 152—357)



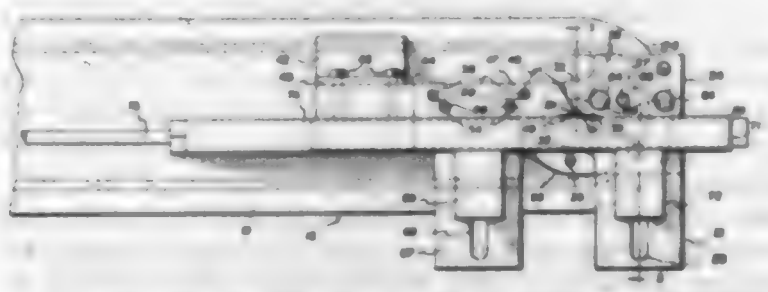
12. An automobile tire which contains as a sidewall thereof a composition comprising a rubbery copolymer of about 100 parts of a major proportion of an isoolefin and a minor proportion of a multiolefin, and a combination of about 10 to 80 parts of calcium oxide and about 10 to 50 parts of magnesium oxide, to increase the elastic modulus.

2,873,785
PNEUMATIC WHEEL UNIT
Frank A. Howard, New York, N. Y.
Application August 16, 1954, Serial No. 449,859
6 Claims. (Cl. 152—380)



1. A pneumatic wheel unit comprising an airtight rigid rim formed of metal capable of being repeatedly deformed by moderate bending beyond its elastic limits without substantial loss of strength, both margins of said rim being turned radially outward and then radially inward to form narrow channels which face radially inward between opposed faces of integral portions of the rim, the edges of the inturned flanges being continuous and concentric with the rim and smoothly rounded in cross section, and in combination with said rim a flexible U-shaped pneumatic tire, the margins of which are turned axially inward and then radially outward to form open channels which embrace the inturned rim flanges and have their own edges embraced between the opposing faces of the flanges, said tire edges being mechanically secured and sealed to the rim by mechanical pressure exerted by an elastic grip between the opposed faces of the rim channels, the tire side wall edges having a terminal portion of greater thickness than the adjacent marginal portion of the tire wall whereby the tire is anchored in said rim.

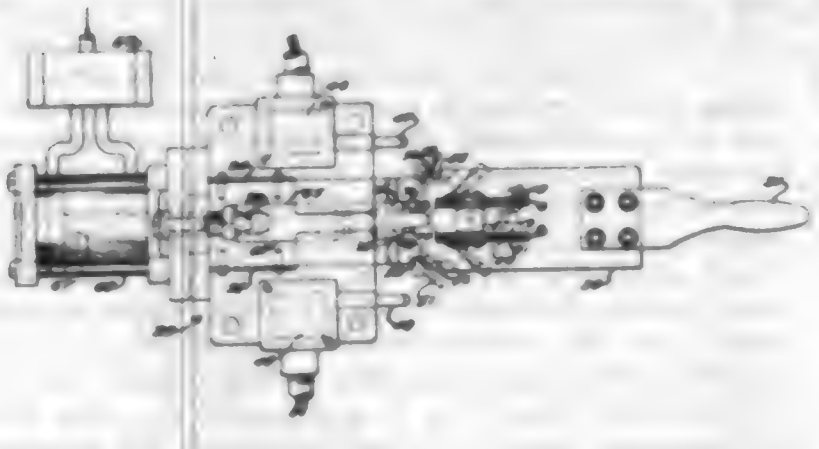
2,873,786
APPARATUS FOR MAKING ZERO-RADIUS BENDS IN RECTANGULAR TUBING
Francis J. Fuchs, Jr., Winston-Salem, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application February 26, 1954, Serial No. 412,730
2 Claims. (Cl. 153—20)



1. Apparatus for bending a normally straight rectangular tube which comprises a base, a rotatable bending head mounted on said base, a bottom die secured to said head, a forming die secured to said bottom die and having a flat portion to engage a side of said tube and an end portion diverging from the plane of said flat portion to form with said side of said tube a recess to receive material dis-

placed during a bending operation, a wiper die secured to said base and having a flat portion to engage said side of said tube and an end portion diverging from the plane of said flat portion to form with said side of said tube a recess to receive material displaced during the bending operation, a pressure die mounted on said base to hold a rearward portion of the tube slidably against the flat portion of said wiper die, a clamping die mounted on said head to hold a forward portion of said tube to be bent slidably against the flat portion of said forming die, a top die removably mounted on said forming die, said top and bottom dies having portions engaging the top and bottom of said tube and portions forming with said tube concavities, said recesses and concavities being of predetermined volumes equal to the respective volumes of material of said top, bottom, and side walls displaced by compression during the bending operation about the adjacent ends of said forming and wiper dies, flexible mandrel means for supporting the interior of said tube during the bending thereof and maintaining the internal cross-sectional dimensions of the tube substantially constant, and means to rotate said head whereby said tube is bent to a zero radius about the inner side of side wall.

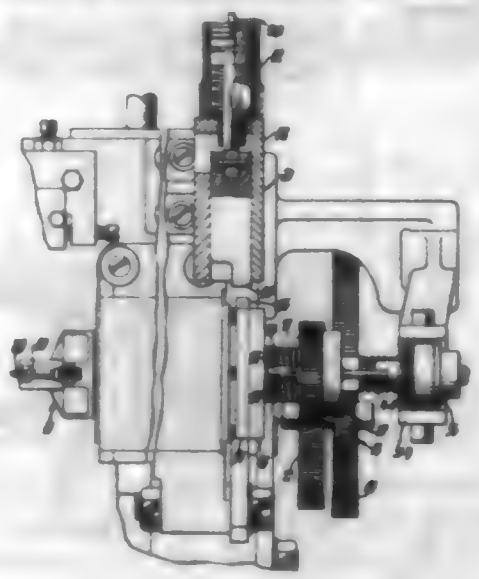
2,873,787
FIXTURE FOR BENDING TERMINALS
Heinz F. Rünge, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application November 26, 1954, Serial No. 471,233
5 Claims. (Cl. 153—20)



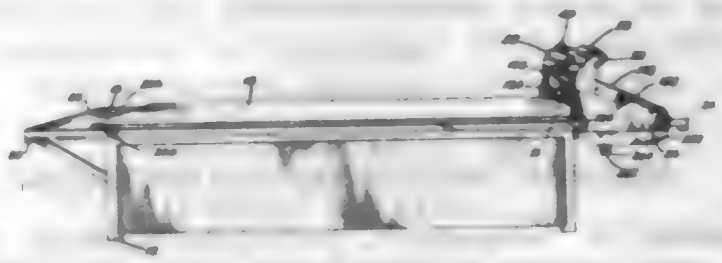
1. An apparatus for forming projecting portions of an article comprising a movable forming die, a movable holder for holding the article and for moving the projecting portions of the article into alignment with the forming die, means for actuating the forming die, means responsive to the position of the holder for controlling the actuating means to advance the forming die to form the projecting portions, means responsive to the position of the forming die for controlling the actuating means to retract the forming die, and means for varying the position of the holder relative to the forming die at which position the actuating means is controlled to advance the forming die whereby it engages the projecting portions of the article at predetermined adjustable angles.

2,873,788
FILAMENT COILING MACHINE HAVING FINELY ADJUSTABLE COILING HEAD
William Arthur Fletcher, Grand Rapids, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 27, 1956, Serial No. 624,530
6 Claims. (Cl. 153—67)

1. In a filament coiling machine of the type having a rotatable coiling head, a drive train for imparting intermittent rotation to the coiling head, and a guide for placing filament wire upon said coiling head, the improvement which comprises a resilient coupling interposed between the coiling head and the drive train for transmitting rotation to the coiling head in one direction only, a stop element connected with the coiling head, an arresting device disposed adjacent the stop element and adapted to arrest the motion thereof, and actuating means connected between the drive train and the arresting device for energization of the device, whereby the coiling head is arrested during a driving cycle of said train in a predetermined angular position and relative rotation of the drive train and coiling head is permitted by the resilient coupling.



2,873,789
PROTECTIVE TAPE APPLICATOR
Francis J. Ditter and William C. Kaercher, Jr., Minneapolis, Minn.
Application February 18, 1957, Serial No. 640,872
30 Claims. (Cl. 154—1)



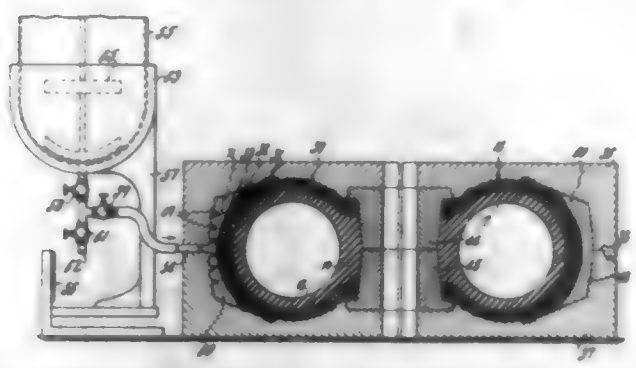
1. A protective tape applicator comprising a work table for supporting a sheet of material having a surface to be protected, a carriage movable relative to said table, a rocker assembly pivotally mounted on said carriage for supporting a roll of pressure sensitive tape, a pressing roller carried by said rocker assembly for applying pressure to the upper side of said tape as said carriage is moved along said table, a first stop element on said table, means actuatable by the rocker assembly into engagement with said stop element when said rocker assembly is in a tilted position and disengageable from said stop element when said rocker assembly is pivoted in a reverse direction, pivoting of the rocker assembly into a tilted position serving to elevate said pressing roller with respect to said table and pivoting of said rocker assembly in the reverse direction serving to lower said pressing roller relative to the table, said first stop element acting to position longitudinally said carriage with said pressing roller in a raised condition at a preferred longitudinal location relative to the table and hence to one end of the sheet when said carriage is moved in one direction, a second stop element on said table, and means actuatable by the rocker assembly when said rocker assembly has been pivoted in said reverse direction thereby to position said carriage at a preferred longitudinal location relative to the other end of said sheet.

2,873,790

METHOD OF MAKING PNEUMATIC TIRES BY CASTING A LIQUID POLYESTER-DIISOCYANATE COMPOSITION

Sidney M. Cadwell, Grosse Pointe, Mich., and Leland M. White and Sheppard A. Black, Nutley, and Henry R. Varvaro, Paterson, N. J., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application April 20, 1953, Serial No. 349,664
8 Claims. (Cl. 154—14)



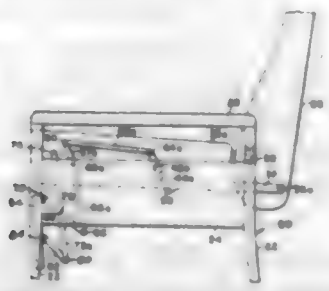
3. A method of making a pneumatic tire comprising in combination the steps of superimposing a plurality of plies of tire fabric coated with vulcanizable rubber carcass stock, vulcanizing the resulting tire carcass devoid of a tread portion in tire shape, disposing the vulcanized carcass enclosing an expansible curing bag in a mold cavity spaced from the exterior surface of the carcass at least over the tread area thereof, injecting a liquid rubber-forming composition of a polyester, a diisocyanate and water into the space thus provided between the mold and the carcass, while applying sufficient internal pressure within the curing bag to maintain the carcass in the desired shape, heating the mold to cause the said polyester diisocyanate-water mixture to be cross-linked to a solid rubbery state, while applying sufficient pressure to the interior of the curing bag to cause dissolution of carbon dioxide generated by reaction of the said water with the said polyester-diisocyanate, and subsequently removing the resulting assembly of carcass and firmly adhered cured polyurethane rubbery covering from the mold.

2,873,791

LEG REST MECHANISM FOR RECLINING SEATING UNITS

Fridtjof F. Schliephacke, Berlin-Schmargendorf, Germany, assignor to Anton Lorenz, Greenwich, Conn.

Application November 5, 1956, Serial No. 620,421
3 Claims. (Cl. 155—106)



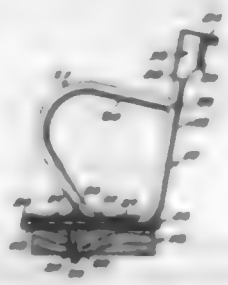
1. In a reclining article of furniture having a stationary frame, body supporting members comprising a seat and back rest and means for mounting said body supporting members on said frame permitting tilting movement thereof with respect to said frame, a leg rest and means for connecting said leg rest and said seat permitting movement of said leg rest from a retracted position when said body supporting members are tilted, said means comprising a system of linkage including two links pivoted to said leg rest at spaced locations of the width thereof from front to rear, said system also including a connecting link pivoted at one end to the end of said link pivoted to the leg rest furthest from the rear edge thereof, and crossing the other link pivoted to the leg rest and pivoted thereto at said point of crossing, the other end of said connecting link being pivoted to the seat near the front thereof, a leg rest guide lever pivoted to the seat, said leg rest guide lever having an arm pivoted to the rear end of said other link pivoted to the leg rest at a point beyond said pivoted crossing point, said leg rest guide lever having a second arm and an operating linkage system including a link connected at one end to said second arm, a guide member pivoted at spaced points to the other end of said link, to the frame and to a tiltable body supporting member for projecting the leg rest when the body supporting members are moved to reclining position.

2,873,791

BLEACHER SEAT

Gustavo Halley Miralles, Havana, Cuba

Application March 2, 1956, Serial No. 569,044
Claims priority, application Cuba October 14, 1955
3 Claims. (Cl. 155—133)



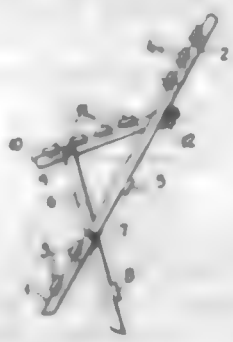
3. A bleacher seat comprising a main frame section including a generally U-shaped portion presenting a bight and a pair of substantially parallel legs, all adapted to rest upon a supporting surface, a seat member of rigid sheet material overlying said U-shaped portion and having a channel-like marginal edge partially receiving said bight and legs, each leg terminating in an upstanding post providing a back rest frame, a pair of side frame members, each side frame member being of generally C-shaped configuration presenting upper and lower substantially parallel legs, each upper leg being connected to a corresponding post and each lower leg being disposed in side-by-side relation to the free end portion of an associated main frame leg and sandwiching a portion of the marginal edge of said seat member between such side-by-side legs, fastening means interconnecting each associated pair of main and side frame legs to interconnect the same and hold said seat member in place, and a back rest member interconnecting the upper free ends of said posts, said back rest member comprising a sheet of rigid material having a flange on its upper and side edges with the side edge flanges receiving the upper ends of said posts.

2,873,793

FOLDING CHAIR

Jose M. Garcia, Crenkill, N. J.

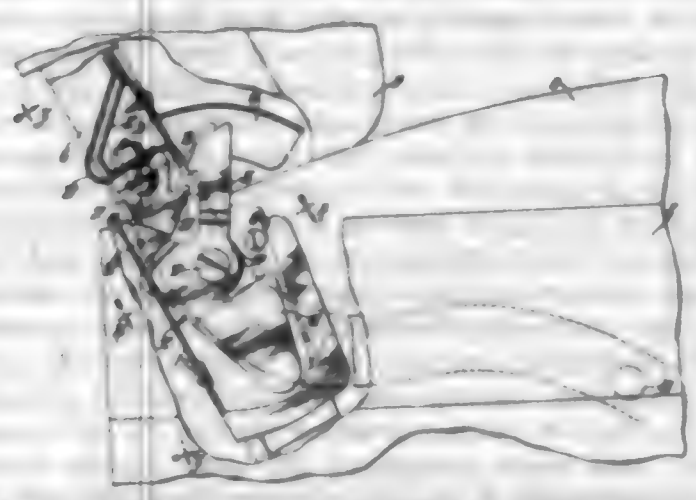
Application June 4, 1957, Serial No. 663,500
2 Claims. (Cl. 155—143)



1. A folding chair of the character described including a first set of spaced leg members which are extended upwardly to form supports for the back of the chair, cross pieces extending between and connected to said members respectively at their upper and intermediate portions to constitute respectively a back for the chair

at said upper portions and a support and stop at said intermediate portions for the seat structure hereinafter mentioned, a second set of leg members pivotally connected respectively to said first mentioned leg members, a seat structure having supporting members respectively pivotally connected at their forward portions to the upper end portions of said second mentioned leg members, cross pieces extending between and connected to said last mentioned supporting members respectively at their forward and rear portions to constitute respectively a seat, and a stop member engaging behind the second of the first above mentioned cross pieces when the chair is unfolded; said first mentioned support and stop being mounted on the rear faces of said first mentioned leg member so as to be rearwardly offset with respect thereto; said second mentioned stop member being mounted on the lower faces of said last mentioned supporting members so as to be downwardly offset with respect thereto when the chair is in unfolded position, said first mentioned leg members extending upwardly between the rear portion of said seat structure and second mentioned stop member, whereby when the chair is adjusted from unfolded to folded position with all of the above mentioned leg members in substantially parallel coplanar relation, said second mentioned stop member assumes a position offset with respect to said leg members in substantial correspondence with the offset position of said first mentioned support and stop with respect to said leg members.

2,873,754
INERTIA LATCH
James D. Leslie, Birmingham, and Henry J. Wubbe, Royal Oak, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 24, 1956, Serial No. 611,551
9 Claims. (Cl. 155—155)



1. In a vehicle, a seat comprising a cushion base member and a tiltable back member pivotally mounted on said cushion base member; a striker mounted on one of said members; a latch movably mounted on the other of said members; means biasing said latch toward an inoperative position out of engagement with said striker upon tilting movement of said back member; and means normally holding said latch in an operative position for latching engagement with said striker upon rapid tilting movement of said back member.

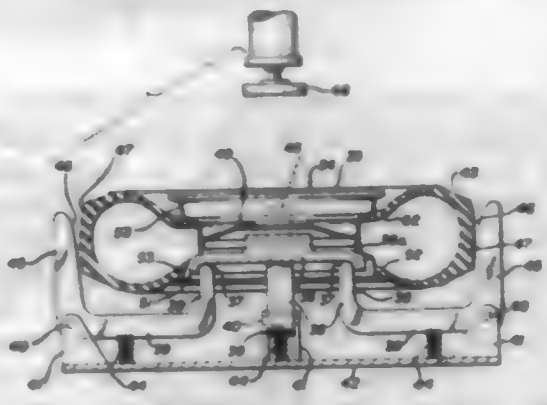
2,873,795
DEVICE FOR THE REMOVAL OF TIRES AND KING PINS
Peter Kleparchuk, Lamont, Alberta, Canada
Application April 11, 1956, Serial No. 577,477
Claims priority, application Canada February 28, 1956
4 Claims. (Cl. 157—1.17)

1. A tool for removing a tire from a wheel laid in the horizontal position, said tire, in that position of the wheel, being located between an upper rim and a lower rim of the wheel, comprising a base having a front portion adapted to face towards the hub of the wheel and to be inserted between the tire and the upper rim and a rear portion, an inclined platform provided on said base sloping upwardly towards the front portion, two sloping supports extending upwardly from said base at right angles to the plane of said platform, a movable member adapted to reciprocate longitudinally between said supports, guide means for maintaining said member between said supports, a first linkage terminating in a hook-



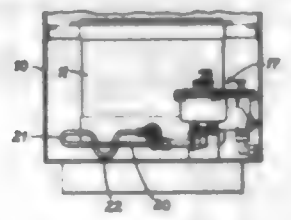
like structure and adapted to connect said movable member to the lower rim immediately opposite that portion of the upper rim with which said front portion co-operates; arms carried by the tool and adapted to depend into perimetral openings in the wheel structure, and means for urging said arms outwardly towards the rims to effect a clamping of the tool, the arrangement being adapted for the positioning of a jacking means between said platform and said movable member.

2,873,796
TUBELESS TIRE BEAD SEATING DEVICE
Floyd E. Riley, Akron, Ohio, assignor to Roy R. Putt, Akron, Ohio
Application June 10, 1954, Serial No. 435,707
4 Claims. (Cl. 157—1.21)



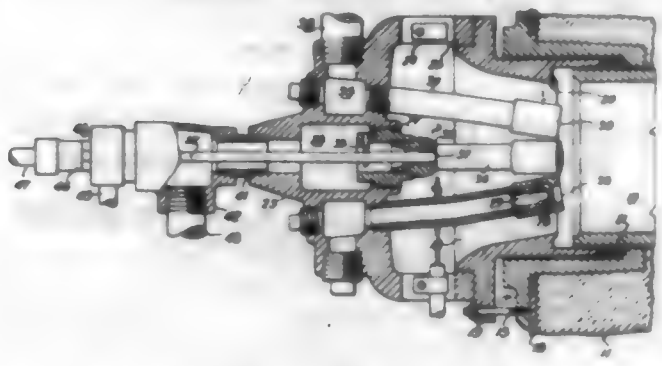
1. Apparatus for seating the beads of a tubeless tire mounted on a rim having spaced annular bead seats, comprising a frame, a plurality of yieldingly depressible elements pivotally mounted on said frame in peripherally spaced relation and having portions on which said rim is adapted to be supported thereby in axially centered relation thereof, angular extensions on said elements being movable radially inwardly of the rim toward depressive engagement with the outer periphery of the tread of a tire on the rim upon depression of the elements with movement of the rim supported thereby, said depressive engagement of the extensions with the tire tread thereby being effective to spread the tire beads apart into seating relation in the rim bead seats.

2,873,797
OIL BURNER CONSTRUCTION
Vincent Materese, Dayton, Ohio, assignor to Mink-Dayton, Inc., Dayton, Ohio, a corporation of Ohio
Application November 25, 1953, Serial No. 394,328
1 Claim. (Cl. 158—37)



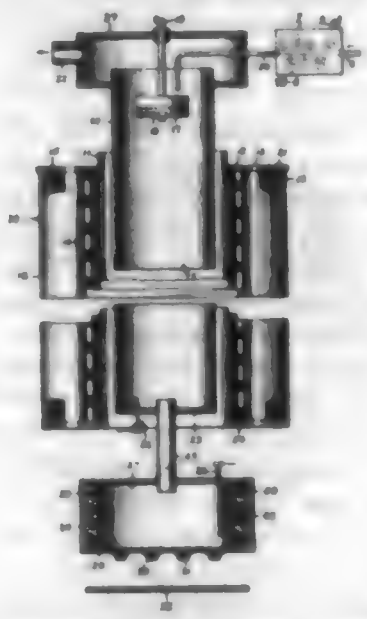
In combination with a pot type oil burner adapted for use on a vehicle which is subject to relatively severe shocks resulting from movement of the vehicle during use, a fuel regulator mounted adjacent said burner for supplying oil to said burner at a controlled rate, means including a relatively rigid conduit forming a supply connection for oil from said fuel regulator to said burner, and bends in said conduit for causing the oil flowing therethrough to change the direction of flow thereof through substantially 180° a plurality of times and in planes substantially perpendicular to each other to prevent surging of oil through said connection in response to shock, said conduit being of such length as to constitute a substantially longer flow path between said fuel regulator and said burner than the straight line distance therebetween.

2,873,798
BURNER APPARATUS
Philip L. Knight, Toledo, Ohio, assignor to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application June 16, 1951, Serial No. 231,934
6 Claims. (Cl. 158—109)



1. In a gas burner for firing into a tubular heating element through which air is free to flow under the influence of draft, in combination, a body defining a gradually converging air inlet of circular cross-section for said tube, a head member facing said air inlet in spaced relation to provide therebetween a space which is open to the inflow of a current of said air, said head member having a first chamber forming a plenum and an inlet for supplying a mixture of air and fuel gas thereto, an annular row of forwardly-discharging pilot burners within and coaxial with said air inlet, said pilot burners each being mounted on the discharge end of a supporting tube whose inlet end is mounted on said head member in gas receiving connection with said first chamber, said head having a second chamber forming a plenum, an inlet for supplying raw fuel gas thereto, a forwardly-discharging nozzle coaxial with said air inlet and supported by said head member in gas receiving connection with said second chamber, the discharge end of said nozzle being substantially closer to said head member than said annular row of pilot burners, and the space between said nozzle and said pilot burners being substantially unconfined whereby a stream of fuel gas on issuing from said nozzle flows substantially unconfined towards said air inlet along with said current of air.

2,873,799
METHOD AND APPARATUS FOR DEHYDRATING AQUEOUS CAUSTIC SOLUTIONS
James J. Earley, Springfield, Pa., and Carl J. Franz, Mendam, N. J., assignors to Allied Chemical Corporation, a corporation of New York
Application January 9, 1956, Serial No. 557,935
2 Claims. (Cl. 159—49)



1. A method of dehydrating an aqueous caustic solution which comprises dividing an aqueous caustic solution having a caustic concentration of at least 50% by weight into a plurality of thin, discrete, spaced, unbroken liquid streams within an upper portion of a vertically extending heated evaporator tube, each of said streams having a diameter of from about 1/32" to 1/8", passing said caustic streams outwardly and downwardly from the place of dividing toward an upper portion of an inner surface of said tube at a low velocity insufficient to cause aqueous caustic mist formation when said streams are intercepted by said inner surface, said streams having an initial horizontal velocity below 1 foot per second, the horizontal distance between the place of dividing and said tube inner surface being not in excess of about 1½ inches, intercepting each of said streams at said upper portion of the tube inner surface, the angle of interception between each stream and the vertical tube inner surface being from 20° to 45° whereby a thin continuous descending film of liquid aqueous caustic is formed on said inner surface without said mist formation, passing said film downwardly on said inner surface to contact a lower portion of said inner surface, said lower portion of the inner surface being heated to maintain it at a temperature above the melting point of anhydrous caustic to evaporate sufficient water as steam from said caustic film to obtain a final molten product having a caustic content of not less than 98.5%, passing said steam from its points of generation upwardly within said tube between said spaced, unbroken liquid streams at a low velocity insufficient to break the surfaces of said streams, said steam providing a substantially air-free environment adjacent said streams, withdrawing said steam from an upper end of said tube, and withdrawing said molten caustic product having a caustic content of not less than 98.5% from a lower end of said tube.

2,873,800
WINDOW SCREEN FOR AN AUTOMOBILE
Jack Kogan, Philadelphia, Pa.
Application April 15, 1958, Serial No. 728,663
2 Claims. (Cl. 160—189)

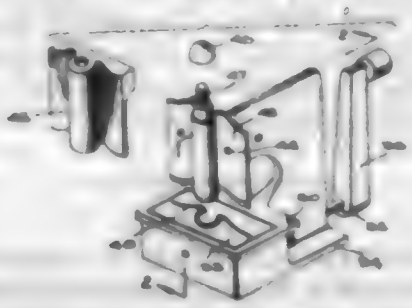
1. In an automobile screen, a base frame member having opposed ends, said base frame member having a bottom provided with a groove extending inwardly from the bottom and adapted to embracingly receive the top

edge portion of a window pane when in the lowered position within the automobile window frame, a main frame rising from and supported by said base frame member, said main frame including a top frame piece extending along the entire length of said base frame member and parallel to said base frame member and a side frame piece extending vertically downwardly from each end of said top frame piece, one of said side frame pieces extending from one end of the top frame piece to one of the ends of said base frame member and having the end adjacent the one end of said base frame member fixedly attached to the one end of said base frame member, the other of the side pieces extending from the other end of the top frame piece to the other of the end of said base frame member and having the end adjacent the other end of said base frame member unattached to the other end of said base frame member, a first partition strip positioned midway between said side pieces and extending from the midportion of said top piece to the midportion of said base



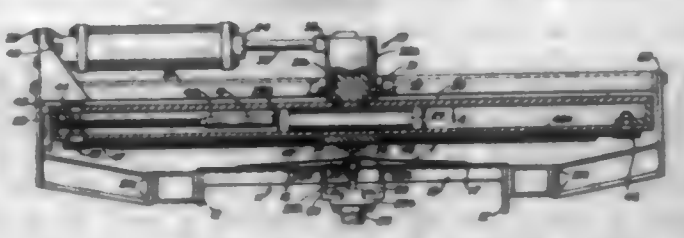
frame member and fixedly secured to the midportions of said top piece and base frame member, a second partition strip positioned midway between said top piece and said base frame member and extending from the midportions of said first partition strip and the other of said side pieces and fixedly secured to the midportions of said first partition strip and the other of said side pieces, and a screen sheet confined in its margins between said one side piece, said first partition strip, and adjacent parts of said top piece and base frame member, and between said other side piece, said second partition strip, and adjacent parts of said top piece and said first partition strip to form a screen sheet assembly, the portion of said screen sheet assembly between said other side piece, said second partition piece, and the adjacent part of said piece and the unattached end portion of said other side piece being bendable relative to the portion of said screen assembly between said one side piece, said first partition strip, and the adjacent parts of said top piece and base frame member.

2,873,801
PORTABLE SHEET CUTTING MACHINE
Thomas A. E. Grierson, Barrow-in-Furness, England
Application July 31, 1956, Serial No. 601,196
Claims priority, application Great Britain August 8, 1955
2 Claims. (Cl. 164—36)



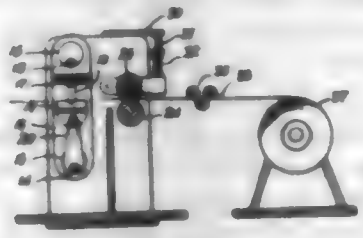
1. A portable sheet cutting machine comprising a frame, a work table adapted to support a sheet to be cut, a cutter blade of a prescribed configuration arranged in an upright position and spaced above said table, said table having a slot of a configuration conforming to that of said cutter blade, an upstanding shield positioned above said table and forwardly of said slot, a horizontally disposed rotatable shaft carried by said frame, means embodying a cam member carried by said shaft and engaging said table connecting said shaft to said table so that said table moves upwardly with the slot in interfitting engagement with said blade and downwardly with the slot out of interfitting engagement with said blade responsive to rotary movement of said shaft in one direction, an ejection rod slidably mounted behind said blade, said shield being secured to said rod for movement therewith, means embodying another cam member carried by said shaft and connected to said ejection rod so that said ejection rod and said shield operate following completion of the up and down movement of said work table to push a cut sheet from said blade responsive to the rotary movement of said shaft in said one direction, and hand actuable means on said shaft for effecting the movements of the latter.

2,873,802
CUT-OFF MACHINERY FOR FABRIC PLIES
Adolf H. Frohlich, Hannover, Germany, and Edward J. Harris, Akron, Ohio, assignors to The Cleveland Trust Company, Cleveland, Ohio, as trustee
Application October 31, 1955, Serial No. 543,962
11 Claims. (Cl. 164—75)



1. A fabric ply cut-off mechanism of the character described, comprising; a supporting surface for receiving fabric ply thereon; a pair of cutting knives, disposed above the plane of said supporting surface; lifting means, disposed substantially in the plane of said supporting surface; shifting means for moving said lifting means into and out of a position of projection beyond said supporting surface, whereby said fabric ply received on said supporting surface may be pierced upon contact with said cutting knives; support means defined by said knives and suspending said pierced fabric after withdrawal of said lifting means; and means for separating said knives after said fabric ply has been suspended thereon, whereby, upon retraction of said lifting means said fabric ply is severed by the movement of said knives.

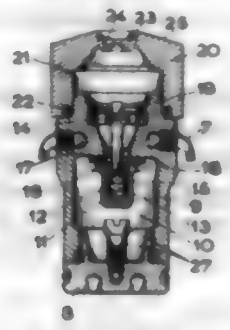
2,873,803
APPARATUS FOR TREATING STRIP AND THE LIKE
Albert J. Sarka, Maple Heights, Ohio, assignor to Wean Equipment Corporation, Cleveland, Ohio, a corporation of Ohio
Application December 9, 1954, Serial No. 474,235
13 Claims. (Cl. 164—89)



10. Apparatus for treating rapidly moving strip and the like comprising continuously operable rotating means feeding strip material and the like in a path, release means in the continuously operable means whereby the strip material may be drawn freely through the feeding means at a speed greater than the rate of feed, retarding means acting on the continuously operable means to limit free rotation of the continuously operable means, means intermittently acting on the strip and drawing the strip through the continuously operable means at a speed in

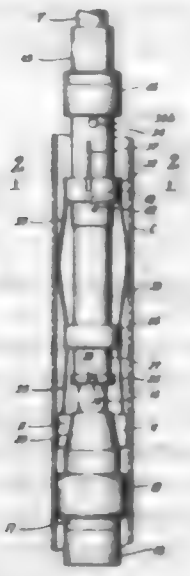
excess of the rate of feed, means driving the intermittently acting means at a substantially constant rate and connections between the intermittently acting means and the continuously operable means whereby the continuously operable means are driven simultaneously through the intermittently acting means.

2,873,804
APPARATUS FOR SAMPLING FLUIDS IN GEOLOGICAL FORMATIONS
Maxime Felix Benoit Picard, Paris, France, assignor to Societe de Prospection Electrique Procedes Schlumberger, Paris, France, a corporation of France
Application October 15, 1953, Serial No. 386,279
Claims priority, application France October 25, 1952
8 Claims. (Cl. 166—100)



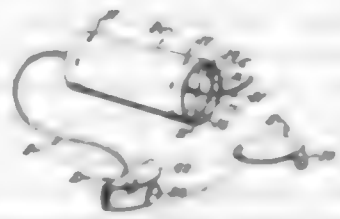
1. Apparatus for sampling the fluid content of geological formations and the like, comprising a hollow tubular projectile adapted to be projected into a formation, means forming a temporary closure for one end of said projectile, a transverse partition formed in said projectile, a rear closure member for said projectile cooperating with said partition to form a fluid storage chamber, means forming an orifice in said partition, a valve seat formed on said partition around said orifice inside said storage chamber, a valve head in said chamber adapted to cooperate with said valve seat for normally closing said orifice, means forming a blind bore in said valve head having its open end facing said orifice, and piston means mounted inside said projectile in fixed relation thereto and snugly received in said bore for fluid tight sliding movement of said valve head thereon to open and close said orifice, said valve head being actuatable in response to fluid pressure communicating therewith through said orifice.

2,873,805
WELL PACKERS
Wayne F. Nelson, St. Louis, Mo., assignor to Larkin Packer Company, Inc., St. Louis, Mo., a corporation of Missouri
Application June 25, 1954, Serial No. 439,178
9 Claims. (Cl. 166—140)



1. A well packer adapted to be lowered into a well bore on a tubular support comprising, a tubular mandrel connected with the support, an expansible packing element mounted on said mandrel, a slip expander above the packing element, gripping slips mounted for relative sliding movement with respect to the mandrel and movable with relation to the expander whereby said slips may be expanded into gripping position with the wall of the well bore, a releasable latching assembly connecting the gripping slips to the mandrel in a position maintaining said slips against movement with respect to the expander whereby said slips are latched in non-gripping position and the packer may be lowered within the well bore, said latching assembly released by a rotation of the tubular support and mandrel whereby an upward movement of the mandrel relative to the slips is permissible and results in a co-action between the expander and slips to move the slips into gripping position, subsequent upward movement of the mandrel expanding the packer element, and means including a jar assembly released by rotation of the support and operable in the event that lowering of the mandrel with respect to the packer element and slips does not effect retraction of the packer element and movement of the slips to a non-gripping position for disengaging said slips from their gripping position and for simultaneously retracting said packer.

2,873,806
FIRE EXTINGUISHER
Fredwill Bittner, Los Angeles, Calif.
Application January 4, 1957, Serial No. 632,566
2 Claims. (Cl. 169—36)

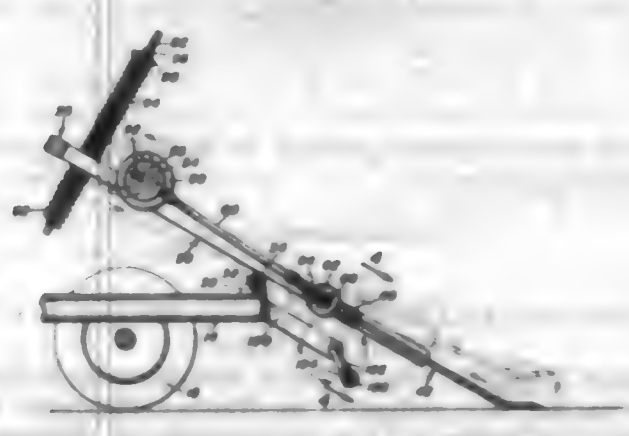


1. A fire extinguisher of the character referred to including an elongate tubular body of frangible material, a pair of longitudinally spaced oppositely disposed and outwardly opening cup-shaped partitions in the body and defining a closed central chamber and end chambers, closures releasably engaged in the ends of the body and closing the end chambers, a bomb within the central chamber, a charge of powdered fire extinguishing chemical within the chamber and packed about the bomb, a fuse extending from the bomb through one of the partitions to normally occur within the end chamber related thereto, an elongate cord fixed to and extending between the other partition and the closure related thereto and adapted to normally occur within the end chamber defined thereby, said closure related to the cord adapted to serve as a handle when the closure is removed and to facilitate slinging and casting the extinguisher into a fire, said closure related to the chamber in which the fuse is housed being removable to provide access to the fuse, the bomb being adapted, when ignited, to explode the body and distribute the chemical.

2,873,807
COTTON AND CORN CHOPPER
Joseph S. Yager, Greenville, Miss.
Application May 24, 1956, Serial No. 587,142
6 Claims. (Cl. 172—88)

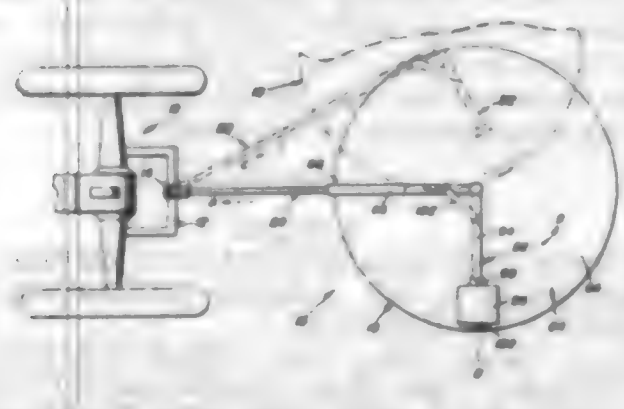
1. A cotton and corn chopper comprising a frame having supporting means, a bracket assembly mounted on said frame for pivoting about a transverse horizontal axis, at least one longitudinally extending chopper member carried by said bracket assembly for longitudinal sliding movement, drive means mounted on said bracket assembly and connected to said chopper member for

reciprocating said chopper member, tilting means carried by said frame and engaged with said bracket assembly for periodically pivoting said bracket assembly to raise and lower said chopper member, positioning means carried by said frame for adjustably retaining said bracket



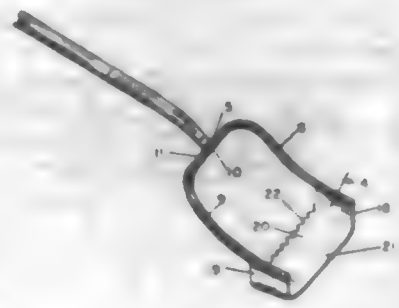
assembly in a normal position, said positioning means including a shaft pivotally connected to said frame and passing through a portion of said bracket assembly, upper and lower springs on said shaft disposed above and below said bracket assembly and engaged therewith, means on said shaft for adjustably positioning said springs.

2,873,808
REVOLVING ORCHARD UNDERBRUSH CUTTER AND SOIL CULTIVATOR
Ollen G. Rome, Mission, Tex.
Application October 3, 1955, Serial No. 538,061
1 Claim. (Cl. 172—524)



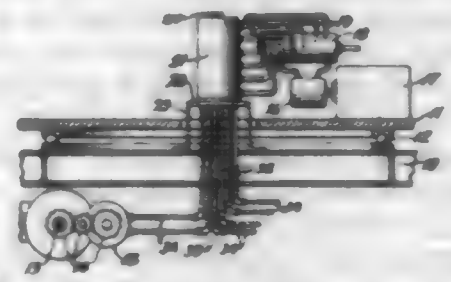
For use with a draft vehicle having a hitch, a rotary soil adjusting implement for providing a lateral pitch in the ground relative to the direction of travel of the implement, said implement comprising a rotary soil adjusting disk including a plurality of vertically disposed radial cutting blades, said blades having a flat upper leg secured to said disk and a depending leg fixed to one edge of said upper leg, said depending leg pitched in angular relationship to the horizontal plane of rotation when said disk is in a horizontal position, an upwardly extending vertical shaft fixedly secured at the center of said disk, an elongated draft tongue journaled at one end to said shaft, the other end of said draft tongue including a freely pivoted connection on said hitch, an elongated support rod journaled at one end on said vertical shaft, brace means extending between said draft tongue and support rod maintaining said tongue and rod in a fixed angular relationship, a weight member adjustably secured on the distal end of said rod in overlying relationship to the outer peripheral edge of said soil adjusting disk tending to urge the underlying portion of said disk into engagement with the ground, the resultant force of the peripheral drag applied on the outer periphery of said soil adjusting disk by said weight member and the force on the draft tongue imposed by the draft vehicle tending to rotate said disk about the vertical shaft and to pivot said disk about the pivot portion of the hitch on the draft vehicle in angular relationship relative to the direction of travel of said implement.

2,873,809
CULTIVATING TOOL
Echo T. Loomis, Erie, Pa.
Application July 5, 1955, Serial No. 519,859
2 Claims. (Cl. 172—376)



1. A cultivating and edging tool comprising a blade having a generally straight plate like intermediate portion with the ends turned upwardly, and two tines attached to a handle and extending therefrom, first outwardly diverging from each other at right angles to said handle to form a foot engaging portion, then bent at right angles and extending in generally parallel relation to each other, said upturned ends of said blade being attached to the distal ends of said tines remote from said handle, said handle being disposed at an acute angle to said intermediate portion of said blade, said handle having a straight portion adapted to be held by an operator, said handle curving downwardly toward said tines, said tines curving upwardly and terminating in end portions disposed generally parallel to the intermediate part of said plate and attached to said blade ends whereby said tines absorb shocks resulting from said blade engaging solid objects in use, the edge of said plate remote from said handle comprising a cutting edge extending from one said upturned end to the other, and spaced notches formed in the edge of said plate opposite said cutting edge and adjacent said handle defining teeth therebetween.

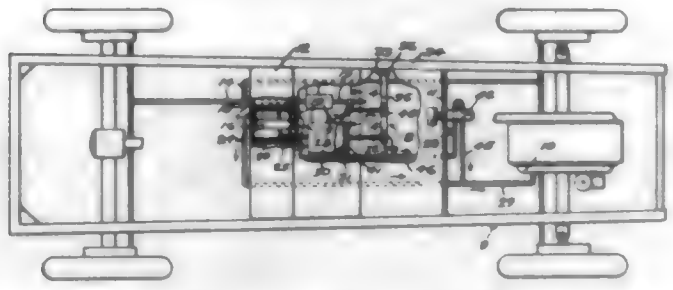
2,873,810
MULTIPLE FLUID COUPLING FOR RELATIVELY MOVABLE VEHICLE PARTS
Charles L. Orton, Salt Lake City, Utah
Application January 20, 1958, Serial No. 710,064
6 Claims. (Cl. 180—66)



1. A rotary fluid coupling for transmitting fluid between relatively rotatable parts comprising a cylindrical core having an axially extending passage therein terminating in a port in the side of the core, a cylindrical casing fitting rotatably over the core and having a port in its side wall registering with the port in the core, one of the ports being an annular groove to maintain communication between the ports in different angular positions of the core and casing, means to connect the core and casing to said parts respectively for rotation therewith, one of said means being a lost motion connection to permit limited relative rotation between one of the parts and the core or casing element to which it is connected, and a flexible fluid conduit connected to said element in communication with the port therein and to a point on said one of the parts spaced fom said element and flexing as the parts turn relative to each other through the angle permitted by the lost motion connection without causing relative turning of the core and casing.

2,873,811
AUTOMATIC BRAKE ACTUATOR FOR A MOTOR VEHICLE

Walter B. Uffert and Coral G. Uffert, Catskill, N. Y.
Application January 11, 1957, Serial No. 633,721
1 Claim. (Cl. 180—82)

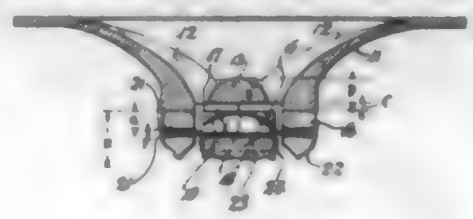


An automatic brake actuator for a motor vehicle comprising, in combination with a piston rod of the master brake cylinder of a hydraulic vehicle brake system, a rod, means connecting said rod to the piston rod for movement of the rod and piston rod in unison, a lever arm, means adapted to be supported by a part of the vehicle chassis and swingably mounting said lever arm for forward and rearward swinging movement away from and toward, respectively, the master brake cylinder, means connecting a forward portion of said rod to said lever arm at a point intermediate of the ends of the lever arm, a fixedly disposed booster cylinder mounted in transversely spaced relation to the brake master cylinder, a piston slidably disposed in the booster cylinder, a piston rod connected to the piston and extending slidably through the forward end of said booster cylinder, means connecting the forward end of said last mentioned piston rod to said lever arm, a conduit communicating with and leading from the rear end of said booster cylinder, said conduit having an end adapted to be connected to and communicating with the intake manifold of the vehicle engine, valve means interposed in said conduit for opening and closing the connection between the booster cylinder and the intake manifold, spring means normally holding the valve means in an open position, a valve actuator adapted to be disposed in the vehicle front seat back rest and positioned to be engaged by the back of the vehicle operator for retaining said valve means in a closed position against the action of the spring means when a pressure is exerted against said valve actuator, a second valve actuator adapted to extend slidably through a portion of the vehicle floor board and having an end adapted to be engaged by the left foot of the vehicle operator for retaining the valve means in a position for shutting off the connection between the booster cylinder and intake manifold, said valve means comprising separate valves, said conduit having separate branch portions in which said valves are disposed, one of said valves being mounted in the vehicle back rest, said first mentioned valve actuator comprising a valve stem directly connected to the valve contained in the back rest, said other valve being mounted beneath the vehicle floor board, said second valve actuator comprising a valve stem directly connected to the other valve, said spring means comprising a spring associated with each valve.

2,873,812
HIGH FREQUENCY LOUDSPEAKER STRUCTURE

Robert C. Avedon, Northbrook, Ill., assignor to Electro-Voice, Incorporated, Buchanan, Mich., a corporation of Indiana
Application September 5, 1957, Serial No. 682,234
5 Claims. (Cl. 181—31)

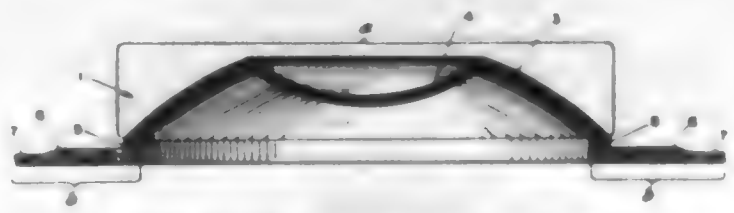
1. In a high frequency loudspeaker having a diaphragm with a spherical convex outer surface, a horn for said diaphragm, and a multi-path throat structure for said horn adjacent said diaphragm comprising a cylindrical member having a flat end and a concave end, said concave end having a surface parallel to the convex surface of said diaphragm, said cylindrical member having an axial hole, and a second member comprising a section of a sphere



having a plane surface parallel to the flat end of said cylindrical member.

2,873,813
ACOUSTIC DIAPHRAGM AND METHOD OF CONSTRUCTION

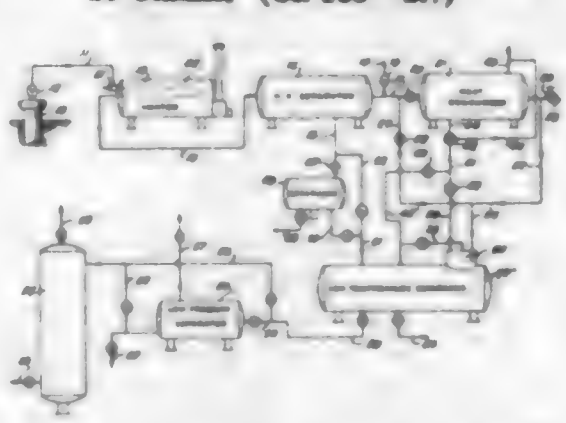
William W. Haerther, Jr., Geneva, and Mauritz F. Noren, St. Charles, Ill., assignors to Hawley Products Company, St. Charles, Ill., a corporation of Delaware
Application July 27, 1955, Serial No. 524,690
9 Claims. (Cl. 181—32)



4. An acoustic diaphragm comprising an integral body of normally porous fibrous material in the form of a fabric, said body having an impervious central rigid vibratile portion coated with an infusible thermosetting resin to fill the normally open pores of said fabric and a porous peripheral flexible portion in which the individual fibers are thinly coated with a quantity of an infusible thermosetting resin insufficient to completely fill the normally open pores of said fabric.

2,873,814
METHODS AND MEANS FOR LOW TEMPERATURE SEPARATION OF LIQUID HYDROCARBONS FROM NATURAL GAS

Joseph L. Maher, Tulsa, Okla., assignor to National Tank Company, Tulsa, Okla., a corporation of Nevada
Application April 22, 1957, Serial No. 654,422
16 Claims. (Cl. 183—2.7)



1. The method of separating liquefiable hydrocarbons and an aqueous portion from gaseous high pressure petroleum well streams including the steps of, flowing the well stream from the well at a predetermined pressure, expanding the well stream from the predetermined pressure to a lower pressure while causing the well stream to do work, separating the well stream into a residual gaseous portion and liquid hydrocarbon and aqueous portions, drawing off the aqueous and liquid hydrocarbon portions, compressing the gaseous portion to an intermediate pressure sufficient for introduction of the gaseous portion into a gas transmission pipe line, said intermediate pressure being higher than the pressure of the separation step and lower than said predetermined pressure, compressing the gaseous portion solely by the work done by

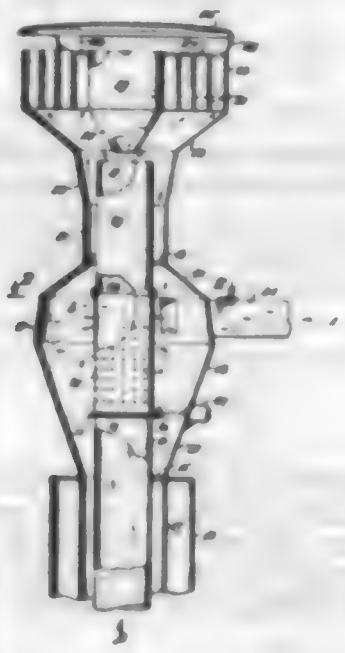
the well stream in expanding, and drawing off the compressed gaseous portion, the well stream being expanded in the expansion step to a lower pressure sufficient to produce a pressure and temperature drop adequate to liquefy sufficient liquid hydrocarbon and aqueous portions from the well stream as to produce merchantable gas and from which the work available from the expansion step is capable of compressing the gaseous portion to the intermediate pressure, and said predetermined pressure being of sufficient magnitude as to afford adequate temperature reduction in the expansion step sufficient to precipitate the aqueous portion from the well stream in the production of merchantable gas.

2,873,815

APPARATUS FOR PURIFYING EXHAUST GASES

Rue Elston Swayze, Long Beach, Calif.

Application December 5, 1955, Serial No. 550,970
5 Claims. (Cl. 183—5)



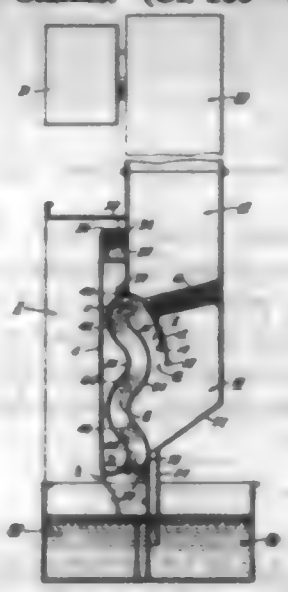
1. A device for centrifuging particled material from an upwardly moving exhaust gas by means of a high velocity air stream, comprising: a first vertically disposed imperforate tubular member having a lower intake end through which said gas enters said member; a second vertically disposed imperforate tubular member coaxially positioned above said first member; a perforate tubular baffle coaxially positioned between and interconnecting said first and second members, said baffle and said members all being of the same cross-sectional area and together defining an unobstructed straight vertical passage for the upward movement of said gas therethrough and out of the upper end of said second member; an imperforate housing coaxially surrounding and outwardly spaced from said member and said baffle and having an open upper end for exhausting an air stream, a portion of said housing more closely surrounding said first member than said housing surrounds said baffle to define an annular trap with said first member for the reception of particled material separated from said gas; and an inlet pipe connected at one end to a source of high velocity air and connected at the other end to the annular space between said housing and said baffle and adapted to substantially horizontally direct a stream of said air into said housing substantially tangentially to the interior surface of said housing whereby said stream of air is constrained by said housing into cyclonic rotational movement within said housing to induce rotation of said gas passing upwardly through said baffle whereby a centrifugal force is imposed on particled matter in said gas to centrifuge said particled matter through said baffle, said particled matter thereafter descending into said trap, said stream of air escaping through said open upper end of said housing and said gas escaping from said baffle through said second member after said particled material has been removed therefrom.

2,873,816

GAS WASHING APPARATUS

Emil Umbricht, Jackson, Gerrit Steenhagen, Dearborn, and Willard L. Johnson, Royal Oak, Mich., assignors to Ajem Laboratories, Inc., Detroit, Mich.

Application June 16, 1955, Serial No. 515,997
8 Claims. (Cl. 183—26)



7. Air washing apparatus for washing contaminated air from an industrial booth including a substantially vertical floodsheet having a horizontal upper lip and a lower limit, a trough behind said upper lip, a first liquid conduit connected to said trough for supplying liquid to said trough and flowing over said lip to the floodsheet, means defining a liquid reservoir spaced beneath the lower limit of said floodsheet, the lower limit of said floodsheet and the surface of the liquid in said reservoir defining an air intake, the liquid falling from said lower limit into said reservoir forming a liquid curtain across said intake, a pair of generally upright spaced sinuous walls defining a substantially vertical serpentine passage communicating at its lower end with said intake, an upwardly inclined baffle secured to one of said walls near said intake forming a second trough and having a substantially horizontal lip with liquid flowing over said lip forming a second liquid curtain, said sinuous walls defining a substantially 180° U-turn at the upper end of said serpentine passage and defining a downward path having a discharge, a plurality of liquid jets directed down counter to the air flow in said serpentine passage, a second liquid conduit connected to said jets, a plurality of walls defining a deceleration chamber having a relatively large cross sectional area, said discharge being constricted and being directed down into said chamber for directing the gas downwardly at high speed into said chamber, a drainage passageway at the bottom of said chamber communicating with the liquid in said reservoir beneath the surface thereof, said chamber having an outlet at an elevation above said discharge, a suction blower communicating with said outlet, and a liquid pump having an intake communicating with said reservoir and a discharge communicating with said conduits.

2,873,817

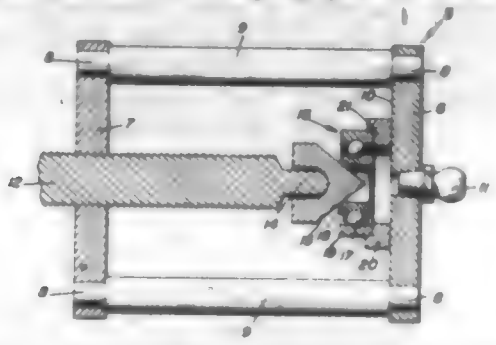
BALL BEARING LUBRICATOR

Frederick E. Gerber, Falls Church, Va., assignor of ten percent to Carlton A. Keys, Springfield, Va.

Application December 17, 1956, Serial No. 628,877
1 Claim. (Cl. 184—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A device for lubricating anti-friction bearings of the type having inner and outer races and a central bore comprising a platen, movably mounted means on said

platen for sealing the peripheral margin of the outer race of the bearing and forming a chamber communicating with the raceway and bore of said bearing, said platen including an orifice containing a lubricant pressure fitting connecting with said chamber, spacing rods inserted in and extending substantially normal to the plane of said platen, a clamping plate mounted on said



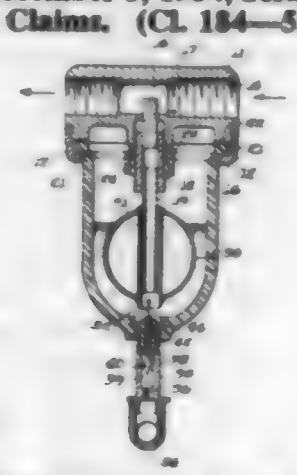
rods in spaced relation to said platen, a clamping screw threadingly mounted in said clamping plate, said clamping screw having a rounded end, and a conical centering plug freely carried by the rounded end of said clamping screw so that the apex of said plug is adapted to seat within the bore portion of said bearing to seal an end of said chamber.

2,873,818

AIR LINE LUBRICATOR

Edward W. Veres, Chicago, Ill., assignor to Arrow Tools, Inc.

Application December 3, 1954, Serial No. 472,823
9 Claims. (Cl. 184—55)



1. A pressure fluid regulator for use with a reservoir holding liquid and a gas under pressure comprising, in combination, a generally vertical conduit serving to introduce liquid under pressure into the reservoir, a back-out check valve coupled in series with the conduit and serving to prevent such liquid in the reservoir from backing out to the source of such liquid, a float having a hollow vertical bore within the reservoir, a vertical member engaging the vertical bore in the fluid and serving to guide the float for vertical movement enforced thereon by variations in the level of such liquid within said reservoir, an inlet check valve coupled in series with the conduit to control the flow of liquid into said reservoir, and a vertical link coaxial with the vertical float guide connecting the float with the inlet check valve and being dimensionally proportioned to transmit a predetermined rise in the float to a closing of the inlet check thereby maintaining the liquid in the reservoir at a predetermined level.

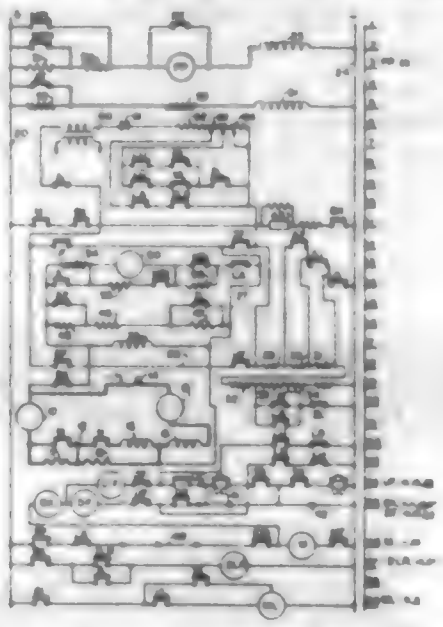
2,873,819

ELEVATOR LEVELING CONTROLS

Joseph H. Borden, Toledo, Ohio, assignor to Toledo Scale Corporation, Toledo, Ohio, a corporation of Ohio

Application March 7, 1958, Serial No. 719,842
9 Claims. (Cl. 187—29)

5. In an elevator system, in combination, an elevator car that serves a plurality of floors, a variable speed direct current motor for moving the car, a variable voltage generator electrically connected to the motor for supplying driving current thereto, a control field on the generator, first means for varying the excitation of the control field to provide variable speed operation of the motor including a speed suitable for leveling the car at a



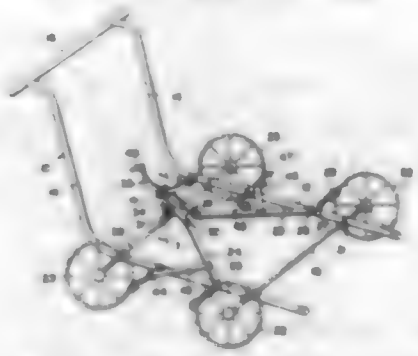
floor, and second means for varying the excitation of the control field during leveling operations, said second means having elements selectively responsive to normal stops at a floor, stops requiring further leveling movement in the direction of travel, and stops requiring further leveling movement in reverse to the direction of travel for varying the excitation according to the kind of stop.

2,873,820

BABY CARRIAGE BRAKE MECHANISM

Charles Rizzuto, Brooklyn, N. Y., assignor to Anthony Rizzuto, Brooklyn, N. Y.

Application September 12, 1956, Serial No. 609,452
4 Claims. (Cl. 188—20)



1. In a wheeled vehicle, a pair of frame side rail members, front and rear wheel supporting axles extending thereacross and secured thereto, and brake mechanism comprising a pair of toggles each embodying a long link having a front pivot connection adjacent to one end with a side rail member adjacent to the rear side of a front wheel and a short link pivotally attached at one end to the other end of the long link, each of said long links having an oblique outwardly extending brake arm terminating in a brake shoe, a pivot member coupling each long link to a side member of the frame at the angle of the long link and brake arm, said brake arm being disposed to position the shoe across the rear side of a front wheel, said toggles extending rearwardly in a convergent relation, a vertical post secured rigidly upon the rear axle on the longitudinal center of the frame, a foot lever comprising an elongate member pivotally connected intermediate its ends to the top end of the post to swing on said center, said elongate member being formed with end portions so related to the said pivotal connection of the elongate member as to be elevated above said pivotal connection when the mechanism is in brake released position, a pivotal connection between the other ends of said short links and said foot lever whereby

the toggles will be substantially straightened upon the swinging of said foot lever rearwardly and downwardly from said brake released position to brake applied position, a brake arm carrying a brake shoe and pivotally mounted on each side rail of the frame adjacent to the front side of the adjacent rear wheel and having the brake shoe disposed across the tread of the adjacent wheel, and a pair of toggle rods each having an end pivotally connected to a long toggle link at a point forwardly of the pivot mounting of an adjacent brake arm and extending outwardly and rearwardly toward and pivotally connected at its other end to the said adjacent brake arm at a point between the pivotal mounting for the latter and the brake shoe carried thereby, said end portions of the foot lever being swung in the actuation of the mechanism to apply the brakes from a position in which they are substantially horizontally aligned on said longitudinal center to a position in which they are substantially vertically aligned, one of said portions being adapted to receive thrust to apply the brakes and the other portion being adapted to receive thrust to release the brakes.

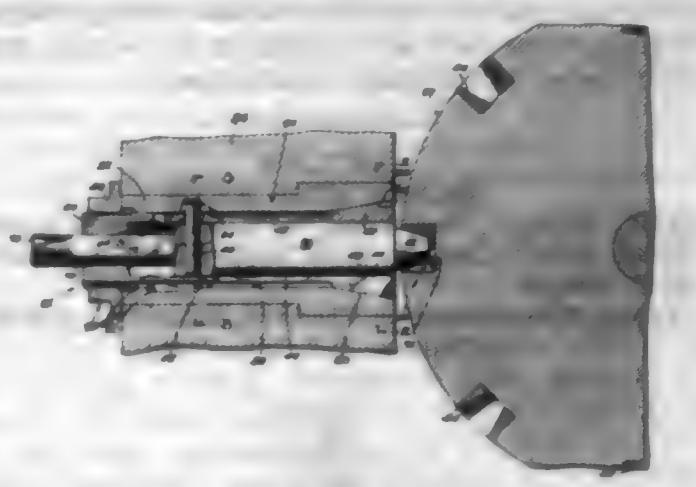
2,873,821
COMBINATION BRAKE
William Mann and Bernard Maloney, Gary, Ind., assignors to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application December 12, 1955, Serial No. 552,306
11 Claims. (Cl. 188—33)



1. A brake arrangement for a vehicle having a supported member and a supporting wheel and axle assembly with a rotatable drum secured thereto and nonrotatable journal means receiving the ends of said assembly, comprising, in combination: a brake frame mounted on said journal means outboardly of a wheel of said assembly, a duplex power cylinder mounted on said frame and having its longitudinal axis substantially normal to the rotational axis of said assembly, said drum being rigidly secured to said wheel outboardly thereof, said drum having an internal peripheral friction surface coaxial with a wheel tread friction surface, a pair of dead brake levers fulcrumed intermediate their ends to the frame and having their respective outboard ends operatively connected to the power cylinder at opposite ends of said cylinder, friction means pivoted to the inboard ends of the brake levers and engageable with the friction surfaces of the wheel and drum, respectively, and links pivotally interconnecting each of the brake means to the frame to maintain parallel engagement between the brake means and the related friction surfaces.

2,873,822
BOLT-TYPE LOCKING MECHANISMS FOR INDEXING DEVICES
Harry E. Sloan, Hartford, Conn., assignor to The Cushman Chuck Company, Hartford, Conn., a corporation of Connecticut
Application February 3, 1954, Serial No. 407,946
19 Claims. (Cl. 188—68)

1. A locking device for preventing relative movement between two members comprising, in combination, a chuck adapted to be rigidly mounted on one of said members and having gripping jaws, a lock-bolt supported in said chuck and arranged to be gripped and released by said jaws and to be axially movable with



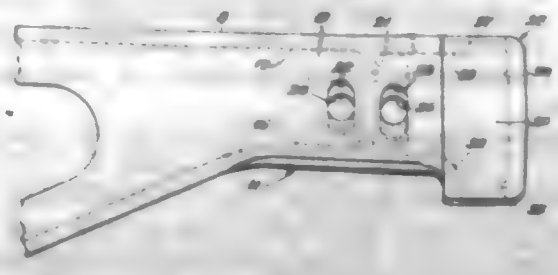
respect to said chuck, when released by said jaws, into and out of locking engagement with a second of said members, means for moving said bolt axially in said chuck into locking engagement with said second member and for actuating said chuck to grip said lock-bolt.

2,873,823
BRAKE BEAM SUPPORTS
Glenn F. Couch, Bergen, N. Y., assignor to The Symington-Gould Corporation, Depew, N. Y., a corporation of Maryland
Application November 30, 1955, Serial No. 550,913
7 Claims. (Cl. 188—209)



1. In a railway truck, the combination with a journal box, a side frame resiliently supported thereon and movable vertically and laterally relative thereto, a wheel movable with said journal box relative to said side frame and a brake beam carrying a brake shoe engageable with said wheel, of means carried by said side frame and connecting said brake beam thereto for lateral movement therebetween, and rigid means fixed against movement to said journal box and engageable with said brake beam for moving said brake beam horizontally in correspondence with movement of said wheel relative to said side frame.

2,873,824
BRAKE BEAM
Eugene G. Opsahl, Park Forest, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application July 11, 1955, Serial No. 521,335
5 Claims. (Cl. 188—226.1)



1. In a brake beam casting, a truss structure comprising coplanar tension and compression members of channel section converging toward the ends of the casting and merging to provide tubular sections of gradually decreas-

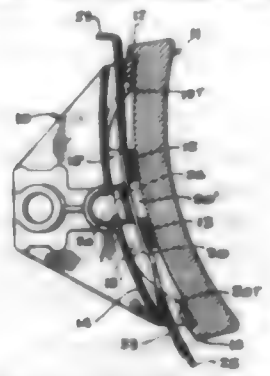
ing cross sectional area, and hollow end sections merging with their respective tubular sections, mounting portions on said hollow end sections for securing brake heads to said brake casting, said mounting portions being adjacent said tubular sections, each end section having rearwardly diverging upper and lower surfaces for wedge engagement between spaced brake head surfaces.

2,873,825

BRAKE SHOE KEYS

Allan L. Prentice, New York, N. Y., assignor to American Brake Shoe Company, New York, N. Y., a corporation of Delaware

Application November 22, 1955, Serial No. 548,384
3 Claims. (Cl. 188—243)



1. In a railroad brake assembly including a brake head member and a brake shoe member, and wherein the brake head member includes a plate with opposed outer end edges and formed with U-shaped lugs having key-way defining openings and outermost edges and innermost edges projecting from the plate in spaced relation, and wherein the brake shoe member is provided with an attaching lug having an opening therein disposed between the first-named lugs with all of said openings aligned to afford a key-way; a brake shoe key disposed in part in said key-way and coupling said members and comprising an elongated shank having at one end a generally right-angled head adjacent one of said outer end edges of said plate and adapted to be impacted to drive the key into said key-way, said shank in the unmounted state of the key having an arcuate portion medially located between the ends thereof and said arcuate portion in the assembly being under compression in said key-way and at least partly straightened out in said key-way with solid surfaces thereof respectively tightly engaging surfaces of said lugs to tightly couple said members, the end portion of said key shank beyond said medial portion and opposite the head of the key having a free end displaced beyond the other of the outer end edges of said plate, and said end portion of the key shank being formed with a narrow elongated rib projecting outwardly of the plane of the key shank, and said rib commencing at one end outwardly of the innermost edge of that lug on the plate which is nearer said end portion of the key shank and terminating at an opposite end disposed outwardly of said other of the end edges of said plate, said rib thereby imparting rigidity to said end portion of the key and facilitating removal of the key by a blow delivered to said displaced end of the key.

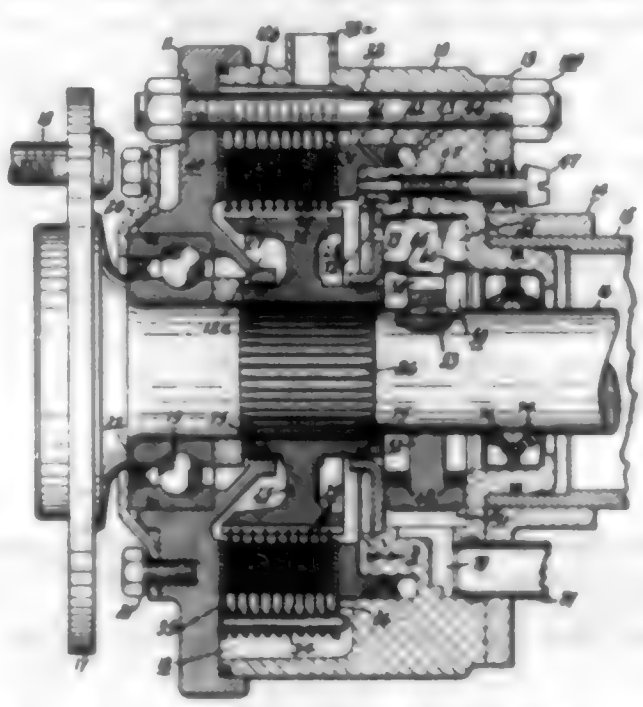
2,873,826

BRAKE COOLING CONTROL

Calvin J. Werner, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 29, 1955, Serial No. 556,168
7 Claims. (Cl. 188—264)

1. A liquid cooled multiple disk friction brake having a liquid coolant force circulated through the disk assemblage by pump means driven concurrently with a vehicle wheel carrying the brake, comprising, a stationary housing forming an enclosure, a wheel supporting axle extending through said housing, a multiple disk brake assemblage in a brake chamber in said housing having some of said disks connected with said axle for rotation therewith and other of said disks connected with said stationary housing, liquid circulating pump means within said housing and having pump elements in direct driven connection with said axle, said pump means including a pressure discharge passage in fluid communication with said brake chamber for delivery of liquid under pressure from said pump into said brake chamber, a heat exchange means having a fluid conducting conduit connection with said housing for



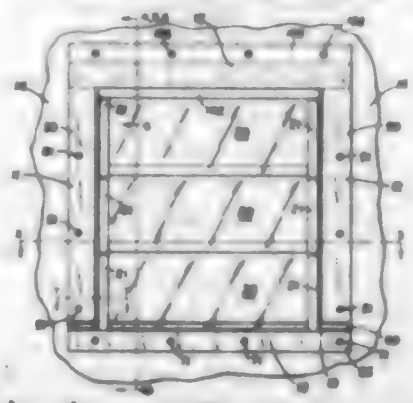
liquid flow conduction from said housing to said heat exchange means and having a second fluid conducting conduit connection with said pump means for delivery of liquid from said heat exchange means to the inlet side of said pump means, and thermally actuated means within said pump means rendered active by temperature rise of the pump environment to actuate said pump elements to render said pump means active for forced liquid circulation when the temperature of the pump environment reaches a predetermined temperature value.

2,873,827

WINDOW CONSTRUCTION

Robert M. Adamson, Dayton, Ohio, assignor to Jalousies of Ohio, Co., Inc., Dayton, Ohio, a corporation of Ohio

Application June 25, 1957, Serial No. 667,784
4 Claims. (Cl. 189—62)



1. A self-trimming metallic window construction for mounting in a window opening in a structure, comprising a combination of means providing a weather-tight exterior frame including a bottom sill, side pane supporting members, and a top frame member, pane supporting means mounted on said pane supporting members including operating parts arranged to move between open and closed positions, translucent pane members mounted in said pane supporting means for forming an outer window closure openable upon movement of said operating parts, an operator connected to said operating parts and including a handle mountable at the interior side of said window opening providing for actuation of said operating parts from the interior of the structure

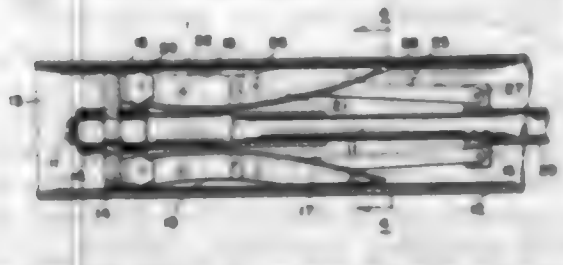
to open and close said outer window closure, a metallic interior frame mountable on the interior side of the window opening independently of said operator for forming a finished trim for the inside of said window opening, and means for mounting said interior frame on the interior side of said window opening in spaced relation to said exterior frame preventing metal to metal contact therebetween, said interior frame including means for mounting an interior pane across said window opening to enclose the air space between said exterior and interior frames.

2,873,828
ILLUMINATED ELECTRIC CEILING FIXTURE CONSTRUCTION
Joseph H. Zitomer, New Haven, Conn.
Application January 27, 1955, Serial No. 484,494
1 Claim. (Cl. 189—82)



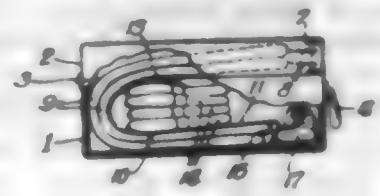
In a fluorescent lighting fixture, main supporting beams having vertical elongated openings and laterally extended flanges formed along the lower edges thereof, opposed cross beams having interengaging vertically aligned extensions having arcuate extremities formed at the ends thereof, each cross beam having a cutaway portion conforming in configuration to the extension of the opposed cross beam fitted within said elongated openings of said main supporting beams, said extensions having notches fitting over the edges of said openings at the ends thereof locking said cross beams to said main supporting beams providing a series of adjacent lighting areas, said lighting areas being adapted for the reception of horizontally supported fluorescent lighting members.

2,873,829
UMBRELLA ANCHOR
Dietrich Wiegmann, Bremen, Germany, assignor of one-half to Paul Tobeler, doing business as Trans-Oceanic, Los Angeles, Calif.
Application March 24, 1955, Serial No. 496,548
6 Claims. (Cl. 189—92)



1. The combination, comprising an elongated tubular casing adapted to be inserted into a hole drilled underground, an expansible anchor assembly within the casing and adapted to be expanded after endwise removal of the casing so as to expose the anchor assembly to the surrounding underground formation, said assembly including an elongated anchor rod axially movable within the casing to carry said assembly underground and manipulatable from the surface of the earth, a plurality of elongated anchor arms circularly spaced about the end portion of said rod and extending substantially longitudinally therealong in collapsed condition accommodating free axial movement of the entire assembly within the casing, fixed and movable supports carried in axially spaced relation on the rod near the end thereof, and means including links and pivots relatively loosely interconnecting one end and the intermediate portion of each arm respectively to said supports, each of said arms being substantially longer than the diameter of said casing and including an elongated relatively narrow blade extending in a longitudinally curved plane that is everywhere convex toward the anchor rod, each blade diverging from a location adjacent the rod to the free end of the blade adjacent the inner wall of the casing, the free ends of the blades being sharpened and having transversely curved relatively widened extent, each of said arms also including web means integral with said blade and extending longitudinally at the blade's outer side facing said casing, said pivots being connected to said links, webs and one of said supports and said blades containing longitudinally elongated openings through which said links project, and means for displacing said movable support relatively toward said fixed support for causing the links to swing the arms outwardly about their pivoted ends and away from said rod.

2,873,830
SUITCASE AND TRAY
Ted Wilt, Evanston, Ill.
Application July 27, 1954, Serial No. 445,955
13 Claims. (Cl. 190—41)

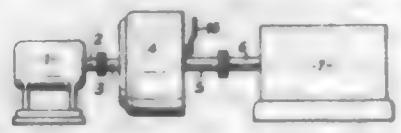


1. A wardrobe type case including garment hanger means upon which a garment may be hung in the case for the storage of a garment comprising, in combination, a body section having a bottom panel hingedly joined along an edge thereof to a lid section having a top panel, each of said sections having end walls and side walls joined to the associated panel and having the free edges of the corresponding walls adapted to engage one another when the lid section is closed upon the body section, a floating and self adjusting type of garment folding and tray element having a resilient and substantially flexible wall section along one edge thereof around which a garment may be folded when said case is closed, said folding and tray element having overall length or longitudinal and depth dimensions less than the corresponding dimensions of the interior of said case when closed and having a width or transverse dimension less than but substantially as great as the width or transverse dimension of the interior of said case, and said resilient and substantially flexible wall section of said folding and tray element in the absence of flexing pressure having a generally U-shaped cross section longitudinally of said folding and tray element with the convex apex portion of said U-shaped cross section being disposed adjacent the line of hinging between said body section and said lid section, and having said U-shaped cross section portion of said tray element partially flexed by the folded garment when said case is compressively closed, whereby to maintain said folded garment in predetermined position and condition of folding.

2,873,831
POWER TRANSMISSION SYSTEMS EMBODYING HYDRAULIC TURBO-TRANSMITTERS
Harold Sinclair, Windsor, England
Application February 3, 1953, Serial No. 334,804
Claims priority, application Great Britain February 4, 1952
6 Claims. (Cl. 192—.02)

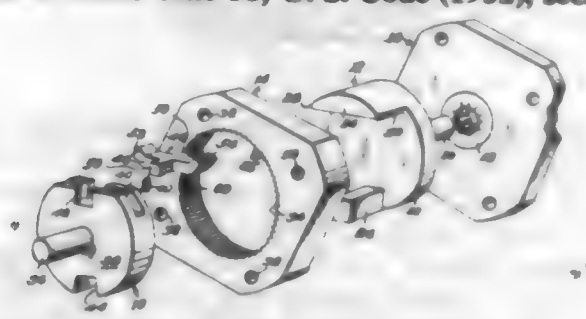
1. A power transmission system including an alternating current induction motor, a driven machine, a

hydraulic turbo-transmitter connecting said motor with said driven machine, said turbo-transmitter comprising a working chamber, a driving part in said chamber rotated by said motor, means for continuously admitting working liquid to and exhausting working liquid from said working chamber while said driving part is rotated by said motor, and at least one centrifugally controlled valve communicating with said working chamber for



controlling the amount of working liquid in said chamber, said valve being adapted to be opened to reduce the quantity of working liquid in said working chamber when a change in the speed of said driving part takes place resulting from an increase in load on said driven machine above a predetermined level, the flow capacity of said valve being such that sufficient liquid is retained in said working chamber to maintain load on said motor when said valve is open.

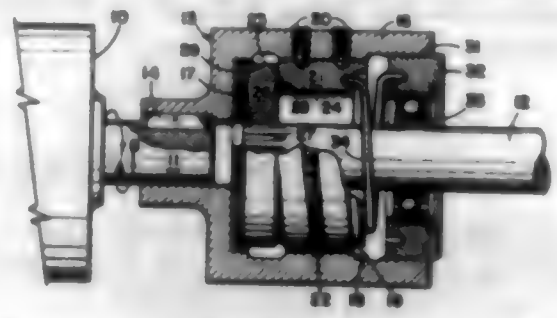
2,873,832
DRIVE SHAFT LOCK SYSTEM
Homer E. Helm, Birmingham, Mich.
Application November 9, 1956, Serial No. 621,484
1 Claim. (Cl. 192—8)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A drive lock system comprising a fixed ring member having a serrated bore; a driving member in said bore, a first projection and a second projection extending axially from said driving member; a driven member within said bore, a first axial slot in said driven member, said second projection extending into said first slot so that rotation of said driving member will rotate said driven member, a second axial slot in said driven member diametrically positioned from said first slot, a third slot in said driven member perpendicular to and communicating with said second slot, a double ended pawl lying in said third slot, projections on said pawl pivotally lying in said second slot, each end of said pawl having serrations and being tilted normal to said bore, two springs in said driven member normally urging said serrated ends of said pawl to engage said serrated bore when said driving member is at rest thereby locking said driven member in said bore; said first projection of said driving member lying superposed above said pawl whereby rotation of said driving member causes said first projection to contact one end of said pawl thereby pivoting said pawl in said second slot so as to disengage one serrated end of said pawl from said serrated bore and thereby permit said driven member to rotate in the direction of said disengaged end of said pawl.

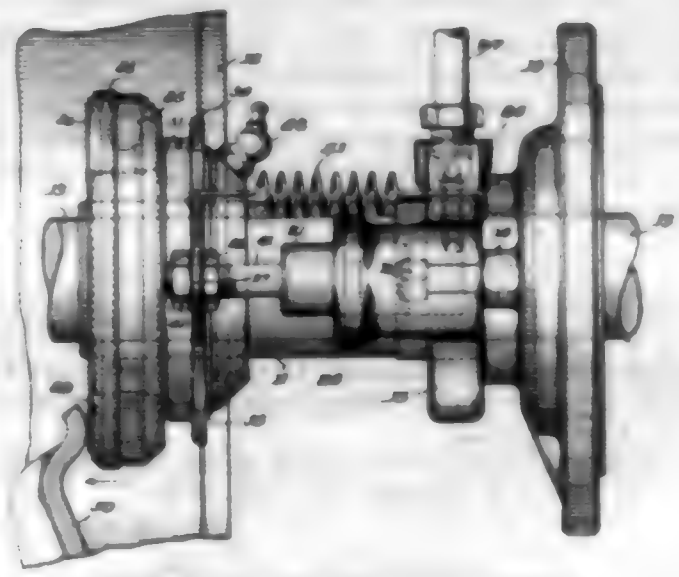
2,873,833
OVERRUNNING CLUTCH
Walter H. Hogan, Olmsted Falls, Ohio, assignor to Cleveland Pneumatic Industries, Inc., Cleveland, Ohio, a corporation of Ohio
Application November 29, 1954, Serial No. 471,609
4 Claims. (Cl. 192—41)

1. A clutch comprising a first element and a second element rotatable relative to said first element about an axis, clutch member axially aligned with a portion of said first element providing a face engageable therewith, said clutch member and the said second element each being formed with cooperating helical grooves having the same lead angle, antifriction members in said grooves connecting said clutch member and said second element whereby relative rotation between said clutch member and said second element produces axial motion therebetween, and resilient torque means resiliently urging said



clutch member in a rotational direction relative to said second element and through the connection of said antifriction members maintaining said face in engagement with said first element, the effective radius of the engagement between said face and said first element times the coefficient of friction of the engagement being at least equal to the effective radius of said antifriction members times the tangent of said lead angle divided by the efficiency of said antifriction members.

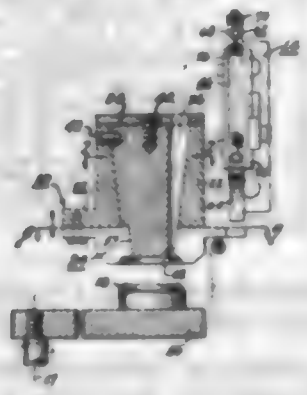
2,873,834
HYDRAULIC CLUTCH OPERATING MECHANISM
Hugh G. Kepner, Summit, Ill.
Application July 19, 1956, Serial No. 598,893
2 Claims. (Cl. 192—91)



1. Hydraulic clutch operating mechanism for motor vehicles comprising in combination with a transmission housing having a tubular extension thereon, a sleeve movably mounted on the said tubular extension and having laterally projecting extensions thereon, a rotatably mounted bearing member on the said sleeve and connected thereto and adapted to engage the clutch fingers of a motor vehicle, a hydraulic member fixed on said tubular extension, and spaced from the said sleeve, fixed cylinders carried by said hydraulic member on each side of the tubular extension, the said hydraulic member having conduits therein leading to the said cylinders, pistons mounted in said cylinders in axial parallelism with the said tubular extension and perpendicular to the lateral extensions on the said sleeve, means adjustably connecting the said pistons to the lateral extensions whereby the said sleeve and bearing member are adjustably spaced from the clutch fingers, a hydraulic fluid supply, a pipe leading from the said hydraulic fluid supply to the hydraulic member through which hydraulic fluid is forced into the said

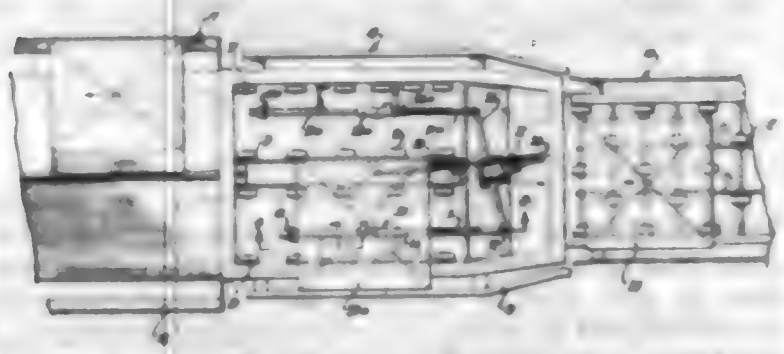
cylinders and means whereby the said sleeve may be moved away from the clutch fingers and the pistons are bottomed in the cylinders.

2,873,835
LEAD WIRE FEEDING DEVICE
Pierre W. Maurer, Nutley, and Henry L. Blust, Lyndhurst, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application September 26, 1957, Serial No. 686,332
7 Claims. (Cl. 193—2)



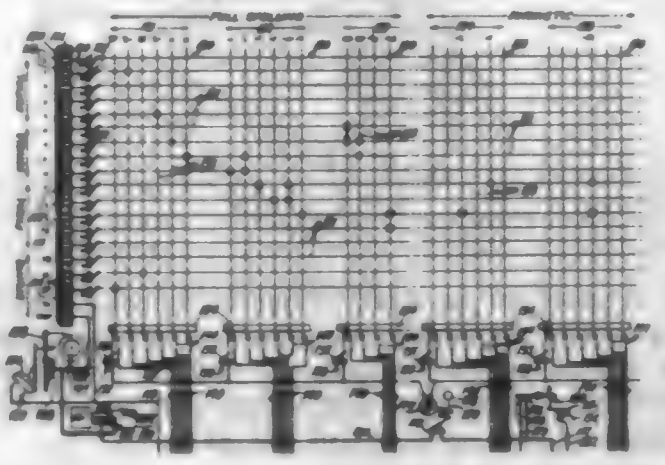
1. A lead-in wire feeder comprising an elongated core having a plurality of longitudinal slots around the peripheral surface thereof, means supporting said core, and a housing receiving said core, said housing being split into two parts along a plane generally longitudinal to said core, each part being pivotally mounted relative to said core for pivotal movement away from said core.

2,873,836
DEVICE FOR DIVIDING A SINGLE LINE OF CARTONS INTO TWO LINES
James L. Stubblefield, Denison, Tex.
Application April 19, 1956, Serial No. 579,190
5 Claims. (Cl. 193—36)



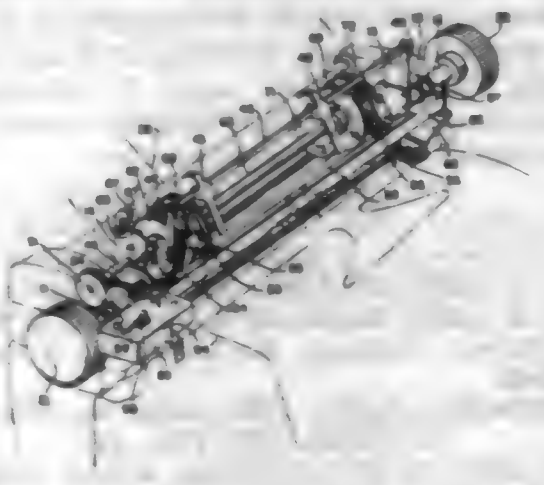
1. In a conveying device, a first conveyor carrying a plurality of objects in succession, a pair of conveyors associated with an end of said conveyor, and shunting means adjacent and registering with the first conveyor for receiving objects from the same and delivering said objects to said pair of conveyors, said shunting means being positioned between said first conveyor and said pair of conveyors and including means movable between two alternate positions in registry with said pair of conveyors, the movable means in one position delivering objects to one of said pair of conveyors and in the other position delivering objects to the other of said pair of conveyors, a pair of object engaging means associated with the pair of conveyors and projecting in the path of movement of the objects on each of the conveyors, means operatively connecting each of said object engaging means to the movable means whereby upon engagement of one of said pair of object engaging means by a moving object the movable means will be shifted from one alternate position to the other, an additional pair of object engaging means associated with the conveyors and projecting in the path of the objects on each of the conveyors, and means connected to each of said additional object engaging means preventing shifting movement of said movable means by said first named object engaging means until one of said additional object engaging means has been engaged by an object.

2,873,837
AUTOMATIC CODE TRANSLATING SYSTEMS
Edgar H. Clark, Flushing, N. Y.; Edgar H. Clark, Jr., executor of said Edgar H. Clark, deceased, assignor to said Edgar H. Clark, Jr., Washington, D. C.
Application October 17, 1955, Serial No. 540,943
39 Claims. (Cl. 197—20)



1. An automatic code translating system which comprises intersecting primary and secondary code members having code details for translation of an incoming code into an outgoing code, said secondary members being grouped into two divisions, each for selective response to any of the elements of the incoming code for translation into any of the elements of the outgoing code, and means effective upon the selective response of a secondary member in one division to a setting of said primary members for preventing translation in the other division for the same setting.

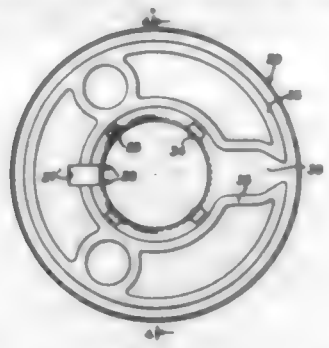
2,873,838
STRIP FEEDING DEVICE
Albert W. Metzner, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application March 1, 1955, Serial No. 491,338
15 Claims. (Cl. 197—126)



1. In a typewriting or like machine having a carriage and a line space mechanism operable upon each reciprocation of the carriage; the combination of a platen reciprocable support means on said carriage for said platen, means for advancing manifold record strip material over said platen an increment of movement upon each operation of said line space mechanism, means for advancing carbon ribbon material in interleaved transverse relation to said record strip material an increment of movement upon each operation of said line space mechanism, and means for reciprocating said support means and said

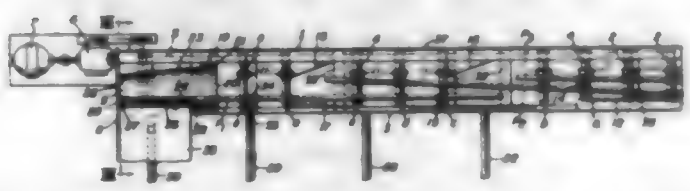
platen therewith in a medial horizontal plane common to said ribbon material, said platen and said support means upon each operation of the line space mechanism.

2,873,839
TYPEWRITER RIBBON SPOOL AND THE LIKE
John W. H. Bishop, Essex, Conn.
Application December 15, 1955, Serial No. 553,380
32 Claims. (Cl. 197—175)



1. A spool for an inked ribbon comprising a hub having a central expansible split sleeve which is formed, at least in part, by the free end of a resilient arm extending inwardly from the hub, and a disc secured to and substantially closing one end of the hub.

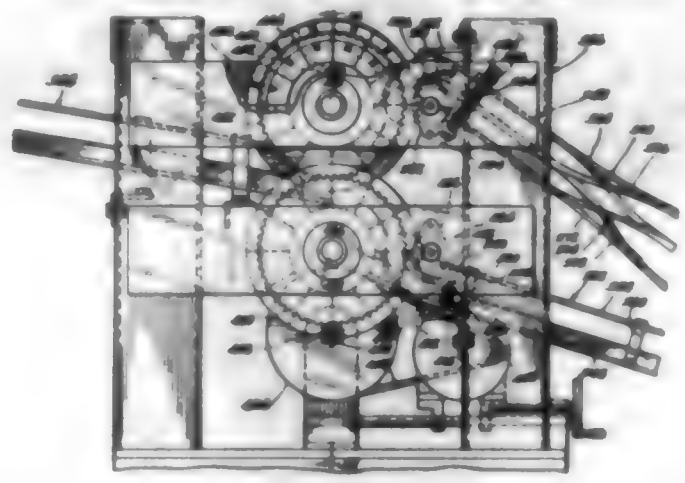
2,873,840
APPARATUS FOR HANDLING PIPE OR THE LIKE
David C. Kerr and Stanley K. Kifer, Lorain, Ohio, assignors to United States Steel Corporation, a corporation of New Jersey
Application October 21, 1954, Serial No. 463,768
12 Claims. (Cl. 198—28)



1. An apparatus for handling elongated articles comprising a conveyor over which the articles are conveyed in an endwise direction, means engageable with the forward end of each article as it moves to the end of said conveyor for tilting it to a position with its said forward end elevated and its trailing end lowered relative to said conveyor, and means responsive to movement of each article to said tilted position for engaging its trailing end and for moving it laterally with respect to said conveyor, said tilting means including means for effecting lateral movement of said forward end relative to said conveyor upon movement to its elevated position.

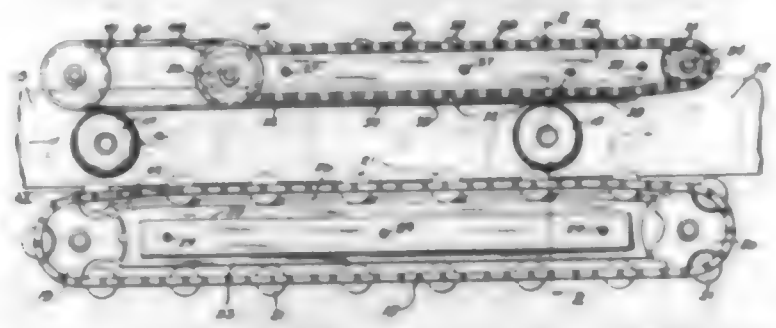
2,873,841
ORIENTATING APPARATUS
Clarence J. Smith, Rockford, Ill., assignor to W. F. and John Barnes Company, Rockford, Ill., a corporation of Illinois
Application April 5, 1956, Serial No. 576,313
11 Claims. (Cl. 198—31)

1. An apparatus for orientating articles such as cans and the like having a greater mass of magnetizable material at one end than the other, comprising means for arranging and conveying a plurality of series of the articles in endwise relationship and in single file, means at a discharge end of said first mentioned means for rearranging the articles and directing the articles from said plurality of series along a single path of travel with the articles positioned transversely of said path of travel, a pair of magnetic rotatable transfer means disposed in opposing relationship at opposite sides of said path of travel for attracting and retaining only articles having said one end with the greater mass of magnetizable material at their respective sides of the path of travel, first conveyor means for receiving articles from one of said transfer means, second conveyor means disposed for receiving articles from the other of said transfer means,



said conveyor means merging at a location spaced from said pair of tramfer means, and one of said last mentioned conveyor means including means for turning articles thereon to reverse the positions of the ends of said articles.

2,873,842
IN-LINE SPOTTER WITH BOTTLE POCKETING CONTROL
Warren E. Erickson, Madison, Wis., assignor to Gisholt Machine Company, Madison, Wis., a corporation of Wisconsin
Application September 13, 1957, Serial No. 683,754
9 Claims. (Cl. 198—33)

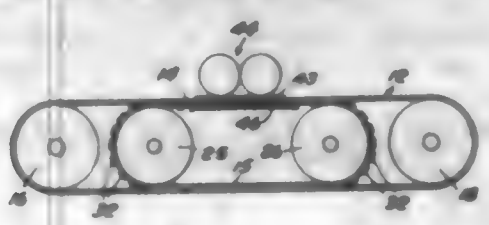


1. In a conveying and orienting device for circular articles; a friction member arranged along a path of movement of articles; conveying means located in spaced relation to said friction member and carrying projecting means adapted to contact an article to convey said article and press said article transversely against said friction member to cause the article to rotate as it is conveyed, said conveying means adapted to gradually approach said path of movement so as to prevent dead center contact with said articles; a second contact member located on the same side of the path of movement as the friction member and movable in synchronism with the conveying means along said friction member to contact said article at a predetermined point to arrest rotation of the article; and a rotary member located adjacent the entry end of said device and having a peripheral linear speed greater than that of said conveying means, said rotary member being located on the same side of said path as said friction member.

2,873,843
MAGNETIC CONVEYOR
Rufus W. Wilson, Huntingdon, Pa., assignor to Wald Industries, Inc., Huntingdon, Pa., a corporation of Pennsylvania
Application October 2, 1957, Serial No. 687,678
14 Claims. (Cl. 198—41)

1. A conveyor assembly comprising a first endless conveyor member, a second endless conveyor member mounted for movement in a path inwardly of and ad-

jacent said first conveyor member, one of said conveyor members having a plurality of apertures therein, and a



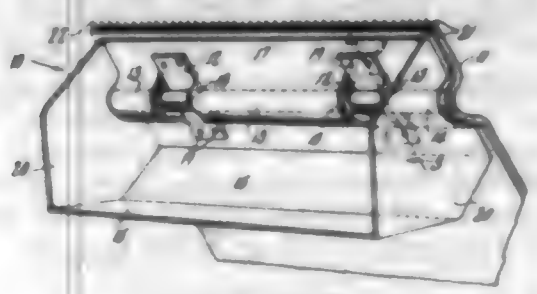
plurality of magnet members attached to the other of said conveyor members and engageable with said apertures of said one conveyor member.

2,873,844

ELEVATOR CONVEYOR BELT, BUCKET AND ATTACHING MEANS

Nathaniel H. Curtiss, Clifton, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application March 29, 1956, Serial No. 574,837
7 Claims. (Cl. 198—151)



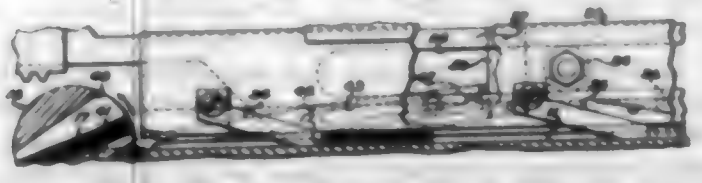
1. In an elevator of the class described, the combination of a bucket having a member provided with a concave portion and means extending transversely of said concave portion, a flexible belt extending into said concave portion and having spaced openings in substantial alignment with said transversely extending means, and means extending between said belt and said transversely extending means for attaching said bucket to said belt in cooperation with said concave portion and said transversely extending means.

2,873,845

SAFETY DEVICE FOR ARTICLE FEEDING MECHANISM

William J. Kross, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application January 18, 1957, Serial No. 634,868
7 Claims. (Cl. 198—221)



1. An article transfer mechanism comprising a transfer member, an article engaging element having an elongated slot forming a section of said element into two resilient tangs, and a stud mounted on said transfer member engaged by the tangs to hold the article engaging element on the transfer member by a slip joint.

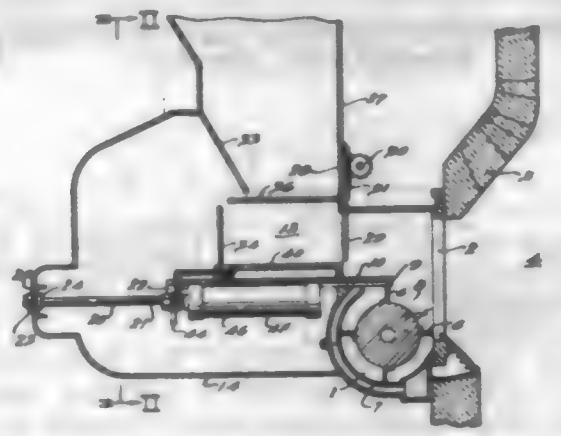
2,873,846

FUEL FEEDER

William MacDonald Urquhart, Renfrew, Scotland, assignor to Detroit Stoker Company, Detroit, Mich., a corporation of Michigan

Application January 7, 1957, Serial No. 632,780
10 Claims. (Cl. 198—226)

1. A feeder for solid material in a state of division comprising a reciprocatory pusher member for pushing said material intermittently in a feeding direction along a predetermined path, a reciprocating fluid motor arranged to drive the pusher member in the material feeding direction at a relatively slow speed and in the reverse direction at a relatively high speed, and means for controlling the speed of the feeding stroke by throttling the flow of fluid from the exhaust side of the fluid motor, said means including a restrictor of fixed characteristics in series with a variable restrictor.

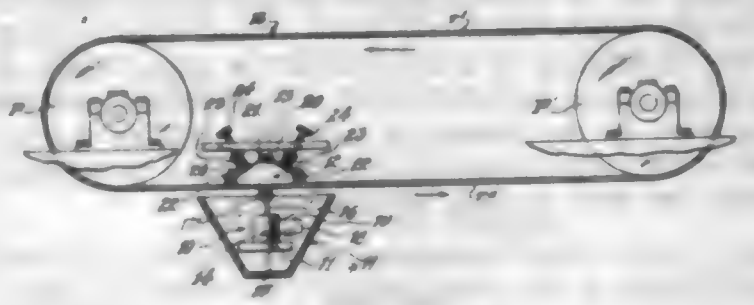


2,873,847

CONVEYOR BELT CLEANER

Charles W. Holland, Jr., Hanover, N. J.

Application May 23, 1956, Serial No. 586,834
10 Claims. (Cl. 198—230)



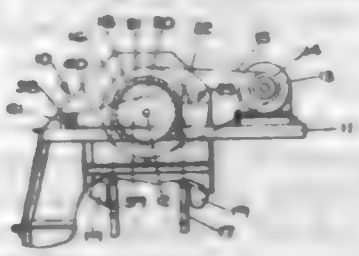
1. A cleaner for conveyor belts comprising: a supporting structure adapted to be disposed adjacent to the lower run of a conveyor belt; positive belt agitating means supported by said supporting structure to engage the underneath surface of the lower run of the belt and impart vibrational impulses thereto; and reactional agitating means yieldably supported by said supporting structure to engage the upper surface of said lower run of the belt and being constructed and arranged to vibrate in a direction perpendicular to the belt in response to impulses transmitted thereto through the medium of said belt.

2,873,848

SHAFT LOCKING MEANS

Walter C. Steinmetz, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio

Application February 23, 1956, Serial No. 567,160
20 Claims. (Cl. 198—232)

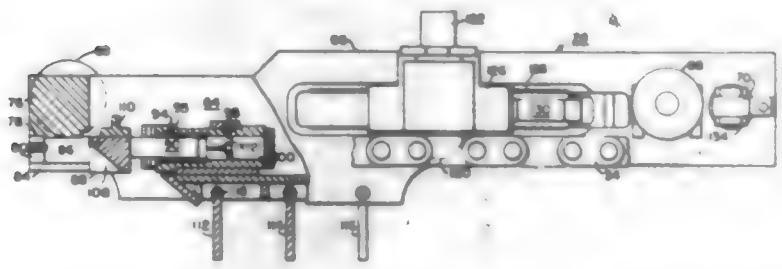


1. In combination with a shaft and power means for rotating the shaft in one direction, means for locking the shaft to prevent rotation thereof in the opposite direction, means operating in response to rotation of the shaft in the one direction for releasing the locking means, and means operative under control of the locking means for holding the locking means in released position while the shaft is rotating in the one direction.

2,873,849
TUBE DRAWING APPARATUS

Daniel L. Lombard, Youngstown, Ohio, assignor to Lombard Corporation, Youngstown, Ohio, a corporation of Ohio

Application May 14, 1956, Serial No. 584,564
3 Claims. (Cl. 205—3)

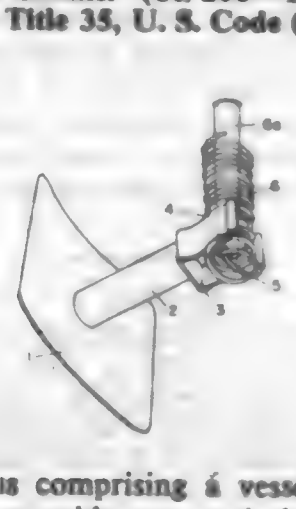


1. In a drawbench adapted to draw tubes and the like through a die and including a track extending parallel to the central axis of said die on one side thereof, the combination of a draw carriage movable along said track, said draw carriage having a main body portion supported on said track by anti-friction elements, gripper jaws supported on one end of said draw carriage and movable relative thereto between gripping and retracted positions, a member located behind said gripper jaws for moving the same from retracted to gripping positions, an inclined surface located on said member behind the forward end of a tube engaged by said gripper jaws for deflecting a tube below the body of said draw carriage at the completion of a draw when the gripper jaws release said tubes, and a plurality of baffle plates pivotally supported on the bottom of said body portion for impeding the forward motion of a tube after it is deflected below the body by said inclined surface.

2,873,850
VIAL HOLDER

Victor H. Ortegren, Pleasant Hill, Calif., assignor to the United States of America as represented by the Secretary of Agriculture

Application September 6, 1956, Serial No. 608,407
6 Claims. (Cl. 206—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

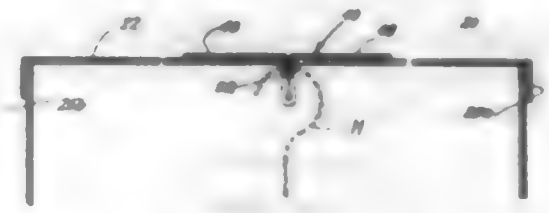


4. An apparatus comprising a vessel and an object-holding device removably mounted therein, said device comprising a plate of compressed springy sheet material engaging the inner wall of said vessel, an arm mounted on said plate and extending generally normal to the surface thereof, a generally U-shaped member on said arm having its end bearing tightly against that part of the inner wall of the vessel which lies substantially directly opposite to the portion of the inner wall which is engaged by the said compressed springy plate, and an object-receiving receptacle mounted within said U-shaped member, said device maintaining its position within the vessel by the pressure exerted by the said compressed plate against the inner wall of the vessel which it is engaging while the end of the said U-shaped member simultaneously bears tightly against the substantially directly opposite inner wall of the vessel.

2,873,851
MULTIPLE-HANGING-GARMENT SHIPPING CONTAINER

Harvey J. Abramson, Flushing, N. Y., assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York

Application June 3, 1957, Serial No. 663,045
3 Claims. (Cl. 206—7)

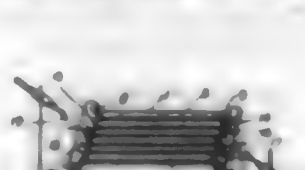


1. A shipping container for garments having a plurality of walls, one of said walls being adapted to support garment hangers, said supporting wall having a plurality of spaced perforations arranged in substantially a straight line, a garment hanger support cooperating with said one wall, said support being formed of sheet material doubled on itself along a fold line, the support adjacent to said fold line having a plurality of coplanar teeth alternating with spaces therebetween, said teeth extending through the perforations of said wall and the free ends of said support providing flaps secured to the outside of said wall, and a relatively stiff element carried by said teeth and adapted for engagement with garment hangers.

2,873,852
METHOD OF PACKAGING BOARDS AND PACKAGE THEREOF

Boyd C. Blair, Topeka, Kans., assignor to Fred M. Brackett, doing business as The Brackett Stripping Machine Co., Topeka, Kans.

Application April 29, 1957, Serial No. 655,649
2 Claims. (Cl. 206—60)



2. A unit package of plaster lath comprising, a stack of superimposed elongate plaster lath each having a paper covering thereon, said paper covered lath each having opposite flat faces and substantially parallel opposed side and end edges, said paper covered lath being in face to face relationship with the next lower lath in the stack and with their respective opposite edges in substantial alignment, and a line of adhesive between certain marginal portions of adjacent faces of the paper covered lath along said aligned edges for securing each said paper covered lath to the next lath in the stack only along said lines of adhesive, each said line of adhesive terminating in spaced relation from the ends of said aligned edges of the paper covered lath whereby end portions of the aligned edges of one of the paper covered lath may be grasped and pulled to separate said one lath from the next lath in the stack.

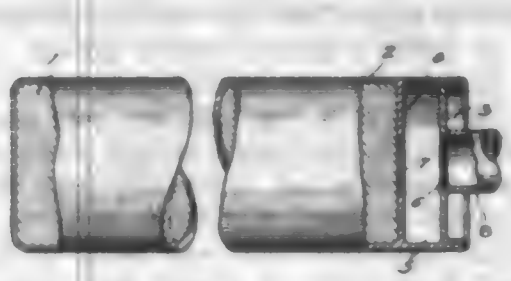
2,873,853
CANNED SLUG

Milton Burton, Mishawaka, Ind., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application December 3, 1946, Serial No. 713,659
4 Claims. (Cl. 206—84)

4. An article of manufacture comprising a gas-producing fissionable body, a substantially non-corrodible jacket

covering said fissionable body, one end of said jacket spaced away from said body to form a chamber, said end having pre-weakened area in its wall and a gas-permeable,



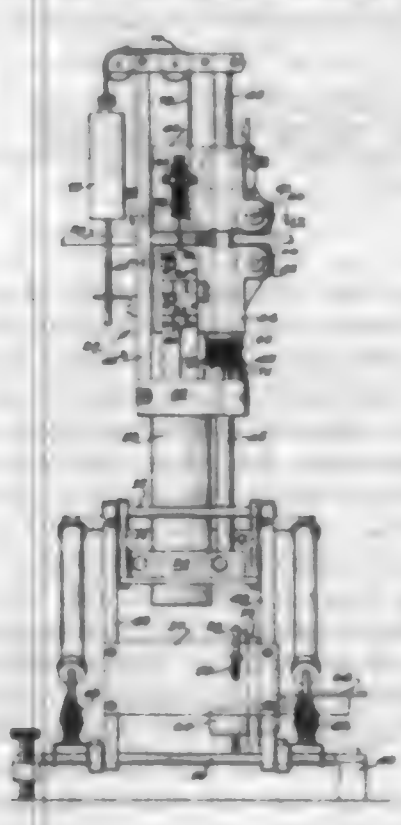
difficulty water-permeable graphite barrier in said chamber adjacent said fissionable body and spaced away from said end of the jacket.

2,873,854

GLASS TUBE AND CANE GAUGING AND SORTING APPARATUS

Robert J. Dapp and Harold E. Cozine, Vineland, N. J., assignors to Owens-Illinois Glass Company, a corporation of Ohio

Application June 8, 1954, Serial No. 435,336
5 Claims. (Cl. 209—88)



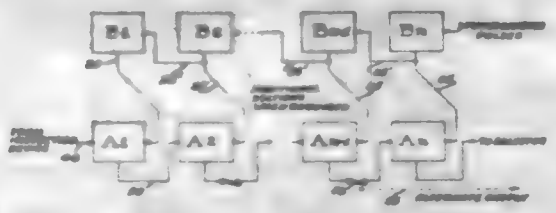
1. The combination with means for drawing a rod horizontally in the direction of its length, of apparatus for gauging the diameter of the rod, said apparatus comprising a pair of gauging rolls, carriers individual to the rolls and on which the rolls are mounted respectively above and below the rod, a support on which the carriers are slidably supported one over the other and guided for relative up-and-down movement by which the rolls are relatively movable toward and from each other, means for applying a yielding pressure of the rolls against the rod as the latter advances between the rolls, said last mentioned means including spring means for applying an upward pressure to the lower carrier and gauging roll and a counterbalance connected to the upper carrier and applying an upward force thereto by which downward pressure of the upper gauging roll against the said rod is reduced, a differential transformer comprising a solenoid and its armature having fixed connection respectively with the said carriers for relative up-and-down movement therewith and operable to give an electric signal variable with the variations in the relative positions of the carriers, said armature comprising a vertical rod extending through the solenoid.

2,873,855

ELECTRONIC MEMORY DEVICE FOR ARTICLE SORTING APPARATUS

John M. McCormick, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application March 22, 1954, Serial No. 417,887
6 Claims. (Cl. 209—90)



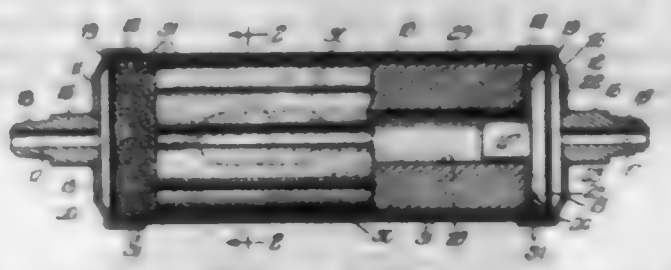
1. Apparatus for transmitting electrical signals, said apparatus including a memory device comprising a first series of electrical units and a second series comprising the same number of electrical units, each unit of the first series having two separate stable states, two intake channels and an output channel, each unit of the second series having an input channel and an output channel, means for applying synchronizing pulses at timed intervals to a unit of the second series, means for transmitting the signal produced by each pulse to the remaining units of said second series in succession and for transmitting the signal through intake channels to the units of the first series in succession, means for applying pulses through the other intake channels of the units in the first series, and for transmitting signals from one to another of the units of the first series through channels extending from the output of each unit of said first series to the first input of the next succeeding unit of the series.

2,873,856

REFRIGERANT DRIER

Evan Jones, Evanston, Ill., assignor to Henry Valve Company, Incorporated, Melrose Park, Ill., a corporation of Illinois

Application October 3, 1956, Serial No. 613,782
12 Claims. (Cl. 210—291)



1. A refrigerant drier comprising a sleeve-like casing having inlet and outlet closure members, a rigid porous dehydrant block of substantial relative length in said casing held at one end thereof in spaced relation to the inner surface of said casing by means fixed relative to said casing, and discrete dehydrant material within said casing and substantially surrounding said block, said discrete dehydrant material positioning and supporting the remainder of said block particularly the other end thereof within said casing in spaced relation to the inner surface of said casing.

2,873,857

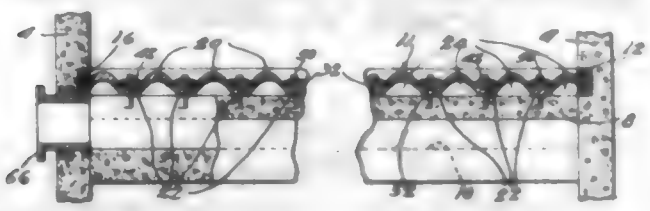
FILTER UNDERDRAIN SYSTEM

John L. Scheid, Maywood, N. J., assignor, by mesne assignments, to Union Tank Car Company, Chicago, Ill., a corporation of New Jersey

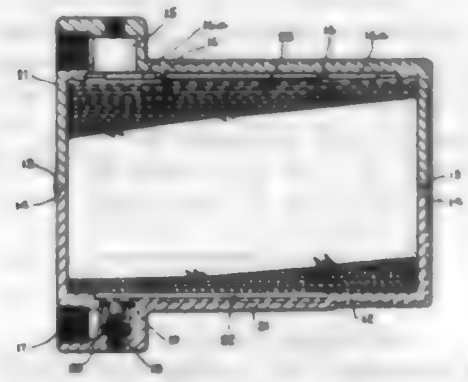
Application May 16, 1955, Serial No. 508,554
5 Claims. (Cl. 210—293)

1. In a filtering apparatus, a tank having vertical walls and a bottom floor joining the walls, said floor having at least one enlarged flat surface area thereon, a porous underdrain covering the floor, said underdrain comprising a continuous undulating member extending over the entire floor and having high and low portions thereon,

said high portions defining with said flat area parallel passages extending across said floor, said low portions being in direct engagement with said area, channel means formed in the floor below said flat area and communicating with and extending transversely of said passages, and a plurality of securing means extending through said underdrain and directly connected to the floor to fixedly connect said low portions to said area.

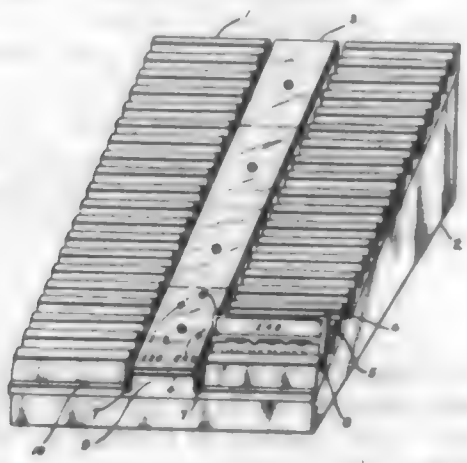


2,873,858
FILTER AND METHOD OF MAKING SAME
Peter J. Urbon, Northampton, Mass., assignor to American Bosch Arma Corporation, a corporation of New York
Application September 21, 1955, Serial No. 535,709
10 Claims. (Cl. 210—443)



1. In a device of the character described, a housing having an inlet and an outlet, a filter element in said housing, said element comprising a strip of filtering material folded into pleated arrangement with successive portions being in adjacent overlying engaging relationship, said successive portions having cutout areas of different configuration with all of said portions having aligned openings.

2,873,859
IMPRINTER PLATE RACK
James T. Gates, Cleveland, Ohio
Application January 16, 1956, Serial No. 559,171
2 Claims. (Cl. 211—41)



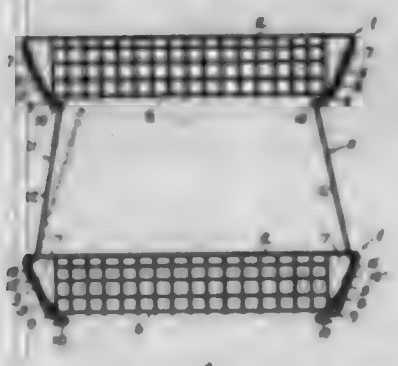
1. A rack for holding a plurality of frames comprising two sets of parallel frame supports defining frame holding slots between them, said supports positioned with each support progressively higher from front to rear of said rack, said supports providing an approximately vertical wall at the front of each slot and a rear wall of each slot inclined upwardly and rearwardly, each slot having a land at the bottom between supports of a width to snugly receive a frame, the walls and bottom of a slot defined by said supports in one set being coplanar with like parts defined by supports in the other set, a raised strip extending from front to rear of said rack between said sets of frame supports, and a groove provided in said rack along each side of said strip and between said strip and said sets of frame supports, said grooves being deeper than the bottom lands of said slots, whereby to hold flanged frames tilted rearwardly with their flanges engaged in said grooves, said front and rear rack walls being vertical, said rear rack wall being in the plane of one of said front walls of a slot, said front rack wall lying in a plane which includes the forward edge of one of said lands, whereby two racks may be assembled with the front rack wall of one abutting the rear rack wall of another to provide a continuous uniform rack.

2,873,860
STATIONERY RACK
Florence J. Holloway, Delhi, N. Y.
Application November 13, 1953, Serial No. 391,780
1 Claim. (Cl. 211—50)



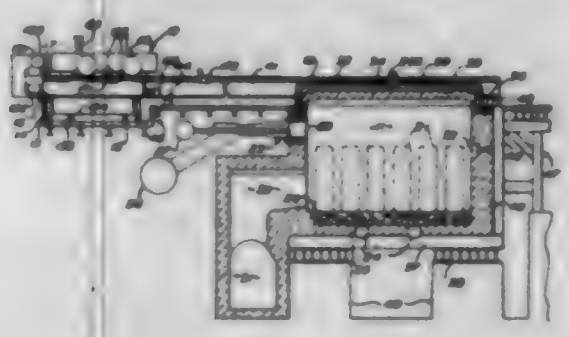
A stationery rack having a plurality of successive connected compartments adapted to receive individual groups of papers in combination with a support base attached at one end of the rack and a cover attached at the opposite end of the rack whereby the compartments are disposed between the base and the cover, each of said compartments comprising a lower panel with an outer transverse edge and an inner edge spaced from and parallel to the outer edge including an end wall pivotally secured to the said inner edge along a transverse axis whereby the said end wall can pivot towards and into engagement with the lower panel in a substantially parallel fashion including means secured to the end wall and the lower panel limiting the pivotal motion of the end wall in a direction away from the lower panel to an angular distance smaller than 90 degrees whereby the end wall is always at an acute angle to the lower panel forcing the top sheets in each compartment to project more outwardly than the lower sheets in all positions of the end wall relative to the lower panel, including an upper panel of smaller length than the lower panel pivotally secured to the upper edge of the end wall about an axis spaced from and parallel to the first said axis whereby said upper panel can pivot towards and away from the lower panel under the influence of gravity, said upper panel having an outer edge which is located between the outer and inner edges of the lower panel whereby the papers protrude between the said outer edges of the upper and lower panels, said support base comprising a lower surface adapted to engage a horizontal surface and an upper surface inclined relative to the lower surface, said upper surface being fixedly attached in flat planar abutment with the lower panel of an end compartment, each upper panel being fixedly attached to the adjoining lower panel, the said inner edges of the lower panels lying in the plane of the lower surface of the support base whereby disposition of the support base upon a horizontal surface will cause the inner edges to engage the horizontal surface and the compartments will assume an inclined position with each upper panel being partially superimposed over each lower panel.

2,873,861
TRAY ASSEMBLY
Erik Gamborg Jensen, Moss, Norway
Application October 29, 1956, Serial No. 618,863
Claims priority, application Norway November 1, 1955
2 Claims. (Cl. 211—126)



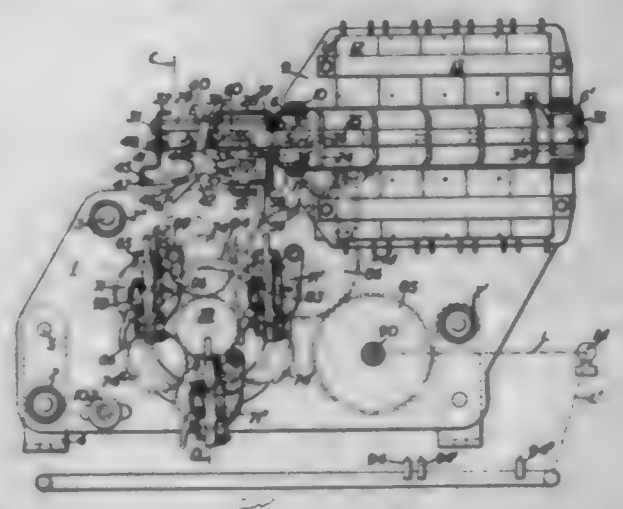
1. A tray assembly comprising a plurality of superposed trays, each of said trays having a base, two pairs of vertically outwardly inclined side walls opposite each other and a rim, each two adjacent ones of said side walls defining an aperture at each corner of the tray and extending from the base of the tray towards the rim, a pair of frame-shaped wire connecting members connecting each two of said trays, each consisting of two parallel legs and two parallel cross bars interconnecting the legs, one end portion of each leg being inclined and a shoulder means being provided at the end of the inclined end portion, and outwardly opening hook-shaped securing means mounted at the lower face of the base of each superposed tray, said wire connecting members being positioned in substantially upright position with the cross bar interconnecting the inclined end portions of the legs inside opposite ones of said side walls of a lower one of said trays, the inclined end portions engaging and protruding outwardly from the apertures at the ends of said last-mentioned side walls with the shoulder means engaging the rim, and the other one of said cross bars engaging said hook-shaped securing means, the legs between said shoulder means and said hook-shaped securing means being outwardly stressed.

2,873,862
SOAKING PIT COVER HANDLING APPARATUS
Carroll Coss, Toledo, Ohio, assignor to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application August 10, 1956, Serial No. 603,388
18 Claims. (Cl. 212—4)



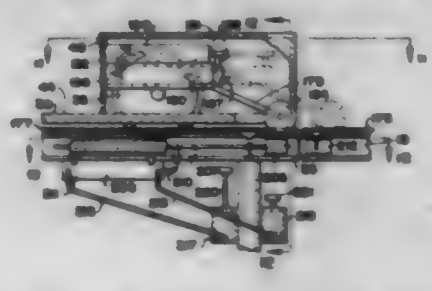
10. Apparatus for moving the cover of a furnace comprising: a first pair of parallel rails straddling said furnace and supported on the floor, a buggy adapted to move along said rails, first power means for driving said buggy along said pair of rails, a second pair of parallel rails one of which is at a distance from said furnace greater than the longest dimension of said cover measured parallel to the first pair of rails, a crane supported by said second pair of rails and adapted to travel therealong, second power means for driving said crane, means on said buggy for lifting said cover, means on said buggy for grasping said crane and lifting said buggy from said rails, and control means for controlling said crane and said buggy.

2,873,863
INDEXING MECHANISM FOR MECHANICAL CODE RECORDERS
Georges Xavier Lens, Antwerp, Belgium, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application October 3, 1957, Serial No. 688,066
Claims priority, application Belgium October 27, 1956
9 Claims. (Cl. 214—11)



1. Indexing mechanism for setting mechanical code recorders of the type mounted on a movable conveyor comprising means for receiving coded information relative to controlling functions of said recorders, a plurality of movable intermediate code recorders, means for moving said intermediate recorders between said code receiving means and said first mentioned recorders in synchronism with said conveyor, means under control of said receiving means for transferring said received coded information to one of said intermediate recorders for temporary storage, and means for transferring to a predetermined one of said first mentioned recorders the coded information stored in said one intermediate recorder indicative of the function to be performed thereby.

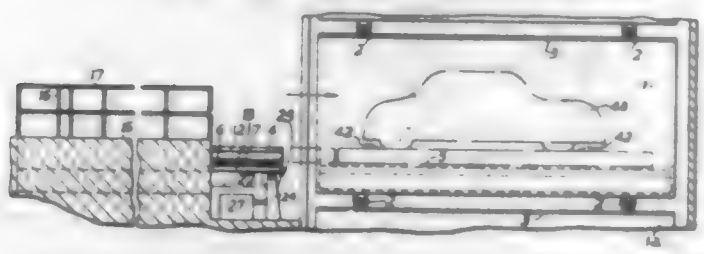
2,873,864
AUTOMOBILE PARKING APPARATUS
Gerald Kavanagh, Portland, Oreg.
Application April 6, 1956, Serial No. 576,715
3 Claims. (Cl. 214—16.1)



1. In vehicle parking apparatus, two banks of storage compartments mounted on opposite sides of a central aisle, said compartments being arranged opposite each other at a plurality of levels and having aligned floors, tracks for each level extending along the aisle adjacent the compartment floors, a trolley wire extending along the aisle parallel to the tracks at each level, an elevator mounted for vertical movement in line with the aisle and movable to the different levels, tracks on the elevator and aligned with the aisle tracks when the elevator stops at each level, a carriage normally on the elevator and having wheels to ride on the elevator and aisle tracks, said carriage having a floor aligned with the compartment floors when said carriage is on the aisle tracks, a trolley mounted on the carriage and movable outwardly and inwardly with respect thereto, said trolley being completely within the elevator when in its inner position and being aligned with the trolley wire of each level when the elevator stops at said level, means on the carriage for moving the trolley outwardly of the elevator into engage-

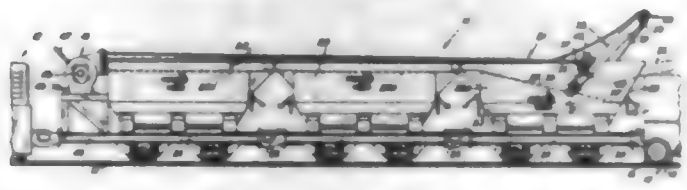
ment with a trolley wire and back away from the latter, an electric motor on the carriage electrically connected to the trolley, driving means connecting the motor to the carriage wheels to move said carriage along the elevator and aisle tracks, a dolly movable on the carriage, operating means on the carriage for moving the dolly laterally of the latter into compartments on either side thereof, and means for selecting the direction of movement of the dolly off the carriage.

2,873,865
APPARATUS FOR THE TRANSPORT AND STORAGE OF VEHICLES
Ronald A. Inglis, Orpington, England, assignor to Eugene O'Sullivan, Chislehurst, England
Application May 1, 1957, Serial No. 656,448
Claims priority, Great Britain May 2, 1956
15 Claims. (Cl. 214—16.1)



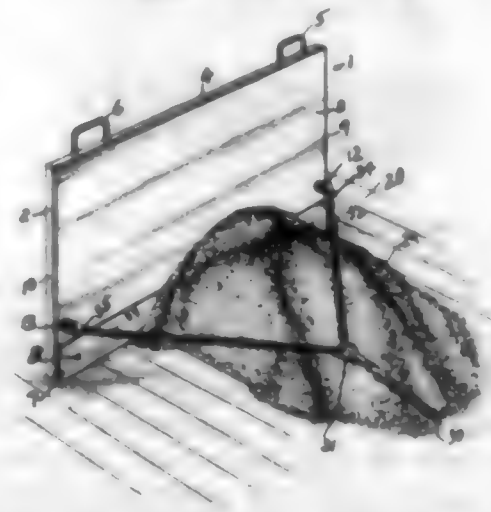
1. Apparatus for the garaging of vehicles, comprising a lift having at least one cage adapted to receive a vehicle to be garaged and means for moving the cage to and from a loading position at which the vehicle can be loaded into or removed from the cage wherein the apparatus also includes at least one platform, which is adapted to support the vehicle and is movable into and out of the cage at the loading position and operating means for effecting the said movements of the platform, said operating means comprising a reciprocating member adapted to be connected to said platform and on and over which a vehicle is driven when being loaded onto the platform.

2,873,866
MATERIAL HANDLING APPARATUS
Robert B. Austin, Wallace, Idaho, Roger V. Pierce, Salt Lake City, Utah, and John S. Wright, Montpelier, Idaho
Application March 22, 1956, Serial No. 573,219
4 Claims. (Cl. 214—41)



1. The combination with spaced rails forming a trackway; a muck loading device movable on said rails, of a series of interconnected open top cars movable on said rails to and from said muck loading device and having a receiving car at one end to receive muck from said loading device; said receiving car having a grizzly extending at an upward incline from its free end upwardly to a point adjacent to its open mouth at its opposed end; each other said car having a grizzly extending horizontally adjacent to its open mouth; all of said grizzlies being coincident to the open top of their respective cars; a tailblock supported upon said receiving car; said tailblock being selectively movable from a raised operative position above said cars to a lowered inoperative position; a double drum powered hoist carried by the end said car opposed to said receiving car; a hoe-type scraper disposed to slide upon said grizzlies; pull and tail ropes attached to said scraper and each secured to one said drum; said tail rope being trained about said tail block, whereby manual operation of said hoist effects movement of said scraper back and forth from end to end of said series of cars to successively transfer muck from the receiving car to the other cars; and said tail block when in its operative position serving to support the scraper in a raised position so that muck may be admitted thereunder.

2,873,867
GRAIN BOARD AND HOOKS THEREFOR
Roy L. Brooks, Kansas City, Mo.
Application June 18, 1956, Serial No. 592,284
1 Claim. (Cl. 214—44)

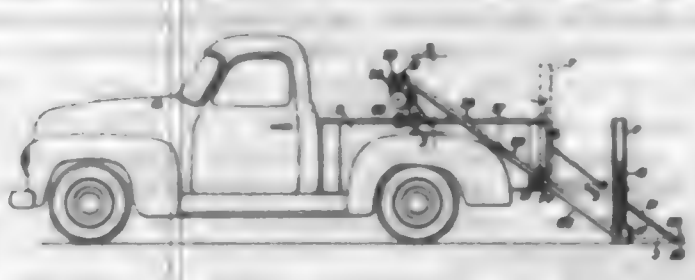


A grain board for moving bulk material by a source of power through a chain link connection, said board including spaced hook members adapted to receive a chain link and to retain said chain link without danger of accidental detachment but wherein the chain link may be easily engaged and disengaged, said hook comprising a longitudinally extending shank having one end adapted for mounting in a support, said shank having its other end turned laterally and rearwardly to form a reversely extending hook portion and having the end of said hook portion terminating in a point, an enlarged portion extending completely around said shank, a first washer mounted on said shank and in abutting relationship with said enlarged portion, an annular flange on said shank having one face thereof substantially in a plane transverse and perpendicular to the axis of said shank and in alignment with the extreme end portion of the hook point, a second washer loosely sleeved and slidable on said shank between said first washer and said annular flange and being maintained in spaced relation to said first washer with the said annular flange serving as a stop for said second washer substantially adjacent the point of said hook, the radial face of said second washer being of such a diameter as to extend both above and below the hook point so that the second washer may be engaged by the chain link to effect either an engagement or disengagement of the link, resilient means mounted on said shank between said first and second washers and urging said second washer into resilient engagement with said hook point thereby preventing accidental disengagement of said chain link but whereby pressure on said second washer toward said first washer compresses said resilient means and moves said second washer into spaced relation to the hook point in order to allow for engagement or disengagement of the chain link and said hook.

2,873,868
LIFTING AND LOWERING MECHANISM FOR TAIL GATES
John A. Kringlen, Grand Forks, N. Dak.
Application August 15, 1957, Serial No. 678,310
2 Claims. (Cl. 214—75)

1. Mechanism for lowering and raising the tail gate of a truck body for use in unloading and loading cargo comprising an elevator frame having side uprights and a base bar to which the tail gate is hinged for opening into horizontal position for loading with cargo, a pair of

elongated slide members on opposite sides of said body extending longitudinally thereof and having rear ends between which said frame is fixed at its sides, means at opposite sides of said body secured thereto and guiding such members diagonally longitudinally of said body for gravitational advance downwardly and rearwardly and retraction upwardly and forwardly to lower and raise said frame and tail gate in a diagonal path, and manipulative means mounted on said body and operatively connected to said member to retract the members and control advance thereof, said manipulative means comprising a reel shaft having a pair of reels on each end thereof, means for mounting said reel shaft on sides of a truck body transversely thereof and including brackets, cables on said reels for winding up thereon and operatively connected to front ends of the slide members, a crank operated gear on one of said brackets, and a larger gear on said shaft meshing with the crank operated gear.



2,873,869

LOAD HOISTING APPARATUS FOR VEHICLES

Rowland Alec Neaverson, Leicester, England

Application December 15, 1955, Serial No. 553,375
7 Claims. (Cl. 214—77)



1. Load hoisting apparatus comprising a lever arrangement having two lever devices pivoted about a common substantially horizontal axis and spaced apart in the direction of said axis, an arm carried by each lever device so as to extend approximately at right angles to said common axis in a position displaced therefrom, with the arms on the two lever devices disposed approximately parallel to one another, a cross bar connecting the ends of the arms remote from said axis, means on the cross bar for supporting a load to be hoisted and operating means for swinging said lever and arm assembly about the pivot axis of the lever devices to move the arms between approximately horizontal and upstanding attitudes.

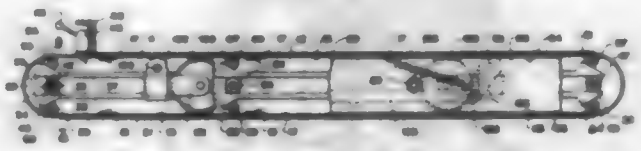
2,873,870

HEAVY LOAD TRANSPORTER HAVING TRACTION BELTS

James D. Sowerby, Vancouver, British Columbia, Canada

Application June 11, 1956, Serial No. 590,746
23 Claims. (Cl. 214—83.26)

1. In a heavy load transporter, a frame upon which a load may be placed, said frame having a non-rotatable bottom for frictionally engaging the ground on which the transporter is located, a movable endless traction belt having upper and lower runs extending longitudinally of the frame and movable vertically above the top and bottom respectively of the frame, said upper belt run being below the frame top when the bottom run is below the frame bottom and vice versa, and means for selectively moving the upper belt run above the frame top and the bottom belt run below the frame bottom, said



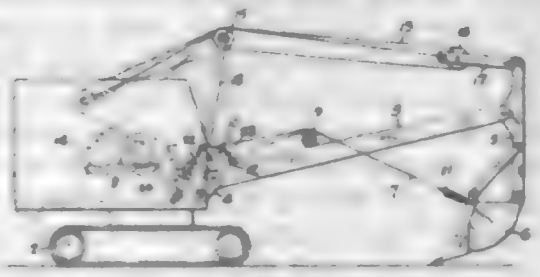
frame engaging the ground to prevent movement of the transporter when the belt runs are moved upwardly and being lifted off the ground when said runs are moved downwardly, the upper belt run when moved above the top of the frame being adapted to receive and convey a load longitudinally of the frame and depositing said load on the frame when moved below the frame top.

2,873,871

BOOM LOCKING APPARATUS FOR A BACK HOE

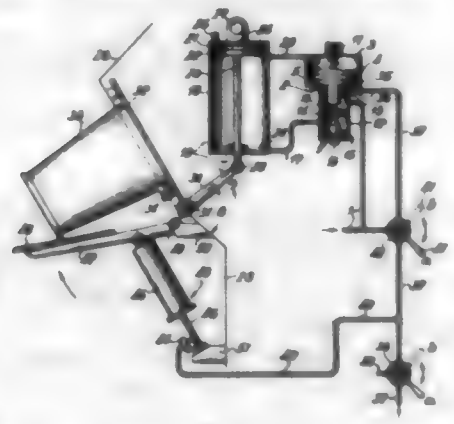
John P. Waite, Milwaukee, Wis., assignor to J. P. Waite, Inc., Milwaukee, Wis., a corporation of Wisconsin

Application July 5, 1955, Serial No. 519,986
4 Claims. (Cl. 214—138)



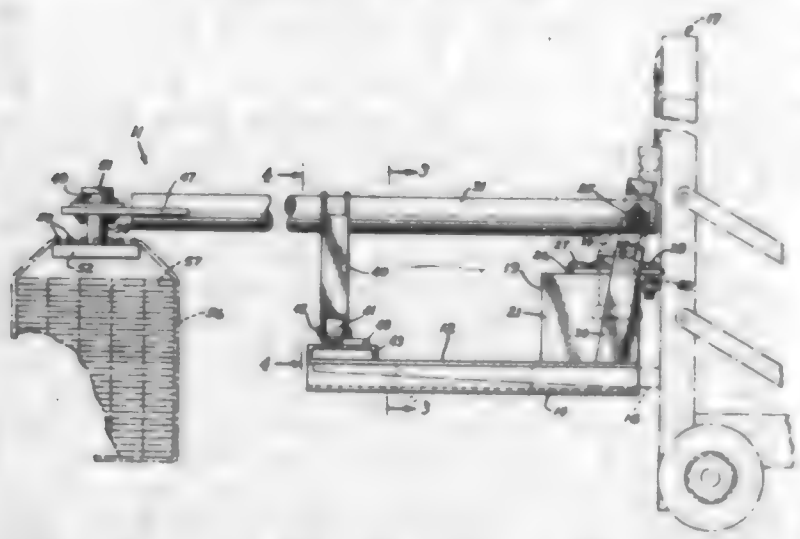
3. In a power operated excavator, a plurality of longitudinally spaced ground supports, a frame structure supported by said ground supports, a boom structure pivotally connected to the frame structure for movement in a vertical plane, a digging implement pivotally connected to the boom structure for movement in a vertical plane and for ground contact forwardly of the ground supports, power means to pivot the boom structure, power means to pivot the digging implement, a cylinder containing a fluid and pivotally connected to one of said structures, a piston freely slidable within said cylinder, a piston rod connected to the piston and extending through an end of the cylinder and having the outer end thereof pivotally connected to the other of said structures, conducting means providing communication between the opposite end portions of said cylinder with the fluid being free to flow from one end portion of the cylinder through said conducting means to the opposite end portion of the cylinder as the piston moves within the cylinder, said cylinder and said piston being separated from said first named power means and said piston being adapted to move relative to the cylinder as the boom structure is pivoted by said first named power means, and normally open valve means associated with said conducting means to normally permit free flow of fluid through said conducting means during pivotal movement of said boom structure and to restrict the flow of fluid through said conducting means when closed and lock the boom structure with respect to the frame structure and prevent pivotal movement therebetween, whereby when the digging implement is pivoted relative to the boom structure to produce an upward reaction of the ground on the digging implement, such pivoting will tend to elevate the boom structure and the forward ground supports to transfer weight from said forward ground supports to the digging implement.

2,873,872
DEVICE FOR SWINGING THE FRONT PLATE ON DUST BIN EMPTYING ARRANGEMENTS
Hans Zöller, Laubenheim (Rhine), Germany
Application May 27, 1958, Serial No. 738,106
Claims priority, application Germany May 31, 1957
17 Claims. (Cl. 214—303)



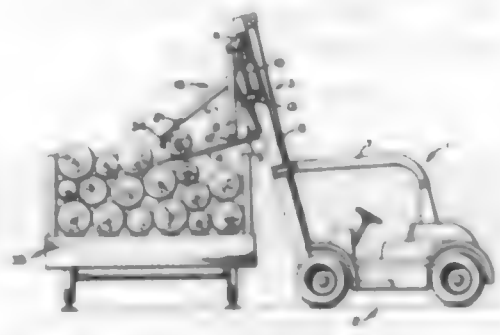
1. A device for swinging the front plate on refuse collecting carts, comprising in combination an emptying chute arrangement, a carrier pin at the lower end of the mouth of said chute arrangement, a front plate pivotally mounted on said pin, a return swing device operatively connected with the front plate, said return swing device including a return swing cylinder, a return swing piston reciprocating in said return swing cylinder and having mounted at one side thereof one of the ends of a piston reciprocating in said return swing cylinder and havreturn swing cylinder for actuating the front plate, a compressed air feed conduit leading to the return swing device, a pneumatically-actuated control valve between the return swing cylinder and the compressed air feed conduit to control the feed of compressed air to the return swing cylinder, said control valve having an exhaust leading into the open and first means to relieve the pressure in said return swing cylinder during the swing-in movement of the front plate after said plate with a dust bin thereon has swung through a small angle into the emptying chute arrangement, and second means in said control valve to connect the piston rod side of the return swing piston with the compressed air feed conduit for swinging the front plate back by means of the return swing device, the compressed air feed and exhaust for the return swing device being controlled by said control valve in dependency upon the movements of said return swing device.

2,873,873
BOOM ATTACHMENT FOR FORK LIFT TRUCK
Jesse C. Fowler, Williams, Ariz.
Application November 19, 1957, Serial No. 697,474
5 Claims. (Cl. 214—620)



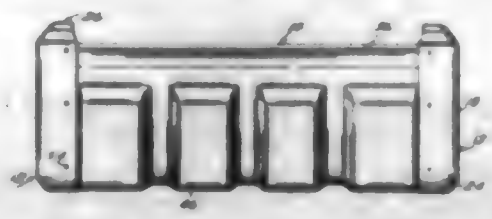
1. A boom attachment for a fork lift truck comprising a base having sleeve-like portions adapted to receive the fork elements of a fork lift truck, upstanding bracket means on the rear end portion of said base, a vertical swivel bushing on said bracket means, means for securing the upper end portion of said bracket means to the frame of the lift truck, a horizontal boom, a swivel bracket, means pivotally connecting the rear end portion of said boom to said swivel bracket for rotation on a transverse horizontal axis, a vertical swivel bolt extending through said swivel bracket and swivel bushing and connecting said swivel bracket to said bushing for rotation around a vertical axis, an upwardly concave, transversely extending support platform on the forward end portion of said base, a depending vertical support member rigidly secured to said boom over said platform, roller means journaled to the vertical support member and supportingly engaging said platform, and a load carrier member rotatably connected to the forward end portion of said boom.

2,873,874
POLE HANDLING APPARATUS
Charles W. Best, Lafayette, Joe T. Napier, Camarillo, and Jess F. MacMurray, Alameda, Calif., assignors to J. H. Baxter & Co., San Francisco, Calif., a corporation
Application June 28, 1957, Serial No. 668,709
4 Claims. (Cl. 214—654)



1. In combination with a fork lift carrier having a pair of generally horizontal, load-supporting forks projecting from one side of a generally vertical backing member and a pair of kicker arms movable along said forks for ejecting a load therefrom, a hold down device, comprising: a pair of elongated, spaced hold down arms projecting from said one side of said backing member and swingably mounted thereon at a location spaced upwardly from said forks for swinging in generally vertical arcs toward and away from said forks, and power means connected to said arms for so swinging the same, whereby an elongated load may be held at the outer end of said forks by said kicker arms and said hold down, the outer free ends of said hold down arms being curved toward said forks.

2,873,875
LUG BOX
William B. Layton, Jr., and Delmar S. Miller, San Anselmo, and Robert W. Smith, San Rafael, Calif., assignors to Dumont Corporation, San Rafael, Calif., a corporation of California
Application April 23, 1956, Serial No. 580,101
4 Claims. (Cl. 220—4)



1. A lug box of the character described having a pair of end wall elements and a pair of members each including a side-wall and an integrally formed approximately one-half width of a bottom wall, the longitudinal edge portion of each of said bottom half walls having a transverse notch medially of the ends thereof with the

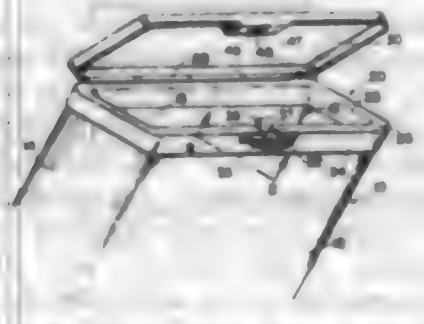
portions on opposite sides of said notch being in parallel planar offset relationship, means securing said edge portions of the respective members together in interlocking relation, said end elements having inwardly directed lower and side flanges, the transverse edges of said bottom wall portions being deformed to provide parallel offsets with the amount of offset being substantially the thickness of said lower flanges, and the side wall edges being deformed to overlap with said side flanges, and means securing said flanges to the edges of said bottom and side walls respectively.

2,873,876

COMBINED CIGARETTE CASE AND CLOSURE MEANS

Georg Reitzel, Altenmittlau Kreis Gelnhausen, Germany, assignor, by mesne assignments, to Randolph-Rand Corporation, New York, N. Y., a corporation of New York

Application July 2, 1957, Serial No. 669,494
3 Claims. (Cl. 229—35)



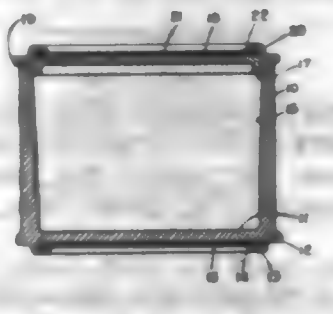
1. In combination with a case having spaced walls defining a storage compartment with an enlarged opening for removably receiving a cigarette package, a closure assembly for said enlarged opening including an annular base frame of substantially U-shaped cross section having spaced parallel sides and a connecting base wall receiving said opening defining portions of said compartment walls, a cover member hingedly connected to one end of said base frame for selective pivotal movement between an open and a normally closed position relative thereto, latch means associated with said cover member and said base frame for controlling said pivotal movement of said cover member, said latch means including a latch hook at one end and a finger pressure plate at an opposite end, one of said spaced parallel sides defining a longitudinal slot at least as long as said finger pressure plate, said connecting base wall defining a rectangular cutout at least as long as said latch hook in direct communication with said longitudinal slot, said latch plate being movable within the plane of said base frame transversely with respect to said one parallel side into assembly therewith, said rectangular cutout receiving said latch hook perpendicularly therein, said longitudinal slot receiving the adjacent portions of said finger pressure plate, said latch hook extending perpendicularly outwardly from one side of said latch plate and opening toward said one end of said plate, a leaf spring extending along an opposite side of said latch plate securing said latch plate within said base frame and yieldably preventing pivotal movement of said latch plate away from said connected base wall from a normal cover engaging position to a manually actuated cover released position, the ends of said leaf spring being secured to said connecting base wall of said U-shaped base frame, the intermediate portion of said leaf spring underlying said latch plate adjacent to one side thereof, said latch plate being confined between said leaf spring and said connecting base wall of said U-shaped base frame, and said one side of said latch plate comprises fulcrum lug means extending outwardly therefrom in a direction opposite to that of said latch hook, said fulcrum lug means engaging the other one of said spaced parallel sides of said frame.

2,873,877

LABELED PLASTIC CONTAINERS

Louis H. Morin, Bronx, N. Y.

Application August 11, 1955, Serial No. 527,747
4 Claims. (Cl. 220—44)



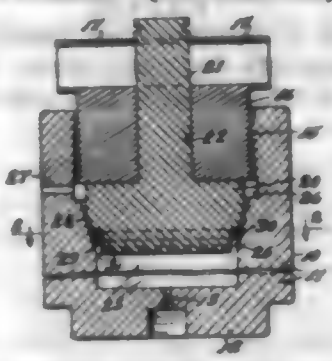
1. A container of transparent plastic for holding and displaying an article, said container being defined by side walls and having an open end and an opposite end closed by an integrally-formed bottom wall, an integral label-retaining flange on the outer side of said bottom wall adjacent the periphery thereof, a paper label mounted on said bottom wall and secured thereto by means of said flange, said label having a legend for identifying said article, said label being substantially coextensive in size and shape with the size and shape of said opposite end of the container; a cover of transparent plastic for said open end of the container, said cover having on the outer side thereof an integral label-retaining flange adjacent the periphery thereof, a paper label mounted on the cover and secured in place by said cover flange, said label being substantially coextensive in size and shape with the size and shape of said open end of the container, said cover having a vent of reduced size opening substantially centrally therein, an integral label-retaining flange on the cover around the periphery of said vent, said label having a central opening substantially coextensive in size and shape with said vent opening, said last-mentioned flange extending through said label opening and serving to secure said label to said cover; and said bottom wall and said cover each having a plurality of weight-reducing, plastic-saving apertures circumferentially spaced therein.

2,873,878

SEALS FOR PRESSURE VESSELS

Robert C. Wolf, Harboro, and John C. Bowen, Davisville, Pa., assignors to Pressure Products Industries, Inc., Harboro, Pa., a corporation of Pennsylvania

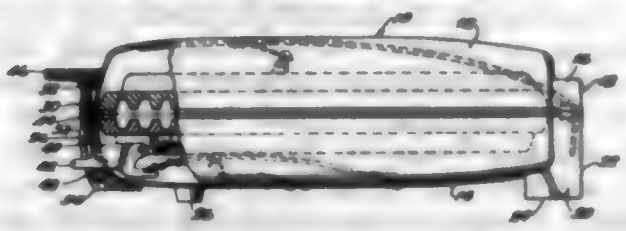
Application April 4, 1957, Serial No. 650,729
8 Claims. (Cl. 220—46)



1. A seal for pressure vessels and the like comprising a first metallic member having a continuous curved outwardly flaring frusto-conical surface portion, a second metallic member to be sealed with respect to said first member having a step spaced from said surface portion, said step having a curved surface, a metallic sealing ring interposed between said members for sealing engagement therewith, said ring having an outer curved peripheral surface in linear engagement with said surface portion and an inner curved surface in linear engagement with the surface of said step, and members for urging said second member towards said first member for sealing engagement of said ring, said ring in sealing position being so located with respect to said frusto-conical surface portion and said

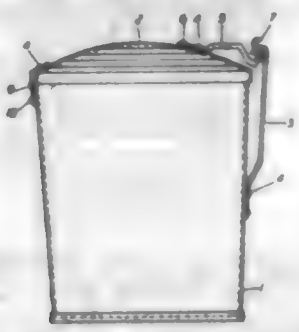
curved surface of said step that a perpendicular to said surface portion from the location of engagement of said inner curved surface intersects said surface portion to one side of the location of engagement of said outer curved surface with said frusto-conical surface portion.

2,873,879
LATCH CONSTRUCTION FOR AN AUTOMATICALLY OPENING COOKING APPLIANCE
Walter E. Moore, St. Louis, Mo., assignor to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware
Application April 18, 1955, Serial No. 502,150
4 Claims. (Cl. 220—55.7)



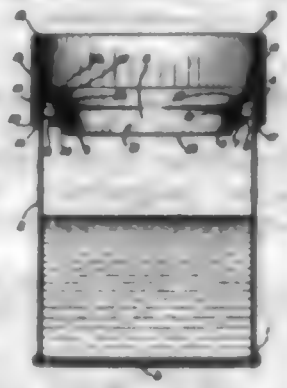
1. An appliance for cooking or the like comprising a base, a cover cooperating with said base to define a cooking space therebetween, said cover being hingedly connected to said base and adapted to be positioned in relative closed engagement therewith during cooking operation of the appliance, cooperating latch elements including an inwardly flanged member carried by said cover and a flange-receiving slot formed on said base cooperating to retain said cover in closed engagement with said base when so positioned, a latch release member carried by the base and extending outwardly therefrom, said inwardly flanged member being bifurcated to receive therein said latch release member when the appliance is properly closed during a cooking operation, and a pair of guide brackets externally carried by said cover and said base respectively and having cooperatively mating portions operative independently of said latch elements for aligning said cover relative to said base and for aligning the bifurcated latch member with said latch release member during closing movement thereof, said guide brackets being so mounted as to effect full contacting engagement of said mating portions and to protectively overlie said latch elements when said base and cover are in closed engagement.

2,873,880
COMBINED GARBAGE CAN HANDLE AND LATCH
Ernest A. Poules, Montgomery, Ala.
Application July 15, 1957, Serial No. 671,916
1 Claim. (Cl. 220—55.7)



A combined garbage can handle and latch of the character described in combination with a garbage can having a lid, said handle and latch comprising a comparatively long strip of metal, one end of the strip being attached to a side of the can and bent to form space between the can and the strip, the other end of the strip being bent partly toward the can and then bent upward to thus form a latch portion; a second piece of similar metal strip, said second strip having one end attached to the can lid and bent away from the lid to form space between the lid and the piece, the other end being bent upward and then toward the center of the lid to thus form a companion latch portion to fit under the latch portion on the handle strip; said parts being attached in tension to hold same together when the lid is closed; a hinge attached to the lid and upper edge of the can.

2,873,881
CONTAINER RIM PROTECTOR
Frank C. Nichols, Lee's Summit, Mo.
Application November 13, 1957, Serial No. 696,218
2 Claims. (Cl. 220—90)

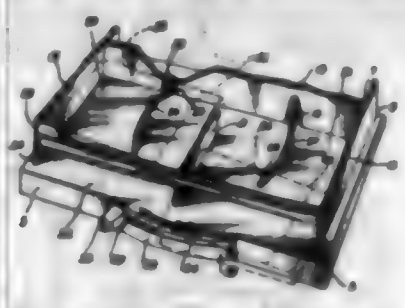


2. A unitary protector attachment of resilient material for containers having a cylindrical side wall and a rim flange with an annular groove extending around the container opening at one end of the container for receiving a cover member comprising, a continuous cylindrical tubular wall having a lower portion to be sleeved over the upper portion of the container side wall in gripping engagement therewith, a top wall extending downwardly and inwardly from said tubular wall and over said rim flange and in upwardly spaced relation to said rim flange of the container when applied thereto, an upstanding annular wall extending above said top wall in an upward continuation of said tubular wall, an inner wall depending from the top wall inner edge and arranged for insertion through the container opening to depend therebelow in gripping engagement with said rim flange, said inner wall having an exterior tapered downwardly from a location intermediate the length thereof for facilitating insertion through the container opening, said lower portion of the tubular wall having an interior tapered downwardly from a location intermediate the lower end and the top wall for facilitating sleeving over the container side wall, said tubular wall and inner wall being adapted to wedgingly engage the container side wall and edge of the rim flange defining the container opening for sealing engagement therewith, said inner wall having a circumferential groove for receiving the inner edge of the rim flange, said inner wall defining the opening for access to the interior of the container, said top wall forming a ledge thereon for use in supporting the bristle end of a wet brush while the handle of the brush rests on the top of said upstanding annular wall at the opposite side thereof whereby any liquid draining from the brush will return to the container.

2,873,882
MATCH BOOK DISPENSER
Jarvd G. Feuts, Wichita, Kans.
Application May 8, 1957, Serial No. 657,975
2 Claims. (Cl. 221—116)

1. A dispenser for book matches comprising, a base having a top and bottom providing a compartment therebetween, a housing on said base having a central vertical partition for containing parallel columns of said book matches and a back wall having outwardly extending vertical sockets adjacent the base, the base extending forwardly of said housing and the front side of the housing being cut away forming openings through which the matches are dispensed, a dispensing member in said compartment rotatably attached to the base, an arm on

the dispensing member extending forwardly of the base for rotating said dispensing member, said top of the base having spaced curved slots transversely thereof ex-



tending into said vertical sockets, pins on said dispensing member extending through said slots for engaging said book matches for moving the same forwardly through the openings in the front of the housing.

2,873,883

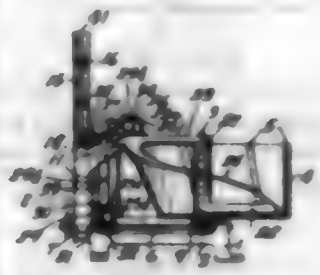
MECHANISM FOR SEGREGATING AND ARRANGING COPS AND THE LIKE, IN AN ORDERLY MANNER

Walter Schweiter, Horgen, Switzerland, assignor to Maschinenfabrik Schweiter A. G., Horgen, Switzerland, a corporation

Original application May 24, 1947, Serial No. 750,271. Divided and this application February 12, 1953, Serial No. 336,615

Claims priority, application Switzerland June 5, 1946

1 Claim. (Cl. 221—171)



A mechanism for supplying cops from a rotatable drum in orderly fashion to collector means; comprising a drum, drive means for imparting rotation to said drum, said drum having an inner wall provided with slats, said slats being arranged in spaced apart relation to each other on said inner wall, a curved radially extending stationary beam located in said drum and directed toward said inner drum wall, an inclined guide rail gradually rising from said stationary beam along an inclined path conformed to said inner wall spaced from said slats forming a V-shaped channel between said guide rail and said inner wall, so that upon rotation of said drum cops are directed from said stationary beam onto said guide rail and by action of said slats along said channel toward the top end of said guide rail, a chute extending downwardly and exteriorly of said drum from said top end of said guide rail toward said collector means, a gate located between said guide rail and said chute, a plate located adjacent said gate sweeping said guide rail, a cam mechanism operatively connecting said drive means to said gate, said plate deviating predetermined cops off said guide rail into said drum, said gate being raised in timed relation to the rotation of said drum and movement of said slats by said cam mechanism to thereby permit the foremost cop arrived at said top end of said guide rail to pass under said gate for discharge into said chute.

2,873,884

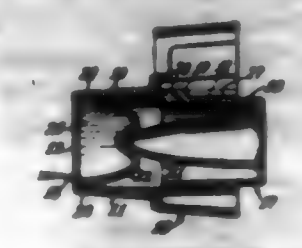
SQUIRTING CAMERA

Adolph E. Goldfarb, North Hollywood, and Henry G. Saperstein, Los Angeles, Calif.

Application November 5, 1956, Serial No. 620,494

4 Claims. (Cl. 222—78)

1. A liquid squirting device comprising a barrel provided with a pinhole through a front wall thereof, a resilient thimble of generally conical type positioned in the front end of the barrel and forming with the front wall thereof a liquid-tight chamber communicating with the atmosphere through the pinhole, and a projection means slidably mounted in the barrel and extending into the



rear of the barrel to the thimble for squeezing liquid from the chamber through the pinhole as the projection means is forcefully slid into the barrel, said thimble normally urging said projection means out of said barrel and toward said rear thereof.

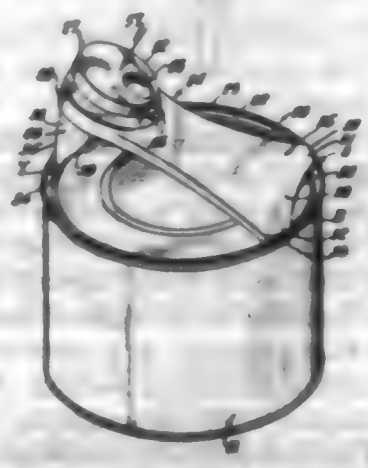
2,873,885

CAN PIERCING AND DELIVERY DEVICE

Karl Heller, Jersey City, N. J.

Application October 3, 1957, Serial No. 688,809

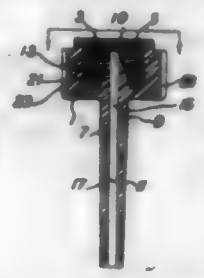
7 Claims. (Cl. 222—81)



1. A can piercing and delivery device for a tin can and the like having a lateral top of certain width circumscribed by an upstanding rim bead and comprising, in combination; a lever member to be loosely seated upon such a can top and having at one end thereof a relatively wide bearing foot structure having at least a pair of transversely-spaced areas for contact of the can top at relatively widely spaced points adjacent the inner side of such rim bead; a depending, hollow, beak-like piercing blade carried by the other end of said lever member and having a convexed nib in side profile which terminates in a lower, sharp, hole-starting tip for contact of the can top radially inward at an appreciable distance from the rim bead across from the points of foot contact with said lever member resting obliquely upon said can top, said blade being chiefly defined by laterally-spaced sidewalls which gradually diverge laterally back away from the line element which defines the forward side profile thereof with the bottom edges of said sidewalls being sharp to serve as shearing edges and having appreciably shorter generally vertical rear edge portions provided with substantially aligned transverse faces with said sidewalls and the transverse faces of said rear edge portions extending substantially normal from the underside of said lever member at the root of the blade to form in the can top a hole when said lever member is swung downward to abutment of said can top about an axis through the laterally-spaced points of foot contact with the edges of the pierced hole snugly contacting the exterior of the root of said blade at substantially all lateral points adjacent the underside of said lever member for frictional retention of said blade in the pierced hole, the lateral profile of the projection of said bottom shearing edges in the can top plane which includes the blade tip and

lever member contact areas being of substantially the same shape and size as the lateral cross-section of the blade at its root, the interior of said hollow blade providing a portion of an outlet passage with said lever member having an outlet hole extending upwardly therethrough and communicating with the interior of said blade to form another portion of the outlet passage; and manually manipulatable closure means carried by said lever member to open and close the outlet passage at will.

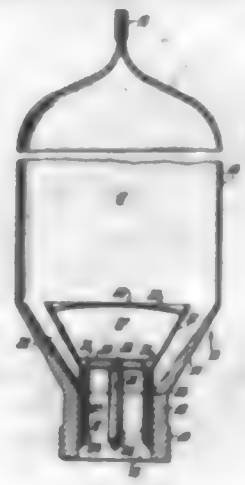
2,873,856
DISPENSER
John J. Miskel, Brooklyn, Hugh Horner, Merrick, and Eugene J. Kainin, Jackson Heights, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware
Application July 29, 1954, Serial No. 446,602
2 Claims. (Cl. 222—91)



1. A dispenser for maintaining and delivering a medicament under antiseptic conditions comprising a collapsible container including an externally threaded neck sealed by a thin sealing member, a tube having a thick wall, one end of said tube being tapered at a relatively shallow angle to provide an elongated nozzle, the other end of said tube being tapered at a relatively steep angle to provide a truncated conical projection, a cap including an internally threaded skirt for engaging the externally threaded neck of said collapsible container, said cap and tube being integrally molded with the widest portion of said tube being attached to said cap with said conical projection extending a predetermined distance inside said skirt and said nozzle extending externally from said cap, the threads of said cap being engaged with said externally threaded neck, the length of said threads and the skirt of said cap being sufficient to permit said threads to remain engaged with each other while said conical projection is maintained outside of said unbroken sealing member, a removable cover applied over said nozzle to prevent contamination prior to use, the length of said threads and said conical projection being constructed and arranged to permit said projection to puncture said sealing member and enter fully into said neck when said threads are fully engaged with each other, and an annular resilient gasket being disposed about the base of said projection within said cap to seal the base of said cap to the outer edge of said neck of said tube to prevent leakage of said contents through said engaged threads when said cap is fully engaged with said neck to puncture said sealing member and said container is collapsed to discharge its contents through said nozzle.

2,873,857
DEVICE FOR DISPENSING STRIPED MATERIALS
John J. Spero, Mount Vernon, N. Y., assignor of one-half to Leonard L. Marraffino
Application April 24, 1957, Serial No. 654,689
14 Claims. (Cl. 222—94)

1. A device for dispensing a plurality of materials simultaneously which includes means defining a chamber, a discharge passageway communicating with said chamber, a vessel supported in said chamber adjacent to and spaced from the inner end of said discharge passageway, a leg on said vessel extending into said discharge passageway and having a conduit therethrough communicating between said discharge passageway and the interior of said



vessel, and means communicating the interior of said vessel with the interior of said chamber.

2,873,885
MEANS FOR DISPENSING THE CONTENTS OF COLLAPSIBLE TUBES
Clifford J. Nelson, Washington, D. C.
Application March 12, 1957, Serial No. 645,458
4 Claims. (Cl. 222—99)

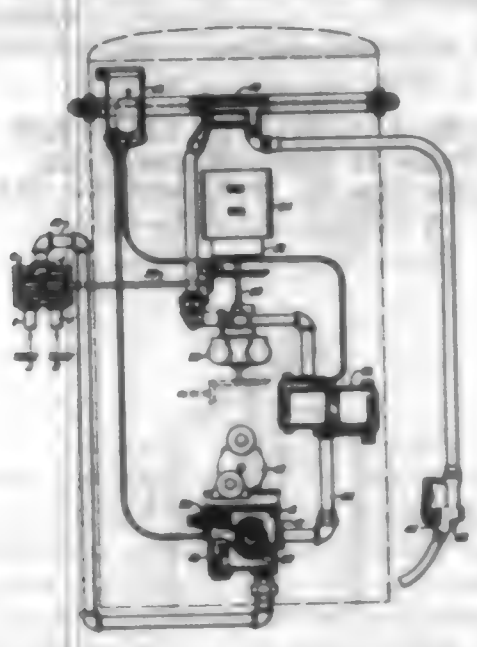


1. In a collapsible tube having a collapsed end, a dispensing head on its opposite end and a cap removably mounted on said dispensing head for closing the same; the improvement comprising means secured transversely across the collapsed end of said tube around which the latter can be wound, said means having a length not greater than the width of said collapsed tube end so as to permit said tube with said means secured thereto to fit within a close tolerance container arranged to fit said tube without said means secured thereto, and means removably carried by said cap adapted to be connected with an end of said first-mentioned means for turning the latter so as to wind the collapsed end of said tube therearound either with said cap mounted on the dispensing head of said tube or removed therefrom.

2,873,887
FLUID PROPORTIONING APPARATUS
Ernest A. Mori, Pittsburgh, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application December 31, 1956, Serial No. 631,672
7 Claims. (Cl. 222—134)

1. A fluid proportioning apparatus comprising a main supply conduit, a plurality of branch supply conduits connected to said main supply conduit and to separate sources of supply, proportioning means comprising positive displacement pump means associated with each of said branch supply conduits and adapted to cause flow in the direction of the main supply conduit, a positive displacement dispensing pump connected on its suction side to said main supply conduit and connected to a dispensing conduit on its discharge side, bypass means for recirculating pumped fluid in excess of the volume dispensed from the system from the discharge side of the dispensing pump

to the suction side of the pump, a substantially constant speed motor for driving said dispensing pump, a hydraulic motor operatively associated with said dispensing conduit, means associated with said hydraulic motor adapted to drive the proportioning means whereby a total of one



volume of fluid is caused to flow through the proportioning means for each volume of fluid that is caused to flow through the hydraulic motor, and a delivery valve in said dispensing conduit adapted to control flow through said conduit.

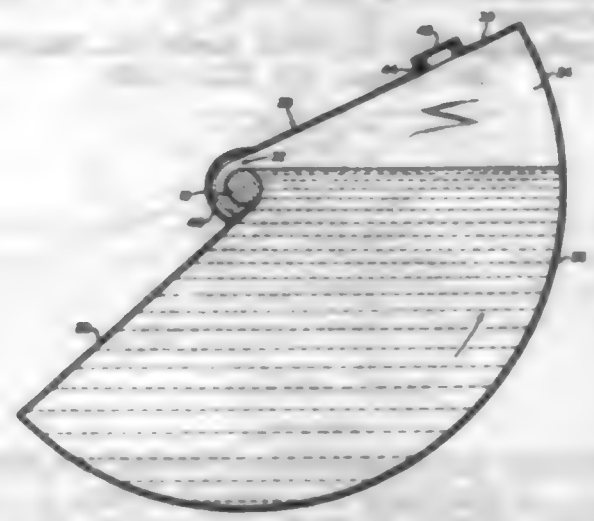
2,873,890
DISPENSER FOR COMMINUTED COMMODITIES
Arnold Starkenberg, Brooklyn, N. Y.
Application May 27, 1957, Serial No. 661,806
7 Claims. (Cl. 222—136)



1. A dispenser for a comminuted commodity comprising a container portion for said commodity, and a neck element extending from and integral with said container portion, an opening in said container portion through which said commodity may be introduced into said container, means for releasably sealing said opening, an egress aperture in said container portion through which said commodity may be discharged, a string, and means within said dispenser for supporting the ends of said string, said string otherwise being free, whereby vibrations may be induced in said container portion when said string is plucked.

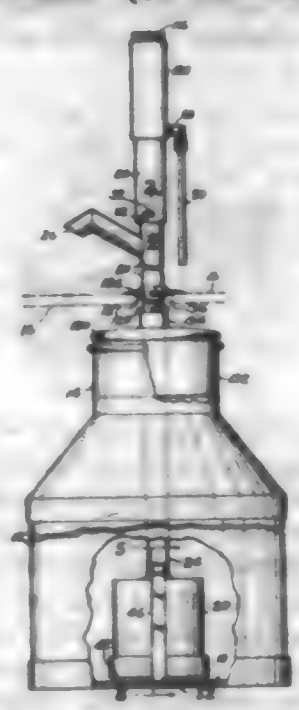
2,873,891
CONTROLLED RATE FLUENT MATERIAL FEEDER
Albert E. Pearce, North Charleston, S. C., assignor to West Virginia Pulp and Paper Company, New York, N. Y., a corporation of Delaware
Application October 25, 1957, Serial No. 692,411
10 Claims. (Cl. 222—144)

1. A controlled rate liquid feeder comprising, in combination, a horizontal shaft, a sector-like tank supported on the shaft, comprising parallel end walls located respectively at closed and discharge sides of the tank, a cylindrical peripheral wall, coaxial with the shaft, and two generally radial boundary walls disposed in planes substantially tangent to the shaft, one of said boundary walls extending into engagement with the shaft and forming a sealed joint therewith, and the other boundary wall terminating short of the shaft to leave a space for liquid to pour over the shaft and be discharged progressively as the shaft is turned in one direction, a discharge sleeve segment coaxial with the shaft, having a sector portion which extends in coaxial relation to the shaft between the end walls, said sleeve sector portion extending through the end wall at the discharge side of the tank and including a discharge end portion therebeyond, but being con-



tinuously connected in sealing relation with both boundary walls and with the closed end wall, and means for driving the tank at a controlled rotary speed in the direction to progressively discharge the contents of the tank over the shaft, the construction and arrangement being such that a liquid surface of constant area is maintained in a horizontal plane tangent to the shaft at the upper side thereof, so that equal quantities of liquid will be delivered over the shaft for equal increments of rotation of the shaft.

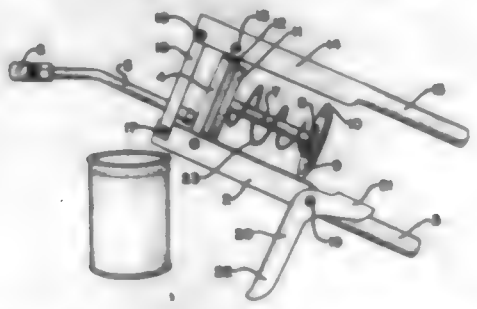
2,873,893
DISPENSER FOR LIQUIDS
Victor A. Nelson, Portland, and Tony Rogers, Milwaukie, Oreg.
Application December 10, 1956, Serial No. 627,169
5 Claims. (Cl. 222—309)



1. A dispenser for liquids, comprising a dispenser pump cylinder having top and bottom end closure members, an inlet opening in the bottom end closure member, an outlet opening in the top end closure member, an outlet tube secured to the top end closure member and communicating with said outlet opening, a container having a bottom end and an open top end of larger dimension than the dispenser cylinder, whereby to receive the latter therethrough for support upon the container bottom, a container cap having a central hollow hub for receiving the outlet tube freely therethrough, a downwardly tapered wall on the

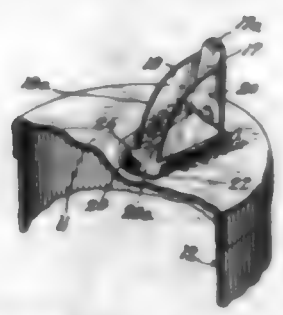
container cap for frictionally engaging the inner surface of the container top opening, and downwardly projecting foot elements on the bottom end closure member for elevating the latter above the container bottom.

2,873,893
GREASE GUN
Richard R. Farrell, Aspinwall, Pa., assignor to Universal Lubricating Systems, Inc., Oakmont, Pa., a corporation of Delaware
Application May 21, 1956, Serial No. 586,024
10 Claims. (Cl. 222—326)



1. A grease gun comprising a portion adapted to be applied to an opening in a container containing grease to substantially seal with the container, a plunger connected with said portion and adapted to enter the container and substantially seal against the inner wall thereof so as to force grease in the container away from the opening, spring means adapted to urge the plunger into the container, the plunger having a passage therethrough through which grease from within the container may pass, a grease delivery portion and a conduit communicating with the passage through the plunger and with the grease delivery portion to convey to the grease delivery portion grease passing through the passage in the plunger.

2,873,894
DISPENSING APPARATUS
William J. Eckles, Anaheim, Calif., assignor to Morton Salt Company, Chicago, Ill., a corporation of Illinois
Application July 5, 1957, Serial No. 670,253
3 Claims. (Cl. 222—480)



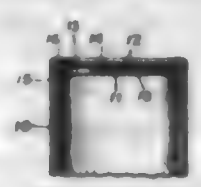
1. A dispensing apparatus for use with a container having a surface provided with a primary aperture and a plurality of secondary apertures adjacent one side of such primary aperture, said apparatus comprising a pivotally mounted spout member positionable adjacent a second side of the primary aperture and adapted, when in one position of pivotal adjustment, to overlie and close off the primary aperture, said spout member having a side section extendable through the primary aperture and contiguous to a side of the primary aperture adjacent the secondary apertures, and a second member mountable on the container surface portion circumjacent the primary aperture for slidable movement toward and away from the pivotal axis of said spout member, said second member being continuously in partial encompassing relation with said spout member and, when actuated in a direction toward said spout member axis frictionally accommodating the side section of said spout member in a pocket formed in said second member, said second member including a perforate first portion having the perforations thereof registrable with the surface secondary apertures, only when said second member is in locking engagement with said spout member, and a second portion positionable intermediate said spout member side section and the contiguous primary aperture side and in frictional engagement therewith.

2,873,895
TUBE AND BOTTLE CLOSURES
Walter D. Dunn, Malden, Mass.
Application May 31, 1957, Serial No. 662,819
4 Claims. (Cl. 222—522)



1. A removable dispensing closure, positioned in the neck of a collapsible tube receptacle, comprising a frustro-conical retaining plug with a cylindrical bore fitting tightly into the neck of said receptacle, a hollow cylindrical feeder tube having in its side a dispensing orifice, the longitudinal bore of said plug slidably enclosing said feeder tube, the upper end of said tube terminating in a frustro-conical air tight stopper positioned within and sealing the neck of said receptacle, the lower end of said feeder tube being open and terminating in an annular transverse tube check, the top of said plug being positioned within said neck a distance from the top surface of said neck equal to the depth of said stopper, the taper on the sides of said plug being a straight line extension of the taper on the sides of said stopper, the application of external digital pressure to said collapsible tube receptacle forcing the contents up through said feeder tube when said closure is in open position.

2,873,896
ROTARY SHAKER TOP
Charles Kenneth Swartz, Scranton, Pa., assignor to Consolidated Molded Products Corporation, Scranton, Pa., a corporation of Delaware
Application March 7, 1957, Serial No. 644,579
6 Claims. (Cl. 222—548)



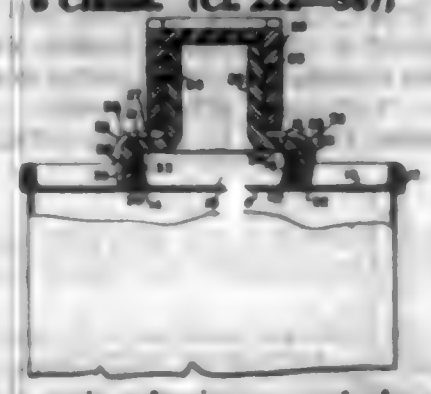
1. A container comprising a hollow receptacle, an inner closure member having a pouring opening therein fixed to one end of said receptacle, an outer closure member engaging said inner closure member and rotatable relative thereto, said outer member having an opening therein movable into and out of alignment with the pouring opening in the inner member, a detent extending from one of said closure members to one side of the axis of rotation of said outer member, a circular groove in the other closure member receiving said detent slidably, and projections on said other closure member extending into and spaced apart along said groove for engaging opposite sides of said detent to resist relative rotation of said closure members.

2,873,897

METAL CONTAINER HAVING A METAL PLUG AND A PLASTIC POURING SPOUT SURROUNDING SAID PLUG

Raymond H. P. Knessel, Flourtown, Pa., assignor to Crown Cork & Seal Company, Inc., Philadelphia, Pa., a corporation of New York

Application June 14, 1955, Serial No. 515,346
6 Claims. (Cl. 222—567)



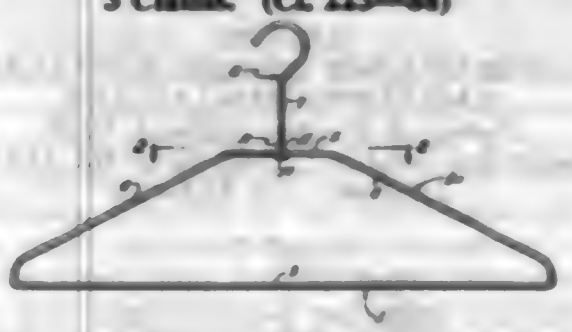
1. A metal container having an end, the metal of said end being turned upwardly into an upstanding wall defining an opening, a closure in said opening having a skirt and a portion continuous with the skirt and bent over upon said skirt, the said upstanding wall being positioned between said skirt and its bent over portion, and a plastic pouring spout provided with a neck and an integral flange portion at the lower end of said neck having a depending skirt, the said last-mentioned skirt frictionally engaging the outer surface of said bent over portion of the closure skirt for the entire periphery of said bent over portion, to thereby provide a tight seal.

2,873,898

GARMENT HANGER

Gideon B. England, Los Angeles, Calif.

Application December 10, 1956, Serial No. 627,304
3 Claims. (Cl. 223—88)



1. A garment hanger comprising: a single length of wire formed as an elongated loop providing opposed upper and lower garment supporting portions; the free end portions of the wire being disposed in overlapping relation approximately centrally of the ends of the upper garment supporting portion; one of said free end portions having an outward bend extending laterally from the other free end portion to form an opening between said end portions; means securing said free end portions one to the other on opposite sides of said bend; and a hook including a shank mounted in said opening; both of said free end portions and said bend being in a plane normal to the axis of said shank.

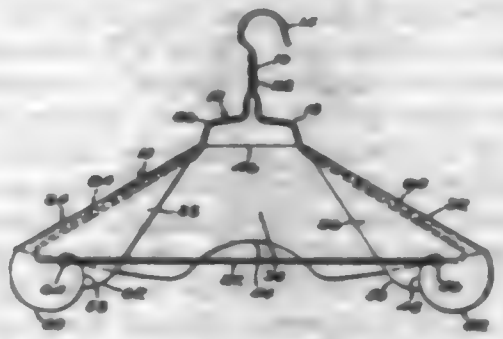
2,873,899

SHIELD FOR CLOTHES HANGERS

Herbert S. Collis, Newton, Mass.

Application November 25, 1955, Serial No. 549,837
3 Claims. (Cl. 223—98)

1. In combination with a substantially flat coat hanger having sloping shoulder portions with lower end portions maintained spaced by a predetermined dimension: a shield, formed from a blank of deformable resilient sheet material, comprising a rear section extending across the rear of the hanger from one shoulder portion to the other, a pair of front sections disposed on the front of the hanger, and a pair of shoulder strips, each shoulder strip connecting one of said front sections to said rear section and overlying one of said shoulder portions, the blank having crease lines defining the junctions of said strips with said rear section and with the respective front sections, said rear section having a bottom portion wider than said dimension and extending sideward beyond said



end portions, said rear section being normally flat and holding said strips sideward beyond said lower end portions, and said rear section being deformable to bowed shape to permit said strips to engage said lower end portions.

2,873,900

DEVICES TO TEMPORARILY HOLD AND MANIPULATE PUNCTURING TOOLS

John N. Jackson, Port Burwell, Ontario, Canada

Application March 20, 1957, Serial No. 647,355
2 Claims. (Cl. 223—104)



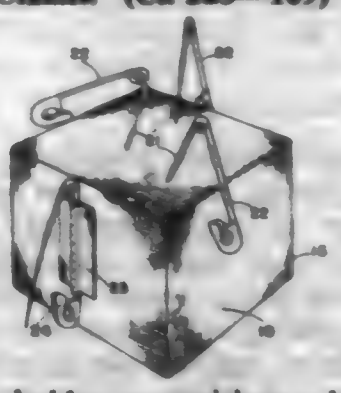
1. A tool of the class described comprising a straight tube forming a chamber of uniform diameter throughout its length, and provided with a longitudinal slot extending completely through the wall of said tube for the major portion of its length and opening through one end of said tube; a supporting ring fastened exteriorly to the other end of said tube and having a passageway therethrough in alignment with the passageway through said chamber; a straight pressure rod adapted to be moved in sliding contact with the chamber and longitudinally thereof and through said supporting ring, and a finger grip fastened to the upper end of said pressure rod, said rod being longer than said tube and being extendible through the outer end of said tube.

2,873,901

SAFETY PIN CORROSIVE INHIBITOR

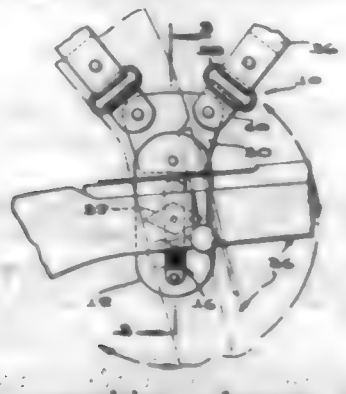
Rudolph H. Lininger, Seattle, Wash.

Application July 18, 1955, Serial No. 522,413
3 Claims. (Cl. 223—109)



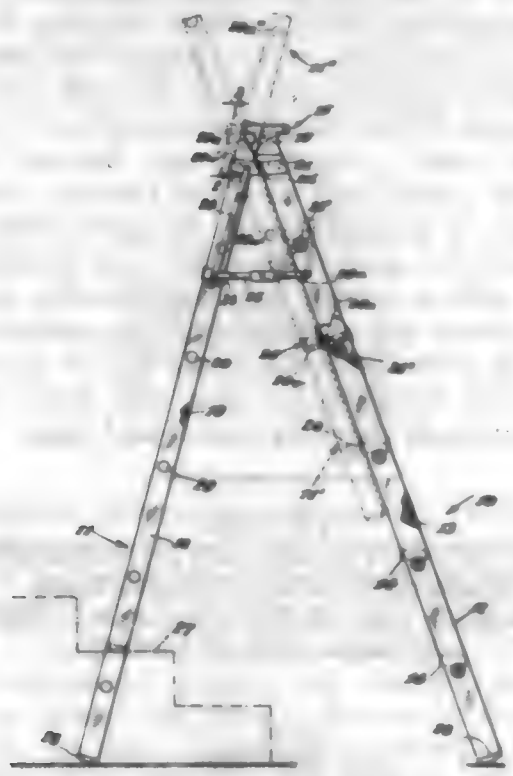
1. A diaper pin holder, compriting: a block of sponge material; a chamber in the approximate center of said block and a paste, chemical corrosive inhibitor disposed in said chamber.

2,873,902
GUN SUPPORT
Lewellin C. Decker, Sayre, Pa.
Application July 5, 1957, Serial No. 670,121
3 Claims. (Cl. 224—1)



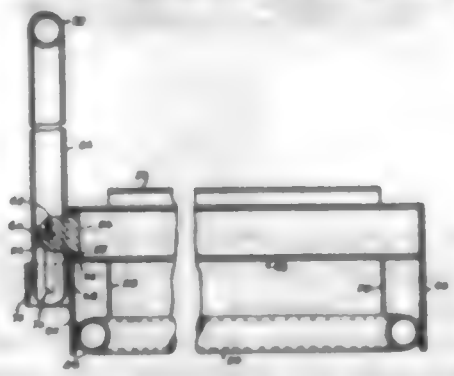
1. A support comprising a hanger plate arranged in an upright direction, a vertically disposed slideway on one face of said plate and having the upper end open, an attaching means adapted to be secured to an article to be supported, a connector projecting from said attaching means and freely insertable and withdrawable through the open end of said slideway and slidable along and rotatable in said slideway upon insertion in the latter, a vertically disposed suspension member having the lower end connected to the upper portion of said hanger plate for free rocking movement of said member about a horizontal axis, and harness means carried by said suspension member and adapted to be secured to the body of an individual.

2,873,903
CONVERTIBLE LADDERS
Conrad A. Osovski and Raymond H. Shaver, Newark Valley, N. Y., assignors to Chesebro Whitman Manufacturing Corporation, Newark Valley, N. Y., a corporation of New York
Application June 30, 1958, Serial No. 745,615
16 Claims. (Cl. 228—25)



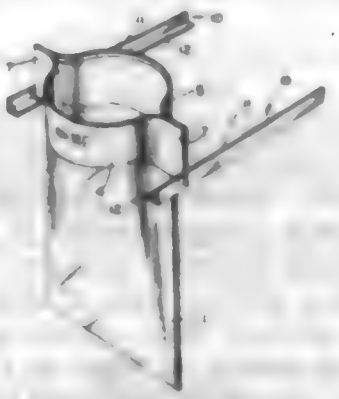
1. A convertible ladder comprising, in combination: a first section having an upper end and seats provided therein adjacent to said upper end; a second section having a plurality of spaced connecting elements each receivable in said seats; means connected with said first section for so guiding said second section that the latter is free to perform angular movements with respect to said first section and sliding movements in directions toward and away from the upper end of said first section; means connected with said last mentioned means and with said first section for limiting the angular movements of the second section with respect to said first section; and means connected with said first section and engageable with a selected connecting element for holding the second section against sliding movements away from the upper end of said first section.

2,873,904
COLLAPSIBLE HANDRAIL
Ronald R. McCormick, Dallas, Tex.
Application February 25, 1958, Serial No. 717,535
7 Claims. (Cl. 228—67)
[Granted under Title 35, U. S. Code (1952), sec. 266]



6. For use with a stairs, a collapsible handrail assembly comprising a pair of tubular members adapted for mounting on said stairs transversely thereof, an anchor slidably received in each of said tubular members, stop means retaining said anchors in said tubular members, an extension member on each of said anchors, said extension members being extensible beyond the ends of said tubular members, a pair of standards, means pivotally and slidably mounting one end of each of said standards on said extension members, and a rail member mounted on the other ends of said standards.

2,873,905
BAG AND HEADER THEREFOR INCLUDING BAG SUPPORTING MEANS
Harvey R. Denton, Oakland, Calif.
Application October 3, 1955, Serial No. 537,966
5 Claims. (Cl. 229—55)



5. In a flat, vertical, bag of rectangular outline and of flexible material, having vertically extending side edges and open between said side edges for the full width of said bag along its upper end to provide an upwardly opening, horizontally extending filling and discharge mouth at said upper end, a single, horizontally elongated piece of cardboard having opposite longitudinally extending edges and opposite end edges, said piece of cardboard being of greater rigidity than the material of said bag formed with a slit extending longitudinally thereof along a straight line positioned intermediate its said longitudinally extending edges, said slit being substantially equal in length to the length of said mouth when said bag is flat with its opposite sides together and the ends of said slit terminating at points spaced from said end edges, said strip being folded along said line with the portions at opposite sides of said slit being glued to the opposite sides of said bag along said mouth, and with the integrally united portions of said piece beyond

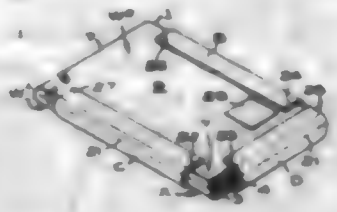
the ends of said slit being glued together and projecting oppositely outwardly of said mouth at its ends to provide supports for suspending said bag from last mentioned portion, said portions along said slit being adapted to automatically bow apart to open said mouth from end to end thereof upon the integrally united projecting ends of said cardboard being forceably moved toward each other, and said portions to the ends of said slit having sufficient inherent resiliency to automatically return to generally straight condition for substantially closing said mouth upon said integrally united ends being released for free movement away from each other.

2,873,906

COMBINED LETTER AND ENVELOPE WITH JUXTAPOSED PAIR OF THREE-PLY FOLDED CORNERS

Martin B. Loetscher, Sacramento, Calif.

Application April 16, 1957, Serial No. 653,000
1 Claim. (Cl. 229—92.1)



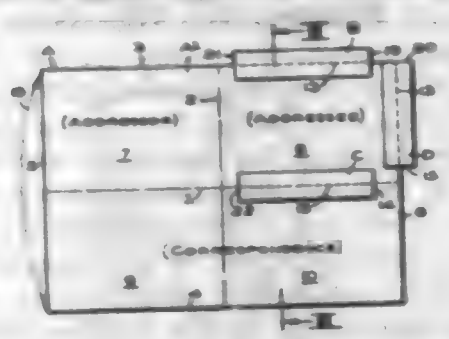
A combined letter and envelope formed from a rectangular-shaped sheet of paper, the sheet defining top and bottom edges and a pair of lateral edges, the sheet having front and rear faces, said sheet having a first horizontal fold line extending thereacross substantially one-third of the distance up from the bottom edge, and a second horizontal fold line extending thereacross substantially one-third of the distance down from the top edge, the sheet further having a vertical fold line extending between the top and bottom edges which is disposed intermediate the lateral edges, said first, second and third fold lines dividing the front face into an upper pair of areas, an intermediate pair of areas, and a lower pair of areas, the upper pair of areas of the front face being adapted to contain data as to an addressor and an addressee, respectively, the intermediate pair of areas of the front face being adapted to contain correspondence, the sheet being initially folded over the rear face of the sheet about the first horizontal fold line, the sheet then being folded over the rear face of the sheet about the second horizontal fold line so that the correspondence will be at the back of the thus folded sheet, said bottom edge of said sheet being positioned intermediate said upper and said intermediate pair of areas adjacent said second horizontal fold line and forming therewith a three ply fold, said sheet then being further folded rearwardly about the vertical fold line so that said intermediate pair of areas containing correspondence are disposed in confronting relation with one another and are concealed from exterior view, said addressor and addressees area being exposed on the thus folded sheet, the rear face of the sheet having areas corresponding with those on the front face, the lower pair of areas and the intermediate pair of areas on the rear face being adapted to contain additional correspondence; a first sealing strip secured to and extending along the top edge of said sheet along one of said upper pair of areas, said first sealing strip being folded over the top edge of the folded sheet and being secured to the other one of said pair of upper areas along its upper edge, a second sealing strip secured to and extending along the same one of said upper areas as the first said strip adjacent said second fold line, said second sealing strip being folded over said second fold line of the folded sheet and being secured to the said other of said pair of upper areas along said second horizontal fold line, a third sealing strip extending laterally of the first and said second sealing strips and being secured adjacent the edge of the same one of said upper pair of areas as the said first sealing strip and being spaced laterally from said vertical fold line, said third sealing strip being folded over the lateral edge portions of the sheet included in the addressor and addressee areas and being secured to these areas adjacent said lateral edge portions, the thus sealed sheet defining a pair of juxtaposed wings of three plies each, the second and third sealing strips terminating in spaced relation to a corner common to all of the plies at said second horizontal fold, whereby the wings may be individually gripped at the common corner and pulled apart for tearing the sealing strips and opening the envelope, at least one of said first and third sealing strips extending along the edge adjacent to which it is attached to the end thereof common to said top edge and said side edges of said sheet and covering the juxtaposed edges of said envelope thereat.

2,873,907

COMBINED LETTER AND ENVELOPE WITH JUXTAPOSED PAIR OF TWO-PLY FOLDED CORNERS

Martin B. Loetscher, Sacramento, Calif.

Application April 16, 1957, Serial No. 653,099
1 Claim. (Cl. 229—92.1)



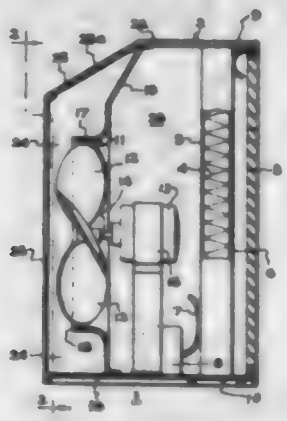
A combined letter and envelope formed from a rectangular-shaped sheet of paper, the sheet defining top and bottom edges and a pair of lateral edges, the sheet having front and rear faces, said sheet having a horizontal fold line extending transversely thereacross intermediate the top and bottom edges, and further having a vertical fold line extending between the top and bottom edges which is disposed intermediate the lateral edges; said vertical and horizontal fold lines dividing the front face into an upper pair of areas and a lower pair of areas, the upper pair of areas of the front face being adapted to contain data as to an addressor and an addressee, respectively, the lower pair of areas of the front face being adapted to contain correspondence, the sheet being folded about said horizontal fold line so that the correspondence will be at the back of the thus folded sheet; said sheet then being folded about the vertical fold line so that the two lower areas containing the correspondence are disposed in confronting relation with one another and are concealed from the exterior view and so that a two ply fold is formed at said horizontal fold line, and with the addressor and addressee areas being exposed on the thus folded sheet, one of said upper areas having one edge defined by one portion of said two ply fold, the other of said upper areas having one edge defined by a second portion of said two ply fold, with the top edges of said upper areas being defined by respective portions of said top edge of said sheet, a first sealing strip extending along and secured to the top edge of said sheet substantially coextensive with the top edge of one of said upper areas and extending outwardly of the latter edge, a second sealing strip extending along and secured to the same one of said one of said upper areas as the first said strip adjacent said two ply fold and extending outwardly beyond the outer edge, said upper areas each having a third edge extending laterally of the

said one edge and top edges thereof, a third sealing strip extending laterally of said first and second strips and being secured to the same one of said one of said upper areas as the first said strip adjacent one of said third edges and extending outwardly of the latter edge, said second and said third sealing strips terminating in spaced relation to a common end of said two ply fold, said sealing strips being folded over the edges of the areas adjacent which they are respectively attached and being respectively sealingly engaged along the corresponding edges of the other upper area, said second and said third strips thus being spaced from the two opposed ends of said two ply fold whereby the two juxtaposed two ply ends may be individually gripped and pulled apart for tearing the sealing strip and opening the sealed envelope, at least one of said third and said first sealing strips extending longitudinally along the edge to which it is attached to the end thereof common to said top and said third edges of said areas and covering the juxtaposed edges of said envelope thereat.

2,873,908
FAN ARRANGEMENT FOR DOMESTIC APPLIANCES

James H. Powers, Anchorage, Ky., assignor to General Electric Company, a corporation of New York

Application February 21, 1955, Serial No. 489,483
2 Claims. (Cl. 230—119)



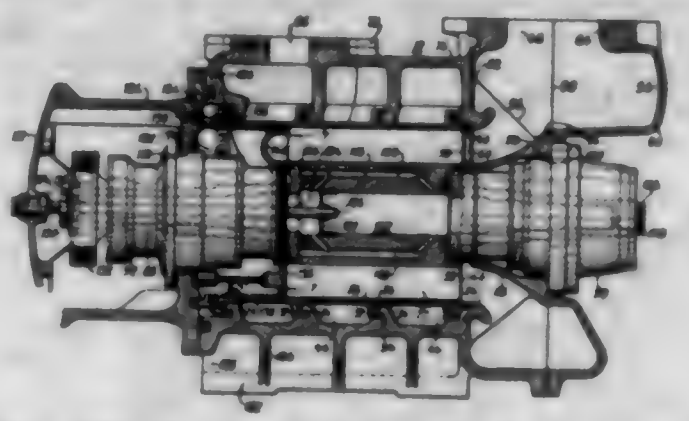
1. A fan arrangement comprising a generally axial flow fan having a plurality of blades, an annular shroud forming an intake opening to said fan and surrounding only the upstream portion of said fan, and means for effecting a pressure rise in the output flow from said fan, said means including a planar baffle positioned substantially at right angles to the axis of said fan in front of the output side of said fan for diverting radially the axial flow therefrom, the annular peripheral area between said panel and the forward edge of said shroud being from 50% to 200% of the area of said intake opening to said fan defined by said shroud, a rectangular shaped chamber surrounding at least the forward portions of said fan and said shroud and containing a body of free air for collecting therein the radial flow effected by said planar baffle, said rectangular shaped chamber having three side walls spaced substantially equidistant from said fan and enclosing the periphery of said fan around at least three sides thereof, and means defining an air outlet opening in the fourth side wall of said chamber outwardly of the periphery of said blades.

2,873,909
ROTARY DEVICES AND CASING STRUCTURES THEREFOR

Hans Robert Nilsson, Ektorp, Sweden, assignor, by mesne assignments, to Svenska Rotor Maskiner Aktiebolag, Nacka, Sweden, a corporation of Sweden

Application October 26, 1954, Serial No. 464,687
7 Claims. (Cl. 230—143)

1. A housing structure for rotary devices of the kind having at least two intermeshing rotors with cylindrical envelopes and parallel axes, comprising an inner casing member having a wall providing cylindrical intersecting barrel portions with bores and axes corresponding with the envelopes and axes of the respective rotors, and an outer casing member around said inner casing member and encompassing the latter symmetrically thereto, each two of said intersecting barrel portions of said inner casing having one pair of their longitudinal edges fastened

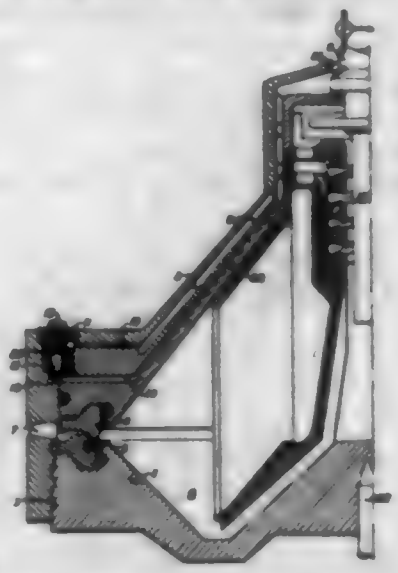


together while the other pair remains free in order to allow expansion of said barrel portions in a circumferential direction, and at least one member of said inner casing and outer casing members being provided with interengaging tongue and groove arrangements having necessary axial clearance in the grooves to provide for the support of the inner casing member in the outer casing member while allowing axial expansion therebetween.

2,873,910
SLUDGE-DISCHARGING CENTRIFUGAL SEPARATORS

Peter Steinacker, Oelde, Germany, assignor to Westfalia Separator A. G., Oelde (Westphalia), Germany, a German corporation

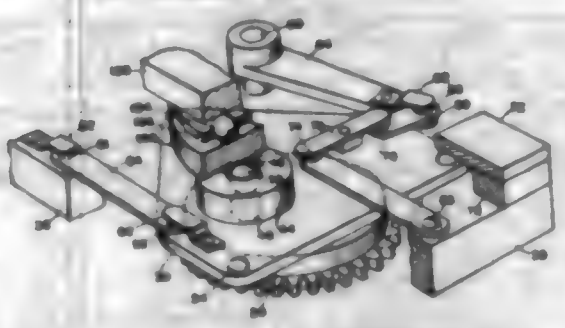
Application March 11, 1955, Serial No. 493,599
Claims priority, application Germany March 13, 1954
8 Claims. (Cl. 233—20)



1. In a centrifugal separator having a centrifugal bowl with peripheral sludge-outlet openings and an axially movable sleeve valve, movable between a position opening and a position closing said sludge-discharge openings, an inwardly extending radial flange connected to said sleeve valve, defining a closure chamber on the side thereof outward the interior of the bowl for the passage of liquid therein under centrifugal pressure for the closing actuation of said sleeve valve, the improvement which comprises a valve port defining a path of liquid flow out from the peripheral portion of said closure chamber, a valve body movably positioned between a position opening and a position sealing said valve port, said valve body being positioned with respect to said valve port and closure chamber so that said movement from said open to said sealing position is against any liquid pressure in said closure chamber, a valve chamber in pressure com-

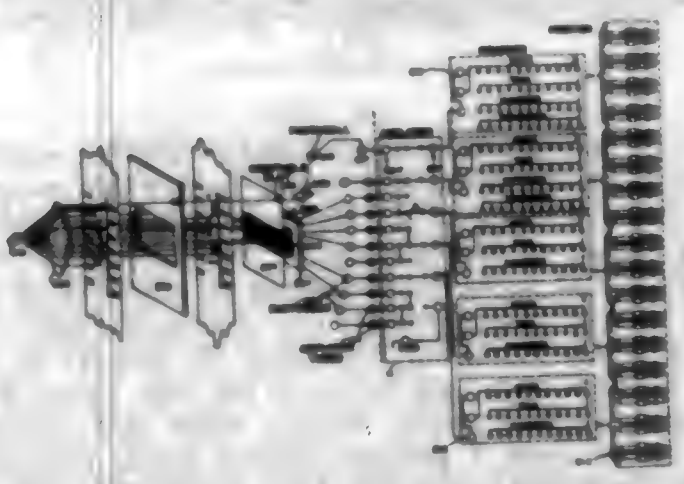
munication with the side of said valve body substantially opposite said valve port, a throttle discharge opening defined through the peripheral portion of said valve chamber, and common liquid inlet means for passing liquid into said valve chamber and into said closure chamber.

2,873,911
MECHANICAL INTEGRATING APPARATUS
Warren L. Perrine, Pasadena, Calif., assignor to Librascope, Incorporated, Glendale, Calif., a corporation of California
Application May 26, 1955, Serial No. 511,328
26 Claims. (Cl. 235—61)



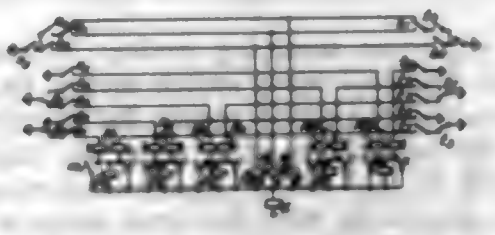
1. Apparatus for obtaining an integrand representing a particular function of an input quantity and for integrating the integrand with respect to variations in an independent quantity such as time, including, a first member angularly movable through distances representing variations in the independent quantity, a movable plate, means including a first linkage for pivoting one end of the plate in a first direction through a first angular distance dependent upon the value of the input quantity, means including a second linkage for pivoting the other end of the plate in an opposite direction through an angular distance corresponding to the first angular distance, a second member displaced by a particular distance from the first member and angularly movable in accordance with the movements of the first member, and means including at least a first ball disposed at an intermediate position along the plate and between the first and second linkages for receiving relative to the first and second members a linear positioning dependent upon the angular movements of the plate and for receiving an angular movement dependent upon its linear positioning and the angular movement of the first member and for imparting to the second member angular movements representing the integral of the integrand and the independent quantity.

2,873,912
ELECTRONIC COMPARATOR
Vannevar Bush, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Navy
Application October 23, 1946, Serial No. 785,145
16 Claims. (Cl. 235—61.7)



1. A device for analyzing data comprising, a plurality of records, electronic means for comparing data on said records, mechanical drive means for continuously moving all of said records relative to said electronic means and periodically relative to each other, and means for indicating desired data from said records.

2,873,913
ELECTRICAL MULTIPLIER
Martin Hebel, Hechendorf am Pilsensee, Upper Bavaria, Germany, assignor to Elfi-Feinmechanik G. m. b. H., Hechendorf am Pilsensee, Germany
Application September 21, 1955, Serial No. 535,576
2 Claims. (Cl. 235—161)



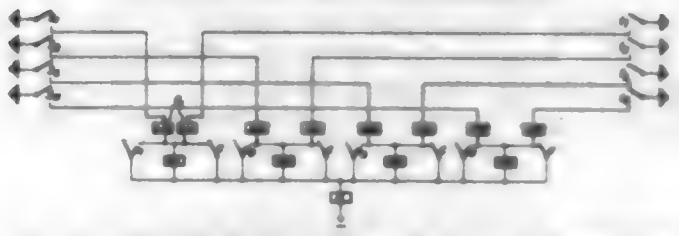
1. In an electrical multiplying device, in combination, a set of first electrical input switch means and a set of second electrical input switch means for representing, respectively, the multiplicand and the multiplier of a product, the input switch means of each of said sets of input means being, respectively, associated with the same series of digits or digit elements so that pairs of first and second input switch means are associated with the same digit elements, each of said input switch means being operable between an operative closed condition and an inoperative open condition; a source of potential; a set of output terminals respectively associated with said series of digits or digit elements for representing the product of said multiplicand and said multiplier when said source of potential is connected to selected output terminals; a plurality of circuit means, each of said circuit means including circuit completing switch means, at least one of said circuit means connecting each of said output terminals to said source of potential when the respective circuit completing switch means are actuated; a set of actuating relay means, each of said actuating relay means being respectively associated with predetermined circuit completing switch means for connecting said source of potential to at least one selected output terminal, at least some of said actuating relay means including a pair of oppositely wound coils respectively connected in series with the input switch means of one pair of said pairs of first and second input switch means, a relay having a first relay coil connected in series with said oppositely wound coils, a first bridging switch connected in parallel with said first relay coil and being normally in open position and being closed when only one of said oppositely wound coils is energized, and a second bridging switch connecting in parallel with said first relay coil, and normally being in closed position; and a relay winding connected at one end thereof through all said actuating relay means and said first and second input switch means to one terminal of said source of potential and being connected at the other end thereof to the other terminal of said source of potential, said relay means operating said bridging switches so that the circuit completing switch means associated with the respective actuating relay means completes the circuit means associated therewith when either input switch means is in said operative closed condition, and complete other circuit means of said circuit means associated therewith when both first and second input switch means of the respective pair of first and second input switch means are in said operative closed condition and both said oppositely wound coils are energized, said first bridging switch remaining open, said other circuit means connecting said source of potential to selected output terminals representing the product of the digit elements represented by said first input switch means of the respective pair of the first and second input switch means.

2,873,914

ELECTRICAL SUMMING DEVICE

Martin Hebel, Hechendorf, Germany, assignor to Eldi-Feinmechanik G. m. b. H., Hechendorf am Pilsensee, Germany

Application August 2, 1955, Serial No. 525,957
8 Claims. (Cl. 235—168)



1. In an electrical summing device, in combination, a set of first electrical input switch means and a set of second electrical input switch means for representing, respectively, the summands of a sum, the input switch means of each of said sets of input switch means being, respectively, associated with the same series of digits or digit elements, each of said input switch means being operable between an operative closed condition and an inoperative open condition; a source of potential; a set of output terminals respectively associated with said series of digits or digit elements for representing the sum of said summands when said source of potential is connected to selected output terminals; a plurality of circuit means, each of said circuit means including circuit completing switch means, at least one of said circuit means connecting each of said output terminals to said source of potential when the respective circuit completing switch means are actuated; and a set of actuating relay means, each of said actuating relay means being respectively associated with predetermined circuit completing switch means, each of said actuating relay means including a pair of oppositely wound coils respectively connected in series with the input switch means of one pair of said pairs of first and second input switch means, a relay coil connected in series with said pair of oppositely wound coils, a bridging switch connected in parallel to said relay coil and being normally in open position and being closed when only one of said oppositely wound coils is energized, and another bridging switch connected in parallel with said relay coil and being normally in closed position; and a relay winding connected at one end thereof through all said actuating relay means and said first and second input switch means to one terminal of said source of potential and being connected at the other end thereof to the other terminal of said source of potential, said relay means operating said other bridging switch so that the circuit completing switch means associated with the respective actuating relay means complete the circuit means associated therewith when either input switch means of the respective pair of first and second input switch means is in said operative closed condition, and complete other circuit means of said circuit means associated therewith when both first and second input switch means of the respective pair of first and second input switch means are in said operative closed condition, said other circuit means connecting said source of potential to selected output terminals representing the sum of the digit or digit elements represented by said first input switch means of the respective pair of first and second input switch means.

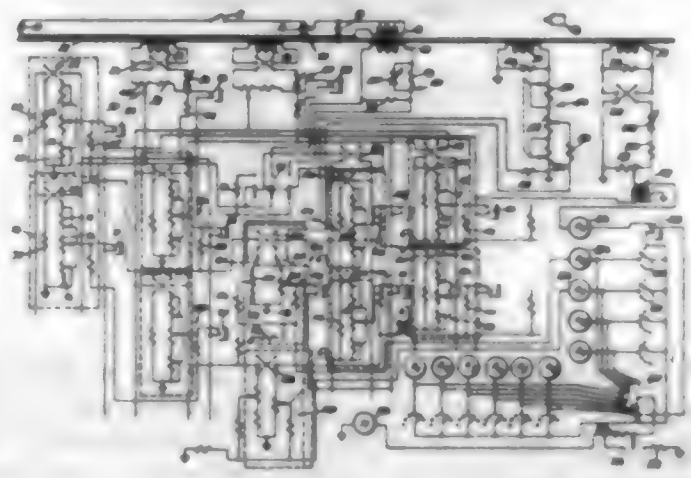
2,873,915

ANALOGUE COMPUTER FOR SOLVING SIMULTANEOUS EQUATIONS UTILIZING TRANSFORMERS WITH INTERLEAVED WINDINGS

David C. Evans, Los Angeles, Calif., assignor to The University of Utah, Salt Lake City, Utah

Application March 1, 1954, Serial No. 413,059
5 Claims. (Cl. 235—180)

1. Apparatus for solving simultaneous linear and secular equations having matrix, scalar and unknown quantities comprising: a transformer adapted to be energized, said transformer having a plurality of interleaved windings, each of said windings being connected to a substantially constant impedance circuit, said substantially constant impedance circuit for supplying different values of potential, means for providing a first plurality of networks having adjustable impedances to produce voltages representing the different unknown quantities in the equations, means for providing a second plurality of networks having adjustable impedances to produce voltages representing the different scalar quantities in the equations, means for providing at least a third plurality of networks



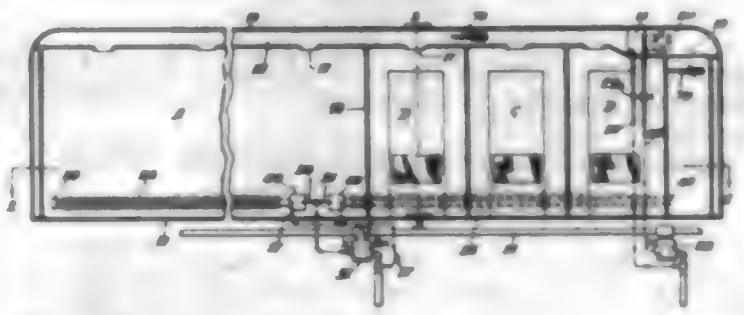
representing different matrix elements in the equations, coupling means for coupling said different values of potential to certain of said networks, the different networks in the first, second and third pluralities interconnected in accordance with the equations to be solved, means for providing an indication of the error resulting from incorrect adjustments of impedances in the different networks, the different impedances being adjusted to minimize the error indications, and means for determining the values of the different quantities in the equations in accordance with the values of the impedances in the different networks.

2,873,916

STEAM HEATING SYSTEM WITH ALTERNATIVE THERMOSTAT CONTROL

Timothy J. Lehane, North Riverside, William M. Smith, Lombard, and Robert D. Ernst, North Riverside, Ill., assignors to Vapor Heating Corporation, Chicago, Ill., a corporation of Delaware

Application June 18, 1954, Serial No. 437,822
11 Claims. (Cl. 237—6)



1. A heating system comprising primary and secondary heaters for delivering heat into a railway car or similar enclosure, a source of heating medium, piping connecting said heaters to said heat source, admission valves interposed in said piping for controlling the admission of heating medium to said primary and secondary heaters, separate supply valves for controlling the delivery of heating medium from said source to the inlet valves of the primary and secondary heaters when said admission valves are open, a principal control means including a main thermostat responsive to the temperature within the enclosure for controlling the delivery of heating medium through said supply valves to the primary and secondary heaters, and control means subordinate to said main

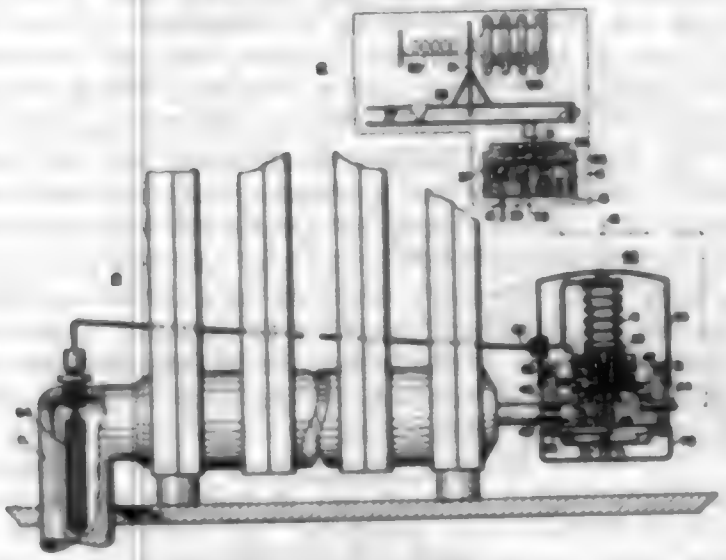
thermostat comprising a thermostat and a relay associated therewith responsive to a predetermined heat value delivered by said primary heater and effective only, when said main thermostat remains unsatisfied, to interrupt the delivery of heating medium to the primary heater, and a second control means subordinate to said main control thermostat comprising a thermostat and a relay associated therewith responsive to external solar heat of predetermined value and effective only, when the main thermostat remains unsatisfied, to interrupt the delivery of heating medium to the secondary heater.

2,873,917

ONE PIPE STEAM HEATING SYSTEM CONTROL

Roy K. Johanson, Milwaukee, Wis., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application March 30, 1956, Serial No. 575,249
10 Claims. (Cl. 237—10)



1. A one pipe steam heating system comprising, a radiator positioned in a space to be heated thereby, a steam supply pipe connected to said radiator, a supply of compressed air, a thermostatic valve means positioned in the space to be heated by the radiator and connected to said air supply pipe to produce a variable air pressure proportional to the temperature of the space, control means including a pressure responsive means and a valved restriction operated thereby, means connecting the variable air supply from the thermostatic means to said control means, means connecting said valved restriction to said radiator, second valve means connected between said radiator and atmosphere and operated by said control means, and a volatile fill thermostat positioned in the steam supply pipe at the point where it connects to the radiator, a second pressure responsive means included in said control means and operative cojointly with said first named pressure responsive means to operate said control means, and means connecting said volatile fill thermostat to last named pressure responsive means.

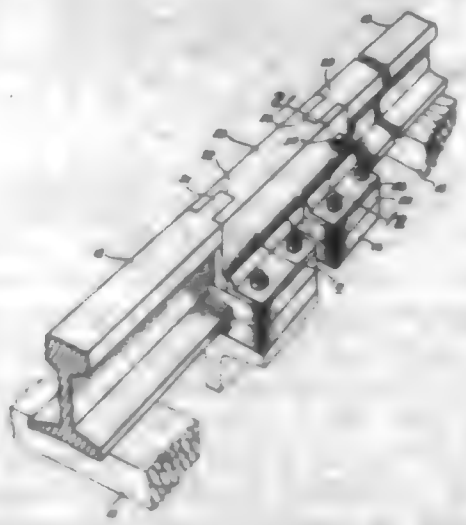
2,873,918

TRACK APPROACH BRIDGE

Harry H. Rosebrook, Oak Park, Ill.

Application August 23, 1954, Serial No. 451,472
2 Claims. (Cl. 238—174)

1. A track approach bridge connecting the adjacent ends of approximately aligned elongated rail sections, each said section resting adjacent said ends on different supporting structure, one of said sections and its supporting structure being free to move vertically with respect to the other of said sections, said adjacent ends being spaced apart, each said rail section being generally I-shaped in transverse cross section and having a vertical web, a flange extending from each side of said web at the bottom thereof and an enlarged car wheel engaging head at the top of said web, said enlarged head of the adjacent ends of each section having a projecting insert portion extending in the elongated direction of said rail sections in opposed directions, each said supporting structure comprising a stand upon which the rail flanges of the respective rail ends rest and opposed chairs, one on each side of said respective rail ends, each said chair being rigidly fixed to said stand and abutting the rail web and the top of the proximate rail flange to hold said rail rigidly to said stand, and an elongated bridge casting connecting said adjacent ends of the rail sections, said bridge casting being of inverted U-shape in transverse cross section with its top surface and at least the uppermost portion of a car wheel



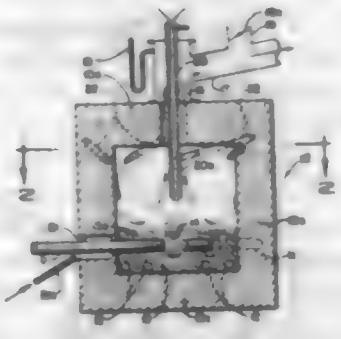
flange engaging side surface having the transverse shape of the tops and corresponding side surfaces of the heads of said rail sections, the ends of said tops of the bridge casting having recesses therein to receive said projecting inserts on said adjacent rail sections, the side portions of said bridge casting extending downwardly with their bottom edges resting respectively on the respective chairs at each end of said bridge casting, said bridge casting being pivotally attached to one of said rail sections by a pivot bolt loosely received in aligned apertures extending transversely through an end of the chair casting end and the adjacent rail section end permitting limited vertical movement of the bridge casting with respect to said rail sections.

2,873,919

VAPORIZATION PROCESS AND FURNACE FOR PRODUCING FINE INORGANIC PIGMENTS

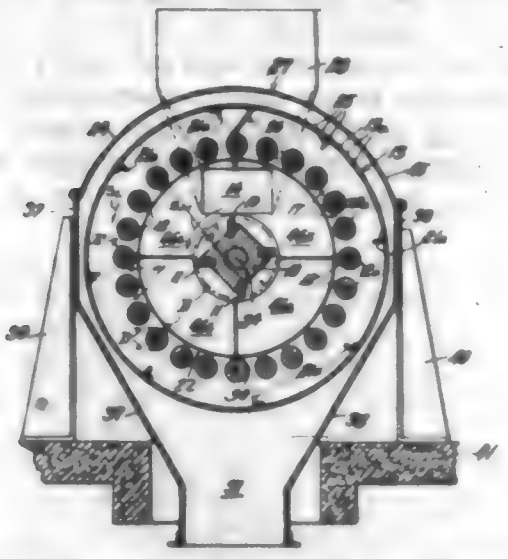
Johannes Behre, Hamburg-Wellingsbuttel, Germany, and Ira Williams, Borger, Tex., assignors to J. M. Huber Corporation, Borger, Tex., a corporation of New Jersey

Application December 23, 1955, Serial No. 555,171
15 Claims. (Cl. 241—23)



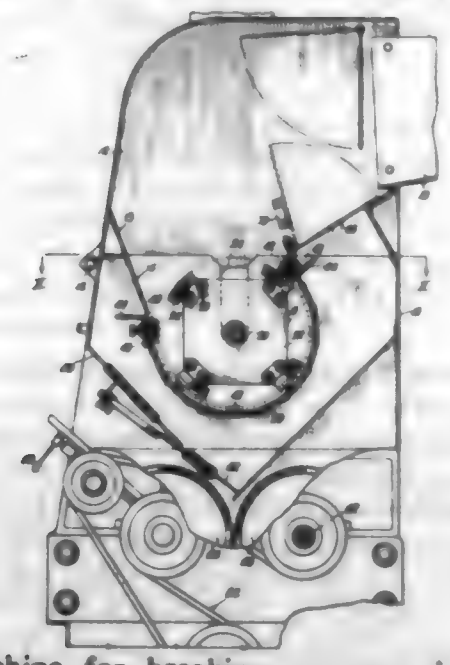
1. A process for producing a finely divided inorganic filler or pigment from a refractory inorganic material, which comprises melting and boiling a mass of said refractory material within an upright furnace chamber in a zone spaced inwardly from the walls and located in a lower portion of said chamber, while simultaneously flowing a cooling gas downwardly along side walls of the chamber to limit their temperature and then inwardly over the boiling mass so that said gas mixes with and dilutes vapors of said material rising from said mass, and condensing said vapors in the resulting gaseous mixture.

2,873,920
CRUSHER
Jens C. Holm, Evanston, Ill., assignor to Bath Iron Works Corporation, Bath, Maine, a corporation of Maine
Application October 31, 1955, Serial No. 543,922
12 Claims. (Cl. 241—30)



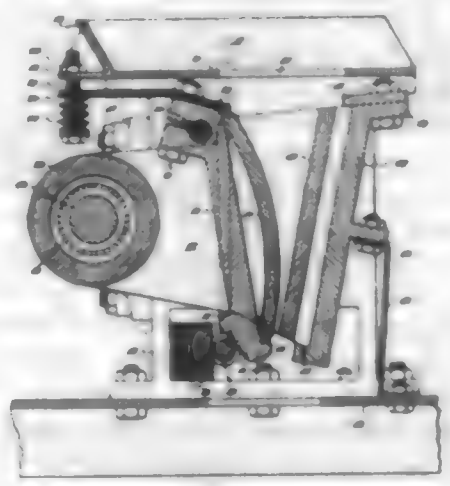
1. A crusher comprising a rotor with driving means for turning said rotor and having hammers for fracturing and hitting frangible material against breaker means spaced from said rotor, second driving means, rotatable breaker means coupled to said driving means and having longitudinally extending breaker bars encircling said rotor to receive the impact of material projected by said rotating hammers and reduce the material to a given size, and said bars being circumferentially spaced to pass the material outwardly through the bars for classification and discharge of the material and to return the oversize material through said bars for further reduction, a rotatable classifying screen encircling said breaker means and spaced therefrom to form a classifying chamber and means for coupling said classifying screen to said second driving means rotating said classifying screen about said rotor, and material return means secured to said classifying screen in said chamber to rotate therewith about said rotor for carrying oversize pieces above the center of rotation of said rotor and dropping the pieces through the breaker bars into the path of said hammers for further reduction by the impact of the material with said hammers and said breaker means.

2,873,921
MACHINE FOR DUST FREE GRINDING OF MATERIALS AS EAR CORN FOR LIVESTOCK FEED
Carl J. Christiansen, Joplin, Mo.
Application February 11, 1957, Serial No. 639,559
4 Claims. (Cl. 241—186)



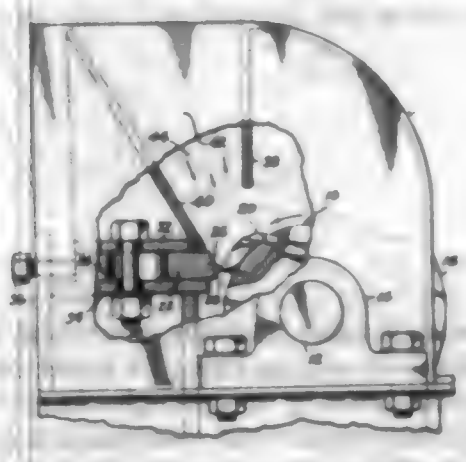
1. A machine for breaking ear corn into granules comprising a hollow body; an elongated, horizontal reel mounted within the body for rotation about the longitudinal axis thereof and including a shaft, a plurality of supports secured to the shaft in longitudinally spaced relationship and a plurality of bars of slightly spiral longitudinal configuration secured to the supports at the peripheries thereof, extending substantially the length of the reel and each disposed with opposed ends thereof in slight offset relationship longitudinally of the reel, the outer faces of said bars lying substantially in an imaginary cylinder coaxial with said shaft; an elongated, transversely arcuate screen partially surrounding the reel and having a pair of longitudinal edges; an elongated breaker element secured to the body adjacent each of said longitudinal edges of the screen, said elements having relatively straight breaker margins substantially coincidental in length with the bars and in close proximity to the periphery of the reel whereby ears of corn caught between said bars and corresponding elements are shelled, fractured and shredded without substantial formation of dust producing particles; and a hopper above the reel for receiving a substantial quantity of said ears to be broken and including inclined structures cooperating with the hopper to present a throat directly overlying the space between the element first approached by the bars during rotation of the reel, and the outer face of an adjacent bar for feeding said ears into said space, said screen being of greater than semicircular transverse cross-sectional length and said last mentioned element being normally disposed at a lower elevation than the other element whereby the greatest proportion of ears contained in the hopper are initially directed into said space during rotation of the reel to effect most efficient breaking of the ears.

2,873,922
JAW CRUSHER
Arthur W. Fahrenwald, Moscow, Idaho
Application November 22, 1954, Serial No. 470,248
4 Claims. (Cl. 241—264)



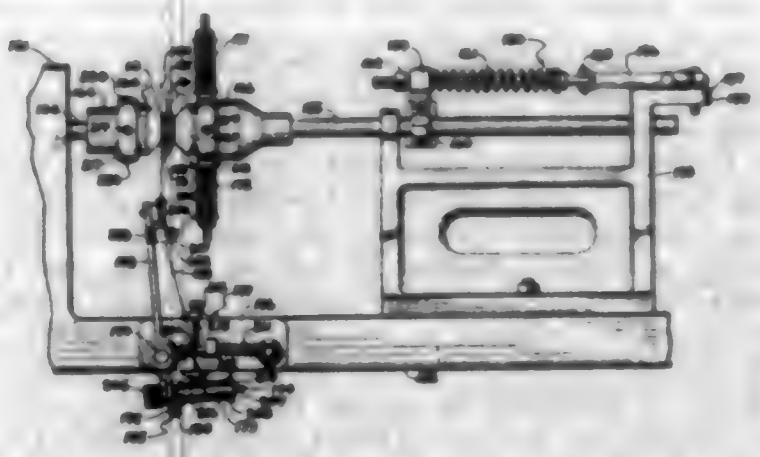
1. A jaw crusher adapted for crushing ore comprising a base, two spaced apart upright frame members on said base, a hopper plate connecting said members, and having an opening therein for passing ore, a fixed jaw, a pin mounted on said members beneath the plate on which said fixed jaw is suspended, an eccentric mounted on the sides of the frame members opposite said jaw, a movable jaw, said movable jaw being positioned on the side of the fixed jaw opposite said eccentric means supported by the base and mounting the movable jaw for movement toward and away from the fixed jaw, and arms fixed to the movable jaw at its side edges and extending across the side edges of the fixed jaw to confine the material being crushed between said jaws, said arms being journalled on the eccentric.

2,873,923
WOOD RECHIPPER
Arthur Bergman, Longview, Wash., assignor to Columbia Veneer Company, Seattle, Wash., a corporation of Washington
Application July 16, 1956, Serial No. 598,841
1 Claim. (Cl. 241—288)



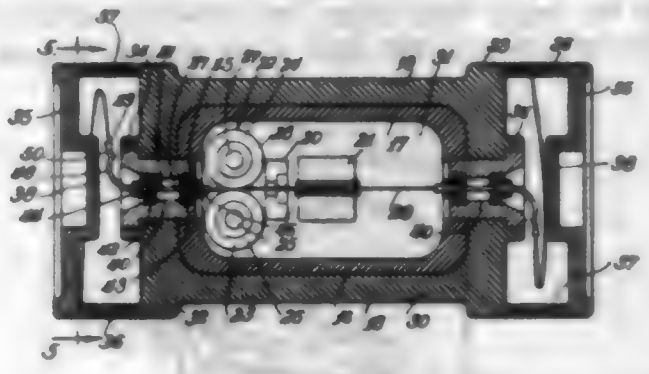
A wood rechipper comprising a cylindrical head, head mounting means for rotatably mounting the head, coupling means for coupling the head to a source of power, anvil means stationed adjacent the head a spaced distance therefrom and having a rectilinear working section arranged parallel to and above the horizontal axis of the head, a plurality of knives mounted on the head in a transverse V shape with the apex thereof trailing the side edges in the direction of rotation of the head, the cutting edges of the knives being defined by uninterrupted plane surfaces and being contoured arcuately for cooperation with the rectilinear working surface of the anvil during rotation of the head, a hopper positioned above the knives and having a wall thereof inclined downwardly toward the anvil means, and an upper guiding section on the anvil means having a surface arranged obliquely with respect to the lower working section and disposed substantially in the plane of the adjacent hopper wall.

2,873,924
COIL WINDING METHOD AND APPARATUS
Robert Charles Glazier, Hayward, and Gottfried Zickler, Castro Valley, Calif., assignors to Friden, Inc., a corporation of California
Original application January 4, 1954, Serial No. 401,784. Divided and this application June 18, 1956, Serial No. 592,021
7 Claims. (Cl. 242—13)



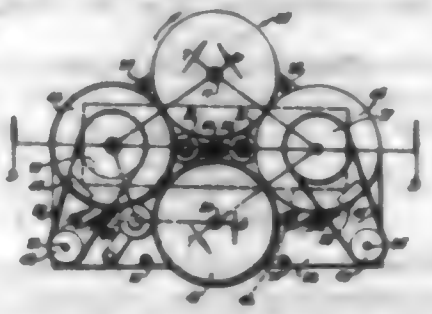
1. The method of alternately applying wire from a plurality of wire supplies to a rotating support and repeating the applications without in any case severing the wire supplied, comprising carrying each supply of wire around with said support except the supply being instantly used to apply wire to the support and subsequently making each supply of wire the instant source of supply while the other sources of supply are carried around with the support.

2,873,925
WIRE RECORDER CARTRIDGE PACK
Walter H. Huth and James R. Bailey, Chicago, Ill.; said Bailey assignor to said Huth
Application August 17, 1954, Serial No. 450,332
1 Claim. (Cl. 242—54.1)



In a cartridge pack adapted for use with wire recorders and reproducers of the type described herein, a substantially cylindrical casing equipped at its ends with stationary containers, each container providing a storage cavity therein and having axially aligned opposed openings which provide access for a recording wire to the cavities, a guide member rotatably mounted in each of said openings and being equipped with a longitudinally extending portion along the axis of said cavity, said longitudinal portion being tubular, each of said guide members being provided with a laterally curved end portion internal of said cavities, and being adapted to be rotated by the recording wire passing therethrough, whereby a more orderly distribution of the wire within the cavity is effected.

2,873,926
MAGNETIC TAPE RECORDING EQUIPMENT
Bruce Roberts, Oberlin, Ohio, assignor, by mesne assignments, to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation not-for-profit of Illinois
Application December 12, 1952, Serial No. 325,609
11 Claims. (Cl. 242—55.12)

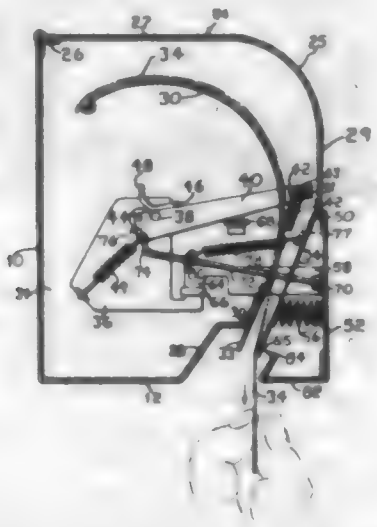


5. Equipment for use with magnetic tape records adapted to be fed between a pair of reels, a pair of reel supports, a capstan engageable with the tape in its path of feed between the reels, a reversibly driven wheel fixed to rotate with the capstan, a drive transmission for transmitting power from said wheel to one reel spindle, a drive transmission for transmitting power from said wheel to the other reel spindle, said drive transmissions being alternatively engageable, and control mechanism for alternatively and oppositely engaging and disengaging the reel drive transmissions concurrently with reversal of drive of said wheel.

2,873,927
PAPER DISPENSER
Donald McDonald, Dayton, Ohio; Joanne Louise McDonald, as commissioner to transfer property of said Donald McDonald, deceased, assignor to herself
Application November 12, 1953, Serial No. 391,587
10 Claims. (Cl. 242—55.51)

1. In a paper dispenser comprising a frame, a frame cover pivotally attached to the frame, a paper support movably attached to the frame, an arcuate paper guide

supported by the frame and partially encircling the paper support, a push plate pivotally attached to the frame cover, a paper feed arm rotatably attached to the frame cover, a paper feed finger pivotally attached to the paper feed arm adjacent the end thereof, a spring engaging the paper feed finger and the paper feed arm biasing the paper feed finger, an elongate actuator rod pivotally attached to the push plate and having an end



provided with two portions substantially normal one to the other, a roller rotatably supported upon the paper feed arm at the end thereof opposite the paper feed finger, resilient means attached to the paper feed arm adjacent the roller and also attached to the frame cover, a paper guide and a paper cutter attached to the frame cover, and a release bracket attached to the paper feed arm adjacent the roller and adapted to engage one of the portions at the end of the actuator rod.

2,873,928
ADAPTER FOR TOILET TISSUE HOLDER
Morris B. Klasky, Downey, Calif.
Original application August 23, 1954, Serial No. 451,533, now Patent No. 2,753,209, dated July 3, 1956. Divided and this application May 24, 1956, Serial No. 587,108

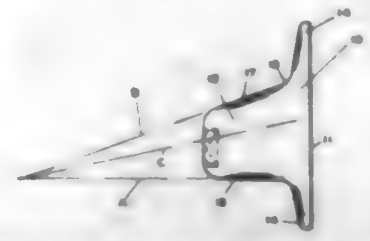
2 Claims. (Cl. 242—68)



1. In combination: a generally cylindrical core provided with two cylindrical bosses projecting axially from the ends of said core, said bosses being provided with cylindrical axial openings therein; and two cylindrical adapters having cylindrical axial recesses therein of a diameter to slidably receive said bosses and provided thereon with cylindrical axial projections of a diameter to slidably fit into said openings, said recesses and said projections being located at opposite ends of said adapters.

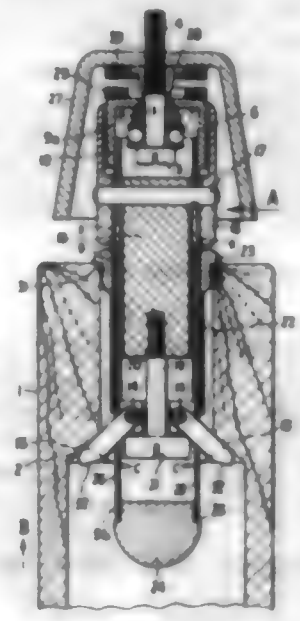
2,873,929
ARCHERY BOW REEL
Leonard S. Meyer and George A. Shira, Newark, Ohio, assignors, by mesne assignments, to Parallel Products Company, Columbia, S. C., a corporation of South Carolina
Application July 16, 1956, Serial No. 598,195
1 Claim. (Cl. 242—85.1)

An archery bow reel comprising an integral tapered forward reel section and an attaching rear section, said tapered reel section extending forwardly having substantially parallel side surfaces and narrowing in a vertical direction towards its forward end to provide angularly related upper and lower edges, the edge adapted to be disposed adjacent to the arrow rest of the bow being substantially normal to the vertical and the opposite edge being angled forwardly and inwardly relative to the vertical so that there will be no tendency for the line to snag on the forward end of the tapered section as it is unreeled from such section due to the flight of an arrow attached to a line to be wound on said tapered section and shot from a bow on which said reel is to be mounted adjacent the arrow rest thereof and with its angled edge



disposed outwardly away from the arrow rest, the forward end of said tapered section having a guide groove therein extending transversely at an angle thereto having an outwardly opening mouth and communicating at its base with the outwardly opening mouth of a line gripping slit of less width than the groove, said slit being formed in a tab-like outward projection at the base of the groove so that the slit gradually increases in transverse extent from its mouth to its base.

2,873,930
BOBBIN HOLDER
Gottfried August Brunner, Munich, Germany
Application February 29, 1956, Serial No. 568,646
2 Claims. (Cl. 242—130.2)



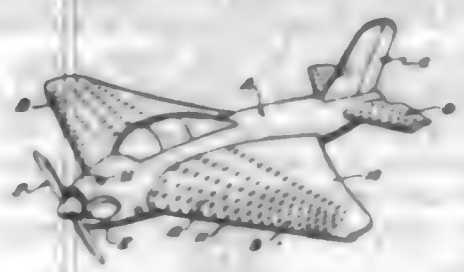
1. A bearing arrangement for the suspension of bobbins in the creels of textile and similar machines, comprising a stationary vertical bearing peg, a bearing on the peg, a tubular member suspended from this bearing and being rotatable about the peg and swingable in all directions, a cap member forming the upper end of the tubular member, a coupling member secured on the cap, and a second coupling member which is fixedly connected to the bearing peg and adapted to cooperate with the first coupling member in the upper end position of the tubular member for protecting the tubular member against rotation, a plurality of supporting levers whose upper ends are pivoted on the lower part of the tubular member, a bayonet ring slidably and rotatably mounted on the tubular member and adapted to be raised by the bobbin as it is creeled, bayonet catch means including a cross pin adapted to lock the bayonet ring to the tubular member after lifting and turning of the bayonet ring, and a piston which is slidable in the tubular member and mounted on the cross pin, said piston having a downwardly projecting bolt with a head adapted to spread the two supporting levers when moving upwardly.

2,873,931

BOUNDARY LAYER CONTROL APPARATUS FOR IMPROVING THE ACTION OF AIRCRAFT

Carlo Fleischmann, Los Angeles, Calif.

Application August 24, 1953, Serial No. 375,954
9 Claims. (Cl. 244—42)



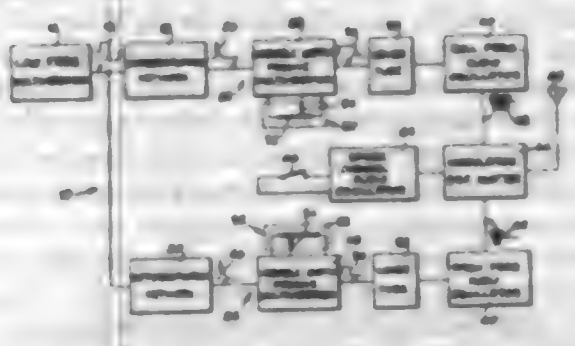
4. An aircraft wing having skins top and bottom with a plurality of spaced depressions therein establishing recesses in the wing at the exterior thereof, the recesses having a bottom that is concave in cross-section spanwise of the wing and is inclined rearwardly so that the recesses are of a maximum depth at their forward portion, there being rearwardly faced openings in the skin of the wing at said recesses, the openings being disposed at the deepest portion of the recesses and inclined relative to the skin and adapted to pass air from within the wing to the recesses to flow rearwardly therefrom into the boundary layers of air at the exterior of the wing, said recesses being arranged in lines staggered with respect to one another extending chordwise over about one-third to one-half the distance from the foremost edge of the wing.

2,873,932

PULSE AUTOPILOT SYSTEM

Basil V. Deltour, Los Angeles, Calif.

Application September 23, 1952, Serial No. 311,089
21 Claims. (Cl. 244—77)



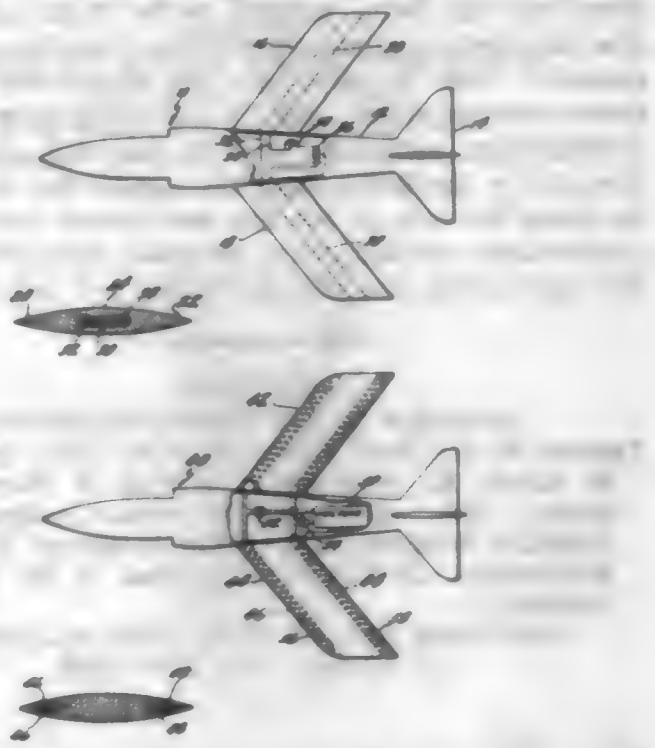
1. In an aircraft, an autopilot system for controlling the attitude of the aircraft, said autopilot system utilizing a carrier frequency modulated with variable length signal frequency pulses of substantially constant pulse repetition rate, a receiver unit mounted on said aircraft and forming a part of said autopilot system, said receiver unit including a signal frequency detector circuit, integrating circuit means operatively connected to said signal frequency detector for providing a direct current command which varies substantially in proportion to the length of said variable length signal frequency pulses, relay means operatively connected to said integrating circuit means and operable in response to said direct current command, an operating mechanism adapted to change the attitude of said aircraft, said operating mechanism being operatively connected to said relay means and operable in response to said relay means, follow-up means operatively connected to said operating mechanism and to said integrating circuit means for reducing said direct current command when said operating mechanism moves in response to said command, and a gyroscope mounted on said aircraft and operatively connected to said integrating circuit means for further reducing said direct current command when the attitude of said aircraft is changed due to operation of said operating mechanism.

2,873,933

AIRFOIL TEMPERATURE CONTROL MEANS

Roy A. Fanti, Springfield, Mass., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application April 23, 1957, Serial No. 654,521
11 Claims. (Cl. 244—117)



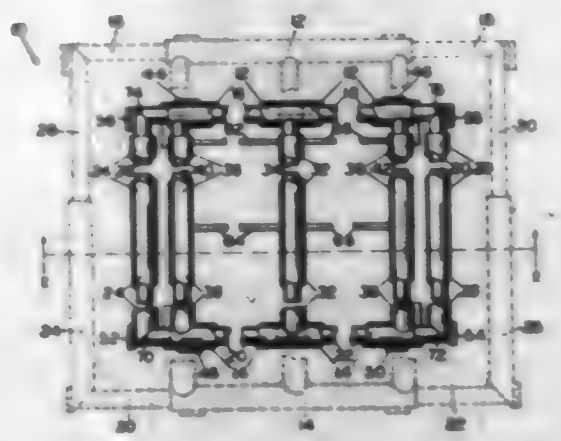
1. An airfoil having a substantial metal mass and adapted to be exposed to a high external heat source thereby nonuniformly varying the temperature of the airfoil, said nonuniform temperature variation causing a reduction in the torsional stiffness of the airfoil, and means located in said airfoil for internally varying the temperature of the airfoil over a minor portion of the chordwise dimension to maintain a more uniform temperature throughout the chord of the airfoil including internal heat varying mechanism extending over a minor portion of the chordwise dimension of said airfoil and extending over a majority of the span thereof.

2,873,934

ADJUSTABLE MERCHANDISE SKID

Dean T. Settles, North Bend, Nebr., assignor to Weldon Industries, Inc., Hoosick Falls, N. Y., a corporation of New York

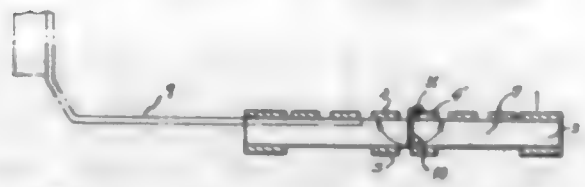
Application November 22, 1955, Serial No. 548,352
1 Claim. (Cl. 248—120)



In an adjustable merchandise skid, the combination which comprises spaced tubular parallel first and second side rails, tubular inner end rails integral with and extended from the ends of said second side rail, a tubular intermediate rail integral with and extended from said second side rail, the intermediate rail being parallel to the end rails and the intermediate and end rails being extended toward the first side rail and to points spaced from the first side rail, longitudinally disposed bars integral with and extended between the end and intermediate rails providing braces, telescoping tubes integral

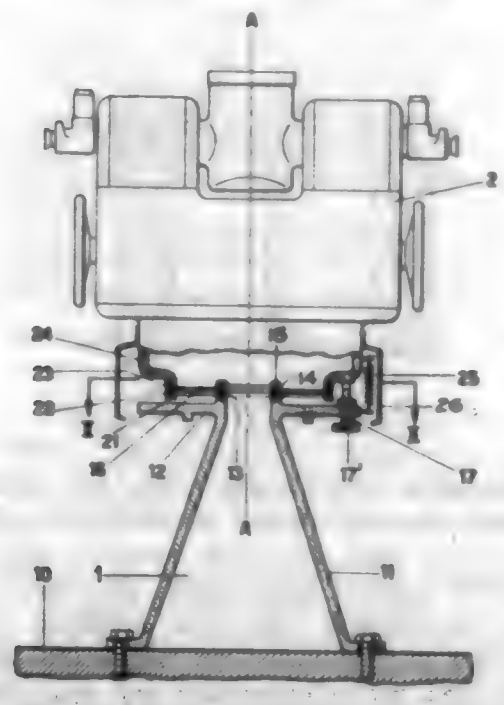
with and extended from the first side rail, said telescoping tubes being slidable in the end and intermediate rails, telescoping tubes slidably mounted in and extended from end portions of the first and second side rails, outer end rails integral with and extended from ends of the telescoping tubes extended from the second side rail, the outer end rails being parallel to the inner end rails and also extended to points spaced from the telescoping tubes extended from the first side rail, telescoping outer end tubes extended from ends of the telescoping tubes extended from ends of the first side rail and slidably mounted in the outer end rails, supporting legs depending from the ends of the first and second side rails, and merchandize retaining bars extended upwardly from the first and second side rails and outer end rails and tubes.

2,873,935
PALLET WITH DRAFT-BARRIER
Thomas N. De Pew, University City, Mo., and William H. Sardo, Jr., Bethesda, and Paul H. Koenig, Silver Spring, Md., assignors, by mesne assignments, to National Wooden Pallet Manufacturers' Association, Washington, D. C., a corporation of the District of Columbia
Application June 12, 1957, Serial No. 665,265
10 Claims. (Cl. 248—120)



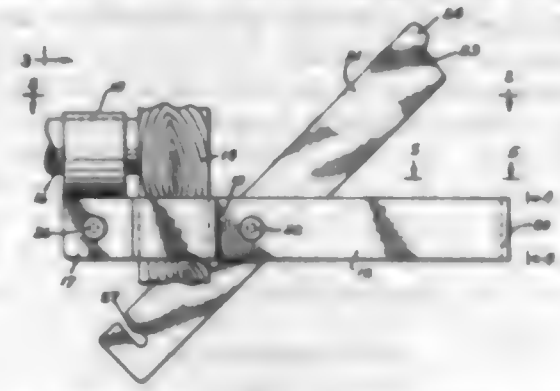
1. A pallet comprising spaced apart stringers, upper and lower, spaced apart deckboards presented transversely of said stringers, said stringers and deckboards defining openings extending through the pallet from end to end thereof, a swingable closure member movably provided in each opening, the upper portion of said closure being disposed between adjacent upper deckboards, and means for supporting said closure member from its upper portion.

2,873,936
SUPPORTING DEVICE
Franz W. Baur, St.-Aubin Sauges, Switzerland, assignor to Firma Contraves A. G., Zurich, Switzerland
Application December 15, 1953, Serial No. 398,389
3 Claims. (Cl. 248—180)



1. A leveling device for a measuring instrument, comprising in combination: a stationary base portion including a vertical pedestal column, a horizontal platform on the top of the said pedestal column and an upwardly directed flange ring provided on top of the said platform; a moveable instrument portion including a downwardly directed flange ring coaxially with the said flange ring of the said stationary base portion, an annular resilient sheet metal diaphragm extending in a plane perpendicular to the said column and connected at the inner circumference thereof to one of said flange rings and at the outer periphery thereof to the other of said flange rings, and three leveling supports adjustably mounted parallel to one another and distributed over a pitch circle of the said platform and supporting the said instrument portion, the said annular diaphragm permitting movements in the direction of adjustment only, and excluding movements perpendicular thereto.

2,873,937
PAINT PAIL BRACKET
Frederick W. Oldenburg, Harper Woods, Mich.
Application March 11, 1958, Serial No. 720,787
3 Claims. (Cl. 248—211)



1. A pail supporting bracket comprising a main bar member formed with a U-bend adapted to receive the side rail of a ladder, a hook member secured to the top edge of one end portion of said main bar member and adapted to receive a rung of the ladder, the opposite end portion of said main bar member being formed with a transversely extending flange, said flange being formed with a vertical slot opening at the top edge of said flange, defining a hook adapted to supportingly receive the bail of a paint bucket or the like, a locking lever pivoted to the main bar member, means on one end portion of said locking lever engageable in said vertical slot when said locking lever is adjusted to a position substantially parallel to the main bar member, and means on the other end portion of said locking lever lockingly engageable with said main bar member when the locking lever is in said position.

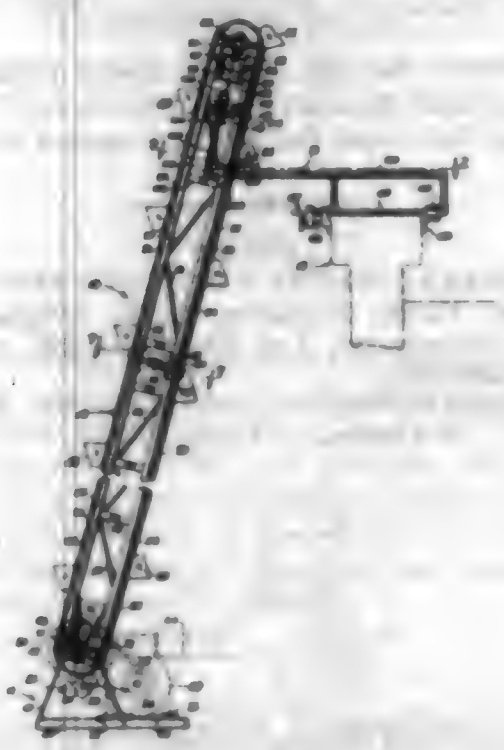
2,873,938
ROTATABLE SUPPORT FOR A GAME BOARD
Warren M. Crawford, Jr., Miami, Fla., assignor to Production and Marketing Company, Newtown, Conn., a partnership
Application September 29, 1954, Serial No. 459,129
5 Claims. (Cl. 248—349)



1. A support of the lazy susan type for game boards or the like adapted to be freely rotatable on a flat relatively hard surface without auxiliary bearing support and comprising a thin laminar plate-like member having a substantially flat continuous uninterrupted upper surface and an imperforate lower surface which in its entirety is in the general configuration of an extremely shallow inverted pyramid, the apex portion being centrally disposed with respect to the member and serving as a zone of balanced support for said member with the peripheral portions spaced only slightly upwardly thereof, whereby the member may freely rotate about said central apex portion, the thinness of the whole ensuring such a

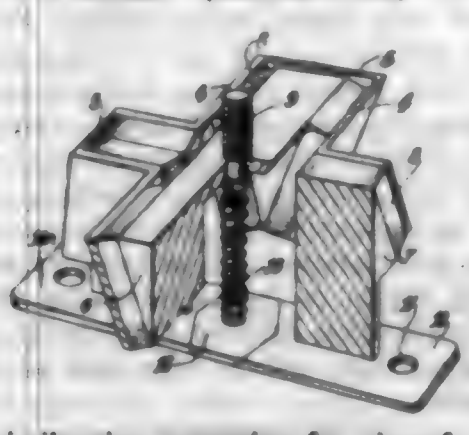
negligible tilting of the member as to preclude accidental sliding displacement of any playing pieces which may be placed upon a supported game board.

2,873,939
SUPPORTING APPARATUS FOR BUCKET ELEVATOR
Elston H. Oldtman, St. Louis, Mo.
Application November 10, 1954, Serial No. 467,966
6 Claims. (Cl. 248—351)



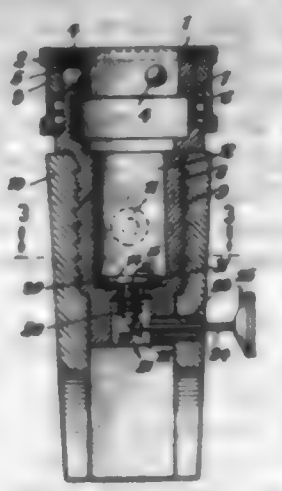
2. Apparatus for supporting a boom in spaced relation from an elevated wall including a frame having wall clamping means, a boom rest providing a rest support for the boom when positioned thereagainst, said boom rest being connected to said frame in offset relation by a trunnion arrangement, and locking means cooperating with said boom rest to prevent relative movement between said boom and the support, said locking means including an element adapted to confine a portion of the boom between the rest support and said element.

2,873,940
ANTI-VIBRATION MOUNTING
Thomas Andrew Brooke, Halewood, near Liverpool, and Eric James Smith, Wallasey, England, assignors to Dunlop Rubber Company Limited, London County, England, a British company
Application July 2, 1956, Serial No. 595,551
9 Claims. (Cl. 248—358)



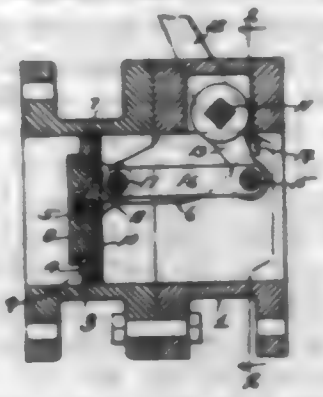
8. An anti-vibration mounting for aircraft instruments and other articles comprising a lower wedge-shaped support having surfaces converging upwardly, an upper wedge-shaped support positioned crosswise of said lower support and at right angles thereto to support an object and having its surfaces converging downwardly, at least one of said supports being recessed at the place of crossing an intermediate stress transmitting element having a cruciform space with arms having surfaces complementary to and spaced from the converging surfaces of said upper and lower supports, and resilient blocks of elastomeric material spanning the spaces between, and secured to, the complementary surfaces of said intermediate stress transmitting element and said supports.

2,873,941
PRESSURE RELIEF VALVE FOR FLUID PRESSURE SYSTEMS
Emil Kortchmar, Larchmont, N. Y.
Application March 21, 1957, Serial No. 647,718
2 Claims. (Cl. 251—148)



1. A relief valve having a seat provided with a soft sealing material of round cross sectional shape surrounded by a harder surface, the valve including a disk seating against the soft material when in closed position and capable of angular displacement, the disk when so displaced contacting the harder surface to provide fulcrum of angular movement to cause rocking of the disk against the harder surface of the seat.

2,873,942
VALVE AND ACTUATING MEANS
Phillips Brooks Drane, Tulsa, Okla.
Application April 2, 1958, Serial No. 727,516
7 Claims. (Cl. 251—151)

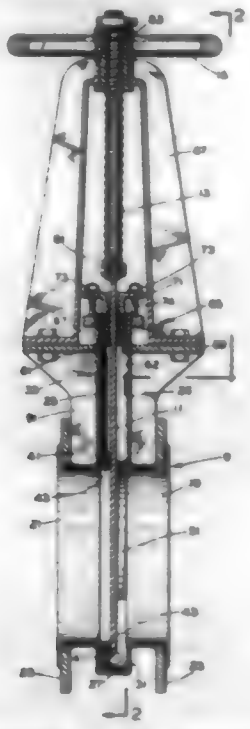


1. A valve insert for pipe lines comprising an annular insert casing for attachment to an adjoining pipe line section, brackets formed integral with the inner periphery of said casing and projecting beyond the end of said casing in parallel relation to the longitudinal axis thereof, a transversely disposed disk valve rockably mounted on the projecting ends of said brackets beyond the end of said casing for insertion within the adjoining pipe line section, and means mounted in said casing operable to rock said valve into and out-of sealing engagement with the wall of the adjoining pipe section.

2,873,943
STOCK VALVE HAVING REMOVABLE SEAT
John L. Williams, Portland, Oreg.
Application August 15, 1955, Serial No. 528,374
1 Claim. (Cl. 251—175)

A gate valve comprising a valve body formed with a flow passage having inlet and outlet ends, said body in-

cluding a chest having an inlet end plate and an outlet end plate disposed in spaced relation and a U-shaped strip connecting the end plates, and together with said end plates defining a U-shaped gate blade channel intersecting said flow passage, a gate blade movable in said channel from an open to a closed position with respect to said passage, said channel extending beyond said passage in the direction of closing movement of said blade and being wider than said passage to provide a groove facing the direction of opening movement of said blade for receiving an end of said blade when said blade is in its closed position, a single removable seat member of flat platelike spade shape slidably resting within said U-shaped channel and groove and being located between said blade and said outlet end plate whereby said seat member is supported by said U-shaped strip and by said outlet end plate, said seat member having a port in register with said flow passage and having sufficient rigidity to be self-supporting within said chest, the side of said seat member remote from said outlet end plate having an annular elastomer bead engageable by said gate blade,



backing means spaced from the portion of said groove which receives the tip of said blade end for forcing said blade against said seat member to effect a seal therebetween and for forcing said seat member against said outlet end plate to form a seal between said outlet end plate and said seat member, the seal between said seat member and said outlet end plate being formed because of the pressure exerted by said backing means on said seat member through the medium of said gate blade, said portion of said groove being wider than the combined thickness of said seat member and said blade to provide a space between the inlet side of said blade end and said inlet end plate in the closed position of said blade whereby stock fibers cannot be compacted in said groove by said blade tip and may readily be washed out when said gate blade is open, said backing means being disposed to pressingly engage said blade only after said blade has moved a substantial extent toward its closed position and to release said blade after said blade has left its closed position and before said blade has reached its fully open position.

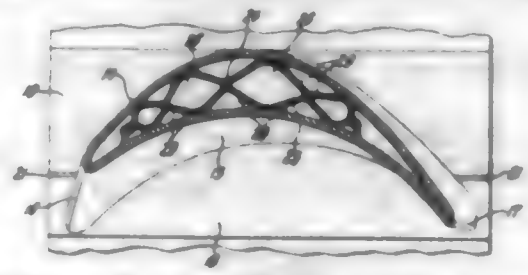
2,873,944

TURBINE BLADE COOLING

Theodore O. Wiese and Stuart Wilder, Jr., Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 10, 1952, Serial No. 308,754
9 Claims. (Cl. 253—39.15)

1. A fluid-directing element for turbomachines and the like comprising a hollow blade and a liner extending through the blade, the liner comprising opposed sheets corrugated longitudinally of the blade with the corrugations aligned, the two sheets being in engagement along a plurality of lines extending longitudinally of the blade intermediate the edges of the liner and being mutually



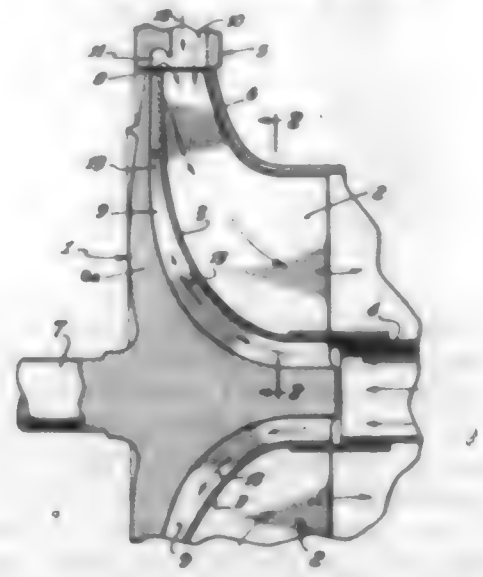
spaced between the said lines to define passages for a cooling fluid and the liner being perforated to discharge the cooling fluid from the passages against the walls of the blade.

2,873,945

RADIAL WHEEL CONSTRUCTION

John Kuhn, Pacific Palisades, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application November 6, 1952, Serial No. 318,971
5 Claims. (Cl. 253—39.15)



1. In a gas turbine: a wheel structure comprising a shaft; a substantially disk-shaped body means on said shaft; a plurality of blades projecting from one side of said body means, said blades being spaced from one another and cooperating with said body means to provide working fluid channels having inlet and exhaust ends; means forming cooling fluid passages in said body means separated from said working fluid channels by a relatively thin partition portion of said body means, said cooling fluid passages being coextensive with said working fluid channels and having inlet and exhaust ends, the inlet ends of said cooling fluid passages being disposed adjacent the exhaust ends of said working fluid channels, the exhaust ends of said cooling fluid passages being disposed adjacent the inlet ends of said working fluid channels; means forming nozzles in registration with the inlet ends of said working fluid channels; cooling fluid conducting means communicating with the inlet ends of said cooling fluid passages; and means disposed exteriorly of said body means to form a reversing passage establishing communication between the exhaust ends of said cooling fluid passages and the inlet ends of said working fluid channels.

2,873,946

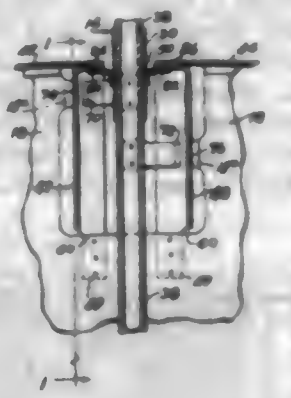
DAMPERS FOR BLADED WHEELS

Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan

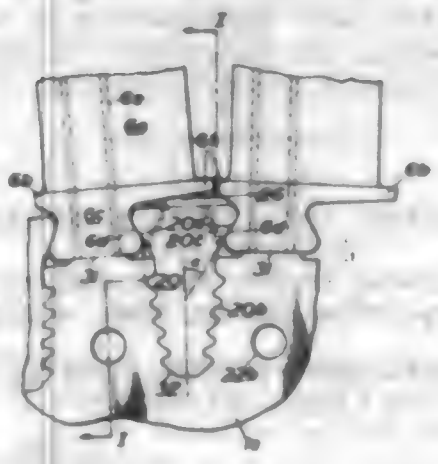
Application June 2, 1954, Serial No. 433,889
9 Claims. (Cl. 253—77)

1. In combination in an axial flow bladed wheel to be mounted for rotation about an axis to exchange force

with a fluid, a wheel hub structure having a rim, a plurality of aixal flow blades extending radially outward from said rim, each said blade having a part extending radially inward through an opening in said rim in spaced relation thereto and being fixed to said structure at a locality substantially inward from said rim, each said blade tending to vibrate about a said locality during rotation of said wheel, and damper elements positioned on peripherally opposite sides of each said blade at different radial distances inward from said rim and radially outwardly from said locality, said elements being secured to each said blade adjacent but normally spaced from said hub structure to knock on said structure at different radial localities on opposite sides of each said blade to damp vibrations thereof.

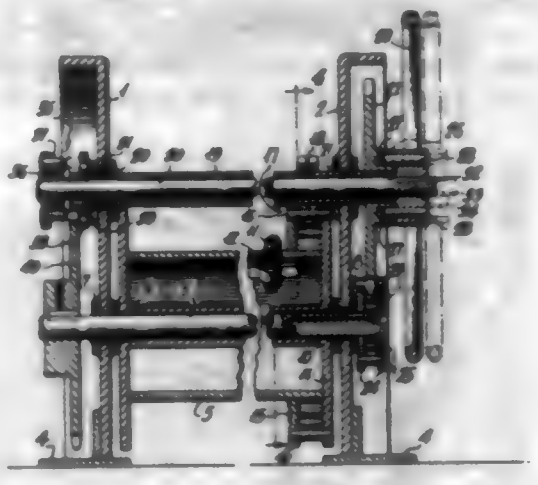


2,873,947
BLADE MOUNTING FOR COMPRESSORS, TURBINES AND LIKE FLUID FLOW MACHINES
Sydney William Henry Perry, Farnborough, England, assignor to Power Jets (Research and Development) Limited, London, England, a British company
Application November 8, 1954, Serial No. 467,561
Claims priority, application Great Britain November 26, 1953
7 Claims. (Cl. 253—77)



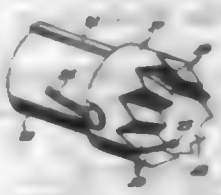
1. A rotor for a turbine, compressor or like bladed fluid flow machine comprising a rotor disc made up of a plurality of coaxial thin discs axially spaced apart from one another at least at their peripheries; at least one radially extending rotor blade made of a notch-sensitive material mounted externally of the peripheries of the thin discs, the blade having at its root end an enlarged foot formed on each side with a face extending in a generally axial direction; means securing said blade to the thin discs, said means comprising a pair of separately formed retaining pieces, one on each side of the blade foot and axially spanning all the thin discs, each piece being made of a material capable of withstanding stress concentrations and being formed with a generally axially extending side face engaging with and radially overlapping the adjacent side face on the blade foot, and means securing each of said pieces to all of said thin discs; and means retaining said blade against axial displacement.

2,873,948
WINCH
Henry G. Colmer, Jr., and Francis M. Snow, Mobile, Ala.
Application July 31, 1956, Serial No. 601,317
4 Claims. (Cl. 254—187)



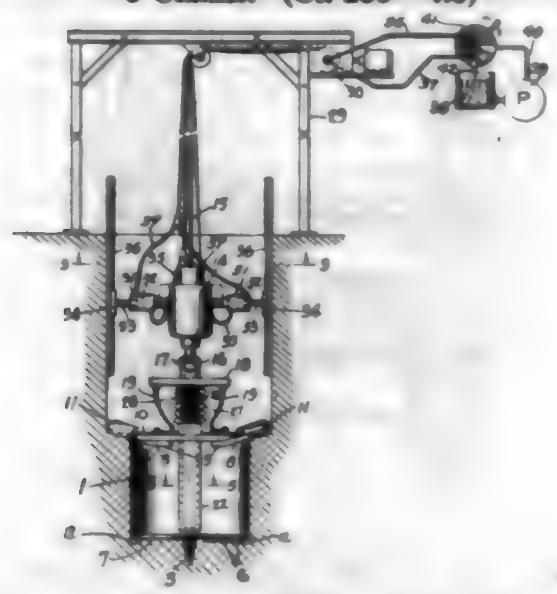
1. A heavy duty winch comprising, a frame, a first shaft journalled in the frame, a cable drum rotatably mounted on the shaft, a second shaft which is hollow rotatably mounted in the frame, a third shaft rotatably and slidably mounted within the second shaft and having its ends extending beyond the ends of the second shaft, gears on the second shaft and drum in driving engagement, gears on the first and second shafts in driving engagement, a gear on the first shaft and a pin gear on the projecting end of the third shaft in driving engagement, the pin gear consisting of a pair of plates one of which is fixed to the third shaft and the other splined to the third shaft for sliding movement thereon, one of the plates carrying a plurality of pins annularly spaced for engagement between the teeth of the gear with which the pin gear is in driving connection and the other plate an equal plurality of openings to receive the pins, and engageable companion driving means on the second and third shafts, whereby axial movement of the third shaft in one direction will cause engagement of the companion driving means and separation of the pin gear plates and movement in the opposite direction will disengage the companion driving means and bring together the plates of the pin gear to cause the pins of the one plate to enter the holes of the other.

2,873,949
SIDE WALL PUNCH CORE ORIENTER GUN PERFORATOR TYPE
Manley L. Natland, Rolling Hills, Calif.
Application December 3, 1956, Serial No. 625,842
4 Claims. (Cl. 255—1.4)



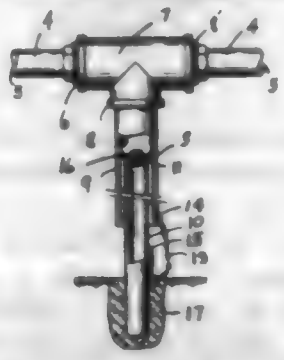
1. In a device for taking cores from the side walls of a well, the combination of a body adapted to be run into the well on a wire line, a survey tool on the body adapted to provide a record of the inclination of the body at a plurality of elevations in the well, a gun on the body having a plurality of laterally facing bores, a hollow bullet in each bore, interengaging means extending axially of said bullets and their bores to prevent rotation of each bullet in its respective bore, each bullet having a core-receiving barrel and a cutting edge at the forward end of the barrel, a core-marking scribe extending into the barrel, and flexible cable means connecting each bullet to the body.

2,873,950
SPRING LOADED EARTH DRILL
Charles W. Kandle, Chicago, Ill.
Application January 25, 1954, Serial No. 406,030
6 Claims. (Cl. 255—4.8)



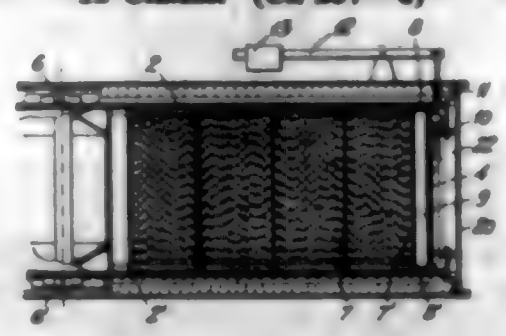
1. In an earth drill unit adapted to receive and contain the spoil for periodic removal from a hole being drilled, a cylinder, a plate removably secured to the lower end of the cylinder and having segmental openings fitted with cutters for drilling in advance of the cylinder and directing the spoil through the openings into the cylinder, a motor unit disposed above the cylinder, means connecting the motor and cylinder to provide rotation of the latter, means associated with said connecting means to permit limited relative axial movement between said motor and cylinder in a vertical direction, extensible arms connected to the motor and adapted to engage the sides of the hole to secure the motor against rotation by torque reaction and against vertical movement, means to extend said arms into engagement with the sides of the hole, and a spring associated with said connecting means and disposed between said motor and cylinder, said spring being compressible by the weight of the motor, said drill unit being adapted to be lowered into the hole to be drilled and said arms being adapted to be extended into engagement with the earth after the cylinder reaches the bottom of the hole and the motor is moved downwardly to compress the spring whereby the spring provides substantially the equivalent of the weight of the motor for the downward feed of the drill while the motor is supported vertically and rotationally by said extensible arms.

2,873,951
FENCE LIFTER
John N. Heffernan and Wilford P. Heffernan, Angleton, Tex., assignors to The Hydrofence Corporation, a corporation of Texas
Application April 19, 1957, Serial No. 653,932
4 Claims. (Cl. 256—25)



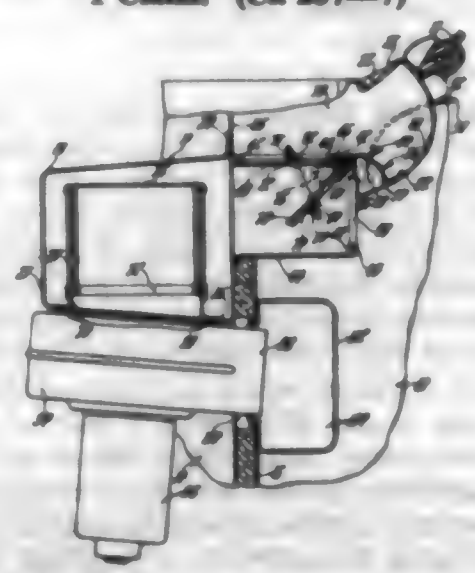
1. A hydraulically operated fence including at least one fence post extending upwardly from the ground, said fence post including a piston member mounted in the ground and extending upwardly therefrom, a movable cylinder telescopically mounted on said piston member, seal means sealing between said cylinder and piston and a conduit attached adjacent the upper end of said cylinder whereby fluid pressure may be supplied to said conduit and to said cylinder for moving said cylinder relative to said piston member to lift the fence.

2,873,952
ROTARY REGENERATIVE HEAT EXCHANGERS FOR GASEOUS MEDIA
Ernst Mudersbach, Heidelberg, and Werner Firgau, Heidelberg-Pfaffengrund, Germany, assignors, by mesne assignments, to Svenska Rotor Maskiner Aktiebolag, Nacka, Sweden, a corporation of Sweden
Application April 13, 1954, Serial No. 422,918
12 Claims. (Cl. 257—6)



1. A rotary regenerative heat exchanger for gaseous media of the character described comprising a rotor and stationary housing structure, said housing structure including end plates having apertures therein separated by sector shaped portions of said end plates and providing two channels for flow of different heat exchanging media through said heat exchanger, said rotor having radial partitions dividing the rotor into a plurality of sector-shaped compartments, sealing plates at the ends of the rotor confronting said sector shaped portions of said end plates arranged to seal the ends of said compartments in the transition zones separating the channels for said different media, said sealing plates being hinged at their inner ends and jacket plates sealingly interconnecting each set of the sealing plates at the opposite ends of the rotor, for sealing the rotor at its circumference, the assemblies of said movable sealing plates and said connecting jacket plates being movable to adjust themselves to compensate for distortions of the rotor structure caused by differential thermal expansion of the latter.

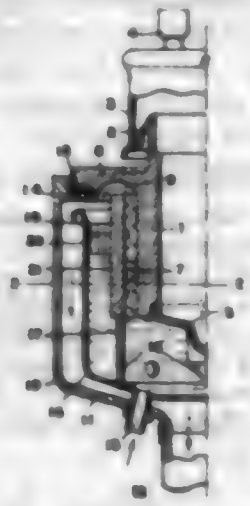
2,873,953
AIR HEATING AND COOLING APPARATUS FOR VEHICLES
Maurice A. Thorne, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 31, 1954, Serial No. 478,958
1 Claim. (Cl. 257—7)



An air heating and cooling system for an automotive body having a windshield, an engine compartment, and a fire wall forward of said windshield with said windshield and fire wall partially defining the forward end

of a passenger compartment, inlet duct means incorporated in said body and leading forwardly from an outside air inlet located forward of the base of said windshield for admitting an outside air stream, blister structure in said engine compartment on the forward side of said fire wall, a distributor housing located at the rear of said fire wall and beneath said inlet duct means, an evaporator core and a heater core mounted in said housing in substantially parallel relation with said fire wall, means connected with said housing for discharging air from said cores to said passenger compartment, a blower connected between said blister and said housing and arranged in said engine compartment to effect flow of air from said blister to said cores in series, a valved duct connected with said blister and arranged above said housing in the passenger compartment and having one port communicating with said inlet duct means and a recirculation port communicating with said passenger compartment, unitary valve means disposed in said valved duct between said ports for selectively opening and closing the latter, and baffle means disposed within said inlet duct means for removing entrained moisture from the outside air stream, whereby flow of outside air to said compartment may be effected by ram effect and the function of said blower when said one port is open and air may be recirculated from and through said compartment by said blower when said recirculation port is open.

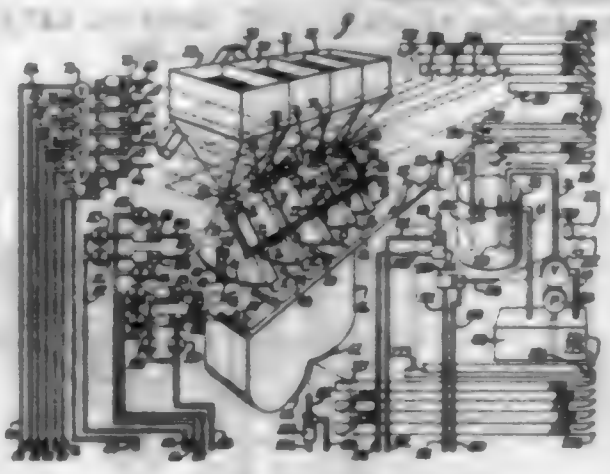
2,873,954
HEAT EXCHANGER FOR ELECTRIC DISCHARGE TUBE
Curt Protze, Berlin-Siemensstadt, Germany, assignor to Telefunken G. m. b. H., Berlin, Germany
Application July 19, 1955, Serial No. 523,056
Claims priority, application Germany June 5, 1954
14 Claims. (Cl. 257—250)



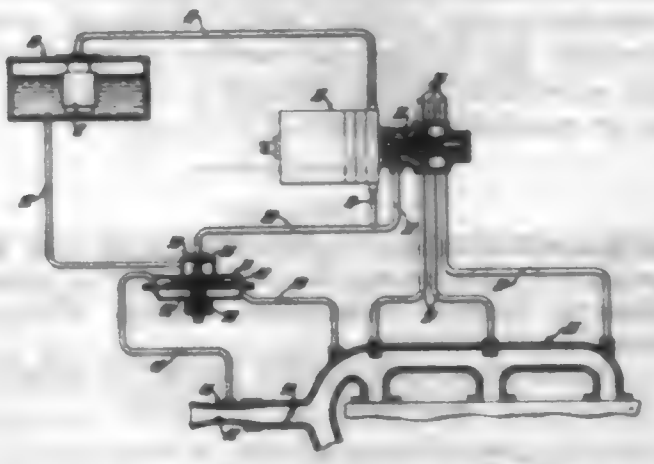
1. A structure for cooling a closed vessel having upwardly extending walls by means of a vaporizable liquid comprising, a liquid container surrounding said vessel and extending upwardly in spaced relation with respect to said walls, said container having an open top and having a liquid entrance therebelow through which the level of said liquid is maintained, said walls having a plurality of upwardly extending enclosed liquid channels open at their tops and bottoms and partially immersed in said liquid with the open bottoms located below the level of said liquid so that vapor formed in said channels must travel upwardly to escape therefrom.

2,873,955
BITUMINOUS BATCH PLANT AND ACTUATING SYSTEM THEREFOR
James F. Sauer, Aurora, Ill., assignor to Barber-Greene Company, Aurora, Ill., a corporation of Illinois
Application January 11, 1956, Serial No. 558,434
15 Claims. (Cl. 259—154)

1. In a bituminous batch plant or the like, a plurality of supply bins for different sizes of aggregates, a weigh hopper including a compartment of adjustable volume positioned below each of said supply bins, a gate between each supply bin and the weigh hopper compartment therebelow, a fluid operated actuator for each gate, each compartment having a movable side wall adjustable to vary the volume thereof, means selectively operable for adjustably moving said side walls, a plurality of control valves arranged to be coupled to a source of fluid under pressure and controlling the supply of fluid under pressure to said actuators, a conduit arranged to be connected to a source of fluid under pressure, and a selector valve for each actuator arranged to selectively connect each actuator either to one of said control valves or to said conduit, whereby said gates are selectively operable for filling each compartment during adjustment of the volume of each compartment and simultaneously operable after the volumes of all compartments have been set.



2,873,956
FUEL INJECTION CONTROL VALVE
Joseph Zabaty, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 23, 1956, Serial No. 624,045
4 Claims. (Cl. 261—69)



1. A bypass control mechanism for an internal combustion engine fuel injection system, said mechanism comprising a pair of casing members, a diaphragm peripherally clamped between said members and defining an actuating chamber with each of said casing members, fuel inlet and outlet openings disposed in one of said casing members, a valve means fixed to and movable with said diaphragm and cooperable with said fuel inlet opening to vary the size thereof, means continuously urging said valve in a direction to limit the flow of fuel through said inlet opening, means communicating one of said chambers with an engine force tending to open said valve as the load of said engine decreases, means communicating the other of said chambers with a force tending to close said valve in proportion to the mass of air flowing through the engine, means separating said inlet and outlet openings from the actuating chamber in the associated casing member to provide a fuel chamber isolated from the actuating chamber, and a disc member mounted for movement with said

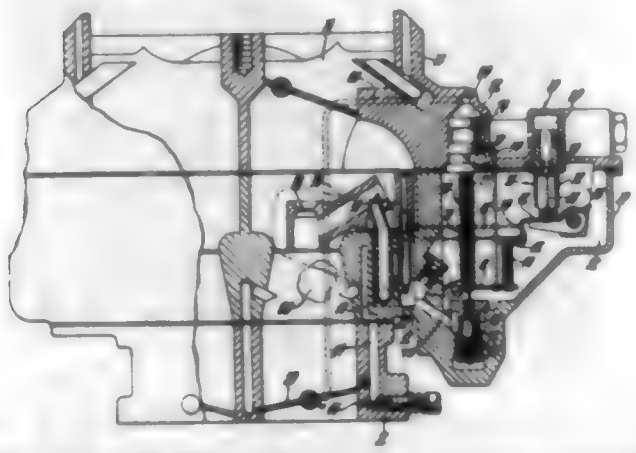
valve in said fuel chamber, fuel in said chamber being adapted to be transferred from one side of the disc to the other to modify the rate of movement of said valve.

2,873,957

CARBURETOR FLOAT MECHANISM

Clarence R. Lunn, Lathrup Village, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 21, 1957, Serial No. 647,528
5 Claims. (Cl. 261—69)



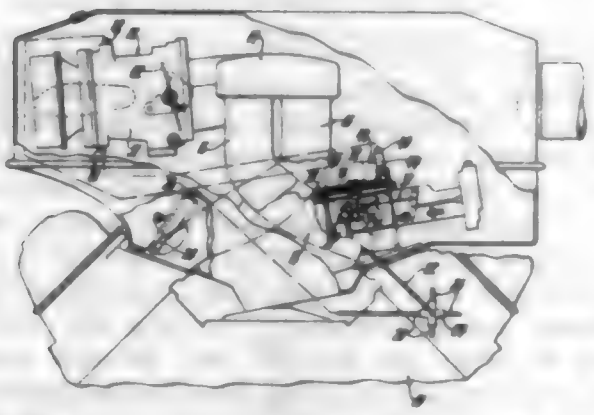
1. A carburetor mechanism for an internal combustion engine comprising a fuel chamber, an induction passage, first passage means for supplying fuel to the fuel chamber, a first valve mechanism for controlling the flow of fuel from said passage to said chamber, a float mechanism in said fuel chamber for controlling the actuation of said valve in accordance with the level of fuel in the float bowl chamber, second passage means for conveying fuel from the float chamber to the induction passage, a second valve for increasing the flow of fuel through said second fuel passage means, means normally biasing the second valve in a closed position, a manifold vacuum responsive member adapted to unseat the second valve, spring means operatively connected to said member and adapted to engage and increase the buoyancy of the float mechanism under normal engine operating conditions, and means for shifting said member to open the second valve and render the spring means inoperative upon a drop in manifold vacuum.

2,873,958

THERMOSTATICALLY CONTROLLED AIR BLEED

Lawrence C. Dermond, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 8, 1957, Serial No. 651,399
2 Claims. (Cl. 261—39)



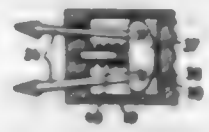
1. A fuel control system comprising a casing having an air induction passage, a venturi in said passage, means associated with and adapted to create a vacuum force proportional to the flow of air through said venturi, valve means for controlling the flow of air through said passage, passage means for bypassing air around said valve when the valve is closed for idling operation, a conduit formed in said casing and communicating with the bypass passage means whereby a vacuum force is created in the conduit proportional to the bypass air flow, a nozzle posteriorly of said valve for delivering fuel to the induction passage, a device for supplying fuel to said nozzle, said device including a fuel metering valve, diaphragm means connected to said valve and adapted to control the fuel flow therethrough, first conduit means for communicating the vacuum force in the bypass passage means with said diaphragm means, second conduit means communicating said venturi vacuum with said diaphragm means, a port formed in said casing and adapted to communicate the conduit with the induction passage anteriorly of said valve means, and temperature responsive valve means disposed in the induction passage proximate said port, said latter valve means being adapted to control the flow of air through the port in accordance with the temperature of the air flowing through the induction passage.

2,873,959

MINING PLANERS HAVING AN IMPACT ACTION

Julius Herrmann, Lunen, Germany, assignor to Gewerkschaft Eisenhutte Westfalia, Wethmar, near Lunen (Westphalia), Germany, a corporation of Germany

Application May 24, 1955, Serial No. 510,788
Claims priority, application Germany May 25, 1954
6 Claims. (Cl. 262—8)



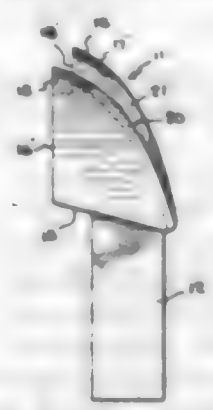
1. In a mining planer having a planer head with a planer cutter, movable along a mine face, the improvement which comprises a cutting tool defining, at least, a portion of said planer cutter mounted for limited movement relative the planer head in substantially its cutting direction and the direction reversed thereto, means resiliently urging said cutting tool in substantially its cutting direction, and stop means substantially rigid with the planer head limiting the movement of said cutting tool in the direction opposite its cutting direction.

2,873,960

COAL CUTTING BIT HAVING THREE CUTTING TIPS

Marvin Y. Thorne, Rivesville, W. Va.

Application November 15, 1957, Serial No. 696,819
2 Claims. (Cl. 262—33)



1. A miner's bit of the character described comprising a straight shank and an enlarged head on the end of shank, said head having a flat front face extending substantially parallel to said shank and being formed with a V-notch at its top end, defining a pair of points at said front face, and a third point formed on said head midway between and spaced rearwardly and upwardly from said pair of points, said third point having a flat triangular front face parallel to said shank, said head being formed with external V-grooves between said points extending downwardly and rearwardly from said points, defining V-shaped ribs on the head leading to said points.

2,873,961
CENTRIFUGAL GOVERNOR CONSTRUCTION
Fritz Heinrmann, Albershausen, Kreis Goppingen, Germany
Application July 5, 1957, Serial No. 670,181
Claims priority, application Germany July 12, 1956
6 Claims. (Cl. 264—15)



1. In a centrifugal governor having a rotatable governor body, a pair of opposed flyweights pivotally connected to the governor body for pivoting outwardly by centrifugal force upon rotation of the body, inwardly extending lever arms connected to said flyweights, a control member substantially coaxially positioned with respect to the axis of rotation of said governor body and a transverse rod connecting said lever arms and said control member for axial movement of said control member upon pivoting of said flyweights with said lever arms, the improvement which comprises said transverse rod being a substantially cylindrical rod having at least one flattened face, said rod engaging in a substantially cylindrical hole having a diameter substantially corresponding to the cylindrical diameter of said rod and defined in the lever arm of one of said flyweights also and engaging in a slot shaped opening having a width corresponding to the diameter of the flattened portion of said rod and a length greater than the cylindrical diameter of said rod said slot being defined in the lever arm of the other of said flyweights.

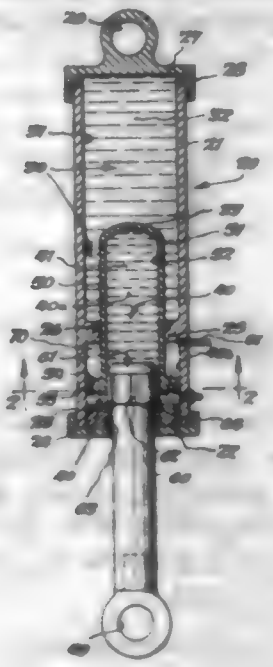
2,873,962
LEAF SPRING ASSEMBLY
George W. Lamponus and Clayton B. Leach, Pontiac, and Lloyd R. Vivian, Jr., Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 25, 1956, Serial No. 580,637
3 Claims. (Cl. 267—49)



1. A leaf spring assembly for a vehicle comprising a plurality of stacked spring leaves, certain of said leaves having a parabolic curvature on one surface thereof, and a plurality of wax free Butyl rubber strips disposed alternately between said leaves, each of said strips being at least as long as the lower adjacent spring leaf, said strips being formed by continuous extrusion and having parallel marginal ribs formed on one surface thereof, said ribs being inclined in cross section to compressibly conform with the said parabolic curvature of said leaves.

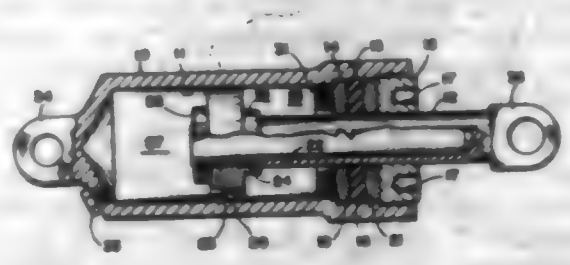
2,873,963
LIQUID SPRING AND OLEO SUSPENSION FOR AIRCRAFT AND VEHICLES
Paul H. Taylor, Grand Island, N. Y.
Application November 9, 1954, Serial No. 467,745
26 Claims. (Cl. 267—64)

4. A spring comprising a casing having a chamber therein, a compressible material other than a gas completely filling said chamber, said material being adapted for reversible polymorphic transition at a substantially constant pressure, a piston reciprocably disposed in said



chamber for compressing said material, and means operatively associated with said piston for applying variable loads on the piston to compress said material through a range of pressures including said constant pressure.

2,873,964
FLUID SPRINGS
Wallace Hamilton, Bentleyville, Ohio, assignor to Cleveland Pneumatic Industries, Inc., Cleveland, Ohio, a corporation of Ohio
Application November 15, 1956, Serial No. 622,349
2 Claims. (Cl. 267—64)

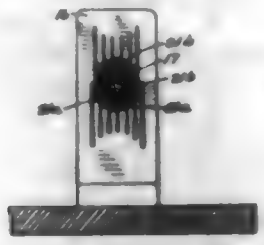


1. A fluid spring comprising a pair of telescoping members capable of relative movement, said members co-operating to define a cavity the volume of which is changed by said relative movement, a resilient material in said cavity secured to one of said members formed with a multiplicity of separate gas filled cells, liquid filling the remaining portions of said cavity, relative movement between said members reducing the volume of said cavity and compressing said liquid and thereby compressing the gas in said cells, and damping means between said members co-operating with said liquid resisting relative movement of said members.

2,873,965
FOLDING DEVICE FOR STRIP MATERIAL
John G. Mitchell, Charlotte, N. C., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application June 9, 1955, Serial No. 514,389
10 Claims. (Cl. 270—40)

1. Apparatus for the continuous lengthwise folding of strip material, which comprises means for feeding said strip material, a plurality of guide members extending along the path of said strip material and adapted to engage said strip material, said guide members being arranged in sets, said sets being spaced apart at one end to provide

an entrance for receiving said strip material, and the guide members of one set intermeshing with the guide members of another set along the path of movement of said strip material with the guide members adjacent the outer edges of said strip material intermeshing to a lesser degree than the guide members adjacent to tne center of



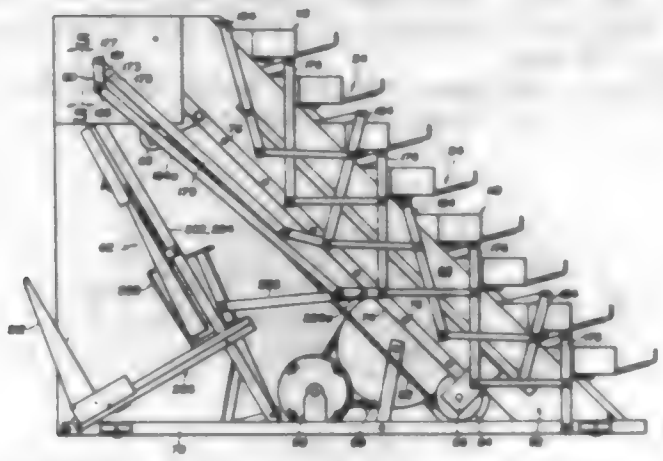
said strip material, said guide members being disposed so as to effect gradual lengthwise folding and simultaneous gradual transverse gathering of said material into a plurality of longitudinal pleats with the pleats in the central portion of the strip material larger than the pleats at the lateral portions thereof.

2,873,964

ACTUATING MECHANISM FOR COLLATING MACHINE

Robert D. Lambert, Fort Wayne, Ind., assignor, by mesne assignments, to Halvorsen Products Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application September 27, 1956, Serial No. 612,424
9 Claims. (Cl. 270—58)



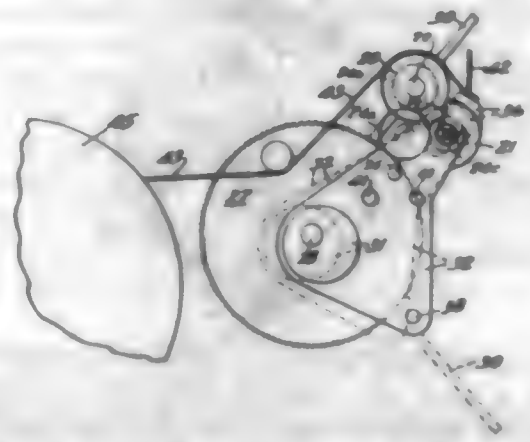
1. In a collating machine a supporting frame, an inclined conveyor on said frame, a plurality of equally spaced paper storage means arranged in stepped relation along the length of said conveyor, a plurality of reciprocable dispensing devices which cyclically move forwardly and rearwardly, and actuating means arranged to impart cyclical movement to said dispensing devices in such a manner that adjacent dispensing devices are relatively 90° displaced in operation, said actuating means comprising a first set of pivotally mounted levers associated with alternate dispensing devices and a second set of pivotally mounted levers associated with the other alternate dispensing devices, a first set of links interconnecting opposite ends of adjacent levers of the first set of levers, a second set of links interconnecting opposite ends of adjacent levers of the second set of levers, said levers being initially adjusted such that the adjacent levers are displaced 90° in phase relative to each other, two connecting rods operatively connected to said two sets of levers respectively, and a crankshaft having an axis of rotation and two driveable connections with said connecting rods respectively which are displaced 90° from each other with respect to said axis of rotation whereby rotation of said crankshaft operates said dispensing devices in progressive order.

2,873,967

TAB-FORMING TAPE DISPENSER

Richard L. Larson, White Bear Township, Ramsey County, Minn., assignor to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corperation of Delaware

Application May 3, 1956, Serial No. 582,565
5 Claims. (Cl. 270—68)



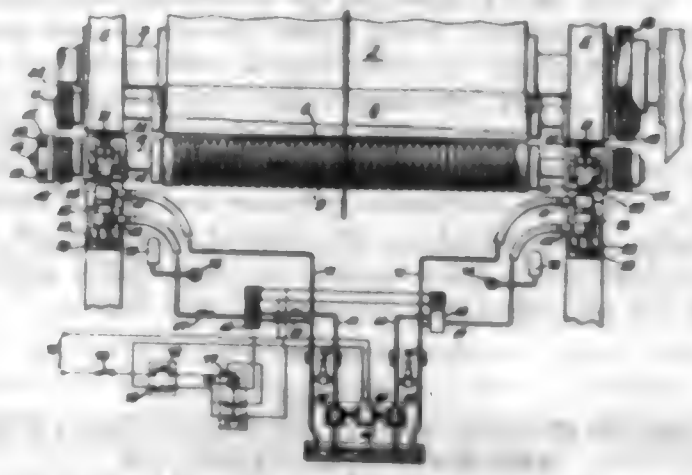
1. A tape dispensing and tab-forming mechanism comprising a cylindrical draft roller and a cylindrical projecting roller mounted for rotation about their respective axes, each roller comprising a plurality of axially spaced fixed discs, the rollers being parallel and positioned with the discs of each roller extending into the spaces between the discs of the other roller, a plurality of tape-holding fingers between discs of the projecting roller mounted for reciprocation from a normal position to a retracted position and return, the fingers normally extending radially beyond the circumference of the projecting roller into adhesive contact with tape that passes successively over the draft and projecting rollers, and when in retracted position being within the circumference of the projecting roller, means for rotating the rollers simultaneously for a given distance in a direction to propel the tape from the draft roller to the projecting roller, means for moving the fingers into their retracted position after the commencement of the said tape-propelling rotation, means for returning the fingers to their normal position in adhesive contact with the leading portion of the succeeding length of tape upon the completion of the said rotation, and means for severing the dispensed length of tape at a point adjacent the fingers.

2,873,968

HYDRAULICALLY LOADED FEED ROLLS FOR CORRUGATED PAPER STOCK

William Grobman, Philadelphia, Pa., assignor to Samuel M. Langston Co., Camden, N. J., a corporation of New Jersey

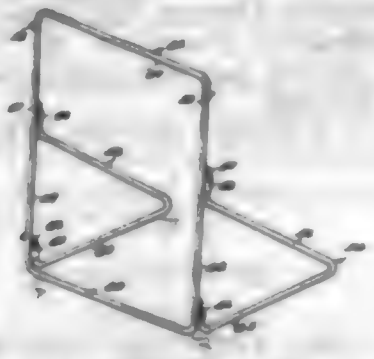
Application April 8, 1957, Serial No. 651,446
4 Claims. (Cl. 271—51)



1. In a machine for performing operations such as printing on blanks of corrugated board or like work stock susceptible to crushing under pressure, the combination with cyclically movable devices for performing said operations, of means for feeding the blanks thereto succes-

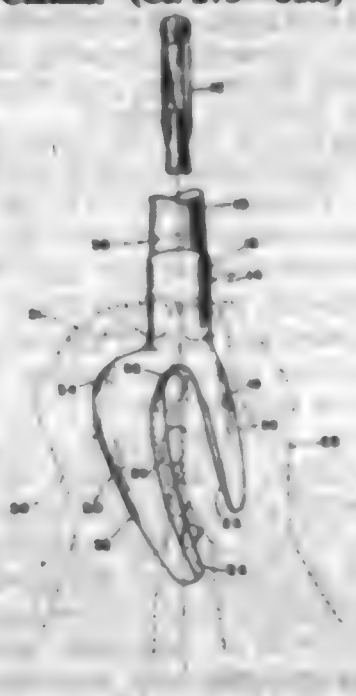
sively in uniform predetermined position and in precisely timed relation with the cyclical movements of said devices, said feeding means comprising a relatively fixed roll and mechanism for rotating said roll in timed relation to the movement of said devices, a floating roll forming with said relatively fixed roll a complementary pair engageable respectively with the opposite faces of said blanks, means for operatively connecting the rolls at both ends for positive synchronized rotation, a fluid pressure motor means connected to each end of the floating roll for urging the roll toward complementary roll and against the blanks, engaged with the latter roll, and a fluid pressure system for supplying pressure fluid to said motor means and including devices for accurately adjusting pressures of the fluid so supplied.

2,873,969
BASEBALL CONTROL DEVELOPER AND TESTER
Max G. Zisi, Oswego, N. Y.
Application May 10, 1955, Serial No. 507,336
2 Claims. (Cl. 273—26)



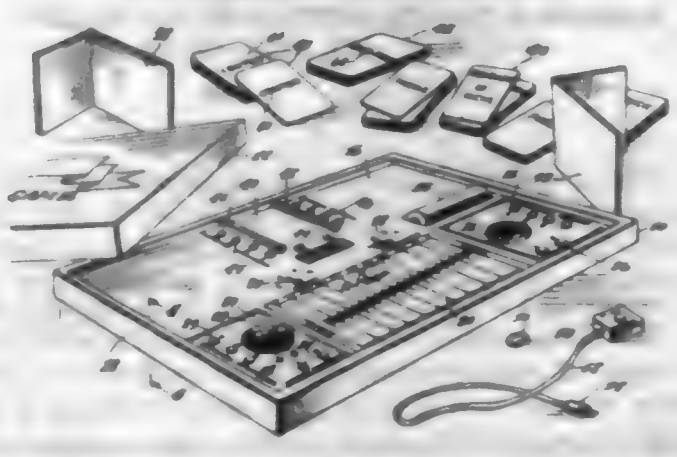
1. A device of the character described comprising a rectangular frame embodying a pair of spaced parallel side pieces, spaced parallel top and bottom pieces extending between said side pieces and arranged at right angles with respect thereto, a base including a pair of similar support members, said support members defining horizontally disposed spaced parallel legs secured to the lower ends of said side pieces, an inclined brace extending upwardly from the rear end of each of said legs and secured to the corresponding side piece, lugs extending from said side pieces, a target having a hem thereon, a spring member extending through said hem and engaging said lugs, and a back stop arranged adjacent the outer surface of said target.

2,873,970
GOLF CLUB HAND GRIP
Rozier C. Murphey, Jr., San Diego, Calif.
Application September 24, 1956, Serial No. 611,696
3 Claims. (Cl. 273—81.3)



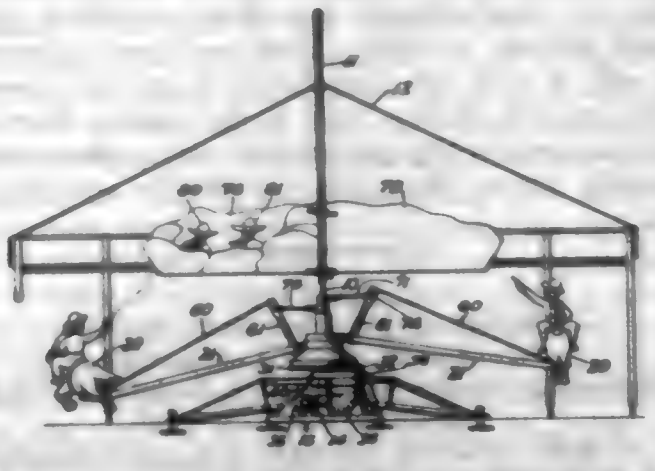
1. A golf club comprising; a shank, a striking head secured to the lower end of said shank, a handle on the upper end of said shank, said handle being of a length approximately equal to the length of the closed hand of a player and being bifurcated and comprising a right hand hold and a left hand hold in adjacent, generally parallel relation, said hand holds being spaced apart only sufficiently to admit the fingers of one hand therebetween and being dimensioned for being grasped individually and simultaneously grasped by the hands of a player with the fingers of the second hand overlapping the fingers of said one hand, said left hand hold being longer and thicker than said right hand hold.

2,873,971
FOOTBALL GAME
Sidney Siegel, State College, Pa.
Application April 30, 1956, Serial No. 581,527
14 Claims. (Cl. 273—94)



1. A simulated football game comprising a playing board having a representation of a football field on a middle portion thereof, a plurality of playing cards, a rectangular playing box on a middle portion of said board for receiving the playing cards, two rectangular coordinate rows of lights bordering two adjacent sides of said playing box, first strategy switches operable by one player and located near one end of said board, second strategy switches operable by the opposing player and located at the opposite end of said board, means including said switches for selecting each light by operation of a switch at either end of the board, said playing cards having on one side thereof representations of a yardage gain or loss at each point defined by said rectangular coordinate lights, and a marker means movable over the football field in accordance with the yardage indicated on a card when one player selects a light along one coordinate and the other player selects a light along the other coordinate.

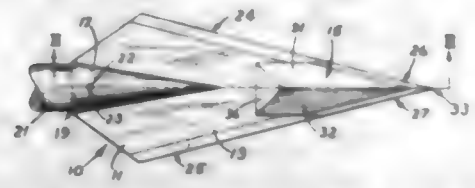
2,873,972
AMUSEMENT RIDE
Norman Bartlett, Ueta, Fla., assignor of one-half to Marjorie Bartlett, Ueta, Fla.
Application October 29, 1953, Serial No. 389,874
3 Claims. (Cl. 273—101.2)



1. In an amusement ride of the roundabout type including a circular succession of rotatable rider supports,

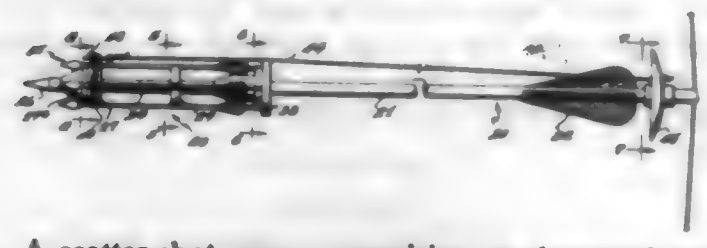
a target figure positioned to be approached by successive riders, electrical signal means at said target figure, a firearm simulating device at each rider support, said firearm device including a trigger operated switch and a normally open switch adapted to be closed by placing the device in aiming position, a circuit connecting said switches in series with the target signal, and brush contact switch means in said circuit and adapted to intermittently close upon rotation of said rider supports through a predetermined arcuate zone of approach to said target, whereby operation of the firearm trigger switch in said zone with the firearm device in aiming position completes the target signal circuit.

2,873,973
ARROWHEAD CONSTRUCTION
John Hauch, Stevensville, Mich.
Application May 23, 1957, Serial No. 661,256
10 Claims. (Cl. 273—106.5)



1. Arrowhead structure comprising: an elongated, relatively flat body member having leading and trailing ends and a pair of lateral edges, the major portions of which converge toward said leading end; means defining a substantially coaxial shaft recess in said body member near, and opening toward, the trailing end thereof; a pair of cooperating offset members secured to said body member at the leading end thereof, said offset members defining a cavity substantially coaxial with said recess, each said offset member having lateral edges converging to form a point at the leading ends thereof, the lateral edges of said offset members merging with the lateral edges of said body member.

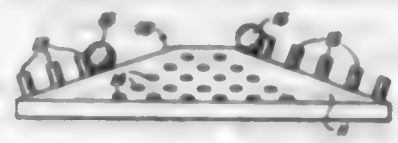
2,873,974
SCATTER-SHOT ARROW
James C. Ramsey, Lincoln, N. Mex.
Application April 14, 1958, Serial No. 728,247
9 Claims. (Cl. 273—106.5)



1. A scatter-shot arrow comprising an elongated arrow shaft, a rod telescoped over the forward end of said arrow shaft and extending forwardly therefrom, a plurality of circular rests slidable on and frictionally secured to said rod in spaced apart relation, said rests each having a plurality of longitudinally extending peripheral notches formed therein, a pusher plate positioned adjacent the rear end of said rod, a plurality of missile arrows supported on said circular rests in the notches therein with their rear ends in engagement with said pusher plate, and releasable means clamping said missile arrows to said rests.

2,873,975
MARBLE GAME STRUCTURE
Gordon W. Haws, Logan, Utah
Application September 27, 1956, Serial No. 612,505
5 Claims. (Cl. 273—134)

1. A game structure, comprising a game board having a plurality of lateral sides gradually sloped in converging formation from a low level in common to a higher level in common; at least two equidiameter balls; a multiplicity of individual ball-restraining pieces; and an equal number of securing means for removably receiving and retaining said ball-restraining pieces, respectively, said means being arranged in mutually similar groups operably associated with the said lateral sides, respectively, of



the game board structure, each of said groups having its said securing means mutually spaced laterally by respective distances less than the diameter of said balls and in an ascending and convergent series of laterally extending rows, each of which rows is spaced from its adjoining rows by distances greater than the diameter of said balls.

2,873,976
GAME PIECES
Francisco Alatorre, San Antonio, Tex.
Original application December 4, 1956, Serial No. 626,113. Divided and this application June 18, 1957, Serial No. 666,365
1 Claim. (Cl. 273—137)

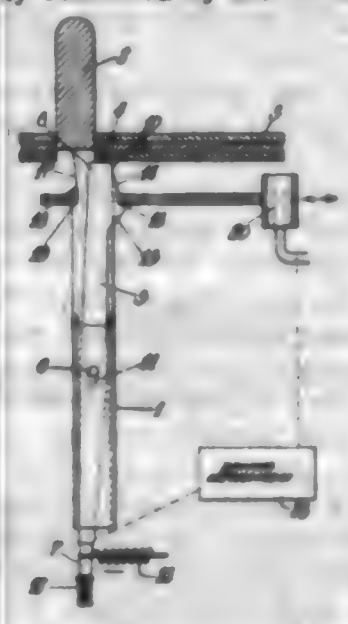


A game piece for playing a multiplicity of different games comprising a flat, rectangular, transparent, hollow enclosing casing closed at one end and open at the other, and a folded strip having game indicia thereon within said casing with the indicia exposed through the face thereof, said closed end being provided with an aperture extending into both side walls of the casing for the reception of an instrumentality to eject the strip from the casing, said strip being divided into three sections bearing different indicia on both sides and each section being of substantially the area of the interior of the casing, said folded strip being inherently resilient so as to yieldingly and frictionally engage the interior walls of the casing to prevent accidental removal from said casing.

2,873,977
RECORD SUPPORTING SPINDLES FOR RECORD CHANGING GRAMOPHONES
Walter Frederick Manning, Swindon, England, assignor to The Garrard Engineering and Manufacturing Company Limited, Swindon, England
Application March 15, 1955, Serial No. 494,380
Claims priority, application Great Britain March 23, 1954
3 Claims. (Cl. 274—10)

1. In a record changer: a vertical offset spindle having a record shelf between its upper and lower ends and a slot therein extending below said shelf; a lever pivotally mounted in said slot and having a head portion extending above said shelf into the offset portion of the spindle for engagement in the spindle hole of a record supported on said shelf; a ledge on said lever at a distance below said shelf, in all positions of said lever, equal to a multiple of the thickness of a record, said ledge being normally within said slot; record size determining means movable laterally toward said spindle at the general level of said ledge and in vertically spaced relation to the under-surface of a record supported on said shelf; and driving mechanism conjointing operating said lever and record size determining means during a record changing sequence; said lever, during a record changing sequence, pivoting to

move its head portion laterally and said ledge out of said slot to displace the lowermost record laterally from said shelf and support the next record on its head portion, the lowermost record dropping onto said ledge and being peripherally contacted by the record size determining means moving laterally toward said spindle; said lever then pivoting in the opposite direction to retract said ledge into said slot to release such lowermost record to drop onto a turntable and to release such next record to drop onto said shelf.



2,873,978

PHONOGRAPH TONE ARM

Daniel P. Doucaster, Long Island City, N. Y., assignor to Columbia Broadcasting System, Inc., New York, N. Y., a corporation of New York

Application June 22, 1954, Serial No. 438,518
4 Claims. (Cl. 274—23)



4. In a phonograph pickup device, the combination of an arm mounted for pivoting movement at one end thereof about a vertical axis only and having a housing portion adjacent the other end thereof, a support member pivotally mounted intermediate its ends about a fixed axis normal to said arm and parallel to the path of movement thereof, record groove responsive electroacoustic transducer means carried by said support member on one side of the pivotal mounting thereof, means balancing said transducer means to exert low pressure on a record to be played, spring means biasing said support member to urge said transducer means normally away from said arm into proper tracking relation with said record, and actuator means coupled to said support member at a position on the other side of the pivotal mounting therefor and having a manually depressable portion extending upwardly through an opening in said housing whereby said transducer means may be moved towards said arm to facilitate removing said transducer means from the surface of a record.

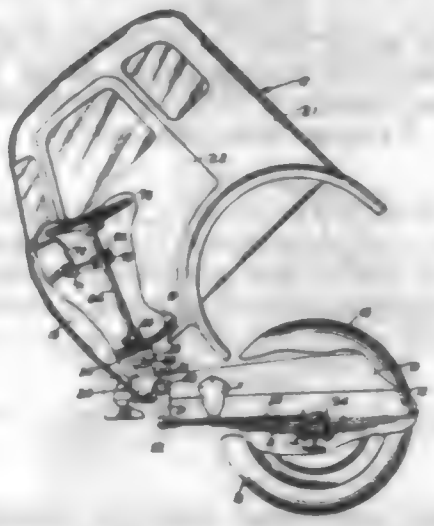
2,873,979

TILTING TRUCK CAB

Chester G. Venditty, Dearborn, and Kenneth G. Crawford, Livonia, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Continuation of abandoned application Serial No. 400,954, December 29, 1953. This application May 17, 1957, Serial No. 663,565
13 Claims. (Cl. 280—87)

11. In a motor vehicle, a frame, steerable road wheels for said vehicle, an enclosed passenger compartment for said vehicle, means pivotally mounting said enclosed passenger compartment upon said frame for tilting movement relative to said frame, a rotatable steering shaft mounted within said passenger compartment for tilting movement therewith, steering mechanism carried by said frame and



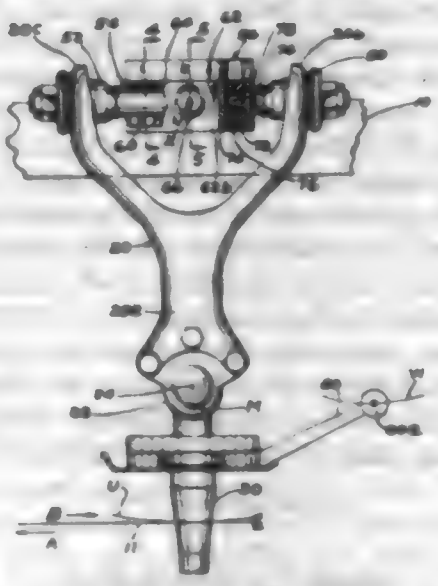
operatively connected to said road wheels to steer the latter, and a universal joint operatively connecting said steering shaft to said steering mechanism, said universal joint being located substantially on the axis of tilting of said enclosed passenger compartment.

2,873,980

FRONT WHEEL SUSPENSION ASSEMBLY

Forest R. McFarland, Huntington Woods, and Paul P. Thomas, Detroit, Mich., assignors to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan

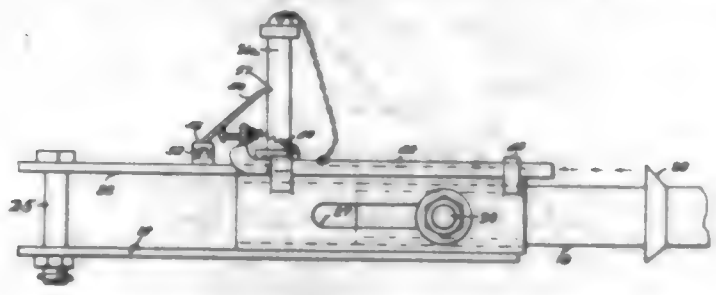
Application August 22, 1955, Serial No. 529,845
2 Claims. (Cl. 280—96.2)



1. A front wheel suspension assembly supported by a vehicle frame including a control arm and a steering knuckle and spindle assembly pivotally mounted by ball joint means at one end of said control arm for pivotal movement in a substantially horizontal plane, comprising a horizontally disposed shaft for pivotally supporting the opposite end of the control arm for pivotal movement in a substantially vertical plane, an angle bracket pivotally mounted on said frame for movement in a substantially horizontal plane, means for connecting the horizontal shaft to said angle bracket, at least one compressible resilient element adapted to be mounted within a corresponding opening in said bracket, and at least one stop member fixedly mounted with respect to the frame and connecting with said resilient element, whereby said control arm and steering knuckle and spindle assembly are moved a limited distance fore and aft of the frame, in a flat arc, when the associated wheel strikes an uneven surface in the road; said resilient element then being com-

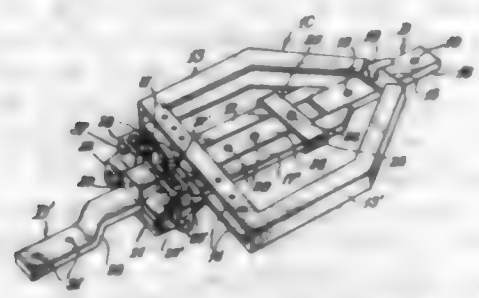
pressed by the stop member, and the former thereafter serving to recenter the control arm and knuckle assembly in their initial position in a horizontal plane.

2,873,981
GENERAL PURPOSE EXTENSIBLE HITCH
Alva Grant and Warren Grant, Elroy, Wis.
Application January 6, 1955, Serial No. 480,144
1 Claim. (Cl. 280—477)



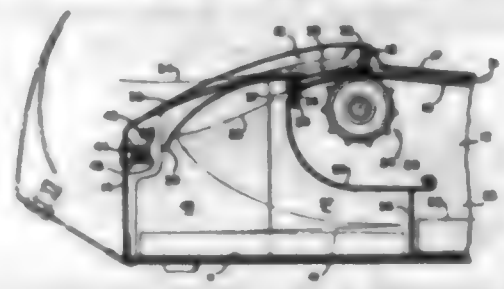
A trailer hitch comprising a pair of tubular members disposed in telescopic relation, a stop fixed to the inner one of said members limiting the movement of said members relative to each other in one direction, each of said members having elongated registrable openings in opposed walls thereof, a bolt loosely engaging through said openings, a pair of parallel bars fixed to the outer one of said members and extending rearwardly therefrom, a hitch pin extending through the rear ends of said bars, said members having aligned openings adapted to register with each other when the outer one of said members abuts against said stop, and a locking pin engageable through said latter named openings for holding said members against movement relative to each other, said locking pin being formed with a keeper notch, a latch carried by the outer one of said members engageable in said keeper notch for holding said locking pin in released position, a latch releasing bar including an elongated side with short right angularly disposed side, the end of said elongated side projecting beyond the end of said outer member, a spring normally biasing said latch retaining bar away from said latch, a pair of guides carried by said outer member, said elongated side slidably engaging said guides, said short side projecting over said outer member, an adjustable latch engaging screw threaded bolt carried by said short side, said spring normally urging said latch releasing bar to inoperative position where the inner end thereof projects from the end of said outer member in a position to disengage said latch from said keeper upon engagement of said stop with said projecting end of said latch releasing bar.

2,873,982
VEHICLE DRAWBAR
Wray F. Graham, Aurora, Ill.
Application January 15, 1957, Serial No. 634,287
5 Claims. (Cl. 280—478)



1. An extensible drawbar for connecting tractors and the like with an object to be drawn thereby, comprising a first draft member including a pair of spaced bars adapted to extend rearward in substantially parallel array in a generally horizontal plane from a place of attachment to a tractor, each of said bars having a first coupling element secured thereto adjacent to its rear end, each of said first coupling elements having an upwardly opening slot extending transversely of the bars and in register with the slot in the other element, a second draft member including a draft bar slidable longitudinally of and between said spaced bars and including means for interconnection with an object to be drawn, a crosshead mounted on the forward end of said second draft member and engaging said spaced bars to retain said second draft member between said spaced bars and limiting movement thereof between predetermined forward and rearward positions, a second coupling element secured to said slidable bar at a place intermediate of its ends and having an upwardly opening slot registrable with the slots in said first coupling elements when the slidable bar is in a predetermined forward position, a gravity dropping coupling pin normally extending through all of said slots when they are all in register for locking said slidable bar in said forward position and manually releasable from the slot in the coupling element on the slidable bar, said second coupling element including a wedging member forward of the slot in such element, said wedging member having an upwardly directed wedging surface that is downwardly and forwardly inclined for wedging said pin upward against the action of gravity upon movement of the slidable bar to its predetermined forward position.

2,873,983
AUTOGRAPHIC REGISTER
John H. Kroemer and John T. Davidson, Dayton, Ohio, assignors to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application February 4, 1955, Serial No. 486,196
3 Claims. (Cl. 282—16)

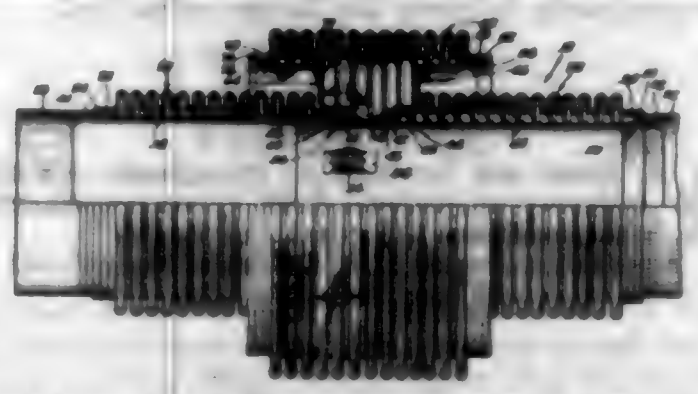


1. An autographic register, including a cabinet having a base and upstanding side walls, upwardly extending intermediate partition means defining with said side walls at one end of the cabinet a refold compartment and at the other end thereof a supply compartment, said partition means acting as a closure for the inner ends of said compartments, a closure for the open end of said refold compartment hinged to said cabinet for movement to open and close said compartment to access, a cross rod extending transversely through said refold compartment and supported between said side walls, a lever on the said closure for said refold compartment adjustable into and out of latching engagement with said rod, and a cover for said cabinet pivotally connected thereto for relative raising and lowering motions, one end of said cover being turned downward to form a closure for the open end of said supply compartment and the other end thereof extending into said refold compartment for engagement with said cross rod in a manner to limit movement of said cover in one direction.

2,873,984
MULTIPLE BELLOWS EXPANSION JOINT WITH LIMIT MEANS
Raymond C. Andersen, Lombard, and Edwin W. Parlasca, Elgin, Ill., assignors to Flexonics Corporation, Maywood, Ill., a corporation of Illinois
Application June 18, 1954, Serial No. 437,839
4 Claims. (Cl. 285—228)

1. A compensator of the type described comprising first and second corrugated substantially axially aligned

tubes disposed with inner ends adjacent each other, a sleeve having a predetermined internal diameter extending through said first tube and interconnected with an outer end portion of said first tube and an inner end portion of said second tube, a second sleeve having an external diameter less than said internal diameter of the first sleeve and extending through said second tube and telescoping into said first sleeve and interconnected with an outer end portion of said second tube, an inner end portion of said first sleeve having a plurality of circumferentially spaced openings therein, an innermost terminal end section of said first sleeve inner end portion being substantially circumferentially continuous and uninterrupted, integral protuberance means deformed from and extending radially outwardly from an inner end portion of said second sleeve through said openings and connected to an inner end portion of said first tube, said second sleeve having a substantially continuous uninterrupted inner terminal end section a third corrugated tube of larger diameter than and substantially concentric with said first and second tubes and having its interior communicating with the interior of said sleeves, a first end closure connected with one end of said third tube and also interconnected with said protuberance means, and a second end closure connected with the opposite end of said third tube and also connected with the inner end portion of said first sleeve.

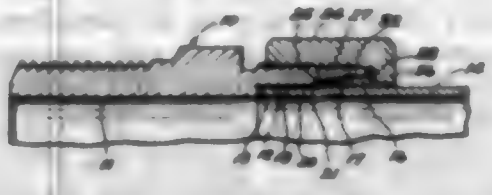


2,873,985

TUBE COUPLING INCLUDING A PUSHED DEFORMABLE TUBE CUTTING WEDGE

John D. Baldwin, Jr., Highland Heights, Ohio, assignor to The Weatherhead Company, Cleveland, Ohio, a corporation of Ohio

Application September 22, 1953, Serial No. 381,568
2 Claims. (Cl. 285—342)



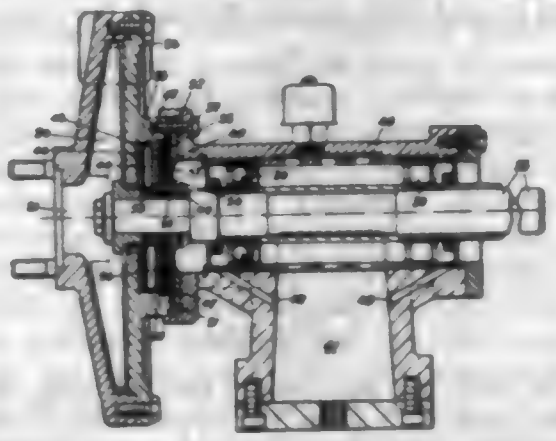
1. A tube coupling comprising a first fitting member having a fluid conducting bore, a cylindrical counter bore adapted to receive the end of the tube, and an intermediate seat for an end of a tube, the diameter of said counter bore being larger than the diameter of said tube to provide clearance therebetween, a second fitting member having a bore and a shoulder facing said bore, means to draw said fitting members together, and a unitary cutting ring consisting entirely of a material harder than said tube; said cutting ring formed with an axial through bore of a diameter closely fitting the outside diameter of the tube being sealed, a rearward shoulder adapted to be engaged by said second member, a substantially conical camming surface extending from a minimum diameter adjacent to the forward end toward the rearward end, and a tube cutting edge spaced from the forward end; the portion of said ring forward of said cutting edge forming a pilot portion of a wedge shaped cross section, the rearward end of said pilot portion having a radial extent greater than the radial extent of said clearance, said ring being constructed and arranged so that when the coupling is assembled with the tube said ring is positioned between said first fitting member and the shoulder of said second fitting member surrounding said tube the end of which abuts said seat, said shoulder of said second fitting member urges said ring into said counter bore thereby camming said rearward end of said pilot portion and cutting edge radially into the outer surface of said tube.

2,873,986

COMBINED FLUID AND CONTACT SEAL

William Murray, Leamington Spa, England

Application October 21, 1955, Serial No. 542,035
Claims priority, application Great Britain October 21, 1954
3 Claims. (Cl. 286—10)



1. A seal for preventing leakage of fluids between relatively rotating seal housing and shaft elements of machines and comprising sliding pressure contact seal means formed by co-operating members situated on the said elements, said housing element including an annular liquid-retaining sealing channel and said shaft element carrying an impeller rotatable in said channel to cause a pressure to be centrifugally generated in liquid therein, an axially movable annular wall which forms one side wall of the said sealing channel and a flexible wall fixedly sealed on the one hand to the said housing element and on the other hand to an inward region of the said axially movable wall and forming with the said latter wall and said housing element an inwardly closed pressure channel on the side of the said axially movable wall opposite to the sealing channel, the said sealing and pressure channels having communication at their outer region, one of said co-operating members of the said contact seal means being carried by the said axially movable wall inwards of said pressure channel and the other of said co-operating members being carried by the shaft element, said sealing and pressure channels at a predetermined speed of rotation of the shaft element and impeller permitting liquid in the sealing channel to centrifuge outwards therein and form the liquid seal and trap liquid in the pressure channel so that it displaces said axially movable wall towards the impeller and reduces or eliminates the pressure between the said members of the contact seal.

2,873,987

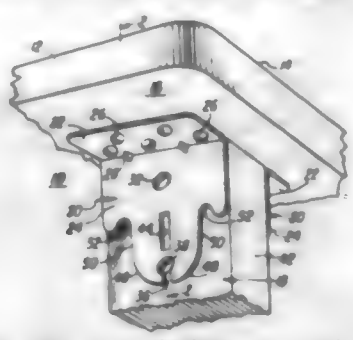
LEG BRACKET

Charles O. Larson, Sterling, Ill.

Application May 15, 1958, Serial No. 735,442
3 Claims. (Cl. 287—14)

1. In combination a bracket having a pair of spaced side plates adapted to be attached to a planar support to extend normally thereto, means for securing said side plates to the under surface of said support, a leg having an upper end portion shaped to be slidably disposed between said spaced side plates, each of said side plates having vertically disposed elongated closed slots formed

therein and disposed normal to the plane of said support, said closed slots being formed centrally of the lateral marginal edges of each of said plates, each plate having an additional elongated open slot spaced from and disposed in line with the closed slot of each of said plates, said open slots of each plate having the outer ends opening onto the lower marginal edge of each of said plates, each of said side plates having an aperture formed therein and disposed toward the under surface of said support and in alignment with said slots, a pair of spaced bolts normally disposed in said slots and aperture, said leg being mounted rigid and non-folding with respect to said support when one of said bolts is disposed in said aperture and the other of said bolts is disposed in said open slot, said leg being foldable with respect to said support when said pair of spaced bolts is disposed in said aligned closed and open slots, said bolts when positioned in said slots passing through the upper central



portion of said leg and being spaced apart such that when the upper bolt is at the upper end of the upper closed slot the lower bolt will be at the upper end of the lower open slot and when the upper bolt is at the lower end of its slot, the lower bolt will be disposed wholly beyond the open end of the lower open slot, and the lower walls of each plate beginning with the outer open end of said open slots curving arcuately outwardly in opposite directions from each adjacent wall of said open end of said open slot and then extending substantially parallel to and directed away from said open slot toward the opposite end of said plate and forming on opposite marginal sides of said plate in equally spaced relation from the walls of said closed slots a pair of notches spaced laterally and equally from and in line with the upper end of said closed slots, said notches being open at their bottom portions and in position to receive the lower bolt therein.

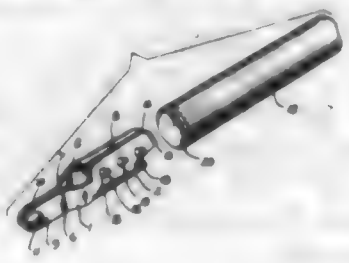
2,873,988

ROD AND FIXTURE CONNECTOR

Harvey L. Bartholomew, Kansas City, Mo.

Application March 6, 1957, Serial No. 644,276

2 Claims. (Cl. 287—126)



1. A fixture connector for use on a relatively soft rod end portion substantially circular in cross section including a fixture having a sleeve-like socket member thereon with the side walls defining a socket of slightly ovate cross section and of less diameter than a rod end portion adapted to be secured therein, said socket being open at one end for receiving said rod end portion, said socket member being of heat-treated spring metal and having a slot extending substantially longitudinally and for the full length thereof whereby when said rod end portion is inserted in the socket the side walls thereof are spread and said slot widened to enlarge the socket into a substantially cylindrical cross section wherein said side walls have gripping engagement with said rod end portion, and a plurality of rigid lugs integral with the socket side walls on opposite sides and adjacent to said slot, said lugs each having an inner end of arcuate concave form, said lugs extending inwardly in the socket and being inclined inwardly and away from said open end of the socket and terminating in tooth-like edges, said lugs being relatively hard whereby during movement of the rod end portion into the socket the lugs ride over said rod end portion further expanding said socket member and upon stopping of said movement the resiliency of the socket member effects penetration of the tooth-like edges on the lugs into said rod end portion whereby force applied to the fixture and rod end tending to separate same increases the penetration to retain the fixture on the rod.

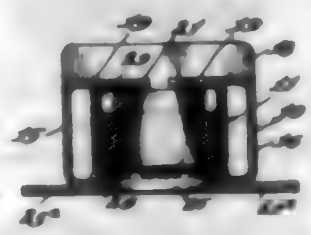
2,873,989

CATCH ASSEMBLY

Roy A. Stone and Leonard K. Ploughman, Rockford, Ill., assignors to National Lock Company, Rockford, Ill., a corporation of Delaware

Application August 12, 1954, Serial No. 449,382

1 Claim. (Cl. 292—70)



A catch assembly for the hollow metal door of a cabinet for receiving and retaining the projecting end of a latch member and retaining the door closed but permitting it to be opened when desired, said catch assembly including a housing mounted in an opening in a supporting wall of said door and providing an enclosure including spaced and oppositely disposed side walls, an inturned flange at the outer end of said side walls, a disc affixed to said inturned flange with said disc abutting the outer face of said supporting wall when the housing is mounted in said opening, and inturned flanges at the inner end of said housing, said housing and disc having an opening aligned with the opening in the supporting wall with said openings being of a size to loosely receive and through which the projecting end of the latch member extends when the door is closed, a catch member of a flexible and resilient plastic composition confined but loosely positioned within said housing to permit said catch member to bodily shift laterally in all directions, said catch member provided with a flared and rearwardly tapered bore therethrough for receiving said projecting end and the portion of said catch member defining said bore expanded by and frictionally gripping and retaining the projecting end of the latch member when the door is closed, said catch member being free to shift in its housing upon engagement of the projecting end of the latch member with the flared end of the bore and be moved by said projecting end to bring the bore of the catch member into alignment with said projecting end.

2,873,990

CLOSURE FASTENER

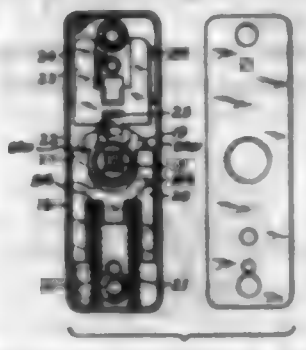
Philip Friedman and George J. Friedman, New York, N. Y.; Iris Friedman and Hyman Orenstein, executors of said Philip Friedman, deceased, assignors to Ross Grossman, Ruth Stein, Iris Friedman, and Hyman Orenstein as trustees for Barry Friedman, and Iris Friedman and Hyman Orenstein as trustees for Robert Friedman, doing business as G. F. S. Investing Co., Brooklyn, N. Y.

Application November 6, 1956, Serial No. 620,660

2 Claims. (Cl. 292—228)

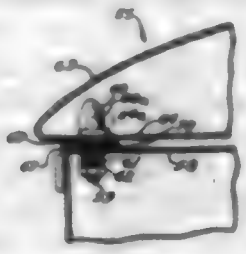
1. In a closure fastener for a swinging door: a hollow frame; an outer knob connected to an inner handle by a

shaft extending through the said hollow frame, a ferrule, within the hollow frame, non-rotatably mounted on the shaft having a pair of shoulders spaced on opposite sides of the shaft; a stop slide slideably mounted within the frame, with cross sectional dimensions substantially the same as the inside dimensions of the hollow frame, provided with stop faces at one end thereof adapted to bear against the shoulders on the ferrule, and at least one seat for a compression spring, said seat having a bearing



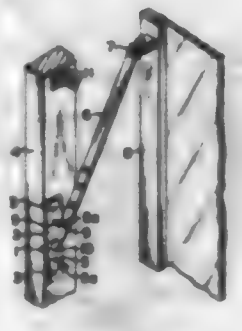
surface at least as wide as the diameter of the spring; at least one compression spring bearing against the seat in the said stop slide at an end remote from the stop faces and against a portion of the hollow frame; and the said inner door handle having a nosed latch portion adapted to engage a strike rod mounted on the door frame for the said door when the door is in closed position; whereby the action of the spring and stop slide yieldably maintain the latch portion of the handle in latched position.

2,873,991
LATCH
Galen L. Larimore, Cleveland, and Benjamin H. Matthews, Chagrin Falls, Ohio, assignors to The Lapeer Mfg. Company, Cleveland, Ohio, a corporation of Ohio
Application December 10, 1954, Serial No. 474,468
3 Claims. (Cl. 292—241)



1. Means for latching a cover member to a box member including a latch pin mounted in one of said members for limited axial movement and having a nose extending away from said one member and into the other of said members, spring means operatively associated with said pin and yieldingly urging it axially in one direction, a flat lever fixed to said pin and lying between said members when said cover member closes said box member with the flat dimension of said lever generally parallel to the registering surfaces of said members there, a lug projecting radially outwardly from the nose of said pin, a keeper plate on the other of said members and there being an aperture in said plate complementary to the cross-section of said pin at the zone of said lug, there being a notch in said plate not substantially wider than said lug, and said lug and notch and lever being so positioned that said lug registers with said notch when said lever extends outwardly at an angle to the edge of said cover member, and said lug lies beyond said plate in latched position and out of registration with said notch when said lever lies closely parallel to the edge of said cover member, said lever in said last named position closely conforming to the edge of said cover member there so as to be inconspicuous.

2,873,992
CASEMENT STAYS
Thomas McCaughan, Mount Eden, Auckland, New Zealand
Application September 30, 1954, Serial No. 459,415
Claims priority, application New Zealand October 8, 1953
6 Claims. (Cl. 292—262)



6. In a casement window having side jambs and a sash pivotally connected to one side jamb for movement between open and closed positions, a device for holding the sash selectively in one of a plurality of positions from a fully closed position to a fully open position, such device comprising at least three vertically spaced apart projections carried by the other side jamb with the lower and the intermediate projections being located at a point rearwardly of the upper projection respecting the sash, an arm pivotally connected to the sash on the same plane as the upper projection and projection engaging means adjacent the free end of the arm engageable selectively with one of said projections to hold the sash in the desired position with the free end of the arm being located within the confines of the side jambs.

ERRATUM

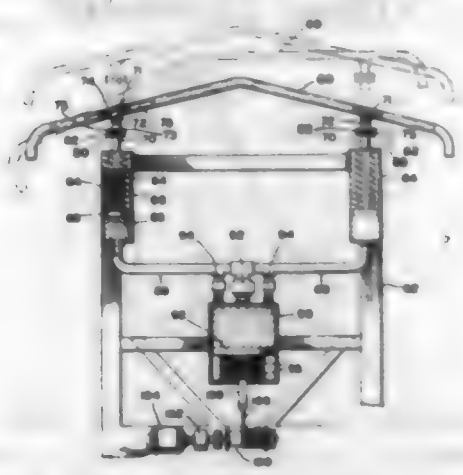
For Class 292—288 see:
Patent No. 2,873,769

2,873,993
BUMPER STRUCTURE
Kurt G. C. Savke, Cincinnati, Ohio, assignor to American Hospital Supply Corporation, Evanston, Ill., a corporation of Illinois
Application June 10, 1955, Serial No. 514,612
8 Claims. (Cl. 293—62)



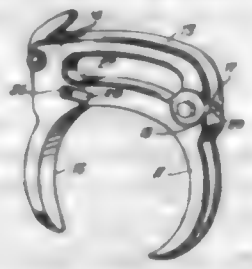
1. In a bumper and channel combination, a resilient elongated bumper member having a head portion extending along one side thereof and a pair of flexible legs diverging outwardly from said head portion, a channel member having a base wall and converging side walls confining said legs and providing an opening for said head portion, said legs having bottom surfaces normally lying along intersecting planes forming a V, said legs also defining a notch centrally therebetween separating said bottom surfaces, said legs being tapered and terminating at their ends in edges seated within the channel of said channel member at the junctions of said side and base walls, said head portion having lateral dimensions smaller than the width of said channel opening for sliding movement of said head portion inwardly and outwardly therein, said head portion projecting outwardly through said opening and being inwardly movable towards said face wall when said legs are flexed in response to impact forces applied to said head portion.

2,873,934
RESILIENTLY MOUNTED BUMPER FOR VEHICLES
James Ray Omps, Elkins, W. Va.
Application May 17, 1954, Serial No. 430,053
1 Claim. (Cl. 293—86)



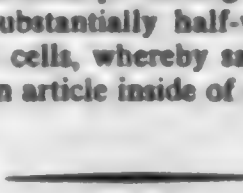
In a resilient bumper for vehicles, the combination of a vehicle frame including longitudinally extending side members, a cylinder mounted longitudinally on each side member at the forward end thereof, a piston in each cylinder, a piston rod connected to each said piston and extending out of the forward end of each cylinder, a coil spring in each cylinder biasing each piston towards the rear of its associated cylinder, a flange on each piston rod exteriorly of its cylinder, a resilient stop washer on each flange, a flanged extension secured to each of said first-mentioned flanges, a channel shaped bumper bar extending across the front of said frame, a bar adjacent each end of said bumper bar and slidable therein, bearings between each bar and said bumper bar, a pivot connecting each said bar to an adjacent flanged extension, a fluid pressure tank mounted on said frame, a fluid connection including a T having its stem connected to said pressure tank between said pressure tank and each of said cylinders, a one-way check valve in the stem of said T precluding flow of fluid to said pressure tank, an independent return line from said fluid connection to said pressure tank for each cylinder on opposite sides of the arms of said T, a one-way check valve in each return line precluding flow of fluid from said pressure tank, a piston in said pressure tank, and a spring biasing said last-mentioned piston forwardly, whereby an impact on said bumper bar will force the piston in one or both cylinders against the pressure of fluid therein to compress the spring in said pressure tank to permit yielding of said bumper bar.

2,873,935
PIPE HANDLING TOOL
Leonard E. Turner, Stanton, Tex.
Application July 18, 1956, Serial No. 598,701
7 Claims. (Cl. 294—15)



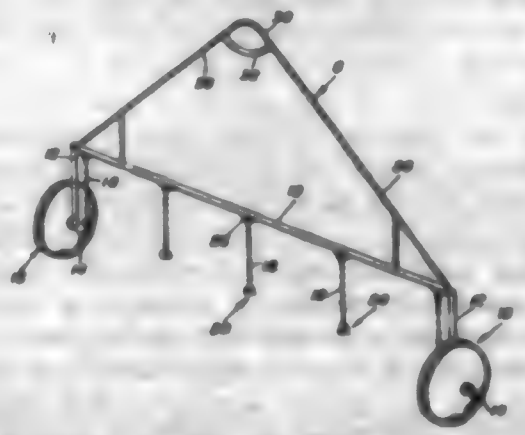
6. A handling tool including, a head member having a handle intermediate its ends, a clamp depending from one end of the head member in fixed relation thereto, a curved closure member hinged intermediate its ends to the opposite end of the head member and having a finger member underlying the handle and a clamp member depending in spaced relation to the clamp, the finger member having a latch element on its outer end, a latch carried by the head disposed to engage the latch element of the finger member of the closure member, and a stop carried by the head member in the path of the closure member to limit the upward swing of the finger member.

2,873,936
LIFTING CUP FOR ARTICLE TRANSFERRING APPARATUS
Charles J. McHugh, Jr., Cincinnati, Ohio, assignor, by mesne assignments, to The Lodge & Shipley Company, a corporation of Ohio
Application May 2, 1956, Serial No. 582,236
14 Claims. (Cl. 294—64)



1. A lifting cup for article transfer apparatus comprising a shell having a cylindrical hollow interior which opens downwardly, a mouthpiece engaged on the lower end of said shell, said mouthpiece being configurated to provide an outwardly and downwardly flaring lower rim portion for said shell, an inverted cup-shaped bladder fitting snugly into the hollow interior of said shell, said bladder being made of a rubber-like material, the exterior of the bladder in the lower portion thereof being configurated to provide a plurality of discreet inflatable air cells between the bladder and the inside wall of the shell, means to seal the lower part of said bladder with respect to said shell, a flexible hose adapted to connect said shell to a source of air pressure, the interior of said hose being in communication with a chamber inside of said shell above said bladder, means to hold the top of the bladder snugly against the upper end of the hollow interior of the shell, a plurality of grooves in the outer side of the bladder in the upper portion thereof connecting said chamber to the respective cells surrounding the lower portion of the bladder whereby upon the application of fluid pressure to said hose the respective cells are inflated inwardly into article gripping relationship with an article over which the bladder is engaged, and a plurality of wedge-shaped article gripping members formed as an integral part of the inner wall of the bladder in the lower portion thereof, said article gripping members presenting edges in a horizontal plane which are substantially half-way between the top and bottom of the cells, whereby said edges are brought into contact with an article inside of said bladder upon the inflation thereof.

2,873,997
BODY RECOVERING DRAG
Lawrence E. Thomas, Terre Haute, Ind.
Application October 9, 1956, Serial No. 614,878
2 Claims. (Cl. 294—66)



1. A body recovering drag comprising a flat triangular frame having forwardly directed side members joined to-

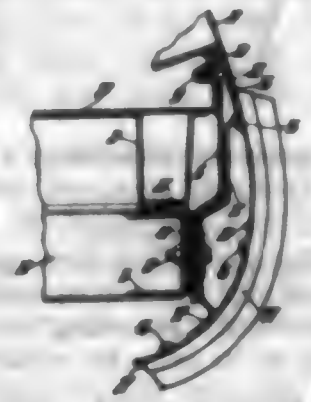
gether at converging ends and providing an apex portion which serves as a place of attachment for a draft cable, the diverging ends of said side members being joined by a frame member, the latter being disposed opposite to said apex portion and constituting a support member, spaced parallel duplicate legs connected at their forward ends to the respective end portions of said support member, said legs being disposed at right angles to said support member and the rearward ends of said legs being outturned and providing journals disposed parallel to said support member and being in axial alignment with each other, said journals, legs and several members of said frame all being coplanar, surface engaging wheels mounted for free rotation on said journals, said frame being cradled between said wheels and capable of being swung relative to and toward and from the water's bottom surface by varying the length of a draft cable which is adapted to be connected to the aforementioned apex portion, said support member being spaced a predetermined requisite distance forwardly from the common turning axes of said wheels, a plurality of individual chains, the rear ends of the chains being free and provided with grappling hooks, and means joined to the support member at longitudinally spaced points and connecting said chains to said support member, whereby the chains are allowed to dangle and hang down from the frame in a manner to bring the grappling hooks into play depending upon the inclination of the frame to horizontal and vertical.

2,873,998

AUTOMOBILE REAR END CONSTRUCTION

Rudolph Potocnik, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 23, 1953, Serial No. 393,629
2 Claims. (Cl. 296—28)



1. In an automobile having separate chassis and body portions, a rear end construction of the character described, including: a rear chassis member; a main body structure having a portion located rearwardly of said chassis member; means for mounting said main body structure atop the chassis; a rear body panel having a curved portion extending below and being spaced from and underlying said chassis member; a backing plate having a base portion spaced from said rear body panel and peripheral flanges abutting said rear body panel and connected thereto; and means securing the base portion of said plate to said main body structure and to said chassis member after the main body structure has been mounted on the chassis, at least a part of the base portion of said backing plate lying in abutting relation to said main body structure.

2,873,999

ADJUSTABLE SUPPORT FOR A SHOWER HEAD

Ernest C. Webb, Bay Village, Ohio

Application June 21, 1956, Serial No. 592,774
4 Claims. (Cl. 299—73)

1. A support for the conduit of a shower head and comprising a body member having an elongated passage therein, a carrier member in the pasage, a friction shoe on the carrier, a grip member on the outside of the body member and having a conduit engaging portion and an attaching portion, attaching means connecting the attaching portion of the grip member and a portion of the carrier, which is spaced from the shoe, to said body member, a force transmitting member extending through the body member and having operative engagement with said carrier member and said grip member.

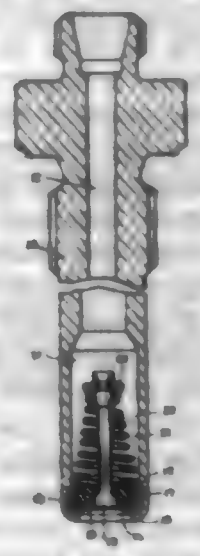


2,874,080

FUEL INJECTION NOZZLES

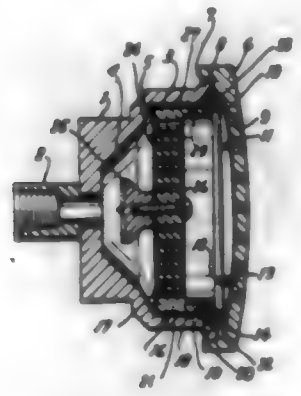
Carl H. Nystrom, West Springfield, Mass., assignor to American Bosch Arma Corporation, a corporation of New York

Application March 13, 1957, Serial No. 645,844
3 Claims. (Cl. 299—107.6)



1. In a device of the character described, a nozzle body having a fuel passage extending therethrough, means on one end of said nozzle body for connecting said body to a holder, said body having a chamber adjacent the end thereof opposite said connecting means, said chamber connecting with said fuel passage, an internal annular shoulder in the wall adjacent the free end of said chamber portion, an annular plate in said chamber having a discharge passage therethrough and having its periphery engaging said internal annular shoulder, the end of said body being turned over said plate member to retain said plate member in position on said shoulder, an outwardly opening valve member extending through said discharge opening in said plate, spring means in said chamber adapted to normally retain said valve member in closed position in said discharge orifice, said plate member having a peripheral groove and sealing means in said groove for preventing leakage between the periphery of said plate and the adjacent wall of said body, and resilient means forming a sealing connection between said valve member and the adjacent surface of said discharge orifice in said plate member.

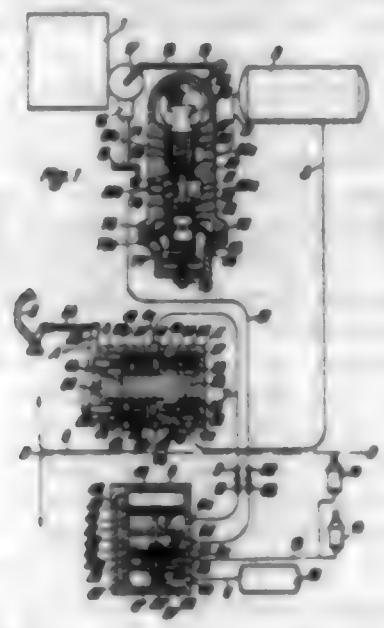
2,874,001
SHOWER HEAD
Ernest C. Webb, Bay Village, Ohio
Application June 21, 1956, Serial No. 592,957
8 Claims. (Cl. 299—141)



2. A shower head comprising a hollow body adapted for connection to a shower bath water supply pipe and having an inlet passage and a discharge passage, a detachable cap covering the outlet of the discharge passage and having a multiplicity of passages therethrough from its inner face to its outer face, an orifice plate of thin relatively stiff but flexible sheet material overlying the inner face of the cap and readily detachably from the body and having a plurality of water jet orifices therein which have burrless, smooth entering edges and which are aligned with the passages of the cap, said orifices being respective to the passages in the cap, the cap passages being sufficiently greater in cross section than the orifices so that the jets from the orifices, at shower bath water supply pressures sufficient to cause the water to issue as jets from the orifices, respectively, can pass through associated passages in the cap free from contact with the peripheral wall of their associated passages in the cap, said orifice plate being so thin and the entry edge of the orifices being so sharp that each jet, under the said pressure of a shower bath water supply, in passing through its orifice, remains out of contact with the peripheral wall of its orifice from the outer surface of the plate substantially to the inner surface of the plate, and out of contact with the peripheral walls of the cap passages, and extends axially of its orifice for a material distance beyond the cap, and baffle means interposed between the inlet passage and the innermost face portions of the plate for causing the water to reach the orifices with a direction of flow predominantly endwise of the orifices, thereby to reduce the turbulence in the jets.

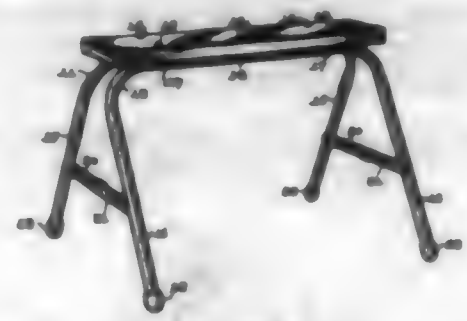
2,874,002
DUAL BRAKE SYSTEMS FOR AUTOMOTIVE VEHICLES
Walter Cambeis, Essen, Germany, assignor to Fried. Krupp Motoren- und Kraftwagenfabriken G. m. b. H., Essen, Germany
Application April 23, 1957, Serial No. 654,593
Claims priority, application Germany December 21, 1951
11 Claims. (Cl. 303—2)

1. In a compound, road-riding automotive vehicle including a tractor and at least one trailer attached thereto, said tractor being equipped with friction brake means and with auxiliary brake means operable independently of said tractor friction brake means, said trailer being equipped with friction brake means; first brake-operating means for simultaneously operating said tractor friction brake means and said trailer friction brake means, second brake-operating means operatively connected to said trailer friction brake means for actuating said trailer friction brake means independently of said tractor friction brake means and responsive to actuation of said auxiliary brake means, whereby, upon operation of the latter to brake said tractor without concurrent operation of said tractor friction brake



means, said trailer friction brake means are automatically operated.

2,874,003
SAWHORSE
Douglas N. Humphries, Grand Rapids, Mich.
Application May 13, 1954, Serial No. 429,617
3 Claims. (Cl. 304—5)

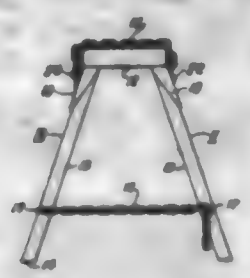


1. A foldable sawhorse comprsing a top bar, and a pair of inverted U-shaped elements having their bight portions secured to the underside of the top bar and having their leg portions depending from said bight portions at opposite sides of the top bar to form opposite pairs of downwardly-outwardly extending supporting legs for the sawhorse when in its extended condition of use, one of said U-shaped elements being hingedly connected to said top bar so as to be swingable to a position alongside the other U-shaped element with the feet of the elements together in the folded, non-use condition of the sawhorse, the bight portions of said U-shaped elements secured to the underside of the top bar by means of spaced hangers each comprising a strap having one end thereof secured to the top bar near one edge of the bar and extending downwardly and then upwardly toward the opposite edge of the top bar to provide a bearing for the hingedly connected U-shaped element, and thence between the top bar and the bight portion of the other U-shaped element, and fastening means passing through said other U-shaped element, through the strap, and through the top bar.

2,874,004
PORTABLE TRESTLES
Jo W. Tucker, El Paso, Tex.
Application October 19, 1956, Serial No. 617,115
5 Claims. (Cl. 304—5)

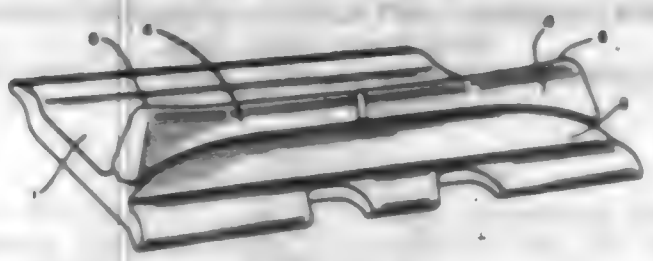
1. In a portable trestle, a pair of legs adapted to support a horizontal member, a bracket at the upper end of each leg and having a head for bearing against the underside of the member, an upper flexible element having connection with the brackets and adapted to overlie the

member, and a lower flexible element for connecting the medial portions of the legs for holding the upper element



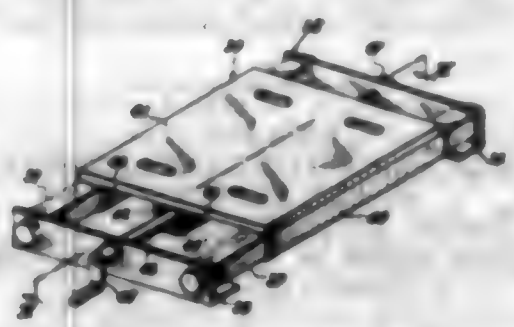
and brackets in engagement with the member when said legs are swung toward each other.

2,874,045
REINFORCEMENT MEANS FOR A TRACK PLATE OF A TRACK LAYING VEHICLE
Erik Ragnar Engström, Bofors, Sweden, assignor to Aktiebolaget Bofors, Bofors, Sweden, a corporation of Sweden
Application September 17, 1955, Serial No. 534,953
Claims priority, application Sweden October 1, 1954
10 Claims. (Cl. 305—10)



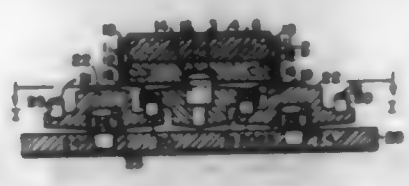
1. A reinforcement shoe portion for reinforcing a worn portion of the grouser of a track plate as used for track laying vehicles, said shoe portion being in form of an elongated solid member having a longitudinal bottom concave contour substantially fitting the contour of the upper surface of a convex worn grouser portion reduced in width and height towards its outer end, the upper contour of said shoe being concave and defining a surface of maximum width and height at the outer end portion of the member.

2,874,066
SUPPORTS
Jerome J. Sloyan, Trenton, N. J.
Application December 30, 1954, Serial No. 478,863
5 Claims. (Cl. 308—4)



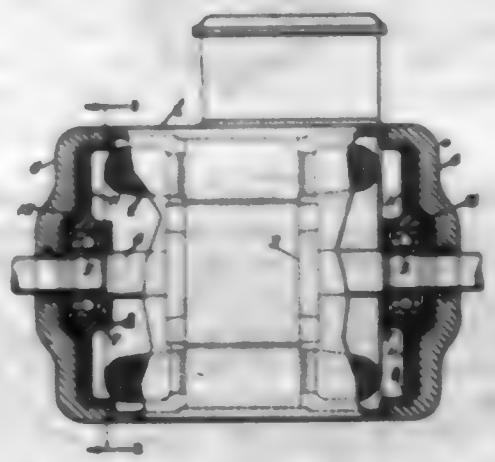
1. A support comprising fixed rails and a slidable carriage thereon, said carriage having gliders on said rails and a cross plate from one glider to the other, a tubular housing fixed on said cross plate substantially as long as and located between and parallel to said gliders, said housing being polygonal in cross section and thereby having one function of reenforcing said plate, a nut in said housing, said nut having a polygonal circumference conforming to and in sliding engagement with the interior of said housing, said housing thereby having a second function of mounting said nut and restraining it from rotation, and a rotatable shaft within said housing and in threaded engagement with said nut whereby said housing has a third function of protecting said shaft where passing beneath said plate.

2,874,067
BEARINGS
Benjamin Cannetti and William M. Wepfer, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 1, 1954, Serial No. 440,827
11 Claims. (Cl. 308—160)



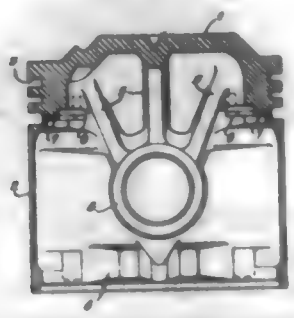
10. In a thrust bearing, the combination comprising a plurality of arcuate thrust shoes, a supporting member having an annular channel formed in a face thereof, and means pivotally mounting said shoes at spaced positions in said channel, said means including a plurality of upstanding first crown pins individually secured to said supporting member at said positions, an elongated secondary link member pivotally mounted on each of said first pins, a pair of second crown pins mounted individually adjacent the ends of each of said secondary link members, a number of elongated primary link members, said second crown pins being individually inserted into loosely fitting recesses formed on the under surface of each of said primary link members to pivotally mount said primary link members on opposing ends of adjacent pairs of said secondary link members, and a plurality of upstanding third crown pins individually secured to said primary link members, said third crown pins being individually inserted into loosely fitting recesses formed in the under surface of said thrust shoes.

2,874,098
BEARING MOUNTING FOR SILENT RUNNING ROTATING MACHINE PARTS
Sven Erik Wilner Orin and Ragnar Kinberg, Goteborg, Sweden, assignors to Aktiebolaget Svenska Kullagerfabriken, Goteborg, Sweden, a corporation of Sweden
Application February 13, 1957, Serial No. 639,924
Claims priority, application Sweden February 23, 1956
4 Claims. (Cl. 308—184)



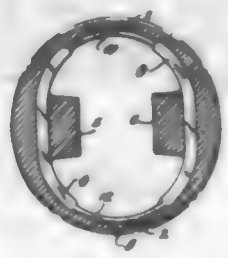
1. In a bearing mounting for the rotors of electric machines having a frame forming a rotor chamber and including end shields excluding foreign matter from said chamber, a shaft for the rotor intersecting one at least said shields, a radially stiff plastic disk located at each end of the frame inwardly of the respective shields and supported at its outer peripheral edge in a portion of the frame remote from the shaft axis, a bearing seat in each of the plastic disks, and rolling bearings mounted in and finding their sole supports in said seats and constituting themselves the sole supports for the shaft in the frame.

2,874,009
TRUNK PISTON
William F. Peterson, Creve Coeur, and William M. Venner, Brentwood, Mo., assignors to Sterling Aluminum Products, Inc., St. Louis, Mo., a corporation of Missouri
Application July 11, 1955, Serial No. 521,096
8 Claims. (Cl. 309—11)



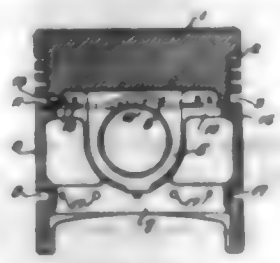
1. A trunk piston of a metal of relatively high thermal expansion, comprising, a head, a skirt provided with wrist pin bosses and with thrust faces, and a quarter segmental element positioned at the top of the skirt, extending circumferentially only along and through but unanchored along a thrust face of the skirt and cast anchored at its ends in the boss regions, whereby upon heating of the piston in the cylinder, the skirt will push out on the wrist pin axis and will pull in on the thrust face axis with respect to the head.

2,874,010
TRUNK PISTON
William F. Peterson, Creve Coeur, William M. Venner, Brentwood, and Percy L. Bowser, Jr., Ladue, Mo., assignors to Sterling Aluminum Products, Inc., St. Charles, Mo., a corporation of Missouri
Application March 18, 1957, Serial No. 646,719
4 Claims. (Cl. 309—13)



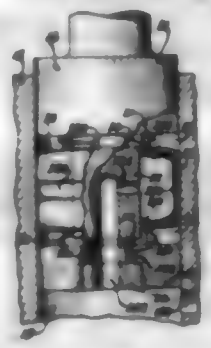
1. A trunk piston of a metal of relatively high thermal expansion, comprising, a head, a skirt provided with wrist pin bosses and thrust faces one of which is axially separated from the head, and a ring of a metal of relatively low thermal expansion lying within and extending completely around the top of the skirt, said ring having a first sector partially enveloped radially outwardly by the piston metal but partially exposed radially inwardly along an extended part of the separated thrust face so as to leave said first sector unanchored in said separated thrust face, said ring having second sectors displaced from said first sector, said second sectors being cast-enveloped for extended distances therealong by the piston metal in the boss regions so as to cast anchor said second sectors therein, adapted to stress said first sector and the piston metal thereover radially outwardly, the cross-sections of said second sectors being of greater rigidity and depths radially than the cross-section of said first sector and the second sectors being proportioned as to their cross-sections and lengths in accordance with the desired radial stress to be imparted to said first sector and the piston metal thereover.

2,874,011
TRUNK PISTON
William F. Peterson, Creve Coeur, and William M. Venner, Brentwood, Mo., assignors to Sterling Aluminum Products, Inc., St. Charles, Mo., a corporation of Missouri
Application March 18, 1957, Serial No. 646,875
10 Claims. (Cl. 309—13)



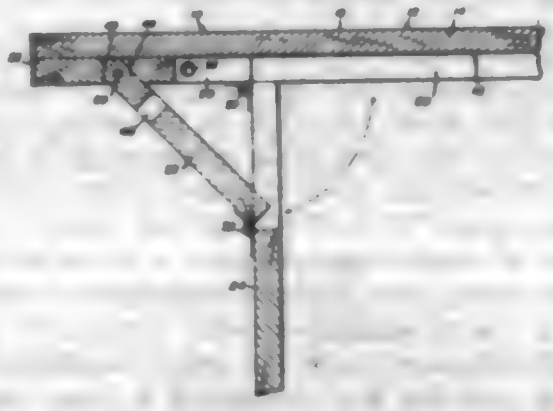
1. A trunk piston, comprising, a head having a packing ring groove, a skirt having wrist pin bosses and thrust faces, and an element extending around the boss regions, extending along a thrust face and extending axially to said packing ring groove along said thrust face.

2,874,012
PISTON RING AND PISTON CONSTRUCTION
Marc Stern, Flint, Mich.
Application February 11, 1957, Serial No. 639,352
12 Claims. (Cl. 309—31)



1. In a piston reciprocable in a cylinder and having a circumferential recess therein, a continuous piston ring of a laterally flanged U-shaped cross section disposed in said recess forming an annular pressure chamber between said piston ring and said piston at said recess therein, the said piston having a communicating passage therein between the head of said piston and said pressure chamber, a portion of said piston head being axially movable responsive to fluid pressure thereon to apply mechanical pressure to the flanges of said U-shaped piston ring and bulge the bottom wall thereof against the wall of said cylinder.

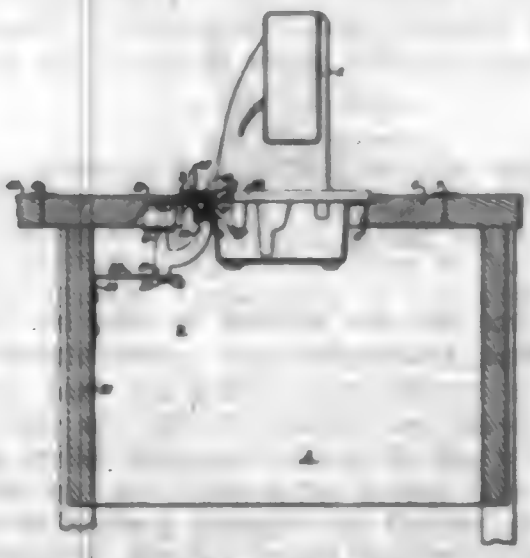
2,874,013
ARTICLE OF FURNITURE COLLAPSIBLE TO A PLANE POSITION
Gustave Miller, Washington, D. C.
Application August 16, 1957, Serial No. 678,641
3 Claims. (Cl. 311—84)



1. An article of furniture comprising a pair of flat plane members of substantially similar outline, one of said members having a flat plane furniture upper surface, the other of said plane members being secured back to

back with the lower surface of said first plane member, said lower plane member being formed with cuts made therethrough defining at least two legs and a brace for each leg and cut-outs in which legs and leg braces can nest substantially flush within said lower plane member, hinge means connecting the edges of said legs to corresponding edges of said leg cut-outs, the cut-outs for each said brace extending from within its respective leg across the hinging edge of said leg into the adjacent area of said lower plane member, hinge means connecting the edge of said brace within its leg area to its respective edge of said brace cut-out within its leg area, readily releasable means on the end of said brace opposite its hinged end cooperating with means in its cut-out in said lower plane member holding said brace and its hinged leg in flush position within said lower plane member, a brace end receiving cut-out in said lower plane member spaced from the adjacent end of said brace cut-out, means in said brace end receiving cut-out cooperating with said readily releasable brace end means, said brace when in flush position thereby holding its leg in flush position, said brace end when hinged from flush position providing means for withdrawing its leg from flush position and for securing its said leg in supporting position when said brace end is inserted in said brace end receiving cut-out in said lower plane member.

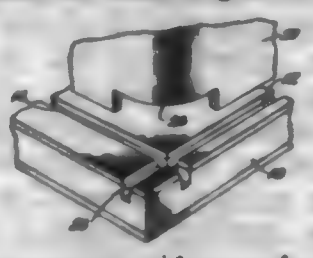
2,874,014
DROP-HEAD MACHINE
Roger Perrinjaquet, New York, N. Y., assignor to Necchi Sewing Machine Sales Corp., New York, N. Y., a corporation of New York
Application January 2, 1957, Serial No. 632,092
5 Claims. (Cl. 312—30)



1. In a sewing machine of the drop-head type pivotally mounted by means of a hinge on a cabinet having a well for pivoting between an operable position above said well and a storage position in said well, the improvement which comprises said hinge having a pair of slotted studs extending in a vertical direction with said machine in its operable position, means on the sewing machine bed defining holes to receive said studs, a slide catch for engaging and releasing the slots in said studs, and a hand lever pivotally connected to said machine bed for engaging said slide catch and sliding the same between its engaging and releasing position.

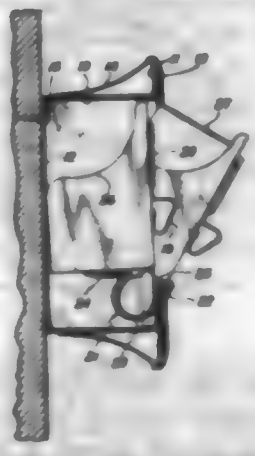
2,874,015
CABINET CONSTRUCTION
Jack Belden Keck, Sioux City, Iowa, assignor to Curtis Companies Incorporated, Clinton, Iowa, a corporation of Iowa
Application April 14, 1958, Serial No. 728,222
4 Claims. (Cl. 312—263)

2. A cabinet comprising opposed, generally rectangular flat end members joined by a continuous wall panel forming the back and two sides of the cabinet, said panel having a curved corner between said back and said side, each of said end members having three kerfs cut in the face thereof and being joined at right angles to provide a continuous channel for receiving the edge of said panel,



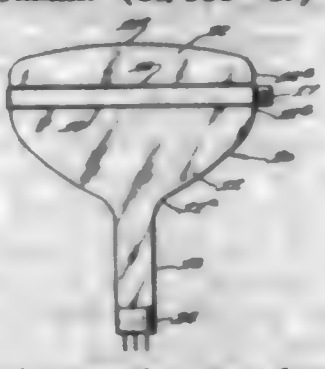
said edge being cut out at said curved corners to a depth approximately equal to the depth of the kerf so that said edge is seated in said kerf except at said corners, and a plurality of supporting stiles extending between said end members outside said panel.

2,874,016
CONTAINER CABINET
Dan D'Andrea, Pasadena, Calif.
Application May 11, 1956, Serial No. 584,331
5 Claims. (Cl. 312—328)



1. In a container cabinet, the combination which comprises a box having an open front, a trough extending along the bottom of the box, the interior of the trough being of rounded concave cross section, and a plurality of containers adapted to fit side by side in the box above the trough, each container having fixed on its bottom a convex rounded roller member that fits in the trough and supports the container therein and permits the container to be tipped forward out of the open front of the box while the roller rotates through a restricted angle in the trough, said trough and each roller member including cooperating portions forming stopping means for retaining the rollers in the trough when the containers are tipped forward through the restricted angle.

2,874,017
PREVENTION OF FRACTURE IN GLASS CATHODE-RAY TUBES
Kenneth M. Henry and Harvard B. Vincent, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application November 7, 1956, Serial No. 620,973
3 Claims. (Cl. 316—19)



1. The method of preventing glass fracture during reprocessing of a completed sealed and evacuated cathode-ray picture tube, said tube having an envelope com-

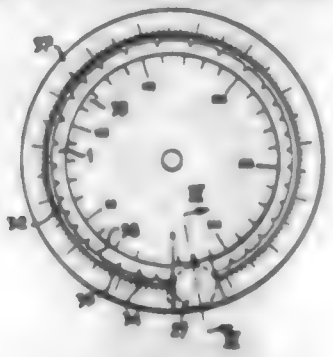
prised primarily of a glass funnel member and glass face plate member hermetically sealed together with a low-melting temperature glass sealant along a peripheral line between said members, said method comprising the steps of applying an additional compressive force along a peripheral surface area of at least one of said members of said envelope adjacent to and parallel with said peripheral sealing line, releasing the evacuated condition within said tube envelope to atmospheric pressure, opening said tube envelope while maintaining said increased compressive force along and parallel to the sealing edge of the said glass member, resealing and reevacuating said tube and removing said additional compressive force.

2,874,018

SPEED RECORDERS

Johann R. Arni, Geneva, Switzerland, assignor, by mesne assignments, to Anstalt Merces, Vaduz, Liechtenstein, a corporation of Liechtenstein

Application August 24, 1955, Serial No. 530,225
Claims priority, application Switzerland September 2, 1954
10 Claims. (Cl. 346—18)



1. An apparatus for recording vehicular speed, comprising, a disc rotatably driven in proportion to the movement of the vehicle whose speed is to be recorded, means for producing time marks on the peripheral face of said disc at regular intervals of time, a pair of stationary scales supported in opposite co-planar spaced relation to visually expose the marks on the peripheral face of said disc, one of said scales indicating the distance traversed by the vehicle and the other of said scales having speed indicating divisions, the distance between said speed divisions being such that the average speed of the vehicle between any two successive time marks on the disc can be read directly by counting the number of divisions on the speed scale between said time marks.

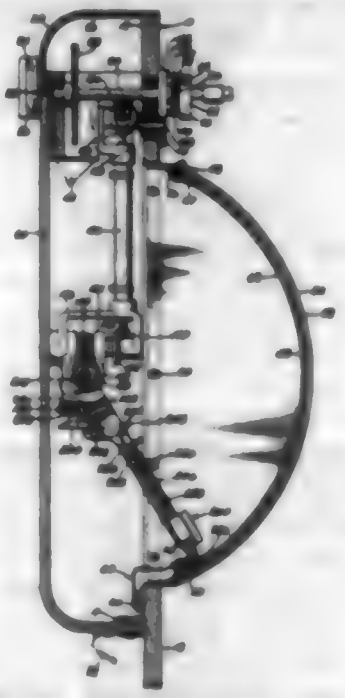
2,874,019

GRAPH PLOTTER

Clarence R. Linsley, La Crescenta, and David L. Pickens, Burbank, Calif., assignors to Librascope, Incorporated, Glendale, Calif., a corporation of California

Application September 16, 1954, Serial No. 456,479
32 Claims. (Cl. 346—29)

1. Recording apparatus, including, means for providing a first quantity variable in any relationship which is linear or non-linear and for providing signals representing the value of the quantity, means for providing a second quantity variable relative to the first quantity in any relationship which is linear or non-linear and for providing signals representing the value of the quantity, a chart holder disposed in a curved configuration to provide indications on a chart as to the value of the first quantity in the direction of curvature and to provide indications as to the value of the second quantity in a second direction transverse to the direction of curvature, a stylus, means for providing a displacement of the stylus along the chart in the direction of curvature in accordance with the signals representing the value of the first quantity, means for providing a displacement of the stylus along the chart in the second direction in accordance with the signals representing the value of the second quantity, and means including a pair of arms pivotally coupled to each other for maintaining substantially linear



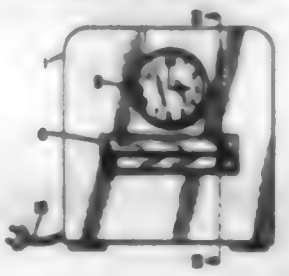
displacements of the stylus along the chart in the second direction over the full range of values of the second quantity and in proportion to the variations in the value of the second quantity.

2,874,020

MEANS OF RECORDING ELAPSED TIME

David H. Esler, Grand Rapids, Mich.

Application May 6, 1954, Serial No. 428,096
5 Claims. (Cl. 346—35)



5. In a time recorder adapted to print on a surface an initial time, a final time and a computation of the elapsed time between said initial and final times expressed in hours and portions thereof, the combination comprising: a pair of parallel elongated rollers mounted in side by side spaced relationship, one for recording hours and the second for recording portions of an hour; said hour roller having twelve columns of figures, said columns being arranged lengthwise of said roller; each of said columns having eleven figures and a pointer; said pointer in each column being offset one figure from each adjacent column; said second roller having as many columns of figures as divisions of an hour are expressed on said roller, said columns being arranged in parallel rows lengthwise of said roller; each of said columns having as many figures as columns less one plus a pointer; said pointers on said second roller being offset in each column one figure from the pointers in each adjacent column; means for intermittently rotating said second roller the distance between two adjacent columns, said means being synchronized to rotate said second roller as many times per hour as there are columns thereon; means for intermittently rotating said hour roller the distance between two adjacent columns once per hour; means to index the impression receiving surface beneath said rollers when said final time is to be marked thereon so that said rollers print an impression parallel to and coordinated with the impression of the initial time printed thereon; means for bringing said card and rollers together for forming a printed impression on said surface.

CHEMICAL

2,874,021
DYEING OF POLYACRYLONITRILE ARTICLES

Hermann Egli, Basel, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application September 20, 1954
Serial No. 457,310
Claims priority, application Switzerland December 4, 1953
16 Claims. (Cl. 8—55)

1. A process for dyeing polyacrylonitrile with a water-soluble acid organic dyestuff containing at least one sulfonic acid group, which comprises subjecting the polyacrylonitrile to the dyeing action of the dye-stuff in an aqueous dye-bath initially containing, as sole metallic ingredients, metallic copper and cupric ions, whereby cuprous ions are formed in situ in said bath and the dyeing is carried out in the presence of such cuprous ions.

2,874,022
COMPOSITION AND PROCESS FOR APPLICATION AND DISCHARGE PRINTING

Fritz Raff, Maywood, N. J., Robert Terrence McGuire, Flushing, N. Y., and Richard Joseph Palestri, Clifton, N. J., assignors to Ciba Company, Inc., New York, N. Y., a corporation of New York

No Drawing. Application June 14, 1956
Serial No. 591,292
11 Claims. (Cl. 8—64)

1. A composition of matter for discharge printing comprising sodium formaldehyde sulfoxylate, a non-jelling unconverted starch, a thiourea selected from the group consisting of thiourea, monophenyl thiourea, and diphenyl thiourea, and a solvent which facilitates penetration.

2,874,023
STATIC-RESISTANT HYDROPHOBIC RESIN COMPOSITION, SHAPED ARTICLE THEREOF AND METHOD FOR MAKING THE LATTER

Andrew T. Walter, South Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application July 27, 1954
Serial No. 446,162
12 Claims. (Cl. 18—54)

1. A hydrophobic resin composition resistant to the accumulation of charges of static electricity, which comprises essentially a hydrophobic resinous polymer containing at least one member of the class consisting of the homopolymers of acrylonitrile, vinyl chloride, vinylidene chloride and styrene, copolymers of acrylonitrile with at least one member of the class consisting of vinyl chloride, vinyl acetate, vinylidene chloride and styrene; and copolymers of vinyl chloride with vinyl acetate, and an hydroxyethylated polyvinyl alcohol containing ethylene oxide and polyvinyl alcohol residues in a weight ratio within the range between about 1.5 to 1 and about 20 to 1, the hydroxyethylated polyvinyl alcohol forming at least about 5% of the total weight of said polymer and said hydroxyethylated polyvinyl alcohol.

2,874,024
PREPARATION OF POTASSIUM BOROHYDRIDE

George L. Cunningham, Cleveland, Ohio, and John M. Bryant and Emily M. Gause, San Antonio, Tex., assignors to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application December 1, 1954
Serial No. 472,535
5 Claims. (Cl. 23—14)

1. A method of preparing potassium borohydride which comprises reacting sodium borohydride with potassium oxalate in an aqueous solution to precipitate the sodium oxalate formed, adding a sufficient amount of a lower aliphatic amine to the slurry to separate the potassium borohydride, filtering the slurry to obtain a mixture of potassium borohydride and sodium oxalate, adding to said mixture an inert liquid having a specific gravity between 1.11 and 2.27 which will not react with nor dissolve either component of said mixture and recovering the potassium borohydride which rises to the surface of said liquid.

2,874,025
OXIDATION OF TRANSURANIC ELEMENTS

Robert Lee Moore, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application July 27, 1953
Serial No. 376,768
5 Claims. (Cl. 23—14.5)

4. A method of oxidizing a transuranic element having a trivalent state to a hexavalent state in the presence of cerous values without oxidizing the cerous values which comprises treating an aqueous 0.01–1 N nitric acid solution containing cerous values and trivalent values of said transuranic element with a quantity of hydrogen peroxide stoichiometrically sufficient to oxidize the trivalent transuranic element to the hexavalent state, and digesting said solution at room temperature.

2,874,026
PROCESS OF PREPARING A FLUORIDE OF TETRAVALENT URANIUM

Earl J. Wheelwright, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application July 24, 1957
Serial No. 673,985
9 Claims. (Cl. 23—14.5)

1. A process of converting uranyl nitrate contained in an aqueous solution to an anhydrous uranium (IV) fluoride salt suitable for bomb reduction, comprising adding acetic acid and a nitrite-suppressor selected from the group consisting of sulfamic acid and urea to the aqueous solution, contacting said solution with metallic lead whereby the uranyl ion is reduced to the tetravalent state and lead acetate is formed and dissolved in the solution, precipitating the lead from said solution, removing the lead precipitate from the solution, adding a water-soluble salt having a cation selected from the group consisting of alkali metal, the ammonium radical and calcium to said solution, and then introducing hydrofluoric acid to said solution whereby an anhydrous double fluoride of said cation and uranium (IV) precipitates.

2,874,027
PREPARATION OF ALKALI METAL PHOSPHATES

Gunter H. Gloss, Mundelein, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application May 7, 1956
Serial No. 582,932
6 Claims. (Cl. 23—107)

1. The method of preparing a glassy alkali metal polymetaphosphate which comprises preparing a solution of an alkali metal chloride and phosphoric acid, said solution having an alkali metal to phosphorus mol ratio of between about 0.6 and about 1.0, spraying the solution in droplet form into a flame having a temperature between about 2500° F. and about 4500° F. to produce a solid glassy alkali metal polymetaphosphate and separately collecting the gas phase which contains gaseous hydrochloric acid.

2,874,028

METHOD OF PRODUCING NATURAL RHOMBIC SHAPED AMMONIUM SULPHATE CRYSTALS

George C. Ponchaud, Gary, Ind., assignor to United States Steel Corporation, a corporation of New Jersey

No Drawing. Application April 25, 1956
Serial No. 580,452
3 Claims. (Cl. 23—119)

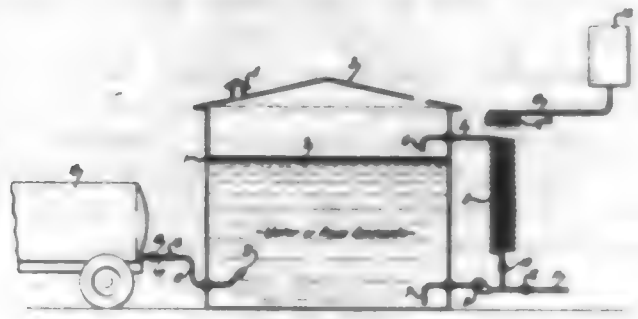
1. A continuous process for producing crystals of ammonium sulphate which comprises continuously introducing ammonia and sulphuric acid into a saturated solution of ammonium sulphate, adding tannin to said solution in an amount sufficient to cause the production of ammonium sulphate crystals having a natural rhombic shape, and maintaining the tannin concentration in said solution by thereafter adding tannin as needed to replace that lost by hydrolysis.

2,874,029

PROCESS OF PREPARING AQUA AMMONIA

Jonathan Garst, Oakland, Calif.

Application May 14, 1956, Serial No. 584,648
1 Claim. (Cl. 23—193)



A process of converting anhydrous ammonia to aqua ammonia of a predetermined nitrogen content by the total addition of a predetermined quantity of anhydrous ammonia to a sufficient quantity of a confined body of water to produce said aqua ammonia of predetermined nitrogen content comprising: adding said anhydrous ammonia to said water in n substantially equal increments and cooling the resulting solution prior to the addition of each successive increment of anhydrous ammonia to a sufficient extent to lower the vapor pressure thereof substantially below one atmosphere, said vapor pressure at no time exceeding one atmosphere, the number of increments n of anhydrous ammonia so added being such that the heat of formation and solution resulting from the addition of the nth or final increment to the preceding solution will not result in an increase in the vapor pressure of the final solution above one atmosphere.

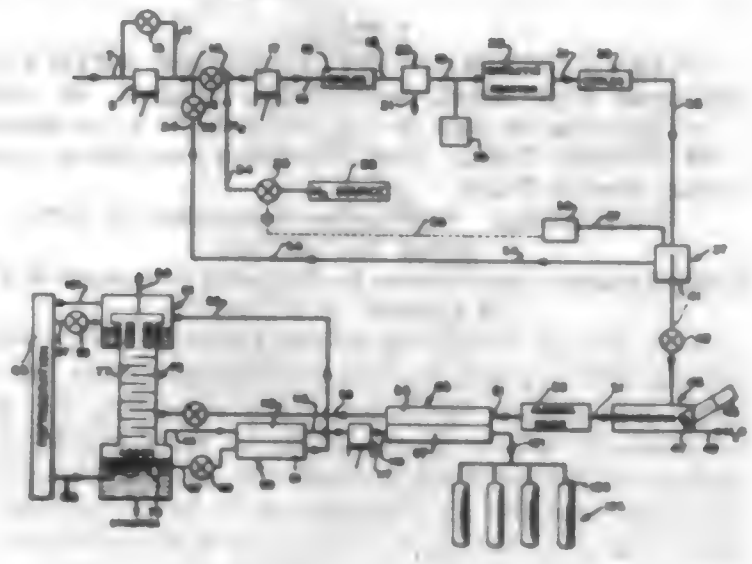
2,874,030

ARGON PURIFICATION

Wolcott Dennis, Scotch Plains, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

Application December 19, 1952, Serial No. 326,986
3 Claims. (Cl. 23—289)

1. The method of purifying impure argon containing oxygen as an impurity comprising adding hydrogen to said impure argon, in excess of the stoichiometric amount required for the reaction of said hydrogen with the oxygen impurity to form water, passing the resulting gas mixture over a catalyst adapted to promote a catalytic reaction between the oxygen and hydrogen to form water and a substantially oxygen-free argon, analyzing said oxygen-free argon to detect the presence of residual hydrogen in excess of the stoichiometric amount required for said catalytic reaction and controlling the addition of said hydrogen to said impure argon in response thereto to maintain said excess, recycling argon from which the oxygen has been removed to said catalytic reaction and maintaining the concentration of oxygen in said reaction below about three percent, drying oxygen-free argon obtained from said catalytic reaction and rectifying said



dried, oxygen-free argon, to form a substantially pure argon product separated from the other constituents of said dried oxygen-free argon.

2,874,031

CONVERSION OF HYDROGEN IODIDE TO IODINE

Charles R. Greene, Berkeley, and Shelton E. Steinle, Richmond Annex, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 19, 1956
Serial No. 622,771
13 Claims. (Cl. 23—216)

1. A process for oxidizing hydrogen iodide to iodine which comprises reacting hydrogen iodide with molecular oxygen in the presence of at least one alkane sulfonic acid having up to 20 carbon atoms per molecule as catalyst, and recovering iodine from the resulting reaction mixture.

12. A process for oxidizing hydrogen iodide to iodine which comprises intimately contacting a liquid aqueous solution of hydrogen iodide with a molecular oxygen-containing gas in the presence of at least one lower alkane sulfonic acid as catalyst at a temperature of at least about 50° C., the partial pressure of molecular oxygen in the reaction zone being at least 10 pounds per square inch, the amount of molecular oxygen being at least 50% in excess of the amount theoretically required to convert all of said hydrogen iodide to iodine, and the amount of said catalyst being sufficient to provide in the reaction mixture a hydrogen ion concentration of at least 0.3 molar.

2,874,032

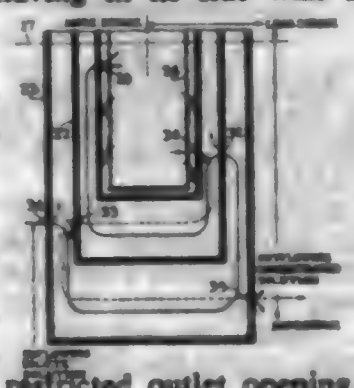
DISSOLVER

Richard L. Kushner, Springgarden Township, York County, Pa., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application October 4, 1955, Serial No. 538,373
4 Claims. (Cl. 23—267)

1. A device for maintaining at a substantially uniform strength, less than saturation, a bath of chemically active solution which is subject to continuous depletion of its dissolved content with attendant reduction of its gravity, comprising means for retaining the bath; a foraminous container for solute submerged in said bath; and an enclosing structure offering liquid-filled labyrinthine communication between the foraminous container and the main portion of the bath, and comprising a plurality of upright cup-like members open at their tops and each projecting above the level of the liquid bath and having closed bottoms, said members being graduated in size,

the smallest encircling said container and each of the others encircling and spaced from the next smaller, said closed bottoms similarly being spaced apart, each of said members having in its side wall a restricted inlet



opening and a restricted outlet opening offset vertically so that the outlet openings lead from lower levels as compared with the inlet openings, and lead from the spatial interval between the bottom of a cup-like member and the bottom of the cup-like member encircled by it.

2,874,033

GASOLINE COMPOSITION CONTAINING ISOPROPYL ALCOHOL AND ISOPROPYL ETHER

George E. Serniuk, Roselle, Byron M. Vanderbilt, Westfield, Adlai E. Michaels, Cranford, and Robert E. Barnum, Roselle, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 23, 1955
Serial No. 517,658
1 Claim. (Cl. 44—56)

An improved motor gasoline with Reid vapor pressure between 7 and 15 p. s. i., which comprises at least 70% by volume of hydrocarbons boiling between 85° and 430° F. and a minor proportion of vapor pressure controlling agents consisting of between 4 and 18% by volume of butanes, between 1 and 4% by volume of isopropanol and between 2 and 12% by volume of isopropyl ether, the ratio by volume of said isopropyl ether to said isopropanol being between 2/1 and 10/1, said percentages being based on the volume of said motor gasoline.

2,874,034

GRINDING TOOL FORMED OF AN INORGANIC BONDING AGENT

George August Rieke, Chicago, Ill.

No Drawing. Continuation of application Serial No. 226,950, May 17, 1951. This application August 10, 1954, Serial No. 449,021
6 Claims. (Cl. 51—298)

1. An abrasive grinding wheel consisting essentially of 95–50 parts by weight of inorganic abrasive material in finely divided form bonded into a composite mass with a thermosetting organic binder in a cured stage present in an amount within the range of 5–50 parts by weight and selected from the group consisting of phenol formaldehyde, urea formaldehyde, melamine formaldehyde, shellac and rubber and an expanded micaceous mineral in finely divided form distributed therein and present in an amount ranging from 5–25 parts by weight based upon the amount of organic bonding agent.

2,874,035

PROCESS OF IMPROVING FOREST SOIL AND ARBOREAL GROWTH

Hermann Mayer-Krapoll, Hoesel, Bezirk Duesseldorf, Germany, assignor to Ruhr-Stickstoff Aktiengesellschaft, Bochum, Germany, a German company

No Drawing. Application January 14, 1955
Serial No. 481,961
Claims priority, application Germany January 14, 1954
5 Claims. (Cl. 71—1)

1. In a process of reactivating the substantially biologically dead leaf-mold surface mulch of forest soil and improving the water retaining power of such soil, the step comprising introducing into the uppermost crude humus top soil layer of such leaf-mold surface mulch a compound yielding ammonia-nitrogen, said compound being selected from the group consisting of gaseous ammonia and aqueous ammonium salt solutions in an amount between about 0.125% and about 1.0% of the dry weight of organic matter present in said leaf-mold surface mulch.

2,874,036

AMMONIATED SUPERPHOSPHATES AND PROCESS OF PRODUCING SAME

Richard C. Defin, Petersburg, Va., assignor to Allied Chemical Corporation, a corporation of New York

No Drawing. Application September 11, 1953
Serial No. 379,728
19 Claims. (Cl. 71—43)

1. The process of minimizing reversion of citrate-soluble P_2O_5 to citrate-insoluble P_2O_5 in ammoniated superphosphates, which process comprises acidulating phosphate rock containing fluorine with from 3 to 20 equivalents of acid per mol of P_2O_5 in the phosphate rock, ammoniating the superphosphate thus produced employing from about 1.3 to about 2.9 mols of ammonia per mol of P_2O_5 over and above the amount of ammonia required to neutralize that portion of the acid employed during the acidulation which is in excess over that required to solubilize the P_2O_5 in the phosphate rock, and adding a water-soluble magnesium salt to the process in amount sufficient to provide from 0.5% to 5% magnesium by weight based on the weight of solids in the superphosphate, the said magnesium salt being added to the process so that it is present during the ammoniation.

2,874,037

PROCESS FOR STABILIZING PYROPHORIC IRON

Earl E. Fisher, Glenolden, Pa., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application December 18, 1957
Serial No. 703,492
8 Claims. (Cl. 75—34)

1. The process of stabilizing metallic iron produced by direct reduction of iron ore with a reducing gas at an elevated pressure and an elevated temperature below the fusion temperature of said ore comprising precooling the hot, freshly reduced metallic iron to a temperature in the range of about 210° to 400° F., and then immersing the precooled metallic iron in a stabilizing bath of a relatively high boiling mineral oil at a temperature not greater than about 400° F. but sufficient to reduce the surface tension of the oil to a value not exceeding 34 dynes per centimeter and such that 250 grams of the thus-stabilized iron in boiling water will not liberate more than 0.5 milliliter of hydrogen per second.

2,874,038

METHOD OF TREATING MOLTEN METALS

Adalbert Rübenbeck, Schwelm, Wilhelm Matthéis, Mannheim, and Josef Zirn, Duesseldorf, Germany

No Drawing. Application August 8, 1956
Serial No. 602,907
Claims priority, application Germany September 19, 1955
11 Claims. (Cl. 75—59)

1. A method of treating molten metals, comprising the steps of introducing into a molten metal containing oxide slag impurities hydrogen which reacts with said oxide slag impurities to reduce the same, said reaction being exothermic and resulting in an increase in temperature of said molten metal; continuing said introduction of hydrogen into said molten metal until the temperature of the molten metal no longer increases, whereby the

amount of hydrogen introduced is just sufficient to reduce all of said oxide slag impurities; and recovering a metal substantially free of oxide slag impurities.

2,874,039

EXTRACTION OF SCANDIUM FROM ITS ORES

Emile Jean Baptiste Pruvot, Saint-Jean-de-Maurienne, France, assignor to Pechiney Compagnie de Produits Chimiques et Electrometallurgiques, Paris, France, a corporation of France

No Drawing. Application June 13, 1955
Serial No. 515,251
Claims priority, application France June 17, 1954
2 Claims. (Cl. 75—84.5)

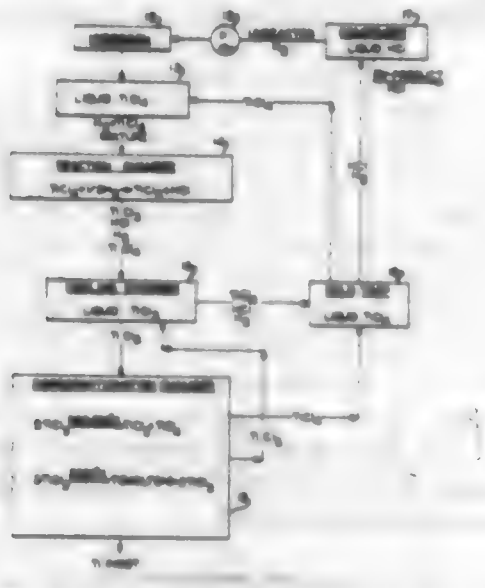
1. The method of extracting scandium from ores containing at least one compound of other elements the chlorides of which volatilize at temperatures materially above and below the volatilization temperature of scandium chloride, said elements selected from the group consisting of silicon, titanium, aluminum, iron, zirconium and yttrium, comprising the following steps: finely grinding said scandium ore and intimately mixing the ground ore with finely divided carbon; establishing in an elongated zone a temperature gradient ranging from about 1000° C. to about 350° C.; introducing said mixture into the hottest region of said zone; chlorinating the mixture while in said hottest region, thereby forming anhydrous volatile chlorides of scandium and of at least some of said other elements; passing the evolved volatile chlorides through said elongated zone towards the cooler end thereof, whereby the scandium chloride separates out selectively in a solid state in an intermediate portion of said zone, and removing the scandium chloride so separated.

2,874,040

METHOD FOR THE PRODUCTION OF TITANIUM

Thomas A. Ferraro, Jr., Hyde Park, Mass.

Application August 25, 1955, Serial No. 530,649
4 Claims. (Cl. 75—84.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. The method for producing elemental titanium which comprises reacting titanium tetrachloride with hydrogen at a temperature above 1000° K. to reduce the titanium tetrachloride to gaseous titanium trichloride, cooling the reaction products to a temperature below 900° K. to liquefy the titanium trichloride without concurrent disproportionation thereof, isolating the liquefied trichloride from the other reaction products, thereafter subjecting the liquefied titanium trichloride to a temperature between 550° K. and 750° K. to effect the disproportionation thereof into gaseous titanium tetrachloride and solid titanium dichloride, separating the titanium tetrachloride from the titanium dichloride, thereafter subjecting the titanium dichloride to a temperature above 2000° K. to effect the disproportionation thereof into elemental liquid titanium and gaseous titanium trichloride, continuously removing the titanium trichloride from the vicinity of the titanium, and then tapping the liquid titanium for the subsequent recovery thereof in ingot form.

2,874,041

PROCESS OF ZINC EXTRACTION FROM ORES FORMED BY OR CONTAINING ZINC SILICATE OR OTHER SOLUBLE SILICATES, BY MEANS OF HYDROMETALLURGY

Hugo Lodewijk Radino, Rio de Janeiro, Brazil, assignor of fifty percent to Companhia Mercantil e Industrial Inga, Rio de Janeiro, Brazil, a corporation of Brazil

No Drawing. Application March 27, 1957
Serial No. 648,779
Claims priority, application Brazil April 4, 1956
14 Claims. (Cl. 75—120)

1. In the method of recovering zinc from zinciferous materials involving the leaching of the zinciferous materials with a sulfuric acid solution to form a zinc-containing solution which subsequently is subjected to electrolysis for the electrodeposition of zinc therefrom; the improvement in reducing, prior to electrodeposition, the concentration in the solution of soluble silica, which silica reduces the efficiency of the electrodeposition process, which comprises maintaining in said solution at a temperature over 70° C. a quantity of aluminum ions sufficient to coagulate said soluble silica into an easily-filterable suspension, and filtering said zinc-containing solution from said suspension.

2,874,042

ALUMINUM BRONZE ALLOY CONTAINING MANGANESE AND HAVING IMPROVED WEAR RESISTANCE

John F. Klement, Milwaukee, Wis., assignor to Ampco Metal, Inc., Milwaukee, Wis., a corporation of Wisconsin

No Drawing. Application October 1, 1957
Serial No. 687,364
9 Claims. (Cl. 75—161)

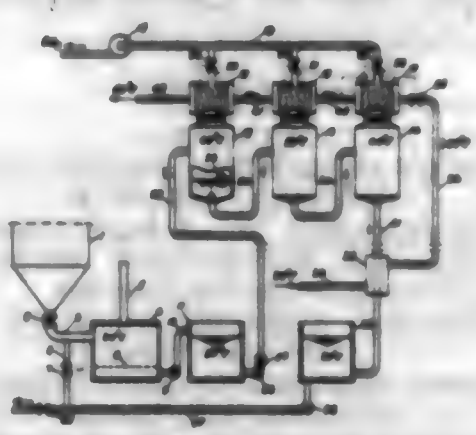
5. An aluminum bronze alloy having improved toughness and wear resistance, consisting essentially of 13% to 20% aluminum, from 1% to 8% iron, from 1.0% to 8.0% manganese, and the balance being substantially copper, said alloy having improved homogeneity of structure and uniformity of harness by heating the alloy to a temperature of 1150° F. and thereafter cooling the alloy at a rate faster than 20° F. per hour per one inch of section thickness to room temperature.

2,874,043

METHODS FOR EXTRACTING HEAT AND SO_2 FROM SULPHITE WASTE LYE CONTAINING SO_2

Carl Johan Lockman, Stockholm, Sweden, assignor to Aktiebolaget Rosenblads Patentar, Stockholm, Sweden, a joint stock company of Sweden

Application February 18, 1953, Serial No. 337,577
4 Claims. (Cl. 92—3)



1. A method in the boiling of sulfite celluloses employing lye comprising the steps of first terminating the boil-

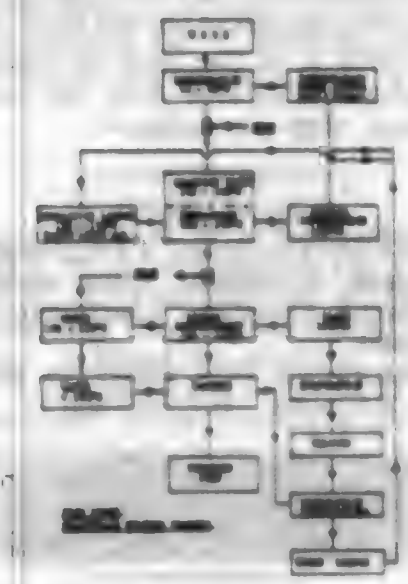
ing process and then, with the boiler still under approximately the boiling pressure and without any substantial preceding removal of lye from the boiler, ejecting the boiler contents, including lye and pulp, directly into a pulp bin communicating directly with the atmospheric air while cooling said boiler contents during said ejection so as to cause said contents to enter said bin at a temperature in the range of 90° C. to 100° C. with substantially all of the SO_2 of the boiler contents remaining dissolved in the lye collected in the bin, withdrawing said hot lye containing SO_2 from the pulp in said bin, subjecting a flow of said withdrawn lye without any substantial preceding cooling thereof, other than that due to heat losses if any, in succession to each of several simultaneously occurring vacuum pressure lowering steps, each of said steps involving a temperature decrease of the lye and a consequent release therefrom of vapor containing SO_2 as the flow of lye passes from one pressure lowering step to the next, each of said steps being succeeded by a condensation step in which said vapor is condensed at approximately the pressure of the corresponding pressure lowering step and at a temperature corresponding thereto while indirectly cooling said vapor by a cooling medium, utilizing said cooling medium successively in the said several separate condensation steps in turn from a condensation step proceeding at a lower pressure and temperature to a condensation step proceeding at a higher pressure and temperature, thereby heating said cooling medium stagewise to a temperature near that of the highest temperature condensation step and withdrawing the uncondensable SO_2 gas obtained in each of said steps from the system.

2,874,644

MULTISTAGE PROCESS RELATING TO THE ALKALINE DIGESTION OF RAW CELLULOSIC MATERIALS FOR THE PRODUCTION OF PULP WITH A HIGH CONTENT OF ALPHA CELLULOSE

Hermann Franz Joseph Wenzl, Lucerne, Switzerland

Application December 23, 1955, Serial No. 555,169
2 Claims. (Cl. 92—13)



1. A multistage pulping process in order to obtain a pulp with a high content of alkali-resistant alpha-cellulose, from vegetable fibrous raw material such as wood, straw, grass, bagasse and similar material, comprising impregnating said raw material with an alkaline solution containing at least 100 grams per liter of active alkali, at a temperature not exceeding 100° C. during impregnation, draining a surplus of the said alkaline solution of the impregnated raw material, heating said impregnated raw material to a reaction temperature ranging from 140 to 180° C., displacing the impregnated alkaline solution at this temperature by an alkaline solution of nearly half the concentration of the impregnating liquor, extracting the non-cellulosic components of the raw material by said alkaline solution and by means of diffusion until the concentration of the alkali inside and outside of the raw material has reached an equilibrium, decreasing the temperature of the raw material to a range of 105 to 110° C. only when extraction is completed, displacing the alkaline extraction liquor by very dilute alkaline reacting fluid and finally washing the remaining cellulose residue.

2,874,645

PROCESS OF WASHING AND PROTECTING PHOTOGRAPHIC SILVER IMAGES

Edwin H. Land, Cambridge, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

No Drawing. Application February 26, 1954
Serial No. 412,944
15 Claims. (Cl. 96—29)

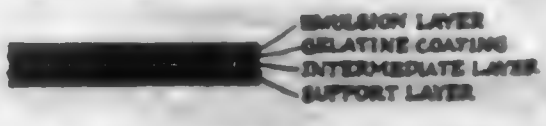
8. In a process for washing and protecting a photographic transfer-diffusion silver print, the step of applying to one face thereof, in a thin layer, a composition comprising a dispersion prepared from a vinylpyridine polymer, a hydantoin formaldehyde condensation polymer, water and a water-miscible, organic solvent, and the step of forming a protective coating on said print by drying said layer to produce a residue composed primarily of a mixture of said vinylpyridine polymer and said hydantoin formaldehyde condensation polymer.

2,874,646

PROCESS FOR THE RETREATMENT OF FOILS CONSISTING OF HIGHLY POLYMERIC SUBSTANCES FOR THE APPLICATION OF HYDROPHILIC COLLOIDS

Helfried Klockgether, Leverkusen, Erwin Müller, Leverkusen-Bayerwerk, and Armin Ossenbrunner, Leverkusen, Germany, assignors to AGFA Aktiengesellschaft

Application June 21, 1956, Serial No. 592,858
Claims priority, application Germany June 25, 1955
8 Claims. (Cl. 96—87)



1. A photographic material comprising a hydrophobic film base and a thin layer coated on said film base said thin layer comprising a film forming agent consisting essentially of a polyester of an alpha-beta ethylenically unsaturated aliphatic dicarboxylic acid and a glycol selected from the group consisting of the compounds having the following general formulae:

(I) $HO \cdot R \cdot O \cdot X \cdot O \cdot R \cdot OH$

(II) $R_1—O \cdot CH_2 \cdot CH(OH) \cdot CH_2OH$

wherein X represents a bivalent organic radical containing at least one aromatic nucleus, R represents alkylene, and R_1 stands for a monovalent organic radical containing at least one aromatic nucleus.

2. The photographic material of claim 1 wherein a thin gelatine layer is coated on said thin layer.

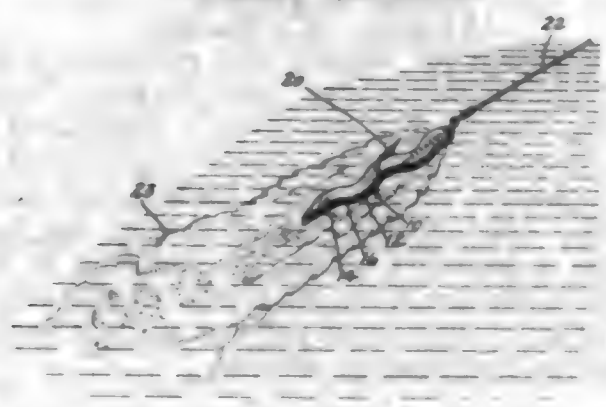
3. The photographic material of claim 2 wherein a thin nitrocellulose layer is provided between said thin gelatine layer and said thin layer.

5. The photographic material of claim 3 wherein a silver halide emulsion layer is coated on said gelatine layer.

2,874,047
PHOTOSENSITIVE COMPOSITION
Peter A. van der Meulen, Highland Park, N. J., and Paul B. Gilman, Jr., Rochester, N. Y., assignors to the United States of America as represented by the Secretary of the Air Force
No Drawing. Application November 4, 1957
Serial No. 694,462
9 Claims. (Cl. 96—94)

1. A photographic element comprising a support, a gelatine carrier, and heat sensitive material carried thereby, said heat sensitive material comprising from 0.1 to 90 mole percent of silver iodide and from 99.9 to 10 mole percent of mercurous iodide.

2,874,048
WATER-SOLUBLE FISH BAIT AND METHOD
Gustav A. Walldov, Tennent, N. J.
Application September 28, 1956, Serial No. 612,837
6 Claims. (Cl. 99—3)



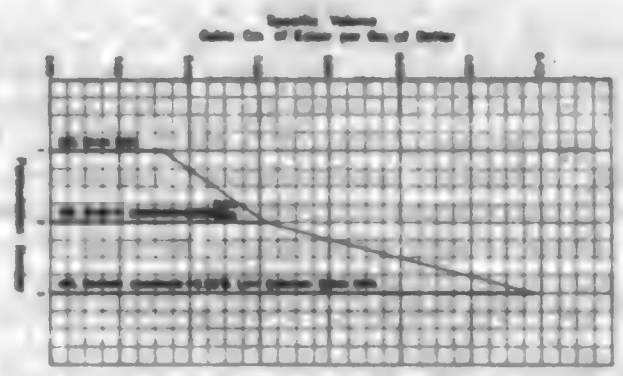
1. A fish bait comprising a laminate body the several laminations of which have their edges in full registration throughout the peripheries of said laminations, said body including a pair of outer laminations formed wholly of an edible, water-soluble material, said body additionally including an intermediate lamination interposed between and bonded to the outer laminations and comprising a flexible binder strip, said strip having over its entire area interstices of a size proportioned for ready penetration of the intermediate lamination by a fishhook and for entry of the material of the outer laminations into the interstices to bond the respective outer laminations to the intermediate lamination.

2,874,049
PROCESS FOR PREPARING A PROTEIN FOOD PRODUCT
Morton Pader, West Englewood, Harry D. Hamilton, Montvale, John J. Miles, Jr., Westwood, and Gerard J. McCrimlisk, Saddle Brook, N. J., assignors to Lever Brothers Company, New York, N. Y., a corporation of Maine
No Drawing. Application August 23, 1956
Serial No. 605,719
9 Claims. (Cl. 99—14)

1. The process of preparing a protein food product resembling a meat spread comprising film-drying an aqueous slurry containing oilseed protein to form sheets with a protein concentration of at least 4 parts protein to 1 part water, cutting the sheets into small discrete flakes, mixing the protein flakes with an aqueous emulsion of fat, and hydrating the protein flakes; said protein flakes having a pH within the range of about 4.5 to about 7.0.

2,874,050
COMPOSITION AND METHOD OF MAKING SAME
Simon W. Arenson, Baltimore, Md., and Francis Algerd Baldauski, Norwich, N. Y., assignors, by mesne assignments, to National Dairy Products Corporation, New York, N. Y., a corporation of Delaware
Application December 14, 1955, Serial No. 553,122
7 Claims. (Cl. 99—94)

1. A composition adapted to be used in preparing edible baked and fried products, said composition comprising flour, egg yolk and ion exchange decalcified milk solids, the degree of decalcification of the milk solids being at least 35% and the amount thereof equivalent



to 1 to 20% of 100% decalcified milk solids based on the weight of flour, and 2 to 50% based on the combined weights of yolk solids and equivalent 100% decalcified milk solids.

2,874,051
METHOD OF MAKING A CULINARY MIX AND THE RESULTING PRODUCT
William T. Bedenk, Greenhills, and John W. Phenix, Wyoming, Ohio, assignors to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio
No Drawing. Application June 8, 1956
Serial No. 590,100
13 Claims. (Cl. 99—94)

1. The method of making a culinary mix which comprises the steps of forming a homogeneous mixture comprising sugar, flour, and shortening, then subjecting said homogeneous mixture to simultaneous shearing and crushing forces, and thereafter adding a chemical leavening agent to said mixture, whereby a pulverulent and free-flowing mix is obtained in which a substantial portion of the crystals of said sugar are fragmented and mechanically bonded to particles of said flour, in which said shortening is dispersed substantially in a thin film throughout said mix and coating said bonded sugar and flour, and in which said leavening agent is in the form of discrete particles substantially unbonded to said flour particles and substantially uncoated with shortening.

2,874,052
CHOCOLATE-CONTAINING CULINARY MIXES
William T. Bedenk, Greenhills, Ohio, assignor to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio
Application June 8, 1956, Serial No. 590,324
8 Claims. (Cl. 99—94)



1. The method of making a culinary mix which comprises the steps of forming a homogeneous mixture comprising sugar, flour and shortening, then subjecting said mixture to simultaneous shearing and crushing forces, and thereafter adding cocoa to said mixture, whereby a pulverulent and free-flowing mix is obtained in which a substantial portion of the crystals of said sugar are fragmented and mechanically bonded to particles of said flour, in which said shortening is dispersed substantially in a thin film throughout said mix and coating said bonded sugar and flour, and in which said cocoa is in the form of discrete particles substantially unbonded to said flour particles and substantially uncoated with shortening.

2,874,053
CULINARY MIXES AND METHODS OF PREPARING THE SAME

Victor Mills, Wyoming, Ohio, assignor to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio

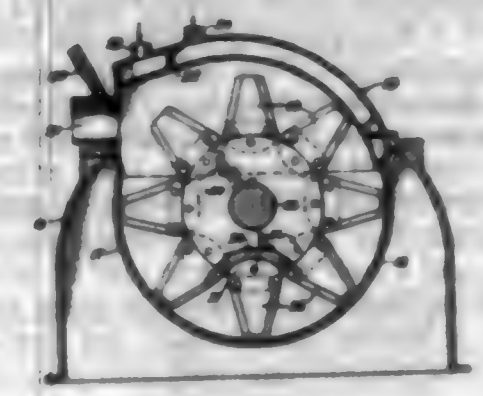
No Drawing. Application April 11, 1958
Serial No. 727,784
8 Claims. (Cl. 99—94)

1. A pulverulent and free flowing culinary mix suitable for the preparation of baked goods, said mix comprising cyrstalline sugar, flour and shortening, a major part of the crystals of said sugar being fragmented and mechanically bonded to particles of said flour, and said shortening being substantially dispersed in a thin film throughout and coating said bonded sugar and flour.

2,874,054
METHOD OF MAKING SAUSAGE EMULSIONS

Albert Kircher, Jr., Downers Grove, and Dewey A. Manion, Jr., Chicago, Ill., assignors to The W. J. Fitzpatrick Company, Chicago, Ill., a corporation of Illinois

Application July 23, 1956, Serial No. 599,374
2 Claims. (Cl. 99—109)



1. The method of making sausage emulsions comprising passing cooled meat material continuously through a confined space, causing the material to be suspended in the space, cutting the material while suspended in the space at a lineal speed of at least 120 feet per second, and limiting the maximum size of particles leaving the space while cooling the material in the space.

2,874,055
FRYING OILS

Daniel Melnick, Teaneck, N. J., and Chester M. Gooding, Staten Island, N. Y., assignors to The Best Foods, Inc., New York, N. Y., a corporation of New Jersey

No Drawing. Application March 24, 1955
Serial No. 496,592
6 Claims. (Cl. 99—118)

1. A novel frying oil comprising a deodorized, hydrogenated vegetable-seed oil having an iodine value of from 75 to 94, a melting point of from 80° to 95° F., and a setting point of from 55° to 65° F.

2,874,056
MARGARINE OIL COMPOSITION

Ernest F. Drew, New York, N. Y.

No Drawing. Application November 8, 1957
Serial No. 695,202
9 Claims. (Cl. 99—118)

7. A fat produced by the interesterification of a coconut type oil with from 1% to 20% of the lower fatty acid glycerides of coconut oil followed by physical mixing with from 1% to 15% of the triglycerides of the palmitic acid fraction of said coconut oil, said fat having a Wiley melting point of 95°–100° F. and a setting point of 20°–23° C.

2,874,057
CEMENTIFEROUS PAINTS

John Edwin Oakley Mayne, Cambridge, England, assignor to The British Iron and Steel Research Association, London, England, a British company

No Drawing. Application January 6, 1954
Serial No. 402,591
Claims priority, application Great Britain
November 11, 1949
11 Claims. (Cl. 106—14)

1. A cementiferous paint for the protection of ferrous metal surfaces consisting essentially of a mixture of zinc dust and an aqueous solution containing at least about 20% of an alkali metal phosphate of the group consisting of, monopotassium dihydrogen phosphate, dipotassium hydrogen phosphate, tripotassium phosphate, a mixture of potassium phosphates, and a mixture of a potassium phosphate and a sodium phosphate, said aqueous solution having a pH value within the range from about 8 to about 9.9 and the weight ratio of zinc dust to said alkali metal phosphate being within the range from 1:1 to 25:1.

2,874,058
CAROTENOID PREPARATIONS

Heinrich Klaui, Riehen, and Hermann Moor, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application September 27, 1956
Serial No. 612,358
Claims priority, application Switzerland
September 30, 1955
2 Claims. (Cl. 99—148)

1. A concentrated carotenoid composition comprising a solid solution containing at least about 15 percent by weight of carotenoid in cetylic alcohol.

2,874,059
METHOD OF PRESERVING APPLES

Myron J. Powers, Lafayette, and Melvin E. Lazar, Oakland, Calif., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application March 18, 1957
Serial No. 646,937
5 Claims. (Cl. 99—186)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process for preserving apples without addition of any sulphiting agent which comprises applying to pieces of raw, fresh apple an aqueous solution containing only water, salt, and a fruit acid, said fruit acid being selected from the class consisting of citric acid, tartaric acid, and malic acid, partially dehydrating the so-treated apple pieces to a moisture content of about from 35 to 70%, then canning the partially-dehydrated apple pieces at essentially the aforesaid moisture content with the application of heat at sterilization temperatures to ensure sterilization of the fruit and container.

2,874,060
MANUFACTURE OF SAUSAGE AND GROUND MEAT PRODUCTS

Earl W. Turner and Floyd C. Olson, Madison, Wis., assignors to Oscar Mayer & Co., Inc., Chicago, Ill., a corporation of Illinois

No Drawing. Application March 17, 1955
Serial No. 495,068
16 Claims. (Cl. 99—194)

1. The method of preparing meat for use in ground meat products which comprises, freezing meat from a slaughtered animal before the condition of rigor mortis develops therein, maintaining the meat in frozen condition at a temperature at least as low as 28° F. until comminution, and comminuting the meat at least coarsely while in an unthawed condition and promptly dissolving the myosin released from the meat in salt present for the ground meat formula.

2,874,061
WAXES SUITABLE FOR SELF-POLISHING AQUEOUS EMULSIONS

Helmut Kolling, Duisburg-Hamborn, and Friedrich Rappen, Oberhausen-Sterkrade, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany

No Drawing. Application July 24, 1956
Serial No. 599,685
Claims priority, application Germany July 26, 1955
20 Claims. (Cl. 106—10)

1. A wax suitable for the production of self-polishing aqueous emulsions consisting essentially of a mixture of free wax acids, alkali soaps thereof and paraffin formed by chlorinating a paraffin having a molecular size above about C_{22} with the addition of 1.5–4 gram atoms of chlorine per mol of hydrocarbon, dehydrochlorinating the chlorinated product to form olefins, converting the olefins to aldehydes by the oxosynthesis, hydrogenating the aldehydes to alcohols, forming wax acids from the alcohols by treatment with molten alkali, and saponifying 20–80% of the wax acid with a member selected from the group consisting of potassium hydroxide, sodium hydroxide, potassium carbonate and sodium carbonate.

2,874,062
PROCESS FOR THE MANUFACTURE OF STABILIZER-PLASTICIZER COMPOSITIONS

Leonard M. Kebrich, Brooklyn, and Alfred W. Stroebel, Forest Hills, N. Y., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

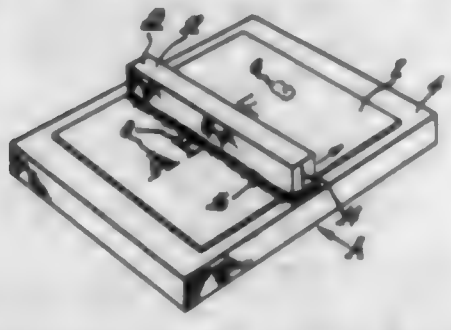
No Drawing. Application August 22, 1955
Serial No. 529,926
5 Claims. (Cl. 106—262)

1. A process for preparing a flushed paste having heat stabilizing properties for resinous compositions which comprises agitating an aqueous filter cake consisting essentially of a basic lead salt of a fatty acid having from 6 to 22 carbon atoms and water with a neutral, water-immiscible liquid organic vehicle in amount sufficient to permit complete dispersion of the solid portion of said filter cake in said vehicle, thereby dispersing said basic lead salt in said organic vehicle, and separating the water portion of said aqueous filter cake from said organic vehicle and said basic lead salt therein dispersed.

2,874,063
ELECTROSTATIC PRINTING

Harold G. Greig, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application March 23, 1953, Serial No. 344,123
10 Claims. (Cl. 117—17.5)



5. An electrostatic printing process for developing a latent electrostatic image to yield an electrostatically-adhering image of electrostatically-attractable powder comprising magnetically transporting across said latent electrostatic image a dry mixture of loose, movable particles of electrostatically-attractable powder and separate magnetically-attractable granules, said magnetically-attractable granules and powder particles having a triboelectric relationship of opposite polarity, the powder particles thereby being electrostatically-charged through triboelectric action by contact with the magnetically-attractable granules to adhere electrostatically to the surface of the magnetically-attractable granules and being attractable by charged areas of said latent electrostatic image when moved thereacross, and said magnetically-attractable granules being correspondingly electrostatically-charged to opposite polarity and thus adapted to attract said charged powder particles and to remove them from uncharged areas of said latent electrostatic image when moved thereacross, said magnetically-attractable granules being of a size such that the gravitational force on each granule is less than the magnetic and electrostatic forces thereon.

2,874,064
XEROGRAPHIC CLEANER

Paul G. Andrus, Columbus, Ohio, assignor, by mesne assignments, to Haloid Xerox Inc., Rochester, N. Y., a corporation of New York

No Drawing. Application May 16, 1955
Serial No. 508,765
1 Claim. (Cl. 117—17.5)

In a method of xerographic reproduction wherein a xerographic plate comprising a photoconductive insulating layer overlying a conductive support is repeatedly subjected to an operational cycle which includes forming a latent image thereon, developing said latent image by the deposition thereon of finely devided powder material to create a developed image, and transferring the developed image to a print-receiving surface, the improvement comprising cleaning said plate before repeating an operational cycle thereof by rolling into firm non-sliding contact with said plate at a pressure of about 100 pounds per linear inch a thin solid homogeneous layer of low molecular weight polyethylene coated on a flexible support material, said polyethylene having a softening temperature of about 98° C. and a melt viscosity at 150° C. of about 121 poises, removing said layer from said plate and repeating the step of rolling into contact and removing subsequent layers of polyethylene until said plate is clean.

2,874,065
PROTECTION OF FERROUS METAL PARTS AGAINST LIQUID MOLTEN ALUMINUM

William Herz and Egon Pipitz, Yonkers, N. Y., assignors to Schwarzkopf Development Corporation, Yonkers, N. Y., a corporation of Maryland

No Drawing. Application April 19, 1956
Serial No. 579,161
3 Claims. (Cl. 117—46)

1. In a process for protecting the surface region of a strong, solid, ferrous metal body such as the surface region of a ferrous metal vessel, against reaction with liquid aluminum, the procedure comprising spraying with a flame-spray gun having a flame in excess of 3000° C. the contents of a sintered spray rod which is bare of free nickel and organic matter and consists of 7% to 50% Cr_2NiB_4 and 93% to 50% of CrB_2 against the surface region of the ferrous body which has been previously cleaned and roughened, and thereby providing the surface of said ferrous body with an adherent continuous coating layer consisting of the contents of the sprayed rod.

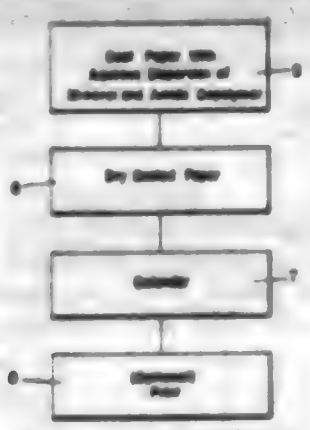
2,874,066
COATED PAPER PRODUCTS AND METHODS FOR MAKING THEM

Paul J. McLaughlin, Moorestown, N. J., and Walter W. Toy, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

Application October 17, 1955, Serial No. 541,072
17 Claims. (Cl. 117—65)

14. A method of producing mineral-coated paper which comprises coating at least one side of a paper sheet with an aqueous dispersion of 40% to 70% total solids concentration, having a pH of 8.5 to 9.5, and containing a pigment comprising a predominant proportion of clay

and 8% to 25%, on the total weight of pigment, of a water-insoluble, neutral copolymer of at least one lower alkyl acrylate in which the alkyl group has from 1 to 4 carbon atoms with 2.5% to 7% by weight in the copolymer of at least one amide selected from the group



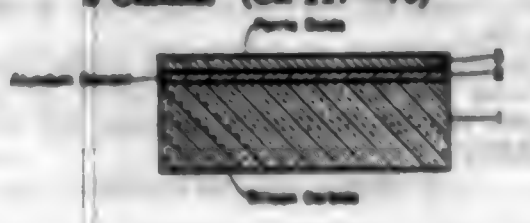
consisting of an amide of an acid selected from the group consisting of methacrylic acid, acrylic acid, itaconic acid, aconitic acid, maleic acid, and fumaric acid, said copolymer having a T_1 value not over 20° C., drying, and calendering the coated sheet.

2,874,067

REFRACTORY ARTICLE AND METHOD OF MAKING THE SAME

Alfred Sommer, Kingston, N. Y., and Lynn J. Brady, Moorestown, N. J., assignors to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 19, 1956, Serial No. 623,126
5 Claims. (Cl. 117—70)



3. A refractory article comprising a base of crystalline silicon carbide, a coating on said body consisting essentially of iron oxide, and a layer of aluminum oxide between said coating and said body.

2,874,068

PROCESS FOR LACQUERING RUBBER ARTICLES

Franz von Spalak, Leverkusen-Bayerwerk, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application May 18, 1955
Serial No. 509,381
Claims priority, application Germany November 30, 1948
7 Claims. (Cl. 117—72)

1. A process for lacquering rubber which comprises initially treating the rubber with a solution of a polyfunctional isocyanate, evaporating the solvent from said solution, applying a solution of a hydroxyl polyester having an hydroxyl number of from about 30 to about 450 and an acid number of from zero to about 40 to said treated article and effecting a reaction between said isocyanate and said hydroxyl polyester.

2,874,069

METHOD FOR REDUCING THE PILLING TENDENCIES OF FABRICS

Dmitry M. Gagarine and Henry Repokis, Clemson, S. C., assignors to Deering Milliken Research Corporation, Pendleton, S. C., a corporation of Delaware

No Drawing. Application March 12, 1954
Serial No. 415,966
18 Claims. (Cl. 117—103)

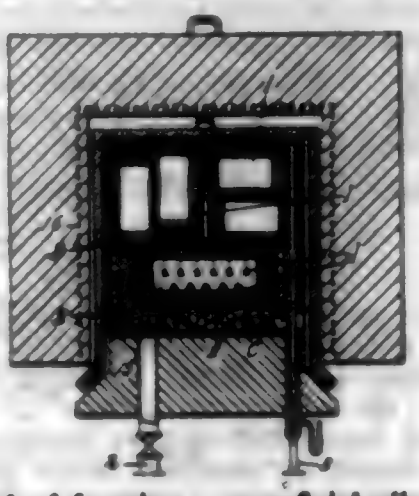
1. A method for reducing the pilling tendencies of fabrics containing at least about 40% staple length polyester fibers which method comprises applying to the fabric an aqueous emulsion of a thermoplastic vinyl resin having a softening point above about 250° F. but below about 350° F., and thereafter heating the fabric at least momentarily to a temperature at least as high as the softening point of the resin.

2,874,070

METHOD FOR THE FORMATION OF DIFFUSION SUPERFICIAL ALLOYS, IN PARTICULAR CHROMIUM ALLOYS

Philippe Galmiche, Paris, France, assignor to Office National d'Etudes et de Recherches Aeronautiques, Chatillon-sous-Bagneux, France, a society of France

Application October 29, 1954, Serial No. 465,657
Claims priority, application France May 16, 1951
30 Claims. (Cl. 117—107)



1. A method of forming a superficial alloy of chromium on a metal body having as a principal component a metal selected from the group consisting of iron, nickel and cobalt comprising heating a cementation mixture capable of forming chromium fluoride vapors on heating, heating said metal body to reach and maintain a temperature at which chromium from said vapors will diffuse into the surface of said metal body, bringing said vapors in contact with, while maintaining said cementation mixture out of contact with, said metal body surface, and maintaining the relative temperatures of said vapors and said metal body surface during the heating of said metal body to reach said diffusion temperature so as to prevent condensation of chromium fluoride on said metal body.

2,874,071

REFRACTORY BODY RESISTANT TO THERMAL SHOCK

Gerhard E. Kadisch, Watchung, N. J., and Joseph M. Katz, Brooklyn, N. Y., assignors to Steatite Research Corporation, Keasbey, N. J., a corporation of Delaware

No Drawing. Application September 12, 1952
Serial No. 309,360
3 Claims. (Cl. 117—123)

3. As an article of manufacture a body of refractory material, said refractory material consisting essentially of, on the dry basis, 50–95% of particles of fused silica and 50–5% of calcium aluminates, said body containg a coating of a super refractory composition consisting essentially of a material selected from the group consisting of alumina, zirconia, refractory borides, nitrides, and carbides and mixtures thereof.

2,874,072

AUTOCATALYTIC COPPER PLATING PROCESS AND SOLUTION

Allen E. Cahill and Vincent P. McConnell, Syracuse, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application September 17, 1956
Serial No. 610,401
48 Claims. (Cl. 117—130)

30. An autocatalytic chemical reduction process for continuously plating copper on objects having a catalytic

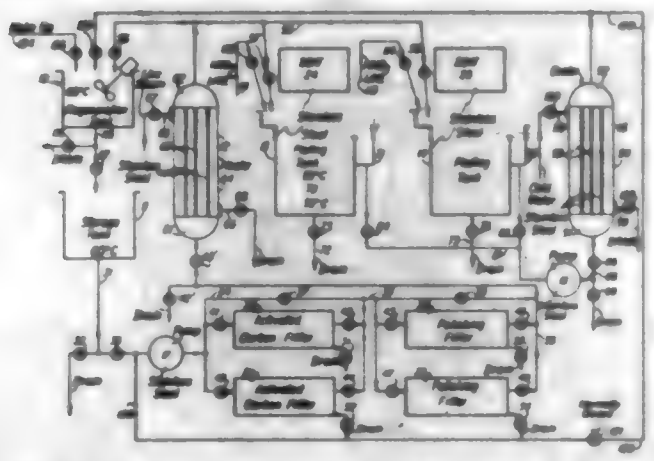
metallic surface comprising the steps of providing an aqueous solution of a complex copper ion, a carbonate radical, a hydroxide radical, formaldehyde, and a complexing agent, immersing an object to be plated in said solution, and copper plating said immersed object by autocatalytic reaction of said solution at the catalytic metallic surface of the object.

2,874,073

METHODS OF CHEMICAL NICKEL PLATING

Donald E. Metheny, Hammond, and Emilian Browar, Gary, Ind., assignors to General American Transportation Corporation, Chicago, Ill., a corporation of New York

Application November 7, 1957, Serial No. 695,128
21 Claims. (Cl. 117—130)



1. The method of chemical nickel plating comprising providing a chemical nickel plating solution of the nickel cation-hypophosphite anion type containing a stabilizing amount of lead ion therein, providing a plating chamber defined by walls formed of steel containing a high chromium content, deactivating substantially periodically the steel walls of said plating chamber by treatment with a dilute nitric acid solution, holding a hot bath of the plating solution in said plating chamber in the time intervals between successive deactivations of the steel walls thereof, maintaining the hot bath held in said plating chamber at a temperature not in excess of 95° C., immersing work-pieces to be plated in the hot bath held in said plating chamber and out-of-contact with the steel walls thereof, said stabilizing amount of lead ion contained in the plating solution being in the range 1 to 5 p. p. m. of the plating solution by weight and corresponding to the maximum lead ion concentration therein that is compatible with both a high plating rate of the hot bath and complete plating coverage of the work-pieces, and maintaining said stabilizing amount of lead ion in the plating solution by adding lead ions thereto as the plating of the work-pieces proceeds in the hot bath held in said plating chamber.

2,874,074

1,2-SUBSTITUTED IMIDAZOLINIUM SALT AND TREATMENT OF CELLULOSIC FIBROUS MATERIALS THEREWITH

Carl E. Johnson, Westchester, Ill., assignor to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application May 8, 1956
Serial No. 583,366
21 Claims. (Cl. 117—139.5)

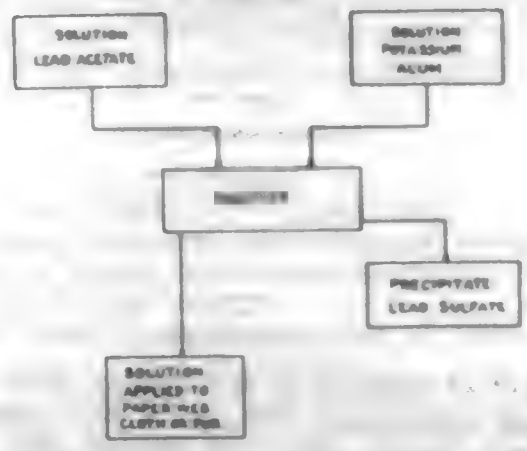
1. The method of treating cellulosic fibrous materials which comprises applying thereto an aqueous dispersion of a colloidally dispersible 1,2-substituted imidazolinium salt which contains at least two and not more than three higher aliphatic hydrocarbon radicals each having at least 11 carbon atoms, one of which higher aliphatic hydrocarbon radicals is in the 2-position of the imidazoline ring and another of which is in at least one of the 1-position of the imidazoline ring and the cation radical.

2,874,075

METHOD OF WATERPROOFING PAPER, CLOTH OR FUR AND PRODUCTS PRODUCED THEREBY

Alexander M. Petrenko, Paris, France, assignor to Petren Products Inc., York, Pa., a corporation of Delaware

Application October 3, 1956, Serial No. 613,600
8 Claims. (Cl. 117—140)



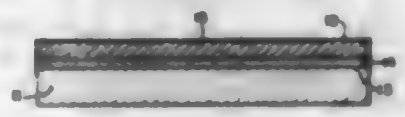
1. A method of waterproofing a paper web which comprises; preparing a solution containing 32 parts of alum and 500 parts of water; preparing a second solution containing 48 parts of lead acetate and 500 parts of water; mixing these two solutions, separating the precipitate and treating said paper web with the clear solution, and drying the same.

2,874,076

SEMICONDUCTOR TRANSLATING DEVICES

Bertram Schwartz, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Original application August 18, 1955, Serial No. 529,351, now Patent No. 2,832,782, dated April 29, 1958. Divided and this application November 29, 1957, Serial No. 699,830
5 Claims. (Cl. 117—200)



1. In a semiconductor translating device, the combination comprising: a semiconductor body of one conductivity type; a region within said body of the opposite conductivity type and separated from said body by a rectifying junction; and a film upon at least a portion of one surface of said body, said film comprising a hydrolyzed organo-substituted silane.

2,874,077

THERMIONIC CATHODES

Perry R. Joseph, Zion, Serge Pakswer, Elmhurst, and Constantin S. Szegho, Chicago, Ill., assignors to The Rauland Corporation, a corporation of Illinois

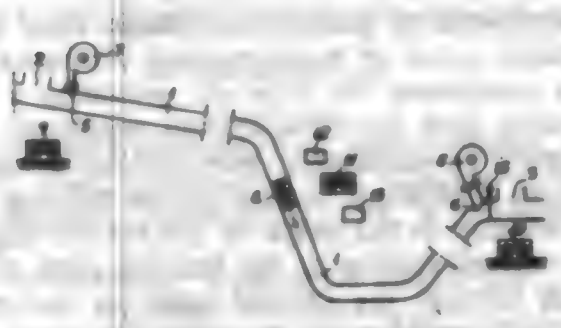
Application October 23, 1957, Serial No. 691,999
13 Claims. (Cl. 117—201)



1. A method of processing a carbonate coated cathode by utilizing a metallic element having a melting temperature higher than the normal operating temperature of said cathode comprising the following steps in the presence of an inert atmosphere: heating said cathode to a predetermined temperature of the same order of magnitude as said normal operating temperature to reduce said carbonate coating to an oxide coating; evaporating particles

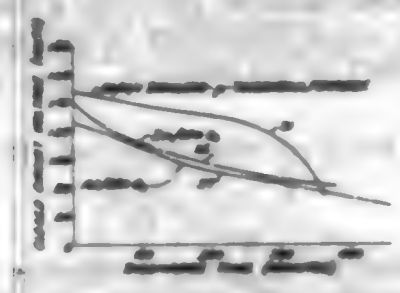
of metal from said metallic element onto the oxide coating of said cathode for a predetermined time while maintaining said cathode at a temperature at least equal to said normal operating temperature to sinter said particles thereon; and thereafter maintaining said cathode at a temperature at least equal to said normal operating temperature for a predetermined time to stabilize said metal-sintered oxide coating.

2,874,078
PIPE CLEANING METHOD
Alberto G. Reinhart, Lugano, Switzerland
Application April 14, 1954, Serial No. 423,157
2 Claims. (Cl. 134—8)



1. The method of mechanically cleaning a pipe with a scraping device which comprises the steps of opening one end of the pipe to be cleaned, inserting said scraping device freely floating into said pipe opening, forcing a liquid into the same end of said pipe, applying pumping pressure at both ends of the pipe to drive said scraping device through said pipe while permitting said liquid to flow past said scraping device at a predetermined rate, so as to cause said liquid to move at a faster rate than said device through said pipe, and controlling the rate of movement of the device therein by controlling the pumping rate at least at one end of the pipe.

2,874,079
PRIMARY CELLS
Gerald S. Lozier, Princeton, Richard Glickman, Highland Park, and Clarence K. Morehouse, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application June 13, 1956, Serial No. 591,094
13 Claims. (Cl. 136—137)



1. In a primary cell utilizing the electron change obtained in converting a positive halogen ion to a negative halogen ion, an anode selected from the group consisting of aluminum and aluminum base alloys in combination with a cathode including a depolarizer consisting of an organic oxidizing compound in which the oxidizing properties of said substance are due at least in part to positive halogens chemically combined in said compound, said compound being selected from the group consisting of amines of the general formula $RNHX$, RNX_2, R_2NX where R is an alkyl radical and X is a halogen atom, imides derived from dibasic acids, cyclic ureides, carboxylic acid amides, sulfonic acid amides, derivatives of carbonic acid amides, and amidines of carbonic acid.

2,874,080
SELF-HARDENING SURFACE COATING COMPOSITIONS
Otto Schweitzer, Frankfurt am Main, and Erich Böder, Hanau am Main, Germany, assignors to Deutsch Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt, Germany
No Drawing. Application July 13, 1954
Serial No. 443,084
Claims priority, application Germany July 18, 1953
21 Claims. (Cl. 148—6.14)

1. A method of adhering a self-hardening polymerizable coating composition to a metallic surface selected from the group consisting of copper, zinc, copper alloys and zinc alloys which comprises applying to said surface a self-hardening polymerizable coating composition containing at least one liquid polymerizable organic compound containing a terminal $CH_2{=}C<$ group and a relatively small but effective amount of at least one compound capable of forming a complex with copper and zinc selected from the group consisting of hydroxy quinoline, acetyl acetone and benzoyl acetone to improved the bond of the coating composition to said metallic surface.

2,874,081
PRETREATMENT SOLUTION FOR PHOSPHATE COATING, METHOD OF PREPARING THE SAME AND PROCESS OF TREATING METAL SURFACES
Walter R. Cavanagh, Detroit, and James I. Maurer, St. Clair Shores, Mich., assignors to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan
No Drawing. Application August 2, 1956
Serial No. 601,660
14 Claims. (Cl. 148—6.15)

1. A method of forming a dried activating composition which comprises the steps of forming an aqueous slurry consisting essentially of a titanium-containing compound and a phosphate of sodium compound, said titanium-containing compound and said phosphate of sodium compound being present in such proportions as to produce a pH of said slurry in the range of about 5.7 to about 7.8, mixing the slurry at a temperature below about 75° F. and thereafter raising the temperature of the mixed slurry for a period of time and at a temperature sufficiently elevated to age the slurry so that a dried activating composition can be evolved therefrom which when dissolved in aqueous solution is capable of activating metal surfaces for subsequent reaction with phosphate coating solutions, and thereafter drying the aged slurry to produce a dried activated composition containing at least 0.005% titanium based on the combined weight of said titanium-containing compound and said phosphate of sodium compound in said dried activating composition.

2,874,082
COMPOSITE ASSEMBLY OF DIE STEEL CORE AND STAINLESS STEEL COATING
Adolph J. Lena, Sarver, and Glenn W. Bush, State College, Pa., assignors to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania
No Drawing. Application April 18, 1957
Serial No. 653,539
5 Claims. (Cl. 148—31.5)

1. A heat treated composite assembly having excellent strength, ductility and corrosion resistance when used at temperatures of up to 1000° F. consisting of, austenitic stainless steel surface layers and an air hardening hot work die steel core integrally bonded together, the stainless steel of the surface layers having a composition comprising, up to 0.25% carbon, less than 15.0% manganese, up to 1.5% silicon, from 12.0% to 20.0% chromium, from 3.5% to 10.0% nickel, less than 3.5% molybdenum, less than 0.15% nitrogen, and the balance

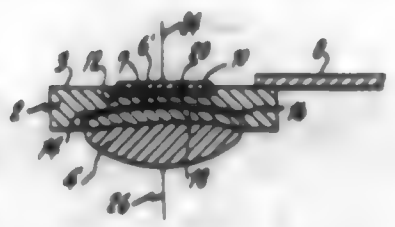
iron, the air hardening hot work die steel of the core having a composition comprising from 0.25% to 0.45% carbon, from 0.15% to 0.60% manganese, from 0.70% to 1.20% silicon, from 4.5% to 6.0% chromium, from 0.10% to 1.2% vanadium, from 0.9% to 1.75% molybdenum, up to 1.5% tungsten, up to 2.0% nickel and the balance iron, and which has been heated to a temperature in the range between 1850° F. and 2050° F., air quenched to room temperature, and tempered at a temperature in the range between 850° F. annd 1050° F.

2,874,083

TRANSISTOR CONSTRUCTION

Kenneth F. Stripp and Arnold R. Moore, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application June 16, 1954, Serial No. 437,158
6 Claims. (Cl. 148—33)



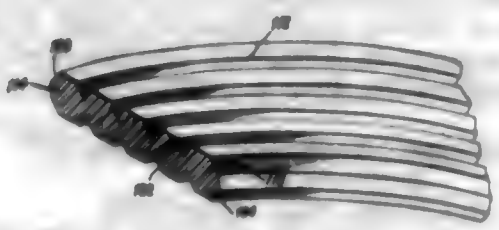
1. A transistor device comprising a crystalline semiconductive base wafer, an emitter electrode disposed upon one surface of said wafer and forming a first rectifying barrier in said wafer adjacent to said surface, and a collector electrode disposed upon a second surface of said wafer opposite said one surface and forming a second rectifying barrier in said wafer adjacent to said second surface, said second barrier being of greater area than said first barrier, the ratio of the maximum depth of penetration of said second barrier beneath the plane of said second surface to the maximum depth of penetration of said first barrier beneath the plane of said first surface being greater than the ratio of the respective areas of said two barriers.

2,874,084

HANDLING THERMO-RESPONSIVE CEMENTS

Hans C. Paulsen, Medford, Mass., assignor to B. B. Chemical Co., Boston, Mass., a corporation of Massachusetts

Application November 30, 1953, Serial No. 395,071
4 Claims. (Cl. 154—53.6)



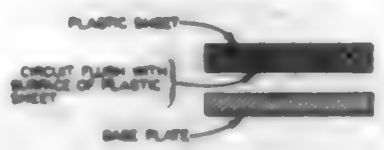
1. A flexible rod of thermoplastic cement of indefinite length having longitudinally extending grooving to facilitate coiling of the rod and to expose increased surface area for rapid melting, the volume per unit length of the space within said grooving corresponding to the volumetric expansion per unit length of the grooved rod material when melted.

2,874,085

METHOD OF MAKING PRINTED CIRCUITS

Adrian P. Brietzke, La Crosse, Wis., assignor to Northern Engraving & Manufacturing Co., La Crosse, Wis., a corporation of Wisconsin

Application October 27, 1953, Serial No. 388,663
8 Claims. (Cl. 154—94)



2. The process of preparing a plastic sheet having a flush printed circuit of predetermined conformation and thickness comprising the steps of: providing a stainless steel backing plate having a smooth continuous surface, silk-screening an electrically non-conductive mask onto said smooth continuous surface of the backing plate to define a window in the shape of the circuit; electroplating said masked surface of the backing plate to deposit the circuit through the window onto the backing plate in a semi-adherent deposit; removing the mask, thereby leaving said printed circuit embossed on said smooth surface of the backing plate; pressing a sheet of uncured thermosetting resin against the side of the backing plate having said circuit embossed thereon to embed the circuit in the resin, curing the resin to set it; and then separating said cured resin sheet with said circuit embedded therein from the smooth continuous surface of said backing plate, thereby restoring said stainless steel backing plate to substantially its original condition.

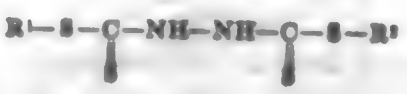
2,874,086

COMPOSITIONS AND METHODS OF COMBATING NEMATODES EMPLOYING HYDRAZINO-BIS-(DITHIOCARBONIC ACID-ESTERS)

Winfried Kruckenberg, Leverkusen, and Bernhard Homeyer, Koln-Stammheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application February 5, 1957
Serial No. 638,198
Claims priority, application Germany February 17, 1956
2 Claims. (Cl. 167—22)

1. A process of combating nematodes which comprises treating nematode infected soil with a composition containing as an active ingredient a hydrazino-bis-(dithiocarbonicacidester) of the formula



in which R^1 and R^2 stand for a member selected from the group consisting of lower saturated and unsaturated alkyl radicals, in an effective amount of said active ingredient from about 20 g. to about 250 g. per cubic meter of soil.

2,874,087

DISINFECTANT COMPOSITIONS

Albert Jakob Obladen, Hamburg-Gross Flottbek, and Martin Karl Deutsch, Hamburg-Wandsbek, Germany

No Drawing. Application February 17, 1956
Serial No. 566,095
Claims priority, application Germany February 26, 1955
4 Claims. (Cl. 167—31)

1. A disinfectant composition comprising 5% to 6% of para-chloro-meta-cresol, 5% to 6% ortho-phenylphenol, 10% alkali metal pentachloro-phenolate and the balance of a surface-active agent and water.

2,874,068
RECOVERY OF KALLIKREIN
Fritz Schultz, Wuppertal-Sonnborn, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Bayerwerk, Germany, a German corporation
No Drawing. Application August 18, 1953
Serial No. 375,062
Claims priority, application Germany August 25, 1952
8 Claims. (Cl. 167—74)

1. In the method for the recovery of kallikrein from a member selected from the group consisting of urine, thermolysates and autolysates of pancreas, the improvement which comprises adding an aqueous solution of a water soluble salt of a metal selected from the group consisting of lead and zinc to said first mentioned group member to thereby precipitate an adsorbate at a pH of about 4 to 7 and separating kallikrein from said adsorbate.

2,874,069
STABLE VITAMIN B_{12} SOLUTIONS
Donald A. Zuck, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana
No Drawing. Application July 5, 1957
Serial No. 669,941
10 Claims. (Cl. 167—81)

1. An aqueous multivitamin preparation comprising vitamin B_{12} and, on a weight/volume basis, from about 0.002 to about 0.2 percent of a compound of the group consisting of the water-soluble, nontoxic, cationic salts of cobalticyanide, molybdocyanide, ferrocyanide and ferricyanide.

2,874,090
SUNBURN PREVENTIVE N-SALICOYL-p-AMINOPHENOL COMPOSITIONS
David X. Klein, Upper Montclair, N. J., assignor to Heyden Newport Chemical Corporation, a corporation of Delaware
No Drawing. Application August 24, 1954
Serial No. 451,979
5 Claims. (Cl. 167—93)

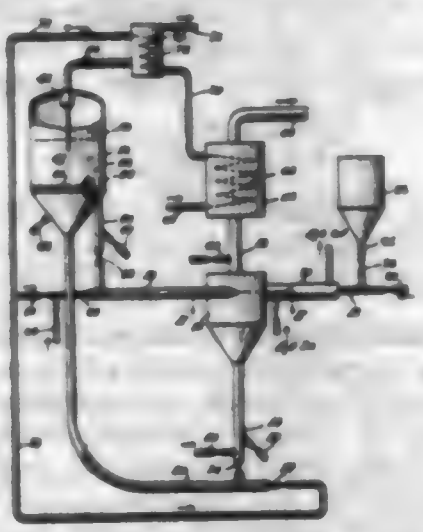
1. A cosmetic preparation for protecting the skin against sunburn comprising an oil containing cosmetic vehicle and an effective amount of N-salicoyl-p-aminophenol.

2,874,091
DISPOSABLE CULTURING DEVICE
Roy T. Fisk, Glendale, Calif., assignor to Hyland Laboratories
Application July 23, 1956, Serial No. 599,483
5 Claims. (Cl. 195—139)



1. In a disposable culturing device, a transparent, resilient Petri dish, said dish being generally in the nature of a shallow cylinder, a cover on said dish constructed of like material and having the same shape but of a greater diameter to fit loosely thereon, a layer of culture medium adhesively bonded to the inner bottom of said dish, and a microorganism-impenetrable, transparent, flexible, heat-sealed plastic envelope about the assembled dish and cover, said envelope being sized to permit ready insertion and removal of the assembly and to prevent disassembly when the assembly is sealed within said envelope.

2,874,093
HIGH-TEMPERATURE, LOW-CONTACT TIME COKING PROCESS
Harold Beuther, Penn Township, Allegheny County, and William C. Offutt, Mount Lebanon, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application May 26, 1955, Serial No. 511,172
2 Claims. (Cl. 202—14)



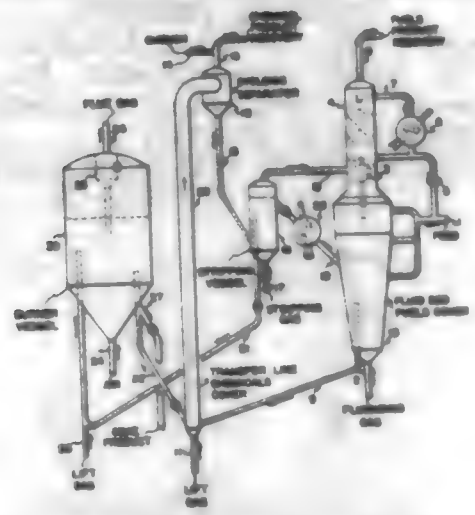
1. A process for the conversion of petroleum pitch to coke and unsaturated volatile hydrocarbons comprising introducing tangentially into a cyclone reactor at a velocity of 50 to 200 feet per second coke particles, at a temperature in the range of 1500° F. to 2500° F. and having a particle size in the range of about 20 to 80 mesh, suspended in a transfer gas to form a dense stream of coke particles swirling around the wall of the reactor surrounding a substantially solids free vortex in the center of the reactor, introducing tangentially into the cyclone reactor in the direction of movement of the coke particles and directly into the dense stream of coke particles of cokable carbonaceous solids which pass through a plastic stage as they are heated to coking temperatures suspended in a transfer gas at a temperature below about 250° F., said particles having a particle size in the range of about 50 to 200 mesh, the ratio of the weight of coke charged to the cyclone reactor to the weight of cokable carbonaceous solids charged to the cyclone reactor being in the range of 3:1 to 50:1 adapted to maintain the temperature in the reactor in the range of 1400° F. to 2200° F., the internal circulation of the cokable carbonaceous solids swirling around the wall of the cyclone reactor giving an effective ratio of coke to cokable carbonaceous solids mixed therewith higher than the ratio in which the two materials are charged to the reactor whereby an extremely thin layer of cokable carbonaceous material is deposited on the coke particles and heated rapidly to conversion temperature, rapidly separating volatile reaction products from the coke in the cyclone reactor and quenching the separated volatile reaction products to limit the time the volatile reaction products are at conversion temperatures to 0.1 to 5.0 seconds, passing coke particles separated from the volatile reaction products downwardly through a column maintained at conversion temperatures to complete coking of hydrocarbons thereon, transferring hot coke particles from the column to a heater containing a fluidized bed of hot coke particles, passing an oxygen-containing gas upwardly through the fluidized bed of coke particles to burn a portion of the coke and thereby supply heat for the process, withdrawing coke particles from the system, and recycling hot coke particles from the heat into the cyclone reactor to supply heat for the conversion process.

2,874,053

COMBINATION FLUIDIZED SOLIDS PROCESS FOR PRODUCING FUELS AND CHEMICALS

John Frederick Moser, Jr., Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application December 8, 1954, Serial No. 473,775
3 Claims. (Cl. 202—20)



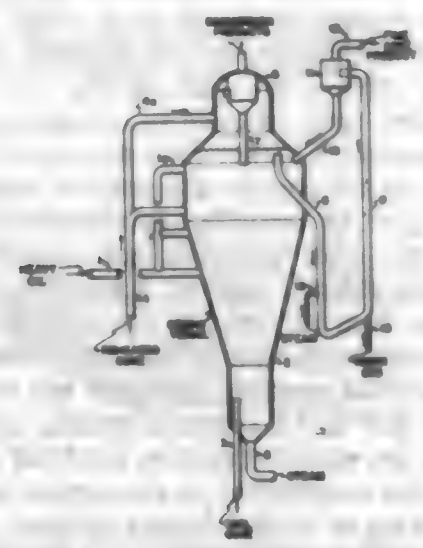
1. A fluidized solids petroleum residua coking process for converting charge stock to fuels products and chemical unsaturates which comprises, in combination, coking a charging stock in a fluid bed fuels coking zone while maintaining a relatively low solids residence time whereby only a portion of the charging stock is converted to gasiform products, withdrawing solids and unconverted charging stock from the fluid bed, heating the withdrawn portion to a temperature above 1200° F. by adding additional high temperature solids, passing the heated portion through a transfer line reactor to convert the remaining portions of said charging stock to coke and light unsaturates while maintaining an average vapor residence time of less than 10 seconds in said transfer line reactor, and separating and recovering the conversion products from each zone from the contact solids therein.

2,874,094

FLUID COKING PROCESS

John Frederick Moser, Jr., Baton Rouge, La., and Donald Dunwody Dunlop, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application March 23, 1955, Serial No. 496,193
3 Claims. (Cl. 202—25)



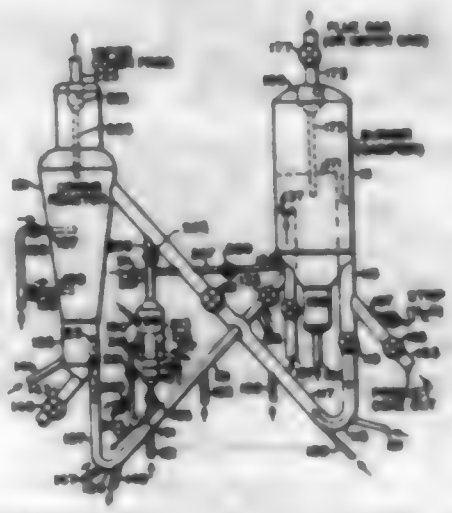
1. In the fluid coking process wherein the natural growth of the contact solids of the fluidized coking bed is counteracted by removing contact solids from the fluidized coking bed, comminuting removed solids to reduce their particle size, and returning so comminuted solids to said fluidized coking bed, the improvement which comprises withdrawing said contact solids from the upper portion of said fluid coking bed wherein there is contained a high proportion of fine particles and freshly formed agglomerates, and subjecting said freshly formed agglomerates to comminution whereby particle size reduction is accomplished with reduced effort.

2,874,095

APPARATUS AND PROCESS FOR PREPARATION OF SEED COKE FOR FLUID BED COKING OF HYDROCARBONS

Worth William Bolstare, Byron Victor Mohrstedt, Richard Franklin Stringer, and Lindsay Ira Griffin, Jr., Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application September 5, 1956, Serial No. 608,162
5 Claims. (Cl. 202—25)



5. An improved method for pyrolizing heavy hydrocarbon feed in a fluid bed at high feed rates while preserving smooth fluidization, which comprises, maintaining a mass of inert particles at a reaction temperature, introducing fluidization gas through said mass so as to form a fluid bed, contacting hydrocarbon feed with said inert solids thereby converting said feed to lighter hydrocarbon products which are removed overhead, and carbonaceous residue which constantly deposits on said solids, withdrawing a portion of said carbonaceous coated solids, attriting at least 3 weight % of said withdrawn solids, elutriating said attrited solids and returning thus treated solids to said reaction mass so as to maintain a constant mass, number and size distribution of solids therein, said size distribution being characterized by less than 20 weight percent of said solids having a diameter greater than 300 microns and less than 5 weight percent having a diameter below 75 microns.

2,874,096

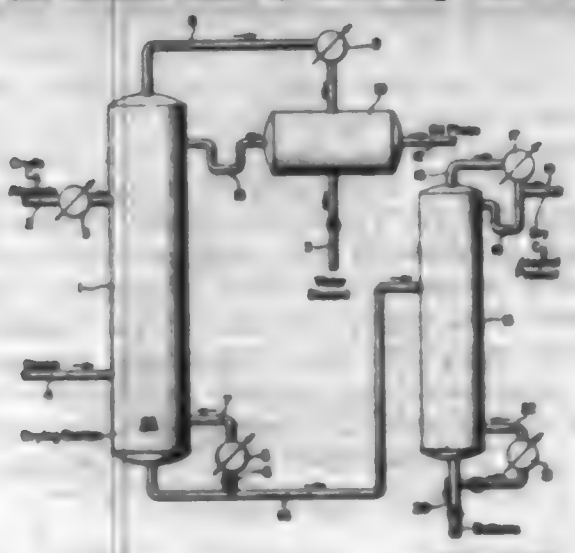
PURIFICATION OF AMYL ALCOHOL

Harold W. Scheeline, Elizabeth, and William E. Catterall, Roselle, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application January 26, 1954, Serial No. 406,174
3 Claims. (Cl. 202—40)

1. A process for purifying crude amyl alcohol containing C_{10} hydrocarbon impurities which comprises fractionally distilling the crude alcohol in a fractional distillation zone by injecting water as steam at a point lower than the point where the alcohol feed enters at a temperature at which the alcohol and water are homogeneously mixed with said water comprising 30 to 40 mol percent of the resulting reflux without forming therein a second liquid phase, removing C_{10} hydrocarbons with water and a portion of the alcohol overhead leaving the water content of said mixture at the bottom of said zone less than the water content of the amyl

alcohol-water azeotrope under the conditions employed, stripping the alcohol reflux of remaining water and then



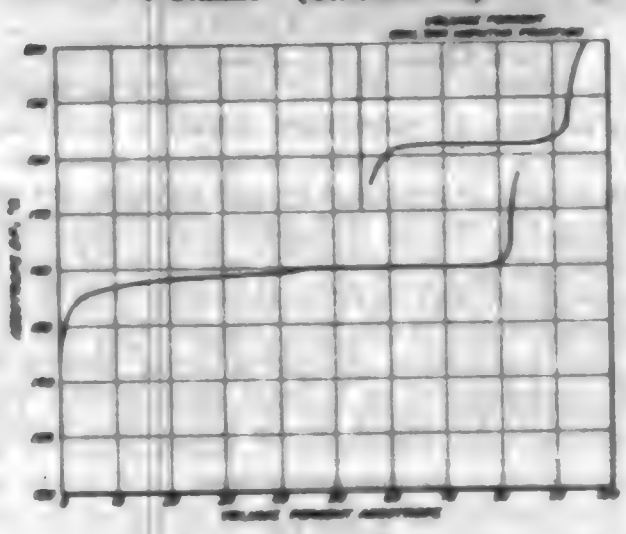
distilling the residual dry alcohol from residual higher boiling contaminants.

2,874,097

RECOVERY OF INDENE BY AZEOTROPIC PURIFICATION WITH FURFURAL

Edward J. Schwoegler, Munster, and Richard E. Putscher, Hammond, Ind., assignors, by mesne assignments, to Neville Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application July 27, 1956, Serial No. 600,463
4 Claims. (Cl. 202—42)



1. A process for recovering high purity indene from highly aromatic naphthas containing substantial amounts of indene which comprises subjecting said mixtures to distillation in the presence of an amount of furfural sufficient to form azeotropes with non-indene constituents, removing a major portion of the non-indene constituents as their furfural azeotropes and recovering indene of enhanced purity.

2,874,098

PROCESS OF OXIDIZING AND SEPARATING ALKYLARYL MIXTURES

Herbert R. Appell, North Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application March 6, 1953
Serial No. 340,931
6 Claims. (Cl. 202—57)

1. A process for the recovery of o-xylene from a mixture thereof with ethylbenzene and m- and p-xylenes, which comprises contacting said mixture with a free oxygen-containing gas at controlled oxidation conditions such that the ethylbenzene and m- and p-xylene are oxidized to acetophenone, m-toluic acid and p-toluic acid, respectively, at a rate of from about 5% to 10% per hour, whereby the o-xylene is substantially inert to the action of the oxygen-containing gas, discontinuing the reaction before any appreciable oxidation of the o-xylene has occurred, and fractionally distilling the resultant reaction mixture to separate the unreacted o-xylene from the oxidation products of the ethylbenzene and m- and p-xylenes.

2,874,099

STABILIZATION OF UNSATURATED ALDEHYDES

John W. Mecorney, Richmond Annex, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 24, 1956
Serial No. 630,055
14 Claims. (Cl. 202—57)

1. The method of stabilizing an alpha,beta-unsaturated aliphatic aldehyde which comprises incorporating therein a salt of nitrous acid with an organic nitrogen base.

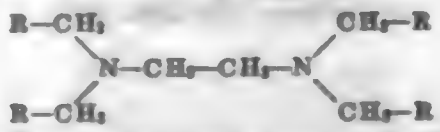
2,874,100

STABILIZATION OF UNSATURATED ALDEHYDES

Irwin L. Breier and Galvin M. Coppinger, Oakland, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 31, 1956
Serial No. 631,453
10 Claims. (Cl. 202—57)

1. The method of improving the stability of alpha, beta-unsaturated aliphatic aldehydes selected from the group consisting of acrolein and methacrolein during transportation, storage or processing thereof which comprises effecting said transportation, storage or processing of said aldehydes in the presence of an amino acid chelating agent represented by the formula



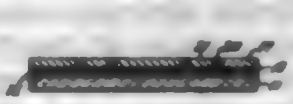
wherein R is selected from the group consisting of COOH, CH_2OH and COOM, wherein M is selected from the alkali metals and NH_4.

2,874,181

METHOD OF MAKING DOUBLE-SIDED MOSAIC

Christian Charles Larson, Fort Wayne, Ind., assignor to Farnsworth Research Corporation, Fort Wayne, Ind., a corporation of Delaware

Application September 17, 1952, Serial No. 310,011
3 Claims. (Cl. 204—11)



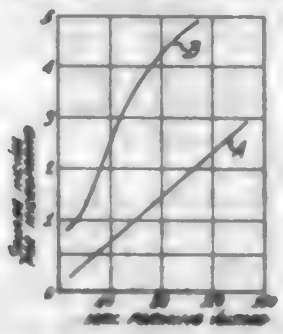
3. The process of making a double sided storage mosaic screen, which comprises coating an aluminum sheet with photo-engraving emulsion, exposing the emulsion through a screen provided with openings of given dimensions, removing the unexposed emulsion to uncover said metallic sheet, plating copper on uncovered portions of said sheet, removing exposed emulsion from said sheet to provide holes through said plated metal, filling said holes with unexposed photo-engraving emulsion, exposing said emulsion through a transparent mask having opaque portions registering with said filled holes but of smaller dimensions than said holes, whereby an exposed ring of said emulsion is formed, removing the unexposed emulsion from said surface, plating the uncovered portions of said sheet within said rings with copper, to provide a composite screen of copper and exposed emulsion, and dissolving said aluminum sheet in a potassium hydroxide solution.

2,874,102

ELECTRODES AND METHODS OF MAKING SAME

Eugene Wainer, Cleveland Heights, Ohio, assignor to Radio Corporation of America, a corporation of Delaware

Application August 12, 1953, Serial No. 373,751
3 Claims. (Cl. 204—42)



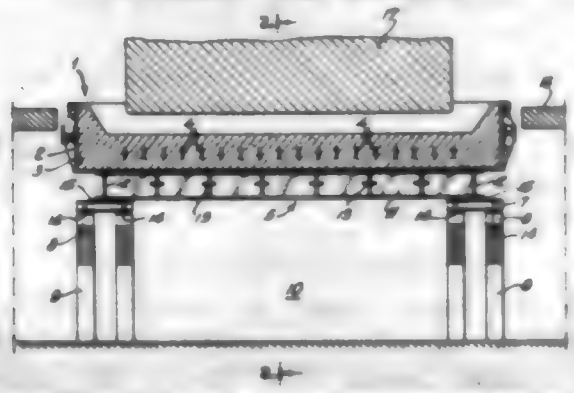
1. A method of making an electrolytic electrode comprising the steps of anodically electrolyzing a titanium surface in a solution consisting essentially of substantially equal proportions of ethylene glycol and water, and including therein 1–15% phosphoric acid by weight, and subsequently electrolyzing said surface in a solution consisting essentially of about 10% by weight of boric acid and about 90% by weight of water, thereby to produce a film of anatase upon said surface.

2,874,103

METHOD FOR REPLACING THE POT OF AN ELECTROLYTIC CELL FOR THE PRODUCTION OF ALUMINUM

Werner Syz, Chippis, and Paul Müller, Kusnacht, Zurich, Switzerland, assignors to Aluminium-Industrie-Aktien-Gesellschaft, Chippis, Switzerland

Application February 26, 1957, Serial No. 642,434
4 Claims. (Cl. 204—67)



1. The method of replacing the worn pot of an electrolytic cell in a cell line in the production of aluminum from a bath of molten fluorides, which method comprises baking outside the cell line a fresh carbon lining on a replacing pot while the latter pot is outside the cell line, maintaining the temperature of the fresh baked carbon lining in the replacing pot at a temperature of at least 500° C. until said replacing pot is installed in the cell line, replacing the worn pot in the cell line by the replacing pot while the baked carbon lining in the latter pot is at said temperature, and placing the latter pot in operation in said cell line while its baked lining is at said temperature, the fresh carbon lining in said replacing pot being maintained at said temperature continuously throughout the operations from the time said fresh carbon lining is baked in said replacing pot to the time said replacing pot is placed into operation in said cell line.

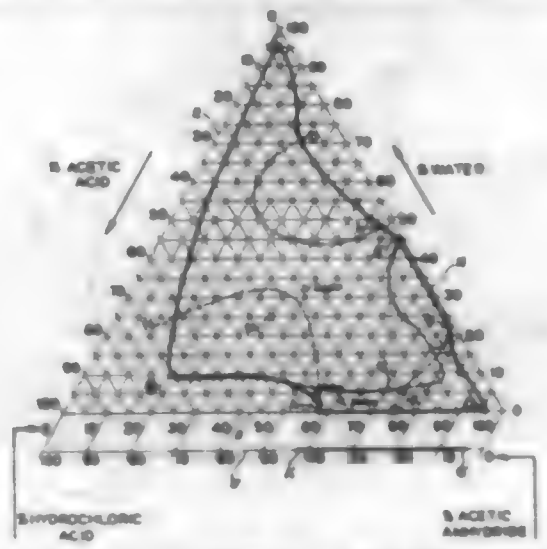
2,874,104

ELECTROPOLISHING METHOD

Edwin R. Bowerman, Whitestone, and Edward B. Saubestre, Elmhurst, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts

Application October 26, 1954, Serial No. 464,758
5 Claims. (Cl. 204—140.5)

1. The method of electropolishing a nickel part including the steps of making said part the anode in an electrolytic solution consisting essentially of hydrochloric acid and acetic acid which are present in relative percentages by volume lying within the areas defined approximately in



the ternary diagram of Figure 1 by the solid lines AB, BC, CD, DE, EF, FG and GA, and passing electric current through said anode in an amount sufficient to obtain electropolishing action of said surfaces.

2,874,105

PREVENTING CORROSION OF FERROUS METALS BY AMMONIA FREE AMMONIUM NITRATE

Donald C. Young, Fullerton, Calif., assignor, by mesne assignments, to Collier Carbon and Chemical Corporation, a corporation of California

No Drawing. Application February 11, 1957
Serial No. 639,223
6 Claims. (Cl. 204—148)

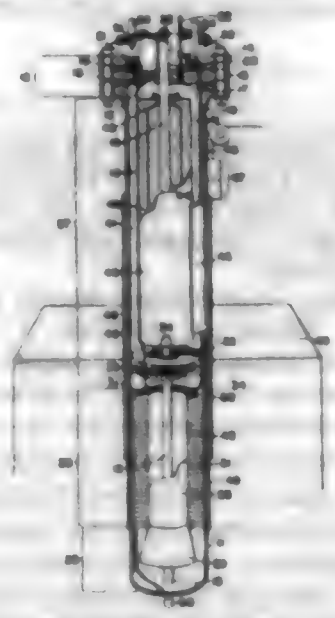
1. In a process wherein an essentially ammonia-free aqueous solution of ammonium nitrate is maintained in contact with a ferrous metal comprising areas of internal stress subject to corrosion by said solution, the method of reducing the rate of said corrosion which comprises adding ammonium phosphate to said solution and maintaining a body of lead in physical contact with the resulting composition and in electrical contact with said ferrous metal, said ammonium phosphate being present in an amount corresponding to at least about 0.0005 part by weight per part by weight of the ammonium nitrate.

2,874,106

HOMOGENEOUS NUCLEAR REACTOR

R. Philip Hammond and Harold M. Busey, Los Alamos, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application April 11, 1955, Serial No. 500,710
4 Claims. (Cl. 204—193.2)



1. A homogeneous nuclear reactor comprising a closed vessel containing a volume of liquid fuel including a fis-

sionable material and a water moderator, said fissionable material being selected from the group consisting of uranium and plutonium, means for attaining nuclear criticality in a zone of criticality in said liquid fuel, said zone of criticality being located in the bottom of said vessel, heat exchanger means for removing heat from said liquid fuel, said heat exchanger means being located within said liquid fuel above said zone of criticality, means for recombining radiolytically-dissociated moderator gases, said recombining means including a catalyst, means for condensing moderator vapor, said recombining means and said vapor condensing means being located above said heat exchanger means and said liquid fuel, means for circulating said dissociated moderator gases and vapor over said catalyst and through said condensing means, and means for circulating said fuel through said heat exchanger means and said zone of criticality.

2,874,107

DEVICE FOR TREATING MATERIALS

Leo A. Ohlinger, Chicago, Ill., Frederick Seitz, Pittsburgh, Pa., and Gale J. Young, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application May 8, 1946, Serial No. 668,185
3 Claims. (Cl. 204—193.2)



1. In combination with a neutronic reactor having an active portion and a radiation shield surrounding the active portion, a device for irradiation of materials comprising an elongated chamber extending from the outer face of the shield into the active portion and having a mouth at said outer face, a shield box having an open end sealed to the outer face of the shield and surrounding the mouth of the chamber, a removable door in a side wall of the shield box, positioning means operable from the exterior of the shield box to move specimens in the chamber between the shield box and the active portion, the positioning means comprising a rod extending through the outer end of the shield box and having a latch at the inner end thereof, and means operable from the exterior of the shield box selectively to engage and disengage specimens with and from the positioning means and comprising a second rod parallel with the first rod and engaging the latch.

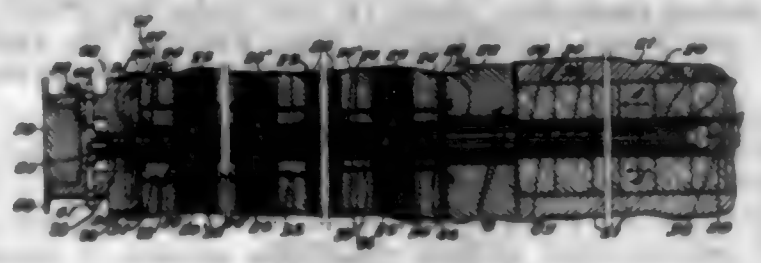
2,874,108

TEST-HOLE CONSTRUCTION FOR A NEUTRONIC REACTOR

Leo A. Ohlinger, Chicago, Ill., Frederick Seitz, Pittsburgh, Pa., and Gale J. Young, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application May 8, 1946, Serial No. 668,186
2 Claims. (Cl. 204—193.2)

1. A test-hole construction for a neutronic reactor, comprising an aluminum thimble having a closed end and an open end, a mass of graphite moderator positioned in the thimble adjacent the closed end thereof and having a plurality of holes parallel to the axis of the thimble for test specimens to be irradiated, a laminated shield formed of layers of steel and pressed wood fibers alternating with one another lengthwise of the thimble and extending in the thimble from the open end toward the graphite mass, the laminated shield having a plurality of holes aligned with the holes in the graphite mass for passing the test specimens from the open end of the thimble to the holes



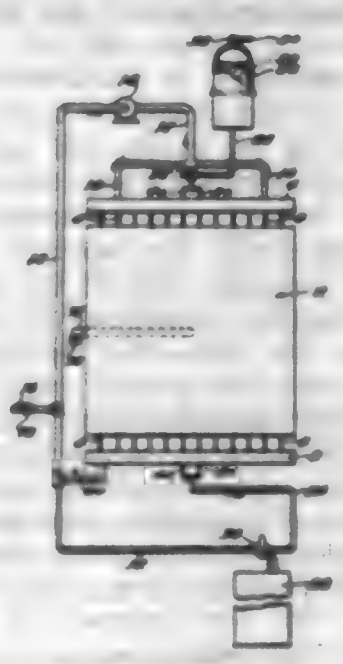
in the graphite mass, and a coolant tube extending into the open end of the thimble through the laminated shield and the graphite mass to the closed end of the thimble and thence back through the graphite mass and the laminated shield and out the open end of the thimble.

2,874,109

MEANS FOR TERMINATING NUCLEAR REACTIONS

Charles M. Cooper, Newark, Del., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application September 20, 1946, Serial No. 698,336
2 Claims. (Cl. 204—193.2)



1. In a system of the class described: means for sustaining a nuclear fission chain reaction comprising neutron moderator, coolant conduits extending therethrough, thermal neutron fissionable material in direct heat exchange relationship with said conduits, an inlet header and an outlet header connected to some of said conduits, coolant-returning means, having an upstream end connected to the outlet header and a downstream end connected to the inlet header, whereby cyclic flow of coolant is obtained, a first valved means connecting the inlet ends of the balance of said conduits to the downstream end of said coolant-returning means, and a second valved means connecting the outlet ends of said balance of said conduits to the upstream end of said coolant-returning means; and means for terminating said reaction comprising a source of a reaction-terminating fluid, means for connecting said source to the first valve means, a reservoir for said reaction-terminating fluid, and means for connecting said reservoir to the second valved means, the first and second valved means being adapted to stop cyclic flow of coolant through said balance of said coolant conduits and to provide for flow of the fluid from the source through said balance of conduits to the reservoir without introducing said fluid into the cycled coolant.

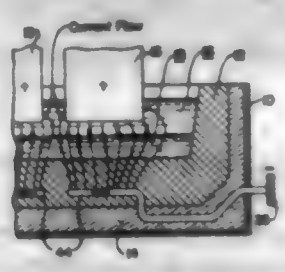
2,874,110

ELECTROLYTIC REDUCTION CELL FOR PRODUCING ALUMINUM

Charles S. Thayer, Vancouver, Wash., assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania

Original application August 12, 1950, Serial No. 179,037, now Patent No. 2,824,057, dated February 18, 1958. Divided and this application August 5, 1957, Serial No. 676,118

3 Claims. (Cl. 204—243)



1. An electrolytic cell for producing aluminum from its oxide which comprises a substantially rectangular open top shell having its side walls and bottom lined with an insulating material and an electrically-conductive lining supported on the bottom insulating material to provide a cell cavity for confining a charge of fused electrolyte and underlying molten aluminum pool, an anode depending downwardly into the cell cavity and laterally spaced inwardly from the side walls of the cell cavity, a cathode current-collector system comprising a substantially horizontal cathode bus bar disposed exterior to and adjacent each of two oppositely disposed side walls of the shell parallel to the long axis of the cell cavity, spaced cathode collector bars embedded in the electrically-conductive bottom lining in parallel disposition in respect to the bottom surface area of the anode, said embedded cathode collector bars each having current-collecting lengths disposed within and below the top surface of the electrically-conductive bottom lining and confined to substantially the downwardly projected area of the anode above the same, and an electrical conductor for each embedded cathode collector bar connecting its respective cathode collector bar to one of the exterior cathode bus bars, each electrical conductor extending downwardly from its respective cathode collector bar within the downwardly projected area of the anode into the insulating material below the bottom electrically-conductive lining and outwardly through the said insulating material in its electrical connection with one of the exterior cathode bus bars.

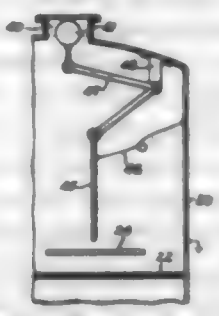
2,874,111

GROUNDING MEANS FOR AN ELECTRIC EMULSION TREATER

Logan C. Waterman, Houston, Tex., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

Application September 27, 1955, Serial No. 536,833

9 Claims. (Cl. 204—306)



1. In an electric emulsion treater the combination of: a metal tank having a float zone in the upper interior thereof; a pair of spaced electrodes in said tank defining a treating space therebetween, one of said electrodes being a high-voltage electrode, there being means for electrically insulating said high-voltage electrode from said tank; ingress and egress means for respectively supplying emulsion to and removing emulsion constituents from said tank; a high-voltage circuit having a grounded terminal connected to said metal tank and a high-voltage terminal connected to said high-voltage electrode, said high-voltage circuit providing a contact portion electrically common with said high-voltage electrode; a float in said float zone movable in response to change in liquid level therein; a metal circuit-grounding member within said tank; mounting means for mounting said circuit-grounding member within said tank to move into and from electrical contact with said contact portion in response to a respective lowering and raising of said float; and means for electrically connecting said circuit-grounding member to said tank.

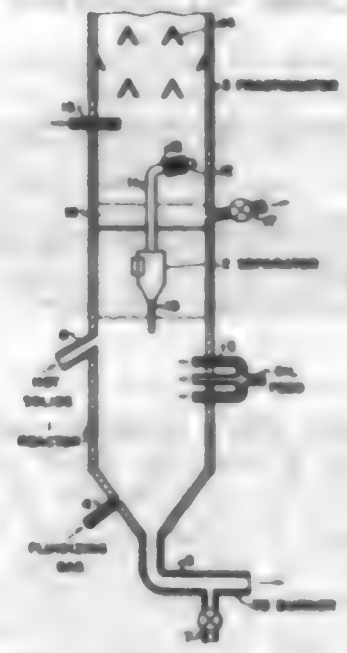
2,874,112

HYDROCARBON CONVERSION SYSTEM

Edward C. Luckenbach, Roselle Park, N. J., William Joseph Metrailer, Baton Rouge, La., and Charles E. Hemminger, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application May 22, 1957, Serial No. 660,881

11 Claims. (Cl. 208—48)



1. In a hydrocarbon conversion process wherein a hydrocarbon oil is introduced into a fluidized mass of solids maintained at a reaction temperature, said oil being thus converted to vaporous materials and coke which deposits on said solids, wherein said vaporous materials are passed to a separation zone so as to remove entrained solids, and wherein said vaporous materials are withdrawn from said separation zone, the improvement for removing carbonaceous deposits from the exit passageway of said separation zone which comprises altering the temperature of the surfaces of said passageway which are exposed to contact with said vaporous materials so as to thermally deflake carbonaceous deposits while permitting the continuous flow of vaporous materials to remain substantially unaltered.

2,874,113

PRODUCTS SEPARATING SYSTEM

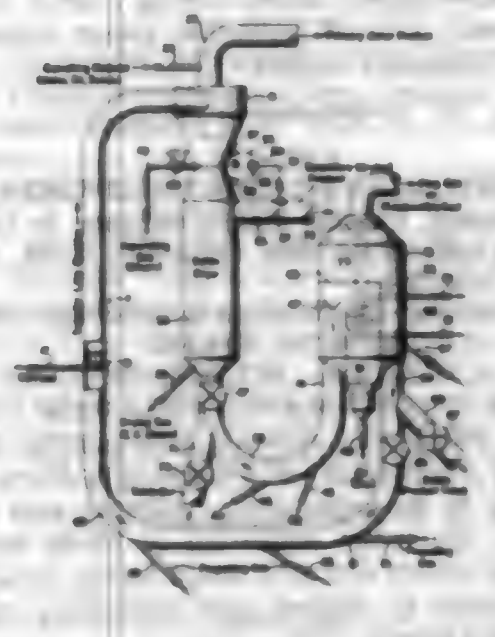
Brook I. Smith, Elizabeth, and Edward D. Boston, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 16, 1953, Serial No. 398,551

5 Claims. (Cl. 208—54)

1. The process of converting a heavy hydrocarbon oil to low molecular weight products including unsaturates and aromatics, having a tendency to degenerate at high temperatures, and coke, which comprises contacting said oil momentarily with hot particulate solids in the disperse

phase at a temperature of about 1200° to 1600° F. for a period of time in the range of 0.001 to 1 second to form primary products in vapor form and coke, quickly separating in a primary separation stage the primary vapors from said solids and coke while some further conversion of oil is still taking place on said solids to form secondary products, quenching and separately recovering the primary products immediately to prevent degeneration, quickly passing the separated solids downwardly from said primary separation stage through a passage having a sharply constricted section therein into a solids drying zone where said further conversion is com-



pleted to form said secondary products, establishing a vapor seal in said sharply constricted section of said passage between said primary and said secondary products by introducing a sealing gas into said constricted section by injection of an inert gas which has a maximum upflow velocity of about 0.5 ft./sec. so as to permit the separated solids to flow downwardly and to prevent substantial mixture of the secondary products with the primary vapor products while keeping the pressure in the primary separating stage and the drying zone substantially in balance and separately recovering secondary products.

2,874,114

PROCESS FOR PREPARING AVIATION BASE STOCK AND AVIATION GASOLINE

Wilhelmus M. J. Ruedisuli, The Hague, Netherlands, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application October 26, 1955
Serial No. 543,026
Claims priority, application Netherlands October 29, 1954
3 Claims. (Cl. 208—93)

1. Process for the production of 100/130 grade aviation gasoline which comprises separating from a naphthenic straight run gasoline containing at least 40% by weight naphthenes by fractional distillation a light ends fraction boiling up to about 65° C. and a fraction having an initial boiling point of about 65° C. and a final boiling point between 130° C. and 140° C., catalytically reforming the latter fraction, blending the reformate thus produced with said light ends fraction and stabilizing the blend, fractionally distilling the stabilized blend to separate and remove therefrom the material boiling between about 85° C. and 105° C., and blending the remainder in an amount at least 30% by volume with alkylate in an amount less than 50% by volume and isopentane in an amount sufficient to meet the volatility requirements, any additional components being present in amounts less than 10% by volume of the finished gasoline.

2,874,115

PREPARATION OF ODORLESS NAPHTHAS FROM HEAVY ALKYLATE HYDROCARBONS

George W. Ayers, Chicago, and Walter J. Sandner, Carpentersville, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application January 5, 1956
Serial No. 557,435
4 Claims. (Cl. 208—285)

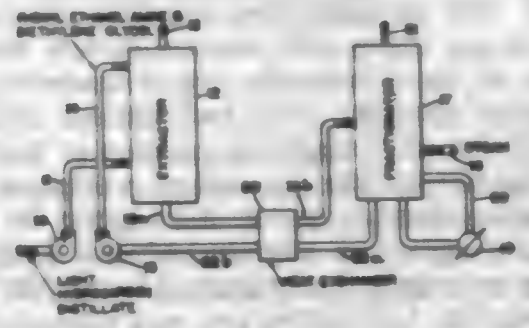
1. The process for preparing odor-free naphthas from heavy alkylate hydrocarbons produced by the reaction of a paraffinic hydrocarbon with an olefinic hydrocarbon in the presence of an alkylation-promoting catalyst consisting in treating said heavy alkylate hydrocarbons to separate a fraction boiling in the naphtha boiling range, subjecting said naphtha fraction to first-stage, liquid-phase washes with from 3 to 10 substantially equal volumes of water per volume of alkylate and a second-stage, liquid-phase wash with an aqueous alkali metal hydroxide solution and separating as the insoluble hydrocarbon phase an odor-free, stable naphtha fraction.

2,874,116

PROCESS FOR THE SOLVENT EXTRACTION OF AROMATICS FROM HYDROCARBON MIXTURES

Glenn R. Brown, Jr., Cleveland, and Harold A. Strecker, Bedford, Ohio, and Richard R. Crawford, Buffalo, N. Y., assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

Application June 1, 1956, Serial No. 588,836
7 Claims. (Cl. 208—323)



1. A method of producing a hydrocarbon mixture enriched in aromatic content from a hydrocarbon feed mixture of lesser aromatic content comprising the step of extracting said feed mixture with a solvent mixture consisting essentially of diethylene glycol and phenyl ethanol amine in which said solvent mixture components are both present in amounts above 5% by volume so as to form a separable extract phase consisting of a mixture of hydrocarbons and solvent, and the step of separating an aromatic enriched hydrocarbon mixture from said extract phase.

2,874,117

REMOVAL OF CATIONS BY ION-EXCHANGE RESINS CONTAINING SULFINIC ACID GROUPS

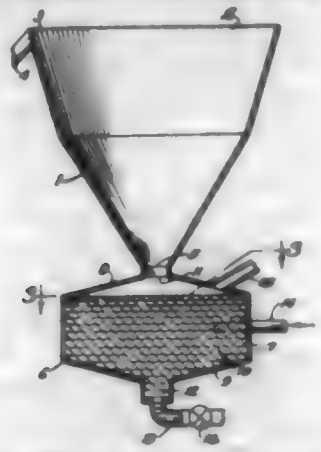
Jesse C. H. Hwa, Levittown, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application September 19, 1955
Serial No. 535,283
8 Claims. (Cl. 210—32)

1. The method of removing cations from a liquid which comprises treating it with a cation-exchange resin comprising an insoluble cross-linked copolymer of a mixture containing (*a*) 70% to 99.9%, on a molar basis, of a monovinyl aromatic hydrocarbon and (*b*) 0.1% to 30%, on a molar basis, of a compound which is copolymerizable with said monovinyl aromatic hydrocarbon and which contains at least two vinylidene groups of the formula, $CH_2{=}C<$, to the aromatic nuclei of which copolymer are attached sulfinic acid groups,

$$-SO_2H$$

2,874,118
UPFLOW CLARIFIER APPARATUS
Hans C. Albertsen, Lee's Summit, Mo.
Application May 26, 1955, Serial No. 511,389
2 Claims. (Cl. 210—205)



1. In an upflow lime-reacting water softening apparatus, an inverted conical reaction tank having an opening at the apex thereof and having a chamber for intermixing and reacting hard water and lime therein to form a suspended precipitate, a cylindrical recirculation tank having a chamber therein and being disposed below said reaction tank, said recirculation tank having a substantially larger diameter than the opening of said reaction tank and communicating with said reaction tank through said opening, said recirculation tank being of sufficient volume to accommodate all of the precipitate disposed at any given time of normal operation within said reaction chamber, said recirculation tank being equipped with at least one angularly disposed inflow conduit in an upper wall portion thereof for directing a stream of liquid inwardly and downwardly into said recirculation chamber, said recirculation tank also being provided with a discharge opening at the lowermost portion thereof for the removal of precipitate from said recirculation chamber during interruption in the operation of said apparatus, whereby, when a water softening operation is temporarily discontinued all of the precipitate in said reaction tank settles into said recirculation chamber for removal of a portion of said precipitate through said discharge opening, and when water softening operation is thereafter resumed the stream of liquid through the inflow conduit of said recirculation tank agitates the precipitate remaining therein and circulates same back into said reaction tank.

2,874,119
CORROSION INHIBITING COMPOSITIONS
Richard C. Mansfield, Haddonfield, N. J., John G. Morrison, Philadelphia, Pa., and Claude J. Schmidle, Moorestown, N. J., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application May 21, 1956
Serial No. 585,942
7 Claims. (Cl. 252—8.55)

1. A corrosion inhibited aqueous composition comprising an aqueous hydrochloric acid solution containing dissolved therein, in an amount sufficient to inhibit corrosion of ferrous metal surfaces, the reaction product obtained upon heating, for at least one-half hour at a temperature of 45°–120° C., an ammonium halide of the formula RNH_3Cl, where R is a member of the class consisting of hydrogen and the methyl group, with formaldehyde and an olefin of the formula

$$ArC(R)=CH_2$$

where Ar is a member of the class consisting of phenyl tolyl, and xylyl groups, and R is a member of the class consisting of hydrogen and the methyl group, there being for each part of the olefin employed in the reaction from 1.5 to 5 parts of formaldehyde and from 1.0 to 2.5 parts of the ammonium compound.

2,874,120
LUBRICATING OIL COMPOSITIONS
Forrest J. Watson and Rupert C. Morris, Berkeley, and John L. Van Winkle, San Lorenzo, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application August 17, 1956
Serial No. 604,618
7 Claims. (Cl. 252—32.5)

1. A lubricating oil composition comprising a major amount of a mineral lubricating oil and from about 0.01% to about 10% by weight of an oil-soluble aliphatic amine salt of a monochloroalkylphosphonic acid containing from 1 to 4 carbon atoms in the alkyl group and wherein the chlorine atom is on the alpha carbon to the phosphorus atom, the amine portion of the salt being a branched-chain-aliphatic amine having from 8 to 24 carbon atoms and selected from the group consisting of primary and secondary amines.

2,874,121
TEREPHTHALATE-THICKENED GREASES
Bruce W. Hotten, Orinda, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application October 25, 1954
Serial No. 464,643
11 Claims. (Cl. 252—39)

1. A grease composition comprising a major proportion of an oil of lubricating viscosity and a metal salt of a monoester of terephthalic acid containing from 1 to 24 carbon atoms in the ester group, wherein said metal is selected from the group consisting of alkali metals and alkaline earth metals and said metal salt is present in an amount sufficient to thicken said lubricating oil to the consistency of a grease.

2,874,122
ALKALI METAL SOAP THICKENED LUBRICATING OIL
Robert Henri Metenier and Jean-Baptiste Signouret, Notre-Dame-de-Gravenchon, Seine Maritime, France, assignors to Esso Standard Societe Anonyme Française, Paris, France, a body corporate
No Drawing. Application April 9, 1956
Serial No. 576,767
Claims priority, application France May 23, 1955
2 Claims. (Cl. 252—42.1)

1. A lubricating grease composition comprising a major proportion of a mineral lubricating oil, in the range of 3 to 30 weight percent of an alkali metal soap of a long chain fatty acid, and in the range of 0.1 to 5 weight percent of a stabilizing agent consisting essentially of a reaction product formed by the condensation of a higher alkyl phenol, a formaldehyde and ammonia in an oil diluent at a temperature in the range of 130° to 300° F. to obtain a phenolic-amino-resin containing in the range of 1.4 to 2.2 weight percent combined nitrogen and then reacting said resin within the range of 15 to 25 weight percent, based on said resin, of an alkylene oxide having in the range of 2 to 6 carbon atoms at a temperature in the range of 320° to 356° F.

2,874,123
PROCESS FOR THE PREPARATION OF GRANULAR COMPOSITIONS
Bernard Richard Scheafuss, Midland Park, N. J., and Olev Ratsep, New York, N. Y., assignors to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware
Application September 7, 1954, Serial No. 454,388
11 Claims. (Cl. 252—99)

1. A process comprising forming a flowable paste of hydratable alkali metal inorganic salt in a quantity at

least adequate to take up as water of hydration substantially all of the water to be added, water in an amount sufficient to form a flowable paste, and a granulating agent consisting of a polar organic compound having alcoholic hydroxyl as the only polar radical therein and having a molecular weight of about 150 or greater, said granulating agent being present in a quantity sufficient to cause the formation of semi-solid nodules on mixing and aeration of said flowable paste, mixing and aerating said flowable paste until semi-solid nodules have formed therein, and thereafter quiescently aging said nodule-containing mixture to produce a rigid friable mass of coherent apparently dry spheroidal agglomerate granules.

2,874,124

ANTI-SOIL REDEPOSITION AGENTS

Emil A. Vitalis, Springdale, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 10, 1955
Serial No. 514,773
6 Claims. (Cl. 252—110)

1. A detergent composition capable of preventing redeposition of soil in the cleaning of fabrics comprising from about 5 to about 95 parts by weight of a water-soluble organic detergent selected from the group consisting of fatty acid soap and synthetic organic non-soap detergents and, as a soil redeposition inhibitor, from about 0.2 to about 20 parts by weight of a polyvinyloxazolidone having a molecular weight of at least 200.

2,874,125

SYNTHETIC DETERGENT FORMULATIONS CONTAINING N-ACYL TAURATES

Henry Y. Low, San Francisco, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application December 16, 1954
Serial No. 475,814
4 Claims. (Cl. 252—152)

1. A detergent composition consisting essentially of a water-soluble N-acylaminoalkane sulfonate detergent having 2 to 4 carbon atoms in the alkane portion of the molecule and being derived from C_{16}–C_{18} hydrogenated tallow fatty acids, a water-soluble C_9–C_{13} monoalkyl benzene sulfonate detergent, the former being present in an amount of about 25% to 50%, by weight, and the latter 75% to 50%, by weight, of the total of the two, and as a foam-improving agent from about 1% to 5%, by weight, based on the total solids content of said detergent composition, of a C_{12}–C_{14} saturated straight chain alcohol selected from the group consisting of monohydric alcohols and 1,2-glycols.

2. A built detergent composition consisting essentially of 10 to 40%, by weight, of the detergent composition of claim 1 and 90 to 60%, by weight, of water-soluble inorganic salt builders.

2,874,126

HAIR SHAMPOO

Solomon Epstein, Chicago, Charles F. Fuchs, Evanston, and Martill M. Gladstone, Chicago, Ill., assignors to Emulsol Chemical Corporation, Chicago, Ill., a corporation of Illinois

No Drawing. Application February 8, 1956
Serial No. 564,137
5 Claims. (Cl. 252—152)

1. An improved soapless shampoo, having a liquid to paste consistency, consisting of a mixture of at least one detergent selected from the group consisting of: (1) water-soluble salts of sulfuric acid esters of aliphatic alcohols containing from 8 to 18 carbon atoms; (2) water-soluble salts of sulfuric acid esters of aliphatic polyhydric alcohols incompletely esterified with fatty acids containing from 8 to 22 carbon atoms; (3) water-soluble salts of alkylated aromatic sulfonic acids wherein the alkyl group contains a chain of from 8 to 22 carbon atoms; (4) water-soluble salts of higher molecular weight alkylated aromatic hydroxy-alkyl sulfuric acid esters wherein the higher molecular weight alkyl radical contains from 8 to 22 carbon atoms; (5) sulfonated castor oil; (6) condensation products of hydroxy-alkyl amines with fatty acids containing from 8 to 18 carbon atoms and wherein the molal ratio of the hydroxy-alkyl amine to the fatty acid is not substantially less than 2 to 1; and (7) polyoxyalkylene glycol ethers of alkylated aromatic compounds in which the nuclear alkyl group contains from 8 to 18 carbon atoms; said detergent comprising from about 8% to about 30%, by weight, of said shampoo; from about 1% to about 6%, by weight of said shampoo, of the oleic acid amide of isopropanolamine; and water, the water being present in amounts not substantially below 30%, by weight, of said shampoo, said shampoo being free from soaps.

2,874,127

SULFONATE DETERGENT COMPOSITIONS OF IMPROVED FOAM CHARACTERISTICS

Henry Y. Low, San Francisco, and Richard D. Stayner, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application June 29, 1956
Serial No. 594,702
3 Claims. (Cl. 252—152)

1. A built detergent composition of superior foam characteristics consisting essentially, by weight, of about 100 parts of a branched chain C_9–C_{18} alkylbenzene sulfonate sodium salt detergent, about 2 to 20 parts of a saturated aliphatic alcohol selected from the group consisting of straight chain C_{14}–C_{18} saturated monohydric alcohols and 1,2-glycols, from about 2 to 20 parts of an N-acyl sulfanilate of the general formula

$$RC(O)N(R')C_6H_4SO_3Na$$

wherein R is a straight chain alkyl group of 9 to 17 carbon atoms and R' is a radical selected from the group consisting of hydrogen and methyl radicals, and about 60% to 90% based on said built detergent composition of inorganic sodium salt builders.

2,874,128

PHOSPHOR

Anselm Wachtel, Sayreville, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 24, 1956, Serial No. 630,383
7 Claims. (Cl. 252—301.6)

1. The method of preparing an electroluminescent zinc-sulfide phosphor activated by copper and coactivated by chlorine: comprising admixing finely-divided zinc sulfide and copper-containing compound and chloride, the chloride principally comprising those chlorides which on firing will leave no metallic constituents other than those of the phosphor and specifically excluding the group consisting of iron chloride, cobalt chloride, nickel chloride and chromium chloride; inserting said admixture into a firing container which is closed to convection of exterior gases but which will still allow the escape of any positive gas pressures generated therein during firing; including in said firing container with said admixture at least about 1% by weight of said admixture of free sulphur; enclosing said firing container in an inert atmosphere; the amount of chlorine in compound form in said admixture expressed by the formula,

$$w=0.7\cdot(x+0.076xf+0.004f)\cdot(0.97+0.003\cdot\text{gms. ZnS})$$

the amount of copper in compound form in said admixture expressed by the formula,

$$y=z+0.005f+0.83\cdot(x+0.076xf+0.004f)$$

wherein w is the percent by weight of zinc sulfide of chlorine in compound form in said admixture, x is from 0.08 to 0.3 y is the percent by weight of zinc sulfide of copper in compound form in said admixture, z is from 0.1 to 0.5 and f is the frequency in kilocycles per second at which said phosphor is to be operated; firing said admixture and included sulphur in said firing container at from 850° C. to 1000° C. for at least one hour; and cooling said fired admixture in said inert-atmosphere-enclosed firing container.

2,874,129

PREPARATION OF CATALYSTS FOR METHANETHIOL SYNTHESIS

Richmond T. Bell, Grayslake, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application May 27, 1953
Serial No. 357,500
8 Claims. (Cl. 252—454)

1. The method of preparing a catalyst consisting of an active component comprising the oxides of metals selected from the group consisting of thorium, zirconium, titanium, uranium, tungsten, molybdenum and chromium supported on a dry porous carrier material which comprises dissolving a heat-decomposable compound of said active component in a monohydric aliphatic alcohol having up to 6 carbon atoms to the molecule and a surface tension of not more than 30 dynes per centimeter, impregnating said dry carrier with said alcohol solution at a temperature of about 10° to 30° F. below the boiling point of the alcohol whereby the surface tension of the impregnating solution is not more than 30 dynes per centimeter at the impregnating temperature, heating said impregnated carrier to evaporate said alcohol therefrom and calcining said thus dried carrier material to convert the heat-decomposable compound to the corresponding metal oxide.

2,874,130

PROCESS FOR PREPARING ALUMINA TRIHYDRATE

Carl D. Keith, Munster, Ind., assignor to Engelhard Industries, Inc., a corporation of New Jersey

Application March 29, 1955, Serial No. 497,725
13 Claims. (Cl. 252—466)

1. In the production of alumina trihydrate compositions by a process comprising formation of an amorphous alumina hydrogel, washing the hydrogel with water until substantially free of contaminating ions, and converting the amorphous hydrogel to an alumina hydrate composition containing about 65% to about 95% of crystalline trihydrate, the method of hydrate conversion which comprises washing the alumina hydrogel with water at a temperature in the range defined by temperatures less than about 60° F. and from about 75° to about 160° F. to control the relative amounts of bayerite, gibbsite and randomite in the converted trihydrate composition.

11. In the production of an alumina base platinum metal catalyst by formation of an amorphous alumina hydrogel, washing the hydrogel substantially free of contaminating ions with water and converting the hydrogel to an alumina hydrate composition predominating in a mixture of alumina trihydrate phases, incorporation of a platinum metal in finely distributed form, drying and calcining, the method of hydrate conversion which comprises washing the alumina hydrogel with water at a temperature from about 75 to about 160° F. and aging the hydrogel to obtain a mixture of crystalline trihydrates amounting to 65% to 95% of the hydrate composition.

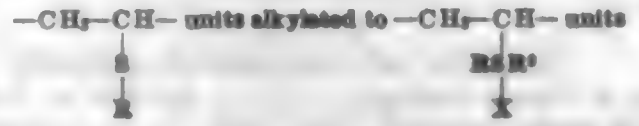
2,874,131

ANION-EXCHANGE RESINS CONTAINING SULFONIUM GROUPS AND PROCESSES FOR MAKING THEM

Jesse C. H. Hwa, Levittown, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application April 13, 1956
Serial No. 577,960
9 Claims. (Cl. 260—2.1)

1. The —S— alkylated copolymer formed from about 7–10 molar percent of a crosslinking agent containing at least two non-conjugated points of ethylenic unsaturation and about 90–93 molar percent of vinyl sulfide, said copolymer having about 9–44 molar percent of its



where R is selected from the group consisting of hydrocarbon groups having 1 to 5 carbon atoms, hydroxyalkyl groups having 1 to 5 carbon atoms, alkoxyethyl groups having 1 to 5 carbon atoms, and β- and γ-alkoxypropyl groups having 1 to 5 carbon atoms, R^3 is selected from the group consisting of hydrocarbon groups having 1 to 5 carbon atoms, and X is selected from the group consisting of OH and a negative salt-forming member.

2,874,132

ANION-EXCHANGE RESINS FOR SUGAR DECOLORIZATION AND THEIR PREPARATION

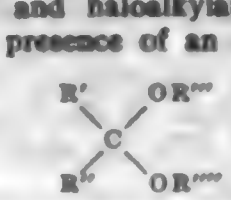
Edward F. Riener, Haddonfield, N. J., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application November 2, 1956
Serial No. 619,960
19 Claims. (Cl. 260—2.1)

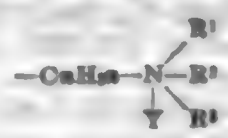
1. An insoluble resinous quaternary ammonium composition suitable for the removal of anions from fluids, and particularly color bodies from sugar solutions, which comprises the product of the reaction of: (1) a tertiary amine and (2) a condensation product of (*a*) a copolymer of a mixture of an aromatic monovinyl hydrocarbon and an aromatic divinylhydrocarbon of which mixture the monovinyl hydrocarbon constitutes the predominant proportion, and (*b*) a haloalkylating agent which provides haloalkyl groups having the general formula

$$—C_nH_{2n}X$$

in which n has a value of one to four and X is a member of the group consisting of chlorine and bromine, which copolymer and haloalkylating agent have been condensed in the presence of an acetal of the formula



in which R′ and R″ are members of the class consisting of hydrogen and an alkyl group, R‴ and R⁗ are both alkyl groups, and R′+R″ having a total of from one to eight carbon atoms, said acetal being present in an amount by weight equal to at least about 10 percent of the copolymer; the resulting quaternized reaction product containing on the aromatic nuclei quaternary ammonium groups having the general formula



in which n has a value of one to four, R^1, R^2, and R^3 represent monovalent hydrocarbon groups and Y is an anion, the number of said quaternary ammonium groups

being at least one for every 15 aromatic nuclei and also being substantially equal to the number of haloalkyl groups in the said copolymer.

2,874,133
RADIOPHOTOLUMINESCENT COMPOUND AND METHOD OF MAKING SAME
James H. Schulman, Forest Heights, Md., assignor to the United States of America as represented by the Secretary of the Navy
No Drawing. Application December 31, 1956
Serial No. 631,981
3 Claims. (Cl. 260—515)
(Granted under Title 35, U. S. Code (1952), sec. 266)

2. The crystallized product of reaction from contacting lithium benzoate with a trace of benzaldehyde in the presence of water, said crystallized product being radiophotoluminescent.

2,874,134
PRODUCTION OF GLUE FROM SOLUBLE BLOOD
John M. Gossett, Portland, Oreg., and Max H. Estep, Jr., and Mahlon J. Perrine, Seattle, Wash., assignors to American-Marietta Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application June 1, 1955
Serial No. 512,568
17 Claims. (Cl. 260—6)

12. The process of producing a glue which although containing a blood adhesive constituent minimizes staining of a light-colored thin veneer when a glue is applied thereto, comprising providing an aqueous solution of soluble dried blood, heat-coagulating the blood in said solution and increasing its temperature to above 120° F. by the addition to said solution of hot water at approximately the boiling point while agitating the solution for maintaining the coagulated blood particles in finely divided condition and dispersed throughout the aqueous medium, introducing an alkali metal silicate into the resulting blood dispersion while maintaining the latter in aqueous form at a temperature below 120° F., said alkali metal silicate raising the pH of the dispersion medium above 9 while simultaneously swelling the blood particles and increasing the viscosity and adhesive properties of the blood dispersion, and then reducing the penetration properties of the resulting glue and substantially inhibiting staining of a thin veneer when the glue is applied thereto by reducing the pH of the glue to below 9.

13. The process defined in claim 12 in which the reduction of the pH of the glue to below 9 is effected by incorporating in the glue a urea-aldehyde resin.

2,874,135
GLASS COATING COMPOSITIONS
Francis G. A. de Monterey, Troy, N. Y., assignor to General Electric Company, a corporation of New York
No Drawing. Application November 20, 1957
Serial No. 697,516
5 Claims. (Cl. 260—18)

1. A composition of matter comprising, by weight, (1) from 50 to 60 percent of a methylpolysiloxane fluid containing an average of from 1.95 to 2.1 methyl groups per silicon atom and having a viscosity of from 10 to 1000 centistokes when measured at 25° C., (2) from 1 to 10 percent of a methylpolysiloxane having an average of more than two methyl groups per silicon atom and having a viscosity of from 50,000 to 2,000,000 centistokes when measured at 25° C., (3) less than 10 percent of a methylpolysiloxane resin having a ratio of from 1.2 to 1.7 methyl groups per silicon atom and containing $CH_3SiO_{3/2}$, $(CH_3)_2SiO$ and $(CH_3)_3SiO_{1/2}$ groups, (4) from 1 to 15 percent of a finely divided silica and (5) from 1 to 10 percent of a dimerized linoleic acid.

2,874,136
POLYVINYL METHYL ETHER COMPOSITION AND METHOD FOR IMPROVING CROCK FASTNESS OF COLORED TEXTILES
Carl A. Bergman, Charlotte, N. C., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application September 10, 1956
Serial No. 608,701
8 Claims. (Cl. 260—28.5)

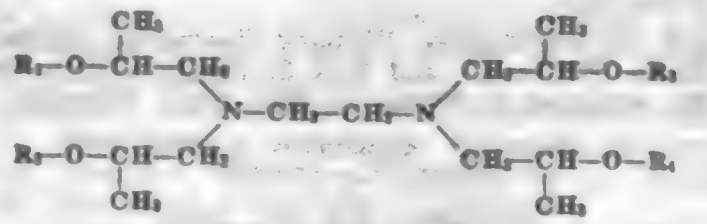
1. A composition for treating colored textile materials having a tendency to crock which consists essentially of (A) a major amount of polyvinyl methyl ether and (B) a minor amount of a water dispersible textile lubricant selected from the group consisting of (1) a higher fatty acid amide of hydroxy ethyl ethylenediamine reacted with chloracetic acid, (2) an emulsifiable paraffin wax and (3) an emulsifiable polyethylene wax having a molecular weight below about 6,000.

2,874,137
WAX EMULSION POLISH CONTAINING OXIDIZED POLYETHYLENE WAX
John Pisanchyn and Harvey A. Troutman, Morristown, N. J., assignors to Allied Chemical Corporation, a corporation of New York
No Drawing. Application April 30, 1956
Serial No. 581,340
5 Claims. (Cl. 260—29.6)

1. A wax polish in the form of a stable aqueous dispersion containing 8 to 20 parts total solids per 100 parts by weight of dispersion, said total solids comprising essentially 1.6 to 11.0 parts by weight of an emulsifiable oxidized polyethylene wax having a molecular weight of about 1,000 to about 5,000, an oxygen content between about 1% and 17%, a hardness equal to a penetration not more than 1.5 mm. as measured by standard ASTM method D–5–25, a toughness equal to at least 2 foot pounds per linear inch as measured by standard ASTM method D–256–47T, and a low ratio of saponification number to acid number; 1.6 to 11.0 parts by weight of a polystyrene resin having a molecular weight above 5,000, and 1.6 to 9.0 parts by weight of an alkali-soluble material selected from the group consisting of rosin, shellac, casein, phenol-formaldehyde resins, condensation products of reactants comprising maleic anhydride and rosin and condensation products of reactants comprising fumaric acid and rosin.

2,874,138
LOWER FATTY ACID ESTERS OF N,N,N',N' TETRAKIS (2-HYDROXYPROPYL)ETHYLENE DIAMINE AND VINYL CHLORIDE COMPOSITIONS CONTAINING SAME
Donald R. Jackson, Wyandotte, Mich., assignor to Wyandotte Chemicals Corporation, Wyandotte, Mich., a corporation of Michigan
No Drawing. Application November 28, 1955
Serial No. 549,512
4 Claims. (Cl. 260—31.8)

1. Lower fatty acid esters of N,N,N',N' tetrakis(2-hydroxypropyl)ethylene diamine conforming to the formula:



wherein R_1, R_2, R_3 and R_4 are selected from the group consisting of hydrogen and acyl radicals containing not more than 7 carbon atoms in their structure and at least one of said R's is an acyl radical.

2,874,139

SILICA-FILLED POLYCAPROAMIDE

Norman Kendall Jelinger Symons, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 21, 1954
Serial No. 444,912
1 Claim. (Cl. 260—37)

A tough, fiber-forming, silica-filled polycaproamide composition having exceptional stiffness and melt viscosity, obtained by a process wherein (*a*) there are admixed to form a fluid mixture: water, monomer polymerizable to fiber-forming polycaproamide having recurring units of formula

$$[N(CR'_2)_5C]$$
$$\quad R \qquad O$$

wherein R and R′ are selected from the group consisting of hydrogen and alkyl of 1 to 4 carbon atoms, and each R′ except at most one is hydrogen, and deionized silica having a maximum discrete particle size of less than 10 microns; and (*b*) the mixture is heated at a temperature in the range of 160 to 300° C. with removal of water to obtain polycaproamide, having an inherent viscosity in the range of 0.4 to 2 and containing 2 to 20 weight percent of well-dispersed finely-divided silica, said process being further characterized in that (*c*) the silica is supplied to the mixture in the form of particles having a specific surface area of 15 to 700 square meters per gram and in amount such that the total specific surface area of the silica supplied is at least three square meters per gram of said polycaproamide.

2,874,140

MOLDING COMPOSITION COMPRISING POLYVINYL CHLORIDE OR POLYETHYLENE AND A METAL OXIDE

Harry Kloepfer, Frankfurt am Main, Germany, assignor to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany

No Drawing. Application May 28, 1955, Serial No. 510,011. In Germany December 31, 1948
Public Law 619, August 23, 1954
Patent expires December 31, 1968
3 Claims. (Cl. 260—41)

1. A moulding composition comprising a high molecular weight polymeric material selected from the group consisting of polyvinyl chloride and polyethylene having dispersed therein up to and including 20% by weight of a finely divided solid oxide having a particle size of less than 50 mμ selected from the group consisting of silica, aluminum oxide and titanium dioxide produced by the vapor phase decomposition of a corresponding volatile compound by an agent selected from the group consisting of oxygen and water vapor.

2,874,141

UNSATURATED POLYESTER-VINYL MONOMER COMPOSITION STABILIZED WITH 3,6-DI-N-PROPYLCATECHOL AND METHOD OF PREPARATION

Roger M. Christenson, Richland Township, Chester L. Parris, Pittsburgh, and Earl E. Parker, Allison Park, Pa., assignors to Pittsburgh Plate Glass Company

No Drawing. Application April 19, 1956
Serial No. 579,147
9 Claims. (Cl. 260—45.4)

1. A method of inhibiting premature gelation in an interpolymerizable mixture of a monomer containing a $>C{=}CH_2$ group and a polyester of a dihydric alcohol and an alpha-beta ethylenic dicarboxylic acid, which comprises incorporating into the mixture 3,6-di-n-propylcatechol, the monomer in said mixture being about 10 to about 50 percent by weight of the total mixture and the 3,6-di-n-propyl catechol being about 0.001 to about 0.1 percent by weight of the mixture the polyester being substantially the rest of the mixture.

2,874,142

POLYTRIFLUOROCHLOROETHYLENE AND BARIUM PEROXIDE

William E. Hanford, Short Hills, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application April 20, 1955
Serial No. 502,718
8 Claims. (Cl. 260—45.7)

1. A novel plastic composition consisting of an admixture of a polymer of trifluorochloroethylene selected from the group consisting of the homopolymer of trifluorochloroethylene and copolymers of trifluorochloroethylene and vinylidene fluoride which contain not more than 5 mol percent of vinylidene fluoride and between about 0.05 and about 20 parts of barium peroxide per 100 parts of said polymer, said polymer being inert to chemical cross-linking in the presence of barium peroxide.

2,874,143

POLYTRIFLUORCHLOROETHYLENE STABILIZED WITH TETRAPHENYL TIN

William S. Barnhart, Cranford, and Robert H. Wade, Ridgeview Drive, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application May 26, 1954
Serial No. 432,588
1 Claim. (Cl. 260—45.75)

A novel polymer composition stabilized against thermal degradation which comprises an admixture of a homopolymer of trifluorochloroethylene and between about 0.01 and about 10 percent by weight of tetraphenyl tin.

2,874,144

POLYPERFLUOROCHLOROETHYLENE AND LEAD DIOXIDE

William E. Hanford, Short Hills, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application April 20, 1955
Serial No. 502,719
4 Claims. (Cl. 260—45.75)

1. A novel plastic composition consisting of an admixture of a homopolymer of trifluorochloroethylene and between about 0.05 and about 20 parts of lead dioxide per 100 parts of said homopolymer, said homopolymer being inert to chemical cross-linking in the presence of lead dioxide.

2,874,145

VINYL RESIN COMPOSITIONS STABILIZED WITH LEAD CHLORIDE-LEAD SILICATE COMPLEXES

John G. Hendricks, Boonton, N. J., and Adrian R. Pirrot, Uniondale, N. Y., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application March 23, 1956
Serial No. 573,322
7 Claims. (Cl. 260—45.75)

2. A polyvinyl halide polymer composition containing, as stabilizer therefor, from about 0.5 to 20%, based on the weight of said polymer, of a basic lead chloride-lead silicate cocalcined composition, said composition comprising lead oxide, silica and chlorine.

2,874,146

POLYMERIC COMPOSITIONS

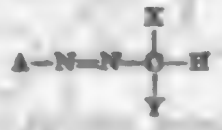
Raymond Deverell-Smith, John Mitchell, and Harry James Twitchett, Manchester, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application June 26, 1956
Serial No. 593,830

Claims priority, application Great Britain June 29, 1955

8 Claims. (Cl. 260—45.85)

1. A composition comprising a polymer which is normally effected deleteriously by ultraviolet light selected from the group consisting of cellulose esters and solid polymers of olefinic monomers having incorporated therein a pigment and from 0.01% to 10%, on the weight of said material, of a monoazo compound of the formula:



wherein A stands for a benzene nucleus carrying at least one negative substituent selected from the group consisting of —Cl, —Br, —CN, —CF_3, —SO_3H, —COOH, —COC_6H_5, —SO_2 (lower alkyl), —COO (lower alkyl), —SO_2NRR', —CONRR' wherein R and R' are selected from the group consisting of hydrogen, lower alkyl, cyclo-lower alkyl, monocyclic aryl and monocyclic aryl-lower alkyl and X and Y are selected from the group consisting of —CN, —$COOCH_3$, —$CONH_2$ and —COO (alkyl up to four carbon atoms).

2,874,147

PRODUCTION OF PHENOLIC RESINS FROM ALKYL BENZENE HYDROPEROXIDES

Heinrich Hock, Clausthal-Zellerfeld, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany

No Drawing. Application November 24, 1954
Serial No. 471,100

Claims priority, application Germany December 3, 1953

2 Claims. (Cl. 260—57)

1. Process for the production of phenolic resins which comprises heating ethyl benzene hydroperoxide with sulfuric acid to a temperature of about 80° C. while stirring, allowing the reaction mixture to cool, thus forming a solidified resin.

2,874,148

RESINIFICATION OF FURFURYL ALCOHOL AND FORMALDEHYDE AT HIGH HYDROGEN-ION CONCENTRATIONS

Lloyd H. Brown, Oak Park, Ill., assignor to The Quaker Oats Company, Chicago, Ill., a corporation of New Jersey

No Drawing. Application July 29, 1954
Serial No. 446,675

3 Claims. (Cl. 260—67)

1. A controllable process for making a potentially curable resin from furfuryl alcohol and formaldehyde which comprises acidifying an aqueous solution of formaldehyde to a degree of acidity greater than that corresponding to pH 1.35, heating the resulting mixture under reflux to a temperature just below the boiling point of water, and then introducing furfuryl alcohol into said solution at a rate of between about .015 and .071 gram of furfuryl alcohol per minute per gram of furfuryl alcohol added.

2,874,149

UREAS

Fred Applegath and Raymond A. Franz, El Dorado, Ark., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 18, 1957
Serial No. 646,582

8 Claims. (Cl. 260—77.5)

1. A process for preparing cyclic and polymeric ureas which comprises mixing carbon monoxide, sulfur and a compound selected from the group consisting of organic compounds containing at least two —NH_2 substituent radicals attached to different carbon atoms and organic compounds containing at least one —NH_2 substituent radical and at least one —NH— substituent radical attached to different carbon atoms and subjecting the resultant mixture to a temperature in the range of from about 60° C. to about 300° C. and a pressure of at least 30 p. s. i. a. for a time sufficient to produce the urea.

2,874,150

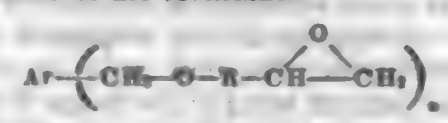
EPOXY COMPOUNDS

Roger M. Christenson, Richland Township, and John J. Jaruzelski, Pittsburgh, Pa., assignors to Pittsburgh Plate Glass Company, Allegheny County, Pa.

No Drawing. Application November 28, 1956
Serial No. 623,305

9 Claims. (Cl. 260—78.4)

1. An epoxide of the formula:



wherein Ar is a benzene ring containing 0 to 4 alkyl groups as side chains, R is an alkylene radical of 1 to 4 carbon atoms and n is a number from 1 to 4.

2,874,151

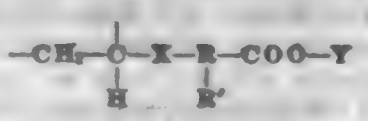
POLYMERIC EMULSIFYING AGENTS AND THEIR DERIVATIVES

Avrom I. Medalia, Belmont, and Harold H. Freedman, Brookline, Mass.

Application June 28, 1955, Serial No. 518,483

17 Claims. (Cl. 260—80)

2. A water soluble polymer whose repeating units are of structure



where X represents a di-valent group selected from the group consisting of



and



where R' is an alkyl radical of from 1 to 8 carbon atoms; and where R is a hydrophobic alkylene radical of from 7 to 11 carbon atoms; and where Y is a hydrophilic group selected from the group consisting of sodium, potassium, ammonium, substituted ammonium and methoxy polyoxyethylene.

2,874,152

POLYMERIZATION PROCESS EMPLOYING A PERFLUOROCHLOROCARBOXYLIC ACID AS AN EMULSIFYING AGENT

Archibald N. Bolstad, Maplewood, and Ralph L. Herbst, Jr., Westfield, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application October 18, 1954
Serial No. 463,073

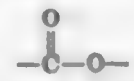
8 Claims. (Cl. 260—92.1)

1. A process which comprises polymerizing at least one but not more than two halogenated polymerizable ethyl-

enically unsaturated monomers in the presence of a system containing substantially no added reductant being maintained at a temperature between about 5 and about 30° C. and having an initial pH between about 6 and 10 and consisting essentially of water, an inorganic peroxy compound, and a compound having the formula

$$X_1(CF_2—CFCl)_nCF_2(CH_2)_mR$$

in which X_1 is selected from the group consisting of fluorine, chlorine, bromine and a perhalomethyl radical having a total atomic weight not in excess of 146.5, *n* is an integer from 2 to 9, R is a solubilizing group, and *m* is selected from the group consisting of 0 and 1 and is 0 only when R contains a



group.

2,874,153

POLYMERIZATION OF PROPYLENE

Lewis W. Bowman, Westfield, and Robert F. Leary, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application October 28, 1955, Serial No. 543,470

10 Claims. (Cl. 260—93.7)

1. A method for preparing polypropylene which comprises polymerizing propylene which is essentially free of catalyst poisons at a temperature of about 50° to 100° C. and at about atmospheric pressure in the presence of a catalyst obtained by mixing aluminum triethyl with titanium tetrachloride, the mol ratio of aluminum to titanium in the catalyst being in the range of about 1.75:1 to 2.25:1, said polymerization being carried out in the presence of an essentially inert liquid diluent.

2,874,154

PROCESS FOR THE PRODUCTION OF 20-KETO-21-IODO STEROIDS

Gilbert Stork, Leonia, N. J., and Howard J. Ringold, Franz Sondheimer, and George Rosenkranz, Mexico City, Mexico, assignors to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application October 11, 1955

Serial No. 539,918

Claims priority, application Mexico October 15, 1954

14 Claims. (Cl. 260—239.55)

1. A process for the production of steroidal 20-keto 21-iodo compounds selected from the group consisting of pregnenes and 19-norpregnenes comprising reacting the corresponding 21-unsubstituted steroid with iodine in the presence of an inert organic non-ketonic solvent including a minor proportion of a lower aliphatic alcohol and an inorganic alkali.

2,874,155

N-CHLOROPHENOTHIAZINEALKYL-N'-OXOALKYLPIPERAZINES

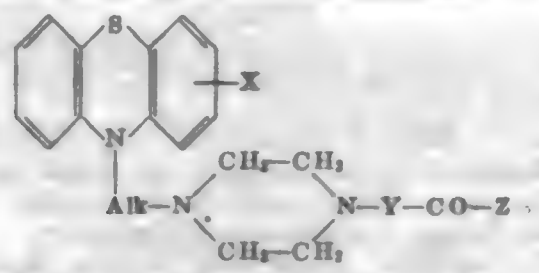
John W. Cusic, Skokie, and Robert W. Hamilton, Wilmette, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application January 16, 1957

Serial No. 634,403

6 Claims. (Cl. 260—243)

1. A compound of the structural formula



wherein Alk is a lower alkylene radical of two to four carbon atoms, X is a halogen atom of atomic number less than 36, Y is a lower alkylene radical and Z is a lower alkyl radical.

2,874,156

SUBSTITUTED 2,3-DIPHENYL-1,4-DIOXO-TETRAHYDROPHTHALAZINES AND A PROCESS FOR PREPARING THEM

Heinrich Ruschig, Bad Soden, Taunus, and Robert Fugmann, Hans Eggert, Ernst Fischer, and Ernst Lindner, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt, Germany, a corporation of Germany

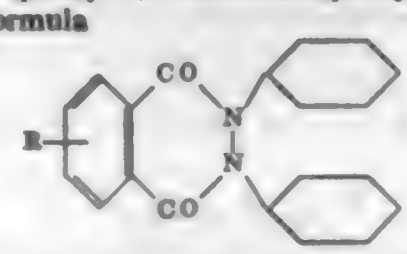
No Drawing. Application August 2, 1955

Serial No. 526,872

Claims priority, application Germany August 7, 1954

7 Claims. (Cl. 260—250)

7. A 2,3-diphenyl-1,4-dioxotetrahydrophthalazine of the general formula



wherein R is a member selected from the group consisting of hydroxy, amino, diethylaminoacetylamino, the acyloxy groups dimethylaminoacetoxy, diethylaminoacetoxy, nicotinoyloxy, acryloxy, stearyloxy and oleyloxy groups, and the chloro- and bromomethylates and ethylates, methiodides and methyl-methylsulfates of said acyloxy groups.

2,874,157

ACYLATED DIAMINOPYRIMIDINES

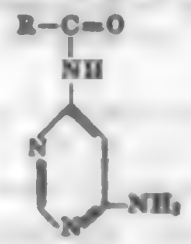
John J. Traverso and Calvert W. Whitehead, Indianapolis, Ind., assignors to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application September 11, 1957

Serial No. 683,205

3 Claims. (Cl. 260—256.4)

1. A compound represented by the formula



wherein R is chosen from the group consisting of methyl and ethyl.

2,874,158

HYDROGENATED CITRAZINIC ACID AND METHOD OF PREPARATION

André L. Langis, St. Laurent, Quebec, and Roger Gendry, Mount Royal, Quebec, Canada, assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Continuation of application Serial No. 476,848, December 21, 1954. This application August 16, 1957, Serial No. 678,546

3 Claims. (Cl. 260—281)

1. The process which comprises hydrogenating citrazinic acid with hydrogen gas at a pressure below about 100 pounds per square inch and in the presence of a hydrogenation catalyst until substantially one mole of hydrogen has been absorbed per mole of citrazinic acid.

2,874,159

STABILIZATION OF CERTAIN ALKENYL PYRIDINES

Warren L. Smith and Mack F. Potts, Bartlesville, Okla., and Paul S. Hudson, Iowa City, Iowa, assignors to Phillips Petroleum Company, a corporation of Delaware

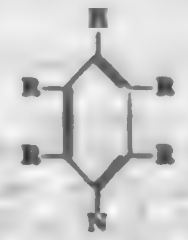
No Drawing. Application November 17, 1952

Serial No. 321,042

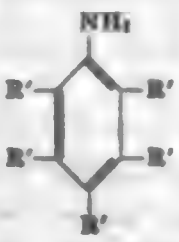
16 Claims. (Cl. 260—290)

1. A process for inhibiting the polymerization of a

polymerizable heterocyclic nitrogen compound having the general formula:



where R is selected from the group consisting of hydrogen, alkyl, vinyl and isopropenyl (alpha-methylvinyl) groups, at least one and not more than two of said groups being selected from the group consisting of vinyl and isopropenyl groups, the total number of carbon atoms in the alkyl groups being not greater than 12, said process comprising adding to said heterocyclic nitrogen compound an inhibiting amount of dinitrochloroaniline of the formula:



where R' is selected from the group consisting of hydrogen, chloro and nitro groups, a sole chloro and only two nitro groups being present.

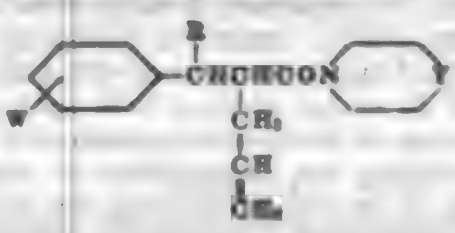
2,874,160

PHARMACEUTICALS

Dominic D. Micucci, Havertown, Souren Avakian and Robert R. Brendel, Oreland, and Gustav J. Martin, Philadelphia, Pa., assignors to The National Drug Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application March 28, 1957
Serial No. 649,015
3 Claims. (Cl. 260—294)

1. A compound of the general formula



wherein W is a member of the group consisting of hydrogen, halogen, lower alkoxy, and lower alkyl; R is a member of the group consisting of hydrogen and methyl; and Y is a member of the group consisting of methylene, oxygen, and the bond forming a pyrrolidine ring.

2. 1-(allylbenzylacetyl) piperidine.

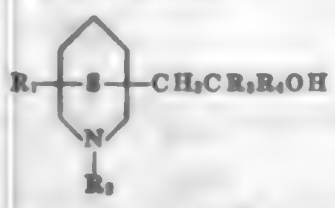
2,874,161

ALPHA,ALPHA DIARYL PIPERIDINO ETHANOLS

Marcus G. Van Campen, Jr., Wyoming, and Charles H. Tilford, Cincinnati, Ohio, assignors to The Wm. S. Merrell Company, Cincinnati, Ohio, a corporation of Delaware

No Drawing. Application March 7, 1952
Serial No. 275,470
2 Claims. (Cl. 260—294.7)

1. Compounds of the formula



in which R_1 is selected from the group consisting of hydrogen and methyl, R_2 is an alkyl group having from 1 to 3 carbon atoms, R_3 is a radical selected from the group of phenyl, p-alkoxyphenyl, p-alkylphenyl, and p-chlorophenyl and R_4 is a radical selected from the group consisting of phenyl, p-alkoxyphenyl, p-alkylphenyl, and p-chlorophenyl, with the proviso that the number of carbon atoms in each of the radicals R_3 and R_4 does not exceed 9 and with the further proviso that the $CH_2CR_3R_4OH$ group is attached to the piperidine ring in one of the positions alpha and gamma.

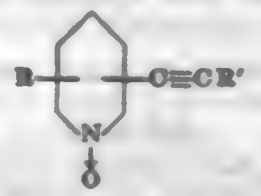
2,874,162

ETHYNYLPYRIDINE-N-OXIDES AND ETHYNYLQUINOLINE-N-OXIDES

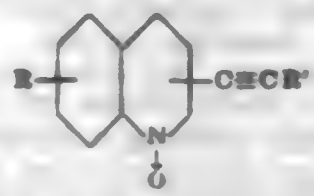
Jack H. Blumenthal, Plainfield, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application February 25, 1957
Serial No. 641,799
15 Claims. (Cl. 260—297)

1. Ethynylpyridine-N-oxides and ethynylquinoline-N-oxides represented by a formula selected from the group consisting of



and



wherein R is a member of the group consisting of hydrogen, an alkyl radical containing from 1 to 4 carbon atoms, and a monocyclic hydrocarbon aryl radical, and R' is a member of the group consisting of hydrogen, lower alkyl, lower alkenyl, monocyclic hydrocarbon aryl.

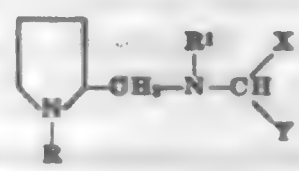
2,874,163

DIPHENYLALKYLAMINOMETHYL PYRROLIDINES

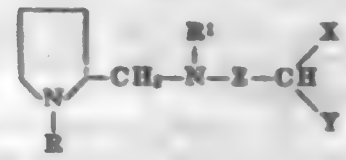
John H. Biel, Milwaukee, Wis., assignor to Lakeside Laboratories, Inc., Milwaukee, Wis., a corporation of Wisconsin

No Drawing. Application December 10, 1957
Serial No. 701,737
7 Claims. (Cl. 260—313)

1. A member of the group of compounds of the formula



and



wherein R represents a lower alkyl group, R^1 represents a member of the group consisting of hydrogen and lower alkyl groups, Z is a lower alkylene group, and X and Y are members of the group consisting of phenyl, nitrophenyl, lower alkyl-phenyl, lower alkoxy-phenyl and halophenyl groups, and nontoxic lower alkyl quaternary ammonium salts, nontoxic phenyl-lower alkyl quaternary ammonium salts and nontoxic acid addition salts thereof.

2. N-methyl-2-(benzhydrylaminomethyl)-pyrrolidine.

2,874,164

PREVENTION OF COMBUSTION IN OXYGEN-OZONE MIXTURES

Victor A. Hann, St. Davids, Pa., assignor to The Welsbach Corporation, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application August 21, 1956
Serial No. 605,423
8 Claims. (Cl. 260—339)

1. In a process for inhibiting combustion in a system containing gaseous ozone and oxygen and films of products resulting from the reaction of ozone with an acid selected from the group consisting of oleic acid, linoleic acid, mixtures of oleic acid and linoleic acid and alpha-pinene, the steps of adding a diluent selected from the group consisting of carbon dioxide, argon and helium to the gaseous oxygen so that the oxygen comprises 20–80 weight percent of the gaseous mixture, then ozonizing said oxygen-containing gas to an ozone concentration of approximately 1–3 weight percent in a conventional ozonizer discharge, and then bringing the ozone-containing gaseous mixture in contact with said films.

2,874,165

REDUCTION OF CARBONYL COMPOUNDS WITH BORON HYDRIDES

Herbert C. Brown, West Lafayette, Ind.

No Drawing. Application April 25, 1955
Serial No. 503,829
15 Claims. (Cl. 260—343.6)

1. A process for the production of a carbinol which comprises selectively reducing a ketaldone which has both a ketaldo group having not more than one electronegative group alpha thereto, and at least one additional functional group selected from the group consisting of an oxysulfur group, a nitro group, a cyano group, an oxido group, a lactone and an enol acylate, with about a chemical equivalent of diborane in an inert, liquid organic solvent for the reactants.

2,874,166

FLUORO-OLEFINS AND PROCESS FOR PREPARING THEM

Stanley Dixon, Monroe Park, near Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 14, 1953
Serial No. 374,458
21 Claims. (Cl. 260—346.1)

1. Organic fluorine compounds which are members of the class consisting of compounds having the general formula



wherein X_1 represents a halogen atom having an atomic weight below 36, and R_1 represents a member of the class consisting of hydrocarbon alkyl radicals of at least 2 carbon atoms and heterocyclic radicals in which the free valence belongs to a carbon atom; compounds having the general formula

$$X_1—C_nF_{2n-4}—R$$

wherein X_1 represents a halogen atom having an atomic weight below 36, R represents a hydrocarbon alkyl radical of at least 2 carbon atoms, and C_nF_{2n-4} represents a cyclic olefinic perfluorocarbon nucleus in which n is an integer of from 4 to 6; and compounds having the formula



wherein X_1 represents a halogen atom having an atomic weight below 36, each R represents a hydrocarbon alkyl radical of at least 2 carbon atoms, and C_nF_{2n-4} represents a cyclic olefinic perfluorocarbon nucleus in which n is an integer from 4 to 6.

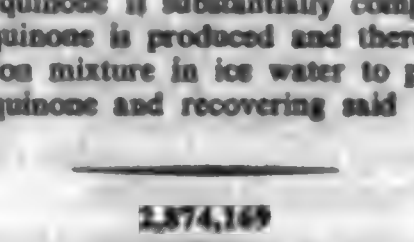
2,874,167

HALOGENATED DIEPOXIDE COMPOUNDS

Howard R. Guest, Charleston, and Harry A. Stansbury, Jr., South Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application June 4, 1957
Serial No. 663,342
15 Claims. (Cl. 260—348)

1. A diepoxide represented by the general formula:



wherein each R is individually selected from the group consisting of hydrogen and a lower alkyl radical; X_1 through X_8 are selected from the group consisting of hydrogen, halogen, and a lower alkyl radical; and at least one of the variables designated as X_1 through X_8 always being a halogen.

2,874,168

PROCESS FOR THE PREPARATION OF 1-NITROANTHRAQUINONE

David E. Graham and Eugene V. Hort, Westfield, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application April 2, 1957
Serial No. 650,864
1 Claim. (Cl. 260—369)

The process for producing 1-nitroanthraquinone from anthraquinone which comprises, intimately mixing at approximately 25° C. anthraquinone with a nitrating agent consisting of an excess of nitric acid having a strength within the range of 90 to 115%, continuing said mixing while maintaining the temperature at approximately 25° C. from 12 to 100 hours until the mono-nitration of the anthraquinone is substantially complete whereby 1-nitroanthraquinone is produced and thereafter drowning the reaction mixture in ice water to precipitate the 1-nitroanthraquinone and recovering said 1-nitroanthraquinone.

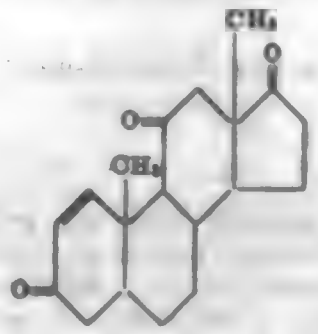
2,874,169

1-ANDROSTENE-3,11,17-TRIONE

Samuel H. Eppstein, Galesburg, and Peter D. Meister, Kalamazoo Township, Kalamazoo County, Mich., and Adolph Weintraub, Brooklyn, N. Y., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 19, 1956
Serial No. 622,830
3 Claims. (Cl. 260—397.3)

1. A compound of the following structural formula:



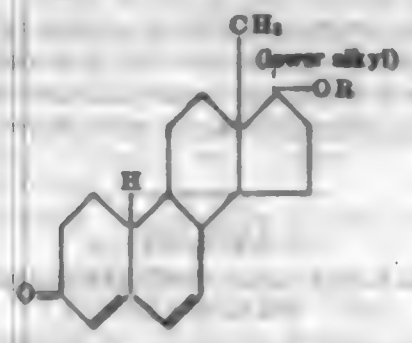
2,874,170

6-DEHYDRO-17-ALKYL-19-NORTESTOSTERONES AND ESTERS THEREOF

Frank B. Colton, Chicago, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application March 25, 1957
Serial No. 647,968
9 Claims. (Cl. 260—397.4)

1. A compound of the structural formula



wherein R is a member of the class consisting of hydrogen and (lower alkyl)-CO-groups.

2,874,171

RECOVERY OF ERGOSTEROL

Harrison A. Nelson, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 20, 1957
Serial No. 641,241
7 Claims. (Cl. 260—397.25)

1. A process for the recovery of ergosterol from yeast which comprises the steps of heating a mixture of an aqueous yeast slurry, an alkali metal hydroxide, and a partially water miscible alkanol containing from four to eight carbon atoms at a temperature between about 100 and about 150 degrees centigrade whereby the yeast cells are ruptured and the ergosterol containing fatty material is saponified to release the ergosterol, and recovering ergosterol from the partially water miscible alkanol.

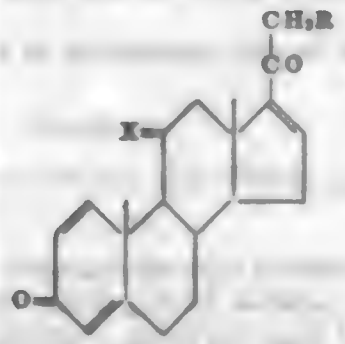
2,874,172

11-OXYGENATED 1,4,16-PREGNATRIENE-21-OL-3,20 DIONES AND ESTERS THEREOF

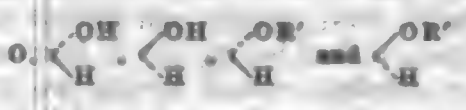
Herbel L. Herzog, Mountain View, and Eugene P. Oliveto, Bloomfield, N. J., assignors to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey

No Drawing. Application January 26, 1955
Serial No. 484,302
6 Claims. (Cl. 260—397.45)

1. Compounds of the formula



wherein X is a member of the group consisting of



and R being a member of the group consisting of OH, and OR', R' being lower alkanoyl.

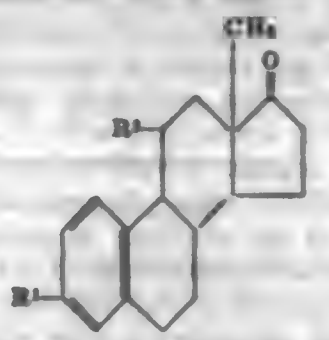
2,874,173

ESTRONE COMPOUNDS

John A. Hogg, Kalamazoo Township, Kalamazoo County, and Jerome Korman, Portage Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application December 17, 1956
Serial No. 628,477
7 Claims. (Cl. 260—397.45)

1. Estrone compounds of the formula



wherein R^1 is selected from the group consisting of hydroxy, hydrocarbonoxy, and hydrocarboyloxy; and R^2 is selected from the group consisting of hydroxy, hydrocarboyloxy, keto, and hydrogen attached to a 9(11)-double bond; the hydrocarbonoxy and hydrocarboyloxy radicals each containing less than twelve carbon atoms.

2,874,174

BITUMINOUS BONDING COMPOUNDS

Clarence F. Haber, Mount Healthy, and Paul F. Thompson, Deer Park, Ohio, assignors to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application March 15, 1955
Serial No. 494,569
13 Claims. (Cl. 260—404.5)

1. Compounds adapted to be incorporated in bituminous compositions to improve the coating properties thereof, said compounds being amides of tris (aminoalkyl) amines and salts of such amides, the amide-forming acids being organic acids having from 2 to 20 carbon atoms, and the salt-forming acids, if present, and at least one of the amide-forming acids having from 10 to 20 carbon atoms.

2,874,175

PROCESS FOR MAKING FATTY ACID DIGLYCERIDE, DIESTERS OF DIBASIC ACIDS

Reuben O. Feuge and Truman L. Ward, New Orleans, La., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application October 4, 1955
Serial No. 538,539
5 Claims. (Cl. 260—404.8)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process comprising diesterifying glycerol with a long-chain, aliphatic, monobasic, fatty acid containing from 12 to 22 carbon atoms to produce a reaction product comprising a mixture of the corresponding monoglyceride, diglyceride, and triglyceride, said mixture predominating in the diglyceride, isolating said diglyceride from the mixture, and then esterifying two moles of the diglyceride with one mole of an aliphatic, dicarboxylic acid selected from the group consisting of saturated and monoolefinic straight-chain, aliphatic dicarboxylic acids containing from 4 to 10 carbon atoms at a temperature of about 50° C. to produce the corresponding diglyceride diester.

2,874,176

SEPARATING METALLIC CATIONS WITH PERFLUOROCARBOXYLIC ACIDS

Gordon F. Mills and Howard B. Whetsel, Oak Ridge, Tenn.

No Drawing. Application August 30, 1956
Serial No. 606,987
14 Claims. (Cl. 260—429.1)

1. A process for separating a selected metallic cation from an aqueous solution containing a mixture of metallic cations which comprises contacting the cations in said solution with an excess of the stoichiometric equivalent of an alkali metal salt of a perfluoromonocarboxylic acid to convert all of said cations to compounds with said acid including a compound containing said selected cation which is selectively extractable with a substantially water insoluble polar organic solvent selected from the group consisting of alcohols, ethers, ketones and phosphates, adjusting the pH of the resulting aqueous solution of perfluorocarboxylic acid compounds to a value required for the selective extraction of said selected cation, contacting said pH adjusted aqueous solution with said polar organic solvent which is substantially immiscible with said aqueous solution, and separating from the extracted aqueous solution residue the polar organic solvent phase containing the compound of the selected cation with said perfluorocarboxylic acid.

2,874,177

NOVEL COMPLEX SALT OF 4-AMINOSALICYLIC ACID AND PROCESSES FOR PRODUCING THE SAME

Kyoji Hayano, Neyagawa City, Japan, assignor to Gobei Tanabe & Co., Ltd., Osaka, Japan, a corporation of Japan

No Drawing. Application June 8, 1956
Serial No. 590,090
Claims priority, application Japan June 25, 1955
2 Claims. (Cl. 260—448)

1. Calcium alumino-4-aminosalicylate containing calcium and 4-aminosalicylic acid and aluminum in a molecular ratio of 1:2:1.

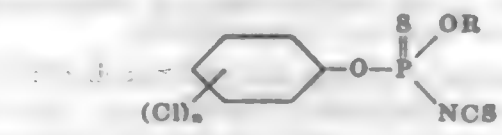
2,874,178

O-(CHLOROPHENYL) O-LOWER ALKYL PHOSPHORO(ISOTHIOCYANATIDO) THIOATES

Edgar C. Britton and Etcyl H. Blair, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 1, 1956
Serial No. 619,697
3 Claims. (Cl. 260—454)

1. An O-(chlorophenyl) O-lower alkyl phosphoro(isothiocyanatido) thioate having the formula



wherein R is selected from the group consisting of methyl and ethyl and *n* is an integer from 1 to 3, inclusive.

2,874,179

LOWER ALKYL ESTERS OF 1,4a-DIMETHYL-8-OXO-1,2,3,4,4a,4b,5,6,7,9,10,11,12,12a - TETRADECAHYDROCHRYSENE - 1 - CARBOXYLIC ACID

Willard M. Hoehn, Wilmette, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application February 10, 1958
Serial No. 714,048
2 Claims. (Cl. 260—468.5)

1. Lower alkyl ester of 1,4a-dimethyl-8-oxo-1,2,3,4,-4a,4b,5,6,8,9,10,11,12,12a - tetradecahydrochrysene - 1 - carboxylic acid.

2,874,180

PRODUCTION OF PROCAINE DIHYDROGEN PHOSPHATE

Allen G. Debus, Waukegan, Ill., assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application November 16, 1954
Serial No. 469,313
1 Claim. (Cl. 260—472)

The method of making crystalline procaine dihydrogen phosphate characterized by a pH of about 4.5 in aqueous solution which comprises, adding a large excess of orthophosphoric acid to a solution of procaine base in an amount to reach a pH of about 3.6, and recovering the precipitated procaine dihydrogen phosphate from said solution.

2,874,181

SALICYLIC ACID 2,6-DIMETHYL-4-n-PROPOXYBENZOATE

Maxton F. Murray, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application May 10, 1956
Serial No. 583,924
1 Claim. (Cl. 260—473)

Salicylic acid 2,6-dimethyl-4-n-propoxybenzoate.

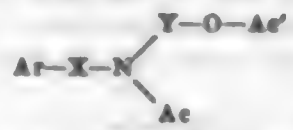
2,874,182

N-ARALKYL-N-(ACYLOXYALKYL)-2,2-DIHALOALKANAMIDES AND THEIR PREPARATION

Alexander R. Surrey, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

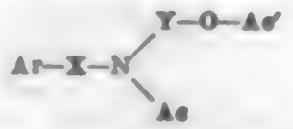
No Drawing. Application April 19, 1955
Serial No. 502,522
28 Claims. (Cl. 260—477)

1. A compound having the formula



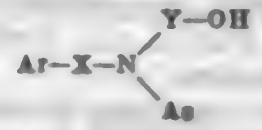
where Ar is a member selected from the group consisting of (A) phenyl radicals having from one to three substituents selected from the group consisting of halo, lower alkoxy, lower alkyl, lower alkylmercapto, lower alkylsulfonyl, nitro and di(lower alkyl)amino, and (B) naphthyl, biphenylyl, furyl, pyridyl and thienyl radicals; X is a lower alkylene radical having one to four carbon atoms; Y is a lower alkylene radical having two to six carbon atoms and having its two free valence bonds on different carbon atoms; Ac' is a carboxylic acyl group having from one to eight carbon atoms; and Ac is a 2,2-dihaloalkanoyl radical having two to four carbon atoms.

18. A process for the preparation of a compound having the formula



where Ar is a member selected from the group consisting of (A) phenyl radicals having from one to three substituents selected from the group consisting of halo, lower alkoxy, lower alkyl, lower alkylmercapto, lower alkylsulfonyl, nitro and di(lower alkyl)amino, and (B) naphthyl, biphenylyl, furyl, pyridyl and thienyl radicals; X is a lower alkylene radical having one to four carbon atoms; Y is a lower alkylene radical having two to six carbon atoms and having its two free valence bonds on different carbon atoms; Ac' is a carboxylic acyl group having from one to eight carbon atoms; and Ac is a 2,2-dihalo-

alkanoyl radical having two to four carbon atoms; which comprises reacting a compound having the formula



with an acylating agent selected from the group consisting of Ac′-halogen, $(Ac')_2O$ and formic acid.

2,874,183

UNSATURATED ALDEHYDES AND PROCESS FOR THE PREPARATION OF SUCH COMPOUNDS

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application August 10, 1955
Serial No. 527,644
Claims priority, application Switzerland August 16, 1954
12 Claims. (Cl. 260—488)

1. A process which comprises reacting a member of the group consisting of 2,6,6-trimethylcyclohexylideneacetaldehyde, 2,6,6-trimethylcyclohexen-(2)-ylidene-acetaldehyde, 4-[2′,6′,6 - trimethylcyclohexylidene] - 2-methyl - buten - (2) - al - (1) and 4-[2′,6′,6′-trimethylcyclohexen-(2)-ylidene]-2-methyl-buten-(2)-al-(1) with a member of the group consisting of lower aliphatic carboxylic acid anhydride and enol ester of a ketone having a lower boiling point than the starting aldehyde in the presence of an acid condensation agent to produce, respectively, a member of the group consisting of 2 - [2′,6′,6′ - trimethylcyclohexen - (1′) - yl] - 1-acyloxy - ethylene, 2 - [2′,6′,6′ - trimethylcyclohexadien - (1′,3′) - yl] - 1 - acyloxy - ethylene, 4 - [2′,6′,6′-trimethylcyclohexen - (1′) - yl] - 2 - methyl - 1 - acyloxy-butadiene - (1,3) and 4 - [2′,6′,6′-trimethylcyclohexadien - (1′,3′) - yl] - 2 - methyl - 1 - acyloxy - butadiene-(1,3) and hydrolyzing the enol esters thus obtained under mild conditions in aqueous medium to produce, respectively, a member of the group consisting of 2,6,6-trimethylcyclohexene - (1) - yl - acetaldehyde, 2,6,6-trimethylcyclohexadien - (1,3) - yl - acetaldehyde, 4-[2′,6′,6′ - trimethylcyclohexene - (1′) - yl] - 2 - methyl-buten - (2) - al - (1) and 4 - [2′,6′,6′ - trimethylcyclohexadien - (1,3′) - yl] - 2 - methyl - buten - (2) - al - (1).

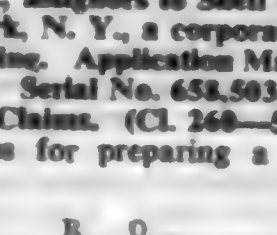
2,874,184

PREPARATION OF 1-HALOPHOSPHONIC ACIDS

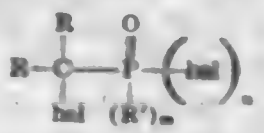
John L. Van Winkle, San Lorenzo, and Rupert C. Morris, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application May 13, 1957
Serial No. 658,503
6 Claims. (Cl. 260—500)

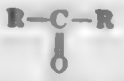
1. In a process for preparing a compound of the formula:



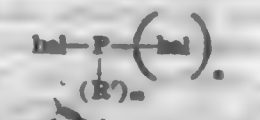
by hydrolysis of a compound of the formula:



prepared by reacting a carbonyl compound of the formula:



under substantially anhydrous conditions and in the substantial absence of molecular oxygen, with at least an equivalent number of moles of a halide of trivalent phosphorus having the formula:



wherein each of R and R′ represents a member of the group consisting of hydrogen and unsubstituted hydrocarbon groups free from olefinic and acetylenic unsaturation, hal represents a member of the group consisting of chlorine and bromine, and n is an integer of from 1 to 2, with the proviso that $m+n=2$, the improvement which comprises removing unreacted halide of phosphorus from the crude reaction mixture obtained on the reaction of the carbonyl compound and the halide of phosphorus, and hydrolyzing the resulting mixture with water.

2,874,185

N-MYRISTYL-3-HYDROXYBUTYLAMINES AND THEIR SALTS

Frank J. Sowa, Cranford, N. J.

No Drawing. Application April 3, 1956
Serial No. 575,715

10 Claims. (Cl. 260—501)

1. N-myristyl amines and salts thereof wherein there is at least one 3-hydroxybutyl radical attached to the amino group.

2,874,186

CARBONYLATION OF SATURATED HYDROCARBONS

Bernard S. Friedman, Chicago, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 8, 1954
Serial No. 474,027

3 Claims. (Cl. 260—514)

1. The method of producing oxygen-containing organic compounds which comprises reacting carbon monoxide and a saturated hydrocarbon having from three to ten carbon atoms per molecule in the presence of a mixed boron trifluoride-hydrogen fluoride catalyst at a temperature of about 20 to 100° C. a pressure of 100 to 10,000 p. s. i. g. of carbon monoxide, for a period of about 20 minutes to 30 hours and employing about 0.2 to 3.0 moles of hydrogen fluoride per mole of hydrocarbon and about 0.5 to 1.5 moles of boron trifluoride per mole of hydrogen fluoride.

2,874,187

PREPARATION OF ALIPHATIC ACIDS

Ernest O. Ohsol and Johnstone S. Mackay, Pittsburgh, Pa., assignors to Pittsburgh Coke & Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

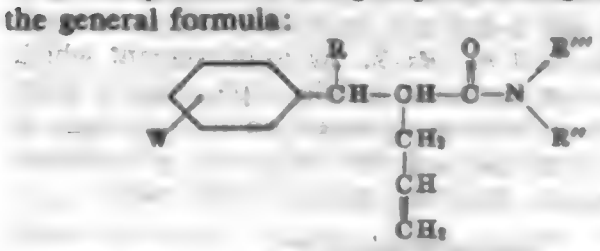
No Drawing. Application December 27, 1956
Serial No. 630,758

10 Claims. (Cl. 260—540)

1. A process for the preparation of propionic acid comprising contacting an alkaline mixture of ortho cresol and an alkali with a hydrogen donor selected from the group consisting of hydrogen, Tetralin, Decalin, cyclohexane, methyl cyclohexane, cyclopentane, 1,2 dimethyl cyclohexane, ethyl cyclohexane, lithium hydride, sodium hydride, and potassium borohydride at elevated temperature and pressure and thereafter acidifying the mixture and recovering the propionic acid by distillation.

2,874,188
PHARMACEUTICALS
Dominic D. Micucci, Havertown, and Souren Avakian and Robert R. Brendel, Oreland, and Gustav J. Martin, Philadelphia, Pa., assignors to The National Drug Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application March 28, 1957
Serial No. 649,013
3 Claims. (Cl. 260—558)

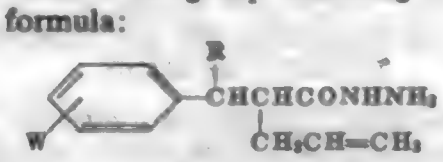
1. Compounds of the group consisting of those having the general formula:



wherein W is a member of the group consisting of hydrogen, halogen, methyl and methoxy; R is a member of the group consisting of hydrogen, lower alkyl; and R'' and R''' are members of the group consisting of hydrogen, lower alkyl, lower alkenyl and aryl-lower alkyl radicals.

2,874,189
PHARMACEUTICALS
Dominic D. Micucci, Havertown, Souren Avakian and Robert R. Brendel, Oreland, and Gustav J. Martin, Philadelphia, Pa., assignors to The National Drug Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application March 28, 1957
Serial No. 649,016
7 Claims. (Cl. 260—558)

1. Compounds of the group consisting of those having the general formula:

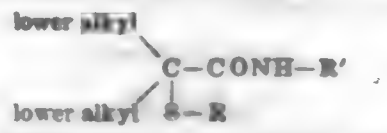


in which W is a member of the group consisting of hydrogen, halogen, methyl and methoxy and R is a member of the group consisting of hydrogen and methyl.

3. Alpha-allyl-alpha-benzylacetylhydrazide.

2,874,190
α-MERCAPTO-AMIDE DERIVATIVES
Moses Wolf Goldberg, Upper Montclair, and Hanns Hanna Lehr, Montclair, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application February 7, 1957
Serial No. 638,691
9 Claims. (Cl. 260—561)

1. A compound selected from the group consisting of the amides represented by the formula



wherein R represents a member of the group consisting of lower alkenyl and lower alkynyl and R′ represents a member of the group consisting of hydrogen, lower alkyl and lower alkenyl.

2,874,191
PROCESS FOR THE MANUFACTURE OF ACETONE
Robert W. Foreman, Cleveland, James L. Callahan, Bedford, and Franklin Veatch, Lyndhurst, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application December 28, 1956
Serial No. 631,863
6 Claims. (Cl. 260—597)

1. Process for manufacturing acetone from propylene comprising the step of contacting propylene in the vapor phase at an elevated temperature and in the absence of molecular oxygen with a solid oxidant comprising bismuth phosphomolybdate on a support selected from the group consisting of alumina and alumina-silica containing at least 20% alumina.

6. A solid oxidant comprising bismuth phosphomolybdate on a support selected from the group consisting of alumina and a silica-alumina containing at least 20% by weight of alumina.

2,874,192
MERCAPTALS OF LONG CHAIN HYDROCARBON ALDEHYDES AND LONG CHAIN HYDROCARBON MERCAPTANS
Delmer L. Cottle, Highland Park, David W. Young, Westfield, Arnold J. Morway, Rahway, and Paul V. Smith, Jr., Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application May 29, 1953
Serial No. 358,572
5 Claims. (Cl. 260—609)

1. A normally liquid material useful as a synthetic lubricant having the general formula:

$$(RS)_2CHR'$$

wherein R is a hydrocarbon radical derived from a mercaptan and is selected from the group consisting of n-octyl and t-dodecyl alkyl groups and R′ is the hydrocarbon radical attached to the CHO group of a branched-chain aldehyde selected from the group consisting of octylaldehyde and tridecanal.

2,874,193
ALKYLATION OF ORTHO-ALKYL PHENOLS
Rutger Dijkstra, Amsterdam, Netherlands, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application September 26, 1956
Serial No. 612,113
Claims priority, application Netherlands October 20, 1955
5 Claims. (Cl. 260—624)

1. A process for the preparation of an ortho-substituted monoalkyl phenol, which comprises pretreating an aluminum silicate catalyst with hydrogen fluoride until it contains from about 1% to about 5% by weight of chemically combined fluorine, and reacting a monoolefin having from 14 to 18 carbon atoms with a substantially equimolar amount of phenol in intimate contact with 1% to 20% by weight, based on the reactants, of said catalyst, at a temperature between 150° C. and 300° C., and at atmospheric pressure.

2,874,194
ELASTIC HIGH MOLECULAR WEIGHT HYDROXYL GROUP CONTAINING MATERIALS
Helmut Kolling, Duisburg-Hamborn, and Friedrich Rappen, Oberhausen-Sterkrade, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany
No Drawing. Application March 15, 1954
Serial No. 416,378
Claims priority, application Germany March 18, 1953
1 Claim. (Cl. 260—638)

An elastic high molecular weight hydroxyl group containing material formed by chlorinating with 4–6 gram atoms of chlorine per mole a hard paraffin having a boiling point above 440° C., having a solidification point of about between 70 and 100° C., an average of more than 40 carbon atoms in the molecule and produced by catalytic carbon monoxide hydrogenation heating the chlorination product to a temperature sufficient to split off the chlorine added as hydrogen chloride, catalytically adding carbon monoxide and hydrogen to the unsaturated hydrocarbon formed in accordance with the oxo-synthesis

at a temperature of 140–160° C. at a gas pressure between 100–200 kg./sq. cm. in the presence of a cobalt catalyst for about 3–6 hours, and thereafter hydrogenating the product.

2,874,195

CHLORONITRATION OF ALKENES

Gustave E. Bachman, West Lafayette, Ind., and John Paul Chupp, Nitro, W. Va., assignors to Purdue Research Foundation, Lafayette, Ind., a corporation of Indiana

No Drawing. Application March 29, 1956
Serial No. 574,598
4 Claims. (Cl. 260—644)

1. A process for the production of 1-chloro-2-nitrobutane which comprises reacting about 7.5 moles of 1-butene with about 1 mole of chlorine and about 1 mole of nitrogen dioxide in the vapor phase at a temperature of about 275° C. and recovering the 1-chloro-2-nitrobutane so produced.

2,874,196

METHOD OF CRYSTALLIZING NITRO PRODUCTS

Karl Torvald Norell, Bofors, Sweden, assignor to Aktiebolaget Bofors, Bofors, Sweden, a Swedish corporation

No Drawing. Application December 24, 1954
Serial No. 477,591
Claims priority, application Sweden February 11, 1954
11 Claims. (Cl. 260—645)

1. Method of crystallizing a mononuclear aromatic nitro product which comprises forming an emulsion of said product in liquid form in dilute nitric acid, the nitric acid constituting the continuous phase, and slowly decreasing the temperature of said emulsion whereby the nitro product crystallizes out, and the impurities enter the continuous phase, and separating said crystals from the continuous phase.

2,874,197

PERFLUOROSTYRENE DERIVATIVES

Stanley Dixon, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 10, 1955
Serial No. 493,609
5 Claims. (Cl. 260—651)

1. Organic fluorine compounds having the general formula

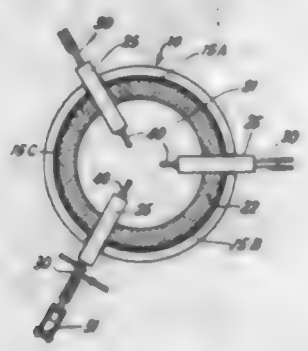
$$R-CF=C-(CF_2)_nX$$
$$\quad\quad\quad

ELECTRICAL

2,874,201
SEGMENTED CASING FOR KAOLIN MELTING FURNACE

Frederick J. Hartwig, Alliance, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application November 8, 1955, Serial No. 545,590
3 Claims. (Cl. 13—23)

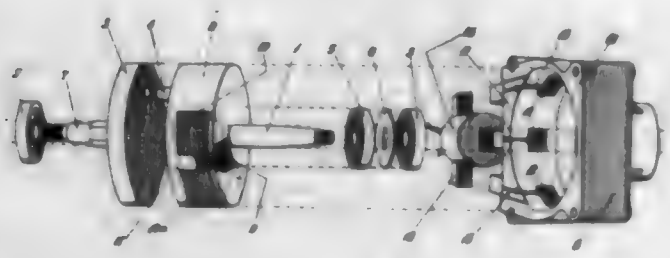


1. In a furnace for melting refractory material, an outer casing comprising a plurality of separate segmental upright metal sections; means disengageably interconnecting said sections with their upright edges spaced circumferentially from each other to form elongated slots; a lining of refractory material enclosed by the interconnected sections; and electrodes mounted to extend through the slots between such upright edges into the furnace and supported by said lining; whereby said sections may be disconnected and removed for access to the refractory material without disturbance of the electrodes.

2,874,202
ELECTRIC IGNITION MAGNETO

Francis John Boundy, Belgrave, Victoria, Australia

Application November 15, 1956, Serial No. 622,327
Claims priority, application Australia November 25, 1955
9 Claims. (Cl. 123—149)

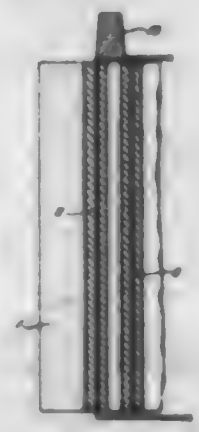


1. In combination in an internal combustion engine, a crankcase and a crankshaft journalled in said case, a high tension polar inductor magneto comprising a permanent magnet integral with the crankshaft, a plurality of associated laminated pole pieces cast integral with the crankshaft and contacting the poles of said magnet for rotation within the crankcase and for generating together with said magnets a rotary magnetic field, a laminated structure cast integral with the wall of the crankcase and including a plurality of fixed pole pieces past which the laminated pole pieces move for effecting a change in flux in the fixed pole pieces, an armature carried by the laminated structure and having a primary winding in which armature current is generated responsive to the change of flux, and means in said crankcase for preventing the generation of eddy currents about said fixed pole pieces, said crankshaft and crankcase being composed of non-magnetic materials.

2,874,203
SEPARATOR AND ELECTRODE ASSEMBLY FOR STORAGE BATTERIES AND THE LIKE

Herbert Haebler, Frankfurt am Main-Praunheim, Germany, assignor to Firma Accumulatoren-Fabrik Aktiengesellschaft, Hagen, Westphalia, Germany

Application October 2, 1956, Serial No. 613,408
Claims priority, application Germany October 3, 1955
8 Claims. (Cl. 136—43)

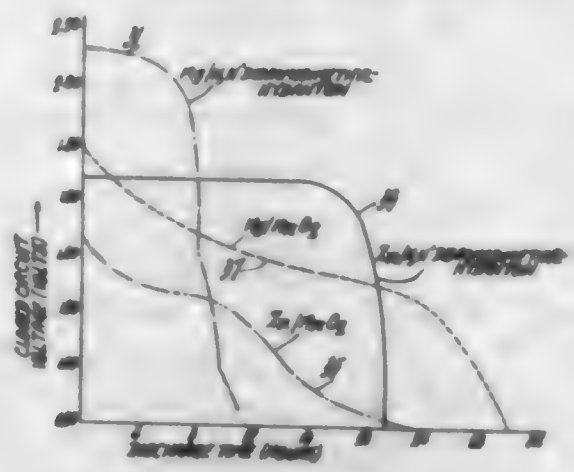


1. An electrode assembly for a storage battery and the like, comprising a unitary sheet of electrically non-conductive material including a plurality of rows of band portions each of which is integral at its ends with said sheet, said band portions being formed from the material of said sheet and alternate band portions of each row extending in one direction from the plane of said sheet with the remaining band portions of each row extending in an opposite direction from the plane of the sheet so that the alternate and remaining band portions of each row form a tube carried by said sheet and said tube having a plurality of slots with a plurality of band portions respectively located opposite said slots; a plurality of current collectors respectively extending along the interiors of said tubes; and a plurality of active masses surrounding said current collectors, respectively, and located in said tubes, respectively; said band portions each having an arcuate configuration.

2,874,264
PRIMARY CELLS

Clarence K. Morehouse, Princeton, and Richard Glicksman, Highland Park, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application June 13, 1956, Serial No. 591,195
13 Claims. (Cl. 136—100)



1. In a primary cell utilizing the electron change obtained in converting a positive halogen ion to a negative halogen ion, an anode selected from the group consisting of magnesium and magnesium base alloys in combination with a cathode including a depolarizer including an organic oxidizing compound in which the oxidizing pro-

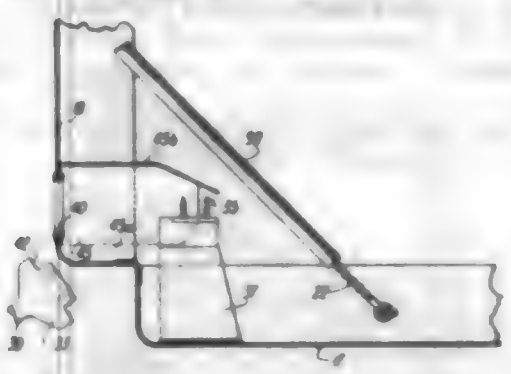
perties of said susbtance are due at least in part to positive halogens chemically combined in said compound, said compound being selected from the group consisting of amines of the general formula RNHX, RNX_2, R_2NX, where R is an alkyl radical and X is a halogen atom, imides derived from dibasic acids, cyclic ureides, carboxylic acid amides, sulfonic acid amides, derivatives of carbonic acid amides, and amidines of carbonic acid.

2,874,205

ELECTRICAL CONNECTOR

Clarence F. Race, Wheaton, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application November 3, 1955, Serial No. 544,713
1 Claim. (Cl. 174—52)



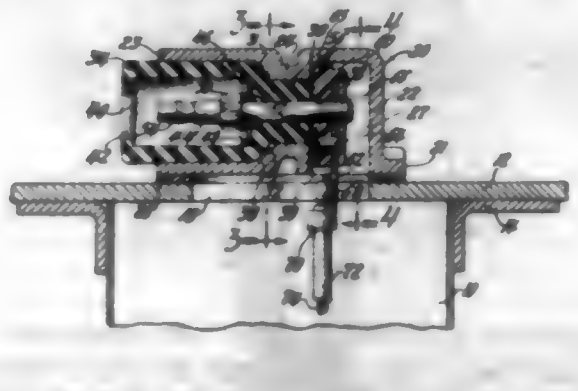
A radio receiver permanently mounted in a portable cabinet and powered alternatively by internal batteries and an external power source, said cabinet having a front cabinet portion and a back cabinet portion and being hinged at junction portions intermediate and spaced substantially midway between the front and back portions to be movable to closed and open positions to facilitate changing the batteries, said back portion having an aperture therein, and interlocking power connector apparatus including male connector means having projecting pins permanently connected to the radio receiver, bracket means mounted on the front cabinet portion and extending therefrom beyond the junction portion, said male connector means being mounted on said bracket means with said pins in closely spaced aligned relation with the aperture in the back cabinet portion when the cabinet is in the closed position and with said pins being subject to exposure when the cabinet is in the open position, female connector means having a reduced coupling portion for insertion through the aperture for receiving and engaging said projecting pins when the cabinet is closed, said female connector means having a shoulder engageable with the exterior of the back cabinet portion for uncoupling said male and female connector means when the cabinet is opened, a shield including first and second mutually perpendicular sections supported on the back cabinet portion, said shield having a mounting portion affixed to the back cabinet portion, said first section extending substantially perpendicularly from the back cabinet portion and extending therefrom beyond the junction portions when the cabinet is closed and assuming a blocking position alongside and closely spaced from said pins when the cabinet is open, said second section extending from the back portion of the cabinet and beyond the junction portion when the cabinet is closed and having an end bent toward the junction portion which assumes a blocking position over and closely spaced from the tips of said pins when the cabinet is open for further blocking access to said pins, and means for limiting the open position of the cabinet to one at which said first section and said bent end of said second section effectively cover the exposed portions of said pins of said male connector means, thereby preventing application of power to the radio receiver by connection of a female connector thereto.

2,874,206

SEALED ELECTRICAL TERMINALS

Roy L. Bowers and Gerald W. Colby, Flint, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 17, 1953, Serial No. 380,694
1 Claim. (Cl. 174—77)



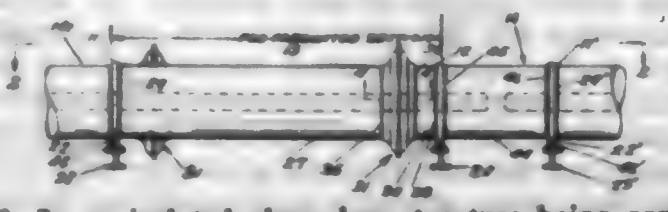
An electrical terminal comprising an integral one-piece relatively hard casing having an externally disposed mounting flange and defining a passage leading through the casing as two branches intersecting at an angle, the material of said casing forming an internal annular ridge restricting one of said branches and having oppositely facing hard shoulders, a plug of relatively soft rubber-like material extending into said one branch with one end thereof extending into the zone between said shoulders, dielectric means in the other of said branches and contacting one of said shoulders as an insulator, an annular and relatively soft shoulder on said plug facing the other of said shoulders, said two last-mentioned shoulders having dissimilar surface configurations, conducting means passing through said plug and dielectric means, and a portion of said conducting means between said shoulders being under tension to deform said soft shoulder and seal the same against said other shoulder and to maintain said seal.

2,874,307

WELDED ISOLATED PHASE BUS

Walter H. Schymik, Oreland, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application March 9, 1955, Serial No. 493,175
3 Claims. (Cl. 174—99)



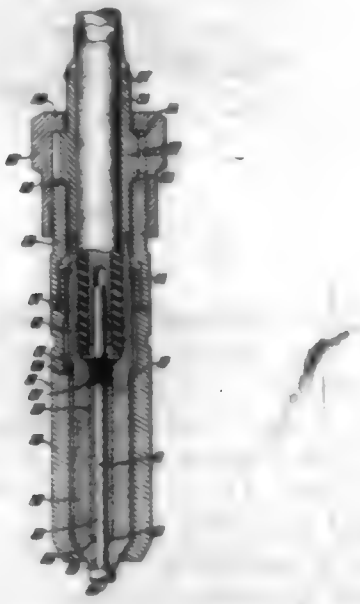
2. In an isolated phase bus structure being comprised of a plurality of prefabricated sections; each of said prefabricated sections being comprised of a first and second supporting ring and an enclosure; said enclosure being comprised of a first and second section coupled together by a bellows; said first section of said enclosure factory welded along the circumference thereof to said first supporting ring; said second section of said enclosure being factory welded along the circumference thereof to said second supporting ring; one end of said bellows factory welded to said first section of said enclosure and the other end of said bellows factory welded to the second portion of said enclosure; a stiffener piece having substantially the same configuration as said first and second portion of said enclosure; one end of said stiffener piece factory welded to said first portion of said enclosure; the other end of said stiffening piece having insulation secured thereto; said insulation positioned between said stiffener piece and said second portion of said enclosure; said insulation preventing a circulation of current through said bellows.

2,874,208

SPARK PLUG

Earl W. Pierce, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 26, 1954, Serial No. 406,143
4 Claims. (Cl. 174—152)



2. In combination in a shielded spark plug adapted for use at high temperature and low pressure, a tubular shell having a bore therethrough, an insulator having a low coefficient of thermal expansion mounted in said bore and having a stepped bore therethrough providing a ledge therein, a center electrode positioned within said insulator bore having a threaded portion on its upper end and a cylindrical firing button on its lower end abutting the lower end of said insulator, a gasket positioned between the lower end of said insulator and said button, a sleeve having a relatively high coefficient of thermal expansion positioned in the upper portion of said bore on said ledge adjacent said electrode, a gasket positioned between the lower end of said sleeve and said ledge, a tensioning nut threaded to said center electrode and having its lower end in abutment with the upper end of said sleeve, a shield sleeve having an externally threaded upper portion secured to the upper end of said shell and extending above the top of said insulator, an ignition cable extending into the upper portion of said insulator bore and having secure electrical connection with said electrode, a ferrule having a relatively high coefficient of thermal expansion positioned on said cable and having a raised portion thereon forming an upper and lower shoulder, said lower shoulder being seated on the top of said shield sleeve, a gasket positioned between said shoulder and said sleeve, and a clamping nut having a relatively low coefficient of thermal expansion removably secured to the upper portion of said sleeve and having an inwardly extending annular flange in abutment with said upper shoulder.

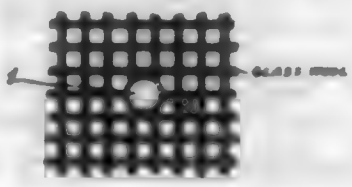
2,874,209

SUPPORT OR STAY MEMBER FOR PARTS OF THE ELECTRODE SYSTEMS OF ELECTRIC DISCHARGE TUBES

Karl August Bitterfeld, Hamburg-Volksdorf, Germany, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 7, 1953, Serial No. 396,613
Claims priority, application Germany January 21, 1953
7 Claims. (Cl. 174—167)

1. In an evacuated device, an electrode system comprising at least one electrode portion and a support therefor, said support comprising a relatively stiff, self-supporting, at least partly cemented fabric constituted of vitreous insulating flexible material, said fabric having



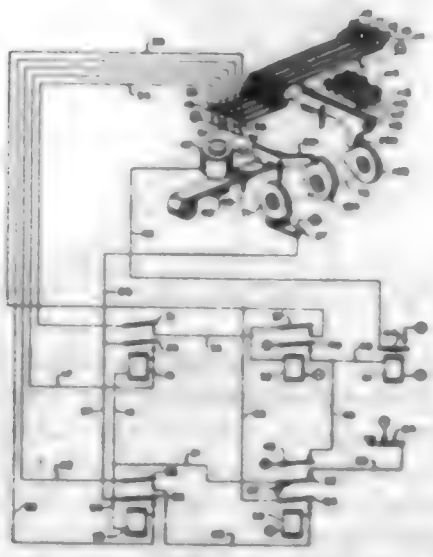
an aperture, said electrode portion engaging a portion of the fabric surrounding said aperture.

2,874,210

AUTOMATIC TELEGRAPH STATION SELECTOR

Robert L. Doerrfeld, Bellwood, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware

Application April 23, 1954, Serial No. 425,259
10 Claims. (Cl. 178—2)



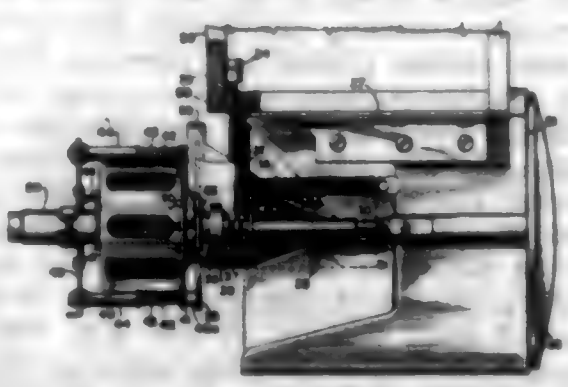
1. In a telegraph system having a plurality of stations to be selectively conditioned to receive messages, selectively operable means at each station including a first pair of means adapted to be sequentially operated by the receipt of a first predetermined sequence of signals, enabling means operated by said first means for conditioning said station to receive subsequently transmitted messages, a second pair of means adapted to be sequentially operated by the receipt of a second predetermined sequence of signals, and precluding means operated by the second means of said second pair of means for making the station non-responsive to subsequently transmitted messages.

2,874,211

COLOR-IMAGE-REPRODUCING APPARATUS

Robert P. Burr, Huntington, and Raymond J. Keogh, Forest Hills, N. Y., assignors to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois

Application April 16, 1954, Serial No. 423,746
2 Claims. (Cl. 178—5.4)



1. In a color-television receiver of the projection type, color-image-reproducing apparatus comprising: an upright cabinet for housing the apparatus including at one face thereof a translucent display screen and a displaceable cover beneath the display screen enclosing a chamber; electro-optical means including a plurality of

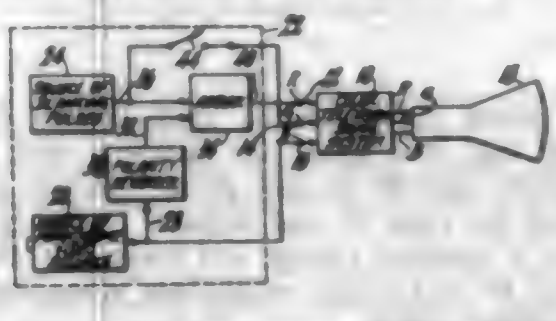
cathode-ray tubes having electro-magnetic focus windings, lens means, optical dichroic means, and a common support therefor attached to said cabinet within said chamber for projecting component color images and including a plane mirror obliquely disposed within said chamber with respect to the direction of projection of said component color images for directing the same to said display screen to develop a composite image thereon and including elements accessible from said cabinet face by displacement of said cover for adjusting the relative positions of said cathode-ray tubes with respect to each other and the positions of said focus windings with respect to said cathode-ray tubes for controlling the image register.

2,874,212

GENERATOR OF COLOR IMAGES FROM MONOCHROME TELEVISION SIGNALS

Fred Lorin Bechley, West Collingwood, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application July 29, 1955, Serial No. 525,146
3 Claims. (Cl. 178—5.4)



3. In a color television system of the type which includes a plurality of separate component color channels each of which is responsive to the amplitude of a signal applied thereto to produce a color image of one of such component colors, apparatus for synthesizing color television signals from a monochrome television signal, which apparatus comprises: a colorplexer having a plurality of color-designated channels, each representative of one of such component colors; a source of television signals including image portions representative of alternate black and white areas of an object and further including blanking pulses of fixed, reference amplitude; means for applying signals from said source to one of said colorplexer color channels such that said signals are effective to control the color image production of the component color of that channel; polarity reversing means coupled to said source in signal-receiving relation for inverting signals from said source including such blanking pulses; a source of blanking pulses corresponding in time and sense to those of said television signals; means for adding blanking pulses from said last-named source to said inverted signals to produce a modified signal whose image portions are of the opposite sense from but whose blanking pulses are in the same sense as the signals applied to said one of said color channels; and means for applying such modified signal to a second one of said colorplexer color channels.

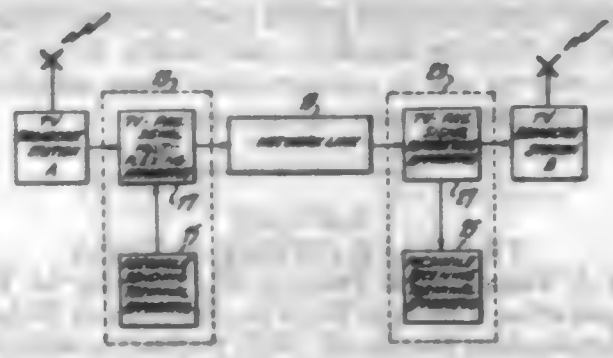
2,874,213

MULTIPLEX TRANSMISSION

George L. Beers, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application June 29, 1954, Serial No. 440,233
12 Claims. (Cl. 178—5.6)

7. In a signalling system provided with a composite television signal input including periodically recurring vertical blanking intervals, the combination comprising relatively high speed facsimile scanning apparatus including intermittent copy advancing apparatus, flying light spot generating means for scanning said intermittently advanced copy, and means responsive to said flying light spot as modulated by said scanned copy for generating relatively wide band facsimile signals; means for limiting the generation of said flying light spot to a predetermined segment of each of said periodically recurring vertical blanking intervals; means for replacing the signals normally occupying the vertical blanking intervals of said composite television signal with said wide band facsimile signals; remote television signal utilization apparatus; and means for relaying the output of said signal combining means to said remote utilization apparatus.

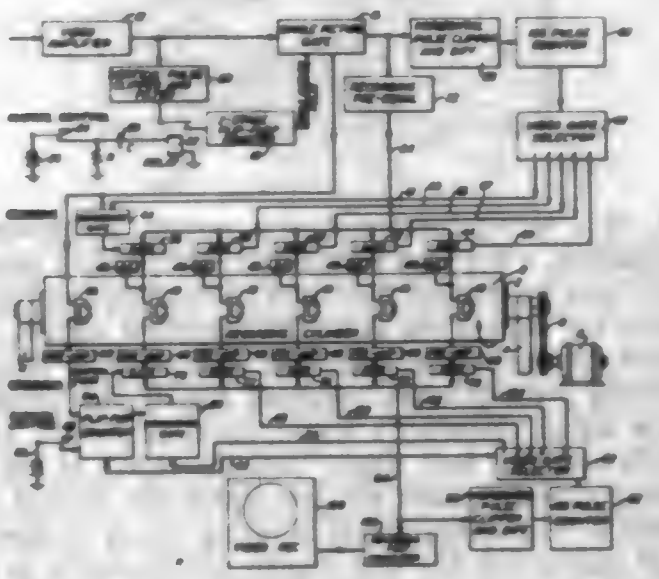


2,874,214

MAGNETIC RECORDING SYSTEM FOR STORING AND REPRODUCING TELEVISION SIGNALS

John R. Anderson, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 9, 1953, Serial No. 360,539
2 Claims. (Cl. 178—6.6)



1. In a system for magnetically recording one frame of a video signal comprising a fixed number of vertical and horizontal synchronizing pulses and a fixed number of lines of signal, a rotatable record member provided with a magnetizable peripheral surface, said member having a lineal speed of the magnitude required for recording frequencies of the order of four megacycles, a plurality of electromagnetic transducers disposed transversely to the direction of motion of said record member, a source of video signals, a video signal gate having input and output means, means for connecting said source of signals to said gate input means, means for filtering the vertical synchronizing pulses from a video signal, means for connecting said source of signals to said filtering means, means controlled by the vertical synchronizing pulses provided by said filtering means for opening said video signal gate for only the length of time required to pass a single video picture frame, a plurality of electronic gates having input and output means, the output means of each of said gates being individually connected to one of said transducers, a common line connecting said video signal gate output means and the input means of each of said electronic gates, means for counting the horizontal synchronizing pulses in a video picture frame, means connecting the output means of said video signal

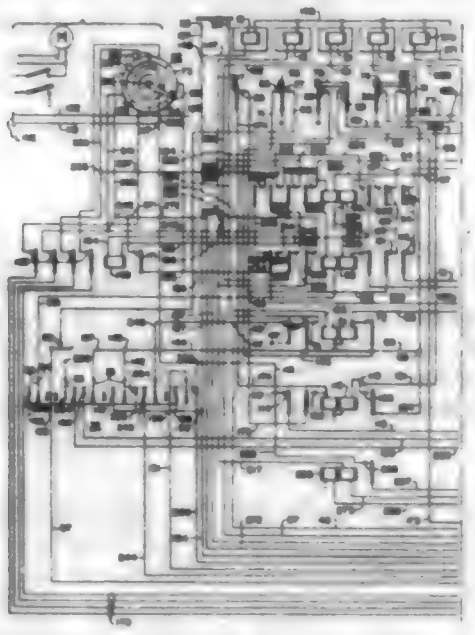
gate and said pulse counting means, means controlled by said pulse counting means for consecutively opening each of said electronic gates for a single period of time measured by a predetermined number of said fixed number of horizontal synchronizing pulses to permit a corresponding number of lines of signal in said frame to be recorded in their entirety and in uninterrupted order on said record member by each of said transducers.

2,874,215

TWO-TAPE CIPHER SYSTEM

Walter J. Zenner, Des Plaines, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware

Application March 23, 1955, Serial No. 496,234
4 Claims. (Cl. 178—22)



4. In a secret communication system, a message tape transmitter, a key tape transmitter, enciphering means for combining the signals from said transmitters, storing relay means for storing the resultant combined signals, means cooperably associated with said storing relay means for rejecting predetermined resultant signals and substituting a cue signal therefor, a signal counting device, carriage return and line feed signal inserting relays at the transmitting station, means effective under the control of said device to cause said signal inserting relays to insert carriage return and line feed signals automatically at predetermined times, means at said receiving station for recognizing said carriage return and line feed signals, means at the receiving station responsive to said cue signal to synchronize the keying of the deciphering tape and enciphered message tape whereby a page printed record is produced, relay means for recognizing within predetermined limits the untimely appearance of said carriage return and line feed signals, means effective in response to said inserted carriage return and line feed signals for automatically resynchronizing said tapes, means responsive to the loss of said inserted carriage return and line feed signals to render the receiving station inoperative, and means for indicating said response.

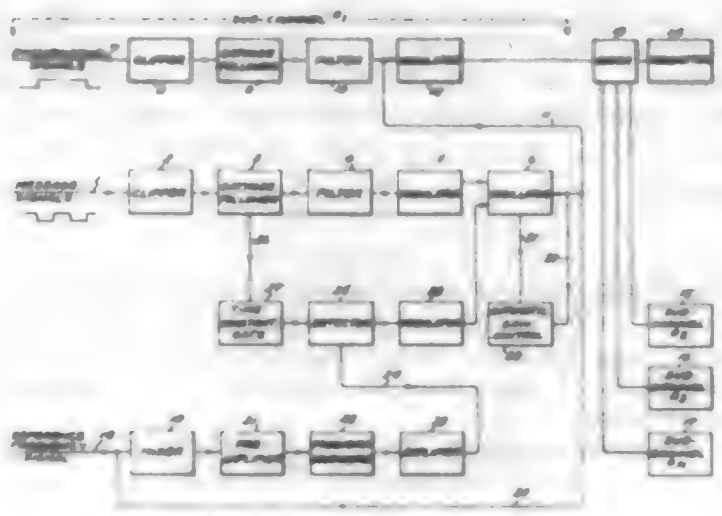
2,874,216

AUTOMATIC SIGNAL CONTROL SYSTEM

Thomas J. Scuitto, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York

Application October 27, 1953, Serial No. 388,527
6 Claims. (Cl. 178—66)

1. A controlled signaling system comprising a source of sequentially occurring mark and space signals, a source of carrier oscillations, means for varying the frequency of said oscillations in accordance with the time occurrence of said mark or space signals to respectively different predetermined carrier frequencies, means for detecting a variation in the frequency of said carrier oscillations from its predetermined frequency for one of said types of signals, a capacitive storage circuit, first means operative solely during the occurrence of said one signal for charging said circuit in a given direction toward a predetermined value and



second means also operative solely during the occurrence of said one signal for charging said circuit in a direction opposite to said given direction in accordance with the value of said detected frequency variation to derive a resultant charge, and means for altering the frequency of said carrier oscillations in accordance with said resultant charge.

2,874,217

PULSE DETECTION METHOD AND APPARATUS

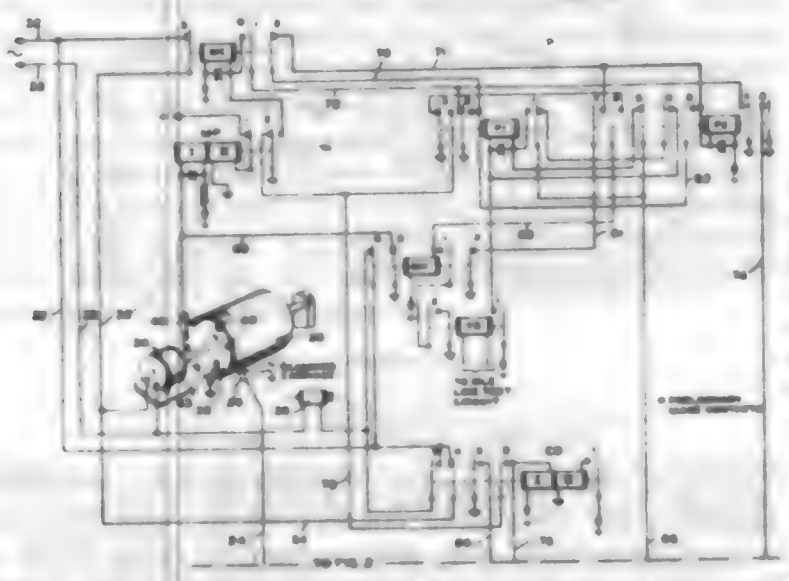
Max H. Diehl, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York

Application February 14, 1955, Serial No. 487,771
5 Claims. (Cl. 178—69.5)



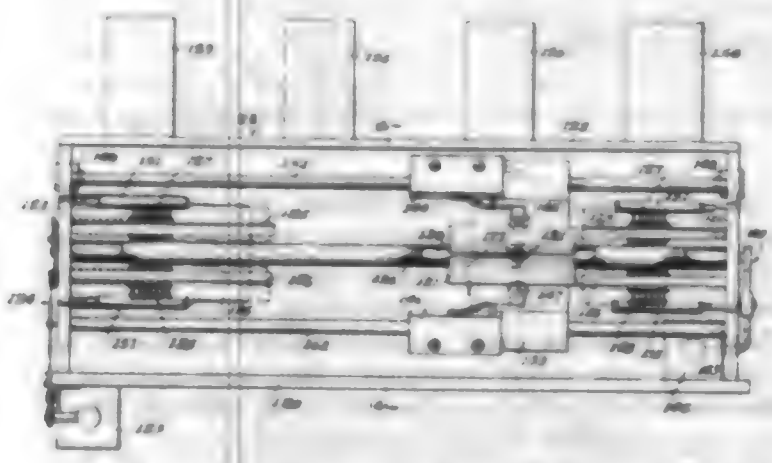
1. Apparatus for detecting the presence of pulses of intermediate duration in a train of pulses including pulses of short, intermediate, and long durations comprising means for deriving a series of very short pulses each corresponding to the lagging edge of the pulses of said train, means for delaying the pulses of said train by a predetermined interval greater than the duration of said short pulses and less than the duration of said intermediate pulses, means for delaying each of the pulses of said train of pulses by another predetermined interval greater than the duration of each of said intermediate pulses and less than the duration of said pulses of long duration, means for inverting the phase of one of said delayed trains of pulses and combining said one delayed train of pulses with the other delayed train of pulses to obtain a resultant train of pulses, means for combining said resultant train of pulses with said train of very short pulses to derive another train of pulses each pulse of which occurs during the coincidence of said very short pulses with pulses of one polarity in said resultant train of pulses.

2,874,218
PHASING SYSTEM
Samuel Gordon Allen II, Greenwich, Conn., Frank L. Currie, Plainfield, N. J., and John J. McManus, Valley Stream, N. Y., assignors to The Western Union Telegraph Company, New York, N. Y., a corporation of New York
Application November 26, 1956, Serial No. 624,296
8 Claims. (Cl. 178—69.5)



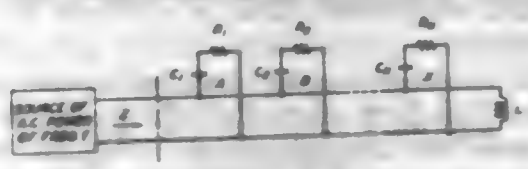
1. In a phasing system, a first rotatable device and a second rotatable device each driven by a synchronous motor, means for causing said driving motors each to run at synchronous speed, means at each of said devices for generating phasing pulses during rotation thereof, means including electrical circuit-controlling devices jointly controlled by the phasing pulses generated by both said rotatable devices for determining the amount of phase difference between said phasing pulses, and means controlled by said circuit-controlling devices for causing the driving motor of said first device to run at a synchronous speed for successive periods of different time intervals respectively proportional to the amount of phase difference then present between said devices and until said devices are in phase.

2,874,219
REMOTE CONTROL DICTATING APPARATUS
Edward F. Cavanaugh, Long Beach, Calif., assignor to Executary Corporation, Long Beach, Calif., a corporation of California
Application December 13, 1954, Serial No. 474,665
25 Claims. (Cl. 179—6)



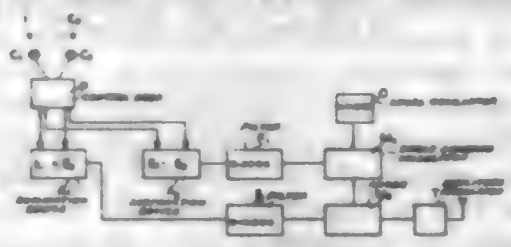
1. Dictating apparatus comprising a dictator's unit provided with dictation length-indicating and correction-indicating means, a recording unit provided with similar means, said means being visible in each unit electro-mechanical means operatively connecting the units to set the length-indicating and correction-indicating means of the recording unit in conformance with the setting of the similar means of the dictator's unit, and sound-track means to record the dictation; said latter means driving the mentioned electro-mechanical means.

2,874,220
CARRIER DISTRIBUTION CIRCUIT
Leslie R. Cox, deceased, late of Berkeley Heights, N. J., by Citizens Trust Company, executor, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 26, 1952, Serial No. 306,454
7 Claims. (Cl. 179—15)



1. An alternating current distribution circuit comprising a source of single frequency carrier, a pair of conductor leads connected thereto, equal loads connected in parallel across said conductors, equal non-dissipative reactances respectively connecting each load to said conductors, and a common reactance terminating said conductors for resonating said non-dissipative reactances at the carrier frequency to effectively present a pure resistance to said single frequency source.

2,874,221
STEREOPHONIC TRANSMISSION SYSTEM
Alexandre Dauguet, Paris, France, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application January 13, 1956, Serial No. 559,017
Claims priority, application France January 17, 1955
2 Claims. (Cl. 179—15)

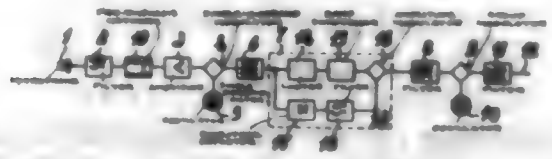


1. A stereophonic transmission system comprising a transmitter and a receiver, said transmitter comprising a first channel having a signal summation circuit, a second channel having a signal subtracting circuit, two sources of signals, means connected to apply both of said signals to both of said channels, means connected in said second channel to limit the bandwidth of the difference signal, a single-sideband modulator connected in said second channel to transpose the limited difference signal to a frequency range which is higher than the highest frequency of the signal in said first channel, common output means connected to combine the output signals of said first and second channels, and said receiver comprising first and second reception channels, means connected to apply the received signal corresponding to the output of said first transmitter channel to said first reception channel, means connected to apply the received signal corresponding to the output of said second transmitter channel to said second reception channel, a demodulator stage connected in said second reception channel to transpose the difference signal to its original frequency range, a pair of reproducing devices, and summation and subtraction circuits connected between the outputs of said first and second reception channels and said reproducing devices.

2,874,222
SINGLE-SIDEBAND SYSTEM
Frank De Jager, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application October 25, 1955, Serial No. 542,222
Claims priority, application Netherlands October 25, 1954
15 Claims. (Cl. 179—15.5)

1. A single-sideband transmission system comprising a transmitter having a source of a modulated single-side-

band signal, an envelope detector circuit connected to receive said signal and produce therefrom an envelope thereof, a band compressor circuit connected to receive said signal and produce therefrom a frequency-compressed signal, and an amplitude modulator connected to modulate said frequency-compressed signal with said envelope thereby producing an output signal, and a receiver



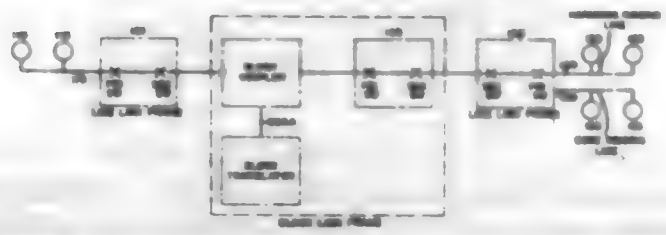
for receiving said output signal, said receiver comprising an envelope detector circuit connected to receive said output signal and produce therefrom an envelope thereof, a band expander circuit connected to receive said output signal and produce therefrom a frequency-expanded signal, and an amplitude modulator connected to modulate said frequency-expanded signal with the last-named envelope.

2,874,223

MIXED-RINGING PARTY-LINE TELEPHONE SYSTEM

Robert W. Hutton, Chicago, Ill., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application August 27, 1953, Serial No. 376,785
5 Claims. (Cl. 179—17)



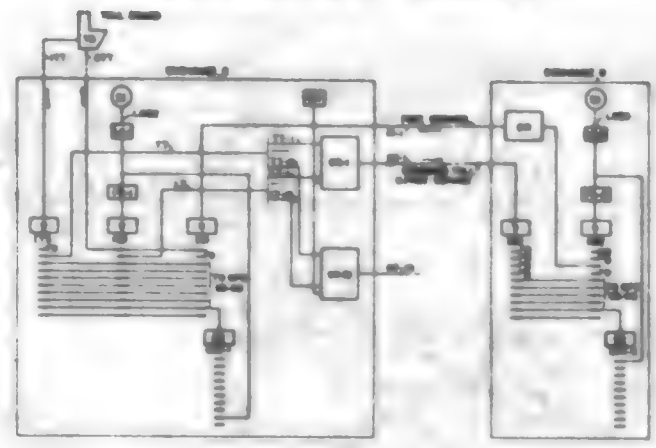
1. In a telephone switching system, party lines of a first ringing type each having stations thereon arranged to be signalled by a first type of party-line ringing current, party lines of a second ringing type each having stations thereon arranged to be signalled by a second type of party-line ringing current, each said party line being indexed by a separate line number, each station on any said line being indexed by a separate station number, couplers and trunks extending respectively thereto, means controlled from a calling line for seizing any trunk and associated coupler, means for transmitting number signals over the seized trunk which comprise line-number signals representing the number of any party line of either said ringing type, and further comprise station-number signals representing the station number of the called station on the called line, means for recording the line number and for recording the station number represented by said signals, automatic switching apparatus, means for controlling the switching apparatus from the recording means to extend a connection from the seized coupler to the called line indexed by the recorded line number, station-selecting means in the seized coupler and means for operating it from the recording means to select the called station on the called line indexed by the recorded station number, type-selecting means in the seized coupler operable to select either of said types of party-line ringing current, means for operating the type-selecting means from the recording means according to the recorded line number and irrespective of the recorded station number, and means in the seized coupler for applying ringing current to the called line of the type selected by the type-selecting means to signal the called station selected by the station-selecting means.

2,874,224

COMBINED TOLL AND FREE-SERVICE TELEPHONE TRUNKING SYSTEM

John L. Culbertson, Harvey, Ill., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application March 29, 1954, Serial No. 419,150
8 Claims. (Cl. 179—18)



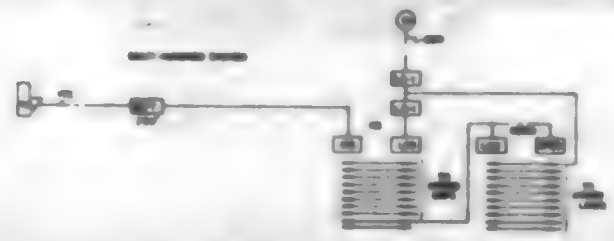
1. In a switching system, a group of lines, switching apparatus for completing connections to respective idle ones of said lines, any said connection being either a first-class connection or a second-class connection, means responsive to any said connection for marking the connected line busy to the switching apparatus as regards both first-class and second-class connections, occupancy-indicating means common to all of said lines and means controllable similarly from each of the said lines for operating it responsive to a predetermined portion of the lines being in use, and means controlled by the occupancy-indicating means for marking the remaining idle lines of the group busy to the switching apparatus as regards second-class connections while leaving them marked idle to the switching apparatus as regards first-class connections.

2,874,225

BUSY-VERIFICATION AUTOMATIC TELEPHONE SYSTEM

Edward J. Leonard, Chicago, Ill., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application May 14, 1954, Serial No. 429,748
11 Claims. (Cl. 179—27)



1. In an automatic telephone system, first trunks, lines having respective usual telephone numbers assigned thereto, each line also having a verification telephone number comprising its usual telephone number with a common verification digit prefixed thereto, means for marking any line busy, automatic switching apparatus, means responsive to the transmission over any said trunk of the usual telephone number of any said line for operating the automatic switching apparatus to extend a usual connection from the calling trunk to the called line, means including busy-test means in the automatic switching apparatus for barring any usual connection to a called line which is marked busy, verification recording means selectively responsive to the transmission of the common verification prefix digit over a said trunk for recording that digit and for absorbing it as regards the numerical response of the automatic switching apparatus, whereby the transmission of the remaining portion of a verification number causes the connection to be extended

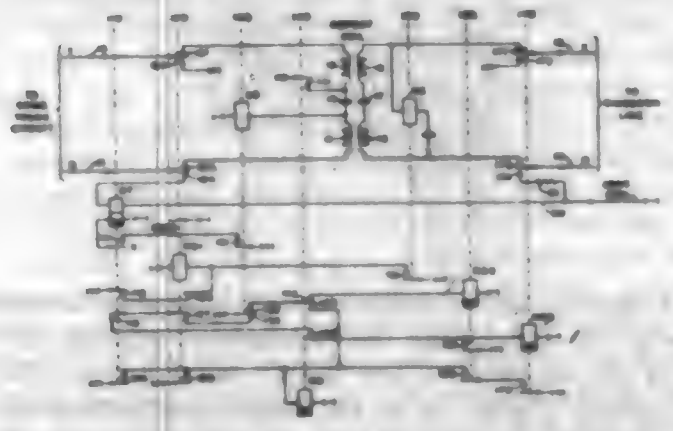
to the called line, and disabling means controlled by the verification recording means for disabling the said busy-test means and for making connection with the called line when marked busy, second trunks interposed between the first trunks and the lines, the automatic switching apparatus comprising a first portion for extending a connection from any first trunk to any idle second trunk in response to a first portion of a transmitted usual telephone number, the automatic switching apparatus further comprising a second portion controlled over any second trunk responsive to the transmission of the remaining portion of the usual telephone number to extend the usual connection to the called line, the busy-test means being in the second portion of the automatic switching apparatus, means controlled by the verification recording means for applying a verification mark to the second trunk taken for use, the said disabling means being responsive to the verification mark.

2,874,226

TRUNK ADAPTER CIRCUIT

William W. Pharis, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application September 23, 1957, Serial No. 685,444
3 Claims. (Cl. 179—43)



1. An adapter circuit for interconnecting a combination trunk line and a ring-down line for extension of calls therebetween comprising, a coupling device for normally connecting said trunk line to said ring-down line for the transmission therebetween of alternating current only, a source of ringing voltage, first means responsive to the application of a direct current potential to said trunk line to be operated for momentarily disconnecting said ring-down line from said coupling device and at the same time connecting said source to said ring-down line, and second means to be operated by the application of an alternating current to said ring-down line while said ring-down line is normally connected to said coupling device for thereby disconnecting said trunk line from said coupling device and applying a ringing voltage to said trunk line.

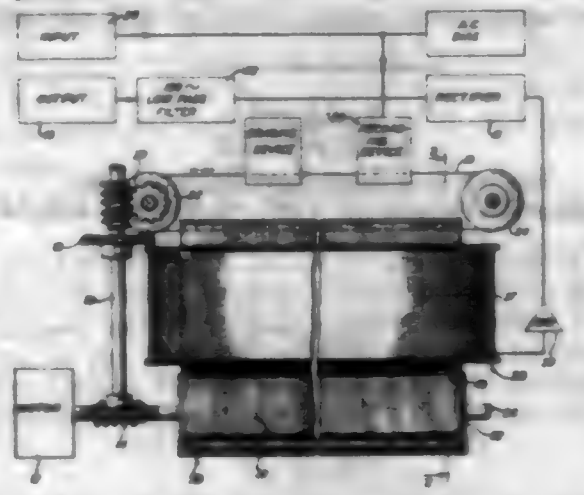
2,874,227

ULTRA-LOW PASS FILTER

Kenneth W. Pfleger, Arlington, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 29, 1954, Serial No. 471,685
9 Claims. (Cl. 179—100.2)

1. In a magnetic recording-reproducing system, in combination, a magnetic recording tape, an electromagnetic recording device, driving means to progressively move said magnetic recording tape in transducing relation to said recording device, an electrical signal source, said recording device being coupled to said signal source whereby magnetic records of said signal corresponding to successive conditions of said signal are impressed on said recording tape by said recording device successively in adjacent regions along the tape in its direction of motion, but with lines of force running transversely to the direction of motion, an electromagnetic reproducing device disposed to respond to the magnetic records of said tape, said reproducing device including a core comprising a large number of thin laminations of alternately magnetic and non-magnetic material, said laminations being perpendicular to the direction of motion of the tape, said core including a pair of elongated gaps which cut a plurality of said laminations transversely, said reproducing device constituting a multiplicity of reproducer units located in adjacent succession in the direction of motion of the tape whereby each transversely magnetized region of the tape passes over each of said reproducer units to produce signals from the tape simultaneously at its various successive transversely mag-



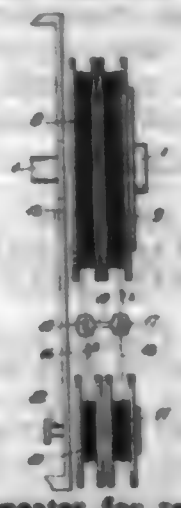
netized regions distributed along the length of the tape in the direction of its motion, some at least of said reproducer units having different magnetic reluctances varying along the length of said reproducing device in accordance with a predetermined weighting function, said driving means being disposed to move said recording tape progressively in transducing relation to the first one of said gaps in said reproducing device and in a direction parallel to the long dimension of said one gap, a reproducing coil for said multiplicity of reproducer units disposed in flux-linking relation to the magnetic laminations of said core and surrounding said core intermediate said elongated gaps, and an output circuit in energy transfer relation with said reproducing coil.

2,874,228

APPARATUS FOR RECORDING-REPEATING RADIO MESSAGES AND SIGNALS, ALSO DROPPABLE FROM AIRCRAFT AND VESSELS

Renato Alessandro Oliveti, Rome, Italy

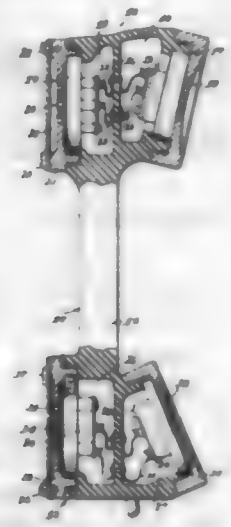
Application June 27, 1955, Serial No. 518,291
Claims priority, application Italy June 28, 1954
5 Claims. (Cl. 179—100.2)



1. In a recorder-repeater for recording and repeating radio messages and signals on a magnetized carrier, a device for winding and unwinding said carrier comprising a platen, a motor shaft projecting through one end of said platen, a pair of flywheel pulleys coaxially mounted upon said motor shaft and adjacent each other, a pair of contiguous ratchet wheels coaxially disposed upon said motor

shaft and intermediate said pair of flywheels, a pawl carried by one of said flywheels, another pawl carried by said other flywheel, each of said pawls being rotatable with said flywheels and engaging one of said ratchet wheels, another single shaft operatively connected to said device and projecting through another end of said platen, a pair of spools coaxially mounted on said second-mentioned shaft and rotatable therewith, a carrier operatively connected to one of said flywheels and one of said spools, another carrier operatively connected to said other flywheel and said other spool, and a bar operatively connected to said device intermediate said motor shaft and said single shaft, said bar having a magnetic head at each end thereof, each of said magnetic heads having grooves to operatively engage each of said carriers.

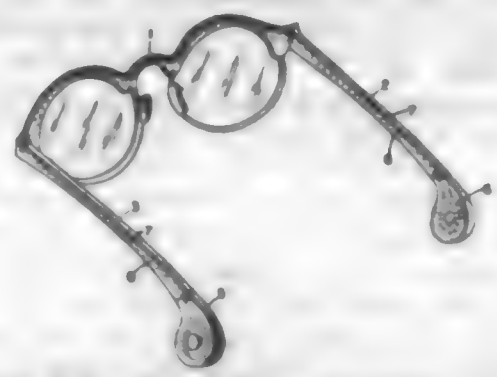
2,874,229
TELEPHONE
Esther A. Lilley, Port Richey, Fla.
Application March 26, 1957, Serial No. 648,546
2 Claims. (Cl. 179—103)



1. In a telephone, a body portion, sound receiving means on one end of said body portion, sound transmitting means on the other end of said body portion, said sound receiving means comprising a head having a partition therein defining first and second compartments, a receiver unit positioned in each of said compartments and said receiver units being arranged contiguous to each other, means electrically connecting said receiver units together, an apertured closure for each of said compartments, a cover pivotally connected to one of said closures, a finger engaging portion on said cover, said sound transmitting means comprising a pair of chambers, a partition interposed between said pair of chambers, a transmitter unit positioned in each of said chambers, means electrically connecting said transmitter units together, an apertured closure for each of said chambers, a cover pivotally connected to one of said last named closures, and a finger engaging portion on said last named cover.

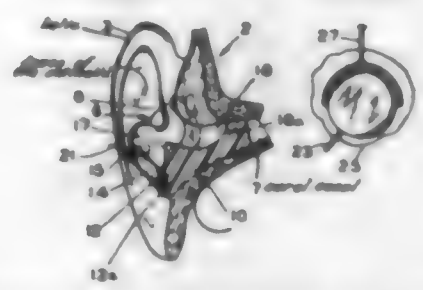
2,874,230
COMBINED SPECTACLES AND HEARING-AID WITH AUTOMATIC SELF-SEATING EARPHONE
Arthur Godfrey Carlson, Waterford, Maine
Application October 18, 1954, Serial No. 462,796
2 Claims. (Cl. 179—107)

2. The combination of a pair of spectacles having rearwardly extending bows, walls defining a recess positioned within an end portion of at least one of said bows, hearing aid elements mounted in said recess, said hearing aid elements comprising an earphone structure having a head engaging portion and means for mounting said earphone structure providing universal joint action between said earphone structure and said end portion, said mounting means comprising a mass of yieldable rubber-like material interposed in said recess between said earphone structure and a walf of said recess on which



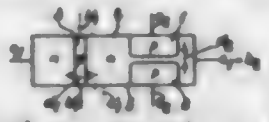
yieldable material said earphone structure is mounted, with the head engaging portion thereof protruding outwardly of said recess toward the head of the wearer.

2,874,231
EAR MOUNTED HEARING AID DEVICE
Frank B. Wallace, Phoenix, Ariz.
Application December 2, 1955, Serial No. 550,642
4 Claims. (Cl. 179—107)



1. A hearing aid microphone and a support combined therewith for supporting the microphone adjacent to the fossa of the antihelix of the human outer ear comprising an ear piece shaped to fit the outer end portion of the aural canal of the human ear, an apertured soft rubber microphone case having the apertured side thereof directed toward the fossa of the antihelix of the outer ear, said case having one end thereof secured to said ear piece with said case extending outwardly therefrom, a microphone supported in and encompassed by said microphone case on all sides except the apertured side of said case, and a microphone diaphragm in said microphone positioned in aligned relation to the open side of said case and directed toward the fossa of the antihelix of said outer ear whereby sound waves received and concentrated by the fossa of the antihelix of the outer ear are effective to vibrate the microphone diaphragm.

2,874,232
TRANSISTOR ELEMENT AND TRANSISTOR CIRCUIT
Pieter Johannes Wilhelmus Jochems, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 1, 1954, Serial No. 407,560
Claims priority, application Netherlands February 2, 1953
6 Claims. (Cl. 179—171)



1. A transistor device comprising a body having first and second portions of semi-conductive material of one conductivity type, said first portion being provided with two opposing surfaces, two zones of material of opposite conductivity type arranged within said first portion and in spaced opposing relationship and each extending to a respective one of said surfaces, a third zone of ma-

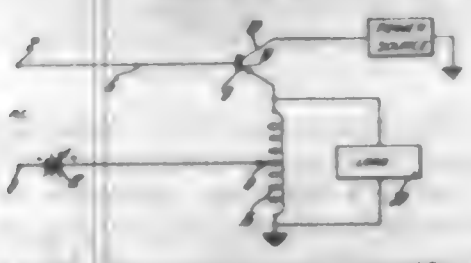
terial of said opposite conductivity type interposed between said first and second portions and extending between said opposing surfaces, said first-mentioned two zones and said first portion constituting a first transistor system and said third zone and said first and second portions constituting a second transistor system.

2,874,233

TRANSISTOR POWER AMPLIFIER

James H. Guyton and Edward G. Roka, Kokomo, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 14, 1954, Serial No. 436,393
2 Claims. (Cl. 179—171)



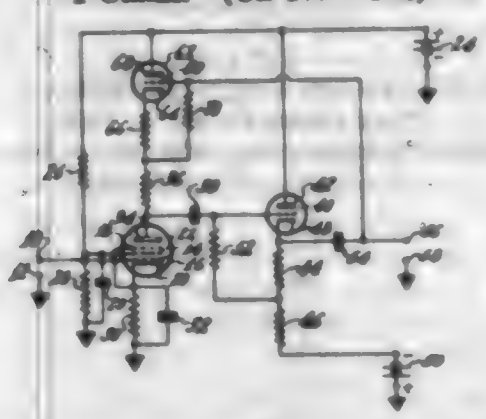
1. An audio frequency power amplifier having operating characteristics intermediate those of a common collector configuration and a common emitter configuration and comprising a transistor having emitter, collector, and base electrodes, said transistor having a non-linear relation between base and collector currents within the operating range as a power amplifier, an operating potential circuit applying a positive bias to said collector if the transistor is an NPN type and applying a negative bias thereto if said transistor is a PNP type, said circuit extending between the collector electrode and the emitter electrode and including a serially connected supply voltage source and an inductive impedance connected serially therewith by its end terminals and having a tap intermediate the end terminals, an input circuit including a signal voltage source and a bias voltage source and extending between the base electrode and said tap, said bias voltage source providing a quiescent emitter to base current value for class A operation as a power amplifier, said tap being positioned to determine the portion of said impedance between the emitter electrode and the tap and the amount of negative feedback to the input circuit whereby a compromise is established between driving power and amplifier distortion and gain, and a load device connected across the end terminals of said inductive impedance.

2,874,234

HIGH GAIN SIGNAL AMPLIFIER CIRCUIT

Sydney R. Parker, Pitman, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application January 31, 1955, Serial No. 485,171
1 Claim. (Cl. 179—171)



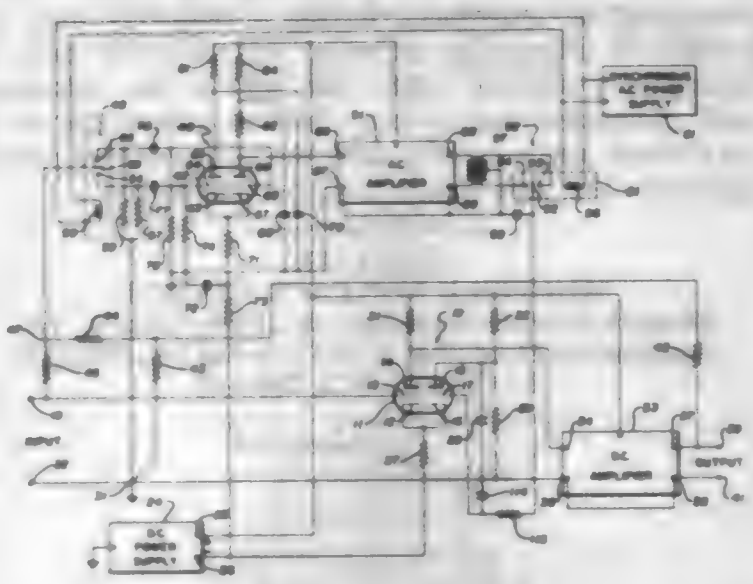
In a signal amplifier circuit including a pentode amplifier tube having a control grid, an anode, and a cathode, the combination comprising, means for applying an input signal to said control grid, a biasing impedance connecting said cathode to ground having bypass means thereacross for grounding said cathode for alternating currents, a load impedance for said pentode amplifier tube having one end thereof connected to the anode of said pentode amplifier tube, a second tube having an anode, a cathode, and a control electrode with the cathode thereof connected to the other end of said load impedance, a cathode follower circuit having an input which is connected to the plate of said pentode amplifier tube, the output of said cathode follower being coupled to the control electrode of said second tube, means for connecting a potential across said second and said pentode tubes, and an output terminal means for driving a load connected to the output of said cathode follower circuit, whereby a high output impedance is seen by said pentode amplifier tube, said cathode follower providing the impedance stepdown for driving the output terminal and said second tube, said second tube inserting output signals in effective series relation with said pentode amplifier tube.

2,874,235

ULTRA-STABILIZED D. C. AMPLIFIER

Edward C. Hartwig, Walnut Creek, Robert W. Kuenning, Livermore, and Robert C. Acker, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application September 28, 1955, Serial No. 537,306
3 Claims. (Cl. 179—171)



1. In an improved circuit for continuously and automatically stabilizing a D. C. amplifier of the type having a first input circuit connected to a source of signals to be amplified, a second input circuit, an output circuit, and inverse feedback means coupling said output circuit to said first input circuit, the combination comprising an electronically driven chopper having a pair of fixed contacts and a movable contact adapted to contact said fixed contacts alternately, said movable contact being connected to said first input circuit, differencing means coupled between said fixed contacts to develop an A. C. voltage indicative of the instantaneous alegbraic difference between the voltages at each of said fixed contacts, an A. C. amplifier connected to said differencing means to amplify said A. C. voltage, means connected between the output of said A. C. amplifier and said second input circuit for synchronously rectifying the output of said A. C. amplifier and applying to said second input circuit a D. C. stabilizing voltage.

2,874,236

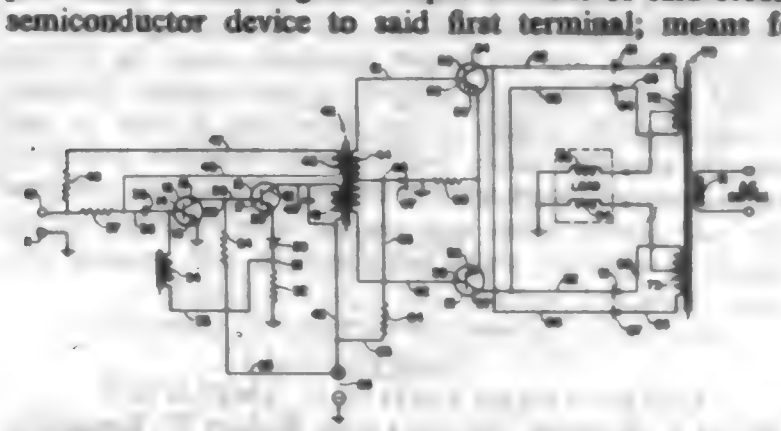
SEMICONDUCTOR STABILIZING APPARATUS

Daniel J. Sikorra, Champlin, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application December 24, 1956, Serial No. 630,104
11 Claims. (Cl. 179—171)

1. Semiconductor apparatus comprising: first and second semiconductor amplifying devices, said semiconduc-

tor devices having a plurality of elements including an input element, an output element and a common element; means directly connecting the output element of said first semiconductor device to the input element of said second semiconductor device; a source of electrical power having first and second terminals; first resistive type means connecting the output element of said first device to said first terminal; means directly connecting the common element of said first device to said second terminal; output means connecting the output element of said second semiconductor device to said first terminal; means for



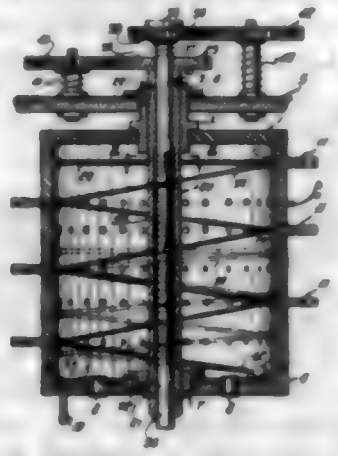
providing a potential of a selected value, said means being connected to the common element of said second semiconductor device; second resistive type means connected intermediate said potential providing means and said second terminal; and a direct current feedback path comprising an inductance having a relatively high impedance to alternating currents, said feedback path including no resistance other than that in the inductance itself, connected intermediate the first semiconductor input element and a junction between said potential providing means and said second resistive type means.

2,874,237

MULTIPLE CONTACT SWITCH

Bernard Edward Shlesinger, Jr., Falls Church, Va.

Application December 3, 1957, Serial No. 700,354
33 Claims. (Cl. 200—4)



26. A multiple contact switch comprising a non-conductive casing having an annular wall, a series of stationary electrical contacts mounted in the annular wall of said casing, a contact coil in wiping engagement with said electrical contacts, means for rotating said contact coil, and means for compressing said contact coil, whereby rotation or compression or both of said coil from one position to another changes the electrical circuitry from one circuit to another.

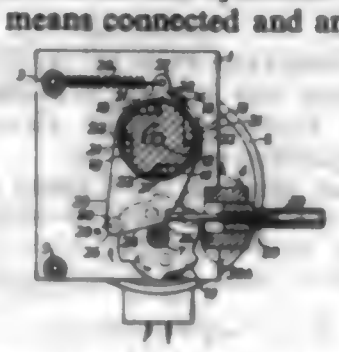
2,874,238

VARIABLE TIME SWITCHES

Harold Ernest Jackson, Wain Park, Plympton St. Maurice, England, assignor to Tecalemit Limited, Brentford, England

Application August 7, 1957, Serial No. 676,739
Claims priority, application Great Britain
September 14, 1956
7 Claims. (Cl. 200—38)

1. A variable time control mechanism for intermittently operating a switch, said mechanism comprising, a switch, a prime-mover, a spindle continuously rotated by said prime-mover in one direction, a member mounted and positioned to actuate said switch, an oscillatory to-and-fro movable element mounted and positioned between said member and said spindle, a lobe cam on said spindle for moving said element intermittently in one direction, said element being biased to return to its initial position after each intermittent operation by said spindle, a one-way clutch means connected and arranged between



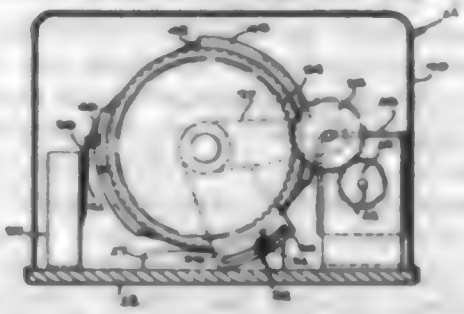
said to-and-fro element and said switch actuating member for operating said member unidirectionally at timed intervals, and a threaded abutment positioned to be contacted by said to-and-fro element for varying the degree of contact between said element and said lobe cam and, hence, the degree of movement imparted to said to-and-fro element by said continuously rotating spindle and while said mechanism is operating, whereby the number of operations of said switch may be varied within a given period of time.

2,874,239

PROGRAM TIMING SWITCH ASSEMBLY

Frederick Donati, Poughkeepsie, N. Y.

Application June 27, 1958, Serial No. 745,189
7 Claims. (Cl. 200—38)



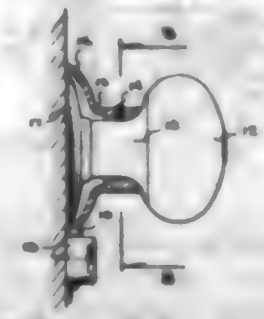
1. In a timing switch, a timing motor, a rotary member drivingly coupled to said timing motor, a drum member on said rotary member, said drum member being formed with a peripheral groove, a cam element seated in said groove, an elastic band disposed in said groove and overlying said cam element to hold said cam element in the groove, and a micro switch mounted adjacent said groove, said micro switch having an operating element in transverse alignment with the elastic band and at times operatively engageable by the portion of said elastic band overlying the cam element responsive to rotation of said rotary member by said timing motor.

2,874,240

AUTOMATIC DOOR-OPENING SIGNAL DEVICE

Marc Ricks, Berkeley, Calif.

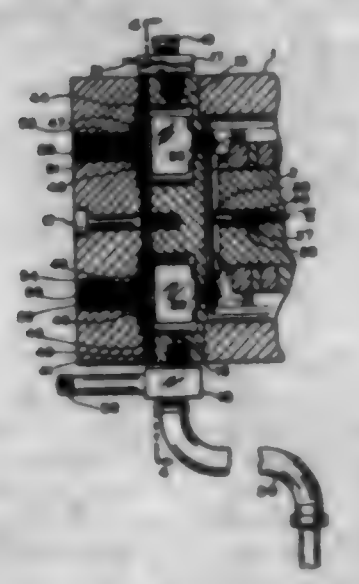
Application February 21, 1958, Serial No. 716,617
1 Claim. (Cl. 200—44)



In a signaling system of the character described, a door, a door knob rotatably mounted on said door

for opening same, a sleeve member secured to the shank of the door knob for rotation therewith and having a generally circular skirt element extending adjacent the surface of the door, said skirt element having a flattened peripheral portion, a signal switch mounted on the door below and spaced from the flattened peripheral portion of said skirt element, and an operating plunger projecting above said switch and spaced from the peripheral portion of said skirt element, said plunger being engaged by the remainder of the periphery of said skirt element upon rotation of the door knob.

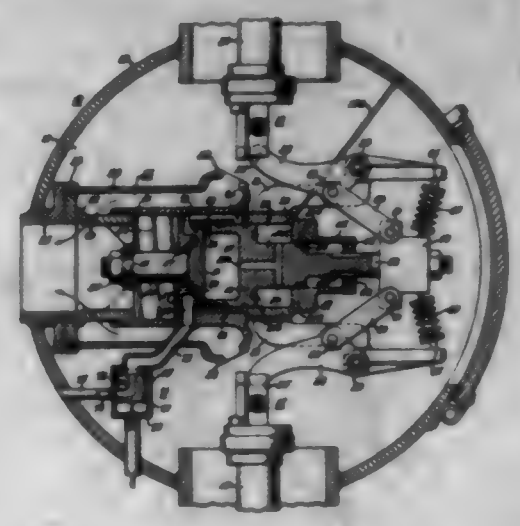
2,874,241
TIRE PRESSURE INDICATORS
Joe P. Bardin and Walter H. Dudar, Dallas, Tex.
Application July 11, 1957, Serial No. 671,235
8 Claims. (Cl. 200—61.25)



1. An air pressure signaling system for dual mounted pneumatic tires comprising a sensing unit adapted to be mounted on the end of a hub and provided with a pair of spaced chambers therein, said sensing unit having conduit means operatively connecting each said chamber to one of said tires, a switch mounted in each of said chambers, a diaphragm mounted in said sensing unit extending across both chambers and adapted to press against and close said switches responsive to reduction of pressure in either one of said tires below a predetermined amount, an electrically conductive element connecting said switches in parallel, electrically conductive means for contacting said element, and signaling means operatively connected to said electrically conductive means and adapted to be actuated upon closing of either of said switches.

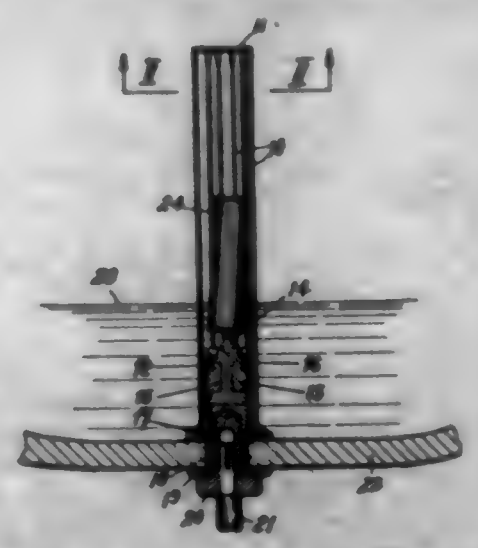
2,874,242
FLUID-PRESSURE CONTROLLED OPERATING MECHANISM FOR A CIRCUIT BREAKER
Donald R. Kurtz, Drexel Hill, Pa., assignor to General Electric Company, a corporation of New York
Application May 23, 1957, Serial No. 661,126
8 Claims. (Cl. 200—82)

1. In an electric circuit breaker comprising a contact movable between spaced-apart open and closed position, biasing means urging said contact toward closed position, a movable piston operatively connected to said contact and also urged toward a closed position by said biasing means, means for maintaining a supply of pressurized gas on one side of said piston for holding said contact in open position in opposition to said biasing means, means for bleeding pressurized gas from said one side of the piston to allow said biasing means to drive said contact and said piston toward closed position, a passageway leading from said one side of the piston to the other side thereof, and means for sealing off said passageway during initial contact-closing movement and for opening said passageway during final contact-closing movement, said passageway opening occurring prior to the



point at which said contact reaches closed position and acting to abruptly reduce the forces opposing final contact-closing movement.

2,874,243
DEVICE FOR AUTOMATICALLY INDICATING THE CRITICAL OIL LEVEL IN ENGINES, ESPECIALLY ENGINES OF MOTOR VEHICLES
Otto Metzler, Offenbach, Main, Germany
Application April 19, 1957, Serial No. 653,887
3 Claims. (Cl. 200—84)

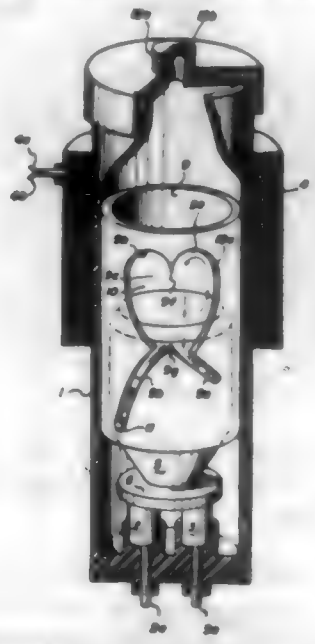


2. A device for automatically indicating the critical oil level in oil sumps of engines, especially engines of motor vehicles, comprising in combination a metal tube arranged vertically upright in the oil sump and held immovable in electric conducting connection with the bottom part of said oil sump, a metal float freely movable in said tube, and electric contact means adapted to be influenced by said float and electrically insulated both from the tube and also from the oil sump, said contact means extending through the bottom part of the oil sump with its upper end immersed in the oil in the sump.

2,874,244
ELECTROMAGNETIC SWITCH
Kenneth Hedley Hambleti, Washington, D. C., and Fritz Zackschwerdt, Iserlohn, Germany
Application June 17, 1957, Serial No. 666,011
5 Claims. (Cl. 200—87)

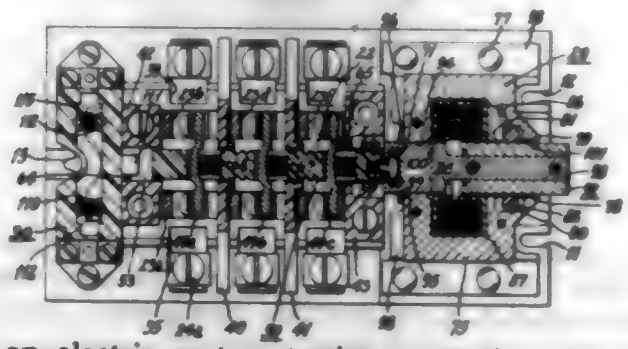
1. An electro-magnetically operated switch comprising a casing filled with inert gas, electrical contacts arranged in the bottom of said casing, a coil arranged around the upper portion of said casing, armature means comprising a plunger forming a core for said coil and which is caused to move vertically upon energizing said coil, said armature comprising a contact plate which is adapted to close said electrical contacts in the bottom of said casing, when the armature is positioned in its lowermost

position in said casing, and means comprising a grooved guide member cooperating with said armature for predetermining the position of said armature relative to said electrical contacts, said grooved guide member comprising a heart-shaped apertured member disposed in said casing and fixedly retained thereto, and pin means carried



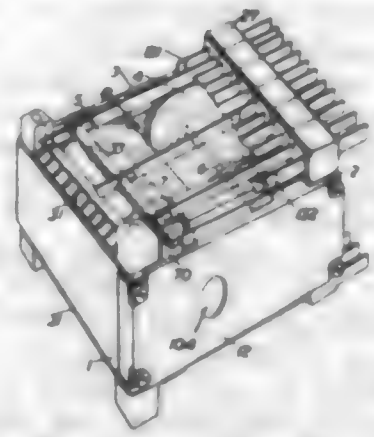
by said armature and cooperating with said grooved guide member for predetermining the position of said armature upon momentary energization of said coil, said grooved guide member comprising a heart-shaped aperture with communicating depending grooves for receiving said pin means carried by said armature.

2,874,245
CIRCUIT BREAKER
David F. Moyer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 19, 1954, Serial No. 404,843
3 Claims. (Cl. 200—104)



1. In an electric motor starting controller, the combination of, a flat platform terminal base containing a plurality of current in-going and out-going terminal connectors disposed in a common plane on one side of said platform with each in-going terminal paired with an out-going terminal and linearly aligned with the same, a plurality of stationary contacts all projecting from the said one side of the said platform, one of said stationary contacts engaging respectively one of said connectors and all arranged generally at a common level above the said platform, said platform having partition walls projecting upwardly from said one side and disposed between each set of linearly aligned terminal connectors and cooperating stationary contacts and coextensive linearly with said connectors and projecting upwardly from the said platform to at least the uppermost projecting portions of the said connectors and said stationary contacts thereby electrically isolating paired contacts and connectors, a movable contact carrier supporting a plurality of contact bars transversely of the carrier each engageable with stationary contacts of paired in-going and out-going terminal connectors, said carrier being disposed at the level of the stationary contacts and projecting through openings in said partition walls and movable on its longitudinal axis linearly normal to said partition walls and the linear alignment of said terminals, said carrier having transverse recesses in opposite sides thereof which align with said walls when the contact bars of the carrier engage cooperable stationary contacts, wall means projecting upwardly from said one side of said platform at opposite ends of said carrier to at least the level of the uppermost side of said carrier and having linearly aligned slots therein forming guide slots for said carrier for linear movement thereof therein, other wall means extending upwardly from said platform to support one side of said carrier and having longitudinally extending recesses therein covered by the said one side of said carrier, and a cover member enclosing said carrier and said movable and stationary contacts having a wall adjacent the upper edges of said partition walls and said wall means at opposite ends of said carrier and having longitudinally extending recesses therein aligned with said carrier and covered thereby and having other wall means depending from said first wall means adjacent said partition walls and end walls into close proximity with said one side of said platform to fully enclose thereby each stationary contact in an electrically isolating chamber having the walls between the chambers provided with closed recesses providing arc quenching chambers.

2,874,246
ELECTRICAL RELAYS
William Henry Drury Yule, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application June 29, 1955, Serial No. 518,901
Claims priority, application Great Britain July 2, 1954
24 Claims. (Cl. 200—104)

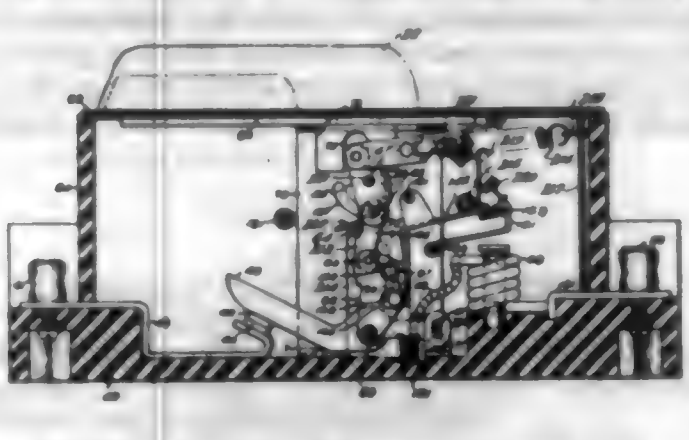


1. An electromagnetic relay having a U-shaped electromagnet having a coil on each leg and positioned within a U-shaped non-magnetic frame with its base secured to the base of the frame, contact spring pile-up means substantially at right-angles to the axes of said coils and disposed across the outside of said electromagnet and secured to a first limb of said frame, an armature pivotally mounted in a non-magnetic housing which is positioned across the pole-faces of the electromagnet and which is detachably secured to the ends of the limbs of the frame, and means coupling said armature with said pile-up means.

2,874,247
CIRCUIT BREAKER TRIP MECHANISM
Elwood T. Platz and Russell S. Davis, Detroit, Mich., assignors, by mesne assignments, to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application March 13, 1953, Serial No. 342,174
4 Claims. (Cl. 200—106)

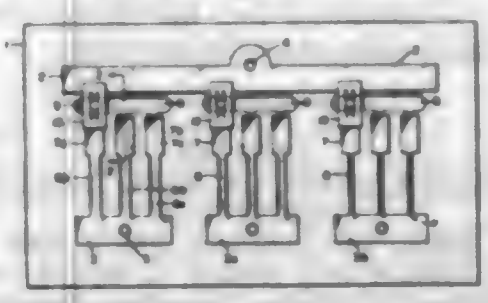
3. In a circuit breaker, an actuator, a contactor, an automatic tripping mechanism, a control system; trip means; said control system comprising an upper link, an intermediate link, and a lower link some of which are

latchably disengageable; said upper link being secured to a fixed pivot and operatively connected to said actuator; said lower link being operatively connected to said contactor; said intermediate link operatively connecting said upper and lower links; said automatic tripping mechanism being mounted independently of said control system and



operatively positioned to be engageable with said control system upon the occurrence of an overload condition; said trip means secured to said upper link and engageable with said automatic tripping mechanism for manual releasing of said control system to permit said circuit breaker to move to the open circuit position.

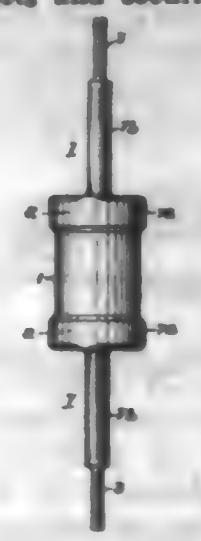
2,874,248
MULTIPLE FUSE
Julius J. Tondat, Penfield, and Oscar H. Goldman, Pittsford, N. Y., assignors to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware
Application September 11, 1956, Serial No. 609,270
5 Claims. (Cl. 200—125)



2. A multiple fuse comprising a board of electrical insulating material, an elongated slot through the board, printed circuit contacting plates aligned along one side of said slot, printed fuse elements of predetermined cross-section and current-carrying capacity communicating, respectively, with said plates, the opposite ends of said elements communicating with a common terminal plate, a second common terminal plate along the opposite side of said slot, and means extending through and slidable along said slot to selectively electrically connect said contacting plates to said common plate.

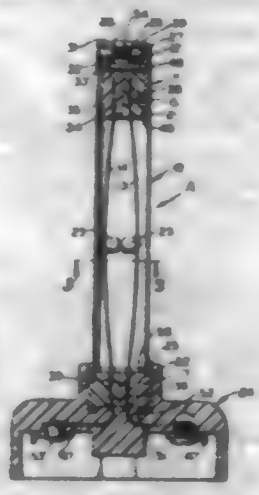
2,874,249
FUSE STRUCTURES WITH FERRULES OF INSULATING MATERIAL
Philip C. Jacobs, Jr., Newtonville, Mass., and Kenneth W. Swain, Hampton Falls, N. H., assignors to The Chase-Shawmut Company, Newburyport, Mass.
Application September 3, 1957, Serial No. 681,537
5 Claims. (Cl. 200—131)

1. In an electric fuse the combination of a tubular casing of insulating material, a pair of terminal elements closing the ends of said casing, a pair of blade contacts each projecting axially outwardly from one of said pair of terminal elements, fuse link means inside said casing conductively interconnecting said pair of terminal elements, a pair of caps of insulating material, each of said pair of caps comprising a first sleeve portion mounted on said casing and a second sleeve portion mounted on one of said pair of blade contacts, and adhesive strip means affixed to both sides of each of said pair of blade contacts and securing said second sleeve



portion of each of said pair of caps to one of said pair of blade contacts.

2,874,250
THERMOSTATIC SWITCH
Galen O. Chapman, Irvington, Calif.
Application February 28, 1958, Serial No. 718,161
13 Claims. (Cl. 200—137)



1. A thermostatic switch unit comprising a thin-walled, elongated shell of a material having a high coefficient of thermal expansion, one end of said shell being closed, non-conductive mounting means mounted in the other end of said shell, a pair of oppositely bowed struts mounted lengthwise within said shell, one end of each strut being embedded in said mounting means, a pair of switch contacts on the inner sides of said struts, a cup-shaped sheath of material having a high coefficient of thermal expansion, and with substantially thicker side walls than said shell, fitted for slidable movement within the closed end of said shell and with the open end of said sheath facing said mounting means, an insulative plug mounted within said sheath and secured thereto only adjacent the open end of said sheath, the other end of each of said struts being embedded in said plug, whereby thermal expansion of the sheath moves the plug and the strut ends embedded therein axially of the shell toward said mounting means, and an adjusting screw extending from the closed end of said shell into thrust engagement with the closed bottom of said sheath and operable to urge said sheath toward said mounting means for exerting a bowing, endwise stress on said struts.

2,874,251
ELECTRICAL CONTACT DEVICE HAVING ADJUSTABLE CONTACTS
Jean Albert Dreyfus, Geneva, Switzerland
Application May 7, 1956, Serial No. 583,143
Claims priority, application Switzerland May 9, 1955
9 Claims. (Cl. 200—166)

1. An electrical contact device comprising at least two contact members, one of said contact members being a

stationary, resilient contact strip having one pivotable end, the other contact member being movable and disposed on one side of and spaced a predetermined distance from the pivotable end of said stationary, resilient contact strip, an absorber strip located at the other side of said resilient contact strip remote from said movable con-



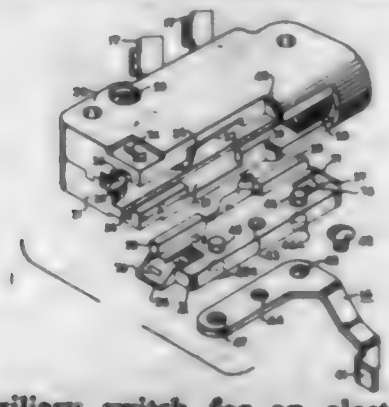
tact member, fastening means interposed between and communicating with said resilient contact strip and said absorber strip, so that said fastening means transmit to said absorber strip any oscillations imparted to said stationary, resilient contact strip by said movable contact member, whereupon said absorber strip dampens and limits said oscillations.

2,874,253

ELECTRIC SWITCH

Lyle J. Wenzel, Normal, and Ernst R. Wolff, Bloomington, Ill., assignors to General Electric Company, a corporation of New York

Application February 4, 1958, Serial No. 713,259
10 Claims. (Cl. 200—166)



7. An auxiliary switch for an electromagnetic contactor comprising a split housing whose mating halves define a longitudinal aperture which extends along two sides of said housing, first and second terminals external to said housing, each having a portion extending into said housing, a first leaf spring having one end mounted on said first terminal within said housing, a first contact mounted at the other end of said first leaf spring, a second leaf spring having a cam follower intermediate its ends and one end mounted on said second terminal within said housing, a second contact mounted at the other end of said second leaf spring, said first and second leaf springs being mounted to place said contacts in opposite but displaced relationship, and a contact actuator mounted for sliding movement within said housing and having a portion extending through said longitudinal aperture, said actuator having a cam surface thereon engaging said cam follower on said second leaf spring whereby movement of said actuator in one position moves said contacts from the open to the closed position and movement of said actuator in an end-for-end reversed position allows said contacts to move from the closed to the open position.

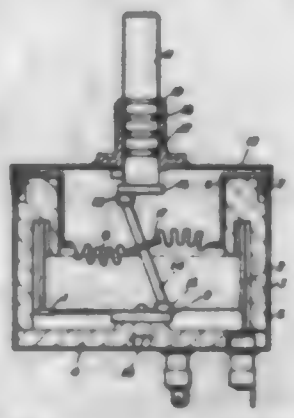
2,874,253

SWASH-PLATE POTENTIOMETER DRIVE

Leonard William Descarrieres Sharp, North Chingford, and Dennis Jack Blight, Woodford Green, England, assignors to The Plessey Company Limited, Ilford, England, a British company

Application February 13, 1957, Serial No. 640,043
Claims priority, application Great Britain February 16, 1956
2 Claims. (Cl. 201—48)

1. A hermetically sealed electrical control device comprising a fluid-tight container, a flexible diaphragm forming at least a part of one wall of the container, a control member first and second parts to the control member, the control member passing in fluid tight manner through the diaphragm, so that the first and second parts are on opposite sides of the diaphragm with the second part inside the container, a first rotatable member mounted, on the exterior of said container, for rotation about an axis which is transverse to and intersects the diaphragm, a first ball and socket connection between the first part of the control member and the first rotatable member, the connection being offset from said axis, a second rotatable



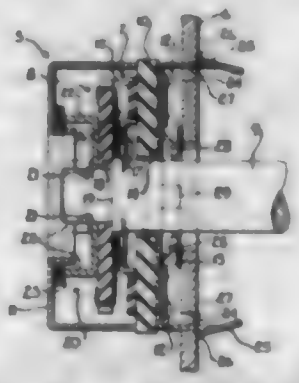
member located inside the container, the second rotatable member being rotatable about said axis, a second ball and socket connection between the second part of the control member and the second rotatable member, the connection being so positioned relative to said axis and the first connection that the control member is inclined to and intersects the axis, a variable resistor mounted in the container, a ring-like track forming the resistive element of the resistor and a wiping contact carried by the second rotatable member contacting the resistor track, the resistor track being so positioned that the second part lies substantially wholly inside the resistance track.

2,874,254

VARIABLE RESISTOR WITH A PLUG-IN MOUNTING

Arthur M. Daily, Edwardsburg, Mich., and Mervin B. Artzmann, Elkhart, and Donald A. Pierce, South Bend, Ind., assignors to Chicago Telephone Supply Corporation, Elkhart, Ind., a corporation of Indiana

Application June 27, 1955, Serial No. 518,134
22 Claims. (Cl. 201—55)



1. In a variable resistor having an operating shaft projecting from the front thereof, a snap-in mounting to secure the resistor to the back of a panel with its operating shaft accessible from the front of the panel, comprising: a stamped metal plate rigidly fixed to the front of the resistor as a permanent part thereof, said plate having a shaft hole therein; resilient mounting ears extending forwardly from said plate at a substantial distance radially out from the shaft hole to project through holes in a panel upon which the resistor is to be mounted, and thereby secure the resistor against rotation about the shaft axis; tabs sheared from the mounting ears with the ends of the tabs facing said plate, said tabs being disposed at an angle to the portions of the mounting ears nearest the plate so that the rear ends of the tabs are

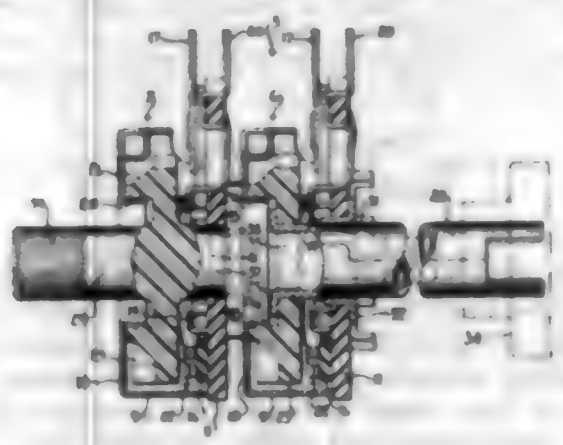
spaced from the adjacent faces of the ears to snap over the edges of the holes in the panel as the mounting ears are inserted into the holes, providing the holes are so located that said edges thereof are engaged by the faces of the ears from which the rear ends of the tabs are spaced; the resilience of the mounting ears permitting flexure thereof as the tabs snap over the edges of the holes in the panel; and spring fingers projecting forwardly from the plate to bear against the rear face of the panel and yieldingly force the resistor rearwardly away from the panel to thereby draw the ends of the sheared tabs firmly against the front of the panel.

2,874,255

TANDEM ELECTRICAL CONTROL INSTRUMENTALITY

Wilbert H. Budd and Hilbert L. Slough, Elkhart, Ind., assignors to Chicago Telephone Supply Corporation, Elkhart, Ind., a corporation of Indiana

Application July 9, 1956, Serial No. 596,582
4 Claims. (Cl. 201—55)



1. In a tandem variable resistance control instrumentality of the type having front and rear variable resistors each mounted in a housing having spaced front and rear walls, the front and rear walls of the front housing having coaxial apertures therein and the front wall of the rear housing having a central aperture therein; means mounting the rear resistor housing on the back of the front resistor housing with the front wall of the rear housing opposing the rear wall of the front housing, and with all of said apertures coaxial; a pair of endwise spaced operating shafts rotatably carried by said housings coaxially with one another and with said apertures, the shaft of the front resistor projecting a distance forwardly from the front wall of its housing to provide for mounting a knob on its forward end portion, and said front shaft being tubular so as to cooperate with the aperture in the rear wall of its housing to define an axial passage leading entirely through the front housing when the knob on the forward end portion of said shaft is removed, said passage providing the sole means of access to the front end of the shaft of the rear resistor for adjustment of said rear shaft by a tool inserted through the tubular shaft of the front resistor.

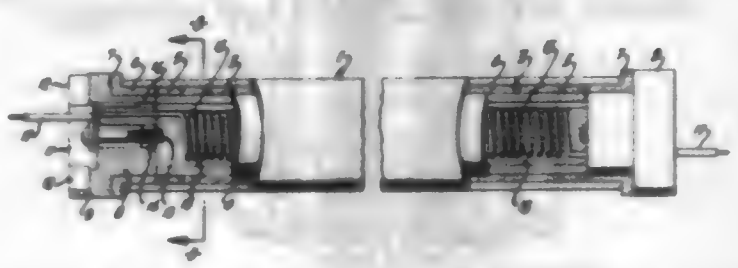
2,874,256

HEATING ELEMENT

Gresham H. Calvert, Santa Cruz, Calif.

Application July 21, 1955, Serial No. 523,535
1 Claim. (Cl. 201—66)

A heating element comprising a tubular member, plugs positioned in the ends of said tubular member, a coiled wire resistance element positioned in said tubular member, the diameter of the convolutions of said coiled resistance element approaching the inside diameter of said tubular element, said coiled resistance element having a coating of refractory material adhering to the convolutions thereof, said resistance element being substantially surrounded by a fluid granular electrically insulating material for engaging said coating of refractory material and for supporting said resistance element to prevent said resistance element from sagging, said coating engaging said fluid granular material to prevent said granular material from contacting the heated coiled resistance element and being caked, said granular material being sufficiently loose in said tubular member to permit expansion of said resistance element during heating thereof and also to permit said granular material to move around the convolutions of said coiled resistance element when the orientation of the heating element is altered whereby said resistance element is supported away from the inner surface of said tubular member.

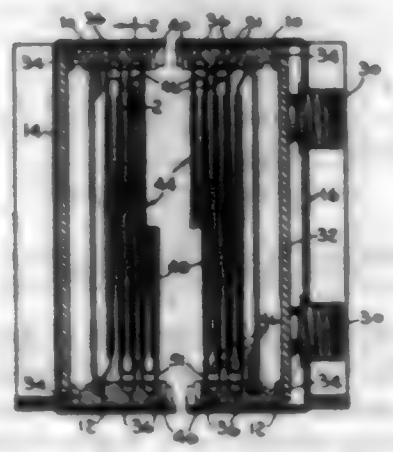


2,874,257

ELECTRICAL RESISTOR UNITS

Clarence W. Kuhn, Wauwatosa, and Guy R. Radley, Whitefish Bay, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application August 27, 1952, Serial No. 306,574
6 Claims. (Cl. 201—74)



1. A resistor grid including an insulator support, an electrical resistor band having a bend therein forming an inner concave surface at said bend, and supporting means to allow all portions of said inner concave surface to be uniformly exposed to cooling media, said means being connected to said insulator support to support said bend in a diametrically opposite position removed from said insulator support.

2,874,258

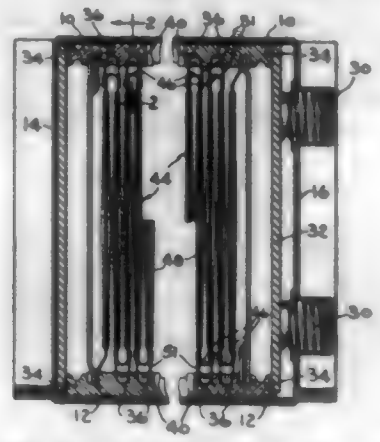
ELECTRICAL RESISTOR UNITS

Clarence W. Kuhn and Robert O. Perrine, Wauwatosa, and Guy R. Radley, Milwaukee, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Original application August 27, 1952, Serial No. 306,574. Divided and this application February 27, 1956, Serial No. 567,791
16 Claims. (Cl. 201—74)

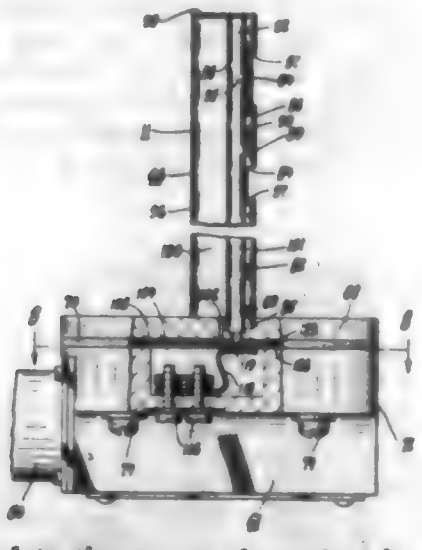
1. A resistor unit adapted for use with forced ventilation, said resistor unit having oppositely positioned insulators with grooves adapted to receive brackets for supporting the loops of a ribbon type grid resistor, a ribbon type grid resistor having loops, and brackets received in said grooves and frictionally engaging said

loops to provide sliding engagement therebetween, said brackets being long enough to keep said loops out of



contact with said insulators and in the same cooling air stream as the remainder of said grid resistor.

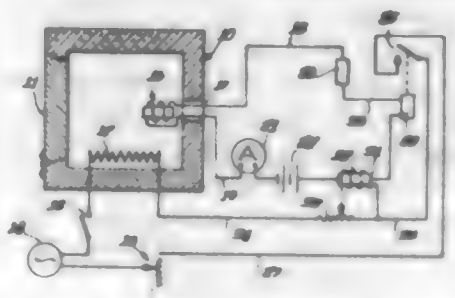
2,874,259
ICE DETECTOR AND CONTROL SYSTEM
Donald E. Morris, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 6, 1956, Serial No. 576,716
8 Claims. (Cl. 219—19)



4. An ice detecting means dependent in operation upon balancing of two positive pneumatic pressures comprising a probe exposed to an air stream, said probe having a pair of openings located in a region highly susceptible to ice accretion, electrical heating means with said probe adjacent the pair of openings and energizable to melt ice therefrom, a normally-open pressure actuated switch means located with said probe and being subject to differential pressure from air channeled adjacent thereto from the pair of openings of said probe, said switch means closing in response to one positive pressure upon icing over of one of the probe openings cutting off the second positive pressure, and circuit means interconnecting said switch means and said electrical heating means, said probe having an air foil cross section with leading and trailing edges relative to the air stream and with the openings all in the leading edge of said probe.

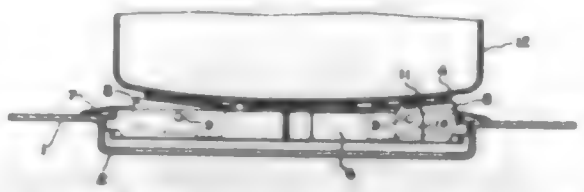
2,874,260
RESISTANCE THERMOMETER CIRCUITS
Karl H. Huppert, Chicago, and Erwin K. Weise, Urbana, Ill., assignors to Semicon Inc., a corporation of Illinois
Application October 2, 1956, Serial No. 613,585
6 Claims. (Cl. 215—20)

1. Means for controlling the operation of an electrically heated device, said means comprising a series circuit including a resistance thermometer in a heat exchange relationship with said device, a source of power, a negative thermistor mounted independently of any heat from said electrically heated device, a positive thermistor, and means operating responsive to the current in said circuit for controlling the temperature of said electric



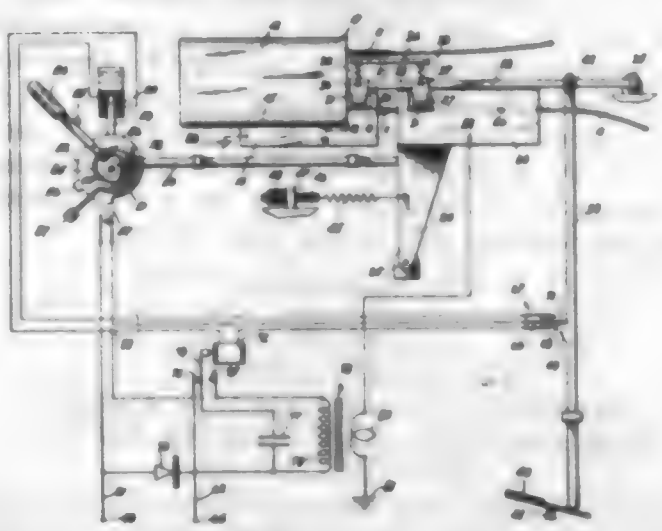
heating device, and means heating said positive thermistor when said electric heating device is operated.

2,874,261
ELECTRIC HEATING UNIT
Robert A. Wolf, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application November 12, 1957, Serial No. 695,761
3 Claims. (Cl. 219—37)



1. An electric heating unit comprising a single continuous sheathed heating element coiled in flat spiral configuration so as to form a horizontally disposed support for cooking utensils and the like, said heating element having at least three convolutions arranged in radially spaced relationship, and means for supporting said heating element including a plurality of rocker members each mounted for pivotal movement about a horizontal axis and arranged to support radially spaced portions of at least three convolutions of said heating element, and clamping means for fixedly securing one portion of an intermediate convolution of said heating element with respect to the pivotal axis of said rocker arms.

2,874,262
BUTT WELDING APPARATUS
Dettmer H. Otto, Salem Depot, N. H., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 18, 1957, Serial No. 646,807
6 Claims. (Cl. 219—57)



1. In an apparatus for butt welding adjacent ends of elongate articles, electrodes formed to receive the articles with their adjacent ends in abutting engagement with each other, one of the electrodes being fixed, means to support the other electrode for movement from a starting position to a finishing position, means normally urging the

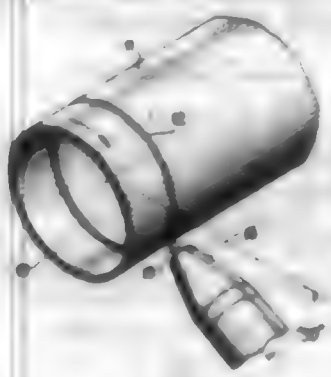
movable electrode toward the finishing position, an actuator mounted for movement from a normal position, where it holds the movable electrode in its starting position, to an operated position where the electrode is free to move into its finishing position, a normally open switch adapted when closed to cause a welding current to flow through the electrodes to butt weld the articles during which time the abutting portions of the articles will soften to permit the movable electrode to move to its finishing position, means on the actuator to close the switch when the actuator is moved into its operated position, clamps normally holding the articles on their electrodes, means to move the clamps free of the articles, means to latch the actuator in its operated position, and means actuable only when the clamps are free of the articles to unlatch the actuator.

2,874,363

PROCESS FOR BUTT WELDING

Elmer W. Williams, Muskego, and Howard J. Bowman, East Troy, Wis., assignors to Trent Tube Company, East Troy, Wis., a corporation of Wisconsin

Application October 7, 1957, Serial No. 688,752
5 Claims. (Cl. 219—61)



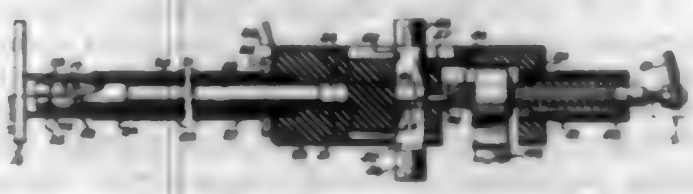
1. The method of butt welding tubing sections by means of an arc electrode to produce a weld joint substantially flush with the tubing interior, which comprises: disposing said sections in substantially horizontal alignment with opposed ends abutting, disposing said arc electrode below the horizontal midsection of said tubing in the plane of said abutting ends, and at an angular position in relation to the horizontal, and concurrently rotating said tubing sections while energizing said electrode to join said abutting tube ends in a fusion weld.

2,874,364

PERCUSSION WELDING GUN FOR WELDING WIRES TO ARTICLES

Amos L. Quinlan, La Grange Park, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application April 27, 1956, Serial No. 581,074
8 Claims. (Cl. 219—95)



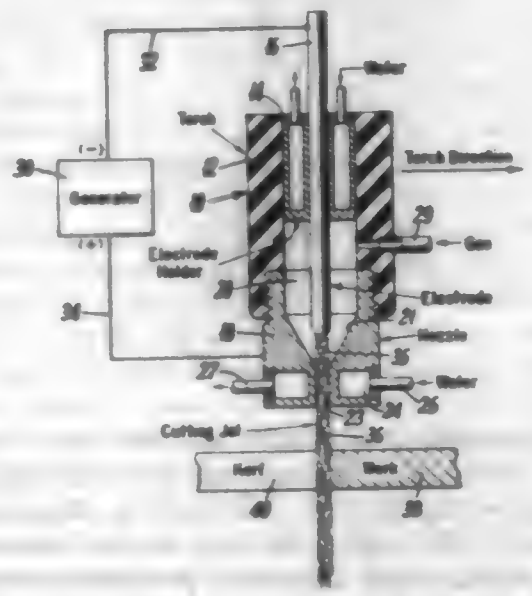
1. A hand tool for percussively welding wires to articles comprising a first electrode for gripping a wire and moving it axially in a predetermined direction, mounting means normally holding the first electrode in a retracted position, a fixed electrode carried by the mounting means for engaging the article to position it in the path of movement of the wire and the first electrode and in a predetermined spaced relation thereto when the first electrode is in retracted position, and resilient means for moving the first electrode from the retracted position to advance the wire into percussive engagement with the article.

2,874,365

NON-TRANSFERRED ARC TORCH PROCESS AND APPARATUS

Thomas B. Reed, Grand Island, N. Y., and John Maier III, Newark, and Glenn W. Oyler, Springfield, N. J., assignors to Union Carbide Corporation, a corporation of New York

Application May 23, 1956, Serial No. 586,688
6 Claims. (Cl. 219—121)



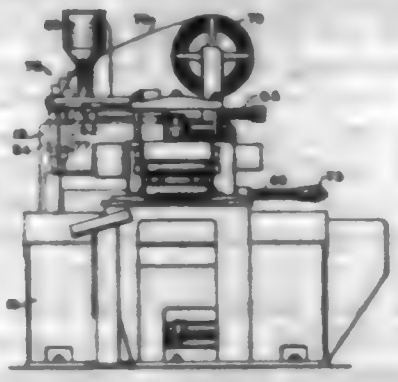
1. Process which comprises energizing a high pressure arc between two electrodes one of which is provided with an orifice, and discharging gas composed of one or more gases selected from the class consisting of hydrogen, nitrogen, helium and oxygen and such arc through such orifice at a velocity in the sonic range thereof, whereby an intense jet-like effluent is produced which flows from such orifice at such velocity, characterized in that such arc is wall-stabilized in such process.

2,874,366

WELDING APPARATUS, PARTICULARLY FOR CONTINUOUS STRIP LINES

Raymond T. Klempay, Youngstown, Ohio

Application February 17, 1954, Serial No. 410,840
12 Claims. (Cl. 219—124)



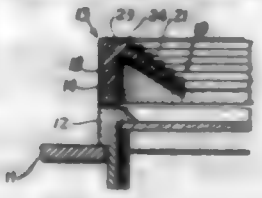
1. In a compact combined apparatus for shearing and welding strip, the combination of a base, a carriage supported on said base for transverse movement with respect to the pass line of said strip, said carriage having a window-like opening therein having mounted upon the upper edge thereof a welding platen and shear blade, said platen and blade being mounted in side-by-side downwardly facing relation, a unitary carrier member mounted in said window-like opening and guided therein for vertical movement, a welding platen and shear blade mounted on said carrier member in side-by-side upwardly facing relation, an operating device for said carrier member adapted upon actuation to effect a predetermined vertical movement thereof, and means to resiliently mount one of said welding platens.

2,874,267
CANDLE SUPPORT FOR FLOWER HOLDERS
Margaret E. Shipley, Pittsburgh, Pa.
Application April 21, 1955, Serial No. 502,778
3 Claims. (Cl. 240—2)



1. In combination, a candle, resilient split ring means extending substantially around the circumference of the candle and in engagement therewith, at least one dovetail groove in said expansible ring means, hollow liquid-containing means, and a dovetail projection on said hollow liquid-containing means fitting into the dovetail groove in the expansible means whereby to removably hold the liquid-containing means on the expansible ring.

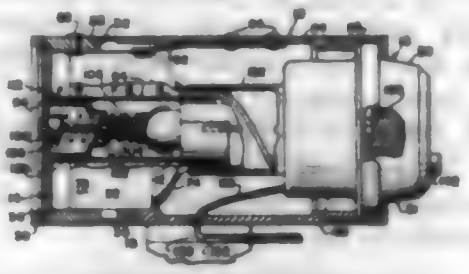
2,874,268
INSTRUMENT ILLUMINATING DEVICE
Arlo A. Martin, La Mesa, Calif., assignor to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware
Application January 26, 1956, Serial No. 561,514
14 Claims. (Cl. 240—2.1)



1. An illuminating device for an indicating instrument having a dial, said illuminating device comprising a body of light-transmitting material having an inner surface adjacent said instrument, an outer surface opposite said inner surface and a light emitting interior wall perpendicular to said inner surface, said interior wall delimiting an opening in said body for exposing said dial, said outer surface overhanging said interior wall and defining a hood, said hood being arranged to visibly mask said light emitting interior wall from points displaced from a line normal to the plane of said dial, a light source incased in said body of light-transmitting material, an opaque coating on said body covering said inner surface, said outer surface and said hood whereby only light from said interior wall escapes to illuminate said dial, and mounting means for fastening said body to said instrument.

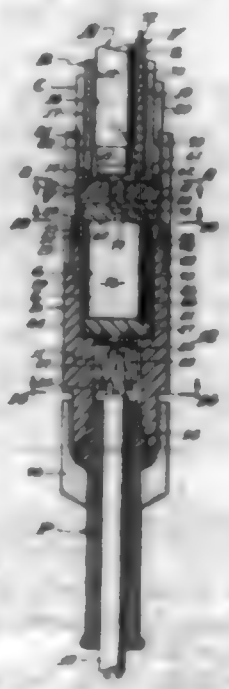
2,874,269
AIRCRAFT INSTRUMENT PANEL ILLUMINATOR
Paul H. Greenlee, Urbana, Ohio, assignor to Grimes Manufacturing Company, Urbana, Ohio, a corporation of Ohio
Application October 3, 1955, Serial No. 538,021
10 Claims. (Cl. 240—8.16)

5. In a light projecting structure of the type adapted to selectively concentrate and diffuse light rays, a tubular housing, a lens supported by said housing, a reflector member supported within said housing and behind said lens, a lamp supported centrally of said reflector member and between said reflector and said lens, a filter element, said filter element being tubular and positioned concentrically of said lamp and having at least a forward portion for diffusing light rays from said lamp and a rearward portion for concentrating light rays from said lamp, means for moving said filter element forwardly toward



said lens and rearwardly away from said lens to thereby selectively concentrate and diffuse light rays, means positioned axially of and between said lens and said lamp for maintaining said lamp centered with respect to said filter element and said reflector, and means effective when said filter element is in its forward position for preventing leakage of light from said lamp through the forward portion of said tubular filter element.

2,874,270
PORTABLE WORK LIGHT
Harry E. Douglass, Glendale, and Rodney B. Hecox, Bakersfield, Calif.
Application July 12, 1956, Serial No. 597,496
4 Claims. (Cl. 240—11.4)



1. A work light of the character described, including, an elongate tubular body, a base of insulating material closing one end of the body, a cap closing the other end of the body, an elongate lamp carried within the body, there being a bore in the body, and lamp exciting means including, receptacles releasably engaged with opposite ends of the lamp, each receptacle having a pair of lamp contacts and a pair of contacts laterally offset therefrom, one of the receptacles having a pair of starter contacts, a connector extending between the receptacles and releasably engaged with said offset contacts, a cylindrical adapter of insulating material carried in the bore in the base, and a starter switch slideably received in the adapter and releasably engaged with said starter contacts, there being electrical conductors carried between the bore and adapter and connected with a power supply and connected with the receptacle having the starter contacts.

2,874,271

INDIRECT LIGHTING FIXTURE

Willis L. Lipscomb, San Diego, Calif.

Application June 9, 1953, Serial No. 360,465
6 Claims. (Cl. 240—51.11)



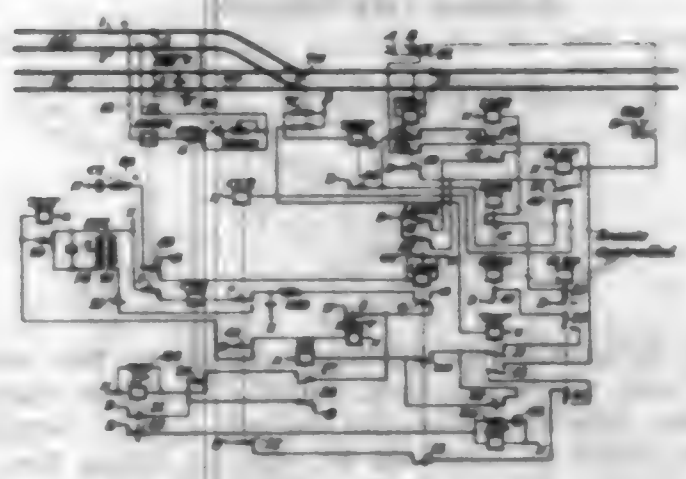
1. A structural element for a lighting fixture comprising a reflector panel having an elongated light-reflective upper surface, means to mount elongated fluorescent lamps in positions parallel to and immediately above said surface, lamp shielding lattice structure in positions laterally abutting and inclining upwardly from said surface on both sides thereof and extending the full length thereof, and said panel constituting the means to support said lattice structure in said positions, said surface being elongated and curved upwardly in the form of a segment of a hollow cylinder and said lattice structure being of unitary construction and having a multiplicity of cells with flat vertical parallel walls.

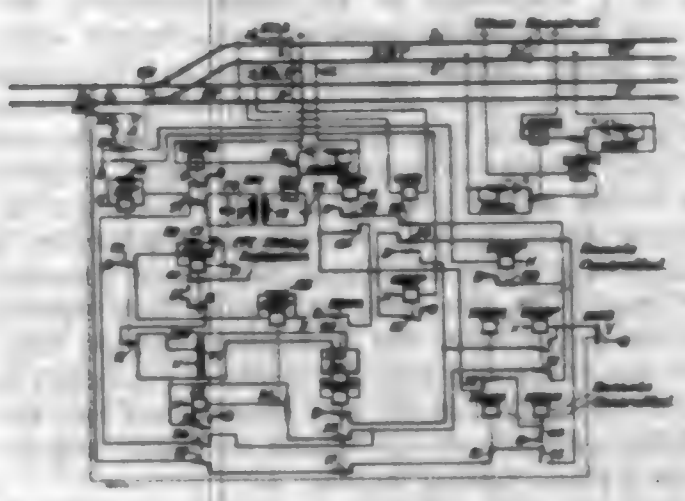
2,874,272

TWO-DIRECTION CODED TRACK CIRCUIT CONTROL FOR RAILWAY SIGNALS

Crawford E. Staples, Homewood, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application February 18, 1953, Serial No. 337,586
7 Claims. (Cl. 246—38)





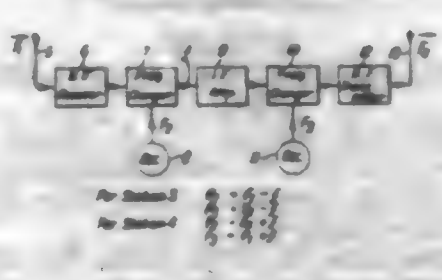
1. In a railway signal system for at times reversing traffic on a section of railway track over which traffic normally moves in one given direction, means for remotely controlling the direction of traffic through the section comprising, a first direction establishing control relay located at one end of said section, a second direction establishing control relay located at the other end of said section, each said control relay having contacts which normally occupy a first position and which may be operated to a second position, a first code following relay at said one end, a second code following relay connected to the rails at said other end, each said code following relay having contacts biased to a first position and operated to a second position only when the relay is energized with current of a given polarity, a code transmitter at said one end operable to provide a predetermined code frequency; an energy supply means at said one end connected to the rails of said section and including a source of direct current, a contact controlled by the operation of said code transmitter, and the winding of said first code following relay; said supply means being effective to normally supply to the rails of said section coded energy of said predetermined code frequency, said source being so poled that said first code following relay is nonresponsive to said coded energy, means controlled by said second code following relay and responsive to said coded energy to establish a normal direction of traffic from said other end to said one end, a first means at said one end including a slow acting relay and connected to said supply means, said first means operative when the contacts of said first control relay are in their second position to superimpose on said coded energy a pulse of energy of longer duration than that of any code pulse on said track, a second means at said other end including another relay and controlled by said second code following relay, said second means responsive to said longer pulse of energy to energize said other relay if the contacts of said second control relay are in their first position, another energy supply means at said other end including another direct current source and connected to the rails of said section, said other supply meanas being responsive to the energization of said other relay to supply reverse code energy to said rails, said other source being so poled that said first code following relay is responsive to said reverse code energy to establish a reverse direction of traffic from said one end to said other end of said section.

2,874,273

DISTORTION ELIMINATION IN RADIO REPEATER SYSTEMS EMPLOYING FREQUENCY MODULATION

Bent Bulow Jacobsen, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application September 13, 1954, Serial No. 455,721
Claims priority, application Great Britain September 21, 1953
5 Claims. (Cl. 250—15)



1. A radio-communication system, of the kind in which signals are conveyed from a transmitting terminal station to a receiving terminal station by frequency or phase modulation of high frequency carrier waves, there being two repeater stations between the said terminal stations, and in which each repeater station comprises means for transforming an incoming modulated high frequency carrier wave to a corresponding modulated intermediate frequency wave and means for transforming the modulated intermediate frequency wave to an outgoing modulated high frequency wave, characterised in this, that the transforming means at each of the said repeater stations comprises a first local oscillator associated with a first frequency changer and a second local oscillator associated with a second frequency changer, the frequencies of the first and second oscillators of one of said stations be-

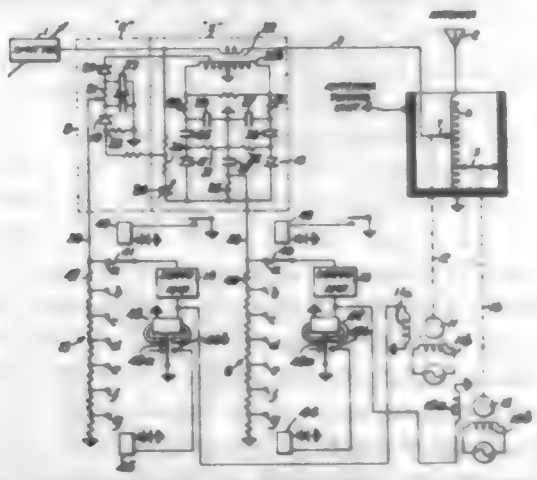
ing selected to be respectively higher than the frequencies of the incoming and outgoing high frequency carrier waves at that station, and the frequencies of the first and second oscillators of the other station being selected to be respectively lower than the frequencies of the incoming and outgoing high frequency carrier waves at said other station.

2,874,274

AUTOMATIC TUNING SYSTEM

Robert T. Adams, Short Hills, and Richard K. Van Vechten, Clifton, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application April 4, 1955, Serial No. 498,865
10 Claims. (Cl. 250—17)



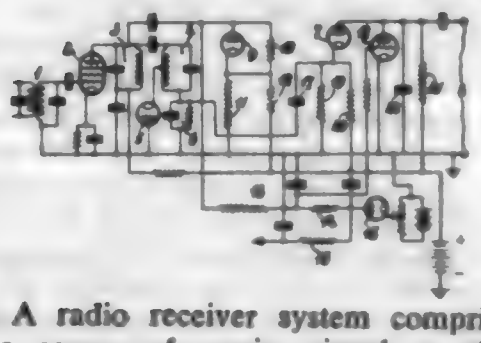
1. In a circuit for automatically controlling the position of a radio frequency circuit tuning device responsive to a control signal, means to produce said control signal including a network of bridge circuits coupled to said radio-frequency circuit by means of a voltage divider circuit and a current transformer, said control signal having a magnitude and polarity responsive to the impedance components of said radio frequency circuit as sensed from the voltage developed across said voltage divider circuit and current induced in said current transformer, means to detect successive changes in the polarity of said control signal, means to couple said control signal to said device to adjust the position thereof including amplifier means and stepping means, said control signal being coupled to said amplifier means through said stepping means, said stepping means being responsive to successive changes in the polarity of said control signal to reduce to ineffectivity in successive steps the magnitude of said control signal thus terminating the amplified control signal.

2,874,275

RADIO RECEIVER REGULATING VOLTAGE CIRCUIT

Jaap Starreveld and Antonie C. de Klerk, Hilversum, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application June 28, 1954, Serial No. 439,762
Claims priority, application Netherlands July 10, 1953
9 Claims. (Cl. 250—20)



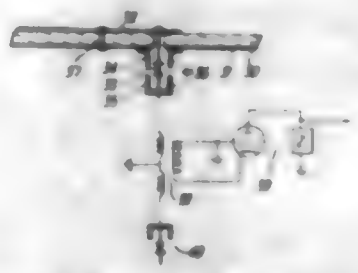
1. A radio receiver system comprising input means for a source of carrier signal, amplifying means for said carrier signal, said amplifying means having an amplification normally producing an output signal having an intensity greater than 40 volts when a usable carrier signal is applied to the input thereof, rectifying means coupled to the output of said amplifying means, said rectifying means comprising a unidirectionally conducting element having an anode and a cathode, means for applying a threshold voltage of at least 40 volts to said rectifying means thereby to produce an output regulating voltage having an intensity as defined by the intensity of said amplified carrier signal greater than 40 volts and to render said rectifying means inoperative to carrier signals applied thereto having an intensity less than 40 volts, further rectifying means coupled to the output of said amplifying means, said further rectifying means comprising a second unidirectionally conducting element having an anode and a cathode, means for interconnecting the anodes of said unidirectionally conducting elements, said connecting means comprising a high resistive element, power supply means having a positive terminal and a negative terminal, means for applying a low negative potential relative to the negative terminal of said power supply means to the cathode of said second unidirectionally conducting element, and means for applying said regulating voltage to said amplifying means to vary the amplification thereof, said means for applying said regulating voltage being connected to the anode of said second unidirectionally conducting element.

2,874,276

UNITARY ANTENNA-RECEIVER UTILIZING MICROSTRIP CONDUCTORS

John Marcus Cuthbert Dukes and John Kemp, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application November 4, 1954, Serial No. 466,753
Claims priority, application Great Britain November 13, 1953
2 Claims. (Cl. 250—20)



1. A waveguide hybrid junction comprising first and second strip conductors only, a planar dielectric sheet supporting said first conductor on one surface thereof and the second conductor on the opposite surface thereof, the spacing between said conductors being a small fraction of a wavelength at the mean operating frequency, said first conductor being a closed, circular waveguide loop having a mean perimeter equal to 6 N quarter wavelengths at the mean operating frequency, six waveguide strip projections symmetrically disposed about said loop at equal spacings of a quarter wavelength, a dipole antenna having arms connected to two of said projections spaced apart one-half wavelength and having a width adapted to match the dipole impedance, balanced rectifier crystals in two other strip projections spaced apart a half wavelength, said waveguide junction comprising a pair of metallic reflector elements positioned to serve as a reflector system for said antenna and said elements being mounted on said second conductor and extending in a plane normal thereto.

2,874,277

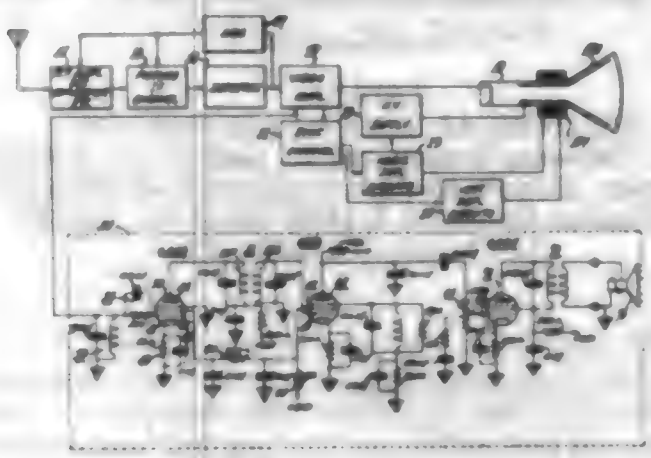
SOUND I. F. GAIN REGULATION

John Richard Orr, Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application June 22, 1956, Serial No. 593,091
6 Claims. (Cl. 250—20)

1. In a system for demodulating frequency modulated carrier waves, apparatus comprising the combination of

a limiter amplifier for frequency modulated carrier waves, said limiter amplifier including an electron discharge device having a cathode, a control grid, a screen grid and an anode, an input circuit coupled between said control grid and cathode to which said frequency modulated carrier waves are applied, an output circuit coupled between said anode and cathode, frequency modulation detecting means coupled to said output circuit, said



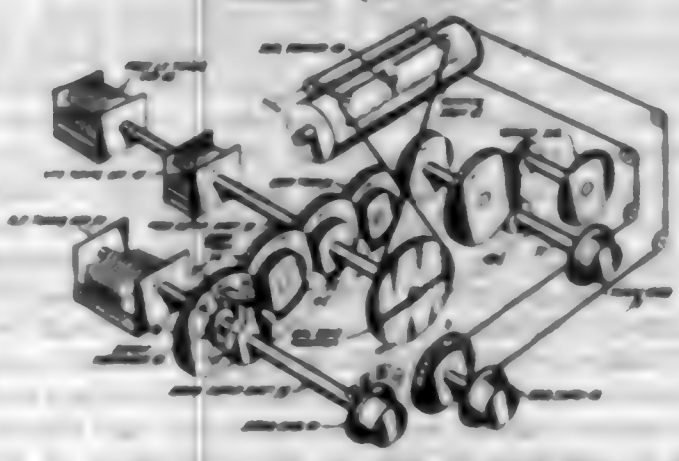
detecting means including a second electron discharge device operating as a quadrature grid detector for detecting directly modulated carrier waves of relatively large amplitude and for detecting locked oscillations when the modulated carrier waves are of relatively small amplitude, means for deriving from said detecting means a control voltage which varies inversely with the amplitude of said frequency modulated carrier waves, and means for applying said control voltage to said screen grid.

2,874,278

TUNING MECHANISM

Raymond G. Berge, Mineola, N. Y., and George G. Bradley, Sudbury, Mass., assignors to Radio Corporation of America, a corporation of Delaware

Application October 23, 1956, Serial No. 617,721
4 Claims. (Cl. 250—20)



4. A radio receiver comprising signal input means, a tunable radio frequency amplifier having an input circuit, an output circuit, and a rotatable, radio frequency, tuning capacitor having N selectable sectors, each of said sectors providing substantially the same range of frequency tuning, where N is any integer greater than unity, a crystal-controlled oscillator having at least one selectable frequency, a first mixer coupled to said output circuit of said radio frequency amplifier and to said crystal-controlled oscillator for deriving signals therefrom and producing a first intermediate frequency signal in response thereto, a tunable first intermediate frequency amplifier that has an input circuit, an output circuit, and a rotatable, intermediate frequency, tuning capacitor having a capacity that provides a range of frequency tuning substantially equal to said range of frequency tuning provided by one of said sectors, first switching means for alternatively coupling said input circuit of said first intermediate frequency amplifier to said signal input means or for coupling said input circuit of said first intermediate frequency amplifier to said first mixer and for coupling said input circuit of said radio frequency amplifier to said signal input means, a variable frequency oscillator that has a rotatable tuning capacitor having a capacity that provides a range of frequency tuning substantially equal to said range of frequency tuning provided by one of said sectors, a second mixer coupled to said output circuit of said first intermediate frequency amplifier and to said variable frequency oscillator for deriving signals therefrom and producing an intermediate frequency signal in response thereto, a second intermediate frequency amplifier that has an input and an output circuit, a second crystal-controlled oscillator, a third mixer coupled to said output circuit of said second intermediate frequency amplifier and to said second crystal-controlled oscillator for deriving signals therefrom and producing an intermediate frequency signal in response thereto, a third intermediate frequency amplifier that has an input and an output circuit, second switching means for alternatively coupling said input circuit of said third intermediate frequency amplifier to said second mixer or for coupling said input circuit of said second intermediate frequency amplifier to said second mixer and for coupling said input circuit of said third intermediate frequency amplifier to said third mixer, a tuning mechanism coupled to said intermediate frequency capacitor and to said variable oscillator capacitor for rotating said intermediate frequency capacitor and said variable oscillator capacitor, a coupling arrangement having an input gear coupled to said tuning mechanism, an output gear coupled to said input gear so that said output gear rotates in response to rotations of said input gear thru an angle that is

$$\frac{1}{N}$$

of the angle to which said input gear rotates, a circular detent plate coupled to said output gear and having N notches spaced

$$\frac{180^\circ}{N}$$

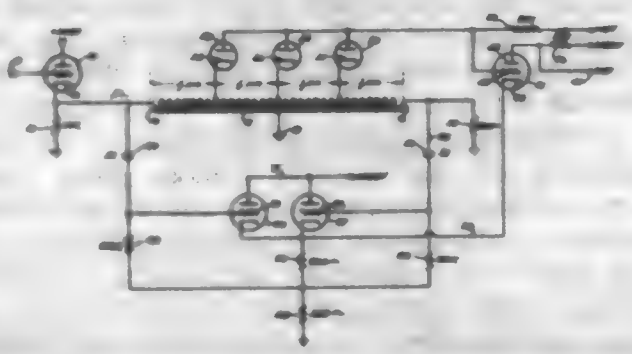
apart on the circumference of said plate, a detent arm coupled to said radio frequency capacitor and having a follower arranged so that it normally engages one of said notches, and a selecting mechanism coupled to said detent arm for selecting one of said sectors, said follower becoming disengaged from said notches when said selecting mechanism is operated.

2,874,279

PULSE SELECTOR CIRCUIT

Meritt Lavon Miller, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

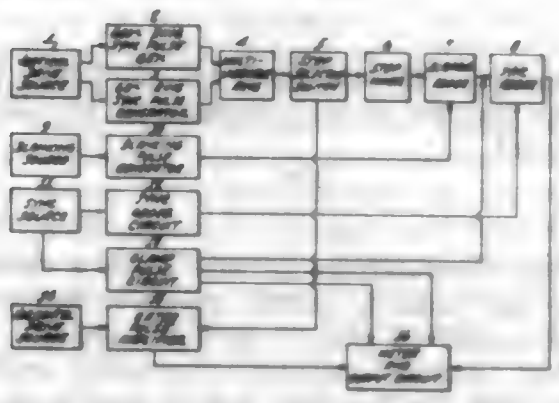
Application August 6, 1952, Serial No. 302,984
19 Claims. (Cl. 250—27)



1. In a device of the character described, a delay line including an input end and adapted to receive pulses and a grounded output end, a plurality of unidirectional current conducting devices individually connected to said

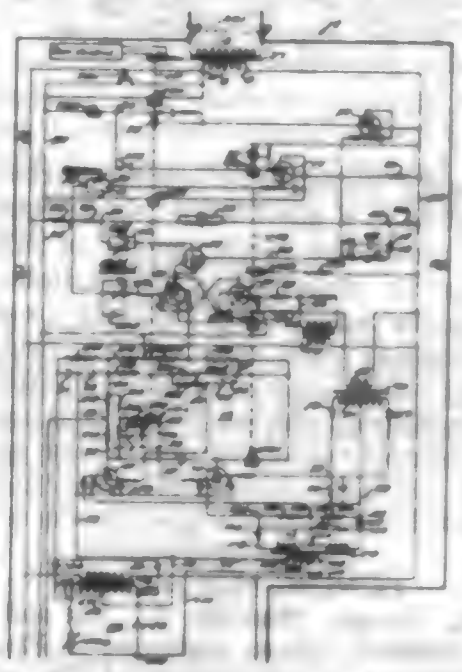
line at spaced intervals and to a source of potential sufficient to establish conduction between said source and ground in the absence of an input signal, said individual connections being spaced a predetermined distance from said input end, an output circuit including an electron discharge device having a cathode, an anode, and a control element, means connecting said control element to said source of potential, means connected respectively with the input and output ends of said delay line to block said electron discharge device in response to the arrival of the leading edge of a signal at either the input or the output end of said line and to unblock said device by passage of the trailing edge of a pulse into or out of said line, whereby pulses of shorter length than the delay time of said line but of sufficient length to straddle said plural unidirectional devices to effect, when completely within said line and straddling said unidirectional devices, a signal from said output circuit by terminating conduction of said unidirectional devices to unblock said output device, said output signal being terminated upon passage of the trailing edge of said pulse over the first unidirectional device to re-establish conduction therein, and block said output device.

2,874,280
STEP-WAVE GENERATOR WITH MEANS TO ADJUST AND MEASURE HEIGHT OF ANY STEP
James M. McCulley, Barrington, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 29, 1953, Serial No. 351,876
The terminal fifteen years of the term of the patent to be granted has been disclaimed
5 Claims. (Cl. 250—27)



3. In a television testing system, a source of vertical deflection signals, a source of horizontal deflection signals, a source of blanking signals, a source of sync signals, first means coupled to said vertical deflection signal source for producing a synchronizing signal having a frequency which is a multiple of that of said vertical signal source, second means coupled to said vertical deflection signal source for producing a second synchronizing signal having the same frequency as said vertical deflection signals, a multivibrator ring having a plurality of stages coupled to said first and second synchronizing signal generators, each stage of said multivibrator ring being adapted to produce one discrete level of voltage in response to said first and second synchronizing signals, said second synchronizing signals being operative to phase the production of said discrete voltage levels, means coupled to said ring for switching to any of said discrete voltage levels, a plurality of step mixers coupled to said switching means for combining said discrete levels of voltage into a step wave, means coupled to said step mixers and said blanking source for adding said blanking signals to said step wave, means coupled to said blanking adder means and to said sync source for adding said sync signals to said step wave containing said blanking signals, means coupled to said sync source and to said blanking adder means for deriving clamped pulses in response to said sync signals, said clamped pulses being adapted to establish a reference voltage level, gated pulse amplifier means coupled to said horizontal deflection signal source and to said switching means for deriving clamp pulses during the occurrence of a particular step of said step wave, and a meter and output circuit coupled to said gated pulse amplifier, said sync adding means and said reference level clamp pulse deriving means for directly reading the amplitude of said particular step.

2,874,281
ELECTRICAL TIMING APPARATUS
Roy W. Shipman, Detroit, Mich., assignor to Weltronic Company, Detroit, Mich., a corporation of Michigan
Application December 7, 1953, Serial No. 396,585
12 Claims. (Cl. 250—27)



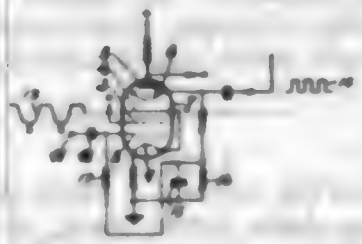
1. In a control combination for energizing a load from an alternating potential source, an initiating means for initiating a flow of energy to such load from such source, means for controlling said flow including a pair of valves and including means for rendering said valves alternately conducting and nonconducting in sequence and a control device for normally preventing one of said valves from conducting, said one valve having a control electrode and a cathode, a peaking network, a circuit connecting said network between said control electrode and said cathode and normally effective to supply a critical potential therebetween at a selected instance in the voltage cycle of said source, biasing means in said circuit and effective in a first condition to prevent the application of said critical potential, a normally nonconductive valve having an anode and a cathode and a pair of control electrodes, an energy storage timing network connected between one of said control electrodes and said cathode of said last-introduced valve and effective at the end of a predetermined time interval to apply a critical potential therebetween, a voltage producing device connected with said anode and cathode of said one valve, circuit means connecting said voltage device between the other of said control electrodes and said cathode of said last-introduced valve whereby conduction of said one valve is effective to place a blocking potential between said other control electrode and said cathode of said last-introduced valve, means responsive to the conduction of said last-introduced valve for rendering said biasing means in its said first condition, and means responsive to said initiating means for rendering said control device ineffective and said timing network effective to time out said predetermined time interval.

2,874,283

DEVICE COMPRISING AN ELECTRIC DISCHARGE TUBE HAVING A PENTODE CHARACTERISTIC

Evert Jan van Barneveld and Peter Johannes Hubertus Janssen, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 6, 1954, Serial No. 473,362
Claims priority, application Netherlands December 10, 1953
2 Claims. (Cl. 250—27)



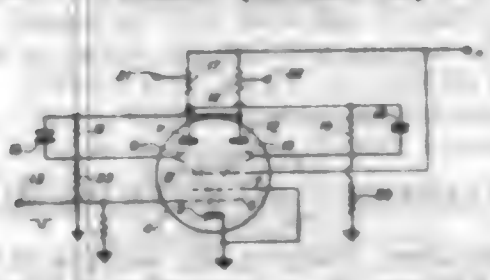
1. A black level control circuit comprising an electron discharge tube having a cathode, a control grid, a screen grid, a suppressor grid, an anode, and an auxiliary electrode located between said suppressor grid and said anode and intercepting part of the electrons flowing from said cathode toward said anode, said auxiliary electrode having a penetration factor of between .05% and .2% such that its net influence on the current flowing from said cathode to said anode is relatively small; a first electrical signal connected between said control grid and said cathode and having a recurrent reference portion during which the voltage between said control grid and said cathode reaches a reference value; a second signal voltage connected to apply a pulse voltage to said auxiliary electrode to make said auxiliary electrode positive during the occurrence of each of said reference portions of said first signal voltage whereby the instantaneous current flowing to said auxiliary electrode during each of said reference portions is determined by the reference level of the voltage between said control grid and said cathode; and a connection between said auxiliary electrode and said control grid, said connection comprising an integrating circuit to return said voltage between said cathode and said control grid to substantially the same value during each of said reference portions.

2,874,283

ELECTRON BEAM DEFLECTION MULTIVIBRATOR CIRCUITS

Glyn A. Neff, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application July 30, 1954, Serial No. 446,908
1 Claim. (Cl. 250—27)



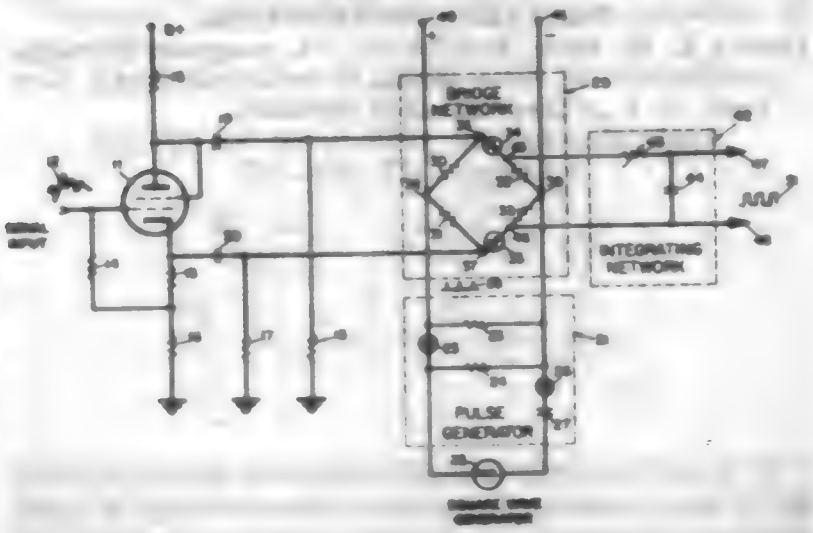
A bi-stable circuit having two conditions of operation, including in combination an electron tube having at least a cathode, a pair of deflector electrodes, and a pair of anodes; a first impedance connected between a first one of the pair of anodes and the cathode; a second impedance connected between another one of the pair of anodes and the cathode; means cross-coupling the anodes and the deflector electrodes comprising a first resistance and a first capacitance connected in parallel between a first one of the pair of anodes and a first one of the pair of deflector electrodes and a second resistance and a second capacitance connected in parallel between the other one of the pair of anodes and the other one of the pair of deflector electrodes; and triggering means coupled to the electron tube for momentarily decreasing the electron flow from the cathode.

2,874,284

NOISE DISCRIMINATOR

Robert L. Conger, Riverside, Calif.

Application April 28, 1955, Serial No. 504,700
5 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



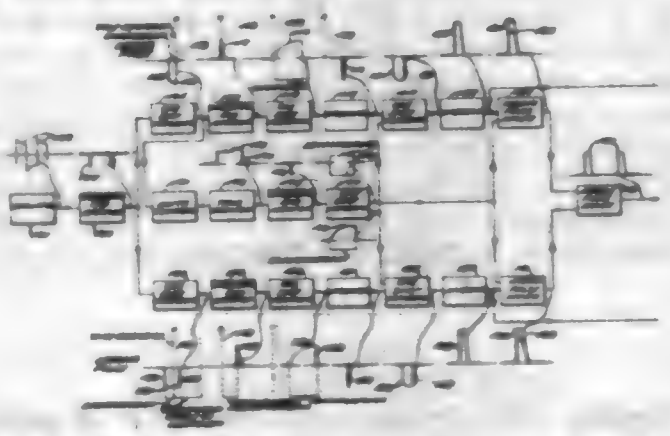
1. A noise discriminator comprising a four terminal bridge network having resistance elements in each arm and a pair of rectifying elements in two adjacent arms thereof, means for applying the input across one pair of diagonally located terminals of said bridge, said rectifying elements being located between said diagonally located terminals and said resistance elements in each of said adjacent arms, a pulse generator circuit adapted to apply periodic pulses across the other diagonally located terminals of the bridge, means for applying a bias voltage across said other diagonally located terminals to prevent current from flowing through said rectifying elements except when said circuit is producing a pulse, the output voltage of said bridge being taken from two additional terminals between the resistance and the rectifying elements in said adjacent arms, and an integrating circuit connected to said two output terminals for developing an output signal.

2,874,285

CIRCUITS FOR FORMING TRAINS OF PULSES

Raymond W. Brown, Evergreen Park, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application May 13, 1955, Serial No. 508,285
7 Claims. (Cl. 250—27)



1. A circuit for forming a calibrating signal, which comprises means for creating a series of sharp pulses of a predetermined frequency, means responsive to a predetermined number of the pulses for creating a second pulse, means responsive to each second pulse for creating a damping pulse of a predetermined polarity and a predetermined duration, means responsive to each sharp

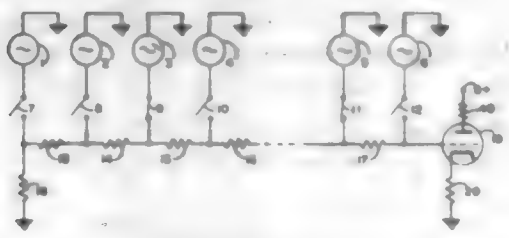
pulse for creating a sharply shaped pulse delayed from the sharp pulse substantially one-half the duration of each damping pulse, means for applying the damping pulse to said sharply shaped pulse creating means for varying the duration of the sharply shaped pulses, and means for mixing the sharply shaped pulses of varied duration with the damping pulses to vary the amplitude of said sharply shaped pulses of varied duration.

2,874,286

PREFERENCE NETWORK

Harald E. W. Bode, Brattleboro, Vt., assignor, by mesne assignments, to Estey Organ Corporation (Del.), New York, N. Y., a corporation of Delaware

Application July 29, 1955, Serial No. 525,287
6 Claims. (Cl. 250—27)



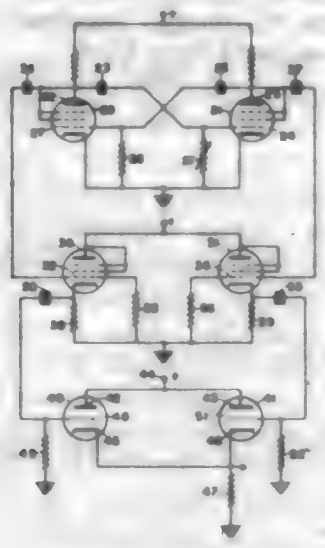
1. In an electronic musical instrument having a plurality of tone generators to generate electrical signals representative of musical tones, and a tone signal response circuit to modify a characteristic of at least one of the tones corresponding to one of said signals, the combination with said tone generators and said signal response circuit of a preference network of the character described, said preference network comprising: a plurality of branch circuits, one for each of said tone generators, respectively; switch means to connect the individual tone generators in the respective branch circuits according to the tones selected to be played; and a plurality of impedance elements each having a relatively high impedance as compared with the output impedances of said tone generators, said branch circuits being coupled to one another in cascade through said impedance elements, respectively.

2,874,287

UNILATERAL TRANSMISSION CIRCUITS

James Carlisle Hoadley, West Newton, Mass., and David O. McCoy, Washington, D. C.

Application February 21, 1946, Serial No. 649,432
2 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



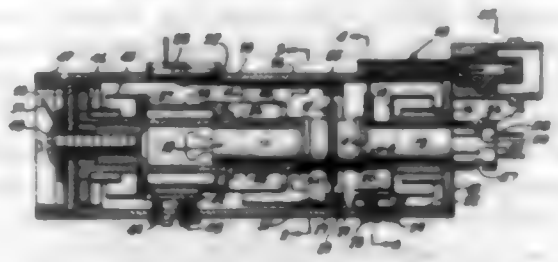
2. In a unilateral transmission circuit, a first electron tube and a second electron tube, each having at least an anode, a cathode and a control element, means connecting the anode of said first electron tube to the anode of said second electron tube, means connecting the cathode of said first electron tube to the cathode of said second electron tube, a source of potential having a first terminal at a positive potential and a second terminal at a constant negative potential relative to a selected potential level, means connecting the anode of said first electron tube to said first terminal, an impedance element, means for connecting said impedance element between the cathode of said first electron tube and said second terminal, means connected to the control element of said second electron tube for maintaining said control element at a potential equal to the potential of said second terminal, a source of signals, means for connecting said source of signals to the control element of said first electron tube, an output circuit, and means for connecting said output circuit across said impedance element.

2,874,288

OSCILLATOR USING A PENCIL TRIODE

David Lawrence Jaffe, Great Neck, N. Y., assignor to Polarad Electronics Corporation, Brooklyn, N. Y., a corporation of New York

Application November 8, 1954, Serial No. 467,344
14 Claims. (Cl. 250—36)



1. In a high frequency oscillator utilizing a triode having a cylindrical anode terminal, a cylindrical cathode terminal and a grid flange therebetween, in combination, a cylindrical metallic housing, said housing having an internal diameter substantially that of the grid flange of the triode, said flange dividing said cylindrical housing into two sections, a sleeve surrounding the cylindrical cathode and electrically connected thereto, a disk closing the adjacent end of said housing and connected to said sleeve, said sleeve comprising with the section of said housing on one side of said flange an adjustably resonant transmission line section, a threaded sleeve surrounding the anode of said triode and electrically connected to said anode, a closure for said housing at the end of said anode sleeve, said sleeve forming a second resonant transmission line section with said other section of said housing, and means independently to adjust said transmission line sections to select a desired operating frequency for the oscillator, the means to adjust said second transmission line comprising a tuning slug threadedly mounted on said threaded sleeve, and means whereby said slug may be rotated from the exterior of the housing to adjust the tuning of said anode line.

2,874,289

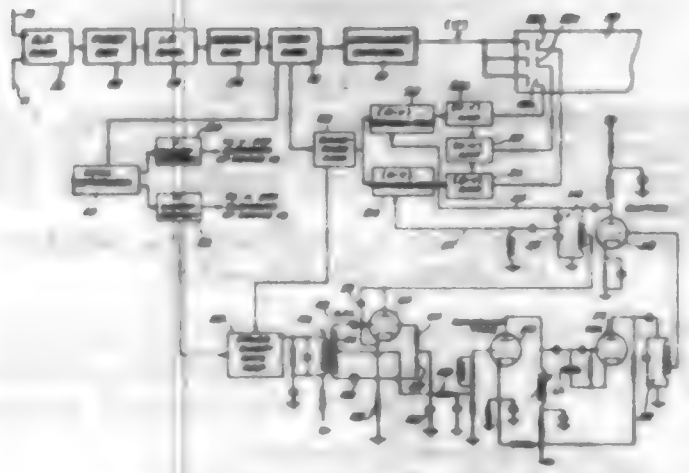
COLOR TELEVISION RECEIVER OSCILLATOR CONTROL

Albert W. Massman, Wheaton, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application March 23, 1955, Serial No. 496,236
9 Claims. (Cl. 250—36)

3. A detector for use in a color television receiver for comparing the phase of a first sinusoidal signal at the frequency of the color synchronizing wave with the phase of a second sinusoidal signal at such frequency, said detector including in combination, an electron discharge device having an anode and a cathode and a control electrode, inductance means responsive to the first sinusoidal signal for producing a pair of sinusoidal signals respectively in phase and in phase opposition with said first signal, means for applying one of said pair of signals to said control electrode to establish a negative

bias on said control electrode, means for applying the other of said pair of signals to said cathode to establish a positive bias on said cathode, resistance means connected from said cathode to a point of reference potential, further resistance means connected from said control electrode to said cathode, means for applying said second sinusoidal signal to said anode to control the bias



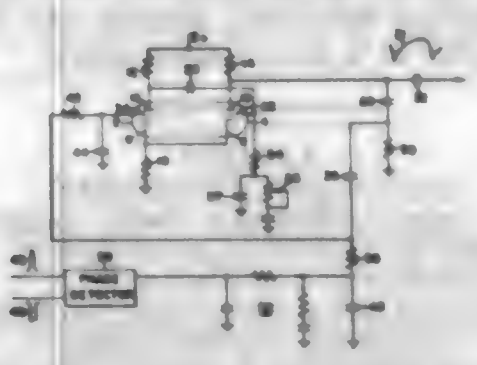
on said cathode in accordance with the phase relation between said first and second sinusoidal signals, and capacitor means connected between said anode and said cathode of said discharge device for neutralizing the grid to anode capacitance of said device, and filter means coupled to an intermediate point on said further resistance means for deriving an output signal from the detector.

2,874,290
CATHODE-FOLLOWER OSCILLATOR
John Clifton Samuels, West Lafayette, Ind., assignor to International Telephone and Telegraph Corporation
Application September 27, 1955, Serial No. 536,863
4 Claims. (Cl. 250—36)



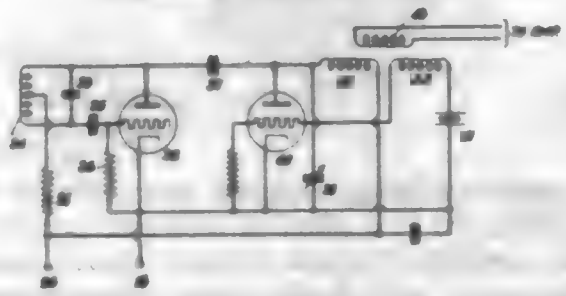
1. A cathode-follower oscillator comprising a four-sided bridge network with an inductive element connected across one diagonal of the bridge, capacitive elements in opposite two sides of the bridge, and resistive elements in the remaining opposite two sides, a grid-controlled amplifier with the grid and cathode of the amplifier connected across the other diagonal of said bridge.

2,874,291
SWEEP GENERATOR CIRCUIT
Robert B. Dome, Geddes Township, Onondaga County, N. Y., assignor to General Electric Company, a corporation of New York
Application October 12, 1955, Serial No. 540,119
10 Claims. (Cl. 250—36)



6. A sweep voltage wave generator circuit comprising in combination a cathode-coupled multivibrator having two amplifiers, each of said amplifiers having an anode, cathode and grid, a band-pass filter connected between the anode of one of said amplifiers and the grid of the other, said band-pass filter passing frequencies in the vicinity of the frequencies of oscillation of said multivibrator, and a capacitor connected between said latter anode and a point of reference potential.

2,874,292
EMERGENCY SIGNALING DEVICE
John Varley, Huntington, N. Y., assignor to Skyline Products, Inc., Deer Park, N. Y., a corporation of New York
Application May 21, 1956, Serial No. 586,159
1 Claim. (Cl. 250—36)

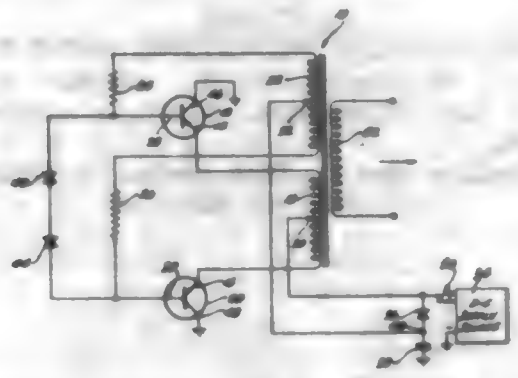


In an emergency signaling device a triode vacuum tube, an inductor connected between the grid and plate of said vacuum tube, a capacitance connected in parallel with said inductor, a second capacitance connected in series between the combination of said inductor and said first capacitance and the control grid of said vacuum tube, a grid resistance connecting the grid of said tube to the cathode of said tube, said inductor and said first capacitance being of such values that oscillations at certain audio frequencies can occur in said vacuum tube; a direct current voltage lead connected to said inductor for applying direct current voltage thereto, a second triode vacuum tube, a second inductor connected between the plate of said second vacuum tube and said direct current voltage lead, a third capacitance connected between the plate of said second vacuum tube and a cathode of said second vacuum tube, said second inductor and said third capacitance being of such values that they can achieve a resonant frequency, a third inductor coupled to said second inductor, a quartz crystal in series with said third inductor, the values of said third inductor and said quartz crystal being such as to enable resonance to be achieved at a radio frequency close to the resonant frequency of the combination of said second inductor and said third capacitance; a fourth capacitance connecting the plate of said first vacuum tube and the plate of said second vacuum tube, the value of said capacitance being such as to offer minimum reactance to the audio frequency oscillations generated by said first vacuum tube and which permit the resulting changing plate to cathode capacitance of said first vacuum tube to be coupled in parallel with said second inductor and said third capacitance and the resultant changing grid to cathode capacitance of said second vacuum triode to be coupled in parallel with said third inductor and said quartz crystal in phase with the changing capacitance of said second inductor and said third capacitance combination; and means for energizing said direct current voltage lead.

2,874,293
REGULATED OSCILLATOR
Irving B. McMurren, Los Angeles, Calif., assignor to Lear, Incorporated
Application July 31, 1957, Serial No. 675,467
3 Claims. (Cl. 250—36)

1. A self-regulated oscillator comprising a saturable-core transformer having primary and feedback windings to be connected to electronic devices for developing oscillations across a secondary winding of a frequency depending upon the period of build-up and collapse of the

magnetic field in the transformer core, means to effect development of oscillations of constant magnitude from an unregulated D.-C. supply source including center-tap connections from the primary and feedback windings to the supply source, first and second transistors each having base electrodes coupled to respective ends of the feedback winding and emitter electrodes coupled to respective ends

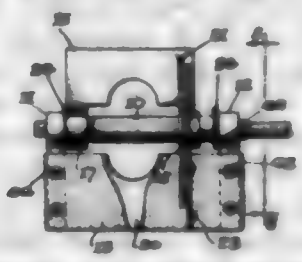


of the primary winding, collector electrodes for said transistors connected to a point of reference potential, a pair of diodes connected in back-to-back relation between said base electrodes, said diodes being characterized by reverse current flow therethrough when the base potentials tend to exceed a predetermined level, and said diodes effecting power dissipation through the emitter-collector current paths of said transistors when the source voltage exceeds a predetermined level.

2,874,294
TUNING DEVICE

Howard J. Tyzzer, Mountain Lakes, N. J., assignor to Ferris Instrument Company, Boonton, N. J., a corporation of New Jersey

Application December 24, 1953, Serial No. 400,220
2 Claims. (Cl. 250—40)

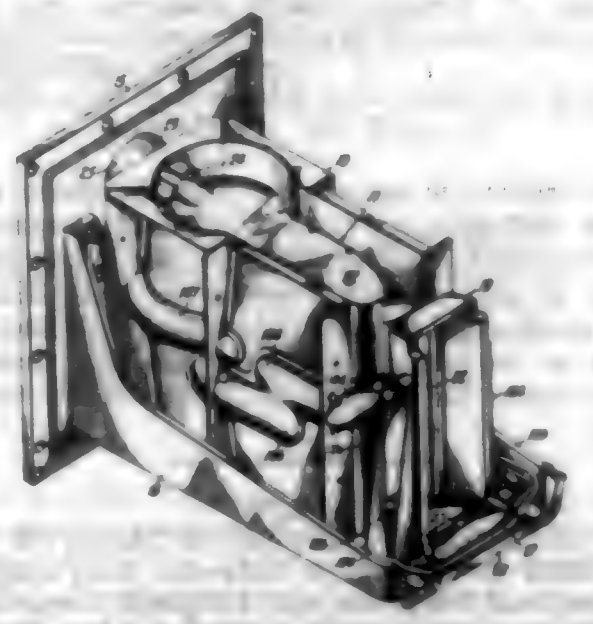


1. A tuning device for radio frequency circuits comprising, in combination, a first plate inductor element forming a portion of a closed loop, and having a diametral axis, a second plate inductor element also forming a portion of a closed loop and having a diametral axis, a shaft mounting one of said plates in hinge-like manner for oscillation relative to the other with said diametral axes substantially coincident, said plates being in electrical circuit with one another and having opposed current flow providing bucking magnetic fields whereby the net inductance of the inductor elements is a minimum when they are most nearly juxtaposed and a maximum when they are most widely separated, a capacitor, the capacitance of which is varied simultaneously and in the same sense as the said inductance, said capacitor comprising a capacitor plate formed as an integral extension of said first plate at one end thereof and extending at right angles thereto and a second capacitor plate formed as an integral extension of said second plate adjacent the corresponding end thereof and extending at right angles thereto, the capacitor plates lying adjacent each other, an electrical connection from said first to said second inductor plates at the ends of said plates remote from said capacitor plate extensions, a terminal connected to said rotatable inductor plate adjacent the capacitor plate extension thereof and a second terminal connected to said rotatable inductor plate at the opposite end thereof and to the corresponding end of said fixed inductor plate, said terminals forming a connection wherein said inductor plates are in series arrangement with said capacitor across said inductance, said electrical connection between said plates comprising a collar fixed to one of said elements and rotatably supporting said shaft, a collar fixed to the second of said elements and to said shaft and a spring washer between said collars forming a sliding electrical contact.

2,874,295
MASS SEPARATORS

Frank Oppenheimer and James W. Bell, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application February 4, 1946, Serial No. 645,465
15 Claims. (Cl. 250—41.9)



10. In a calutron having means for establishing a magnetic field and a vacuum envelope disposed therein, the combination comprising an insulator secured to the inside of the envelope, a metal member secured to the insulator and disposed along the magnetic field with respect to the point of attachment of the insulator to the vacuum envelope, and intersecting all the magnetic field that passes through the insulator, and an ion generator secured to the member for operation at an electrical potential different from that of the vacuum envelope, the arrangement of the member with respect to the insulator creating a simple electric field about the insulator that eliminates the oscillation of charged particles near the insulator.

14. In an ion generator, the combination comprising means defining a reservoir chamber, means defining a mixing chamber communicating therewith, means defining an arc chamber adjacent to the mixing chamber and wherein an arc discharge is adapted to occur, a tube in heat transfer relationship on the walls of the mixing chamber, and a tube positioned around the reservoir chamber and connected to the mixing chamber tube, so that a fluid of predetermined temperature may be introduced therein to heat the reservoir, which fluid may be exhausted through the mixing chamber tube to hold the mixing chamber at a desired temperature.

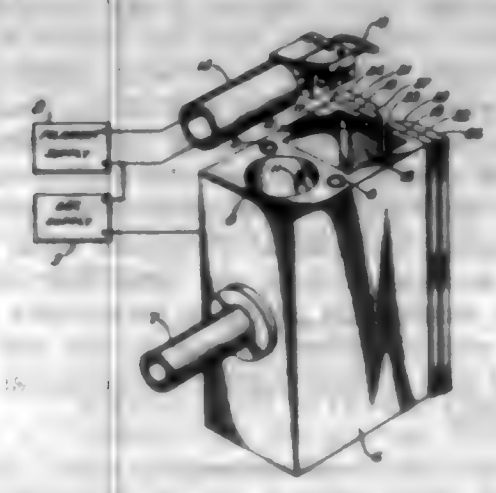
2,874,296
CALUTRON ION SOURCE

Edward J. Lofgren, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application May 8, 1946, Serial No. 668,112
5 Claims. (Cl. 250—41.9)

1. In an ion source for a calutron, the combination comprising an arc chamber having an exit opening, means for establishing an electric arc in said chamber along the length of said opening, a pair of molybdenum plates

in thermal contact with the walls of said chamber and disposed on opposite sides of said opening to form the

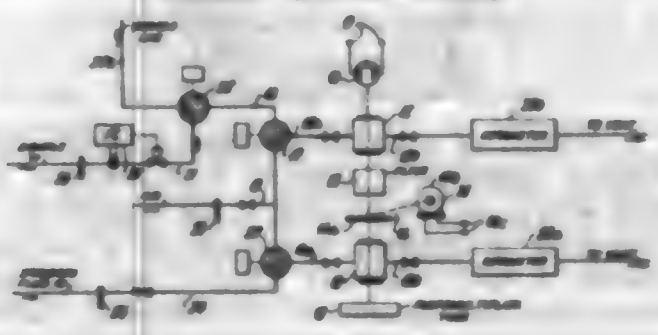


margins thereof, and a pair of copper blocks in thermally conducting contact with said plates to form subsequent diverging margins of said opening.

2,874,297
ANALYZER

Marshall S. Sparks, Jr., Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application November 8, 1954, Serial No. 467,483
6 Claims. (Cl. 250—43.5)



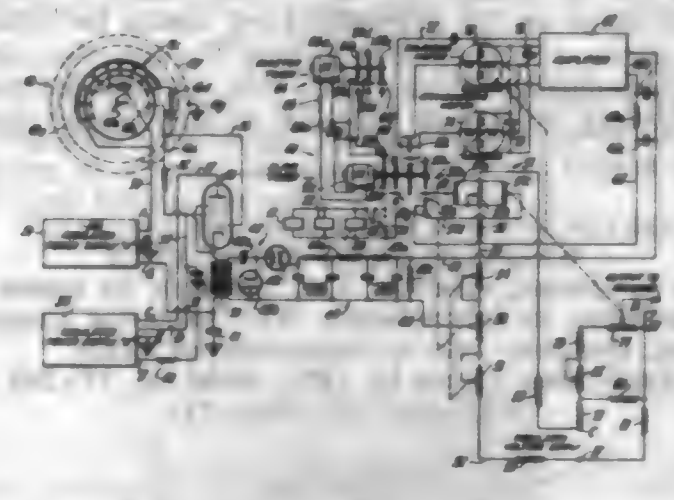
1. In an analyzer, in combination, a radiation source, radiation detection means responsive to radiation from said source, a timer, means actuated by said timer to alternately provide indicating cycles where the radiation reaching the detector means is affected by a test material in the path of said radiation and standardization cycles where the radiation reaching the detector means is affected by a standard material in the path of said radiation, means for producing an output voltage which is a function of the quantity of radiation reaching said detector means, an amplifier, means for producing a variable bucking voltage, means for varying said bucking voltage, means independent of said varying means to change the magnitude of said bucking voltage, means for producing a standardizing voltage, means actuated by said timing means during each indicating cycle to apply said output voltage and said bucking voltage in series to the input of said amplifier and to connect the output of said amplifier to said varying means, and means actuated by said timing means during each standardization cycle to apply said output voltage and said standardizing voltage in series to the input of said amplifier and to connect the output of said amplifier to said independent means.

2,874,298
ANALYZER

Raymond L. Kindred, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application January 24, 1955, Serial No. 483,569
10 Claims. (Cl. 250—43.5)

1. In an analyzer, in combination, a radiation detector, means connected to said detector to produce an electrical voltage, an amplifier, a first potentiometer and a second potentiometer connected in series, means for impressing a direct voltage across said series connected units, whereby a bucking voltage appears between the contactors of said potentiometers, a third potentiometer connected in parallel with said first potentiometer, whereby a standardizing voltage appears between the contactors of said second and third potentiometers, a balancing motor connected to the contactor of said first potentiometer, a standardizing motor connected to the contactor of said

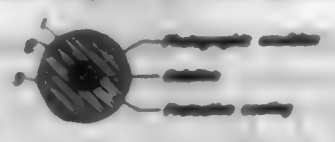


second potentiometer, a timer actuatable to alternately (*a*) apply said electrical voltage and said bucking voltage in series to the input of said amplifier and to connect the output of said amplifier to said balancing motor, and (*b*) apply said electrical voltage and said standardizing voltage in series to the input of said amplifier and to connect the output of said amplifier to said standardizing motor, and indicating means responsive to the position of the contactor of said first potentiometer.

2,874,299
IONIZATION RECORDING CAPSULES

Walter H. Barkas, Oakland, Calif.

Application June 30, 1952, Serial No. 296,532
5 Claims. (Cl. 250—65)
(Granted under Title 35, U. S. Code (1952), sec. 266)

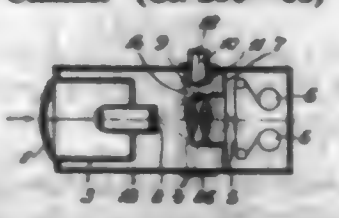


1. An article of manufacture for measuring ionization radiation in a particular environment, comprising a pellet containing photographic emulsion, a coating of gelatin covering said pellet, and an outer optically opaque covering surrounding said coated pellet, said opaque covering being of substantially the same density as, and being composed of substantially the same chemical elements in substantially the same proportions as the material of said environment.

2,874,300
DEVICE FOR X-RAY EXAMINATION

Pieter Martinus van Alphen, Johannes van der Wal, and Jan Jeanyas Christiaan Hardenberg, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

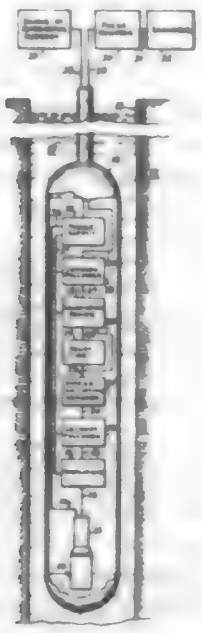
Application July 12, 1954, Serial No. 442,576
Claims priority, application Netherlands July 20, 1953
5 Claims. (Cl. 250—65)



1. A device for X-ray examination comprising in combination, an image intensifier having a fluorescent screen

for converting an electron-optical image of an X-ray image into a visible image and a cinematographic film-recording device for making a continuous photograph of the visible image, said film-recording device having an optical system for projecting said visible image along a given axis onto a moving film-strip, and means for viewing the visible image including a plane mirror disposed between the moving film-strip and the visible image for reflecting an image corresponding to the projected image on the film-strip, pivot means for rotating said mirror about an axis passing through the mirror and perpendicular to said given axis, and optical means for viewing the image reflected by said plane mirror.

2,874,301
WELL LOGGING APPARATUS
John T. Dewan, Houston, Tex., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas
Application August 10, 1953, Serial No. 373,240
4 Claims. (Cl. 250—71)



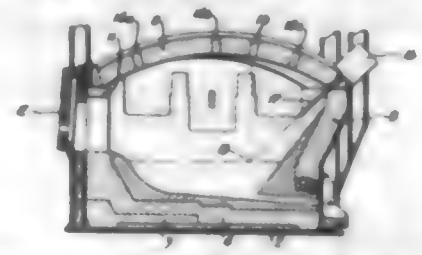
1. Radioactivity well logging apparatus, comprising a scintillation element adapted to be exposed to particles of radiant energy present in a bore hole, photoelectric means for converting light emitted from said scintillation element in response to said particles of energy into an electrical signal, means for differentiating said electrical signal to produce a plurality of independent electrical pulse trains, means for delaying at least one of said independent pulse trains, and coincidence means responsive to said plurality of independent pulse trains for producing output pulses representative of the radiations within the bore hole.

2,874,302
FLUOROSCOPE
Warren M. Mallory and Carl A. Cinnamon, Laramie, Wyo.
Application February 16, 1955, Serial No. 488,502
6 Claims. (Cl. 250—78)



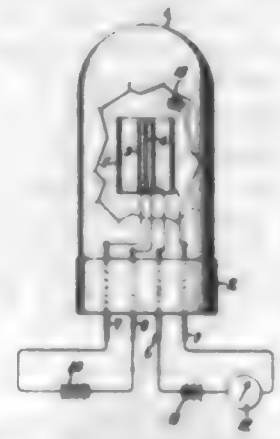
1. A pocket-size fluoroscope for field use in sunlight adapted to be folded into a flat pocket-sized package when not in use, comprising an opaque, flexible, sock-like hood, a substantially-flat somewhat-elongated body plate at and closing one end of the hood and about which the hood may be wrapped when the unit is not in use, a light filter window in the body plate at one end thereof adapted to filter out visible light but to pass ultra-violet light and a viewing opening at the other end thereof, the opposite end of the hood being open and defining a mouth wherein an individual may insert his hand to hold a specimen therewithin near said filter with his hand and forearm substantially preventing light from entering the hood at the mouth when the unit is held with sunlight striking the light filter and with the individual viewing the specimen therewithin through said opening with the filter window to the side of the individual and with sunlight behind the individual striking the filter window.

2,874,303
METHOD AND APPARATUS FOR CONTROLLING REFRACTORY LINED FURNACE TEMPERATURES
William B. Lane, Los Gatos, Calif.
Application November 17, 1953, Serial No. 392,775
2 Claims. (Cl. 250—83)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A method of controlling refractory lining wear of a furnace, comprising aligning a radioactive energy counter with a selected position in the furnace slag bath, incorporating a radioactive isotope of a certain ray emanation in said refractory lining above said selected position, incorporating different ray-emanating radioactive isotopes of mutually differing self-identifying counting energies in other selected locations of said refractory lining, controlling temperature conditions in accordance with readings of said aligned counter, and determining wear in said other selected locations by readings obtained from slag bath samples.

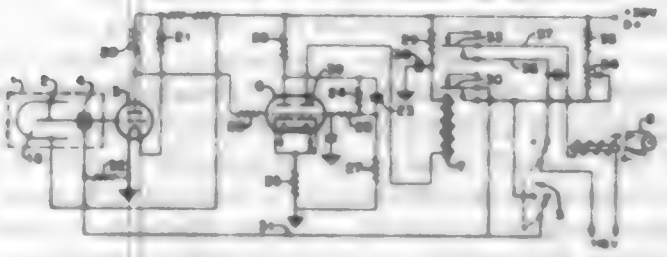
2,874,304
IONIZATION CHAMBER
Roland M. Lichtenstein, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application March 31, 1955, Serial No. 498,252
9 Claims. (Cl. 250—83.6)



1. An ionization chamber for measuring radiation intensity comprising, heated cathode means for emitting electrons, anode means surrounding said cathode means and forming therewith an ionization chamber into which an external radiation may penetrate, voltage means connected in series with current reading means, the series combination of the latter two elements being connected between said anode and cathode means to make said

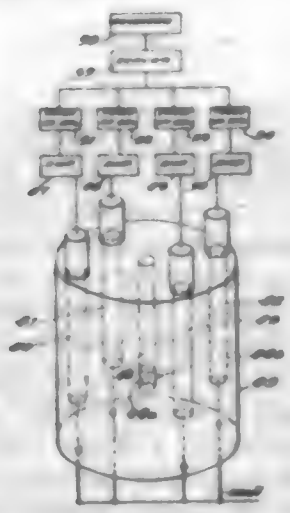
anode means positive relative to said cathode means and causing an electrical current to flow between said cathode and anode means, and a gas within said chamber having an extremely high electron mobility coefficient, said gas being ionized by said external radiation and thereby increasing the flow of current between said cathode and anode means, said current reading means measuring the flow of electrical current between said cathode and anode means and thereby measuring the intensity of any external radiation to which the ionization chamber may have been subjected.

2,874,305
RADIATION INTEGRATOR
Hubert N. Wilson, Oak Ridge, and Floyd M. Glass, Norris, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application October 17, 1955, Serial No. 541,104
10 Claims. (Cl. 250—83.6)



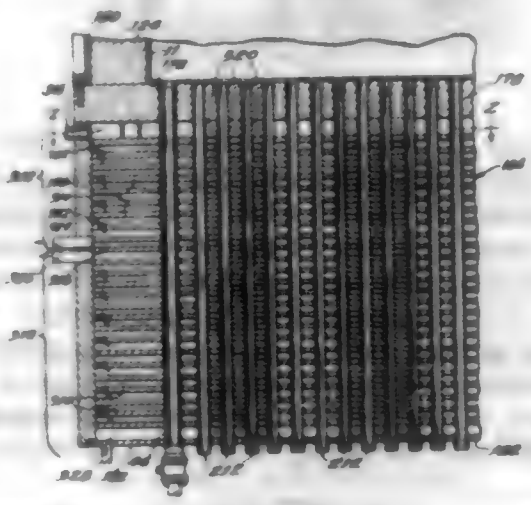
1. A system for detecting radiation comprising a radiation detector having a pair of electrodes, an electrometer tube having its input circuit coupled directly to one of said electrodes, a trigger circuit fed by the electrometer tube for driving a counter, a source of power capacitatively coupled to the electrometer tube and to said detector, and means responsive to the operation of the trigger circuit for controlling the potential of the input circuit of the electrometer tube.

2,874,306
MEASURING APPARATUS
Truman P. Kohman and Bernard B. Weissbourd, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application June 10, 1946, Serial No. 675,767
7 Claims. (Cl. 250—83.6)



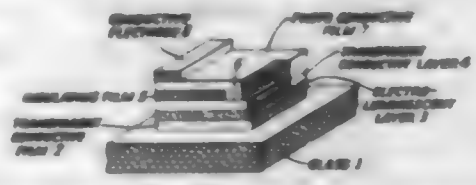
1. A radiation responsive ion chamber for insertion in a body of a neutron moderator material comprising an elongated, gas-filled container serving as a high potential electrode, a cylindrical rod shaped collecting electrode contained within, coaxial with, and substantially coextensive with said container, insulating means for insulatingly supporting said collecting electrode on an end portion of said container, a second container also insulatingly supported on said end portion of said first mentioned container, and being coaxially disposed substantially end to end, with respect to said first container, said second container being filled with paraffin and having a lead-in wire coaxially disposed therein, and a third container secured to the opposite end of said second container and being coaxial and arranged in end-to-end relationship therewith, said third container including an amplifying circuit having an input for connection to said lead-in.

2,874,307
REACTOR SHIELD
Eugene P. Wigner, Oak Ridge, Tenn., Leo A. Ohlinger, Los Angeles, Calif., and Gale J. Young and Alvin M. Weinberg, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application January 9, 1947, Serial No. 721,864
2 Claims. (Cl. 250—108)



1. A shield for a neutronic reactor comprising a plurality of substantially flat parallel plates, a plurality of tubes passing through said plates, and cooling water channels between said plates defined by vanes extending from tube to tube across said plates.

2,874,308
ELECTROLUMINESCENT DEVICE
Donald C. Livingston, Bayside, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application July 2, 1956, Serial No. 595,297
6 Claims. (Cl. 250—213)

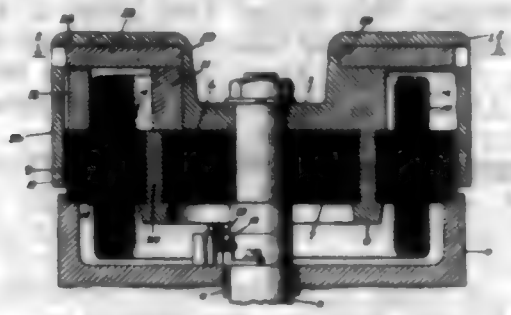


2. In combination, an electroluminescent layer; a transparent electrically conductive film covering one surface of said layer; a transparent electrically insulating film covering a major portion of the conducting film and leaving a minor portion of said conductive film exposed; a photoconductive film covering said insulating film and being in contact with said minor exposed portion; and an electrical connection to a minor portion of said photoconductive film, said minor portion of said photoconductive film being remote from the minor portion of said transparent conductive film.

2,874,309
COMBINATION STARTER MOTOR AND MAGNETO FOR INTERNAL COMBUSTION ENGINES
Julius H. Staak, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application September 12, 1957, Serial No. 683,597
7 Claims. (Cl. 290—38)

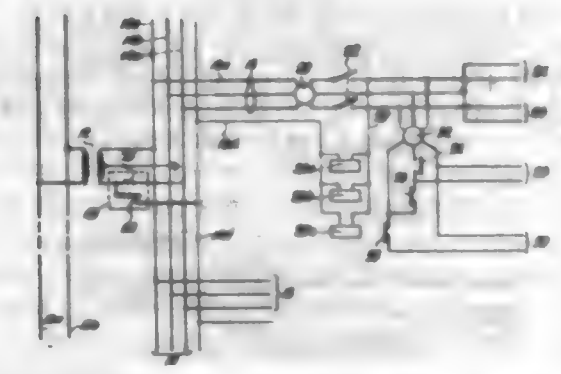
1. For use in an electric ignition internal combustion engine, a flywheel constructed and arranged to be di-

rectly connected to the engine, a self-starting electric motor having a rotor member and a stator member positioned coaxially with said flywheel, said rotor member being secured to said flywheel to rotate therewith, said stator member being secured immovably relative to said flywheel, said stator member having a slotted magnetic core with motor windings positioned in said slots, said core further having magneto primary and secondary windings arranged on a portion thereof, flux creating means supported on said flywheel, said flywheel and said core



being formed to provide a complete magnetic circuit including said core portion at a predetermined position in the rotation of said flywheel, and timing means arranged to cause a sudden change of current through said primary winding substantially at the time said complete magnetic circuit is provided, said secondary winding including electrical lead means for connection across a spark creating device to energize said device to produce a spark in response to a high impulse voltage generated across said secondary winding.

2,874,310
APPARATUS FOR CONTROLLING AN ELECTRIC POWER SUPPLY SYSTEM
Glenn S. Young, Kansas City, Kans.
Application November 1, 1956, Serial No. 619,871
40 Claims. (Cl. 307—34)



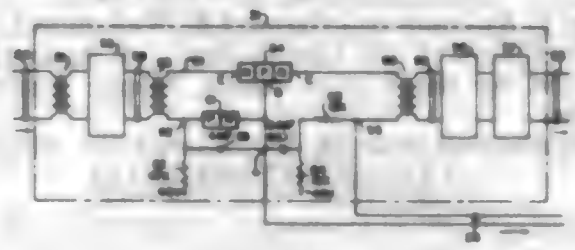
40. In a device of the character described, a member movable in a predetermined path, temperature controlled means for moving said member forwardly and rearwardly in said path between variable end positions, a switch having a body and an actuator movably mounted on said body for operating the switch, means normally holding said switch body in a set position relative to said path, said position being such that said member will engage said actuator and operate said switch at a particular point in its forward travel along the path, means whereby said member imposes a thrust on said switch body to shift same to a new set position relative to said path whenever said member continues to advance more than a predetermined distance after operating the switch, and said holding means normally being effective on subsequent rearward movement of said member to retain said switch body substantially in said new position whereby said switch thereafter will be operated by said member only upon forward travel of the latter beyond the point at which operation of the switch previously occurred.

2,874,311
LINEAR SWEEP-SIGNAL GENERATOR
Rodger E. Turnage, Jr., Babylon, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application January 26, 1954, Serial No. 406,131
15 Claims. (Cl. 307—88.5)



2. A transistor circuit for generating linear sweep signals, the circuit comprising: a transistor having emitter, base, and collector electrodes; means for altering the conductivity condition of said transistor; first circuit means coupled to said emitter electrode and responsive to the conductivity alteration for developing a first sweep signal having a nonlinear component of predetermined polarity; and time-constant circuit means having one terminal thereof coupled to said collector electrode and to said first circuit means and responsive to said conductivity alteration for developing a second nonlinear component, similar to but of polarity opposite to said first nonlinear component, which combines with the first sweep signal to develop a resultant substantially linear sweep signal.

2,874,312
TRANSISTOR LIMITER AMPLIFIER
Arthur J. Radcliffe, Jr., La Grange, and Arthur R. Denz, Chicago, Ill., assignors to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application April 4, 1955, Serial No. 498,913
10 Claims. (Cl. 307—88.5)



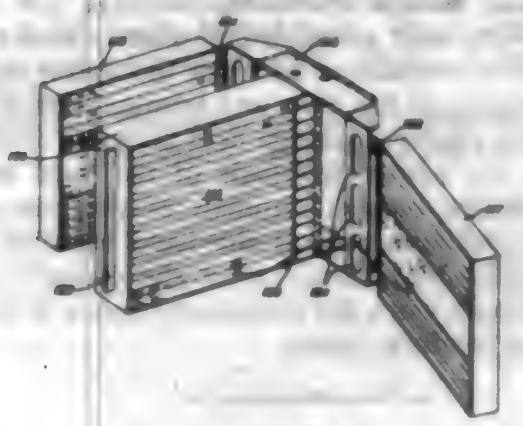
1. A transistor limiter amplifier comprising a transistor including an emitter diode, a collector diode, and a common base member, with emitter, collector, and base terminals connected to the respective members, a bias resistor, emitter bias supply current means for driving a direct current through the bias resistor and the forward direction of the emitter diode in series, collector bias supply current means for driving a direct current through the collector diode, a signal source of alternating current signals, a condenser, a signal input circuit path excluding the bias resistor and including the emitter diode and the condenser in series, means coupling the signal source to the signal input circuit path, an output circuit path through the collector diode which substantially blocks current flow in its reverse direction, a compensating diode connected in opposed polarity in shunt of the emitter diode, at least with respect to the emitter bias supply current means, to compensate for the rectifying action of the emitter diode during a high input signal-current flow which is in excess of the normal bias current, whereby the resulting tendency of the bias potential to then reverse in polarity is substantially eliminated.

2,874,313

DATA PROCESSING APPARATUS

John A. Githens, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 7, 1956, Serial No. 602,599
1 Claim. (Cl. 307—88.5)



In a binary data processing apparatus, a conductive plate, a plurality of transistors having their emitters connected to said plate, a plurality of resistors of a single value, a conductor for supplying voltage to said apparatus, one terminal of each of said resistors being connected to said conductor, insulating material secured to said plate and surrounding said transistors and the connections between said emitters and said plate, while leaving the other terminals of said transistors exposed, additional insulating material surrounding said resistors and the connections between said resistors and said voltage supply conductor while leaving the other terminal of said resistor exposed, and conducting means external to said insulating material for interconnecting the bases and collectors of said transistors and the other terminals of said resistors to form a plurality of functionally distinct logic circuits, said data processing apparatus further comprising a central fixed assembly including a conducting ground plate and transistors located on both sides of said plate and having exposed terminals extending outwardly in both directions from said plate, and two flat hinged assemblies each including a conductive plate and associated components arranged as defined above, said hinged assemblies being substantially coextensive with said fixed assembly and having exposed terminals facing said fixed assembly.

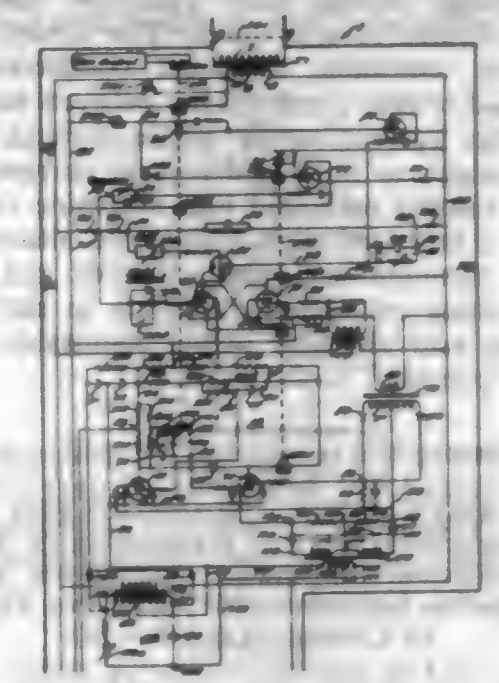
2,874,314

ELECTRICAL TIMING APPARATUS

Roy W. Shipman, Detroit, Mich., assignor to Weltronic Company, Detroit, Mich., a corporation of Michigan

Original application December 7, 1953, Serial No. 396,585. Divided and this application April 18, 1957, Serial No. 653,683
14 Claims. (Cl. 307—106)

10. A network of the character described comprising a transformer having an output winding portion, a first network connected across said winding portion, said first network comprising a resistive component connected in series with a reactive component, a second network connected across said one winding portion and comprising a resistive component connected in series with a reactive component, a pair of circuits connected between a point in said first network intermediate its said components to a point in said second network intermediate its said components, each said circuit including a unidirectional current flow device series connected with a voltage-producing component, the said device of one of said circuits being polarized to permit current flow through said component of said one circuit during a one half cycle of potential applied thereto, and the said device of the other of said circuits being polarized to permit current flow through said component of said



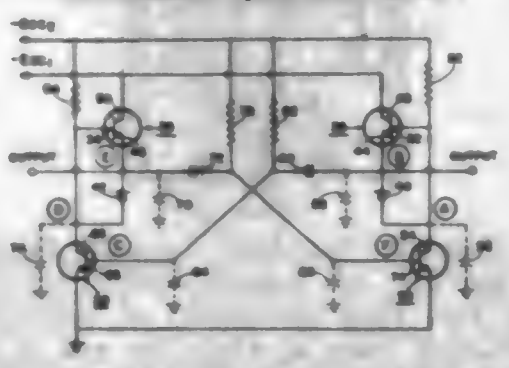
other circuit during the other half cycle of potential applied thereto.

2,874,315

SWITCHING DEVICE

William G. Reichert, Jr., Cedar Grove, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

Application June 26, 1958, Serial No. 744,810
11 Claims. (Cl. 307—106)



4. A pulse switching circuit comprising a first signal switching transistor having a base input, a collector output and a common emitter electrode; a first load connected to said collector output electrode; a second signal switching transistor having a base input, a collector output and a common emitter electrode; a second load connected to said second collector output electrode; means for coupling said collector electrode of said first signal switching transistor to said base electrode of said second signal switching transistor and for coupling said second signal switching transistor to said first signal switching transistor, to generate a pulsed output waveform having alternate maximum and minimum semistable conduction periods and respective transition intervals therebetween; a first direct current supply means connected to each said first and second loads; a first load switching transistor having a base input, an emitter output and a common collector electrode, connected substantially parallel to said first load to bypass said first load and provide increased current during one said transition interval and to permit said first load to limit the flow of said current during said output semistable periods; a second load switching transistor having a base input, an emitter output and a common collector electrode, connected to bypass said second load and provide increased current during the other of said respective transition intervals and to permit said second load to limit said current during said output semistable periods, said first and second load switching transistor including a second smaller potential direct current supply means connected to each said common collector electrode

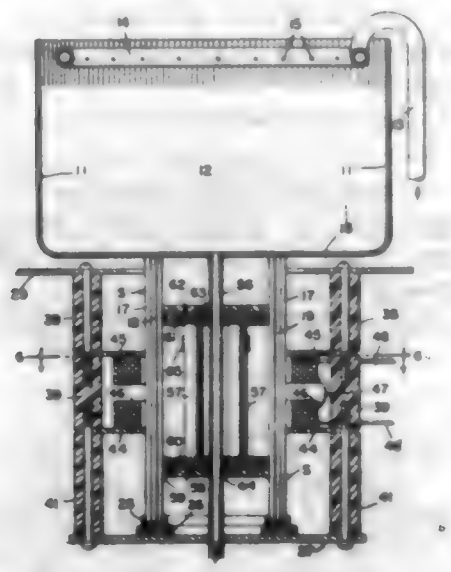
of each said load switching transistor to provide said increased current therethrough for rapidly charging circuit capacities during said transition intervals and to cause a limited reverse current flow during said alternate output semistable minimum conduction periods, whereby said reverse current flows between said first and second direct current supply means through each said load alternately, to limit said reverse current; and bias means for causing each said load switching transistor to operate in a saturated state during said alternate output semistable minimum conduction periods and each said signal switching transistor to operate in said saturated state during said alternate output semistable maximum conduction periods.

2,874,316

ULTRASONIC TRANSDUCERS

Alexander Murdoch, Jr., Port Washington, N. Y., assignor to Blackstone Corporation, Jamestown, N. Y.

Application January 4, 1957, Serial No. 632,582
12 Claims. (Cl. 310—26)



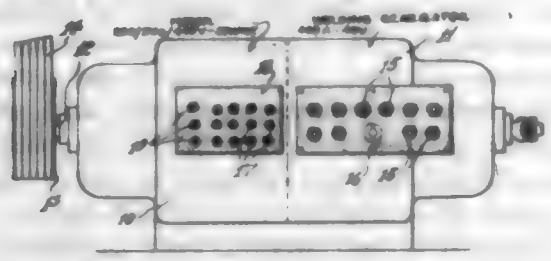
12. An ultrasonic transducer assembly having a container, a plurality of magnetostrictive strips secured together to hold them operatively as laminations in a hollow cylindrical form of which one end is secured to the container, coil means encircling the cylindrical form, a regulatable electrical circuit connected to the coil means through which the strips are excited to vibrate at a selected high frequency, polarizing magnet means insulatingly supported from the strips, and means for introducing liquid into and removing liquid from said container, said means for removing from the container comprising a drain tube connected to said container at the bottom thereof and extending substantially centrally through said cylindrical form, said drain tube being constructed of nonmagnetic material.

2,874,317

ELECTRICAL MACHINES AND CHANGE-OVER PLATES THEREFOR

Kibbey W. Couse, Newark, N. J., assignor to Couse Manufacturing, Inc., Newark, N. J., a corporation of New Jersey

Application July 7, 1955, Serial No. 520,392
4 Claims. (Cl. 310—71)



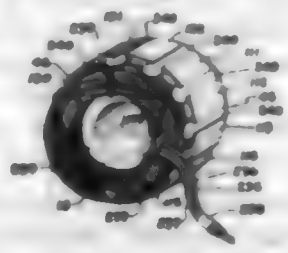
1. An electrical system comprising a dynamo electric machine having a plurality of field coils, a fixed terminal board having a set of output terminals and a set of spaced terminals, leads individually connecting the dynamo electric machine field coils to the said spaced terminals, a voltage change-over plate having a set of output terminals and a set of spaced terminals correspondingly disposed to the similar terminals of the said fixed terminal board, jumpers fixed to the said plate and electrically connecting certain of the output and spaced terminals of the change-over plate, and means removably securing the change-over plate to the fixed terminal board and thereby establishing electrical connection between the correspondingly disposed terminals of the plate and terminal board whereby the dynamo electric machine field coils are electrically connected to the output terminals of the fixed terminal board through the output terminals of the change-over plate, the output terminals of the fixed terminal board being electrically disconnected from the dynamo electric machine field coils when the change-over plate is removed from the fixed terminal board.

2,874,318

COIL WINDING METHOD AND APPARATUS

Robert Charles Glazier, Hayward, and Gottfried Zickler, Castro Valley, Calif., assignors to Friden, Inc., a corporation of California

Application January 4, 1954, Serial No. 401,784
3 Claims. (Cl. 310—260)



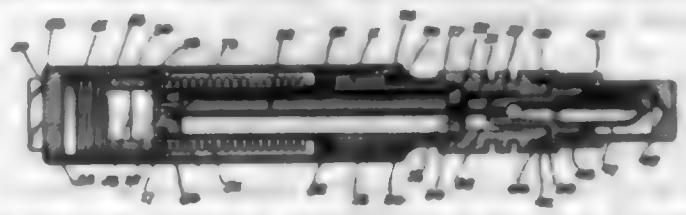
1. An electromagnetic device comprising a cylindrical core of magnetic material, a plurality of pole portions projecting radially from said core, a plurality of energizing windings supported on said core, said windings being wound on said core in a series of stages and each winding having portions overlapping like portions of other of said windings, a lashing at the points of overlapping of said windings to lash the overlapping portions together, and leadout wires extending from said windings and beneath the overlapping portions of said windings and said lashing.

2,874,319

VARIABLE VOLTAGE REGULATOR

Nicholas Anton, Brooklyn, N. Y.

Original application May 15, 1953, Serial No. 355,342. Divided and this application February 17, 1958, Serial No. 715,568
13 Claims. (Cl. 313—54)



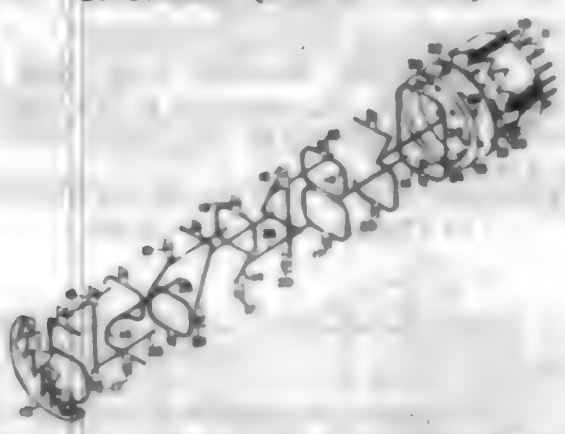
1. A corona-discharge voltage regulator tube comprising a hollow axially symmetrical cathode, an insulating bushing at each end of said cathode and extending thereacross, one of said bushings having an anode-receiving recess centrally thereof and the other having a central bore therethrough, a rod-like anode coaxial with said cathode and having one end seated in said recess and the other passing spacedly through said bushing bore, and means supporting said anode coaxially of and insulatedly with respect to said cathode, said anode-supporting means providing a terminal for said anode, means for

sealing said cathode at the end with said one bushing and means for exhausting said cathode through said other bushing bore, whereby ionization within said cathode is confined between said bushings to avoid fringe effects and provide sharper striking voltages.

2,874,320
INDICATING DEVICE

Herbert J. Hampel, Philadelphia, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application December 13, 1955, Serial No. 552,748
16 Claims. (Cl. 313—109.5)



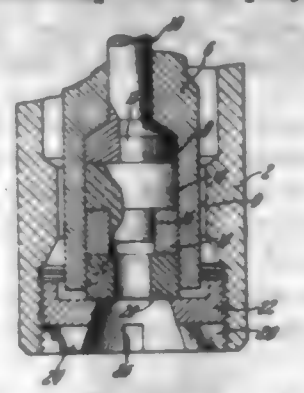
1. An indicating tube of the glow lamp type comprising a gas-filled envelope having a portion thereof constituting a transparent viewing face, a plurality of planar cathodes within said envelope having the active portions thereof respectively formed in accordance with outline representations of different characters, a coating of insulating material on one side of each of said cathodes, a planar anode within said envelope for ionizing the gas in response to a suitable potential difference between said anode and a selected one of said cathodes, structural means within said envelope mounting said cathodes and said anode in stacked relationship with said coatings of insulating material on the sides of said cathodes remote from said viewing face, said structural means including integrally formed mounting tabs for each cathode extending without the area of the character-formed portion thereof and also including mounting studs projecting through holes in said mounting tabs and in said anode and further including support means holding said mounting studs and said cathodes and said anode in assembly therewith close to said viewing face of the envelope, said cathodes when luminously active providing a viewable pattern of characters having dimensions and an arrangement of the parts such that the character-formed portions of the cathodes nearer to said transparent face have a minimum obstructing effect on character-formed portions of the luminous cathodes more remote therefrom, and electrical conducting means connecting said cathodes and said anode with the exterior of said envelope.

2,874,321
IGNITER PLUG

Raymond E. Summerer, Grand Blanc, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 23, 1957, Serial No. 704,466
6 Claims. (Cl. 313—130)

1. An igniter comprising a tubular metal shell, an insulator secured within said shell and having a centerbore enlarged at one end thereof to form a recess, a metal centerwire within said centerbore terminating with a head portion positioned within said recess, an insulator member having an opening therethrough and positioned in said recess, a center electrode positioned between said centerwire head portion and one side of said insulator member, said center electrode having a projection extending partially through the opening in said insulator member, and a ground electrode having an opening therethrough aligned with the opening in said insulator member and positioned against the other side of said insulator member so as to be in spaced relationship to said projection to form a

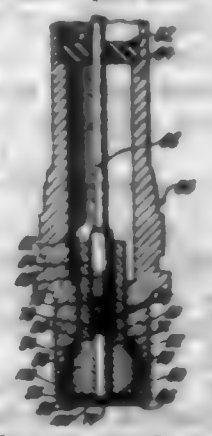


spark gap therewith, the opening in said ground electrode being smaller than the opening in said insulator member so that said ground electrode forms a restriction to the passage of electrical discharges out of the spark gap.

2,874,322
LOW TENSION SPARK PLUG

Wilfred A. Bychinsky, Ann Arbor, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 1, 1952, Serial No. 285,381
4 Claims. (Cl. 313—131)



1. A spark plug for use at low voltages and at high energies comprising a generally tubular shaped metal shell, an insulator within said shell having a bore extending longitudinally therethrough and having a base with a mass of semi-conductive material thereon, a center electrode in said bore having a cylindrical head portion exterior of the semi-conductive material on said insulator base, an inwardly extending ground electrode connected to the base of said shell having an annular inner edge portion in spaced relationship to the head portion of said center electrode to form an annular spark gap therewith, a thin annular deformable metal gasket positioned between and pressed into continuous electrical contact with said head portion and said semi-conductive material, and a thin annular deformable metal gasket positioned between and pressed into continuous electrical contact with said ground electrode and said semi-conductive material, the distance between said annular gaskets being at least as great as the distance between said head portion and said ground electrode.

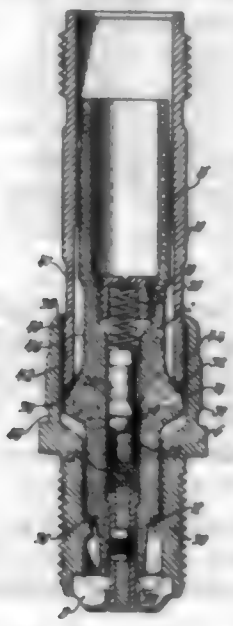
2,874,323
SPARK PLUG

Wilfred A. Bychinsky, Ann Arbor, and Alfred Candelise, Flint, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 19, 1954, Serial No. 404,878
2 Claims. (Cl. 313—144)

1. A spark plug comprising a tubular metal shell carrying a ground electrode at the lower end thereof, said shell having a lower portion of smaller diameter than the top portion thereof and being provided with an internal annular ridge, a metal barrel having a lower portion positioned concentrically within the top portion

of said shell and brazed thereto, the upper end of said shell having an annular flange turned inwardly and over a shoulder formed on said barrel to lock said shell and said barrel together, an elongated insulator within said shell having a tubular shaped upper portion positioned concentrically within said barrel, said insulator having



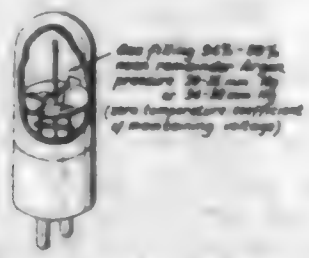
a lower shoulder engaging said ridge and an upper shoulder positioned in the top portion of said shell and engaging the lower end of said barrel, and a center electrode extending from the lower end of said insulator in spaced relation to said ground electrode to form a spark gap therewith.

2,874,324

ELECTRIC GASEOUS DISCHARGE TUBES

George Francis Klepp and Donald Miller, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application July 17, 1953, Serial No. 368,641
Claims priority, application Great Britain July 23, 1952
1 Claim. (Cl. 313—185)



A voltage stabilizer electric discharge tube of the cold cathode type comprising an envelope containing a gas filling of 97% neon and 3% argon at a pressure of 25 ± 2 millimeters of mercury, an anode and a cathode activated with cerium mischmetal said anode spaced from said cathode a given distance, said distance being such that the anode-cathode maintaining voltage over a glow discharge current range of 5 ma. to 40 ma. lies between 70 and 80 volts, the variation of voltage with current being less than 7 volts.

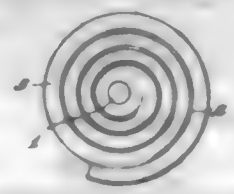
2,874,325

ELECTRODE FOR ELECTRIC DISCHARGE APPARATUS

Pierre Lemaigre-Voreaux, Paris, France, assignor to Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares-Etablissements Claude-Paz & Silva, Paris, France

Application February 3, 1953, Serial No. 334,835
Claims priority, application France February 5, 1952
1 Claim. (Cl. 313—355)

An electrode for an electric discharge apparatus, comprising at least two strips of different metals, the lower melting metal being aluminum and being in the form of a thin strip and at least one current lead wire, said strips being wound together about said wire, and the winding be-



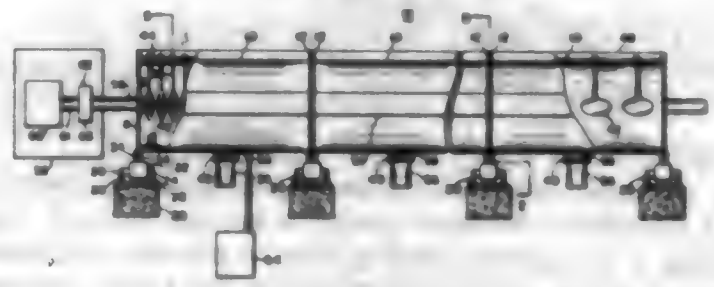
ing sufficiently close for the aluminum strip to be substantially entirely in contact with the other strip.

2,874,326

LINEAR ACCELERATOR

Nicholas C. Christofilos, Berkeley, Calif., and Irving J. Polk, Patchogue, N. Y., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application June 5, 1957, Serial No. 663,859
13 Claims. (Cl. 315—5.51)



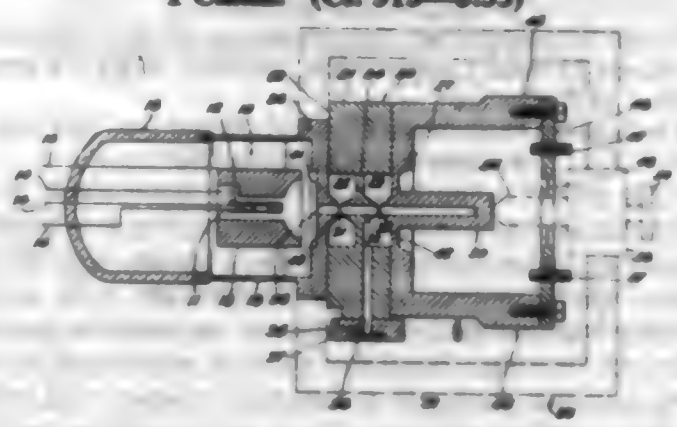
1. An apparatus for accelerating high velocity ions comprising a cylindrical resonant cavity of constant diameter, a radiofrequency generator for energizing said cavity to produce a longitudinal field therein, ion source means coupled to said cavity to inject ions thereinto for longitudinal acceleration by said field, a series of drift tubes with cylindrical longitudinal bores and curved outer surfaces spaced apart to form gaps disposed within said cavity along the longitudinal axis thereof, said tubes increasing in length along the direction of movement of ions through said cavity, substantially all of the outer surface of each of said tubes having an ellipsoidal curvature, the radius of curvature of the end portions of said surface decreasing with increasing length of said tubes, the radius of curvature of the middle portions increasing with increasing length of said tubes, and the radius of curvature of substantially all of the surface intermediate the end and middle portions changing continuously and gradually therebetween.

2,874,327

KLYSTRON OSCILLATOR AND METHOD OF ADJUSTING SAME

Roger A. La Plante, Irvington, N. Y., assignor to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 19, 1954, Serial No. 469,960
1 Claim. (Cl. 315—5.53)



A fixed-frequency velocity-modulated electron discharge device comprising means for generating a beam

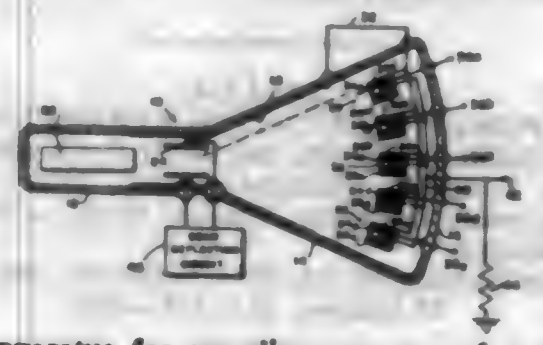
of electrons, an evacuated envelope having relatively rigid and non-deformable conductive wall portions defining at least two interconnected cavities of relatively fixed dimensions into which said electron beam is projected, one of said wall portions being of reduced thickness for initially deforming the same whereby the dimensions of said cavities are initially adjusted for tuning one of said cavities, and a collector electrode adjacent one of said cavities for collecting said electron beam, after passing through said cavities.

2,874,328

VOLTAGE SAMPLING APPARATUS

Munsey E. Crost, Asbury Park, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application December 31, 1954, Serial No. 479,257
2 Claims. (Cl. 315—12)
(Granted under Title 35, U. S. Code (1952), sec. 266)



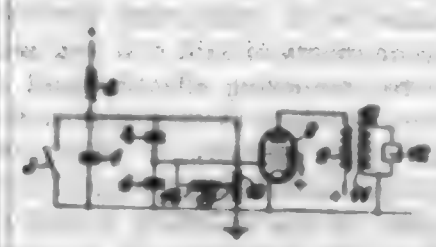
1. An apparatus for sampling any one of a plurality of discrete reference voltages at a common output terminal, comprising a cathode-ray tube having means to generate an electron beam, said cathode ray tube including a plurality of elements at prescribed potentials, a conductive coating on the inner surface of said tube at the most positive of said potentials, a plurality of discrete target cells in spaced relationship, each of said target cells being disposed substantially perpendicularly the path of said beam, the spacing between said cells being greater than the width of said beam each of said cells being associated with one of said reference voltages and including a collector electrode directly connected to one of said reference voltages and a floating target electrode connected to said common output terminal, and deflecting means for directing said beam against any one of said cells to cause secondary emission from said target electrode, the secondary emission being controlled by the collector electrode, whereby the target electrode assumes the potential of said collector electrode.

2,874,329

CIRCUIT ARRANGEMENT FOR PRODUCING A SAWTOOTH CURRENT IN THE VERTICAL DEFLECTOR OF A TELEVISION APPARATUS

Peter Johannes Hubertus Janssen and Wouter Smeulers, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 27, 1955, Serial No. 543,198
Claims priority, application Netherlands November 10, 1954
2 Claims. (Cl. 315—27)



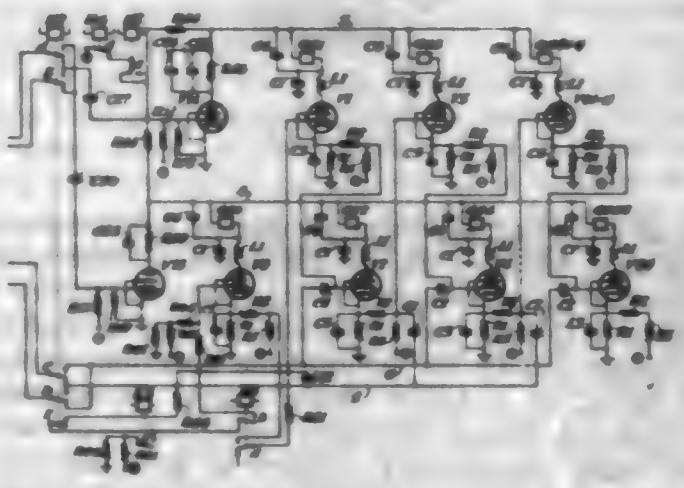
1. A circuit for producing a sawtooth current in a deflector coil of a television apparatus, comprising an electron discharge tube having a cathode, a control grid and an anode, signal-conducting means coupling said deflector coil to said anode, a sawtooth voltage source, a first capacitor connected between said sawtooth voltage source and said control grid, a second capacitor connected between said control grid and said cathode, a potentiometer connected across said first and second capacitors and having a tap thereon, and a resistor connected between said tap and said control grid thereby forming an integrating network in conjunction with said second capacitor, whereby said second capacitor alternately charges and discharges in accordance with said sawtooth voltage and whereby an integrated sawtooth voltage is applied to said second capacitor which is capable of affecting the sawtooth voltage charge on said second capacitor.

2,874,330

ELECTRONIC COUNTER CONTROL

George P. McGlumphy, Penn Township, Allegheny County, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application May 21, 1954, Serial No. 431,459
22 Claims. (Cl. 315—84.5)



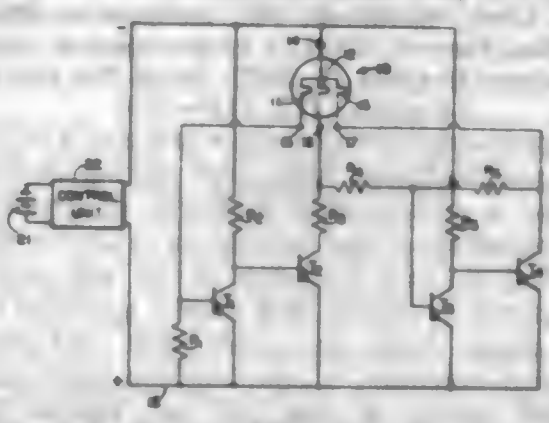
1. A counter control for an electronic counter made up of separate odd and even banks of electric discharge devices with separate signal input lines and separate power supply lines for the odd and even banks, the control comprising means for priming a selected one of the discharge devices for firing by a signal pulse to initiate a step-by-step counting operation in synchronism with applied signal pulses, and means for extinguishing a discharge device in one bank at a predetermined time after it has fired independently of the time at which a discharge device in the other bank may be fired.

2,874,331

TRANSISTORIZED CURRENT TRANSFER APPARATUS

Fred B. Otto, Winchester, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application April 14, 1958, Serial No. 728,444
8 Claims. (Cl. 315—93)



1. Apparatus for providing for electric current flow through each of a series of elements in succession including, in combination, first terminal means for con-

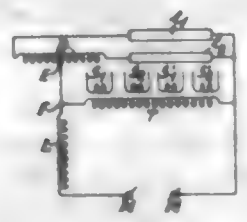
nection to a first element, second terminal means for connection to a second element, a main transistor connected in series with said second terminal means, an auxiliary transistor connected to said main transistor, first biasing means for biasing said main transistor in the low conduction condition only while said auxiliary transistor is in the high conduction condition, and second biasing means for biasing said auxiliary transistor in the high conduction condition only while a closed circuit exists across said first terminal means.

2,874,332

CIRCUIT FOR STARTING AND OPERATING MULTIPLE ELECTRIC DISCHARGE LAMP

Jakob Leib Salpeter, Woodville, South Australia, Australia, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application September 29, 1953, Serial No. 383,057
Claims priority, application Australia September 30, 1952
4 Claims. (Cl. 315—138)



1. A circuit-arrangement comprising two arc-discharge tubes each having a pair of electrodes, a filament transformer having a primary winding, said transformer being connected to heat the electrodes of one of said tubes, a common ballast for limiting the operating current of said tubes, an auxiliary choke having an intermediate tap disposed thereon forming two sections, said two sections being magnetically coupled in inductive relationship to the extent that equal currents flowing in opposite directions through said sections produce a substantially zero resultant magnetic flux, each of said sections being connected to one electrode of a different one of said two tubes and said tap being connected to one end of said common ballast thereby to form two parallel circuit branches, said circuit branches having similar phase characteristics whereby current flow through one of said choke sections cancels the induction produced in the said choke by the current flow through the other of said sections when both of said tubes are in the operating condition, circuit means for connecting said transformer between said tap and each of the other electrodes of said two discharge tubes, and means for connecting a voltage source in series with said common ballast across the primary of said transformer.

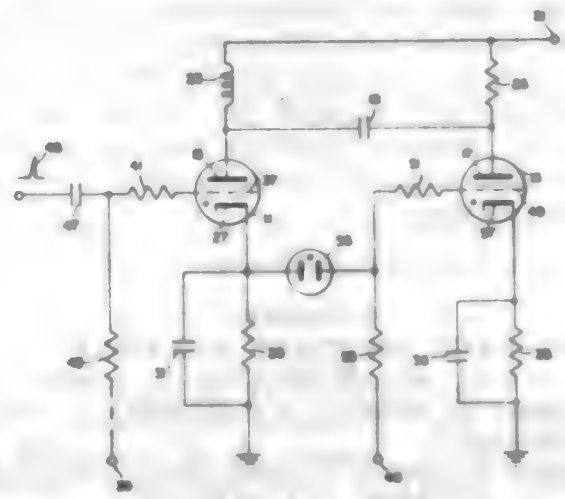
2,874,333

THYRATRON PULSER FOR INDUCTIVE LOADS

Robert L. Gray, Broomall, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application October 17, 1957, Serial No. 690,828
2 Claims. (Cl. 315—163)

1. A current driver comprising a first and a second gas-filled electron discharge tube, each having an anode, a cathode and a control grid, a source of unidirectional operating potential, a load inductance in circuit with said first gas-filled electron discharge device and said source of unidirectional potential, said second gas-filled electron discharge device being in circuit with said source of unidirectional potential, a coupling capacitor connected between the anodes of said first and second tubes, a neon bulb connected from the grid of said second tube to the cathode of said first tube, a bias resistor connected between the cathode of said first tube and a point of reference potential, bias potential means connected to the grids of each of said first and second tubes, and



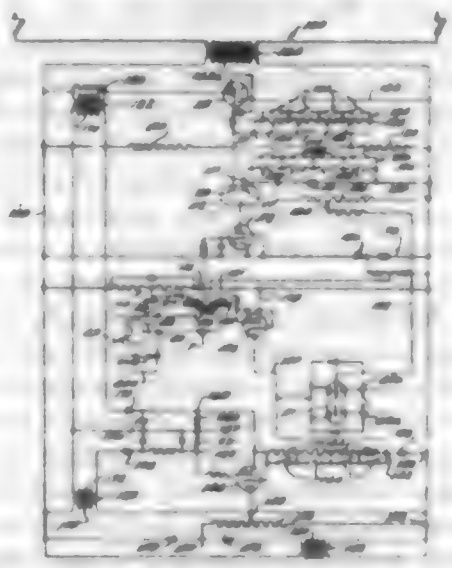
means for connecting the grid of said first gas-filled tube to a source of trigger pulses.

2,874,334

POWER REGULATING APPARATUS

Roy W. Shipman, Detroit, and Harry E. Colestock, Commerce Township, Oakland County, Mich., assignors to Weltronic Company, Detroit, Mich., a corporation of Michigan

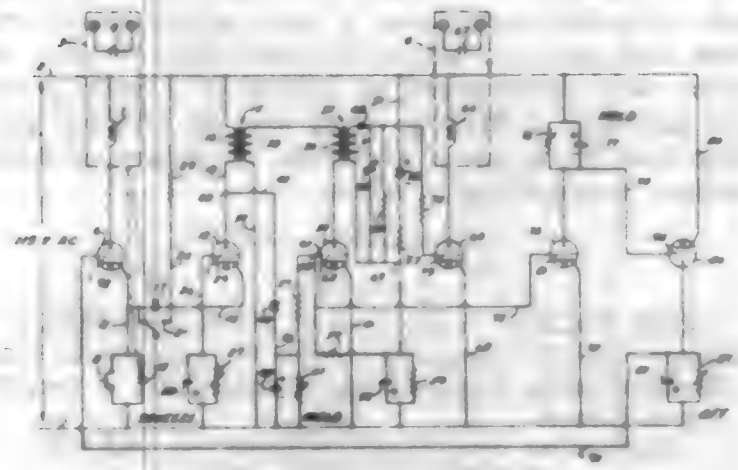
Application July 16, 1953, Serial No. 368,479
24 Claims. (Cl. 315—230)



1. In an electrical timing apparatus, a plurality of sequentially operated timing networks, a first and a second of said networks each comprising an energy storage component and a discharge component for discharging said storage component, a first circuit controlling means for connecting and disconnecting said storage components to and from a source of electrical energy and normally maintained in a condition to disconnect said storage components from such source of energy, a third of said networks comprising an energy storage component and a component for controlling the rate of current flow thereto, a second circuit controlling means for connecting said storage component of said third network to a source of charging potential whereby it is placed in a charged condition, a discharge circuit for said storage component of said third network, means for placing said first circuit controlling means in its connecting condition to charge said storage components of said first and said second networks, means for rendering effective said discharge circuit of said third network to discharge said storage component of said third network, a phase shifting circuit including an output circuit and a control element for controlling the phase of the potential in said output circuit as a function of the magnitude of a potential supplied to said control element, circuit means connected across said storage components of said second network and said third networks and connected to said control element to

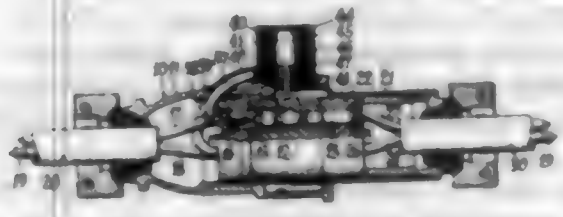
provide a potential for actuating said control element, and circuit means controlled by the potential across said storage element of said first network for initiating said means which connects said storage component of said third network to such source of charging potential.

2,874,335
NEGATIVE HOLD TIME CIRCUIT
Stuart C. Rockafellow, Plymouth, Mich., assignor to Robotron Corporation, Detroit, Mich., a corperation of Michigan
Application April 29, 1957, Serial No. 655,554
7 Claims. (Cl. 315—230)



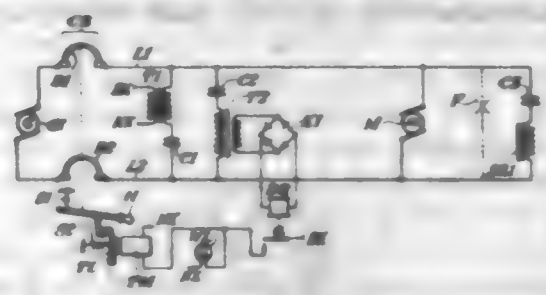
1. A sequence timing circuit including; an electric space discharge device having an anode, a cathode and a control electrode; a load connected in series with said device; means including a first and a second timing network connected to said control electrode for controlling the conductivity of said device and means connected to said first and second timing networks for initiating the timing operation of said second network at the end of the timing operation of the first network so that said device will remain in the same electrical condition for the duration of both the intervals timed by said first and second networks.

2,874,336
ARCLESS HIGH VOLTAGE CABLE CONNECTORS
Richard A. Wannemacker, Clarence, N. Y.
Application April 4, 1956, Serial No. 576,191
6 Claims. (Cl. 317—11)



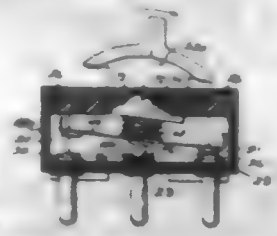
1. An arcless high voltage cable connector comprising a connector part operably connected to a source of electrical energy by a plurality of insulated wires, a current responsive solenoid means carried by said connector part, conductors operably connecting said solenoid means to said wires, whereby said solenoid means is energized when current flows through said wires and conductors, said solenoid means including a plug element movable from a retracted position and held in an advanced position by the flow of current through said means, said plug element in its advanced position being positioned to prevent circuit making engagement and circuit breaking disengagement of said connector part with a mating connector part when the current is on, thereby preventing arcing between said connector parts.

2,874,337
METHOD OF AND MEANS FOR DETECTING ELECTRICAL CIRCUIT FAULTS
Andrew J. Sorensen, Edgewood, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application July 14, 1954, Serial No. 443,300
10 Claims. (Cl. 317—29)



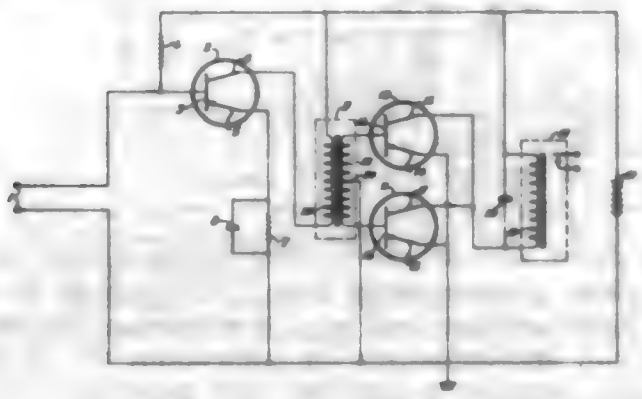
6. In a direct current power distribution system for supplying direct current energy from a supply point to at least one direct current load by a transmission line, including circuit breaker means for interrupting the direct current energy supplied to said line, fault detecting means for operating said circuit breaker means to interrupt the supply of direct current energy to said line in the event of a short-circuit fault on the line but not in the event of an overload current drawn by said direct current load, said fault detecting means comprising a source of alternating current energy at a first frequency, means for supplying energy from said source to said line at said supply point, means at the remote end of said line for receiving said alternating current energy at said first frequency, generating energy at a harmonic frequency of said first frequency and supplying said energy at a harmonic frequency to said line, filter means tuned to said harmonic frequency and connected to said line at said supply point, a detector relay energized by the output of said filter means, and means governed by said detector relay for operating said circuit breaker when the magnitude of energy at said harmonic frequency at said supply point decreases below a predetermined value.

2,874,338
UNIT ELECTRICAL SWITCH FOR GANG ASSEMBLY
Harlow H. Pease, Milwaukee, Wis., assignor to Cluss Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application July 28, 1955, Serial No. 524,858
20 Claims. (Cl. 317—99)



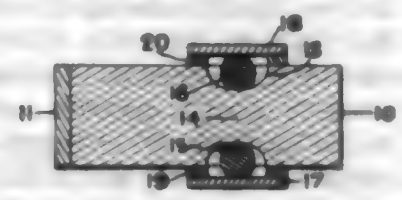
11. A switch unit comprising a fixed contact carrier plate, a central supply contact mounted in said plate, output contacts spaced at opposite sides of the supply contact and mounted in said plate, a pair of molded switch casing elements having plate-receiving channels in which the margins of the plate are engaged, means connecting the casing elements to each other in interlocked engagement with the plate, a spring movable contact carrier having a boss pivoted upon the fixed supply contact first mentioned, said carrier comprising an electrical conductor having movable contacts engageable selectively with the output fixed contacts in the oscillation of the carrier upon the fixed supply contact first mentioned, and lever means for the actuation of said carrier and including means for oscillating said carrier under pressure bias whereby to flex the carrier in the engagement of each of its movable contacts with the respective fixed contacts of said plate.

2,874,335
CONTROL OF POWER DELIVERY TO ELECTRICAL APPARATUS
Sol Perlman, Brooklyn, N. Y., assignor to the United States of America as represented by the Secretary of the Air Force
Application February 24, 1956, Serial No. 567,695
1 Claim. (Cl. 317—148.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



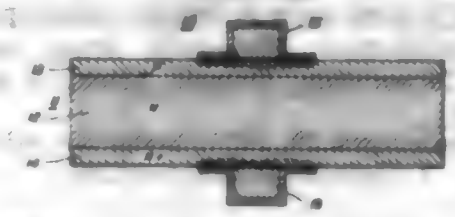
A circuit for controlling the energization of an electrical power consuming device comprising a terminal adapted to receive an actuating alternating current signal, a first transistor operating as an amplifier for said signal, said first transistor having emitter, collector and base electrodes, said base electrode being simultaneously connected to said terminal and to the positive side of a power source by way of a first resistor, said power source having its negative side connected to ground, said emitter electrode being connected to ground by way of a second resistor in shunt with a first capacitor, a tranformer having a single ended primary winding and a balanced secondary winding, one side of said primary winding being connected to said collector of said first transistor, the other side of said primary winding being connected to said positive side of said power source, a pair of transistors, each of said pair of transistors having emitter, collector and base electrodes, said base electrodes of said pair of transistors being supplied a push-pull amplified alternating current signal by way of said balanced secondary winding, said emitters of said pair of transistors being connected to ground, said collectors of said pair of transistors connected to one side of a direct current relay winding, the other side of said relay winding being connected to said positive side of said power source, a second capacitor in shunt with said relay winding, and a relay switch actuated by energization of said relay winding when said pair of transistors undergo collector current saturation in reponse to said push-pull input signal.

2,874,340
RECTIFYING CONTACT
Kurt Lehovec, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application June 26, 1953, Serial No. 364,457
6 Claims. (Cl. 317—236)



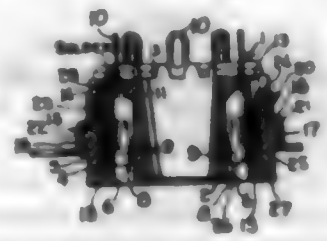
1. A rectifying point contact consisting of a body of semiconductive material having a concave portion, a drop of mercury positioned in said concave portion, and a terminal lead electrically connected to said mercury drop but insulated from said semiconductive body.

2,874,341
OHMIC CONTACTS TO SILICON BODIES
Frank J. Biondi, Livingston, Hugh M. Cleveland, Chatham, and Miles V. Sullivan, Summit, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 30, 1954, Serial No. 472,826
11 Claims. (Cl. 317—240)



6. A rectifier comprising a monocrystalline silicon body including contiguous p- and n-type conductivity zones and separate electrode connections to the two zones, each characterized as formed of a brazing mixture including a brazing agent and an alloying agent taken from the group of vanadium, zirconium, tantalum, niobium, thorium and titanium.

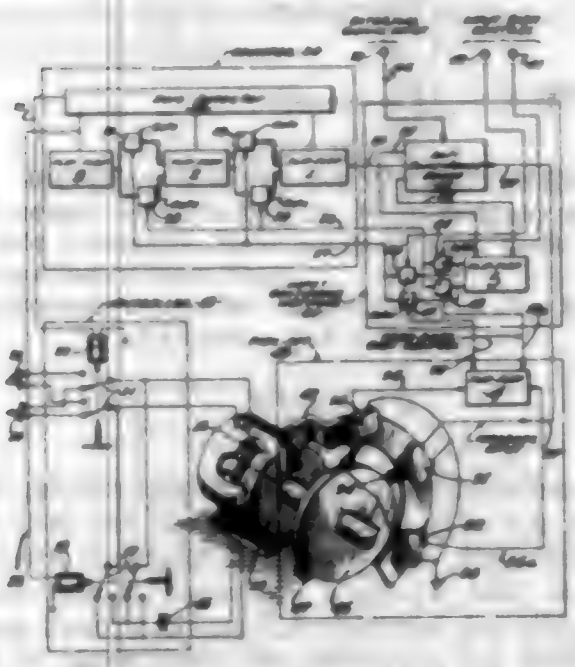
2,874,342
TUBE SOCKET AND CAPACITOR ASSEMBLY
Scipione M. Del Camp, Maywood, Ill., assignor to Cinch Manufacturing Corporation, Chicago, Ill., a corporation of Illinois
Application June 23, 1953, Serial No. 363,605
1 Claim. (Cl. 317—257)



A socket construction for use with a part having contact prongs comprising a socket body of insulating material having top and bottom faces, said body having a plurality of circumferentially spaced passageways extending axially therethrough from the top and bottom surfaces thereof, the opening of each passageway in the bottom face thereof being in the form of a laterally extending slot, prong receiving contact elements positioned within said passageways, each of said contact elements having a terminal portion extending beyond the bottom face of said body, said body having a plurality of laterally slotted recesses circumferentially spaced therein and extending therein from the bottom face thereof, each of said recesses being spaced outwardly from a corresponding passageway and in substantially parallel relationship thereto in cross section, a condenser member having opposed flat sides seated in one of said slotted recesses, said condenser having electrode coatings on opposed sides, a conducting ring encircling said socket body in assembled relationship therewith, a flat strip lead element connected along one end portion in electrical engagement with the electrode coating on one side of said condenser, with the other end portion thereof extending below the bottom of the socket in electrical engagement with the terminal portion of said contact element seated in the related passageway, a second lead element in electrical connection at one end portion to said conducting ring with the opposite end portion electrically engaging the other of said electrode coatings of said condenser, said second lead element comprising an annular ring portion in engagement with the socket body and having a series of lug elements extending outwardly from the upper edge thereof, said lug elements being in clamped electrical engagement with said conducting ring, a series of reverse bend elements extending from the opposite edge of the ring portion in the same plane

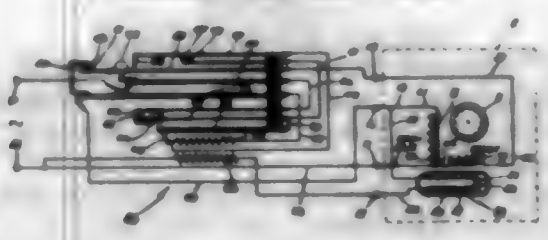
thereof and in a direction opposite to said lug elements, said reverse bend elements each having a resilient end portion extending into one of said recesses and engaging under spring tension said other electrode coating for electrical connection thereto.

2,874,343
DIGITAL SERVO
Floyd G. Steele, La Jolla, Calif.
Application August 25, 1953, Serial No. 377,929
(Filed under Rule 47(b) and 35 U. S. C. 118)
9 Claims. (Cl. 318—28)



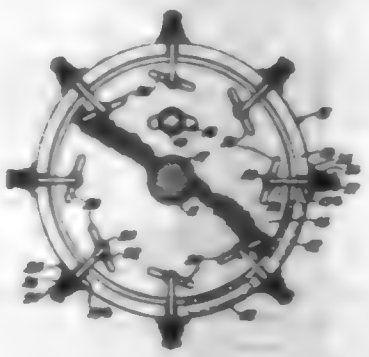
1. Means for servoing the position of an actuator in accordance with a whole number of electrical input pulses, which comprises a two-way electronic counter, means for feeding input control pulses into said counter, an actuator having connections for a power supply therefor and adapted to drive a load, means for reversing the polarity of at least a portion of said power supply connections to provide for motion of said actuator in either direction, operating connections between said reversing means and the most significant stage of said counter to reverse said actuator when said most significant stage changes from an empty condition to a full condition and from full to empty, means driven by said actuator to produce digital feedback pulses in direct proportion to amount of motion of said actuator, means for feeding said feedback pulses into said counter in an opposite sense from said input pulses, whereby said load is always driven to a position dependent upon the number and sign of said input pulses, detector means for detecting a predetermined state of said counter, and braking means connected to said actuator for braking said actuator when said counter reaches said predetermined state.

2,874,344
HERMETIC MOTOR STARTING AND OVERLOAD PROTECTION SYSTEM
Charles W. Slocum, Angola, Ind., assignor to Stabelite-Greene Spring Corporation, Adrian, Mich., a corporation of Michigan
Application December 12, 1957, Serial No. 702,364
9 Claims. (Cl. 318—221)



1. In combination: a single-phase alternating current induction motor disposed in a hermetically sealed enclosure and having main and starting windings; a first switch assembly comprising a first pair of separable contacts and a first bimetallic member for actuating said first pair of contacts all disposed in a hermetically sealed envelope with electrical leads respectively connected to said first pair of contacts and extending out of said envelope, said first switch assembly being positioned within said enclosure and in close heat transfer relationship with said windings whereby said first bimetallic member senses the temperature of said windings, said first bimetallic member being arranged to close said first pair of contacts responsive to a predetermined winding temperature sensed thereby; electrical leads for said main and starting windings and said first switch assembly respectively extending out of said enclosure; and a second switch assembly disposed exteriorly of said enclosure and comprising, a pair of line terminals adapted to be connected across a source of single phase alternating current, means including a second pair of separable contacts connecting said main winding leads across said line terminals, means including a third pair of separable contacts connecting said starting winding leads across said main winding leads, means including a second bimetallic member arranged to open said third pair of contacts responsive to a predetermined current flow in both said main and starting windings thereby to disconnect said starting winding, and means connecting said first switch assembly leads in circuit with said line terminals and including a third bimetallic member arranged to open said second pair of contacts responsive to closing of said first pair of contacts thereby opening the circuit of both of said main and starting windings.

2,874,365
INDUCTION MOTOR SPEED CONTROL
Alwin B. Newton, Wichita, Kans., assignor to The Coleman Company, Inc., Wichita, Kans., a corporation of Kansas
Application June 24, 1957, Serial No. 667,553
11 Claims. (Cl. 318—232)

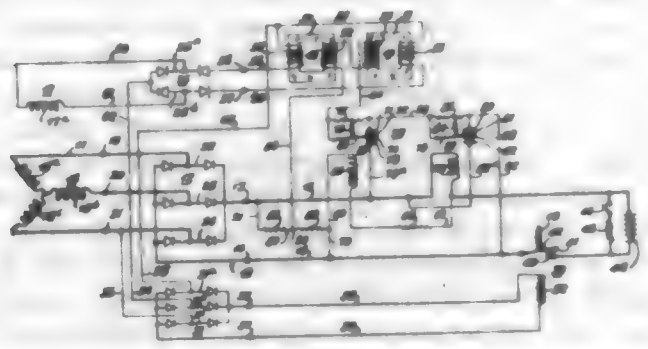


1. In a speed control system for an induction motor, a rotor adapted to be rotated and being equipped with a plurality of conductors electrically coupled together by circular conductor means, said conductor means having spaced areas of low and high resistance, means for shunting said areas of high resistance to decrease the electrical resistance of said circular conductor means and hence said rotor, and means for removing said shunting means when the rotationable velocity of said rotor exceeds a predetermined value.

2,874,366
GENERATOR CONTROL SYSTEM
Elmer P. Orvis, Fairview Park, Ohio, assignor to The Leece-Neville Company, Cleveland, Ohio, a corporation of Ohio
Application January 12, 1955, Serial No. 481,399
25 Claims. (Cl. 321—16)

1. In an electrical generating system, an alternator having a field winding, a main rectifier connected with said alternator and having direct current terminals for

connection of an external direct current load circuit therewith, a full-wave bridge-type auxiliary rectifier means having circuit arms, saturable reactor means comprising saturable cores having saturating windings and control windings thereon, circuit means connecting said field winding and said saturating windings with said alternator for energization therefrom through said auxiliary rectifier means, said saturating windings being located in circuit arms of said auxiliary rectifier means and being alternately energizable by rectified current, control circuit means connecting said control windings with said direct current terminals, and automatic switch means responsive to the operating condition of said alternator and having contact means controlling the energization of said control windings.

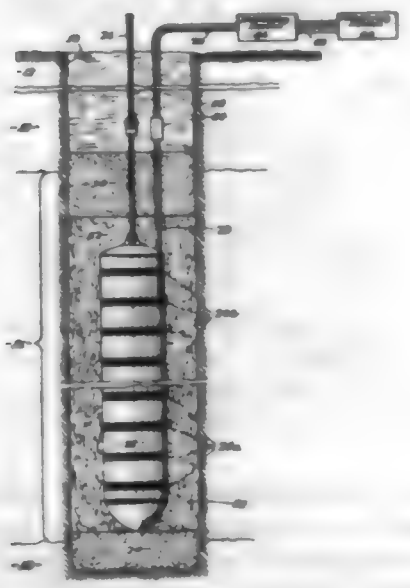


2,874,347

ELECTRIC LOGGING

Peter F. Southwick, Indiana Township, Allegheny County, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application November 2, 1954, Serial No. 466,295
8 Claims. (Cl. 324—1)



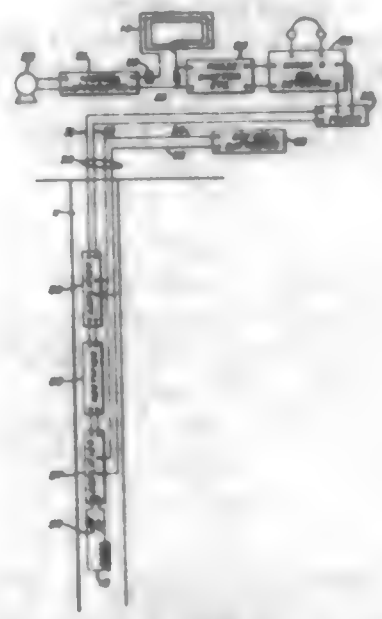
1. A method of observing level variations of a fluid interface in a fluid-bearing underground formation which comprises penetrating the formation with a borehole, placing in the borehole opposite the formation a series of vertically-spaced means for measuring a parameter of the fluid-bearing formation which permits recognition of the fluid interface, restoring the borehole space around said means to substantially the condition of undisturbed formation adjacent thereto, successively establishing communication to a plurality of the measuring means opposite the formation, measuring the same parameter with each measuring means to which communication is established whereby the level of the fluid interface in the formation may be identified, and repeating the communication and measuring steps at substantial time intervals without withdrawing the measuring means from the borehole.

2,874,348

ELECTROMAGNETIC METHOD OF GEOPHYSICAL EXPLORATION

Arthur A. Brant and Allan W. Love, Clarkdale, Ariz., assignors to Newmont Mining Corporation, New York, N. Y., a corporation of Delaware

Application October 4, 1954, Serial No. 460,031
9 Claims. (Cl. 324—6)



1. An electromagnetic method of determining the approximate size of a hidden conducting ore body spaced from a drill hole, which method comprises establishing a magnetic field having a frequency in the range of 30–400 cycles per second in a region of ground including the drill hole and measuring the phase angle of the resultant voltages induced in a pick-up coil that is moved along the drill hole, the distance measured along the drill hole between the points at which occur successive maximum and minimum values of the stated phase angle being a measure of the distance from the drill hole to the body.

2,874,349

APPARATUS FOR DETECTING AND MEASURING THE DEPTH OF REINFORCING RODS

Henry N. Staats, Des Plaines, Ill.

Application June 2, 1955, Serial No. 512,679
4 Claims. (Cl. 324—41)



1. A test apparatus for use in locating and ascertaining an unknown variable of reinforcing rods in concrete and the like comprising a block having a scanning surface, a recess on one face of said block inclined relative to said scanning surface, and a rod of known size adapted to fit in said recess, said face of said block including said recess having depth indicia thereon whereby the distance from said rod perpendicular to said scanning surface may be read directly from said depth indicia.

2,874,350

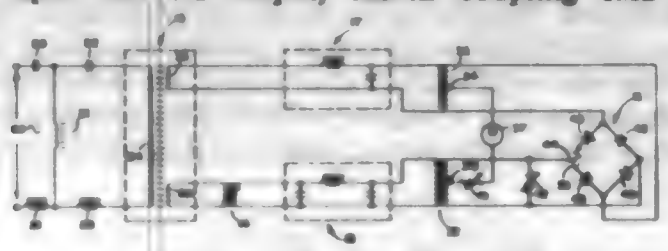
MEASURING SYSTEM

John A. Maynard, Winchester, and William A. Rode, Needham, Mass., assignors, by mesne assignments, to Minneapolis-Honeywell Regulator Company, a corporation of Delaware

Application August 17, 1954, Serial No. 450,473
12 Claims. (Cl. 324—57)

8. A measuring apparatus comprising a saturable impedance frequency multiplier, a saturable voltage regulating transformer having a primary winding and a pair

of secondary windings, means coupling said frequency multiplier to said primary winding, a transducer having an input and an output, means coupling said input



to one of said secondary windings, a phase discriminator, means coupling said output to said phase discriminator, and means coupling the other of said secondary windings to said phase discriminator.

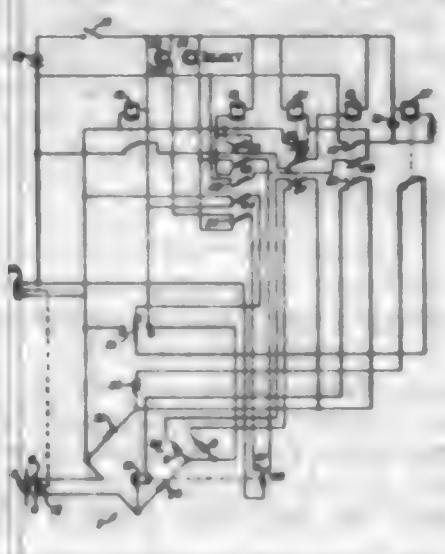
2,874,351

IMPEDANCE MEASURING SYSTEM

John Lamont, North Arlington, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application September 14, 1956, Serial No. 609,977

5 Claims. (Cl. 324—57)



1. In a system for sequentially testing the impedance of electrical elements for high and low limits, a bridge circuit having two ratio branches, a standard branch and a branch for receiving elements to be tested, means for successively changing the impedance ratio between the ratio branches so that the bridge is balanced when the impedance of an element under test is equal to a prescribed high limit in one instance, and to a prescribed low limit in another instance, a polarized balance detector for the bridge having an armature movable in two opposite directions, responsive to the direction of bridge unbalance current through the detector, to control the sequential testing of an article in the bridge in accordance with the results of the tests, the direction of the unbalance current for each setting of the bridge depending on whether or not the impedance of a tested element exceeds the impedance value for which the bridge is set, and anti-stall means comprising an impedance element, and switching means, responsive to a delay in the actuation of the armature of the detector when the element under test is connected in the bridge, for connecting the impedance element in the bridge for unbalancing the bridge to actuate the armature to continue the testing sequence.

2,874,352

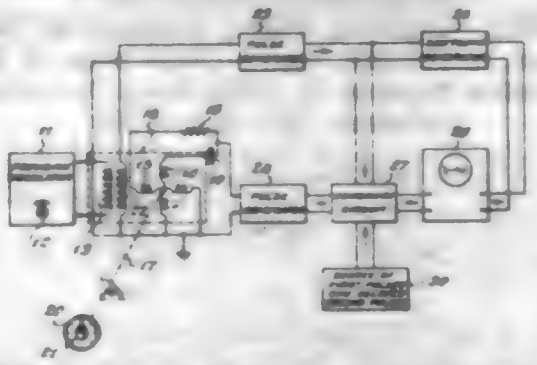
ELECTRO-MECHANICAL PHASE SHIFTER

Edward Durbin, Valley Stream, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application November 26, 1954, Serial No. 471,171

13 Claims. (Cl. 324—83)

7. A phase shift system for measuring the difference in phase between a first voltage wave and a second voltage wave delayed in phase with respect to said first voltage wave, the phase difference measurement being substantially independent of changes in temperature, comprising in combination, a synchro having a primary winding, means including an oscillator means coupled to said primary winding for supplying an alternating voltage thereto, an auxiliary winding having fixed mutual coupling with the primary winding of said synchro, said auxiliary winding providing an induced reference output voltage, a plurality of secondary windings mutually coupled to said primary and auxiliary windings, means for combining the alternating voltages induced in said plurality of secondary windings, said combining means including a reactive phase-shift network coupled to said plurality of secondary windings, said phase-shift network providing a single alternating output voltage, phase indicating means coupled to said auxiliary winding and to said phase-shift network for indicating the phase difference between said single output voltage and said reference output voltage, means adapted for coupling said first voltage wave and said delayed second voltage wave-whose phase difference is to be measured to said phase indicating means, said phase indicating means indicating the phase difference between said first and second voltage waves, means coupled to said oscillator means for maintaining the frequency of said single output voltage and said reference output voltage substantially equal to the frequency of said first and second voltage waves, means including a shaft means coupled to one of the windings of said synchro for varying the phase difference between said single output voltage and said reference output voltage, the phase difference between said single output voltage and said reference output voltage varying according to the angular position of said shaft means, and means for adjusting the angular position of said shaft means for providing the same phase difference between said single output voltage and said reference output voltage as exists between said first and second voltage waves, the angular position of said shaft means denoting the phase difference between said first and second voltage waves.



11. An electro-mechanical phase shifter providing an output voltage whose phase is adjustable with respect to a reference voltage, the phase difference between said reference and output voltages being substantially independent of changes in temperature, comprising in combination, a synchro having a single winding and a plurality of windings mutually coupled to said single winding, said mutual coupling being controllable, a reactive phase-shift network connected to said plurality of windings, an auxiliary winding fixed with respect to one of said windings, a first pair of terminals connected to said reactive phase-shift network, a second pair of terminals connected to said single winding, and phase difference indicating means coupled to said auxiliary winding and to one of said first and second pair of terminals.

2,874,353

SUSPENSION GALVANOMETER

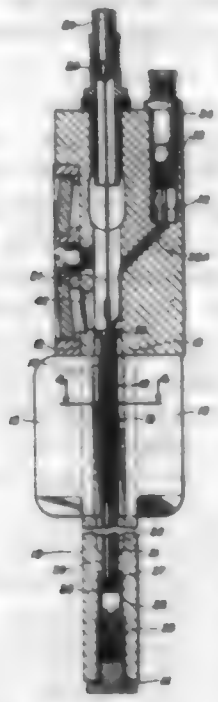
John R. Tavis, Los Angeles, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application October 19, 1953, Serial No. 386,980

1 Claim. (Cl. 324—97)

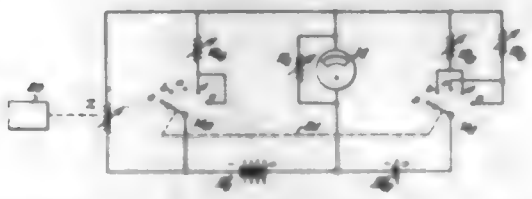
A galvanometer comprising an elongated coil having an open central section, a first suspension means rigidly

attached to one end of the coil, a second suspension means rigidly attached to the other end of the coil, means for producing a magnetic field with lines of flux transverse to the longitudinal axis of the coil, first stiffening means rigidly attached to one end of the coil and



the adjacent portion of the nearer suspension means, a mirror rigidly mounted on the first stiffening means, and elongated second stiffening means made of glass and disposed within the coil to substantially fill the open central section, the second stiffening means being firmly bonded for substantially the entire length of the second stiffening means to the coil.

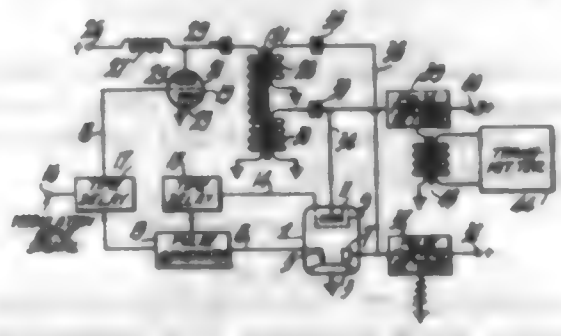
2,874,354
CALIBRATING CIRCUIT FOR CURRENT MEASURING SYSTEMS
John M. Bell, Altadena, Calif., assignor, by mesne assignments, to Panellit, Inc., a corporation of Illinois
Application October 15, 1954, Serial No. 462,565
4 Claims. (Cl. 324—130)



1. In an electrical system that includes a power source, a variable input impedance and a meter connected in series, and bucking circuit means comprising a bucking power source and means selectively actuable to connect the bucking power source in shunt to the meter in opposite polarity to the first said power source to render the meter responsive to a plurality of adjoining ranges of current in the input impedance; calibrating means comprising a variable impedance connected in series with the bucking circuit means, a variable calibrating impedance, and switching means for selectively inserting the calibrating impedance in shunt to the input impedance.

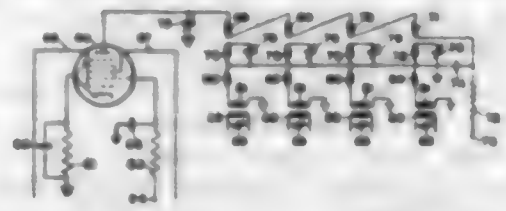
2,874,355
PULSE WIDTH MODULATION SYSTEM
Karl G. Hernqvist, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application January 2, 1957, Serial No. 632,081
18 Claims. (Cl. 332—8)

1. A pulse width modulation system comprising in combination an ignitron type tube having a mercury pool cathode, a starting probe, a holding anode, a control grid and a main anode, means for applying a positive potential to said holding anode, means for applying a positive potential to said main anode, a pulse generator, said pulse generator being coupled to said starting probe to supply a pulse of positive potential thereto for vaporizing said mercury pool to cause an arc from said pool to said holding anode, a first delay circuit coupled between said pulse generator and said control grid, said pulse generator being adapted to feed a trigger pulse through said first delay circuit to said control grid of sufficient magnitude to draw



an arc to said main anode, means including a second delay circuit to apply a negative pulse to said main anode and said holding anode for extinguishing the arc to said main anode and said holding anode, means for applying an input modulating signal to said second delay circuit for varying the time of occurrence of said negative pulse, and means for deriving an output pulse from said ignitron, the output pulse varying in width in accordance with said input modulating signal.

2,874,354
METHOD OF AND APPARATUS FOR SEISMIC PROSPECTING
Glen Peterson, Tulsa, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Original application June 28, 1948, Serial No. 35,724, now Patent No. 2,700,753, dated January 25, 1955. Divided and this application April 2, 1952, Serial No. 280,909
3 Claims. (Cl. 333—6)

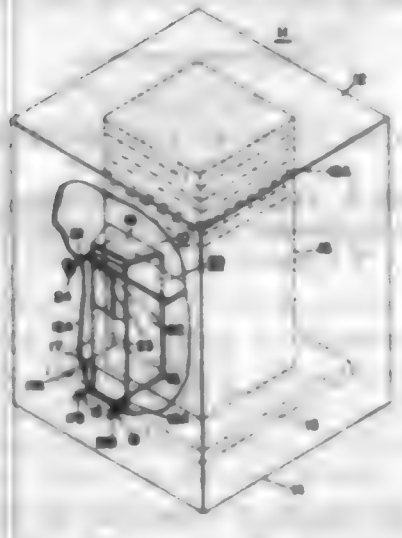


1. A coupling circuit for a multi-channel radio receiving set comprising a plurality of inductance coils connected in series relationship, a capacitor, means for connecting said capacitor in parallel with said series connected inductance coils so that said coils all transmit currents within a predetermined first frequency band, a plurality of inductors, means inductively coupling each of said inductors to a respective one of said coils, a plurality of second capacitors, means connecting each of said second capacitors in parallel with a respective one of said inductors to tune each of said inductors to transmit currents of a respective second frequency band within said first frequency band, a plurality of intermediate frequency circuits, each of said circuits comprising a second inductor and a third capacitor connected in parallel and tuned to transmit currents of a respective one of said second frequency bands, a plurality of third inductors, a plurality of fourth inductors, means connecting each of said fourth inductors in circuit with a respective one of said third inductors, means inductively coupling each of said third inductors to a respective one of said first-mentioned inductors, and means inductively coupling each of said fourth inductors to a respective one of said second inductors.

2,874,357
COUPLING ARRANGEMENT FOR AN OSCILLATORY SYSTEM

Carl E. Ellsworth, Anchorage, Ky., assignor to Chemetron Corporation, a corporation of Delaware

Application September 28, 1953, Serial No. 382,525
6 Claims. (Cl. 333—27)

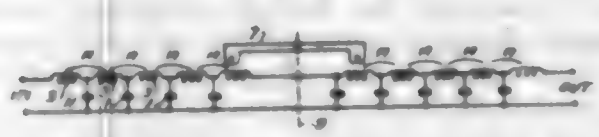


1. In an adjustable coupling arrangement for a high-frequency oscillator, the combination of a single turn coupling loop having substantial width and length, said loop having a substantial portion of at least two sides formed of conductive sheet metal, means for varying the effective coupling area of said loop by moving lengthwise of said loop an electrical connection extending from one sheet metal side of said loop at a location adjacent one end of said loop to the other sheet metal side thereof to move progressively along and lengthwise of at least one side of said loop the current path between opposite sides thereof, said means comprising a shorting plate member which extends across said width of said loop, and the edge-portions thereof forming said electrical connection from said one sheet metal side of said loop to said other sheet metal side thereof, and means pivotally mounting said shorting plate member at one end thereof for rotation of said shorting member within and relative to said loop from said position close to said one end through an arcuate travel path for moving said electrical connection to shorten said current path.

2,874,358
ELECTRICAL DELAY LINES

Gurdon R. Abell, Jr., Poughkeepsie, N. Y., assignor to the United States of America as represented by the Secretary of the Air Force

Application March 27, 1956, Serial No. 574,341
6 Claims. (Cl. 333—29)
(Granted under Title 35, U. S. Code (1952), sec. 266)

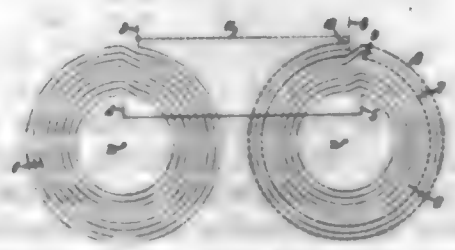


1. In an electrical delay line structure in which inductive coupling between adjacent portions resulting from their proximity is utilized to improve the transmission characteristics of the line, and in which said line structure is divided into a plurality of physically isolated parts coupled in cascade, means for reducing discontinuities in said line due to the physical separation of said cascaded parts and the alteration of the said inductive coupling between adjacent portions of the line of that point resulting therefrom, said means comprising a conductive circuit inductively coupled to the output end portion of the line in each cascaded section, save the last, and also inductively coupled to the input end portion of the line in the next succeeding cascaded section for introducing an inductive coupling between said end portions identical to the said inductive coupling between adjacent portions within a section.

2,874,359
HIGH VOLTAGE TRANSFORMER WINDINGS WITH VOLTAGE CONTROL

Martin Christoffel, Zurich, and Anton Edlinger, Wettingen, Switzerland, assignors to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company

Application March 29, 1956, Serial No. 574,695
Claims priority, application Switzerland April 2, 1955
6 Claims. (Cl. 336—70)

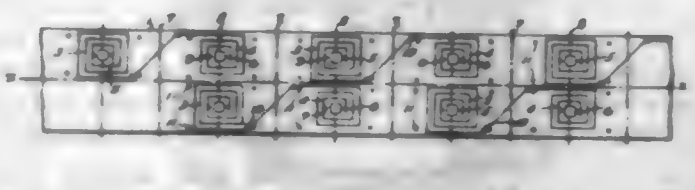


1. A high voltage power transmission winding comprising a plurality of disc type coils arranged coaxially in superposed relation, an auxiliary winding on one of said coils for potential control, the turns of said auxiliary winding being located between the turns of said disc coil, one end of said auxiliary winding being non-connected and insulated from the coil with which it is associated and the opposite end of said auxiliary winding being electrically connected to the end of another of said disc type coils.

2,874,360
ELECTRICAL WINDINGS

Paul Eisler, London, England

Application April 7, 1953, Serial No. 356,691
2 Claims. (Cl. 336—200)

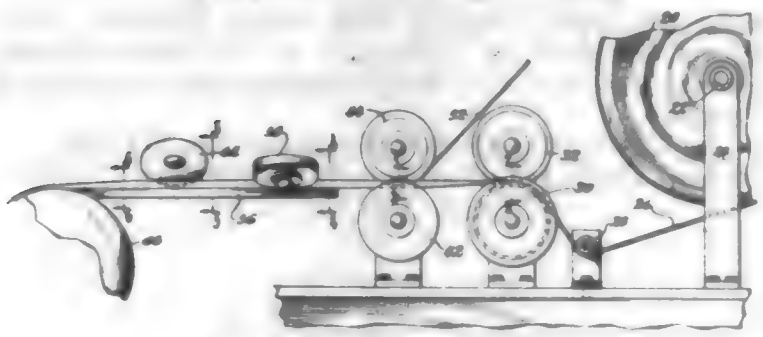


1. A transformer assembly comprising a continuous strip made of pliable insulation material and composed of two superimposed layers joined along one longitudinal edge, two parallel rows of uniformly spaced substantially flat spiral coils made of pliable electrically conductive material forming a continuous identically repeating pattern, the outer ends of successive two coils being electrically connected so as to form a plurality of pairs each including an anterior coil and a posterior coil (as seen in either one of the longitudinal directions of the strip), the said rows of coils being adhered to the outer sides of the two layers of the strip electrically insulated one from the other by the material of the two superimposed layers of the strip and situated in a spatial relationship in which each posterior coil in one row is in superposition with an anterior coil in the other row as seen in the same longitudinal direction of the strip, a plurality of electric joint members each extending through the two superimposed layers of the strip for electrically and mechanically connecting the inner ends of a superimposed posterior coil and anterior coil thereby joining the thus connected pairs of coils in an electric pathway pattern, elongated ferrous core strips sandwiching said strip therebetween, and ferrous joints extending between the two core strips through the centers of each pair of superimposed coils, the said ferrous joints constituting a short circuited secondary of said transformer.

2,874,361
INDUCTANCE COIL AND METHOD OF MAKING SUCH COILS

Maurice H. Brown, Palos Heights, Ill., assignor to Oaktron Electric Company, Tinley Park, Ill., a corporation of Illinois

Application July 22, 1955, Serial No. 523,850
5 Claims. (Cl. 336—209)

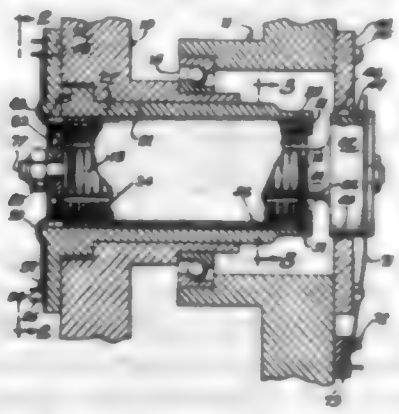


5. The method of making an inductance coil which comprises feeding a ribbon of insulating material, folding said ribbon twice longitudinally to provide a trough having a central section and a pair of marginal wings, feeding a round wire into said trough, folding both of said wings over said wire to enclose said wire, said folded ribbon with the wire therein having a width of several times its thickness, winding said ribbon with the wire therein to form a pancake coil, and securing the turns of said coil together to prevent unwinding of said coil, the position of the wire within said folded ribbon being shifted from side to side periodically during the winding operation.

2,874,362
MINIATURE SLIP RING AND BRUSH ASSEMBLY

Leonard C. Blanding, Grand Rapids, Mich., assignor to Lear, Incorporated, Grand Rapids, Mich., a corporation of Illinois

Application October 17, 1955, Serial No. 540,762
1 Claim. (Cl. 339—5)

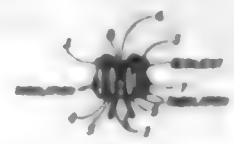


A slip ring and brush assembly for completing a plurality of electric circuits between two relatively rotatable members, comprising tubular means having a plurality of annular recesses uniformly spaced apart along the interior thereof and carried on one of said members for rotation therewith, a plurality of brushes each received in a said recess, an arbor carried by one end on the other of said members for rotation therewith and limited axial movement with respect thereto over a range not greater than the axial spacing of the brushes, said arbor having a head at said one end greater in maximum transverse dimension than the bore of the tubular means thereby preventing insertion of the arbor into the tubular means in one direction, a plurality of slip rings one individual to each brush mounted on said arbor, and anti-friction bearing means for rotatably supporting the other end of said arbor with respect to said tubular means, said bearing means including an outer race, the minimum internal diameter of said outer race and tubular means being substantially equal and said outer race having an internally-located ball groove, an inner race part carried at the said other end of said arbor and having a maximum diameter less than the internal diameter of said tubular means for free passage therethrough, a complementary inner race part abutting said first mentioned inner race part, said inner race parts together having a ball groove, a plurality of balls having a running fit in said ball grooves, the fit being such as to provide rotational support and axial fixity, and means for securing said inner race parts to said arbor.

2,874,363
ELECTRICAL CONNECTOR WITH FLEXIBLE CONTACTS

Merrill J. Ainsworth, Northridge, Calif.

Application September 15, 1953, Serial No. 380,259
5 Claims. (Cl. 339—17)

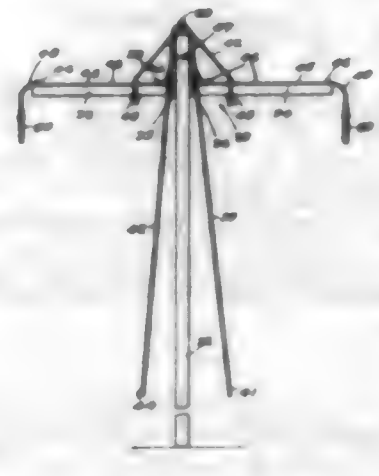


1. A female electrical connector in the form of a sandwich comprising: a rigid core; a pair of opposed, resilient, compressible pads embracing said core; a pair of rigid backing members embracing said pads; opposed contactor bars interposed between respective sides of said core and respective pads; and securing elements extending through said core, pads and backing members and binding them together tightly in said sandwich; said contactor bars, pads and backing members projecting beyond one side of said core to define a socket wherein said contactor bars are exposed for reception of a male connector between them; said pads functioning as cushions for yieldingly accommodating spreading of said contactor bars to receive the male element and for yieldingly pressing said contactor bars against the male element.

2,874,364
HOT LINE BY-PASS JUMPER

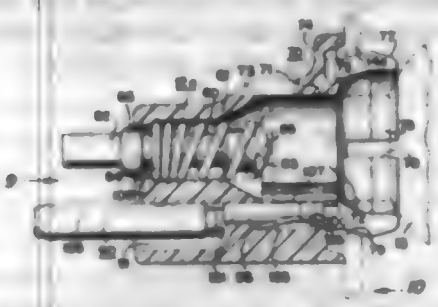
Fletcher G. Graham, Natchitoches, La.

Application August 20, 1956, Serial No. 605,101
1 Claim. (Cl. 339—109)



A hot line connector comprising an elongated pole, a pair of oppositely extending arms, means hingedly securing the inner ends of said arms to said pole at a point on said pole spaced substantially below the upper end of said pole, an elongated conductor having opposite ends, a hot line clamp secured to each of said opposite ends of said conductor, means securing said conductor to said arms, an eye secured to the upper end of said pole, and flexible means secured at one end to each of said arms and extending through said eye with portions thereof depending from said eye in suspended relation adjacent the lower end portion of said pole whereby said arms may be collapsed against said pole by manual manipulation of said flexible means.

2,874,365
CONNECTOR
Robert C. Woofter, Cortland, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 20, 1954, Serial No. 457,035
4 Claims. (Cl. 339—125)



1. A combination electrical wiring system arrangement for use in limited space behind an instrument panel of a motor vehicle, comprising, a panel having openings therein, a plurality of lamp sockets each removably mounted in respective panel openings, a plurality of electrical conductors bound together forming an electrical wiring harness with each of the respective conductors emerging from the harness at different points along the length thereof, means retaining said harness in fixed spatial position relative to said panel and to said lamp sockets, each of said conductors having a free length sufficient only for a direct line connection between said harness and a respective one of said lamps, a plurality of terminal connectors with legs bent to form a hairpin loop, said connectors each being attached to a free end of each free length of said conductors, an electrical insulating member housing each of said hairpin connectors to be cooperable with a guide slot formed with said member, and at least one lamp-engaging terminal means projecting outwardly from each of said sockets, said terminal means being engageable through the guide slot of said insulating member with a respective hairpin connector by feel in installation due to clean and orderly arrangement of said wiring system upon mounting of each lamp socket free of wiring in respective openings easily reconnectible behind said panel due to fixed spatial relation of said connectors and each insulating member with said harness relative each lamp socket, each lamp socket including, a body of electrical insulating material having a cylindrical chamber portion to receive the base of a lamp bulb and a coaxially extending chamber portion contiguous with the first portion, a terminal contact member comprising a pin resiliently reciprocably positioned in said second mentioned chamber having a headed end positioned adjacent to and coaxial with said first mentioned chamber for engagement by a central contact on a lamp bulb disposed therein and having the opposite end projecting out of said body coaxial with said second mentioned chamber, spring means disposed in said second mentioned chamber and frictionally retained therein and encircling said terminal resiliently urging the same toward the first mentioned chamber, a through passage in said body adjacent said first and second chambers and parallel thereto, a terminal member positioned in said through passage having a portion thereof tangent to the periphery of the first mentioned chamber for electrical contact engagement with the base of the lamp bulb disposed therein and having a pin portion projecting from said body parallel with said first mentioned contact member.

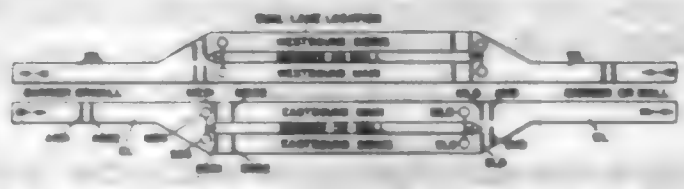
2,874,366
ELECTRIC LIGHT SOCKET
Emile S. Fromer, Tampa, Fla.
Application January 27, 1956, Serial No. 561,741
1 Claim. (Cl. 339—141)

An electric light socket shell comprising a dome shaped cap, a depending semi-cylindrical shell member integral with said cap, a complementary semi-cylindrical shell member, lugs carried by the upper end of said first mentioned shell member, complementary overlapping ears carried by the upper end of said second mentioned shell member, pivot means extending through each ear and its



associated lug for pivotally mounting said second mentioned shell member relative to said first mentioned shell member, a V-shaped locking member extending from each side edge of said first mentioned shell member and a confronting coacting V-shaped keeper formed in each side edge of said second mentioned shell member.

2,874,367
HIGHWAY SIGNALLING SYSTEM
James A. De Palma, Rochester, N. Y.
Application June 8, 1954, Serial No. 435,104
15 Claims. (Cl. 340—31)

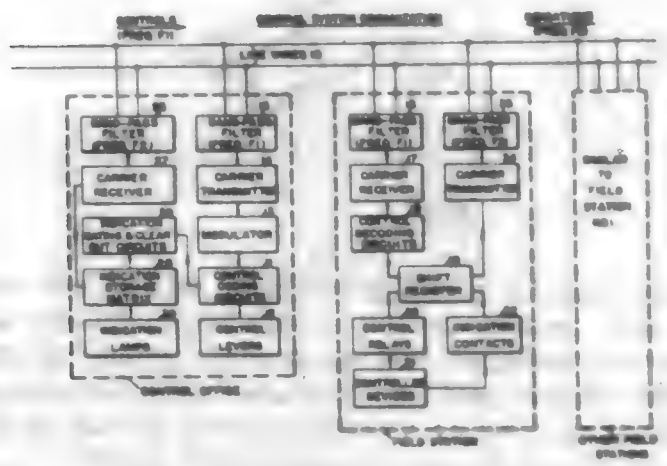


13. In a signaling system for a highway having a dual lane passing section for segregating traffic in a particular direction, highway vehicle traffic signals located at the entering and leaving ends of said dual lane section for governing highway vehicle traffic in each lane, means in the approach to said dual lane section for detecting vehicle speeds, and a signal control means responsive to said speed detection means for causing said entering and leaving signal of one lane of the dual lane passing section to display a stop aspect when highway vehicles traveling at abnormal speed have entered said one lane, said signal control means also causing said entering and leaving signals of the other lane of the dual lane passing section to display a proceed aspect for highway vehicles traveling at normal speeds.

2,874,368
ELECTRONIC CODE COMMUNICATION SYSTEM
Henry C. Sibley, Spencerport, N. Y., assignor to General Railway Signal Company, Rochester, N. Y.
Application August 17, 1954, Serial No. 450,303
9 Claims. (Cl. 340—163)

1. An electronic code communication system for transmitting controls over one channel and indications over a second channel between a control office and a remote field station location comprising, coding circuit means at said control office for repeatedly transmitting to said field station over said one channel of communication a series of distinctively time-spaced code characters on successively occurring pulse perods representing the control code for said station, a shift register at said field station having a separate stage for each of said pulse periods, first circuit means for repeatedly conditioning selected stages of said shift register to distinctive conditions in accordance with an indication code to be transmitted prior to the reception of the control code for said station, second circuit means for applying said time spaced pulses constituting the control code for said sta-

tion to the first stage of said shift register, shift pulse means connected to each stage of said shift register to cause the condition of any stage to be transferred to the next on each succeeding pulse period, means responsive to the condition of the last stage of said shift register to cause distinctive code digits to be tranamitted over said



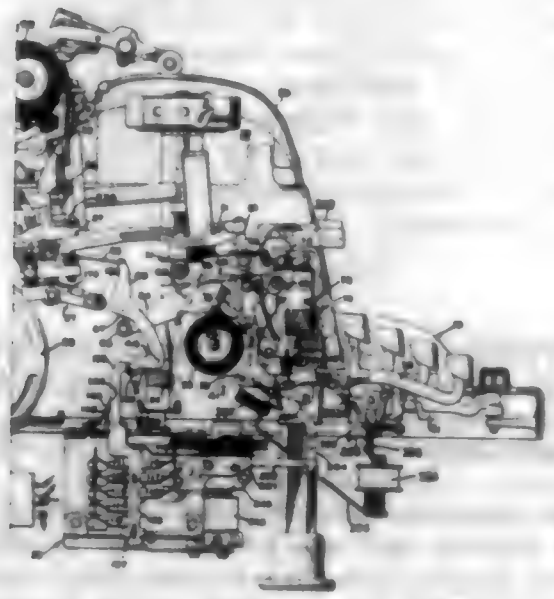
second channel of communication to said control office, whereby the stepping of said control codes into said shift register as governed by said shift pulse means concurrently causes the indication code previously stored in said shift register stages to be stepped out of said shift register and result in the transmission of distinctive time-spaced digits to said control office.

2,874,369

MACHINE FOR RECORDING ON MAGNETIC TAPE

Albert Blain, Herbert F. Welsh, Louis D. Wilson, Frank Reed, and Saul Meyer, Philadelphia, Pa., and Edwin O. Roggenstein, Norwalk, Conn., assignors, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application August 28, 1953, Serial No. 375,359
19 Claims. (Cl. 340—174)



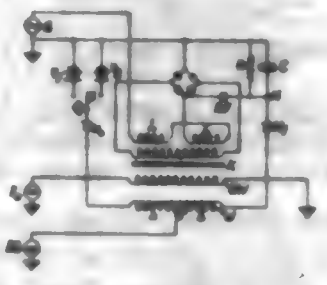
1. In combination, key means for entering data on a sheet, power means for operating said key means, means controlled by the operation of said key means for magnetically recording said data on a tape, belt means for operating said tape, means controlled by the operation of said key means for moving the sheet past said data entering means, clamp means operable by the movement of said sheet moving means for operating said belt and moving the tape past said data recording means, and means operated by said power means for moving the tape independently of said belt and clamp means.

2,874,370

DEVICE FOR RECORDING AND RE-TRANSMITTING CODED INFORMATION

Simon Duinker, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application April 19, 1954, Serial No. 424,179
Claims priority, application Netherlands May 5, 1953
8 Claims. (Cl. 340—174)



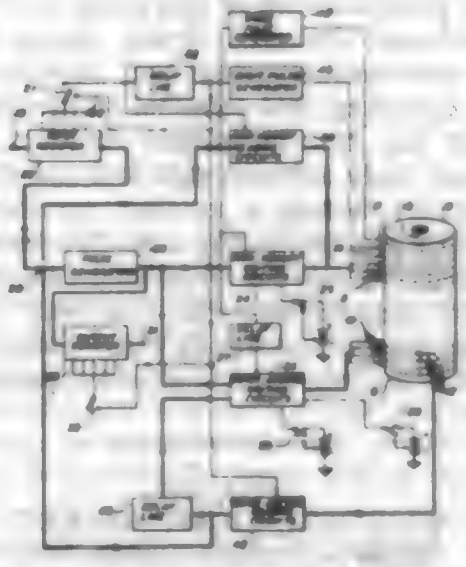
1. A device for recording and retransmitting coded information, comprising a trigger circuit having an output terminal and having two stable electric conditions thereby to provide at said output terminal a relatively large output voltage when in one of said stable conditions and a relatively small output voltage when in the other of said stable conditions, a source of comparison voltage, a comparison circuit for comparing the voltage at said output terminal with said comparison voltage and comprising an impedance member having a tap thereon, a first unidirectionally-conductive member connected between a first end of said impedance member and said output terminal, a second unidirectionally-conductive member connected between the other end of said impedance member and said source of comparison voltage, and a source of control pulses connected to said tap, whereby for a given value of voltage at said output terminal, as compared to said comparison voltage one of said unilaterally-conductive members will become conductive upon the occurrence of a control pulse from said pulse source, thereby causing a control voltage to be produced in said impedance member, and means connected to apply said control voltage to said trigger circuit to cause said trigger circuit to change from one to the other of said stable states.

2,874,371

INFORMATION STORAGE SYSTEM

Jerry F. Foster, Pasadena, Calif., assignor, by mesne assignments, to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application September 23, 1954, Serial No. 457,834
3 Claims. (Cl. 340—174)



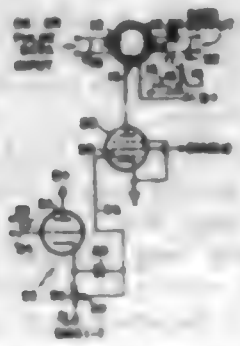
1. In a memory system in which digital information is stored on a magnetizable storage medium including a plurality of sectors and a synchronizing signal track from which may be derived synchronizing signals for

identifying each of the sectors, the combination of at least one transducer which is adapted to record information on a first selected area of the storage medium in synchronism with the synchronizing signals, and read information from the first selected area of the magnetic medium in delayed synchronism with the synchronizing signals; at least one transducer which is adapted to record information in a second selected area of a magnetic medium in synchronism with the delayed synchronism of the first section transducer spaced from the last-named transducer; at least one transducer which is adapted to read information from the second selected area of a magnetic medium in exact time synchronism with the synchronizing signals; means for coupling the output of the second section reading transducer to said one transducer for recording information in the first selected area; and delaying means coupled between the second section reading transducer and the second section writing transducer for delaying the information coupled therebetween, whereby a path for recirculating information is provided via the second section writing transducer, the magnetic medium, the second section reading transducer and the delaying means.

2,874,372
MAGNETIC CORE DEVICES

Robert E. Westlund, St. Paul, Minn., Lyle W. Mader, Silver Spring, Md., and Gordon W. Johnson, Minneapolis, Minn., assignors to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application November 15, 1955, Serial No. 546,880
9 Claims. (Cl. 340—174)



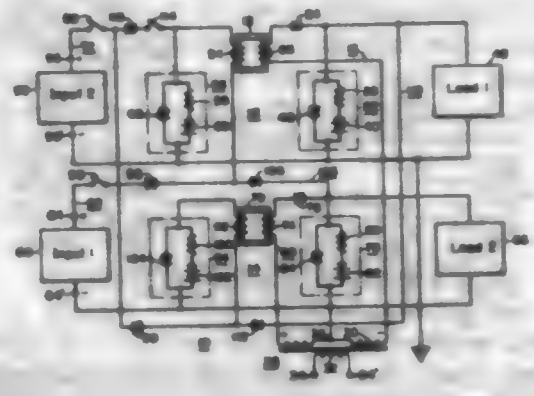
1. A circuit comprising a saturable magnetic core having input winding means for receiving input electrical data to be gated, output winding means for applying externally the gated data, driver winding means for receiving a substantially continuous biasing signal to control the gating of the received electrical data, and means to control the amplitude of the biasing signal through said driver winding means, the arrangement being such that amplitudes of the biasing signal in a first range will hold the core in a first state regardless of received input data while amplitudes of the biasing signal in a second range will permit the core to shift to a second state if the then received data so dictates.

2,874,373
LOGIC CIRCUITS

William G. Hall, Ridgewood, N. J., and Robert I. Van Nice, Shaler Township, Allegheny County, and William G. Evans, Monroeville, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 15, 1955, Serial No. 553,285
5 Claims. (Cl. 340—174)

1. In a magnetic device, the combination comprising, magnetic core means, said core means being made of material having substantially rectangular loop hysteresis characteristics, a first and a second load winding disposed in inductive relationship with the magnetic core means, a first and a second reset winding disposed in inductive relationship with the magnetic core means, power supply means, circuit means for interconnecting the first and the second load winding in circuit relationship with said power supply means, a feed-back circuit comprising a first serially connected non-linear impedance means interconnected between the first load winding and the second reset winding to effect a reset of that portion of the magnetic core means associated with the second

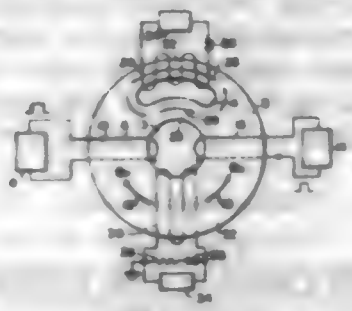


reset winding, another feed-back circuit comprising a second serially connected non-linear impedance means interconnected between the second load winding and the first reset winding to effect a reset of that portion of the magnetic core means associated with the first reset winding, and control means for effecting a change in the flux level in at least one of said portions of the magnetic core means to thus change the operating condition of said magnetic device.

2,874,374
NON-DESTRUCTIVE CORE READ-OUT

John H. Lane, Malvern, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application June 29, 1956, Serial No. 594,786
8 Claims. (Cl. 340—174)

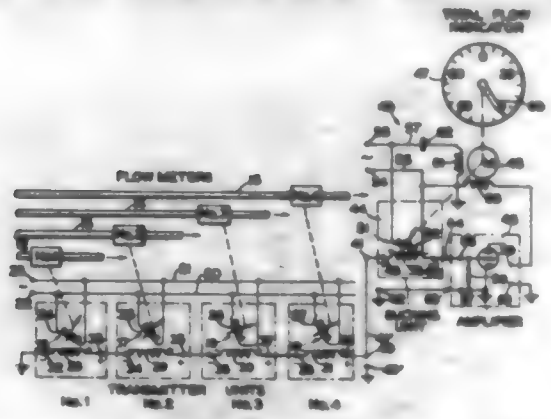


4. A magnetic storage device comprising an annularly shaped core of magnetizable material capable of assuming either of two stable states of magnetic remanence; means for creating a main magnetic flux completely around the core in one direction or the other to set the core in one or the other state of remanence, said core having an aperture through a portion of the core between the inner and outer radial dimensions thereof, the axis of said aperture being in a direction substantially parallel to the axis of said core, said aperture being in the form of an elongated slot with the longer sides being at least twice as long as the shorter sides, said longer sides being substantially parallel with the perimeter of said core; an interrogation winding for receiving an interrogation current pulse, said interrogation winding extending through said slot and forming a loop about one of the two legs established in said core by said slot; and means including an output winding through the main opening of said annular core for sensing any change in main flux resulting from the flow of said interrogation current and for producing a signal indicative of the remanent state of said core without requiring said core to switch its state.

2,874,375
ELECTRIC SIGNALING AND INDICATING APPARATUS

Henry Gandy Elwell, Jr., Hackensack, N. J., and Sigmund Machlanski, Glendora, Calif., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application December 1, 1953, Serial No. 395,450
18 Claims. (Cl. 340—182)

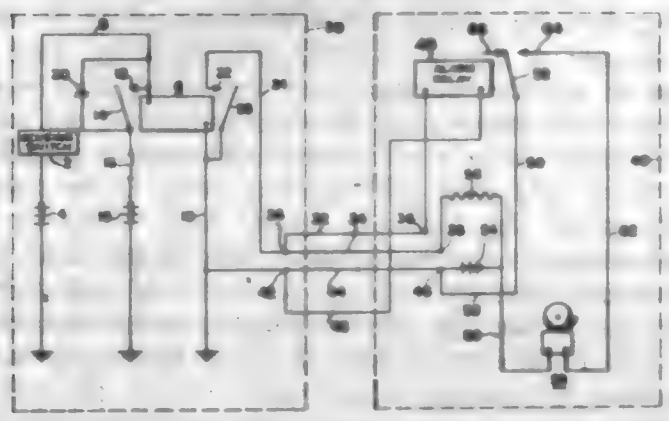


1. A total fluid flow indicating system comprising a plurality of transmitter units for developing in the output of each unit respectively an output voltage of the same one constant phase and of a magnitude representative of a respective different fluid flow, each unit including means for sensing respective fluid flow and a linear-output rotatable transformer having a primary winding adapted for excitation and having a secondary winding connected in the output of said unit, said transformer having a rotor for varying the inductive coupling between said windings and adapted for rotation by said sensing means only through an angular range wherein the relationship between the voltage across said secondary winding and the angular displacement of said rotor is substantially linear when a constant excitation is provided for said primary winding, means connecting the outputs of said units in series in a circuit to develop across a pair of terminals in said circuit a resultant voltage of said one constant phase and substantially proportional to total flow, a unit for balancing the system and having an output thereof connected with said terminals to complete a circuit in which the output voltage of said balancing unit is in constant phase opposition to said resultant voltage of said one phase, and total flow indicating means under the mutual control of said transmitter units and said balancing unit.

2,874,376
LOCAL ALARM CIRCUIT FOR BURGLAR ALARM SYSTEMS

Le Roy C. Spenard, Port Washington, N. Y., assignor to Holmes Electric Protective Company, New York, N. Y., a corporation of New York

Application October 21, 1954, Serial No. 463,733
1 Claim. (Cl. 340—276)

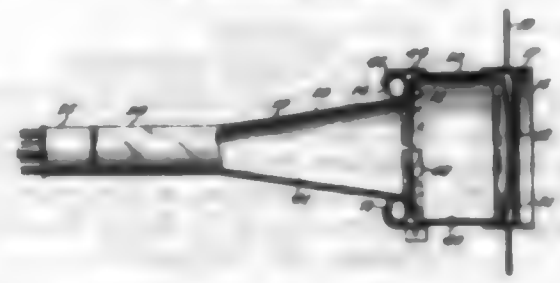


An alarm circuit including: a first circuit located in a first housing and having in series an alarm relay and a battery which normally energizes said relay and holds the armature of said relay in a first position; means responsive to the movement of said armature to a second position to give an alarm signal; a normally open switch closing in response to a condition to be sensed; the said first circuit including a first elongated open-sided loop in the line between one terminal of the relay and one terminal of the battery and a second elongated open-sided loop in the line between the other terminal of the relay and the other terminal of the battery, the terminals of the said normally open switch being connected, respectively, to the bight portions of each loop; the said normally open switch and its connection to the bight portions of the loops being located in a second housing, the loops thus extending from the first to the second housing, whereby the occurrence of a condition to be sensed results in the closure of the said normally open switch shorting the said relay and giving an alarm signal and whereby the opening of either of said loops deenergizes said relay and also gives an alarm signal.

2,874,377
CATHODE RAY OSCILLOSCOPES

Reed C. Lawlor, Alhambra, Calif.

Application December 1, 1952, Serial No. 323,395
33 Claims. (Cl. 340—369)

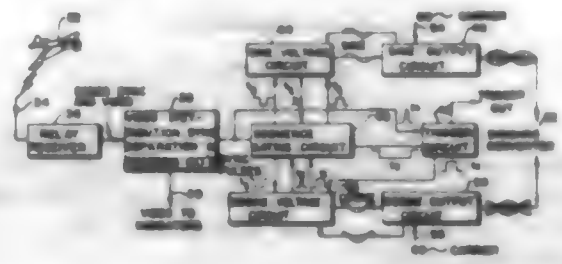


1. In a cathode ray tube, a luminescent screen characterized by emitting radiation in a first wavelength region when excited either by cathode rays or by radiation in a second wavelength region and by becoming deexcited upon exposure to radiation in a third wavelength region, wavelengths in said second region being short compared with wavelengths in said first region and wavelengths in said third region being long compared with wavelengths in said first region; a source of cathode rays for exciting said screen; a filter in front of said screen characterized by selectively attenuating transmission of radiation of such short wavelengths and such long wavelengths and also characterized by selectively transmitting radiation in said first wavelength region, and a separate source for emitting radiation in said relatively long wavelength region mounted behind said screen.

2,874,378
DATA TRANSMISSION SYSTEM

Andrew B. Jacobsen, Somerville, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application November 30, 1945, Serial No. 631,956
9 Claims. (Cl. 343—6)



9. In a system in which target information obtained by a first radar set is transmitted to a remote receiver in the form of pulse trains including in sequence at least a reference pulse, a first antenna position pulse time modulated from a point displaced a fixed amount from said reference pulse in accordance with the sine of the angle

formed by the directivity axis of the rotating directional antenna of said radar set and a reference direction, a second antenna position pulse time modulated from said first antenna position pulse in accordance with the cosine of said angle and a trigger pulse in time synchronism with the radiation of the search pulse from said antenna, means for controlling the commencement of the sweep of the cathode ray tube indicator of the remote receiver and for maintaining said sweep in rotational synchronism with said directivity axis comprising in combination means at said receiver responsive to said pulse trains for developing first and second substantially sinusoidal wave forms, said wave forms being in a quadrature phase relationship and the amplitudes thereof being approximately proportional to the time displacement between the reference pulse and the first antenna position pulse and the first antenna position pulse and the second antenna position pulse, respectively, means for generating relatively narrow first and second tolerance gate pulses, means responsive to the amplitudes of said first and second wave forms for timing the occurrence of said first and second tolerance gate pulses with respect to said reference pulse and said first antenna position pulse, respectively, a first coincidence circuit, means for feeding said pulse trains and a first tolerance gate pulse to said coincidence circuit whereby an output pulse is produced by said coincidence circuit whenever a first antenna position pulse coincides with a first tolerance gate pulse, a second coincidence circuit, means for feeding said pulse trains, the output pulse of said first coincidence circuit and a second tolerance gate pulse to said second coincidence circuit whereby a control pulse is generated by said second coincidence circuit when there is triple coincidence between a second antenna position pulse, an output pulse from said first coincidence circuit and said second tolerance gate pulse, means responsive to the concurrent occurrence of a control pulse from said second coincidence circuit and a trigger pulse for initiating the sweep of said cathode ray tube indicator, and means controlled by said sinusoidal wave forms for rotating the radial sweep of said cathode ray tube whereby said sweep is maintained in synchronism with the directivity axis of the remote rotating antenna.

2,874,379

RADIO ECHO RANGING AND DIRECTION FINDING SYSTEM

Robert M. Page, Washington, D. C.

Application November 15, 1945, Serial No. 628,952
7 Claims. (Cl. 343—11)
(Granted under Title 35, U. S. Code (1952), sec. 266)



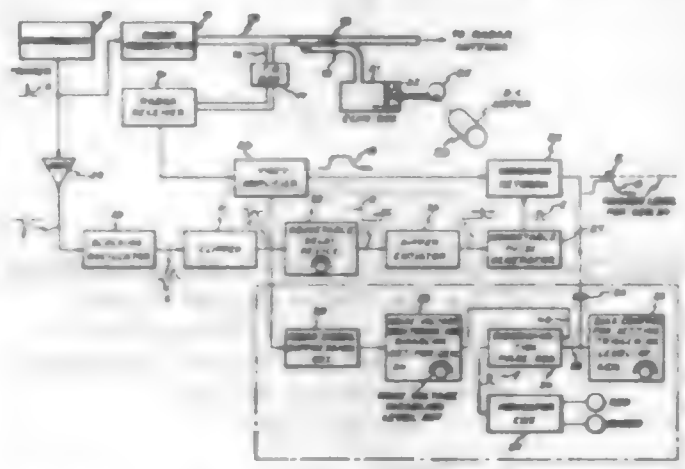
1. A radio echo ranging and direction finding system comprising pulse signal transmitting means, radio echo receiving means, directional antenna means for said transmitting and receiving means rotatable with respect to an antenna mount, control means therefor operative to vary the orientation of a singular directional characteristic of the antenna means with respect to the antenna mount, a modulator coupled to said transmitting means and to said control means responsive to the latter to vary the modulation characteristic of said transmitting means in accordance with the variation in orientation of said directional characteristic with respect to the antenna mount, means rendering said echo receiving means operative to receive echo impulses reflected from an object at a selected range only, and a modulation indicator coupled to the output of the receiving means to indicate the modulation characteristics of the echo impulses reflected from said selected range, thereby producing an indication of the bearing of said reflecting object with respect to the antenna mount.

2,874,380

RADAR SYSTEM EVALUATOR

Edward J. Fuller, Garden City, and George W. Pate, Wantagh, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware

Application July 12, 1956, Serial No. 597,584
16 Claims. (Cl. 343—17.1)



1. Evaluator apparatus for testing a microwave pulse radar system having a transmitter and receiver, said apparatus comprising: an electromagnetic energy echo box for sampling microwave pulses from the transmitter and reradiating echo pulses back to the receiver for detection thereby, first means responsive to detected energy from the radar receiver for providing a signal whose amplitude level is indicative of radar transmitter-receiver operating performance, second means responsive to detected energy from the radar receiver for providing a signal whose magnitude is a function of the level of noise energy from the radar receiver, and further means coupled to said first and second means for response to said signals for providing a predetermined output whenever the signal provided by said second means is below a predetermined magnitude and the signal provided by said first means is above a predetermined amplitude level.

2,874,381

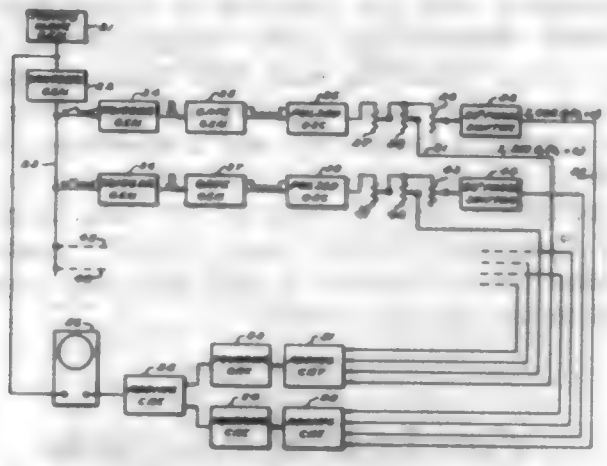
ANTENNA PATTERN SYNTHESIZER

Gus Stavis, Ossining, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application September 25, 1956, Serial No. 611,898
5 Claims. (Cl. 343—703)

1. An antenna pattern synthesizer comprising, a plurality of variable frequency oscillators, means for repeatedly starting and stopping the generation of oscillations, means for deriving from the output of each of said oscillators first and second voltage components in quadrature with each other, means for adding all of said first components together to obtain a first summation voltage, means for adding all of said second components together to obtain a second summation voltage, means for deriving a first squared voltage proportional to the

square of said first summation voltage, means for deriving a second squared voltage proportional to the square of said second summation voltage, and means for adding said first and second squared voltages to obtain a



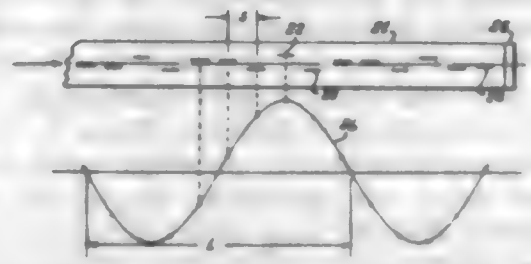
resulting voltage the amplitude variations of which as a function of time are analogous to the variations in the power radiated by an antenna as a function of the angle of observation.

2,874,382

DUAL BEAM ANTENNA

Gus Stavis, Ossining, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application June 9, 1954, Serial No. 435,584
9 Claims. (Cl. 343—771)



6. An antenna comprising a plurality of individual radiators arranged in a line, and wave transmission means for coupling energy to said radiators, said radiators being sufficient in number and having such varying degrees of coupling to said transmission means as to produce at least one cycle of a sinusoidal maximum current distribution in said radiators, the length of one cycle of said distribution being greater than twice the spacing between adjacent radiators.

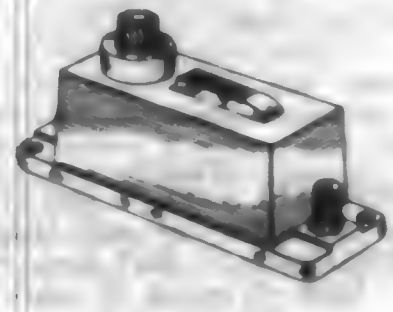
DESIGNS

FEBRUARY 17, 1959

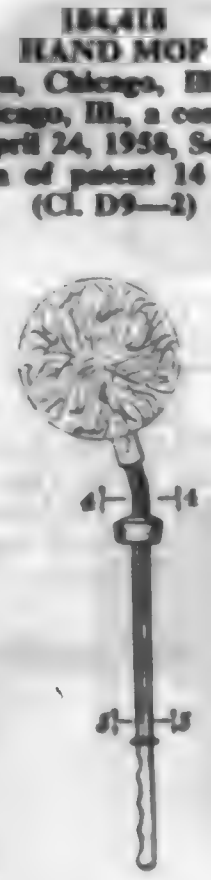
184,416
COMBINED SAUCER AND TEA BAG RECEPTACLE
Thomas A. Anderson, Batavia, Ill.
Application July 15, 1958, Serial No. 51,782
Term of patent 14 years
(Cl. D44—9)



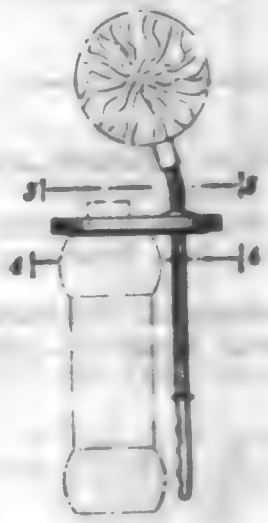
184,417
COMBINED ADJUSTABLE CIRCUIT BREAKER AND WARNING LIGHT
Joseph L. Bonanno, South Orange, N. J., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York
Application May 9, 1958, Serial No. 50,827
Term of patent 14 years
(Cl. D26—13)



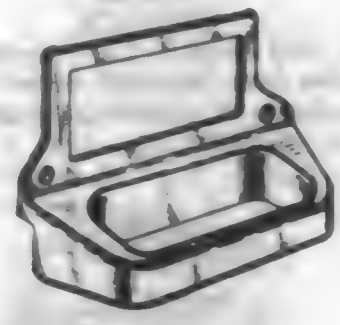
184,418
HAND MOP
Henry J. Brownstein, Chicago, Ill., assignor to Hyman Products Co., Chicago, Ill., a corporation of Illinois
Application April 24, 1958, Serial No. 50,611
Term of patent 14 years
(Cl. D9—2)



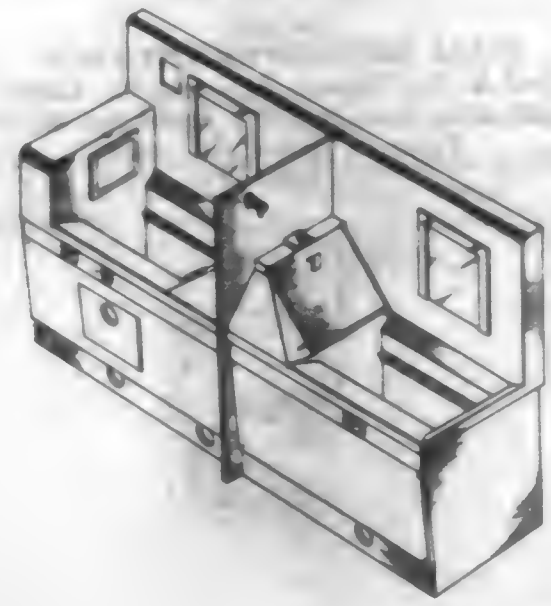
184,419
COMBINED HAND MOP AND DRIP TRAY
Henry J. Brownstein, Chicago, Ill., assignor to Hyman Products Co., Chicago, Ill., a corporation of Illinois
Application April 24, 1958, Serial No. 50,612
Term of patent 14 years
(Cl. D9—2)



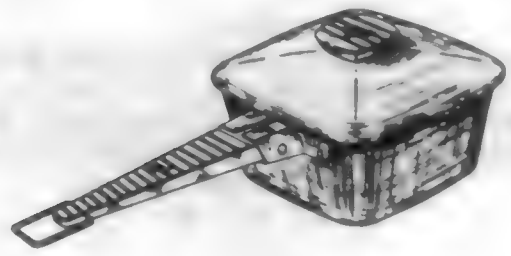
184,420
COMBINED DRAWER HANDLE AND CARD HOLDER OR SIMILAR ARTICLE
Lawrence G. Carlisle, Louisville, Ky.
Application August 28, 1957, Serial No. 47,533
Term of patent 14 years
(Cl. D10—8)



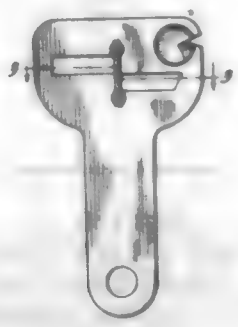
184,421
X-RAY PROCESSING TANK
John W. Carr, Pacific Palisades, Calif.
Application August 18, 1958, Serial No. 52,247
Term of patent 14 years
(Cl. D61—1)



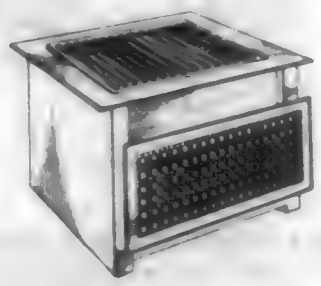
184,422
SAUCE PAN
Richard B. Cronheim, St. Louis, Mo.
Application March 5, 1958, Serial No. 49,916
Term of patent 14 years
(Cl. D44—1)



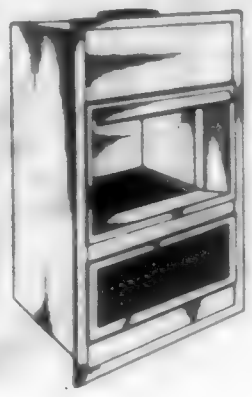
184,423
COMBINATION SCISSORS AND KNIFE SHARPENER
Richard F. Curley, Sr., Baltimore, Md., assignor to National Products Co., Inc., Baltimore, Md., a corporation of Maryland
Application December 28, 1956, Serial No. 44,348
Term of patent 3½ years
(Cl. D37—1)



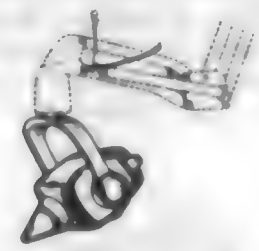
184,424
BROILER
Joel A. Del Francia, Los Angeles, Calif.
Application June 24, 1957, Serial No. 46,717
Term of patent 14 years
(Cl. D81—10)



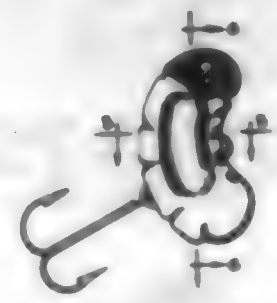
184,425
WALL BROILER OR THE LIKE
Joel A. Del Francia, Los Angeles, Calif.
Application June 24, 1957, Serial No. 46,718
Term of patent 14 years
(Cl. D81—10)



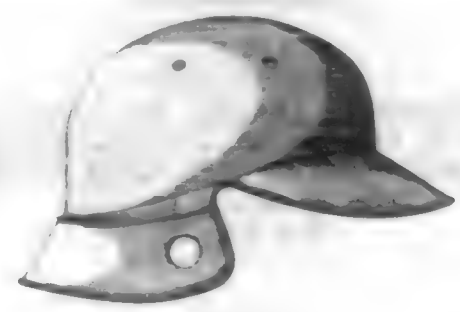
184,426
X-RAY UNIT
Robert H. Ensign, Bronxville, and Alban Gifford Jackson, New York, N. Y., assignors to Ritter Company, Inc., a corporation of Delaware
Application November 13, 1956, Serial No. 43,722
Term of patent 14 years
(Cl. D61—1)



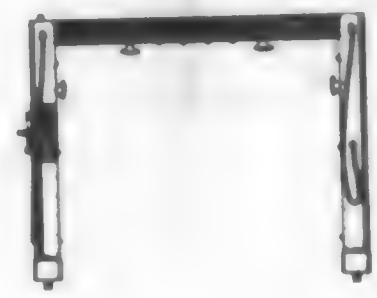
184,427
FISHING LURE
John Eslinger, Chicago, Ill.
Application June 5, 1958, Serial No. 51,206
Term of patent 14 years
(Cl. D31—4)



184,428
BASEBALL SAFETY HELMET
Lawrence Finkelhor, University Heights, Ohio
Application October 24, 1957, Serial No. 48,223
Term of patent 14 years
(Cl. D3—13)



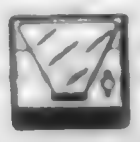
184,429
CAR WASHING UNIT
David Fisher, Studio City, Calif.
Application November 18, 1957, Serial No. 48,586
Term of patent 14 years
(Cl. D49—1)



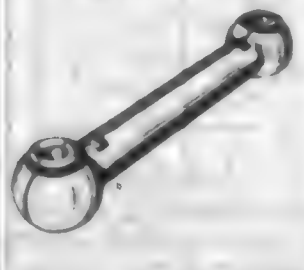
184,430
STEERING WHEEL
Daniel C. Frenz, Aurora, Ohio, assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application July 3, 1958, Serial No. 51,643
Term of patent 14 years
(Cl. D14—30)



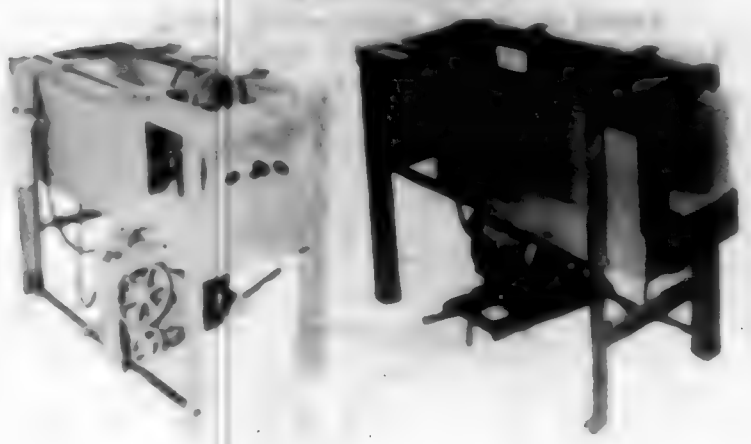
184,431
JEWELRY CASE LOCK
Charles S. Gehrie, Montclair, N. J., assignor to Presto Lock Co., Garfield, N. J., a limited partnership
Application May 22, 1958, Serial No. 51,021
Term of patent 14 years
(Cl. D50—2)



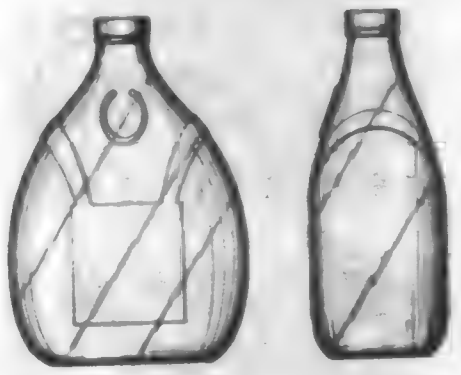
184,432
VIBRATION INSULATOR FOR SPACING APART OVERHEAD WIRES
John Edward Gill, Brentwood, and Edward William Fletcher, Surbiton, England, assignors to Balfour, Beatty & Co. Limited, London, and Andre Rubber Company Limited, Surbiton, England, both British companies
Application November 18, 1957, Serial No. 48,529
Claims priority, application Great Britain June 4, 1957
Term of patent 14 years
(Cl. D26—10)



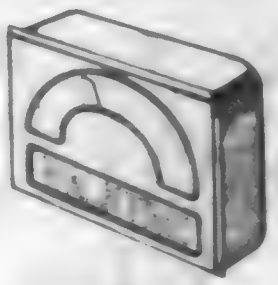
184,433
UNIVERSAL TEST STAND FOR ENGINES OR SIMILAR ARTICLE
Arnold M. Goetze, Battle Creek, Mich.
Application September 9, 1955, Serial No. 37,867
Term of patent 14 years
(Cl. D26—1)



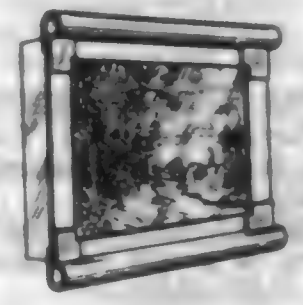
184,434
BOTTLE
Marcel Gouin, Paris, France, assignor to Societe a Responsabilite Limitee Etablissements Gouin, Paris, France, a corporation of France
Application August 1, 1958, Serial No. 52,014
Term of patent 14 years
(Cl. D58—3)



184,435
PEDESTRIAN TRAFFIC SIGNAL
Norman R. Hastings, Huron, S. Dak., assignor to Walk Time, Inc., Huron, S. Dak., a corporation of South Dakota
Application April 15, 1954, Serial No. 30,028
Term of patent 14 years
(Cl. D72—1)



184,436
ILLUMINABLE PICTURE FRAME
Walter R. Haycraft, Sylvania, Ohio
Application March 26, 1958, Serial No. 50,184
Term of patent 14 years
(Cl. D29—20)



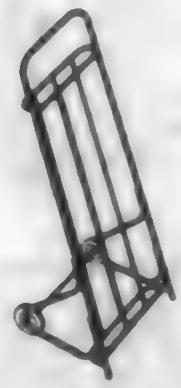
184,437
VELOCIPEDE
Carl W. Hedstrom, Gardner, Mass., assignor to Hedstrom Union Company, Fitchburg, Mass.
Application May 5, 1958, Serial No. 50,767
Term of patent 7 years
(Cl. D34—15)



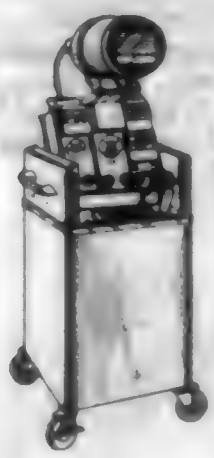
184,438
VELOCIPEDE
Carl W. Hedstrom, Gardner, Mass., assignor to Hedstrom Union Company, Fitchburg, Mass.
Application May 26, 1958, Serial No. 51,089
Term of patent 7 years
(Cl. D34—15)



184,439
PORTABLE DISPLAY RACK FOR OIL CANS
Robert R. Heilmann, Stroudsburg, Pa.
Application May 8, 1957, Serial No. 46,064
Term of patent 3½ years
(Cl. D60—10)



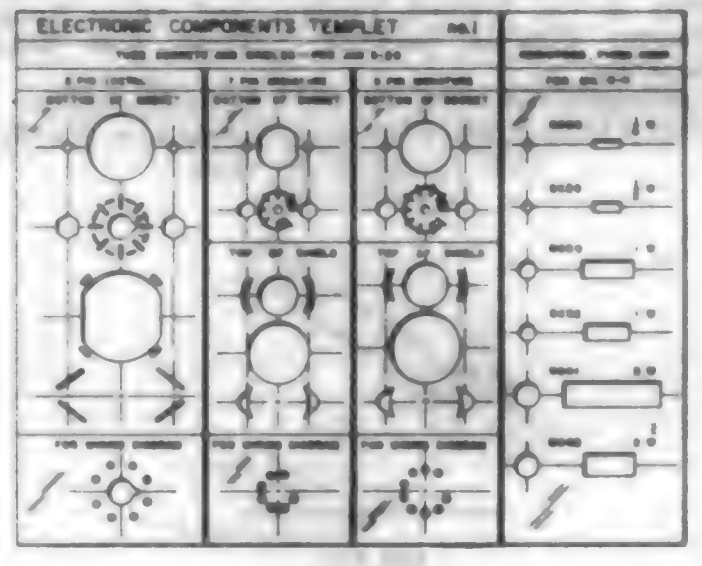
184,440
ENGINE ANALYZING UNIT
Benjamin F. W. Heyer, Greenwich, Conn., assignor to Heyer Industries, Incorporated, Belleville, N. J., a corporation of Delaware
Application January 3, 1958, Serial No. 49,135
Term of patent 14 years
(Cl. D26—1)



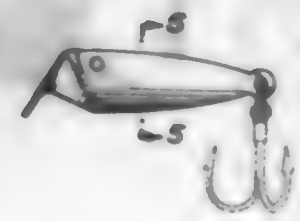
184,441
BUILDING OR THE LIKE
David H. Kirkoby, Mount Prospect, Ill., assignor, by mesne assignments, to Lyman D. Dunn, Chicago, Ill.
Application March 25, 1957, Serial No. 45,414
Term of patent 7 years
(Cl. D13—1)



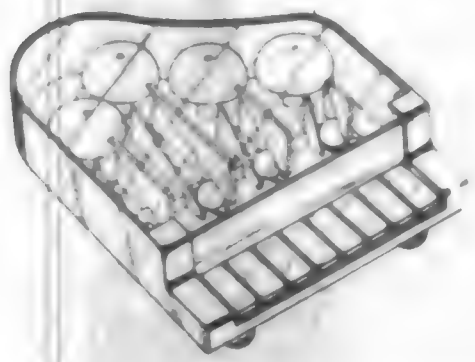
184,442
ELECTRONIC COMPONENTS TEMPLET OR SIMILAR ARTICLE
Murray W. Kravis, Flushing, N. Y.
Application April 29, 1957, Serial No. 45,924
Term of patent 7 years
(Cl. D52—1)



184,443
FISHING BAIT
Ernest M. Kaehl, Birmingham, Mich.
Application October 18, 1957, Serial No. 48,055
Term of patent 14 years
(Cl. D31—4)



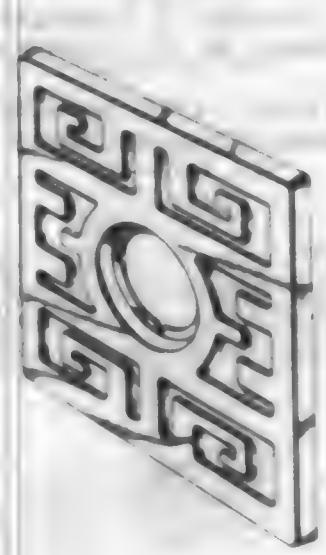
184,444
TOY PIANO
Willis M. Lekin, Chicago, Ill., assignor to Marlin Toy Products, Inc., Chicago, Ill., a corporation of Illinois
Application April 21, 1958, Serial No. 50,556
Term of patent 14 years
(Cl. D34—15)



184,445
APPLICATOR FOR APPLYING TREATING MATERIAL TO THE HAIR
Louis L. Lerner, Chicago, Ill., assignor to The Gillette Company, Boston, Mass., a corporation of Delaware
Application May 6, 1957, Serial No. 46,826
Term of patent 14 years
(Cl. D86—10)

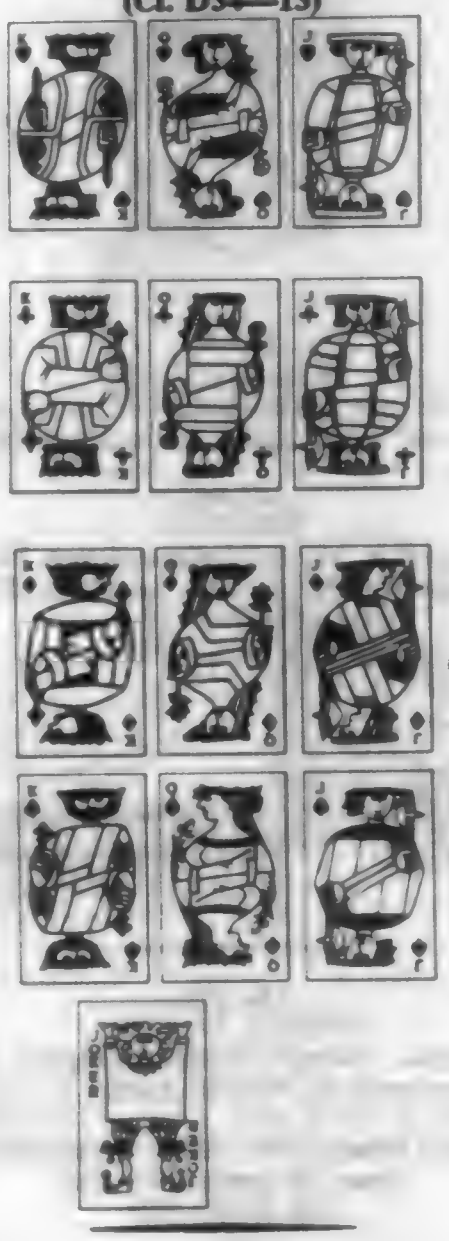


184,446
ESCUTCHEON PLATE
Hunt Lewis, Arcadia, Calif., assignor to Schlage Lock Company, a corporation
Application July 30, 1958, Serial No. 51,990
Term of patent 14 years
(Cl. D50—6)

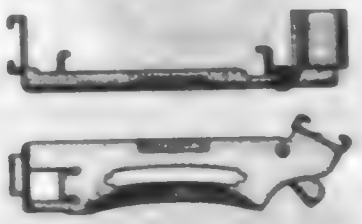


739 O. G.—52

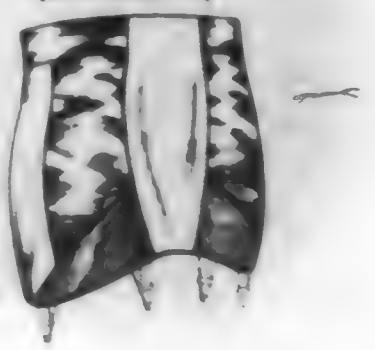
184,447
SET OF PICTURE PLAYING CARDS
Stig Lindberg, Eriksberg, Gustavsberg, Sweden, assignor to Aktiebolaget J. O. OBerg & Son, Eskilstuna, Sweden, a corporation of Sweden
Application March 21, 1958, Serial No. 50,119
Term of patent 14 years
(Cl. D34—13)



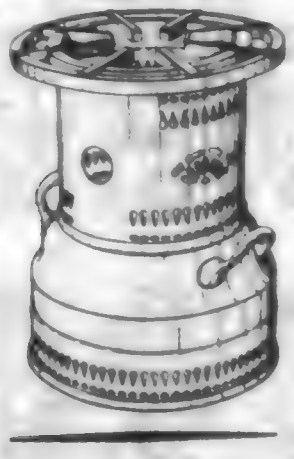
184,448
ACCESSORY BRACKET FOR A CAMERA OR SIMILAR ARTICLE
Samuel Marson, New York, N. Y.
Application March 13, 1957, Serial No. 45,245
Term of patent 3½ years
(Cl. D61—1)



184,449
GIRDLE
Patrick J. Morano, Newark, N. J.
Application January 6, 1956, Serial No. 39,642
Term of patent 14 years
(Cl. D20—2)



184,450
COMBINED STOVE AND LAMP
Henry Henderson Morton, London, England, assignor to The Savoy Hotel Limited, London, England
Application April 7, 1958, Serial No. 50,364
Term of patent 14 years
(Cl. D81—10)



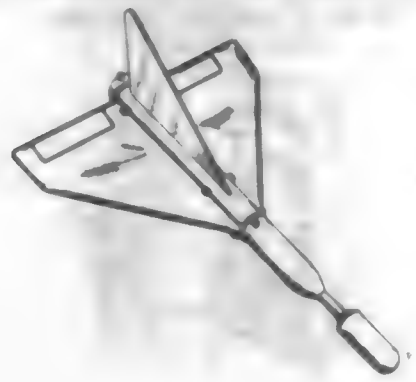
184,451
WRENCH
Robert E. Mullin, Independence, Mo.
Application July 10, 1958, Serial No. 51,731
Term of patent 14 years
(Cl. D54—16)



184,452
WHEEL COVER
Ned F. Nickles, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 13, 1958, Serial No. 49,633
Term of patent 7 years
(Cl. D14—30)



184,453
PROPELLED GLIDER
Sid Noble, Levittown, N. Y., assignor to Ideal Toy Corporation, Hollis, N. Y., a corporation of New York
Application March 18, 1958, Serial No. 50,083
Term of patent 14 years
(Cl. D34—15)



184,454
COMBINED ROSARY AND STATUETTE
Elsie Oppido, East Williston, N. Y.
Application February 6, 1958, Serial No. 49,523
Term of patent 14 years
(Cl. D29—23)



184,455
BOTTLE HOLDER OR THE LIKE
Robley D. Palmer, Holyoke, Colo.
Application February 7, 1958, Serial No. 49,538
Term of patent 14 years
(Cl. D83—8)



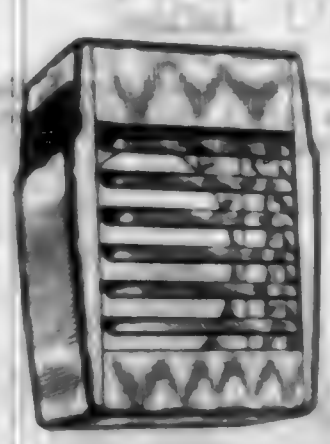
184,456
COMBINED PORTABLE VIEWER AND ILLUMINABLE UNIT FOR INSPECTING AIR FILTER CARTRIDGES
Donald L. Paster, Riverside, R. I., assignor to Fram Corporation, Providence, R. I., a corperation of Rhode Island
Application May 1, 1958, Serial No. 50,699
Term of patent 7 years
(Cl. D57—1)



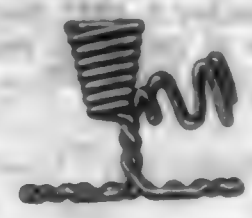
184,457
TOY BIRD FIGURE
Bayard C. Reed, Chicago, Ill., assignor to Marvin I. Glass, Chicago, Ill.
Application February 27, 1958, Serial No. 49,817
Term of patent 3½ years
(Cl. D34—2)



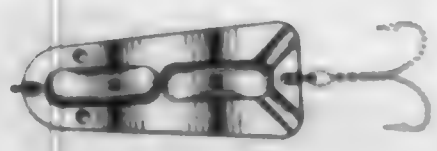
184,458
HEATER CASING
Jean O. Reinecke, Oak Park, Ill., assignor to Modine Manufacturing Company, Racine, Wis., a corporation of Wisconsin
Application November 16, 1956, Serial No. 43,799
Term of patent 14 years
(Cl. D81—19)



184,459
COMBINED CIGARETTE EXTINGUISHER AND SUPPORT
Max A. Schlatterer, Cleveland, Ohio
Application September 9, 1957, Serial No. 47,656
Term of patent 14 years
(Cl. D85—2)



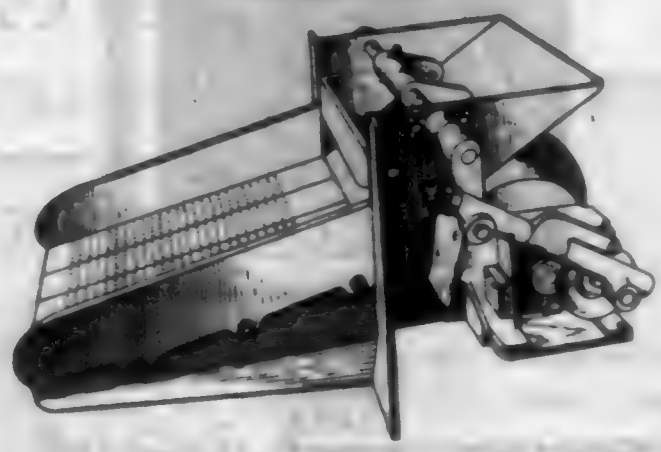
184,460
FISH LURE
Frank A. Serafin, Oakland County, Mich., assignor of one-half to Solomon Newhouse, Pontiac, Mich.
Application December 23, 1957, Serial No. 48,986
Term of patent 14 years
(Cl. D31—4)



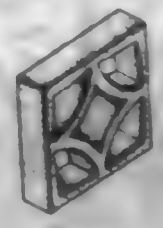
184,461
ICE CUBE BUCKET
William S. Sherman, Chicago, Ill., assignor to I. J. Grass Needle Co., Inc., Chicago, Ill., a corporation of Illinois
Application June 5, 1958, Serial No. 51,215
Term of patent 7 years
(Cl. D58—17)



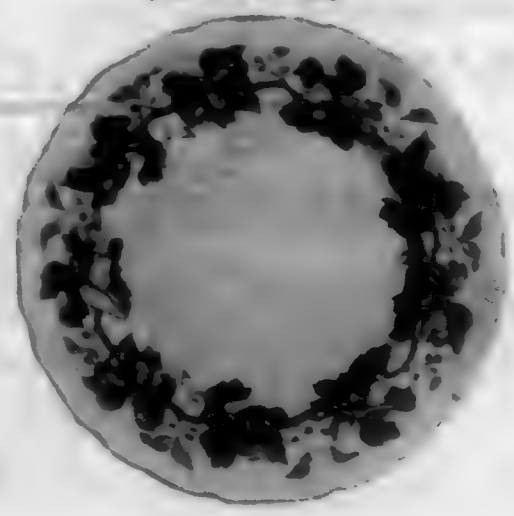
184,462
COAL STOKER
Clarence K. Sisley, Schuylkill Haven, Pa.
Application August 14, 1957, Serial No. 47,361
Term of patent 14 years
(Cl. D61—1)



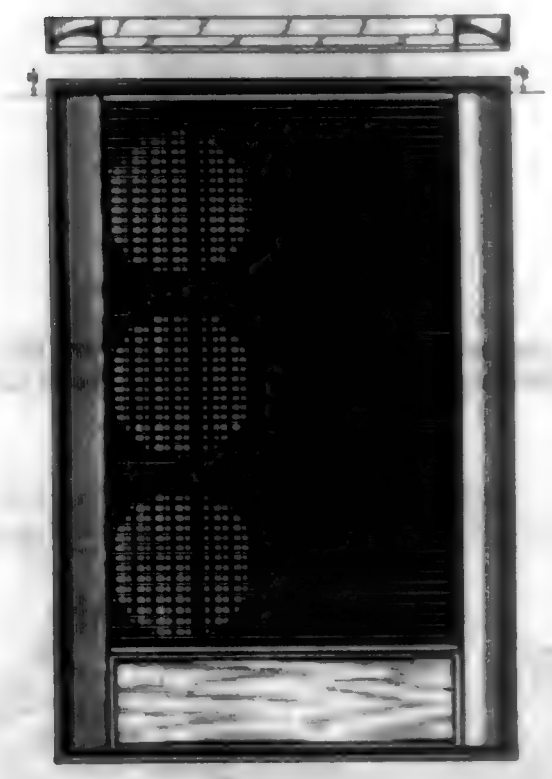
184,463
WALL BLOCK
Edward D. Stone, New York, N. Y.
Application September 18, 1957, Serial No. 47,772
Term of patent 14 years
(Cl. D18—2)



184,464
PLATE OR SIMILAR ARTICLE
Gerald S. Stone, Scarsdale, N. Y., assignor to Johnson Bros. (Hanley) Limited, Hanley, England, a British company
Application September 9, 1958, Serial No. 52,571
Term of patent 14 years
(Cl. D44—15)



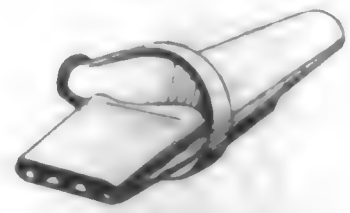
184,465
AIR CONDITIONER FRONT PANEL
Carl W. Sundberg, Bloomfield Hills, Mich., assignor to Whirlpool Corporation, a corporation of Delaware
Application February 10, 1958, Serial No. 49,570
Term of patent 14 years
(Cl. D62—4)



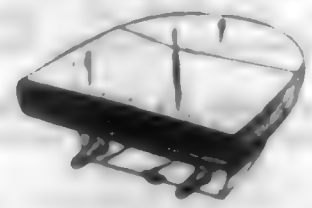
184,466
CLOCK
Charles Henry Tungate, Sr., Oakland, Calif.
Application August 15, 1958, Serial No. 52,227
Term of patent 14 years
(Cl. D42—7)



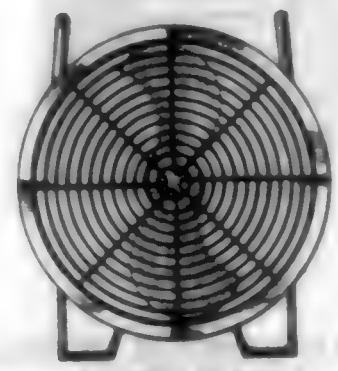
184,467
HAND VACUUM CLEANER
John C. Wistrand, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn.
Application August 12, 1957, Serial No. 47,383
Term of patent 14 years
(Cl. D9—2)



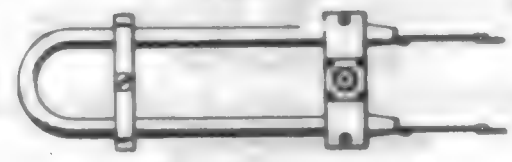
184,468
DESK FAN
John C. Wistrand, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn.
Application September 9, 1957, Serial No. 47,652
Term of patent 14 years
(Cl. D62—4)



184,469
PORTABLE FAN
Henry Zeller and Albert H. Herter, Denver, Colo.
Application May 2, 1957, Serial No. 45,993
Term of patent 14 years
(Cl. D26—7)



184,470
IMPEDANCE MATCHING TRANSFORMER OR SIMILAR ARTICLE
Bruno Zacconi, San Francisco, Calif.
Application December 9, 1957, Serial No. 48,840
Term of patent 14 years
(Cl. D26—15)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 17TH DAY OF FEBRUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

AMP Inc.: *See*—
Reider, George S., Jr. Re. 24,604.

Aitchison, Robert B., and G. H. Smith, to Union Carbide Corp. Churn drill for thermal rock piercing. Re. 24,603, 2–17–59, Cl. 255—1.8.

Lewis, Jesse M., to Williams Brothers Co. Method of processing pipes. Re. 24,601, 2–17–59, Cl. 117—96.

Pittman, Ralph R. High-voltage arc-spinning arrester. Re. 24,605, 2–17–59, Cl. 313—231.

Ransburg-Electro-Coating Corp.: *See*—
Simmons, Charles C. Re. 24,602.

Reider, George S., Jr., to AMP Inc. Magazine type hand tool for crimping electrical connectors. Re. 24,604, 2–17–59, Cl. 81—15.

Simmons, Charles C., to Ransburg-Electro-Coating Corp. Electrostatic method and apparatus for spray coating of articles. Re. 24,602, 2–17–59, Cl. 117—93.

Smith, George H.: *See*—
Aitchison, Robert B., and Smith. Re. 24,603.

Union Carbide Corp.: *See*—
Aitchison, Robert B., and Smith. Re. 24,603.

Williams Brothers Co.: *See*—
Lewis, Jesse M. Re. 24,601.

Zif, Henry. Insulated bag. Re. 24,600, 2–17–59, Cl. 150—52.

LIST OF PLANT PATENTEES

Hamilton, J. D., Orchard Co., Inc., The: *See*—
Hamilton, John D., Sr. 1,811.

Hamilton, John D., Sr., to The J. D. Hamilton Orchard Co., Inc. Red delicious apple tree. 1,811, 2–17–59, Cl. 47—62.

LIST OF DESIGN PATENTEES

Aktiebolaget J. O. OBerg & Son: *See*—
Lindberg, Stig. 184,447.

Anderson, Thomas A. Combined saucer and tea bag receptacle. 184,416, 2–17–59, Cl. D44—9.

Andre Rubber Co. Ltd.: *See*—
Gill, John E., and Fletcher. 184,432.

Balfour, Beatty & Co. Ltd.: *See*—
Gill, John E., and Fletcher. 184,432.

Bonanno, Joseph L., to The Lionel Corp. Combined adjustable circuit breaker and warning light. 184,417, 2–17–59, Cl. D26—13.

Brown & Bigelow: *See*—
Wistrand, John C. 184,467.
Wistrand, John C. 184,468.

Brownstein, Henry J., to Hysan Products Co. Hand mop. 184,418, 2–17–59, Cl. D9—2.

Brownstein, Henry J., to Hysan Products Co. Combined hand mop and drip tray. 184,419, 2–17–59, Cl. D9—2.

Carlisle, Lawrence G. Combined drawer handle and card holder or similar article. 184,420, 2–17–59, Cl. D10—8.

Carr, John W. X-ray processing tank. 184,421, 2–17–59, Cl. D61—1.

Cronheim, Richard B. Sauce pan. 184,422, 2–17–59, Cl. D44—1.

Curley, Richard F., Sr., to National Products Co., Inc. Combination scissors and knife sharpener. 184,423, 2–17–59, Cl. D37—1.

Curtiss-Wright Corp.: *See*—
Frenz, Daniel C. 184,430.

Del Francia, Joel A. Broiler. 184,424, 2–17–59, Cl. D81—10.

Del Francia, Joel A. Wall broiler or the like. 184,425, 2–17–59, Cl. D81—10.

Dunn, Lyman D.: *See*—
Kirkeby, David H. 184,441.

Ensign, Robert H., and A. G. Jackson, to Ritter Co., Inc. X-ray unit. 184,426, 2–17–59, Cl. D61—1.

Eslinger, John. Fishing lure. 184,427, 2–17–59, Cl. D31—4.

Finkelhor, Lawrence. Baseball safety helmet. 184,428, 2–17–59, Cl. D3—13.

Fisher, David. Car washing unit. 184,429, 2–17–59, Cl. D49—1.

Fletcher, Edward W.: *See*—
Gill, John E., and Fletcher. 184,432.

Fram Corp.: *See*—
Paster, Donald L. 184,456.

Frenz, Daniel C., to Curtiss-Wright Corp. Steering wheel. 184,430, 2–17–59, Cl. D14—30.

Gehrie, Charles S., to Presto Lock Co. Jewelry case lock. 184,431, 2–17–59, Cl. D50—2.

General Motors Corp.: *See*—
Nickles, Ned F. 184,452.

Gill, John E., and W. E. Fletcher, to Balfour, Beatty & Co. Ltd., and Andre Rubber Co. Ltd. Vibration insulator for spacing apart overhead wires. 184,432, 2–17–59, Cl. D26—10.

Gillette Co., The: *See*—
Lerner, Louis L. 184,445.

Glass, Marvin I.: *See*—
Reed, Bayard C. 184,457.

Goetze, Arnold M. Universal test stand for engines or similar article. 184,433, 2–17–59, Cl. D26—1.

Gouin, Marcel, to Societe a Responsabilite Limitee Etablissements Gouin. Bottle. 184,434, 2–17–59, Cl. D58—8.

Grass, I. J., Noodle Co., Inc.: *See*—
Sherman, William S. 184,461.

Hastings, Norman R., to Walk Time, Inc. Pedestrian traffic signal. 184,435, 2–17–59, Cl. D72—1.

Haycraft, Walter R. Illuminable picture frame. 184,436, 2–17–59, Cl. D29—20.

Hedstrom, Carl W., to Hedstrom Union Co. Velocipede. 184,437, 2–17–59, Cl. D34—15.

Hedstrom, Carl W., to Hedstrom Union Co. Velocipede. 184,438, 2–17–59, Cl. D34—15.

Hedstrom Union Co.: *See*—
Hedstrom, Carl W. 184,437.
Hedstrom, Carl W. 184,438.

Hellmann, Robert R. Portable display rack for oil cans. 184,439, 2–17–59, Cl. D80—10.

Herter, Albert H.: *See*—
Zeller, Henry, and Herter. 184,469.

Heyer, Benjamin F. W., to Heyer Industries, Inc. Engine analysing unit. 184,440, 2–17–59, Cl. D26—1.

Heyer Industries, Inc.: *See*—
Heyer, Benjamin F. W. 184,440.

Hysan Products Co.: *See*—
Brownstein, Henry J. 184,418.
Brownstein, Henry J. 184,419.

Ideal Toy Corp.: *See*—
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Jackson, Alban G.: *See*—
Ensign, Robert H., and Jackson. 184,426.

Johnson Bros. (Hanley) Ltd.: *See*—
Stone, Gerald S. 184,464.

Kirkeby, David H., to L. D. Dunn. Building or the like. 184,441, 2–17–59, Cl. D13—1.

Kravis, Murray W. Electronic components templet or similar article. 184,442, 2–17–59, Cl. D52—1.

Kuehl, Ernest M. Fishing bait. 184,443, 2–17–59, Cl. D31—4.

Lakin, Willis M., to Marlin Toy Products, Inc. Toy piano. 184,444, 2–17–59, Cl. D34—15.

Lerner, Louis L., to The Gillette Co. Applicator for applying treating material to the hair. 184,445, 2–17–59, Cl. D86—10.

Lewis, Hunt, to Schlage Lock Co. Escutcheon plate. 184,446, 2–17–59, Cl. D50—6.

Lindberg, Stig, to Aktiebolaget J. O. OBerg & Son. Set of picture playing cards. 184,447, 2–17–59, Cl. D34—13.

Lionel Corp., The: *See*—
Bonanno, Joseph L. 184,417.

Marlin Toy Products, Inc.: *See*—
Lakin, Willis M. 184,444.

Marson, Samuel. Accessory bracket for a camera or similar article. 184,448, 2–17–59, Cl. D61—1.

Modine Mfg. Co.: *See*—
Reinecke, Jean O. 184,458.

Morano, Patrick J. Girdle. 184,449, 2–17–59, Cl. D20—2.

Morton, Henry H., to The Savoy Hotel Ltd. Combined stove and lamp. 184,450, 2–17–59, Cl. D61—10.

Mullin, Robert E. Wrench. 184,451, 2–17–59, Cl. D54—16.

National Products Co., Inc.: *See*—
Curley, Richard F., Sr. 184,423.

Newhouse, Solomon: *See*—
Serafin, Frank A. 184,460.

Nickles, Ned F., to General Motors Corp. Wheel cover. 184,452, 2–17–59, Cl. D14—30.

Noble, Sid, to Ideal Toy Corp. Propelled glider. 184,453, 2–17–59, Cl. D34—15.
Oppido, Elsie. Combined rosary and statuette. 184,454, 2–17–59, Cl. D29—23.
Palmer, Robley D. Bottle holder or the like. 184,455, 2–17–59, Cl. D83—8.
Paster, Donald L., to Fram Corp. Combined portable viewer and illuminable unit for inspecting air filter cartridges. 184,456, 2–17–59, Cl. D57—1.
Presto Lock Co.: *See*—
Gehrie, Charles S. 184,431.
Reed, Bayard C., to M. I. Glass. Bird figure. 184,457, 2–17–59, Cl. D34—2.
Reinecke, Jean O., to Modine Mfg. Co. Heater casing. 184,458, 2–17–59, Cl. D81—19.
Ritter Co., Inc.: *See*—
Ensign, Robert H., and Jackson. 184,426.
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Schlage Lock Co.: *See*—
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Schlatterer, Max A. Combined cigarette extinguisher and support. 184,459, 2–17–59, Cl. D85—2.
Serafin, Frank A., ½ to S. Newhouse. Fish lure. 184,460, 2–17–59, Cl. D31—4.
Sherman, William S., to I. J. Grass Noodle Co., Inc. Ice cube bucket. 184,461, 2–17–59, Cl. D58—17.
Shuey, Clarence K. Coal stoker. 184,462, 2–17–59, Cl. D81—1.
Societe a Responsabilite Limitee Etablissements Gouin: *See*—
Gouin, Marcel. 184,434.
Stone, Edward D. Wall block. 184,463, 2–17–59, Cl. D18—2.
Stone, Gerald S., to Johnson Bros. (Hanley) Ltd. Plate or similar article. 184,464, 2–17–59, Cl. D44—15.
Sundberg, Carl W., to Whirlpool Corp. Air conditioner front panel. 184,465, 2–17–59, Cl. D62—4.
Tungate, Charles H., Sr. Clock. 184,466, 2–17–59, Cl. D42—7.
Walk Time, Inc.: *See*—
Hastings, Norman R. 184,435.
Whirlpool Corp.: *See*—
Sundberg, Carl W. 184,465.
Wistrand, John C., to Brown & Bigelow. Hand vacuum cleaner. 184,467, 2–17–59, Cl. D9—2.
Wistrand, John C., to Brown & Bigelow. Desk fan. 184,468, 2–17–59, Cl. D62—4.
Zeller, Henry, and A. H. Herter. Portable fan. 184,469, 2–17–59, Cl. D26—7.
Zucconi, Bruno. Impedance matching transformer or similar article. 184,470, 2–17–59, Cl. D26—15.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 17TH DAY OF FEBRUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

AGFA Akt.: *See*—
Klockgether, Helfried, Müller, and Ossenbrunner. 2,874,046.
A M P Inc.: *See*—
Folkenroth, Karl E. 2,873,511.
Abbott, John A., to Textron, Inc. Saw chains. 2,873,775, 2–17–59, Cl. 143—125.
Abbott Laboratories: *See*—
Debus, Allen G. 2,874,180.
Abell, Gordon, Jr., to United States of America, Air Force. Electrical delay lines. 2,874,358, 2–17–59, Cl. 333—29.
Abramson, Harvey J., to Sears, Roebuck and Co. Multiple-hanging-garment shipping container. 2,873,851, 2–17–59, Cl. 206—7.
Acker, Robert C.: *See*—
Hartwig, Edward C., Kuenning, and Acker. 2,874,235.
Adams, Robert T., and R. K. Van Vechten, to International Telephone and Telegraph Corp. Automatic tuning system. 2,874,274, 2–17–59, Cl. 250—17.
Adamson, John Q. Collapsible play pen. 2,873,458, 2–17–59, Cl. 5—96.
Adamson, Robert M., to Jalousies of Ohio, Co., Inc. Window construction. 2,873,827, 2–17–59, Cl. 189—62.
Adirondack Bowls, Inc.: *See*—
Condon, Robert S. 2,873,774.
Ainsworth, Merrill J. Electrical connector with flexible contacts. 2,874,363, 2–17–59, Cl. 339—17.
Air Reduction Co., Inc.: *See*—
Blumenthal, Jack H. 2,874,162.
Dennis, Wolcott. 2,874,020.
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Umbricht, Emil. 2,873,685.
Ajem Laboratories, Inc.: *See*—
Umbricht, Emil, Steenhagen, and Johnson. 2,873,816.
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Engström, Erik R. 2,874,005.
Norell, Karl T. 2,874,196.
Aktiebolaget Rosenblads Patenter: *See*—
Lockman, Carl J. 2,874,043.
Aktiebolaget Svenska Kullagerfabriken: *See*—
Orte, Sven E. W., and Kinberg. 2,874,006.
Aktiengesellschaft Brown, Boveri & Cie: *See*—
Christoffel, Martin, and Edlinger. 2,874,389.
Aktiengesellschaft Fuer Unternehmungen der Eisen- und Stahlindustrie: *See*—
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Alaterre, Francisco. Game pieces. 2,873,976, 2–17–59, Cl. 273—137.
Albertsen, Hans C. Upflow clarifier apparatus. 2,874,118, 2–17–59, Cl. 210—206.
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Lena, Adolph J., and Bush. 2,874,052.
Allen, Samuel G., II, F. L. Currie, and J. J. McManus, to The Western Union Telegraph Co. Phasing system. 2,874,218, 2–17–59, Cl. 178—69.5.
Allied Chemical Corp.: *See*—
Datin, Richard C. 2,874,036.
Earley, James J., and Frans. 2,873,799.
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Allyn, Harold D. Firearm. 2,873,546, 2–17–59, Cl. 42—83.
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Thayer, Charles S. 2,874,110.
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Crankshaw, John H. 2,873,589.
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Sovke, Kurt G. C. 2,873,993.
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Klement, John F. 2,874,042.
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Sylvester, John D., and Messmer. 2,873,566.
Andersen, Raymond C., and R. W. Parlasca, to Flexonics Corp. Multiple bellows expansion joint with limit means. 2,873,984, 2–17–59, Cl. 285—228.
Anderson, John R., to Bell Telephone Laboratories, Inc. Magnetic recording system for storing and reproducing television signals. 2,874,214, 2–17–59, Cl. 178—6.6.
Andersson, Karl O. B., to Vibro-Plus Corp. Chain drive for vibrating planing rollers. 2,873,656, 2–17–59, Cl. 94—50.
Andrus, Paul G., and L. E. Walkup, to Haloid Xerox Inc. Micromanifold for powder cloud development. 2,873,721, 2–17–59, Cl. 118—637.
Andrus, Paul G., to Haloid Xerox Inc. Xerographic cleaner. 2,874,064, 2–17–59, Cl. 117—17.5.
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Anstalt Mercea: *See*—
Arni, Johann R. 2,874,018.
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Von Wangenheim, Adolf. 2,873,609.
Anton, Nicholas. Variable voltage regulator. 2,874,319, 2–17–59, Cl. 313—54.
Appell, Herbert R., to Universal Oil Products Co. Process of oxidizing and separating alkylaryl mixtures. 2,874,098, 2–17–59, Cl. 202—57.
Applegath, Fred, and R. A. Frans, to Monsanto Chemical Co. Creas. 2,874,149, 2–17–59, Cl. 260—77.5.
Arenson, Simon W., and F. A. Baldauski, to National Dairy Products Corp. Composition and method of making same. 2,874,050, 2–17–59, Cl. 99—94.
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Daily, Arthur M., Arisman, and Pierce. 2,874,254.
Armour Research Foundation of Illinois Institute of Technology: *See*—
Roberts, Bruce. 2,873,926.
Arneson, Lawrence E., to Federal Paper Board Co., Inc. Method and apparatus for packaging cans and the like. 2,873,565, 2–17–59, Cl. 53—29.
Arni, Johann R., to Anstalt Mercea. Speed recorders. 2,874,018, 2–17–59, Cl 346—18.
Arrow Tools, Inc.: *See*—
Veres, Edward W. 2,873,818.
Austin, Robert B., R. V. Pierce, and J. S. Wright. Material handling apparatus. 2,873,866, 2–17–59, Cl. 214—41.
Avakian, Souren: *See*—
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,160.
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,185.
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,189.
Avedon, Robert C., to Electro-Voice, Inc. High frequency loudspeaker structure. 2,873,812, 2–17–59, Cl. 181—31.
Ayers, George W., and W. J. Sandner, to The Pure Oil Co. Preparation of odorless naphthas from heavy alkylate hydrocarbons. 2,874,115, 2–17–59, Cl. 208—285.
Ayers, Osborn, and M. Homiak, to Johns-Manville Corp. Method of molding foundry core drier supports. 2,873,490, 2–17–59, Cl. 18—47.5.
B. B. Chemical Co.: *See*—
Paulsen, Hans C. 2,874,084.
Baastrup, Aage I. Hand-operated mechanism for propelling boats and canoes. 2,873,713, 2–17–59, Cl. 115—28.
Babcock & Wilcox Co., The: *See*—
Hartwig, Frederick J. 2,874,201.
Hohman, Ralph E. 2,873,701.
Sifrin, Andreas, and Hennecke. 2,873,554.
Bach, William D. Remotely adjustable rear-view mirror. 2,873,647, 2–17–59, Cl. 88—93.
Bachman, Gustave B., and J. P. Chupp, to Purdue Research Foundation. Chloronitration of alkenes. 2,874,196, 2–17–59, Cl. 260—644.
Bäder, Erich: *See*—
Schweitzer, Otto, and Bäder. 2,874,080.
Baer, Edward G., to The Will-Burt Co. Vise handles. 2,873,617, 2–17–59, Cl. 74—548.
Bahrs, Siegfried: *See*—
Schilling, Werner, Bahrs, and Wiedenmann. 2,873,518.
Bailey, James R.: *See*—
Huth, Walter H., and Bailey. 2,873,925.
Bakker, Martinus A. H.: *See*—
Duran, Johannes C., Bakker, and van Zanten. 2,873,510.
Baldauski, Francis A.: *See*—
Arenson, Simon W., and Baldauski. 2,874,050.
Baldwin, John D., Jr., to The Weatherhead Co. Tube coupling including a pushed deformable tube cutting wedge. 2,873,985, 2–17–59 Cl. 285—342.
Baldwin Piano Co., The: *See*—
Corwin, Merton D. 2,873,638.
Bancroft Cap Co.: *See*—
Weinstein, Bernard. 2,873,451.
Banning, Thomas A., Jr. Cigarette machines and the like. 2,873,745, 2–17–59, Cl. 131—59.

Barber-Greene Co.: *See*—
Sauer, James F. 2,873,955.

Bardin, Joe P., and W. H. Dudar. Tire pressure indicators. 2,874,241, 2–17–59, Cl. 200—61.25.

Barkas, Walter H. Ionization recording capsules. 2,874,299, 2–17–59, Cl. 250—65.

Barnes, John, Co.: *See*—
Smith, Clarence J. 2,873,841.

Barnes, Leslie W., to Forster Mfg. Co. Machine for making spring clip clothespins. 2,873,767, 2–17–59, Cl. 140—1.

Barnes, W. F. and John, Co.: *See*—
Smith, Clarence J. 2,873,8 1.

Barnhart, William S., and R. H. Wade, to Minnesota Mining and Mfg. Co. Polytrifluorochloroethylene stabilized with tetraphenyl tin. 2,874,143, 2–17–59, Cl. 260—45.75.

Barnhart, William S., and R. H. Wade, to Minnesota Mining and Mfg. Co. Stabilization of perfluorochloroolefin polymers. 2,874,198, 2–17–59, Cl. 260—652.5.

Barnum, Robert E.: *See*—
Serniuk, George E., Vanderbilt, Michaels, and Barnum. 2,874,033.

Bartholomew, Harvey L. Cleat. 2,873,499, 2–17–59, Cl. 24—130.

Bartholomew, Harvey L. Rod and fixture connector. 2,873,988, 2–17–59, Cl. 287—126.

Bartlett, Dana W. Adjustable artificial lures. 2,873,549, 2–17–59, Cl. 43—42.22.

Bartlett, Marjorie: *See*—
Bartlett, Norman. 2,873,972.

Bartlett, Norman, ½ to M. Bartlett. Amusement ride. 2,873,972, 2–17–59, Cl. 273—101.2.

Bartlett, Philip D., D. R. Bishop, S. B. Whittier, and A. L. H. Wright to Polaroid Corp. Photographic apparatus. 2,873,657, 2–17–59, Cl. 95—13.

Bassoff, Arthur B.: *See*—
Gates, Thomas S., Bassoff, and Davis. 2,873,652.

Bath Iron Works Corp.: *See*—
Holm, Jens C. 2,873,920.

Bauerlein, Carl C., to The Dole Valve Co. Liquid level indicator. 2,873,714, 2–17–59, Cl. 116—118.

Baur, Franz W., to Firma Contraves A. G. Supporting device. 2,873,936, 2–17–59, Cl. 248—180.

Baxter, J. H., & Co.: *See*—
Best, Charles W., Napier and MacMurray. 2,873,874.

Bechley, Fred L., to Radio Corp. of America. Generator of color images from monochrome television signals. 2,874,212, 2–17–59, Cl. 178—5.4.

Beckwith, Sterling, to Constock Liquid Methane Corp. Method and apparatus for controlling atmospheric conditions during installation. 2,873,778, 2–17–59 Cl. 144—309.

Bedenk, William T., and J. W. Phenix, to The Procter & Gamble Co. Method of making a culinary mix and the resulting product. 2,874,051, 2–17–59, Cl. 99—94.

Bedenk, William T., to The Procter & Gamble Co. Chocolate-containing culinary mixes. 2,874,052, 2–17–59, Cl. 99—94.

Beers, George L., to Radio Corp. of America. Multiplex transmission. 2,874,213, 2–17–59, Cl. 178—5.6.

Behre, Johannes, and I. Williams, to J. M. Huber Corp. Vaporization process and furnace for producing fine inorganic pigments. 2,873,919, 2–17–59, Cl. 241—23.

Bell, James W.: *See*—
Oppenheimer, Frank, and Bell. 2,874,295.

Bell, John M., to Panellit, Inc. Calibrating circuit for current measuring systems. 2,874,354, 2–17–59, Cl. 324—130.

Bell, Richmond T., to The Pure Oil Co. Preparation of catalysts for methanethiol synthesis. 2,874,120, 2–17–59, Cl. 252—454.

Bell Telephone Laboratories, Inc.: *See*—
Anderson, John R. 2,874,214.
Biondi, Frank J., Cleveland, and Sullivan. 2,874,341.
Cox, Leslie R. 2,874,220.
Githens John A. 2,874,313.
Pfleger, Kenneth W. 2,874,227.

Bendix Aviation Corp.: *See*—
Elwell, Henry G., Jr., and Machlanski. 2,874,375.
Mason, Richard J. 2,873,682.

Berg, Quentin. Terminal applicators. 2,873,448, 2–17–59, Cl. 1—177.

Berge, Raymond G., and G. G. Bradley, to Radio Corp. of America. Tuning mechanism. 2,874,278, 2–17–59, Cl. 250—20.

Bergman, Arthur, to Columbia Veneer Co. Wood rechipper. 2,873,923, 2–17–59, Cl. 241—280.

Bergman, Carl A., to General Aniline & Film Corp. Polyvinyl methyl ether composition and method for improving crock fastness of colored textiles. 2,874,130, 2–17–59, Cl. 260—28.5.

Best, Charles W., J. T. Napier, and J. F. MacMurray, to J. H. Baxter & Co. Pole handling apparatus. 2,873,874, 2–17–59, Cl. 214—654.

Best Foods, Inc., The: *See*—
Melnick, Daniel, and Gooding. 2,874,055.

Beuther, Harold, and W. C. Offutt, to Gulf Research & Development Co. High-temperature low-contact time coking process. 2,874,092, 2–17–59, Cl. 202—14.

Biel, John H., to Lakeside Laboratories, Inc. Diphenylalkylaminomethyl pyrrolidines. 2,874,163, 2–17–59, Cl. 260—313.

Biermann, Arnold E. Variable stroke mechanisms. 2,873,611, 2–17–59, Cl. 74—40.

Biermann, Arnold E. Control systems for variable stroke engines. 2,873,728, 2–17–59, Cl. 123—48.

Bigelow, Norman E., ⅓ to G. C. Graham and ⅓ to I. J. Kunik. Steel wool grinding and polishing wheel. 2,873,466, 2–17–59, Cl. 15—230.

Bing, Herbert A., R. B. Wareham, and O. E. Wolff to Polaroid Corp. Photographic apparatus for exposing and processing film. 2,873,659, 2–17–59, Cl. 95—13.

Biondi, Frank J., H. M. Cleveland, and M. V. Sullivan, to Bell Telephone Laboratories, Inc. Ohmic contacts to silicon bodies. 2,874,341, 2–17–59, Cl. 317—240.

Bishop, Donald R.: *See*—
Bartlett, Philip D., Bishop, Whittier, and Wright. 2,873,657.

Bishop, John W. H. Typewriter ribbon spool and the like. 2,873,839, 2–17–59, Cl. 197—175.

Bissey, Jacques, Apparatus for boring tubular work. 2,873,632, 2–17–59, Cl. 77—58.

Bisterfeld, Karl A., to North American Philips Co., Inc. Support or stay member for parts of the electrode systems of electric discharge tubes. 2,874,209, 2–17–59, Cl. 174—167.

Bittner, Fredwill. Fire extinguisher. 2,873,806, 2–17–59, Cl. 169—36.

Black, Sheppard A.: *See*—
Cadwell, Sidney M., White, Black, and Varvaro. 2,873,790.

Blackstone Corp.: *See*—
Murdoch, Alexander, Jr. 2,874,316.

Blain, Albert, H. F. Welsh, L. D. Wilson, F. Reed, S. Meyer, and E. O. Roggenstein, to Sperry Rand Corp. Machine for recording on magnetic tape. 2,874,369, 2–17–59, Cl. 340—174.

Blair, Boyd C., to F. M. Brackett, d. b. a. Brackett Stripping Machine Co. Method of packaging boards and package thereof. 2,873,852, 2–17–59, Cl. 206—60.

Blair, Etcyl H.: *See*—
Britton, Edgar C., and Blair. 2,874,178.

Blanchard, Donn C. Supporting means for awning shutters. 2,873,487, 2–17–59, Cl. 20—57.5.

Blanding, Leonard C., to Lear, Inc. Miniature slip ring and brush assembly. 2,874,362, 2–17–59, Cl. 339—5.

Bleicher, William, to Trim-Master Corp. Mechanism for operating on tubular blanks. 2,873,704, 2–17–59, Cl. 112—2.

Blight, Dennis J.: *See*—
Sharp, Leonard W. D., and Blight. 2,874,253.

Blood, Raymond: *See*—
Start, Ernest, and Blood. 2,873,593.

Blumenthal, Jack H., to Air Reduction Co., Inc. Ethynylpyridine-N-oxides and ethynylquinoline-N-oxides. 2,874,162, 2–17–59, Cl. 260—297.

Blust, Henry L.: *See*—
Maurer Pierre W., and Blust. 2,873,835.

Bode, Harald E. W., to Estey Organ Corp. (Del.). Preference network. 2,874,286, 2–17–59, Cl. 250—27.

Bogeskov, Bernard E. Method for wrapping an object with adhesive tape. 2,873,564, 2–17–59, Cl. 53—3.

Bohlinger, Arthur L.: *See*—
Tilli, Vincent L., and Bohlinger. 2,873,759.

Boisture, Worth W., B. V. Molstedt, R. F. Stringer, and L. I. Griffin, Jr., to Esso Research and Engineering Co. Apparatus and process for preparation of seed coke for fluid bed coking of hydrocarbons. 2,874,095, 2–17–59, Cl. 202—25.

Bolstad, Archibald N., and R. L. Herbst, Jr., to Minnesota Mining and Mfg. Co. Polymerization process employing a perfluorochlorocarboxylic acid as an emulsifying agent. 2,874,152, 2–17–59, Cl. 260—92.1.

Boltach, Helen. Pin for fabrics. 2,873,708, 2–17–59, Cl. 112—262.

Boman, Thomas G. Ironing board cover. 2,873,544, 2–17–59, Cl. 38—140.

Borden, Joseph H., to Toledo Scale Corp. Elevator leveling controls. 2,873,819, 2–17–59, Cl. 187—29.

Borg-Warner Corp.: *See*—
Kuehner, Richard L. 2,874,032.
Lebourg, Maurice P. 2,873,675.

Borkoski, Leon P., to Electrolux Corp. Multipurpose suction cleaning tool. 2,873,469, 2–17–59, Cl. 15—417.

Borst, Lyle B., to United States of America, Atomic Energy Commission. Method of testing hermetic containers. 2,873,603, 2–17–59, Cl. 73—52.

Bosco, Edward N.: *See*—
Stanford, Nicholas S., and Bosco. 2,873,562.

Boston, Edward D.: *See*—
Smith, Brook I., and Boston. 2,874,113.

Boundy, Francis J. Electric ignition magneto. 2,874,202, 2–17–59, Cl. 123—149.

Bowen, John C.: *See*—
Wolf, Robert C., and Bowen. 2,873,878.

Bowerman, Edwin R., and E. B. Saubestre, to Sylvania Electric Products Inc. Electropolishing method. 2,874,104, 2–17–59, Cl. 204—140.5.

Bowers, Roy L., and G. W. Colby, to General Motors Corp. Sealed electrical terminals. 2,874,206, 2–17–59, Cl. 174—77.

Bowman, Howard J.: *See*—
Williams, Elmer W., and Bowman. 2,874,263.

Bowman, Lewis W., and R. F. Leary, to Esso Research and Engineering Co. Polymerization of propylene. 2,874,153, 2–17–59, Cl. 260—93.7.

Bowser, Percy L., Jr.: *See*—
Peterson, William F., Venner, and Bowser. 2,874,010.

Brackett, Fred M.: *See*—
Blair, Boyd C. 2,873,852.

Brackett Stripping Machine Co.: *See*—
Blair, Boyd C. 2,873,852.

Bradley, George G.: *See*—
Berge, Raymond G., and Bradley. 2,874,278.

Brady, Lynn J.: *See*—
Sommer, Alfred, and Brady. 2,874,067.

Brant, Arthur A., and A. W. Love, to Newmont Mining Corp. Electromagnetic method of geophysical exploration. 2,874,348, 2–17–59, Cl. 324—6.

Braun, Dieter: *See*—
Hacker, Kurt, and Braun. 2,873,601.

Brautigam, Richard H., to Owens-Corning Fiberglas Corp. Apparatus for coating continuously produced filaments. 2,873,718, 2-17-59, Cl. 118—234.

Breier, Irwin L., and G. M. Coppinger, to Shell Development Co. Stabilization of unsaturated aldehydes. 2,874,100, 2-17-59, Cl. 202—57.

Brendel, Robert R.: *See*—
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,160.
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,188.
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,189.

Brennan, Helen E.: *See*—
Brennan, Joseph B. and H. E. 2,873,491.

Brennan, Joseph B., deceased; H. E. Brennan, executrix of said Brennan. Apparatus for casting metallic articles. 2,873,491, 2-17-59, Cl. 22—57.2.

Bretscher, Otto, to Gesellschaft der Ludw. von Roll'schen Eisenwerke AG. Grinding machine. 2,873,560, 2-17-59, Cl. 51—165.

Brevets Aero-Mecaniques S. A.: *See*—
Maillard, Bernard. 2,873,649.

Bridge, Richard B., T. R. Marshall, III, and W. A. Von Wald, Jr., to United States of America, Navy. Method of making a plastic encased article. 2,873,482, 2-17-59, Cl. 18—59.

Briefake, Adrian P., to Northern Engraving & Mfg. Co. Method of making printed circuits. 2,874,083, 2-17-59, Cl. 154—94.

British Thomson-Houston Co. Ltd., The: *See*—
Rawson, Harold, and Dods. 2,873,506.

Britton, Edgar C., and E. H. Blair, to The Dow Chemical Co. O- (chlorophenyl) O-lower alkyl phosphoro (isothiocyanatido) thioates. 2,874,178, 2-17-59, Cl. 260—454.

Brodeur, Edouard A., to United States Rubber Co. Work glove. 2,873,450, 2-17-59, Cl. 2—167.

Broedner, Ernst: *See*—
Engel, Wolfgang, and Broedner. 2,873,707.

Bronstien, Edward L., Jr., and R. A. Fisher, to The United States Bedding Co. Wire shaping machine. 2,873,768, 2-17-59, Cl. 140—71.

Brooke, Thomas A., and E. J. Smith, to Dunlop Rubber Co. Ltd. Anti-vibration mounting. 2,873,940, 2-17-59, Cl. 248—358.

Brooks, Roy L. Grain board and hooks therefor. 2,873,867, 2-17-59, Cl. 214—44.

Browar, Emilian: *See*—
Metheny, Donald E., and Browar. 2,874,073.

Brown Co.: *See*—
Stuart, Meredith R. 2,873,628.

Brown, Glenn E., Jr., H. A. Strecker, and E. R. Crawford, to The Standard Oil Co. Process for the solvent extraction of aromatics from hydrocarbon mixtures. 2,874,116, 2-17-59, Cl. 208—321.

Brown, Herbert C. Reduction of carbonyl compounds with boron hydrides. 2,874,165, 2-17-59, Cl. 260—343.6.

Brown, Lloyd H., to The Quaker Oats Co. Recinification of furfuryl alcohol and formaldehyde at high hydrogen-ion concentrations. 2,874,148, 2-17-59, Cl. 260—67.

Brown, Maurice H., to Oaktron Electric Co. Inductance coil and method of making such coils. 2,874,361, 2-17-59, Cl. 336—200.

Brown, Raymond W., to Western Electric Co., Inc. Circuits for forming trains of pulses. 2,874,285, 2-17-59, Cl. 250—27.

Brunner, Gottfried A. Bobbin holder. 2,873,930, 2-17-59, Cl. 242—130.2.

Bryant, John M.: *See*—
Cunningham, George L., Bryant, and Gause. 2,874,024.

Budd, Wilbert H., and H. L. Slough, to Chicago Telephone Supply Corp. Tandem electrical control instrumentality. 2,874,255, 2-17-59, Cl. 201—55.

Buechler, William R., to General Electric Co. Basket mounting arrangement for laundry machine. 2,873,590, 2-17-59, Cl. 68—24.

Bührer, Erwin. System for producing moulds of foundry machinery with two or more mould forming stations. 2,873,490, 2-17-59, Cl. 22—21.

Bunn, B. H., Co.: *See*—
Bunn, Benjamin H. 2,873,664.

Bunn, Benjamin H., to B. H. Bunn, Co. Bundle tying machine. 2,873,664, 2-17-59, Cl. 100—27.

Burr, Robert P., and R. J. Keogh, to Hazeltine Research, Inc. Color-image-reproducing apparatus. 2,874,211, 2-17-59, Cl. 178—5.4.

Burroughs Corp.: *See*—
Foster, Jerry F. 2,874,371.
Gray, Robert L. 2,874,333.
Hampel, Herbert J. 2,874,320.
Lane, John H. 2,874,374.

Burton, Milton, to United States of America, Atomic Energy Commission. Canned slug. 2,873,853, 2-17-59, Cl. 206—84.

Busey, Harold M.: *See*—
Hammond, R. Philip, and Busey. 2,874,106.

Bush, Glenn W.: *See*—
Lena, Adolph J., and Bush. 2,874,082.

Bush, Vannevar, to United States of America, Navy. Electronic comparator. 2,873,912, 2-17-59, Cl. 235—61.7.

Buttke, Richard A., to Rockwell Mfg. Co. Planer and attachments therefor. 2,873,770, 2-17-59, Cl. 144—252.

Bychinsky, Wilfred A., to General Motors Corp. Low tension spark plug. 2,874,322, 2-17-59, Cl. 313—131.

Bychinsky, Wilfred A., and A. Candelise, to General Motors Corp. Spark plug. 2,874,323, 2-17-59, Cl. 313—144.

Cadwell, Sidney M., L. M. White, S. A. Black, and H. R. Varvaro, to United States Rubber Co. Method of making pneumatic tires by casting a liquid polyester-diisocyanate composition. 2,873,790, 2-17-59, Cl. 154—14.

Cahill, Allen E., and V. P. McConnell, to General Electric Co. Autocatalytic copper plating process and solution. 2,874,072, 2-17-59, Cl. 117—130.

Caldwell, Blake M., to Welex, Inc. Multiple shaped charge assembly. 2,873,676, 2-17-59, Cl. 102—20.

California Research Corp.: *See*—
Hotten, Bruce W. 2,874,121.
Lew, Henry Y. 2,874,125.
Lew, Henry Y., and Stayner. 2,874,127.

Callahan, James L.: *See*—
Foreman, Robert W., Callahan, and Veatch. 2,874,191.

Callery Chemical Co.: *See*—
Cunningham, George L., Bryant, and Gause. 2,874,024.

Calvert, Gresham H. Heating element. 2,874,256, 2-17-59, Cl. 201—66.

Cambeis, Walter, to Krupp, Fried, Mortoren-und Kraftwagenfabriken, G. m. b. H. Dual brake systems for automotive vehicles. 2,874,002, 2-17-59, Cl. 303—2.

Cametti, Benjamin, and W. M. Wepfer, to Westinghouse Electric Corp. Bearings. 2,874,007, 2-17-59, Cl. 308—160.

Candelise, Alfred: *See*—
Bychinsky, Wilfred A., and Candelise. 2,874,323.

Candler, Arden V. Feed mechanism for radial saw. 2,873,506, 2-17-59, Cl. 29—69.

Carlsen, Arthur G. Combined spectacles and hearing-aid with automatic self-seating earphone. 2,874,230, 2-17-59, Cl. 179—107.

Carlsen, Carl F., and W. L. Lehner, to Sylvania Electric Products, Inc. Automatic assembly apparatus. 2,873,513, 2-17-59, Cl. 29—203.

Catlin, Robert T., and A. J. Landa, to Remington Arms Co., Inc. Attachment of safety shield to a powder actuated tool. 2,873,446, 2-17-59, Cl. 1—44.5.

Catlin, Robert T., and A. J. Landa, to Remington Arms Co., Inc. Cartridge-operated staple-driving tool. 2,873,447, 2-17-59, Cl. 1—44.5.

Catterall, William E.: *See*—
Scheeline, Harold W., and Catterall. 2,874,096.

Cavanagh, Walter R., and J. I. Maurer, to Parker Rust Proof Co. Pretreatment solution for phosphate coating method of preparing the same and process of treating metal surfaces. 2,874,081, 2-17-59, Cl. 148—6.15.

Cavanaugh, Edward F., to Executary Corp. Remote control dictating apparatus. 2,874,219, 2-17-59, Cl. 179—6.

Celanese Corp. of America: *See*—
Mitchell, John G. 2,873,965.

Celovsky, Michael J., to Lyon, Inc. Coated die structure and method. 2,873,709, 2-17-59, Cl. 113—49.

Champion Paper and Fibre Co., The: *See*—
Warner, Roger M. 2,873,605.

Chapman, Galen O. Thermostatic switch. 2,874,250, 2-17-59, Cl. 200—137.

Chapman, Harvey W., and R. L. Dunlap, to Evans Products Co. Resiliently mounted tie-down support rails. 2,873,693, 2-17-59, Cl. 105—368.

Chase-Shawmut Co., The: *See*—
Jacobs, Philip C., Jr., and Swain. 2,874,240.

Chemetron Corp.: *See*—
Ellsworth, Carl E. 2,874,357.

Chesebro Whitman Mfg. Corp.: *See*—
Osevski, Conrad A., and Shaver. 2,873,903.

Chicago Telephone Supply Corp.: *See*—
Budd, Wilbert H., and Slough. 2,874,255.
Daily, Arthur M., Ariaman, and Pierce. 2,874,254.

Chick, Frank H. Chaining device for surveyors. 2,873,531, 2-17-59, Cl. 33—74.

Childers Mfg. Co.: *See*—
Hartman, Edward J., and James. 2,873,698.

Christenson, Roger M., C. L. Parris, and E. E. Parker, to Pittsburgh Plate Glass Co. Unsaturated polyester-vinyl monomer composition stabilized with 3,6-di-n-propylcatechol and method of preparation. 2,874,141, 2-17-59, Cl. 260—45.4.

Christenson, Roger M., and J. J. Jaruselski, to Pittsburgh Plate Glass Co. Epoxy compounds. 2,874,150, 2-17-59, Cl. 260—78.4.

Christiansen, Carl J. Machine for dust free grinding of materials as ear corn for livestock feed. 2,873,921, 2-17-59, Cl. 241—186.

Christoffel, Martin, and A. Edlinger, to Aktiengesellschaft Brown, Boveri & Cie. High voltage transformer windings with voltage control. 2,874,359, 2-17-59, Cl. 336—70.

Christofilos, Nicholas C., and I. J. Polk, to United States of America, Atomic Energy Commission. Linear accelerator. 2,874,326, 2-17-59, Cl. 315—5.51.

Chupp, John P.: *See*—
Bachman, Gustave B., and Chupp. 2,874,195.

Ciba Co., Inc.: *See*—
Raff, Fritz, McGuire, and Palestri. 2,874,022.

Cinch Mfg. Corp.: *See*—
Del Camp, Scipione M. 2,874,342.

Cincinnati Milling Machine Co., The: *See*—
Huber, Clarence F., and Thompson. 2,874,174.

Cinnamon, Carl A.: *See*—
Mallory, Warren M., and Cinnamon. 2,874,302.

Cisco, Edward S., to Standard Railway Equipment Mfg. Co. Hatch cover lock. 2,873,696, 2-17-59, Cl. 105—377.

Citizens Trust Co., executor: *See*—
Cox, Leslie R. 2,874,220.

Clark, Edgar H., deceased, E. H. Clark, Jr., executor. Automatic code translating systems. 2,873,837, 2-17-59, Cl. 197—20.

Clark, Edgar H., Jr., executor: *See*—
Clark, Edgar H. 2,873,837.

Claud-Mantle, Arthur, to Tangel Material Handling Equipment, Inc. Conveyor switch device. 2,873,689, 2-17-59, Cl. 104—103.

Claudy, Harry N., to Phillips Petroleum Co. Contactor and torque control device. 2,873,584, 2-17-59, Cl. 62—135.

Cleveland, Hugh M.: *See*—
Biondi, Frank J., Cleveland, and Sullivan. 2,874,241.

Cleveland Pneumatic Industries, Inc.: *See*—
Hamilton, Wallace. 2,873,964.
Hogan, Walter H. 2,873,833.

Cleveland Trust Co., The, trustee: *See*—
Frolich, Adolf H., and Harris. 2,873,802.

Clum Mfg. Co.: *See*—
Pease, Harlow H. 2,874,338.

Cobble, James A., Jr.: *See*—
Cobble, James A., Sr., Cobble, Leonard, and Pardue. 2,873,705.

Cobble, James A., Sr., J. A. Cobble, Jr., G. C. Leonard, and J. A. Pardue. Tufting machines. 2,873,705, 2-17-59, Cl. 112—79.

Codlin, James B., to Tractomotive Corp. Tractor mounted shoulder maintainer. 2,873,542, 2-17-59, Cl. 37—155.

Coelho, George. Casting device. 2,873,547, 2-17-59, Cl. 43—19.

Colby, Gerald W.: *See*—
Bowers, Roy L., and Colby. 2,874,206.

Coleman Co., Inc., The: *See*—
Newton, Alwin B. 2,874,345.

Colestock, Harry E.: *See*—
Shipman, Roy W., and Colestock. 2,874,334.

Colgate-Palmolive Co.: *See*—
Schaafsma, Bernard R., and Ratsep. 2,874,123.

Collier Carbon and Chemical Corp.: *See*—
Young, Donald C. 2,874,105.

Collin, Herbert S. Shield for clothes hangers. 2,873,899, 2-17-59, Cl. 223—98.

Colmer, Henry G., Jr., and F. M. Snow. Winch. 2,873,948, 2-17-59, Cl. 254—187.

Colton, Frank B., to G. D. Searle & Co. 6-dehydro-17-alkyl-19-nortestosterones and esters thereof. 2,874,170, 2-17-59, Cl. 260—397.4.

Columbia Broadcasting System, Inc.: *See*—
Doncaster, Daniel P. 2,873,978.

Columbia Veneer Co.: *See*—
Bergman, Arthur. 2,873,923.

Companhia Mercantil e Industrial Inga: *See*—
Radino, Huga L. 2,874,041.

Condon, Robert S., to Adirondack Bowls, Inc. Power saw for forming oval bowls or the like. 2,873,774, 2-17-59, Cl. 143—85.

Cone, Carroll, to Surface Combustion Corp. Soaking pit cover handling apparatus. 2,873,862, 2-17-59, Cl. 212—4.

Conger, Robert L. Noise discriminator. 2,874,284, 2-17-59, Cl. 250—27.

Conrad, Keith, to Owens-Illinois Glass Co. Chute for conveying molten glass. 2,873,555, 2-17-59, Cl. 49—14.

Consolidated Electrodynamics Corp.: *See*—
Neff, Glyn A. 2,874,283.
Tavis, John R. 2,874,353.

Consolidated Molded Products Corp.: *See*—
Swartz, Charles K. 2,873,896.

Constock Liquid Methane Corp.: *See*—
Beckwith, Sterling. 2,873,778.

Cookson, William, ⅓ to J. C. Fredenburg-Ingleby. Roofing and siding sheets. 2,873,699, 2-17-59, Cl. 108—22.

Cooper, Charles M., to United States of America, Atomic Energy Commission. Means for terminating nuclear reactions. 2,874,109, 2-17-59, Cl. 204—193.2.

Coppinger, Galvin M.: *See*—
Breier, Irwin L., and Coppinger. 2,874,100.

Cortner, Howard M. Canned food extractor. 2,873,521, 2-17-59, Cl. 30—124.

Corwin, Merton D., to The Baldwin Piano Co. Piano abstract and assembly. 2,873,638, 2-17-59, Cl. 84—243.

Cottle, Delmer L., D. W. Young, A. J. Morway, and F. V. Smith, Jr., to Esso Research and Engineering Co. Mercaptals of long chain hydrocarbon aldehydes and long chain hydrocarbon mercaptans. 2,874,192, 2-17-59, Cl. 260—609.

Cotton, William, Ltd.: *See*—
Start, Ernest, and R. Blood. 2,873,593.

Couch, Glenn F., to The Symington-Gould Corp. Brake beam supports. 2,873,823, 2-17-59, Cl. 188—209.

Couse, Kibbey W., and R. D. Keehn, to Couse Mfg. Inc. Boat canopy. 2,873,751, 2-17-59, Cl. 135—6.

Couse, Kibbey W., to Couse Mfg., Inc. Electrical machines and change-over plates therefor. 2,874,317, 2-17-59, Cl. 310—71.

Couse Mfg., Inc.: *See*—
Couse, Kibbey W. 2,874,317.
Couse, Kibbey W., and Keehn. 2,873,751.

Cox, Leslie R., deceased, by Citizens Trust Co., executor, to Bell Telephone Laboratories, Inc. Carrier distribution circuit. 2,874,220, 2-17-59, Cl. 179—15.

Coxine, Harold E.: *See*—
Dapp, Robert J., and Coxine. 2,873,854.

Crankshaw, John H., to American Flexible Coupling Co. Flexible coupling. 2,873,588, 2-17-59, Cl. 64—9.

Crankshaw, John H., to American Flexible Coupling Co. Flexible coupling sleeve with spacer connection. 2,873,589, 2-17-59, Cl. 64—9.

Crawford, Kenneth G.: *See*—
Venditty, Chester G., and Crawford. 2,873,979.

Crawford, Richard R.: *See*—
Brown, Glenn R., Jr., Strecker, and Crawford. 2,874,116.

Crawford, Warren M., Jr., to Production and Marketing Co. Rotatable support for a game board. 2,873,938, 2-17-59, Cl. 248—349.

Cronan, Francis P.: *See*—
Cronan, Philip F. and F. P. 2,873,497.

Cronan, Philip F. and F. P., to Dolan & Bullock Co. Cuff fastener. 2,873,497, 2-17-59, Cl. 24—100.

Croset, Louis P. Flexible couplings, dampers, gearwheels and like devices. 2,873,390, 2-17-59, Cl. 64—14.

Crost, Munsey E., to United States of America, Army. Voltage sampling apparatus. 2,874,328, 2-17-59, Cl. 315—12.

Crown Cork & Seal Co., Inc.: *See*—
Kneusel, Raymond H. P. 2,873,807.

Culbertson, John L., to International Telephone and Telegraph Corp. Combined toll and free-service telephone trunking system. 2,874,224, 2-17-59, Cl. 179—18.

Cunningham, George L., J. M. Bryant, and B. M. Gause, to Callery Chemical Co. Preparation of potassium borohydride. 2,874,024, 2-17-59, Cl. 23—14.

Currie, Frank L.: *See*—
Allen, Samuel G., II, Currie, and McManus. 2,874,218.

Curtis Companies Inc.: *See*—
Keck, Jack B. 2,874,015.

Curtiss, Nathaniel H., to United States Rubber Co. Elevator conveyor belt, bucket and attaching means. 2,873,844, 2-17-59, Cl. 198—151.

Cushman Chuck Co., The: *See*—
Sloan, Harry E. 2,873,822.

Cusic, John W., and R. W. Hamilton, to G. D. Searle & Co. N - chlorophenothiazinealkyl - N' - oxoalkylpiperazines. 2,874,155, 2-17-59, Cl. 260—243.

Cutler-Hammer, Inc.: *See*—
Kuhn, Clarence W., Perrine, and Radley. 2,874,238.
Kuhn, Clarence W., and Radley. 2,874,257.

Dailey, Carl W.: *See*—
Vogelaar, Bernard F., and Dailey. 2,873,567.

Daily, Arthur M., M. B. Ariaman, and D. A. Pierce, to Chicago Telephone Supply Corp. Variable resistor with a plug-in mounting. 2,874,254, 2-17-59, Cl. 201—55.

D'Andrea, Dan. Container cabinet. 2,874,016, 2-17-59, Cl. 312—328.

Daniel, Kenneth R., J. O. Patton, Jr., and S. V. Vines, to American Cast Iron Pipe Co. Apparatus for lining centrifugal casting molds. 2,873,716, 2-17-59, Cl. 118—55.

Dapp, Robert J., and H. E. Coxine, to Owens-Illinois Glass Co. Glass tube and cane gauging and sorting apparatus. 2,873,854, 2-17-59, Cl. 209—88.

Datin, Richard C., to Allied Chemical Corp. Ammoniated superphosphates and process of producing same. 2,874,036, 2-17-59, Cl. 71—43.

Dauguet, Alexandre, to North American Philips Co., Inc. Stereophonic transmission system. 2,874,221, 2-17-59, Cl. 179—15.

Davidson, John T.: *See*—
Kroemer, John H., and Davidson. 2,873,983.

Davis, Arthur E., to Soneco Products Co. Concrete column form for square columns. 2,873,503, 2-17-59, Cl. 25—118.

Davis, Kenneth J.: *See*—
Gates, Thomas S., Basseff, and Davis. 2,873,652.

Davis, Robert S. Infant's crib with an adjustable mattress-supporting frame. 2,873,453, 2-17-59, Cl. 5—63.

Davis, Russell S.: *See*—
Platt, Elwood T., and Davis. 2,874,247.

Debus, Allen G., to Abbott Laboratories. Production of procaine dihydrogen phosphate. 2,874,180, 2-17-59, Cl. 260—472.

Decker, Lewellin C. Gun support. 2,873,902, 2-17-59, Cl. 224—1.

De Dona, Mario J., to General Motors Corp. Hinge and hold-open. 2,873,470, 2-17-59, Cl. 16—146.

Deere & Co.: *See*—
Vogelaar, Bernard F., and Dailey. 2,873,567.

Deering Milliken Research Corp.: *See*—
Gagarine, Dmitry M., and Repokis. 2,874,069.

De Jager, Frank, to North American Philips Co., Inc. Single-sideband system. 2,874,222, 2-17-59, Cl. 179—15.5.

De Klerk, Antonie C.: *See*—
Starreveld, Jaap, and de Klerk. 2,874,275.

De Lassus St-Geniès, Anne H. J. Devices for viewing with magnification relief images on lenticulated films. 2,873,643, 2-17-59, Cl. 88—1.

Del Camp, Scipione M., to Cinch Mfg. Corp. Tube socket and capacitor assembly. 2,874,342, 2-17-59, Cl. 317—237.

Delliot, Maurice J., to Societe: Peugeot & Cie. Electric hammer. 2,873,735, 2-17-59, Cl. 123—33.

De Long Corp.: *See*—
Suderow, George E. 2,873,580.

De Lorean, John Z., to Studebaker-Packard Corp. Transmission. 2,873,618, 2-17-59, Cl. 74—645.

Delpierre, Jean P. Multi-purpose convertible hand tool. 2,873,460, 2-17-59, Cl. 7—14.55.

Deltour, Basil V. Pulse autopilot system. 2,873,932, 2-17-59, Cl. 244—77.

Demaret, Jules. Means for washing and the like operations. 2,873,600, 2-17-59, Cl. 68—183.

De Monterey, Francis G. A., to General Electric Co. Glass coating compositions. 2,874,135, 2-17-59, Cl. 260—18.

Dennis, Wolcott, to Air Reduction Co., Inc. Argon purification. 2,874,030, 2-17-59, Cl. 23—209.

Denton, Harvey R. Bag and header therefor including bag supporting means. 2,873,903, 2-17-59, Cl. 229—55.

Denz, Arthur R.: *See*—
Radcliffe, Arthur J., Jr., and Denz. 2,874,312.

De Palma, James A. Highway signalling system. 2,874,347, 2-17-59, Cl. 340—31.

De Pew, Thomas N., W. H. Sarde, Jr., and P. H. Koenig, to National Wooden Pallet Manufacturers' Association. Pallet with draft-barrier. 2,873,935, 2-17-59, Cl. 248—120.

Dermond, Lawrence C., to General Motors Corp. Thermostatically controlled air bleed. 2,873,958, 2-17-59, Cl. 261—39.

Detroit Stoker Co.: *See*—
Urquhart, William M. 2,873,648.
Deutsch, Martin K.: *See*—
Obladen, Albert J., and Deutsch. 2,874,067.
Deutsche Gold- und Silber-Scheideanstalt vormals Roessler: *See*—
Kloepfer, Harry. 2,874,140.
Schweitzer, Otto, and Bäder. 2,874,080.
Deverell-Smith, Raymond, J. Mitchell, and H. J. Twitchett, to Imperial Chemical Industries Ltd. Polymeric compositions. 2,874,146, 2-17-59, Cl. 260—45.85.
Dewan, John T., to Schlumberger Well Surveying Corp. Well logging apparatus. 2,874,301, 2-17-59, Cl. 250—71.
Diamond Gardner Corp.: *See*—
Stickney, Wendell H. 2,873,673.
Dick, A. B., Co.: *See*—
Florence, Robert T. 2,873,671.
Klimkowski, Robert J. and Florence. 2,873,668.
Dickson, John, to General Motors Corp. Intake and exhaust manifold system. 2,873,575, 2-17-59, Cl. 60—29.
Diehl, Max H., to General Electric Co. Pulse detection method and apparatus. 2,874,217, 2-17-59, Cl. 178—69.5.
Dietsch, Francis W.: *See*—
Musser, C Walton, and Dietsch. 2,873,648.
Dijkstra, Reager, to Shell Development Co. Alkylation of ortho-alkyl phenols. 2,874,193, 2-17-59, Cl. 260—624.
Di Pietro, Henry, to Andy Brothers Tire Shop. Curing flap for recapping pneumatic tires. 2,873,479, 2-17-59, Cl. 18—45.
Ditter, Francis J., and W. C. Kaercher, Jr. Protective tape applicator. 2,873,789, 2-17-59, Cl. 154—1.
Dixon, Stanley, to E. I. du Pont de Nemours and Co. Fluoroolefins and process for preparing them. 2,874,166, 2-17-59, Cl. 260—346.1.
Dixon, Stanley, to E. I. du Pont de Nemours and Co. Perfluoroethyrene derivatives. 2,874,197, 2-17-59, Cl. 260—451.
Dodge, Adiel Y. Air conditioning systems, combined cooling and warming. 2,873,585, 2-17-59, Cl. 62—179.
Dods, Jean E. J.: *See*—
Rawson, Harold, and Dods. 2,873,506.
Doerrfeld, Robert L., to Teletype Corp. Automatic telegraph station selector. 2,874,210, 2-17-59, Cl. 178—2.
Dolan & Bullock Co.: *See*—
Cronan, Philip F. and F. P. 2,873,497.
Dole Valve Co., The: *See*—
Bauerlein, Carl C. 2,873,714.
Eskin, Samuel G., and Legera. 2,873,606.
Deme, Robert B., to General Electric Co. Sweep generator circuit. 2,874,291, 2-17-59, Cl. 250—36.
Donaldson, John S. Slide fastener closure with quick-operable installation connector means. 2,873,741, 2-17-59, Cl. 128—303.
Doncaster, Daniel P., to Columbia Broadcasting System, Inc. Phonograph tone arm. 2,873,978, 2-17-59, Cl. 274—23.
Donelt, Frederick. Program timing switch assembly. 2,874,229, 2-17-59, Cl. 200—35.
Dotson, Donald A., to The Garrett Corp. Fuel-air ratio control apparatus for gas driven prime movers. 2,873,578, 2-17-59, Cl. 60—39.28.
Douglass, Harry E., and R. B. Hecox. Portable work light. 2,874,270, 2-17-59, Cl. 240—11.4.
Dow Chemical Co., The: *See*—
Britton Edgar C., and Blair. 2,874,178.
Dräger, Otto H. Shock pressure valve for shelters. 2,873,662, 2-17-59, Cl. 98—119.
Drane, Phillips B. Valve and actuating means. 2,873,942, 2-17-59, Cl. 251—151.
Drew, Ernest F. Margarine oil composition. 2,874,056, 2-17-59, Cl. 99—118.
Dreyfus, Jean A. Electrical contact device having adjustable contacts. 2,874,251, 2-17-59, Cl. 200—166.
Dudar, Walter H.: *See*—
Bardin, Joe P., and Dudar. 2,874,241.
Duinker, Simon, to North American Philips Co., Inc. Device for recording and re-transmitting coded information. 2,874,370, 2-17-59, Cl. 340—174.
Dukes, John M. C., and J. Kemp, to International Standard Electric Corp. Unitary antenna-receiver utilizing microstrip conductors. 2,874,276, 2-17-59, Cl. 250—20.
Du Mont, Allen B., Laboratories, Inc.: *See*—
Reichert, William G., Jr. 2,874,315.
Dumont Corp.: *See*—
Layton, William B., Jr., Miller, and Smith. 2,873,875.
Dunaway, Reece J., to The Garrett Corp. Temperature compensated pneumatic governor. 2,873,754, 2-17-59, Cl. 137—81.
Duncan, George R., Sr.: *See*—
Duncan, Leon L., L. P., and G. R. 2,873,722.
Duncan, Lloyd P., L. L., and G. R. 2,873,723.
Duncan, Leon L.: *See*—
Duncan, Lloyd P., L. L., and G. R., Sr. 2,873,723.
Duncan, Leon L., L. P., and G. R., Sr., to Zero Manufacturing Co. Bulk milk tank and washer therefor. 2,873,722, 2-17-59, Cl. 119—14.09.
Duncan, Lloyd P.: *See*—
Duncan, Leon L., L. P., and G. R., Sr. 2,873,722.
Duncan, Lloyd P., L. L., and G. R., Sr., to Zero Manufacturing Co. Vacuum bulk milk tank with agitators. 2,873,723, 2-17-59, Cl. 119—14.18.
Dunlap, Henry L.: *See*—
Chapman, Harvey W., and Dunlap. 2,873,693.
Dunlop, Donald D.: *See*—
Moser, John F., Jr., and Dunlop. 2,874,094.
Dunlop Rubber Co. Ltd.: *See*—
Brooke, Thomas A., and Smith. 2,873,940.
Dunn, Walter D. Tube and bottle closures. 2,873,895, 2-17-59, Cl. 222—522.
Du Pont de Nemours, E. I., and Co.: *See*—
Dixon, Stanley. 2,874,166.
Dixon, Stanley. 2,874,197.
Symons, Norman K. J. 2,874,139.
Duran, Johannes C., M. A. M. Bakker, and P. G. van Zanten, to North American Philips Co., Inc. Method of manufacturing seals for electric discharge tubes. 2,873,510, 2-17-59, Cl. 29—155.55.
Durbin, Edward, to Sperry Rand Corp. Electro-mechanical phase shifter. 2,874,352, 2-17-59, Cl. 324—83.
Earley, James J., and C. J. Franz, to Allied Chemical Corp. Method and apparatus for dehydrating aqueous caustic solutions. 2,873,799, 2-17-59, Cl. 159—49.
Eberhardt, Charles M.: *See*—
Thomson, Robert F., Amala, and Eberhardt. 2,873,493.
Eckles, William J., to Morton Salt Co. Dispensing apparatus. 2,873,894, 2-17-59, Cl. 222—480.
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Christoffel, Martin, and Edlinger. 2,874,359.
Eggert, Hans: *See*—
Ruschig, Heinrich, Fugmann, Eggert, Fischer, and Lindner. 2,874,156.
Egli, Hermann, to Saul & Co., as nominee of Fidelity Union Trust Co., Executive Trustee under Sandoz Trust. Dyeing of polyacrylonitrile articles. 2,874,021, 2-17-59, Cl. 8—55.
Eisler, Paul. Electrical windings. 2,874,360, 2-17-59, Cl. 336—200.
Ekstrom, Regner A., Jr. Flowmeters particularly for gases. 2,873,606, 2-17-59, Cl. 73—228.
Elder, Gordon B., to General Motors Corp. Pump with oblique pulsator diaphragm. 2,873,688, 2-17-59, Cl. 103—150.
Eldi-Feinmechanik G. m. b. H.: *See*—
Hebel, Martin. 2,873,913.
Hebel, Martin. 2,873,914.
Electric Storage Battery Co., The: *See*—
Young, Charles A., and Kerns. 2,873,770.
Electrolux Corp.: *See*—
Borkoski, Leon P. 2,873,469.
Electro-Voice, Inc.: *See*—
Avedon, Robert C. 2,873,812.
Eliason, Kay E. Control means for establishing predetermined surfaces. 2,873,541, 2-17-59, Cl. 37—97.
Ellsworth, Carl E., to Chemetron Corp. Coupling arrangement for an oscillatory system. 2,874,357, 2-17-59, Cl. 333—27.
Elms, Edwin F. Fastener. 2,873,496, 2-17-59, Cl. 24—73.
Eloranta, Vaito K.: *See*—
Land, Edwin H., and Eloranta. 2,873,680.
Elwell, Henry G., Jr., and S. Machlanski, to Bendix Aviation Corp. Electric signaling and indicating apparatus. 2,874,375, 2-17-59, Cl. 340—182.
Empire Corp.: *See*—
Thompson, George W., Jr. 2,873,563.
Emulsol Chemical Corp.: *See*—
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Engel, Wolfgang, and E. Broedner, to Phoenix-Naehmaschinen A. G., Baer & Rempel. Needle bar oscillator adjusting means in sewing machines. 2,873,707, 2-17-59, Cl. 112—221.
Engelhard Industries, Inc.: *See*—
Keith, Carl D. 2,874,130.
England, Gideon B. Garment hanger. 2,873,896, 2-17-59, Cl. 223—88.
Engström, Erik R., to Aktiebolaget Bofors. Reinforcement means for a track plate of a track laying vehicle. 2,874,005, 2-17-59, Cl. 305—10.
Epostein, Samuel H., F. D. Meister, and A. Weintraub, to The Upjohn Co. 1-androstene-3,11,17-trione. 2,874,169, 2-17-59, Cl. 260—397.3.
Epstein, Solomon, C. F. Fuchs, and M. M. Gladstone, to Emulsol Chemical Corp. Hair shampoo. 2,874,126, 2-17-59, Cl. 252—152.
Erickson, Warren E., to Gisholt Machine Co. In-line spotter with bottle pocketing control. 2,873,842, 2-17-59, Cl. 198—33.
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Eschenburg, William A., D. D. Pettigrew, and C. Johnson, to The Hartford Special Machinery Co. Power feed mechanisms. 2,873,630, 2-17-59, Cl. 77—33.5.
Eskin, Samuel G., and T. B. Legena, to The Dole Valve Co. Thermal responsive element. 2,873,606, 2-17-59, Cl. 73—358.
Esler, David H. Means of recording elapsed time. 2,874,020, 2-17-59, Cl. 346—65.
Esso Research and Engineering Co.: *See*—
Boisture, Worth W., Molstedt, Stringer, and Griffin. 2,874,065.
Bowman, Lewis W., and Leary. 2,874,153.
Cottle, Delmer L., Young, Morway, and Smith. 2,874,192.
Hawley, Roger S. 2,873,784.
Luckenbach, Edward C., Metrailer, and Hemminger. 2,874,112.
Moser, John F., Jr. 2,874,093.
Moser, John F., Jr., and Dunlop. 2,874,094.
Scheeline, Harold W., and Catterall. 2,874,096.
Serniuk, George F., Vanderbilt, Michaels, and Barnum. 2,874,033.
Smith, Brock I., and Boston. 2,874,113.
Esso Standard Societe Anonyme Francaise: *See*—
Metenier, Robert H. and Signouret. 2,874,122.
Estep, Max H., Jr.: *See*—
Gossett, John M., Estep, and Perrine. 2,874,184.
Estey Organ Corp. (Del.): *See*—
Bode, Harald E. W. 2,874,286.
Eubanks, Joseph H.: *See*—
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Evans, David C., to The University of Utah. Analogue computer for solving simultaneous equations utilizing transformers with interleaved windings. 2,873,915, 2–17–59, Cl. 235—180.

Evans, Edwin R., to Lock Thread Corp. Screw with cutter to change female thread shape. 2,873,641, 2–17–59, Cl. 85—47.

Evans Products Co.: *See*—
Chapman, Harvey W., and Dunlap. 2,873,693.
Tobin, Kenneth J. 2,873,695.

Evans, William G.: *See*—
Hall, William G., Van Nice, and Evans. 2,874,373.

Even-Pul Foundations, Inc.: *See*—
Morano, Patrick J. 2,873,744.

Executary Corp.: *See*—
Cavanaugh, Edward F. 2,874,219.

Eykamp, Roy D. Baled hay chopper. 2,873,779, 2–17–59, Cl. 146—107.

Fahrenwald, Arthur W. Jaw crusher. 2,873,922, 2–17–59, Cl. 241—264.

Fahringer, Victor T. Apparatus for sealing a pressure vessel. 2,873,597, 2–17–59, Cl. 68—5.

Fairchild Engine and Airplane Corp.: *See*—
Pool, Henry L. 2,873,756.

Falk Corp., The: *See*—
Wiken, Ralph. 2,873,615.

Falkenstein, Otis P.: *See*—
Gray, Walter E., Jr., and Falkenstein. 2,873,537.

Fanti, Roy A., to United Aircraft Corp. Airfoil temperature control means. 2,873,933, 2–17–59, Cl. 244—117.

Farbenfabriken Bayer Akt.: *See*—
Kruckenberg, Winfried, and Homeyer. 2,874,086.
Schultz, Fritz. 2,874,088.
Von Spulak, Frans. 2,874,068.

Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning: *See*—
Ruschig, Heinrich, Fugmann, Eggert, Fischer, and Lindner. 2,874,156.

Farmingdale Corp., The: *See*—
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Farnsworth Research Corp.: *See*—
Larson, Christian C. 2,874,101.

Farrell, Richard R., to Universal Lubricating Systems, Inc. Grease gun. 2,873,893, 2–17–59, Cl. 222—326.

Federal Paper Board Co., Inc.: *See*—
Arneson, Lawrence E. 2,873,565.

Ferrara, Peter B.: *See*—
Weingrad, Richard H., Ferrara, and Smith. 2,873,642.

Ferraro, Thomas A., Jr. Method for the production of titanium. 2,874,040, 2–17–59, Cl. 75—84.5.

Ferris Instrument Co.: *See*—
Tyszer, Howard J. 2,874,294.

Feuge, Reuben O., and T. L. Ward, to United States of America, Agriculture. Process for making fatty acid diglyceride, diesters of dibasic acids. 2,874,175, 2–17–59, Cl. 260—404.8.

Fiber Controls Corp.: *See*—
Lytton, Kenneth G. 2,873,483.

Fidelty Machine Co., Inc.: *See*—
Larkin, Walter. 2,873,592.
Larkin, Walter. 2,873,594.
Larkin, Walter. 2,873,596.

Fidelty Union Trust Co.: *See*—
Egli, Hermann. 2,874,021.

Fink, Jean: *See*—
Gibbs, Thomas B., and Fink. 2,873,572.

Firgau, Werner: *See*—
Mudersbach, Ernst, and Firgau. 2,873,952.

Firma Accumulatoren-Fabrik Akt.: *See*—
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Firma Contraves A. G.: *See*—
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Firma Fortuna-Werke Spezialmaschinenfabrik A.-G.: *See*—
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Firma Montanwerke Walter Akt.: *See*—
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Fisher, Earl E., to Gulf Oil Corp. Process for stabilizing pyrophoric iron. 2,874,037, 2–17–59, Cl. 75—34.

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Fisk, Roy T., to Hyland Laboratories. Disposable culturing device. 2,874,091, 2–17–59, Cl. 195—139.

Fitzpatrick, W. J., Co.: *See*—
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Fitzpatrick, W. J., Co., The: *See*—
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Flatland, Lloyd P. High speed angle hand piece. 2,873,527, 2–17–59, Cl. 32—27.

Fleischmann, Carlo. Boundary layer control apparatus for improving the action of aircraft. 2,873,931, 2–17–59, Cl. 244—42.

Fletcher, William A., to General Motors Corp. Filament coiling machine having finely adjustable coiling head. 2,873,788, 2–17–59, Cl. 153—67.

Flexonics Corp.: *See*—
Andersen, Raymond C., and Pariasca. 2,873,984.

Florence, Robert T.: *See*—
Klimkowski, Robert J., and Florence. 2,873,668.

Florence, Robert T., to A. B. Dick Co. Copy process and materials for use in same. 2,873,671, 2–17–59, Cl. 101—149.4.

Flynn, Maurice J. Tangent adjustment for dumpy levels and the like. 2,873,530, 2–17–59, Cl. 33—46.

Folkenroth, Earl E., to AMP Inc. Insulation stripping applicator and methods of application. 2,873,511, 2–17–59, Cl. 29—155.55.

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Griffin, William K., Jr., and Killion. 2,873,717.

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Venditty, Chester G., and Crawford. 2,873,979.

Foreman, Robert W., J. L. Callahan, and F. Veatch, to The Standard Oil Co. Process for the manufacturing of acetone. 2,874,191, 2–17–59, Cl. 260—597.

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Foster, Edwin E. Spring sash balance. 2,873,472, 2–17–59, Cl. 16—197.

Foster, Jerry F., to Burroughs Corp. Information storage system. 2,874,371, 2–17–59, Cl. 340—174.

Fouts, Jared G. Match book dispenser. 2,873,882, 2–17–59, Cl. 221—116.

Fowler, Jesse C. Boom attachment for fork lift truck. 2,873,873, 2–17–59, Cl. 214—620.

France, Rollin C., and H. P. Wade, to The Standard Products Co. Lock structure for a vehicle deck lid or the like. 2,873,602, 2–17–59, Cl. 70—139.

Franz, Carl J.: *See*—
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Fraser, Kenneth G.: *See*—
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Frautschi, André, and L. Monney. Fluid-controlled boring machine. 2,873,629, 2–17–59, Cl. 77—32.2.

Fredenburg-Ingleeby, Julius C.: *See*—
Cookson, William. 2,873,699.

Freedman, Harold H.: *See*—
Medalia, Avrom I., and Freedman. 2,874,151.

Freeman, Warren R. Wire cutter. 2,873,524, 2–17–59, Cl. 30—182.

Frei, Emil. Undergarment. 2,873,743, 2–17–59, Cl. 128—324.

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Friedman, Bernard S., to Sinclair Refining Co. Carbonylation of saturated hydrocarbons. 2,874,186, 2–17–59, Cl. 260—514.

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Friedman, Iris: *See*—
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Friedman, Philip, deceased (I. Friedman and H. Orenstein, executors), and G. J. Friedman, to R. Grossman, R. Stein, I. Friedman, and H. Orenstein, as trustees for B. Friedman, and I. Friedman, and H. Orenstein, as trustees for R. Friedman, d. b. a. G. F. S. Investing Co. Closure fastener. 2,873,990, 2–17–59, Cl. 292—228.

Friedman, Robert: *See*—
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Frohlich, Adolf H., and E. J. Harris, to The Cleveland Trust Co. Cut-off machinery for fabric plies. 2,873,802, 2–17–59, Cl. 164—75.

Fromer, Emile S. Electric light socket. 2,874,266, 2–17–59, Cl. 339—141.

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Fuchs, Francis J., Jr., to Western Electric Co., Inc. Apparatus for making zero-radius bends in rectangular tubing. 2,873,786, 2–17–59, Cl. 153—20.

Fugassi, Lucien A., Jr., to National Steel Corp. Driving means for continuous metal coating apparatus. 2,873,720, 2–17–59, Cl. 118—258.

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Gagarine, Dmitry M., and H. Repokis, to Deering Milliken Research Corp. Method for reducing the pilling tendencies of fabrics. 2,874,069, 2–17–59, Cl. 117—103.

Galmiche, Philippe, to Office National d'Etudes et de Recheres Aeronautiques. Method for the formation of diffusion superficial alloys, in particular chromium alloys. 2,874,070, 2–17–59, Cl. 117—107.

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Garland, Charles J., and D. W. Turner, to Merritt Engineering Co. Tile cutting and fusing tool. 2,873,523, 2–17–59, Cl. 30—140.

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Fischer, Richard A. 2,873,661.
Green, Frederick H. 2,873 582.
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Garst, Jonathan. Process of preparing aqua ammonia. 2,874,029, 2–17–59, Cl. 23—193.

Gaskell, Walter L., to King-Seeley Corp. Shiftable motor drive for tilting arbor saw. 2,873,773, 2–17–59, Cl. 143—36.

Gates, James T.: Imprinter plate rack. 2,873,859, 2–17–59, Cl. 211—41.
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Cahill, Allen E., and McConnell. 2,874,072.
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Gibson, Harold F., to United States of America, Army. Ordnance fuse firing circuit. 2,873,679, 2–17–59, Cl. 102—70.2.
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Gilovich, Paul A., to International Business Machines Corp. Positioning device. 2,873,725, 2–17–59, Cl. 121—36.
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Erickson, Warren R. 2,873,842.
Githens, John A., to Bell Telephone Laboratories, Inc. Data processing apparatus. 2,874,313, 2–17–59, Cl. 307—88.5.
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Glover, John E. Safety pin. 2,873,500, 2–17–59, Cl. 24—161.
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Goldfarb, Adolph E., and H. G. Saperstein. Squirting camera. 2,873,884, 2–17–59, Cl. 222—78.
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Gordon, Garland R., and G. Savage, Jr., to General Dynamics Corp. Drafting apparatus. 2,873,535, 2–17–59, Cl. 33—189.
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Gossett, John M., M. H. Estep, Jr., and M. J. Perrine, to American-Marietta Co. Production of glue from soluble blood. 2,874,134, 2–17–59, Cl. 260—66.
Graham, David E., and E. V. Hort, to General Aniline & Film Corp. Process for the preparation of 1-nitroanthraquinone. 2,874,168, 2–17–59, Cl. 260—369.
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Green, Emmett M. Axially compressible rotatable sponge mop. 2,873,462, 2–17–59, Cl. 15—119.
Green, Frederick H., to The Garrett Corp. Air conditioning system for space ships. 2,873,582, 2–17–59, Cl. 62—5.
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Greenlee, Paul H., to Grimes Mfg. Co. Aircraft instrument panel illuminator. 2,874,269, 2–17–59, Cl. 240—8.16.
Gregory, Elmer O., ½ to E. A. Polumbus, Jr. Thread protectors for well sucker-rods. 2,873,765, 2–17–59, Cl. 138—96.
Greig, Harold G., to Radio Corp. of America. Electrostatic printing. 2,874,663, 2–17–59, Cl. 117—17.5.
Grierson, Thomas A. E. Portable sheet cutting machine. 2,873,801, 2–17–59, Cl. 164—36.
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Guest, Howard R., and H. A. Stansbury, Jr., to Union Carbide Corp. Halogenated diepoxide compounds. 2,874,167, 2–17–59, Cl. 260—348.
Guins, Sergei G. Stabilizing structure for railway car spring suspension. 2,873,691, 2–17–59, Cl. 105—197.
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Guyton, James H., and R. G. Roka, to General Motors Corp. Transistor power amplifier. 2,874,233, 2–17–59, Cl. 179—171.
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Haebler, Herbert, to Firma Accumulatoren-Fabrik Akt. Separator and electrode assembly for storage batteries and the like. 2,874,203, 2–17–59, Cl. 136—43.

Haerther, William W., Jr., and M. F. Noren, to Hawley Products Co. Acoustic diaphragm and method of construction. 2,873,813, 2–17–59, Cl. 181—32.

Hainke, Georg, to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain Chauny & Cirey. Process of making armored glass. 2,873,556, 2–17–59, Cl. 49—86.

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Hampel, Herbert J., to Burroughs Corp. Indicating device. 2,874,320, 2–17–59, Cl. 313—109.5.

Hancock, John E., ⅛ to The Gadget-of-The-Month Club, Inc. De-fouling anchor. 2,873,711, 2–17–59, Cl. 114—206.

Hanford, William E., to Minnesota Mining and Mfg. Co. Polytrifluorochloroethylene and barium peroxide. 2,874,142, 2–17–59, Cl. 260—45.7.

Hanford, William E., to Minnesota Mining and Mfg. Co. Polyperfluorochloroethylene and lead dioxide. 2,874,144, 2–17–59, Cl. 260—45.75.

Hann, Victor A., to The Welsbach Corp. Prevention of combustion in oxygen-ozone mixtures. 2,874,164, 2–17–59, Cl. 260—339.

Hård af Segerstad, Goran J. F. Tobacco pipe. 2,873,748, 2–17–59, Cl. 131—194.

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Hartwig, Frederick J., to The Babcock & Wilcox Co. Segmented casing for kaolin melting furnace. 2,874,201, 2–17–59, Cl. 13—23.

Hauch, John. Arrowhead construction. 2,873,973, 2–17–59, Cl. 273—106.3.

Hawk, Le Roy R., E. G. Magnus, and D. A. Manion to W. J. Fitzpatrick Co. Apparatus for processing food and the like. 2,873,663, 2–17–59, Cl. 99—234.

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Haws, Gordon W. Marble game structure. 2,873,975, 2–17–59, Cl. 273—134.

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Hazak, John T., to Raymond International Inc. Marine platform. 2,873,581, 2–17–59, Cl. 61—46.5.

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Hebel, Martin, to Eldi-Feinmechanik G. m. b. H. Electrical multiplier. 2,873,913, 2–17–59, Cl. 235—161.

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Heinzmann, Fritz. Centrifugal governor construction. 2,873,961, 2–17–59, Cl. 264—15.

Heller, Karl. Can piercing and delivery device. 2,873,885, 2–17–59, Cl. 222—81.

Helm, Homer E. Drive shaft lock system. 2,873,832, 2–17–59, Cl. 192—8.

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Hennecke, Hermann: *See*—
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Henry, Kenneth M., and H. B. Vincent, to Owens-Illinois Glass Co. Prevention of fracture in glass cathode-ray tubes. 2,874,017, 2–17–59, Cl. 316—19.

Henry Valve Co., Inc.: *See*—
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Herbert, Robert E. Game carrier. 2,873,449, 2–17–59, Cl. 2—94.

Herbst, Ralph L., Jr.: *See*—
Bolstad, Archibald N., and Herbst. 2,874,152.

Hernqvist, Karl G., to Radio Corp. of America. Pulse width modulation system. 2,874,355, 2–17–59, Cl. 332—8.

Herold, Edward W., to Radio Corp. of America. Touch control for polyphonic musical instruments. 2,873,637, 2–17–59, Cl. 84—1.04.

Herrmann, Julius, to Gewerkschaft Eisenhutte Westfalia. Mining planers having an impact action. 2,873,959, 2–17–59, Cl. 262—8.

Herz, William, and E. Pipitz, to Schwarzkopf Development Corp. Protection of ferrous metal parts against liquid molten aluminum. 2,874,065, 2–17–59, Cl. 117—46.

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Hickethier, Alfred: *See*—
Säuberlich, Willy, and Hickethier. 2,873,672.

Hicks, Jarvis B. Internal combustion engines. 2,873,733, 2–17–59, Cl. 123—191.

Hirschhorn, Isidor S., to New Process Metals, Inc. Means for producing flint rods. 2,873,489, 2–17–59, Cl. 22—1.

Hoadley, James C., and D. O. McCoy. Unilateral transmission circuits. 2,874,287, 2–17–59, Cl. 250—27.

Hock, Heinrich, to Ruhrchemie Akt. Production of phenolic resins from alkyl benzene hydroperoxides. 2,874,147, 2–17–59, Cl. 260—57.

Hodges Research and Development Co.: *See*—
Hodges, William C., and Robb. 2,873,302.

Hodges, William C., and A. L. Robb, to Hodges Research and Development Co. System and apparatus for handling transportable containers. 2,873,502, 2–17–59, Cl. 214—516.

Hoehn, Willard M. to G. D. Searle & Co. Lower alkyl esters of 1,4a-dimethyl-8-oxo-1,2,3,4,4a,4b,5,6,7,9,10,11,12,12a-tetradecahydrochrysene-1-carboxylic acid. 2,874,179, 2–17–59, Cl. 260—468.5.

Hoffmann-La Roche Inc.: *See*—
Goldberg, Moses W., and Lehr. 2,874,190.
Isler, Otto, Montavon, Rüegg, and Zeller. 2,874,183.
Klaui, Heinrich, and Moer. 2,874,058.

Hogan, Eric E., and R. S. Malloch. Method of and apparatus for setting concrete forms to true line and grade. 2,873,529, 2–17–59, Cl. 33—1.

Hogan, Walter H., to Cleveland Pneumatic Industries, Inc. Overrunning clutch. 2,873,838, 2–17–59, Cl. 192—41.

Hogg, John A., and J. Korman, to The Upjohn Co. Estrone compounds. 2,874,173, 2–17–59, Cl. 260—397.45.

Hohman, Ralph E., to The Babcock & Wilcox Co. Fluid fuel burner. 2,873,701, 2–17–59, Cl. 110—28.

Holland, Charles W., Jr. Conveyer belt cleaner. 2,873,847, 2–17–59, Cl. 198—230.

Holland Co.: *See*—
Wulff, Carl W. 2,873,690.

Holloway, Florence J. Stationery rack. 2,873,860, 2–17–59, Cl. 211—50.

Holm, Jens C., to Bath Iron Works Corp. Crusher. 2,873,920, 2–17–59, Cl. 241—80.

Holmes Electric Protective Co.: *See*—
Spenard, Le Roy C. 2,874,376.

Homeyer, Bernhard: *See*—
Kruckenberg, Winfried, and Homeyer. 2,874,086.

Homiak, Michael: *See*—
Ayers, Osborn, and Homiak. 2,873,480.

Homola, Richard L. Serving fork. 2,873,522, 2–17–59, Cl. 30—129.

Hooper, William E., and Sons Co.: *See*—
Santos, John R. L. 2,873,494.

Horner, Hugh: *See*—
Mikel, John J., Horner, and Kalnin. 2,873,886.

Hort, Eugene V.: *See*—
Graham, David E., and Hort. 2,874,168.

Horton, William A. Portable sound recording moving picture apparatus. 2,873,645, 2–17–59, Cl. 88—16.

Hotten, Bruce W., to California Research Corp. Terephthalate-thickened greases. 2,874,121, 2–17–59, Cl. 252—39.

Hough, Frank G., Co., The: *See*—
Granryd, Thorvald G. 2,873,626.

Howard, Frank A. Pneumatic wheel unit. 2,873,785, 2–17–59, Cl. 152—380.

Huber, Clarence F., and P. F. Thompson, to The Cincinnati Milling Machine Co. Bituminous bonding compounds. 2,874,174, 2–17–59, Cl. 260—404.5.

Huber, J. M., Corp.: *See*—
Behre, Johannes, and Williams. 2,873,919.

Hudson, Paul S.: *See*—
Smith, Warren L., Potts, and Hudson. 2,874,150.

Hughes Aircraft Co.: *See*—
Schwartz, Bertram. 2,874,076.

Hughes, Thomas H., to Pittsburgh Plate Glass Co. Multiple glazed unit. 2,873,486, 2–17–59, Cl. 20—56.5.

Humphries, Douglas N. Sawhorse. 2,874,003, 2–17–59, Cl. 304—5.

Huppert, Karl H., and E. K. Weise, to Semicon Inc. Resistance thermometer circuits. 2,874,260, 2–17–59, Cl. 215—20.
Huth, Walter H., and J. R. Bailey, to said Bailey assor. to said Huth. Wire recorder cartridge pack. 2,873,925, 2–17–59, Cl. 242—54.1.
Hutton, Robert W., to International Telephone and Telegraph Corp. Mixed-ringing party-line telephone system. 2,874,223, 2–17–59, Cl. 179—17.
Hwa, Jesse C. H., to Rohm & Haas Co. Removal of cations by ion-exchange resins containing sulfinic acid groups. 2,874,117, 2–17–59, Cl. 210—32.
Hwa, Jesse C. H., to Rohm & Haas Co. Anion-exchange resins containing sulfonium groups and processes for making them. 2,874,131, 2–17–59, Cl. 260—2.1.
Hydraulic Unit Specialties Co.: *See*—
Tennis, Francis H. 2,873,762.
Hydrofence Corp., The: *See*—
Heffernan, John N. and W. P. 2,873,951.
Hyland Laboratories: *See*—
Fisk, Roy T. 2,874,091.
I-T-E Circuit Breaker Co.: *See*—
Platz, Elwood T., and Davis. 2,874,247.
Schymik, Walter H. 2,874,207.
Ideal Industries, Inc.: *See*—
Robinson, Elvin B. 2,873,571.
Imperial Chemical Industries Ltd.: *See*—
Deverell-Smith, Raymond, Mitchell, and Twitchett. 2,874,146.
Inglis, Ronald A., to E. O'Sullivan. Apparatus for the transport and storage of vehicles. 2,873,865, 2–17–59, Cl. 214—16.1.
International Business Machines Corp.: *See*—
Glovich, Paul A. 2,873,725.
International Minerals & Chemical Corp.: *See*—
Gloss, Gunter H. 2,874,027.
International Standard Electric Corp.: *See*—
Dukes, John M. C., and Kemp. 2,874,276.
Jacobsen, Bent B. 2,874,273.
Klepp, George F., and Miller. 2,874,324.
Lens, Georges X. 2,873,863.
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International Telephone and Telegraph Corp.: *See*—
Adams, Robert T., and Van Vechten. 2,874,274.
Culbertson, John L. 2,874,224.
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Miller, Merritt L. 2,874,279.
Radcliffe, Arthur J., Jr., and Dean. 2,874,312.
Samuels, John C. 2,874,290.
Isler, Otto, M. Montavon, R. Rüegg, and P. Zeller, to Hoffmann-La Roche Inc. Unsaturated aldehydes and process for the preparation of such compounds. 2,874,183, 2–17–59, Cl. 260—459.
Jackson, Donald R., to Wyandotte Chemicals Corp. Lower fatty acid esters of N, N, N', N' tetrakis (2-hydroxypropyl) ethylene diamine and vinyl chloride compositions containing same. 2,874,138, 2–17–59, Cl. 260—31.8.
Jackson, Harold E., to Tecalemit Ltd. Variable time switches. 2,874,238, 2–17–59, Cl. 200—38.
Jackson, John N. Devices to temporarily hold and manipulate puncturing tools. 2,873,900, 2–17–59, Cl. 223—104.
Jackson, William R.: *See*—
Lombard, Daniel L., and Jackson. 2,873,764.
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Jacobs, Phillip. 2,873,452.
Jacobs, Philip C., Jr., and K. W. Swain, to The Chase-Shawmut Co. Fuse structures with ferrules of insulating material. 2,874,249, 2–17–59, Cl. 200—131.
Jacobs, Phillip, to Phil Jacobs Co., Inc. Maternity garment. 2,873,452, 2–17–59, Cl. 2—221.
Jacobsen, Andrew E., to United States of America, Navy. Data transmission system. 2,874,378, 2–17–59, Cl. 343—6.
Jacobsen, Bent B., to International Standard Electric Corp. Distortion elimination in radio repeater systems employing frequency modulation. 2,874,273, 2–17–59, Cl. 250—15.
Jaffe, David L., to Polarad Electronics Corp. Oscillator using a pencil triode. 2,874,288, 2–17–59, Cl. 250—36.
Jamestics of Ohio, Co., Inc.: *See*—
Adamson, Robert M. 2,873,827.
James, Robert E.: *See*—
Schey, Robert, and James. 2,873,892.
James, John N.: *See*—
Hartman, Edward J., and James. 2,873,090.
Janssen, Peter J. H.: *See*—
Van Barneveld, Evert J., and Janssen. 2,874,282.
Janssen, Peter J. H., and W. Smeulers, to North American Philips Co., Inc. Circuit arrangement for producing a sawtooth current in the vertical deflector of a television apparatus. 2,874,320, 2–17–59, Cl. 315—27.
Jaruselski, John J.: *See*—
Christenson, Roger M., and Jaruselski. 2,874,150.
Jaskowiak, Frank T., to A. O. Smith Corp. Rod tightener. 2,873,694, 2–17–59, Cl. 105—369.
Jeandupeux, Hubert. Method of and apparatus for inserting pile tufts into a fabric. 2,873,766, 2–17–59, Cl. 139—1.
Jeffrey Mfg. Co., The: *See*—
Steinmetz, Walter C. 2,873,848.
Jensen, Erik G. Tray assembly. 2,873,861, 2–17–59, Cl. 211—126.
Jewell, Richard. Detachable nestable three-piece music stand. 2,873,552, 2–17–59, Cl. 45—121.
Jochems, Pieter J. W., to North American Philips Co., Inc. Transistor element and transistor circuit. 2,874,232, 2–17–59, Cl. 179—171.
Johansen, Roy K., to Minneapolis-Honeywell Regulator Co. One pipe steam heating system control. 2,873,917, 2–17–59, Cl. 237—10.
Johns-Manville Corp.: *See*—
Ayers, Osborn, and Homiak. 2,873,450.
Johnson, Al, and F. W. Gauger, to Al Johnson, d. b. a. Valley Pattern & Mfg. Co. Carton locking mechanism. 2,873,655, 2–17–59, Cl. 93—51.
Johnson, Carl E., to National Aluminate Corp. 1,2-substituted imidazolinium salt and treatment of cellulosic fibrous materials therewith. 2,874,074, 2–17–59, Cl. 117—139.5.
Johnson, Clarence: *See*—
Eschenburg, William A., Pettigrew, and Johnson. 2,873,030.
Johnson, Gordon W.: *See*—
Wesselund, Robert E., Mader, and Johnson. 2,874,372.
Johnson, Willard L.: *See*—
Umbricht, Emil, Steenhagen, and Johnson. 2,873,816.
Jones, Evan, to Henry Valve Co., Inc. Refrigerant drier. 2,873,856, 2–17–59, Cl. 210—291.
Joseph, Perry R., S. Paksuer, and C. S. Szegho, to The Rauland Corp. Thermionic cathodes. 2,874,077, 2–17–59, Cl. 117—201.
Joy, Joseph F. Bed with invalid lift. 2,873,456, 2–17–59, Cl. 5—65.
Joy, Joseph F. Bed with adjustable invalid lift. 2,873,457, 2–17–59, Cl. 5—83
K. A. C. Ltd.: *See*—
Love, John. 2,873,495.
Kadlec, Gerhard E., and J. M. Katz, to Steatite Research Corp. Refractory body resistant to thermal shock. 2,874,071, 2–17–59, Cl. 117—123.
Kaeding, Hugo C., to General Electric Co. Pump motor assembly. 2,873,684, 2–17–59, Cl. 103—87.
Kaercher, William C., Jr.: *See*—
Ditter, Francis J., and Kaercher. 2,873,789.
Kalnin, Eugene J.: *See*—
Miskel, John J., Horner, and Kalnin. 2,873,535.
Kamberian, Jacob S. Lasting machine. 2,873,461, 2–17–59, Cl. 12—8.2.
Kandle, Charles W. Spring loaded earth drill. 2,873,936, 2–17–59, Cl. 255—4.8.
Karras, Jim V.: *See*—
Wilson, Arthur O., and Karras. 2,873,653.
Katz, Joseph M.: *See*—
Kadlec, Gerhard E., and Katz. 2,874,071.
Kavanagh, Gerald. Automobile parking apparatus. 2,873,864, 2–17–59, Cl. 214—16.1.
Kebrich, Leonard M., and A. W. Stroebel, to National Lead Co. Process for the manufacture of stabilizer-plasticizer compositions. 2,874,062, 2–17–59, Cl. 106—262.
Keck, Jack B., to Curtis Companies Inc. Cabinet construction. 2,874,015, 2–17–59, Cl. 312—263.
Keehn, Robert D.: *See*—
Couse, Kibbey W., and Keehn. 2,873,751.
Keith, Carl D. to Engelhard Industries, Inc. Process for preparing alumina trihydrate. 2,874,130, 2–17–59, Cl. 252—466.
Kelley, John F.: *See*—
Schiesser, Warren J., Kelley, and Marshall. 2,873,475.
Kelson, John J., to The Torrington Co. Pelling needle. 2,873,507, 2–17–59, Cl. 28—4.
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Dukes, John M. C., and Kemp. 2,874,276.
Kenney, John T., and S. E. Gamarekian, to General Electric Co. Combustion system for jet engine starters. 2,873,577, 2–17–59, Cl. 60—39.14.
Keogh, Raymond J.: *See*—
Burr, Robert P., and Keogh. 2,874,211.
Kepner, Hugh G. Hydraulic clutch operating mechanism. 2,873,834, 2–17–59, Cl. 192—91.
Kerns, Fred R.: *See*—
Young, Charles A., and Kerns. 2,873,770.
Kerr, David C., and S. K. Kifer, to United States Steel Corp. Apparatus for handling pipe or the like. 2,873,840, 2–17–59, Cl. 198—28.
Keys, Carlton A.: *See*—
Gerber, Frederick E. 2,873,817.
Kifer, Stanley K.: *See*—
Kerr, David C., and Kifer. 2,873,840.
Kilgore, Charles R., to Thompson Products, Inc. Fulcrum adjuster. 2,873,730, 2–17–59, Cl. 129—90.
Killion, John F.: *See*—
Griffin, William K., Jr., and Killion. 2,873,717.
Kinberg, Ragnar: *See*—
Orte, Sven E. W., and Kinberg. 2,874,006.
Kindred, Raymond L., to Phillips Petroleum Co. Analyser. 2,874,298, 2–17–59, Cl. 250—43.5.
King-Seeley Corp.: *See*—
Gaskell, Walter L. 2,873,773.
Kircher, Albert, Jr., and D. A. Manion, Jr., to The W. J. Fitzpatrick Co. Method of making sausage emulsions. 2,874,054, 2–17–59, Cl. 99—169.
Kirschner, Benjiman. Collapsible steam cabinet. 2,873,455, 2–17–59, Cl. 4—160.
Klasky, Morris B. Adapter for toilet tissue holder. 2,873,928, 2–17–59, Cl. 242—68.
Klaui, Heinrich, and H. Moer, to Hoffmann-La Roche Inc. Carotenoid preparations. 2,874,058, 2–17–59, Cl. 99—148.
Klein, David X., to Heyden Newport Chemical Corp. Sunburn preventive N-salicoyl-p-aminophenol compositions. 2,874,090, 2–17–59, Cl. 167—90.
Klement, John F., to Ampco Metal, Inc. Aluminum bronze alloy containing manganese and having improved wear resistance. 2,874,042, 2–17–59, Cl. 75—161.
Klempay, Raymond T. Welding apparatus, particularly for continuous strip lines. 2,874,266, 2–17–59, Cl. 219—124.
Kleparchuk, Peter. Device for the removal of tires and king pins. 2,873,795, 2–17–59, Cl. 157—1.17.
Klepp, George F., and D. Miller, to International Standard Electric Corp. Electric gaseous discharge tubes. 2,874,324, 2–17–59, Cl. 313—185

Klimkowski, Robert J., and R. T. Florence, to A. B. Dick Co. Azo dye duplicating process. 2,873,668, 2–17–59, Cl. 101—149.4.

Klockgether, Helfried, E. Müller, and A. Ossenbrunner, to AGFA Akt. Process for the retreatment of foils consisting of highly polymeric substances for the application of hydrophilic colloids. 2,874,046, 2–17–59, Cl. 96—87.

Kloepfer, Harry, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Molding composition comprising polyvinyl chloride or polyethylene and a metal oxide. 2,874,140, 2–17–59, Cl. 260—41.

Knapp-Monarch Co.: *See*—
Moore, Walter E. 2,873,879.

Kneusel, Raymond H. P., to Crown Cork & Seal Co., Inc. Metal container having a metal plug and a plastic pouring spout surrounding said plug. 2,873,897, 2–17–59, Cl. 222—567.

Knight, Philip L., to Surface Combustion Corp. Burner apparatus. 2,873,798, 2–17–59, Cl. 158—109.

Koenig, Paul H.: *See*—
De Pew, Thomas N., Sardo, and Koenig. 2,873,935.

Kogan, Jack. Window screen for an automobile. 2,873,800, 2–17–59, Cl. 160—180.

Kohman, Truman P., and B. B. Weissbourd, to United States of America, Atomic Energy Commission. Measuring apparatus. 2,874,306, 2–17–59, 250—83.6.

Kolling, Helmut, and F. Rappen, to Ruhrchemie Akt. Waxes suitable for self-polishing aqueous emulsions. 2,874,061, 2–17–59, Cl. 106—10.

Kolling, Helmut, and F. Rappen, to Ruhrchemie Akt. Elastic high molecular weight hydroxyl group containing materials. 2,874,194, 2–17–59, Cl. 260—638.

Koons, John C., to The Magnavox Co. Power generating device for projectiles. 2,873,678, 2–17–59, Cl. 102—70.

Korber, Kurt, & Co., K.-G.: *See*—
Schlossmacher, Hubert. 2,873,746.
Schlossmacher, Hubert. 2,873,747.
Schubert, Bernhard. 2,873,719.

Korman, Jerome: *See*—
Hogg, John A., and Korman. 2,874,173.

Kortchmar, Emil. Pressure relief valve for fluid pressure systems. 2,873,941, 2–17–59, Cl. 251—148.

Krandall, Sidney. Finger ring having two internal finger gripping means with diverging ends. 2,873,580, 2–17–59, Cl. 63—15.6.

Kremen, Jerome, and J. J. Shapiro, to American Instrument Co., Inc. Optical system for the measurement of turbidity. 2,873,644, 2–17–59, Cl. 88—14.

Kringlen, John A. Lifting and lowering mechanism for tail gates. 2,873,868, 2–17–59, Cl. 214—75.

Kroemer, John H., and J. T. Davidson, to The Standard Register Co. Autographic register. 2,873,983, 2–17–59, Cl. 282—16.

Kross, William J., to Western Electric Co., Inc. Safety device for article feeding mechanism. 2,873,845, 2–17–59, Cl. 198—221.

Kruckenberg, Winfried, and B. Homeyer, to Farbenfabriken Bayer Akt. Compositions and methods of combating nematodes employing hydrazino-bis-(dithiocarbonic acid-esters). 2,874,086, 2–17–59, Cl. 167—22.

Krupp, Fried, Mortoren- und Kraftwagenfabriken, G. m. b. H.: *See*—
Cambeis, Walter. 2,874,002.

Kuehner, Richard L., to Borg-Warner Corp. Dissolver. 2,874,032. 2–17–59, Cl. 23—267.

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Kuhn, Clarence W., and G. R. Radley, to Cutler-Hammer, Inc. Electrical resistor units. 2,874,257, 2–17–59, Cl. 201—74.

Kuhn, Clarence W., R. O. Perrine, and G. R. Radley, to Cutler-Hammer, Inc. Electrical resistor units. 2,874,258, 2–17–59, Cl. 201—74.

Kuhn, John, to The Garrett Corp. Radial wheel construction. 2,873,945, 2–17–59, Cl. 253—39.15.

Kunik, I. Jordan: *See*—
Bigelow, Norman E. 2,873,466.

Kunz, Jacob T., to Schulmerich Electronics, Inc. Striking mechanism for music instrument. 2,873,640, 2–17–59, Cl. 84—405.

Kurtz, Donald R., to General Electric Co. Fluid-pressure controlled operating mechanism for a circuit breaker. 2,874,242, 2–17–59, Cl. 200—82.

Lager, Edward J. Manufacture of burial vault lids. 2,873,504, 2–17–59, Cl. 25—130.

Lakeside Laboratories, Inc.: *See*—
Biel, John H. 2,874,163.

Lambert, Ralph D. Recoil selector mechanism for firearms. 2,873,651, 2–17–59, Cl. 89—198.

Lambert, Robert D., to Halvorsen Products Mfg. Co. Actuating mechanism for collating machine. 2,873,966, 2–17–59, Cl. 270—58.

Lamont, John, to Western Electric Co., Inc. Impedance measuring system. 2,874,351, 2–17–59, Cl. 324—57.

Lampman, George W., C. B. Leach, and L. R. Vivian, Jr., to General Motors Corp. Leaf spring assembly. 2,873,962, 2–17–59. Cl. 267—49.

Land, Edwin H., to Polaroid Corp. Photographic apparatus. 2,873,658, 2–17–59, Cl. 95—13.

Land, Edwin H., to Polaroid Corp. Process of washing and protecting photographic silver images. 2,874,045, 2–17–59, Cl. 96—29.

Land, Edwin H., and V. K. Eloranta, to Polaroid Corp. Photographic device for treating photographic prints with a liquid. 2,873,660. 2–17–59, Cl. 95—89.

Landa, Arthur J.: *See*—
Catlin, Robert T., and Landa. 2,873,446.
Catlin, Robert T., and Landa. 2,873,447.

Landis Machine Co.: *See*—
Moeltzner, Ernst F. W. 2,873,634.

Lane, John H., to Burroughs Corp. Non-destructive core read-out. 2,874,374, 2–17–59, Cl. 340—174.

Lane, William B. Method and apparatus for controlling refractory lined furnace temperatures. 2,874,303, 2–17–59, Cl. 250—83.

Langenau Mfg. Co., The: *See*—
Larimore, Galen L., and Matthews. 2,873,991.

Langis, André L., and R. Gaudry, to American Home Products Corp. Hydrogenated citrazinic acid and method of preparation. 2,874,158, 2–17–59, Cl. 260—281.

Langley, Sara F. Shoe bag. 2,873,781, 2–17–59, Cl. 150—1.

Langston, Samuel M., Co.: *See*—
Grobman, William. 2,873,968.

Lantz, Alpha P. Ironing board and automatically unfolding supporting legs therefor. 2,873,543, 2–17–59, Cl. 38—121.

La Plante, Roger A., to North American Philips Co., Inc. Klystron oscillator and method of adjusting same. 2,874,327, 2–17–59 Cl. 315—5.53.

Larimore, Galen L., and B. H. Matthews, to The Langenau Mfg. Co. Latch. 2,873,991, 2–17–59, Cl. 292—241.

Larkin Packer Co., Inc.: *See*—
Nelson, Wayne F. 2,873,805.

Larkin, Walter, to Fidelity Machine Co., Inc. Circular knitting machine. 2,873,592, 2–17–59, Cl. 66—15.

Larkin, Walter, to Fidelity Machine Co., Inc. Dial for knitting machines. 2,873,594, 2–17–59, Cl. 66—95.

Larkin, Walter, to Fidelity Machine Co., Inc. Pneumatic take up for circular knitting machines. 2,873,596, 2–17–59, Cl. 66—149.

Larson, Charles O. Leg bracket. 2,873,987, 2–17–59, Cl. 287—14.

Larson, Christian C., to Farnsworth Research Corp. Method of making double-sided mosaic. 2,874,101, 2–17–59, Cl. 204—11.

Larson, Richard L., to Minnesota Mining and Mfg. Co. Tab-forming tape dispenser. 2,873,967, 2–17–59, Cl. 270—68.

Lauritsen, Charles C., to United States of America, Navy. Fuze. 2,873,681, 2–17–59, Cl. 102—81.

Lawlor, Reed C. Cathode ray oscilloscopes. 2,874,377, 2–17–59, Cl. 340—389.

Layton, William B., Jr., D. S. Miller, and R. W. Smith, to Dumont Corp. Log box. 2,873,875, 2–17–59, Cl. 220—4.

Lazar, Melvin E.: *See*—
Powers, Myron J., and Lazar. 2,874,059.

Leach, Clayton B.: *See*—
Lampman, George W., Leach, and Vivian. 2,873,962.

Lear, Inc.: *See*—
Blanding, Leonard C. 2,874,362.
McMurren, Irving B. 2,874,293.

Leary, Robert F.: *See*—
Bowman, Lewis W., and Leary. 2,874,153.

Lebourg, Maurice P., to Borg-Warner Corp. Method and apparatus for detonating explosive devices in bore holes. 2,873,675, 2–17–59, Cl. 102—20.

Leckler, Harry H., to The Warner & Swasey Co. Reversing collet drive. 2,873,485, 2–17–59, Cl. 19—159.

Leece-Neville Co., The: *See*—
Orvis, Elmer P. 2,874,346.

Legary, Adam H. Grain swath pick-up assembly for combines and the like. 2,873,568, 2–17–59, Cl. 56—345.

Legeza, Thomas B.: *See*—
Eskin, Samuel G., and Legeza. 2,873,606.

Lehane, Timothy J., W. M. Smith, and R. D. Ernst, to Vapor Heating Corp. Steam heating system with alternative thermostat control. 2,873,916, 2–17–59, Cl. 237—6.

Lehner, William L.: *See*—
Carlsen, Carl F., and Lehner. 2,873,813.

Lehovec, Kurt, to Sprague Electric Co. Rectifying contact. 2,874,340, 2–17–59, Cl. 317—236.

Lehr, Hanns H.: *See*—
Goldberg, Moses W., and Lehr. 2,874,190.

Lemaigre-Voreaux, Pierre, to Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares-Etablissements Claude-Paz & Silva. Electrode for electric discharge apparatus. 2,874,325, 2–17–59, Cl. 313—355.

Lena, Adolph J., and G. W. Bush, to Allegheny Ludlum Steel Corp. Composite assembly of die steel core and stainless steel coating. 2,874,082, 2–17–59, Cl. 148—31.5.

Lena, Georges X., to International Standard Electric Corp. Indexing mechanism for mechanical code recorders. 2,873,862, 2–17–59, Cl. 214—11.

Lentz, David F.: *See*—
Purviance, Clarke E. 2,873,534.

Leonard, Edward J., to International Telephone and Telegraph Corp. Busy-verification automatic telephone system. 2,874,225, 2–17–59, Cl. 179—27.

Leonard, Gordon C.: *See*—
Cobble, James A., Sr., J. A. Cobble, Jr., Leonard, and Pardue. 2,873,705.

Leslie, James D., and H. J. Wubbe, to General Motors Corp. Inertia latch. 2,873,794, 2–17–59, Cl. 155—155.

Lever Brothers Co.: *See*—
Pader, Morton, Hamilton, Miles, and McCrimlisk. 2,874,049.

Levine, Aaron J. Sander. 2,873,561, 2–17–59, Cl. 51—170.

Low, Henry Y., to California Research Corp. Synthetic detergent formulations containing N-acyl taurates. 2,874,125, 2–17–59, Cl. 252—152.

Lew, Henry Y., and R. D. Stayner, to California Research Corp. Sulfonate detergent compositions of improved foam characteristics. 2,874,127, 2–17–59, Cl. 252—152.

Librascope, Inc.: *See*—
Linsley, Clarence R., and Pickens. 2,874,019.
Perrine, Warren L. 2,873,911.
Sorber, Adelbert P. 2,873,309.

Lichtenstein, Roland M., to General Electric Co. Ionization chamber. 2,874,304, 2–17–59, Cl. 250—83.6.

Lilley, Esther A. Telephone. 2,874,229, 2–17–59, Cl. 179—103.

Lilly, Eli, and Co.: *See*—
Traverso, John J., and Whitehead. 2,874,157.
Zuck, Donald A. 2,874,089.

Lindemann, Arthur W., to Minneapolis-Honeywell Regulator Co. Control apparatus. 2,873,757, 2-17-59, Cl. 137—101.25.

Lindner, Ernst: *See*—
Ruschig, Heinrich, Fugmann, Eggert, Fischer, and Lindner. 2,874,156.

Linhorst, Erwin E., to United States Rubber Co. Automatic rubber molding machine. 2,873,475, 2-17-59, Cl. 18—4.

Liniger, Rudolph H. Safety pin corrosive inhibitor. 2,873,901, 2-17-59, Cl. 223—109.

Linsley, Clarence R., and D. L. Pickens, to Librascope, Inc. Graph plotter. 2,874,019, 2-17-59, Cl. 346—29.

Lipscomb, Willis L. Indirect lighting fixture. 2,874,271, 2-17-59, Cl. 240—51.11.

Livingston, Donald C., to Sylvania Electric Products Inc. Electroluminescent device. 2,874,308, 2-17-59, Cl. 250—213.

Lock Thread Corp.: *See*—
Evans, Edwin R. 2,873,641.

Lockman, Carl J., to Aktiebolaget Rosenblads Patenter. Methods for extracting heat and SO_2 from sulphite waste lye containing SO_2. 2,874,043, 2-17-59, Cl. 92—2.

Lodge & Shipley Co., The: *See*—
McHugh, Charles J., Jr. 2,873,996.

Loetscher, Martin B. Combined letter and envelope with juxtaposed pair of three-ply folded corners. 2,873,906, 2-17-59, Cl. 229—92.1.

Loetscher, Martin B. Combined letter and envelope with juxtaposed pair of two-ply folded corners. 2,873,907, 2-17-59, Cl. 229—92.1.

Lofgren, Edward J., to United States of America, Atomic Energy Commission. Calutron ion source. 2,874,296, 2-17-59, Cl. 250—41.9.

Loma Plastics, Inc.: *See*—
Gunn, Paul C. 2,873,782.

Lombard, Adrian A., to Rolls-Royce Ltd. Means for controlling the rotational speed of the low-pressure compressor rotor of gas turbine engines. 2,873,576, 2-17-59, Cl. 60—35.6.

Lombard Corp.: *See*—
Lombard, Daniel L. 2,873,849.
Lombard, Daniel L., and Jackson. 2,873,764.

Lombard, Daniel L., to Lombard Corp. Tube drawing apparatus. 2,873,849, 2-17-59, Cl. 206—3.

Lombard, Daniel L., and W. R. Jackson, to Lombard Corp. Pipe end sealing apparatus for use in the pressure testing of pipes and tubes. 2,873,764, 2-17-59, Cl. 138—90.

Long, Clara M.: *See*—
Webb, Leon C. 2,873,574.

Loomis, Echo T. Cultivating tool. 2,873,809, 2-17-59, Cl. 172—378.

Lorenz, Anton: *See*—
Schliephacke, Fridtjof F. 2,873,791.

Love, Allan W.: *See*—
Brant, Arthur A., and Love. 2,874,348.

Love, John, to K. A. C. Ltd. Toggle fasteners. 2,873,495, 2-17-59, Cl. 24—68.

Lozier, Gerald S., R. Glicksman, and C. K. Morehouse, to Radio Corp. of America. Primary cells. 2,874,079, 2-17-59, Cl. 136—137.

Luckenbach, Edward C., W. J. Metrailer, and C. E. Hemminger, to Esso Research and Engineering Co. Hydrocarbon conversion system. 2,874,112, 2-17-59, Cl. 208—48.

Luna, Clarence E., to General Motors Corp. Carburetor float mechanism. 2,873,957, 2-17-59, Cl. 261—69.

Lutcke, Helmut G.: *See*—
Schinke, Hans-Werner, and Lutcke. 2,873,569.

Lynch, John J., to Sperry Rand Corp. Tabulating machine for billing. 2,873,669, 2-17-59, Cl. 101—93.

Lyon, George A. Bomb tail construction. 2,873,674, 2-17-59, Cl. 102—2.

Lyon, Inc.: *See*—
Celovsky, Michael J. 2,873,709.

Lyritzis, Nikolaos. Combination spare and service tail shaft assembly. 2,873,587, 2-17-59, Cl. 64—1.

Lytton, Kenneth G., to Fiber Controls Corp. Fiber tinter. 2,873,483, 2-17-59, Cl. 19—66.

MacCallum, James A., to Gummed Tapes (Proprietary) Ltd. Machines for manufacture of egg cartons. 2,873,654, 2-17-59, Cl. 93—37.

Machlanski, Sigmund: *See*—
Elwell, Henry G., Jr., and Machlanski. 2,874,375.

Mackay, Johnstone S.: *See*—
Oneol, Ernest O., and Mackay. 2,874,187.

MacMurray Jean F.: *See*—
Best, Charles W., Napier, and MacMurray. 2,873,874.

Mader, Lyle W.: *See*—
Wesslund, Robert E., Mader, and Johnson. 2,874,372.

Magnavox Co., The: *See*—
Kooma, John C. 2,873,678.
Severance, Ralph H. 2,873,680.

Magnus, Elmer G.: *See*—
Hawk, Le Roy R., Magnus, and Manion. 2,873,663.

Maher, Joseph L., to National Tank Co. Methods and means for low temperature separation of liquid hydrocarbons from natural gas. 2,873,814, 2-17-59, Cl. 183—2.7.

Maier, John, III: *See*—
Reed, Thomas B., Maier, and Oyler. 2,874,265.

Maillard, Bernard, to Brevets Aero-Mecaniques S. A. Feed devices for automatic guns supplied with ammunition in the form of a cartridge belt. 2,873,649, 2-17-59, Cl. 89—33.

Malloch, Robert S.: *See*—
Hogan, Eric E., and Malloch. 2,873,529.

Mallory, Warren M., and C. A. Cinnamon. Fluoroscope. 2,874,302, 2-17-59, Cl. 250—78.

Maloney, Bernard: *See*—
Mann, William, and Maloney. 2,873,821.

Malsbary Mfg. Co.: *See*—
Pritchard, Clarence L. 2,873,687.

Mandel, Elliot, and W. Goldsborough, said Goldsborough, to said Mandel. Steam saturizing means for offset press. 2,873,667, 2-17-59, Cl. 101—147.

Manion, Dewey A.: *See*—
Hawk, Le Roy R., Magnus, and Manion. 2,873,663.

Manion, Dewey A., Jr.: *See*—
Kircher, Albert, Jr., and Manion. 2,874,054.

Mann, William, and B. Maloney, to American Steel Foundries. Combination brake. 2,873,821, 2-17-59, Cl. 188—83.

Manning, Walter F., to Garrard Engineering and Mfg. Co. Ltd. Record supporting spindles for record changing gramophones. 2,873,977, 2-17-59, Cl. 274—10.

Mansfield, Richard C., J. G. Morrison, and C. J. Schmidle, to Rohm & Haas Co. Corrosion inhibiting compositions. 2,874,119, 2-17-59, Cl. 252—8.55.

Markle, Adolf, to Firma Montanwerke Walter Akt. Grinding machine. 2,873,557, 2-17-59, Cl. 51—33.

Marraffino, Leonard L.: *See*—
Spere, John J. 2,873,887.

Marshall, Donald G.: *See*—
Schleser, Warren J., Kelley, and Marshall. 2,873,475.

Marshall, Thomas E., III: *See*—
Bridge, Richard B., Marshall, and Von Wald. 2,873,482.

Martin, Arlo A., to General Dynamics Corp. Instrument illuminating device. 2,874,268, 2-17-59, Cl. 240—2.1.

Martin, Gustav J.: *See*—
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,160.
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,188.
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,189.

Martinez, Melroy M. Sea food processing apparatus. 2,873,473, 2-17-59, Cl. 17—2.

März, Otto, to Metzeler Gummiwerke AG. Inflatable boat. 2,873,459, 2-17-59, Cl. 9—2.

Maschinenfabrik Augsburg-Nurnberg A. G.: *See*—
Meurer, Siegfried. 2,873,727.

Maschinenfabrik Goebel G. m. b. H.: *See*—
Sauberlich, Willy, and Hickethier. 2,873,672.

Maschinenfabrik Schweiter A. G.: *See*—
Schweiter, Walter. 2,873,883.

Mason, Richard J., to Bendix Aviation Corp. Accumulator. 2,873,682, 2-17-59, Cl. 103—52.

Massman, Albert W., to Motorola, Inc. Color television receiver oscillator control. 2,874,289, 2-17-59, Cl. 250—36.

Materese, Vincent, to Mink-Dayton, Inc. Oil burner construction. 2,873,797, 2-17-59, Cl. 158—37.

Matthels, Wilhelm: *See*—
Rößemboeck, Adalbert, Matthels, and Zirn. 2,874,038.

Matthews, Benjamin H.: *See*—
Larimore, Galen L., and Matthews. 2,873,991.

Maurer, Eugen, to Rollenlager-Spindelfabrik "Spintex" G. m. b. H. Top rolls for drawing systems of ring spinning frames. 2,873,484, 2-17-59, Cl. 19—142.

Maurer, James I.: *See*—
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Maurer, Pierre W., and H. L. Blust, to Radio Corp. of America. Lead wire feeding device. 2,873,835, 2-17-59, Cl. 193—2.

Maxwell, Ruth S.: *See*—
Semour, James. 2,873,752.

May, Howard F., to General Motors Corp. Power elements for thermostats. 2,873,633, 2-17-59, Cl. 73—358.

Mayer, Oscar, & Co., Inc.: *See*—
Turner, Earl W., and Olson. 2,874,060.

Mayer-Krapoll, Hermann, to Ruhr-Stickstoff Akt. Process of improving forest soil and arboreal growth. 2,874,035, 2-17-59, Cl. 71—1.

Maynard, John A., and W. A. Rote, to Minneapolis-Honeywell Regulator Co. Measuring system. 2,874,350, 2-17-59, Cl. 324—57.

Mayne, John E. O. Cementiferous paints. 2,874,057, 2-17-59, Cl. 106—14.

McCain, Cecil C., and E. Sirp, to Western Electric Co., Inc. Aligning fixture for assembling parts of a magnetron tube. 2,873,516, 2-17-59, Cl. 29—287.

McCarthy, Joseph W., to Sears, Roebuck and Co. Umbrella tent. 2,873,750, 2-17-59, Cl. 135—1.

McCaughan, Thomas. Casement stays. 2,873,992, 2-17-59, Cl. 292—262.

McConnell, Vincent P.: *See*—
Cahill, Allen E., and McConnell. 2,874,072.

McCormick, John M., to Owens-Illinois Glass Co. Electronic memory device for article sorting apparatus. 2,873,855, 2-17-59, Cl. 209—90.

McCormick, Ronald R. Collapsible handrail. 2,873,954, 2-17-59, Cl. 228—67.

McCoy, David O.: *See*—
Hoadley, James C., and McCoy. 2,874,287.

McCrimlisk, Gerard J.: *See*—
Pader, Morton, Hamilton, Miles, and McCrimlisk. 2,874,045.

McCulley, James M., to Radio Corp. of America. Step-wave generator with means to adjust and measure height of any step. 2,874,280, 2-17-59, Cl. 250—27.

McDonald, Donald, to J. L. McDonald. Paper dispenser. 2,873,927, 2-17-59, Cl. 242—55.51.

McDonald, Joanne L.: *See*—
McDonald, Donald. 2,873,927.

McFarland, Forest R., and P. P. Thomas, to Studebaker-Packard Corp. Front wheel suspension assembly. 2,873,980, 2-17-59, Cl. 280—96.2.

McGlumphy, George F., to Westinghouse Air Brake Co. Electronic counter control. 2,874,330, 2–17–59, Cl. 315—84.5.
McGuire, Robert T.: *See*—
Raff, Fritz, McGuire, and Palestri. 2,874,022.
McHugh, Charles J., Jr., to The Lodge & Shipley Co. Lifting cup for article transferring apparatus. 2,873,996, 2–17–59, Cl. 294—64.
McLaughlin, Paul J., and W. W. Toy, to Rohm & Haas Co. Coated paper products and methods for making them. 2,874,066, 2–17–59, Cl. 117—65.
McManus, John J.: *See*—
Allen, Samuel G., II, Currie and McManus. 2,874,218.
McMurren, Irving B., to Lear, Inc. Regulated oscillator. 2,874,293, 2–17–59, Cl. 250—36.
Mecorney, John W., to Shell Development Co. Stabilization of unsaturated aldehydes. 2,874,099, 2–17–59, Cl. 202—57.
Medalia, Avrom I., and H. H. Freedman. Polymeric emulsifying agents and their derivatives. 2,874,151, 2–17–59, Cl. 260—80.
Meister, Peter D.: *See*—
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Melnick, Daniel, and C. M. Gooding, to The Best Foods, Inc. Frying oils. 2,874,055, 2–17–59, Cl. 99—118.
Mercier, Jean. Sealing means for a slidable member in a pressure unit. 2,873,763, 2–17–59, Cl. 138—31.
Merrell, Wm. S., Co., The: *See*—
Van Campen, Marcus G., Jr., and Tilford. 2,874,161.
Merritt Engineering Co.: *See*—
Garland, Charles J., and Turner. 2,873,523.
Messmer, Edwin E.: *See*—
Sylvester, John D., and Messmer. 2,873,566.
Metenier, Robert H., and J.-B. Signouret, to Esso Standard Societe Anonyme Francaise. Alkali metal soap thickened lubricating oil. 2,874,122, 2–17–59, Cl. 252—42.1.
Metheny, Donald E., and E. Browar, to General American Transportation Corp. Methods of chemical nickel plating. 2,874,073, 2–17–59, Cl. 117—130.
Metrailer, William J.: *See*—
Luckenbach, Edward C., Metrailer, and Hemminger. 2,874,112.
Mettoy Co., The: *See*—
Ullman, Henry. 2,873,553.
Metzeler Gummiwerke AG: *See*—
Märs, Otto. 2,873,459.
Metzler, Otto. Device for automatically indicating the critical oil level in engines, especially engines of motor vehicles. 2,874,243, 2–17–59, Cl. 200—84.
Metzner, Albert W., to The Standard Register Co. Strip feeding device. 2,873,838, 2–17–59, Cl. 197—126.
Meurer, Siegfried, to Maschinenfabrik Augsburg-Nurnberg A. G. Combustion chamber for fuel injection internal combustion engine. 2,873,727, 2–17–59, Cl. 123—32.
Meyer, Leonard S., and G. A. Shira, to Parallel Products Co. Archery bow reel. 2,873,929, 2–17–59, Cl. 242—85.1.
Meyer, Saul: *See*—
Blain, Albert, Welsh, Wilson, Reed, Meyer, and Roggenstein. 2,874,369.
Michaels, Adlai E.: *See*—
Serniuk, George E., Vanderbilt, Michaels, and Barnum. 2,874,033.
Michaelson, Bernard L. Drum bearing shield. 2,873,631, 2–17–59, Cl. 77—55.
Micucci, Dominic D., S. Avakian, R. R. Brendel, and G. J. Martin, to The National Drug Co. Pharmaceuticals. 2,874,160, 2–17–59, Cl. 260—294.
Micucci, Dominic D., S. Avakian, R. R. Brendel, and G. J. Martin, to The National Drug Co. Pharmaceuticals. 2,874,188, 2–17–59, Cl. 260—558.
Micucci, Dominic D., S. Avakian, R. R. Brendel, and G. J. Martin, to The National Drug Co. Pharmaceuticals. 2,874,189, 2–17–59, Cl. 260—558.
Miles, John J., Jr.: *See*—
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Miller, Delmar S.: *See*—
Layton, William B., Jr., Miller, and Smith. 2,873,875.
Miller, Donald: *See*—
Klenp, George F., and Miller. 2,874,324.
Miller, George J. Floor polishing attachment for vacuum cleaners. 2,873,465, 2–17–59, Cl. 15—231.
Miller, Gustave. Article of furniture collapsible to a plane position. 2,874,013, 2–17–59, Cl. 311—84.
Miller, Meritt L., to International Telephone and Telegraph Corp. Pulse selector circuit. 2,874,279, 2–17–59, Cl. 250—27.
Mills, Gordon F., and H. B. Whetsel. Separating metallic cations with perfluorocarboxylic acids. 2,874,176, 2–17–59, Cl. 260—429.1.
Mills, Stephen D., to A. O. Smith Corp. Cam-actuated coil inserter. 2,873,514, 2–17–59, Cl. 29—205.
Mills, Victor, to The Procter & Gamble Co. Culinary mixes and methods of preparing the same. 2,874,053, 2–17–59, Cl. 99—94.
Milne, James M., to General Electric Co. Method of constructing a tank for electric apparatus. 2,873,519, 2–17–59, Cl. 29—463.
Mink-Dayton, Inc.: *See*—
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Minneapolis-Honeywell Regulator Co.: *See*—
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Lindemann, Arthur W. 2,873,757.
Maynard, John A., and Rote. 2,874,350.
Sikorra, Daniel J. 2,874,236.
Whitehead, Robert C., Jr. 2,873,755.
Minnesota Mining and Mfg. Co.: *See*—
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Barnhart, William S., and Wade. 2,874,198.
Bolstad, Archibald N., and Herbst. 2,874,152.
Hanford, William E. 2,874,142.
Hanford, William E. 2,874,144.
Larson, Richard L. 2,873,967.
Miralles, Gustavo H. Bleacher seat. 2,873,792, 2–17–59, Cl. 155—133.
Miskel, John J., H. Horner, and E. J. Kainin, to Chas. Pfizer & Co., Inc. Dispenser. 2,873,886, 2–17–59, Cl. 222—91.
Misko, Stephen R. Insect trap. 2,873,551, 2–17–59, Cl. 43—111.
Mitchell, John: *See*—
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Mitchell, John G. to Celanese Corp. of America. Folding device for strip material. 2,873,965, 2–17–59, Cl. 270—40.
Moeltzner, Ernst F. W., to Landis Machine Co. Rolling machines and control means therefor. 2,873,634, 2–17–59, Cl. 80—6.
Molstedt, Byron V.: *See*—
Boisture, Worth W., Molstedt, Stringer, and Griffin. 2,874,095.
Monney, Louis: *See*—
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Klaui, Heinrich, and Moor. 2,874,058.
Moore, Arnold R.: *See*—
Stripp, Kenneth F., and Moore. 2,874,083.
Moore, Robert L., to United States of America, Atomic Energy Commission. Oxidation of transuranic elements. 2,874,025, 2–17–59, Cl. 23—14.5.
Moore, Walter E., to Knapp-Monarth Co. Latch construction for an automatically opening cooking appliance. 2,873,879, 2–17–59, Cl. 220—35.7.
Morano, Patrick J., to Even-Pul Foundations, Inc. Girdles. 2,873,744, 2–17–59, Cl. 128—334.
Morehouse, Clarence K.: *See*—
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Morehouse, Clarence K., and R. Glickman, to Radio Corp. of America. Primary cells. 2,874,204, 2–17–59, Cl. 136—100.
Morel, Stanley L. Submarine attitude control system. 2,873,710, 2–17–59, Cl. 114—16.
Morey, Everett D., to General Electric Co. Clothes dryer with clothes odorizing means. 2,873,539, 2–17–59, Cl. 34—133.
Mori, Ernest A., to Gulf Research & Development Co. Fluid proportioning apparatus. 2,873,889, 2–17–59, Cl. 222—134.
Morin, Louis H. Labeled plastic containers. 2,873,877, 2–17–59, Cl. 220—44.
Morris, Donald R., to General Motors Corp. Ice detector and control system. 2,874,259, 2–17–59, Cl. 219—19.
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Cottle, Delmer L., Young, Morway, and Smith. 2,874,192.
Moser, John F., Jr., to Esso Research and Engineering Co. Combination fluidized solids process for producing fuels and chemicals. 2,874,093, 2–17–59, Cl. 202—20.
Moser, John F., Jr., and D. D. Dunlop, to Esso Research and Engineering Co. Fluid coking process. 2,874,094, 2–17–59, Cl. 202—25.
Motorola, Inc.: *See*—
Massman, Albert W. 2,874,289.
Race Clarence F. 2,874,205.
Meyer, David F., to General Motors Corp. Circuit breaker. 2,874,245, 2–17–59, Cl. 200—104.
Mudersbach, Ernst, and W. Firgau, to Svenska Rotor Maskiner Aktiebolag. Rotary regenerative preheaters for gaseous media. 2,873,952, 2–17–59, Cl. 257—6.
Müller, Erwin: *See*—
Klockgether, Helfried, Müller, and Oesenbrunner. 2,874,046.
Müller, Paul: *See*—
Syz, Werner, and Müller. 2,874,103.
Murdoch, Alexander, Jr., to Blackstone Corp. Ultrasonic transducers. 2,874,316, 2–17–59, Cl. 310—26.
Murphey, Rozier C., Jr. Golf club hand grip. 2,873,970, 2–17–59, Cl. 273—81.3.
Murphy, Venus R. Shoe with changeable elements. 2,873,540, 2–17–59, Cl. 36—2.5.
Murray, Maxton F., to The Upjohn Co. Salicylic acid 2,6-dimethyl-4-n-propoxybenzoate. 2,874,181, 2–17–59, Cl. 260—473.
Murray, William. Combined fluid and contact seal. 2,873,986, 2–17–59, Cl. 286—10.
Musser, C. Walton, and F. W. Dietsch, to United States of America, Army. Remote control fluid pressure responsive actuator. 2,873,648, 2–17–59, Cl. 89—1.
Musser, Clair O. Toy piano having key mounted tone bars. 2,873,639, 2–17–59, Cl. 84—404.
Naas, Nils R. Fastening means for buttons. 2,873,498, 2–17–59, Cl. 24—103.
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Best, Charles W., Napier, and MacMurray. 2,873,874.

Nash, Edward L., to Studebaker-Packard Corp. Tooth spacer for non-slip differential gearing. 2,873,622, 2-17-59, Cl. 74—711.

National Aluminate Corp.: *See*—
Johnson, Carl R. 2,874,074.

National Broach & Machine Co.: *See*—
Gates, Thomas S., Bassoff, and Davis. 2,873,652.

National Dairy Products Corp.: *See*—
Arenson, Simon W., and Baldauski. 2,874,050.

National Drug Co., The: *See*—
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,160.
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,188.
Micucci, Dominic D., Avakian, Brendel, and Martin. 2,874,189.

National Industrial Products Co.: *See*—
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National Lead Co.: *See*—
Hendricks, John G., and Fitret. 2,874,145.
Kehrich, Leonard M., and Strechel. 2,874,062.

National Lock Co.: *See*—
Stone, Roy A., and Ploughman. 2,873,909.

National Steel Corp.: *See*—
Fugassi, Lucien A., Jr. 2,873,720.

National Tank Co.: *See*—
Maher, Joseph L. 2,873,814.

National Wooden Pallet Manufacturers' Association: *See*—
De Pew, Thomas N., Sardo, and Koenig. 2,873,935.

Natland, Manley L. Side wall punch core orienter gun perforator type. 2,873,949, 2-17-59, Cl. 255—1.4.

Neaverson, Rowland A. Load hoisting apparatus for vehicles. 2,873,869, 2-17-59, Cl. 214—77.

Necchi Sewing Machine Sales Corp.: *See*—
Perrinjaquet, Roger. 2,874,014.

Neff, Glyn A., to Consolidated Electrodynamics Corp. Electron beam deflection multivibrator circuits. 2,874,283, 2-17-59, Cl. 250—27.

Nelson, Clifford J. Means for dispensing the contents of collapsible tubes. 2,873,888, 2-17-59, Cl. 222—99.

Nelson, Harrison A., to The Upjohn Co. Recovery of ergosterol. 2,874,171, 2-17-59, Cl. 260—397.25.

Nelson, Victor A., and T. Rogers. Dispenser for liquids. 2,873,892, 2-17-59, Cl. 222—309.

Nelson, Wayne F., to Larkin Packer Co., Inc. Well packers. 2,873,805, 2-17-59, Cl. 166—140.

Neville Chemical Co.: *See*—
Schwegler, Edward J., and Putscher. 2,874,097.

Newmont Mining Corp.: *See*—
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Nichols, Frank C. Container rim protector. 2,873,881, 2-17-59, Cl. 220—90.

Nielsen, Adolph. Valve fitting for pump pressure systems. 2,873,758, 2-17-59, Cl. 137—209.

Nilsson, Hans E., to Svenska Rotor Maskiner Aktiebolag. Rotary devices and casing structures therefor. 2,873,909, 2-17-59, Cl. 230—143.

Nippon Mlshin Seizo Kabushiki Kaisha: *See*—
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Noel, Alfred E. Three dimensional picture. 2,873,545, 2-17-59, Cl. 40—160.

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Nozza, Ernest. Paint brush construction. 2,873,463, 2-17-59, Cl. 15—145.

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Obladen, Albert J., and M. K. Deutsch. Disinfectant compositions. 2,874,067, 2-17-59, Cl. 167—31.

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Ohlinger, Leo A., F. Seitz, and G. J. Young, to United States of America, Atomic Energy Commission. Test-hole construction for a neutronic reactor. 2,874,108, 2-17-59, Cl. 204—193.2.

Obsol, Ernest O., and J. S. Mackay, to Pittsburgh Coke & Chemical Co. Preparation of aliphatic acids. 2,874,187, 2-17-59, Cl. 260—540.

Oldtman, Elston H. Supporting apparatus for bucket elevator. 2,873,939, 2-17-59, Cl. 248—351.

Olsbel, John R., to Trice Products Corp. Windshield clearing system. 2,873,467, 2-17-59, Cl. 15—250.4.

Oldenburg, Frederick W. Paint pail bracket. 2,873,937, 2-17-59, Cl. 248—211.

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Olson, Elmer, to General Motors Corp. Fuel induction system. 2,873,732, 2-17-59, Cl. 123—119.

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Oppenheimer, Frank, and J. W. Bell, to United States of America, Atomic Energy Commission. Mass separators. 2,874,295, 2-17-59, 250—41.9.

Opsahl, Eugene G., to American Steel Foundries. Brake beam. 2,873,824, 2-17-59, Cl. 188—226.1.

Orenstein, Hyman: *See*—
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Orr, John R., to Radio Corp. of America. Sound IF gain regulation. 2,874,277, 2-17-59, Cl. 250—20.

Orte, Sven E. W., and R. Kinberg, to Aktiebolaget Svenska Kullagerfabriken. Bearing mounting for silent running rotating machine parts. 2,874,006, 2-17-59, Cl. 308—184.

Ortegren, Victor H., to United States of America, Agriculture. Vial holder. 2,873,850, 2-17-59, Cl. 206—1.

Orten, Charles L. Multiple fluid coupling for relatively movable vehicle parts. 2,873,810, 2-17-59, Cl. 180—66.

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Otte, Dettmer H., to Western Electric Co., Inc. Butt welding apparatus. 2,874,262, 2-17-59, Cl. 219—57.

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Pearce, Albert E., to West Virginia Pulp and Paper Co. Controlled rate fluent material feeder. 2,873,891, 2–17–59, Cl. 222—144.
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Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques: *See*—
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Perlman, Sol, to United States of America, Air Force. Control of power delivery to electrical apparatus. 2,874,339, 2–17–59, Cl. 317—148.5.
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Peterson, Glen, to Phillips Petroleum Co. Method of and apparatus for seismic prospecting. 2,874,356, 2–17–59, Cl. 333—6.
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Peterson, William F., W. M. Venner, and P. L. Bowser, Jr., to Sterling Aluminum Products, Inc. Trunk piston. 2,874,010, 2–17–59, Cl. 309—13.
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Riley, Floyd E., to R. R. Putt. Tubeless tire bead seating device. 2,873,796, 2-17-59, Cl. 157—1.21.

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Ross, Richard W. Hot air furnace. 2,873,738, 2-17-59. Cl. 126—116.

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Ruedisuli, Wilhelmus M. J., to Shell Development Co. Process for preparing aviation base stock and aviation gasoline. 2,874,114, 2-17-59, Cl. 208—93.

Ruegg, Rudolf: *See*—
Isler, Otto, Montavon, Rüegg, and Zeller. 2,874,183.

Rühenbeck, Adalbert, W. Matthéis, and J. Zirn. Method of treating molten metals. 2,874,038, 2-17-59, Cl. 75—59.

Ruhrchemie Akt.: *See*—
Hock, Heinrich. 2,874,147.
Kolling, Helmut, and Rappen. 2,874,061.
Kolling, Helmut, and Rappen. 2,874,194.

Ruhr-Stickstoff Akt.: *See*—
Mayer-Krapoll, Hermann. 2,874,035.

Rünge, Heinz F., to Western Electric Co., Inc. Fixture for bending terminals. 2,873,787, 2-17-59, Cl. 153—20.

Ruschig, Heinrich, R. Fugmann, H. Eggert, E. Fischer, and E. Lindner, to Farbwerke Hoechst Akt. vormals Meister Lucius & Brüning. Substituted 2,3-diphenyl-1,4-dioxotetrahydrophthalazines and a process for preparing them. 2,874,156, 2-17-59, Cl. 260—250.

Safford, Lewis A., to The New York Air Brake Co. Dual brake cylinder with lock. 2,873,579, 2-17-59, Cl. 60—97.

Safford, Lewis A., to The New York Air Brake Co. Safety valve. 2,873,760, 2-17-59. Cl. 137—529.

Sagé, Paul, to Societe a responsabilite limitee: "Societe des Mecaniques Verdol." Double twist spindles. 2,873,570, 2-17-59, Cl. 57—58.72.

Salpeter, Jakob L., to North American Philips Co., Inc. Circuit for starting and operating multiple electric discharge lamp. 2,874,332, 2-17-59, Cl. 315—138.

Salsbury Corp.: *See*—
Thostenson, Lewis D. 2,873,777.

Samsel, Richard W., to General Electric Co. Apparatus for determining vibration characteristics. 2,873,604, 2-17-59, Cl. 73—67.1.

Samuels, John C., to International Telephone and Telegraph Corp. Cathode-follower oscillator. 2,874,290, 2-17-59, Cl. 250—36.

Sandner, Walter J.: *See*—
Ayers, George W., and Sandner. 2,874,115.

Sandoz Trust: *See*—
Egli, Hermann. 2,874,021.

Sanford, Robert A., to Sinclair Refining Co. Process for producing durene. 2,874,200, 2-17-59, Cl. 260—674.

Santos, John R. L., to William E. Hooper and Sons Co. Dryer felt connection. 2,873,494, 2-17-59, Cl. 24—38.

Saperstein, Henry G.: *See*—
Goldfarb, Adolph E. and Saperstein. 2,873,884.

Sardo, William H., Jr.: *See*—
De Pew, Thomas N., Sardo, and Koenig. 2,873,935.

Sarka, Albert J., to Wean Equipment Corp. Apparatus for treating strip and the like. 2,873,803, 2-17-59, Cl. 164—89.

Säuberlich, Willy, and A. Hickethier, to Maschinenfabrik Goebel G. m. b. H. Drive mechanism for proofing press. 2,873,672, 2-17-59, Cl. 101—153.

Saubestre, Edward B.: *See*—
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Sauer, James F., to Barber-Greene Co. Bituminous batch plant and actuating system therefor. 2,873,955, 2-17-59, Cl. 259—154.

Saul & Co.: *See*—
Egli, Hermann. 2,874,021.

Savage, Guy, Jr.: *See*—
Gordon, Garland R. and Savage. 2,873,535.

Savke, Kurt G. C., to American Hospital Supply Corp. Bumper structure. 2,873,993, 2-17-59. Cl. 293—62.

Schaafsma, Bernard R., and O. Ratsep, to Colgate-Palmolive Co. Process for the preparation of granular compositions. 2,874,123. 2-17-59. Cl. 252—90.

Schafer, Bertram. Deodorizing device. 2,873,488, 2-17-59, Cl. 21—108.

Scheeline, Harold W., and W. E. Catterall, to Esso Research and Engineering Co. Purification of amyl alcohol. 2,874,096. 2-17-59, Cl. 202—40.

Scheid, John L., to Union Tank Car Co. Filter underdrain system. 2,873,857. 2-17-59, Cl. 210—293.

Scheiterlein, Andreas and O. Skatsche, to G. Ospelt. Arrangement of the lubricating-oil pump on internal combustion engines. 2,873,734. 2-17-59, Cl. 123—195.

Schering Corp.: *See*—
Herzog, Hershel L., and Oliveto. 2,874,172.

Schey, Robert, and R. E. James, to The New York, Chicago and St. Louis Railroad Co. Load confining skid for use in railway cars. 2,873,692. 2-17-59, Cl. 105—366.

Schleser, Warren J., J. F. Kelley, and D. G. Marshall, to National Industrial Products Co. Injection molding machine with weigh-feeder and plunger position control. 2,873,478. 2-17-59 Cl. 18—30.

Schilling, Robert, to General Motors Corp. Adjustable control mechanism. 2,873,616. 2-17-59. Cl. 74—478.

Schilling, Werner, S. Bahrs, and H. Wiedenmann, to Patent-Treuhand-Gesellschaft fur elektrische Gluhlampen m. b. H. Wire electrode for electric discharge lamps. 2,873,518, 2-17-59 Cl. 29—420.5.

Schinke, Hans-Werner, and H. O. Lutcke, to Aktiengesellschaft Fuer Unternehmungen der Eisen- und Stahlindustrie. Stranding machine arrangement. 2,873,569, 2-17-59, Cl. 57—58.82

Schlephacke, Fridtjof F., to A. Lorenz. Leg rest mechanism for reclining seating units. 2,873,791, 2-17-59, Cl. 155—106.

Schloesmacher, Hubert, to Kurt Korber & Co., K.-G. Device for loosening up tobacco. 2,873,746 2-17-59, Cl 131—109.

Schloesmacher Hubert, to Kurt Korber & Co., K. G. Method and apparatus for separating and loosening tobacco leaf bundles. 2,873,747, 2-17-59, Cl. 131—149.

Schlumberger Well Surveying Corp.: *See*—
Dewan, John T. 2,874,301.

Schmidle, Claude J.: *See*—
Mansfield, Richard C., Morrison, and Schmidle. 2,874,119.

Schnapp, James, and H. Werner, to Ronson Corp. Power driven shaver and hair trimmer. 2,873,520, 2–17–59, Cl. 30—34.

Schneidewind, Edward A., to General Motors Corp. Window regulator mechanism. 2,873,612, 2–17–59, Cl. 74—89.

Schor, Joseph. Pie cutter. 2,873,780, 2–17–59, Cl. 146—150.

Schubert, Bernhard, to Kurt Korber & Co. K. G. Conveying and gluing apparatus for filter cigarette tip wrappers. 2,873,719, 2–17–59, Cl. 118—247.

Schulman, James H., to United States of America, Navy. Radiophotoluminescent compound and method of making same. 2,874,133, 2–17–59, Cl. 260—515.

Schulmerich Electronics, Inc.: *See*—
Kunz, Jacob T. 2,873,640.

Schulte, Clifford L., J. G. Schwarzbeck, and M. Hust, to U. S. Industries, Inc. Main spindle drive for lathes and the like. 2,873,613, 2–17–59, Cl. 74—334.

Schulte, Wilhelm, to L. & C. Steinmuller G. m. b. H. Shaking grates especially for burning different kinds of fuel. 2,873,702, 2–17–59, Cl. 110—101.

Schultz, Fritz, to Farbenfabriken Bayer Akt. Recovery of kallikrein. 2,874,088, 2–17–59, Cl. 167—74.

Schwartz, Bertram, to Hughes Aircraft Co. Semiconductor translating devices. 2,874,076, 2–17–59, Cl. 117—200.

Schwarzbeck, John G.: *See*—
Schulte, Clifford L., Schwarzbeck, and Hust. 2,873,613.

Schwarzkopf Development Corp.: *See*—
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Schweiter, Walter, to Maschinenfabrik Schweiter A. G. Mechanism for segregating and arranging cops and the like, in an orderly manner. 2,873,883, 2–17–59, Cl. 221—171.

Schweitzer, Otto, and E. Bäder, to Deutsch Gold- und Silber-Scheideanstalt vormals Roessler. Self-hardening surface coating compositions. 2,874,060, 2–17–59, Cl. 148—6.14.

Schwoegler, Edward J., and R. E. Putscher, to Neville Chemical Co. Recovery of indene by azeotropic purification with furfural. 2,874,097, 2–17–59, Cl. 202—42.

Schymik, Walter H., to I-T-E Circuit Breaker Co. Welded isolated phase bus. 2,874,207, 2–17–59, Cl. 174—99.

Scuitto, Thomas J., to General Electric Co. Automatic signal control system. 2,874,216, 2–17–59, Cl. 178—66.

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Abramson, Harvey J. 2,873,851.
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Ohlinger, Leo A., Seitz, and Young. 2,874,108.

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Semicon Inc.: *See*—
Huppert, Karl H., and Weise. 2,874,260.

Senour, James F., deceased (by R. S. Maxwell, administratrix), to M. M. Senour, heir of J. F. Senour. Crutch. 2,873,752, 2–17–59, Cl. 135—52.

Senour, Mary M.: *See*—
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Serniuk, George F., B. M. Vanderbilt, A. E. Michaels, and R. E. Barnum, to Esso Research and Engineering Co. Gasoline composition containing isopropyl alcohol and isopropyl ether. 2,874,033, 2–17–59, Cl. 44—56.

Settles, Dean T., to Weldon Industries, Inc. Adjustable merchandise skid. 2,873,934, 2–17–59, Cl. 248—120.

Severance, Ralph H., to The Magnavox Co. Means for initiation of detonator. 2,873,680, 2–17–59, Cl. 102—73.

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Sharp, Leonard W. D., and D. J. Blight, to The Plessey Co. Ltd. Swash-plate potentiometer drive. 2,874,253, 2–17–59, Cl. 201—48.

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Shelden, Charles H., to Research Corp. Surgical instruments. 2,873,742, 2–17–59, Cl. 128—305.

Sheldon, Arnold. Method for pouring concrete structures. 2,873,505, 2–17–59, Cl. 25—155.

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Greene, Charles R., and Steimle. 2,874,081.
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Van Winkle, John L., and Morris. 2,874,184.
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Sherman, George R., to General Electric Co. Removable oven door structure. 2,873,737, 2–17–59, Cl. 126—191.

Sherman, Loyd B. Pipe wrenches. 2,873,636, 2–17–59, Cl. 81—180.

Sherts, William M., J. E. Tatsak, and W. E. Zurney, to Pittsburgh Plate Glass Co. Fin grinding machine. 2,873,559, 2–17–59, Cl. 51—135.

Sherwood, Walter A., to The Farmingdale Corp. Floating non-sticking blades. 2,873,683, 2–17–59, Cl. 103—84.

Shields, George B., and R. D. Stepp, to Pittsburgh Plate Glass Co. Apparatus for stretching plastic interlayers. 2,873,474, 2–17–59, Cl. 18—1.

Shipley, Margaret E. Candle support for flower holders. 2,874,267, 2–17–59, Cl. 240—2.

Shipman, Roy W., to Weltronic Co. Electrical timing apparatus. 2,874,281, 2–17–59, Cl. 250—27.

Shipman, Roy W., to Weltronic Co. Electrical timing apparatus. 2,874,314, 2–17–59, Cl. 307—106.

Shipman, Roy W., and H. E. Colestock, to Weltronic Co. Power regulating apparatus. 2,874,334, 2–17–59, Cl. 315—230.

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Shlesinger, Bernard E., Jr. Multiple contact switch. 2,874,237, 2–17–59, Cl. 200—4.

Shortland, Arthur. Instrument beds for knitting machines. 2,873,595, 2–17–59, Cl. 66—115.

Shumaker, Ephraim H., to Rotherm Engineering Co., Inc. Liquid-tight and gas-tight rotating tubular joints. 2,873,538, 2–17–59, Cl. 34—124.

Sibley, Henry C., to General Railway Signal Co. Electronic code communication system. 2,874,368, 2–17–59, Cl. 340—163.

Siegel, Sidney. Football game. 2,873,971, 2–17–59, Cl. 273—94.

Sifrin, Andreas, and H. Hennecke, to The Babcock & Wilcox Co. Apparatus for and a method of recovering heat from molten slag. 2,873,354, 2–17–59, Cl. 49—1.

Signer, Ralph J., to Union Carbide Corp. Apparatus for coating inflatable tubular materials. 2,873,715, 2–17–59, Cl. 118—34.

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Sikorra, Daniel J., to Minneapolis-Honeywell Regulator Co. Semiconductor stabilizing apparatus. 2,874,236, 2–17–59, Cl. 179—171.

Simon, John. Alarm-timepiece. 2,873,572, 2–17–59, Cl. 58—57.5.

Simpson, Howard W. Planetary transmission for self-propelled vehicles. 2,873,621, 2–17–59, Cl. 74—677.

Simpson, Howard W. Six speed transmission. 2,873,623, 2–17–59, Cl. 74—759.

Simpson, Howard W. Planetary transmission. 2,873,624, 2–17–59, Cl. 74—759.

Simpson, Howard W. Planetary transmission for self-propelled vehicles. 2,873,625, 2–17–59, Cl. 74—763.

Sinclair, Harold. Control mechanisms. 2,873,620, 2–17–59, Cl. 74—665.

Sinclair, Harold. Power transmission systems embodying hydraulic turbo-transmitters. 2,873,831, 2–17–59, Cl. 192—.02.

Sinclair Refining Co.: *See*—
Friedman, Bernard S. 2,874,186.
Sanford, Robert A. 2,874,200.

Sirp, Emil: *See*—
McCain, Cecil C., and Sirp. 2,873,516.

Skatsche, Othmar: *See*—
Scheiterlein, Andreas, and Skatsche. 2,873,734.

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Sloan, Harry E., to The Cushman Chuck Co. Bolt-type locking mechanisms for indexing devices. 2,873,822, 2–17–59, Cl. 188—68.

Slocum, Charles W., to Stubnitz-Greene Spring Corp. Hermetic motor starting and overload protection system. 2,874,344, 2–17–59, Cl. 318—221.

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Smith, Brock I., and R. D. Boston, to Esso Research and Engineering Co. Products separating system. 2,874,113, 2–17–59, Cl. 208—54.

Smith, Clarence J., to W. F. and John Barnes Co. Orientating apparatus. 2,873,841, 2–17–59, Cl. 198—31.

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Smith, Paul V., Jr.: *See*—
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Smith, Robert W.: *See*—
Layton, William B., Jr., Miller, and Smith. 2,873,875.

Smith, Serine F. Mop shaker. 2,873,468, 2–17–59, Cl. 15—311.

Smith, Warren L., M. F. Potts, and P. S. Hudson, to Phillips Petroleum Co. Stabilization of certain alkenyl pyridines. 2,874,150, 2–17–59, Cl. 260—290.

Smith, William J., to Western Electric Co., Inc. Multiple punch and die sets. 2,873,627, 2–17–59, Cl. 76—107.

Smith, William M.: *See*—
Lehane, Timothy J., Smith, and Ernst. 2,873,916.

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Weingrad, Richard H., Ferrara, and Smith. 2,873,642.

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Colmer, Henry G., Jr., and Snow. 2,873,948.

Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain Chauny & Cirey: *See*—
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Societe de Prospection Electrique Procedes Schlumberger: *See*—
Picard, Maxime F. B. 2,873,804.

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Sorber, Adelbert P., deceased, by G. P. Sorber, administrator, to Librascope, Inc. Method of making a variable resistor. 2,873,509, 2–17–59, Cl. 29—155.5.
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Southwick, Peter F., to Gulf Research & Development Co. Electric logging. 2,874,347, 2–17–59, Cl. 324—1.
Sowa, Frank J. N-myristyl-3-hydroxybutylamines and their salts. 2,874,185, 2–17–59, Cl. 260—501.
Sowerby, James D. Heavy load transporter having traction belts. 2,873,870, 2–17–59, Cl. 214—83.28.
Sparks, Marshall S., Jr., to Phillips Petroleum Co. Analyser. 2,874,297, 2–17–59, Cl. 250—43.5.
Spenard, Le Roy C., to Holmes Electric Protective Co. Local alarm circuit for burglar alarm systems. 2,874,376, 2–17–59, Cl. 340—276.
Spero, John J., ⅓ to L. L. Marraffino. Device for dispensing striped materials. 2,873,887, 2–17–59, Cl. 222—94.
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Fuller, Edward J., and Pate. 2,874,380.
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Staats, Henry N. Apparatus for detecting and measuring the depth of reinforcing rods. 2,874,349, 2–17–59, Cl. 324—41.
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France, Rollin C., and Wade. 2,873,602.
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Stanford, Nicholas S., and E. N. Bosco. Fixture for holding a tool subject to grinding. 2,873,562, 2–17–59, Cl. 51—220.
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Stark, Samuel. Reversible garment. 2,873,738, 2–17–59, Cl. 128—159.
Starkenberg, Arnold. Dispenser for comminuted commodities. 2,873,890, 2–17–59, Cl. 222—136.
Starreveld, Jaap, and A. C. de Klerk, to North American Philips Co., Inc. Radio receiver regulating voltage circuit. 2,874,275, 2–17–59, Cl. 250—20.
Start, Ernest, and R. Blood, to William Cotton, Ltd. Straight bar knitting machine. 2,873,593, 2–17–59, Cl. 66—82.
Stavis, Gus, to General Precision Laboratory Inc. Antenna pattern synthesizer. 2,874,381, 2–17–59, Cl. 343—703.
Stavis, Gus, to General Precision Laboratory Inc. Dual beam antenna. 2,874,382, 2–17–59, Cl. 343—771.
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Peterson, William F., and Venner. 2,874,011.
Peterson, William F., Venner, and Bowser. 2,874,010.
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Stern, Marc. Piston ring and piston construction. 2,874,012, 2–17–59, Cl. 309—31.
Stickney, Wendell H., to Diamond Gardner Corp. Inking. 2,873,673, 2–17–59, Cl. 101—350.
Stiefel, Rudy C., to Sperry Rand Corp. High speed printer. 2,873,666, 2–17–59, Cl. 101—93.
Stillwagon, George E., Jr., ½ to K. G. Fraser. Pinning construction for universal joint. 2,873,591, 2–17–59, Cl. 64—17.
Stone, Roy A., and L. K. Ploughman, to National Lock Co. Catch assembly. 2,873,989, 2–17–59, Cl. 292—70.
Stork, Gilbert, H. J. Ringold, F. Sondheimer, and G. Rosenkranz, to Syntex S. A. Process for the production of 20-keto-21-iodo steroids. 2,874,154, 2–17–59, Cl. 260—239.55.
Stott, Albert M. Tension thruster with buffer. 2,873,726, 2–17–59, Cl. 123—24.
Strahmann, Hans. Process for making baking dough. 2,873,697, 2–17–59, Cl. 107—54.
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Stringer, Richard F.: *See*—
Boisture, Worth W., Molstedt, Stringer, and Griffin. 2,874,095.
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McFarland, Forest R., and Thomas. 2,873,980.
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Suderow, George E., to De Long Corp. Releasable gripper and locking assembly for land and marine supporting columns. 2,873,580, 2–17–59, Cl. 61—46.5.
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Wilson, Arthur O., ½ to J. V. Karras. Method and means of securing machine work against a machine table. 2,873,653, 2–17–59, Cl. 90—59.
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Wilson, Hubert N., and F. M. Glass, to United States of America, Atomic Energy Commission. Radiation integrator. 2,874,305, 2–17–59, Cl. 250—83.6.
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Wigner, Eugene P., Ohlinger, Young, and Weinberg. 2,874,307.
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Zitomer, Joseph H. Illuminated electric ceiling fixture construction. 2,873,828, 2–17–59, Cl. 189—82.
Zöller, Hans. Device for swinging the front plate on dust bin emptying arrangements. 2,873,872, 2–17–59, Cl. 214—303.
Zubaty, Joseph, to General Motors Corp. Fuel injection control valve. 2,873,956, 2–17–59, Cl. 261—69.
Zuck, Donald A., to Eli Lilly and Co. Stable vitamin B_{12} solutions. 2,874,089, 2–17–59, Cl. 167—81.
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NOTE.—First number=class, second number=subclass, third number=patent number

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303— 2: 2,874,002
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257: 2,874,342
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324— 1: 2,874,347
6: 2,874,348
41: 2,874,349
57: 2,874,350
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83: 2,874,352
97: 2,874,353
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Classification of Designs

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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

February 17, 1959 Volume 739 Number 3

TRADEMARKS

NOTICES

Notice to Attorneys

It has been brought to my attention by the court that some of the attorneys who practice before this bar, when citing in their briefs decisions of this court, published either in the Federal Reporter or in the United States Patent Quarterly, fail to cite the USPA volume and page numbers, as required under Rule 9 of the rules of the United States Court of Customs and Patent Appeals.

It is very essential that all attorneys fully comply with Rule 9 in this matter and their cooperation is solicited.

CARELL N. PRYOR,
Clerk, United States Court of Customs and Patent Appeals.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 61,237 (COLUMBIA), Columbia Phonograph Co., Talking machine records, etc., and supplies therefor; **Reg. No. 193,184** (COLUMBIA AND DESIGN), same, Phonograph apparatus for recording and reproducing sounds, etc.; **Reg. No. 221,697** (COLUMBIA), same, Phonographs or talking machines, parts, and accessories therefor, etc.; **Reg. No. 378,020**, same, Phonograph records and record blanks, filed Jan. 5, 1959, D. C., S. D. N. Y., Doc. 141/238, *Columbia Broadcasting System, Inc. v. Columbia Pictures Corporation.*

Reg. No. 193,184. (See Reg. No. 61,237.)

Reg. No. 221,697. (See Reg. No. 61,237.)

Reg. No. 238,723 (DONNATAL), A. H. Robins Co., Inc., Medicinal preparation used in the treatment of gastro-intestinal disturbances, filed Sept. 12, 1958, D. C. Kans. (Wichita), Doc. 58c376-77, *A. H. Robins Co., Inc. v. Sandler Drug Co., Inc. et al.* Final consent judgment; injunction issued Jan. 5, 1959.

Reg. No. 378,020. (See Reg. No. 61,237.)

Reg. No. 444,792 (HERITAGE), Heritage Furniture, Inc., Upholstered furniture for living rooms, etc.; **Reg. No. 500,973**, same, Upholstered, wood, plastic, and metal furniture, etc., filed Jan. 5, 1959, D. C. Conn. (New Haven), Doc. 7607, *Heritage Furniture, Inc. v. American Heritage, Inc. et al.*

Reg. No. 500,973. (See Reg. No. 444,792.)

Reg. No. 601,277 (THE LISTENING POST), The Listening Post, Inc., Radio tuners, filed Dec. 30, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37932, *Listening Post, Inc. v. Listening Post.*

Reg. No. 636,967 (THUNDERBIRD), E. & J. Gallo Winery, Wines, filed Dec. 18, 1958, D. C., M. D. Ga. (Montgomery), Doc. 1488-N, *E. & J. Gallo Winery v. Alabama Wine Association.*

Erratum

In the OFFICIAL GAZETTE, under "Trademark Suits," issue of Jan. 6, 1959, page TM 2, first column thereof, line 10, for the filing date, "Nov. 12, 1958" read *June 16, 1958.*

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	10,603
Date of oldest new application	June 11, 1958
Date of oldest amended application	Sept. 4, 1958

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	6-19-58	9-15-58
(II) R. F. SHRYOCK, Classes 6, 18, 27, 29, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	6-11-58	9-8-58
(III) E. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 28, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	7-3-58	9-4-58
Renewals (All Classes)	11-26-58	12-26-58
Sec. 12 (c) Publications (All Classes)	11-29-58	12-26-58

Applications Filed During the Month of December 1958—1,825

Registrations Issued 349—No. 674,012 to No. 674,360
Renewals Issued 49

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $3.75 additional; single copies, 20 cents each.

Selected Non-Proprietary Names

The Public Health Service has informed the Patent Office that the names listed below have been selected by WHO as recommended international non-proprietary names for pharmaceutical preparations.

The procedure for selection of these names, by WHO, including earlier publication in accordance with procedures published in the Chronicle of the World Health Organization, June-July 1955 issue, has been completed. WHO requests that these recommended names be recognized as the non-proprietary names for the substances concerned and that the necessary steps be taken to prevent acquisition of proprietary rights in the same.

Recommended International Non-Proprietary Name (*Latin, English*)	Chemical Name or Description
acetylmethadolum acetylmethadol	6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphacetylmethadolum alphacetylmethadol	*α*-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
alphamethadolum alphamethadol	*α*-6-dimethylamino-4,4-diphenyl-3-heptanol
anileridinum anileridine	1-[2-(p-aminophenyl)-ethyl]-4-phenylpiperidine-4-carboxylic acid ethyl ester
betacetylmethadolum betacetylmethadol	*β*-6-dimethylamino-4,4-diphenyl-3-acetoxyheptane
betamethadolum betamethadol	*β*-6-dimethylamino-4,4-diphenyl-3-heptanol
betaprodinum betaprodine	*β*-1,3-dimethyl-4-phenyl-4-propionoxypiperidine
desomorphinum desomorphine	dihydrodesoxymorphine
diethylthiambutenum diethylthiambutene	3-diethylamino-1,1-di-(2-thienyl)-1-butene
dimethylthiambutenum dimethylthiambutene	3-dimethylamino-1,1-di-(2-thienyl)-1-butene
dipipanonum dipipanone	4,4-diphenyl-6-piperidino-3-heptanone
ethoheptazinum ethoheptazine	1-methyl-4-carbethoxy-4-phenylhexamethyleneimine
ethylmethylthiambutenum ethylmethylthiambutene	3-ethylmethylamino-1,1-di-(2-thienyl)-1-butene
hydroxypethidinum hydroxypethidine	1-methyl-4-(3-hydroxyphenyl)-piperidine-4-carboxylic acid ethyl ester
levallorphanum levallorphan	*c*-3-hydroxy-*N*-allylmorphinan
levorphanolum levorphanol	*c*-3-hydroxy-*N*-methylmorphinan
metethoheptazinum metethoheptazine	1,3-dimethyl-4-carbethoxy-4-phenylhexamethyleneimine
metheptazinum metheptazine	1,2-dimethyl-4-carbomethoxy-4-phenylhexamethyleneimine
methyldesorphinum methyldesorphine	6-methyl-Δ^6-desoxymorphine
methyldihydromorphinum methyldihydromorphine	6-methyldihydromorphine
myrophinum myrophine	myristyl ester of benzylmorphine
normethadonum normethadone	4,4-diphenyl-6-dimethylamino-3-hexanone
oxpheneridinum oxpheneridine	1-(2-phenyl-2-hydroxyethyl)-4-carbethoxy-4-phenyl-piperidine
oxymorphonum oxymorphone	dihydrohydroxymorphinone
phenomorphanum phenomorphan	3-hydroxy-*N*-phenethylmorphinan
proheptazinum proheptazine	1,3-dimethyl-4-phenyl-4-propionoxyhexamethyleneimine
properidinum properidine	1-methyl-4-phenylpiperidine-4-carboxylic acid isopropyl ester
propoxyphenum propoxyphene	4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 2.101 to 2.105.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 2 — Receptacles

SN 33,338. Dunlop Rubber Company, Limited, Birmingham, England. Filed July 8, 1957.

FORTIFLEX

Owner of British Reg. No. 726,219, dated Jan. 28, 1954, and British Reg. No. 727,692, dated Mar. 6, 1954.

For Bins, Trays, Buckets, Coke Hods, and Similar Containers for Home or Industry, Made of a Rubber-Resin Material.

SN 47,113. Warren Heim Corporation, Mount Vernon, N. Y. Filed Mar. 3, 1958.

BUZZLINE

For Belt Bags, Glove Bags, Tool Buckets, Ladder Buckets, Hose Bags, Kit Bags, Salvage Bags, Tool Blankets, Sleeve Roll-Ups, Blanket Roll-Ups, Such as Used by Linemen

First use May 31, 1947.

SN 51,378. Max A. Strauss, d. b. a. Mastru Company, Cleveland, Ohio. Filed May 9, 1958.

TNT
TUBE 'N TOOL
TNT

For Manually Portable Cases for Tools and Repair and Replacement Parts, Designed for Use by Service Personnel.

First use June 8, 1951.

SN 53,775. Clover Industries, Inc., Tonawanda, N. Y. Filed June 18, 1958.

VAC-TITE

For Plastic Containers—Namely, Boxes.

First use May 20, 1958.

SN 56,141. K-D Manufacturing Company, Cleburne, Tex. Filed July 28, 1958

GARBAGE-GARD

For Supporting Devices and Receptacles for Refuse Containers.

First use July 1, 1957.

SN 56,948. Fibreboard Paper Products Corporation, San Francisco, Calif. Filed Aug. 11, 1958.

STARBOARD

For Paperboard Cartons.

First use Mar. 15, 1958.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 49,149. Fin 'n Feather Farm, Inc., d. b. a. Fin 'n Feather Club, Dundee, Ill. Filed Apr. 7, 1958.

FIN 'N FEATHER CLUB

For Dog Equipment—Namely, Leashes, Harnesses, Chokes, Blankets, Brushes, Combs.

First use in the year 1948.

SN 57,502. Saunders, Incorporated, Charlotte, N. C. Filed Aug. 19, 1958.

JET-STREAM

For Luggage.

First use on or about Jan. 3, 1958.

Class 4 — Abrasives and Polishing Materials

SN 56,647. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Aug. 5, 1958.

SCOTCH-BRITE

Owner of Reg. No. 577,689.

For Abrasive Scouring Pad.

First use June 26, 1958.

SN 56,811. Tempo Products Company, Cleveland, Ohio. Filed Aug. 7, 1958.

TEMPO

Owner of Reg. Nos. 621,666, 626,792, and 664,885.

For Polishing Wax.

First use May 20, 1957

Class 5 — Adhesives

SN 44,121. W. J. Rucroe Company, Akron, Ohio. Filed Jan. 16, 1958.

ALUM-O-BOND

For Adhesive for Use With All Material Including Aluminum.

First use Oct. 1, 1957.

SN 44,461. General Gummed Products, Inc., Linden, N. J. Filed Jan. 22, 1958.

HANDLE WRAP

For Gummed Tape With Built-in Handle.

First use Dec. 12, 1957.

SN 53,939. National Starch Products Inc., New York, N. Y. Filed July 24, 1958.

CHEMTITE

For Bottle Labelling Adhesive.

First use Apr. 1, 1958.

SN 55,940. National Starch Products Inc., New York, N. Y. Filed July 24, 1958. Sec. 2(f).

SOFT SEAL

For Liquid Adhesive for Use in Carton Sealing.
First use June 25, 1951.

Class 6—Chemicals and Chemical Compositions

SN 50,604. American Cyanamid Company, New York, N. Y. Filed Apr. 30, 1958.

CYDAC

For Accelerator for the Vulcanization of Rubber.
First use Mar. 19, 1958.

SN 51,368. Onyx Oil & Chemical Company, Jersey City, N. J. Filed May 9, 1958.

MOLLISAN

For Chemical Finish Used To Soften and Lubricate Textile Materials.
First use Aug. 11, 1955.

SN 51,694. Continental Oil Company, Ponca City, Okla. Filed May 15, 1958.

ALFOL

For Industrial Alcohols.
First use Apr. 29, 1958.

SN 52,042. General Mills, Inc., Minneapolis, Minn. Filed May 21, 1958.

GENAMID

For Liquid Co-Reactant for Epoxy Resins.
First use Apr. 11, 1958.

SN 53,020. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed June 6, 1958.

KLOBEN

For Weed Killing Compounds.
First use May 22, 1958.

SN 53,752. Wilson & Toomer Fertilizer Co., Jacksonville, Fla. Filed June 17, 1958.

DIEX

For Dry Granular Fly Bait, Especially for Use for Poultry Houses.
First use August 1956.

SN 53,893. Leonard Messer, d. b. a. American Minechem Co., Coraopolis, Pa. Filed June 19, 1958.

Certigrav

For Standardized Specific Gravity Solutions.
First use Apr. 29, 1957.

SN 55,290. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed July 14, 1958.

R-2

For Water-Soluble, Formulated Composition Useful as a Rust Inhibitor.
First use 1943.

SN 55,525. Schieffelin & Co., New York, N. Y. Filed July 17, 1958.

SOLU-TROL

For Diagnostic Reagent for Laboratory Testing.
First use June 24, 1958.

SN 55,800. Milak, Inc., Watertown, N. Y. Filed July 22, 1958.

PRETTY KITTY

For Absorbent Body Impregnated With an Air-Perfuming and Deodorizing Substance.
First use Jan. 30, 1957.

SN 56,711. Hart Products Corporation, New York, N. Y. Filed Aug. 6, 1958.

HARTOSET

For Resin Finishes for Treating Textiles.
First use Apr. 26, 1956.

SN 56,712. Hart Products Corporation, New York, N. Y. Filed Aug. 6, 1958.

HARTORESIN

For Resin Finishes for Treating Textiles.
First use Feb. 19, 1958.

SN 57,986. Union Carbide Corporation, New York, N. Y. Filed Aug. 27, 1958.

UNION CARBIDE

Owner of Reg. Nos. 119,405, 665,250, and 643,460.
For Calcium Carbide.
First use Aug. 13, 1958; about 1900 as to "Union Carbide."

Class 11—Inks and Inking Materials

SN 14,916. The Standard Register Company, Dayton, Ohio. Filed Aug. 30, 1956.

20/20

For Carbon Paper.
First use Apr. 2, 1956.

SN 21,743. Shachihata Kogyo Kabushiki-Kaisha, Nishi-ku, Nagoya, Japan. Filed Dec. 27, 1956.



The Japanese phonetic characters are pronounced as "Shachihata-jirushi" and have the meaning of "Grampus flag brand," "jirushi" meaning "brand." Owner of Japanese Reg. No. 214,966, dated Apr. 9, 1930.
For Stamp Pads.

SN 41,713. Paper Mate Manufacturing Company, Culver City, Calif. Filed Dec. 3, 1957.

FLOGEN

For Anti-Clogging Additive for Inks.
First use July 24, 1957.

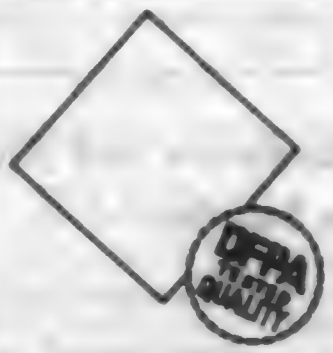
SN 57,427. W. A. Sheaffer Pen Company, Fort Madison, Iowa. Filed Aug. 18, 1958.

Skrip

Owner of Reg. Nos. 142,760 and 537,955.
For Writing Fluid for Ball Point Pens.
First use Jan. 24, 1958.

Class 12 — Construction Materials

SN 683,369. Douglas Fir Plywood Association, Tacoma, Wash. Filed Mar. 3, 1955. COLLECTIVE MARK.



Owner of Reg. Nos. 368,337, 579,860, and others.
For Plywood.
Claims use since Dec. 27, 1954.

SN 683,372. Douglas Fir Plywood Association, Tacoma, Wash. Filed Mar. 3, 1955. COLLECTIVE MARK.



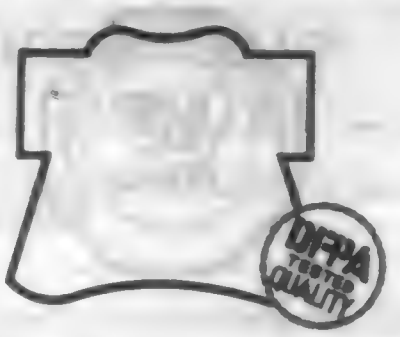
Owner of Reg. Nos. 368,337, 579,860, and others.
For Plywood.
Claims use since Dec. 27, 1954.

SN 683,373. Douglas Fir Plywood Association, Tacoma, Wash. Filed Mar. 3, 1955. COLLECTIVE MARK.



Owner of Reg. Nos. 368,337, 579,860, and others.
For Plywood.
First use Feb. 1, 1955.

SN 683,374. Douglas Fir Plywood Association, Tacoma, Wash. Filed Mar. 3, 1955. COLLECTIVE MARK.



Owner of Reg. Nos. 368,337, 579,860, and others.
For Plywood.
First use Jan. 3, 1955.

SN 683,375. Douglas Fir Plywood Association, Tacoma, Wash. Filed Mar. 3, 1955. COLLECTIVE MARK.



Owner of Reg. Nos. 368,337, 579,860, and others.
For Plywood.
First use July 15, 1954.

SN 683,376. Douglas Fir Plywood Association, Tacoma, Wash. Filed Mar. 3, 1955. COLLECTIVE MARK.



Owner of Reg. Nos. 368,337, 579,860, and others.
For Plywood.
First use July 15, 1954.

SN 17,211. Douglas Fir Plywood Association, Tacoma, Wash. Filed Oct. 10, 1956. COLLECTIVE MARK.

PLYFORM

Owner of Reg. No. 540,528.
For Plywood.
First use July 1932.

SN 27,585. Douglas Fir Plywood Association, Tacoma, Wash. Filed Apr. 5, 1957. COLLECTIVE MARK.



Owner of Reg. Nos. 579,860, 409,193, and others.
For Plywood.
First use Jan. 15, 1957.

SN 42,120. Fairhurst Lumber Co. of Oregon, Eugene, Oreg. Filed Dec. 10, 1957.

FAIRHURST LUMBER CO. SILVER SEAL STUDS

For Studs.
First use Sept. 27, 1957.

SN 43,032. Kennatrack Corporation, Elkhart, Ind. Filed Dec. 26, 1957.

KENNA-RAMA

Owner of Reg. Nos. 332,335 and 596,212.
For Folding Door Units.
First use Dec. 13, 1957.

SN 48,888. Crawford Corporation, Baton Rouge, La. Filed Apr. 1, 1958.

For Prefabricated Housing Packages.
First use Jan. 25, 1958.

SN 52,811. The Flintkote Company, New York, N. Y. Filed June 3, 1958.

WEATHER-TONE

For Asbestos-Cement Shingles.
First use March 1957.

SN 52,931. Michigan Chemical Corporation, St. Louis, Mich. Filed June 13, 1958.

BRICKMASTER

For Refractory Graded Deadburned Magnesite.
First use May 20, 1958.

SN 55,423. Security Sash & Screen Company, Detroit, Mich. Filed July 16, 1958.

PERM-ENAMEL

For Doors, Windows, and Formed Aluminum Siding.
First use Feb. 14, 1958, on formed aluminum siding.

SN 55,604. Plant City Steel Corporation, Plant City, Fla. Filed July 18, 1958.

WATCO

For Steel Forms for Precast, Prestressed Concrete.
First use Aug. 20, 1956.

SN 55,701. Ralph E. Parker, Wichita, Kans. Filed July 21, 1958.

VINAGUARD

For Building Siding.
First use May 22, 1958.

SN 56,038. Metropolitan Greenhouse Mfg. Corp., Brooklyn, N. Y. Filed July 25, 1958.

ECONOMET

For Aluminum Greenhouses.
First use July 11, 1958.

SN 56,327. Koppers Company, Inc., Pittsburgh, Pa. Filed July 30, 1958.

Soundmetal

For Sound Absorbing Panels.
First use June 6, 1946.

SN 56,428. United States Plywood Corporation, New York, N. Y. Filed July 31, 1958.

PERMAPLY

Owner of Reg. Nos. 53,079, 612,452, and others.
For Wood and Lumber Products, i. e., Plywood.
First use July 1, 1935.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 44,337. The Bradson Company, Inc., San Diego, Calif. Filed Jan. 20, 1958.

SPEEDO

For Garden Hose Spray Guns.
First use Nov. 6, 1955

SN 50,227. G and M Company, Milledgeville, Ga. Filed Apr 23, 1958.

POLLY ANCHOR

The word "Anchor" is disclaimed apart from the mark as shown.
For Wall Anchors.
First use Feb. 15, 1938.

SN 51,594. Serval Slide Fasteners, Inc., Flushing, N. Y. Filed May 13, 1958.

GIANT SEVEN

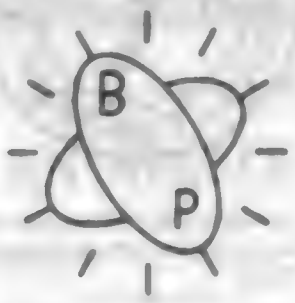
For Zippers.
First use Apr. 3, 1957.

SN 53,576. Calumet & Hecla, Inc., Chicago, Ill. Filed June 16, 1958.

VERSATUBE

Owner of Reg. No. 610,557.
For Aluminum Tubing for Conducting Fluids and Gases.
First use May 23, 1958.

SN 54,203. The Bowman Products Co., Cleveland, Ohio. Filed June 25, 1958.



For Cap Screws.
First use June 10, 1958.

SN 56,906. All Products Company, Mineral Wells, Tex. Filed Aug. 11, 1958.

PANEL-VENT

For Metal Fences.
First use June 2, 1956.

SN 57,664. Band-It Company, Denver, Colo. Filed Aug. 22, 1958.

BAND-IT

Owner of Reg. Nos. 358,303, 579,243, and others.
For Hose Clamps, Industrial Band Clamps, Hose Nipples, Hose Menders, Swivel Adapter Unions, Hose Couplings, Hose Nipple Pushers, Hose Clamp Appliers, Hose Clamp Removers and Parts Thereof.
First use on or about Dec. 1, 1937.

SN 57,726. The W. S. Tyler International Company, Cleveland, Ohio. Filed Aug. 22, 1958.

TYLINTER

For Woven Wire Cloth and Screening.
First use Aug. 1, 1958.

SN 57,742. Band-It Company, Denver, Colo. Filed Aug. 25, 1958.

BAND-IT JR.

Owner of Reg. Nos. 358,303, 579,243, and others.
For Hose and Industrial Band Clamps; Band Clamp Appliers and Parts Thereof.
First use May 11, 1951.

SN 57,894. Fabri-Valve Company of America, Portland, Oreg. Filed Aug. 26, 1958.

FABRIFORM

Owner of Reg. Nos. 545,733, 576,389, and 637,042.
For Gate Valves.
First use May 19, 1958.

SN 58,192. Paul J. Gresham, d. b. a. Gresham Products Company, McAlester, Okla. Filed Sept. 2, 1958.

FLUSH KING

For Water Closet Tank Valves.
First use Mar. 20, 1958.

SN 58,190. H. D. Hudson Manufacturing Company, Chicago, Ill. Filed Sept. 2, 1958.

ROTO-VALVE

The word "Valve" is disclaimed apart from the mark as shown.
For Valves for Pesticidal Applicators or Sprayers.
First use Feb. 28, 1958.

SN 58,274. Washington Steel Products, Inc., Tacoma, Wash. Filed Sept. 2, 1958. Sec. 2(f).

WASHINGTON

Owner of Reg. Nos. 560,193, 560,896, and 568,253.
For Rolling Door Hardware—Namely, Track Locks, Bumpers, Finger Pulls, and Door Jamb Stiffeners; Mixer Shelf Hardware; Folding Door Hardware—Namely, Sockets, Pivots, Alignment Guides, Hinged and Roller Guides; Sliding Shelf Guides; Revolving Shelves; Flour Sifters; Sugar Dispensers; Door Guides; Plastic Drawers and Plastic Trays.
First use July 1952.

SN 58,275. Washington Steel Products, Inc., Tacoma, Wash. Filed Sept. 2, 1958.



Owner of Reg. No. 583,199.
For Rolling Door Hardware—Namely, Tracks, Slides, Hangers, Bumpers, Guides, Track Locks, Finger Pulls, and Door Jamb Stiffeners; Door Knobs and Door Knob Back Plates; Drawer Pulls; Mixer Shelf Hardware; Sliding Shelf Guides; Revolving Shelves; Louvers; Vegetable Storage Bins; Metal Drawer Liners; Sliding Flour Sifters; Sugar Dispensers; Plastic Drawers and Plastic Trays.
First use July 1952.

SN 58,348. Flo-Bend, Inc., Sand Springs, Okla. Filed Sept. 4, 1958.

F-B

For Welding Fittings and Pipe Flanges.
First use July 2, 1958.

SN 58,515. Ekco Products Company, Chicago, Ill. Filed Sept. 8, 1958.



George Washington

For Cooking Utensils Including Saucepans, Saucepots, Skillets, Casseroles, Roasters, Bottle Sterilizers, Pudding Molds, Egg Poachers, and Food Warmers, All of Base Metal Construction.
First use on or about June 6, 1958.

Class 14 — Metals and Metal Castings and Forgings

SN 30,394. E. W. Bliss Company, Canton, Ohio. Filed May 21, 1957. Sec. 2(f).

MACKINTOSH-HEMPHILL

Owner of Reg. Nos. 634,343 and 661,622.
For Slag and Cinder Pots, Machine Beds, Housings, and Other Massive Castings of Iron and Steel.
First use on or about 1952.

SN 38,386. Reynolds Metals Company, Richmond, Va. Filed Oct. 4, 1957. Sec. 2(f).

REYNOLDS WRAP

Owner of Reg. No. 605,277.
For Aluminum Foil Sheets and Rolls.
First use in about September 1947.

SN 48,493. The North Western Lead Company Limited, Hyde, England. Filed Mar. 26, 1958.

DECRA-LED

Owner of British Reg. No. 705,418, dated Mar. 5, 1952.
For Strips of Lead.

SN 51,047. Ohio Ferro-Alloys Corporation, Canton, Ohio. Filed May 5, 1958.

MAN-ADD

For Manganese Additive Used in the Manufacture of Steel.
First use Apr. 12, 1958.

SN 53,400. The Firestone Tire & Rubber Company, Akron, Ohio. Filed June 12, 1958.

fashionized

For Aluminum Trim and Decorative Parts for Automotive Products and Home Appliances.
First use Apr. 22, 1958.

SN 53,564. Aluminum Development Corp., Pelham Manor, N. Y. Filed June 16, 1958.

MIRAL

For High Purity Aluminum Metal.
First use May 10, 1958.

SN 53,921. Arthur Balfour & Company Limited, Sheffield, England. Filed June 20, 1958.

ULTRACAPITAL

Owner of British Reg. No. 310570/45968, dated Feb. 16, 1909; and U. S. Reg. Nos. 57,612, 63,618, and 154,874.
For Steel in the Form of Bars, Rods, Sheets, and Wire.

SN 54,710. Sherman & Co., Flushing, N. Y. Filed July 2, 1958.

BRAZE-CLAD

For Coated Metals.
First use June 1, 1951.

Class 15 — Oils and Greases

SN 38,893. Borne Chemical Company, Inc., Elizabeth, N. J. Filed Oct. 15, 1957.

BORNE CHEMICAL COMPANY, INC. Est. 1874

For Industrial Lubricating Oils and Greases, Launching Stearine and Slip Coat, and Paraffine Waxes.
First use Aug. 7, 1956.

SN 52,901. Petrolite Corporation, St. Louis, Mo. Filed June 4, 1958.

TOLAD

For Additives for Petroleum Fuel Products.
First use Jan. 24, 1958.

SN 54,800. The West Penn Oil Company, Inc., Warren, Pa. Filed July 3, 1958.

ONEIDA

Owner of Reg. No. 366,768.
For Lubricating Oils and Greases.
First use Apr. 20, 1938.

SN 57,076. R. M. Hollingshead Corporation, Camden, N. J. Filed Aug. 12, 1958.

JP-1

For Lubricating Oil Additives.
First use June 2, 1958.

SN 57,982. The Texas Company, New York, N. Y. Filed Aug. 27, 1958.

TRAXAMATIC

Owner of Reg. No. 438,623.
For Lubricating and Hydraulic Oils Intended for Use in Transmissions and Axles of Automotive Vehicles.
First use July 15, 1958.

SN 58,059. The Texas Company, New York, N. Y. Filed Aug. 28, 1958.

MIRA

Owner of Reg. No. 366,759.
For Lubricating Oil.
First use Feb. 25, 1938.

SN 58,150. The Atlantic Refining Company, Philadelphia, Pa. Filed Sept. 2, 1958.

Capitol

For Motor Oils.
First use Jan. 18, 1890.

Class 16—Protective and Decorative Coatings

SN 43,895. Trim Alloys, Inc., Boston, Mass. Filed Jan. 13, 1958.

ANOBRITE

For Anodized Finish for Metals.
First use in August 1954.

SN 47,241. Elkhart Paint Manufacturing Co. Inc., Elkhart, Ind. Filed Mar. 7, 1958.

INVE-TROL

SYSTEM

For Paint Material.
First use June 10, 1957.

SN 47,665. H. Kohnstamm & Co., Inc., New York, N. Y. Filed Mar. 13, 1958.

Kodis

Applicant disclaims exclusive rights to the word "Colors."
For Dispersible Concentrated Color Paint Pigments Used by Manufacturers in the Manufacture of Paint.
First use Feb. 6, 1958.

SN 52,285. Devoe & Raynolds Company, Inc., Louisville, Ky. Filed May 26, 1958.

SUPER SYNTEX

For Paints and Enamels.
First use in January 1956.

SN 53,176. Colorificio Italiano Max Meyer S. p. A., Milan, Italy. Filed June 9, 1958.

IMPREXOL-GEL

Owner of Italian Reg. No. 138,226, dated July 16, 1958.
For Varnishes and Enamels Made of Synthetic Substances.

SN 56,422. Matthew Spiesman, d. b. a. Concrete Service Co., Philadelphia, Pa. Filed July 31, 1958.

"FORM-COAT"

For Protective Coating for Any Type of Form, Wood, Steel, Plywood, Masonite, Plastic Coated Plywood.
First use during the year 1936.

SN 57,166. Printing Arts Research Laboratories, Inc., Santa Barbara, Calif. Filed Aug. 13, 1958.

FLUORO TRI COLOR

Owner of Reg. Nos. 403,023, 655,851, and others.
For Artists' Colors.
First use June 2, 1958.

SN 59,935. Perry-Austen Manufacturing Co., Inc., Staten Island, N. Y. Filed Oct. 1, 1958.

MODERNLANE FINISH

Applicant disclaims the term "Finish."
For Lacquers and Thinners.
First use Oct. 23, 1957.

SN 60,917. The Glidden Company, Cleveland, Ohio. Filed Oct. 20, 1958.

DRAMA-COLOR

For Stains, Toners, and Sealers.
First use Feb. 21, 1955.

Class 18—Medicines and Pharmaceutical Preparations

SN 50,745. U. S. Vitamin Corporation, New York, N. Y. Filed Apr. 30, 1958.

FLAVOMONE

For Pharmaceutical Preparation Comprising a Nutritional Supplement of Citrus Bioflavonoids, Multiple Vitamins, and Minerals.
First use Mar. 6, 1958.

SN 54,577. Dr. Karl Thomae G. m. b. H., Biberach an der Riss, Germany. Filed June 30, 1958.

STEPIN

Owner of German Reg. No. 679,302, dated July 20, 1955.
For Medicated Antiseborrheic Preparation in Tincture, Lotion, and Powder Form.

SN 55,364. American Home Products Corporation, New York, N. Y. Filed July 16, 1958.

EVRAMYCIN

Owner of Reg. No. 397,268.
For Antibiotic Preparation for Oleandomycin Therapy.
First use July 10, 1958.

SN 56,064. Violette P. Watkins, d. b. a. Jarrett & Charles Products Co., Chicago, Ill. Filed July 25, 1958.

JARRETT & CHARLES
LAXATIVE COMPOUND

Applicant claims no exclusive rights in the words "Laxative Compound" as the name of the goods identified herein.
For Laxative Compound.
First use March 1956.

SN 56,149. John R. Lord, executor of the estate of Frances B. Rooney, deceased, Miami, Fla. Filed July 28, 1958.

Athetone

For Pharmaceutical Preparation for the Treatment of Athlete's Foot, Rashes, and Other Skin Irritations.
First use July 1, 1934.

SN 57,382. Magnolia Laboratories, Inc., Baton Rouge, La. Filed Aug. 18, 1958.

FRE-LAX

For Laxative.
First use May 1, 1938.

SN 57,565. Lew Parker, d. b. a. Lew Parker Industries, Birmingham, Ala. Filed Aug. 20, 1958.

DELAY

For Medicated Desensitizing Agent.
First use May 24, 1953.

SN 57,676. Clinical Products Limited, Richmond, Surrey, England. Filed Aug. 22, 1958.

BRONCHIPAX

Owner of British Reg. No. 762,205, dated Feb. 7, 1957.
For Pharmaceutical Preparation for the Treatment of Bronchial Ailments.

SN 57,928. Schering Corporation, Bloomfield, N. J. Filed Aug. 26, 1958.

VAGON

For Anti-Allergenic Preparation.
First use June 5, 1958.

SN 58,653. Mark's Inc., d. b. a. Marksman, Dallas, Tex. Filed Sept. 9, 1958.

RE-ZIST-AL

The lines do not indicate color but comprise a part of the mark.
For Vitamins and Minerals for Internal Consumption, and for Food Supplements.
First use Dec. 15, 1957.

SN 59,052. Ortho Pharmaceutical Corporation, Raritan, N. J. Filed Sept. 17, 1958.

SPOROSTACIN

For Vaginal Cream.
First use Sept. 9, 1957.

SN 59,054. Ortho Pharmaceutical Corporation, Raritan, N. J. Filed Sept. 17, 1958.

SULTRIN

For Vaginal Tablets.
First use June 12, 1958.

Class 19 — Vehicles

SN 39,081. Officine Alfieri Maserati S. p. A., Modena, Italy. Filed Oct. 17, 1957.



The drawing is lined for the colors gray, red, and blue, but no claim is made to color.
For Road Vehicles—Namely, Motor Cars, Trucks, Lorries, and Busses, Motor Cycles, Three-Wheeled Trucks, Motor Scooters, Motor Bicycles, Tricycles, Bicycles.
First use in 1926; in commerce in 1935.

SN 39,082. Officine Alfieri Maserati S. p. A., Modena, Italy. Filed Oct. 17, 1957.



The drawing is lined for the colors red and blue, but no claim is made to color.
For Road Vehicles—Namely, Motor Cars, Trucks, Lorries, and Busses, Motor Cycles, Three-Wheeled Trucks, Motor Scooters, Motor Bicycles, Tricycles, Bicycles.
First use in 1926; in commerce in 1935.

SN 41,218. The Anderson Company, Gary, Ind. Filed Nov. 25, 1957. Sec. 2(f).

TEN-EDGE

For Windshield Wipers and Parts Thereof.
First use December 1935.

SN 56,584. Pemco Wheel Company, Kalamazoo, Mich. Filed Aug. 4, 1958.

PEMCO

For Casters and Wheels Which Have Resiliently Flexible Treads and Which Are Designed for Supporting Shopping Carts, Lawn-Mowers and the Like.
First use in April 1951.

SN 56,597. Stephen L. Spencer, d. b. a. The Odyssey Trailer Company, Menlo Park, Calif. Filed Aug. 4, 1958.

THE ODYSSEY

For Travel Trailers.
First use Sept. 16, 1957.

SN 56,736. Raybestos-Manhattan, Inc., Passaic, N. J. Filed Aug. 6, 1958.

THERMO-FLOW

For Liquid Cooled Vehicle Wheels.
First use June 3, 1958.

SN 56,772. The Firestone Tire & Rubber Company, Akron, Ohio. Filed Aug. 7, 1958.

SPEED CRUISER

Owner of Reg. Nos. 378,239, 619,942, and others.
For Bicycles.
First use May 29, 1958.

SN 56,977. LeTourneau-Westinghouse Company, Peoria, Ill. Filed Aug. 11, 1958.

HAULPAK

For Trucks and Structural Parts Therefor.
First use Aug. 1, 1958.

SN 57,208. The Hamilton Caster & Mfg. Co., Hamilton, Ohio. Filed Aug. 14, 1958.

ROLL-N-STOR

For Semi-Live Skid Trucks.
First use Apr. 19, 1937.

SN 57,372. Holiday Mobile Homes, Murray, Utah. Filed Aug. 18, 1958.

Holiday
Mobile Homes

No claim is made to the words "Mobile Homes" apart from the mark shown.
For Automobile House Trailers.
First use July 28, 1958.

SN 57,813. Industrial Manufacturing Co. of Texas, Inc., Sweetwater, Tex. Filed Aug. 25, 1958.

Golf Lizzie

For Motor-Propelled, Three Wheeled Vehicle.
First use June 1, 1958.

SN 57,875. Aquatels Incorporated, Forest Lake, Minn. Filed Aug. 26, 1958.

Aquatels

For House Boats and Pontoon Boats.
First use Mar. 31, 1958.

SN 58,016. The Dolmar Manufacturing Company, Kensal, N. Dak. Filed Aug. 28, 1958.

RANCHMAN

For Combined Trailer and Cattle Chute.
First use Jan. 2, 1958.

SN 58,077. Brentwood Trailers, Inc., Chicago, Ill. Filed Aug. 29, 1958.

EXPLORER

For Mobile Homes, Sometimes Known as House Trailers.
First use June 13, 1958.

Class 20 — Linoleum and Oiled Cloth

SN 49,893. American Biltrite Rubber Company, Inc., Trenton, N. J. Filed Apr. 18, 1958.

Amtico
CARE-FREE

Owner of Reg. Nos. 590,268, 657,252, and others.
For Vinyl Floor Tile.
First use Feb. 14, 1958.

SN 57,677. Congoleum-Nairn Inc., Kearny, N. J. Filed Aug. 22, 1958.

VINEX

For Plastic Coverings of the Smooth Surface, Resilient Type for Surfaces Such as Floors, Walls, Countertops, and the Like in the Form of Rolls, Rugs, and Tiles.
First use Aug. 13, 1958.

Class 21 — Electrical Apparatus, Machines, and Supplies

SN 10,530. The Glastic Corporation, Cleveland, Ohio. Filed June 19, 1956.

GLASTIC
GLASS REINFORCED PLASTIC

Applicant disclaims the words "Glass Reinforced Plastic" apart from the mark as shown. Owner of Reg. Nos. 539,298 and 423,453.
For Articles Made of Glass Fibre Reinforced Molded Plastic—Namely, Standoff Insulators, Terminal Boards, Insulating Supports, Laminated Insulating Board, Supporting Studs for the Brushes of Electric Motors, Electrical Insulating Bar or Rod Stock.
First use Feb. 20, 1956.

SN 18,553. Cable Electric Products, Inc. (Rhode Island corporation), Providence, R. I., assignee of Cable Electric Products, Inc. (Delaware corporation), Providence, R. I. Filed Nov. 1, 1956.

Inter-link

For Strip for Forming an Extension Conductor for a Power Line.
First use Mar. 24, 1956.

SN 21,342. University Loudspeakers, Inc., White Plains, N. Y. Filed Dec. 19, 1956.

COBRE FLEX

For Double Exponential Horns.
First use July 15, 1951.

SN 29,374. Lytle Engineering & Mfg. Co., Chicago, Ill. Filed May 3, 1957.

Lytle

For Electrical Apparatus, Machines, and Parts—Namely, Television Receivers and Tuners, Television Receiver Sub-Assemblies, Aircraft Navigation Radio Receiver Tuners, and Receiver Oscillators, and Parts Thereof.
First use on or about June 1, 1945.

SN 33,817. Charles K. Krause, d. b. a. Kenru Company, Parsippany, N. J. Filed July 16, 1957.

Safcorde

For Electrical Output Boxes.
First use Nov. 16, 1953.

SN 37,768. Alfred W. Barber and John G. Hildebrand, Flushing, N. Y. Filed Sept. 25, 1957.

CIR-PAK

For Plug-in Electronic Circuit Components.
First use Jan. 14, 1957.

SN 39,310. Alfred Electronics, Palo Alto, Calif. Filed Oct. 22, 1957.

ALFRED

For Traveling Wave Tube Amplifiers, Traveling Wave Tube Power Supply, Sweeping Power Supply, and Vacuum Power Controls.
First use Dec. 15, 1949.

SN 39,560. Jervis B. Webb Company, Detroit, Mich. Filed Oct. 25, 1957. Sec. 2(f).

WEBB

Owner of Reg. Nos. 632,704, 692,443, and 684,367.
For Electrical Apparatus—Namely, Starter Panels for Motors, Synchro Panels for Maintaining Synchronization of Two or More Variable Speed Drives on Conveyors and the Like, Tachometer Generators, Consoles Including Electrical Instrumentation for Remote Control of Conveyors and the Like.
First use at least as early as 1948.

SN 40,252. Montgomery Elevator Company, Moline, Ill. Filed Nov. 7, 1957.

VOC-EL-TROL

For Electrically Operated Apparatus for Repetitively Playing Recorded Messages Respecting Elevator Operation to Passengers in Operatorless Elevators.
First use Sept. 12, 1957.

SN 42,915. Petroleum Heating Company, Seattle, Wash. Filed Dec. 23, 1957.

Lo-Density

For Heaters for Asphalts and Oils.
First use Nov. 6, 1957.

SN 43,535. General Sintering Corporation, Melrose Park, Ill. Filed Jan. 7, 1958.

PERMOFLUX SCRIBE

For Electrically Operated Dictating Machines for Office and General Purpose Use.
First use Aug. 23, 1950.

SN 43,536. General Sintering Corporation, Melrose Park, Ill. Filed Jan. 7, 1958.

SCRIBE

For Electrically Operated Dictating Machines for Office and General Purpose Use.
First use Aug. 23, 1950.

SN 43,656. Atlas Supply Company, Newark, N. J. Filed Jan. 9, 1958.

ATOMATIC

For Storage Batteries.
First use Dec. 30, 1957.

SN 43,886. Sonotone Corporation, Elmsford, N. Y. Filed Jan. 13, 1958.

SONOTAPE

For Electro-Magnetic Transducers, and Specifically Magnetic Tape Recording Heads.
First use Dec. 31, 1957.

SN 46,840. Meter Devices Company, Canton, Ohio. Filed Feb. 21, 1958.

AUTOFORMER

For Electric Control Switches.
First use in 1930.

SN 46,849. Hurst Tool & Mfg. Co., Inc., Princeton, Ind. Filed Feb. 25, 1958.

HURST

For Electric Motors.
First use Oct. 15, 1957.

SN 50,245. Raylite Electric Corp., Bronx, N. Y. Filed Apr. 23, 1958.

KRYSTAL GLOW

For Decorative Lighting Outfits for Christmas Trees and Electric Lamps for Such Outfits.
First use January 1958; prior to February 1936 as to "Krystal."

SN 51,200. Glo-Quartz Electric Heater Co., Inc., Willoughby, Ohio. Filed May 8, 1958.

GLO-QUARTZ

Owner of Reg. No. 592,412.
For Electric Heaters—Namely, Immersion Heaters, Radiant Heaters, and Parts Thereof.
First use Mar. 23, 1953.

SN 51,630. Gulton Industries, Inc., Metuchen, N. J. Filed May 14, 1958.

LIFE LITE

For Rechargeable Flashlights.
First use Apr. 2, 1958.

SN 52,323. Minnesota Rubber Company, Minneapolis, Minn. Filed May 26, 1958.

Sil-Rap

For Electrical Insulating Tape Manufactured From Silicon Rubber.
First use Apr. 1, 1958.

SN 52,703. Electric Lighting, Inc., Stockton, Calif. Filed June 2, 1958.

ELSCO LITES

The term "Lites" is disclaimed apart from the mark as shown.
For Commercial and Industrial Lighting Fixtures, Particularly for Outdoor Area Illumination.
First use Apr. 14, 1958.

SN 52,891. McGraw-Edison Company, Chicago, Ill. Filed June 4, 1958.

SRT

For Transformers.
First use Apr. 22, 1958.

SN 53,221. Yardney Electric Corporation, New York, N. Y. Filed June 9, 1958.

Yardney POLARCEL

Owner of Reg. Nos. 531,583, 598,421, and 656,014.
For Electric Batteries.
First use Apr. 14, 1958.

SN 53,799. Henry H. Hunt, d. b. a. Hunt M. E. Service, Oldsmar, Fla. Filed June 18, 1958.

ECON-O-WELDER

For Portable Electric Welders.
First use Jan. 1, 1956.

SN 53,951. John A. Roebling's Sons Corporation, Trenton, N. J. Filed June 20, 1958.

ROECLAMPS

For Insulated Clamps Used for Supporting Aerial Electrical Cables.
First use Jan. 10, 1958.

SN 55,418. The Reflectone Corporation, Stamford, Conn. Filed July 16, 1958.

REFLECTONE

Owner of Reg. Nos. 598,726 and 633,088.
For Power Supplies, Current Pulse Generators, Servo Amplifiers, and Electric Motors.
First use Apr. 30, 1956.

SN 56,118. G. E. M. Products, Inc., Detroit, Mich. Filed July 28, 1958.

DRIPBAN

For Electric Heating Rod.
First use on or about June 17, 1957.

SN 56,445. Bourns Laboratories, Inc., Riverside, Calif. Filed Aug. 1, 1958.

CARBOLON

For Resistance Elements for Potentiometers.
First use July 21, 1958.

SN 56,762. Clarostat Mfg. Co., Inc., Dover, N. H. Filed Aug. 7, 1958.

GREENOHM V

Owner of Reg. Nos. 430,308, 518,371, and 567,743.
For Resistors.
First use on or about Aug. 20, 1957.

SN 57,130. Channel Master Corporation, Ellenville, N. Y. Filed Aug. 13, 1958.

MATCHMAKER

For Antenna Coupler.
First use June 17, 1957.

SN 37,223. Samuel Stamping & Enameling Company, Chattanooga, Tenn. Filed Aug. 14, 1958.

suburban

For Electric Portable Heater.
First use on or about Apr. 15, 1958.

SN 37,527. Baird-Atomic, Inc., Cambridge, Mass. Filed Aug. 20, 1958.

SPECTROSOURCE

For High Voltage Power Supplies for Emission Spectrometers.
First use on or about July 20, 1958.

SN 37,535. Commercial Cord Company, Incorporated, Clifton Springs, N. Y. Filed Aug. 20, 1958.

COMCO

For Telephone Cords.
First use in February 1958.

SN 37,953. The Gudeman Company, Chicago, Ill. Filed Aug. 27, 1958.

MEGA-REL

For Capacitors.
First use Aug. 15, 1958.

Class 22 — Games, Toys, and Sporting Goods

SN 29,499. Irvin L. Sigler, Dayton, Ohio. Filed May 6, 1957.

DARTIME

For Blue Print and/or Blue Line Print Dart Board Targets.
First use Apr. 1, 1957.

SN 37,609. Winnerule Co., Oakland, Calif. Filed Sept. 20, 1957.

WINNERULE

For Type of Slide Rule for Indicating Best Manner of Playing Certain Card Games.
First use June 28, 1957.

SN 38,774. Opal Thomas and Helen D. Rolls, Oxnard, Calif. Filed Oct. 11, 1957.

HI-ROLLS

For Board With Movable Men and Dice for Playing a Parlor Game.
First use Aug. 8, 1957.

SN 47,614. Vo-Toys Inc., New York, N. Y. Filed Mar. 12, 1958.

VO-TOYS

For Dog and Cat Toys.
First use 1940.

SN 47,918. Elmer W. Witt, Chicago, Ill. Filed Mar. 17, 1958.

BILL THOMPSON

For Golf Clubs, Golf Balls, and Golf Bags.
First use on or about Jan. 15, 1937.

SN 49,144. Fin 'n Feather Farm, Inc., d. b. a. Fin 'n Feather Club, Dundee, Ill. Filed Apr. 7, 1958.

FIN 'N FEATHER CLUB

Owner of Reg. No. 636,769.
For Sporting Goods—Namely, Fishing Rods.
First use July 6, 1955.

SN 50,355. Fin 'n Feather Farm, Inc., d. b. a. Fin 'n Feather Club, Dundee, Ill. Filed Apr. 25, 1958.

FIN 'N FEATHER

Owner of Reg. No. 636,769.
For Sporting Goods—Namely, Fishing Rods.
First use July 6, 1955.

SN 51,741. Saunders Archery Target Company, Columbus, Nebr. Filed May 15, 1958. Sec. 2(f).

SAUNDERS

For Archery Matts, Archery Bows, Archery Quivers, Archery Stands, and Archery Targets and Covers.
First use prior to 1946.

SN 51,929. Munson Sporting Goods Co., Inc., West Covina, Calif. Filed May 19, 1958.

GOLDEN WEST

For Fishing Lines, Fishing Rods, and Water Ski Towropes.
First use Jan. 10, 1957, on fishing lines.

SN 51,953. Target Tee Company, Hollywood, Fla. Filed May 19, 1958.

TARGET-TEE

For Golf Tees.
First use May 6, 1958.

SN 52,678. Blanon, Inc., Akron, Ohio. Filed June 2, 1958.

A catalina CREATION by Blanon

Owner of Reg. Nos. 624,399 and 664,352.
For Juvenile or Children's Toys of All Kinds Such as Rocking Horses.
First use on or about Dec. 1, 1957.

SN 52,986. Sidney A. Tarrson Co., Chicago, Ill. Filed June 5, 1958.

BANK-O-MATIC

For Toy Bubble Gum Bank.
First use on or about March 1950.

SN 54,552. Penn Fishing Tackle Mfg. Co., Philadelphia, Pa. Filed June 30, 1958.

JIG-MASTER

For Fishing Reels.
First use June 16, 1958.

SN 54,563. Shakespeare Company, Kalamazoo, Mich. Filed June 30, 1958.

SEA WONDER

Owner of Reg. Nos. 651,155 and 443,391.
For Fishing Reels.
First use May 16, 1958.

SN 54,729. Bemis Bro. Bag Company, St. Louis, Mo. Filed July 3, 1958.

JIFFY

For Card Table Playhouse.
First use Aug. 17, 1943.

SN 54,935. Dayton Bait Co., Dayton, Ohio. Filed July 7, 1958. Sec. 2(f).

DAYTON

For Fishing Floats and Buoys.
First use in October 1948.

SN 55,016. Mitchel & King Limited, Slough, Buckinghamshire, England. Filed July 9, 1958.

Excalibur

For Ice Skates.
First use June 10, 1958.

SN 55,093. United Industries, Inc., Southington, Conn. Filed July 10, 1958.

SKI JET

For Toy Balloons.
First use Mar. 3, 1958.

SN 55,166. Roller Derby Skate Corp., Litchfield, Ill. Filed July 11, 1958.

AERELYTE

For Ice Skates and Shoes Attached to Ice Skates, Ice Skate Guards, Roller Skates and Shoes Attached to Roller Skates, and Bowling, Baseball, and Football Shoes.
First use June 1, 1954.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 21,952. Royal-T Products Co., Kansas City, Mo. Filed Dec. 31, 1956.

SNO-DOZER

For Snow Removal Tools.
First use Oct. 23, 1956.

SN 32,726. B and W Incorporated, Terrance, Calif. Filed June 27, 1957. Sec. 2(f).

LATCH-ON

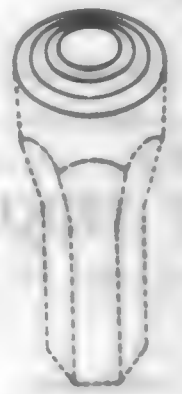
For Devices for Centering a Pipe Within a Casing or Well Hole.
First use on or about Nov. 15, 1947.

SN 34,579. American Saw and Tool Company, Louisville, Ky. Filed July 30, 1957.

KROMEDGE

For Files.
First use June 7, 1957.

SN 38,862. Damascus Steel Products Corporation, Rockford, Ill. Filed Sept. 9, 1957.



For Hammer Driven Hand Tools.
First use Nov. 30, 1956.

SN 39,827. Velten & Pulver, Inc., Chicago Ridge, Ill. Filed Oct. 31, 1957.

LINKLOK

For Conveyors and Conveyor Systems.
First use about February 1951.

SN 43,154. General Motors Corporation, Detroit, Mich. Filed Dec. 30, 1957.

GM

For Diesel Engines and Parts Thereof.
First use in or before 1942.

SN 43,255. Gustafson Manufacturing Co., Inc., Corpus Christi, Tex. Filed Dec. 31, 1957.

DRILL SCOUT

The word "Drill" is disclaimed apart from the mark as shown.

For Portable Drilling Rigs for Obtaining Underground Samples.

First use July 12, 1955.

SN 43,415. John F. Banthin, d. b. a. Banthin Engineering Co., Bridgeport, Conn. Filed Jan. 6, 1958.

LITHOMATIC

For Printing Press.

First use Dec. 6, 1957.

SN 43,813. The Carborundum Company, Niagara Falls, N. Y. Filed Jan. 13, 1958.

STUPALOX

For Mechanical Holders for Cutting Tool Inserts, and for the Following Goods That Are Made of Bonded, Oxide-Base Material: Cutting Tools and Cutting Tool Accessories, Gage Blanks, Dies, and Die Parts and Wear Parts.

First use Jan. 18, 1956.

SN 44,492. Henry A. Simpson, Geneva, Fla. Filed Jan. 22, 1958.

SIMHO

For Cultivating Machines.

First use Oct. 28, 1955.

SN 46,744. The J. Chas. McCullough Seed Co., Cincinnati, Ohio. Filed Feb. 27, 1958.

TURF TENDER

For Wheeled Cart Type Grass Seed and Fertilizer Seeder and Spreader.

First use Feb. 14, 1955.

SN 47,052. R. Hoe & Co., Inc., New York, N. Y. Filed Mar. 4, 1958.

POLAR

For Saw Bits.

First use Nov. 30, 1956.

SN 47,261. Horace C. Knight, d. b. a. Knight Mfg. Co., Portland, Oreg. Filed Mar. 7, 1958.

Superflex

For Electric Wire Fishing Tape or Cable Commonly Called a Wire Puller.

First use on or about May 22, 1956.

SN 48,026. Karl Flocke, d. b. a. Flocke & Co., Solingen, Germany. Filed Mar. 19, 1958.

EXPLORER

Priority claimed under Sec. 44(d) on German application filed Feb. 4, 1958; Reg. No. 718,846, dated Oct. 15, 1958.

For Razor Blades and Cutlery.

SN 50,541. John E. Smith's Sons Company, Buffalo, N. Y. Filed Apr. 28, 1958.

BUFFALO-STRIDH

Owner of Reg. No. 548,238.

For Food Processing Machinery—Namely, Casing Cleaning Equipment, and Parts Thereof.

First use Aug. 15, 1956.

SN 51,230. Roy R. Stabnau, Belleville, Mich. Filed May 7, 1958.

ROTO-KLEEN

For Attachment for Cleaning Rotary Type Lawn Mowers.

First use Jan. 2, 1958.

SN 52,418. King & Hamilton Company, Ottawa, Ill. Filed May 27, 1958.

THE OTTAWA LINE Satellite

For Portable Double Chain Elevators for Farms.

First use Apr. 4, 1958.

SN 53,030. Willard Le Blond Greene, d. b. a. Willard Le Blond Greene—Machine Tools, Scottsdale, Ariz. Filed June 6, 1958.

GREENE MACHINE TOOLS SCOTTSDALE, ARIZONA

The words "Machine-Tools" and "Scottsdale, Arizona" are disclaimed apart from the mark.

For Machine Tools in the Nature of Lathes, Drill Presses, Milling Machines, Shapers, Grinders, Presses, Steel Fabricating Machinery, Sheet Metal Equipment, Electrical Tool and Woodworking Machinery.

First use Feb. 28, 1958.

SN 53,790. The Geolograph Company, Oklahoma City, Okla. Filed June 18, 1958.

GEODRIL

For Automatic Drilling Weight Control Equipment.

First use Oct. 18, 1957.

SN 54,139. Builders Equipment Co., Phoenix, Ariz. Filed June 24, 1958.

SUPERLITE

For Machines for Handling Building Blocks and for Loading and Unloading Building Blocks and Building Materials on and From Automotive Vehicles.

First use Aug. 1, 1952.

SN 54,422. Mercantile Machine & Manufacturing Co., Inc., New York, N. Y. Filed June 27, 1958.

Merry Muddlers

The word "Muddlers" is disclaimed apart from the mark.

For Beverage Stirrer.

First use in November 1951.

SN 54,597. Buschman Products Incorporated, New York, N. Y. Filed July 1, 1958.

JETMogenizer

For Homogenizing Machines.
First use Nov. 1, 1954.

SN 55,696. Olson Mfg. Co., Clawson, Mich. Filed July 21, 1958.



The drawing is lined for the color red.
For Conveyor Lubricating Devices.
First use Mar. 21, 1958.

SN 56,023. Max J. Lugash, d. b. a. Maxon's Mfg. Co., North Hollywood, Calif. Filed July 23, 1958.

TUK-A-WAY

For Load Elevating Devices for Motor Trucks.
First use Jan. 29, 1958.

SN 56,486. Mossberg Incorporated, Cincinnati, Ohio. Filed Aug. 1, 1958.

COLD-POINT

For Drills, Reamers, End Mills, Taps, and Metal Cutting Tools.
First use June 10, 1958.

SN 56,812. Temprite Products Corporation, Birmingham, Mich. Filed Aug. 7, 1958.

TEMPRITE

Owner of Reg. No. 525,195.
For Carbonators, for Charging Liquid With CO_2 Gas and Designed for Use in Conjunction With Separate Cooling Means for the Liquid Charged and Parts and Accessories for Such Carbonators—Namely, Pump-Motor-Relay Assemblies, Pump Assemblies, and Control Valves.
First use on or about Apr. 11, 1946.

SN 57,242. Better Packages, Incorporated, Shelton, Conn. Filed Aug. 15, 1958.

BOXIZE

For Machines for Dispensing Sealing Tape in Lengths Determined by Dimensions of Article Placed on Machine.
First use on or about June 30, 1958.

SN 58,828. Brueder Wuester, Vienna, Austria. Filed Sept. 12, 1958.

AGLO

Owner of Austrian Reg. No. 4765, dated Jan. 22, 1924.
For Hand and Machine Tools, Hand and Machine Saws, and Saw Blades.

SN 59,766. Ransome & Marles Bearing Co., Ltd., Newark-on-Trent, England. Filed Sept. 29, 1958.

BALL & ROLLER R&M BEARINGS

The term "Ball & Roller Bearings" is disclaimed apart from the mark as illustrated in the drawing. Owner of British Reg. Nos. 404,891 and 719,658, dated June 4, 1920 and July 7, 1953, respectively, and others.
For Ball and Roller Bearings and Parts of Such Bearings, Pulleys Containing Ball or Roller Bearings, Bearing Brackets for Ball or Roller Bearings in Power-Driven Sewing Machines and Rod-End Bearings, Housings (Machinery), Plummer Blocks, Bearing Blocks, Axle Boxes, Pulleys, Wall Brackets, Wall Boxes, Girder Clips, Sole Plates, Hangers and Floor Standards, All Being Goods Containing Ball Bearings and/or Roller Bearings.

SN 60,870. Acme Steel Company, Chicago, Ill. Filed Oct. 20, 1958.

AIM

For Metal Cutting Tools.
First use July 25, 1958.

SN 60,915. Gilson Brothers Company, Fredonia, Wis. Filed Oct. 20, 1958.

KUTUP

For Compost Shredders and Grinders.
First use Sept. 1, 1958.

SN 60,998. Ulrich Manufacturing Co., Roanoke, Ill. Filed Oct. 20, 1958.

ULRICH

Owner of Reg. No. 551,450.
For Earth Moving Equipment, Industrial Pumps, and Parts Thereof.
First use spring of 1955.

Class 24 — Laundry Appliances and Machines

SN 51,649. R. L. Mantee & Sons, Inc., Cleveland, Ohio. Filed May 14, 1958.

HANDIFLO

For Washer Hose Connections or Fittings, To Facilitate Draining of Automatic Washers into and Through a Laundry Tub.
First use on or about Sept. 18, 1956.

SN 54,673. The J. R. Clark Company, Spring Park, Minn. Filed July 2, 1958.

SPREDWING

For Ironing Tables and Ironing Table Pad and Cover Sets.
First use May 26, 1958.

Class 25—Locks and Safes

SN 45,140. Daimler-Benz Aktiengesellschaft, Stuttgart-Untertuerkheim, Germany. Filed Feb. 3, 1958.

MERCEDES-BENZ

Owner of German Reg. No. 375,067, dated Oct. 7, 1927; and U. S. Reg. No. 285,557.

For (Based on Use in Commerce): Keys, Key Blanks, Locks, and Automobile Door Locking Devices;

For (Based on German Registration): Safes, Strong Boxes, Cash Boxes, Latches, Locking Bolts, and Door Catches.

First use in 1926; in commerce in 1927; 1900 as to "Mercedes"; 1896 as to "Benz."

Class 26—Measuring and Scientific Appliances

SN 672,716. Associated Research Incorporated, Chicago, Ill. Filed Sept. 3, 1954.

ASSOCIATED RESEARCH, Incorporated

Applicant disclaims exclusive rights by this registration in the word "Incorporated" apart from the remainder of the mark, and in the word "Research" apart from the word "Associated." Owner of Reg. No. 437,984.

For Apparatus for Determining the Voltage at Which Electrical Insulation Breaks Down, Instruments for Measuring Electrical Resistance, Tachometers, Multiple-Graph Emotion Recorders, Stroboscopes, Phase-Sequence Indicators, Fluxmeters, Voltmeters, Ammeters, Galvanometers.

First use about or before Nov. 15, 1937.

SN 15,392. The Plastic Contact Lens Company, Chicago, Ill. Filed Sept. 10, 1956.

W/J

For Optical Contact Lenses Adapted To Be Applied to the Eyes of the Person; Contact Lens Cases; Measuring Devices for Checking Contact Lenses; Measuring Devices for Checking Accuracy of Instruments Used in Prescribing Contact Lenses; and Orthoptic Instruments.

First use December 1955.

SN 21,844. Airpax Products Company, Middle River, Md. Filed Dec. 31, 1956.

MAGMETER

For Frequency Measuring Apparatus, Instantaneous Frequency Detectors, Magnetic Frequency Detectors, Frequency Recorder Drivers, and Audio Frequency Detectors.

First use Apr. 2, 1956.

SN 27,465. Robertson Photo-Mechanix, Inc., Chicago, Ill. Filed Apr. 3, 1957.

480

Owner of Reg. No. 614,391.

For Cameras.

First use Mar. 21, 1957.

SN 38,506. U. S. Electrical Motors, Inc., Los Angeles, Calif. Filed Oct. 7, 1957.

LUBRISCOPE

For Oil Level Gauge.

First use Sept. 7, 1957.

SN 39,546. Picker X-Ray Corporation, White Plains, N. Y. Filed Oct. 25, 1957.

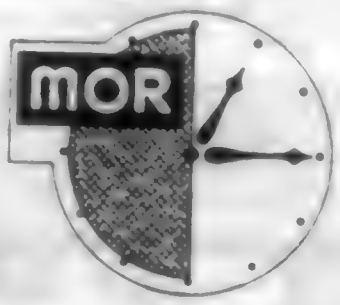
MDR
minimal dosage radiography

Applicant disclaims exclusive right to the words "Minimal Dosage Radiography" apart from the mark as shown.

For X-Ray Machines, X-Ray Film Cassettes, X-Ray Image Amplifiers, Cones, and Collimators, X-Ray Film Developing Tanks and Parts Therefor.

First use Sept. 25, 1957.

SN 44,550. Moore's Time-Saving Equipment, Inc., Elkhart, Ind. Filed Jan. 23, 1958.



The drawing is lined for the color orange.

For Rug Measuring Machines, i. e., a Machine Usable by Rug Cleaners To Determine the Dimensions of a Rug for the Purpose of Computing the Charge for Cleaning the Rug.

First use June 1, 1956.

SN 45,621. Snap-On Tools Corporation, Kenosha, Wis. Filed Feb. 10, 1958.

ANAL-O-SCOPE

For Engine Ignition System Analyzers and Testing Equipment of the Oscilloscope Type.

First use Oct. 20, 1957.

SN 49,563. Electro Products Laboratories, Inc., Chicago, Ill. Filed Apr. 14, 1958.

ELECTRO

Owner of Reg. Nos. 416,794 and 418,637.

For Electrical Proximity Sensing Systems and Parts Thereof, Including Control Units, Pickups and Cables, Magnetic Pickups and Cables, Amplifiers, Including Vacuum Tube Amplifiers and Magnetic Amplifiers, Relays, Dynamic Electrical Micrometers, Dynamic Electrical Pressure Measuring Equipment, Electrical Shock Measuring Equipment, Electrical Apparatus for Measuring Young's Modulus of Elasticity, Rectifier-Type Direct Current Power Supplies, and Kits Containing Parts Which May Be Assembled into Rectifier-Type Direct Current Power Supplies.

First use Apr. 15, 1938, on power supplies.

SN 51,225. Research Instrument Corporation, d. b. a. Analytic Systems Company, Pasadena, Calif. Filed May 7, 1958.

ANALYSYSTEM

For Gas and Liquid Analyzers and Parts Therefor.

First use Jan. 22, 1958.

SN 51,415. Bausch & Lomb Optical Company, Rochester, N. Y. Filed May 12, 1958.

DR-25

Applicant disclaims exclusive right to the use of "25" apart from the mark shown.

For Optical Dimensional Gage.

First use Apr. 30, 1958.

SN 51,952. Sunnen Products Company, St. Louis, Mo. Filed May 19, 1958.

SUNNEN

For Precision Measuring Equipment and Accessories Therefor—Namely, Gages for Measuring the Accuracy of Surfaces, Fixtures for Setting Said Gages, and Parts and Components Thereof.

First use May 5, 1953.

SN 52,608. Landis & Gyr A. G., Zug, Switzerland. Filed Apr. 1, 1958.

VARIOPONT

Owner of Swiss Reg. No. 169,006, dated Jan. 27, 1958.

For Regulating Devices for the Control of Physical Magnitudes, Especially Temperature, Pressure, Quantity, and Position Regulators.

SN 53,711. Gregory-Indermill Company, Incorporated, Stow, Ohio. Filed June 17, 1958.

Satellite

For Electrically Operated Diazo Type Reproduction Machine for Making One or More Copies of Original Material.

First use Jan. 3, 1958

SN 53,712. Gregory-Indermill Company, Incorporated, Stow, Ohio. Filed June 17, 1958.



For Electrically Operated Diazo Type Reproduction Machine for Making One or More Copies of Original Material.

First use Jan. 3, 1958.

SN 54,124. Paul L. Wilhelm, d. b. a. Mirrar, Ltd., Michigan City, Ind. Filed June 23, 1958.

MIRRAR

For Motor Vehicle Speed-Timing System of the Radar Type.

First use May 16, 1958.

SN 55,370. Bacharach Industrial Instrument Company, Pittsburgh, Pa. Filed July 16, 1958.

MONOXOR

For Apparatus for Detecting the Presence of Gaseous Impurities in Gases, and Particularly Detecting the Presence of Carbon Monoxide in Air, Flue Gases or Other Gaseous Environments.

First use on or about Jan. 1, 1956.

SN 56,357. Andrew F. Schott, Brookfield, Wis. Filed July 30, 1958.

ALGEBRAID

For Abaci.

First use June 9, 1958.

SN 56,814. Underwood Corporation, New York, N. Y. Filed Aug. 7, 1958.

MASTER-TOUCH

For Adding and Accounting Machines, Sometimes Called Calculators or Computers.

First use May 27, 1957.

SN 56,830. Charles Beseler Company, East Orange, N. J. Filed Aug. 8, 1958.

SLIDE-O-FILM

For Device for Making Photographic Negatives and Transparencies.

First use Feb. 18, 1958.

SN 56,856. Keuffel & Esser Company, Hoboken, N. J. Filed Aug. 8, 1958.

DECITRIG

Owner of Reg. Nos. 308,069 and 639,342.

For Slide Rules.

First use June 4, 1958.

SN 56,972. Thomas E. Larkin, Schenectady, N. Y. Filed Aug. 11, 1958.

WEATHER-DAY

For Fuel Delivery Control Apparatus, Which Are Machines That Automatically Measure and Totalize All Factors of Weather, Wind, Rain, Snow, Temperature into One Factor That Is a Measure of the True Value of Fuel Required To Heat Any Building.

First use Sept. 15, 1949.

SN 57,004. Rampark, Inc., Rochester, N. Y. Filed Aug. 11, 1958.

RAMPARK

For Traffic Counters and Parts Therefor.

First use Mar. 25, 1958.

Class 28—Jewelry and Precious-Metal Ware

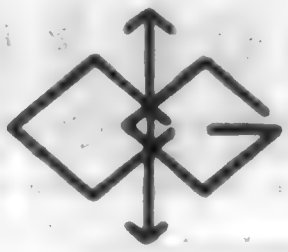
SN 52,722. Jonas Hiller, d. b. a. Hiller Jewelry Company, New Orleans, La. Filed June 2, 1958.



For Diamond Rings.

First use May 23, 1958.

SN 53,709. Chas. Gold & Co., New York, N. Y. Filed June 17, 1958.



The mark comprises in part the letters "CG."

For Following Items Made in Precious Metal: Bracelets, Belt Buckles, Charms, Collar Clips, Combs, Cuff Links, Dress Clips, Ear Clips, Key Chains, Key Rings, Key Tops, Lip Brushes, Magnifiers, Mirrors, Neck Chains, Picture Frames, Pill Boxes, Rings, Tie Clips, Tie Tacks.

First use Apr. 15, 1958.

SN 54,013. The Curtman Co., Inc., Providence, R. I. Filed June 23, 1958.



For Costume Jewelry.

First use Apr. 1, 1950.

SN 55,302. Basco Jewelers, Inc., Philadelphia, Pa. Filed July 15, 1958.

TRUBRITE

For Diamond Rings.

First use Apr. 16, 1958.

Class 30—Crockery, Earthenware, and Porcelain

SN 59,390. Simon Golub & Sons, Inc., Seattle, Wash. Filed Sept. 23, 1958.

EMPRESS

For China Dinnerware.

First use July 29, 1958.

Class 31—Filters and Refrigerators

SN 29,594. Borg-Warner Corporation, Chicago, Ill. Filed May 8, 1957. Sec. 2(f).

Headquarters for Mechanical Cooling

SINCE 1885

For Refrigerating Machinery and Apparatus and Parts Thereof for Replacement and Repair, and Ice-Making Machinery and Apparatus and Parts Thereof for Replacement and Repair.

First use prior to Dec. 31, 1948.

SN 46,955. Kisco Boiler & Engineering Company, St. Louis, Mo. Filed Mar. 3, 1958.

ABSO-SOFT

For Water Softeners for Commercial and Domestic Use.

First use August 1953.

SN 47,534. The R. L. Wagner Company, Incorporated, Darien, Conn. Filed Mar. 11, 1958. Sec. 2(f).

WAGNER

For Filtering Systems for Swimming Pools.

First use November 1919.

SN 48,511. Tropical Gas Company, Inc., Panama, Panama. Filed Mar. 26, 1958.

TROPIGAS

Owner of Panamanian Reg. No. 4,498, dated Sept. 14, 1955.

For Gas Refrigerators.

SN 53,395. Dearborn Chemical Company, Chicago, Ill. Filed June 12, 1958.

PRESTO-FILTER

For Filters for Filtering Solid Materials From Liquids.

First use Mar. 11, 1958.

SN 55,150. Lakeside Engineering Corporation, Chicago, Ill. Filed July 11, 1958.

SPIRAGESTER

For Combination Sludge Digester and Clarification Tanks.

First use on or about Apr. 1, 1953.

SN 60,864. The Warren Company, Incorporated, Atlanta, Ga. Filed Oct. 17, 1958.

TWIN-ISLE

For Self-Service Display Case for Frozen Foods and Ice Cream.

First use Aug. 22, 1958.

SN 60,962. Anthony C. Polizzi, d. b. a. King Coffee Filter Co., Rochester, N. Y. Filed Oct. 20, 1958.

KING

For Coffee Filters.

First use on or before May 15, 1958.

Class 32—Furniture and Upholstery

SN 37,996. Baby-Sure Corp., New York, N. Y. Filed Sept. 11, 1957.



For Baby Bath Seats.

First use Aug. 14, 1942.

SN 50,098. William S. Pearson, d. b. a. Cylindrical Products, Baltimore, Md. Filed Apr. 21, 1958.

Hindustand

For Smoking and Like Stands.

First use Jan. 15, 1958.

SN 57,400. N. & N. Distributors, Inc., New York, N. Y. Filed Aug. 18, 1958.

ABC

For Garment Racks and Garment Hangers.
First use in 1946.

SN 62,330. Charles P. Simmons, Americus, Ga. Filed Nov. 12, 1958.

U-No

For Sofas.
First use Oct 14, 1958.

Class 34 — Heating, Lighting, and Ventilating Apparatus

SN 14,721. The Babcock & Wilcox Company, New York, N. Y. Filed Aug. 28, 1956.

C O

For Boilers.
First use Nov. 11, 1955.

SN 40,843. Industrial Ovens, Incorporated, Cleveland, Ohio. Filed Nov. 18, 1957.

"ROLLEVATOR"

For Heat Treating Apparatus and Drying Apparatus for Web Materials and Filamentous Materials Including Films, Fabrics, Yarns, Sheet Metal, and Wire.
First use June 1, 1955.

SN 43,992. West Texas Appliance Company, San Antonio, Tex. Filed Jan. 14, 1958.

TexOmatiC

For Air Conditioners Having an Electric Motor and Fan.
First use Dec. 10, 1957.

SN 48,159. Ellis & Watts Products, Inc., Rossmoyne, Ohio. Filed Mar. 21, 1958.

MIL-AC

For Cooling and Heating Equipment Such as Air Cooling, Air Heating, Liquid to Air Heat Exchange, Liquid to Liquid Heat Exchange, Humidifying Apparatus, and Dehumidifying Apparatus.
First use on or about Jan. 15, 1955.

SN 50,115. Clarence L. Sipler, d. b. a. Sipler Plastics Co., Doylestown, Pa. Filed Apr. 21, 1958.

DUCTRON

For Air Ducts and Other Tubes Made of Reinforced Plastic Material.
First use Apr. 11, 1958.

SN 57,746. Bennett-Ireland, Inc., Norwich, N. Y. Filed Aug. 25, 1958.

FENDIRON

For Fireplace Products—Namely, Combination Fenders and Andirons.
First use July 2, 1958.

SN 57,995. Airkem, Inc., New York, N. Y. Filed Aug. 28, 1958.

a airkem

Owner of Reg. Nos. 427,893 and 526,776.
For Dispensers for Volatilizable Air Treating Compositions.
First use June 11, 1958.

SN 57,996. Airkem, Inc., New York, N. Y. Filed Aug. 28, 1958.

GUARDIAN

For Dispensers for Volatilizable Air Treating Compositions.
First use July 11, 1958.

SN 57,997. Airkem, Inc., New York, N. Y. Filed Aug. 28, 1958.

Guardian

For Dispensers for Volatilizable Air Treating Compositions.
First use July 11, 1958.

SN 57,998. Airkem, Inc., New York, N. Y. Filed Aug. 28, 1958.

SENTINEL

For Dispensers for Volatilizable Air Treating Compositions.
First use June 11, 1958.

SN 57,999. Airkem, Inc., New York, N. Y. Filed Aug. 28, 1958.

Sentinel

For Dispensers for Volatilizable Air Treating Compositions.
First use June 11, 1958.

SN 58,182. Acme Engineering & Manufacturing Corp., Muskogee, Okla. Filed Aug. 8, 1958.

Powermaster

For Electrically Operated Exhaust and Ventilating Fans, Propellers for Exhaust Fans, Electrically Operated Exhaust and Supply Roof Fans Consisting of an Enclosure Mounted Over a Roof Opening and Containing a Fan.
First use Jan. 1, 1958.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 44,799. The Carolina Fibre Mills, Inc., Spartanburg, S. C. Filed Jan. 28, 1958.

TRANS-PAK

For Journal Box Lubricating Pads.
First use Dec. 2, 1957.

SN 56,542. The Dayton Rubber Company, Dayton, Ohio. Filed Aug. 4, 1958.



Owner of Reg. No. 310,345.
For Belts and Belting.
First use on or about July 1958.

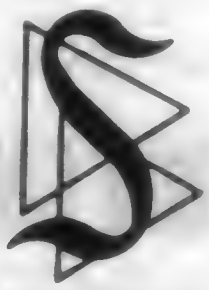
Class 36—Musical Instruments and Supplies

SN 12,077. Excelsior Accordions, Inc., New York, N. Y. Filed July 13, 1956.



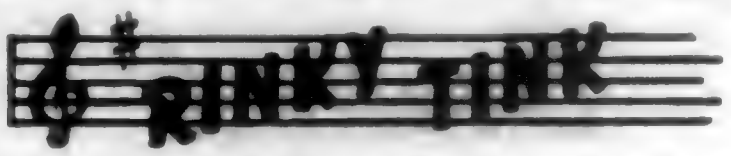
For Accordions.
First use on or about January 1956.

SN 25,533. L. Ron Hubbard, Washington, D. C. Filed Dec. 2, 1957.



For Tape Recordings.
First use 1954.

SN 33,818. Franklin W. Lohnes, d. b. a. Dearborn Piano Service Company, Dearborn, Mich. Filed July 16, 1957.



For Piano Attachment That Creates a Mandolin or Harp-Like Tone.
First use Apr. 2, 1957.

SN 37,690. Sky Records, Greenville, Miss. Filed Sept. 23, 1957.



Applicant disclaims any right to the exclusive use of the term "Records."
For Grooved Phonograph Records.
First use Nov. 10, 1956.

SN 50,933. Soundcraft, Inc., Detroit, Mich. Filed May 2, 1958.

Stereopar

For Electronically Recorded Stereophonic Sound Tape Playback Equipment.
First use Dec. 30, 1957.

SN 52,056. North American Philips Company, Inc., New York, N. Y. Filed May 21, 1958.

NORELCO

Owner of Reg. Nos. 406,060, 650,830, and others.
For Dictating Machines.
First use May 2, 1958.

SN 54,284. Am-Par Record Corp., New York, N. Y. Filed June 26, 1958.



No claim of exclusive right is made to the term "Record" as used on phonograph records.
For Phonograph Records.
First use June 5, 1958.

SN 54,497. Dash Record Company, Phoenix, Ariz. Filed June 30, 1958.

DASH

For Grooved Phonograph Records.
First use June 10, 1957.

SN 55,369. Vincent Bach Corporation, Mount Vernon, N. Y. Filed July 16, 1958.

MINERVA

For Brass Musical Instruments—Namely, Trumpets, Cornets, Fluegelhorns, Trombones, Mellophones, French Horns, Baritones, Euphoniums, Bass Horns, and Bugles.
First use Feb. 18, 1958.

SN 55,398. Jay-Gee Record Co., Inc., New York, N. Y. Filed July 16, 1958.

JOSIE

For Phonograph Records.
First use in August 1953.

SN 55,543. Vee-Jay Records, Inc., Chicago, Ill. Filed July 17, 1958.



For Mechanically Grooved Phonograph Records and Needles, Albums and Envelopes Therefor.
First use June 19, 1958.

SN 55,552. "Ronette" Piëzo-Electrische Industrie (Ronette p. e. i.) N. V., Amsterdam, Netherlands. Filed May 9, 1958.

BINOFLUID

Owner of Dutch Reg. No. 127,912, dated May 7, 1957.
For Music and Other Sound Recording and Reproducing Apparatus and Parts and Accessories Thereof, Including Microphones, Microphone Cases and Other Apparatuses for Converting Mechanical Vibrations into Electrical Vibrations and Electrical Vibrations into Mechanical Vibrations; Pick-Up Elements, Pick-Ups and Other Apparatuses for Converting Mechanical Vibrations into Electrical Vibrations, Microphone Stands, Microphone Switches, Crystal Plates, and Needle Holders With or Without Styluses.

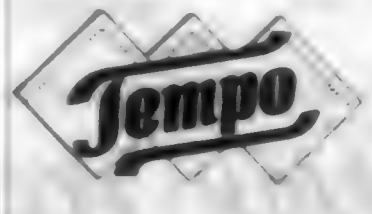
SN 55,554. "Ronette" Piëzo-Electrische Industrie (Ronette p. e. i.) N. V., Amsterdam, Netherlands. Filed May 9, 1958.

STEREOFLUID

Owner of Dutch Reg. No. 127,913, dated May 7, 1957.
For Music and Other Sound Recording and Reproducing Apparatus and Parts and Accessories Thereof, Including Microphones, Microphone Cases and Other Apparatuses for Converting Mechanical Vibrations into Electrical Vibrations and Electrical Vibrations into Mechanical Vibrations; Pick-Up Elements, Pick-Ups and Other Apparatuses for Converting Mechanical Vibrations into Electrical Vibrations, Microphone Stands, Microphone Switches, Crystal Plates, and Needle Holders With or Without Styluses.

Class 37—Paper and Stationery

SN 637. Vereinigte Papierwerke Schickedanz & Co., Nurnberg, Germany. Filed Jan. 12, 1956.



For Cellulose Handkerchiefs.
First use Oct. 27, 1949; in commerce Oct. 27, 1949.

SN 800. Bernard L. Jurgenson, d. b. a. Jurgenson Manufacturing Company, Hastings, Mich. Filed Jan. 16, 1956.



The drawing is lined for red, yellow, and green.
For Church Attendance Record Sheets and Numbered Pieces for Use in Connection Therewith.
First use July 12, 1955.

SN 15,763. The Brown-Bridge Mills, Inc., Troy, Ohio. Filed Sept. 17, 1956.



No claim is made to the word "Brand" apart from the mark as shown. Owner of Reg. No. 647,101.
For Gummed and Coated Paper and Cloth.
First use in 1934.

SN 15,919. Vanity Fair Paper Mills, Inc., Groveton, N. H. Filed Sept. 18, 1956.



For Facial and Toilet Tissue.
First use Feb. 6, 1954.
Subj. to Intf. with SN 17,959.

SN 17,959. Pacific Coast Paper Mills of Washington, Inc., Bellingham, Wash. Filed Oct. 22, 1956.

SOF-PLY

For Toilet Paper.
First use on or about January 1954.
Subj. to Intf. with SN 15,919.

SN 35,213. Tru-Fax Corporation, Greensboro, N. C. Filed Aug. 8, 1957.



For Writing Pens and Pencils.
First use Feb. 19, 1957.

SN 43,737. The Charmin Paper Products Company, Cincinnati, Ohio. Filed Jan. 10, 1958.

SUMMIT

Owner of Reg. No. 214,263.
For Soft Paper Products for Personal and Household Use—Namely, Facial and Toilet Tissue, Paper Napkins and Towels.
First use Apr. 18, 1899, on toilet paper.

SN 43,738. The Charmin Paper Products Company, Cincinnati, Ohio. Filed Jan. 10, 1958.

Charlotte

For Soft Paper Products for Personal and Household Use—Namely, Facial and Toilet Tissue, Paper Napkins and Towels.
First use Dec. 12, 1929, on toilet paper, paper towels, and paper napkins.

SN 43,739. The Charmin Paper Products Company, Cincinnati, Ohio. Filed Jan. 10, 1958.

WHIRL

For Soft Paper Products for Personal and Household Use—Namely, Facial and Toilet Tissue, Paper Napkins and Towels
First use Dec. 2, 1925, on toilet paper.

SN 43,740. The Charmin Paper Products Company, Cincinnati, Ohio. Filed Jan. 10, 1958.

May Queen

For Soft Paper Products for Personal and Household Use—Namely, Facial and Toilet Tissue, Paper Napkins and Towels.
First use Feb. 23, 1925, on toilet paper, paper towels, and paper napkins.

SN 47,865. Kimberly-Clark Corporation, Neenah, Wis. Filed Mar. 17, 1958.

MAT PAK

For Backing Sheets Made of Paper for Printing Matrices.
First use July 18, 1956.

SN 51,431. Crown Zellerbach Corporation, San Francisco, Calif. Filed May 12, 1958.

CROWN CADDIE

Owner of Reg. Nos. 247,311, 250,760, and 602,383.
For Paper Bags.
First use July 27, 1937.

SN 54,796. Tidy-House Paper Corp. of N. Y., Brooklyn, N. Y. Filed July 3, 1958.

Tidy Home

Owner of Reg. No. 578,372.
For Paper Household Products—Namely, Sandwich Bags, Lunch Bags, Garbage Bags, Refrigerator Bags, and Similar Containers.
First use June 9, 1958, in connection with sandwich bags.

SN 56,201. Tension Envelope Corporation of Kansas City, Kansas City, Mo. Filed July 28, 1958.

FRAMEVELOPE

For Envelopes.
First use July 17, 1958.

Class 38—Prints and Publications

SN 27,379. Gerald S. Leets, Lancaster, Pa. Filed Apr. 2, 1957.

YOUNG IN HEART

For Monthly Publication Devoted to Those Who Are Looking Forward to Retiring, or Have Retired.
First use Sept. 1, 1956.

SN 42,711. Albert Mittler, d. b. a. Indoor Billboard Company, Brooklyn, N. Y. Filed Dec. 19, 1957.

CELTONE

For Calendar Cards Used in Advertising.
First use September 1953.

SN 49,421. Curtis 1000, Incorporated, West Hartford, Conn. Filed Apr. 10, 1958.

POSTA-TISER

Owner of Reg. No. 559,939.
For Prepared Advertising, Sold as Such—Namely, Advertising Letters and Other Advertising Copy in Which Are Incorporated Return Addressed Envelopes.
First use Oct. 6, 1955.

SN 51,968. Corliss Lamont, d. b. a. Basic Pamphlets, New York, N. Y. Filed May 19, 1958.

BASIC PAMPHLETS

No exclusive rights are claimed in the term "Pamphlets" as the name of the goods.
For Booklets Issued in Series.
First use February 1952.

SN 51,995. The Hopp Press, Inc., New York, N. Y. Filed May 20, 1958.

RAY-D-GLO

For Printed Plastic Cards for Marking Products on Display.
First use Apr. 1, 1958.

SN 53,100. Allied Publishers, Inc., Dallas, Tex. Filed June 9, 1958.

Cheer

For Monthly Magazine Published for Issuance by Others.
First use Jan. 1, 1953.

SN 54,411. Kirby, Block & Company, Inc., New York, N. Y. Filed June 27, 1958.

ACTION ITEMS

For Weekly Publication Relating to Fashions.
First use Feb. 25, 1949.

SN 55,844. Electro Tec Corporation, South Hackensack, N. J. Filed July 23, 1958.

ETCetera

For Publication in the Nature of a House Organ Published Periodically.
First use June 27, 1958.

SN 55,989. Electrographic Corporation, d. b. a. Reilly Electrotype Division & Lake Shore Electrotype Division, New York, N. Y. Filed July 25, 1958. Sec. 2(f).

what's new in ROP color

The drawing is lined for blue, yellow, and red. Owner of Reg. No. 602,546.
For Trade Newsletter.
First use July 3, 1953.

SN 57,123. Bio-Research Institute, Incorporated, Cambridge, Mass. Filed Aug. 18, 1958.

PRACTICE RESEARCH SYMPOSIA

For Series of Books Published From Time to Time as Symposia of Medical Research Articles.
First use Mar. 21, 1958.

SN 57,191. Edwin Donnelly, Crossville, Tenn. Filed Aug. 14, 1958.

BOATS & HARBORS

For Boat and Marine Equipment Advertising Paper Published Three Times Each Month.
First use May 8, 1958.

SN 57,379. The Lazy RL, Boulder, Colo. Filed Aug. 18, 1958.

WESTERN PROVINCIAL

For Greeting Cards.
First use Aug. 17, 1956.

SN 57,544. General Features Corporation, New York, N. Y. Filed Aug. 20, 1958.

SCIENCE FOR YOU

For Newspaper Feature Columns.
First use June 22, 1958.

Class 39 — Clothing

SN 35,250. Eagle Clothes, Inc., Brooklyn, N. Y. Filed Aug. 9, 1957.

CONTEMPO

For Men's Overcoats, Topcoats, and Suits.
First use July 24, 1957.

SN 41,181. Nannette Manufacturing Company, Inc., Philadelphia, Pa. Filed Nov. 22, 1957.

CIRCUS PARADE OF FASHIONS

For Crib Sets, Babe Frocks, and Toddler Frocks.
First use Oct. 23, 1957.

SN 41,661. Mr. Kenneth Inc., Philadelphia, Pa. Filed Dec. 2, 1957.

MR. KENNETH

For Hats and Beach Wear.
First use Oct. 24, 1957.

SN 44,986. Nicholas Roth, d. b. a. Roth Knitting Mill, Philadelphia, Pa. Filed Jan. 30, 1958.

LA CYGOGNE

The English meaning of the French words "La Cygogne" is "the stork."
For Sweaters.
First use Dec. 19, 1957.

SN 46,704. Geo. Brockman, d. b. a. Geo. Brockman & Co., New York, N. Y. Filed Feb. 27, 1958.

La Roma

For Children's Garments Including Rompers, Sunsuits, Wash Suits, Creeperettes, and Long and Short Overalls.
First use Feb. 11, 1957.

SN 50,561. Trimble Hat Company, St. Joseph, Mo. Filed Apr. 28, 1958.

Midland Empire



Owner of Reg. No. 368,182.
For Men's and Boys' Hats and Caps.
First use Mar. 24, 1958.

SN 51,836. Everite Knitting Mills, Lebanon, Pa. Filed May 9, 1958.

Glen-Alan

For Men's, Women's, and Boys' Knitted Sport Shirts.
First use July 15, 1952.

SN 51,975. California Forms, Inc., Culver City, Calif. Filed May 20, 1958.

COTTON CANDY

For Brassieres and Girdles.
First use Apr. 15, 1958.

SN 52,347. Societe Rhoryl, Paris, France. Filed May 26, 1958.

JERVYLON

Priority claimed under Sec. 44(d) on French Reg. No. 470,834, dated Mar. 7, 1958 (Paris); Natl. Inst. No. 104,148.
For Knitted or Woven Shirts, Pajamas, Underwear, Coats, Vests, Slacks, Hats and Suits, for Men, Women, and Children.

SN 52,705. Fantasy Lingerie Corp., New York, N. Y. Filed June 2, 1958.

FANTASY

Owner of Reg. No. 514,379.
For Ladies' Lingerie, Specifically Slips, Petticoats.
First use Aug. 29, 1945.

SN 54,224. L. Gidding & Co., Inc., New York, N. Y. Filed June 25, 1958.

trim-teen

For Girls', Teens', and Sub-Teens' Dresses, Blouses, Skirts, Jumpers, Shorts, Bathing Suits, Play Suits, and Slips.
First use May 9, 1958.

SN 54,272. The Valor Manufacturing Co., Inc., New Bedford, Mass. Filed June 25, 1958.

FROST BLOC

For Outergarment Interlinings Cut and Ready for Insertion in the Garments.
First use June 9, 1957.

SN 54,388. Shep Danaky Inc., New York, N. Y. Filed June 27, 1958.

Carol Dame

For Women's Coats and Suits.
First use in January 1954.

SN 54,756. Future Fashions, Inc., New York, N. Y. Filed July 3, 1958.

KAREN KANE

For Ladies' Dresses, Blouses, Skirts, Coats, Dress Ensembles, Playsuits.
First use Jan. 2, 1957.

SN 55,141. The H. W. Gossard Co., Chicago, Ill. Filed July 11, 1958.

answer jr

Owner of Reg. No. 656,494.
For Corsets, Girdles, and Combination Corsets and Brassieres.
First use July 3, 1958.

SN 55,330. Leathermode Sportswear, Inc., New York, N. Y. Filed July 15, 1958.

Leathermode

For Men's, Women's, and Children's Jackets, Coats, Suits, Vests, and Hats, Made Entirely of Leather or Partly of Leather and Partly of Fabric.
First use June 30, 1948.

SN 55,420. The Salem Company, Inc., Winston Salem, N. C. Filed July 16, 1958.

BULL WHIP

For Pants, Slacks, Jackets, and Dungarees for Men, Boys, Girls, and Ladies.
First use Apr. 4, 1958.

SN 56,587. Rainfair, Inc., Racine, Wis. Filed Aug. 4, 1958.



The drawing is lined for gold. Owner of Reg. Nos. 328,870 and 408,957.
For Rain Topcoats.
First use Feb. 1, 1958.

SN 56,730. Maribero Shirt Company, Inc., Baltimore, Md. Filed Aug. 26, 1958.

OAKSHIRE

For Shirts for Men for Sportswear and for Dress.
First use July 16, 1958.

SN 56,871. Korlee Undergarment, Inc., New York, N. Y. Filed Aug. 8, 1958.

Canna

For Ladies' and Children's Undergarments and Lingerie—Namely, Panties, Bloomers, Petticoats, Slips, Night Gowns, Brassieres, Corsets, and Girdles.
First use Aug. 18, 1947.

SN 57,143. Peter Freund Knitting Mills, Inc., North Bergen, N. J. Filed Aug. 13, 1958.

DURALON

For Knitted Sweaters and Shawls.
First use July 2, 1958.

Class 40 — Fancy Goods, Furnishings, and Notions

SN 41,978. Ben-Hur Products, Inc., New York, N. Y. Filed Dec. 9, 1957.

BEN—HUR



For Barrettes, Hair Pins, Hair Combs, Water-Waving Combs, Water Wavers, Hair Bands and Hair Rollers, and Hair Ornaments in the Nature of Round Holders Made of Non-Precious Material for Women's Pony Tail Hair Arrangement.
First use in January 1926.

SN 42,948. Tilton Industries, Inc., Montpelier, Vt. Filed Dec. 23, 1957.

BunnyPins

The word "Pins" is disclaimed apart from the mark as shown.
For Safety Pins.
First use Nov. 22, 1957.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 24,834. Cover Manufacturing Corp., Sumter, S. C. Filed Feb. 21, 1957.

Dolly Madison

For Rugs, Table Cloths, and Towels.
First use on or about Aug. 15, 1937.

SN 35,946. Mitsubishi Rayon Co., Ltd., Chuo-ku, Tokyo, Japan. Filed Aug. 21, 1957.

Fineset

Owner of Japanese Reg. No. 473,902, dated Dec. 6, 1955.
For Shrink-Proof and Crease-Resistant Fabrics Made of Synthetic or Artificial Textile Fibers.

SN 44,324. Rutger Fabrics Corp., New York, N. Y. Filed Jan. 20, 1958.

JET KORD

For Textile Fabric of Mixed Synthetic and Natural Fibers Used for Making Dresses, Blouses, Skirts and the Like.
First use on or about Feb. 1, 1957.

SN 47,698. Union des Fabricants Longfibre (Ufal) Syndicat Professionnel, Paris, France. Filed Mar. 13, 1958.



Owner of French Reg. No. 448,456, dated Jan. 12, 1955 (Seine); Natl. Inst. No. 50,181.
For Cotton Fabrics and Household Linens, Including Tablecloths, Napkins, Bed Sheets, and Pillow Cases.

SN 53,924. Charles Bloom, Inc., New York, N. Y. Filed June 20, 1958.

HYDI-HO

For Fabrics for Making Bedspreads and Draperies.
First use Mar. 25, 1958.

SN 55,555. J. P. Stevens & Co., Inc., New York, N. Y. Filed June 18, 1958.

TISSUETRIQUE

Owner of Reg. Nos. 647,168 and 639,764.
For Nylon Tricot in the Piece.
First use May 21, 1958.

SN 37,481. Indian Head Mills, Inc., Boston, Mass. Filed Aug. 19, 1958.

INDIAN HEAD

Owner of Reg. Nos. 271,176, 594,165, and others.
For Sheets and Pillowcases.
First use Apr. 2, 1934.

SN 57,648. William Skinner & Sons, New York, N. Y. Filed Aug. 21, 1958.

PEAU D'EGLISE

For Fabrics of Silk, Wool, Cotton, Man-Made Fibers and Combinations Thereof.
First use July 29, 1958.

SN 57,782. G. Garnett & Sons Limited, Bradford, Yorkshire, England. Filed Aug. 25, 1958.

GARNELENE

Owner of British Reg. No. 727,315, dated Feb. 23, 1954.
For Piece Goods Composed of a Mixture of Wool and Polyester Fibres.

SN 58,082. Duplex Curtain Co., New York, N. Y. Filed Aug. 29, 1958.



For Window Curtains.
First use July 22, 1958.

Class 44—Dental, Medical, and Surgical Appliances

SN 30,159. Fenwal Laboratories, Inc., Ashland, Mass. Filed Apr. 22, 1958.

FENWAL

Owner of Reg. No. 337,568.
For Apparatus for Collecting, Storing, Processing, Testing and/or Administering Blood and/or Other Liquids; Syringe Tip Covers, Closures, and Sealers; Caps and Other Devices for Closing and Holding Containers and Tubes of Blood, Parenteral Solutions and Similar Liquids; and Such Containers and Tubes.
First use July 3, 1936.

SN 31,182. Frepak Products, Providence, R. I. Filed May 7, 1958.

AERO-DOC

For Kits Containing First Aid Materials, Food Rations, and Survival Equipment.
First use Apr. 21, 1958.

SN 54,851. Robert F. Gardiner, d. b. a. Gardiner Electronics, Phoenix, Ariz. Filed July 7, 1958.

SLEEPATRON

For Sound Generating Device To Promote Sleep.
First use June 1, 1958.

SN 54,997. Globe Industries, Inc., Dayton, Ohio. Filed July 9, 1958.

VOLUNTEER

For Portable Breathing Equipment.
First use on or about Oct. 2, 1957.

SN 54,998. Globe Industries, Inc., Dayton, Ohio. Filed July 9, 1958.

GLOBOX

For Face Mask for Breathing Equipment.
First use on or about Jan. 10, 1956.

SN 54,999. Globe Industries, Inc., Dayton, Ohio. Filed July 9, 1958.

GUARDSMAN

For Portable Breathing Equipment.
First use on or about Jan. 3, 1958.

SN 55,000. Globe Industries, Inc., Dayton, Ohio. Filed July 9, 1958.

SHORT SNORTER

For Portable Breathing Equipment.
First use on or about June 24, 1957.

SN 55,001. Globe Industries, Inc., Dayton, Ohio. Filed July 9, 1958.

GLOBAIR

For Face Mask for Breathing Equipment.
First use on or about Jan. 10, 1956.

SN 56,297. Cavilite Company, Inc., New York, N. Y. Filed July 30, 1958.

CAVILITE

For Floor Lamp on a Flexible Shaft Containing a Low Voltage Miniature Lamp and Parabolic Reflecting Mirror for Use in Making Pelvic Medical Examinations.
First use Aug. 15, 1957.

Class 45—Soft Drinks and Carbonated Waters

SN 38,389. Carlsberg Bryggerierne, Indehaver Carlsbergfondet, Copenhagen, Denmark. Filed Oct. 9, 1957.

Carlsberg

Owner of Danish Reg. No. 1127-1936, dated Oct. 31, 1936.
For Carbonated Soda Water, Quinine Water, Lemonade and Grape Tonic.

SN 48,874. Schweppes (Overseas) Limited, London, England. Filed Apr. 1, 1958.



Owner of British Reg. No. 766,749, dated June 21, 1957; and U. S. Reg. Nos. 144,921, 655,910, and others.
For Soft Drinks and Syrups and Concentrates for Making Such Drinks.

SN 49,686. Dairymen's League Co-Operative Association, Inc., New York, N. Y. Filed Apr. 15, 1958.

DAIRYLEA

Owner of Reg. Nos. 173,135, 669,674, and others.
For Orangeade.
First use May 3, 1953.

Class 46—Foods and Ingredients of Foods

SN 50,819. McGarvey-Atwood Coffee Co., d. b. a. Atwood Coffee Co., Minneapolis, Minn. Filed May 1, 1958.

SERVA-CUP

For Coffee.
First use 1944.

SN 50,836. Safeway Stores, Incorporated, Oakland, Calif. Filed May 1, 1958.

SAFEWAY

Owner of Reg. Nos. 224,893, 643,231, and others.
For Instant Coffee.
First use Dec. 18, 1957.

SN 51,030. Rosebud Farm, Chicago, Ill. Filed May 5, 1958.

ROSEBUD FARM

For Fresh Dressed Chicken and Chicken Parts and Fresh Dressed Turkey and Turkey Parts, and Fresh Eggs.
First use on or about July 1934.

SN 51,113. Enoch S. Christoffersen, d. b. a. Christoffersen Poultry, Egg & Feed Market, Turlock, Calif. Filed May 6, 1958.

VALCHRIS

Owner of Reg. Nos. 520,781 and 611,863.
For Frozen Turkey Pies.
First use Nov. 8, 1956.

SN 51,525. Fred Usinger, Inc., Milwaukee, Wis. Filed May 12, 1958.



Owner of Reg. Nos. 632,378 and 655,583.
For Liver Sausage.
First use Mar. 24, 1958; 1880 as to "Usinger's."

SN 52,076. The Sugardale Provision Company, Canton, Ohio. Filed May 21, 1958.

Ranchdale

For Sliced Bacon.
First use on or about Apr. 21, 1958.

SN 52,077. The Sugardale Provision Company, Canton, Ohio. Filed May 21, 1958.

Emberdale

For Sliced Bacon.
First use on or about Apr. 21, 1958.

SN 54,221. B. Fischer & Co., Inc., Bronx, N. Y. Filed June 25, 1958.

ASTOR

Owner of Reg. Nos. 154,345, 612,298, and others.
For Frozen Grape Juice.
First use June 20, 1957.

SN 55,605. Planters Nut & Chocolate Co., Wilkes-Barre, Pa. Filed July 18, 1958.

PLANTERETTES

Owner of Reg. Nos. 528,074, 123,641, and others.
For Candy Coated Peanuts.
First use June 1958.

SN 55,654. Dixie Preserves, Ltd., Bell Gardens, Calif. Filed July 21, 1958.

CALIFORNIA MORNING

For Jams and Jellies.
First use June 20, 1958.

SN 56,682. Mary Paladino, d. b. a. Nero Company, New Brunswick, N. J. Filed Aug. 5, 1958.

NERO'S

For Cooked Frozen Peppers, Uncooked and Cooked Frozen Potato Cakes, Cooked and Uncooked Frozen Shrimp Rice Hot Cakes, Cooked and Uncooked Frozen Tomato Rice Hot Cakes, Cooked and Uncooked Frozen Cheese Rice Hot Cakes, Cooked and Uncooked Frozen Egg Plant Patties, Frozen Tomato Cheese Sauce, Frozen Eggplant Parmegiana.
First use Jan. 28, 1958.

SN 57,230. Western Popcorn Company, Atlantic, Iowa. Filed Aug. 14, 1958.

WESTERN GIANT

For Popcorn in Its Natural State.
First use Apr. 1, 1946.

Class 47—Wines

SN 51,388. Vintage Wines, Inc., New York, N. Y. Filed May 9, 1958.

MELACH

The Hebrew word, which sounds like "Melach," means "king" in Hebrew.
For Wine Especially Consisting of Cherry Wine, Sugar, and Added Flavoring Materials.
First use Feb. 17, 1949.

SN 53,778. Deinhard & Co., Coblenz, Germany. Filed June 18, 1958.

LILAC SEAL

The drawing is lined for purple.
For Rhine Wines and Moselle Wines.
First use in 1930; in commerce Mar. 21, 1949.

Class 49—Distilled Alcoholic Liquors

SN 18,305. Distillerie Riunite di Liquori, Milan, Italy. Filed July 23, 1958.



No claim is made to the word "Liquore." The lining on the drawing is for shading purposes only. Owner of U. S. Reg. No. 325,782.

For Alcoholic Liqueur.

First use in 1945; in commerce in 1945.

SN 40,366. Old Samuels Distillery, Inc., d. b. a. Burks Spring Distillery, Bardstown, Ky. Filed Nov. 8, 1957.

MAKER'S MARK

Applicant disclaims the exclusive use of the word "Mark" apart from the mark as shown.

For Whisky.

First use Nov. 1, 1957.

SN 52,778. Taylor & Ferguson Limited, Glasgow, Great Britain. Filed June 2, 1958.



Owner of British Reg. No. 769,087, dated Sept. 10, 1957.

For Whisky.

SN 57,541. Geo. A. Dickel Co., New York, N. Y. Filed Aug. 20, 1958.

RONTANG

For Rum.

First use June 29, 1937.

Class 50—Merchandise Not Otherwise Classified

SN 13,939. Henry D. Swartz, d. b. a. Swartz Manufacturing Co., Dorchester, Mass. Filed Aug. 14, 1956.

STOR-A-BAG

For Kits Comprising Plastic Material and Mask for Directing Heat and Pressure Thereto for Making Plastic Bags.

First use May 1956.

SN 30,823. The Pantasote Company, Passaic, N. J. Filed May 27, 1957.

LIFE-TRED

For Embossed Vinyl Film for Floor Covering To Be Used for Protection of Carpets, Rugs, Runners.

First use Mar. 20, 1957.

SN 40,189. Rupert Manufacturing Company, Inc., Blue Springs, Mo. Filed Nov. 6, 1957.



For Danger Signal Reflectors.

First use Aug. 27, 1957.

SN 41,872. Adelramp Company, Chicago, Ill. Filed Dec. 6, 1957.

Adelramp

For Portable Vehicle Platforms.

First use Jan. 8, 1956.

SN 44,061. Balatum N. V., Huizen, Netherlands. Filed Jan. 16, 1958.

BALACUIR

For Imitation Leather; Wall Coverings, and Other Coverings Made of Imitation Leather.

First use in November 1949; in commerce Sept. 3, 1955.

SN 45,691. Lion Ribbon Company, Inc., New York, N. Y. Filed Feb. 11, 1958.

Quick Stems

The word "Stems" is disclaimed apart from the mark as shown.

For Stems Made of Impregnated Paper or Plastic Material, Used as a Tubing into Which a Natural Wired Flower Is Inserted To Simulate a Real Stem on Said Natural Flower.

First use Dec. 17, 1956.

SN 46,589. Whitehead & Kales Company, Detroit, Mich. Filed Feb. 25, 1958.

RAK LOK

Applicant disclaims the term "Rak" apart from the mark as shown.

For Portable Merchandise Rack Type Holder and Equipment for Anchoring Same During Shipment in Transport Vehicles.

First use Feb. 4, 1958.

SN 47,660. Max Katz Bag Company, Inc., Indianapolis, Ind. Filed Mar. 13, 1958.

MaKa

For Tarpaulins, Insulated Blankets, Burlap Blankets, and Reinforced Waterproof Paper for Insulation Purposes.

First use July 16, 1957.

SN 48,177. Jan Lynn Enterprises, Reading, Pa. Filed Mar. 21, 1958.

AQUARAMA

For Underwater Landscaping Kit Consisting of Artificial Rocks.
First use Oct. 18, 1957.

SN 48,222. Max Katz Bag Company, Inc., Indianapolis, Ind. Filed Mar. 18, 1958.

Bur Lone

For Sheets, Covers, Concrete Curing Blankets and Similar Goods Manufactured From Burlap Laminated With Polyethylene or Other Plastics.
First use Aug. 23, 1957.

SN 50,614. Flexi-Walk Manufacturing Company, Rome, Miss. Filed Apr. 29, 1958.

FLEXI-WALK

For Wooden Floor Mats.
First use Feb. 3, 1958.

SN 51,720. Majestic Creations, Inc., Woodside, N. Y. Filed May 15, 1958.

ACTI-VUE

For Signs Having Visible Movement of Elements Thereof.
First use Apr. 8, 1958.

SN 52,697. Davue Corporation, New York, N. Y. Filed June 2, 1958.

SEALTONE

For Laminated Synthetic Plastic and Textile Sheet Material for Use as a Leather Substitute.
First use on or about May 12, 1958.

Class 51 — Cosmetics and Toilet Preparations

SN 23,400. The Andrew Jergens Company, Cincinnati, Ohio. Filed Jan. 29, 1957.

DREAM STUFF

Owner of Reg. Nos. 116,030, 594,000, and others.
For Face Powder and Perfume.
First use Oct. 26, 1946, on perfume.

SN 43,126. World Agencies Pty. Limited, Sydney, Australia. Filed Dec. 27, 1957.

SMOOL

Owner of Australian Reg. No. 90,621, dated Mar. 24, 1947.
For Personal Body Deodorants.

SN 51,791. Hans Ströbeck Aktiebolag, Malmo, Sweden. Filed May 16, 1958.

YAXA

Owner of Swedish Reg. No. 35,487, dated Jan. 24, 1942.
For Anti-Perspirant and Deodorant Preparations, Personal Body Deodorants, Cologne, and Hair Removers.

SN 52,040. Fleetwood Co., Chicago, Ill. Filed May 21, 1958.

KASA CURL

"Curl" is disclaimed apart from the mark as shown.
For Crystals To Be Dissolved in Water To Make a Solution for Setting Curls and Waves in the Hair.
First use Feb. 7, 1953.

SN 52,536. Woodrow W. Whidden, d. b. a. Whidden's Royal Jelly, Titusville, Fla. Filed May 28, 1958.

HER MAJESTY'S

For Complexion Lotion for Conditioning the Skin.
First use September 1956.

SN 52,988. Tres Chic Cosmetics, Inc., New York, N. Y. Filed June 5, 1958.

VIKKI

For Nail Enamel, Liquid Nail Enamel Remover, Wooden Eyebrow Pencils and Automatic Eyebrow Pencils and Refills, Lip Stick, Cuticle Remover, Solid Brilliantine.
First use Jan. 6, 1945.

SN 53,292. SchenLabs Pharmaceuticals, Inc., New York, N. Y. Filed June 10, 1958.

FILMICONE

For Protective Cream Providing Protection of the Skin Against Industrial Polar Solvents, Pollen Irritants, and Common Household Irritants.
First use May 13, 1958.

SN 53,295. SchenLabs Pharmaceuticals, Inc., New York, N. Y. Filed June 10, 1958.

COTOSIL

For Protective Cream Providing Protection of the Skin Against Industrial Polar Solvents, Pollen Irritants, and Common Household Irritants.
First use May 13, 1958.

SN 56,383. Brown Laboratories, Incorporated, Greenville, N. C. Filed July 31, 1958.

TOPPS

For Preparation To Be Used as a Breath Deodorant for Liquor, Smoker's and Onion Breath.
First use on or about Nov. 10, 1936.

Class 52—Detergents and Soaps

SN 31,977. County Laboratories Limited, Stanmore, Middlesex, England. Filed June 14, 1957.

Water Lilies

For Shampoos for the Hair.
First use Sept. 12, 1956; in commerce Jan. 25, 1957.

SN 33,814. Hudson Fur Cleaning Company, Providence, R. I. Filed July 16, 1957.

HUDSON

For Chemical Compound in Powdered Form for Use as a Cleaner of Furs and All Man-Made Furs.
First use on or about Nov. 10, 1956.

SN 39,380. Capco Chemical Corporation, Providence, R. I. Filed Oct. 23, 1957.

SHUR·KLEEN

For Chemical Cleaner for Hard Surfaces, Particularly Composition and Terrazzo-Type Flooring.
First use on or about July 10, 1957.

SN 43,991. Vikin Corp., San Jose, Calif. Filed Jan. 14, 1958.

CRYST-L-FRESH

For Detergents.
First use Nov. 25, 1957.

SN 46,096. Beagle Products Co., West Sacramento, Calif. Filed Feb. 19, 1958.

GREASWEEP

For Powdered Rice Hull Ash Used as Sweeping Compound To Remove Grease From Floors by Absorption and Abrasion.
First use May 1951.

SN 49,167. H. Kohnstamm & Co., Inc., New York, N. Y. Filed Apr. 7, 1958.

INTERSUDS

Owner of Reg. Nos. 316,066 and 317,527.
For Laundry Soap.
First use in 1929.

SN 50,586. Yadro Chemical Company, Milwaukee, Wis. Filed Apr. 28, 1958.

CRAVAX

For China and Glassware Cleaning Composition and Washing Compounds.
First use Feb. 20, 1947.

SN 53,758. Amchem Products, Inc., Ambler, Pa. Filed June 18, 1958.

TRISILA

For Mild Alkaline Cleaning Powder in the Nature of a Powdered Alkaline Detergent Used as Soap Powder for General Cleaning Purposes.
First use Jan. 30, 1933.

SN 36,179. Antone D. Pannutti, d. b. a. Lav Mfg. Co., San Jose, Calif. Filed July 28, 1958.

LAV-TABS

For Detergents in Concentrated Tablet Form.
First use July 15, 1957.

SN 57,012. Helena Rubinstein, Inc., New York, N. Y. Filed Aug. 11, 1958.

COMMAND PERFORMANCE

Owner of Reg. Nos. 444,741 and 571,871.
For Foam Bath—Namely, a Water Softening Product for Use in Scenting and Forming Foam or Bubbles in the Bath.
First use in October 1947.

SN 57,030. Tama, Inc., Chicago, Ill. Filed Aug. 11, 1958.

TAMA

For Contact Lens Cleaner, and Contact Lens Solution.
First use June 24, 1958, on contact lens cleaner.

SN 57,125. The Borden Company, New York, N. Y. Filed Aug. 13, 1958.

PROD

For Household Detergent in Liquid Form.
First use on or before Feb. 28, 1954.

SN 57,162. Oakite Products, Inc., New York, N. Y. Filed Aug. 13, 1958.

AERO-DET

For Liquid Detergent for Industrial Use, Primarily for Cleaning the Exterior of Airplanes.
First use Apr. 24, 1958.

SERVICE MARKS

Class 100—Miscellaneous

SN 55,841. Cal-New Yorker, Inc., New York, N. Y. Filed July 23, 1958.

LAMP POST CORNER

For Restaurant and Bar Services.
First use Oct. 12, 1954.

Class 102—Insurance and Financial

SN 51,844. American Life Insurance Company, Birmingham, Ala. Filed May 19, 1958.

MINI-MAX

For Underwriting of Life Insurance.
First use Jan. 14, 1958.

Class 103 — Construction and Repair

8N 50,236. Marshall Air Brake Company, Scranton, Pa. Filed Apr. 23, 1958.

MARABCO

For Cleaning and Testing Air Brakes as Used on Railway Cars and Railway Equipment.
First use Feb. 21, 1958.

Class 106 — Material Treatment

8N 30,029. David Craven, d. b. a. Alloy Surfaces Company, Wilmington, Del. Filed Apr. 21, 1958.

ASC

For Chromizing Metal Parts of Others.
First use February 1956.

8N 50,596. Colebert L. Andrus, d. b. a. Androc Chemical Company, Minneapolis, Minn. Filed Apr. 29, 1958.



For Continuous Pole Checking and Treating Service To Prevent Decay Thereof.
First use Mar. 10, 1958.

CERTIFICATION MARKS

Class A — Goods

8N 32,840. Onyx Oil & Chemical Company, Jersey City, N. J Filed June 28, 1957.

ASTONIZED

The mark certifies that the goods have been treated according to the standards specified by applicant and with a finish exclusively under the control of applicant. Owner of Reg. No. 654,631.

For Textile Fabrics of Synthetic and Hydrophobic Fibers.
First use June 14, 1957.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

674,012. DUCHESS BLU. Milton C. Baillie, d. b. a. Duchessblu Chinchilla Ranch. SN 674,216. Pub. 12–2–58. Filed 10–4–54.

674,013. PLASTI-GOLD. Anchor Plastics Company, Inc. SN 34,277. Pub. 12–2–58. Filed 7–24–57.

674,014. TURF-CRAFT AND DESIGN. Turfcraft, Incorporated. SN 37,056. Pub. 12–2–58. Filed 9–11–57.

674,015. KEYSTONE. Cornell Seed Company. SN 39,860. Pub. 12–2–58. Filed 10–31–57.

674,016. CAB-O-LITE. Godfrey L. Cabot, Inc. SN 40,811. Pub. 12–2–58. Filed 11–18–57.

674,017. HERCULES. Hercules Powder Company. SN 47,764. Pub. 12–2–58. Filed 3–14–58.

674,018. DESIGN OF HERCULES. Hercules Powder Company. SN 47,765. Pub. 12–2–58. Filed 3–14–58.

674,019. CAMBI-HOOK-'N-EYE. Geilich Tanning Company. SN 49,361. Pub. 12–2–58. Filed 4–9–58.

674,020. NORTHRUP KING. Northrup, King & Co. SN 49,605. Pub. 12–2–58. Filed 4–14–58.

674,021. GAUCHO. Harte & Company, Inc. SN 50,700. Pub. 12–2–58. Filed 4–30–58.

Class 2 — Receptades

674,022. ECONOMY. The Greif Bros. Cooperage Corporation. SN 11,250. Pub. 12–2–58. Filed 6–29–56.

674,023. LIQUI-LINER. Continental Can Company, Inc. SN 43,075. Pub. 12–2–58. Filed 12–27–57.

674,024. MEDI-LOCK. R. S. Precision Products. SN 44,648. Pub. 12–2–58. Filed 1–24–58.

674,025. PANTA-PAK. The Pantasote Company. SN 46,347. Pub. 12–2–58. Filed 2–21–58.

674,026. GRAINWARE. Plastic Productions Company. SN 46,637. Pub. 12–2–58. Filed 2–26–58.

674,027. WEDGE PAC. Wedge Pac, Inc., assignee of Dewey V. Rikard. SN 46,994. Pub. 12–2–58. Filed 3–3–58.

674,028. TIDY TRAVELER. International Manufacturing Co. SN 47,585. Pub. 12–2–58. Filed S. R. 3–12–58. Am. P. R. 10–15–58.

674,029. COYNE AND DESIGN. Coyne Cylinder Company. SN 48,014. Pub. 12–2–58. Filed 3–19–58.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

674,030. MM MALAMA. Morris Moskowitz Corp. SN 49,290. Pub. 12–2–58. Filed 4–8–58.

674,031. CROSBY. A. Cohen & Sons Corp. SN 50,346. Pub. 12–2–58. Filed 4–25–58.

674,032. SPEEDY AND DESIGN. Mack Bennett Smith, d. b. a. Speedy Stirrup Pin Company. SN 50,842. Pub. 12–2–58. Filed 5–1–58.

674,033. SUGARCANE. Morris White Fashions, Inc. SN 51,092. Pub. 12–2–58. Filed 5–5–58.

674,034. ENTRE NOUS. Nash Inc. SN 51,137. Pub. 12–2–58. Filed 5–6–58.

674,035. VIP. Spincraft, Inc. SN 51,314. Pub. 12–2–58. Filed 5–12–58.

674,036. THE VERSATEER. Harry Stelzer. SN 51,316. Pub. 12–2–58. Filed 5–12–58.

674,037. KEY-SAC AND DESIGN. Quickey Sales Company. SN 51,941. Pub. 12–2–58. Filed 5–19–58.

674,038. TOP BRASS. Rexbilt Leather Goods, Inc. SN 52,430. Pub. 12–2–58. Filed 5–27–58.

Class 4 — Abrasives and Polishing Materials

674,039. POCKET PORTER. Charles H. Tatham, d. b. a. Pocket Porter Co. SN 48,064. Pub. 12–2–58. Filed 3–19–58.

674,040. EASY GLITTER. Easy Glitter Wax Company. SN 49,491. Pub. 12–2–58. Filed 4–11–58.

674,041. VANGUARD. Vanguard Abrasive Corporation. SN 51,956. Pub. 12–2–58. Filed 5–19–58.

Class 6 — Chemicals and Chemical Compositions

674,042. GREEN STUFF. Krieger Color & Chemical Co., Inc. SN 39,648. Pub. 12–2–58. Filed 10–28–57.

674,043. P7. American Finish & Chemical Company. SN 47,996. Pub. 12–2–58. Filed 3–19–58.

674,044. SYNOTEX. N. V. Chemische Industrie "Synres," d. b. a. Synres Works-Hook of Holland. SN 48,313. Pub. 12–2–58. Filed 3–24–58.

674,045. AGREM. Theodore Riedeburg, d. b. a. Theodore Riedeburg Associates. SN 48,435. Pub. 12–2–58. Filed 3–25–58.

674,046. PC AND DESIGN. Polychrome Corporation. SN 48,658. Pub. 12–2–58. Filed 3–28–58.

674,047. ALODAN. Farbwerke Hoechst Aktiengesellschaft, vormals Meister Lucius & Brüning. SN 48,976. Pub. 12–2–58. Filed 4–3–58.

Class 8 — Smokers' Articles, Not Including Tobacco Products

674,048. MUSICAL COMPANION. Thorens S. A. SN 30,618. Pub. 12–2–58. Filed 4–29–57.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

674,049. AEREX. Aerojet-General Corporation. SN 10,636. Pub. 12–2–58. Filed 6–21–56.

674,050. OMAX. Olin Mathieson Chemical Corporation. SN 51,216. Pub. 12–2–58. Filed 5–7–58.

674,051. SKEETMAX. Alcan Shells, Inc. SN 34,472. Pub. 12–2–58. Filed 6–30–58.

674,052. CROWN PRINCE. The Marlin Firearms Company. SN 57,960. Pub. 12–2–58. Filed 8–27–58.

674,053. RENDEX. Atlas Powder Company. SN 60,014. Pub. 12–2–58. Filed 10–3–58.

Class 10 — Fertilizers

674,054. BANDINI. Bandini Fertilizer Company. SN 38,332. Pub. 12-2-58. Filed 10-4-57.

674,055. DAV-GRO. W. R. Grace & Co. SN 57,796. Pub. 12-2-58. Filed 8-25-58.

674,056. SPURT. International Minerals & Chemical Corporation. SN 58,305. Pub. 12-2-58. Filed 9-3-58.

Class 12 — Construction Materials

674,057. MECCA. The Mosaic Tile Company. SN 22,454. Pub. 12-2-58. Filed 1-11-57.

674,058. ORIENTAL. The Mosaic Tile Company. SN 22,455. Pub. 12-2-58. Filed 1-11-57.

674,059. CHEROKEE. The Mosaic Tile Company. SN 22,456. Pub. 12-2-58. Filed 1-11-57.

674,060. LUMBERJACK AND DESIGN. Peshastin Lumber & Box, Inc. SN 39,266. Pub. 12-2-58. Filed 10-21-57.

674,061. NUSIDE. Nuside Metal Products, Inc. SN 42,715. Pub. 12-2-58. Filed 12-19-57.

674,062. SANPAN. Panel Structures, Inc. SN 48,200. Pub. 12-2-58. Filed 3-21-58.

674,063. ROPE CRETE. Osbern A. Clark. SN 48,241. Pub. 12-2-58. Filed 3-24-58.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

674,064. CLAYTON MARK. Clayton Mark & Company. SN 44,101. Pub. 12-2-58. Filed 1-16-58.

674,065. STANSCREW. Standard Screw Company. SN 45,284. Pub. 10-14-58. Filed 2-4-58.

674,066. STANSCREW AND DESIGN. Standard Screw Company. SN 45,285. Pub. 10-14-58. Filed 2-4-58.

674,067. C. R. H. Newmark, Inc. SN 45,652. Pub. 12-2-58. Filed 2-5-58.

674,068. FILL EZY. Edgar J. Weaver, d. b. a. Weaver Machine Company. SN 49,796. Pub. 12-2-58. Filed 4-16-58.

674,069. TRIM KING. Kurdon, Inc. SN 52,129. Pub. 12-2-58. Filed 5-22-58.

674,070. ROTO-SPRAY. H. D. Hudson Manufacturing Company. SN 52,494. Pub. 12-2-58. Filed 5-28-58.

Class 14 — Metals and Metal Castings and Forgings

674,071. NO-SET. American Smelting and Refining Company. SN 23,971. Pub. 12-2-58. Filed 2-7-57.

674,072. S-N-2. Vanadium-Alloys Steel Company. SN 25,370. Pub. 12-2-58. Filed 3-1-57.

Class 15 — Oils and Greases

674,073. HI-PICK. Maurice E. Lindsay, d. b. a. Spindle Specialty Co. SN 46,837. Pub. 12-2-58. Filed 2-28-58.

674,074. EXTRON. The Standard Oil Company. SN 48,440. Pub. 12-2-58. Filed 3-25-58.

674,075. SPRAY-N-STAY. Continental Oil Company. SN 48,904. Pub. 12-2-58. Filed 4-2-58.

674,076. QUICK. Clarence M. Wynn, d. b. a. Dri-Powr Co. SN 49,472. Pub. 12-2-58. Filed 4-10-58.

674,077. STOPOIL. Clarence M. Wynn, d. b. a. Dri-Powr Co. SN 49,650. Pub. 12-2-58. Filed 4-14-58.

Class 16 — Protective and Decorative Coatings

674,078. VULKEOL-GEL. Colorificio Italiano Max Meyer S. p. A. SN 53,222. Pub. 12-2-58. Filed 6-9-58.

674,079. WOODCRAFT. The Sherwin-Williams Company. SN 56,742. Pub. 12-2-58. Filed 8-6-58.

674,080. TRUSCON. Devoe & Raynolds Company, Inc. SN 57,247. Pub. 12-2-58. Filed 8-18-58.

674,081. SAFITE. Oil Specialties & Refining Co., Inc. SN 57,707. Pub. 12-2-58. Filed 8-22-58.

Class 18 — Medicines and Pharmaceutical Preparations

674,082. ASTHMA FRENONA. Hefa G. m. b. H., Chemisch-Pharmaceutische Fabrik. SN 23,466. Pub. 12-2-58. Filed 1-30-57.

674,083. MEDITOL. Lewis C. Garvison, d. b. a. L. C. Garvison Laboratory. SN 38,475. Pub. 10-7-58. Filed 10-7-57.

674,084. RELAXATRON. Carter Products, Inc. SN 38,799. Pub. 12-2-58. Filed 10-14-57.

674,085. KEET-LIFE. Hartz Mountain Products Corp. SN 40,455. Pub. 12-2-58. Filed 11-12-57.

674,086. RED COMB SUP-R-EGG BOOSTER. Hales & Hunter Co. SN 41,753. Pub. 11-18-58. Filed 12-4-57.

674,087. SOLVOSTEROL. Docteur Albert René Joseph Castaigne. SN 42,200. Pub. 12-2-58. Filed 12-11-57.

674,088. CORTA-CLEAR. Dr. L. D. Le Gear Medicine Company. SN 43,764. Pub. 12-2-58. Filed 1-10-58.

674,089. METHYPREGNON. Root Chemicals Incorporated. SN 45,829. Pub. 12-2-58. Filed 2-13-58.

674,090. TRIGATAN. Dr. Karl Thomae G. m. b. H. SN 46,074. Pub. 12-2-58. Filed 1-14-58.

674,091. TERSIGAT. Dr. Karl Thomae G. m. b. H. SN 46,077. Pub. 12-2-58. Filed 1-14-58.

674,092. APOCITAL. Dr. Karl Thomae G. m. b. H. SN 46,079. Pub. 12-2-58. Filed 1-14-58.

674,093. SOLUFERM. Commercial Solvents Corporation. SN 46,422. Pub. 12-2-58. Filed 2-24-58.

674,094. ROWAMYELIN. Rowa-Wagner K. G., Arzneimittelfabrik. SN 47,146. Pub. 12-2-58. Filed 3-5-58.

674,095. POREGIENE. Kaldun Products, Inc. SN 48,750. Pub. 12-2-58. Filed 3-31-58.

674,096. ALBUMOTOPE. Olin Mathieson Chemical Corporation. SN 53,043. Pub. 12-2-58. Filed 6-6-58.

674,097. SULFA-STATIN. The Iso-Sol Company, Inc. SN 53,265. Pub. 12-2-58. Filed 6-10-58.

674,098. PARACEFAN. C. H. Boehringer Sohn. SN 53,472. Pub. 12-2-58. Filed 6-13-58.

674,099. TABLONGETS. C. H. Boehringer Sohn. SN 53,473. Pub. 12-2-58. Filed 6-13-58.

674,100. HOG-GAIN. Dr. Salsbury's Laboratories. SN 53,653. Pub. 12-2-58. Filed 6-16-58.

Class 19 — Vehicles

674,101. HI AND DESIGN. Houdaille Industries, Inc. SN 33,243. Pub. 12-2-58. Filed 7-5-57.

674,102. ALCO. Auto Lamp Manufacturing Company. SN 49,545. Pub. 12-2-58. Filed 4-14-58.

674,103. AIR-O-MATIC. Air-O-Matic Power Steer Corporation. SN 51,681. Pub. 12-2-58. Filed 5-15-58.

Class 20 — Linoleum and Oiled Cloth

674,104. AMERICAN ARTISTS. Fibreboard Paper Products Corporation. SN 52,292. Pub. 12-2-58. Filed 5-26-58.

Class 21—Electrical Apparatus, Machines, and Supplies

674,105. HOGAN FAXIMILE ETC. AND DESIGN. Hogan Laboratories, Inc. SN 13,842. Pub. 12–2–58. Filed 8–13–56.

674,106. MOTORLARM AND DESIGN. Panellit, Inc. SN 33,280. Pub. 12–2–58. Filed 7–5–57.

674,107. SCANORAMIC AND DESIGN. Hoffman Electronics Corporation. SN 35,935. Pub. 12–2–58. Filed 8–21–57.

674,108. KOBALITE. Bowers Battery and Spark Plug Co. SN 45,526. Pub. 9–30–58. Filed 2–10–58.

674,109. SATEL-LITE AND DESIGN. The R. L. A. Corporation. SN 46,852. Pub. 12–2–58. Filed 2–28–58.

674,110. POLYSTRIP. International Resistance Company. SN 47,860. Pub. 12–2–58. Filed 3–17–58.

674,111. SANIQUIK. The Hobart Manufacturing Company SN 49,370. Pub. 12–2–58. Filed 4–9–58.

674,112. FORMBOND. Belden Manufacturing Company. SN 49,408. Pub. 12–2–58. Filed 4–10–58.

674,113. PORTA KD MARK AND DESIGN. Kelamp Developments, Inc. SN 50,806. Pub. 12–2–58. Filed 5–1–58.

Class 22—Games, Toys, and Sporting Goods

674,114. YACHT CLUB ETC. AND DESIGN. The Howard Zink Corporation, d. b. a. Howard Zink. SN 39,435. Pub. 12–2–58. Filed 10–28–57.

674,115. BUCKBOARD'N BUGGY. John L. A. Mayo, d. b. a. Mayo Brothers. SN 45,400. Pub. 12–2–58. Filed 2–6–58.

674,116. HI-BALL. Roy F. Dohn, d. b. a. Hi-Ball Co. SN 45,543. Pub. 12–2–58. Filed 2–10–58.

674,117. STARNOLD QUALITY AND DESIGN. Starnold Corporation. SN 46,501. Pub. 12–2–58. Filed 2–24–58.

674,118. EXCERMAT. R. G. Barry Corporation. SN 47,489. Pub. 12–2–58. Filed 3–11–58.

674,119. PENN. Penn Fishing Tackle Mfg. Co. SN 48,047. Pub. 12–2–58. Filed 3–19–58.

674,120. CALL-GARD. Seron Mfg. Co. SN 48,387. Pub. 12–2–58. Filed 3–27–58.

674,121. ZIP GRIP. Paul N. Vincent, d. b. a. Zip Grip Company. SN 49,223. Pub. 12–2–58. Filed 4–7–58.

674,122. IBONDOC. Burr & Nichols Machine Co., Inc. SN 49,738. Pub. 12–2–58. Filed 4–16–58.

674,123. KNICK. Knickerbocker Toy Co. Inc. SN 50,366. Pub. 12–2–58. Filed 4–25–58.

674,124. VOO DOO. William H. Reely, d. b. a. Voo Doo Lure Company. SN 50,925. Pub. 12–2–58. Filed 5–2–58.

674,125. POWERMASTER AND DESIGN. Gorman Golf Products, Inc. SN 51,904. Pub. 12–2–58. Filed 5–19–58.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

674,126. JO-MO. Johnson Motors, Inc. SN 36,079. Pub. 12–2–58. Filed 8–23–57.

674,127. UNIMIST. Clair J. Verway, d. b. a. C. J. Verway Company. SN 39,300. Pub. 12–2–58. Filed 10–21–57.

674,128. FUMIDISER. Albert Edward Zeumer. SN 42,567. Pub. 12–2–58. Filed 12–16–57.

674,129. KEYPER. The W. E. Bassett Company. SN 44,366. Pub. 12–2–58. Filed 1–21–58.

674,130. KUSTOM KEYPER. The W. E. Bassett Company. SN 44,367. Pub. 12–2–58. Filed 1–21–58.

674,131. KARELIUS HOISTER. Albert Karelius & Sons, Inc. SN 48,291. Pub. 12–2–58. Filed 3–24–58.

674,132. KURLEY KUT. Thomas J. Gore, d. b. a. Kurley Kut Hair Shaper Co. SN 49,578. Pub. 12–2–58. Filed 4–14–58.

674,133. THE BANTAM ETC. AND DESIGN. Schield Bantam Company. SN 51,822. Pub. 12–2–58. Filed 5–16–58.

674,134. ARIENS JET AND DESIGN. Ariens Company. SN 52,187. Pub. 12–2–58. Filed 5–23–58.

674,135. GOLFMASTER. Toro Manufacturing Corporation. SN 52,249. Pub. 12–2–58. Filed 5–23–58.

674,136. MAJOR. Major Slicing Machine Corp. SN 52,319. Pub. 12–2–58. Filed 5–26–58.

674,137. ATOM JET. Oxy-Dry Sprayer Corporation. SN 52,427. Pub. 12–2–58. Filed 5–27–58.

674,138. STROHM. Hudson Automatic Machine & Tool Co. SN 52,495. Pub. 12–2–58. Filed 5–28–58.

674,139. GOLDEDGE. Earle M. Jorgensen Co. SN 52,732. Pub. 12–2–58. Filed 6–2–58.

674,140. KEELATITE. Keelavite Rotary Pumps & Motors Limited. SN 52,735. Pub. 12–2–58. Filed 6–2–58.

674,141. DUTHANE. Dunlop Tire and Rubber Corporation. SN 52,944. Pub. 10–14–58. Filed 6–3–58.

674,142. POWERMATIC. Powermatic Machine Company. SN 52,977. Pub. 12–2–58. Filed 6–5–58.

674,143. ZENITH. Zenith Products Company. SN 52,994. Pub. 12–2–58. Filed 6–5–58.

674,144. SOVEREIGN. Outboard Marine Corporation. SN 56,996. Pub. 12–9–58. Filed 8–11–58.

674,145. CARDPEN. Ettore Bonalumi and Ada Bonalumi, d. b. a. Società Italiana Cardpen. SN 55,220. Pub. 12–2–58. Filed 7–14–58.

674,146. DEMING PUMPS THE WORLD'S BEST AND DESIGN. The Deming Company. SN 56,098. Pub. 11–11–58. Filed 7–28–58.

674,147. SCATTERGRAIN. John Kinsella, d. b. a. Scattergrain Company. SN 56,729. Pub. 12–2–58. Filed 8–6–58.

674,148. SUPER REBEL. Wright Power Saw and Tool Corporation. SN 57,044. Pub. 12–2–58. Filed 8–11–58.

674,149. SUPER REBEL AND DESIGN. Wright Power Saw and Tool Corporation. SN 57,045. Pub. 12–2–58. Filed 8–11–58.

674,150. UNIVATOR ETC. AND DESIGN. Univator, Inc. SN 57,046. Pub. 12–2–58. Filed 8–6–58.

674,151. BANNER. Dille & McGuire Manufacturing Company. SN 57,604. Pub. 12–2–58. Filed 8–21–58.

Class 24—Laundry Appliances and Machines

674,152. IMPERIAL 60. Ward Industries Corporation. SN 11,402. Pub. 12–2–58. Filed 7–2–56.

674,153. SUN GLOW. Quality Products Company. SN 44,840. Pub. 12–2–58. Filed 1–28–58.

674,154. VICTORIA. Transamerican Match Corporation. SN 47,460. Pub. 12–2–58. Filed 3–10–58.

674,155. TUMBLETTE. Cook Machinery Co., Inc. SN 49,488. Pub. 12–2–58. Filed 4–11–58.

Class 26—Measuring and Scientific Appliances

674,156. 0/1. Telemeter Magnetics, Inc. SN 27,734. Pub. 12–2–58. Filed 4–8–57.

674,157. UNIMARK AND DESIGN. Unimark Photo, Inc. SN 34,875. Pub. 12–2–58. Filed 8–2–57.

674,158. OPTEX. Nathaniel P. Halperin, d. b. a. Southern Precision Instrument Co. SN 36,657. Pub. 12–23–58. Filed 9–4–57.

674,159. POLAROTRACE. Southern Instruments Limited. SN 37,821. Pub. 12–2–58. Filed 9–25–57.

674,160. SWIFT AND DESIGN. Swift & Anderson, Inc. SN 38,952. Pub. 12–2–58. Filed 10–15–57.

674,161. M MANSON AND DESIGN. Manson Laboratories, Inc. SN 39,337. Pub. 12–2–58. Filed 10–22–57.

674,162. INTROMAT. Ruf-Buchhaltung Aktiengesellschaft. SN 48,166. Pub. 12–2–58. Filed 2–19–58.

674,163. SURE-SCALE. Charles Bruning Company, Inc. SN 47,230. Pub. 12–2–58. Filed 3–7–58.

674,164. VIS-ORGAN. Medigraphics, Inc. SN 48,103. Pub. 12–2–58. Filed 3–20–58.

674,165. VISIBODY. Medigraphics, Inc. SN 48,104. Pub. 12–2–58. Filed 3–20–58.

674,166. WOODLAB. Laboratory Furniture Company, Inc. SN 48,921. Pub. 12–2–58. Filed 4–2–58.

674,167. STEELAB. Laboratory Furniture Company, Inc. SN 48,924. Pub. 12–2–58. Filed 4–2–58.

674,168. EVI. Electro-Voice, Incorporated. SN 49,143. Pub. 12–2–58. Filed 4–7–58.

674,169. ROBINAIR. Robinair Manufacturing Corporation. SN 49,195. Pub. 12–2–58. Filed 4–7–58.

674,170. CLEARITE. Jay See Mfg. Co. SN 49,586. Pub. 12–2–58. Filed 4–14–58.

674,171. TALLY-PACK. Barkley & Dexter Laboratories, Inc. SN 50,207. Pub. 12–2–58. Filed 4–23–58.

674,172. RADEX. N. V. Lichtdrukpapierfabriek "De Atlas." SN 50,377. Pub. 12–2–58. Filed 4–25–58.

674,173. DIAL-CHEK. Allen Electric and Equipment Company. SN 50,434. Pub. 12–2–58. Filed 4–28–58.

674,174. RECTI/RITE. Texas Instruments Incorporated. SN 50,349. Pub. 12–2–58. Filed 4–28–58.

674,175. TRI-GRAPHIC. Weber Costello Company. SN 51,089. Pub. 12–2–58. Filed 5–5–58.

674,176. TACO AND DESIGN. Taco Heaters, Incorporated. SN 51,520. Pub. 12–2–58. Filed 5–12–58.

Class 27 — Horological Instruments

674,177. DATEJUST. Montres Rolex S. A. (Rolex Uhren Ag.) (Rolex Watch Co. Ltd.). SN 53,420. Pub. 12–2–58. Filed 6–12–58.

674,178. SUSPENSE. Jefferson Electric Company. SN 53,510. Pub. 12–2–58. Filed 6–13–58.

674,179. AVOVA. Marshall Watch Corporation. SN 54,539. Pub. 12–2–58. Filed 6–30–58.

674,180. S AND DESIGN. Sovereign Watch Company, Inc. SN 54,642. Pub. 12–2–58. Filed 7–1–58.

Class 28 — Jewelry and Precious-Metal Ware

674,181. COTILLION. Cotillion Inc. SN 36,059. Pub. 12–2–58. Filed 8–23–57.

674,182. EVERWED ALL-IN-ONE. Everwed Co. Inc. SN 46,536. Pub. 12–2–58. Filed 2–25–58.

674,183. BIBETTE. Joseph H. Meyer Bros. SN 53,685. Pub. 12–2–58. Filed 7–21–58.

Class 29 — Brooms, Brushes, and Dusters

674,184. SUDSY SAL. Anro Products Company, Inc. SN 47,998. Pub. 12–2–58. Filed 3–19–58.

674,185. SUDSY TWINS. Anro Products Company, Inc. SN 47,999. Pub. 12–2–58. Filed 3–19–58.

674,186. SILVER SHEEN. Cadie Chemical Products, Inc. SN 48,965. Pub. 12–2–58. Filed 4–3–58.

674,187. POLI-DUSTER. B. E. Turner, d. b. a. Arcadia Mfg. Co. SN 49,720. Pub. 12–2–58. Filed 4–15–58.

Class 31 — Filters and Refrigerators

674,188. FREEZ-A-TRAY. Mealpack Corporation. SN 43,107. Pub. 12–2–58. Filed 12–27–57.

Class 32 — Furniture and Upholstery

674,189. CREDA. Simplex Electric Company Limited. SN 43,782. Pub. 12–2–58. Filed 1–10–58.

674,190. "STAR BRITE." Main Machine Co., Inc. SN 44,401. Pub. 12–2–58. Filed 1–21–58.

674,191. GOLD CREST. Horton and Horton Custom Works, Inc. SN 48,677. Pub. 12–2–58. Filed 3–21–58.

674,192. ATCO BY ATLAS AND DESIGN. Atlas Corrugated Case Co., Inc. SN 49,407. Pub. 12–2–58. Filed 4–10–58.

674,193. POWERAMIC. The Steadley Company. SN 50,502. Pub. 12–2–58. Filed 5–1–58.

674,194. "UNDER-COVER." Pullman Couch Company. SN 56,734. Pub. 12–2–58. Filed 8–6–58

Class 34 — Heating, Lighting, and Ventilating Apparatus

674,195. RICHMOND. Rheem Manufacturing Company. SN 46,350. Pub. 12–2–58. Filed 2–21–58.

674,196. HYGROL. Niagara Blower Company. SN 48,864. Pub. 12–2–58. Filed 4–1–58.

674,197. COEN. Coen Company. SN 50,282. Pub. 12–2–58. Filed 4–24–58.

674,198. UNI-FLAME. United States Rubber Company. SN 52,781. Pub. 12–2–58. Filed 6–2–58.

674,199. LEVERMATIC. Dockson Corporation. SN 53,019. Pub. 12–2–58. Filed 6–6–58.

674,200. ELGEN. Elgen Manufacturing Corporation. SN 53,134. Pub. 12–2–58. Filed 6–9–58.

674,201. HARMONY HOUSE. Sears, Roebuck and Co. SN 53,434. Pub. 12–2–58. Filed 6–12–58.

Class 36 — Musical Instruments and Supplies

674,202. WORLD PACIFIC RECORDS AND DESIGN. Pacific Enterprises, Inc. SN 46,155. Pub. 12–2–58. Filed 2–19–58.

674,203. CASTLE ETC. AND DESIGN. Castle Record Co. Inc. of N. J. SN 50,269. Pub. 12–2–58. Filed 4–23–58.

Class 37 — Paper and Stationery

674,204. XX. Cory Corporation. SN 15,266. Pub. 5–20–58. Filed 9–7–56.

674,205. MONARCH. Vail Manufacturing Company. SN 38,405. Pub. 11–25–58. Filed 10–4–57.

674,206. E-Z WRAP. Gulf States Paper Corporation, assignee of E-Z Opener Bag Company. SN 42,771. Pub. 12–2–58. Filed 12–20–57.

674,207. WORDATHON. The Esterbrook Pen Company. SN 49,915. Pub. 12–2–58. Filed 4–18–58.

Class 38 — Prints and Publications

674,208. HALL OF FAME. Hallmark Cards, Incorporated. SN 38,456. Pub. 12–2–58. Filed 10–7–57.

674,209. TELECOLOR. Technicolor Corporation. SN 42,166. Pub. 12–2–58. Filed 12–10–57.

674,210. SEN BAK. General Office Service, Inc. SN 44,614. Pub. 12–2–58. Filed 1–24–58.

674,211. PAYNE'S PAYOMETER. John Howard Payne, Inc. SN 47,778. Pub. 12–2–58. Filed 3–14–58.

674,212. SELECTA-SPOT. Caled Products Company, Inc. SN 48,460. Pub. 10–28–58. Filed 3–26–58.

674,213. NEWCOMERS SERVICE AND DESIGN. Newcomers Service. SN 48,773. Pub. 12–2–58. Filed 8–31–58.

674,214. THE HYDRAULIC ENGINEER AND DESIGN. Electrol Incorporated. SN 50,997. Pub. 12–2–58. Filed 5–5–58.

674,215. TRI-GRAPHIC. Weber Costello Company. SN 51,090. Pub. 12–2–58. Filed 5–5–58.

674,216. FLORIDA TRUCK NEWS. Florida Trucking Association, Inc. SN 51,119. Pub. 12–2–58. Filed 5–6–58.

Class 39 — Clothing

674,217. SUGAR-N-SPICE. Edward A. Weil. SN 697,874. Pub. 12–2–58. Filed 11–7–55.

674,218. WHAMMIES. Bulluck Hosiery, Inc., d. b. a. Musketeer. SN 36,156. Pub. 12–2–58. Filed 8–26–57.

674,219. IZOD. David Crystal, Inc. SN 37,071. Pub. 10–28–58. Filed 9–12–57.

674,220. "GLO-KNIT." Edward S. Wagner Co., Inc. SN 37,116. Pub. 12–2–58. Filed 9–12–57.

674,221. TOP DRAWER. Charles H. Bacon Company. SN 37,210. Pub. 12–2–58. Filed 9–16–57.

674,222. MR. INFLUENTIAL. Armored Hosiery Corp. SN 37,473. Pub. 12–2–58. Filed 9–19–57.

674,223. WINGS FLIGHT-WEAVE AND DESIGN. Piedmont Shirt Company. SN 37,518. Pub. 12–2–58. Filed 9–19–57.

674,224. CANTERBURY. Canterbury Belts Ltd. SN 37,631. Pub. 12–2–58. Filed 9–23–57.

674,225. BARE HUG. Peter Pan Foundations, Inc. SN 41,776. Pub. 12–2–58. Filed 12–4–57.

674,226. CORSELLI CREATION. Harry Lubovsky Co. SN 45,261. Pub. 12–2–58. Filed 2–4–58.

674,227. MAZERIO CREATION. Harry Lubovsky Co. SN 45,262. Pub. 12–2–58. Filed 2–4–58.

674,228. COBRA. The Goodyear Tire & Rubber Company. SN 46,139. Pub. 12–2–58. Filed 2–19–58.

674,229. RONDO SLIPPENS. Robert Hosiery Mills, Inc. SN 48,437. Pub. 12–2–58. Filed 3–25–58.

674,230. LITTLE MISS. Little Miss Hi-Heels, Inc. SN 48,490. Pub. 12–2–58. Filed 3–26–58.

674,231. NORSE-NET. Duofold Inc. SN 49,053. Pub. 12–2–58. Filed 4–4–58.

674,232. BOB BRENT. Argo Knitting Mills, Inc. SN 49,111. Pub. 12–2–58. Filed 4–7–58.

674,233. VANDALIA. Smoler Bros., Inc. SN 50,254. Pub. 12–2–58. Filed 4–23–58.

674,234. ESSKEE. Esskee Products Company, Inc. SN 51,557. Pub. 12–2–58. Filed 5–13–58.

674,235. CLOUD PUFF. Shoe Corporation of America. SN 51,595. Pub. 12–2–58. Filed 5–13–58.

674,236. STUNNING STEMS. Wytheville Knitting Mills, Inc., assignee of U. B. Buchanan. SN 52,098. Pub. 12–2–58. Filed 5–22–58.

674,237. PETITE-AIRE. Linker & Herbert, Inc. SN 52,131. Pub. 12–2–58. Filed 5–22–58.

674,238. JUDY BOND. Judy Bond, Inc. SN 52,193. Pub. 12–2–58. Filed 5–23–58.

674,239. CHARMSPUN. Fitts Cotton Goods Company. SN 52,212. Pub. 12–2–58. Filed 5–23–58.

674,240. LUCKY BABE. Fitts Cotton Goods Company. SN 52,214. Pub. 12–2–58. Filed 5–23–58.

674,241. ARTSTEP. Arthur I. Stephens. SN 52,353. Pub. 12–2–58. Filed 5–26–58.

Class 40 — Fancy Goods, Furnishings, and Notions

674,242. LOVELY-LADY. Sta-Rite Ginnie Lou, Inc. SN 41,321. Pub. 10–28–58. Filed 11–25–57.

674,243. BEAUTY MAID. Scolding Locks Corporation. SN 52,519. Pub. 12–2–58. Filed 5–28–58.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

674,244. PANORA WEAVE. Palm Beach Company. SN 6,367. Pub. 11–20–56. Filed 4–13–56.

674,245. SATIN MARQUETTE. Checker Fabrics & Net Company. SN 27,182. Pub. 12–2–58. Filed 3–29–57.

674,246. DON TWIST. Hockmeyer Bros., Inc. SN 38,539. Pub. 12–2–58. Filed 10–8–57.

674,247. LOVIT. Harold Weinberg, Inc. SN 49,803. Pub. 12–2–58. Filed 4–14–58.

674,248. NEWATE. Cyril Johnson Woolen Company. SN 49,944. Pub. 12–2–58. Filed 4–18–58.

Class 43 — Thread and Yarn

674,249. STAR ULTRA DEE. The American Thread Company. SN 46,189. Pub. 12–2–58. Filed 2–20–58.

674,250. TEXTRALIZED. Joseph Bancroft & Sons Co. SN 48,392. Pub. 12–2–58. Filed 3–25–58.

Class 44 — Dental, Medical, and Surgical Appliances

674,251. METABOL'AID. Bernard H. Stauffer. SN 25,473. Pub. 12–2–58. Filed 3–4–57.

674,252. DU'ALIFE. Globe Industries, Inc. SN 45,558. Pub. 12–2–58. Filed 2–10–58.

Class 45 — Soft Drinks and Carbonated Waters

674,253. PANIC. Citrus Products Company. SN 50,686. Pub. 12–2–58. Filed 4–30–58.

Class 46 — Foods and Ingredients of Foods

674,254. V^{10} PROTEIN. Wisconsin Alumni Research Foundation. SN 225. Pub. 12–2–58. Filed 1–5–56.

674,255. ASCONIC. Armour and Company. SN 4,603. Pub. 12–2–58. Filed 3–15–56.

674,256. GRIST MILL AND DESIGN. George W. Johnson, d. b. a. The Grist Mill. SN 19,250. Pub. 12–2–58. Filed 11–14–56.

674,257. NESCAFE. The Nestlé Company, Inc. SN 35,596. Pub. 12–2–58. Filed 8–15–57.

674,258. CHANTE. Estee Candy Company, Inc. SN 37,707. Pub. 12–2–58. Filed 9–23–57.

674,259. COUNTRY FRESH. North American Mushroom Co. SN 38,078. Pub. 12–2–58. Filed 9–30–57.

674,260. OLDE ENGLISH TAVENERS ETC. AND DESIGN. Tavener Rutledge Limited. SN 40,156. Pub. 12–2–58. Filed 11–5–57.

674,261. IDA MAE. Ida Mae Salads, Inc. SN 40,947. Pub. 12–2–58. Filed 11–19–57.

674,262. BRAVO. Charles A. Sayous, Inc. SN 42,065. Pub. 12–2–58. Filed 12–9–57.

674,263. ON-COR AND DESIGN. On-Cor Food Products. SN 42,905. Pub. 12–2–58. Filed 12–23–57.

674,264. ON-COR. On-Cor Food Products. SN 42,906. Pub. 12–2–58. Filed 12–23–57.

674,265. TEMPLE'S AND DESIGN. Temple Frosted Foods Inc. SN 46,508. Pub. 12–2–58. Filed 2–24–58.

674,266. SNOWDRIFT AND DESIGN. Wesson Oil & Snowdrift Co., Inc. SN 47,615. Pub. 12–2–58. Filed 3–12–58.

674,267. SLIM-TRIM. Central Canning Co., Inc. SN 48,010. Pub. 12–2–58. Filed 3–19–58.

674,268. IMPEDEX. E. I. du Pont de Nemours and Company. SN 48,254. Pub. 12–2–58. Filed 3–24–58.

674,269. STAR FIRE AND DESIGN. Louis Furth, Inc. SN 48,980. Pub. 12–2–58. Filed 4–3–58.

674,270. LONGLIFE. Longlife Fish Food Products. SN 49,765. Pub. 12–2–58. Filed 4–16–58.

674,271. DAILY SUN. Florida Citrus Canners Cooperative. SN 49,916. Pub. 11–11–58. Filed 4–18–58.

674,272. FLAME ROOM. McGarvey-Atwood Coffee Co. SN 50,086. Pub. 12–2–58. Filed 4–21–58.

674,273. OUTER SPACE THE BIG "O" BUBBLE GUM. American Chewing Products Corp. SN 50,274. Pub. 12–2–58. Filed 4–24–58.

674,274. BODINE. A. W. Bodine, d. b. a. Bodine Produce Company. SN 50,342. Pub. 12–2–58. Filed 4–25–58.

674,275. GEMELLI. Stella D'Oro Biscuit Co. Inc. SN 51,149. Pub. 12–2–58. Filed 5–6–58.

674,276. LARIN AND DESIGN. Pres. S. A. SN 51,223. Pub. 12–2–58. Filed 5–7–58.

674,277. EVANS TOPPING AND DESIGN. E. B. Evans, Inc. SN 51,264. Pub. 12–2–58. Filed 5–8–58.

674,278. TREASURE CHEST. Gulf Stream Quick Frozen Foods, Inc. SN 51,348. Pub. 12–2–58. Filed 5–9–58.

674,279. ABBOTT. George E. Abbott & Co., Inc. SN 51,538. Pub. 12–2–58. Filed 5–13–58.

674,280. PEARL'S QUALITY. North Pacific Canners & Packers, Inc. SN 52,143. Pub. 12–2–58. Filed 5–22–58.

674,281. GIL-O-TEX. R. Paul Gilmore, d. b. a. Gilmore Produce Company. SN 52,709. Pub. 12–2–58. Filed 6–2–58.

674,282. ZEE-ZEE. T. Marzetti Company. SN 52,820. Pub. 12–2–58. Filed 6–3–58.

674,283. CHAR-ZYME. Wisconsin Malting Co. SN 52,926. Pub. 12–2–58. Filed 6–4–58.

674,284. ORANGE MOUNTAIN ETC. AND DESIGN. Henry Kroog, d. b. a. Orange Mountain Bee Farm. SN 53,340. Pub. 12–2–58. Filed 6–11–58.

674,285. BERRY HILL. Continental Specialties Co., Inc. SN 53,462. Pub. 12–2–58. Filed 6–13–58.

674,286. McCORMICK BANQUET AND DESIGN. McCormick & Company, Incorporated. SN 53,809. Pub. 12–2–58. Filed 6–18–58.

674,287. LUNCH BOX. Safeway Stores, Incorporated. SN 53,827. Pub. 12–2–58. Filed 6–18–58.

674,288. VAN CAMP'S. Van Camp Sea Food Company, Inc. SN 53,845. Pub. 12–2–58. Filed 6–18–58.

Class 47—Wines

674,289. MIZRACH. Julius L. Horowitz, d. b. a. J. L. Horowitz. SN 34,701. Pub. 12–2–58. Filed 7–31–57.

Class 48—Malt Beverages and Liquors

674,290. "600" BRAND. Thomas E. Ferguson. SN 43,150. Pub. 12–2–58. Filed 12–30–57.

674,291. LONE STAR. Lone Star Brewing Co. SN 50,368. Pub. 12–2–58. Filed 4–25–58.

Class 49—Distilled Alcoholic Liquors

674,292. INDIANA GENTLEMAN. Schenley Distillers, Inc., d. b. a. Number One Distilling Company. SN 47,973. Pub. 12–2–58. Filed 3–18–58.

674,293. KENNAWAY'S 1743. Kennaway & Co., Ltd. SN 49,856. Pub. 12–2–58. Filed 4–17–58.

674,294. THE GOLDEN RECTANGLE. Schenley Industries, Inc. SN 50,647. Pub. 12–2–58. Filed 4–29–58.

674,295. THE GOLDEN CIRCLE. Schenley Industries, Inc. SN 50,648. Pub. 12–2–58. Filed 4–29–58.

Class 50—Merchandise Not Otherwise Classified

674,296. BEDUCATION KIT AND DESIGN. Norman Dine. SN 29,620. Pub. 12–2–58. Filed 5–8–57.

674,297. FITE RITE. Cotton Goods Manufacturing Company. SN 45,019. Pub. 12–2–58. Filed 1–31–58.

674,298. COAST MAID. Coast Maid Paper Products Co. SN 46,901. Pub. 12–2–58. Filed 3–3–58.

674,299. POLLY-WEED-LESS. Milprint, Inc. SN 48,769. Pub. 12–2–58. Filed 3–31–58.

Class 51—Cosmetics and Toilet Preparations

674,300. LADY VELVET. E. F. Young, Jr. Mfg. Co. SN 29,329. Pub. 12–31–57. Filed 5–2–57.

674,301. MILAIR. Haering & Co., Odol-Fabrik, Kosmetische Produkte. SN 50,163. Pub. 12–2–58. Filed 4–22–58.

Class 52—Detergents and Soaps

674,302. DANITA. Les Parfums de Dana, Inc., d. b. a. Dana. SN 42,221. Pub. 12–2–58. Filed 12–11–57.

674,303. W WATKINS. The J. R. Watkins Company. SN 47,986. Pub. 12–2–58. Filed 3–18–58.

674,304. SRO. Roal Corporation, Inc. SN 49,975. Pub. 12–2–58. Filed 4–18–58.

674,305. TEXIZE. Texize Chemicals, Inc. SN 50,556. Pub. 12–2–58. Filed 4–28–58.

674,306. INDUSTRIAL D. Wyandotte Chemicals Corporation. SN 50,574. Pub. 12–2–58. Filed 4–28–58.

674,307. ACQUA. Acqua Lina Manufacturing Co., Inc. SN 50,594. Pub. 12–2–58. Filed 4–29–58.

674,308. BLUE CHIP. S. C. Johnson & Son, Inc. SN 51,023. Pub. 12–2–58. Filed 5–5–58.

674,309. ZWIK. Zwik Corporation. SN 51,097. Pub. 12–2–58. Filed 5–5–58.

674,310. DRY-MURIC. De Mert & Dougherty, Inc. SN 55,785. Pub. 12–2–58. Filed 7–22–58.

Service Marks

Class 100—Miscellaneous

674,311. UNITED AND DESIGN. United Geophysical Corporation. SN 697,059. Pub. 12–2–58. Filed 10–24–55.

674,312. FHS AND DESIGN. Jesse & Jesse. SN 23,924. Pub. 12–2–58. Filed 2–6–57.

674,313. DESIGN OF THREE RECTANGLES ETC. Virginius H. Goodman. SN 36,581. Pub. 12–2–58. Filed 9–3–57.

674,314. DESIGN OF GREEK LETTER (PSI). William A. Goodman, d. b. a. Associates Research and Development Company. SN 39,080. Pub. 12–2–58. Filed 12–6–57.

674,315. TECH OPS. Technical Operations, Inc. SN 47,158. Pub. 12–2–58. Filed 3–5–58.

Class 101 — Advertising and Business

674,316. OUTLINE MAP OF U. S. AND WOMAN SHOPPING. National Cash Discount Card Company Inc. SN 17,951. Pub. 12–2–58. Filed 10–22–56.

674,317. GOLD NUGGET. Vondrak Publications, d. b. a. Gold Nugget Gift Stamp Plan. SN 25,424. Pub. 12–2–58. Filed 3–4–57.

674,318. NATIONAL BANK OF PRIZES. Maritz, Inc., d. b. a. Maritz Sales Builders. SN 28,051. Pub. 12–2–58. Filed 4–12–57.

674,319. PENNY EDWARDS. Porcelain Enamel Institute, Inc. SN 36,040. Pub. 12–2–58. Filed 8–2–57.

674,320. PENNY EDWARDS AND DESIGN. Porcelain Enamel Institute, Inc. SN 36,041. Pub. 12–2–58. Filed 8–2–57.

674,321. ADS FOR ACTION. Ads for Action, Inc. SN 39,570. Pub. 12–2–58. Filed 10–28–57.

674,322. AUTOMATICALLY DEVEINED PEELED AND DESIGN. The Peelers Company. SN 40,602. Pub. 12–2–58. Filed 11–13–57.

674,323. QUALITY SERVICE H AND DESIGN. Hudson Blue & Photo Print Co., Inc. SN 43,388. Pub. 12–2–58. Filed 1–3–58.

674,324. PIN BUSTERS. Claster Enterprises, Inc. SN 45,931. Pub. 12–2–58. Filed 2–17–58.

674,325. QUIK PICK. E. C. Hall Company. SN 46,728. Pub. 12–2–58. Filed 2–27–58.

Class 102 — Insurance and Financial

674,326. TRANSURANCE AND DESIGN. Mercury International Transurance, Inc. SN 17,743. Pub. 12–2–58. Filed 10–18–56.

674,327. THE FAMILY DEFENDER AND DESIGN. Holland-America Insurance Company. SN 46,942. Pub. 10–14–58. Filed 3–3–58.

674,328. MULTI-PAK. United Fire & Casualty Company. SN 47,469. Pub. 12–2–58. Filed 3–10–58.

674,329. TALMAN. Talman Federal Savings and Loan Association of Chicago. SN 48,117. Pub. 12–2–58. Filed 3–20–58.

Class 103 — Construction and Repair

674,330. 3 IN 1 PERMANENT WELL ETC. AND DESIGN. "3 in 1" Permanent Well Completions, Inc. SN 24,294. Pub. 12–2–58. Filed 2–12–57.

674,331. VIBRO-FRAC. Petroleum Tool Research, Inc. SN 47,071. Pub. 12–2–58. Filed 3–4–58.

Class 105 — Transportation and Storage

674,332. RAILWAY EXPRESS AGENCY AND DESIGN. Railway Express Agency, Incorporated. SN 37,906. Pub. 12–2–58. Filed 9–26–57.

674,333. RAILWAY EXPRESS AGENCY ETC. AND DESIGN. Railway Express Agency, Incorporated. SN 37,907. Pub. 12–2–58. Filed 9–26–57.

674,334. RED DEVIL. V. J. Tovatt, d. b. a. V. J. Tovatt Co. SN 40,892. Pub. 12–2–58. Filed 11–18–57.

Class 106 — Material Treatment

674,335. KOLFOR. Etched Products Corporation. SN 37,421. Pub. 12–2–58. Filed 9–18–57.

674,336. ROLBOS. Etched Products Corporation. SN 37,422. Pub. 12–2–58. Filed 9–18–57.

Class 107 — Education and Entertainment

674,337. TROUBADORS OF SONG. Carl William Leach. SN 20,535. Pub. 12–2–58. Filed 12–6–56.

674,338. SYNTHETIC SIMULATION. Van Valkenburgh, Nooger & Neville, Inc. SN 25,372. Pub. 12–2–58. Filed 3–1–57.

674,339. VISAFAX. The Wm. S. Merrell Company. SN 31,573. Pub. 12–2–58. Filed 6–7–57.

Collective Membership Marks

Class 200

674,340. F. O. E. ETC. AND DESIGN. Grand Aerie Fraternal Order of Eagles. SN 51,346. Pub. 12–2–58. Filed 5–9–58.

674,341. F. O. E. ETC. AND DESIGN. Grand Aerie Fraternal Order of Eagles. SN 51,347. Pub. 12–2–58. Filed 5–9–58.

Certification Mark

Class A — Goods

674,342. MEDALLION HOME ETC. AND DESIGN. General Electric Company. SN 45,872. Pub. 12–2–58. Filed 2–14–58.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 12 — Construction Materials

674,343. Columbia Hardbord Co., Seattle, Wash. SN 27,670. Filed P. R. 4–8–57. Am. S. R. 11–24–58.

CEDAWOOD

For Composition Board Made by Consolidating Mats Formed From Small Pieces of Wood.
First use Mar. 20, 1957.

674,344. Bird & Son, Inc., East Walpole, Mass. SN 31,628. Filed P. R. 6–10–57. Am. S. R. 12–10–58.

LEVEL DECK

For Bitumen Compound in Solid and in Semi-Liquid Forms Used in the Construction of Laminated Built-Up Roofs.
First use May 10, 1957.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

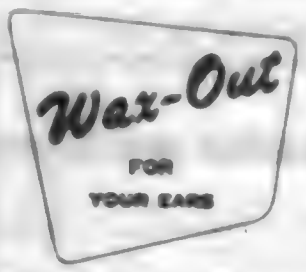
674,345. United States Casting Repair Corp., Philadelphia, Pa. SN 34,754. Filed P. R. 7-31-57. Am. S. R. 10-1-58.

SEAL-LOCK

For Metallic Locking Slugs, Lock Jigs, Metal Strips, Metal Spacers, and Punchers, for the Repair of Metal Castings.
First use May 1, 1957.

Class 18 — Medicines and Pharmaceutical Preparations

674,346. Milton W. Folds, d. b. a. The Wax-Out Company, East Chicago, Ind. SN 44,012. Filed P. R. 1-15-58. Am. S. R. 10-31-58.



For Medicinal Preparation for Removing Wax From Ears.
First use June 3, 1955.

Class 21 — Electrical Apparatus, Machines, and Supplies

674,347. Arcair Company, Lancaster, Ohio. SN 11,329. Filed P. R. 7-2-56. Am. S. R. 11-25-57.

COPPERCLAD

For Copper Coated Carbon Electrodes for Use in Electric Arc Cutting and Gouging.
First use June 6, 1956.

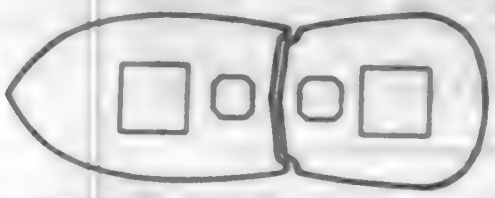
674,348. Republic Steel Corporation, Cleveland, Ohio. SN 35,121. Filed P. R. 8-7-57. Am. S. R. 12-29-58.

GUIDE-LINED

For Electrical Metallic Tubing, Pipe, and Conduit.
First use May 20, 1957.

Class 22 — Games, Toys, and Sporting Goods

674,349. Manning Manufacturing Corporation, Chicago, Ill. SN 32,326. Filed P. R. 6-20-57. Am. S. R. 12-17-58.



For Roller Skates.
First use May 3, 1957.

674,350. Saunders Archery Target Co., Columbus, Nebr. SN 38,771. Filed P. R. 10-11-57. Am. S. R. 12-15-58.

TOUGHENIZED

For Archery Target Faces.
First use Jan. 2, 1956.

Class 34 — Heating, Lighting, and Ventilating Apparatus

674,351. Ruud Manufacturing Company, Kalamazoo, Mich. SN 27,521. Filed P. R. 4-4-57. Am. S. R. 12-18-58.

SUPERSPEED

For Hot Water Storage Tanks.
First use Jan. 1, 1953.

Class 37 — Paper and Stationery

674,352. A. W. Faber-Castell Pencil Co., Inc., Newark, N. J. SN 33,956. Filed P. R. 7-18-57. Am. S. R. 11-12-58.

STENOSTIK

For Ball Point and Fountain Pens.
First use May 15, 1957.

Class 39 — Clothing

674,353. Character Foundations, Inc., New York, N. Y. SN 44,065. Filed P. R. 1-16-58. Am. S. R. 12-11-58.

DOUBLE-DIP

For Girdles.
First use Nov. 27, 1957.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

674,354. Louis Chirilan, Inc., New York, N. Y. SN 28,922. Filed P. R. 4-26-57. Am. S. R. 12-29-58.

AMERICAN PANNE

For Velvet Piece Goods.
First use Mar. 14, 1953.

Class 46 — Foods and Ingredients of Foods

674,355. Wiebold Stores, Inc., Evanston, Ill. SN 21,348. Filed P. R. 12-19-56. Am. S. R. 9-5-58.



For Candy.
First use Oct. 25, 1956.

674,356. Peanut Corporation of America, d. b. a. Peanut Products Company, Des Moines, Iowa. SN 39,664. Filed P. R. 10–28–57. Am. S. R. 9–2–58.

TWIN-PAK

For Shelled Peanuts.
First use Aug. 16, 1957.

674,357. 40-Fathom Fisheries, Inc., Rockland, Maine. SN 42,978. Filed P. R. 12–24–57. Am. S. R. 9–5–58.

SEAFRESH

For Frozen Fish.
First use 1926.

Class 50—Merchandise Not Otherwise Classified

674,358. Tier-Rack Corporation, St. Louis, Mo. SN 22,988. Filed P. R. 1–22–57. Am. S. R. 12–8–58.

TIER-RACK

For Pallet Stacking Frames and Pallet Guards.
First use August 1954.

Service Marks

Class 105—Transportation and Storage

674,359. Garber's Travel Service, Inc., d. b. a. Hammond Travel Service, Brookline, Mass. SN 38,089. Filed P. R. 9–30–57. Am. S. R. 11–24–58.



For Travel Services—Namely, Making Hotel, Airplane, Railroad, and Steamship Reservations, and Planning Tours and Vacations.
First use on or about Aug. 15, 1957.

Class 107—Education and Entertainment

674,360. The Pulitzer Publishing Company, St. Louis, Mo. SN 40,077. Filed 11–4–57.

BUSINESS TODAY

For Title of a Radio Program.
First use Apr. 25, 1955.

TRADEMARK REGISTRATIONS RENEWED

123,643. HERB-EX. Cl. 46. 11–19–18.
124,252. PUDLO. Cl. 6. 1–28–19.
124,361. ARCO AND DESIGN. Cl. 16. 2–11–19.
124,635. GLYCONDA. Cl. 18. 3–4–19.
124,637. LLOYD'S. Cl. 18. 3–4–19.
125,507. REIS. Cl. 39. 5–20–19.
125,512. RITZ. Cl. 4. 5–20–19.
125,525. SENORITA. Cl. 46. 5–20–19.
125,562. CHIEF PONTIAC FLOUR AND DESIGN. Cl. 46 5–27–19.
359,942. DOGGY-DYNER. Cl. 3. 9–6–38.
360,029. KALART. Cl. 26. 9–6–38.
362,626. WESTCHESTER BRAND AND REPRESENTATION OF TUREEN. Cl. 46. 11–22–38.
362,727. TANTALUX. Cl. 32. 11–29–38.
362,895. TOAST-O-LATOR. Cl. 21. 12–6–38.
362,975. GUEST. Cl. 29. 12–6–38.
363,117. CUBS. Cl. 46. 12–13–38.
363,280. BERTRAM AND DESIGN. Cl. 8. 12–20–38.
363,341. FRENCH-KETTLE. Cl. 46. 12–20–38.
363,375. COBRA. Cl. 1. 12–20–38.
363,539. NOR-EAST. Cl. 39. 1–3–39.
363,597. ADVENTURES IN GOOD EATING AND DESIGN. Cl. 38. 1–3–39.
364,103. DOWNY. Cl. 52. 1–17–39.
364,104. THILL. Cl. 52. 1–17–39.
364,425. WN: BARRY. Cl. 6. 1–31–39.
364,715. SCOUT-TEX. Cl. 39. 2–14–39.
364,965. SWEETOSE. Cl. 46. 2–21–39.
365,331. FIXODINE. Cl. 6. 3–7–39.
365,397. BOWLEZE. Cl. 39. 3–7–39.
365,402. COMET. Cl. 23. 3–7–39.
365,474. MORE GOLD. Cl. 46. 3–7–39.
366,206. BEL-JO. Cl. 6. 4–4–39.
366,261. TANACAR. Cl. 18. 4–4–39.
366,330. CAVALIER AND DESIGN. Cl. 21. 4–11–39.
366,516. BLUE SEAL. Cl. 46. 4–18–39.
366,563. HOTMARX. Cl. 37. 4–18–39.
366,578. CONCAVEX. Cl. 23. 4–18–39.
366,594. HYDROGUM. Cl. 1. 4–18–39.
366,709. TIME. Cl. 38. 4–25–39.
366,727. GENERAL ELECTRIC AND DESIGN. Cl. 1. 4–25–39.
367,021. FREE-SWING. Cl. 39. 5–9–39.
367,298. K. I. Cl. 50. 5–9–39.
367,419. PEN-O-LED. Cl. 15. 5–16–39.
367,432. MULTI POWER. Cl. 15. 5–16–39.
367,528. AIR SPUN. Cl. 1. 5–23–39.
367,731. TRIPLE TESTED AND DESIGN. Cl. 43. 5–30–39.
367,750. TRUSCOR CEREAL BINDER. Cl. 5. 5–30–39.
367,777. SCOTTY KOTE AND DESIGN. Cl. 39. 5–30–39.
367,788. BONDCOR. Cl. 5. 5–30–39.
367,837. HARVARD. Cl. 5. 5–30–39.

TRADEMARK REGISTRATIONS CANCELED

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257,949. DENTU. Cl. 29. 6–23–29.
331,393. WHITE RIBBON. Cl. 49. 1–7–36.
366,184. L'ETOILE DU NORD. Cl. 49. 4–4–39.
385,853. LINCOLN'S CABIN. Cl. 47. 3–18–41.
386,468. "SAG." Cl. 16. 4–15–41.
353,025. HI-D-WA. Cl. 19. 1–8–52.
353,074. HOOSIER KING WASHED AND DESIGN. Cl. 1. 1–8–52.
353,499. FLOWOLA PLASTIC FLOWERS AND DESIGN. Cl. 50. 1–15–52.
354,305. PRESSURE-PAC. Cl. 14. 1–29–52.
354,477. FLUCKER'S FORGETTING. Cl. 18. 2–5–52.
354,498. ROBBINS. Cl. 19. 2–5–52.

554,776. MAPLETON. Cl. 17. 2-12-52.
554,834. NEW WILLIAMS. Cl. 23. 2-12-52.
555,293. PUFFLESS. Cl. 46. 2-26-52.
559,996. FUNCRUISE. Cl. 105. 6-10-52.
561,756. MIRROR AND DESIGN. Cl. 12. 7-22-52.
562,276. SOLEOL. Cl. 6. 7-29-52.

The following registrations issued Dec. 30, 1958

568,431. JULIO ROMERO. Cl. 51.
568,434. VAN HEUSEN "SHIRT—MATES." Cl. 39.
568,439. HONEYMOON. Cl. 12.
568,440. RETREV-A-HOSE. Cl. 26.
568,443. KNIGHTHOOD CLASSICS AND DESIGN. Cl. 39.
568,444. BEE. Cl. 22.
568,445. STUNTER. Cl. 22.
568,446. TOWER AND DESIGN. Cl. 26.
568,447. AURAL. Cl. 23.
568,448. NANCY TIDY BIB. Cl. 39.
568,449. I B M AND DESIGN. Cl. 26.
568,451. REGALOOM. Cl. 42.
568,456. L ELLSON AND DESIGN. Cls. 22 and 32.
568,457. FIRE. Cl. 16.
568,459. GLAMOUR GIRL SERIES. Cl. 37.
568,460. EZO. Cl. 51.
568,464. MAISON DES FLEURS DESIGN. Cl. 51.
568,469. NOROCHROME. Cl. 39.
568,474. CORNHUSKER. Cl. 46.
568,481. CILAC. Cl. 51.
568,487. GALATEEN. Cl. 39.
568,488. 3030. Cl. 39.
568,489. GLARE-FLECTORS. Cl. 26.
568,491. ACRAVIDE. Cl. 26.
568,496. INSIGNIA. Cl. 39.
568,499. EXETER. Cl. 39.
568,501. VANCOLITE. Cl. 16.
568,502. COO-STOLE. Cl. 39.
568,506. BOFEC AND DESIGN. Cl. 23.
568,508. ELECTRO-MATIC ZIG-ZAG. Cl. 23.
568,519. KOZY. Cl. 13.
568,521. JAMAICA BREEZE FOR THAT LINEN LOOK. Cl. 42.
568,523. VINTAGE TINTS. Cl. 42.
568,524. AL SASSER'S AND DESIGN. Cl. 46.
568,526. EQUI-TEMP AND DESIGN. Cl. 26.
568,530. NOFEND. Cl. 51.
568,531. TOWN TOPIC KANT-KURL. Cl. 39.
568,533. BOOM AND DESIGN. Cl. 22.
568,539. SUE SHARD. Cl. 46.
568,542. SUE SHARD AND REPRESENTATION OF GIRL. Cl. 46.
568,558. MIRACLE "10" BY SANDERS. Cl. 39.
568,560. REMOV O TAPE AND DESIGN. Cl. 40.
568,561. "DIAPER DAN." Cl. 39.
568,562. "DIAPER DEB." Cl. 39.
568,563. SPACE PILOT AND DESIGN. Cl. 39.
568,567. THE PENNY BIB. Cl. 39.
568,568. QUEEN MODE RAIN WEAR AND DESIGN. Cl. 39.
568,569. SAV-A-WET. Cl. 39.
568,573. THE DRIBBLE-PROOF TIE CARAT. Cl. 39.
568,576. TOTEM. Cl. 23.
568,578. 200. Cl. 26.
568,579. KAR-KAPS. Cl. 18.
568,581. CLEVE-LAD. Cl. 39.
568,582. LINDA JANE. Cl. 39.
568,592. CHLORODEL-MINTS. Cl. 46.
568,595. JACK IN THE BOX. Cl. 51.
568,596. ALESIUM. Cl. 18.
568,597. DEEP FREEZE. Cl. 51.
568,604. LIPOLEY. Cl. 18.
568,610. PELICAN. Cl. 18.
568,611. QUACKY AND DESIGN. Cl. 15.
568,613. SIPREMEX. Cl. 18.
568,617. SHOWBOAT. Cl. 18.
568,619. MIRAFLECK. Cl. 42.
568,620. MIRANZA. Cl. 42.
568,621. MIRLASSE. Cl. 42.
568,623. RESISTARE. Cl. 42.
568,625. THE SPOONER. Cl. 107.
568,631. HANDS ACROSS THE SEA. Cl. 100.
568,642. OVENMIT. Cl. 42.
568,643. THE BOOKKEEPER AND DESIGN. Cl. 37.
568,644. RIDES WITH COMFORT. Cl. 39.
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568,648. "RESIST-O-TWIST." Cl. 39.
568,650. HOOK-'N-TWIST. Cl. 39.
568,653. GOOD LOOKING HOSIERY AND DESIGN. Cl. 39.
568,654. AIRPORT. Cl. 22.
568,656. HUXLEY GIANT AND DESIGN. Cl. 37.
568,657. MULTI DESIGN. Cl. 42.
568,659. CONVERT-O. Cl. 22.
568,660. TASTY-TREAT. Cl. 46.
568,662. IT'S THE CATS WHISKERS AND JUST AS SENSITIVE AND DESIGN. Cl. 21.
568,663. "PARIS COMES TO YOU." Cl. 39.
568,667. GREEN PHOS. Cl. 10.
568,668. DOMEPAK. Cl. 21.
568,669. CHROM-FLO. Cl. 14.
568,670. HEART OF BUCKWHEAT AND DESIGN. Cl. 46.
568,672. PL OLMO AND DESIGN. Cl. 13.
568,675. DEVON. Cl. 46.
568,676. SCHVIGER'S. Cl. 46.

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588,020. CAM-LOK. Cl. 21. 4-6-54.

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FEBRUARY 17, 1959

(Registered ; Renewed ; Canceled ; Amended, Disclaimed, Corrected, etc. ; New Certificates ; 12c Publications.)

A. C. "Al" Sasser Concessions : *See*—
Sasser, A. C.
Abbott, George E., & Co., Inc., Brooklyn, N. Y. 674,279, pub. 12–2–58. Cl. 46.
Abbott Laboratories, North Chicago, Ill. 368,596, canc. Cl. 18.
Abel Corp., The, Columbus, Ohio. 568,451, canc. Cl. 42.
Acqua Lina Mfg. Co., Inc., Brooklyn, N. Y. 674,207, pub. 12–2–58. Cl. 52.
Ads For Action, Inc., Hollywood, Calif. 674,321, pub. 12–2–58. Cl. 101.
Adventures In Good Eating, Inc., Chicago, Ill., to Hines-Park Foods, Inc., Ithaca, N. Y. 363,597, ren. 1–3–59. Cl. 38.
Aerojet-General Corp., Azusa, Calif. 674,049, pub. 12–2–58. Cl. 9.
Air-O-Matic Power Steer Corp., Cleveland, Ohio. 674,103, pub. 12–2–58. Cl. 19.
Alcan Shells, Inc., Alton, Ill. 674,051, pub. 12–2–58. Cl. 9.
Allen Electric and Equipment Co., Kalamazoo, Mich. 674,173, pub. 12–2–58. Cl. 26.
Amchem Products, Inc. : *See*—
American Chemical Paint Co.
American Chemical Paint Co., to Amchem Products, Inc., Ambler, Pa. 365,331, ren. 3–7–59. Cl. 6.
American Chewing Products Corp., Newark, N. J. 674,273, pub. 12–2–58. Cl. 46.
American Crayon Co., The, Sandusky, Ohio, to Joseph Dixon Crucible Co., Jersey City, N. J. 366,563, ren. 4–18–59. Cl. 37.
American Finish & Chemical Co., Chelsea, Mass. 674,043, pub. 12–2–58. Cl. 6.
American-Marietta Co. : *See*—
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American Smelting and Refining Co., New York, N. Y. 674,071, pub. 12–2–58. Cl. 14.
American Stores Co., Philadelphia, Pa. 568,474, canc. Cl. 46.
American Thread Co., The, New York, N. Y. 674,249, pub. 12–2–58. Cl. 43.
Anchor Plastics Co., Inc., Long Island City, N. Y. 674,013, pub. 12–2–58. Cl. 1.
Anro Products Co., Inc., Montgomery, Ill. 674,184–5, pub. 12–2–58. Cl. 29.
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Arcair Co., Lancaster, Ohio. 674,347. Cl. 21.
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Arden, Elizabeth, Sales Corp., New York, N. Y. 568,593, canc. Cl. 51.
Argo Knitting Mills, Inc., Schuylkill Haven, Pa. 674,232, pub. 12–2–58. Cl. 39.
Ariens Co., Brillion, Wis. 674,134, pub. 12–2–58. Cl. 23.
Armored Hosiery Corp., New York, N. Y. 674,222, pub. 12–2–58. Cl. 39.
Armour and Co., Chicago, Ill. 674,255, pub. 12–2–58. Cl. 46.
Associates Research and Development Co. : *See*—
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Atlas Corrugated Case Co., Inc., Maspeth, N. Y. 674,192, pub. 12–2–58. Cl. 32.
Atlas Powder Co., Wilmington, Del. 674,053, pub. 12–2–58. Cl. 9.
Audette Co. The : *See*—
Card, Don B.
Auto Lamp Mfg. Co., Chicago, Ill. 674,102, pub. 12–2–58. Cl. 19.
Ayerst, McKenna & Harrison Ltd., New York, N. Y. 568,613, canc. Cl. 18.
Bachmann Uxbridge Worsted Corp., New York, N. Y. 568,523, canc. Cl. 42.
Bacon, Charles H., Co., New York, N. Y. 674,221, pub. 12–2–58. Cl. 39.
Baillie, Milton C., d. b. a. Dutchessbilt Chinchilla Ranch, New Hyde Park, N. Y. 674,012, pub. 12–2–58. Cl. 1.
Bancroft, Joseph, & Sons Co., Wilmington, Del. 674,230, pub. 12–2–58. Cl. 42.
Bandini Fertilizer Co., Los Angeles, Calif. 674,054, pub. 12–2–58. Cl. 10.
Barkley & Dexter Laboratories, Inc., Fitchburg, Mass. 674,171, pub. 12–2–58. Cl. 26.
Barry, R. G., Corp., Columbus, Ohio. 674,118, pub. 12–2–58. Cl. 22.
Barry, W. N., Newberry, Fla. 364,425 ren. 1–31–59. Cl. 6.
Bassett, W. E., Co., The, Derby, Conn. 674,129–30, pub. 12–2–58. Cl. 23.
Belden Mfg Co., Chicago, Ill. 674,112 pub. 12–2–58. Cl. 21.
Bell & Howell Co., Chicago, Ill. 568,578, canc. Cl. 26.
Benz, George, Sons, Inc., St. Paul, Minn. 331,393, canc. Cl. 49.
Benz, George, Sons, Inc., St. Paul, Minn. 366,184, canc. Cl. 49.
Bird & Son, Inc., East Walpole, Mass. 674,344. Cl. 12.
Blue Seal Extract Co., to Blue Seal Extract Co., Inc., Cambridge, Mass. 366,516, ren. 4–18–59. Cl. 46.
Blue Seal Extract Co., Inc. : *See*—
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Bodine, A. W., d. b. a. Bodine Produce Co., Phoenix, Ariz. 674,274, pub. 12–2–58. Cl. 46.
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Bonalumi, Ettore, & Ada Bonalumi, d. b. a. Societa Italiana Cardpen, Bergamo, Italy. 674,145, pub. 12–2–58. Cl. 23.
Bowers Battery and Spark Plug Co., Laureldale, Pa. 674,108, pub. 9–30–58. Cl. 21.
British Oilfield Equipment Co. Ltd., Hunslet, Leeds, England. 568,506, canc. Cl. 23.
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Cabot, Godfrey L., Inc., Boston, Mass. 674,016, pub. 12–2–58. Cl. 1.
Cadic Chemical Products, Inc., New York, N. Y. 674,186, pub. 12–2–58. Cl. 29.
Caled Products Co., Inc., Brentwood, Md. 674,212, pub. 10–28–58. Cl. 38.
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Cardinal Parfums, Inc., Brooklyn, N. Y. 362,727, ren. 11–29–58. Cl. 32.
Carter Products, Inc., New York, N. Y. 674,084, pub. 12–2–58. Cl. 18.
Castaigne, Docteur Albert R. J., Toulouse, Haute-Garonne, France. 674,067, pub. 12–2–58. Cl. 18.
Castle Record Co. Inc. of N. J., Boonton, N. J. 674,203, pub. 12–2–58. Cl. 36.
Celotex Corp., The, Chicago, Ill. 568,439, canc. Cl. 12.
Central Canning Co., Inc., Cedarville, N. J. 674,267, pub. 12–2–58. Cl. 46.
Chain Belt Co. : *See*—
Shafer Bearing Corp.
Character Foundations, Inc., New York, N. Y. 674,353. Cl. 39.
Checker Fabrics & Net Co., New York, N. Y. 674,245, pub. 12–2–58. Cl. 42.
Chirilian, Louis, Inc., New York, N. Y. 674,354. Cl. 42.
Chisholm-Moore Hoist Corp., to Columbus McKinnon Chain Corp., Tonawanda, N. Y. 365,402, ren. 3–7–59. Cl. 23.
Clag Aktiengesellschaft, Schaffhausen, Switzerland. 568,481, canc. Cl. 51.
Citrus Products Co., Chicago, Ill. 674,253, pub. 12–2–58. Cl. 45.
Clark, Osbern A., Casa Grande, Ariz. 674,063, pub. 12–2–58. Cl. 12.
Claster Enterprises, Inc., Baltimore, Md. 674,324, pub. 12–2–58. Cl. 101.
Clayton, Joseph, & Sons (Chesterfield) Ltd. : *See*—
Kistler, Lech & Co., Inc.
Coast Maid Paper Products Co., Los Angeles, Calif. 674,298, pub. 12–2–58. Cl. 50.
Coca Co., San Francisco, Calif. 674,197, pub. 12–2–58. Cl. 34.
Cohen, A., & Sons Corp., New York, N. Y. 674,031, pub. 12–2–58. Cl. 2.
Colorificio Italiano Max Meyer S. p. A., Milan, Italy. 674,078, pub. 12–2–58. Cl. 16.
Columbia Hardboard Co., Seattle, Wash. 674,342. Cl. 12.
Columbus McKinnon Chain Corp. : *See*—
Chisholm-Moore Hoist Corp.
Commercial Milling Co., The, Detroit, Mich., to International Milling Co., Minneapolis, Minn. 125,562, ren. 5–27–59. Cl. 46.
Commercial Solvents Corp., New York, N. Y. 674,093, pub. 12–2–58. Cl. 18.
Continental Can Co., Inc., New York, N. Y. 674,022, pub. 12–2–58. Cl. 2.
Continental Oil Co., Ponca City, Okla. 674,075, pub. 12–2–58. Cl. 15.
Continental Silver Co. Inc., Brooklyn, N. Y. 568,647, canc. Cl. 13.
Continental Specialties Co., Inc., Cicero, Ill. 674,285, pub. 12–2–58. Cl. 46.
Cook Machinery Co., Inc., Dallas, Tex. 674,155, pub. 12–2–58. Cl. 24.
Cornell Seed Co., St. Louis, Mo. 674,015, pub. 12–2–58. Cl. 1.
Cory Corp., Chicago, Ill. 674,204, pub. 5–20–58. Cl. 37.
Cotillion Inc., New York, N. Y. 674,181, pub. 12–2–58. Cl. 28.

Cotton Goods Mfg. Co., Chicago, Ill. 674,297, pub. 12–2–58. Cl. 50.
Coyne Cylinder Co., San Francisco, Calif. 674,029, pub. 12–2–58. Cl. 2.
Craft Co., The, Jackson, Miss. 568,653, canc. Cl. 39.
Crystal, David, Inc., New York, N. Y. 674,219, pub. 10–28–58. Cl. 39.
Cuthbert Co., Inc., The, Minneapolis, Minn. 568,491, canc. Cl. 26.
Dana: *See*—
Les Parfums de Dana, Inc.
Del-Mint, Inc., Philadelphia, Pa. 568,592, canc. Cl. 46.
Del Valle Limitada: *See*—
Del Valle Ltda. Sociedad Anonima Comercial e Industrial.
Del Valle Ltda, Sociedad Anonima Comercial e Industrial, from Del Valle Limitada, Buenos Aires, Argentina. 568,431, canc. Cl. 51.
Demert & Dougherty, Inc., Chicago, Ill. 674,310, pub. 12–2–58. Cl. 52.
Deming Co., The, Salem, Ohio. 674,146, pub. 11–11–58. Cl. 23.
Devoe & Raynolds Co., Inc., Louisville, Ky. 674,080, pub. 12–2–58. Cl. 16.
Dille & McGuire Mfg. Co., Richmond, Ind. 674,151, pub. 12–2–58. Cl. 23.
Dimitri, Frank P., New Orleans, La. 568,610, canc. Cl. 18.
Dine, Norman, New York, N. Y. 674,296, pub. 12–2–58. Cl. 50.
Dixon, Joseph, Crucible Co.: *See*—
American Crayon Co., The.
Dixon, Joseph, Crucible Co., Jersey City, N. J. 367,328, ren. 5–23–59. Cl. 1.
Dockson Corp., Detroit, Mich. 674,199, pub. 12–2–58. Cl. 34.
Dohn, Roy F., d. b. a. Hi-Ball Co., Montreal, Quebec, Canada. 674,116, pub. 12–2–58. Cl. 22.
Donath, Henry, d. b. a. Preview Sportswear, Los Angeles, Calif. 568,502, canc. Cl. 39.
Donovan Enterprises, Saugatuck, Conn. 568,567, canc. Cl. 39.
D'Oro, Stella, Biscuit Co. Inc., New York, N. Y. 674,275, pub. 12–2–58. Cl. 46.
Dri-Powr Co.: *See*—
Wynn, Clarence M.
Duchessblu Chinchilla Ranch: *See*—
Baillie, Milton C.
Dunes Laboratory Products Co.: *See*—
Marion, Louis W.
Dunlop Tire and Rubber Corp., Buffalo, N. Y. 674,141, pub. 10–14–58. Cl. 23.
Duofold Inc., Mohawk, N. Y. 674,231, pub. 12–2–58. Cl. 39.
Du Pont, E. I. de Nemours and Co., Wilmington, Del. 674,268, pub. 12–2–58. Cl. 46.
E. C. Ltd., from Englishtown Crafts, Inc., New York, N. Y. 568,447, canc. Cl. 23.
E & E Merchandise Co., New York, N. Y. 568,443, canc. Cl. 39.
E-Z Opener Bag Co.: *See*—
Gulf States Paper Corp.
Eagle Clothes, Inc., New York, N. Y. 568,487, canc. Cl. 39.
Eagle Clothes, Inc., New York, N. Y. 568,488, canc. Cl. 39.
Eastern States Soilbuilders, Inc., Sharpsburg, Md. 568,667, canc. Cl. 10.
Easy Glitter Wax Co., West Palm Beach, Fla. 674,040, pub. 12–2–58. Cl. 4.
Electric Auto-Lite Co., The: *See*—
Prest-O-Lite Storage Battery Corp.
Electrol Inc., Kingston, N. Y. 674,214, pub. 12–2–58. Cl. 38.
Electro-Voice, Inc., Buchanan, Mich. 674,168, pub. 12–2–58. Cl. 26.
Elgen Mfg. Corp., Long Island City, N. Y. 674,200, pub. 12–2–58. Cl. 34.
Ellson, Ltd., New York, N. Y. 568,456, canc. (Consolidated certificate, Classes 23 and 32.)
Endo Laboratories Inc.: *See*—
Endo Products, Inc.
Endo Products, Inc., New York, to Endo Laboratories Inc., Richmond Hill, N. Y. 366,261, ren. 4–4–59. Cl. 18.
Englishtown Crafts, Inc.: *See*—
E. C. Ltd.
Eskeo Products Co., Inc., Corona, N. Y. 674,234, pub. 12–2–58. Cl. 39.
Esso Standard Oil Co.: *See*—
Standard Oil Co. of New Jersey.
Estee Candy Co., Inc., New York, N. Y. 674,258, pub. 12–2–58. Cl. 46.
Esterbrook Pen Co., The, Camden, N. J. 674,207, pub. 12–2–58. Cl. 37.
Etched Products Corp., Long Island City, N. Y. 674,335–6, pub. 12–2–58. Cl. 106.
Evans, E. B., Inc., Philadelphia, Pa. 674,277, pub. 12–2–58. Cl. 46.
Everwed Co. Inc., New York, N. Y. 674,182, pub. 12–2–58. Cl. 28.
Exo Products Co., Philadelphia, Pa. 568,460, canc. Cl. 51.
Faber-Castell, A. W., Pencil Co., Inc., Newark, N. J. 674,352. Cl. 37.
Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany. 674,047, pub. 12–2–58. Cl. 6.
Felters Co., The, Boston, Mass. 568,519, canc. Cl. 12.
Ferguson, Thomas E., Portland, Oreg. 674,290, pub. 12–2–58. Cl. 48.
Fibreboard Paper Products Corp., San Francisco, Calif. 674,104, pub. 12–2–58. Cl. 20.
Fidelity Machine Co., Inc., Philadelphia, Pa. 568,657, canc. Cl. 42.
Firelure Corp., The, San Francisco, Calif. 568,457, canc. Cl. 16.
Fitts Cotton Goods Co., Atlanta, Ga. 674,239–40, pub. 12–2–58. Cl. 39.
Fleming-Hall Tobacco Co., Inc., New York, N. Y. 554,776, canc. Cl. 17.
Florida Citrus Canners Cooperative, Lake Wales, Fla. 674,271, pub. 11–11–58. Cl. 46.
Florida Trucking Association, Inc., Jacksonville, Fla. 674,216, pub. 12–2–58. Cl. 38.
Flowola Plastic Flower Co., Marfa, Tex. 553,499, canc. Cl. 50.
Flucker, Bill, Good Water, Ala. 554,477, canc. Cl. 18.
Folda, Milton W., d. b. a. The Wax-Out, East Chicago, Ind. 674,346. Cl. 18.
Forschner, Carolyn B., d. b. a. R. H. Forschner Co., New York, N. Y. 568,526, canc. Cl. 26.
Forschner, R. H., Co.: *See*—
Forschner, Carolyn B.
40-Fathom Fisheries, Inc., Rockland, Maine. 674,357. Cl. 46.
Frandel, Robert J., d. b. a. Ovenmit Co., New York, N. Y. 568,642, canc. Cl. 42.
French Kitchen Foods Corp., to Lawry's Foods, Inc., Los Angeles, Calif. 363,341, ren. 12–20–58. Cl. 46.
Freydberg, G., H., & E., Inc., to Scout-Tex Inc., New York, N. Y. 364,715, ren. 2–14–59. Cl. 39.
Fuel Oil Co. of St. Louis, St. Louis, Mo. 568,611, canc. Cl. 15.
Furth, Louis, Inc., New York, N. Y. 674,269, pub. 12–2–58. Cl. 46.
Gainsley, S. Harry, d. b. a. Nofend Co., Minneapolis, Minn. 568,530, canc. Cl. 51.
Garber's Travel Service, Inc., d. b. a. Hammond Travel Service, Brookline, Mass. 674,359. Cl. 105.
Garvison, L. C., Laboratory: *See*—
Garvison, Lewis C.
Garvison, Lewis C., d. b. a. L. C. Garvison Laboratory, Oakland, Calif. 674,083, pub. 10–7–58. Cl. 18.
Geilich Tanning Co., Taunton, Mass. 674,019, pub. 12–2–58. Cl. 1.
General Electric Co., Schenectady, N. Y. 366,727, ren. 4–25–59. Cl. 1.
General Electric Co., Schenectady, N. Y. 674,342, pub. 12–2–58. Cl. A.
General Office Service, Inc., Washington, D. C. 674,210, pub. 12–2–58. Cl. 38.
Gilmore Produce Co.: *See*—
Gilmore, R. Paul.
Gilmore, R. Paul, d. b. a. Gilmore Produce Co., Brownsville, Tex. 674,281, pub. 12–2–58. Cl. 46.
Gladen, Carl F., Bay City, Mich. 568,654, canc. Cl. 22.
Glare-Flectors, Inc.: *See*—
Utilitron Inc.
Globe Industries, Inc., Dayton, Ohio. 674,252, pub. 12–2–58. Cl. 44.
Globe Soap Co.: *See*—
Procter & Gamble Co., The.
Goddard, Alvin C.: *See*—
Toast-O-Lator Co. Inc.
Gold Nugget Gift Stamp Plan: *See*—
Vondrak Publications.
Golden Age Co., The: *See*—
Smith, Sewall.
Goldman, Sydney B., Washington, D. C. 363,280, ren. 12–20–58. Cl. 8.
Goodman & Theise, Inc., New York, N. Y. 568,623, canc. Cl. 42.
Goodman, Virginius H., Richmond, Va. 674,313, pub. 12–2–58. Cl. 100.
Goodman, William A., d. b. a. Associates Research and Development Co., Los Angeles, Calif. 674,314, pub. 12–2–58. Cl. 100.
Goodyear Tire & Rubber Co., The, Akron, Ohio. 674,228, pub. 12–2–58. Cl. 39.
Gore, Thomas J., d. b. a. Kurley Kut Hair Shaper Co., South Bend, Ind. 674,132, pub. 12–2–58. Cl. 23.
Gorman Golf Products, Inc., Birmingham, Mich. 674,125, pub. 12–2–58. Cl. 22.
Grace, W. R., & Co., New York, N. Y. 674,055, pub. 12–2–58. Cl. 10.
Grand Aerie Fraternal Order of Eagles, Milwaukee, Wis. 674,340–1, pub. 12–2–58. Cl. 200.
Green Lane Hosiery Co., Inc., Green Lane, Pa. 568,648, canc. Cl. 39.
Greif Bros. Cooperage Corp., The, Delaware, Ohio. 674,022, pub. 12–2–58. Cl. 2.
Grist Mill, The: *See*—
Johnson, George W.
Gronemeyer Corp., Wilmington, Del. 561,756, canc. Cl. 12.
Gulf States Paper Corp., from E-Z Opener Bag Co., Tuscaloosa, Ala. 674,206, pub. 12–2–58. Cl. 37.
Gulf Stream Quick Frozen Foods, Inc., Miami, Fla. 674,278, pub. 12–2–58. Cl. 46.
Haering & Co., Odol-Fabrik, Kosmetische Produkte, Gall, Switzerland. 674,301, pub. 12–2–58. Cl. 51.
Hales & Hunter Co., Chicago, Ill. 674,086, pub. 11–18–58. Cl. 18.
Hall, E. C., Co., Brockton, Mass. 674,325, pub. 12–2–58. Cl. 101.
Hallmark Cards, Inc., Kansas City, Mo. 674,208, pub. 12–2–58. Cl. 38.
Halperin, Nathaniel P., d. b. a. Southern Precision Instrument Co., San Antonio, Tex. 674,158, pub. 7–22–58. Cl. 26.
Hammond Travel Service: *See*—
Garber's Travel Service, Inc.
Hanson-Van Winkle-Munning Co., Matawan, N. J. 568,669, canc. Cl. 14.
Hardwick Woolen Mills, Inc., Cleveland, Tenn. 568,581, canc. Cl. 39.
Harte & Co., Inc., New York, N. Y. 674,021, pub. 12–2–58. Cl. 1.

Hartz Mountain Products Corp., New York, N. Y. 674,085, pub. 12–2–58. Cl. 18.
Hat Corp. of America, Norwalk, Conn. 568,499, canc. Cl. 39.
Hefa G. m. b. H. Chemisch-Pharmaceutische Fabrik German Co., Werne an der Lippe, Germany. 674,082, pub. 12–2–58. Cl. 18.
Hercules Powder Co., Wilmington, Del. 674,017–18, pub. 12–2–58. Cl. 1.
Hewitt Soap Co., Inc., The: *See*—
Procter & Gamble Co., The.
Hi-Ball Co.: *See*—
Dohm, Roy P.
Hines-Park Foods, Inc.: *See*—
Adventures In Good Eating, Inc.
Hobart Mfg. Co., The, Troy, Ohio. 674,111, pub. 12–2–58. Cl. 21.
Hockmeyer Bros., Inc., New York, N. Y. 674,246, pub. 12–2–58. Cl. 42.
Hoffman Electronics Corp., Los Angeles, Calif. 674,107, pub. 12–2–58. Cl. 21.
Hogan Laboratories, Inc., New York, N. Y. 674,105, pub. 12–2–58. Cl. 21.
Holland-America Insurance Co., Kansas City, Mo. 674,327, pub. 10–14–58. Cl. 102.
Holland-Racine Shoes, Inc.: *See*
Racine Shoe Mfg. Co.
Horowitz, J. L.: *See*—
Horowitz, Julius L.
Horowitz, Julius L., d. b. a. J. L. Horowitz, Brooklyn, N. Y. 674,289, pub. 12–2–58. Cl. 47.
Horton and Horton Custim Works, Inc., Fort Worth, Tex. 674,191, pub. 12–2–58. Cl. 32.
Houdaille Industries, Inc., Buffalo, N. Y. 674,101, pub. 12–2–58. Cl. 19.
Howard Zink Corp., The, d. b. a. Howard Zink, Fremont, Ohio. 674,114, pub. 12–2–58. Cl. 22.
Hudson Automatic Machine & Tool Co., Union City, N. J. 674,138, pub. 12–2–58. Cl. 23.
Hudson Blue & Photo Print Co., Inc., New York, N. Y. 674,323, pub. 12–2–58. Cl. 101.
Hudson, H. D., Mfg. Co., Chicago, Ill. 674,070, pub. 12–2–58. Cl. 13.
Huxley Envelope & Paper Corp., New York, N. Y. 568,656, canc. Cl. 37.
Ida Mae Salads, Inc., Brentwood, Md. 674,261, pub. 12–2–58. Cl. 46
International Business Machines Corp., New York, N. Y. 568,449, canc. Cl. 26.
International Mfg. Co., Roxbury, Mass. 674,028, pub. 12–2–58. Cl. 2
International Milling Co.: *See*—
Commercial Milling Co., The.
International Minerals & Chemical Corp., Skokie, Ill. 674,056, pub. 12–2–58. Cl. 10.
International Resistance Co., Philadelphia, Pa. 674,110, pub. 12–2–58. Cl. 21.
Ino-Sol Co., Inc., The, Lindenhurst, N. Y. 674,097, pub. 12–2–58. Cl. 18.
J. F. G. Venetian Blind Corp., New Rochelle, N. Y. 568,560, canc. Cl. 40.
Jay Zee Mfg. Co., Oak Lawn, Ill. 674,170, pub. 12–2–58. Cl. 26.
Jefferson Electric Co., Bellwood, Ill. 674,178, pub. 12–2–58. Cl. 27.
Jesse & Jesse, Wichita, Kans. 674,312, pub. 12–2–58. Cl. 100.
Johnson, Cyril, Woolen Co., Stafford Springs, Conn. 674,248, pub. 12–2–58. Cl. 42.
Johnson, George W., d. b. a. The Grist Mill, Los Angeles, Calif. 674,256, pub. 12–2–58. Cl. 46.
Johnson Motors, Inc., Pasadena, Calif. 674,126, pub. 12–2–58. Cl. 23.
Johnson, S. C., & Son, Inc., Racine, Wis. 674,308, pub. 12–2–58. Cl. 52
Jones, Eugenie J., Webster Groves, Mo. 568,459, canc. Cl. 37.
Jorgensen, Earle M., Co., Los Angeles, Calif. 674,139, pub. 12–2–58. Cl. 23.
Judy Bond, Inc., New York, N. Y. 674,238, pub. 12–2–58. Cl. 39.
Justrite Mfg. Co., to L. A. Lockwood, Chicago, Ill. 359,942, ren. 9–6–58. Cl. 3.
Kalart Co., The, New York, N. Y., to Kalart Co. Inc., The, Plainville, Conn. 360,029, ren. 9–6–58. Cl. 26.
Kalart Co. Inc., The: *See*—
Kalart Co., The.
Kaldun Products, Inc., Long Island City, N. Y. 674,085, pub. 12–2–58. Cl. 18.
Karellas, Albert, & Sons, Inc., Alhambra, Calif. 674,131, pub. 12–2–58. Cl. 23.
Keelavite Rotary Pumps & Motors Ltd., Coventry, England. 674,140, pub. 12–2–58. Cl. 23.
Kelamp Developments, Inc., Beverly Hills, Calif. 674,113, pub. 12–2–58. Cl. 21.
Kennaway & Co., Ltd., Exeter, England. 674,293, pub. 12–2–58. Cl. 49.
Kerner-Greenwood & Co. Ltd., Norfolk, England. 124,252, ren. 1–28–59. Cl. 6.
Kinsella, John, d. b. a. Scattergrain Co., Merna, Ill. 674,147, pub. 12–2–58. Cl. 23.
Kistler, Lesh & Co., Inc., Boston, Mass., to Joseph Clayton & Sons (Chesterfield) Ltd., Chesterfield, England. 363,375, ren. 12–20–58. Cl. 1.
Kleinert, I. B., Rubber Co., New York, N. Y. 568,561, canc. Cl. 39.
Kleinert, I. B., Rubber Co., New York, N. Y. 568,562, canc. Cl. 39.
Kleinert, I. B., Rubber Co., New York, N. Y. 568,569, canc. Cl. 39.
Knickerbocker Toy Co. Inc., Brooklyn, N. Y. 674,123, pub. 12–2–58. Cl. 22.
Krause, Chas. A., Milling Co., Milwaukee, Wis. 367,750, ren. 5–30–59. Cl. 5.
Krieger Color & Chemical Co., Inc., Los Angeles, Calif. 674,042, pub. 12–2–58. Cl. 6.
Kroog, Henry, d. b. a. Orange Mountain Bee Farm, North Bergen, N. J. 674,284, pub. 12–2–58. Cl. 46.
Kurdon, Inc., Chicago, Ill. 674,069, pub. 12–2–58. Cl. 13.
Kurley Kut Hair Shaper Co.: *See*—
Gore, Thomas J.
Laboratory Furniture Co., Inc., Mineola, N. Y. 674,166–7, pub. 12–2–58. Cl. 26.
Lafayette Coal Co., Chicago, Ill. 353,074, canc. Cl. 1.
La Pensée, Henry A., Paris, France. 568,663, canc. Cl. 39.
Lawry's Foods, Inc.: *See*—
French Kitchen Foods Corp.
Layeob Hat Co., St. Louis, Mo. 568,582, canc. Cl. 39.
Le Gear, Dr. L. D., Medicine Co., St. Louis, Mo. 674,088, pub. 12–2–58. Cl. 18.
Lentheric, Inc., New York, N. Y. 568,597, canc. Cl. 51.
Lesch, Carl W., Staten Island, N. Y. 674,337, pub. 12–2–58. Cl. 107.
Les Parfums de Dana, Inc., d. b. a. Dana, New York, N. Y. 674,302, pub. 12–2–58. Cl. 52.
Lincoln Wine Co., Baltimore, Md. 385,855, canc. Cl. 47.
Lindsay, Maurice E., d. b. a. Spindle Specialty Co., Bakersfield, Calif. 674,073, pub. 12–2–58. Cl. 15.
Linker & Herbert, Inc., New York, N. Y. 674,237, pub. 12–2–58. Cl. 39.
Lional Plastics Corp., New York, N. Y. 568,617, canc. Cl. 13.
Little Miss Hi-Heels, Inc., South Miami, Fla. 674,230, pub. 12–2–58. Cl. 39.
Lloyd Brothers, to Lloyd Brothers, Inc., Cincinnati, Ohio. 124,635, ren. 2–4–59. Cl. 18.
Lloyd Brothers, to Lloyd Brothers, Inc., Cincinnati, Ohio. 124,637, ren. 2–4–59. Cl. 18.
Lloyd Brothers, Inc.: *See*—
Lloyd Brothers.
Lockwood, Lawrence A.: *See*—
Justrite Mfg. Co.
Lone Star Brewing Co., San Antonio, Tex. 674,291, pub. 12–2–58. Cl. 48.
Longlife Fish Food Products, Union City, N. J. 674,270, pub. 12–2–58. Cl. 46.
Lubovsky, Harry, Co., Boston, Mass. 674,226–7, pub. 12–2–58. Cl. 39.
M. A. R. F., Inc., d. b. a. Carat Originals, Santa Ana, Calif. 568,573, canc. Cl. 39.
Main Machine Co., Inc., Stamford, Conn. 674,180, pub. 12–2–58. Cl. 32.
Maison des Fleurs, New York, N. Y. 568,464, canc. Cl. 51.
Major Slicing Machine Corp., Walden, N. Y. 674,136, pub. 12–2–58. Cl. 23.
Major Sportswear Co., Inc., New York, N. Y. 568,563, canc. Cl. 39.
Manning Mfg. Corp., Chicago, Ill. 674,349. Cl. 22.
Manson Laboratories, Inc., Stamford, Conn., 674,161, pub. 12–2–58. Cl. 26.
Marion, Louis W., d. b. a. Dunes Laboratory Products Co., Gary, Ind. 568,579, canc. Cl. 18.
Marita, Inc., St. Louis, Mo. 674,318, pub. 12–2–58. Cl. 101.
Mark, Clayton, & Co., Evanston, Ill. 674,064, pub. 12–2–58. Cl. 13.
Marlin Firearms Co., The, New Haven, Conn. 674,052, pub. 12–2–58. Cl. 9.
Marshall Watch Corp., New York, N. Y. 674,179, pub. 12–2–58. Cl. 27.
Marsetti, T., Co., Columbus, Ohio. 674,282, pub. 12–2–58. Cl. 46.
Mayne Mfg. Co., Lynwood, Calif. 568,659, canc. Cl. 22.
Mayo Brothers: *See*—
Mayo, John L. A.
Mayo, John L. A., d. b. a. Mayo Brothers, Fairport, N. Y. 674,115, pub. 12–2–58. Cl. 22.
McCormick & Co., Inc., Baltimore, Md. 674,286, pub. 12–2–58. Cl. 46.
McGarvey-Atwood Coffee Co., Minneapolis, Minn. 674,272, pub. 12–2–58. Cl. 46.
Mealpack Corp., Evanston, Ill. 674,188, pub. 12–2–58. Cl. 31.
Medigraphics, Inc., New York, N. Y. 674,164–5, pub. 12–2–58. Cl. 26.
Mercury International Transurance, Inc., Torrance, Calif. 674,326, pub. 12–2–58. Cl. 102.
Merrell, Wm. S., Co., The, Cincinnati, Ohio. 674,339, pub. 12–2–58. Cl. 107
Meulen, Katharina V., d. b. a. Vanco Paint & Varnish Co., Chicago, Ill. 568,501, canc. Cl. 16.
Meyer, Joseph H., Bros., Brooklyn, N. Y. 674,183, pub. 12–2–58. Cl. 28.
Milprint, Inc., Milwaukee, Wis. 674,299 pub. 12–2–58. Cl. 50.
Miron Mills, Inc., Clinton, Mass. 568,619, canc. Cl. 42.
Miron Mills, Inc., Clinton, Mass. 568,620, canc. Cl. 42.
Miron Mills, Inc., Clinton, Mass. 568,621, canc. Cl. 42.
Montres Rolex S. A. (Rolex Uhren AG.) (Rolex Watch Co. Ltd.), Geneva, Switzerland. 674,177, pub. 12–2–58. Cl. 27.
Morrow, Eva M., Elgin, Ill. 555,293, canc. Cl. 46.
Mosaic Tile Co., The, Zanesville, Ohio. 674,037–9, pub. 12–2–58. Cl. 12.
Moskowitz Morris, Corp., New York, N. Y. 674,030, pub. 12–2–58. Cl. 3.
Moulton Ladder Mfg. Co., Somerville, Mass. 367,298, ren. 5–9–59. Cl. 50.
Moulton Ladder Mfg. Co., Somerville, Mass. 367,837, ren. 5–30–59. Cl. 50
Murdock, David, Cincinnati, Ohio. 568,020, canc. Cl. 21.
Musketeer: *See*—
Bullock Hosiery, Inc.

N. V. Chemische Industrie "Synres," d. b. a. Synres Works-Hook of Holland, Hoek van Holland, Netherlands. 674,044, pub. 12–2–58. Cl. 6.
N. V. Lichtdrukpapierfabriek "De Atlas," Delft, Netherlands. 674,172, pub. 12–2–58. Cl. 26.
Nash Inc., Jersey City, N. J. 674,034, pub. 12–2–58. Cl. 3.
National Agency Co., The: *See*—
New Williams Mfg. Co. Ltd., The.
National Biscuit Co., New York, N. Y. 363,117, ren. 12–13–58. Cl. 46.
National Cash Discount Card Co. Inc., Fayetteville, Ark. 674,316, pub. 12–2–58. Cl. 101.
Nancy Garment Co., Kent, Wash. 568,448, canc. Cl. 39.
Nestlé Co., Inc., The, White Plains, N. Y. 674,257, pub. 12–2–58. Cl. 46.
Newcomers Service, Portland, Oreg. 674,213, pub. 12–2–58. Cl. 38.
Newmark, R. H., Inc., New York, N. Y. 674,067, pub. 12–2–58. Cl. 13.
New Williams Mfg. Co. Ltd., The, from The National Angency Co., Montreal, Quebec, Canada. 554,834, canc. Cl. 23.
New Wrinkle, Inc., Dayton, Ohio. 386,468, canc. Cl. 16.
Niagara Blower Co., New York, N. Y. 674,196, pub. 12–2–58. Cl. 34.
Nofend Co.: *See*—
Gainsley, S. Harry.
North American Mushroom Co., Tinley Park, Ill. 674,259, pub. 12–2–58. Cl. 46.
North American Rayon Corp., New York, N. Y. 367,731, ren. 5–30–59. Cl. 43.
North Pacific Canners & Packers, Inc., Portland, Oreg. 674,280, pub. 12–2–58. Cl. 46.
Northrup, King & Co., Minneapolis, Minn. 674,020, pub. 12–2–58. Cl. 1.
Norwich Knitting Co., Norwich, N. Y. 568,469, canc. Cl. 39.
Number One Distilling Co.: *See*—
Schenley Distillers, Inc.
Nuside Metal Products, Inc., Sharon, Pa. 674,061, pub. 12–2–58. Cl. 12.
Ohio Oil Co., The, Findlay, Ohio. 367,432, ren. 5–16–59. Cl. 15.
Oil Specialties & Refining Co. Inc., Brooklyn, N. Y. 674,081, pub. 12–2–58. Cl. 16.
Olin Mathieson Chemical Corp., East Alton, Ill. 674,060, pub. 12–2–58. Cl. 9.
Olin Mathieson Chemical Corp., New York, N. Y. 674,096, pub. 12–2–58. Cl. 18.
Olmo, Pedro L., New York, N. Y. 568,672, canc. Cl. 13.
On-Cor Food Products, Chicago, Ill. 674,263–4, pub. 12–2–58. Cl. 46.
Outboard Marine Corp., Waukegan, Ill. 674,144, pub. 12–9–58. Cl. 23.
Ovenmit Co.: *See*—
Frandel, Robert J.
Oxy-Dry Sprayer Corp., Chicago, Ill. 674,137, pub. 12–2–58. Cl. 23.
Pacific Enterprises, Inc., Hollywood, Calif. 674,202, pub. 12–2–58. Cl. 36.
Palm Beach Co., Portland, Maine. 674 244, pub. 11–20–58. Cl. 42.
Panellit, Inc., Skokie, Ill. 674,106, pub. 12–2–58. Cl. 21.
Panel Structures, Inc., East Orange, N. J. 674,062, pub. 12–2–58. Cl. 12.
Pantasote Co., The, Passaic, N. J. 674,025, pub. 12–2–58. Cl. 2.
Payne, John Howard, Inc., La Plata, Md. 674,211, pub. 12–2–58. Cl. 38.
Peanut Corp. of America, d. b. a. Peanut Products Co., Des Moines, Iowa. 674,356. Cl. 46.
Peanut Products Co.: *See*—
Peanut Corp. of America.
Peelers Co., The, New Orleans, La. 674,322, pub. 12–2–58. Cl. 101.
Pen Argyl Milling Co., Inc., Pen Argyl, Pa. 568,670, canc. Cl. 46.
Penn Fishing Tackle Mfg. Co., Philadelphia, Pa. 674,119, pub. 12–2–58. Cl 22.
Peshastin Lumber & Box, Inc., Peshastin, Wash. 674,060, pub. 12–2–58. Cl. 12.
Peter Pan Foundations, Inc., New York, N. Y. 674,225, pub. 12–2–58. Cl. 39.
Petroleum Tool Research, Inc., Fort Worth, Tex. 674,331, pub. 12–2–58. Cl. 103.
Phillips-Jones Corp., New York, N. Y. 568,434, canc. Cl. 39.
Piedmont Shirt Co., Greenville, S. C. 674,223, pub. 12–2–58. Cl. 39.
Plastic Productions Co., Redwood City, Calif. 674,026, pub. 12–2–58. Cl. 2.
Pocket Porter Co.: *See*—
Tatham, Charles H.
Polychrome Corp., Yonkers, N. Y. 674,046, pub. 12–2–58. Cl. 6.
Porcelain Enamel Institute, Inc., Washington, D. C. 674,319–20, pub. 12–2–58. Cl. 101.
Portis Style Industries, Inc., Chicago, Ill. 568,644, canc. Cl. 39.
Powermatic Machine Co., McMinnville, Tenn. 674,142, pub. 12–2–58. Cl. 23.
Prest-O-Lite Storage Battery Corp., Indianapolis, Ind., to The Electric Auto-Lite Co., Toledo, Ohio. 366,330, ren. 4–11–59. Cl. 21.
Preview Sportswear: *See*—
Donath, Henry.
Priestley, B., & Co., Inc., New York, N. Y. 363,539, ren. 1–3–59. Cl. 39.
Pron, S. A., Mexico City, Mex. 674,276, pub. 12–2–58. Cl. 46.
Procter & Gamble Co., The, d. b. a. The Globe Soap Co., Cincinnati, to The Hewitt Soap Co., Inc., Dayton, Ohio. 364,103, ren. 1–17–59. Cl. 52.
Procter & Gamble Co., The, d. b. a. The Globe Soap Co., Cincinnati, to The Hewitt Soap Co., Inc., Dayton, Ohio. 364,104, ren. 1–17–59. Cl. 52.
Pro-phy-lac-tic Brush Co., Northampton, to Pro-phy-lac-tic Brush Co., Florence, Mass. 362,975, ren. 12–6–58. Cl. 29.
Publix Shirt Corp., New York, N. Y. 568,531, canc. Cl. 39.
Pulitzer Publishing Co., The, St. Louis, Mo. 674,360. Cl. 107.
Pullman Couch Co., Chicago, Ill. 674,194, pub. 12–2–58. Cl. 32.
Pure Food Factory "Hansa," Mamaroneck, N. Y. 123,643, ren. 11–19–58. Cl. 46.
Pure Food Factory "Hansa," Mamaroneck, N. Y. 362,626, ren. 11–22–58. Cl. 46
Quality Products Co., Chicago, Ill. 674,153, pub. 12–2–58. Cl. 24.
Queen Mode Plastic Corp., New York, N. Y. 568,568, canc. Cl. 39.
Quickey Sales Co., Akron, Ohio. 674,037, pub. 12–2–58. Cl. 3.
R. L. A. Corp., The, New York, N. Y. 674,109, pub. 12–2–58. Cl. 21.
R. S. Precision Products, Floral Park, N. Y. 674,024, pub. 12–2–58. Cl. 2.
Racine Shoe Mfg. Co., to Racine, Wis., to Holland-Racine Shoes, Inc., Holland, Mich. 365,397, ren. 3–7–59. Cl. 39.
Railway Express Agency, Inc., New York, N. Y. 674,232–3, pub. 12–2–58. Cl. 105.
Reely, William H., d. b. a. Woo Doo Lure Co., San Francisco, Calif. 674,124, pub. 12–2–58. Cl. 22.
Reichhold Chemicals, Inc., Detroit, Mich. 366,594, ren. 4–18–59. Cl. 1.
Reis, Robert, & Co., New York, N. Y. 125,507, ren. 5–20–59. Cl. 39.
Republic Steel Corp., Cleveland, Ohio. 674,348. Cl. 21.
Rexbilt Leather Goods, Inc., New York, N. Y. 674,038, pub. 12–2–58. Cl. 3.
Rheem Mfg. Co., Richmond, Calif. 674,195, pub. 12–2–58. Cl. 34.
Riedeburg, Theodore, d. b. a. Theodore Riedeburg Associates, New York, N. Y. 674,045, pub. 12–2–58. Cl. 6.
Riedeburg, Theodore, Associates: *See*—
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Wedge Pac Inc.
Ritzenthaler, John C. O., New York, N. Y. 125,512, ren. 5–20–59. Cl. 4.
Roal Corp., Bernardsville, N. J. 674,304, pub. 12–2–58. Cl. 52.
Robbins Incubator Co., Denver, Colo. 554,488, canc. Cl. 19.
Robbins Mills, Inc., New York, N. Y. 568,521, canc. Cl. 42.
Robert Hosiery Mills, Inc., Collegeville, Pa. 674,229, pub. 12–2–58. Cl. 39.
Robinair Mfg. Corp., Edgerton, Ohio. 674,160, pub. 12–2–58. Cl. 26.
Root Chemicals Inc., Roosevelt, P. R. 674,089, pub. 12–2–58. Cl. 18.
Roper Knitting Co., Inc., Canandaigua, N. Y. 367,777, ren. 5–30–59. Cl. 39.
Rourke, Jack, d. b. a. Jack Rourke Productions, Hollywood, Calif. 568,625, canc. Cl. 107.
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Rowa-Wagner K. G., Arzneimittelfabrik, Benaberg, near Koeln, Germany. 674,004, pub. 12–2–58. Cl. 18.
Ruf-Buchhaltung Aktiengesellschaft, Zurich, Switzerland. 674,162, pub. 12–2–58. Cl. 26.
Rupert Diecasting Co., Kansas City, Mo. 554,305, canc. Cl. 14.
Ruud Mfg. Co., Kalamazoo, Mich. 674,351. Cl. 34.
Safeway Stores, Inc., Oakland, Calif. 674,287, pub. 12–2–58. Cl. 46.
Salsbury's, Dr., Laboratories, Charles City, Iowa. 674,160, pub. 12–2–58. Cl. 18.
Sandess Mfg. Co., Philadelphia, Pa. 568,558, canc. Cl. 39.
Sasser, A. C., d. b. a. A. C. "Al" Sasser Concessions, Dallas, Tex. 568,524, canc. Cl. 46.
Saunders Archery Target Co., Columbus, Nebr. 674,350. Cl. 22.
Sayous, Charles A., Inc., New York, N. Y. 674,262, pub. 12–2–58. Cl. 46.
Scattergrain Co.: *See*—
Kinsella, John.
Schenley Distillers, Inc., d. b. a. Number One Distilling Co., New York, N. Y. 674,292, pub. 12–2–58. Cl. 49.
Schenley Industries, Inc., New York, N. Y. 674,294–8, pub. 12–2–58. Cl. 49.
Schield Bantam Co., Waverly, Iowa. 674,133, pub. 12–2–58. Cl. 23.
Schnurer, Carolyn, Inc., Jersey City, N. J. 568,650, canc. Cl. 39.
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Scout-Tex Inc.: *See*—
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Sears, Roebuck and Co., Chicago, Ill. 568,446, canc. Cl. 26.
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Seawol Sewing Supplies, Los Angeles, Calif. 568,508, canc. Cl. 23.
Seron Mfg. Co., Joliet, Ill. 674,120, pub. 12–2–58. Cl. 22.
Shafer Bearing Corp., Chicago, Ill., to Chain Belt Co., Milwaukee, Wis. 366,578, ren. 4–18–59. Cl. 23.
Sharp & Dohme, Inc., Philadelphia, Pa. 568,604, canc. Cl. 18.
Sherwin-Williams Co., The, Cleveland, Ohio. 674,079, pub. 12–2–58. Cl. 16.
Shoe Corp. of America, Columbus, Ohio. 674,235, pub. 12–2–58. Cl. 39.

Simplex Electric Co. Ltd., Broadwell, Oldbury, England. 674,189, pub. 12–2–58. Cl. 32.
Smith, Mack B., d. b. a. Speedy Stirrup Pin Co., Salt Lake City, Utah. 674,032, pub. 12–2–58. Cl. 3.
Smith, Sewall, d. b. a. The Golden Age Co., Lafayette, Calif. 568,533, canc. Cl. 22.
Smoler Bros., Inc., Chicago, Ill. 674,233, pub. 12–2–58. Cl. 39.
Societa Italiana Cardpen: *See*—
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Sousa, John B., d. b. a. Travel Center, Los Angeles, Calif. 539,996, canc. Cl. 105.
Southern California Fish Co., East San Pedro, to Westgate-California Corp., San Diego, Calif. 125,525, ren. 5–20–59. Cl. 46.
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Sovereign Watch Co., Inc., New York, N. Y. 674,180, pub. 12–2–58. Cl. 27.
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Spindle Specialty Co.: *See*—
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Sprague Products Co., North Adams, Mass. 568,668, canc. Cl. 21.
Staley, A. E., Mfg. Co., Decatur, Ill. 364,965, ren. 2–21–59. Cl. 46.
Staley, A. E., Mfg. Co., Decatur, Ill. 366,206, ren. 4–4–59. Cl. 6.
Standard Oil Co. of New Jersey, Wilmington, Del., to Esso Standard Oil Co., New York, N. Y. 267,419, ren. 5–16–59. Cl. 15.
Standard Oil Co., The, Cleveland, Ohio. 674,074, pub. 12–2–58. Cl. 15.
Standard Screw Co., Bellwood, Ill. 674,065–6, pub. 10–14–58. Cl. 13.
Sta-Rite Ginnie Lou, Inc., Shelbyville, Inc. 674,242, pub. 10–28–58. Cl. 40.
Starnold Corp., New York, N. Y. 674,117, pub. 12–2–58. Cl. 22.
Stauffer, Bernard H., Los Angeles, Calif. 674,251, pub. 12–2–58. Cl. 44.
Steadley Co., The, Carthage, Mo. 674,193, pub. 12–2–58. Cl. 32.
Stein, A., & Co., Chicago, Ill. 367,021, ren. 5–9–59. Cl. 39.
Stein, Hall & Co., Inc., New York, N. Y. 367,788, ren. 5–30–59. Cl. 3.
Steiner, Harry, New York, N. Y. 674,036, pub. 12–2–58. Cl. 2.
Stephens, Arthur L., Chicago, Ill. 674,241, pub. 12–2–58. Cl. 39.
Suchard Holding Societe Anonyme, Lausanne, Switzerland. 568,539, canc. Cl. 46.
Suchard Holding Societe Anonyme, Lausanne, Switzerland. 568,542, canc. Cl. 46.
Swift & Anderson, Inc., Boston, Mass. 674,160, pub. 12–2–58. Cl. 26.
Synres Works-Hoek of Holland: *See*—
N. V. Chemische Industrie "Synres."
T-V Products Co., New York and Brooklyn, N. Y. 568,662, canc. Cl. 21
Taco Heaters, Inc., Cranston, R. I. 674,176, pub. 12–2–58. Cl. 26.
Talman Federal Savings and Loan Association of Chicago, Chicago, Ill. 674,329, pub. 12–2–58. Cl. 102.
Tasty Treat Corp. Miami, Fla. 568,660, canc. Cl. 46.
Tatham, Charles H., d. b. a. Pocket Porter Co., Grosse Pointe, Mich. 674,039, pub. 12–2–58. Cl. 4.
Tavener Rutledge Ltd., Liverpool, England. 674,260, pub. 12–2–58. Cl. 46.
Technical Operations, Inc., Burlington, Mass. 674,315, pub. 12–2–58. Cl. 100.
Technicolor Corp., Hollywood, Calif. 674,209, pub. 12–2–58. Cl. 28.
Telemeter Magnetics, Inc., Los Angeles, Calif. 674,156, pub. 12–2–58. Cl. 26.
Temple Frosted Foods Inc., Brooklyn, N. Y. 674,265, pub. 12–2–58. Cl. 46.
Texas Instruments Inc., Dallas, Tex. 674,174, pub. 12–2–58. Cl. 26.
Texize Chemicals, Inc., Greenville, S. C. 674,305, pub. 12–2–58. Cl. 52.
Thomae, Dr. Karl, G. m. b. H., Biberach an der Riss, Germany. 674,090–2, pub. 12–2–58. Cl. 18.
Thorens S. A., Sainte-Croix, Switzerland. 674,048, pub. 12–2–58. Cl. 8.
"3 In 1" Permanent Well Completions, Inc., Dallas, Tex. 674,330, pub. 12–2–58. Cl. 105.
Tier-Rack Corp., St. Louis, Mo. 674,358. Cl. 50.
Time, Inc., New York, N. Y. 366,709, ren. 4–25–59. Cl. 38.
Toast-O-Lator Co. Inc., New York, to A. C. Goddard, Forest Hills, N. Y. 342,895, ren. 12–6–58. Cl. 21.
Tokheim Oil Tank and Pump Co., Fort Wayne, Ind. 568,440, canc. Cl. 26.
Toro Mfg. Corp., Minneapolis, Minn. 674,125, pub. 12–2–58. Cl. 23.
Totem Distributing Co., Seattle, Wash. 568,576, canc. Cl. 23.
Tovatt, V. J., d. b. a. V. J. Tovatt Co., Lynwood, Calif. 674,334, pub. 12–2–58. Cl. 105.
Tovatt, V. J., Co.: *See*—
Tovatt, V. J.
Transamerican Match Corp., New York, N. Y. 674,154, pub. 12–2–58. Cl. 24.
Travel Center: *See*—
Sousa, John B.
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Tulsa Fishing Tackle Co., Tulsa, Okla. 568,445, canc. Cl. 22.
Turfcraft, Inc., Gainesville, Fla. 674,014, pub. 12–2–58. Cl. 1.
Turner, B. E., d. b. a. Arcadia Mfg. Co., Arcadia, Calif. 674,187, pub. 12–2–58. Cl. 29.
Unimark Photo, Inc., New York, N. Y. 674,157, pub. 12–2–58. Cl. 26.
United Fire & Casualty Co., Cedar Rapids, Iowa. 674,328, pub. 12–2–58. Cl. 102.
United Geophysical Corp., Pasadena, Calif. 674,311, pub. 12–2–58. Cl. 100.
United States Casting Repair Corp., Philadelphia, Pa. 674,345. Cl. 13.
United States Rubber Co., New York, N. Y. 674,196, pub. 12–2–58. Cl. 34.
Univator, Inc., Berkeley, Calif. 674,150, pub. 12–2–58. Cl. 23.
Utilitron Inc., New York, N. Y., to Glare-Flectors, Inc., Hoboken, N. J. 568,489, canc. Cl. 26.
Vail Mfg. Co., Chicago, Ill. 674,205, pub. 11–25–58. Cl. 37.
Valley Fruit and Vegetable Co.: *See*—
Weir, Roy.
Vanadium-Alloys Steel Co., Latrobe, Pa. 674,072, pub. 12–2–58. Cl. 14.
Van Camp Sea Food Co., Inc., Terminal Island, Calif. 674,288, pub. 12–2–58. Cl. 46.
Vanco Paint & Varnish Co.: *See*—
Meulen, Katharina V.
Vanguard Abrasive Corp., Leroy, N. Y. 674,041, pub. 12–2–58. Cl. 4.
Van Valkenburgh, Nooger & Neville, Inc., New York, N. Y. 674,338, pub. 12–2–58. Cl. 107.
Verway, C. J., Co.: *See*—
Verway, Clair J.
Verway, Clair J., d. b. a. C. J. Verway Co., Grand Rapids, Mich. 674,127, pub. 12–2–58. Cl. 23.
Vincent, Paul N., d. b. a. Zip Grip Co., East Lansing, Mich. 674,121, pub. 12–2–58. Cl. 22.
Viscol Co., The, Bridgeport, Conn. 562,276, canc. Cl. 6.
Vondrak Publications d. b. a. Gold Nugget Gift Stamp Plan, Chicago, Ill. 674,317, pub. 12–2–58. Cl. 101.
Wagner, Edward E., Co., Inc., New York, N. Y. 674,220, pub. 12–2–58. Cl. 39.
Ward Industries Corp., Syracuse, N. Y. 674,152, pub. 12–2–58. Cl. 24.
Watkins, J. R., Co., The, Winona, Minn. 674,303, pub. 12–2–58. Cl. 52.
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Weast, Louis S.
Weast, Louis S., d. b. a. Weast, Los Angeles, Calif. 553,025, canc. Cl. 19.
Weaver, Edgar J., d. b. a. Weaver Machine Co., Barberton, Ohio. 674,068, pub. 12–2–58. Cl. 13.
Weaver Machine Co.: *See*—
Weaver, Edgar J.
Weber Costello Co., Chicago Heights, Ill. 674,175, pub. 12–2–58. Cl. 26.
Weber Costello Co., Chicago Heights, Ill. 674,215, pub. 12–2–58. Cl. 38.
Wedge Pac Inc., from D. V. Rikard, Medford, Oreg. 674,027, pub 12–2–58. Cl. 2.
Weil, Edward A., Chicago, Ill. 674,217. pub. 12–2–58. Cl. 39.
Weinberg, Harold, Inc., New York, N. Y. 674,247, pub. 12–2–58. Cl. 42.
Weir, Roy, d. b. a. Valley Fruit and Vegetable Co., Pharr, Tex. 365,474, ren. 3–7–59. Cl. 46.
Wernet Dental Mfg. Co., Inc., Jersey City, N. J. 267,949, canc. Cl. 29.
Wesson Oil & Snowdrift Co., Inc., New Orleans, La. 674,266, pub. 12–2–58. Cl. 46.
Westgate-California Corp.: *See*—
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White, Morris, Fashions, Inc., New York, N. Y. 674,033, pub. 12–2–58. Cl. 2.
Whitman's: *See*—
Whitman, Stephen F. & Son, Inc.
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Wiebolt Stores, Inc., Evanston, Ill. 674,355. Cl. 46.
Wisconsin Alumni Research Foundation, Madison, Wis. 674,254, pub. 12–2–58. Cl. 46.
Wisconsin Malting Co., Milwaukee, Wis. 674,283, pub. 12–2–58. Cl. 46.
Woo Doo Lure Co.: *See*—
Reely, William H.
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Wyandotte Chemicals Corp., Wyandotte, Mich. 674,306, pub. 12–2–58. Cl. 52.
Wynn, Clarence M., d. b. a. Dri-Powr Co., Azusa, Calif. 674,076–7, pub. 12–2–58. Cl. 15.
Wytheville Knitting Mills, Inc., Reading, Pa., from U. B. Buchanan, New York, N. Y. 674,236, pub 12–2–58. Cl. 39.
Yonner Pickle Co., Inc., Brooklyn, N. Y. 568,676, canc. Cl. 46.
Young, E. F., Jr., Mfg. Co., Meridian, Miss. 674,300, pub. 12–31–57. Cl. 51.
Youth, Inc., Nashville, Tenn. 568,631, canc. Cl. 100.
Zenith Products Co., West Newton, Mass. 674,148, pub. 12–2–58. Cl. 23.
Zeumer, Albert E., Barnet, England. 674,128, pub. 12–2–58. Cl. 23.
Zink, Howard: *See*—
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February 24, 1959 Volume 739 Number 4

PATENTS

NOTICES

Disclaimers

2,774,215.—*Frank O. Mock* and *Thomas J. Thompson*, South Bend, Ind. TAILPIPE OR AFTERBURNING CONTROL FOR TURBOJET ENGINES. Patent dated Dec. 18, 1956. Disclaimer filed Jan. 26, 1959, by the assignee, *Bendix Aviation Corporation*.

Hereby enters this disclaimer to claim 33 of said patent.

2,822,314.—*Robert J. Feriante*, Doylestown, and *Russell E. Rhodes*, Ardsley, Pa. THERAPEUTIC ANTIBIOTIC PREPARATION CONTAINING POLYMYXIN, NEOMYCIN AND GRAMICIDIN. Patent dated Feb. 4, 1958. Disclaimer filed Jan. 26, 1959, by the assignee, *Smith Kline & French Laboratories*.

Hereby enters this disclaimer to claims 1 and 2 of said patent.

Classification Order No. 269

The following transfer is hereby ordered to take effect on Monday, February 2, 1959:

From Classification Division V to Division 8
Class 304, SCAFFOLDS

The reclassification of this class has advanced to a stage at which concurrent examination of applications pending therein is no longer advantageous. Reclassification will continue to completion in Classification Division V.

M. C. ROSA,
Director, Patent Examining Operation.

Patents Available for Licensing or Sale

American Can Company offers the following 50 patents for non-exclusive licensing on reasonable terms.

Written applications for license should be addressed to: James W. Fitzsimmons, Esq., Patent Counsel, American Can Company, 100 Park Ave., New York 17, N. Y.

2,823,349. Method of Welding Side Seams.
2,366,210. Coating Machine.
2,374,698. Sheet Feeding Mechanism.
2,394,004. Apparatus for Welding Seams.
2,395,496. Blank Feeding Mechanism.
2,403,995. Method of Making Fiber Container Bodies.
2,409,631. Can Making Machine.
2,424,581. Can Beading Machine Which Skips Longitudinal Seam.
2,436,821. Feeding and Gauging Mechanism.
2,447,012. Welding of Keys to Can Ends.
2,460,327. Solder Wiper Mechanism With Shielding Means.
2,460,866. Can Body Solder Fluxing Mechanism.
2,474,141. Method and Apparatus for Feeding Sheets.
2,484,845. Sheet Treating Machine.
2,488,551. Sheet Feeding and Gauging Mechanism.
2,490,065. Sheet Feeding and Gauging Mechanism.
2,491,535. Device for Flanging Can Bodies.
2,499,439. Sheet Feeding and Separating Device.
2,515,179. Method of Producing Container Bodies.
2,529,513. Gauge Driving Device for Sheet Feeding and Gauging Mechanisms.
2,534,220. Machine for Straightening Can Body Flanges.
2,539,389. Sealing Head Mechanism for Closing and Sealing Bags and Containers.
2,539,390. Method of Sealing Bags.
2,539,467. Feeding Mechanism for Can Ends.
2,541,985. Sheet Separating and Feeding Mechanism.
2,542,034. Article Separating and Feeding Device.
2,547,864. Sheet Gauging Apparatus.
2,556,214. Counting, Stacking and Packing Machine.
2,558,741. Apparatus for Truing Out-of-Round Can Bodies.
2,561,597. Conveyer With Sheet Supporting and Anti-Pinching Device.
2,567,232. Machine for Printing on Containers.
2,567,264. Shielding Device for Wiper Mechanisms.
2,576,945. Apparatus for the Continuous Spraying of Individual Container Bodies.
2,580,061. Bag Sealing Machine.
2,590,082. Bag Sealing Machine.
2,593,415. Sheet Extractor Device.
2,594,327. Leaky Can Reject Mechanism for Can Testing Machines.
2,597,694. Apparatus for Applying a Coating Band to Moving Articles.
2,601,522. Printing Machine With Article Supporting Device.
2,603,091. Method and Apparatus for Treating Articles With Jets of Fluid.
2,606,176. Apparatus for Electrostatically Coating Articles.
2,606,511. Bag Opening Machine With Upper and Lower Bag Forming Units.
2,606,332. Bag Opening Machine With Adjustably Mounted Bracket Supported Arms.
2,611,493. Device for Transferring Articles From One Conveyer to Another.
2,612,099. Machine for Counting and Stacking Articles.
2,619,064. Fluxing Mechanism With Movable Flux Applying Tank.
2,622,518. Punch Type Container Opener With Handle Extension.
2,623,620. Control Mechanism for Machines Receiving Articles From Stacks.
2,623,628. Assembly and Delivery Device for Bulk Loading Containers.
2,623,773. Mechanism for Handling Sheets of Material.

New Applications Received During December 1958

Patents	7,212
Designs	481
Plant Pats	14
Reissues	18
Total	7,675

Issue

Patents	1,062—No. 2,874,383 to No.	2,875,444, incl.
Designs	32—No. 184,471 to No.	184,502, incl.
Plant Pats	2—No. 1,812 to No.	1,813, incl.
Reissues	6—No. 24,606 to No.	24,611, incl.
Total	1,102	

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1958

Total number of pending applications (excluding Designs)	201,063
Total number of pending Design applications	7,062
Total number of applications awaiting action (excluding Designs)	84,659
Total number of Design applications awaiting action	2,780
Date of oldest new application	Jan. 16, 1958
Date of oldest amended application	Jan. 2, 1958

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 21, 38, 42, 46, 50, 56, 58, 62, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 27, 41, 42, 44, 48, 51, 54, 59.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 52, 53
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 55.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders; Harrows and Diggers; Plows	5-23-58	5-19-58
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	5-15-58	5-15-58
3. (VII) MARMELSTEIN, N., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	6-5-58	6-3-58
4. (VI) FALLER, E. A. (SCHULZ, H. O., acting), Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	5-20-58	5-20-58
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminuters; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	2-25-58	3-11-58
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	5-19-58	5-26-58
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	6-2-58	6-2-58
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	6-2-58	3-24-58
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	6-4-58	6-6-58
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	5-20-58	5-15-58
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	5-21-58	5-26-58
12. (III) SPINTMAN, S. (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	4-30-58	5-27-58
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	5-6-58	5-1-58
14. (III) WILTZ, W. A., (acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	1-15-58	1-3-58
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus	6-3-58	5-15-58
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	4-11-58	3-31-58
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	7-9-58	6-27-58
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	5-19-58	5-13-58
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	5-20-58	5-16-58
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	5-23-58	5-23-58
21. (III) MADER, R. C., Textiles	4-15-58	4-23-58
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	5-16-58	5-19-58
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	2-4-58	2-3-58
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	5-1-58	7-16-58
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	7-1-58	6-12-58
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	6-6-58	5-12-58
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	7-2-58	7-1-58
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	5-19-58	5-16-58
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	6-1-58	4-24-58
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling; Refrigeration	5-16-58	5-16-58

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	7-18-56	7-14-58
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	5-25-55	5-25-58
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements; Roofs	5-19-58	5-6-58
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	5-1-58	5-1-58
35. (IV) DEMBO, L. J., Dispensing; Filling Receptacles; Toilet; Sheet Feeding	5-1-58	5-1-58
36. (V) EVANS, R. L., Measuring and Testing; Automatic Weighers; Weighing Scales	5-3-58	5-6-58
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	2-19-58	1-24-58
38. (I) PARKER, C. E., (acting). Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	5-10-58	7-30-58
39. (IV) WEIL, L., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	7-15-58	7-15-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	5-2-58	5-2-58
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	6-6-58	6-3-58
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	5-21-58	5-17-58
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	6-2-58	6-2-58
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	1-20-58	1-6-58
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances	5-19-58	5-26-58
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	5-8-58	5-1-58
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	5-16-58	5-16-58
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	5-15-58	5-15-58
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Concentrating Evaporators; Glass	5-16-58	5-16-58
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber; Synthetic Resins (part) (e. g., Butadiene Polymers and Copolymers, Polyacrylonitriles, Acrylate Polymers and Copolymers)	4-29-58	4-15-58
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas; Oscillators	5-15-58	5-19-58
52. (V) LE ROY, C. A., Supports and Racks	5-15-58	5-15-58
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Feed Apparatus; Closure Operators	5-8-58	5-15-58
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	7-21-58	7-16-58
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	5-19-58	5-19-58
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	6-4-58	5-15-58
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Cutting and Punching	5-5-58	4-21-58
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufacture; Packaging (part); Selective Punching	6-2-58	5-21-58
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	5-20-58	5-16-58
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	5-15-58	5-19-58
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Railway Mail Delivery; Feeding of Indefinite Lengths	4-25-58	4-25-58
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	5-17-58	5-15-58
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	5-16-58	5-16-58
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	4-1-58	4-1-58
66. (V) LISANN, L., Geometric Instruments; Acoustics; Building Structures	5-16-58	5-16-58
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	5-1-58	6-3-58
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	7-1-58	6-30-58
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	5-16-58	5-15-58
CLASS. DIVS. II—LADY, J. E., Detectors; Miscellaneous Electron Tube Circuits	5-5-58	6-4-58
CLASS. DIVS. III—WAHL, R. A., Metal Bending; Web Feeding	5-27-58	5-16-58
CLASS. DIVS. IV—HEELOWITH, W., Earth Boring	7-21-58	7-7-58
CLASS. DIVS. V—ANGEL, C. D., Scaffolds; Masonry and Concrete Structures; Time-Controlling Apparatus; Packed Rod Joints; Joint Packings	5-26-58	5-26-58
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part) i. e., Polyethylenes	9-17-58	5-15-58
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	7-11-58	5-14-58
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	6-3-58	6-3-58

*Established August 22, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 53 and 60

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during February 1959, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,271,510 to 2,274,631, inclusive
Plant Patents ..... Numbers 502 to 503, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE ROGOFF

No. 6385. Decided December 15, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. REISSUE—35 U. S. C. 251 CONSTRUED.

The provision of Title 35, section 251 of the United States Code that "No reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent" *Held* to contain "no exceptions or qualification as to time or extent of enlargement."

2. SAME—BROADENED CLAIMS.

"It is well settled that a claim is broadened, so far as the question of right to reissue is concerned, if it is so changed as to bring within its scope any structure which was not within the scope of the original claim. In other words, a claim is broadened if it is broader in any respect than the original claim, even though it may be narrowed in other respects."

3. SAME—SAME.

Where certain claims of appellant's reissue application followed closely the language of his patent claim, but omitted the statement that an insulating cover was "substantially non-elastic," *Held* that any insulating material which would retain its form as specified in the patent claim would necessarily be "substantially non-elastic," and *Held* that the omission of that language from the appealed claims does not broaden their scope.

4. SAME—SAME.

"Claim 4 differs from the claim of appellant's patent not only in that it states that the insulating cover has the property of initially retaining its approximate shape, whereas the patent claim omits the words 'initially' and 'approximately,' but also in that claim 4 contains a statement that the cover has 'a tendency to return, at least to some extent, to the shape it had prior to indenting,' which statement is not found in the patent claim. In view of these differences claim 4 was properly held to be broader than the patent claim. The patent claim is limited to a cover material which retains its indented form indefinitely, while claim 4 permits, if it does not actually require the cover to return to some extent toward its original form. * * *."

5. APPEAL TO THE UNITED STATES COURT OF CUSTOMS AND PATENT APPEALS—GENERAL AFFIRMANCE BY BOARD OF EXAMINER'S DECISION—EFFECT OF.

"A further ground of rejection advanced by the Examiner was that if, as contended by appellant, the appealed claims were not broader than, but were of the same scope as the patent claim, then there was no legal basis for obtaining them by reissue of the patent. While that ground was not discussed by the Board, it is to be considered affirmed and is properly before us since the Board entered a general affirmance of the Examiner's decision."

6. REISSUE—35 U. S. C. 251 CONSTRUED.

"Title 35, section 251, of the United States Code also provides for the reissue of a patent when it is 'deemed wholly or partly inoperative or invalid by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent.' There is no contention here that the specification or drawing of appellant's patent is defective nor that he claims in the patent more than he had a right to claim as new. The only remaining ground for reissue, therefore, must be that he claimed less than he had a right to claim as new, but if that were the case, the only appropriate remedy would be a reissue with broadened claims."

7. SAME—SAME—CLAIMS SAME SCOPE AS PATENT CLAIM.

"The sole reason for which appellant seeks a reissue is to include appealed claims 2, 3, and 4. If, as he appears to allege, those claims do not differ materially in scope from the claim of the patent, then there is no evidence that he did not claim in the patent as issued all that he had a right to claim as new, and hence there is no statutory justification for a reissue. In other words, appellant is on the horns of a dilemma. Either the reissue claims are broader than the patent claim, in which case the reissue application was filed too late, or they are of the same scope as the patent claim, in which case the statutory basis for reissue is lacking. The statutes afford no authority for the reissue of a patent merely to add other claims of the same scope as those already granted. Accordingly, even if we could agree with appellant's contention that the appealed claims do not differ materially from the claim of his patent, it would be necessary to affirm the decision below on the ground that there is no statutory basis for a reissue.

8. INTERFERENCE—RULE 201(b).

"Appellant urges that the appealed claims should be allowed to him in order that he may show, in interference proceedings, that those claims should not have been allowed to Watts, and that 'After the interference has been decided, the Patent Office may then wish to state that those claims are unpatentable over the allowed claim to the appellant.' However, as provided by Patent Office Rule 201(b), interferences are declared between patents and applications only when the claims in issue 'are allowable in all the applications involved.' The question as to patentability of claims to an applicant must be determined before any question of interference arises and claims otherwise unpatentable to an applicant cannot be allowed merely in order to set up an interference."

9. APPEAL TO THE UNITED STATES COURT OF CUSTOMS AND PATENT APPEALS—DIMINUTION OF THE RECORD.

"Pursuant to a motion, filed on behalf of the Commissioner of Patents, suggesting a diminution of the record, said motion having been granted by the court, certain additional papers were certified by the Patent Office and added to the record, it being understood that the costs of having such additional matter printed were to be taxed at the time of the decision of the appeal. It being the opinion of the court that such additional matter was properly a part of the record and should have been included therein, the costs incident to their inclusion are accordingly taxed against appellant."

10. REISSUE—BROADENED CLAIMS—REISSUE APPLICATION—FILED TOO LATE.

Certain claims of appellant's reissue application *Held* broader than the claim of appellant's patent; and *Held* that since the reissue application was not filed within two years after that patent was issued the allowance of the claims was barred by 35 U. S. C. 251.

APPEAL from the Patent Office. Serial No. 467,665.

AFFIRMED.

Barnett Fanwick (*Robert I. Dennison* of counsel) for Rogoff.

Clarence W. Moore (*George C. Roeming* of counsel) for the Commissioner of Patents.

Before O'CONNELL, *Acting Chief Judge*, and WORLEY, RICH, and MARTIN, *Associate Judges*

WORLEY, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the rejection by the Primary Examiner of claims 2, 3, and 4 of appellant's application, No. 467,665, filed November 8, 1954, for the reissue of Patent No.

2,429,585, granted October 21, 1947, for a pressed insulated connector.

Claims 2 and 4 are representative of the appealed claims and read:

2. A connector for use in a crimped joint comprising a cylindrically shaped metal body portion having an open end for receiving a conductor therein, an insulating cover thereon, said insulating cover having the physical properties of permitting an indenting tool to be applied externally to the insulation and causing the metal body underneath to be indented in the form of a recess to a conductor therein, and of substantially retaining the shape of the recess in the insulation after the tool has been withdrawn.

4. A connector for use in a crimped joint comprising a cylindrically shaped metal body portion having an open end for receiving a conductor therein; an insulating cover thereon, said insulating cover having the physical properties of permitting an indenting tool to be applied externally to the insulation and causing the metal body underneath to be indented in the form of a recess to a conductor therein and of initially retaining the approximate shape of the recess in the insulation after the tool has been withdrawn but having a tendency to return, at least to some extent, to the shape it had prior to indenting.

The single reference relied on is:

Watts, Re. 23,688, July 21, 1953.

The following statement as to the history of appellant's application, so far as pertinent to the instant rejection, is found in the Board's decision:

Seven days after the issuance of appellant's Patent No. 2,429,585, the single claim thereof was copied by the party Watts in a reissue application of the Watts Patent No. 2,410,321, which had issued on October 29, 1946, as claim 5 of the reissue application, together with claims 6 and 7, which were patterned after the patent claim, for purpose of interference. After due proceedings, the Primary Examiner finally rejected claims 5, 6 and 7 of the Watts reissue application on the ground that Watts did not disclose the subject matter of these claims. In a decision upon appeal from the final rejection, the Board of Appeals reversed the Primary Examiner and held that the party Watts did disclose the subject matter of the appealed claims. An interference No. 83,067 involving appellant's Patent No. 2,429,585 and Watts reissue application No. 782,469 was instituted and priority was granted to Rogoff, the junior party, on the grounds that the sleeve of insulation disclosed in the original Watts application did not respond to the count in issue. In other words, the Board of Interference Examiners held that the party Watts did not disclose the subject matter of the Rogoff patent claim. Subsequent thereto, in proceedings before the Primary Examiner, claims 6 and 7 and additional claim 8 of the Watts reissue application were allowed to Watts and issued in the Watts reissue patent as claims 5, 6 and 7 thereof on July 21, 1953. On November 8, 1954, nearly sixteen months after the issue of the Watts reissue patent the party Rogoff filed this reissue application of his Patent No. 2,429,585, wherein he copied claims 5, 6 and 7 of the Watts reissue patent as claims 2, 3 and 4 of his reissue application for the purpose of interference.

[1] The primary basis of the rejection is that the appealed claims are broader than the single claim of appellant's patent, No. 2,429,585, and that, since the reissue application was not filed within two years after that patent issued, the allowance of the claims is barred by Title 35, section 251 of the United States Code, in which is found the following language:

No reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent.

That provision contains no exceptions or qualifications as to time or extent of enlargement. The sole issue, therefore, is whether the claims on appeal enlarge, i. e., broaden, the patent claim.

[2] It is well settled that a claim is broadened, so far as the question of right to reissue is concerned, if it is so changed as to bring within its scope any structure which was not within the scope of the original claim. In other words, a claim is broadened if it is broader in any respect than the original claim, even though it may be narrowed in other respects. *Fox Typewriter Co.* v. *Corona Typewriter Co.*, 282 F. 502; *In re Bostwick*, 26 CCPA (Patents) 1117, 102 F.2d 886, 41 USPQ 279; *Schenk et al.* v. *United Aircraft Corp.*, 43 Fed. Supp. 679, 51 USPQ 519; and *Mercoid Corp.* v. *Milwaukee Gas Specialty Co.*, 33 Fed. Supp. 681, 46 USPQ 23.

Appellant's patent and reissue application disclose a device adapted to electrically connect two or more conductors and comprising a deformable metal ring or sleeve surrounded by an insulating cover. When a connection is to be made the conductors to be joined are inserted in the metal sleeve and the sleeve and its insulating covering are then compressed so that they are indented and forced into intimate contact with the conductors. It is stated in the patent that the insulating cover is substantially non-elastic and that it retains its shape after the indenting tool is withdrawn.

The single claim of the patent is as follows:

A connector for use in a crimped joint comprising a cylindrically shaped metal body portion having an open end for receiving a conductor therein; a substantially non-elastic insulating cover thereon, said insulating cover having the physical properties of permitting an indenting tool to be applied externally to the insulation and causing the metal body underneath to be indented in the form of a recess to a conductor therein, and of retaining the shape of the recess in the insulation after the tool has been withdrawn.

[3] Appealed claims 2 and 3 follow closely the language of the patent claim, but omit the statement that the insulating cover is "substantially non-elastic." Moreover, whereas the patent claim states that the material of the cover has the property of retaining its shape after the tool is withdrawn, claims 2 and 3 merely state that it has the property of *substantially* retaining its shape.

The Board found, and we agree, that any insulating material which would retain its form as specified in the patent claim would necessarily be "substantially non-elastic," thus the omission of that language from the appealed claims does not broaden their scope. The Board also found, however, that insertion of the word "substantially" before the words "retaining the shape of the recess," in appealed claims 2 and 3 does broaden them within the meaning of 35 U. S. C. 251.

The significance of the word "substantially" in a claim was considered at length by this court in *Robins* v. *Wettlaufer*, 23 CCPA (Patents) 952, 81 F.2d 882, 28 USPQ 470, and much of that discussion is pertinent here. The expression there under consideration was "a drive shaft substantially coincident with the center of gravity of the said frame." It was held that the quoted language was satisfied by a device in which the drive shaft was spaced by more than seven inches from the center of gravity of the frame and that "It cannot be successfully contended that 'substantially coincident with' or 'close to' means 'coincident with' or 'at.'" It is clear, therefore, that the court was of the opinion that "substantially coincident with" was broad enough to embrace structures not embraced by "coincident with."

Similarly, in *Hazeltine Corp. et al.* v. *A. H. Grebe & Co., Inc.*, 21 F.2d 648, it was held that "a coefficient to coupling substantially equal to unity" did not require that the coefficient be as close to unity as physically possible, but permitted some degree of variation, and that the word "substantially" could not be ignored in determining the scope of the claim.

Appellant contends that since claims 2 and 3 originated as claims 6 and 7 in the Watts reissue application, they must be construed in light of the record of that application, and that such record indicates that, when those claims were presented, they were considered by Watts to be of the same scope as claim 1 of appellant's patent in all material respects. In that

connection appellant also notes that the Examiner at one time held that claims 2 and 3 did not differ from the claim of appellant's patent "in any material respect."

However, the record of the Watts reissue application also shows that, after the interference between appellant's patent and that application, Watts argued that "Claims 6 and 7 are, according to our understanding, broader than claim 5 [the claim of appellant's patent] * * * It is accordingly beyond dispute that claims 6 and 7 are not to the same subject matter as claim 5 but are broader in the very respect on which the Board of Interference Examiners based its decision." The Examiner at first declined to accept that contention but, after further extensive argument along the same line, he was evidently convinced, since he allowed the claims, which action could have been properly taken only on the assumption that they were materially different from the claim of appellant's patent.

Since it thus appears that appealed claims 2 and 3 were finally allowed in the Watts reissue application on the ground that they are broader than the claim of appellant's patent, it is evident that the history of that application, considered as a whole, presents an argument against, rather than for, the contention advanced by appellant here.

For the reasons given we agree with the Board that claims 2 and 3 are broader than the claim of appellant's patent.

[4] Claim 4 differs from the claim of appellant's patent not only in that it states that the insulating cover has the property of initially retaining its approximate shape, whereas the patent claim omits the words "initially" and "approximately," but also in that claim 4 contains a statement that the cover has "a tendency to return, at least to some extent, to the shape it had prior to indenting," which statement is not found in the patent claim. In view of these differences claim 4 was properly held to be broader than the patent claim. The patent claim is limited to a cover material which retains its indented form indefinitely, while claim 4 permits, if it does not actually require the cover to return to some extent toward its original form. It follows that claim 4 embraces structures not included within the patent claim and is, therefore, broader than that claim for reasons similar to those given above in connection with appealed claims 2 and 3.

[5] A further ground of rejection advanced by the Examiner was that if, as contended by appellant, the appealed claims were not broader than, but were of the same scope as the patent claim, then there was no legal basis for obtaining them by reissue of the patent. While that ground was not discussed by the Board, it is to be considered affirmed and is properly before us since the Board entered a general affirmance of the Examiner's decision. *In re Wahl*, 30 CCPA (Patents) 719, 132 F.2d 328, 56 USPQ 158; *In re Lilienfeld*, 21 CCPA (Patents) 792, 67 F.2d 920, 20 USPQ 53.

[6] Title 35, section 251, of the United States Code also provides for the reissue of a patent when it is "deemed wholly or partly inoperative or invalid by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent." There is no contention here that the specification or drawing of appellant's patent is defective nor that he claims in the patent more than he had a right to claim as new. The only remaining ground for reissue, therefore, must be that he claimed *less* than he had a right to claim as new, but if that were the case, the only appropriate remedy would be a reissue with *broadened* claims.

[7] The sole reason for which appellant seeks a reissue is to include appealed claims 2, 3, and 4. If, as he appears to allege, those claims do not differ materially in scope from the claim of the patent, then there is no evidence that he did not claim in the patent as issued all that he had a right to claim as new, and hence there is no statutory justification for a reissue. In other words, appellant is on the horns of a dilemma. Either the reissue claims are broader than the patent claim, in which case the reissue application was filed too late, or they are of the same scope as the patent claim, in which case the statutory basis for reissue is lacking. The statutes afford no authority for the reissue of a patent merely to add other claims of the same scope as those already granted. Accordingly, even if we could agree with appellant's contention that the appealed claims do not differ materially from the claim of his patent, it would be necessary to affirm the decision below on the ground that there is no statutory basis for a reissue.

For the reasons given we conclude that the appealed claims were properly rejected on the grounds above discussed, and it becomes unnecessary to consider the further grounds of rejection raised by the Patent Office tribunals; viz, that claim 4 is not supported by appellant's disclosure and that all the appealed claims are unpatentable to appellant in view of the Watts patent.

[8] Appellant urges that the appealed claims should be allowed to him in order that he may show, in interference proceedings, that those claims should not have been allowed to Watts, and that "After the interference has been decided, the Patent Office may then wish to state that those claims are unpatentable over the allowed claim to the appellant." However, as provided by Patent Office Rule 201(b), interferences are declared between patents and applications only when the claims in issue "are allowable in all the applications involved." The question as to patentability of claims to an applicant must be determined before any question of interference arises and claims otherwise unpatentable to an applicant cannot be allowed merely in order to set up an interference.

[9] Pursuant to a motion, filed on behalf of the Commissioner of Patents, suggesting a diminution of the record, said motion having been granted by the court, certain additional papers were certified by the Patent Office and added to the record, it being understood that the costs of having such additional matter printed were to be taxed at the time of the decision of the appeal. It being the opinion of the court that such additional matter was properly a part of the record and should have been included therein, the costs incident to their inclusion are accordingly taxed against appellant.

[10] The decision of the Board of Appeals is affirmed.

AFFIRMED.

U. S. Court of Customs and Patent Appeals

IN RE DUBOIS ET AL.

No. 6395. Decided December 19, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. DOUBLE PATENTING—EFFECT OF TERMINAL DISCLAIMER UNDER 35 U. S. C. 253.

"• • • appellants, subsequent to final rejection, filed a terminal disclaimer, under 35 U. S. C. 253, as to that portion of the term of any patent they might obtain on the appealed application extending beyond the term of their issued 14 year design patent. This effectively removed from the case any issue of extension of the monopoly secured by the design patent, another aspect of 'double patenting.' Nevertheless, under *In re Bia*, 42 CCPA 964, 222 F 2d 287, 105 USPQ 428, removal by disclaimer of the extension of monopoly issue did not dispose of the ground of rejection relied on by the Board, namely, that there could not be two patents because there is present here only one invention."

2. SAME—DESIGN AND MECHANICAL CASES.

Held that the principle that "double patenting is a proper ground of rejection if the features producing the novel aesthetic effect of a design patent or application are the same as those recited in the claims of a mechanical patent or application as producing a novel structure • • • does not necessarily preclude the allowance of design and mechanical patents based on identical disclosures, nor the allowance of claims in the mechanical patent dominating the design patent"; and *Held* that "If the design includes ornamental features which go beyond and are patentable over the structural features as defined in the claims of the mechanical application, the inventor is entitled to two patents."

3. DESIGNS—35 U. S. C. 289.

The claim of appellants' design patent, expressed in the formal terms required by Rule 153, reading, "The ornamental design for a shoulder cord, substantially as shown and described," *Held* not "limited to the particular cord shown in the design patent because 35 U. S. C. 289 says that a design patent is infringed by a 'colorable imitation' of the patented design • • •."

4. PATENTABILITY—PARTICULAR SUBJECT MATTER—SHOULDER CORD.

"• • • appellant's design patent • • • is drawn to an inventive concept distinct from that defined by the appealed claims and, therefore, there was more than one invention. While the ornamental design embodies the proportioning of front, rear, top and bottom portions broadly set forth in those claims, it also includes as characteristic features, front and rear portions which are knotted in a particular manner, a smooth upper portion and a twisted lower portion. None of those features are called for or even remotely suggested by the appealed claims and, in our opinion, they combine to produce a unitary article of pleasing over-all appearance and constituting an ornamental design invention patentable distinct from the utilitarian or structural concept defined in the appealed claims. The latter are, therefore, allowable."

APPEAL from the Patent Office. Serial No. 324,157.

REVERSED.

Myron B. Stevens for Dubois et al.

Clarence W. Moore (*S. Wm. Cochran* of counsel) for the Commissioner of Patents.

Before O'CONNELL, *Acting Chief Judge*, and WORLEY, RICH, and MARTIN, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

The question here is the patentability of a bit of military uniform accouterment known as a shoulder cord. We are told that it was created in response to a need for some device which could be worn by all infantrymen, regardless of ability or experience by virtue of which various medals, badges and ribbons might be worn, for the purpose of improving and maintaining morale and esprit de corps.

The shoulder cord, which is a closed loop large enough to surround the shoulder, is described (with illustrations) in the Department of the Army's Special Regulations No. 600-60-1 of 8 April 1953, pages 65 et seq. as follows:

> b. *Cord, shoulder* (Fig. 93).
> (1) *Description.*—Shoulder cord of infantry blue formed by a series of interlocking square knots around a center cord (1 of Fig. 93).
> (2) *How worn.*—On the outer garment (coat, jacket, or shirt) of the summer and winter uniform, passed under the arm and over the right shoulder under the shoulder loop and secured to the button of the loop (2 of Fig. 93).

Appellants, at the time of making the invention, were employees of the United States Government and assigned to what is now the Heraldic Branch, Office of Research and Engineering, Office of the Quartermaster General. The application and the invention have been assigned to the Government as represented by the Secretary of the Army.

The present application, Serial No. 324,157 was filed on the same day as an application for design patent, December 4, 1952, and Patent No. Des. 170,453, issued on September 22, 1953, also to the Secretary of the Army. The design patent shows the same shoulder cord as Fig. 93 of the aforesaid SR 600-60-1 and contains as part of its specification the following:

> The characteristic features of the design reside in the continuous endless loop composed of two major lengths of interlocking square knots joined at their upper ends by a plain cord and at their lower ends by a twisted cord, said cords being of lesser diameters than the diameters of the lengths of interlocking square knots, all as shown.

The functional purpose of the section of plain cord joining the upper ends is to go under the shoulder loop of the uniform without making a bulge and, similarly, the lesser diameter twisted cord joining the lower ends is to reduce chafing of the uniform under the sleeve.

The appealed claims read (emphasis ours):

> 13. A shoulder cord for a uniform coat or the like which includes shoulder straps or the like, comprising a relatively short and slender *top portion* normally disposed beneath said shoulder strap and concealed thereby, relatively long and bulky ornamental *front and rear portions* depending from opposite ends of said top portion, and a relatively flat *underarm portion* connecting the lower ends of said front and rear portions together.
>
> 18. The structure of claim 13, wherein said top portion includes means for securing said cord to said coat.

These claims stand rejected on the ground of "double patenting" because of the issuance to appellants of their design patent, Des. 170,453, no other references being relied on. Since there are no other grounds of rejection, the sole question to be decided is whether allowance of the appealed claims would result in "double patenting." Of the many possible aspects of this legal problem the only one here involved is that raised by the decision of the Board of Appeals that "only one invention is present" and therefore two patents cannot issue. In extenso, the Board, in an opinion on a petition for reconsideration, expressed itself as follows:

> In our decision we *found only one invention* to be disclosed in appellants' design patent Des. 64,352 [sic. This number is that of the patent in a cited case the Board was considering. The correct number is 170,453] and in the instant mechanical application of the same appellants, and we therefore held that since only one patent can issue on one invention and since the design patent had issued that this application cannot become a patent regardless of the claims hereof and regardless of any disclaimer filed by appellants. • • • we still are of the opinion that only one invention exists in the said design patent and in this mechanical application. We are of the opinion that our decision of April 16, 1957, is sound and that any deviation therefrom would not be warranted. [Emphasis ours.]

In explanation of the reference to disclaimer it should be mentioned that [1] appellants, subsequent to final rejection, filed a terminal disclaimer, under

35 U. S. C. 253, as to that portion of the term of any patent they might obtain on the appealed application extending beyond the term of their issued 14 year design patent. This effectively removed from the case any issue of extension of the monopoly secured by the design patent, another aspect of "double patenting." Nevertheless, under *In re Sitz*, 42 CCPA 864, 222 F.2d 267, 105 USPQ 428, removal by disclaimer of the extension of monopoly issue did not dispose of the ground of rejection relied on by the Board, namely, that there could not be two patents because there is present here only one invention. See Amdur, *Patent Law and Practice*, pages 311–313 and cases there cited.

The Board appears to have predicated its decision on three cases decided by this court, *In re Hargraves*, 19 CCPA 784, 53 F.2d 900; *In re Barber*, 23 CCPA 834, 81 F.2d 231; and *In re Phelan*, 40 CCPA 1023, 205 F.2d 183, 98 USPQ 156.

[2] The principle applied in each of those cases is that double patenting is a proper ground of rejection if the features producing the novel aesthetic effect of a design patent or application are the same as those recited in the claims of a mechanical patent or application as producing a novel structure. That principle, however, does not necessarily preclude the allowance of design and mechanical patents based on identical disclosures, nor the allowance of claims in the mechanical patent dominating the design patent. If the design includes ornamental features which go beyond and are patentable over the structural features as defined in the claims of the mechanical application, the inventor is entitled to two patents.

Appealed claim 13 is directed to the concept of a shoulder cord having long and bulky ornamental front and rear portions joined by a short slender top portion adapted to fit under a shoulder strap and by a flat underarm bottom portion. Claim 18 adds to that combination a means for securing the cord to the coat.

It seems evident that the shoulder cord as thus claimed may have a wide variety of appearances, and not necessarily the appearance of the design of the reference. The front and rear portions, which are the most conspicuous parts of the strap, may have any shape desired, so long as they are "relatively long and bulky" and "ornamental." They might, for example, be smooth, braided or woven and they might be of uniform size, tapered, or composed of alternate large and smaller sections. Further, the front and back portions might be identical or might differ in a variety of ways. The top and bottom portions might be similarly modified so long as the former was short and slender and the latter relatively flat.

[3] The single design patent claim is, of course, in the formal terms required by Patent Office Rule 153:

> The ornamental design for a shoulder cord, substantially as shown and described.

Only one such cord is shown in the drawing and we have quoted above the description of it in the specification. The Patent Office brief correctly says that it would be error to contend that this claim is limited to the particular cord shown in the design patent because 35 U. S. C. 289 says that a design patent is infringed by a "colorable imitation" of the patented design and then attempts to show that the appealed claims 13 and 18 cover no more than such colorable imitations.

It has long been settled, in the law as to infringement of design patents, what it is that constitutes a colorable imitation. It is necessary to go no further than the case principally relied on by the Patent Office, *Nebel Knitting Co., Inc. v. Hanson Hosiery Mills, Inc.*, 214 F.2d 781, 102 USPQ 142 (CA–4), but it might also be well to bear in mind that "colorable" is defined in the dictionary as "2. Seemingly valid or genuine; plausible; also, feigned; counterfeit." The Nebel case applied the test of infringement laid down many years ago by the Supreme Court in *Gorham Company v. White*, 14 Wall. (81 U. S.) 511:

> * * * if, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other.

We think it clear that [4] appellants' design patent, interpreted in accordance with the foregoing, is drawn to an inventive concept distinct from that defined by the appealed claims and, therefore, there was more than one invention. While the ornamental design embodies the proportioning of front, rear, top, and bottom portions broadly set forth in those claims, it also includes as characteristic features, front and rear portions which are knotted in a particular manner, a smooth upper portion and a twisted lower portion. None of those features are called for or even remotely suggested by the appealed claims and, in our opinion, they combine to produce a unitary article of pleasing over-all appearance and constituting an ornamental design invention patentably distinct from the utilitarian or structural concept defined in the appealed claims. The latter are, therefore, allowable.

The decision of the Board of Appeals is reversed.

REVERSED.

U. S. Court of Customs and Patent Appeals

IN RE VENNER ET AL.

No. 6391. Decided December 19, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—ANTICIPATION—ADMISSION IN SPECIFICATION.

   "Appellants object to the Board's reliance on the Venner et al. patent, No. 2,588,808, as a reference since the said patent was co-pending with the parent application of that herein. The Board, in its opinion on reconsideration, indicated that the rejection * * * was predicated solely on the admitted state of the prior art as disclosed in said Venner et al. patent. We find no reversible error in the use of such admissions."

2. SAME—INVENTION—MECHANICAL OR AUTOMATIC MEANS TO REPLACE MANUAL ACTIVITY.

   "* * *, it is well settled that it is not 'invention' to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result."

3. SAME—MENTAL STEP.

   Patentability cannot be predicated upon a mental step."

4. SAME—REFERENCES—ANALOGOUS ART.

   The fact that certain patents pertain to iron castings or engine blocks and other products *Held* not to prevent their use as references to show mechanical means for initiating the withdrawal of core members in mold casting apparatus for molding trunk pistons of aluminum and magnesium alloys.

5. SAME—INVENTION—COMMERCIAL SUCCESS.

   "Commercial success is of no moment unless patentability is in doubt."

6. SAME—PARTICULAR SUBJECT MATTER—APPARATUS FOR MOLDING TRUNK PISTONS.

Claims to apparatus for molding trunk pistons *Held* unpatentable over the prior art.

APPEAL from the Patent Office. Serial No. 309,966.

AFFIRMED.

John H. Brustuga and *Richard G. Radue* for Venner et al.

Clarence W. Moore (*George C. Roeming* of counsel) for the Commissioner of Patents.

Before O'CONNELL, *Acting Chief Judge*, and WORLEY, RICH, and MARTIN, *Associate Judges*

MARTIN, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the Patent Office affirming the final rejection by the Examiner of claims 1, 2, 5, 8, 10, 18, and 20, all of the claims remaining, of application Serial No. 309,966, for "Apparatus for Molding Trunk Pistons." The subject matter of the claims on appeal was disclosed in a parent application of the same inventors, Serial No. 789,124, filed December 1, 1947, and co-pending with the instant application.

The appealed claims relate to a permanent mold casting apparatus for molding trunk pistons of aluminum and magnesium alloys wherein the mold comprises two external horizontally movable outer mold sections, a pair of internal horizontally displaceable side core sections which form the interior surfaces of the piston, and a vertically acting middle core section withdrawable from between the side core sections so as to permit the latter to collapse towards one another, thereby releasing the molded solidified piston. The outer mold sections in assembled position form a gate into which the molten metal may be fed by gravity to fill the mold cavity. The middle core section is positioned by a piston type fluid motor which withdraws the said section when actuated. The alleged invention resides in the provision of "time-controlled means" to actuate the said fluid motor in order to withdraw the middle core section at the proper time after pouring the metal into the mold so as to prevent slumping of the metal or excessive contraction thereof on the core members. The "time-controlled means" are initiated by the molder by depressing a foot operated switch immediately after pouring the molten metal into the gate.

Claim 1, which is regarded as representative of the claims on appeal, reads as follows:

1. An apparatus for molding trunk pistons of aluminum and magnesium alloys having relatively high crystallization shrinkages and coefficients of thermal expansion, such piston embodying a head having a relatively thick cross-section and a cylindrical skirt of relatively thin cross-section provided with inwardly extending wrist pin bosses of relatively thick cross-section, comprising, a pair of separable mold sections shaped to the outside of the piston and provided with a gate at the top adapted to cast the piston with the head up, a sectional core shaped to the inside of the piston and embodying a middle section movable downwardly between and below side sections which are shaped to form the bosses and are freely movable laterally into the space when vacated by said middle section, power-operated means connected to move said middle section downwardly below said side sections, time-controlled means set to the period between the completion of the pouring of the metal in the mold and solidification of the metal of the piston therein, means controlled by said time-controlled means and controlling said power-operated means in order to move said middle section downwardly at the end of said period to release it from the casting and to permit the side sections to freely move laterally away from the casting, and means accessible to the molder when pouring for initiating the starting of said time-controlled means after the completion of such pouring.

The references relied on are:

Nichols, 1,925,496, September 5, 1933.
Stern, 2,145,956, February 7, 1939.
Wagner, 2,190,496, February 13, 1940.
Flammang et al., 2,204,407, June 11, 1940.
Waldie, 2,363,759, November 28, 1944.
Venner et al., 2,588,898, March 11, 1952.

Venner et al., a patent issued to the same inventors as those herein, was co-pending with appellants' parent application. The said patent discloses a permanent molding apparatus for aluminum alloy trunk pistons comprising exterior mold sections, side core parts, and a power operated central core part, which parts are said to "be of any suitable construction as shown in the various patents enumerated above." The admitted prior art disclosure included the Flammang et al. patent, discussed, infra. The claims of the Venner et al. patent set forth a multiple mold apparatus supported on a rotatable carrier, which is actuated by power operated means at the disposal of the molder to position the carrier and the molds together with their respective core sections for the alternate pouring and solidification steps.

The Flammang et al. reference relates to a trunk piston permanent molding machine of the same general class as applicants' including a pair of mold sections, two side core sections, and a center core section capable of being vertically withdrawn to permit inward movement of the side core sections and removal of the formed casting. Flammang et al. teach freeing the casting from the side core sections "as soon as the operator is satisfied that the casting has cooled to a sufficient state of hardness."

Stern discloses a die casting machine wherein molten metal is injected into the die cavity and a timer controls the operation of an ejector pin which pin ejects the casting from the die subsequent to the formation thereof and in timed sequence therewith.

The Waldie patent discloses a die casting machine for aluminum and other metals in which a timer is actuated to open the die and discharge the casting therefrom. No core is removed from the die: instead, the die members are merely separated from one another.

The Nichols reference discloses a permanent molding apparatus for the manufacture of castings from metal, such as cast iron. The core is retracted automatically from the mold "after the castings have solidified around the cores and before the castings begin to contract." The said mold is mounted on a rotatable carrier which moves intermittently to position each mold successively for pouring of the molten metal, core withdrawal, and ejection of the finished casting. The said patent discloses that:

* * * the amount of time which should elapse between the filling of the mold and the withdrawing of the cores depends upon the time required for chilling that portion of the casting adjacent the core sufficiently to solidify it. As this time is variable depending on the size of the casting and the material used it is necessary to vary the time required to pass between the stations. * * *

The Wagner patent shows a permanent molding apparatus for manufacturing engine blocks in which a plurality of core members are withdrawn from the mold automatically upon closing an electrical circuit.

The rejection of claims 1, 2, and 5 as "lacking invention over Venner et al. in view of either Stern or Waldie, when viewed in the light of the art as evi-

denced by Wagner and Nichols," was affirmed by the Board of Appeals. The basic features of these claims are found in claim 1 and the differences therefrom recited in the other enumerated claims do not patentably distinguish over the reference combination cited; accordingly, the patentability of these claims will be considered in connection with that of claim 1.

[1] Appellants object to the Board's reliance on the Venner et al. patent, No. 2,588,898, as a reference since the said patent was co-pending with the parent application of that herein. The Board, in its opinion on reconsideration, indicated that the rejection of those claims was predicated solely on the admitted state of the prior art as disclosed in said Venner et al. patent. We find no reversible error in the use of such admissions. *In re Rishoi et al.*, 39 CCPA (Patents) 1004, 197 F.2d 342, 94 USPQ 71.

It was conceded by counsel for appellants at the hearing that the molding apparatus without the timing device and associated means to initiate the withdrawal of the middle core section after a predetermined period of time is not patentable over the prior art. Counsel further agrees that the power operated valve means for vertically withdrawing the middle core section when manually initiated is shown by the patents of record; therefore, it is unnecessary to further discuss the references in this respect.

However, appellants do contend that the basis for allowance of the appealed claims resides in the combination of the old permanent-mold structure together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed.

Appellants have submitted an affidavit showing commercial success of the device set forth and indicating those factors which they deem illustrative of the unobviousness of the recited combination. They argue that this new combination has reduced the number of defective pistons formed by permanent molding by 15% and has increased production 35%. It is further claimed that the reduction of defects is caused by the use of the timer in withdrawing the inner core at the exact time required to avoid slumping of the metal when the inner core is withdrawn too soon and cracking in the thin skirt portions thereof, when withdrawn too late. Appellants state that previous to their asserted invention, the molder by noting the color and sinking of the gate, guessed when to withdraw the center core and that this course of action caused the large percentage of defective pistons.

Further, appellants stress the importance of the claimed combination in particular relation to the aluminum and magnesium alloy piston molding art which they argue has peculiar problems not found in the molding of pistons with other metals. The affidavit states that "pistons when made of aluminum and magnesium alloys have high crystallization shrinkages and coefficients of thermal expansion. * * * The crystallization shrinkage must be compensated for by the proper design and gating. If that is not done then a serviceable piston casting will not be produced."

Unquestionably a new combination of old elements is patentable under certain circumstances. However, we believe that this principle is subject to the conditions stated in the case of *In re Kaufmann*, 39 CCPA (Patents) 769; 1952 C. D. 85; 656 O. G. 279; 193 F.2d 331; 92 USPQ 141, wherein the court stated at 774:

> * * * if a new combination of old elements is to be patentable, the elements must cooperate in such manner as to produce a new, unobvious, and unexpected result. It must amount to an invention. *In re Smith*, 34 CCPA (Patents) 1007, cited supra. In the absence of invention, utility and novelty are not sufficient to support the allowance of claims for a patent. *In re Levin*, 37 CCPA (Patents) 791, 178 F.2d 945, 84 USPQ 232; *In re Hass et al.*, 31 CCPA (Patents) 895, 141 F.2d 122, 60 USPQ 544. It is trite to say that invention is difficult to define positively. However, we believe it to be a settled rule that it is not invention to produce a device which is within the realm of performance of a skilled mechanic in the ordinary progress of producing a device required to effectuate a given result.

Furthermore, [2] it is well settled that it is not "invention" to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result. *In re Rundell*, 18 CCPA (Patents) 1290, 48 F.2d 958, 9 USPQ 220.

With respect to the paramount contention of appellants that the timing device of their combination establishes patentability, we are of the opinion that the prior art and the logical deductions of anyone skilled in the art would preclude the determination that the recitation of "time-controlled means set to the period between the completion of the pouring of the metal in the mold and solidification of the metal of the piston therein" constitutes "invention." The need for withdrawal of the middle core section upon solidification is recognized by Flammang et al.; Waldie and Stern teach the advantages of timing devices used in conjunction with pressure valves to cause the withdrawal of various parts at predetermined times after pouring in the operation of molding devices. Therefore it would be obvious to any person skilled in this art to equip the mold structure of Flammang et al. with the timing devices of Waldie or Stern.

Appellants claim that because of the peculiar characteristics of aluminum and magnesium alloys it is imperative that the center core be withdrawn at exactly the right moment. Assuming this to be so, this precise moment must be determined by one who has the knowledge of the properties of the metals involved and can calculate the required time to produce those castings which will be devoid of defects. This determination involves the consideration of many variables including the composition of the raw material and the alloy formed, the melting temperature, the temperature of pouring the molten metals, the mechanical construction of the mold, the temperature gradient and the absolute temperatures within the mold, and the speed of pouring.[1]

The timer itself does not compute the molding period. A mental process is invoked and the timer is set accordingly. [3] Patentability cannot be predicated upon a mental step. *In re Shao Wen Yuan*, 38 CCPA (Patents) 967, 188 F.2d 377, 89 USPQ 324. It follows naturally that if the timers are employed the instantaneous reaction which appellants deem so important, would result. Furthermore, using a floor switch to activate the timer detracts from appellants' contention that the automatic timer relieves the operation from the mistakes and inertia of the human mind.

We are further of the opinion that the instant element recited herein as "means controlled by said time controlled means and controlling said power

[1] These factors are recognized in the excerpt from "The Metallurgy of Aluminium and Aluminium Alloys," Robert I. Anderson, 1925, page 632, cited as an authority in the record before us.

operated means" does not add patentability to this combination. Venner et al. together with the Nichols and Wagner patents show the automatic means to initiate withdrawal of a core from a piston molding apparatus; this would preclude applicants from predicating patentability on this feature. [4] The fact that these references pertain to iron castings or engine blocks and other products does not prevent their use as references to show mechanical means for initiating the withdrawal of core members.

Moreover, even though the use of the instant machine is asserted to have decreased the percentage of defective pistons cast and increased the rate of production thereof, these features alone do not create patentability. [5] Commercial success is of no moment unless patentability is in doubt. *In re Jaeger et al.*, 44 CCPA (Patents) 767, 241 F.2d 723, 112 USPQ 477. In the instant case, we find all the elements of appellants' combination in the prior art cited by Venner et al. together with Waldie, Stern, Nichols and Wagner.

Appellants have asserted that their alleged invention was not obvious to the many persons skilled in the instant art since for many years the industry "has relied on the molder's guess as to solidification." It is sufficient to say in answer to this argument that appellants' combination would not stop the guesswork. What did, was the more accurate determination of the proper molding period and the application of the prior art to utilize the knowledge thus obtained.

There is nothing in appellants' affidavit which bolsters their contention that this industry either recognized or was endeavoring to resolve the problem set forth; the mere fact that the percentage of defective pistons produced was decreased by the instant apparatus, after a long period of use of other devices, does not necessarily show that the combination at bar was unobvious. So far as it appears from this record, the number of defects produced by the use of prior art molding apparatus may have been merely nominal, and therefore, the said decrease would not be significant, nor would any need for change be apparent.

Therefore, we find no patentable distinctions recited over the prior art of record in claims 1, 2, or 5, and accordingly affirm the Board's rejection of those claims.

Claims 8, 10, 13, and 20 differ from claim 1 in reciting a multiple mold apparatus and carrier therefor, the latter actuated by power-operated means at the disposal of the molder to move so as to position the several molds for the alternate pouring and solidification steps. The Board affirmed the rejection of these claims as failing to patentably distinguish over the *claims* of Venner et al., in view of the various secondary references cited above. The Venner et al. patent claims a "plurality of piston molds * * *, a carrier for said molds * * *, and power-operated mechanism under control of the molder at the molder's station for rapidly shifting said carrier and with it said molds * * * to positions: first contiguous the molder's station for pouring of the metal * * *, second away from the station for setting of the metal, and third back to the station for * * * removal of the casting * * * and closing of the mold * * * for repouring." It would be considered obvious for any person in the piston molding are to equip the multiple mold apparatus thus defined by the claims of Venner et al. with time controlled means to withdraw the middle core section after a predetermined period for solidification, in accordance with the disclosures of the secondary references, as discussed hereinabove in connection with claim 1. Therefore, the rejection of claims 8, 10, 13, and 20 is affirmed.

[6] For the above reasons, we affirm the decision of the Board of Appeals.

AFFIRMED.

PATENT SUITS

Notices under 35 U. S. C. 290: Patent Act of 1952

2,272,246, V. Anderson, Straight-type warp-knitting machine; **2,718,768**, M. E. Ebert, Beam drive, filed Mar. 3, 1957, D. C. N. J. (Newark), Doc. 193/57, *Alfred Hofmann & Co. v. Meyer Textile Machine Corp.* Stipulation and order of dismissal Jan. 15, 1959.

2,396,246, M. F. Weida, Pretzel making machine; **2,620,240**, Allen and Hudson, Pretzel machine; **2,709,687**, same, filed Jan. 14, 1959, D. C., E. D. Pa. (Philadelphia), Doc. 25797, *Beckman Bakeries Corp. v. American Machine & Foundry Co.*

2,396,057, N. Straussler, Propulsion devices for amphibious vehicles, filed Jan. 8, 1959, D. C., Dist. of Col., Doc. 59/59, *Nicholas Straussler v. General Motors Corp.*

2,438,173, Johnson and Harvey, Portable and collapsible scaffolding unit; **2,619,290**, W. J. S. Johnson, Scaffolding and span therefor, filed Jan. 8, 1959, D. C., N. D. Tex. (Fort Worth), Doc. 8102, *Up-Right, Inc. et al. v. Safway Products, Inc.*

2,450,694, J. A. Sauer, Self-locking nuts; **2,530,121**, L. N. Brutus, Lock screw or the like; **2,539,887**, E. R. Boots, Self-locking bolt, filed Dec. 31, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 1222/58-WB, *Long-Lok Corp. v. The Nylok Corp. et al.*

2,485,295, A. J. Larson, Pack of abrasive coated sheets, filed Jan. 16, 1959, D. C., E. D. Wis. (Milwaukee), Doc. 59c9, *Pres-On Abrasives, Inc. v. Coated Abrasives, Inc. et al.*

2,489,112, A. G. Talbert, Coupling for tractor and semi-trailer units or the like, filed Jan. 15, 1959, D. C. R. I. (Providence), Doc. 2448, *Talbert Construction Equipment Co. v. Vincent Peloso and Peloso, Inc.*

2,491,448, Hillenbrand and Burst, Floor lamp, filed Jan. 15, 1959, D. C., S. D. Ind. (Indianapolis), Doc. 59c26, *Hill-Rom Co., Inc. v. Sockstedera, Inc. et al.* Same, Doc. 59c27, *Hill-Rom Co., Inc. v. A O W Corp.*

2,502,823, K. K. Shepard, Wheel balancer, filed Jan. 7, 1959, D. C., S. D. Calif. (Los Angeles), Doc. 23/59-TC, *Turner Mfg. Co. v. Bada Co. et al.*

2,530,121. (See 2,450,694.)

2,539,887. (See 2,450,694.)

2,546,234, Bacon and Kent, Nailing machine; **2,679,644**, same, Nail-driving machine with movable nosepiece; **2,790,958**, same, Nail driving machine, filed Jan. 6, 1959, D. C., S. D. Calif. (Los Angeles), Doc. 21/59-T, *Nu-Matic Nailer, Inc. v. Francis Howard Tankersley.*

2,552,488, S. A. Paoli, Shrimp cleaning implement, filed Oct. 1, 1956, D. C. N. J. (Newark), Doc. 775/56, *Stephen A. Paoli et al. v. Plastic Dispensers, Inc.* Claims 1, 2, 6, 7, 10, 12, and 13 held valid; injunction issued (notice Jan. 12, 1959).

2,574,412, R. A. Pringle, Dust collecter, filed Mar. 7, 1958, D. C. Idaho (Boise), Doc. 3425, *Boise Heating & Equipment Co. v. Lemple Heating Co.* Judgment for plaintiff; injunction issued Jan. 9, 1959.

2,618,290. (See 2,438,173.)

2,699,948. (See 2,295,246.)

2,699,955, C. S. Allen, Method of applying sealing spouts for lighter fluid cans; 2,670,895, same, Plastic spout for liquid containers, filed Feb. 4, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 17264, *West Penn Closure Corp.* v. *A. M. R. Chemical Co., Inc.* Order of dismissal Jan. 19, 1959.

2,661,108, C. E. Morgan, Car tow mechanism, filed Jan. 14, 1959, D. C., N. D. Calif. (San Francisco), Doc. 37971, *Carl E. Morgan* v. *H. S. Watson Co. et al.*

2,670,395. (See 2,660,355.)

2,670,944. (See 2,546,354.)

2,707,775, Hoffman and Holke, Electrical connectors, filed Jan. 9, 1959, D. C., E. D. Mo. (St. Louis), Doc. 57c9(1), *Jasper Blackburn Corp.* v. *James R. Kearney Corp.*

2,712,822, A. Kurtin, Brush for removing skin blemishes, filed Jan. 13, 1959, D. C., S. D. N. Y., Doc. 141/356, *Robbins Instruments Co.* v. *Mill-Bilt Equipment Co.*

2,713,683, L. L. Krieger, Brassieres, filed Aug. 30, 1957, D. C., S. D. N. Y., Doc. 124/88, *International Latex Corp.* v. *Bestform Foundations, Inc. et al.* Consent judgment; injunction issued Jan. 12, 1959.

2,713,768. (See 2,273,246.)

2,720,845, Miller and Becker, Apparatus for automatically removing lint from above and below the warps of textile looms, filed Jan. 16, 1956, D. C., W. D. N. C. (Asheville), Doc. 1140, *American Moorsell Co., Inc.* v. *Porte-Cramer Co.* Consent judgment; complaint dismissed without prejudice Jan. 14, 1959.

2,706,392, Danel and D'Auriac, Artificial blocks for structures exposed to the action of moving water, filed July 31, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 924/57-T, *Etablissements Neyrpic and Sotramer* v. *Richfield Oil Corp. et al.* Consent judgment; patent held valid; defendants restrained (notice Jan. 13, 1959).

2,709,497. (See 2,295,246.)

2,704,506, H. Allen, Pipe hanging apparatus, filed Sept. 10, 1957, D. C., S. D. Tex. (Houston), Doc. 12102, *Cameron Iron Works, Inc.* v. *Oil Center Tool Co.* Final consent decree; patent held valid and infringed; defendants enjoined Jan. 16, 1959.

2,720,858. (See 2,546,354.)

2,894,133, A. R. Wood, Lighters for gas burners, filed Jan. 12, 1959, D. C., N. D. Ohio (Cleveland), Doc. 8145, *A. R. Wood & A. R. Wood Mfg. Co.* v. *The National Ideal Co.*

2,895,594, E. L. Stein, Demountable display panel and easel combination, filed Feb. 27, 1958, D. C., E. D. Mo. (St. Louis), Doc. N/58/c/4, *Eye-Beams Displays, Inc.* v. *Standard Printing Co.* Final consent decree; patent held valid and infringed; injunction issued; defendants enjoined Jan. 8, 1959.

2,902,255, S. D. Nelson, Floor construction, suit for Declaratory Judgment filed Jan. 9, 1959, D. C., W. D. Mich. (Grand Rapids), Doc. 3582, *Conner Lumber and Land Co.* v. *Robbins Flooring Co. et al.*

2,900,129, O. B. Lolmaugh, Tow target having combustion signal means, filed Jan. 15, 1958, D. C. Maine (Portland), Doc. 6/14, *Del Mar Engineering Laboratories* v. *Colonial Aircraft Corp.*

Re. 23,182, Reiner and Braga, Clamps, filed May 6, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 15504, *Kenneth Reiner* v. *Diamond Calfano.* Order of dismissal (notice Jan. 14, 1959).

REISSUES

FEBRUARY 24, 1959

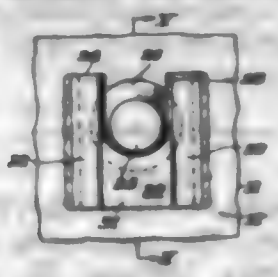
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,606
REPLACEABLE SUPPORT FOR REFRACTORY LINING OF FURNACE DOORS

George L. Robinson, Pittsburgh, Pa., assignor, by mesne assignments, to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware

Original No. 2,673,533, dated March 30, 1954, Serial No. 118,336, September 23, 1949. Application for reissue November 14, 1956, Serial No. 622,233

8 Claims. (Cl. 110—173)



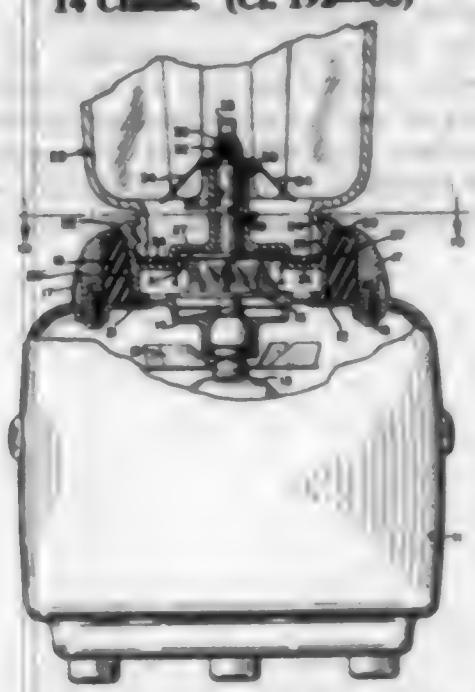
1. In a plastic refractory lined furnace door, in combination, a wall having a face against which refractory is placed, a socket permanently fastened to said face, said socket having a portion close to but spaced from said face, said portion having a recess therein, a stud having a body and a base, said body having a width less than the width of said base, said recess having a width less than the width of said base but greater than the width of said body, said base having a length movable between said face and said portion to hold the remainder of said stud extending through said recess normal to said face to anchor said refractory.

24,607
FLEXIBLE COUPLING MEANS FOR SEPARABLE SHAFTS

Arthur W. Seyfried, Racine, Wis., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut

Original No. 2,755,908, dated July 24, 1956, Serial No. 315,048, October 16, 1952. Application for reissue November 27, 1957, Serial No. 700,928

14 Claims. (Cl. 192—55)



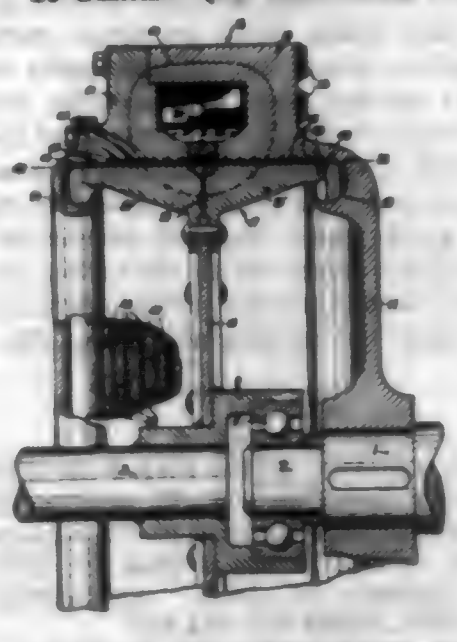
9. In combination with a pair of separable shafts which are longitudinally and laterally movable relatively to each other, coupling means for drivingly connecting said shafts including a flexible coupling member fixed on one of said shafts comprising a rigid disc, a flexible disc having one of its faces securely joined to one face of the rigid disc and a plurality of flexible teeth on the exposed face of said flexible disc, each of said teeth having a contact face perpendicular to the said disc and extending radially with respect to the axis of the coupling member but spaced from the axial center of said member, the teeth being spaced apart circumferentially.

24,608
MAGNETIC CLUTCH

Anthony Winther, Kenosha, Wis., assignor, by mesne assignments, to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Original No. 2,543,394, dated February 27, 1951, Serial No. 87,885, April 16, 1949. Application for reissue August 3, 1953, Serial No. 372,211

10 Claims. (Cl. 192—21.5)



1. A magnetic clutch comprising relatively rotary magnetic driving and driven members at least one of which is constituted by a hollow cylinder in which are formed pockets providing lands therebetween on the face of the cylinder, the other magnetic member being constituted by at least one substantially cylindric surface closely spaced with respect to certain of the lands, means for generating a flux field interlinking said members, and a flowable magnetic material located between the members in an amount adapted to form substantially solid connections between one member and said lands of the other member when the field exists, said pockets being adapted when said field disappears to accept a sufficient amount of said material under centrifugal force to ensure an air gap completely separating said members across the lands and the pockets.

24,609
WELL HEAD CONTROL

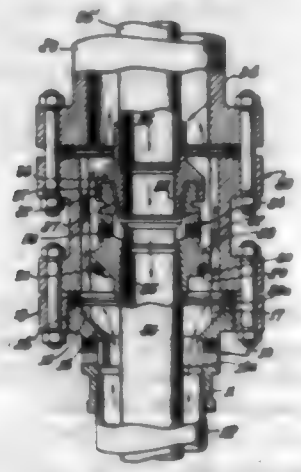
Glenn D. Johnson, Houston, Tex., assignor, by mesne assignments, to Jay Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Original No. 2,771,956, dated November 27, 1956, Serial No. 354,901, May 13, 1953. Application for reissue February 6, 1958, Serial No. 713,774

22 Claims. (Cl. 166—88)

1. In apparatus for facilitating well head operations wherein the surface equipment includes a blowout pre-

venter above a casing head, the provision of: a casing head adapted to be connected to casing, the upper portion of said casing head including an outwardly and upwardly expanding frusto-conical landing surface; a guide spool supported on said casing head and below a blowout preventer, said guide spool including inwardly and longitudinally extending guide ribs with fluid channels therebetween; a tubing head adapted to be passed through a blowout preventer, said tubing head having a through bore, means carried by the lower portion of the tubing head for connecting the same with a string of pipe and



including a downwardly directed, conical seating surfaces provided with seal means adapted to seat on the landing surface of said casing head, an upper portion provided with a coupling means and an outwardly and upwardly flaring entry portion, and a removably plugged lateral production outlet between said upper and lower portions, whereby rising circulating fluid may bypass the tubing head through said fluid channels when the tubing head is within said guide spool, and said circulation shut-off and the string of pipe connected to the tubing head supported by the casing head when the seating surface of the tubing head rests upon the landing surface of the casing head.

24,610

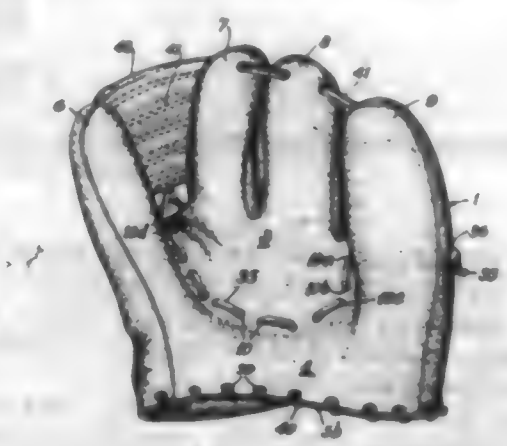
BASEBALL GLOVE WITH PRE-FORMED POCKET

Henry Denkert, Johnstown, N. Y., assignor to M. Denkert & Company, Johnstown, N. Y., a partnership

Original No. 2,750,594, dated June 19, 1956, Serial No. 480,660, January 10, 1955. Application for reissue June 16, 1958, Serial No. 742,455

6 Claims. (Cl. 2—19)

5. A baseball glove comprising inner and outer shell members connected along peripheral edges to form a casing, each of said shell members having a front portion comprising finger, palm and heel covering portions, padding means disposed between the front portions of said inner and outer shell members including a padding roll between the heel portions of said shell members, and means securing said outer shell member to a directly underlying portion of said inner shell member along a curved line extending transversely across the front portion of said shell members between said palm portions and said heel portions, and holding superposed portions of said shell members closely together along said line,



said securing means cooperating with said shell members and padding roll to confine said padding roll and form a lasting pocket of predetermined shape and size in the palm-covering portion of the glove.

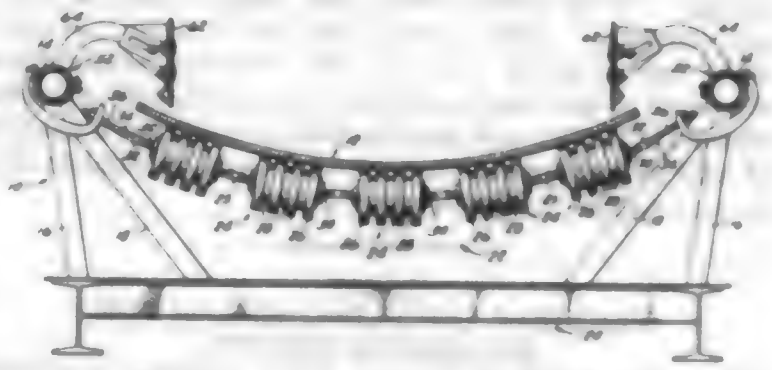
24,611

SUSPENSION MEANS FOR CONVEYOR BELT

Chris Stamos, Chicago, Ill., assignor to The United Electric Coal Companies, Chicago, Ill., a corporation of Delaware

Original No. 2,798,591, dated July 9, 1957, Serial No. 436,270, June 14, 1954. Application for reissue December 2, 1957, Serial No. 700,930

9 Claims. (Cl. 198—192)



1. A suspension device for conveyor belts comprising a flexible belt supporting member to be suspended between two supports, and a pair of suspension assemblies to connect the ends of said flexible member to the supports each of said assemblies including a first member adjustably and detachably connected to said flexible member for adjustment longitudinally of said flexible member and a second member to be adjustably secured to a support at least to accommodate adjustment of said second member longitudinally of the support, said first and second members having engaging surfaces comprising a universal joint between said flexible member and the support.

PLANT PATENTS

GRANTED FEBRUARY 24, 1959

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,812
ROSE PLANT

Esther Gladys Fisher, Woburn, Mass., assignor to The Conard-Pyle Company, West Grove, Pa., a corporation of Pennsylvania

Application July 16, 1958, Serial No. 749,039

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by the Fire Red overlaid with Spiraea Red coloration of the open blooms, changing to Amber Yellow at the center, the abundant dark green, glossy foliage, the strong, stocky habit of growth and the large and well formed blooms which exhibit a wide range of color variation in red and yellow tones, varying with the age of bloom, temperature and soil.

1,813
ROSE PLANT

Shigenobu Kuramoto, San Lorenzo, Calif.

Application April 7, 1958, Serial No. 727,014

1 Claim. (Cl. 47—61)

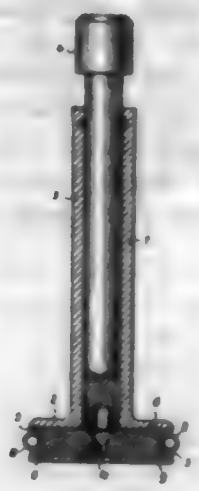
The new and distinct variety of hybrid tea rose plant, substantially as herein shown and described, characterized particularly by its easy, mildew-resistant growth; fine-textured and numerous-veined foliage; large buds and prolific production of very full, exceedingly fragrant rose-red flowers which later turn much darker.

PATENTS

GRANTED FEBRUARY 24, 1959

GENERAL AND MECHANICAL

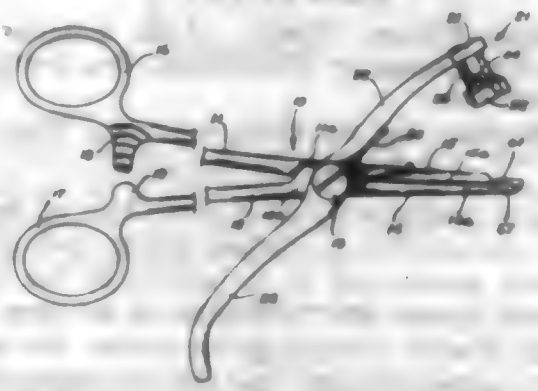
2,874,383
DEVICE FOR DRIVING TEMPERED STEEL INTO WALLS, CEILINGS OR THE LIKE
Wilhelm Wieneke, Huingsen uber Frodenberg, Germany, assignor to Firma Bettermann Elektro G. m. b. H., Lendringsen (Kreis Iserlohn), Germany, a corporation of Germany
Application April 5, 1955, Serial No. 499,425
Claims priority, application Germany November 22, 1954
2 Claims. (Cl. 1—47)



1. A device for driving tempered steel pins into walls, ceilings or the like, comprising a sleeve member of substantially circular cross section, a plunger in said sleeve member and having a tapered inner end, said sleeve member having a substantially radially widened head portion, a plurality of radially disposed guiding and clamping members in said head portion and arranged in a plane perpendicularly to the longitudinal axis of said sleeve member, said guiding and clamping members engaging at their inner end the pin to be driven and being freely removable outwardly in radial direction and means for retaining said guiding and clamping members in operative position, and said guiding and clamping members being spread apart radially and pushed backwardly in said plane during the passing of said pin and the tapered inner end of said plunger, respectively, said guiding and clamping members comprising cylindrical jaws, and said head portion having a plurality of radially disposed bores receiving said jaws and having a length equal with that of said jaws, the inner ends of all said jaws defining an opening for guiding and clamping said pin, and a resilient member surrounding the outer periphery of said head portion, thereby retaining said jaws in the said respective bores, and resilient member preventing the release of said jaws.

2,874,384
SURGICAL DEVICE
Ben W. Krone, Loves Park, Ill., assignor to Rockford Medical Foundation, Rockford, Ill., a corporation of Illinois
Application April 16, 1957, Serial No. 653,143
9 Claims. (Cl. 1—49)

1. A staple applying instrument comprising a clamping device having pivotally interconnected clamping portions, a stapling device including a staple magazine and a staple driver mounted for movement relative to said magazine, means mounting said stapling device on said clamping device for movement relative to said pivotally interconnected clamping portions into and out of engagement with one of said clamping portions, and means



on the other of said clamping portions for clinching the staples.

2,874,385
EYE SHIELD
Kenneth L. Wade, New York, N. Y.
Application July 7, 1955, Serial No. 520,426
2 Claims. (Cl. 2—15)



2. An eye shield which is impervious to rays, comprising an elongated holder adapted to extend over both eyes of a user of the shield, said holder being formed of a cloth-like material, a generally thin metallic moldable sheet material formed substantially coextensive with said holder and being held thereby, said sheet material being manually deformable for molding to the contours of the user's face in the region of the eyes, nose and forehead whereby rays coming from any angle relative to the user's face will be blocked from passage to the user's eyes, and means to maintain the shield in its molded condition over the eyes of the user of the shield.

2,874,386
NECKTIE
Eugene Loomis, Deertrail, Colo.
Application October 18, 1955, Serial No. 541,224
5 Claims. (Cl. 2—150)

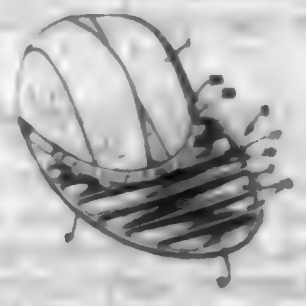
1. A necktie comprising a neck band which has ends and a flat front part, means at said ends separably connecting said band together for adjustment, T-shaped means simulating a knot attached to said neck band and including a flat strip which is fastened to said flat front part of said neck band in parallel relationship thereto and which extends laterally from both sides of the simulated knot, a portion depending from the lower edge of said strip and including end parts which are returned in order to provide a passage, a necktie front forming

panel having an upper end disposed in said passage, means fastening said upper end of said panel in said



passage, the upper and lower edges of said strip coinciding with the upper and lower edges of said band.

2,874,387
VISOR CAP
Constance Bannister and Mario Petitta, New York, N. Y.
Application May 20, 1957, Serial No. 660,101
2 Claims. (Cl. 2—195)



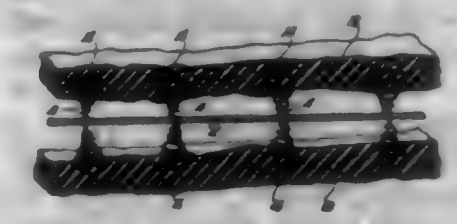
2. A cap visor comprising a plurality of longitudinally spaced slats extending transversely across the visor providing a plurality of longitudinally spaced transverse slots through the visor, a rigid vane fixed to each slat and extending downwardly and forwardly therefrom under a slot and said vanes forming reaction surfaces to direct air through the slots to generate a downward force on the visor.

2,874,388
HOLLOW CONTRACTILE AND EXPANSIBLE PIN WITH SEMICLOSED ENDS
James G. Edelen, Sr., Baltimore, Md.
Application February 15, 1957, Serial No. 640,497
1 Claim. (Cl. 5—383)



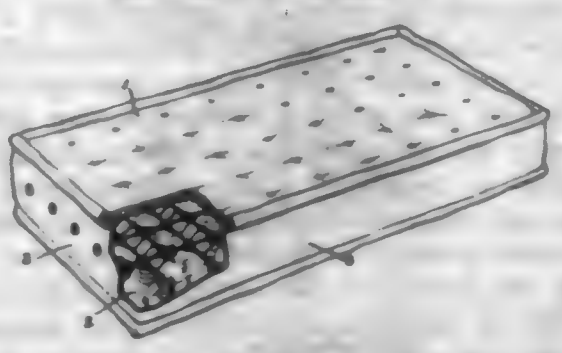
A hollow contractile and expansible pin formed from a piece of sheet metal having a substantially cylindrical body portion provided with a normally open slot extending from end-to-end thereof, said pin having rounded semiclosed end portions each comprising a plurality of inwardly curved tapered tongues, said tongues having blunt radially inner ends and being of a length such that said inner ends of each end portion are spaced outwardly from the axis of the pin, said radially inner ends having corners, the corners of the tongues of each end portion being disposed in abutting engagement with one another, except adjacent corners of two of the tongues, disposed on opposite sides of the slot, and which are normally spaced from one another to cooperate with the slot to permit contraction of the body portion sufficiently to close the slot and to cause said last mentioned corners to assume positions in abutting engagement with one another to resist collapsing or folding of the pin.

2,874,389
INNERSPRING FOAM MATTRESS
Max Koenigsberg, Chicago, Ill., assignor to The Englander Company, Inc., Chicago, Ill., a corporation of Illinois
Application April 10, 1956, Serial No. 577,336
12 Claims. (Cl. 5—351)



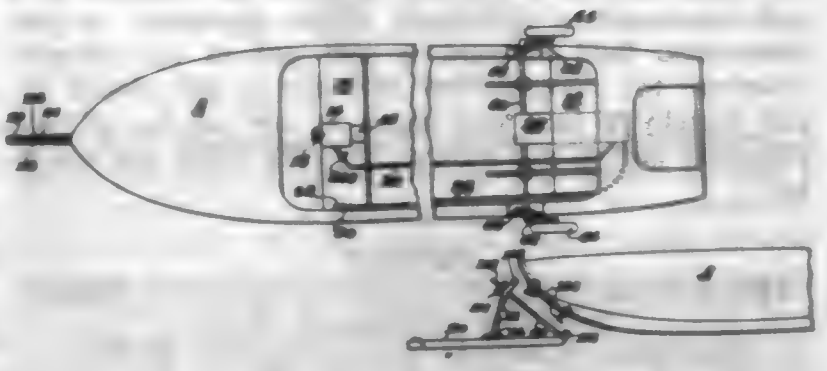
10. An innerspring foam mattress comprising an innerspring assembly including a plurality of coil springs, the terminal portions of said springs being embedded in a slab of cured flexible polyurethane foam.

2,874,390
MATTRESS AND CUSHION CONSTRUCTION
Morton D. Stone, Brooklyn, N. Y.
Application December 3, 1956, Serial No. 625,876
7 Claims. (Cl. 5—351)



1. A mattress, cushion box spring, upholstered seat or like article, divided horizontally into an upper and a lower part, comprising two groups of like springs within said article positioned to exert tension against said parts, respectively, said springs arranged in parallel rows, a plurality of mounting elements, each element extending transversely of a different one of said rows with the springs of each row mounted thereon, a plurality of separate, adjustable compressing means intermediate the mounting means associated with both said spring groups and extending transversely of said mounting means, said compressing means operable to simultaneously move in opposite directions the mounting means with which it is coordinate, whereby to selectively alter the resilience of corresponding springs of the rows in each group and their resultant tension against said parts.

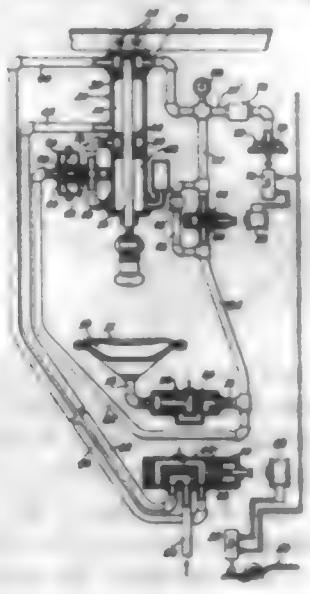
2,874,391
HYDRAULICALLY OPERATED RETRACTIBLE RUNNING GEAR FOR BOATS
Charles C. Renfroe, Decatur, Ga., assignor of one-half to Lonzy M. Martin, Decatur, Ga.
Application February 3, 1956, Serial No. 563,258
6 Claims. (Cl. 9—1)



3. A boat having a shaft extending transversely across the same, cranks adjacent the ends of said shaft and

wheels on said cranks, hydraulic means for rotating said shaft in one direction comprising a hydraulic cylinder, a piston in said cylinder, eccentric means fixed to said shaft and means connecting said eccentric means to said piston, spring means for moving said shaft, whereby movement of said piston by hydraulic actuation causes partial rotation of said eccentric means and said shaft, said spring means having means connecting the same with said shaft whereby said piston and shaft movement causes the storing of power in said spring means, locking means for locking said shaft and the wheels supported thereon in operative position, and manual means for releasing said locking means whereby to allow said spring means to partially rotate said shaft in the opposite direction and return said wheels to their inoperative position, and a supporting means for mounting said hydraulic means and said spring means.

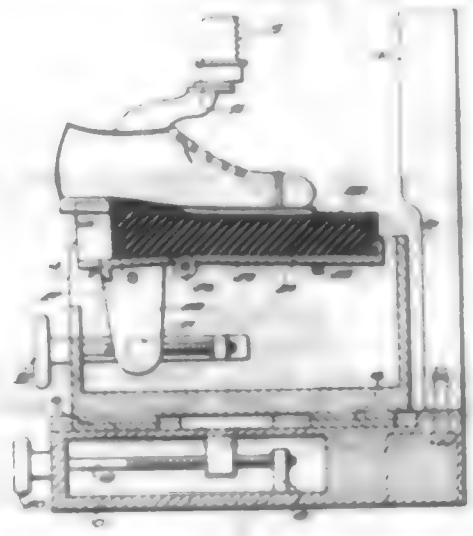
2,874,392
PRESSES
Saverio J. Campione, North Andover, Mass.
Application July 20, 1956, Serial No. 599,261
5 Claims. (Cl. 12—36)



2. A press comprising a movable work-engaging member, a shaft having one end connected to said member, a cylinder fixed in position relative to said member, said cylinder having a plurality of axially aligned chambers therein and said shaft extending axially within all of said chambers, a separate piston in each of said chambers and all fixed on said shaft, means for directing pressure fluid into one of said chambers on one side of the piston therein for driving the piston and said shaft in one direction, said one of the chambers, at the other side of said piston, being simultaneously opened to exhaust, a body of liquid in another of said chambers, conduit means open into said another of the chambers on opposite sides of said piston therein and constituting with said another chamber a closed circuit in which said liquid is free to flow from one side to the other of said piston in said another of the chambers, whereby the latter said piston is free to move in response to a said movement of said shaft, means responsive to predetermined fluid pressure in said one of the cylinder chambers for stopping flow of liquid in said closed circuit thereby to lock said piston in said another of said chambers against any movement in the latter said chamber.

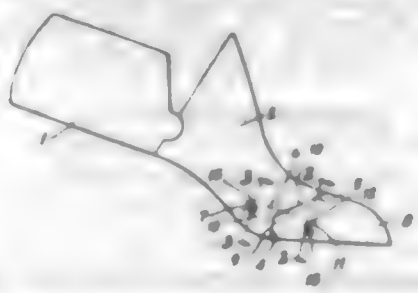
2,874,393
APPARATUS FOR ATTACHING SOLES TO SHOES
Louis Pepe, Providence, R. I.
Application August 16, 1956, Serial No. 604,501
2 Claims. (Cl. 12—36)

2. A cement sole attaching machine for a shoe and sole having cement on their attaching faces and a pressure last positioned in the shoe with an integral portion extending upwardly and forwardly to a point in vertical alignment with the sole, comprising pad means for supporting the shoe and last in right side up position, means for applying a vertical pressure on the extended last portion, means for vertically adjusting said pad means to position the shoe on a horizontal level, and means for horizontally adjusting said pad means to position the extended last portion beneath said pressure applying means, said horizontal adjusting means comprising a base, said base having spaced parallel keyway slots on



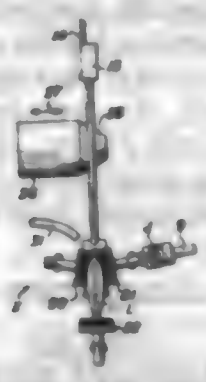
its upper surface, a housing mounted on said base having bottom portions slidably mounted in said slots, a lug extending from the bottom of said housing into said base, and a threaded rod extending into said base through said lug, a vertical standard extending from said base for supporting said pressure applying means, said standard being cut away to permit horizontal movement of said housing, said vertical adjusting means comprising a plate pivotally mounted in said housing, said pad means being mounted on said plate, a lug extending from the bottom of said plate into said housing, and a threaded rod extending into said housing in engagement with said lug.

2,874,394
REBUILT WOODEN SHOE LASTS
Clarence H. Heitman, Brentwood, Mo.
Application May 29, 1957, Serial No. 662,447
2 Claims. (Cl. 12—136)



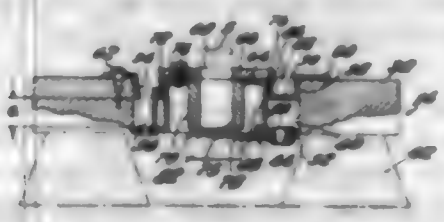
1. A rebuilt wood shoe last including a recut angular face in the forepart of the last to provide a transverse vertical wall extending normal to the tread surface of the last and an upward inclined wall extending to the top face of the toe section of the last, a recut forepart to provide a complementary angular face fitted into the recut angular face of the forepart of the last, aligned coextensive slots formed in the forepart of the last and the recut toe section respectively, said slots extending longitudinally inside the last, a link bar disposed within said slots in concealed relation and joining the forepart and toe sections, said link bar having openings in the opposite ends thereof, transverse openings in said forepart and toe sections of the last, and a dowel pin seated in each of said transverse openings and through said openings in said link, respectively.

2,874,395
LENS CLEANING APPARATUS
Joseph A. Blash, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application June 27, 1957, Serial No. 668,565
6 Claims. (Cl. 15—21)



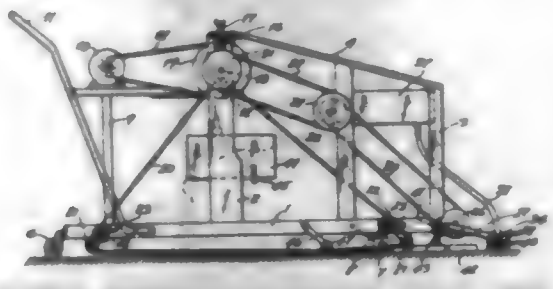
1. A lens cleaning apparatus consisting of three rotatable brushes, two of which are arranged in spaced relation to engage the opposite polished surfaces of a lens while the third supports the lens from below and at its edge, whereby said lens is held captive and is supported solely by said three brushes, and means for rotating the two brushes engaging the lens surfaces in opposite directions whereby frictional contact between the same and said surfaces serves as the sole means for rotating said lens relative to said third brush which cleans the edge of the lens, and means for directing a stream of cleaning solution onto said lens and brushes.

2,874,396
BRUSHING AND SCRUBBING MACHINE
Aaron H. Smith, Lynn, Mass., assignor to Signal Manufacturing Co., Lynn, Mass., a corporation of Massachusetts
Application July 19, 1952, Serial No. 299,789
1 Claim. (Cl. 15—49)



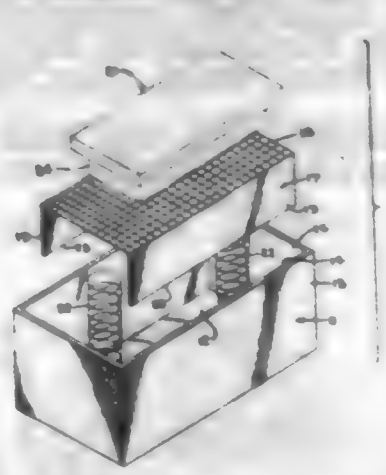
A multi-purpose machine for polishing and scrubbing floor coverings without and with pile surfaces, comprising the combination with a machine mounting a motor, and a pair of vertically disposed, spaced parallel shafts for rotation thereby, a pair of brushes mounted on the shafts, each of said brushes containing a centrally located hole through which one of said shafts extends, and a coupling situated in each of said holes about the corresponding shaft, removably attaching the brush to the shaft for unbiased freedom of movement vertically and for rotation with the shaft about the vertical axis of the shaft, each coupling comprising a pair of telescoping, concentrically arranged sleeves, circular flanges extending radially from the sleeves in vertically spaced, parallel relation, means non-rotatably fastening one of the sleeves to the brush and the other to the shaft, one of said flanges containing a hole disposed eccentrically of the shaft axis, a driving pin fast to the other of said flanges with its axis parallel to the shaft and its opposite end engaged within the hole in said one flange, so that rotation of the sleeve fast to the shaft effects rotation of the sleeve fast to the brush without interfering with axial movement of the brush on the shaft, each coupling including stop means limiting separation of the sleeves axially to a predetermined amount, and a latch carried by the other of the sleeves engageable with the shaft to retain the brush at the lower end thereof and disengageable from the shaft to permit removal of the brush; of an auxiliary supporting frame upon which the machine is demountably supported with the brushes suspended above the floor when the latter are at their lowermost vertical position, and wheels on the auxiliary frame supporting the latter for movement and hence for movement of the machine relative to the floor.

2,874,397
FLOOR WASHING MACHINES
Joseph J. Hirak, Toronto, Ontario, Canada
Application September 16, 1953, Serial No. 380,417
5 Claims. (Cl. 15—51)



2. In a floor washing machine, an elongated frame supported forwardly by vertically adjustable wheels and rearwardly by wheels each free to swing about a vertical axis, a rod mounted on said frame and extending forwardly thereof, a brush element extending transversely of said frame and centrally supported in advance of said frame for sliding movement on said rod, said rod defining an axis about which said brush element can swing, means for reciprocating said brush on said rod, a continuous mopping element mounted on said frame and being adapted to operate behind said brush, said mopping element comprising an endless belt having a pattern of openings extending completely therethrough, a wringer device for operating on said continuous mopping element, a flexible tubular means for feeding liquid to said brush from a receptacle carried by said frame and means for collecting liquid adapted to be squeezed from said mopping element by said wringer including liquid flowing through said pattern of openings.

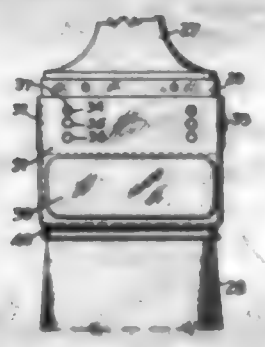
2,874,398
BLACKBOARD-ERASER CLEANER
Joseph M. Di Persio, New York, N. Y.
Application May 28, 1956, Serial No. 587,719
4 Claims. (Cl. 15—94)



1. In a blackboard-eraser cleaner, in combination, a casing defining a chamber having a flat bottom surface, a horizontal screen reciprocable vertically in opposite directions relative to said casing within a region of said chamber spaced above said bottom surface and having a portion adapted to receive in abutment the face of a blackboard-eraser, resilient means urging said screen upwardly and means connected to said screen and comprising two legs operable to strike said surface when the screen is pushed downwardly against the force of said

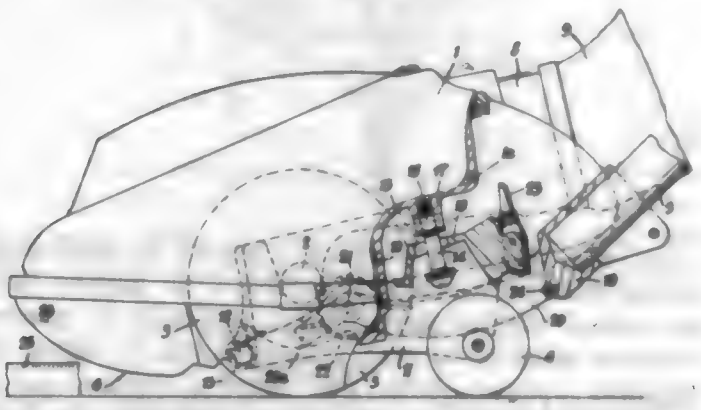
resilient means operable to limit the downward movement of said screen, each leg having a straight lower edge adapted to engage said bottom surface during striking impact.

2,874,399
BRUSH CONSTRUCTION
Solomon Friedman, Brooklyn, N. Y., assignor to The Osborn Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application July 29, 1953, Serial No. 371,842
1 Claim. (Cl. 15—169)



In a hand brush having an elongated handle, a bundle of brush bristle material extending axially therefrom, and a sheet metal ferrule encircling one end of said handle and one end of said bundle of brush material with the latter protruding therefrom; a sheet metal bridle closely encircling said ferrule and extending therebeyond to contact and restrain said brush bristle material, said bridle comprising two hingedly connected portions, snap means adapted to secure said portions together embracing said ferrule, said bridle being provided with a plurality of small openings and said ferrule with corresponding protuberances adapted to interengage to hold said ferrule in selected adjusted axial position relative to said ferrule, the sides of said bridle in the region directly overlying said brush bristle material being deformed outwardly to avoid engagement with said brush bristle material, and a constricted neck at the extreme end of said bridle adapted to embrace said brush bristle material and restrict movement thereof without tightly compressing the same, said constricted neck portion terminating in an outwardly flaring peripheral flange adapted to serve as a drip lip and a retainer means for a rubber band or other securing means which may be placed thereabout.

2,874,400
NON-ELECTRIC VACUUM CLEANERS AND LIKE CLEANING APPLIANCES
Albert Edward Burrage, Milton, England, assignor to Burrage & Boyde Limited, Adnitt, England, a British company
Application December 5, 1956, Serial No. 626,349
Claims priority, application Great Britain December 16, 1955
7 Claims. (Cl. 15—359)



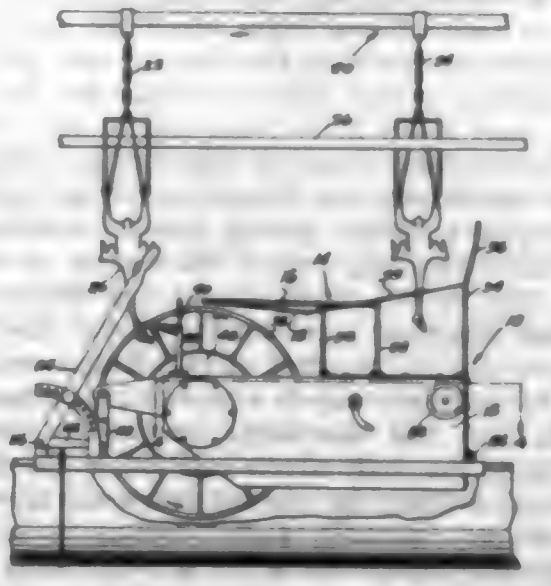
1. In a vacuum cleaner, the combination of a main body casing, a downwardly directed suction nozzle at the front end of said casing, main casing support wheels having a common transverse axis which is disposed rearwardly of said nozzle and about which said casing is free to tilt, a rear guide wheel carrier bracket extending rearwardly of said casing from a transverse fulcrum located on the casing in front of and below said main wheel axis, a rear guide wheel mounted on said bracket rearwardly of said fulcrum and of said main wheel axis, light spring means acting between said carrier bracket and said casing to urge said casing nozzle downwardly about said main wheel axis, and propelling handle means pivoted to said guide wheel carrier bracket between the bracket fulcrum and rear guide wheel, the arrangement being such that the nozzle end of said casing, on contacting different floor coverings during propulsion of the cleaner, will automatically adjust itself to ride lightly over the top surface of any such covering.

2,874,401
LUGGAGE HINGE
Henry L. Kolkins, Seattle, Wash.
Application February 1, 1955, Serial No. 485,348
3 Claims. (Cl. 16—145)



1. A hinge assembly comprising a pair of cooperating hinge members, one of said hinge members having bent over end portions, a pin extending through said bent over end portions, and providing a pivotal axis between said hinge members, a spring member carried by one of said hinge members, said spring member having a centrally disposed flexible portion and spaced end portions abutting said pin to prevent displacement of said pin from said bent over end portions, and a cam formed on the other of said hinge members arranged to abut said flexible portion in one position of said hinge members to thereby resist pivotal movement of said hinge members about said pin.

2,874,402
FOWL DEHEADING APPARATUS
Benjamin J. Boykin, El Dorado, Ark.
Application January 3, 1958, Serial No. 706,954
3 Claims. (Cl. 17—12)



1. In a fowl deheading apparatus, a supporting structure having a forward end and a rearward end, an

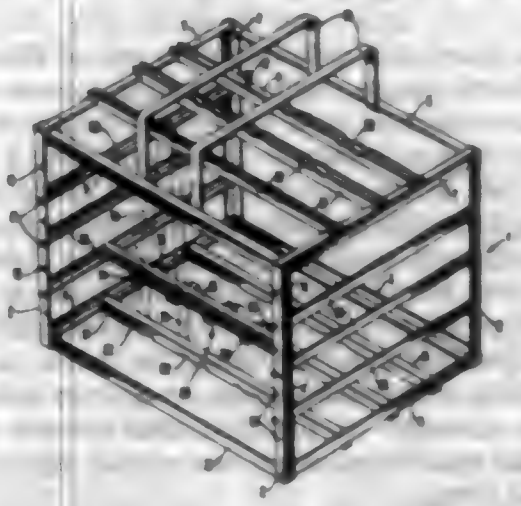
upstanding guide frame rising from said structure and extending from the forward end to a point spaced from the rearward end thereof, said guide frame including a pair of horizontally disposed rods arranged in converging spaced relation positioned so that the diverging ends are adjacent to the forward end of said structure with the converging ends at the terminating point of said guide frame, a horizontally disposed circular rotatable cage carried by said structure and extending transversely of said structure inwardly of and adjacent the rearward end thereof with the upper peripheral portion contiguous to and below the converging ends of said rods, a plurality of embracing elements arranged in spaced relation about and carried by the periphery of said cage, means operatively connected to said cage for rotating the latter in a counterclockwise direction, and overhead horizontally disposed cable positioned longitudinally of said structure and movable in a linear path from the forward end to the rearward end of said structure, and a plurality of spaced hanger members depending from said cable, each of said hanger members being adapted to dependingly support a fowl carcass in a head down position, said cable upon execution of its movement in said linear path causing the head down portions of the fowl carcasses when supported on said hanger members to travel in turn between and along the guide frame rods from the diverging ends to and out of the converging ends with each carcass head portion being inserted into the embracing elements adjacent the guide frame converging ends and be carried by said embracing elements downwardly and away from said cable by the counterclockwise rotation of said cage to separate the carcass head portion from the carcass.

2,874,403

RACK FOR FORMING, SMOKING AND CUTTING OF SAUSAGES, SUCH AS "FRANKFURTERS" AND THE LIKE

Edward D. Lampard, Grand View on the Hudson, N. Y.

Application April 11, 1956, Serial No. 577,496
4 Claims. (Cl. 17—34)



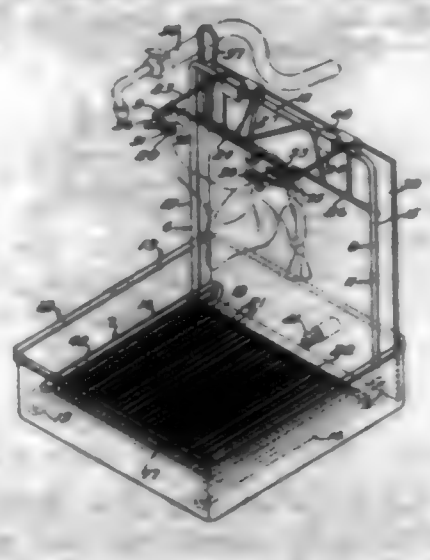
1. A rack for forming, smoking and cutting of sausages comprising, upright frame members, spacing members connecting said frame members to each other and keeping them in spaced relation to one another, a plurality of transverse rods extending between said frame members and a plurality of parallel forming and cutting bar assemblies extending between said transverse rods, each of said forming and cutting assemblies including a first rod having a longitudinal groove and laterally protruding wing portions, a second rod also having a longitudinal groove and laterally protruding wing portions, said wing portions on said two rods forming the jaws of a sausage receiving and forming device, and a third rod having portions thereon mounted in the grooves of the first and second rods, the third rod having cam surfaces, and cutting members pivoted to said second rod and having cam engaging portions for engaging the cam surfaces of the third rod, said pivoted cutting members being disposed adjacent to the wing portions of the first two rods for cutting through the casing of the sausage held between the wing portions.

2,874,404

POULTRY SUPPORTING MEANS

Ben Gonzalez, San Leandro, Calif.

Application November 16, 1956, Serial No. 622,655
3 Claims. (Cl. 17—44.1)



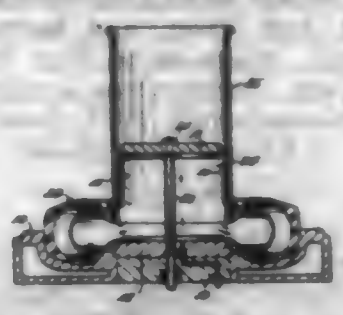
1. In a mounting for supporting a fowl or the like for eviscerating, dismembering or similar operations, a frame having front and rear portions and including a horizontal open rack forming the base thereof, said frame having an upright standard formed with spaced sections extending from the base adjacent the rear edge thereof, said sections terminating in a top portion with a cross member positioned beneath said top portion, said top portion having a pair of horizontally spaced members extending outwardly therefrom for the retention of the legs of a fowl positioned over and spaced from said rack, said cross member having a recess for receiving the neck of a fowl, the relationship of the horizontally spaced members and the cross member being such that the fowl is supported in a generally horizontal position and with the body of the fowl maintained in a relatively taut condition.

2,874,405

APPARATUS AND METHOD OF MANUFACTURING TIRE

James Raymond Stanford, Cuyahoga Falls, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application February 13, 1958, Serial No. 715,003
2 Claims. (Cl. 18—2)



1. The method of inserting a curing diaphragm, initially cylindrical in form, into an unvulcanized tire of toroidal shape which comprises positioning the tire in telescoped position over said diaphragm with the lower bead of said tire adjacent the lower end of said diaphragm, with the lower body portion of the diaphragm spanning the open space between the tire beads and with the upper body portion of said diaphragm projecting upward and beyond said tire for a substantial distance, applying fluid pressure within said diaphragm and temporarily support-

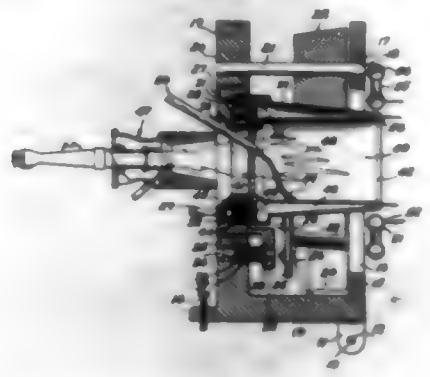
ing said projecting upper body portion of said diaphragm against the forces of said fluid pressure while causing the upper end of said diaphragm to move toward said tire and causing said diaphragm to inflate progressively between said beads into said tire.

2,874,406

APPARATUS FOR MANUFACTURING GLASS FIBERS

Miles S. Firnhaber, Pewaukee, and Ernest J. Nygren, Milwaukee, Wis., assignors to Sealtite Insulation Mfg. Corp., Waukesha, Wis., a corporation of Wisconsin

Application July 16, 1956, Serial No. 598,152
1 Claim. (Cl. 18—2.5)



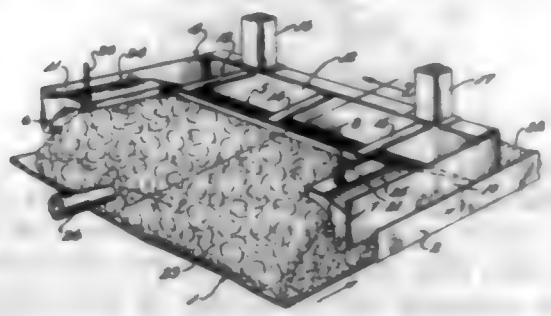
Apparatus for manufacturing glass fibers comprising a rotatable drum having a peripheral wall with a molten glass receiving opening at one end and with a discharge opening at the other end from which the molten glass is to be centrifugally thrown, there being a jacket surrounding said peripheral wall of the drum and said jacket having a tapered exterior wall forming the outer surface of the drum and said jacket having an annular end face surrounding the receiving opening of the drum, a steam ring in contact with said end face and having an annular steam chamber for receiving steam from an outside source, said ring and end face having co-operating openings therein for conducting steam from the steam ring into the steam jacket as the drum rotates, rollers having tapers to conform to the tapered exterior of the drum supporting the latter for rotation, means for driving one of said rollers, and means for resiliently urging the steam ring against said end face of the drum and for constantly maintaining proper engagement between the tapered exterior of the drum and the tapered rollers said jacket having outlet means surrounding the discharge opening of the drum from which steam is discharged to act as a fiberizing medium on the molten glass which is being discharged centrifugally from the drum.

2,874,407

LATEX SLAB MAKING APPARATUS

Leo A. Chabot, Fall River, and Bertrand J. Durand, Somerset, Mass., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application November 25, 1955, Serial No. 549,015
1 Claim. (Cl. 18—4)



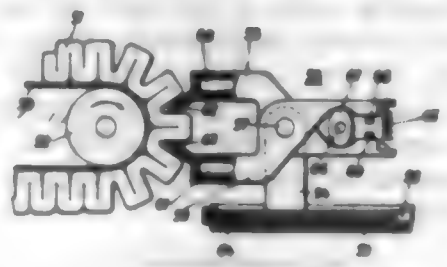
Apparatus for contouring foamed latex comprising in combination a conveyor belt on one surface of which said latex is carried, two belts parallel to the first conveyor belt at each respective edge thereof having surfaces normal to said one surface of said conveyor belt, a scraping blade mounted transverse said conveyor belt in spaced relation to said one surface and tilted at an angle of 10° to 45°, said scraping device having a base member transverse said conveyor belt and two arm members arcuate in cross section extending from said base member embracing the path of travel of said latex, each arm member having a surface parallel to the path of travel of said latex and in sliding contact with its respective side belt and means in said base and arm members to cool said latex below the gel point thereof, whereby the path of travel of said latex on said conveyor may be converged in response to said arms and said base member to a predetermined configuration without the build up of frictional heat in said latex.

2,874,408

APPARATUS FOR THE MANUFACTURE OF A PACKING AID

Otto Anton Viell, Rhazuns, Graubunden, and Paul Adolf Muller, Herrliberg, Zurich, Switzerland, assignors to Cegepa Etablissement, Vaduz, Liechtenstein, a company of Liechtenstein

Application October 18, 1956, Serial No. 616,685
Claims priority, application Switzerland October 20, 1955
1 Claim. (Cl. 18—4)



A system for producing packing material having pockets for accommodation of elongated objects from an endless cellular web, said system comprising transport means for moving the web, means engaging with said web during transport thereof to form a substantially continuous row of folds in said web transversely to the length of the latter, means engaging the folded web to temporarily spread the folds apart and to form slots therebetween, and means plastically deforming the spread folds to form pockets therebetween, said deforming means including guide means adjacent said web, slide means movable in said guide means between a forward and a retracted position, plier means supported by said guide means for movement therewith and adapted to simultaneously move into two adjacent slots and to engage the fold between said slots for forming a depression therein in said forward position of said slide means, and operating means for said plier means for actuating the latter in said forward position of the slide means, to thereby produce said depression laterally of the fold and thereby form the pocket, each pocket including one of said depressions and one of said slots.

2,874,409

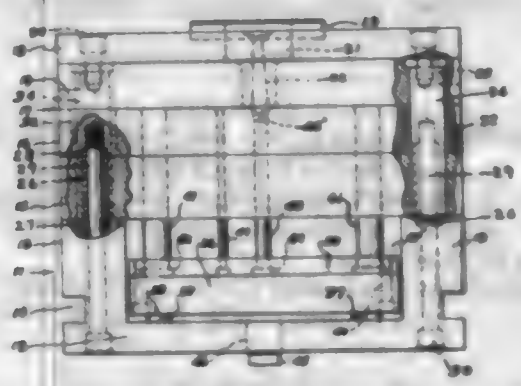
PLASTIC MOLD BASE

Ivar T. Quarnstrom, New Haven, Mich., assignor to Detroit Mold Engineering Co., Detroit, Mich., a corporation of Michigan

Application June 21, 1954, Serial No. 437,987
1 Claim. (Cl. 18—42)

In a mold base for plastic injection molding having a hollow ejector member of U-shape in cross-section, a backup plate positioned over said member providing a cover therefor, a cavity retainer plate superposed upon said backup plate, a plurality of laterally spaced dowels extending through accurately aligned bores in said ejector member and plates, and fasteners securing said plates and ejector member together; the improvement wherein

said dowels are formed in tubular shape and of uniform diameter throughout their length and extend snugly and tightly through accurately aligned apertures formed in said ejector member, backup plate and cavity retainer plate, said fasteners consisting of bolts projecting through each of said dowels respectively, sized to move freely through said dowels whereby when said bolts are tight-



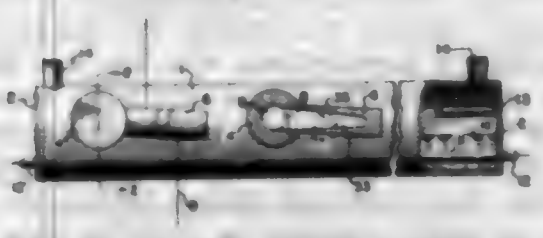
ened the forces caused thereby are applied coaxially with the longitudinal axis of the dowels, said bolts extending from said ejector member into spaced threaded apertures in said cavity retainer plate whereby said member and plates will be formed into a unitary, accurately aligned assembly adapted for mounting upon the reciprocal part of a molding machine.

2,874,410

APPARATUS FOR UNIFORMLY DRAWING A PLURALITY OF FILAMENTS

George Allison Kinney, Glen Mills, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application June 30, 1954, Serial No. 440,501
6 Claims. (Cl. 18—8)



6. Apparatus for drawing shaped articles at an elevated temperature comprising a sealed boiler containing a vaporizable liquid heating medium and having a plurality of lateral outlets above the liquid level of the heating medium; heating means adapted to heat the heating medium, the heat output of said heating means being regulatable; a temperature controller adapted to control the heat output from the heating means so as to control the temperature of the heating medium; and fitted to each of said lateral outlets in the boiler a draw pin having a hollow, concentric, tapered portion in communication with the lateral outlet, the wide taper being at the end of the pin nearest the lateral outlet, the bottom taper sloping downward from horizontal towards the boiler to drain the condensate from the pin and the upper taper sloping upward from horizontal towards the boiler to remove noncondensables from the pin.

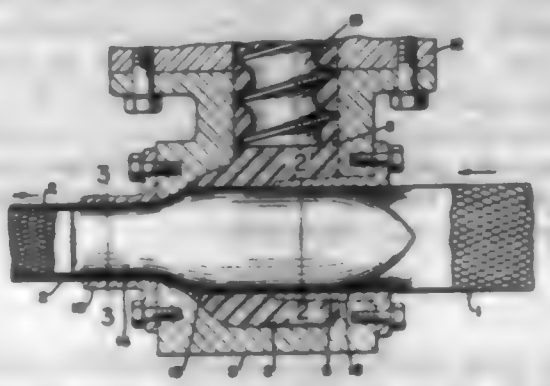
2,874,411

APPARATUS FOR COATING AND IMPREGNATING TUBULAR FABRICS

Leonard G. Berquist, Niles, Mich., assignor to National-Standard Company, Niles, Mich., a corporation of Delaware

Application August 10, 1956, Serial No. 603,279
5 Claims. (Cl. 18—13)

1. An apparatus for coating and impregnating an elongated hollow body composed of spaced reinforcing strands with a plastic material, a die head having a chamber, means to maintain a body of plastic material under pressure in the chamber while the reinforcing strands are passing through the chamber, said chamber having a guiding opening at one side thereof to receive the uncoated body and a die opening at the other side of the chamber through which the coated and impregnated body



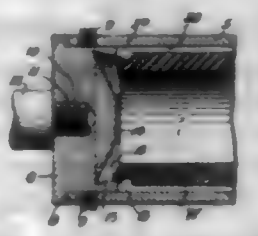
passes out of the chamber, and a mandrel surrounded by the body and having its leading end located in the die opening and its trailing end located in the guiding opening, said mandrel being free to move with the hollow body but held within the chamber by the die opening.

2,874,413

APPARATUS AND PROCESS FOR CENTRIFUGAL MOLDING OF ARTICLES FROM THERMOPLASTIC MATERIALS WHICH EXHIBIT SUBSTANTIAL VOLUMETRIC SHRINKAGE

Norbert A. Flemming, Reading, and Eugene E. Montrom, West Wyomissing, Pa., assignors to The Polymer Corporation, Reading, Pa., a corporation of Pennsylvania

Application March 2, 1953, Serial No. 339,846
3 Claims. (Cl. 18—39)



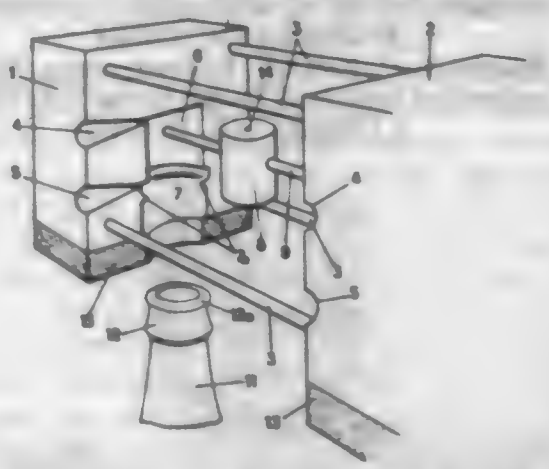
1. A centrifugal mold for molding a tubular article from molten material characterized by substantial volumetric shrinkage upon solidification, said mold comprising a mold tube and end closure plugs therefor, each of said plugs having an annular groove in the inside face, said groove having an undercut peripheral surface which is flared outwardly in a direction away from the interior of the mold tube.

2,874,413

APPARATUS FOR FORMING PLASTIC CLOSURES ON RECEPTACLES

Jean Grussen, Paris, France

Application February 23, 1954, Serial No. 411,821
Claims priority, application France August 18, 1953
4 Claims. (Cl. 18—42)



1. A molding apparatus for injection forming plastic closures for receptacles comprising a pair of platens de-

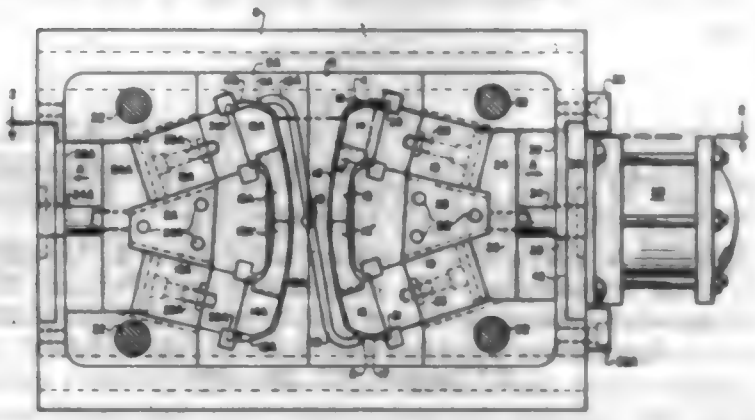
fining a molding cavity therebetween when said platens are assembled, a rotatable core member for separating said molding cavity into two chambers when said platens are assembled, said receptacle having a portion adapted to be received in one of said chambers, and injection means for substantially simultaneously forcing plastic composition within said chambers, whereby a central plastic part of said closure is formed in one of said chambers against said core member and then upon rotation of said core member placed into said other chamber where the peripheral remainder of said central part is formed and welded to said central part directly over said portion of said receptacle.

2,874,414

MOLD FOR MOLDING TELEPHONE HANDSETS

Edmund B. Sargent, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application April 2, 1956, Serial No. 575,558
6 Claims. (Cl. 18—42)



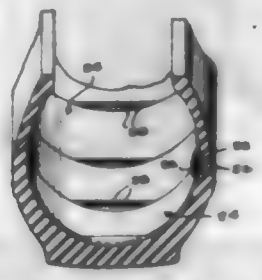
1. A mold for molding a telephone handset comprising a first and second die member, each of said die members being shaped to form the side halves of said set and, when mated, cavities comprising handle forming portions and portions for forming receiver and transmitter casings, cores for forming the inner portions of said casings, a pair of tapered cores for forming the inner portions of said handle forming portions, a pressure controlled retractor assembly attached to said first cores, means for pressurizing said retractor assembly to insert said first cores into said casing forming portions, slidable means thereafter manually effective to slidably mount said tapered cores on said first cores, passage means for delivering a compound in a plastic state under pressure into said cavity to form integrally and simultaneously the handle and casings of said telephone set in said die, said first means thereafter operated to release said pressure of said retractor assembly to simultaneously retract said first cores from said tapered cores and from said casing forming portions.

2,874,415

PRESSURE SEAL FOR VULCANIZING PNEUMATIC TIRES

Randolph R. Pollock, Lawrenceburg, Tenn.

Application March 28, 1956, Serial No. 572,743
2 Claims. (Cl. 18—45)



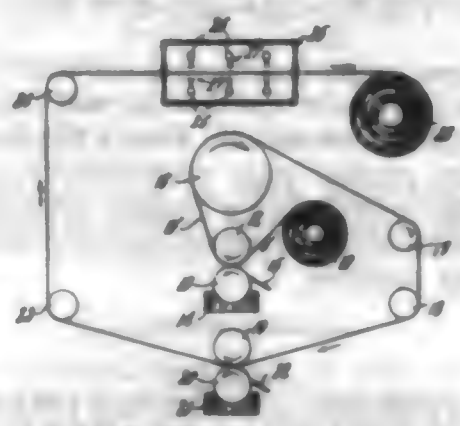
1. A sealing ring for use in vulcanizing pneumatic tires comprising hingedly connected concave metallic sections shaped to conform to the interior surface of the tire, one of said sections being detachably connected to a next adjacent section permitting ready insertion and removal from the tire, the overall dimensions of the expanded sealing ring being such as to expand the tire and form an air-tight seal at the camel back edge of the tire, each concave metallic section being formed with a flange transversely of respective ends thereof for snug abutting relation when expanded within the tire.

2,874,416

METHOD OF MAKING DECORATED PLASTIC SHEET MATERIAL

Peter P. A. Burnett, Stoughton, Wis., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application December 8, 1953, Serial No. 396,835
8 Claims. (Cl. 18—47.5)



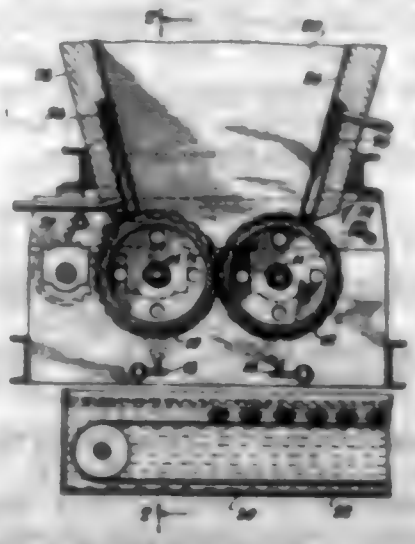
1. The method of forming a decorated thermoplastic resin film, said film being produced on a carrier sheet without penetration thereof by the film components, and having a design which is protected by a wear surface, which comprises: (*a*) applying a thin layer of a thermoplastic resin organosol to a substantially inextensible carrier sheet without penetrating the interstices thereof; (*b*) printing a thermoplastic resin ink in a discontinuous design layer directly on said thin layer before any film strength has been developed in said thin layer; (*c*) casting a body layer of a thermoplastic resin organosol over said thin layer and said design layer; (*d*) fusing said layers integrally together by applying heat thereto at atmospheric pressure; and (*e*) stripping the resulting decorated film from said sheet.

2,874,417

METHOD OF FORMING THERMOPLASTIC BRIQUETTES

Kristian Fredrik Langfeldt Ramse, Nordstrand, Oslo, Norway, assignor to Elektrokemisk A/S, Rodhaugsten, Oslo, Norway, a corporation of Norway

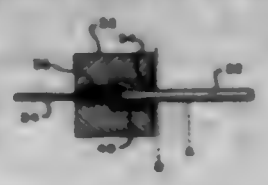
Application June 28, 1954, Serial No. 439,830
1 Claim. (Cl. 18—55)



The process of forming briquettes from a flowable liquid paste comprising solid particles mixed with a bind-

er of the type which is solid at normal temperatures and a flowable liquid at temperatures in excess of 80° C. which comprises mixing the solid particles with the binder at elevated temperature above the melting point of the binder to form a flowable paste, feeding said flowable paste under the influence of gravity without applying any substantial pressure thereto into recesses positioned in the surface of each of a pair of cooperating forming rolls, continuously cooling said rolls internally and cooling said rolls externally in advance of the position where the paste is introduced into said recesses so as to maintain the surface temperature of the forming rolls below that at which the binder solidifies so that a solid shell will form on that portion of the exterior of the flowable paste in contact with the surfaces of the recesses of each roll, maintaining the flowable paste in the recesses until a solid shell is formed around that portion of the flowable paste in contact with the rolls, bringing a recess in each roll together after the shells have formed but before the liquid paste in the center of the recesses has solidified to establish physical contact between the shells and liquid paste in the center thereof, maintaining physical contact between the said two recesses until the flowable liquid interior bonds the two shells together to form a briquette and then discharging the formed briquettes into a cooling medium to solidify them throughout.

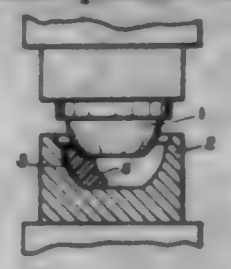
2,874,418
METHOD OF FABRICATION OF CONDENSER STRIP HYDROPHONES
Dominic J. Repici, Beverly, N. J.
Application May 31, 1957, Serial No. 662,956
5 Claims. (Cl. 18—59)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A method of sealing the open end of a bag of thermoplastic material having extended through said end an elongated element comprising, in succession, the steps of enclosing said end with additional thermoplastic material partially enclosed by a heating mold, simultaneously applying a relatively light pressure to said additional thermoplastic material and heating said additional material to the melting point, cooling the exposed portion of said additional material and the portion of said bag immediately adjacent said end to cool the exposed surface of said additional material and thereby prevent destruction of the adjacent portion of said bag during sealing, applying a relatively heavy pressure to said additional material to mold said additional material sealably around the end of said bag, and cooling said mold below the melting point of said material over a period sufficiently long to form a solid, sealed end of said bag with said element extending therethrough.

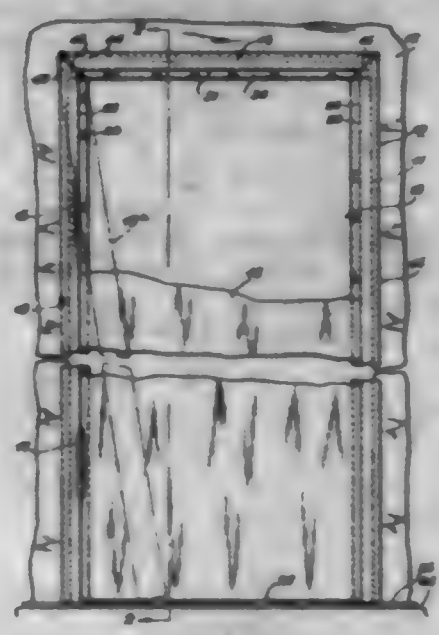
2,874,419
METHOD OF DECORATING ARTICLES FORMED OF THERMOSETTING MATERIALS
John K. May, Northampton, and Charles E. Maynard, Florence, Mass., assignors to Pro-Phy-Lac-Tic Brush Company, Florence, Mass., a corporation of Delaware
Application August 9, 1956, Serial No. 603,024
1 Claim. (Cl. 18—61)

The method of incorporating a decorative design in the surface portion of articles of tableware and the like during the molding thereof from a thermosetting resinous powder, the design being of less surface dimensions than the article surface to be decorated, which comprises applying the desired design to a sheet of absorbent paper with an ink, the pigment vehicle of which contains a resin compatible with the resin of the molding powder, impregnating the sheet with a solution of the molding resin to form a foil having a resin content in excess of 60% but not materially in excess of 75%, drying the foil, trimming the foil to closely encompass the design, compressing the charge of molding powder into a preform, pre-heating the preform, pressing the foil firmly against the hot surface of one of the mold members with the undecorated side of the foil engaging the mold surface, pressing the heated preform firmly against the foil



with the edges of the preform overlapping the edges of the foil, closing the mold applying pressure to the preform and normal to the foil during closing, initial flow of resin occurring in the portion of the preform remote from the foil, the resin thereafter flowing to substantially completely fill the mold, heating the mold to cure the article and simultaneously integrate the resin content of the foil with the resin of the charge and thereafter opening the mold and removing the article, the mold remaining closed, except for breathing, throughout the curing of the article.

2,874,420
METAL DOOR FRAME
Thomas W. Henderson, Wooster, Ohio, assignor to United Steel Fabricators, Inc., Wooster, Ohio, a corporation of Ohio
Application December 7, 1955, Serial No. 551,562
2 Claims. (Cl. 20—11)



1. A door frame comprising, a pair of side rails, and a head rail, said head and side rails each having a web portion and a pair of side flanges connected by said web portion, the flanges of said head and side rails having mitered portions of a complemental angular relation for forming miter joints between the ends of said head rail and the upper ends of said side rails, one end of each cooperating pair of said ends having a slot in the web portion thereof and the other end of said cooperating pair having a lug projection engageable in said slot for connecting the cooperating pair of ends, the side flanges of said head and side rails having flat-folded double-thickness edges and the ends of each cooperating pair of said ends having cooperating locking elements thereon comprising locking recesses and locking projections defined by certain cooperating single-thickness portions of said double-thick-

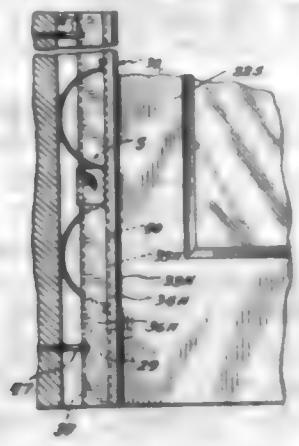
ness edges, said locking projections when engaged in said locking recesses being effective to maintain said mitered portions in a substantially closed joint-forming relation, other single-thickness portions of said double-thickness edges forming aligning elements extending in a direction transversely of said joints and lying alongside of the single-thickness portions carrying said locking elements for retaining the latter in an edge-aligned relation.

2,874,421

WINDOW STRUCTURES

Michael J. Nardulli, Elmwood Park, Ill., assignor to Michael J. Nardulli, Angelo F. Naples, and Peter F. Nardulli, as trustees

Application October 31, 1956, Serial No. 619,460
5 Claims. (Cl. 20—12)



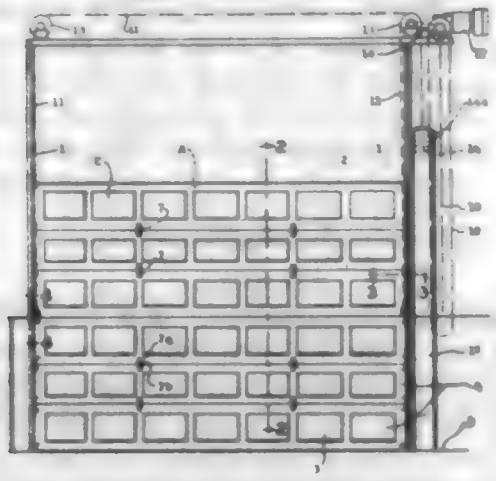
1. In a spring mounting structure for use in removable windows, said structure comprising a mounting clip adapted to fit into the open back of a sash mounting channel so as to extend transversely of such channel, spring ears on said clip at its opposite ends for engagement with retaining shoulders on such a channel, a pair of bow springs formed integrally with said clip) so as to extend in opposite directions from said clip transversely with respect thereto, and said springs having curved surfaces at the ends thereof adapted to slide easily along rear surfaces of such a channel when said springs are tensioned.

2,874,422

VERTICAL LIFT DOOR

Arthur E. Fentiman, Ottawa, Ontario, Canada, assignor to F. Fentiman & Sons, Ltd., Ottawa, Ontario, Canada

Application September 30, 1953, Serial No. 383,236
7 Claims. (Cl. 20—19)



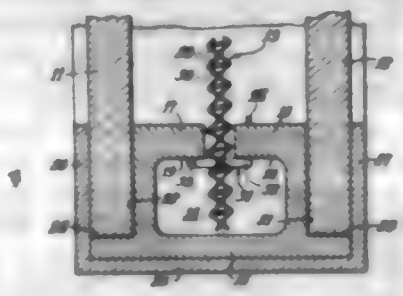
1. In a door structure for mounting within the doorway of a building, the combination of a vertical lift door extending across said doorway and having an upper door section and a lower door section, track means mounted within said doorway, side plates removably secured to the sides of said upper and lower door sections and supporting said door sections therebetween, roller means secured to said side plates and engaging said track means, and a lifting mechanism operatively connected with said side plates.

2,874,423

COMBINED WINDOW AND SCREEN ASSEMBLY

Forrest O. Berg, Fox Lake, Ill., assignor to Reflectal Corporation, Chicago, Ill., a corporation of New York

Application March 19, 1956, Serial No. 572,467
2 Claims. (Cl. 20—56.5)



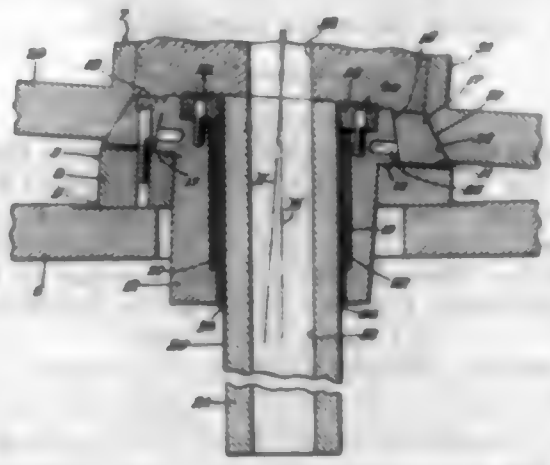
1. In a combined window and screen assembly, the combination including a piece of screen composed of a plurality of symmetrically spaced horizontally extending parallel ribbon-like elements disposed with their major surfaces at a predetermined angle to the normal plane of the screen and having a plurality of horizontally spaced, longitudinally extending supporting elements extending between said parallel ribbon-like members, a plurality of interconnected frame members disposed around the edges of said screen, each of said frame members being formed with a longitudinally extending channel opening in the direction of the mid-portion of said screen, said frame members each including means defining inwardly extending opposed projections along said channel, for receiving the respective adjacent edges of the screen therebetween, lacer-like retainer means respectively provided for opposed end portions of said screen having protuberant portions disposed between adjacent pairs of said parallel ribbon-like elements at the respective end portions of said screen, said lacer-like retainer means being respectively disposed within the channels in the frame members adjacent said opposed end portions of said screen and in holding engagement with said opposed projections for holding said screen under tension between said frame members, said frame members each further including means defining outwardly directed shoulders on opposite sides thereof respectively facing in the general direction of the mid-portion of said screen, and a pair of panes of glass respectively disposed with their edges in abutment with said shoulders on said frame members for thereby providing a unitary assembly of said screen and panes of glass.

2,874,424

POURING SPOUT ASSEMBLY AND MOUNTING ARRANGEMENT

Ellis J. Zickefoose, Chicago Heights, Ill., assignor to Griffin Wheel Company, Chicago, Ill., a corporation of Delaware

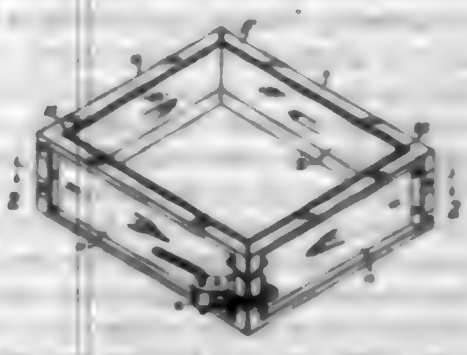
Application May 9, 1955, Serial No. 507,855
17 Claims. (Cl. 22—69)



1. In a casting apparatus, a removable cover having an aperture therein, a wedge shape ring secured to said

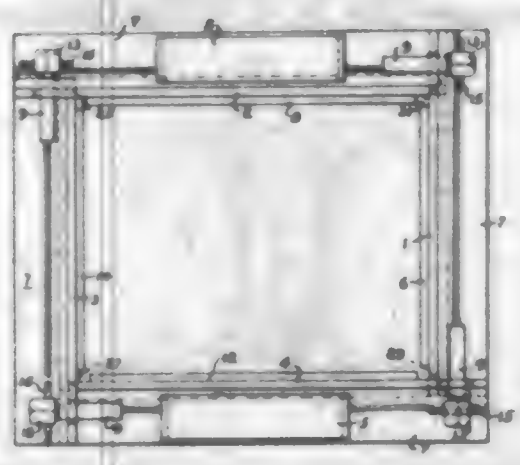
cover and having an opening in registry with said aperture, a tubular housing journaled in said ring and projecting through said opening and aperture, an annular shoulder on said housing in sealed engagement against the upper side of said wedge shape ring, a retainer ring sleeved over and engaging the upper end of said housing, means securing the retainer ring to said wedge shape ring, and a ceramic tube having one end thereof secured within said housing.

2,874,425
FOUNDRY FLASK WITH RESILIENT FOR RETAINING BAND MEMBER
Russell J. Hines, Lakewood, Ohio, assignor to The Hines Flask Company, Cleveland, Ohio, a corporation of Ohio
Application October 5, 1956, Serial No. 614,144
4 Claims. (Cl. 22—106)



1. A molding flask having a plurality of vertical walls interconnected at the respective ends thereof to define an enclosed boundary and having a hinged interconnection at at least one corner thereof and a separable interconnection at at least one other corner thereof, said flask also having a resilient pad secured to the inside surface of at least two of the inside corners thereof for retaining an associated endless band member in position within the flask when the separable interconnection is locked.

2,874,426
SLIP JACKET FOR FOUNDRY MOLDS
William Ernest Walker, Jr., Cape Girardeau, Mo.
Application December 13, 1955, Serial No. 552,831
6 Claims. (Cl. 22—112)

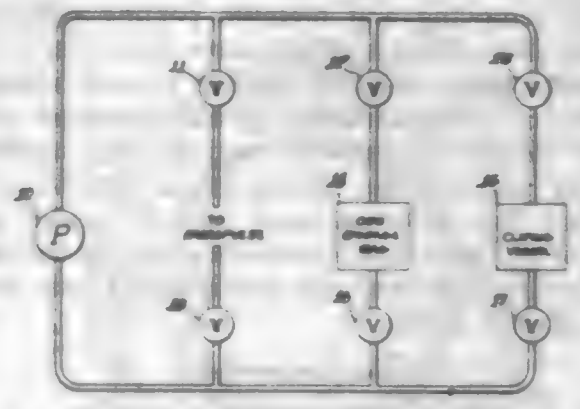


1. A slip jacket for foundry molds comprising a number of walls each of which includes a first end and a second end, said second end defining an opening, said walls being arranged to form an enclosure with the second end of each wall disposed in overlapping relation with the first end of the next adjacent wall, a projection integral with the first end of each wall and extending therebeyond through the opening in the overlapping second end, means on said projection disposed beyond said second end for limiting the movement of the second end on said projection away from said overlapped first end and a plate of lining material fixed to the inner surface of each wall for contact with the material of a mold, each plate having one end disposed in spaced, overlapped relation with respect to the first end of one of the adjacent walls to limit rotation of the walls through contact between the plates and said first ends of said walls as the jacket is manipulated.

2,874,427
INSERT MAT FOR INGOT MOLDS AND MANUFACTURE THEREOF
Harrison D. Sterick, Pittsburgh, Pa.
Application March 31, 1955, Serial No. 498,193
8 Claims. (Cl. 22—139)

1. An ingot mold insert comprising a disk shaped flat metallic body formed of metal strip wound into a coil adapted to rest on the surface at the bottom of a mold, and an annulus surrounding the body having an outwardly and downwardly sloped periphery with the slope extending from the plane of the bottom of the mat.

2,874,428
METHOD OF HARDENING OF SAND CORES AND THE LIKE
John L. V. Bouney, Jr., Bexley, Ohio, assignor, by direct and mesne assignments, of one-half to The Bouney-Floyd Company, a corporation of Ohio, and one-half to Foundry Services Incorporated, a corporation of New York
Application March 1, 1956, Serial No. 568,885
6 Claims. (Cl. 22—193)

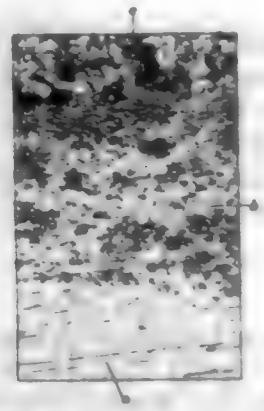


1. The method of forming shaped, compacted sand articles of substantial compression strength which comprises the steps of (1) mixing clean, substantially dry sand with an aqueous solution comprising essentially an inorganic silicate which affords SiO_2 in such solution, (2) shaping the so-treated sand into a desired form, (3) removing substantially the air entrapped in the interstices of the shaped sand form, and (4) contacting the substantially air-free sand form with carbon dioxide whereby a reaction is effected with said SiO_2.

2,874,429
PROCESS FOR CASTING-IN OF SINTERED METAL BODIES
Dietrich Easter and Hans-Ludwig Winterstein, Nurnberg, Germany, assignors to Aluminium Laboratories Limited, Montreal, Quebec, Canada, a company of Canada
Application February 2, 1954, Serial No. 407,713
Claims priority, application Germany February 5, 1953
2 Claims. (Cl. 22—203)

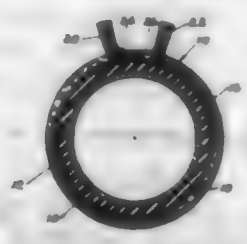
1. A process for producing a casting of a predetermined metal selected from the group consisting of aluminum and aluminum alloys, that is to contain an embedded insert of heat-resistant character, comprising forming said insert as a compressed and sintered body of particles of metal selected from the group consisting of alu-

minum and aluminum alloys, said particles in said body being coated with an oxide film except at their points of mutual contact in the body, removing the oxide film from at least one surface of the body, applying to said oxide-free surface a metallic protective coating of a metal adapted to be removed by application of the aforesaid predetermined casting metal in molten form, said oxide-removing and coating-applying steps being effected substantially simultaneously and under air-free conditions, and pouring the desired casting of said predetermined metal about the body and into contact with said surface thereof carrying the coating, said metallic coating being removed from the body by said molten casting metal during the pouring of the cast and said casting metal thereby bonding with the aforesaid oxide-free surface of



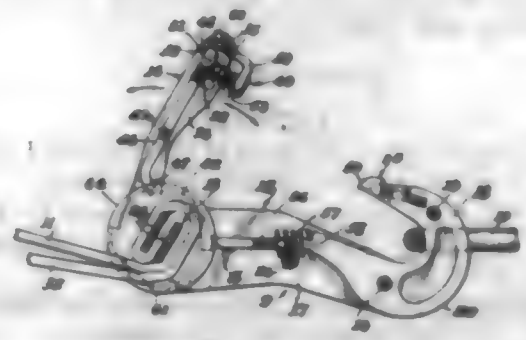
the body, said forming step including applying around a part of the surfaces of said body, prior to said oxide-removing step, a close-fitting casing consisting of metal selected from the group consisting of aluminum and aluminum alloys, and compressing said casing into intimate union with the abutting surface portions of the body, said oxide-removing and metallic coating-applying step being thereafter effected at least over the surface portions of the body which are not covered by said casing, said casing having a substantially greater thickness than the aforesaid metallic protective coating, said casting step comprising pouring the casting metal around both the casing and the last-mentioned metallic-coated surface portions of the body, and said molten casting metal fusing and combining with the outer portions and only the outer portions of said casing.

2,874,430
CLAMP
Chester P. Coldren, Canton, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application October 15, 1953, Serial No. 386,263
9 Claims. (Cl. 24—27)



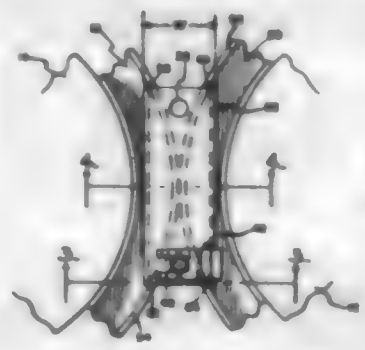
1. A clamp comprising a loop of spring stock wire, the mid-portion of which is in the form of a substantially circular body preformed to a smaller diameter than the work to be clamped, said loop having opposed juxtaposed overlapping end sections and engageable interlocking means integral with said overlapping sections securing the clamp in fully expanded condition of a diameter in excess of the diameter of the work to be clamped and said overlapping end sections being maintained in axially spaced relation along a longitudinal axis of the loop.

2,874,431
WEB-TENSIONING BUCKLE
Edwin C. Elmer, Glendale, Calif., assignor, by mesne assignments, to Aeroquip Corporation, Jackson, Mich., a corporation of Michigan
Application December 17, 1956, Serial No. 628,771
6 Claims. (Cl. 24—77)



1. A web-tensioning buckle comprising a frame provided with an end adapted to be connected to a tension-receiving member, an open hook on the frame to which the tension-receiving member is connected, web-connection means carried by the other end of said frame, manually-operable means carried by the frame to intermittently rotate the web-connection means to foreshorten the web connected therewith and to increase the tension thereon relative to the tension-receiving member, said hook and the manually-operable member cooperating to constitute enclosed means confining the tension-receiving member, means to releasably latch said manually-operable means in non-operating condition, said latch means inter-engaging the open end of said hook and the manually-operable member, and means to disconnect the web-connection means from the manually-operable means to allow the stored-up force of the tension on the web to move the web-connection means to tension-released position, the last-mentioned means being operable only upon release of the latch means.

2,874,432
DRUM CLAMP
Daniel M. Derrick, Chevy Chase, Md.
Application April 11, 1956, Serial No. 577,624
3 Claims. (Cl. 24—81)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A clamp for securing a pair ringed drums against relative movement, said drums having rings carried thereby of T-shaped cross-section at their outer ends and said rings being in adjacent relationship, comprising, in combination, a pair of oppositely disposed identical clamp members, each said clamp member defining a rectangular base plate, said base plate being turned up along opposite parallel edges to define a pair of spaced flanges adapted to engage the inner periphery of said T-shaped rings at four spaced points located at the ends of said flanges and to be spaced from said rings at the intermediate points of said flanges and span the adjacent point thereof, and fastening members connecting said base portions and operative to move said clamp members into locking position with respect to said rings on said drums.

2,874,433
DETACHABLE FASTENER
Eleanor S. La Rue and Frederick Gene La Rue, San Francisco, Calif.; said Frederick Gene La Rue assignor to said Eleanor S. La Rue
Application August 27, 1954, Serial No. 452,492
2 Claims. (Cl. 24—103)



1. A fastener comprising, detachable sections, one of said sections including a pair of spaced resilient wire legs secured at their ends against rotation about their axes and having opposite free ends offset in a common plane, and a second section formed with opposed side and end walls defining an opening dimensioned to receive said free ends and being further formed with a pair of internal bores in the plane of said opening and divergently extending from said end wall at said side walls so as to constitute angular continuations of said side walls, said bores being dimensioned to slidably receive and to rotatively displace said free ends upon insertion of the latter into said bores so as to resiliently urge said legs against said side walls, said side walls being formed with lateral notches dimensioned to receive and interlock with said legs whereby the resilient stressing of said legs on said insertion will cause said legs to resiliently snap into said notches to detachably hold said sections together.

2,874,434
ROPE BUCKLE
Herman L. McMurray, Santa Barbara, Calif.
Application May 23, 1957, Serial No. 661,168
2 Claims. (Cl. 24—123)



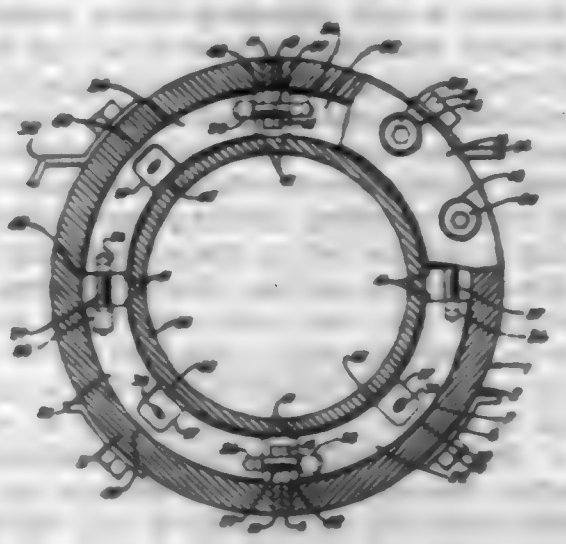
1. A rope buckle comprising a substantially V-shaped member including diverging legs extending outwardly from a central bight portion, each of said legs having a pair of spaced apertures for receiving the free ends of a rope necklace, said apertures anchoring the rope to the buckle whereby the buckle will interconnect the ends of the rope necklace for retaining the necklace in position on the neck of an animal, an independent split wire fastener provided in encircling relation to each leg with each split wire fastener being secured to the portion of the rope between the spaced apertures for securing the rope to the buckle, each leg having notches in the side edges thereof for receiving the fastener and preventing movement of the fastener on the leg.

2,874,435
JEWELRY CLASPS
Albert C. Nielsen, Chicago, Ill.
Application August 23, 1954, Serial No. 451,396
3 Claims. (Cl. 24—232)



1. A clasp for jewelry and the like comprising a body having spaced side walls in one end portion and reduced relatively narrow and tensionable yieldable extensions of the walls in the other end portion, said walls including the extensions having upper edge portions defining an openable and closable space in said body adapted to receive a connector element, a cross-bar spanning the extensions, a trigger pivoted between the side walls for swinging movement toward and away from the extensions to respectively close and open said space, said trigger having a tongue portion provided with a cam surface engageable with said cross-bar to crowd and trip the cross-bar from the inner side and yieldingly tension the extensions during said swinging movement, and the trigger having a recess behind the tongue seating the cross-bar on the completion of said movement toward said space to close the same.

2,874,436
SLIP ASSEMBLY
Herbert Allen, Houston, Tex., assignor to Cameron Iron Works, Inc., Houston, Tex., a corporation of Texas
Application March 21, 1955, Serial No. 495,575
9 Claims. (Cl. 24—263)



1. Apparatus for fixedly locating one member against movement in one directional sense relative to an oppositely facing and angularly disposed surface of another member, comprising wedge-shaped slip means disposable within the tapered space between said members and having teeth on the inner surface thereof for gripping said one member to resist its movement in said one directional sense, a part on the outer surface of said slip means having low friction characteristics to permit movement of the teeth in said one directional sense and in a path substantially parallel to the oppositely facing surface of said other member as gripping of the teeth with said one member resists movement of said one member in said one directional sense, said part being initially positioned to engage the oppositely facing surface of said other member, and means including another part on said slip means having higher frictional characteristics than said first part, and being initially positioned with respect to said first part so as to be out of engagement with the oppositely facing surface of said other member and movable relative to said first mentioned part to a position to

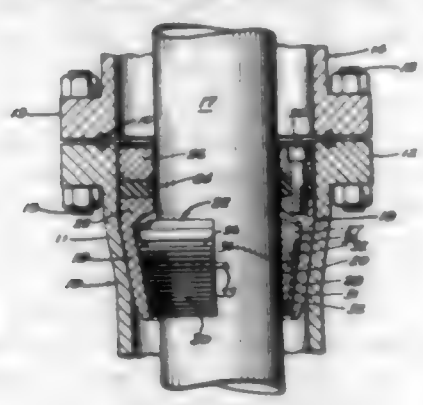
engage the oppositely facing surface of said other member when a predetermined wedging load has been placed on said slip means to increase the resistance to movement of said one member in said one directional sense.

2,874,437

PIPE HANGING APPARATUS

Clifford E. Anderson, Houston, Tex., assignor to Cameron Iron Works, Inc., Houston, Tex., a corporation of Texas

Application March 28, 1955, Serial No. 496,970
8 Claims. (Cl. 24—263)



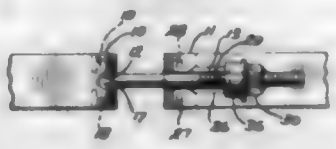
1. Apparatus for fixedly locating one member against movement in one directional sense relative to an oppositely facing and angularly disposed surface of another member, comprising wedge-shaped slip means disposable within the tapered space between said members and having teeth on an inner surface thereof for gripping said one member to resist its movement in said one directional sense, a part on said slip means presenting an outwardly facing surface having an angular disposition relative to said toothed surface for sliding in said one directional sense relative to said oppositely facing surface of said other member and inwardly toward said one member as said one member is gripped by said teeth, said outwardly facing surface and said toothed surface being movable with one another during such sliding to force said teeth into more tightly gripping relation with said one member, and means including another part on said slip means presenting a surface having greater resistance to movement of said teeth in said one directional sense than said first-mentioned part, said other part being movable, in response to a predetermined movement of said one member, from one position relative to said first mentioned part in which the surface thereon is ineffective to resist movement of the one member to another position in which said surface thereon is effective to increase the resistance to movement of said one member in said one directional sense.

2,874,438

CONDUIT CLAMP

James J. Skelly, Lakewood, Ohio, assignor to Specialty Products Corporation, Cleveland, Ohio, a corporation of Ohio

Application April 8, 1954, Serial No. 421,781
2 Claims. (Cl. 24—279)



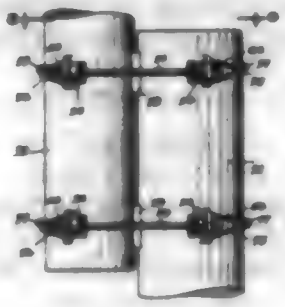
1. A clamp comprising a flexible band having free ends adapted to embrace an object, a draw-bolt having a threaded shank and a T-shaped head forming trunnions, means at one free end of the band for pivotally supporting the bolt trunnions with the bolt shank projecting therefrom, a loop fixed at the other end of the band having a longitudinal slot through a top portion thereof, a draw-bolt guide element having a T-shaped inner portion forming trunnions at one end and having a shank portion extending from said inner portion, said guide element having an axially projecting groove and having its trunnions pivoted in said loop with its grooved shank extending through said slot in said loop, said loop slot comprising a portion adjacent said guide element trunnions which is narrower in width than the remainder of said slot to provide a slot shoulder, said shouldered portion of said slot being narrower than the width of said guide element shank portion, said last mentioned shank portion being adapted to engage said slot shoulder for limiting the radially outward pivotal movement of said guide element with respect to said band to a position of generally axial alignment of said guide shank groove with said draw-bolt shank when the band embraces an object, said draw-bolt shank being adapted to overlie and be removably seated in said guide shank groove when the band embraces an object and the free ends of the band are positioned adjacent each other, and adjustable abutment means carried by said draw-bolt shank for releasable interlocking coaction with the free end of said guide element shank portion to prevent said removable relationship between said draw bolt shank and said guide shank groove.

2,874,439

HOOK CONNECTOR DEVICE

Kenneth C. Jesse, Branford, Conn., assignor to Malleable Iron Fittings Company, Branford, Conn., a corporation of Connecticut

Application April 29, 1954, Serial No. 426,515
2 Claims. (Cl. 24—279)



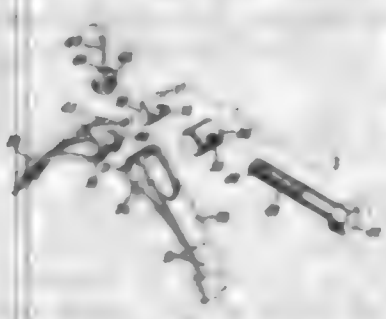
1. For use in the assembly of timber structures formed of round wood poles wherein a cable loop and a nut or head carrying bolt comprise part of a pole encircling connection, a one-piece hook connector for said cable loop and bolt comprising a skid shoe base portion having a pole-engaging underside, a box-like body portion integral with the upper side of said base portion having a front wall and side walls extending outwardly from said base portion and a top wall opposed to said base portion, its rearward side being open, said front wall having a bolt-receiving hole outwardly spaced from said base portion for pivotally receiving a bolt, and the forward side of said front wall constituting a fulcrum bearing surface for a nut or head carried by a bolt received in said hole, and said side and top walls defining with the upper side of said base portion a rearwardly divergent bolt-receiving passage extending from said hole to said rearward open side, whereby a bolt received in said hole and passage and extending rearwardly through said open side may have angular movement relatively to said base portion, and cable loop connecting means carried by said body portion including a pair of hook portions, one at each side in outwardly spaced relation to said base portion and in substantially lateral line with said bolt-receiving hole, whereby a cable loop engaged with said hook portions and extended forwardly from said front wall may have angular movement relatively to said base portion about a bending axis substantially coinciding with the fulcrum axis of said bolt.

2,874,440
HIGH PRESSURE CLAMPING BAND
Irving Kalikow, Swampscott, and Albert H. Labattie, Medford, Mass., assignors to General Electric Company, a corporation of New York
Application July 19, 1954, Serial No. 444,234
2 Claims. (Cl. 24—279)



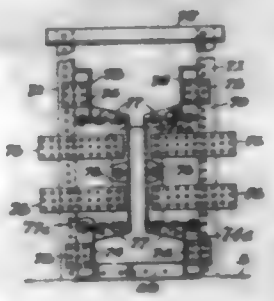
1. A high pressure clamp assembly comprising a circular band of flexible metal having a pair of free end portions, said free end portions being folded back to form a pair of loops, a solid cylindrical nut loosely disposed within one of said loops and dimensioned for tangential engagement of the sides thereof, a solid apertured spacer loosely disposed within the second of said loops, said spacer being shaped to maintain the shape of the said end of the loop under tension and providing an opposed flat bearing surface, a tightening screw threadedly engaged in the nut and extending through a slot in said second loop and said spacer, the diameter of the shank portion of said screw being substantially equal to the width of said slot, and a journal member positioned within the second loop secured to the shank portion of said screw and providing an enlarged bearing shoulder for said screw for engaging the cooperating bearing surface of said spacer, and having a diameter substantially greater than the width of the slot for the distribution of stress therebetween.

2,874,441
CLAMPING BAND
James T. Duane, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application November 26, 1956, Serial No. 624,293
2 Claims. (Cl. 24—279)



1. A clamp assembly comprising a circular band of flexible metal having a pair of free end portions, said free end portions being folded back on said band to form a loop, a solid cylindrical nut loosely disposed in one of said loops and dimensioned for tangential engagement of the sides thereof, a solid transversely apertured semi-cylindrical spacer loosely disposed in the second of said loops, said spacer being shaped to maintain the shape of the said end of the loop under tension and providing a flat bearing surface remote from the end of said second loop, a tightening screw threadedly engaging the nut and extending through a slot in said second loop and through said spacer, the diameter of said screw being substantially equal to the width of said slot, a journal member threaded on the end of said screw in the second loop and providing an enlarged bearing shoulder on said screw engaging the cooperating flat bearing surface of said spacer for the transmission of force therebetween, torque-limiting means for securing said journal member to said screw, and means disposed at the end of said screw opposite from said journal member for effecting rotation of said screw.

2,874,442
APPARATUS FOR MAKING CONCRETE STRUCTURAL SHAPES
Albert Henderson, Pittsburgh, Pa., assignor to The Cementstone Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 13, 1955, Serial No. 514,818
2 Claims. (Cl. 25—118)



1. Apparatus for molding concrete beams of various sizes comprising a bed for supporting mold walls at various positions of horizontal adjustment thereon, vertical standards mounted on said bed, said standards each having a vertical row of spaced apertures therein, oppositely disposed mold side walls spaced from said standards and having confronting inner faces cooperating with one another to form a mold cavity, each mold side wall comprising a first vertical mold wall and a second vertical mold wall horizontally offset relative to one another and to said standards and having their adjacent longitudinal edges lying in the same horizontal plane, and a substantially horizontal mold wall fixed to the first vertical mold wall offset farthest from said standards and secured to the other of said vertical mold walls, connecting said adjacent longitudinal edges and forming a part of said mold cavity, spacer plates having horizontal rows of aligned apertures therein, means extending through selected aligned apertures in said vertical row of apertures in said standards and said horizontal rows of apertures in said spacer plates for securing said spacer plates to said vertical standards at selected positions of vertical and horizontal adjustment, flanges having apertures therein on the outer sides of said vertical mold side walls, means extending through said apertures in said flanges and the adjacent end apertures in said horizontal rows of apertures in said spacer plates connecting said mold walls to said spacer plates.

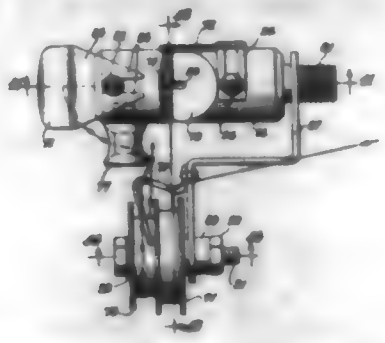
2,874,443
METHOD AND APPARATUS FOR CRIMPING YARN
Ernest J. Griset, Jr., Asheville, N. C., assignor, by mesne assignments, to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application May 12, 1953, Serial No. 354,503
10 Claims. (Cl. 28—1)



1. Apparatus for the treatment of yarn comprising a tube through which yarn is passed, means for establishing a high velocity stream of gas in said tube, rotatable means to withdraw yarn issuing from said tube, and freely rotatable means operative in response to the withdrawal of yarn by said rotatable means for feeding succeeding portions of yarn into said tube.

7. In the method of curling a continuous multifilament yarn which is passed through a high velocity stream of gas and withdrawn therefrom the improvement which comprises feeding yarn into the stream at a rate greater than that of withdrawal by a freely rotatable roller driven solely by said withdrawn yarn.

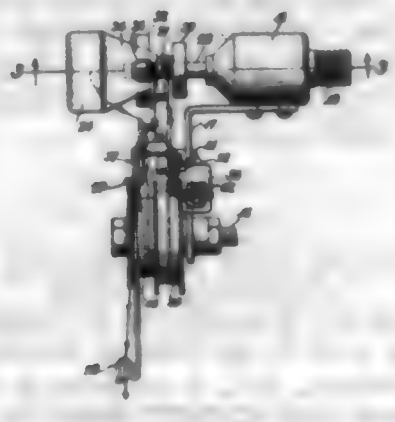
2,874,444
PRODUCTION OF CURLY YARN
Ernest J. Griset, Jr., Asheville, N. C., assignor, by mesne assignments, to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application February 17, 1954, Serial No. 410,918
10 Claims. (Cl. 28—1)



3. Apparatus for the treatment of yarn comprising a suction device through which yarn is passed, a collection device for withdrawing yarn from said suction device, a first freely rotatable yarn driven wheel over which the withdrawn yarn is guided and a second wheel driven by said first wheel for feeding yarn to said suction device at a rate proportionate to the rate of collection.

8. The method of producing a bulky yarn having nubs therein that comprises introducing succeeding portions of continuous filament yarn into a high velocity gas stream from one side thereof, impinging said yarn and said stream against a baffle member and withdrawing said succeeding portions from the opposite side of said stream at a point downstream of the point of introduction.

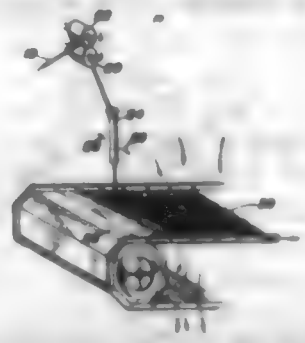
2,874,445
BULKING YARN
Ernest J. Griset, Jr., Asheville, N. C., assignor, by mesne assignments, to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application October 4, 1954, Serial No. 460,166
11 Claims. (Cl. 28—1)



1. Apparatus for controlling tension comprising in combination a first rotatable roller, means for supporting said roller, a second rotatable roller different in diameter from said first roller and mounted for rotation at the same number of revolutions per unit of time as said first roller, and brake means for one of said rollers responsive to variations in tension on a running thread passing into contact with the surface of each of said rollers.

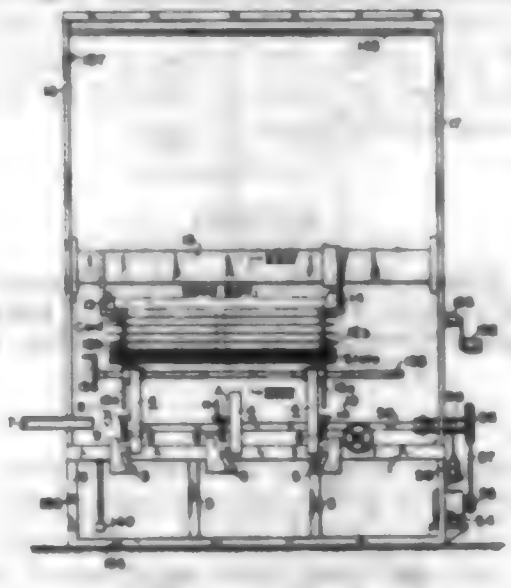
2,874,446
METHOD OF PRODUCING A TOW OF FILAMENTARY MATERIAL
William N. Sellers, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application November 4, 1955, Serial No. 544,847
8 Claims. (Cl. 28—72)

1. In a continuous method of producing a tow of polyacrylonitrile filamentary material wherein the said tow has been hot-crimped mechanically by a tow crimper and is then continuously passed directly from said tow crimper to a separate quenching zone while the crimped tow is at a temperature of from about 150° F. to about 200° F., the improvement which consists in circulating cooled gas through said quenching zone; laying the hot



tow in a transverse, zigzag pattern and while it is in a relaxed state on a moving support; and passing the thusly supported, relaxed tow through said quenching zone, the temperature of said zone and the time the tow is present therein being correlated so that the tow is at a temperature below 120° F. when it leaves said zone.

2,874,447
APPARATUS FOR ASSEMBLING VENETIAN BLINDS
Harry S. Rosenbaum, Baltimore, Md.
Application February 27, 1953, Serial No. 339,265
21 Claims. (Cl. 29—24.5)

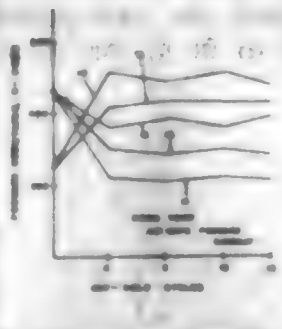


1. A machine for assembling slats, ladder tapes and lift cords of Venetian blinds comprising means for holding ladder tapes at positions for assembly with the slats and with the side tapes of said ladder tapes spaced from each other, means for feeding slats through the ladder tapes at the assembly positions, needles positioned vertically above the assembly positions with one end adjacent said position and having lift cord holding means adjacent said end, said needles also being in line with lift cord holes in the slats, means for raising the assembled slats and tapes whereby the needles pass through the lift cord holes, means for rotating the needles through 180°, and means for raising the slats and tapes after the needles have been turned 180° whereby the slats and tapes can be removed from the needles.

2,874,448
METHOD FOR STABILIZING SEMI-CONDUCTOR RECTIFIERS
William F. Haldeman, Indianapolis, Ind.
Application February 13, 1953, Serial No. 336,892
9 Claims. (Cl. 29—25.3)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The method of treating a semiconductor-type rectifier having dissimilar metals in contact, said method com-

prising heating said rectifier to a temperature above the normal operating temperature of the rectifier, and then



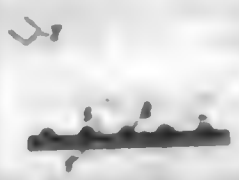
cooling said rectifier to a temperature below the normal operating temperature of the rectifier.

2,874,449

METHOD OF PROVIDING AN ELECTRICALLY CONDUCTIVE NETWORK ON A SUPPORT OF INSULATING MATERIAL

Antonius Johannes de Rooy and Johannes Josephus Antonius Jonkers, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 27, 1955, Serial No. 555,665
Claims priority, application Netherlands December 30, 1954
1 Claim. (Cl. 29—25.14)



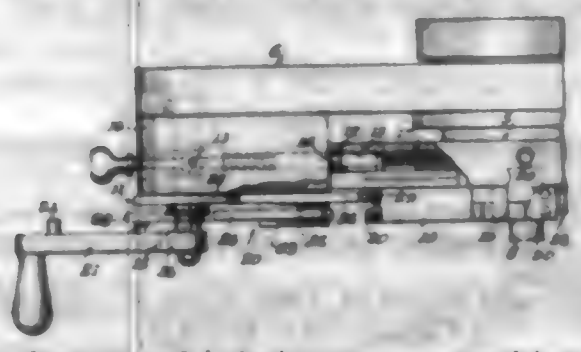
A method of forming a copper metal grid comprising the steps, placing a finely-meshed metal grid on the surface of an insulating support, coating said surface and metal grid with a thin layer of a finely-divided soluble crystalline material, removing the grid thereby removing the crystalline material that had been on the grid surface and exposing portions of the insulating support surface corresponding to the grid, coating the layer of crystalline material and exposed surface of the insulating support with a thin layer of metal, immersing the insulating support in a solvent for said crystalline material until the solvent has penetrated through the metal layer and has dissolved the crystalline material, removing the dissolved crystalline material and metal not adhering directly to the surface of the insulating support thereby forming a metal print of said network on the insulating support, electrodepositing on said metal print a layer of copper of sufficient thickness to form a rigid copper grid and removing the thus formed copper grid from the insulating support.

2,874,450

DUAL CONTROL INDEXING TURRET

Joseph A. Howard, Visalia, Calif.

Application November 22, 1954, Serial No. 470,302
7 Claims. (Cl. 29—41)



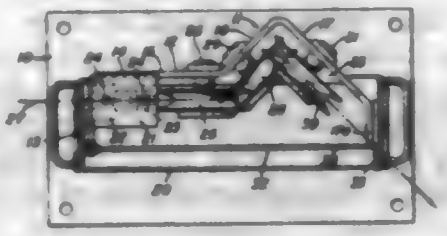
1. A dual control indexing turret comprising the combination of a rotatably mounted turret having its axis of rotation coincident with the axis of stock extending through said turret, an operating handle rotatably mounted adjacent the periphery of said turret, said handle having a shaft running parallel to the axis of said turret, a cam mounted on said shaft and rotatable in a plane parallel to the plane of rotation of said turret, and a tool-engaging slide mounted in responsive relation to said cam, said slide being movable between tool-engaging and dis-engaging positions and projected by said cam to tool-engaging position during rotation of said operating handle.

2,874,451

ROD DESCALER

Warren Alles, Pleasant Hills, David J. George, Bethel, and Stephen E. Tarby, Wilkinsburg, Pa., assignors to United States Steel Corporation, a corporation of New Jersey

Application May 4, 1955, Serial No. 505,874
2 Claims. (Cl. 29—81)



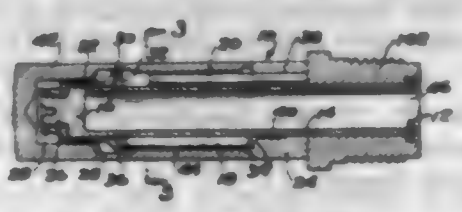
1. Apparatus for descaling rod comprising a base plate and a frame plate normal to the base plate, said frame plate including an entry-sheave portion, a deflector-sheave portion at about a 45° angle to the entry-sheave portion and an exit-sheave portion substantially normal to said deflector-sheave portion and extending therefrom back toward the plane of said entry-sheave portion, a sheave journaled on said entry-sheave portion, a sheave journaled on said deflector-sheave portion at a level below the first-mentioned sheave, and a sheave journaled on said exit-sheave portion at a level above said second-mentioned sheave, said sheaves being so positioned that wire rod trained therearound successively tracks accurately from each sheave to the next, said frame plate also including an end wall at the edge of the entry-sheave portion remote from the deflector-sheave portion, said end wall extending at right angles to the entry-sheave portion, and a guide block mounted on said end wall, effective to direct entering rod onto said first-mentioned sheave.

2,874,452

BORE FINISHING TOOL

Earl A. Thompson, Ferndale, Mich.

Application December 7, 1955, Serial No. 551,572
4 Claims. (Cl. 29—90)

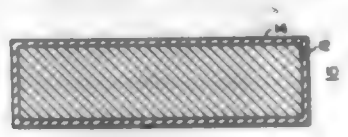


1. A tool for finishing cylindrical bores comprising an elongate tubular member closed at one end and having means adjacent its other end for connection with a source of fluid under pressure, said member having an outer surface portion of true cylindrical shape which is adapted to be radially expanded when the member is subjected to high internal pressure, a plurality of rollers arranged circumferentially around said cylindrical surface portion and extending axially thereof, said rollers having an axial extent substantially less than said tubular member and terminating at their opposite ends substantially inwardly of the opposite ends of the tubular member and means for supporting said rollers for rolling contact with said cylindrical surface portion.

2,874,453
APPLYING METAL COATINGS TO MOLYBDENUM

Ezekiel F. Losco, Whitehall, James H. Bechtold, Pittsburgh, and John P. Webb, Monroeville, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 2, 1956, Serial No. 620,069
6 Claims. (Cl. 29—183.5)

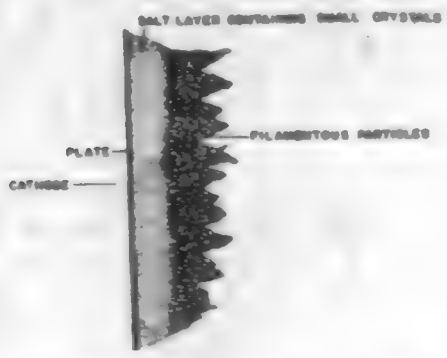


3. A unitary wrought member comprising a body of a molybdenum base alloy and a layer on at least one surface of said body of from about 1 mil to 10 mils in thickness of a metal that is thoroughly and uniformly wetted by solder and brazing metals and that has a thermal coefficient of expansion of from between 3.8×10^{-6} and 5.0×10^{-6} inch per inch per degree centigrade, said layer being composed of from 10% to 35% by weight of cobalt, from 33% to 22% by weight of nickel, from 0% to 10% by weight of chromium, and the balance being iron except for incidental additions, the body and layer being united into a unitary member by hot rolling which effects a reduction of at least 30% in cross-sectional area.

2,874,454
TITANIUM GROUP METALS DEPOSITS

William W. Gullett, College Park, Md., assignor to Chicago Development Corporation, Riverdale, Md., a corporation of Delaware

Application June 20, 1956, Serial No. 592,543
2 Claims. (Cl. 29—194)



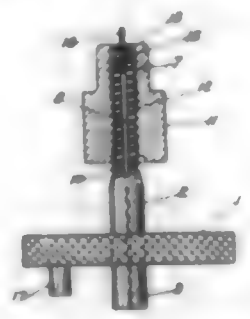
1. As a new product an article consisting essentially of a conductive metal cathode carrying thereon a laminated deposit composed of an inner layer of a non-porous plate, less than .003 inch thick, of a titanium-group metal adherent to said cathode; an intermediate layer, less than .25 inch thick, of small discrete granular crystals of said titanium-group metal dispersed through solidified fused salt; and an outer layer of coarse crystals of said titanium-group metal frangibly attached to and growing out of said intermediate layer, said outer layer of coarse crystals constituting the greater part, by weight, of said deposit.

2,874,455
PALLET ARBOR INSERTING TOOL

O. Z. Collins, Birmingham, Ala.

Application March 26, 1956, Serial No. 573,849
1 Claim. (Cl. 29—231)

A pallet arbor inserting tool of the class described adapted for use in combination with a perforated die disk of a regular watchmaker's staking tool block and comprising a round base member, a tube extending through and beyond the underside of the round member center, one end portion of the tube being slotted to form four segments, the slotted end being tapered, screw threads in the outer face of the slotted portion, the other end of the tube being plain and adapted to fit in the largest hole of said perforated die disk, a stud positioned in the face of the round member outer circumference portion through which the plain portion of the tube extends and adapted to fit in the second largest hole of

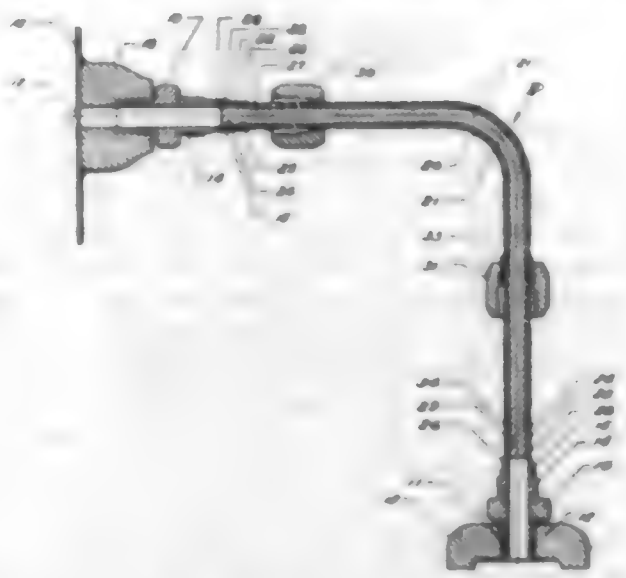


said perforated die disk; a round nut with threads of a size to fit upon the threads of the tube, said nut being tapered in its end portion that fits upon the tapered portion of the tube, said tapered portion being adapted by manual means to draw the ends of the segments together when the nut is screwed upon the threaded portion.

2,874,456
METHOD OF DETERMINING TUBE SHAPES

Joseph C. Weidel, Riverside, Calif., assignor to Rohr Aircraft Corporation, Chula Vista, Calif., a corporation of California

Application October 26, 1953, Serial No. 388,338
5 Claims. (Cl. 29—407)



1. The method of making a pattern having the shape and size of a rigid conduit adapted to connect together two spaced apart hollow connecting fittings, comprising the steps of providing a flexible non-metallic tube with a non-resilient, pliable supporting core, said tube having an outside diameter equal to the outside diameter of said conduit and a length greater than the distance between said fittings; securing one end of said tube to one of said fittings; bending an intermediate portion of said tube and core to direct the other end of said tube into alignment with the other fitting; severing the other end of said tube and core at the other fitting; and removing said tube and core from the fittings without altering the shape of the core and tube.

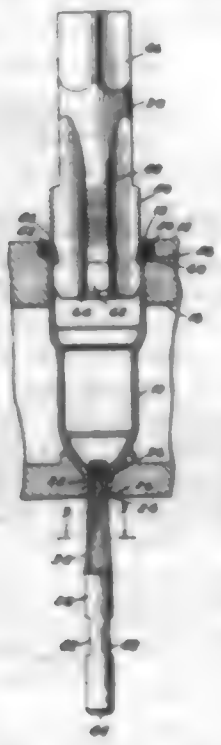
2,874,457
METHOD OF REMOVING DIESEL ENGINE INJECTOR TUBES

Clifford H. Bennett, Jackson, Mich., assignor to Kent-Moore Organization, Inc., Detroit, Mich., a corporation of Michigan

Application March 26, 1954, Serial No. 419,856
4 Claims. (Cl. 29—427)

1. That process of removing an injector tube from the cylinder head of an engine, comprising: inserting a tube-gripping member into the tube tip and gripping

the tube between the member and the cylinder head holding the tube-gripping member against rotation and concurrently threading a tap into the opposite end of the



tube, releasing the gripping action of the gripping member, and thereafter urging the tap out of the head drawing the tube with it.

2,874,458

METHOD OF MAKING AN AIR SPRING

Randall D. Smith, Fishers, Ind., assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application October 10, 1955, Serial No. 539,477
1 Claim. (Cl. 29—436)



The method of manufacturing an air spring adapted to contain fluid under pressure, comprising the steps of building a body of flexible, vulcanizable material having a bead, assembling the annular portion of a metal member with the bead of said airspring by crimping said portion about said bead, vulcanizing the assembled structure, and thereafter additionally crimping said portion about said bead to obviate leakage occasioned by any shrinkage of said material during vulcanization.

2,874,459

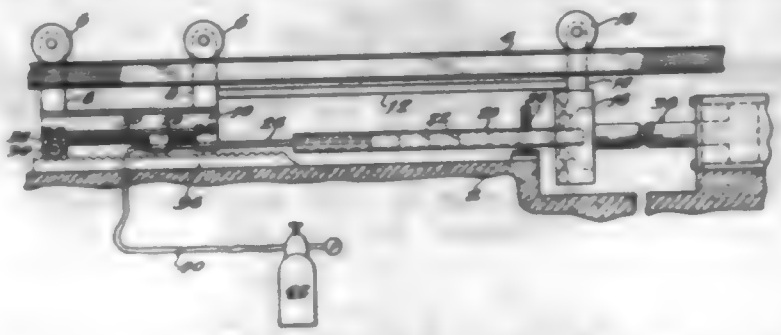
METHOD AND APPARATUS FOR FABRICATING TUBULAR UNITS

George W. Halderman, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application January 9, 1947, Serial No. 721,006
6 Claims. (Cl. 29—517)

1. A method of fixing a plurality of members within a ductile tube in spaced relationship therein, comprising drawing said tube into tight engagement with said members while continuously retracting from said tube at a rate less than the drawing rate an element adapted to limit movement of said members outwardly from said tube during said drawing thereof.

4. An apparatus for drawing a ductile tube into tight engagement with a plurality of members therein, comprising means for gripping the tube, die means for engaging the tube, means for moving at least one of said means with respect to the other to force said tube through said die means, means insertable within the tube for



restricting movement of said members therein in the direction away from said die means, and means for spacing said members in said tube comprising means for withdrawing said restricting means from the tube as the latter passes through said die means.

2,874,460

PROCESS FOR MANUFACTURING SHELLS FOR SPARK PLUGS AND THE LIKE

Paul Riethmüller, Stuttgart-Feuerbach, and Lothar Leisert, Stuttgart, Germany, assignors to Robert Bosch G. m. b. H., Stuttgart, Germany

Application June 2, 1955, Serial No. 512,700
Claims priority, application Germany June 11, 1954
6 Claims. (Cl. 29—535)



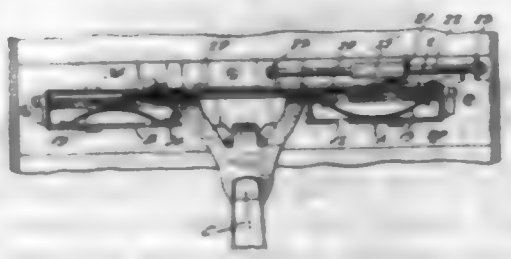
1. In a process for manufacturing a spark plug shell or the like by cold extrusion, the steps of die pressing a substantially cup-shaped blank into a work piece having an intermediate annular portion provided with inner and outer shoulders, a solid foot portion of a diameter smaller than said intermediate portion on one side of the latter, and a tubular head portion of a diameter larger than said intermediate portion on the other side of the latter; axially advancing a ramming member through said head and intermediate portions into said solid foot portion without changing the dimension of or stressing said head and intermediate portions while constraining the material of said foot portion to flow rearwardly along the ramming member to convert said solid foot portion into a hollow tubular foot portion; and axially compressing the material of said head portion while constraining the material thereof to flow toward the foot portion of the work piece and while maintaining the wall thickness of said intermediate portions and the inner and outer shoulders thereof unchanged.

2,874,461

RAZOR BLADE MAGAZINES AND BLADE CHANGERS

James M. Austin, Old Westbury, N. Y.

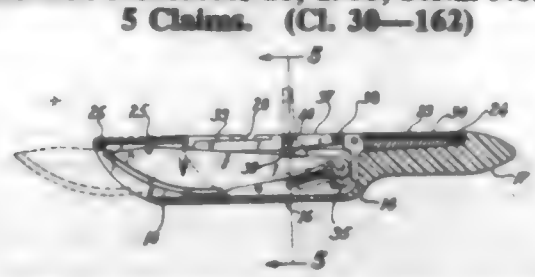
Application June 3, 1950, Serial No. 165,918
8 Claims. (Cl. 30—40)



1. A razor blade changer comprising means for holding a new blade magazine, a razor and a used blade

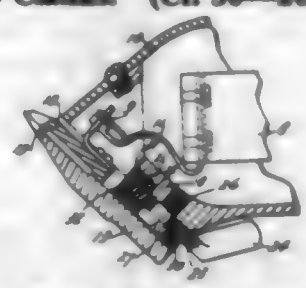
magazine in aligned position for a blade change, and a substantially rigid blade deflector positioned in the path of a blade entering the used blade magazine.

2,874,462
OFFICE KNIFE
Michael Douglas Benedict, Jr., Wollaston, Mass., and Charles Baratelli, Reading, Pa., assignors to The Gillette Company, Boston, Mass., a corporation of Delaware
Application November 23, 1955, Serial No. 548,610
5 Claims. (Cl. 30—162)



1. A knife comprising a handle forming a sheath, a blade carrier having an angular spring seated therein, a blade carrier holder disposed within said handle including means for slidably supporting said carrier for movement between a blade retracted and a blade projected position, an operating lever pivotally mounted on said carrier for movements therewith, said lever including a cam projection, and a blade seated within said carrier having a spring receiving recess, said lever having a blade locking position wherein said cam is in engagement with said blade with said spring seated within said recess and a blade-releasing position wherein said cam permits said blade to be slid over said spring and out of said carrier.

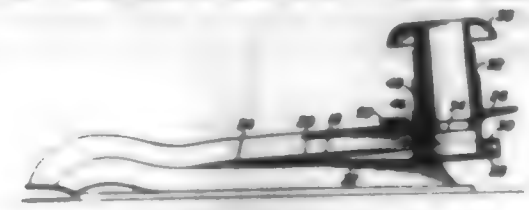
2,874,463
HAIR CLIPPERS HAVING INTERCHANGEABLE COMB PLATES
Mathew Andis, Racine, Wis., assignor to Andis Clipper Co., Racine, Wis., a corporation of Wisconsin
Application September 12, 1956, Serial No. 609,459
6 Claims. (Cl. 30—200)



1. In a hair clipper having interchangeable comb plates, the combination with a clipper case having a bed portion, of a removable comb plate having a mounting portion, interlocking means comprising a socket in one of said portions and a key on the other said portion for accurately keying said plate to said bed portion for operative engagement with a shear blade, releasable fastening means in addition to said interlocking means and comprising one of said portions being provided with a keeper and the other portion being provided with an oscillatory member having a latch portion releasably engageable with said keeper and a handle portion by which said latch may be manipulated.

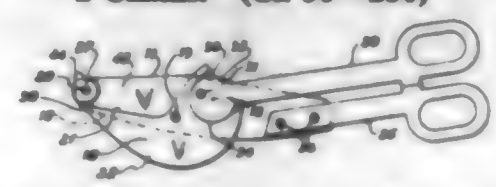
2,874,464
PAGE CUTTING DEVICE
Donald E. Petersen, Columbus, Ind.
Application December 3, 1957, Serial No. 700,409
5 Claims. (Cl. 30—229)

1. An indexer for publications or the like which have superimposed pages, said indexer comprising a base adapted to be inserted between two adjacent pages, a barrel carried by said base and having a laterally opening notch with cutting edge thereon, a cutter reciprocably carried by said barrel and having a cutting edge coacting with the first mentioned cutting edge for removing portions of adjacent pages that are located on said base and



project into said notch, and a combination page compressor and finger-guard on said barrel and adapted to contact the top page of the group of pages that are on said base.

2,874,465
SHEET METAL SHEARS
Joseph Silak, Yonkers, N. Y.
Application October 4, 1957, Serial No. 688,220
2 Claims. (Cl. 30—250)



1. In a sheet metal shears, oppositely disposed side plates arranged in spaced relation and having confronting cutting edges extending longitudinally thereof, a handle member rigidly affixed to said side plates to extend outwardly thereof at one end, a cutter blade pivotally mounted between said side plates and having oppositely disposed cutting edges adapted to cooperate with the cutting edges of the side plates respectively for effecting side-by-side cuts with the movement of the cutter blade, a handle member having a forward end formed with oppositely disposed arcuate cam edge portions, said cutter blade having a recess including oppositely disposed outwardly extending edge portions, said handle member being pivoted between said side plates in said recess in forwardly and laterally offset relation from the center of said arcuate cam edge portions and with both said cam edge portions of said handle member spiraling outwardly in opposite peripheral directions and having point contact with the opposite edge portions of said recess in an open shear position and in a closed shear position, the point of contact of one cam edge of the handle with one said edge portion of the recess being nearer the pivotal axis of the handle in said open shear position than in said closed shear position, the point of contact of the other cam edge of the handle with the other said edge portion of the recess being farther from the pivotal axis of the handle in said open shear position than in said closed shear position, the pivotal axes of the cutter blade and the handle and the center of said arcuate cam edge portions moving toward alignment with each other during shear opening movement and away from alignment with each other during shear closing movement, and said forward end of the handle moving out of the recess during shear opening movement and into the recess during shear closing movement.

2,874,466
PROSTHESES AND PROCESSES FOR THEIR PRODUCTION
Hermann Schnell, Krefeld-Uerdingen, and Dieter Siener, Frankfurt am Main, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application May 14, 1953
Serial No. 355,166
Claims priority, application Germany May 15, 1952
5 Claims. (Cl. 32—2)

1. Prostheses comprising (1) a base plate of a plastic consisting of a copolymer of methylmethacrylate and a

methacrylate, the alcohol radical of which contains at least 4 carbon atoms, said copolymer being easily deformable at temperatures of about 75° C. upwards and being hard at mouth temperatures, and (2) a lining obtained from a polymerizable mass which is attached to said base plate by polymerization.

2,874,467
ARTIFICIAL DENTURES AND PROCESS OF PREPARING

Wilhelm Becker, Koln-Stammheim, and Dieter Steuer, Frankfurt am Main, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

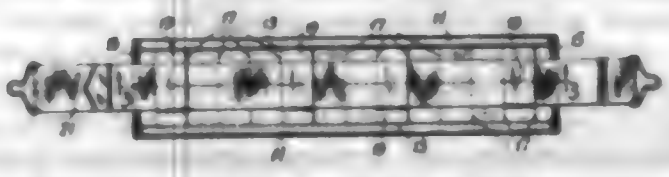
No Drawing. Application May 26, 1954
Serial No. 432,605
Claims priority, application Germany May 29, 1953
6 Claims. (Cl. 32—2)

1. An artificial denture comprising a hard, artificial base material and a soft cushion lining integrally attached to the tissue side of said base material, said lining consisting essentially of a copolymer of (1) a member of the group consisting of polymerizable vinyl and divinyl compounds and (2) butadiene.

2,874,468
ORTHODONTIC DEVICE

Irvin S. De Weskin, St. Louis, Mo.

Application February 14, 1957, Serial No. 640,149
2 Claims. (Cl. 32—14)



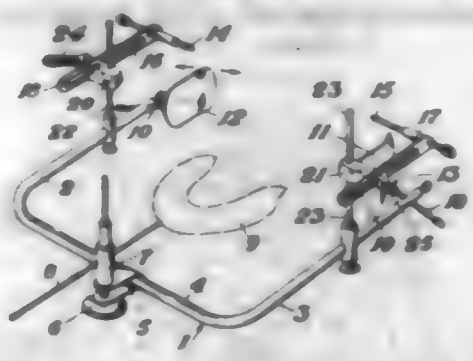
1. A cervical pad for use on a cervical traction brace, said pad being constituted by a strip of pad material of uniform thickness throughout its length, a strip of sheet plastic material on one face of the strip of pad material, the width of said strip of sheet plastic material being generally the same as the width of said strip of pad material, a fabric cover strip on the other face of the strip of pad material, said fabric cover strip being wider than the strip of pad material and the plastic strip and having side marginal portions folded around the side edges of the strip of pad material and overlying the margins of the plastic strip, lines of stitching throughout the length of the pad at the margins of the pad extending through said marginal portions of the cover strip and through the plastic strip and the strip of pad material and stitching down said marginal portions of the fabric cover strip and securing the margins of the plastic strip to the strip of pad material, said plastic strip having transverse openings extending between the edges of said marginal portions of the cover strip, portions of the plastic strip between the openings constituting loops for the reception of the brace, and the margins of said plastic strip being continuous and uninterrupted and underlying said folded side margins of the cover strip and caught in said stitching.

2,874,469
DEVICE FOR LOCATING THE TRANSVERSE ROTATION AXIS OF THE HUMAN JAW

Edmondo Federici, Saimona, Italy

Application July 23, 1956, Serial No. 599,575
Claims priority, application Italy July 26, 1955
3 Claims. (Cl. 32—20)

1. A device for locating the transverse rotation axis of the human jaw, which comprises in combination a U-shaped frame applicable to a jaw in a substantially horizontal plane at the height of the lower jaw of the patient, said U-shaped frame having a bore transversely thereof at the end of each leg, a plate applicable to the gum arch of the patient, said plate being mounted on the base of the U-shaped frame for displacement parallel to the legs of the frame and perpendicular to the base of the U-shaped frame, two contoured plates applicable against the cheeks of the patient for fastening the frame to the face of the patient, a rod located in each transverse bore of the leg of the U-shaped frame, one of said plates

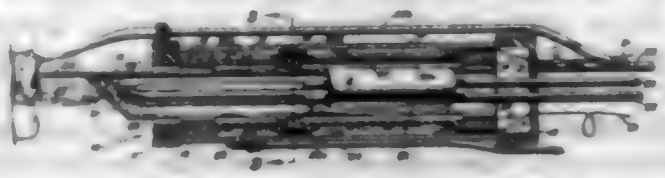


being mounted on each rod, a screw mounted at the end of each leg of the U-shaped frame and coaxial therewith for fastening said rods to the said legs, a pin on each leg of the frame perpendicular to the leg and turned toward the inside of the frame, and a supporting unit for each pin, each supporting unit being slidable on one leg of the frame, said pins being mounted on said supports for movement in the three directions of space for locating the ends of the transverse rotation axis of the jaw.

2,874,470
HIGH FREQUENCY DENTAL TOOL

James R. Richards, Cheverly, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application May 28, 1954, Serial No. 433,310
7 Claims. (Cl. 32—58)
(Granted under Title 35, U. S. Code (1952), sec. 266)

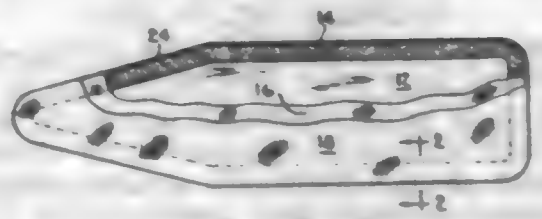


1. A pencil like shaped dental tool comprising in combination an outer longitudinal jacket, an inner high frequency oscillating tube suspended within said jacket with a clearance at its working end, and protruding through it at its working end with an extended working tip for endwise free reciprocating oscillations of said tip, a generator of said oscillations, a power supply to said generator, and at least one fluid conduit and fluid supply and exhaust means connected with the interior of said tube.

2,874,471
NON-SKID IRONING TABLE TOP AND PAD ASSEMBLY

J Neil Palmer, Milwaukee, Wis., assignor, by mesne assignments, to Arvin Industries, Inc., Columbus, Ind., a corporation of Indiana

Application September 16, 1954, Serial No. 456,420
2 Claims. (Cl. 38—148)



2. An ironing table having a metal top, an ironing pad on said top, and a cover overlying said pad and

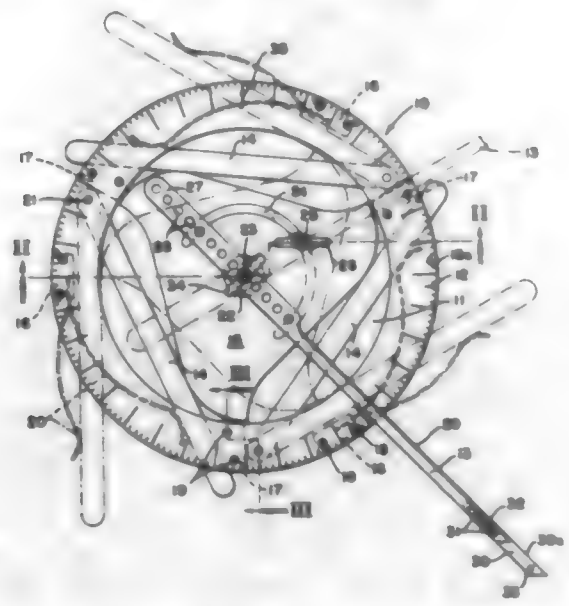
secured below said top, a border on the upper surface of said top having adhered thereon protruding particles of grit, said border engaging said pad to prevent sliding thereof.

2,874,472

DEVICE FOR CIRCUMFERENTIALLY LOCATING MOLD LETTERING

William C. Standish, Jr., Grosse Pointe, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application January 25, 1957, Serial No. 636,291
1 Claim. (Cl. 33—21)



A device for determining the proper location and spacing of lettering or other indicia on an annular article such as a tire mold comprising, a base member, means for centering said base member in the central opening of the annular article, a circular graduated scale on said base member, a scriber arm pivotally mounted at the geometric center of said scale in superposed relation thereto for rotation relative to said scale, a scriber carried by the outer free end of said arm, one edge of said arm being radial to the center of its pivotal mounting, said edge being adapted for alignment with the graduations on said scale to locate said arm in the desired circumferential position, said edge also acting as a guide for inscribing radial lines, and means for adjusting the effective length of said arm, whereby circular and radial lines may be inscribed on said article at accurately predetermined locations, for the purpose set forth, said means for centering said base member comprising at least three arms extendible from the outer periphery of said base member, each arm being pivotally secured to said member on a common circular center line at equally spaced points, a cam rotatably mounted at the geometric center of said scale for simultaneously extending said arms radially equal distances from the center of said scale upon rotation of said cam, means for resiliently urging said arms against said cam, and means for locking said cam against rotation.

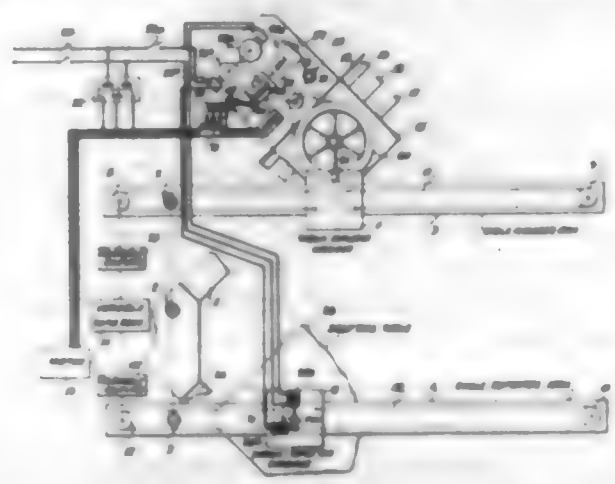
2,874,473

APPARATUS FOR DESCRIBING HOMOTHETIC GEOMETRICAL FIGURES

Albert W. Musgrave, Monahans, Tex.

Application February 11, 1953, Serial No. 336,425
12 Claims. (Cl. 33—24)

1. Apparatus for describing a curve having a predetermined relation to a given path, comprising a follower supported so as to be capable of movement along said path, an angle analyzer arm supported for pivotal movement thereof about a fixed axis, a radius analyzer carriage mounted on said arm and movable lengthwise thereof, radially inwardly and outwardly with respect to said axis, means providing a pivotal connection between said carriage and said follower to provide for movement of said follower along said given path concomitantly with movement of the carriage along said arm and pivotal movement of said arm on said axis so that the angular position of the arm with respect to said axis as an axis of reference and the radial distance of said carriage from said axis along said arm are the polar coordinates of the follower with respect to said axis, an angle repeater arm supported for pivotal movement thereof about said fixed axis, a radius repeater carriage supported on said angle repeater arm for movement thereof lengthwise of said angle repeater arm radially inwardly and outwardly with respect to said axis, a tool supported on



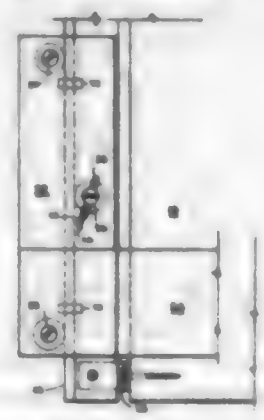
said radius repeater carriage so as to be moved along the curve to be described, means operatively connecting said angle repeater arm to said angle analyzer arm for concurrent pivotal movement at the same angular velocity, means operatively connecting said radius repeater carriage to said radius analyzer carriage for concurrent movement along their respective arms, said means operatively connecting said carriages comprising a variable ratio drive mechanism having an element operable to different positions to vary the ratio of said drive mechanism and thereby to vary the ratio between the movements of said analyzer carriage and of said repeater carriage along their respective arms.

2,874,474

DRAFTING INSTRUMENT

Kenneth H. Beebe, Robert W. Carr, and John F. Wilson, Jr., Durham, N. C.

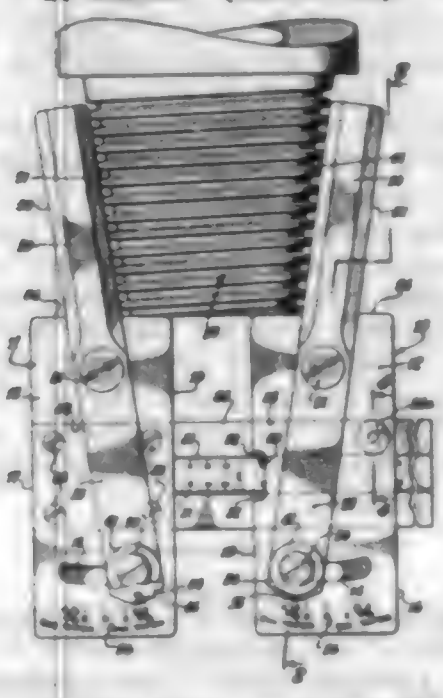
Application December 24, 1954, Serial No. 477,458
13 Claims. (Cl. 33—76)



1. In combination with a drafting board and a guide rail supported adjacent a side of the drafting board, said rail having vertical parallel bearing surfaces and a level top surface normal to the parallel surfaces, a transparent T-square comprising a mounting head portion and a straight edge blade portion, said straight edge blade portion being affixed normally to the head portion adjacent one end of each, said head portion having mounted thereon a plurality of cylindrical rotatable bearing elements on the underside of the head portion and mounted to rotate about a vertical axis and each of the elements lying in the same plane, two of said elements being linearly spaced

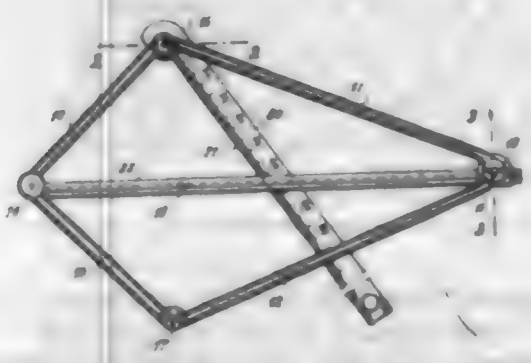
axially from each other and so arranged to make rolling contact with one of the rail bearing surfaces, and a third element spaced intermediate the other two elements to engage the other vertical rail surface, biasing means to urge the bearing elements into rail contact, and pads mounted on the underside of the head portion to contact the level surface of the rail to position the bearing elements adjacent the top of the rail whereby the T-square may be removed vertically from rail engagement.

2,874,475
PIPE AND PIPE JOINT GAUGE
Edgar W. McGaffey, Newport Beach, Calif.
Application May 8, 1953, Serial No. 353,832
10 Claims. (Cl. 33—98)



1. A pipe and pipe joint gauge including: a pair of relatively movable gauge blocks; a scale interconnecting said blocks with respect to which at least one of said blocks may move to provide relative movement between said blocks; a pair of opposed gauge arms extending from said blocks pivotally mounted thereon for relative angular adjustment; at least one of said blocks having at one end a straight edge disposed in outwardly spaced parallel relation to said scale and extending across and laterally beyond opposite side edges of the associated gauge arm to provide a pair of stop shoulders either of which is engageable with a pipe or pipe joint member to be gauged.

2,874,476
DRAFTSMAN'S INSTRUMENT
Jean Tesson, Port-Louis (Morbihan), France
Application August 28, 1956, Serial No. 606,704
Claims priority, application France September 16, 1955
2 Claims. (Cl. 33—98)



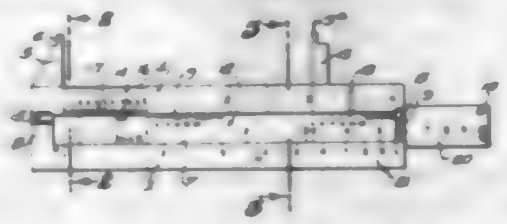
1. An instrument capable of determining the center of a circumference passing through two points and having a given radius comprising two pairs of members, the members of each pair being of equal length, means pivotally connecting the members of each pair, means pivotally connecting the pairs together to form a closed quadrilateral, a diagonal member pivotally connected at the pivotal connection between the members of one pair and slidably connected at the pivotal connection between the members of the other pair for enabling adjustment of the quadrilateral, and a ruler for indicating said radius, said ruler being pivotally connected at only one end to a pivotal connection between the pairs the pivotal connections of which when located on said points cause said diagonal member to indicate the centers of a plurality of circumferences capable of passing through said points, said ruler indicating by intersection with said diagonal member the center of the desired circumference.

2,874,477
FISHING LINE METER
Thomas E. McConnell, Oakland, Calif.
Application July 13, 1956, Serial No. 597,633
4 Claims. (Cl. 33—129)



4. In combination with a reel having a frame mounting a spool for carrying a line for reeling and unreeling with respect to a roll of the line on the spool, a non-rotative bar member of the frame disposed laterally of the axis of rotation of the spool in fixed parallel relation thereto, a base member, means fixedly mounting the base member on said bar for its rotative adjustment about the bar axis, a reversibly-operative indicating cyclometer having an actuating wheel, an arm rockably mounted on said base member and fixedly carrying said cyclometer for the constant rolling disposal of its said wheel directly against the roll of the line portion on the spool, and a spring means constantly cooperative between the arm and the base member for maintaining a resiliently yielding engagement of the wheel with said roll of the line on the spool.

2,874,478
COMBINATION CALIPER AND SLIDE RULE
Thomas P. Faulconer, Rancho Santa Fe, Calif.
Application November 22, 1955, Serial No. 548,431
5 Claims. (Cl. 33—143)

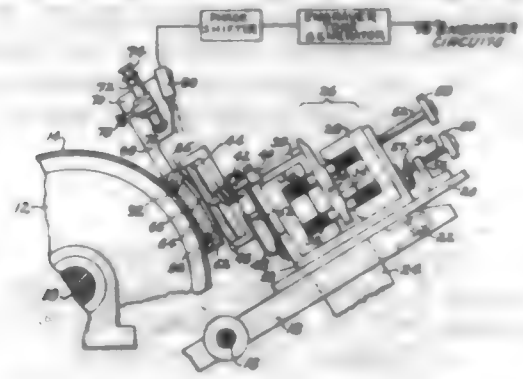


1. A combination caliper and slide rule, comprising: a frame having a front slot and a slideway extending longitudinally therethrough, an edge slit communicating with said slideway; a fixed caliper mandible at one end of said edge slit; a slide member slidable in said slideway, viewable through said slot, and having a laterally extending movable caliper mandible intermediate its ends projecting through said slit into confronting relation with said fixed caliper mandible, said slide member being of substantially the same length as said frame.

2,874,479
ENGRAVING MACHINE STYLUS INDEX
Monroe Farber, Jericho, N. Y., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware
Application July 15, 1955, Serial No. 522,217
5 Claims. (Cl. 33—185)

1. In automatic engraving apparatus of the type having a support adapted to carry a sheet to be engraved, an

engraving stylus mounted for movement in one direction into and out of the surface of such a sheet, means for imparting relative movement between said stylus and said sheet in the plane perpendicular to said direction, and an element adapted to contact the surface of the said sheet and adjustable in position with respect to said stylus to define the rest position of the stylus with respect to said sheet, the improvement which comprises a gauging



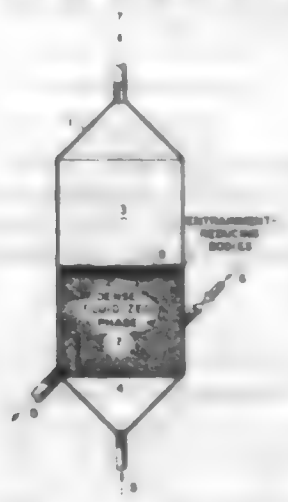
device adapted to be removably mounted on said support, a portion of said gauging device adapted to be disposed between the surface of said support and the point of said stylus, and another portion disposed between said surface and said element, said gauging device including optical means for determining visually the rest position of said stylus with respect to said support and said element, when said element is brought into contact with said other portion of said gauge.

2,874,480

REDUCING ENTRAINMENT FROM FLUIDIZED BEDS

David B. Todd, El Cerrito, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application November 12, 1957, Serial No. 695,534
5 Claims. (Cl. 34—10)



1. In the method of fluidizing a multitude of finely divided solid particles with a gas which comprises introducing the finely divided particles in a fluidization chamber, passing the gas upwards through the said particles at a velocity which maintains within the chamber two distinct zones, said zones being a lower, dense phase of pseudo-liquid characteristics and an upper, dispersed phase, and withdrawing the gas from said upper zone, the improvement which comprises maintaining at the interface between said lower and upper zones a layer of small, discrete, entrainment-reducing bodies having specific gravities less than the specific gravity of the said dense phase and diameters greater than those of said particles, in accordance with the relation

$$d_e\sqrt{\rho_e} > d_f\sqrt{\rho_f}$$

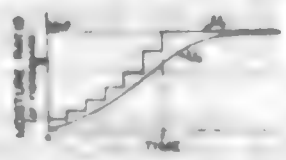
wherein d and ρ are the diameters and specific gravities, respectively, and the subscripts e and f denote the entrainment reducing bodies and the fluidized particles, respectively.

2,874,481

METHOD OF TREATING FIBRE BOARDS

Bror Löfgren, Stockholm, and Nils Jul Ögland, Svanskog, Amal, Sweden, assignors to Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden

Application June 28, 1954, Serial No. 439,848
Claims priority, application Sweden June 29, 1953
6 Claims. (Cl. 34—16)



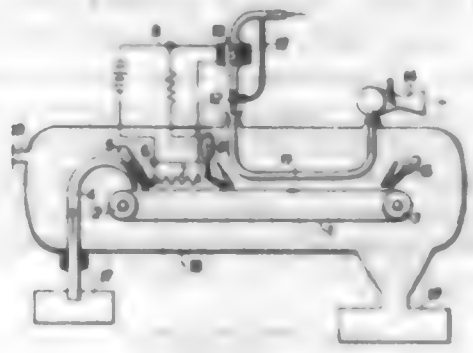
1. An improved method of treating fibre boards and like materials manufactured by defibrating fibrous raw materials, forming, dehydrating, and drying in a pressing device the dehydrated material, comprising the steps of heat-treating the material up to a temperature of 100–180° C., preferably 150–160° C., subsequently moistening the material while at said temperature by air-free steam, and cooling the material after moistening, said moistening step being performed for at least an initial and major portion of said step by gradually changing the state of the steam in relation to the actual mean-moisture ratio of the material in such a manner that the ratio of U_v to U_m is maintained at a substantially constant value (where U_v stands for the state of the steam in terms of the moisture ratio of the material which would be in equilibrium with said steam and U_m is the actual moisture ratio of said material).

2,874,482

DRYING OF MOIST MATERIAL

Alfred Haltmeier, Leverkusen-Bayerwerk, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

Application August 9, 1954, Serial No. 448,683
Claims priority, application Germany August 17, 1953
9 Claims. (Cl. 34—31)



1. Method for drying moist material which comprises substantially continuously passing a layer of moist material through a regulation zone and thereafter passing said material through a drying zone, subjecting said material to radiant heat in said drying zone to dry the same; subjecting the material to a predetermined caloric change in said regulation zone determining the temperature differential caused by said caloric change and varying the amount of radiant heat supplied in said drying zone in proportion to said temperature differential occurring in said regulation zone.

2,874,483

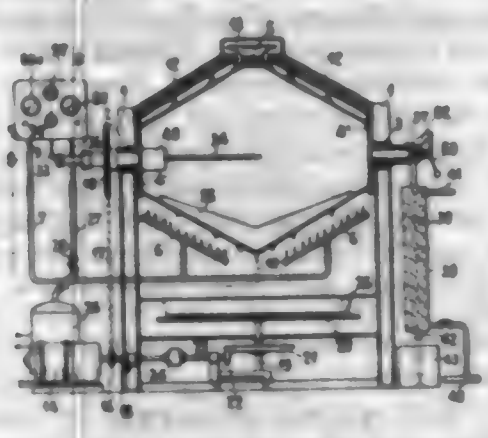
APPLIANCE FOR ROASTING COFFEE BEANS

Willy Brandl, Zurich, Switzerland

Application July 22, 1953, Serial No. 369,611
Claims priority, application Switzerland July 24, 1952
5 Claims. (Cl. 34—46)

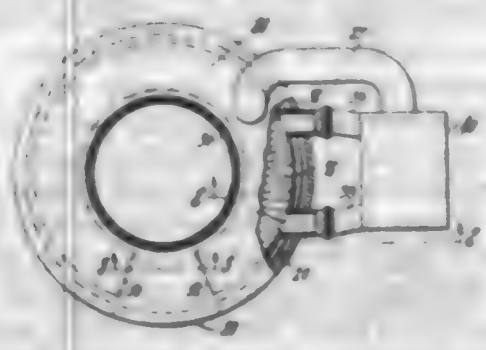
1. In an apparatus for roasting coffee beans comprising a closed roasting drum mounted to rotate about a horizontal axis, vanes mounted in the drum for producing a tumbling action of the beans during rotation of

said drum in which said beans are carried upwardly and fall by gravity through the axial center area of said drum, heating means mounted beneath said drum to heat the contents to a roasting temperature, pressure responsive valve means in said drum to relieve excess pressure beyond a predetermined amount and maintain a constant pressure in said drum, a temperature responsive element projecting into and extending coaxial with said drum



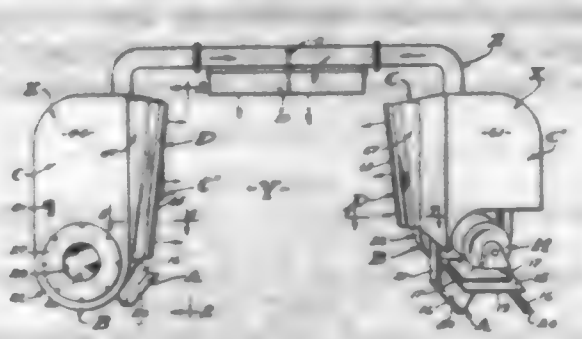
and arranged in the path of the coffee beans falling by gravity through said central axial area so that said temperature responsive means will be engaged by said coffee beans in heat transfer relation therewith, means for introducing a cooling medium under pressure into said drum and means for charging the roasting drum with green beans and for discharging roasting beans therefrom.

2,874,484
APPARATUS FOR THERMALLY TREATING ARTICLES
William P. Dapses, North Attleboro, Mass., assignor to Wolverine Equipment Co., Cambridge, Mass., a corporation of Massachusetts
Application November 9, 1956, Serial No. 621,355
4 Claims. (Cl. 34—187)



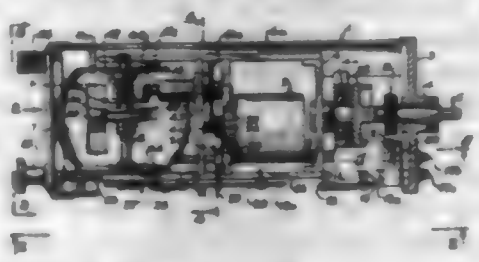
1. Apparatus for thermally treating articles moving along an arcuate path comprising a conveyor for supporting articles to be treated, means for moving said conveyor at a uniform rate along an arcuate path through a predetermined arc of treatment, a plurality of nozzles having orifices of uniform dimension which are small compared with both the width and length of said arcuate path disposed along said path for directing gaseous streams towards said conveyor as it passes through said arc, the apertures of said nozzles lying in a single plane spaced from and parallel to the path of said conveyor and lying in radial and circumferential rows, the circumferential rows lying in a series of abutting arcuate sectors of uniform radial width equal to the maximum radial width of the orifices, and each circumferential row containing an identical number of orifices at regularly spaced degree intervals along said arc but the orifices being staggered so that orifices in repeating spaced arcuate sectors lie on one series of radii while the orifices in intervening arcuate sectors lie on other radii spaced evenly between said one series of radii.

2,874,485
AUTOMOBILE DRIER UNIT
Earl E. Wilson, Long Beach, Calif.
Application April 8, 1957, Serial No. 651,498
15 Claims. (Cl. 34—230)



1. A drier unit of the character described including, a blower housing, a blower wheel carried in said housing on a horizontally and longitudinally disposed axis, said housing having a scroll adapted to discharge air vertically at one side of the housing, a diffuser overlying the blower housing and with a chamber receiving said air therefrom to direct it transversely of said axis, and a nozzle in communication with the diffuser chamber and with an elongate vertically disposed slot-shaped aperture at the side thereof opposite the discharge side of the blower housing and disposed to project said air laterally of the unit.

2,874,486
AIRCRAFT TRAINING INSTRUMENT FOR SIMULATING ATTITUDE GYRO
Edgar J. Lentheld, Wood-Ridge, N. J., assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application July 9, 1956, Serial No. 596,612
6 Claims. (Cl. 35—12)

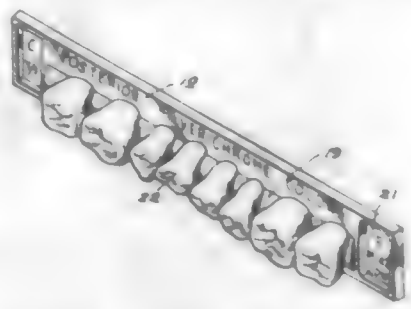


1. In aircraft training apparatus for simulating an attitude gyro having indicating means adapted to be positioned according to simulated pitch and roll attitudes, gimbal structure for bodily supporting said indicating means responsive to simulated roll, and means for independently operating said indicating means according to simulated pitch, the combination of means for manually resetting said apparatus from a simulated tumbled position to a zeroed position comprising a manual resetting member, means initially operable thereby for centering said gimbal structure to represent zero roll attitude, a cam member mounted for limited movement on said gimbal structure and spring-biased in one direction, means subsequently operable by said manual resetting member for engaging said cam member to move it against its spring bias, and a centering cam mounted on said gimbal structure and connected to the pitch indicating means arranged to be engaged by said cam member so as to position the indicating means to represent zero pitch attitude.

2,874,487
TOOTH CARDING DEVICE
Eli H. Bloom and Isadore Wiener, Philadelphia, Pa., assignors to Universal Dental Company, Philadelphia, Pa., a corporation of Pennsylvania
Application October 13, 1954, Serial No. 462,056
7 Claims. (Cl. 35—49)

1. In a stock card for artificial teeth, a bar like one-piece-molded main body comprising opposite end and

intermediate web areas disposed in close adjacent end to end relation, said opposite end web areas being disposed in a common plane and in laterally offset parallel relation to said intermediate web area, whereby said web areas are adapted to conjointly accommodate a plate like member positionable therebetween with the opposite end portions of the plate respectively overlying the opposite end web areas aforesaid and the intermediate portion of



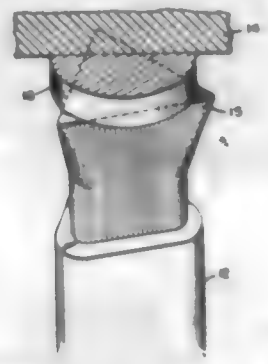
the plate underlying the intermediate web area aforesaid, and a peripherally extending rib, said web areas being interconnected only indirectly solely through the medium of said rib, and being secured by the latter in fixed relation to one another, said intermediate web area being provided with a depression formed on the face thereof remote from said opposite end web areas and adapted to accommodate a bed of pliable wax for mounting the artificial teeth.

2,874,488

HEEL WITH EXPANDED TUBE ANCHORED THEREIN

James F. Fitzsimmons, Winchester, Mass., assignor to Fitz-On Heel Corporation, Winchester, Mass., a corporation of Delaware

Application January 28, 1958, Serial No. 711,637
2 Claims. (Cl. 36—34)



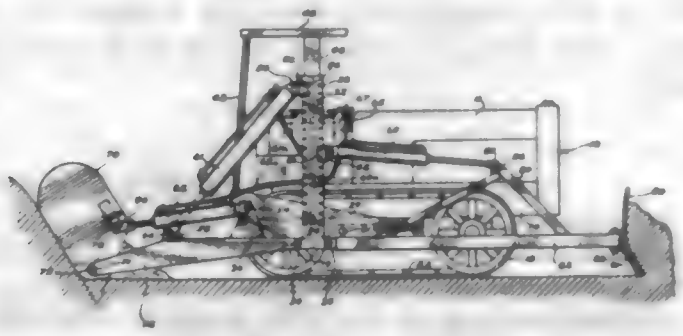
1. A woman's high heel of plastic material having a longitudinal bore extending inwardly from the tread face of the heel, a metallic tube of triangular cross section substantially filling the bore and bottomed therein, having its outer end countersunk below the said tread face of the heel and expanded so that its vertices are imbedded in the material of the heel.

2,874,489

TOOL ATTACHING DEVICE

Wayne W. Orjala, McGregor, Minn.

Application June 19, 1957, Serial No. 666,706
4 Claims. (Cl. 37—117.5)



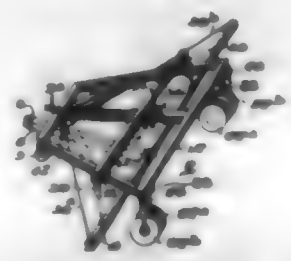
1. An attachment for operatively connecting tools to a tractor having in combination, a frame secured to said tractor, said frame comprising a plate member secured at either side of said tractor, a post integral with each of said plate members and upstanding therefrom, said posts having flanges extending at either side thereof for substantially the full height of said posts, said flanges respectively having vertically spaced apertures therein, lugs having bifurcated portions adapted to be disposed about said flanges at one side of said posts and having aligned apertures therethrough to be in register with said apertures in said flanges whereby said lugs are adapted to be secured to said posts at different points thereon, a pair of link members adapted to have their inner ends pivoted to the base portions of said posts and adapted to have a tool removably secured to their outer ends at one end of said tractor, and a pair of hydraulic cylinders connected at one end to said lugs and connected at their other ends to said link members for manipulating the same to operate said tool.

2,874,490

LAND LEVELER

Alton O. Harmon, Marked Tree, Ark., assignor to St. Francis Valley Farms Co., a corporation of Arkansas

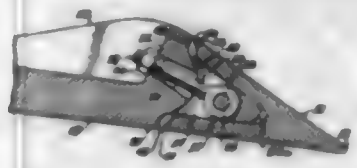
Application July 21, 1954, Serial No. 444,777
3 Claims. (Cl. 37—169)



1. In a land leveler having a soil-moving element whose leveling efficiency is dependent upon its attitude relative to the vertical and relative to its line of earth traversing movement and also dependent upon its elevation relative to terrain traversed, a supporting frame having a front member and a back member substantially parallel thereto, both rigidly attached at their ends to side members forming a quadrilateral leveler frame, said frame provided at the two opposite ends of its back member with downwardly depending swivel wheels which elevate the rear end of the supporting frame, said quadrilateral frame also being provided with a reinforcing brace connected to two opposite members thereof, a soil-moving element carrying member resting on top of the leveler frame and movably connected at its midpoint to the reinforcing brace for pivotal movement about said midpoint, a soil-moving element located beneath the frame, and carried by said pivotally movable carrying member, the soil-moving element being carried substantially in the same vertical plane as its carrying member, a hydraulic unit interposed at each end of the soil-moving element carrying member between the carrying member and the soil-moving element itself, each adapted separately to raise and lower its particular end of the soil-moving element, a draw bar adapted at one end for connection to towing means and having its opposite end pivoted to the soil-moving element at the midpoint thereof permitting horizontal pivotal movement of the soil-moving element relative to the draw bar, said horizontal pivotal movement being restricted in each direction by the wheels at the rear of the frame, a draw bar holding member attached to the front member of the leveler frame midway between the sides of the supporting frame and depending downwardly from the supporting frame, said downwardly depending member holding the draw bar at its end near the towing means connection and said draw bar being connected with said holding member for vertical pivotal movement of the draw bar relative to the downwardly depending member and for partial turning of said draw

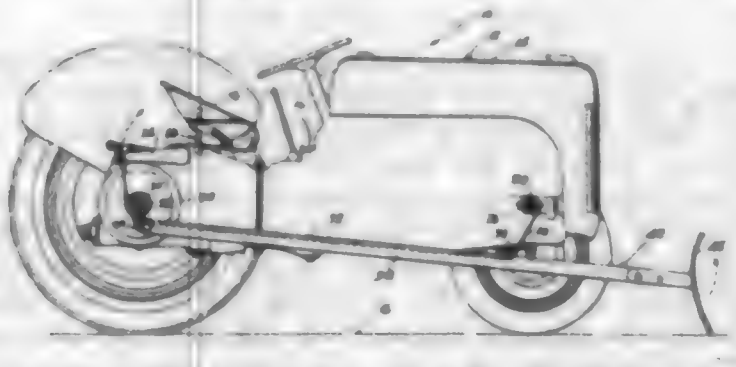
bar about its longitudinal axis and means for maintaining the soil-moving element at a desired angle relative to its direction of forward movement.

2,874,491
BUCKET TOOTH ASSEMBLY
Paul V. Larsen, Portland, Oreg., assignor, by mesne assignments, to Electric Steel Foundry Company, a corporation of Oregon
Application December 31, 1953, Serial No. 401,481
5 Claims. (Cl. 37—142)



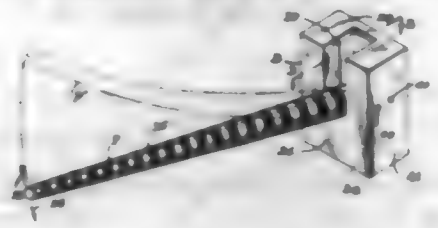
1. In a structure of the character described, a mounting horn equipped with a pair of spaced-apart, forwardly-extending wedges having a substantially constant angle of taper, said mounting horn providing a bore therethrough opening between said wedges, a tooth having a recess in the rear portion thereof with tapering walls substantially complementary to the tapering walls of said wedges and having substantially the same constant angle of taper, said tooth being equipped with a pair of spaced-apart webs received between said wedges, and eyebolt means carried between said webs and extending through said bore for anchoring said tooth upon said mounting horn, said rear portion of said tooth and said webs providing abutment surfaces and said horn having facing abutment surfaces normally spaced therefrom, said mounting horn being provided with an arcuate surface between said wedges providing at least one of said facing abutment surfaces, the rear walls of said webs being arcuate.

2,874,492
DOZER ATTACHMENT FOR TRACTORS
Frank M. Hartman, Sr., Lima, Ohio
Application January 25, 1957, Serial No. 636,343
1 Claim. (Cl. 37—144)



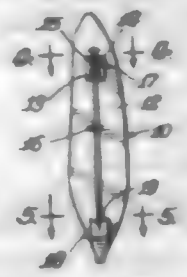
In combination, a tractor having a chassis, a front axle on the front end of the chassis, a differential axle housing on the rear end of the chassis having housing portions at the opposite ends of the housing, and rearwardly extending power lift-arms on the chassis above the differential housing, a pair of elongated thrust arms having forward and rear ends, said thrust arms being positioned beneath said differential housing and beneath said front axle, with the forward ends of the thrust arms extending forwardly beyond said front axle, a dozer blade fixed on the forward ends of the thrust arms, said thrust arms being tubular and said rear ends being open, lugs on the rear ends of the thrust arms horizontally pivoted to the differential housing at the underside of the differential housing, intermediate portions of the side walls of the thrust arms having openings therein located rearwardly of said front axle, horizontal axis pulleys mounted on the arms in said openings and having lower portions reaching into the interiors of the arms, cables extending through said thrust arms, said cables having rear end portions extending rearwardly through the open rear ends of the arms, said rear end portions of the cables being trained under and around the rear sides of the housing portions of the differential housing and secured to the lift-arms, and said cables having forward end portions trained forwardly beneath said pulleys and extending upwardly through said openings and secured to said front axle.

2,874,493
AUTOMATIC SIGNAL AND BARRIER DEVICE FOR RAILROAD CROSSINGS
Henri Mandel, Bronx, N. Y., assignor of one-half to Ethel Scott, Bronx, N. Y.
Application August 31, 1956, Serial No. 607,468
1 Claim. (Cl. 39—42)



A gate element for a railroad crossing comprising a hollow block-shaped housing having a communicating slot in its front and top walls, a shaft journalled in the side walls of the housing and extending across said slot, a flexible tapered pole having its large end pivotally connected to the shaft in said slot and movable therein and having its other end extending outwardly of the housing, and flexible laterally, a metal insert on the large end of the pole in the slot forming an extension thereof, another shaft journalled in the side walls of the housing and extending across said slot parallel to the first-named shaft, a gear on said second-named shaft disposed in the slot, a pulley on the same shaft adjacent said gear, gear teeth on the metal insert on the pole in mesh with the teeth on the gear, a motor mounted in the housing, means of connection between the motor and the pulley for rotating the shaft mounting the gear whereby the pole may be raised, and a spring in the housing having one end connected to the large end of the pole and its other end anchored to the housing for lowering said pole when the motor is turned off.

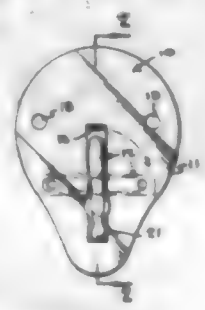
2,874,494
EMBLEM DEVICE
George W. Emmert, Winnetka, Ill., assignor to Federal Premium Service, Inc., Evanston, Ill., a corporation of Illinois
Application August 1, 1956, Serial No. 601,533
9 Claims. (Cl. 40—1.5)



1. A single piece emblem device for attachment to a fabric article by means of a pin, comprising an emblem body having integrally formed on the backside thereof a pair of rearwardly projecting, substantially parallel, spaced apart walls defining a pin receiving guide passage therebetween, an elastic diaphragm integral with said body and with said walls and extending transversely across said guide passage in position to be pierced by a pin when the same is inserted longitudinally through said guide passage and into the fabric article, said guide passage serving to guide said pin during said longitudinal movement thereof and said dia-

phragm gripping the pin when pierced thereby to retain the pin in said guide passage, said diaphragm thereby serving to retain said emblem body upon the pin and thus upon the fabric article.

2,874,495
IDENTIFICATION BADGE HOLDER
Clarence D. Fowler, Searsport, Maine
Application November 25, 1957, Serial No. 698,460
4 Claims. (Cl. 40—1.5)



1. In an identification badge holder, a supporting plate having means for securement of a badge, a clasp pivotally mounted upon the rear face of said supporting plate and inter-engaging means between said plate and clasp for securing the badge in a required position upon a garment.

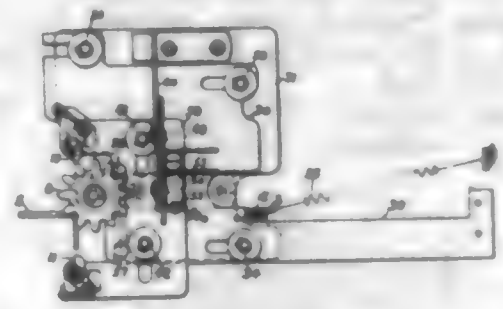
2,874,496
DISPLAY
Leo L. Rakes, Chicago, Ill.
Application February 29, 1956, Serial No. 568,587
5 Claims. (Cl. 40—28.3)



1. A Christmas display comprising a plurality of items including a Christmas tree mounted on a rotatable stand, lights on said Christmas tree, and a scene adjacent said Christmas tree and having lights thereon, said items being alternatively quiescent or activated to appeal to at least one of the perceptory senses, a plurality of switch means operable individually and in groups for similarly rendering said items quiescent or activated, time switch means for operating said plurality of switch means individually and in groups in predetermined order, and manually operable switch means connected in parallel with said time switch means for operating said plurality of switch means irrespective of the operation of said time switch means.

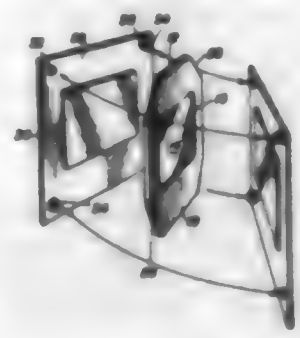
2,874,497
SLIDE MAGAZINE ADVANCING MEANS
Malvin Huff, Mount Vernon, N. Y., and Frank J. Cassie, Montclair, N. J., assignors to Viewlex, Inc., Long Island City, N. Y., a corporation of New York
Application December 20, 1956, Serial No. 629,624
3 Claims. (Cl. 40—79)

1. In a slide projector of the type adapted to receive a removable slide tray having a rack thereon and adapted to move a slide and index said magazine with the same motion, means to advance said tray in forward and reverse directions comprising a first gear adapted to engage said rack, a second gear connected to said first gear, a sliding plate movable in two perpendicular



directions adjacent said second gear, a pair of pawls mounted on said plate, the first of said pawls adapted to engage said second gear to turn it in one direction and the second of said pawls adapted to engage said second gear to turn it in the opposite direction as said sliding plate is moved.

2,874,498
PHOTOGRAPHIC SLIDE PROTECTOR
Stanley J. Butkevich, Chicago, Ill., assignor to Admiral Photo Products Co., Chicago, Ill., a corporation of Illinois
Application November 29, 1954, Serial No. 471,795
4 Claims. (Cl. 40—152)



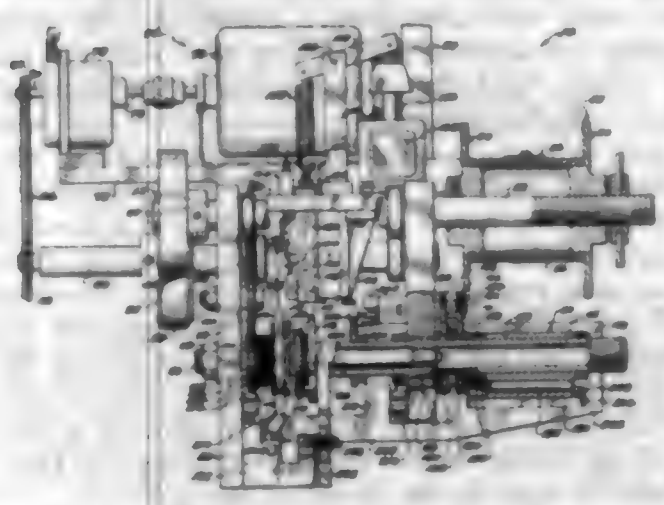
1. A protector for use with a photographic film slide having an outer cover extending over both sides of the film, said cover being provided with picture openings on opposite sides of the film through which the film is visible, said protector comprising a pair of plates each having a generally rectangular transparent thickened portion projecting outwardly beyond one face thereof, said plates being adapted to enclose the film slide therebetween in sandwich fashion with the thickened portions extending into said openings on opposite sides of the film respectively and substantially filling the same whereby the film is tightly sealed between said thickened portions in face-to-face contact therewith, each plate being provided with cylindrical posts at one pair of diagonally opposite corners and with circular holes at the other pair of diagonally opposite corners to receive the posts of the opposed plate, the plates being of the same overall rectangular dimensions of the film slide and the slide being truncated at its corners to provide clearance regions so that the posts may interengage with their respective holes in the corner regions of the protector, each plate being further provided with continuous spacer members at one of said pairs of diagonally opposite corners, said spacer members being of a thickness substantially equal to the overall thickness of the slide and presenting outwardly facing flat surfaces which, when the posts are received within their respective holes, surround the posts and bear against the opposing face of the other plate to limit the extent of reception of the posts into the holes.

2,874,699

TRANSFER LABELING APPARATUS

Ira S. Gottscho, Millburn, and Malcolm Hirschey, Woodbridge, N. J., assignors, by mesne assignments, to Dennison Manufacturing Company, Framingham, Mass., a corporation of Massachusetts

Application April 11, 1956, Serial No. 577,528
24 Claims. (Cl. 41—1)



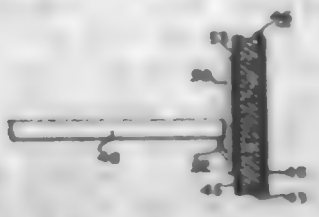
1. Transfer labeling apparatus for use in connection with base stock including a continuous paper carrier having lable defining transfer coatings thereon transferable to an advancing web of packaging material by the application of heat and pressure; said apparatus comprising a back-up roll having a resilient surface, means for guiding the paper carrier and the web along paths that run together on the surface of said back-up roll and then diverge and with the transfer coatings on the carrier facing the web, a rotary die wheel having a heated, sector-shaped active portion with the circumferental extent of the latter being equal to the longitudinal extent of each of the transfer coatings along the paper carrier, said die wheel being disposed so that, when said active portion faces said back-up roll during each revolution of the die wheel, heat and pressure are applied to the base stock and web on the back-up roll over an area of substantial width and the base stock is advanced a distance equal to the sum of the circumferential extent of said active portion and the width of said area, means for rotating said die wheel in synchronism with the advancement of the web of packaging material and means pulling back the base stock a distance substantially equal to the width of said area during each revolution of said die wheel when said active portion faces away from said back-up roll, the apparatus including means cooperating with registration apertures in the base stock for establishing a definite relation between such a registration aperture and the active portion of the die wheel, so that the successive transfer coatings can be adjacent to each other on the paper carrier and said pulling back means will register one of the transfer coatings with said active portion of the die wheel during each revolution of the latter.

2,874,580

LOAD BEARING PLATE AND METHOD FOR SECURING THE PLATE AND OTHER OBJECTS TO A SMOOTH SURFACE

Howard Frank Patterson, Dayton, Ohio

Application June 4, 1956, Serial No. 589,136
3 Claims. (Cl. 41—34)



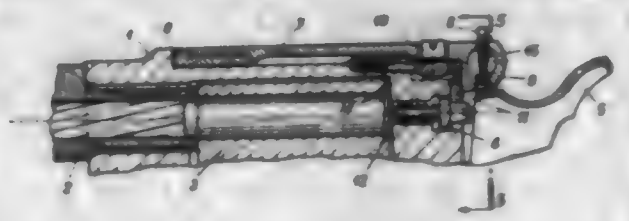
2. The method of securing an object to a smooth surface comprising the steps of affixing a layer of thermal responsive adhesive to said surface, said layer being non-tacky at ordinary ambient atmospheric temperature, placing a suitably cut template over said adhesive layer, supplying heat to one surface of said object while separated from said smooth surface and the adhesive layer thereon, pressing the preheated surface of said object against the adhesive layer using the template as a guide for positioning said object, and allowing the object to cool under pressure so as to maintain contact with the adhesive layer.

2,874,591

SIGHT FOR REPEATING SMALL ARMS

Josef Koucký and František Koucký, Prague, Czechoslovakia, assignors to Konstrukta Praha, narodni podnik, Prague, Czechoslovakia

Application October 17, 1956, Serial No. 616,410
4 Claims. (Cl. 42—1)



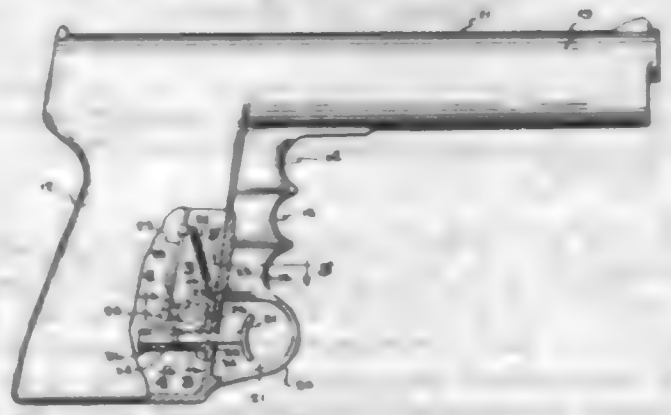
1. In a firearm, the combination of a frame, a firing pin slidably mounted in said frame and removable rearwardly from the latter, an arresting element operative to prevent rearward removal of the firing pin and being vertically slidable in said frame to release said firing pin for removal upon upward sliding of said arresting element, a resilient sight support, longitudinally extending guide means on said frame slidably receiving said sight support at the forward end portion of the latter so that said support is removable rearwardly from said guide means from an operative position wherein the back end portion of said support overlies said arresting element, a sight carried by said support, and means on said back end portion of the support extending downwardly from the latter and engageable in front and in back of said arresting element in said operative position of the support so that said arresting element normally prevents rearward removal of said support and so that upward flexing of said back end portion of the resilient support raises said means extending downwardly from the back end portion to clear said arresting element and thereby permit rearward displacement of said support for freeing the latter from said guide means.

2,874,592

GRIP AND TRIGGER ARRANGEMENT FOR HAND FIREARMS

Thomas W. Lockwood, Berwyn, Ill.

Application March 29, 1957, Serial No. 649,390
1 Claim. (Cl. 42—69)



In a hand gun, a barrel, a hollow stock depening from one end of said barrel and having a downwardly and rearwardly inclined forward wall, an upwardly movable triggering element in said stock, three forwardly concave, vertically adjacent, stationary finger-engaging elements

formed on the upper forward edge of the stock below said barrel and adapted to be engaged by the first three fingers of the hand, a horizontal rack bar slidably mounted in the stock and projecting forwardly therefrom below said stationary finger-engaging elements, a rack gear journaled in said stock above said rack bar and meshing with said rack bar, a rearwardly extending arm on said rack gear, means pivotally connecting said arm to said triggering element and thus operatively connecting said rack gear to said movable triggering element, spring means connecting said triggering element to the lower portion of the forward wall of said stock and biasing said triggering element downwardly and said rack bar toward a forwardly extended position, a forwardly concave vertical finger-engaging member rigidly connected at its mid portion to the forward end of said rack bar adapted to be engaged by the fourth finger of the hand, whereby the force exerted on said finger-engaging member will be directed substantially in axial alignment with said rack bar, a guard element connecting the lowermost of the three stationary finger-engaging elements to the lower forward portion of the stock and defining a guard enclosure around said last-named forwardly concave finger-engaging member, and cooperating means on said rack bar and said lower portion of the forward wall limiting forward extension of said rack bar.

2,874,503
TRIGGER SAFETY DEVICE FOR GUNS
Casimir M. Niesp, Buffalo, N. Y.
Application April 12, 1957, Serial No. 652,619
5 Claims. (Cl. 42—70)



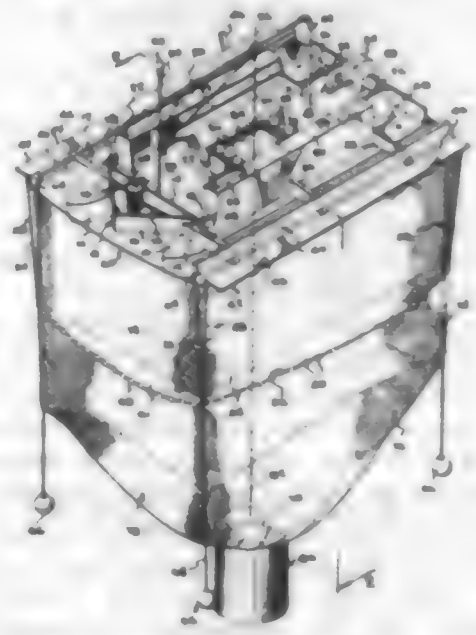
3. In a safety mechanism for a gun, a gun stock, a metallic trigger, a trigger guard enclosing said trigger, a locking bar slidably carried by said trigger guard and engageable with the rear surface of said trigger to lock the same against movement, the forward end of said locking bar shaped to wedge between the rear of said trigger and the under-side of the gun stock to lock said trigger against movement, and a magnetized element at the forward end of said locking bar and attracted by said trigger when spaced therefrom to return said locking bar to its locked position between the trigger and the under-side of the gun stock.

2,874,504
SHOT GUN RIB SIGHT
George A. Martinek, Cleveland, Ohio
Application February 24, 1956, Serial No. 567,683
7 Claims. (Cl. 42—76)



4. A shot gun having a single barrel provided with a seated opening at its rear end portion, a pair of spaced split clamps, one of which is arranged adjacent the free end portion of said barrel and the other of which is arranged intermediate the ends of said barrel, each of said clamps having a pair of curved side walls for engaging the barrel of the gun and the side walls of each clamp terminating in substantially straight free end portions which extend below the barrel of the gun, releasable means associated with the free end portions of each of said clamps for securing the free portions of each clamp together to cause the curved side walls of each clamp to firmly engage the barrel of the gun and each of said clamps having a raised portion extending upwardly from the barrel of the gun which raised portion is substantially in the shape of an inverted U and includes a flat upper wall and spaced side walls, a rib sight extending substantially the entire length of said barrel, said rib sight having an aperture in proximity to its rear end, a flat upper wall, and downwardly extending side walls for engaging the upwardly extending side walls of each of said clamps, and the raised portions of each of said clamps being at a sufficient distance from the barrel of the gun to provide a passageway between the rib sight and the barrel of the gun through which air may circulate to cool the barrel of the gun when it is fired, means for securing the rib sight to said clamps, a rear sight having an arm extending forwardly from its lower portion which is provided with an aperture in alignment with the aperture in the rib sight, and a screw extending through the aligned apertures in the rear sight and the rib sight and being threaded into the seated opening at the rear end of the barrel of the gun for securing the rear sight and the rib sight to the barrel of the gun.

2,874,505
COMBINED BOAT AND FISHING NET
Demetrio M. Cobile, Honolulu, Territory of Hawaii
Application August 2, 1957, Serial No. 675,994
8 Claims. (Cl. 43—7)

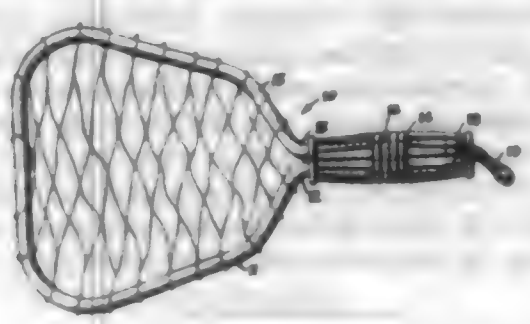


1. Fishing apparatus comprising a buoyant platform structure having a central well; an upper net section suspended from the periphery of the structure; a lower net section suspended from the periphery of said structure independently of the upper net section; and means on the structure for telescoping the lower net section upwardly within the upper net section for removal, through the well, of fish confined within said lower net section.

2,874,506
FISH LANDING NET
Walter L. Cliff, Kane, Pa.
Application June 22, 1956, Serial No. 593,181
1 Claim. (Cl. 43—11)

A fish landing net including a frame comprising a single continuous unobstructed tube bent upon itself in a broad loop portion and having the end portions thereof lying parallel, coextensive, and closely adjacent one another to provide a handle portion substantially closing the loop portion, a woven net member bridging the loop portion, a grip member having a bore passing therethrough with an annular notch portion interrupting the wall of said bore, said parallel end portions being confined in said bore, and having flared ends retained in said annular notch

portion, a continuous elastic cord passing under tension entirely through said tube and having loop ends extending outwardly beyond said flared ends, a connector member secured to said loop ends and receivable in said bore in abutting relation with said flared ends to normally retain said elastic cord wholly within said tube and handle



portion, and a snap fastener carried on said connector member adapted for attachment to the person, whereby movement of said net in a direction away from the person during use will effect extension of said cord exteriorly of said handle portion under tension to thereby urge automatic retraction of the net to a non-use position near the body of the person after use.

2,874,507

TELESCOPING FISHING ROD

Aloysius W. Faber and Arthur E. Gronewold, Chicago, Ill., assignors to Richardson Rod & Reel Company, Chicago, Ill., a corporation of Illinois

Application September 27, 1955, Serial No. 536,992
1 Claim. (Cl. 43—18)



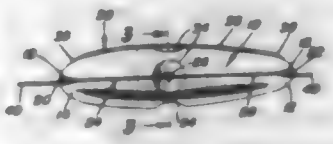
A fishing rod comprising a plurality of cylindrical hollow tubular sections telescopically slidable one within the other, means for maintaining them in generally concentric alignment including inner and outer sleeves adjacent the ends thereof, means for frictionally resisting relative longitudinal movement of the sections including a spring finger at the inboard end of an inner section, extending forwardly along the outer sleeve and biased to contact with the external wall of the section forward of the sleeve and the internal wall of the outer section, the finger being adapted to wedge between the inner section and the said outer sleeve when the inner section is moved to its extended position, each finger having at its rearward end an element penetrating the sleeve and section wall to extend across the hollow interior of the section to limit inward movement of a section telescoping therein.

2,874,508

READILY ATTACHABLE AND DETACHABLE FISHING FLOAT

Adolph E. Anderson, Jr., Houston, Tex.

Application May 29, 1956, Serial No. 588,147
1 Claim. (Cl. 43—43.1)



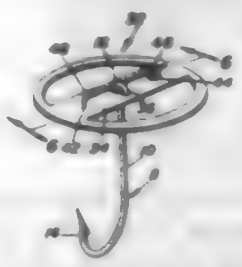
An attachment for a fishing line comprising an elongated rigid float body having its opposite end portions notched to provide a plurality of keeper seats, an endless and stretchless fishing line attaching and retaining bridle tightly embracing the float body with all portions thereof hugging the cooperating surface portions of the float body and having bight portions seated in some of said keeper seats, median portions of the exterior surface of said float body having individual circumferentially spaced recesses spanned by cooperating portions of the bridle and said notches and cooperating portions of the bridle serving to facilitate the passing of a looped portion of a fishing line between said bridle and said float body in a manner to attach the fishing line to the float body to be held temporarily on the float body with the aid of other of said cooperating keeper seats and portions of the bridle which serve to seat and maintain the fishing line in the keeper seats.

2,874,509

ANTI-SNAGGING DEVICE FOR FISHHOOKS

Thomas L. Talbert, Slaton, Tex.

Application September 20, 1956, Serial No. 611,061
2 Claims. (Cl. 43—43.2)



1. An attachment for the eye-equipped end of the shank of a conventional-type fishhook having a shank and barbed bill comprising a bumper-guard ring-like in plan and adapted to assume a position in a plane which is at an approximate right angle to the lengthwise axis of the shank of a fishhook to which it may be attached, said guard being of an outside diameter such that the outer peripheral edge thereof will project a distance beyond the axis of the fishhook shank appreciably greater than the distance the barbed bill projects beyond the axis of said shank, said guard being provided with a central spider having apertures therein, one of said apertures being adapted to accommodate and permit passage therethrough of the eye on one end portion of the shank of the aforementioned fishhook, and a safety-pin-like fastener carried by said spider and having an openable and closable member adapted to pass through the shank's eye and which when it is fastened in closed position serves to detachably mount the guard on said eye in a position where it is at an approximate right angle to said shank.

2,874,510

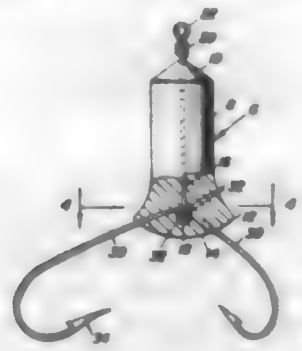
FISHING DEVICE

William F. Fitzgerald, Dallas, Tex.

Application February 6, 1958, Serial No. 713,704
1 Claim. (Cl. 43—44.81)

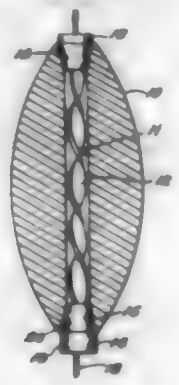
An anti-fouling fishing device comprising an approximately bell-like weight having an elongated cylindrical

body portion, an upper tapered conical end portion and an outwardly enlarged and flaring bottom portion with a convex bottom side, a plurality of circumferentially spaced fishhooks each having a shank with a hook on the outer end of the shank, the inner ends of the shanks having eyes embedded in the lower portion of said weight,



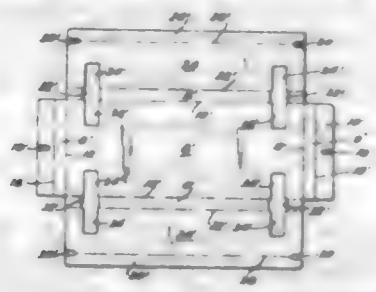
and a rod embedded axially in said weight and having a headed lower end to which the inner eye-equipped ends of the shanks are severally connected, the upper portion of said rod extending above the upper end of the weight and terminating in an eye which is adapted to accommodate the lower end portion of a leader.

2,874,511
LINE CONNECTOR FOR FISHING APPLIANCES
Carl R. Hettrick, Terrace Park, Ohio
Application May 13, 1957, Serial No. 658,799
3 Claims. (Cl. 43—44.87)



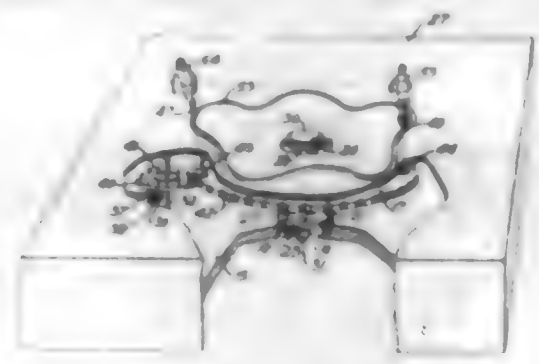
1. A connector for an element to be fastened to a line, a body for the element having a hole formed therethrough, a line receiving resilient tube mounted on the body in said hole, means on the ends of the tube cooperative with the body for precluding removal of the tube from the hole, said means being adapted to be rotatably manipulated for twisting the tube in the hole to provide line locking convolutions therein, and means for releasably holding said means against rotation after the tube is in twisted condition in the hole.

2,874,512
FOLDED BLANK STRUCTURE FOR INTERLOCKING TOY CONSTRUCTION ELEMENTS
John L. Joseph, Hasbrouck Heights, N. J., and Irving Dorfman, New York, N. Y., assignors, by mesne assignments, to Brrr Products Co., Inc., Hasbrouck Heights, N. J., a corporation of New Jersey
Application December 27, 1956, Serial No. 630,931
20 Claims. (Cl. 46—25)



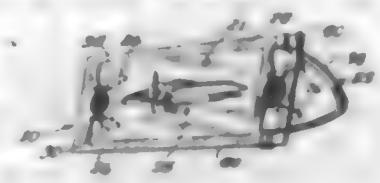
1. A blank for a toy construction element comprising a bottom wall panel, opposed pairs of side wall panels foldably secured thereto, top wall panels foldably secured to one opposed pair of side wall panels and having a combined width substantially equal to the corresponding dimension of said bottom wall panel and adapted to meet across the top of said element, first flaps foldably secured to the meeting edges of said top wall panels and adapted to be bent down into said element, second flaps foldably secured to the upper edges of another opposed pair of side wall panels and adapted to be received under said top wall panels, at least one opposed pair of side wall panels having slots formed therein and extending from top to bottom thereof, said bottom wall panel and said top wall panels having slots of comparable width communicating and substantially in line with said first mentioned slots.

2,874,513
ACTION FIGURE TOY STRUCTURE
Edward F. Council, Northampton, Mass.
Application April 18, 1956, Serial No. 579,106
2 Claims. (Cl. 46—119)



1. A motion toy comprising a toy figure, a circular wheel disk turnable on its central axis, a tilting support having an outer end carrying said figure, a hinged connecting member fixed to said wheel at the outer edge thereof and movable thereby in a predetermined path of travel, said hinged connecting member carrying the inner end of said support for swinging movement on its pivot from side to side relative to said path of travel, a platform surface spaced from the plane of the disk having a slotted portion receiving said figure support and defining a path therefor crossing and recrossing the projection of the predetermined path of said hinged connecting member on said surface, said figure support during rotation of said disk alternately bearing against opposite side edges of said slotted portion and swinging laterally from side to side in alternately tipped angular relation to said platform surface.

2,874,514
NOISE MAKING DEVICE FOR VELOCIPEDES OR THE LIKE
David C. Munro, Chicago, Ill.
Application December 12, 1955, Serial No. 552,346
4 Claims. (Cl. 46—175)



1. A noise making device for velocipedes or the like of the type having a fender positioned over the wheel thereof and mounted on fender supports that extend between the fender and the axle shaft of the wheel, said device comprising a generally planar strip of resilient material formed with a pair of spaced tabs adjacent one end thereof, said tabs being spaced apart sufficiently to receive between them a fender support and being suffi-

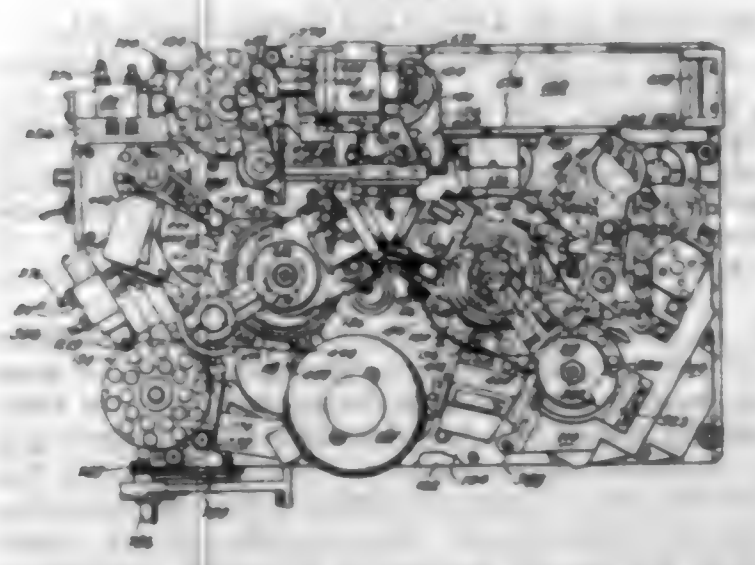
ciently bendable to be bent around behind the support, whereby said strip may be secured to the support, and a cam member secured to the other end of the strip, said cam member being provided with a generally convex cam surface, said cam member and said pair of tabs being disposed in parallel planes and said cam member projecting in the same general direction away from said strip as said tabs when the latter are bent about the support, said cam member projecting into the path of movement of the wheel spokes when said strip is secured to said fender support, whereby when said wheel is actuated, said cam surface of said cam member is engaged by the individual spokes to deflect said other end of said strip away from the support, and when the individual spokes pass by said cam member, said other end of said strip slaps back against the support.

2,874,515
CHILDREN'S TEETER TOTTER PLAY TOY
Silas M. Ford, St. Paul, Minn.
Application April 4, 1956, Serial No. 576,046
2 Claims. (Cl. 46—175)



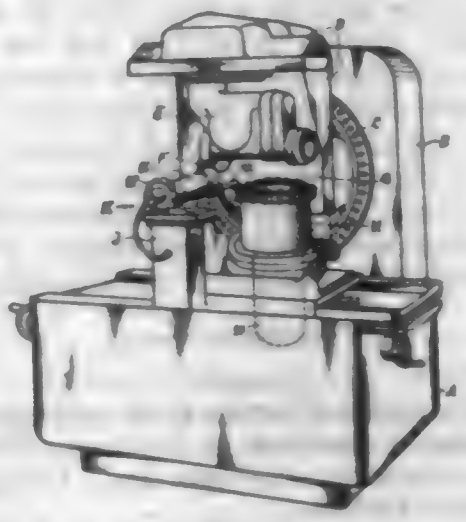
1. A toy teeter totter comprising a base, a pair of spaced standards mounted on said base, each provided with an upwardly directed rectangular notch at its upper edge, a teeter board having medially located laterally projecting cylindrical pin portions freely seated in said notches and having an aperture adjacent each end, a pair of figure members each provided with a downwardly projecting peg removably engageable in either of said teeter board apertures, an inverted U-shaped wire frame having its ends anchored to said teeter board and its connecting base section sloping downwardly from each end toward the center, and an apertured weight member slidable on said wire frame, the slope of said base section causing said weight member to gravitationally seek the center of said base section when said teeter board is horizontal.

2,874,516
GLASSWARE FORMING MACHINE
Harold Alfred Youkers, Oil City, Pa., assignor to Lynch Corporation, Anderson, Ind., a corporation of Indiana
Application September 28, 1954, Serial No. 456,981
21 Claims. (Cl. 49—9)



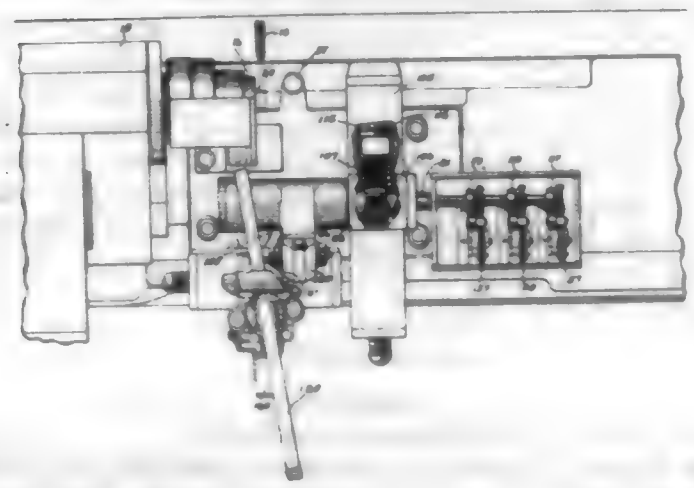
2. In a glassware forming machine of the character disclosed, a turret rotatably mounted, three finish ring holders continuously carried by said turret and rotatable thereon to upper and lower positions, a finish ring carried by each of said finish ring holders, means for intermittently rotating said turret to bring each of said finish rings successively to a plurality of three stations, a single parison mold at a first one of said stations for coacting with said finish rings successively when in their lower positions to receive a charge of glass, means at said first station for counterblowing the parison, a single blow mold at a second one of said stations for coacting with said finish rings successively when in their upper positions, means at said second station for blowing the parison to final shape, and means at a third one of said stations for opening said finish ring holders and the finish rings carried thereby successively to release the finished ware.

2,874,517
GRINDING MACHINE
Adolf Märkle, Tubingen, Germany, assignor to Firma Montanwerke Walter Aktiengesellschaft, Tuebingen, Germany
Application May 2, 1955, Serial No. 505,423
Claims priority, application Germany June 24, 1954
10 Claims. (Cl. 51—34)



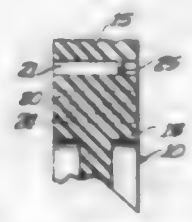
1. In a grinding machine for grinding cutters on a cutter head, in combination, turnable supporting means for supporting a cutter head having a plurality of cutters arranged spaced from each other substantially equal angles; drive means for turning said turnable supporting means; actuating means for actuating said drive means to turn said turnable supporting means from an initial operative position in one direction, said supporting means being adapted to support in said initial operative position thereof the cutter head with one of said cutters in a grinding position; control means adapted to be actuated by the next following cutter supported on said turnable supporting means during turning thereof in said one direction for reversing said drive means for turning said turnable supporting means in opposite direction when said turnable supporting means have turned in said one direction an angular distance exceeding the angle between said one cutter and said next following cutter; and stop means adapted to be engaged by the next following cutter during turning of said supporting means and of said cutter head in said opposite direction for stopping rotation of said turnable supporting means in said opposite direction in another operative position spaced from said initial operative position an angular distance equal to the angle between said one cutter and said next following cutter so that said next following cutter is in said other operative position of said supporting means in exactly the same grinding position as said one cutter in said initial operative position.

2,874,518
CONCENTRIC LOADER
Harold E. Balsiger, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa.
Application March 4, 1954, Serial No. 414,198
16 Claims. (Cl. 51—103)



15. In a grinding machine, a base, a grinding wheel support movable transversely on said base, a grinding wheel rotatably mounted on said support, a work table movable longitudinally on said base, a headstock on said table having means for rotatably supporting and driving a workpiece to be ground, a work loading device comprising a shaft, a work supporting arm on said shaft having means for positively engaging and shifting a workpiece alternately in opposite directions, a fluid motor for rocking said arm in one direction to position said workpiece in predetermined operative relation with said work driving means, and after a grinding operation to rock said shaft in the opposite direction to remove a workpiece from operative relation with said work driving means.

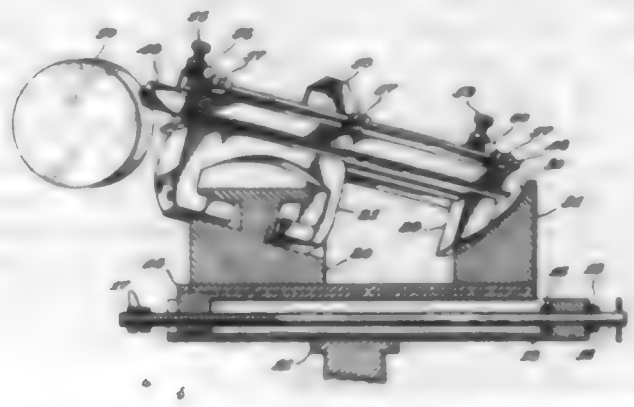
2,874,519
EXPANSIBLE ABRASIVE WHEEL
John R. MacIntosh and Sam A. Mercurio, Chicago, Ill., assignors to Mermac Products, Inc., Chicago, Ill., a corporation of Illinois
Application August 6, 1957, Serial No. 676,602
16 Claims. (Cl. 51—191)



6. In a wheel structure of the character described, a wheel adapted to be rotatably driven, said wheel being provided with a plurality of passages extending transversely therethrough, and means for disturbing the flow of air through said passages when said wheel is rotated to substantially minimize sound which would otherwise be created by the flow of air therethrough.

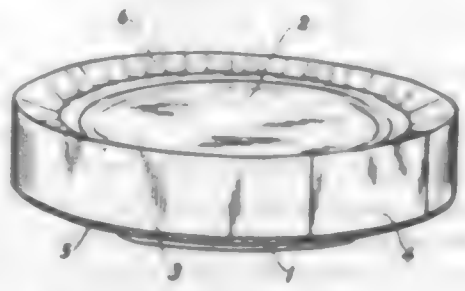
2,874,520
MANUALLY OPERATED GRINDING ATTACHMENT
Valentine Nickolas Hoerst, Cincinnati, Ohio
Application May 27, 1957, Serial No. 661,665
5 Claims. (Cl. 51—219)

5. In sharpening apparatus for cutting tools, a device for holding and guiding a cutting tool comprising a base, a base plate mounted on said base for adjustable rotative movement with respect thereto, a supporting plate slidably mounted on said base plate for adjustable reciprocating movement thereon, a rocker block fixed at one end of said supporting plate, a cam block fixed to the other end of said supporting plate and having a concave, irregularly curved, cam surface, a rocker arm



having a depending jaw member rockably engaging said rocker block and a depending cam follower arranged to slidably engage said cam surface, and means carried by said rocker arm for clamping tool thereto.

2,874,521
PACKING OF PLATES AND THE LIKE BY MEANS OF A SLIP OF PASTEBOARD OR OTHER MATERIAL
Harald Lima, Austratt, Sandnes, Norway
Application September 12, 1955, Serial No. 533,578
Claims priority, application Norway September 14, 1954
2 Claims. (Cl. 53—3)

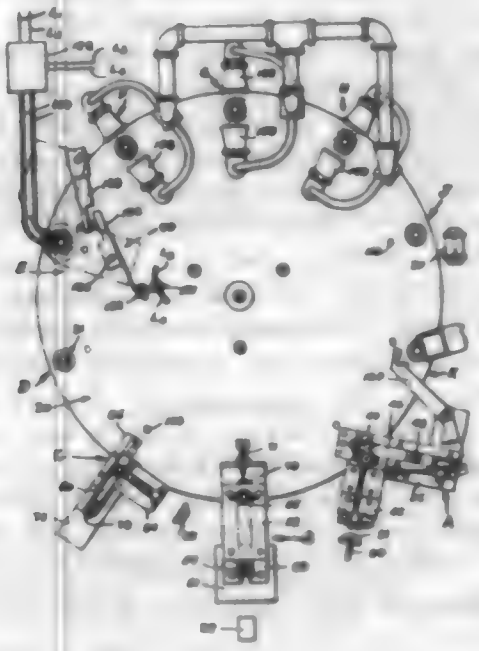


1. A method of packing fragile plates into a neat pile comprising applying a slip of pasteboard capable of shrinking of a size that is a little broader than the height of the stack of plates and a little longer than the circumference of said stack of plates, securing the ends of said slip together to form a tight ring around the stack, creasing in the edge of said ring beneath the edges of the lowest plate and above the edge of the highest plate of the stack, and effecting shrinkage of the slip by applying the slip in a wet state, so that when the slip dries it will shrink to tightly embrace the stack of plates.

2,874,522
METHOD AND APPARATUS FOR MANUFACTURING HERMETICALLY SEALED ELECTRIC SWITCH
Ira E. McCabe, late of Chicago, Ill.; Cecil Z. McCabe, Thomas P. Crawford, and George D. McCabe, co-executors of said Ira E. McCabe, deceased, assignors to The Mercoid Corporation, Chicago, Ill., a corporation of Delaware
Application September 4, 1953, Serial No. 378,510
10 Claims. (Cl. 53—22)

1. In the manufacture of a mercury switch wherein metal end caps are sealed to respective ends of a glass tube, the steps which include the assembling of the parts by placing a glass tube on a bottom cap and depositing a top cap on the opposite end of the tube, subjecting the assembled parts to induction heating to fuse the glass tube to the metal end caps whereby to provide a unitary switch housing, flushing the interior of the switch housing by injecting a gas into the housing through an opening in one of the end caps, then injecting a quantity of mercury into

the switch housing through the same opening, and finally closing said opening while the same is sealed by the mercury by inserting a member therein and welding the member in place.

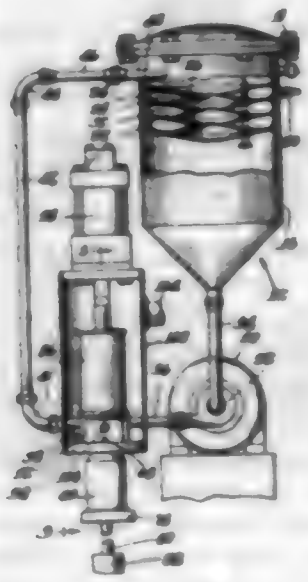


2,874,523

METHOD AND APPARATUS FOR ASEPTICALLY CANNING UNDER PRESSURE

James F. Ryan, Jr., Castro Valley, Calif., assignor to W. F. and John Barnes Company, Rockford, Ill., a corporation of Illinois

Application March 6, 1956, Serial No. 569,873
22 Claims. (Cl. 53—22)



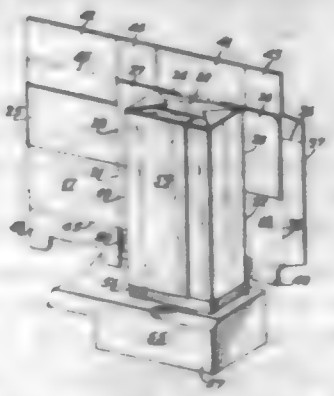
1. An apparatus for aseptically packaging a product under pressure in an apertured dispensing container, comprising a first pressure chamber means for receiving a product and a dispensing gas under a predetermined superatmospheric pressure for distributing the gas throughout the product,a second pressure chamber means receiving the container and a closure therefor with the container aperture disposed within the pressure chamber means, means for successively introducing a sterilizing fluid and a dispensing gas under substantially said predetermined pressure into said second chamber means and the container associated therewith, means for transferring a portion of the product with gas dispersed therethrough from said first mentioned chamber means and into the sterilized container associated with said second chamber means while maintaining said product portion under a pressure substantially at least as great as said predetermined pressure, and means for applying a sterilized closure in said second chamber means to the filled container.

2,874,524

PACKAGE AND METHOD OF FORMING THE SAME

William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware

Application November 7, 1955, Serial No. 545,274
4 Claims. (Cl. 53—29)



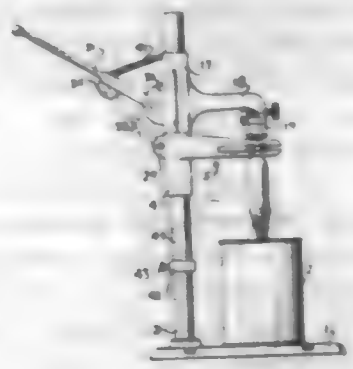
3. The method of forming and loading a carton which comprises the steps of providing a hollow mandrel about which the carton is to be formed, folding a sheet of foil around the mandrel and across one open end thereof, providing a blank of relatively stiff material having scored fold lines therein defining outer front, rear and side panels and a plurality of independent top and bottom flaps for forming top and bottom walls and including parts of said outer front and side panels separable from the remainder thereof to provide lid parts, said blank also having inner front and side panels connected to said outer panels and arranged for folding into face to face relation with said outer panels and lid parts, positioning said blank in confronting relation with said mandrel with said inner panels between said foil and said outer panels, folding the blank about said mandrel into open tubular form and securing the blank in that form to enclose the inner panels as a liner within the carton extending into the lid forming parts thereof, folding the flaps on said carton across said one end of said mandrel, moving articles to be packaged upwardly through the hollow mandrel into engagement with said foil and said flaps at one end of said mandrel and continuing to move said articles to push the foil and carton off of said mandrel with said articles enclosed in said foil, and folding the carton flaps and the foil inwardly over the remaining open end of said carton to close the same.

2,874,525

PAINT TUBE SQUEEZER

William D. Kirkpatrick and Arthur L. Newman, Kelseyville, Calif., assignors to Red Devil Tools, Union, N. J., a corporation of New Jersey

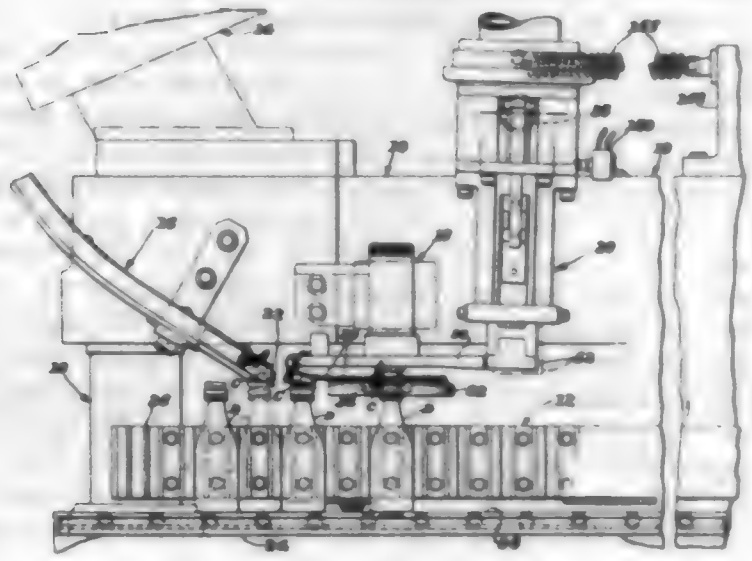
Application May 3, 1956, Serial No. 582,548
6 Claims. (Cl. 53—268)



1. A device for squeezing paint from a collapsible walled tube that is closed at one end and open at its opposite end comprising: a horizontal base having a portion thereof adapted to support a can of paint thereon, a vertical post secured at its lower end to said base at one side of said portion, an arm secured at one end to said post at a point spaced substantially above said base and extending over said portion, tube gripping means

carried by said arm at its outer end and over said portion, said tube gripping means including a pair of elements one movable relative to and toward the other for releasably gripping said closed end of such tube with the remainder of such tube depending freely therefrom, a member below said arm supported on said post for vertical reciprocable movement, said member including an extension projecting laterally from said post and positioned below said arm, a pair of horizontal opposed rollers carried by the outer end of said extension directly below said gripping means, roller mounting means supporting said rollers on said extension for movement of one relative to the other and toward each other into tight engaging relation to opposite sides of a tube adapted to be held at its closed end by said gripping means and at a point adjoining said closed end, means connected with said member for moving the latter, including said rollers, downwardly when said rollers are in said tight gripping relation to said tube whereby paint in such tube will be squeezed therefrom and into a container adapted to be positioned on said base.

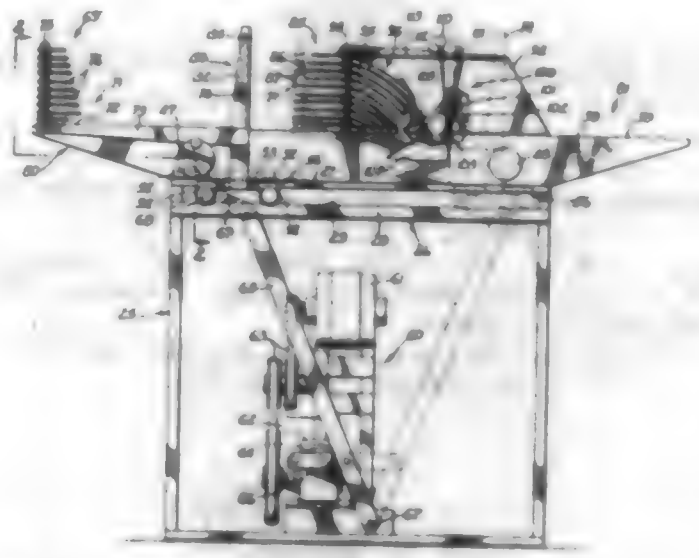
2,874,526
CAPPING APPARATUS
Frederick E. Fauth and Robert S. Jump, Baltimore, Md., assignors to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application September 21, 1956, Serial No. 611,311
14 Claims. (Cl. 53—314)



1. In a capping apparatus for sealing loosely positioned caps on containers, a frame structure, a container conveyor means for continuously moving containers, a capping head mounted on said frame structure above said container conveyor means, means to mount said capping head for pivotal movement on a horizontal axis transverse to the movement of containers by said container conveyor means, means actuated by containers on said container conveyor means and positively causing said capping head to move toward said container conveyor means, said last mentioned means causing said capping head to positively engage a loosely positioned cap on a container passing beneath the capping head to thereby seal the cap on the container while the container is continuously moved beneath the capping head to cause pivotal movement of the capping head about its horizontal pivotal axis, and means actuated by pivotal movement of said capping head to cause said capping head to move out of engagement with the cap on the container.

2,874,527
WRAPPING MACHINE
Phillip Cravits, Burbank, Calif.
Application December 24, 1951, Serial No. 263,032
11 Claims. (Cl. 53—378)

1. In a package wrapping machine, the combination of: a frame providing a longitudinal support upon which a package having a foldable wrapper encircling the package can be placed with the open ends of the wrapper projecting from opposite ends of the package transversely of said support; a pair of primary tucker means movable longitudinally along said support and spaced transversely thereof, said tucker means including tucking fingers directed toward each other with their facing sides spaced apart a dittance substantially equal to the length of the package to be wrapped and adapted to tuck the rearward vertical flaps of the wrapper ends inwardly against the ends of the package upon movement of the package into position between said fingers; feeding means operative to advance said package along said support; a pair of secondary tucker means extending alongside said support and engageable with the forward vertical flaps of the open ends of the wrapper of the forwardly advancing package so as to tuck the same inwardly against the ends of the package; a pair of transversely spaced primary folding means including lower folder edges sloping downwardly in the direction of movement of the package and adapted to engage and fold the upper flaps of said open ends of the wrapper down-

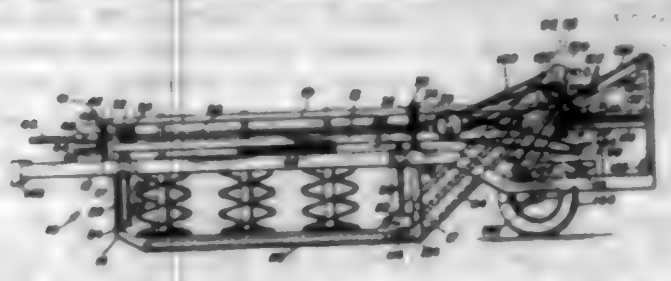


wardly in overlying relation to the tucked forward and rearward flaps, upon relative movement between said primary folding means and said package; a pair of secondary transversely spaced, folding means defining cam edges disposed in advance of said folder edges and sloping upwardly in the direction of movement of the package, said cam edges being adapted to engage the lower flaps of the wrapper ends during advancement thereof, relative movement between said package and said cam edges effecting upward folding of said lower flaps in overlying relation to the previously tucked forward and rearward flaps and the previously folded upper flaps of the wrapper ends, said secondary folding means including a pair of plates each having a said cam edge, each plate being movable with respect to said support to a first position in which the end of its cam edge disposed nearest said primary folding means is located in the plane of said bottom flap of said wrapper, and to a second position in which said end of its cam edge is disposed out of the plane of said bottom flap; and means cooperating with said plates when in said second position for folding said lower flaps to a different position than upwardly.

2,874,528
BEAN HARVESTER
Clarence W. Esch, Bouckville, N. Y.
Application April 23, 1956, Serial No. 580,029
17 Claims. (Cl. 56—126)

1. A bean harvesting device comprising a substantially horizontal receptacle, a support above said receptacle, said support having at least one depending bean removing element, said bean removing element comprising a rotatable helical wire having its axis of rotation sub-

stantially normal to said receptacle, said helical wire extending beyond one lateral edge portion of said receptacle, whereby when said device is moved adjacent a



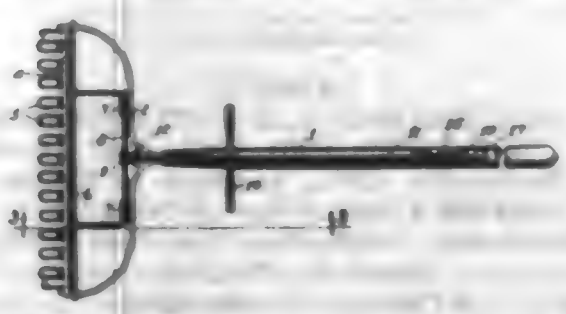
bean plant, the helical wire will engage the beans on said plant, detach the same and cause the same to drop on said receptacle.

2,874,529
ROTARY RAKING WHEEL
Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely N. V., Maasland, Netherlands, a Dutch company
Application May 13, 1955, Serial No. 508,227
Claims priority, application Netherlands June 17, 1954
10 Claims. (Cl. 56—400)



1. A raking member of the wheel type comprising a hub portion and a rim portion operatively associated with said hub portion, raking teeth extending from said rim at uniformly spaced points therearound, said teeth being arranged in groups, the terminal portions of each group lying in planes which are at acute angles to the plane of the wheel.

2,874,530
GARDEN RAKE WITH ATTACHMENT FOR CLEANING THE TEETH THEREOF
Phillip Lambert Miller, Sr., Florissant, Mo.
Application June 7, 1957, Serial No. 664,350
1 Claim. (Cl. 56—400.1)



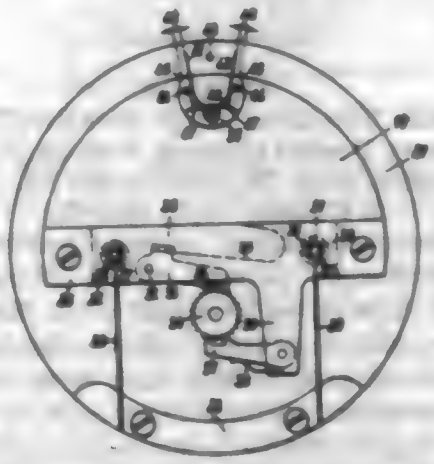
The combination with a garden rake having an elongated handle carrying a cross-frame at one end thereof provided with a series of aligned tines extending at angles to said handle, of a resiliently yieldable push-rod slidably mounted on said handle; bearings secured to said cross-frame at opposite sides of said handle; a rockable axle provided with forwardly extending arms journalled in said bearings, the said axle having a crank arm of the first class secured thereto intermediate the ends thereof, an end of said push rod being pivotally attached to the free end of said crank arm; a cross-piece exceeding the width of said rake secured to the arms of said axle, and elongated loops carried by said cross-piece, there being a single loop encircling each tine of said rake, whereby upon actuation of said push-rod in a forward direction the force applied to said crank arm will cause the rockable axle to move in an anti-clockwise direction carrying with it the elongated loops attached to said cross-piece and thereby free the tines of said rake of waste material and whereby the ends of said cross-piece will abut the cross frame of said rake to the rear of said tines and thereby act as a stop when said push rod is actuated in a reverse direction.

2,874,531
SAFETY CONNECTING DEVICES
Clifford C. Cattell, Adrian, Mich.
Application May 28, 1956, Serial No. 587,507
14 Claims. (Cl. 58—23)



8. An electric wall clock mounting and connection comprising: a U-shaped bracket mounted on a vertical wall, said bracket having at the base portion of said U a first pair of electrical terminals, and being mounted on said wall with said base toward said wall and the side portions of said U at a slight angle to the horizontal, an electric clock assembly, a second pair of electrical terminals mounted on said assembly which terminals cooperate with said first pair of terminals at the base portion of said U of said bracket, an insulated supporting block for said terminals on said assembly, said block having parallel sides spaced substantially equal to the distance between said side portions of said U-shaped bracket, said sides being at an angle to the horizontal substantially equal to the angle that said side portions of said U have to the horizontal, whereby the weight of said clock assembly is supported by said insulated block in said bracket and said pairs of electrical terminals are simultaneously thereby maintained in contact with each other.

2,874,532
SELF-WINDING WATCH
Paul Baier, Pforzheim, Germany
Application December 31, 1954, Serial No. 479,115
Claims priority, application Germany January 8, 1954
6 Claims. (Cl. 58—82)



1. A watch having a casing, a main spring, and a self-winding mechanism for winding said spring within

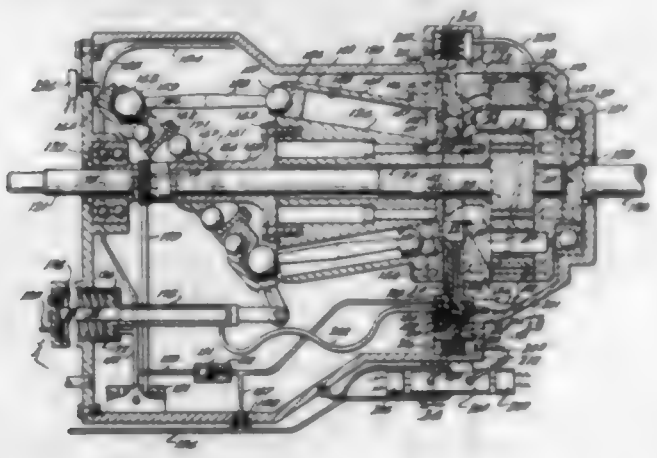
said casing, said mechanism comprising a watch movement frame, a weight, means for mounting said weight on said frame to permit said weight to oscillate in opposite directions relative to a central neutral position and for resiliently tending to maintain said weight in said neutral position, a ratchet operatively connected to said main spring for winding the same, and at least two pawls mounted on said weight engaging said ratchet, said pawls being adapted to operate in opposite directions of movement of said weight to turn said ratchet in the same direction, the mounting means of said weight comprising a pair of substantially parallel connecting rods, and means for resiliently mounting one end of said rods on said frame and for pivotally mounting the other end of said rods on said weight.

2,874,533

DIRECT DRIVE VARIABLE RATIO HYDRAULIC TRANSMISSION OF THE AUTOMATIC OR MANUAL TYPE

Lawrence A. Schott, Detroit, Mich.

Application November 18, 1954, Serial No. 469,782
6 Claims. (Cl. 60—19)



1. In a variable ratio hydraulic transmission of the character described, a drive shaft, a driven shaft disposed in aligned relation to said drive shaft, a fixed capacity pump having an inlet and an outlet and comprising first and second relatively rotatable elements one being secured to said drive shaft the other secured to said driven shaft, a variable capacity fluid motor having first and second relatively movable elements disposed about said drive shaft and driven by the fluid pressure developed by said pump, means interconnecting the driven means of said fluid motor to said driven shaft for driving the shaft in the same direction as said shaft is driven by the pump, and means for reversing the flow of fluid from the pump to said motor when said fluid motor is set for full capacity to thereby reverse the rotation of said motor and the movable element of the pump which is secured to said driven shaft to thereby reverse the rotation of said driven shaft, said fluid motor being responsive to the pressure of the fluid at the outlet of said pump.

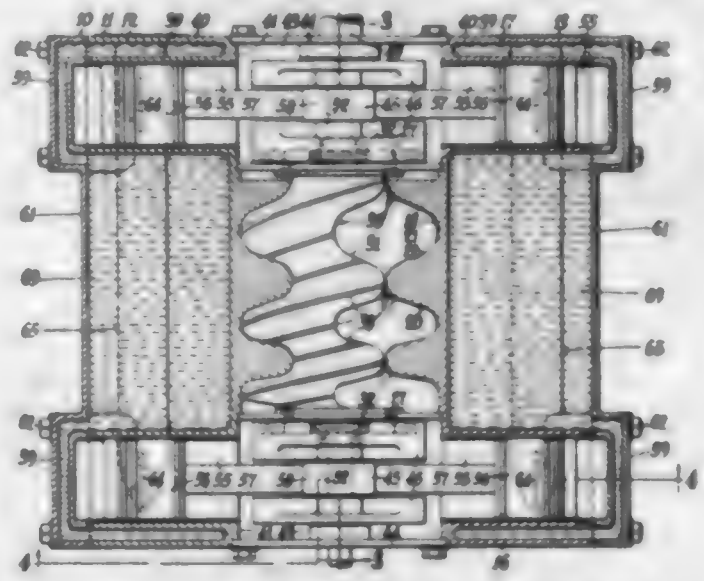
2,874,534

UNITARY ENGINE AND SUPERCHARGER

Henry Donald Canazzi, Buffalo, N. Y.

Application June 29, 1956, Serial No. 594,944
6 Claims. (Cl. 60—31)

1. In a compact unitary internal combustion engine and air supercharger therefor, a pair of complementary castings each formed with spaced walls formed and arranged to provide a plurality of contiguous chambers; a pair of walls of each casting each being cast with complementary portions formed to provide a supercharger chamber having a double pitch angle internal continuous stator screw on its inner surfaces, said stator screw having a pitch angle which decreases from one of its ends to its other end; means for sealing the opposite ends of the supercharger chamber; an air inlet passage for the supercharger chamber located at its one end, a second chamber adjacent the supercharger chamber for the storage of supercharged air therein; an air outlet passage located at the other end of the supercharger chamber providing communication between it and the air storage chamber; a varying single pitch angle helical screw rotor rotatably mounted in the end sealing means and formed for rotation in the supercharger chamber in a circular path spaced from and concentric to the axis of the stator screw and about its own axis, the surfaces of said rotor screw being interengaged with and slightly spaced from the surfaces of said stator screw; sealing means conforming to the shape of the outer surface of the rotor screw and resiliently urged into sealing engagement with the adjacent surfaces of the stator screw to



provide continuous sealing engagement therebetween; a third chamber located contiguous to the supercharger chamber and formed to provide crankcase and cylinder portions of the engine; an air intake port in each cylinder; a passage between each intake port and the second chamber for admitting supercharged air into the cylinder; means operably mounted in said engine crankcase and cylinder portions and operably connected to the rotor screw, whereby, during operation of the engine, air is compressed by the supercharger and forced into the storage chamber and such air is directed into the engine to improve its volumetric efficiency; and a fourth chamber for circulation of a liquid coolant therein, said chamber being contiguous to and in heat exchange relation to the other chambers, thereby to maintain the engine and supercharger at efficient operating temperatures.

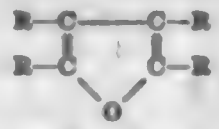
2,874,535

SUBSTITUTED FURANS AS HYPERGOLIC FUELS

Arnold L. Ayers, Idaho Falls, Idaho, and Cleveland R. Scott, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application November 8, 1951
Serial No. 255,528
9 Claims. (Cl. 60—35.4)

1. In the method for developing thrust by the combustion of bipropellant components in a combustion chamber of a reaction motor the steps comprising separately and simultaneously injecting a stream of an oxidant component and a fuel component into contact with each other in the combustion chamber of said motor, in such proportions as to produce spontaneous ignition, said fuel component comprising a hydrocarbon substituted furan characterized by the structural formula



wherein R is selected from the group consisting of a

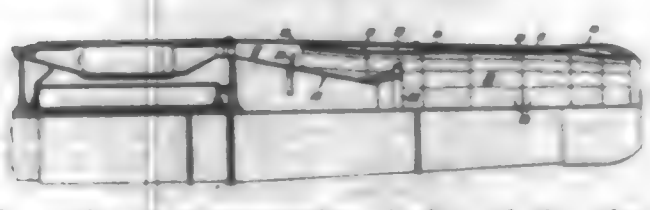
hydrogen atom, alkyl, alkenyl, aryl, cycloalkyl, cycloalkenyl, aralkyl and alkaryl hydrocarbon radicals having not more than 12 carbon atoms, wherein the total number of carbon atoms present in said formula is not greater than 16, and wherein at least one R is one of said hydrocarbon radicals.

2,874,536

COOLING MEANS FOR TAILPIPE

John A. Benson, Nahant, and Gilbert W. Crosby, Saugus, Mass., assignors to General Electric Company, a corporation of New York

Application March 18, 1954, Serial No. 417,192
2 Claims. (Cl. 60—35.6)



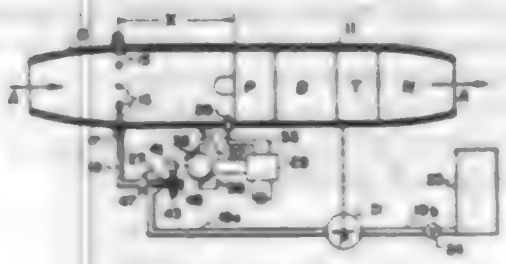
1. In a thrust augmentation device of the character described for a jet engine comprising means for utilizing the oxygen in the gases issuing from the turbine buckets of said jet engine, an afterburner, a high temperature flame area, a plurality of support members fixed to the afterburner, a plurality of plates rigidly connected to the support members so as to form a liner between the hot flame area and afterburner, means for permitting axial expansion of the liner with respect to the afterburner, and means for permitting circumferential expansion of the liner with respect to the afterburner, said means for permitting axial expansion of the liner including slots in said support members and each of said plates having one end fixed to the support members, said plates being affixed to said support members in longitudinally overlapping relationship at a plurality of longitudinally spaced locations.

2,874,537

TURBOJET ENGINE ARRANGEMENT UTILIZING EVAPORATIVE COOLING

Robert W. Scarborough and Woldemar Voigt, Baltimore County, Md., assignors to The Martin Company, a corporation of Maryland

Application January 7, 1955, Serial No. 480,391
5 Claims. (Cl. 60—35.6)



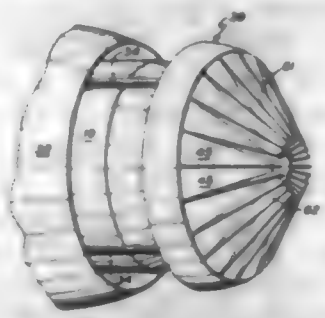
1. An air breathing reaction engine arrangement utilizing evaporative cooling, and operable at a speed of at least Mach Number 2, comprising an air-breathing engine, and an inlet duct extending upstream from the inlet of said engine, through which duct ram air is admitted to said engine, said duct containing at least one spray nozzle located at least four feet upstream of said engine inlet for dispersing evaporant liquid into said duct so that said liquid will be virtually completely evaporated in said duct before reaching said engine inlet as a result of the aerodynamic heating of the air and the substantial travel distance in said duct, and means for controlling the rate of injection of said liquid into said duct proportionally to the amount of heat which must be removed from the inlet air to lower its temperature to the maximum temperature limit of the engine, whereby cooled air of increased density enters said engine permitting substantial quantities of additional fuel to be combusted therein without exceeding the temperature limits of the engine, and resulting in a substantial increase of the highest permissible flight speed for said engine and in approximately 50% increase in thrust over the normal thrust of the engine.

2,874,538

THRUST REVERSER FOR JET ENGINE

Richard G. Lasher, Canoga Park, and Frank A. Coss, Simi, Calif., assignors to Marquardt Aircraft Company, Van Nuys, Calif., a corporation of California

Application March 22, 1957, Serial No. 647,844
7 Claims. (Cl. 60—35.54)



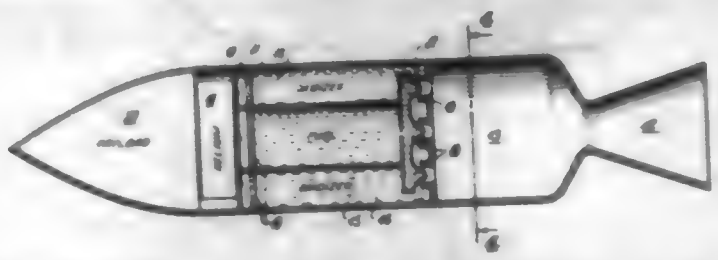
1. In a jet engine, a cover member surrounding said engine, a variable area exit nozzle comprising a plurality of nozzle segments pivotally connected to the end of said engine, an actuator member located outside said engine and movable along the axial line of the engine, means for connecting said actuator member to said nozzle segments to move said nozzle segments upon movement of said actuator member in order to vary the area of said exit nozzle, power means attached to said actuator member for movement therewith, said power means having shaft means connected with support means located exteriorly of said actuator member, a plurality of blockage segments pivotally connected with said support means and extending rearwardly of said exit nozzle, and linkage means connected with said blockage segments and said actuator member for moving said blockage segments inwardly to block the aft end of said engine upon extension of said shaft means rearwardly, the rearward movement of said shaft means forming an opening between said support member and said cover member through which the blocked exhaust gases are expelled to obtain reverse thrust.

2,874,539

CONTINUOUS COMBUSTION POWER PLANT

Homer M. Fox, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

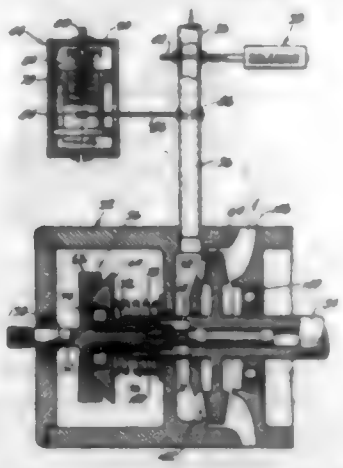
Application December 28, 1953, Serial No. 400,442
3 Claims. (Cl. 60—39.02)



1. The method of operating a continuous combustion power plant with a liquid oxidizer selected from the group consisting of white fuming nitric acid and red fuming nitric acid and a liquid fuel selected from the group consisting of N-methylethylsulfenamide, N-methylmethylsulfenamide, triethyl trithiophosphite, mixtures of methyl, ethyl, propyl and butyl trithiophosphites, and the total product of the reaction of butadiene with ammonia in the presence of lithium hydride catalyst which comprises introducing said fuel and said oxidizer into the combustion zone of the continuous combustion power plant in adjacent and substantially parallel streams at a

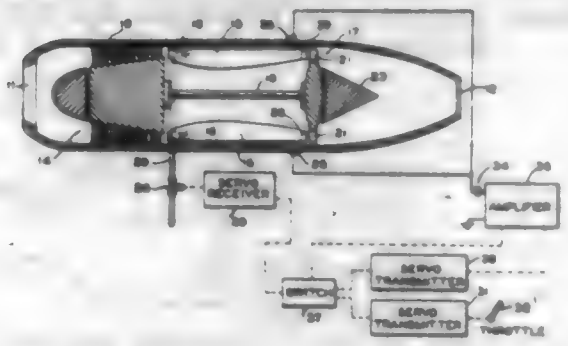
pressure of 15 to 40 p. s. i. greater than the pressure in said combustion zone so that gentle mixing of the fuel and oxidizer results.

2,874,540
DRIVE UNIT
Edward F. Esmeier, East Windsor, and Bertrand H. Brown, Glastonbury, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application December 8, 1955, Serial No. 551,879
4 Claims. (Cl. 60—39.09)



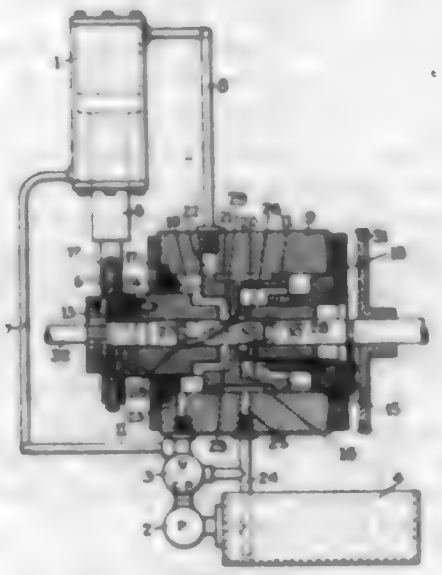
1. In combination with an aircraft turbojet engine having an accessory speed regulator comprising a power input shaft, a power output shaft having a turbine mounted thereon, and a clutch unit connecting said input shaft to said output shaft, means to connect said input shaft to said engine so that said output shaft may be driven as a function of engine speed when said clutch is engaged, conduit means joining a pressurized section of said engine to said speed regulator, means responsive to pressure from said pressurized engine section to decouple said clutch, and means responsive to pressure from said pressurized engine section to drive said output shaft with said clutch decoupled.

2,874,541
FLAME RESPONSIVE OVERRIDE CONTROL SYSTEM INCLUDING ELECTRIC SERVOMOTORS
Lyman Malcolm Oberlin, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application December 15, 1952, Serial No. 325,955
12 Claims. (Cl. 60—39.28)



1. Automatic override control apparatus comprising in combination, a first servo transmitter, a servo receiver, means to connect said first transmitter to said receiver, means to vary the output of said first transmitter, means to connect said receiver to a variable to be regulated, a detecting element to sense variance of a quantity to be controlled beyond predetermined limits, said quantity being dependent on said variable, a second servo transmitter coupled to said detecting element whereby the output of said second transmitter represents variance of the quantity being controlled beyond said predetermined limits, switching means to disconnect said first transmitter from said receiver and to connect said second transmitter to said receiver in place thereof when said quantity being controlled exceeds said predetermined limits, said first and second transmitters and said receiver each comprising an induction type motor having a three-phase stator and single-phase rotor, the stator of said receiver being selectively connected to the stators of said first and second transmitters, and an alternating current voltage source, the rotors of said receiver and said transmitters being connected across said voltage source so that rotation of the rotor of either of said transmitters results in corresponding rotation of the rotor of said receiver in accordance with the particular transmitter connected to said receiver.

2,874,542
MOTION REPRODUCING MECHANISM
James D. Tear, Great Neck, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application April 21, 1943, Serial No. 483,835
8 Claims. (Cl. 60—52)

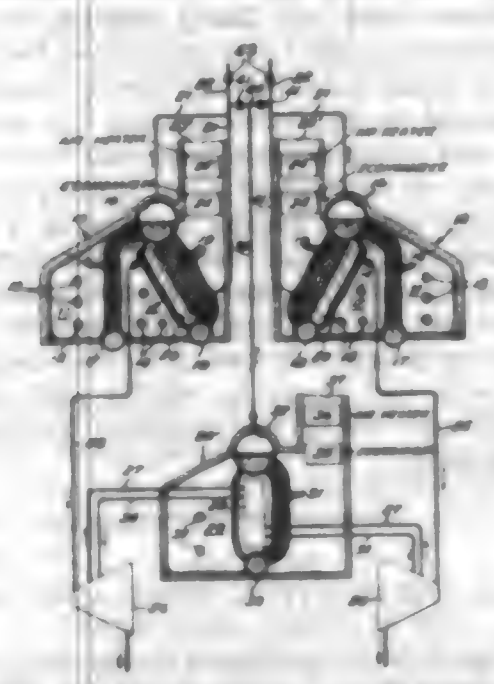


1. Motion reproducing mechanism including a primary motion receiving member, a driven member, a hydraulic motor driving the driven member, a hydraulic circuit controlling the operation of the motor, a valve mechanism comprising a rotary pilot member operated by the primary motion receiving member, an axially movable and relatively rotatable sleeve valve on the pilot member having means responsive to its axial movement to control the hydraulic circuit, means controlled by relative rotary movement between the pilot member and the sleeve valve to effect axial movement of the sleeve valve, and response means operated by the motor and connected to produce a rotary movement of the sleeve valve to follow up the rotary movement of the pilot member.

2,874,543
STEAM POWER PLANT INCLUDING REHEAT BOILER CYCLE
Leonard J. Culver, Coulsdon, England, assignor to Foster Wheeler Corporation, New York, N. Y., a corporation of New York
Application August 17, 1954, Serial No. 450,289
3 Claims. (Cl. 60—73)

1. In combination, a plurality of vapor generators, a superheater and a vapor generating surface disposed in each vapor generator, means for controlling the superheated vapor temperature of each vapor generator, a plurality of turbines each having a high pressure stage and a low pressure stage, conduit means in communication with the superheater of one of said vapor generators and with the high pressure stage of one of said turbines, other conduit means in communication with the superheater of another of said vapor generators and the high pressure stage of another of said turbines, a reheat vapor generator, burner means for firing said reheat vapor

generator, a reheat element and saturated vapor generating surface disposed in said reheat generator, conduit means in communication with the reheat vapor generator and each of said plurality of vapor generators to pass vapor generated in the reheat vapor generator into admixture with vapor generated in each of said plurality of vapor generators, control means for apportioning flow of vapor generated in said reheat generator between said plurality of vapor generators exhaust conduit means in communication with the high pressure stage of said



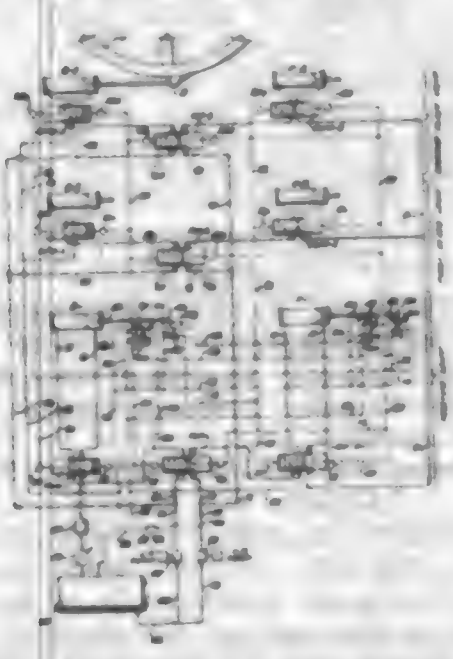
one turbine and said reheat element, other exhaust conduit means in communication with the high pressure stage of said other turbine and said reheat element, reheat conduit means in communication with said reheat element and the low pressure stage of said one turbine, other reheat conduit means in communication with said reheat element and the low pressure stage of said other turbine, and vapor conduit means for each of said plurality of vapor generators in communication with said saturated vapor generating surface and the superheater of each of said plurality of vapor generators.

2,874,544

CONTINUOUS LOW SPEED ROTARY MECHANISM

Robert L. Switzer, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application July 2, 1956, Serial No. 595,536
16 Claims. (Cl. 60—97)



1. An apparatus for providing a continuous low velocity rotary motion at high torque values to a rotary load which comprises a driving ring connected to said rotary load, a plurality of dogs disposed around the periphery of said ring, a plurality of intermittently acting force applying means of limited longitudinal movement disposed in at least two separately actuated sets around the periphery of said ring and connected to apply a force through reciprocable push rods against said dogs substantially tangentially to said ring, a power source having a low force level output and a high force level output connected to said force means, a first signal means disposed adjacent at least one of the force means in each of said sets and connected to signal the arrival of the push rods thereof at a point short of the end of its force stroke and actuate the force means in another set of force means by means of said power source to pre-engage the push rods thereof with said dogs at said low force level, a second signal means disposed adjacent at least one of the force means in each of said sets and connected to signal the arrival of the push rods thereof at the end of the force stroke and actuate a pre-engaged set of force means by means of said power source at said high force level to begin the force stroke thereof and simultaneously actuate the set of force means at the end of its force stroke to retract the push rods thereof, each of said second signal means also being connected to signal the arrival of the push rods at the end of the retraction stroke, whereby a continuous low velocity rotary movement of said driving ring is automatically maintained.

2,874,545

GELS AND PROCESS FOR MAKING THEM

Ralph Hubert Twining, Coudersport, Pa., assignor to L. H. Lincoln & Son, Inc., Coudersport, Pa., a corporation of Pennsylvania

No Drawing. Application March 2, 1954
Serial No. 413,709
18 Claims. (Cl. 61—36)

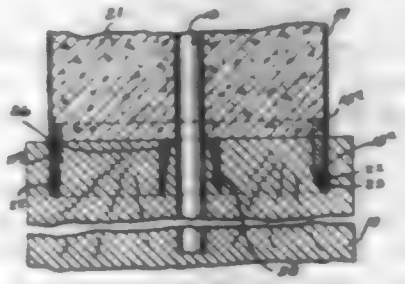
7. A process for impregnating porous ground formations with a water-insoluble gel which comprises introducing into such a formation an aqueous solution having a pH of less than 7 containing coniferous sulfite liquor, at least one chromium compound selected from the group consisting of chromates and dichromates, and boric acid, said boric acid being present in excess of the amount required to convert any lignosulfonates present in said sulfite liquor to lignosulfonic acids and to convert said chromium compound to chromic acid, and said chromium compound being present in an amount sufficient to form a gel with the lignosulfonic acids present and formed in said sulfite liquor.

2,874,546

COMPOSITE PILE

Joseph H. Fox, Birmingham, Ala.

Continuation of application Serial No. 360,968, June 11, 1953. Divided and this application September 18, 1954, Serial No. 455,139
7 Claims. (Cl. 61—53)



1. In a composite pile embodying a lower wooden section and an upper section of concrete, the improvement which comprises a cylindrical shell mounted on top of the wooden section for receiving concrete, an upwardly and inwardly extending annular flange at the lower end of said shell forming an annular groove, and an annular wedge member fitting within said groove constructed and

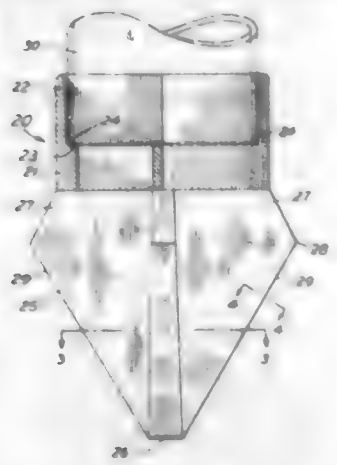
arranged to force the lower end of said shell into the wooden section when said wedge member is driven downward.

2,874,547

PILE DRIVING POINT AND RAM FOR OPEN END PIPE PILES AND H-BEAM BEARING PILES

Vincent J. Fiore and Oscar Reich, New York, N. Y.; said Reich assignor to said Fiore

Application April 18, 1956, Serial No. 579,011
8 Claims. (Cl. 61—53)



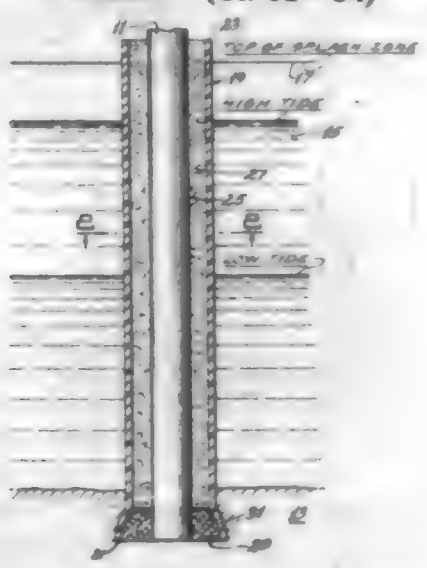
1. A pile driving point having a tip for an open-end pipe pile, said point comprising a hollow collar open at opposite ends and a multiplicity of identical blades disposed substantially parallel to the axis of said collar, said collar having an upper portion and a shoulder for seating said pipe pile, said blades intersecting one another below said shoulder, said blades being integral and angularly disposed to one another and having their extreme opposed edges sloping from the lower outer edge of said collar outwardly and downwardly to an outer edge beyond the outer wall of said collar and then tapering downwardly and inwardly toward said tip of said driving point, the length of said blades above said extreme outer edge being substantially less in length than the length of said blades below said extreme outer edge, each of said blades being symmetrical about a radial axis and being uniformly thickened from its upper to its lower end, said blades terminating in a blunt point.

2,874,548

PROTECTION AGAINST CORROSION

William H. Drushel, Liberty, and Richard H. McCall and Charles J. Perilloux, Houston, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

Application September 28, 1953, Serial No. 382,826
2 Claims. (Cl. 61—54)



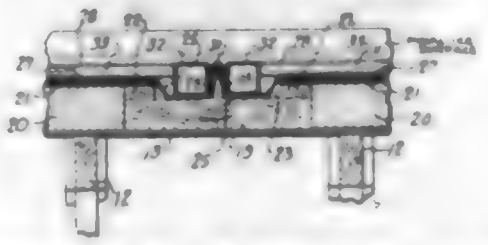
1. A method for protecting an elongated member of metal embedded in the earth at the bottom of a body of water and extending vertically upwardly to a position above the top of the splash zone of said body of water, said method comprising enclosing at least a part of said member above the surface of said body of water within an annular sleeve in annular spaced relationship to said member, said sleeve being comprised of a solid synthetic plastic material and having an outwardly flared annular section at the lower end thereof, said outwardly flared annular section and said member forming an outwardly flared annulus therebetween, introducing into said flared annulus a body of flexible packing material in water tight contact with both said member and said flared section for excluding water from said flared annulus, and simultaneously maintaining said lower end above the surface of said body of water; lowering said sleeve containing said packing material in said flared annulus into said body of water until said sleeve extends from said earth to a point above the top of said splash zone; heating and melting a body of solid organic sealing material to a hot liquid condition and pouring said body of hot liquid sealing material into the annular space remaining between said member and said sleeve whereby said body of hot liquid sealing material is indirectly cooled by said body of water in contact with said sleeve to solidify and engage said member and said sleeve for excluding corrosive fluids from said member.

2,874,549

PORTABLE ICE SKATING RINK AND METHOD OF MAKING THE SAME

Charles R. Beltz, Grosse Pointe, Mich.

Application May 19, 1954, Serial No. 430,757
6 Claims. (Cl. 62—75)



2. A prefabricated ice skating rink comprising a plurality of individual sections separable from one another, each section including a generally dish-shaped relatively shallow ice tray having a bottom wall and a peripheral wall extending upwardly from the margin of said bottom wall, a water freezing unit supported within each tray, means for supplying refrigerant to said freezing units, said trays being retained together in juxtaposition alongside one another in a common generally horizontal plane, sealing means closing the space between the upper edges of the peripheral walls of adjacent trays, and a border frame extending continuously and entirely around said rink and projecting upwardly above said peripheral walls of said trays to laterally confine water above the level of said peripheral walls and provide a continuous ice skating surface when such water is frozen.

2,874,550

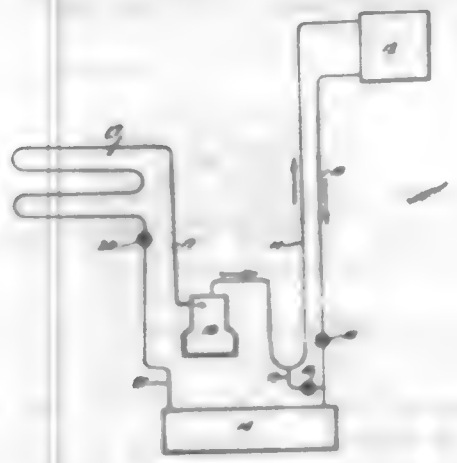
WINTER CONTROL VALVE ARRANGEMENT IN REFRIGERATING SYSTEM

Harry Robert Musson, Brantford, Ontario, Canada, assignor to Keeprite Products Limited, Brantford, Ontario, Canada

Application May 19, 1955, Serial No. 509,600
2 Claims. (Cl. 62—196)

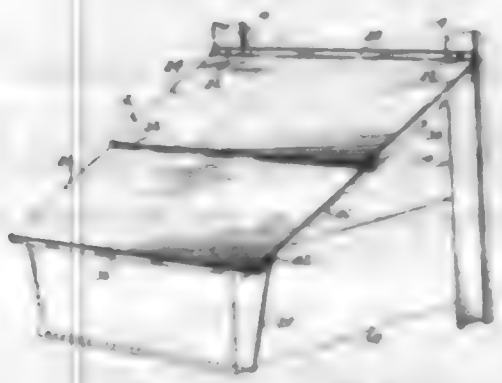
1. In a refrigerating system including interconnected compressor, condenser, receiver, expansion valve and evaporator wherein the condenser is of the air cooled type subject to low ambient temperatures, means for maintaining control over the amount of condensing surface in the condenser and the degree of flooding of the condenser by controlling the flow of refrigerant liquid from the condenser to the receiver, said means comprising a liquid conduit from the condenser to the receiver

and a pressure controlled valve in said conduit, said valve being responsive to a selected minimum pressure of the refrigerant at the location of the valve to mechanically close and stop the flow of liquid refrigerant through said conduit until the level of liquid refrigerant rises in the



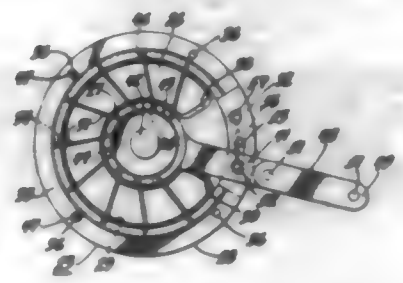
condenser to reduce the effective cooling surfaces thereof, said valve being the only means in the entire system, other than the expansion valve, for controlling the flooding of the condenser and varying the effective cooling surface thereof.

2,874,551
AIR CONDITIONER AWNING
Charles Herman Bradbury and William Scott Bradbury, Topeka, Kans.
Application June 6, 1955, Serial No. 513,366
1 Claim. (Cl. 62—262)



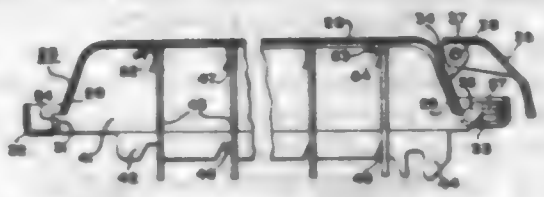
A heat deflector for that portion of an air conditioner extending outwardly beyond a window frame within which the same is mounted, said deflector comprising a freely extensible panel adapted to extend outwardly and downwardly at an incline from said window frame in overlying relationship to said portion of the air conditioner, said panel including a pair of relatively shiftable, rectangular sections, one of the sections being movable to a position substantially overlying the other section, each of said sections being provided with an upturned, elongated flange at the uppermost margin thereof and a downturned flange at the lowermost margin thereof, the upper section having an elongated, inturned, L-shaped track along each of the side margins thereof and slidably receiving corresponding downturned, elongated flanges on the outer side margins of said other section, said upturned flange of the uppermost section being adapted to be secured to said frame and the underside of that part of the lowermost section overlying the air conditioner being adapted to rest on said portion of the latter upon extension of the same; and an elongated coil spring oppositely secured at its ends to said downturned flanges on the side margins of said other section, disposed adjacent said downturned flange on the lowermost margin of the section and adapted to be looped about said portion of the air conditioner for holding the panel firmly against the same.

2,874,552
FREEZING DEVICE
Arthur J. Frei, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 12, 1957, Serial No. 695,758
17 Claims. (Cl. 62—344)



1. A unitary freezing device comprising, a circular tray having an arcuate shaped open top chamber about the axial center thereof, a plurality of substantially inflexible walls directed laterally from said tray center across the chamber in spaced apart upright relationship, said walls dividing the interior of said chamber into a curved row of compartments in which water is to be frozen into ice blocks, said walls being locked to said device against detachment therefrom and anchored in the tray for movement relative thereto, and a manually operable mechanism on said device having portions thereof engageable with said walls for moving them within said chamber about their anchorage to loosen ice blocks from said compartments.

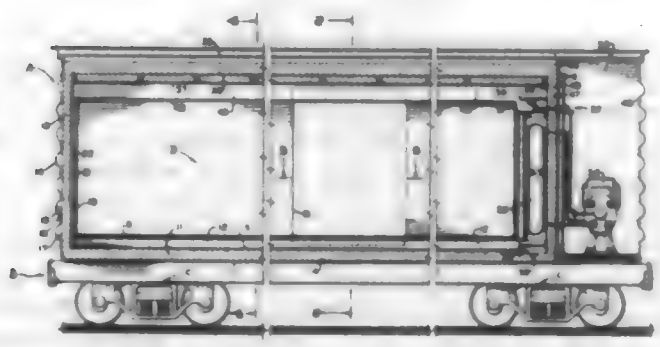
2,874,553
FREEZING DEVICE.
Verlos G. Sharpe and Jost Sergé Sucro, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 14, 1957, Serial No. 634,020
11 Claims. (Cl. 62—367)



1. A freezing device comprising in combination, an elongated tray, a grid within said tray, said grid including a longitudinal wall, a substantially co-extensive actuating member thereabove and a plurality of spaced apart walls extending transversely thereacross and interlocked therewith for movement relative thereto and to said tray, said transverse walls being normally inclined with respect to the vertical and cooperating with said longitudinal wall to divide the interior of said tray into rows of compartments in which water is to be frozen into ice blocks, means for locking said grid in said tray against detachment therefrom to provide a unitary freezing device structure, said locking means including a spring interposed between a part of said grid and a portion of said tray at one end of said unitary freezing device structure biasing walls of the grid into contact with the bottom of the tray, said actuating member being movable in one direction lengthwise along said longitudinal grid wall and engageable with each of said inclined transverse walls to tilt them toward the vertical for breaking bonds between ice blocks in said device and their compartment walls, cam means in the vicinity of said one end of said freezing device responsive to the movement of said actuating member for moving said part of said grid at said one end of said device away from said tray bottom while said locking means retains the grid locked in the tray, and the biasing effect of said

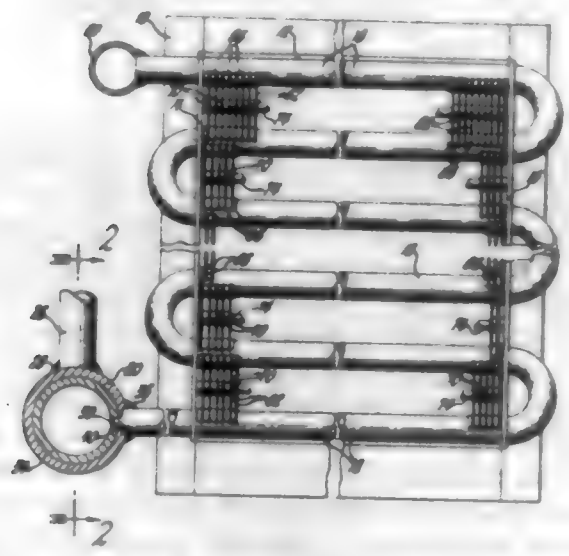
spring being increased automatically in response to moving said part of said grid away from said tray bottom for causing said cam means to shift said actuating member in a direction opposite said one direction of movement thereof whereby it reengages said transverse grid walls and returns them to their normal inclined position.

2,874,554
REFRIGERATING TRANSPORT
Thore M. Elfving, San Mateo, and Earl V. Hopkins, San Carlos, Calif.
Application March 22, 1954, Serial No. 417,850
4 Claims. (Cl. 62—405)



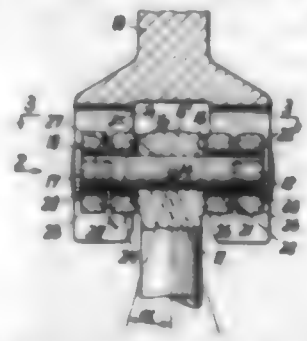
1. A refrigerating unit comprising: nested, but spaced, outer, intermediate, and inner casings, each defined by side walls, end walls, a floor, and a ceiling, said outer and inner casings being air and moisture-tight and said intermediate casing being air tight but moisture permeable.

2,874,555
EVAPORATOR ARRANGEMENT
Frank A. Disinger and John W. Godfrey, Lockport, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 1, 1955, Serial No. 550,268
2 Claims. (Cl. 62—525)



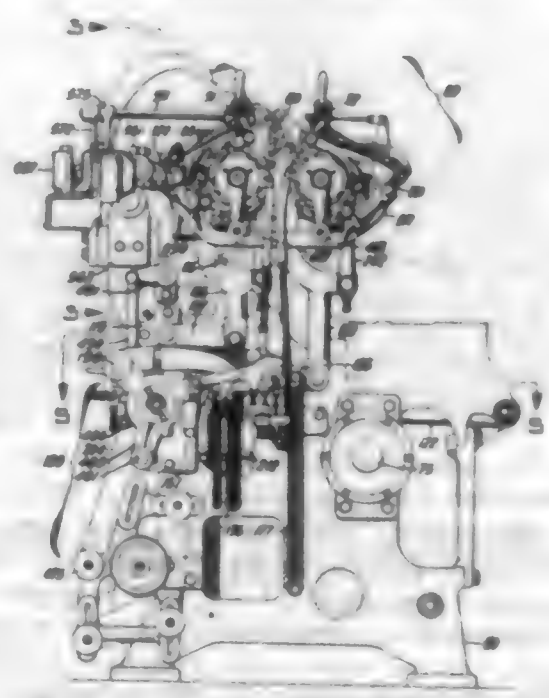
1. An evaporator arrangement comprising a source of fluid heat absorbing medium, a heat exchanger with a forward side in the path of said medium and having an inlet header and an outlet header connected by a core for the conducting of a refrigerent fluid, said inlet header being lower than said outlet header, metering means associated with said inlet header and comprising a sleeve inside the header with apertures in the wall of said sleeve in such order as to communicate with rearwardly succeeding portions of said core, and said apertures decreasing in effective flow area in said order to introduce more of said refrigerant fluid to portions of said core near said inlet header and less to portions of said core more remote from said inlet header.

2,874,556
UNIVERSAL JOINT
Ludwig Kraus, Stuttgart-Rotenberg, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application July 5, 1955, Serial No. 519,988
Claims priority, application Germany July 2, 1954
6 Claims. (Cl. 64—8)



2. A universal joint, particularly for driving swinging half-axles of vehicles, comprising two joint members, roller means for transmitting the driving torque from the first member to the second member, a bearing shaft for supporting on the ends thereof said roller means, said bearing shaft being affixed at its mid-portion to said second member and being disposed in a transverse direction to the center line of said universal joint, said first member having a bifurcated end constituting two pairs of opposite prongs with the opposite inner surfaces thereof forming flat and parallel bearing surfaces, said roller means comprising two rollers arranged side by side at each end of said bearing shaft, said rollers having a cambered peripheral surface, and being in substantially point-like engagement with said inner surfaces of said prongs.

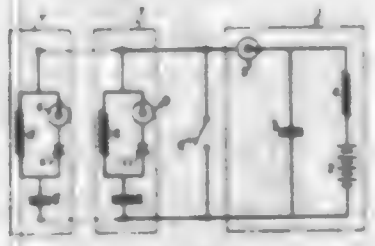
2,874,557
FASHIONING MECHANISM FOR KNITTING MACHINES
Kurt P. Bauer, Wyomissing, Pa., assignor to Textile Machine Works, Wyomissing, Pa., a corporation of Pennsylvania
Application September 2, 1954, Serial No. 453,793
21 Claims. (Cl. 66—89)



1. In a full-fashioned knitting machine having a fashioning mechanism including yarn carrier rods, point combs, a threaded spindle for controlling reciprocating movements of said yarn carrier rods, a threaded spindle for controlling movements of the point combs, an actuator member for said yarn carrier rod spindle, means for moving said actuator member in opposite directions, an actuator member for said point comb spindle, means for moving said actuator for said point comb spindle in opposite directions, means connected to and operated by

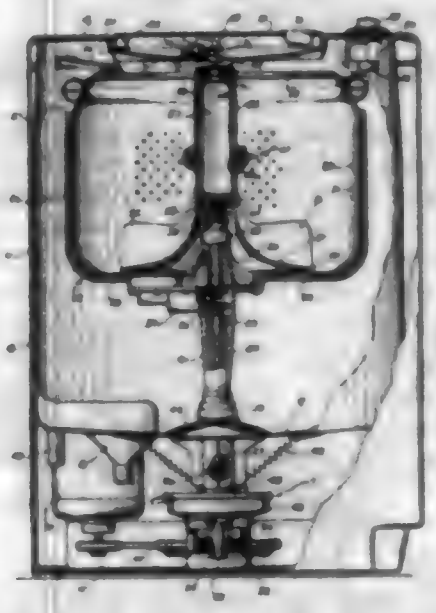
the actuator member for said yarn carrier rod spindle for turning said spindle in opposite directions during both directions of movement of its actuator member, means connected to and operated by the actuator member for the said point comb spindle for turning said spindle in opposite directions during both directions of movement of its actuator member, and pattern means for controlling the operation of said turning means by said actuator members to turn said spindles.

2,874,558
PHOTOGRAPHIC FLASHLIGHT APPARATUS
Seiichiro Mizui, Megaroku, Tokyo, Japan, assignor to Canon Camera Company, Inc., Otaku, Tokyo, Japan, a corporation of Japan
Application November 16, 1955, Serial No. 547,279
Claims priority, application Japan November 17, 1954
4 Claims. (Cl. 67—31)



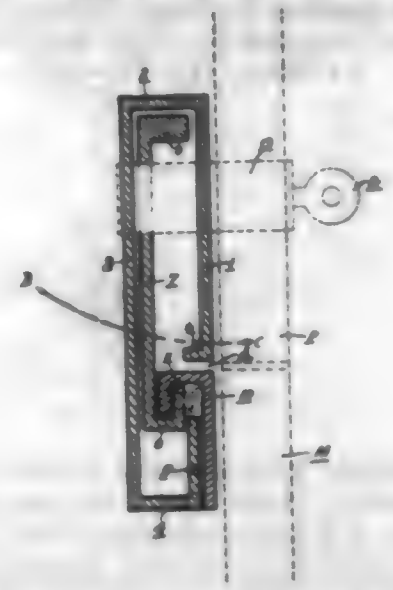
1. A multi-photoflash circuit comprising a main circuit consisting of a source of D. C. potential, a first resistor and a first capacitor in series, a first flashbulb socket connected to one side of the first capacitor, a normally open switch of which a first contact is connected to the first socket and the second contact to the other side of the first capacitor, and at least one auxiliary circuit connected between the first and second contacts of the switch, each auxiliary circuit including a second flashbulb socket, a rectifier and a second capacitor in series, and a second resistor of relatively high ohmic value in shunt of the rectifier, each rectifier being so poled as to prevent passage of sufficient current to flash flashbulbs in the first and second sockets until the switch is closed to interengage the first and second contacts.

2,874,559
WATER LEVEL CONTROL MEANS
John D. Geodlaxson, Colfax, Iowa, assignor to The Maytag Company, Newton, Iowa, a corporation of Delaware
Application August 13, 1953, Serial No. 373,956
3 Claims. (Cl. 68—207)



1. In a washing machine having a liquid receiving container, an agitator within said container having a hollow center post for holding air under compression as said container is filled with liquid, an opening in the lower portion of said center post, a movable control member adjacent said agitator, a flexible diaphragm mounted on the top of said center post movable toward and away from said control member in response to changes of air pressure within said center post, a cap member mounted on said diaphragm and movable axially of said center post, and means above said opening for selectively bleeding compressed air from said center post at a plurality of elevational levels of said center post.

2,874,560
LOCK MECHANISM
Pedro del Pozo Villalba, Madrid, Spain
Application August 5, 1953, Serial No. 372,578
Claims priority, application Spain August 23, 1952
3 Claims. (Cl. 70—134)



1. A lock mechanism comprising a casing adapted to be attached to a door, said casing consisting of an end wall, a wall portion for attaching the casing to the door, another wall portion parallel to but laterally and longitudinally spaced from the first-named wall portion, two parallel side walls connecting the end wall with respective ones of said wall portions, the side wall connecting the first-named wall portion to the end wall being longer than the side wall connecting the last-named wall portion to the end wall, a projection attached to the first-named wall portion and being of substantially the same length as the lateral spacing between said wall portions, an opening being formed between said wall portion projection and the last-named wall portion and said opening being adapted to be located along the edge of the door; a jamb plate in alignment with said first-named wall portion and adapted to be attached to the jamb of said door, said plate being provided with a hook-like projection adapted to enter said opening of the casing when the door is in alignment with the door jamb; and a bolt having a hook-like end projection slidably mounted in said casing, the hook-like end projection being adapted to interlock with said hook-like projection of the jamb plate.

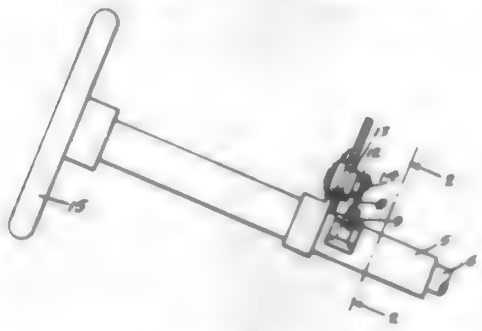
2,874,561
HUB CAP LOCK
James C. Alger, San Francisco, Calif.
Application November 25, 1957, Serial No. 698,580
2 Claims. (Cl. 70—169)



2. In combination with a wheel, retaining bolts for said wheel and a hub cap for said wheel, of a wire mem-

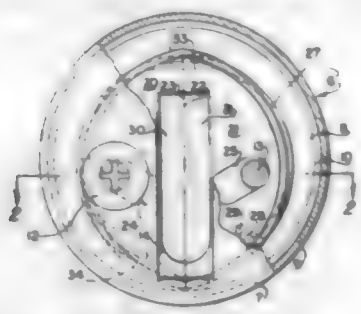
ber having its ends bent to form loops for engagement with two of said retaining bolts, a hasp-bearing lock body secured to said hub cap and having its free end underlying said wire member, a semi-circular disc carried by the free end of said lock body, said wire member being bent to form an offset, and a hasp engaging portion, and adapted to overlie said lock body and the flat edge of said semi-circular disc, said hasp engaging portion of said wire member being engaged by the hasp borne by said lock body.

2,874,562
MOTOR VEHICLE STEERING WHEEL LOCK
Christopher N. Croce, Chicago, Ill.
Application December 11, 1956, Serial No. 627,635
1 Claim. (Cl. 70—252)



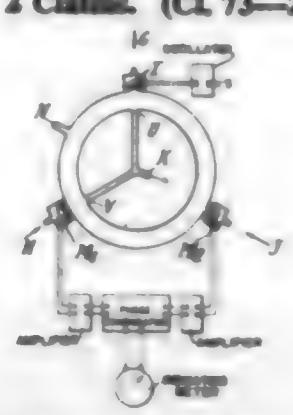
The combination with a rotary barrel of the ignition switch of a motor vehicle, and a steering shaft having a peripheral ring of grooves angularly offset relative to the radius of the shaft and a tubular steering shaft housing having an opening in the wall thereof, of a steering shaft locking attachment comprising a tubular housing, a curved flange formed at one end of said tubular housing adapted to fit over the wall of said steering shaft housing with said tubular housing in register with said opening of the tubular steering shaft housing, a locking bolt slidable through said tubular housing and registering openings, said locking bolt having a slotted offset end and a pin extending through the slot in said end eccentrically connecting said bolt with said rotary barrel of said ignition switch, and angularly offset teeth on one end of said sliding bolt adapted to interlock with the angularly offset grooves of said steering shaft holding said steering shaft against movement when said rotary barrel is rotated in one direction.

2,874,563
CYLINDER LOCK KEYHOLE SHUTTER
Ernest L. Schlage, Burlingame, Calif., assignor to Schlage Lock Company, a corporation
Application August 15, 1955, Serial No. 528,259
1 Claim. (Cl. 70—455)



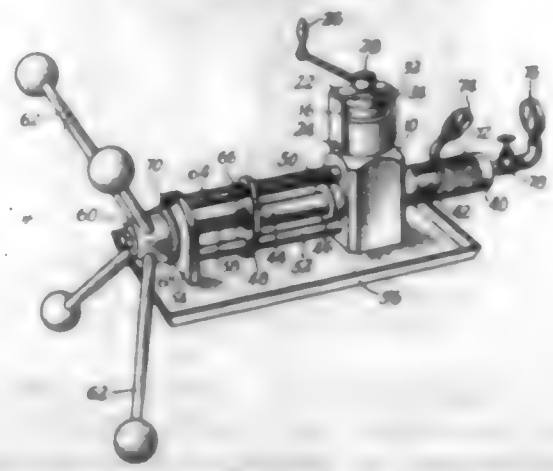
A keyhole shutter for a lock, comprising: a housing, a pair of screws for securing said housing to the face of a lock in substantially dust proof relation to a keyhole therein, an elongated entry hole through said housing coaxial with such keyhole, a pair of similar, opposed, segmental members mounted in said housing for movement from a first position with their straight edges in engagement generally centrally and longitudinally of said opening to a second parallel position spaced apart transversely of said opening for allowing insertion of a key through said opening, between said edges and into such keyhole, and a C-shaped spring embracing substantially more than 180 degrees of the periphery of said members for yieldably urging said members to said first position, an elongated aperture provided in each of said members extending transversely of said straight edges and receiving said screws therethrough for guiding said members during said movement.

2,874,564
SONIC GAS ANALYSERS
Albert E. Martin and Donald Mountfield, Newcastle-upon-Tyne, England, assignors to Sir Howard Grubb, Parsons & Company Limited, Newcastle-upon-Tyne, England
Application November 15, 1955, Serial No. 546,988
Claims priority, application Great Britain November 17, 1954
2 Claims. (Cl. 73—24)



1. In a sonic gas analyser of the type wherein relative phase shift is the measure of the variable, the improvement comprising a ring in the form of a continuous tube defining a continuous annular internal space, a sound transmitter mounted adjacent the tube for transmission of sound in opposite directions through the tube, a first microphone and a second microphone spaced around the tube at approximately equal distances from the transmitter and adapted to receive sound transmitted through gas in the tube, inlet means for gas to be tested between the transmitter and said first microphone, inlet means for a datum gas diametrically opposite the inlet for gas under test, and outlet means for both gas to be tested and the datum gas adjacent the transmitter and the said first microphone, whereby sound is transmitted from the transmitter to each said microphone by two paths, going through the annular tube in opposite directions, so that the effect of standing waves is inhibited.

2,874,565
POROSIMETER AND METHOD OF MEASURING POROSITY
Frank C. Kelton, Dallas, Tex., assignor to Core Laboratories, Inc., Dallas, Tex., a corporation of Texas
Application December 6, 1955, Serial No. 551,333
8 Claims. (Cl. 73—38)



1. The method of measuring the pore space of a core sample occupied by gas which comprises immersing said sample in a liquid within an enclosed chamber, reducing

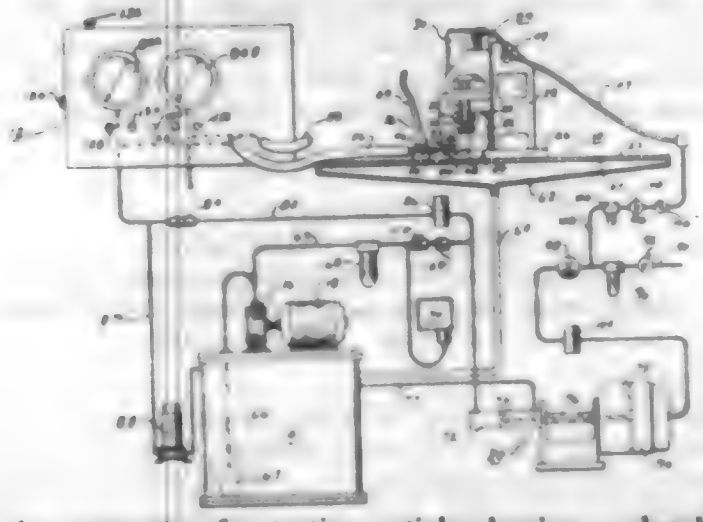
the pressure of said liquid to a fraction of atmospheric pressure and allowing the gas in the pore space to expand and partially evolve from said sample, and measuring the volume of gas thus evolved from said sample while maintaining said liquid and said gas at said reduced pressure, as a complementary fractional measure of the total of the volume of said evolved gas and of the pore space of said sample occupied by gas.

2,874,566

APPARATUS FOR TESTING WALL STRUCTURE OF HOLLOW ARTICLES

Edmond J. Mazzak, South Bend, Ind., assignor to Summit Manufacturing Company, a Division of Ace Tool Engineering Co., Inc., South Bend, Ind., a corporation of Indiana

Application July 6, 1956, Serial No. 596,319
15 Claims. (Cl. 73—40)



1. An apparatus for testing articles having a plurality of independent cavities and a port therefrom, comprising a reservoir for hydraulic fluid, a conduit system having a main line and separate branch lines for supplying fluid for the cavities, a pump in said main line for delivering fluid from said reservoir to each of said branch lines, a motor for driving said pump, a means for filtering said fluid before entering said branches, a mechanism in each branch line for increasing the fluid pressure in its respective branch lines, a check valve in each branch line to prevent back flow therein from said mechanism to the main line, a check valve in each branch line posterior to said mechanism to prevent back flow therein, a drain valve in each branch line between said mechanism and said last mentioned check valve, an electrical means for operating said drain valve, a drain valve in each branch line posterior to said last mentioned check valve, an electrical means for operating said last mentioned drain valve, a fluid pressure gauge for each branch line communicating therewith between said last mentioned check valve and the article being tested, a source of air for operating said mechanisms, a means for selecting a predetermined air pressure, electrically operated valves for controlling the air supply to said mechanisms, a switch responsive to the pressure in said main line for opening one of said last mentioned valves, a work table, a fixture on said table having a pneumatic means for closing said port and connecting the cavities of said article to said branch lines, and a drain means for returning the fluid in said cavities to the reservoir after the article has been tested.

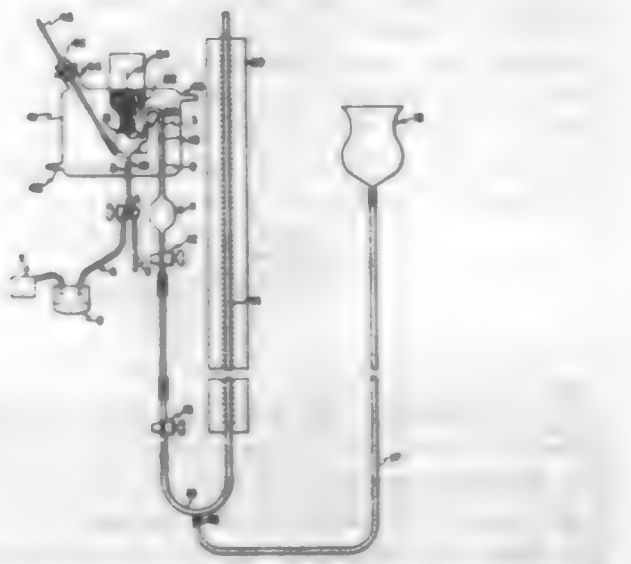
2,874,567

MICRO-VAPOR PRESSURE APPARATUS

August Y. Mottlau, Clark, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application December 5, 1955, Serial No. 550,922
1 Claim. (Cl. 73—53)

An apparatus for determing the vapor pressure of vaporizable liquids, comprising a sample receiving chamber, a first conduit connection communicating with and dependent from the bottom of said chamber, means for introducing mercury through said chamber into said dependent conduit connection including a mercury orifice opening into said chamber and a closure for said chamber, a second conduit connection communicating with said chamber in vertically spaced relation to said first conduit connection, a U-tube manometer in direct communication with said second conduit connection through the upper end of a first leg portion of said U-tube, the second leg portion of said U-tube extending upwardly beyond the connection between said second conduit and said first leg, heat exchange means including a housing



and means for circulating a heat exchange fluid therethrough disposed to enclose said chamber said second conduit connection and at least that portion of said first conduit connection immediately adjacent said chamber, means for introducing and withdrawing mercury into said U-tube, said means adapted to establish and maintain opposed columns of mercury in said U-tube wherein the upper end of the column of mercury in said U-tube first leg substantially limits the volume of said chamber, means for evacuating said chamber, means for introducing a sample portion of said liquid into said chamber through said mercury orifice, and means for indicating the upper surface level of mercury in the second leg portion of said U-tube manometer.

2,874,568

ULTRASONIC FLOWMETER

Lucien A. Petermann, Metuchen, N. J., assignor to Gulton Industries, Inc., a corporation of New Jersey

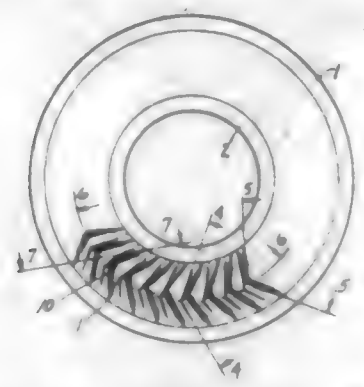
Application December 7, 1955, Serial No. 551,598
6 Claims. (Cl. 73—194)



1. An ultrasonic flowmeter comprising fluid flow containing means; a transducer affixed to said fluid flow containing means; a source of ultrasonic energy connected to and exciting said transducer; a differential receiving transducer comprising at least two sections affixed to said fluid flow containing means; said differential receiving transducer being positioned on said fluid flow containing means so as to receive ultrasonic energy transmitted across said fluid flow containing means after a plurality of reflections within said fluid flow containing means; amplifying means and indicating means; the outputs of said sections of said differential receiving transducer being fed to said amplifying means; the out-

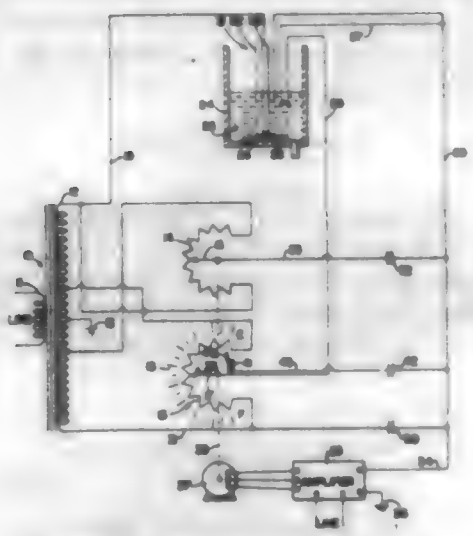
put of said amplifying means being fed to said indicating means; said differential transducer, amplifying means and indicating means being adjusted in phase so that there is a null indication with no fluid flow in said fluid flow containing means.

2,874,569
GAS METER DIAPHRAGM
Robert B. Gray, Erie, Pa., assignor to American Meter Company, Incorporated, Erie, Pa., a corporation of Delaware
Application April 5, 1955, Serial No. 499,324
3 Claims. (Cl. 73—279)



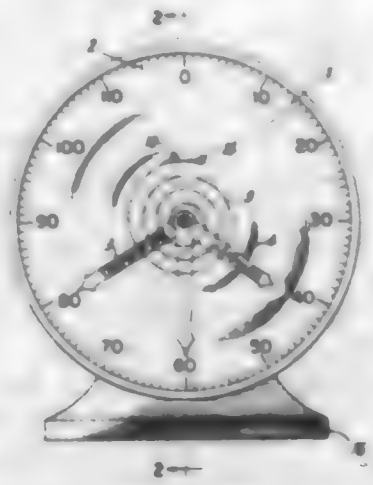
1. An annular pan type gas meter diaphragm having inner and outer rims in the median plane of the diaphragm for fastening respectively to a disk and to the housing of a gas measuring chamber and an annular portion between the rims with angularly spaced circumferentially directed herringbone corrugations alternately projecting from opposite sides of the median plane of the diaphragm.

2,874,570
LIQUID LEVEL INDICATOR STABILIZATION
Raymond L. Bergeson, St. Paul, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application August 16, 1955, Serial No. 528,741
4 Claims. (Cl. 73—304)



1. In capacitive liquid level measuring apparatus an electrically balanceable bridge network comprising a power supply having a primary and secondary winding, a pair of voltage dividers and associated wiper means, each of said voltage dividers connected across a portion of said secondary winding and so connected that the voltage drop across one of said dividers is equal to but of opposite phase of the voltage drop across the other of said dividers for corresponding positions of said wipers, amplifier and associated motor means including a liquid level indicator, a probe type capacitive means, a dielectric constant compensator means, third capacitor means and fourth capacitor means for compensating for the air capacitance of said probe and dielectric constant compensator means respectively, one terminal of said probe means and of said third capacitor means connected to opposite end taps of said secondary winding, one terminal of said dielectric compensator means being connected to the wiper means of that one of said voltage dividers having a voltage drop of a phase opposite to the phase of the end tap to which the probe capacitor is connected, and one terminal of said fourth capacitor means being operatively connected to the other of said voltage dividers by said wiper means, the other terminals of said probe, dielectric constant, third and fourth capacitor means having a common connection, the combined signal from said probe, dielectric constant, third and fourth capacitor means being transmitted to said amplifier and motor means to cause simultaneous positioning of said wipers to rebalance said network upon a change in the level of liquid being measured, a fifth capacitor and a normally open switch means, said switch means closeable upon a predetermined minimum liquid level condition being obtained placing said fifth capacitor in parallel connection with said dielectric constant compensator means causing the introduction of an error signal into said system and causing thereby said liquid level indicator of said system to be stable and to continuously show an empty condition.

2,874,571
WEATHER INDICATOR
Osborn Fort Hevener, Maplewood, N. J.
Application January 22, 1953, Serial No. 332,687
4 Claims. (Cl. 73—336)

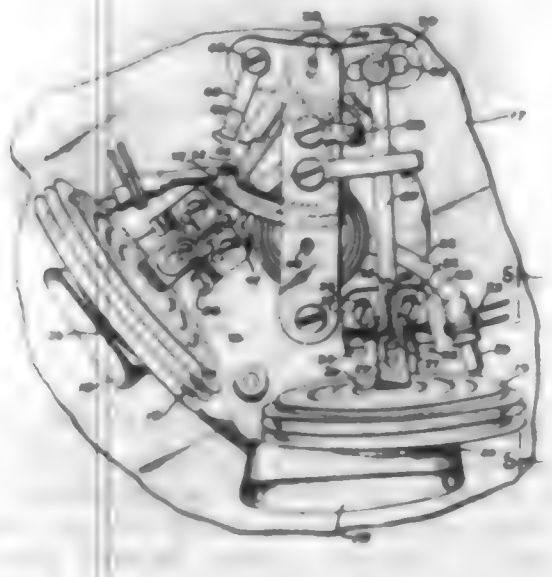


1. An instrument comprising a stationary dial plate bearing a scale having graduations on its face and numbers adjacent said graduations, a group of three index members adjacent said plate and having a common axis about which each of said members is rotatable, said graduations being arranged to cooperate with each of said members, means for actuating two of said members each independently and each in response to different atmospheric conditions, the third member having a radial slot, and connections between the third member and said two members to cause the third member always to assume a position midway between said two members, said connections comprising a stud slidably engaging said slot, and a plurality of links, one link connecting said stud to one of said two members, and another link connecting said stud and the other of said two members, the connections being such as to permit the links to pivot with respect to each other and with respect to the said two members.

2,874,572
ROTATABLE PRESSURE GAUGES
Philip W. Harland, Sellersville, and John N. Sterns, Doylestown, Pa., assignors to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application February 23, 1956, Serial No. 567,151
3 Claims. (Cl. 73—407)

3. In a condition responsive instrument, the combination comprising a housing having an aperture in the rear

thereof and a fixed index means at the front, a frame means rotatably mounted in said housing, a pair of pressure responsive capsule means mounted on said frame means, hollow axle means on said frame passing through said aperture, a pressure connection to each of said capsule means, both of said pressure connections passing through said axle means to said capsule means, a pair of gauge movements mounted on said frame, each of said gauge movements being connected to its respective pointer means through a sector, connections between each of said capsule means and its respective pointer means, said



pointer means being cooperable with said fixed index means, stop means on said frame for contacting each of said sectors to limit movement of said connections in one direction, overtravel means in said connections providing for movement of said capsule means after its sector gauge movement has been arrested by its stop means, and adjustable abutment means fastened to said frame and overlying each of said capsule means so as to directly engage said capsule means to limit movement thereof in the opposite direction, said frame means and related parts being rotatable on said axle so as to vary the relation of the pointers with the fixed index means.

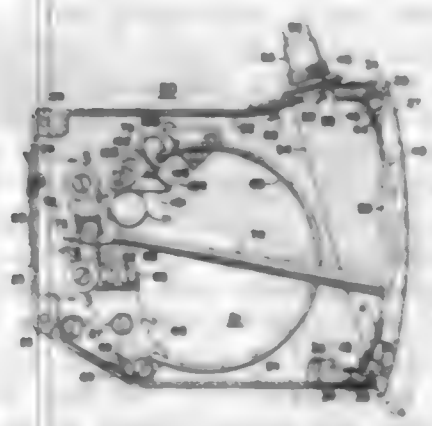
2,874,573

INDICATING GAGE

Thomas A. Green, Willoughby, Harvard H. Gorrie, Cleveland Heights, Jack F. Shannon, Euclid, and Trevor Fink, University Heights, Ohio, assignors to Bailey Meter Company, a corporation of Delaware

Continuation of application Serial No. 176,382, July 28, 1950, now abandoned. This application January 16, 1956, Serial No. 559,165

13 Claims. (Cl. 73—414)



1. In a measuring instrument for visually advising the value of a variable measurement, position, or the like; a relatively thin rectangularly shaped housing having an open front end wall, a removable window closely filling the opening, a scale plate located within the housing behind the window for observation therethrough, said scale plate substantially filling the opening and bowed to a long radius toward the window, the scale plate having graduations or other indicia representative of the desired measurement, a shaft mounted pointer having a long radius arm with the pivot axis near the rear interior wall of the housing, the pointer arranged to move over the visual length of the scale plate in cooperation with the indicia thereon, the scale plate having clearance with a side wall of the housing through which clearance the pointer arm is movable about its pivot, a pressure receiving Bourdon tube having one end rigidly mounted to the interior of the housing and having a free end movable in the plane of pointer arm travel, and a driving connection from said Bourdon tube free end to angularly position said pivot shaft, said driving connection including a spring wire formed with a 360° loop intermediate its ends and having one end connected with said Bourdon tube free end and its other end connected with the pivot shaft of the pointer, the loop arranged to lie in the plane of travel of said free end and offset until the center of gravity of the wire is in line with the points of connection of the two ends of the wire.

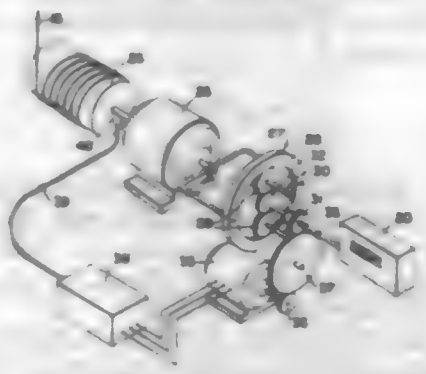
2,874,574

LIQUID LEVEL MEASURING APPARATUS

Arthur M. Paterson, Los Angeles, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application August 13, 1954, Serial No. 449,548

5 Claims. (Cl. 73—421)



1. Apparatus for measuring the level of a fluent material, including first means responsive to the level and to the density of said fluent material, second means positioned by said first means and operative to respond to the level of said fluent material on said first means, a planetary gear system having one input movable in response to said first means and a second input movable in response to said second means, and an indicator connected to the output of said planetary gear system and movable in response to the algebraic sum of the movements of said inputs.

2,874,575

BALANCING MACHINE

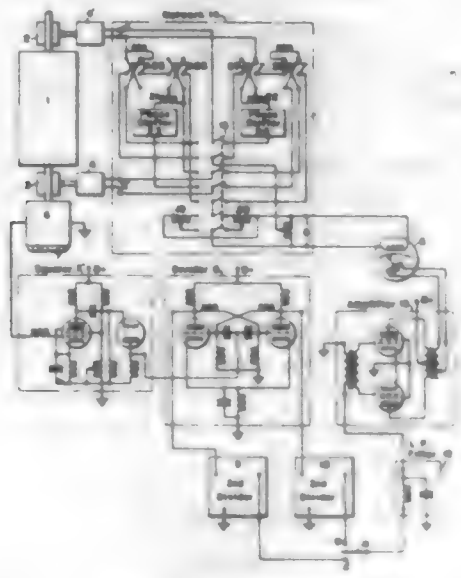
Sheldon I. Rambo, Baltimore, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application July 20, 1953, Serial No. 368,949

4 Claims. (Cl. 73—463)

1. A system for determining the unbalance of a mass disposed to rotate in suitable bearings about a given axis of rotation, comprising, in combination, alternating current generating means coupled to said bearings for generating an unbalance signal at rotational frequency in accordance with the magnitude of unbalance of the rotating mass in a selected plane perpendicular to the axis of rotation of said rotating mass, means for generating a first square wave signal of at least twice rotational frequency, said latter means including an alternating current generator coupled to the rotating mass and a squarer circuit, dividing means connected to receive the

output of said squarer circuit for dividing said first square wave into at least two square waves of rotational frequency and ninety degrees out of phase with each other, an indicating instrument adapted to receive a first and a second signal, said indicating instrument being connected to receive the unbalance signal, means for selectively

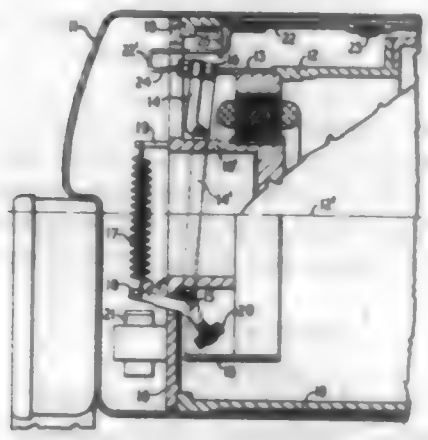


energizing said indicating instrument with one of the latter said two square waves at the same time said instrument is receiving the unbalance signal, and means for varying the phase of said first square wave and said ninety degree out of phase square waves with respect to the rotating mass.

2,874,576
GYROSCOPE APPARATUS

Jeffery W. Barnes, Farnborough, and Roy A. Herring, Bracknell, England, assignors to Ferranti, Limited, Hollinwood, Lancashire, England, a company of Great Britain and Northern Ireland

Application September 3, 1957, Serial No. 681,758
Claims priority, application Great Britain September 5, 1956
5 Claims. (Cl. 74—5.1)

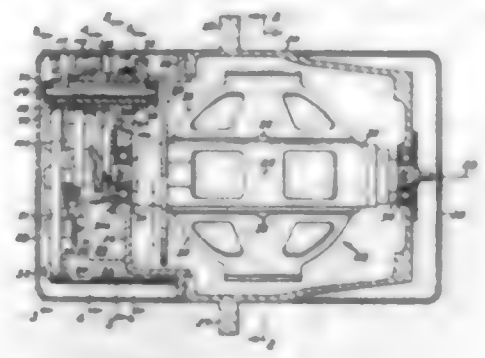


1. In gyroscope apparatus for defining the true vertical of the type including a gyro having inner and outer gimbals and a gyro spinning motor, means for centralizing the outer gimbal when and only when the gyro spinning motor is deenergized comprizing a circumferentially continuous cam rigidly secured to said outer gimbal, a roller for engaging said cam, constraining means operable when the gyro spinning motor is deenergized for urging said roller into contact with said cam so as to apply to said outer gimbal only a centralizing torque not in excess of that applied by the known pendulous method and to cause rotation of said gimbal about its axis towards its centralized position when displaced therefrom, and counteracting means operable when the gyro spinning motor is energized for counteracting said constraining means and moving said roller out of contact with said cam.

2,874,577
GYROSCOPE

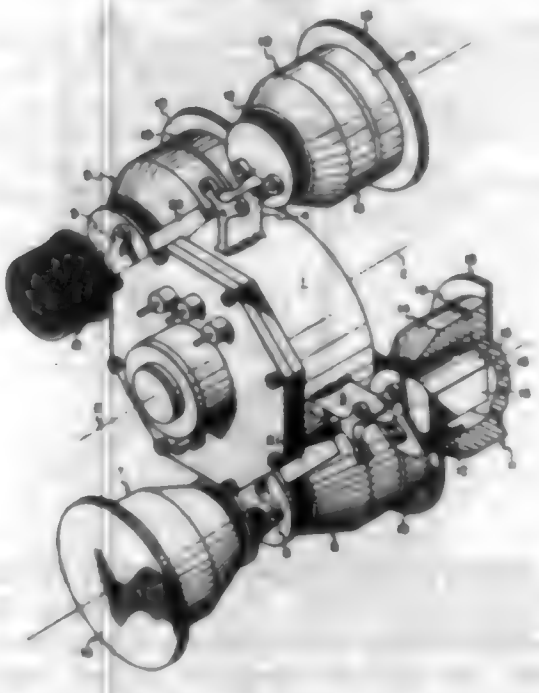
Orie W. Shirley, Portland, Oreg., assignor to Iron Fireman Manufacturing Company, a corporation of Oregon

Application July 15, 1958, Serial No. 748,619
4 Claims. (Cl. 74—5.1)



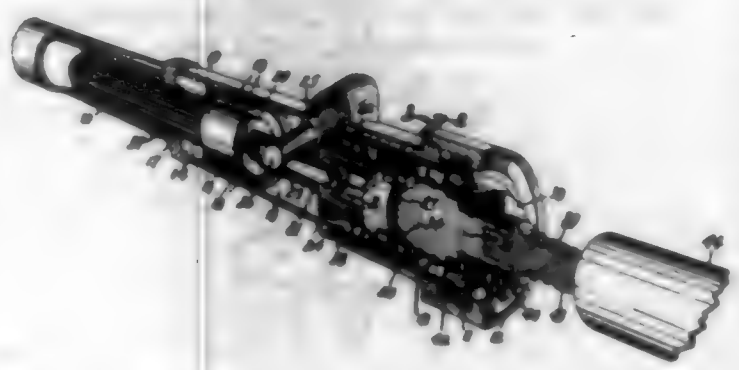
2. In combination, a free gyroscope including a frame, an outer gimbal ring freely rotatably carried on said frame for rotation in either direction about an outer ring axis fixed with respect to said frame, an inner gimbal ring freely rotatably carried on said outer gimbal ring for rotation in either direction about an inner ring axis perpendicular to said outer ring axis and a rotor freely rotatably carried on said inner ring for rotation about a spin axis perpendicular to said inner ring axis, each one of said axes intercepting each other of said axes at a common point and said gyroscope being said to be in caged position when the spin axis and the outer ring axis are mutually perpendicular and said outer gimbal ring is at a preset angle to said frame about said outer ring axis, together with means for caging said gyroscope in a minimum length of time, means for latching both said gimbal rings in their said caged positions and means for simultaneously unlatching both said gimbal rings from their said caged positions, said means for caging said gyroscope including a caging motor means, means controlling said caging motor means to complete a caging cycle and return to its starting position, a first caging cam carried on said inner gimbal ring to rotate therewith about said inner ring axis, a first cam follower for said first cam, a second caging cam carried on said outer gimbal ring to rotate therewith about said outer ring axis, a second cam follower for said second cam, a brake for said second cam, brake controlling means operable by said motor means to start timing a holding period for said second cam and apply said brake thereto after said moter means is energized and to release said brake from said cam at the end of said period, a first caging means operable by said motor means after said motor means is energized simultaneously directly to press said first cam follower on said first cam to urge said first cam towards its caged position and resiliently to press said second cam follower on said second cam to urge said second cam towards its caged position against the restraint of said brake, said first caging means including means timed to move said first cam into its caged position before the end of said holding period for said brake, a first latch means for said first caging means for latching said first caging means in its position of urging both said cams towards their caged positions after said first cam is in its caged position, whereby after the end of said holding period and said first caging means is latched said second cam will be resiliently pressed to its caged position by said second cam follower and said motor means will move out of engagement with said first caging means and complete its caging cycle.

2,874,578
TORQUE-APPLYING DEVICES
Hugh Brougham Sedgfield, Hampton, and Ronald Whalley, Whitton, England, assignors to The Sperry Gyroscope Company Limited, Brentford, England, a company of Great Britain
Application November 14, 1955, Serial No. 546,737
Claims priority, application Great Britain November 15, 1954
8 Claims. (Cl. 74—5.4)



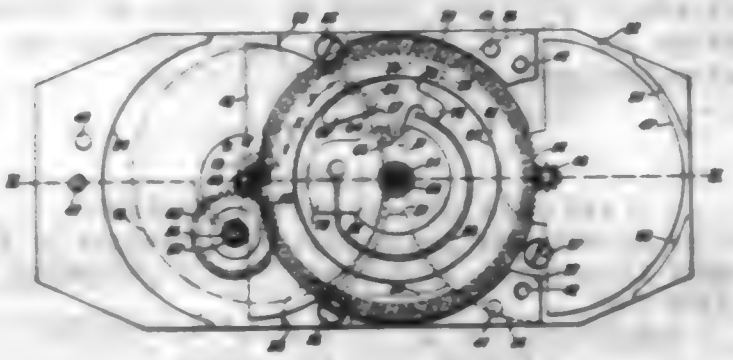
1. In a gyroscopic apparatus having a rotor casing, a base, and means for supporting the casing on the base; a torque applying device operable to exert a force directly between the base and casing including an energizable electrical coil carried by said casing, and a magnet located on said base having spaced pole pieces providing an air gap encircling the electrical axis of the coil across the which radial lines of flux are distributed in a non-uniform pattern to locate the force line of action of the device in a direction displaced from the coil axis.

2,874,579
HIGH TEMPERATURE HYDRAULIC ACTUATOR
Howard M. Geyer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 21, 1956, Serial No. 566,862
13 Claims. (Cl. 74—57)



13. An actuator assembly including, a cylinder, a reciprocable piston disposed in said cylinder, an internal rotatable element disposed in said cylinder and operatively connected to said piston so as to rotate upon piston movement, an external rotatable element, one-way driving means interconnecting said internal and external rotatable elements comprising a stationary ring attached to said cylinder, a cam member attached to said external rotatable element and coaxially arranged within said ring member, a plurality of spring biased rollers disposed between said cam and said ring member, a fingered annulus connected to said internal rotatable element and disposed coaxially between the cam member and the ring member, said cam member having a diametrical passage therethrough, and a cross pin attached to said fingered annulus and extending through said diametrical passage in said cam member, the cross-sectional area of said diametrical passage being greater than the cross-sectional area of said pin so as to form a lost motion driving connection between said fingered annulus and said cam member.

2,874,580
ONE WAY ENGAGING CLUTCH
Friedrich Meyer, Grenchen, Switzerland, assignor to Felsa S. A., Grenchen, Switzerland, a joint-stock company
Application June 30, 1953, Serial No. 365,003
Claims priority, application Switzerland November 18, 1952
8 Claims. (Cl. 74—126)

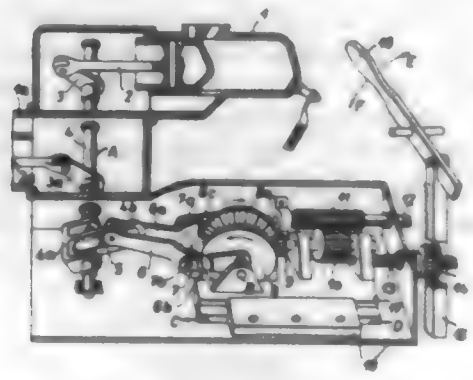


1. A one-way drive comprising, in combination, support means; an axle supported for rotation about its axis by said support means; a wheel loosely mounted on said axle for free rotation with respect to said axle about the axis thereof, said wheel being adapted to be rotated in opposite directions and being formed in one of its side faces with an annular recess having an outer peripheral side surface located about and directed toward said axle; a stabilizing plate located next to said one side face of said wheel and fixed to said axle, said plate maintaining said wheel normal to said axle and said plate being formed in its periphery with a part-circular notch; and wedge means located in said recess against said one side face of said wheel to be moved by frictional engagement with said wheel, having a part-circular portion located in and mating with said part-circular notch of said plate for guiding said wedge means for pivotal movement about the axis of said notch when said wheel moves said wedge means by frictional engagement therewith, and said wedge means having an outer peripheral portion located adjacent said peripheral side surface of said recess for wedging against said side surface only when said wheel turns in one direction of rotation for transmitting a drive from said wheel to said axle only when said wheel turns in said one direction.

2,874,581
INFINITELY VARIABLE GEARS
Helmut Hauser, Hochst, Vorarlberg, Austria
Application January 30, 1956, Serial No. 562,316
3 Claims. (Cl. 74—143)

1. The combination of a power actuated rocking shaft, a crank secured to said shaft and carrying a rocking arm extending in opposite directions from the axis of said

shaft, a sliding block mounted for longitudinal movement in said arm, one of the axes of said sliding block being disposed parallel to said shaft axis, in order to permit a coinciding position of said one of the axes of said block with said axis of said shaft, two rocker levers pivotally secured to said sliding block, a pair of gears rotatably mounted in planes extending through said rocker



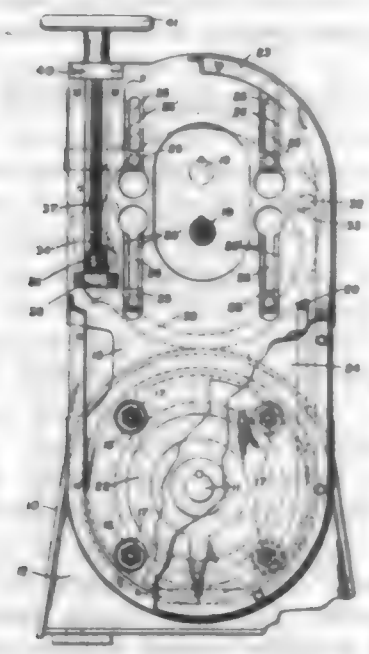
levers, means for turning alternately said gears in opposite directions in response to simultaneous rocking movement of said levers upon rocking said shaft, a pinion gear meshing with both said gears and driven alternately by the latter, an output shaft operatively connected with said pinion gear, and means for varying the distance between the axis of said pair of gears and the axis of said rocking shaft.

2,874,582

VARIABLE SPEED TRANSMISSION

Walter P. Schmitter, Wauwatosa, Wis., assignor to The Falk Corporation, Milwaukee, Wis., a corporation of Wisconsin

Application May 27, 1955, Serial No. 511,589
3 Claims. (Cl. 74—230.17)



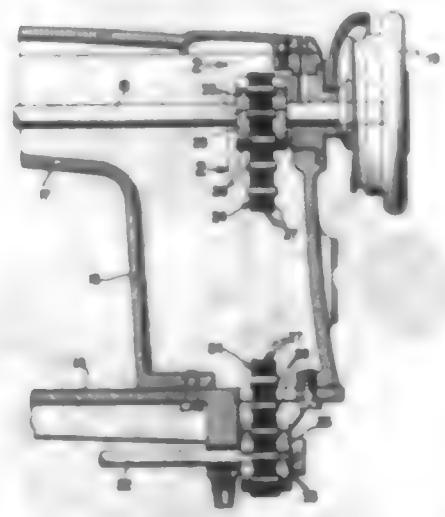
1. In a variable speed drive including a housed gear set, a driving motor, driving connections between said motor and gear set including a variable pitch pulley responsive to adjustment of said motor relative to said gear set for varying the rate of operation of the gear set; means for adjusting said motor toward and from said gear set comprising a motor support projecting from the housed gear set, a motor bracket, means guiding said bracket for adjustment thereof relative to said support, a ring fulcrumed on said support and reacting on said guide means to determine the position of said bracket relative to said support, and means for actuating said ring to adjust said bracket relative to said support.

2,874,583

DRIVING DEVICES FOR SEWING AND OTHER MACHINES

John Platt, Dalmuir, Glasgow, Scotland, assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application November 28, 1955, Serial No. 549,443
Claims priority, application Great Britain November 7, 1955
4 Claims. (Cl. 74—231)



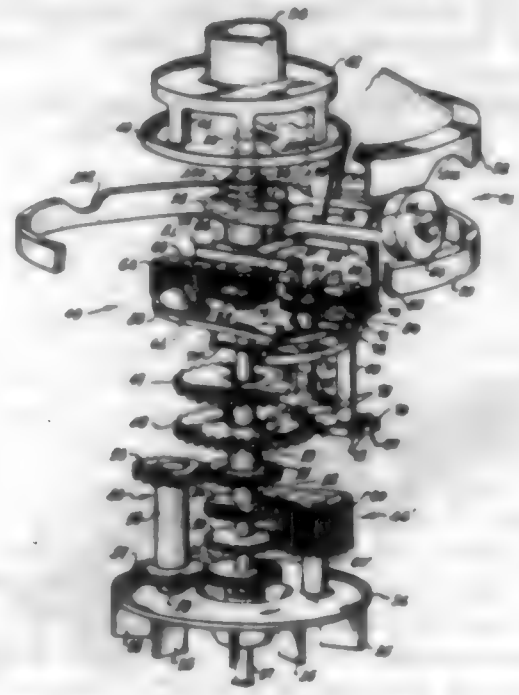
2. A driving belt for a sewing or other machine formed from a plurality of turns of cord of textile fiber laid in side-by-side relation, and providing interstices therein, and a plurality of spaced one-piece pulley engaging clips molded directly to embrace said plurality of turns of cord, each of said clips comprising integral top, bottom and side portions forming a complete-one-piece band around the turns, the top and bottom portions of said clips being connected by integrally formed portions of said one-piece clips, which integrally formed portions extend into the said interstices.

2,874,584

REVERSING MECHANISM

Brodie E. Ahlport, Los Angeles, Calif.

Application February 13, 1956, Serial No. 565,102
28 Claims. (Cl. 74—319)



1. In a rotation reversing mechanism, a pair of counter rotating driving members, a rotary driven member, rotary means on the driven member and including engagement means engageable with one driving member by rotation of the rotary means on the driven member to one position and engageable with the other driving member by rotation of the rotary means on the driven member to another position, and releasable stop means for locking said rotary means

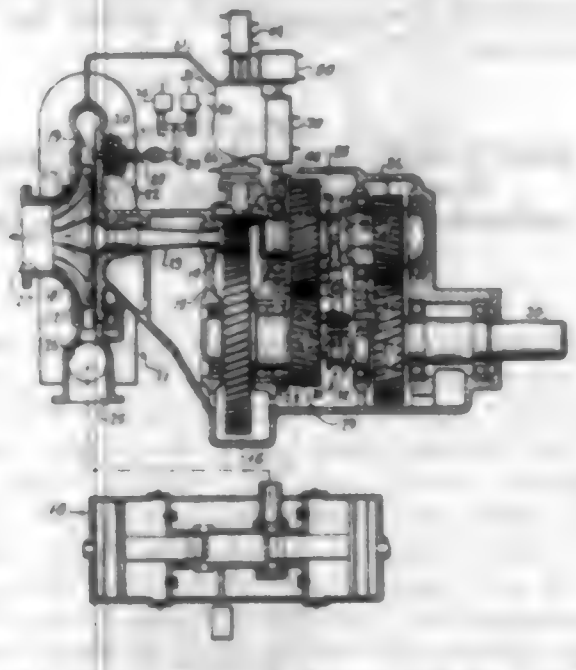
against rotation on the driven member when said rotary means are in either of said positions whereby said driven member will be caused to rotate in one direction when said rotary means are locked in said one position and to rotate in the opposite direction when said rotary means are locked in said other position.

2,874,585

GAS TURBINE WITH AUTOMATIC SHIFT RESPONSIVE TO TURBINE SPEED AND GAS PRESSURE

Robert A. Lasley, Hamilton, Ohio, assignor to Baldwin-Lima-Hamilton Corporation, Hamilton, Ohio, a corporation of Pennsylvania

Application December 16, 1957, Serial No. 703,081
6 Claims. (Cl. 74—336.5)



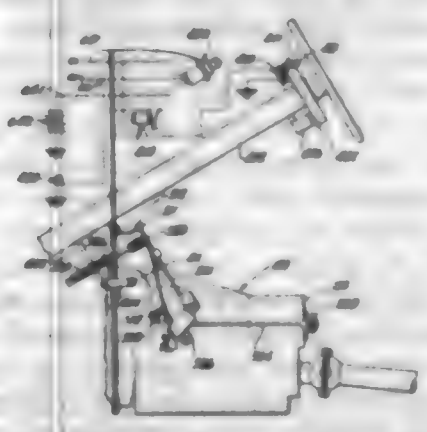
1. In combination, a source of power fluid, a turbine connected to said source and having adjustable guide vanes, a turbine shaft, a load driving shaft, a first means for connecting said turbine shaft to said driving shaft to drive said driving shaft at a high rate of speed, second means for connecting said turbine shaft to said driving shaft to drive said driving shaft at a lower rate of speed, means responsive to turbine speed and to turbine inlet pressure, and means operatively connected to said speed and pressure responsive means for adjusting the angle of said turbine guide vanes and for connecting said first and second means individually to said driving shaft.

2,874,586

AUTOMATIC TRANSMISSION

Leo Imblum, Alameda, Calif.

Application April 11, 1955, Serial No. 500,332
40 Claims. (Cl. 74—472)



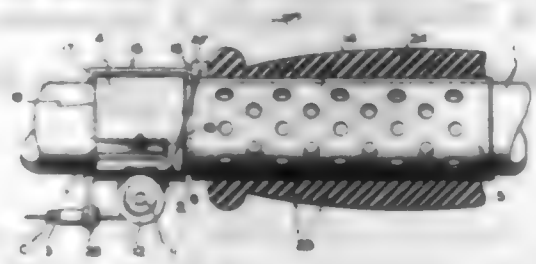
1. In a gear shifting mechanism, a pair of shafts, a member mounted on one of said shafts for rotation and having a concentric exterior periphery, an external ring gear member having a concentric internal periphery mounted for rotation on said exterior periphery of said first-mentioned member, a gear carried on the other of said shafts being enmeshed with said gear member, one of said members being formed with a plurality of circumferentially spaced axially extending open-ended cylinders, pistons mounted for reciprocation in said cylinders, spring means normally retracting said pistons from the open ends of said cylinders, the other of said members having an annular cam face extending across said cylinder ends for engagement with said pistons when extended to said open ends and being inclined to the axis so as to oscillate said pistons when so extended upon relative rotation of said members, and means charging said cylinders with a fluid so as to extend said pistons and restricting the discharge of said fluid therefrom so as to restrain the oscillation of said pistons and to couple said members and said gear for rotation.

2,874,587

HAND CONTROL MECHANISM FOR VEHICLES

Roy J. Schmid, Canton, Conn., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 9, 1956, Serial No. 577,007
1 Claim. (Cl. 74—489)



In a hand grip control mechanism mounted on the handle bar of a cycle and adapted to control a device incorporated in the cycle, a substantially annular bracket secured to the handle bar, a coaxial hollow handle member associated with said bracket and rotatable on said handle bar, said hollow handle member having a first sleeve portion, a second fragmental sleeve portion axially extending from said first sleeve portion and overlying said annular bracket, means for preventing axial movement of said rotatable handle member including a flange on said fragmental sleeve member engageable with one end face of said annular bracket, the other end face of said annular bracket being in abutting relation with an opposite end face of the sleeve portion of said hollow handle member, a flexible cable secured to the handle member, a detent mechanism operatively connected to the overlapping fragmental sleeve portion of the rotatable member and the annular bracket and adapted to releasably lock said rotatable handle member in a plurality of predetermined positions relative to said bracket, stop means on the annular bracket for limiting rotation of the handle member beyond its first and last operating position, and guiding means for said flexible cable including a pulley journalled about a stud projecting from said annular bracket for guiding said cable around the outer circumference of said rotatable handle member, said pulley and stud being located in an area of the annular bracket substantially opposite said overlapping fragmental sleeve portion of said rotatable member.

2,874,588

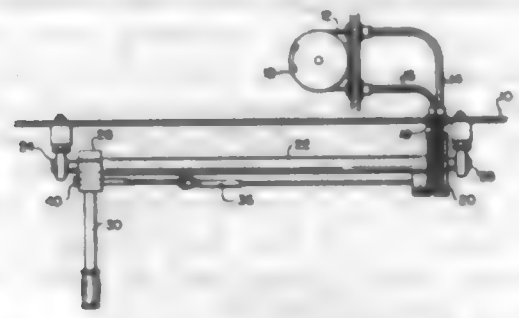
CONTROL CABLE DEVICE WITH TENSIONING MEANS

Roy L. Thomas, Jr., Worcester, Mass., assignor to Rockwood Sprinkler Company, Worcester, Mass., a corporation of Massachusetts

Application September 24, 1954, Serial No. 458,129
7 Claims. (Cl. 74—501)

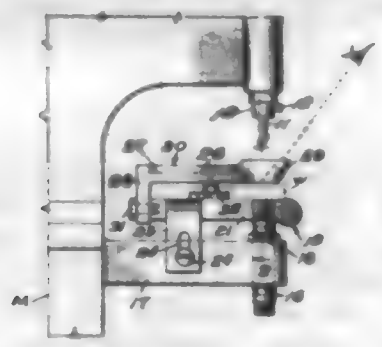
1. Apparatus for controlling a cable comprising a drum around which the cable is wound, guide means on the drum around which the cable ends are turned to direct

the cable ends away from the drum in a direction generally parallel to the axis of the drum, a rotatable shaft on which the drum is fixed, cable end anchoring means substantially displaced along the axis from the guide means



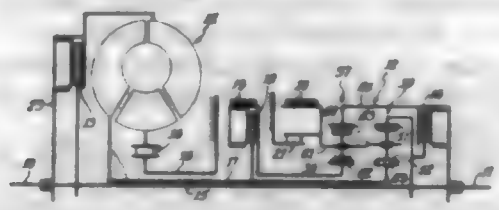
and rotatable with the shaft, and cable take-up means held by the anchoring means for the end portions of the cable, supporting means for the shaft, and means for turning the shaft.

2,874,589
PROTECTOR GUARD
Ralph B. Mills, Pawtucket, R. I., assignor to American Cord & Webbing Company, a corporation of New York
Application February 15, 1957, Serial No. 640,411
1 Claim. (Cl. 74—608)



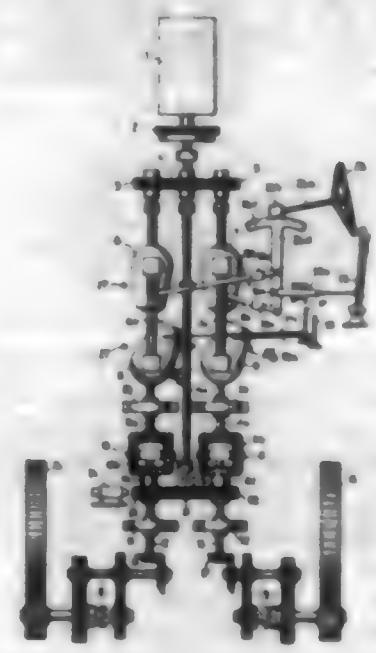
In a machine having a stationary die and a movable die mounted for reciprocation toward and from the stationary die and between which dies the work is positioned to have a machine operation performed thereon, a guard for said dies comprising a hollow open center tubular member having open top and bottom and a taper on both the inner and outer surfaces with respect to the axis of a said member and the taper on the inner surface being sufficiently upwardly and outwardly flaring to allow viewing of the work through the open center of the member from above the member and a manual grasping of the work below the member close to the action of the dies and means to engage the member intermediate its top and bottom to support the member without obstructing the viewing of the work through the member from a position clear of the stationary and movable dies of the machine.

2,874,590
TWO PATH POWER FLOW TURBINE TRANSMISSION
Donald W. Kelbel, Muncie, Ind., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application March 13, 1952, Serial No. 276,392
34 Claims. (Cl. 74—688)



1. In a transmission arranged for providing a plurality of speed ratios between a drive shaft and a driven shaft, the combination of an intermediate shaft, an additional shaft, first coupling means for transmitting torque from said drive shaft to said intermediate shaft, second coupling means for transmitting torque from said drive shaft to said additional shaft, a planetary gear set having a plurality of elements associated with said shafts one of which is connected with said first coupling means, third coupling means for connecting a second of said gear set elements to said additional shaft, and fourth coupling means for connecting said first-named gear set element to said driven shaft, whereby a first direct drive can be completed through said first and fourth coupling means exclusive of said second coupling means, a second direct drive can be completed through said second and third and fourth coupling means exclusive of said second coupling means, and a third two path power flow direct drive can be completed through said first, second and third coupling means.

2,874,591
DRIVE FOR TRACK-LAYING VEHICLES
Hans Thoma, Baisthal, Switzerland
Application August 31, 1954, Serial No. 453,296
6 Claims. (Cl. 74—720.5)

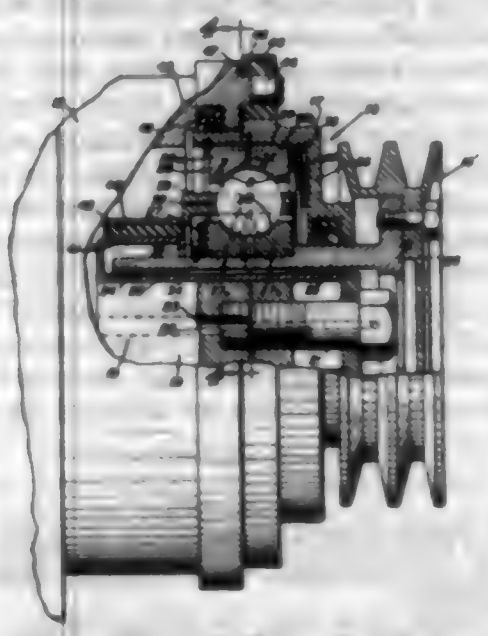


1. A combined speed-changing and steering arrangement for a vehicle having tracks; comprising drive means, constant ratio transmission means in driven connection with said drive means, variable ratio transmission means in driven connection with a respective track and in driven connection with said drive means, differential gear means for each track, each of said differential gear means having three shafts, the first of said shafts being in rotatably driven engagement with said constant ratio transmission means, the second of said shafts being in rotatably driven engagement with said variable ratio transmission means associated therewith, the third shaft being in driving engagement with the respective track, first actuating means operatively connected with each of said variable ratio transmission means and adapted to effect a ratio variation of equal magnitude and equal direction for each of said variable ratio transmission means, second actuating means operatively connected to each of said variable ratio transmission means and adapted to effect a ratio variation of different magnitude and different direction for each of said variable ratio transmission means, clutch means interposed between said constant ratio transmission means and said drive means for directly connecting the latter to said constant ratio transmission means, and respective means engageable with said second and third shaft, respectively, for braking said second and third shafts.

2,874,592
SELF-CONTROLLED VARIABLE SPEED PLANETARY TYPE DRIVE

John W. Oehrli, Los Angeles, Calif., assignor to McCulloch Motors Corporation, Los Angeles, Calif., a corporation of Wisconsin

Application November 7, 1955, Serial No. 545,420
14 Claims. (Cl. 74—796)

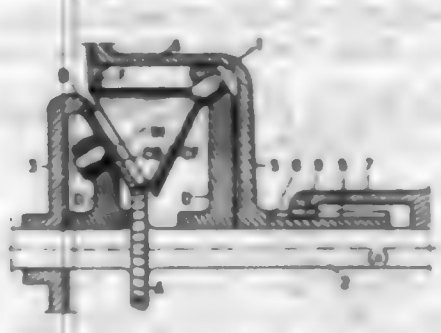


1. In an automatic variable ratio transmission: an inner member having inner complementary race rings thereon; means urging said inner race rings together; an outer member surrounding said inner member and having outer complementary race rings thereon facing said inner race rings; annular negative rate spring means urging said outer race rings toward each other; means supporting said members so that at least one of them may rotate around its axis and means for supporting the other of said members so that it will have reaction against rotation around said axis; balls disposed so as to roll between said inner and outer race rings; and a rotatable member engaging said balls and revolving as said balls roll between said inner and outer race rings, said balls being adapted to shift radially outwardly, thereby varying the ratio of the transmission.

2,874,593
TRANSMISSION MECHANISMS BETWEEN AXLES OR SHAFTS

Robert Guy Legros, Sevres, France

Application April 25, 1956, Serial No. 580,541
13 Claims. (Cl. 74—796)

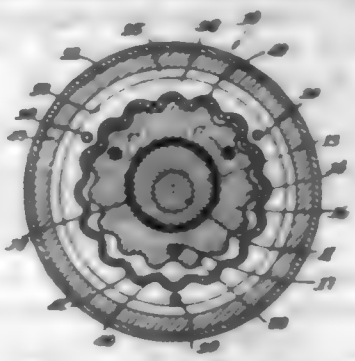


1. A transmission mechanism between axles or shafts including, in combination, a first element comprising a main axle and a sun wheel secured thereto at a point intermediate its ends; a second element comprising a cage surrounding the said main axle and having spaced portions thereof journalled to rotate about the axis of the said main axle on opposite sides of said sun wheel, a plurality of satellite wheels each carried by a satellite axle mounted on said cage for rotation about individual axes inclined to the axis of the said main axle by an angle less than 90° and a conical roller carried by each satellite gear and having an apex angle such that the outer surfaces of said conical rollers are parallel with the axis of said main axle; a third element comprising a ring gear surrounding said main axle and being journalled to rotate about the axis of said main axle in engagement with the said satellite gears; and a fourth element comprising an annular ring having frictional contact with the outer surfaces of said conical rollers, means for mounting said annular ring for rotation about the axis of said main axle and for sliding movement parallel with said axis; a first rotary shaft connected in driving relation with one of the said four elements; a second rotary shaft connected in driving relation with another of the said four elements; means for holding stationary another one of the said four elements; and means for controlling the axial position of said annular ring.

2,874,594
SPEED REDUCER

Edward V. Sundt, Wilmette, Ill.

Application June 10, 1957, Serial No. 664,682
14 Claims. (Cl. 74—805)

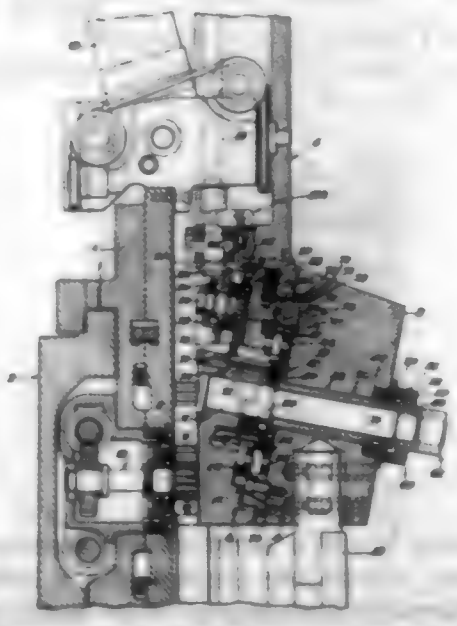


1. A speed reducer comprising a rotating shaft, an eccentric carried by the shaft for rotation therewith, an oscillating member rotatably mounted on the eccentric and oscillated thereby and having a ring of teeth thereon, means for controlling the rotation of the oscillating member with respect to the eccentric, a gear member rotatably mounted concentrically with the shaft and having teeth thereon in meshing relation with the ring of teeth on the oscillating member, and a plurality of rolling elements movably carried by one of the members for movement along the teeth of that member and interposed between the teeth of that member and the teeth of the other member for rollingly transmitting torque from the oscillating member to the gear member for rotating the latter.

2,874,595
POWER TURRET INDEXING

Theodore Foster, Cincinnati, Ohio, assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey

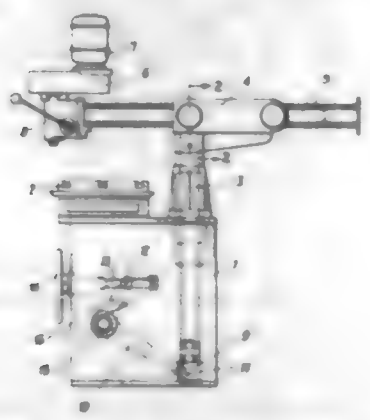
Application April 2, 1956, Serial No. 575,381
14 Claims. (Cl. 74—822)



1. In a power indexing arrangement for use in association with a tool holding turret on a vertical boring

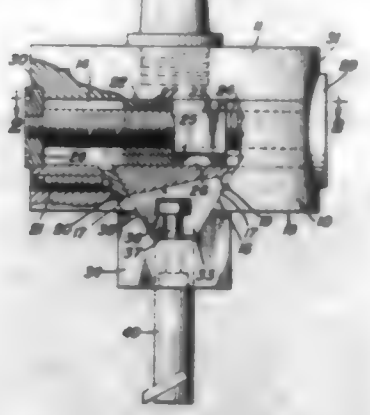
mill, the combination of a member, a pivot extending from the member, a turret rotatably mounted on the pivot, and means to index said turret to and through a plurality of stations, said means comprising a power source, a timing gear, transmission means for transmitting power from the source to the timing gear, a planetary gear arrangement operatively driven by the timing gear during an indexing cycle, locating means to locate the turret in a fixed position, said planetary arrangement being operatively associated with the turret and the locating means whereby power induced action of said planetary arrangement is operative to unclamp the turret, then index the turret to a new position, and then clamp and hold the turret.

2,874,596
RADIAL DRILLING MACHINE
Emil Karl Witzig, Reutlingen, Germany
Application May 23, 1955, Serial No. 510,212
Claims priority, application Germany February 3, 1949
Section 1, Public Law 690, August 8, 1946
Patent expires February 3, 1969
8 Claims. (Cl. 77—28)



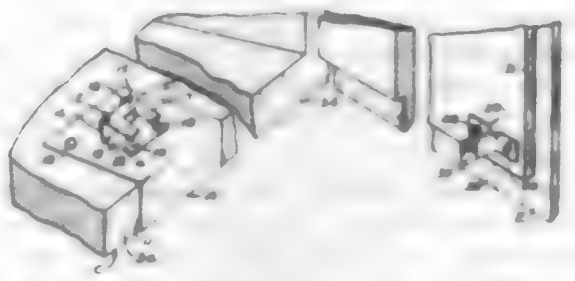
1. In a machine tool, in combination, a vertical pillar; a tool supporting beam mounted on said pillar for movement in direction normal thereto, said supporting beam having a cross-section of an I-beam and the vertical plane of symmetry through the web of the I-beam located substantially in a plane through the axis of the pillar; and guide means for guiding said supporting beam in said direction of movement and including at each side of the web of said I-beam at least two pairs of rollers and the rollers of each pair of said rollers engaging opposite inner surfaces of flanges of said I-beam.

2,874,597
MICROMETRIC BORING HEAD
Burton E. Bach, Torrence, Calif.
Application November 29, 1956, Serial No. 625,107
2 Claims. (Cl. 77—58)



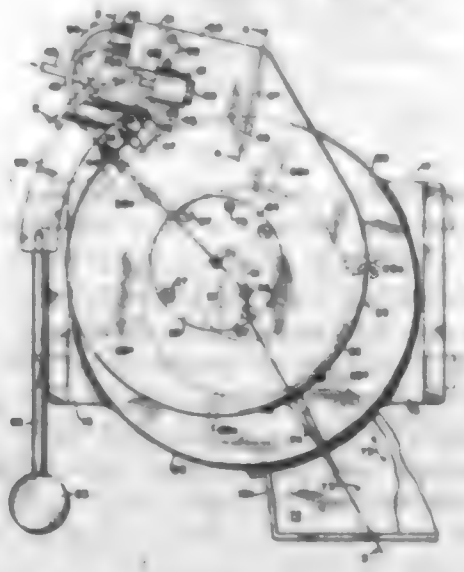
1. In a boring head: a body having an upper channel extending from side-to-side thereof and a lower channel having downwardly converging side walls and being disposed in crossing relation to the upper channel, the upper portion of the lower channel intersecting the lower portion of the upper channel; a tool block slidable in said lower channel, the upper central part of said tool block having a transverse keyway disposed at an acute angle to the vertical plane defined by the center line of the upper channel, said tool block having a T-slot in the lower face thereof; a key block slidable in said upper channel, said key block having a key member projecting from its lower portion and being slidable in said keyway of said tool block so as to effect movement of said tool block in said lower channel when said key block is moved in said upper channel; a screw extending lengthwise of said upper channel and engaging said key block for effecting movement of said key block in said channel; a circular dial plate on one end of said screw for indicating rotation of said screw and movement of said tool block; a tool supporting member slidable lengthwise on the lower face of said tool block; and T-bolt means extending through said tool supporting member and engaging said T-slot, for locking said tool supporting member in selected positions on said tool block.

2,874,598
JIG FOR POSITIONING SCREW HOLES FOR THE WEDGE RECEIVER OF A FRICTION CATCH FOR DOORS
Selmer E. Vick, Lakeville, Minn.
Application April 25, 1957, Serial No. 655,074
4 Claims. (Cl. 77—62)



1. In a jig for locating the screw holes for positioning the wedge receiver of a friction door catch on a door casing, a base having a depending lip formed thereon at right angles thereto, a receiver connected to said base and having a recess formed therein adapted to receive the wedge of a friction catch, said base having holes therethrough which indicate the location of the holes for screws used to secure the wedge receiver on a door casing.

2,874,599
POSITIONING TABLE
Arnold S. Chariat, Norwalk, Conn., assignor to Howe & Fant, inc., East Norwalk, Conn., a corporation of Delaware
Application March 21, 1956, Serial No. 573,053
12 Claims. (Cl. 77—64)



1. A table for positioning a workpiece beneath the spindle of a machine, which comprises a base adapted

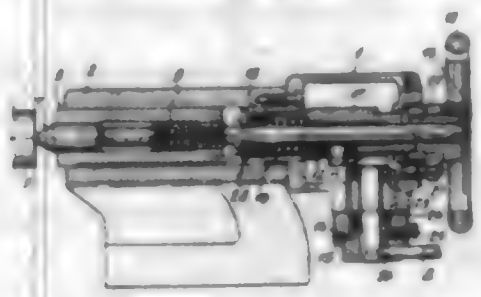
to be secured in fixed position and having a flat annular bearing surface at its top, a thrust bearing resting movably on the annular bearing surface and including a plurality of balls and retainer means holding the balls in the form of a ring of a diameter substantially greater than the inner diameter of the annular bearing surface and substantially smaller than the outer diameter of said surface, means on the base limiting the horizontal movement of the thrust bearing to the area of the annular bearing surface, said limtiing means being of substantially smaller dimensions horizontally than the diameter of the ring of balls of the thrust bearing and permitting limited free movement of the thrust bearing on said bearing surface, an annular top bearing plate movably resting on the thrust bearing and having an inner diameter substantially smaller and an outer diameter substantially larger than the diameter of the ring of balls of the thrust bearing, a workpiece support above and secured to the top bearing plate, the support including a centrally disposed hole location plate of smaller transverse dimensions than the diameter of the ring of balls of the thrust bearing and having openings in relative positions corresponding to the relative positions, at which operations are to be performed on the workpiece, means on the base for restricting the horizontal movement of the top bearing plate and support, said restricting means being engageable by the top bearing plate and being of substantially greater horizontal dimensions than the plate to permit limited freedom of horizontal movement of the plate and support, and means engageable with a selected opening in the hole location plate for holding the support with the workpiece positioned relative to the machine spindle.

2,874,609

ARRANGEMENT FOR SUPPORTING A WORK PIECE ON THE BACK CENTER OF A MACHINE-TOOL

Jules Louis Jeanneret, Niort, France

Application March 22, 1956, Serial No. 573,223
Claims priority, application France April 14, 1955
8 Claims. (Cl. 82—31)



1. A double control system for the positioning of the back center in the tailstock of a machine-tool, comprising a casing rigid with the outer end of the tailstock, a sleeve slidingly, nonrotatably and coaxially fitted inside side the tailstock and casing system, carrying the back center and the outer end of which is tapped, a shank extending axially of the tailstock and casing system and a section of which forms a control screw engaging the outer tapped end of the sleeve, a handwheel coaxially rigid with said shank and adapted to be rotated with reference to the casing to control the position of the sleeve inside the tailstock, a stop rigid with the shank at a point outside its screw section, a plunger surrounding a shank section between said stop and the handwheel and adapted to slide thereon inside the casing and, when shifted inwardly, the urge positively and bodily inwardly the stop, the shank, the sleeve and the back center, said plunger being provided with a rectilinear groove perpendicular to the axis of the shank, a spindle revolubly carried by the casing and the axis of which pass through the plunger orthogonally to the axis of the shank and to the direction of said groove, a member rigid with the said spindle at the end of the latter facing the plunger, a projection carried eccentrically by said member, engaging the groove in the plunger and adapted to progress in said groove upon rotation of the spindle to make said plunger progress inwardly as said projection progresses between an end of said groove and a point of the said groove aligned longitudinally of the shank with a point of the axis of the spidle, further progression of the projection beyond said point releasing the plunger, a stop limiting said further progression of the projection to a slight amount and hand-operable means rigid with the spindle on the outside of the casing for control of the rotary movement of the spindle and member rigid therewith.

2,874,681

PIANO ACTION

Charles R. Dowling, Newark, Ohio

Application August 16, 1954, Serial No. 449,829
6 Claims. (Cl. 84—248)



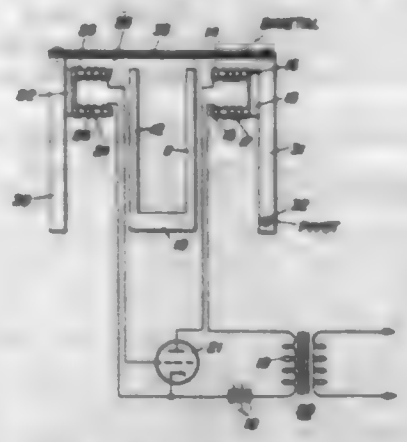
1. A unitary mechanical piano action comprising: a mounting member for detachable connection with a stationary frame element of a piano, a cam formation on said mounting member, a shouldered key-actuated whippen pivotally mounted on said member, a hammer having a shank and a string-striking head, means pivotally uniting one end of the hammer shank directly with an intermediate part of said whippen in a manner providing for bodily swinging movement of the hammer with said whippen when the latter is oscillated in an advancing direction to cause the head of the hammer mounted thereon to strike an associated tuned piano string, lever means pivotally carried by said shank and normally engaged with a shoulder of said whippen, and plunger means slidably carried by said hammer shank, said plunger means being disposed to contact the cam formation of said mounting member immediately following percussive contact of the hammer head with said string to release said lever means and produce independent limited return movement of said hammer about the axis of pivotal connection thereof with said whippen.

2,874,693

APPARATUS FOR MAINTAINING CONSTANT THE VIBRATION FREQUENCY OF A TUNING FORK

William P. Asten, Aldie, Va.

Application March 22, 1957, Serial No. 647,912
3 Claims. (Cl. 84—409)



1. A mechanical vibrating system comprising: electromagnetic drive means, electromagnetic pick-up means, a

vibrator of magnetic material disposed in inductive relation to said electromagnetic drive means and said electromagnetic pick-up means, a circuit coupling said electromagnetic drive means and said electromagnetic pick-up means in self-oscillator relation, said vibrator having a characteristic of frequency variation with temperature having a minimum at a predetermined temperature and rising frequency with both increase and decrease of temperature with respect to said predetermined temperature, and means operatively associated with said vibrating system for decreasing the distance between said vibrator and at least one of said electromagnetic drive means and of said electromagnetic pick-up means in response to both increase and decrease of temperature with respect to said predetermined frequency.

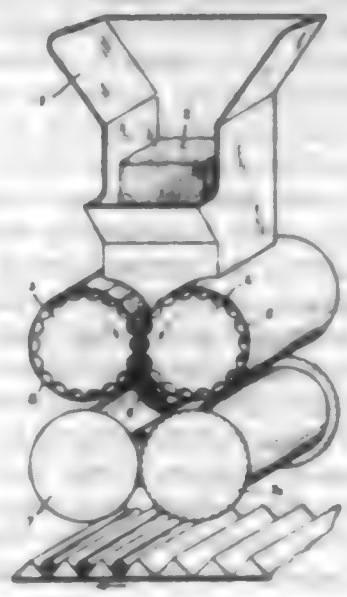
2,874,693
NAIL WITH FRANGIBLE EXTENSION
William A. Boettcher, Chicago, Ill.
Application May 25, 1956, Serial No. 587,375
2 Claims. (Cl. 85—28)



1. A nail having a shank portion terminating in a point at one end and including a transverse head at the other end thereof, a nail-driving extension body aligned with said shank portion, a frangible portion integrally connecting said extension body to the upper portion of the head of said nail, said frangible portion including an annular centrally arranged frusto-conical portion converging axially from said extension body into the head of said nail, and diametrically opposed web portions extending laterally from and integral with said frusto-conical portion and frangibly integral with upper surface portion of the nail head and extending substantially to said extension body, said web portions having a thickness less than the minimum diameter of the frusto-conical portion, said frusto-conical and web portions combining to permit the axial transmittal of driving force from said driving-head for placing the nail in a holding position with a work piece and being severable thereat from the head of the nail after it has been driven.

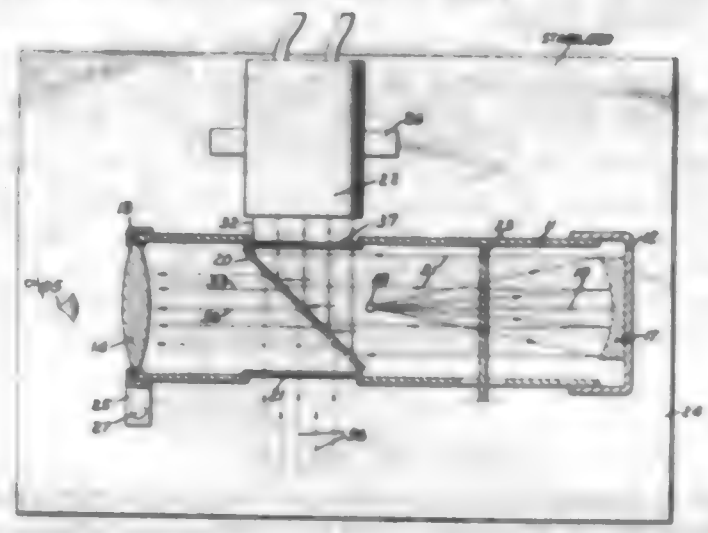
2,874,694
APPARATUS FOR MOLDING PLASTIC EXPLOSIVE MATERIALS
Albert Diels, Brussels, Belgium, and Hermann Orth, Ludwigshafen-Oggersheim, Germany, assignors to Poudreries Réunies de Belgique S. A., Brussels, Belgium
Application March 22, 1956, Serial No. 573,277
4 Claims. (Cl. 86—1)

4. An apparatus for molding a plastic explosive material into elongated rods, comprising a pair of like horizontal rollers, each roller having a series of circumferential grooves extending parallel to each other and to the axis of each roller, said grooves being spaced from each other so as to form narrow peripheral wall portions separating adjacent grooves from each other, resilient sleeves mounted on the peripheral wall portions of the rollers under tension so as to be normally out of contact with said grooves, means for feeding said explosive material from above said rollers, and means for rotating said rollers in opposite directions so as to move successive ones of said narrow peripheral wall portions



of the rollers into lateral registration, the laterally registering wall portions defining a thin gap therebetween at their closest approach.

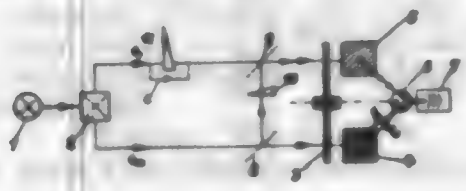
2,874,695
METHOD AND APPARATUS FOR ALIGNING RADIANT ENERGY DETECTOR CELLS WITH THE HORIZON
Donald E. Williamson, Lexington, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 13, 1954, Serial No. 455,804
11 Claims. (Cl. 88—14)



5. A device for use on ships in aligning with the horizon on a horizontal scanning table, a detector cell that is activated by radiant energy rays, which comprises a generally cylindrical casing formed at one end for optical viewing of the interior of the casing, a concave reflecting mirror in said casing adjacent the opposite end thereof and facing said one end, a compact, concentrated source of light in said casing intermediate of its ends, disposed for directing light and heat rays against said mirror to be reflected thereby toward said one end of the casing, and located at the focus of the mirror to cause the light and heat rays reflected by the mirror to travel substantially parallel towards said one end of the casing, a plane mirror partly transmitting and partly reflecting any radiant energy rays incident thereon at an angle of about 45°, uniformly over its face area, disposed in said casing between said light source and said one viewing end of the casing in an oblique position of about 45° to the parallel rays traveling from said mirror toward said one end of the casing, the wall of that portion of said casing in which said plane mirror is placed being light transparent for

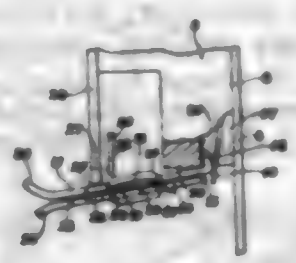
passing therethrough, radiant energy rays incident thereon from the exterior of the casing against said plane mirror in a horizontal direction transverse to the longitudinal axis of said casing.

2,874,606
DEVICES FOR MEASUREMENT OF TURBIDITY
Lothar Leiterer, Jena, Germany, assignor to VEB Carl Zeiss Jena, Jena, Germany
Application May 15, 1956, Serial No. 586,347
5 Claims. (Cl. 88—14)



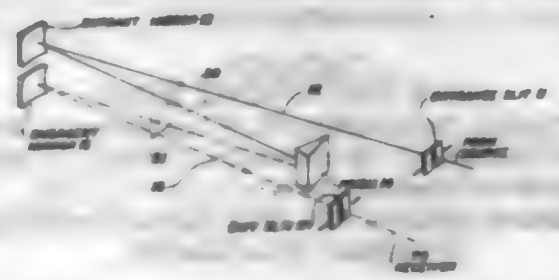
1. A device for measuring the turbidity of a test specimen by means of scattered light, comprising means for deriving from a common light source a reference light beam and a measuring light beam, the specimen to be tested being arranged in said measuring light beam and a reference body in said reference light beam, means for comparing the scattered light emanating from said specimen with said reference light beam, said scattered light containing a disturbing component which is not intended to be measured, and optical means by which a compensating beam of light is deviated from one of said beams and added to the other of said beams in such a proportion as to compensate the disturbing component in the path of said measuring light beam.

2,874,607
FILM GATE
Victor Witkowski, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application November 1, 1957, Serial No. 693,900
9 Claims. (Cl. 88—17)



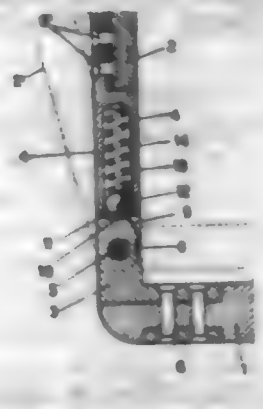
1. In a film gate structure for motion-picture film, the combination of: a support member having a lug extending in one direction; an aperture plate member disposed transverse to said lug and forming a slot for receiving said lug when said plate member is in a film projecting position; first resilient means in engagement with said plate member and adapted to urge said plate in a direction transverse to said lug into a film loading position with said plate engaging said lugs after said plate is manually urged in said one direction withdrawing said lug from said slot; a pressure pad member cooperating with said plate member to guide said film therebetween; abutment means carried by one of said pad and plate members; and second resilient means in engagement with said pad member and adapted to urge said pad and plate members in a direction opposite to said one direction, said second resilient means urging said pad and plate into said film projecting position after an edge of said film which is loaded in said film gate while in said film loading position engages said abutment means and urges said plate member against the bias of said first resilient means placing said slot in registry with said lug.

2,874,608
MONOCHROMATOR OPTICAL SYSTEM
Edward A. Beloian, Pasadena, Calif.
Application May 17, 1954, Serial No. 430,230
5 Claims. (Cl. 88—14)



1. A spectroscopic device comprising means defining an entrance slit for admitting an entrant beam of radiant energy, a first collimating mirror oriented to receive and reflect the entrant beam of energy, a dispersing element positioned with respect to the first collimating mirror so that a reflected collimated beam from the first mirror impinges upon the dispersing element, a second collimating mirror oriented to receive and reflect a dispersed collimated beam of energy from the dispersing element, and means defining an exit slit positioned to transmit as an emergent beam a portion of the dispersed beam reflected from the second collimating mirror and focussed on the exit slit, said collimating mirrors lying on opposite sides of the plane of dispersion of the dispersing element and one above the other whereby corresponding rays in the entrant and emergent beams travel in substantially the same vertical planes.

2,874,609
MOUNTING ARRANGEMENT FOR SPECTACLE SIDE PIECES
Marcello Ducati, Milan, Italy
Application March 2, 1955, Serial No. 491,594
4 Claims. (Cl. 88—53)



1. A mounting arrangement for mounting a side piece member to a spectacle frame member comprising, in combination, a mounting end portion on one of said members; a mounting end portion on the other of said members; means pivotally connecting said mounting end portions for turning movement thereof about a turning axis between an open spectacle position and a closed spectacle position; cooperating detent means on said end portions tending to hold said end portions in an open spectacle position; cam engaging means on one of said end portions, said cam engaging means having a cam follower surface of a low coefficient of friction; spring bias means for urging said cam engaging means in a direction normal to said turning axis; and cam means on the other of said end portions having a radially facing cam surface engaged by said surface of said cam engaging means during movement of said end portion from open spectacle position into closed spectacle position, said cam surface decreasing, in a plane normal to said turning axis, in radial distance from said turning axis between the point of said cam surface engaged by said cam engaging means in said open spectacle position to the point of said cam surface engaged by said cam

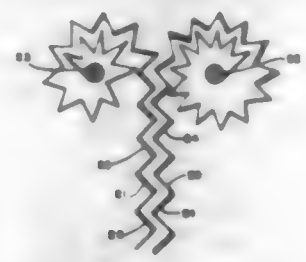
engaging means in said closed spectacle position, whereby upon disengagement of said cooperating detent means said cooperating cam surface and cam engaging means will tend to turn said end portions from their open spectacle position into their closed spectacle position.

2,874,610
LENS RETAINING RING
John R. Wright, Eggertsville, N. Y., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application October 20, 1955, Serial No. 541,566
5 Claims. (Cl. 88—57)



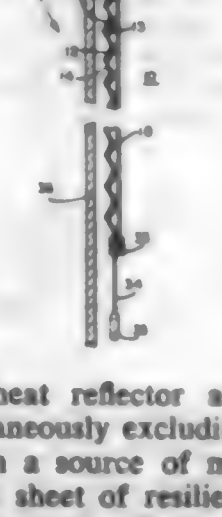
1. In combination a lens mount having a seat in a cylindrical opening therein, a lens seated in said opening and a resilient lens ring initially of generally flat washer-like construction forced into a dished shaped in said opening, said lens ring engaging said lens to retain the same on its seat, said lens ring being initially of slightly larger diameter than said opening and being distorted so that its outer edge portion forcefully engages said cylindrical wall to anchor said lens in position on its seat by being forced into said opening.

2,874,611
COMBINED HEAT REFLECTOR AND LIGHT TRANSMITTER STRUCTURE
Sergius N. Ferris Luboshez, Bethesda, Md.
Application August 13, 1954, Serial No. 449,615
8 Claims. (Cl. 88—60)



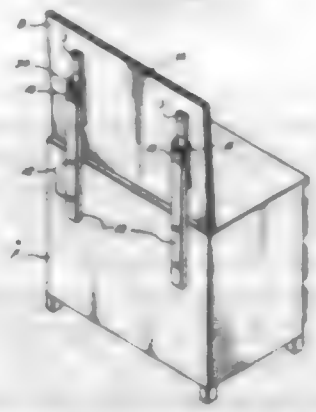
1. A combined heat reflector and light transmitter structure for simultaneously excluding heat rays and for admitting light from a source of mixed radiation comprising a pair of corrugated sheets of resilient, light-transmitting material in generally parallel and closely spaced relation to one another, each sheet having metallic heat-reflecting material on one side only of each corrugation leading to its crest, the other side of each corrugation leading to its crest being light-transmitting, the metallic heat-reflecting material being on the same side of each corrugation leading to its crest, whereby the corrugated sheet forms alternating light-transmitting and heat-reflective bands, at least one side of the metallic material applied to the corrugations being exposed directly to the surrounding atmosphere, the heat-reflective bands extending at an angle to the general plane of the sheet which is sufficiently different from a right angle that heat rays striking said metallic surfaces at a predetermined range of angles from a source above a horizontal plane passing through said surfaces will be reflected away from said surfaces and to the side thereof from which the rays originated, while the alternating light-transmitting bands will transmit light through the sheet, and means mounting said sheets for selective movement relative to one another.

2,874,612
THERMAL INSULATOR
Sergius N. Ferris Luboshez, Bethesda, Md.
Application March 9, 1956, Serial No. 570,640
8 Claims. (Cl. 88—60)



1. A combined heat reflector and light transmitter structure for simultaneously excluding heat rays and for admitting light from a source of mixed radiation comprising a corrugated sheet of resilient, light-transmitting material, metallic heat-reflecting material on one side only of each corrugation leading to its crest, the other side of each corrugation leading to its crest being light transmitting, the metallic heat-reflecting material being on the same side of each corrugation leading to its crest, whereby the corrugated sheet forms alternating light-transmitting and heat-reflective bands, at least one side of the metallic material applied to the corrugations being exposed directly to the surrounding atmosphere, the heat-reflective material extending at an angle to the general plane of the sheet which is sufficiently different from a right angle that heat rays striking said metallic surfaces at a predetermined range of angles from a source above a horizontal plane passing through said surfaces will be reflected away from said surfaces and to the side thereof from which the rays originated, while the alternating light-transmitting bands will transmit light through the sheet.

2,874,613
SUPPORT FOR TILTING MIRRORS
Earl M. Bogar, Jr., Houston, Tex.
Application April 5, 1956, Serial No. 576,368
1 Claim. (Cl. 88—99)



The combination with a mirror and an elongated standard adapted to be secured in an upright position to an article of furniture with the upper end of the standard extending above the article; of a channel shaped connector element, having side walls positioned vertically rearwardly of the mirror on opposite sides of the upper end portion of said standard and at right angles to the plane of the mirror when the mirror is in an upright position and whose bottom wall is formed with a portion extending between said side walls in position for engagement with the top of the standard, said side walls having end portions which are curved away from said bottom wall in the same direction in which the side walls extend from

said bottom wall and means forming a pivotal connection between said end portions and said mirror to support the mirror for vertical tilting movement about an axis parallel to and spaced from said bottom wall.

2,874,614

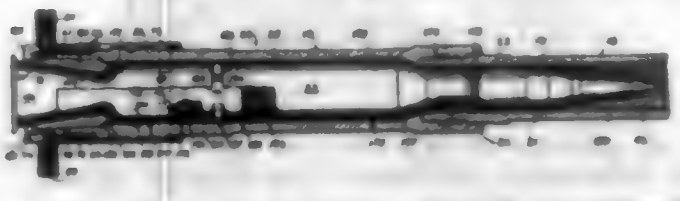
RECOILLESS GUN HAVING RADIALLY MOVABLE BREECH SECTORS

C Walton Musser, Beverly, Mass., assignor to the United States of America as represented by the Secretary of the Army

Original application February 11, 1952, Serial No. 271,856, now Patent No. 2,791,961, dated May 14, 1957. Divided and this application January 14, 1957, Serial No. 634,128

3 Claims. (Cl. 89—1.7)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a recoilless gun having a barrel, an ammunition receiving chamber and means for firing ammunition in said chamber, the combination therewith of: a plurality of breech sectors disposed at the rear end of the chamber concentrically with respect to that chamber and defining a venturi opening, said sectors being simultaneously divergable radially with respect to the chamber; means for supporting said sectors with respect to the chamber; and means for simultaneously moving said sectors radially with respect to the chamber to provide for passage of the ammunition and for securing that round in the chamber.

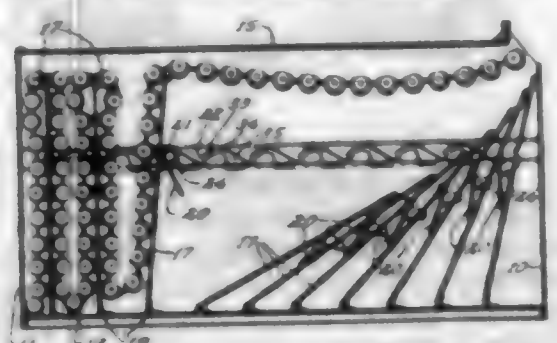
2,874,615

AMMUNITION STORAGE BOX

Ormund A. Kravik, White Bear Lake, Minn., assignor to Nobles Engineering Company, St. Paul, Minn., a corporation of Minnesota

Application March 28, 1955, Serial No. 497,129

6 Claims. (Cl. 89—34)



1. A box for containing an elongated chain of connected elements, the box including a box body having an outlet at one end thereof and a pair of spaced parallel side walls, each side wall being formed with a series of upwardly curving arcuate slots closed at one lower end and open at the other lower end, each side wall being offset below the open ends of said slots to thereby increase the lateral spacing of the walls beneath said slots, a series of upright partitions hingedly connected to the bottom of the box, said partitions being spaced to permit a loop of the chain to be festooned between the pairs of adjacent partitions and said partitions being swingable toward said outlet, a latch plate hinged adjacent its upper edge to the side of each partition facing said outlet, each plate carrying a pair of integral fingers at each side thereof directed toward said outlet and provided with an outwardly issuing pin at the free end of each finger, each pin having a length sufficient to project into one of said slots but short enough to permit the pins to be released from said slots via the open ends thereof without interference from said wall portions beneath the slots, whereby pressure of a chain element against any one of said latch plates holds that latch plate and its pins adjacent the closed ends of their associated slots and hence the partition to which that particular latch plate is hinged in an upright position until said chain element is removed.

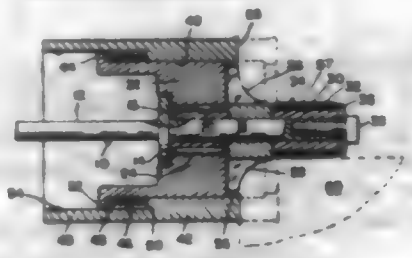
2,874,616

RADIUS AND CHAMFER CUTTER ASSEMBLY

Oliver Vetal Cardinal, Detroit, Mich.

Application February 15, 1954, Serial No. 410,200

3 Claims. (Cl. 90—12)



1. A radius and chamfer cutter comprising a shaft having its inner end shaped to be received in a hand power tool and provided adjacent its inner end with an outwardly facing shoulder, an axial inner bearing having its inner race abutting said shoulder, a cutter carried by said shaft and abutting the outer end of the inner race of said inner bearing, an axial outer bearing having its inner race abutting the outer end of said cutter, means releasably secured to the outer end of said shaft abutting the inner race of said outer bearing and locking said inner races and cutter to said shaft by pressure between said means and said shoulder, said bearings including outer races, a guide provided on the outer race of said outer bearing having a cylindrical guiding surface concentric with said shaft, a second guide comprising a cylindrical shell carried by the outer race of the inner bearing and having an internal diameter greater than the diameter of said cutter, said shell being slidable axially of said shaft between an outer limiting position in which the outer end of said shell completely receives and surrounds said cutter to protect the latter when not in use and an inner limiting position in which said cutter is exposed by said shell for use, the outer end of said shell lying entirely in a plane perpendicular to the axis of said shaft and constituting a guiding surface, stops for determining said positions, the stop for determining the inner limiting position of said shell being adjustable axially of said shaft to vary the portion of the cutter to be exposed, and a spring urging said shell to its outer limiting position.

2,874,617

METHOD OF DRYING WATER-LAID FIBROUS MATERIALS

Lewis W. Eckert, Lancaster Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application June 30, 1955

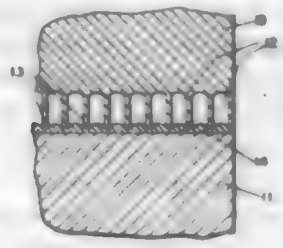
Serial No. 519,256

13 Claims. (Cl. 92—40)

1. In a method of drying a wet fibrous mass in board form to produce an open porous fibrous insulation board, the steps comprising applying directly to the upper surface of said wet fibrous board, in which the pores between the fibers are filled with water, 1.5 to 15 grams per square foot of surface on a dry weight basis of an aqueous acid solution, the effective component of which consists essentially of boric acid, to inhibit discoloration of organic material which is contained in said board and which is subject to objectionable discoloration during drying, said application of the boric acid solution to the wet board resulting in interspersion of the boric acid

solution with the water contained in the board and penetration of the boric acid solution into the body of the board below the upper surface thereof by diffusion into the water contained in the pores between the fibers of the board, and thereafter drying said board by applying heat thereto which elevates the surface temperature at said treated surface above the normal discoloration temperature of said organic material, a minimum temperature of 220° F., to form an open porous insulation board, said boric acid inhibiting said objectionable heat discoloration of said organic material at the treated surface of said board.

2,874,618
CREPED PAPER WITH IMPROVED SOFTNESS AND PROCESS OF MAKING THE SAME
Christen H. C. Yang, Camas, Wash., assignor to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada
Application February 7, 1955, Serial No. 486,545
4 Claims. (Cl. 92—70)

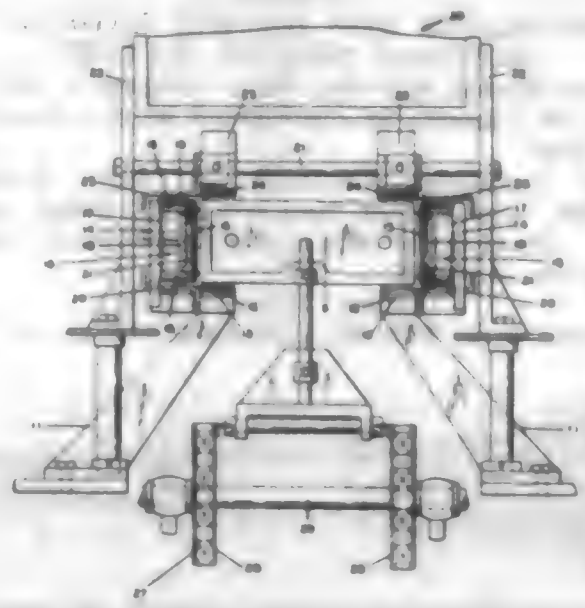


1. The improved process in the manufacture of paper toweling which comprises creping the paper by forming creping wrinkles all extending substantially in the same direction, impressing continuous thin fine lines into one face only of the creped paper, said impressed lines having an angularity of from 30° to 90° with said creping wrinkles, and controlling the pressure with which said thin fine lines are formed in the paper so that said wrinkles will give the general appearance of being unaltered although said impressed continuous fine lines will nevertheless be visible in the finished sheet, whereby the softness and flexibility of the paper will be increased while the caliper and tensile strength will remain substantially unchanged.

3. A sheet of paper of such softness as to be suitable for toweling and like uses, said sheet having creped wrinkles extending substantially all in the same direction and having thin, fine, continuous, substantially parallel lines impressed into one face only of said sheet, said fine lines intersecting said creping wrinkles at an angularity of from 30° to 90° and being visible in said sheet with the creping wrinkles appearing unaltered, said sheet having the tensile strength and caliper substantially unchanged and being characterized by greater over-all softness and flexibility and less surface roughness than the same sheet without said intersecting lines, while having the same tensile strength as creped paper without said intersecting lines.

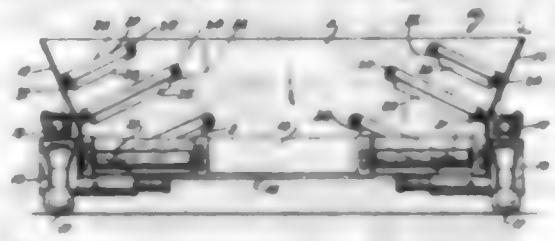
2,874,619
APPARATUS FOR HEAT SEALING CARTONS
Sydney R. Phin, Toronto, Ontario, Canada
Application December 15, 1955, Serial No. 553,374
2 Claims. (Cl. 93—44)

1. Carton forming apparatus for forming cartons from blanks coated with a thermoplastic material having foldable side and end forming panels and end flaps to be folded onto said end forming panels in the completed carton to bring certain of said end flap and end panel surface portions into abutment, said apparatus comprising an endless series of mandrels, means for driving said endless mandrel series, means for folding a carton blank around said mandrel to bring said side and end forming panels into carton forming relation while leaving said end flaps extended, a pair of longitudinal heating units disposed at opposite sides of said mandrels and between which said mandrels are adapted to pass, said heating units having multiple heat radiating surfaces adapted to radiate heat directly onto the surface portions of the extended end flaps and the end panels which are adapted to



abut on folding of the end flaps of a blank disposed on a mandrel between said heating units, means for folding the end flaps of a blank having its side and end forming panels conformed around a mandrel following heating by said heating units, and means for applying pressure to a folded blank on said mandrels following heating and end flap folding.

2,874,620
SPREADER WITH AGGREGATE DESEGREGATING MEANS
Alexander G. Montes, Hasbrouck Heights, N. J.
Application July 11, 1956, Serial No. 597,191
2 Claims. (Cl. 94—44)

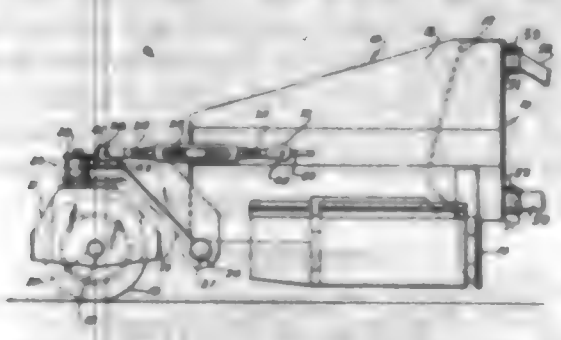


1. In a spreader of the character described, a rollably supported container having side walls and an open bottom and open top, said side walls including a rear wall and opposite side walls connected with the rear wall to form oppositely disposed rear corners, a plurality of baffles at each side secured to said container in fixed relation in front of a rear corner, and said baffles at each side being disposed at different elevations respectively and being of successively increasing length from top to bottom and extending outwardly and downwardly from the rear wall to each of the side walls between points which are increasingly spaced from the corresponding corner for baffles of increasing length.

2,874,621
AGGREGATE SPREADER WITH VERTICALLY AND HORIZONTALLY ADJUSTABLE WHEELS
Alexander G. Montes, Hasbrouck Heights, N. J.
Application July 11, 1956, Serial No. 597,174
2 Claims. (Cl. 94—46)

1. In a spreader of the character described, a container having an open bottom, upwardly directed side frames extending forwardly of the container, a wheel arranged one on each side rollably supporting the forward end of the container, means mounting said wheels to the forward upper ends of said side frames respec-

tively for rolling movement on transversely extending axes and for independent swivel turning movement on vertical axes arranged with the vertical axes disposed forwardly of the transversely extending axes, means pivotally connecting the lower rear ends of said side frames to the forward end of the container for swinging movement of either one of the side frames in a vertical plane for varying the elevation of either one of said wheels, said last mentioned axes including laterally extending shafts journaled in bearings carried by said container in which bearings said shafts are movable from an



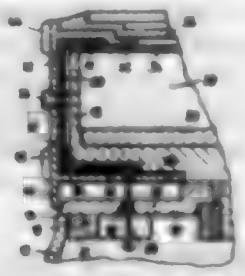
inner position to an outer position for varying the spacing of said wheels, and adjustable turnbuckle means connecting the forward upper ends of said side frames and the upper portion of the forward end of the container for independently swinging either one of said side frames on its pivotal connection with the container for varying the elevation of either one of said wheels with reference to the bottom of the container and for rigidly retaining the wheels in the adjusted elevation to thereby maintain the container in a substantially horizontal relation when the bed on which either one of the wheels travels is at a different elevation than the other.

2,874,622

PHOTOGRAPHIC CAMERA CONSTRUCTION

Kurt Gebele, Munich, Germany, assignor to Hans Deckel, Munich, Germany, and Friedrich Wilhelm Deckel, Zug, Switzerland

Application September 26, 1955, Serial No. 536,583
Claims priority, application Germany October 1, 1954
2 Claims. (Cl. 95—10)



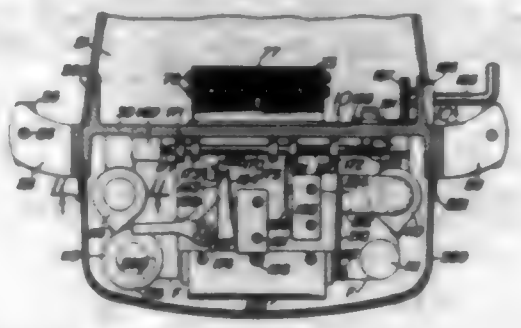
1. A photographic camera comprising a camera body, a photoelectric cell mounted on said body, a meter pointer movably mounted on said body, an electrical circuit connecting said pointer to said cell to be moved in accordance with variations in current from said cell, an objective shutter housing mounting on said camera body, a shutter speed adjusting ring rotatably mounted on said housing, and a diaphragm aperture adjusting ring also rotatably mounted on said housing, characterized by an electrical resistance element extending arcuately on one of said rings, a series of serrations also extending arcuately on said one of said rings in the vicinity of said resistance element, a resilient coupling arm secured to the other of said adjusting rings and engaging resiliently in any selected one of said serrations to couple said two adjusting rings to each other so that when either one of them is manually turned, the other one will normally turn with it, and a contact slider carried by said coupling arm and making electrical contact with said electrical resistance element at a variable point depending upon the adjusted position of said arm with respect to said serrations, said resistance element and said slider being operatively connected in said electrical circuit so as to vary the resistance of said circuit when said coupling arm is shifted to a different position with respect to said serrations.

2,874,623

MESSAGE REGISTERING CAMERA

Archie H. Gorey, Irondequoit, N. Y., assignor to Graflex, Inc., Rochester, N. Y., a corporation of Delaware

Application August 27, 1952, Serial No. 306,571
7 Claims. (Cl. 95—11.5)



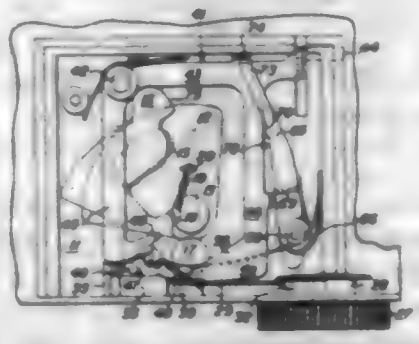
4. A photographic camera having an exposure aperture, a rotatable film supply spool mounted at one side of said aperture, a rotatable film take-up spool mounted at the other side of said aperture, a rotary measuring spool over which the film passes in its movement from supply spool to take-up spool, said spools having parallel axes, an electric motor for driving both said take-up spool and said measuring spool, a manually operable trigger, a rectilinearly reciprocable control member, said control member being reciprocable in a direction at right angles to the axes of said spools, means connecting said trigger to said control member to move said control member rectilinearly in one direction on actuation of said trigger, means constantly urging said control member in the opposite direction, a movable lock member for locking said measuring roll against rotation, means constantly urging said lock member to locking position, means connected to said control member to release said lock member on movement of said control member rectilinearly in said one direction, means carried by said control member to start said motor on movement of said control member rectilinearly in the opposite direction, means preventing the lock member from returning fully to locked position until said measuring roll has made a complete revolution, and means for stopping said motor when said lock member is in locking position.

2,874,624

DOUBLE EXPOSURE PREVENTION DEVICE

Edgar S. Marvin and Robert F. O'Brien, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

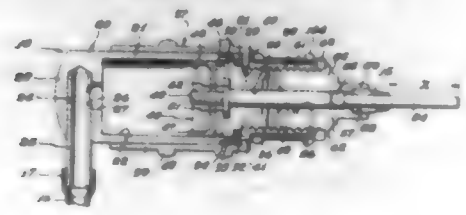
Application December 16, 1955, Serial No. 553,632
12 Claims. (Cl. 95—31)



1. In a camera, the combination with a film winding knob, of a shutter comprising a shutter plate, a shutter blade and a shutter blind arranged in overlying relation and rockably mounted on said plate, means yieldably connecting said blind to said blade so that rocking of said blind in one direction similarly moves said blade to tension the latter, means for connecting said blind

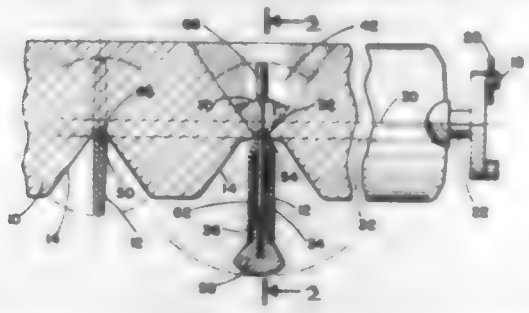
releasably to said knob so that actuation of the latter to wind film moves said blind and blade in said one direction, a shutter actuating trigger, cooperating means on said trigger and blind to hold said blade in tensioned relation, and means actuated by said trigger to move said holding means out of holding relation to permit the tensioned blade to move in the opposite direction to make an exposure.

2,874,625
ADJUSTABLE PNEUMATIC CONTROL DEVICE FOR CAMERA SHUTTERS
Karl Wolfgang Thalhammer, Sunland, Calif.
Application April 26, 1956, Serial No. 580,843
3 Claims. (Cl. 95—54)



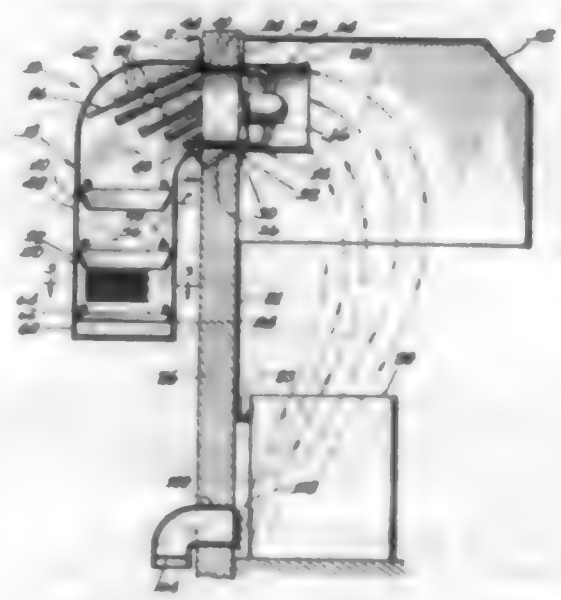
1. A pneumatic control device for a camera shutter comprising, in combination: a cylinder means provided with a chamber having an open end and an inlet port at the other end in communication with a closed system of actuating fluid; a removable cylinder head received within said open end for closure thereof and provided with external threads extending beyond said cylinder means and with a throughbore; a retaining ring for said cylinder means and said cylinder head; a piston head movable within said chamber and having a plunger pin extending through said bore; an elongated sleeve member telescopically received over the cylinder means and provided with internal threads engaging the external threads on said cylinder head, said sleeve member extending beyond said head; means to hold said sleeve member and said cylinder means against relative rotation in assembly; an adjustment nut threadedly connected to the extension of said sleeve member and having means at one end for connection to a camera, an auxiliary floating plunger pin slidably carried by the adjustment nut in axial alignment with the piston plunger pin and adapated to be contacted thereby; and means for locking the adjustment nut in selected position.

2,874,626
ACTUATOR FOR LOUVER SLATS
Adam D. Goettl, Phoenix, Ariz.
Application June 19, 1957, Serial No. 666,528
9 Claims. (Cl. 98—40)



1. In an actuator for louver slats the combination of: a plurality of first pivoted slats in spaced parallel relation to each other; first linkage pivotally interconnecting said slats for pivotal action in unison with each other; a plurality of second pivoted slats in spaced parallel relation to each other; second linkage pivotally interconnecting said second slats for pivotal action in unison with each other; said first slats having substantially V-shaped notches; said second slats having substantially V-shaped notches intersecting and meshing with the V-shaped notches of said first slats; one of said first slats having a substantially V-shaped first slot therein; said V-shaped slot converging inwardly from one edge of said first slat and communicating with one of said V-shaped notches which diverges to the opposite edge of said first slat; one of said second slats having a second V-shaped slot therein, said second V-shaped slot converging inwardly from one edge of said second slat and communicating with one of said V-shaped notches therein which diverges to the opposite edge of said second slat; said V-shaped slots extending longitudinally of and enclosed by the sides of the respective slats; said first and second slots communicating with each other at the convergence and meshing juncture of said notches in said first and second slats; and an actuator member slidably positioned in both said first and second slots whereby said actuator member may be pivoted in several directions within said slots to actuate and pivot said first and second slats within the angular limits of the V-shaped notches therein.

2,874,627
EXHAUST SYSTEM
Francis L. Simmonds, De Kalb, Ill.
Application September 3, 1954, Serial No. 454,153
7 Claims. (Cl. 98—115)

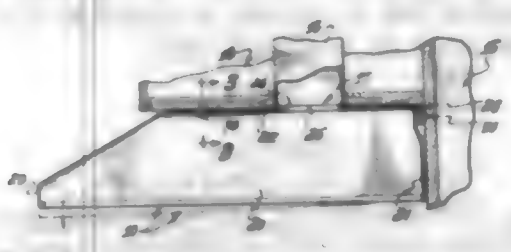


1. A system for exhausting contaminated air from a room or the like comprising duct means extending from a point within a room through a wall to the exterior of the room, fan means disposed within the duct means for moving air from the room through the duct means, additional duct means communicating with the outlet end of said first mentioned duct means and disposed for extending downwardly therefrom adjacent an exterior surface of said wall, receptacle means connected with and substantially closing a lower end portion of said last mentioned duct means for receiving contaminating material from the air being exhausted, said last mentioned duct means having lateral air outlet means adjacent to and above said receptacle means, and baffle means associated with said last mentioned duct means for directing air emerging from said outlet means in a predetermined manner away from said wall.

2,874,628
REMOVABLE VENTILATING HOOD CONSTRUCTION
Ralph Pryne, Pomona, Calif., assignor, by mesne assignments, to Emerson-Pryne Company, Pomona, Calif., a corporation of Delaware
Application May 9, 1955, Serial No. 506,737
3 Claims. (Cl. 98—115)

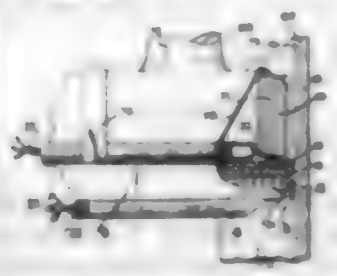
1. A ventilating hood construction for use in conjunction with a building structure provided with an outlet duct, comprising a hood having a relatively flat top wall, side panels and a substantially vertical rear wall, said top

wall including an inclined front portion, one of said walls having means providing an opening for mating engagement with said duct, fastening means on a vertical surface of a juxtaposed building structure for detachably



supporting said rear wall in relation to said juxtaposed portion of said building structure, and said top wall being provided with an aperture for the reception of a screw for securing the top wall in juxtaposition to a relatively forward opposed portion of said building structure.

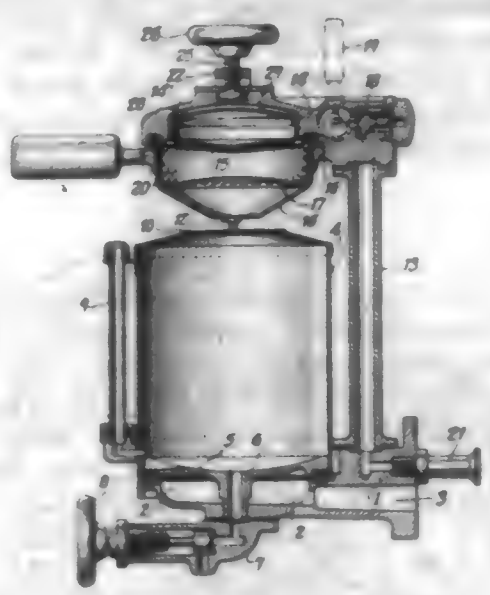
2,874,629
COFFEE EXTRACTING APPARATUS
Mortimer J. Kahan, New York, N. Y.
Application December 21, 1955, Serial No. 554,452
1 Claim. (Cl. 99—298)



In combination, an invertible cylindrical vessel for coffee and water, a plurality of strainers fitting the interior of said vessel in units above and below the coffee and slidable within said vessel, girthwise detachable band retainers disposed in part around said strainers, the edges of each of said band retainers gathered above and below each unit of said strainers to removably secure said strainers in said retainers and to hold said strainers together as a unit and packing the periphery of said strainers against leakage between said strainers and the walls of said housing, and spider devices associated with each band retainer, each device including an annular body with spaced openings therein and substantially C-shaped spring clips having their ends removably engaging the edge walls of the openings and the adjacent edges of the band retainers.

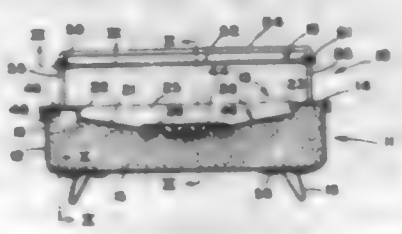
2,874,630
APPARATUS TO MAKE COFFEE IN LARGE QUANTITIES TO BE ADAPTED ON THE BOILER OF A COMMON COFFEE PERCOLATOR FOR BARS, SPECIALLY FIT FOR HOTELS AND THE LIKE
Ernesto Valente, Milan, Italy
Application August 3, 1956, Serial No. 601,946
Claims priority, application Italy November 19, 1955
3 Claims. (Cl. 99—307)

1. A coffee making attachment for conventional coffee boilers, said attachment including a hollow bracket adapted to be connected with the boiler, said bracket having a cup-like end portion having an upper rim, a vessel supported by said end portion for storing the finished coffee, said vessel having a bottom resting on and being steam-tightly fitted on said upper rim, means connected to and connecting the interior of said cup-like end portion for steam flow through said bracket with the steam space of the boiler, a pipe extending upwardly from said bracket and having a lower end connected for hot water flow through said bracket with the water space of the boiler, a hollow arm horizontally extending from and closing the upper end of said pipe, said arm having a bell-like end portion having a lower rim placed above said vessel, the interior of said bell-like end portion communicating through said hollow arm with said pipe, and a funnel having an upper rim removably water-tightly



connected with said lower rim, and infusion means placed in said funnel for receiving hot water from said bell-like portion and discharging finished coffee through said funnel into said vessel.

2,874,631
CHARCOALER
Ralph D. Cooksley, Kalamazoo, Mich.
Application February 14, 1956, Serial No. 565,495
6 Claims. (Cl. 99—400)

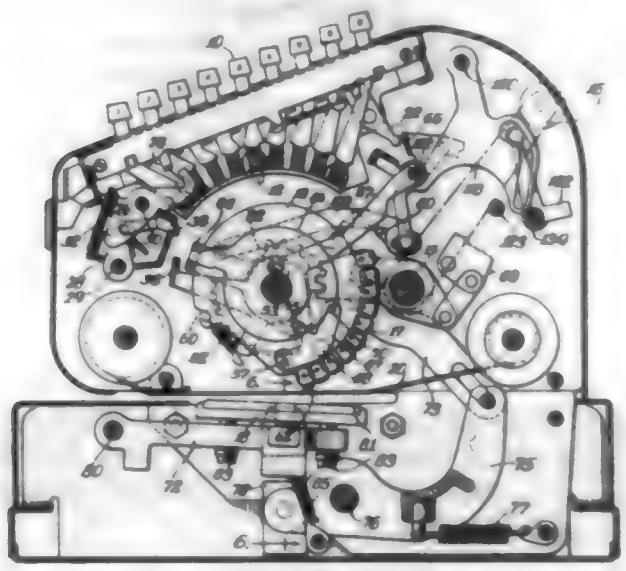


1. A food cooking device, comprising: an upwardly opening receptacle having support means and a bottom wall; a plurality of elongated, substantially parallel recesses in the upper surface of said bottom wall; a plurality of elongated heating elements, one being disposed within, and spaced from, the side and bottom walls of each said recess; a plurality of elongated hood members, each of said hood members substantially covering the upper surface of each said heating element, said hood members being spaced from, and cooperating with, the walls of said recesses to form a vaporizing zone adjacent each said heating element; and a food supporting platform mounted upon said receptacle above said hood members.

2,874,632
CHECK PRINTING AND PUNCHING MACHINE
William F. Collins, Flossmoor, Ill.
Application June 22, 1955, Serial No. 517,345
8 Claims. (Cl. 101—19)

1. A printing and perforating machine including in combination, a plurality of rotatably mounted printing members, a platform adapted to move toward said printing members and to bear an article to a printing position in cooperation with said printing members, means for causing rotation of said printing members to selected positions and for moving said platform and the article to the printing position, a plurality of slidable punch members disposed in the path of the article on said platform, said punch members being freely movable in unison with said platform when engaged by the article as

the same moves to the printing position and being adapted to perforate an article in printing position when said punch members are restricted in movement, a series of stop bars, one associated with each printing member, said stop bars being slidably mounted with respect to said punch members and adapted to slide transverse of the path of the platform, said stop bars having lug portions engageable with different ones of said punch members in different slidable positions of said stop bars for restricting movement of punch members in accordance with respective positions of said printing members, a plate member disposed between said punch members and said platform and having apertures through which said punch members may extend, said plate member being spring biased toward said platform so the same bears against the article in printing position, and linking means operatively joining said printing members and said stop bars for moving said stop bars in correspondence with said printing members thus restricting movement of a punch member to perforate an article as the same moves to the printing position.

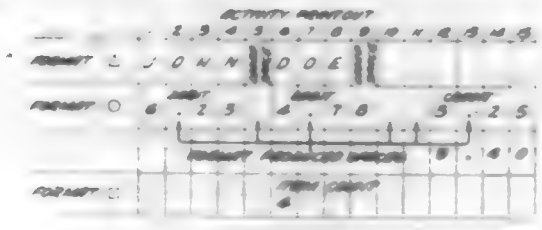


2,874,633

PRINTER FORMAT CONTROL SYSTEM

Jacob Goldberg and Bonnar Cox, Palo Alto, Calif., assignors, by mesne assignments, to General Electric Company, New York, N. Y., a corporation of New York

Application February 5, 1957, Serial No. 638,407
6 Claims. (Cl. 101—93)



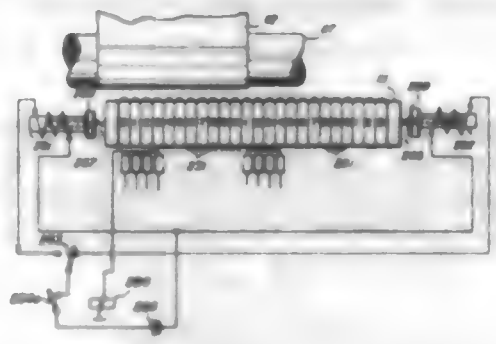
1. A format-control system for printing data derived from a source, said data consisting of different kinds of items, each kind being identified by a symbol, said printer having columns of type on a rotating drum periphery, a plurality of solenoid-actuated print hammers, a printing position at which a line may be printed, and means to indicate the type on said drum at said printing position, said format-control system comprising a plurality of storage registers, each of which is assigned to hold items for printing at a different portion of a line, means responsive to a symbol from said source identifying items of data from said source to enter said items of said data into different ones of said registers in accordance with predetermined line position assignments, a plurality of means for energizing the solenoids of said print hammers, and means for selectively coupling each of said means for energizing to a different one of said solenoids responsive to the identifying symbol of an item entered into a register to establish the arrangement of said item on a printed line.

2,874,634

PRINTING APPARATUS

Theo Hense, Wilhelmshaven, Germany, assignor to Olympia Werke A. G., Wilhelmshaven, Germany

Application February 14, 1957, Serial No. 640,102
Claims priority, application Germany February 14, 1956
28 Claims. (Cl. 101—93)



1. In a printing apparatus controlled by a storage unit having at least one register, and comprising rows of character bearing types and a printing surface, supporting means for said printing surface, and means for effecting a relative displacement between said rows of character types and said printing surface line by line with regard to each other, selection of the types to be printed being made successively in each line with the aid of a relative displacement between said type rows and said printing surface at right angle to said line by line displacement, the combination of at least one type set carrier bearing at least one complete set of all character types in a random sequel, which types form a substantially straight lined row in a direction parallel to the text lines to be printed, drive means for relative displacement between said supporting means and said type set carrier with regard to each other, and a group of type actuating means in a determined position relative to said supporting means and adapted to actuate, dependent upon control by said storage unit, one single type in certain positions of said type set carrier confronting said printing surface, several types simultaneously in certain other positions, and no types at all in yet other positions of said type set carrier relative to said printing surface, so that a complete text line is printed in one course of said type set carrier and printing surface past each other independently of the direction of relative travel of said carrier and surface, during which course the length of relative travel is maximally equal to the product of the number of one less than all the different character types multiplied by the type spacing in the type row.

2,874,635

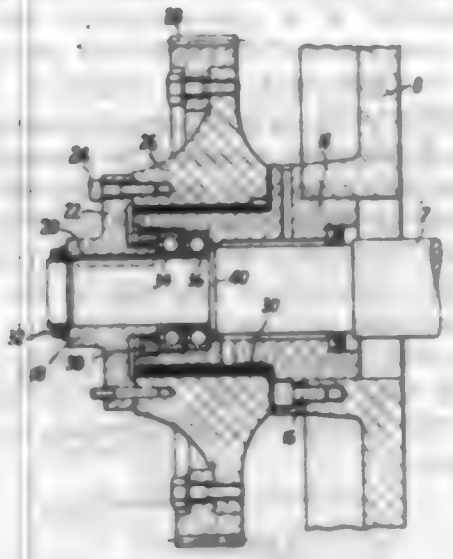
JOURNAL FOR PRINTING CYLINDER

Robert Reinartz, Augsburg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg, A. G., Augsburg, Germany

Application January 17, 1956, Serial No. 559,685
Claims priority, application Germany February 11, 1955
1 Claim. (Cl. 101—216)

A bearing for an intermediate cylinder of a two-color offset printing press having a press frame, a sleeve bearing mounted in said frame and having a portion extending transversely beyond and in a direction outside said frame and secured against axial movement, a cylinder shaft journalled in said sleeve bearing, grooved-roller

bearing means for securing said shaft from axial movement in said sleeve bearing, a cylinder drive gear journalled on the extending portion of said sleeve and means joining said shaft to said gear.

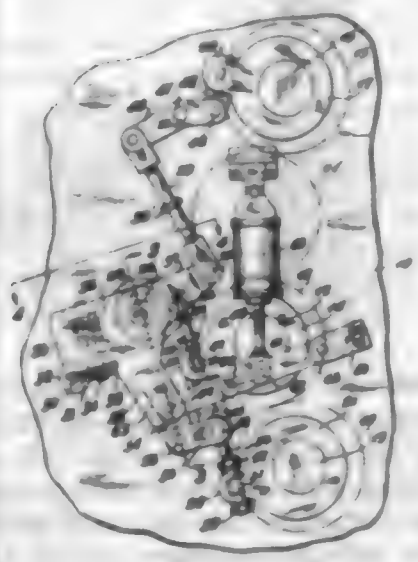


2,874,636

CYLINDER THROWOFF FOR ROTARY OFFSET MACHINE

Arthur G. Royer, Cleveland Heights, and William J. Thompson, Cleveland, Ohio, assignors to Harris-Intertype Corporation, Cleveland, Ohio, a corporation of Delaware

Application September 25, 1953, Serial No. 382,381
20 Claims. (Cl. 101—218)



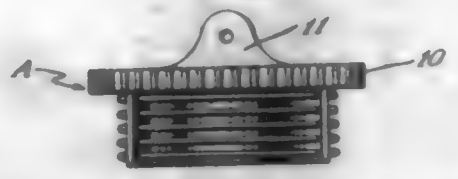
1. In a rotary offset printing press, an impression cylinder, a blanket cylinder in printing relation with said impression cylinder, a plate cylinder disposed on the side of the blanket cylinder remote from said impression cylinder, eccentrics in which said blanket and plate cylinders are rotatably mounted, said eccentrics having corresponding eccentricities and throw arms, a lever mounted on a fixed pivot disposed alongside said blanket cylinder, and mechanism comprising a link connecting said lever and the eccentric for said blanket cylinder and comprising connecting means between said link and the eccentric for said plate cylinder, said mechanism being operative when said lever is turned in one direction to throw said blanket cylinder off from said impression cylinder and simultaneously to throw said plate cylinder off from said blanket cylinder, said mechanism comprising means for adjusting the pressure between said impression and blanket cylinders while maintaining unaffected the pressure between said blanket and plate cylinders.

2,874,637

CODING DEVICE

John J. Grevich, New Richmond, Wis., assignor to Douglas Industries, Inc., St. Croix County, Wis., a corporation of Wisconsin

Application February 16, 1955, Serial No. 488,690
6 Claims. (Cl. 101—377)



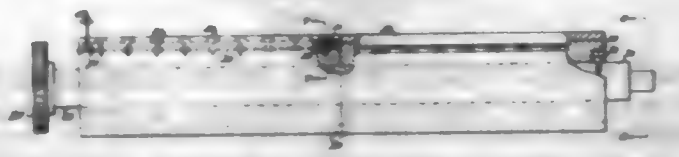
5. A printing roller including a roller body including a generally cylindrical sleeve, angularly spaced grooves in the outer surface of said sleeve extending longitudinally thereof, ribs mounted in said grooves and extending in a generally radial direction, said ribs having spaced apertures therein, and a helical wire encircling said sleeve and held in spaced relation thereto by said ribs, said coil extending through said apertures.

2,874,638

ROLLING CONTACT PRINTING FORM LOCKING DEVICE

Herbert J. Lowe, Galesburg, Ill.

Application May 20, 1954, Serial No. 431,097
1 Claim. (Cl. 101—378)



In a rotary printing press, in combination, a shaft, a first cylinder fixedly mounted on said shaft, a second cylinder rotatably mounted between determined limits on said shaft, a lug on said shaft limiting rotation of said cylinder, said second cylinder having an axial cylindrical bore and a wide arcuate recess, said lug engaging in said recess, said lug permitting the locking elements of the two cylinders to be aligned in one position of the lug in the recess and offset in the other position of the lug in the recess so that one or more type forms may be slidingly inserted onto the cylinders from one end thereof, a longitudinal line of upstanding locking elements in each cylinder to engage in the slot of one or more type forms, said locking elements comprising threaded locking bolts of truncated cone shape for engaging the type form, the shanks of the bolts having a gear section, a gear operator in each cylinder engaging said gear sections for tightening and loosening said locking elements, said operators being located under the surface and extending longitudinally of the form cylinders and in mesh with the gear sections of said locking bolts.

2,874,639

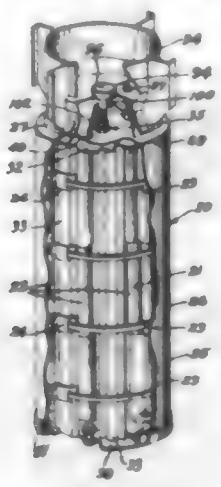
AIMABLE BOMB CLUSTER ASSEMBLY AND ADAPTER AND RELEASE MECHANISM THEREFOR

George H. Cardiff, San Mateo, Calif., assignor to Fraser & Johnston Co., San Francisco, Calif., a corporation of California

Application May 21, 1954, Serial No. 431,519
15 Claims. (Cl. 102—7.2)

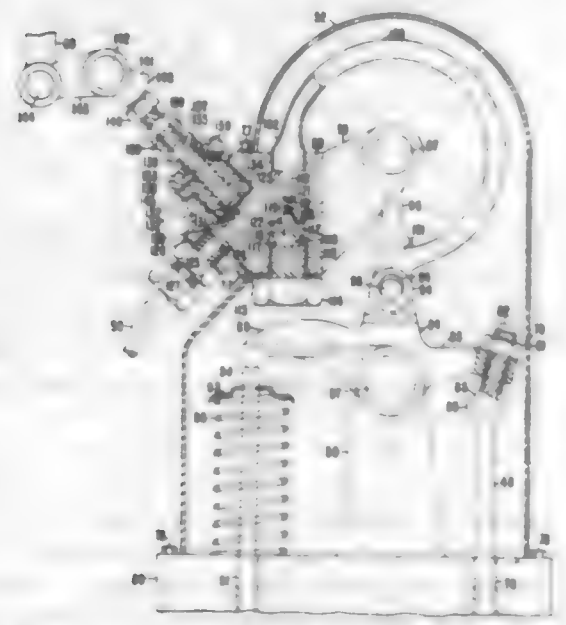
1. In a bomb cluster having a casing having a rear end wall, a bomb package in said casing, and a casing closure member that normally seals said casing airtight, the combination therewith of: a locking shaft secured to said package and extending out through said rear end wall of said casing; latching means engaging a portion of said locking shaft and preventing relative movement therebetween; drag-producing means; a lost-motion connection

between said drag-producing means and said casing; retainer means connected to said drag-producing means and normally holding said latching means in engagement with said shaft; and release means for disconnecting said retainer means from said latching means and actuable by said drag-producing means upon the production of drag



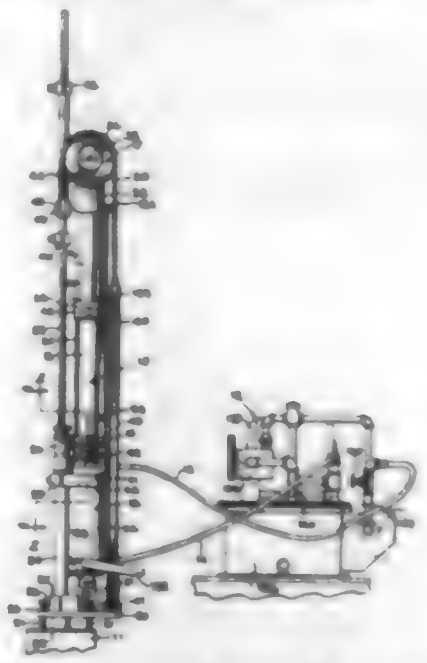
thereby prior to the transmission of the drag to said casing through said lost-motion connection, whereupon said latching means is released from said locking shaft, so that said locking shaft and said package and closure member part from said casing, latching means, and drag-producing means by being freed from the drag thereon.

2,874,640
PUMP
Herbert Henry Vickers, Union, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application March 11, 1954, Serial No. 415,563
3 Claims. (Cl. 103—37)



1. A pump of the character described adapted to intermittently discharge a definite amount of liquid therefrom which comprises a mounting block, an arcuate tube closed at one end and open at the other end, the open end of said tube being secured to said mounting block, an arm pivotally mounted on said mounting block at a position substantially coinciding with the center of the arc of said tube, the closed end of said tube being secured to said arm, means for turning said arm about its pivot, a source of liquid, said mounting block being provided with an inlet passageway which communicates at one end with the open end of said tube and which communicates at its other end with said source of liquid, said inlet passageway being provided with check valve adapted to permit passage of liquid into the interior of said tube through said inlet passageway at a predetermined liquid pressure in said tube and adapted to prevent liquid passing from the interior of said tube back to said source of liquid, said mounting block being also provided with an outlet passageway which communicates at one end with the open end of said tube, and at the opposite end with a spring loaded valve adapted to permit discharge of liquid from said tube through said outlet passageway at a predetermined liquid pressure in said tube and adapted to close said passageway after said liquid is discharged, said mounting block being further provided with a passageway communicating at one end with the interior of said tube through said outlet passageway, a diaphragm arranged with one side across the other end of said passage in fluid-tight relation therewith, said mounting block being further provided with a chamber bounded on one side by the side of said diaphragm opposite said passage, a piston disposed in said chamber and adapted to be positioned at a variable distance from said diaphragm, means for changing the position of said piston in said chamber in relation to said diaphragm.

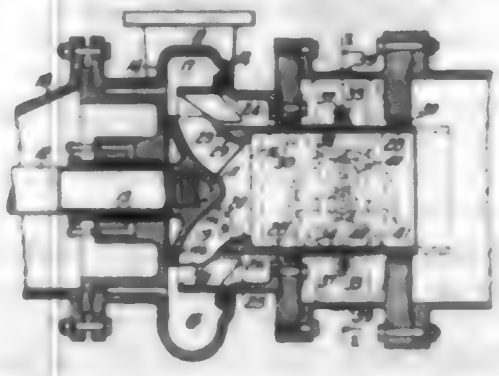
2,874,641
PUMP JACK
Albanis P. McCandlish, Cincinnati, Ohio, and William T. Tallon, Fort Thomas, Ky., assignors to Recovery Oil & Gas Co., Inc., Cincinnati, Ohio, a corporation of Ohio
Application April 25, 1955, Serial No. 503,736
8 Claims. (Cl. 103—46)



1. A hydraulically operated pump jack for an oil well having a casing at the head thereof and an adapter tube on the casing surrounding the polish rod of the string of rods depending into said well, said adapter tube providing an exit for production oil, said pump jack comprising a power cylinder, a valve block including a valve to control the flow of hydraulic fluid to and from said cylinder, a heat exchanger assembly, said cylinder, valve block and heat exchanger assembly being aligned vertically with the power cylinder above the valve block and with the heat exchanger assembly below the valve block, a piston within the power cylinder, a piston rod extending vertically upwardly from said power cylinder, a sprocket wheel assembly mounted upon the upper end of said piston, means to mount said pump jack directly upon said casing adjacent to said adapter tube, means to clamp said pump jack to said adapter tube, the means mounting said pump jack upon the casing including a pivot pin to carry the pumping load, a chain engaged over the sprocket wheel assembly and having one end thereof attached to the polish rod and having the opposite end thereof anchored to the means mounting the pump jack upon the casing, the point of attachment of the chain connector to the mounting means being at the side of the heat exchanger assembly opposite the adapter tube and being spaced from the pivot pin an amount

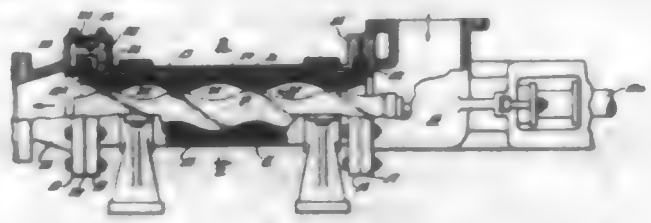
equal to the spacing between said pin and the vertical axis of the polish rod, whereby upon introduction of fluid pressure into said cylinder the pumping load is balanced between the two vertical runs of the chain and the polish rod is lifted at a rate which is in the ratio of 2 to 1 with respect to the rate the cylinder is moved upwardly.

2,874,642
ADJUSTABLE BYPASS VALVE
Frank R. Forrest, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application October 5, 1955, Serial No. 538,990
9 Claims. (Cl. 103—97)



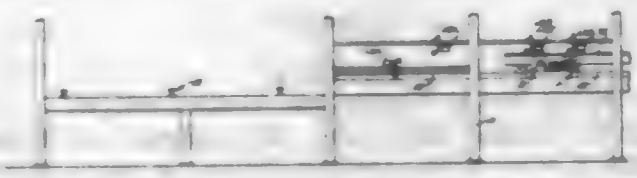
1. A variable flow centrifugal pump comprising, in combination, a housing having wall structures forming a fluid confining chamber, said wall structures cooperating to form an outlet for discharging fluid from said pump, two open ended generally cylindrical wall members reciprocally mounted in said wall structures to form a first and a second inlet axially spaced from each other for the admission of fluid into said chamber, a double suction impeller member rotatably mounted in said chamber and comprising a hub portion, a first set of blades cooperating with one end of said hub portion to define a first intake for receiving fluid to be pumped, said first intake axially facing said first inlet, a second set of blades cooperating with the other end of said hub portion to define a second intake for receiving fluid to be pumped, said second intake spaced from said first intake and axially facing said second inlet, a first wall portion merging with said one end of said hub portion to jointly present a first surface extending from the innermost point of fluid flow of said impeller adjacent said first inlet to the periphery of said impeller, a second wall portion merging with said other end of said hub portion and said first wall portion to jointly present a second surface extending from the innermost point of fluid flow of said impeller adjacent said second inlet to the periphery of said impeller, said first set of blades joining with said surface to form a single set of fluid impelling passages extending between said outlet and said first inlet, said second set of blades joining with said second surface to form a single set of fluid impelling passages extending from said outlet to said second inlet, said impeller member and opposing wall structures defining therebetween a first and a second fluid return passage, said first fluid return passage hydraulically connecting said outlet to said first intake for recirculating fluid through said impeller, said second fluid return passage hydraulically connecting said outlet to said second intake for recirculating fluid through said impeller, said fluid return passages being of sufficient capacity to absorb substantially the entire discharge of fluid through said outlet, means for moving said wall members in unison axially relatively to said impeller member, one of said wall members having its inner end coacting with said impeller to vary the extent of axial communication between said first fluid return passage and said first intake, the other of said wall members having its inner end coacting with said impeller for varying the axial extent of communication between said second fluid return passage and said second intake.

2,874,643
HELICAL GEAR PUMP WITH STATOR COMPRESSION
John David Bourke, Springfield, Ohio, assignor to Robbins & Myers, Inc., Springfield, Ohio, a corporation of Ohio
Application October 15, 1957, Serial No. 690,241
5 Claims. (Cl. 103—117)



1. In a helical gear pump having an externally helically threaded rigid rotor, an internally helically threaded stator of resilient material pumpingly coacting therewith, and a rigid casing element within which the said stator is retained; said casing element being relieved internally over substantially its entire length to provide a fluid chamber of substantial angular width external to said stator and extending substantially the entire length of said stator, reinforcing means for said stator extending throughout its length and to an angular width greater than the said chamber in the region exposed to said chamber, and means for applying fluid pressure to said chamber.

2,874,644
MOVABLE TABLE RUN-OUT AND RETURN APPARATUS
Charles A. Bonner, Ford City, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application September 7, 1954, Serial No. 454,433
4 Claims. (Cl. 104—48)



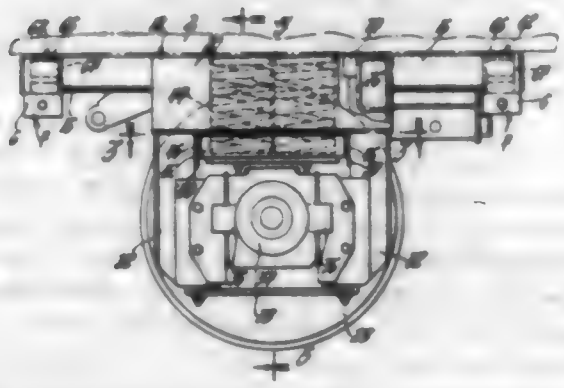
1. A grinding and polishing line having a track in the grinding and polishing line having a grinding and polishing portion towards one end, first and second transfer tracks perpendicular respectively to said first mentioned track at the ends thereof, a return track spaced apart from and generally parallel to said first track and having said transfer tracks respectively at each end thereof, cars on said tracks, and a transfer locomotive on each transfer track for transferring cars on the first track to the return track and from the return track to the first track, the improvement comprising individual car drive units spaced along said first track between the grinding and polishing portion thereof and the first transfer track for contacting and propelling each car as it passes thereby only to a subsequent drive unit, the spacing between drive units being greater than the length of a car, control means for each drive unit spaced along said first track for actuation by the cars with each control unit being spaced from the drive unit it controls and the successive drive unit in the direction of the movement of the cars, said drive units being rendered inoperative by the presence of a car at a successive control unit for that drive unit, whereby as cars are moved away from the last of said successive control units, preceding cars are advanced step by step always in spaced apart relation without contacting or butting one another.

2,874,645
RAILWAY SKATE
Samuel Jones Beck, McLouth, Kans.
Substitute for abandoned application Serial No. 461,489, October 11, 1954. This application September 15, 1958, Serial No. 762,195
9 Claims. (Cl. 104—260)



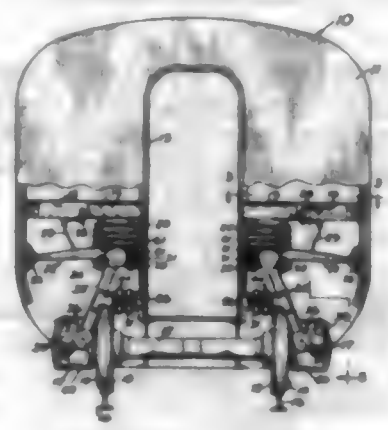
1. In a skate for use as a brake beneath a railroad car wheel, a skid bar adapted to receive the wheel in supporting relationship thereto and to slide along a rail for said wheel while supporting the latter; a releasable rail clamp having a pair of opposed jaws; an upstanding abutment rigid to the bar between the jaws and disposed for engagement by said wheel when the latter is resting on the bar, said jaws engaging opposite sides of the abutment for vertical sliding movement therealong, and being provided with means normally disposed below the level of said skid bar in engagement with the sides of the rail; spring means interconnecting the jaws for holding the same in said engagement with the abutment and the rails, said abutment being provided with vertical guide means for said jaws; means on the jaws engaging in said guide means for restraining the jaws to vertical movement along the abutment upon engagement of said jaws with obstructions along the rail such as to raise the jaws above the normal rail-engaging position thereof while the bar skids along the rail, carrying the wheel; and hook means on the abutment disposed to receive the jaws as they move to the uppermost ends of their paths of travel.

2,874,646
RAILWAY VEHICLE SUSPENSION
William F. Holin, Riverside, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 26, 1955, Serial No. 530,789
7 Claims. (Cl. 105—171)



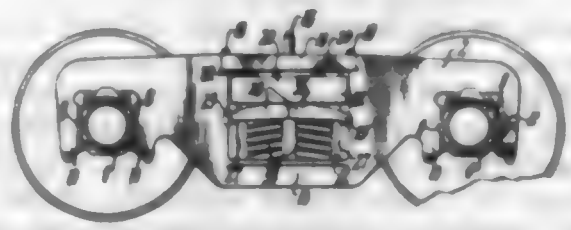
1. In combination with a railway vehicle underbody having longitudinally separated laterally extending substantially vertical surfaces depending therefrom, a truck frame assembly having laterally extending surfaces substantially parallel to and cooperating with said longitudinally separated surfaces to allow lateral and prevent longitudinal movement of said frame assembly relative to said underbody, and helical coil springs interposed between said underbody and said frame assembly having their opposite ends anchored thereto tending to return said frame assembly to a centered position relative to said underbody when displaced laterally with respect thereto.

2,874,647
LATERAL MOVEMENT CONTROL
James E. Candlin, Jr., Lansing, Ill., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application March 16, 1956, Serial No. 571,866
21 Claims. (Cl. 105—171)



1. A suspension system for use in a railway car for mounting the car body on the axle for vertical and lateral movement with respect thereto, said system including vertically compressible fluid pressurized means attached to said body above said axle, restraining means interconnecting said vertically compressible means with said body to restrain movement of the same longitudinally of said body, biasing means connected to and extending from said vertically compressible means to said axle, said biasing means being limitedly pivotally connected with said axle to normally bias said body into an upright position, laterally compressible fluid pressurized means connected to and acting between said body and said biasing means to normally urge said body into an upright position, and a fluid pressure supply system carried by said body and interconnected with said fluid pressurized means to control fluid pressure carried thereby in response to the weight of said car body.

2,874,648
RAILWAY VEHICLE TRUCK
Richard M. Dilworth, Hinsdale, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 26, 1954, Serial No. 445,866
5 Claims. (Cl. 105—185)



1. In a railway vehicle truck having a truck frame and a load-carrying truck bolster, a bolster helical coil spring seated on said frame, an upper spring seat supported on the upper end of said spring and having an upwardly facing spherical recess therein, a lever arm pivotally supported on said frame and having a downwardly facing spherical ball portion on the underside thereof removed from its point of pivotal support on said frame, said spherical ball portion being received in said spherical recess, an upwardly facing curved surface on said arm supporting said load-carrying bolster for slidable movement thereon, said load-carrying bolster being supported on said surface at points progressively approaching the point of pivotal support of said arm as said bolster moves downwardly under increasing loads whereby the rate of downward deflection of said bolster under increasing loads decreases and the vertical movement of said bolster relative to said frame is damped.

2,874,649
PROCESS FOR PRODUCING CANDIES WITH INSET DESIGNS

Joseph A. Pelletier, Montreal, Quebec, Canada, assignor to Allen-Crawford Limited

Application December 17, 1956, Serial No. 628,750
8 Claims. (Cl. 107—54)

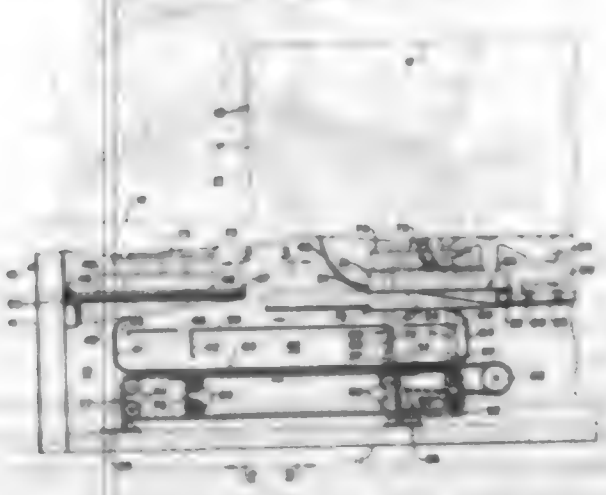


1. A process for producing candy incorporating an inset design, comprising molding a candy core having a cross-section corresponding to but comprising an enlargement of the desired ultimate inset design, intimately surrounding and supporting the candy core with a candy matrix while conforming the periphery of the surrounding matrix to a cylindrical form, and while the candy is in a plastic state, elongating the cylindrical composite candy form formed by the matrix and core to reduce the design cross-section by rolling said composite form first in one direction and then in the other direction to maintain the design configuration on elongation, and subsequently slicing the elongated composite candy form.

2,874,650
LEVEL OVEN UNLOADER

Wayne H. Royer, York, Pa., assignor, by mesne assignments, to Capital Products Corporation, Mechanicsburg, Pa., a corporation of Pennsylvania

Application October 17, 1955, Serial No. 540,667
5 Claims. (Cl. 107—57)

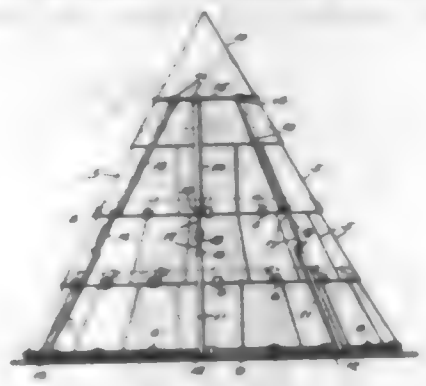


1. A pan unloading device for use with a baking oven of the type having therein an endless traveling conveyor extending longitudinally of said oven and having trays carried by said conveyor including pan supporting shelves of the type having laterally spaced fingers extending longitudinally of the oven, said device including a horizontally disposed take away conveyor extending transversely of said oven and spaced longitudinally of one end of said tray conveyor, said take away conveyor including a plurality of longitudinally extending transversely spaced rollers, a carriage and means for moving and constraining movement of said carriage in a substantially rectangular path along an upper horizontal run from a position beneath a tray at the said one end of said tray conveyor to a position beneath said take away conveyor, along a descending run beneath said take away conveyor, along a lower horizontal run from beneath said take away conveyor to a position beneath a tray at the said one end of said tray conveyor, and along an ascending run beneath a tray at the said one end of said tray conveyor, and said carriage having laterally spaced pickup members projecting upwardly therefrom terminating in a common horizontal plane, said pickup members being of a height and disposed with respect to the fingers of a tray shelf to pass and project upwardly therebetween to lift the pans from said tray shelf on the ascending run of said carriage, and on the horizontal upper run of said carriage being adapted to pass between the rollers of said take away conveyor to supoprt the pans above said take away conveyor, and on the descending run of said carriage to pass downwardly through the spaces between said rollers to a position below the level thereof to deposit the pans on said take away conveyor.

2,874,651
PORTABLE PROTECTING COVER FOR GRAIN IN OPEN FIELD STORAGE

Reuben Peterson, Wessington, S. Dak.

Application March 4, 1955, Serial No. 492,218
1 Claim. (Cl. 108—3)

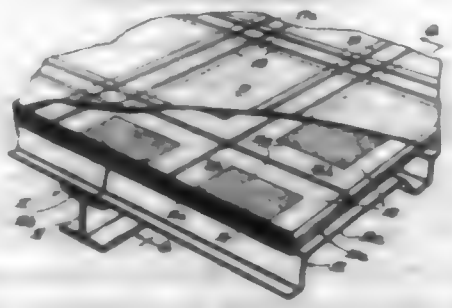


A grain protecting cover comprising a plurality of lower plates disposed in upward convergent relation with their adjacent edges disposed in overlapping relation, said plates being transversely curved, intermediate superposed tiers of curved upwardly convergent plates, clips secured between the plates of adjacent tiers, lower clips secured to the lower edges of said lower plates, a lower ring engaged with said lower clips, an upper cone telescoping over the upper ends of the plates of the upper tier of plates, a ring about said cone disposed at a point intermediate the ends thereof, aligned pairs of connecting bars, each pair of connecting bars being formed with upper and lower hooks, said upper hooks engageable with said upper ring, said lower hooks engageable with the lower edges of said lower plates, right-angularly disposed lugs extending from the confronting ends of said bars, and a turnbuckle connected between each pair of lugs, adapted to draw said connected bars towards each other moving said ring on said cone downwardly over the lower enlarged base of said cone, removably securing said plates of the cover together.

2,874,652
ROOF CONSTRUCTION AND TILE THEREFOR

Allen B. Wilson, Chicago, Ill., assignor to Acme Steel Company, Chicago, Ill., a corporation of Illinois

Application November 2, 1955, Serial No. 544,547
5 Claims. (Cl. 108—6.5)



1. A roof structure comprising, a roof deck, a plurality of tiles supported on said roof deck in side-by-side posi-

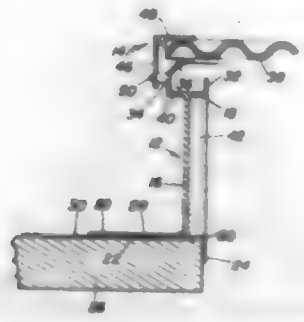
tion, each of said tiles having a resiliently flexible edge portion thereon in abutting contact with the corresponding resiliently flexible edge portion of the next adjacent tile to compensate for expansion of said tiles due to temperature changes, and an elastic, waterproof sealing element bonded to each pair of adjacent tiles and extended across the juncture of their abutting edge portions to render said juncture waterproof, the elasticity of said sealing element accommodating the expansion and contraction of said tiles dues to temperature changes.

2,874,653

SKYLIGHT FRAME CONSTRUCTION

George I. Ratner, Lake Parsippany, N. J., assignor to The Marco Co., East Orange, N. J., a corporation of New Jersey

Application August 23, 1954, Serial No. 451,538
11 Claims. (Cl. 108—16)



1. In a skylight including a curb, a panel and frame construction providing a gutter comprising a gutter bottom supported on and extending along the upper surface of said curb and projecting transversely of its length outwardly of said curb, said gutter having an outer vertical flange extending upwardly from and connected to said gutter bottom outwardly of said curb, said gutter having an inturned flange connected to the upper portion of said outer vertical flange and extending therefrom inwardly and upwardly over said gutter in inclined relation to the horizontal to an upper edge of said inturned flange, said inturned flange being continuous along the length of said gutter to provide a downwardly and outwardly inclined drainage surface on the upper face of said inturned flange and continuous along the length of said gutter, said panel at the edge portion thereof being supported on said upper face of said inturned flange, a frame member extending along said curb and having a vertical leg disposed outwardly of and in spaced relation to said vertical flange of said gutter, and means disposed in spaced relation along the length of said gutter and engaging said vertical flange and said leg to hold said frame member in place in said spaced relation of said leg to said vertical flange, said frame member having a transverse leg connected to said vertical leg thereof and extending therefrom inwardly over the edge portion of said panel to engage and secure said panel in place supported on said upper face of said inturned flange, said gutter providing means adjacent said bottom for draining said gutter outwardly of said curb.

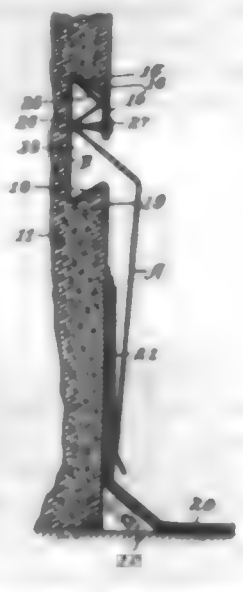
2,874,654

FLASHING

Chester L. McCluney, Los Angeles, Calif.

Application April 16, 1953, Serial No. 349,178
2 Claims. (Cl. 108—26)

1. Flashing comprising a reglet adapted to be secured to a wall and having a drip flange thereon depending therefrom in spaced relation to the wall, a counter-flashing provided with an upstanding shoulder, substantially V-shaped in cross-section, adjacent its upper edge adapted to seat behind the said drip flange, and means for detachably securing said counter-flashing in position behind said drip flange, said means comprising a plurality of screws engaged in a plurality of screw openings in the said drip flange adjacent the bottom edge thereof with the forward



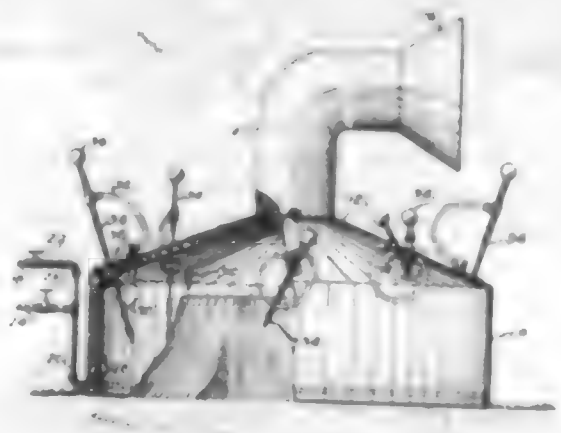
ends of said screws engaging the counter-flashing surface adjacent to but below the shoulder thereon.

2,874,655

METHOD AND APPARATUS FOR REMOVAL OF TREE STUMPS

Norman E. Wolfram, South Deerfield, Mass.

Application July 24, 1957, Serial No. 673,932
5 Claims. (Cl. 110—21)



1. A stump burner comprising a hood-like enclosure having a cylindrical side wall and a frusto-conical top wall with a central vent opening at the top thereof, said walls being lined with refractory material and the side wall having a coiled conduit embedded in said refractory material, an inlet connection at the bottom of said coil for passage of pressurized air to the coil and a plurality of outlet connectors at the top thereof, nozzle outlets respectively joined to the connectors and mounted on said top wall at angularly spaced intervals, said nozzle outlets being directed into the interior of said hood and having swivel supporting means in which said outlets are slidably carried for angularly changing the direction of air blast therefrom.

2,874,656

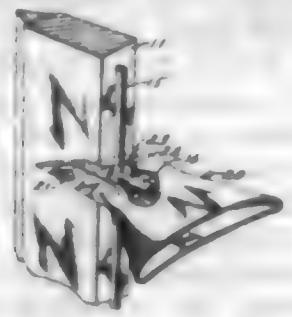
LIQUID FERTILIZER SUBSOIL INJECTOR

Francis W. Bennett, Sikeston, Mo., assignor, by mesne assignments, to Caterpillar Tractor Co., Peoria, Ill., a corporation of California

Application January 17, 1956, Serial No. 559,581
2 Claims. (Cl. 111—7)

1. A fertilizer attachment for the draft beam of an agricultural vehicle comprising a tillage tool to be advanced through the soil, a conduit secured to the tillage tool for conveying liquid fertilizer under pressure, vertically spaced spray nozzles attached to said conduit, and a protective shield with a rearwardly flaring portion of

greater width than the tillage tool attached to said tillage tool in surrounding relationship to each of said spray



nozzles for distributing liquid fertilizer at different levels in the fissures created by said shield below the surface of the soil.

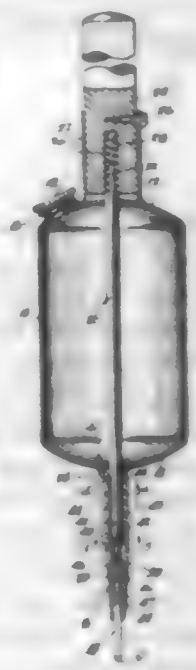
2,874,657
LAWN CONDITIONING TOOL
Walter R. Austin, Seattle, Wash.
Application March 30, 1956, Serial No. 575,177
3 Claims. (Cl. 111—7.1)



1. A lawn conditioning tool comprising a handle of a length enabling its use while standing, formed as a tube, having means for attachment of a hose, a disk fixed to and surrounding its lower end, a bushing inserted and held tightly within said lower end, the bore of said bushing being internally threaded only at its upper end, and smooth-bored from its lower end upwardly throughout the major portion of its length, and a tubular nozzle of an external diameter to fit closely within the smooth-bored lower end of the bushing, and externally threaded at its upper end complementally to the internal threads of the bushing, and threadedly interengaged therewith, for securement of the nozzle in position wherein it projects axially beyond the bushing and disk.

2,874,658
LIQUID INJECTION DEVICE FOR ROOT SYSTEMS
Van T. De Jarnette and Wilbur L. Weems, Baltimore, Md.
Application January 17, 1958, Serial No. 709,518
1 Claim. (Cl. 111—7.3)

A device for injecting a liquid into or adjacent the root system of a plant comprising, in combination with a container: a dispensing nozzle communicating with and extending from said container, the nozzle having an end-to-end axial bore formed with a counterbore extending from the inlet end of the axial bore to a location intermediate the inlet and outlet ends thereof, whereby to define a shoulder at said location; a stem mounted in the nozzle for axial sliding movement between retracted and extended extreme positions, the stem being under spring bias tending to shift the same toward its extended position, said stem including a shoulder intermediate its ends bearing against the first shoulder in the extended position of the stem, the stem including a main portion of the same diameter as the counterbore slidably engaged with the wall of the counterbore and extending through the inlet end of the nozzle, a first reduced-diameter part extending from the main portion to the shoulder of the stem and having a surface spaced from the wall of the counterbore to permit the flow of liquid between said surface and said wall, a second reduced-diameter part extending from the shoulder of the stem to a location spaced from the outer end of the stem, the second part having a surface spaced from the wall of said outer end portion of the axial bore to permit flow of liquids therebetween, a third reduced-diameter part the diameter of which is less than that of the first reduced-diameter part but greater than that of the second part, the second and third reduced-diameter parts extending within the outer end portion of the bore, said third reduced-diameter part being of circular cross

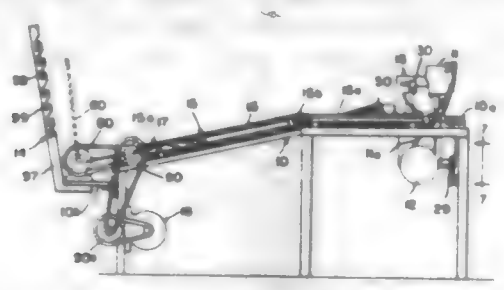


section and being slightly smaller in diameter than the diameter of said outer end portion of the bore to an extent sufficient to permit liquids to flow in an annular column out of the discharge end of the nozzle about said third part, the stem, when in its extended position, having its main portion engaged in and closing the inlet end of the axial bore, its first reduced-diameter part extending wholly in the counterbore, its second reduced-diameter part extending wholly in said outer end portion of the axial bore, and its third reduced-diameter part extending partly within the outer end portion and partly exteriorly of the nozzle beyond the outlet end of the nozzle, the stem when in its retracted position having its main portion wholly retracted within the container from the nozzle, its first reduced-diameter part partly within the container and partly within the counterbore, its second reduced-diameter part partly in the counterbore and partly in the outer end portion of the axial bore, and its third reduced-diameter part partly in the outer end portion and partly exteriorly of the nozzle.

2,874,659
AUTOMATIC SEWING AND HANDLING MACHINE
Charles F. Kehrer, Detroit, Mich.
Application December 12, 1955, Serial No. 552,345
14 Claims. (Cl. 112—10)

1. An automatic machine for sewing and handling manually fed substantially flat flexible workpieces comprising in combination a sewing machine and means operating same, a thread severing device for separating said workpieces, a receiving means for receiving separated sewn workpieces, a conveyor mechanism for carrying

sewn workpieces from said sewing machine and said thread severing device to said receiving means, means operatively contacted by and actuated by successively fed workpieces for automatically starting and stopping said sewing machine operating means, said actuated means operable simultaneously with starting and stopping said sewing machine operating means to respectively automatically remove said thread severing device from and return same to a position contacting successive workpieces preparatory to severing thread, said thread severing device automatically operably coacting with the moving thread sewn on the workpiece independently of said actuated means for cutting a predetermined length of thread tail on the trailing edge of each of said sewn workpieces subsequent to stopping said sewing machine operating means, means engaging and successively urg-



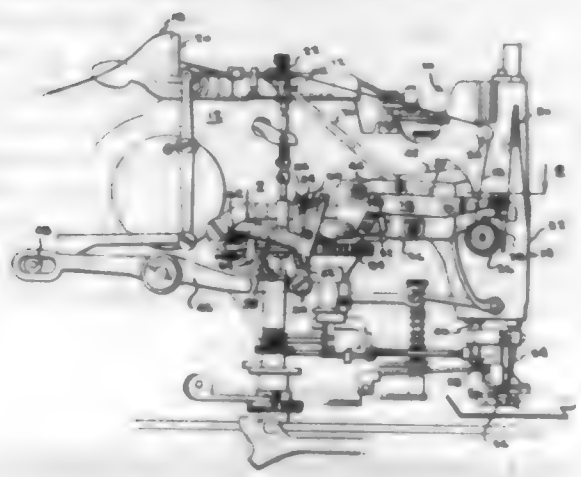
ing said workpieces through the sewing and tail cutting operations and operative independently of said sewing machine operation, means continuously operating said conveyor mechanism, and means automatically successively transferring said workpieces to said receiving means and comprising a support, a flyer assembly pivotally carried by said support and having arms normally substantially horizontally underlying said workpieces as they are conveyed toward the receiving means, and means operatively contacted by and actuated by successively conveyed workpieces to actuate said flyer assembly arms to a vertical position whereby the momentum of said workpieces propels same to a stacked position on said receiving means, the extremities of said arms having means engaging a medial part of said workpieces and disengaging from same when said arms stop at the vertical position.

2,874,660

ATTACHMENT FOR A BUTTONHOLE STITCHING MACHINE

Albert Holland, Collierville, Tenn.

Application May 3, 1957, Serial No. 656,885
3 Claims. (Cl. 112—68)



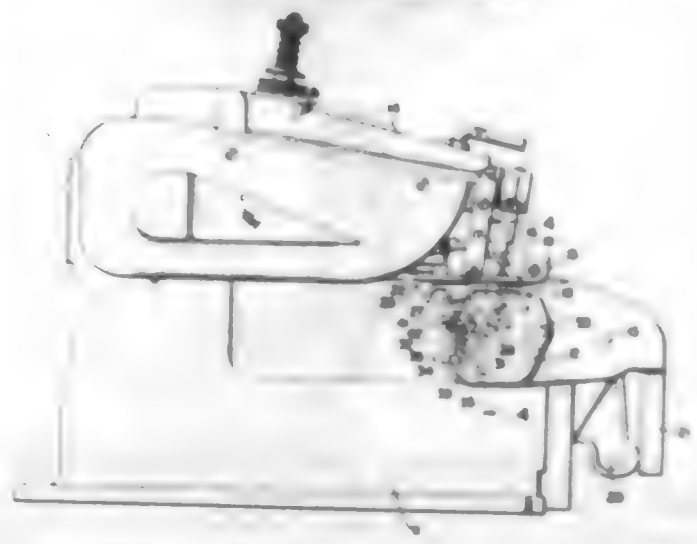
1. An attachment for operative connection with the frame of a buttonhole stitching machine including a thread-carrying needle, a buttonhole cutter, a cutter operating lever, a power operated lever, a lost motion connection between said levers, and a latch lever spring-urged into interlocking connection with the levers and normally retained in retractive inoperative position during a stitching cycle by a cam controlled member, said attachment comprising a supporting plate adapted to be fixedly attached to said frame, a first horizontally disposed lever connected adjacent its mid point to said plate for movement upwardly and downwardly about a first axis transverse of said plate, one end of said first lever being provided with sewing thread engageable means whereby the first lever is maintained in the horizontal position by the normal tension in the thread, a second horizontally disposed lever spaced from said first lever and connected at its intermediate portion to said plate for movement upwardly and downwardly about a second axis transverse of said plate, latch means on one end of said second lever, means connecting said second lever to said first lever for movement with the latter, and a latch element fixedly attached to said latch lever and normally out of engagement with said latch means and movable responsive to the release of the tension of the thread into engagement with said latch means for restraining said latch lever against movement into operative position for effecting a buttonhole cutting operation.

2,874,661

WORK SUPPORTING MECHANISMS FOR BLINDSTITCH SEWING MACHINES

Frank Parry, Trumbull, and Earl F. Dunn, Devon, Conn., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application May 3, 1956, Serial No. 582,382
3 Claims. (Cl. 112—178)



1. In a blindstitch sewing machine having a bracket arm, a free-ended work arm extending transversely beneath said bracket arm, and stitch forming instrumentalities carried entirely by said bracket arm, means supporting a work fabric beneath said bracket arm comprising, a pair of work supporting feet, a pair of links pivoted one to each of said work supporting feet, means pivotally mounting said links directly to said work arm, a frame pivoted directly to said work arm, spring means arranged between said frame and said work arm biasing said frame toward said bracket arm, a lever fulcrumed on said frame between said links, and means on said lever operatively connecting said lever to each of said links, said means supporting said links in position upwardly inclined toward said bracket arm.

2,874,662

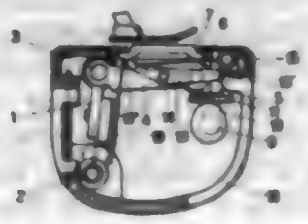
CLOTH FEED MECHANISM FOR SEWING MACHINES

Luigi Bono, Pavia, Italy, assignor to Vittorio Necchi Società per Azioni, Pavia, Italy

Application August 4, 1954, Serial No. 447,819
6 Claims. (Cl. 112—215)

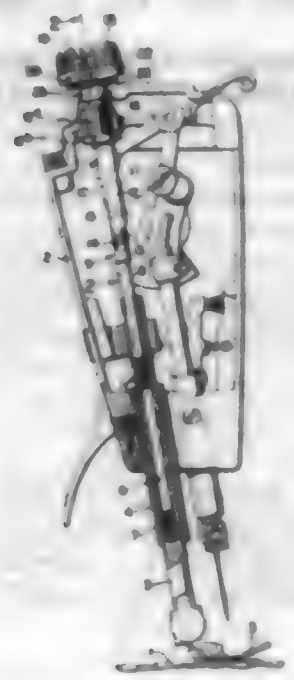
3. A feed mechanism for a sewing machine comprising a plate, a feed dog fixed to said plate, a frame, said plate being pivotally connected to said frame, means for horizontally reciprocating said frame, a bell crank lever fulcrumed upon said frame below said plate, a roller fixed

upon the machine with which one arm of said bell crank lever slidably cooperates, the other arm of said bell crank lever cooperating with said feed dog, means for vertically reciprocating said plate and the feed dog carried thereby



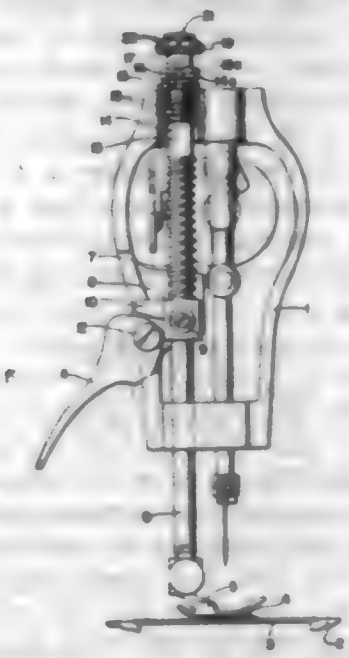
and means maintaining a contact between said plate and the arm of the lever cooperating therewith, said bell crank lever being fulcrumed upon said frame intermediate said means for horizontally reciprocating said frame and where said plate is pivotally connected to said frame.

2,874,663
PRESSER MECHANISMS FOR SEWING MACHINES
Anthony J. Matozzo, Union, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application October 21, 1955, Serial No. 541,884
6 Claims. (Cl. 112—236)



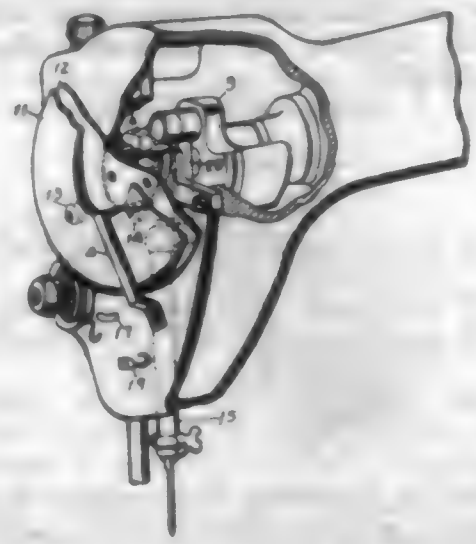
1. An adjustable presser mechanism for a sewing machine having a frame, said presser mechanism comprising a presser bar mounted in said frame for longitudinal sliding movements, a coil compression spring arranged coaxially of and operatively connected to said presser bar for biasing the same for axial sliding movement, and an adjustable abutment for said spring for varying the compression thereof, said adjustable abutment comprising a bushing secured in said frame, a cam surface formed upon the end of said bushing adjacent said presser bar, a two-part rod journaled for rotation in said bushing, said rod having a first rod element and a second rod element axially slidable relative to one another but keyed together for unitary rotation, said first element forming an abutment for said spring and said second element extending from said bushing to the exterior of said frame whereby it may be manually grasped for rotating the same, means for confining said second element against axial movement, a cam follower carried by said first element and cooperating with said cam surface on said bushing for sliding said first element axially upon rotation thereof and thereby varying the compression of said spring.

2,874,664
PRESSER MECHANISMS FOR SEWING MACHINES
Max Leon Waterman, Fairfield, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application October 21, 1955, Serial No. 541,944
1 Claim. (Cl. 112—236)



A quick-adjustment device for the presser mechanism of a sewing machine comprising a bushing adapted to be threaded into the top of the head of a sewing machine and having an enlarged head adapted to be arranged above the head of the sewing machine and having a bore extending axially therethrough, an adjustable spring abutment member mounted in the bore of said bushing for rotation and for axial sliding movement, said abutment member having a spiral slot in the periphery thereof, a plurality of landings disposed along the lower edge of the spiral slot between the ends of said slot at preselected points corresponding to the desired settings for various particular sewing conditions, and a stud comprising a screw threaded radially through the head of said bushing and having a free end extending into the spiral slot in said abutment member.

2,874,665
ROTARY TAKE-UP SEWING MACHINE
Denzaburo Terayama and Toru Matsubara, Chofu-shi, Tokyo, Shigeki Hayashi, Tokyo, and Yotaro Hirakawa, Nakano-ku, Tokyo, Japan, assignors to Tokyo Juki Kogyo Kabushiki Kaisha, Tokyo, Japan, a corporation of Japan
Application August 30, 1955, Serial No. 531,383
Claims priority, application Japan September 18, 1954
10 Claims. (Cl. 112—248)



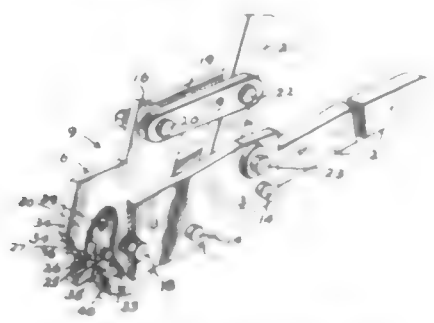
1. A household sewing machine comprising a frame, a main shaft, a thread take-up device, a needle rod, means for oscillating the needle rod along a straight needle rod

line, and a half-oscillating type shuttle, said take-up device comprising at least one disc, a plurality of thread-guide pins comprising two stationary thread guide pins provided adjacent the edge of said disc one near the other, and one being lower than the other and a stationary thread-turning guide pin provided adjacent the edge of said disc at a point opposite to the two stationary thread guides, said disc being journaled rotatably in said frame and eccentrically arranged relative to said main shaft, said disc being driven by the main shaft in such a manner relative to said main shaft that the angular speed of the drive shaft varies from the angular speed of the disc when the former is driven from the latter at a variable speed, a double crank mechanism comprising a driving crank arm, a following crank arm, and a link rod connecting the arms, said crank mechanism driving the disc and being conditional on

$$0.2<E/R_0<0.4$$
$$0.6<L/R_0<1.0$$
$$0.4<R_1/R_0<0.7$$

where E is the eccentricity between two axes of the two crank arms or the eccentricity between said disc and said main shaft, R_0 is the length of the driving crank arm, L is the length of the link rod connecting the two crank arms and R_1 is the length of the following crank arm, and said disc comprising at least two pins fixed thereon, one of said two pins being positioned more remotely from the center of said disc than the other conditional on a ratio of the distance between said other and said center to the distance between said one and said center being in a range of 0.5 to 0.75, and an angle extending from 100° to 130° being placed between said two pins at the center of said disc, an angle extending from 90° to 140° being placed between each of the first-named thread guides and said thread-turning guide at the center of said disc, and the last-named angle averaging from 100° to 130°; characterised in that the angle φ of rotation of said main shaft for pulling the sewing thread to the uppermost is less than 90°, so as to be adaptable to said half-oscillating type shuttle, by means of limiting an angle ϵ of eccentricity placed between a straight line including the centers of said main shaft and said disc and said straight needle rod line within a range between +20° and −20° and selecting an angle δ within a range between 170° and 210°, the last-named δ being placed between said one more remotely positioned of said two thread contacting pins and said thread-turning guide pin at the center of said disc when said needle rod is in the highest position.

2,874,666
SHEET CLIPPING TOOL
James P. Thor, San Leandro, Calif.
Continuation of abandoned application Serial No. 443,752, July 16, 1954. This application May 2, 1956, Serial No. 582,257
3 Claims. (Cl. 113—1)



1. In a tool for punching clip tongues from corresponding portions of a plurality of transversely engaged form-retaining bendable sheets, first and second cooperative working heads, means hingedly connecting said heads for relative rotation about a common axis which is fixedly related to the heads, the first said head comprising fixedly spaced opposed plates formed with mutually aligned and transverse sheet-receiving slots directed generally toward said axis from the outer end of the head and providing coplanar shearing edges in the mutually inner edges of corresponding first sides thereof and connected by a forwardly directed shearing edge forwardly of their inner ends and in their plane and cooperative therewith to provide a U-shaped cutting die orifice which is open at the outer head end, the second said head being guidedly and complementarily engaged by and between said plates for a relative rocking of the heads about their axis of mutual hinging and providing a die punch having a tapered cutting point cooperative with said cutting die orifice of the first head to transversely and progressively shear arcuately curved tongues of material from a sheet assembly engaged in the slots and to dispose said tongues to extend forwardly and outwardly from the forward ends of the sheet openings from which they have been struck out, and the second head also being provided with a flat edge transverse to its plane and opposite said cutting point thereof in spaced relation thereto and arranged for its forcible engagement with the struck-out tongues to positively flatten them against the sheet assembly while the same is jointly backed by the second sides of the plate slots.

2,874,667
TWO PART FEEDER BOWL
William V. Spurlin, Indiana, Pa., assignor to Syntron Company, Homer City, Pa., a corporation of Delaware
Application September 25, 1957, Serial No. 686,244
3 Claims. (Cl. 113—116)

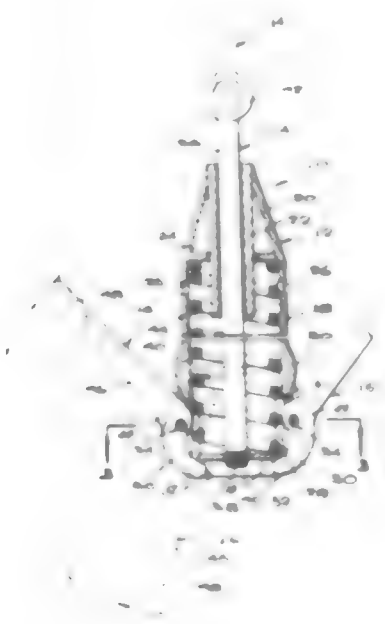


1. The method of making a feeder bowl comprising the laying out on a flat metal sheet a spiral line of the length equivalent to that of the desired length of the track to form the feeder bowl, cutting the flat sheet along the spiral layout line to make the spiral track independent from the bottom but attached integrally therewith, forming the sheet and the track into conical shape to produce a conical bowl bottom and sloping track, extending the spiral track upwardly to form a helix, and securing a flat strip to the adjacent edges of the extended track to form a bowl, and continuing the flat strip around the perimetral portion of the helically cut edge to complete the rim of the bowl.

2,874,668
AUTOMATIC RELEASE AND RESET ANCHOR
William A. Bailey, Dallas, Tex.
Application February 8, 1957, Serial No. 638,960
1 Claim. (Cl. 114—208)

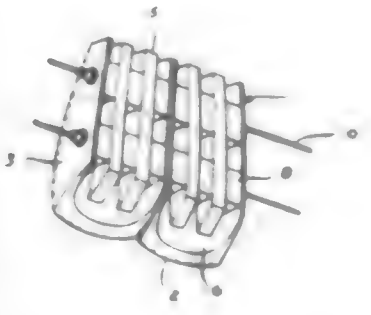
In an anchor, a vertically elongated cylindrical housing having an upper end and being open at its lower end and having a lower edge, an axial sleeve secured on the upper

end of the housing and depending thereinto, said lower edge having therein circumferentially spaced vertical notches, pairs of ears on the housing aligned with the notches and projecting laterally outwardly from the housing, pivot pins traversing the pairs of ears, flukes comprising elongated arms having outer and inner ends, the inner ends being positioned between related ears and engaged on related pivot pins and working in related notches, fingers on and extending downwardly and laterally inwardly from the inner ends of the fluke arms when



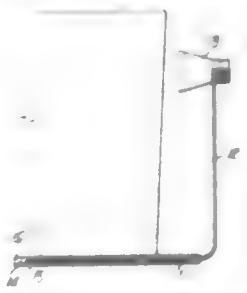
said arms are extending upwardly and outwardly from their pivot pins, said fingers terminating in rounded ends, a vertically elongated rod sliding through said sleeve and having upper and lower ends, anchor line connecting means on the upper end of the rod above the housing, a cam disc centrally secured on the lower end of the rod and bearing on the rounded terminal ends of the fluke arm fingers, and an expanding coil spring circumposed on the rod and compressed between the cam disc and an upper part of the housing.

2,874,669
SHIPS' BUMPERS
Einar Norman, Vancouver, British Columbia, Canada
Application February 7, 1956, Serial No. 564,012
2 Claims. (Cl. 114—219)



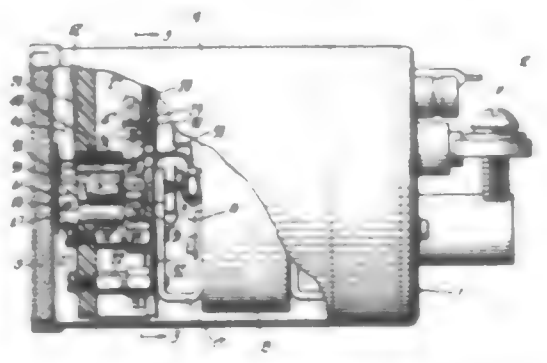
1. A ship's bumper comprising a short segment of a pneumatic tire including a portion of the tire tread and portions of the side walls of said tire, the side wall and tire tread portions being substantially of similar length, a plurality of ribs of resilient material extending between said side wall portions and lengthwise of the tire tread of the segment, spacer blocks maintaining the ribs in spaced relation to the side walls, said spacer blocks, ribs and side walls being united together by a tension member extending transversely through the side walls, the ribs and the spacer blocks.

2,874,670
SIGNALING DEVICE AND ATTACHMENT THEREFOR
William Zenchenko, Park Falls, Wis.
Application February 18, 1957, Serial No. 640,963
4 Claims. (Cl. 116—67)



1. A signaling device comprising: a thin flat base member; a portable vessel of the type which when struck will emit sound independent of and coacting with said base member to maintain said base member substantially stationary relative to said vessel; a hammer member; and a resilient member operatively interposed between and cooperatively coacting with said base member and said hammer member to provide elastic movement of said hammer member relative to said base member and said vessel, said hammer member striking said vessel to provide an audible signal.

2,874,671
ILLUMINATED METER
Dana J. Blackwell and Edmund F. Zawacki, Naugatuck, Conn., assignors to Lewis Engineering Company, Naugatuck, Conn., a corporation of Connecticut
Application May 3, 1957, Serial No. 656,875
30 Claims. (Cl. 116—129)

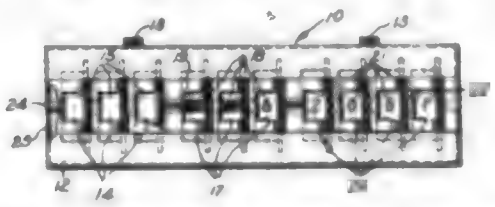


1. In an indicating instrument of the type having incandescent electric illumination, a translucent dial plate having on its front face translucent indicia means in the form of a coating, said plate having its rear face devoid of coverings and having a color different from and darker than that of the indicia means; light-obstructing means in the form of a coating disposed on the front face of the dial plate about said indicia means and sharply defining the latter; and means disposed in back of the dial plate, constituting a source of illumination whereby light therefrom may pass through the plate, illuminate the indicia means and color the latter differently in accordance with the coloring of the plate.

2,874,672
MECHANISM FOR AIDING AND DIALING TELEPHONE NUMBERS
John A. Hamm, Jr., Cantonment, Fla.
Application May 28, 1957, Serial No. 662,233
1 Claim. (Cl. 116—133)

A complete self-contained manually operable tabulating device adapted to be mounted upon a telephone which supports a conventional dialing mechanism thereon and the dialing mechanism embodying a rotative dial containing a series of symbols thereon, comprising, in combination, an elongated prismatic housing, said housing having a plurality of longitudinally aligned discrete

window openings in spaced apart side by side parallel relationship, each one of said window openings being spaced from the next adjacent window opening by a riser, each of said window openings terminating at one end adjacent a riser with a narrow vertical enlargement, a plurality of indicia bearing means having symbols thereon corresponding to the symbols on the dial of the telephone rotatably supported within said housing adjacent to each one of said window openings, operating means for effecting rotation of said indicia bearing means to predetermined positions with respect to each said window opening, a shaft common to all of said indicia bearing means, each of said indicia bearing means comprising a roller rotatably supported upon said common shaft, said common shaft being rotatably supported at each opposite end upon opposite end walls of said housing,



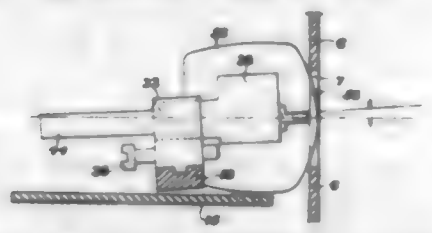
said rollers being independently rotatable thereon, said operating means comprising a separate knurled circular disc integrally secured with each of said rollers, and each of said discs being of larger diameter than its integrally secured roller and having the peripheral edge thereof extending outwardly through said narrow vertical enlargement of adjacent window opening and beyond the confines of said housing immediately adjacent to said associated riser, the peripheral edge of each of said discs comprising a plurality of circumferentially spaced apart indents, and said operating means further comprising a spring detent secured within said prismatic housing having an outwardly extending lug for releasable engagement with selective ones of said indents in response to each said roller and disc assembly; whereby the device automatically displays therewith symbols in longitudinal alignment.

2,874,673

FILM MOUNT ADHESIVE LIQUID APPLICATOR

Harold L. Fitch, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application May 17, 1957, Serial No. 659,808
10 Claims. (Cl. 118—2)



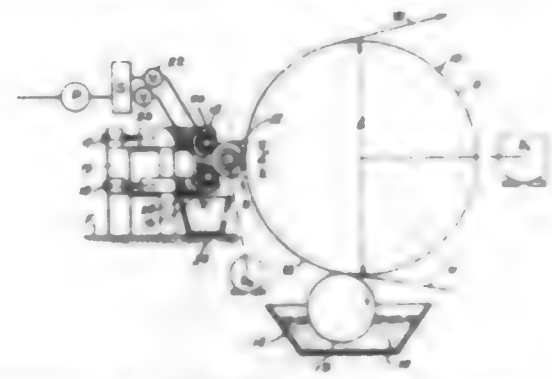
1. In an adhesive-applicator mechanism actuable by one of two longitudinal rows of alternate ribs and apertures formed by a vertically moving web of transparency mount stock material to apply an adhesive liquid strip adjacent and parallel to one edge of each of said apertures in said other row, the combination of: a base; a longtudinal member parallel to said web and mounted on said base for reciprocal movement toward and away from said web; a container adapted to hold a supply of adhesive liquid; a nozzle adjustably carried by said member and connected to said container for receiving the adhesive liquid therefrom; a cam follower mounted on said member in register with said one longitudinal row of alternate ribs and apertures, said cam follower being laterally spaced from said nozzle; means for imparting movement to said web of stock material; and resilient means interposed between said member and said base for biasing said member toward said web with said cam follower engaging said moving web whereby a reciprocal movement is imparted to said cam follower and said member by said one longitudinal row of alternate ribs and apertures causing said nozzle to intermittently engage said web and apply an adhesive liquid strip adjacent and parallel to one edge of each of said apertures in said other row.

2,874,674

APPARATUS FOR COATING

Lloyd Hornbostel, Beloit, Wis., assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin

Application January 28, 1957, Serial No. 636,782
8 Claims. (Cl. 118—113)



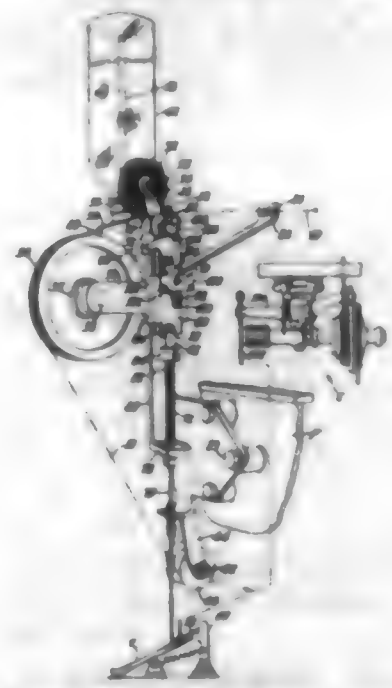
1. Apparatus for coating a travelling sheet, comprising a relatively rigid platen roll supporting the travelling sheet wrapped thereby, a relatively flexible doctor roll defining with said platen roll a nip through which the sheet passes, coating means at the on-coming side of the nip and on the doctor roll side of the sheet applying coating to the sheet, a plurality of members each presenting a separate resilient surface slidably engaging said doctor roll, and fluid pressure means urging each said resilient surface against the doctor roll to load the doctor roll against said platen roll.

2,874,675

STRIP COATING APPARATUS

Gordon Cecil John Wakefield, Leicester, England, assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

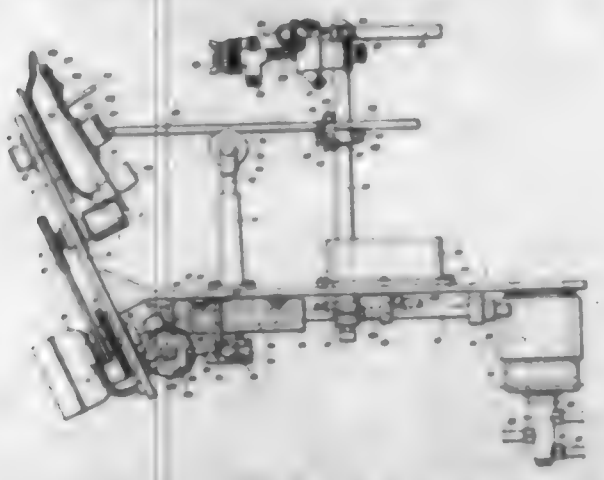
Application April 12, 1955, Serial No. 500,945
Claims priority, application Great Britain May 5, 1954
2 Claims. (Cl. 118—249)



2. In a strip coating apparatus, a supply receptacle, a coating roll dipping in the receptacle, means for guiding a strip over the roll to turn the roll frictionally, a treadle operative upon movement to a predetermined position for initiating operation of a strip feeding means, means mounting said coating roll for free rotation in one direction independently of said treadle whereby the roll is

normally rotated during a coating operation only by movement of the strip thereover, and means operated by said treadle in response to movement part way toward said position for positively turning said roll before feeding movement of the strip begins.

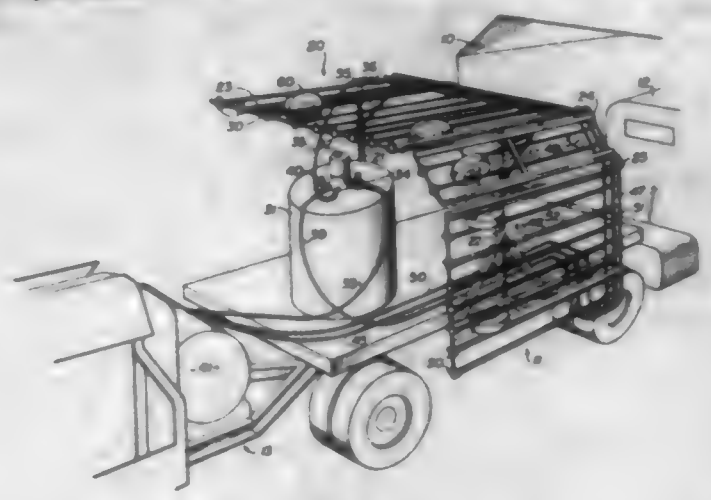
2,874,676
MACHINE FOR DECORATING PLATES OR SIMILAR OBJECTS
Albert Fournier, Saint-Amand-les-Eaux, France
Application November 19, 1956, Serial No. 622,991
12 Claims. (Cl. 118—301)



1. Apparatus for decorating plates and similar objects comprising, in combination, a device adapted to rotatably support the object to be decorated, a compressed air actuated spray gun directed towards said device, a stencil plate, a carrier movably supporting said stencil plate, means for moving said carrier to move said stencil plate to a working position in proximity to the object and in the spray path of said spray gun and to withdraw said stencil plate from the object to permit removal and replacement of the object, means for supplying compressed air to said spray gun when said stencil is in working position proximate the object, and means for synchronizing the operation of said compressed air supplying means with said object rotating means to rotate the object through at least one complete revolution during operation of said spray gun, said device including a platen freely rotatable about an axis inclined to the horizontal and two rotatable rollers adjacent said platen and adapted to support the rim of an object to be decorated with the bottom of said object resting against said platen, and a motor and means for transmitting rotation from said motor to said rollers.

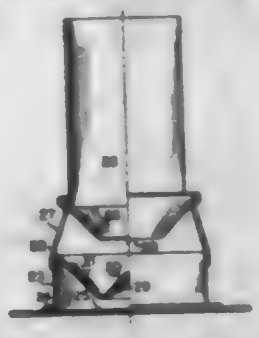
2,874,677
METHOD AND APPARATUS FOR LIQUID APPLICATION
Alfred E. Braun and Thomas C. English, Wooster, Ohio, assignors to The Wooster Sealkote Company, Wooster, Ohio, a corporation of Ohio
Application October 19, 1956, Serial No. 617,867
14 Claims. (Cl. 118—305)

1. A mechanical liquid applicator for applying liquid to a large unconfined smooth surface of substantially constant cross section, said applicator comprising, a mobile frame, a plurality of spray heads carried by the frame, fluid conduits fixed to and communicating with each of the spray heads for conduction of liquid to be applied and atomizing air to the spray heads, control means operably connected to the spray heads to start and stop the operation of the spray heads, motive means connected to the frame to cause the frame and spray heads to move over such unconfined surface, and spacing means connected to the frame to hold the frame and the spray heads in spaced relationship with such surface, said frame, said spacing means, and spray heads having a center of gravity, said motive means being connected to said frame other than at the motive means connection such that a plane passing through such center of gravity and paralleling a surface being treated when the device is in operation will lie between said center of gravity and



said spray heads, the frame being so supported to pivot about said connection and constantly apply pressure against said spacing means.

2,874,678
RABBIT FEEDERS
George S. Bradley, Rock Island, Ill.
Application March 22, 1954, Serial No. 417,538
2 Claims. (Cl. 119—61)

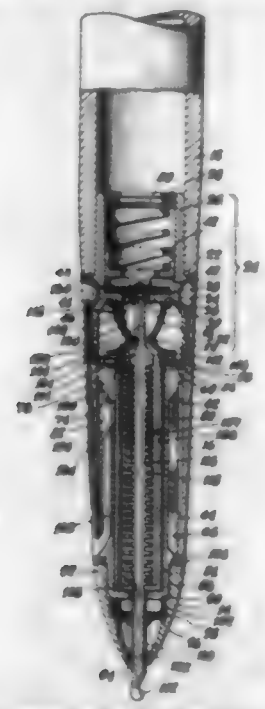


1. A circular horizontal plate having a rim, a low wall enclosing a circle of smaller diameter than said plate and supported concentrically thereon to leave an annular space between said rim and said wall for the forefeet of animals, a top edge on said wall, an inverted conical feed holder concentric with said wall having a rim of the same diameter as said wall and supported on said top edge, a similar inverted guard cone concentric with the first cone, means to support the guard cone at a distance above said first cone sufficient to prevent animals passing their necks into the feed cone if their forefeet are on the top edge of said wall.

2,874,679
FOUNTAIN PEN CONSTRUCTION
Nathan Zepelovitch, New York, N. Y., assignor to Nahum A. Bernstein, New York, N. Y.
Application April 10, 1952, Serial No. 281,531
9 Claims. (Cl. 120—42.16)

8. A quantity control metering valve construction for fluid ink writing instruments having an ink reservoir with an ink removal aperture disposed at the dependent end thereof and a writing point fluidly communicable therewith and displaceable relative thereto comprising a valve member normally biased in sealing relationship with said ink removal aperture in said ink reservoir for controlling the removal of ink from said reservoir, means displaceable in conjunction with displacement of said writing point relative to said ink reservoir for actuating said valve member and sleeve means disposed adjacent the under side of said ink reservoir and in encircling relation around said ink removal aperture therein and around the valve actuating end of said displaceable valve actuating means for receiving fluid ink removed from said ink reservoir upon displacement of said valve member from sealing relationship with said ink removal aperture and

for directing the same to said writing point, said sleeve means being provided with an ink flow aperture theren sized to be closably engageable by said valve actuating means upon valve opening displacement thereof to form



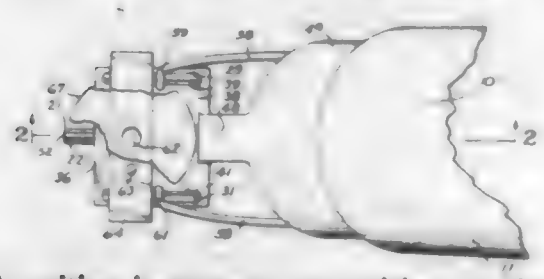
a closed fluid ink receiving chamber having a volume determinative of the quantity of ink removable from said reservoir upon each displacement of the valve member out of sealing relationship with the ink removal aperture therein.

2,874,680

WRITING INSTRUMENT

Darwin J. Jacobson, Scottsburg, Oreg.

Application March 25, 1957, Serial No. 648,266
9 Claims. (Cl. 120—45.6)



1. A writing instrument comprising an elongated body portion, a pair of inscribing elements yieldably mounted side by side at one end of said body portion whereby the lower ends of said inscribing elements are transversely movable relative to said body portion, each of said inscribing elements having a nib portion carried at the lower end thereof for engaging a writing surface, and variable spacing means secured to said body portion operable to spread apart said nib portions, said variable spacing means having a wedging portion slidable relative to said inscribing elements spaced intermediate said inscribing elements engaging inwardly disposed faces of said inscribing elements and adapted to spread said nib portions laterally from each other upon advancing said wedging portion between said inscribing elements, said wedging portion advancing between said inscribing elements upon the application of writing pressure on said instrument.

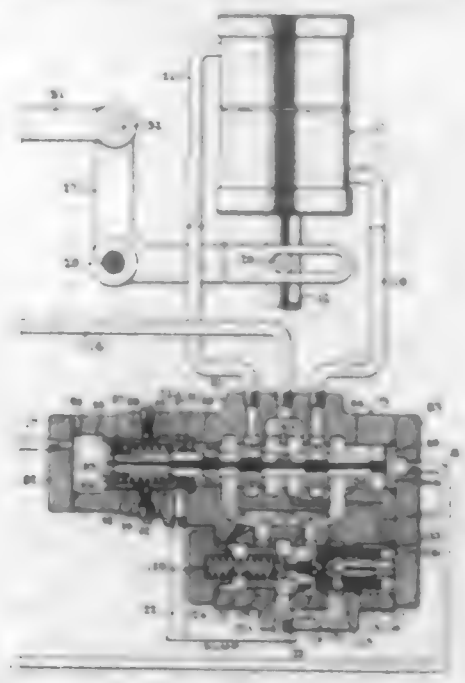
2,874,681

HYDRAULIC FOLLOW-UP CONTROL FOR BULLDOZERS AND THE LIKE

Henry A. Vander Kaay, Royal Oak, Mich., assignor to The New York Air Brake Company, a corporation of New Jersey

Application April 29, 1955, Serial No. 504,727
10 Claims. (Cl. 121—41)

1. The combination of a continuous source of pressure liquid; a double-acting expansible chamber motor; a distributing valve having a supply connection fed by said source, a discharge, port connections to respective working spaces of said double-acting motor, and piloted pressure-motor means responsive to a variable piloting pressure and serving to shift said valve reversely to different functional positions in which the double-acting motor is caused to move in relatively reverse directions, said valve moving through a mid-position in which the motor is hydraulically locked; at least one pilot pressure connection to said piloted pressure motor means; relief and unloading valve means responsive to the demand for pressure-liquid and serving in response to low demand



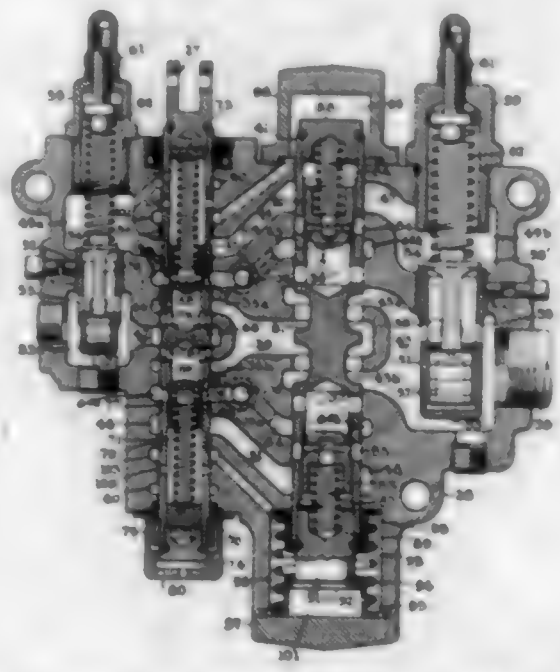
to vent said pressure-liquid source against a low back pressure; and a servo-pilot valve having two relatively movable ported components, one connected to be moved by the double-acting motor and the other having means by which it may be manually shifted, one of said components having a supply port fed by the pressure-liquid source, a discharge port and a port from which said pilot pressure connection leads, and the other component having a port dimensioned to connect all three ports of the first component and graduate in reverse senses the flows through the supply and discharge ports.

2,874,682

POSITION-RESPONSIVE SERVO-CONTROL UNIT

Henry Adrian Vander Kaay, Kalamazoo, Mich., assignor to The New York Air Brake Company, a corporation of New Jersey

Application September 18, 1957, Serial No. 684,745
8 Claims. (Cl. 121—41)



1. The combination of a main double-acting fluid pressure motor whose action is to be controlled; two sources

of pressure fluid, namely, a first source and a second source; a shiftable control member, a primary distributing valve having a mid-position and ranges of actuating positions which are reached by shifts of initial extent in opposite directions from mid-position and in which ranges the valve establishes admission-and-exhaust flows from said first source which respectively cause the motor to move in relatively opposite directions; an actuating and follow-up mechanism interconnecting said primary distributing valve, said control member and said main motor, whereby the position of the main motor is governed by the position of the control member; a secondary distributing valve having a mid-position and ranges of actuating positions respectively on opposite sides thereof, in which it establishes admission-and-exhaust flow paths from said second source, which respectively cause the motor to move in relatively opposite directions; means serving to bias the secondary distributing valve to its mid-position; a double-acting piloted pressure motor for overpowering said biasing means and shifting said secondary distributing valve into one or the other of its ranges, and means for controlling said piloted pressure motor and comprising exhaust and distributing ports controlled by the primary distributing valve, the distributing ports being rendered effective by relatively opposite shifts greater than the initial relatively opposite shifts of the primary distributing valve to energize the piloted pressure motor in opposite directions, whereby the admission path established by the second valve communicates with the working space of the main motor then receiving fluid through the primary distributing valve, and the exhaust port serving upon return of said primary distributing valve to a position within said range of actuating positions to de-energize the piloted motor.

2,874,683

HOT WATER TANK FLUE CONSTRUCTION

Donald G. La Rue, Orinda, Calif., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

Application January 28, 1955, Serial No. 484,690
6 Claims. (Cl. 122—17)



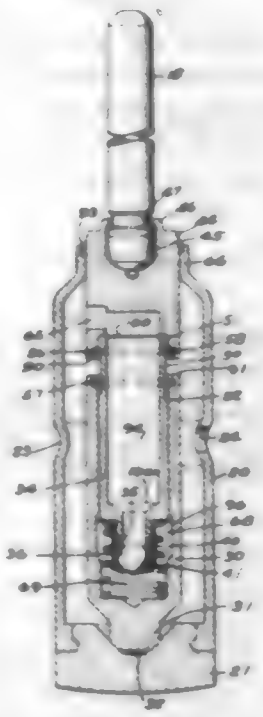
1. In a hot water tank construction the combination of a ferrous metal shell member, the inner surface of which is in contact with the water and at least one end head member, one of said members having an opening therein, a combustion producing means for heating the water in the tank, and a flue for carrying off the products of combustion from said combustion producing means, said flue being comprised entirely of aluminum and having a main body portion disposed within said shell including an outer surface in contact with the water, means mounting said flue within said shell member, one of the ends of said flue being disposed within the said opening in one of said members and the other end of said flue being located adjacent said combustion producing means, whereby the products of combustion of said combustion producing means may enter and pass through the said flue and the said ferrous metal shell member is protected against the corrosive action of the contents of the tank.

2,874,684

VALVE LIFTER STRUCTURE

Earl A. Thompson, Ferndale, Mich.

Application January 20, 1954, Serial No. 405,088
25 Claims. (Cl. 123—90)



1. A valve lifter sub-assembly for disposition between an operator and an actuator of a valve of an engine or the like, comprising, a cylindrical first member having a closed end adapted to be associated with the operator, a cylindrical second member telescopingly disposed within the first member and having an inner head, means relatively permanently uniting the two members for relative axial sliding movement, the end of the second member projecting outwardly from the first member, a third member relatively permanently secured to the projecting end of the second member, a push rod, means relatively permanently connecting the push rod and the third member, the push rod adapted to be associated with the valve actuator, the first and second members forming a chamber therebetween, the second member having a port in its head for the passage of hydraulic medium into the chamber, a check valve for closing the port to contain hydraulic medium therein for the transmission of thrust from one member to the other, and spring means acting between the first and second members tending to separate them to thereby take up looseness between the operator and the actuator.

2,874,685

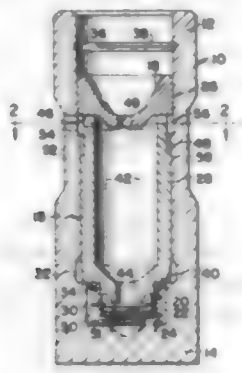
HYDRAULIC VALVE LIFTER

Gerald D. Line, Royal Oak, Mich., assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application August 26, 1955, Serial No. 530,849
10 Claims. (Cl. 123—90)

1. A hydraulic tappet comprising a hollow cylindrical body closed at one end and having stepped bores, a piston mounted for reciprocation in one of the bores having a relieved external annular surface at one end thereof, and a passage therein providing communication between the relieved surface and a chamber formed between the

other end of the piston and the closed end of the body, a cap in axial engagement on said one end of the piston mounted for reciprocation in another bore of the body adjacent the open end thereof, said bore of the body adjacent the open end thereof being larger in diameter



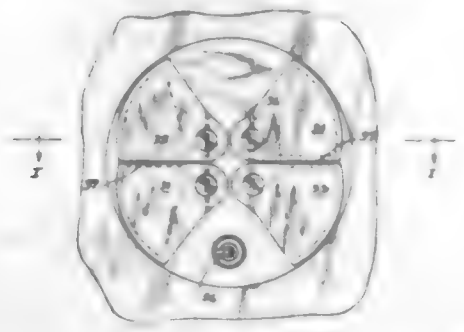
than the bore in which the piston is reciprocable, said body having a port therein communicating with said bore adjacent the open end of said body, and said cap being operatively positionable to close off communication between said port and said bore and being longitudinally supported by said bore.

2,874,686

ROTATING VALVE FOR INTERNAL COMBUSTION ENGINES

Wesley G. Carey, Jr., Miami, Fla.

Application December 4, 1957, Serial No. 700,713
4 Claims. (Cl. 123—190)



1. In an internal combustion engine, including a cylinder block, a cylinder head mounted on said cylinder block, a combustion chamber formed in said cylinder block and said cylinder head having an inlet and an outlet, a spark plug mounted in said cylinder head having its gapped end portion in communication with the interior of said combustion chamber, a plurality of cooperating horizontally movable valve members for controlling gaseous flow through said inlet and said outlet, means operatively connected with the operating parts of the engine for simultaneously oscillating said valve members in opposite directions and then reversing said simultaneous oscillatory movement to control communication through either said inlet or said outlet with said combustion chamber, and then repeating said simultaneous oscillatory movement in inverse order to control communication through the other of said ports, wherein at least one of said valve members covers and protects the gapped end portion of said spark plug during both the inlet and exhaust strokes.

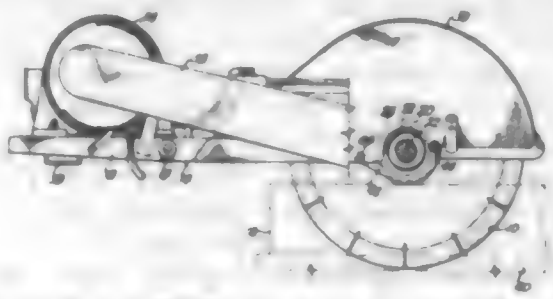
2,874,687

MOVEMENT LIMITING GUARD FOR THE SAW ON THE CUTTING HEAD OF MASONRY SAWS

John Robert Harclerode, Kansas City, Mo., assignor to Clipper Manufacturing Company, Kansas City, Mo., a corporation of Missouri

Application February 11, 1957, Serial No. 639,558
3 Claims. (Cl. 125—13)

2. In combination with a mandrel having a support and a circular cutter mounted thereon, the mounting including at least one collar, a work-engaging collar guard carried by said support and partially surrounding the mandrel between the latter and the work adjacent and alongside the cutter, said guard extending in one direc-



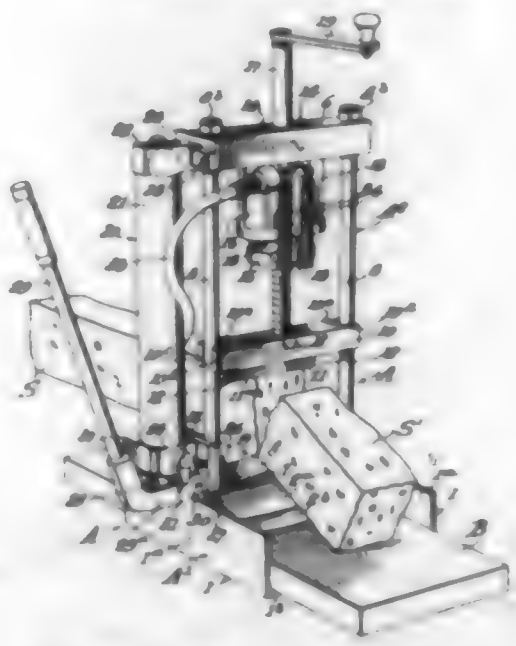
tion only, farther radially from the axis of the mandrel than said collar and terminating adjacent the mandrel remote from the periphery of the cutter.

2,874,688

MASONRY CUTTERS

Charles W. Biesanz, Sr., and Keith J. Walsh, Winona, Minn.

Application January 22, 1957, Serial No. 635,360
6 Claims. (Cl. 125—23)



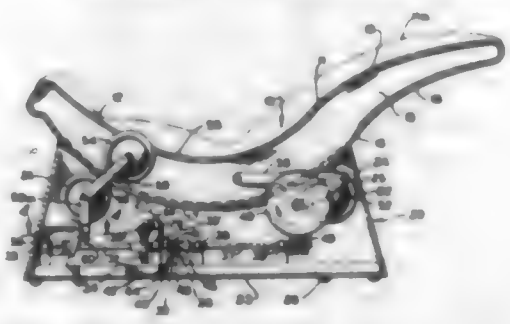
1. In a masonry cutter, a frame; a work piece support on the frame; a knife; means mounting said knife on said frame substantially parallel to said support for relative movements toward and away from said support; two hydraulic cylinders mounted on said frame on opposite sides of the end-to-end center of said knife; hydraulic plungers reciprocable respectively in said cylinders; a crosshead connecting said plungers; force transmitting means connected to said crosshead midway between the connections of said plungers to said crosshead, and connected to said knife midway between its ends; and means for adjusting the effective length of said force transmitting means between said crosshead and said knife.

2,874,689

BODY EXERCISING DEVICE

Jules W. Gavelek, Mountain View, Calif.

Application October 2, 1957, Serial No. 687,692
9 Claims. (Cl. 128—33)



1. A body exercising device comprising: a base; freely rotating rollers connected to the base; a body rest member

having convex bearing surfaces resting on the rollers, said body rest member having a plurality of slots therethrough; a massage element in each of the slots; and a driver including means for vibrating said body rest member, said driver being mounted within the base to rock the body rest member by having its convex bearing surfaces move back and forth on the rollers, and to vibrate the body rest element by vibrating the base, and to move the massage elements along the slots.

2,874,690
ORTHOPEDIC FOOT DROP BRACE
Edward F. Cowgill, Richwood, Ohio
Application August 12, 1957, Serial No. 677,517
1 Claim. (Cl. 128—80)



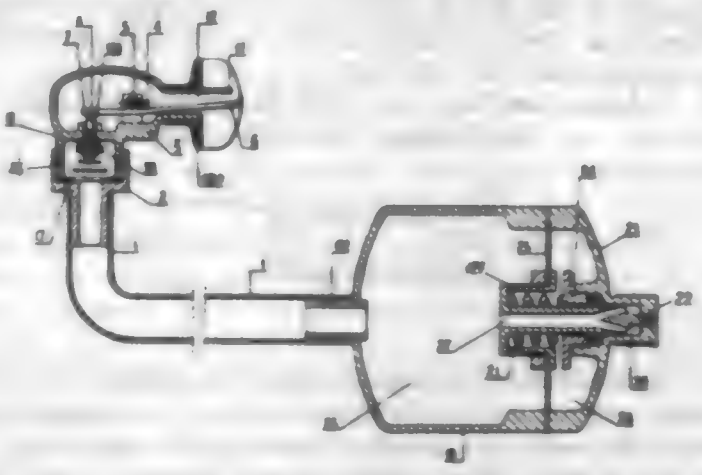
An orthopedic appliance for preventing foot drop in partially paralyzed individuals comprising, in combination, a shoe having an upper, an outer sole, and a heel, a main trunk member, means integral with the lower end of said trunk for securing said appliance to the heel of said shoe, and means at the upper end of said trunk for engaging the calf of the leg, said main trunk member comprising a substantially yieldable rigid rod, said integral means at the lower end of said rod comprising an angularly related terminal portion, a sleeve secured longitudinally and centrally within said heel for receiving said terminal portion, a bail member secured at the mid portion thereof to said rod adjacent to said terminal portion, said bail member extending forwardly from said rod toward said sole portion of said shoe, each end of said bail having an angularly related terminal portion, said heel having a transversely extending sleeve, and said ends of said bail being slidably received within said transversely extending sleeve.

2,874,691
FEMORAL NAIL
Christopher A. Mason, Los Angeles, Calif.
Application February 8, 1957, Serial No. 639,069
9 Claims. (Cl. 128—92)



1. A femoral nail comprising a longitudinally extended base plate adapted to be attached to the subtrochanteric lateral surface of a femoral shaft, and a nail portion projecting at an oblique angle from said base plate, said nail portion being flat and relatively thin in transverse cross-section at the juncture of the nail portion with the base plate and being relatively substantial in cross-section longitudinally of said base plate so as to provide a strong load supporting union with the base plate, and said nail portion having a laterally extended load supporting flange running from the free end of the nail portion to a point spaced from said base plate, whereby said nail is universally manipulative in a relatively narrow opening in the subtrochanteric shaft portion of a femur.

2,874,692
OPEN-CYCLE BREATHING EQUIPMENT, PARTICULARLY FOR SKIN-DIVERS
Roberto Galeazzi, La Spezia, Italy
Application September 14, 1955, Serial No. 534,343
Claims priority, application Italy September 25, 1954
5 Claims. (Cl. 128—142)



1. An open-cycle breathing equipment, particularly for skin-divers, comprising a flexible breathing tube, means for feeding compressed air to the flexible breathing tube, an outlet piece fitted at the end of said breathing tube; a breathing valve fitted in said outlet piece and so constructed as to remain normally closed and to close in the direction of flow of said compressed air from the said breathing tube toward the said outlet piece, a lever fitted in said outlet piece and having a part co-acting with said breathing valve and adapted to open same, said lever having a part projecting outwardly of the said outlet piece shaped to fit into a user's mouth and to be moved under control of a mouth part (tongue, teeth or lips) of the user so as to open said breathing valve and allow the same to be closed at will, and an outlet valve for exhaled air fitted on said outlet piece in a position as not to be intercepted by said breathing valve, said breathing valve being a ball valve and having a stem integral with the ball valve and projecting into said outlet piece.

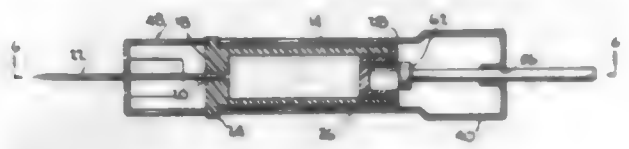
2,874,693
RESPIRATOR
James N. Matheson, West Reading, Pa., assignor, by mesne assignments, to The Electric Storage Battery Company, Philadelphia, Pa., a corporation of New Jersey
Application January 14, 1955, Serial No. 481,950
2 Claims. (Cl. 128—146)



1. A respirator comprising a face piece of substantially triangular and cup shape having integrally molded therewith a filter holder housing of flexible material and of similar shape but of smaller dimension, the top portion of the filter holder housing being disposed below the top

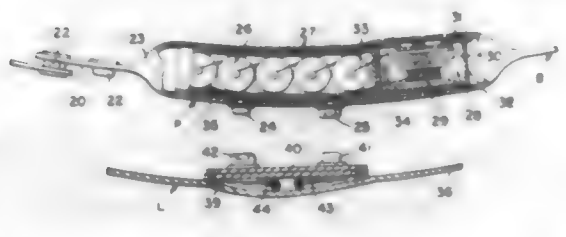
portion of the face piece, projecting straps emerging from the face piece alongside the side walls of the filter holder, a head band having end portions which are arcuately shaped, each adapted to rock along one side of one of said straps so that the point of rolling contact will vary in accordance with variations of the direction of pull on said head band so as to equalize the contact pressure about the perimeter of the face piece to insure a comfortable and uniformly air tight seal with the face of the wearer.

2,874,694
HYPODERMIC SYRINGES
Seymour N. Blackman, Teaneck, N. J., assignor to Omega Precision Medical Instrument Co., Inc., Passaic, N. J., a corporation of New Jersey
Application June 24, 1957, Serial No. 667,633
14 Claims. (Cl. 128—218)



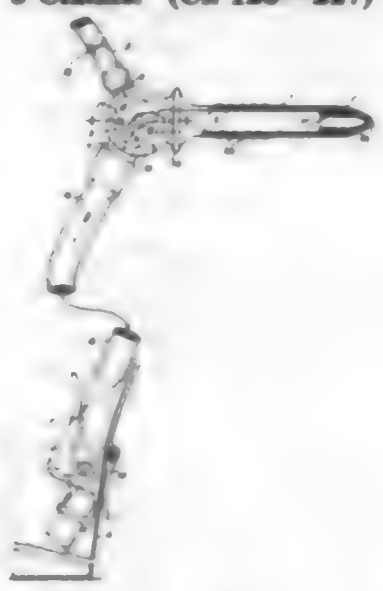
1. A hypodermic syringe comprising a disposable barrel having an open end and a closed end with a through aperture, a hypodermic needle permanently secured to the closed end of the barrel with an end thereof in said aperture, said end having a bore communicating with the interior of the barrel, an elongated reusable frame including a handle end and a front end, cooperating means associated with said barrel and frame for detachably mounting said barrel in said frame in selectable positions along the longitudinal axis of the frame with said open end remote from the front end of the frame, a piston in said barrel, a stem mounted in the handle end of the frame for movement longitudinally of the frame, and cooperating means associated with the piston and stem for releasably coupling the stem to the piston.

2,874,695
ENURESIS NAPKIN ASSEMBLY
Charles A. Vaniman, Fort Lauderdale, Fla.
Application July 20, 1956, Serial No. 599,051
14 Claims. (Cl. 128—138)



1. An enuresis napkin assembly comprising in a single unit adapted to be worn upon the body a pair of flexible, relatively flat, juxtaposed electrodes, a flexible moisture-absorbent sheet insulator interposed between the two electrodes, a pair of flexible, moisture-absorbent and insulating plies enclosing the two electrodes, flexible, normally-insulating means interconnecting the two plies, two electrodes and interposed sheet in unitary relation, and a flexible loin unit in which the napkin assembly is carried, in combination with a flexible belt unit in supporting connection with the loin unit for maintaining the napkin assembly therein in a position upon the wearer opposite the urinal organ, a power pack including a battery and a vibrator comprised in the belt unit, and an electrical circuit interconnecting the vibrator and power pack and in connection with each electrode, and operable with discharge of urine upon the napkin assembly to complete the circuit between the electrodes whereby to operate the vibrator.

2,874,696
COLON FLUSHING APPARATUS
Julien A. Bried, Berkeley, Calif.
Application July 27, 1954, Serial No. 446,065
8 Claims. (Cl. 128—227)



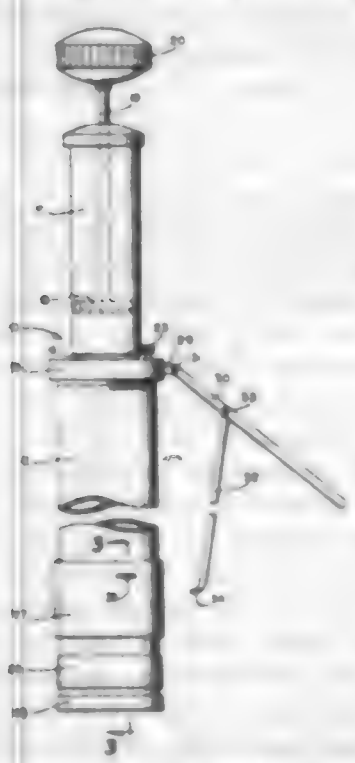
1. In a colonic flushing apparatus having a rectal nozzle connected to a water inlet and valve means controlling water flow to the nozzle, a downwardly extending discharge hose leading from said nozzle to a lower slop receiver, a closure at the lower end of said hose for maintaining a standing column of water therein, and which upon sudden opening will drop said column of water into said receiver and create a mild suction on the colon discharge, and foot operated means for operating said closure to preserve a nurse's hands free for manipulating the nozzle and water supply.

2,874,697
COLOSTOMY DEVICE
William H. Johnson, Clawson, Mich., assignor of one-half to William T. Sevald, Royal Oak, Mich.
Application June 22, 1954, Serial No. 438,531
14 Claims. (Cl. 128—283)



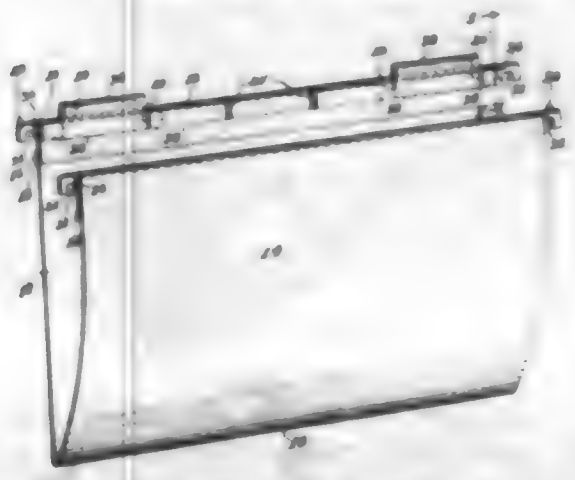
1. A device for collecting material discharged through an opening in the body of an animal comprising a cushion pad portion adapted to lie against the body wall adjacent the discharge opening having an aperture therein for exposing the body opening and a ring of body wall about the periphery of the body opening to permit communication with the body opening through said pad, a tube-like flange lying in the aperture of said pad adapted to contact the body wall immediately surrounding the periphery of the body opening, a pressure plate surrounding said flange and connected thereto and adapted to overlie said pad, a receptacle nozzle mounted on said plate in communication with said flange; said nozzle having an annular groove in its outer surface, a harness plate surrounding said nozzle and overlying said pressure plate, a receptacle disposed over said nozzle, a clamping ring over said receptacle lying in the area of said nozzle and confining said harness plate against said pressure plate, and means connected to said attaching plate for securing the device to the body.

2,874,698
ERECTOR
Freddie W. Sell, Stevens Point, Wis.
Application August 20, 1957, Serial No. 679,198
2 Claims. (Cl. 128—303)



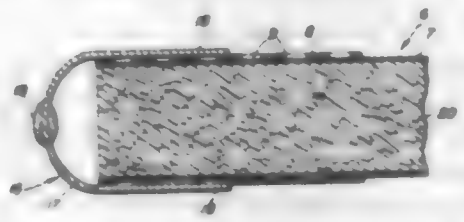
1. A surgical appliance comprising a main tubular member defining an air evacuation chamber and being open at one end, a closure member secured to the opposite end of said tube, an evacuation pump secured to said closure member, a one way check valve in one of said members and operable between said pump and said chamber for permitting the passage of air outwardly of said chamber in response to actuation of said pump, relief valve means on one of the members for selectively supplying air to said evacuation chamber, a sleeve slidably supported upon the exterior surface of said main tube, an elastic band supported upon said tube intermediate said sleeve and the open end of the tubular member, and means for selectively moving said sleeve over said open end to dislodge said band therefrom.

2,874,699
FILING FOLDERS
James Frank Dunleavy, Newton, Mass.
Application February 13, 1953, Serial No. 336,705
1 Claim. (Cl. 129—16.7)



A filing folder comprising a single sheet of flexible sheet material folded on a fold line centrally between and generally parallel with opposite end edges of the sheet to provide two generally similar folder sections joined together along said fold line, each said section having a marginal portion thereof folded over upon adjacent material of the section and secured thereto thereby to provide a longitudinal open-ended pocket extending from side edge to side edge of the section in general parallelism with said fold line, a relatively rigid hanger element in said pocket of each said folder section, each said element having length appreciably greater than the length of its pocket whereby the opposite end portions of each hanger element project beyond the ends of said pockets for engaging spaced supporting means between which the folder may be suspended, and each said element being generally flat and straight with dimensions such that it may be inserted endwise within a said pocket, and the longitudinal edge of each said element which is adjacent to the folded edge of the pocket in which the element extends having a generally right-angularly formed edge notch therein slightly longer than the pocket providing an abutment shoulder at each end of the notch, the cross-sectional dimensions of each said pocket being such that portions of each said hanger element outlook of the ends of its said edge notch having cross-sectional dimensions for relatively snugly fitting the cross-section of a said pocket when being inserted therein and the narrower notched portion of the element facilitating enegagement of the folded edge of the pocket in said edge notch, between said abutment shoulders of the notch when the pocket is entirely between the said shoulders of the hanger element, each said pocket having converging wall portions resiliently engaging that longitudinal edge portion of the hanger element which is opposite said notched edge tending resiliently to move said pocket and hanger element relatively in direction to engage the folded edge of the pocket in said edge notch of the hanger element where the pocket is entirely between the said abutment shoulders of the edge notch of the inserted hanger element.

2,874,700
SELF-LIGHTING CIGARETTE
Maurice C. Kahler, Palmyra, Pa.
Application April 20, 1956, Serial No. 579,509
4 Claims. (Cl. 131—7)

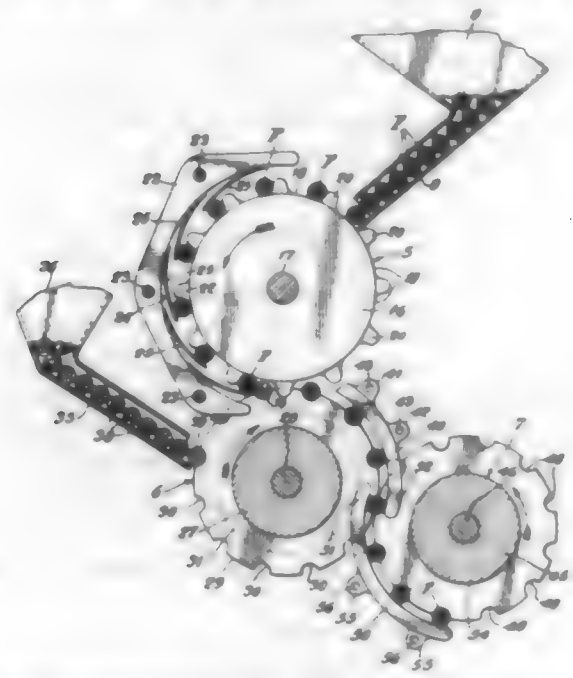


1. A cigarette including an inflammable sleeve on one end portion, and a match mounted on one end portion of the cigarette for lighting same, said match including a substantially U-shaped flammable stem straddling the sleeve and having its legs affixed longitudinally thereto, and an igniting head on the intermediate portion of the stem in spaced, opposed relation to the forward end of the cigarette.

2,874,701
GUIDING SYSTEM ON MACHINES FOR PRODUCING FILTER TIP CIGARETTES
Carl Stelzer, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co. K.-G., Hamburg-Bergedorf, Germany
Application March 23, 1955, Serial No. 496,309
Claims priority, application Germany March 31, 1954
1 Claim. (Cl. 131—94)

In a machine for manufacturing filter tip cigarettes, a mechanism for continuously assembling and arranging cigarette bodies and double length filter tips in units each comprising a pair of aligned cigarette bodies with a double length filter tip disposed therebetween, comprising a first rotary drum having on the peripheral surface thereof a series of equally spaced circumferentially arranged recesses defining forward and rear wall portions for receiving therebetween a double length filter tip in each of said recesses, said recesses being of a size greater than the diameter of a filter tip to permit rolling movement of

said filter tips in said recesses, a stationary arcuate plate supported adjacent said drum and extending therearound through an arc equal to approximately 180° and spaced from the periphery of said drum a distance slightly greater than the diameter of said filter tip, said arcuate plate being supported on the side of said drum, a plurality of arcuately curved yielding spring arms having one of their ends secured to said arcuate plate each having an opposite free end extending between said arcuate plate and said drum in overlapping relation with an adjacent spring arm, said spring arms having free end portions directed toward the drum in the direction of rotation thereof to



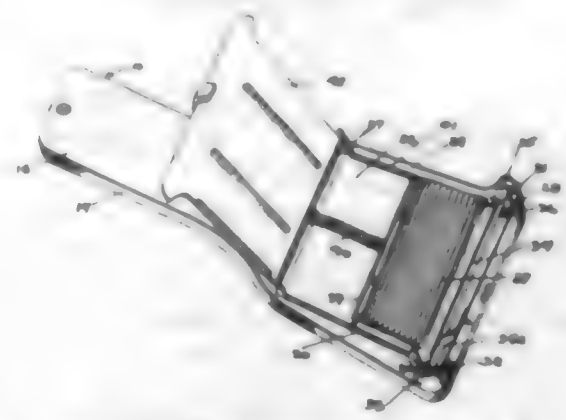
slidably and frictionally engage filter tips and retain the same in engagement with the rear wall portions of said recesses during rotation of the drum, and a second drum mounted beneath said first drum in closely spaced relation for rotation in a direction opposite to the direction of rotation of said first drum and about an axis parallel therewith, said second drum being provided with a series of equally spaced circumferentially arranged notches adapted to receive pairs of cigarette bodies arranged in axially spaced relation, said first and second drum being relatively positioned to successively transfer filter tips from the recesses of said first drum between the axially spaced cigarettes carried by the second drum.

2,874,702
VACUUM CIGARETTE STUB DISPOSER
Harold N. Walker, New Delhi, India, and
Alfred S. Parkhurst, Portland, Oreg.
Application February 13, 1956, Serial No. 565,233
3 Claims. (Cl. 131—235)



1. In a device for a vacuum type cigarette extinguisher in which a source of vacuum is available for drawing cigarette parts into a container: a receiver member having a tubular part at one end forming an outlet and to which a flexible conduit may be attached for connection of the said one end to said container; said receiver member having provisions for adjustable attachment to an instrument panel or the like; said receiver member having a hopper at its other end having a lower wall; the tubular part providing a passage opening in the bottom of said hopper; said lower wall of said hopper forming substantially a straight continuation of a corresponding portion of the passage for guiding a cigarette part for partial insertion into said passage; said passage having a substantial portion corresponding in cross-section to that of a conventional cigarette; said tubular part having means forming a transverse opening located at a distance from said hopper and dividing said passage into two parts in communication respectively with the ends of the receiver member; a slidable valve member movable in said transverse opening to extend completely across said passage to interrupt communication between the parts of said passage; a guide formed on the tubular part and confining said valve member for movement in opposite directions inwardly and outwardly of the guide corresponding to closing and opening positions of the valve member; the valve member completely clearing the passage when the valve member is in opening position; said valve member having a recess accessible exteriorly of the tubular part when said valve member is in closing position; a lever pivotally mounted on the receiver for rotation about an axis transverse to the passage and substantially normal to the said lower wall of said hopper so that one end of said lever is movable in a path substantially parallel to the path of movement of said valve member; said one lever end projecting within said valve member recess for movement of said valve member by said lever; the other end of said lever being movable toward and away from said hopper whereby said hopper limits angular movement of the lever in a direction corresponding to outward movement of the valve member in the guide; the hopper being so positioned as to prevent movement of the valve member beyond the guide; resilient means engaging the lever so that its said other end is biased away from said hopper and so that said valve member is normally in closing position; and means limiting movement of said other lever end away from said hopper to a range such that the hopper and the said other lever end may be clutched between the thumb and the fingers for actuation of the lever.

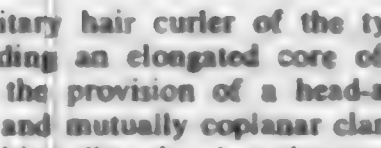
2,874,703
DISPENSER FOR BOBBY-PINS AND THE LIKE
John George Karasevich, Winnipeg, Manitoba, Canada
Application December 14, 1955, Serial No. 553,148
4 Claims. (Cl. 132—1)



1. In a dispenser for Bobbie pins and the like, a base plate and a cover plate secured together and comprising a handle and a pin ejection compartment, said pin ejection compartment having a pin discharge aperture opening a Bobbie pin compartment formed on said cover plate and superimposed over said pin ejection compartment and having a passageway communicating therewith, a manually operated lever mounted in said handle and having a free end extending into said pin ejection compartment, a pin ejector secured to the free end of said lever and projecting into said pin compartment and adapted to engage with the pins individually fed thereto and eject the same from the pin compartment, an ejec-

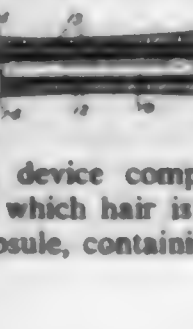
tion guide rail having one end secured to the free end of said lever and extending into said pin ejection compartment, a spring member secured within said pin ejection compartment and adjacent to the pin discharge aperture opening thereof and adapted to be in contact with the free end of said ejector guide rail, and a pin spreader block secured to said spring member and located at the pin discharge opening of said pin ejection compartment.

2,874,704
HAIR STYLING EQUIPMENT
Helen M. Lowe, Vancouver, British Columbia, Canada
Application September 9, 1957, Serial No. 682,803
8 Claims. (Cl. 132—34)



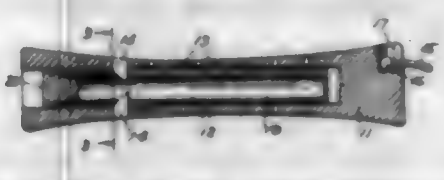
1. Hair styling equipment comprising a guide adapted to be supported in contact with a head, said guide having a reversely curved slot extending lengthwise of said guide, a slide engaging the slot, a shaft journalled freely in said slide, said shaft having slight end play in said slide, and means at one end of the shaft to engage a hair curl bobbin in alignment with said shaft.

2,874,705
HAIR CURLING DEVICE
Cordelia V. Louthan, Oakland, Calif.
Application November 29, 1955, Serial No. 549,614
6 Claims. (Cl. 132—41)



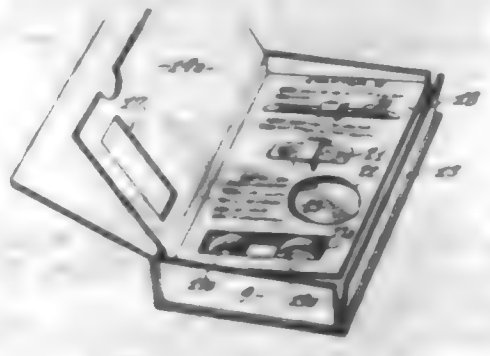
1. In a unitary hair curler of the type described, a portion providing an elongated core of uniform width arranged for the provision of a head-attached curl on and about it, and mutually coplanar clamp arm portions unitarily and hingedly related to the core at points adjacent one end thereof and simultaneously cooperative in their plane against and along the opposite sides of a curl engaged about the core, said core portion and clamp arms comprising integral parts of a laterally resilient single strip of material.

2,874,706
HAIR CURLING DEVICE
James Ficicchy, Hyde Park, Mass.
Application July 18, 1957, Serial No. 672,699
7 Claims. (Cl. 132—42)



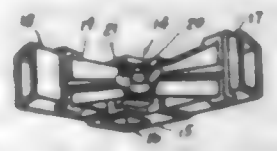
1. A hair curling device comprising: a foraminous body member about which hair is adapted to be wound to form a curl; a capsule, containing a curl-setting fluid, adapted to be inserted into said body member; and means, carried by said body member, for puncturing said capsule, along substantially the entire length thereof, as it is being inserted into said body member, whereby said fluid can flow out of said capsule and into contact with said curl.

2,874,707
MANICURE KIT
Margaret G. Koppel, Bronx, N. Y.
Application July 11, 1957, Serial No. 671,196
5 Claims. (Cl. 132—79)



1. In a box-type manicure kit having the outer appearance of a book, with the box having a lid, a bottom, and four side walls, one of said side walls being rigidly attached to the bottom and forming the back of the book, to which the lid is hingedly attached, one of the other walls being hingedly connected to said bottom, a plurality of leaf-like partitions flexibly connected to the back-forming side wall arranged in a definite order for consecutive turning back during use and for exposing the next leaf as needed, with holding strips and apertures in said partitions for accommodation therein of a plurality of tools and jars to be used in the care of the hands and nails, said tools and jars being disposed in the order of their use in the consecutive partitions and on the bottom of the box.

2,874,708
PREFABRICATED TENT FRAME
John J. Daus, Jr., Evansville, Ind., assignor to Anchor Supply Company, Inc., Evansville, Ind., a corporation
Application October 14, 1955, Serial No. 540,449
2 Claims. (Cl. 135—4)

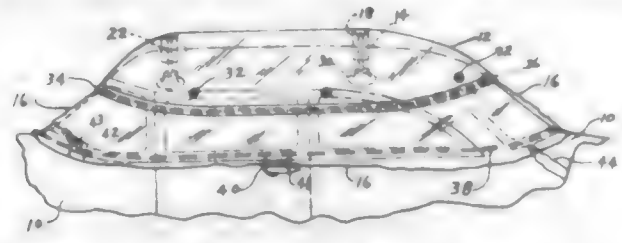


1. A prefabricated tent frame comprising upright corner posts formed of polygonal hollow metallic members, corner clamps each of which includes a vertical female projection fitted over the end of a post, horizontal male projections on said clamps and disposed at right angles to one another, horizontal frame members comprising hollow polygonal metallic members mating at their ends with said male projections, each of said clamps including a clamping bar disposed diagonally of said male projections, and a threaded stud and wing nut mounted in said clamp for supporting said bar and drawing its ends into clamping engagement with the ends of said horizontal frame members.

2,874,709
VEHICLE PROTECTIVE COVER
Maurice Cohen and Jean Karson, Detroit, Mich.
Application June 14, 1955, Serial No. 515,318
4 Claims. (Cl. 135—5)

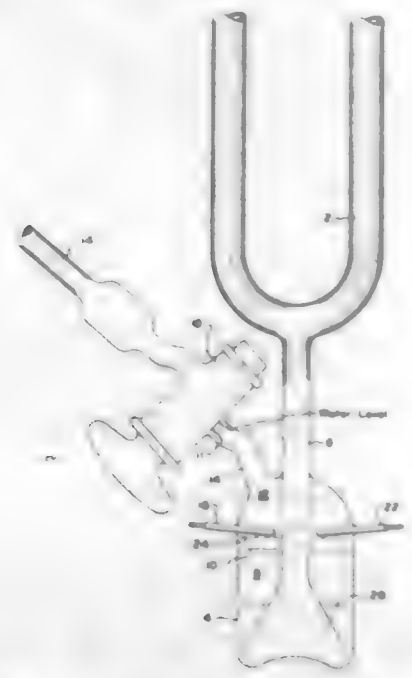
1. A vehicle protective cover of the class described, for use on vehicles having a roofed passenger compartment provided with window areas comprising: a first unitary cover part of pliable material formed to cover

the roof of the vehicle; means carried by said first cover part for detachably anchoring said first cover part to the roof of the vehicle in a spaced relationship therewith; a



second unitary cover part of pliable material formed to cover the window areas of the vehicle; and, means for detachably connecting said second cover part to said first cover part.

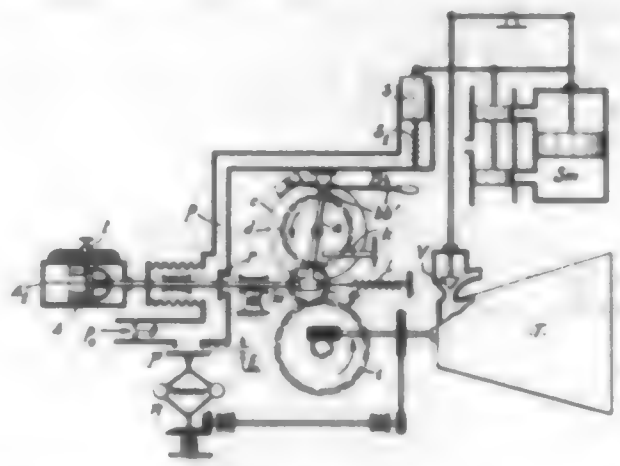
2,874,710
HIGH VACUUM
Robert M. Boehme, Cambridge, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application April 9, 1957, Serial No. 651,692
7 Claims. (Cl. 137—1)



3. A process for raising and lowering a liquid to and from a device such as a cutoff which comprises connecting said device to a reservoir containing said liquid, electrolyzing a portion of said liquid within said reservoir to produce a mixture of gases within said reservoir, thereby displacing said liquid in said reservoir and causing said liquid to rise into said device, and subsequently initiating the recombination of said gases to re-form said liquid and thereby allow said displaced liquid to return to said reservoir.

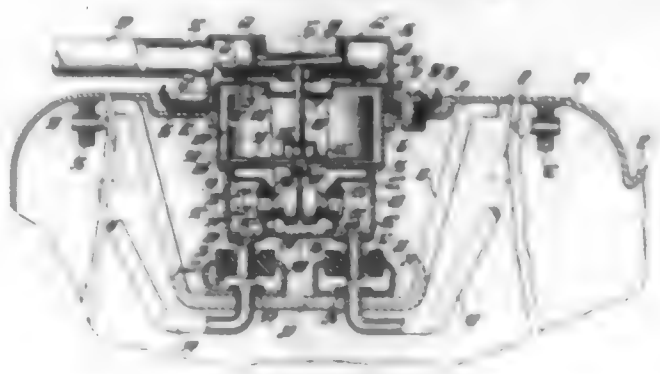
2,874,711
CONTROL OF HIGH-POWER TURBINES
René Anxionnaz, Paris, France, assignor of one-half to Societe Rateau (Societe Anonyme), Paris, France, a company of France
Application January 25, 1954, Serial No. 405,806
Claims priority, application France February 4, 1953
3 Claims. (Cl. 137—26)

1. In combination with a prime mover comprising a driving fluid feed conduit and a control valve in said conduit, a regulating device for controlling said valve comprising a governor which is sensitive to the speed of rotation of the prime mover, servo-control means including an oil pressure system for causing said governor to act on at least one admission-valve of said prime mover, an oil discharge valve in said system, said valve being adapted, when opened, to release the pressure in said system thereby closing said admission-valve, adjustable resilient means for urging said oil discharge valve to closing position, an acceleration-regulator adapted to respond to angular acceleration of said prime mover, said acceleration-regulator comprising a fly-wheel driven from said prime mover, connecting means between said acceleration-



regulator and said oil discharge valve for urging the latter to opening position upon a predetermined acceleration of said prime-mover, and abutting means for limiting the displacement of said acceleration-regulator upon retardation of said prime mover.

2,874,712
TANK VENT STRUCTURES
Jesse E. Eshbaugh, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 21, 1955, Serial No. 548,069
4 Claims. (Cl. 137—43)

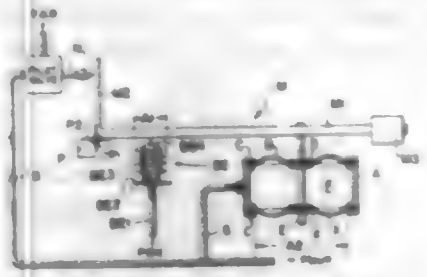


2. A tank vent structure including a main tank, an opening at the top of said main tank, an ancillary tank supported within said opening with a top chamber provided with a vent leading to the ambient air, a second chamber in said ancillary tank, a spring loaded valve in said top chamber and arranged to control communication between said top and second chambers, a float mounted in said second chamber and arranged to open said valve when liquid is in said second chamber, spaced conduit means connecting spaced bottom portions of said ancillary tank with opposite zones in the top of said main tank, and valve means movably mounted in said ancillary tank and positioned effectively to close one and open the other of said spaced conduit means when said main tank is inclined from a normal position.

2,874,713
DIAPHRAGM MECHANISM
Robert E. Ochs, Jr., Oreland, and Robert B. Watrous, Philadelphia, Pa., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application October 8, 1954, Serial No. 461,884
8 Claims. (Cl. 137—85)

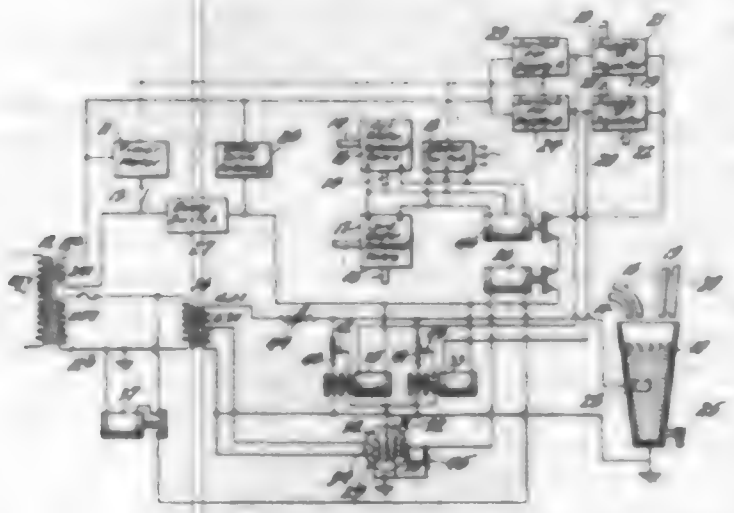
6. Means for securing an output force which varies as the square root of an input force, said means including, a lever, an input bellows having a portion connected to a stationary support and a movable portion connected to said lever, means for applying an input pressure to one

side of said bellows, a movable shaft connected to said lever, a pair of elements which have portions connected to a stationary support and portions connected to said shaft and having pressure-responsive areas on opposite sides thereof, the pressure-responsive areas on opposite sides of each of said elements varying at a different rate upon movement of said elements from normal position, one of said areas on each of said elements being adjacent the corresponding area on the other element and one of said areas on each of said elements being remote from



the corresponding area on the other element, a pilot valve connected to a source of fluid under pressure, a nozzle connected to said pilot valve so as to operate it and located adjacent said lever so that the flow of fluid through said nozzle is varied by the movement of said lever, and an output conduit leading from said pilot to one of said pairs of corresponding areas of said elements so as to apply to said pair of corresponding areas a fluid under a pressure different from the pressure of a fluid applied to the other of said corresponding pairs of areas.

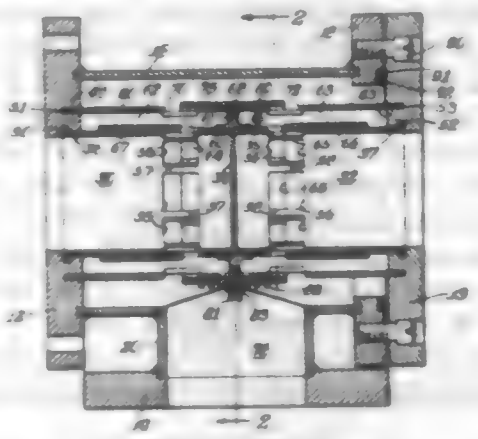
2,874,714
CONTROL SYSTEM
Norvin L. Pellerin, Metairie, and Francis X. Levy, New Orleans, La.; said Levy assignor to said Pellerin
Application March 4, 1953, Serial No. 340,324
15 Claims. (Cl. 137—93)



1. In combination, a plurality of supply injectors, means for energizing said injectors according to a predetermined sequence, solution containing means for receiving supplies from said injectors, and means for deenergizing said injectors in response to the concentration of corresponding supplies in solution.

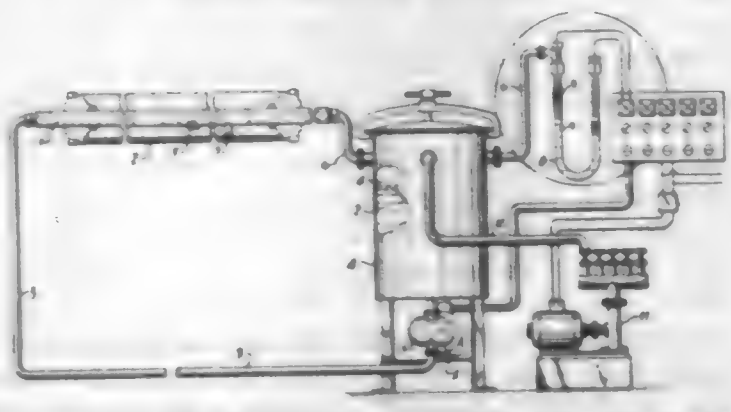
2,874,715
FLUID CONTROL DEVICE
George B. Richards, Deerfield, Ill., assignor, by mesne assignments, to Liquid Controls Corporation, North Chicago, Ill., a corporation of Illinois
Application April 1, 1954, Serial No. 420,415
14 Claims. (Cl. 137—98)

1. A fluid control device comprising a housing defining a pressure balancing chamber, a pressure balancing member within said chamber including a wall portion dividing said chamber into two chamber portions, said pressure balancing member being slidably mounted within said chamber and movable therein in response to pressure differentials between said two chamber portions, means for limiting movement of said balancing member within said chamber, said housing having inlet openings therein disposed opposite said chamber portions, respectively, in all positions of said member within said pressure balancing chamber, said balancing member including valve portions cooperating with respective ones of said inlet openings to progressively close off one as the other is progressively opened as said balancing member is moved within said chamber with respect to said inlet openings in response to a pressure differential between said chamber portions, at



least one or the other of said inlets being constantly in communication with said balancing chamber, thereby equalizing the pressures in said chamber portions, said housing further defining a mixing chamber and flow restricting outlet ports connecting each of said chamber portions with said mixing chamber, said inlet openings and outlet ports being positioned to provide a flow of fluid through said balancing chamber in a direction generally perpendicular to the walls of said pressure balancing member.

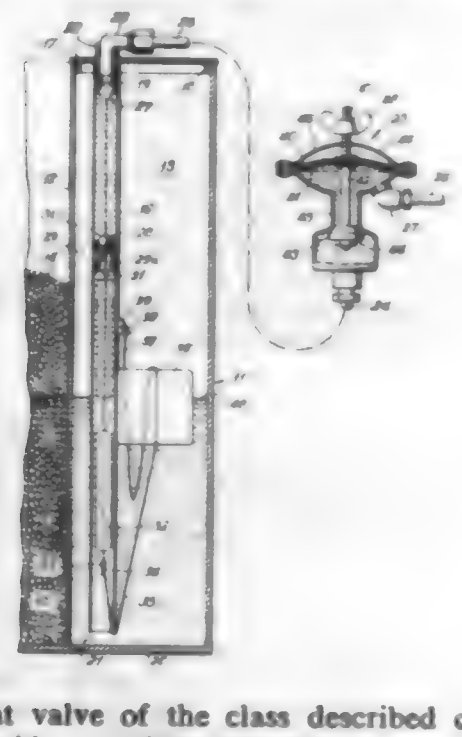
2,874,716
AUTOMATIC FEEDING AND LEVEL CONTROL SYSTEM
Andre Francois Conchon, Rio de Janeiro, Brazil
Application March 6, 1957, Serial No. 644,335
Claims priority, application Brazil March 7, 1956
8 Claims. (Cl. 137—394)



1. An automatic liquid level controlling apparatus comprising a tank for holding a liquid and having above the liquid an air space closed off from the outer atmosphere, conduit means extending from said tank and having distant from the latter a discharge end through which liquid flowing from the tank along said conduit means is discharged at a desired location, a pump communicating with said conduit means for moving the liquid from the tank along the conduit means to the discharge end thereof, drive means including an electric circuit and operatively connected to said pump for driving the latter, a duct having a downwardly directed elongated open end portion located at said location with the bottom open extremity of said end portion located at the elevation at which it is desired to maintain the liquid at said location, said duct communicating with said air space in said tank, suction means communicating with said air space in said tank for maintaining said air space at less than atmospheric pressure, whereby air will continuously

flow through said open end portion of said duct along the latter into said air space until the liquid level is high enough to close said end portion of said duct and to cause said suction means to reduce further the pressure of said air space, and control means communicating with said air space and operatively connected to said drive means for maintaining said drive means in operation as long as the liquid level is below said end portion of said duct and for stopping the operation of said drive means when the pressure of said air space drops upon closing of said open extremity of said end portion of said duct by the liquid at said location, said control means including an elongated tube communicating with said air space and having a U-shaped portion in which a control liquid is located, said control liquid rising in one leg of the U-shaped portion and falling in the other leg thereof in response to pressure variation in said air space, said control means including electrical switch means responsive to movement of the control liquid for opening said electric circuit connected to said drive means when the pressure in said air space drops below a predetermined value and for closing said circuit to start said drive means when said pressure rises to a predetermined value.

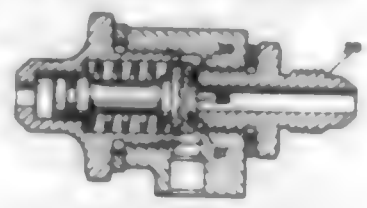
2,874,717
BRINE TANKFLOAT VALVE CONTROL FOR WATER SOFTENER
Nels A. Johnson, Palatine, Ill., assignor of one-half to George M. Munson, Lombard, Ill.
Application March 24, 1958, Serial No. 723,227
6 Claims. (Cl. 137—411)



6. A float valve of the class described comprising a well for liquid, a vertical tube therein communicating at its lower end therewith, a float in said well outside said tube, a second float in said tube carrying valve elements, a pair of oppositely oriented seats in the tube for receiving said valve elements thereon, and means connecting the floats whereby movement of one float in one vertical direction is accompanied by movement of the other float in the opposite vertical direction.

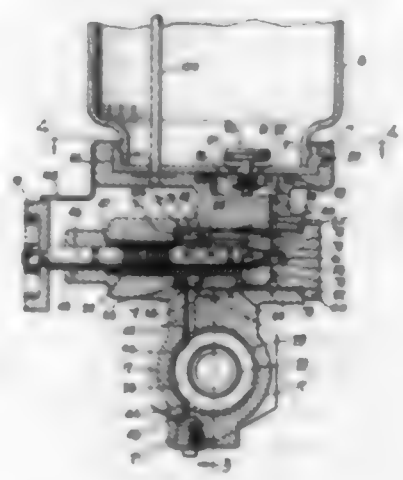
2,874,718
HYDRAULIC FUEL SHUT-OFF VALVE
Jack J. Kelly, Waldwick, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application September 23, 1954, Serial No. 457,810
1 Claim. (Cl. 137—469)

A shut-off valve comprised of a housing having in axial alignment an inlet opening, a cylindrical outlet chamber, a cylindrical valve head chamber adjacent said inlet opening and a piston guide cylindrical chamber; said outlet chamber, said valve head chamber and said guide chamber having progressively smaller diameters; the diameter of said inlet opening being about one-half that of said outlet chamber; a peripheral outlet passage in said housing which extends from said outlet chamber and has the same diameter as said inlet opening; a valve member having a cylindrical guide piston, a shank and a valve head which has an annular valve element; a flat transverse annular valve seat surrounding said inlet opening; said annular valve element being an O-ring arranged to contact said annular valve seat; said guide piston and said valve head respectively being slidably positioned in said guide chamber and said valve head



chamber; a coil spring surrounding said shank and contacting the inner end of said valve head chamber and the inner face of said valve head so that said valve element normally contacts said annular valve seat; said guide piston having an O-ring seal in the periphery thereof which contacts the wall of said guide chamber; an axial vent from said guide chamber for continually venting said guide chamber to the atmosphere, said housing being comprised of a first sub-housing providing said guide chamber and said valve head chamber; a second sub-housing threaded on said first sub-housing and providing said outlet passage and said outlet chamber; and an inlet fitting threaded into said second sub-housing and providing said inlet opening and said annular valve seat.

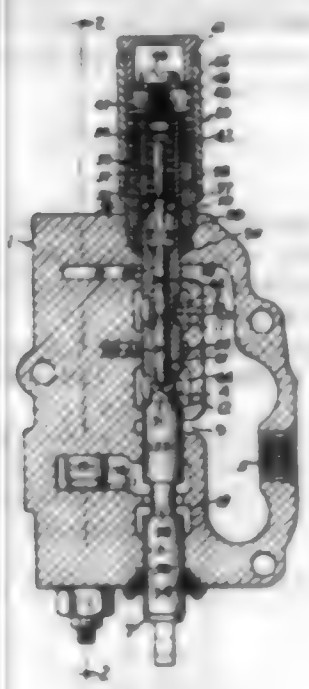
2,874,719
LIQUID FEEDING APPARATUS
John E. Van Tuyl, Cleveland, Ohio, assignor to Albert C. Mader, Parma, Ohio
Application May 17, 1955, Serial No. 508,877
1 Claim. (Cl. 137—604)



In a device for feeding additive into a moving liquid, the combination comprising a housing having an additive supply source; a first bore and a second bore, said bores being spaced from each other; an additive inlet channel leading from said additive supply source to said first bore; an additive outlet channel leading from said first bore to said second bore, said additive outlet channel being offset laterally from said additive inlet channel; means in said second bore restricting the flow of liquid in said bore; and, disposed between said additive inlet channel and said additive outlet channel, a valve assembly incorporating a check valve responsive to the flow of liquid in said second bore and a manually adjustable needle valve for controlling the rate of flow of the addi-

tive through said additive outlet channel into said second bore, one of said valves being disposed within the other.

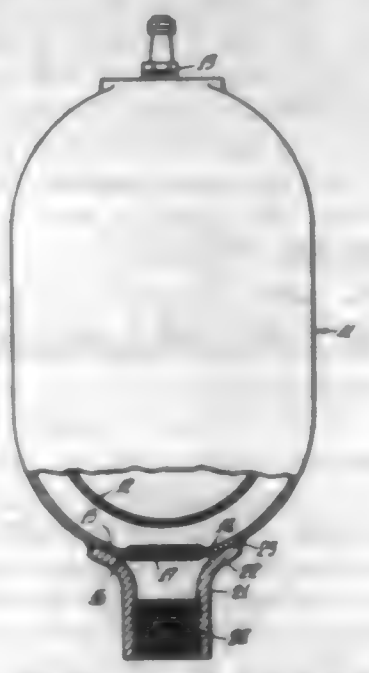
2,874,720
VALVE ASSEMBLY
William A. Vahs, Euclid, Ohio, assignor to Parker-Hannifin Corporation, a corperation of Ohio
Application February 14, 1957, Serial No. 640,185
8 Claims. (Cl. 137—622.5)



1. A valve assembly comprising a body formed with a bore intersected by passages at axially spaced intervals, a spool valve axially reciprocable in such bore to control flow of fluid through such passages, said spool valve being tubular at one end, and being formed with at least one lateral opening through the wall thereof, a detent element radially movably fitted in such opening, said body being formed with a plurality of axially spaced apart recesses with which said detent registers in selected axial positions of said spool valve in said body, a spring-actuated cam member axially movable in the tubular end of said spool valve to yieldably move said detent outwardly into a recess when said spool valve is axially shifted in said body, a fluid pressure actuated detent release also axially movably carried within the tubular end of said spool and effective, when actuated, to move said cam member to a position permitting inward movement of said detent out of such recess, and a return spring bearing on the tubular end of said spool valve to axially shift said spool valve, upon release of said detent as aforesaid, to a position wherein said detent is out of register with said recesses, said detent release comprising tandem plungers having abutting ends and remote ends, such fluid pressure in different selected positions of said spool valve acting on the abutting end of one plunger to move said plunger toward said cam member and acting on the remote end of the other plunger to similarly effect movement of said one plunger through such abutting ends.

2,874,721
LIQUID PORT FOR PRESSURE ACCUMULATOR
Jean Mercier, New York, N. Y.
Application February 23, 1956, Serial No. 567,331
4 Claims. (Cl. 138—30)

1. A fluid port construction for pressure accumulators of the type having a rigid container with a deformable partition therein movable against such port, said construction comprising a member having a multiplicity of openings therethrough and a coating of resilient material on the opposed top and bottom surfaces of said member and on the wall surfaces of the openings therethrough,



the coatings on all of said surfaces being integral with each other.

2,874,722
BUOYANT, INSULATED FLEXIBLE TUBING AND METHOD OF MAKING SAME
Clyde M. Hamblin, Washington, D. C., assignor of one-fifth to Eva F. Hamblin, Washington, D. C., one-fifth to Helen H. Livingstone, Arlington, Va., and one-fifth to Barbara H. Marshall, Hyattsville, Md.
Application October 6, 1952, Serial No. 313,339
14 Claims. (Cl. 138—53)



1. An insulated hose wall comprising a tube with parallel walls of flexible material with sealable edges and insulating material between said walls, said tube being wound helically with said sealable edges of each turn of said tube lapping the adjacent sealable edges of adjacent turns to secure said edges together and form a continuous helical seam.

14. The method of constructing an inflatable hose wall consisting of coating with an adhesive sealing material one side of a strip of non-porous flexible material for a distance inward from both edges of said strip, folding said strip preferably along its longitudinal center line to bring said adhesive coated edges together and form a continuous longitudinal seam and a continuous tube, then coating with an adhesive sealing material one side of said folded strip for a distance inward from the joined edges of said folded strip and the other side for a distance inward from the folded edge of said strip, and winding said folded strip helically upon itself with the adhesive coated edges of each turn lapping the adjacent adhesive coated edges of adjacent turns of said folded strip to secure said edges together and form a continuous helical seam.

2,874,723
FLEXIBLE HOSE
Marvin M. Kahn, Trenton, N. J., assignor to The Acme-Hamilton Manufacturing Corp., New York, N. Y., a corporation of Delaware
Application February 27, 1957, Serial No. 642,744
18 Claims. (Cl. 138—56)

4. A method of making flexible hose comprising feeding a thermoplastic tape under tension to a rotating

mandrel to helically wind said tape about said mandrel with successive convolutions thereof in overlapping relation, simultaneously helically feeding a wire into interleaved relation with the overlapping tape portions, and continuously depressing an intermediate portion of the moving tape in advance of the contact thereof with said mandrel whereby to impart a substantially U shaped section to the moving tape for disposition between successive wire convolutions, and applying heat to fuse overlapping portions of said tape together.



6. A machine for making flexible hose from tape and reinforcing wire comprising in combination, a rotatable cylindrical mandrel, means for rotatably supporting said mandrel, means for helically winding tape on said mandrel in overlapped relation, means for helically winding wire between overlapped portions of said tape, and means for continuously deflecting an intermediate portion of the moving tape downwardly out of the plane thereof at a point adjacent said mandrel.

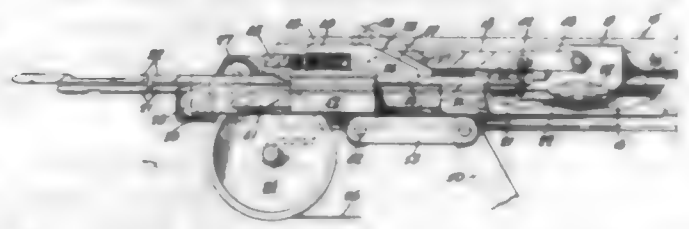
13. A flexible hose comprising helically wound thermoplastic resin tape with successive convolutions thereof in overlapping relation, a reinforcing wire helix of aluminum alloy enclosed between overlapping portions of said tape, said tape being under tension to radially compress the convolutions thereof to form tunnel portions for receiving the convolutions of said wire helix, contacting portions of said tape being in fused, integrated relation and said wire helix being heat set.

2,874,724

METHOD AND DEVICE FOR INSERTING LOOM PILE WIRES

Harry J. Smiley, Glasgow, Va., assignor to James Lees and Sons Company, Bridgeport, Pa., a corporation of Pennsylvania

Application January 24, 1957, Serial No. 636,076
13 Claims. (Cl. 139—41)



1. In a pile wire loom, a wire motion comprising a carrier horizontally slidable on a raceway, means for reciprocating said carrier, a pile wire horizontally reciprocable into and out of the shed of a fabric being woven on said loom, a selectively operable latch between said carrier and said pile wire, a movable coupler for engaging and disengaging said latch, and means for moving the coupler to cyclically vary the weftwise position at which the wire and the carrier are coupled and uncoupled.

2,874,725

PILE WIRE FOR LOOMS

Hyde W. Ballard, West Chester, Pa., assignor to James Lees and Sons Company, Bridgeport, Pa., a corporation of Pennsylvania

Application February 8, 1957, Serial No. 639,133
7 Claims. (Cl. 139—44)



1. A wire for a pile fabric loom comprising a first body member having a relatively smooth upper edge, a second pile forming member secured to and collapsible with respect to said first body member, a profile edge on said pile forming member, and a head engageable with the pile forming member for elevating and collapsing the pile forming member with respect to the body member.

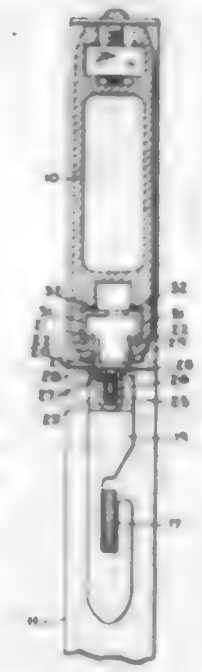
6. In a single wire pile fabric loom the combination which comprises a composite pile wire, a mask for said pile wire, a profile upper edge on said pile wire, means for elevating and collapsing the pile wire and the mask to selectively present an upper profile surface and smooth surface, and means for controlling the weftwise position of the composite wire in timed relation to the formation of a warp shed.

2,874,726

HEDDLE FRAMES

John J. Kaufmann, Jenkintown, Pa., assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania

Application November 19, 1954, Serial No. 470,024
2 Claims. (Cl. 139—92)



1. In a loom harness frame having top and bottom rails each provided with a groove open along its inner longitudinal edge, said grooves each including a narrow slot open on the inner edge of the rail and having an enlarged interior, said slot and said enlarged interior each having flat side faces, the means for supporting longitudinal rods in the frame intermediate their ends comprising a plurality of longitudinally spaced bracket members each consisting of a flat metallic strip bent and shaped to provide a loop like pocket for the reception of the rod and having separate legs each extending through the slot in the rail and into the enlarged interior of the groove, said legs also being bent and shaped to provide a headlike portion disposed in the enlarged interior of the groove, said legs having flat faces engaging the flat side faces of the slot and of the enlarged interior of the groove.

2,874,727

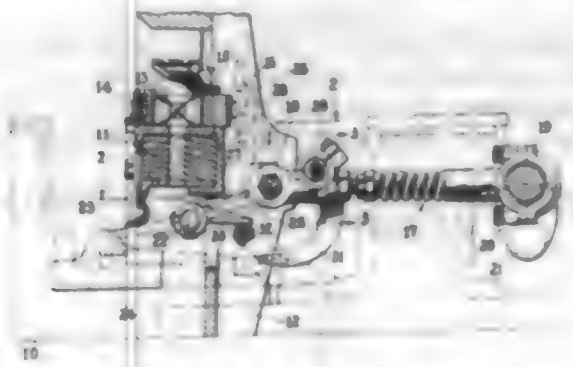
SHUTTLE BINDER CONTROL MEANS

Joseph M. Budzyna, East Douglas, and Howard Crowther, Hopedale, Mass., assignors to Draper Corporation, Hopedale, Mass., a corporation of Maine

Application October 22, 1956, Serial No. 617,324
5 Claims. (Cl. 139—187)

1. In a loom having a crank shaft, a swinging lay having a shuttle box at either end and a crank arm connecting said lay to the crank shaft, a shuttle binder at each shuttle box, a protector shaft carrying a dagger and a finger for contacting and applying pressure to the binder, a means for biasing said shaft to cause the finger to apply

pressure on the binder which comprises a first arm fixed to said shaft, a pivot intermediate the ends of the crank arm, a second arm oscillatable upon the crank arm pivot and having its relatively free end engaged with said first



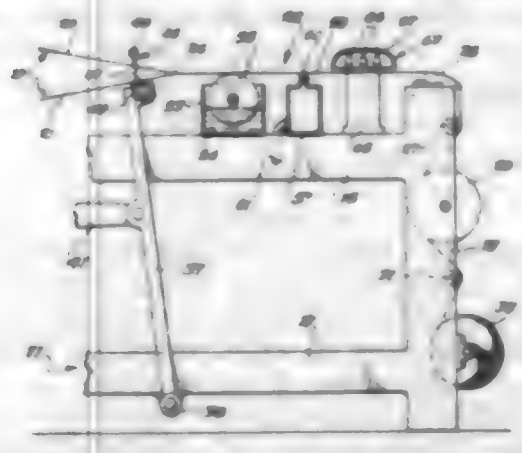
arm at the shaft, and resilient means applied between said crank arm and said second arm pivoted thereto for urging the latter in a direction to tighten the binder on the shuttle.

2,874,728
STOP MOTION FOR LOOMS
Mitchell M. Rosenstein, Willimantic, Conn.
Continuation of application Serial No. 457,323, September 21, 1954. This application May 2, 1955, Serial No. 505,302
13 Claims. (Cl. 139—371)



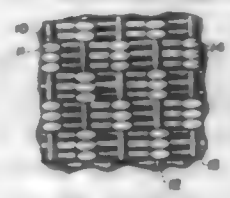
9. For a loom having a shuttle block with an electrical conductor thereon; a shuttle including a quill for a filler thread, a spring contractible for tensioning said thread, and a contact member on said shuttle connected to said spring and biased into position to contact said conductor; the said spring being capable of retaining the contact member out of contacting position while tensioning said thread.

2,874,729
DURABLE OPEN-MESH FABRIC
Albert L. Ball, Worcester, Mass., assignor to Bay State Abrasive Products Company, Westboro, Mass., a corporation of Massachusetts
Application September 20, 1955, Serial No. 535,341
10 Claims. (Cl. 139—383)



1. A strong, durable, open-mesh, woven fabric the warp and filling yarns of which are adhesively attached at their points of interlacing by an adhesive which at least partially impregnates said yarns and which coats said yarns over their entire exposed surfaces, said fabric having a structure in which the mesh opening-yarn ratio (A:B) is not less than 1:4 and A is greater than the thickness, as viewed from the edge of the fabric, of the largest yarn used therein and is not less than 0.02 in., the coating on said warp yarns being under slight compression, and the mesh openings of said fabric being substantially unobstructed, having shapes substantially as woven, and being free of distortion resulting from contact with said fabric subsequent to weaving and prior to the application of said adhesive.

2,874,730
WOVEN STRUCTURAL MATERIAL
Sawyer M. Pomeroy, Lyndhurst, Ohio, assignor to The W. S. Tyler Company, Cleveland, Ohio, a corporation of Ohio
Application December 1, 1955, Serial No. 550,398
4 Claims. (Cl. 139—425)



1. A woven structural metal material formed of longitudinal and cross strands, said longitudinal strands being arranged in a plurality of groups which extend over and under the cross strands, each longitudinal strand in said groups having an enlarged flattened portion at the junction with the cross strand, the width of said flattened portion being greater than the remaining portions of the longitudinal strands, whereby said flattened and enlarged portions space the remaining portions of the longitudinal strands from each other.

2,874,731
WIRE FORMING APPARATUS
Clarence J. Smith, Rockford, Ill., assignor, by mesne assignments, to W. F. and John Barnes Company, Rockford, Ill., a corporation of Illinois
Application May 24, 1954, Serial No. 431,711
5 Claims. (Cl. 140—71)



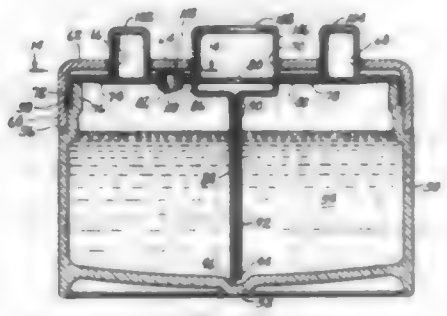
1. A power operated apparatus for forming tire inserts from zig-zag wire stock having transverse sections disposed substantially in a common plane while the stock is moving continuously along a path of travel, the combination comprising a plurality of pairs of adjacently located revolvably driven die means disposed on opposite sides of said path of travel for progressively and continuously engaging opposite end portions of said transverse wire sections along substantial lengths of said path of travel and for bending said end portions of said transverse wire sections out of said common plane and generally into U-shapes, and endless revolvable means disposed between at least one of said pairs of revolvably driven die means for engaging mid portions of said transverse sections and retaining the zig-zag wire stock in position between said last mentioned revolvably driven die means, one of said pairs of revolvably driven die means including a pair of rollers disposed with their axes extending generally along said path of travel, and means providing helical grooves in said rollers with the bottom of said grooves converging toward each other, said grooves being adapted to receive and retain end portions of said transverse wire sections and to feed said end portions axially of said rollers, said end portions being bent out of said common plane as they advance in the converging grooves.

2,874,732

WRITING INSTRUMENT FILLING DEVICE

Nathan Zepelovitch, New York, N. Y., assignor, by mesne assignments, to Nahum A. Bernstein, New York, N. Y.

Application October 10, 1956, Serial No. 615,047
15 Claims. (Cl. 141—30)



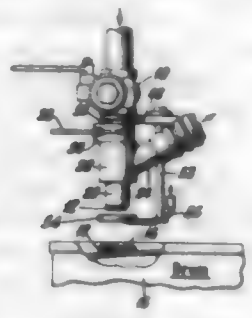
1. A device for automatically filling writing instruments of the type having an ink reservoir and a writing tip in fluid communication therewith comprising an ink supply container, a writing instrument-receiving unit shaped to engage the writing tip of a writing instrument inserted therein in substantially hermetic relationship, a conduit member dependent from said writing instrument-receiving unit for connecting the ink reservoir of a writing instrument inserted in said receiving unit in fluid communication with the interior of said container, means associated with said container for effecting a volume reduction therewithin, said last mentioned means having a pressure relief passage therein connecting the interior of said container with the atmosphere externally of said container sized to permit substantial maintenance of atmospheric pressure within said container during volume reduction thereof, valve means responsive to the difference in pressure between that of the atmosphere external of said container and that within said container for selectively closing said pressure relief passage during a volume increase therewithin and for permitting the pressure within said container to return to that of the external atmosphere after the volume of said container is returned to its original volume.

2,874,733

CONTAINER FILLER

Robert W. Sesler, Charleston, Darrell H. Baldwin, Hurricane, and Glen O. Sprouse, South Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York

Application June 20, 1956, Serial No. 592,535
4 Claims. (Cl. 141—87)



1. A container filler for introducing a feed spout into a container inlet and exhausting fumes liberated during the filling operation, comprising a sleeve adapted to slidably receive said feed spout and to loosely enter the container inlet with a clearance therebetween, and a hood surrounding said sleeve and having an exhaust outlet and terminating in a rim forming an exhaust inlet, said sleeve and hood being secured together at the top with a clear annular space therebetween below the top to slide as a unit with respect to said feed spout to extend said sleeve into the inside of said container inlet and the rim of said hood into position surrounding the outside of said container inlet, with said container inlet entering said clear annular space, and with said annular space aligned with said clearance between said sleeve and container inlet to receive fumes therefrom.

2,874,734

AUTOMATIC CONTAINER-FILLER DEVICE

Vernon O. Lockock and Mary R. Lockock, Los Angeles, Calif., assignors of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California

Application April 2, 1957, Serial No. 650,138
6 Claims. (Cl. 141—87)



1. An automatic container-filler device cooperable with a bottle filling machine having a source of liquid to be dispensed, a vertically reciprocating member, and a horizontally reciprocating member for rapid dispensation of liquids within a bottle, comprising: a filler tube having a dispensing end and a liquid source connecting end and cooperable for connection with respect to a source of liquid to be dispensed; said dispensing end having vents and carrying a valve therein; said filler tube being coupled in driven relationship with respect to the vertically reciprocating member of a bottle filling machine and having an up position and a down position; said valve having spring biased trip means which is cooperable upon contact with the inside bottom of the bottle for starting the flow of liquid; wiper means fixedly mounted in a vertical plane with respect to said filler tube and slidably surrounding said filler tube and cooperable for wiping excess liquid from the outer surface thereof; a drip pan having an operable and non-operable position and coupled with respect to the horizontally reciprocating member of a bottle filling machine, said drip pan being actuated into said operable position upon actuation of said filler tube into said up position.

2,874,735

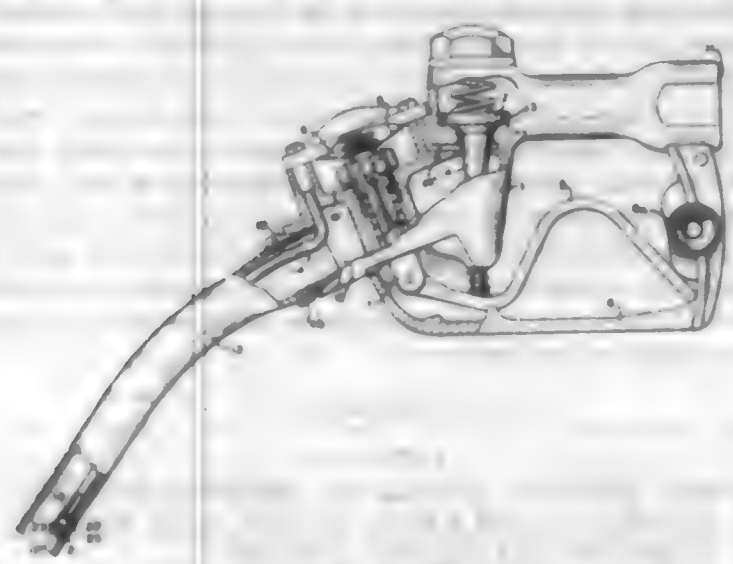
AUTOMATIC LIQUID DISPENSING NOZZLES

Wallace D. Boone, Cincinnati, Ohio, assignor to OPW Corporation, Cincinnati, Ohio, a corporation of Ohio

Application June 26, 1956, Serial No. 593,908
6 Claims. (Cl. 141—208)

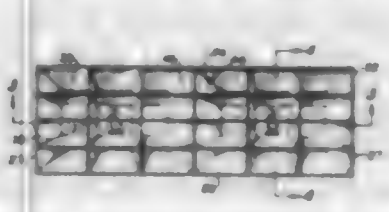
1. An automatic dispensing nozzle having a valve controlled liquid dispensing passage, means for biasing the valve to closed position, a lever for opening the valve connected to a diaphragm interposed between a chamber in which a vacuum is created by the flow of the liquid being dispensed and an air chamber, an air conduit extending from the vacuum chamber to an air inlet adjacent the discharge end of the nozzle, and a gravity operated valve mounted in the air conduit adapted to be seated on a valve seat therefor for closing the air conduit when the nozzle is tilted to any position with its discharge end

at a higher elevation than the opposite end and unseated for opening said air conduit when the nozzle is tilted



to any position with its discharge end at a lower elevation than the opposite end.

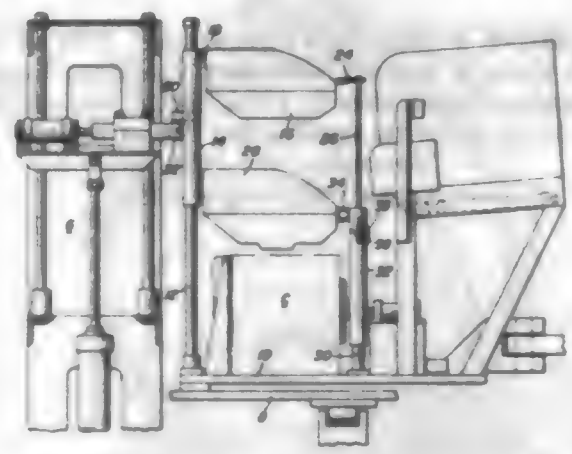
2,874,736
FROZEN CONFECTION LOADER AND CONTAINER
Max Hughes, West Sacramento, Calif.
Application March 13, 1956, Serial No. 571,199
1 Claim. (Cl. 141—234)



A guide chute for loading frozen confections from a stick holder into a pair of compartmented containers comprising a pair of downwardly and inwardly inclined end panels, a pair of downwardly and inwardly inclined side walls, a longitudinal vertical center wall, a pair of transversely disposed and downwardly diverging dividing walls symmetrical about the transverse axis of said container, a first pair of spaced transverse partition walls in downwardly converging attitude between one of said dividing walls and the adjacent of said end panels, a second pair of spaced transverse partition walls in downwardly converging attitude between the other of said dividing walls and the adjacent of said end panels, and a pair of longitudinal walls symmetrically disposed on opposite sides of said center wall in a downwardly converging attitude with respect to said center wall.

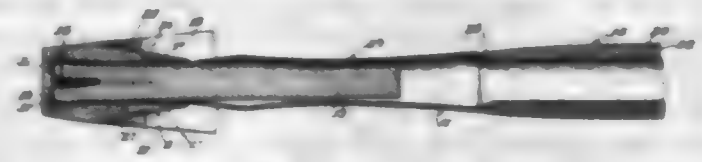
2,874,737
DUAL-HOPPER APPARATUS FOR FILLING CONTAINERS
Peter S. Magna, Pittsburg, and William E. McCormick, Concord, Calif., assignors to United States Steel Corporation, a corporation of New Jersey
Application May 1, 1957, Serial No. 656,460
4 Claims. (Cl. 141—263)

1. A two stage container-filler guide apparatus comprising a base adapted to support an open top container, a first pair of spaced vertical guide rods projecting upwardly from said base adjacent one side thereof, a sleeve slidably telescoped on each of said rods, a first hopper attached to and supported by said sleeves for vertical movement toward and away from said base, a lift plate extending between and connected with said sleeves at a point intermediate the ends thereof, a second pair of spaced vertical guide rods projecting upwardly from said base spaced from and generally parallel with said first pair, a sleeve slidably telescoped on each of the rods in said second pair, a second hopper adapted to fit into the open top of a container disposed on said base attached to and supported by said last named sleeves for vertical movement toward and away from said base, said second hopper being attached to said last named sleeves by means of a lug projecting laterally from said second hopper, said lug having a center hole therethrough, said first hopper being dimensioned to fit into said second



hopper, and lifting means depending from said first hopper adapted to engage said lug to thereby lift said second hopper as said first hopper is being raised after said first hopper has been raised a predetermined distance, said lifting means including a lift rod depending from said first hopper and slidably fitting into the center hole of said lug, and stop means on the lower end of said lift rod adapted to engage the undersurface of said lug.

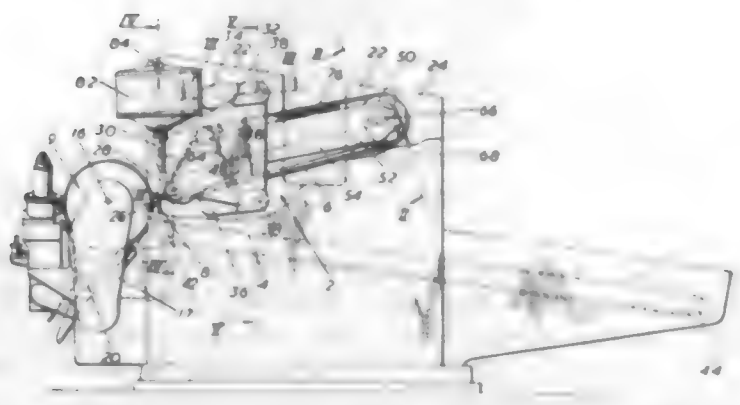
2,874,738
CLAW HAMMER WITH TUBULAR HANDLE
Clarence M. Lay, Bushnell, Ill., assignor to Vaughan & Bushnell Mfg. Co., Bushnell, Ill., a corporation of Illinois
Continuation of application Serial No. 565,976, February 16, 1956. This application April 1, 1958, Serial No. 727,021
6 Claims. (Cl. 145—29)



1. As a new article of manufacture, a hammering tool comprising: a head embodying an elongated open-ended eye with the interior thereof of generally uniform cross sectional shape from end to end; an elongated one-piece tubular handle formed of a laterally expanded length of metallic tubing and having substantially the same wall thickness throughout, said handle having an intermediate inwardly bowed neck-like part which is continuous and symmetrical in cross section and of substantially the same cross sectional shape from end to end, said neck-like part being flared gradually outwardly in opposite directions completely around its periphery from its mid point to its ends, said handle also having a comparatively long rear end part which is connected to the rear end of the intermediate neck-like part and is of uniform cross sectional shape from end to end, and a front end part which is connected to the front end of the intermediate neck-like part, has the central and front end portions thereof shaped conformably to, and fitting snugly within, the eye, and has its rear end portion disposed directly behind the rear end of the eye and flared rearwardly beyond the confines of the eye in all directions; an elongated driven-into-place plug formed of slightly compressible material, having the front end portion thereof extending through, and fitting snugly within, the front end and central portions of the front end part of the handle, and having its rear end portion extending no less than half-way through the inwardly bowed neck-like part and

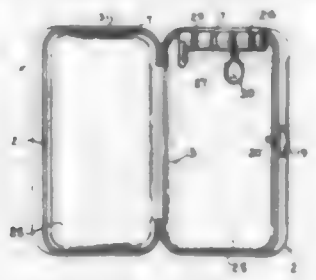
making firm contact with the medial region of said inwardly bowed neck-like part, said rear end portion of the plug being tapered rearwardly and out of contact with said inwardly bowed neck-like part except at the latter's medial region; and a tubular grip extending completely around, and serving as a covering for, the rear end part of the handle.

2,874,739
MACHINE FOR CUTTING LEAF TOBACCO
Patrick Quintin Robert Schreiber, London, England
Application November 9, 1954, Serial No. 467,845
Claims priority, application Great Britain November 10, 1953
3 Claims. (Cl. 146—119)



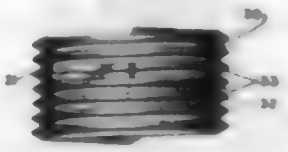
1. A machine for cutting leaf tobacco into shreds comprising a main frame, a mouthpiece having a top member, an upper and a lower conveyor for feeding tobacco through the mouthpiece, a rotary cutter, arms supporting said rotary cutter from a portion of said frame lying a substantial distance below the level of said mouthpiece, knives mounted on said rotary cutter, said knives having cutting edges generating a cylindrical surface of revolution, portions of the surface of revolution being immediately adjacent the front of the mouthpiece, means mounting the top member of the mouthpiece and the front of the upper conveyor for substantially vertical movement, the front lower edge of the top member moving in an arc substantially concentric with and having the same radius as the cylindrical surface of revolution, a plate disposed in a vertical plane and extending rearwardly from each side of the mouthpiece, means mounting the top member on said plates, a pair of parallel links connecting each plate to said main frame, said links being pivoted at their rear ends to said plates and at their front ends to the main frame, said front ends being rearward of said mouthpiece.

2,874,740
KEY CASE
George J. Magean, Jr., Fiskdale, Mass., assignor to Buxton, Incorporated, Agawam, Mass., a corporation of Massachusetts
Application January 24, 1958, Serial No. 710,910
3 Claims. (Cl. 150—40)



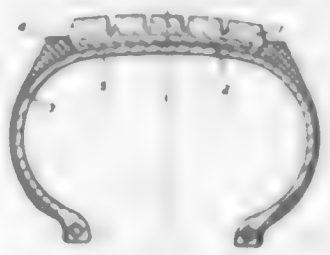
1. A key case comprising two substantially rigid tray-shaped members hinged together along one side edge for swinging movement toward and from each other and forming a chamber between them when swung into superposed case closing relation, corresponding end walls of the members being each formed with an elongated notch, said notches positioned to mate with each other when the case is closed, an elongated key loop support fixed to the inner face of one of said members parallel to and closely adjacent the notch in the end wall thereof, a plurality of key receiving loops pivotally connected in spaced relation along said support for selective swinging movement to and from the case, said notches being of sufficient depth to permit the case to be closed with one or more loops extending outwardly of the case through the opening formed by said notches, said support substantially closing said opening when the case is closed, the bottom of the notch in the case-half opposite that to which the key loop support is secured being provided with a metal bead.

2,874,741
COIL SPRING LOCKING INSERT HAVING CHORDAL LOCKING MEANS AND BITING CORNER RETAINING MEANS
Leo J. Brancato, Danbury, Conn., assignor to Heli-Coil Corporation, Danbury, Conn., a corporation of Delaware
Application November 28, 1955, Serial No. 549,362
2 Claims. (Cl. 151—14)



1. A screw thread insert adapted to line a tapped hole in a boss or nut and to receive a screw threaded bolt in its interior, said insert forming a substantially cylindrical body of a helically coiled wire of a substantially diamond shaped cros-section with its longer axis intersecting the axis of said cylindrical body so as to provide inner and outer screw thread forming portions, said body having, prior to its insertion into said tapped hole, an outer diameter slightly larger than the major diameter of said tapped hole, one end of the insert being shaped as a grip to be engaged by an inserting tool from the inside of said insert, at least one convolution of the insert located intermediate and at substantial distances from both insert ends formed of at least three straight lined chords of the helix of the coiled wire, the ends of said chords forming with each other and the adjacent wire portions small filleted corners located on diameters substantially of the same length as that of the cylindrical insert body prior to its insertion so that said corners will tend to bite into the material of said boss or nut after the insertion, said grip end adjoining a reduced convolution arc of said body, and any corner formed by said grip end being located on a diameter smaller than that on which said chord corners are located.

2,874,742
PNEUMATIC VEHICLE WHEEL TIRES
Giuseppe Lugli, Milan, Italy, assignor to Pirelli Societa per Azioni, Milan, Italy, a limited-liability company of Italy
Application May 21, 1954, Serial No. 431,550
6 Claims. (Cl. 152—176)



1. A pneumatic vehicle wheel tire with a replaceable tread, said tire comprising a casing unit and a tread unit detachably mounted thereon, said tread unit having a

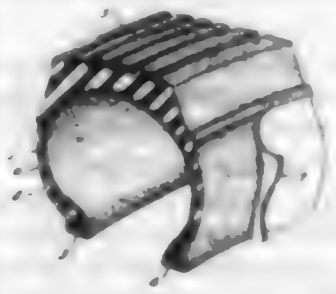
smooth inner periphery and consisting of a substantially cylindrical ring of rubber interiorly reinforced in a stratum of the ring near the inner periphery thereof with at least two superposed plies of substantially inextensible filiform reinforcing elements laid substantially parallel to the mid-circumferential plane of the tire whereby the ring is rendered substantially inextensible circumferentially; said casing unit having wheel rim engaging beads at the inner periphery of the unit and carrying on the outer periphery of the unit a smooth seating for the tread unit on which seating the tread unit seats uninterruptedly at all points along its inner periphery, said casing unit having a flattened cross-section when in the non-inflated condition and an external diameter at said seating when in said condition which is substantially equal to the internal diameter of the tread unit, said casing unit comprising a carcass portion consisting of at least one layer of substantially inextensible filiform reinforcing elements laid in the layer in planes which are substantially radial to the tire and contain the rotational axis thereof, said elements of said ring and similarly said elements of said carcass portion being embedded in a matrix of rubber completely separating them from one another, and the arrangement being such that the inflation pressure of the tire is effective to maintain the tread unit in non-slip engagement with the casing unit and by reason of the radial-plane disposition of the reinforcing elements of the casing unit, said casing unit, as regards a layer thereof in the immediate neighbourhood of the tread unit seating, is yieldable longitudinally of said seating so as elastically to move as one with the tread unit as the latter moves relatively to said beads under the working stresses in the tire, thus eliminating all creeping of the tread unit relatively to the casing unit in spite of the absence of any form of anchorage between the two.

2,874,743

WHITE SIDEWALL FOR PNEUMATIC TIRES

Walter C. Rowe, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application August 23, 1955, Serial No. 530,095
10 Claims. (Cl. 152—330)



7. An improved white sidewall for pneumatic tires, comprised of substantially 80 parts of a copolymer of at least 80% by weight of isobutylene with at least 20% by weight of isoprene, substantially 20 parts of chlorosulphonated polyethylene, and at least 110 parts total of a reinforcing filler made up of from 15 to 40 parts of zinc oxide, from 30 to 50 parts of silica dioxide, and from 20 to 47 parts of titanium dioxide, all parts based on 100 parts of co-polymer and chlorosulfonated polyethylene.

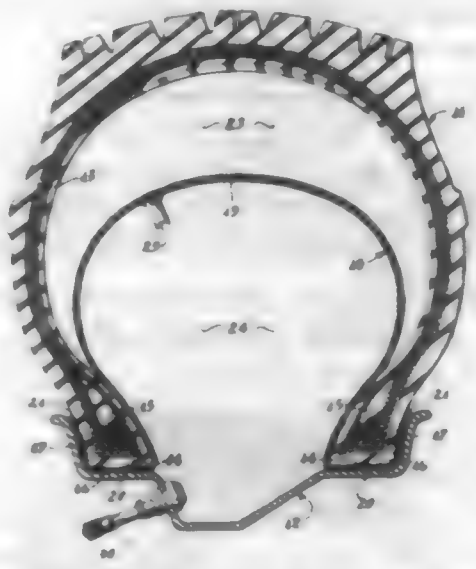
2,874,744

TUBELESS TIRES

James E. Trainer, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application August 11, 1953, Serial No. 373,582
4 Claims. (Cl. 152—342)

1. In combination, a tubeless tire, a rim carrying said tire, and a safety diaphragm extending from bead to bead of said tire and dividing the chamber defined by said tire and said rim into inner and outer compartments, said diaphragm comprising a substantially channel-shaped body portion of rubberized fabric terminating in generally axially outwardly extending portions interposed between the axial surfaces of said tire beads and the bead seats of said rim, and generally radially outwardly extending flap portions merging integrally with said axial portions and interposed between the radial outer surfaces



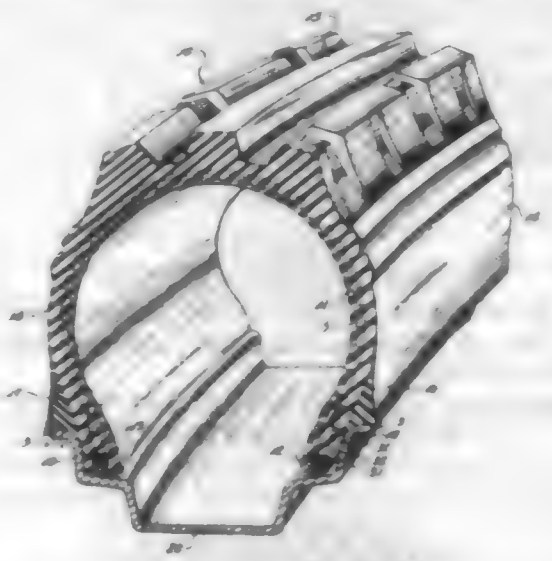
of said tire beads and the side flanges of said rim, said radial flap portions each comprising a monofilamentary sheet embedded in vulcanized rubber and extending from a point adjacent the heel of said bead substantially to the radially outermost edge of said radial portions, said vulcanized rubber having a hardness in the range of 60 to 80 Shore durometer to render said flap portions less flexible than the remainder of said diaphragm.

2,874,745

TUBELESS TIRE

Richard L. Wann, Cuyahoga Falls, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

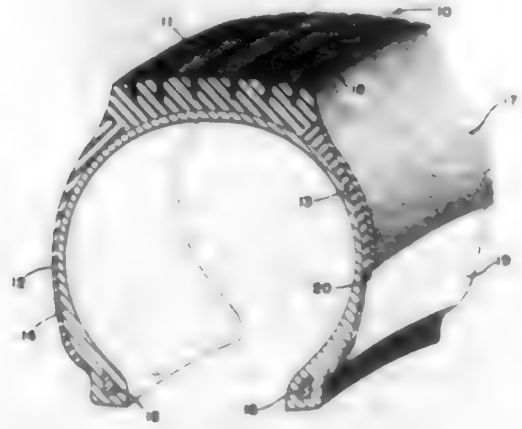
Application January 4, 1954, Serial No. 401,776
2 Claims. (Cl. 152—353)



1. In combination, a pneumatic agricultural tractor tire suitable for use without an inner tube and a tire rim having side flanges of standard contour, said tire comprising a body portion, tire bead portions and sidewalls, said sidewalls being composed of elastic rubber and having thickened portions molded to radially inner contours that approximately conform to the radially outer contours of said rim flanges and being in operative contact therewith when in use, the radially inner diameter of said thickened sidewall portions being approximately 3/32" less than the radially outer diameter of the portions of the said flanges which said portions of the sidewall contact in service; the lateral outer edges of said thickened portions in their molded shape extending laterally outwardly approximate-

ly 3/32" beyond the lateral outer edges of said flanges, whereby an air seal is made between said flanges and thickened sidewall portions and coarse foreign material is prevented from entering between said flanges and the tire beads, the lateral outer faces of said tire beads radially inward from said sidewalls having laterally outwardly opening fine soil receiving recesses formed therein, said recesses being defined by spaced concentric ribs molded on the tire beads and having a depth and width not greater than .047" and .094" respectively.

2,874,746
COLORED SIDEWALL TIRES
Parks M. Nichols, Detroit, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application June 9, 1955, Serial No. 514,151
8 Claims. (Cl. 152—353)



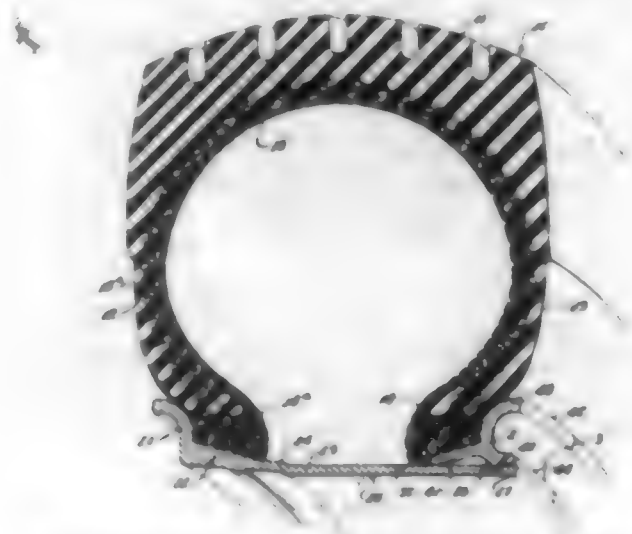
1. A pneumatic tire comprising a central tread portion of carbon black reinforced stock substantially devoid of staining materials, a colored sidewall layer of non-uniform thickness having a portion beginning at an edge of said tread, said colored sidewall layer being thinnest at said edge and said colored sidewall layer being integrally united to the entire side surface of the said tread portion, said colored sidewall layer proceeding downwardly from said edge in a gradual smooth S-shaped curve to a point of termination located below the horizontal mid-plane of the tire cross section and gradually increasing in thickness so as to be thickest at said point of termination, and a white sidewall portion adjoining and extending downwardly from said colored sidewall layer.

2,874,747
TIRE CONSTRUCTION
William R. Woodall, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application April 17, 1957, Serial No. 653,313
2 Claims. (Cl. 152—354)



1. A pneumatic tire having a body comprising a plurality of plies extending from one bead to the other bead of said tire, the strain-resisting elements of said plies being wrapped about in the same direction and being anchored to circumferentially inextensible members comprising the cores of said tire beads, respectively, and rubber cushioning members, having a hardness substantially less than the hardness of the sidewall and tread stocks of said tire, positioned in said tire beads with portions at least 1/10 inch in thickness in contact with said strain-resisting elements and between said cores and said elements, whereby the portions of said plies which are under longitudinal tension are effectively cushioned from said cores and pull laterally into said cushioning member portions to shorten their effective lengths when placed under tension.

2,874,748
TUBELESS TIRE AND RIM
Robert P. Powers, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application October 8, 1954, Serial No. 461,054
7 Claims. (Cl. 152—406)



1. In combination, an inflated tubeless truck tire, a two-piece metal truck tire rim, and a sealing ring, said rim comprising a continuous annular rim base having two lateral sides and having a side flange and an adjacent bead seat formed integral with said base on one of the two lateral sides, a continuous circumferentially extending radially outwardly opening annular gutter formed on the other lateral side of said rim base; a removable transversely split side flange mounted on the gutter side of said base, said removable side flange comprising an axially inwardly projecting bead seat portion overlying a portion of said rim base, the radially outer surface of said bead seat being sloped radially inwardly at an angle of 5° to 20° with the plane of said rim base, said removable flange having a portion projecting radially inwardly and fitting loosely in said gutter and a shoulder seated on the radially outer edge of the axially outer side of said gutter, said tire being mounted on said rim with one bead on the bead seat portion of said removable flange, said sealing ring being endless and composed of rubber-like material and being mounted axially inward of the axially inward edge of said bead seat portion and being in air-tight contact with a bead of said tire and said rim base, whereby inflationary air within said tire is prevented from reaching the juncture between said removable flange and rim base.

2,874,749
VALVE FOR DIRECTIONAL CHANGE
Winfield Scott Briuk, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application August 3, 1956, Serial No. 601,997
5 Claims. (Cl. 152—427)

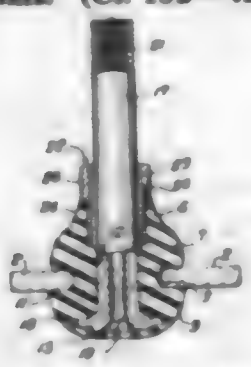
1. A tire rim and valve-stem assembly adapted for use with a tubeless tire, said stem having a barrel and a head-like base portion, said rim having a valve stem hole, the surface of the side of the valve hole adjacent the tire

side of said rim being of spherical shape, said valve stem being disposed in said valve hole with the valve barrel extending therethrough and projecting radially inwardly thereof with said valve base being disposed on the tire side of the rim, the surface of said valve base facing said rim being of spherical shape, said shape of the side of the valve hole and valve base being substantially complementary, a rubber-like sealing gasket on said barrel ad-



jacent said base and in contact with said spherical surfaces, means for changing the direction of projection of said barrel, said means comprising a rigid rim washer having a flat and a beveled side, said rim washer being mounted on and rotatable on said barrel, and a lock nut on said barrel, said flat side of said rigid washer being in contact with the rim and said nut being in contact with the beveled side of said rigid washer.

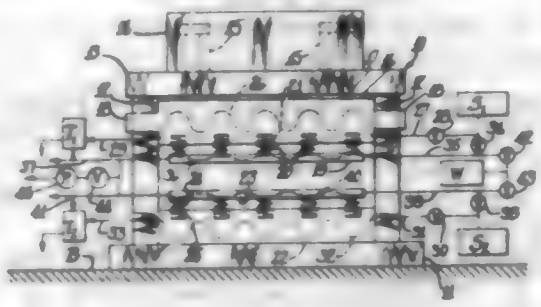
2,874,750
VALVE STEM
Ralph K. Boyer, Cleveland, Ohio, assignor to The Dill Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application March 20, 1957, Serial No. 647,411
4 Claims. (Cl. 152—427)



1. A valve stem for use with a rim for tubeless tires, which rim is provided with a standard valve stem opening, said stem having a body of rubber-like material, said body having a longitudinal opening therethrough, said body having intermediate its ends a portion of enlarged diameter, which diameter is greater than the diameter of the standard valve stem opening in the rim, and having thickened walls, a hollow insert occupying the longitudinal opening in the stem but slightly spaced from the wall of said longitudinal opening, said insert extending beyond the end of the said body, said insert having a laterally extending head portion of greater diameter than the valve stem opening in the rim, the said head portion being embedded in the body portion at the end thereof having the enlarged diameter, the body portion being provided with means to receive and secure a mounting tool, which tool is adapted to stretch the said body longitudinally along said hollow insert and move the enlarged diameter portion of the body so that it occupies the valve stem opening of the rim.

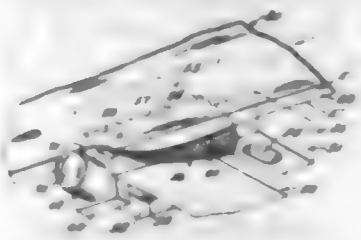
2,874,751
TEMPERATURE CONTROLLED PRESS
William H. Norton, Chicago, Ill., assignor to Thermel, Inc., Chicago, Ill., a corporation of Delaware
Application March 13, 1956, Serial No. 571,209
2 Claims. (Cl. 154—1)

1. In a molding press, an upper movable platen member, a thin mold-defining upper platen face piece, upper resilient means carried by the upper platen member and normally carrying the upper face piece in spaced relation therefrom, a lower fixed platen member, a thin mold-defining lower platen face piece, lower resilient means carried by the lower platen member and normally holding the lower face piece in spaced relation therefrom, press means selectively moving the platens and face pieces into



open and closed mold-defining relationship, both said resilient means being yieldable to said press means to accommodate surface-to-surface contact between each platen member and the face piece carried thereby in closed mold-defining relationship, heating means for said platen members, and cooling means and heating means connected to said face pieces.

2,874,752
PREPARATION OF COATED FABRIC MATERIAL
Wilhelm Brey, Cuyahoga Falls, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application February 17, 1958, Serial No. 715,605
13 Claims. (Cl. 154—1.8)



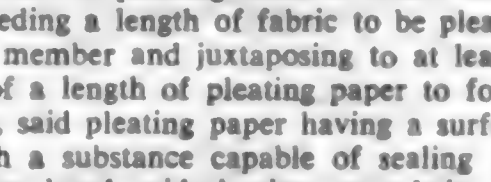
1. Apparatus for shaping the edge area of a longitudinally moving web having a self-adhesive insulating coating, said coating having a longitudinally aligned lower edge and an overlying thin fin extending laterally of said edge, including, a support adjustable laterally of said web and a shaping member attached to said support for turning said fin around and under said lower edge, said shaping member having a corrugated work surface frictionally engaging and holding said fin in an extended condition during turning thereof.

2,874,753
PROCESS OF BENDING WOOD
William L. Knowles, Murfreesboro, N. C.
No Drawing. Application April 24, 1956
Serial No. 580,171
2 Claims. (Cl. 154—33.05)

1. A process of producing a laminated corrugated sheet material having at least one lamination of wood, comprising the steps of arranging a sheet of wood with the grain of the wood generally parallel to the axis of the corrugation to be formed; coating the surfaces of said sheet with a wet adhesive mix of urea-formaldehyde of 50% solids content and an ammonium chloride hardener or catalyst of not over 10% by weight of the wet mix; spreading said coating uniformly on the surfaces of the wood sheet, at a rate, on each side of the sheet of not less than 8 nor more than 12 pounds of wet glue per 1,000 square feet of single surface area of the wood; applying to each coated surface of the wood sheet, a sheet of paper of moisture content of 5 to 6 percent by weight of the paper; preheating the said assembly in flat form for not over 30

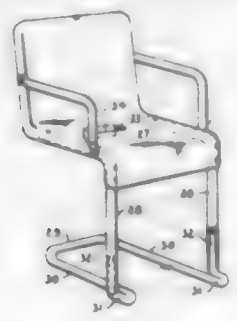
seconds in a chamber of dry heated air at 250 degrees Fahrenheit until about 90% of the moisture contents of the paper, wet coating, and wood is eliminated; and then immediately subjecting said assembly to heated corrugating die pressure at a temperature of 285 to 300 degrees Fahrenheit and pressure of 30 to 50 pounds per square inch for a period of not less than 20 seconds.

2,874,754
PLEATING PAPER AND METHOD
De Witte Mason Yost and James C. Schmitt, Middletown, Ohio, and Howarth E. Bouis, St. Louis, Mo., assignors to The Sorg Paper Company, Middletown, Ohio, a corporation of Ohio
Application August 6, 1956, Serial No. 602,098
12 Claims. (Cl. 154—33.05)



1. A method of pleating material which comprises the steps of feeding a length of fabric to be pleated toward a pleating member and juxtaposing to at least one surface thereof a length of pleating paper to form a composite web, said pleating paper having a surface thereof coated with a substance capable of sealing to itself in a face-to-face bond, said pleating paper being juxtaposed to said fabric with the said coated surface away from the fabric, pleating said composite web by forming recurrent folds therein so as to bring adjacent areas of the coated surface of said pleating paper into face-to-face contacting relationship and sealing together the contacting areas of the pleating paper to form a compacted pleated structure in which the fabric is retained in the folds of the pleated paper.

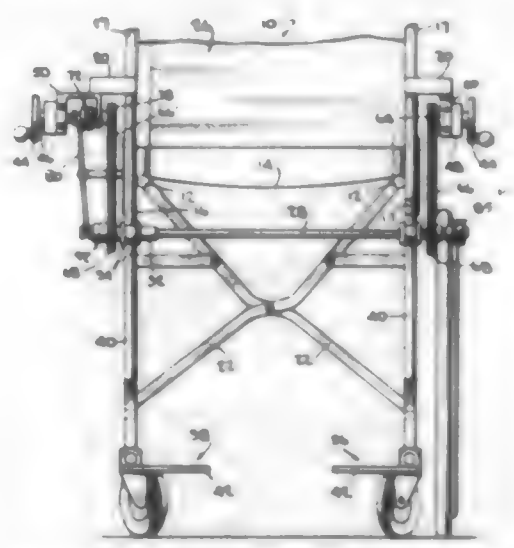
2,874,755
NESTING CHAIRS
Marion J. Smith, Columbia City, Ind.
Application May 2, 1955, Serial No. 505,179
4 Claims. (Cl. 155—2)



1. A structure for supporting an individual, said structure comprising a base, a seat, and spaced legs connecting only the frontal portions of the base and seat, said base being of a width somewhat less than the space between the legs for the purpose described, said seat having a portion struck with relation thereto to provide an opening for the hand, said opening being located to constitute a drain, and said portion being arranged for engagement with the seat of a corresponding structure.

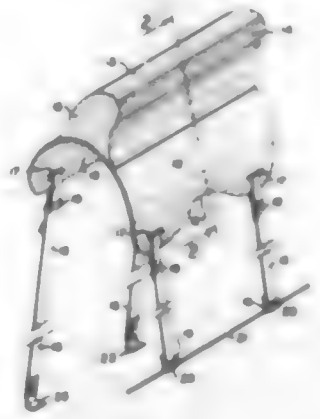
2,874,756
INVALID'S WHEELCHAIR
Aaron Simon, New York, N. Y.
Application August 5, 1955, Serial No. 526,634
10 Claims. (Cl. 155—171)

1. In an invalid's wheel chair, a pair of leg rests, means separately mounting said leg rests for oscillation about a single horizontal axis, a first manually manipulatable means including an anti-reversing transmisison for permitting an invalid in the chair to oscillate one of said leg rests independently of the other, a second manually manipulatable means including an anti-reversing transmission for permitting the invalid to oscillate the other leg rest independently of the first, manually manipulatable



means for disengagably coupling said leg rests for joint oscillation, and means for disengaging one of said first or second manually manipulatable means when the last named manually manipulatable means couples the leg rests.

2,874,757
HEADREST ACCESSORY
Roy Requa, Denver, Colo.
Application February 4, 1957, Serial No. 638,021
5 Claims. (Cl. 155—173)

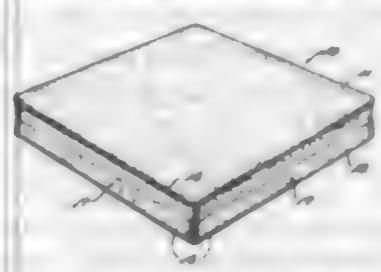


1. A headrest accessory for detachable association with conventional automobile and analogous seat assemblies, comprising a flexible, concavo-convex skirt adapted to conformably embrace and seat on the upper margin of a seat back section in overlapping relation with front and rear surface areas thereof, whereby said skirt shiftably envelops a portion of the associated seat back upper margin for selective adjustment both linearly therealong and arcuately thereof, a cushion member fixed longitudinally of and projecting radially from the convex surface of said skirt in an inward spacing from both side margins of the latter, and flexible, length-adjustable straps secured to both skirt side margins for connection with conventional elements of the seat assembly at opposite sides and adjacent the lower margin of the seat back section.

2,874,758
FOAM RUBBER CUSHION
Gordon Franklin Jones, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application January 28, 1958, Serial No. 711,754
3 Claims. (Cl. 155—178)

1. A resilient foam cushion of substantial thickness

having a top, a bottom and a plurality of sides, the top

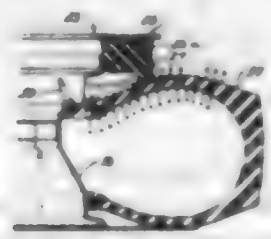


and bottom edges on all sides protruding laterally beyond the central portions of the sides by a substantial amount.

2,874,759
BEAD SEATING AND INFLATING DEVICE FOR TUBELESS TIRES

Emil G. Ranallo, Pittsburgh, Pa., assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application January 12, 1953, Serial No. 330,683
7 Claims. (Cl. 157—1.1)



1. Apparatus for inflating and mounting a tubeless tire on a tire rim when one of the beads fails to make sealing contact with the corresponding rim seating surfaces, comprising a pressure-resisting member adapted to span the gap between said rim and the exterior surface of said tire sidewall including means for making sealing contact with the exterior surface of said tire, intermediate said bead and the tread portion of said tire, and with said rim to form a closed chamber including the interior of said tire, said chamber enclosing a radially inward portion of said exterior surface of said tire sidewall and leaving a substantial area of the radially outward portion of said exterior surface exposed to the atmosphere, whereby when fluid under pressure is admitted to said chamber, unbalanced fluid pressure forces are imposed on said sidewall to move said sidewall and its bead toward contact with said rim, said means being yieldable to permit said movement of said sidewall.

2,874,760
BEAD SEATING DEVICE FOR TUBELESS TIRES

Walter F. Bishop, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application June 9, 1954, Serial No. 435,486
7 Claims. (Cl. 157—1.1)

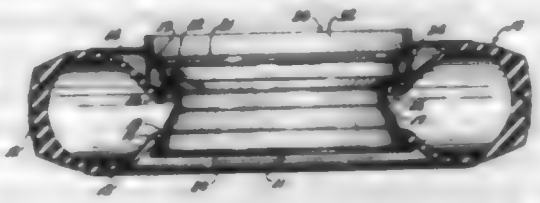


5. In a tubeless tire mounting device a bead seating mechanism, said mechanism comprising means for bridging the space between the lateral outer edge of a tire rim of a wheel assembly and an adjacent side of a tubeless tire being mounted on said rim; said means comprising a rigid and an axially collapsible and axially expandible wall joined at one of their edges in fluid tight relation the free edges of said rigid and collapsible walls having means to make temporary substantially fluid tight contact with said lateral outer edge of said rim and the side of said tire respectively, means for removably attaching said device to said wheel in operative position relative thereto.

2,874,761
BEAD SEATING AND INFLATING DEVICE FOR TUBELESS TIRES

Alexander J. Varvaro, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application August 26, 1954, Serial No. 452,328
5 Claims. (Cl. 157—1.1)

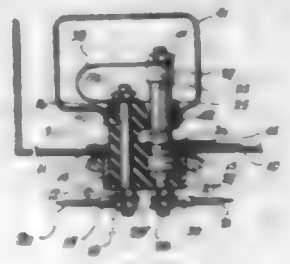


1. Apparatus for inflating and mounting a tubeless tire on a tire rim when one of the beads fails to make sealing contact with the corresponding rim seating surface, comprising pressure resisting means adapted to span the gap between said rim and the exterior surface of said tire sidewall and forming a closed chamber including the interior of said tire, said means including an axially slideable cylindrical member for making a first seal by sealing contact with the exterior surface of said tire intermediate said bead and the tread portion of said tire, and a second seal intermediate the rim and said cylindrical member to prevent loss of pressure from said closed chamber during axial sliding movement of said cylindrical member, said closed chamber enclosing a radially inward portion of said exterior surface of said tire sidewall and leaving a substantial area of the radially outward portion of said exterior surface exposed to the atmosphere, whereby when fluid under pressure is admitted to said chamber, unbalanced fluid pressure forces are imposed on said sidewall to move said sidewall and its bead toward contact with the rim, said cylindrical member being axially slideable to permit said movement of said sidewall.

2,874,762
AUTOMATIC IGNITER

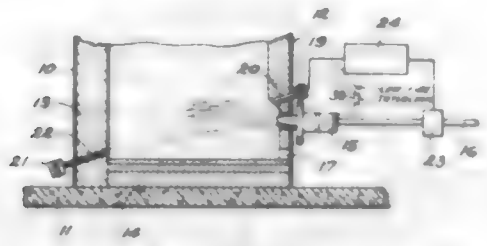
Phillip E. Dunstan, Seattle, Wash., assignor to Whirlpool Corporation, St. Joseph, Mich., a corporation of Delaware

Application March 29, 1954, Serial No. 419,469
5 Claims. (Cl. 158—28)



1. In a pot burner adapted to receive fuel oil for burning therein, a fuel igniter mounted in the pot, said igniter comprising a fixed electrode, a movable electrode, a thermostatic arm supporting the movable electrode and whereby it is caused to be moved into and from contact with the fixed electrode, an electric circuit including the electrodes and thermostatic arm therein and through which current can be caused to flow when the electrodes are engaged to heat said arm and thus effect adjustment of the electrodes apart to establish an arcing gap between them, and a wick in the pot positioned to conduct fuel from the bottom of the pot to the vicinity of the said gap for ignition by the arc when established between the separated electrodes.

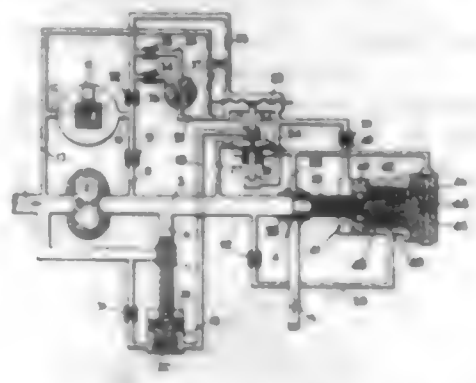
2,874,763
UNBURNED FUEL DETECTION AND BURNER CONTROL
William S. Hobbs, Swarthmore, Pa.
Application November 2, 1956, Serial No. 623,270
7 Claims. (Cl. 158—28)



1. In an ignition and combustion control system including a furnace having a combustion chamber and a burner adapted to deliver dispersed fuel particles, a fuel supply line for the burner, an electrically operable valve means in said fuel line, an elecrically operated source of light and a photoelectric cell mounted outside and on opposite sides of said fuel combustion chamber, means for directing light from said source toward said photoelectric cell through the path of fuel issuing from said burner into said chamber, a system energizing switch, a first relay including a coil having a plurality of normally closed switches and a normally open switch, a second relay having a normally open switch and a normally closed switch, a circuit means including the photoelectric cell for energizing said second relay, a switching means having a normally closed set of contacts and a normally open set of contacts, circuit means including said normally closed set of contacts connecting the coil of said first relay to said system energizing switch through said normally closed switch of said second relay to energize said first relay upon closing said system energizing switch whereby said normally open switch of said first relay is closed, a circuit for said first relay serving as a holding circuit for said first relay and including said normally open switch, a circuit including said normally open set of contacts and said switching means and a thermal means and said electrically operated source of light connected in series, operation of said switching means to close said set of normally open contacts serving to energize said source of light and said thermal means, the simultaneous opening of said normally closed set of contacts de-energizing said first relay, said photoelectric cell being effectively energized by said light to energize said second relay to close said normally open switch of said second relay, a circuit including the normally open switch of said second relay and said electrically operable valve means, whereby said electrically operable valve means in said fuel line is open when said normally open switch of said second relay is closed, said second relay adapted to be de-energized by an accumulation of unburned fuel particles in said combustion chamber blocking the path of light to de-energize said photoelectric cell whereby said normally open switch of said second relay is opened to cause said electrically operable valve means to close.

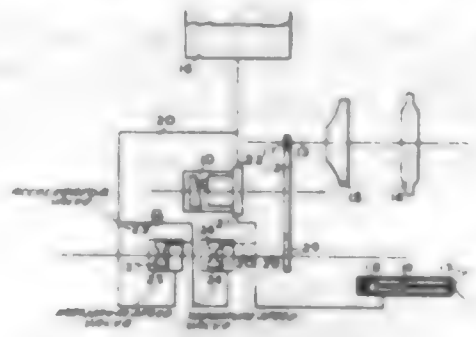
2,874,764
SPEED CONTROL FOR COMBUSTION ENGINES AND TURBINES
Douglas Gerhard Booth, Ilford, and Robert Spurgeon Wood, Chadwell Heath, Romford, England, assignors to The Plessey Company Limited, Ilford, England, a British company
Application March 11, 1953, Serial No. 341,638
6 Claims. (Cl. 158—36.4)

1. A liquid fuel supply system for internal-combustion driven prime movers, comprising a constant-delivery fuel pump, a delivery line from said pump to the prime mover, an adjustable-size metering orifice in said line, a spill line branched off said delivery line upstream of said metering orifice, adjustable valve means in said spill line for varying the flow of fuel therethrough, first actuator means operable by fuel delivered from said pump for altering the adjustment of said valve means, further actuator means, also operable by fuel delivered from said pump, for altering the size of said metering orifice, means driven by the prime mover producing a pressure drop variable according to the speed of the prime mover, primary control means differentially responsive to said pressure drop and to the pressure drop across said metering orifice for controlling the supply of fuel from said pump to said first actuator means, a control chamber, a first restricted orifice connecting said control chamber with one point of the system, a second restricted orifice connecting said



control chamber with another point of the system so chosen that the pressure difference between said first and second points varies according to the size of the metering orifice when said primary control means is in a state of balance, secondary control means for controlling the supply of fuel from said pump to said further actuator means, said secondary control means including a pressure-sensitive element responsive to variations of the pressure in said control chamber, and a movable abutment operatively connected to said further actuator means for common movement therewith to vary the effective volume of said control chamber according to the movement of said actuator means in such a direction as to counteract such pressure variations.

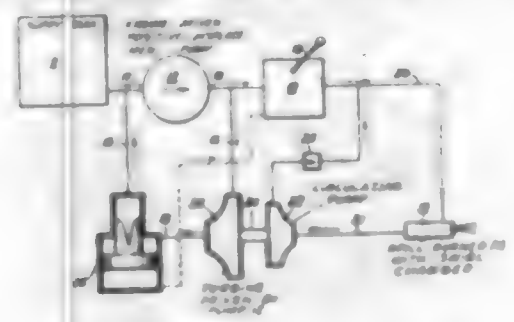
2,874,765
FUEL SUPPLY SYSTEM FOR A GAS TURBINE ENGINE POWER PLANT
Charles S. King, Solihull, England, assignor to The Rover Company Limited, Solihull, Warwickshire, England
Application May 9, 1955, Serial No. 506,992
Claims priority, application Great Britain May 11, 1954
3 Claims. (Cl. 158—36.4)



1. A gas turbine engine fuel supply system comprising a source of fuel, an engine-driven fuel pump, a burner to supply heat to the engine, a conduit for supplying fuel to said pump from said fuel source, a conduit for delivering fuel from said pump to said burner, a fuel jet for said burner, means for increasing and decreasing the effective area of said jet in accordance with increase and decrease respectively of the rate at which said burner receives fuel from said pump, a by-pass leading from between the pump outlet and the burner inlet back to said fuel source, an engine-driven-governor-operated minimum speed control valve and an accelerator valve arranged in series in said by-pass, and an engine-driven-governor-operated maximum speed control valve arranged in paral-

lel with said accelerator valve in said by-pass, said valves acting to control the proportion of the fuel which is diverted from said burner to flow through said by-pass.

2,874,766
LIQUID FUEL SUPPLY SYSTEMS FOR GAS TURBINE ENGINES
Stanley R. Tyler, Cheltenham, England, assignor to Dowty Fuel Systems Limited, Cheltenham, England
Application April 5, 1957, Serial No. 651,021
7 Claims. (Cl. 158—36.4)



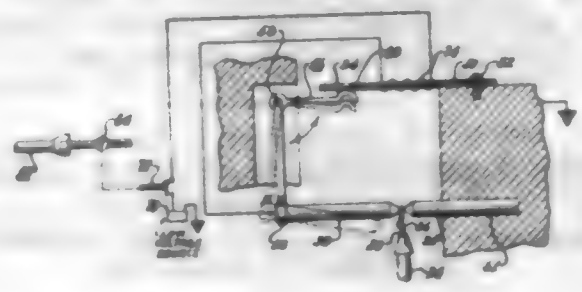
1. A fuel supply system for a gas turbine engine, said system comprising at least one spill spray nozzle, a circulating pump, a closed circuit for delivering fuel from the circulating pump to the nozzle and for return of unused fuel to the circulating pump, a positive displacement supply pump to supply fuel under pressure into the closed circuit, a by-pass passage means connecting the inlet and the outlet of the supply pump, and a valve therein arranged to withdraw fuel from the output of the supply pump, fuel flow control means acting on the by-pass valve to control fuel flow from the output of the supply pump to the closed circuit, and a liquid-operated motor in driving connection with the circulating pump and driven by fuel withdrawn into the by-pass passage from the output of the supply pump.

2,874,767
ROTARY ATOMIZING BURNER APPARATUS FOR LIQUID FUEL
Hendrik N. F. Verloop, Amsterdam, Netherlands
Application August 2, 1955, Serial No. 525,996
5 Claims. (Cl. 158—77)



1. In a rotary atomizing burner apparatus for liquid fuel, a substantially cup-shaped rotary atomizer member, means for feeding fuel to said atomizer member, a stationary air nozzle sleeve member coaxially surrounding said atomizer member and spaced therefrom to form an axially extending annular space between said atomizer member and sleeve member, said sleeve member being provided with a plurality of circumferentially-spaced air inlet ports directed tangentially with respect to said annular space and a plurality of circumferentially-spaced radially directed air inlet ports disposed in the spaces between said first-named inlet ports to provide a plurality of pairs of ports with each pair consisting of a tangentially-directed inlet port and a radially-directed inlet port, a regulating valve sleeve closely mounted on said air nozzle sleeve for rotary sliding movement on said air nozzle sleeve in both directions, said valve sleeve being provided with air passage openings adapted to cooperate with the respective pairs of inlet ports of said sleeve member and shaped and positioned in such a way that when upon rotation of the valve sleeve about the nozzle sleeve the tangential inlet ports of the sleeve member are gradually closed and the radial inlet ports of the latter are gradually opened, and vice versa, and blower means for forcing air into said annular space through the air passage openings of said valve sleeve and the air inlet ports of said sleeve member.

2,874,768
GAS BURNER IGNITER
William G. Brosene, Jr., Cincinnati, and Paul R. De Selms, Hamilton, Ohio, assignors, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application January 4, 1954, Serial No. 401,975
7 Claims. (Cl. 158—115)



1. An igniting system for a fuel burner comprising means to supply fuel to said burner, a pair of electrodes, supporting means for providing relative movement between said electrodes thereby to draw an electric arc by separation of said electrodes, said electrodes being disposed in igniting proximity to said burner, means responsive to burner heat for increasing electrode separation to break said arc, a source of electric energy, a circuit connected to said source whereby said source provides an electric current through said electrodes, heat evolving means included in said circuit, and means coupled to said electrode supporting means to cause arc drawing separation of said electrodes.

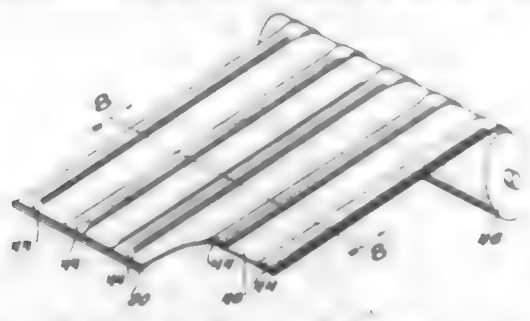
2,874,769
EVAPORATION OF BENZENE HEXACHLORIDE SOLUTIONS
Thomas Robert Bell III, Stafford, and Ford R. Lowdermilk, Gwynedd Valley, Pa., assignors to Pennsalt Chemicals Corporation, a corporation of Pennsylvania
No Drawing. Application May 31, 1956
Serial No. 588,246
3 Claims. (Cl. 159—49)

1. In a multistage process for the separation of alcohol from alcohol-benzene hexachloride solutions the improvement comprising evaporating as a film in a final stage liquid solutions of 20 to 45% benzene hexachloride solids of 25 to 60% gamma isomer content dissolved in an aliphatic monohydric alcohol containing not more than 2 carbon atoms, at an initial temperature of at least 145° F. by indirect heat transfer, continuing the said evaporation until all of the alcohol is vaporized and the benzene hexachloride solute has a final temperature of at least 200° F., but not more than 350° F., and is entirely in the liquid state and thereafter separating the alcoholic vapor from the molten benzene hexachloride while maintaining the said final temperature.

2,874,770
SELF-SUPPORTING BLIND
Henry C. Rohr, Rochester, and Cyril T. Wallis, Brockport, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 15, 1955, Serial No. 522,283
2 Claims. (Cl. 160—23)

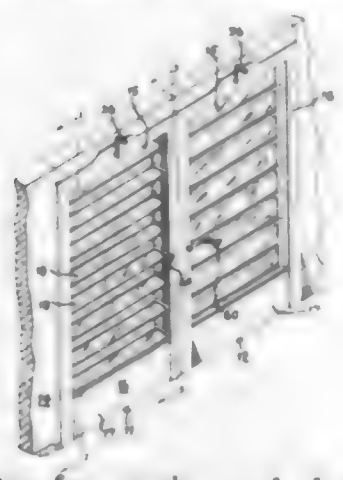
1. A self-supporting blind comprising, a plurality of spaced apart resiliently flexible strips, the transverse cross-section of each strip comprising an arc, a roller to

which the inner ends of said strips are attached having a radius substantially equal to the radius of said arc whereby said strips may be coiled about said roller to form a planar cross-section, means extending transversely



of said strips and continuously engaging said strips adjacent the roller for determining the angular position thereof when uncoiled, and a covering adhesively attached to said strips and supported thereby.

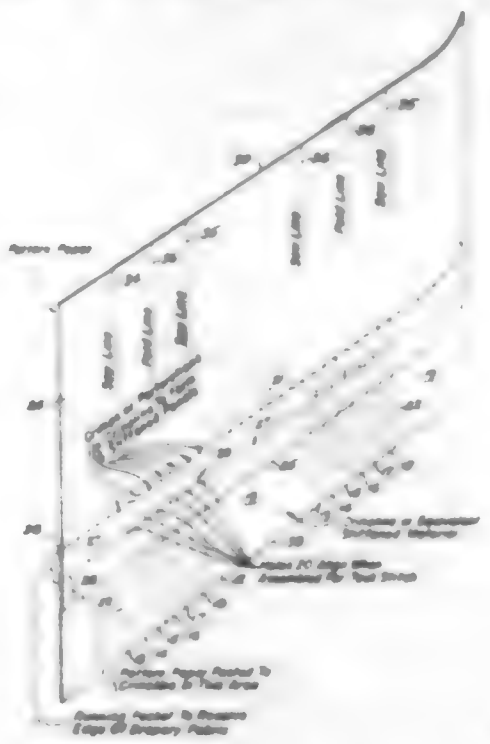
2,874,771
SELF-STORING INTERENGAGING LOUVERS
John Muhr, Miami, Fla.
Application August 27, 1957, Serial No. 680,447
12 Claims. (Cl. 160—33)



1. An apparatus for venting and closing an opening in a building comprising a hollow frame surrounding said opening, said frame including a portion forming a storage compartment adjacent said opening, a first elongate cover plate for said storage compartment, means disposed within said hollow frame for moving said cover plate to and fro across said opening in the plane of said opening and in a direction transversely of the length of said cover plate, a plurality of like elongate planar louvers, foldable linkage disposed within said hollow frame for rotatably supporting said louvers in spaced parallel relation in the plane of said opening, said louvers being disposed parallel to said first cover plate, a second cover plate movably positioned in said storage compartment in parallel relation to said first cover plate, means for confining the movement of said second cover plate within said storage compartment, means for attaching one end of said foldable linkage to said first cover plate, and means for attaching the other end of said foldable linkage to said second cover plate whereby said louvers are positioned between said cover plates, the construction and arrangement being such that movement of said first cover plate in one direction will collapse said louvers into said storage compartment and movement of said first cover plate in the opposite direction across said opening will draw said louvers into spaced parallel relation in said opening.

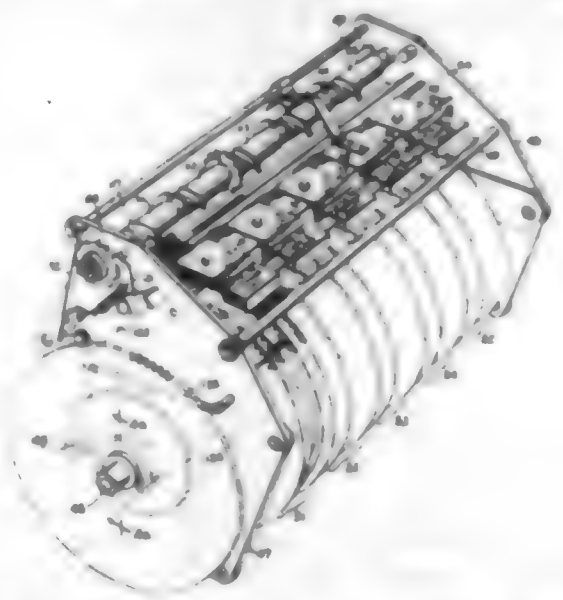
2,874,772
FRENCH PLEATS AND DEVICE FOR FORMING FRENCH PLEATS IN DRAPERIES
James E. Dwyer and Lawrence B. Ambrose, San Francisco, Calif.
Application October 13, 1954, Serial No. 462,024
5 Claims. (Cl. 160—348)

1. An aid for the making of French pleats in draperies comprising a strip of stiffening material, having thereon at each place where each pleat is to be formed a pair of adjacent vertically extending narrow panels, said panels being joined by a web which bends more easily than said panels, and a strip of pattern material secured at one of its edges to said stiffening strip, said pattern strip



having means thereon in general alignment with the web connecting the outermost of said narrow panels with said strip of stiffening material to indicate where an upper marginal portion comprising a pleat of the drape is to be secured together by a vertical seam.

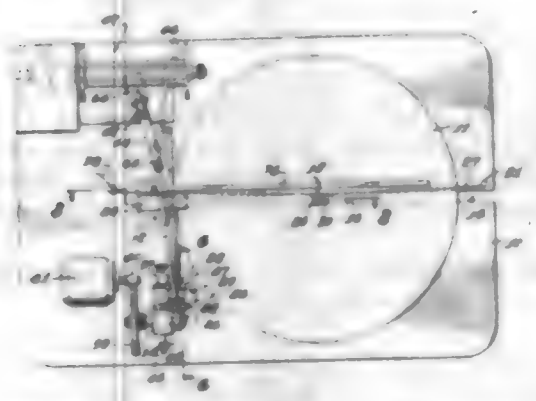
2,874,773
PROGRAM UNIT FOR TIME RECORDER
Richard L. Lorenz, Chicago, Ill., assignor to General Time Corporation, New York, N. Y., a corporation of Delaware
Application April 17, 1953, Serial No. 349,420
12 Claims. (Cl. 161—21)



5. In a program unit for a time recorder or the like having a timing shaft and a function-performing mechanism, the combination comprising a disc coupled for rotation with said timing shaft, said disc having means for mounting a plurality of lugs side by side, a release member adapted for coupling to said function-performing mechanism, a plurality of sensing fingers arranged in alinement with the lugs on said clip and having wiping engagement therewith, said release member having an edge extending across all of said sensing fingers, said sensing fingers each being provided with an upraised lug, transport means for moving the edge of said releasing member longitudinally along said sensing fingers, said edge and said lugs being angularly arranged with respect

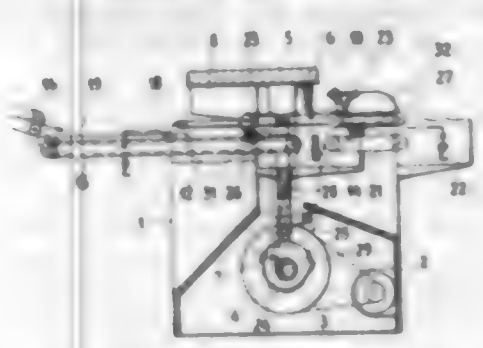
to one another so that the edge is brought successively into engagement with said lugs and so that the sensing finger having the engaged lug is solely effective to operate said release member, and means for actuating said transport means for one step of movement following each complete revolution of the disc.

2,874,774
LACING CUTTER
Ray W. Scott, Los Angeles, Calif.
Application August 3, 1955, Serial No. 526,259
6 Claims. (Cl. 164—37)



1. In apparatus for spirally cutting material into lacing, or the like: a support; means for holding a cutting element on the support; a member movable along the support toward the holding means and having provisions for rotatably mounting material to be cut; means cooperable with the strip of material cut for rotating the material; transmission means capable of slipping for advancing the member toward the holding means in accordance with the angular movement of the material; and abutment means forming a limit to advancement of the number and causing the transmission to slip, thereby terminating the strip by a circular cut of the material.

2,874,775
TRIMMING MACHINE FOR AUTOMATICALLY TRIMMING THE THREE OPEN EDGES OF STAPLED BOOKLETS
Hans Müller, Zofingen, Aargau, Switzerland
Application May 6, 1957, Serial No. 657,386
Claims priority, application Switzerland May 9, 1956
3 Claims. (Cl. 164—48)



1. A trimming machine for automatically trimming the three open edges of stapled booklets comprising in combination: a base, a trimming block vertically reciprocable relative to said base and having three knives, two trimming stations arranged one behind the other in the direction of movement of the stapled booklets relative to said trimming block, a transporting device moving said stapled booklets to said trimming stations at a follow-up frequency corresponding to the frequency of strokes of said trimming block and carrying said booklets away therefrom after the trimming operation, aligning means having abutments operating synchronously to the strokes of said trimming block and protruding into the path of said stapled booklets before a trimming operation, immobilizing the same at said trimming stations, the upper- and lower-edges of one stapled booklet being trimmed by two of said knives at one of said trimming stations simultaneously with the forward edge of another stapled booklet being trimmed at said other trimming station by the third one of said knives, said transporting device comprising rollers and sprocket wheels having horizontal axes, endless conveyer belts passed around said rollers, endless chains passed around said sprocket wheels and having abutment dogs, said chains running in the same direction as and at a lower speed than said conveyer belts, rollers having horizontal axes and endless guide belts arranged laterally of said conveyer belts and passed around said last named rollers, said guide belts converging wedge-shape in the direction of movement of said booklets.

2,874,776
PUNCH AND DIE MECHANISM
Hunter E. Hoge, Athens, Ohio, assignor to Royal McBee Corporation, New York, N. Y., a corporation of New York
Original application June 7, 1954, Serial No. 434,861, now Patent No. 2,791,133, dated May 7, 1957. Divided and this application December 31, 1956, Serial No. 631,931
2 Claims. (Cl. 164—50)

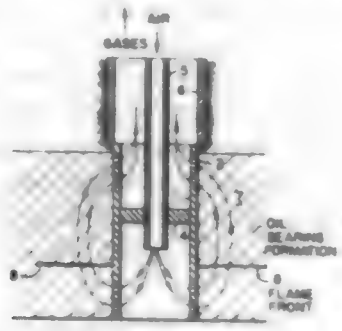


1. A notching punch and die mechanism comprising a spring steel plate, a plurality of spring fingers formed integral with said plate adjacent one edge thereof and extending toward the opposite edge, the free ends of said fingers being bent slightly out of the plane of said plate, a plurality of notching heads one formed integral with the free end of each of said fingers, said notching heads being bent slightly out of the plane of the remainder of said fingers, and a plurality of substantially U-shaped notches in said plate adjacent said opposite edge thereof and facing said one edge, said U-shaped notches being adapted to cooperate with said notching heads to shear notches in a card placed therebetween when said notching heads are passed through said U-shaped notches.

2,874,777
PRODUCING PETROLEUM BY UNDERGROUND COMBUSTION
Harco J. Tadema, Amsterdam, Netherlands, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application July 14, 1955, Serial No. 522,011
Claims priority, application Netherlands July 19, 1954
5 Claims. (Cl. 166—11)

1. A method for carrying out an underground combustion in an oil-bearing formation which is penetrated by at least one well for the purpose of producing fluids therefrom, the steps of establishing communication between the bottom of said oil-bearing formation and the ground surface through a first conduit, establishing communication between the top of said oil-bearing formation and the ground surface through a second conduit, forcing under pressure an oxygen-containing gas into the bottom portion of said oil-bearing formation through the first conduit, initiating and maintaining combustion at the

bottom of said oil-bearing formation to heat the oil therein and drive the components of said oil in a substantially vertical direction toward the top of said formation, a part of the combustible material originally in said



oil-bearing formation being burned as the combustion zone moves in a substantially vertical direction, and withdrawing the volatile unburned components of the oil from the top of said formation through the second conduit.

2,874,778

HYDRAULIC CEMENTS HAVING AN EXTENDED THICKENING TIME AND PROCESSES EMPLOYING THE SAME

Herman H. Kaveler, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application August 14, 1952
Serial No. 304,362
12 Claims. (Cl. 166—31)

1. A cement consisting essentially of a major portion of a hydraulic cement mixed with 0.25 to 5 percent by weight of the dry hydraulic cement of a water-soluble setting time increasing agent selected from the group consisting of acid carboxymethyl oxycellulose ether, acid alpha carboxyethyl oxycellulose ether, acid beta carboxyethyl oxycellulose ether, and salts of said acids.

2,874,779

OIL WELL TREATING METHOD

Carl E. Johnson, Jr., Whittier, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application March 23, 1956
Serial No. 573,318
6 Claims. (Cl. 166—42)

1. An improved method for increasing the permeability to oil of an oil-producing formation which has decreased permeability due to partial blocking by relatively small quantities of water in the capillary interstices of said oil-producing formation, said method comprising injecting through the bore hole penetrating said formation and into said oil-producing formation an oil solution of an oil soluble alkylated phenol polyethylene glycol ether having 3 to 25 glycol units, at least 8 carbon atoms in the oil-solubilizing alkyl portion, and a ratio of alkyl carbon atoms to the number of glycol units ranging from one and one-third to four, said ether being present in the oil in a small amount less than 5% but sufficient to lower substantially the interfacial tension of the blocking water to oil, and thereafter producing said injected oil solution and formation oil from said borehole, thereby removing water blocking and increasing the effective permeability to oil of said oil-producing formation.

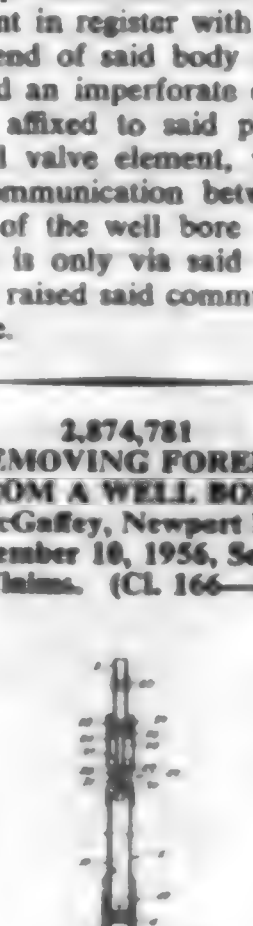
2,874,780

OIL WELL PROCESS AND APPARATUS

Richard J. Gertzen, Cut Bank, Mont., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application November 5, 1956, Serial No. 620,519
6 Claims. (Cl. 166—105)

1. A well pump assembly comprising a tubular body member adapted to be inserted into a well bore on a well tubing string, said body member having at least one upper aperture extending laterally through the walls and adjacent the upper end thereof and at least one lower aperture extending laterally through the walls and adjacent the lower end thereof; a pump seat disposed within said body member above said upper aperture; a well pump supported within said body member on said pump seat; a perforate tubular member extending downwardly within said body member from the intake port of said pump; a valve seat disposed within said body member



above said lower aperture and below said tubular member; a valve element in register with said valve seat and sealing the lower end of said body member above said lower aperture; and an imperforate connecting rod having its upper end affixed to said pump and its lower end affixed to said valve element, whereby when said pump is seated communication between the well fluid producing portion of the well bore and the interior of said body member is only via said upper aperture but when said pump is raised said communication is also via said lower aperture.

2,874,781

TOOL FOR REMOVING FOREIGN MATTER FROM A WELL BORE

Edgar W. McGaffey, Newport Beach, Calif.

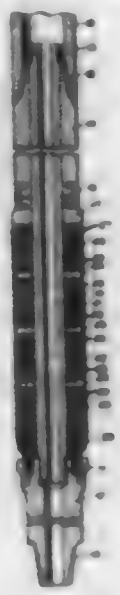
Application September 10, 1956, Serial No. 608,888
16 Claims. (Cl. 166—167)



15. A bailer for wells, comprising: a tubular trapping member for receiving well fluids and solid particles from the well; said member having an intake valve and an outlet valve; pump means for drawing fluids and solid

particles through said intake valve and for expelling fluids through said outlet valve; said pump means including a tubular housing connected to said trapping member; a tubular plunger in said housing; said plunger and housing forming a suction chamber therebetween; means forming a seal between said plunger and said housing; said housing having an inlet port adjacent said trapping member leading from said trapping member into said suction chamber; and valve means in said plunger communicating with said suction chamber for discharging fluids from said suction chamber into said tubular plunger; said tubular plunger having an open end communicating with said trapping member.

2,874,782
DOUGHNUT-TYPE PACKER
Mordica O. Johnston, Glendale, and Richard H. Stanley, Bakersfield, Calif., assignors, by mesne assignments, to Johnston Testers, Inc., Houston, Tex., a corporation of Texas
Application October 17, 1955, Serial No. 540,712
4 Claims. (Cl. 166—204)



2. In a packer, an elongated mandrel, a stationary collar fixed to said mandrel, a movable collar slidably mounted on said mandrel, a plurality of annular elastomer packing elements slidably mounted on said mandrel between said collars and movable from an uncompressed position to a compressed diametrically enlarged position when said movable collar is moved toward said stationary collar, said packing elements having opposed flat surfaces when said packing elements are uncompressed, a rigid disc-like annular ring slidably mounted on said mandrel between each pair of adjacent packing elements, at least one circular rib projecting from each of the opposite faces of each said ring toward the flat surfaces of the adjacent packing elements for releasably engaging said surfaces in said uncompressed position and projecting into said surfaces in said compressed position of said packing elements.

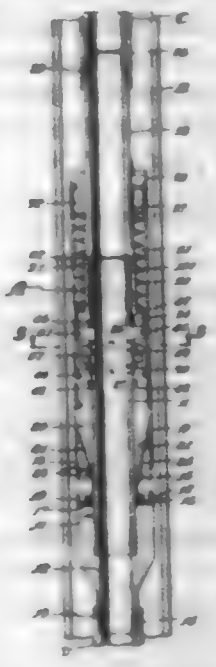
2,874,783
FRICTIONAL HOLDING DEVICE FOR USE IN WELLS
Marcus W. Haines, Long Beach, Calif.
Application July 26, 1954, Serial No. 445,729
21 Claims. (Cl. 166—212)

1. An anchor for releasably restraining axial movement of a tubing string in a well, comprising: anchoring members mounted on the tubing string for movement into frictional contact with a tubular member positioned in the well; each of said anchoring members having a hard smooth metallic surface for engaging said tubular member; and fluid pressure operated means embodied in the tubing string for urging said surfaces of said anchoring members into frictional gripping contact with said tubular member for frictionally holding the anchor with respect to the casing under normal stresses, and for permitting



sliding frictional movement of the anchor relative to the casing responsive to abnormal tubing stresses.

2,874,784
TUBING ANCHOR
John R. Baker, Pasadena, and Earnest H. Clark, Jr., Downey, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application October 17, 1955, Serial No. 540,732
15 Claims. (Cl. 166—212)



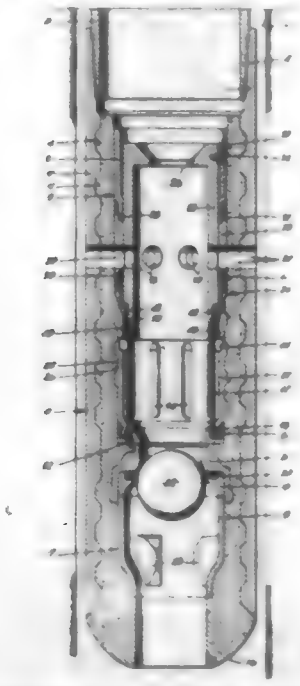
1. In a well tool: a body; expander means on said body; slips cooperable with and shiftable with respect to said expander means for anchoring the tool to the wall of a well casing; fluid actuated means for moving said slips and expander means in one direction relative to each other to shift said slips to casing anchoring position; said slips having casing engaging wickers facing in the same direction as said slips are movable relative to said expander means; latch means operatively connected to said expander means for preventing relative movement between said slips and said expander means and releasable in response to a predetermined pressure imposed upon said expander means to permit relative movement between said slips and expander means; and means for shifting said fluid actuated means to relatively move said slips and expander means in the opposite direction to reset said latch means.

2,874,785

APPARATUS FOR AUTOMATICALLY FILLING WELL CONDUITS WITH FLUID

John F. Muse, Montebello, Calif., assignor to Baker Oil Tools, Inc., Vernon, Calif., a corporation of California

Application April 27, 1953, Serial No. 351,396
20 Claims. (Cl. 166—225)



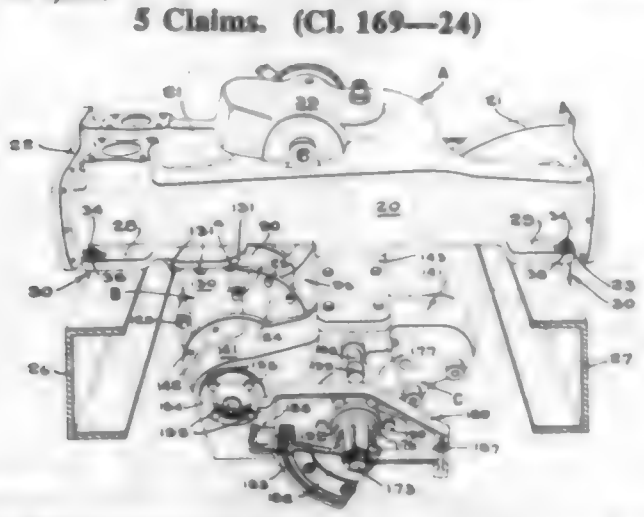
1. In well apparatus: tubular means adapted to be incorporated in a conduit string to be lowered in a well bore; a back pressure valve in said tubular means adapted to close in an upward direction; said tubular means having a port through its side wall above said back pressure valve; a valve member in said tubular means having a passage therethrough in fluid communication with said back pressure valve and movable with respect to said port to regulate the flow of fluid therethrough, said valve member having a flow restricting passage through which fluid flowing through said port and into said valve member passes to build up a back pressure tending to elevate said valve member to restrict fluid flow through said port; said valve member being movable downwardly to a position closing said port.

2,874,786

DRIVE AND BRAKE MECHANISM

William H. Cilker, Los Gatos, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

Original application March 12, 1951, Serial No. 215,060, now Patent No. 2,780,998, dated February 12, 1957. Divided and this application September 1, 1953, Serial No. 377,864
5 Claims. (Cl. 169—24)



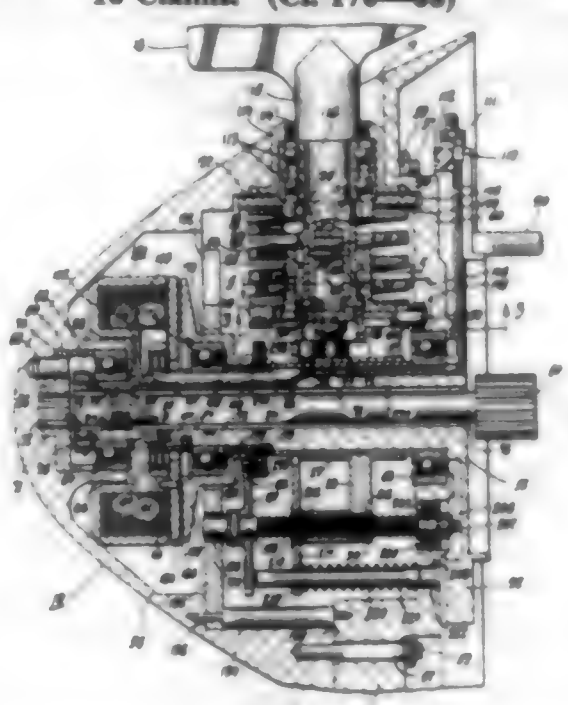
1. A drive and brake mechanism for a fire fighting vehicle, comprising a hollow, rigid manifold constructed and arranged to be mounted in fixed spanning relation between two spaced support members, a rigid bracket secured to said manifold and projecting outwardly therefrom, a drive housing secured to said bracket, a drive shaft journalled in said drive housing, a brake drum secured to said shaft adjacent said drive housing, and a braking element mounted on said drive housing adjacent said brake drum for movement into gripping engagement with said drum to prevent rotation of said shaft, said bracket being mounted on said manifold directly above said shaft and projecting in a direction generally parallel to said shaft whereby to effectively transmit to said manifold turning moments in either rotary direction caused by forces tending to rotate said shaft while said braking element is engaged with said brake drum.

2,874,787

AIR DRIVEN POWER UNIT

Virgil B. Battenberg, Dayton, Fred H. Katterheinrich, Troy, and Robert L. Sayre, Vandalia, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 5, 1956, Serial No. 569,470
16 Claims. (Cl. 170—68)



1. An air-driven power unit comprising, in combination, a stationary hollow shaft with a spinner housing assembly rotatably journalled to windmill thereon, a plurality of variable pitch propeller blades rotatably journalled in said spinner assembly, a driven shaft operably attached to said spinner assembly and rotatable in said hollow shaft with said spinner assembly, centrifugal governor means operably engageable with said blades in said spinner to adjust pitch angle of said blades only toward an increased pitch position due to only one-way driving engagement between said centrifugal governor means and said blades, feathering means operably engageable with said blades, and means for actuating said feathering means operably included in said unit while effecting disengagement of the one-way driving engagement of said centrifugal governor means from operative cooperation with said blades.

2,874,788

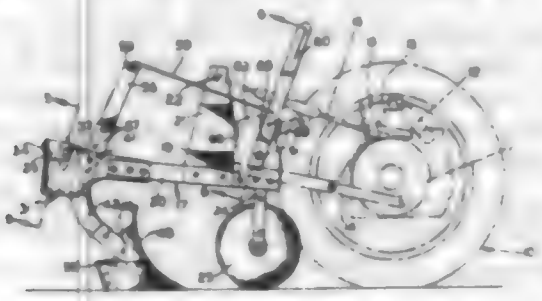
TWO WAY PLOW WITH REVERSIBLE MOLDBOARD

Rudolph J. Altgelt, South Bend, Ind., assignor, by mesne assignments, to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application October 9, 1952, Serial No. 313,973
9 Claims. (Cl. 172—219)

1. A two-way plow comprising a plow frame, means defining a substantially vertically disposed pivot axis on said frame, a plow beam oscillatable about said axis, a pair of mirror image frogs having a central upstanding portion and laterally spaced rearwardly extending inner and outer terminal flanges, means securing said beam intermediate corresponding adjacent inner terminal

flanges of said frogs, a vertically arched, forwardly concave moldboard mounted on said frogs, rearwardly extending landsides abutting the rear surface of said moldboard in flatwise contact with the outer flanges, respectively, of said frogs, means securing said landsides to said outer frog flanges, an actuating lever pivotally carried by said



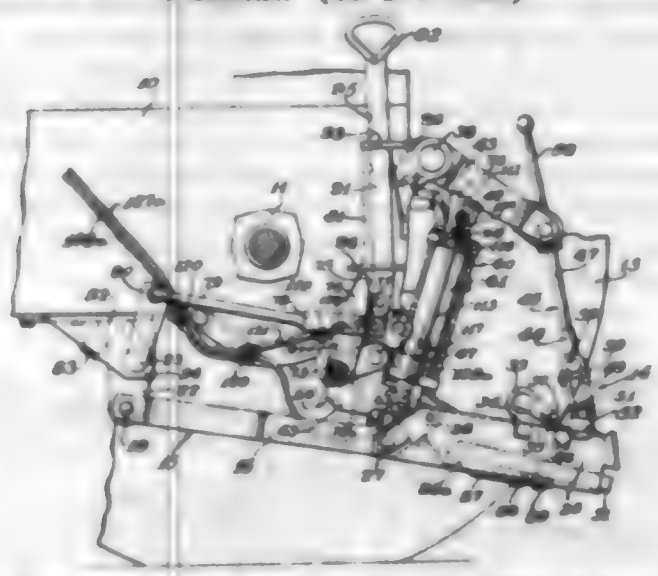
frame, linkage means joining said lever to said beam for oscillating the same upon pivoted movement of said lever, and an indexing plate engaged by said lever at each extremity of pivoted movement thereof to retain said lever in position with said beam and moldboard in one of a pair of adjusted plowing positions.

2,874,789

DRAFT CONTROL APPARATUS INDICATORS FOR IMPLEMENTS

Gordon L. Hershman, Chicago, Ill., assignor to International Harvester Company, Chicago, Ill., a corporation of New Jersey

Application April 10, 1957, Serial No. 652,057
4 Claims. (Cl. 172—239)



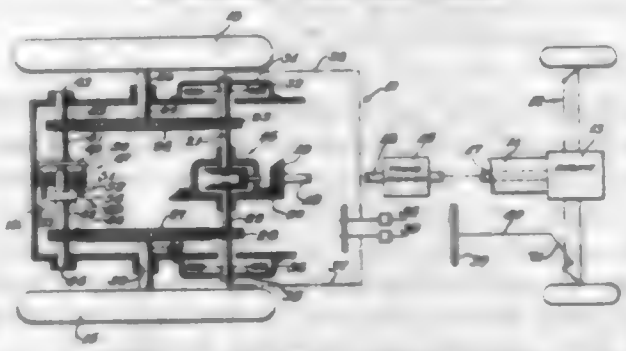
1. In draft control means for an implement adapted for attachment to a tractor having lift means thereon and wherein longitudinal movement of the implement relative to the tractor in response to draft forces acting on the implement is transmitted to the implement lift means, and wherein a lever arm pivotally mounted on the tractor is operatively connected by a connecting rod with the implement while connecting means between said rod and said lever comprising an abutment carried by said rod frictionally engageable with one edge of said lever transmits motion of the rod thereto and means for shifting the radial position of said abutment relative to the fulcrum of said lever is operative to adjust the effective length of the latter so as to vary the amount of draft force acting on the implement that are transmitted through said lever to said lift means, the combination with an indicating device comprising, a scale having a plurality of indicia positioned thereon, said indicia being arranged so that the position of a first one thereof corresponds with the forwardmost position of movement of said connecting rod relative to the tractor, a second one corresponds with the rearwardmost position of the said connecting rod and a third one intermediate said first and second ones corresponds with a medial position of longitudinal movement of the said connecting rod, manifesting means adapted to move along and register with the indicia of said scale, means operatively connecting said manifesting means with the said lever for transmitting movement of said lever to the said manifesting means to indicate in cooperation with the indicia of said scale the relative amount of draft forces acting on the implement that are transmitted through the said lever to the lift means.

2,874,790

STEERING BY DRIVING WITH DIFFERENTIAL LOCK-OUT BULL GEAR COUPLING

Richard G. Hennessey, Chicago, Ill., assignor to International Harvester Company, Chicago, Ill., a corporation of New Jersey

Application July 3, 1957, Serial No. 669,788
6 Claims. (Cl. 180—6.2)



1. In a vehicle of the type having a frame, an engine mounted on said frame, a steering wheel assembly carried at one end and a plurality of traction propelling wheels at the other end of said frame, said traction wheels being drivingly connectable with said engine, the combination, including: power transmission means having a sectional driving shaft, and a differential driving gear connecting the engine to the sections of said driving shaft; said traction wheels being disposed with one operatively connected with each end of said driving shaft; a plurality of independent brake mechanisms each operative to brake one of the sections of said driving shaft; a sectional countershaft parallel with said driving shaft; an electrically actuated clutch having the separate members thereof mounted each on one of the sections of said countershaft to operatively couple together said sections when said clutch members are engaged; separate drive means operatively connecting the sections of said countershaft one to each of said traction wheels; electrically energizable control means interconnecting said clutch, brakes and steering wheel assembly with a source of electrical energy and including a plurality of separately actuatable normally closed disconnect mechanisms operatively connected, respectively, one with each of said brake mechanisms so that it is actuable upon operation of a respective brake mechanism and one with said steering wheel assembly which is actuable when said assembly is rotated a predetermined amount in either direction; said disconnect mechanisms being electrically connected together in series so that actuation of any one of said disconnect mechanisms is operative to interrupt the flow of electrical energy from said source through said control means to effect the disengagement of said electric clutch.

2,874,791

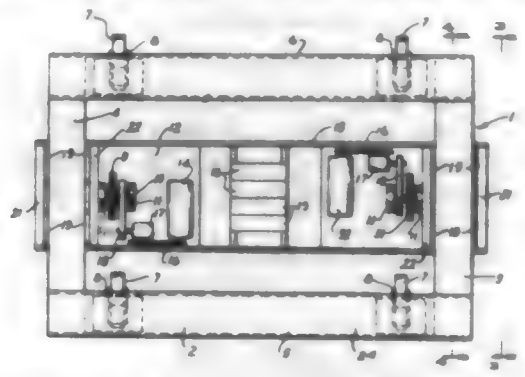
MOBILE DISPLAY UNIT HAVING ELEVATABLE DRIVE DEVICES

Robert E. Mellencamp, South Lyon, Mich.

Application April 1, 1955, Serial No. 498,626
5 Claims. (Cl. 180—6.5)

1. A mobile display unit comprising a horizontal carriage; a plurality of caster wheels carried at opposite extremities of said carriage for swivelling movements around vertical axes whereby to fully support said carriage for movement in any horizontal direction; a frame suspended from a central area of the carriage; spring means between the carriage and frame urging said frame

toward the sub surface; manually actuable means for raising said frame in opposition to the spring means; two spaced drive wheels carried by the frame so as to be raisable and lowerable therewith; said drive wheels having their axles aligned on a horizontal line extending through the geometrical center of the carriage; a separate reversible motor carried on the frame, one for each



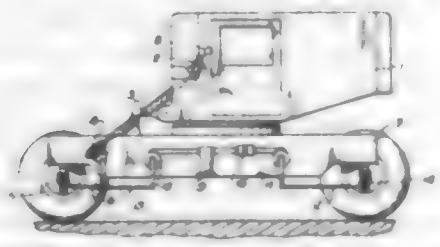
of the drive wheels; drive means between each motor and its drive wheel; and means for selectively actuating the motors; whereby the display unit can be reversibly rotated around its geometrical center by driving the motors in opposite directions or propelled in rectilinear directions, by driving the motors in the same direction or turned about either of the drive wheels by actuating one motor while deactuating the other motor.

2,874,792

COMBINATION MANUAL AND POWER STEERING MEANS WITH DISENGAGING CLUTCH FOR MANUAL MEANS

Hans Scheuerpflug, Nurnberg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg, A. G., Nurnberg, Germany

Application July 30, 1956, Serial No. 601,083
1 Claim. (Cl. 180—79.2)



A self-propelled crane comprising a vehicle frame, front and rear axles and wheels secured to said frame, a rotatable crane housing carried by said frame, power driven steering means mounted on said frame beneath the turning plane of said housing and connected to said wheels for steering the crane while located on a construction site, mechanical linkage steering means carried by said frame and connected to the wheels of the front axle, a manually operated steering column mounted in said housing and obliquely inclined toward the front wheels for steering the crane on a highway, a clutch connecting said steering column with said mechanical linkage steering means, and means connecting said power driven steering means to said mechanical linkage steering means for supplementing the steering of the front wheels.

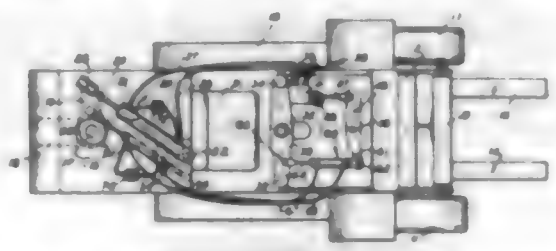
2,874,793

POWER STEERING MEANS FOR WHEELED VEHICLES

Harold A. Wagner, Portland, Oreg.

Application October 28, 1957, Serial No. 692,786
4 Claims. (Cl. 180—79.2)

1. Power steering mechanism for wheeled vehicles having steerable wheel means comprising a power steering motor moutned on the vehicle, means operatively connecting said power steering motor to said wheel means for effecting turning movement thereof, said power steering motor being reversible to cause turning of the wheel means in either direction and being capable of holding the wheel means at a set position when deenergized, a steering member pivotally mounted on the vehicle so as to be accessible to the operator thereof, a control device, means operatively connecting said control device to said steering member for movement responsive thereto, means connecting said control device to said power steering motor for energizing the latter in the proper direction upon movement of said steering member and deenergizing the latter upon return of said control device to a neutral position, a master piston and cylinder device pivotally connected to the vehicle at one end and pivotally connected to said means operatively connecting said power steering motor to said wheel means whereby said master piston and cylinder device is contracted upon turning movement of the wheel means in one direction and



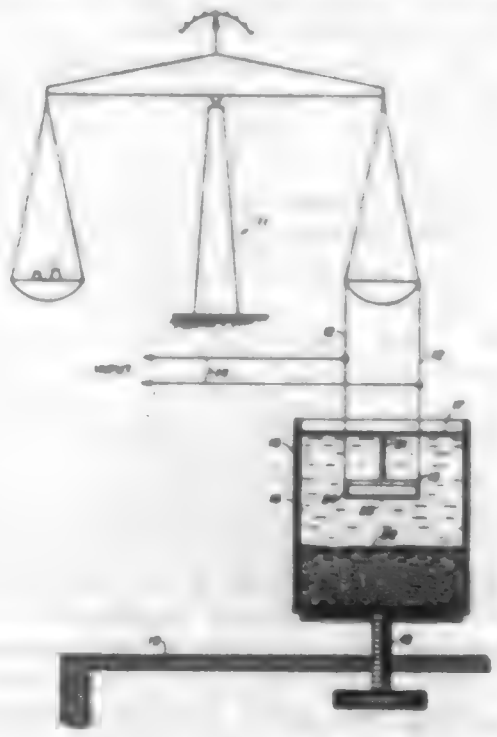
expanded upon turning movement of said wheel means in the opposite direction, a slave hydraulic piston and cylinder device pivotally connected to said steering member at one end and pivotally connected to said means connecting said control device to said steering member at its other end, a first closed conduit connecting one end of said master motor cylinder to one end of said slave motor cylinder, a second closed conduit connecting the other end of said master motor cylinder to the other end of said slave motor cylinder, and separate bodies of fluid respectively filling each of said conduits and the cylinder spaces connected thereby whereby said control device is returned to a neutral position when said steering member is released, thereby causing the vehicle to hold a set course until further manual actuation of said steering member.

2,874,794

METHOD AND APPARATUS FOR MEASUREMENT OF TOTAL SOUND POWER OUTPUT OF AN ULTRASONIC TRANSDUCER

Earl F. Kiernan, San Diego, Calif.

Application June 18, 1954, Serial No. 437,895
6 Claims. (Cl. 181—.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. The method of measuring the sound power output of an ultrasonic transducer comprising the steps of weigh-

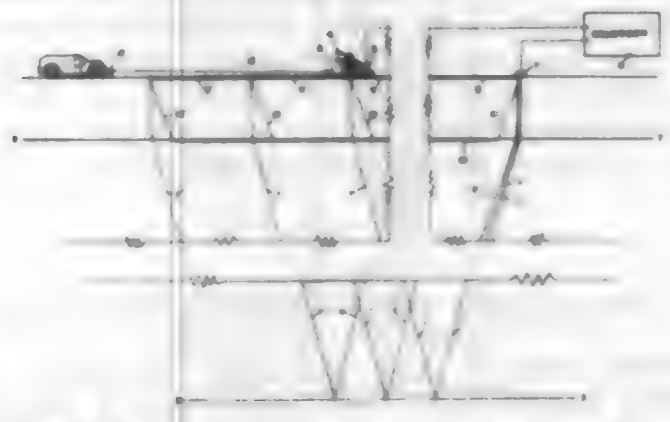
ing a transducer suspended in a container of fluid, applying a voltage to said transducer, adjusting the depth of the transducer in the fluid to establish a standing wave pattern and again weighing the transducer activated by the voltage applied.

2,874,795

METHOD AND APPARATUS FOR DETERMINING THE TRAVEL TIMES OF A SIGNAL PROPAGATED OVER A PLURALITY OF PATHS

William E. N. Doty and Milford R. Lee, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

Application October 20, 1954, Serial No. 463,553
12 Claims. (Cl. 181—.5)



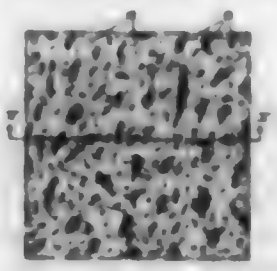
1. In the process of determining the travel time of a signal between spaced points wherein there is transmitted from a local area a vibratory signal made up of a succession of energy pulses which, after propagation over a plurality of paths, is then detected as a composite signal in a remote local area, which transmitted signal is non-repetitive during a time interval which is substantially longer than the travel time of such signal along any of said paths by which it reaches the detection area at usable energy levels and in which, for a predetermined period which is at least as long as said travel time plus the uninterrupted duration of said transmitted signal or two times the travel time whichever is the shorter, there are simultaneously and individually recorded time series respectively representative of said transmitted signal and said composite signal and such time series are then correlated while shifting the time-phase relation thereof with respect to their time-phase relation as originally recorded and in which the amount of said time-phase shift which yields the greatest magnitude of the correlation value is a parameter of said travel time, the improvement which comprises, changing the distance between the points at which said signal is generated and detected while the signal is being generated.

2,874,796

METHOD OF FABRICATING A SOUND-ABSORBING UNIT FROM CELLULOSIC MATERIAL

Lewis W. Eckert, Lancaster Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

Application May 2, 1955, Serial No. 505,417
7 Claims. (Cl. 181—33)



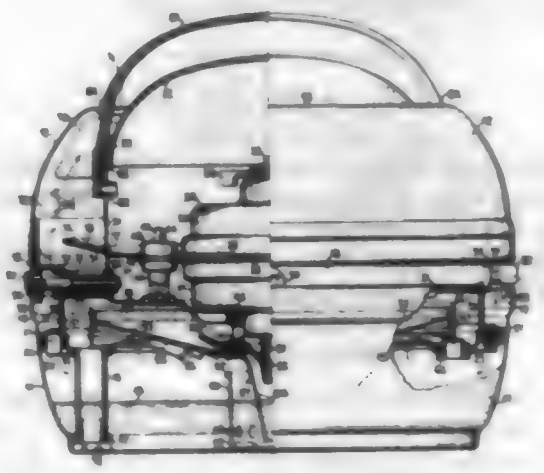
1. In a method of fabricating a fibrous sound-absorbing unit having artificial openings provided therein extending from a surface thereof and penetrating into the body of the unit, the steps comprising applying to a surface of a formed body of felted cellulosic fibrous material an acid solution the active component of which consists essentially of boric acid which penetrates into the body below said surface, heating the body to remove water therefrom and to elevate the fibers at the treated surface of the body which are wetted with said acid solution of boric acid to a minimum temperature of about 220° F. and by the action of said acid solution of boric acid on said fibers at the treated surface to condition said fibers for shearing, and thereafter forming artificial openings in said body extending from said surface and penetrating into said body by shearing of said layer of boric acid conditioned fibers.

2,874,797

ATOMIZER

Karl Flury, Adliswil, Zurich, Switzerland, assignor to Defensor A. G., Zurich, Switzerland

Application June 6, 1955, Serial No. 513,530
Claims priority, application Switzerland April 15, 1955
12 Claims. (Cl. 183—18)



1. An atomizer for atomizing liquids and discharging the same in the form of an aerosol mist, comprising an outer casing having a discharge opening and an air inlet opening, an internal housing within and spaced from said casing to provide an exit path between said casing and said internal housing, a motor incorporated within said internal housing, a receptacle for liquid in the lower part of said casing, said motor including rotary means for moving air through said casing from said inlet opening to said discharge opening and rotary atomizer means extending into the liquid for introducing liquid particles to said moving air to form a mist therein, at least one annular baffle of elastic and sound-absorbing material provided in said exit path and seated by its own elasticity in a circumferential recess provided in the external periphery of said internal housing, said baffle serving to force the mist in a curved path and thus prevent direct exit of heavier particles in the mist and also prevent transfer of high pitch atomizer noise through said discharge opening, and means for noiselessly conducting condensate and other liquid droplets back to said liquid receptacle.

2,874,798

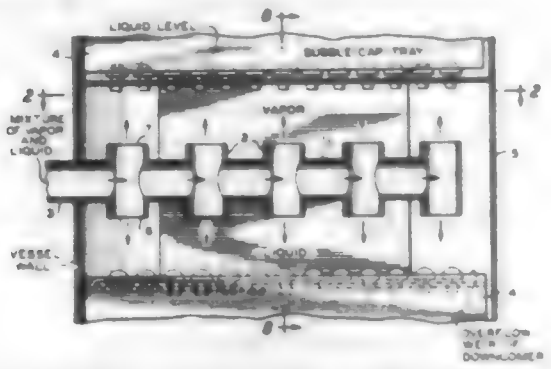
VAPOR LIQUID DISENGAGER AND DISTRIBUTOR

Harry L. Walker, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application April 15, 1957, Serial No. 652,942
9 Claims. (Cl. 183—30)

1. In a fractionating column of the channel flow bubble tray type, having a liquid downcomer between trays, in the free space between a selected pair of trays a single horizontal extension vapor-liquid disengager and distributor comprising in combination an inlet conduit, a plurality of spaced horizontal conduits having their horizontal axes in longitudinal alignment with each other and the inlet conduit, a plurality of spaced expansion chambers of enlarged vertical cross sectional area, each said

expansion chamber being spaced between pairs of the said horizontal conduits respectively and freely communicating with the adjacent horizontal conduits, an expansion chamber at the end of the horizontal conduit most



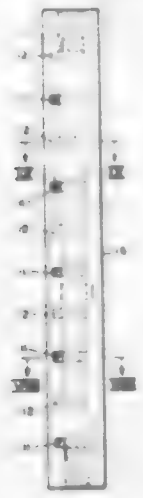
removed from the inlet conduit, each expansion chamber having a gas outlet at its upper end and a liquid outlet at its lower end, and the resulting combination having the said liquid outlets disposed directly over and spaced parallel to a downcomer.

2,874,799

CYCLONES

Hendrik van der Kolk, Heemstede, Netherlands, assignor to Bureau van Tongeren N. V., Heemstede, Netherlands, a Dutch company

Application November 7, 1955, Serial No. 545,502
Claims priority, application Netherlands November 11, 1954
1 Claim. (Cl. 183—34)



A cyclone for agglomerating minute particles of liquid suspended in a gas to form relatively large drops, said cyclone comprising a unit consisting of a plurality of end to end adjoining and communicating separating chambers having a common interior wall surface which is of substantially constant cross-sectional shape, each of said chambers being provided with only one tangential inlet and only one tangential outlet axially spaced from the inlet, said tangential inlet being constructed and arranged to impart rotary movement to gas supplied thereto, said tangential outlet being constructed and arranged to discharge the liquid laden gas with the same direction of rotation imparted by the inlet, the inlet being at a side of the chamber opposite the side containing the outlet.

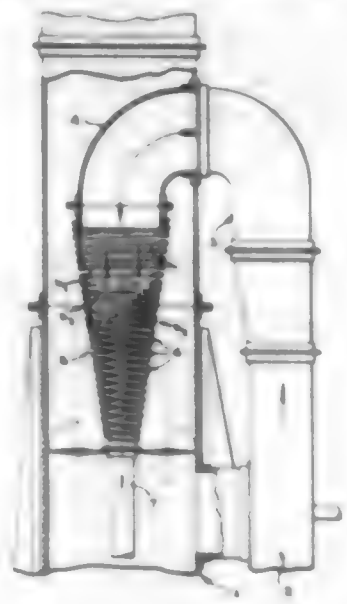
2,874,800

DEVICES FOR REMOVING FROM GAS OR VAPOR SOLID OR LIQUID PARTICLES SUSPENDED THEREIN

Hendrik van der Kolk, Heemstede, Netherlands, assignor to Bureau van Tongeren N. V., Heemstede, Netherlands, a company of the Netherlands

Application September 13, 1954, Serial No. 455,472
1 Claim. (Cl. 183—44)

A device for removing solid or liquid particles from gas or vapor so as to separate the gas or the vapor into a major portion wholly or partly freed from these particles, and a minor portion wherein the specific amount of said particles is proportionally increased; said device comprising an elongated frusto-conical element open at both of its ends, said element being composed of a wire of substantially uniform cross-section, spirally wound into the shape of a truncated cone, the windings being relatively spaced apart to form helicoidal gaps through which the cleaned gas or vapor can escape, said wire in its truncated



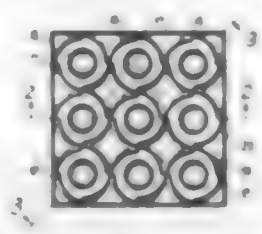
conical shape defining a frusto-conical passage and having a cross section such that the perpendicular dropped from the center of gravity of the cross section on the axis of the defined conical boundary of the passage intersects the area wherein said section touches the defined conical boundary surface, said wire being angular in cross section and touching the inscribed conical boundary surface along a straight line coinciding with a generatrix of the cone formed by the frusto-conical element.

2,874,801

DUST-SEPARATORS CONSISTING OF A SET OF CYCLONES CONNECTED IN PARALLEL AND HAVING EACH AT LEAST ONE TANGENTIAL INLET OPENING

Hendrik van der Kolk, Heemstede, Netherlands, assignor to Bureau van Tongeren N. V., Heemstede, Netherlands, a company of the Netherlands

Application November 18, 1955, Serial No. 547,718
Claims priority, application Netherlands December 9, 1954
1 Claim. (Cl. 183—83)



Apparatus for separating suspended particles from a gaseous medium comprising a rectangular casing having front and rear walls, side walls, top and bottom walls, and an inlet conduit, a plurality of equally sized cyclones disposed in said casing with the marginal cyclones contacting the front, rear and side walls of said casing and arranged in rows extending parallel to one another from the front wall of the casing to the rear wall of the casing, each cyclone comprising a generally cylindrical upper shell and a downwardly tapering lower conduit portion merging with the shell and being open at its bottom end, each cyclone having a top wall, the cyclones extending through the bottom wall of the casing and defining separating chambers, outlet conduits mounted axially in the cylindrical upper shells of the cyclones and extending through said top wall of the casing, said outlet conduits communicating with said tapering lower por-

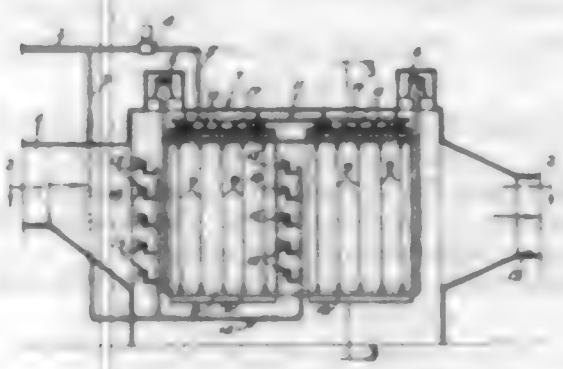
tions, each shell being provided at its upper portion with four tangential inlet openings at the same level and equally spaced apart circumferentially, each inlet opening being formed by a wall segment of the shell defined by two axially extending straight edges and by a lower and upper arcuate edge, the upper arcuate edge being located at the top wall of the cyclone and the lower arcuate edge being located at the intermediate portion of the cylindrical upper shell, the segments being offset relative to the lower portion of the shell so that the radial distance to one axially extending edge of each inlet opening exceeds the radial distance to the other axially extending edge thereof, the outer axially extending edges of each cyclone except the marginal cyclones engaging the outer axially extending edges of each of the four cyclones adjacent thereto, the cyclones being located in the casing so that they define with each other and with the walls of the casing chambers communicating with each other at their ends, and means communicatively connecting said inlet conduit to said tangential inlet openings.

2,874,802

METHOD FOR CLEANING THE ELECTRODES IN ELECTRO-FILTERS

Stig Gustafsson, Jonkoping, and Per-Olof Öhnfeldt, Lidingo, Sweden, assignors to Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden

Application July 6, 1955, Serial No. 520,344
Claims priority, application Sweden July 7, 1954
2 Claims. (Cl. 183—114)



1. The method for cleaning electrodes in electrical precipitators having horizontal gas flow therein between vertical sheet-like collecting electrodes arranged parallel to the flow and intermediate rows of emission electrodes, comprising the steps of continuously causing the gas to flow horizontally through said precipitator and forming a vertical curtain of liquid perpendicular to the gas flow within said precipitator in advance of said collecting electrodes whereby liquid particles from said curtain are entrained in said flow and distributed to the collecting electrodes to partially liquify the deposit thereon and flush the same, the flushed deposit continuously flowing downward on said vertical electrodes transversely to said horizontal gas flow, and intermittently forming other curtains of atomized liquid parallel to the sheet-like collecting electrodes and the gas flow intermediate said electrodes to thoroughly clean both the emission and collecting electrodes.

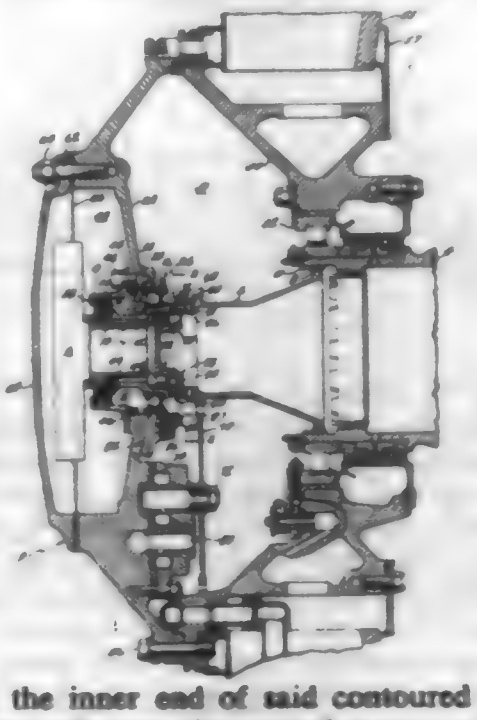
2,874,803

LUBRICATION MEANS

Harry W. Gunberg, West Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application July 26, 1955, Serial No. 524,414
3 Claims. (Cl. 184—6)

1. A hollow rotatable shaft, at least one elongated circumferential hole extending through the wall of said shaft and having a circumferential axis which lies in a plane substantially perpendicular to the axis of said shaft, fluid flow directing means located within said shaft and positioned inboard of said elongated shaft hole, lubricant nozzle means located external to said shaft and positioned to direct a stream of lubricant at said shaft so that said shaft hole will intercept said lubricant stream such that lubricant is transmitted into said shaft during rotation of said shaft, said fluid flow directing means comprising a cap-like unit having an outer periphery in the form of a cylindrical flange which snugly engages the inner diameter of said shaft in sealed relation and projects inwardly therefrom to provide an inwardly and axially directed contoured surface located radially inward from said hole and having a radial flange pro-



jecting from the inner end of said contoured surface to form an outwardly opening annular groove therewith and extending outwardly to engage the inner diameter of said shaft in sealed relation, said radial flange having at least one hole at its inner end through which lubricant may flow, an inwardly opening annular groove formed by one side of said radial flange and the inner wall of said shaft such that the lubricant projected by said nozzle means will pass through said elongated hole and be directed through said flange hole by said contoured surface and collected in said inwardly opening annular groove for overflow distribution to internal lubrication points.

2,874,804

ENGINE OIL PAN AND DRY SUMP LUBRICATION SYSTEM

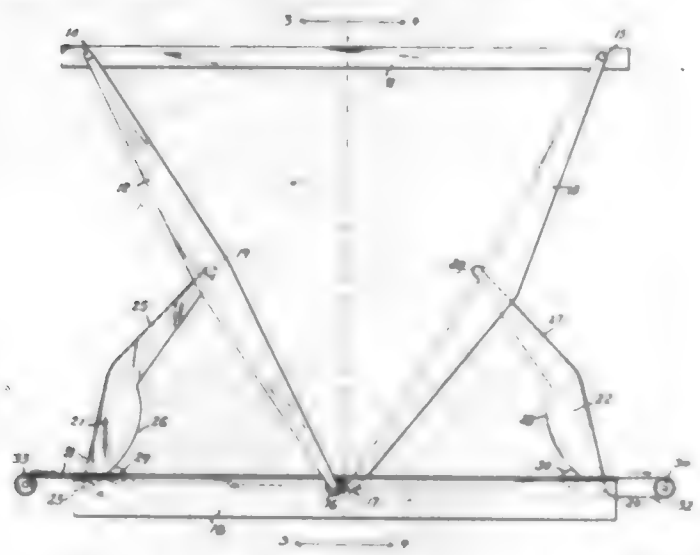
Herbert H. Haas, Royal Oak, Mich., assignor, by mesne assignments, to Continental Motors Corporation, Muskegon, Mich., a corporation of Virginia

Application September 24, 1956, Serial No. 611,444
14 Claims. (Cl. 184—6)



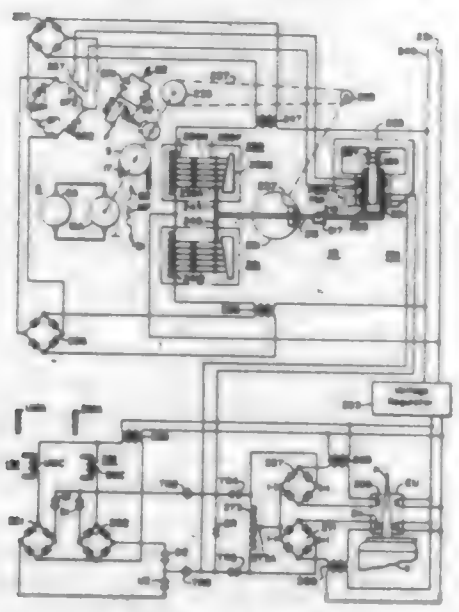
1. In an internal combustion engine having a crankcase, an oil pan secured beneath said crankcase and pressure pump means having an intake connected with said oil pan and adapted to pump oil under pressure from said oil pan to said engine for lubrication purposes, said oil pan comprising sump portions open to said crankcase and a substantially enclosed oil reservoir portion, at least one of said sump portions being disposed at a lower level than said reservoir portion, means openly connecting said reservoir and said lower level sump portion and operable to drain oil by gravity from said reservoir into said lower level sump portion, and a scavenge pump means having an intake associated with said sump portions and adapted to pump oil from said sump portions into said reservoir portion.

2,874,805
LIFTING STAGE
Ernst Jahnel, Munich, Germany, assignor to Anton Schroder, Munich, Germany
Application March 8, 1956, Serial No. 570,341
8 Claims. (Cl. 187—8.72)



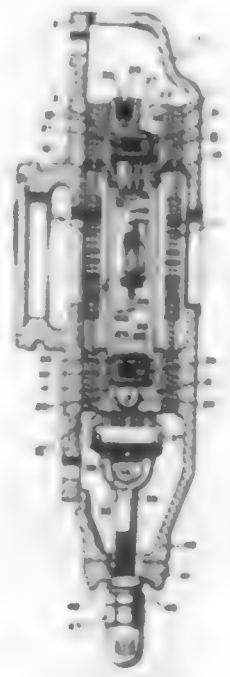
1. A lifting stage of the class described, comprising in combination: an elongated base member; longitudinally extending guide means carried by said base member; an elongated platform member disposed above said base member; two sets of lifting arms of equal lengths, each set having upper end portions pivotally connected to said platform member by longitudinally spaced first pivot means fixed to said platform member and lower end portions slidably engaging said guide means; two sets of lifting bracket members of equal lengths, each set of lifting bracket members having pivoted end portions connected to said base member by longitudinally spaced second pivot means and free end portions each connected to one of said sets of lifting arms by third pivot means each fixed to one of said sets of lifting arms intermediate the ends thereof, each of said sets of bracket members having lower curved surfaces; and power operable means displaceable longitudinally of said base member and engaging said curved surfaces to cause angular displacements of said bracket members about said second pivot means for selectively raising and lowering said platform member with respect to said base member.

2,874,806
ELEVATOR CONTROL SYSTEM
Kirk A. Oplinger, Penn Township, Allegheny County, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 13, 1958, Serial No. 715,068
23 Claims. (Cl. 187—29)



23. In a control unit for a moving body, a supporting structure, a control element, means mounting the control element for pivoted movement about a first axis relative to the supporting strucure, an electroconductive member, means mounting the electroconductive member for rotation about an axis, magnet means for establishing a magnetic field within which a portion of the electroconductive member is positioned, said magnet means being coupled to said control element for applying a first torque to the control element acting about the axis of the control element in response to rotation of the electroconductive member, and electromotive means effective when energized for applying to the control element a torque opposed to said first torque, said electromotive means comprising a magnetic structure having a first pole piece having a cylindrical opening and a second pole piece within the opening and concentric therewith to define an airgap mounted on the supporting structure, said magnetic structure including means for establishing a magnetomotive force between the pole pieces to establish a magnetic field in the airgap, a cylindrical electroconductive support disposed concentrically in the airgap, and a winding on the support and concentric therewith, said cylindrical support being coupled to the control element for movement therewith, said winding being effective when energized for applying a torque to the control element acting about the control element axis, first and second adjustable rheostats, means responsive to deflection in a first direction of the control element from a median position for effecting a predetermined adjustment of the first rheostat, and means responsive to deflection in a second direction of the control element from a median position for effecting an adjustment of the second rheostat similar to said predetermined adjustment.

2,874,807
HYDRAULICALLY AND MECHANICALLY OPERATED DISC BRAKE
Emil H. Hahn, St. Joseph, Mich., assignor, by mesne assignments, to Lambert Brake Corporation, St. Joseph, Mich., a corporation of Michigan
Application August 27, 1956, Serial No. 606,323
6 Claims. (Cl. 188—72)



1. A disc brake of the class described, comprising stationary means having radially extended, opposed and axially spaced friction surfaces, a pair of friction discs disposed between said friction surfaces and adapted to be mounted upon a rotary member to be braked for rotation therewith and for axial movements thereon and into engagement with said friction surfaces, a pair of relatively stationary actuator discs mounted for relative axial and limited relative rotative movements in opposite directions and disposed between said friction discs, said actuator

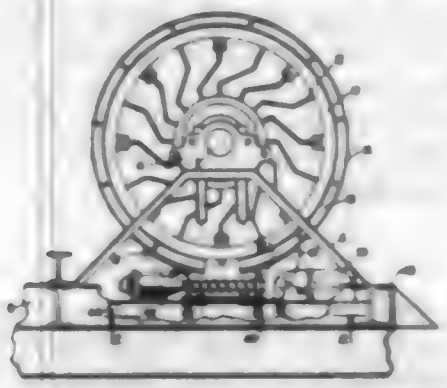
discs each having an annular outer peripheral piloting flange extending axially toward the other, means engageable with said flanges for shiftably supporting said actuator discs, cooperative abutment means on said supporting means and said actuator discs including a first abutment on each actuator disc disposed radially outwardly of the outer periphery thereof for selectively anchoring the respective actuator discs against rotation according to the direction of rotation of the member to be braked, and a separate abutment on the respective actuator discs also disposed radially outwardly of the outer periphery thereof in circumferentially spaced relation to the first abutment for preventing rotation of the respective actuator discs beyond a predetermined limit, means for shifting said actuator discs axially apart to press the respective friction discs aforesaid into engagement with said friction surfaces, means biasing said actuator discs towards one another to release the brake, and self-adjuster means on said actuator discs for limiting return movements of the actuator discs to compensate for wear of said friction discs, said self-adjuster means including a one-way shiftable member carried by one of said actuator discs, and means on the other actuator disc for shifting said one-way shiftable member upon brake application responsive to wear of said friction discs to limit release movements of said actuator discs.

2,874,808

HYDRAULIC BRAKING APPARATUS

Merl G. Scott, Tulsa, Okla., assignor, by mesne assignments, to Cabot Shops, Inc., Boston, Mass., a corporation of Massachusetts

Application May 14, 1953, Serial No. 354,963
4 Claims. (Cl. 188—77)



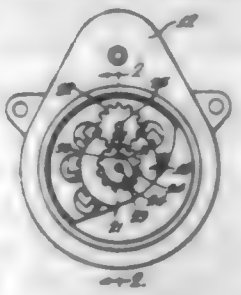
1. A hydraulic braking apparatus comprising a pair of brake drums, a circular brake band disposed substantially around each drum, a plurality of brake shoes carried by each band, a hiatus provided in each band and disposed adjacent the lowermost portion of the respective drum, a pair of flanges extending downwardly from opposite sides of each hiatus and each of said flanges carrying a flange disposed perpendicular thereto, a plurality of shafts supported between the last mentioned flanges, a helical spring under compression encircling each shaft to maintain the band in disengagement with the drum, a hydraulic piston unit for each brake and comprising a hydraulically actuated piston disposed adjacent to and bearing against one of the last mentioned flanges, said pistons responsive to an application of hydraulic pressure to move the last mentioned flanges in one direction for placing the springs under increased compression and provide engagement of the shoes with the drum, a fluid circuit interconnecting the hydraulic piston units to provide simultaneous actuation of the pistons for simultaneous engagement of the brake shoes with each brake, and means for supporting the brake shoes and the hydraulic piston beneath the drum, said supporting means comprising a skid unit having a stationary beam member secured thereto beneath each drum, and a lost motion connection between the stationary beam members and one of the first mentioned flanges of each brake band for securing each brake band to the support means.

2,874,809

ROTATION CONTROLLING DEVICE

Arthur B. Poole, Harwinton, Conn., assignor, by mesne assignments, to General Time Corporation, New York, N. Y., a corporation of Delaware

Application May 17, 1957, Serial No. 659,935
8 Claims. (Cl. 188—82.1)



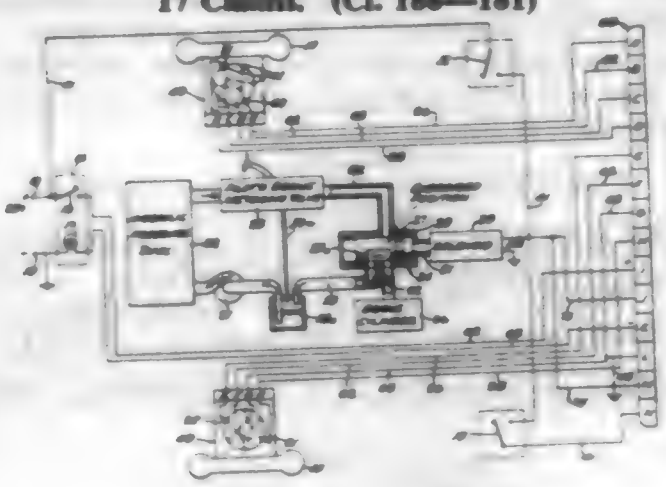
1. In a self-starting motor having a motor shaft, a device for insuring unidirectional rotation of the shaft comprising, in combination, two meshing pinion gears adapted to be rotatably driven by said motor shaft, a gear segment rotatably mounted concentrically with one of said pinions and adapted to rotate into meshing engagement with the other of said pinions, and means interconnecting said segment and the pinion concentric therewith for causing the latter to rotate the segment in either direction, said connection permitting limited relative rotation between said segment and the connected pinion so that upon rotation in one direction the gear teeth of the pinion and the connected segment are in axial alinement while upon rotation in the opposite direction the teeth are axially misalined.

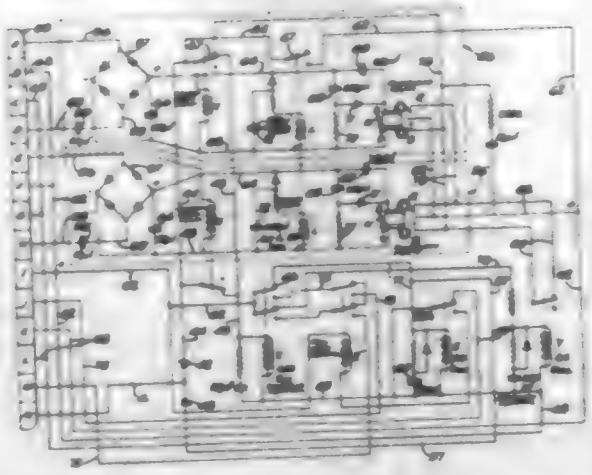
2,874,819

ANTI-SKID BRAKE SYSTEM

Dwight Eugene Brown, Sherman Oaks, Calif., assignor to Hydro-Aire, Inc., Burbank, Calif., a corporation of California

Application April 2, 1956, Serial No. 575,524
17 Claims. (Cl. 188—181)

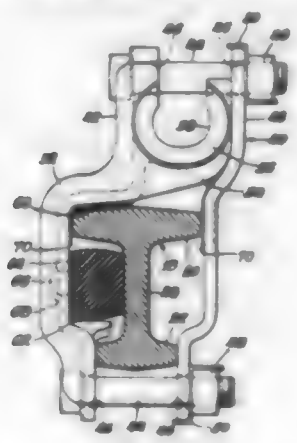




5. In an automatic wheel brake control system having a ground contacting wheel adapted to drive a direct current commutating means to produce a variable frequency square wave, means for converting said square wave to direct current having a voltage proportional to wheel

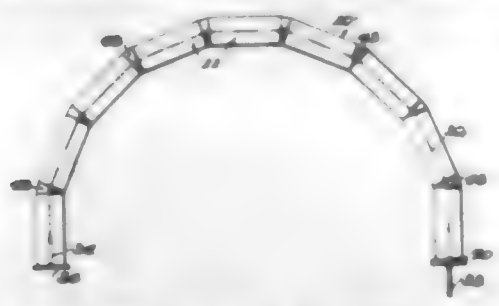
speed, a manual brake control for braking said wheel, an automatic brake release for deactivating said manual control during excessive braking, said brake release including a normally open power circuit, a sensing circuit connected to and energized by said variable voltage direct current and including energy storing means arranged to be charged with energy during periods of wheel acceleration, and relay means in said power circuit activated by said stored energy during periods of excessive wheel braking and operable to activate said brake release to permit said wheel to reaccelerate.

2,874,811
BRAKE BEAM SUPPORT
Walter H. Baselt, Flossmoor, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application October 7, 1954, Serial No. 460,826
8 Claims. (Cl. 188—207)



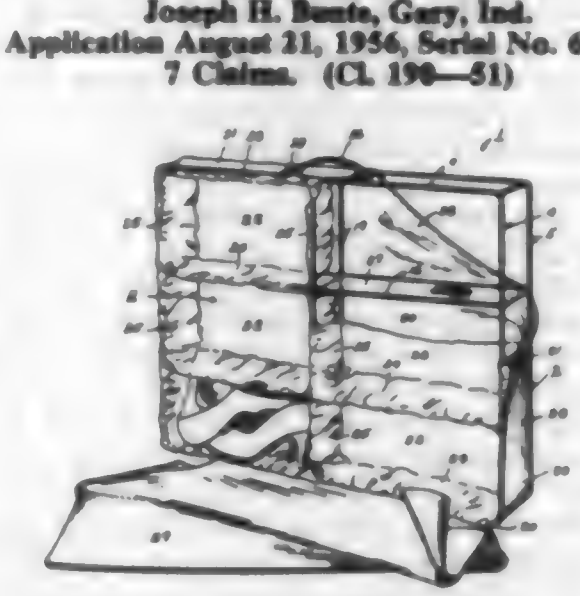
6. In a brake beam suspension arrangement, the combination of: a hanger; a brake beam; and a bracket for supporting the beam from the hanger, said bracket comprising spaced arms defining therebetween an opening for receiving said beam, one of said arms defining a portion of an aperture for receiving said hanger; and means interconnecting said arms operable to retain said beam and said hanger in said opening and said aperture, respectively.

2,874,812
KNOCK-DOWN STRUCTURAL MEMBER WITH COLLAPSIBLE MEMBERS
Merton L. Clevett, Jr., East Natick, Mass.
Application June 28, 1955, Serial No. 518,701
1 Claim. (Cl. 189—34)
(Granted under Title 35, U. S. Code (1952), sec. 266)



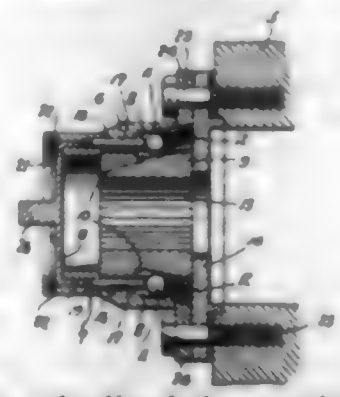
A knock-down arch or the like comprising a plurality of hollow box-like elemental sections having ends provided with openings, projections formed upon corresponding ends of said sections, the other corresponding ends of the sections having recesses formed therein, wedge-like spacers arranged between adjacent ends of said sections and having openings formed therethrough registering with the openings of said ends, projections formed upon corresponding sides of said spacers and interfitting with said recesses of corresponding ends of the sections, the other sides of the spacers having recesses interfitting with said projections of corresponding ends of said sections, a flexible element extending through the interiors of said sections and through the openings of said ends and spacers, and means connected with said flexible element for tensioning the same and thereby drawing said sections and spacers rigidly together in end-to-end interfitting relation.

2,874,813
TRAVEL CASE FOR SHOES
Joseph H. Bente, Gary, Ind.
Application August 21, 1956, Serial No. 605,377
7 Claims. (Cl. 190—51)



7. A case of the kind described comprising a generally square frame and a generally square sheet of fabric, said frame comprising opposed pairs of spaced parallel rails, braces joining the opposed pairs of rails adjacent their ends to form the frame, means joining certain of the opposed pairs of rails together at locations between the braces to provide a partition dividing the frame into compartments, said sheet of fabric having outer portions secured to certain of the rails and portions disposed in the compartments and providing pockets substantially conforming to the shapes of the compartments, flexible means carried by the joining means, and relatively rigid means carried by the flexible means for stabilizing the shape of the pockets.

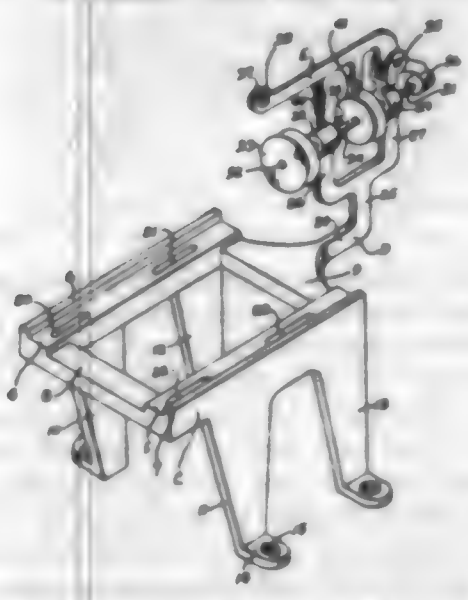
2,874,814
FREE LOCKING WHEEL HUB
Da Ruben L. Beck, Middleport, Ohio
Application May 1, 1957, Serial No. 656,266
1 Claim. (Cl. 192—38)



A locking free wheeling hub comprising a hollow body having inclined bores extending inwardly from one end thereof, adapted to be secured on the hub of a free wheel mounted on a drive shaft, a bushing secured to said shaft to rotate therewith, fitted in said body, said bushing having pockets adapted to align with said bores at one of their respective ends, spring-pressed balls disposed within said bores movable to positions wedged between said pockets and bores normally clutching said body and bushing together, a retainer plate secured over one end of said body against which springs of said spring-pressed balls rest, retaining said spring-pressed balls within said bores, pins operating within said body movable longitudinally of said body, said pins engaging said balls, a rotatable cam mechanism mounted within one end of said body, said cam member embodying a cap,

an annular flange extending laterally from said cap, cam surfaces formed on the edge of said flange engageable with said pins adapted to move said pins against the balls against the bias of said springs disengaging said balls from wedging positioned in said pockets releasing said body and wheel for rotation around said bushing, and a manually operable handle on the exterior said cap for effecting rotation of said cam member, each cam surface having a notch therein for engaging the head of its associated pin to retain the same in engaged relation with a ball.

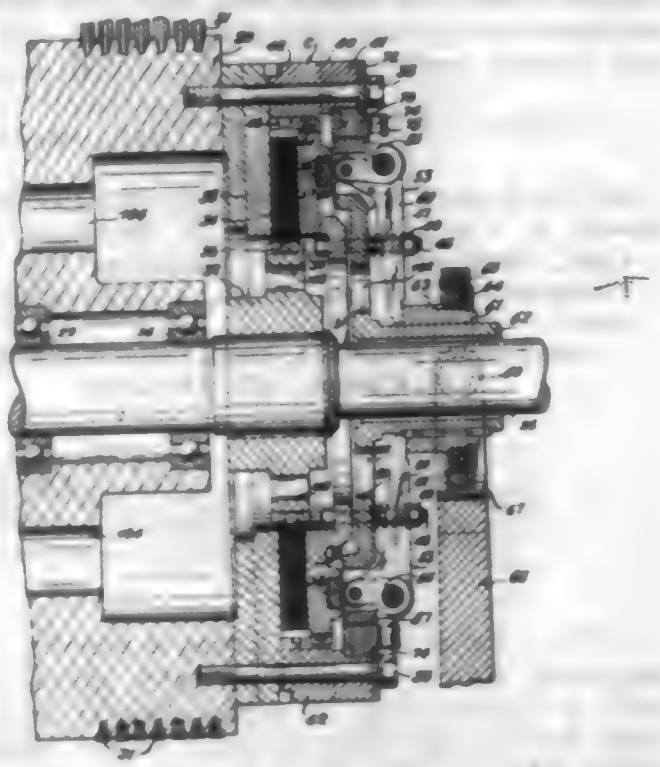
2,874,815
FRICTION CLUTCH ASSEMBLY
Morris Hoffman, New York, N. Y.
Application July 23, 1957, Serial No. 673,589
2 Claims. (Cl. 192—66)



1. In a friction drive assembly, a bed having an outer face provided at each of its longitudinal edges with a flange to provide a channelway, a horn integral with the bed and extending outwardly and upwardly from one end thereof, the upper end of the horn being provided with bearings disposed in a plane above and extending precisely parallel to the bed face, a shaft rotatably and longitudinally slidably supported in the horn bearings, a pulley secured to one end of the shaft and having a face disposed precisely at right angles to the bed face, a motor on the bed, the motor having a support comprising a flat base with upwardly extending motor supporting arms, the motor base being of a width to snugly fit between the side flanges of the bed, the motor shaft provided with a drive plate adapted to frictionally engage the face of the clutch pulley, the arms of the motor base supporting the motor shaft in the same horizontal plane with that of the clutch pulley shaft, the flanges of the bed positioning the motor base to exactly axially align the two shafts, means to secure the motor base to the bed with the motor drive plate adjacent but spaced from the face of the clutch pulley, and means to longitudinally slide the clutch pulley shaft to bring the face of the pulley into frictional engagement with the motor drive plate.

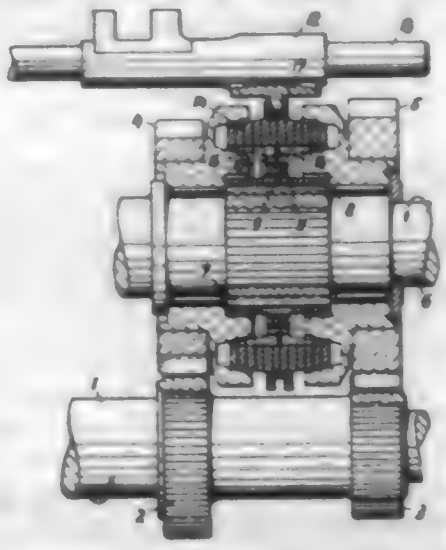
2,874,816
ADJUSTABLE CLUTCH FOR METAL FORMING MACHINES
Roy F. Dehn, Wickliffe, Ohio, assignor to The Cleveland Crane & Engineering Company, Wickliffe, Ohio, a corporation of Ohio
Application December 20, 1954, Serial No. 476,411
2 Claims. (Cl. 192—111)

2. A clutch mechanism for connecting a power driven element to a shaft to be rotated comprising an annular housing, driving and driven clutch plates within said housing and relatively movable to engaged and disengaged positions, lever means for actuating said clutch plates to at least one of said positions, a plate-like member for supporting said lever means, an internally threaded ring member rotatively and coaxially supported by said housing, said plate-like member being threaded into said ring member and movable axially of said housing by rotation of said ring member, and means for preventing relative rotation of said members comprising a detent finger carried by said plate-like member, said ring member having a plurality of radially extending openings adapted to receive said finger and a groove interconnecting said openings,



said detent finger being adapted to ride in said groove upon relative rotation between said members, means supporting said finger on said plate-like member for rotation about an axis offset from the axis of said finger, and means for yieldably urging said finger toward said ring including means permitting said finger to be axially moved to a position clear of said groove upon the positioning of said detent finger in a particular manner with respect to its supporting means.

2,874,817
FRICTION CLUTCH WITH TORQUE RESPONSIVE LOCK
Werner E. Altmann, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application February 17, 1956, Serial No. 566,258
Claims priority, application Germany February 23, 1955
13 Claims. (Cl. 192—114)



1. A clutch comprising an axially stationary clutch member including a first friction surface, a second clutch member including a second friction surface, means for shifting said second clutch member relative to said first clutch member for bringing said two friction surfaces into frictional engagement with each other, an axially

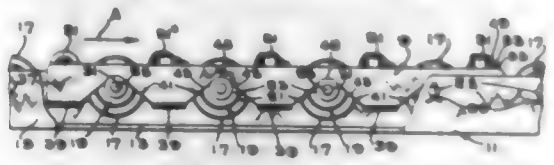
stationary member for supporting said second clutch member and for transmitting a torque thereto, said two last members each having a plurality of jaws thereon adapted to interengage with each other, said jaws each having surfaces axially parallel to each other and merging with inclined surfaces thereon so that, when said clutch members are in disengaged position, said jaws engage each other with their axially parallel surfaces abutting each other, while in the engaged position of said clutch members, said jaws engage each other with their inclined surfaces abutting each other thereby urging said two friction surfaces into tighter engagement with each other.

2,874,818

ARTICLE DIVERTER FOR ROLLER CONVEYORS

Newell A. Carter and Vincent E. Hemborg, Riverside, Calif., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

Application March 31, 1955, Serial No. 498,177
12 Claims. (Cl. 193—36)



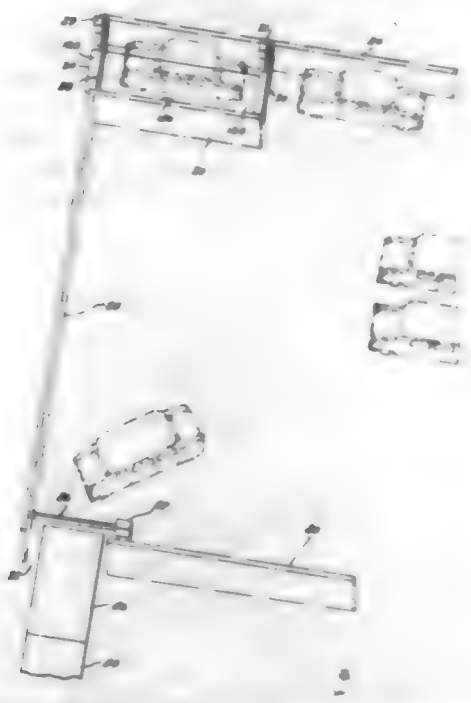
1. For a roller conveyor having a plurality of article supporting rollers mounted on axles spaced longitudinally of the conveyor an article diverter comprising a frame having side plates arranged to rest solely on the conveyor roller axles, and a plurality of article diverting rollers rotatably fastened to the frame to extend above the conveyor rollers when the frame side plates are rested on the conveyor roller axles.

2,874,819

PARKING AREA SPACE VENDING APPARATUS

Hugh G. Nutter, Grosse Pointe Farms, Mich., assignor, by mesne assignments, to Automatic Parking Devices, Inc., Detroit, Mich., a corporation of Michigan

Application February 20, 1953, Serial No. 338,036
1 Claim. (Cl. 194—9)



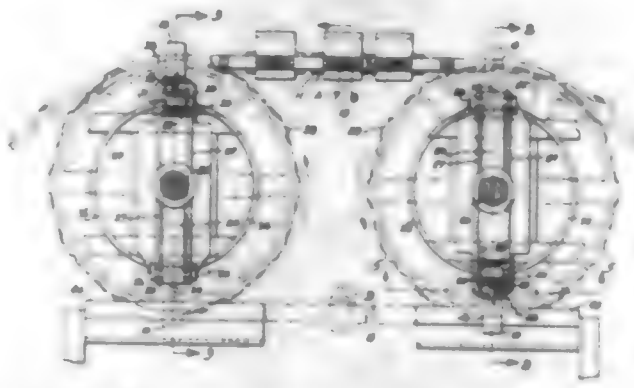
An apparatus for vending vehicle parking area space comprising, a normally closed exit barrier, a motor operable to move said barrier to open position, a second and normally open barrier, a motor operable to move said second barrier to closed position, said barriers spaced apart a distance to accommodate therebetween not more than one vehicle at a time, a switch actuated by the weight of a vehicle moving into the space between said barriers, a coin operated switch cooperable with said first switch to energize said second motor to close said second barrier, and a limit switch actuated by closing action of said second barrier to energize said first motor to open said first barrier.

2,874,820

TRANSFER APPARATUS

Eugene W. Rabut, Detroit, Mich., assignor to The Udylite Corporation, Detroit, Mich., a corporation of Delaware

Application March 12, 1954, Serial No. 415,745
4 Claims. (Cl. 198—25)



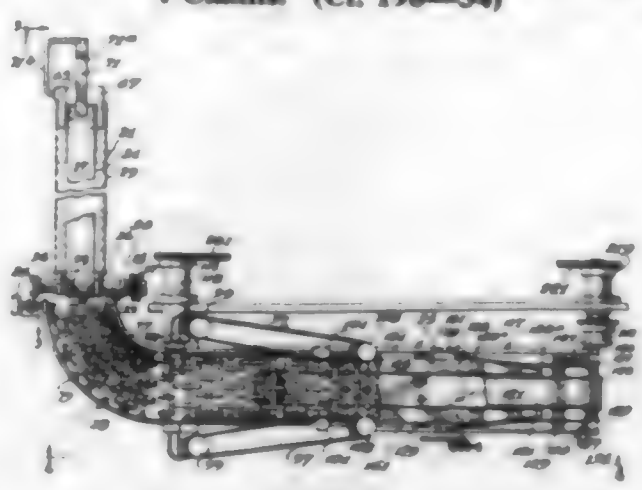
1. A transfer apparatus comprising a vertically mounted rotatable shaft, a stationary continuous cam surrounding said shaft and having high and low portions, a bar having one end secured to said shaft, an arm pivoted to the free end of said bar and crossing said shaft, a finger on the free end of said arm, and a member on said arm engaging said cam, a pair of work-supporting devices adjacent to spaced points of said cam, a work carrier adapted to be mounted on either of said devices, a pick-up hook on the back of said carrier and adapted to receive said finger, the ends of the high portion of said cam sloping to said low portion and being disposed at said devices, whereby said finger lifts said hook substantially vertically from one of said devices and deposits it on the other device on rotation of said shaft.

2,874,821

FEEDING MECHANISM

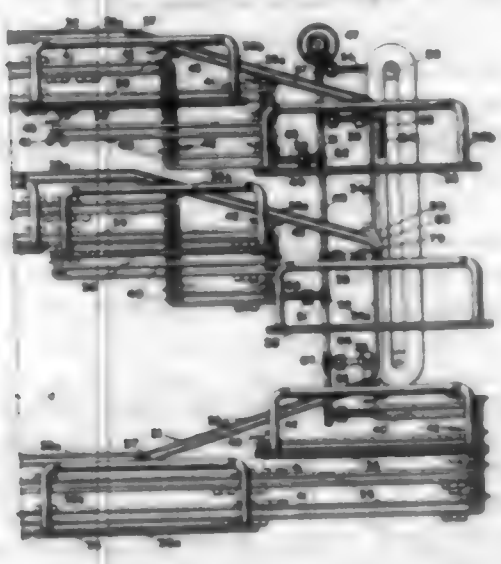
Bertin C. Ganter, Dallas, Tex., assignor to Kraft Foods Company, Chicago, Ill., a corporation of Delaware

Application August 17, 1954, Serial No. 450,494
4 Claims. (Cl. 198—34)



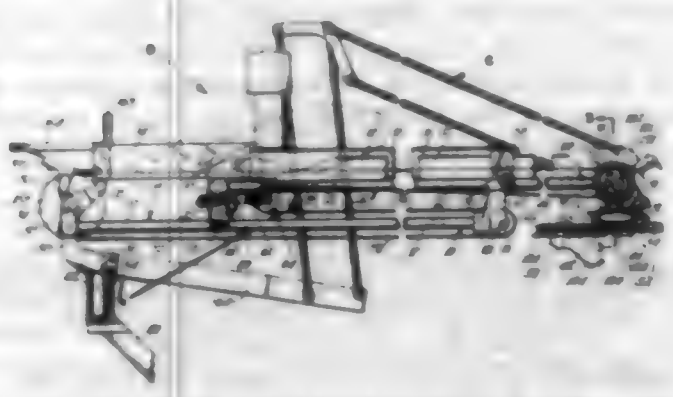
1. Apparatus for feeding tacky units of variable length in indexed relation comprising, in combination, a lifting means for supporting said products, a continuously operating product moving means extending forwardly of said lifting means at least a distance equivalent to about the length of about one unit, means for moving said lifting means toward and away from said moving means such that a unit engages said moving means and is moved thereby, a gate means disposed adjacent the end of said moving means and positioned to engage a unit on said moving means, and means for opening said gate means at about the time when a unit touches the gate mechanism.

2,874,822
STORAGE SYSTEM
Ralph W. Coursey, Oklahoma City, Okla.
Application January 31, 1957, Serial No. 637,571
5 Claims. (Cl. 198—85)



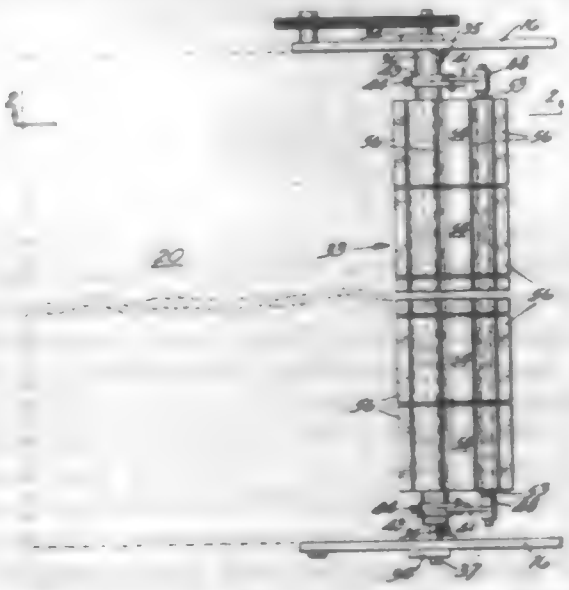
1. A storage system comprising a pair of vertically-spaced substantially horizontal track sections, a vertically extending track section adjacent each end of said horizontal track sections, said vertical track sections having a length less than the spacing between said horizontal track sections, inclined track sections interconnecting the adjacent end portions of said horizontal and vertical track sections to provide a track in the form of a loop in a vertical plane, a plurality of storage carriages slidingly secured to said loop, means for moving said carriages at different speeds along the horizontal, inclined and vertical track sections to maintain the minimum spacing between adjacent carriages, an arm at the intersection of each inclined and vertical track section arranged to engage the carriages and move the carriages through said intersections, and a cam connected to each arm for varying the speed of the carriage engaging portion of the respective arm as a carriage is being moved through the respective intersection.

2,874,823
BOWLING PIN HANDLING MECHANISM
John Zuercher, Mansfield, Ohio, assignor to American Machine & Foundry Company, a corporation of New Jersey
Original application April 5, 1952, Serial No. 280,697, now Patent No. 2,769,637, dated October 30, 1956. Divided and this application April 4, 1956, Serial No. 576,112
3 Claims. (Cl. 198—119)



1. Pin distributing mechanism for a bowling pin spotting machine comprising, a swivel support bracket, a pin receiving pan mounted on said bracket for movement in substantially a horizontal plane, a first chute member pivotally attached to said bracket beneath said pan for vertical swinging movement relative to said pan and for movement in a substantially horizontal plane conjointly with said pan, said first chute member being formed at its end adjacent said pan with portions extending upwardly along and adjacent the sides of said pan, a second chute member operatively connected with said first chute for conjoint movement therewith, means for mounting said second chute for longitudinal movement relative to said first chute, endless belt means located in said first and second chutes, means for driving said belt means to travel pins delivered thereonto from said pan to a point of discharge from said second chute.

2,874,824
FLEXIBLE FIN DRAPER
Fred Sund, Newberg, N. Dak.
Application March 29, 1955, Serial No. 497,539
3 Claims. (Cl. 198—203)

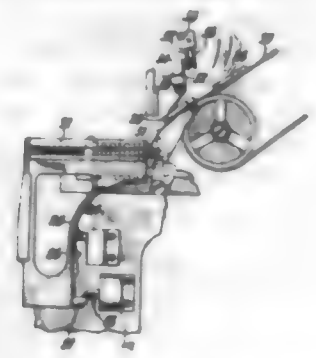


1. A draper mechanism for transferring cut grain from a raking pick-up rearwardly to the platform of a conventional combine, said draper mechanism comprising, a journal mounted rearwardly and to each side of the raking pick-up, an elongated driving shaft journaled across said journals in close spaced relation with the rearmost portion of the raking pick-up, a journal separably mounted at a fixed distance rearwardly of each of said first mentioned journals, an idler shaft rotatably journaled across said separable journals and in overlying relation with respect to the combine platform, resilient endless belt means drivably mounted around said driving and idler shafts, a plurality of outwardly disposed flexible fins secured to the endless belt means and adapted to yieldably contact the rear portion of said raking pick-up, and anti-friction means circumferentially secured to said driving shaft along the length thereof for maintaining positive driving movement to said endless belt means without varying the temion on said belt means along the length of contact with the driving shaft.

2,874,825
ASSEMBLING ELEVATOR CONTROL DEVICE FOR A TYPOGRAPHICAL COMPOSING MACHINE
Louis Rosetto, Kings Point, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York
Application March 31, 1958, Serial No. 724,961
4 Claims. (Cl. 199—18)

3. In a typographical composing machine, the combination of a keyboard having a plurality of key levers thereon, an assembling elevator wherein matrices and spacebands are composed in line, an automatic control unit having mechanism for automatically operating said keyboard and mechanism, including a rotatable shaft, for raising the assembling elevator, means responsive to the operation of said keyboard for releasing matrices from a storage magazine, said means including vertically disposed long key rods associated with said key levers, means responsive to the operation of said keyboard for releasing spacebands from a storage box, said means including a vertically disposed link associated with one of said key

levers, means for counting the number of times the matrix releasing mechanisms are operated during composition of a line, said means comprising a switch, and means associated with the long key rods for activating said switch whenever the matrix releasing mechanism is operated, means for counting the number of times the spaceband releasing mechanism is operated during composition of the same line, said means comprising a switch, and means associated with the vertical link for activating said switch whenever the spaceband releasing mechanism is operated, means for counting the number of matrices that are actu-



ally delivered to said assembling elevator during composition of said line, said means comprising a switch and means operated by the falling matrix for activating said switch, means for counting the number of spacebands that are actually delivered to said assembling elevator during composition of the same line, said means comprising a switch activated by the falling spaceband, a lock which prevents the raising of the assembling elevator, and means to render said lock inoperative, including a cam disposed on said rotatable shaft, and a switch operated by said cam.

2,874,826
SHOCK AND VIBRATION ISOLATION DEVICE
Lyle E. Matthews and E Quimby Smith, Jr., Oxnard, Calif.
Application June 22, 1956, Serial No. 593,302
2 Claims. (Cl. 206—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

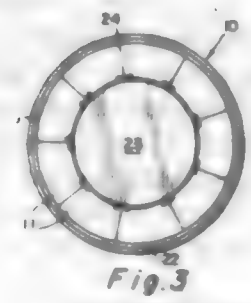


Fig. 3

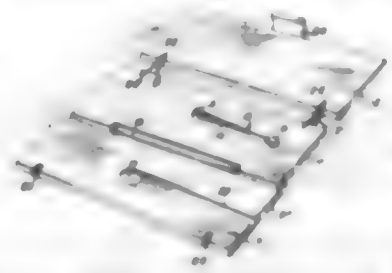
1. A shock and vibration isolation container for supporting an elongate object to be protected which comprises a resilient open-ended, elongate tubular member formed by securing together opposite longitudinal edges of a panel, said member including a series of longitudinal juxtaposed inflatable cells, said cells having connecting wall portions therebetween, each of said walls having a plurality of opening for metering fluid flow therethrough, valve means for inflating said cells with a fluid under pressure, each cell having at least one transverse partition forming a plurality of chambers in tandem, said partition having at least one opening for metering fluid flow therethrough, an inflatable closure means for each open end of the member, and means detachably securing said closure means to the member, whereby oscillations of the object perpendicular to a longitudinal axis of the member will be dampened by the metered flow through the openings between said cells, oscillations of the body about a transverse axis will be dampened by the metered flow through the openings between said chambers, and oscillations of the body parallel to said longitudinal axis will be dampened by said closure members.

2,874,827
GARMENT BAG
Clarence L. Neely, Corydon, Iowa
Application May 7, 1956, Serial No. 582,980
10 Claims. (Cl. 206—7)



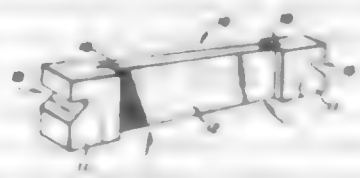
2. In a garment bag, a front sheet, a back sheet, a means for permanently securing the top edge portions of said front and back sheet members together, a means for permanently securing the bottom edge portions of said front and back sheet members together, a means for permanently securing one of the side portions of both of said front and back sheet members together; said other side portions of said front and back sheet members being unsecured together to provide an opening, a panel flap between said front and back sheet members adjacent said opening and having a width substantially one third of that of the widths of said front and back sheets, a means for permanently securing the top of said panel, the side of said panel adjacent said opening, and the bottom of said panel to the top, side, and bottom, respectively, of one of said sheet members, and a passageway in the upper portion of said bag for the passage of the hook portion of a coat hanger.

2,874,828
LOOSE GEM MERCHANDISING DISPLAY DEVICE
Gerhardt C. Neugebauer, Sturgis, S. Dak.
Application July 15, 1957, Serial No. 671,803
9 Claims. (Cl. 206—45.15)



1. A loose gem display device comprising a supporting member, an elongated gem holding clip pivotally mounted at one end on said supporting member, its free end provided with loose gem gripping means and being rotatable in a plane parallel with that of said supporting member, from a position overlying said supporting member to a position clear of the boundaries of the latter, to display a gem in proximity to a selected setting.

2,874,829
TUBELESS TIRE COLLAPSIBLE BEAD STABILIZER
Harold R. Shaw, Akron, Ohio, assignor to
Willis F. Avery, Akron, Ohio
Application March 21, 1957, Serial No. 647,680
4 Claims. (Cl. 206—46)



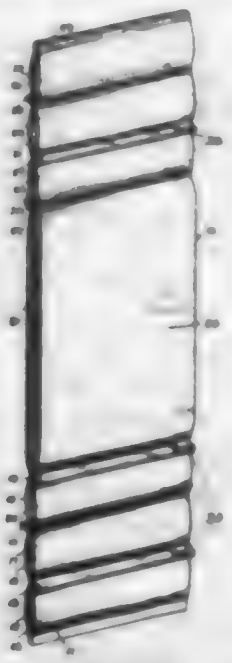
4. In combination, a vulcanized tubeless pneumatic tire of toroidal form having two rim-fitting beads which

need be kept smooth and true and spaced at uniform distances apart throughout the peripheries thereof prior to mounting on a tire rim and a plurality of collapsible bead stabilizers inserted between the said two beads at spaced distances about the peripheries of the beads to maintain the beads smooth and true and uniformly spaced apart during storage and shipment, each of the said collapsible bead stabilizers comprising two bead-contacting members and an intermediate spacing member for said two bead-contacting members, the intermediates spacing member being a rectangular wood board having squared ends, each bead-contacting member being a rectangular wood block having a plane inner surface in contact with a squared end of the intermediate spacing member and an outer surface opposite to the inner surface and having a bead-fitting groove therein, the top and bottom surfaces of the rectangular wood board spacing member and the corresponding top and bottom surfaces of each of the wood block bead-contacting members being substantially in the same respective planes, and connector means for weakly joining each of the said wood block bead-contacting members to the said wood board spacing member comprising two-pronged ⊓-shaped staples each having relatively short penetrating prongs and each of which staples is driven into a portion of said wood spacing member and into a portion of each of the said wood bead-contacting members, said portions being contiguous one to the other, through the said surfaces which are in substantially the same plane, whereby the members of the said collapsible bead stabilizer may be disconnected by a light blow of a tool on the said intermediate spacing member without damage to the tire beads.

2,874,830

PACKAGING AND MIXING OR PROCESSING KIT

William G. Birmingham, Jr., Westfield, N. J.
Application January 30, 1956, Serial No. 562,284
1 Claim. (Cl. 206—47)

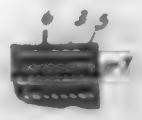


A kit for packaging a plurality of different components, said kit comprising a flexible walled single compartment container of uniform diameter, said container having, alternately spaced on opposed sides longitudinally thereof, oppositely directed transverse folds dividing the container into a plurality of longitudinally spaced substantially flat compartments, means comprising removable clips arranged on and directly engaging and sealing said folds of the container, said clips extending the width of the container, a central compartment of the kit being materially larger than other compartments disposed at ends of said central compartment, each compartment containing a different component, means whereby successive removal of the clips will open the folds for communication between adjacent compartments in mixing components of said compartments and upon removal of all of the clips to open all of the folds in converting the container into a single compartment in which all of the components are mixed, said central compartment containing glass fabric, the components of the other end compartments comprising a resin, a liquid catalyst, and a powdered solid in suspension with a resin.

2,874,831

PAPER ROLLS AND METHOD OF MAKING

Thomas E. Flanagan, Parchment, Mich., assignor to Kalamazoo Vegetable Parchment Co., Parchment, Mich.
Application May 28, 1954, Serial No. 431,106
8 Claims. (Cl. 206—59)

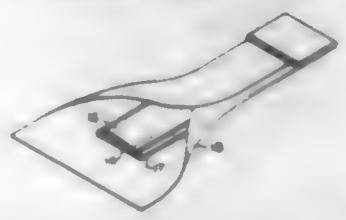


1. As an article of manufacture a convolutely wound web of paper having a paraffin wax coating on both sides thereof and having cut edges at the ends of the roll, and a coating of paraffin wax on the ends of the roll sealing said cut edges, said coating for the ends of the roll having a lower melting point than the melting point of the coating for the sides of the paper.

2,874,832

PROSTHETIC DENTAL PRODUCT

Eliot Gordon, Newton, Mass.
Application January 2, 1958, Serial No. 706,779
4 Claims. (Cl. 206—63.5)



1. A prosthetic dental product comprising a flexible composite strip of partially polymerized acrylic resin including a base portion which is colored and substantially opaque, an overlying veneer portion bonded thereto and which is translucent and of lighter shade than the base portion, a supporting strip of tough sheet material, and an opaque coating of fine ground acrylic polymer adhesively securing the composite strip by its base to the supporting strip, the composite strip being severable into slugs for packing into crown or bridgework.

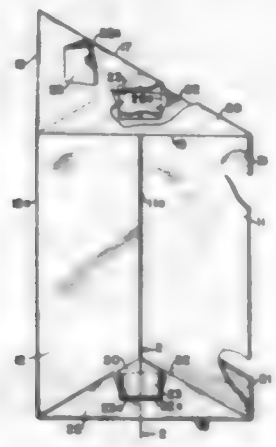
2,874,833

CAN CARRIER

Patrick A. Teensmeier, Hamden, Conn., assignor to The New Haven Board & Carton Company, New Haven, Conn., a corporation of Connecticut
Application January 30, 1956, Serial No. 562,262
10 Claims. (Cl. 206—65)

1. A carton for cans having flat ends with chimes, which comprises a pair of side walls lying parallel to each other, a second pair of side walls at opposite sides of the parallel side walls and lying aligned in a plane, the aligned side walls having side edges connected to adjacent side edges of respective parallel side walls, a one-piece end wall at each end of the pairs of side walls and closing each end of each solid angle defined by one of the parallel and one of the aligned side walls, a connecting member lying against the inner surface of each end wall in each of said solid angles, each connecting member being attached to an end edge of the parallel side

wall partly defining the angle and to an edge of the end wall, means connecting the end walls to the aligned side walls, and means on each end wall in each of said solid



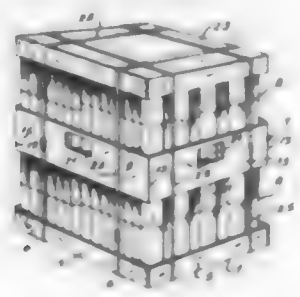
angles for holding a can in said angle, each holding means including a retaining flap hinged to the end wall and projecting inward out of the plane of the wall and toward the apex of said angle.

2,874,834

MULTIPLE ARTICLE PACKAGES

William W. Woodward, Godfrey, Ill., assignor to Alton Box Board Company, Alton, Ill., a corporation of Delaware

Application May 17, 1957, Serial No. 659,938
1 Claim. (Cl. 206—65)



A unitized multiple-layer package of articles comprising a bottom tray supporting a plurality of articles arranged in at least two separate layers, the bottom tray having upstanding margin portions encompassing only the lower margins of the bottom layer of articles, a top tray resting upon the uppermost layer of articles and having depending marginal portions encompassing only the upper portions of the uppermost layer of articles, and a collapsible tube formed of paperboard encompassing the articles at the plane defined between two layers, said tube having small readily foldable flaps fitting between two adjoining layers at the four sides of the package, thereby to hold the tube in position so that margin portions thereof encompass articles both above and below the plane defined by the two adjoining layers on all four sides of the package, said flaps having fold lines disposed intermediate of but parallel to the top and bottom edges of the tube, and strap means extending around the top and bottom trays and vertically along the sides of the package.

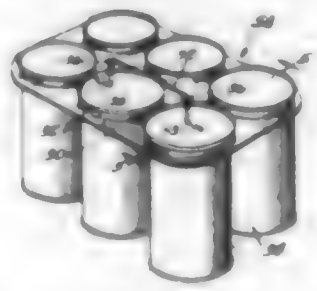
2,874,835

CONTAINER CARRIER AND PACKAGE

Ougljesa Jules Poupitch, Itasca, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois

Application December 1, 1958, Serial No. 775,333
17 Claims. (Cl. 206—65)

7. A beverage or the like unit comprising a plurality of containers having circular cross sections and annular enlargements at one end, and a sheet of substantially unsupported plastic material having a plurality of substantially circular apertures therein, said sheet of plastic material being resilient, deformable, and elastic, the material at the edge of each aperture being circumferentially continuous and uninterrupted, the apertures in the sheet being of smaller diameter than the containers whereby the containers, inserted through said apertures from a given direction, stretch and deform the material adjacent



the apertures, the material adjacent the apertures being in the form of upwardly directed lips locking beneath said annular enlargements and resiliently gripping said containers to resist retrograde withdrawal of said containers.

2,874,836

SEALABLE RE-USABLE SKIN PACKED PACKAGES FOR MERCHANDISE ARTICLES AND METHOD OF FORMING SAME

Alexander W. Wertepny, Jr., Des Plaines, Ill.

Application March 11, 1957, Serial No. 645,061
1 Claim. (Cl. 206—78)



A collapsible, openable, re-usable package for merchandise articles having a flexible carrier panel, said panel being partially divided by a substantially U-shaped slit into a main body portion and an integral inverted U-shaped end portion; a concave-like permanent plastic member having its outer areas secured to the outer surface of said body portion of said panel including the outer surface of said inverted U-shaped end portion and overlying said slit, said plastic member forming a permanent re-usable pocket with said panel said U-shaped end portion of said panel being bendable in one direction to provide an opening partially defined by said slit between said plastic member and said panel, said opening permitting insertion or removal of a merchandise article, said plastic member being adapted to normally hold a merchandise article against said panel.

2,874,837

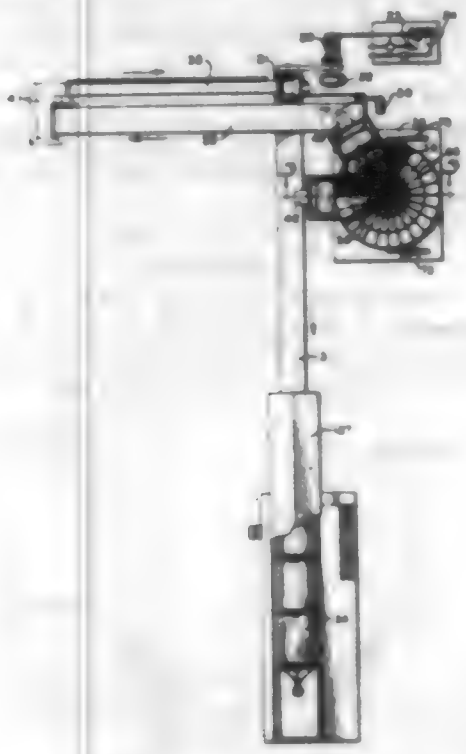
ORE BENEFICIATING APPARATUS

Norbert A. Heyer, Winchester, Va., assignor, by direct and mesne assignments, to John J. Wanner, Winchester, Va.

Application February 1, 1956, Serial No. 562,842
16 Claims. (Cl. 209—12)

1. An ore washing and classifying apparatus comprising a tank open at the top for receiving the ore to be washed and the wash water therefor, means for oscillating said tank about a substantially vertical axis, a grating in said tank spaced from the bottom thereof for separating the larger pieces of ore from the smaller pieces thereof, and means for delivering the two grades of ore from the tank, said means including a coarse ore discharge chute mounted on the outside of said tank in position to receive

the coarse ore collected on said grating, and a fine ore discharge chute mounted on the outside of said tank in



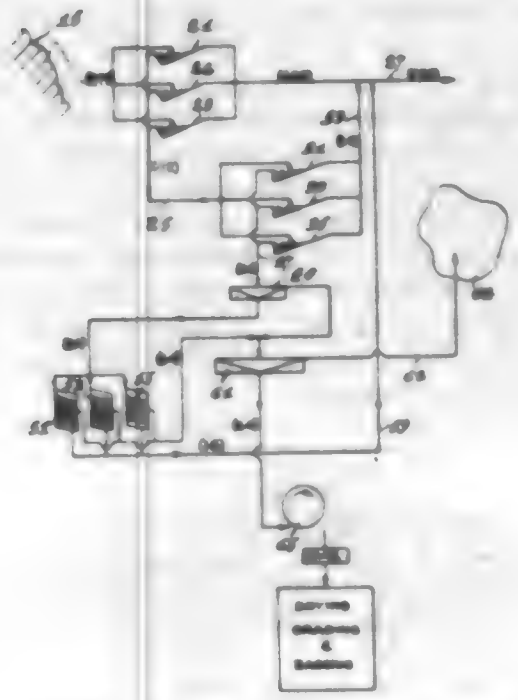
position to receive the fine ore collected in the bottom of said tank.

2,874,835

ASBESTOS FIBER RECOVERY FROM TAILINGS

Merritt C. Pharo, Thetford Mines, Quebec, Canada, assignor to Johnson's Company Limited, Thetford Mines, Quebec, Canada, a corporation of Canada

Application September 28, 1954, Serial No. 458,936
4 Claims. (Cl. 209—18)



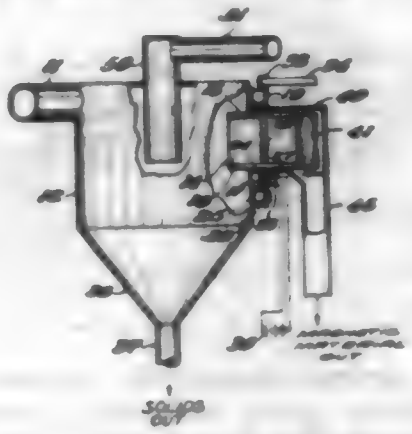
1. A process for the recovery of asbestos, comprising, taking tailings masses from an asbestos dump, said tailings material containing from about 1% to about 8% of short chrysotile asbestos fiber in which from about 60% to about 75% is in the fluffed state, the remainder being about 95% rock and of the size of one half inch or smaller in which the asbestos fiber is generally adherent to the rock and the fibers are generally adherent together in small bundles, breaking up the tailings masses and dropping the broken up masses into a stream of water, thereby entraining air therein carrying the tailings in said stream to a classification pool, subjecting the broken up tailings masses in said pool to primary drag classification at a dilution of from about 16% to about 23% solids in water in the presence of the entrained air thereby to separate fiber from the rock, floating off the fiber in an overflow product, subjecting the primary overflow product to secondary drag classification while subjecting it to the action of compressed air thereby to separate the fiber from rock and floating the fiber in the overflow product, forming from the secondary overflow product an aqueous slurry containing from about 1% to about 15% solids, subjecting the slurry to hydraulic shaken bed classification thereby to separate further the fiber from the rock, and thus recovering the fiber effectively free from gangue.

2,874,839

GRIT SEPARATOR

Joe Young Rogers, Jr., Pampa, Tex., assignor to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts

Application August 15, 1955, Serial No. 528,421
9 Claims. (Cl. 209—232)



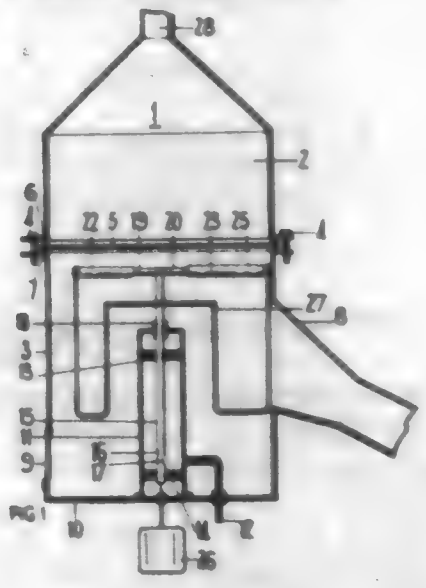
1. A device for separating from one another a magnetic material, a non-magnetic material, and a fluid, said device comprising these elements, a hopper; means for leading into said hopper a mixture of magnetic material, non-magnetic material, and fluid; means for circulating said mixture within said hopper, magnetic means in the side wall of said hopper for attracting said magnetic material, means for removing said magnetic material from said magnetic means, means for collecting said magnetic material, means in the lower portion of said hopper for leading away said non-magnetic material, and means in the upper portion of said hopper for leading away said fluid.

2,874,848

METHODS OF SEPARATING OR CLASSIFYING MATERIALS

Robert Michael Simpson, Wembley, England, assignor to Columbian-General Blacks Limited, London, England

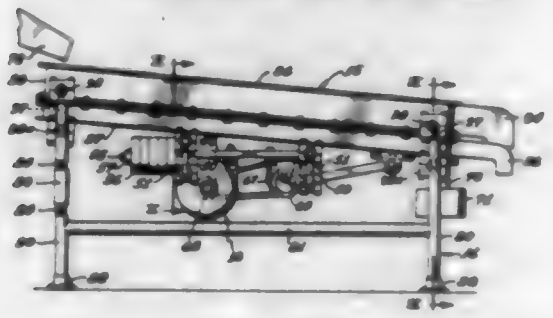
Application September 23, 1955, Serial No. 536,181
Claims priority, application Great Britain September 24, 1954
2 Claims. (Cl. 209—250)



1. A continuous method of separating or classifying granular, powdered or the like material comprising: sus-

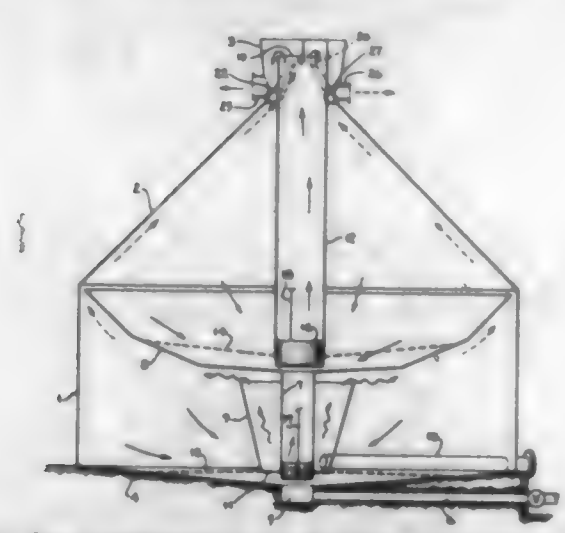
pending said material in a gaseous stream, directing said stream upwardly against a non-vibratable sieve or screen which keeps back the coarser particles of said material but allows the finer particles to pass through it, and independent of said stream impinging gaseous jets at a pressure of the order of 60 lbs. per square inch directly on the underside of said sieve or screen to accelerate the flow of said gaseous stream and material through the sieve or screen and to clear any particles blocking the sieve or screen.

2,874,841
OSCILLATABLE SEPARATOR MEANS
Albin K. Peterson, Torrance, Calif.
Application December 21, 1953, Serial No. 399,475
17 Claims. (Cl. 209—329)



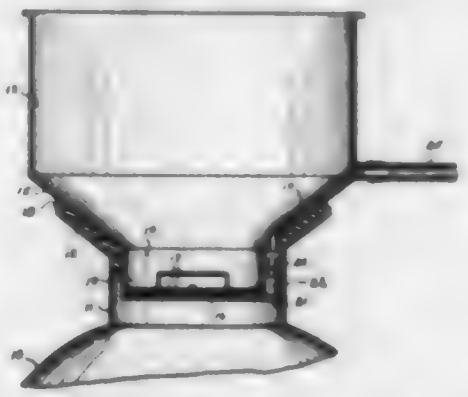
13. In a separator means the combination of: a base frame including spaced upstanding posts; a receptacle means for material to be separated; means on said posts for resiliently yieldably suspending said receptacle means for movement thereof in response to longitudinal and vertical force components imparted thereto; and means for imparting said force components to said receptacle means including a motor means resiliently supported from said receptacle means for movement relative thereto, and means providing an eccentric connection between said motor means and said receptacle means, said eccentric connection means including a crank member angularly disposed with respect to the receptacle means and having one end connected to said receptacle means.

2,874,842
PROCESS AND APPARATUS FOR WASTE LIQUID PURIFICATION
Milos Krofta, Lenox, Mass.
Application April 5, 1955, Serial No. 499,326
14 Claims. (Cl. 210—70)



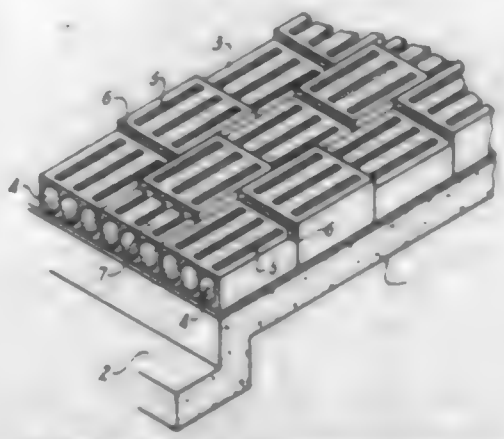
1. In the purification of liquids containing suspended particles by flotation of said particles, the improvement which comprises introducing a liquid containing suspended particles and pressurized gas into the lower central portion of a body of said liquid while releasing in said liquid said gas in the form of small bubbles to entrain said particles to the top of said body of said liquid, deflecting the flow of the gas-entrained particles in said lower central portion laterally in substantially all directions toward the peripheral portion of said body of said liquid, thence deflecting the flow of said gas-entrained particles upwardly in inclined directions toward a common point of withdrawal, and withdrawing purified liquid from the bottom of said body of said liquid and from a higher level in said body of said liquid above the level where the flow of said gas-entrained particles is deflected toward said peripheral portion of said body of said liquid.

2,874,843
MILK STRAINING DEVICE
Merlyn T. Townsend, Stacyville, Iowa
Application June 16, 1954, Serial No. 437,162
1 Claim. (Cl. 210—120)



In a device of the class described, a filter container having a flared bottom portion adapted to detachably rest on a flared rim portion of a receiving container and terminating in a bottom filter portion adapted to detachably rest on a flared rim portion of a receiving container and terminating in a bottom filter portion adapted to extend into the neck of said receiving container in spaced relationship, a gasket on the bottom of said flared portion of said filter container and continuing downwardly outside said bottom filter portion, a conduit extending on the inner side of the flared portion of said filter container and then extending downwardly at the side of said bottom filter portion to terminate in a horizontal plane near the bottom of said bottom filter portion, a strainer means in the bottom of the bottom filter portion of said filter container, an air suction means operatively connected to said conduit, and a float shut off valve means on that end of said conduit to cut off said air suction means when its float is actuated by a liquid rising to the area of said float shut off valve means.

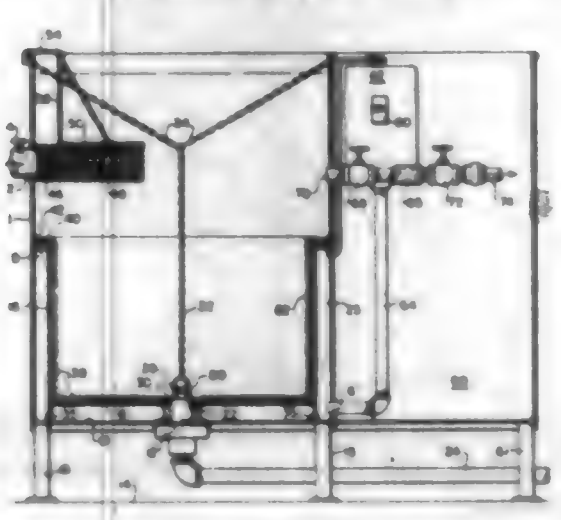
2,874,844
FILTER BEDS AND TILE
Edwin F. Wagner, Pittsburgh, Pa.
Application April 7, 1955, Serial No. 499,958
2 Claims. (Cl. 210—150)



1. A trickling filter bed comprising rows of filter tile each tile having cells forming flow passages and having a wall of the tile perforated to form a grid structure to support a filtering bed thereon, each row of tile having alternating tile of varying height to expose a portion of the

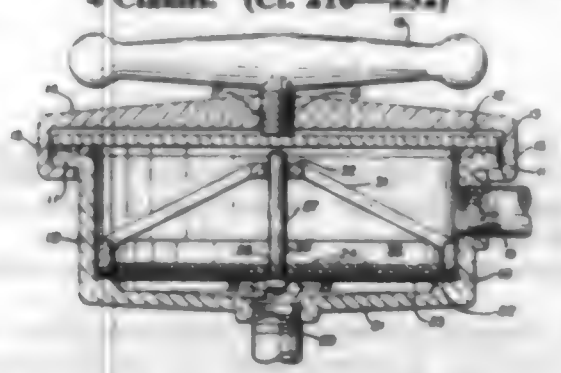
flow channels of the tile of greatest height at the joint of the tile to supplement the aerating effect of the perforated wall of the tile.

2,874,845
FILTRATION SYSTEM
Morton Edgar Fain, Providence, R. I., and Harry Copley, Jr., Fall River, Mass., assignors to Tower Iron Works Inc., Providence, R. I., a corporation of Rhode Island
Application June 4, 1956, Serial No. 589,062
10 Claims. (Cl. 210—167)



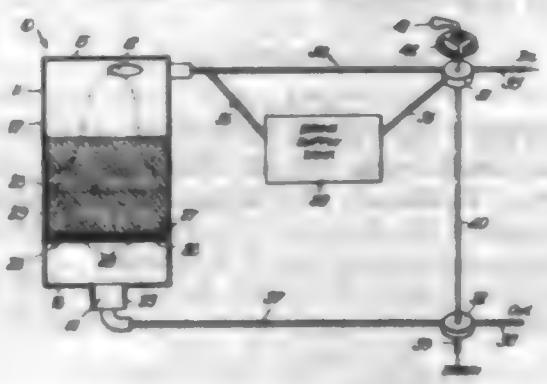
1. In a liquid purification system of the type having a reservoir for holding the liquid to be purified, the reservoir having an inlet duct and an outlet duct and a circulating pump having intake and discharge ports, filtering apparatus comprising an elongate tank having on its inside wall between its opposite ends a flange, a rigid tubular support mounted within said tank, said support having a pervious side wall spaced from the side wall of said tank with its upper edge at substantially the same level as said flange, the bottom wall of said support being spaced above that of said tank, an inlet line connected with the outlet duct of said reservoir and extending into said tank above said flange, an outlet line extending from the lower end of said tank below said support, a flexible filter web extending about the inside wall of said support with its upper edge secured to said flange, a conduit connecting the intake port of said pump with said outlet line, and a discharge line connected with the discharge port of said pump, said discharge line having two valved branches, one of which is connected to said tank above said flange and the other branch being connected with the inlet duct of said reservoir.

2,874,846
FILTER
Anton J. Herster, Sharon, Pa.
Application June 22, 1955, Serial No. 517,239
4 Claims. (Cl. 210—232)



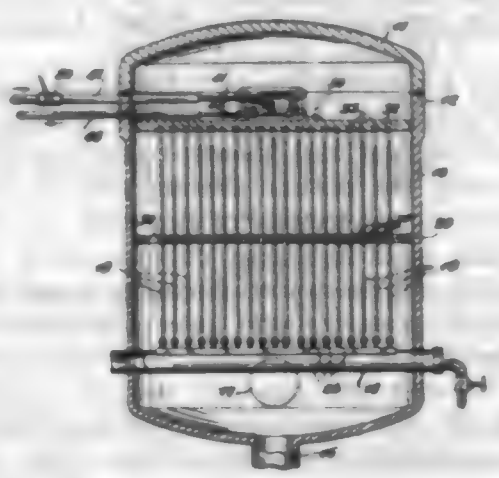
1. A water filter comprising a housing with an open top and a removable closure therefor, and an inlet opening in a side wall of said housing and an outlet opening in a bottom wall of said housing, a shoulder in said housing above said bottom wall, a grid disposed horizontally in said housing on said shoulder, a vertical upstanding stem centrally disposed on said grid, a plurality of cloth filter discs having centrally disposed apertures positioned on said grid around said stem, a ring having upwardly and inwardly extending arms thereon joined at their apexes to an apertured member, said ring positioned on said cloth filter discs adjacent their peripheral edge with said stem projecting through said apertured member said apertured member being in spaced relation to said cloth filter discs and said closure.

2,874,847
ION EXCHANGE DEVICE AND METHOD
William J. Diamond, Benton Harbor, Mich., assignor, by mesne assignments, to Whirlpool Corporation, St. Joseph, Mich., a corporation of Delaware
Application August 11, 1955, Serial No. 527,886
2 Claims. (Cl. 210—291)



1. An ion exchange device or the like comprising a small diameter relatively tall upright cylindrical container having parallel top and bottom walls and a cylindrical side wall, an inlet adjacent the top wall of said container tangential to said cylindrical side wall, an outlet in said bottom wall, a diffusion plate in said container disposed in spaced parallel relation to said top and bottom walls adjacent said bottom wall, said diffusion plate having a plurality of holes therein in a uniform pattern and said outlet being large to accommodate high rates of fluid flow, a fine mesh screen supported on the upper surface of said plate, and a charge of ion exchange resin supported on said screen in said container between said screen and said inlet, said charge of resin being relatively deep but terminating short of said inlet.

2,874,848
PRESSURE LEAF FILTER WITH PNEUMATIC VIBRATOR FOR RESIDUE REMOVAL
Edward S. Cannon, Lake Worth, Fla., and Don B. Lash, Willoughby Hills, Ohio, assignors to The Berkshire Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application April 5, 1955, Serial No. 499,420
1 Claim. (Cl. 210—332)



In a pressure leaf filter, a fluid-tight casing, plurality of vertically disposed parallel filter leaves mounted therein, each leaf comprising a tubular channel frame sur-

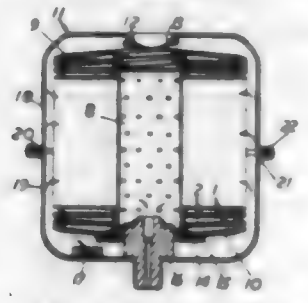
rounding a pair of spaced screens secured to the frame and providing a clear filtrate chamber between the screens, a delivery manifold in said casing, the bottom of each frame being connected with said manifold by a nozzle, means for introducing into said casing under pressure the material to be filtered, a bar extending transversely across the tops of said leaves, said bar having means for engaging each filter leaf, a pneumatic vibrator secured to said bar, control means for said vibrator operable externally of said casing and comprising conductors extending through sealed openings in the casing, a filter means on opposed inner walls of the casing intermediate the top and bottom thereof in which the side elements of the filter frames are loosely supported, whereby each leaf has a single point bottom mounting and two non-positive side mountings permitting shaking movement of the leaf for dislodging filter cake in response to the operation of said vibrator.

2,874,849

FILTER FOR FILTRATION OF FLUIDS

Donald Bennion Browne, Bassett, Southampton, and Kenneth Ernest Buckman, Redbridge, Southampton, England, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 24, 1955, Serial No. 530,382
Claims priority, application Great Britain September 9, 1954
3 Claims. (Cl. 210—347)



1. A filter comprising a stack of filter elements with a common axis, each of said elements comprising two sheets of permeable fibrous material, a cylindrical flange integral with each of said sheets to define a central aperture, the cylindrical flanges of each element extending in opposite directions and arranged in telescopic relation, the faces of adjacent elements being in contact to define between them filtrate passages with closed ends beginning near the peripheries of said elements and extending to the apertures of said sheets and said passages being arranged in series around said axis.

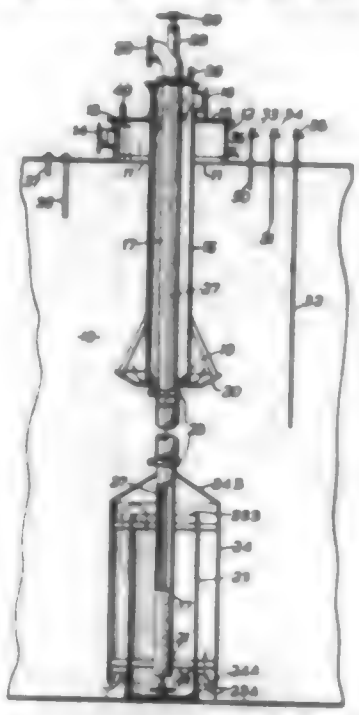
2,874,850

APPARATUS FOR SEPARATING OIL AND WATER

Douglas G. Unthank, London, England, assignor of one-half to Henry Arthur John Silley, London, England

Application June 16, 1955, Serial No. 515,887
Claims priority, application Great Britain June 22, 1954
7 Claims. (Cl. 210—519)

1. Apparatus for separating oil from water, comprising a closed tank, a water discharge conduit passing through the top wall of the tank and having its lower end opening into the tank near the bottom thereof and its upper end forming a water outlet outside of the tank, an inlet conduit surrounding said discharge conduit so as to form with the exterior of the water discharge conduit a substantially annular passage, said inlet conduit having its lower end terminating within said tank at an elevation intermediate between the top and bottom of the tank, the upper end of said inlet conduit extending out of the tank and having an inlet opening outside of the tank for the introduction of oil-contaminated water, dispersing means comprising a baffle substantially co-axial with said annular passage at the lower end of said inlet conduit for discharging oil-contaminated water into said tank radially from the lower end of said annular passage, a valve for closing the lower end of said discharge con-



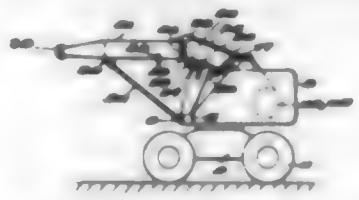
duit, and operating means located on the outside of said tank for moving said valve from closed to open position and vice versa.

2,874,851

VEHICLE-MOUNTED REVOLVING CRANE WITH FOLDING JIB

Hans Scheuerpflug, Nurnberg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg A. G., Nurnberg, Germany

Application December 19, 1955, Serial No. 553,988
Claims priority, application Germany December 17, 1954
5 Claims. (Cl. 212—144)



1. In a vehicle-mounted revolving crane, a rotary upper carriage, a folding jib hinged by a pivot pin to the upper carriage for vertical swinging, said jib comprising at least a foot section, a head section, a joint with horizontal pivot between said sections, and locking means ensuring a rigid connection between the sections in the operative condition of the jib, means for swinging the foot and head sections of the jib on release of the locking means, into a nearly vertical and into a nearly horizontal position, respectively, and stay means joined to said head section and said pivot pin for holding the head and foot sections in said positions.

2,874,852

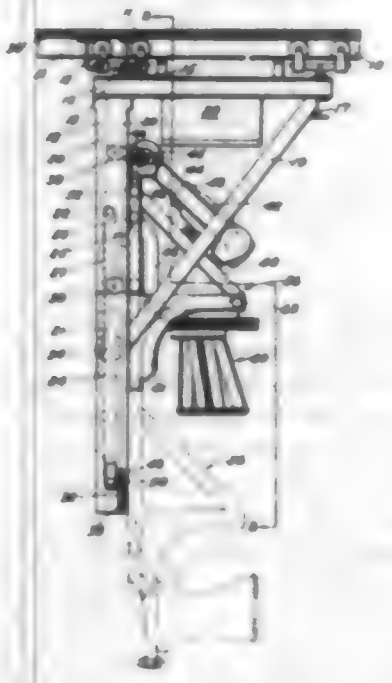
ELEVATING MECHANISM

Herbert S. Frederick, Middlesex County, Mass., and Martin A. Kinsella, Wilmington Manor, Del., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application August 31, 1948, Serial No. 47,048
4 Claims. (Cl. 214—1)

1. An elevator for servicing heavy machinery comprising an overhead monorail support, an electrically conducting trolley rail secured to said monorail, a chassis suspended from and movable along said monorail, trolley wheels mounted upon said chassis and contacting said trolley rail, a first set of vertical tracks forming a part of said chassis, a carriage mounted upon said chassis and vertically movable along said tracks, hydraulic means supported by the chassis and arranged to raise and low-

er the carriage, electrically operated means mounted on the chassis and arranged to actuate the hydraulic means, a second set of vertical tracks forming a part of the carriage, a sub-carriage including lifting links vertically movable along said second set of tracks, a third set of



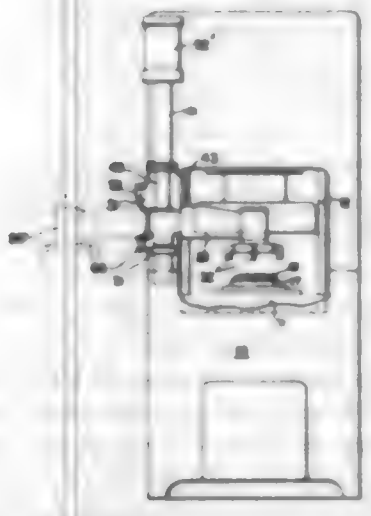
tracks forming a part of said carriage and describing a quarter circle from a vertical to a horizontal direction, a turntable secured at one end to the lifting links and movable along said third set of tracks whereby said turntable may be rotated through an angle up to 90° and load supporting means secured to said turntable.

2,874,853

QUENCHING PRESS WITH WORK HANDLING MECHANISM

Earl D. Dammert, Penfield, N. Y., assignor to The Gleason Works, Rochester, N. Y., a corporation of New York

Application March 18, 1955, Serial No. 495,237
6 Claims. (Cl. 214—1)



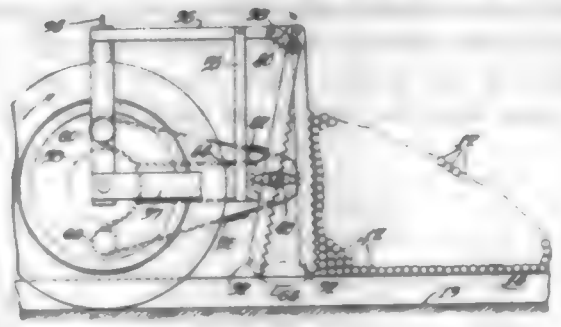
6. A work handling device comprising a stationary support, a member reciprocable thereon, an arm having a screw connection with the member, with the screw axis extending in the direction of reciprocation of the member, whereby upon motion of the member in said direction relative to the arm the latter will be swung about said axis, a spring acting between the member and arm for resiliently holding them in one limit position of such relative motion, and stop means to limit motion of the arm relative to the support, whereby during one stroke of the reciprocation of said member the arm first moves angularly and then rectilinearly, and upon the opposite stroke of said member has a return rectilinear motion and then a return angular motion.

2,874,854

CANE PILER

Samuel A. Thornton, Jeanerette, La., assignor to Samuel A. Thornton, Jr., Alexandria, La.

Application June 9, 1954, Serial No. 435,440
8 Claims. (Cl. 214—9)



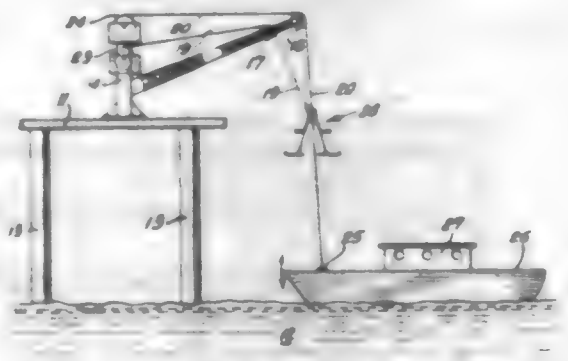
4. A cane piling machine comprising a frame unit carrying a plurality of upright kicker bars to engage cut cane upon motion of the frame unit toward the cane, said bars being provided with cane engaging means on the forward vertical edges thereof, means guidably mounting the kicker bars adjacent the upper ends thereof, said means mounting said bars for forward, upward, rearward and downward movement of at least the lower ends thereof and accommodating a maximum horizontal movement at the lower ends of the bars so that cut cane on the ground is kicked upwardly by the action of the bars during their upward and forward movements.

2,874,855

PERSONNEL OR OBJECT TRANSFER APPARATUS AND METHOD

Warren A. Rees, Jr., Liberty, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application July 2, 1957, Serial No. 669,666
8 Claims. (Cl. 214—14)



1. A personnel or object transfer device for transferring from a relatively stationary structure to a moving object, comprising in combination support means for carrying said personnel, hoist means for raising and lowering said support means, guide means detachably fastened to said moving object and extending to said structure, means for applying tension force to said guide means of a magnitude at least equal to the gross weight of said support means when fully loaded, and means for transferring lift of said personnel support means from said hoist means to said guide means.

2,874,856

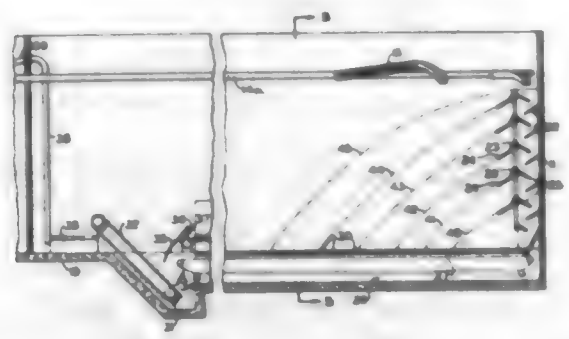
APPARATUS FOR HANDLING CANS

Earl Jeremiah, Hayward, Calif., assignor to United Can & Glass Company, Hayward, Calif., a corporation of Delaware

Continuation of application Serial No. 394,183, November 24, 1953. This application August 13, 1956, Serial No. 603,758
4 Claims. (Cl. 214—16)

1. Apparatus for storing cans comprising a storage bin, means adjacent the ceiling of said bin for conveying cans into said bin, a chute extending substantially vertically

from the floor of said bin upwardly to said conveying means to receive cans therefrom, said chute having a front wall and an opposed rear wall, said front wall having a plurality of baffles extending diagonally downwardly and rearwardly, said back wall having a plurality of baffles extending diagonally downwardly and frontwardly, said front wall baffles being staggered with respect to and interposed between said rear wall baffles, whereby a can dropped into the upper end of said chute will pass back and forth on said baffles which descend



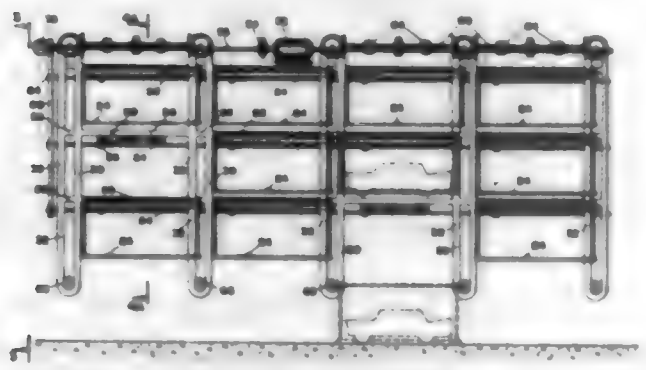
therethrough, said front wall being comprised of a plurality of vertically spaced superposed normally closed hinged panels, said panels when in a closed position preventing cans from issuing from said chute at the level of said panels, and said panels being adapted to automatically swing open progressively from bottom to top as the level of stored cans rises in said storage bin to permit the cans to roll from said chute at progressively higher levels therefrom onto the upper surface of said stored cans.

2,874,857

PARKING SYSTEM

Ralph W. Coursey, Oklahoma City, Okla.

Application August 23, 1957, Serial No. 679,934
4 Claims. (Cl. 214—16.1)



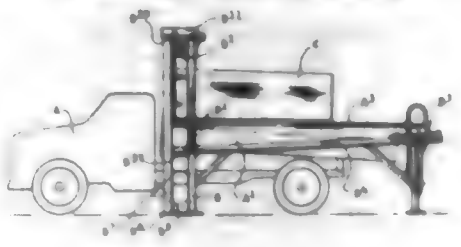
1. A parking system, comprising a plurality of carriages, a set of rollers carried by and extending outward from each end portion of each carriage, a plurality of vertically spaced sets of horizontal tracks for receiving said rollers and movably supporting a plurality of the carriages in end-to-end relation on each set of tracks, a vertical roller guide means interconnected with the adjacent ends of each vertical row of horizontal tracks, there being a guide means connected to each end of each track, additional guide means intersecting each vertical row of tracks, each of said guide means being in the form of a vertically extending loop to provide two vertically extending roller guideways at each guide means location, said guide means being spaced along the lengths of the tracks such that the distance between adjacent guideways of adjacent guide means is equal to the spacing between said sets of rollers, a carriage elevator associated with each guide means, and means for moving the carriages along the tracks.

2,874,858

LOADING AND UNLOADING RACKS

William Paul Eden, Port Arthur, Ontario, Canada, assignor of twenty-five percent to Marathon Corporation of Canada Limited, West Toronto, Ontario, Canada

Application August 26, 1955, Serial No. 530,682
11 Claims. (Cl. 214—38)



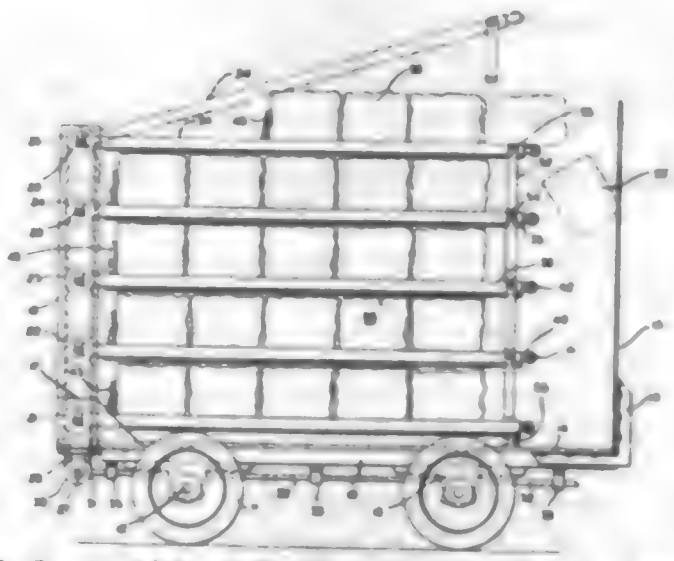
1. The combination of a dump truck, a load carrying platform removably mounted on the tiltable body of said truck, and a rack into which said truck may be backed; wherein the rack has an inclined track by which the rear of the platform is raised from the truck as the truck is backed into the rack and means for engaging and suspending the forward end of said platform when such forward end of the platform is raised by the tilting of the dump truck body, whereby on the lowering of the tiltable body of the truck the vehicle is relieved of the platform and may be driven forwardly out of the rack leaving the load carrying platform suspended therein to be picked up and removed when desired.

2,874,859

BALE UNLOADING DEVICE FOR VEHICLES

Maurice P. Gahlman, Theresa, Wis.

Application May 1, 1956, Serial No. 581,971
10 Claims. (Cl. 214—83.22)



1. In a vehicle of the character described, a frame, an upright support at one end of said frame, a plurality of vertically spaced, normally horizontal storage and loading platforms each having its end pivotally mounted on said upright support to permit superposed platforms to be swung upwardly from a lower platform while the latter is being loaded, pusher means reciprocably mounted on each of said platforms, and drive means on said vehicle frame having operative connection with each of said pusher means.

2,874,860

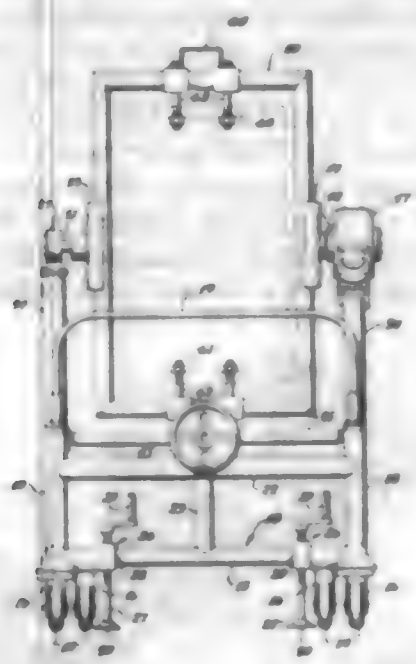
HAND TRUCK FOR HANDLING EQUIPMENT

David W. King, Knoxville, Tenn., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application June 10, 1946, Serial No. 675,627
1 Claim. (Cl. 214—130)

In a handling truck, in combination, a wheeled chassis, a vertically swingable boom structure having side arms spaced from each other and pivotally attached to the chassis, a rectangular frame having its side members

rotatably supported substantially at their mid-points between said side arms and having means for attaching an article to be handled to its top and bottom members, a gear train carried by one of said side arms whereby said frame may be rotated on its mountings, a yoke member



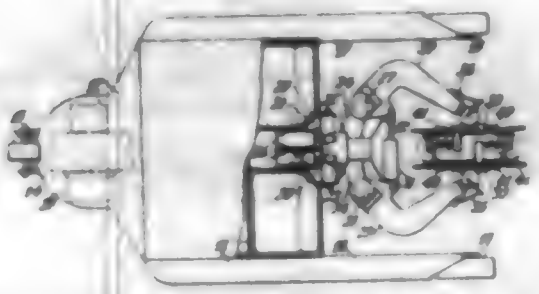
adjustably attached to the side arms of said boom structure, and a rotatable screw threaded stem connected between said yoke member and a part of said chassis so that by rotation of said stem the boom structure may be swung on its pivots.

2,874,861

AIRCRAFT MANOEUVRING APPARATUS

Alfred Erwin Reginald Arnot, Basingstoke, England, assignor to John Reginald Sharp and Emanuel Kaye, Basingstoke, England

Application March 7, 1956, Serial No. 570,805
Claims priority, application Great Britain March 9, 1955
5 Claims. (Cl. 214—332)



1. In apparatus for maneuvering aircraft, the combination of a trolley-body having a steering wheel, a steering wheel mounting therefor at one end of said body, supporting wheels spaced apart at the other end thereof, gripper jaws between said supporting wheels having upstanding wheel-engaging surfaces facing one another, lateral projections therefrom below the center line of wheel and other lateral projections above the center line, supporting means on the trolley-body for said gripper jaws which are movable to bring the gripper jaws towards or from one another and also to raise and lower the same, and power means to move said supporting means.

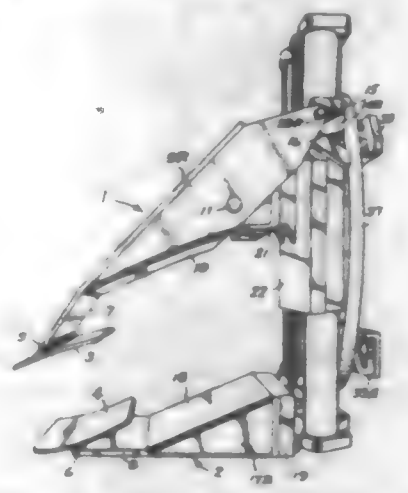
2,874,862

CLAMPING MECHANISM FOR LIFT TRUCKS

Stanley E. Farmer, Portland, and Donald M. Faust, Estacada, Oreg., assignors to Cascade Manufacturing Company, Portland, Oreg., a corporation of Oregon

Application October 22, 1956, Serial No. 617,477
8 Claims. (Cl. 214—652)

5. In a clamping attachment for lift trucks and the like the combination of first and second oppositely disposed gripping arms extending in the same direction, mounting means on one end of each of said arms, load engaging portions facing each other and secured to the other end of each of the arms, a frame, means pivotally securing the first arm to its mounting accommodating pivotal movement of the first arm towards the second arm, means for restraining pivotal movement of the first arm in the other direction, guide means on the frame slidably mounting the mounting means for the first arm and guiding linear motion of the first arm with respect



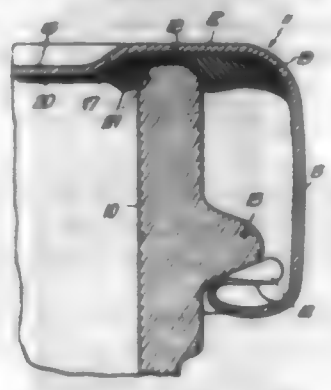
to the second arm, the mounting means of the second arm being mounted on the frame in spaced relationship to the first arm, means connected to the first arm for moving it towards and away from the second arm, a cam follower fastened to the first arm, and cam means on the attachment adapted to engage said follower and cause pivoting of the first arm towards the second arm only after said arm has been linearly moved a predetermined distance towards the second arm.

2,874,863

CONTROLLED TORQUE GASKET COMPOSITIONS

Harold W. Unger, Mount Prospect, and Donald H. Zipper, Elmhurst, Ill., assignors to White Cap Company, Chicago, Ill., a corporation of Delaware

Application April 1, 1957, Serial No. 649,633
35 Claims. (Cl. 215—40)



1. A gasket forming composition comprising a vinyl chloride base resin and quantities of lecithin and silicone fluid, the latter ingredients being present in sufficient amounts so as to be present on the surface of a gasket formed from said composition and provide lubrication thereto.

2,874,864

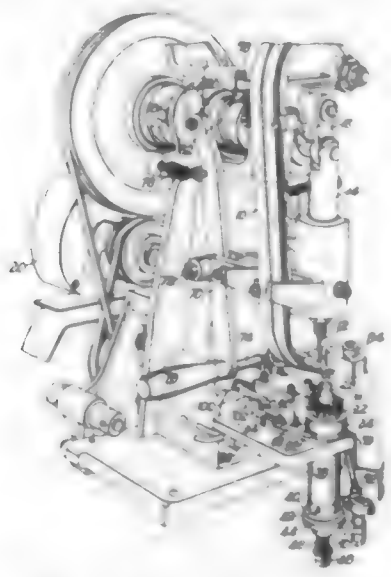
WORK INDEXING MECHANISM FOR FASTENER INSERTING MACHINES

Sylvester L. Gookin, Cohasset, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application February 23, 1956, Serial No. 567,335
3 Claims. (Cl. 218—15)

1. In a machine adapted to insert fasteners one at a time in a work piece having a series of variously spaced apart points at which the fasteners are required to be located, the combination with a power operated fastener inserting tool of: a movable work holder for support-

ing the work piece and for intermittently moving the work piece to locate successively each of said points in operative alinement with the tool; frictional drive means for yieldably moving the work holder and work piece in a path adapted to carry each of said points successively into and out of operative alinement with the tool; and



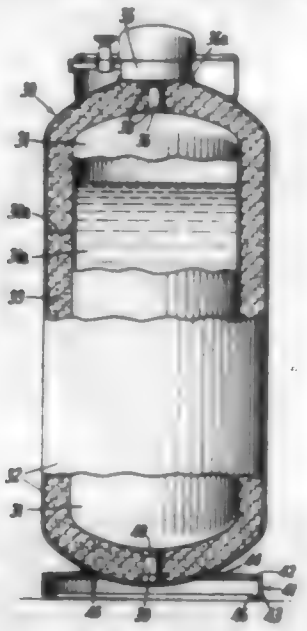
a motion limiting detent intermittently movable into and out of abutting engagement with pairs of detent receiving faces provided on the work holder at spaced apart intervals, said detent, when engaged with any of said pairs of faces, acting to lock the work holder against further movement by said drive means.

2,874,865

DOUBLE-WALLED CONTAINER WITH BASE

John M. Canty, Buffalo, and Peter M. Riede, Kenmore, N. Y., assignors to Union Carbide Corporation, a corporation of New York

Application January 23, 1957, Serial No. 635,826
5 Claims. (Cl. 220—15)



2. A container for storing low-boiling liquefied gas material, including a casing, a vessel within said casing suspended vertically therefrom, said vessel being spaced inwardly from the casing to define therewith an intervening space, means in said space for restricting heat inflow to said vessel and for restricting lateral movement of the vessel relative to the casing, a base member supporting the container vertically and comprising an annular plate having a central opening in which the bottom of said casing is received to be seated on said plate, and an annular flange depending downwardly from the outer margins of said plate for supporting said plate on the ground, said base member being elastically deformable only under impact loads insufficient to permanently deform inner parts of the container.

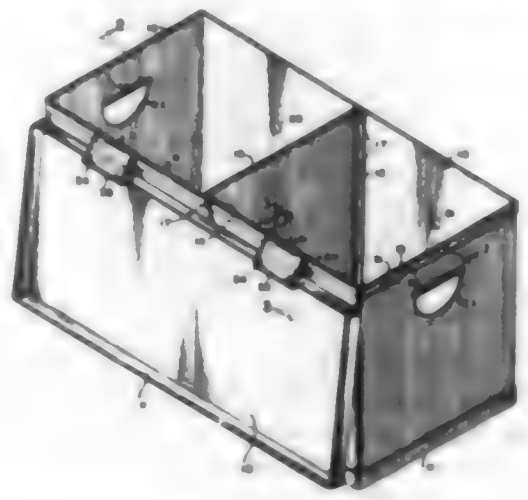
2,874,866

EGG CRATE

John E. T. Rudy, Thornburg, Va.

Application March 27, 1956, Serial No. 574,247
3 Claims. (Cl. 220—20)

1. An egg crate produced from relatively light weight sheet metal providing side and end walls, the upper edges of said walls being bent outwardly and downwardly to provide a peripheral flange, a sheet metal bottom and a sheet metal top for said crate, said top including a depending peripheral rim, the lower portion of said rim being bent inwardly and upwardly to provide a reinforcing flange adapted to overlap the reinforcing flange on the crate when the top is in closed position, three-part hinge means connecting said top to said crate whereby the top



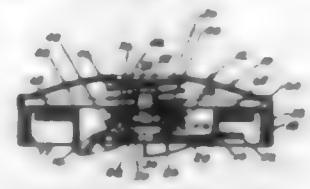
may be swung from a closed position to an open position in close proximity to the wall to which attached, said hinge means comprising a spacer plate and outer legs pivoted to opposite sides of said plate, the outer legs of said hinge means being U-shaped and embracing and snugly engaging beneath the reinforcing flange on the crate and beneath the reinforcing flange on the top respectively.

2,874,867

FUEL CONTAINER CLOSURE

Arthur D. Schultz, Cleveland, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application November 5, 1953, Serial No. 390,330
5 Claims. (Cl. 220—44)



1. A container closure comprising a cover member, a member having a centrally apertured portion, said apertured member secured to the cover member and providing with the cover member a chamber therebetween, a sleeve extending into said chamber and comprising an annular wall portion and a base portion and said sleeve being secured in close fitting relationship with the apertured portion of said apertured member, valve means supported on said sleeve and including a resiliently loaded valve having an opening therethrough, said annular wall portion of said sleeve disposed in telescoping relationship within said valve means, a sealing element interposed axially between said valve and one end of said sleeve and providing an annular seal between said sleeve and said resiliently loaded valve, said sealing element having an opening therethrough coinciding with the opening in said valve, and a second valve disposed within said sleeve and being free to move to a sealing position in which said second valve forms an annular seal with said sealing element and to an open position in which said second valve

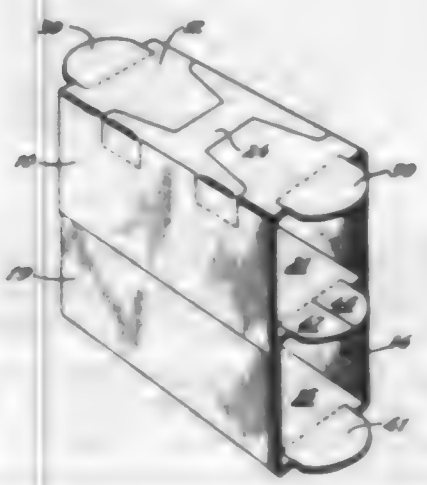
is spaced from said sealing element and supported on said base portion of said sleeve, said openings through the valve and sealing element providing communication, through the sleeve, between said chamber and a zone disposed on the axial opposite side of said apertured member, means secured to the apertured member for attaching the closure to a container to which it is adapted and vent means providing communication between the atmosphere and said chamber.

2,874,868
CAN OPENER
John R. Montgomery, Hubbard Woods, Ill.
Application May 26, 1955, Serial No. 511,205
1 Claim. (Cl. 220—52)



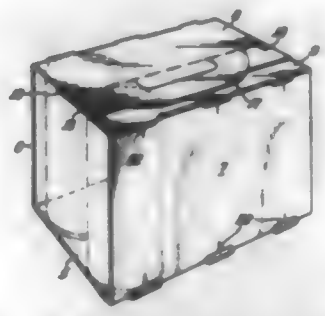
A can opener of the type described in the general form of a key, including a shaft and a handle by which it may be rotated, an elongated slot in the shaft adapted to receive the tear strip of a can or the like, and at least one bendable tab having a width wider than the slot and having one edge integrally secured to the shaft along the longitudinal edge of the slot, the tab projecting laterally from the shaft substantially in the plane of the axis of the shaft and being of such a construction whereby the tab will have a tendency to roll up when a tear strip is inserted in the slot and the opener is rotated.

2,874,869
CAN CARRYING CARTON
Russell James Hennessey, St. Paul, Minn., assignor to Waldorf Paper Products Company, Ramsey County, Minn., a corporation of Minnesota
Application February 21, 1956, Serial No. 566,853
6 Claims. (Cl. 220—112)



1. A can carrier including rectangularly arranged side and end walls, and a partition wall secured parallel to two opposed walls and interposed therebetween, flaps hingedly secured to opposite ends of said two opposed walls, and flaps hingedly secured near opposite ends of said partition wall, said last named flaps being split so that one portion of each flap may fold above the partition wall and the other portion of each flap may fold on the opposite side of said partition wall.

2,874,870
HANDLE CARTON
Peter C. Collura, Waltham, Mass., assignor to Container Corporation of America, Chicago, Ill., a corporation of Delaware
Application April 26, 1957, Serial No. 655,299
5 Claims. (Cl. 220—112)

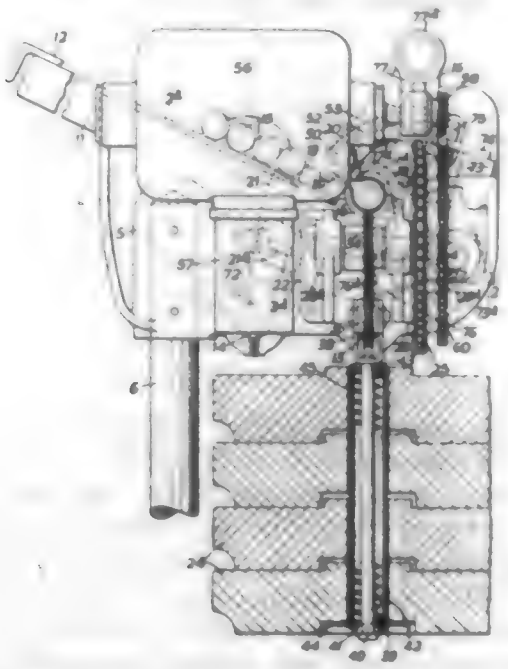


1. In a handle carton, a bottom wall panel, side wall panels extending upward from said bottom wall panel, a top wall comprising an inner panel and an outer panel extending inward from said side wall panels and secured together in overlapping relation, said outer top wall panel being of materially less width than said bottom wall panel, a first substantially U-shaped handle element cut from said inner top wall panel and integrally attached at its ends thereto, a first tongue cut from and substantially conforming to the interior of said handle element and attached to the portion of said inner top wall panel underlying said outer top wall panel, a second substantially U-shaped handle element integrally attached at its ends to said outer top wall panel and overlying said first handle element, and a second tongue cut from and substantially conforming to the interior of said second handle element and overlying said first tongue, said tongues being adhesively secured together and said first tongue being of greater extent than said second tongue and extending beyond the margin of the latter, said tongues being disposed at the midlength portions of said top wall panels and providing reinforcement therefor, said second handle element seating on and being adhesively secured to the marginal portion of said first tongue extending beyond said second tongue and being exposed at its edge toward the outer edge of said inner top wall panel to facilitate detachment of said second handle element from said first tongue.

2,874,871
BAR FEED FOR MACHINE TOOLS
Henry Edwin Vann, Leicester, England, assignor to Ratby Engineering Company Limited, Earl Shilton, England, a British company
Application October 17, 1955, Serial No. 540,700
Claims priority, application Great Britain October 21, 1954
7 Claims. (Cl. 221—13)

3. A bar feed apparatus for a machine tool comprising, in combination, a horizontally disposed tube which is divided longitudinally into two sections separable to open the tube at one side and enable it to receive a bar to be converted by the machine tool into successively produced work components, a support adjacent the tube for carrying a supply of bars, means opening the tube and simultaneously displacing a bar on the support so that this bar is permitted to move laterally into the open tube, a pusher element arranged to press on the appripriate end of said bar in the tube, a bracket carrying said element, a slideway along which said bracket is transversible and by which is guided, an endless chain to which said bracket is attached, chain wheels at opposite ends of the apparatus around which the chain is passed, means driving the chain in one direction to feed the bar through the tube into the machine tool as required, an electric motor driving one of the chain wheels, and hence the chain, in the reverse direction to return the

pusher element to its starting position each time a bar has been used up, a limit switch at the end of the apparatus nearest the machine tool for switching on the motor, connections which are operable to actuate said limit switch and are arranged in the path of the pusher



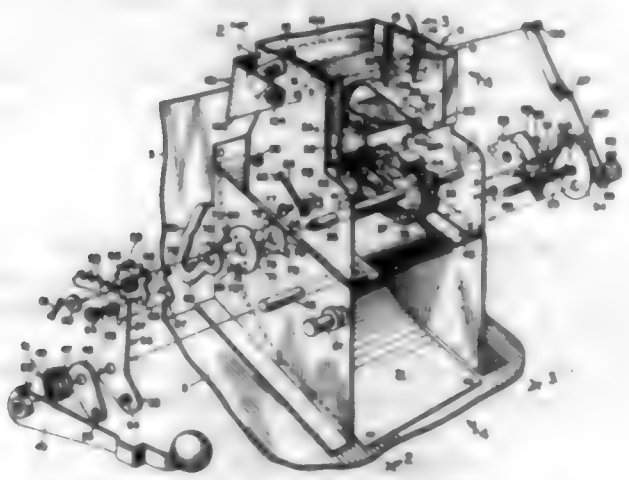
element bracket whereby as the latter completes an operative traverse it acts on and displaces said connections another limit switch at the opposite end of the apparatus for switching off the motor, and means actuating said last mentioned switch as the pusher element bracket approaches the end of a reverse stroke.

2,874,872

ARTICLE DISPENSING MACHINE

Ernest H. Thompson, Glenview, Ill., assignor to Automatic Canteen Company of America, Chicago, Ill., a corporation of Delaware

Application November 18, 1953, Serial No. 392,900
2 Claims. (Cl. 221—112)



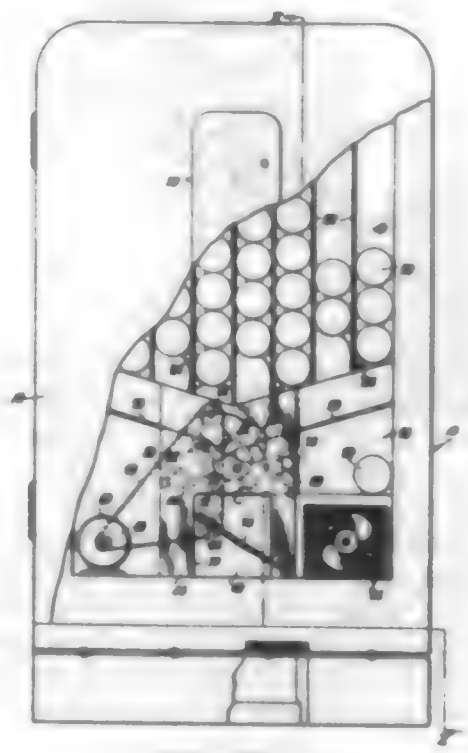
1. An article dispensing machine comprising a horizontally extending elongated supporting platform, said platform having a plurality of portions disposed in stepped relation to each other at progressively higher elevations from one end of said platform to the other, a plurality of magazines, each of said magazines being disposed over a respective one of said portions in position to receive a stack of articles and thereby dispose said stacks over respective ones of said portions in horizontally spaced aligned relation and at different elevations, a plurality of pusher members movable in the direction of alignment of the stacks, one of said pushers being positioned initially adjacent the lowermost article of the lowest stack, and ratchet means having unevenly spaced teeth thereon operable to actuate said pushers and to move said one pusher initially a distance sufficient to move all of the lowermost articles of the stacks into contact with one another plus the depth of a stack in the direction of alignment thereof, whereby the lowermost article of the highest stack will be dispensed, said means being operable thereafter to move said one pusher only a distance equal to said depth of a stack until the lowermost article of the first mentioned stack has been moved to the last mentioned stack and dispensed, whereupon the next succeeding pusher will be brought into position to repeat the cycle.

2,874,873

FROZEN FOOD CONTAINER VENDER

Fred D. Newell, Overland Park, Kans.

Application March 23, 1953, Serial No. 343,820
7 Claims. (Cl. 221—203)



1. In article rotating apparatus, a releasable device for rotatably supporting an article to be rotated, said device including a rotatable element for rotating the article, said element being swingable to and from a position frictionally engaging the article when the latter is supported by said device; a continuous, flexible member coupled with said element for rotating the latter; means for driving the member; and means including structure on the member for swinging the element to a position releasing the article from said device after the element has rotated the article a predetermined number of revolutions.

2,874,874

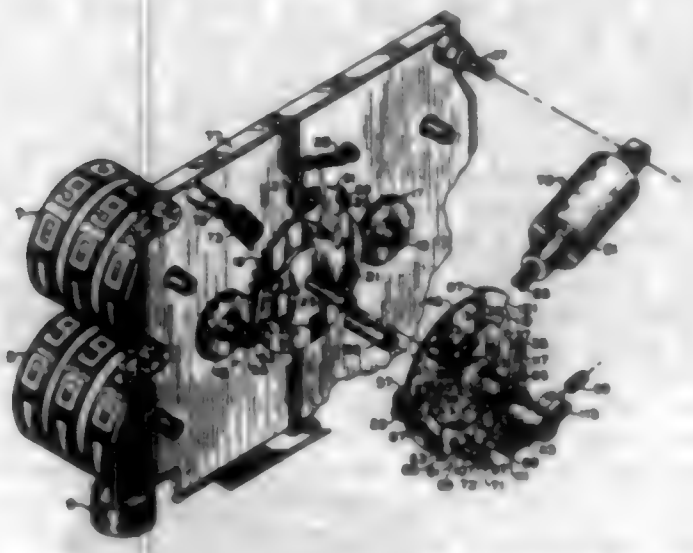
SWITCH AND REGISTER CONTROL MECHANISM

Nicholas Markoff, Fort Wayne, Ind., assignor to Tokheim Corporation, Fort Wayne, Ind., a corporation of Indiana

Application August 27, 1956, Serial No. 606,342
26 Claims. (Cl. 222—35)

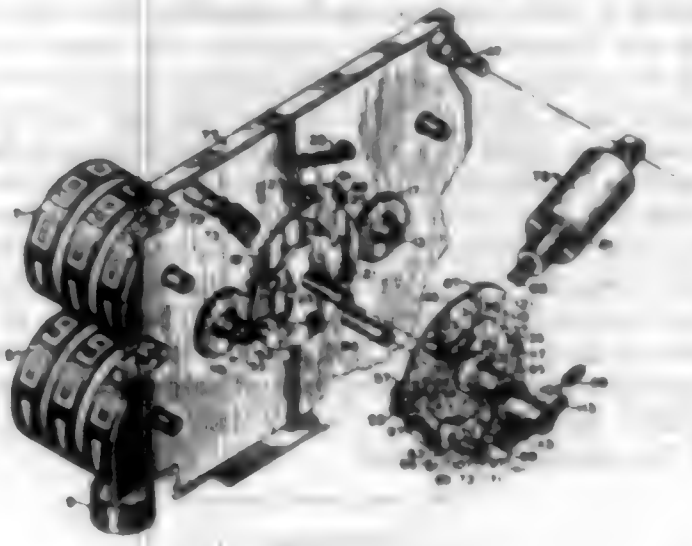
1. An apparatus comprising a resettable register, a resetting member mounted for movement between initial and reset positions and connected to reset the register when said member moves to reset position, a spring connected to move said member to its reset position, a movably mounted control element, releasable means for connecting said element to move said member to its initial position to load said spring, latch means for holding said element with said member in its initial position, manually operable means, having a first position, a lost motion device connecting said manually operable means with said element, means responsive to the operation of said manually operable means from said first position,

through a distance within the limit of the lost motion in said device, for actuating said releasable means to free



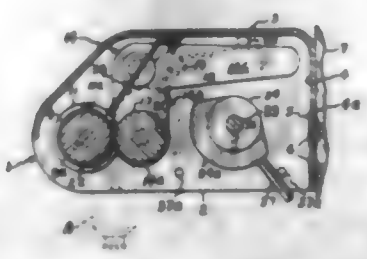
said member from said element for movement by said spring.

2,874,875
DISPENSER CONTROL MECHANISM
Nicholas Markoff, Fort Wayne, Ind., assignor to Tokheim Corporation, Fort Wayne, Ind., a corporation of Indiana
Application March 25, 1957, Serial No. 648,299
20 Claims. (Cl. 222—35)



1. In a control mechanism for a liquid dispenser which includes a resettable register adapted to register the liquid dispensed, indicator resetting means, including a rotatably mounted resetting member, adapted to reset said resistor when the member is rotated in a first direction, a spring connected to rotate said resetting member in said direction, a rotatably mounted control element, first releasable connecting means for connecting said element to rotate said resetting member in a second direction to load said spring, means for latching said control element in a spring loaded position, said resetting means including means, effective upon substantial completion of resetting for releasing said latching means, trip means mounted for movement to and from a position for releasing said first connecting means, the improvement which comprises a pivotally mounted handle, a mechanism including a lost motion device and a pivotally mounted actuator, connected for operation by said handle and connected to rotate said control element in directions correlative with the direction of movement of said handle, second releasable connecting means for connecting said actuator to move said trip means to releasing position in response to movement of said mechanism in said first direction through the distance permitted by said lost motion means, means operable by said resetting means when resetting is substantially completed, for releasing said second connecting means, a flow control device movable to start and stop the flow of liquid and means operable simultaneously with said control element, upon further movement of said handle in said first direction after the release of said latching means, for actuating said flow control device to start the flow of liquid.

2,874,876
COMPRESSING DEVICE FOR COLLAPSIBLE PASTE TUBES
Daniel S. Speese, Detroit, Mich.
Application June 25, 1957, Serial No. 667,922
5 Claims. (Cl. 222—102)

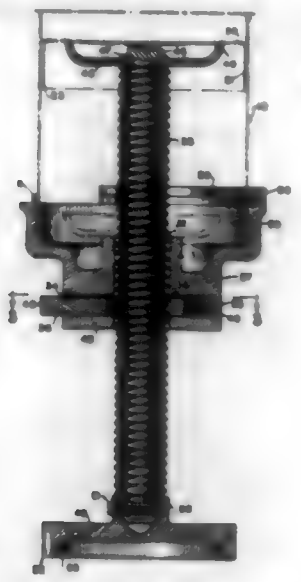


1. A paste tube compressing device comprising a supporting member including side walls, a driving roller journaled between said side walls on a fixed axis, a pair of arms, a driven roller journaled between said arms, pivot elements mounting the respective arms upon and between the respective side walls to afford movement of said driven roller, about the axis of said elements, to and from the driving roller between alternative tube-compressing and tube-releasing positions, means to rotatively actuate said driving roller whereby a paste tube may be progressively drawn between and compressed by said rollers, and its contents progressively expelled when said driven roller is in its tube compressing position, a spring urging the driven roller to said tube-compressing position, a ratchet wheel rigidly coaxially carried by the driving roller, a pawl, a pivot element mounting said pawl on a side wall, a spring urging said pawl about its pivotal axis to engage the ratchet wheel and prevent reverse rotation of the driving roller, a rock shaft journaled between the side walls, a cam rigidly mounted on the rock shaft and effective on one of said arms to move the driven roller to its tube-releasing position, a second cam rigidly mounted on the rock shaft and effective to disengage the pawl from the ratchet wheel to afford reverse rotation of said driving roller for removal of an empty paste tube, and means to rotatively actuate said rock shaft, said cams taking substantially concurrent effect responsive to such rotative actuation.

2,874,877
DISPENSING DEVICE AND CONTAINER THEREFOR
Alvin C. Spencer, Corona del Mar, Calif.
Application September 11, 1956, Serial No. 609,216
5 Claims. (Cl. 222—162)

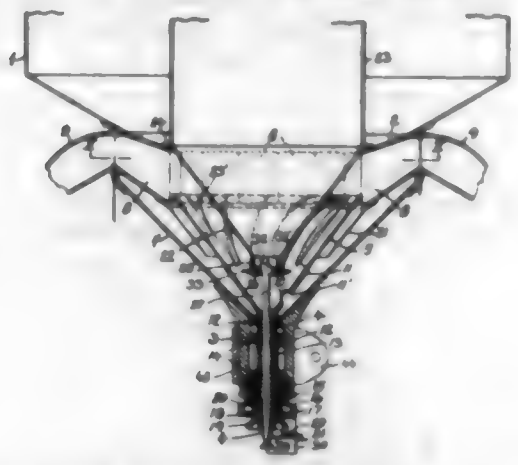
1. A device for dispensing viscous material from a container having a piston-like bottom wall comprising a downwardly tapering hollow hub member having an open top recess in the upper portion thereof with a peripheral grooved flange extending upwardly from the large end of said hub member over a major portion of the periphery thereof for retaining a can in said flange, an undercut buttress-type screw slidably and rotatively mounted axially in said hub, a nut segment having cooperating undercut threaded portions for engagement with said screw, means to normally urge said nut portion into contact with said screw and means for releasing said nut portion from said screw, an upwardly flaring dish-shaped member receivable in said upwardly open recess and rotatively mounted on the upper end of said screw for engaging the piston portion of a container closely adjacent the periphery thereof leaving the piston body substan-

tially unsupported in its mid portion, a handle fixed to the lower end of said shaft and of a size and shape to



support the device on a flat surface with a container in position on said flange.

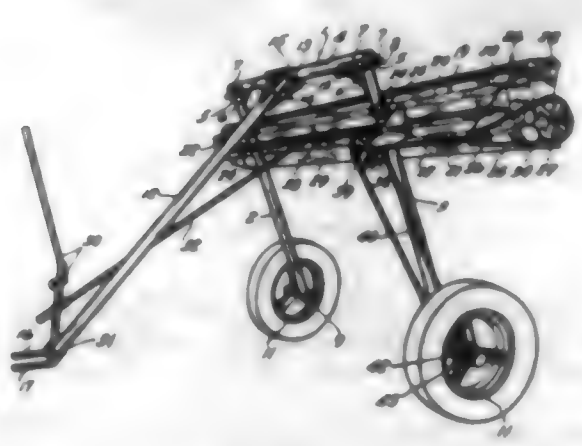
2,874,878
DISPENSERS FOR AGRICULTURAL MACHINES
Sigmund Stokland, Oslo, Norway
Application April 2, 1956, Serial No. 575,446
Claims priority, application Norway April 14, 1955
19 Claims. (Cl. 222—177)



1. In an agricultural machine of the character described, in combination: a container in which the material intended for distribution by said machine is stored, an upwardly diverging substantially cup-shaped member having an upper edge, an axis of symmetry, and mounted in said container for rotation about said axis, said cup-shaped member having an upper part terminating in an open top and a lower part having at least one opening therein, means for rotating said cup-shaped member, a plurality of material receiving devices in communication with said container in the proximity of the upper edge of said cup-shaped member and, separator means in said container spaced from said open top of said cup-shaped member for guiding the material intended for distribution to the exterior of said cup-shaped member and through said opening into said cup-shaped member, the machine operating in such manner that, when said cup-shaped member is rotated, the material in said cup-shaped member flows upwardly toward and past said upper edge thereof and into said material receiving devices.

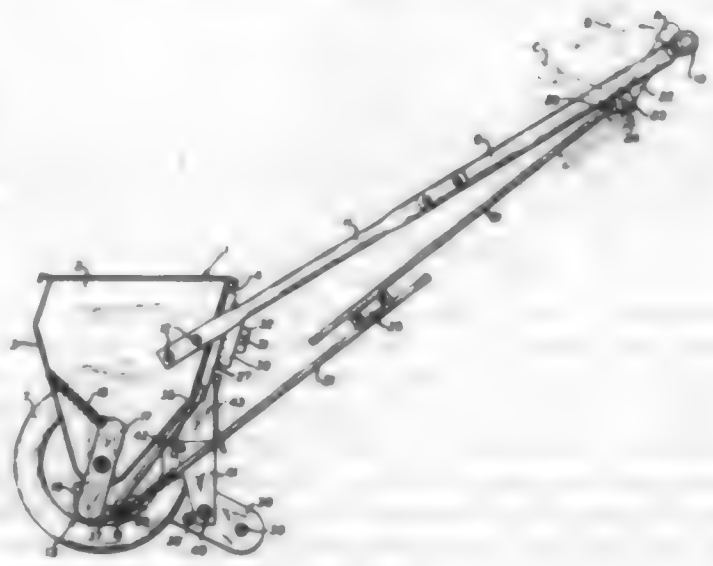
2,874,879
MACHINE FOR SPREADING GRANULAR MATERIAL AND MEANS FOR ADJUSTING THE HEIGHT THEREOF
Ebenhard S. Gandrud, Owatonna, Minn.
Application April 5, 1957, Serial No. 650,899
4 Claims. (Cl. 222—177)

1. In a machine for applying granular material to row crops, an inverted generally U-shaped frame comprising a pair of parallel legs and a cross bar rigidly connecting the upper ends of said legs, ground engaging wheels journalled to the lower end portions of said legs on a common axis, said legs being spaced apart for passage thereof between different rows of a row crop, a tongue rigidly anchored at one end to the intermediate portion of said cross bar and extending generally forwardly and downwardly with respect to the normal direction of movement of the machine, the front end of said tongue being normally disposed at the level of a tractor draw bar hitch and having a portion for connection to said hitch, an elongated dispensing hopper extending transversely of the machine, said dispensing hopper being of the type comprising a rotary agitator and



having a rotary agitator shaft extending outwardly from one end thereof, means for mounting said hopper on said legs for upward and downward shifting movement of said hopper in a plane parallel to the legs and between the upper and lower end portions of said legs and for releasably locking said hopper in desired set positions between the limits of said shifting movement, said legs and the plane of movement of the hopper inclining upwardly and forwardly from a vertical plane generally radially of the wheel axis when the front end of the tongue is at its normal hitch elevation, and power transmission mechanism operatively connecting one of said wheels with said agitator shaft to transfer rotary movement of said one of the wheels to said shaft.

2,874,880
SPREADER DEVICE
William Schiebel, East Stroudsburg, Pa.
Application June 20, 1957, Serial No. 666,946
2 Claims. (Cl. 222—177)



1. In a spreader, a hopper having at least one crosswise disposed discharge opening, the bottom of said hopper being of circular cross section, a shutter of a cross section complementary to that of the bottom of said hopper and

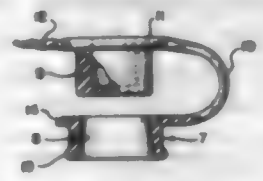
movable along the outer face of said bottom in order to close said discharge opening in one position and to open said discharge opening in a plurality of other set positions of said shutter, and control means for said shutter movable on one side of a dead center position to a fixed position holding said cover member in closed position and movable to the other side of said dead center to a plurality of said set open positions, an axle extending through side walls of said hopper and having wheels at its respective ends secured thereto, and an agitator disposed adjacent said discharge opening and mounted on said axle, so that said agitator turns with said axle upon moving said spreader, a push rod secured to said hopper, and said control means comprising a control lever pivotally mounted on said push rod and rod means connecting said control lever with said shutter, and a rotary cam member and a lever, one end of said lever being connected with said shutter and the other end of said lever engaging said rotary cam, a double-armed lever pivotally mounted on said axle, one arm of said double-armed lever being secured to the end of said shutter, a helical spring, and the other arm of said double-armed lever being connected with one end of said helical spring, and the other end of the latter being connected with the corresponding side wall of said hopper, said springs maintaining said lever in continuous cam engaging position, independent from its adjusted position, in each of a plurality of open positions of said shutter on one side of dead center as well as in the closed position of said shutter on the other side of dead center.

2,874,881
LIQUID DISPENSING DEVICE
Morton B. Stull, Clifton, N. J.
Application September 7, 1955, Serial No. 532,875
1 Claim. (Cl. 222—421)



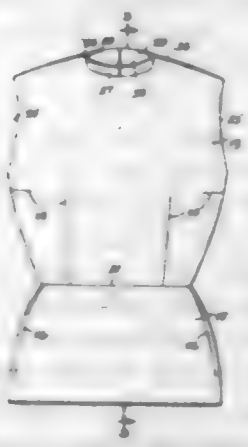
A liquid flow control means for dispensing liquids in controlled amounts from a container, comprising a molded, flexible member provided with a passage having a substantially constant cross-sectional area throughout its length, said passage constituting a path for said liquids, the walls of said passage having a groove extending around the axis of the passage between two axially-spaced points; and a straight solid plug having a substantially constant cross-sectional area throughout its length, disposed in said passage and held therein by a press fit, said plug closing the passage except for the groove whereby liquid flowing through the passage will be required to traverse the narrow, elongate path provided by the groove, said member having at one end a restricted discharge orifice and a cavity disposed between the said orifice and one end of the plug; and a shoulder located between the grooved walls and the cavity, engaging the end of the plug for positioning the same.

2,874,882
ADAPTER FOR CONTAINER OPENINGS
Magne Sethne, Oslo, and Ingvald Skorge, Moss, Norway, assignors to Perstl-fabrikken A/S, Oslo, Norway, a Norwegian company
Original application December 28, 1954, Serial No. 477,966, now Patent No. 2,801,771, dated August 6, 1957. Divided and this application June 24, 1957, Serial No. 667,545
Claims priority, application Norway January 6, 1954
4 Claims. (Cl. 222—543)



1. In a container having a mouth opening, an adapter fitted into and projecting into the mouth of the container for receiving and fitting an external dispensing tube to the container, said adapter comprising a sleeve-like insert of resilient material fitting in the mouth of the container and having an opening therethrough for receiving the dispensing tube to be fitted to the container, the opening in said sleeve-like insert having a conical shape from bottom to top in the region projecting into said container with its smaller diameter at the top for firmly engaging and fitting the tube to the container, a flange projecting laterally from the top portion of the insert and resting on the rim of the container mouth, the adapter including a band attached by one end to said flange on the sleeve-like insert, a stopper having a projecting stopper flange at the top attached to the other end of the band, said stopper having an open top cup with said stopper flange projecting laterally from said cup, said cup fitting in the opening of the sleeve-like insert with said stopper flange resting on the flange of the sleeve-like insert, and a lifting tab attached to the edge of the flange of the stopper opposite the point of its attachment to the band.

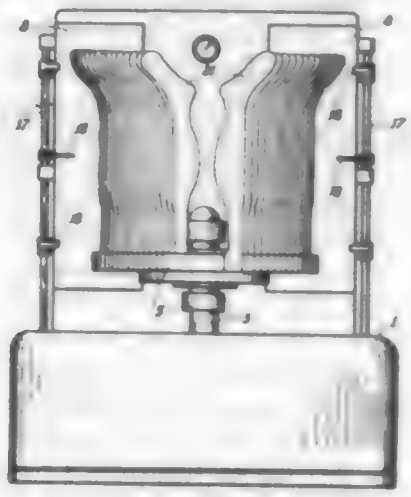
2,874,883
DRESS FORM
Jessie S. Stoddard, Fairfield, Conn.
Application April 3, 1956, Serial No. 575,853
4 Claims. (Cl. 223—68)



1. A hollow dress contour form comprising a wall having a neck opening in the upper end, arm hole openings at opposed sides and an open lower end, said wall consisting of an outer layer comprising pieces of woven fabric material, at least some of said pieces having dart cuts, stitched seams securing the edges of said dart cuts and adjacent edges of said pieces of material to give non-flat contours to said wall, and an inner layer formed of pieces of normally flat relatively thick sponge rubber sheet material of uniform thickness throughout in substantial register with and of substantially corresponding outline shape to said pieces of said outer layer and having dart cuts substantially corresponding to and in substantial register with said dart cuts thereof, adjacent

edges of said pieces of sheet material butting each other, stitching securing said butted edges together independently of the stitched seams of said outer layer, band portions of woven fabric material connected to said edges of the neck opening, said arm openings, and said lower open end, said band portions each having an in-folded portion engaged upon said inner layer, stitching securing said in-fold band portions to said inner layer, and stiffening wires respectively extending about said neck opening, said arm openings and said open lower end, said wires being respectively disposed within said in-fold band portions and butting against the edges of said inner layer extending about said neck opening, said arm openings and said open lower end.

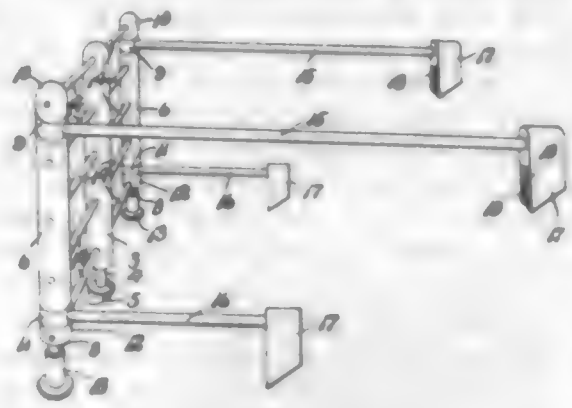
2,874,554
HOSIERY SHAPING APPARATUS
Maurice Hellot, Troyes, France
Application December 29, 1954, Serial No. 478,413
Claims priority, application France June 9, 1954
1 Claim. (Cl. 223—76)



A hosiery shaping apparatus comprising, in combination, a sealable processing chamber having vertical side walls of substantially segmentary-cylindrical shape and end walls; inlet and outlet doors hingedly supported and forming parts of said end walls, respectively, and extending radially with respect to said side walls when in closed position; support means rotatable substantially about the axis of said cylindrical walls and peripherally extending into said chamber; hosiery forms removably mounted on the periphery of said support means for movement through said chamber by way of said inlet and of said outlet doors; fan means for moving a gas; intake and discharge conduits connecting said fan means to said chamber; gas outlet means leading into the atmosphere; first valve means arranged in said intake conduit intermediate said chamber and said fan means for selectively closing said intake conduit; and second valve means arranged for selective movement between a first position connecting said fan means to said gas outlet means and closing said discharge conduit to said chamber, and a second position connecting said fan means to said discharge conduit and closing said gas outlet means.

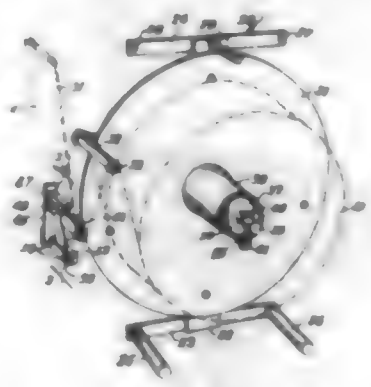
2,874,385
STATION WAGON RACK
Albert J. Young, Muskegon, Mich.
Application December 29, 1955, Serial No. 556,116
4 Claims. (Cl. 224—42.42)

1. Structure as described comprising, two spaced vertical end posts, horizontal members secured to said posts at their ends permanently connecting said posts, an upper horizontal rod connected at its rear end to the upper portion of each end post extending forwardly generally at right angles to said members, a second rod, shorter than the first mentioned rod, connected at its rear end at the lower portion of each end post, also extending forward therefrom and located generally in the same vertical plane with the upper rod connected with its associated post, releasable attaching means secured at the forward end of each of said rods; each of said releasable attaching means comprising, a block at the forward, free end portion of its associated rod, said blocks each having a portion extending below its associated



rod, each block having a vertical slot extending upwardly from the lower end of said portion and between the sides thereof, and a plate located across the lower portion of said slot means, slidably mounting said plate on said block for connection with and disconnection from said block, disconnection of which opens said slot, adapting said blocks to receive members in said slots for connection thereto.

2,874,854
APPARATUS FOR DISPENSING FLEXIBLE MERCHANDISE CONTAINERS
Thomas E. Piazze, Mount Vernon, Ohio, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application August 5, 1954, Serial No. 448,867
5 Claims. (Cl. 225—106)



1. Apparatus for dispensing a roll of connected containers which are collapsed to form a relatively narrow web and which are separated by longitudinally spaced cross perforations, with the individual perforation lines each having a center slit formation, said apparatus comprising a supporting frame, means extending from the supporting frame for supporting the roll of containers so that the same may be unwound therefrom, a roller extending from said supporting frame in parallel spaced relation to the container supporting means over which the endmost container is adapted to advance, a bracket on said supporting frame immediately adjacent said roller having a surface portion extending generally parallel to the axis of said roller, a pin secured in fixed relation on said surface portion and having a free end portion projecting into the path of movement of the containers and generally normal to the plane in which they advance, a bracket extending from said supporting frame at the opposite side of said roller and a spring plate mounted on said last mentioned bracket and having a free end

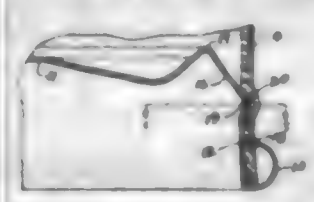
portion positioned in resilient engagement with the surface of said roller for urging the containers toward said roller and over the end of said pin.

2,874,887
ESCAPE LADDERS
Eugene Pompilio, Philadelphia, Pa.
Application August 1, 1957, Serial No. 675,720
3 Claims. (Cl. 228—38)



1. A collapsible escape ladder adapted to be suspended from a building wall, said ladder comprising a plurality of open frame members each of generally hexahedral configuration and arranged in longitudinal telescopic relation with respect to each other, said frame members being telescopically retractile for storage and telescopically extensile for use with the lower end region of each frame member contiguous to the upper end region of the next lower frame member, each of said frame members having its upper end region configured for limiting engagement with the lower end region of the next upper frame member to limit said telescopic extension, each of said frame members including a pair of laterally extending forwardly and rearwardly spaced upper end pieces, and a pair of laterally extending forwardly and rearwardly spaced lower end pieces, the upper end pieces of each frame member being arranged to rest on and in abutting engagement with the lower end pieces of the next upper frame member in the limiting position of said telescopic extension.

2,874,888
LIQUID TIGHT CONTAINER WITH FIBROUS SIDE WALL
Raymond H. Horning and Isaac L. Wilcox, Fulton, N. Y., assignors to Sealright-Oswego Falls Corporation, Fulton, N. Y., a corporation of New York
Application March 14, 1957, Serial No. 646,087
2 Claims. (Cl. 229—5.6)



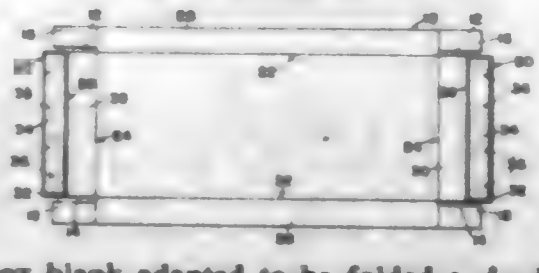
1. A leak-proof bulk container or the like comprising a bottom having a discoidal portion formed at its periphery with a downwardly diverging portion merging with an external bead, said bottom having a cylindrical flange depending from said bead, the lower portion of said flange being formed with an upwardly and outwardly rolled rim forming a channel, a side wall encircling said flange, said channel being crimped on the lower edge portion of said side wall, said bead distending said side wall, whereby said side wall is stretched tightly over said bead to provide a smooth liquid tight seal between said bottom and side wall.

2,874,889
CARTON FOR PACKING FRUITS, VEGETABLES OR THE LIKE
William F. Hale, San Lorenzo, Calif., assignor to Paperbox Corporation, Oakland, Calif., a corporation of California
Application August 22, 1955, Serial No. 529,634
2 Claims. (Cl. 229—23)



1. A two-piece telescopic carton comprising a unitary top member having a top rectangular section and four side sections integral therewith extending downwardly therefrom, two of said side sections opposed to each other having downwardly extending extensions joined to their lower ends by a scored folding line, a downwardly projecting tab on each of said extensions, a unitary bottom member having a rectangular bottom section slightly smaller than said rectangular top section and four upwardly bent sides integral therewith, each of said sides being joined to a side of said rectangular bottom section by a scored folding line, two of said bottom member sides opposed to each other each having a downwardly extending foot member formed integrally therewith, the height of a said foot member being approximately equal to the height of a said side section extension, and the overall height of a said bottom member side and its downwardly extending foot member being approximately equal to the height of a said top member side section whereby the upper edges of said two bottom member sides are adapted to engage said top section in assembled relation, and slots in said bottom section adjacent opposite side edges thereof in register with and adapted to receive said tabs when said extensions are folded inwardly and upwardly beneath said bottom section.

2,874,890
BOX
Milton C. Evanstein, Worcester, Mass.
Application August 9, 1956, Serial No. 603,076
1 Claim. (Cl. 229—34)

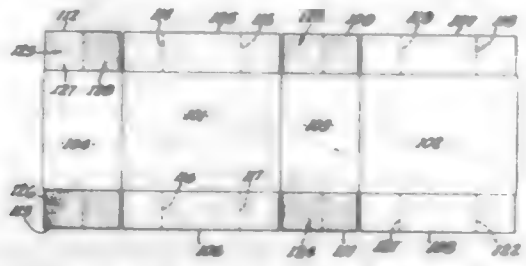


A flat box blank adapted to be folded and adhesively secured into a box, said flat box blank comprising a main body portion, a pair of oppositely-disposed flat extending ear elements at at least one end thereof, an end wall element between said ears, and a piece of tape of dry heat or pressure sensitive adhesive material on certain of said elements for later folding and heat or pressure application thereto to unite the ear elements to the wall element, said tape being adhesively secured to said certain elements.

2,874,891
CONTAINER AND METHOD OF MAKING SAME
Jack R. Kelsall, Bellevue, Wash., assignor, by direct and mesne assignments, to Growers Container Corporation, Salinas, Calif., a corporation of California
Application August 24, 1956, Serial No. 606,097
5 Claims. (Cl. 229—37)

1. A collapsed, stackable, elongated, rectangular fiberboard box having side and end walls hingedly connected

together, the said end walls being narrower than the said side walls, closure flaps extending from and hingedly connected to the top and bottom edges of said side and end walls, the flaps hinged to the side walls being of a length approximately equal to one-half the width of the end walls so as to substantially abut in closed position, the flaps hinged to the end walls having the same length as the flaps of the side walls, and pressure-sensitive adhesive closure securing means applied to all of said flaps, said means comprising strips of pressure-sensitive adhesive, each flap of the end walls having a strip applied



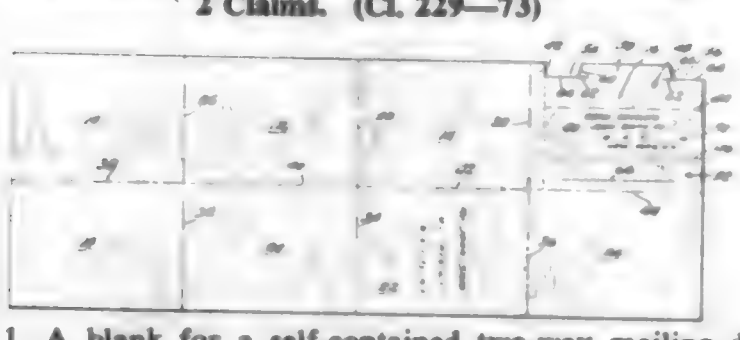
to the outer face thereof and extending across the flap with one edge of the strip coinciding and parallel with the hinge line of the flap, and each flap of the side walls having a strip at each end thereof on the inner face thereof with one edge of the strip coinciding and parallel with the respective side edge of the flap, the width of the strips on the side wall flaps being equal and no greater than one-half the difference in length between a side and end wall, and the strips on the end wall flaps having a width at least equal to that of the strips on the side wall flaps.

2,874,892

MAILING PIECE OR ADVERTISING SHEET PROVIDED WITH AN INTERLOCKING RETURN ENVELOPE

Alfred H. Howard, Chicago, Ill., assignor to Fairbanks Ward Industries, Inc., Chicago, Ill., a corporation of Illinois

Application April 16, 1956, Serial No. 578,394
2 Claims. (Cl. 229—73)



1. A blank for a self-contained two-way mailing device comprising a rectangular sheet of material provided with horizontal and vertical fold lines to form two rows, each row having a plurality of equal sized sections, said blank being folded on said fold lines to form a mailing device of the overall size of one of said sections, the end section only of one of said rows of sections being detachable from the remaining sections when used as a return mailing device, said detachable end section provided with a pair of spaced horizontal fold lines to permit said detached end section to be folded to provide an intermediate section and upper and lower portions, one of said portions having a slit and the opposite portion having an interlocking edge insertable in said slit to lock with said slit to retain said detached end section in closed position as a return mailing device.

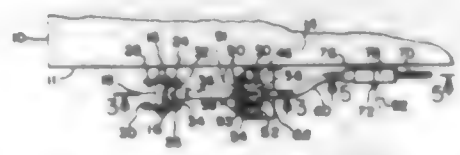
2,874,893

BLOWER OUTLET DAMPER ACTUATOR

Adam D. Goetti, Phoenix, Ariz.

Application March 28, 1958, Serial No. 724,697
8 Claims. (Cl. 230—114)

7. An actuator system for controlling the outlet damper of a blower comprised of: a blower shaft; a spool carried by said shaft and having opposed facing clutch disc surfaces thereon; a roller positioned between said clutch discs; a second shaft fixed to said roller; shaft bearing means rotatably supporting said second shaft and movable to permit said roller to swing back and forth between said clutch disc surfaces for alternately engaging



the same; a pair of solenoids disposed to actuate said second shaft and bearing means to move said roller alternately into contact with said facing clutch disc surfaces; a damper movable to vary the outlet of a blower; and means coupled to said second shaft and disposed to actuate said damper.

2,874,894

GAS REACTION ROTORS

Fabio R. Goldschmied, Hyde Park, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application March 1, 1957, Serial No. 643,462
5 Claims. (Cl. 230—115)



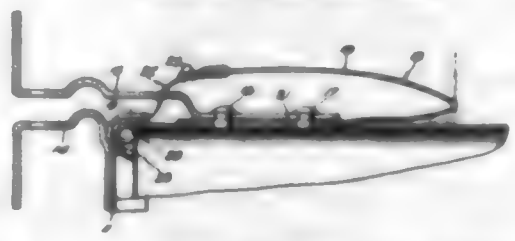
1. A gas reaction rotor having secured thereto a plurality of spaced-apart, backwardly curved blades having airfoil sections with convex driving faces and opposite trailing faces, each of said blades having a rounded trailing edge with a curved portion which curves towards and merges with the driving face of said blade, and with a reversely curved portion which curves into and merges with said first mentioned curved portion and which curves towards the trailing face of said blade, said trailing face having a trailing end which is spaced from said reversely curved portion to form therewith a blowing slot tangential to said last mentioned curved portion, and means for supplying compressed gas into the interiors of said blades and out said slots.

2,874,895

MAILBOX SIGNAL

Fred W. Opp, Costa Mesa, and Walter H. Opp, Pasadena, Calif.

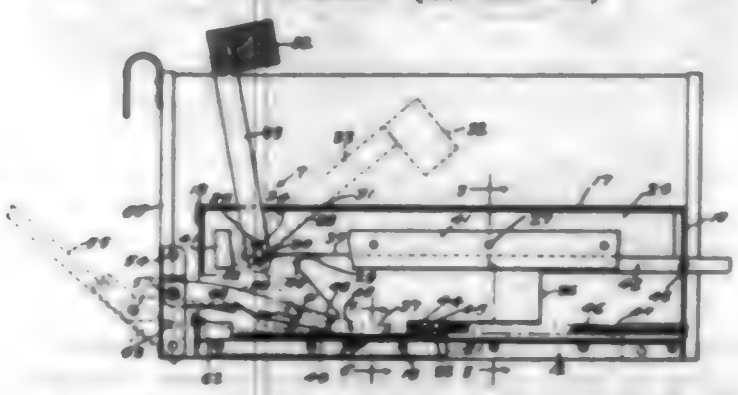
Application March 28, 1955, Serial No. 496,994
1 Claim. (Cl. 232—35)



A signal for a mailbox of the type provided with a hinged front door and a strap attached to the upper side by rivets comprising a single strip of spring resilient material having adjacent one end thereof a tapered opening having four edges including a front, a back and two sides, the front edge being narrower than the width of said strap and having an indentation, said front end edge being adapted to be engaged under said strap and adjacent the shank of one of said rivets, the side edges of said opening being adaptable to engage under said strap, the back edge

of said opening carrying a flexible tongue with an indented edge, said flexible tongue being adapted to be sprung under said strap adjacent the shank of the other rivet to provide a permanent hold thereon, said strip being foldable upon itself to position the other end adjacent the door, and having an element thereon adapted to engage said door to retain said signal in a folded downward position but releasable to an upward position upon opening of said door.

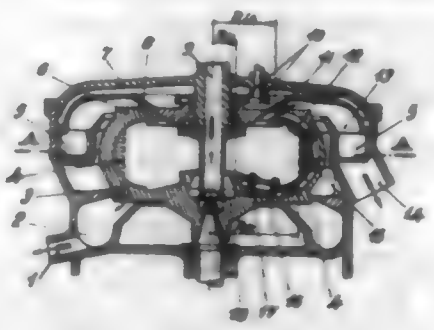
2,874,896
SEMIAUTOMATIC SIGNAL ATTACHMENT FOR A MAILBOX
Emmett W. Hickman, Texarkana, Tex.
Application May 16, 1958, Serial No. 735,749
3 Claims. (Cl. 232—35)



1. A semiautomatic mailbox signal comprising an elongated casing adapted to be supported by a mailbox and extending along the outer side of a side wall thereof, a mailbox signal comprising a flag and flagstaff, said flagstaff having a lower portion extending downwardly into the casing, a pivot element pivotally connecting the lower portion of the staff to the casing, a first stop means contained within said casing for engaging a part of the flagstaff for supporting the flagstaff and flag in a raised, operative position, a second stop means disposed within said casing and engaging a part of the flagstaff for supporting the staff and flag in a lowered inoperative position, a slide mounted in said casing for sliding movement longitudinally thereof, linkage means connected to said slide and adapted to be connected to the downwardly and forwardly swinging door of the mailbox for exerting a forward pull on the slide when the mailbox door is swung downwardly to an open position, a part of said staff, disposed below the staff pivot, being disposed in the path of forward movement of a part of the slide when the staff is maintained by the first stop means in an operative position, whereby said staff part is engaged and rocked by said part of the slide for swinging the staff and flag to the inoperative position thereof, spring means connected to the slide and casing for urging the slide rearwardly to a retracted position and for exerting a rearward pull on said linkage means for returning the mailbox door to a closed position, means swingably mounting said linkage means relative to the slide and pivotally mounting a part of the linkage means relative to the mailbox door, said part of the linkage means having a downwardly opening latch notch, and said casing having a stationary part forming a latch keeper, the latch notch being movable forwardly and then downwardly into engagement with the keeper as the mailbox door is swung to an open position for releasably latching the slide in a forward position.

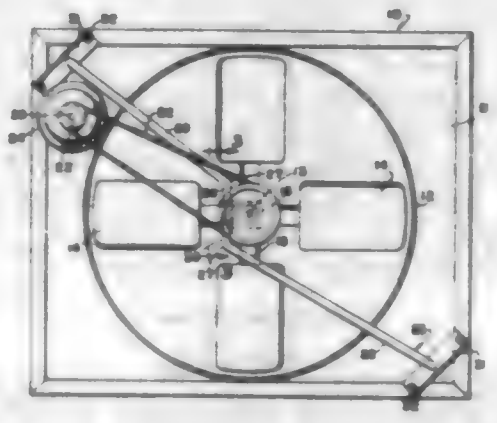
2,874,897
PROCESS AND APPARATUS FOR THE CONTINUOUS CENTRIFUGAL SEPARATION OF LIQUIDS FROM SUBSTANCES OF HIGHER DENSITY
Alberto Corteggiani, Rome, Italy
Application April 25, 1956, Serial No. 580,510
Claims priority, application Italy May 6, 1955
9 Claims. (Cl. 233—17)

1. In a process for the continuous centrifugal separation of liquids from substances of higher density, particularly of oily liquids from doughy or muddy substances, the steps of centrifuging the material to be treated, dividing said material into separated currents at the beginning of the rotation, causing said currents to follow independent paths having a curved shape and a cross-sectional area that avoids reductions in the direc-



tion of movement of said currents along said paths up to and including the outlet ends of the latter so as to allow independent centrifugal separation in each of said currents, controlling continuously in automatic, autonomous and independent manner the centrifugal force which advances each current, and collecting the liquids separated from each of said currents.

2,874,898
OFFSET TUBULAR BRACE FOR FAN HOUSING
Marcel J. Bayhi, New Orleans, La., assignor to Reed Unit-Fans, Inc., New Orleans, La., a corporation of Louisiana
Application February 13, 1956, Serial No. 565,154
5 Claims. (Cl. 230—273)



1. In a fan assembly including a casing having a centrally disposed opening, a shaft having one end thereof extending into said opening, a pulley fixed to said shaft, a motor mounted on the casing, means operatively connecting the motor to said pulley for rotating the shaft, and a housing receiving said shaft, the improvement comprising a one piece tubular brace extending substantially diametrically across said opening, said brace including an intermediate offset straight portion positioned between said shaft and said motor, means connecting said intermediate portion to said housing, said brace having arms extending outwardly in opposite directions from the intermediate offset portion, each of said arms having a laterally extending end portion, and means connecting each end portion to the casing in alignment with said shaft, the end portion of one of said arms being mounted on said casing adjacent said motor so that the axis of said one arm is disposed closely adjacent a line of force between the motor and shaft.

ERRATUM

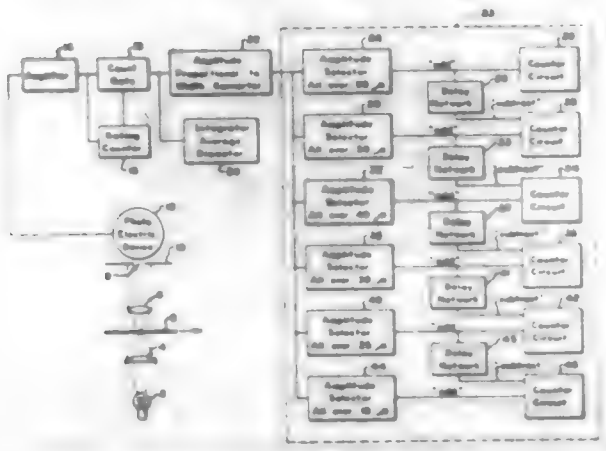
For Class 230—273 see:
Patent No. 2,874,898

2,874,899

DISCRIMINATING PLURAL COUNTER ASSEMBLY OF FIBERS

Jonathan R. Roehrig, South Sudbury, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

Application March 7, 1955, Serial No. 492,716
3 Claims. (Cl. 235—92)



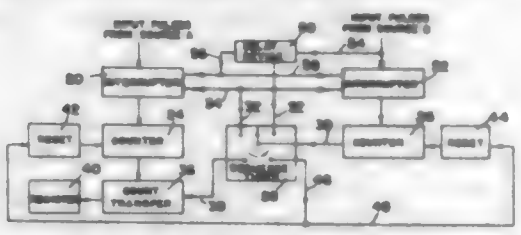
3. Apparatus for measuring the average diameter and diameter distribution of fibers which comprises a photoelectric scanning means for producing electrical pulses, the widths of which are directly proportional to the diameter of the fibers scanned, means for amplifying said electrical pulses, counting means controlled by said pulses for determining the number of fibers scanned, a plurality of selector means, each selector means being arranged to select pulses of predetermined minimum dimensions, counting means controlled by each selector means for determining the number of pulses selected, and means connected to the counting means for subtracting a pulse which is also selected by a selector means selective to a different pulse, said counting means including a pair of decade counters and means for controlling the operation of the second decade counter as a function of the operation of the first decade counter, said means comprising a first delay circuit for feeding an "add" pair of pulses to the second decade counter and a second delay circuit for feeding a "subtract" pair of pulses to the second decade counter.

2,874,900

PULSE COMPARING APPARATUS

Garrett B. Linderman, Washington, D. C., assignor to GBL Corporation, a corporation of Maryland

Application March 1, 1956, Serial No. 568,804
13 Claims. (Cl. 235—103.5)



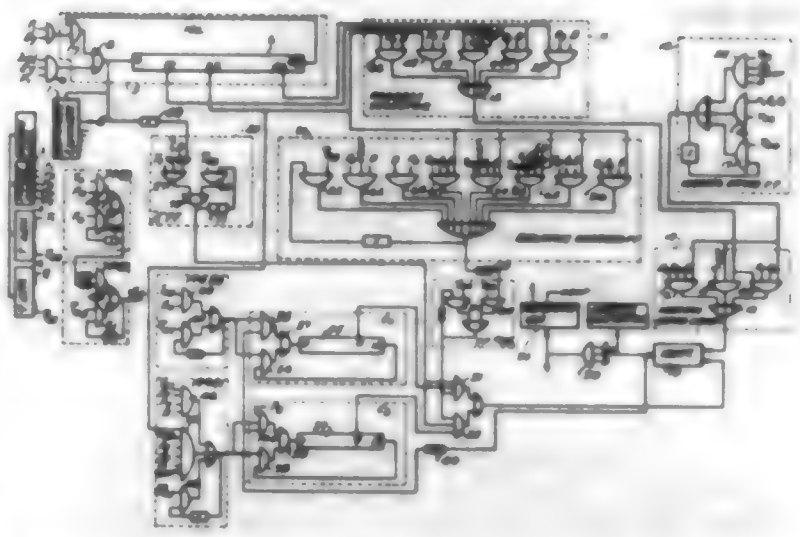
1. An extensometer comprising first means for generating pulses as a function of the initial length of a sheet to be reduced, second means for generating pulses as a function of the length of said sheet after a reducing operation, first counter means in circuit with said first generating means for integrating the first said pulses, second counter means in circuit with said second generating means for integrating the second said pulses, circuit means for comparing pulses integrated by said first and second counter means, said comparing circuit means including memory means retaining a compared counter value for one counting cycle during a sequential counting cycle, and circuit means responsive to a pulse from said first generating means for initiating a counting cycle starting with a succeeding pulse.

2,874,901

TALLY INSTRUCTION APPARATUS FOR AUTOMATIC DIGITAL COMPUTERS

Thomas G. Holmes, Melbourne, Fla.

Application December 8, 1954, Serial No. 474,844
5 Claims. (Cl. 235—157)
(Granted under Title 35, U. S. Code (1952), sec. 266)



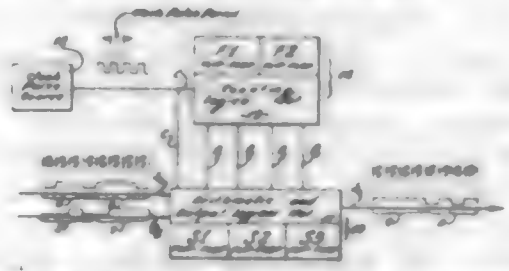
1. In an automatic digital computer employing instructions having at least three addresses and a base counter to which said addresses may be relative: apparatus for executing a tally instruction, said apparatus comprising means for adding the numerical value of one of said addresses to the contents of said base counter, means for comparing the resulting sum with the numerical value of a second of said addresses, means associated with said comparing means and said base counter and operative when said sum is less than the numerical value of said second address to increase the count in the base counter by the numerical value of said one address and to seek the next instruction at the place indicated by said third address, and means associated with said comparing means and operative when said sum is equal to or greater than the numerical value of said second address to refer the computer to an instruction other than the instruction at the place indicated by said third address.

2,874,902

DIGITAL ADDING DEVICE

Walter G. Edwards, Hermosa Beach, Calif., assignor, by mesne assignments, to The National Cash Register Company, a corporation of Maryland

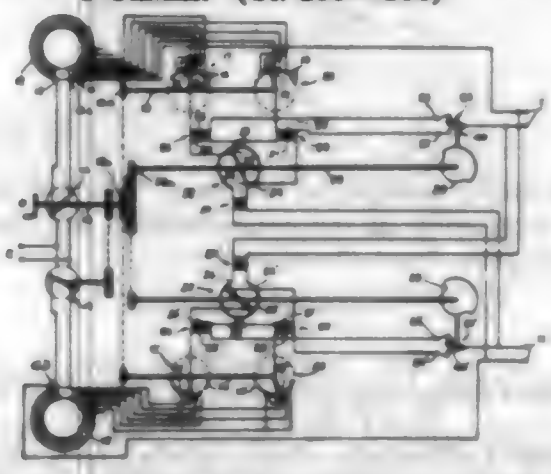
Application May 14, 1954, Serial No. 429,781
9 Claims. (Cl. 235—164)



1. A summing circuit for generating an outgoing coded number which is the sum of a pair of incoming coded numbers comprising: a pair of input lines, each serially receiving binary signals representing one of said incoming numbers, a group of four binary signals on an input line representing each of the digits of said numbers, each of the four successive binary signals in a group weighted to correspond to the components 1, 2, 4, and 2, respectively; a first, second, and third bistable state circuit successively actuated to function as stages of a binary counter, each of said bistable state circuits representing a progressively higher order binary stage on receipt of successive signals of the incoming groups; a first circuit means connected to said bistable state circuits and successively responsive to the first three binary signals in

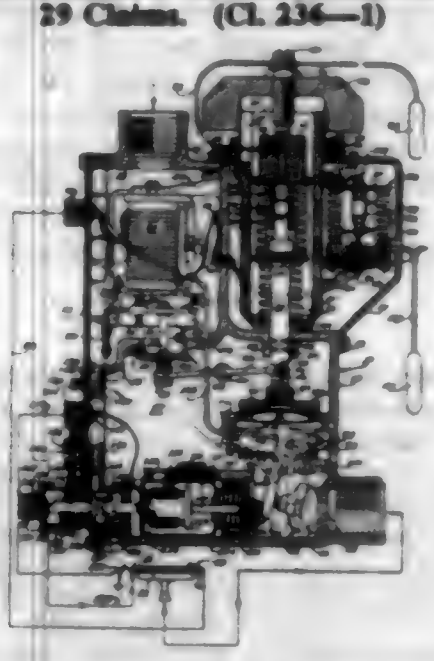
the groups representing the same order coded digits of the incoming numbers for registering information in said bistable state circuits concerning their combined weight count; an output line; and a second circuit means connected to said bistable state circuits and responsive to information registered therein and the third and fourth binary signal in said incoming groups for generating on said output line a group of binary signals representing the same order coded digit of the outgoing number.

2,874,903
SEMI-DIGITAL RESOLVER
Robert O. Bock, Garden City, and Gareth M. Davidson, New York, N. Y., assignors to American Bosch Arma Corporation, a corporation of New York
Application October 19, 1953, Serial No. 386,998
5 Claims. (Cl. 235—186)



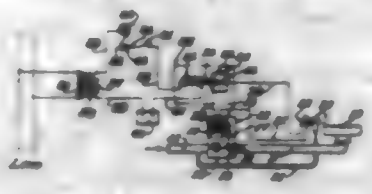
1. In an electromechanical resolver, an energized winding having taps, a selector switch having an output and having contacts connected to alternate of said taps, a potentiometer having an input and an output connected in series with the output of said switch and a pair of output terminals, a second energized winding having taps, a second selector switch having contacts connected to alternate taps of said second winding, a second potentiometer having a winding energized by the voltage at said output terminals and an output connected in series with the output of said second switch and a second pair of output terminals, connections between said second pair of terminals and the input to said first potentiometer, and means for simultaneously adjusting said potentiometers.

2,874,904
MODULATING FUEL CONTROL APPARATUS
Joseph C. Schwalbach, Wauwatosa, Wis., assignor to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin
Application December 28, 1954, Serial No. 478,144
29 Claims. (Cl. 236—1)



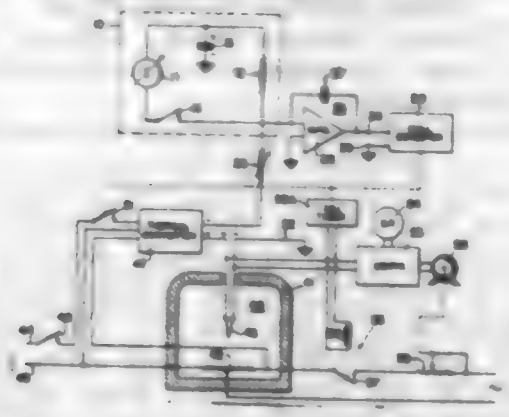
1. Apparatus for controlling the flow of fuel to a fluid fuel burner comprising, a first control member having an ignition position and a lesser flow-permitting position, a second control member having fuel flow-permitting and fuel flow-preventing positions, and electroresponsive actuating means for biasing said first control member toward said lesser flow-permitting position when energized and toward said ignition position when deenergized, and time delay means in circuit with said actuating means for preventing energization of the latter and movement of said first control member toward said lesser flow-permitting position for a predetermined period after movement of said second control member to flow-permitting position, said period being of sufficient duration for safe ignition of the fuel at said burner.

2,874,905
CONTROL DEVICE
John H. Thornbery, Whitefish Bay, Wis., assignor to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin
Application September 14, 1953, Serial No. 380,079
4 Claims. (Cl. 236—9)



1. In apparatus including a circuit powered from a thermoelectrically generated source, a condition responsive circuit controlling device having a pair of enclosed relatively movable coacting contacts in said thermoelectric circuit, said contacts normally controlling current flow in said thermoelectric circuit in response to variations in a given condition, an electrically powered actuator positioned to effect relative movement of said contacts to a predetermined controlling position irrespective of the response of said condition responsive device to the ambient condition for control of said thermoelectric circuit, a source of electric energy for connection with said actuator, and a control device in circuit with said actuator and source of energy therefor operable to effect connection therebetween and energization of said actuator to render current flow in said thermoelectric circuit non-responsive to variations in said condition and under control of said actuator rather than said condition responsive device.

2,874,906
CONTROL APPARATUS WITH PROCESS ANALOG
Edward J. Noonan, Pennsauken, N. J., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application March 24, 1955, Serial No. 496,401
11 Claims. (Cl. 236—15)



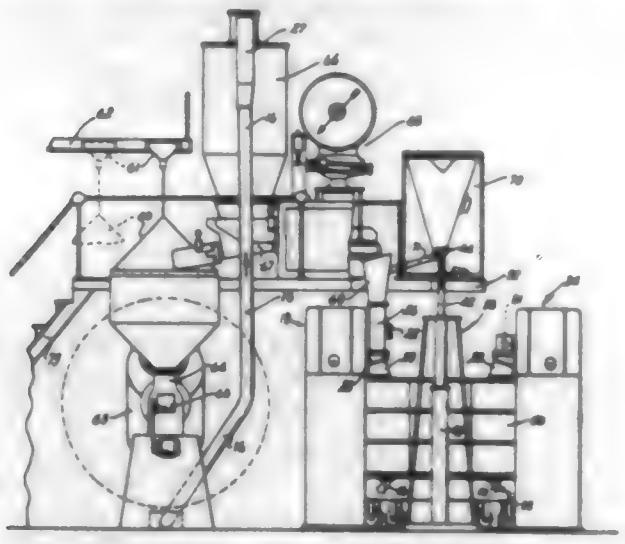
1. A process controller comprising a process analog, a signal generator connected to said process analog to supply thereto an input signal representative of a desired magnitude of a variable of said process, process input supply and input measuring means connected to said process, a process variable sensing means connected to said process, and a single integrating means connected to the output of said process analog and to said process variable sensing means and said input supply measuring means for application to said integrating means of the

difference between said analog output and the useful input to said process, said integrating means having a predetermined output for regulating said input supply means when the integrated value of the useful input to said process corresponds to the integrated value of said analog output.

2,874,907
METHOD AND APPARATUS FOR FORMULATING MATERIALS

Harold J. Renaud, Okemos, Mich., and George M. Kovac, Lincolnwood, Ill., assignors to Ren Plastics, Inc., Lansing, Mich., a corporation of Michigan

Application January 30, 1956, Serial No. 562,120
9 Claims. (Cl. 241—21)



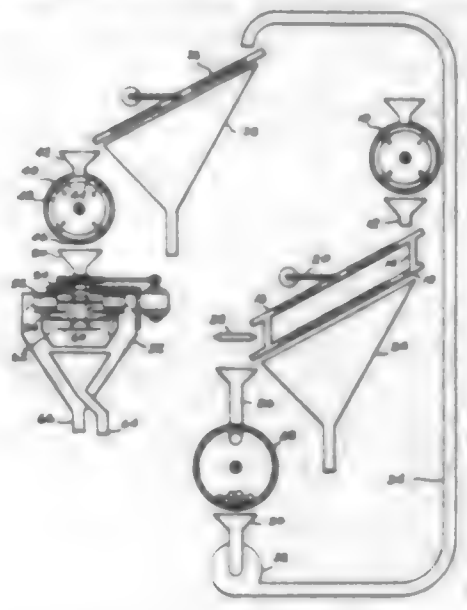
9. A method of formulating dry and liquid materials to provide a blended wet mass of uniformly distributed granular structure, comprising the steps of forwarding a plurality of dry ingredients toward a blending station and proportionately mixing said dry ingredients before their arrival at said station to an extent to provide an incrementally admixed dry mass, discharging said ingredients at said blending station upon arrival, blending said ingredients at said station and reducing the particle size thereof, while mixing therewith at least one liquid ingredient to produce an incrementally blended wet mass, forwarding said wet mass in a closed path and under substantial pressure to a further blending station, and continuing the mixing and blending of said wet mass at said further station.

2,874,908
SEPARATING PURE SCLERENCHYMA FIBERS FROM DOUGLAS FIR BARK

Clark C. Heritage, Tacoma, Wash., assignor to Weyerhaeuser Timber Company, Tacoma, Wash., a corporation of Washington

Application September 29, 1953, Serial No. 382,955
3 Claims. (Cl. 241—24)

3. The method of separating from Douglas fir bark sclerenchyma fibers which are substantially free from other constituents of the bark which comprises reducing the bark to a mixture of particles having maximum cross-sectional dimensions of less than ½", the mixture comprising cork particles, cork-containing aggregates, parenchyma particles, and sclerenchyma fibers encrusted with tightly adherent sheaths of parenchyma tissue, selectively removing a substantial proportion of the cork particles and cork-containing aggregates from the mixture, milling the resulting fiber-rich mixture for separating further the parenchyma tissue and the cork particles screening the milled product for separation of a concentrated fiber fraction (retained) from further quantities of powdered parenchyma and small cork particles (passed), abrading the concentrated fiber fraction for removing the parenchyma encrustations from the fibers, entraining the abraded material in a gaseous stream, and selectively separating the sclerenchyma fibers therefrom, the mixture containing the original bark components being adjusted

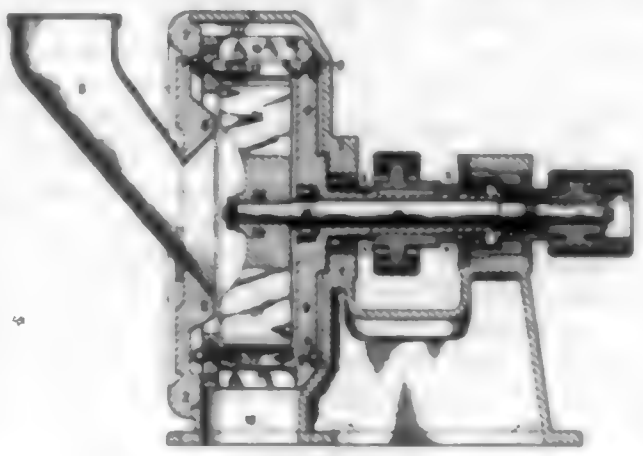


to a moisture content of less than 30% by weight prior to the separation of the cork particles and cork-containing aggregates from the mixture.

2,874,909
PROCESS AND DEVICE FOR PRODUCING FLAT WOOD SHAVINGS

Ludwig Pallmann, Zweibrucken, Pfalz, Germany

Application October 14, 1953, Serial No. 386,079
5 Claims. (Cl. 241—28)



1. A process for making flat wood shavings comprising the steps of centrifugally pressing against a plurality of knife blades rotating about a given axis and extending parallel to said axis a plurality of pieces of wood each of which has a length greater than its width and shorter than said knife blades and each of which has its fibers extending in direction of its length, so that said pieces of wood automatically orient themselves in a position where their fibers extend substantially parallel to said axis; and cutting said pieces of wood into shavings with said blades to provide shavings having fibers extending substantially parallel to the faces of said shavings.

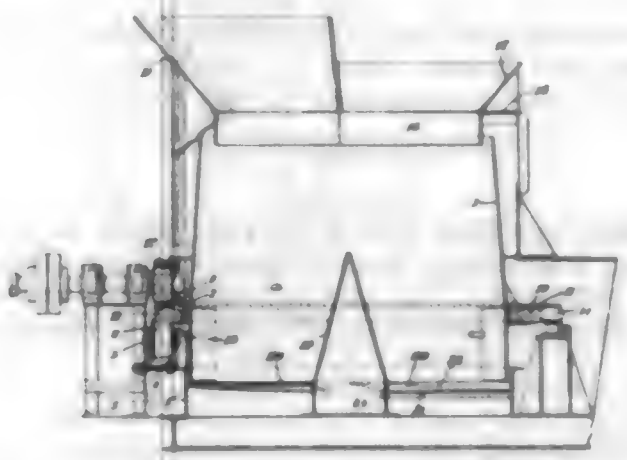
2,874,918
CUTTING AND HANDLING MACHINE FOR CEMENT SLURRY CAKE, PUG AND LIKE MATERIALS

Lewis Henry Bishop, Shoreham by Sea, England, assignor to The Associated Portland Cement Manufacturers Limited, London, England, a company of Great Britain

Application August 28, 1956, Serial No. 604,941
Claims priority, application Great Britain August 29, 1955
1 Claim. (Cl. 241—95)

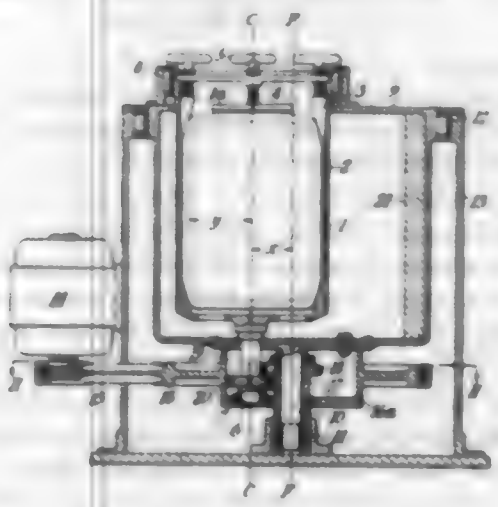
A machine for cutting slurry cake, pug, and like material and adapted to supply the cut material in controlled and continuous operation, said machine comprising a drum having an opening at the top and an open-

ing at the bottom, means mounting said drum for revolution thereof about a vertical axis, a plurality of stationary quadrant shaped cutting blades spaced around the cross-section of said bottom opening with the trailing edge of each blade spaced forwardly of the cutting edge of the following blade, said quadrant shaped blades closing said bottom opening except for the spaces between adjacent leading and trailing edges of adjacent blades, said blades forming parts of helical surfaces on the same angle and being upwardly inclined from their trailing edges toward their cutting edges with the trailing edge



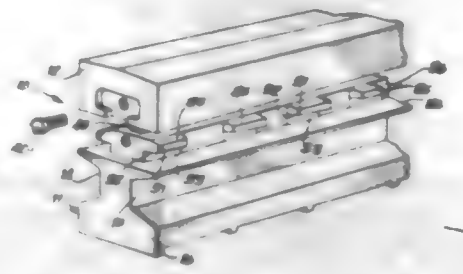
of each blade lying below and in front of the cutting edge of the following blade, the inner end of each cutting edge being spaced above the trailing edge of the next preceding blade and each cutting edge being inclined outwardly and downwardly to approximately the level of the trailing edges, said inclinations being such that material fed into said drum through said upper opening is presented to said cutting edges as said drum is caused to revolve in one direction and is thereby automatically cut up and discharged from the drum between said blades.

2,874,911
COMPOUND MOVEMENT CENTRIFUGAL BALL-MILL
Frank Limb, Harrogate, England
Application May 20, 1955, Serial No. 509,898
3 Claims. (Cl. 241—175)



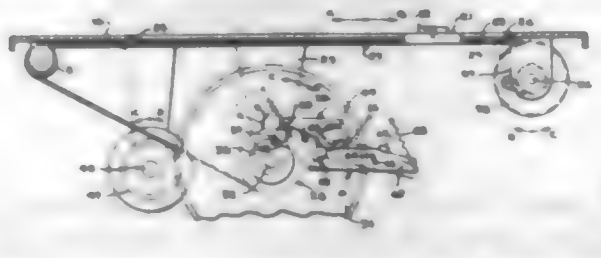
1. A ball mill comprising a stationary vertical cylindrical housing, a central bearing in the base of said housing, a circumferential bearing around the top of said housing, a cylindrical carrier in said housing and rotatably mounted about a first fixed vertical axis within said bearings whereby all bearings of said carrier are exterior thereof, a vertical axis cylindrical cage, a cylindrical ball mill chamber coaxially disposed within and supported by the base portion of said cage, said cage being rotatably mounted in said carrier on a second vertical axis spaced radially from said first axis at a distance appreciably less than the radius of said chamber, means for rotating said carrier about said first axis, and means for rotating said cage about said second axis simultaneously with rotation of said carrier about said first axis.

2,874,912
IMPACT HAMMER
Charles E. Sennholtz and Thomas E. Bridgewater, Chicago, Ill.
Application March 14, 1957, Serial No. 646,065
4 Claims. (Cl. 241—197)



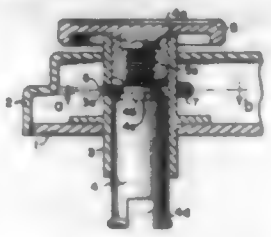
2. A two-piece hammer adapted to be mounted on a rotatable drum comprising, in combination, an elongated hammer body having a longitudinal upstanding ridge on its upper surface, an elongated hammer head having a longitudinal groove on its lower surface adapted to receive said upstanding ridge, a first group of spaced wedges projecting from the sides of said ridge, a second group of spaced wedges projecting inwardly from the sides of said groove, the wedges of each group being oppositely pointed and vertically spaced so that the second group of wedges on the head can be slid under the first group of wedges on the body so as to wedgingly lock the head onto the body, and releasable means to restrain the head from sliding on said body when the head and body are locked together.

2,874,913
RECIPROCABLE ACTUATOR DEVICE
Sidney Weiser, Plainview, N. Y., assignor to Federal Manufacturing & Engineering Corporation, a corporation of New York
Application October 18, 1955, Serial No. 541,129
8 Claims. (Cl. 242—55)



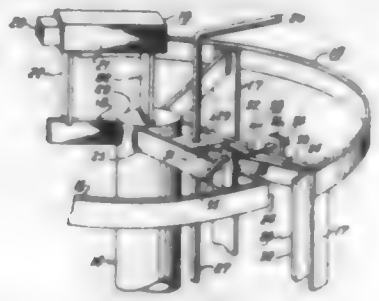
1. In a reciprocable actuator device, in combination, a first reeling drum, a second reeling drum, and an idler drum, a flexible member suspended between said drums and being connected to said reeling drums and moving between said second reeling drum and said idler drum in a substantially straight path, said reeling drums being operable to reciprocate said member, said first reeling drum being freely journalled for rotation, a motor, control means between said motor and said first reeling drum operable for releasably coupling the motor therewith to move said member in one direction, said second drum being journalled freely turnably about an axis parallel to the axis of said first reeling drum and including a spring tensionable when said second reeling drum is moved by said member under the power of said motor, said spring being operable to return said member in an opposite direction upon de-energization of said motor, and means operable for releasing said control means to disengage said first reeling drum from said motor during the return movement of said member to reduce the driving load of said spring.

2,874,914
REWINDING DEVICE FOR PHOTOGRAPHIC CAMERAS
Willy Kaden and Ferdinand Stiefenhofer, Munich, Germany, assignors to AGFA Aktiengesellschaft, a corporation of Germany
Application June 15, 1954, Serial No. 436,868
Claims priority, application Germany July 9, 1953
8 Claims. (Cl. 242—71.3)



4. A film rewinding device for photographic cameras comprising a rotatable shaft adapted to be operatively connected to a film holding spool, said shaft being axially adjustable within a sleeve mounted upon said camera, said shaft including a pair of grooves perpendicular to the axis of said shaft, one of said grooves being deeper than the other, a resilient means extending within said sleeve at a predetermined axial position, said resilient means substantially engaging the walls of the shallower groove, said shallower groove and resilient means being correspondingly formed to exert a frictional braking force upon said shaft when said shaft is axially adjusted to bring said shallower groove into alignment with said resilient means, and said resilient means entering said deeper groove substantially free of contact with the walls of said deeper groove when said shaft is moved to bring said deeper groove into axial alignment with said resilient means.

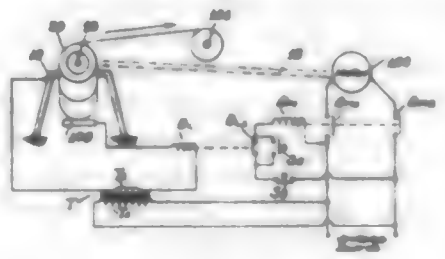
2,874,915
SHEET ROLLING DEVICE
Ferner A. Malone, Dallas, Tex.
Application March 15, 1956, Serial No. 571,679
10 Claims. (Cl. 242—74.1)



1. A stand for rolling sheet material including a base, an upright cylindrical reel rotatably supported by the base, the reel including an axial supporting member, exterior members extending circumferentially of said reel, arms extending transversely between and connecting the supporting member to the exterior members, said exterior members being interrupted to provide an opening extending longitudinally of said reel for receiving an end of sheet material, clamp means mounted in the opening for engagement with the portions of the exterior members adjacent said opening, and latch means at the upper end of said opening for holding the clamp means in such engagement for confining the end of the sheet material.

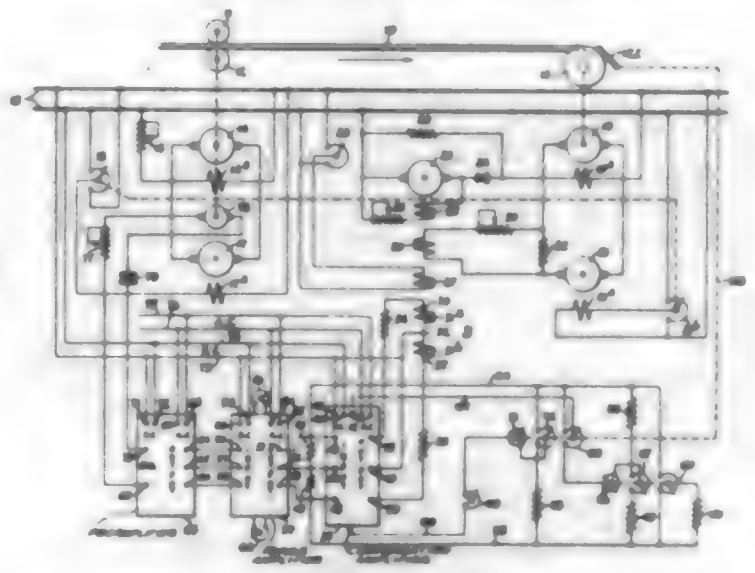
2,874,916
COIL HOLDER
Arthur S. Wallin, Chicago, Ill., assignor to Hydrometals, Inc., Chicago, Ill., a corporation of Illinois
Application May 5, 1954, Serial No. 427,714
10 Claims. (Cl. 242—75.51)

8. In a coil holder, the combination of means for rotatably supporting a coil of sheet metal, with power means for rotationally driving said supporting means to unwind the coil, and means controlled by current conduction through and responsive to the length of a slack loop in the



outer layer of the coil for automatically deenergizing and energizing said power means to thereby maintain such outer layer loose with freedom to shift laterally.

2,874,917
CONTROL SYSTEM FOR ELECTRIC REEL MOTORS
Eric Pell, Wauwatosa, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application February 7, 1955, Serial No. 486,429
12 Claims. (Cl. 242—75.51)

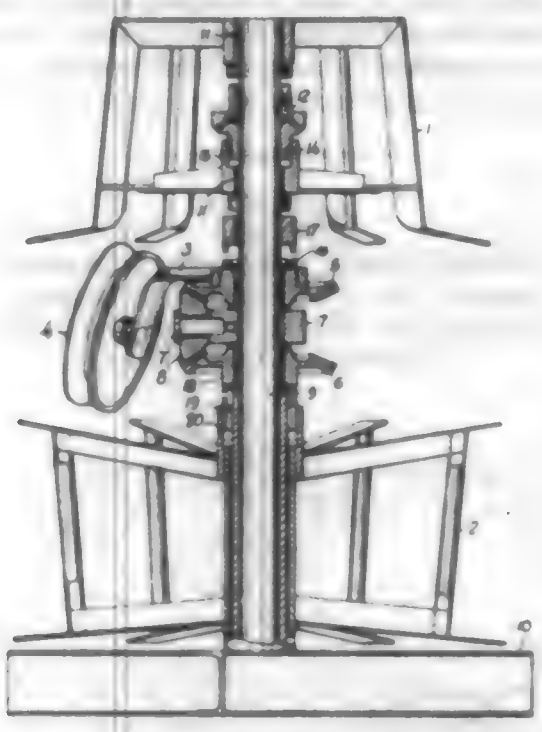


1. The combination with a material winding system comprising a motor driving a work roll, a motor driving a winding reel, and interconnected speed adjusting means for the motor driving said work roll and said reel to effect coordinated speed adjustment of said motors, of means providing a potential which is adjustable in accordance with the rate of change of strip speed, first rheostat means subjected to said potential and providing an output potential which increases as a function of change in radius of the reel due to the strip being wound thereon, second rheostat means subjected to said potential and providing an output potential which decreases as a function of change in radius of the reel due to the strip being wound thereon, and control means for said reel motor normally acting to maintain the material under constant tension during constant strip speed winding, said control means being subjected to the influence of the output voltages of said rheostat means to maintain the material under constant tension during accelerating and decelerating strip speed winding.

2,874,918
WIRE REELING MECHANISM
Sven Ingemar Steiber, Solna, Sweden
Application July 18, 1955, Serial No. 522,613
Claims priority, application Sweden July 24, 1954
4 Claims. (Cl. 242—82)

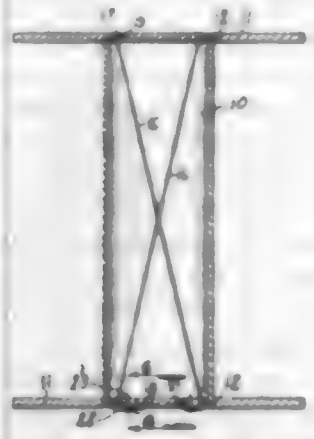
3. A reeling mechanism comprising a rotary shaft, means to rotate said shaft, a reel drum mounted rotatably on said shaft, means to couple said reel drum to and from said shaft, a storage drum mounted rotatably on

the shaft, gearing means on said shaft, a winding member operated from the shaft by means of said gearing means,



and a releasable clutch to couple the gearing means to and from the storage drum.

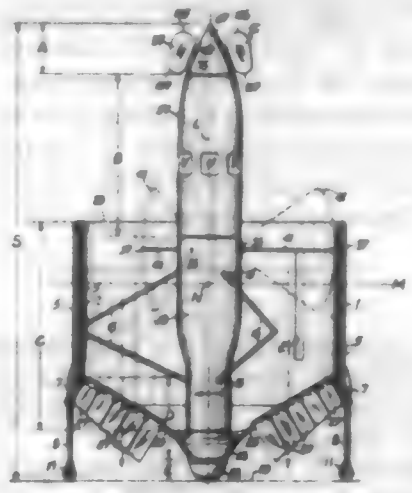
2,874,919
REEL CONSTRUCTION
William A. de Long, West Haven, Conn.
Application January 11, 1954, Serial No. 403,096
1 Claim. (Cl. 242—118.6)



A reel construction comprising a tubular barrel having a disk-shaped head at each end thereof, the inner face of each of said heads being provided with an inwardly facing annular channel to snugly receive the adjacent end of the barrel, and headed pointed elongated fastening members driven through both of said heads, said fastening members being bent transversely at a point adjacent their pointed ends to lie against the outer surface of the adjacent head, and being bent inwardly at their pointed ends to re-enter the material of the head rigidly to secure the heads to the barrel, and said members being crossed in pairs within the barrel to be disposed in noparallel relation to the axis of the barrel and brace the structure against distortion.

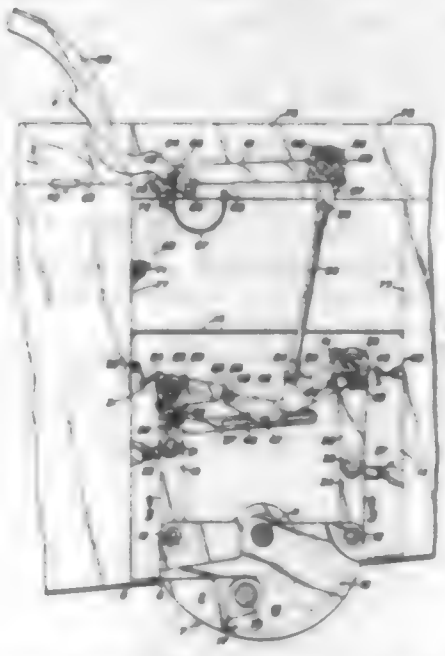
2,874,920
AIRCRAFT
George E. Mallinckrodt, St. Louis, Mo.
Application October 28, 1955, Serial No. 541,757
8 Claims. (Cl. 244—23)

1. An aircraft construction comprising in combination first and second assemblies, bearing means connecting said assemblies adapting them for opposite rotation about an axis of spin, an engine having first and second reactive rotary thrust components, the first assembly comprising a propeller and said first thrust component attached thereto, the second assembly comprising a barrel-shaped wing surrounding said axis of spin, with the second thrust component attached thereto and including at least one lifting airfoil rotatable on an axis which is fixed relative



to said second assembly and which extends transversely to said axis of spin, the moment of inertia of said second assembly around said axis of spin being substantially greater than that of the first assembly.

2,874,921
MOORING DEVICE FOR SEAPLANES
Daniel J. Knighton and Donald G. Haser, Baltimore County, and George A. Fiedler, Baltimore, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 27, 1956, Serial No. 612,570
3 Claims. (Cl. 244—115)



1. A mooring device in a seaplane for engaging and holding a mooring cable comprising the combination of a hook and latch mounted within the keel of a seaplane, said hook extending below the undersurface of said seaplane, a latch having a means on one end thereof to close said hook when in active position, a shaft rotatably mounting said hook and said latch on a common axis, said latch being rotatable between a cable locking position and a cocked position, said hook being rotatable between a cable receiving position and a cable releasing position, said latch having a cable receiving end spaced from said closing means, said cable receiving end being positioned adjacent the bight of said hook when the latch is in the cocked position, first linkage means connected to said latch for moving said latch from said cable locking position to said cocked position, second linkage means connected to said hook for moving said hook from said cable receiving position to said cable releasing position, a lost-motion connection between said first and second linkage means, actuating means connected to said first

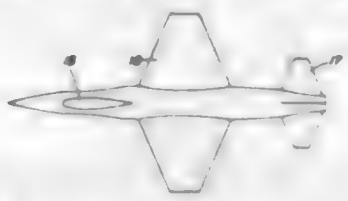
and second linkage means, said actuating means being movable between a first and a second position, whereby in moving to said first position the actuating means moves said first and second linkage means to cock said latch and release the cable in said hook and in moving to said second position the actuating means moves said second linkage means so that the latch remains in the cocked position due to the lost-motion connection and the hook is rotated into the cable receiving position, and whereby the closing means on said latch is rotated to the locking position to lock the cable within the hook when the cable engages the lower cable receiving end of the latch.

2,874,922

FUSELAGE SHAPING TO REDUCE THE STRENGTH OF SHOCK WAVES ABOUT AIRPLANES AT TRANSONIC AND SUPERSONIC SPEEDS

Richard T. Whitcomb, Hampton, Va.

Application August 24, 1956, Serial No. 606,176
10 Claims. (Cl. 244—130)
(Granted under Title 35, U. S. Code (1952), sec. 266)



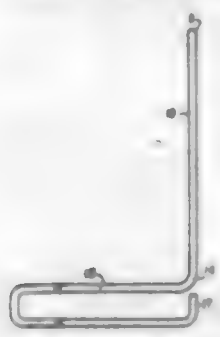
6. An airplane having a fuselage in which the total cross-sectional area, comprising a first cross-sectional area taken of the fuselage in a plane generally perpendicular to the longitudinal axis and a second cross-sectional area taken of components external to the fuselage in planes tangent to the Mach cone whose axis is substantially on the central longitudinal axis of the airplane and projected normally to the airstream, gradually increases to a maximum and then decreases from nose to tail.

2,874,923

CABLE BRACKETS

Kenneth G. Kaiser, Lombard, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application October 22, 1956, Serial No. 617,453
1 Claim. (Cl. 248—68)



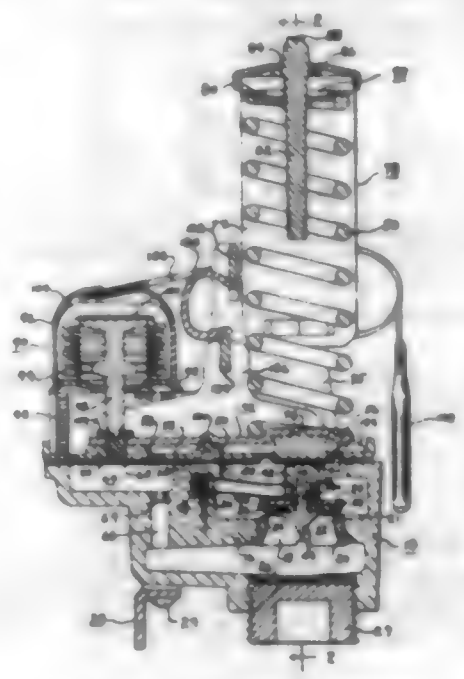
A wire bracket for engaging the flat surfaces and edges of a rectangular shaped bar element comprising a vertical portion and a base portion, said vertical portion comprising substantially parallel segments of said wire, said base portion comprising a pair of U shaped extended segments of said parallel wires, the upper leg of each U shaped segment engaging the upper surface of said bar element and extending away from the bottom of said vertical portion and a portion of each upper leg being flared outwardly from each other near the bight portion of each U shaped segment, the bight portion of each U shaped segment engaging the edges of said bar element and connecting each upper leg to its respective lower leg of each U shaped segment, the lower leg of each U shaped member engaging the lower surface of said bar element and extending from said bight portion back toward said bottom vertical portion, each lower leg including an inwardly flared portion extending from said bight portion, an intermediate portion, an outwardly flared portion and a free end, said free ends of each lower leg being formed upwardly from said outwardly flared portion towards and substantially parallel to said vertical portion to engage said edges of said bar element.

2,874,924

VALVE

Arthur L. Good, Goshen, Ind., assignor to Mairco, Inc., Goshen, Ind., a corporation of Indiana

Application July 18, 1957, Serial No. 672,644
5 Claims. (Cl. 251—58)



1. A temperature and/or pressure responsive valve, comprising a body having a fluid inlet passage and a fluid outlet passage, a partition in said body betwen said passages having a port therethrough, a removable annular insert in said port having a valve seat thereon on the outlet side thereof, a valve element adapted to engage said seat, a resilient arm for guiding said element toward and away from said seat, a flexible diaphragm in axial alignment with said port on the outlet side thereof, a member operatively connecting said element with said diaphragm, a pivoted lever having one end operatively connected with said diaphragm for operating said valve element, a coil compression spring operatively connected with said lever on the same end as said diaphragm, a second relatively strong short thrust spring and means operatively connecting said second spring to said lever so that its line of force shifts from one side of the pivot point of said lever to the other for first urging said element toward its seat and then for urging said element away from its seat as the valve is opened, a means for adjusting the tension on said coil spring, a fluid motor having a stem operatively connected to said lever on the end opposite said springs and acting in opposition to said springs, and a fluid chamber connected to said inlet passage and having a diaphragm operatively connected to said lever on the side opposite said stem and on the corresponding end thereof.

2,874,925

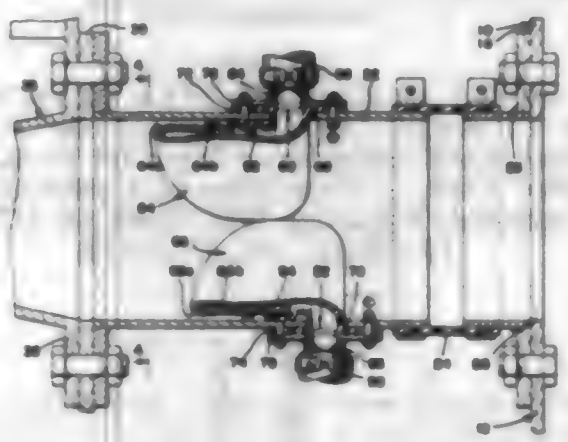
VALVE FOR FLUIDS OR FLUIDIZED SOLIDS ESPECIALLY FOR THE SPOUTS OF BAG FILLING APPARATUS

Neil S. Stafford, San Jose, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

Application September 17, 1954, Serial No. 456,769
6 Claims. (Cl. 251—61)

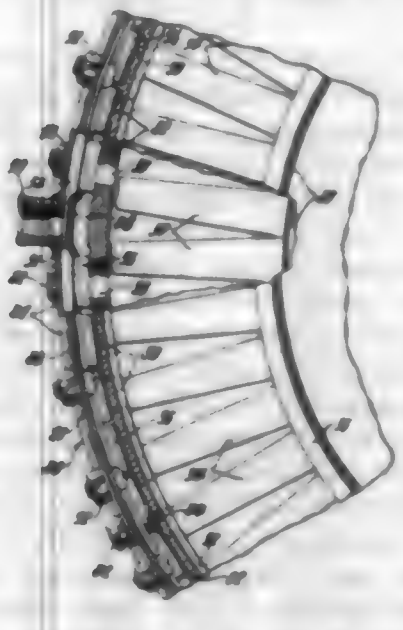
1. A valve for fluids and fluidized solids comprising a tubular conduit adapted to conduct fluids and fluidized

solids, a pair of inflatable bodies of resilient material disposed within said tubular conduit along diametrically opposite and axially displaced arcs of said tubular conduit corrugations formed in one wall of each of said bodies to prestress said wall and cause said bodies to lie close adjacent the inner wall of said conduit when not inflated, and



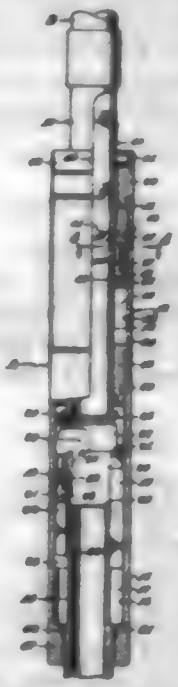
means operable to introduce fluid into both said bodies to inflate them thereby straightening said corrugations and causing the bodies to swing into a transversely erect conduit-blocking position, said bodies being placed so closely together in a direction axially of said conduit as to come into overlapping contact with each other upon inflation.

2,874,926
COMPRESSOR AIR BLEED-OFF
Arthur W. Gaubatz, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 31, 1954, Serial No. 478,957
1 Claim. (Cl. 251—61)



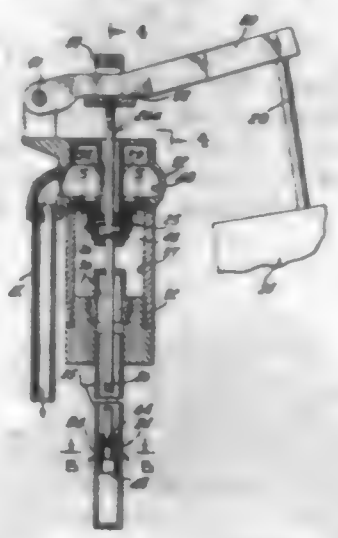
A valve assembly comprising a casing having an arcuate surface with a row of fluid discharge ports spaced therealong, a row of valve plugs arranged to register with said ports, and means for actuating and supporting and guiding said valve plugs for registration with said ports comprising an arcuate inner wall secured to said casing in spaced and overlying relation with said ports, said inner wall having a row of openings coaxially aligned with said ports, an arcuate outer wall overlying and secured to said inner wall and forming an elongated arcuate chamber therewith, and a flexible diaphragm in said elongated chamber secured between said walls to form an expansible chamber with said outer wall, said valve plugs being secured to said diaphragm to coaxially project through said openings in slidable engagement therewith for guided registration with said ports on pressurization of said expansible chamber, said flexible diaphragm being shielded from the fluid discharge from said ports by said valve plugs and said inner wall.

2,874,927
SUBSURFACE TUBING TESTER
Martin B. Conrad, Downey, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application December 31, 1954, Serial No. 479,042
20 Claims. (Cl. 251—100)



1. In a valve apparatus adapted to be incorporated in a tubular string to be disposed in a well bore; inner and outer tubular members telescopically arranged with respect to each other; a valve seat on one of said members; a valve element movable laterally with respect to said members into engagement with said seat to prevent downward flow of fluid through said members and laterally out of engagement with said seat completely to one side of said seat to permit such flow of fluid; and means engageable with said valve element in response to relative extending telescopic movement between said members to shift said valve element laterally of said tubular member from engagement with said seat.

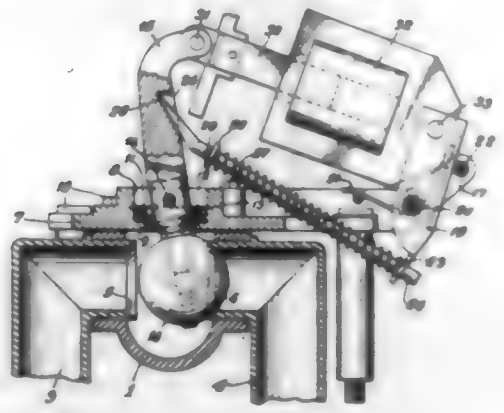
2,874,928
VALVE
John T. Adams, Brookville, N. Y.
Application September 29, 1953, Serial No. 383,932
11 Claims. (Cl. 251—120)



2. A valve comprising a primary closure structure and a secondary closure structure fluidly connected by a chamber; an inlet pipe and an outlet pipe, said primary closure structure comprising means for restricting the flow of fluid from said water inlet pipe into said chamber; said means always providing a small passageway for flow from said inlet pipe to said chamber; said secondary closure structure comprising means for restricting the flow of fluid from said chamber to said outlet pipe and for

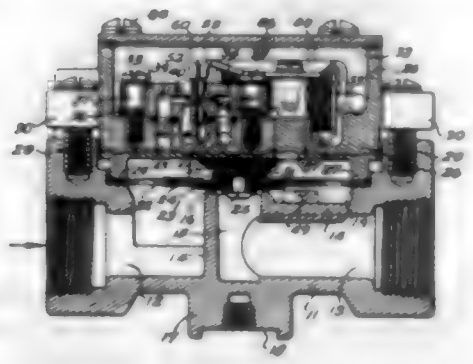
completely terminating said flow through said secondary closure structure; means for linking said primary closure structure and said secondary closure structure for concurrent operation to bring said primary closure structure on movement from open position to closed position to its point of maximum closure prior to the secondary closure structure reaching a point of closure in which the effective opening presented by said secondary closure structure is less than the small passageway for flow always provided at said primary closure structure; and means for preventing line pressure from urging said primary closure structure into the closed position.

2,874,929
TWO-WAY BALL VALVES
Karl A. Klingler, Naperville, Ill.
Application July 28, 1955, Serial No. 524,974
10 Claims. (Cl. 251—129)



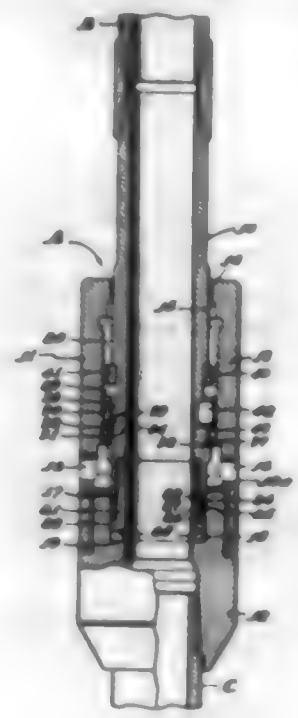
1. Valve control means including an actuating lever mounted for rotation about an axis generally perpendicular to its length, stops positively limiting the excursion of the lever in opposite directions about such axis, yielding means adapted to force the lever into engagement with one of the stops, a solenoid connected to the lever, adapted when energized to overcome the yielding means and move the lever into engagement with the second stop, and solenoid actuated means operative after the lever has engaged and while it is still in engagement with the second stop to reduce the force applied by the yielding means to the lever.

2,874,930
VALVE-JET MOUNTING
William A. Ray, North Hollywood, and Laurence C. Biggle, Altadena, Calif., assignors to General Controls Co., Glendale, Calif., a corporation of California
Application November 9, 1954, Serial No. 467,777
7 Claims. (Cl. 251—211)



5. In a three-way pilot valve: a pair of elongated valve-jet members each having a valve seat at one of its ends; a base having means defining a slot for receiving said jet members in interalignment and with their valve seats facing each other and spaced apart, means for mounting each of said jet members for adjustable sliding engagement in said slot, the bottom surface of said slot providing a seat for each of the jet members; means for clamping the jet members to said slot-seats; and a closure arm rockably mounted on said base and having a portion extending between said valve seats for alternate engagement therewith.

2,874,931
TUBULAR STRING VALVE DEVICES
Reuben C. Baker, Coolinga, and Martin B. Conrad, Downey, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application August 12, 1955, Serial No. 527,996
13 Claims. (Cl. 251—218)

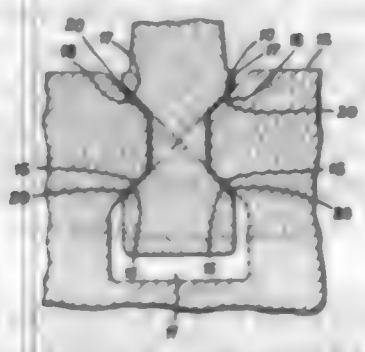


1. In a control valve adapted to be secured to a tubular string for disposition in a well bore: first and second telescopically arranged members adapted to be moved into and out of valve sealing relation with respect to each other to place said valve selectively in open position or closed position; said first member having a first thread; a latch member movable with and laterally on said second member and having a second thread companion to and meshable with said first thread; said latch member being movable laterally in one direction on said second member into threaded engagement with said first thread to enable said telescopically arranged members to rotate and move longitudinally in one direction relative to each other to place said telescopically arranged members in one of said valve positions; said latch member being movable laterally in the other direction on said second member to an extent sufficient to bring said threads out of engagement with each other to enable said latch member and second member to be moved relatively longitudinally in the other direction and without rotation past said first thread and along said first member to place said telescopically arranged members in the other of said valve positions, said threads being of sufficient longitudinal extent that said second thread meshes with said first thread when said telescopically arranged members are in said one of said valve positions and also when said telescopically arranged members in said other of said valve positions; means coupling said latch member and said other member against substantial rotation with respect to each other; and stop means on said telescopically arranged members engageable with each other when said valve is in one of said positions to permit rotary motion to be transmitted from one of said telescopically arranged members through said coupling means and latch member to said other telescopically arranged member.

2,874,932
STEEL TURBINE ROTORS WITH CERAMIC BLADES

Emil Sörensen, Augsburg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg A. G., Augsburg, Germany, a corporation of Germany

Application February 18, 1953, Serial No. 337,585
10 Claims. (Cl. 253—77)

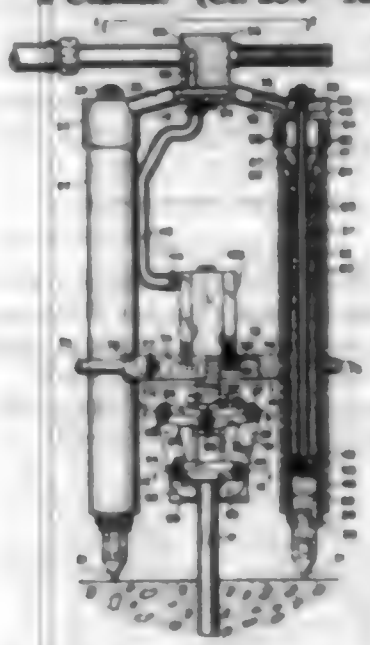


1. In a gas turbine of the character described having a metal turbine rotor and means in the rim of said rotor receiving and securing a plurality of turbine blades therein, the combination which comprises a ceramic turbine blade, supporting surfaces on said blade inserted in and in interlocking engagement with said receiving and securing means on said rotor, and separate metallic inserts on said supporting surfaces of said blade separating said surfaces from said means in the rim of said metal rotor for reduction and control of friction effects between said ceramic blade and said metal rotor, said inserts being permanently affixed to neither said rotor nor said blades.

2,874,933
POWER ACTUATED PIN PULLER

Jacob E. Feucht, Garfield Heights, Ohio, assignor to Cleveland Rock Drill Division, Westinghouse Air Brake Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application March 16, 1955, Serial No. 494,646
2 Claims. (Cl. 254—18)

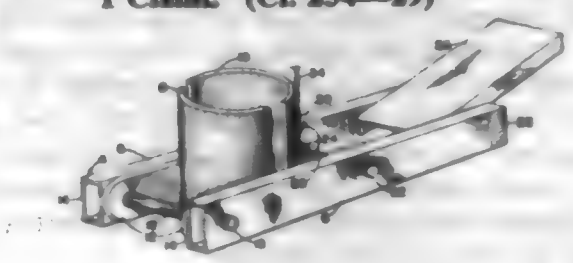


1. A pin puller comprising a pair of spaced cylinders each having a piston therein, a plate member interposed between and connected to said cylinders, depending jaw members carried by said plate member, a vibrating member mounted on said plate member for imparting a vibratory force and impact to said jaw members, a source of air under pressure connected to said cylinders and vibrating member for extending the cylinders with respect to the pistons to apply a pulling tension upon a pin engaged by said jaw members prior to actuating said vibrating member, a rotatable valve member for controlling the air delivered to said cylinders and vibrating member, a spring loaded ball member engageable with recesses in said valve member for holding said valve member in a plurality of predetermined positions during its rotative movement, said valve member, in one of its positions, controlling the delivery of air under pressure to said cylinders and vibrating member.

2,874,934
CASING PUSHER

Melvin A. Dannehl, Boise City, Okla., assignor to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

Application February 20, 1956, Serial No. 566,421
1 Claim. (Cl. 254—29)

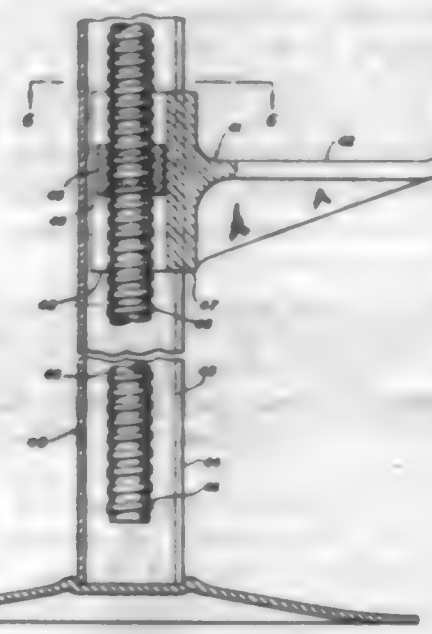


An apparatus for transmitting a downward pushing force to a vertically extending cylindrical member, comprising a pair of parallel side beams secured in spaced relationship, a pair of opposed arcuate clamping jaws, a pair of parallel spaced arms for each of said jaws, each arm being secured at one end to one of said jaws, a pair of pins, extending transversely through said beams, one pin extending through one end of each pair of said arms to pivotally secure said pair of clamping jaws to said pair of parallel beams, a push plate secured to said beams externally of said jaws for receiving a downward pushing force, said push plate being secured at an angle to remain substantially horizontal when said jaws engage the cylindrical member, one of said pair of pins being removable and securing the outer jaw of said pair of clamping jaws between said side beams, and a lifting hook secured to the other of said pair of pins for raising the apparatus along the cylindrical member.

2,874,935
AUTOMOBILE BUMPER JACK

Mitchell C. Caster, Akron, Ohio

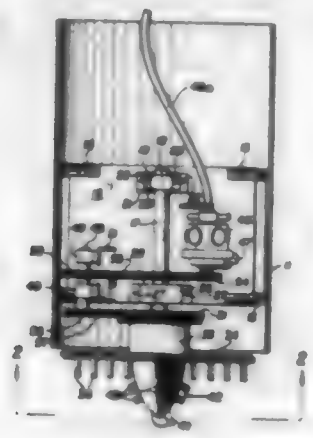
Application March 5, 1953, Serial No. 340,617
3 Claims. (Cl. 254—99)



1. A lifting jack comprising an elongated hollow support having laterally spaced sides and a front wall provided with a longitudinally extending opening in the same, means for supporting said support with said front wall presented at an angle to the horizontal, a threaded post rotatably mounted on said support to extend longitudinally between said sides, a nut threaded on said post, a lifting member having spaced portions within said hollow support non-rotatably embracing laterally

opposite sides of said nut and to be non-rotatable with respect thereto in direction about the axis of the post, said member being pivotally connected to said embracing portions to pivot relatively of the same in direction of a plane through said axis of the post and said opening, thereby to obviate binding action between the nut and said post with bending of the post under a load on the member, said member having a work-engaging hook portion extending freely outwardly of said longitudinal opening, said spaced portions of the member having opposite sides thereof longitudinally slidably engageable with said laterally spaced sides of said support to prevent relative rotation of the same and said nut about the axis of the post as the post is rotated, and means for rotating said post about said axis and thereby to move said nut and member in either direction longitudinally of the support, said member having portions bearing downwardly against said front wall of said support to support some of the load on the element.

2,874,936
APPARATUS FOR EXCAVATING HOLES
Hooley B. Gonzales, Concord, Calif.
Application June 19, 1957, Serial No. 666,535
13 Claims. (Cl. 255—20)



1. A device for excavating holes for pipe comprising a base plate, a section of pipe, means for mounting said plate in said section, a rotatable shaft, mounting means for mounting said shaft on said plate and normally coaxial with said pipe, said mounting means including means for adjustable movement to vary the direction of said shaft relative to said plate, means on said plate for rotating said shaft, and digging means on said shaft for boring a hole of a diameter at least as large as the diameter of said section in advance of said section, said digging means including a plurality of rotary, earth-engaging teeth.

2,874,937
CORROSION-RESISTANT SUCKER ROD AND METHOD OF CONSTRUCTING SAME
Edward F. Higgins, Kirkwood, Mo.
Application November 25, 1955, Serial No. 548,934
6 Claims. (Cl. 255—28)



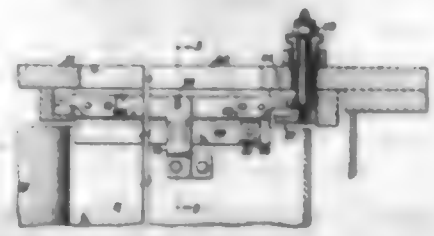
1. A corrosion-resistant sucker rod assembly comprising a cylindircal rod fabricated of longitudinal structural fibers and corrosion-resistant binder material therefor adapted to flow under pressure, the rod having a taperingly enlarged end including an end face, in combination with a corrosion-resistant metal rod end fitting mounted on the enlarged end of the rod and having a taperingly-enlarged chamber, within which the enlarged rod end is accommodated, further having a bore, of lesser diameter than the rod, opening into the chamber axially, the assembly further comprising an annular layer of adhesive material bonding the outer surface of the enlarged rod end to and within the inner surface of said chamber, together with a plug insertable through and accommodated within said bore, said plug having a tapering point projecting axially into the chamber.

2,874,938
END FITTINGS FOR SUCKER RODS HAVING A FLOWABLE BINDER
Edward F. Higgins, Kirkwood, Mo.
Application January 9, 1956, Serial No. 558,030
4 Claims. (Cl. 255—28)



1. A sucker rod assembly comprising a rod having annularly enlarged ends fabricated of longitudinal structural fibers and plastic resin binder material of type adapted to flow under pressure, in combination with a metal rod end fitting having a threaded tip connector portion, and a hollow socket portion including a rod-receiving opening and an inner socket surface tapering enlargingly from said opening sufficiently to accommodate the enlarged rod end, together with a layer of pressure-set adhesive between the inner socket surface and the outer surface of the rod.

2,874,939
RADIAL SEAL FOR ROTARY HEAT EXCHANGER
Harold Rahr, Belmont, and Charles Wildman, Wellsville, N. Y., assignors to The Air Preheater Corporation, New York, N. Y., a corporation of New York
Application December 20, 1956, Serial No. 629,652
5 Claims. (Cl. 257—6)



1. A sealing arrangement for a regenerative air preheater or the like having a rotor including a cylindrical shell joined to a rotor post by radial partitions forming compartments that carry masses of heat transfer material and a housing surrounding the rotor and provided opposite the latter with end plates including imperforate portions located between circumferentially spaced apertures formed in said plates for the flow of heating gases and air to and through the regenerative heat tranafer material carried by the rotor; radial sealing means between the partitions and the end plates comprising elongate channel members adapted to fit over the end edges of said partitions in axially abutting relationship; cam

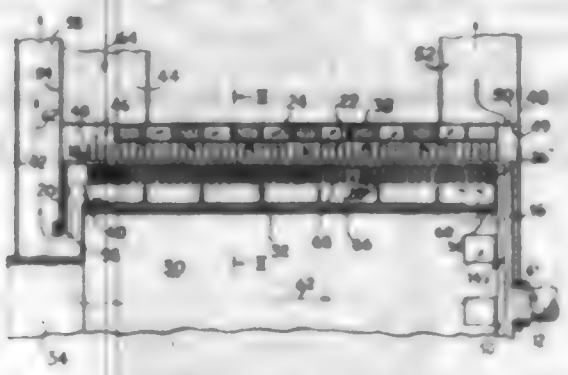
means mounted on the end plate arranged to extend axially into the space between the rotor and end plate; radial sealing means slidably embracing the outer side faces of said channel members; and means mounted on the radial outer ends of the sealing means adapted to engage said cam means for support of the sealing means independently of the elongate channel member.

2,874,940

HEAT EXCHANGER

Karl Gustav Åhlén, Stockholm, Sweden, assignor to Svenska Rotor Maskiner Aktiebolag, Necka, Sweden, a corporation of Sweden

Application May 16, 1951, Serial No. 226,582
10 Claims. (Cl. 257—241)



1. Heat exchange apparatus comprising a rotor having a plurality of transverse parallel ribs providing a multiplicity of open peripherally continuous circular groove-like channels concentric with the axis of rotation of the rotor for flow of fluid in paths of flow in said channels lying in planes normal to said axis and stationary structure including inlet and outlet openings for fluid and having a wall concentric with and cooperating with said rotor to provide for flow of said fluid between said openings through said channels in heat exchange relation with the rotor, said structure including longitudinal baffles, each baffle having one longitudinal edge abutting said wall and the opposite longitudinal edge having fingers extending into and obstructing said channels, longitudinally extending cover means for said channels disposed between adjacent said baffles, means forming transfer passages connecting different channels at places adjacent to said baffles and at opposite sides of said cover means for flow of fluid progressively through different channels and means to drive said rotor.

2,874,941

BRAZED EXTENDED SURFACE HEAT EXCHANGER

Thomas L. Woolard and David G. Peterson, Wellsville, N. Y., assignors to The Air Preheater Corporation, New York, N. Y., a corporation of New York

Application September 6, 1955, Serial No. 532,679
4 Claims. (Cl. 257—245)



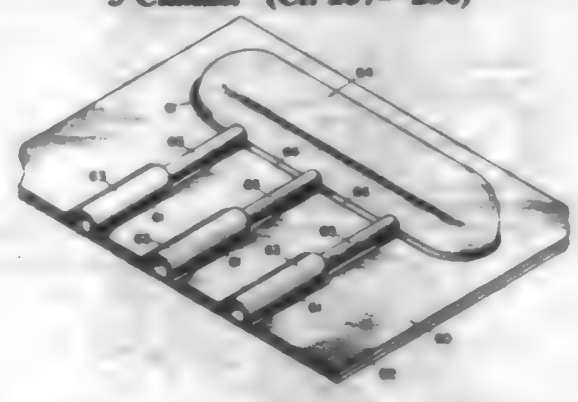
1. A heat exchanger envelope having a pair of metallic plates spaced apart to form passage walls for a fluid passageway therebetween; a plurality of extended surface members mounted between spaced plates to effect an improved transmission of heat to and through the passage walls, each extended surface member comprising a pair of cooperating channel members lying in back-to-back relation to form a composite I-section including spaced composite flanges with opposite faces thereof contacting the spaced metallic plates; and a quantity of brazing material intermediate cooperating channel members to bond said channel members into an integral body.

2,874,942

MEANS FOR JOINING PRESSURE-WELDED TUBES

Perry J. Rieppel, Worthington, and Melvin C. Clapp, Columbus, Ohio, assignors, by mesne assignments, to The Metal Specialty Company, Cincinnati, Ohio, a corporation of Ohio

Application August 25, 1954, Serial No. 452,082
5 Claims. (Cl. 257—256)



1. In a pressure-welded heat-exchange unit comprising a pair of sheets of pressure-weldable material and a pressure-weld deformation in at least one of said pair of sheets, a plurality of closely spaced formed tubes in at least one of said sheets, means for connecting said tubes, said means comprising tubing having a smaller cross-sectional area than that of each said tube, said sheets having a continuous pressure weld adjacent the periphery of said tubes and tubing welding said sheets together by said deformation.

2,874,943

HEAT EXCHANGER

Anthony A. Fennell, Homewood, Ill.

Application September 21, 1954, Serial No. 457,432
4 Claims. (Cl. 257—262.15)



2. In a heat exchanger a tube to be positioned transversely in fluid passageway means and having a streamlined cross section for promoting flow of fluid around the tube and in contact with substantially all portions of the tube, said tube having a plurality of longitudinally extending circumferentially arranged substantially flat sections providing its opposite sides and leading and trailing edges, a plurality of openings through the tube and in each of said flat sections, a plurality of pin means each having a portion insertable through one of said openings and another portion for extending outwardly from the tube and mixing fluid flowing over the tube, each of said pin means having shoulder means with a radially extending substantially flat surface mating with one of said substantially flat tube sections, each of said pin means initially having a coating of flux on said substantially flat surface, and weld means between the substantially flat surface of each pin means and its associated substantially flat tube section for securing the pin means to the tube and for sealing the openings through which the pin means extend.

2,874,944

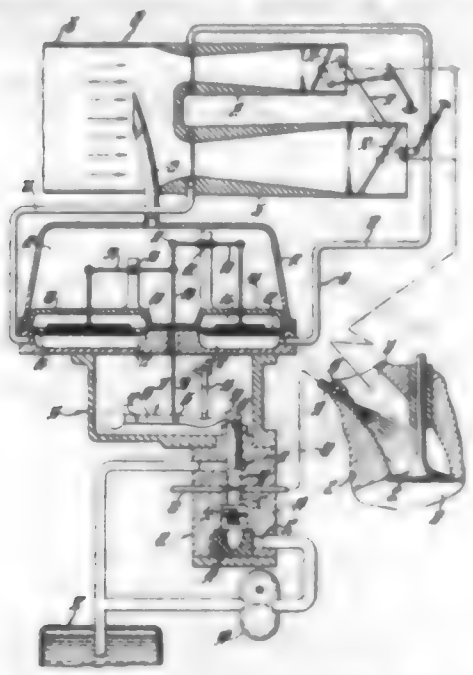
CHARGE FORMING MEANS

John Dolza, Fenton, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 5, 1957, Serial No. 663,647
13 Claims. (Cl. 261—36)

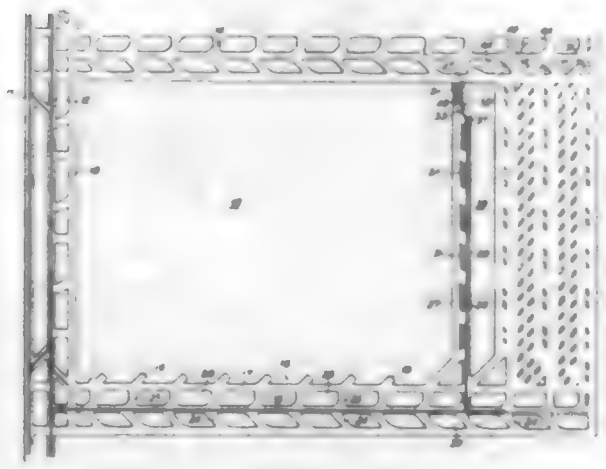
1. Charge forming means for an internal combustion engine comprising a fuel valve adapted to meter the fuel

flow, a plurality of induction inlets adapted to draw induction air from the atmosphere, a metering means in each of said inlets for creating a pressure differential in-



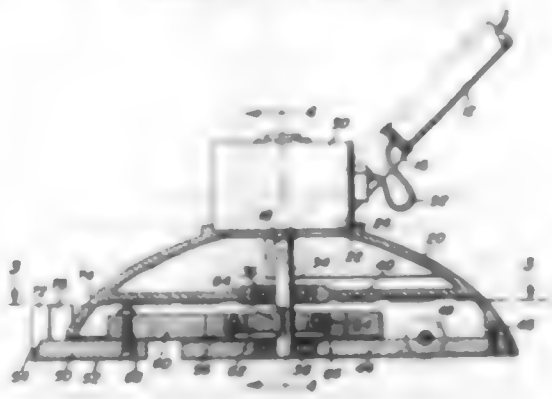
dicative of the air flow therethrough and separate means responsive to each of said differentials for actuating said valve in response thereto.

2,874,945
MINING SYSTEMS OF THE ROOM AND PILLAR TYPE
Cedric E. McWhorter, Hinsdale, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application December 24, 1956, Serial No. 630,342
3 Claims. (Cl. 262—1)



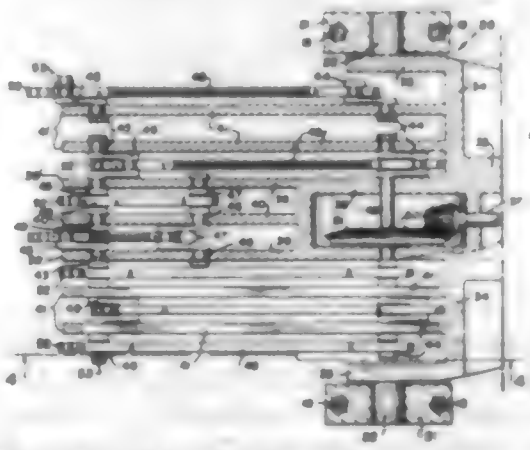
1. A room and pillar system for mining coal and the like, the steps of alternately advancing two rooms of a pair of parallel rooms along one side of a barrier pillar between two parallel butt entries, by first driving a first room at right angles to one butt entry, one rib of which forms a face of the barrier pillar, then withdrawing to the butt entry and driving a diagonal stub entry a distance sufficient to intersect the first room and turning a second parallel room from the diagonal stub entry and extending said room for substantially the length of a supporting chain pillar between said rooms, then withdrawing from the second room and advancing through the stub entry to the first room and continuing the driving of the first room for substantially the length of the supporting pillar, then driving a break-through to the second room and turning the break-through and continuing the driving of the second room for substantially the length of a supporting pillar, then withdrawing through the break-through to the first room and continuing the driving of the first room all while maintaining a continuous conveying chain from the face being driven, effecting the flow of coal along the first room from the face during the advancing of the two rooms, at the intersection of the second butt entry in the operations of advancing each room, retreating from the second butt entry and successively driving a series of spaced diagonal cuts through one rib of the first room and a barrier pillar therefor and then through the opposite rib of the first room and the supporting pillar therefor, and at the termination of each diagonal mining operation through a barrier pillar, withdrawing from the barrier pillar and mining the advance pillar in a series of mining operations of the coal remaining in the pillar, and maintaining the continuous conveying chain effecting the continuous flow of mined coal along the first room away from the working places during the entire retreating operation.

2,874,946
FLOOR COVERING STRIPPER
Vernon A. Singleterry and Bernard D. Brown, Rosemead, Calif.
Application October 28, 1955, Serial No. 543,508
1 Claim. (Cl. 262—13)



A composition floor covering stripping machine comprising a housing, a driven shaft carried by said housing, means drivingly connected to said driven shaft for breaking the bond between the covering and floor to which it is bonded, said bond breaking means including a blade having a blunt chisel forward edge having a face tilted rearwardly approximately 15° from a vertical reference plane, and a flat original floor contacting surface extending rearwardly from said edge.

2,874,947
MINING MACHINE HAVING CRANKSHAFT OPERATED RIPPER MEANS
Joseph P. Ruth, Denver, Colo.
Application May 17, 1957, Serial No. 659,994
8 Claims. (Cl. 262—14)



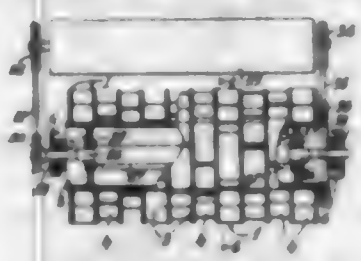
1. In a mining machine having a boom frame-mounted for selective adjustment, a crankshaft journaled transversely of said boom intermediate the ends thereof for rotation about an horizontal axis, and powered means on said boom in driving relation with said crankshaft, excavating means comprising a second crankshaft constituted as an angularly-related succession of throws spacedly interlinked by coaxial pin bearings complementary to

and in spaced, parallel relation with said first crankshaft journaled by means of its pin bearings transversely of the boom adjacent a free end thereof, and rigid bars operatively interlinking corresponding throws of said first and second crankshafts in end extension longitudinally and outwardly of the boom beyond the adjacent end of the latter as an incident of crankshaft rotation effective to apply the free end of each said bar as an independent, excavating ripper.

2,874,948
ROAD SURFACE COATING BREAKER HAVING A VIBRATED ROLLER

Anders Åke Vilhelm Björkman, Karl Evert Lindblad, and Arne Plantfeldt, Stockholm, Sweden, assignors to Vibro-Plus Corp., Woodside, N. Y., a corporation of Delaware

Application November 30, 1955, Serial No. 550,116
Claims priority, application Sweden December 10, 1954
7 Claims. (Cl. 262—19)

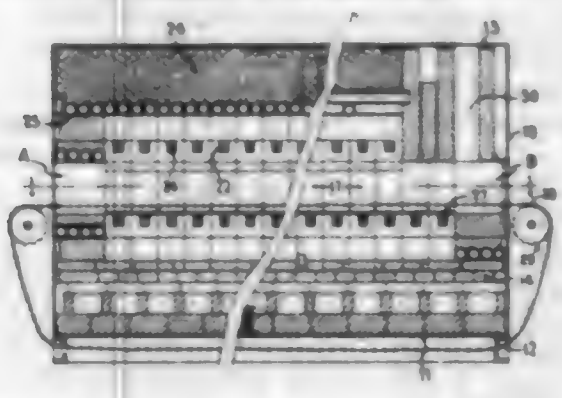


1. A machine to loosen and break hard surface coatings on streets, roads and the like, comprising a roller, axially spaced annular flanges extending radially from the surface of the roller, circumferentially spaced knife members extending radially from the surface of the roller and interconnecting the annular flanges, the outer edges of the flanges and the knife members being equidistant from the roller surface and flush at their junctures, and a vibration generator disposed in the roller to impart vibratory movement thereto independent of its rotation to provide a plurality of chopping movements during each revolution of the roller to cause the annular flanges and the knife members to penetrate and break the hard surface coatings.

2,874,949
BRAZING FURNACE CONSTRUCTION

Clyde W. Morrison, La Salle, Mich.

Application November 20, 1953, Serial No. 393,363
8 Claims. (Cl. 263—40)

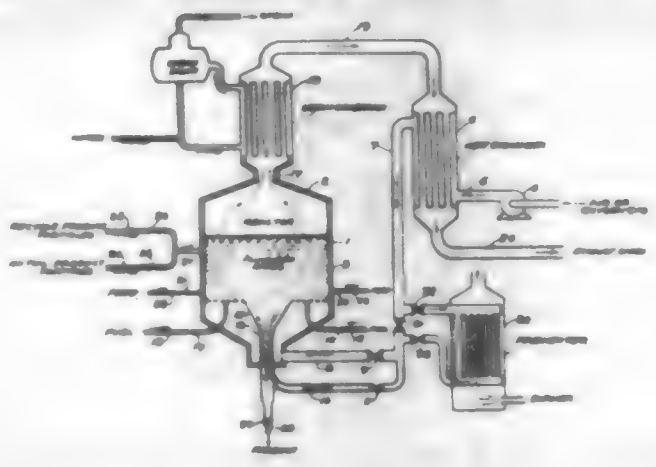


8. A furnace of the class described comprising a base, a pair of upright laterally spaced permanent masonry walls, a row of upright blocks of insulating refractory material on the inside of each permanent wall, each block being loosely mounted and free of adjacent blocks, each block having on the inner face thereof a pair of vertically spaced supports with upwardly open supporting surfaces, bars extending from the supports of one block to corresponding supports of the opposite block and having their end portions loosely resting on said supports, and cover means extending from one row of upright blocks to the other and loosely resting on the top portion of such blocks.

2,874,950
HYDRAULIC CEMENT PROCESS

Robert Pyzel, Piedmont, Calif., assignor to Pyzel-Fitzpatrick, Incorporated, New York, N. Y., a corporation of Delaware

Application March 16, 1954, Serial No. 416,603
7 Claims. (Cl. 263—53)

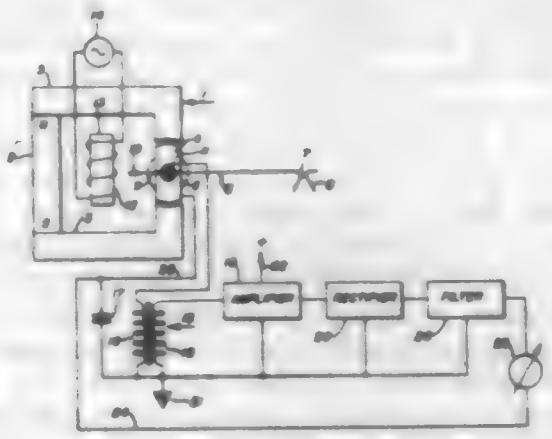


4. A process for the production of hydraulic cement which comprises initially establishing and maintaining a mass of relatively coarse cement product particles in a fluidized state in a reaction zone by upward flow of gas through said mass, maintaining said mass at the cement-forming reaction temperature, charging relatively fine particles of cement forming materials into said mass to permit reaction to take place between said fine cement forming materials in said mass and accretion of the resulting cement on the surface of said coarse product particles, and selectively withdrawing from said mass only the coarser particles thereof at the point of withdrawal to be discharged as the final product of the process while retaining in said mass the finer particles to subject said finer particles to continued reaction conditions.

2,874,951
MICRO-BALANCE

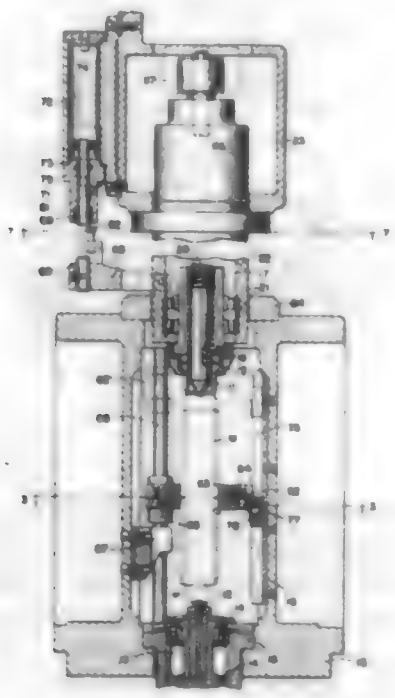
Roswell W. Gilbert, Montclair, N. J., assignor, by mesne assignments, to Daystrom Incorporated, Murray Hill, N. J., a corporation of New Jersey

Application May 7, 1956, Serial No. 583,245
8 Claims. (Cl. 265—70)



1. An electrical weighing apparatus comprising a composite fixed and varying magnetic flux field, a coil rotatable in said composite fixed and varying magnetic flux field, an article supporting arm attached to said coil for applying a torque to the coil in one direction, means automatically applying a D.-C. current, derived from coil deflection by an article on the said arm, to the said coil to produce a substantially equal and opposite torque, and means measuring the amount of D.-C. current applied to the said coil to hold the coil against substantial movement by the said article, the amount of D.-C. current being a measure of the weight of the article.

2,874,952
MACHINE HAVING ROLLING PRESSURE DEVICE FOR SPLINED SHAFTS AND THE LIKE
Earl D. Dammert and Wesley W. White, Webster, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York
Application February 23, 1956, Serial No. 567,193
8 Claims. (Cl. 266—6)



8. A quenching press or like machine in which there are spaced centers to support a rod-like workpiece for rotation, means for effecting such rotation, a device for exerting pressure, in a direction generally radial of the axis of rotation, upon a portion of the workpiece intermediate of the ends of the latter, means to actuate said device, a sleeve arranged to telescope over the workpiece and means to shift the sleeve between a first position wherein it is beyond one end of the workpiece and a second position wherein it encircles said portion of the workpiece for distributing to it pressure exerted by said device, a loader movable to carry a workpiece between a transfer position aligned with the centers and a loading position, quenching means to apply a liquid quenching medium to the workpiece, and control means for operating the machine to in sequence (*a*) move the loader to carry a workpiece from loading to transfer position, (*b*) move the said one of the centers to grip the workpiece, (*c*) return the loader to loading position, (*d*) rotate the workpiece, (*e*) apply pressure to said portion of the workpiece intermediate the ends thereof, (*f*) apply quenching liquid to the workpiece for a period of time, (*g*) discontinue the application of pressure, (*h*) discontinue rotation of the workpiece, (*i*) move the loader to transfer position to engage the workpiece, (*j*) move said one of the centers to release the workpiece, and (*k*) move the loader to loading position, the control means being arranged to operate said means to shift the sleeve to: (1) shift the sleeve to said second position between aforesaid operations (*d*) and (*e*), and (2) shift the sleeve to said first position between aforesaid operations (*g*) and (*h*).

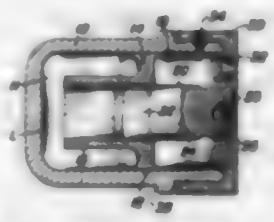
2,874,953
LINING FOR TITANIUM-CONTACTING APPARATUS
Jack A. Rogers and Paul R. Jucknies, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application August 20, 1956, Serial No. 605,161
2 Claims. (Cl. 266—43)

1. The process of preventing titanium sponge formed during the production thereof from adhering to the wall of a vessel containing it, composed of a material selected from the class consisting of graphite and carbon, which comprises bonding to the interior of said wall a lining formed by condensing a condensation mixture of phenol and formaldehyde to form a stage B resin, admixing therewith a hardening agent selected from the class consisting of dichloroacetic acid, trichloroacetic acid, and benzene sulfonyl chloride in sufficient amount to accelerate the rate of set of the thermosetting mixture after its



application, adding to said mixture a water-miscible solvent in sufficient amount to impart a consistency appropriate for application of said mixture, applying said mixture substantially evenly over the interior surfaces of the crucible to be lined, curing the thus-applied mixture in situ at room temperature from 0.5 to 2 hours, and subjecting it to a rising temperature of about 15° C. per hour until a temperature of about 400° C. is reached.

2,874,954
LIQUID SPRING
Robert F. Zumwalt, Tonawanda, N. Y., assignor to George F. Wales, Kenmore, N. Y.
Application September 21, 1956, Serial No. 611,243
6 Claims. (Cl. 267—1)

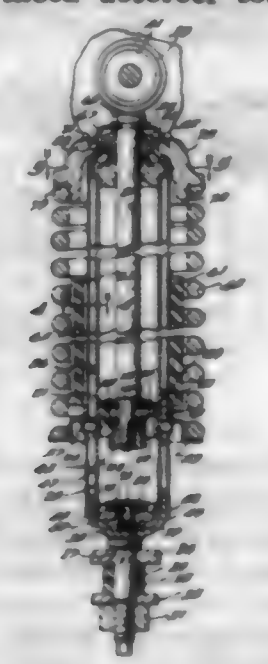


1. A liquid spring comprising a body having an opening therein closed at one end, a plug disposed intermediate the ends of said opening and forming with the closed end a chamber, a body of compressible material selected from a group consisting of compressible liquids and compressible solids in said chamber, said plug being formed with a guide cylinder extending into said chamber, a piston which is reciprocable in said guide cylinder, said piston being movable inwardly of said chamber under load to compress said material and being movable outwardly by said material when said load is released and said material is permitted to expand, a sealing member carried on said piston engaging said guide cylinder, said piston having a stem extending outwardly of said guide cylinder and chamber, a flange on said stem of larger diameter than said sealing member, and means carried by said plug providing a bearing surface wholly within said body for said flange, said flange being reciprocable upon reciprocation of said piston and in engagement with said bearing surface.

2,874,955
VEHICLE SUSPENSION SYSTEM
Brouwer D. McIntyre and William D. McIntyre, Monroe, Mich., assignors, by mesne assignments, to Monroe Auto Equipment Company, a corporation of Michigan
Application June 11, 1957, Serial No. 665,081
7 Claims. (Cl. 267—8)

1. In a suspension device, a hydraulic direct acting tubular shock absorber having relatively movable telescopic parts, a coil spring disposed substantially concentrically with respect to said shock absorber, means on one of said relatively movable shock absorber parts

engaging and supporting one end of said coil spring, means on the other of said relatively movable shock absorber parts engaging and supporting the opposite end of said coil spring, an elongated tubular spacer sleeved over said shock absorber for maintaining said



coil spring in a substantially concentric relationship with respect to said shock absorber, said sleeve having passageways therein permitting a flow of air between said sleeve and said shock absorber to permit said shock absorber to remain cool in operation.

2,874,956

LEAF AND AIR SPRING SUSPENSION

Donald J. La Belle, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 28, 1954, Serial No. 476,247
1 Claim. (Cl. 267—18)



A vehicle suspension comprising, in combination, a leaf spring linked at one end to the frame of the vehicle and connected substantially centrally of its length to an axle member, a radius rod pivotally connected at one end to said spring, the other end of said rod directly engaging a fixed pivotal connection on said frame adjacent the other end of said spring, a third connection on said rod engaging said spring to provide for sliding movement of the latter under load, the surface of said rod involved in said sliding movement having a contour operating to prevent undue distortion of said spring incident to braking action, and pneumatic spring means immediate said frame and said leaf spring disposed in a position substantially centrally of the length of the latter.

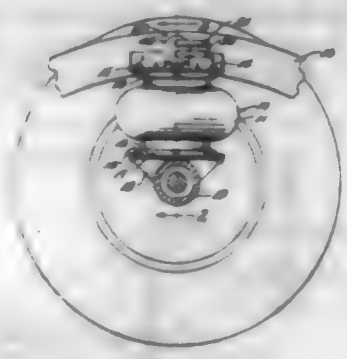
2,874,957

VEHICLE SUSPENSION

Ralph C. Davis, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application January 17, 1956, Serial No. 559,567
6 Claims. (Cl. 267—65)

1. A pneumatic suspension system for a vehicle having a frame member disposed apart from an axle comprising, an expansible bellows containing a cushion of air interposed between said frame member and axle, a first compression spring extending longitudinally into the interior of said bellows from said axle, a second compression spring extending longitudinally into the interior of said bellows from said frame member, a damping means positioned within said second spring and having a radial plate interposed between said springs and movable longitudinal-



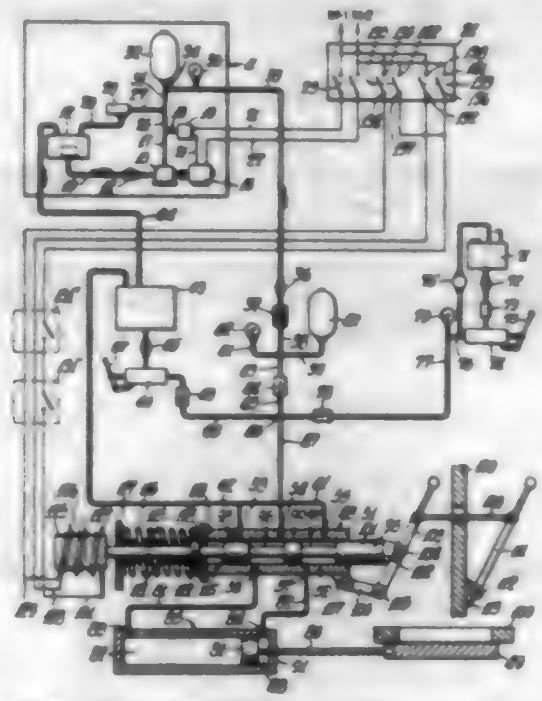
ly of said bellows in response to the resultant force of said springs, an air chamber above said frame member and damping means and communicating with the interior of said bellows, an air inlet port and an air outlet port leading to said chamber, valve means within said chamber selectively controlling passage of air through said ports, and connections between said damping means and said valve means to operate the latter in response to movement of said damping means.

2,874,958

CONTROL SYSTEMS FOR PARTITIONS OR THE LIKE

Jean Mercier, New York, N. Y.

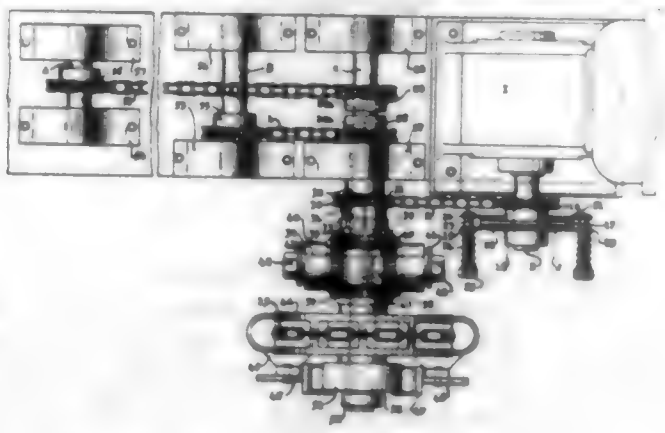
Original application September 6, 1951, Serial No. 245,367, now Patent No. 2,741,478, dated April 10, 1956. Divided and this application April 3, 1956, Serial No. 582,309
12 Claims. (Cl. 268—50)



12. A system for operating movable members, comprising a remote central control station, a power accumulator at each member for storing energy for local operation, a motor associated with each member for actuation thereof, a selector valve at each member controlling said motor and adapted to connect said power accumulator to said motor to move the member between a safety position and another position, resilient means normally urging said selector valve to said safety position, a second motor adapted when actuated to overcome said resilient means, and means at said remote central control station controlling said second motor whereby upon de-actuation thereof said resilient means will move the selector valve to said safety position, said se-

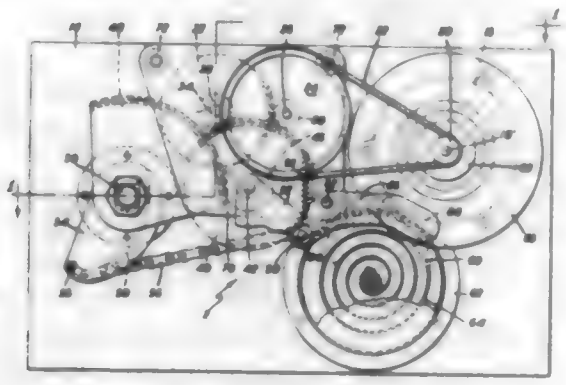
lector valve being adapted to be locally controlled to overcome the force of said resilient means to move the selector valve to said other position.

2,874,959
TRANSMISSION MECHANISM SELECTABLE OPERABLE BY EITHER OF TWO POWER SOURCES
Arthur E. Fentiman, Ottawa, Ontario, Canada, assignor to F. Fentiman & Sons, Ltd., Carleton, Ontario, Canada
Application January 18, 1956, Serial No. 559,996
5 Claims. (Cl. 268—59)



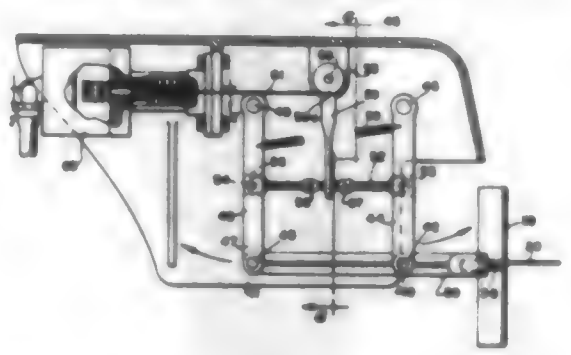
2. An overhead door operating mechanism comprising a drive shaft, a unitary driven shaft, a differential axle formed with an enlargement intermediate of its length and having an orifice through which the driven shaft passes, said enlargement being rigidly connected to the driven shaft and axle, mitre gears rotatably mounted on the ends of the differential axle, mitre gears rotatably mounted on the driven shaft and meshing with the mitre gears on the axle, means for transmitting rotary motion from the drive shaft to one of the mitre gears on the driven shaft, means for holding the other mitre gear on the driven shaft against rotation, flexible door operating means and means on the driven shaft to actuate the flexible door operating means.

2,874,960
ELECTROMAGNETIC DOOR CHECK
Vernon Durbin, Waban, and Ernest W. Johnson, Randolph, Mass., assignors to National Pneumatic Co., Inc., Boston, Mass., a corporation of Delaware
Application August 26, 1954, Serial No. 452,292
19 Claims. (Cl. 268—65)



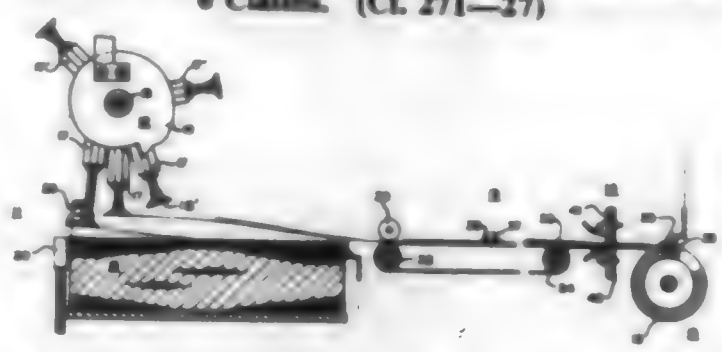
1. A check for a movable member such as a door or the like comprising a source of magnetic field, an element adapted to be moved when the door is moved only in one direction and operatively associated with said magnetic field so that when said door is moved in said direction electromagnetic interaction occurs between said element and said field to produce a door checking action, and means operatively connected to said door, sensitive to the position thereof, and effective to control said electromagnetic interaction solely in accordance with the door position.

2,874,961
APPARATUS FOR GUIDING TRAVELING WEBS
Jack Reed Kelly, Kennett Square, Pa., assignor to The Pusey & Jones Corporation, Wilmington, Del., a corporation of Delaware
Application November 8, 1956, Serial No. 621,119
24 Claims. (Cl. 271—2.6)



5. A guide for a traveling web such as a wire or felt, comprising an edge follower shiftable in accordance with changes in the position of the edge of the traveling web, a guide roll having a journal at one end mounted for transaxial movement, means for moving said journal comprising a fluid motor assembly having a movable element connected to the journal, means for delivering air to the motor at varying pressure to vary the position of said movable element and means responsive to the position of the edge follower for controlling the pressure of the air delivered to the motor.

2,874,962
SHEET FEEDING SYSTEM FOR PRINTING PRESSES AND THE LIKE
Paul W. Layden, Salem, Ohio
Application November 16, 1953, Serial No. 392,110
6 Claims. (Cl. 271—27)

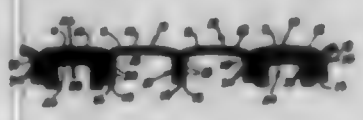


6. In a sheet feeding and registering system comprising conveying means operative to feed sheets one at a time from a pile thereof into other apparatus in rapid stream-feed relation, a guide member positioned adjacent said conveying means, means to supply suction to each of said sheets independently of said conveying means for urging the same toward said guide member, said last mentioned means comprising means to apply an initial value of suction, said last mentioned means further comprising means to progressively change said suction as said sheet moves toward and abuts against said guide member, said means to apply comprising a rotating wheel mounted for movement toward and away from said conveying means, and switch means associated with said wheel operative in the simultaneous passage adjacent said wheel of more than one sheet thickness to stop said sheet feeding and registering system.

2,874,963
ARTICLE FOR USE IN A SUSPENDED POSITION
Myer M. Glauberg, Revere, Mass., assignor to American Stay Company, Malden, Mass., a corporation of Massachusetts
Application April 24, 1957, Serial No. 654,952
6 Claims. (Cl. 272—78)

1. An article of the class described, comprising a plurality of sections forming a body, each said section em-

bodying seam pieces at opposite sides which extend angularly, each said seam piece of one said section lying alongside a said seam piece of another said section to provide pairs of said seam pieces, a supporting anchor extending between two said pairs of seam pieces, and means uniting opposite side portions of said supporting



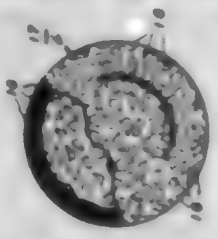
anchor to the latter two said pairs of seam pieces, two said sections each having a hole therethrough, one latter said section being attached to said supporting anchor, and said supporting anchor having a hole therethrough, said holes being so positioned that a supporting member may extend into all said holes.

2,874,964

DECORATIVE HOLLOW PLAY BALLS

Philip B. Edwards, Berryville, Va., assignor to Bayshore Industries, Inc., Elkton, Md., a corporation of Maryland

Application July 9, 1957, Serial No. 670,831
3 Claims. (Cl. 273—58)



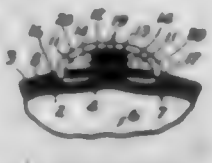
1. A decorative, elastic, hollow playball the walls of which are composed of clear and transparent polyvinyl plastic having imbededd therein, below the outer surface thereof, highly decorative, multi-colored chips of vinyl plastic sheeting heterogeneously distributed in random fashion throughout the walls, said chips being present in number sufficient to provide scattered color spots but insufficient substantially to affect the clarity and transparency of the walls, thus providing a pleasing double visual effect when viewed through the ball inasmuch as chips in the rear wall as well as those in the front wall of the ball are visible to the eye.

2,874,965

MOLDED RUBBER FOOTBALL

Orville R. Martin, Greensburg, Pa., assignor to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application February 28, 1957, Serial No. 643,133
5 Claims. (Cl. 273—65)



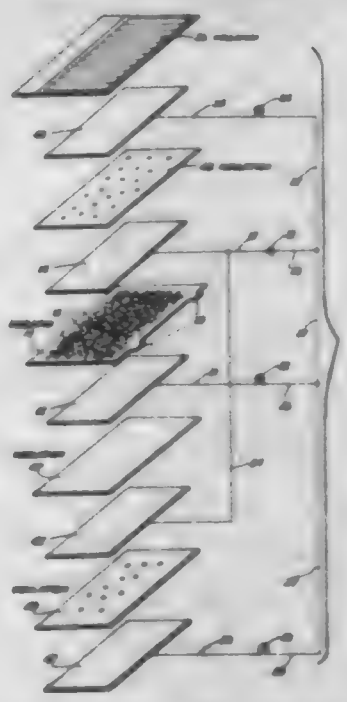
1. A molded rubber football comprising an impervious inflatable rubber bladder having an inflation valve, a rubberized fabric carcass enclosing said bladder and bonded thereto, an outer cover coextensive with said carcass and enclosing the same, said cover being disconnected from the carcass within a small area to form a pocket between the cover and the carcass, said cover having flap portions overlying said pocket with two parallel rows of equally spaced lacing holes therethrough of a size to receive the lacing and a slit located midway between and parallel to said rows of holes, the holes of one row being laterally aligned with those of the other row, said flap portions having lacing-supporting ribs of substantially uniform height extending longitudinally substantially the length of said rows at the margins of said slit and parallel to said slit and having transverse trianguloidal lacing-supporting ribs on opposite sides of said longitudinal ribs aligned with said lacing holes, each transverse rib extending between a lacing hole and a longitudinal rib and having an outer surface spaced radially outwardly from the outer surface of said longitudinal rib a distance corresponding substantially to the thickness of the lacing.

2,874,966

ELECTRICAL CONTACT BOARD GAME

Joseph E. Kerwin, West Allis, Wis.

Application August 11, 1953, Serial No. 373,624
7 Claims. (Cl. 273—93)



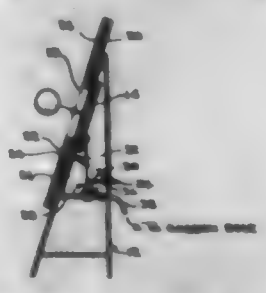
1. A game comprising the combination of a pair of sheets of paper thin conductive foil with one of said sheets superposed over the other, a playing field disposed over said sheets and constituting an unbroken cover over said sheets, separator means in the form of a leaf of electrical insulating material loosely disposed between said sheets to be slidable with respect to said sheets to different positions, said leaf being formed by a plurality of paths of said insulating material that criss cross with relatively small isolated areas void of said insulating material each bounded by said paths, and circuit means including an electrical source, an indicator connected to said source with one terminal of said circuit means comprising a first of said sheets and the other terminal of said circuit means comprising the second of said sheets.

2,874,967

WATER TARGET

Donald W. Therean and Henry A. Nordstrom, Minneapolis, Minn.

Application July 29, 1957, Serial No. 674,753
9 Claims. (Cl. 273—102.1)



1. In a device of the class described comprising a target, said target consisting of a body portion provided with an opening, a member normally mounted to cover said opening, pipe means provided with spaced apart apertures mounted on the body portion of the target, a water supply line connected to the pipe means on the target, a valve mounted in the water supply line, a link

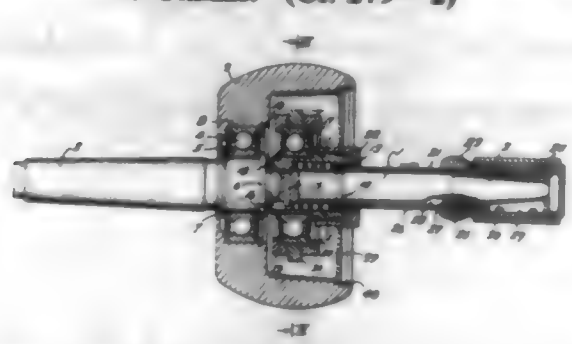
connected between the member and the valve for actuating the member to cover and uncover the opening in the body of the target and for actuating the valve to open and closed positions in the water supply line, the valve being in closed position in the supply line when the member covers the opening in the target, the valve being moved to open position in the supply line when the member is moved from the opening in the target thereby spraying water from the pipe means on the target.

2,874,968
ARROW HEAD
Edward J. Zielinski, Royal Oak, Mich.
Application November 23, 1956, Serial No. 624,061
1 Claim. (Cl. 273—106.5)



An arrow head comprising a single flat substantially triangular blade having a sharp point and sharp side edges leading backwardly from said point and an interconnecting blunt edge side opposite to said point; said blade being notched out in its central area from a point spaced from said point and leading through said interconnecting blunt edge side for receiving an arrow shaft therein; paired like half-socket members together constituting a shaft full socket welded to said blade in overlying relationship to said blade notch; each said half socket member having two paired substantially quarter circle arc knife blades attached thereto leading from either side of said socket member and curving toward one another and spiralling upwardly toward said blunt side and terminating in barb-like points just short of contact, said quarter arc knife blade being on a substantial radius concentrically surrounding said shaft socket so as to cut a much larger hole in an animal body than occupied by an arrow shaft to facilitate profuse bleeding.

2,874,969
EXPANDING WORK SUPPORT FOR MACHINE TOOLS
Walter Sommer, Leonberg, Germany, assignor to SKF Kugellagerfabriken G. m. b. H., Schweinfurt, Germany
Application June 25, 1956, Serial No. 593,481
Claims priority, application Germany June 24, 1955
10 Claims. (Cl. 279—2)



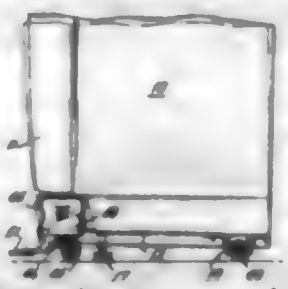
1. A work supporting attachment for a machine tool, comprising, in combination, an elongated bar adapted to rotate about its axis and having a free end portion adapted to be releasbly connected with the drive spindle of a machine tool; a sleeve through which said bar extends, said sleeve being shiftable axially along said bar and being constrained to rotate therewith; manually operable shifting means operatively connected to said sleeve for shifting the same on said bar; connecting means engaging said sleeve and bar for releasably connecting a workpiece to said sleeve and bar, said connecting means being actuated by the shifting of said sleeve in one direction along said bar to release a workpiece and by the shifting of said sleeve in an opposite direction along said bar for connecting a workpiece to said sleeve and bar for rotation therewith; and support means carried by said bar and supporting said shifting means.

2,874,970
CONVERTIBLE SKATES
Willis B. Mall, Union City, Pa.
Application May 31, 1957, Serial No. 662,749
4 Claims. (Cl. 280—7.13)



1. In a convertible skate the combination, with a shoe, and with a roller skate frame including a frame plate affixed to said shoe and a pair of mounting units affixed to the frame plate at locations spaced longitudinally of the frame plate, each unit including two depending projections spaced longitudinally of the frame plate, one projection of each unit having a downwardly opening, threaded socket, of an ice skate assembly comprising: an elongated support plate having portions which slope upwardly from the intermediate portion of said support plate, said sloped portions having upper ends formed with apertures, the sloped portions having openings inwardly from said apertures, the apertures receiving one projection of the mounting units and the openings registering with the other projections of the units; a blade having a plurality of fixed connections to said support plate; and connecting bolts extending through the respective openings and engaged in said sockets.

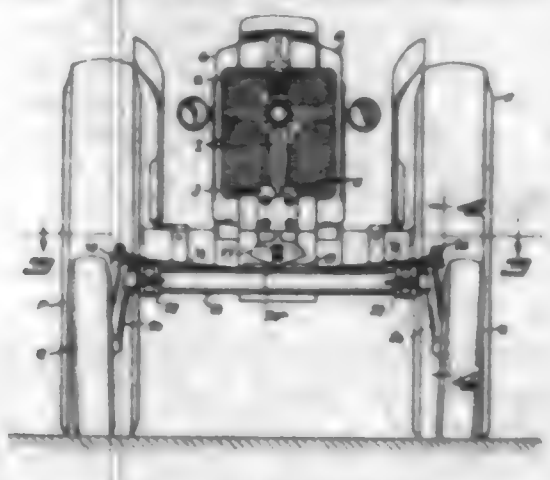
2,874,971
APPLIANCE CABINET STRUCTURE
Michael H. Devery, Ambler, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application December 23, 1955, Serial No. 554,948
7 Claims. (Cl. 280—46)



1. In an appliance structure, a cabinet bottom having front and back portions and a pair of sides; foot support means mounted on the cabinet bottom adjacent one of said portions; a pair of roller units mounted on the cabinet bottom, one adjacent each side, near the opposite one of said portions; means for substantially permanently vertically adjusting and locking each of said roller units relative to said bottom so that the cabinet normally stands firmly on the foot support means and the two roller units; and an auxiliary support means mounted on the cabinet bottom adjacent the first named portion and comprising: additional roller means, a structure supporting the additional roller means, cam means and follower means jointly adapted to raise and lower

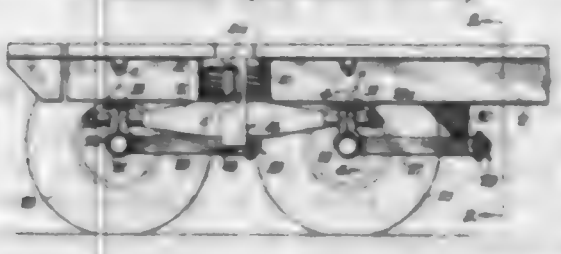
said structure, relative to said cabinet bottom, by rotation and return of said cam means relative to said follower means, and means for temporarily locking the cam means to the follower means with the roller supporting structure and the additional roller means lowered relative to the cabinet bottom, so that the appliance structure can then roll on the pair of permanently vertically adjusted roller units and the lowered additional roller means.

2,874,972
TRACTOR FRONT END SUSPENSION
Hans J. Andersen, Minneapolis, and William E. Swenson, St. Paul, Minn., assignors to Minneapolis-Moline Company, Hopkins, Minn., a corporation of Minnesota
Application April 11, 1956, Serial No. 577,464
2 Claims. (Cl. 280—92)



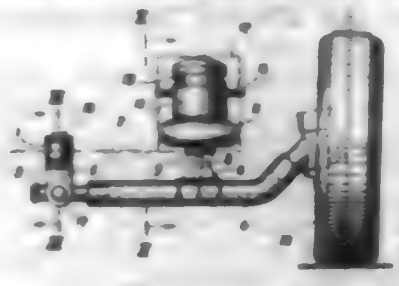
2. In a tractor having a frame and rear traction wheels, a steerable member journaled in the frame and having a steering head located immediately beneath said frame, the steering head having a wedge-shaped dovetail groove in its underside for mounting a front wheel standard having at least one front wheel and having a wedge-shaped tenon to fit said groove whereby said standard may be removed in its entirety from the steering head to change to a wide spread front wheel suspension, which suspension comprises an axle, front wheels steerably mounted at the ends of said axle, a rearwardly extending yoke member rigidly secured to the axle and having a central portion spaced rearwardly from the central portion of the axle, front and rear brackets mounted on the frame, coaxial pins pivoting the centers of the axle and the yoke member to said brackets to provide for upward and downward oscillation of the opposite ends of the axle, a wedge-shaped steering plate removably mountable in the groove in said steering head when the said standard is removed therefrom, and tie rods connecting the steering plate to steer the wide spread front wheels.

2,874,973
TANDEM AXLE VEHICLE SUSPENSION
Lawrence A. Botkin, Kansas City, Mo., assignor to Butler Manufacturing Company, a corporation of Missouri
Application January 15, 1957, Serial No. 634,279
7 Claims. (Cl. 280—104.5)



1. In a tandem trailer assembly, an elongate frame, two tandem axles spaced longitudinally of said frame and providing a forward and a rear axle, two pairs of wheels, one pair on each axle, a draft tongue for each axle extending forwardly thereof, means universally pivoting the forward end of each draft tongue to said frame to provide for independent angular movement of the axles relative to one another, a pair of spaced fore-and-aft beams spanning said axles, means universally pivoting the end portions of said beams to the respective axles, said means constructed and arranged to permit movement of said end portions relative to said axles in a direction transverse to said axles, two pairs of spaced guide members, one on each side of said frame, the respective guide members extending downwardly on opposite sides of the respective beams whereby each beam is disposed between a pair of said guide members, means forming with said guide members a universal pivot for each beam, said means being constructed and arranged to permit upward and downward movement of said pivot relative to said guide members and yieldable means interposed between said frame and beams and supporting said frame thereon.

2,874,974
INDIVIDUAL WHEEL SUPPORT FOR VEHICLES
Paul Hollert, Duesseldorf, Germany
Application November 19, 1957, Serial No. 697,459
Claims priority, application Germany November 21, 1956
1 Claim. (Cl. 280—124)

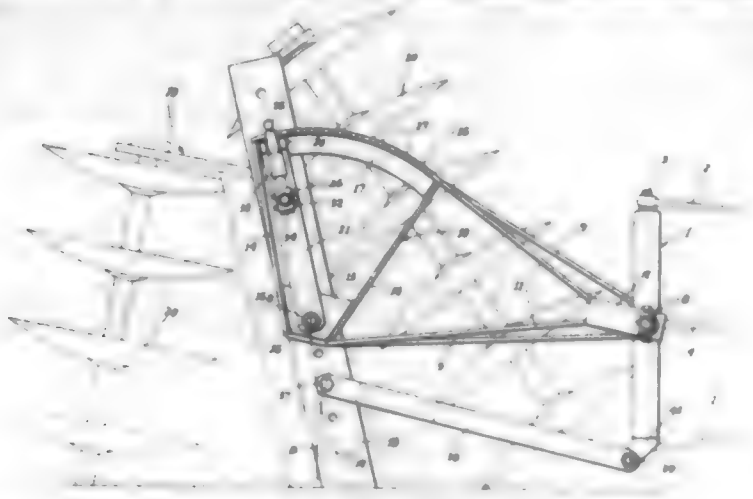


An individual wheel support for vehicles of all types comprising a half-axle carrying a wheel and a chassis, said half-axle being yieldingly connected with said chassis crosswise to the direction of movement of said vehicles, universal bearing means for mounting said half-axle for upward, downward, forward, rearward and axial movement, and a shock absorber disposed between said half-axle and said chassis, said shock absorber comprising a tubular body of resilient material, adapted to absorb the horizontal shocks, and a spring-biased member secured to said tubular body and having a spring, operative in vertical direction, said spring-biased member being adapted to absorb the vertical shocks, and said universal bearing means comprising a U-member rotatably mounted in said chassis upon a vertically disposed pivot, and a bridge member rotatably mounted in said U-member, for turning upon a horizontal axis, said half-axle being received in said bridge member and axially movable relative to the latter, said spring-biased member comprising a hollow cylinder pivotally connected with said half-axle, said resilient tubular body surrounding said hollow cylinder and engaging a housing receiving said shock absorbers, a piston reciprocating in said cylinder, and a helical spring disposed in said cylinder and urging said piston outwardly towards said housing.

2,874,975
ADJUSTABLE HITCH FOR OFFSET DISC PLOWS
Frank M. Fraga, Fresno, Calif.
Application January 20, 1958, Serial No. 709,886
6 Claims. (Cl. 280—467)

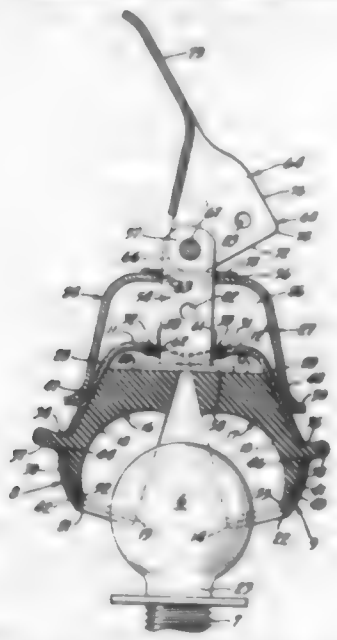
1. A hitch for a disc gang having a transverse frame beam comprising, with a tractor-connected frame, a rigid draft unit extending rearwardly from the frame and at its rear end overhanging said beam, means pivoting the draft unit at its forward end on the frame for swivel movement in a horizontal plane, a vertical pivot connection between the draft unit at its rear end and the transverse beam, means to releasably lock the draft unit to said beam against relative swinging movement, a rigid swing control bar extending from the frame to the transverse

beam in laterally offset relation to the draft unit, a vertical pivot connection between the frame and said bar at the forward end of the latter and laterally offset from the pivot connection of said draft unit with the frame, and a vertical pivot connection between the rear



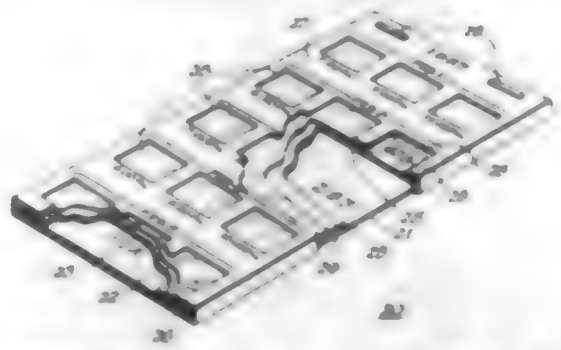
end of the bar and the beam in laterally offset relation to the pivot connection of the draft unit therewith a distance less than the lateral offset of the forward end of the bar from the adjacent pivot connection of the draft unit.

2,874,976
BALL AND SOCKET COUPLING WITH RESILIENT LINER
Frank F. Linn, Oakland, Calif.
Application March 29, 1954, Serial No. 419,172
6 Claims. (Cl. 280—512)



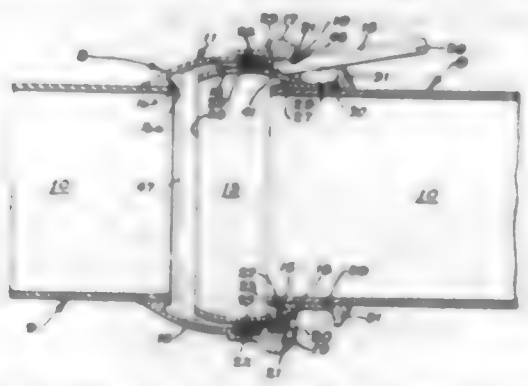
6. A connector for coupling trailers to automotive vehicles and the like having a spherical coupling ball comprising, a pair of clam shell sections having a hinged connection adjacent one end of each section for swinging movement of the sections from a spaced-apart open position admitting said ball therebetween to a closed position about said ball, said sections having inside surfaces of segmental spherical form dimensioned to embrace a majority of the periphery of said ball and having outside surfaces of frusto-conical form convergently tapered towards said ends, a bell-shaped housing formed to receive in mating engagement said outside section surfaces in closed position, means functioning to displace said sections in axial directions into and out of said housing to effect closing and to permit opening respectively of said sections, a pair of removable rubber insert members of concavo-convex form having convex outer surfaces detachably mounted upon said inside surfaces of said sections and having opposed inside concave recesses of substantially semi-spherical form engageable on opposite sides of said ball to provide a complete and exclusive rubber embrace of the majority of the periphery of said ball and having a thickness causing the compressive embrace of said ball within said recesses upon displacing of said sections to closed position, and a normally concavo-convex member of resilient material fastened to said first mentioned ends of said sections and being flatened to a spring-biased position in the closed position of said sections for displacing said sections to open position when displaced out of said housing.

2,874,977
CODE CARD DEVICE
George V. Morris, Chicago, Ill., assignor to Zenith Radio Corporation, a corporation of Delaware
Application February 14, 1957, Serial No. 640,241
1 Claim. (Cl. 283—6)



A code card device for use in a subscription television system comprising: an opaque base member having a surface constituted of a plurality of discrete areas individually bearing code indicia of an invisible ink; a transparent cover member overlying said surface of said base member, and means disposed between said base member and said cover member including a rupturable solid film containing a dispersed developer for said invisible ink normally withheld from contact with said indicia and color reactant with said invisible ink upon contact therewith in response to application of localized pressure rupturing said film to impart a permanent distinctive hue to said code indicia in contrast to said base member.

2,874,978
PIPE COUPLING HAVING A MANUALLY OPERATED LATCHING MEANS
Robert E. Stilwell, Santa Clara, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application March 2, 1955, Serial No. 491,669
1 Claim. (Cl. 285—5)



A coupling for pipes adapted to carry fluid under pressure, comprising a hollow bell member having a pipe receiving opening in one end and a spigot receiving opening in the other end, the inner surface of said bell member having the form of a spherical segment, stop means disposed interiorly of said bell member about said pipe receiving opening, an inturned flange on said other end of the bell member around said spigot receiving opening and defining an inwardly opening locking groove, a spigot member having a portion in the form of a spherical segment insertable into said bell member, the inner end of said spigot member being substantially normal to the axis of said spigot member, an annular

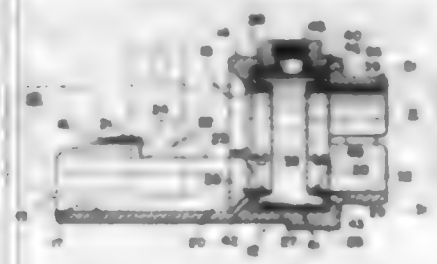
groove in said bell member spaced inwardly from said locking groove and having an annular resilient gasket therein for sealing the space between said bell and spigot members, a locking ring of resilient material comprising an open annular loop loosely encircling said spigot member, said open loop being contractable for insertion into the annular locking groove of said bell member through the annular opening remaining between said spigot member and the inturned flange of said bell member after insertion of the spigot member thereinto, radially projecting lugs on the outer end of said spigot member and disposed in circumferentially spaced relation thereabout, the annular locking groove of said bell member being spaced from said lugs a distance substantially equal to the axial dimension of the locking ring when said inner end of the spigot member is seated against said stop means of said bell member, said locking ring open loop terminating in a pair of angularly disposed loop contracting handles extending in a substantially axial direction from the ends of said loop, said handles extending between said lugs and beyond the adjacent end of said spigot member, said locking ring when in alignment with said locking groove being expandable by its own resiliency into said locking groove, and means on said locking ring at the juncture of said handles and said open loop for receiving said inturned flange of said bell member to insure seating of the expanded ring in said locking groove, said locking ring when expanded into said groove having an internal diameter less than the maximum diameter of said spherical segment portion of the spigot member to restrain the spigot member from movement outwardly of the bell member.

2,874,979

IRRIGATION COUPLING WITH A REMOVABLE SEAL

Elliot Shohan, San Bernardino, Calif.

Application August 9, 1954, Serial No. 448,469
5 Claims. (Cl. 285—6)



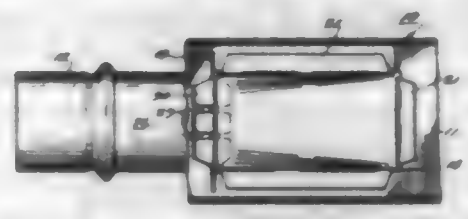
1. An irrigation pipe coupling, comprising a longitudinally horizontally extending tubular body, an upwardly opening trough shaped end extension projecting longitudinally and rearwardly from said body, said extension having a pair of laterally spaced upstanding shoulders integral with the extension and facing said tubular body in longitudinally spaced relation therewith, said extension also having a pair of laterally spaced upper edges extending forwardly of said shoulders, an axially elongated pipe having its forward end inserted into and loosely fitting the open end of said tubular body with said pipe end adapted to be longitudinally movable and pivotally supported within said tubular body, and a pair of laterally spaced projections on said pipe end respectively seated on the extension upper edges forward of said shoulders and supporting the pipe, said projections being movable with the pipe into engagement with said shoulders for holding the pipe against endwise removal from said tubular body, said pipe being adapted to be upwardly inclined remotely from and relative to said tubular body while remaining supported thereby to raise both of said projections above said shoulders so that the projections will clear said shoulders upon rearward pipe movement withdrawing the pipe end from said tubular body, a second axially elongated pipe having its rearward end inserted into the opposite open end of said tubular body, clamp means having a substantially semicircular groove fitting said rearward pipe end formed integral with and projecting forwardly from said tubular body, a clamp member having a substantially semi-circular groove fitting the opposite side of said rearward pipe end, means removably attaching said clamp member to said body and clamping said clamp means and said clamp member on said rearward pipe end, an annular inwardly facing groove in said tubular body, one end of said annular groove being adjacent the rearward end of said tubular body and the other end of said annular groove being formed by the rearward ends of said clamp means and said clamp member, a lateral pipe receiving opening in said tubular body centrally of said annular groove, a one-piece tubular rubber seal received in said body and having re-entrant annular lips surrounding the inserted pipe ends for sealing engagement therewith, said seal lips and pipe ends being longitudinally spaced apart in said body, and an opening in said seal between said lips aligned with said pipe receiving opening, said clamp member blocking the end of said seal and being removable from said body to facilitate endwise withdrawal of the seal from said body.

2,874,980

END TO SIDE SHEET METAL FITTING HAVING AN OPENING WITH SLITS IN THE SIDE

Bert H. Browning, Burlington, Ontario, Canada

Application April 7, 1955, Serial No. 499,995
5 Claims. (Cl. 285—189)



1. A sheet metal duct connection comprising a flat sheet having a rectangular opening with slits extending in line with one side edge of said opening outwardly from the two adjacent side edges in opposite directions, a duct having a rectangularly formed mouth adaptable for attachment to said rectangular opening, three of the edges of said mouth being folded substantially S-shaped to form external channels around the corresponding three sides of said mouth for slipping over the remaining edges of said rectangular opening, the distance between the bottoms of the channels in the opposed edges of said duct mouth being less than the distance between opposed edges of the opposed sides of the said remaining three sides of the opening, the distance between outer edges of said opposed channels being greater than the distance between said opposed edges but less than the length of one side edge with its slits, the fourth edge of said mouth having an inwardly bent flange for bending over the said one side edge of said rectangular opening to fix said connection after the side channels have been slipped into place by starting them over the slitted ends of the opposite side edges of said rectangular opening and moving the mouth over said opening.

2,874,981

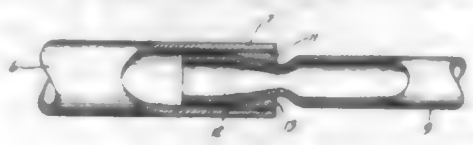
COUPLING BETWEEN RIGID AND NON-RIGID TUBULAR MEMBERS WITH COLLAPSIBLE BUSHING FOR HOLDING THE MEMBERS ASSEMBLED

Sherwood Joshua Brady, Walnut Creek, Calif., assignor to Cutter Laboratories, Inc., a corporation of California

Application March 18, 1955, Serial No. 495,206
1 Claim. (Cl. 285—238)

In combination, a rigid cylindrical outer tube having a roughened inner surface defining an inner terminal end

of said tube, a resilient cylindrical inner tube having one end thereof concentrically positioned within said terminal end of the rigid tube, and a resilient tubular member having the outer surface thereof in surface to surface engagement with the said roughened inner surface and having a tubular bore therein fitting snugly on the inner tube, said member prior to assembly of the joint having the form of a truncated cone, the base of said cone having a diameter greater than that of the bore of the rigid



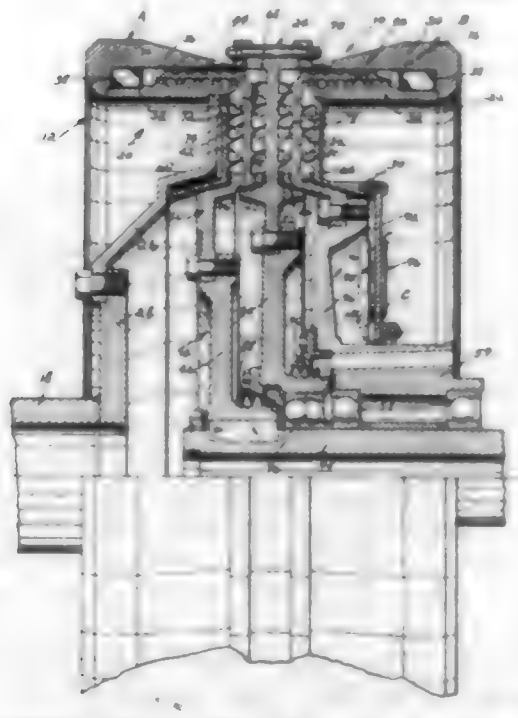
tube the diameter of the bore at the base of the said cone being substantially equal to the outer diameter of the said inner tube, said tubular member being totally confined between the inner tube and the roughened surface of the end of the outer tube to compress the flexible inner tube and retain the inner tube in position in the outer tube, the reduction in diameter of the resilient parts in the assembled joint producing radial forces that maintain the parts assembled.

2,874,982

SEAL FOR RELATIVELY ROTATABLE PARTS

Martin P. Winther, Gates Mills, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application March 25, 1954, Serial No. 418,514
4 Claims. (Cl. 286—10)



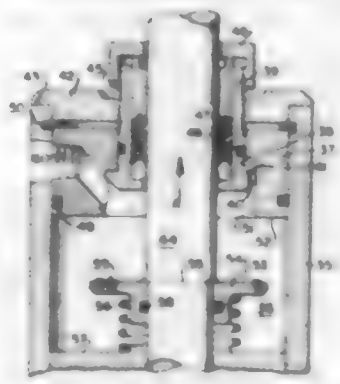
1. A sealing means for effecting a seal between parts at least one of which is rotatable relative to another part about a rotational axis, said parts defining a chamber, said one rotational part including a wall portion having an inner periphery disposed in spaced relationship to the another part to define therebetween a space to be sealed, said space providing communication between the chamber and atmosphere externally thereof, said wall portion having opposed side portions and an elongated fan assembly carried by each side portion, said fan assemblies being of different effective sizes and extending generally radially outwardly relative to the rotational axis from closed end portions adjacent the inner periphery of the wall portion, said wall portion having an opening therethrough adjacent the closed end portions of each fan assembly providing communication therebetween, one of said fan assemblies having the radial outer end portion thereof in communication with the chamber with the other fan assembly being in communication with atmosphere through the radial outer end portion thereof, whereby rotation of said one part induces a subetantially centrifugal air flow to seal the space between the parts with the air flow being from atmosphere through the space into the chamber and generally radially outwardly therethrough into the one fan assembly then generally radially inwardly therethrough to the opening and generally radially outwardly through the other fan assembly to atmosphere.

2,874,983

HYDRAULIC CYLINDER ROD SEAL MECHANISM

Richard M. Densmore, Los Angeles, Calif.

Application August 26, 1954, Serial No. 452,407
4 Claims. (Cl. 286—12)



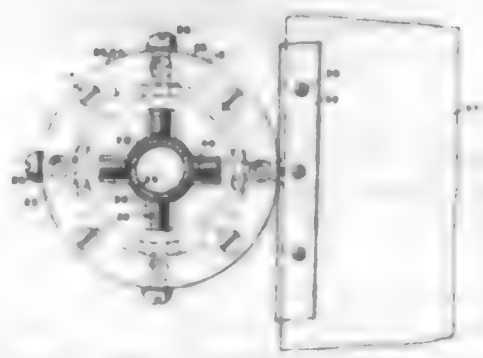
1. In a hydraulic cylinder rod seal mechanism, a cylinder, a bushing removably retained in one end of said cylinder, a packing gland removably positioned in said bushing, sealing means in said gland, a rod extending therethrough, second and third sealing means arranged to seal said bushing relative to said cylinder and to seal said packing gland relative to said bushing, said packing gland being provided with a shoulder having engagement with said bushing and a nut screw-threaded on said packing gland and abutted by said cylinder in opposition to said shoulder.

2,874,984

CONNECTOR FOR DISPLAY FURNITURE AND SCAFFOLDING

Frank J. Bernard, Toronto, Ontario, Canada

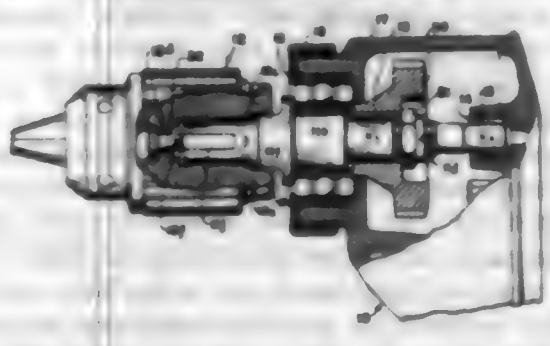
Application May 13, 1954, Serial No. 429,623
12 Claims. (Cl. 287—14)



3. A connector for joining structural elements to be extended in various directions comprising a body having an internal trackway opening to the perimeter of the body through a reduced passage, a holder for a structural element, and means for clamping said holder to the perimeter of said body in adjusted positions along said trackway, said clamping means comprising a nut and a bolt having a threaded shank and a head, said nut being slidably received in said trackway and extending into said trackway at each side of said reduced passage, said bolt having its head overlying said holder and extending beyond each side of said reduced passage at the perimeter of said body and having its shank extending through an opening in said holder and through said reduced passage and threadably engaging said nut in said trackway, said bolt on threading into said nut acting to draw said nut outwardly towards the perimeter of said body against

the wall of said trackway either side of said reduced passage, and to draw said bolt head inwardly towards the perimeter of said body to clamp said holder thereto.

2,874,985
DRILL CHUCK AND SPINDLE CONNECTION
Clifton J. March, Phoenix, Md., assignor to The Black & Decker Manufacturing Company, Towson, Md., a corporation of Maryland
Application March 28, 1957, Serial No. 649,039
2 Claims. (Cl. 287—53)



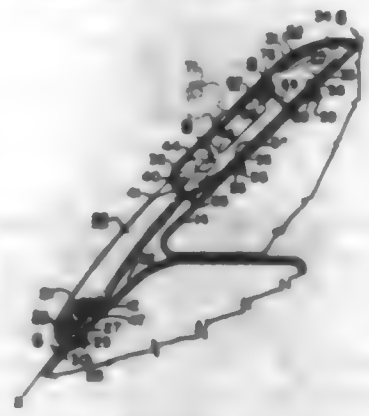
1. For a rotational driving connection of a portable electric drill spindle to the body of a chuck with tool bit shank engaging jaws: a spindle having a tongue formation extending diametrically across the rotational axis thereof and a coaxial male tapered formation projecting and converging endwise from the tongue formation, a chuck having a body with a coaxial female tapered bore formation opening at one end of the body and a slot formation extending diametrically across the opening of said bore formation, said formations of the chuck body being respectively adapted to receive the spindle taper and tongue formations, and cooperating means for retaining the tapered portion of the spindle seated in the bore and the tongue and slot formations in driving engagement; said means comprising a threaded coaxial bore running endwise into the male tapered formation, a coaxially apertured wall formation in the chuck body between the female tapered bore thereof and the jaw carrying end of the chuck, and a headed retaining screw bearing on and extending through said wall into threaded engagement with said threaded bore whereby the spindle and chuck may be clamped together or released from each other by rotation of said screw, said screw being accessible for rotational engagement by a tool inserted axially into the chuck from the jaw end thereof.

2,874,986
FLUSH LATCH CONSTRUCTION
Bernard W. Hearichs, Northridge, Calif., assignor to Clark Hartwell, doing business as Hartwell Aviation Supply Company, Los Angeles, Calif.
Application December 24, 1956, Serial No. 630,143
9 Claims. (Cl. 292—167)



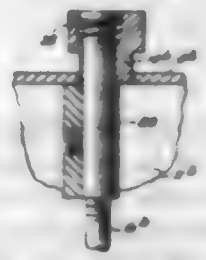
8. A flush latch construction, comprising: a body structure having a handle slot therein; a handle lever dimensioned to fill and close said slot, said handle lever having a secondary fulcrum means near one end and a primary fulcrum means between said secondary fulcrum means and the remote end of said handle lever; a bolt slidably guided by said body structure; link means connecting said bolt and handle lever; and a lost motion connection between said handle lever and said body structure slidably receiving said secondary fulcrum means whereby the end of said handle lever adjacent said secondary fulcrum means may be depressed into said body structure to cause pivotal movement of said handle lever about said primary fulcrum means, to elevate the remote end of said handle lever for manual engagement prior to withdrawal of said bolt, said handle lever thereupon being pivotable about said secondary fulcrum means to withdraw said bolt.

2,874,987
ADJUSTABLE CLOSING DEVICE FOR A BURIAL CASKET
Carrel D. Cole, Houston, Tex., assignor of fifty percent to Carl E. Creasy and fifty percent to Elwood E. Creasy, both of Bluefield, Va.
Application April 5, 1955, Serial No. 499,370
4 Claims. (Cl. 292—247)



3. An adjustable closing device adapted to be mounted on the body shell and hinged top closure panel of a casket for pulling the panel in aligning relation to the shell, comprising a dog adapted to be secured to the casket shell at its portion opposite that to which the panel is hinged, said dog comprising a shank adapted to penetrate the casket shell and securing the dog thereto, and a head at the end of said shank adapted to be spaced from the casket shell; a link of U-shape comprising a pair of arms and a bight portion provided with a V-shaped pocket opening into said bight portion with the outermost edge of the lowermost wall of said pocket spaced inwardly of the outermost edge of the uppermost wall thereof, forming a rearwardly and downwardly opening V-shaped pocket, the uppermost wall of said pocket overlying said dog when said link is in engagement with said dog, concealing said head of the dog, and acting as a guide for said head of the dog as said link is moved into dog engaging relationship with the apex portion of said pocket engaging the said head of the dog; and means adapted to be secured to the casket panel at the top marginal portion thereof opposite that to which the panel is hinged, operatively connected to said arms of the link, opposite said bight portion thereof, for tensioning said link between said means and the engaging apex portion of said pocket and said head of the dog.

2,874,988
SAFETY LOCK FOR DOORS
Stanley J. Sage, Brookline, and Eugene H. Dana, Canton, Mass.
Application May 25, 1956, Serial No. 587,272
1 Claim. (Cl. 292—347)



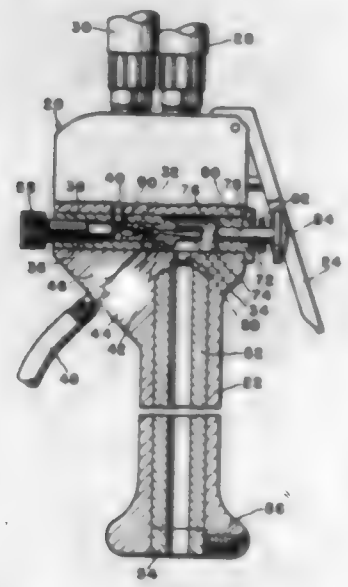
A push-button construction for use with the operating rod of a door latch mechanism comprising upper and lower push-button sections, said lower section having a tubular extension eccentrically disposed and secured therein, said extension being fixed to the operating rod, the upper push-button section having the tubular exten-

sion resiliently and slidably supported therein, and said upper and lower push-button sections having adjacent surfaces relieved to form complementary engaging shoulders rotatable into and out of locking engagement with one another.

2,874,989
CONTROL FOR HOISTS

Harold C. Reynolds, Athens, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a corporation of New Jersey

Application April 27, 1955, Serial No. 504,130
2 Claims. (Cl. 294—64)



2. In a suction cup lifting device a suction cup, a housing having a projecting handle portion, an air jet ejector mounted in the housing and comprising a nozzle, a suction chamber, and a diffuser, a conduit connecting the suction cup to the suction chamber for fluid flow therebetween, the housing having an exhaust passage therein and extending through said projecting handle portion communicating with the diffuser for fluid flow and a thumb operable spring pressed plunger extending into the housing in alignment with but normally out of engagement with the diffuser and provided with a head to close the end to the diffuser when actuated against such spring pressure to cause fluid to flow from the nozzle into the suction cup.

2,874,990
BEAM TONGS

Daniel L. Janoff, Mount Lebanon, Pa., assignor to Heppenstall Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application August 18, 1955, Serial No. 529,271
5 Claims. (Cl. 294—86)

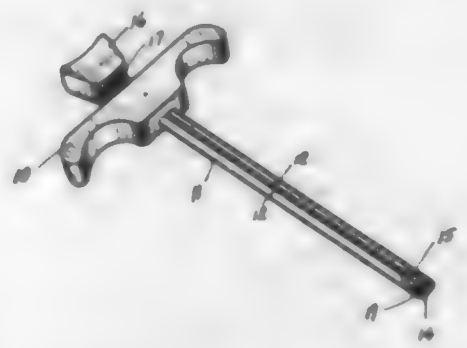


1. In a beam tongs, in combination, a unitary horizontal beam, a pair of parallel links extending downwardly and outwardly toward one side of said beam, a second pair of parallel links extending downwardly and outwardly toward the other side of said beam, the spacing of said links in each of said pairs being approximately equal to the width of said beam, said respective pairs of links being pivotally connected at the upper ends thereof, a traveler surrounding each side of said beam, said travelers having side plates adjacent the respective sides of said beam, a pair of rollers extending between said side plates in each of said travelers, said pair of rollers being adapted to roll along the top of said beam to each side thereof, a bottom roller extending between said side plates in each of said travelers, each of said bottom rollers being adapted to roll along a grooved track on the underside of said beam to each side thereof, the lower ends of each of said pairs of links being above said beam and respectively adjacent the pair of side plates in the respective travelers, means for adjustably connecting the lower ends of said pairs of links to the respective travelers across the tops of said respective travelers to vary the opening between said travelers, opposed load clamping means mounted on said travelers beneath said beam, a load engaging rest positioned beneath said beam between said travelers, vertical post members slidably mounted relative to said beam, means for adjusting the height of said rest beneath said beam, a link frame extending between one of said pairs of links and said beam to maintain said pairs of links in laterally balanced positional relation, and parts of a latching mechanism respectively mounted on said last-mentioned pair of links and said link frame for alternative latching and unlatching operation of said tongs.

2,874,991
CARD STACKING DEVICE

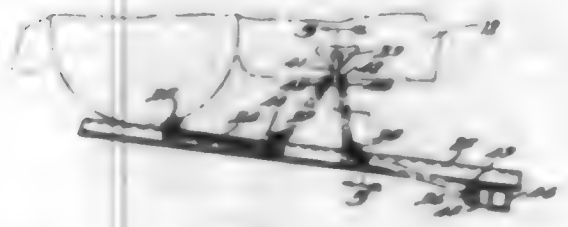
John R. Cushman, Fort Wayne, Ind., assignor, by mesne assignments, to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application May 31, 1955, Serial No. 511,834
4 Claims. (Cl. 294—87)



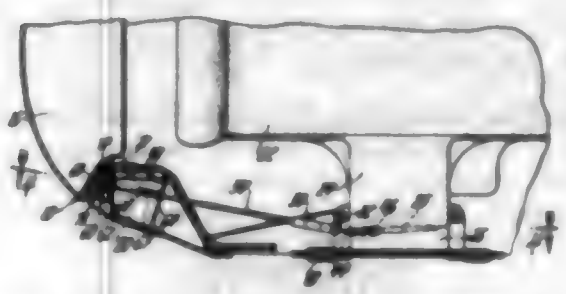
4. A stick adapted to pick up and retain a stack of miniature cards, each card of which has a slot adjacent one end thereof, comprising an elongated guide member having a cross sectional configuration corresponding generally to the shape of said slot and formed to provide a slot extending the full length thereof, a handle mounted on and fixed to said guide member at one end thereof, a slide corresponding in length to that of said guide member and mounted for slidable movement within said guide member between a pick-up position in which one end of said slide extends beyond the corresponding end of said guide member, and a retaining position in which said corresponding end of said guide member extends beyond said one end of said slide, a keeper corresponding generally in width and thickness to the width and thickness of said guide member and mounted on said one end of said slide, a cam surface formed on said corresponding end of said guide member for engaging and moving said keeper laterally of said guide member upon movement of said slide into said retaining position in which said keeper engages the edge portion of the slot in said cards to retain said cards on said guide member, an actuating handle fixed to the other end of said slide extending beyond said first-mentioned handle and movable toward said first-mentioned handle for moving said slide into said pick-up position in which said keeper is aligned with said guide member for movement thereof through said slots in the cards, and spring means interposed between said handles for normally maintaining said slide and said keeper in said retaining position.

2,874,992
AUTOMOBILE TIE-DOWN DEVICE FOR TRANSPORT TRAILERS
Paul N. Erickson, Detroit, Mich., assignor to Fruehauf Trailer Company
Application October 1, 1956, Serial No. 613,008
9 Claims. (Cl. 296—1)



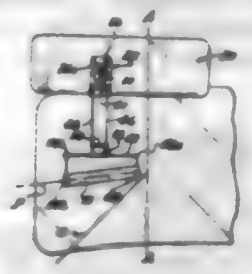
8. In an automobile transport trailer of the type having upper and lower tracks each supporting a plurality of vehicles, a pair of side frames, a plurality of cross beams secured between said frames for supporting said upper track, and upper track comprising a pair of plates supported by said cross beams, each plate being of a width substantially equal to half the span of said cross beams, means securing together the adjacent edges of said plates, a pair of longitudinally extending wheel guide ridges formed along the outer edges of said plates, a pair of troughs extending longitudinally along intermediate portions of said plates, a pair of chains disposed within said troughs, means securing corresponding ends of said chains to their respective plates, means at the opposite ends of said chains for selectively tightening or releasing said chains, a plurality of bars in longitudinally spaced relation above each chain, said bars each being secured to their respective plates, said chains each being of sufficient length to be drawn upwardly between two adjacent bars to form an inverted V, and means for securing the apex of each such inverted V to a tie-down member of a vehicle in closely spaced relation thereto.

2,874,993
LATCH FOR PIVOTING SEAT
Delbert C. Frobut, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 17, 1955, Serial No. 482,221
3 Claims. (Cl. 296—65)



1. Latching means for a seat in a vehicle body, comprising: a door hingedly mounted on said body; a seat supporting pedestal pivotally mounted in said body, said pedestal having a latching shoulder; a dog pivotally mounted on said body for movement between a latching position in engagement with said shoulder and an unlatching position out of engagement therewith; first spring means yieldably urging said dog towards latching position; operating means for said dog including a lever pivotally mounted on said body coaxially with said dog and having a one-way connection with said dog, a rod connected to said lever and extending to a location adjacent the door, and a follower mounted adjacent the door and connected to said rod; second spring means yieldably urging said rod, lever and dog toward unlatching position, said second spring means being stronger than said first spring means; and an actuator on said door, including a roller adapted to engage said follower when the door is closed to hold the operating means in latched position against the force of said second spring means.

2,874,994
GLARE SHIELD FOR AUTOMOBILES
Carroll W. Chester, Los Angeles, Calif.
Application June 22, 1956, Serial No. 593,227
3 Claims. (Cl. 296—97)

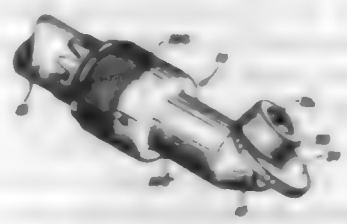


1. A glare shield structure for protection of vehicle drivers against glare of approaching headlights, comprising in combination a narrow elongate shield piece composed of semi-transparent material, and means for supporting said shield piece on the vehicle in a transverse plane in front of the driver, said supporting means comprising a substantially rigid supporting frame including at least one relatively thin elongated rod for minimizing visual obstruction, means mounting one end of the supporting frame on a substantially horizontal axis on the vehicle for swinging adjustable movement in a vertical plane about said axis, a tubular member carried by the other end of the frame on a substantially horizontal axis, a hanger rod freely rotatable in and freely longitudinally slidable through said tubular member, and means for dependently supporting the shield piece on the hanger rod.

ERRATUM

For Class 299—25 see:
Patent No. 2,875,428

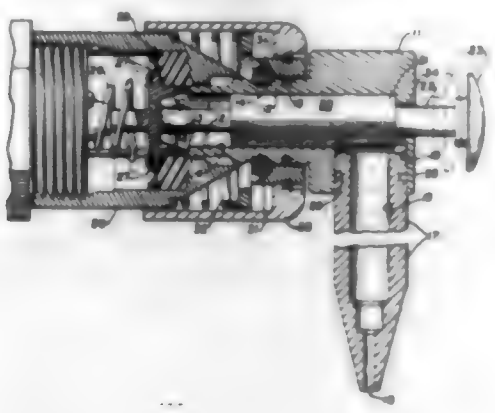
2,874,995
SPRAY NOZZLE
James F. Attwell, Bothell, Wash.
Application February 20, 1956, Serial No. 566,430
1 Claim. (Cl. 299—129)



A spray nozzle of the character described comprising a nozzle body formed with an axial water delivery channel opening to one end thereof and equipped for connection at its other end with a source of supply of water under pressure; said body having a conically tapered discharge end portion, a flat, spray forming disk of circular form disposed with its flat underside surface in line contact with the conically tapered surface of the end portion of the nozzle body, and a pivot screw extended through the disk, perpendicular thereto and eccentrically thereof and threaded into the tapered end portion of said body at the line of contact, said disk, as thus mounted, being extended sufficiently beyond the nozzle end, when in fully extended position of rotary adjustment, to deflect the water jet as discharged from the nozzle equally to opposite sides as a fan shaped spray, and being adapted by rotary adjustment about said pivot screw in opposite directions, to extend or shorten the

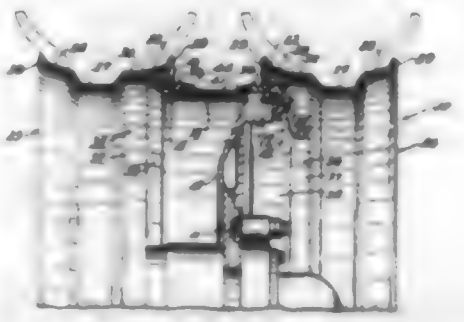
effective spray forming surface; and to deflect the spray to more or less extend toward one side or the other depending on the direction of adjustment; said screw being adapted to be tightened against the disk to secure it at any position of rotary adjustment.

2,874,996
NOZZLE DEVICE
Theodore S. Zajac, Parma, Ohio, assignor to Zajo Manufacturing Company, a corporation of Ohio
Application December 18, 1956, Serial No. 629,181
6 Claims. (Cl. 299—150)



1. A nozzle device adapted to be connected to a coupling member having a reciprocal valve head biased to closed position and adapted to be opened by being pressed against said bias, said coupling member having an open end and radially movable locking means associated therewith adjacent said open end, said nozzle device comprising the combination of a hollow body, said body having an open-ended male portion adapted to be inserted in the open end of a said coupling to provide communication between the interior of the said coupling and said body, said body having a substantially straight opening extending axially thereof from the open end of said male portion, said male portion having an outer grooved wall adapted to be engaged by the locking means of a said coupling for ready attachment and detachment of the male portion to said coupling, said male portion having a friction portion extending radially outwardly therefrom to frictionally engage said coupling member for limiting rotation of said male portion relative to said coupling member, said body having a spout portion extending radially thereof, said spout portion having an opening extending therethrough communicating with said axially extending opening and extending to an open end, and an actuating member positioned in said axially extending opening in said body and disposed longitudinally thereof, said actuating member having a fluid passageway therethrough along said axial opening to permit flow of fluid along the actuating member through said axial opening, said actuating member being in a sliding fit with said body and having an operating portion extending from a first end thereof externally of said body to provide for slidable reciprocal movement of the actuating member from outwardly of said body, said actuating member having a protruding portion extending from an opposite end thereof and protruding externally of said open-ended male portion, said protruding portion being axially aligned with said male portion and being adapted to engage the valve head of a said coupling member to which the said male portion is adapted to be connected, the operation of said operating portion to move the actuating member forwardly in said axial opening toward a said coupling adapted to be connected to said male portion causing said protruding portion to press against said valve head in opposition to said bias and to open said valve, fluid entering said axial opening from said coupling being discharged through said spout portion.

2,874,997
WHEEL CONSTRUCTION
Winfield S. Brink, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application September 12, 1955, Serial No. 533,661
1 Claim. (Cl. 301—13)



A wheel structure comprising in combination, a wheel having an outer cylindrical portion terminating at one edge in an outwardly flared surface and having at the other edge a plurality of bosses and a corresponding number of clamps supported by said bosses, said clamps being secured to said bosses by bolts extending into said bosses, whereby the said clamps are drawn axially toward said wheel when said bolts are tightened, said clamps having outwardly flaring wedge surfaces, a pair of one-piece drop center rims of substantially uniform wall thickness, each said rim having bead seat portions having radially inner surfaces extending axially outwardly at an angle to the axis of said rim, and having a flat, cylindrical surface immediately adjoining one of said bead seat portions, a pair of connecting rings each having an outward flange portion secured to said cylindrical surface axially inwardly of said bead seat portion and radially outwardly of said drop center, said cylindrical surfaces being of substantial axial extent relative to the width of said rims, said rings each having an inwardly directed angular portion terminating in a radially extending flange and adapted to contact said flared wheel surface and said clamp wedge surfaces respectively, and a spacer band positioned on said wheel and adapted to maintain said rings in spaced relation and adapted to transmit the axial thrust exerted by said clamps on one said ring.

2,874,998
WHEEL CONSTRUCTION
Winfield S. Brink, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application November 20, 1953, Serial No. 393,427
1 Claim. (Cl. 301—20)



A clamp adapted for use in a wheel structure wherein a rim is secured to said wheel by the chucking action

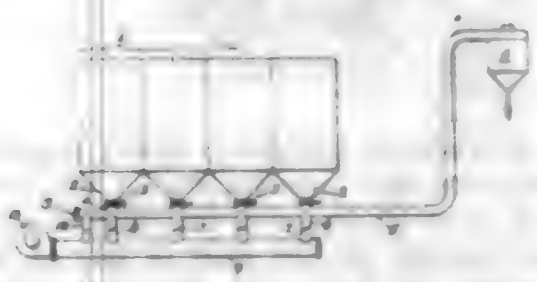
of a plurality of such clamps, said clamp comprising a chucking member having a pair of circumferentially spaced forked portions having oppositely disposed surfaces forming radially outward concave areas, said areas being adapted to engage complementary surfaces on the inner periphery of said rim, said chucking member having a radial surface adapted to seat against a fixed, radial, supporting surface on said wheel, and also having a pair of radially spaced, substantially parallel cam surfaces, and a wedging member cooperating with said chucking member, said wedging member having a pair of radially spaced cam surfaces adapted to engage said first mentioned cam surfaces, a bolt passing through said wheel and said members and a nut holding said members and wheel in assembled position whereby when said nut is tightened said wedging member is moved axially toward said chucking member to force said chucking member radially outwardly along said supporting surface and to bring said forked portions into forcible engagement with said rim.

2,874,999

APPARATUS FOR PNEUMATIC TRANSPORT OF GRANULAR MATERIAL

Bror E. Löfgren, Stockholm, Sweden, assignor to Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden

Application March 6, 1956, Serial No. 569,916
Claims priority, application Sweden March 8, 1955
4 Claims. (Cl. 302—27)



Apparatus for pneumatic transfer of granular material in accordance with the so-called fluidizing principle comprising a transport pipe, a plurality of inlet openings in said transport pipe for introducing the granular material thereinto, means to shut off each of said inlet openings, and means to introduce a gaseous transport medium into said transport pipe including distributing pipe mounted alongside said transport pipe, a branch pipe for each inlet opening connected to said distributing pipe and opening into said transport pipe through an orifice opposite said inlet opening, and an air-permeable plate covering each orifice, whereby said gaseous medium fluidizes the material after it is introduced into said transport pipe, and a separating device connected to said transport pipe to receive the fluidized material and separate the granular material from the gaseous medium.

2,875,000

PROCESS AND APPARATUS FOR DISENGAGING PARTICULATE SOLID CONTACT MATERIAL

Kenneth A. Harper, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application January 24, 1955, Serial No. 483,513
8 Claims. (Cl. 302—59)

1. A process for separating particulate solids from a lift gas at the upper end of a lift tube terminating within an enclosed separation zone which comprises directing jets of gas vertically downwardly and obliquely downwardly and outwardly relative to the axis of said tube from loci directly above the upper end of said tube a distance in the range of 0.75 to 2 tube diameters into the ascending solids so as to decrease the vertical kinetic energy and velocity of said solids whereby same are disentrained from said lift gas, leaving only fines in said lift gas; passing jetted and lift gas thru an expanded section of said zone above said loci so as to remove fines from said gas; withdrawing said solids from a lower section of said zone; and



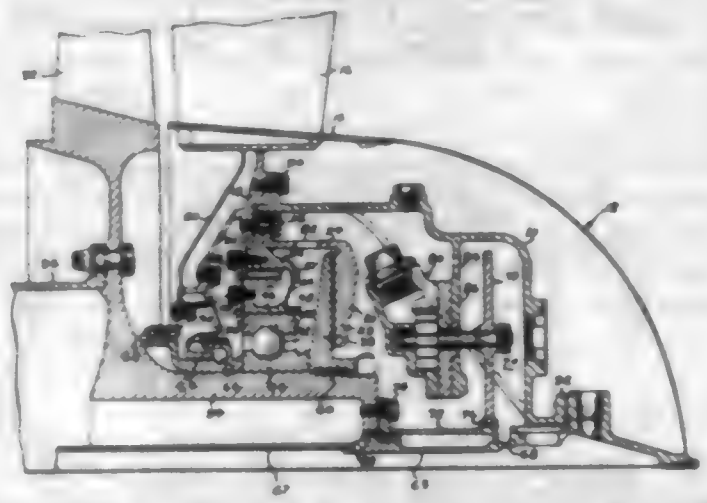
separately withdrawing gas from said zone at the upper end of said expanded section.

2,875,001

THRUST BEARING SYSTEM

Robert O. Miller and Joseph M. O'Toole, Cincinnati, Ohio, assignors to the United States of America as represented by the Secretary of the Air Force

Application January 23, 1956, Serial No. 560,912
6 Claims. (Cl. 308—35)



1. A bearing system for a jet engine comprising a ball bearing having an inner race and an outer race for receiving radial thrust, said inner race revolving with said compressor shaft, an annular frusto-conically shaped resilient metallic washer for absorbing axial thrust, a ball race retaining member seating the inner edge of said resilient washer, an annular member seating the outer edge of said resilient washer, said ball race retaining member and said annular member being splined together for relative axial movement, a plate, means for securing said ball race retaining member to said plate, means for securing said annular member to said plate to allow for said relative axial movement, a high capacity oil bearing comprised of a stationary bearing member and a rotary bearing member, said stationary member rigidly attached to said annular member to receive the forward thrust of said rotary bearing member, said rotary bearing member being attached to said compressor shaft to rotate with and move axially with it.

2,875,002

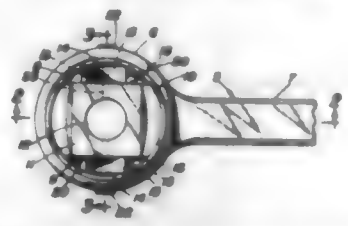
PLAIN SELF-ALIGNING BEARING

Alden W. McDaniel, Washington, D. C.

Application October 11, 1956, Serial No. 615,436
4 Claims. (Cl. 308—72)
(Granted under Title 35, U. S. Code (1952), sec. 266)

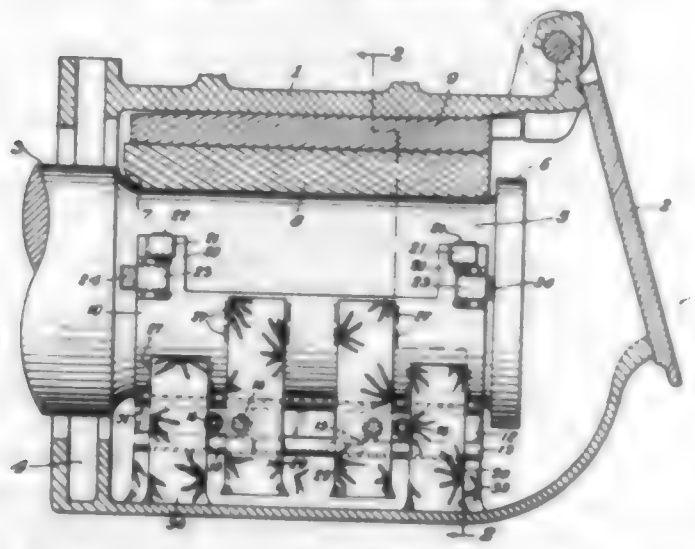
1. In a plain spherical bearing, the combination of a

hollow cylindrical member having an internal surface, an inner bearing member having a central opening therein and oppositely protruding radial trunnions positioned within said cylindrical member, said trunnions having opposed cylindrically curved bearing portions and non-bearing portions between and of a lesser width than the diameter of said bearing portions, saddles positioned in diametrically opposite relationship on said internal surface receiving said trunnions, each of said saddles having an



axial slot and a recess in each wall of each slot, said slots on each of said saddles being in operatively opposed relationship with each other, the side walls of said recesses having internally cylindrically curved bearing surfaces adapted to coact with the cylindrically curved bearing portions on said trunnions, said axial slots being wider than the non-bearing portions of said trunnions so as to permit the introduction of the inner bearing member into the cylindrical member when presented edgewise thereto.

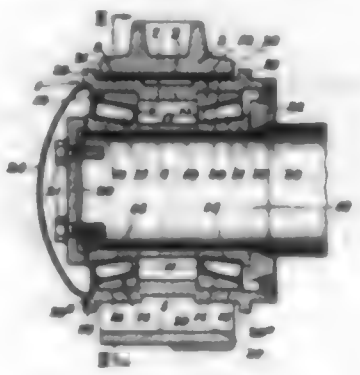
2,875,003
LUBRICATOR FOR RAILROAD CAR AXLE JOURNAL BOX
Karl A. Klingler, Naperville, Ill.
Application March 15, 1957, Serial No. 646,275
5 Claims. (Cl. 308—88)



1. A lubricator for railroad car axle journals including a pair of opposed thin, flexible, perforate, segmental cylindrical plates, pivoted together along their lower edges, yielding means adapted to bias them into contact with, cause them to encircle and hang from a railroad car axle journal, each plate extending through an arc of more than ninety and less than one hundred eighty degrees, a plurality of lubricant conducting wicks, threaded through and adapted to contact the journal between, at least two of the apertures, the opposite ends of the wicks hanging freely downwardly from the plate through which they are threaded.

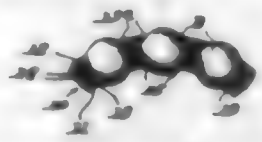
2,875,004
AXLE-BOXES
David McNicoll, Birmingham, England, assignor to British Timken Limited, Birmingham, England, a British company
Application June 14, 1955, Serial No. 515,451
Claims priority, application Great Britain December 20, 1954
4 Claims. (Cl. 308—180)

1. A vehicle axle-box for an axle having an end surface and a shoulder spaced from said end surface, said axle-box comprising an inner bearing comprising two inner race rings upon said axle, a spacing ring surrounding said axle and located between the two inner race rings, two outer race rings enclosing said inner race rings, said outer and inner race rings having opposed conical race surfaces, rollers between said opposed race surfaces and a housing unit enclosing said outer race rings and having a central inwardly directed spacing rib to form shoulders engaging said outer race rings, said housing unit having flat parallel outer top and bottom surfaces, and substantially elliptical outer side surfaces extending between said top and bottom surfaces, whereby said housing unit is of non-circular exterior shape which is symmetrical above and below a horizontal median plane; and an outer casing unit having a flat inner top surface resting upon the outer top surface of said housing unit, a flat inner bottom surface located at a distance from the inner bottom surface of said housing unit, and curved inner side surfaces spaced from the outer side surfaces of said housing unit and joining said



inner top and bottom surfaces, a spring supporting upwardly projecting seat upon the top of said casing unit and vertical horn guides upon the sides of said casing unit, flanges located on the ends of one of said units and overlapping the ends of the other one of said units, the depth of said flanges being less than said distance between said bottom inner and outer surfaces to permit of a relative vertical movement of said inner bearing and said outer casing unit sufficient to cause said flanges to move clear of the housing unit, whereby the units can be separated by a relative axial movement in either axial direction, and whereby said inner bearing, being of symmetrical form, can be reversed in position within said outer casing unit on reassembly of the units, a closure ring unit engaging said shoulder of the axle, said housing unit, and one of said inner race rings, a retaining plate connected to said end surface of the axle and overlapping the other one of said inner race rings, and an end cover plate enclosing said retaining plate and engaging an annular rebate formed in said housing.

2,875,045
LAMINATED SOLID WALL BEARING RETAINER AND METHOD OF MAKING THE SAME
William J. Blazek and Clinton D. Hillis, New Lexington, Ohio, assignors to Lemco Products, Inc., Bedford, Ohio, a corporation of Ohio
Application November 8, 1955, Serial No. 545,617
4 Claims. (Cl. 308—201)



1. A bearing retainer for die sets, comprising: a cylindrical body composed of a spirally convoluted rectangular strip of perforate sheet material, the perforations in said material being so disposed as to provide in the cylindrical body formed thereby a multiplicity of axially aligned openings, the latter forming open-ended, radially extend-

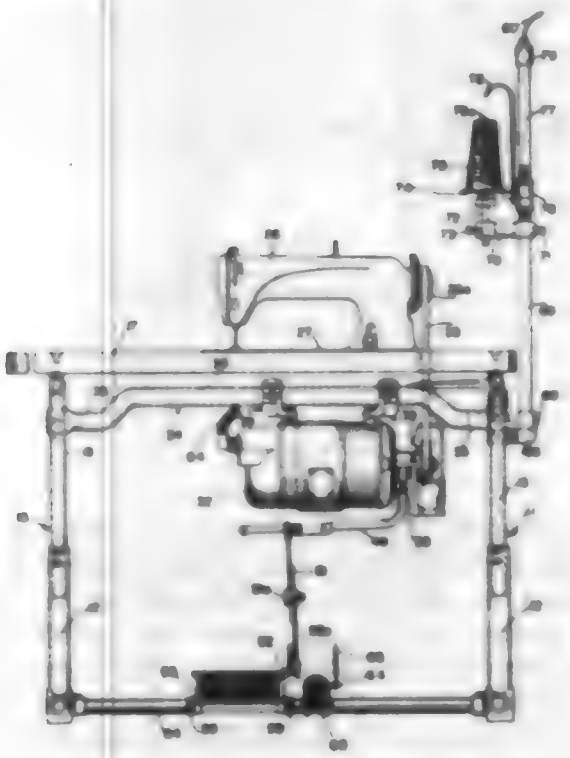
ing, ball element-receiving sockets, the perforations formed in the inner and outer convolutions of said strip being smaller in diameter than the perforations contained in the intermediate convolutions thereof, whereby to cause said sockets to be smaller at their ends than intermediately thereof, and a ball element rotatably carried in each of said sockets, each ball element having a diameter less than the diameter of the perforations formed in the intermediate convolutions of said strip and greater than the diameter of the perforations formed in the inner and outer convolutions of said strip and having peripheral segments thereon extending radially inwardly and outwardly from said body, said ball elements being retained against radial removal from said sockets by the edges of said inner and outer convolutions adjacent the perforations formed therein.

2,875,986

STAND FOR SEWING MACHINES AND SEWING UNIT COMPRISING THE SAME

Arthur N. Hale, Park Ridge, Ill., assignor to Union Special Machine Company, Chicago, Ill., a corporation of Illinois

Application April 14, 1955, Serial No. 501,244
4 Claims. (Cl. 311—12)



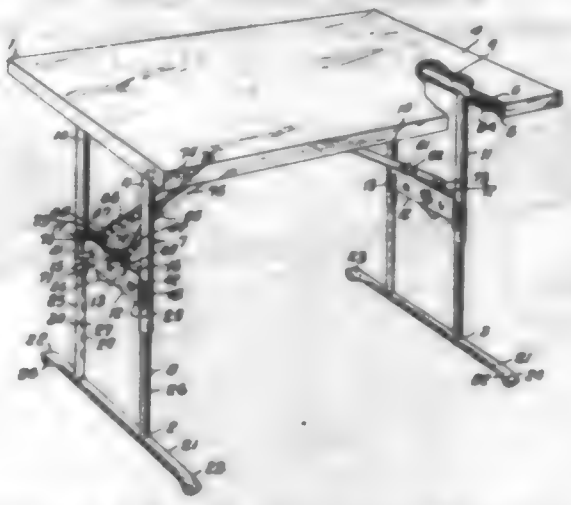
1. A sewing stand adapted to carry a high speed sewing machine and a power unit for driving the same which comprises a pair of substantially rectangular end frames, each end frame comprising a pair of tubular members, each of said members being bent into a U-shape with straight leg portions and a straight connecting portion between such legs and integrally connected therewith, said members of each pair being formed of tubing of just sufficiently different cross-sectional area to enable the legs of one member to fit snugly in telescopic relation into the legs of the other of said members, the members of each pair being in inverted relation and telescopically interconnected, means for retaining the interconnected legs of the members telescoped in relation to each other to any extent desired in accordance with the desired over-all height of the stand, a table board secured to the horizontal portions of the upper U-shaped members of the two frames and adapted to support a sewing machine, a tubular cross-member secured to the rear legs of said upper members of the two frames, and a second tubular cross-member secured to the horizontal portions of the lower U-shaped members of the two frames.

2,875,007

VERTICALLY ADJUSTABLE SUPPORT FOR TABLE TOPS AND THE LIKE

Carl J. Fox, Clear Lake, Iowa, assignor of one-half to Maxine E. Warren, North Miami Beach, Fla.

Application February 11, 1957, Serial No. 639,489
7 Claims. (Cl. 311—39)



1. A support including an upper section having a transverse member and spaced apart tubular leg portions extending downwardly from the said member, a lower section having a transverse footing member and upwardly extending tubular leg portions telescoping within the leg portions of the upper section, said leg portions of the lower section having a linear series of spaced apart openings, a tie member connecting lower ends of the leg portions of the upper section, detents having oppositely extending arm and leg portions, means intermediate the arm and leg portions of the detents for pivotally mounting the detents on the tie member, said leg portions of the detents having foot portions adapted to engage in any one of said openings, a coil spring having ends respectively interconnecting the arms of the detents to urge the said foot portions of the detents into engagement with the openings, a release lever pivotally connected with the tie member at a point intermediate the detents, and links connecting the release lever with the detents to effect simultaneous disengagement of both detents from said openings.

2,875,016

ROTATABLE LEG HINGE AND COVER FOR TABLE

Arthur Grodsky, Flushing, N. Y., now by change of name Aaron Grodsky, assignor of fifty percent to Herman C. Augstreich, Brooklyn, N. Y.

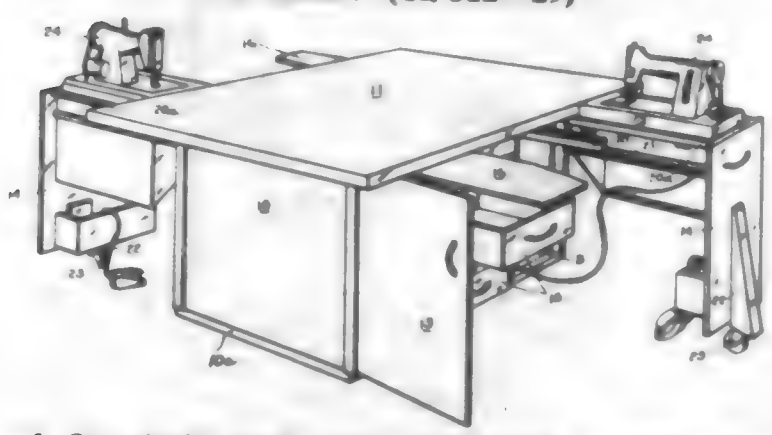
Application May 9, 1955, Serial No. 506,830
3 Claims. (Cl. 311—114)



1. Means for securing the threaded upper end of a leg under a table leaf hinged to the edge of, and disposed in the plane of, a table top and disposable flat on the table top, said means comprising a rosette block sunk in the leaf remote from the hinged edge and having at a margin of the block an upwardly extended lug flush with the exposed face of the leaf when lying on the table top, said block having a vertical threaded bore therethrough; a rosette top cover piece of ornamental metal disposable on said block flush with said exposed face and hiding said bore and formed with spaced ears snugly embracing said lug with an easy swinging fit; and a hinge pintle passing through said lugs and ears; said cover piece with the lug forming an ornamental inlay in the leaf when the leaf is lying on the table top and being automatically moved by gravity to a hanging position when the leaf is moved

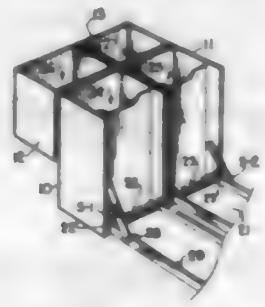
to a position in the same plane as the top, thereby to expose said threaded bore to receive the threaded upper end of said table leg.

2,875,009
HOMEMAKING UNIT
Anthony D. Glover, Austin, Tex.
Application August 23, 1954, Serial No. 451,540
2 Claims. (Cl. 312—29)



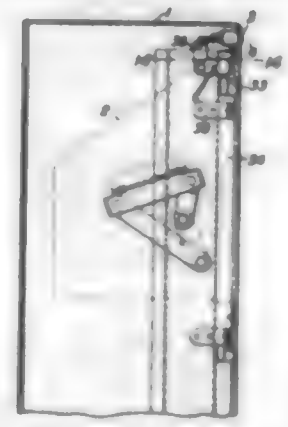
1. In a device of the character described a rigid unitary rectangular base, a set of blocks on said base at each end thereof, a pair of pedestal-like cabinets each positioned and retained on said base by one of said sets of blocks, a rectangular table top of greater length and width than said base, two sets of blocks on the undersurface of said table top to engage said pedestal-like cabinets to position and retain said table top on said pedestal-like cabinets, shelves supported by said pedestal-like cabinets and at least one drawer suported on at least one of said shelves, said drawer being so proportioned that the drawer extends from one to other of said cabinets and substantially fills the space between adjacent shelves but extend only half the length of the cabinets so that two drawers, one facing each direction, may be placed on each shelf.

2,875,010
CARRYING KIT
Samuel L. Sola and Kara Crocker, Los Angeles, Calif., assignors to Townsend Engineered Products Incorporated, a corporation of California
Application September 17, 1957, Serial No. 684,553
4 Claims. (Cl. 312—200)



1. A kit comprising: an elongated box structure divided by a vertical dividing plane passing longitudinally through the center of the kit and by a horizontal dividing plane passing transversely through the kit intermediate its top and bottom, to define four box-shaped sections comprising first and second lower half sections and first and second upper half sections; first hinge means hinging together the adjacent rear vertical edges of said lower half sections below said horizontal dividing plane; second hinge means in axial alignment with said first hinge means hinging together the adjacent rear vertical edges of said upper half sections above said horizontal dividing plane; third hinge means hinging the upper horizontal side edge of one of said lower half sections to the lower adjacent horizontal side edge of the corresponding upper one of said half sections; and fourth hinge means hinging the upper horizontal opposite side edge of the other of said lower half sections to the opposite lower adjacent horizontal side edge of the other of said upper half sections, the axes of said third and fourth hinge means being parallel to each other and lying in said horizontal plane when said kit is closed, and being in axial alignment with each other when said lower and upper half sections are simultaneously swung about said first and second hinge means into side-by-side relationship, whereby when in said relationship said upper half sections are free to be simultaneously swung about said third and fourth hinge means to expose the complete interior of said kit.

2,875,011
LATCH AND LOCK MECHANISM FOR ROCKER TYPE FILE CABINET
Arthur L. Higberg, Spencerport, N. Y., assignor to Yawman and Erbe Manufacturing Company, Inc., Rochester, N. Y., a corporation of Delaware
Application May 15, 1957, Serial No. 659,383
9 Claims. (Cl. 312—218)

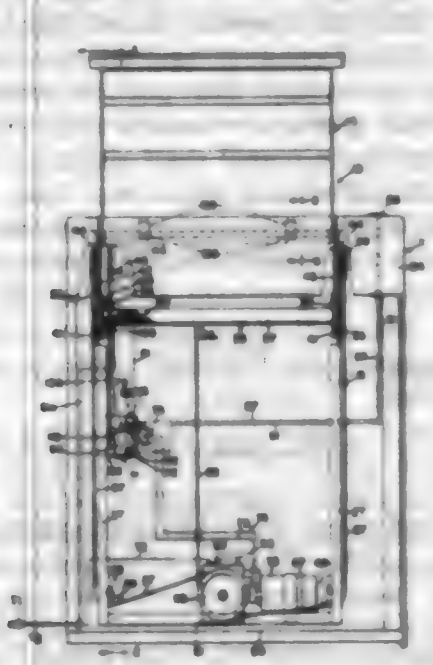


1. In a rocker type file cabinet including a rocking compartment, the improvement which consists in a fixed keeper plate at one side of the cabinet, a vertically movable keeper plate at the other side of the cabinet, a pivoted latch bar on the rocking compartment having one end engageable with said fixed keeper plate, a depressible actuator on the rocking compartment pivotally connected to the other end of the latch bar, a key-controlled lock on the cabinet operatively connected to said vertically movable keeper plate and acting to move it vertically, a spring controlled latch on the compartment engageable with said movable keeper plate, and operative connections between the actuator and said latch, said connections including a laterally slidable bar in the path of the actuator and having a stop portion preventing movement of the actuator, and a connecting bar pivoted at a point between its ends and having a relative pivotal and sliding connection with said slidable bar at one end and its opposite end engaging and elevating said latch.

2,875,012
DISAPPEARING MEDICINE CABINET
Claude J. Riley, Moline, Ill.
Application June 8, 1954, Serial No. 435,115
10 Claims. (Cl. 312—223)

10. A disappearing medicine cabinet construction comprising the combination of a wall having an upwardly facing opening, a supporting and guiding framework, a carriage mounted within said framework for vertical movement therein, a medicine cabinet resting on said carriage, said opening being large enough to receive said cabinet, said carriage, and said framework, a safety

switch mounted on said carriage and having a part adapted to be engaged and moved by a portion of said



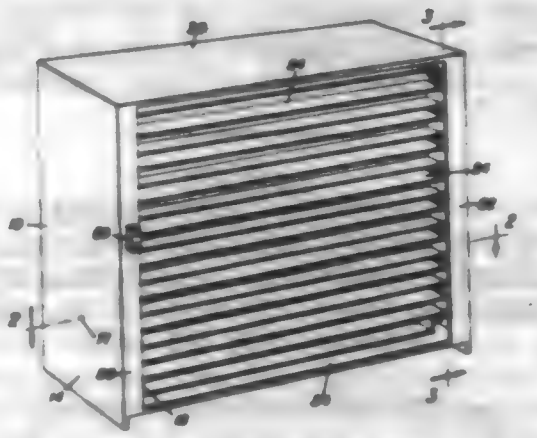
cabinet, and means including said safety switch for moving said carriage.

2,875,013
POPCORN WARMER AND SERVER
Harold J. Fitzgerald, Milwaukee, Wis., assignor to Superdisplay, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application November 28, 1955, Serial No. 549,356
10 Claims. (Cl. 312—236)



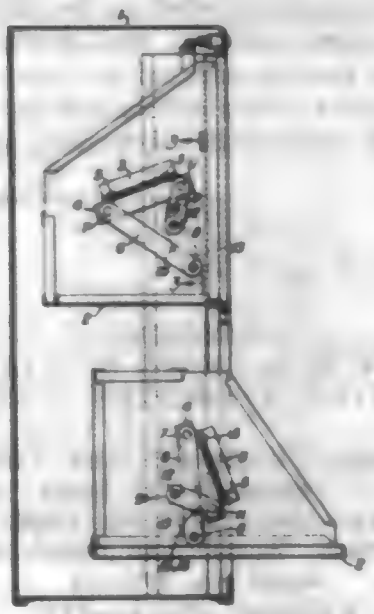
6. In a popcorn warming apparatus the combination comprising a warming container for holding popped corn that has a floor and a service door at one side rising above the level of the floor, the area of the floor adjacent the door being perforate and the remainder imperforate; a blower having an intake and an outlet; an air passage joined to the blower outlet extending beneath the imperforate floor area and connected with the perforate floor area to discharge air therethrough; air heating means in said air passage to heat air before passing beneath the imperforate floor area; an air return duct having an entrance within said container to receive air therefrom and extending downwardly therefrom with a substantially vertical passage for air flowing through the duct terminating at a downwardly facing outlet; a connecting air conduit extending from an inlet end positioned closely adjacent said downwardly facing outlet to provide an abrupt turn for the air flowing from said substantially vertical passage into said connecting air conduit and connected at the other end to the intake of said blower; and a chaff collecting receptacle forming a downward continuation of said substantially vertical passage that is at a level beneath the juncture with said connecting air conduit.

2,875,014
VERTICAL SHELF CONVEYOR
James W. Moore, El Paso, Tex., assignor of one-fourth to William Murray, El Paso, Tex.
Application July 16, 1957, Serial No. 672,219
4 Claims. (Cl. 312—268)



1. In a display device for merchandise, a cabinet, a plurality of shelves, each shelf having spindles protruding from opposite ends thereof, panels in said cabinet and at opposite ends of said shelves, chambers in said cabinet separated by said panels, drive chains in said chambers, means including mounting brackets which are pivotally connected to said drive chains and secured to said spindles for drivingly connecting said spindles to said drive chains, means operatively connected with said panels and said cabinet for guiding said shelves and including a square gear attached at each end of each shelf, channels in said cabinet within which the outer edges of said gears are slidable, and means connected to another edge of said gears for maintaining a fixed orientation of said gears during the travel of each.

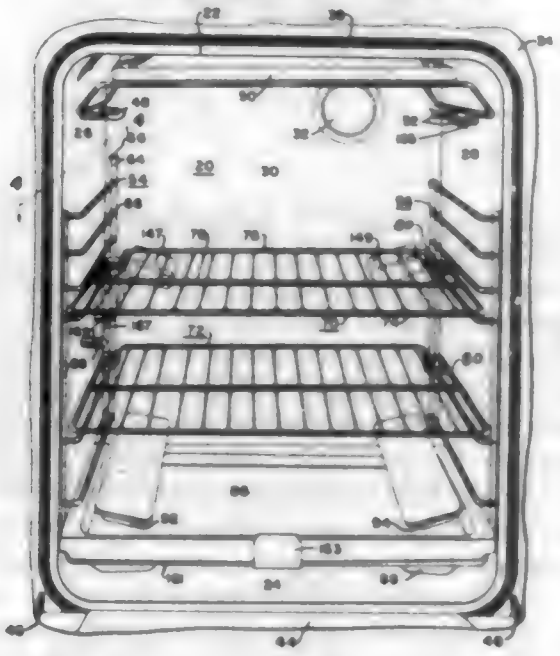
2,875,015
ROCKING COMPARTMENT FILE CABINET
Arthur L. Higberg, Spencerport, N. Y., assignor to Yawman and Erbe Manufacturing Company, Inc., Rochester, N. Y., a corporation of Delaware
Application May 15, 1957, Serial No. 659,381
3 Claims. (Cl. 312—325)



1. In a file cabinet including a rocking compartment and a housing, the improvement that consists in brackets fixed to the outer surfaces of the sides of the compart-

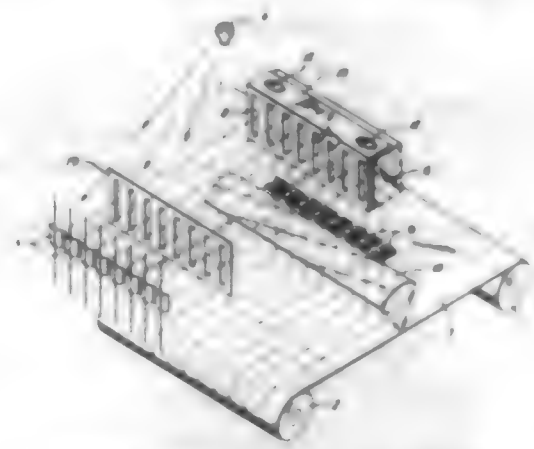
ment, supporting plates to which the brackets are detachably secured and accessible from the front of the cabinet to permit removing the compartment, removable means securing said brackets to said supporting plates, links pivoted at their lower ends to the housing at the front thereof and at their upper ends to said supporting plates, and second links pivoted at one end to the supporting plates and at their opposite ends to the housing at points above the lower pivotal points of the first mentioned links, the first mentioned links moving through an angle of approximately 45° when the compartment is moved from closed to open position and said second links moving through an angle greater than 90° when the compartment is moved from closed to open position.

2,875,016
DOMESTIC APPLIANCES
Millard E. Fry, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 22, 1954, Serial No. 444,974
1 Claim. (Cl. 312—351)



A box-shaped oven liner having a front opening and substantially flat inner walls including side walls and a rear wall, an aperture in said rear wall adjacent one of said side walls, a channel vertically disposed in one of said side walls adjacent said opening, said channel having a keyhole slot near an upper end thereof, said slot formed with an enlarged portion and a reduced portion, a pair of vertically disposed shelf supports in said oven liner, each of said shelf supports located adjacent one of said side walls and including a flat vertical member adjacent said channel and adapted to lie therein and a wire rod vertical member adjacent said aperture and having a projecting end portion adapted to insert into said aperture, said members being connected by a plurality of vertically spaced, horizontally extending wire guides, said flat vertical member having a protuberance removably interlocking with said reduced portion of said keyhole slot whereby said flat member is prevented from tipping and retained in said channel, said wire rod vertical member having a projecting end portion removably interfitting with said aperture whereby said rod member is prevented from tipping, said shelf supports thereby being removably secured within said oven liner, and a shelf resting on said horizontally extending guides and extending substantially the entire width of said oven liner into substantial sliding engagement with said flat member in said channel, said shelf including means cooperating with said shelf supports for limiting outward sliding movement of said shelf.

2,875,017
VIBRATION RECORDING DEVICE
Vining T. Reynolds, Houston, Tex., assignor, by direct and mesne assignments, to Southwestern Industrial Electronics Company, a corporation of Delaware
Application November 25, 1953, Serial No. 394,323
1 Claim. (Cl. 346—109)



In a seismograph camera of the character described, a bank of vibration responsive oscillatory light reflectors to project a series of narrow light beams, an adjustably mounted shield having light passing slits, one for each reflector, arranged to confine beam passage to a selected angle of beam oscillation, a second slitted shield interposed between the reflectors and the first shield to preclude projection of each beam to other than an intended slit in the adjustably mounted shield, a series of converging cylindrical concavo-convex lenses to receive light beams passing through said slits to gather and condense the respective beams to spaced parallel lines, a converging cylindrical double convex lens whose axis of curvature is normal to those of said concavo-convex lenses, positioned to focus the previously condensed beams to transversely spaced points and a traveling light sensitive film presenting a traveling surface at said focal points for recording in side by side parallelism the slitted passage and shielded interception of the several beams in dash and gap succession linearly of film travel.

CHEMICAL

2,875,018
PROCESS OF BLEACHING SPECIALTY HAIR FIBERS WITH HYDROGEN PEROXIDE SOLUTIONS
Bernard K. Easton, Williamsville, and Norbert Weinberg, Buffalo, N. Y., assignors to Food Machinery and Chemical Corporation, San Jose, Calif.
No Drawing. Application March 28, 1955
Serial No. 497,434
3 Claims. (Cl. 8—111)

1. Method of bleaching a specialty hair fiber which is a member of the group consisting of mohair, cashmere, alpaca, vicuna, and camel hair fibers, which comprises contacting said fibers for a period of time and at an elevated temperature, said time-temperature relationship being from about 10 hours at about 100° F. to 30 minutes at about 130° F., in which latter instance the solution is permitted to stand and cool for about 10 hours, with an aqueous solution containing on the weight of said fibers about 3% of ferrous ammonium sulfate and about 2–4% of a water-soluble salt of a reducing oxy acid of sulfur wherein the sulfur has a valence of at least 2 but less than 6, separating said fibers from said solution and washing them with water, contacting said separated and washed fibers for about 1–2 hours and at

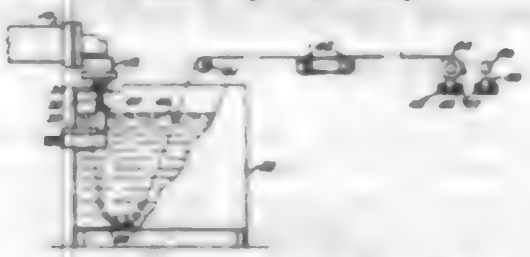
about room temperature to 110° F. with about 20 parts by weight of an aqueous solution to one part by weight of the fibers, said solution containing about 1–2% of a strong mineral acid and about 1.6–2% of 35% hydrogen peroxide, said acid and said hydrogen peroxide being in dilute aqueous solution, separating said fibers from said aqueous solution, and thereafter treating said separated fibers with a bleaching amount of an aqueous solution of hydrogen peroxide at a pH of about 8 until said bleaching has been completed.

2,875,019

METHOD FOR PRODUCING CRIMPED FILAMENTS

James E. Spohn, Pottstown, and Walter J. Smith, Royersford, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application January 17, 1956, Serial No. 559,709
6 Claims. (Cl. 18—54)



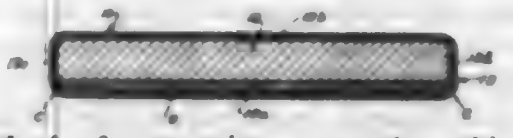
1. Process which comprises melt-extruding an array of filaments of an orientable crystalline thermoplastic resin, chilling the filaments when freshly extruded by blowing air thereupon, quenching said filaments in a cooling medium, subjecting the filaments to cold drawing in the absence of a surface-active agent, applying a surface-active agent to the filaments while still under tension, and thereafter removing tension from the filaments to permit them to relax into a crimped configuration, the surface-active agent applied to the filaments being a compound containing from 8 to 22 carbon atoms coupled to a highly polar solubilizing group selected from the group consisting of alkali metal carboxylate groups, ammonium carboxylate groups, sulfate half-ester groups, sulfonate groups, phosphate partial ester groups, primary amine groups, secondary amine groups, tertiary amine groups and quaternary amine groups.

2,875,020

WOOD PRESERVATION METHOD AND PACKAGE

Robert G. Ring, Whitehaven, Tenn., assignor to Chapman Chemical Company, Memphis, Tenn., a corporation of Illinois

Application November 5, 1956, Serial No. 620,319
6 Claims. (Cl. 21—7)



2. A method of preserving a wooden object which comprises (1) providing a wood preservative package comprising a porous fibrous oil and water permeable sheet, a layer on one side only of said sheet of an inert oil-base carrier of grease-like consistency containing at least 2% of pentachlorophenol, and a synthetic resinous oil and water impervious film completely enclosing the sheet and layer; (2) removing the film from the side of the sheet opposite said layer to expose the sheet; (3) and wrapping the wooden object with the exposed side of the sheet in direct contact with the object.

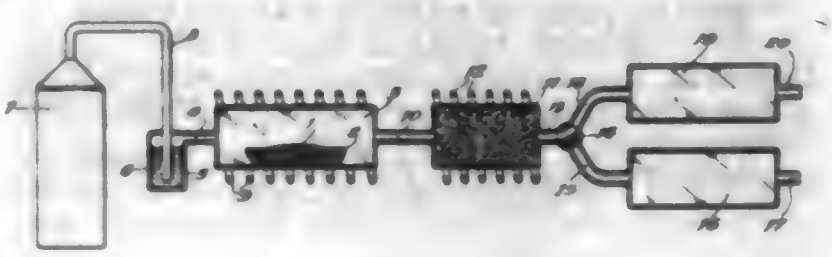
6. A wood preservative package comprising a muslin sheet, a layer on one side only of said sheet of an inert carrier of grease-like consistency comprising an aromatic petroleum oil, a polyvalent metal salt of a C_{12}–C_{18} fatty acid, and at least 2% of pentachlorophenol, and a polyethylene film completely enclosing the sheet and layer.

2,875,021

METHOD OF SEPARATING URANIUM VALUES, PLUTONIUM VALUES AND FISSION PRODUCTS BY CHLORINATION

Harrison S. Brown and Glenn T. Seaborg, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application August 24, 1943, Serial No. 499,762
3 Claims. (Cl. 23—14.5)



1. A method of separating uranium values from plutonium values comprising contacting said uranium with chlorine in the presence of a holdback material selected from the group consisting of lanthanum oxide and thorium oxide to form a uranium chloride higher than uranium tetrachloride, and thereafter heating the uranium chloride thus formed to a temperature at which said uranium chloride is volatilized off but below the volatilization temperature of plutonuim chloride.

2,875,022

METHOD OF FORMING PLUTONIUM-BEARING CARRIER PRECIPITATES AND WASHING SAME

Burt F. Faris, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 7, 1945
Serial No. 598,287
11 Claims. (Cl. 23—14.5)

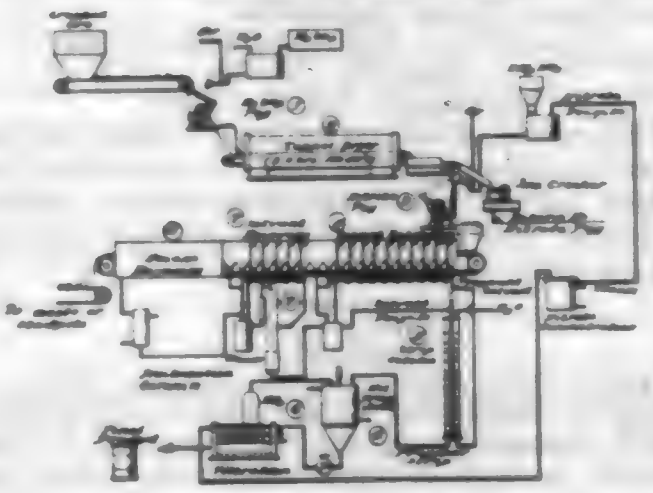
2. In concentration processes for plutonium recovery which comprise the carrier precipitation of plutonium wherein a carrier for plutonium comprising a fluoride compound is precipitated, and the subsequent dissolution and precipitation, as a peroxide, of plutonium carried thereby, the improvement which comprises washing the precipitated, plutonium-bearing carrier with an aqueous solution of an alkali acid salt of a mineral acid, prior to said dissolution of plutonium.

2,875,023

PROCESS OF RECOVERING URANIUM FROM ITS ORES

Paul Galvanek, Jr., Boston, Mass., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application November 30, 1956, Serial No. 625,566
6 Claims. (Cl. 23—14.5)



1. A process of recovering uranium values from an ore of uranium which comprises pugging said ore with sulfuric acid to solubilize the uranium therein as uranyl sulfate without the formation of a separate liquid phase,

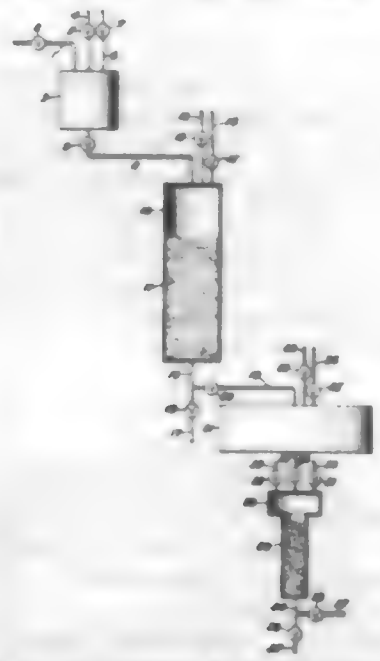
converting the uranyl sulfate in said pugged ore to uranyl nitrate by reaction with an aqueous solution of ammonium nitrate without the formation of a separate liquid phase, and extracting the uranyl nitrate from said nitrate conditioned ore with tributyl phosphate.

2,875,024

SEPARATION OF BARIUM VALUES FROM URANYL NITRATE SOLUTIONS

Edward R. Tompkins, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application August 27, 1946, Serial No. 693,329
4 Claims. (Cl. 23—14.5)



1. A method of separating barium values from a solution containing the same which comprises passing said solution through an adsorbent under conditions favoring adsorption of barium values together with other material present in said solution, washing said adsorbent with dilute sulfuric acid to remove at least a portion of said other material, washing said adsorbent with citric acid at a pH of approximately 5 to 7 to remove barium values and at least a portion of remaining other material, adjusting the resulting eluate to a pH of approximately 2.3 to 3.5 and diluting said eluate, passing said diluted eluate through a second adsorbent of smaller volume, and selectively eluting said barium values from said second adsorbent.

2,875,025

PROCESS OF FORMING PLUTONIUM SALTS FROM PLUTONIUM OXALATES

Clifford S. Garner, Redondo Beach, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 9, 1947
Serial No. 753,568
19 Claims. (Cl. 23—14.5)

1. The process of converting lower valence plutonium oxalates to non-oxygenated salts of plutonium which comprises heating lower valence plutonium oxalate in the presence of a vapor of a volatile non-oxygenated monobasic acid.

2,875,026

PRECIPITATION METHOD OF SEPARATING PLUTONIUM FROM CONTAMINATING ELEMENTS

Robert B. Duffield, Champaign, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application July 17, 1947
Serial No. 761,746
15 Claims. (Cl. 23—14.5)

6. A method of separating plutonium from contaminating elements which form water-soluble double salts with potassium ions and sulfate ions, which comprises reacting together in an aqueous medium having a pH of less than about 7.1, a mixture in the ionic state of plutonium in a valence state less than five and at least one of said contaminating elements, with ions of potassium, lanthanum and sulfate in sufficient concentration to form a carrier precipitate of potassium lanthanum sulfate containing plutonium, and isolating said precipitate.

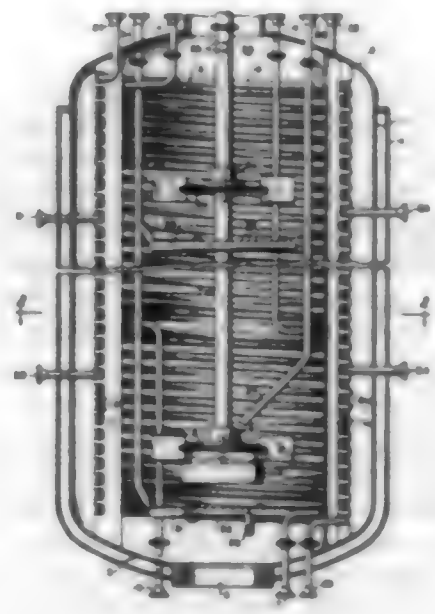
14. A method of forming potassium plutonium sulfate, which comprises contacting an aqueous potassium sulfate solution with a water-soluble plutonium salt.

2,875,027

STIRRED REACTOR

Robert F. Dye, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application April 26, 1956, Serial No. 580,770
3 Claims. (Cl. 23—285)



1. A stirred reactor suitable for use in the liquid phase catalytic polymerization of 1-olefins to solid polymer comprising, in combination, a vertical, elongated, cylindrical, jacketed vessel having a length approximately twice its diameter, a rotatable shaft axially disposed within said vessel, first and second turbine impeller elements mounted on said shaft in the upper and lower halves of said vessel respectively, two banks of helical heat exchange coils disposed concentrically about said shaft near but spaced inwardly from the wall of said vessel, said coil banks extending substantially the full length of said vessel, four elongated, strip baffle plates extending substantially the full length of said vessel and positioned between said coil banks at 90° intervals, each baffle aligned along a radius of said vessel, said baffle plates likewise being spaced inwardly from the wall of said vessel thereby leaving a clear, unobstructed annular space adjacent the vessel wall, a plurality of fins extending radially from said baffle plates between the individual heat exchange coils of at least one of said coil banks, two sparger rings, one ring positioned below each of said impeller elements for introducing material upwardly into the zone of maximum agitation provided by said impeller elements, and a conduit extending downwardly through said reactor and terminating in an opening immediately above said second impeller element and adjacent said shaft so as to discharge into the vortex of said second impeller element.

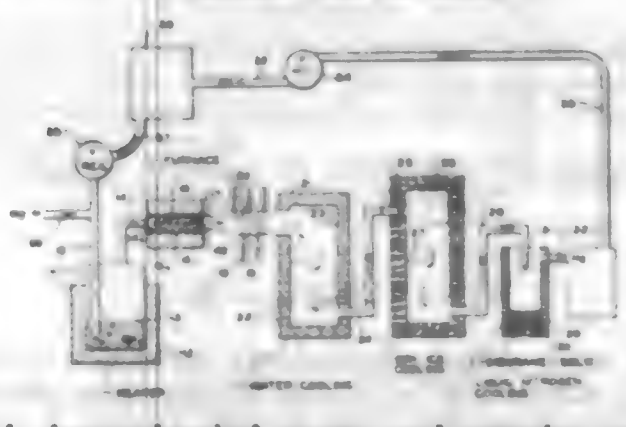
2,875,028

PROCESS AND APPARATUS FOR THE FIXATION OF PRODUCTS OF IRREVERSIBLE THERMOCHEMICAL REACTIONS

Paul F. Whitemitz, New York, N. Y., assignor, by mesne assignments, to Thiokol Chemical Corporation, a corporation of Delaware

Original application April 12, 1950, Serial No. 155,412. Divided and this application March 26, 1954, Serial No. 418,903

3 Claims. (Cl. 23—288)



1. A thermochemical reactor and quencher comprising a convergent entrance nozzle, an enclosed reaction chamber attached to and in communication therewith, a furnace substantially surrounding said reaction chamber, an exit nozzle attached to said reaction chamber and in communication therewith said exit nozzle being convergent from its point of communication with said reaction chamber to a constricted throat and divergent thereafter, outer and inner walls for said nozzle, means for circulating fluid coolant therebetween, a cooling chamber attached to the divergent portion of said nozzle, a catalyst contained in the reaction chamber, means for producing gaseous reactant under pressure, conduit means connecting said gas producing means with said entrance nozzle, and a trap communicably connected to the cooling chamber for the collection of the reaction product.

2,875,029

STABILIZED LIQUID FUEL

Leo A. McReynolds, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application May 21, 1953
Serial No. 356,589
6 Claims. (Cl. 44—70)

1. A stabilized fuel consisting essentially of normally liquid hydrocarbon and between 0.0001 and 0.01 weight percent of a gum-formation-inhibiting oxygenated component obtained by oxidation of an aliphatic hydrocarbon fraction in which the ratio of carbon atoms to olefinic bonds is at least 16:1, having a refractive index n_D^{20} in the range of 1.440 to 1.520, an average molecular weight in the range of 550 to 10,000 and substantially all components thereof having a minimum molecular weight of 450, a viscosity in the range of 50 to 1400 SUS at 210° F., a viscosity index (when determinable) in the range of 50 to 125 and an average carbon atom content per molecule in the range of 40 to 720.

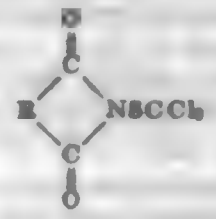
2,875,030

DEFOLIATING WITH COMPOUNDS CONTAINING THE NSCCl$_3$ GROUP

William H. Brugmann, Jr., Milltown, Howard L. Yowell, Westfield, and Allen R. Kittleson, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application September 8, 1955
Serial No. 533,246
5 Claims. (Cl. 71—2.5)

1. A method of defoliating a cotton plant which comprises applying to said plant an aqueous emulsion of a concentrate comprising from 5 to 50 weight percent of a N-trichloromethylthio imide of a carboxylic acid having the following general formula



wherein R is an organic residue, from 40 to 90 wt. percent of a non-toxic mineral spray oil, and from 1 to 10 weight percent of an oil soluble emulsifying agent, the aforesaid concentrate constituting from 10 to 50 wt. percent of the total aqueous emulsion and providing at least 1 wt. percent of said imide in said emulsion.

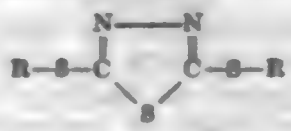
2,875,031

METHOD OF KILLING WEEDS

Winfried Kruckenberg, Leverkusen-Bayerwerk, and Ludwig Ene, Koln-Mulheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application May 31, 1956
Serial No. 588,270
Claims priority, application Germany June 3, 1955
4 Claims. (Cl. 71—2.5)

1. A method of killing weeds which comprises treating a member selected from the group consisting of seedlings and plants with an effective amount of a compound of the general formula



wherein R stands for a member selected from the group consisting of hydrogen, ammonium, alkali metal, lower alkyl, lower alkylene, phenyl, nitro-substituted phenyl, and di-lower-alkylamino carbonyl.

2,875,032

PROCESS OF PREPARING A PHOSPHATED PRODUCT

Jacques Bursaux, Paris, Henri Ancelle, Neuilly-sur-Seine, and Henri de Saint Chamant, Paris, France, assignors to Comptoir des Phosphates de l'Afrique du Nord, Paris, France, a corporation of France

No Drawing. Application October 30, 1952
Serial No. 317,846
Claims priority, application France November 16, 1951
5 Claims. (Cl. 71—41)

1. A method of preparing a phosphated product, which comprises subjecting a mixture of crude phosphate of calcium of an alkali metal chloride and of phosphoric acid in proportions equivalent stoichiometrically to the formula $2CaO \cdot M_2O \cdot P_2O_5$, were M is an alkali metal, in the presence of water vapor, to a continuous heat treatment, in the first part of which the said mixture is gradually calcined at between about 600° C. and about 800° C. for from about 1 to about 2 hours and in the subsequent second part of which the said mixture is gradually heated at between about 1000° C. and about 1200° C. for from about one-quarter of an hour to about 1 hour.

2,875,033

METHOD OF SEPARATING TITANIUM CRYSTALS

Lester D. Grady, Palmerton, Pa., assignor to The New Jersey Zinc Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application June 11, 1957
Serial No. 664,898
8 Claims. (Cl. 75—.5)

1. The method of selectively separating relatively pure and relatively impure crystals of electrolytically deposited

titanium metal from a massive cathode deposit composed essentially of a mixture of titanium crystals with adhering and entrained electrolyte salts which comprises crushing the cathode deposit to form a mass of coarse aggregates not substantially smaller than that which will pass through approximately one-quarter inch screen openings, leaching the crushed mass with an aqueous medium to dissolve the electrolyte salts away from the titanium metal, disintegrating the residual mass of titanium metal predominantly into its component crystals with a scissor-like action between cutting blades spaced apart a distance at least as great as the maximum particle size of the individual titanium crystals and moving at sufficiently high speed so that the mass of titanium metal is disintegrated substantially exclusively by shearing impact, maintaining a chemically inert atmosphere surrounding the mass of titanium metal while it is being disintegrated, subjecting the disintegrated mass while suspended in an aqueous medium to vigorous mechanical agitation of sufficient force to cause the suspended particles to impinge against one another with such force as to dislodge any titanium metal crystals in adhering contact with other such crystals and to substantially completely separate the mass into its individual crystal components, and classifying the resulting scrubbed disintegrated mass to separate a relatively pure fraction composed of relatively coarse titanium crystals from a relatively impure fraction composed of relatively fine titanium crystals.

2,875,034

PRODUCTION OF METALS

John L. Ham, Wellesley Hills, and David I. Sinizer, Bedford, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

No Drawing. Application March 30, 1956
Serial No. 574,982
2 Claims. (Cl. 75—10)

1. A process for melting and casting a highly reactive base metal such as titanium and zirconium to obtain a substantially uniform alloy which comprises mixing a quantity of virgin base metal, scrap base metal and at least one alloying metal in a preformed skull comprising the base metal, subsequently melting the mixture by means of a nonconsumable electrode to form a single molten pool of a homogeneous alloy, the formation of the molten pool being carried out under an inert atmosphere, pouring the molten alloy into a mold to form a consumable electrode of the alloy, and arc melting the consumable electrode at a pressure below 1 mm. Hg abs. in a cold mold to produce a substantially hydrogen-free, homogeneous alloy ingot.

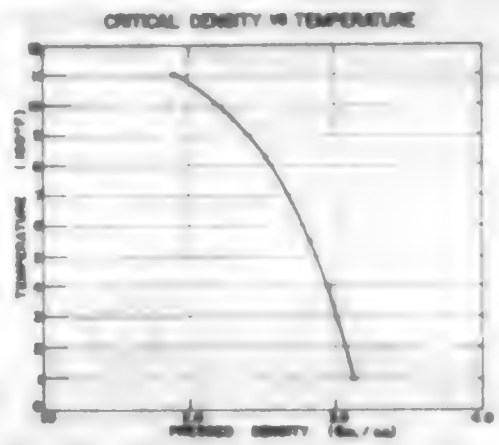
2,875,035

PROCESS OF ELIMINATING PYROPHORISM IN ARTICLES FORMED FROM CHEMICALLY REDUCED METALLIC IRON

Marion Ernest Graham, Parma, William A. Reed, West Richfield, and Roger A. Holman, Cleveland Heights, Ohio, assignors to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey

Application April 5, 1955, Serial No. 499,422
2 Claims. (Cl. 75—34)

1. The process of making shaped non-pyrophoric iron articles by a powder-metallurgy method, comprising the steps of reducing a compound of iron by treating such compound with a gaseous reducing agent to produce metallic iron under conditions such that the metallic iron produced thereby may be pyrophoric even after cooling to room temperature under non-oxidizing conditions; compacting said metallic iron at a temperature substantially above 100° F. and to a selected shape and to a density which is at least as great as that representing the critical density corresponding to the temperature at which said metallic iron is compacted in the density-compacting temperature curve of the accompanying drawing, so as to establish compacting temperature-pressed density conditions in the area above and to the right of the curve of said drawing, while maintaining said metallic



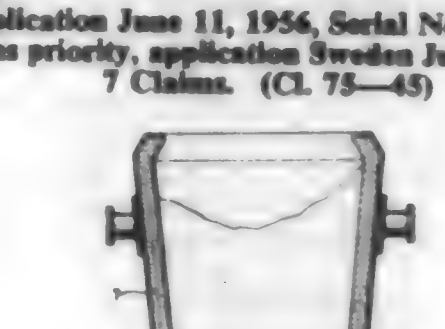
iron in a non-oxidizing atmosphere subsequent to the reduction thereof and until it is compacted as aforesaid, and thereby converting the metallic iron to a state at which it is non-pyrophoric when cooled to room temperature.

2,875,036

METHOD FOR TREATING MOLTEN METAL

Bo Michael Sture Kalling, Domnarvet, Sweden, assignor to Stora Kopparbergs Bergslags Aktiebolag, Falun, Sweden

Application June 11, 1956, Serial No. 590,620
Claims priority, application Sweden June 15, 1955
7 Claims. (Cl. 75—45)



1. A method for treating molten metal in a reaction vessel, comprising moving the vessel without rotation along a substantially circular path with respect to a substantially vertical axis, controlling the speed of the vessel so that the molten metal performs a circular motion within the vessel, and adding a treating agent to the molten metal in the vessel.

2,875,037

METHOD OF MAKING BESSEMER OR CONVERTER STEEL

Edwin C. Wright, University, Ala., assignor to Pennsylvania Engineering Corporation, New Castle, Pa., a corporation of Pennsylvania

No Drawing. Application March 17, 1953
Serial No. 342,970
4 Claims. (Cl. 75—46)

1. A method of making Bessemer steel having a nitrogen content of not more than 0.005% and a phosphorus content of less than 0.04%, which consists in blowing with air a bath of molten pig iron in an acid lined converter until substantially all the silicon and manganese of the bath is oxidized and the carbon content of the bath is reduced to not more than 3%; reducing the temperature of the bath and of the slag contained thereon to about 1500° C. by adding to the bath through the slag a calculated quantity of cold iron and steel scrap; removing the thus partially cooled slag from the bath; transferring

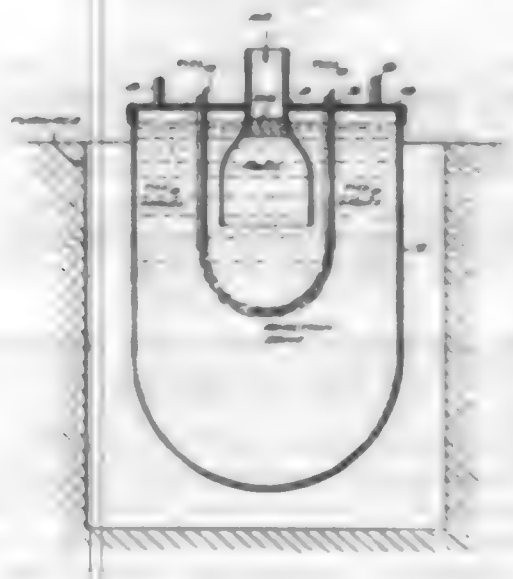
the slag-free molten metal from the acid lined converter to a basic lined converter; covering the bath in the basic lined converter with basic slag-forming material; side blowing the bath in the basic lined converter to further reduce the carbon content thereof and to the extent that phosphorus content is reduced below 0.04%; and then in separating the resultant slag from the finished steel constituting the molten bath.

2,875,038

METHOD OF PRODUCING CRYSTALLINE METAL

Reginald S. Dean, University Park, Md., assignor to Chicago Development Corporation, Riverdale, Md., a corporation of Delaware

Application February 16, 1955, Serial No. 488,540
2 Claims. (Cl. 75—84.5)



1. In a process for the production of a crystalline deposit of a metal of a first group consisting of titanium and zirconium by reduction of a lower chloride of a metal of said first group in solution in a fused bath of at least one salt selected from the group consisting of alkali metal chlorides, alkaline earth metal chlorides and magnesium chloride by reaction therewith of a reducer metal selected from the group consisting of alkali metals, alkaline earth metals and magnesium dissolved in a fused bath of at least one salt selected from the group consisting of alkali metal chlorides, alkaline earth metal chlorides and magnesium chloride, the steps which consist in bringing together said solution of the chloride of said first group metal and said solution of reducer metal in a reaction zone at a low concentration of both reactants below 10^{-3} gram equivalents per gram of said fused salt and thereafter adding said solutions of reactants to the reaction zone at rates which maintain such low concentration and in stoichiometric proportions whereby said first group metal is produced in coarsely crystalline form.

2,875,039

METHOD OF LEACHING UNREDUCED IRON-CONTAINING TITANIFEROUS ORES

John H. Bachmann, Akron, Ohio, assignor to Columbia-Southern Chemical Corporation, a corporation of Delaware

No Drawing. Application August 26, 1955
Serial No. 530,877
5 Claims. (Cl. 75—101)

1. A method of leaching the iron content from an unreduced iron-containing titaniferous ore wherein the major portion of the iron content of said ore is in its unreduced ferric state which comprises leaching the ore with hydrochloric acid at a temperature of at least 175° C. and at superatmospheric pressure and thereafter mechanically separating the solubilized iron component.

2,875,040

PROCESS OF SEPARATING PALLADIUM FROM METALS OF THE PLATINUM GROUP

Silvio Barabas, Montreal, Quebec, Canada, assignor to Canadian Copper Refiners Limited, Toronto, Ontario, Canada, a corporation of Canada

No Drawing. Application February 4, 1958
Serial No. 713,086

13 Claims. (Cl. 75—121)

11. The process of substantially quantitatively separating palladium from at least one of the metals of the platinum group, said group consisting of platinum, rhodium and iridium, in the treatment of an aqueous solution of compounds of palladium and of at least one metal of said platinum group, in which there is a weight ratio of palladium to the metals of said platinum group (calculated as metals) of less than about 4:1, and in which said solution is maintained in an acid condition by the presence therein of at least one strong acid, but wherein said aqueous solution is substantially free of aqua regia; said process comprising the steps of precipitating the palladium therein by adding a water-soluble iodide to said aqueous solution in an amount which is about stoichiometrically equivalent to the palladium present to form PdI_2, so as to precipitate the palladium quantitatively as PdI_2; and meanwhile maintaining in said solution a sufficient concentration of sulphur dioxide so as (*a*) to prevent the solution of PdI_2 by conversion thereof to $PdI_4^=$, and (*b*) to retard the precipitation of iodine-containing compounds of the metals of said platinum group; separating the precipitate thus formed from the remaining liquid, igniting the separated precipitate to drive off iodine and to reduce it to the corresponding metals, redissolving at least the palladium and platinum present of said metals resulting from the igniting step in aqua regia, while leaving any rhodium and iridium undissolved, separating the redissolved metals from any remaining precipitate to give a solution including the chlorides of palladium and platinum, eliminating the nitric acid present in the solution by successively and alternately reducing the volume of the solution to a minimum by evaporation and taking up the remaining minimum in hydrochloric acid, reestablishing in the solution so prepared a concentration of sulphur dioxide in the range of about 0.3 gram per liter to about 4 grams per liter; and reprecipitating palladium as PdI_2, by adding a soluble iodide, so as to repeat the palladium precipitation step as aforesaid; and repeating the solution in aqua regia and the subsequent steps as stated and subsequent precipitation of PdI_2, all as aforesaid as often as necessary to get a substantially quantitative separation of palladium and platinum.

2,875,041

METHOD OF MAKING ALLOYS OF BERYLLIUM WITH PLUTONIUM AND THE LIKE

Oliver J. C. Runnalls, Deep River, Ontario, Canada, assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 7, 1955
Serial No. 480,591

4 Claims. (Cl. 75—122.7)

1. A method of producing alloys of beryllium with plutonium which comprises mixing halide of plutonium with beryllium and heating the mass at 1000° C. to 1350° C. in vacuum to reduce the halide and alloy the reduced metal with beryllium.

2,875,042

HIGH TEMPERATURE ALLOY STEEL

Wesley R. Kegerise and Gerald B. Heydt, Reading, Pa., assignors to The Carpenter Steel Company, Reading, Pa., a corporation of New Jersey

No Drawing. Application February 12, 1957
Serial No. 639,644
11 Claims. (Cl. 75—126)

1. A steel alloy capable of being age-hardened to show an essentially ferritic structure, said alloy having good corrosion resistance, ductility, impact strength and life at elevated temperatures, and said alloy containing up to about 0.10% carbon, silicon in an amount not more than 1%, manganese in an amount not more than 1%, 9–16.5% chromium, 6–17% of an element selected from the class consisting of molybdenum and tungsten, and the balance iron except for impurities usually associated with these elements.

2,875,043

SPRAY-WELD ALLOYS OF THE BORON-SILICON-NICKEL TYPE

Sam Tour, New York, N. Y., assignor to Metallizing Engineering Co., Inc., a corporation of New Jersey

No Drawing. Application April 4, 1956
Serial No. 576,217
16 Claims. (Cl. 75—134)

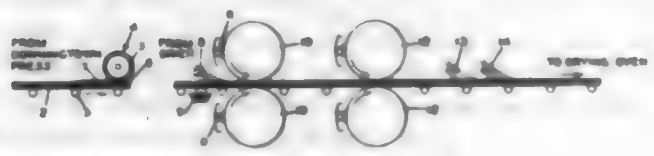
1. A spray-weldable alloy of the boron-silicon-nickel type containing at least 40% nickel, 1–6% boron and silicon in amount up to about 6% having an additional component consisting of 3–8% Cu and 3–10% Mo by weight of total alloy and possessing a range of viscous fluidity of at least 100° F.

2,875,044

FIBERBOARD AND METHOD OF FLAME-PROOFING THE SAME

Lewis R. Dunn and Lewis W. Eckert, Lancaster Township, Lancaster County, Pa., assignors to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

Application May 31, 1957, Serial No. 662,698
12 Claims. (Cl. 92—3)



1. In a process of rendering fiberboard and the like flame-resistant, the steps comprising forming a multiple layer system on the upper surface of the fiberboard, including a layer made up of cellulosic fibers reacted with boric acid and a separate layer disposed thereover and made up of finely divided inorganic particles and a flame-resistant binder, by applying to the surface of a formed body of felted cellulosic fibrous material an acid solution the active component of which consists essentially of boric acid, which solution penetrates only to a limited extent into the formed body below the surface thereof and said boric acid thus is concentrated in a surface layer adjacent to the upper surface of the formed body, applying to the upper surface of the formed body over the boric acid coated fibers prior to drying a separate flame-resistant layer of finely divided inorganic particles and a flame-resistant binder, and at some stage in the process heating the boric acid coated fibers to an elevated temperature at which said boric acid is reacted with said celluosic fibers.

2,875,045

ALUM CONTAINING ANTIOXIDANT AND MANUFACTURE OF SIZED PAPER THEREWITH

David Lurie, Freeport, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 28, 1955
Serial No. 504,685
10 Claims. (Cl. 92—21)

7. A composition for use in paper making comprising papermaker's alum and a water-soluble ionizable thiosulfate, said alum containing a minor amount of at least one iron sulfate as impurity, the amount of said thiosulfate being sufficient (1) to reduce any trivalent iron present to ferrous iron and (2) to provide a small but effective amount of said thiosulfate as antioxidant for said ferrous iron.

2,875,046

POSITIVE WORKING PHOTOLITHOGRAPHIC PLATE AND METHOD FOR MANUFACTURING SAME

Thomas U. Marron, Glenview, Fred K. White, Jr., Oak Park, and Helen M. Rosenberger, Skokie, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois

Application March 1, 1954, Serial No. 413,414
5 Claims. (Cl. 96—33)

1. For use in the preparation of a positive working lithographic plate, the combination of a master sheet having a continuous ink-repellent, water-receptive, lithographic surface and continuous coating on the surface of a water-repellent, ink-receptive hydrophobic material which is made no longer water-repellent and ink-receptive upon reaction with hydrogen fluoride, and a second sheet capable of light transmission and containing a light-sensitive diazonium fluoborate uniformly distributed continuously throughout the length and width of the sheet and which releases hydrogen fluoride as a decomposition product upon light activation, said first and second sheets being separably joined one to the other along at least one of their common edge portions with the coated side of the master sheet in face to face relation with the surface of the second sheet containing the light sensitive, hydrogen fluoride releasing material.

2,875,047

PHOTOPOLYMERIZATION WITH THE FORMATION OF COHERENT PLASTIC MASSES

Gerald Oster, New York, N. Y.

No Drawing. Application January 19, 1955
Serial No. 482,868
41 Claims. (Cl. 96—35)

1. Process for the polymerization of vinyl monomers for the production of coherent masses which comprises irradiating with visible light, a liquid solution containing at least 20% by weight of a vinyl monomer polymerizable to a solid soluble polymer, an organic photoreducible dye and a reducing agent having a reduction potential incapable of reducing said dye in the absence of light but of sufficient strength to reduce the photo excited dye, said dye and reducing agent forming a stable system in the absence of light which undergoes reduction of dye upon exposure to visible light, said liquid solution comprising a solvent for said soluble vinyl polymer, said dye and reducing agent being present in sufficient amount to produce free radicals for the polymerization of said polymerizable vinyl monomers when irradiated with visible light, and thereby transforming said solution into a coherent mass.

2,875,048

COMBINED PHOTOGRAPHIC DEVELOPING AND STABILIZING SOLUTION

Grant M. Haist and James R. King, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application September 30, 1957
Serial No. 686,898
12 Claims. (Cl. 96—61)

7. A process for producing a stable photographic silver image which comprises treating an exposed silver halide emulsion layer with an alkaline solution containing (1) a compound of the class consisting of hydroxylamine and a 3-pyrazolidone silver halide developing agent, and (2) a compound of the class consisting of monothioglycerol, thioglycol, β-mercaptoethylamine, N, N-diethyl-β-mercaptoethylamine and 2-thiobarbituric acid.

2,875,049

STABILIZED PHOTOGRAPHIC DEVELOPERS FOR COLOR PHOTOGRAPHY

Donald J. Kridel, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 5, 1956
Serial No. 620,194
1 Claim. (Cl. 96—66)

A photographic developing composition comprising an alkaline solution of 1,3-diamino-2-propanol tetracetic acid, sodium sulfite, hydroxylamine sulfate, ethylenediamine sulfate, and 4-amino-N-ethyl-N-[β-methanesulfonamidoethyl]-m-toluidine sesquisulfate monohydrate.

2,875,050

TRIAMINOPYRIDINE DEVELOPER

Gershon M. Goldberg, Arlington, and James E. La Valle, Lexington, Mass., assignors to Technical Operations, Incorporated, Burlington, Mass., a corporation of Delaware

No Drawing. Application December 16, 1957
Serial No. 702,759
9 Claims. (Cl. 96—66)

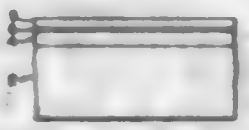
1. The method of developing photographic film which comprises treating an exposed silver halide emulsion with a solution of 2,3,6-triaminopyridine.

2,875,051

RELIEF PRINTING PLATES AND METHOD FOR FABRICATING THE SAME

John De Maria, Rehoboth, Mass., assignor to Chemical Products Corporation, East Providence, R. I., a corporation of Rhode Island

Application May 3, 1954, Serial No. 427,881
2 Claims. (Cl. 96—67)



1. A plate capable of development into a printing plate and having a base sheet, a layer of plastisol on the base sheet, said plastisol being a viscous dispersion of a vinyl chloride resin in a liquid plasticizer, said resin being partially solvated in the plasticizer and said plasticizer being capable of substantially advancing the solvation of the resin at elevated temperatures, a metallic infrared reflective layer over the plastisol layer, and a photosensitive material over the reflective layer, said material being adapted for development to an acid resist after selective luminous exposure.

2,875,052

PHOTOGRAPHIC MATERIAL FOR THE DIRECT PRODUCTION OF POSITIVE PHOTOGRAPHIC IMAGES

Edith Weyde, Leverkusen-Wiesdorf, Germany

No Drawing. Original application August 6, 1949, Serial No. 109,873, now Patent No. 2,712,995, dated July 12, 1955. Divided and this application October 19, 1954, Serial No. 463,318
9 Claims. (Cl. 96—68)

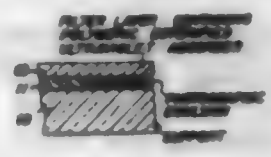
1. Photographic light sensitive layers comprising in contact with each other, a silver salt emulsion of low light sensitivity, the silver salt of which is a salt selected from the group consisting of silver chloride, silver ferrocyanide and organic silver salts, and a second silver salt emulsion of substantially higher light sensitivity than said first silver salt emulsion, the silver salt of said second emulsion being a salt of the group consisting of silver bromide, silver iodide, silver chloride and a mixture of silver bromide and silver chloride, said silver salt of said second emulsion being present in amounts of from 0.1 to 10% by weight based on the weight of the silver salt of said first emulsion, the silver salts of each emulsion being developable with the same developer, the silver salt of the second emulsion being less soluble in the developer, and that of the first emulsion being spontaneously developable without exposure to light.

2,875,053

PHOTOGRAPHIC ELEMENTS CONTAINING POLYMERIC ESTERS AS ULTRAVIOLET ABSORBING COMPOUNDS

Louis M. Minsk, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application May 26, 1955, Serial No. 511,168
10 Claims. (Cl. 96—84)



1. A photographic element comprising a support, at least one photographic silver halide emulsion layer and incorporated in one of the layers of said photographic element an ester of a compound selected from the group consisting of those represented by the following three general formulas:

(a)

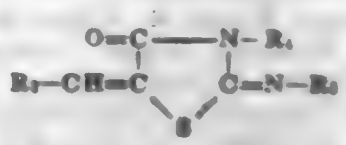


(b)



and

(c)



wherein R and R_1 each represents a member selected from the group consisting of an alkyl group and an aryl group, R_2, R_3 and R_5 each represents an aryl group, and R_4 represents a member selected from the group consisting of an alkyl group and an aryl group, provided that at least one of the groups selected from the group consisting of R_3 and R_4 contains a hydroxyalkyl radical containing from 2 to 3 carbon atoms, the hydroxyl group of the hydroxyalkyl group of said compound selected from the group consisting of (*a*), (*b*), and (*c*) having been esterified by a polymerized monoethylenically-unsaturated compound containing reactive groups selected from the group consisting of carboxylic halide and carboxylic anhydride groups.

2,875,054
PREPARATION OF COATINGS OF IMPROVED INTERNAL STRENGTH

William H. Griggs and Henry G. Curme, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application May 24, 1956, Serial No. 587,155
7 Claims. (Cl. 96—85)

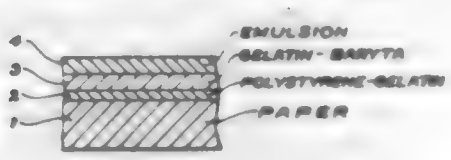


1. A method for preparing paper for photographic purposes which comprises coating the paper with a coating composition containing barium sulfate pigment and at least 25% of a styrene-butadiene resin produced by emulsion polymerization of the monomers, containing about 60% by weight styrene and 40% by weight butadiene, solids basis, drying the coating, fusing the coating at a temperature within the range of 275–375° F. and coating with a light-sensitive gelatinous silver halide emulsion.

2,875,055
PHOTOGRAPHIC PAPER HAVING REDUCED PROCESSING CURL

William H. Griggs and Frank A. Butler, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application October 18, 1956, Serial No. 616,597
3 Claims. (Cl. 96—85)



1. A process for providing a photographic paper having improved processing curl comprising tub-sizing the wet paper immediately after forming on the paper-making machine and while still wet with a polystyrene-gelatin dispersion, passing the wet paper under a size press roll to force the dispersion through the stock and to remove the excess from the surface, drying the paper at a surface temperature of about 200° F., coating with a baryta adhesive coating composition, drying, and coating with a light-sensitive silver halide emulsion over the dry baryta layer.

3. A photographic paper obtained by the process described in claim 1.

2,875,056
POLYSTYRENE PHOTOGRAPHIC ELEMENT HAVING A RESINOUS TERPOLYMER CHROMIC CHLORIDE UNDERCOAT

Carl F. Smith and Walter R. White, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application February 14, 1958, Serial No. 715,296
8 Claims. (Cl. 96—87)

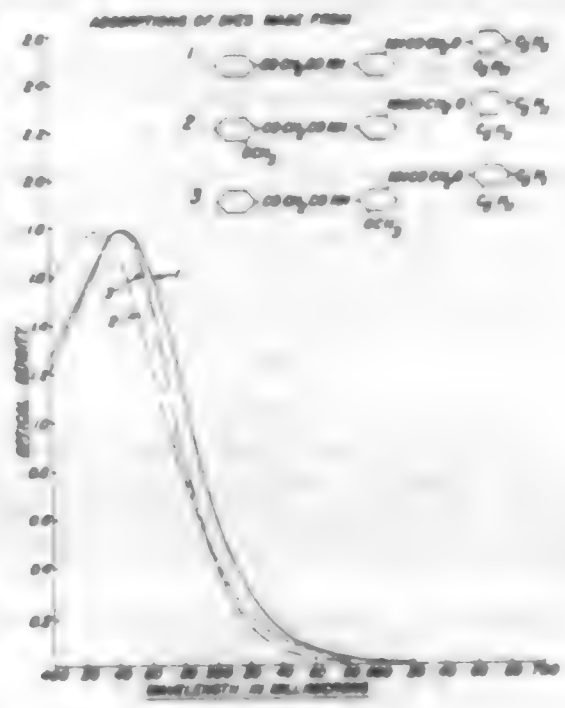


5. A photographic element comprising an oriented polystyrene film base, an undercoat layer on both sides adjacent to said base consisting essentially of a resinous terpolymer consisting of 50–80% by weight of n-butyl methacrylate units, 10–40% by weight of methyl methacrylate units and 2–10% by weight of methacrylic acid units, and containing 0.5–10.0% by weight of chromic chloride based on the weight of said terpolymer, an overcoat layer directly over each of said undercoat layers consisting essentially of 68–86% by weight of gelatin and 32–14% by weight of cellulose nitrate, a gelatino-silver halide emulsion layer directly over one of said overcoat layers, and a layer consisting essentially of gelatin and devoid of any silver halide directly over the other of said overcoat layers.

2,875,057
BENZOYLACET-o-ALKOXYANILIDE COUPLERS FOR COLOR PHOTOGRAPHY

Fred C. McCrossen, Paul W. Vittum, and Arnold Weissberger, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application March 30, 1956, Serial No. 575,099
10 Claims. (Cl. 96—100)



1. A photographic silver halide emulsion containing a coupler compound having the general formula

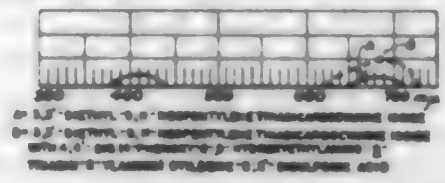


wherein R represents an alkyl group of from 1 to 20 carbon atoms and one of the groups X and Y represents a hydrogen atom and the other represents a photographically inactive carboxylic acid acylamido group.

2,875,058
SUPERSENSITIZATION OF PHOTOGRAPHIC EMULSIONS USING TRIAZINES

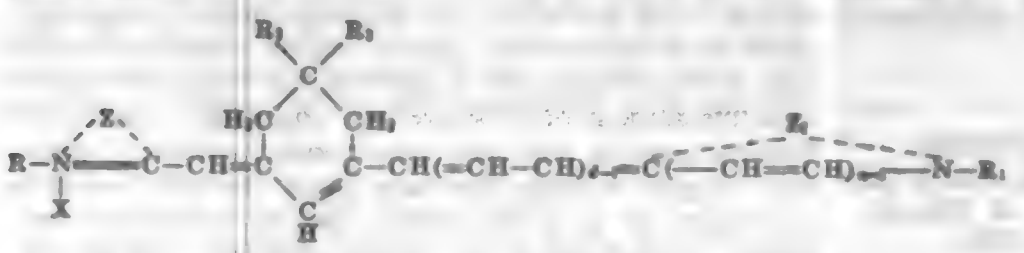
Burt H. Carroll and Jean E. Jones, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application October 12, 1955, Serial No. 540,053
17 Claims. (Cl. 96—104)

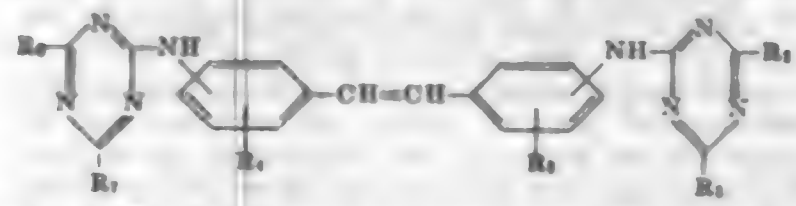


1. A photographic silver halide emulsion sensitized with a supersensitizing combination of at least one

cyanine dye selected from the class represented by the following general formula:



wherein R and R_1 each represents an alkyl group containing from 1 to 4 carbon atoms, R_2 and R_3 each represents a member selected from the group consisting of a hydrogen atom and a methyl group, X represents an acid radical, *d* represents a positive integer of from 1 to 3, *n* represents a positive integer of from 1 to 2, Z represents the non-metallic atoms necessary to complete a heterocyclic nucleus selected from the group consisting of those of the benzothiazole series and those of the naphthothiazole series, and Z_4 represents the non-metallic atoms necessary to complete a heterocyclic nucleus selected from the group consisting of those of the benzothiazole series, those of the naphthothiazole series, those of the benzoxazole series, those of the naphthoxazole series, those of the benzoselenazole series, those of the naphthoselenazole series, those of the 2-quinoline series, those of the 4-quinoline series, those of the benzimidazole series, and those of the benzoquinoline series, and at least one bis-(s-triazin-2-ylamino)stilbene compound selected from the class represented by the following general formula:



wherein R_2, R_3, R_6 and R_7 each represents a member selected from the group consisting of a hydrogen atom, a hydroxyl group, an aryloxy group, an alkoxyl group, a halogen atom, a heterocyclic radical, an alkylthio group, an arylthio group, and an amino group, and R_4 and R_5 each represents a member selected from the group consisting of a hydrogen atom and a sulfo group.

2,875,059

PHOTOGRAPHIC EMULSIONS CONTAINING POLYAMIDES HAVING ETHER OXYGEN AND EXTRALINEAR HYDROXYL GROUPS

Cornelius C. Unruh and Donald A. Smith, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application December 30, 1953 Serial No. 401,413

2 Claims. (Cl. 96—114)

1. A photographic emulsion comprising silver halide grains dispersed in an aqueous solution of a linear polyamide formed by condensing an aliphatic hydroxy dicarboxylic acid, the hydroxy of which is attached only to carbons alpha to the carboxyl groups, a diamine selected from the group comisting of the polymethylene diamines and the alkylene diamines containing ether oxygen atoms and a dicarboxylic acid selected from the group consisting of the dicarboxylic acids in which the carboxy groups are joined by aliphatic hydrocarbon radicals and the aliphatic dicarboxylic acids containing ether oxygen atoms, the ratio of ether oxygen to hydroxyl groups in the polyamide being 1/3–3:1 and the ratio of their total to the carbon atoms therein being 1:7–16 which emulsion can be coated out in the form of a thin layer onto a support to thereby form a coating which gels upon cooling.

2,875,060

FOOD COMPOSITION AND METHOD OF PRESERVING SAME

Ralph T. Holman, Austin, Minn., assignor to Regents of the University of Minnesota, Minneapolis, Minn., a corporation of Minnesota

Application May 27, 1955, Serial No. 511,459

7 Claims. (Cl. 99—2)

1. A method of inhibiting autoxidation and rancidity and lessening the oxidation of oil-soluble vitamins in food compositions containing essential fatty acid compound and at least one oil soluble vitamin compound which comprises reacting the essential fatty acid compound with urea to form a urea-inclusion compound and incorporating that urea-inclusion compound into said food composition.

2,875,061

PREPARATION OF PROTEIN PRODUCTS FROM FISH MATERIALS

Raimund Vogel, Munich, and Klement Mohler, Tutzing am Starnberger See, Germany

No Drawing. Application May 31, 1955 Serial No. 512,327

Claims priority, application Germany May 31, 1954

8 Claims. (Cl. 99—7)

1. A process of preparing edible protein substances from raw fish material having a fat content of less than 4%, comprising the steps of partially dehydrating the fish material, heating the fish material in a solution of an alkali hydroxide in ethanol to remove the fishy smell and taste from said fish material, cooling the fish material in solution, then adding an acid in sufficient quantity to set the isoelectric point of the resultant product, and then drying the fish material.

2,875,062

PRECIPITATION OF TANNINS AND/OR PROTEINACEOUS SUBSTANCES FROM LIQUID MEDIA

Jesse Werner, Hollywood, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application October 31, 1957 Serial No. 693,529

6 Claims. (Cl. 99—48)

1. The process of precipitating substances selected from the group consisting of natural tannins and protein-tannin complexes from liquid media containing the same which comprises adding to the said liquid media, in a precipitating amount, a polyvinylimidazole having a molecular weight of 20,000 to 400,000 and removing the precipitate from the liquid media.

2,875,063

FOOD PROCESS

Jacob R. Feldman, Maplewood, N. J., assignor to General Foods Corporation, White Plains, N. Y., a corporation of Delaware

No Drawing. Application November 30, 1954 Serial No. 472,225

11 Claims. (Cl. 99—71)

1. A process for producing a coffee aroma composition comprising the aromatic volatile constituents of freshly roasted coffee and having improved stability on storage

which comprises removing substantially all of the hydrogen sulfide from said collected constituents while leaving unremoved the desirable sulphur containing constituents.

2,875,064

BAKING COMPOSITIONS AND METHODS

Elmer F. Glabe, Chicago, Ill., assignor to Bred-Ads Corporation, Oak Park, Ill., a corporation of Illinois

No Drawing. Application July 12, 1954
Serial No. 442,890
6 Claims. (Cl. 99—91)

1. A composition for incorporation with 100 grams of flour in the dough of a yeast-raised bake product to improve baking results comprising in relative amounts about .0005 to .01 gram of calcium peroxide, about .005 to .05 gram of brewer's inactive yeast, and about 1 to 50 Ayre Anderson units of a proteolytic enzyme.

2,875,065

FLUID SHORTENING COMPOSITION

Stuart W. Thompson, Upper Saddle River, N. J., assignor to Lever Brothers Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 11, 1955
Serial No. 507,727
20 Claims. (Cl. 99—118)

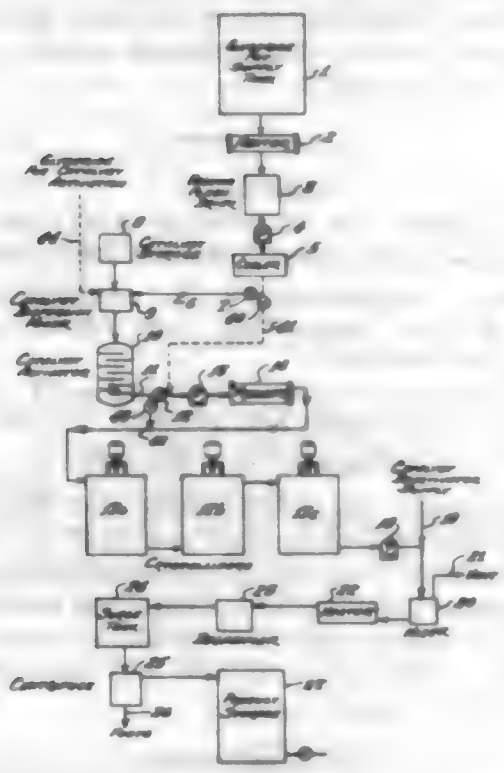
12. A stable fluid shortening composition comprising an edible liquid oil and about 3 to 8% by weight based on the composition of a saturated long chain fatty acid trigylceride having at least one behenyl radical per molecule.

2,875,066

RAPID DIRECTED INTERESTERIFICATION OF GLYCERIDES

George W. Holman, Wyoming, and Louis H. Going, Loveland, Ohio, assignors to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio

Application July 15, 1954, Serial No. 443,655
9 Claims. (Cl. 99—122)



1. The improvement in processes of low temperature directed interesterification of mixtures of triglycerides which differ in their melting points, which comprises: (1) rapidly chilling successive portions of a flowing stream of said mixture to a temperature below that at which a cloud of fine crystals forms in the mixture but not as low as the freezing point of the lowest melting component triglycerides, the rate of said chilling being so great as to cause supercooling and the sudden formation of a cloud of extremely minute crystals of higher melting triglycerides throughout the flowing stream, the accumulation of crystals upon the surface of the heat extracting means being prevented; (2) effecting directed rearrangement in a mass of said rapidly chilled triglyceride mixture in the presence of a uniform fine dispersion of an effective amount of an active low temperature interesterification catalyst and with continuous mechanical agitation adapted to keep the mass liquid and effect relative movement of all parts thereof, thereby facilitating continued crystallization of higher melting triglycerides formed by the continuing interesterification; (3) interrupting said directed interesterification, by inactivating the catalyst therein while the temperature of the mass is still at least 3° F. below the maximum to which it would rise if the directed rearrangement were continued under adiabatic conditions.

2,875,067

LARD SHORTENINGS

George W. Holman, Wyoming, and Louis H. Going, Loveland, Ohio, assignors to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio

Application July 15, 1954, Serial No. 443,656
7 Claims. (Cl. 99—122)

1. Plastic shortening at least 90% of which is made from a low temperature directedly rearranged and partially hydrogenated mixture of triglycerides consisting at least 80% of the triglyceries of lard and not over 20% of the triglyceries of edible tallow, the remaining 0% to 10% of the shortening consisting of glyceridic fats adaptable to use as components of plastic shortenings, selected from the group consisting of monoglycerides, diglycerides, and triglycerides of lard, of edible tallow, of randomly rearranged lard, of palm oil, and of partially hydrogenated cottonseed oil, corn oil, soybean oil, sunflower seed oil, linseed oil, and peanut oil, and mixtures of any of these, at least a fourth and not over half of the saturated fatty acid radicals of said directedly rearranged mixture being combined as trisaturated triglycerides prior to its partial hydrogenation, said shortening having a plastic range as herein defined of at least 21° F. and a polyunsaturates number as herein defined no higher than 16, the point representing the plastic range and the polyunsaturates number of said shortening being above the diagonal line of Figure 4.

2,875,068

CURING OF MEATS

Samuel Klein, Newark, N. J.

No Drawing. Application October 28, 1957
Serial No. 692,982
15 Claims. (Cl. 99—159)

1. A method of curing meat comprising curing meat with a nitrite-nitrate curing solution in the presence of ascorbic acid, alkali metal bicarbonate and alkali metal glutamate, the ascorbic acid and alkali metal bicarbonate being in equimolar proportions.

2,875,069

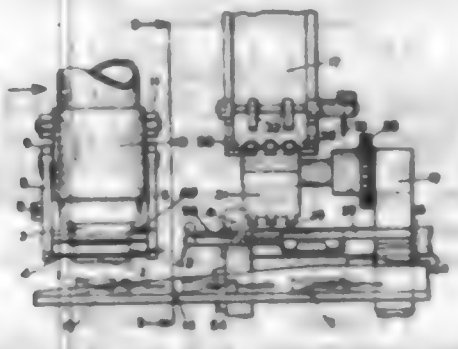
METHOD OF MANUFACTURING WRAPPED PACKAGES OF EDIBLE PLASTIC MATERIAL

Joseph Arthur Gilbert, Reginald Frank Johnson, and Alfred German Rose, Gainsborough, England, assignors to Rose Brothers (Gainsborough Limited), Gainsborough, England, a British company

Application May 5, 1955, Serial No. 506,178
Claims priority, application Great Britain May 25, 1954
7 Claims. (Cl. 99—171)

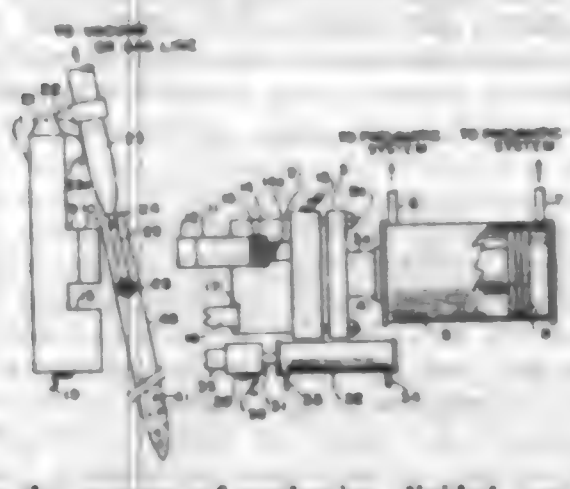
1. Method of manufacturing wrapped packages each containing an article of plastic edible material in which method a spaced succession of articles are fed on to a movable web of wrapping material, said method being characterised by the steps of continuously extruding a

strip of the plastic material towards a movable web of wrapping material, forming a succession of articles by cutting the extruding strip at intervals in timed relationship with the movement of the web so as to deposit thereon a spaced succession of the articles, said cutting being such as to avoid interference with the ex-



truding movement and being by means of a cutting device concurrently moving (1) with the strip during the cutting action at substantially the same rate as that of extrusion of the strip and (2) transversely of the strip to cut the strip; and, prior to the cutting of the strip to form each article, inserting a stick laterally into the extruding strip.

2,875,070
METHOD AND APPARATUS FOR PACKAGING POWDERS AND THE LIKE
Louis B. Rockland, Pasadena, and Lawrence F. Atkinson, Arcadia, Calif., assignors to the United States of America as represented by the Secretary of Agriculture
Application October 24, 1955, Serial No. 542,531
10 Claims. (Cl. 99—171)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In the process of packaging divided material in a saccliform container having an open upper end and a closed lower end, wherein a quantity of the divided material is deposited in the lower end of the container and wherein the container is evacuated prior to closure, the improvement which comprises uniting the side walls of the container at spaced areas across the width of the container at a position above the level of material in the container whereby to form a series of small indirect passageways between the areas, and thereafter evacuating the container from a point above said position.

2,875,071
PRESERVATION OF COLOR IN GREEN VEGETABLES
George J. Malecki, Le Sueur, Minn., assignor to Patent Protection Corporation, New York, N. Y., a corporation of New York, trustee
No Drawing. Application May 18, 1955
Serial No. 509,405
5 Claims. (Cl. 99—186)

4. The method of preserving color in canned green vegetables which consists in placing the vegetables in an alkaline canning solution and adding to a portion of the interior surface of the can a coating consisting in part of an innocuous alkaline compound which is soluble in the canning solution, said coating and compound being of such character that the alkaline compound will progressively dissolve in the canning solution over a prolonged period of time to maintain the pH of the solution at a substantially unchanged value for the prolonged period of time.

2,875,072
RUST PREVENTATIVE COMPOSITIONS
Edgar A. Dieman, Crown Point, and James W. Gayner, Valparaiso, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application June 29, 1955
Serial No. 518,978
4 Claims. (Cl. 106—14)

1. A rust preventative composition of the slushing oil type characterized by capacity for protecting metal surfaces in acid atmospheres consisting essentially of a hydrocarbon oil as base and containing dissolved therein about 8 to about 12% in combination of a higher aliphatic primary amine containing about 18 to 24 carbon atoms and an aromatic acid, and about 14 to about 28% of zinc naphthenate.

2,875,073
CORE BINDER AND PROCESS OF MAKING CORES
Charles J. Gogek, Brookfield, Ill., assignor to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application May 23, 1955
Serial No. 510,583
4 Claims. (Cl. 106—38.4)

1. A process for producing a core for foundry use which comprises mixing 100 parts of sand, 0.25 to 2 parts of cereal binder, 0.5 to 5 parts of sugar and from 0.002 to 0.15 part of adjunct per part of sugar, and sufficient water to mull the resultant mixture, molding said mixture and baking it at a temperature of at least 350° F.; said sugar-adjunct-binder containing from 1 to 20 parts of adjunct; all parts being on a weight basis; said adjunct being selected from the group consisting of hydrochloric acid; sodium chloride; a mixture consisting of 5 parts by weight of paraformaldehyde and 1 part by weight of ammonium chloride; boric acid; sulfuric acid, phosphoric acid, and salts which produce such acids under said baking conditions.

2,875,074
NACREOUS MOLYBDENUM AND TUNGSTEN OXIDES
Lawrence Sachow, New York, N. Y., assignor to Francis Earle Laboratories, Inc., Peekskill, N. Y., a corporation of New York
No Drawing. Application August 24, 1956
Serial No. 605,940
15 Claims. (Cl. 106—47)

1. A nacreous composition comprising a paste having as a nacre-producing substance therein flat, plate-like crystals of at least one member from the group consisting of molybdenum trioxide and tungsten trioxide, said crystals being suspended in an organic light-transmitting liquid vehicle and having a thickness not greater than 1 micron and a ratio of diameter to thickness of at least 4.

2,875,075
HYDROUS CALCIUM SILICATES
George L. Kalousek, Toledo, Ohio, assignor, by mesne assignments, to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application August 8, 1955, Serial No. 526,850
6 Claims. (Cl. 106—120)

1. The method of making an integrated hydrous calcium silicate product which comprises forming a mixture

comprising reactive lime, reactive silica, calcium chloride, clay and water, the ratio of water to solids ranging from 2:1 to 8:1, the ratio of reactive lime to reactive silica ranging from .7:1 to 1:1, the silica of the clay being calculated as a part of the total silica, the amount of calcium chloride being a maximum of 10% based on the total weight of reactive solids, and the amount of clay ranging between 1% and 20% based on the total weight of reactive solids and indurating said mixture at a minimum temperature and pressure of 401° F. and 250 p. s. i. a. to form an integrated hydrous calcium silicate product.

2,875,076

NACREOUS GRAPHITE PIGMENT

Lawrence Suchow, New York, N. Y., assignor to Francis Earle Laboratories, Inc., Peekskill, N. Y., a corporation of New York

No Drawing. Application February 7, 1957
Serial No. 638,685
8 Claims. (Cl. 106—148)

3. A nacreous composition having a pigment suspended therein for producing a lustrous black effect, said effect being due to the presence in said composition of particles of finely-divided, plate-like, opaque, crystalline graphite, the graphite particles being in the range of 1 to 50 microns in diameter and having a thickness not greater than 1 micron, the said graphite particles being suspended in a light-transmitting, liquid vehicle.

2,875,077

COMPOSITION FOR AND METHOD OF PIGMENTING VISCOSE

Kenneth M. McLellan, Cleveland, Ohio, assignor to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware

Application April 2, 1954, Serial No. 420,678
4 Claims. (Cl. 106—165)

1. Pigmenting composition for viscose spinning solution for subsequent extrusion into colored yarn and the like consisting essentially of not more than about one part by volume of an aqueous yarn coloring pigment dispersion containing not more than about 20% by weight of dispersed solids homogeneously mixed with at least about 2½ parts by volume of an uncrystallizable liquid corn syrup having a concentration of at least about 38° Baumé and a dextrose equivalent between about 35 and about 60.

2,875,078

SPINNING OF VISCOSE

Byron N. Baer, Newark, and John D. Brandner and John W. Le Maistre, Wilmington, Del., assignors to Atlas Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 22, 1955
Serial No. 529,951
7 Claims. (Cl. 106—165)

1. Viscose containing from 0.5% to 4%, based on the weight of the cellulose content of the viscose, of a compound conforming to the generic formula

$$R—O(C_2H_4O)_x—CH_2CH_2CH_2NH_2$$

wherein R is an alkyl radical containing from 12 to 20 carbon atoms and x has any value from 6 to 30.

2,875,079

SPINNING SOLUTION

Robert E. Clark, Madison, Tenn., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 4, 1957
Serial No. 643,510
6 Claims. (Cl. 106—165)

1. In the process for the preparation of a regenerated cellulose filament by extruding viscose into an acid coagulating and regenerating bath, the improvement which comprises incorporating into the viscose, prior to extruding, from at least about 0.02 to about 0.10% by weight, calculated as the sodium salt, of a soluble salt of a sulfated fatty acid having at least 10 carbon atoms and from about 0.05 to about 0.10% by weight, calculated as sodium sulfite, of a soluble sulfite.

2,875,080

VARNISH AND PROCESS OF MAKING

Donald C. Ewart, Wilkinsburg, and Ernest G. Sieber, Pittsburgh, Pa., assignors to Airflo Roofing Company of America, Inc., Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application February 11, 1957
Serial No. 639,214
7 Claims. (Cl. 106—248)

1. A varnish comprising 15% to 19% gilsonite, 18% to 34% of 180° F. asphalt, 9% to 12% bodied linseed oil, 6% to 8% bodied soybean oil, and 35% to 40% mineral spirits.

2,875,081

METHOD FOR PREPARING ADHESIVE COATING COMPOSITIONS AND GELS THEREFOR

George D. Duro, Willowick, Ohio, assignor to The Hawshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application August 9, 1957
Serial No. 677,202
9 Claims. (Cl. 106—268)

1. The method for preparing a gel suitable for use in the preparation of adhesive compositions comprising mixing a saturated higher fatty acid composed predominantly of a fatty acid selected from the group consisting of myristic acid, palmitic acid, stearic acid, arachidic acid, behenic acid and mixtures thereof, and an aluminum trialcoholate derived from an alcohol having from 2 to 5 carbon atoms with microcrystalline wax under substantially anhydrous conditions at a temperature ranging in excess of the boiling point of said alcohol to about 300° F. to form a frothy mixture of dispersed vaporized alcohol, microcrystalline wax and fatty acid modified aluminum alcoholate, said aluminum trialcoholate being mixed in amounts ranging from about 1% to about 15% by weight of said microcrystalline wax, and said saturated higher fatty acid and aluminum trialcoholate being mixed in proportions ranging from about 1.2 to about 2.4 mols of saturated higher fatty acid per mol of aluminum trialcoholate, thereafter hydrolyzing said fatty acid modified aluminum alcoholate in said frothy mixture by mixing a sufficient amount of water into said frothy mixture to free the balance of the alcohol combined with said fatty acid modified aluminum alcoholate while maintaining said frothy mixture at a temperature from in excess of 212° F. to about 290° F.

2,875,082

POUR DEPRESSED MICROCRYSTALLINE WAX

John D. Tench, Prospect Park, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application July 18, 1955
Serial No. 522,830
7 Claims. (Cl. 106—270)

1. A new composition of matter consisting essentially of a microcrystalline wax having an oil content of less than 5% and from 0.05% to 1.5% by weight of a pour depressant prepared by condensing chlorinated paraffin wax with a material selected from the group consisting of naphthalene, toluene, benzene, phenol, phthalic anhydride, aniline, xylene, ethyl benzene, cresol, and methyl naphthalene.

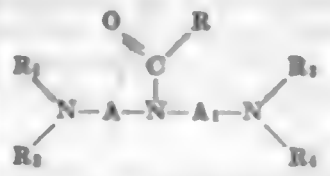
2,875,083

ASPHALTIC COMPOUNDS AND ADDITIVES THEREFOR

Leonard J. Armstrong, Cleveland Heights, and Anton Medrak, Cleveland, Ohio, assignors to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application August 1, 1955
Serial No. 525,785
2 Claims. (Cl. 106—273)

1. As new compositions of matter, mixtures of asphalt with from 0.1 to 6.0% by weight of the asphalt of an additive, said additive being selected from compounds of the formula



wherein R is a radical selected from the group consisting of alkyl and alkenyl radicals having 11 to 21 carbon atoms, R_1, R_2, R_3 and R_4 are alkyl radicals having from 1 to 4 carbon atoms, and A and A_1 are alkylene groups having from 2 to 4 carbon atoms.

2,875,084

ROAD SURFACING MATERIAL

William A. Pounett, Glasgow, and John Martin Ferguson, Motherwell, Scotland, assignors to Shanks & McEwan Limited and Colvilles Limited, both of Glasgow, Scotland, and both companies of Great Britain

No Drawing. Application May 6, 1957
Serial No. 657,036
Claims priority, application Great Britain June 27, 1956
10 Claims. (Cl. 106—284)

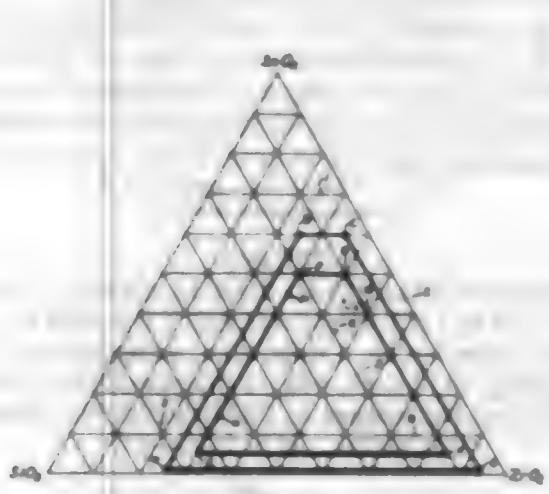
1. A road surfacing material comprising a water insoluble bituminous binder mixed with crushed slag selected from the group consisting of basic open hearth and basic Bessemer slag.

2,875,085

CERAMIC PIGMENTS

William C. Morris, Mayfield Heights, and Adolph O. Tesar, Maple Heights, Ohio, assignors to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio

Application July 5, 1956, Serial No. 596,079
8 Claims. (Cl. 106—299)



1. A ceramic pigment composition essentially consisting of oxides of zirconium, tin, silicon and vanadium wherein said oxides of zirconium, tin and silicon are present in the relative parts by weight indicated in Fig. 1 as falling within the area defined by lines A—B, B—C, C—D and D—A, and wherein the vanadium oxide is present in amounts ranging from .75% to about 9% V_2O_5 by weight of the other oxides mentioned.

2,875,086

CERAMIC PIGMENT

Woldemar A. Weyl, State College, Pa., assignor to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio

Application December 13, 1956, Serial No. 628,071
10 Claims. (Cl. 106—299)

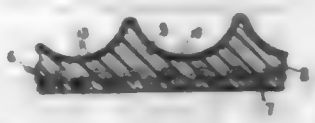
1. A pigment composition essentially consisting of the calcination reaction product of a zirconium compound, a vanadium compound and a compound of a modifier selected from the class consisting of indium and yttrium and mixtures thereof, said zirconium compound and vanadium compound being such and present in proportions such as to yield on calcination from 85 to 97% by weight of ZrO_2 and from 0.78 to 10.1% by weight of V_2O_5 respectively and said modifier being such and present in proportions such as to yield on calcination from 0.1 to 5% by weight of compounds selected from the group consisting of In_2O_3, Y_2O_3, and mixtures thereof, such proportions being in each case based upon the combined weight of zirconium, vanadium and modifier oxides.

2,875,087

METHOD OF FORMING REFLECTIVE SURFACES

Harry D. Crandon, Woodstock, Conn., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application February 23, 1954, Serial No. 411,852
6 Claims. (Cl. 117—10)



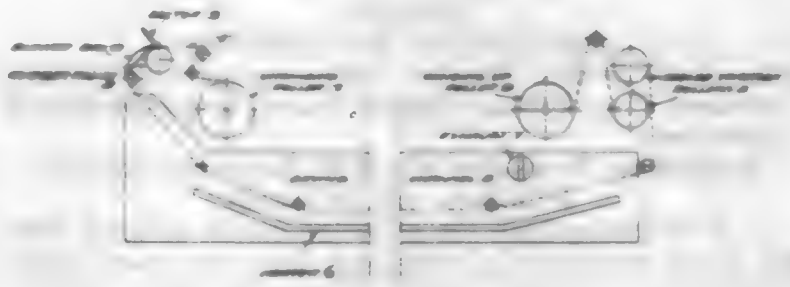
3. A method of forming a picture projection screen with a high reflecting surface comprising placing a vinyl resin film containing reflective metallic flakes coated with stearic acid on a sheetlike base of vinyl resin of a controlled thickness, wetting said vinyl resin film to cause said flakes to float and become oriented with each other, heating said vinyl resin film to cause it to set and retain said flakes in said oriented relation and embossing said reflective surface to form closely related depressions of controlled surface shape therein while substantially retaining the oriented relation of the metallic flakes in said depressions.

2,875,088

METHOD OF IMPROVING POROUS FILMS OF PLASTICIZED VINYL POLYMERS

Karl Stiehl, Hanau (Main), Heinrich Franz, Niederrodenbach, near Hanau (Main), and Johannes Valeuteyn, Wolfgang, near Hanau (Main), Germany, assignors to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany

Application October 28, 1954, Serial No. 465,433
Claims priority, application Germany October 31, 1953
15 Claims. (Cl. 117—10)



1. A process for improving the surface characteristics of sheets of porous plasticized polyvinyl polymer with-

out impairing the porosity thereof which comprises applying a soil repelling lacquer coating to such sheets and causing a gaseous stream to issue from the pores of the sheets against the back side of such coating before it has set to render such coating porous.

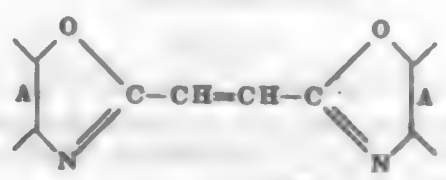
2,875,089

PROCESS FOR THE OPTICAL BRIGHTENING OF MATERIALS OF POLYESTERS

Franz Ackermann, Binningen, and Adolf Emil Siegrist, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application February 6, 1956
Serial No. 563,446
Claims priority, application Switzerland February 15, 1955
6 Claims. (Cl. 117—33.5)

1. A process for the optical brightening of materials of polyesters which comprises treating the material with a non-quaternary compound which is free from acid salt-forming, water solubilizing groups and groups imparting dyestuff character, which in solution fluoresces green-blue to violet and which corresponds to the formula



in which A is a monocyclic aromatic radical condensed in the manner indicated by the valence bonds with the oxazole ring.

2,875,090

METHODS OF FORMING SUPERFICIAL DIFFUSION ALLOYS ON METAL PIECES AND ESPECIALLY REFRACTORY METAL PIECES

Philippe Gaimiche, Paris, France, assignor to Office National d'Etudes et de Recherches Aeronautiques, O. N. E. R. A., Chatillon-sous-Bagneux, France, a society of France

Application December 20, 1954, Serial No. 476,312
Claims priority, application France December 22, 1953
14 Claims. (Cl. 117—50)

13. A method for treating a refractory nickel-chromium alloy piece containing a secondary metal selected from the group consisting of titanium and aluminum which form precipitates in said alloy and achieve structural hardening thereof comprising oxidizing said piece to cause said secondary metal to diffuse toward the surface, removing the layer of oxides formed thereby, diffusing chromium into the surface layer of said piece by chromizing with chromium fluoride vapor sufficiently long to form a solid solution of chromium in said layer of said alloy capable of precipitating chromium compounds on cooling said piece and subsequently heating said diffused piece in an environment consisting mainly of hydrogen to cause rediffusion of chromium further into the mass of said piece until the amount of chromium in said surface layer is lowered sufficiently to prevent precipitation of chromium compounds on cooling.

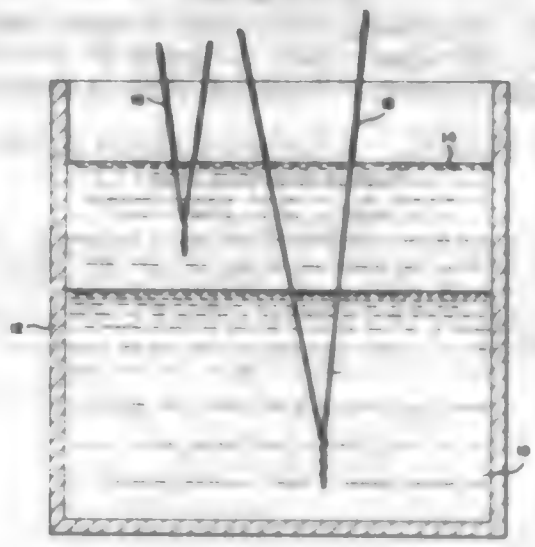
2,875,091

METHOD OF SOLDERING

John Sohn Wolfe, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 13, 1956, Serial No. 621,643
5 Claims. (Cl. 117—52)

1. A soldering bath for soldering metals selected from the group consisting of aluminum and aluminum alloys, comprising molten low melting point solder having superimposed thereover a liquid cover layer having a boiling point greater than the melting point of said solder, said cover layer comprising a solution including an alkali metal zincate, an alkali metal hydroxide, dissolved in a



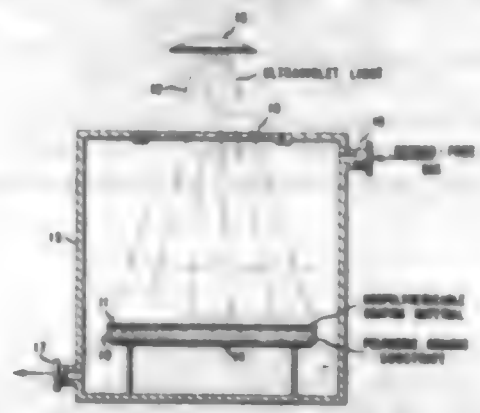
solvent taken from the class consisting of water and polyhydric alcohols.

2,875,092

PROCESS FOR CHEMICALLY BONDING A COATING TO AN ORGANIC POLYMER SUBSTRATE

Edward Terry Cline, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application April 20, 1956, Serial No. 579,439
8 Claims. (Cl. 117—62)



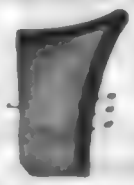
1. In a process for improving the surface characteristics of an organic polymer by coating the polymer with a chemically distinct organic material free of carbon-to-carbon unsaturation, the improvement of applying said material as a coating having an extinction coefficient of at least 0.5 at a wavelength in the range of 2000–4000 A. and subjecting the coating to ultraviolet light in the absence of oxygen to form a chemical bond between the material and the polymer.

2,875,093

PROCESS OF COATING WOOD ARTICLES AND ARTICLES PRODUCED THEREBY

Edward F. Kempen, St. Louis, Mo., assignor to The Dee-Ite Company, St. Louis, Mo., a corporation of Missouri

Application November 4, 1954, Serial No. 466,847
5 Claims. (Cl. 117—67)



1. In the process of coating shoe heels and the like, the steps of dipping the article in a hot melt consisting essentially of non-waxy, non-volatile thermoplastic resins that produce a film upon cooling to normal temperatures of about 70° F., and then spraying the article with a

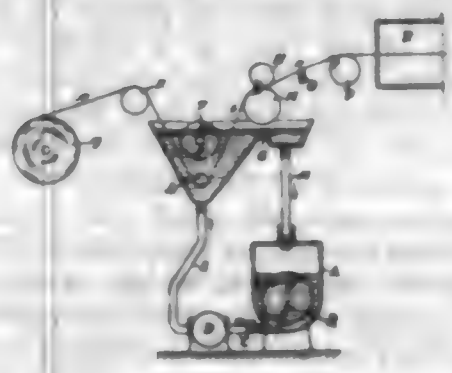
lacquer so as to provide a final coat relatively thin in comparison with said first coat, said lacquer having a leveling effect upon the first coat.

2,875,094

METHOD OF IMPREGNATING FIBRE MASSES WITH A VISCOUS, HARDENABLE RESIN INSOLUBLE IN WATER

Herman Bloem and Marinus Stel, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 16, 1953, Serial No. 392,210
Claims priority, application Netherlands November 14, 1952
7 Claims. (Cl. 117—115)



1. A method of producing a coherent fibre mass impregnated with a heat-resistant condensate of the phenol-aldehyde type, which comprises the steps of forming an impregnation liquid, substantially electrolyte free, comprising an unstable aqueous emulsion of a heat hardenable, water insoluble phenol-aldehyde pre-condensate formed by the reaction of a basic compound selected from the group consisting of ammonia and amines on a mixture of a phenol and an aldehyde in a manner such that substantially all of the basic compound is chemically bound to the resultant precondensate, agitating the liquid to prevent the precondensate from settling, immersing said fibre mass in said liquid while it is being agitated to impregnate the same, removing said impregnated fibre mass from said liquid, and hardening the pre-condensate present in the fibre mass.

2,875,095

METHOD OF PRODUCING SURFACE LAYERS RESISTANT TO WEAR

Johannes Müller, Frankfurt am Main, Germany, assignor to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany

Application October 7, 1957, Serial No. 688,712
Claims priority, application Germany October 6, 1956
5 Claims. (Cl. 117—127)



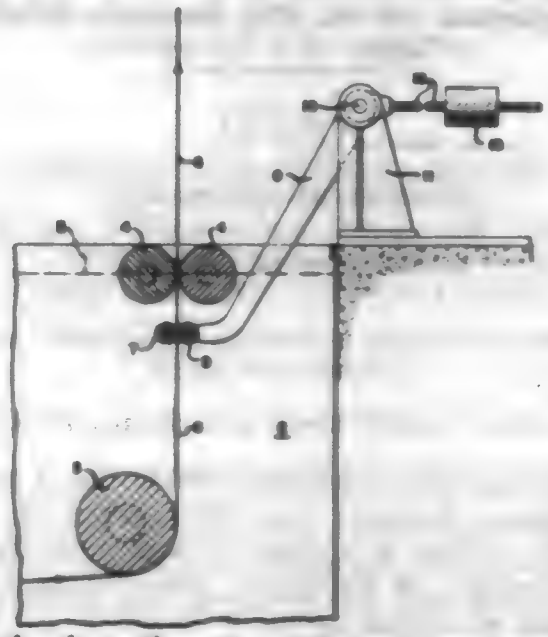
1. A method of producing wear resistant surfaces having a low coefficient of friction upon metals which comprises treating such metals in a fused salt bath containing about 10% to 60% of cyanate, up to 50% of cyanide and 0.05 to 5% of an active component selected from the group consisting of selenium and tellurium at a temperature between 450 and 600° C.

2,875,096

CONTINUOUS HOT DIP GALVANIZING OF METAL STRIP

William L. Diehl, St. Clairsville, Ohio, and Henry S. Bell, Wheeling, W. Va., assignors to Wheeling Steel Corporation, Wheeling, W. Va., a corporation of Delaware

Application August 19, 1955, Serial No. 529,562
2 Claims. (Cl. 117—131)



1. In the hot dip galvanizing of continuous metal strip in which the strip is delivered upwardly out of the galvanizing bath of molten spelter between exit rolls partly immersed in the bath engaging the respective faces of the strip and arranged with their axes parallel and generally horizontal and in which the strip moves at a speed at which the spelter tends to be carried along with the strip by capillary attraction, the step of inhibiting the carrying up out of the bath of an excessive amount of molten spelter which comprises engaging the upwardly moving strip in the bath before the strip reaches the exit rolls, at a location close enough to the exit rolls that substantial capillary attraction of the spelter to the strip cannot be set up between that location and the exit rolls, by capillary attraction reducing rolls only and thereby inhibiting the clinging of spelter to the strip.

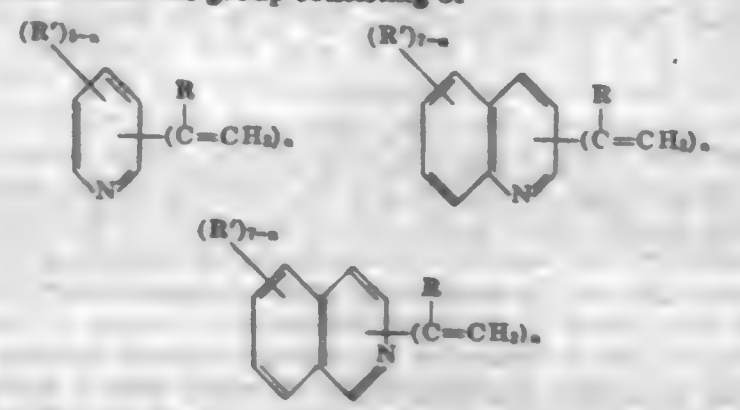
2,875,097

PARASITICIDES, THEIR PREPARATION AND USE

James E. Pritchard, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application September 7, 1954
Serial No. 454,616
15 Claims. (Cl. 117—138.5)

1. The process for the preparation of a fungicidal reaction product comprising reacting a phenol which possesses fungicidal properties with a polymer of a monomer system comprising a compound having a structure selected from the group consisting of



wherein *n* is an integer selected from the group consisting of 1 and 2, each R is individually selected from the group

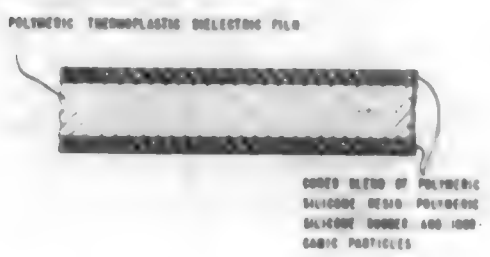
consisting of H and CH_3, and each R′ is individually selected from the group consisting of hydrogen, alkyl, nitro, alkoxy, halo, hydroxy, cyano, aryloxy, aryl, haloalkyl, alkaryl, hydroxyaryl, not more than 12 carbon atoms being present in the total of said R′ groups.

2,875,098

COATED POLYMERIC THERMOPLASTIC DIELECTRIC FILM

Philip Strubing Blatz, Buffalo, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application July 18, 1955, Serial No. 522,820
9 Claims. (Cl. 117—138.8)



1. A product of manufacture comprising a polymeric, thermoplastic, dielectric base film having an adherent continuous coating of a cured homogeneous blend comprised essentially of an organic polysiloxane resin having a ratio of organic group-to-silicon of 1.3–1.8:1, an organic polysiloxane rubber having an average molecular weight of at least 400,000 and a ratio of organic groups-to-silicon of 1.98–2.0:1, and finely divided particles from the group consisting of metal oxides from the metals of Groups II*b*, III, IV, V, VI, VII and VIII of the Table of Periodic Arrangement of Elements, calcium, barium, strontium and magnesium carbonates, and calcium sulfate.

2,875,099

FINISH FOR CELLULOSIC TEXTILE MATERIALS

Keith B. Bozer, Robert S. Montgomery, and Wesley L. Archer, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application October 16, 1957, Serial No. 690,528
16 Claims. (Cl. 117—139.5)



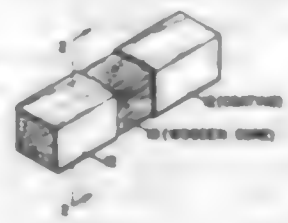
1. Method for finishing cellulosic yarn selected from the group consisting of regenerated cellulose and fiber-forming cellulose esters to facilitate its construction into cloth and fabric which comprises depositing on the surface of the yarn up to about 20 percent by weight, based on the weight of the yarn, of a plastified film of coal acids compounds selected from the group consisting of free coal acids and mixtures thereof; said coal acids being the water-soluble mixed aromatic polycarboxylic acids that are the products of the oxidation of coal and the like carbonaceous materials, which acids typically have an average molecular weight of from about 200 to 300, an average apparent equivalent weight of from about 70 to 90, and contain an average of from about 2.5 to 5 carboxylic groups per aromatic nucleus in their molecule, said film being plastified with a solvent for said coal acids compounds that is inert to said cellulosic yarn.

2,875,101

RUBBER COATED WOOD

Joseph R. Ehrlich, New York, N. Y.

Application July 29, 1954, Serial No. 446,669
3 Claims. (Cl. 117—143)



1. As an article of manufacture, a wooden piece completely covered with a coating consisting essentially of natural unvulcanized rubber interspersed with a water soluble cellulose ether, the said natural unvulcanized rubber and the said water soluble cellulose ether being in such ratio whereby when two such wooden coated pieces are pressed together slightly they will adhere to each other without coalescence of the coating material of the two pieces, the coating adhering to the wooden piece with an adhesive strength at least equal to the pull necessary to separate the two pieces whereby the said pieces may be reunited and re-separated a great many times without impairing the said coatings.

2,875,095

FINISH FOR POLYESTER TEXTILE MATERIALS

Keith B. Bozer, Robert S. Montgomery, and Wesley L. Archer, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application October 16, 1957, Serial No. 690,529
18 Claims. (Cl. 117—138.8)



1. Method for finishing polyester polymer yarn to facilitate its construction into cloth and fabric which comprises depositing on the surface of the yarn up to about 20 percent by weight, based on the weight of the yarn, of a plastified film of coal acids compounds selected from the group consisting of free coal acids, water-soluble salts of free coal acids, and mixtures thereof; said coal acids being the water-soluble mixed aromatic polycarboxylic acids that are the products of the oxidation of coal and the like carbonaceous materials, which acids typically have an average molecular weight of from about 200 to 300, an average apparent equivalent weight of from about 70 to 90, and contain an average of from about 2.5 to 5 carboxylic groups per aromatic nucleus in their molecule, said film being plastified with a solvent for said coal acids compounds that is inert to said polyester polymer yarn.

2,875,102

METHOD OF SIMULTANEOUSLY BLEACHING AND COATING PAPER

Robert L. McEwen, Williamsville, and Charles W. Raleigh and Carl E. Price, Snyder, N. Y., assignors to Food Machinery and Chemical Corporation, San Jose, Calif.

No Drawing. Application March 17, 1955
Serial No. 495,044
5 Claims. (Cl. 117—152)

1. The method of bleaching a fibrous sheet composed essentially of cellulosic fibers while simultaneously applying a coating to said sheet, which comprises applying to said sheet an aqueous mixture having a pH of about 6 to 10 comprising (*a*) a conventional paper coating composition and (*b*) a reducing agent, said mixture con-

taining on a dry basis about 6% to 30% by weight of a reducing agent consisting of a water soluble salt of an oxy acid of sulfur wherein the sulfur possesses a valence of less than six, and thereafter drying the sheet and applied mixture.

2,875,103

METHOD OF MANUFACTURING SELENIUM RECTIFIERS

Eric Lionel French, London, England, assignor to Westinghouse Brake and Signal Company, Limited, London, England

No Drawing. Original application June 7, 1956, Serial No. 589,878, now Patent No. 2,828,453, dated March 25, 1958. Divided and this application January 2, 1958, Serial No. 706,555

22 Claims. (Cl. 117—200)

1. In a method of manufacturing selenium cells, the step of forming a non-genetic barrier layer on the selenium layer adhering to a base plate by applying to the selenium layer a solution containing between 1 and 10 percent by weight of ethoxylene resin.

2,875,104

SLAG-FORMING WELDING ELECTRODE

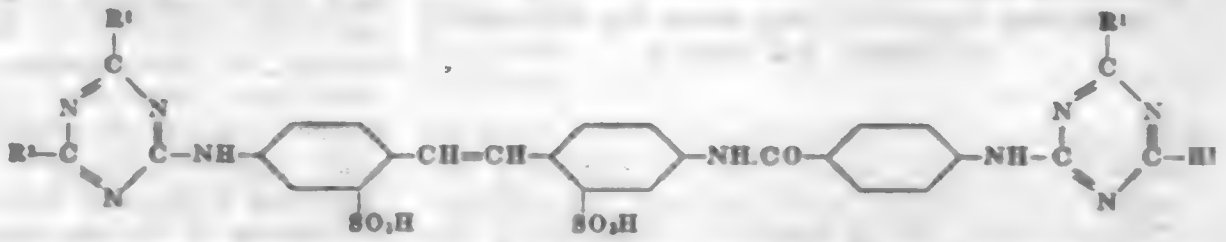
Sven Sigvard Bergh and Bolge Troberg, Vargon, and Curt Anders Gustav Ericsson, Surahammar, Sweden, assignors to Wargöns Aktiebolag, Vargon, Sweden, a Swedish company

Application May 16, 1955, Serial No. 508,766

Claims priority, application Sweden July 31, 1953

17 Claims. (Cl. 117—205)

1. A welding electrode consisting essentially of a rod



consisting principally of a metal selected from the group consisting of iron and nickel and a slag forming coating thereon, said coating containing a brittle sigma phase



iron-chromium alloy having a chromium content of 30–60%, the ingredients of the coating and the rod being capable of forming an alloy which does not contain sigma phase when the electrode is used for welding.

2,875,105

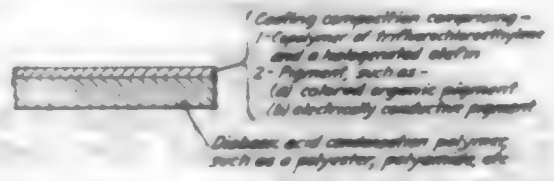
INKS FOR MARKING CONDENSATION POLYMERS

Fred W. Troester, La Crescenta, Calif., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

Application September 15, 1955, Serial No. 534,619

9 Claims. (Cl. 117—218)

5. A color coated conductor comprising a metallic conductor, an insulating layer of a polyamide, the outer surface of said solid polyamide being striped with an ink which comprises an insoluble organic pigment and a co-



polymer containing between about 20 and about 80 mole percent of trifluorochloroethylene copolymerized with vinylidene fluoride.

2,875,106

OPTICAL WHITENING AGENTS

Dennis Arthur William Adams, Leeds, and Asim Kumar Sarkar, Castleford, England, assignors to Hickson & Welch Limited, Castleford, England, a British company

No Drawing. Application March 15, 1957
Serial No. 646,227

Claims priority, application Great Britain March 21, 1956

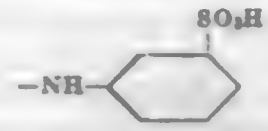
16 Claims. (Cl. 117—335)

16. A process for improving the whiteness and brightness of cellulosic textiles comprising treating said textiles with the compound having in its free acid form the formula

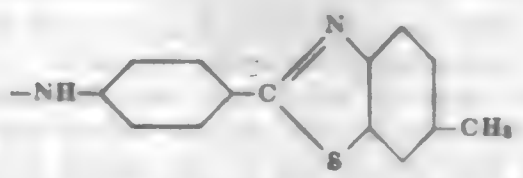
where R^1 is selected from the group consisting of morpholino and



in which X and Y are selected from the group consisting of hydrogen, lower alkyl, lower hydroxy alkyl, phenyl, methoxy phenyl, tolyl



and



and R^2 is selected from the group consisting of R^1, chloro and hydroxyl.

2,875,107

TITANIFEROUS ORE TREATMENT

William Hammett Daiger, Arnold, Md., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 21, 1956
Serial No. 566,770
5 Claims. (Cl. 134—25)

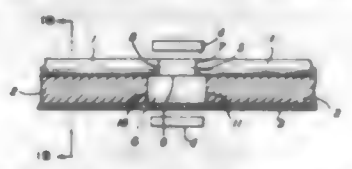
1. A method for treating titaniferous sand type ores the mineral grains of which range in size from about 200–30 mesh which comprises agitating the ore in a

dilute aqueous alkali hydroxide solution at a strength ranging from .01–20 weight percent and thereafter washing the treated ore with water.

2,875,108
ZONE-MELTING PROCESS

William G. Pfann, Far Hills, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 25, 1957, Serial No. 667,757
12 Claims. (Cl. 148—1)

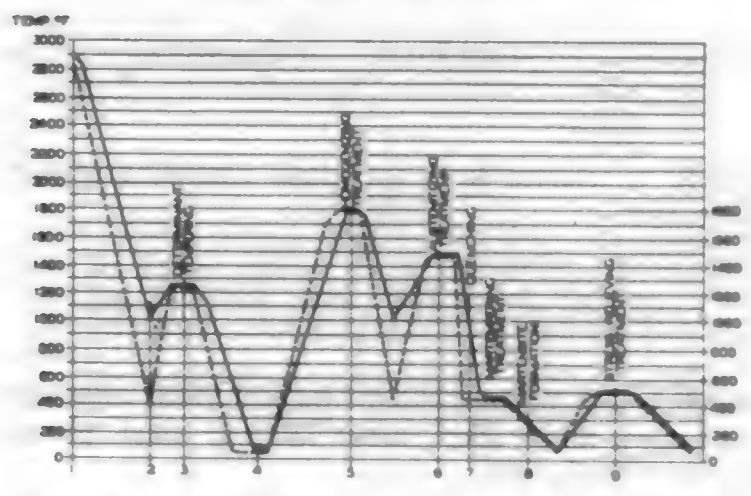


1. A process comprising causing a molten zone to simultaneously traverse at least a portion of each of two adjacent solid fusible materials thereby producing a liquid-liquid interface between at least a portion of each of the two molten regions, the composition of the adjacent materials being such that the major components of each are immiscible in the liquid state.

2,875,109
METHOD FOR THE ISOTHERMAL TREATMENT OF ALLOYS AFTER CASTING

John Norman Carter and Donald Norman Rosenblatt, Salt Lake City, Utah, assignors, by mesne assignments, to The Eimco Corporation, Salt Lake City, Utah, a corporation of Delaware

Application August 25, 1954, Serial No. 452,164
19 Claims. (Cl. 148—3)



1. The improvement in the production of articles of alloys which undergo a time-dependent phase transformation at a temperature below their solidification point and a temperature-dependent phase transformation at a temperature below that of the time-dependent phase transformation which comprises subjecting the alloy after casting to a substantially isothermal treatment within the temperature range in which said time-dependent phase transformation occurs most rapidly before any portion of the cast alloy has cooled to the highest temperature at which a temperature-dependent phase transformation occurs.

2,875,110
CORROSION RESISTANT TREATMENT FOR HOLLOW DRILL RODS

Bror Ludvig Eugen Rosander, Sandviken, Sweden, assignor to Sandvikens Jernverks Aktiebolag, Sandviken, Sweden, a corporation of Sweden

No Drawing. Application June 24, 1954
Serial No. 439,159
Claims priority, application Sweden June 29, 1953
1 Claim. (Cl. 148—6.15)

The method of improving the resistance to fatigue ruptures during drilling conditions of a percussion drill steel having a longitudinal bore therethrough for flushing water and consisting of a hot rolled low alloyed steel consisting of 0.1–1.5% C, 0.2–1.4% Mn, 0.1–2.0% Cr, up to 3.5% Ni, 0.15–1.5% Si, up to 0.5% Mo and the remainder iron with usual impurities, including in combination the steps of treating the drill steel to develop compressive stresses in at least the outer surface layer thereof, treating the resulting drill steel with a phosphate bath to form a thin chemically attached phosphate coating having a porous crystalline structure on said outer surface and on the surface of said channel, treating said coating with a corrosion inhibiting solution and applying a wax-like coating to said phosphate coating.

2,875,111
METHOD OF FORMING PHOSPHATE COATINGS ON DRAWN WIRE

Cyril Frank Wilkinson, Wimford, Herbert Arthur Henry Jenkins, West Acton, London, Leslie Thomas Lake, Hounslow, and Stanley V. Radcliffe, Bebington, Wirral, England, assignors to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application December 6, 1954
Serial No. 473,438
8 Claims. (Cl. 148—6.15)

1. A method of forming a phosphate coating on wire which comprises the steps of passing the wire in a chemically clean condition, continuously in an axial direction through an aqueous acidic accelerated phosphate coating solution selected from the group consisting of zinc, manganese, iron and cadmium phosphate solutions and having a pointage greater than about 40 and containing an accelerator selected from the group consisting of nitrite, nitrophenol, nitroguanidine, a mixture of chlorate and nitrate and a mixture of nitrite and nitrate, the ratio to phosphate of said accelerator being in the range of 0.0075 to 0.6, regulating the speed of travel and the duration of immersion of the wire in the solution with the degree of acceleration so that the initial formation of the coating occurs in the coating solution and the wire emerges from the coating solution carrying a uniform film of the solution on its surface, which film serves to complete the formation of the phosphate coating on the surface of the wire.

2,875,112
PROCESS FOR IMPROVING THE PHYSICAL PROPERTIES OF CHROMIZED ARTICLES

Gottfried Becker, Duesseldorf, and Karl Bungardt and Karl Heinz Lange, Krefeld, Germany, assignors to Deutsche Edelstahlwerke Aktiengesellschaft, Krefeld, Germany

No Drawing. Application June 13, 1955
Serial No. 515,254
3 Claims. (Cl. 148—21.55)

1. Process for improving the physical properties of a chromized article which comprises the step of quenching the article, after the chromizing operation and without previous mechanical deformation from a temperature above 900° C.

2,875,113
METHOD OF DECARBURIZING SILICON STEEL IN A WET INERT GAS ATMOSPHERE

Elmore J. Fitz, Lanesboro, Mass., assignor to General Electric Company, a corporation of New York

No Drawing. Application November 15, 1957
Serial No. 696,616
7 Claims. (Cl. 148—113)

1. The method of treating silicon steel which comprises pre-cleaning the silicon steel, and heating the silicon steel at a temperature of 875–1025° C. in an atmosphere of pure wet inert gas.

2,875,114

IRON-ALUMINUM MATERIALS FOR MAGNETIC APPLICATIONS

Paul A. Albert, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application April 12, 1957
Serial No. 652,372
8 Claims. (Cl. 148—120)

1. A recrystallized iron-aluminum strip for magnetic applications which consists essentially of a ductile iron-aluminum alloy consisting essentially of 3 to 7 weight percent of aluminum and the balance iron, said strip being about 1 to 18 mils thick and having the following properties as determined from a D. C. hysteresis loop on the strip: remanence not exceeding 9,500 gauss, an induction at 10 oersteds of at least 12,000 gauss and a coercive force not exceeding 0.50 oersted.

6. That method of producing doubly oriented iron-aluminum tapes which comprises cold rolling a hot rolled plate of a thickness of about 0.4 to 0.65 inch and which consists essentially of about 3 to 7 percent by weight of aluminum and the balance substantially all iron, by 70 to 80 percent of its thickness, annealing the resulting strip at a temperature of 850° to 1100° C. to stress relieve said strip, cold rolling the annealed strip to reduce it by 85 to 95 percent of its thickness, annealing the strip at 700° to 850° C., cooling the strip, then heating it at a temperature of 1050° C. to 1300° C. for one-half to twelve hours to cause grain growth, cold rolling the strip to reduce it by 60 to 80 percent of its thickness, and then heating the resulting tape at a temperature above its recrystallization temperature to cause a cube-on-face orientation of the resulting grain structure.

2,875,115

PLASTIC UPHOLSTERY MATERIAL

De Forest Lott and Edward G. Hamway, Toledo, Ohio, assignors to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application May 19, 1955, Serial No. 509,650
7 Claims. (Cl. 154—46)



1. An article of manufacture comprising (*a*) a sheet-like web of one layer containing staple fibers formed of a mixture of at least 35 percent of fiber weight of fine high-strength polymeric synthetic fibers and at least 15 percent of fiber weight of viscose rayon fibers bonded together with at least 35 percent of fiber weight of a cured stretchable polymer of a diolefinic compound, said web being relatively porous and having a stretch modulus of at least 25 percent and having the fibers disposed in haphazard relation (*b*) a plasticized and filled resinous film adhered to at least one side of said web, the resinous portion of said film being selected from the group consisting of polyvinyl chloride, copolymers of vinyl chloride and vinyl acetate, polyvinylidene chloride, copolymers of vinyl chloride and vinylidene chloride, and mixtures thereof.

2,875,116

CONVEYOR BELT

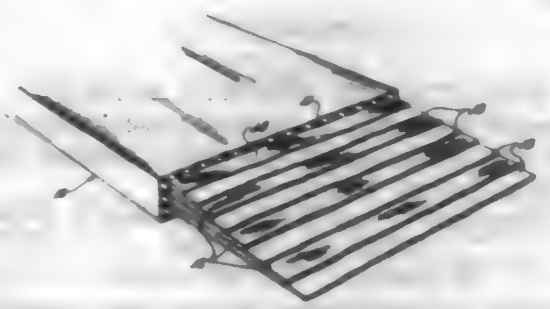
Floyd M. Smith, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application May 25, 1955, Serial No. 510,932
1 Claim. (Cl. 154—52.1)

A conveyor belt comprising strain members adhered to a rubbery composition A essentially composed of the ingredients listed in the following formula in which parts are by weight:

A	
Butyl rubber	95
Neoprene	5
Silica	30
Zinc oxide	5
Clay	20
Polybutene tackifier	3 to 25
Vulcanizing agent	2 to 8

top and bottom faces of the belt covering said strain members and consisting essentially of a rubbery composition B essentially composed of the ingredients listed in the following formula in which parts are by weight:



B	
Butyl rubber	95
Neoprene	5
Silica	15–60
Zinc oxide	3–30
Vulcanizing agent	2 to 8

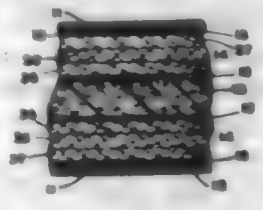
the Butyl rubber being a copolymer of a major proportion of isobutylene and a minor proportion of a conjugated diolefin, and the power factors of composition A and of composition B being in the range of 0.0020 to 0.0350.

2,875,117

MULTILAMINAR PANEL

Joseph A. Potchen, Marne, and George E. Kloote and George D. Meier, Grand Rapids, Mich., assignors, by mesne assignments, to Haskelite Manufacturing Corporation, a corporation of Delaware

Application August 29, 1955, Serial No. 531,036
11 Claims. (Cl. 154—128)



2. The method for forming a multilaminar panel, which comprises the steps of providing a lightweight core of a foamed polystyrene type resin, providing a facing sheet comprising a sheet of a thermoset polyester resin reinforced with glass filaments, interposing between the facing sheet and the lightweight core a sheet of rigid compression-resistant material other than the material forming said facing sheet, interposing a thin layer of a suitable adhesive between the facing sheet and the compression-resistant sheet and between the compression-resistant sheet and the lightweight core, and causing the adhesive to set and bond the compression-resistant sheet securely to the facing sheet and to the core to form a unitary multilaminar article.

2,875,118
METHOD AND COMPOSITION FOR THE TREATMENT OF SOIL

George O. Turner, Long Beach, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 7, 1953
Serial No. 384,787
9 Claims. (Cl. 167—22)

1. A method for destroying nematodes in soil and improving the ability of soil to support plant growth which comprises impregnating nematode infested soil with a composition consisting as its essential active agent of a compound selected from the group consisting of 1-chloro-2-iodo-ethane, 1-chloro-3-iodo-propane and 1-chloro-4-iodo-butane.

2,875,119
INSECTICIDE FORMULATIONS

Leo Trademan, Marshall A. Malina, and Louis P. Wilks, Chicago, Ill., assignors to Velsicol Chemical Corporation, a corporation of Illinois

No Drawing. Application October 7, 1954
Serial No. 461,036
4 Claims. (Cl. 167—30)

1. A stabilized insecticidal composition comprising in combination: an insect toxicant derived from hexachlorocyclopentadiene selected from the group consisting of endrin, isodrin, aldrin, dieldrin, chlordane and heptachlor; a finely divided solid carrier active in deteriorating said insect toxicant mixed therewith selected from the group consisting of kaolin clay, montmorillonite clay, attapulgite clay, diatomaceous earth and vermiculite; and between ½% and 12% by weight of the carrier of a glycol which alleviates said deterioration of the insect toxicant selected from the group consisting of ethylene glycol, propylene glycol, diethylene glycol and triethylene glycol.

2,875,120
INSECTICIDE FORMULATIONS

Leo Trademan, Marshall A. Malina, and Louis P. Wilks, Chicago, Ill., assignors to Velsicol Chemical Corporation, a corporation of Illinois

No Drawing. Application November 5, 1954
Serial No. 467,204
4 Claims. (Cl. 167—30)

1. A stabilized insecticidal composition comprising in combination: an insect toxicant derived from hexachlorocyclopentadiene selected from the group consisting of endrin, isodrin, aldrin, dieldrin, chlordane and heptachlor; a finely divided solid carrier active in deteriorating said insect toxicant mixed therewith selected from the group consisting of kaolin clay, montmorillonite clay, attapulgite clay, diatomaceous earth and vermiculite; and between ½% and 12% by weight of the carrier of a combination which alleviates said deterioration of the insect toxicant consisting of from about 30% to about 80% by weight of a glycol selected from the group consisting of ethylene glycol, propylene glycol, diethylene glycol and triethylene glycol; and from about 20% to about 70% by weight of sodium hydroxide.

2,875,121
INSECTICIDE FORMULATIONS

Leo Trademan, Marshall A. Malina, and Louis P. Wilks, Chicago, Ill., assignors to Velsicol Chemical Corporation, a corporation of Illinois

No Drawing. Application December 16, 1954
Serial No. 475,840
4 Claims. (Cl. 167—30)

1. A stabilized insecticidal composition comprising in combination: an insect toxicant derived from hexachlorocyclopentadiene selected from the group consisting of endrin, isodrin, aldrin, dieldrin, chlordane, and heptachlor; a finely divided solid carrier active in deteriorating said insect toxicant mixed therewith selected from the group consisting of kaolin clay, montmorillonite clay, attapulgite clay, diatomaceous earth and vermiculite; and between 2% and 14% by weight of the carrier of an organic compound which alleviates said deterioration of the insect toxicant selected from the group consisting of diacetone alcohol, and isopropanol.

2,875,122
FUNGICIDE

Milton Kosmin, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 6, 1955
Serial No. 506,655
16 Claims. (Cl. 167—30)

8. A fungicidal composition compriting an inert carrier, and as the essential active ingredient a sulfo ester of the formula



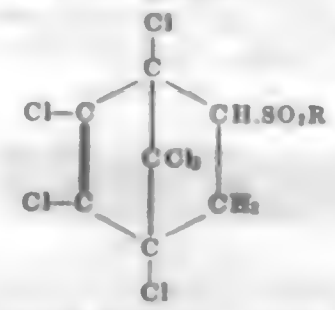
where R is selected from the class consisting of hydrogen, halogen and nitro radicals, X is selected from the class consisting of hydrogen and the methyl radical, *n* is a number of from 0 to 14, and M is a water-solubilizing cation providing a water soluble salt.

2,875,123
HEXACHLOROBICYCLOHEPTENE SULFONIC ACIDS AND DERIVATIVES AS INSECTICIDES

James C. Wygant, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 7, 1957
Serial No. 644,448
9 Claims. (Cl. 167—30)

1. A compound of the formula



in which R is selected from the class consisting of halogen, $-NH_2$, —OH, and OM where M is alkali metal.

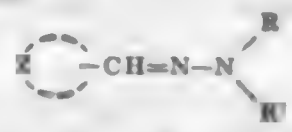
7. Sodium 1,2,3,4,7,7 - hexachlorobicyclo[2,2,1] - 2-heptene-6-sulfonate.

2,875,124
CEREAL RUST ERADICANT COMPOSITION COMPRISING A PHENYLHYDRAZONE DERIVATIVE AND METHOD OF USE

Van R. Gaertner and Dexter B. Sharp, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

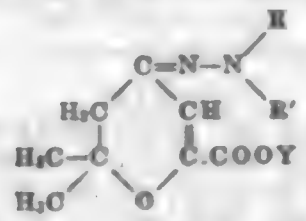
No Drawing. Application September 21, 1954
Serial No. 457,555
8 Claims. (Cl. 167—33)

1. A wheat rust eradicant comprising water, an emulsifying agent, and a hydrazone of a carbonylic dihydropyran selected from the class consisting of hydrazones having the formula



in which Z represents the dihydropyran radical formed by ring-closure of an alkenylenoxyalkylene chain hav-

ing a total of from 5 to 11 carbon atoms, R is a hydrocarbon radical free of acetylenic and olefinic unsaturation and containing from 1 to 12 carbon atoms and R′ is selected from the class consisting of R and hydrogen; and a hydrazone having the formula



in which R and R′ are as herein defined and Y is an alkyl radical of from 1 to 12 carbon atoms.

2,875,125

SULFAMOYLANILINOALKANESULFONIC ACID COMPOUNDS

Van R. Gaertner, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 22, 1955
Serial No. 554,650
5 Claims. (Cl. 167—33)

5. The method of combating fungus infestations on plants which comprises applying to the said plants at least about ½ pound per acre of a compound of the formula



where R is selected from the class consisting of hydrogen and the thiazyl radical, R′ is a saturated straight-chain hydrocarbon radical containing from 3 to 4 carbon atoms, and R″ is selected from the class consisting of hydrogen and the methyl radical.

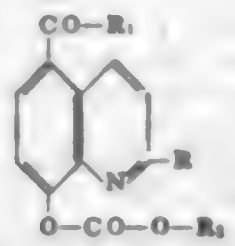
2,875,126

NEW ESTERS OF 5-ACYL-8-HYDROXYQUINOLINES AND THEIR USE FOR THE CONTROL OF FUNGI

Ernst Hodel and Hans Gysin, Basel, Switzerland, assignors to J. R. Geigy A.-G., Basel, Switzerland, a Swiss firm

No Drawing. Application June 8, 1956
Serial No. 590,102
Claims priority, application Switzerland June 16, 1955
5 Claims. (Cl. 167—33)

1. An ester of a 5-acyl-8-hydroxyquinoline corresponding to the formula



wherein R represents a member selected from the group consisting of hydrogen and methyl, R_1 represents a member selected from the group consisting of lower alkyl, lower halogenalkyl, phenyl and halogenphenyl, and R_2 represents a member selected from the group consisting of alkyl, halogenalkyl, alkoxyalkyl, aralkyloxyalkyl, arylmercaptoalkyl, aryloxyalkyl, alkenyl, cycloalkyl, tetrahydrofurfuryl, aryl and aralkyl radicals.

4. A fungicidal composition comprising as active ingredient an ester of a 5-acyl-8-hydroxyquinoline as claimed in claim 1, in an amount sufficient to inhibit the growth of fungi, and an inert solid powder as a carrier and a wetting and dispersing agent.

2,875,127

FUMIGATION WITH SULFURYL FLUORIDE

Eugene E. Kenaga, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 7, 1955
Serial No. 492,789
5 Claims. (Cl. 167—39)

1. A method for controlling insects, molds and nematodes which includes the step of exposing matter infested with these organisms to the vapors of sulfuryl fluoride, the exposure being carried out in an enclosed space and with an amount of sulfuryl fluoride sufficient to provide a concentration of at least 0.1 pound per 100 cubic feet of enclosed space.

2,875,128

PESTICIDE EMULSIONS CONTAINING AN OXYETHYLATED OXYPROPYLATED GLYCERINE

Willard H. Kirkpatrick, Sugar Land, and Virgil L. Seale, Houston, Tex., assignors to Visco Products Company, Houston, Tex., a corporation of Delaware

No Drawing. Application December 7, 1953
Serial No. 396,771
8 Claims. (Cl. 167—43)

1. An oil-in-water emulsion containing oil, water and at least one toxicant component selected from the group consisting of chlorinated camphene, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)ethane, the gamma isomer of benzene hexachloride, Dieldrin, Chlordane and an alkyl aryl sulfite emulsified with an emulsifying agent which is an oxyethylated-oxypropylated glycerine wherein polyoxypropylene chains are attached to the glycerine nucleus and polyoxyethylene chains are in turn attached to said polyoxypropylene chains, the terminal groups being hydroxyl groups of the polyoxyethylene chains, the oxypropylene groups forming 48% to 66% of the total oxyalkylene groups, the oxyalkylated glycerine containing about 83–126 mols of propylene oxide per mol of glycerine and further containing about 48–135 mols of ethylene oxide per mol of glycerine.

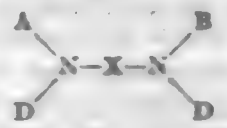
2,875,129

PROPHYLACTIC CALCIUM CHELATE COMPOSITIONS FOR HEAVY METAL POISONING

Frederick C. Bersworth, Framingham Center, Mass., and Martin Rubin, Silver Spring, Md., assignors, by direct and mesne assignments, to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 3, 1954
Serial No. 466,664
10 Claims. (Cl. 167—55)

1. A food product useful as a prophylactic material for preventing a toxic accumulation of heavy metal in a living organism, comprising the food product containing up to 3% of the calcium chelate of a compound corresponding to the following generic formula:



wherein A and B may be alike and are selected from the group consisting of $—CH_2COOM$, $—CH_2CH_2COOM$, $—CH_2CH_2OH$, $—CH_2CH_2CH_2OH$, $—CH(CH_3)CH_2OH$, X is selected from the group consisting of bivalent alkylene radicals which place 2–3 C atoms between the nitrogen, and D is selected from the group consisting of $—CH_2COOM$, $—CH_2CH_2COOM$; and M is selected from the group consisting of hydrogen and alkali metals.

2,875,130

METHOD OF PREPARING SUSTAINED RELEASE PARTICLES AND THE PRODUCT OF THE METHOD

George M. Grass, Jr., Broomall, Pa., and Manford J. Robinson, Moorestown, N. J., assignors to Smith, Kline & French Laboratories, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application November 20, 1956
Serial No. 623,311
10 Claims. (Cl. 167—82)

1. The method of preparing a sustained release pharmaceutical powder which comprises reducing a solid medicament to a particle size of a maximum of about 10 microns, mixing the thus formed particles in from about 5% to about 35% by weight of a liquefied lipid material which is substantially water insoluble and has a melting point of above about 85° C., solidifying the thus formed mixture and then reducing the solidified mixture to form a primary powder having a maximum particle size in the range of from about 5 to 25 microns, mixing the thus formed powder with a melt of from about 25% to about 85% by weight of a lipid material which is substantially water insoluble and has a melting point which is a minimum of about 5° C. lower than the melting point of the first mentioned lipid material while maintaining the temperature of the melt below the melting point of the first mentioned lipid material and above the melting point of the second mentioned lipid material, mixing the powder-lipid mixture with water to form an emulsion while maintaining the water-power-lipid mixture at a temperature above the melting point of the second mentioned lipid material and below the melting point of the first mentioned lipid material, cooling the emulsion to a temperature below the melting point of the second mentioned lipid material to precipitate the sustained release pharmaceutical powder, said solid medicament having a melting point higher than the second mentioned lipid material.

2,875,131

4-TERT.-BUTYL α-METHYL HYDROCINNAMIC ALDEHYDE

Marion S. Carpenter, Nutley, and William M. Easter, Jr., Hasbrouck Heights, N. J., assignors to The Givaudan Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application June 11, 1956
Serial No. 590,360
4 Claims. (Cl. 167—94)

1. The novel substance, 4 - tert. - butyl-α-methyl-hydrocinnamic aldehyde.

4. Perfumes and perfume-containing compositions containing a composition comprising 4-tert.-butyl-α-methyl-hydrocinnamic aldehyde and a minor portion of 4-tert.-butyl-α-methyl-hydrocinnamic alcohol.

2,875,132

OXYGENATION OF STEROIDS IN THE 11, 17 AND 21 POSITIONS BY MIXED CULTURES

William McAleer, Elizabeth, and Eugene L. Dulaney, Rahway, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 4, 1953
Serial No. 396,319
8 Claims. (Cl. 195—51)

1. A process for producing 11β,17α,21-trihydroxy steroid, which comprises subjecting a 11,17,21-desoxy steroid selected from the group consisting of pregnenes, pregnanes, and allopregnanes to the action of oxygenating strains of one microorganism selected from each of the genera Spondylocladium, Wojnowicia, and Trichoderma, which will introduce hydroxyl groups at the 11β, 17α, and 21 positions respectively of the steroid molecule, the oxygenation by at least one of the microorganisms being carried out in the presence of at least one other microorganism.

2,875,133

PREPARATION OF 21-HYDROXY STEROIDS

Eugene L. Dulaney, Saskatoon, Saskatchewan, Canada, and William J. McAleer, Roselle, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 27, 1955
Serial No. 555,240
9 Claims. (Cl. 195—51)

1. A process for the production of 21-oxygenated steroid which comprises subjecting a 21-desoxy steroid selected from the group consisting of pregnenes, pregnanes and allopregnanes under aerobic conditions to the action of an oxygenating enzyme produced by an oxygenating strain of a microorganism of the species Coniothyrium sp. (NRRL 2476).

2,875,134

11β HYDROXYLATION OF STEROIDS BY EPICOCCUM

John B. Routien, Tenafly, N. J., and Gilbert M. Shull, Huntington Station, N. Y., assignors to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application January 23, 1957
Serial No. 635,601
9 Claims. (Cl. 195—51)

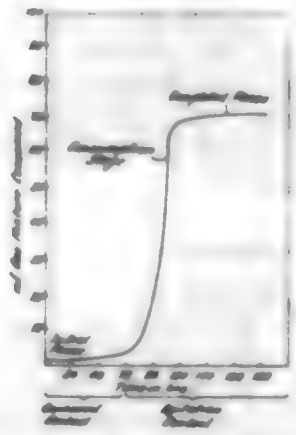
1. A process for the 11-β-hydroxylation of a steroid compound, having a methylene group at the 11-position which comprises contacting said steroid compound with the oxygenating activity of an organism chosen from the genus Epicoccum.

2,875,135

GEOMICROBIOLOGICAL PROSPECTING

James Maddox, Jr., Bellaire, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application December 28, 1956, Serial No. 631,981
7 Claims. (Cl. 195—103.5)



1. In a geomicrobiological prospecting process wherein soil samples are incubated with a hydrocarbon substrate in the presence of aqueous inorganic salt nutrient medium conducive to optimum growth of hydrocarbon-consuming microorganisms in the soil samples and the rates of hydrocarbon consumption are determined and correlated with the area being prospected as a measure of subsurface petroleum deposits, the improvement which comprises incubating a reaction mixture comprising hydrocarbon substrate, soil sample and aqueous inorganic salt nutrient medium under quiescent conditions for a period of 24 to 72 hours and immediately thereafter incubating said reaction mixture under conditions of agitation.

2,875,136

PROCESS FOR PRODUCING STREPTOMYCIN

Edwin J. Ratajak, Roslyn, and Robert C. Nubel, Levittown, N. Y., assignors to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application March 11, 1957
Serial No. 645,023
6 Claims. (Cl. 195—114)

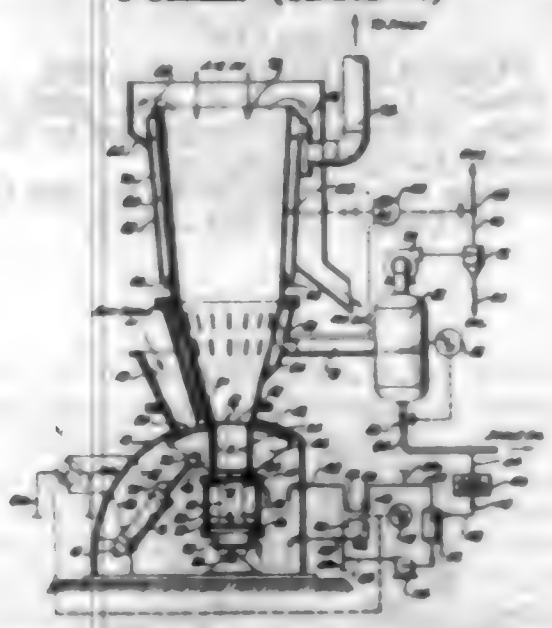
1. In a process for the production of streptomycin by fermenting a nutrient medium with a streptomycin-producing microorganism, the improvement which comprises conducting the fermentation in the presence of an azoarylsulfonic acid salt selected from the group consisting of an alkali metal salt of p-(2-hydroxy-1-naphthylazo) benzenesulfonic acid, an alkali metal salt of diphenyldiazo-bis-a-naphthylaminesulfonic acid and an alkali metal salt of p-dimethyl-aminophenylazobenzenesulfonic acid.

2,875,137

SOLIDS FEEDING PROCESS AND APPARATUS

William C. Lieffers, Santa Ana, and Robert L. Switzer, Long Beach, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application October 24, 1955, Serial No. 542,284
5 Claims. (Cl. 202—6)



1. In a process wherein solids are moved upwardly and successively through a disengaging zone and a contacting zone countercurrent to a descending treating fluid which educts from said solids in said contacting zone a product which condenses and separates in said disengaging zone as a liquid which is withdrawn therefrom as a process product, the said movement of said solids being effected by means of a solids feeder piston which is caused to reciprocate within a vertical solids feeder cylinder, the improvement which consists in separating a portion of said process liquid, treating said portion to adapt it to use as a hydraulic fluid, introducing said treated liquid into said cylinder below said piston under sufficient pressure to force said piston and said solids upwardly, and allowing a portion of said treated liquid to pass upwardly through the space between said piston and said cylinder to lubricate said piston and to purge solids fines from said space.

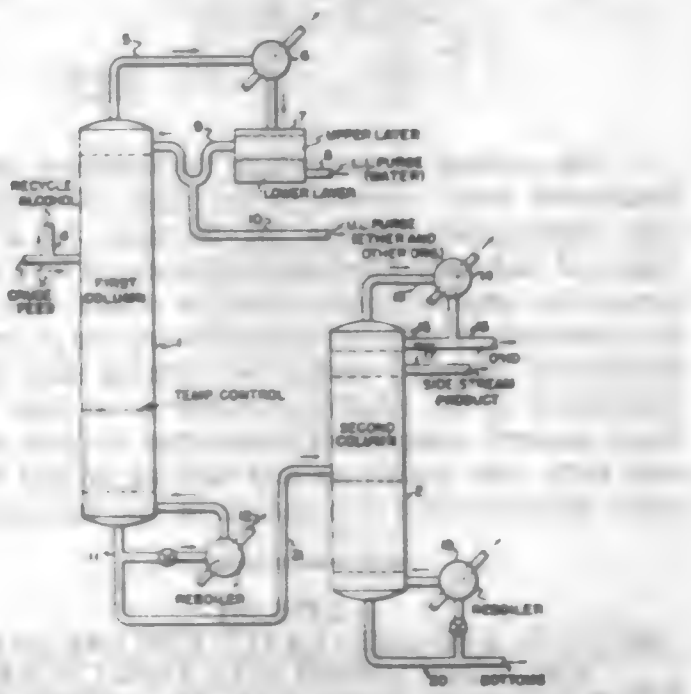
2,875,138

PURIFICATION OF SECONDARY BUTYL ALCOHOL

Royal K. Altreuter, Fair Haven, N. J., Joseph W. Dowling, Ras Tanura, Saudi Arabia, and John P. Racz, Lodi, and Philip W. Thomas, Scotch Plains, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application January 17, 1955, Serial No. 482,284
1 Claim. (Cl. 202—39)

A process for purifying a crude secondary butyl alcohol mixture containing impurities lower boiling than said secondary butyl alcohol including isopropyl alcohol, hydrocarbons, and methyl ethyl ketone, organic impurities higher boiling than said butyl alcohol including secondary butyl ether and having a water content of 15 to 25 wt. percent, which comprises introducing said mixture into a distillation zone wherein a superatmospheric pressure is employed and wherein a temperature of 96° to 104° C. is maintained at the bottom of said zone, distilling said crude secondary butyl alcohol in



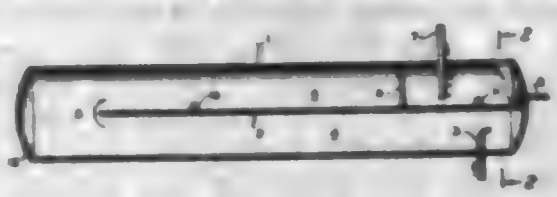
the absence of added entrainer to remove overhead vapors having normal boiling points in the range of 84° to 99.5° C. including secondary butyl alcohol vapors in excess of the amount passing off azeotropically, substantially all of the water and secondary butyl ether, recovering as bottoms crude anhydrous secondary butyl alcohol substantially free of secondary butyl ether and said lower boiling impurities, and finally fractionating said crude anhydrous secondary butyl alcohol to obtain a secondary butyl alcohol of 99+% purity.

2,875,139

APPARATUS FOR OBTAINING MAXIMUM DEPTH OF FLASH OF OILS AND THE LIKE

Donald M. Little, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application May 22, 1953, Serial No. 356,848
11 Claims. (Cl. 202—185)



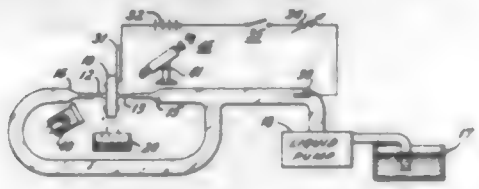
1. An apparatus for flashing a liquid into a vapor portion and a residual liquid portion which comprises in combination a substantially horizontal elongated flash distillation vessel, longitudinally disposed internal partition means within said vessel to provide two compartments within said vessel communicating with each other at at least one end of said partition means, a liquid inlet for liquid to be flashed at a locus substantially removed horizontally from said end of said partition means on one side of said partition means, a vapor condensing means at a locus substantially removed horizontally from said end of said partition means on the other side of said partition, means for condensing vapors, means for causing accumulation of condensed vapors separately from all non-vaporized liquid including any entrained liquid, liquid withdrawal means in the bottom of said vessel for withdrawing accumulated residual liquid, and withdrawal means for withdrawing condensed vapors.

2,875,140

METHOD AND APPARATUS FOR PRODUCING SEMICONDUCTIVE STRUCTURES

Thomas V. Sikina, Philadelphia, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application April 21, 1954, Serial No. 424,704
18 Claims. (Cl. 204—143)



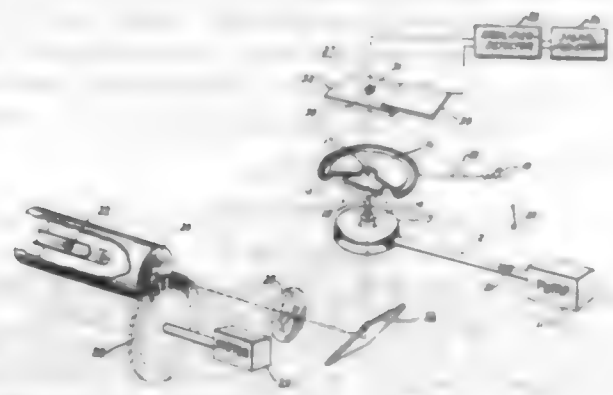
1. The method of controlling the thickness of a semiconductive body comprising the steps of progressively and continuously altering the thickness of at least a region of said body, applying to said region light radiation containing spectral components for which said material has substantially different transmittance for at least some thicknesses produced during said altering step, providing indications of the relative strengths of at least some of those spectral components transmitted by said region of said body, and modifying said altering of said thickness upon the occurrence of a change in said indications.

2,875,141

METHOD AND APPARATUS FOR USE IN FORMING SEMICONDUCTIVE STRUCTURES

Robert N. Noyce, Elkins Park, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application August 12, 1954, Serial No. 449,347
12 Claims. (Cl. 204—143)



1. In a method for producing a body of semi-conductive material at least a portion of which is of a desired thickness, the steps of: etching said body portion with an etchant at least partially translucent to light components having a first set of wavelengths; simultaneously passing light components having said first set of wavelengths through said body and said etchant; deriving indications of the combined strengths of those of said light components transmitted by said body and lying within a predetermined band; and modifying said etching upon the occurrence of a characteristic change in said indications.

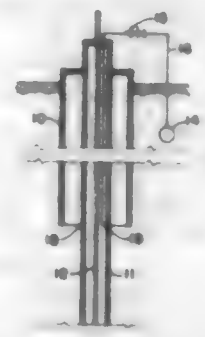
2,875,142

METHOD AND APPARATUS FOR CATHODIC PROTECTION OF WELLS

James E. Landers, El Paso, Tex., and John D. Sudbury, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

Application June 2, 1955, Serial No. 512,741
5 Claims. (Cl. 204—147)

1. In the process of cathodically protecting the casing in an encased well in which the surface pipe extends downwardly for only a portion of the depth of the well and in which the casing is maintained cathodic with respect to a protective anode buried in the ground and spaced from the well structure, the step comprising connecting a direct current source between said anode and a point on the casing adjacent to the bottom of the surface pipe.



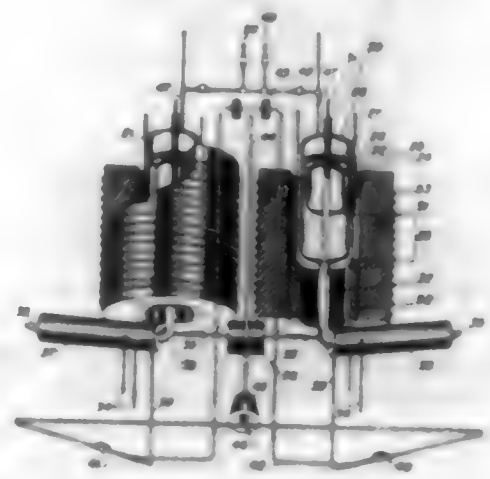
2. In the process of cathodically protecting the casing in an encased well in which the surface pipe extends downwardly for only a portion of the depth of the well and in which the casing is maintained cathodic with respect to a protective anode buried in the ground and spaced from the well structure, the step comprising maintaining an electrical insulator between the top of said surface pipe and the casing.

2,875,143

PUSH-PULL POWER REACTOR

Darol K. Froman, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application July 16, 1956, Serial No. 598,219
14 Claims. (Cl. 204—154.2)



1. A homogeneous nuclear reactor system comprising in combination a first closed vessel defining a first constant volume critical volume, a second closed vessel defining a second constant volume critical volume, fluid carrying means connecting the bottom of said first critical volume to the bottom of said second critical volume, heat exchanger means located in said fluid carrying means, a quantity of liquid fissionable nuclear fuel in said system sufficient at ambient temperature to approximately fill one of said critical volumes and said fluid carrying means, and means for moving said fuel through said fluid carrying means to alternately depress the level of said fuel in one said critical volume at least below the level required for neutronic criticality and raise the level in said other critical volume to the level required for prompt neutronic criticality.

2,875,144

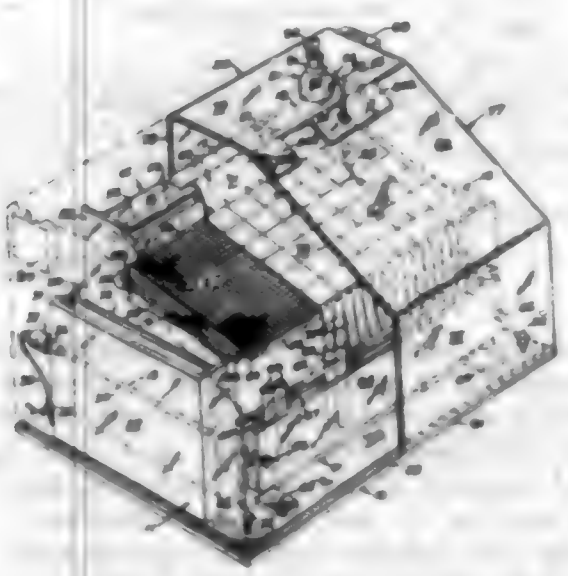
APPARATUS FOR ELECTROCHROMATOGRAPHIC SEPARATION

Arthur Karler, El Cerrito, Calif.

Application December 23, 1955, Serial No. 555,052
1 Claim. (Cl. 204—299)

Electrochromatographic apparatus comprising: a central frame work; a rectangular surface plate provided

with a surface having a plurality of four sided pyramids continuously covering substantially the entire area of the surface plate; said upper face being defined by a front lip, a rear edge, and two end edges; means for adjustably supporting said surface plate upon said frame, said means providing a range of angular adjustment of said rear edge with respect to said front lip including the range from zero degrees to 30 degrees above the horizontal; two electrode vessels extending over the length of each side of the frame and commensurate with the side edges of the surface plate, each electrode vessel being longitudinally divided by a partition into inner curtain receiving chambers and outer electrode chambers and being inter-



connected by an elongated port at the bottom of each said partition to provide for electrolyte communication between said chambers; a plurality of solvent reservoir chambers adjoining the rear edge of said fractionation surface plate; a paper curtain upon said fractionation surface plate; solvent reservoir tabs on said paper curtain in engagement with said solvent reservoir chambers, electrode vessel engaging elements, one on either side of said paper curtain, arranged in engagement with the curtain element receiving chambers of said electrode vessels; and a plurality of drip points on said paper curtain and depending downwardly over the front lip of said fractionation surface plate.

2,875,145

MOTOR FUEL

Weldon G. Annable, Mundelein, and William L. Jacobs and Robert M. Haines, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application August 24, 1956 Serial No. 605,950 9 Claims. (Cl. 208—17)

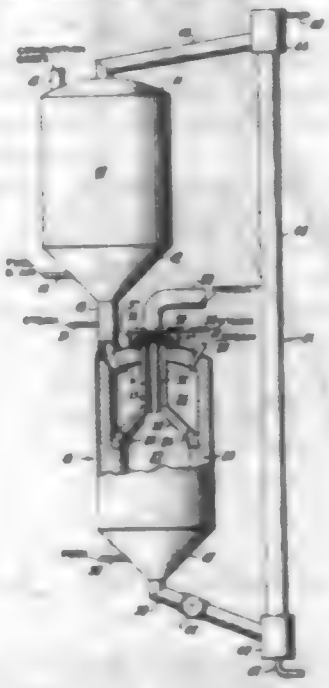
1. A gasoline motor fuel composition comprising a portion of an olefinic gasoline having induction system deposit-forming tendencies and an amount sufficient to mitigate the accumulation of induction system deposits of a hydrogen-treated solvent extract, said hydrogen-treated solvent extract being prepared by contacting a solvent extract fraction, obtained from the solvent refining of a lubricating oil stock with a selective solvent to produce a lubricating oil having an enhanced viscosity index and improved resistance to oxidation, with hydrogen at a temperature of about 600°–950° F., a pressure of about 100–500 p. s. i., a hydrogen rate of about 300–5000 s. c. f. hydrogen/barrel of feed, and a liquid hourly volume space velocity of about 0.5–10.0 in the presence of a hydrogenation catalyst.

2,875,146

PREVENTION OF COKE DEPOSITIONS IN A HYDROCARBON COKING ZONE

Dick S. Hall and Henry W. Hennigan, Phillips, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

Application April 15, 1954, Serial No. 423,426 12 Claims. (Cl. 208—48)



1. An improved reactor for pebble heater apparatus which comprises, in combination, a closed upright elongated shell; pebble inlet means in the upper end of said shell; pebble outlet means in the lower portion of said shell; fluid inlet means in the lower portion of said shell; an effluent outlet conduit extending from the interior of the upper portion of said shell to the exterior of said shell; a tube disposed within and substantially co-extensive with that portion of said effluent outlet conduit within said shell and spaced apart from said effluent outlet conduit so as to form an annular space therebetween, said annular space being in open communication with the interior of said shell; and means for introducing an inert gas into said annular space.

2,875,147

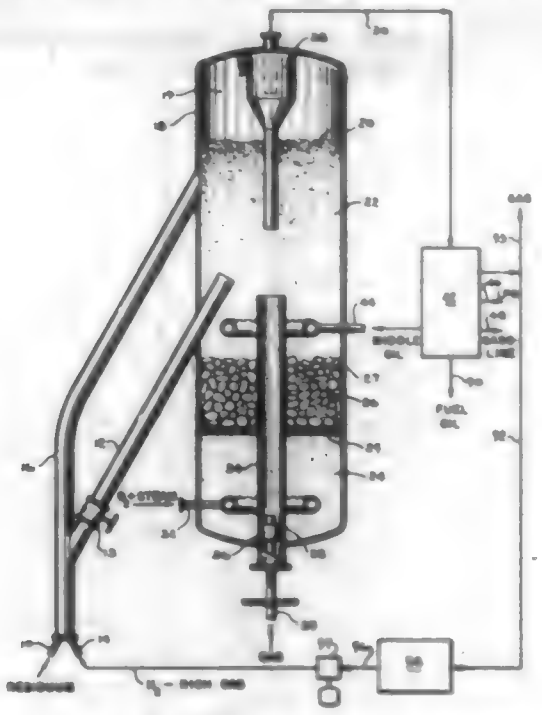
HYDROCARBON CONVERSION PROCESS

Theodore M. Engle, Pennington, N. J., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey

Application August 19, 1953, Serial No. 375,133 8 Claims. (Cl. 208—59)

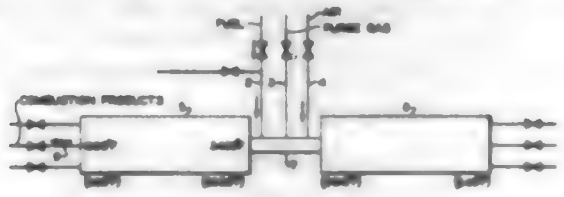
1. A hydrocarbon conversion process which comprises forming with heated particulate carrier a fluidized bed divided into a lower regeneration zone and an upper secondary conversion zone, withdrawing carrier from said secondary conversion zone, contacting a heavy hydrocarbon oil of high Ramsbottom carbon residue with the withdrawn carrier and with a suspending gas containing at least 20% by volume of hydrogen and passing the resulting suspension of said oil and carrier in dilute phase upwardly through an elongated primary conversion zone maintained at a temperature in the range of about 800 to 1050° F. and a pressure in the range of about 150 to 1000 p. s. i. g. whereby said oil is converted into volatilized products and a hydrocarbonaceous deposit fouling said carrier, passing fouled carrier from said primary conversion zone into said secondary conversion zone and therein converting said hydrocarbonaceous deposit into coke of low hydrogen content by contact with hydrogen-containing regeneration product gases at a temperature about 50 to 200° F. above the temperature of said primary conversion zone, withdrawing said volatilized products for recovery while limiting the contact thereof with said fluidized bed to not more than the upper end portion of said

secondary conversion zone, regenerating carrier in said regeneration zone by reacting the coke thereon with steam and oxygen at a temperature in the range of 1600 to 2500° F. to form said regeneration product gases, sepa-



rating from said regeneration product gases said hydrogen-containing suspending gas, and circulating said carrier in said fluidized bed between said secondary conversion zone and said regeneration zone.

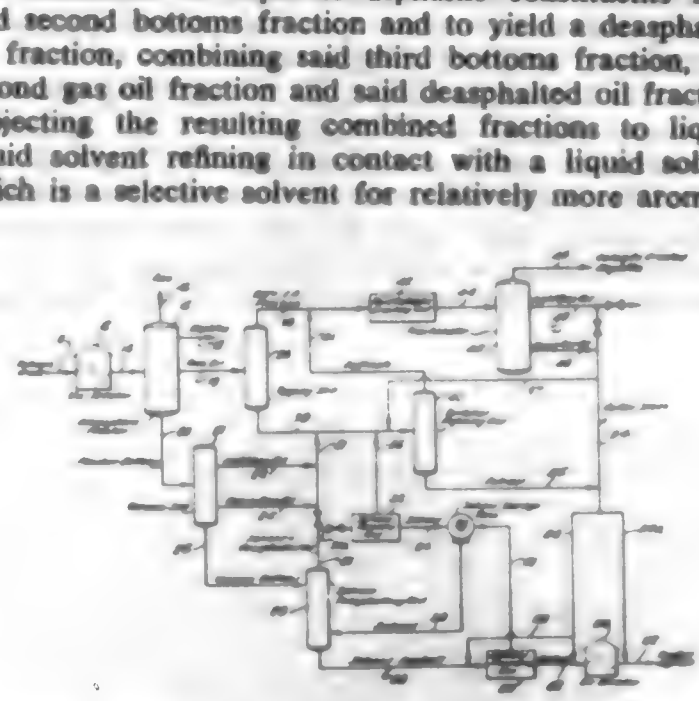
2,875,148
REGENERATIVE HYDROCARBON CRACKING PROCESS IN SERIES
Raymond C. Scofield, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application January 11, 1952, Serial No. 265,987
13 Claims. (Cl. 208—64)



1. In a cracking process in which a hydrocarbon feed stream is cracked by passing it through a first regenerative zone maintained at cracking temperature and then through a second regenerative zone maintained at a lower temperature, the improvement which comprises adding to said stream, at a locus of incipient cracking, a small proportion of said feed, uncracked, and at a temperature below cracking temperature, gradually decreasing said proportion of added hydrocarbon, and recovering cracking products.

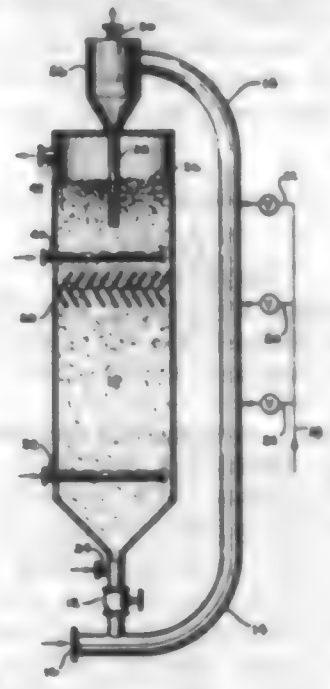
2,875,149
TREATMENT OF RESIDUAL ASPHALTIC OILS WITH LIGHT HYDROCARBONS
David K. Beavon, Los Angeles, Calif., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application November 18, 1955, Serial No. 547,638
9 Claims. (Cl. 208—73)

1. A process for treating a residual oil containing asphaltic constituents which comprises heating said oil to an elevated temperature under vis-breaking conditions, fractionating the resulting vis-broken oil to yield a first gas oil fraction and a first bottoms fraction, fractionating said first bottoms fraction to produce a second gas oil fraction and a second bottoms fraction, fractionating said first gas oil fraction to separate therefrom constituents having a boiling point not greater than about 500° F. and to yield a third bottoms fraction, subjecting said second bottoms fraction to liquid-liquid contact with a liquid deasphalting solvent under deasphalting conditions to separate asphaltic constituents from said second bottoms fraction and to yield a deasphalted oil fraction, combining said third bottoms fraction, said second gas oil fraction and said deasphalted oil fraction, subjecting the resulting combined fractions to liquid-liquid solvent refining in contact with a liquid solvent which is a selective solvent for relatively more aromatic



hydrocarbons, recovering from the aforesaid solvent refining operation a raffinate having a reduced amount of relatively more aromatic hydrocarbons relative to said resulting combined fractions and an extract having an increased amount of relatively more aromatic hydrocarbons relative to said resulting combined fractions, combining said raffinate with said constituents having a boiling point not greater than about 500° F., and subjecting the resulting combined stream to catalytic cracking.

2,875,158
HEAVY OIL CONVERSION WITH LOW COKE FORMATION
Seymour C. Schuman, Titusville, N. J., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey
Application November 12, 1953, Serial No. 391,582
10 Claims. (Cl. 208—107)



1. A process for the conversion of a heavy hydrocarbon oil having a Ramsbottom carbon value of at least about 10, which comprises injecting said oil into a rapidly moving gaseous stream containing hydrogen and having a velocity of at least about 10 feet per second and conveying dispersed heated carrier particles from a regeneration zone hereinafter specified in substantially the same direction as that of said gaseous stream to yield a mixture having a hydrogen partial pressure of at least about

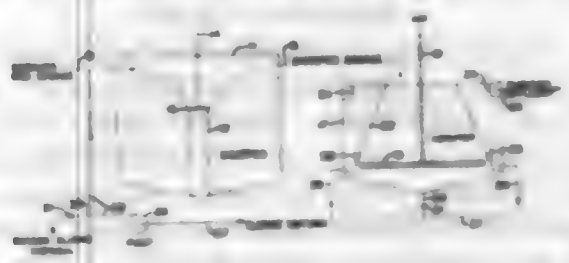
35 p. s. i. and a temperature in the range of about 1200 to 1600° F., maintaining said mixture at temperatures in said range for not more than about 3 seconds, separating said carrier particles from said mixture, recovering converted hydrocarbons from the remaining gaseous portion of said mixture, treating the separated carrier particles in the aforesaid regeneration zone with oxygen and steam at a temperature above about 1600° F. to reheat said separated carrier particles and to gasify carbonaceous material deposited thereon by said oil thereby producing hydrogen-containing gases, recovering from said gases said gaseous stream containing hydrogen, and again conveying the reheated carrier particles from the aforesaid regeneration zone in said gaseous stream containing hydrogen as aforesaid.

2,875,151

PROCESS FOR TREATMENT OF SEWAGE

Alex B. Davidson, Cincinnati, Ohio, assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware

Application April 22, 1952, Serial No. 283,546
8 Claims. (Cl. 210—4)



1. The method of treatment of sewage to purify it comprising the steps of subjecting the raw sewage to aerobic decomposition, subjecting the effluent from said aerobic decomposition step to anaerobic digestion, feeding the sludge resulting from said anaerobic digestion step in with the influent raw sewage being subjected to aerobic decomposition, and agitating throughout the process the material being treated.

2,875,152

PROCESS FOR THE PREPARATION OF GREASES GELLED WITH NON-SOAP GELLING AGENTS

Robert W. Van Scoy, Concord, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application December 20, 1955, Serial No. 554,196
5 Claims. (Cl. 252—28)

1. The process for the preparation of a grease composition which comprises:

(1) Forming a liquid hydrosol of a substantially grit-free clay;

(2) Forming a liquid body of a cationic hydrophobic surface active agent;

(3) Continuously intimately commingling the hydrosol and liquid body;

(4) Continuously and intimately commingling the mixture so formed with a major proportion of a mineral lubricating oil in a restricted pipe section at a temperature between about 150° F. and about 250° F. for a residence period of between about 0.05 and 5 seconds whereby water separates from oily curds in which a grease-forming proportion of the clay and 40–100% by weight based on the clay of surface active agent are suspended together with less than about 30% by weight of water;

(5) Continuously passing the mixture so obtained over a rotating solid surface whereby the curds are shaped into a ropy mass, passing the latter mass together with the separated water over a rotating perforated surface whereby water so separated is removed from the oily curds;

(6) Continuously passing the oily curds over a surface having a skin temperature between about 320° F. and about 370° F. for a time between about 1 second and about 30 seconds in the form of a film between about 0.005 and about 0.03 inch in thickness by means of blades rotating at a rate of 1000–2500 revolutions per minute, whereby the water content of the oily curds is reduced below about 0.1% by weight, whereby a substantially anhydrous grease structure is formed.

2,875,153

DETERGENT COMPOSITIONS

Philip Benjamin Dalton, Franklin Square, N. Y., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application April 27, 1955
Serial No. 504,359
5 Claims. (Cl. 252—132)

5. A detergent composition in the form of a gel having a relatively dry form and consisting essentially of water-soluble higher fatty acid soap, water and water-soluble non-ionic normally liquid polyalkylene oxide detergent selected from the group consisting of polyoxyalkylene condensates of higher alkyl phenol and polyoxyalkylene esters of higher fatty acids, said soap being derived from a mixture of about 75% coconut oil fatty acids and 25% fatty acid selected from the group consisting of oleic acid and tallow fatty acids, and said non-ionic detergent containing from 5 to 50 moles of alkylene oxide of 2 to 4 carbon atoms each, the amount of said soap and non-ionic detergent being from about 40 to about 60% by weight and in a ratio from about 4:1 to 1:1.2 by weight.

2,875,154

NON-CAKING SOLID PARTICULATE DETERGENTS

Allen H. Lewis, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application August 1, 1952
Serial No. 302,260
4 Claims. (Cl. 252—138)

1. A built detergent composition in the form of small solid particles consisting essentially of about 10 to about 95 parts by weight of a sodium salt of an alkyl aryl sulfonic acid selected from the group of alkyl benzene sulfonic and alkyl toluene sulfonic acids containing from 9 to 18 carbon atoms in the alkyl chain, sodium salt detergent builders in an amount sufficient to bring the aggregate weight of the sulfonic acid salt and the detergent builders to 100 parts by weight and so selected from the group consisting of sodium sulfate, sodium polyphosphates, sodium silicates, sodium chloride, sodium carbonate and sodium carboxymethyl cellulose that the pH of the built detergent composition is less than about 8.3, and from about 2 to about 10% by weight, based on the aggregate weight of the sulfonic acid salt and the detergent builders, of boric acid uniformly dispersed in each particle of the detergent composition.

2,875,155

DETERGENT BRIQUETTE AND PROCESS FOR THE PRODUCTION THEREOF

Gilbert Dewayne Miles, Ossining, N. Y., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application December 9, 1954
Serial No. 474,303
11 Claims. (Cl. 252—138)

1. A process for making an improved detergent briquette which comprises compressing, at a pressure between 3 and 100 pounds per square inch, a plurality of particles of a normally solid water soluble detergent composition containing a water soluble anionic synthetic organic detergent and a hydratable inorganic salt to unitary form-retaining briquetted condition and thereafter mois-

tening the surface of such formed briquette with an amount of water which is ½ to 10% of the weight of the detergent composition particles compressed, to increase the surface strength and abrasion resistance of the briquetted composition.

2,875,156

INHIBITION OF FOAMING IN STEAM GENERATION

Carl E. Johnson, Westchester, Ill., assignor to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application March 7, 1956
Serial No. 569,958
9 Claims. (Cl. 252—321)

1. A method of generating steam from a boiler water having a tendency to foam on boiling which comprises dispersing in said water a quantity of an addition product of an alkylene triol containing 3 to 6 carbon atoms, propylene oxide and ethylene oxide in which the weight ratio of propylene oxide to ethylene oxide is within the range of 9:1 to 1:9, the average molecular weight of said addition product is at least 1500 and said addition product is substantially insoluble in said boiler water at the temperature of steam generation, the quantity of said addition product being effective to inhibit the tendency of said water to foam on boiling, and heating the resultant aqueous dispersion to the boiling point.

2,875,157

RESOLVING WATER-IN-OIL EMULSIONS

Willard H. Kirkpatrick, Sugar Land, Tex., assignor to Visco Products Company, Houston, Tex., a corporation of Delaware

No Drawing. Application March 16, 1956
Serial No. 571,882
10 Claims. (Cl. 252—344)

1. A process of resolving water-in-oil emulsions into their components which comprises treating such emulsions with a composition of high molecular weight having a long oxyalkylene chain connected to an amino group of a water soluble monoamine in which oxyalkylene groups from the class consisting of oxypropylene and both oxyethylene and oxypropylene in a weight ratio of oxyethylene to oxypropylene not exceeding 4:1 in the same molecule form the major proportion of the average molecular weight of said composition, and the average molecular weight attributable to said oxyalkylene groups is at least 1000 where the oxyalkylene groups are both oxyethylene and oxypropylene and at least 1200 where the oxyalkylene groups are solely oxypropylene groups.

2,875,158

HYDROGENATION CATALYST

Leon O. Winstrom, East Aurora, N. Y., assignor to Allied Chemical Corporation, a corporation of New York

No Drawing. Original application December 29, 1950, Serial No. 203,561, now Patent No. 2,716,135, dated August 23, 1955. Divided and this application August 18, 1955, Serial No. 529,311
18 Claims. (Cl. 252—439)

1. A method of producing a nickel sulfide-amorphous alumina catalyst suitable for effecting catalytic hydrogenation reactions, which comprises precipitating insoluble nickel and aluminum compounds selected from the group consisting of nickel and aluminum hydroxides and carbonates by alkaline precipitation of water-soluble nickel and aluminum salts, heating a mixture of the precipitates of insoluble nickel and aluminum compounds in the presence of water for a period sufficient to produce a substantial proportion of a hydrated nickel aluminate, and converting the resulting product to a mixture of nickel sulfide and amorphous alumina by a process including heating to a temperature not exceeding 800° C. and sulfiding.

2,875,159

BEAD FORMING PROCESS

Henry Erickson, Park Forest, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 2, 1953
Serial No. 359,210
6 Claims. (Cl. 252—448)

1. The method of preparing bead form silica gel base cracking catalyst selected from the group consisting of silica alumina and silica magnesia for drying which comprises treating the bead form hydrogel with an aqueous solution of 0.1 to 0.5 weight percent of a diamyl phenol ethoxy polymer based on total water content.

2,875,160

SYNTHETIC RESIN CAPABLE FOR BINDING ORGANIC ATOM COMPLEXES AND PROCESS FOR PREPARING SAME

Leonard Jan Kantebeen, Amsterdam, Netherlands, assignor to N. V. Centrale Suiker Maatschappij, Amsterdam, Netherlands, a company of the Netherlands

No Drawing. Application February 15, 1954
Serial No. 410,449
Claims priority, application Netherlands February 16, 1950
6 Claims. (Cl. 260—2.1)

1. A process for the production of decolourising resins, capable of being dried thermally without loss of their decolourising properties, which comprises condensing 1 mol of meta-phenylene diamine with at least 2.3 mols of formaldehyde, from 1.3–4.7 mols of nitric acid and a quantity of water, sufficient to permit the reactants to be properly mixed, amounting to from about 12 to not greater than 65 mols, cooling the resulting solid mass and grinding it under water.

2,875,161

POLYAMINE DERIVATIVES OF ALKYL SUBSTITUTED BENZENES

Alfred R. Bader, Milwaukee, Wis., and John E. Hyre, Cambridge, Mass., assignors to Pittsburgh Plate Glass Company, Allegheny County, Pa.

No Drawing. Application October 21, 1954
Serial No. 463,802
4 Claims. (Cl. 260—2.1)

1. In a method of preparing a hydrochloride salt of a polyamine of a tetramethylbenzene, the steps which comprise dissolving di(chloromethyl)xylene in ethyl alcohol and contacting the solution at about refluxing temperature with anhydrous ammonia in gaseous phase whereby to precipitate said salt and removing the salt.

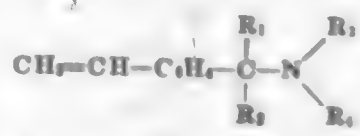
2,875,162

VINYLPHENYL ALIPHATIC AMINOCARBOXYLIC ACID POLYMERS

Leo R. Morris, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 12, 1956
Serial No. 615,508
16 Claims. (Cl. 260—2.1)

1. An addition polymer consisting essentially of recurring units corresponding to polymerizable vinylphenyl aliphatic aminocarboxylic acid compounds having the formula

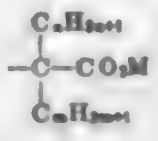


wherein the symbol R_1 represents a radical selected from

the group consisting of —H, —CO_2M, and —CH_2CO_2M, the symbol R_3 represents a radical selected from the group consisting of —H and —CH_3, each of the symbols R_3 and R_4 individually represents a radical selected from the group consisting of —H, —CH_3,

—CH_2—C_6H_4—CH=CH_2
—CH_2CO_2M
—$CH_2CH_2CO_2M$
—$CH(CO_2M)CH_2CO_2M$
—CH_2CH_2—$N(CH_2CO_2M)_2$
—$CH_2CH_2CH_2$—$N(CH_2CO_2M)_2$

and



wherein n is an integer from 1 to 4 and m is an integer from 0 to 2, M is a member of the group consisting of hydrogen, ammonium bases, and metals, and wherein at least one of the radicals represented by the symbols R_1, R_3, and R_4 contains a carboxyl group.

2,875,163

PREPARATION OF SPONGE RUBBER FROM HIGH TEMPERATURE MIXED SILICONE RUBBER-SILICA COMPOSITION

Charles A. Berridge, Cohoes, N. Y., assignor to General Electric Company, a corporation of New York

Application November 1, 1956, Serial No. 619,848

7 Claims. (Cl. 260—2.5)

6. The process of making an expanded sponge silicone rubber which comprises (1) mixing a convertible organopolysiloxane having a filler containing finely divided silica and having from about 1.98 to 2.005 organic groups per silicon atom, at least 90 percent of said organic groups being methyl groups, any other organic groups present being selected from the class consisting of ethyl, phenyl, chlorophenyl and benzyl groups and mixtures thereof, at a temperature of at least 135° C. to 160° C. for at least one hour with a smearing and shearing action, (2) adding an organic peroxide curing agent for said organopolysiloxane and nitrogen-containing organic blowing agent for said organopolysiloxane selected from the group consisting of dinitrosopentamethylenetetramine and N,N'-dimethyl-N.N'-dinitrosoterephthalamide and (3) treating said material with heat sufficient to cause expansion and cure.

2,875,164

SULFONIC ACID CATALYZED CELLULOSE ACETATE BUTYRATE UREA-FORMALDEHYDE COATING COMPOSITION FOR PAPER AND PROCESS OF PREPARATION

Fred M. Ball and Charles H. Coney, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 6, 1957
Serial No. 638,459

2 Claims. (Cl. 260—15)

1. A lacquer containing 30–40% by weight solids basis cellulose acetate butyrate, 20–50% by weight solids basis partially polymerized butylated urea-formaldehyde in a xylene-butanol solution, 20–30% by weight solids basis poly alpha methyl styrene, a solvent mixture containing toluene, anhydrous ethyl alcohol, and isobutyl acetate, and a modified sulfonic acid catalyst containing a mixture of methyl, ethyl and propyl sulfonic acids dissolved in about an equal amount by weight of n-butyl alcohol.

2,875,165

METHOD OF ESTERIFYING EPOXY RESINS WITH UNSATURATED ACIDS

Wesley C. Stoesser, Midland, Edmund H. Sommerfield, Bay City, and William R. Surine, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 2, 1956
Serial No. 562,947
6 Claims. (Cl. 260—18)

1. In the esterification of epoxy resins having oxirane rings and made by reaction of 4,4'-dihydroxydiphenyl dimethyl methane and epichlorohydrin, with unsaturated monocarboxylic acids derived from oils of the class consisting of drying and semidrying oils, the improvement which consists in carrying out the esterification reaction in the presence of a minor amount of a chelating agent from the group consisting of the tri- and tetrasodium salts of ethylenediamine tetraacetic acid, the sodium salt of N-hydroxyethyl ethylenediamine triacetic acid, the sodium salt of N,N-di(hydroxyethyl) glycine, the sodium salt of N,N'-dibenzyl ethylenediamine diacetic acid, the sodium salt of N-octadecyl ethylenediamine triacetic acid, the sodium salt of ethylenediamine diacetic acid, mixtures of the foregoing with triethanolamine, the corresponding lithium, potassium and ammonium salts of such compounds, and mixtures of the foregoing with one another.

2,875,166

METHOD OF THICKENING AQUEOUS DISPERSIONS WITH A DIVALENT METAL ACRYLATE AND PRODUCT THEREOF

Robert P. Hopkins, Ardsley, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application September 20, 1954
Serial No. 457,293
7 Claims. (Cl. 260—29.6)

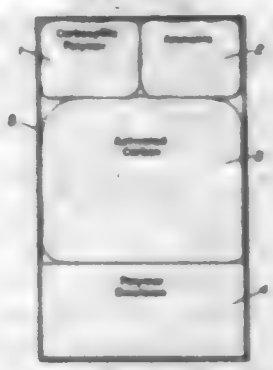
1. The method of thickening an aqueous dispersion containing a non-ionic dispersing agent comprising adding thereto 1% to 10% by weight, based on the weight of the dispersion, of a water-soluble divalent metal acrylate and a peroxy polymerization catalyst and allowing the acrylate to polymerize in situ at a temperature from below room temperature to about 100° C. to thereby thicken the dispersion.

2,875,167

PROCESS AND COMPOSITION FOR RENDERING FABRICS RESISTANT TO THE PASSAGE OF TOXIC GASES

Francis W. Minor, Arlington, Va., and Anthony M. Schwartz, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Army

Application May 17, 1956, Serial No. 585,583
4 Claims. (Cl. 260—29.7)



1. A composition for rendering cloth resistant to toxic gases and liquids consisting essentially of an aqueous ammoniacal suspension of finely divided activated charcoal, an emulsified butadiene-styrene copolymer, and at least one copolymer of styrene and monosecondary butyl maleate, said charcoal constituting from 5 to 25 percent of said

composition and consisting essentially of particles not substantially exceeding five microns diameter, the ratio of charcoal to total polymer solids being from 2:1 to 8:1 by weight and the ratio of said butadiene-styrene copolymer to said styrene-monosecondary butyl maleate copolymer being from 4:1 to 1:1.5 by weight, whereby cloth that has been impregnated with said composition and thereafter dried is resistant to dry abrasion and to wet abrasion with water but strippable by laundering in alkaline detergents.

2,875,168

PROCESS OF EXTRUDING VINYLIDENE CHLORIDE RESIN PLASTICIZED WITH AN ETHYLENE GLYCOL DIBENZOATE

William Mayo Smith, Jr., Cuyahoga Falls, and Chris E. Best, Franklin Township, Summit County, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application September 23, 1954
Serial No. 458,014
3 Claims. (Cl. 260—31.4)

1. In the process of extruding and orienting a resin selected from the group consisting of homopolymers of vinylidene chloride and copolymers thereof with up to 15 percent by weight, based on the weight of said copolymers, of other monomer copolymerized therewith, the improvement which comprises including as a plasticizer in the molten resin a substantial amount not in excess of 10 percent by weight, based on the weight of the resin, of a compound having the formula

$$C_6H_5—CO—O—(C_2H_4O)_n—CO—C_6H_5$$

in which n is a whole number not greater than 2.

2,875,169

VINYLIDENE CHLORIDE POLYMER COMPOSITION PLASTICIZED WITH DI-N-PROPYL TETRACHLOROPHTHALATE AND PROCESS OF EXTRUDING SAME

Robert J. Reid, Canal Fulton, Ohio, and Jacob D. Matlack, Whippany, N. J., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application December 11, 1953
Serial No. 397,776
13 Claims. (Cl. 260—31.8)

7. A plasticized composition comprising a crystalline polymeric resin selected from the group consisting of homopolymers of vinylidene chloride and copolymers thereof with up to 15 percent (based on the weight of said copolymers) of other unsaturated compounds copolymerized therewith and, as plasticizer therefor, di-n-propyl tetrachlorophthalate.

2,875,170

VULCANIZABLE OIL EXTENDED RUBBER COMPOSITION AND METHOD OF PREPARING

George W. Ayers, Chicago, and Marcellus J. Geertz, Evanston, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application July 29, 1953
Serial No. 371,144
12 Claims. (Cl. 260—33.6)

1. An improved vulcanizable rubber composition comprising an unvulcanized synthetic rubber hydrocarbon having permanently incorporated therein 25 to 100 parts per 100 parts of the hydrocarbon of a mixture of (1) a mineral oil selected from the group consisting of lubricating oil and aromatic solvent extracts obtained in the solvent defining of mineral lubricating oils, and (2) an oily material selected from the group consisting of polyisobutenes, polypropenes, and mixtures thereof, and a vulcanizing agent.

2,875,171

PROCESS OF MAKING CARBON-FILLED POLYAMIDE

Samuel Phillip Foster and Russell Wilbur Peterson, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 21, 1954
Serial No. 444,924
3 Claims. (Cl. 260—37)

1. A process which comprises heating to a temperature 11 to 30° C. above the boiling point of water under an autogenous pressure of 180 to 325 p. s. i. g. a mixture consisting essentially of water and a partially polymerized polycarbonamide of the class obtainable by heating dibasic acid-diamine mixtures and mixtures thereof with monoaminomonocarboxylic acids, and in which the carbonamide groups are separated by a chain of 2 to 10 carbon atoms; adding to the resultant fluid mass a dispersion containing 0.5 to 5 weight percent carbon based on said polycarbonamide and consisting essentially of 5 to 20 weight percent discrete carbon particles smaller than 200 millimicrons and of 8 to 65 millimicrons average ultimate particle size, and water containing at least 5 weight percent, based on said carbon, of a dispersing agent selected from the alkali metal salts of aryl sulfonic acid/formaldehyde condensation products and the alkali metal salts of lignin sulfonic acid; evaporating, and removing from the resulting mixture under an autogenous pressure of 180 to 325 p. s. i. g., an amount of water equal to that added with said dispersion, at a rate which over the period from commencing said addition to completing said removal averages 0.0038 to 0.01 pounds per minute per pound of said polycarbonamide; the aforesaid addition being completed in substantially less time than that required to evaporate the added water; and further heating said mass with removal of water until said polycarbonamide attains an inherent viscosity of 0.4 to 1.2.

2,875,172

PROCESS FOR COMPOUNDING ALKYL ARYL VINYL SILICONE ELASTOMER WITH FILLER AND SILANEDIOL, AND PRODUCT OBTAINED THEREBY

Joseph C. Caprino, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application November 1, 1956
Serial No. 619,675
5 Claims. (Cl. 260—37)

1. The process of improving the physical properties of cured alkyl aryl vinyl silicone having a filler comprising silica which comprises adding to the uncured and filled silicone diphenylsilanediol and mixing said uncured silicone under a shearing and smearing action at temperatures of at least 140° C.

2,875,173

CONSTANT COLOR COMPOSITION COMPRISING VINYLIDENE CHLORIDE-VINYL CHLORIDE COPOLYMER AND CURCUMIN

Chris E. Best, Franklin Township, Summit County, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application August 30, 1954, Serial No. 453,857
1 Claim. (Cl. 260—41)

A composition comprising a copolymer of 85 parts by weight of vinylidene chloride and 15 parts by weight of vinyl chloride, which composition contains 0.01 percent of curcumin, 2 percent of glycidyl phenylether and 2 percent of 4-t-butyl phenyl salicylate, said percentages being based on the weight of the copolymer.

2,875,174

SULFUR VULCANIZED RUBBER CONTAINING A MIXTURE OF ANTIOXIDANTS, AND PROCESS OF OBTAINING SAME

Frederick J. Webb, Cuyahoga Falls, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application July 23, 1957
Serial No. 673,579
19 Claims. (Cl. 260—45.8)

1. Sulfur-vulcanized rubber of the class consisting of natural and synthetic rubbers from the class consisting of homopolymers of conjugated dienes and copolymers of a conjugated diene and an ethylenically unsaturated monomer, which rubber contains an antioxidizing amount of both (*a*) a compound having the composition of Formula I in which *x* and *y* are each at least one and not greater than two, each R is from the class consisting of alkyl, aralkyl and cycloalkyl groups containing not more than 16 carbon atoms; the hydroxyphenyl groups are selected from the class consisting of 2-hydroxy and 4-hydroxy phenyl, and R_1 is from the class consisting of hydrogen and alkyl groups of one to ten carbon atoms and (*b*) a compound having the composition of Formula II in which R and each R_1 are from the class consisting of hydrogen and —X and —SX groups in which X is from the class consisting of alkyl, cycloalkyl and aralkyl groups containing one to twelve carbon atoms, and unsubstituted aryl, hydrocarbon-substituted aryl and benzothiazolyl groups, at least one R_1 being hydrogen.

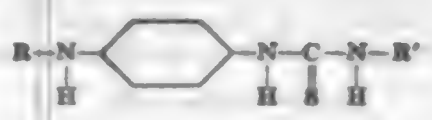
2,875,175

SUBSTITUTED THIOCARBAMYL-P-PHENYLENEDIAMINES AS ANTI-OZONE AGENTS FOR RUBBER

Joseph C. Ambelang, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application October 15, 1954
Serial No. 462,622
13 Claims. (Cl. 260—45.9)

3. A sulfur-vulcanized rubber composition which includes as an antiozone agent a small amount of a substance of the formula



wherein R is from the class of substituents consisting of alkyl groups of 1 to 10 carbon atoms, cyclopentyl, cyclohexyl, alkyl-substituted cyclopentyl and alkyl-substituted cyclohexyl; and R′ is from the class consisting of alkyl groups containing 1 to 10 carbon atoms, cyclopentyl, cyclohexyl, alkyl-substituted cyclopentyl, alkyl-substituted cyclohexyl, phenyl and phenyl substituted with a hydrocarbon group of one to ten carbon atoms; the rubber being from the class consisting of natural rubber, polymers of butadiene and alkyl derivatives thereof, and mixtures of such rubbers.

2,875,176

LINEAR POLYESTER COMPOSITIONS CONTAINING THE CONDENSATION PRODUCT OF HYDROQUINONE AND ALLYL ALCOHOL AS A HEAT STABILIZER

De Walt S. Young, Roger M. Schulken, Jr., and Louis D. Moore, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application September 21, 1956
Serial No. 611,372
4 Claims. (Cl. 260—45.95)

1. A polyester composition comprising a linear polyester selected from the group consisting of the linear polyesters of 4,4′-dicarboxyphenyl sulfone and 1,5-pentanediol and the linear polyesters of 4,4′-dicarboxyphenyl sulfone, azelaic acid and 1,5-pentanediol stabilized against degradation by heat by a content of from 0.1 to 10 parts by weight of the polymeric condensation product of equivalent amounts of hydroquinone and allyl alcohol condensed under acid conditions, per 100 parts by weight of polyester.

2,875,177

PREPARATION OF ORGANOPOLYSILOXANES CONTAINING SILICON-BONDED CARBOXYALKYL GROUPS

Ben A. Bluestein, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application March 20, 1957
Serial No. 647,192
4 Claims. (Cl. 260—46.5)

1. The process for forming intercondensed organopolysiloxanes containing carboxyalkyl siloxy units and siloxy units free of silicon-bonded carboxyalkyl groups but containing silicon-bonded organic radicals selected from the class consisting of monovalent hydrocarbon radicals and substituted monovalent hydrocarbon radicals, which process comprises heating an aqueous solution of a carboxyalkylpolysiloxane in which the carboxy group is separated from the silicon atom by from 2 to 4 carbon atoms with and an organoalkoxysilane of the formula

$$(R)_2Si(OR')_2$$

where R is a member selected from the class consisting of monovalent hydrocarbon radicals and halogenated monovalent hydrocarbon radicals, and R′ is a lower alkyl radical.

2,875,178

COPOLYMER POLYHYDRIC PHENOL RESIN

Frank P. Greenspan, Buffalo, and Rupert E. Light, Jr., Kenmore, N. Y., assignors to Food Machinery and Chemical Corporation, San Jose, Calif.

No Drawing. Application June 13, 1956
Serial No. 591,010
13 Claims. (Cl. 260—47)

1. Thermosetting, organic solvent soluble composition useful in the preparation of thermoset resinous products, said composition comprising (*a*) an epoxidized copolymer containing at least 1% of oxirane oxygen, said epoxidized copolymer being the reaction product of a lower aliphatic peracid having 1 to 10 carbon atoms with a copolymer having a molecular weight of 250 to 250,000 of a conjugated diene and an ethylenic monomer containing the $CH_2{=}CH{-}$ group; and (*b*) a polyhydric phenol, said polyhydric phenol being present in an amount of 10% to 100% of the stoichiometric amount required for complete reaction with the oxirane oxygen in said epoxidized copolymer.

2,875,179

CONVERSION OF THERMOPLASTIC RESINS TO THERMOSET RESINS

James H. Freeman, Greensburg, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application December 6, 1954
Serial No. 473,477
1 Claim. (Cl. 260—59)

A molding composition comprising an intimate admixture of (A) a thermoplastic resin consisting of an aldehyde-difunctional phenol condensation product of an aldehyde selected from the group consisting of formaldehyde, para-formaldehyde, furfuraldehyde, and acetaldehyde and a difunctional phenol selected from the group consisting of an ortho-monoalkyl substituted phenol and a para-monoalkyl substituted phenol in a molar ratio of less than 1:1, and (B) a thermosetting additive selected from the group consisting of 2,4,6-trimethylolphenol and alkali

metal and alkaline earth metal salts thereof, said additive (B) being present in an amount within the range of 3% to 20% by weight based upon the total weight of the composition whereby to establish the ratio of the sum of the aldehyde reacted with the difunctional phenol in the preparation of (A) and the methylol groups of (B) to above the molar ratio of 1:1, said molding composition being convertible to a thermoset body on heating to a temperature within the range of 90° C. to 180° C.

2,875,180

SYNTHETIC RESINS DERIVED FROM HYDROXYMETHYLFURFURAL AND KETONES

Francis H. Snyder, Newtown, Conn., assignor to Dendrol, Inc., Memphis, Tenn., a corporation of Delaware

No Drawing. Application August 3, 1953
Serial No. 372,173
12 Claims. (Cl. 260—64)

1. The process of preparing a synthetic resin which comprises reacting hydroxymethylfurfural with a ketone having at least two alpha hydrogen atoms at a pH between about 9 and 13.

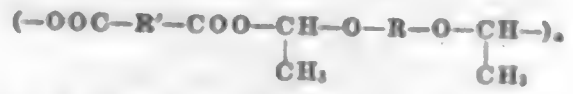
2,875,181

PRODUCTION OF POLYESTERS BY POLY-ADDITION

Gerhard Faerber, Moers, Germany, assignor to Deutsche Solvay-Werke G. m. b. H., Solingen-Ohligs, Germany

No Drawing. Application April 4, 1955
Serial No. 499,200
Claims priority, application Germany July 26, 1954
7 Claims. (Cl. 260—78.4)

7. A linear polyester which is composed of the following recurrent unit



wherein R′ is a bivalent radical of an acid selected from the group consisting of saturated aliphatic dicarboxylic acids having 4 to 10 carbon atoms, and phenylene dicarboxylic acids, R is a bivalent radical containing from 2 to 4 carbon atoms and being selected from the group consisting of alkylene radicals and dialkylene radicals, and *n* being an integer sufficiently large that the polymer is a solid to viscous high molecular weight compound at normal temperature.

2,875,182

PRODUCTION OF POLYSULFIDE POLYMERS

Edward M. Fettes, Morrisville, Pa., and Eugene R. Bertozzi, Mercerville, N. J., assignors to Thiokol Chemical Corporation, Trenton, N. J., a corporation of Delaware

No Drawing. Application March 9, 1955
Serial No. 493,307
13 Claims. (Cl. 260—79)

1. The method of making a polymercaptopolysulfide polymer which comprises reacting at least one aqueous thiosulfate of the formula $R(SSO_3Na)_n$ wherein R is selected from the group consisting of aliphatic hydrocarbon and oxahydrocarbon groups and *n* has a value of 2–4, with a mixture of alkaline sulfide and hydrosulfide containing from 0.05 to 2.0 mols of hydrosulfide per mol of sulfide, the relative amounts of thiosulfate and alkaline sulfide being such that from 1 to 2 molecules of alkaline sulfide react with each two molecules of thiosulfate to cause a liquid polythiopolymercaptan having a molecular weight of 1000 to 50,000 to separate as a continuous non-aqueous phase.

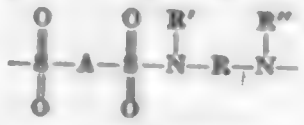
2,875,183

RESINOUS CONDENSATION PRODUCT OF A CHLORINATED AROMATIC DISULFONYL HALIDE AND A DIAMINE

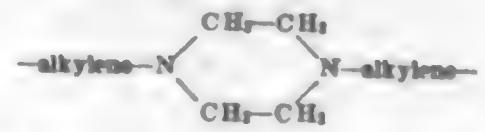
Wilbur A. Murphey, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 30, 1955
Serial No. 519,268
7 Claims. (Cl. 260—79.3)

1. A polysulfonamide of a disulfonyl halide and a diamine containing recurring units of the structure:



wherein —A— is a divalent carbocyclic radical from the class consisting of polychlorinated phenylene and polychlorinated biphenylene which separate the sulfone substituents by at least three carbon atoms, —R— is a member of the class consisting of a divalent hydrocarbon radical and a radical of the formula



and R′ and R″ are members of the class consisting of hydrogen and lower alkyl.

2,875,184

POLYCHLOROPRENE CEMENT CURED WITH CARBON DISULFIDE, LOWER ALKYLAMINO-ALCOHOLS AND LOWER POLYALKYLAMINES

William E. Tann, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application August 21, 1957
Serial No. 679,526
27 Claims. (Cl. 260—79.5)

1. A vulcanizing cement containing a rubbery polychloroprene, a solvent for said polymer and as an accelerator, relatively small amounts of carbon disulfide, a lower alkylamino-alcohol, and at least one lower polyalkylamine selected from the group consisting of lower aliphatic amines and lower cycloaliphatic amines.

2,875,185

METHOD OF POLYMERIZING A MONOETHYLENICALLY UNSATURATED VINYLIDENE COMPOUND IN AQUEOUS SUSPENSION

Ralph M. Wiley, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 23, 1954
Serial No. 451,681
7 Claims. (Cl. 260—91.7)

1. The method which consists essentially in dispersing by means of agitation at least one water-immiscible monoethylenically unsaturated monomeric vinylidene compound in an aqueous medium containing a hydrophilic colloidal granulating agent, under conditions of agitation to form monomer droplets of the desired size, thickening the dispersion by dissolving in the aqueous phase thereof a carbohydrate from the group consisting of locust bean gum, guar gum and potato starch in amount sufficient to prevent gravitational separation of the dispersed phase from the continuous aqueous phase, discontinuing dispersive agitation and subjecting the dispersion to the action of catalytic and thermal conditions known to induce polymerization of the monomer, while avoiding turbulence in the thickened dispersion, thereby to produce uniform beads of the polymer.

6. The method claimed in claim 1, wherein the monomer comprises vinylidene chloride.

2,875,186

PROCESS FOR POLYMERIZING VINYL CHLORIDE IN THE PRESENCE OF METHYL CELLULOSE GELATIN AND INERT SOLVENT

James R. Gerhard II, West Lawn, and Claude C. Deegan and Thomas W. Fisher, Jr., Pottstown, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application December 9, 1954
Serial No. 474,278

2 Claims. (Cl. 260—92.8)

1. Process which comprises polymerizing vinyl chloride in suspension in an aqueous medium, and in the presence of from 0.5 to 25%, based on the weight of the vinyl chloride, of an inert solvent for vinyl chloride selected from the group consisting of benzene, toluene, butane, pentane, hexane, heptane, petroleum ether, naphtha, and ethylene dichloride, said aqueous medium having dissolved therein both gelatin and methyl cellulose, the total weight of said dissolved methyl cellulose and gelatin being from 0.08 to 0.18% of the weight of said aqueous medium, and the ratio of the weight of said gelatin to the weight of said methyl cellulose being from 3:1 to 1:3.

2,875,187

SUSPENSION POLYMERIZATION USING SORBITOL, METHYL CELLULOSE AND GELATIN

James R. Gerhard II, West Lawn, Pa., assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application February 1, 1957
Serial No. 637,631
3 Claims. (Cl. 260—92.8)

1. Process which comprises polymerizing, in suspension in an aqueous medium, a monomeric material selected from the group consisting of vinyl chloride and mixtures thereof with up to 20%, based on the weight of said mixture, of other ethylenically unsaturated compounds copolymerizable therewith, said aqueous medium having dissolved therein

	Parts by weight
Gelatin	[1].03–.12
Methyl cellulose	[1].03–.14
Sorbitol	[1].03–.10

[1] Per 100 parts by weight of aqueous medium.

2,875,188

CATALYSIS OF PHOSPHOSULFURIZATION REACTIONS

John A. Brown, Metuchen, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application April 25, 1957
Serial No. 654,990

5 Claims. (Cl. 260—139)

1. In a process wherein a phosphosulfide is reacted with a hydrocarbon material having a molecular weight in the range of 500–100,000 at a temperature in the range of 350° to 600° F., to obtain a product useful as a lubricant additive containing above 2 wt. percent of combined phosphorus and above 4 wt. percent of combined sulfur; the improvement which comprises catalyzing the reaction between said phosphosulfide and hydrocarbon material by the use of 0.0001 to 0.9 wt. percent of an oil soluble alkaline earth metal salt of a phenol sulfide whereby the reaction rate is substantially increased, wherein said alkaline earth metal salt is selected from the group consisting of calcium and barium, and wherein said phenol sulfide is an alkyl phenol sulfide having 6–12 carbon atoms in the alkyl chain.

2,875,189

PREPARATION OF ALKALINE EARTH SALTS OF PHOSPHORUS SULFIDE-HYDROCARBON REACTION PRODUCTS

Albert R. Sabol and Robert E. Karll, Munster, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application May 31, 1957
Serial No. 662,607

12 Claims. (Cl. 260—139)

1. In the method of preparing an oil-soluble detergent-type lubricant additive which comprises reacting a reactant consisting of a hydrocarbon, having a molecular weight of at least about 150, with from about 1% to about 50% of a phosphorus sulfide at a temperature of from about 200° F. to about 600° F., hydrolyzing the resultant reaction product at a temperature of from about 220° F. to about 500° F., and neutralizing the hydrolyzed reaction product with a basic alkaline earth compound, the improvement comprising oxidizing the unneutralized hydrolyzed reaction product with from about 2% to about 10% hydrogen peroxide at a temperature of from about 70° F. to about 80° F. for about 2 to 4 hours, raising the temperature to about 212° F. to 220° F. to remove the water of reaction, and neutralizing the resultant oxidized hydrolyzed reaction product with a basic alkaline earth compound.

2,875,190

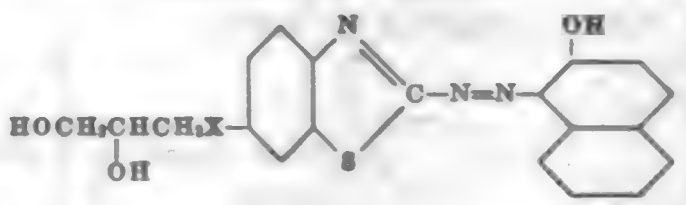
METALLIZABLE AZO DYES PREPARED FROM A BENZOTHIAZOLE DERIVATIVE AND β-NAPHTHOL

James M. Straley and John G. Fisher, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 15, 1957
Serial No. 652,689

7 Claims. (Cl. 260—146)

1. As a composition of matter, the azo compounds selected from the group consisting of monoazo compounds and their metal complexes in combination with a metal selected from the group consisting of nickel, cobalt, copper, chromium, manganese, iron and vanadium, said monoazo compounds having the structural formula:



wherein X is selected from the group consisting of S and SO_2.

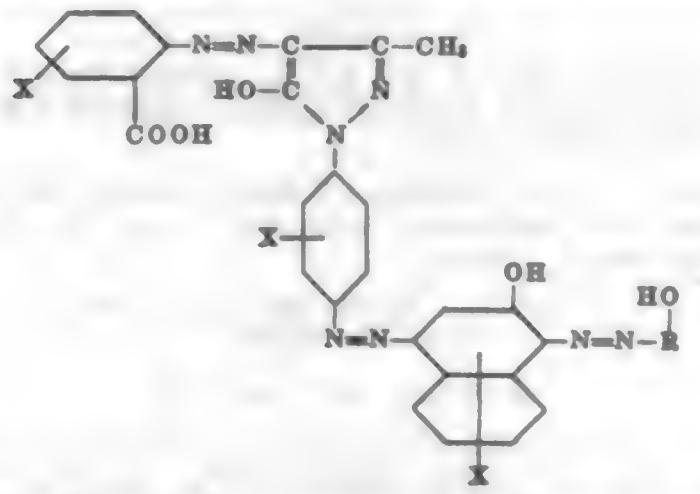
2,875,191

COPPER-CONTAINING TRISAZO DYESTUFFS

Walther Benade and Hermann Goebel, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application February 26, 1957
Serial No. 642,355
Claims priority, application Germany March 10, 1956
5 Claims. (Cl. 260—147)

1. Copper complexes of trisazo dyestuffs corresponding to the formula



wherein X stands for a member selected from the group consisting of H and —SO_3H, and R means a radical of an amino-hydroxynaphthalene sulfonic acid bearing —OH in o-position to the azo bridge.

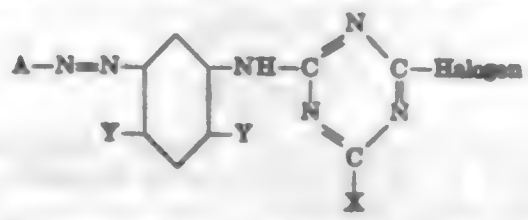
2,875,192

AZO-DYESTUFFS

Raymond Gunst, Binningen, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application October 25, 1957
Serial No. 692,256
Claims priority, application Switzerland October 29, 1956
10 Claims. (Cl. 260—153)

1. Water-soluble azo-dyestuffs of the formula



in which X represents the radical of a dehydrothiotoluidine monosulfonic acid bound to the carbon atom through its amino group, one Y represents a hydrogen atom and the other a sulfonic acid group, and A represents the radical of a ketomethylenic heterocyclic coupling component.

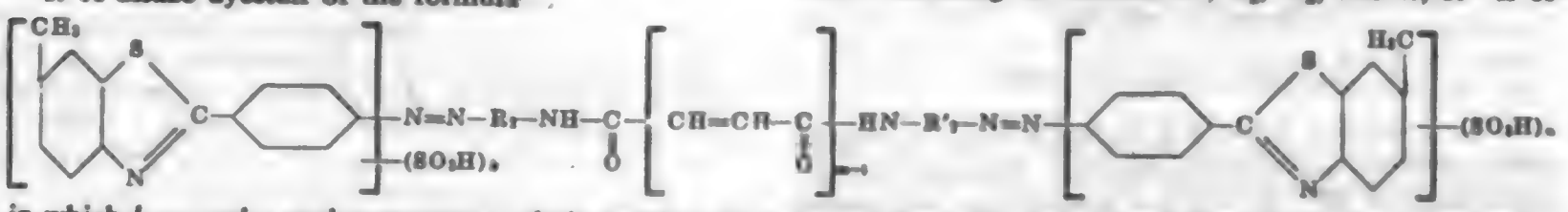
2,875,193

NEW DIRECT-DYEING AZO-DYESTUFFS AND PROCESS FOR THEIR MANUFACTURE

Henri Riat, Arlesheim, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application May 20, 1957
Serial No. 660,095
7 Claims. (Cl. 260—158)

1. A disazo dyestuff of the formula



in which k, m and n each represent a whole number of at least 1 and at the most 2, and R_2 and R_2' each represent a benzene radical bound in the 4-position to the —NH— group and in the 1-position to the azo linkage and containing in the 2-position an acylamino group which is bound to the benzene ring by the nitrogen atom of its —NH—CO— grouping and which contains at the most 3 carbon atoms.

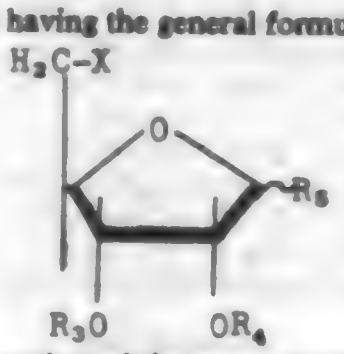
2,875,194

DERIVATIVES OF 5-AMINO-D-RIBOFURANOSE

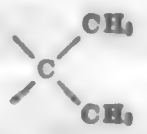
Bernard Randall Baker, Birmingham, Ala., and Henry Marcell Kissman, Nanuet, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 5, 1955
Serial No. 538,810
20 Claims. (Cl. 260—211)

1. Compounds having the general formula:



wherein X is a member of the group consisting of amino, phthalimido, succinimido, glutarimido and hexahydrophthalimido radicals, R_3 and R_4 are members of the group consisting of hydrogen, lower alkanoyl radicals, aroyl radicals and the isopropylidene radical of the formula



when R_3 and R_4 are joined together, and R_5 is a member of the group consisting of halogen, lower alkoxy, hydroxy, alkanoyloxy and aroyloxy radicals.

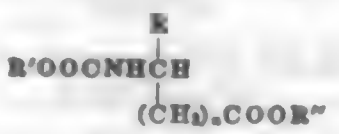
2,875,195

METHOD OF SOLUBILIZING VITAMINS A, B_2, D_2 AND E

Wilbert J. Humphlett and Charles V. Wilson, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

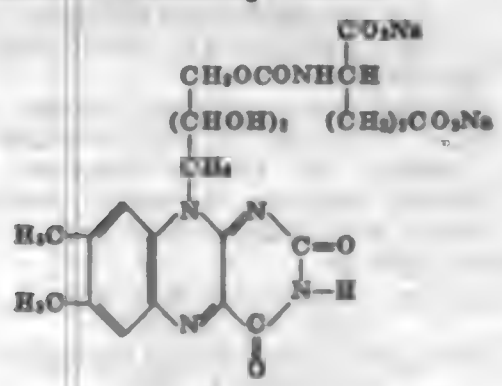
No Drawing. Application August 9, 1956
Serial No. 603,193
16 Claims. (Cl. 260—211.3)

1. A composition of matter having the formula



in which R is selected from the class consisting of alkyl groups having 1–3 carbon atoms, hydrogen, and COOR″; R′ is a vitamin-oxy radical of a vitamin selected from the class consisting of vitamins A, B_2, D_2, and E; R″ is selected from the class consisting of Na, K, and Li, and n is a whole integer from 1–6.

5. A solubilized vitamin B_2 as follows:



2,875,196

6β,19-SELENO-1-DEHYDROTESTOSTERONE AND ESTERS THEREOF

Klaus G. Florey, Westfield, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application September 18, 1956
Serial No. 618,641

7 Claims. (Cl. 260—239.5)

1. A compound selected from the group consisting of 6β,19-seleno-1-dehydrotestosterone and esters thereof with hydrocarbon carboxylic acids of less than ten carbon atoms.

2,875,197

Δ²²-3-β-ACYLOXY-8,9-α-OXIDO-7,11-DIKETO-ERGOSTENES

Bernard W. Wildi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 27, 1953
Serial No. 351,483

9 Claims. (Cl. 260—239.55)

1. The chromic acid oxidation of a $\Delta^{5,22}$-3-β-acyloxy-7ξ,11-α-dihydroxy-ergostadiene at temperatures below 20° C. but above the freezing point of the reaction mixture for times not exceeding 6 hours forming the corresponding Δ^{22}-3-β-acyloxy-8,9-α-oxido-7,11-diketo-ergostene the amount of chromic acid being sufficient therefor.

2,875,198

6-ALKYLDIOSGENINS, AND DEGRADATION TO DIOSONES

Bjarte Löken, Roosevelt, and Hector Flores, San Juan, Puerto Rico, assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application May 27, 1958
Serial No. 738,007

4 Claims. (Cl. 260—239.55)

1. In the preparation of a member of the class consisting of 16β-(3-acetoxy-γ-methylpentanoyloxy)-4-pregnene-3,20-dione and its lower 6α-alkyl derivatives wherein the lower alkyl group contains less than 3 carbon atoms, the step of heating the corresponding member of the class consisting of 3,26-diacetoxy-3,5,20(22)-furostatriene and its lower 6-alkyl derivatives with strong alkali in a lower alkanol, followed by contacting the resulting member of the class consisting of 26-hydroxy-4,20(22)-furostadien-3-one and its 6-lower alkyl derivatives with acetic anhydride, and contacting the resulting 26-acetate with chromium trioxide.

4. 5α-hydroxy-6β-methyl-22-isospirostan-3-one.

2,875,199

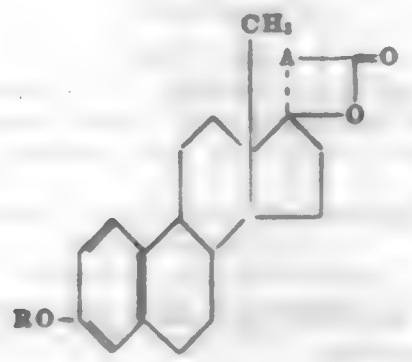
LACTONES OF 17-CARBOXYALKYLATED ESTRA-1,3,5(10)-TRIENE-3,17-DIOLS AND 3-ETHERS

John A. Cella, Skokie, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application April 22, 1958
Serial No. 730,061

6 Claims. (Cl. 260—239.57)

1. A compound of the formula



wherein R is selected from the group consisting of hydrogen and lower alkyl radicals, and A is selected from the group consisting of ethylene, vinylene, propylene, and trimethylene radicals.

2,875,200

9α - HALO - 11β,21 - DIHYDROXY - 4,17(20) - PREGNADIENE-3-ONE COMPOUNDS AND PROCESS OF PREPARING THEREOF

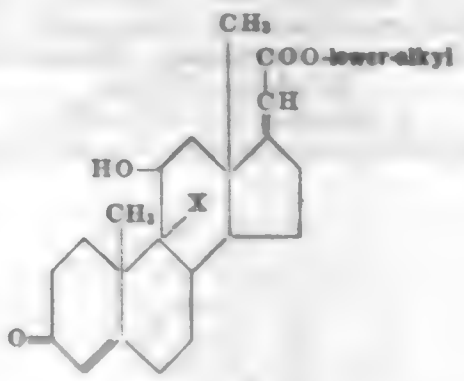
John A. Hogg and Frank H. Lincoln, Jr., Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application December 17, 1954
Serial No. 476,861

53 Claims. (Cl. 260—239.55)

1. The process which comprises opening the oxido group of 3-keto-9:11-β-oxido-4,17(20)-pregnadiene-21-oic acid alkyl ester with a hydrohalic acid selected from the group consisting of hydrochloric acid and hydrofluoric acid, under substantially anhydrous conditions, to produce 3 - keto - 9α - halo - 11β - hydroxy - 4,17(20)-pregnadiene-21-oic acid alkyl ester.

5. 3 - keto - 9α - halo - 11β - hydroxy - 4,17(20) - pregnadiene-21-oic acid lower-alkyl ester represented by the following formula:



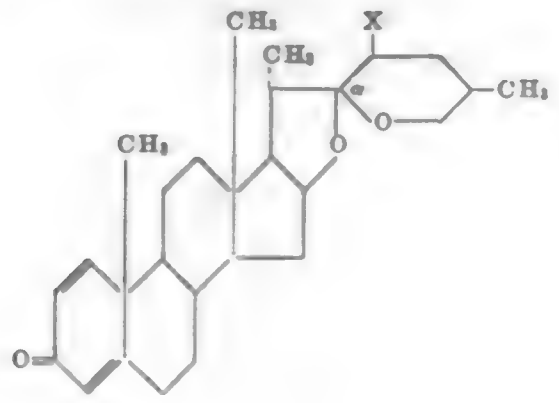
wherein X is a halogen having an atomic weight from 19 to 127 inclusive.

2,875,201
DEHYDROTIGOGENONE INTERMEDIATES

William F. Johns, Morton Grove, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application August 28, 1957
Serial No. 680,664
3 Claims. (Cl. 260—239.55)

1. A compound of the formula



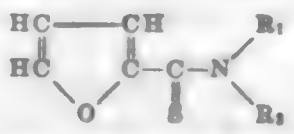
wherein X is selected from the group consisting of hydrogen and bromine.

2,875,202
PREPARATION OF THIOAMIDES

Frank A. V. Sullivan, Glenbrook, Conn., and Sonya A. J. Westerback, Holden, Mass., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application November 2, 1955
Serial No. 544,599
8 Claims. (Cl. 260—247.1)

1. A method of preparing a thiofuramide of the formula



in which R_1 is selected from the group consisting of H, alkyl, hydroxyalkyl, phenyl and naphthyl; R_2 is selected from the group consisting of alkyl hydroxyalkyl, phenyl and naphthyl; and in which R_1 and R_2 when taken together with the nitrogen form a radical selected from the group consisting of morpholyl, pyrrolidyl and piperidyl; which comprises, bringing together ammonium dithiofuroate and at least about a chemical equivalent of an amine in an aqueous medium, permitting the reaction mixture to stand until the thiofuramide is formed, and recoverying the thiofuramide.

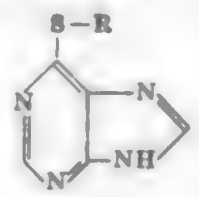
2. A method according to claim 1 in which the amine is morpholine.

2,875,203
ALKYLTHIOPURINES

William Shive and Charles G. Skinner, Jr., Austin, Tex.

No Drawing. Application March 3, 1958
Serial No. 718,404
5 Claims. (Cl. 260—252)

1. A compound represented by the formula



wherein R represents an alkyl radical having from 2 to 10 carbon atoms.

2,875,204
2-AMINO-3-(p-CHLOROPHENYLIMINO) - 3,5-DIHYDRO-5-(p - CHLOROPHENYL) - PHENAZINE AND SALTS THEREOF

Vincent Christopher Barry, Rathgar, Dublin, James Gabriel Belton, Terenure, Dublin, Michael Laurence Conalty, Dublin, and Dermot Twomey, Terenure, Dublin, Ireland, assignors, by mesne assignments, to Geigy Chemical Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 4, 1955
Serial No. 545,101
Claims priority, application Switzerland November 8, 1954
2 Claims. (Cl. 260—267)

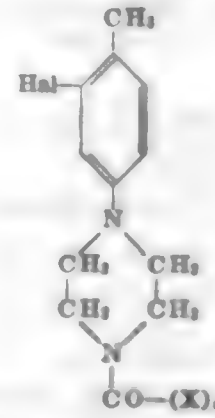
1. A member selected from the group consisting of 2-amino-3-(p-chlorophenylimino) - 3,5 - dihydro - 5 - (p-chlorophenyl)-phenazine and the mineral acid salts thereof.

2,875,205
DICARBOXYLIC ACID-MONOPIPERAZIDES AND A PROCESS FOR THEIR MANUFACTURE

Heinrich Ruschig and Walter Siedel, Bad Soden (Taunus), Heinrich Leditschke and Manfred Schorr, Frankfurt am Main, Dieter Schmidt-Barbo, Hofheim (Taunus), and Georg Lammler, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application October 19, 1956
Serial No. 616,924
Claims priority, application Germany October 29, 1955
7 Claims. (Cl. 260—268)

1. A member selected from the group consisting of dicarboxylic acid-monopiperazides of the general formula:



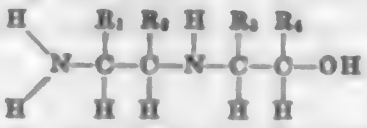
wherein Hal represents a member selected from the group consisting of chlorine and bromine, X represents a member selected from the group consisting of lower alkylene, dimethylene ether, dimethylene thioether, lower alkenylene, phenylene and pyridine groups, *n* represents a number selected from the group consisting of 0 and 1, and lower alkyl esters and non-toxic metal salts of the acids of the above formula.

2,875,206
TWO-STAGE METHOD FOR PREPARING CARBON-SUBSTITUTED PIPERAZINES

William W. Levis, Jr., Wyandotte, and William K. Langdon, Grosse Ile, Mich., assignors to Wyandotte Chemicals Corporation, Wyandotte, Mich., a corporation of Michigan

No Drawing. Application February 21, 1957
Serial No. 641,496
8 Claims. (Cl. 260—268)

1. A two-stage method for preparing carbon-substituted piperazines, which comprises, heating and stirring a mixture of a finely divided nickel hydrogenation/dehydrogenation catalyst and an N(β-hydroxyalkyl)-1,2-alkylenediamine according to the formula



wherein R_1 and R_2 are members selected from the group

consisting of hydrogen and alkyl radicals having from 1 to 3, inclusive, carbon atoms, the total number of carbon atoms in said alkyl radical substituents for R_1 and R_3 being not over 3, R_3 is a member selected from the group consisting of hydrogen and alkyl radicals having from 1 to 2 carbon atoms, inclusive, R_4 is an alkyl radical having from 1 to 3 carbon atoms, and the total number of carbon atoms in said alkyl substituents for R_3 and R_4 being not over 3, said heating step being carried out in liquid phase at about atmospheric pressure at a temperature in the range from 80–125° C. and for a time in the range from 2–8 hours, said mixture of catalyst and N(β-hydroxyalkyl)-1,2-alkylenediamine containing from 1–5 weight percent on a dry basis of said finely divided nickel catalyst, and subsequently distilling the total product of said heating step in the presence of said catalyst.

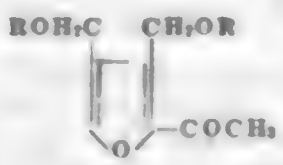
2,875,207

PROCESS FOR THE PREPARATION OF VITAMIN B_6, INTERMEDIATES EMPLOYED THEREIN, AND PROCESSES OF PREPARING THE SAME

Niels Konrad Friedrich Wilhelm Clauson-Kaas, Maasmedalen, Horsholm, and Niels Elming, Copenhagen, Denmark, assignors to Sadolin & Holmblad A/S, Copenhagen, Denmark, a corporation of Denmark

No Drawing. Application May 2, 1958
Serial No. 732,431
Claims priority, application Denmark November 30, 1953
24 Claims. (Cl. 260—297.5)

1. A method of producing vitamin B_6 (pyridoxine), comprising aminating by treatment with a compound selected from the group consisting of ammonia, hydroxylamine and salts thereof and with hydrogen the keto group located in the α-position in the substituent in the 2-position of the furan ring of a compound having the general formula



in which R is a member of the group consisting of a hydrogen atom and a carboxylic acyl group to produce a furan compound having the general formula



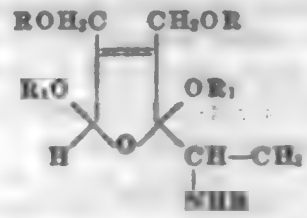
in which R has the same meaning as above, and reacting the last-named compound under oxidizing conditions with an alcohol R_1OH in which R_1 is a member of the group consisting of alkyl, hydroxyalkyl, alkoxyalkyl, and cycloalkyl groups of not more than 6 carbon atoms, and hydrolyzing the resulting product at a pH at least as low as 7 to form pyridoxine.

9. Compounds of the general formula



in which R and R_1 are each a member of the group consisting of a hydrogen atom and a carboxylic acyl group and acid addition salts of said compounds in which R_1 is a hydrogen atom.

18. A dihydrofuran compound of the general formula



in which R is a member of the group consisting of a hydrogen atom and a carboxylic acyl group, and R_1 is a member of the group consisting of alkyl, hydroxyalkyl, alkoxyalkyl, and cycloalkyl groups of not more than 6 carbon atoms.

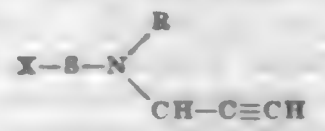
2,875,208

PROPYNYL SULFENAMIDES

John J. D'Amico, Nitro, W. Va., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 28, 1956
Serial No. 631,070
7 Claims. (Cl. 260—306.6)

1. As a new compound a propynyl-2-benzothiazolesulfenamide having the structure



wherein R is selected from the group consisting of hydrogen, alkyl, allyl, benzyl and cyclohexyl groups and X represents a member of the group consisting of an aryl thiazole radical and nitro, chloro, phenyl, lower alkoxy and lower alkyl substituted derivatives thereof in which the substitution is for hydrogen in a benzene ring of a phenylene radical.

2,875,209

PROCESS FOR THE PRODUCTION OF 3-(OR 5)-AMINO-1,2,4-TRIAZOLE

Manfred Niese and Detlef Delfs, Opladen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application December 18, 1956
Serial No. 628,987
Claims priority, application Germany December 23, 1955
8 Claims. (Cl. 260—308)

1. A process for the production of a member selected from the group consisting of 3-(and 5)-amino-1,2,4-triazole, which comprises heating an aminoguanidine salt with formic acid at a temperature within the range of about 100–120° C. in an inert diluent and recovering said group member formed.

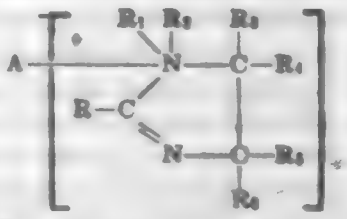
2,875,210

CHEMICAL COMPOSITIONS

Carol H. Bollenback, Maywood, and Carl E. Johnson, Westchester, Ill., assignors to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application May 17, 1956
Serial No. 585,390
5 Claims. (Cl. 260—309.6)

1. A composition having the following structural formula



where A is an anion, R is a higher aliphatic hydrocarbon group containing 7 to 17 carbon atoms, R_1 is a group from the class consisting of aliphatic monohalohydro-

carbon containing not more than 6 carbon atoms and aliphatic monohalomonohydroxyhydrocarbon containing not more than 6 carbon atoms; R_2 is a lower aliphatic group containing not more than 6 carbon atoms, and R_3, R_4, R_5 and R_6 are groups from the class consisting of hydrogen and lower alkyl groups.

2,875,211

BASIC DYESTUFFS FOR THE MANUFACTURE OF COLORED WRITING AGENTS

Heinrich Seibert, Leverkusen-Bayerwerk, Kurt Triebeneck, Koln-Deutz, and Berthold Bienert and Fritz Baumann, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application July 26, 1955
Serial No. 524,584
Claims priority, application Germany July 29, 1954
8 Claims. (Cl. 260—314.5)

1. As a novel product, the salt of an acid selected from the group consisting of a hydrocarbon hydroaromatic monocarboxylic acid, hydrocarbon aromatic carboxylic acid, an alkyl monocarboxylic acid, an alkylene polycarboxylic acid, the corresponding acid alkyl esters of the polycarboxylic acids and a mineral acid, with a sulfonamide phthalocyanine dyestuff, said sulfonamide being substituted at the sulfonamide nitrogen atom with at least one di-lower alkylamino-lower alkylene radical.

2,875,212

PROCESS OF PREPARING CERTAIN 2-AMINO INDOLES

Karl Hoffmann, Binningen, and Jindrich Kebrle, Basel, Switzerland, assignors to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application July 10, 1956
Serial No. 597,047
Claims priority, application Switzerland July 18, 1955
6 Claims. (Cl. 260—319)

1. Process for the preparation of an acid addition salt of a 1-substituted 2-amino-indole, which comprises reacting a benzyl cyanide having in ortho-position a free amino group with a member selected from the group consisting of an alkyl halide and a mononuclear aralkyl halide.

2,875,213

RECOVERY OF GAMMA-BUTYROLACTONE

George B. Ulvild, Robstown, Tex., and James S. MacKenzie, Morristown, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application September 10, 1954
Serial No. 455,360
12 Claims. (Cl. 260—343.6)

8. Process for the recovery of gamma-butyrolactone from a mixture produced by the liquid phase oxidation of an aliphatic hydrocarbon, which mixture comprises lower aliphatic monocarboxylic acids, gamma-butyrolactone and glycol esters of the group consisting of lower alkanoic esters of ethylene, propylene and butylene glycols, which process comprises distilling said mixture to produce a fraction containing gamma-butyrolactone, said glycol esters and not above about 2% by weight of monocarboxylic acids, adding water and a saturated liquid aliphatic hydrocarbon to said fraction to form an aqueous phase containing the gamma-butyrolactone and a hydrocarbon phase containing said glycol esters, separating the aqueous phase from the hydrocarbon phase and recovering the gamma-butyrolactone from the aqueous phase.

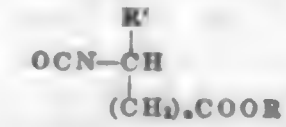
2,875,214

METHOD OF SOLUBILIZING STEROIDS

Wilbert J. Humphlett and Charles V. Wilson, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 9, 1956
Serial No. 603,194
14 Claims. (Cl. 260—397.2)

1. A process of solubilizing stigmasterol comprising reacting it with an isocyanato ester having the following formula



in which R is an alkyl group having 1–4 carbon atoms, n is an integer from 1 to 6 and R′ is selected from the class consisting of hydrogen, alkyl having 1–3 carbon atoms and COOR, and selectively hydrolyzing the said ester linkage with alkali.

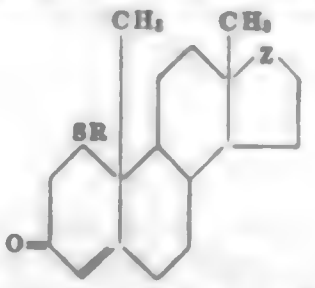
2,875,215

1-ACYLTHIO SUBSTITUTION PRODUCTS OF 3,17-DIOXYGENATED ANDROSTANE DERIVATIVES

Raymond M. Dodson, Park Ridge, and Robert C. Tweit, Wilmette, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application May 24, 1957
Serial No. 661,294
10 Claims. (Cl. 260—397.3)

1. A compound selected from the class consisting of compounds having the structural formula



and 4,5-dihydro derivatives thereof; wherein R is a lower alkanoyl radical; and Z is a member of the class consisting of the carbonyl group, the hydroxymethylene group, and groups of the formula

CHOR′

wherein R′ is a lower alkanoyl radical.

2,875,216

METHOD OF PREPARING 1-DEHYDROTESTOSTERONE AND ESTERS THEREOF

Klaus G. Florey, Westfield, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Original application September 18, 1956, Serial No. 610,641. Divided and this application July 10, 1957, Serial No. 674,002
2 Claims. (Cl. 260—397.4)

1. A process for preparing a compound selected from the group consisting of 1-dehydrotestosterone and esters thereof, which comprises heating to a temperature of about 300° C. to about 500° C. a compound selected from the group consisting of 6β,-19-seleno-1-dehydrotestosterone and esters thereof and recovering the 1-dehydrotestosterone formed.

2,875,217

PRODUCING 17-HYDROXY 20-KETO STEROIDS BY THE USE OF OSMIUM TETROXIDE AND AN ORGANIC POLYVALENT IODO OXIDE

William P. Schneider, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application July 14, 1954
Serial No. 443,418
20 Claims. (Cl. 260—397.45)

1. In a process for the production of a 17α-hydroxy-20-keto compound of the pregnane series by the oxidative hydroxylation of a $\Delta^{17(20)}$ compound of the pregnane series having a 20-hydrogen atom and a 21-carbon atom with osmium tetroxide and an oxidizing agent, the improvement which comprises carrying out the oxidative hydroxylation with from about 0.001 to about 0.2 molar equivalents of osmium tetroxide and in excess of two molar equivalents of an organic carbocyclic aryl polyvalent iodo oxide as the oxidizing agent, calculated on the starting steroid, at a temperature between about minus ten and about plus seventy degrees centigrade.

2,875,218

AMIDES

Joachim Darzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 4, 1955
Serial No. 492,299
2 Claims. (Cl. 260—404.5)

1. An N,N,N',N'-tetraalkyl diamide of dimeric linoleic acid having from 1 to 8 carbon atoms in the alkyl radical.

2,875,219

BITUMENOUS BONDING AGENTS

Clarence F. Huber, Mount Healthy, and Paul F. Thompson, Deer Park, Ohio, assignors to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application March 15, 1955
Serial No. 494,563
11 Claims. (Cl. 260—404.5)

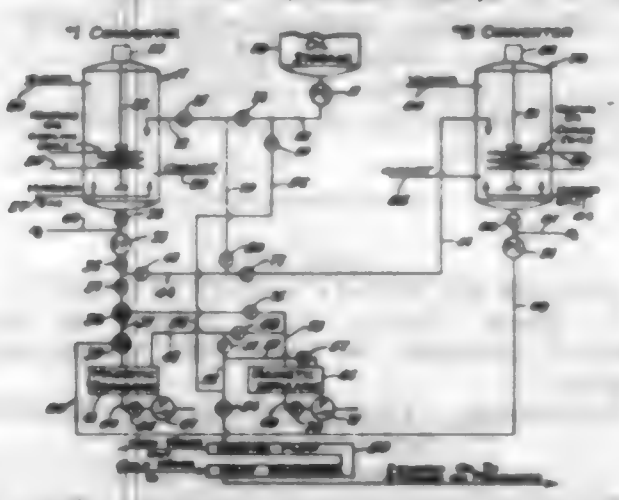
1. Compounds adapted to be incorporated in bituminous compositions to improve the coating properties thereof, said compounds being amides of N, N-di(aminoalkyl)-N-alkyl amines and salts of such amides, the amide-forming acids being organic acids having from 2 to 20 carbon atoms and the salt-forming acids, if present, and at least one of the amide-forming acids having from 10 to 20 carbon atoms.

2,875,220

HYDROGENATION OF FAT

Joseph W. Bremer, Jr., Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois

Application September 14, 1956, Serial No. 609,959
3 Claims. (Cl. 260—409)



1. A process of hydrogenating fat with a particulate nickel catalyst including the steps of introducing an amount of liquid fat and catalyst into a hydrogenation zone, hydrogenating said fat, removing the hydrogenated fat and catalyst from said zone and while at a temperature above about 200° F. passing them through a separation zone at a predetermined rate of flow in which zone are a plurality of closely spaced magnetic poles to remove at least the major portion of said catalyst from said fat, demagnetizing said poles after said hydrogenated fat has passed said separation zone, passing a second amount of unhydrogenated fat through said separation zone at a substantially greater rate of flow than said predetermined rate to pick up the catalyst therein, and introducing said second amount of fat and the picked up catalyst into a hydrogenation zone, all of said processing being carried on in the substantial absence of air.

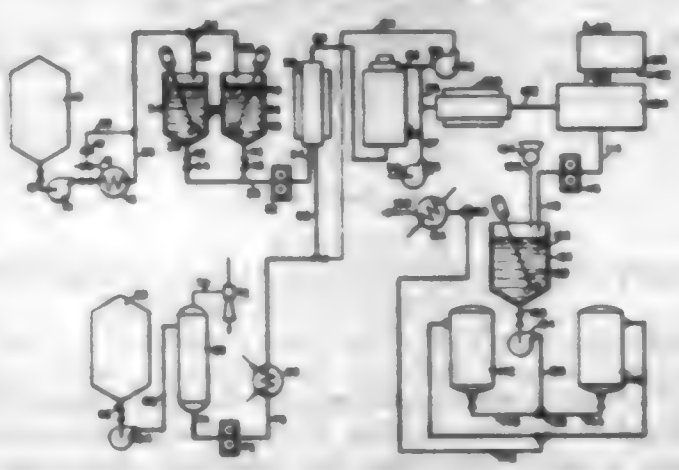
3. Apparatus for use in the hydrogenation of fat with a particulate catalyst having magnetic properties including a hydrogenation vessel having means to introduce and hydrogenate fat therein with said catalyst, conduit means connected to said vessel for removing the hydrogenated fat and catalyst from said vessel, and a magnetic separator in said conduit means, said separator comprising a vessel provided with an inlet and an outlet to permit the flow of the liquid through the interior of the vessel, a plurality of closely woven masses of magnetizable strands disposed within the interior in the path of flow of the liquid, several magnetizable grids separating said woven masses, and a source of magnetic flux disposed to place the plurality of the woven masses and the several magnetizable grids in the magnetic circuit of the source.

2,875,221

PROCESS FOR PREPARING MONOGLYCERIDES OF FATTY ACIDS

Hermann Birnbaum, Pittsburgh, Pa., assignor to Hachmeister, Inc., McKees Rocks, Pa., a corporation of Pennsylvania

Application March 7, 1958, Serial No. 719,774
3 Claims. (Cl. 260—410.7)



1. In a continuous process for preparing glycerol esters of fatty acids having a high proportion of monoglyceride, the steps comprising (*a*) admixing one part of weight of substantially anhydrous glycerol with from 0.1% to 2.0% by weight of anhydrous caustic soda, the mixture being treated to a temperature of from 275° F. to 325° F., (*b*) admixing therewith from 1 to 3 parts by weight of a polyglyceride of a fatty acid at a temperature of from 400° F. to 475° F., (*c*) heating the mixture from a period of 2 to 8 minutes to a temperature of from 475° F. to 525° F. by continually applying and removing a thin film thereof from a highly heated metal surface whereby the mixture rapidly attains the desired temperature, (*d*) simultaneously intimately admixing into the mixture of step (*b*) from about 5% to 10% of its weight of previously processed product containing in excess of 40% of monoglyceride, (*e*) holding the combined mixture from step (*c*) for a period of at least 15 minutes while maintaining its temperature from 475° F.

to 525° F. whereby an optimum proportion of monoglyceride is produced, from 4% to 10% of the resulting product being recycled to step (*b*), (*f*) then rapidly adding to the remainder of the mixture sufficient concentrated phosphoric acid to convert the caustic soda to sodium acid phosphate, the acidified mixture having a pH of below 7, (*g*) immediately chilling the acidified mixture in less than a minute to a temperature of from 200° F. to 350° F. to minimize reversion of the monoglyceride therein, and (*h*) purifying the product by stripping free glycerine and filtering off sodium acid phosphate, thereby continually producing a product having a high proportion of monoglyceride.

2,875,222

DRY RENDERING OF FATS

Henry C. Dormitzer, Chicago, Ill., assignor to Wilson & Co., Inc., a corporation of Delaware

No Drawing. Application July 12, 1952
Serial No. 298,631
3 Claims. (Cl. 260—412.6)

3. The process for the removal of fat from fat-containing packing house material by a dry rendering process which comprises the steps of cooking the said packing house materials to render the fat therefrom, subjecting the resulting mixture while hot to centrifugal action, thereby separating liquid fat from cracklings, mechanically expressing fat from the cracklings, and returning the thus expressed fat to be subjected to centrifugal action with additional materials from the rendering operation and removing the total fat separated in said centrifugal operation.

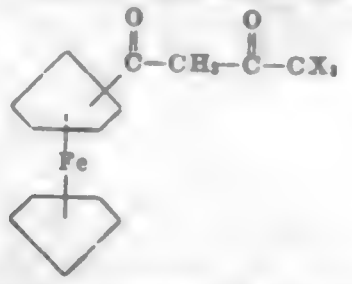
2,875,223

DICYCLOPENTADIENYLIRON DERIVATIVES

Charles J. Pedersen, Salem, N. J., and Viktor Weinmayr, Landenberg, Pa., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 18, 1954
Serial No. 450,795
16 Claims. (Cl. 260—439)

16. A dicyclopentadienyliron derivative of the group consisting of a compound having the formula



in which X represents a member of the group consisting of hydrogen and fluorine, and a metal chelate of said compound in which the metal is a common chelate-forming metal.

2,875,224

PREPARATION OF ORGANIC COMPOUNDS OF TRIVALENT PHOSPHORUS

John L. Van Winkle, San Lorenzo, and Charles S. Bell and Rupert C. Morris, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application June 20, 1957
Serial No. 667,024
9 Claims. (Cl. 260—448)

1. A process for preparing an aliphatic phosphonous dihalide, which process comprises reacting a ternary complex of an aliphatic hydrocarbon halide, a phosphorous trihalide and an aluminum halide with elemental phosphorus, and reacting the resulting binary complex of an aliphatic hydrocarbon phosphonous dihalide and the aluminum halide with a phosphorous trihalide and an aliphatic hydrocarbon halide.

2,875,225

PRODUCTION OF ISOCYANATES

Otto Böhme, Opladen, Friedrich Mott and Johannes Pfirschke, Leverkusen-Bayerwerk, and Heinz Wollthan, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

Application June 24, 1954, Serial No. 438,912
Claims priority, application Germany June 25, 1953
2 Claims. (Cl. 260—453)

1. A process for the continuous production of aromatic isocyanates, which comprises substantially continuously contacting a suspension of an aromatic amine having an average particle size below about 50μ in an inert suspending agent with phosgene at a temperature between about 0 and 10° C., passing the mixture obtained upwardly through a substantially vertically extending reaction zone maintained at a temperature between about 100 and 175° C., thereafter removing the excess phosgene dissolved in the mixture in an inert gas stream, and recovering the aromatic isocyanates formed.

2,875,226

PROCESS FOR THE PREPARATION OF ISOCYANATES

Albert Bloom, Summit, N. J., Harlan B. Freyermuth, Easton, Pa., and James B. Normington, Little Silver, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

Application July 9, 1956, Serial No. 596,647
13 Claims. (Cl. 260—453)

1. In the process for the preparation of aromatic polyisocyanates wherein an aromatic polyamine is reacted with phosgene at a low temperature and in an inert organic solvent to produce a slurry of the carbamyl chloride- hydrochloride of said polyamine in said solvent and the thus obtained slurry is reacted at an elevated temperature in the range of 100 to 200° C. with further phosgene whereby carbamyl chloride-hydrochloride reacts with the phosgene to form a polyisocyanate and the thus obtained polyisocyanate is recovered; the improvement which comprises forming a solution of phosgene in an inert organic solvent selected from the group consisting of dialkyl ethers of mono-, di- and trialkylene glycols and introducing the polyamine into the thus formed solution of phosgene to thereby form the slurry of the carbamyl chloride-hydrochloride and heating the thus formed slurry in the same solvent to a temperature of 100 to 200° C. while introducing further phosgene whereby the polyisocyanate is formed.

2,875,227

EPHEDRINE SALTS OF 7-CARBOETHOXY-3-ACETYLTHIOHEPTANOIC ACID

Edward Walton, Scotch Plains, and Arthur F. Wagner, Princeton, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application May 11, 1955
Serial No. 507,726
3 Claims. (Cl. 260—455)

1. An ephedrine salt of (+)-7-carboethoxy-3-acetylthioheptanoic acid.

2,875,228

ESTERS OF THIOLCARBOXYLIC ACIDS

Gail H. Birum, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 30, 1955
Serial No. 556,437
14 Claims. (Cl. 260—455)

1. Phosphono-substituted hydrocarbon esters of organic thiolcarboxylic acids wherein the said hydrocarbon ester group contains from one to ten carbon atoms, is

free of non-benzenoid unsaturation, and separates the phosphorus and sulfur atoms of the said esters by from one to five aliphatic carbon atoms, wherein the phosphono group is esterified by radicals selected from the class consisting of lower-alkyl and halo-lower-alkyl radicals, and wherein the organic radical directly attached by a carbon atom to the carbonyl carbon atom of said thiolcarboxylic acid contains 1 to 20 carbon atoms, is free of non-benzenoid unsaturation, and is selected from the class consisting of hydrocarbon and halo-substituted hydrocarbon radicals.

8. The process which comprises contacting an organic carboxylic acid derivative selected from the class consisting of organic carboxylic acid halides and organic carboxylic acid anhydrides with a mercapto-hydrocarbonphosphonate ester of the formula $HS—R'—PO(OR)_2$ where R is selected from the class consisting of lower-alkyl and halo-lower-alkyl radicals and R′ is a hydrocarbon radical of from one to ten carbon atoms, free of non-benzenoid unsaturation, separating the phosphorus and sulfur atoms of the said ester by from one to five aliphatic carbon atoms, and isolating from the resulting reaction product a compound of the formula



where R′ and R have the meaning described above, and R″ which represents the radical attached by carbon to the carbonyl atom of the acid function of said organic carboxylic acid derivative is free of non-benzenoid unsaturation, contains from 1 to 20 carbon atoms, and is selected from the class consisting of hydrocarbon and halo-substituted hydrocarbon radicals.

2,875,229

PREPARATION OF NEUTRAL MIXED PHOSPHATES FROM TRIALKYL PHOSPHATES AND CARBOXYLIC ACID ESTERS

Harry W. Coover, Jr., and Richard L. McConnell, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

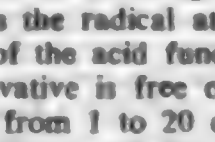
No Drawing. Application February 14, 1956 Serial No. 565,300

6 Claims. (Cl. 260—461)

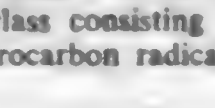
1. The process of preparing neutral mixed phosphates and thiophosphates having the structural formula:

$$[RX][R'X][R'X]P=X$$

wherein R and R′ are radicals selected from the group consisting of alkyl, containing up to 8 carbon atoms, haloalkyl, containing up to 8 carbon atoms, phenyl and nitrophenyl, said R and R′ being different and at least one of said R and R′ being alkyl and wherein X is selected from the group consisting of oxygen and sulfur which comprises reacting a trialkyl phosphate wherein the alkyl radicals contain up to 8 carbon atoms per alkyl radical with a lower carboxylic acid ester selected from the group consisting of



and



wherein R and R′ are defined the same as above and R‴ is a lower alkyl radical at a temperature within the range of 100 to 275° C. and in the presence of a lead oxide catalyst.

2,875,230

PREPARATION OF NEUTRAL MIXED PHOSPHATES FROM TRIALKYL PHOSPHATES AND ALCOHOLS

Harry W. Coover, Jr., and Marvin A. McCall, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 14, 1956 Serial No. 565,305

6 Claims. (Cl. 260—461)

1. The process of preparing neutral mixed phosphates and thiophosphates having the structural formula:

$$[RX][R'X][R'X]P=X$$

wherein R and R′ are radicals selected from the group consisting of alkyl, containing up to 12 carbon atoms, phenyl, cresyl, nitrophenyl, chlorophenyl and tetrahydrofurfuryl, said R and R′ being different and at least one of said R and R′ being alkyl and wherein X is selected from the group consisting of oxygen and sulfur which comprises reacting a phosphate selected from the group consisting of trialkyl phosphates and trialkyl thiophosphates wherein the alkyl radical contains up to 12 carbon atoms per alkyl radical with an alcohol selected from the group consisting of ROH and R′OH wherein R and R′ are defined the same as above, in the presence of a lead oxide ester interchange catalyst.

2,875,231

CATALYTIC PROCESS OF REACTING A PHOSPHITE AND LACTONE

Richard L. McConnell and Harry W. Coover, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 14, 1956 Serial No. 565,322

18 Claims. (Cl. 260—461)

1. The process for producing organophosphorus compounds which comprises reacting a phosphite selected from the group consisting of trialkyl phosphites and dialkyl hydrogen phosphites, the alkyl radicals each containing from 1 to 8 carbon atoms with a lactone selected from the group consisting of β-lactones and γ-lactones containing up to 5 carbon atoms in the presence of a basic catalyst selected from the group consisting of tertiary amines, alkali metal alkoxides and alkali metal amides.

2,875,232

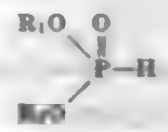
PHOSPHONOALKANAMIDES PREPARED FROM PHOSPHITES AND LACTAMS

Richard L. McConnell and Harry W. Coover, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

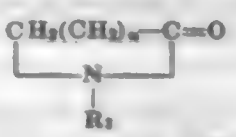
Application February 14, 1956, Serial No. 565,323

5 Claims. (Cl. 260—461)

1. A process for producing a phosphonoalkanamide which comprises reacting a phosphite having the structural formula:



wherein R_1 and R_2 are selected from the group consisting of alkyl radicals containing from 1 to 4 carbon atoms and phenyl with a lactam having the structural formula:



wherein R_3 is selected from the group consisting of hydrogen, methyl and *n* is an integer of 2 to 4 at a temperature within the range of 100–250° C.

2,875,233

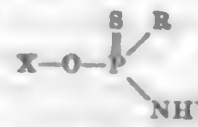
METHOD FOR THE PREPARATION OF O-ARYL PHOSPHOROAMIDOTHIOATES

Etcyl H. Blair, Kenneth C. Kauer, and Edgar C. Britton, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 5, 1956
Serial No. 569,297

8 Claims. (Cl. 260—461)

1. A method for the manufacture of a phosphoroamidothioate having the formula



wherein X represents a phenyl radical whose aromatic nucleus contains at least one substituent selected from the group consisting of chlorine, bromine, lower alkyl, lower alkoxy, benzyl, phenyl and cyclohexyl; Y represents a member of the group consisting of hydrogen and lower alkyl, and R represents a member of the group consisting of —NHY and alkoxy, which comprises reacting a phosphorochloridothioate selected from the group consisting of the O-aryl phosphorodichloridothioates and O-aryl O-alkyl phosphorochloridothioates with an ammonia compound of the group consisting of ammonia, methylamine, and ethylamine, the ammonia compound being employed in aqueous solution and the reaction being carried out in the presence of an inert organic solvent and at a temperature of from —10° to 35° C.

2,875,234

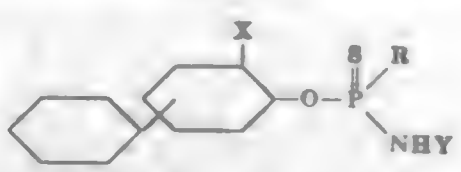
BIPHENYLYL PHOSPHOROAMIDOTHIOATES

Kenneth C. Kauer and Edgar C. Britton, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 5, 1956
Serial No. 614,056

5 Claims. (Cl. 260—461)

1. A biphenylyl phosphoroamidothioate having the formula



in which X represents a member of the group consisting of hydrogen, chlorine and bromine, Y represents a member of the group consisting of hydrogen, methyl and ethyl, and R represents a member of the group consisting of methoxy, ethoxy and NHY.

2,875,235

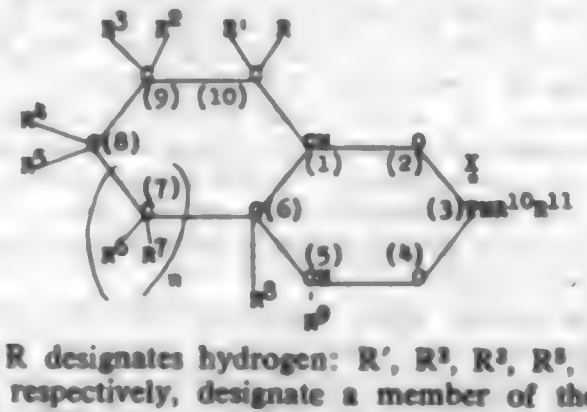
PRODUCTION OF BICYCLO HETEROCYCLIC PHOSPHORAMIDES AND THIONOPHOSPHORAMIDES

William M. Lanham, Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application November 26, 1956
Serial No. 624,196

13 Claims. (Cl. 260—461)

1. As new compounds, bicyclo heterocyclic phosphoramides and thionophosphoramides having structures designated by the formula:



wherein R designates hydrogen: R′, R², R³, R⁵, R⁶ and R⁷, respectively, designate a member of the class consisting of hydrogen and the lower alkyl radicals; R⁴ and R⁹, respectively, is of the class consisting of hydrogen and the alkyl radicals having 1 to 20 carbon atoms; X represents a radical of the class consisting of oxygen and sulfur; R¹⁰ and R¹¹, respectively, designates a member of the class consisting of hydrogen, the alkyl radicals having 1 to 17 carbon atoms and the cyano- lower alkyl, phenyl and tolyl radicals, and R¹⁰ and R¹¹, together designate a carbazolyl residue; and *n* is an integer of the class consisting of 0 and 1.

2,875,236

TRIS (DIISOBUTYLCARBINYL) BORATE

Ernest Levens and Robert M. Washburn, Whittier, Calif., assignors to American Potash & Chemical Corporation, a corporation of Delaware

No Drawing. Application January 11, 1956
Serial No. 558,406
1 Claim. (Cl. 260—462)

Tris(diisobutylcarbinyl) borate.

2,875,237

PURIFICATION OF DIMETHYLTEREPHTHALATE

James T. Corcoran, Brownsville, Tex., and Kenneth C. Peterson, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application June 7, 1957, Serial No. 664,390
4 Claims. (Cl. 260—475)

1. A process for preparing extremely high purity dimethylterephthalate from crude dimethylterephthalate having an acid number between 0.1 and about 50 which process comprises contacting at a temperature between about 10° and 60° C. said crude DMT with between about 1 and 10 parts by weight of liquid methanol per part of said crude DMT whereby said crude DMT forms a slurry in said liquid methanol, for a time of at least about 5 minutes such that the acid number of the contacted DMT is substantially reduced, filtering solid DMT of lowered acid number from a liquid methanol solution, distilling said filtered DMT to recover a distilled DMT fraction characterized by an acid number of not more than about 0.05 and a melting point of about 140.62° C.

3. A process for preparing extremely high purity dimethylterephthalate from crude dimethylterephthalate having an acid number between 0.1 and about 25 which process comprises (1) distilling said crude DMT to obtain a distilled crude DMT fraction having an acid number in excess of 0.1 and a distilled DMT fraction characterized by an acid number of not more than about 0.05 and a melting point of about 140.62° C., (2) contacting at a temperature between about 50° and 60° C. said distilled crude DMT with between about 2 and 10 parts by weight of liquid methanol per part of said distilled crude DMT whereby said distilled crude DMT forms a slurry in said liquid methanol for a time of at least about 10 minutes such that the solid DMT recovered from said slurry has an acid number of not more than about 0.05, (3) filtering solid DMT from a liquid methanol solution, and (4) recovering adhering methanol from said solid

DMT to obtain a DMT product characterised by an acid number of not more than about 0.05 and a melting point of about 140.62° C.

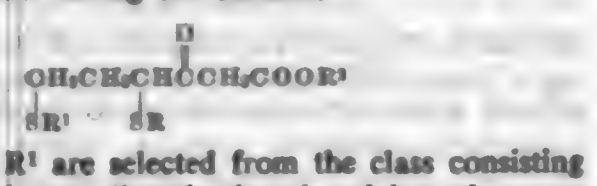
2,875,238

INTERMEDIATES USEFUL IN THE SYNTHESIS OF α-LIPOIC ACID

Frederick W. Holly, Cranford, Arthur F. Wagner, Princeton, and Edward Walton and Carl H. Hoffman, Scotch Plains, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application February 19, 1957
Serial No. 641,007
8 Claims. (Cl. 260—481)

1. A compound having the formula



wherein R and R^1 are selected from the class consisting of lower alkyl, lower alkenyl, phenyl and benzyl groups and R^2 is a lower alkyl group.

2,875,239

INTERMEDIATES USEFUL IN THE SYNTHESIS OF α-LIPOIC ACID

Frederick W. Holly, Cranford, Arthur F. Wagner, Princeton, and Edward Walton and Carl H. Hoffman, Scotch Plains, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application February 19, 1957
Serial No. 641,013
9 Claims. (Cl. 260—481)

1. A compound having the structural formula:



wherein R and R^1 are selected from the class consisting of lower alkyl, lower alkenyl, phenyl and benzyl groups, and R^2 and R^3 are lower alkyl groups.

2,875,240

PREPARATION OF ALKENYL ESTERS OF HALOGENATED CARBOXYLIC ACIDS

John B. Braunwarth, Crystal Lake, and Gifford W. Crosby, River Forest, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application November 19, 1956
Serial No. 622,794
7 Claims. (Cl. 260—487)

1. A method for the non-catalyzed preparation of a monomeric alkenyl ester which comprises reacting an unsaturated olefin selected from the group consisting of aliphatic and alicyclic conjugated dienes having 4–10 carbon atoms per molecule with an acid of the group consisting of C_2–C_4 monocarboxylic alkanoic acids having at least one halogen of the group consisting of chlorine and bromine in the alpha position, at a temperature of 0°–150° C. in a catalyst-free reaction zone to produce a monomeric alkenyl ester.

2,875,241

NEW POLYHYDROXY ALCOHOLS AND POLYESTERS AND NOVEL PROCESS OF PREPARING SUCH COMPOUNDS

Robert E. Miller, Dayton, Ohio, and George E. Bennett, Glendale, Mo.; said Bennett assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 27, 1955
Serial No. 555,295
12 Claims. (Cl. 260—488)

1. As compounds, alpha, omega-alkanediols containing at least seven and no more than nineteen carbon atoms in a straight chain, said alkanediols having at least one alkylol substituent containing no more than eight carbon atoms, all such alkylol substituents being on different carbon atoms, said carbon atoms being non-adjacent to the carbinol carbon atoms of said alkanediol and all of the alcoholic groups in the compounds being primary.

2,875,242

PROCESS FOR THE PRODUCTION OF 1-NITRONAPHTHALENE-3,6- AND 3,7-DISULFONIC ACID

Hans Roos and Kurt Briesewitz, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application March 14, 1957
Serial No. 645,883
Claims priority, application Germany March 19, 1956
1 Claim. (Cl. 260—505)

A process for the production of a member selected from the group consisting of 1-nitronaphthalene-3,6- and 3,7-disulfonic acid, which comprises sulfonating a member selected from the group consisting of the alkali metal salts and ammonium salts of a member selected from the group consisting of 1-nitronaphthalene-6- and 7-sulfonic acid in the presence of a member selected from the group consisting of an alkali metal sulfate and ammonium sulfate.

2,875,243

PROCESS FOR THE PRODUCTION OF 1-NITRONAPHTHALENE-6-SULFONIC ACID AND 1-NAPHTHYLAMINE-7-SULFONIC ACID

Hans Roos and Kurt Briesewitz, Leverkusen-Bayerwerk, and Josef Hegemann, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application March 20, 1957
Serial No. 647,203
Claims priority, application Germany March 31, 1956
1 Claim. (Cl. 260—505)

A process for the production of 1-nitronaphthalene-6-sulfonic acid, 1-naphthylamine-7-sulfonic acid and 1-naphthylamine-8-sulfonic acid from the mixture of 1-nitronaphthalene-6-, 7- and 8-sulfonic acids formed by the sulfonation and nitration of naphthalene which comprises neutralizing said mixture with calcium carbonate, precipitating the 1-nitronaphthalene-6-sulfonic acid as a barium salt, reducing the remaining 1-nitronaphthalene-7-sulfonic acid and 1-nitronaphthalene-8-sulfonic acid to the 1-naphthylamine-7-sulfonic acid and 1-naphthylamine-8-sulfonic acid and precipitating the 1-naphthylamine-8-sulfonic acid by acidifying the reaction mixture to a pH value of 4–5, and precipitating the 1-naphthylamine-7-sulfonic acid subsequently by acidifying the reaction mixture to a pH value of about 1–2.

2,875,244

DICARBOXYLIC ACIDS FROM DICYCLOPENTADIENES

Jeffrey H. Bartlett, Westfield, Robert S. Brodkey, Roselle, and Lewis W. Bowman, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 13, 1955
Serial No. 552,711
8 Claims. (Cl. 260—514)

1. A dicarboxylic acid corresponding to the formula

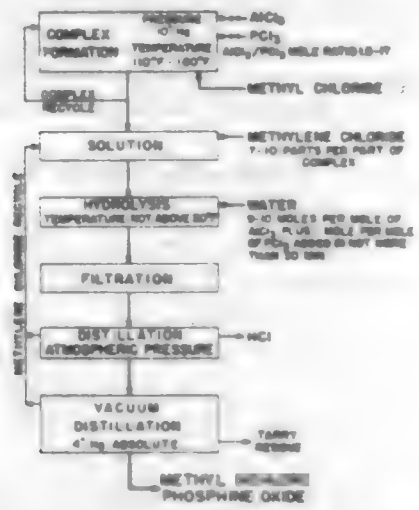


2,875,245

PRODUCTION OF METHYL DICHLORO PHOSPHINE OXIDE

Travis P. Hignett, Lawrence B. Hein, and Alvin B. Phillips, Sheffield, and Ronald D. Young, Florence, Ala., assignors to Tennessee Valley Authority, a corporation of the United States

Application September 26, 1955, Serial No. 536,790
3 Claims. (Cl. 260—543)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a process for the production of methyl dichloro phosphine oxide wherein methyl chloride is introduced into a slurry of anhydrous aluminum chloride in phosphorus trichloride, a complex reaction product is formed, this complex reaction product is hydrolyzed, hydrated aluminum chloride is separated from the resulting slurry and methyl dichloro phosphine is recovered from the resulting liquid residue, that improvement which comprises introducing methyl chloride into a slurry of anhydrous aluminum chloride in phosphorus trichloride wherein the mole ratio $AlCl_3/PCl_3$ is in the range from 1.5 to 1.7; maintaining the slurry under gauge pressure of about 10 inches of mercury and in a temperature gradient from about 110° F. to about 160° F. until a pumpable slurry consisting essentially of solid

$$CH_3Cl \cdot PCl_3 \cdot AlCl_3$$

suspended in liquid $CH_3Cl \cdot PCl_3 \cdot 2AlCl_3$ is formed; dissolving complex product slurry in 7 to 10 times its weight of methylene chloride; maintaining the temperature of the solution at not more than 20° F. while 9 to 10 moles of water per mole of aluminum chloride plus one mole of water per mole of phosphorus trichloride are introduced in a period of time not exceeding 30 minutes and the dissolved complexes are hydrolyzed; and recovering methyl dichloro phosphine oxide from the resulting solution.

2,875,246

(2-PROPYL-4-PENTENOYL) UREA

Harold G. Kolloff and Patrick H. Seay, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 12, 1957
Serial No. 695,541
1 Claim. (Cl. 260—553)

(2-propyl-4-pentenoyl)urea.

2,875,247

REFINING OF TETRACYCLINE ANTIBIOTICS BY DIRECT MASH EXTRACTION

Sidney Martin Fox, Spring Valley, Mitchell Stanley Blicharz, Blauvelt, and Robert Winterbottom, New City, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 21, 1956
Serial No. 629,773
12 Claims. (Cl. 260—559)

1. The process of extracting antibiotic compounds selected from the group consisting of chlortetracycline and tetracycline from fermentation mash containing the same which comprises acidifying the mash with a mineral acid to a pH of between about 0.5–2.5 so as to solubilize the antibiotics contained therein, adding to the mash a compound of the group consisting of oxalic acid and ammonium oxalate so as to reduce the calcium and magnesium ion content of the mash to between about 10 and 45 milligrams per gram of antibiotic in the mash, adding to the decalcified mash from about ½ mole to about 3 moles per mole of antibiotic of a quaternary ammonium compound having the formula:



wherein R_1, R_3 and R_4 are members of the group consisting of lower alkyl radicals and R_2 is an alkyl radical of at least 8 carbon atoms, so as to form an antibiotic-quaternary ammonium complex, raising the pH of the mash with alkali to between about 5.5 and 11, contacting the mash with a methyl alkyl ketone solvent so as to extract the antibiotics from the mash, separating the solvent extract, and thereafter isolating the antibiotics from the solvent extract.

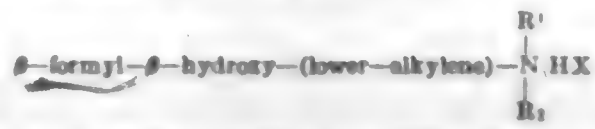
2,875,248

ALPHA-HYDROXY, BETA-AMINO-PROPION-ALDEHYDE

John B. Wright and Edward H. Lincoln, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application April 30, 1956
Serial No. 581,273
10 Claims. (Cl. 260—584)

1. Compounds of the formula



wherein R^1 is selected from the group consisting of hydrogen and alkyl, R^2 is selected from the group consisting of alkyl and β-formyl-β-hydroxy-(lower-alkylene), lower-alkylene contains from two to five carbon atoms, inclusive, alkyl contains from one to eight carbon atoms, inclusive, and HX is an acid having a pK_a value less than five.

2,875,249

NEW PREPARATION OF 2,5-DIMETHYLCYCLOPENTANONE

Harry A. Stansbury, Jr., South Charleston, and Howard R. Guest, Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application February 28, 1957
Serial No. 642,944
13 Claims. (Cl. 260—586)

1. A process which comprises forming a mixture of a mineral acid of a minimum concentration of eight percent and a member selected from the group consisting of 3,4 - dihydro - 2,5 - dimethyl - 2 - formyl - 2H - pyran and 2,5 - dimethyl - 2 - hydroxyadipaldehyde and heating said mixture to cause the formation of 2,5-dimethylcyclopentanone.

2,875,250

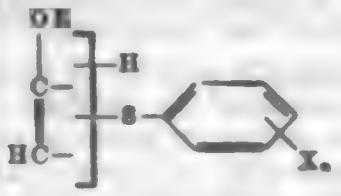
ETHER PRODUCTS

Samuel Allen Heininger and Gail H. Birum, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 21, 1957
Serial No. 641,494
9 Claims. (Cl. 260—609)

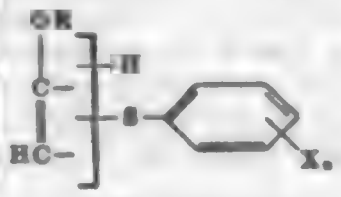
1. The method which comprises contacting a sulfenyl halide selected from the class consisting of benzenesulfenyl bromides and chlorides, wherein the benzene ring

of said benzene-sulfenyl bromides and chlorides is substituted by from 1 to 5 halogen atoms selected from the class consisting of chlorine and bromine atoms, with a vinyl ether of the formula $CH_2=CHOR$, where R is an alkyl radical having from 1 to 6 carbon atoms and thereby forming a reaction product comprising compounds of the formula



where R is an alkyl radical having from 1 to 6 carbon atoms, X represents a halogen selected from the class bromine, and n is an integer of from 1 to 5.

9. A halophenylthio-substituted vinyl ether of the formula



where R is an alkyl radical having from 1 to 6 carbon atoms, X represents a halogen selected from the class consisting of chlorine and bromine and n is an integer of from 1 to 5.

2,875,251

3-(BENZYLOXYMETHYL)-4-HEPTANOL

Raymond H. Rigterink, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 4, 1957
Serial No. 650,551
2 Claims. (Cl. 260—611)

1. 3-(benzyloxymethyl)-4-heptanol.

2,875,252

PREPARATION OF ACETONE KETALS

Edward U. Elam and Robert H. Hasek, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application July 18, 1957
Serial No. 672,585
5 Claims. (Cl. 260—615)

1. The process for preparing acetone ketals which comprises reacting allene with an alkyl monohydric alcohol having 1–10 carbon atoms in the presence of a catalyst comprised of a Lewis acid and an inorganic mercuric compound at a temperature of about —30° C. to 150° C.

2,875,253

TELOMERIZATION WITH FLUOROBROMOALKANES

William S. Barnhart, Cranford, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application April 6, 1953
Serial No. 347,186
35 Claims. (Cl. 260—653)

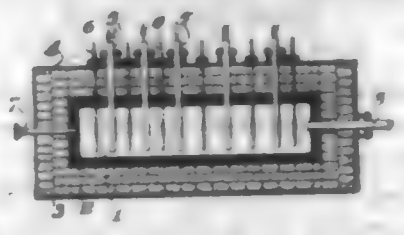
1. A process for the production of low molecular weight bromine- and fluorine-containing telomers containing a plurality of monomer units, which comprises telomerizing a fluorine-containing olefin in the presence of a peroxy compound as a polymerization promoter and a fluorobromoalkane.

2,875,254

PROCESS FOR BROMINATING AND FLUORINATING HALOGENATED METHANES IN A REFRACTORY ALUMINA REACTION ZONE

Frederick J. Gradishar, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application January 13, 1954, Serial No. 403,772
6 Claims. (Cl. 260—653.8)



1. The process of halogenation, in which a member of the group consisting of bromine, HBr and HF is reacted with a fluorinated methane having the formula CYF_2X in which Y is a member of the group consisting of hydrogen and chlorine and X is a halogen of the group consisting of chlorine, bromine and fluorine, which comprises bringing the reactants together and heating them to a temperature between about 440° C. and 900° C. in a reaction zone defined by solid surfaces which consist of refractory alumina.

2,875,255

CATALYTIC DEHYDROCHLORINATION OF 1,2-DICHLOROETHANE

Kenneth C. Eberly, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application November 21, 1956
Serial No. 623,544
24 Claims. (Cl. 260—656)

1. A process for production of vinyl chloride by catalytic dehydrohalogenation of 1,2-dichloroethane which comprises, contacting 1,2-dichloroethane with a metal chloride catalyst in a reaction zone maintained at a temperature of between about 300° and about 550° C., said catalyst being selected from the group consisting of the chlorides of the alkali metals, zinc, strontium, cadmium and nickel, the residence time of the reaction gas in the presence of the catalyst being sufficient to effect at least a 50% conversion of the 1,2-dichloroethane.

2,875,256

DIENIC HYDROCARBONS AND DERIVATIVES THEREOF

Julius Hyman, Tallahassee, Fla., and Ernest Freireich and Rex E. Lidov, Denver, Colo., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application January 21, 1953
Serial No. 332,552
4 Claims. (Cl. 260—666)

1. The continuous process for preparing a bicyclo-(2.2.1)-2,5-heptadiene which comprises causing acetylene and a diene of the group consisting of cyclopentadiene, its mono-methyl derivatives, and mixtures thereof in mole ratios between one to one and ten to one to flow together through a reaction zone maintained at a temperature between 150° C. and 400° C. and a pressure between about atmospheric to about 250 pounds per square inch gauge at a rate to cause the reactants to remain in the reaction zone for a period of between about

one to about fifteen minutes thereby producing the Diels-Alder adduct formed by the reaction of one mole of said diene with one mole of acetylene.

2,875,257

PREPARATION OF IMPROVED ALKYLATE PRODUCTS USING A SULFURIC ACID TREATMENT

Kenneth M. Thompson, Aldan, Pa., assignor to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application June 15, 1954
Serial No. 436,976
4 Claims. (Cl. 260—674)

1. A method of removing residual amounts of catalyst and deleterious unreacted materials from crude alkyl aromatic hydrocarbon product, prepared by reacting an alkylating agent with an excess of an aromatic hydrocarbon in the presence of a Friedel-Crafts catalyst, which consists essentially of separating catalyst from said crude product, removing residual amounts of catalyst and deleterious unreacted materials prior to distillation by contacting the separated product for a period of 1 to 30 minutes and at a temperature of 60° F. to 160° F. with sulfuric acid of 78 percent to 99 percent concentration, the combination of said contacting periods and said acid concentrations being such as to prevent appreciable sulfonation of said alkyl aromatic hydrocarbon, and separating the sulfuric acid phase from the hydrocarbon phase.

2,875,258

CHEMICAL PROCESS

David Apotheker, Jefferson County, Ky., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 7, 1956
Serial No. 626,812
4 Claims. (Cl. 260—678)

1. A process for the manufacture of monovinylacetylene by the polymerization of acetylene, which comprises passing the acetylene into a substantially anhydrous solution of cuprous chloride in an organic carboxylic acid amide containing the hydrochloride of an unsubstituted aliphatic monoamine of the group consisting of primary and secondary monoamines of not more than 6 carbon atoms, while excluding water from the system, the temperature of the solution being maintained at from 30° to 100° C., the ratio of the amine salt to the cuprous salt being from 1:1 to 2.3:1, and removing the monovinylacetylene and unchanged acetylene when not more than 10 mol percent of divinylacetylene is formed.

2,875,259

PRODUCTION OF ACETYLENE USING METHANE

Hans Klein, Mannheim, Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application July 24, 1956
Serial No. 599,634
Claims priority, application Germany July 29, 1955
1 Claim. (Cl. 260—679)

In a process for the production of acetylene by reaction of methane with amounts of oxygen insufficient for complete combustion of the methane, the improvement which comprises mixing the methane and the oxygen at a temperature below 500° C., passing the mixture through a preheater having a metallic inner wall at a maximum linear velocity of about 10 meters per second, heating said mixture in said preheater to a temperature above 600° C., maintaining a maximum temperature differential of about 50° C. between said inner wall and said mixture in the region of maximum temperature of said mixture, at least that part of the inner wall of the preheater which is heated to temperatures above 550° C. being smooth, and maintaining between the entry of the gas mixture into the preheater and its exit therefrom a pressure difference of less than 0.1 atmosphere.

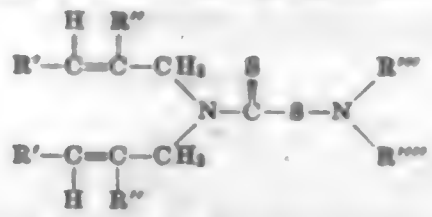
2,875,260

METHOD OF VULCANIZING RUBBER WITH AN N,N-DIALKENYLTHIOCARBAMYL SULFENAMIDE AS AN ACCELERATOR, AND THE VULCANIZABLE COMPOSITION

Glen Alliger, Akron, Ohio, and Henry P. Stevens, Midland, Mich., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application July 23, 1956, Serial No. 599,490
16 Claims. (Cl. 260—793)

1. A sulfur-vulcanizable rubber composition containing a sulfur-bearing vulcanizing agent, high abrasion, furnace carbon black and from about 0.1% to about 10% of the weight of the rubber of a delayed-action vulcanization accelerator of the following formula:



wherein R′ and R″ are of the group consisting of hydrogen and alkyl radicals, R‴ is from the group consisting of hydrogen, alkyl and cycloalkyl radicals, R⁗ is from the group consisting of alkyl and cycloalkyl radicals, and with the proviso that R‴ and R⁗ can be joined to form a cyclic divalent radical which together with the adjacent nitrogen atom constitute a heterocyclic radical.

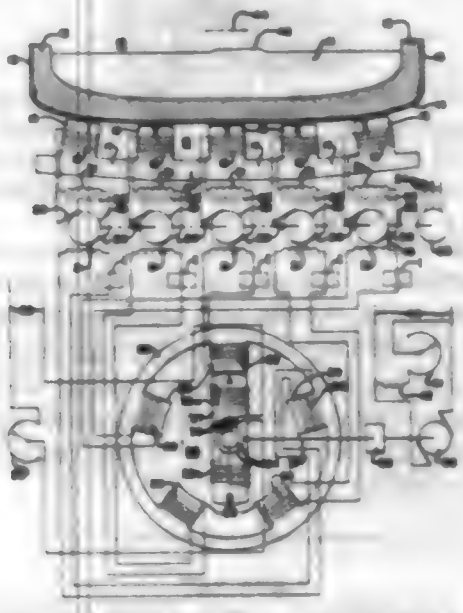
ELECTRICAL

2,875,341

MAGNETOMOTIVE AGITATOR FOR MOLTEN METAL BATHS OR THE LIKE

Edward A. Hanff, Wilkinsburg, Pa., assignor to Swindell-Dressler Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application February 26, 1957, Serial No. 642,493
10 Claims. (Cl. 13—26)



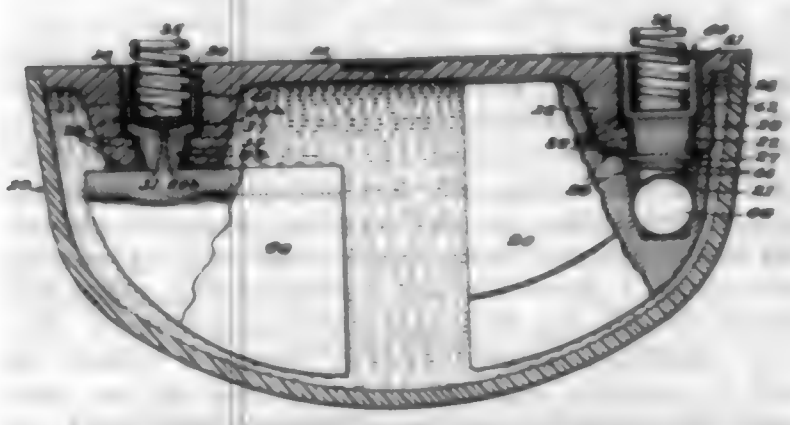
2. In a magnetomotive agitator for a molten metal bath or the like, apparatus comprising, in combination, an induction member having poles in juxtaposition to said bath or the like, field coils for said poles respectively, means to excite said field coils in a selectively regulable manner, a generator mechanism in said means having each of said field coils connected thereto for excitation in progressively phased relation, drive means for said mechanism, means for selectively varying the excitation impressed upon said mechanism, and independent means for driving said last-mentioned means.

2,875,342

ELECTRICAL ENERGY PRODUCING CELL CONSTRUCTION

George G. Ensign and Thomas L. Boswell, Elgin, Ill., assignors to Elgin National Watch Company, Elgin, Ill., a corporation of Illinois

Application June 23, 1954, Serial No. 438,750
10 Claims. (Cl. 136—133)



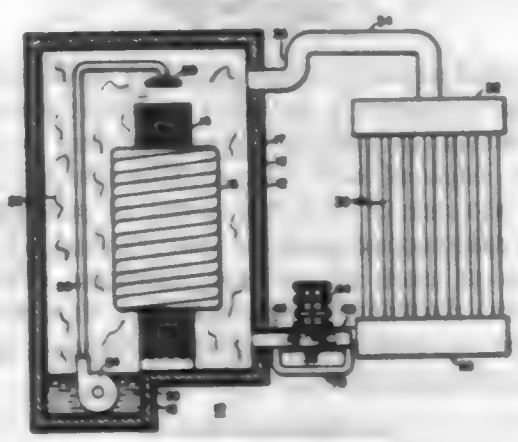
4. An electrical energy producing cell comprising a case with electrodes and electrolyte therein, an element conductively connected to an electrode, said case having an opening in which the said element is received, said element and the opening wall being tapered with the apex toward the interior of the cell, a conductive member located in an outer part of the opening and having a dovetail projection at a surface directed toward the said element, the material of the element surrounding and interlocking with said projection, and a yielding sealing medium filling the space between the element and the opening wall for preventing contact of the electrolyte with the said conductive member.

2,875,343

TRANSFORMER CONTROL APPARATUS

Paul Narbutovskih, Sharpsville, Pa., now by change of name Paul Narbut, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 28, 1953, Serial No. 377,050
7 Claims. (Cl. 174—15)



1. In an electrical apparatus, in combination, a sealed casing having an electrical conductor disposed therein which is subject to temperature changes when in use, a non-condensable gas and a vaporizable liquid coolant contained by the casing, the liquid coolant comprising a fluorinated organic liquid coolant which will vaporize at temperatures between 50° C. and 225° C., means for applying the liquid coolant to the electrical conductor to effect cooling of the electrical conductor mainly by the vaporization of the applied liquid coolant, the vapors of the liquid coolant and the non-condensable gas being intermixed within the casing when the vapors are evolved to provide a dielectric medium for insulating the electrical conductor from the casing, a cooling device, means connecting the lower end of the cooling device with the lower end of the casing and the upper end of the cooling device to the upper end of the casing, said means connecting said cooling device to said casing providing for the flow of the non-condensable gas and vapors in both directions between the casing and cooling device, the means connecting the lower end of the cooling device and the casing being so disposed that the liquid coolant may flow from the cooling device to the casing, and means disposed in the means connecting said cooling device to said casing and responsive to conditions developed as a result of the heating of the electrical conductor for effecting a partial trapping of the non-condensable gas in the cooling device and dielectric vapors in the casing to effectively insulate the electrical conductor, the means connecting from the lower end of the cooling device to the casing providing for the return of condensed vapors to the casing at all times.

2,875,344

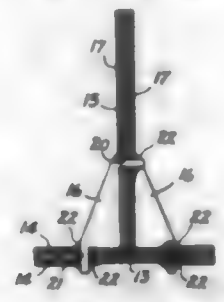
BRACKET MEANS FOR JOINING PRINTED CIRCUIT PANELS

Irving A. Gross, Warrensville Heights, Ohio, assignor to Cleveland Metal Specialties Company, Cleveland, Ohio, a corporation of Ohio

Application May 31, 1956, Serial No. 588,446
4 Claims. (Cl. 174—88)

4. A structure for a printed circuit system comprising a plurality of components making up the system, said components including a first dielectric panel having a

plurality of first metallic paths of conductance printed thereon, a second dielectric panel having a plurality of second metallic paths of conductance printed thereon, said second panel extending at an angle from said first panel with one edge of said second panel adjacent to said first panel, at least one first series of perforations in said first panel, at least one second series of perforations in said second panel, said first paths of conductance communicating with said first series of perforations, said second

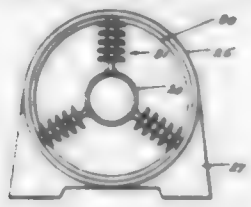


paths of conductance communicating with said second series of perforations, a plurality of buttress ribs of conducting material in buttressing engagement with each of said panels, each of said buttress ribs having projections extending into one of said first series of perforations and into one of said second series of perforations, and soldered connections at each of said perforations whereby said buttress ribs electrically connect said first and second paths of conductance and structurally support said panels with respect to each other.

2,875,265
METAL ENCLOSED ISOLATED PHASE BUS STRUCTURE

Roy H. Albright, Greensburg, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application December 30, 1954, Serial No. 478,679
5 Claims. (Cl. 174—99)



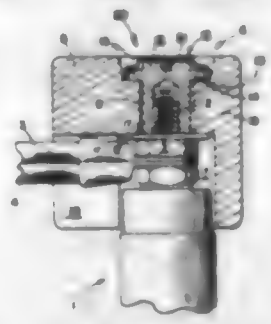
1. A bus structure comprising a bus conductor, a supporting frame and means for supporting said bus conductor; said means positioned between said bus conductor and said supporting frame and being in tension stress; said means being comprised of a plurality of suspension type insulators; one end of said plurality of suspensions type insulators connected to said supporting frame by means of an adjusting bolt; said one end connected to said adjusting bolt by a ball and socket connection; the other end of said plurality of suspension insulators directly connected to said bus conductor by a ball and socket connection; said means comprising at least three strings of said suspension type insulators; and said strings of said suspension type insulators providing support for the weight of said bus conductor and the forces on said bus conductor as a result of electromagnetic forces.

2,875,266
TERMINAL PROTECTIVE DEVICE

William Fredericks, Torrance, Calif., assignor to North American Aviation, Inc.

Application September 30, 1955, Serial No. 537,802
4 Claims. (Cl. 174—138)

1. A protective insulating cap assembly for a member having a threaded electrical terminal stud and the ends of the conductors attached thereto comprising an insulating member adapted to be attached to said terminal stud, said member having a substantially cylindrical portion with an axial bore therethrough and counterbores at each end of the cylindrical portion, said member further including an integral radially extending inverted U-shaped portion adapted to be placed over the conductor ends and surround them on three sides, and a one-piece cap nut adapted for threaded engagement with said terminal stud, said nut having a body portion adapted to fit within said bore and a radially extending annular flange adapted to

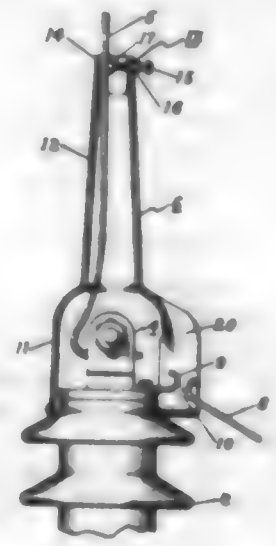


seat on the bottom of the upper counterbore whereby the insulated member is pressed downwardly onto the conductor end attaching means and rigidly positioned on the stud without contacting said conductors and said member, said nut having an insulating coating on its exposed upper surfaces whereby the terminal stud and attached conductor ends are substantially completely surrounded by insulating shield.

2,875,267
BUSHING TERMINAL AND LINE LEAD GUARD

Clement E. Sutton, Jr., Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application October 3, 1956, Serial No. 613,768
1 Claim. (Cl. 174—139)



In an electrical apparatus which is housed in a tank which has a cover, a generally upright bushing mounted on said cover, the upper end of said bushing having an electrical terminal thereon for receiving an electrical line lead, and a generally vertically disposed bare line lead being connected to said terminal, means for protecting said apparatus from small animal-caused outages comprising a guard for said terminal and a substantial portion of said line lead, said guard comprising an electrical insulating material member having a hollow cap and a vertically superposed narrow and hollow neck which are integrally connected to each other, said cap being snugly seated on the upper end of said bushing and surrounding said terminal, and said neck extending from said cap for a substantial distance about said line lead, the upper end of said neck having a manually operable clamp for clamping said guard and line lead with respect to each other, and said clamp comprising a collar which is connected to the upper end of said neck, a side of said collar having a threaded aperture and a thumb screw extending through said aperture for clamping said line lead to said collar, and a generally

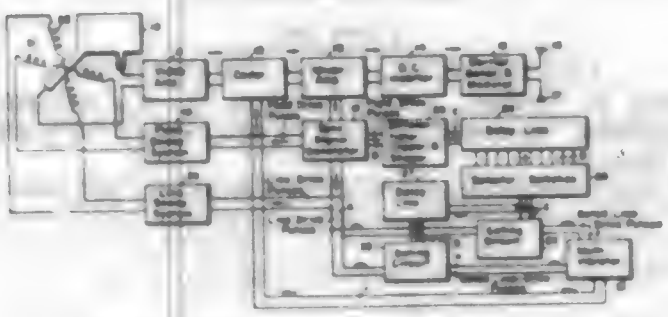
upright electrical insulating material encased lightning arrester mounted on the side of said tank adjacent to said bushing, the lower end of said lightning arrester having a connection to ground and the upper end of said lightning arrester having a gapped connection to said terminal, said gapped connection comprising a wind shielded aperture in said cap and a pair of electrodes which are connected to said terminal and lightning arrester upper end at one of their ends and at their other ends are positioned adjacent to each other in spaced relationship in said shielded aperture.

2,875,268

SUBSCRIPTION TELEVISION SYSTEM

Erwin M. Roschke, Des Plaines, Ill., assignor to Zenith Radio Corporation, a corporation of Delaware

Application October 18, 1952, Serial No. 315,457
2 Claims. (Cl. 178—5.1)



1. In a subscription television system for translating a television signal including video components as well as recurring line-synchronizing components and field-synchronizing components, an encoding arrangement comprising: an encoding device for varying the operating mode of said system effectively to encode said signal; a multiple-pulse signal generator for developing during each operating cycle a plurality of pulses at intervals commensurate with the separation between said line-synchronizing components and having a period of operation less than the period corresponding to the time separation of said field-synchronizing components; a series of output terminals for said generator for individually and selectively deriving one of said plurality of pulses in any operating cycle of said generator; a selector mechanism coupled to said output terminals for selectively rendering any chosen combination of said terminals effective during a subscription program and in accordance with an encoding schedule assigned to said program; a control circuit for actuating said encoding device and having two stable operating conditions in each of which said encoding device establishes a different operating mode in said system; gating means for gating in those of said line-synchronizing components occurring in time coincidence with the pulses presented at the effective ones of said output terminals; means for utilizing the line-synchronizing components gated in to change said control circuit from a first to a second one of said operating conditions; and means for restoring said control circuit to said first operating condition.

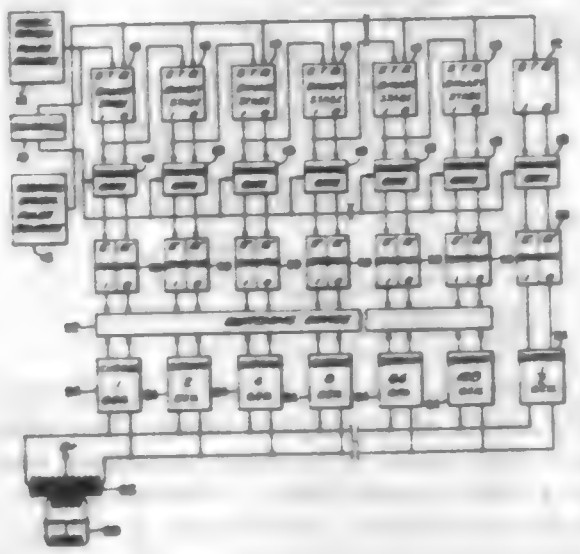
2,875,269

VIDEO SCRAMBLING AND UNSCRAMBLING SYSTEM

Louis N. Ridenour, Los Angeles, Calif., assignor to International Telemeter Corporation, Los Angeles, Calif., a corporation of Delaware

Application April 8, 1954, Serial No. 421,924
9 Claims. (Cl. 178—5.1)

1. A scanning system for determining the order of scanning horizontal lines in successive scanning fields of a television system comprising first electron deflecting means including a source of horizontal synchronizing signals for defining the horizontal component of a scanning trace, and second electron deflecting means for defining the vertical component of said scanning trace including a pulse counter having a plurality of electron discharge tubes, different counts being manifested by conduction and non-conduction of said tubes in different patterns, means to select output from different tubes in said counter, means



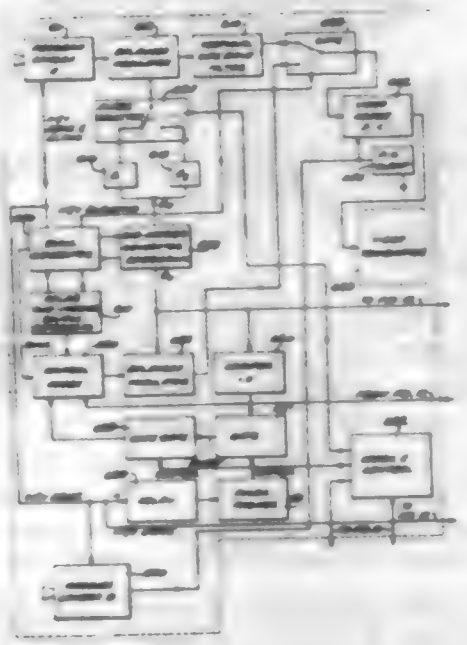
responsive to the conduction and non-conduction of the tubes the output from which has been selected to provide vertical deflection currents having an amplitude determined by said conduction and nonconduction pattern, and means to apply said horizontal synchronizing signals to said pulse counter to be counted.

2,875,270

SUBSCRIPTION-TELEVISION SYSTEM

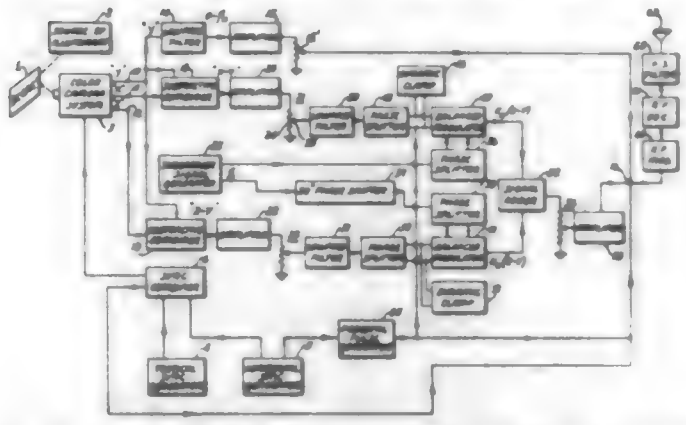
Karl R. Wendt, Buffalo, and William K. Squires, Snyder, N. Y., and William F. Gunning, Venice, Calif., assignors to International Telemeter Corporation, Los Angeles, Calif., a corporation of Delaware

Application June 7, 1955, Serial No. 513,637
26 Claims. (Cl. 178—5.1)



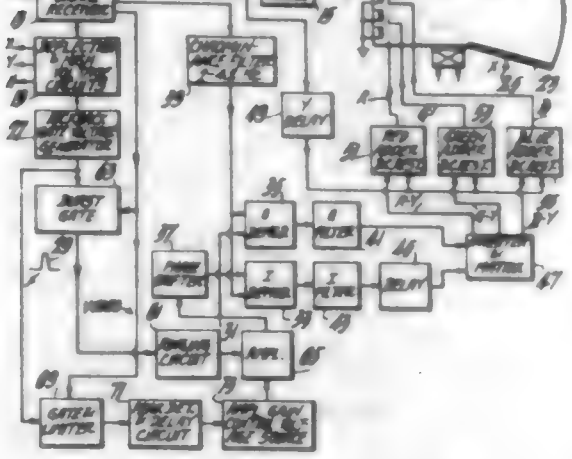
1. In a television system, means for generating first video signals, means for generating second video signals, means for generating code signals, means for frequency interleaving said first and second video signals including means for generating a reference-phase subcarrier, second and third subcarriers which are each phase displaced by different amounts from said reference-phase subcarrier, and means to modulate said second video signals upon said second or said third subcarrier responsive to said code signals.

2,875,271
COLOR TELEVISION SYSTEM
Robert C. Moore, Erdenheim, and John B. Chatten, Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application November 10, 1951, Serial No. 255,776
21 Claims. (Cl. 178—5.2)



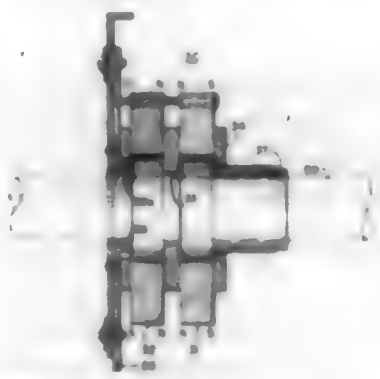
1. In a system for the generation of signals representative of the colors of an original image: first means for generating a first signal containing amplitude variations related by a first proportionality constant K_x to variations in only the standard colorimetric X values of said colors; second means for generating a second signal containing amplitude variations related by a second proportionality constant K_z to variations in only the standard colorimetric Z values of said colors; said proportionality constant K_x being substantially three times greater than said proportionality constant K_z; means for generating a pair of carrier-wave signals of the same frequency but differing phase; and means for amplitude-modulating one of said carrier-wave signals with said first signal and for modulating the other of said carrier-wave signals with said second signal.

2,875,272
COLOR SYNCHRONIZING CIRCUIT
Carmen Louis Cuccia, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 28, 1954, Serial No. 433,091
The terminal fifteen years of the term of the patent to be granted has been disclaimed
10 Claims. (Cl. 178—5.4)



1. In a color television receiver, said color television receiver adapted to receive a color television signal, said color television signal including horizontal synchronizing pulses and a color synchronizing burst, a ringing circuit color signal source, comprising in combination, a ringing circuit, a first gating circuit, said first gating circuit including apparatus whereby said color synchronizing burst is separated from said color television signal and applied to said ringing circuit, said ringing circuit characterized in that it develops oscillations at a phase and frequency prescribed by said color synchronizing burst, said oscillations in said ringing circuit characterized in that they decay in the time interval between color synchronizing bursts according to a predetermined time versus amplitude relationship, an amplifier circuit, said amplifier circuit including an input circuit and an output circuit and a gain control electrode, means for coupling said ringing circuit to the input circuit of said amplifier circuit, a second gate circuit, a waveform generator, means for coupling said waveform generator between said second gate circuit and said gain control electrode of said amplifier circuit, said second gate circuit including apparatus for gating said color synchronizing burst into said waveform generator, and said waveform generator adjusted to supply a waveform to said gain control electrode of said amplifier circuit having proper characteristics whereby said amplifier circuit is caused to produce an oscillatory signal in said output circuit having a predetermined amplitude versus time relationship and having phase and frequency of said oscillations developed in said ringing circuit.

2,875,273
COLOR-TELEVISION PROJECTOR
William F. Bailey, Valley Stream, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application April 25, 1956, Serial No. 580,599
4 Claims. (Cl. 178—5.4)

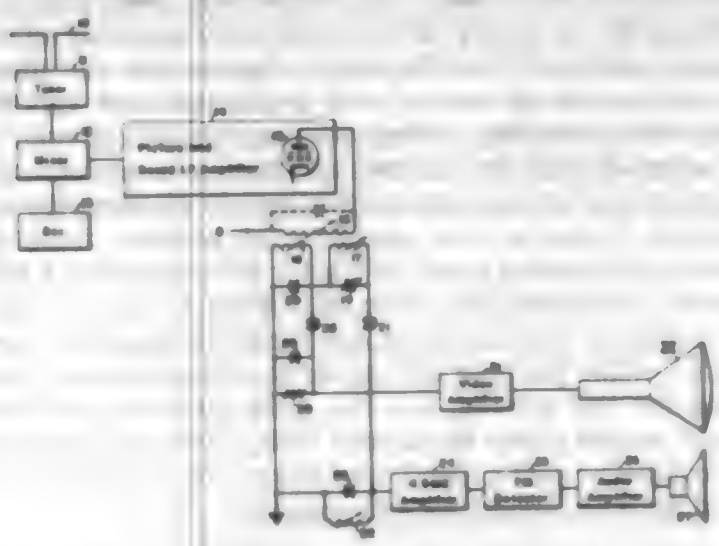


1. A color-television projector, for a color-television receiver having a display screen, compriaing: circuit means for supplying signals representative of component color images to be reproduced; a plurality of image-reproducing devices responsive to said signals and including a plurality of cathode-ray tubes in proximity for developing component color images; and optical means for projecting said component color images to a display screen in register to reproduce a composite multicolor image; said image-reproducing devices also including permanent magnet focus devices associated with said tubes for focusing the cathode-ray beams thereof and having minimized stray fields for minimizing the distortion effect of the focus device associated with each tube on images developed by that tube and the other tubes to minimize misregistration of said images.

2,875,274
TELEVISION RECEIVER APPARATUS
Kenneth E. Farr, Paxinos, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 7, 1953, Serial No. 384,700
8 Claims. (Cl. 178—5.8)

3. A television receiver comprising a common picture and sound first intermediate frequency amplifier, an inductive coupling having a primary circuit connected to said amplifier and having a secondary circuit including a pair of serially connected inductors, one of said inductors being relatively sharply tuned to the picture intermediate frequency, the other of said inductors being relatively broadly tuned to the picture intermediate frequency so as to include the sound first intermediate frequency, and a detector in said secondary circuit con-

nected in series with said inductors for producing a sound second intermediate frequency which is a modula-



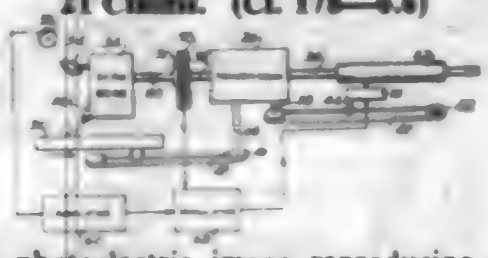
tion product of the picture and sound first intermediate frequencies.

2,875,275

VARIABLE RATIO PHOTOELECTRIC ENGRAVING MACHINE

Frederick P. Willcox, Old Westbury, Ludolph F. Weinmetz, Hempstead, Reuben J. Antere, Huntington, and James S. Hellen, Levittown, N. Y., assignors to Fairchild Camera and Instrument Corporation, a corporation of Delaware

Application May 10, 1954, Serial No. 428,686
21 Claims. (Cl. 178—6.6)



21. In a photoelectric image reproducing machine, a copy support, copy scanning means, and means mounting said copy support and said scanning means for relative movement therebetween in a first direction to expose said scanning means successively to points forming a straight line in said first direction on copy held by said copy support; power means for intermittently imparting such relative movement to said copy support and said scanning means at a uniform velocity in said first direction, drive means for progressively effecting relative movement between said copy support and said scanning means in a second direction generally perpendicular to said first direction to cause the surface of copy held by said copy support to be completely scanned by said scanning means; image reproducing apparatus including a cylinder for supporting a sheet to be treated from point to point in accordance with signals received from said scanning means, an output transducer energized by said signals, means for rotating said sheet supporting cylinder and for moving said output transducer axially of said cylinder to treat a sheet held by said sheet supporting cylinder in a pattern corresponding to said signals; and means for controlling the relative movements of said sheet supporting cylinder and said output transducer at adjustable ratios relative to the corresponding motions between said copy support and said scanning device.

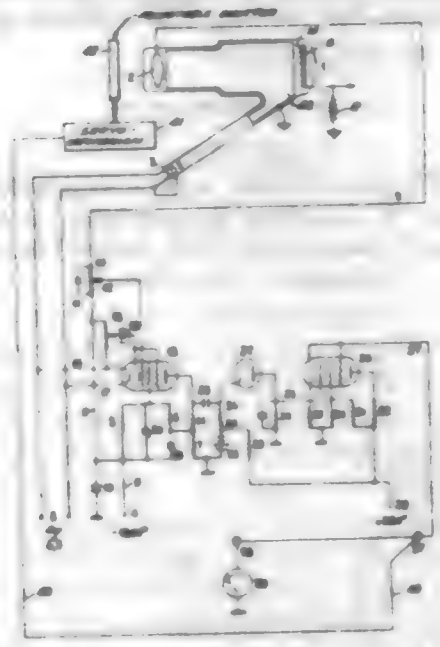
2,875,276

TELEVISION CAMERA EQUIPMENTS

Jacques Donnay, Paris, France, assignor to Societe Nouvelle de l'Outillage R. B. V. et de la Radio-Industrie (R. B. V.-R. I.), Paris, France, a joint-stock company

Application March 26, 1952, Serial No. 278,577
Claims priority, application France March 31, 1951
9 Claims. (Cl. 178—7.2)

1. In a television camera equipment comprising an analyser tube having a mosaic screen and a separate photocathode which receives the light flow from the picture to be analysed, means for deriving from said photocathode a continuous voltage proportional to the mean value of the light falling on the entire active area of said photocathode, modulating means controlled by



said continuous voltage for modulating the amplitude of an alternating carrier voltage in accordance with variations of said continuous voltage, and means controlled by said modulated carrier voltage and producing a response proportional to the R. M. S. value of said modulated carrier voltage

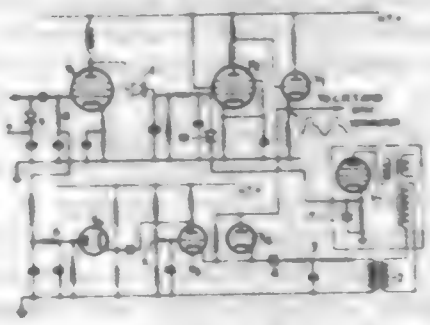
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2,875,277

TELEVISION RECEIVERS

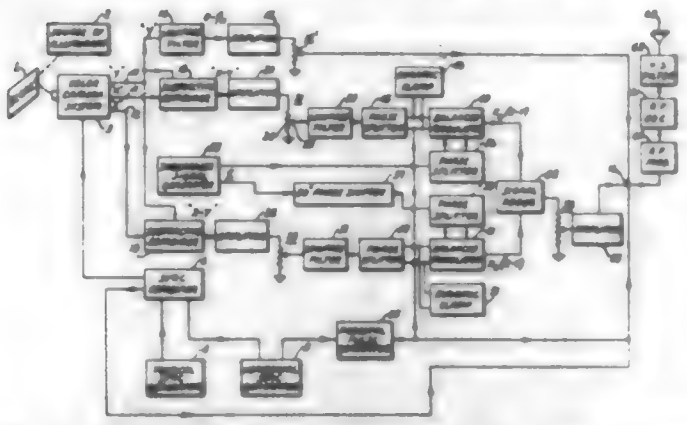
John Edward Cope, Patrick Arthur Segrave, and Donald H. Fisher, Cambridge, England, assignors to Pye Limited, Cambridge, England, a British company

Application January 11, 1954, Serial No. 407,106
Claims priority, application Great Britain January 15, 1953
6 Claims. (Cl. 178—7.3)



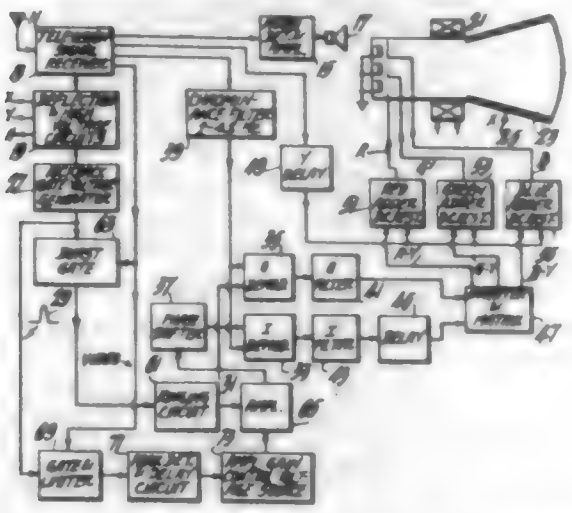
1. In a television receiver for receiving a television signal comprising a series of picture signals interspersed with synchronising signals followed by periods defining the black level of the picture signal, a demodulator for demodulating the received television signal, a signal sampling rectifier having two electrodes, a resistor connected between the two electrodes of said rectifier, a condenser connected in series with one electrode of said rectifier, a load connected between the other electrode of said signal sampling rectifier and a point of fixed potential, an amplifier connected to the output of said demodulator for amplifying the demodulated television signal, means for feeding the amplified demodulated televison signal from the output of said amplifier across said load with such polarity that any noise pulses present on said demodulated television signal reduce the potential difference across said rectifier, means for producing sampling pulses, means for timing said sampling pulses to occur respectively during the black level periods in the television signal, means for feeding the sampling pulses, at an amplitude greater than the amplitude of said picture signal across said load, through said condenser to the one

2,875,271
COLOR TELEVISION SYSTEM
Robert C. Moore, Erdenheim, and John B. Chatten, Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application November 10, 1951, Serial No. 255,776
21 Claims. (Cl. 178—5.2)



1. In a system for the generation of signals representative of the colors of an original image: first means for generating a first signal containing amplitude variations related by a first proportionality constant K_X to variations in only the standard colorimetric X values of said colors; second means for generating a second signal containing amplitude variations related by a second proportionality constant K_Z to variations in only the standard colorimetric Z values of said colors; said proportionality constant K_X being substantially three times greater than said proportionality constant K_Z; means for generating a pair of carrier-wave signals of the same frequency but differing phase; and means for amplitude-modulating one of said carrier-wave signals with said first signal and for modulating the other of said carrier-wave signals with said second signal.

2,875,272
COLOR SYNCHRONIZING CIRCUIT
Carmen Louis Caccia, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 28, 1954, Serial No. 433,091
The terminal fifteen years of the term of the patent to be granted has been disclaimed
10 Claims. (Cl. 178—5.4)



1. In a color television receiver, said color television receiver adapted to receive a color television signal, said color television signal including horizontal synchronizing pulses and a color synchronizing burst, a ringing circuit color signal source, comprising in combination, a ringing circuit, a first gating circuit, said first gating circuit including apparatus whereby said color synchronizing burst is separated from said color television signal and applied to said ringing circuit, said ringing circuit characterized in that it develops oscillations at a phase and frequency prescribed by said color synchronizing burst, said oscillations in said ringing circuit characterized in that they decay in the time interval between color synchronizing bursts according to a predetermined time versus amplitude relationship, an amplifier circuit, said amplifier circuit including an input circuit and an output circuit and a gain control electrode, means for coupling said ringing circuit to the input circuit of said amplifier circuit, a second gate circuit, a waveform generator, means for coupling said waveform generator between said second gate circuit and said gain control electrode of said amplifier circuit, said second gate circuit including apparatus for gating said color synchronizing burst into said waveform generator, and said waveform generator adjusted to supply a waveform to said gain control electrode of said amplifier circuit having proper characteristics whereby said amplifier circuit is caused to produce an oscillatory signal in said output circuit having a predetermined amplitude versus time relationship and having phase and frequency of said oscillations developed in said ringing circuit.

2,875,273
COLOR-TELEVISION PROJECTOR
William F. Bailey, Valley Stream, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application April 25, 1956, Serial No. 580,599
4 Claims. (Cl. 178—5.4)

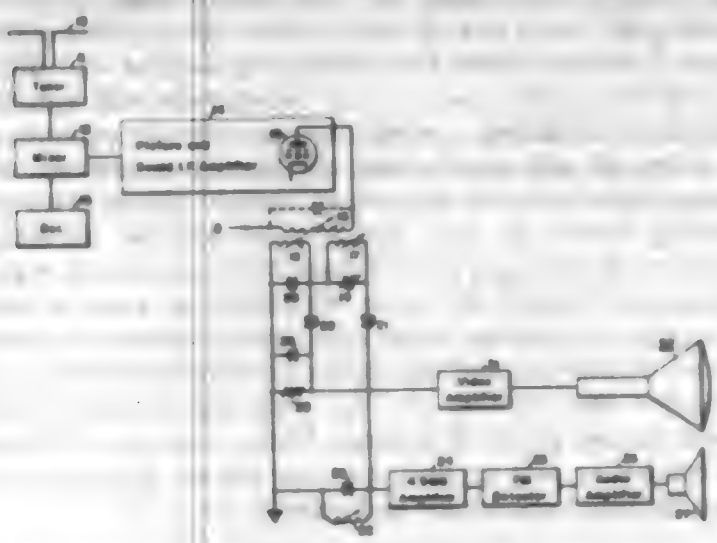


1. A color-television projector, for a color-television receiver having a display screen, comprising: circuit means for supplying signals representative of component color images to be reproduced; a plurality of image-reproducing devices responsive to said signals and including a plurality of cathode-ray tubes in proximity for developing component color images; and optical means for projecting said component color images to a display screen in register to reproduce a composite multicolor image; said image-reproducing devices also including permanent magnet focus devices associated with said tubes for focusing the cathode-ray beams thereof and having minimized stray fields for minimizing the distortion effect of the focus device associated with each tube on images developed by that tube and the other tubes to minimize misregistration of said images.

2,875,274
TELEVISION RECEIVER APPARATUS
Kenneth E. Farr, Paxinos, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
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3. A television receiver comprising a common picture and sound first intermediate frequency amplifier, an inductive coupling having a primary circuit connected to said amplifier and having a secondary circuit including a pair of serially connected inductors, one of said inductors being relatively sharply tuned to the picture intermediate frequency, the other of said inductors being relatively broadly tuned to the picture intermediate frequency so as to include the sound first intermediate frequency, and a detector in said secondary circuit con-

nected in series with said inductors for producing a sound second intermediate frequency which is a modula-



tion product of the picture and sound first intermediate frequencies.

2,875,275

VARIABLE RATIO PHOTOELECTRIC ENGRAVING MACHINE

Frederick P. Wilcox, Old Westbury, Ludolph F. Weinmetz, Hempstead, Reuben J. Astere, Huntington, and James S. Hellen, Levittown, N. Y., assignors to Fairchild Camera and Instrument Corporation, a corporation of Delaware

Application May 10, 1954, Serial No. 428,606
21 Claims. (Cl. 178—6.6)



21. In a photoelectric image reproducing machine, a copy support, copy scanning means, and means mounting said copy support and said scanning means for relative movement therebetween in a first direction to expose said scanning means successively to points forming a straight line in said first direction on copy held by said copy support; power means for intermittently imparting such relative movement to said copy support and said scanning means at a uniform velocity in said first direction, drive means for progressively effecting relative movement between said copy support and said scanning means in a second direction generally perpendicular to said first direction to cause the surface of copy held by said copy support to be completely scanned by said scanning means; image reproducing apparatus including a cylinder for supporting a sheet to be treated from point to point in accordance with signals received from said scanning means, an output transducer energized by said signals, means for rotating said sheet supporting cylinder and for moving said output transducer axially of said cylinder to treat a sheet held by said sheet supporting cylinder in a pattern corresponding to said signals; and means for controlling the relative movements of said sheet supporting cylinder and said output transducer at adjustable ratios relative to the corresponding motions between said copy support and said scanning device.

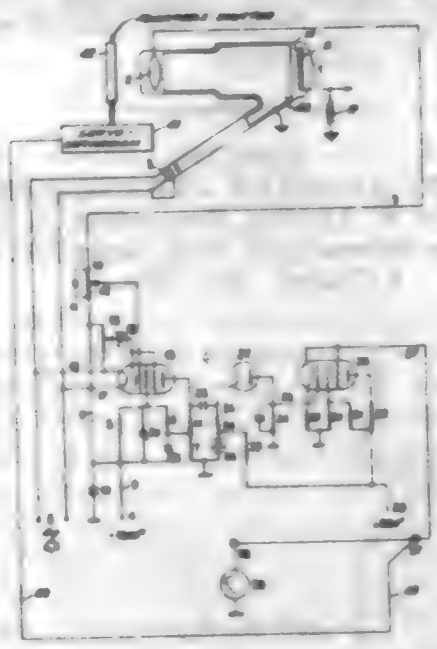
2,875,276

TELEVISION CAMERA EQUIPMENTS

Jacques Dounay, Paris, France, assignor to Societe Nouvelle de l'Outillage R. B. V. et de la Radio-Industrie (R. B. V.-R. I.), Paris, France, a joint-stock company

Application March 26, 1952, Serial No. 278,577
Claims priority, application France March 31, 1951
9 Claims. (Cl. 178—7.2)

1. In a television camera equipment comprising an analyser tube having a mosaic screen and a separate photocathode which receives the light flow from the picture to be analysed, means for deriving from said photocathode a continuous voltage proportional to the mean value of the light falling on the entire active area of said photocathode, modulating means controlled by



said continuous voltage for modulating the amplitude of an alternating carrier voltage in accordance with variations of said continuous voltage, and means controlled by said modulated carrier voltage and producing a response proportional to the R. M. S. value of said modulated carrier voltage

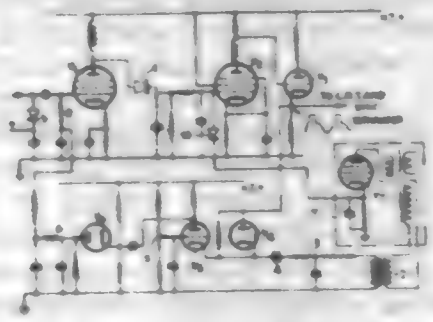
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2,875,277

TELEVISION RECEIVERS

John Edward Cope, Patrick Arthur Segrave, and Donald H. Fisher, Cambridge, England, assignors to Pye Limited, Cambridge, England, a British company

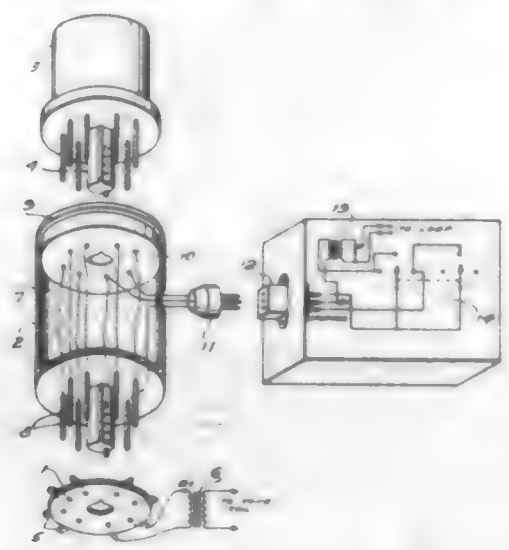
Application January 11, 1954, Serial No. 407,106
Claims priority, application Great Britain January 15, 1953
6 Claims. (Cl. 178—7.3)



1. In a television receiver for receiving a television signal comprising a series of picture signals interspersed with synchronising signals followed by periods defining the black level of the picture signal, a demodulator for demodulating the received television signal, a signal sampling rectifier having two electrodes, a resistor connected between the two electrodes of said rectifier, a condenser connected in series with one electrode of said rectifier, a load connected between the other electrode of said signal sampling rectifier and a point of fixed potential, an amplifier connected to the output of said demodulator for amplifying the demodulated television signal, means for feeding the amplified demodulated televison signal from the output of said amplifier across said load with such polarity that any noise pulses present on said demodulated television signal reduce the potential difference across said rectifier, means for producing sampling pulses, means for timing said sampling pulses to occur respectively during the black level periods in the television signal, means for feeding the sampling pulses, at an amplitude greater than the amplitude of said picture signal across said load, through said condenser to the one

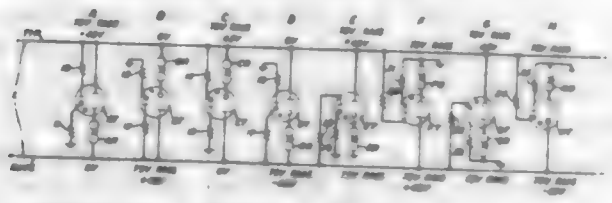
electrode of said rectifier, to render said rectifier conducting and restore the tips of said sampling pulses to the potential across said load, said resistor and condenser having a time constant sufficiently long to maintain the rectifier non-conducting between sampling pulses, means for smoothing said restored pulses to provide a control voltage and means for feeding said control voltage to at least one stage of said receiver.

2,875,278
SOCKET ADAPTER ARRANGEMENT
Oscar W. Lueders, Bergenfield, N. J.
Application February 23, 1954, Serial No. 411,966
8 Claims. (Cl. 179—1)



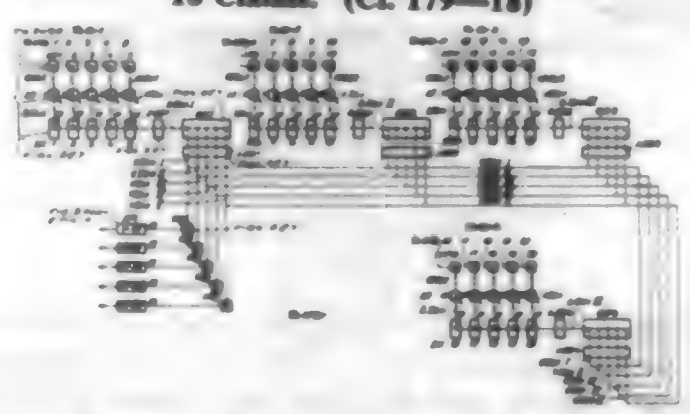
1. An arrangement for adapting an output stage including an electrical circuit comprising a first output transformer and an amplifier tube having electrodes, for supplying amplified signals to an external circuit without having to rewire the output stage of the electrical circuit, comprising, in combination, a wired tube socket having a set of electrically conductive lugs; means connecting two of said lugs in circuit with the first output transformer of the output stage; a switch; a second output transformer having a secondary winding and a primary winding one terminal of which is connected to said switch, said secondary winding being adapted to be connected to an inductive transmission loop; an adapter having a set of contact pins respectively engaging said lugs of said wired socket; means for connecting said switch and the other terminal of said primary winding of said second output transformer, respectively, to the contact pins engaging said two lugs; and means for electrically connecting the remaining contact pins of said adapter directly, and said one terminal of said primary winding of said second output transformer through said switch to said electrodes of said amplifier tube.

2,875,279
EIGHT PARTY FULL SELECTIVE RINGING SYSTEM
Kermit S. Dunlap, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 30, 1953, Serial No. 401,342
13 Claims. (Cl. 179—17)



1. A multi-party selective ringing telephone system comprising a line having two conductors, a first group of stations, a second group of stations, a source of direct current voltage, a source of single frequency alternating current signaling voltage, a signaling device at each of said stations, and means for individually energizing the signaling device at any of said stations by applying superimposed voltages from the alternating current and direct current sources on one of said conductors and voltages from the alternating current source only or ground on the other of said conductors comprising a gaseous discharge device at each of said stations in circuit with the signaling device at that station, said gaseous discharge devices each having a pair of starter electrodes and a pair of main electrodes, the main electrodes of each of said first group of stations being connected between the conductors of the line and the starter electrodes between one conductor and ground, and the main electrodes of each of said second group of stations being connected between one conductor and ground, and the starter electrodes between the other conductor and ground.

2,875,280
AUTOMATIC TELEPHONE SYSTEM
Friedrich Spiecker, Berlin-Charlottenburg, Germany, assignor to Siemens & Halske Aktiengesellschaft, Munich, Germany, a corporation of Germany
Application February 20, 1953, Serial No. 338,103
In Germany February 7, 1950
Public Law 619, August 23, 1954
Patent expires February 7, 1970
18 Claims. (Cl. 179—18)

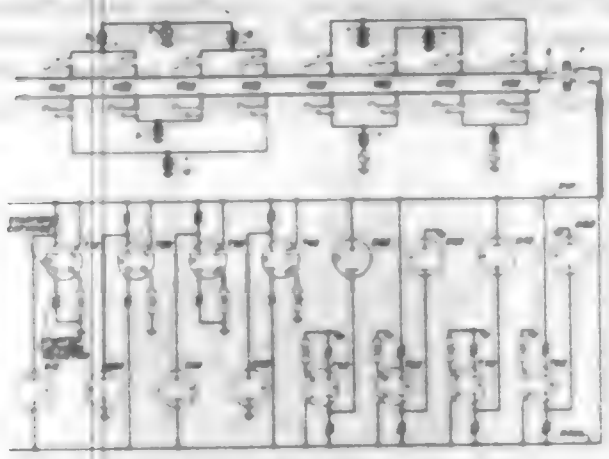


1. An automatic telephone system of the relay type comprising a plurality of groups of subscribers' lines forming a main group of lines, each of said groups containing a plurality of subgroups of lines, a plurality of switching devices for said main group, means for connecting a calling subscriber's line to one of said switching devices, a register, a marker, means in said switching device to which a calling subscriber's line has been connected and cooperating with means in said register and in said marker for selecting a called subscriber's line over said register and said marker to mark said line as a called line, a plurality of serially related couplers, a plurality of first, second and third intermediate lines extending respectively between said couplers, means for extending a talking path from said switching device to said called line over said serially related couplers and said intermediate lines, one of said serially related couplers being individual to the group of subscribers' lines containing the called line, and another one of said serially related couplers being operative to connect said switching device with any one of said first intermediate lines over said coupler which is individual to the group of lines containing the called line.

2,875,281
TELEPHONE RINGING SYSTEM
Mark A. Townsend, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 8, 1954, Serial No. 414,835
10 Claims. (Cl. 179—86)

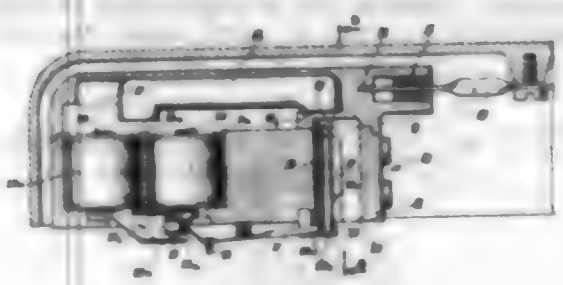
1. In a selective signaling system, in combination, a line having tip and ring conductors, a source of direct-

current bias voltage, a source of positive alternating-current signaling voltage, a source of negative alternating-current signaling voltage, said signaling voltages being of equal magnitude, a plurality of stations, each of said stations comprising a ringer, a multielectrode gas discharge device connected to said ringer, unidirectional shunting control means, means connecting said unidirectional control means to one of said electrodes of said multielectrode device and means connecting said multi-



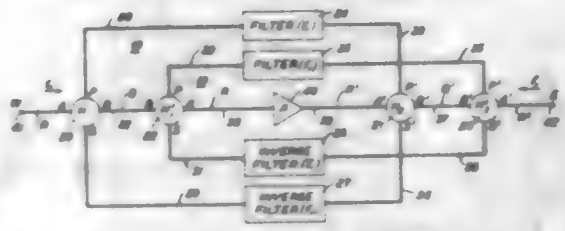
electrode device to said line, whereby the conduction of current by said shunting control means prevents breakdown of said gas discharge device, and means for energizing a selected ringer including means for selectively connecting said alternating-current signaling voltages and said direct-current bias voltage to said line in a plurality of combinations to produce different voltage signals for each of said stations, thereby to provide selective shunting of said discharge devices connected to non-selected ringers.

2,875,282
BINAURAL PHONOGRAPH PICKUP
Earl M. Relbeck, Brooklyn, N. Y.
Application October 6, 1953, Serial No. 384,476
9 Claims. (Cl. 179—100.41)



1. A phonograph pickup comprising a supporting member, first and second coil pairs mounted on said supporting member, each of said coil pairs including a common core structure having opposed pole pieces, means including a permanent magnet and the respective pole pieces of said coil pairs forming a magnetic path having vertical and horizontal air gaps, a stylus assembly in said magnetic path including an armature common to said vertical and horizontal air gaps, and means for mounting said stylus assembly for vibration in response to engagement with a single record groove having vertical and horizontal components, said vibration being translated to said armature to cause respective flux changes in said vertical and horizontal gaps in dependence upon said vertical and horizontal components of said single sound track, the flux changes in said vertical gap producing signals in the associated coil pair of a magnitude dependent upon said vertical component of said vibrations and the flux changes in said horizontal gap producing signals in the associated coil pairs of a magnitude dependent upon said horizontal component of said vibrations.

2,875,283
EQUIVALENT FOUR-WIRE REPEATERS
Theodore L. Maione, Shrewsbury, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 28, 1956, Serial No. 631,148
20 Claims. (Cl. 179—170)



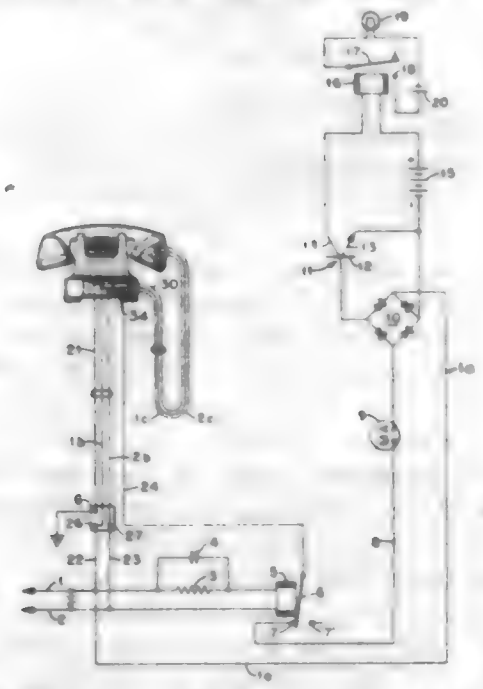
1. In a carrier wave transmission system having different frequency channels for opposite directions of transmission, at least a first and second hybrid branching circuit each having two pairs of ports, the ports of each pair of each of said branching circuits being effectively exclusively connected together for signal frequencies within a given frequency band and each port of one pair of each of said branching circuits being effectively exclusively connected to one port of the other pair of said each one of said branching circuits for signal frequencies outside said band, said given frequency band being substantially the same in said first and second branching circuits, one port of said first branching circuit being connected to receive and transmit intelligence-bearing signals from and toward one direction, one port of said second branching circuit being connected to receive and transmit intelligence-bearing signals from and toward the other direction, means for amplifying said intelligence-bearing signals connected between the paired port of said one port of said first branching circuit and the paired port of said one port of said second branching circuit, and means for coupling each port of the other pair in said first branching circuit to one port of said other pair in said second branching circuit.

2,875,284
ELECTRICAL AMPLIFYING MEANS
Robert J. Ehret, Palo Alto, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application December 22, 1955, Serial No. 554,708
9 Claims. (Cl. 179—171)



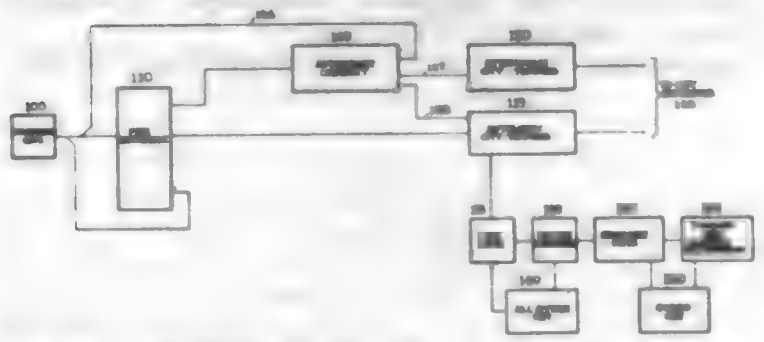
1. An amplifier employing as its amplifying elements two pairs of transistors, each of said transistors having an emitter, a collector, and a base, a series connected load circuit comprising a load and a source of transistor energizing current, the collector of each of said transistors being connected to one end terminal of said load circuit, the emitter of each of said transistors being connected to the other end terminal of said load circuit, a pair of series connected inductively coupled windings for each pair of said transistors, the end terminals of each of said series connected pairs of windings being connected to the base electrode of a corresponding one of said pair of transistors, a pair of series connected inductively coupled windings for each pair of said first named series connected inductively coupled windings, the end terminals of each of said windings being connected to the common terminals of a corresponding one of said first named pairs of windings, and input circuit means connected to the common terminals of said last named pair of windings and the emitter of each of said transistors.

2,875,285
DETECTOR FOR TELEPHONE SURREPTITIOUS LISTENING TECHNIQUES
Earle D. Hightower, Kensington, Md., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application April 30, 1957, Serial No. 656,164
4 Claims. (Cl. 179—175)



1. A detector for a wire-tap device which energizes a telephone microphone connected to one of the two incoming telephone lines by by-passing the telephone hook-actuated disconnect switch connected between said microphone and the other telephone line, comprising: means to continuously monitor said microphone for an electrical potential thereacross only when said disconnect switch is actuated, and means to provide a warning signal responsive to said potential.

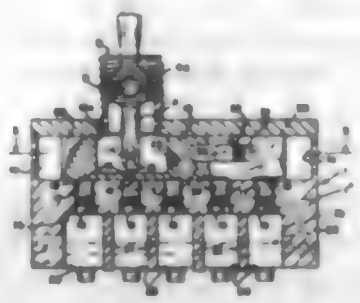
2,875,286
TELEPHONE CALL SURVEYING EQUIPMENT
William H. Blashfield, Galion, Ohio, assignor to North Electric Company, a corporation of Ohio
Application April 21, 1955, Serial No. 502,925
17 Claims. (Cl. 179—175.2)



1. In an automatic telephone system having a plurality of exchanges including at least one private branch exchange, each exchange being operative to extend calls between local subscribers and the subscribers of other exchanges, means in at least said private branch exchange for surveying each call as extended by the subscribers of the private branch exchange to the subscribers of at least one other exchange, and means controlled by said survey means to automatically provide a cumulative number count of the calls made to said other exchange during any given period.

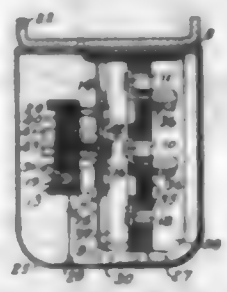
2,875,287
SEQUENTIAL SWITCH
Dora C. Van Sickle, Dayton, Ohio
Application June 4, 1957, Serial No. 663,562
4 Claims. (Cl. 200—5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A sequence determining switch device comprising a casing, a plurality of double throw microswitch devices fixed therein, a microswitch actuator slide reciprocatably mounted in said casing, said microswitch actuator slide having an intermediate position, said microswitch slide actuator having means thereon for actuating certain of said microswitch devices upon sliding movement thereof from said intermediate position in one direction to its limit of movement position in said one direction and movable from said intermediate position in the opposite direction to its limit of movement position in said opposite direction for actuating certain other of said microswitch devices, resilient means for returning said microswitch slide actuator from either of its limits of movement positions to said intermediate position, a sequence determining double-throw microswitch fixed in said casing, a se-



quence determining slide actuator reciprocatably mounted on said microswitch actuator slide having means thereon for actuating said sequence determining microswitch when said microswitch actuator slide is moved to its limit of movement position in one direction and disengaging said sequency determining microswitch when moved to its limit of movement position in the opposite direction, means for restraining subsequent movement of said sequence determining slide actuator from its limit of movement position 50, said sequence slide actuator remains in its former position during return movement of said microswitch actuator slide until the latter is moved in said return movement direction past said intermediate position.

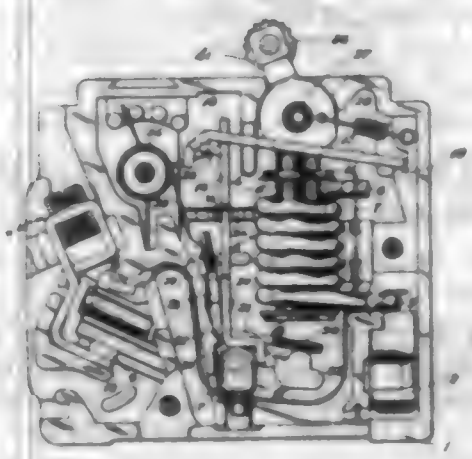
2,875,288
ELECTRIC SWITCH
Paul F. White, Glen Ellyn, Ill., assignor to Furnas Electric Company, Batavia, Ill., a corporation of Illinois
Application December 31, 1956, Serial No. 631,753
2 Claims. (Cl. 200—6)



1. In an electric switch, a U-shaped sheet-metal frame having a base and integral end walls, a mounting board of insulation secured to said base between said side walls and having thereon at least one set of three equally spaced fixed contacts, a carrier of insulation also disposed between said side walls and having thereon at least one pair of similarly spaced movable contacts and also being provided with a pair of parallel recesses, a shaft journalled in said frame walls and having an integral medial crank swingable between said walls and pivotally confined within one of said recesses and supporting said carrier, another crank journalled in one of said frame walls and pivotally confined within the other recess of said carrier for cooperation with said shaft crank to cause said movable contacts to constantly assume parallel positions, a single clip for frictionally confining said cranks within said recesses, and means for oscillating said shaft in opposite directions to alter-

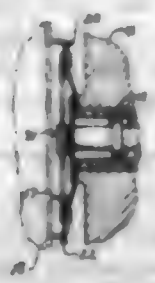
nately cause said movable contacts to engage and connect the intermediate fixed contact with the opposite end contacts of the fixed set and to simultaneously likewise oscillate said other crank through the carrier.

2,875,289
TWO POLE CIRCUIT BREAKER
Carl Brunner, Floral Park, N. Y., assignor to Murray Manufacturing Corporation, Brooklyn, N. Y.
Application January 2, 1958, Serial No. 706,710
4 Claims. (Cl. 200—50)



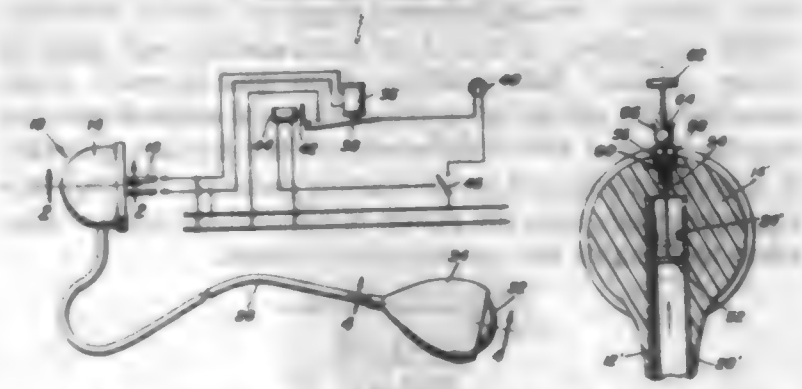
1. A two pole electric circuit breaker comprising two trippable single pole breakers mounted side-by-side, the single pole breakers being similar in construction and each comprising a trippable member which is caused to move in a given direction during the tripping of the breaker, a slidable interlocking member consisting essentially of a single element connected to both of the trippable members in direct linear motion transfer relationship, the direction of travel of said interlocking member being aligned with said given direction, whereby the movement of one of the trippable members, caused by tripping of its associated breaker is transferred to the other member producing tripping of the other breaker.

2,875,290
DOOR SWITCH DEACTIVATOR
Emil E. Shattow, Chicago, Ill.
Application August 7, 1958, Serial No. 753,778
4 Claims. (Cl. 200—61.79)



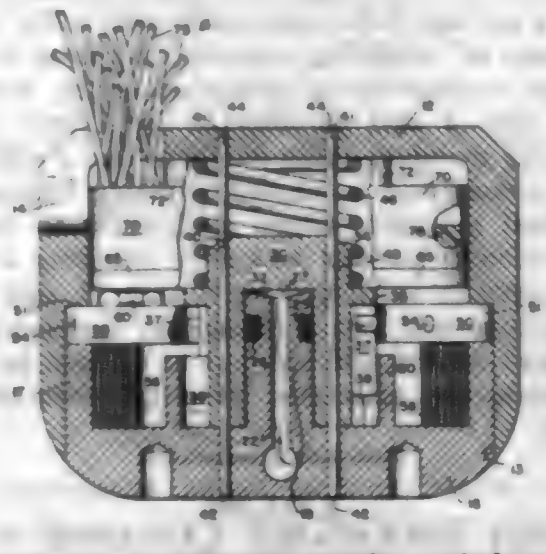
2. In combination with a door switch having a body received in an aperture in a door frame and having a flange at its outer end arranged to normally engage the face of said door frame and a spring biased plunger normally held outwardly, a substantially rectangular plate having a central aperture through which the plunger may pass and arranged to be superimposed on the outer end of said body, a pair of longitudinally aligned guide means rearwardly of said plate, a pair of substantially flat securing members retained in said guide means and slidable towards and away from each other and adapted to engage said body and to be retained between said flange and said door frame, and a member slidably mounted relative to said plate and movable into and out of registration with said aperture.

2,875,291
PNEUMATICALLY OPERATED ELECTRIC SWITCH
Raymond L. Armstrong, Cortland, and Gerald H. Morenus and George H. Morenus, Homer, N. Y.
Application November 1, 1956, Serial No. 619,751
7 Claims. (Cl. 200—81)



1. An electric switch comprising a body of insulating material, a pair of spaced parallel prongs extending from said body for engagement with a socket in an electric circuit, said prongs extending interiorly of the body, a vertically disposed tubular passage in said body with the prongs extending into said passage, a movable contact bridging member disposed in said vertical passage and having substantially an equal cross-sectional area as the passage, a flexible tubular member connected to the bottom of the vertical passage, and a squeeze bulb connected to said tubular member for supplying pressurized air into the passage under the movable bridging member for raising the bridging member into contact with the inner ends of the prongs, thus completing an electric circuit through the prongs.

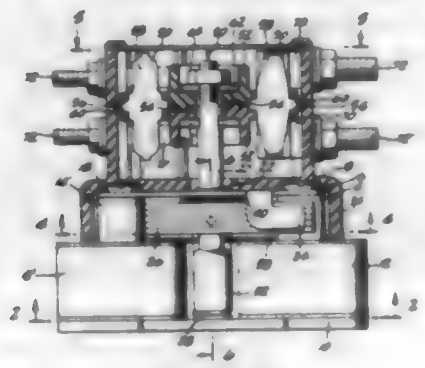
2,875,292
PRESSURE-ACTUATED STEPPING SWITCH
Orville J. Sabolt, China Lake, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application July 18, 1958, Serial No. 749,571
3 Claims. (Cl. 200—82)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A gas-pressure actuated stepping switch comprising a housing member completely open at one end, a base member which encloses the open end of said housing member, a central shaft which extends upwards from said base into said housing member, a hollow cylindrical piston on said shaft and having a cam surface on the outer cylindrical surface thereof, said piston being operable to ride up and down upon said shaft, a bias spring for normally biasing said piston downward on said shaft, a passage in said shaft and base extending from an external source of gas pressure to the upper end of said shaft, said piston operable to be actuated by being forced upward under gas pressure, a torsionally spring loaded contact disc having a central aperture therein through which said piston extends, said disc having means thereon

for riding on said piston cam surface, a fixed contact assembly within said housing having switch terminals thereon and being normally contacted by said contact disc, said cam surface being operable to allow said torsionally loaded spring contact disc to rotate a half position opening contact between a pair of switch terminals when said piston is raised by gas pressure and again to rotate another half position when gas pressure drops allowing said piston to be returned to its original position thereby closing switch terminals on the contact assembly in a position adjacent to the starting position, the sequence repeating each time the piston is pressurized until a complete rotation of the contact disc is made.

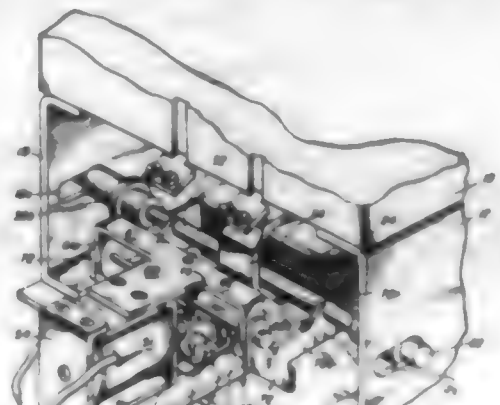
2,875,293
RELAY
Richard L. Adams, Los Angeles, Calif., assignor to Leach Corporation, Los Angeles, Calif., a corporation of Delaware
Application November 8, 1954, Serial No. 467,296
5 Claims. (Cl. 200—87)



1. A contact assembly for a relay of the type having a shaft rotatably driven through a limited arc by a motor, said assembly comprising a movable contact assembly including a plurality of conductors, means to insulatingly support said conductors to extend parallel to said shaft and to be rotatable therewith, said means including a collar which fits over said shaft and a plurality of arms extending radially from said collar, said collar and arms being made of insulating material, a recess in each of said arms, a plurality of elongated spring members, a different one of said plurality of conductors and elongated spring members being mounted into a different one of said recesses with an elongated spring backing a conductor, and means to fasten said collar to said shaft, and a stationary contact assembly including a different pair of contacts associated with each of said plurality of conductors, and means to support said pairs of contacts spaced around said shaft to be bridged by the ones of the conductors associated therewith when said motor is excited.

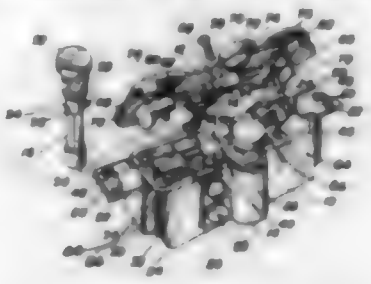
2,875,294
REMOTELY RELEASABLE LATCHING ATTACHMENT FOR ELECTROMAGNETIC CONTACTORS
Harold E. Schleicher, West Hartford, Conn., assignor to The Arrow-Hart & Hegeman Electric Company, Hartford, Conn., a corporation of Connecticut
Application January 10, 1957, Serial No. 633,468
11 Claims. (Cl. 200—106)

1. An electric contactor having fixed and movable contacts, mechanism including a drive rod for moving said movable contacts, an electromagnet moving said drive rod laterally, in combination with an attachment for maintaining said mechanism in attracted position, said attachment comprising a pivoted latching member having arms engaging said rod at spaced points upon movement of said rod into energized position so as to avoid twisting of said rod and mechanism while latched by said latching member in attracted position, means biasing said latching member toward latching position, a tripping member engageable with said latching member to disengage



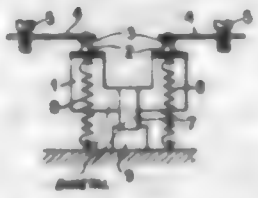
said latching member from said rod, and an electromagnet for operating said tripping member.

2,875,295
DUPLEX ELECTRICAL FUSED WALL OUTLET
Charles A. Lindeman, Jr., Cicero, Ill.
Application April 19, 1954, Serial No. 424,041
17 Claims. (Cl. 200—115.5)



1. A duplex electrical fused outlet comprising an insulating receptacle having an inlet conductor connection at one side of the receptacle and an outlet conductor connection at the other side of the receptacle, means comprising conductors in the receptacle and pairs of spaced blade openings near the ends of the receptacle to the conductors therein for making a plurality of connections with both the inlet and outlet connections therein, a hollow fuse holder for each inlet and each outlet connection between the ends of the receptacle at each side thereof with a removable cap projecting above the top of the receptacle and each cap being free, spaced from and unobstructed by the said blade openings near the ends of the receptacle so that the fuses therein may be inserted and removed without removing conductors inserted in the said spaced blade openings.

2,875,296
AUTOMATIC CIRCUIT BREAKER
Ernst Enderli, Emmenbrucke, Lucerne, Switzerland, assignor to Weber A. G. Fabrik elektrotechnischer Artikel und Apparate, Lucerne, Switzerland
Application June 7, 1955, Serial No. 513,842
Claims priority, application Switzerland June 8, 1954
1 Claim. (Cl. 200—116)



Automatic circuit breaker responsive to overload and to short-circuiting comprising a pair of contacts, means for opening said contacts, a bimetal element in series with said contacts to be heated by the current under control and adapted to actuate said opening means by heat

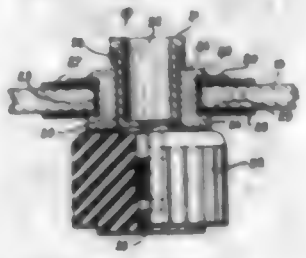
deformation, said bimetal element having delaying means connected thereto, said delaying means being a bimetal member connected to said bimetal element for heat transfer therefrom but out of the path of said current and being mounted for heat flexure in a direction opposite to said deformation, said pair of contacts being stationary, comprising mounting means for guiding said element for movement towards and away from said pair of stationary contacts, said bimetal element including a pair of U-shaped portions, a pair of movable contacts each mounted on said U-shaped portions in position for engagement and disengagement of said pair of stationary contacts, resilient means mounted to act on said bimetal element and tending to move same into a contact-separating direction, and a stop disposed between said U-shaped portions, said bimetal members being shaped and disposed to normally engage said stop to be locked in contact-closing position contrary to the tendency of said resilient means, but being adapted by heat flexure to disengage said stop and to thereby cause said resilient means to become effective and to move said bimetal element to contact-separating position, said U-shaped portions of said bimetal element constituting a current path between said pair of movable contacts, said bimetal members disposed for heat flexure in a direction opposite to the heat deformation of said U-shaped portions being thereby adapted to partly compensate said deformation in said U-shaped portions, said circuit breaker further comprising a housing of insulating material encasing said contacts, said bimetal element, said resilient means and said stop, and a re-setting member slidably guided in said casing for movement in the direction of said first mentioned movement and forming said stop, said re-setting element being formed with a button protruding from said housing, the latter being formed with external threads for insertion in a fuse socket and with a bottom contact electrically connected in series with said afore-mentioned contacts, said circuit breaker further comprising a sleeve of resilient material surrounding said re-setting member and sealed to said housing and being adapted when gaseous medium in said housing is subjected to pressure, to engage said button to thereby seal the gap between said button and said housing.

2,875,297

THERMAL DEVICES

Theodore F. Rosing, Whitefish Bay, Arthur F. Kolb, Milwaukee, and Clarence W. Kuhn, Wauwatosa, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application February 25, 1957, Serial No. 642,132
13 Claims. (Cl. 200—124)



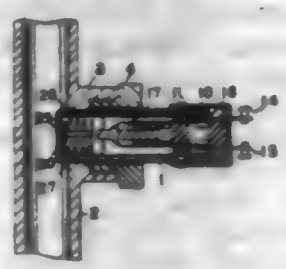
1. As a thermal responsive device for association with electrical protective devices, in combination, a heater element for carrying an electrical current adapted for mounting on said protective device, said element comprising at least one member of electrically resistive material having an opening therein, a sleeve carried by said element having portions within said opening in proximity to the wall of said opening and having other portions closely adjacent with portions of said element adjacent said opening, a movable rotor having portions within said sleeve, fusible alloy normally bonding said rotor to said sleeve, and a ratchet wheel affixed to and movable with said rotor to permit actuation of biased means within said protective device when predetermined heating of said element caused by excessive current flow therethrough fuses said alloy.

2,875,298

THERMAL FUSE

Glen M. Tracy, Rockville Centre, N. Y., assignor to Glenton Industries, Inc., Hempstead, N. Y.

Application August 28, 1956, Serial No. 606,719
1 Claim. (Cl. 200—142)



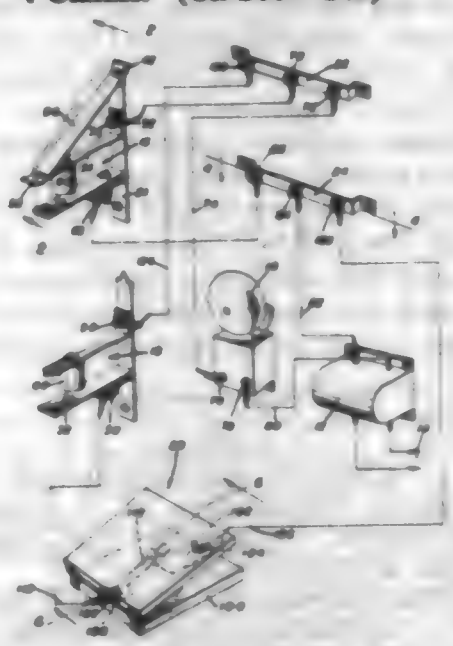
Thermal fuse means for a pipe carrying liquid under pressure comprising a first fixed casing connected to and extending into said pipe, a removable casing adapted to snap onto said first casing, a pair of electrical contacts in said removable casing connected to external terminals and means to change the position of said contacts relative each other, comprising replaceable fusible unit means including a spring loaded member, fusible means locking said member, said member being adapted to change the position of said contacts when unlocked, said fusible means being easily replaceable by removing said removable casing.

2,875,299

WARNING SYSTEMS

Joseph Di Carlo, Edwardsville, Ill.

Application August 12, 1957, Serial No. 677,446
4 Claims. (Cl. 200—142)



4. A combination burglar and fire alarm system including a source of electrical energy, an alarm device serially connected with said source, a burglar alarm actuation device serially connected with said source and said alarm including an insulated base having a contact plate affixed thereto, a plate hingedly connected to said base, a spring carried between said plate and base biasing said plate and base to an open position relative to each other, said spring located so as to electrically contact said contact plate upon movement of said plate and base to a closed position, a fire alarm actuation device electrically connected in parallel with said burglar alarm actuation device including a mounting bracket, an angle shaped support secured on said bracket and insulated therefrom and having an upwardly extending portion, said support further including an outwardly extending contact arm, a connection blade secured to said upwardly

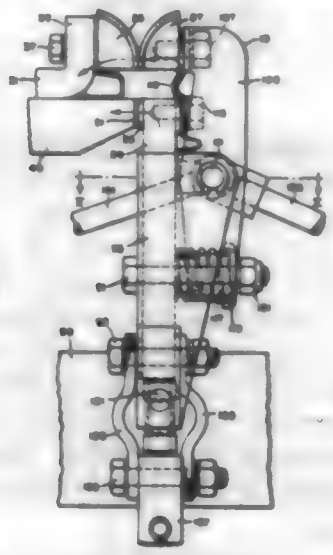
extending portion and insulated therefrom, a contact weight depending from said connection blade for engagement with said contact arm, and means secured to said connection blade and said upwardly extending portion for selectively preventing said contact weight from engaging said contact arm, said means comprising a paper strip terminally secured to said connection blade and said upwardly extending portion.

2,875,300

CIRCUIT INTERRUPTER

Samuel A. Bottonari, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 9, 1955, Serial No. 552,058
12 Claims. (Cl. 200—146)



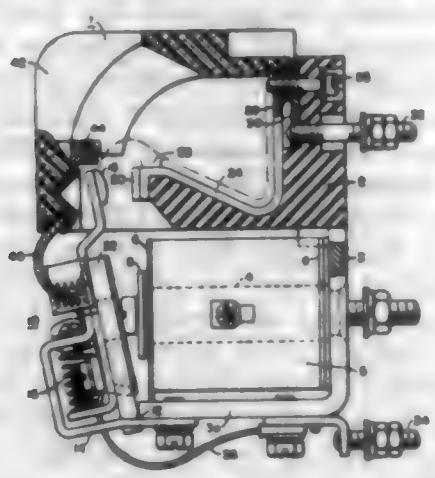
1. In a circuit interrupter, stationary main contact means having a relatively large mass, stationary arcing contact means, means supporting said stationary main contact means for limited movement relative to said stationary arcing contact means, movable main and arcing contact means cooperating with said stationary main and arcing contact means, biasing means biasing said stationary main contact with a relatively light force to provide contact pressure, operating means for moving said movable contact means to open and closed positions, and the ratio of the mass of said stationary main contact means to the force of said biasing means being relatively large to make said stationary main contact dynamically slow in motion and thereby effect separation of said main contact means early in an opening operation.

2,875,301

CIRCUIT INTERRUPTER

Ralph B. Immel, Williamsville, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application February 8, 1954, Serial No. 408,667
11 Claims. (Cl. 200—147)



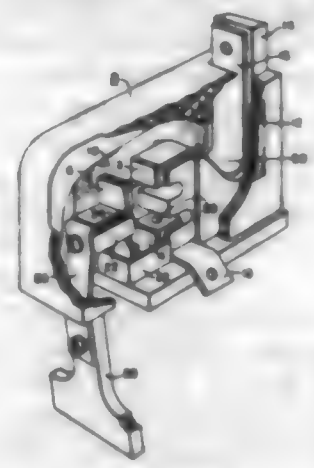
1. An electric switch comprising, stationary and movable contact means for striking an arc, an arc box structure disposed adjacent said stationary and movable contact means, said arc box structure comprising a magnetized ceramic material of high electrical resistivity producing a magnetic field linking the magnetic field of said arc.

2,875,302

CIRCUIT INTERRUPTER

Ralph B. Immel and Arthur S. Nadrowski, Buffalo, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application February 8, 1954, Serial No. 408,910
6 Claims. (Cl. 200—147)



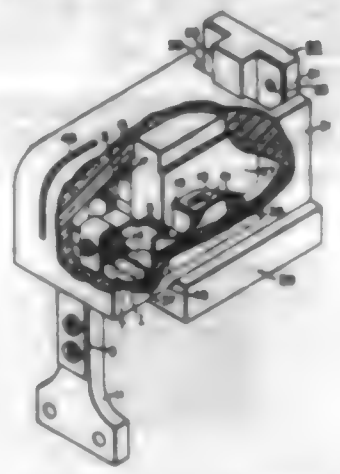
2. An electric switch comprising, a contact assembly including a pair of stationary contacts, one disposed above the other, and a movable contact bridge movable between positions engaging and disengaging said stationary contacts; a metal arcing cup disposed to receive the lower stationary contact and the corresponding contact portion of said movable contact bridge, and a permanent magnet, electrical insulating, arc box straddling said contact assembly and producing a magnetic field laterally of the path of movement of said movable contact bridge.

2,875,303

CIRCUIT INTERRUPTER

Ralph B. Immel, Williamsville, and Arthur S. Nadrowski and Marshall P. White, Buffalo, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

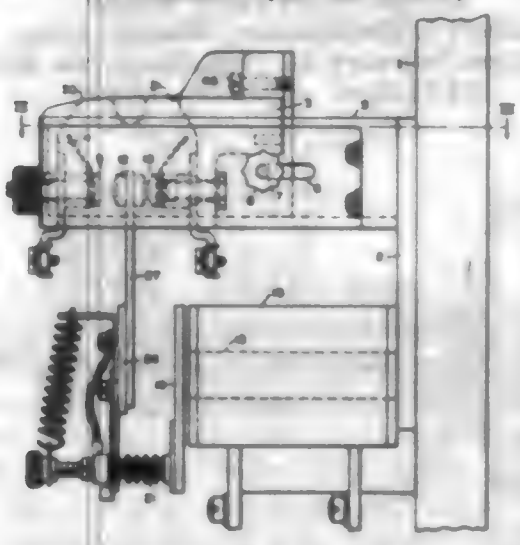
Application October 22, 1954, Serial No. 463,912
7 Claims. (Cl. 200—147)



1. An electric switch comprising, a base of electrical insulating material, a pair of spaced stationary contacts horizontally disposed in side by side relation on said base, an electrical conductor connected with each stationary contact and extending therefrom to a marginal edge of said base, a movable contact bridge movable between positions engaging and disengaging said stationary contacts, at least a portion of each of said conductors adjacent the associated stationary contact being substantially aligned with the contact gap between the associated stationary contact and the cooperating part of said movable

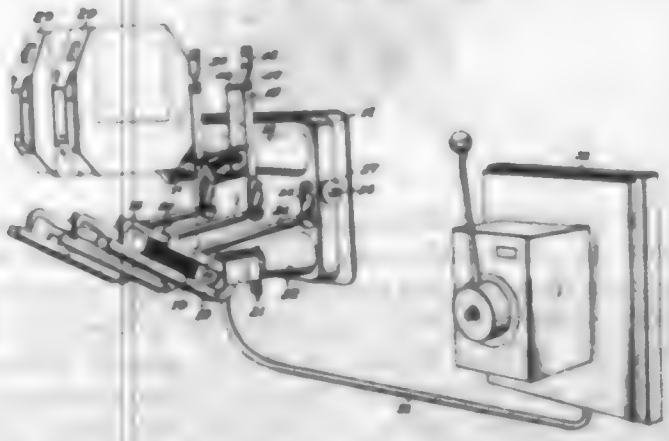
contact bridge and functioning as an arc horn, and means of ceramic permanent magnet material disposed adjacent said contacts to produce an arc deflecting magnetic field substantially longitudinally of said movable contact bridge.

2,875,304
CIRCUIT INTERRUPTER
Marshall P. White, Buffalo, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 30, 1956, Serial No. 575,036
7 Claims. (Cl. 200—147)



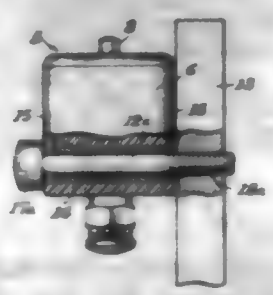
1. A circuit interrupting device comprising, a contact assembly having stationary contact means and movable contact means operable to engage and disengage said stationary contact means; a permanent magnet blowout assembly disposed adjacent said contact means and producing a magnetic field directed substantially laterally of said contact means, said permanent magnet blowout assembly including a yoke having a pair of spaced parallel members of magnetic material disposed on opposite lateral sides of said contact assembly and a pair of electrical insulating permanent magnet members respectively disposed against the confronting faces of said spaced parallel members and poled in aiding magnetic relation.

2,875,305
CIRCUIT-BREAKERS HAVING MAGNETIC BLOW-OUT
André Latour, Grenoble, Yves Peisac, St-Martin-le-Vinoux, and Pierre Ramponneau, Grenoble, France; said Latour assignor to Etablissements Merlin & Gerin, Grenoble, France
Application July 16, 1956, Serial No. 598,126
Claims priority, application France July 27, 1955
8 Claims. (Cl. 200—147)



1. A multi-pole circuit breaker comprising an arc chute for each pole, and a single cantilever insulator supporting each respective chute, the axis of each insulator disposed in a vertical plane, the cross section of at least one insulator by a vertical plane, normal to the first named vertical plane, being an ellipse, the long axis of which is vertical, and a movable contact assembly for each pole.

2,875,306
MOUNTING MEANS FOR SWITCH UNITS
Alan A. Allen, Beverly Hills, Calif., assignor to Micro-Switch Corporation, Santa Monica, Calif., a corporation of California
Application April 19, 1957, Serial No. 654,014
1 Claim. (Cl. 200—168)



In a miniature snap action electric switch having a moulded phenolic case that distorts under heat and when pressure is applied thereto, said switch including a support platform for the switch blade thereof, means to minimize such case distortion by mounting screws, said means comprising at least two metal tubular inserts extending completely transversely through said phenolic case with their ends at least flush with the opposite sides of the case, one of said inserts being placed directly beneath said support platform so that the actuation point for said switch may be constant under extremes of temperature fluctuation.

2,875,307
VARIABLE RESISTANCE ELEMENT
John A. Clementi, Alhambra, Calif., assignor to Beckman Instruments, Inc., Fullerton, Calif., a corporation of California
Application October 10, 1955, Serial No. 539,501
5 Claims. (Cl. 201—48)

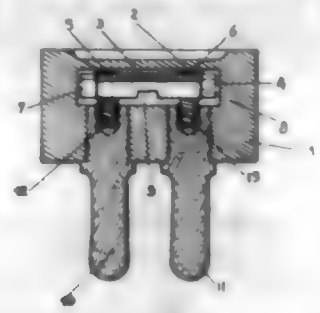


1. In a potentiometer having a resistance element arcuately disposed in a case, the combination of: a shaft; means for rotatably positioning said shaft within the case, said shaft including an eccentric guide means; a contact arm resiliently carrying a contact directly engaging the inner surface of the resistance element when said shaft is turned, said arm being rotatable about said shaft to vary the pressure exerted by said contact on the resistance element, said arm including means engaging said guide means for moving said arm radially relative to said shaft as said arm is rotated about said shaft; and means for fixing said contact arm to said shaft for movement of said contact along the resistance element concentric with said shaft.

2,875,308
PHOTORESISTIVE CELLS
Pierre Tarbes, Paris, France, assignor to Société Nouvelle de l'Outillage R. B. V. et de la Radio-Industrie, Paris, France
Application April 23, 1954, Serial No. 425,230
Claims priority, application France April 25, 1953
9 Claims. (Cl. 201—63)

1. A photoelectric cell comprising, a rigid support of insulating material, a layer of photoresistive material carried by the top face of said support, at least two conductive electrodes connected to said layer at spaced points

and having conducting leads extending to the under face of said support, a transparent protective layer comprising a coating of varnish on the top surface of said photoresistive layer, and an air-tight casing enclosing said support and the elements mounted thereon, at least a portion of said casing, including the top wall thereof, being formed of transparent plastic material and having a thin window section therein opposite said photoresistive layer and being integral with a thicker rim section.

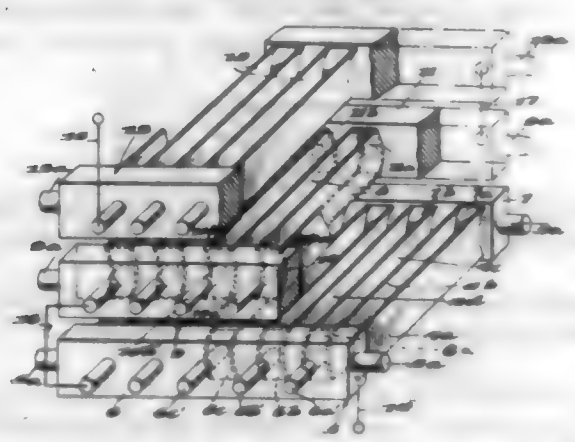


2,875,309
ELECTRICAL RESISTORS
Graham Pearce, Barley Croft, Crick, near Rugby, England, assignor to Painton & Company Ltd., Kingsthorpe, Northampton, England, a British company
Application August 13, 1956, Serial No. 603,510
Claims priority, application Great Britain August 11, 1955
9 Claims. (Cl. 201—63)



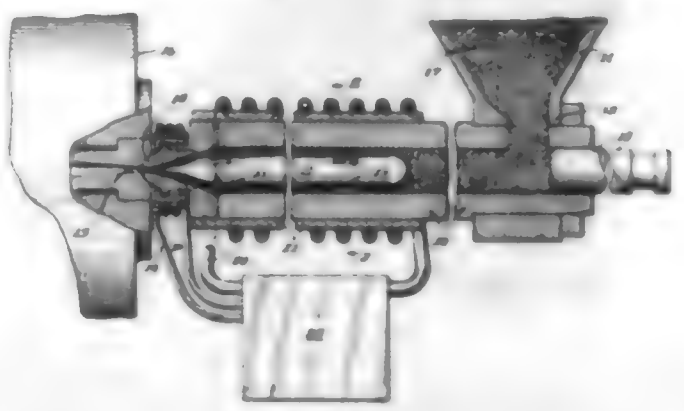
1. For an electrical resistor of the type in which the resistance wire is wound on a former and is connected at each end of the latter to a terminating lead by means of an intermediate conductor formed separately of said resistance wire and terminating lead, a former provided with an axial bore at each end for the reception of the appropriate terminating lead and also provided with a recess in each outer end face, each recess extending at least from the said bore to the periphery of the former and being of a dimension in a plane transverse to the axis of the former sufficient for the reception and stowage of the appropriate intermediate conductor and the joint of the latter with the resistance wire in a plane transverse to the axis of the said former, whilst being of a depth only sufficient to ensure that no part of the appropriate intermediate conductor and the joint of the latter with the resistance wire will, when stowed in such recess, project from the outer end face of the former in which the recess is provided.

2,875,310
ELECTRICAL RESISTOR STRUCTURE
Emil Schoch, Wettingen, Switzerland
Application August 26, 1958, Serial No. 757,363
4 Claims. (Cl. 201—69)



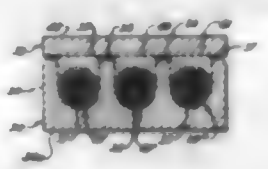
1. Electric resistance for starting and regulating devices, in particular on electrically driven vehicles, characterized by vane-shaped arched resistance elements which are assembled into horizontal grids in which the individual elements have the same arched direction and are connected together solely by electrical connecting straps, the individual grids being vertically superimposed and arranged to cause the arched direction of the bars of one grid to be reversed from the arched direction of the bars of the next adjacent grid.

2,875,311
INDUCTION HEATING IN INJECTION AND EXTRUSION PROCESSES
Robert J. Harkenrider, Winona, Minn.
Application February 14, 1956, Serial No. 565,333
14 Claims. (Cl. 219—10.49)



1. In apparatus for molding dielectric material, an outer shell, a core disposed therein and defining therewith an annular heating chamber for the dielectric material, said core and shell consisting of metallic material with the core material being relatively magnetic and the shell material being relatively non-magnetic and a relatively poor electrical conductor, and a low frequency current carrying coil encircling the outer shell in the region of said core for generating heat by induction in both the core material and the shell material.

2,875,312
HEATING ASSEMBLY AND METHOD OF PRODUCTION THEREOF
William H. Norton, Chicago, Ill., assignor to Thermal, Inc., Franklin Park, Ill., a corporation of Delaware
Application September 27, 1956, Serial No. 612,390
3 Claims. (Cl. 219—19)



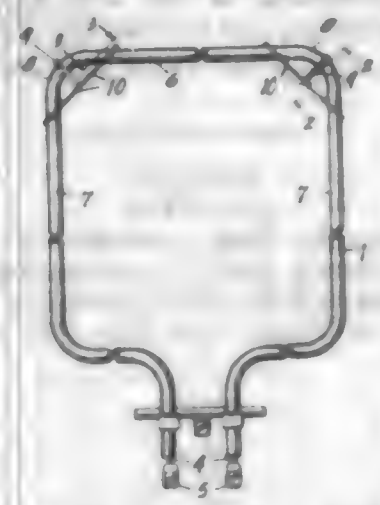
1. In an electric heater, in combination, an elongated resistor, an electrically and thermally conductive sleeve closely surrounding the resistor, electrically insulative refractory particulate material filling the sleeve and maintaining the resistor therein in closely spaced relation to the sleeve, said particulate material being compacted by swaging the filled sleeve to elongate the same at least 10%, an aluminum retainer having a heating surface and a back side opposed thereto, means on said back side defining an open-topped groove receiving said sleeve, and a stainless steel backing band covering the open-topped groove and retaining the sleeve therein in firm assembly, said retainer, sleeve and backing band being bent into an arcuate shape with the heating surface on the concave side and the backing band on the convex side of the arc.

2,875,313

HEATING UNITS FOR OVENS AND THE LIKE

Robert J. King, Allegan, Mich., assignor, by mesne assignments, to McGraw-Edison Company, a corporation of Delaware

Application November 23, 1956, Serial No. 624,077
6 Claims. (Cl. 219—19)



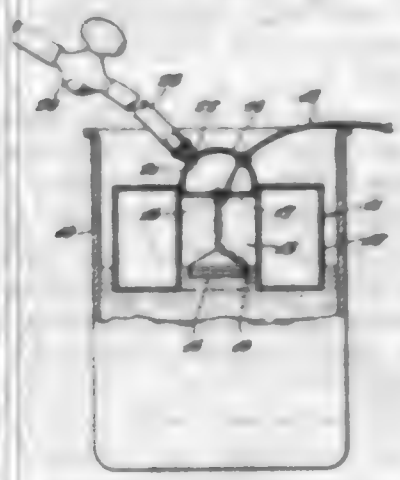
1. A heating unit for ovens and the like comprising a tubular self-supporting sheath having an insulated resistance element therein, said sheath comprising a horizontal rear member and horizontal side members disposed substantially perpendicularly to the rear member and curvedly merging therewith, and metal supporting brackets comprising leg portions disposed within and depending below said curvedly merging portions and having outwardly facing slots in their upper ends in which said curved portions are disposed, the leg portions being disposed centrally relative to the curved portions, said brackets having laterally projecting arm portions at the upper ends of the inner edges of the leg portions, said arm portions having longitudinal slots opening at the ends thereof and in which said rear and side members are disposed, portions of the brackets defining said slots being upset into clamping retaining engagement with said sheath.

2,875,314

STEAM GENERATORS

Edward P. Schreyer, Ridgefield, Conn.

Application May 3, 1957, Serial No. 656,958
3 Claims. (Cl. 219—38)



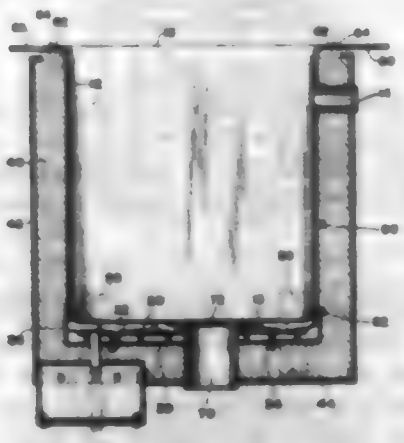
1. A steam generator comprising a water container, a float adapted to be supported by water in said container and enclosing a bell-shaped cavity defining a steam dome having a closed upper end and an open lower end adapted to be immersed in the water when the float is supported thereby, a heating element mounted in said cavity and positioned near the lower end thereof so as to be just immersed in the water when the float is supported by the water in the container, and an outlet for the escape of steam from said cavity, means to close the steam outlet and thereby trap steam in the cavity to reduce the internal water level relative to the float, thus bringing the heating element clear of the water, and thermostatic means responsive to the temperature of the heating element, to render the latter inoperative when out of the water.

2,875,315

HEATED DISH RINSING SINK

Charles T. Pierson, Jr., Bellingham, Wash., assignor to Erdhig Sheet Metal, Inc., Bellingham, Mass., a corporation of Washington

Application June 23, 1958, Serial No. 743,751
4 Claims. (Cl. 219—38)



1. A heated dish rinsing sink, for ship's use, comprising: a water holding inner liner, having sufficient structural strength to be self supporting, when filled and supported only from its top margin; an insulated electric heating element, bent to form spaced coils disposed below said liner and in contact with the outside of the bottom plate of said liner for heating in said liner; a plurality of clamp bars spanning adjacent coils of said heating element and supported from the bottom plate of said liner by studs secured to said bottom plate; a reflective cover plate enclosing said heating coil and disposed below the same; said reflective cover plate supported in spaced relationship from said bottom plate by extended studs secured to said bottom plate; said reflective plate having upturned margins, engaging said inner liner, and completing the enclosure of said heating coils; an outer wall forming an enclosing cover for said liner on all sides and a separate bottom plate all spaced from said liner to form a container for an insulating covering for said liner except for its top; a water overflow outlet disposed below the upper margin of said liner to prevent slopping over said upper margin during normal movement of the ship on which the sink is installed; a water discharge pipe having a shutoff valve, secured to the bottom plate of said liner; a pair of sensing thermometers secured to the outer wall surface of the inner liner, one positioned substantially midway up the water container wall, to sense water temperatures and the other positioned near the heating element to sense dangerous high temperature of the liner adjacent the heating element; a thermostat and a cutout switch, connected in series, the thermostat connected to the water temperature sensing thermometer and the cutout switch connected to the heating element temperature sensing thermometer; and electric control means for controlling the application of electric current to said heating coil in accordance with the action of said thermostat and said cutout switch.

2,875,316

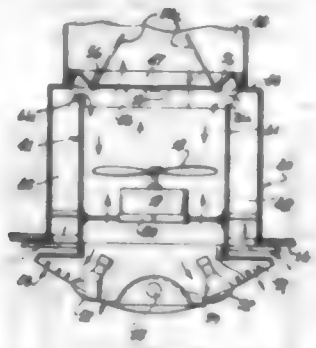
COMBINED HEATING AND VENTILATING UNIT

Harold H. Ford and Robert A. Papedorf, Claremont, Calif., assignors to Emerson-Pryne Company, Pomona, Calif., a corporation of Delaware

Application December 9, 1957, Serial No. 701,598
3 Claims. (Cl. 219—39)

1. A ventilating and heating unit adapted for installation on the ceiling of a room, comprising: an outer

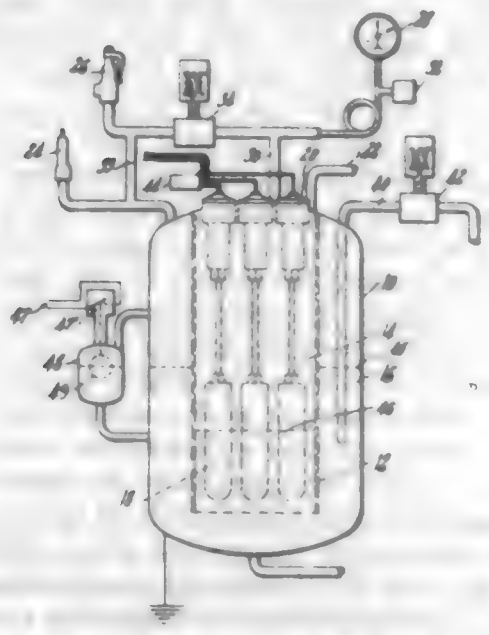
housing having an opening at its lower side in communication with the room; an inner housing open at the top and at the bottom to communicate with the room at the bottom; air outlet means in the top wall of the outer housing at a location to discharge air passing upwardly through the inner housing; a heating element within the inner housing; a fan means within the inner housing for moving air through the inner housing and past the heating element in a selected direction to move air downwardly through the inner housing into the room or upwardly from the room through the inner housing; air passage means at the top of the inner housing communicating with the surrounding space; and shutter means at said passage means to control air flow therethrough; said shutter means admitting air to the inner housing when air movement therein is downward and closing said passage means when air movement in the inner housing is upward.



2,875,317
REGULATING CONTROL FOR IMMERSED ELECTRODE BOILER

Don S. Strader, East Greenwich, R. I., assignor to Pantex Manufacturing Corporation, Central Falls, R. I., a corporation of Rhode Island

Application July 5, 1957, Serial No. 670,205
3 Claims. (Cl. 219—40)

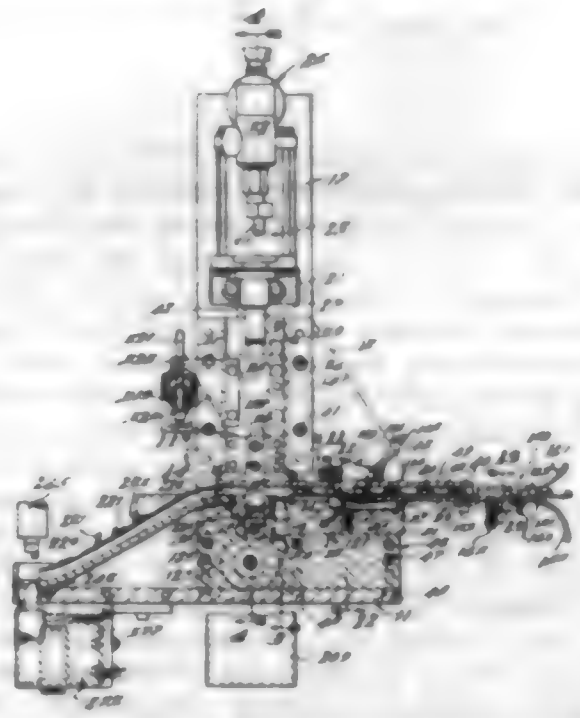


1. In a closed immersed electrode boiler having a steam output line, an electrode chamber, and a regulating chamber into which the operating liquid backs as pressure rises in the electrode chamber in order to lessen the area of the electrodes immersed in said liquid, a control system comprising a positive two-position open-close valve interposed in a line connecting said electrode and regulating chambers, means for moving said valve selectively to open or closed position including pressure sensitive actuating means to cause said valve to move from open to closed position whenever the pressure in said electrode chamber reaches a maximum for which said means is set and back to open position whenever the pressure in said output line drops below said maximum, a liquid exhaust line leading from the regulating chamber, a valve in said exhaust line and control means interposed in the electrical circuit leading to at least one of said electrodes for operating said exhaust line valve to open said exhaust line valve whenever the current exceeds a maximum current for which said control means is set as the result of upward surges of the water level in said electrode chamber responsive to movement of said first-named valve from open to closed position, and to close said exhaust line valve again whenever the current drops back below said maximum current.

2,875,318
MACHINE

Jasper Long, Sturgis, Mich., assignor to Wade Electric Products Co., Sturgis, Mich., a corporation of Michigan

Application July 29, 1955, Serial No. 525,320
4 Claims. (Cl. 219—79)



1. In a cutoff and weld apparatus of the type described, a feed track to receive a strip of interconnected parts, a reciprocating pawl adjacent said feed track to index the strip along said track, a rack bar connected to said feed pawl and driven by a gear, a reciprocating slide carrying a punch for severing a part from said strip, said slide carrying a rack driving said gear, a weld station spaced from said cutoff punch, a gravity slide chute for transferring parts from the punch to the weld station, a movable barrier at the bottom of the chute for properly locating the part at the weld station, a bending member adjacent said barrier at said weld station for staking a portion of the part on a wire inserted in the part through the barrier and welded thereto, a limit switch controlling operation of the bending element, means on the slide controlling operation of the limit switch, and means synchronizing operation of the weld means and the cutoff punch so that they operate substantially together.

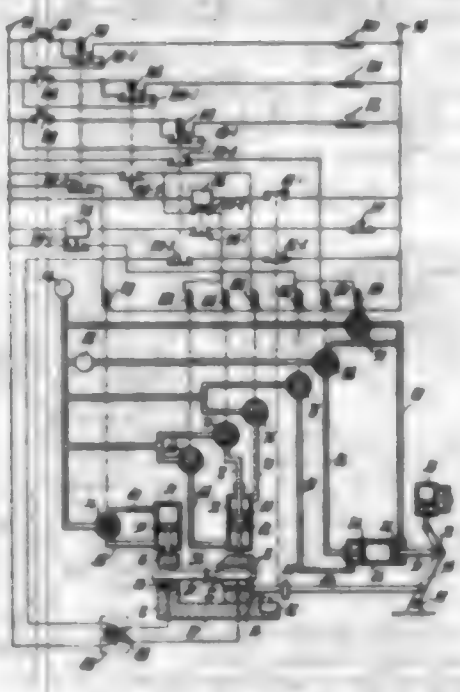
2,875,319
WELDING MACHINE

Hermann W. Stieglitz, Marblehead, Mass., assignor to Thomson Electric Welder Company, Lynn, Mass., a corporation of Massachusetts

Application June 14, 1957, Serial No. 665,881
9 Claims. (Cl. 219—101)

1. A flash-butt-welding machine including a pair of relatively movable platens each having a current carrying clamp for holding a workpiece to be welded, said clamps being movable between a closed position for clamping said work and an open position for removal of said work, and one of said clamps having an intermediate position in which it is opened a predetermined limited distance from said workpiece, fluid motor means for advancing

said platens relatively toward one another, including removable stop means for arresting the advance of said platens relatively toward one another upon completion of welding of said workpieces, control means operable upon said arresting of the advance of said platens to open said



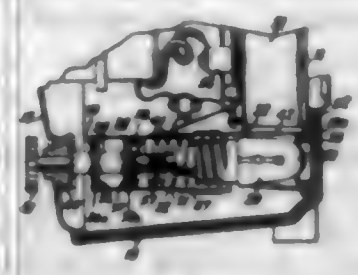
one clamp said predetermined limited distance while maintaining clamping pressure on the other clamp, and upon said opening of said one clamp releasing said stop means for further advance of said platens relative to said workpiece while maintaining positioning support for said workpiece.

2,875,320

ILLUMINATED ELECTRIC CLOCK

Arthur B. Campbell, Peru, Ill., assignor to General Time Corporation, New York, N. Y., a corporation of Delaware

Application September 2, 1954, Serial No. 453,845
13 Claims. (Cl. 240—3.1)



1. In an electric clock or the like, the combination comprising a translucent clock face, time indicating means including hands cooperating with said clock face, a dished reflector behind said clock face and having a shallow lateral wall extending about substantially the entire periphery, said wall having an access opening, a lamp bulb positioned in said opening for casting light into said reflector, a source of current for said bulb, a light shield mounted for progressive edgewise movement between the bulb and the opening, and a manual operator coupled to said shield for adjusting the amount of light cast into the reflector.

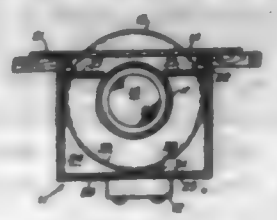
2,875,321

TELEVISION CABINET LIGHTING FIXTURE

Joseph K. Dolliva, San Diego, Calif.

Application August 4, 1955, Serial No. 526,450
5 Claims. (Cl. 240—4)

1. In combination, a television cabinet adapted for viewing from the front thereof, an elongated opening on the top surface of said cabinet having one edge near and parallel to the rear edge thereof, a housing within said opening having flanged portions extending thereover and supporting said housing thereby, said housing having a control knob attached thereto, a light means within said housing with a light filter between said light means and the top surface of said cabinet, said control knob being



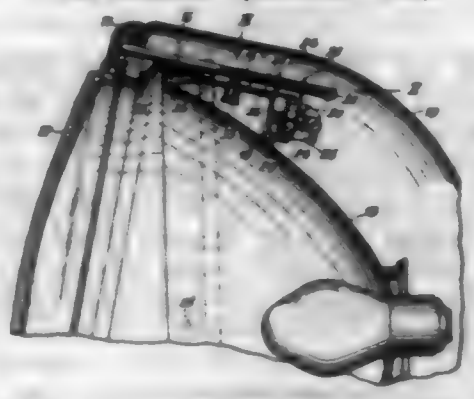
connected to said filter to selectively move portions of said filter over said light means and means on said knob to actuate said light means.

2,875,322

AUTOMATIC LAMP REGULATING MEANS

Rudolf Linder, Stuttgart-Degerloch, Johannes Rebentisch, Stuttgart-Vaihingen, and Ernst Merkl, Stuttgart-Feuerbach, Germany, assignors to Robert Bosch G. m. b. H., Stuttgart, Germany

Application September 30, 1954, Serial No. 459,228
Claims priority, application Germany October 1, 1953
14 Claims. (Cl. 240—7.1)



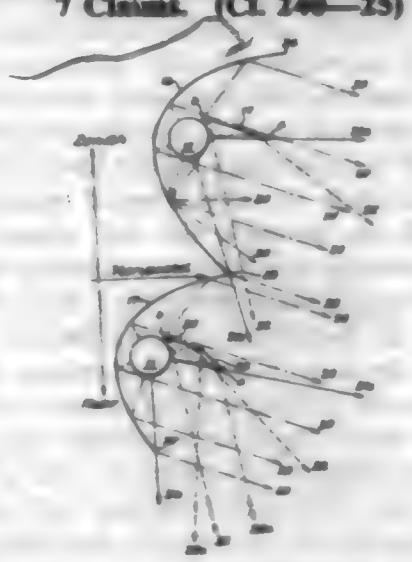
1. In a device for automatically regulating the inclination of the light beam of a lamp, in combination, a lamp housing; a reflector member mounted in said housing for turning movement about a given axis; a support member carried by said housing; an elongated bimetallic strip extending across a straight line normal to said axis; a carrier carrying said strip and having a pair of connecting portions connected to said strip at a pair of spaced parts thereof and limiting the effective length of said strip to the distance between said pair of connecting portions of said carrier; and means connecting said strip to one of said members and said carrier to the other of said members, so that when said strip changes its curvature said reflector will be turned about its axis.

2,875,323

OUTDOOR LIGHTING LUMINAIRE

Donald W. Harting, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware

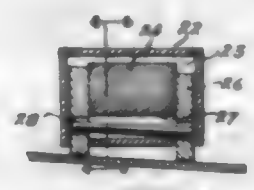
Application January 28, 1955, Serial No. 484,703
7 Claims. (Cl. 240—25)



4. A luminaire comprising a first and a second elongated spaced light sources, a first parabolic reflector for

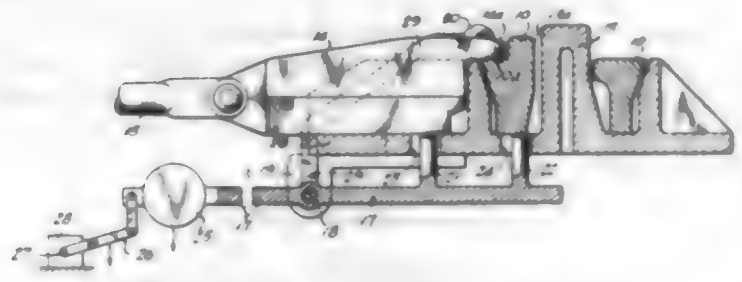
said first light sources, and a second parabolic reflector for said second light source the directrix of each of said reflectors being substantially parallel with each other to provide parallel reflected light rays from each of said light sources, one cutoff edge of said first parabolic reflector intersecting a cutoff edge of said second parabolic reflector to form a reflector cutoff edge common to and in the parabola of each of said parabolic reflectors.

2,875,324
PORTABLE ELECTRIC LANTERNS
Richard L. Camp and William J. Paulson, Maple Springs, N. Y.
Application August 31, 1956, Serial No. 607,407
5 Claims. (Cl. 240—52.15)



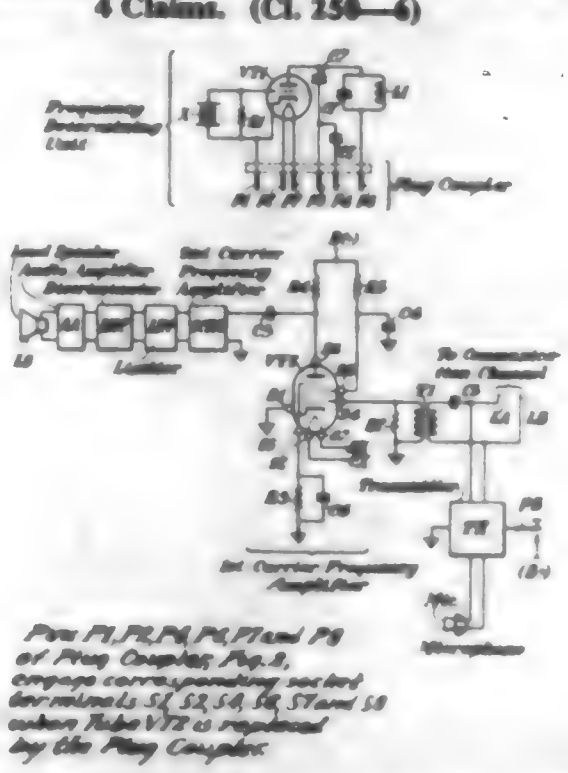
1. Structure for sustaining a portable lantern in an upright operative position comprising feet joined to and extending laterally from the lower portion of the base of said lantern, said feet increasing the size of said base in a manner and to an extent to substantially eliminate inadvertent tipping of said lantern from said upright position and self-adjustable means carried by said feet assuring complete support for said base on both plane and curved surfaces.

2,875,325
DETECTOR AND LOCK CONTROL FOR DRAWBRIDGE LIFT RAILS
Emil L. Koenig, Brooklyn, N. Y.; Cornelius Peterson, executor of said Emil L. Koenig, deceased
Application December 8, 1955, Serial No. 551,861
4 Claims. (Cl. 246—118)



1. In a device for indicating the position of an end of a movable lift rail relative to an adjoining end of a fixed rail, the improvement which comprises a lever pivotally mounted adjacent an end of a fixed rail and an adjoining end of a movable lift rail, said lever having an end extending beneath said rails and being movable between a raised position and a lowered position with respect to the fixed rail, said end of the lever engaging with and being maintained in said lowered position by said engagement with the movable lift rail when the ends of the fixed and movable rails are in adjoining relation, and means for positively moving the end of the lever from the lowered position to the raised position thereof in response to movement of the movable rail, said means including an arm connected to the lever at a point spaced from the movable end thereof and extending upwardly into the path of movement of the movable rail when the end of the lever is in lowered position, said arm engaging with the movable rail and being movable in an arcuate path out of engagement therewith by movement of the movable rail whereby the end of the lever is moved from its lowered position to its raised position.

2,875,326
FREQUENCY DETERMINING MEANS
Edward W. Mehringer, Glenshaw, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application May 22, 1953, Serial No. 356,706
4 Claims. (Cl. 250—6)

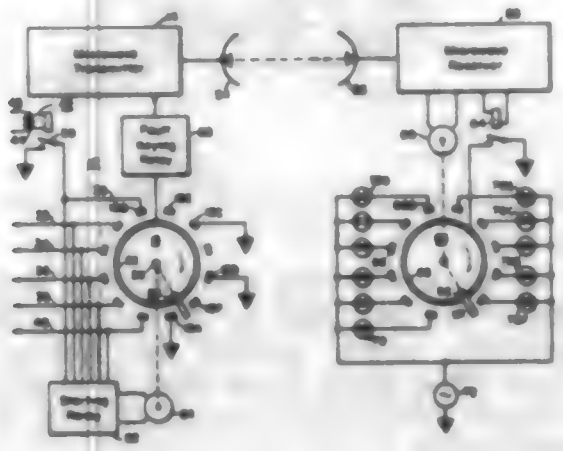


1. In a communication system of the type employing a single carrier frequency for transmission and reception at all stations, having transmitters adapted when energized to supply carrier frequency energy to a communication channel and receivers adapted to receive carrier frequency energy from said communication channel, said receivers including input filter means, a first carrier frequency amplifier stage having an input circuit, an output circuit, and a power supply circuit, said input circuit being connected to said input filter means for supplying carrier frequency energy from said communication channel to said first carrier frequency amplifier stage, and demodulating means for each receiver connected to said output circuit of said first carrier frequency amplifier stage for reproducing the modulation of carrier frequency energy supplied thereto, the combination with the foregoing of frequency determining means for determining the frequency of carrier frequency energy supplied by said transmitters, comprising a standard frequency generator, and means for detachably connecting said standard frequency generator to said receiver in lieu of said first carrier frequency amplifier stage, including circuit means for connecting said power supply circuit to said standard frequency generator, and circuit means for establishing a connection between said input filter means and said demodulating means for at times supplying energy at a standard frequency to a selected one of said receivers simultaneously with carrier frequency energy supplied to said receiver from the associated transmitter, whereby the difference in frequency between said standard frequency and the carrier frequency of the associated transmitter is reproduced by said demodulating means as an audible signal.

2,875,327
EQUIPMENT FAILURE ALARM SYSTEM FOR REPEATER STATION COMMUNICATION NETWORK
Robert L. Halverson, Baltimore, and Frederic S. Beale, Arbutus, Md., and Howard B. Dobyns, Bellflower, Calif., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 15, 1954, Serial No. 443,622
12 Claims. (Cl. 250—6)

1. In a communication system of the type having a number of spaced repeater stations, means, for reporting

off-normal conditions at a plurality of apparatus units at each of said stations and comprising normally inoperative transmitting means located at each of said stations, a circuit associated with each of said stations for automatically actuating said transmitting means to radiate a distinct signal in response to an off-normal condition occurring at one or more of said apparatus units, said signal comprising a train of pulsed signals separated by unequal time intervals, the number of time position of the pulses in said train being such as to identify the apparatus unit or units which are off-normal and the station from which the signal is sent, a timing



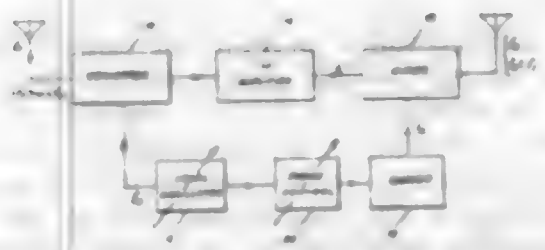
device located at each of said stations and adapted to actuate said transmitting means to repeat radiation of said distinct signal after a predetermined amount of time, receiving means for detecting said signals, and means associated with said receiving means and responsive to received signals from said transmitting means for indicating an apparatus unit or units which are off-normal and the station at which said off-normal conditions exist, and a device at each of said stations responsive to said distinct signal from any of the other stations in said system for rendering the transmitting means at that station inoperative during transmission of said distinct signal by said other station.

2,875,328

REPEATER STATION HAVING REDUCED SELF OSCILLATION

Donald G. C. Hare, Greenvale, and Hector R. Skifter, Manhasset, N. Y., assignors to the United States of America as represented by the Secretary of the Navy

Application October 12, 1945, Serial No. 622,054
3 Claims. (Cl. 250—15)



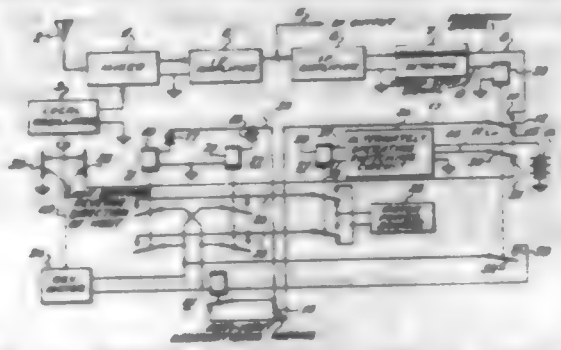
1. The combination, in a radio repeater system, of a receiving antenna feeding a converter, a local oscillator adapted to cooperate with said converter to produce an intermediate frequency signal when combined with a signal from said antenna, an amplifier for said intermediate signal, a mixer coupled to said amplifier, buffer and phase control units coupled to said local oscillator and adapted to feed a portion of the output of said local oscillator in proper phase relationship to said mixer, whereby to produce a signal to be transmitted comprising a selected signal and the image thereof, and a transmitting antenna associated with said mixer and adapted to transmit said selected signal.

2,875,329

AUTOMATIC TUNING SYSTEMS

Israel A. Paul, Merrick, N. Y., and Alan H. Greene, Haddonfield, N. J., assignors to Sperry Rand Corporation, a corporation of Delaware

Application December 28, 1955, Serial No. 555,910
9 Claims. (Cl. 250—20)



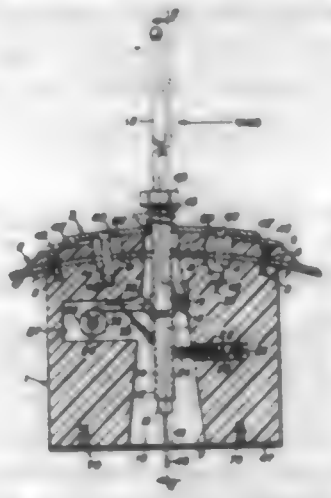
1. In a radio system that includes a local oscillator and a mixer, said mixer being responsive to received signals and to said local oscillator to produce an I.-F. signal, said local oscillator having mechanically operable tuning means: apparatus for automatically tuning said oscillator to adjust said I.-F. signal to a predetermined frequency, comprising discriminator-detector means adapted to provide a first output voltage of magnitude and polarity that depend upon the extent and direction respectively of deviation of the frequency of said I.-F. signal from said predetermined frequency within an operating range of frequency deviation, and a second output voltage of constant polarity and of a magnitude substantially independent of frequency only when said I.-F. signal frequency is within said range, both of said output voltages being substantially zero when said I.-F. signal frequency is outside said range, a reversible motor coupled to the mechanically operable tuning means of said oscillator, means for normally energizing said motor to drive said tuning means in search operation continuously and alternately from one extreme of its operating range to the other, said energizing means being connected to said discriminator-detector means and responsive to said second output voltage to stop said search operation and energize said motor in response to said first output voltage in one sense relationship between the polarity of said first output voltage and the direction of rotation of said motor, and means responsive to said second output voltage to reverse said sense relationship each time the magnitude of said second output voltage decreases substantially to zero.

2,875,330

AUTOMATIC VEHICLE RADIO VOLUME CONTROL IN ACCORDANCE WITH DEFLECTION OF ANTENNA CAUSED BY WIND-DRAG

Robert E. Padgett and Cletus A. Padgett, Mulberry, Kans.

Application March 25, 1958, Serial No. 723,690
15 Claims. (Cl. 250—20)



1. In a volume fadeout compensating device for a vehicle radio, the combination of a volume control shaft

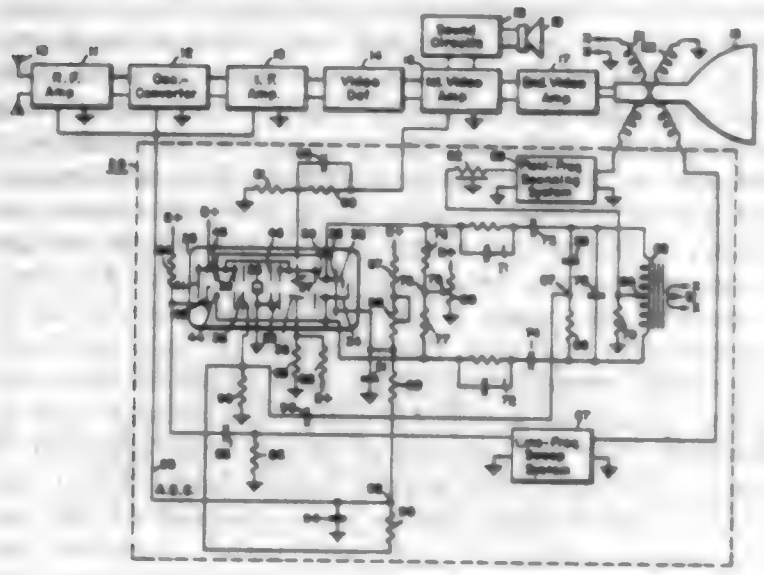
for the radio, a radio antenna pivotally mounted on the vehicle in such a fashion that a portion thereof is disposed outside of the vehicle body, means including an antenna holder for pivotally mounting said antenna on the vehicle, means including a ratchet mechanism mechanically linking said antenna holder and in turn said antenna to said volume control shaft for the radio, said last-mentioned means being operable upon the pivoting of the antenna and the antenna holder under the influence of the air when the vehicle reaches predetermined forward speeds to actuate the volume control shaft for the radio, whereby an increase in radio volume will be effected and the normal volume fadeout that occurs at such speeds will be counteracted.

2,875,331

SWITCHING TUBE CIRCUIT WITH AUXILIARY LOAD ENERGIZED BY SELF-BIAS DEVELOPED AT GATING GRID

John G. Sprackles, Chicago, Ill., assignor to Zenith Radio Corporation, a corporation of Delaware

Application November 17, 1952, Serial No. 320,866
2 Claims. (Cl. 250—27)



1. In combination: an electron-discharge device comprising an electron gun including a cathode, an intensity-control electrode, and an accelerating electrode for projecting an electron beam, a deflection-control system, and an output electrode system; means for impressing an alternating voltage of predetermined periodicity on said deflection-control system; means for applying to said intensity-control electrode a periodic gating signal for interrupting the flow of space current to said output electrode system during at least a portion of each operating cycle of said alternating voltage; an alternating-voltage utilization circuit coupled to said output electrode system; a direct-voltage load circuit coupled to said intensity-control electrode and responsive to said gating signal for developing a direct-voltage signal; and a direct-voltage utilization circuit coupled to said load circuit.

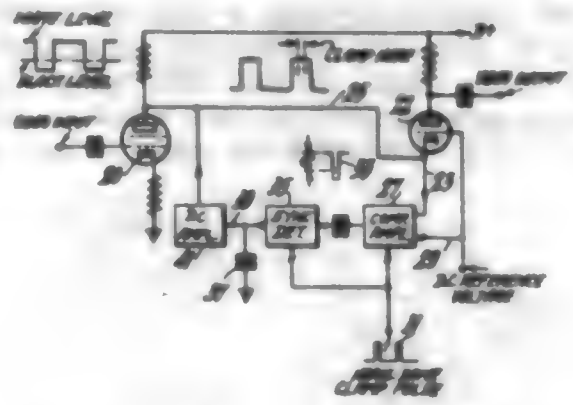
2,875,332

STABILIZED CLIPPER AND CLAMP CIRCUITS

Arch C. Luther, Jr., Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application December 1, 1953, Serial No. 395,435
5 Claims. (Cl. 250—27)

3. A video signal translating and modifying circuit arrangement including a video amplifier tube having cathode, control and anode electrodes; means to apply a video signal between said control and cathode electrodes; a clipper tube having a cathode electrode connected to the anode electrode of said amplifier tube; comparison means for comparing the voltage value of said video signal to a constant direct current reference voltage and providing an output signal whose amplitude is proportional to the difference therebetween; a storage device coupled to the cathode electrode of said clipper tube; means coupled to said comparison means for charging said storage device to a direct current voltage corresponding to the amplitude of the output signal from said comparison means; whereby the average voltage level of said video signal at the cathode of said clipper tube is adjusted to minimize the output signal from said comparison means.

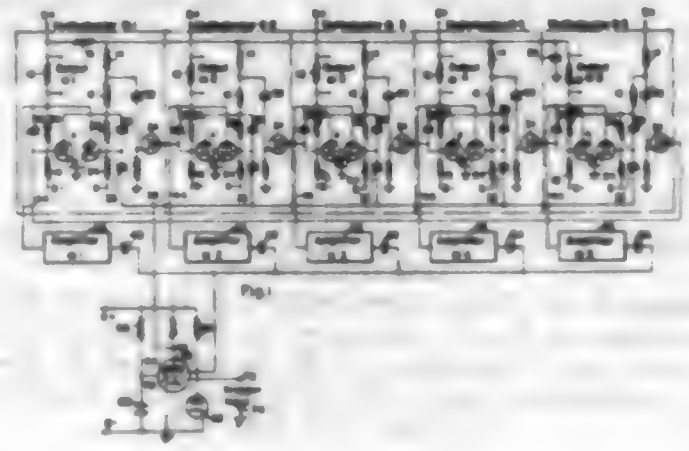


2,875,333

CIRCUIT MEANS FOR GENERATING SUCCESSIVE OUTPUT VOLTAGES OF UNEQUAL TIME DURATION

Robert G. Durnal, Catonsville, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application February 25, 1955, Serial No. 490,461
11 Claims. (Cl. 250—27)



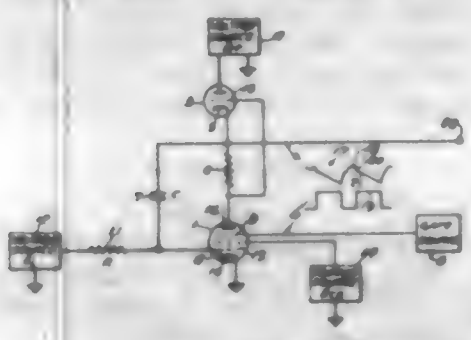
1. In combination, a plurality of bistable multivibrators each having first and second vacuum tubes included therein, an anode and a control electrode for each of said tubes, a plurality of rectifiers each of which couples the control electrode of the second tube in one of said multivibrators to the control electrode of the first tube in a succeeding multivibrator to thereby achieve a ring counter configuration, a plurality of isolation amplifiers each of which has an input terminal connected to the anode of the said second vacuum tube in an associated multivibrator, means for controlling operation of said multivibrators including a pentode vacuum tube having control, screen and suppressor grids included therein, means for coupling the anode of said pentode to the control electrode of the second tube in each of said multivibrators, capacitors coupling the outputs of said isolation amplifiers to the suppressor grid in said pentode, a unidirectional current device connecting the cathode of said pentode to said suppressor grid, and means for applying a control voltage to the control electrode of said pentode.

2,875,334

SWEEP VOLTAGE GENERATOR

Alvin E. Nashman, New York, and Gerald Rabow, Brooklyn, N. Y., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application May 13, 1955, Serial No. 508,116
7 Claims. (Cl. 250—27)



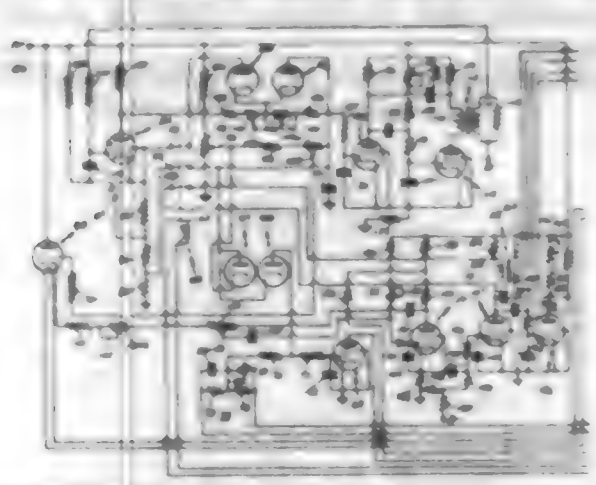
1. A sweep voltage generator comprising a reference potential, a voltage source having its negative terminal connected to said reference potential, a first conduction controlled device normally maintained non-conductive, a second conduction controlled device normally maintained conductive coupled in series relation with said first device between the positive terminal of said voltage source and said reference potential, a source of repetitive signals, means coupling the signals of said source of repetitive signals to said first device to periodically render said first device conductive, means coupling said second device to said first device to render said second device non-conductive upon conduction of said first device, and a resistance-capacitance time constant network coupled in shunt relation to said first device and in series relation to said second device between said second device and said reference potential, the capacitance of said network being charged by said second device when the latter is in the normal conduction condition and discharged by said first device when said first device is rendered conductive to produce a linear sweep voltage, the conduction current of said first device being limited to a constant current by said network.

2,875,335

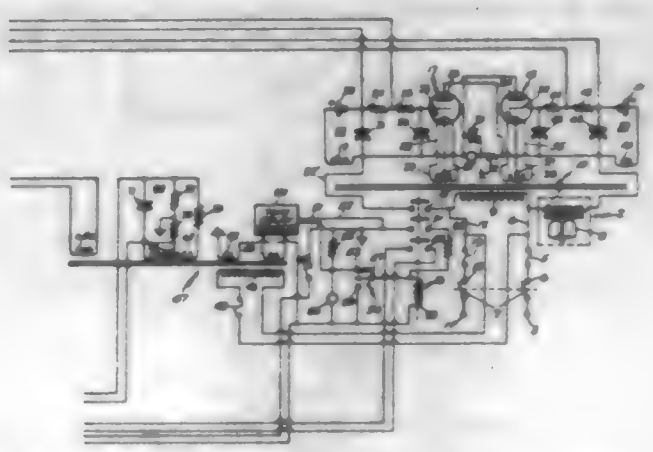
HEAT PROGRAM CONTROLS

Anthony V. Rahm, Waltham, and Joseph R. Arsenault, Lexington, Mass., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application July 12, 1956, Serial No. 597,397
8 Claims. (Cl. 250—27)



1. In combination, an alternating energy source, switching means in series with said alternating source and a load, generating means for generating a control voltage including a storage device, adjustable charging means for controlling the period of time for charging said storage device to a predetermined fixed voltage, adjustable holding means for maintaining said fixed voltage on said storage device for a predetermined time, adjustable discharging means for discharging said storage device from said predetermined fixed voltage in a predetermined period of time, adjustable addition means for adding in series to the voltage on said storage device a selectable portion of the difference between said fixed voltage and said voltage on said storage device, and means for selecting said control voltage, said control voltage being an adjustable portion of said added voltages, pulse



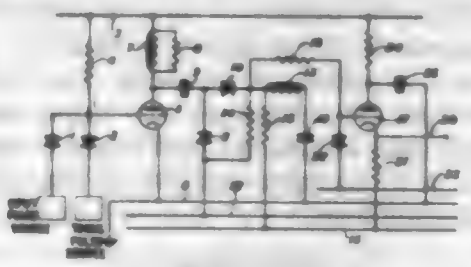
generating means connected to said switching means and to said generating means and responsive to said control voltage for controlling said switching means, means for energizing said pulse generating means at the time said storage device begins its charging period, means for de-energizing said pulse generating means upon completion of said discharging period of said storage device.

2,875,336

ELECTRONIC SIGNAL DELAY CIRCUITS

Nigel Arthur Frederick Williams, Stevenage, England, assignor to The British Tabulating Machine Company Limited, London, England, a British company

Application July 19, 1956, Serial No. 598,930
Claims priority, application Great Britain August 25, 1955
8 Claims. (Cl. 250—27)



1. Electronic pulse delay and reforming apparatus comprising a source of timing pulses, each of which has a length half the length of the pulses to be reformed and the trailing edges of which are substantially coincident with the trailing edges of the pulses to be reformed, gating means to which said timing pulses and said pulses to be reformed are applied and which passes a timing pulse, if coincident with one of said pulses to be reformed, a ringing circuit operatively connected to the output of said gating means, means for eliminating substantially all oscillations from said circuit except that succeeding the termination of the pulse passed by said gating means, and a reflective delay line having a transit time equal to half the length of a timing pulse connected to said circuit to double the length of the pulse from said circuit.

2,875,337

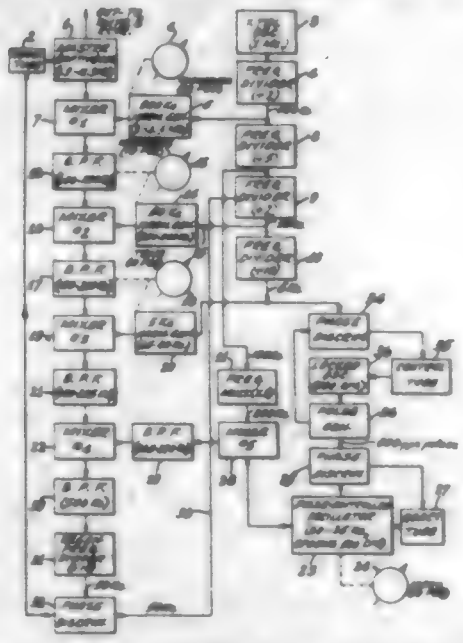
OSCILLATOR CONTROL SYSTEM

Harris A. Robinson, Palmyra, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application April 27, 1956, Serial No. 581,155
8 Claims. (Cl. 250—36)

1. In a frequency control system for a multichannel oscillator, a single stable frequency source providing a plurality of reference frequency waves, *n* mixers arranged in cascade, where *n* is more than 1, means feeding a sample of the wave output of said oscillator into the first of

said mixers, (*n*—1) means for feeding a reference frequency wave harmonically related to a respective one of said first-mentioned waves into each respective mixer save the last, means feeding the output of each respective mixer save the last to the input of the next successive mixer, a second oscillator, a pulse generator coupled to the output of said second oscillator for developing from such output a series of pulses having a recurrence frequency equal to the frequency of the second oscillator output, a first phase discriminator having two inputs and an output, means coupling the output of said pulse generator to one of said



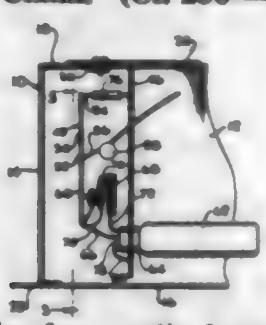
two inputs, means for applying one of said reference frequency waves to the other of said two inputs, means coupling the output of said first discriminator to a frequency-controlling device for said second oscillator, a third oscillator, a second phase discriminator having two inputs and an output, means coupling the output of said pulse generator to one of the inputs of said second discriminator, means coupling the output of said second discriminator to a frequency-controlling device for said third oscillator, means coupled to said third oscillator for feeding a wave representative of the output of said third oscillator into the last mixer, and means for utilizing the output of said last mixer as a wave representative of the output of said multichannel oscillator.

2,875,338

RADIO FREQUENCY ADJUSTING MECHANISM

Richard D. Holmes, Los Angeles, Calif.

Application January 29, 1957, Serial No. 636,978
1 Claim. (Cl. 250—40)



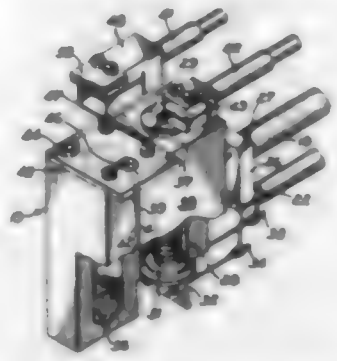
A trimming device for a radio frequency unit including a housing, an opening in said housing, a metal cover plate slidably mounted on said housing and disposed across said opening, a radio frequency tank circuit member disposed within said housing, and a conducting member disposed within said housing in spaced relationship to said tank circuit member, one of said members being fixedly mounted relative to said housing and the other said member being fixedly mounted relative to said cover plate, whereby said members are relatively movable upon sliding movement of said cover plate on said housing, said cover plate is substantially larger than said opening in said housing, and stop means operatively engageable between said cover plate and said housing to cause said cover plate to completely cover said opening at all positions between the limits of travel of said cover plate on said housing, said stop means including a plurality of parallel slots in said cover plate, and a threaded clamp member passing through each of said slots and threadedly engageable in said housing, said threaded clamp members being threadedly movable between loosened positions in which said cover plate may slide between its limits of travel at which the ends of said slots abut against said clamp members, and tightened positions in which said clamp members clamp said cover plate tightly against said housing.

2,875,339

CALUTRON ION SOURCE

William M. Brobeck, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application March 1, 1946, Serial No. 651,281
7 Claims. (Cl. 250—41.9)



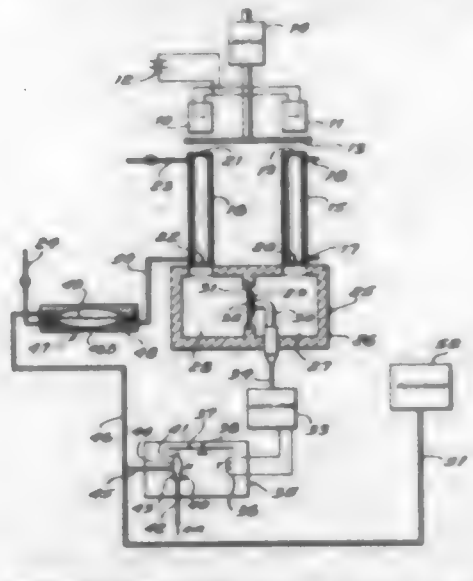
6. A calutron ion producing mechanism comprising a source block including an open ended gas chamber, an elongated aperture extending from the open end of said block substantially to the depth of said chamber and communicating between said chamber and a wall of said block adjacent said open end, a plate overlying the open end of said block and communicating aperture, said plate having an opening therein in alignment with said communicating aperture, means supporting a filament over said plate and spaced apart therefrom, a straight portion of said filament being disposed parallel to the open end of said communicating aperture and having a width less than said aperture, and means for including said filament and said block in an electric arc circuit.

2,875,340

INSTRUMENTS

Max D. Liston, Darien, Conn., assignor to Beckman Instruments, Inc., Fullerton, Calif., a corporation of California

Application December 29, 1955, Serial No. 556,324
14 Claims. (Cl. 250—43.5)



1. In an optical absorption type analyzer, the combination including radiant energy source means, cell means

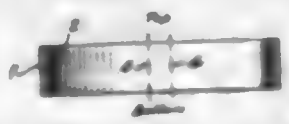
for receiving the unknown substance, sensitive element means responsive to said radiant energy after the energy has passed through said cell means and producing a signal, amplifier means connected to said sensitive element means amplifying the signal therefrom, electric-to-air signal transducer means connected to said amplifier means, pneumatically operated optical feedback means attenuating the signal seen by said sensitive element means, and pneumatically operated monitoring means responsive to the magnitude of the output of said transducer.

2,875,341

PREPARATION OF REPLICA SPECIMENS FOR EXAMINATION UNDER ELECTRON MICROSCOPE

Florence Nesh, Brooklyn, N. Y.

Application September 25, 1957, Serial No. 686,267
12 Claims. (Cl. 250—49.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



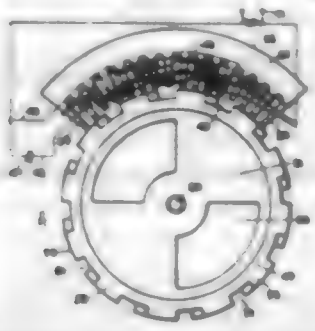
1. The method of preparing replica examples of a surface for examination in an electron microscope, which comprises arranging the surface to be examined as the inner surface of a ring, layering such inner surface with a solution of a replicating plastic material to form a plastic film on said inner surface, drying the layer of plastic material on said surface until the film shrinks enough to break away, at least in part, from said surface, cutting off a strip from the portion of said film that has broken away from said surface, mounting said strip on a rigid plate, vacuum depositing upon such mounted strip first a coating of a replication medium and then upon such coating a shadowing material, supporting a specimen of said strip carrying replication medium and shadowing material upon the top of a fine mesh screen, in a closed chamber above a solvent for said plastic material until the plastic of said specimen has been removed from the specimen, air drying this plastic-free specimen, and mounting part of such air dried specimen for examination under an electron microscope.

2,875,342

SYNCHRONOUS CHOPPER FOR RADIANT ENERGY

Samuel M. Brassington, Oakland, and Vigo N. Smith, San Leandro, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application February 23, 1954, Serial No. 411,678
2 Claims. (Cl. 250—233)



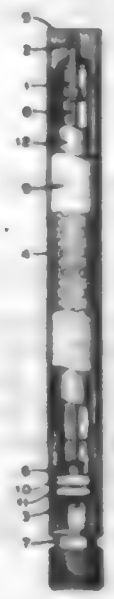
1. For measurements involving the use of interrupted radiant energy, a radiation chopper comprising an apertured opaque rotor disk having its central portion made of non-magnetic material and its outer rim portion made of high hysteresis magnetic material, an arcuate pole core structure having its inner circumference concentrically adjacent the outer rim of said rotor disk throughout an angle of not more than 120 degrees, the outer rim portion of said disk having a plurality of recesses formed therein to define a plurality of pole pieces, each pole piece having parallel radial sides, said radial sides in addition being formed in planes inclined at an angle to the axis of said rotor disk, and winding means on said pole structure adapted to produce a rotating magnetic field, said means comprising two windings carrying alternating currents in quadrature with each other.

2,875,343

PERSONNEL DOSIMETER

Robert D. Birkhoff, Knoxville, and Harry H. Hubbell, Jr., Oak Ridge, Tenn., and Raymond M. Johnson, Jr., Pittsburgh, Pa., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application March 14, 1957, Serial No. 646,182
5 Claims. (Cl. 250—83.3)



1. A dosimeter sensitive to both gamma and beta radiation comprising an electrically conductive tubular member formed from a material of thickness corresponding to a surface density substantially 7 milligrams per square centimeter, an electrode disposed axially within said tubular member and insulated therefrom to maintain a potential impressed between said electrode and said tubular member, and a cylindrical perforated shield provided with a known percentage of void area disposed concentrically about said tubular member, said shield being formed from a material chosen from the group consisting of aluminum, magnesium and their alloys which contain not more than approximately 5% of elements of atomic number higher than 13, the dose actually received being at most the gamma dose plus the beta dose indicated by discharge of said dosimeter divided by said known percentage.

2,875,344

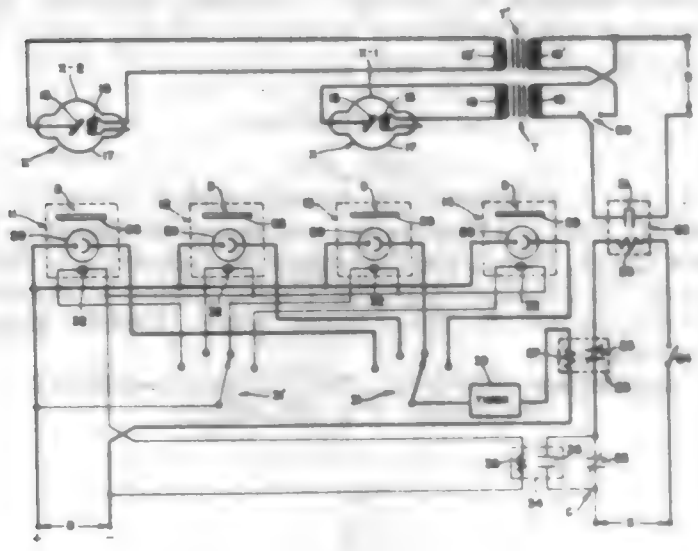
PROTECTION SYSTEM

Joseph J. Grisetich, Milwaukee, Wis., assignor to General Electric Company, a corporation of New York

Application March 9, 1955, Serial No. 493,101
6 Claims. (Cl. 250—95)

1. A protection system, for use in conjunction with penetrating ray emitting means, comprising the combination, with operable means for controlling the delivery of rays from said emitting means to an irradiation station, of timer means controllingly associated with said operable means to actuate the same to terminate the delivery of rays to the station, ray responsive detector means disposed at said irradiation station and controllingly connectible with said timer means to actuate the same, after the expiration of a safe exposure interval of minimum duration following actuation of said operable means to initiate ray delivery at said station, safety means operable to actuate said operable means for the discontinua-

tion of ray delivery to the station, after the expiration of a safe irradiation interval of minimum duration, and



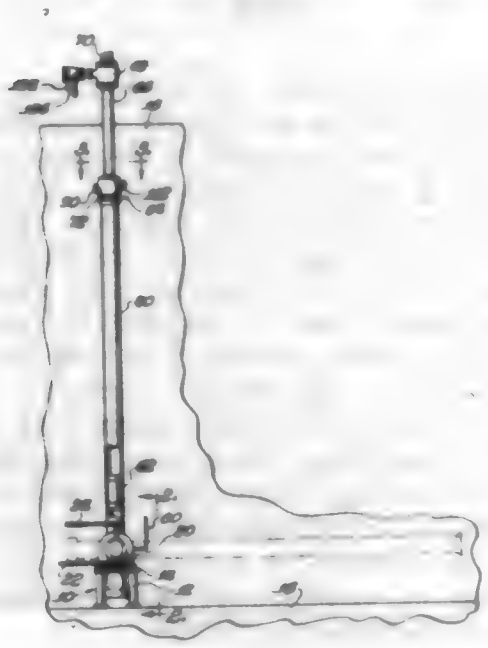
means for disabling said safety means in response to ray delivery at said station.

2,875,345

METHOD AND APPARATUS FOR HANDLING RADIOACTIVE PRODUCTS

David Nicoll, Downers Grove, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application February 28, 1956, Serial No. 568,415
6 Claims. (Cl. 250—106)



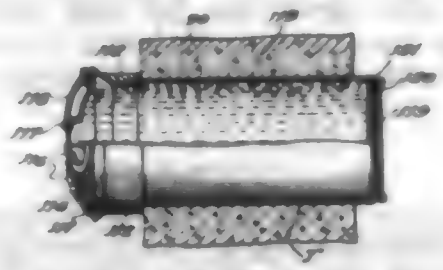
1. A device for handling and storage of radioactive bodies comprising a container adapted to hold a shielding liquid, a conduit extending downwardly into the container, a cylinder, means for pivotally mounting the cylinder within the container beneath the end of the conduit for rotational motion between a vertical position wherein the mouth of the cylinder is in register with the mouth of the conduit to form a continuous internal cavity and a horizontal position wherein the mouth of the cylinder is remote from the top of the container, means for selectively rotating the cylinder between said positions, cooperating disengageable sealing means on the mouths of the cylinder and the conduit, means operable to open and close the conduit, means for causing liquid under pressure to issue from the conduit away from the cylinder when the conduit is open, a piston within the cylinder, and means to position and drive the piston in the cylinder.

2,875,346

OVERALL OPTICAL VIEWER

George S. Monk, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application April 25, 1946, Serial No. 664,920
8 Claims. (Cl. 250—106)



1. An apparatus for viewing radioactive material comprising a shield spaced from the material, a tube through said shield, a convex head mounted in said tube nearest the radioactive material, a plurality of negative lenses mounted on said head with their axes substantially intersecting within said tube, and a transparent member closing the opposite end of said tube, the interior of said tube being filled with a liquid transparent to light and opaque to neutron and gamma radiations.

2,875,347

EXPLORATION TOOL

Jesse W. Anderson and Loyd E. Evans, Tulsa, Okla., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application December 28, 1954, Serial No. 478,048
1 Claim. (Cl. 250—108)



An exploration tool adapted to be suspended in a bore hole which penetrates an earth formation comprising a hermetically sealed housing containing a Geiger-Müller tube, tubular shield means enclosing the said tube and containing a longitudinal slot-like aperture disposed opposite to said tube, a thin, fluid impervious covering for said aperture, and means including well bore wall engaging elements for laterally rotating said slot-like aperture for at least one complete revolution whereby the aperture scans the wall of the bore hole.

2,875,348

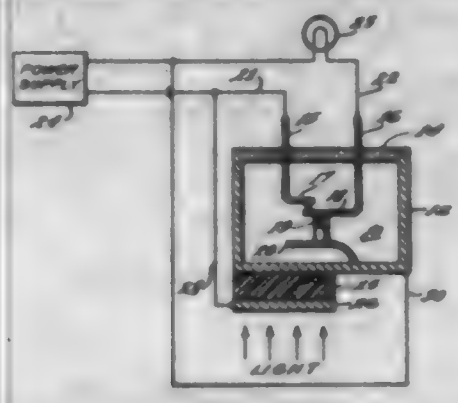
PHOTOCELL CONTROL APPARATUS

Benjamin Kazan, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application December 21, 1955, Serial No. 554,573
6 Claims. (Cl. 250—206)

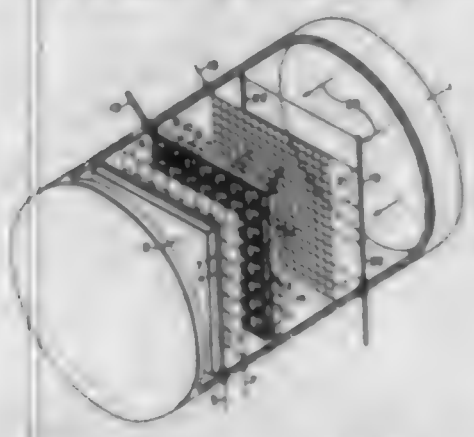
1. An electrical device comprising a thermal switch

and a photocell in direct thermal contact therewith such



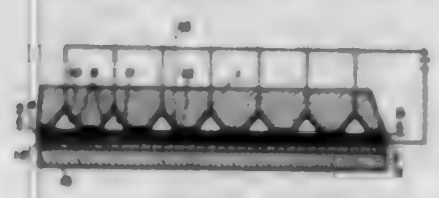
that heat generated in said photocell passes directly into said switch.

2,875,349
IMAGE INTENSIFIER
William L. Roberts, Turtle Creek, and John W. Coltman, Forest Hills, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 28, 1955, Serial No. 483,824
11 Claims. (Cl. 250—213)



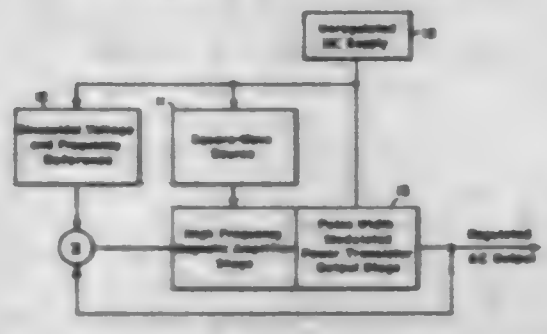
1. In combination in a vacuum-tight container, an electron-emissive cathode, a first grid electrode, a control grid having apertures closely spaced over its face, a conductive rim provided for each of said apertures in said control grid, a resistance element and a photoconductive element provided on said control grid for each said conductive rim, a first conductive means connected through each of said resistive elements to each of said conductive rims, a second conductive means connected through each of said photoconductive elements to each of said conductive rims and an output-screen comprising a material which emits radiation when struck by electrons.

2,875,350
RADIATION AMPLIFIER CONSTRUCTION
Richard K. Orthuber, Sepulveda, Calif., and Lee R. Ullery, Greenwich, Conn., assignors to International Telephone and Telegraph Corporation
Continuation of application Serial No. 441,595, July 6, 1954. This application September 9, 1957, Serial No. 682,982
3 Claims. (Cl. 250—213)



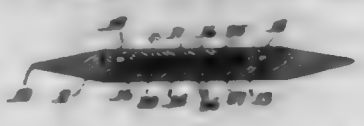
1. A solid-state radiation amplifying device comprising: a transparent supporting plate having a plurality of longitudinally extending, parallel, spaced-apart, substantially V-shaped grooves formed in one side thereof, said grooves defining parallel flat surfaces therebetween; conductive material disposed in the apices of said grooves; a thin layer of photoconductive material on the opposite surfaces of said grooves; each of said parallel surfaces having contact means formed of a thin layer of conductive material disposed thereon; and a layer of electroluminescent material abutting said contact means, said electroluminescent layer being carried by a membrane of flexible, transparent insulating material with a film of conductive material interposed between said electroluminescent layer and said membrane whereby said electroluminescent layer is urged into intimate contact with said contact means.

2,875,351
POWER SUPPLY
Howard William Collins, El Segundo, Calif., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 22, 1957, Serial No. 698,190
7 Claims. (Cl. 307—88)



1. In a power supply, in combination, a control switching system and means providing voltage and frequency reference signal, said control switching system comprising a magnetic amplifier provided with power and control windings, means for connecting said power winding of said amplifier to a source of square wave voltage, a transistor having three electrodes, circuit means applying the output of said power winding of said amplifier between two of said three electrodes of said transistor, rectifier means disposed in said power winding circuit means restricting the application of said power winding output to said two electrodes to alternate half-cycles of said source of square wave voltage, means for connecting a direct current source between one of said two electrodes and said third electrode of said transistor, said transistor serving as a switch to control the flow of current from said direct current source to an output means, and means for applying a reference signal obtained from the voltage and frequency reference means to said control winding of said amplifier.

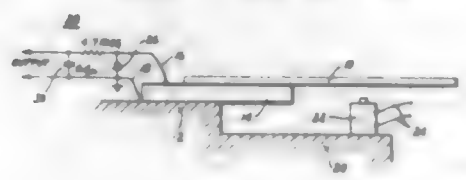
2,875,352
BLAST GAUGE
Anthony W. Oriacchio, Metuchen, N. J., assignor to Gulton Industries, Inc., a corporation of New Jersey
Application March 4, 1953, Serial No. 340,341
13 Claims. (Cl. 310—8.1)



1. A blast gauge for responding electrically to the force produced by a blast emanating from a blast point and comprising, a substantially disc shaped outer housing having a tapered sharp peripheral edge, oppositely disposed relatively movable pressure responsive walls and an internal compartment between the walls, means for supporting the housing with the tapered sharp edge thereof facing the blast point so as to compress the housing walls as the blast pressure passes over said pressure responsive walls thereof and to an extent depending upon the force of the blast pressure, and a piezoelectric element responsive to compressive forces secured in the internal compartment of the housing and compressed as

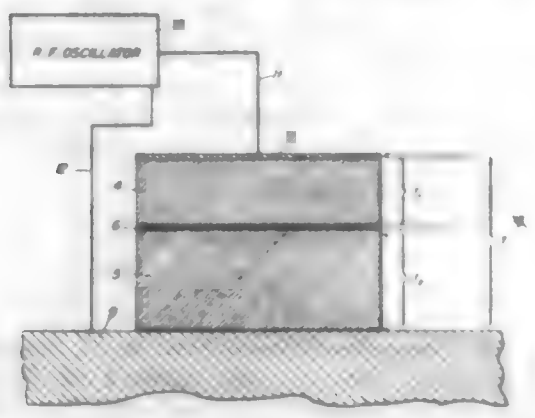
the housing walls are relatively moved toward each other for producing a voltage in accordance with the compression thereof by the housing walls and hence in accordance with the force of the blast pressure acting on the housing walls.

2,875,353
ELECTROMECHANICAL REED SYSTEM
Albert L. Cavalieri, Jr., Philadelphia, Pa., and Robert W. Roop, Sewell, N. J., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application May 29, 1953, Serial No. 358,286
4 Claims. (Cl. 310—8.2)



1. A frequency sensitive electromechanical system comprising, a base member, an elongated piezoelectric member secured to said base member in a position such that a substantial portion of the length including a first end region thereof is free of said base member, an elongated high Q, mechanically resonant, reed element, one end region of said reed element being secured substantially directly to said first end region of said piezoelectric member, the second end of said reed element being free to vibrate, the characteristics of said piezoelectric member being such that regions on either side of the longitudinal axis thereof undergo changes in potential as a result of the flexure of said reed element and means for making electrical contact with said regions of said piezoelectric member.

2,875,354
PIEZOELECTRIC TRANSDUCER
Robert V. Harris, Darien, Conn., assignor to Branson Instruments, Inc., Stamford, Conn., a corporation of Connecticut
Application January 29, 1954, Serial No. 407,020
5 Claims. (Cl. 310—8.2)



1. In apparatus for generating vibrations in an object, the combination of a composite piezoelectric transducer unit, comprising a sandwich of two different piezoelectric materials having widely different impedance characteristics held together in face to face relationship, an alternating current generator, and means for applying the output of said generator across said transducer.

2,875,355
ULTRASONIC ZONE PLATE FOCUSING TRANSDUCER
Lucien A. Petermann, Metuchen, N. J., assignor to Gulton Industries, Inc., a corporation of New Jersey
Application May 24, 1954, Serial No. 431,699
Serial No. 431,699
1 Claim. (Cl. 310—9.5)

An ultrasonic zone plate focusing transducer for obtaining a concentration of ultrasonic energy at a predetermined focal point in the medium into which the energy is propagated comprising a circular disc of uniform thickness of ferroelectric ceramic material, a pair of electrodes affixed to said disc of ceramic material on the opposite surfaces thereof and covering substantially all of said surfaces, and means for applying driving voltage to said transducer, said disc being polarized in the directions normal to its surfaces forming a plurality of alter-

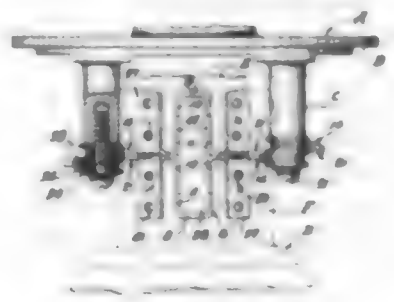


nately polarized concentric zones, the innermost of said zones being designated the first and the other outer zones being numerically ranked in order counting outward from said innermost zone, the radii of said zones being determined by the distance of said transducer from the focal point and the wavelength of the ultrasonic wave, the radius of the innermost zone being given by the formula

$$y^2 = \left(F + \frac{\lambda}{2}\right)^2 - F^2$$

wherein y is the radius of said innermost zone, λ is the wavelength of the ultrasonic wave in the medium and F is the distance from said transducer to the focal point, the radius of any outer zone being substantially equal to the radius of said innermost zone multiplied by the square root of the rank of said outer zone.

2,875,356
BRUSH HOLDER
William M. Hallidy, Lakewood, Ohio, assignor to The Leece-Neville Company, Cleveland, Ohio, a corporation of Ohio
Application April 24, 1957, Serial No. 654,949
2 Claims. (Cl. 310—245)



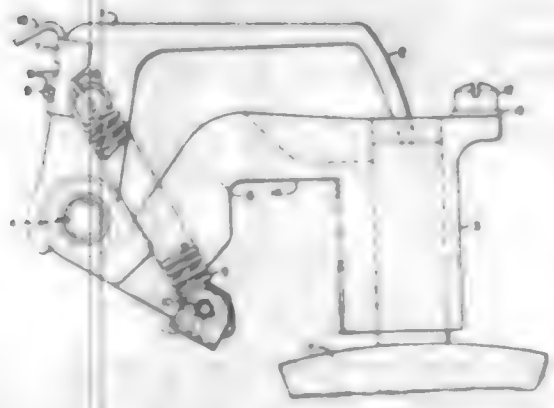
1. A brush holder for a dynamo electric machine; comprising a pair of complemental stamped sheet metal members of substantially identical configuration; each of said members comprising a formed intermediate portion, and a pair of legs connected with said formed intermediate portion and extending in opposite directions from the latter and including eyelet portions at the outer ends of said legs; the formed intermediate portion of each member having a recess therein including an opening communicating with the recess and lying in the plane of the legs of the member; said members being disposed with the legs thereof in face-to-face engagement and with the recesses of the members in an aligned communicating relation defining a tubular guideway adapted to receive a brush; said legs having transversely offset portions forming shoulders thereon between the eyelet portions and the formed intermediate portions of said members; the shoulders of one member being in an opposed relation and interfitting engagement with the shoulders of the other member for maintaining said recesses in said aligned relation.

2,875,357

BRUSHHOLDER

John W. Erickson, East Aurora, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 19, 1957, Serial No. 666,698
2 Claims. (Cl. 310—246)



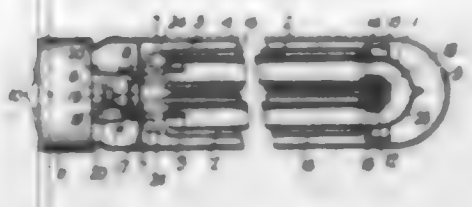
1. A brushholder assembly comprising means for holding a brush in position to engage a commutator, a lever arm pivotally supported in position to engage the brush to apply pressure thereto, a tension spring having one end pivotally supported at a fixed point and the other end attached to the lever arm to apply a turning moment thereto, the pivot points of the lever arm and spring being spaced apart and positioned so that said turning moment is substantially constant throughout a predetermined range of movement of the lever arm, a lug integral with said lever arm, and an engaging member carried on said lever arm, said member having a plurality of openings for selectively receiving said lug, means on said member for attaching one end of the tension spring, and means for manually engaging and disengaging said member from the lug.

2,875,358

SODIUM VAPOUR ELECTRIC DISCHARGE LAMPS

Sydney Alfred Richard Rigden, London, England, assignor to The General Electric Company Limited, London, England

Application January 25, 1955, Serial No. 483,961
Claims priority, application Great Britain January 27, 1954
10 Claims. (Cl. 313—25)



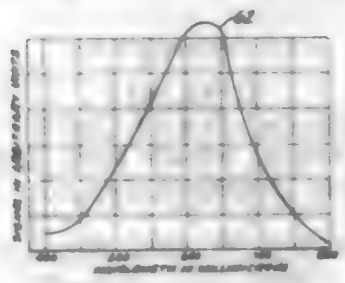
1. A sodium vapour electric discharge lamp of the positive column type having an elongated tubular discharge envelope of U-shape containing electrodes for the passage of an electric discharge and a quantity of sodium for providing a sodium vapour discharge in normal operation of the lamp together with a filling of rare gas for enabling the lamp to start and the sodium vapour discharge to be developed, wherein the discharge envelope is sealed into a single-walled outer jacket with a highly evacuated space between the inner surface of the jacket and the outer surface of the discharge envelope, and wherein each limb of the discharge envelope is individually provided with a sleeve of transparent heat-insulating material which fits closely round the limb along at least the greater part of the length of the limb.

2,875,359

PHOTOCONDUCTIVE DEVICE

Appleton D. Cope, Hightstown, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application August 6, 1956, Serial No. 602,187
8 Claims. (Cl. 313—65)



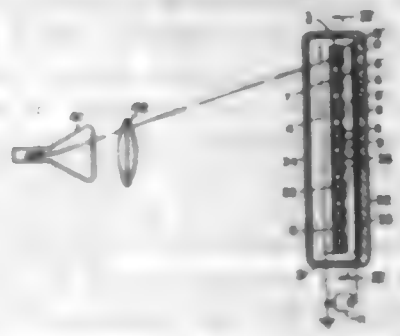
1. A photoconductive material including antimony tri-sulphide and antimony oxy-sulphide.

2,875,360

IMAGE INTENSIFIER

Andrew P. Kruper, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 25, 1953, Serial No. 357,305
3 Claims. (Cl. 313—66)



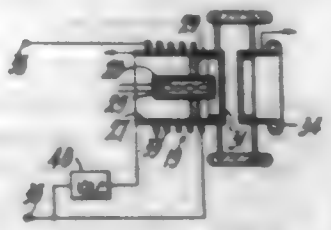
1. A color television picture reproducer comprising a vacuum-tight container enclosing an output screen having groups of first parallel strips, the strips in each group responding to electron-impact by emitting light of different primary colors, a control electrode comprising a substantially transparent layer of dielectric coated on one side with a radiation-transparent conducting layer and on the other side with substantially transparent second parallel strips which are of substantially transparent conducting material and aligned with said first parallel strips, said control electrode having a plurality of aligned perforations extending through said layer of dielectric, said radiation-transparent conducting layer and said second parallel strips, inleads connected respectively to those of the second parallel strips which are aligned with said first parallel strips which emit light of the same color, discrete areas of a material which emits electrons upon impact of radiation on the free faces of said second parallel strips, and substantially transparent means for producing an electron atmosphere on said one side of said control electrode.

2,875,361

AUXILIARY HEATERS TO AID IN ACTIVATION OF CATHODE RAY TYPE GUNS

Robert P. Stone, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

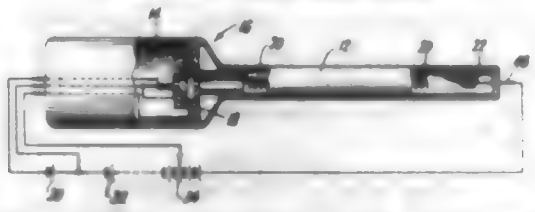
Application May 31, 1955, Serial No. 511,886
5 Claims. (Cl. 313—85)



1. An electron gun assembly including a filament, a hollow tubular cathode electrode enclosing said cathode,

said hollow tubular grid electrode having an apertured member spanning one end thereof, and means including a heater element arranged adjacent to said grid electrode and in heat exchange relationship with respect to said grid electrode for heating said grid electrode during cathode activation.

2,875,362
BEAM COLLECTOR
Abdulgafoor M. Serang, Menlo Park, Calif., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application October 31, 1956, Serial No. 619,541
1 Claim. (Cl. 313—89)



In an electron beam device, a beam collector positioned in said device to intercept an electron beam and comprising an extensible helical spring formed of small diameter wire and having a pitch substantially equal to the wire diameter, a cylindrical plug having a diameter so that adjacent coils are contiguous when the spring is in relaxed condition and thereby form a hollow tube substantially equal to the inner diameter of said helical spring and a length shorter than said spring fitted within one end of said spring, the end of said plug within said spring being inclined to the axis of said electron beam at an angle such that substantially all secondary electrons emitted therefrom upon impingement of electrons in said beam are intercepted by the inner surfaces of said spring, and a substantially uniform coating of carbon on the inclined surface of said plug and the inner surfaces of said spring.

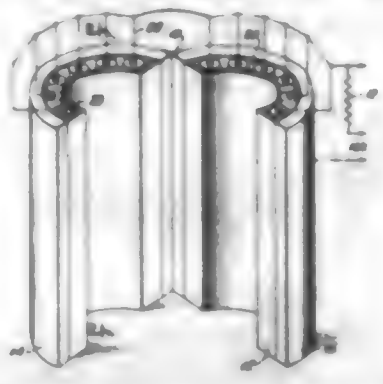
2,875,363
COLOR-CONTROL GRID STRUCTURE FOR CATHODE-RAY TUBES
Craig S. Nunan, Palo Alto, Calif., assignor to Chromatic Television Laboratories, Inc., New York, N. Y., a corporation of California
Application December 12, 1955, Serial No. 552,532
4 Claims. (Cl. 313—92)



1. A color-control grid structure for use in a cathode-ray tube to produce images in color on the phosphor-coated target area thereof which comprises a support frame having a central window opening of an area approximating that of an image to be produced, a plurality of tautly stretched parallelly positioned linear conductors spanning the frame opening, each of the said conductors being adapted to be secured at each end to terminal means to apply both operating and radio frequency switching voltages thereto, and each linear conductor comprising a central metal core of high tensile strength having a blackened outer surface to provide high thermal emissivity and thereby substantially reduce conductor detensioning due to longitudinal expansion resulting from radio frequency power loss.

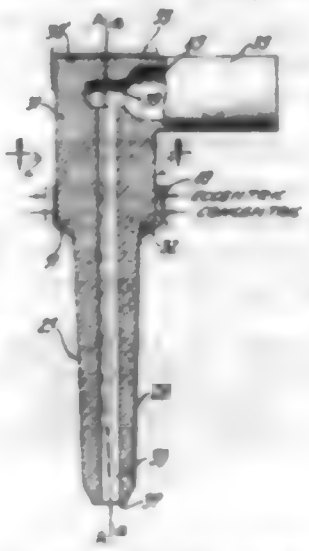
2,875,364
RADIATION DETECTOR
Gerhard Herzog, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application December 31, 1953, Serial No. 401,533
5 Claims. (Cl. 313—93)

1. A device for measuring substantially the total gamma radiation of a human body comprising a pair of elongated half-cylindrical shells, means for hinging said shells together along corresponding adjacent edges so that in the closed position a space or well will be provided, said space being substantially round in horizontal cross section and adapted to accommodate said body, and a plurality of elongated gamma ray detectors disposed in parallel, adjacent relation within said shells,



each of said detectors comprising a tubular housing, a plurality of spaced, parallel, thin metallic plates disposed laterally within said housing to form a cathode bank, each of said plates being provided with at least one hole with the holes in the plates being arranged in series alignment, and an anode wire disposed along the longitudinal axis of each series of holes.

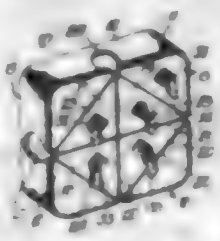
2,875,365
SPARK PLUG AND METHOD OF MANUFACTURING SAME
Earl W. Pierce, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 26, 1954, Serial No. 406,171
7 Claims. (Cl. 313—145)



1. In an angle type unitary spark plug, the combination of a metal shell the bottom portion of which constitutes an annular ground electrode and having a seating ledge on its inner surface, a tubular metal member having angularly arranged portions secured to the top of said shell to form an angular tubular unitary metal body, an angle type ceramic insulator having a configuration generally corresponding to that of the inner surface of said body positioned therein, said insulator having a lower section and a raised upper section providing an upper and lower shoulder and a section extending laterally outward from said raised section and integral therewith, an axial bore in said upper and lower sections, a connecting axial bore in said laterally extending section, a center electrode secured in said first-mentioned bore, a metal centralizing member secured on the lower portion of said raised section and having its surface concentric and true with an axis through the center of the two axial extremities of said insulator, and a metal member on the upper end of said raised section having its surface true with said axis, the inner top surface of said tubular metal member being in abutment with said metal member to clamp said

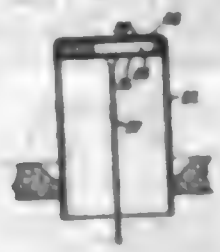
insulator on said ledge with substantially evenly distributed pressure in gas-tight relationship with said shell, said center electrode being accurately located concentric with said annular ground electrode, and the outer end of said laterally extending section being substantially concentric with said shield sleeve.

2,875,366
EXCESS VOLTAGE DISSIPATING DEVICE
Edward Bauman and John O. G. Darrow, Galion, Ohio, assignors to North Electric Company, a corporation of Ohio
Application May 13, 1955, Serial No. 508,118
11 Claims. (Cl. 313—306)



1. An excess voltage dissipator device including a metallic cap member divided into a plurality of central segments by gaps of a predetermined width, each of said segments being spaced at all of its peripheral points from the peripheral points of the other segments and the peripheral points of the adjacent portion of said cap member by said fixed gap width, means for supporting said segments in said given spaced relation, and terminal means on each of said segments and said cap member for connecting the different segments and said cap member to elements which are subject to different values of potential.

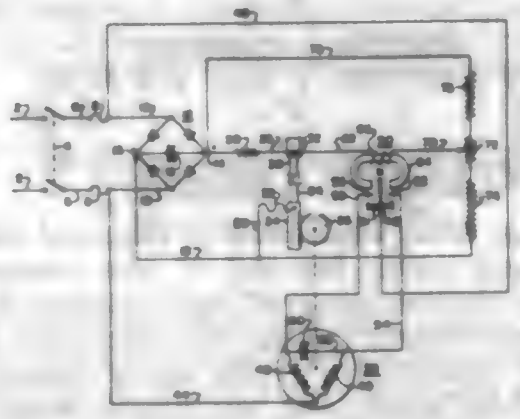
2,875,367
CATHODE STRUCTURES
James E. Beggs, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application October 22, 1954, Serial No. 464,078
8 Claims. (Cl. 313—340)



1. A cathode structure for an electric discharge device comprising a cup-shaped member including side wall and an end wall having an electron emissive coating on an exterior surface thereof, a thin insulating disk in contact with the interior of said end wall and a thin film on the exposed surface of said disk and having a much greater resistance than said cup-shaped member, said film extending to said side walls for providing a heater element in closely coupled thermal relation with substantially all of said end wall and an electrical connection with said film heater at a point remote from the side walls of said cup-shaped member.

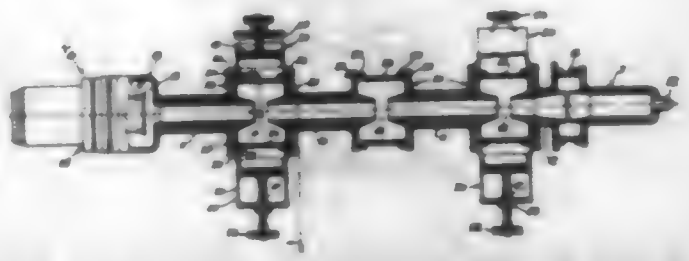
2,875,368
ELECTRODE CONTROL
Wallace M. Jones, Clairton, and Francis M. Cain, Jr., Washington, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 10, 1957, Serial No. 633,455
8 Claims. (Cl. 314—74)

8. Apparatus for operating an electric arc lamp comprising, a pair of lamp electrodes at least one of which is mounted for movement toward and away from the other, reversible motor operated means for moving at least said one electrode in both directions, a polarized relay including an operating coil and spaced contacts adapted to be engaged by a movable contact in response to current flow through said coil in opposite directions, respectively, means



biasing said movable contact to an intermediate open circuit position, the operating coil of said relay being connected across said electrodes so as to be subjected to the voltage drop across said arc, and means for applying a predetermined reference voltage of the same polarity to said relay coil and of a value corresponding to the voltage drop across the arc for the optimum length of arc.

2,875,369
ELECTRON TUBE APPARATUS
George R. Chambers, San Mateo, Calif., assignor to Eitel-McCullough, Inc., San Bruno, Calif., a corporation of California
Application February 27, 1956, Serial No. 567,957
3 Claims. (Cl. 315—5.46)

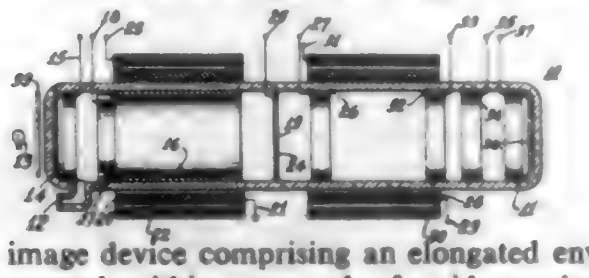


1. A cavity resonator type electron tube apparatus comprising, an electron gun forming one end of an evacuated envelope, a collector electrode forming the other end of said envelope, a drift tube extending between said gun and said collector electrode and forming side wall portions of said evacuated envelope, said drift tube comprising spaced sections with a gap therebetween, a composite cavity resonator disposed transversely of said drift tube axis adjacent said gap and having an inner evacuated portion and an outer portion, said resonator comprising metal walls extending outwardly from said drift tube sections and a cylinder of dielectric material sealed between said walls forming a side wall portion of said envelope and providing a vacuum-tight partition between the internal and external portions of the resonator, a tuning door positioned in the external portion of said resonator and movable toward and away from said dielectric cylinder, said tuning door having a concave inner surface facing the convex outer surface of said dielectric cylinder, an energy coupling loop mounted in the wall of said resonator externally of said dielectric cylinder, and means providing an end limit for inward movement of said door, the shape of said concave door surface being such that when the door is moved to said inward end limit the central portion of said concave inner surface is substantially concentric with said dielectric cylinder and the outer portions of said inner surface are spaced from said loop.

2,875,370
IMAGE TUBE

Charles J. Young and George A. Morton, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application March 30, 1953, Serial No. 345,274
7 Claims. (Cl. 315—10)

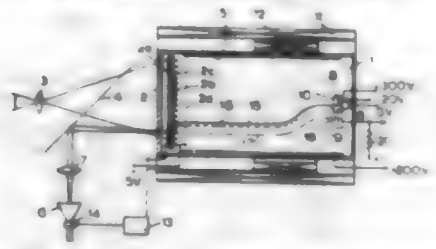


1. An image device comprising an elongated envelope, means mounted within one end of said envelope for producing an electron image of light radiation from an object, means mounted within the other end of said envelope for producing a visible image representative of said electron image, said last named means being substantially larger than said first named means, an apertured electrode intermediate said first mentioned means and said second mentioned means, focusing means for focusing said electron image, selection means for selecting a portion of said electron image and projecting said portion through said apertured electrode, focusing means for focusing said selected portion, and positioning means for positioning said selected portion on said second mentioned means.

2,875,371
ARRANGEMENTS EMBODYING PICK-UP TUBES

Denis Gordon Perkins, Gerrards Cross, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a company of Great Britain

Application July 19, 1955, Serial No. 522,987
Claims priority, application Great Britain July 20, 1954
12 Claims. (Cl. 315—11)



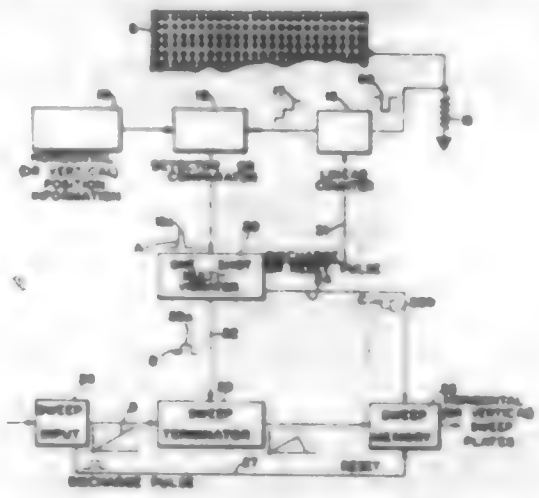
1. A pick-up tube arrangement comprising a photo-emissive target electrode, means for producing a scanning light spot, means for producing a scanning electron beam, means comprising a half-silvered mirror for projecting a light image onto said target electrode, means for producing a longitudinal magnetic field to cause the electron beam to scan said target electrode in an orthogonal manner, and a collecting electrode to collect photo-electrons released by said light spot, it being arranged that the light image and the flying light spot are directed on to the same side of said target electrode via said half-silvered mirror, and the scanning by the electron beam of the target electrode is displaced by a number of scanning lines from the light spot, said longitudinal magnetic field thereby causing photo-electrons released due to the light spot scanning to be substantially separated from the electrons returned from said target electrode due to scanning with the electron beam and said collecting electrode is positioned to collect substantially only those electrons released due to scanning by said light spot.

2,875,372
INFORMATION LOCATION CIRCUIT

J Alvin Henderson, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application March 30, 1953, Serial No. 345,499
10 Claims. (Cl. 315—12)

8. An information locating apparatus comprising an electron discharge storage tube having a storage screen upon which an electrostatic charge pattern may be impressed, an electron gun and deflection means associated with said tube for producing an electron beam and deflecting this beam to a preselected position on said screen, circuit means coupled to said tube operative to generate a plurality of pulses as said beam is swept across said storage screen, pulse integrating means coupled to said circuit means and operative by said pulses to produce a controlling voltage having a value corresponding to the number of pulses fed thereinto, comparison circuit means

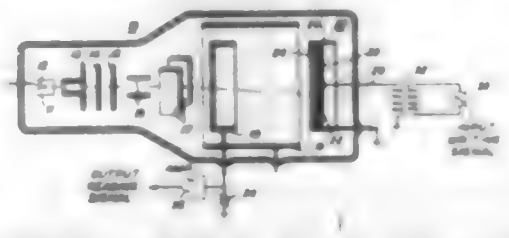


operatively coupled to said pulse integrating means and operative in response to said controlling voltage to produce an output pulse when the amplitude of said controlling voltage attains a predetermined value, and memory circuit means coupled to said comparison circuit means and operated by the output pulse thereof to produce a wave of sweep voltage which serves to control the deflection of said beam, a coupling between said deflection means and said memory circuit means serving to couple said wave of sweep voltage to said deflection means.

2,875,373
STORAGE TUBE AND CIRCUIT

Raymond W. Ketchledge, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 21, 1956, Serial No. 623,624
15 Claims. (Cl. 315—12)



1. An electron discharge device comprising a conducting member, dielectric target means mounted on said conducting member defining a capacitance, and means for applying signals to said conducting member to store information on said dielectric means, said last-mentioned means comprising a source of alternating voltage, a circuit including said capacitance, said conducting member and inductive means to tune said circuit to the frequency of the alternating voltage, and means coupling said circuit to said source of alternating voltage, said capacitance providing at least a portion of the capacitive reactance of said tuned circuit.

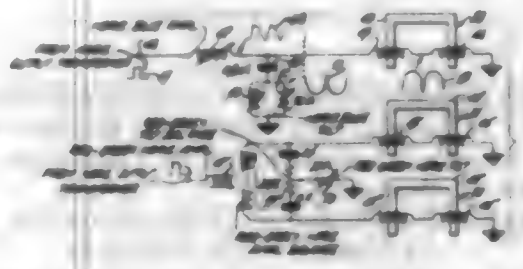
2,875,374
ELECTRON BEAM CONVERGENCE APPARATUS

John C. Cooper, Lititz, and Robert W. Hagmann, Lancaster, Pa., assignors to Radio Corporation of America, a corporation of Delaware

Application October 30, 1956, Serial No. 619,197
7 Claims. (Cl. 315—13)

1. In a cathode ray tube image-reproducing system wherein a plurality of electron beam components, which

traverse pre-deflection paths spaced respectively about the horizontal axis of the tube are angularly deflected by horizontal and vertical beam deflection apparatus to scan a raster at a target electrode, the combination comprising; a plurality of beam convergence structures respectively mounted adjacent to such pre-deflection paths, each of said structures being arranged to effect radial movement of its associated beam component; a source of direct current static convergence energy; and adjustable means including a potentiometer for applying energy



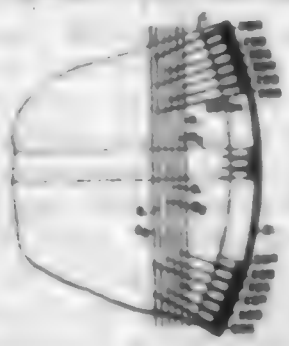
from said source in inverse relationship to first and second ones of said structures, said adjustable means and said first and second structures being operatively connected in such manner that, for a given adjustment thereof, the energy supplied to said first structure is decreased while the energy supplied to said second structure is increased whereby the beam component acted upon by said first structure is moved away from the axis of said tube while the beam component acted upon by said second structure is moved toward the axis of said tube, both of said movements being along radii of said tube.

2,875,375

APPARATUS FOR REDUCING CONTROL CURRENT FOR PICTURE TUBE EMPLOYING MULTIPLE DEFLECTION

Andrew P. Kruper, Pittsburgh, Pa., and Theadore Miller, Los Angeles, Calif., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 4, 1953, Serial No. 359,626
4 Claims. (Cl. 315—21)



1. A picture-reproducing tube for color pictures comprising a picture screen and an electron beam source for traversing said picture screen, said picture screen comprising a plurality of parallel fluorescent strips divided into groups of adjacent strips each strip of a group capable of emitting a different primary color, a grid member positioned between said electron source and said picture screen, said grid comprising a plurality of conductive members, the totality of said conductive members being divided into a plurality of sections, each section of said grid being associated with a plurality of said groups of fluorescent strips lying adjacent each other, and means for sequentially applying voltages to said sections.

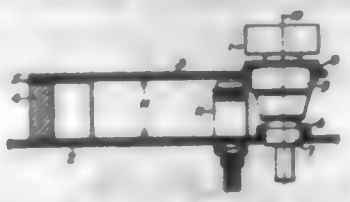
2,875,376

RESONANT CIRCUIT

Harald Havstad, Allendale, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application September 2, 1955, Serial No. 532,293
20 Claims. (Cl. 315—43)

15. A resonant circuit comprising an electron discharge device having a pair of adjacent electrodes aligned in spaced relation along the longitudinal axis of said discharge device, the interelectrode capacity between said pair of electrodes constituting the capacitive element of said resonant circuit, and an inductance element including a first conducting member coupled to one of said electrodes and disposed at right angles to said longitudinal axis and a second conducting member coupled to the other of said electrodes and disposed in substantially



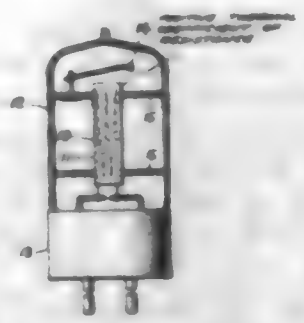
parallel spaced relation to said first member, said second member extending a given distance in at least one direction from said longitudinal axis and having a given maximum width, the spacing of said first and second members, said maximum width and said given distance determining the inductance of said inductance element for resonance with said capacitance element, said first and said second members having negligible capacity therebetween at the operating frequency.

2,875,377

ELECTRON DISCHARGE DEVICES

Wenfoo George Woo, West Newton, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application October 16, 1956, Serial No. 616,300
5 Claims. (Cl. 315—52)



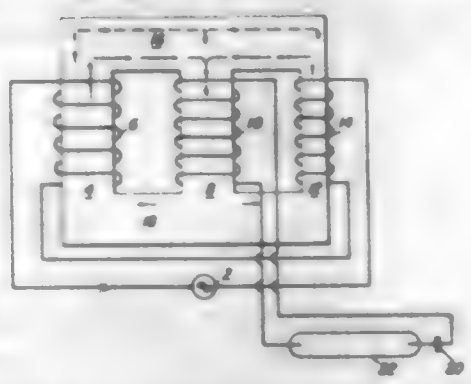
2. In combination, an electron discharge device comprising at least a filament and an anode, a resistor element having a positive coefficient of resistance with temperature held in thermal contact with a heat absorbing mass for retarding the temperature rise of said resistor, and a single evacuated envelope completely enclosing said resistor and said electron discharge device, said resistor being connected in series with said filament within said envelope.

2,875,378

ALTERNATING CURRENT CONTROL DEVICE

Philip J. Walsh, San Francisco, Calif.

Application May 21, 1954, Serial No. 431,449
5 Claims. (Cl. 315—100)



5. In a gas-discharge tube lighting circuit, a transformer comprising a closed magnetic core having three legs connected by yokes and including two end legs and a center leg, a primary circuit adapted for connection to a

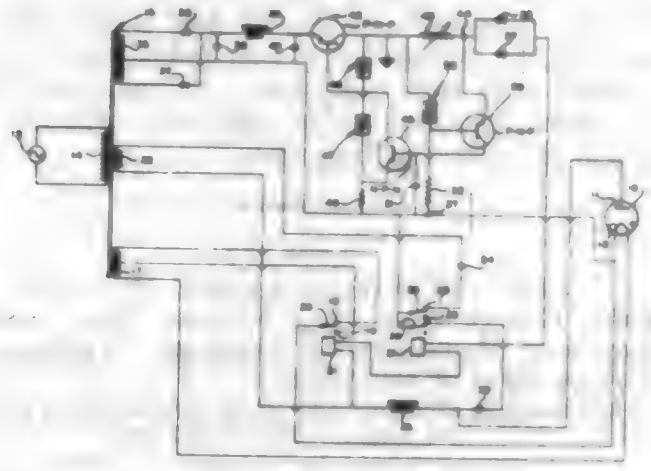
power source and comprising two winding sections connected in series and disposed on said two end legs respectively, the product of the number of turns of one of said winding sections times the cross-sectional area of the core on which it is disposed being materially greater than the product of the number of turns of the other of said sections times the cross-sectional area of the core-leg whereon it is disposed and a secondary circuit consisting essentially of a secondary winding disposed on the center leg of said core, gas discharge apparatus having a negative impedance characteristic and a condenser connected in series.

2,875,379

GAS DISCHARGE LAMP POWER SUPPLY

Grady T. Porter, Dewey, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application February 4, 1957, Serial No. 638,158
6 Claims. (Cl. 315—106)



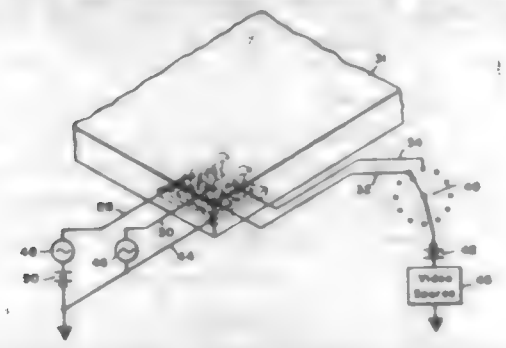
1. A radiation source comprising a gas discharge tube having an anode and a cathode, a first source of direct potential of sufficient magnitude to maintain a discharge between said anode and cathode, means applying the positive terminal of said first source to said anode and the negative terminal of said first source to said cathode, a source of alternating current, an inductor and a capacitor connected in series relationship with said source of alternating current, the values of said inductor and capacitor being such as to form a series resonant circuit, switching means to connect said capacitor between said anode and cathode, and means responsive to conduction by said tube to actuate said switching means to disconnect said capacitor from said tube.

2,875,380

DISPLAY SYSTEMS

Pierre M. G. Toulon, Turtle Creek, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 11, 1958, Serial No. 727,916
10 Claims. (Cl. 315—169)



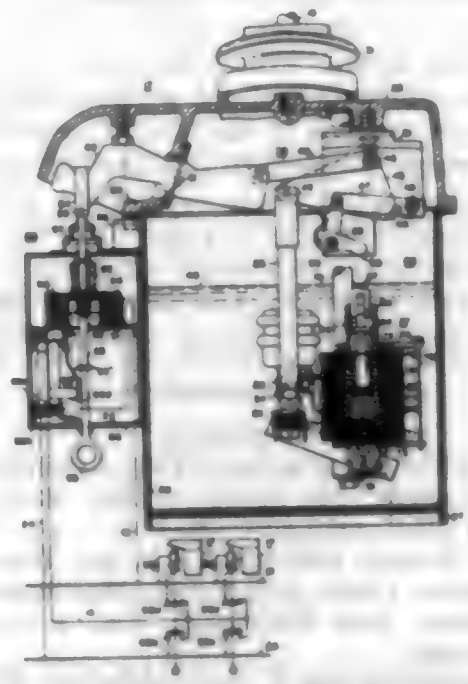
1. In a solid state display element in combination, a plurality of circuit systems connected in cooperative relationship with a common conductor between them, one circuit system comprising a nonlinear dielectric capacitor, an alternating current light power potential source and a direct current power source connected in series circuit relationship, the other circuit system comprising a nonlinear dielectric capacitor and an alternating current source of light power potential connected in series circuit relationship, an electroluminescent cell connected in the common conductor, the members of the circuit system being so proportioned that they are in substantial balance with substantially no light power potential applied to the electroluminescent cell and means for delivering signals to the circuit system to effect an unbalance and impress a light power potential across said electroluminescent cell to render it luminous.

2,875,381

AUTOMATIC RECLOSERS AND SECTIONALIZERS

Leonard V. Chabala, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 27, 1953, Serial No. 394,813
3 Claims. (Cl. 317—22)



1. In a polyphase circuit; a circuit interrupter for each phase of the circuit each having separable contacts in a container, with electro-responsive means individual to each interrupter for effecting separation of its contacts in response to an overcurrent, said contacts being biased to reclose following such separation, manual operating means for each interrupter including a handle projecting from the container, lockout means for each interrupter for locking the contacts open, a counter individual to each interrupter for actuating the manual operating means and lockout means in response to a predetermined number of closely successive openings; an operator individual to each interrupter disposed in a housing detachably mounted on the container and having a solenoid with an armature having a lost motion connection with the handle; a switch individual to each operator disposed in said housing and having contacts operated by said lost motion connecting means; and a circuit including said contacts connecting the solenoids so that whenever one interrupter is locked open its switch provides an energizing circuit for the solenoids of the other interrupters.

2,875,382

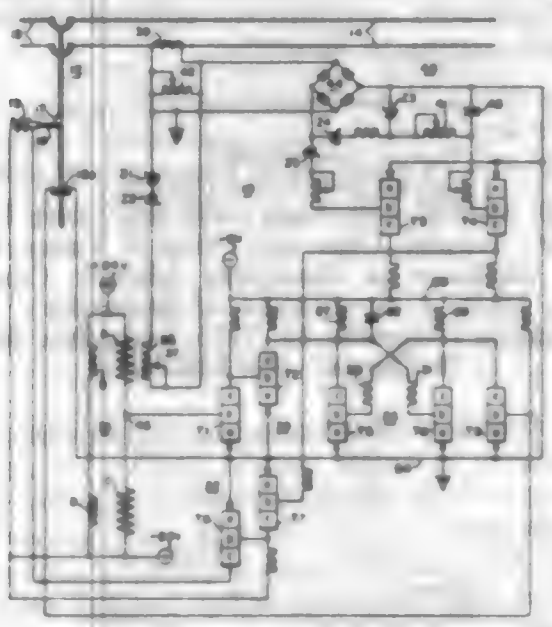
TIME DELAY DEVICES FOR CIRCUIT INTERRUPTERS

Jerome Sandin, Forest Hills, and Emor O. Shepard, Wilkins Township, Allegheny County, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application February 18, 1957, Serial No. 640,880
8 Claims. (Cl. 317—36)

1. In combination, a circuit interrupter having electro-responsive means operable to open the breaker, switch means having a control electrode and operable to effect

operation of the electroresponsive means, a plurality of delay circuits having different delay characteristics, current responsive means producing a voltage in accordance



with the current in a circuit, and means including a plurality of Zener diodes having different breakdown voltages connecting the different delay circuits and the electroresponsive means to the current responsive means.

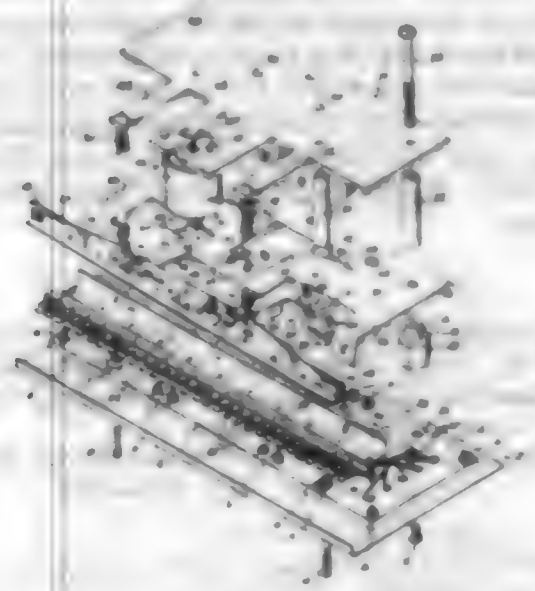
2,875,383

ELECTROMAGNETIC UNIT

Arthur M. Cohen, Westport, Conn.

Continuation of application Serial No. 330,259, January 8, 1953. This application August 27, 1957, Serial No. 681,140

22 Claims. (Cl. 317—198)



1. In an electromagnetic unit, an electromagnet, an end plate therefor, an armature having a first portion overlying said end plate and adapted to be attracted by said electromagnet and a second portion extending beyond an edge of said end plate, said armature resting on said edge and said edge defining the fulcrum about which said armature pivots, and a leaf spring mounted in a substantially flat condition and located to one side of said edge, the ends of said leaf spring being secured respectively to said armature and said end plate.

2,875,384

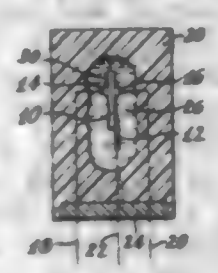
SEMICONDUCTOR DEVICES

John T. Wallmark, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application December 6, 1956, Serial No. 626,623

12 Claims. (Cl. 317—234)

7. A semiconductor device comprising a wafer composed of a monoatomic semiconductor, a rectifying electrode in contact with said wafer, an adherent stabilizing coating over the surface of said wafer, said coating being composed of the monoxide of said semiconductor, a protective film over said monoxide coating composed of the



dioxide of said semiconductor, a sheath of solidified synthetic resin around said wafer, and leads ohmically connected to said electrode and said wafer, said leads projecting through said synthetic resin sheath.

2,875,385

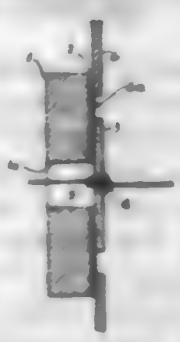
TRANSISTORS

Dennis Quintrell Fuller, Cambridge, England, assignor to Pye Limited, Cambridge, England, a British company

Application February 14, 1955, Serial No. 487,831

Claims priority, application Great Britain February 18, 1954

6 Claims. (Cl. 317—235)



5. A transistor comprising an aperture disc of insulating material having a surface coated with an electrically-conducting material, a wafer of semi-conductor material secured and electrically connected to the conducting surface of said disc with a portion of the wafer extending across the aperture in the disc, said wafer of semi-conductor material being substantially smaller than and several times thinner than the disc, an emitter electrode and a collector electrode respectively secured on opposite sides of said wafer on the portion of said wafer extending across said aperture, a heat dissipating metallic member surrounding the periphery of said disc and connected to said electrically-conducting surface and electrical connections to the emitter electrode and to the collector electrode.

2,875,386

MICROWAVE BYPASS CAPACITOR

Roger H. Fricke, Philadelphia, Pa., and John A. Liggett, Haddonfield, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application January 25, 1955, Serial No. 483,878

8 Claims. (Cl. 317—257)



8. A bypass capacitor for an electron discharge device having one of its electrodes terminated on a terminal,

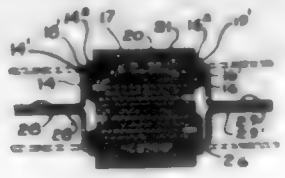
comprising a collar adapted to engage the outer surface of said terminal and form one plate of said capacitor, washers positioned at each end of said collar for insulating said collar, a strip of dielectric material wound around the outer surface of said collar, a ring positioned concentrically about said dielectric material for frictionally holding said dielectric material around said collar, said ring forming the second plate of said capacitor, a sealing washer positioned at one end of said dielectric material and said ring for sealing said capacitor, and a ring assembly having a retaining flange positioned at the other end of said dielectric material and said ring for sealing and mounting said capacitor.

2,875,387

ELECTRICAL CONDENSERS

Robert B. Randels, Painted Post, N. Y., assignor to Corning Glass Works, Corning, N. Y., a corporation of New York

Application April 8, 1954, Serial No. 421,871
7 Claims. (Cl. 317—261)



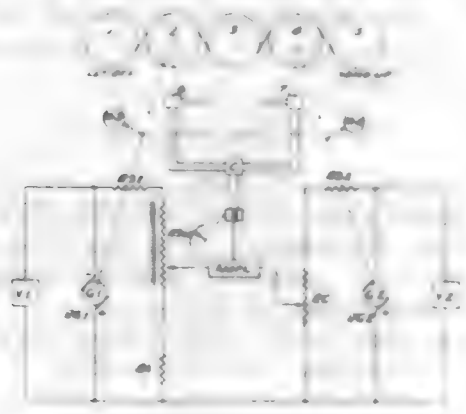
6. A condenser assembly embodying metal foil elements interspersed with the dielectric foil elements of alternate layers thereof having their opposite ends projecting from two opposite edges of the dielectric foil elements, two cover elements between which such stack is arranged, terminal lugs having portions thereof arranged between the respective cover elements and adjacent the end dielectric foil elements of the stack, and layers of foil separate from those of the stack arranged respectively between such terminal lug portions and the cover elements and between such dielectric foil elements of the stack and such lug portions.

2,875,388

UNIFORM TENSION-MAINTAINING MOTOR CONTROL

Lester W. Scheu, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application August 31, 1955, Serial No. 531,888
4 Claims. (Cl. 318—7)



1. A device for maintaing constant, uniform stretch on continuous material being frictionally driven by two rolls rotating at different speeds, comprising electric motors to drive said rolls, two tachometer generators of equal voltage output when driven at equal speeds respectively connected to said rolls, electric circuits each including one said generator, a first potentiometer resistance in one circuit and a second potentiometer resistance in the second circuit, a voltage amplifier connected to and sensitive to said first potentiometer resistance, a servo motor connected to and responsive to the output of said amplifier, a controller responsive to said servo motor and adapted to vary the speed of said electric motors, and said second potentiometer resistance responsive to said servo motor whereby a potential difference between said circuits activates said servo motor to synchronize the speed of rotation of said rolls to return the potential difference between said circuits to zero.

2,875,389

CURVE FOLLOWER

Charles D. Morrill, Cuyahoga Falls, and Harry L. Hosterman, Jr., Atwater, Ohio, and Philip R. Vance, Concord, Mass., assignors to Goodyear Aircraft Corporation, Akron, Ohio, a corporation of Delaware

Application December 13, 1955, Serial No. 552,785
8 Claims. (Cl. 318—31)



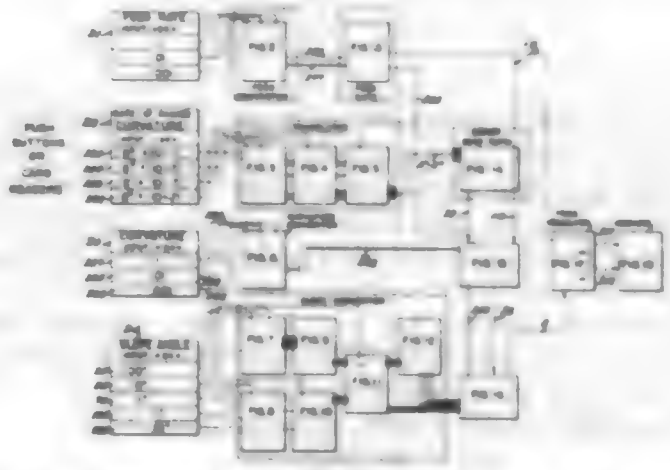
1. A curve follower comprising a translational or rotational member supporting upon its surface a graph sheet having a conductive trace thereon, a transducer supported for movement along the surface of the graph sheet, said transducer being adapted to maintain contact with said conductive trace, a servo mechanism for providing movement of said member, a second servo mechanism for moving said transducer axially of said member, said transducer including a potentiometer having a continuous resistance element for contacting the conductive trace and a constant voltage source applied thereacross for applying an error voltage to the conductive trace which is proportional to the axial displacement between the transducer and the trace, and a conductive pick-up card carried by the same transducer for maintaining contact with the trace and transmitting the error voltage to said second servo mechanism to correct displacement of said transducer.

2,875,390

AUTOMATIC MACHINE CONTROL SYSTEM

Robert W. Tripp, Bronxville, N. Y., assignor, by mesne assignments, to Inductosyn Corporation, Carson City, Nev., a corporation of Nevada

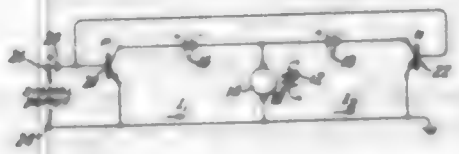
Application January 3, 1956, Serial No. 557,035
31 Claims. (Cl. 318—39)



1. An automatic machine control system for driving a driven element along a path with respect to X and Y orthogonal axes, said system comprising means providing input data in terms of said path, means for translating said input data into corresponding movement of a shaft, means for resolving said shaft movement into linear displacements mutually at right angles to each other, and means for translating said displacements into

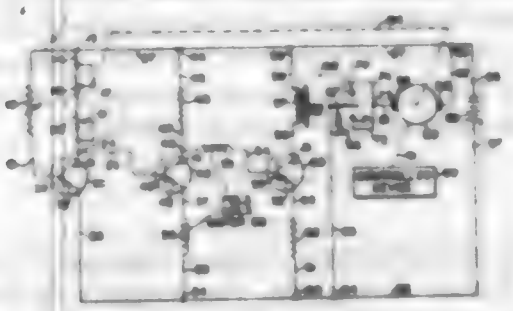
coordinate speeds of said driven element along said axes respectively, said speeds having relative values corresponding to said path.

2,875,391
MOTOR CONTROL SYSTEM
Jack C. Brannan, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application December 28, 1956, Serial No. 631,301
11 Claims. (Cl. 318—293)



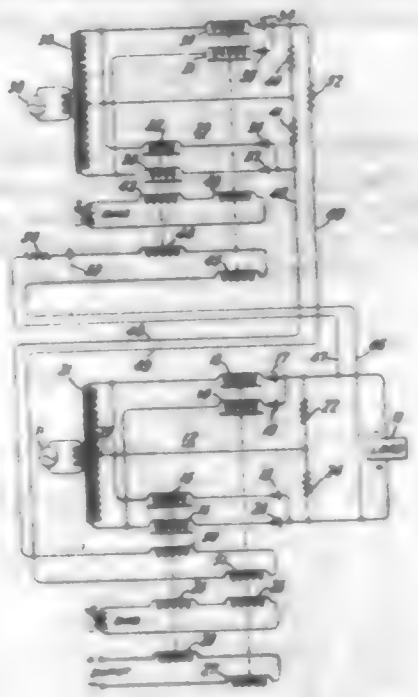
1. In combination in a motor control system operative in response to a D.-C. control signal of varying magnitude and polarity; a D.-C. electric motor; a plurality of D.-C. power sources; first and second transistors having complementary operating characteristics of like form but opposite sign and including base, emitter and collector electrodes; means for connecting said control signal across two electrodes of said first transistor and across the corresponding two electrodes of said second transistor, and means connecting one of said two electrodes of each transistor with the remaining electrode thereof in series relation in an output circuit including said motor and one of said D.-C. power sources, whereby a control signal of one polarity is effective to increase current flow in one of said output circuits to energize said motor in one direction and a control signal of opposite polarity is effective to increase current flow in the other of said output circuits to energize said motor in the reverse direction.

2,875,392
CONDITION RESPONSIVE APPARATUS FOR CONTROLLING AN ELECTRIC MOTOR
Balthasar Hubert Pinckaers, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application May 25, 1955, Serial No. 510,967
5 Claims. (Cl. 318—298)



1. Proportional control apparatus comprising; first, second and third semiconducting devices, each having emitter, base and collector electrodes; a source of direct current potential; direct current motor means having an armature winding and first and second field windings; temperature responsive resistance means; means connecting the base electrode of said first semiconducting device and said temperature responsive resistance in circuit with said source of potential; means connecting the emitter electrode of said first semiconducting device to said source of potential; variable resistance means connecting the collector electrode of said first semiconducting device to said source of potential, said variable resistance means operatively connected to said motor means so as to effect a rebalance of said control apparatus; first resistance means connecting the collector electrode of said second semiconducting device to said source of potential; means interconnecting the base electrode of said second semiconducting device and the collector electrode of said first semiconducting device; means connecting said first motor field winding intermediate the emitter electrode of said second semiconducting device and said source of potential; second resistance means connecting the emitter electrode of said third semiconducting device to said source of potential; means connecting said relay means intermediate the collector electrode of said third semiconductor and said source of potential; means connecting said second field coil winding intermediate the base electrode of said third semiconducting device and the collector electrode of said second current conducting device; and means, including a double throw single pole switch operable by said relay winding, connecting said motor armature in circuit with said source of potential, said motor being operable in one direction or the other in accordance with the increase or decrease of current flow through said field windings and said armature in response to said temperature responsive resistance.

2,875,393
CIRCUIT TO LIMIT COMMUTATING VOLTAGES
John R. Loeffler, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application November 21, 1955, Serial No. 548,120
16 Claims. (Cl. 318—331)

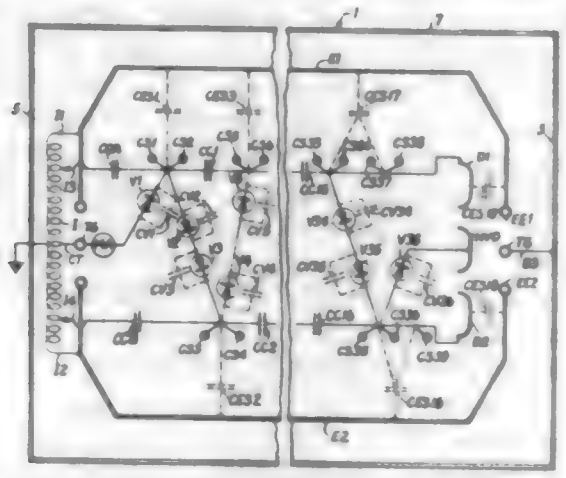


1. In a system for controlling the speed of a motor, a first magnetic amplifier energizable by an alternating current source and having an output for controlling the energization of said motor, a saturating winding responsive to a command signal for controlling the degree of saturation of said first amplifier, a second magnetic amplifier energizable by an alternating current source and means interconnecting said first and second magnetic amplifiers for energizing the saturating winding of said second magnetic amplifier with a signal proportional to a non-linear function of the change in degree of saturation of said first magnetic amplifier, to thereby control the degree of saturation of said second magnetic amplifier, said first and second amplifiers being so connected that the degree of saturation of said second magnetic amplifier determines the output of said first magnetic amplifier for controlling the energization of said motor.

2,875,394
VOLTAGE MULTIPLICATION APPARATUS
Marshall R. Cleland, Rock Hill, Mo., assignor, by mesne assignments, to Radiation Dynamics, Inc., New York, N. Y., a corporation of New York
Application October 29, 1956, Serial No. 618,862
22 Claims. (Cl. 321—15)

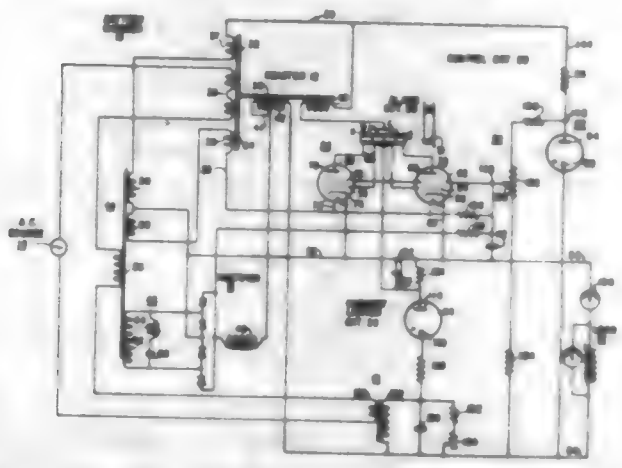
1. Voltage multiplication apparatus comprising a pair of metallic electrodes, a source of A. C. power connected to said electrodes, a plurality of rectifier units each hav-

ing an anode and a cathode, said units being positioned between said electrodes and being series-connected anode-to-cathode between ground and a high-voltage D. C. terminal, and a corona shield connected at each of the elec-



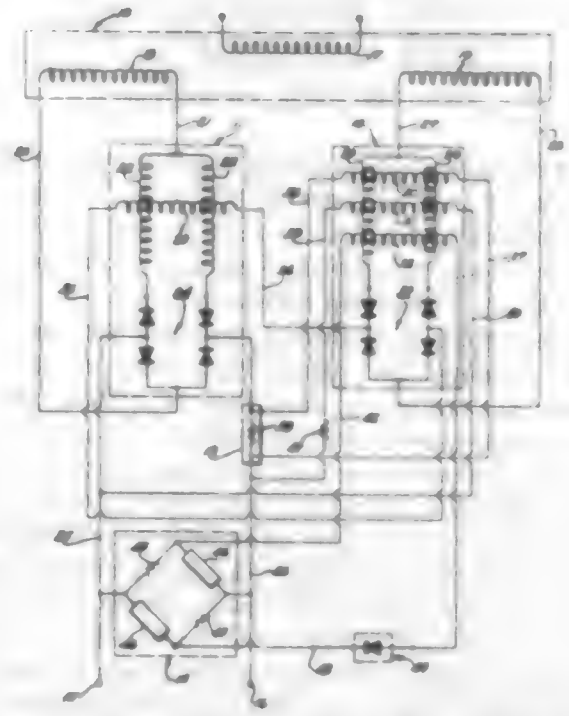
trical junctions thereby formed between said rectifier units whereby an A. C. potential of substantially equal amplitude is capacitively coupled across successive pairs of corona shields via the capacitance thereby formed between said electrodes and said corona shields.

2,875,395
BATTERY CHARGER APPARATUS
William H. Blashfield, Galion, Ohio, assignor to North Electric Company, a corporation of Ohio
Application October 9, 1953, Serial No. 385,073
18 Claims. (Cl. 321—19)



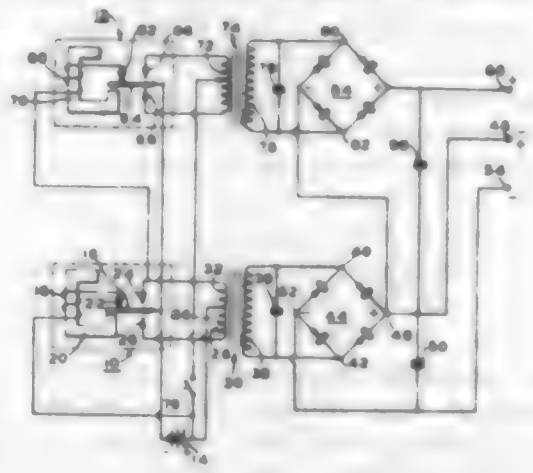
6. An arrangement for controlling the voltage supply for a load circuit from a variable supply source comprising a power transformer having a primary and secondary winding, a saturable core reactor having at least a controlling winding and a controlled winding, means for connecting said transformer primary winding and said reactor controlled winding in series relation with said source, rectifier means having an input and output circuit, means for connecting the input circuit for said rectifier to said transformer secondary winding means, means for connecting the output circuit for said rectifier to the load circuit, and control means for energizing said reactor to control the current flow through the controlling winding of said reactor comprising electronic tube members, each of which has at least a plate circuit, means for connecting said tubes to detect variations in a given load characteristic and to energize the reactor controlling winding in a corresponding manner, an energizing circuit for said tube members; an auxiliary secondary winding means on said transformer means and an auxiliary reactor controlled winding, the turns ratio of the transformer primary winding and its auxiliary secondary winding being the same as the turns ratio of the first reactor controlled winding and the reactor auxiliary winding, and means for connecting said auxiliary reactor winding and said auxiliary transformer winding in series to provide a voltage supply for said plate members of said electronic means which is independent of changes in the load.

2,875,396
BATTERY CHARGING SYSTEM
Soren L. Christie and Frank C. Marshall, Los Angeles, Calif., assignors to Christie Electric Corp., a corporation of California
Application October 25, 1954, Serial No. 464,205
8 Claims. (Cl. 321—19)



1. In a battery charging system, the combination of: an electric power unit having an alternating current input, a direct current output and electromagnetic means adapted to control said direct current output; a control unit comprising saturable reactor means having a power winding, a first control winding and a second control winding, said power winding being operatively connected with said electromagnetic means; current sensing means providing a first signal responsive to the current in said direct current output, and connected to said first control winding; and voltage sensing means providing a second signal responsive to the deviation above a predetermined value of the voltage across said direct current output, and connected to said second control winding.

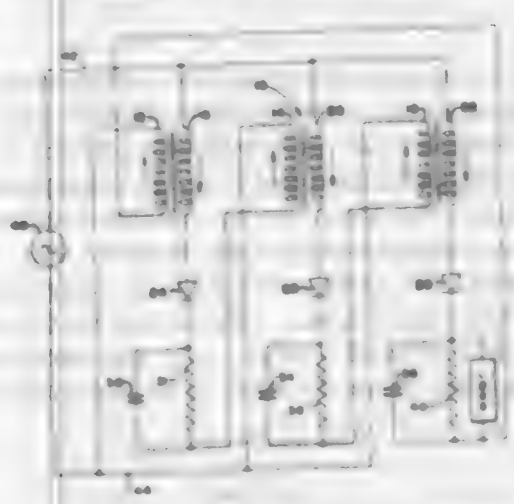
2,875,397
SYNCHRONIZED VIBRATOR SYSTEM
Nathan S. Parks, Springfield, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application September 2, 1954, Serial No. 453,917
6 Claims. (Cl. 321—49)



1. A synchronized vibrator system comprising a first and a second vibrator unit each having a driving coil, a vibrating reed cooperating with said coil, a driver

contact connected to one end of said coil and a pair of fixed contacts positioned to be contacted periodically by said vibrating reed, a first center tapped winding connected between said pair of fixed contacts of said first unit, means to connect a source of D.-C. voltage directly in series with said driving coil, said driver contact and said vibrating reed of said first unit to energize said driving coil of said first unit by said D.-C. voltage source only, means to connect said source in series with said driving coil, said driver contact and said vibrating reed of said second unit through a portion of said first winding including the center tap thereof, a second center tapped winding connected between said pair of fixed contacts of said second unit, a switch, and means connecting the center tap of said first center tapped winding to the center tap of said second center tapped winding through said switch only.

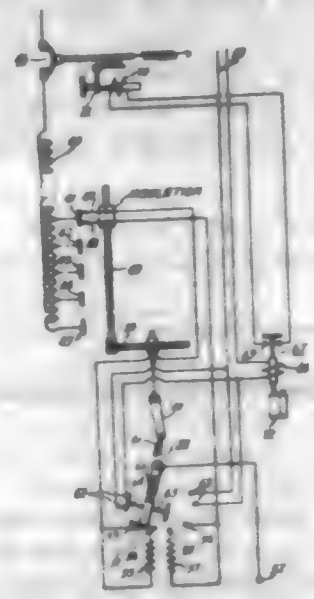
2,875,398
LOW FREQUENCY MAGNETIC GENERATOR
Murray J. Stateman, Wantagh, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application October 22, 1954, Serial No. 463,864
4 Claims. (Cl. 321—69)



4. A frequency converter comprising an odd number of cascade connected inductive generators each comprising a core having an exciting winding and a bucking control winding thereon, a connection including a rectifier and a delay line between one terminal of each exciting winding to one terminal of the control winding of the next generator, means connecting together the other terminals of all of the exciting windings and forming a first pole of the converter, means connecting together the other terminals of all of the control windings and forming a second pole of the converter, and a source of alternating current connected across said first and second poles.

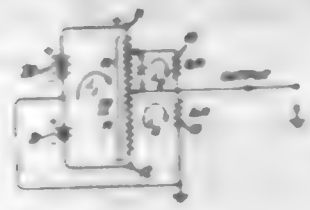
2,875,399
MEANS FOR PROTECTING TRANSITION IMPEDANCES
André J. A. Denisa, Paris, France, assignor to Societe Generale de Constructions Electriques et Mecaniques, Paris, France
Application February 28, 1956, Serial No. 568,313
Claims priority, application France March 4, 1955
8 Claims. (Cl. 323—43.5)

1. Means for protecting transition impedances of a load tap changing system comprising a load tap changing switch having a pair of contact fingers adapted for sequentially contacting adjacent taps of an electrical winding having a plurality of taps, an electric circuit, said switch being arranged for normal operation when said electric circuit is connected to one said tap by way of at least one of said fingers and having occasional transitional tap changing periods during which said electric circuit is connected to the next adjacent tap, transition impedance means, said switch means being arranged to connect said impedance means between said contact fingers at least during said transitional periods, a plurality of parallel connected contacts, time delay means connected to said plurality of contacts, means coupling said tap changing



switch to said plurality of contacts such that said time delay means is actuated during said transitional period, and circuit breaker means connected to said time delay means.

2,875,400
FUNCTION GENERATING CIRCUIT FOR OBTAINING SQUARES OF INPUTS
Edward H. Cabanius, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application March 11, 1954, Serial No. 415,660
5 Claims. (Cl. 323—74)

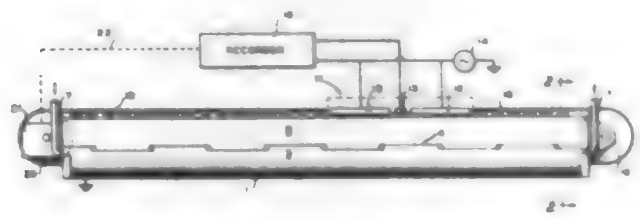


1. In a linear impedance network for generating an electrical power function of a mechanical input signal, a linearly variable potential divider impedance having one fixed terminal adapted to be energized by a potential source of one polarity one side of which is grounded, a second fixed terminal adapted to be energized by an equal potential source of the opposite polarity one side of which is grounded, a movable terminal slidable over said impedance intermediate said fixed terminals, and a third fixed terminal electrically separating the impedance in two sections, a second linear impedance connected intermediate said movable terminal and third terminal, and a third linear impedance interconnecting said third terminal and ground, whereby the displacement of said movable terminal from said third terminal toward said first terminal provides a voltage between ground and the third terminal that varies as a power function of said displacement, and displacement of said movable terminal from said third terminal toward said second terminal a like distance provides an equal voltage of the opposite polarity.

2,875,401
CORE LOGGING DEVICE
Joe D. Owen, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application September 27, 1954, Serial No. 458,457
9 Claims. (Cl. 324—13)

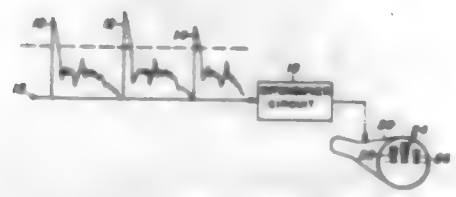
1. An apparatus for electrically logging a drill core comprising in combination a trough having a conducting surface for supporting said core; a lid pivotably mounted along said trough; a plurality of electrodes spaced throughout the length of said lid; means for fastening said lid to

said trough so that said electrodes contact a core held therein; a plurality of contact buttons each connected respectively to each of said electrodes via electrical conductive means; an elongated brush having a short brush intermediate its ends adapted to contact a plurality of contact buttons on both sides of a single contact button when said single contact button is contacted by said short brush; means for moving said elongated brush and said



short brush in fixed relationship one to the other so that each button is in turn contacted by said short brush; a current source; means for measuring current flow; conductive means connecting said current source to said elongated brush; conductive means connecting said current source to said short brush through said current measuring means; and conductive means connecting the opposite terminal of said current source to said conducting surface of said trough.

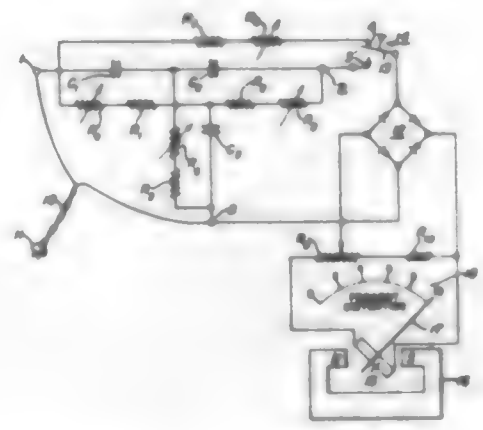
2,875,402
TRACE BRIGHTENING CIRCUIT
John H. St. John, Bogota, N. J., assignor to Heyer Industries, Inc., Belleville, N. J., a corporation of Delaware
Application November 9, 1956, Serial No. 621,389
10 Claims. (Cl. 324—16)



1. In combination with an internal combustion engine analyzer employing a cathode ray tube in which generated ignition signals derived from the ignition system are displayed, intensifier circuit adapted to render more visible under high ambient light conditions the normally faint trace displayed on the cathode ray tube screen for the duration of the high voltage spike portion of the ignition signal generated by the ignition system for the purpose of ionizing the spark plug gap, said circuit including frequency selective means offering low impedance to the high voltage spike portion and high impedance to other portions of the ignition signal, said other portions of the ignition signal being substantially unaffected whereby the selected portion of the ignition signal is applied to the cathode ray tube for exaggerated display thereof.

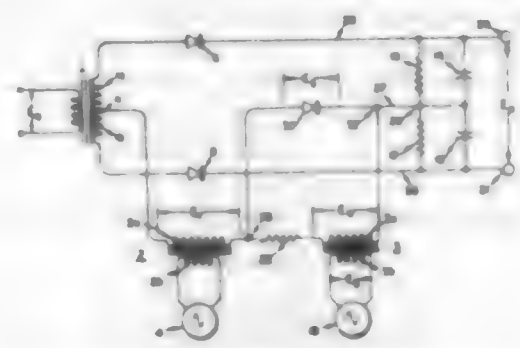
2,875,403
VOLTAGE DISTORTION MEASURING INSTRUMENT
Roswell W. Gilbert, Montclair, N. J., assignor to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey
Application April 26, 1954, Serial No. 425,561
2 Claims. (Cl. 324—77)

1. An electrical instrument for the direct measurement of the waveform distortion of an alternating current power line said instrument comprising a frequency rejection network tuned to resonance at the power line frequency and having an input terminal, an output terminal and a common input-output terminal; leads connected to the input and common terminal and adapted for connection across the power line; a rectifier bridge having one input junction connected to said common terminal; a manually-operable switch having a movable contact connected to the other bridge input junction, a first stationary contact connected to the said output terminal and a second stationary contact; means normally biasing the movable contact into contact with the said second stationary contact; an adjustable resistor connected between the said input terminal and the said second stationary contact of



the switch; a wire-wound movable coil operating in a unidirectional magnetic flux field; a pointer carried by the movable coil; a scale cooperating with the pointer and calibrated in percent distortion; a distinguishing reference mark on the scale; and a potentiometer connecting the rectifier bridge output junctions to the wire-wound movable coil; the said pointer being alignable with the said reference mark upon adjustment of the said adjustable resistor when the said leads are connected to the power line and the said switch is in the normal position.

2,875,404
PHASE DETECTOR
Neil E. Handel, Columbus, Ohio, assignor to Industrial Nucleonics Corporation, a corporation of Ohio
Application September 19, 1957, Serial No. 684,951
8 Claims. (Cl. 324—87)



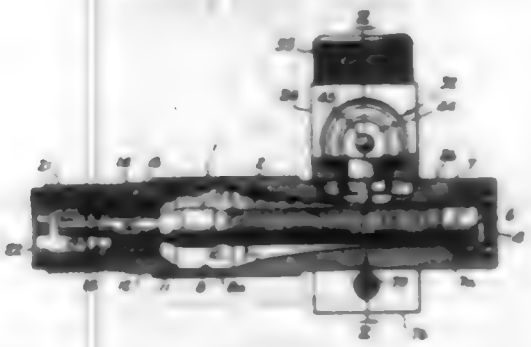
1. A phase detector comprising a first and second loop circuit, each loop including at least a unidirectional element, a load resistor and an arm common to both of said loops, means for applying to each of said two loops an alternating input voltage, means serially connecting in said common arm a reference voltage of the same frequency as said input voltage to provide across said load resistors a direct current voltage of an amplitude proportional to the amplitude of said input voltage and of a polarity changing relative to the reversal in phase occurring in said input voltage; modulating circuit means also serially connected in said common arm of said two loops, said circuit means operative to modulate said direct current voltage across said load resistors to provide an output voltage of a frequency of said modulating means and reversing in phase from a reference relative to the reversal in phase of the said input voltage.

2,875,405

HIGH FREQUENCY MEASURING INSTRUMENT AND RESISTANCE UNIT

Bloxsy D. Frederico, Cleveland, Ohio, assignor to Bird Electronic Corporation, Cleveland, Ohio, a corporation of Ohio

Application November 16, 1954, Serial No. 469,174
The terminal portion of the term of the patent subsequent to November 25, 1974, has been disclaimed
12 Claims. (Cl. 324—95)



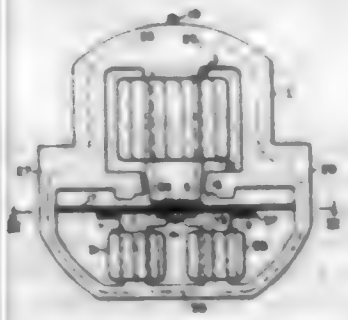
5. A radio frequency resistor unit having a resistance substantially independent of frequency and adjustable in value comprising in combination a hollow outer conductor having an elongated lateral slot therein, the conductor being formed with an internal tapered horn surface tapering to a minimum diameter at one end thereof, a resistance rod mounted within said conductor along the axis thereof and electrically connected thereto at the end having the minimum diameter of the internal tapered surface, the opposite ends of the resistance rod and the conductor being adapted for connection to a coaxial transmission line, and a pickup cartridge surrounding said conductor and laterally extending, slideable along said conductor, said cartridge having mounted therein an insulated member with spring means urging said member resiliently inward toward said resistance rod and carrying a tap projecting into the elongated opening in said hollow conductor insulated from said conductor for making electrical contact with the resistance rod at various positions thereon along its axial length for adjustment of the resistance value.

2,875,406

WATTHOUR METER PHASE ADJUSTER

Ambrose J. Petzinger, Fair Lawn, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 30, 1953, Serial No. 389,191
16 Claims. (Cl. 324—138)



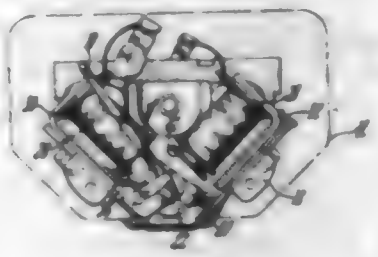
1. In an alternating-current device, a magnetic structure having an air gap, said magnetic structure including a first magnetic pole piece having a pole face adjacent the air gap and a pair of spaced second pole pieces having pole faces adjacent the air gap, an electroconductive armature, means mounting the armature for rotation relative to the pole pieces through the air gap, first winding means surrounding said first pole piece effective when energized for producing a first alternating magnetic flux, second winding means surrounding said second pole pieces effective when energized for producing a second alternating magnetic flux cooperating with the first alternating magnetic flux to establish a shifting magnetic field in the air gap for influencing said armature, means for controlling the phase relationship between the magnetic fluxes, said last-named means comprising a lagging member including an electroconductive rim and an electroconductive bridge connecting spaced points of said rim to provide a pair of openings establishing a figure-of-eight configuration, and means securing the lagging member to said second pole pieces with each of said second pole pieces projecting into a separate opening, said bridge being positioned intermediate said second pole pieces beneath said air gap and being constructed of a magnetic material.

2,875,407

ELECTRICAL INSTRUMENT OF THE DIFFERENTIAL GALVANOMETER TYPE

Norman D. Lawien, Flint, Howard L. Root, Davison, and Roscoe M. Wheeler, Flint, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 3, 1956, Serial No. 601,935
1 Claim. (Cl. 324—140)



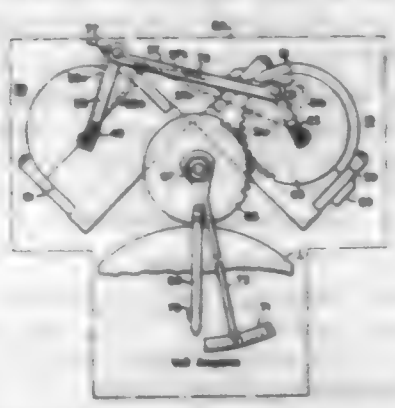
An electrical instrument including a frame, a flat armature pivoted on said frame for rotation in its own plane, two coils with corresponding cores supported on said frame with their axes directed toward said armature and lying in planes parallel with the plane of said armature, an end piece fixed to one end of each of said cores and cooperating with the said armature to define an air gap, and one of said end pieces having a cupped surface facing the edge of said armature in defining its air gap, and said cores, armature and end pieces being of magnetic material.

2,875,468

VOLT-AMPERE MEASURING INSTRUMENT

Ambrose J. Petzinger, Glen Rock, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 22, 1956, Serial No. 617,446
22 Claims. (Cl. 324—141)



1. In a device responsive to the volt-amperes of an electrical circuit, a supporting structure, a first shaft, a second shaft parallel to the first shaft, said shafts being mounted for independent rotation relative to the supporting structure, first current-responsive driving mechanism for applying a torque to the first shaft, second voltage-responsive driving mechanism for applying a torque to the second shaft, first and second torque arms for said first and second shafts respectively, an integral link member having a pair of ends each pivotally connected to a separate one of said torque arms, said link member and torque arms being proportioned to make rotation of one

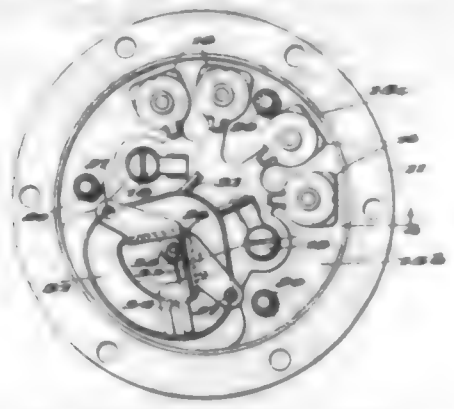
of said shafts substantially responsive to the volt-amperes of a circuit connected to energize the driving mechanisms, a scale element calibrated in volt-amperes, and an indicating pointer mounted for pivotal movement about an axis to traverse said scale element in accordance with rotation of said one of said shafts.

2,875,409

ELECTRICAL INSTRUMENT

Francis X. Lamb, East Orange, Paul Huber, Hillside, Royden F. Estoppey, Berkeley Heights, William A. Roy, Rahway, and Alexander Dempster, Metuchen, N. J., assignors, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey

Application January 22, 1954, Serial No. 405,612
13 Claims. (Cl. 324—147)



1. An iron vane electrical instrument of the ruggedized class comprising the combination with a cup-shaped metal case, a unitary rubber member molded within the case and having a relatively thick base portion covering the bottom of the case, a deck of rigid insulating material, and means supporting said deck in spaced and substantually parallel relation to the bottom of the case; of a non-magnetic plate formed as two flanges angularly disposed with respect to each other so as to be of V-shape in transverse section where cut by a plane parallel to the bottom of the case, means securing said V-shaped plate to said deck so that it depends therefrom with its lower edge seated upon said rubber member, a field coil of hollow sector shape in cross-section surrounding said V-shaped plate and seated upon said rubber member, a relatively fixed iron vane supported on said deck and adjustably slidable at its upper end in grooves formed in the upper surface of said deck and extending from top to bottom along the inner surface of one flange of said V-shaped plate, said vane being at its lower end adjustably slidable between the plate and the rubber member, a moving system including an iron vane and attached pointer, and bearing means for said moving system, one of said bearing means being carried by said V-shaped plate.

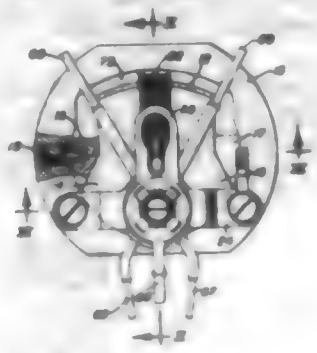
2,875,410

ELECTRICAL INSTRUMENT

Francis X. Lamb, East Orange, N. J., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey

Application August 19, 1954, Serial No. 450,954
8 Claims. (Cl. 324—150)

5. An instrument mechanism comprising a permanent magnet having a base and arms making it Y-shaped in outline, the arms of said magnet starting to diverge from one another at a point more than halfway from the extreme end of the base to the ends of said arms, the ends of said arms having a polarity opposite to that of the base, an annular yoke of material of high permeability enclosing said magnet, means securing said magnet rigidly in place with its arms magnetically contacting the inner surface of one side of said yoke and its base spaced to form an air gap along a diametrically opposite side of said yoke, a movable coil, and means pivotally supporting said coil adjacent one side portion for swinging movement about an axis disposed adjacent a side of said



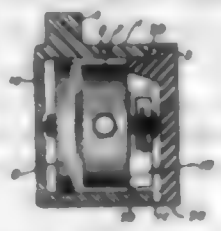
yoke and between the arms of said magnet with the other coil side portion movable circumferentially along said air gap.

2,875,411

ELECTRICAL INSTRUMENT WITH A DRUM INDICATING DIAL

Francis X. Lamb, East Orange, N. J., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey

Application May 20, 1954, Serial No. 431,195
6 Claims. (Cl. 324—151)



1. An electrical measuring instrument comprising a tubular yoke of soft iron, a transversely charged cylindrical permanent magnet core co-axially arranged within said tubular yoke and spaced radially therefrom, a coil of rectangular form surrounding said core, bearing means comprising studs projecting from each end of said yoke and supporting a bridge at each end of and mounting said coil for arcuate movement in the radial gap between said core and yoke, and an indicating drum secured to said coil inwardly of a bearing means at one end of said coil, said drum having a graduated peripheral portion of greater diameter than and extending outwardly and surrounding said bearing means, the means securing said drum to said coil having elongated apertures on either side for passage of said studs, an instrument base, and means securing said base to said tubular yoke at the end thereof remote from said indicating drum.

2,875,412

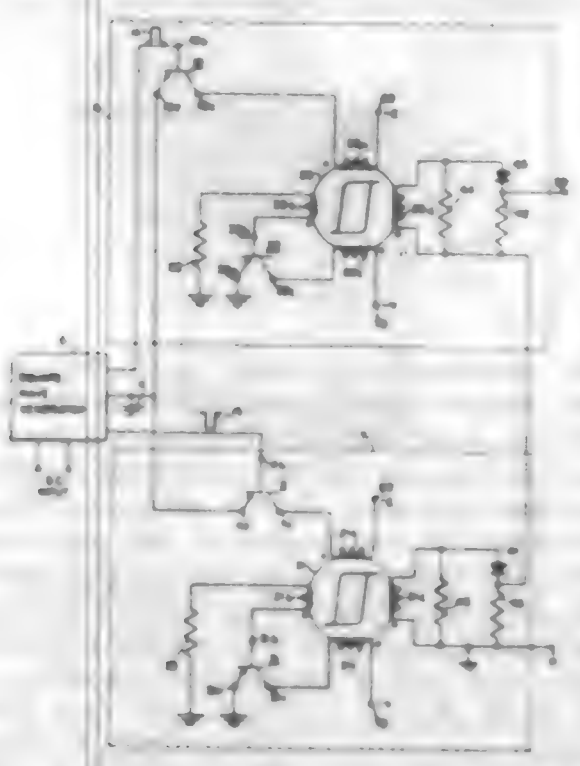
PULSE WIDTH MODULATOR

Henry Kaplan, Broomall, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application November 20, 1956, Serial No. 623,377
11 Claims. (Cl. 332—12)

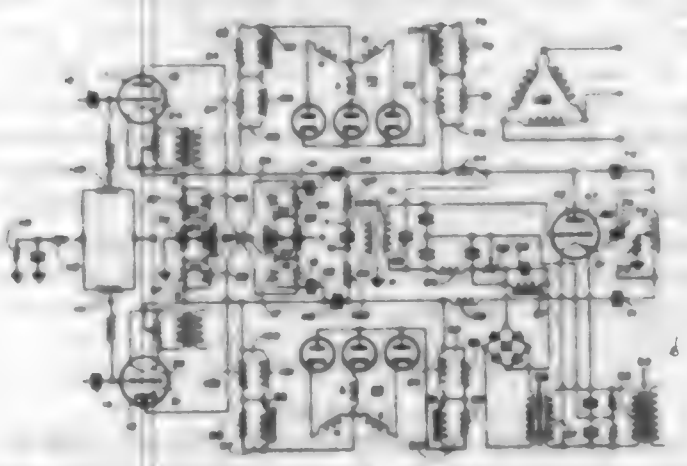
1. In combination; a pair of channels each comprising first and second transistors, each transistor having emitter, base and collector; a magnetic core in each channel, each core exhibiting high flux retentivity and having first, second, third and fourth windings; a source of variable unidirectional voltage connected to the collector of the first transistor of each channel by way of the first winding of each core; a source of fixed voltage connected to the collector of the second transistor of each channel by way of the third winding of each core; means, including the second winding of each core, interconnecting the base and emitter of the second transistor of each channel; means for applying square-wave signals between the base and emitter of the first transistor of one channel and for applying square-wave signals which are

180° out of phase with said first-mentioned square-wave signals between the base and emitter of the first transistor of the other channel to drive said first transistors alternately into saturation for the duration of half-cycles of one polarity of said applied square-wave signals; regenerative means, including said first, second and third windings, for driving said second transistor of each channel into saturation in response to cut off of the first



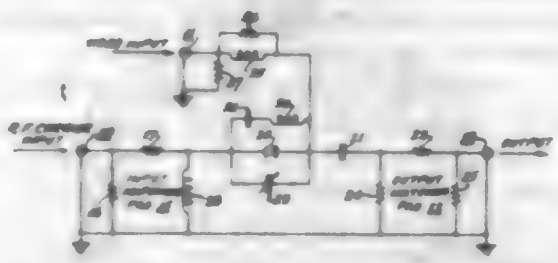
transistor of the channel; and means for deriving pulse output signals across the fourth winding of each channel, the amplitude of said output signals being a function of the fixed voltage connected to the collector of the second transistor of each channel and the pulse width of said output signals being a function of the magnitude of the variable unidirectional voltage connected to the collector of the first transistor of each channel.

2,875,413
MODULATION SYSTEM
Ronald J. Rockwell, Cincinnati, Ohio, assignor to Crosley Broadcasting Corporation, Cincinnati, Ohio, a corporation of Ohio
Original application August 11, 1954, Serial No. 449,873, now Patent No. 2,711,512, dated June 21, 1955. Divided and this application April 22, 1955, Serial No. 503,193
11 Claims. (Cl. 332—43)



5. In a signal translating circuit, the combination comprising a symmetrical impedance having two ungrounded end terminals, means coupled to said impedance for developing 180 degree phase displaced audio signals at said end terminals, a radio frequency stage having at least an anode, a cathode, and a control electrode, coupling means including a source of direct current in series between one of said terminals and said anode and polarized to make said anode positive with respect to one impedance terminal, and coupling means including a source of direct current in series between said cathode and the other of said terminals and polarized to make said cathode negative with respect to the other impedance terminal.

2,875,414
MODULATOR CIRCUIT
Steven Wlasuk, Brooklawn, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 21, 1956, Serial No. 586,187
1 Claim. (Cl. 332—52)

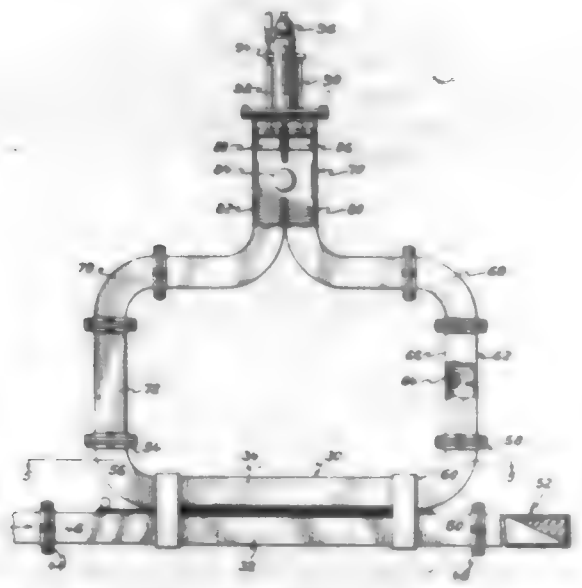


A modulator circuit comprising first and second radio frequency input terminals, first and second video input terminals, first and second ouput terminals, means connecting each of said second terminals to a common point of reference potential, a crystal diode having input and output terminals, an input matching pad comprising a series resistor connected between said first radio frequency input terminal and said diode input terminal and a shunting resistor connected between said first radio frequency input terminal and said point of reference potential, a radio frequency choke coil connected between said diode input terminal and said point of reference potential, a first blocking capacitor having one end connected to said diode output terminal, an output matching pad comprising a series resistor connected between the other end of said first blocking capacitor and said first output terminal, a shunting resistor connected between said other end of said first blocking capacitor and said point of reference potential, and a shunting resistor connected between said first output terminal and said point of reference potential, a variable trimmer capacitor connected between said diode input and output terminals, a series circuit comprising a neutralizing inductor and a second blocking capacitor connected between said diode input and output terminals, said neutralizing inductor having an inductance that resonates with the inherent capacity of said crystal diode and with the capacity of said trimmer capacitor at the frequency of a radio frequency signal applied to said radio frequency input terminals, a peaking inductor connected between said first video input terminal and said diode output terminal, a damping resistor connected in parallel with said peaking inductor, and a video input terminating resistor connected between said first video input terminal and said point of reference potential.

2,875,415
MICROWAVE POWER MULTIPLIER
Peter J. Sferrazza, Wantagh, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application January 17, 1955, Serial No. 482,076
6 Claims. (Cl. 333—10)

5. Microwave high power testing apparatus comprising, a wave guide directional coupler having four wave guide terminals, a source for supplying electromagnetic waves coupled to one of said wave guide terminals, wave guide means coupling two other of said terminals, said two other terminals also being electrically coupled to each other by said directional coupler, whereby a closed loop energy path is provided by said coupler and said wave guide means, said wave guide means including means

for mounting a removable microwave component to be tested and for electrically coupling said component to said closed loop, said closed loop path being an integral number of wave guide wavelengths long at the frequency of said source, whereby waves coupled into the loop propagate around said loop as traveling waves,



the transmission coefficient α of the loop and the coupling coefficient C of the directional coupler being proportioned so that the power level of waves propagating in said loop is greater than the power level of said source, and energy absorbing means coupled to the remaining terminal of said directional coupler.

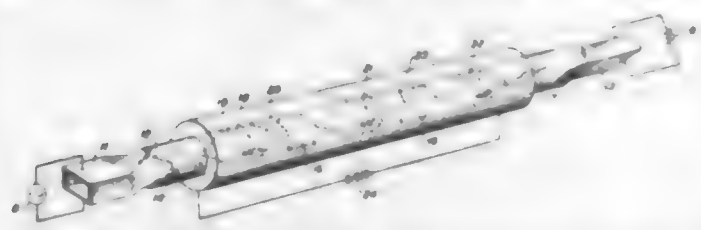
2,875,416

NON-RECIPROCAL WAVE TRANSMISSION

Arthur G. Fox, Rumson, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Original application June 17, 1953, Serial No. 362,243, now Patent No. 2,802,184, dated August 6, 1957. Divided and this application December 27, 1956, Serial No. 630,819

7 Claims. (Cl. 333—24)



1. An electromagnetic wave transmission isolator for maintaining between wave energy propagating in opposite directions therethrough a given substantial degree of isolation over a range of significantly different operating conditions determined by the ambient temperature and operating frequency, said isolator comprising a plurality of coupled individual isolators each adjusted to provide maximum isolation at successively different optimum operating conditions within said range over which said isolation is maintained, each of said individual isolators having an isolation response decreasing from said maximum and being greater than said given degree of isolation over a small fraction of said range, said successive optimum operating conditions being uniformly spaced from each other in temperature and frequency by an amount large enough to provide said given degree of isolation at the limits of said range and at the same time uniformly spaced from each other by an amount small enough that at a single operating condition between successive pairs of optimum operating conditions the sum of the isolation contributed by the decreasing isolation response of each said individual isolators is substantially equal to said given degree of isolation.

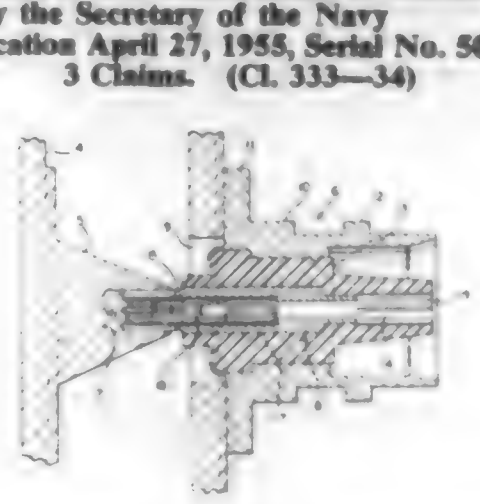
2,875,417

COAXIAL CONNECTOR

Ben H. Griffith, Jr., Baltimore, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application April 27, 1955, Serial No. 504,394

3 Claims. (Cl. 333—34)



1. In combination, a wave guide having a cone mounted therein opposite an aperture in the guide, said cone having a circular bore therein of a predetermined diameter facing said aperture, a coaxial connector comprising inner and outer sleeves, said outer sleeve being fixedly secured to the exterior of said guide about said aperture, said inner sleeve having an interiorly threaded portion, said inner sleeve and threaded portion having a longitudinally slotted end section having an outer diameter less than said predetermined diameter, said end section being adapted to extend into said wave guide and within said bore in non-contacting relation, and means within said inner sleeve adapted to cause said end section to expand whereby said end section contacts the walls of said bore.

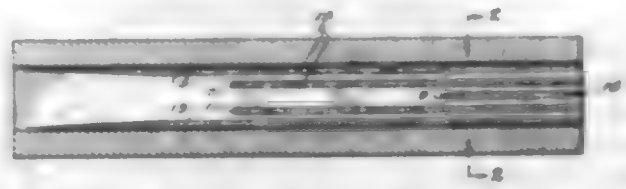
2,875,418

HIGH POWER RESISTIVE ATTENUATOR DEVICES

John C. Rolfs, Williston Park, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application August 26, 1954, Serial No. 452,411

9 Claims. (Cl. 333—81)



1. A wave guide load for dissipating microwave power, comprising a length of tubing of metal forming a rectangular wave guide having an axial passage of uniform transverse cross section along its full length and open on at least one end to the free passage of microwaves and provided with at least three grooves longitudinally disposed in at least one of the broad wall surfaces of said wave guide, the narrow wall surfaces of said wave guide being devoid of energy absorbing material, the spacing between adjacent grooves being approximately the same as the widths of said grooves, said grooves containing energy absorbing material.

2,875,419

TUNABLE RADIO FREQUENCY COILS

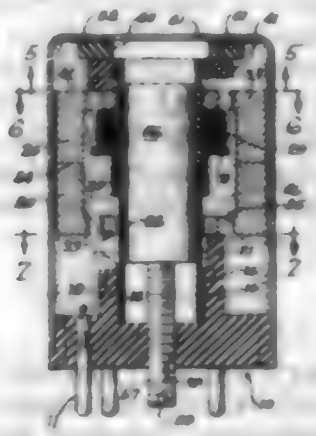
William Powell Lear, Sr., Pacific Palisades, Calif., assignor to Lear, Incorporated, Grand Rapids, Mich., a corporation of Illinois

Application October 14, 1954, Serial No. 462,241

7 Claims. (Cl. 336—83)

1. The improvement in single-tuned inductance coils and the like comprising a sleeve, a winding surrounding said sleeve, a core including a pair of cup-shaped members having mutually coextensive rims positioned with their respective rims in abutment to define a space within

which said winding is located, said members having passages for introduction of an insulating and bonding compound into said space to fill the same and to impregnate and support said winding, a base member having an upstanding post for receiving said winding, and a housing encasing said post, winding and members, said housing being secured to said base, conductive connections through said base to the ends of said winding, said compound also filling the remaining spaces within the hous-



ing and surrounding and adhering to the core, winding, sleeve and post, said compound also adhering to the interior of said housing and base whereby the housing and all parts therein are held in fixed spaced relation, a slidable element of ferrous material within said sleeve, and means extending through said base to said slidable element for varying the position thereof to selectively control the inductance of said winding filled with compound.

2,875,420
METHOD OF MANUFACTURING AN ELECTRIC COIL
Eugene G. Hofer, Chicago, Paul J. Koppe, Niles, and Siegfried R. Mischnick, Chicago, Ill., assignors to Zenith Radio Corporation, a corporation of Delaware
Application March 27, 1956, Serial No. 574,208
1 Claim. (Cl. 336—192)



The method of manufacturing an electric coil assembly having the terminal portions of a plurality of lead wires individually connected to the end portions of a corresponding plurality of tap wires projecting from a coil of concentric convolutions of an electrical conductor with the junctions of said lead and tap wires covered by a strip of insulating material bondable to itself, said method comprising the steps of: initially securing said lead wires directly to said strip; subsequently wrapping said strip entirely around the circumference of said coil, leaving the secured lead wires exposed and also leaving a continuing portion of said strip projecting away from said coil; electrically joining the terminal portions of said lead wires individually to the end portions of said tap wires; wrapping said continuing portion of said strip around said coil over and beyond the joined lead and tap wires; and bonding a region of said continuing portion beyond the joined lead and tap wires directly to the underlying layer of said strip.

2,875,421
ELECTRICAL TRUNK LINE AND CONNECTOR
Joseph Jordan, Oakland, Calif.
Application May 20, 1954, Serial No. 431,095
2 Claims. (Cl. 339—22)



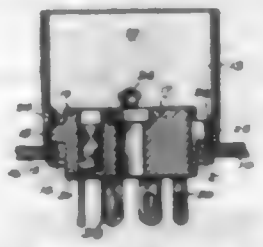
1. An improved trunk line for a lighting system comprising an elongated flexible electrically insulating housing of substantially solid rectangular cross section, and a pair of parallel electrical conductors disposed longitudinally within said housing substantially upon a diagonal of the cross section thereof, said housing having means defining a plurality of pairs of laterally spaced apertures disposed along the length of each side of said housing in communication with said conductors from exteriorly of said housing and defining a plurality of integral female electrical conductors on each side of said housing and spaced along the entire length thereof.

2,875,422
ELECTRIC SOCKET CONNECTORS
Sidney Geoffrey Young, London, England
Application January 19, 1954, Serial No. 405,017
Claims priority, application Great Britain January 27, 1953
3 Claims. (Cl. 339—64)



3. An electrical socket connector comprising a terminal block having opposite parallel side faces, a U-shaped resilient strap whose side limbs are in adjacent opposed relation to said sides of the block and whose connecting limb is spaced from a third surface of the block to define therebetween a space for the reception of a plug pin, and pivotal connections between the side faces of the block and said side limbs providing an axis of rotation transverse to the direction of insertion of the plug pin, each such pivotal connection comprising a conical projection engaging in a conical recess.

2,875,423
ELECTRONIC TUBE SOCKET
Edwin E. Ritter, Chalfonte, Pa., assignor to Hugh H. Eby, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application January 6, 1955, Serial No. 480,147
4 Claims. (Cl. 339—126)



1. In an electron tube socket assembly, a sleeve mounted socket, said socket having a face containing apertures for receiving the pins of an electron tube base when a tube is seated in said socket, an outwardly flanged peripheral ridge extending substantially completely about the circumference of the socket body in a plane parallel to said socket face, the outer edge of said peripheral ridge throughout its circumferential extent lying close adjacent to the inside surface of said sleeve

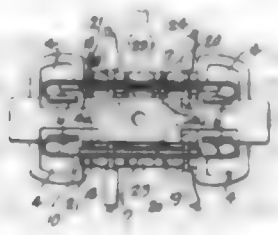
with the socket face lying in a plane substantially perpendicular to the axis of said sleeve, said sleeve being of reduced cross-section immediately below said ridge and providing thereby a substantially circumferentially extending shoulder upon which said socket is supported by said ridge, said sleeve reduced cross-section extending axially downward from said shoulder to form a skirt extending circumferentially about said socket body in radial spaced relation therefrom, whereby said socket assembly may be mounted to a chassis by inserting said sleeve skirt through a prepunched hole just large enough to accommodate said skirt with said skirt extending below the chassis undersurface and with said shoulder seated on said chassis upper surface, and by then flaring outward the skirt edge.

2,875,424

SCREWLESS MEANS FOR ATTACHING CONDUCTORS TO ELECTRICAL DEVICES

Harvey Hubbell, Long Hill, Conn., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn., a corporation of Connecticut

Application May 13, 1953, Serial No. 354,833
8 Claims. (Cl. 339—164)



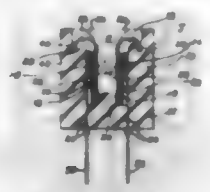
5. In a device of the character described, an insulating body member comprising two superimposed sections provided with longitudinal aligned grooves in their opposed faces, an electrical contact in said member, means for connecting a conductor wire to said contact comprising a substantially flat elongated strip of resilient conductor metal connected to the contact and provided with a longitudinal narrow slot, the walls of the strip inclined and extending laterally from the edges of the slot and yieldable to permit insertion of the free end of a conductor wire through the slot between said edges to be gripped thereby, and the outer side edges of the strip seated in said grooves to be held thereby against lateral movement as the wire is inserted in the slot and also by a pull on the wire.

2,875,425

MULTIPLE ELECTRICAL CONNECTOR

Leon Gilbert, Stamford, Conn., assignor to Continental Connector Corporation, Long Island City, N. Y., a corporation of New York

Application September 8, 1955, Serial No. 533,114
11 Claims. (Cl. 339—176)



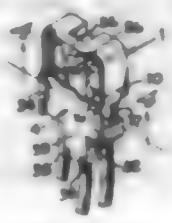
1. A multiple electrical connector comprising a jack assembly adapted to receive a printed circuit plug or like assembly, said jack assembly comprising a receptacle, said receptacle having an open-topped trough for receiving the plug assembly defined by two oppositely facing walls, contact elements spaced from one another along said trough, said contact elements each being formed from a strip of conductive material of substantially uniform thickness and resilient along substantially its entire length, said strip comprising a plurality of sections connected by integral reverse bends to comprise a bellows-shaped spring unit, the innermost of said sections being lodged against one of said trough walls, anchored at one end to the receptacle at a point remote from the open top of said trough and extending toward said open trough top, the outermost of said sections defining the contact which is engageable by a mating contact of the plug assembly and comprising a length of said strip the free terminal portion of which lies adjacent said open trough top, the said bellows-shaped spring unit being contact active as a compression spring, whereby a full surface engagement is obtained between said contact section of the unit and the mating contact of the plug assembly, and an element extending into said trough, engageable with the outermost of said sections of said contact elements at points remote from the open top of said trough, and limiting the movement of said outermost contact element sections laterally away from said innermost contact element sections.

2,875,426

ELECTRICAL CONNECTOR

Sigmund J. Skony, Cincinnati, Ohio, assignor to Van Engineering, Hermetic Terminal Division, Cincinnati, Ohio, a partnership

Application March 11, 1957, Serial No. 645,113
3 Claims. (Cl. 339—192)



1. An electrical plug-on type connector comprising a mounting block having opposed front and back faces, said block having a plurality of contact mounting openings extending therethrough, an electrical contact loosely mounted in each contact-mounting opening, said contacts having open ends presented to the front face for making plug-on connection with a respective plurality of terminal posts, a slide plate normally residing in a closed position overlying the said back face and confining said contacts therein, said block having groove means slidably engageable by and overlying at least a portion of the edges of said slide plate, said slide plate having a yieldable portion, and abutment means on said block normally engaging the yieldable portion of the slide plate and locking the same in said closed position, said yieldable portion being yieldable outwardly to a disengaged position relative to the abutment means for shifting the slide plate to an open position exposing said open face for inserting said contacts into said contact-mounting openings.

2,875,427

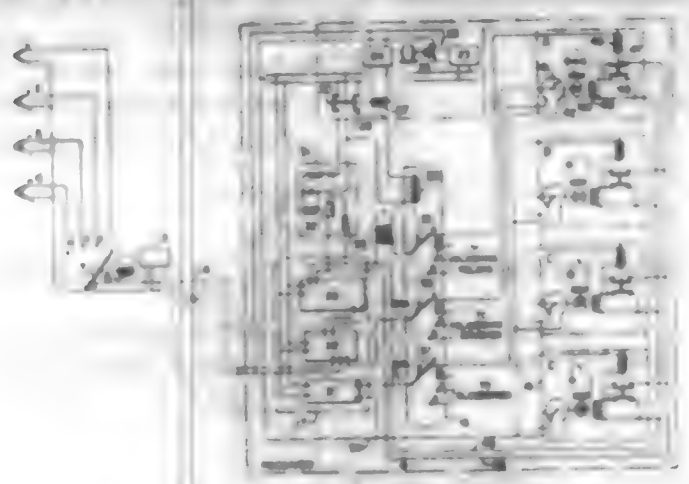
TELEMETERING SYSTEM

Harold H. Koppel, South Euclid, and Stanley G. Kasminsky, Euclid, Ohio, assignors to Bailey Meter Company, a corporation of Delaware

Application January 18, 1956, Serial No. 559,890
11 Claims. (Cl. 340—150)

1. A telemetering scanning system including, a pair of electric conductors, a first stepping switch connected to the transmitting end of the conductors, a plurality of primary element transducers individually responsive to variable conditions to produce electrical effects representative of the conditions and arranged to be sequentially connected to the electric conductors through the first stepping switch, a plurality of balanceable electric network components at the receiving end of the conductors each individually including a primary element transducer and each adapted to individually manifest the value of the condi-

tion thereof, a unitary circuit assembly at the receiving end of the conductors responsive successively to unbalance appearing in each balanceable electric network in which a primary element transducer is included in order to cause rebalancing of the network and manifestation of the condition value, a second stepping switch sequentially



connecting the unitary circuit assembly to respond to the balanceable electric networks, and synchronizing structure for the stepping switches for sequentially including each primary element transducer in a predetermined one of the balanceable electric networks with the unitary circuit assembly responsive to network unbalance.

2,875,428

FIXED INTERVAL TIME-CONTROLLED FLUID DISTRIBUTION SYSTEM

David E. Griswold, San Marino, Calif.

Application October 27, 1954, Serial No. 464,989
6 Claims. (Cl. 299—25)



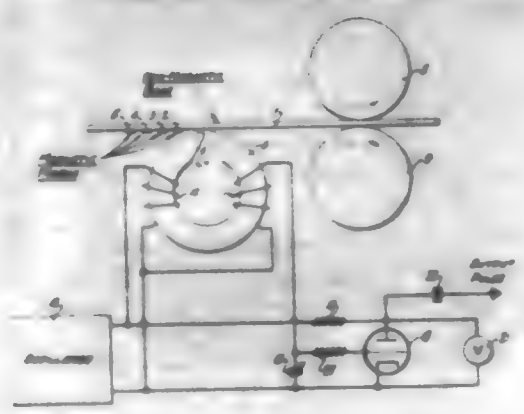
1. Automatic fluid flow control apparatus for controlling fluid flow through a plurality of fluid pressure operable valves, comprising: a housing having compactly mounted therein, a small pilot valve having a rotatable pilot disc; a motor and gear train for driving said disc; means including an electric timing clock for controlling the operation of said motor, said pilot valve having a fluid supply conduit, a drain conduit, and a plurality of control conduits connected thereto and adapted to be connected to said fluid pressure operable valves, said housing also having an opening through which said conduits extend, said disc being operable by said motor to control the flow of operating fluid to actuate each of said fluid pressure operable valves in a predetermined repeatable cycle beginning and ending at predetermined times as determined by the setting of said timing clock; and means including a cam rotatable with said disc and a switch operated by said cam for disabling said motor only upon said disc reaching a predetermined position corresponding to the end of a cycle.

2,875,427

PHASE SENSITIVE MAGNETIC HEAD

Edward A. Quade, San Jose, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application January 28, 1957, Serial No. 636,642
3 Claims. (Cl. 340—174)



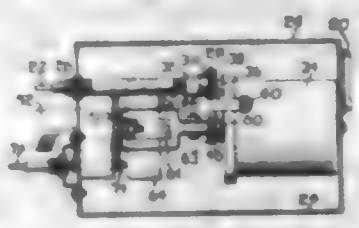
1. Apparatus for detecting magnetic bodies, comprising a magnetic core containing a gap, a winding upon said core, alternating current supply means for providing within said core alternating magnetic flux having a fixed frequency, means for tuning said winding to a resonant frequency that is higher than said fixed frequency in the absence of any magnetic body adjacent to said gap and is lower than said fixed frequency in the presence of a magnetic body adjacent to said gap, and phase-comparison means responsive to the relative values of said resonant frequency and said fixed frequency.

2,875,430

ALARM APPARATUS FOR MOTOR VEHICLE OPERATOR

Bernard J. Kayser, Jr., Delphos, Ohio

Application December 17, 1957, Serial No. 703,377
12 Claims. (Cl. 340—279)



1. Apparatus for alerting the operator of a motor vehicle in control of the steering mechanism thereof, the combination comprising detector means indicating operation of the steering mechanism, timer means, alarm means operable by the timer means, the timer means being adjustable to a zero time position, the timer means being operable from the zero time position to cause actuation of the alarm means after a given interval of time, and reset means operable by the detector means and connected to the timer means, the reset means adjusting the timer means to its zero time position upon each operation of the steering mechanism.

2,875,431

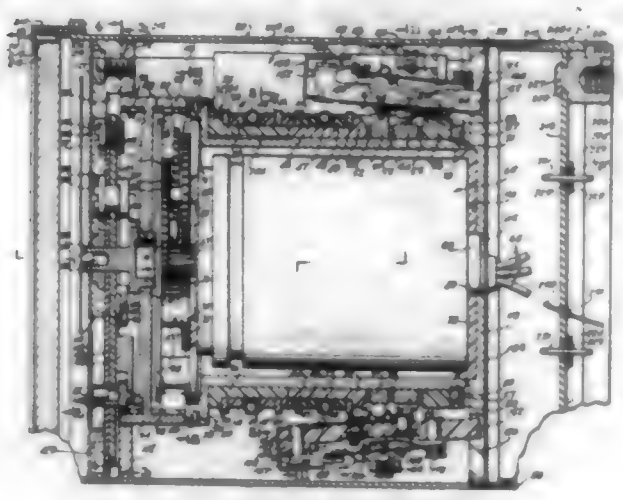
INDICATORS FOR TELEMETERING SYSTEMS

Clarence A. de Giers, Roslyn, and Ernest V. Sorensy, Brooklyn, N. Y., assignors to The Liquidometer Corporation, a corporation of Delaware

Application October 21, 1955, Serial No. 541,878
14 Claims. (Cl. 340—316)

1. In an indicator device, a frame, a motor, a tubular member supported for rotation and coaxial with said motor, a plurality of control elements on said tubular mem-

ber movable therewith and cooperating with stationary elements thereabout to effect certain controls, a pinion on said motor, a ring gear fixed to said tubular member and carrying a main pointer, said ring gear having internal teeth, gear reduction means between said pinion and said internal ring gear for rotating said tubular member,



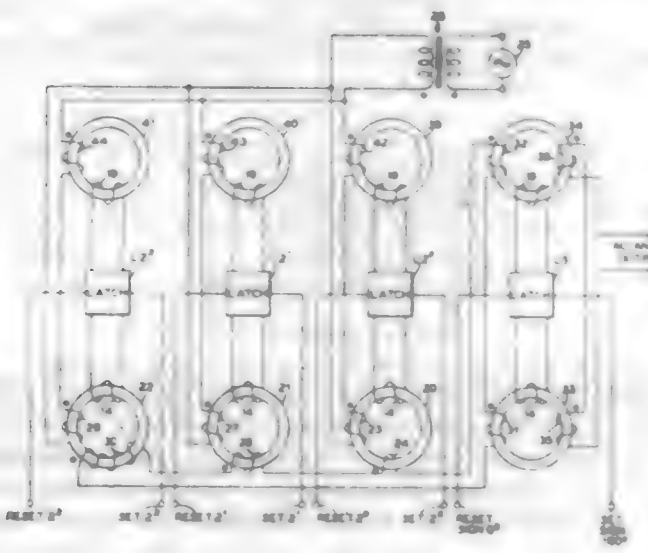
a second set of teeth on said ring gear isolated from said first teeth, a pinion meshing with the teeth of said second set and carrying an auxiliary pointer, a main dial on said frame traversed by said main pointer, and a secondary dial impressed into said first dial and traversed by said auxiliary pointer.

2,875,432

SIGNAL TRANSLATING APPARATUS

George R. Markow, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application December 30, 1955, Serial No. 556,670
18 Claims. (Cl. 340—347)



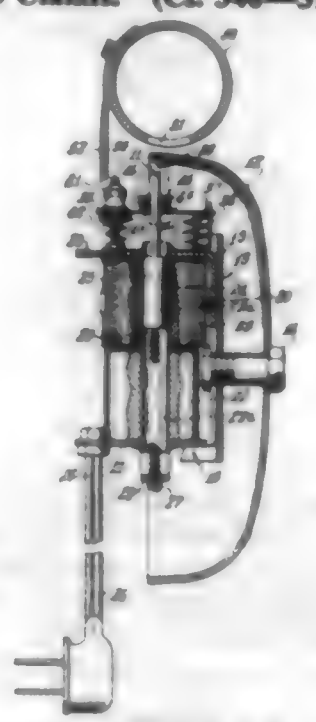
1. Apparatus for converting digital words containing a plurality of digits into an A. C. analog voltage, said apparatus comprising core means for each of a selected number of said digits, input, output and control windings on said core means for each digit, means for supplying an A. C. voltage to said input windings, means connected to the control winding on each core means for conditioning said core means in a saturated or unsaturated state dependent upon the value of the input for the digit with which the core means is associated, the turns ratio between the input and output windings on each of said core means having an ordered relationship for producing a desired voltage at the output winding of each core means when said core means is unsaturated, and means for summing the voltages appearing across the output windings to produce said A. C. analog voltage.

2,875,433

ADJUSTABLE SOUND LEVEL CONTROL FOR AUDIBLE SIGNALS OF THE VIBRATORY TYPE

Roscoe D. Bean, Shrewsbury, N. J., assignor to Wheelock Signals, Inc., Long Branch, N. J., a corporation of New Jersey

Application December 27, 1956, Serial No. 630,793
5 Claims. (Cl. 340—392)



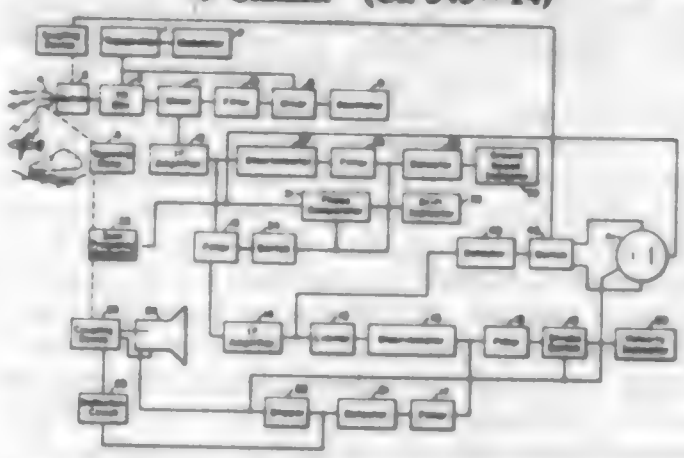
1. In an electrically actuated bell assembly having a ringing action of adjustable intensity, a bell shell, an electromagnetically actuated motor including a reciprocating armature movable to and fro across a mean position, striker means movable with the armature to engage the bell shell in continuous ringing action upon energization of the motor, support means to mount the bell shell and motor in relatively fixed relationship with a predetermined, fixed spacing between the mean position of the armature and the striker means and the bell shell, adjustable abutment means selectively interposable to block the travel of the armature from its mean position to its position in which the striker means is remote from the bell shell, thereby to vary the intensity of the ringing action, said abutment means including a shoulder carried by the armature intermediate the striker means and the motor, and a spring supported plate adjustable with respect to the support means along the path of travel of said shoulder, said plate serving as a yieldable and adjustable stop for the shoulder.

2,875,434

REFLECTED WAVE DETECTION SYSTEM

Jedrzej Lipinski, Alberton, Ontario, and Theodore C. Cheston, Ottawa, Ontario, Canada, assignors to Canadian Westinghouse Company, Limited, Hamilton, Ontario, Canada

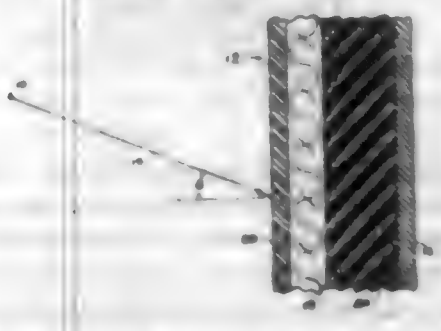
Application June 9, 1955, Serial No. 514,182
Claims priority, application Canada June 26, 1954
9 Claims. (Cl. 343—14)



3. A reflected wave detection system comprising a transmitter for generating frequency modulated energy,

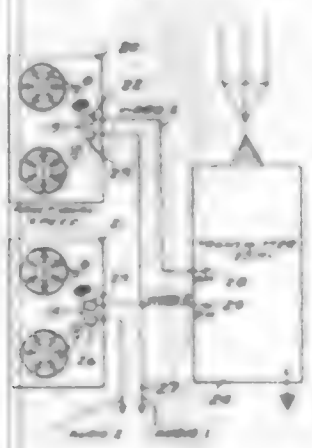
a directive antena for radiating said energy, means for causing said antenna to scan at a predetermined scanning frequency, means for receiving such of said transmitted energy as is reflected from surrounding objects, a pair of signal channels into which said received signals are fed, one of said channels including a frequency discriminator and a filter coupled to the output of said discriminator, said filter being tuned to said scanning frequency, variable band rejection filter means including in said other channel, and means responsive to the output of said first-mentioned filter for varying the rejection band of said variable filter means.

2,875,435
ELECTROMAGNETIC WAVE ABSORBING DIELECTRIC WALLS
Edward B. McMillan, Ipswich, Mass.
Application August 18, 1953, Serial No. 375,041
7 Claims. (Cl. 343—18)



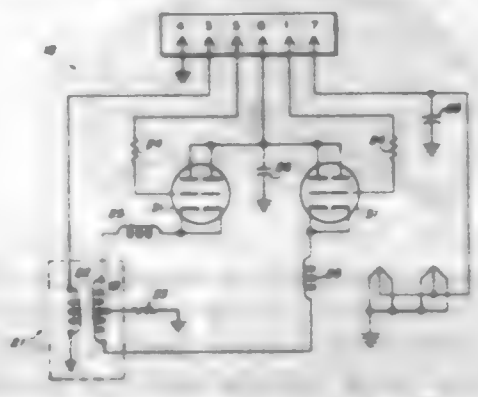
7. An electromagnetic-wave-absorbing dielectric wall comprising, in sequence, a reflective surface, a dielectric spacing layer, a high-loss layer, and a high-refractive-index dielectric tuning layer, said dielectric tuning layer having a high refractive index relative to said dielectric spacing layer and a low loss tangent relative to said high-loss layer.

2,875,436
TELEVISION RELAY SYSTEM
John Hays Hammond, Jr., Gloucester, Mass.
Application March 9, 1955, Serial No. 493,260
8 Claims. (Cl. 343—202)



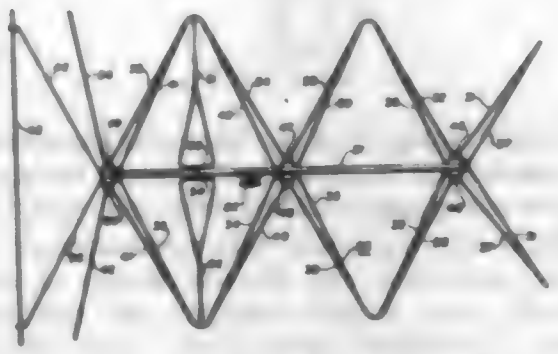
1. The method of relaying television-type signals over long distances, which comprises producing two or more television-type signals having normal television-signal frequencies, recording said signals electrically to make two or more records operating at normal speed carrying said signals at the original television-signal frequencies, continuously transcribing said records simultaneously at a speed lower than each of said normal speed by a predetermined ratio to produce signals for each record corresponding to said first signals but having frequencies which are lower than the original frequencies by said ratio, transmitting simultaneously by two or more channels of a multiplex radio system said last signals on a single carrier wave of a frequency lower than a normal television carrier frequency by approximately said ratio and is adapted to be transmitted over long distances, receiving and recording said signals simultaneously at a remote point to make two or more records corresponding to said first records and operating at said lower speed, transcribing said last records at a speed greater than its recording speed by the inverse of said ratio to produce derived signals having the original television-signal frequencies, modulating a carrier wave of normal television carrier frequency separately by each of said last signals, and transmitting said last modulated carrier.

2,875,437
BROADBAND ACTIVE TYPE RECEIVING ANTENNA MULTICOUPLER
Louis L. George, Jr., San Diego, Calif.
Application August 20, 1954, Serial No. 451,318
4 Claims. (Cl. 343—205)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus for operating a plurality of radio receivers from a single antenna without interaction between the receivers and with a minimum of interference and overload caused by interference signals comprising, in combination, an antenna circuit, an artificial transmission line circuit connected thereto and having suitable electrical outlets for connecting other circuits to said transmission line circuit, a cathode-follower stage including a pair of grid controlled tubes connected to each of said outlets, a transformer for each stage having the ends of a center tapped primary winding connected respectively to the cathode circuit of each tube through a small radio frequency choke for forming a filter with the stray circuit capacity and provide an improved frequency response, and a grid bias provided by a common cathode resistor connected to the said center tap of the primary.

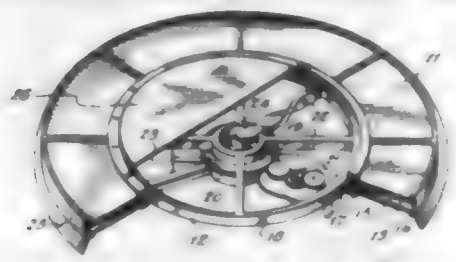
2,875,438
DIRECTIONAL ANTENNA ARRAY
Donald L. Hings, Vancouver, British Columbia, Canada
Application April 10, 1953, Serial No. 347,872
20 Claims. (Cl. 343—733)



3. An antenna having a directivity pattern predominantly toward the front thereof, comprising first through fourth elements all substantially equal in length, fastening means for said elements having a center, said first and second elements extending forwardly and said third and fourth elements extending rearwardly relative to said fastening means, said third and fourth elements attaching to said fastening means at locations thereon spaced further from said center than the attaching locations of said first and second elements to effectively increase the over-

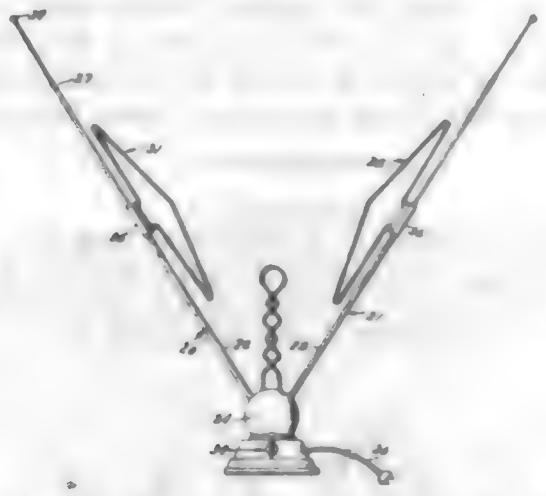
all length of said third and fourth elements relative to said first and second elements, said first and second elements having opposite polarity, and said first and third elements having the same polarity, said first and third elements attaching to said fastening means on the same side of center, whereby the current flowing between said first and second elements and between said third and fourth elements flows in the same direction in said fastening means for in-phase current coupling.

2,875,439
CENTER-FED ANNULAR SCANNING ANTENNA
Bernard Berkowitz, New Hyde Park, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application January 26, 1956, Serial No. 561,966
15 Claims. (Cl. 343—754)



1. An antenna comprising an annular lens having a radially varying effective index of refraction and a radiator having a substantially convex apertured portion, said apertured portion being disposed adjacent the inner circumferential boundary of said lens and adapted to direct electromagnetic energy across said boundary.

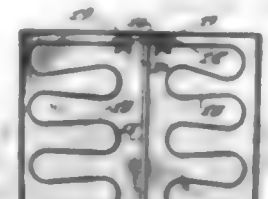
2,875,440
HIGH PERFORMANCE TELEVISION INDOOR ANTENNA
Sidney Pariser, Mount Vernon, N. Y., assignor to Radio Merchandise Sales Inc., New York, N. Y., a corporation of New York
Application December 19, 1957, Serial No. 703,947
20 Claims. (Cl. 343—802)



1. An indoor antenna of the character described comprising a dipole arm composed of a linear tubular member, a rod telescopically colinear with said tubular member, phasing means supported with said member, and circuit means connecting said phasing means in electrical series between said tubular member and rod, whereby the antenna is rendered substantially more effective in its reception of the higher frequency signals to be received.

2,875,441
TWIN MULTIPLE LOOP TELEVISION ANTENNA
James A. McGrane, Ossining, N. Y.
Application October 14, 1954, Serial No. 462,258
3 Claims. (Cl. 343—806)

1. A television antenna comprising a mast, a pair of wings of elongated material each formed with a plurality of vertically spaced and substantially horizontally extending U-shaped loops lying in a single plane and having their central portions staggered alternately with respect to each other, each of said wings being disposed on opposite sides of said mast, and defining a single plane therewith, means for mounting the upper ends of said wings upon said mast for rotation about a vertical axis, and electrically connecting the same, insulator means for rotatably mounting the lower ends of said wings to said mast for rotation about said vertical axis, and including



means for connecting the antenna to the television set, said means for securing the upper ends of said wings to said rod comprising a flat plate of electrically conductive material having a central opening therethrough, screw means passing through said opening and engaging the upper end of said mast, said plate having oppositely disposed elongated slots, the upper ends of said wings having openings adapted to be aligned with said slots, bolts passing downwardly through said slots and the openings in said wings therebelow and wing nuts on the lower ends of said bolts.

2,875,442
MOTOR VEHICLE ANTENNA
Isak Benis and William Trompeter, Bronx, N. Y.
Application March 24, 1955, Serial No. 496,462
8 Claims. (Cl. 343—889)



1. An antenna comprising a tubular housing having an upper outlet opening, a plurality of mutually telescoping antenna rods disposed in said housing and extensible telescopically therefrom out of said upper outlet opening of said housing, and connectable to a radio receiver for reception of radio wave energy, locking base means carried on said end of said housing, and defining an opening through and out of which said antenna rods are extensible when in unlocked position, locking means threadedly engageable with said locking base means so as to block said opening when in locked position, so as to block extension of said antenna rods out of said housing, and key means for unlocking said locking means to unblock said locking base means opening.

2,875,443

ANTENNA

Armig G. Kandoian, Glen Rock, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application June 21, 1954, Serial No. 438,222
5 Claims. (Cl. 343—895)



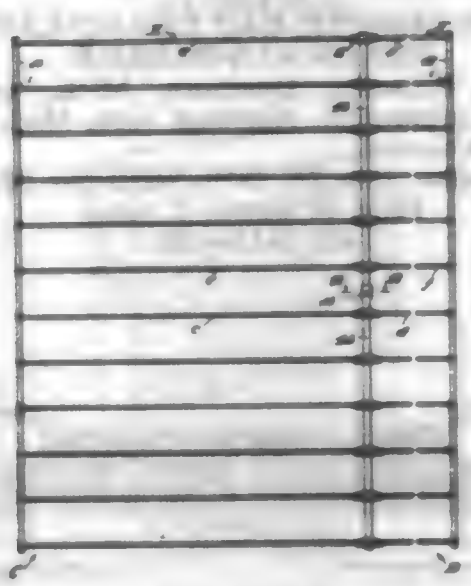
1. An antenna system tunable over a broad band of frequencies comprising a vertically disposed radiator with capacitive and inductive top loading members coupled to the upper end of said radiator and having adjustable tuning means to change the effective length of said inductive top loading member to tune said antenna system over said broad band of frequencies, a second helical conductor coupling the lower end of said radiator to ground and means coupling a transmission line of fixed characteristic impedance to said second helical conductor so that the impedance of said antenna system is relatively constant and does not vary beyond chosen limits when said tuning means is adjusted to tune the antenna system to a frequency in said broad band of frequencies.

2,875,444

RADIO WAVE REFLECTOR

Faust R. Gonsett, Burbank, Calif., assignor to Young Spring & Wire Corp., Detroit, Mich., a corporation of Michigan

Application June 15, 1954, Serial No. 436,945
9 Claims. (Cl. 343—915)

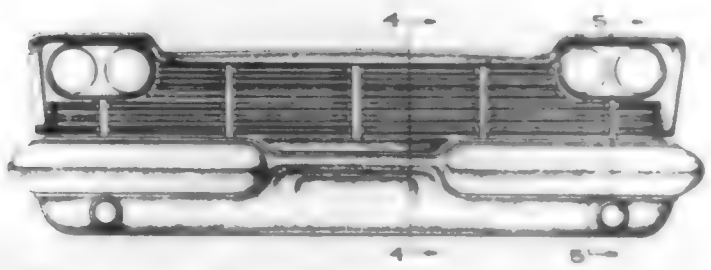


1. A foldable radio-wave reflector comprising a pair of foldably interconnected grille sections each of which consists of a pair of co-planar foldable portions including a shaft and a series of parallel reflector bars on each of opposite sides of said shaft and pivotally connected thereto in uniformly spaced relation to each other along the length of the shaft for positioning to project in angular relation thereto or to be folded contiguous thereto, the bars of each series being collectively interconnected at the outer ends thereof.

DESIGNS

FEBRUARY 24, 1959

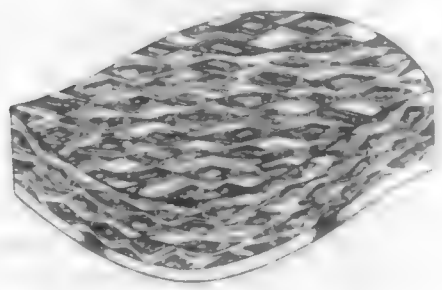
184,471
COMBINED BUMPER, GRILLE AND LAMP UNIT FOR AN AUTOMOBILE
William M. Brownlie, Dearborn, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application June 26, 1958, Serial No. 51,550
Term of patent 7 years
(Cl. D14—18)



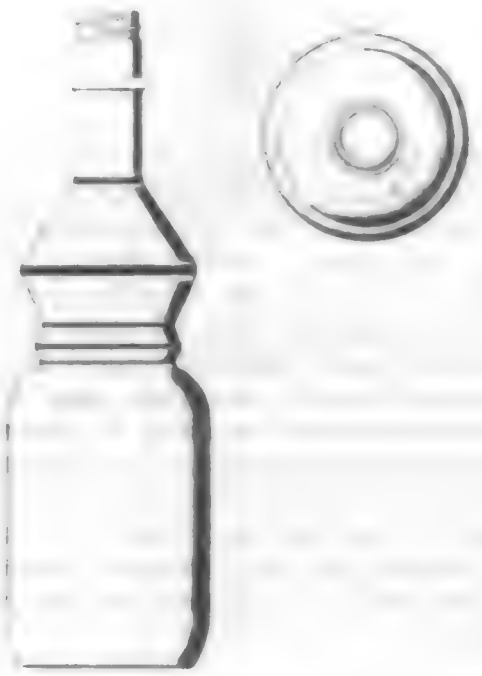
184,472
COACH FOR PICK-UP TRUCKS
Steve J. De Gennaro, Anaheim, and Steve P. De Gennaro and John E. De Gennaro, Riverside, Calif.
Application July 19, 1957, Serial No. 47,005
Term of patent 14 years
(Cl. D14—3)



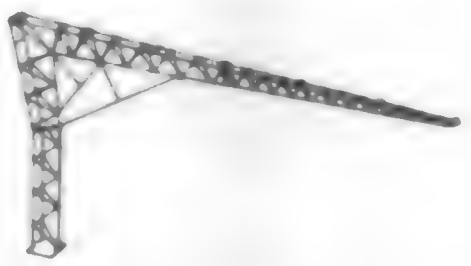
184,473
BOX FOR A CAKE OF SOAP
Corina Ruiz de Lahoud, Madrid, Spain
Application February 1, 1957, Serial No. 44,713
Term of patent 14 years
(Cl. D58—12)



184,474
BOTTLE
Chadbourn L. Dillon, Downey, Calif., assignor to Bohemian Distributing Company, Los Angeles, Calif., a corporation of California
Application October 20, 1958, Serial No. 53,037
Term of patent 14 years
(Cl. D58—8)



184,475
SHELTER SUPPORT
Ralph B. Feffer, Jr., Phoenix, Ariz.
Application November 21, 1957, Serial No. 48,590
Term of patent 14 years
(Cl. D13—4)



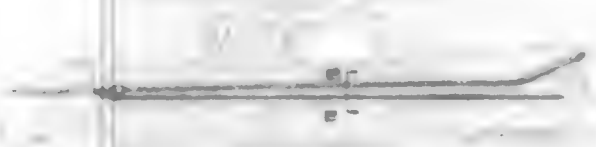
184,476
CHRISTMAS TREE ORNAMENT OR SIMILAR ARTICLE
Alfred A. Flaster, New York, N. Y.
Application March 31, 1958, Serial No. 50,233
Term of patent 7 years
(Cl. D29—1)



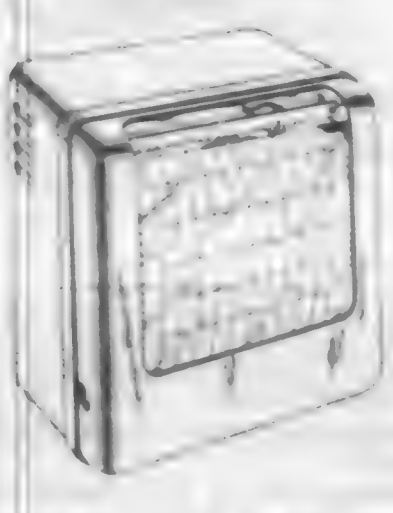
184,477
CHRISTMAS ORNAMENT OR SIMILAR ARTICLE
Alfred A. Flaster, New York, N. Y.
Application March 31, 1958, Serial No. 50,237
Term of patent 3½ years
(Cl. D29—1)



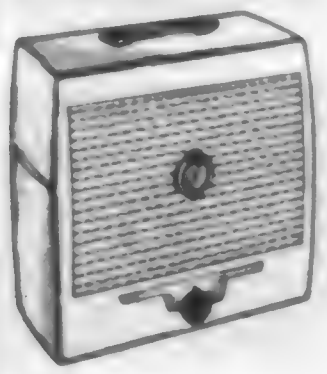
184,478
AUTOMOBILE
Vincent J. Geraci, Detroit, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application June 26, 1958, Serial No. 51,547
Term of patent 7 years
(Cl. D14—6)



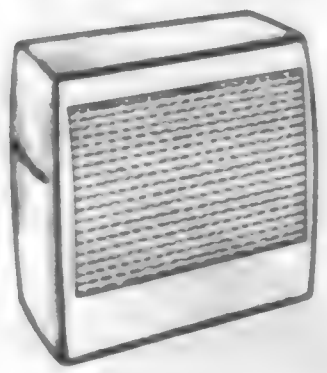
184,479
GRAPHIC RECORDER
Hugh J. Hall, Los Altos, and John O. Yeiser, Palo Alto, Calif., assignors to Varian Associates, San Carlos, Calif., a corporation of California
Application January 28, 1957, Serial No. 44,639
Term of patent 14 years
(Cl. D26—1)



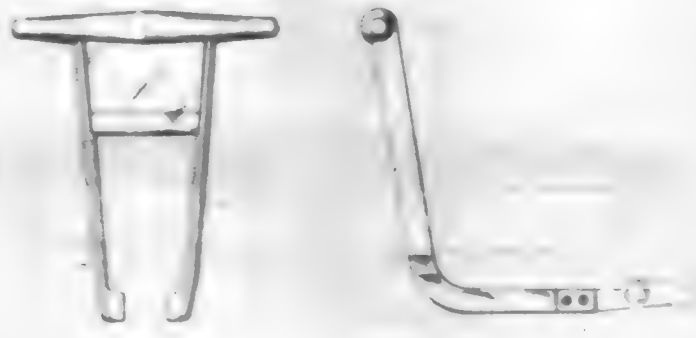
184,480
ELECTRIC HEATER
Jon W. Hauser, St. Charles Township, Kane County, Ill., assignor to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware
Application March 5, 1958, Serial No. 49,910
Term of patent 14 years
(Cl. D81—10)



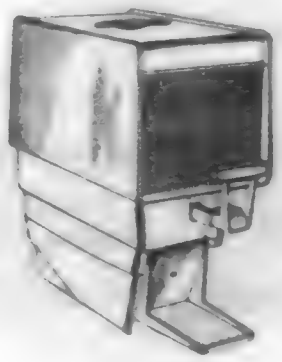
184,481
ELECTRIC HEATER CASING
Jon W. Hauser, St. Charles Township, Kane County, Ill., assignor to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware
Application March 5, 1958, Serial No. 49,913
Term of patent 14 years
(Cl. D81—10)



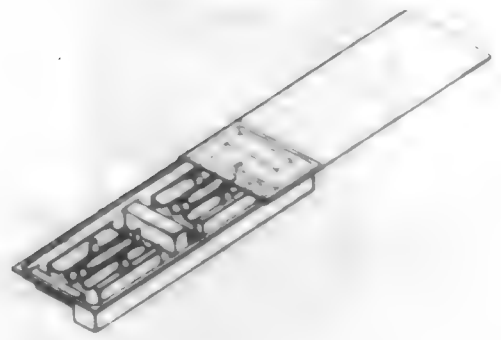
184,482
OPERATING HANDLE FOR A BEVERAGE DISPENSER
Clare E. Hodgman, Mamaroneck, N. Y., assignor to The Coca-Cola Company, Atlanta, Ga., a corporation of Delaware
Application April 18, 1957, Serial No. 45,788
Term of patent 14 years
(Cl. D2—3)



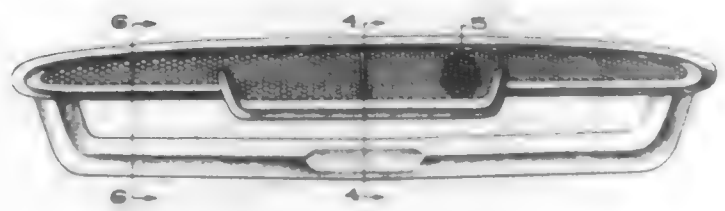
184,483
BEVERAGE DISPENSER
Clare E. Hodgman, Mamaroneck, N. Y., assignor to The Coca-Cola Company, New York, N. Y., a corporation of Delaware
Application March 25, 1958, Serial No. 50,169
Term of patent 14 years
(Cl. D2—3)



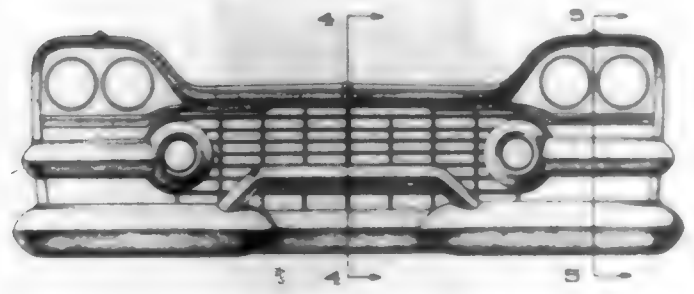
184,484
PACKING BOX FOR A WRITING INSTRUMENT AND REPLACEMENT CARTRIDGES THEREFOR OR SIMILAR ARTICLES
Julius M. Kahn, Englewood, N. J., assignor to David Kahn, Inc., Hudson County, N. J., a corporation of New Jersey
Application September 27, 1956, Serial No. 43,113
Term of patent 14 years
(Cl. D58—13)



184,485
COMBINED BUMPER AND GRILLE UNIT FOR AN AUTOMOBILE
Jack E. Kenitz, Detroit, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application June 26, 1958, Serial No. 51,549
Term of patent 7 years
(Cl. D14—18)



184,486
COMBINED BUMPER, GRILLE AND LAMP UNIT FOR AN AUTOMOBILE
Donald F. Kopka, Oak Park, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application June 26, 1958, Serial No. 51,545
Term of patent 7 years
(Cl. D14—18)



184,487
HOUSING FOR A MICROSCOPE UNIT
Kenneth D. Maier, Mendon, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application April 2, 1958, Serial No. 50,295
Term of patent 14 years
(Cl. D57—1)



184,488
COOKING RANGE UNIT
William J. Miller, Galesburg, Ill.
Application February 20, 1956, Serial No. 40,218
Term of patent 3½ years
(Cl. D81—4)



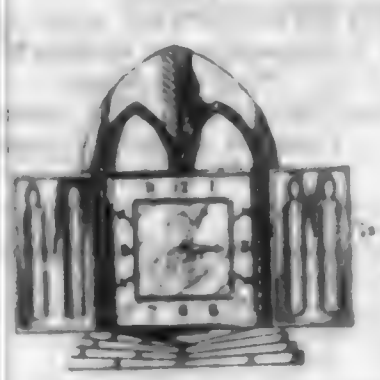
184,489
DOOR CLOSER
Frank M. Newell, Lowell, Mich., assignor to Newell Manufacturing Company, Lowell, Mich., a corporation of Michigan
Application July 15, 1957, Serial No. 46,948
Term of patent 14 years
(Cl. D10—7)



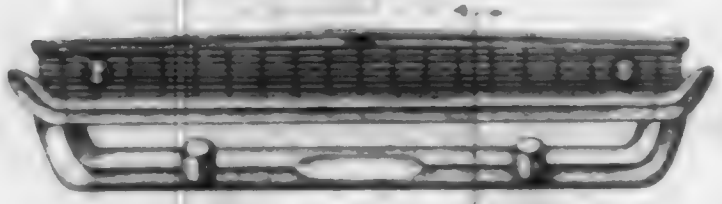
184,490
PORTABLE AUTOMOBILE COOLER
Gordon D. Petrie, Phoenix, Ariz., assignor to Wright Mfg. Company, Phoenix, Ariz., a corporation of Arizona
Application August 11, 1958, Serial No. 52,154
Term of patent 14 years
(Cl. D14—6)



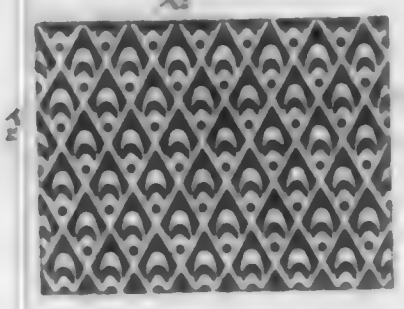
184,491
CLOCK
Nicholas Pitrelli, Brooklyn, N. Y.
Application January 31, 1958, Serial No. 49,451
Term of patent 14 years
(Cl. D42—7)



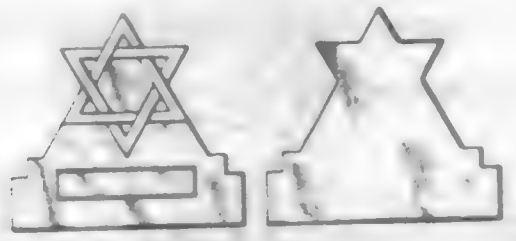
184,492
COMBINED BUMPER, GRILLE AND LAMP UNIT FOR AN AUTOMOBILE
Frederick Reynolds, Birmingham, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application June 26, 1958, Serial No. 51,544
Term of patent 7 years
(Cl. D14—18)



184,493
PLASTIC SHEET MATERIAL OR SIMILAR ARTICLE
Arno H. Schelding, Rowayton, Conn., assignor to L. E. Carpenter & Company, Inc., Wharton, N. J., a corporation of New Jersey
Application September 3, 1957, Serial No. 47,586
Term of patent 14 years
(Cl. D87—3)



184,494
MONUMENT
Nathan Schooler, Beechhurst, N. Y.
Application September 23, 1957, Serial No. 47,824
Term of patent 3½ years
(Cl. D79—2)



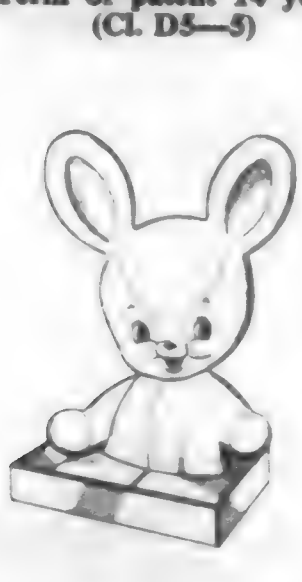
184,495
CASING FOR AN AMUSEMENT GAME APPARATUS
Harry L. Skelly, Reno, Nev.
Application August 8, 1958, Serial No. 52,141
Term of patent 14 years
(Cl. D34—5)



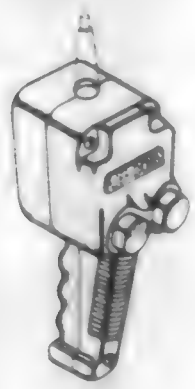
184,496
TYPEWRITING MACHINE
Raymond Spilman, Darien, Conn., and Roger Engel, Forest Hills, and Charles A. Jerabek, Bayshore, N. Y., assignors to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application June 23, 1958, Serial No. 51,464
Term of patent 14 years
(Cl. D64—11)



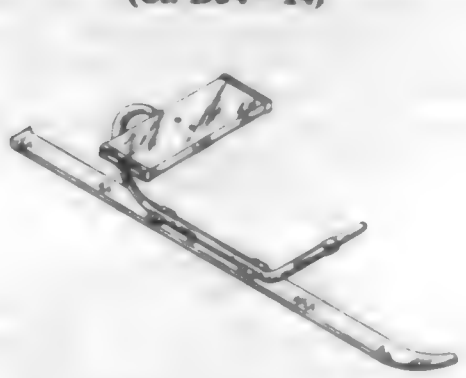
184,497
BABY CRIB TRAY
Jeanne E. Spiro, North Hollywood, Calif.
Application June 6, 1957, Serial No. 46,508
Term of patent 14 years
(Cl. D5—5)



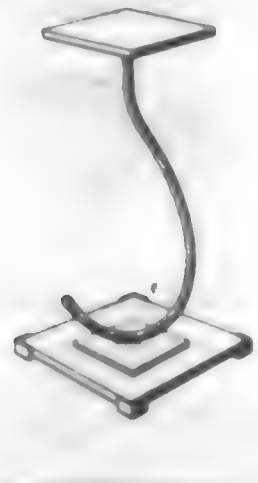
184,498
PISTOL GRIP SWITCH
Bobbie Lee Tevebaugh, Danville, Ill., assignor to Duff-Norton Company, Pittsburgh, Pa.
Application June 2, 1958, Serial No. 51,143
Term of patent 14 years
(Cl. D26—1)



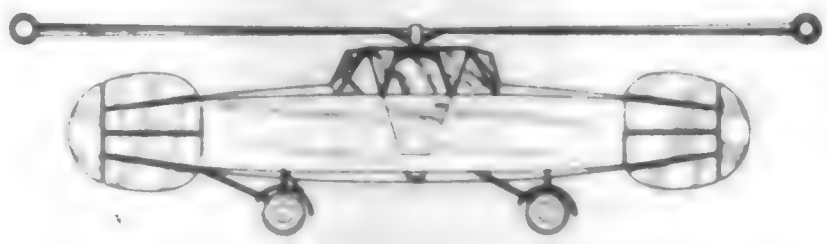
184,499
SKI SLED
Nicholas Van Slooten, Caledonia, Mich.
Application September 11, 1958, Serial No. 52,612
Term of patent 14 years
(Cl. D34—14)



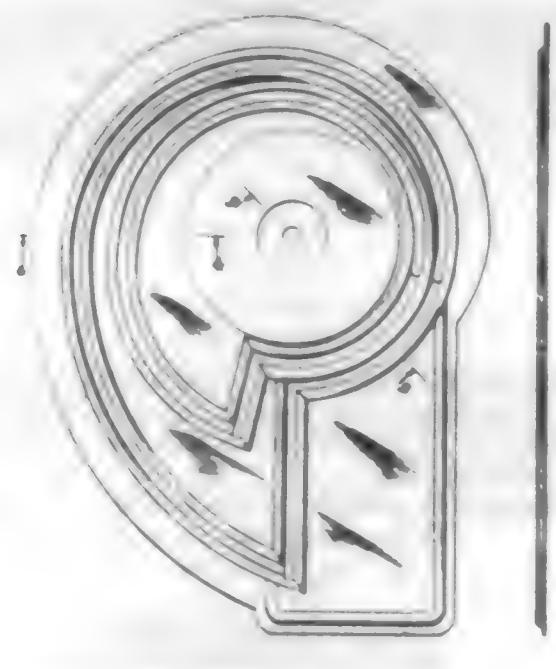
184,500
PEDESTAL DISPLAY STAND
Clarence J. White, Rogers, Ark.
Application September 7, 1956, Serial No. 42,860
Term of patent 3½ years
(Cl. D89—10)



184,501
COMBINED HELICOPTER AND AUTOMOBILE
Walter F. Wlaschin and Hilbert W. Nieman, St. Paul, Minn.
Application November 7, 1957, Serial No. 48,366
Term of patent 14 years
(Cl. D71—1)



184,502
PHONOGRAPH RECORD REPEATER
Robert A. Wolfe, Fairfield, Conn., assignor to Spear Products, Incorporated, Bridgeport, Conn., a corporation of Connecticut
Application April 11, 1958, Serial No. 50,443
Term of patent 14 years
(Cl. D56—4)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 24TH DAY OF FEBRUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Blaw-Knox Co.: *See*—
Robinson, George L. Re. 24,606.

Denkert, Henry, to M. Denkert & Co. Baseball glove with pre-formed pocket. Re. 24,610, 2–24–59, Cl. 2—19.

Denkert, M., & Co.: *See*—
Denkert, Henry. Re. 24,610.

Eaton Mfg. Co.: *See*—
Winther, Anthony. Re. 24,608.

Johnson, Glenn D., to Joy Mfg. Co. Well head control. Re. 24,609, 2–24–59, Cl. 166—85.

Joy Mfg. Co.: *See*—
Johnson, Glenn D. Re. 24,609.

Robinson, George L., to Blaw-Knox Co. Replaceable support for refractory lining of furnace doors. Re. 24,606, 2–24–59, Cl. 110—173.

Scovill Mfg. Co.: *See*—
Seyfried, Arthur W. Re. 24,607.

Seyfried, Arthur W., to Scovill Mfg. Co. Flexible coupling means for separable shafts. Re. 24,607, 2–24–59, Cl. 192—55.

Stamos, Chris, to The United Electric Coal Companies. Suspension means for conveyor belt. Re. 24,611, 2–24–59, Cl. 198—192.

United Electric Coal Companies, The: *See*—
Stamos, Chris. Re. 24,611.

Winther, Anthony, to Eaton Mfg. Co. Magnetic clutch. Re. 24,608, 2–24–59, Cl. 192—21.5.

LIST OF PLANT PATENTEES

Conard-Pyle Co., The: *See*—
Fisher, Esther G. 1,812.

Fisher, Esther G., to The Conard-Pyle Co. Rose plant. 1,812, 2–24–59, Cl. 47—61.

Kuramoto, Shigenobu. Rose plant. 1,813, 2–24–59, Cl. 47—61.

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Bausch & Lomb Optical Co.: *See*—
Maier, Kenneth D. 184,487.

Bohemian Distributing Co.: *See*—
Dillon, Chadbourn L. 184,474.

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Carpenter, L. E., & Co., Inc.: *See*—
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Hodgman, Clare E. 184,483.

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De Gennaro, Steve J., S. P., and J. E. 184,472.

De Gennaro, Steve J., S. P., and J. E. Coach for pick-up trucks. 184,472, 2–24–59, Cl. D14—3.

De Gennaro, Steve P.: *See*—
De Gennaro, Steve J., S. P., and J. E. 184,472.

De Laboud, Corina R. Box for a cake of soap. 184,473, 2–24–59, Cl. D58—12.

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Tevebaugh, Bobbie L. 184,498.

Engel, Roger: *See*—
Spilman, Raymond, Engel, and Jerabek. 184,496.

Feffer, Ralph B., Jr. Shelter support. 184,475, 2–24–59, Cl. D13—4.

Flaster, Alfred A. Christmas tree ornament or similar article. 184,476, 2–24–59, Cl. D29—1.

Flaster, Alfred A. Christmas ornament or similar article. 184,477, 2–24–59, Cl. D29—1.

Geraci, Vincent J., to Chrysler Corp. Automobile. 184,478, 2–24–59, Cl. D14—8.

Hall, Hugh J., and J. O. Yeiser, to Varian Associates. Graphic recorder. 184,479, 2–24–59, Cl. D26—1.

Hauser, Jon W., to McGraw-Edison Co. Electric heater. 184,480, 2–24–59, Cl. D81—10.

Hauser, Jon W., to McGraw-Edison Co. Electric heater casing. 184,481, 2–24–59, Cl. D81—10.

Hodgman, Clare E., to The Coca-Cola Co. Operating handle for a beverage dispenser. 184,482, 2–24–59, Cl. D2—3.

Hodgman, Clare E., to The Coca-Cola Co. Beverage dispenser. 184,483, 2–24–59, Cl. D2—3.

Jerabek, Charles A.: *See*—
Spilman, Raymond, Engel, and Jerabek. 184,496.

Kahn, David, Inc.: *See*—
Kahn, Julius M. 184,484.

Kahn, Julius M., to David Kahn, Inc. Packing box for a writing instrument and replacement cartridges therefor, or similar articles. 184,484, 2–24–59, Cl. D58—13.

Kenitz, Jack E., to Chrysler Corp. Combined bumper and grill unit for an automobile. 184,485, 2–24–59, Cl. D14—18.

Kopka, Donald F., to Chrysler Corp. Combined bumper, grille and lamp unit for an automobile. 184,486, 2–24–59, Cl. D14—18.

Maier, Kenneth D., to Bausch & Lomb Optical Co. Housing for a microscope unit. 184,487, 2–24–59, Cl. D57—1.

McGraw-Edison Co.: *See*—
Hauser, Jon W. 184,480.
Hauser, Jon W. 184,481.

Miller, William J. Cooking range unit. 184,488, 2–24–59, Cl. D81—4.

Newell, Frank M., to Newell Mfg. Co. Door closer. 184,489, 2–24–59, Cl. D10—7.

Newell Mfg. Co.: *See*—
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Nieman, Hilbert W.: *See*—
Wlaschin, Walter F., and Nieman. 184,501.

Petrie, Gordon D., to Wright Mfg. Co. Portable automobile cooler. 184,490, 2–24–59, Cl. D14—6.

Pitrelli, Nicholas. Clock. 184,491, 2–24–59, Cl. D42—7.

Reynolds, Frederick, to Chrysler Corp. Combined bumper, grille and lamp unit for an automobile. 184,492, 2–24–59, Cl. D14—18.

Scheiding, Arno H., to L. E. Carpenter & Co., Inc. Plastic sheet material or similar article. 184,493, 2–24–59, Cl. D87—3.

Schooler, Nathan. Monument. 184,494, 2–24–59, Cl. D79—2.

Skelly, Harry L. Casing for an amusement game apparatus. 184,495, 2–24–59, Cl. D34—5.

Spear Products, Inc.: *See*—
Wolfe, Robert A. 184,502.

Spilman, Raymond, E. Engel, and C. A. Jerabek, to Underwood Corp. Typewriting machine. 184,496, 2–24–59, Cl. D64—11.

Spiro, Jeanne E. Baby crib tray. 184,497, 2–24–59, Cl. D5—5.

Tevebaugh, Bobbie L., to Duff-Norton Co. Pistol grip switch. 184,498, 2–24–59, Cl. D26—1.

Underwood Corp.: *See*—
Spilman, Raymond, Engel, and Jerabek. 184,496.

Van Slooten, Nicholas. Ski sled. 184,499, 2–24–59, Cl. D34—14.

Varian Associates: *See*—
Hall, Hugh J., and Yeiser. 184,479.

White, Clarence J. Pedestal display stand. 184,500, 2–24–59, Cl. D60—10.

Wlaschin, Walter F., and H. W. Nieman. Combined helicopter and automobile. 184,501, 2–24–59, Cl. D71—1.

Wolfe, Robert A., to Spear Products, Inc. Phonograph record repeater. 184,502, 2–24–59, Cl. D56—4.

Wright Mfg. Co.: *See*—
Petrie, Gordon D. 184,490.

Yeiser, John O.: *See*—
Hall, Hugh J., and Yeiser. 184,479.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 24TH DAY OF FEBRUARY, 1959

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Ackermann, Franz, and A. E. Siegrist, to Ciba Ltd. Process for the optical brightening of materials of polyesters. 2,875,089, 2–24–59, Cl. 117—33.5.

Acme-Hamilton Mfg. Corp., The: *See*—
Kahn, Marvin M. 2,874,723.

Acme Steel Co.: *See*—
Wilson, Allen B. 2,874,652.

Adams, Dennis A. W., and A. K. Sarkar, to Hickson & Welch Ltd. Optical whitening agents. 2,875,106, 2–24–59, Cl. 117—335.

Adams, John T. Valve. 2,874,928, 2–24–59, Cl. 251—120.

Adams, Richard L., to Leach Corp. Relay. 2,875,298, 2–24–59, Cl. 200—87.

Admiral Photo Products Co.: *See*—
Butkevich, Stanley J. 2,874,498.

Aeroquip Corp.: *See*—
Elsner, Edwin C. 2,874,431.

Agfa Akt.: *See*—
Kaden, Willy, and Stiefenhofer. 2,874,914.

Ahlen, Karl G., to Svenska Motor Maskiner Aktiebolag. Heat exchanger. 2,874,940, 2–24–59, Cl. 257—241.

Ahlport, Brodie E. Reversing mechanism. 2,874,584, 2–24–59, Cl. 74—319.

Alles, Warren, D. J. George, and S. E. Tarby, to United States Steel Corp. Rod descaler. 2,874,451, 2–24–59, Cl. 29—81.

Airflo Roofing Co. of America, Inc.: *See*—
Ewart, Donald C., and Sieber. 2,875,080.

Air Preheater Corp., The: *See*—
Rahr, Harold, and Wildman. 2,874,939.
Woolard, Thomas L., and Peterson. 2,874,941.

Aktiebolaget Svenska Flaktfabriken: *See*—
Gustafsson, Stig, and Öhnfeldt. 2,874,802.
Löfgren, Bror, and Ögland. 2,874,481.
Löfgren, Bror E. 2,874,999.

Albert, Paul A., to Westinghouse Electric Corp. Iron-aluminum materials for magnetic applications. 2,875,114, 2–24–59, Cl. 148—120.

Albright, Roy A., to I-T-E Circuit Breaker Co. Metal enclosed isolated phase bus structure. 2,875,265, 2–24–59, Cl. 174—99.

Alger, James C. Hub cap lock. 2,874,561, 2–24–59, Cl. 70—169.

Allen, Alan A., to Milli-Switch Corp. Mounting means for switch units. 2,875,306, 2–24–59, Cl. 200—168.

Allen-Crawford Ltd.: *See*—
Pelletier, Joseph A. 2,874,649.

Allen, Herbert, to Cameron Iron Works, Inc. Slip assembly. 2,874,436, 2–24–59, Cl. 24—263.

Allied Chemical Corp.: *See*—
Winstrom, Leon O. 2,875,158.

Alliger, Glen, and H. P. Stevens, to The Firestone Tire & Rubber Co. Method of vulcanizing rubber with an N,N-dialkenylthiocarbamyl sulfenamide as an accelerator, and the vulcanizable composition. 2,875,260, 2–24–59, Cl. 260—793.

Allis-Chalmers Mfg. Co.: *See*—
Forrest, Frank R. 2,874,642.

Altgelt, Rudolph J., to Ford Motor Co. Two way plow with reversible moldboard. 2,874,788, 2–24–59, Cl. 172—219.

Altmann, Werner R., to Daimler-Benz Akt. Friction clutch with torque responsive lock. 2,874,817, 2–24–59, Cl. 192—114.

Alton Box Board Co.: *See*—
Woodward, William W. 2,874,834.

Altreuter, Royal K., J. W. Dowling, J. P. Race, and P. W. Thomas, to Esso Research and Engineering Co. Purification of secondary butyl alcohol. 2,875,138, 2–24–59, Cl. 202—39.

Aluminium Laboratories Ltd.: *See*—
Emter, Dietrich, and Winterstein. 2,874,429.

Ambelang, Joseph C., to The Firestone Tire & Rubber Co. Substituted thiocarbamyl-p-phenylenediamines as anti-ozone agents for rubber. 2,875,175, 2–24–59, Cl. 260—45.9.

Ambrose, Lawrence B.: *See*—
Dwyer, James E., and Ambrose. 2,874,772.

American Bosch Arma Corp.: *See*—
Bock, Robert O., and Davidson. 2,874,903.

American Cord & Webbing Co.: *See*—
Mills, Ralph B. 2,874,589.

American Cyanamid Co.: *See*—
Baker, Bernard R., and Kissman. 2,875,194.
Fox, Sidney M., Blichars, and Winterbottom. 2,875,247.
Lurie, David. 2,875,045.
Sellers, William N. 2,874,446.
Sullivan, Frank A. V., and Westerback. 2,875,202.

American Machine & Foundry Co.: *See*—
Zuercher, John. 2,874,823.

American Machine and Metals Inc.: *See*—
Harland, Philip W., and Storms. 2,874,572.

American Meter Co., Inc.: *See*—
Gray, Robert B. 2,874,569.

American Optical Co.: *See*—
Crandon, Harry D. 2,875,087.
Wright, John R. 2,874,610.

American Potash & Chemical Corp.: *See*—
Levens, Ernest, and Washburn. 2,875,236.

American Stay Co.: *See*—
Glasberg, Myer M. 2,874,963.

American Steel Foundries: *See*—
Baselt, Walter H. 2,874,811.
Foster, Theodore. 2,874,595.

Ancelle, Henri: *See*—
Bureaux, Jacques, Ancelle, and de Saint Chamant. 2,875,032.

Anchor Supply Co., Inc.: *See*—
Daus, John J., Jr. 2,874,708.

Andersen, Hans J., and W. E. Swenson, to Minneapolis-Moline Co. Tractor front end suspension. 2,874,972, 2–24–59, Cl. 280—92.

Anderson, Adolph E., Jr. Readily attachable and detachable fishing float. 2,874,506, 2–24–59, Cl. 43—43.1.

Anderson, Clifford E., to Cameron Iron Works, Inc. Pipe hanging apparatus. 2,874,437, 2–24–59, Cl. 24—263.

Anderson, Jesse W., and L. E. Evans, to The Dow Chemical Co. Exploration tool. 2,875,347, 2–24–59, Cl. 250—106.

Andis Clipper Co.: *See*—
Andis, Mathew. 2,874,463.

Andis, Mathew, to Andis Clipper Co. Hair clippers having interchangeable comb plates. 2,874,463, 2–24–59, Cl. 30—200.

Angstreich, Herman C.: *See*—
Grodsky, Arthur. 2,875,008.

Annable, Weldon G., W. L. Jacobs, and R. M. Haines, to The Pure Oil Co. Motor fuel. 2,875,145, 2–24–59, Cl. 208—17.

Anxionnaz, René, ½ to Societe Rateau (Societe Anonyme). Control of high-power turbines. 2,874,711, 2–24–59, Cl. 137—26.

Apotheker, David, to E. I. du Pont de Nemours and Co. Chemical process. 2,875,258, 2–24–59, Cl. 260—678.

Archer, Wesley L.: *See*—
Boser, Keith B., Montgomery, and Archer. 2,875,099.
Boser, Keith B., Montgomery, and Archer. 2,875,100.

Armstrong Cork Co.: *See*—
Dunn, Lewis R., and Eckert. 2,875,044.
Eckert, Lewis W. 2,874,617.
Eckert, Lewis W. 2,874,796.

Armstrong, Leonard J., and A. Mudrak, to The Harshaw Chemical Co. Asphaltic compounds and additives therefor. 2,875,083, 2–24–59, Cl. 106—273.

Armstrong, Raymond L., and Gerald H. and George H. Morenus. Pneumatically operated electric switch. 2,875,291, 2–24–59, Cl. 200—81.

Arnot, Alfred E. R., to J. R. Sharp and E. Kaye. Aircraft manoeuvering apparatus. 2,874,861, 2–24–59, Cl. 214—332.

Arrow-Hart & Hegeman Electric Co., The: *See*—
Schleicher, Harold E. 2,875,294.

Arsenault, Joseph R.: *See*—
Rainis, Anthony V., and Arsenault. 2,875,235.

Arvin Industries, Inc.: *See*—
Palmer, J. Neil. 2,874,471.

Associated Portland Cement Manufacturers Ltd., The: *See*—
Bishop, Lewis H. 2,874,910.

Aston, William P. Apparatus for maintaining constant the vibration frequency of a tuning fork. 2,874,602, 2–24–59, Cl. 84—409.

Atkinson, Lawrence F.: *See*—
Rockland, Louis B., and Atkinson. 2,875,070.

Atlantic Refining Co., The: *See*—
Thompson, Kenneth M. 2,875,257.

Atlas Powder Co.: *See*—
Baer, Byron N., Brandner, and Le Maistre. 2,875,078.

Attwell, James F. Spray nozzle. 2,874,995, 2–24–59, Cl. 299—129.

Austin, James M. Razor blade magazines and blade changers. 2,874,461, 2–24–59, Cl. 30—40.

Austin, Walter R. Lawn conditioning tool. 2,874,667, 2–24–59, Cl. 111—7.1.

Autere, Reuben J.: *See*—
Willcox, Frederick P., Welanets, Autere, and Hollen. 2,875,275.

Automatic Canteen Co. of America: *See*—
Thompson, Ernest H. 2,874,872.

Automatic Parking Devices, Inc.: *See*—
Nutter, Hugh G. 2,874,819.

Avery, Willis F.: *See*—
Shaw, Harold R. 2,874,829.

Ayers, Arnold L., and C. R. Scott, to Phillips Petroleum Co. Substituted furans as hypergolic fuels. 2,874,535, 2–24–59, Cl. 60—35.4.

Ayers, George W., and M. J. Gerta, to The Pure Oil Co. Vulcanizable oil extended rubber composition and method of preparing. 2,875,170, 2–24–59, Cl. 260—33.6.

Bach, Burton E. Micrometric boring head. 2,874,597, 2–24–59, Cl. 77—58.

Bachmann, John H., to Columbia-Southern Chemical Corp. Method of leaching unreduced iron-containing titaniferous ores. 2,874,039, 2–24–59, Cl. 75—101.

Bader, Alfred R., and J. E. Hyre, to Pittsburgh Plate Glass Co. Polyamine derivatives of alkyl substituted benzenes. 2,875,161, 2–24–59, Cl. 260—2.1.

Badische Anilin-& Soda Fabrik Akt.: *See*—
Klein, Hans. 2,875,259.

Baer, Byron N., J. D. Brandner, and J. W. Le Maistre, to Atlas Powder Co. Spinning of viscose. 2,875,078, 2–24–59, Cl. 106—165.

Baier, Paul. Self-winding watch. 2,874,532, 2–24–59, Cl. 58—82.

Bailey Meter Co.: *See*—
Green, Thomas A., Gerrie, Shannon, and Fink. 2,874,573.
Koppel, Harold H., and Kasminsky. 2,875,427.

Bailey, William A. Automatic release and reset anchor. 2,874,668, 2–24–59, Cl. 114—206.

Bailey, William F., to Hazeltine Research, Inc. Color-television projector. 2,875,273, 2–24–59, Cl. 178—5.4.

Baker, Bernard R., and H. M. Kissman, to American Cyanamid Co. Derivatives of 5-amino-d-ribofuranose. 2,875,194, 2–24–59, Cl. 260—211.

Baker, John R., and E. H. Clark, Jr., to Baker Oil Tools, Inc. Tubing anchor. 2,874,784, 2–24–59, Cl. 166—212.

Baker Oil Tools, Inc.: *See*—
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Baker, Reuben C., and Conrad. 2,874,931.
Conrad, Martin B. 2,874,927.
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Baker, Reuben C., and M. B. Conrad, to Baker Oil Tools, Inc. Tubular string valve devices. 2,874,931, 2–24–59, Cl. 251—118.

Baldwin, Darrell H.: *See*—
Sesler, Robert W., Baldwin, and Sprouse. 2,874,733.

Baldwin-Lima-Hamilton Corp.: *See*—
Lasley, Robert A. 2,874,585

Ball, Albert L., to Bay State Abrasive Products Co. Durable open-mesh fabric. 2,874,729, 2–24–59, Cl. 139—383.

Ball, Fred M., and C. H. Coney, to Eastman Kodak Co. Sulfonic acid catalyzed cellulose acetate butyrate urea-formaldehyde coating composition for paper and process of preparation. 2,875,164, 2–24–59, Cl. 260—15.

Ballard, Hyde W., to James Lees and Sons Co. Pile wire for looms. 2,874,725, 2–24–59, Cl. 139—44.

Balsiger, Harold E., to Landis Tool Co. Concentric loader. 2,874,518, 2–24–59, Cl. 51—103.

Bannister, Constance, and M. Petitta. Visor cap. 2,874,387, 2–24–59, Cl. 2—195.

Barabas, Silvio, to Canadian Copper Refiners Ltd. Process of separating palladium from metals of the platinum group. 2,875,040, 2–24–59, Cl. 75—121.

Baratelli, Charles: *See*
Benedict, Michael D., Jr., and Baratelli. 2,874,462.

Barnes, Jeffery W., and R. A. Herring, to Ferranti, Ltd. Gyroscope apparatus. 2,874,576, 2–24–59, Cl. 74—5.1.

Barnes, W. F., and John, Co.: *See*—
Ryan, James F., Jr. 2,874,523.
Smith, Clarence J. 2,874,731

Barnhart, William S., to Minnesota Mining and Mfg. Co. Telomerization with fluorobromoalkanes. 2,875,253, 2–24–59, Cl. 260—653.

Barry, Vincent C., J. G. Belton, M. L. Conalty, and D. Twomey, to Geigy Chemical Corp. 2-amino-3-(p-chlorophenylimino)-3,5-dihydro-5-(p-chlorophenyl)-phenazine and salts thereof. 2,875,204, 2–24–59, Cl. 260—267.

Bartlett, Jeffrey H., R. S. Brodkey, and L. W. Bowman, to Esso Research and Engineering Co. Dicarboxylic acids from dicyclopentadienes. 2,875,244, 2–24–59, Cl. 260—514.

Baselt, Walter H., to American Steel Foundries. Brake beam support. 2,874,811, 2–24–59, Cl. 188—207.

Baso Inc.: *See*—
Schwalbach, Joseph C. 2,874,904.
Thornberry, John H. 2,874,905.

Battenberg, Virgil B., F. H. Katterheinrich, and R. L. Sayre, to General Motors Corp. Air driven power unit. 2,874,787, 2–24–59, Cl. 170—68.

Bauer, Kurt P., to Textile Machine Works. Fashioning mechanism for knitting machines. 2,874,557, 2–24–59, Cl. 66—89.

Bauman, Edward, and J. O. G. Darrow, to North Electric Co. Excess voltage dissipating device. 2,875,366, 2–24–59, Cl. 313—306.

Baumann, Fritz: *See*—
Seibert, Heinrich, Triebeneck, Bienert, and Baumann. 2,875,211.

Bayhi, Marcel J., to Reed Unit-Fans, Inc. Offset tubular brace for fan housing. 2,874,898, 2–24–59, Cl. 230—273.

Bayshore Industries, Inc.: *See*—
Edwards, Phillip E. 2,874,964.

Bay State Abrasive Products Co.: *See*—
Ball, Albert L. 2,874,729.

Beale, Frederic S.: *See*—
Halverson, Robert L., Beale, and Dobyns. 2,875,327.

Beam, Roscoe D., to Wheelock Signals, Inc. Adjustable sound level control for audible signals of the vibratory type. 2,875,433, 2–24–59, Cl. 340—392.

Beavon, David K., to The Texas Co. Treatment of residual asphaltic oils with light hydrocarbons. 2,875,149, 2–24–59, Cl. 208—73.

Bechtold, James H.: *See*—
Losco, Ezekiel F., Bechtold, and Webb. 2,874,453.

Beck, Da Ruben L. Free locking wheel hub. 2,874,814, 2–24–59, Cl. 192—38.

Beck, Samuel J. Railway skate. 2,874,645, 2–24–59, Cl. 104—260.

Becker, Gottfried, K. Bungardt, and K. H. Lange, to Deutsche Edelstahlwerke Akt. Process for improving the physical properties of chromized articles. 2,875,112, 2–24–59, Cl. 148—21.55.

Becker, Wilhelm, and D. Steuer, to Farbenfabriken Bayer Akt. Artificial dentures and process of preparing. 2,874,467, 2–24–59, Cl. 32—2.

Beckman Instruments, Inc.: *See*—
Clementi, John A. 2,875,307.
Liston, Max D. 2,875,340.

Beebe, Kenneth H., R. W. Carr, and J. F. Wilson, Jr. Drafting instrument. 2,874,474, 2–24–59, Cl. 33—76.

Beggs, James E., to General Electric Co. Cathode structures. 2,875,367, 2–24–59, Cl. 313—340.

Bell, Charles S.: *See*—
Van Winkle, John L., Bell, and Morris. 2,875,224.

Bell, Henry S.: *See*—
Diehl, William L., and Bell. 2,875,096.

Bell Telephone Laboratories, Inc.: *See*—
Dunlap, Kermit S. 2,875,279.
Fox, Arthur G. 2,875,416.
Ketchledge, Raymond W. 2,875,373.
Malone, Theodore L. 2,875,283.
Pfann, William G. 2,875,108.
Townsend, Mark A. 2,875,281.

Bell, Thomas R., III, and F. R. Lowdermilk, to Pennsalt Chemicals Corp. Evaporation of benzene hexachloride solutions. 2,874,709, 2–24–59, Cl. 159—49.

Beloian, Edward A. Monochromator optical system. 2,874,606, 2–24–59, Cl. 88—14.

Beloit Iron Works: *See*—
Hornbostel, Lloyd. 2,874,674.

Belton, James G.: *See*—
Barry, Vincent C., Belton, Conalty, and Twomey. 2,875,204.

Beltz, Charles R. Portable ice skating rink and method of making the same. 2,874,540, 2–24–59, Cl. 62—75.

Benade, Walther, and H. Goebel, to Farbenfabriken Bayer Akt. Copper-containing triazo dyestuffs. 2,875,191, 2–24–59, Cl. 260—147.

Bendix Aviation Corp.: *See*—
Kelly, Jack J. 2,874,718.

Benedict, Michael D., Jr., and C. Baratelli, to The Gillette Co. Office knife. 2,874,462, 2–24–59, Cl. 30—162.

Benin, Isak, and W. Trompeter. Motor vehicle antenna. 2,875,442, 2–24–59, Cl. 343—889.

Bennett, Clifford H., to Kent-Moore Organization, Inc. Method of removing diesel engine injector tubes. 2,874,457, 2–24–59, Cl. 29—427.

Bennett, Francis W., to Caterpillar Tractor Co. Liquid fertilizer subsoil injector. 2,874,656, 2–24–59, Cl. 111—7.

Bennett, George E.: *See*—
Miller, Robert E., and Bennett. 2,875,241.

Benson, John A., and G. W. Crosby, to General Electric Co. Cooling means for tailpipe. 2,874,536, 2–24–59, Cl. 60—35.6.

Berg, Forrest O., to Reflectal Corp. Combined window and screen assembly. 2,874,423, 2–24–59, Cl. 20—56.5.

Bergeson, Raymond L., to Minneapolis-Honeywell Regulator Co. Liquid level indicator stabilization. 2,874,570, 2–24–59, Cl. 73—304.

Bergh, Sven S., B. Troberg, and C. A. G. Ericsson, to Wargons Aktiebolag. Slag-forming welding electrode. 2,875,104, 2–24–59, Cl. 117—205.

Berkowitz, Bernard, to Sperry Rand Corp. Center-fed annular scanning antenna. 2,875,439, 2–24–59, Cl. 343—754.

Berkshire Mfg. Co., The: *See*—
Cannon, Edward S., and Lash. 2,874,848.

Bernard, Frank J. Connector for display furniture and scaffolding. 2,874,984, 2–24–59, Cl. 287—14.

Bernstein, Nahum A.: *See*—
Zepelovitch, Nathan. 2,874,679.
Zepelovitch, Nathan. 2,874,732.

Berquist, Leonard G., to National-Standard Co. Apparatus for coating and impregnating tubular fabrics. 2,874,411, 2–24–59, Cl. 18—13.

Berridge, Charles A., to General Electric Co. Preparation of sponge rubber from high temperature mixed silicone rubber-silica composition. 2,875,163, 2–24–59, Cl. 260—2.5.

Bersworth, Frederick C., and M. Rubin, to The Dow Chemical Co. Prophylactic calcium chelate compositions for heavy metal poisoning. 2,875,129, 2–24–59, Cl. 167—55.

Bertozzi, Eugene R.: *See*—
Pettes, Edward M., and Bertozzi. 2,875,182.

Best, Chris E.: *See*—
Smith, William M., Jr., and Best. 2,875,168.

Best, Chris E., to The Firestone Tire & Rubber Co. Constant color composition comprising vinylidene chloride-vinyl chloride copolymer and curcumin. 2,875,173, 2–24–59, Cl. 260—41.

Bienert, Berthold: *See*—
Seibert, Heinrich, Triebeneck, Bienert, and Baumann. 2,875,211.

Biesaar, Charles W., Sr., and K. J. Walsh. Masonry cutters. 2,874,688, 2–24–59, Cl. 125—23.

Biggie, Laurence C.: *See*—
Ray, William A., and Biggie. 2,874,930.

Bird Electronic Corp.: *See*—
Frederick, Bleasy D. 2,875,405.

Birkhoff, Robert D., and H. H. Hubbell, Jr., and R. M. Johnson, Jr., to United States of America, Atomic Energy Commission. Personnel dosimeter. 2,875,342, 2–24–59, Cl. 250—83.3.

Birmingham, William G., Jr. Packaging and mixing or processing kit. 2,874,830, 2–24–59, Cl. 206—47.

Birnbaum, Hermann, to Hochmeister, Inc. Process for preparing monoglycerides of fatty acids. 2,875,221, 2–24–59, Cl. 260—410.7.

Birum, Gail H.: *See*—
Heininger, Samuel A., and Birum. 2,875,250.

Birum, Gail H., to Monsanto Chemical Co. Esters of thiolcarboxylic acids. 2,875,228, 2–24–59, Cl. 260—455.

Bishop, Lewis H., to The Associated Portland Cement Mfg. Ltd. Cutting and handling machine for cement slurry cake, pug and like materials. 2,874,910, 2–24–59, Cl. 241—95.

Bishop, Walter F., to The Firestone Tire & Rubber Co. Bead seating device for tubeless tires. 2,874,760, 2–24–59, Cl. 157—1.1.

Björkman, Anders A. V., K. E. Lindblad, and A. Planfeldt, to Vibro-Plus Corp. Road surface coating breaker having a vibrated roller. 2,874,948, 2–24–59, Cl. 262—19.

Black & Decker Mfg. Co., The: *See*—
March, Clifton J. 2,874,985.

Blackman, Seymour N., to Omega Precision Medical Instrument Co., Inc. Hypodermic syringes. 2,874,694, 2–24–59, Cl. 128—218.

Blackwell, Dana J., and E. F. Zawacki, to Lewis Engineering Co. Illuminated meter. 2,874,671, 2–24–59, Cl. 116—129.

Blair, Etcyl H., K. C. Kauer, and E. C. Britton, to The Dow Chemical Co. Method for the preparation of O-aryl phosphoroamidothioates. 2,875,233, 2–24–59, Cl. 250—461.

Blash, Joseph A., to Eastman Kodak Co. Lens cleaning apparatus. 2,874,393, 2–24–59, Cl. 15—21.

Blashfield, William H., to North Electric Co. Telephone call surveying equipment. 2,875,286, 2–24–59, Cl. 179—175.2.

Blashfield, William H., to North Electric Co. Battery charger apparatus. 2,875,395, 2–24–59, Cl. 321—19.

Blatz, Philip S., to E. I. du Pont de Nemours and Co. Coated polymeric thermoplastic dielectric film. 2,875,098, 2–24–59, Cl. 117—138.8.

Blazek, William J., and C. D. Hillis, to Lemco Products, Inc. Laminated solid wall bearing retainer and method of making the same. 2,875,005, 2–24–59, Cl. 308—201.

Blicharz, Mitchell S.: *See*—
Fox, Sidney M., Blicharz, and Winterbottom. 2,875,247.

Bloem, Herman, and M. Stel, to North American Philips Co., Inc. Method of impregnating fibre masses with a viscous, hardenable resin insoluble in water. 2,875,094, 2–24–59, Cl. 117—115.

Bloom, Albert, H. B. Freyermuth, and J. B. Normington, to General Aniline & Film Corp. Process for the preparation of isocyanates. 2,875,226, 2–24–59, Cl. 260—453.

Bloom, Eli H., and I. Wiener, to Universal Dental Co. Tooth carding device. 2,874,487, 2–24–59, Cl. 33—49.

Bluestein, Ben A., to General Electric Co. Preparation of organopolysiloxanes containing silicon-bonded carboxyalkyl groups. 2,875,177, 2–24–59, Cl. 260—46.5.

Bock, Robert O., and G. M. Davidson, to American Bosch Arma Corp. Semi-digital resolver. 2,874,903, 2–24–59, Cl. 235—186.

Boehme, Robert M., to National Research Corp. High vacuum. 2,874,710, 2–24–59, Cl. 137—1.

Boettcher, William A. Mail with frangible extension. 2,874,603, 2–24–59, Cl. 85—28.

Bogar, Earl M., Jr. Support for tilting mirrors. 2,874,613, 2–24–59, Cl. 88—99.

Bohme, Otto, F. Mott, J. Pfirschke, and H. Wollthan, to Farbenfabriken Bayer Akt. Production of isocyanates. 2,875,225, 2–24–59, Cl. 260—453.

Bollenback, Carol H., and C. E. Johnson, to National Aluminate Corp. Chemical compositions. 2,875,210, 2–24–59, Cl. 260—309.6.

Bonner, Charles A., to Pittsburgh Plate Glass Co. Movable table run-out and return apparatus. 2,874,644, 2–24–59, Cl. 104—48.

Bonney-Floyd Co., The: *See*—
Bonney, John L. V. Jr. 2,874,428.

Bonney, John L. V., Jr., ½ to The Bonney-Floyd Co. and ½ to Foundry Services Inc. Method of hardening of sand cores and the like. 2,874,428, 2–24–59, Cl. 22—193.

Bono, Luigi, to Vittorio Necchi Societa per Azioni. Cloth feed mechanism for sewing machines. 2,874,662, 2–24–59, Cl. 112—215.

Boone, Wallace D., to O P W Corp. Automatic liquid dispensing nozzles. 2,874,735, 2–24–59, Cl. 141—208.

Booth, Douglas G., and R. S. Wood, to The Plessey Co. Ltd. Speed control for combustion engines and turbines. 2,874,764, 2–24–59, Cl. 158—36.4.

Borg-Warner Corp.: *See*—
Kelbel, Donald W. 2,874,590.

Bosch, Robert, G. m. b. H.: *See*—
Linder, Rudolf, Rebentisch, and Merkl. 2,875,322.
Riethmüller, Paul, and Leinert. 2,874,460.

Boswell, Thomas L.: *See*—
Ensign, George G., and Boswell. 2,875,262.

Botkin, Lawrence A., to Butler Mfg. Co. Tandem axle vehicle suspension. 2,874,973. 2–24–59. Cl. 280—104.5.

Bottonari, Samuel A., to Westinghouse Electric Corp. Circuit interrupter. 2,875,300, 2–24–59, Cl. 200—146.

Bouis, Howarth E.: *See*—
Yost, De Witte M., Schmitt, and Bouis. 2,874,754.

Bourke, John D., to Robbins & Myers, Inc. Helical gear pump with stator compression. 2,874,643, 2–24–59, Cl. 103—117.

Bowman, Lewis W.: *See*—
Bartlett, Jeffrey H., Brodkey, and Bowman. 2,875,244.

Boyer, Ralph K., to The Dill Mfg. Co. Valve stem. 2,874,750, 2–24–59. Cl. 152—427.

Boykin, Benjamin J. Fowl beheading apparatus. 2,874,402, 2–24–59. Cl. 17—12.

Bozer, Keith B., R. S. Montgomery, and W. L. Archer, to The Dow Chemical Co. Finish for polyester textile materials. 2,875,099, 2–24–59. Cl. 117—138.8.

Bozer, Keith B., R. S. Montgomery, and W. L. Archer, to The Dow Chemical Co. Finish for cellulosic textile materials. 2,875,100, 2–24–59, Cl. 117—139.5.

Bradbury, William S.: *See*—
Bradbury, Charles H. and W. S. 2,874,551.

Bradbury, Charles H. and W. S. Air conditioner awning. 2,874,551, 2–24–59, Cl. 62—262.

Bradley, George S. Rabbit feeders. 2,874,678, 2–24–59, Cl. 119—61.

Brady, Sherwood J., to Cutter Laboratories, Inc. Coupling between rigid and non-rigid tubular members with collapsible bushing for holding the members assembled. 2,874,981, 2–24–59, Cl. 285—238.

Brancato, Leo J., to Heli-Coil Corp. Coil spring locking insert having chordal locking means and biting corner retaining means. 2,874,741, 2–24–59, Cl. 151—14.

Brandl, Willy. Appliance for roasting coffee beans. 2,874,483, 2–24–59. Cl. 34—46.

Brandner, John D.: *See*—
Baer, Byron N., Brandner, and Le Maistre. 2,875,078.

Brannan, Jack C., to General Electric Co. Motor control system. 2,875,391, 2–24–59, Cl. 318—293.

Branson Instruments, Inc.: *See*—
Harris, Robert V. 2,875,354.

Brassington, Samuel M., and V. N. Smith, to Shell Development Co. Synchronous chopper for radiant energy. 2,875,342, 2–24–59, Cl. 250—233.

Braun, Alfred E., and T. C. English, to The Wooster Sealkote Co. Method and apparatus for liquid application. 2,874,677, 2–24–59, Cl. 118—305.

Braunwarth, John B., and G. W. Crosby, to The Pure Oil Co. Preparation of alkenyl esters of halogenated carboxylic acids. 2,875,240, 2–24–59, Cl. 260—487.

Bred-Ade Corp.: *See*—
Glabe, Elmer F. 2,875,064.

Bremer, Joseph W., Jr., to Swift & Co. Hydrogenation of fat. 2,875,220, 2–24–59, Cl. 260—409.

Brey, Wilhelm, to The Firestone Tire & Rubber Co. Preparation of coated fabric material. 2,874,752, 2–24–59, Cl. 154—1.8.

Bridgewater, Thomas E.: *See*—
Sennholtz, Charles E., and Bridgewater. 2,874,912.

Bried, Julien A. Colon flushing apparatus. 2,874,696, 2–24–59, Cl. 128—227.

Briesewitz, Kurt: *See*—
Roos, Hans, and Briesewitz. 2,875,242.
Roos, Hans, Briesewitz, and Hegemann. 2,875,243.

Brink, Winfield S., to The Firestone Tire & Rubber Co. Wheel construction. 2,874,997, 2–24–59, Cl. 301—13.

Brink, Winfield S., to The Firestone Tire & Rubber Co. Wheel construction. 2,874,998, 2–24–59, Cl. 301—20.

Brink, Winfield S., to The Firestone Tire & Rubber Co. Valve for directional change. 2,874,749, 2–24–59, Cl. 152—427.

British Tabulating Machine Co. Ltd., The: *See*—
Williams, Nigel A. F. 2,875,336.

British Timken Ltd.: *See*—
McNicoll, David. 2,875,004.

Britton, Edgar C.: *See*—
Blair, Etcyl H. 2,875,233.
Kauer, Kenneth C., and Britton. 2,875,234.

Brobeck, William M., to United States of America, Atomic Energy Commission. Calutron ion source. 2,875,339. 2–24–59, Cl. 250—41.9.

Brodkey, Robert S.: *See*—
Bartlett, Jeffrey H., Brodkey, and Bowman. 2,875,244.

Broscne, William G., Jr., and P. R. De Selms, to Whirlpool Corp. Gas burner igniter. 2,874,768, 2–24–59, Cl. 158—115.

Brown, Bernard D.: *See*—
Singleterry, Vernon A., and Brown. 2,874,946.

Brown, Bertrand H.: *See*—
Esmeier, Edward F., and Brown. 2,874,540.

Brown, Dwight E., to Hydro-Aire, Inc. Anti-skid brake system. 2,874,816, 2–24–59, Cl. 188—181.

Brown, Harrison S., and G. T. Seaborg, to United States of America, Atomic Energy Commission. Method of separating uranium values, plutonium values and fission products by chlorination. 2,875,021, 2–24–59, Cl. 23—14.5.

Brown, John A., to Esso Research and Engineering Co. Catalysis of phosphosulfurization reactions. 2,875,188, 2–24–59, Cl. 260—139.

Browne, Donald B., and K. E. Buckman, to General Motors Corp. Filter for filtration of fluids. 2,874,849, 2–24–59. Cl. 210—347.

Browning, Bert H. End to side sheet metal fitting having an opening with slits in the side. 2,874,980, 2–24–59. Cl. 285—189.

Brrr Products Co., Inc.: *See*—
Joseph, John L., and Dorfman. 2,874,512.

Brugmann, William H., Jr., H. L. Yowell, and A. R. Kittleson, to Esso Research and Engineering Co. Defoliating with compounds containing the NSCCl₃ group. 2,875,030. 2–24–59, Cl. 71—2.5.

Brunner, Carl, to Murray Mfg. Corp. Two pole circuit breaker. 2,875,289, 2–24–59, Cl. 200—50.

Buckman, Kenneth E.: *See*—
Browne, Donald B., and Buckman. 2,874,849.

Budzyna, Joseph M., and H. Crowther, to Draper Corp. Shuttle binder control means. 2,874,727, 2–24–59, Cl. 139—187.

Bungardt, Karl: *See*—
Becker, Gottfried, Bungardt, and Lange. 2,875,112.

Bunte, Joseph H. Travel case for shoes. 2,874,813, 2–24–59, Cl. 190—51.

Bureau van Tongeren N. V.: *See*—
Van der Kolk, Hendrik. 2,874,799.
Van der Kolk, Hendrik. 2,874,800.
Van der Kolk, Hendrik. 2,874,801.

Burnett, Peter P. A., to United States Rubber Co. Method of making decorated plastic sheet material. 2,874,416, 2–24–59. Cl. 18—47.5.

Burrage, Albert E., to Burrage & Boyde Ltd. Non-electric vacuum cleaners and like cleaning appliances. 2,874,400, 2–24–59, Cl. 15—359.

Burrage & Boyde Ltd.: *See*—
Burrage, Albert R. 2,874,400.
Burroughs Corp.: *See*—
Kaplan, Henry. 2,875,412.
Bureaux, Jacques, H. Ancelle, and H. de Saint Chamant, to Comptoir des Phosphates de l'Afrique du Nord. Process of preparing a phosphated product. 2,875,032, 2–24–59, Cl. 71—41.
Butkevich, Stanley J., to Admiral Photo Products Co. Photographic slide protector. 2,874,496, 2–24–59, Cl. 40—152.
Butler, Frank A.: *See*—
Griggs, William H., and Butler. 2,875,055.
Butler Mfg. Co.: *See*—
Botkin, Lawrence A. 2,874,973.
Buxton, Inc.: *See*—
Mageau, George J., Jr. 2,874,740.
Cabaniss, Edward H., to General Electric Co. Function generating circuit for obtaining squares of inputs. 2,875,400, 2–24–59, Cl. 323—74.
Cabot, Godfrey L., Inc.: *See*—
Rogers, Joe T., Jr. 2,874,839.
Cabot Shops, Inc.: *See*—
Scott, Meri G. 2,874,808.
Cain, Francis M., Jr.: *See*—
Jones, Wallace M., and Cain. 2,875,368.
California Research Corp.: *See*—
Johnson, Carl E., Jr. 2,874,779.
Lewis, Allen H. 2,875,154.
Cameron Iron Works, Inc.: *See*—
Allen, Herbert. 2,874,436.
Anderson, Clifford E. 2,874,437.
Camp, Richard L., and W. J. Paulson. Portable electric lanterns. 2,875,324, 2–24–59, Cl. 240—52.15.
Campbell, Arthur B., to General Time Corp. Illuminated electric clock. 2,875,320, 2–24–59, Cl. 240—2.1.
Campione, Saverio J. Presses. 2,874,392, 2–24–59, Cl. 12—36.
Canadian Copper Refiners Ltd.: *See*—
Barabas, Silvio. 2,875,040.
Canadian Westinghouse Co., Ltd.: *See*—
Lipinski, Jedrzej, and Cheston. 2,875,434.
Canassi, Henry D. Unitary engine and supercharger. 2,874,534, 2–24–59, Cl. 60—31.
Candlin, James E., Jr., to Pullman-Standard Car Mfg. Co. Lateral movement control. 2,874,647, 2–24–59, Cl. 105—171.
Cannon, Edward S., and D. B. Lash, to The Berkshire Mfg. Co. Pressure leaf filter with pneumatic vibrator for residue removal. 2,874,848, 2–24–59, Cl. 210—332.
Canon Camera Co., Inc.: *See*—
Mizui, Seiichiro. 2,874,558.
Canty, John M., and F. M. Riede, to Union Carbide Corp. Double-walled container with base. 2,874,865, 2–24–59, Cl. 220—15.
Capital Products Corp.: *See*—
Royer, Wayne H. 2,864,650.
Caprino, Joseph C., to General Electric Co. Process for compounding alkyl aryl vinyl silicone elastomer with filler and silanediol, and product obtained thereby. 2,875,172, 2–24–59, Cl. 260—37.
Cardiff, George H., to Fraser & Johnston Co. Aimable bomb cluster assembly and adapter and release mechanism therefor. 2,874,639, 2–24–59, Cl. 102—7.2.
Cardinal, Oliver V. Radius and chamfer cutter assembly. 2,874,616, 2–24–59, Cl. 90—12.
Carey, Wesley G., Jr. Rotating valve for internal combustion engines. 2,874,686, 2–24–59, Cl. 123—190.
Carpenter, Marion S., and W. M. Easter, Jr., to The Givaudan Corp. 4-tert.-butyl α-methyl hydrocinnamic aldehyde. 2,875,131, 2–24–59, Cl. 167—94.
Carpenter Steel Co., The: *See*—
Kegerise, Wesley R., and Heydt. 2,875,042.
Carr, Robert W.: *See*—
Beebe, Kenneth H., Carr, and Wilson. 2,874,474.
Carroll, Burt H., and J. E. Jones, to Eastman Kodak Co. Supersensitization of photographic emulsions using triazines. 2,875,058, 2–24–59, Cl. 96—104.
Carter, John N., and D. N. Rosenblatt, to The Elmco Corp. Method for the isothermal treatment of alloys after casting. 2,875,109, 2–24–59, Cl. 148—3.
Carter, Newell A., and V. E. Hemborg, to Food Machinery and Chemical Corp. Article diverter for roller conveyors. 2,874,818, 2–24–59, Cl. 193—35.
Cascade Mfg. Co.: *See*—
Farmer, Stanley E., and Faust. 2,874,862.
Cassie, Frank F.: *See*—
Huff, Melvin, and Cassie. 2,874,497.
Caster, Mitchell C. Automobile bumper jack. 2,874,935, 2–24–59, Cl. 254—99.
Caterpillar Tractor Co.: *See*—
Bennett, Francis W. 2,874,656.
Cattell, Clifford C. Safety connecting devices. 2,874,531, 2–24–59, Cl. 58—23.
Cavalieri, Albert L., Jr., and R. W. Roop, to Philco Corp. Electromechanical reed system. 2,875,353, 2–24–59, Cl. 310—8.2.
Celanese Corp. of America: *See*—
Ulvild, George B., and Mackenzie. 2,875,213.
Cella, John A., to G. D. Searle & Co. Lactones of 17-carboxy-alkylated estra-1,3,5(10)-triene-3,17-diols and 3-ethers. 2,875,199, 2–24–59, Cl. 260—239.57.
Cementone Corp., The: *See*—
Henderson, Albert. 2,874,442.
Chabala, Leonard V., to Westinghouse Electric Corp. Automatic reclosers and sectionalizers. 2,875,351, 2–24–59, Cl. 317—22.
Chabot, Leo A., and B. J. Durand, to The Firestone Tire & Rubber Co. Latex slab making apparatus. 2,874,407, 2–24–59, Cl. 18—4.
Chambers, George R., to Eitel-McCullough, Inc. Electron tube apparatus. 2,875,369, 2–24–59, Cl. 315—5.46.
Chapman Chemical Co.: *See*—
Ring, Robert G. 2,875,020.
Charlat, Arnold S., to Howe & Fant, Inc. Positioning table. 2,874,599, 2–24–59, Cl. 77—64.
Chatten, John B.: *See*—
Moore, Robert C., and Chatten. 2,875,271.
Chemical Products Corp.: *See*—
De Maria, John. 2,875,051.
Chester, Carroll W. Glare shield for automobiles. 2,874,994, 2–24–59, Cl. 296—97.
Cheston, Theodore C.: *See*—
Lipinski, Jedrzej, and Cheston. 2,875,434.
Chicago Development Corp.: *See*—
Dean, Reginald S. 2,875,038.
Gullett, William W. 2,874,454.
Christie Electric Corp.: *See*—
Christie, Soren L., and Marshall. 2,875,396.
Christie, Soren L., and F. C. Marshall, to Christie Electric Corp. Battery charging system. 2,875,396, 2–24–59, Cl. 321—19.
Chromatic Television Laboratories, Inc.: *See*—
Nunan, Craig S. 2,875,363.
Ciba Ltd.: *See*—
Ackermann, Frana, and Siegrist. 2,875,069.
Gunst, Raymond. 2,875,192.
Riat, Henri. 2,875,193.
Ciba Pharmaceutical Products Inc.: *See*—
Hoffmann, Karl, and Kebrle. 2,875,212.
Cliker, William H., to Food Machinery and Chemical Corp. Drive and brake mechanism. 2,874,786, 2–24–59, Cl. 169—24.
Cincinnati Milling Machine Co., The: *See*—
Huber, Clarence F., and Thompson. 2,875,219.
Clapp, Melvin C.: *See*—
Rieppel, Perry J., and Clapp. 2,874,942.
Clark, Earnest H., Jr.: *See*—
Baker, John R., and Clark. 2,874,784.
Clark, Robert E., to E. I. du Pont de Nemours and Co. Spinning solution. 2,875,079, 2–24–59, Cl. 106—165.
Clauson-Kaas, Niels K. F. W., and N. Elming, to Sadolin & Holmblad A/S. Process for the preparation of vitamin B6 intermediates employed therein, and processes of preparing the same. 2,875,207, 2–24–59, Cl. 260—297.5.
Cleland, Marshall R., to Radiation Dynamics, Inc. Voltage multiplication apparatus. 2,875,394, 2–24–59, Cl. 321—15.
Clementi, John A., to Beckman Instruments, Inc. Variable resistance element. 2,875,307, 2–24–59, Cl. 201—48.
Cleveland Crane & Engineering Co., The: *See*—
Dehn, Roy F. 2,874,816.
Cleveland Metal Specialties Co.: *See*—
Gross, Irving A. 2,875,264.
Cleveland Rock Drill Division, Westinghouse Air Brake Co.: *See*—
Frucht, Jacob E. 2,874,933.
Clevett, Merton L., Jr. Knock-down structural member with collapsible members. 2,874,812, 2–24–59, Cl. 189—34.
Cliff, Walter L. Fish landing net. 2,874,506, 2–24–59, Cl. 43—11.
Cline, Edward T., to E. I. du Pont de Nemours and Co. Process for chemically bonding a coating to an organic polymer substrate. 2,875,092, 2–24–59, Cl. 117—62.
Clipper Mfg. Co.: *See*—
Harclerode, John R. 2,874,687.
Coble, Demetrio M. Combined boat and fishing net. 2,874,505, 2–24–59, Cl. 43—7.
Cogepa, Etablissement: *See*—
Viell, Otto A., and Muller. 2,874,408.
Cohen, Arthur M. Electromagnetic unit. 2,875,383, 2–24–59, Cl. 317—198.
Cohen, Maurice, and J. Karson. Vehicle protective cover. 2,874,709, 2–24–59, Cl. 135—5.
Coldren, Chester P., to Eaton Mfg. Co. Clamp. 2,874,430, 2–24–59, Cl. 24—27.
Cole, Carrel D., 50% to C. E. Creasy, and 50% to E. E. Creasy. Adjustable closing device for a burial casket. 2,874,987, 2–24–59, Cl. 292—247.
Colgate-Palmolive Co.: *See*—
Dalton, Philip B. 2,875,153.
Miles, Gilbert D. 2,875,155.
Collins, Howard W. to Westinghouse Electric Corp. Power supply. 2,875,351, 2–24–59, Cl. 307—88.
Collins, O. Z. Pallet arbor inserting tool. 2,874,455, 2–24–59, Cl. 29—231.
Collins, William F. Check printing and punching machine. 2,874,632, 2–24–59, Cl. 101—19.
Collura, Peter C., to Container Corp. of America. Handle carton. 2,874,870, 2–24–59, Cl. 220—112.
Coltman, John W.: *See*—
Roberts, William L., and Coltman. 2,875,349.
Columbia-Southern Chemical Corp.: *See*—
Rachmann, John H. 2,875,039.
Columbian-General Blacks Ltd.: *See*—
Simpson, Robert M. 2,874,840.
Colvilles Ltd.: *See*—
Pennett, William A., and Ferguson. 2,875,084.
Comptoir des Phosphates de l'Afrique du Nord: *See*—
Bureaux, Jacques, Ancelle, and de Saint Chamant. 2,875,032.
Conalty, Michael L.: *See*—
Barry, Vincent C., Belton, Conalty, and Twomey. 2,875,204.
Conchon, Andre F. Automatic feeding and level control system. 2,874,716, 2–24–59, Cl. 137—394.
Coney, Charles H.: *See*—
Ball, Fred M., and Coney. 2,875,164.

Connell, Edward F. Action figure toy structure. 2,874,513, 2–24–59, Cl. 46—119.
Conrad, Martin B.: *See*—
Baker, Reuben C., and Conrad. 2,874,931.
Conrad, Martin B., to Baker Oil Tools, Inc. Subsurface tubing tester. 2,874,927, 2–24–59, Cl. 251—100.
Container Corp. of America: *See*—
Collura, Peter C. 2,874,870.
Continental Can Co., Inc.: *See*—
Piazze, Thomas E. 2,874,886.
Continental Connector Corp.: *See*—
Gilbert, Leon. 2,875,425.
Continental Motors Corp.: *See*—
Haas, Herbert H. 2,874,804.
Continental Oil Co.: *See*—
Dannehl, Melvin A. 2,874,934.
Doty, William E. N., and Lee. 2,874,795.
Landers, James E., and Sudbury. 2,875,142.
Cooksley, Ralph D. Charcoaler. 2,874,631, 2–24–59, Cl. 99—400.
Cooper, John C., and R. W. Hagmann, to Radio Corp. of America. Electron beam convergence apparatus. 2,875,374, 2–24–59, Cl. 315—13.
Coover, Harry W., Jr.: *See*—
McConnell, Richard L., and Coover. 2,875,231.
McConnell, Richard L., and Coover. 2,875,232.
Coover, Harry W., Jr., and R. L. McConnell, to Eastman Kodak Co. Preparation of neutral mixed phosphates from trialkyl phosphates and carboxylic acid esters. 2,875,229, 2–24–59, Cl. 260—461.
Coover, Harry W., Jr., and M. A. McCall, to Eastman Kodak Co. Preparation of neutral mixed phosphates from trialkyl phosphates and alcohols. 2,875,230, 2–24–59, Cl. 260—461.
Cope, Appleton D., to Radio Corp. of America. Photoconductive device. 2,875,359, 2–24–59, Cl. 313—65.
Cope, John E., P. A. Segrave, and D. H. Fisher, to Pye Ltd. Television receivers. 2,875,277, 2–24–59, Cl. 178—7.3.
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Corcoran, James T., and K. C. Peterson, to Standard Oil Co. Purification of dimethylterephthalate. 2,875,237, 2–24–59, Cl. 260—475.
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Corning Glass Works: *See*—
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Corteggiani, Alberto. Process and apparatus for the continuous centrifugal separation of liquids from substances of higher density. 2,874,897, 2–24–59, Cl. 233—17.
Coss, Frank A.: *See*—
Laucher, Richard G., and Coss. 2,874,538.
Coursey, Ralph W. Storage system. 2,874,822, 2–24–59, Cl. 198—85.
Coursey, Ralph W. Parking system. 2,874,857, 2–24–59, Cl. 214—16.1.
Cowgill, Edward F. Orthopedic foot drop brace. 2,874,690, 2–24–59, Cl. 128—80.
Cox, Bonnar: *See*—
Goldberg, Jacob, and Cox. 2,874,633.
Crandon, Harry D., to American Optical Co. Method of forming reflective surfaces. 2,875,087, 2–24–59, Cl. 117—10.
Cravits, Phillip. Wrapping machine. 2,874,527, 2–24–59, Cl. 53—378.
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Crosby, Gifford W.: *See*—
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Benson, John A., and Crosby. 2,874,536.
Crosley Broadcasting Corp.: *See*—
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Cross, Christopher N. Motor vehicle steering wheel lock. 2,874,562, 2–24–59, Cl. 70—252.
Crown Cork & Seal Co., Inc.: *See*—
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Crown Zellerbach Corp.: *See*—
Yang, Christen H. C. 2,874,618.
Crowther, Howard: *See*—
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Cuccia, Carmen L., to Radio Corp. of America. Color synchronizing circuit. 2,875,272, 2–24–59, Cl. 178—5.4.
Culver, Leonard J., to Foster Wheeler Corp. Steam power plant including reheat boiler cycle. 2,874,543, 2–24–59, Cl. 60—73.
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D'Amico, John J., to Monsanto Chemical Co. Propynyl sulfenamides. 2,875,208, 2–24–59, Cl. 260—306.6.
Dammert, Earl D., to The Gleason Works. Quenching press with work handling mechanism. 2,874,853, 2–24–59, Cl. 214—1.
Dammert, Earl D., and W. W. White, to The Gleason Works. Machine having rolling pressure device for splined shafts and the like. 2,874,952, 2–24–59, Cl. 266—6.
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Dazzi, Joachim, to Monsanto Chemical Co. Imides. 2,875,218, 2–24–59, Cl. 260—404.5.
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Dehn, Roy F., to The Cleveland Crane & Engineering Co. Adjustable clutch for metal forming machines. 2,874,816, 2–24–59, Cl. 192—111.
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Del Pozo Villalba, Pedro. Lock mechanism. 2,874,560, 2–24–59, Cl. 70—134.
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Faris, Burt F., to United States of America, Atomic Energy Commission. Method of forming plutonium-bearing carrier precipitates and washing same. 2,875,022, 2–24–59, Cl. 23—14.5.

Farmer, Stanley E., and D. M. Faust, to Cascade Mfg. Co. Clamping mechanism for lift trucks. 2,874,862, 2–24–59, Cl. 214—652.

Farr, Kenneth E., to Westinghouse Electric Corp. Television receiver apparatus. 2,875,274, 2–24–59, Cl. 178—5.8.

Faulconer, Thomas P. Combination caliper and slide rule. 2,874,478, 2–24–59, Cl. 33—143.

Faust, Donald M.: *See*—
Farmer, Stanley E., and Faust. 2,874,862.

Fauth, Frederick E., and R. S. Jump, to Crown Cork & Seal Co., Inc. Capping apparatus. 2,874,526, 2–24–59, Cl. 53—314.

Federal Mfg. & Engineering Corp.: *See*—
Weiser, Sidney. 2,874,913.

Federal Premium Service, Inc.: *See*—
Emmert, George W. 2,874,494.

Federici, Edmondo. Device for locating the transverse rotation axis of the human jaw. 2,874,469, 2–24–59, Cl. 32—20.

Feldman, Jacob R., to General Foods Corp. Food process. 2,875,063, 2–24–59, Cl. 99—71.

Felsa S. A.: *See*—
Meyer, Friedrich. 2,874,580.

Fennell, Anthony A. Heat exchanger. 2,874,943, 2–24–59, Cl. 257—262.15.

Fentiman, Arthur E., to F. Fentiman & Sons, Ltd. Vertical lift door. 2,874,422, 2–24–59, Cl. 20—19.

Fentiman, Arthur E., to F. Fentiman & Sons, Ltd. Transmission mechanism selectable operable by either of two power sources. 2,874,959, 2–24–59, Cl. 268—59.

Fentiman, F., & Sons, Ltd.: *See*—
Fentiman, Arthur E. 2,874,422.
Fentiman, Arthur E. 2,874,959.

Ferguson, John M.: *See*—
Posnett, William A., and Ferguson. 2,875,084.

Ferranti, Ltd.: *See*—
Barnes, Jeffery W., and Herring. 2,874,576.

Fettes, Edward M., and E. R. Bertozzi, to Thiokol Chemical Corp. Production of polysulfide polymers. 2,875,182, 2–24–59, Cl. 260—79.

Feucht, Jacob E., to Cleveland Rock Drill Division, Westinghouse Air Brake Co. Power actuated pin puller. 2,874,933, 2–24–59, Cl. 254—18.

Ficicchy, James. Hair curling device. 2,874,700, 2–24–59, Cl. 132—42.

Fiedler, George A.: *See*—
Knighton, Daniel J., Haser, and Fiedler. 2,874,921.

Fink, Trevor: *See*—
Green, Thomas A., Gorrie, Shannon, and Fink. 2,874,573.

Fiore, Vincent J., and O. Reich; said Reich assor. to said Fiore. Pile driving point and ram for open end pipe piles and H-beam bearing piles. 2,874,547, 2–24–59, Cl. 61—53.

Firestone Tire & Rubber Co., The: *See*—
Alliger, Glen, and Stevens. 2,875,260.
Ambelang, Joseph C. 2,875,175.
Best, Chris E. 2,875,173.
Bishop, Walter F. 2,874,760.
Brey, Wilhelm. 2,874,752.
Brink, Winfield S. 2,874,997.
Brink, Winfield S. 2,874,998.
Brink, Winfield S. 2,874,749.
Chabot, Leo A., and Durand. 2,874,407.
Davis, Ralph C. 2,874,957.
Eberly, Kenneth C. 2,875,255.
Gerhard, James R., II. 2,875,187.
Gerhard, James R., II, Deegan, and Fisher. 2,875,186.
Jones, Gordon F. 2,874,758.
Powers, Robert P. 2,874,748.
Ranallo, Emil G. 2,874,759.
Reid, Robert J., and Matlack. 2,875,169.
Rowe, Walter C. 2,874,743.
Scheu, Lester W. 2,875,388.
Smith, Floyd M. 2,875,116.
Smith, Randall D. 2,874,458.
Smith, William M., Jr., and Best. 2,875,168.
Spohn, James E., and Smith. 2,875,019.
Stanford, James R. 2,874,405.
Tana, William E. 2,875,184.
Trainer, James E. 2,874,744.
Varvaro, Alexander J. 2,874,761.
Wann, Richard L. 2,874,745.
Webb, Frederick J. 2,875,174.
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Wieneke, Wilhelm. 2,874,383.

Firma Montanwerke Walter Akt.: *See*—
Markle, Adolf. 2,874,517.

Firnhaber, Miles S., and E. J. Nygren, to Sealtite Insulation Mfg. Corp. Apparatus for manufacturing glass fibers. 2,874,406, 2–24–59, Cl. 18—2.5.

Fisher, Donald H.: *See*—
Cope, John B., Segrave, and Fisher. 2,875,277.

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Straley, James M., and Fisher. 2,875,190.

Fisher, Thomas W., Jr.: *See*—
Gerhard, James R., II, Deegan, and Fisher. 2,875,186.

Fitch, Harold L., to Eastman Kodak Co. Film mount adhesive liquid applicator. 2,874,673, 2–24–59, Cl. 118—2.

Fitz, Elmore J., to General Electric Co. Method of decarburizing silicon steel in a wet inert gas atmosphere. 2,875,113, 2–24–59, Cl. 148—113.

Fitzgerald, Harold J., to Supurdisplay, Inc. Popcorn warmer and server. 2,875,013, 2–24–59, Cl. 312—236.

Fitzgerald, William F. Fishing device. 2,874,510, 2–24–59, Cl. 43—44.81.

Fitz-On Heel Corp.: *See*—
Fitzsimmons, James F. 2,874,488.

Fitzsimmons, James F., to Fitz-On Heel Corp. Heel with expanded tube anchored therein. 2,874,488, 2–24–59, Cl. 36—34.

Flanagan, Thomas E., to Kalamazoo Vegetable Parchment Co. Paper rolls and method of making. 2,874,831, 2–24–59, Cl. 206—59.

Flemming, Norbert A., and E. E. Montross, to The Polymer Corp. Apparatus and process for centrifugal molding of articles from thermoplastic materials which exhibit substantial volumetric shrinkage. 2,874,412, 2–24–59, Cl. 18—39.

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Florey, Klaus G., to Olin Mathieson Chemical Corp. 6β,19-seleno-1-dehydrotestosterone and esters thereof. 2,875,196, 2–24–59, Cl. 260—239.5.

Florey, Klaus G., to Olin Mathieson Chemical Corp. Method of preparing 1-dehydrotestosterone and esters thereof. 2,875,216, 2–24–59, Cl. 260—397.4.

Flury, Karl, to Defensor A G. Atomizer. 2,874,797, 2–24–59, Cl. 183—18.

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Carter, Newell A., and Hemborg. 2,874,818.
Cilker, William H. 2,874,786.
Easton, Bernard K., and Weinberg. 2,875,018.
Greenspan, Frank P., and Light. 2,875,178.
McEwen, Robert L., Raleigh, and Price. 2,875,102.
Stafford, Neil S. 2,874,925.
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Ford, Harold H., and R. A. Papedorf, to Emerson-Pryne Co. Combined heating and ventilating unit. 2,875,316, 2–24–59. Cl. 219—39.
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Altgelt, Rudolph J. 2,874,788.
Ford, Silas M. Children's teeter totter play toy. 2,874,515, 2–24–59, Cl. 46—175.
Forrest, Frank R., to Allis-Chalmers Mfg. Co. Adjustable bypass valve. 2,874,642, 2–24–59. Cl. 103—97.
Foster, Samuel P., and R. W. Peterson, to E. I. du Pont de Nemours and Co. Process of making carbon-filled polyamide. 2,875,171. 2–24–59. Cl. 260—37.
Foster, Theodore, to American Steel Foundries. Power turret indexing. 2,874,595, 2–24–59, Cl. 74—822.
Foster Wheeler Corp.: *See*—
Culver, Leonard J. 2,874,542.
Foundry Services Inc.: *See*—
Bonney, John L. V., Jr. 2,874,428.
Fournier, Albert. Machine for decorating plates or similar objects. 2,874,676, 2,24,59. Cl. 118—301.
Fowler, Clarence D. Identification badge holder. 2,874,495, 2–24–59, Cl. 40—1.5.
Fox, Arthur G., to Bell Telephone Laboratories, Inc. Nonreciprocal wave transmission. 2,875,416, 2–24–59, Cl. 333—24.
Fox, Carl J., ½ to M. E. Warren. Vertically adjustable support for table tops and the like. 2,875,007, 2–24–59, Cl. 311—39.
Fox, Homer M., to Phillips Petroleum Co. Continuous combustion power plant. 2,874,539, 2–24–59, Cl. 60—39.02.
Fox, Joseph H. Composite pile. 2,874,446, 2–24–59, Cl. 61—53.
Fox, Sidney M., M. S. Blichart, and R. Winterbottom, to American Cyanamid Co. Refining of tetracycline antibiotics by direct wash extraction. 2,875,247. 2–24–59. Cl. 260—559.
Fraga, Frank M. Adjustable hitch for offset disc plows. 2,874,975, 2–24–59, Cl. 280—467.
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Stiehl, Karl Franz, and Valenteyn. 2,875,068.
Fraser & Johnston Co.: *See*—
Cardiff, George H. 2,874,639.
Frederick, Herbert S., and M. A. Kinsella, to United States of America, Atomic Energy Commission. Elevating mechanism. 2,874,852, 2–24–59. Cl. 214—1.
Fredericks, William, to North American Aviation, Inc.: Terminal protective device. 2,875,266, 2–24–59. Cl. 174—138.
Frederick, Blossy D., to Bird Electronic Corp. High frequency measuring instrument and resistance unit. 2,875,405, 2–24–59, Cl. 324—95.
Freeman, James H., to Westinghouse Electric Corp. Conversion of thermoplastic resins to thermoset resins. 2,875,179, 2–24–59, Cl. 260—59.
Frei, Arthur J., to General Motors Corp. Freezing device. 2,874,552, 2–24–59, Cl. 62—344.
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Bloom, Albert, Freyermuth, and Normington. 2,875,226.
Fricke, Roger H., and J. A. Liggett, to Radio Corp. of America. Microwave bypass capacitor. 2,875,386, 2–24–59, Cl. 317—257.
Friedman, Solomon, to The Osborn Mfg. Co. Brush construction. 2,874,399, 2–24–59, Cl. 15—169.
Froman, Darol K., to United States of America, Atomic Energy Commission. Push-pull power reactor. 2,875,143, 2–24–59 Cl. 204—154.2.
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Fry, Millard E., to General Motors Corp. Domestic appliances. 2,875,016, 2–24–59. Cl. 312—251.
Fuller, Dennis Q., to Pye Ltd. Transistors. 2,875,385, 2–24–59. Cl. 317—235
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White, Paul F. 2,875,288.
GRL Corp.: *See*—
Linderman, Garrett B. 2,874,900.
Gadget-Of-The-Month Club, Inc.: *See*
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Gaertner, Van R., and D. B. Sharp, to Monsanto Chemical Co. Cereals rust eradicant composition comprising a phenylhydrazone derivative and method of use. 2,875,124, 2–24–59. Cl. 167—33.
Gaertner, Van R., to Monsanto Chemical Co. Sulfamoylanilinoalkanesulfonic acid compounds. 2,875,125, 2–24–59. Cl. 167—33.
Gahlman, Maurice P. Bale unloading device for vehicles. 2,874,859, 2–24–59, Cl. 214—83.22.
Galeazzi, Roberto. Open-cycle breathing equipment, particularly for skin-divers. 2,874,692, 2–24–59, Cl. 128—142.
Galmiche, Philippe, to Office National d'Etudes et de Recherches Aeronautiques, O. N. E. R. A. Methods of forming superficial diffusion alloys on metal pieces and especially refractory metal pieces. 2,875,090, 2–24–59, Cl. 117—50.
Galvanek, Paul, Jr., to United States of America, Atomic Energy Commission. Process of recovering uranium from its ores. 2,875,023, 2–24–59, Cl. 23—14.5.
Gandrud, Ebenhard S. Machine for spreading granular material and means for adjusting the height thereof. 2,874,879, 2–24–59, Cl. 222—177.
Ganter, Bertin C., to Kraft Foods Co. Feeding mechanism. 2,874,821, 2–24–59, Cl. 198—34.
Garner, Clifford S., to United States of America, Atomic Energy Commission. Process of forming plutonium salts from plutonium oxalates. 2,875,025, 2–24–59, Cl. 23—14.5.
Gaubatz, Arthur W., to General Motors Corp. Compressor air bleed-off. 2,874,926, 2–24–59, Cl. 251—61.
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Ayers, George W., and Geerts. 2,875,170.
Geigy Chemical Corp.: *See*—
Barry, Vincent C., Belton, Conalty, and Twomey. 2,875,204.
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General Aniline & Film Corp.: *See*—
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General Controls Co.: *See*—
Ray, William A., and Biggle. 2,874,930.
General Electric Co.: *See*—
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Benson, John A., and Crosby. 2,874,536.
Berridge, Charles A. 2,875,163.
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Fitz, Elmore J. 2,875,113.
Goldberg, Jacob, and Cox. 2,874,633.
Grinerich, Joseph J. 2,875,344.
Kalikow, Irving, and Labastie. 2,874,440.
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General Electric Co. Ltd., The: *See*—
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General Motors Corp.: *See*—
Battenberg, Virgil B., Katterheinrich, and Sayre. 2,874,787.
Browne, Donald B., and Buckman. 2,874,849.
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Disinger, Frank A., and Godfrey. 2,874,555.
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Lawless, Norman D., Boat, and Wheeler. 2,875,407.
Pierce, Earl W. 2,875,365.
Probst, Delbert C. 2,874,993.
Rohr, Henry C., and Wallis. 2,874,770.
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General Telephone Laboratories, Inc.: *See*—
Kaiser, Kenneth G. 2,874,923.
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General Time Corp.: *See*—
Campbell, Arthur B. 2,875,320.
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General Tire & Rubber Co., The: *See*—
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Martin, Orville R. 2,874,965.
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George, Louis L., Jr. Broadband active type receiving antenna multicoupler. 2,875,437, 2–24–59, Cl. 343—205.
Gerhard, James R., H. C. C. Deegan, and T. W. Fisher, Jr., to The Firestone Tire & Rubber Co. Process for polymerizing vinyl chloride in the presence of methyl cellulose gelatin and inert solvent. 2,875,186, 2–24–59, Cl. 260—92.8.
Gerhard, James R., II, to The Firestone Tire & Rubber Co. Suspension polymerization using sorbitol, methyl cellulose and gelatin. 2,875,187, 2–24–59 Cl. 260—92.8.
Gertsen, Richard J., to Union Oil Co. of California. Oil well process and apparatus. 2,874,780, 2–24–59, Cl. 166—105.
Geyer, Howard M., to General Motors Corp. High temperature hydraulic actuator. 2,874,579, 2–24–59, Cl. 74—57.
Gilbert, Joseph A., R. F. Johnson, and A. G. Rose, to Rose Brothers (Gainsborough Ltd.). Method of manufacturing wrapped packages of edible plastic material. 2,875,069, 2–24–59, Cl. 99—171.
Gilbert, Leon, to Continental Connector Corp. Multiple electrical connector. 2,875,425, 2–24–59, Cl. 339—176.
Gilbert, Roswell W., to Davstrom Inc. Micro-balance. 2,874,951, 2–24–59, Cl. 265—70.
Gilbert, Roswell W., to Davstrom, Inc. Voltage distortion measuring instrument. 2,875,403, 2–24–59, Cl. 324—77.
Gillette Co., The: *See*—
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Glabe, Elmer F., to Bred-Ade Corp. Baking compositions and methods. 2,875,064, 2–24–59, Cl. 99—91.
Glasberg, Myer M., to American Stay Co. Article for use in a suspended position. 2,874,963, 2–24–59, Cl. 272—78.
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Dammert, Earl D., and White. 2,874,952.
Glenton Industries, Inc.: *See*—
Tracy, Glen M. 2,875,298.
Glover, Anthony D. Homemaking unit. 2,875,009, 2–24–59, Cl. 312—29.
Godfrey, John W.: *See*—
Disinger, Frank A., and Godfrey. 2,874,535.
Goebel, Hermann: *See*—
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Goettl, Adam D. Actuator for louver slats. 2,874,626, 2–24–59, Cl. 98—40.
Goettl, Adam D. Blower outlet damper actuator. 2,874,893, 2–24–59, Cl. 230—114.
Gogek, Charles J., to Corn Products Refining Co. Core binder and process of making cores. 2,875,073, 2–24–59, Cl. 106—38.4.
Going, Louis H.: *See*—
Holman, George W., and Going. 2,875,066.
Holman, George W., and Going. 2,875,067.
Goldberg, Gershon M., and J. E. Lu Valle, to Technical Operations, Inc. Triaminopyridine developer. 2,875,050, 2–24–59, Cl. 96—66.
Goldberg, Jacob, and B. Cox, to General Electric Co. Printer format control system. 2,874,633, 2–24–59, Cl. 101—93.
Goldschmied, Fabio R., to Westinghouse Electric Corp. Gas reaction rotors. 2,874,894, 2–24–59, Cl. 230—115.
Gonsett, Faust R., to Young Spring & Wire Corp. Radio wave reflector. 2,875,444, 2–24–59, Cl. 343—915.
Gonzales, Hooley B. Apparatus for excavating holes. 2,874,936, 2–24–59, Cl. 255—20.
Gonzalez, Ben. Poultry supporting means. 2,874,404, 2–24–59, Cl. 17—44.1.
Good, Arthur L., to Mairco, Inc. Valve. 2,874,924, 2–24–59, Cl. 251—58.
Goodlaxson, John D., to The Maytag Co. Water level control means. 2,874,559, 2–24–59, Cl. 68—207.
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Morrill, Charles D., Hosterman, and Vance. 2,875,389.
Gordon, Eliot. Prosthetic dental product. 2,874,832, 2–24–59, Cl. 206—63.5.
Gorey, Archie H., to Graflex, Inc. Message registering camera. 2,874,623, 2–24–59, Cl. 95—11.5.
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Gradishar, Frederick J., to E. I. du Pont de Nemours and Co. Process for brominating and fluorinating halogenated methanes in a refractory alumina reaction zone. 2,875,254, 2–24–59, Cl. 260—653.8.
Grady, Lester D., to The New Jersey Zinc Co. Method of separating titanium crystals. 2,875,033, 2–24–59, Cl. 75—.5.
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Grass, George M., Jr., and M. J. Robinson, to Smith, Kline & French Laboratories. Method of preparing sustained release particles and the product of the method. 2,875,130, 2–24–59, Cl. 167—82.
Gray, Robert B., to American Meter Co., Inc. Gas meter diaphragm. 2,874,569, 2–24–59, Cl. 73—279.
Green, Thomas A., H. H. Gorrie, J. F. Shannon, and T. Fink, to Bailey Meter Co. Indicating gage. 2,874,573, 2–24–59, Cl. 73—414.
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Greenspan, Frank P., and R. E. Light, Jr., to Food Machinery and Chemical Corp. Copolymer polyhydric phenol resin. 2,875,178, 2–24–59, Cl. 260—47.
Grevich, John J., to Doughboy Industries, Inc. Coding device. 2,874,637, 2–24–59, Cl. 101—377.
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Griffith, Ben H., Jr., to United States of America, Navy. Coaxial connector. 2,875,417, 2–24–59, Cl. 333—34.
Griggs, William H., and H. G. Curme, to Eastman Kodak Co. Preparation of coatings of improved internal strength. 2,875,054, 2–24–59, Cl. 96—85.
Griggs, William H., and F. A. Butler, to Eastman Kodak Co. Photographic paper having reduced processing curl. 2,875,055, 2–24–59, Cl. 96—85.
Grinerich, Joseph J., to General Electric Co. Protection system. 2,875,344, 2–24–59, Cl. 250—95.
Griset, Ernest J., Jr., to E. I. du Pont de Nemours and Co. Method and apparatus for crimping yarn. 2,874,443, 2–24–59, Cl. 28—1.
Griset, Ernest J., Jr., to E. I. du Pont de Nemours and Co. Production of curly yarn. 2,874,444, 2–24–59, Cl. 28—1.
Griset, Ernest J., Jr., to E. I. du Pont de Nemours and Co. Bulking yarn. 2,874,445, 2–24–59, Cl. 28—1.
Griswold, David E. Fixed interval time-controlled fluid distribution system. 2,875,428, 2–24–59, Cl. 299—25.
Grodsky, Arthur, now by change of name Aaron Grodsky, 50% to H. C. Angstreich. Rotatable leg hinge and cover for table. 2,875,008, 2–24–59, Cl. 311—114.
Gronewold, Arthur B.: *See*—
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Gross, Irving A., to Cleveland Metal Specialties Co. Bracket means for joining printed circuit panels. 2,875,264, 2–24–59, Cl. 174—68.
Growers Container Corp.: *See*—
Kelsall, Jack R. 2,874,891.
Grubb, Sir Howard, Parsons & Co., Ltd.: *See*—
Martin, Albert R., and Mounfield. 2,874,564.
Grussen, Jean. Apparatus for forming plastic closures on receptacles. 2,874,413, 2–24–59, Cl. 18—42.
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Gullett, William W., to Chicago Development Corp. Titanium group metals deposits. 2,874,454, 2–24–59, Cl. 29—194.
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Petermann, Lucien A. 2,875,355.
Gunberg, Harry W., to United Aircraft Corp. Lubrication means. 2,874,803, 2–24–59, Cl. 184—6.
Gunning, William F.: *See*—
Wendt, Karl H., Squires, and Gunning. 2,875,270.
Gunst, Raymond, to Ciba Ltd. Azo-dyestuffs. 2,875,192, 2–24–59, Cl. 260—153.
Gustafsson, Stig, and P. Öhnfeldt, to Aktiebolaget Svenska Flaktfabriken. Method for cleaning the electrodes in electro-filters. 2,874,802, 2–24–59, Cl. 183—114.
Gysin, Hans: *See*—
Hodel, Ernst, and Gysin. 2,875,126.
Haas, Herbert H., to Continental Motors Corp. Engine oil pan and dry sump lubrication system. 2,874,804, 2–24–59, Cl. 184—6.
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Hahn, Emil H., to Lambert Brake Corp. Hydraulically and mechanically operated disc brake. 2,874,807, 2–24–59, Cl. 188—72.
Haines, Marcus W. Frictional holding device for use in wells. 2,874,783, 2–24–59, Cl. 166—212.
Haines, Robert M.: *See*—
Annable, Weldon G., Jacobs, and Haines. 2,875,145.
Haist, Grant M., and J. R. King, to Eastman Kodak Co. Combined photographic developing and stabilizing solution. 2,875,048, 2–24–59, Cl. 96—61.
Haldeman, George W., to United States of America, Atomic Energy Commission. Method and apparatus for fabricating tubular units. 2,874,459, 2–24–59, Cl. 29—517.
Haldeman, William F. Method for stabilizing semi-conductor rectifiers. 2,874,448, 2–24–59, Cl. 29—25.3.
Hale, Arthur N., to Union Special Machine Co. Stand for sewing machines and sewing unit comprising the same. 2,875,006, 2–24–59, Cl. 311—12.
Hale, William F., to Paperbox Corp. Carton for packing fruits, vegetables or the like. 2,874,889, 2–24–59, Cl. 229—23.
Hall, Dick S., and H. W. Hennigan, to Phillips Petroleum Co. Prevention of coke depositions in a hydrocarbon coking zone. 2,875,146, 2–24–59, Cl. 208—48.
Hallidy, William M., to The Leece-Neville Co. Brush holder. 2,875,356, 2–24–59, Cl. 310—245.
Haltmeier, Alfred, to Farbenfabriken Bayer Akt. Drying of moist material. 2,874,482, 2–24–59, Cl. 34—31.
Halvorson, Robert L., F. S. Beale, and H. B. Dobyns, to Westinghouse Electric Corp. Equipment failure alarm system for repeater station communication network. 2,875,327, 2–24–59, Cl. 250—6.
Ham, John L., and D. I. Siniger, to National Research Corp. Production of metals. 2,875,034, 2–24–59, Cl. 75—10.
Hamblin, Clyde M., ⅓ to E. F. Hamblin, ⅓ to H. H. Livingstone, and ⅓ to B. H. Marshall. Buoyant, insulated flexible tubing and method of making same. 2,874,722, 2–24–59, Cl. 138—33.
Hamblin, Eva F.: *See*—
Hamblin, Clyde M. 2,874,722.
Hamm, John A., Jr. Mechanism for aiding and dialing telephone numbers. 2,874,672, 2–24–59, Cl. 116—133.
Hammond, John H., Jr. Television relay system. 2,875,436, 2–24–59, Cl. 343—202.
Hamway, Edward G.: *See*—
Lott, De Forest, and Hamway. 2,875,113.
Handel, Neil E., to Industrial Nucleonics Corp. Phase detector. 2,875,404, 2–24–59, Cl. 324—87.
Hanff, Edward A., to Swindell-Dressler Corp. Magnetomotive agitator for molten metal baths or the like. 2,875,261, 2–24–59, Cl. 13—26.
Harclerode, John R., to Clipper Mfg. Co. Movement limiting guard for the saw on the cutting head of masonry saws. 2,874,687, 2–24–59, Cl. 125—13.
Hare, Donald G. C., and H. R. Skifter, to United States of America, Navy. Repeater station having reduced self oscillation. 2,875,328, 2–24–59, Cl. 250—15.
Harkenrider, Robert J. Induction heating in injection and extrusion processes. 2,875,311, 2–24–59, Cl. 219—10.49.
Harland, Philip W., and J. N. Storms, to American Machine and Metals, Inc. Rotatable pressure gauges. 2,874,572, 2–24–59, Cl. 73—407.
Harling, Donald W., to McGraw-Edison Co. Outdoor lighting luminaire. 2,875,323, 2–24–59, Cl. 240—25.
Harmon, Alton O., to St. Francis Valley Farms Co. Land leveler. 2,874,490, 2–24–59, Cl. 37—169.
Harper, Kenneth A., to Phillips Petroleum Co. Process and apparatus for disengaging particulate solid contact material. 2,875,000, 2–24–59, Cl. 302—59.

Harris-Intertype Corp.: *See*—
Royer, Arthur G., and Thompson. 2,874,636.
Harris, Robert V., to Branson Instruments, Inc. Piezoelectric transducer. 2,875,354, 2–24–59, Cl. 310—8.2.
Harshaw Chemical Co., The: *See*—
Armstrong, Leonard J., and Mudrak. 2,875,083.
Duro, George D. 2,875,081.
Morris, William C., and Tenar. 2,875,085.
Weyl, Woldemar A. 2,875,086.
Hartman, Frank M., Sr. Dozer attachment for tractors. 2,874,492, 2–24–59, Cl. 37—144.
Hartwell Aviation Supply Co.: *See*—
Henrichs, Bernard W. 2,874,986.
Hartwell, Clark: *See*—
Henrichs, Bernard W. 2,874,986.
Hasek, Robert H.: *See*—
Elam, Edward U., and Hasek. 2,875,252.
Haser Donald G.: *See*—
Knighton, Daniel J., Haser, and Fiedler. 2,874,921.
Haskelite Mfg. Corp.: *See*—
Potchen, Joseph A., Kloote, and Meier. 2,875,117.
Hauser, Helmut. Infinitely variable gears. 2,874,581, 2–24–59, Cl. 74—143.
Havstad, Harald, to International Telephone and Telegraph Corp. Resonant circuit. 2,875,376, 2–24–59, Cl. 315—43.
Hayashi, Shigeki: *See*—
Terayama, Denzaburo, Matsubara, Hayashi, and Hirakawa. 2,874,665.
Hazeltine Research, Inc.: *See*—
Bailey, William F. 2,875,272.
Hegemann, Josef: *See*—
Roos, Hans, Briesewitz, and Hegemann. 2,875,243.
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Hignett, Travis P., Hein, Phillips, and Young. 2,875,245.
Heininger, Samuel A., and G. H. Birum, to Monsanto Chemical Co. Ether products. 2,875,230, 2–24–59, Cl. 260—609.
Heitman, Clarence H. Rebuilt wooden shoe lasts. 2,874,394, 2–24–59, Cl. 12—136.
Heli-Coil Corp.: *See*—
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Heliot, Maurice. Hosiery shaping apparatus. 2,874,884, 2–24–59, Cl. 223—76.
Hellen, James S.: *See*—
Willcox, Frederick P., Weismetz, Autere, and Hellen. 2,875,273.
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Carter, Newell A., and Hemborg. 2,874,818.
Henderson, Albert, to The Cementone Corp. Apparatus for making concrete structural shapes. 2,874,442, 2–24–59, Cl. 25—118.
Henderson, J Alvin, to International Telephone and Telegraph Corp. Information location circuit. 2,875,372, 2–24–59, Cl. 315—12.
Henderson, Thomas W., to United Steel Fabricators, Inc. Metal door frame. 2,874,420, 2–24–59, Cl. 20—11.
Hennessey, Richard G., to International Harvester Co. Steering by driving with differential lock-out bull gear coupling. 2,874,790, 2–24–59, Cl. 180—6.2.
Hennessey, Russell J., to Waldorf Paper Products Co. Can carrying carton. 2,874,869, 2–24–59, Cl. 220—112.
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Hall, Dick R., and Hennigan. 2,875,146.
Henrichs, Bernard W., to C. Hartwell, d. b. a. Hartwell Aviation Supply Co. Flush latch construction. 2,874,986, 2–24–59, Cl. 292—167.
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Heritage, Clark C., to Weyerhaeuser Timber Co. Separating pure sclerenchyma fibers from Douglas fir bark. 2,874,904, 2–24–59, Cl. 241—24.
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Harnes, Jeffery W., and Herring. 2,874,576.
Hershman, Gordon L., to International Harvester Co. Draft control apparatus indicators for implements. 2,874,789, 2–24–59, Cl. 172—[illegible].
Herster, Antun J. Filter. 2,874,846, 2–24–59, Cl. 210—232.
Herzog, Gerhard, to The Texas Co. Radiation detector. 2,875,344, 2–24–59, Cl. 313—93.
Hettrick, Carl R. Line connector for fishing appliances. 2,874,511, 2–24–59, Cl. 43—44.87.
Hevener, Osborn F. Weather indicator. 2,874,571, 2–24–59, Cl. 73—336.
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Kegerise, Wesley R., and Heydt. 2,875,042.
Heyer Industries, Inc.: *See*—
St. John, John H. 2,875,402.
Heyer, Norbert A., to J. J. Wanner. Ore beneficiating apparatus. 2,874,837, 2–24–59, Cl. 209—12.
Hickman, Emmett W. Semiautomatic signal attachment for a mailbox. 2,874,896, 2–24–59, Cl. 232—35.
Hickson & Welch Ltd.: *See*—
Adams, Dennis A. W., and Sarkar. 2,875,106.
Higberg, Arthur L., to Yawman and Erbe Mfg. Co., Inc. Latch and lock mechanism for rocker type file cabinet. 2,875,011, 2–24–59, Cl. 312—218.
Higberg, Arthur L., to Yawman and Erbe Mfg. Co., Inc. Rocking compartment file cabinet. 2,875,015, 2–24–59, Cl. 312—325.
Higgins, Edward F. Corrosion-resistant sucker rod and method of constructing same. 2,874,937, 2–24–59, Cl. 255—28.
Higgins, Edward F. End fittings for sucker rods having a flowable binder. 2,874,938, 2–24–59, Cl. 255—28.
Hightower, Earle D., to United States of America, Atomic Energy Commission. Detector for telephone surreptitious listening techniques. 2,875,285, 2–24–59, Cl. 179—175.
Hignett, Travis P., L. B. Hein, A. B. Phillips, and R. D. Young, to Tennessee Valley Authority. Production of methyl dichloro phosphine oxide. 2,875,245, 2–24–59, Cl. 260—543.
Hillis, Clinton D.: *See*—
Blasek, William J., and Hillis. 2,875,005.
Hines Flask Co., The: *See*—
Hines, Russell J. 2,874,425.
Hines, Russell J., to The Hines Flask Co. Foundry flask with resilient for retaining band member. 2,874,425, 2–24–59, Cl. 22—106.
Hings, Donald L. Directional antenna array. 2,875,438, 2–24–59, Cl. 343—733.
Hirak, Joseph J. Floor washing machines. 2,874,397, 2–24–59, Cl. 15—51.
Hirakawa, Yotaro: *See*—
Terayama, Denzaburo, Matsubara, Hayashi, and Hirakawa. 2,874,665.
Hirschey, Malcolm: *See*—
Gottscho, Ira S., and Hirschey. 2,874,499.
Hobbs, William S. Unburned fuel detection and burner control. 2,874,763, 2–24–59, Cl. 158—28.
Hochmeister, Inc.: *See*—
Birnbaum, Hermann. 2,875,221.
Hodel, Ernst, and H. Gysin, to J. R. Geigy A. G. New esters of 8-acyl-8-hydroxyquinolines and their use for the control of fungi. 2,875,126, 2–24–59, Cl. 167—33.
Hoerst, Valentine N. Manually operated grinding attachment. 2,874,520, 2–24–59, Cl. 51—219.
Hofer, Eugene G., P. J. Koppe, and S. R. Mischnick, to Zenith Radio Corp. Method of manufacturing an electric coil. 2,875,420, 2–24–59, Cl. 336—192.
Hoffman, Carl H.: *See*—
Holly, Frederick W., Wagner, Walton, and Hoffman. 2,875,238.
Holly, Frederick W., Wagner, Walton, and Hoffman. 2,875,239.
Hoffman, Morris. Friction clutch assembly. 2,874,815, 2–24–59, Cl. 192—66.
Hoffmann, Karl, and J. Kebrle, to Ciba Pharmaceutical Products Inc. Process of preparing certain 2-amino indoles. 2,875,212, 2–24–59, Cl. 260—319.
Hogg, John A., and F. H. Lincoln, Jr., to The Upjohn Co. 9a-halo-11β,21-dihydroxy-4,17(20)-pregnadiene-3-one compounds and process of preparing thereof. 2,875,200, 2–24–59, Cl. 260—239.55.
Holin, William F., to General Motors Corp. Railway vehicle suspension. 2,874,646, 2–24–59, Cl. 105—171.
Holland, Albert. Attachment for a buttonhole stitching machine. 2,874,660, 2–24–59, Cl. 112—68.
Hollert, Paul. Individual wheel support for vehicles. 2,874,974, 2–24–59, Cl. 280—124.
Holly, Frederick W., A. F. Wagner, E. Walton, and C. H. Hoffman, to Merck & Co., Inc. Intermediates useful in the synthesis of α-lipoic acid. 2,875,238, 2–24–59, Cl. 260—481.
Holly, Frederick W., A. F. Wagner, E. Walton, and C. H. Hoffman, to Merck & Co., Inc. Intermediates useful in the synthesis of α-lipoic acid. 2,875,239, 2–24–59, Cl. 260—481.
Holman, George W., and L. H. Going, to The Procter & Gamble Co. Rapid directed interesterification of glycerides. 2,875,066, 2–24–59, Cl. 99—122.
Holman, George W., and L. H. Going, to The Procter & Gamble Co. Lard shortenings. 2,875,067, 2–24–59, Cl. 99—122.
Holman, Ralph T., to Regents of the University of Minnesota. Food composition and method of preserving same. 2,875,060, 2–24–59 Cl. 99—2.
Holman, Roger A.: *See*—
Graham, Marion R., Reed, and Holman. 2,875,035.
Holmes, Richard D. Radio frequency adjusting mechanism. 2,875,338, 2–24–59, Cl. 250—40.
Holmes, Thomas G. Tally instruction apparatus for automatic digital computers. 2,874,901, 2–24–59, Cl. 235—157.
Hose, Hunter E., to Royal McBee Corp. Punch and die mechanism. 2,874,776, 2–24–59, Cl. 164—50.
Hopkins, Earl V.: *See*—
Elfving, Thore M., and Hopkins. 2,874,554.
Hopkins, Robert P., to Rohm & Haas Co. Method of thickening aqueous dispersions with a divalent metal acrylate and product thereof. 2,875,166, 2–24–59, Cl. 260—29.16.
Hornbostel, Lloyd, to Beloit Iron Works. Apparatus for coating. 2,874,674, 2–24–59, Cl. 118—113.
Horning, Raymond H., and I. L. Wilcox, to Sealright-Oswego Falls Corp. Liquid tight container with fibrous side wall. 2,874,888, 2–24–59, Cl. 229—5.6.
Hosterman, Harry L., Jr.: *See*—
Morrill, Charles D., Hosterman, and Vance. 2,875,389
Howard, Alfred H., to Fairbanks Ward Industries, Inc. Mailing piece or advertising sheet provided with an interlocking return envelope. 2,874,892, 2–24–59, Cl. 229—73.
Howard, Joseph A. Dual control indexing turret. 2,874,460, 2–24–59, Cl. 29—41.
Howe & Fant, Inc.: *See*—
Chariat, Arnold S. 2,874,599.
Hubbell, Harry H., Jr.: *See*—
Birkhoff, Robert D., Hubbell, and Johnson. 2,875,343.
Hubbell, Harvey, to Harvey Hubbell, Inc. Screwless means for attaching conductors to electrical devices. 2,875,424, 2–24–59, Cl. 339—164.
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Hubbell, Harvey. 2,875,424.
Huber, Clarence F., and F. F. Thompson, to The Cincinnati Milling Machine Co. Bituminous bonding agents. 2,875,219, 2–24–59, Cl. 260—404.5.

Huber, Paul: *See*—
Lamb, Francis X., Hubert, Estoppey, Roy, and Dempster. 2,875,409.

Huff, Malvin, and F. J. Cassie, to Viewlex, Inc. Slide magazine advancing means. 2,874,497, 2–24–59, Cl. 40—79.

Hughes, Max. Frozen confection loader and container. 2,874,736, 2–24–59, Cl. 141—234.

Humphlett, Wilbert J., and C. V. Wilson, to Eastman Kodak Co. Method of solubilizing vitamins A, B_2, D_3 and E. 2,875,195, 2–24–59, Cl. 260—211.3.

Humphlett, Wilbert J., and C. V. Wilson, to Eastman Kodak Co. Method of solubilizing steroids. 2,875,214, 2–24–59, Cl. 260—397.2.

Hydro-Aire, Inc.: *See*—
Brown, Dwight E. 2,874,810.

Hydrocarbon Research, Inc.: *See*—
Engle, Theodore M. 2,875,147.
Schuman, Seymour C. 2,875,150.

Hydrometals, Inc.: *See*—
Wallin, Arthur S. 2,874,916.

Hyman, Julius, E. Freireich, and R. E. Lidov, to Shell Development Co. Dienic hydrocarbons and derivatives thereof. 2,875,256, 2–24–59, Cl. 260—666.

Hyre, John E.: *See*—
Bader, Alfred R., and Hyre. 2,875,161.

I-T-E Circuit Breaker Co.: *See*—
Albright, Roy A. 2,875,265.

Illinois Tool Works: *See*—
Poupitch, Ouglijesa J. 2,874,835.

Imblum, Leo. Automatic transmission. 2,874,586, 2–24–59, Cl. 74—472.

Immel, Ralph B., to Westinghouse Electric Corp. Circuit interrupter. 2,875,301, 2–24–59, Cl. 200—147.

Immel, Ralph B., and A. S. Nadrowski, to Westinghouse Electric Corp. Circuit interrupter. 2,875,302, 2–24–59, Cl. 200—147.

Immel, Ralph B., A. S. Nadrowski, and M. P. White, to Westinghouse Electric Corp. Circuit interrupter. 2,875,303, 2–24–59, Cl. 200—147.

Inductosyn Corp.: *See*—
Tripp, Robert W. 2,875,390.

Industrial Nucleonics Corp.: *See*—
Handel, Neil E. 2,875,404.

Industrial Rayon Corp.: *See*—
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International Business Machines Corp.: *See*—
Markow, George R. 2,875,432.
Quade, Edward A. 2,875,429.

International Harvester Co.: *See*—
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Hershman, Gordon L. 2,874,789.

International Telemeter Corp.: *See*—
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International Telephone and Telegraph Corp.: *See*—
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Iron Fireman Mfg. Co.: *See*—
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Jacobs, William L.: *See*—
Annable, Weldon G., Jacobs, and Haines. 2,875,145.

Jacobson, Darwin J. Writing instrument. 2,874,680, 2–24–59, Cl. 120—45.6.

Jahnel, Ernst, to A. Schroder. Lifting stage. 2,874,805, 2–24–59, Cl. 187—8.72.

Janoff, Daniel L., to Heppenstall Co. Beam tongs. 2,874,990, 2–24–59, Cl. 294—86.

Jeanneret, Jules L. Arrangement for supporting a work piece on the back center of a machine-tool. 2,874,600, 2–24–59, Cl. 82—31.

Jenkins, Herbert A. H.: *See*—
Wilkinson, Cyril F., Jenkins, Lake, and Radcliffe. 2,875,111.

Jenne, Kenneth C., to Malleable Iron Fittings Co. Hook connector device. 2,874,439, 2–24–59, Cl. 24—279.

Jeremiah, Earl, to United Can & Glass Co. Apparatus for handling cans. 2,874,856, 2–24–59, Cl. 214—16.

Johns, William F., to G. D. Searle & Co. Dehydrotigogenone intermediates. 2,875,201, 2–24–59, Cl. 260—239.55.

Johnson, Carl E.: *See*—
Bollenback, Carol H., and Johnson. 2,875,210.

Johnson, Carl E., to National Aluminate Corp. Inhibition of foaming in steam generation. 2,875,156, 2–24–59, Cl. 252—321.

Johnson, Carl E., Jr., to California Research Corp. Oil well treating method. 2,874,779, 2–24–59, Cl. 166—42.

Johnson, Ernest W.: *See*—
Durbin, Vernon, and Johnson. 2,874,960.

Johnson, Nels A., ½ to G. M. Munson. Brine tankfloat valve control for water softener. 2,874,717, 2–24–59, Cl. 137—411.

Johnson, Raymond M., Jr.: *See*—
Birkhoff, Robert D., Hubbell, and Johnson. 2,875,343.

Johnson, Reginald F.: *See*—
Gilbert, Joseph A., Johnson, and Rose. 2,875,069.

Johnson, William H., ¼ to W. T. Sevald. Colostomy device. 2,874,697, 2–24–59, Cl. 128—283.

Johnson's Co. Ltd.: *See*—
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Johnston, Mordica O., and R. H. Stanier, to Johnston Testers, Inc. Doughnut-type packer. 2,874,782, 2–24–59, Cl. 166—204.

Johnston Testers, Inc.: *See*—
Johnston, Mordica O., and Stanier. 2,874,782.

Jones, Gordon F., to The Firestone Tire & Rubber Co. Foam rubber cushion. 2,874,758, 2–24–59, Cl. 155—178.

Jones, Jean E.: *See*—
Carroll, Burt H., and Jones. 2,875,058.

Jones, Wallace M., and F. M. Cain, Jr., to Westinghouse Electric Corp. Electrode control. 2,875,368, 2–24–59, Cl. 314—74.

Jonkers, Johannes J. A.: *See*—
De Rooy, Antonius J., and Jonkers. 2,874,449.

Jordan, Joseph. Electrical trunk line and connector. 2,875,421, 2–24–59, Cl. 339—22.

Joseph John L., and I. Dorfman, to Brrr Products Co., Inc. Folded blank structure for interlocking toy construction elements. 2,874,512, 2–24–59, Cl. 46—25.

Jucknies, Paul R.: *See*—
Rogers, Jack A., and Jucknies. 2,874,953.

Jump, Robert S.: *See*—
Pauth, Frederick E., and Jump. 2,874,526.

Kaden, Willy, and F. Stiefenhofer, to AGFA Akt. Rewinding device for photographic cameras. 2,874,914, 2–24–59, Cl. 242—71.3.

Kahan, Mortimer J. Coffee extracting apparatus. 2,874,629, 2–24–59, Cl. 99—298.

Kahler, Maurice C. Self-lighting cigarette. 2,874,700, 2–24–59, Cl. 131—7.

Kahn, Marvin M., to The Acme-Hamilton Mfg. Corp. Flexible hose. 2,874,723, 2–24–59, Cl. 138—56.

Kaiser Aluminum & Chemical Corp.: *See*—
La Rue, Donald G. 2,874,683.

Kaiser, Kenneth G., to General Telephone Laboratories, Inc. Cable brackets. 2,874,923, 2–24–59, Cl. 248—68.

Kalamazoo Vegetable Parchment Co.: *See*—
Flanagan, Thomas E. 2,874,831.

Kalikow, Irving, and A. H. Labastie, to General Electric Co High pressure clamping band. 2,874,440, 2–24–59, Cl 24—279.

Kalling, Bo M. S., to Stora Kopparbergs Bergslags Aktiebolag. Method for treating molten metal. 2,875,036, 2–24–59, Cl. 75—45.

Kalousek, George L., to Owens-Corning Fiberglas Corp. Hydrous calcium silicates. 2,875,075, 2–24–59, Cl. 106—120.

Kandoian, Armig G., to International Telephone and Telegraph Corp. Antenna. 2,875,443, 2–24–59, Cl. 343—895.

Kantebeen, Leonard J., to N. V. Centrale Suiker Maatschappij. Synthetic resin capable for binding organic atom complexes and process for preparing same. 2,875,160, 2–24–59, Cl. 260—2.1.

Kaplan, Henry, to Burroughs Corp. Pulse width modulator. 2,875,412, 2–24–59, Cl. 332—12.

Karasevich, John G. Dispenser for bobby-pins and the like. 2,874,703, 2–24–59, Cl. 132—1.

Karler, Arthur. Apparatus for electro-chromatographic separation. 2,875,144, 2–24–59, Cl. 204—299.

Karll, Robert E.: *See*—
Sabol, Albert R., and Karll. 2,875,189.

Karson, Jean: *See*—
Cohen, Maurice, and Karson. 2,874,709.

Kasminsky, Stanley G.: *See*—
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Kauer, Kenneth C., and R. C. Britton, to The Dow Chemical Co. Biphenylyl phosphoroamidothioates. 2,875,234, 2–24–59, Cl. 260—461.

Kaufmann, John J., to Steel Heddle Mfg. Co. Heddle frames. 2,874,726, 2–24–59, Cl. 139—92.

Kazeler, Herman H., to Phillips Petroleum Co. Hydraulic cements having an extended thickening time, and processes employing the same. 2,874,778, 2–24–59, Cl. 166—31.

Kaye, Emanuel: *See*—
Arnot, Alfred E. R. 2,874,861.

Kayser, Bernard J., Jr. Alarm apparatus for motor vehicle operator. 2,875,430, 2–24–59, Cl. 340—279.

Kazan, Benjamin, to Radio Corp. of America. Photocell control apparatus. 2,875,348, 2–24–59, Cl. 250—206.

Kebrle, Jindrich: *See*—
Hoffmann, Karl, and Kebrle. 2,875,212.

Keeprite Products Ltd.: *See*—
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Kegerise, Wesley E., and G. B. Heydt, to The Carpenter Steel Co. High temperature alloy steel. 2,875,042, 2–24–59, Cl. 75—126.

Kehrer, Charles F. Automatic sewing and handling machine. 2,874,659, 2–24–59, Cl. 112—10.

Kelbel, Donald W., to Borg-Warner Corp. Two path power flow turbine transmission. 2,874,590, 2–24–59, Cl. 74—688.

Kelly, Jack J., to Bendix Aviation Corp. Hydraulic fuel shutoff valve. 2,874,718, 2–24–59, Cl. 137—489.

Kelly, Jack R., to The Pusey & Jones Corp. Apparatus for guiding traveling webs. 2,874,961, 2–24–59, Cl. 271—2.6.

Kelsall, Jack R., to Growers Container Corp. Container and method of making same. 2,874,891, 2–24–59, Cl. 229—37.

Kelton, Frank C., to Core Laboratories, Inc. Porosimeter and method of measuring porosity. 2,874,565, 2–24–59, Cl. 73—38.

Kempen, Edward F., to The Don-Ite Co. Process of coating wood articles and article produced thereby. 2,875,093, 2–24–59, Cl. 117—67.

Kenaga, Eugene E., to The Dow Chemical Co. Fumigation with sulfuryl fluoride. 2,875,127, 2–24–59, Cl. 167—39.

Kent-Moore Organization, Inc: *See*—
Bennett, Clifford H. 2,874,457.

Kerwin, Joseph E. Electrical contact board game. 2,874,966, 2–24–59, Cl. 273—93.

Ketchledge, Raymond W., to Bell Telephone Laboratories, Inc. Storage tube and circuit. 2,875,373, 2-24-59, Cl. 315—12.
Kiernan, Earl F. Method and apparatus for measurement of total sound power output of an ultrasonic transducer. 2,874,794, 2-24-59, Cl. 181—.5.
King, Charles S., to The Rover Co. Ltd. Fuel supply system for a gas turbine engine power plant. 2,874,765, 2-24-59, Cl. 158—36.4.
King, David W., to United States of America, Atomic Energy Commission. Hand truck for handling equipment. 2,874,860, 2-24-59, Cl. 214—130.
King, James R.: *See*—
Haist, Grant M., and King. 2,875,048.
King, Robert J., to McGraw-Edison Co. Heating units for ovens and the like. 2,875,313, 2-24-59, Cl. 219—19.
Kinney, George A., to E. I. du Pont de Nemours and Co. Apparatus for uniformly drawing a plurality of filaments. 2,874,410, 2-24-59, Cl. 18—8.
Kinsella, Martin A.: *See*—
Frederick, Herbert S., and Kinsella. 2,874,852.
Kirkpatrick, Willard H., and V. L. Seale, to Visco Products Co. Pesticide emulsions containing an oxyethylated oxypropylated glycerine. 2,875,128, 2-24-59, Cl. 167—43.
Kirkpatrick, Willard H., to Visco Products Co. Resolving water-in-oil emulsions. 2,875,157, 2-24-59, Cl. 252—344.
Kirkpatrick, William D., and A. L. Newman, to Red Devil Tools. Paint tube squeezer. 2,874,525, 2-24-59, Cl. 53—268.
Kiesman, Henry M.: *See*—
Baker, Bernard R., and Kiesman. 2,875,194.
Kittleson, Allen R.: *See*—
Brugmann, William H., Jr., Yowell, and Kittleson. 2,875,030.
Klein, Hens, to Badische Anilin- & Soda Fabrik Akt. Production of acetylene using methane. 2,875,259, 2-24-59, Cl. 260—679.
Klein, Samuel. Curing of meats. 2,875,068, 2-24-59, Cl. 99—159.
Klingler, Karl A. Two-way ball valves. 2,874,929, 2-24-59, Cl. 251—129.
Klingler, Karl A. Lubricator for railroad car axle journal box. 2,875,003, 2-24-59, Cl. 308—88.
Kloote, George B.: *See*—
Petchen, Joseph A., Kloote and Meier. 2,875,117.
Knighton, Daniel J., D. G. Haser, and G. A. Fiedler, to United States of America, Navy. Mooring device for seaplanes. 2,874,921, 2-24-59, Cl. 244—115.
Knowles, William L. Process of bending wood. 2,874,753, 2-24-59, Cl. 154—33.05.
Koenig, Emil L., deceased; C. Peterson, executor. Detector and lock control for drawbridge lift rails. 2,875,325, 2-24-59, Cl. 246—118.
Koenigsberg, Max, to The Englander Co., Inc. Innerspring foam mattress. 2,874,389, 2-24-59, Cl. 5—351.
Kolb, Arthur F.: *See*
Rosing, Theodore F., Kolb, and Kuhn. 2,875,297.
Kolloff, Harold G., and P. H. Seay, to The Upjohn Co. (2-propyl-4-pentenoyl) urea. 2,875,246, 2-24-59, Cl. 260—553.
Konstrukta Praha, narodni podnik: *See*—
Koucky, Josef and F. 2,874,501.
Koppe, Paul J.: *See*
Hofer, Eugene G., Koppe, and Mischnick 2,875,420.
Koppel, Harold H., and S. G. Kasminsky, to Bailey Meter Co. Telemetering system. 2,875,427, 2-24-59, Cl. 340—150.
Koppel, Margaret G. Manicure kit. 2,874,707, 2-24-59, Cl. 132—79.
Korber, Kurt, & Co. K.-G.: *See*—
Steiner, Carl. 2,874,701
Kosmin, Milton, to Monsanto Chemical Co. Fungicide. 2,875,122, 2-24-59, Cl. 167—30.
Kotkins, Henry L. Luggage hinge. 2,874,401, 2-24-59, Cl. 16—145
Koucky, Frantisek: *See*—
Koucky, Josef and F. 2,874,501
Koucky, Josef and F., to Konstrukta Praha, narodni podnik. Sight for repeating small arms. 2,874,501, 2-24-59, Cl. 42—1.
Kovac, George M.: *See*—
Renaud, Harold J., and Kovac. 2,874,907.
Kraft Foods Co.: *See*—
Ganter, Bertin C. 2,874,821.
Kraus, Ludwig, to Daimler-Benz Akt. Universal joint. 2,874,556, 2-24-59, Cl. 64—8.
Kravik, Ormund A., to Nobles Engineering Co. Ammunition storage box. 2,874,615, 2-24-59, Cl. 89—34.
Kridel, Donald J., to Eastman Kodak Co. Stabilized photographic developers for color photography. 2,875,049, 2-24-59, Cl. 96—66.
Krofta, Milos. Process and apparatus for waste liquid purification. 2,874,842, 2-24-59, Cl. 210—70.
Krone, Ben W., to Rockford Medical Foundation. Surgical device. 2,874,384 2-24-59, Cl. 1—49.
Kruckenberg, Winfried, and L. Eue, to Farbenfabriken Bayer Akt. Method of killing weeds. 2,875,031, 2-24-59, Cl. 71—2.5.
Kruper, Andrew P., to Westinghouse Electric Corp. Image intensifier. 2,875,360, 2-24-59, Cl. 313—66.
Kruper, Andrew P., and T. Miller, to Westinghouse Electric Corp. Apparatus for reducing control current for picture tube employing multiple deflection. 2,875,375, 2-24-59, Cl. 315—21.
Kuhn, Clarence W.: *See*—
Rosing, Theodore F., Kolb, and Kuhn. 2,875,297.
Labastie, Albert H.: *See*—
Kalikow, Irving, and Labastie. 2,874,440.
La Belle, Donald J., to General Motors Corp. Leaf and air spring suspension. 2,874,958, 2-24-59, Cl. 267—18.
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Wilkinson, Cyril F., Jenkins, Lake, and Radcliffe. 2,875,111.
Lamb, Francis X., P. Huber, R. F. Estoppey, W. A. Roy, and A. Dempster, to Daystrom, Inc. Electrical instrument. 2,875,409, 2-24-59, Cl. 324—147.
Lamb, Francis X., to Daystrom, Inc. Electrical instrument. 2,875,410, 2-24-59, Cl. 324—150.
Lamb, Francis X., to Daystrom, Inc. Electrical instrument with a drum indicating dial. 2,875,411, 2-24-59, Cl. 324—151.
Lambert Brake Corp.: *See*—
Hahn, Emil H. 2,874,807.
Lammler, Georg: *See*—
Ruschig, Heinrich, Siedel, Leditschke, Scherr, Schmidt-Barbo, and Lammler. 2,875,205.
Lampard, Edward D. Rack for forming, smoking and cutting of sausages, such as "frankfurters" and the like. 2,874,403, 2-24-59, Cl. 17—34.
Landers, James E., and J. D. Sudbury, to Continental Oil Co. Method and apparatus for cathodic protection of wells. 2,875,142, 2-24-59, Cl. 204—147.
Landis Tool Co.: *See*—
Balsiger, Harold E. 2,874,318.
Langdon, William K.: *See*—
Levis, William W., Jr., and Langdon. 2,875,206.
Lange, Karl H.: *See*—
Becker, Gottfried, Bungardt, and Lange. 2,875,112.
Lanham, William M., to Union Carbide Corp. Production of bicyclo heterocyclic phosphoramides and thionophosphoramides. 2,875,235, 2-24-59, Cl. 260—461.
Larsen, Paul V., to Electric Steel Foundry Co. Bucket tooth assembly. 2,874,491, 2-24-59, Cl. 37—142.
La Rue, Donald G., to Kaiser Aluminum & Chemical Corp. Hot water tank flue construction. 2,874,683, 2-24-59, Cl. 122—17.
La Rue, Eleanor S. and F. G.: said F. G. La Rue assor. to said E. S. La Rue. Detachable fastener. 2,874,433, 2-24-59, Cl. 24—103.
La Rue, Frederick G.: *See*—
La Rue, Eleanor S. and F. G. 2,874,433.
Lash, Don E.: *See*—
Cannon, Edward S., and Lash. 2,874,848.
Lasley, Robert A., to Baldwin-Lima-Hamilton Corp. Gas turbine with automatic shift responsive to turbine speed and gas pressure. 2,874,585, 2-24-59, Cl. 74—336.5.
Latour, André, Y. Pelenc, and P. Ramponneau; said Latour assor. to Etablissements Merlin & Gerin. Circuit-breakers having magnetic blow-out. 2,875,305, 2-24-59, Cl. 200—147.
Laucher, Richard G., and F. A. Coss, to Marquardt Aircraft Co. Thrust reverser for jet engine. 2,874,538, 2-24-59, Cl. 60—35.54.
Lawless, Norman D., H. L. Rost, and R. M. Wheeler, to General Motors Corp. Electrical instrument of the differential galvanometer type. 2,875,407, 2-24-59, Cl. 324—140.
Lay, Clarence M., to Vaughan & Bushnell Mfg. Co. Claw hammer with tubular handle. 2,874,738, 2-24-59, Cl. 145—29.
Layden, Paul W. Sheet feeding system for printing presses and the like. 2,874,962, 2-24-59, Cl. 271—27.
Leach Corp.: *See*—
Adams, Richard L. 2,875,293.
Lear, Inc.: *See*—
Lear, William P., Sr. 2,875,419.
Lear, William P., Sr., to Lear, Inc. Tunable radio frequency coils. 2,875,419, 2-24-59, Cl. 336—83.
Leditschke Heinrich: *See*—
Ruschig, Heinrich, Siedel, Leditschke, Scherr, Schmidt-Barbo, and Lammler. 2,875,205.
Lee, Milford R.: *See*—
Doty, William E. N., and Lee. 2,874,795.
Leece-Neville Co., The: *See*—
Hallidy, William M. 2,875,356.
Lees, James, and Sons Co.: *See*—
Ballard, Hyde W. 2,874,725.
Smiley, Harry J. 2,874,724.
Legros, Robert G. Transmission mechanisms between axles or shafts. 2,874,593, 2-24-59, Cl. 74—796.
Leinert, Lothar: *See*—
Rietmüller, Paul, and Leinert. 2,874,460.
Leiterer, Lothar, to VEB Carl Zeiss Jena. Devices for measurement of turbidity. 2,874,606, 2-24-59, Cl. 88—14.
Le Maistre, John W.: *See*—
Baer, Byron N., Brandner, and Le Maistre. 2,875,078.
Lemco Products, Inc.: *See*—
Blazek, William J., and Hillis. 2,875,005.
Leuthold, Edgar J., to Curtiss-Wright Corp. Aircraft training instrument for simulating attitude gyro. 2,874,486, 2-24-59, Cl. 35—12.
Levens, Ernest, and R. M. Washburn, to American Potash & Chemical Corp. Tris(diisobutylcarbinyl)borate. 2,875,236, 2-24-59, Cl. 260—462.
Lever Brothers Co.: *See*—
Thompson, Stuart W. 2,875,065.
Levis, William W., Jr., and W. K. Langdon, to Wyandotte Chemicals Corp. Two-stage method for preparing carbon-substituted piperazines. 2,875,206, 2-24-59, Cl. 260—268.
Levy, Francis X.: *See*—
Pellerin, Norvin L., and Levy. 2,874,714.
Lewis, Allen H., to California Research Corp. Non-caking solid particulate detergents. 2,875,154, 2-24-59, Cl. 252—138.
Lewis Engineering Co.: *See*—
Blackwell, Dana J., and Zawacki. 2,874,671.
Lidov, Rex E.: *See*—
Hyman, Julius, Freireich, and Lidov. 2,875,256.

Lieffers, William C., and R. L. Switzer, to Union Oil Co. of California. Solids feeding process and apparatus. 2,875,137, 2–24–59. Cl. 202—6.

Liggett, John A.: *See*—
Fricke, Roger H., and Liggett. 2,875,386.

Light, Rupert E., Jr.: *See*—
Greenspan, Frank P., and Light. 2,875,178.

Lima, Harald. Packing of plates and the like by means of a slip of pasteboard or other material. 2,874,521, 2–24–59, Cl. 53—3.

Limb, Frank. Compound movement centrifugal ball-mill. 2,874,911, 2–24–59. Cl. 241—175.

Lincoln, Edward H.: *See*—
Wright, John B., and Lincoln. 2,875,248.

Lincoln, Frank H., Jr.: *See*—
Hogg, John A., and Lincoln. 2,875,200.

Lincoln, L. H. & Son, Inc.: *See*—
Twining, Ralph H. 2,874,545.

Lindblad, Karl E.: *See*—
Björkman, Anders A. V., Lindblad, and Planfeldt. 2,874,948.

Lindeman, Charles A., Jr. Duplex electrical fused wall outlet. 2,875,295, 2–24–59, Cl. 200—115.5.

Linder, Rudolf, J. Rebentisch, and E. Merkl, to Robert Boech G. m. b. H. Automatic lamp regulating means. 2,875,322, 2–24–59 Cl. 240—7.1.

Linderman, Garrett B., to GBL Corp. Pulse comparing apparatus. 2,874,900. 2–24–59, Cl. 235—103.5.

Line, Gerald D., to Eaton Mfg. Co. Hydraulic valve lifter. 2,874,685, 2–24–59, Cl. 123—90.

Linn, Frank F. Ball and socket coupling with resilient liner. 2,874,976, 2–24–59. Cl. 280—512.

Lipinski, Jedrzej, and T. C. Cheston, to Canadian Westinghouse Co., Ltd. Reflected wave detection system. 2,875,434, 2–24–59. Cl. 343—14.

Liquid Controls Corp.: *See*—
Richards, George B. 2,874,715.

Liquidometer Corp.: *See*—
De Giera, Clarence A., and Soreny. 2,875,431.

Liston, Max D., to Beckman Instruments, Inc. Instruments. 2,875,340. 2–24–59, Cl. 250—43.5.

Little, Donald M., to Phillips Petroleum Co. Apparatus for obtaining maximum depth of flash of oils and the like. 2,875,139, 2–24–59. Cl. 202—185.

Livingstone, Helen H.: *See*—
Hamblin, Clyde M. 2,874,722.

Lockwood, Thomas W. Grip and trigger arrangement for hand firearms. 2,874,502, 2–24–59, Cl. 42—69.

Loeffler, John R., to General Electric Co. Circuit to limit commutating voltages. 2,875,393, 2–24–59. Cl. 318—331.

Löfgren, Bror, and N. J. Ögland, to Aktiebolaget Svenska Flaktfabriken. Method of treating fibre boards. 2,874,481. 2–24–59. Cl. 34—16.

Löfgren, Bror E., to Aktiebolaget Svenska Flaktfabriken. Apparatus for pneumatic transport of granular material. 2,874,999, 2–24–59. Cl. 302—27.

Löken, Bjarte and H. Flores, to G. D. Searle & Co. 6-alkyldiosegenins, and degradation to diosones. 2,875,198, 2–24–59. Cl. 260—239.55.

Long, Jasper, to Wade Electric Products Co. Machine. 2,875,318. 2–24–59. Cl. 219—79.

Loomis, Eugene. Necktie. 2,874,386, 2–24–59. Cl. 2—150.

Lorenz, Richard L., to General Time Corp. Program unit for time recorder. 2,874,773, 2–24–59. Cl. 161—21.

Losco, Ezekiel F., J. H. Bechtold, and J. P. Webb, to Westinghouse Electric Corp. Applying metal coatings to molybdenum. 2,874,453, 2–24–59. Cl. 29—183.5.

Lott, De Forest, and E. G. Hamway, to The General Tire & Rubber Co. Plastic upholstery material. 2,875,115, 2–24–59. Cl. 154—46.

Louthan, Cordelia V. Hair curling device. 2,874,705, 2–24–59. Cl. 132—41.

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Bell, Thomas R., III., and Lowdermilk. 2,874,769.

Lowe, Helen M. Hair styling equipment. 2,874,704, 2–24–59, Cl. 132—34.

Lowe, Herbert J. Rolling contact printing form locking device. 2,874,638. 2–24–59, Cl. 101—378.

Luboshez, Sergius N. F. Combined heat reflector and light transmitter structure. 2,874,611. 2–24–59, Cl. 88—60.

Luboshez, Sergius N. F. Thermal insulator. 2,874,612, 2–24–59. Cl. 88—60.

Luckock, Mary R.: *See*—
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Luckock, Vernon O. and M. R., 1/10 to Gadget-Of-The-Month Club, Inc. Automatic container-filler device. 2,874,734, 2–24–59. Cl. 141—87.

Lueders, Oscar W. Socket adapter arrangement. 2,875,278, 2–24–59. Cl. 179—1.

Lugli, Giuseppe, to Pirelli Societa per Azioni. Pneumatic vehicle wheel tires. 2,874,742. 2–24–59, Cl. 152—176.

Lurie, David, to American Cyanamid Co. Alum containing antioxidant and manufacture of sized paper therewith. 2,875,045. 2–24–59. Cl. 92—21.

Luther, Arch C., Jr., to Radio Corp. of America. Stabilized clipper and clamp circuits. 2,875,332, 2–24–59, Cl. 250—27.

Lu Valle, James E.: *See*—
Golberg, Gershon M., and Lu Valle. 2,875,050.

Lynch Corp.: *See*—
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MacIntosh, John R., and S. A. Mercurio, to Mermac Products, Inc. Expansible abrasive wheel. 2,874,519, 2–24–59, Cl. 51—191.

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Ulvild, George B., and MacKenzie. 2,875,213.

Maddox, James, Jr., to The Texas Co. Geomicrobiological prospecting. 2,875,135, 2–24–59, Cl. 195—103.5.

Mader, Albert C.: *See*—
Van Tuyl, John E. 2,874,719.

Mageau, George J., Jr., to Buxton, Inc. Key case. 2,874,740, 2–24–59, Cl. 150—40.

Magna, Peter S., and W. E. McCormick, to United States Steel Corp. Dual-hopper apparatus for filling containers. 2,874,737, 2–24–59, Cl. 141—263.

Malone, Theodore L., to Bell Telephone Laboratories, Inc. Equivalent four-wire repeaters. 2,875,283, 2–24–59, Cl. 179—170.

Maitco, Inc.: *See*—
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Malecki, George J., to Patent Protection Corp., trustee. Preservation of color in green vegetables. 2,875,071, 2–24–59, Cl. 99—186.

Malina, Marshall A.: *See*—
Trademan, Leo, Malina, and Wilks. 2,875,119.
Trademan, Leo, Malina, and Wilks. 2,875,120.
Trademan, Leo, Malina, and Wilks. 2,875,121.

Mall, Willis B. Convertible skates. 2,874,970, 2–24–59, Cl. 280—7.13.

Malleable Iron Fittings Co.: *See*—
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Mallinckrodt, George E. Aircraft. 2,874,920, 2–24–59, Cl. 244—23.

Malone, Fermer A. Sheet rolling device. 2,874,915, 2–24–59, Cl. 242—74.1.

Mandel, Henri, ½ to E. Scott. Automatic signal and barrier device for railroad crossings. 2,874,493, 2–24–59, Cl. 39—42.

Marathon Corp. of Canada Ltd.: *See*—
Eden, William P. 2,874,858.

March, Clifton J., to The Black & Decker Mfg. Co. Drill chuck and spindle connection. 2,874,985, 2–24–59, Cl. 287—53.

Marco Co., The: *See*—
Ratner, George I. 2,874,653.

Markle, Adolf, to Firma Montanwerke Walter Akt. Grinding machine. 2,874,517. 2–24–59, Cl. 51—34.

Markoff, Nicholas, to Tokheim Corp. Switch and register control mechanism. 2,874,874, 2–24–59. Cl. 222—35.

Markoff, Nicholas, to Tokheim Corp. Dispenser control mechanism. 2,874,875, 2–24–59, Cl. 222—35.

Markow, George R., to International Business Machines Corp. Signal translating apparatus. 2,875,462, 2–24–59, Cl. 340—347.

Marquardt Aircraft Co.: *See*—
Laucher, Richard G., and Coss. 2,874,338.

Marron, Thomas U., F. K. White, Jr., and H. M. Roseaberger, to A. B. Dick Co. Positive working photolithographic plate and method for manufacturing same. 2,875,046, 2–24–59, Cl. 96—33.

Marshall, Barbara H.: *See*—
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Marshall, Frank C.: *See*—
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Martin, Albert E., and D. Mounfield, to Sir Howard Grubb, Parsons & Co., Ltd. Sonic gas analysers. 2,874,564, 2–24–59, Cl. 73—24.

Martin Co., The: *See*—
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Martin, Lonzy M.: *See*—
Renfroe, Charles C. 2,874,391.

Martin, Orville R., to The General Tire & Rubber Co. Molded rubber football. 2,874,965, 2–24–59, Cl. 273—65.

Martinek, George A. Shot gun rib sight. 2,874,504, 2–24–59. Cl. 42—76.

Marvin, Edgar S., and R. F. O'Brien, to Eastman Kodak Co. Double exposure prevention device. 2,874,624, 2–24–59. Cl. 95—31.

Maschinenfabrik Augsburg-Nurnberg A. G.: *See*—
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Scheuerpflug, Hans. 2,874,792.
Scheuerpflug, Hans. 2,874,851.
Sorensen, Emil. 2,874,932.

Mason, Christopher A. Femoral nail. 2,874,691, 2–24–59. Cl. 128—92.

Mastak, Edmond J., to Summit Mfg. Co., a Division of Ace Tool Engineering Co., Inc. Apparatus for testing wall structure of hollow articles. 2,874,566, 2–24–59, Cl. 73—40.

Matheson, James N., to The Electric Storage Battery Co. Respirator. 2,874,693, 2–24–59, Cl. 128—146.

Matlack, Jacob D.: *See*—
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Matsubara, Toru: *See*—
Terayama, Denzaburo, Matsubara, Hayashi, and Hirakawa. 2,874,665.

Matthews, Lyle E., and E. O. Smith, Jr. Shock and vibration isolation device. 2,874,826. 2–24–59. Cl. 206—1.

Matuzas, Anthony J., to The Singer Mfg. Co. Presser mechanisms for sewing machines. 2,874,663, 2–24–59, Cl. 112—236.

May, John K., and C. E. Maynard, to Pro-Phy-Lac-Tic Brush Co. Method of decorating articles formed of thermosetting materials. 2,874,419. 2–24–59, Cl. 18—61.

Maynard, Charles E.: *See*—
May, John K., and Maynard. 2,874,419.

Maytag Co., The: *See*—
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McAleer, William, and E. L. Dulaney, to Merck & Co., Inc. Oxygenation of steroids in the 11, 17 and 21 positions by mixed cultures. 2,875,132, 2–24–59, Cl. 195—51.

McAleer, William J.: *See*—
Dulaney, Eugene L., and McAleer. 2,875,133.

McCabe, Cecil Z.: *See*—
McCabe, Ira E. 2,874,522.

McCabe, George D.: *See*—
McCabe, Ira E. 2,874,522.

McCabe, Ira E., deceased, C. Z. McCabe, T. P. Crawford, and G. D. McCabe, co-executors, to The Mercoid Corp. Method and apparatus for manufacturing hermetically sealed electric switch. 2,874,522, 2–24–59, Cl. 53—22.
McCall, Marvin A.: *See*—
Coover, Harry W., Jr., and McCall. 2,875,230.
McCall, Richard H.: *See*—
Drushel, William H., McCall, and Perilloux. 2,874,348.
McCandlish, Albanis P., and W. T. Tallon, to Recovery Oil & Gas Co., Inc. Pump jack. 2,874,641, 2–24–59, Cl. 103—46.
McCluney, Chester L. Flashing. 2,874,654, 2–24–59, Cl. 108—26.
McConnell, Richard L.: *See*—
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McConnell, Richard L., and H. W. Coover, Jr., to Eastman Kodak Co. Catalytic process of reacting a phosphite and lactone. 2,875,231, 2–24–59, Cl. 260—461.
McConnell, Richard L., and H. W. Coover, Jr., to Eastman Kodak Co. Phosphonoalkanamides prepared from phosphites and lactams. 2,875,232, 2–24–59, Cl. 260—461.
McConnell, Thomas E. Fishing line meter. 2,874,477, 2–24–59, Cl. 33—129.
McCormick, William E.: *See*—
Magna, Peter S., and McCormick. 2,874,737.
McCrossen, Fred C., P. W. Vittum, and A. Weissberger, to Eastman Kodak Co. Benzoylacet-o-alkoxyanilide couplers for color photography. 2,875,057, 2–24–59, Cl. 96—100.
McDaniel, Alden W. Plain self-aligning bearing. 2,875,002, 2–24–59, Cl. 308—72.
McEwen, Robert L., C. W. Raleigh, and C. E. Price, to Food Machinery and Chemical Corp. Method of simultaneously bleaching and coating paper. 2,875,102, 2–24–59, Cl. 117—132.
McGaffey, Edgar W. Pipe and pipe joint gauge. 2,874,475, 2–24–59, Cl. 33—96.
McGaffey, Edgar W. Tool for removing foreign matter from a well bore. 2,874,781, 2–24–59, Cl. 166—167.
McGrane, James A. Twin multiple loop television antenna. 2,875,441, 2–24–59, Cl. 343—806.
McGraw-Edison Co.: *See*—
Harling, Donald W., 2,875,323.
King, Robert J., 2,875,313.
McIntyre, Brouwer D. and W. D., to Monroe Auto Equipment Co. Vehicle suspension system. 2,874,955, 2–24–59, Cl. 267—8.
McIntyre, William D.: *See*—
McIntyre, Brouwer D. and W. D. 2,874,955.
McLellan, Kenneth M., to Industrial Rayon Corp. Composition for and method of pigmenting viscose. 2,875,077, 2–24–59, Cl. 106—165.
McMillan, Edward H. Electromagnetic wave absorbing dielectric walls. 2,875,435, 2–24–59, Cl. 343—18.
McMurray, Herman J. Rope buckle. 2,874,434, 2–24–59, Cl. 24—122.
McNicoll, David, to British Timken Ltd. Axle-boxes. 2,875,004, 2–24–59, Cl. 308—180.
McReynolds, Leo A., to Phillips Petroleum Co. Stabilized liquid fuel. 2,875,029, 2–24–59, Cl. 44—70.
McWhorter, Cedric E., to Goodman Mfg. Co. Mining systems of the room and pillar type. 2,874,945, 2–24–59, Cl. 262—1.
Mehringer, Edward W., to Westinghouse Air Brake Co. Frequency determining means. 2,875,326, 2–24–59, Cl. 250—6.
Meier, George H.: *See*—
Potchen, Joseph A., Kloote, and Meier. 2,875,117.
Mellencamp, Robert E. Mobile display unit having elevatable drive devices. 2,874,791, 2–24–59, Cl. 180—6.5.
Mentes, Alexander G. Spreader with aggregate desegregating means. 2,874,620, 2–24–59, Cl. 94—44.
Mentes, Alexander G. Aggregate spreader with vertically and horizontally adjustable wheels. 2,874,621, 2–24–59, Cl. 94—46.
Mercier, Jean. Liquid port for pressure accumulator. 2,874,721, 2–24–59, Cl. 138—30.
Mercier, Jean. Control systems for partitions or the like. 2,874,958, 2–24–59, Cl. 268—50.
Merck & Co., Inc.: *See*—
Dulaney, Eugene L., and McAleer, 2,875,133.
Holly, Frederick W., Wagner, Walton, and Hoffman. 2,875,238.
Holly, Frederick W., Wagner, Walton, and Hoffman. 2,875,239.
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MacIntosh, John R., and Mercurio. 2,874,519.
Merkl, Ernst: *See*—
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Mermac Products Inc.: *See*—
MacIntosh, John R., and Mercurio. 2,874,519.
Metal Specialty Co., The: *See*—
Rieppel, Perry J., and Clapp. 2,874,942.
Metallizing Engineering Co. Inc.: *See*—
Tour, Sam. 2,875,043.
Meyer, Friedrich, to Fehn S. A. One way engaging clutch. 2,874,580, 2–24–59, Cl. 74—126.
Miles, Gilbert D., to Colgate-Palmolive Co. Detergent briquette and process for the production thereof. 2,875,155, 2–24–59, Cl. 252—138.
Miller, Philip L., Sr. Garden rake with attachment for cleaning the teeth thereof. 2,874,530, 2–24–59, Cl. 56—400.1.
Milke, Robert E., and G. R. Bennett; said Bennett assor. to Monsanto Chemical Co. New polyhydroxy alcohols and polyesters and novel process of preparing such compounds. 2,875,241, 2–24–59, Cl. 260—468.
Miller, Robert O., and J. M. O'Toole, to United States of America, Air Force. Thrust bearing system. 2,875,001, 2–24–59, Cl. 308—35.
Miller, Theadore: *See*—
Kruper, Andrew P., and Miller. 2,875,376.
Milli-Switch Corp.: *See*—
Allen, Alan A. 2,875,306.
Mills, Ralph B., to American Cord & Webbing Co. Protector guard. 2,874,589, 2–24–59, Cl. 74—606.
Minneapolis-Honeywell Regulator Co.: *See*—
Bergeson, Raymond L. 2,874,570.
Ehret, Robert J. 2,875,284.
Nossen, Edward J., 2,874,906.
Ochs, Robert E., Jr., and Watrous. 2,874,713.
Patureau, Arthur M. 2,874,574.
Pinckaers, Balthasar H. 2,875,392.
Minneapolis-Moline Co.: *See*—
Andersen, Hans J., and Swenson. 2,874,972.
Minnesota Mining and Mfg. Co.: *See*—
Barnhart, William S. 2,875,253.
Troester, Fred W. 2,875,105.
Minor, Francis W., and A. M. Schwartz, to United States of America, Army. Process and composition for rendering fabrics resistant to the passage of toxic gases. 2,875,167, 2–24–59, Cl. 260—29.7.
Minsk, Louis M., to Eastman Kodak Co. Photographic elements containing polymeric esters as ultraviolet absorbing compounds. 2,875,053, 2–24–59, Cl. 96—84.
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D'Amico, John J. 2,875,208.
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Gaertner, Van R. 2,875,125.
Gaertner, Van R., and Sharp. 2,875,124.
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Miller, Robert E., and Bennett. 2,875,241.
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Boser, Keith B., Montgomery, and Archer. 2,875,100.
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Armstrong, Raymond L., and Gerald H. and George H. Morenus. 2,875,291.
Morenus, Gerald H.: *See*—
Armstrong, Raymond L., and Gerald H. and George H. Morenus. 2,875,291.
Morrill, Charles D., H. L. Hesterman, Jr., and P. R. Vance, to Goodyear Aircraft Corp. Curve follower. 2,875,389, 2–24–59, Cl. 318—31.
Morris, George V., to Zenith Radio Corp. Code card device. 2,874,977, 2–24–59, Cl. 283—6.
Morris, Leo R., to The Dow Chemical Co. Vinylphenyl aliphatic aminocarboxylic acid polymers. 2,875,162, 2–24–59, Cl. 260—2.1.
Morris, Rupert C.: *See*—
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Morris, William C., and A. O. Tesar, to The Harshaw Chemical Co. Ceramic pigments. 2,875,065, 2–24–59, Cl. 106—299.
Morrison, Clyde W. Brazing furnace construction. 2,874,949, 2–24–59, Cl. 263—40.
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Young, Charles J., and Morton. 2,875,370.
Mott, Friedrich: *See*—
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Mottlau, August Y., to Esso Research and Engineering Co. Micro-vapor pressure apparatus. 2,874,567, 2–24–59, Cl. 73—53.
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Martin, Albert E., and Mounfield. 2,874,564.
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Muhr, John. Self-storing interengaging louvers. 2,874,771, 2–24–59, Cl. 160—33.
Müller, Hans. Trimming machine for automatically trimming the three open edges of stapled booklets. 2,874,775, 2–24–59, Cl. 164—48.
Müller, Johannes, to Deutsche Gold-und Silber-Scheideanstalt vormals Roessler. Method of producing surface layers resistant to wear. 2,875,095, 2–24–59, Cl. 117—127.
Muller, Paul A.: *See*—
Viell, Otto A., and Muller. 2,874,406.
Munro, David C. Noise making device for velocipedes or the like. 2,874,514, 2–24–59, Cl. 46—175.
Munson, George M.: *See*—
Johnson, Nels A. 2,874,717.

Murphey, Wilbur A., to E. I. du Pont de Nemours and Co. Resinous condensation product of a chlorinated aromatic disulfonyl halide and a diamine. 2,875,183, 2–24–59, Cl. 260—79.3.

Murray Mfg. Corp.: *See*—
Brunner, Carl. 2,875,289.

Murray, William: *See*—
Moore, James W. 2,875,014.

Muse, John F., to Baker Oil Tools, Inc. Apparatus for automatically filling well conduits with fluid. 2,874,785, 2–24–59, Cl. 166—225.

Musgrave, Albert W. Apparatus for describing homothetic geometrical figures. 2,874,473, 2–24–59, Cl. 33—24.

Musser, C Walton, to United States of America, Army. Recoilless gun having radially movable breech sectors. 2,874,614, 2–24–59, Cl. 89—1.7.

Musson, Harry R., to Keeprite Products Ltd. Winter control valve arrangement in refrigerating system. 2,874,550, 2–24–59, Cl. 62—196.

N. V. Centrale Suiker Maatschappij: *See*—
Kantebeen, Leonard J. 2,875,160.

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Immel, Ralph B., Nadrowski, and White. 2,875,303.

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Narbutovskih, Paul, now by change of name P. Narbut, to Westinghouse Electric Corp. Transformer control apparatus. 2,875,263, 2–24–59, Cl. 174—15.

Naples, Angelo F.: *See*—
Nardulli, Michael J. 2,874,421.

Nardulli, Michael J., to M. J. Nardulli, A. F. Naples, and P. F. Nardulli, as trustees. Window structures. 2,874,421, 2–24–59, Cl. 20—12.

Nardulli, Peter F.: *See*—
Nardulli, Michael J. 2,874,421.

Nashman, Alvin E., and G. Rabow, to International Telephone and Telegraph Corp. Sweep voltage generator. 2,875,334, 2–24–59, Cl. 250—27.

National Aluminate Corp.: *See*—
Bollenback, Carol H., and Johnson. 2,875,210.
Johnson, Carl E. 2,875,156.

National Cash Register Co., The: *See*—
Edwards, Walter G. 2,874,902.

National Pneumatic Co., Inc.: *See*—
Durbin, Vernon, and Johnson. 2,874,960.

National Research Corp.: *See*—
Boehme, Robert M. 2,874,710.
Ham, John L., and Sinizer. 2,875,034.
Roehrig, Jonathan R. 2,874,899.

National-Standard Co.: *See*—
Berquist, Leonard G. 2,874,411.

Neely, Clarence L. Garment bag. 2,874,827, 2–24–59, Cl. 206—7.

Nesh, Florence. Preparation of replica specimens for examination under electron microscope. 2,875,341, 2–24–59, Cl. 250—49.5.

Neugebauer, Gerhardt C. Loose gem merchandising display device. 2,874,828, 2–24–59, Cl. 206—45.13.

Newell, Fred D. Frozen food container vender. 2,874,873, 2–24–59, Cl. 221—203.

New Haven Board & Carton Co., The: *See*—
Toensmeier, Patrick A. 2,874,833.

New Jersey Zinc Co., The: *See*—
Grady, Lester D. 2,875,033.

Newman, Arthur L.: *See*—
Kirkpatrick, William D., and Newman. 2,874,525.

New York Air Brake Co., The: *See*—
Vander Kaay, Henry A. 2,874,681.
Vander Kaay, Henry A. 2,874,682.

Nichols, Parks M., to United States Rubber Co. Colored sidewall tires. 2,874,746, 2–24–59, Cl. 152—353.

Nicoll, David, to United States of America, Atomic Energy Commission. Method and apparatus for handling radioactive products. 2,875,345, 2–24–59, Cl. 250—106.

Nielsen, Albert C. Jewelry clasps. 2,874,435, 2–24–59, Cl. 24—232.

Niese, Manfred, and D. Delfs, to Farbenfabriken Bayer Akt. Process for the production of 3-(or 5)-amino-1,2,4-triazole. 2,875,209, 2–24–59, Cl. 260—308.

Niesp, Casimir M. Trigger safety device for guns. 2,874,503, 2–24–59, Cl. 42—70.

Nobles Engineering Co.: *See*—
Krävik, Ormund A. 2,874,615.

Nordstrom, Henry A.: *See*—
Thereau, Donald W., and Nordstrom. 2,874,967.

Norman, Einar. Ships' bumpers. 2,874,669, 2–24–59, Cl. 114—219.

Normington, James B.: *See*—
Bloom, Albert, Freyermuth, and Normington. 2,875,226.

North American Aviation, Inc.: *See*—
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North American Philips Co., Inc.: *See*—
Bloem, Herman, and Stel. 2,875,094.
De Rooy, Antonius J., and Jonkers. 2,874,449.

North Electric Co.: *See*—
Bauman, Edward, and Darrow. 2,875,366.
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Blashfield, William H. 2,875,395.

Norton, William H., to Thermel, Inc. Temperature controlled press. 2,874,751, 2–24–59, Cl. 154—1.

Norton, William H., to Thermel, Inc. Heating assembly and method of production thereof. 2,875,312, 2–24–59, Cl. 219—19.

Nossen, Edward J., to Minneapolis-Honeywell Regulator Co. Control apparatus with process analog. 2,874,906, 2–24–59, Cl. 236—13.

Noyce, Robert N., to Philco Corp. Method and apparatus for use in forming semiconductive structures. 2,875,141, 2–24–59, Cl. 204—143.

Nubel, Robert C.: *See*—
Ratajak, Edwin J., and Nubel. 2,875,136.

Nunan, Craig S., to Chromatic Television Laboratories, Inc. Color-control grid structure for cathode-ray tubes. 2,875,363, 2–24–59, Cl. 313—92.

Nutter, Hugh G., to Automatic Parking Devices, Inc. Parking area space vending apparatus. 2,874,819, 2–24–59, Cl. 194—9.

Nygren, Ernest J.: *See*—
Firnhaber, Miles S., and Nygren. 2,874,406.

O P W Corp.: *See*—
Boone, Wallace D. 2,874,735.

Oberlin, Lyman M., to Phillips Petroleum Co. Flame responsive override control system including electric servomotors. 2,874,541, 2–24–59, Cl. 60—39.28.

O'Brien, Robert F.: *See*—
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Ochs, Robert E., Jr., and R. B. Watrous, to Minneapolis-Honeywell Regulator Co. Diaphragm mechanism. 2,874,713, 2–24–59, Cl. 137—83.

Oehrli, John W., to McCulloch Motors Corp. Self-controlled variable speed planetary type drive. 2,874,392, 2–24–59, Cl. 74—796.

Office National d'Etudes et de Recherches Aeronautiques, O. N. E. R. A.: *See*—
Galmiche, Philippe. 2,875,090.

Ögland, Nils J.: *See*—
Löfgren, Brer, and Ögland. 2,874,481.

Öhnfeldt, Per-Olof: *See*—
Gustafsson, Stig, and Öhnfeldt. 2,874,802.

Olin Mathieson Chemical Corp.: *See*—
Florey, Klaus G. 2,875,196.
Florey, Klaus G. 2,875,216.

Olympia Werke AG: *See*—
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Omega Precision Medical Instrument Co., Inc.: *See*—
Blackman, Seymour N. 2,874,694.

Oplinger, Kirk A., to Westinghouse Electric Corp. Elevator control system. 2,874,806, 2–24–59, Cl. 187—29.

Opp, Fred W. and W. H. Mailbox signal. 2,874,895, 2–24–59, Cl. 232—35.

Opp, Walter H.: *See*—
Opp, Fred W. and W. H. 2,874,895.

Orjala, Wayne W. Tool attaching device. 2,874,489, 2–24–59, Cl. 37—117.5.

Oriacchio, Anthony W., to Gulton Industries, Inc. Blast gauge. 2,875,352, 2–24–59, Cl. 310—8.1.

Orth, Hermann: *See*—
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Orthuber, Richard K., and L. R. Ullery, to International Telephone and Telegraph Corp. Radiation amplifier construction. 2,875,350, 2–24–59, Cl. 250—213.

Osborn Mfg. Co., The: *See*—
Friedman, Solomon. 2,874,399.

Oster, Gerald. Photopolymerization with the formation of coherent plastic masses. 2,875,047, 2–24–59, Cl. 96—35.

O'Toole, Joseph M.: *See*—
Miller, Robert O., and O'Toole. 2,875,091.

Owen, Joe D., to Phillips Petroleum Co. Core logging device. 2,875,401, 2–24–59, Cl. 324—12.

Owens-Corning Fiberglas Corp.: *See*—
Kalousek, George L. 2,875,075.

Padgett, Cletus A.: *See*—
Padgett, Robert E. and C. A. 2,875,330.

Padgett, Robert E. and C. A. Automatic vehicle radio volume control in accordance with deflection of antenna caused by wind-drag. 2,875,330, 2–24–59, Cl. 250—20.

Painton & Co. Ltd.: *See*—
Pearce, Graham. 2,875,309.

Pallmann, Ludwig. Process and device for producing flat wood shavings. 2,874,909, 2–24–59, Cl. 241—28.

Palmer, J Neil, to Arvin Industries, Inc. Non-skid ironing table top and pad assembly. 2,874,471, 2–24–59, Cl. 38—140.

Pantex Mfg. Corp.: *See*—
Strader, Don S. 2,875,317.

Paperbox Corp.: *See*—
Hale, William F. 2,874,889.

Papedorf, Robert A.: *See*—
Ford, Harold H., and Papedorf. 2,875,316.

Parlser, Sidney, to Radio Merchandise Sales Inc. High performance television indoor antenna. 2,875,440, 2–24–59, Cl. 343—802.

Parker-Hannifin Corp.: *See*—
Vahe, William A. 2,874,720.

Parker Rust Proof Co.: *See*—
Wilkinson, Cyril F., Jenkins, Lake, and Radcliffe. 2,875,111.

Parkhurst, Alfred S.: *See*—
Walker, Harold N., and Parkhurst. 2,874,702.

Parks, Nathan S., to Radio Corp. of America. Synchronized vibrator system. 2,875,397, 2–24–59, Cl. 321—49.

Parry, Frank, and E. F. Dunn, to The Singer Mfg. Co. Work supporting mechanisms for blindstitch sewing machines. 2,874,661, 2–24–59, Cl. 112—178.

Patent Protection Corp.: *See*—
Malecki, George J. 2,875,071.

Patterson, Howard F. Lead bearing plate and method for securing the plate and other objects to a smooth surface. 2,874,500, 2–24–59, Cl. 41—34.

Patureau, Arthur M., to Minneapolis-Honeywell Regulator Co. Liquid level measuring apparatus. 2,874,374, 2–24–59, Cl. 73—421

Paul, Israel A., and A. H. Greene, to Sperry Rand Corp. Automatic tuning systems. 2,875,329, 2-24-59, Cl. 250—20.

Paulson, William J.: *See*—
Camp, Richard L., and Paulson. 2,875,324.

Pearce, Graham, to Painton & Co. Ltd. Electrical resistors. 2,875,309, 2-24-59, Cl. 201—63.

Pedersen, Charles J., and V. Weinmayr, to E. I. du Pont de Nemours and Co. Dicyclopentadienyliron derivatives. 2,875,223, 2-24-59, Cl. 260—439.

Pelenc, Yves: *See*—
Latour, André, Pelenc, and Ramponneau. 2,875,305.

Pell, Eric, to Cutler-Hammer, Inc. Control system for electric reel motors. 2,874,917, 2-24-59, Cl. 242—75.51.

Pellerin, Norvin L., and F. X. Levy; said Levy assor. to said Pellerin. Control system. 2,874,714, 2-24-59, Cl. 137—98.

Pelletier, Joseph A., to Allen-Crawford Ltd. Process for producing candles with inset designs. 2,874,649, 2-24-59, Cl. 107—54.

Pennsalt Chemicals Corp.: *See*—
Bell, Thomas R., III, and Lowdermilk. 2,874,769.

Pennsylvania Engineering Corp.: *See*—
Wright, Edwin C. 2,875,037.

Pepe, Louis. Apparatus for attaching soles to shoes. 2,874,393, 2-24-59, Cl. 12—36.

Perilloux, Charles J.: *See*—
Drusbel, William H., McCall, and Perilloux. 2,874,548.

Perkins, Denis G., to Electric & Musical Industries Ltd. Arrangements embodying pick-up tubes. 2,875,371, 2-24-59, Cl. 315—11.

Persil-fabrikken A/S: *See*—
Sethne, Magne, and Skorge. 2,874,882.

Petermann, Lucien A., to Gulton Industries, Inc. Ultrasonic flowmeter. 2,874,568, 2-24-59, Cl. 73—194.

Petermann, Lucien A., to Gulton Industries, Inc. Ultrasonic zone plate focusing transducer. 2,875,355, 2-24-59, Cl. 310—9.5.

Petersen, Donald E. Page cutting device. 2,874,464, 2-24-59, Cl. 30—229.

Peterson, Albin K. Oscillatable separator means. 2,874,841, 2-24-59, Cl. 209—329.

Peterson, Cornelius: *See*—
Koenig, Emil L. 2,875,325.

Peterson, David G.: *See*—
Woolard, Thomas L., and Peterson. 2,874,941.

Peterson, Kenneth C.: *See*—
Corcoran, James T., and Peterson. 2,875,237.

Peterson, Reuben. Portable protecting cover for grain in open field storage. 2,874,651, 2-24-59, Cl. 108—3.

Peterson, Russell W.: *See*—
Foster, Samuel P., and Peterson. 2,875,171.

Petitta, Mario: *See*—
Bannister, Constance, and Petitta. 2,874,387.

Petsinger, Ambrose J., to Westinghouse Electric Corp. Watthour meter phase adjuster. 2,875,406, 2-24-59, Cl. 324—136.

Petsinger, Ambrose J., to Westinghouse Electric Corp. Volt-ampere measuring instrument. 2,875,408, 2-24-59, Cl. 324—141.

Pfann, William G., to Bell Telephone Laboratories, Inc. Zone-melting process. 2,875,108, 2-24-59, Cl. 148—1.

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Bohme, Otto, Mett, Pfirrchke, and Wollthan. 2,875,225.

Pfizer, Chas., & Co., Inc.: *See*—
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Routien, John B., and Shull. 2,875,134.

Pharo, Merritt C., to Johnson's Co. Ltd. Asbestos fiber recovery from tailings. 2,874,838, 2-24-59, Cl. 209—18.

Philco Corp.: *See*—
Cavalieri, Albert L., Jr., and Roop. 2,875,353.
Devery, Michael H. 2,874,971.
Moore, Robert C., and Chatten. 2,875,271.
Noyce, Robert N. 2,875,141.
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Phillips, Alvin H.: *See*—
Hignett, Travis P., Hein, Phillips, and Young. 2,875,345.

Phillips Petroleum Co.: *See*—
Ayers, Arnold L., and Scott. 2,874,525.
Dye, Robert F. 2,875,027.
Fox, Homer M. 2,874,539.
Hall, Dick S., and Hennigan. 2,875,146.
Harper, Kenneth A. 2,875,000.
Kaveler, Herman H. 2,874,778.
Little, Donald M. 2,875,139.
McReynolds, Leo A. 2,875,029.
Oberlin, Lyman M. 2,874,541.
Owen, Joe D. 2,875,401.
Porter, Grady T. 2,875,379.
Pritchard, James E. 2,875,097.
Scofield, Raymond C. 2,875,148.
Walker, Harry L. 2,874,798.

Phin, Sydney R. Apparatus for heat sealing cartons. 2,874,619, 2-24-59, Cl. 93—44.

Plasse, Thomas E., to Continental Can Co., Inc. Apparatus for dispensing flexible merchandise containers. 2,874,886, 2-24-59, Cl. 225—106.

Pierce, Earl W., to General Motors Corp. Spark plug and method of manufacturing same. 2,875,365, 2-24-59, Cl. 313—145.

Pierson, Charles T., Jr., to Ershig Sheet Metal, Inc. Heated dish rinsing sink. 2,875,315, 2-24-59, Cl. 219—38.

Pinckaers, Balthasar H., to Minneapolis-Honeywell Regulator Co. Condition responsive apparatus for controlling an electric motor. 2,875,392, 2-24-59, Cl. 318—298.

Pirelli Societa per Azioni: *See*—
Lugli, Giuseppe. 2,874,742.

Pittsburgh Plate Glass Co.: *See*—
Bader, Alfred R., and Hyre. 2,875,161.
Bonner, Charles A. 2,874,644.

Planfeldt, Arne: *See*—
Björkman, Anders Å. V., Lindblad, and Planfeldt. 2,874,945.

Platt, John, to The Singer Mfg. Co. Driving devices for sewing and other machines. 2,874,582, 2-24-59, Cl. 74—231.

Pleasey Co. Ltd., The: *See*—
Booth, Douglas G., and Wood. 2,874,764.

Pollock, Randolph R. Pressure seal for vulcanizing pneumatic tires. 2,874,415, 2-24-59, Cl. 18—45.

Polymer Corp., The: *See*—
Flemming, Norbert A., and Montroes. 2,874,412.

Pomeroy, Sawyer M., to The W. S. Tyler Co. Woven structural material. 2,874,730, 2-24-59, Cl. 139—425.

Pompillo, Eugene. Escape ladders. 2,874,887, 2-24-59, Cl. 228—38.

Poole, Arthur B., to General Time Corp. Rotation controlling device. 2,874,809, 2-24-59, Cl. 188—82.1.

Porter, Grady T., to Phillips Petroleum Co. Gas discharge lamp power supply. 2,875,379, 2-24-59, Cl. 315—106.

Posnett, William A., and J. M. Ferguson, to Shanks & McEwan Ltd., and Colvilles Ltd. Road surfacing material. 2,875,084, 2-24-59, Cl. 106—284.

Potchen, Joseph A., G. E. Kloote, and G. D. Meier, to Haskelite Mfg. Corp. Multilaminar panel. 2,875,117, 2-24-59, Cl. 154—128.

Poudreries Reunies de Belgique S. A.: *See*—
Diels, Albert, and Orth. 2,874,604.

Poupitch, Ouglijesa J., to Illinois Tool Works. Container carrier and package. 2,874,835, 2-24-59, Cl. 206—65.

Powers, Robert P., to The Firestone Tire & Rubber Co. Tubeless tire and rim. 2,874,748, 2-24-59, Cl. 152—406.

Price, Carl E.: *See*—
McEwen, Robert L., Raleigh, and Price. 2,875,102.

Pritchard, James E., to Phillips Petroleum Co. Parasiticides, their preparation and use. 2,875,097, 2-24-59, Cl. 117—138.5.

Probst, Delbert C., to General Motors Corp. Latch for pivoting seat. 2,874,993, 2-24-59, Cl. 296—65.

Procter & Gamble Co., The: *See*—
Holman, George W., and Going. 2,875,066.
Holman, George W., and Going. 2,875,067.

Pro-Phy-Lac-Tic Brush Co.: *See*—
May, John K., and Maynard. 2,874,419.

Pryne, Ralph, to Emerson-Pryne Co. Removable ventilating hood construction. 2,874,628, 2-24-59, Cl. 98—115.

Pullman-Standard Car Mfg. Co.: *See*—
Candlin, James E., Jr. 2,874,847.

Pure Oil Co., The: *See*—
Annable, Weldon G., Jacobs, and Haines. 2,875,145.
Ayers, George W., and Geerts. 2,875,170.
Braunwarth, John B., and Crosby. 2,875,240.

Pusey & Jones Corp., The: *See*—
Kelly, Jack E. 2,874,961.

Pye Ltd.: *See*—
Cope, John E., Segrave, and Fisher. 2,875,277.
Fuller, Dennis Q. 2,875,385.

Pysel-Fitzpatrick, Inc.: *See*—
Pysel, Robert. 2,874,950.

Pysel, Robert, to Pysel-Fitzpatrick, Inc. Hydraulic cement process. 2,874,950, 2-24-59, Cl. 263—53.

Quade, Edward A., to International Business Machines Corp. Phase sensitive magnetic head. 2,875,429, 2-24-59, Cl. 340—174.

Quarnstrom, Ivar T., to Detroit Mold Engineering Co. Plastic mold base. 2,874,409, 2-24-59, Cl. 18—42.

Rabow, Gerald: *See*—
Nashman, Alvin E., and Rabow. 2,875,334.

Rabut, Eugene W., to The Udylite Corp. Transfer apparatus. 2,874,820, 2-24-59, Cl. 198—25.

Racz, John P.: *See*—
Altreuter, Royal K., Dowling, Racz, and Thomas. 2,875,138.

Radcliffe, Stanley V.: *See*—
Wilkinson, Cyril F., Jenkins, Lake, and Radcliffe. 2,875,111.

Radiation Dynamics, Inc.: *See*—
Cleland, Marshall R. 2,875,394.

Radio Corp. of America: *See*—
Cooper, John C., and Hagmann. 2,875,374.
Cope, Appleton D. 2,875,359.
Cuccia, Carmen L. 2,875,272.
Fricke, Roger H., and Liggett. 2,875,386.
Kazan, Benjamin. 2,875,348.
Luther, Arch C., Jr. 2,875,332.
Parks, Nathan S. 2,875,397.
Robinson, Harris A. 2,875,337.
Stone, Robert P. 2,875,361.
Wallmark, John T. 2,875,384.
Wlasuk, Steven. 2,875,414.
Young, Charles J., and Morton. 2,875,370.

Radio Merchandise Sales Inc.: *See*—
Parizer, Sidney. 2,875,440.

Rahr, Harold, and C. Wildman, to The Air Preheater Corp. Radial seal for rotary heat exchanger. 2,874,939, 2-24-59, Cl. 257—6.

Rainis, Anthony V., and J. R. Arsenault, to Raytheon Mfg. Co. Heat program controls. 2,875,335, 2-24-59, Cl. 250—27.

Rakes, Lee L. Display. 2,874,496, 2-24-59, Cl. 40—28.3.

Raleigh, Charles W.: *See*—
McEwen, Robert L., Raleigh, and Price. 2,875,102.

Rambo, Sheldon I., to Westinghouse Electric Corp. Balancing machine. 2,874,575, 2-24-59, Cl. 73—462.

Ramponneau, Pierre: *See*—
Latour, André, Pelenc, and Ramponneau. 2,875,305.

Ramse, Kristian F. L., to Elektrokemisk A/S. Method of forming thermoplastic briquettes. 2,874,417, 2-24-59, Cl. 18—55.

Ranallo, Emil G., to The Firestone Tire & Rubber Co. Bead seating and inflating device for tubeless tires. 2,874,759, 2–24–59, Cl. 157—1.1.
Randels, Robert B., to Corning Glass Works. Electrical condensers. 2,875,387, 2–24–59, Cl. 317—261.
Ratajak, Edwin J., and R. C. Nubel, to Chas. Pfizer & Co., Inc. Process for producing streptomycin. 2,875,136, 2–24–59, Cl. 195—114.
Ratby Engineering Co. Ltd.: *See*—
Vann, Henry E. 2,874,871.
Ratner, George I., to The Marco Co. Skylight frame construction. 2,874,653, 2–24–59, Cl. 108—16.
Ray, William A., and L. C. Biggle, to General Controls Co. Valve-jet mounting. 2,874,930, 2–24–59, Cl. 251—211.
Raytheon Mfg. Co.: *See*—
Rainis, Anthony V., and Arsenault. 2,875,335.
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Rebentisch, Johannes: *See*—
Linder, Rudolf, Rebentisch, and Merkl. 2,875,322.
Recovery Oil & Gas Co., Inc.: *See*—
McCandlish, Albanis P., and Tallon. 2,874,641.
Red Devil Tools: *See*—
Kirkpatrick, William D., and Newman. 2,874,525.
Reed Unit-Fans, Inc.: *See*—
Bayhi, Marcel J. 2,874,898.
Reed, William A.: *See*—
Graham, Marion E., Reed, and Holman. 2,875,035.
Rees, Warren A., Jr., to The Texas Co. Personnel or object transfer apparatus and method. 2,874,855, 2–24–59, Cl. 214—14.
Reflectal Corp.: *See*—
Berg, Forrest O. 2,874,423.
Reiback, Earl M. Binaural phonograph pickup. 2,875,282, 2–24–59, Cl. 179—100.41.
Reich, Oscar: *See*—
Fiore, Vincent J., and Reich. 2,874,547.
Reid, Robert J., and J. D. Matlack, to The Firestone Tire & Rubber Co. Vinylidene chloride polymer composition plasticized with di-n-propyl tetrachlorophthalate and process of extruding same. 2,875,169, 2–24–59, Cl. 260—31.8.
Reinartz, Robert, to Maschinenfabrik Augsburg-Nurnberg A. G. Journal for printing cylinder. 2,874,635, 2–24–59, Cl. 101—216.
Ren Plastics, Inc.: *See*—
Renaud, Harold J., and Kovac. 2,874,907.
Renaud, Harold J., and G. M. Kovac, to Ren Plastics, Inc. Method and apparatus for formulating materials. 2,874,907, 2–24–59, Cl. 241—21.
Renfroe, Charles C., ⅛ to L. M. Martin. Hydraulically operated retractible running gear for boats. 2,874,391, 2–24–59, Cl. 9—1.
Repici, Dominic J. Method of fabrication of condenser strip hydrophones. 2,874,418, 2–24–59, Cl. 18—59.
Republic Steel Corp.: *See*—
Graham, Marion E., Reed, and Holman. 2,875,035.
Requa, Roy. Headrest accessory. 2,874,757, 2–24–59, Cl. 155—173.
Reynolds, Harold C., to Ingersoll-Rand Co. Control for hoists. 2,874,989, 2–24–59, Cl. 294—84.
Reynolds, Vining T., to Southwestern Industrial Electronics Co. Vibration recording device. 2,875,017, 2–24–59, Cl. 346—109.
Riat, Henri, to Ciba Ltd. New direct-dyeing azo-dyestuffs and process for their manufacture. 2,875,193, 2–24–59, Cl. 260—158.
Richards, George B., to Liquid Controls Corp. Fluid control device. 2,874,715, 2–24–59, Cl. 137—98.
Richards, James R., to United States of America, Navy. High frequency dental tool. 2,874,470, 2–24–59, Cl. 32—58.
Richardson Rod & Reel Co.: *See*—
Faber, Aloysius W., and Gronewold. 2,874,507.
Ridenour, Louis N., to International Telemeter Corp. Video scrambling and unscrambling system. 2,875,269, 2–24–59, Cl. 178—5.1.
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Canty, John M., and Riede. 2,874,865.
Rieppel, Perry J., and M. C. Clapp, to The Metal Specialty Co. Means for joining pressure-welded tubes. 2,874,942, 2–24–59, Cl. 257—256.
Riethmüller, Paul, and L. Leinert, to Robert Bosch G. m. b. H. Process for manufacturing shells for spark plugs and the like. 2,874,460, 2–24–59, Cl. 29—535.
Rigden, Sydney A. R., to The General Electric Co. Ltd. Sodium vapour electric discharge lamps. 2,875,358, 2–24–59, Cl. 313—25.
Rigterink, Raymond H., to The Dow Chemical Co. 3-(benzyloxymethyl)-4-heptanol. 2,875,251, 2–24–59, Cl. 260—611.
Riley, Claude J. Disappearing medicine cabinet. 2,875,012, 2–24–59, Cl. 312—223.
Ring, Robert G., to Chapman Chemical Co. Wood preservation method and package. 2,875,020, 2–24–59, Cl. 21—7.
Ringler, William A., to Diamond Gardner Corp. Package and method of forming the same. 2,874,524, 2–24–59, Cl. 53—29.
Ritter, Edwin E., to Hugh H. Eby, Inc. Electronic tube socket. 2,875,423, 2–24–59, Cl. 339—126.
Roat, Howard L.: *See*—
Lawless, Norman D., Roat, and Wheeler. 2,875,407.
Robbins & Myers, Inc.: *See*—
Bourke, John D. 2,874,643.
Roberts, William L., and J. W. Coltman, to Westinghouse Electric Corp. Image intensifier. 2,875,349, 2–24–59, Cl. 250—213.
Robinson, Harris A., to Radio Corp. of America. Oscillator control system. 2,875,337, 2–24–59, Cl. 250—36.
Robinson, Manford J.: *See*—
Grass, George M., Jr., and Robinson. 2,875,130.
Rockford Medical Foundation: *See*—
Krone, Ben W. 2,874,384.
Rockland, Louis B., and L. F. Atkinson, to United States of America, Agriculture. Method and apparatus for packaging powders and the like. 2,875,070, 2–24–59, Cl. 99—171.
Rockwell, Ronald J., to Crosley Broadcasting Corp. Modulation system. 2,875,413, 2–24–59, Cl. 332—43.
Rockwood Sprinkler Co.: *See*—
Thomas, Roy L., Jr. 2,874,588.
Roehrig, Jonathan R., to National Research Corp. Discriminating plural counter assembly of fibers. 2,874,899, 2–24–59, Cl. 235—92.
Rogers, Jack A., and P. R. Jacknicss, to The Dow Chemical Co. Lining for titanium-contacting apparatus. 2,874,953, 2–24–59, Cl. 266—43.
Rogers, Joe Y., Jr., to Godfrey L. Cabot, Inc. Grit separator. 2,874,839, 2–24–59, Cl. 209—232.
Rohm & Haas Co.: *See*—
Hopkins, Robert P. 2,875,166.
Rohr Aircraft Corp.: *See*—
Weidel, Joseph C. 2,874,456.
Rohr, Henry C., and C. T. Wallis, to General Motors Corp. Self-supporting blind. 2,874,770, 2–24–59, Cl. 160—23.
Rolfs, John C., to Sperry Rand Corp. High power resistive attenuator devices. 2,875,418, 2–24–59, Cl. 333—81.
Roop, Robert W.: *See*—
Cavalieri, Albert L., Jr., and Roop. 2,875,353.
Roos, Hans, and K. Briesewitz, to Farbenfabriken Bayer Akt. Process for the production of 1-nitro-naphthalene 3,6- and 3,7-disulfonic acid. 2,875,242, 2–24–59, Cl. 260—505.
Roos, Hans, K. Briesewitz, and J. Hegemann, to Farbenfabriken Bayer Akt. Process for the production of 1-nitronaphthalene-6-sulfonic acid and 1-naphthylamine-7-sulfonic acid. 2,875,243, 2–24–59, Cl. 260—505.
Roschke, Erwin M., to Zenith Radio Corp. Subscription television system. 2,875,278, 2–24–59, Cl. 178—5.1.
Rose, Alfred G.: *See*—
Gilbert, Joseph A., Johnson, and Rose. 2,875,069.
Rose Brothers (Gainsborough Ltd.): *See*—
Gilbert, Joseph A., Johnson, and Rose. 2,875,069.
Rosenbaum, Harry S. Apparatus for assembling Venetian blinds. 2,874,447, 2–24–59, Cl. 29—24.5.
Rosenberger, Helen M.: *See*—
Marron, Thomas U., White, and Rosenberger. 2,875,046.
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Carter, John N., and Rosenblatt. 2,875,109.
Rosenstein, Mitchell M. Stop motion for looms. 2,874,728, 2–24–59, Cl. 139—371.
Rosing, Theodore F., A. F. Kolb, and C. W. Kuhn, to Cutler-Hammer, Inc. Thermal devices. 2,875,297, 2–24–59, Cl. 200—124.
Rossander, Bror L. E., to Sandvikens Jernverks Aktiebolag. Corrosion resistant treatment for hollow drill rods. 2,875,110, 2–24–59, Cl. 148—6.15.
Rossetto, Louis, to Mergenthaler Linotype Co. Assembling elevator control device for a typographical composing machine. 2,874,825, 2–24–59, Cl. 199—18.
Routien, John B., and G. M. Shull, to Chas. Pfizer & Co., Inc. 11β-hydroxylation of steroids by epicoccum. 2,875,134, 2–24–59, Cl. 195—51.
Rover Co. Ltd., The: *See*—
King, Charles S. 2,874,765.
Rowe, Walter C., to The Firestone Tire & Rubber Co. White sidewall for pneumatic tires. 2,874,742, 2–24–59, Cl. 152—330.
Roy, William A.: *See*—
Lamb, Francis X., Huber, Estoppey, Roy, and Dempster. 2,875,409.
Royal McBee Corp.: *See*—
Hose, Hunter E. 2,874,776.
Royer, Arthur G., and W. J. Thompson, to Harris-Intertype Corp. Cylinder throwoff for rotary offset machine. 2,874,636, 2–24–59, Cl. 101—218.
Royer, Wayne E., to Capital Products Corp. Level even unloader. 2,874,650, 2–24–59, Cl. 107—57.
Rubin, Martin: *See*—
Bersworth, Frederick C., and Rubin. 2,875,129.
Rudy, John E. T. Egg crate. 2,874,866, 2–24–59, Cl. 220—20.
Runnalls, Oliver J. C., to United States of America, Atomic Energy Commission. Method of making alloys of beryllium with plutonium and the like. 2,875,041, 2–24–59, Cl. 75—122.7.
Ruschig, Heinrich, W. Siedel, H. Leditschke, M. Schorr, D. Schmidt-Barbo, and G. Lammler, to Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning. Dicarboxylic acid-monopiperazides and a process for their manufacture. 2,875,205, 2–24–59, Cl. 260—268.
Ruth, Joseph P. Mining machine having crankshaft operated ripper means. 2,874,947, 2–24–59, Cl. 262—14.
Ryan, James F., Jr., to W. F. and John Barnes Co. Method and apparatus for aseptically canning under pressure. 2,874,523, 2–24–59, Cl. 53—22.
SKF Kugellagerfabriken G. m. b. H.: *See*—
Sommer, Walter. 2,874,969.
Sabel, Albert R., and R. H. Karll, to Standard Oil Co. Preparation of alkaline earth salts of phosphorus sulfide-hydrocarbon reaction products. 2,875,189, 2–24–59, Cl. 260—130.
Sadolin & Holmblad A/S: *See*—
Clausen-Kaas, Niels K. F. W., and Elming. 2,875,207.
Sage, Stanley J., and R. H. Dana. Safety lock for doors. 2,874,988, 2–24–59, Cl. 292—347.
Saholt, Orville J., to United States of America, Navy. Pressure-actuated stepping switch. 2,875,292, 2–24–59, Cl. 200—82.
St. Francis Valley Farms Co.: *See*—
Harmon, Alton O. 2,874,490.

St. John, John H., to Heyer Industries, Inc. Trace brightening circuit. 2,875,402. 2–24–59. Cl. 324—16.
Sandin, Jerome, and E. O. Shepard, to Westinghouse Electric Corp. Time delay devices for circuit interrupters. 2,875,382. 2–24–59. Cl. 317—36.
Sandvikens Jernverks Aktiebolag: *See*—
Rossander, Bror L. E. 2,875,110.
Sargent, Edmund B., to General Telephone Laboratories, Inc. Mold for molding telephone handsets. 2,874,414. 2–24–59. Cl. 18—42.
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Battenberg, Virgil B., Katterbeinrich, and Sayre. 2,874,787.
Scarborough, Robert W., and W. Voigt, to The Martin Co. Turbojet engine arrangement utilizing evaporative cooling. 2,874,537. 2–24–59. Cl. 60—35.6.
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Scheu, Lester W., to The Firestone Tire & Rubber Co. Uniform tension-maintaining motor control. 2,875,388. 2–24–59. Cl. 318—7.
Scheuerpflug, Hans, to Maschinenfabrik Augsburg-Nurnberg A. G. Combination manual and power steering means with disengaging clutch for manual means. 2,874,792. 2–24–59. 180—79.2.
Scheuerpflug, Hans, to Maschinenfabrik Augsburg-Nurnberg A. G. Vehicle-mounted revolving crane with folding jib. 2,874,851. 2–24–59. Cl. 212—144.
Schiebel, William. Spreader device. 2,874,880. 2–24–59. Cl. 222—177.
Schlage, Ernest L., to Schlage Lock Co. Cylinder lock keyhole shutter. 2,874,563. 2–24–59. Cl. 70—455.
Schlage Lock Co.: *See*—
Schlage, Ernest L. 2,874,563.
Schleicher, Harold E., to The Arrow-Hart & Hegeman Electric Co. Remotely releasable latching attachment for electromagnetic contactors. 2,875,294. 2–24–59. Cl. 200—106.
Schmid, Roy J., to General Motors Corp. Hand control mechanism for vehicles. 2,874,587. 2–24–59. Cl. 74—489.
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Schmitt, James C.: *See*—
Yost, De Witte M., Schmitt, and Bouis. 2,874,754.
Schmitter, Walter P., to The Falk Corp. Variable speed transmission. 2,874,582. 2–24–59. Cl. 74—230.17.
Schneider, William P., to The Upjohn Co. Producing 17-hydroxy 20-keto steroids by the use of osmium tetroxide and an organic polyvalent iodo oxide. 2,875,217. 2–24–59. Cl. 260—397.45.
Schnell, Hermann, and D. Steuer, to Farbenfabriken Bayer Akt. Prostheses and processes for their production. 2,874,466. 2–24–59. Cl. 32—2
Schoch, Emil. Electrical resistor structure. 2,875,310. 2–24–59. Cl. 201—69.
Schorr, Manfred: *See*—
Ruschig, Heinrich, Siedel, Leditschke, Schorr, Schmidt-Barbo, and Lammler. 2,875,205.
Schott, Lawrence A. Direct drive variable ratio hydraulic transmission of the automatic or manual type. 2,874,533. 2–24–59. Cl. 60—19.
Schreiber, Patrick Q. R. Machine for cutting leaf tobacco. 2,874,739. 2–24–59. Cl. 146—119.
Schreyer, Edward P. Steam generators. 2,875,314. 2–24–59. Cl. 219—38
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Young, De Walt S., Schulken, and Moore. 2,875,176.
Schultz, Arthur D., to Eaton Mfg. Co. Fuel container closure. 2,874,867. 2–24–59. Cl. 220—44.
Schuman, Seymour C., to Hydrocarbon Research, Inc. Heavy oil conversion with low coke formation. 2,875,150. 2–24–59. Cl. 208—107.
Schwalbach, Joseph C., to Raso Inc. Modulating fuel control apparatus. 2,874,904. 2–24–59. Cl. 236—1.
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Scofield, Raymond C., to Phillips Petroleum Co. Regenerative hydrocarbon cracking process in series. 2,875,148. 2–24–59. Cl. 208—64.
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Scott, Meri G., to Cabot Shops, Inc. Hydraulic braking apparatus. 2,874,808. 2–24–59. Cl. 188—77.
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Brown, Harrison S., and Seaborg. 2,875,021.
Seale, Virgil L.: *See*—
Kirkpatrick, Willard H., and Seale. 2,875,128.
Sealright-Oswego Falls Corp.: *See*—
Horning, Raymond H., and Wilcox. 2,874,855.
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Löken, Bjarte, and Flores. 2,875,196.
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Sedgfield, Hugh B., and E. Whalley, to The Sperry Gyroscope Co. Ltd. Torque-applying devices. 2,874,578. 2–24–59. Cl. 74—5.4.
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Cope, John E., Segrave, and Fisher. 2,875,277.
Seibert, Heinrich, K. Triebeneck, B. Bienert, and F. Baumann, to Farbenfabriken Bayer Akt. Basic dyestuffs for the manufacture of colored writing agents. 2,875,211. 2–24–59. Cl. 260—314.5.
Sell, Freddie W. Erector. 2,874,698. 2–24–59. Cl. 128—303.
Sellers, William N., to American Cyanamid Co. Method of producing a tow of filamentary material. 2,874,446. 2–24–59. Cl. 28—72.
Sennholtz, Charles E., and T. E. Bridgewater. Impact hammer. 2,874,912. 2–24–59. Cl. 241—197.
Serang, Abdulgafoor M., to Sylvania Electric Products Inc. Beam collector. 2,875,362. 2–24–59. Cl. 313—89.
Sesler, Robert W., D. H. Baldwin, and G. O. Sprouse, to Union Carbide Corp. Container filler. 2,874,733. 2–24–59. Cl. 141—87.
Sethne, Magne, and I. Skorge, to Persil-fabrikken A/S. Adapter for container openings. 2,874,882. 2–24–59. Cl. 222—543.
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Shannon, Jack F.: *See*—
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Gaertner, Van R., and Sharp. 2,875,124.
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Arnot, Alfred E. R. 2,874,861.
Sharpe, Verlos G., and J. S. Sucro, to General Motors Corp. Freezing device. 2,874,553. 2–24–59. Cl. 62—367.
Shattow, Emil E. Door switch deactivator. 2,875,290. 2–24–59. Cl. 200—61.79.
Shaw, Harold R., to W. F. Avery. Tubeless tire collapsible bead stabilizer. 2,874,829. 2–24–59. Cl. 206—46.
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Brassington, Samuel M., and Smith. 2,875,342.
Hyman, Julius, Freireich, and Lidov. 2,875,256.
Tadema, Harco J. 2,874,777.
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Van Winkle, John L., Bell, and Morris. 2,875,224.
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Shirley, Orie W., to Iron Fireman Mfg. Co. Gyroscope. 2,874,577. 2–24–59. Cl. 74—5.1.
Shive, William, and C. G. Skinner, Jr. Alkylthiopurines. 2,875,203. 2–24–59. Cl. 260—252.
Shoham, Elliot. Irrigation coupling with a removable seal. 2,874,979. 2–24–59. Cl. 285—6.
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Routien, John B., and Shull. 2,875,134.
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Ruschig, Heinrich, Siedel, Letitschke, Schorr, Schmidt-Barbo, and Lammler. 2,875,205.
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Ackermann, Franz, and Siegrist. 2,875,069.
Siemens & Halske, Akt.: *See*—
Spiecker, Friedrich. 2,875,280.
Signal Mfg. Co.: *See*—
Smith, Aaron H. 2,874,396.
Sikina, Thomas V., to Philco Corp. Method and apparatus for producing semiconductive structures. 2,875,140. 2–24–59. Cl. 204—143.
Sillak, Joseph. Sheet metal shears. 2,874,465. 2–24–59. Cl. 30—250.
Silley, Henry A. J.: *See*—
Unthank, Douglas G. 2,874,850.
Simmonds, Francis L. Exhaust system. 2,874,627. 2–24–59. Cl. 98—115.
Simon, Aaron. Invalid's wheelchair. 2,874,756. 2–24–59. Cl. 155—171.
Simpson, Robert M., to Columbian-General Blacks Ltd. Methods of and apparatus for separating or classifying materials. 2,874,840. 2–24–59. Cl. 209—250.
Sinclair Refining Co.: *See*—
Erickson, Henry. 2,875,159.
Singer Mfg. Co., The: *See*—
Matusas, Anthony J. 2,874,663.
Parry, Frank, and Duan. 2,874,661.
Platt, John. 2,874,583.
Waterman, Max L. 2,874,664.
Singleterry, Vernon A., and B. D. Brown. Floor covering stripper. 2,874,946. 2–24–59. Cl. 262—13.
Sininer, David I.: *See*—
Ham, John L., and Sininer. 2,875,034.
Skelly, James J., to Specialty Products Corp. Conduit clamp. 2,874,438. 2–24–59. Cl. 24—279.
Skifter, Hector R.: *See*—
Hare, Donald G. C., and Skifter. 2,875,328.
Skinner, Charles G., Jr.: *See*—
Shive, William, and Skinner. 2,875,203.
Skony, Sigmund J., to Van Engineering, Hermetic Terminal Division. Electrical connector. 2,875,426. 2–24–59. Cl. 339—192.
Skorge, Ingvald: *See*—
Sethne, Magne, and Skorge. 2,874,882.
Smiley, Harry J., to James Lees and Sons Co. Method and device for inserting loom pile wires. 2,874,724. 2–24–59. Cl. 139—41.
Smith, Aaron H., to Signal Mfg. Co. Brushing and scrubbing machine. 2,874,396. 2–24–59. Cl. 15—49.

Smith, Carl F., and W. R. White, to Eastman Kodak Co. Polystyrene photographic element having a resinous terpolymer chromic chloride undercoat. 2,875,056, 2-24-59, Cl. 96—87.

Smith, Clarence J., to W. F. and John Barnes Co. Wire forming apparatus. 2,874,731, 2-24-59, Cl. 140—71.

Smith, Donald A.: *See*—
Unruh, Cornelius C., and Smith. 2,875,059.

Smith, E Quimby, Jr.: *See*—
Matthews, Lyle E., and Smith. 2,874,826.

Smith, Floyd M., to The Firestone Tire & Rubber Co. Conveyor belt. 2,875,116, 2-24-59, Cl. 154—52.1.

Smith, Kline & French Laboratories: *See*—
Grass, George M., Jr., and Robinson. 2,875,130.

Smith, Marion J. Nesting chairs. 2,874,755, 2-24-59, Cl. 155—2.

Smith, Randall D., to The Firestone Tire & Rubber Co. Method of making an air spring. 2,874,458, 2-24-59, Cl. 29—436.

Smith, Vigo N.: *See*—
Brassington, Samuel M., and Smith. 2,875,342.

Smith, Walter J.: *See*—
Spohn, James E., and Smith. 2,875,019.

Smith, William M., Jr., and C. E. Best, to The Firestone Tire & Rubber Co. Process of extruding vinylidene chloride resin plasticized with an ethylene glycol dibenzoate. 2,875,168, 2-24-59, Cl. 260—31.4.

Snyder, Francis H., to Dendrol, Inc. Synthetic resins derived from hydroxymethylfurfural and ketones. 2,875,180, 2-24-59, Cl. 260—64.

Societe Generale de Constraction Electriques et Mecantiques: *See*—
Deniau, André J. A. 2,875,399.

Société Nouvelle de l'Outillage R. B. V. et de La Radio-Industrie: *See*—
Tarbes, Pierre. 2,875,308.

Societe Nouvelle de l'Outillage R. B. V. et de la Radio-Industrie (R. B. V.-R. d.): *See*—
Donnay, Jacques. 2,875,276.

Societe Rateau (Societe Anonyme): *See*—
Anxionnaz, René. 2,874,711.

Sola, Samuel L., and K. Crocker, to Townsend Engineered Products Inc. Carrying kit. 2,875,010, 2-24-59, Cl. 312—200.

Sommer, Walter, to SKF Kugellagerfabriken G. m. b. H. Expanding work support for machine tools. 2,874,969, 2-24-59, Cl. 279—2.

Sommerfield, Edmund H.: *See*—
Stoesser, Wesley C., Sommerfield, and Surine. 2,875,165.

Sörensen, Emil, to Maschinenfabrik Augsburg-Nurnberg A. G. Steel turbine rotors with ceramic blades. 2,874,932, 2-24-59, Cl. 253—77.

Soreny, Erneat V.: *See*—
De Giers, Clarence A., and Soreny. 2,875,431.

Sorg Paper Co., The: *See*—
Yost, De Witte M., Schmitt, and Bouis. 2,874,754.

Southwestern Industrial Electronics Co.: *See*—
Reynolds, Vining T. 2,875,017.

Specialty Products Corp.: *See*—
Skelly, James J. 2,874,438.

Speese, Daniel S. Compressing device for collapsible paste tubes. 2,874,876, 2-24-59, Cl. 222—102.

Spencer, Alvin C Dispensing device and container therefor. 2,874,877, 2-24-59, Cl 222—162.

Sperry Gyroscope Co. Ltd., The: *See*—
Sedgfield, Hugh B., and Whalley. 2,874,578.

Sperry Rand Corp.: *See*—
Berkowitz, Bernard. 2,875,439.
Paul, Israel A., and Greene. 2,875,329.
Rolfs, John C. 2,875,418.
Sferrazza, Peter J. 2,875,415.
Tear, James D. 2,874,542.

Spiecker, Friedrich, to Siemens & Halske, Akt. Automatic telephone system. 2,875,280, 2-24-59, Cl. 179—18.

Spohn, James E., and W. J. Smith, to The Firestone Tire & Rubber Co. Method for producing crimped filaments. 2,875,019, 2-24-59, Cl. 18—54.

Spracklen, John G., to Zenith Radio Corp. Switching tube circuit with auxiliary load energized by self-bias developed at gating grid. 2,875,331, 2-24-59, Cl. 250—27.

Sprouse, Glen O.: *See*—
Sealer, Robert W., Baldwin, and Sprouse. 2,874,733.

Spurlin, William V., to Syntron Co. Two part feeder bowl. 2,874,667, 2-24-59, Cl. 113—116.

Squires, William K.: *See*—
Wendt, Karl R., Squires, and Gunning. 2,875,270.

Stafford, Neil S., to Food Machinery and Chemical Corp. Valve for fluids or fluidized solids especially for the spouts of bag filling apparatus. 2,874,925, 2-24-59, Cl. 251—61.

Standard Oil Co. (Indiana): *See*—
Corcoran, James T., and Peterson. 2,875,237.
Dieman, Edgar A., and Gaynor. 2,875,072.
Sabol, Albert R., and Karll. 2,875,189.

Standish, William C., Jr., to United States Rubber Co. Device for circumferentially locating mold lettering. 2,874,472, 2-24-59, Cl. 33—21.

Stanford, James R., to The Firestone Tire & Rubber Co. Apparatus and method of manufacturing tire. 2,874,405, 2-24-59, Cl. 18—2.

Stanier, Richard H.: *See*—
Johnston, Mordica O., and Stanier. 2,874,782.

Stansbury, Harry A., Jr., and H. R. Guest, to Union Carbide Corp. New preparation of 2,5-dimethylcyclopentanone. 2,875,249, 2-24-59, Cl. 260—586.

Stateman, Murray J., to Sylvania Electric Products Inc. Low frequency magnetic generator. 2,875,398, 2-24-59, Cl. 321—69.

Steel Heddle Mfg. Co.: *See*—
Kaufmann, John J. 2,874,726.

Steiber, Sven I. Wire reeling mechanism. 2,874,918, 2-24-59, Cl. 242—82.

Stel, Marinus: *See*—
Bloem, Herman, and Stel. 2,875,094.

Stelzer, Carl, to Kurt Korber & Co., K.-G. Guiding system on machines for producing filter tip cigarettes. 2,874,701, 2-24-59, Cl. 131—94.

Sterick, Harrison D. Insert mat for ingot molds and manufacture thereof. 2,874,427, 2-24-59, Cl. 22—139.
Becker, Wilhelm, and Steuer. 2,874,467.
Schnell, Hermann, and Steuer. 2,874,466.

Stevens, Henry P.: *See*—
Alliger, Glen, and Stevens. 2,875,260.

Stiefenhofer, Ferdinand: *See*—
Kaden, Willy, and Stiefenhofer. 2,874,914.

Stieglitz, Hermann W., to Thomson Electric Welder Co. Welding machine. 2,875,319, 2-24-59, Cl. 219—101.

Stiehl, Karl, H. Franz, and J. Valenteyn, to Deutsche Gold- und Silber Scheideanstalt vormals Roessler. Method of improving porous films of plasticized vinyl polymers. 2,875,088, 2-24-59, Cl. 117—10.

Stillwell, Robert E., to Food Machinery and Chemical Corp. Pipe coupling having a manually operated latching means. 2,874,978, 2-24-59, Cl. 285—5.

Stoddard, Jessie S. Dress form. 2,874,883, 2-24-59, Cl. 223—68.

Stoesser, Wesley C., E. H. Sommerfield, and W. R. Surine, to The Dow Chemical Co. Method of esterifying epoxy resins with unsaturated acids. 2,875,165, 2-24-59, Cl. 260—18.

Stokland, Sigmund. Dispensers for agricultural machines. 2,874,878, 2-24-59, Cl. 222—177.

Stone, Morton D. Mattress and cushion construction. 2,874,390, 2-24-59, Cl. 5—351.

Stone, Robert P., to Radio Corp. of America. Auxiliary heaters to aid in activation of cathode ray type guns. 2,875,361, 2-24-59, Cl. 313—85.

Stora Kopparbergs Bergslags Aktiebolag: *See*—
Kalling, Bo M. S. 2,875,036.

Storms, John N.: *See*—
Harland, Philip W., and Storms. 2,874,572.

Strader, Don S., to Pantex Mfg. Corp. Regulating control for immersed electrode boiler. 2,875,317, 2-24-59, Cl. 219—40.

Straley, James M., and J. G. Fisher, to Eastman Kodak Co. Metallizable azo dyes prepared from a benzothiazole derivative and β-naphthol. 2,875,190, 2-24-59, Cl. 260—146.

Stull, Morton B. Liquid dispensing device. 2,874,881, 2-24-59, Cl. 222—421.

Suchow, Lawrence, to Francis Earle Laboratories, Inc. Nacreous molybdenum and tungsten oxides. 2,875,074, 2-24-59, Cl. 106—47.

Suchow, Lawrence, to Francis Earle Laboratories, Inc. Nacreous graphite pigment. 2,875,076, 2-24-59, Cl. 106—148.

Sucro, Jost S.: *See*—
Sharpe, Verlos G., and Sucro. 2,874,553.

Sudbury, John D.: *See*—
Landers, James E., and Sudbury. 2,875,142.

Sullivan, Frank A. V., and S. A. J. Westerback, to American Cyanamid Co. Preparation of thioamides. 2,875,202, 2-24-59, Cl. 260—247.1.

Summit Mfg. Co., a Division of Ace Tool Engineering Co., Inc.: *See*—
Mastak, Edmond J. 2,874,566.

Sun Oil Co.: *See*—
Tench, John D. 2,875,082.

Sund, Fred. Flexible fin draper. 2,874,824, 2-24-59, Cl. 198—203.

Sundt, Edward V. Speed reducer. 2,874,594, 2-24-59, Cl. 74—805.

Superdisplay, Inc.: *See*—
Fitzgerald, Harold J. 2,875,013.

Surine, William R.: *See*—
Stoesser, Wesley C., Sommerfield, and Surine. 2,875,165.

Sutton, Clement E., Jr., to General Electric Co. Bushing terminal and line lead guard. 2,875,267, 2-24-59, Cl. 174—139.

Svenska Rotor Maskiner Aktiebolag: *See*—
Ahlen, Karl G. 2,874,940.

Swenson, William E.: *See*—
Andersen, Hans J., and Swenson. 2,874,972.

Swift & Co.: *See*—
Bremer, Joseph W., Jr. 2,875,220.

Swindell-Dressler Corp.: *See*—
Hanff, Edward A. 2,875,261.

Switzer, Robert L.: *See*—
Lieffers, William C., and Switzer. 2,875,137.

Switzer, Robert L., to Union Oil Co. of California. Continuous low speed rotary mechanism. 2,874,544, 2-24-59, Cl. 60—97.

Sylvania Electric Products Inc.: *See*—
Serang, Abdulgafoor M. 2,875,362.
Stateman, Murray J. 2,875,398.

Syntron Co.: *See*—
Spurlin, William V. 2,874,667.

Tadema, Harco J., to Shell Development Co. Producing petroleum by underground combustion. 2,874,777, 2-24-59, Cl. 166—11.

Talbert, Thomas L. Anti-snagging device for fish hooks. 2,874,509, 2-24-59, Cl. 43—43.2.

Tallon, William T.: *See*—
McCandlish, Albanis P., and Tallon. 2,874,641.

Tann, William E., to The Firestone Tire & Rubber Co. Polychloroprene cement cured with carbon disulfide, lower alkylaminoalcohols and lower polyalkylamines. 2,875,184, 2-24-59, Cl. 260—79.5.

Tarbes, Pierre, to Société Nouvelle de l'Outillage R. B. V. et de La Radio-Industrie. Photoresistive cells. 2,875,308, 2-24-59. Cl. 201—63.

Tarby, Stephen E.: *See*—
Allen, Warren, George, and Tarby. 2,874,451.

Tear, James D., to Sperry Rand Corp. Motion reproducing mechanism. 2,874,542, 2-24-59, Cl. 60—52.

Technical Operations, Inc.: *See*—
Goldberg, Gershon M., and La Valle. 2,875,050.

Tench, John D., to Sun Oil Co. Pour depressed microcrystalline wax. 2,875,082, 2-24-59, Cl. 106—270.

Tennessee Valley Authority: *See*—
Hignett, Travis P., Hein, Phillips, and Young. 2,875,245.

Terayama, Denzaburo, T. Matsubara, S. Hayashi, and Y. Hirakawa, to Tokyo Juki Kogyo Kabushiki Kaisha. Single shaft thread take-up device household sewing machine comprising a half-oscillating type shuttle. 2,874,665, 2-24-59, Cl. 112—248.

Tesar, Adolph O.: *See*—
Morris, William C., and Tesar. 2,875,085.

Tesson, Jean. Draftsman's instrument. 2,874,476, 2-24-59, Cl. 33—98.

Texas Co., The: *See*—
Beavon, David K. 2,875,149.
Drushel, William H., McCall, and Perilloux. 2,874,548.
Herzog, Gerhard. 2,875,264.
Maddox, James, Jr. 2,875,135.
Reed, Warren A., Jr. 2,874,855.

Textile Machine Works: *See*—
Bauer, Kurt P. 2,874,537.

Thalhammer, Karl W. Adjustable pneumatic control device for camera shutters. 2,874,625, 2-24-59, Cl. 95—54.

Thereau, Donald W., and H. A. Nordstrom. Water target. 2,874,967, 2-24-59, Cl. 273—102.1.

Thermel, Inc.: *See*—
Norton, William H. 2,874,751.
Norton, William H. 2,875,312.

Thiokol Chemical Corp.: *See*—
Fettes, Edward M., and Bertozzi. 2,875,182.
Wintermits, Paul F. 2,875,028.

Thoma, Hans. Drive for track-laying vehicles. 2,874,591, 2-24-59, Cl. 74—720.5.

Thomas, Philip W.: *See*—
Altreuter, Royal K., Dowling, Race, and Thomas. 2,875,136.

Thomas, Roy L., Jr., to Rockwood Sprinkler Co. Control cable device with tensioning means. 2,874,588, 2-24-59, Cl. 74—501.

Thompson, Earl A. Bore finishing tool. 2,874,452, 2-24-59, Cl. 29—90.

Thompson, Earl A. Valve lifter structure. 2,874,684, 2-24-59, Cl. 123—90.

Thompson, Ernest H., to Automatic Canteen Co. of America. Article dispensing machine. 2,874,872, 2-24-59, Cl. 221—112.

Thompson, Kenneth M., to The Atlantic Refining Co. Preparation of improved alkylate products using a sulfuric acid treatment. 2,875,257, 2-24-59, Cl. 260—674.

Thompson, Paul F.: *See*—
Huber, Clarence F., and Thompson. 2,875,219.

Thompson, Stuart W., to Lever Brothers Co. Fluid shortening composition. 2,875,065, 2-24-59, Cl. 99—118.

Thompson, William J.: *See*—
Royer, Arthur G., and Thompson. 2,874,636.

Thomson Electric Welder Co.: *See*—
Stieglitz, Hermann W. 2,875,319.

Thor, James P. Sheet clipping tool. 2,874,666, 2-24-59, Cl. 113—1.

Thornbery, John H., to Base, Inc. Control device. 2,874,905, 2-24-59, Cl. 236—9.

Thornton, Samuel A., to S. A. Thornton, Jr. Can plier. 2,874,854, 2-24-59, Cl. 214—9.

Thornton, Samuel A., Jr.: *See*—
Thornton, Samuel A. 2,874,854.

Todd, David B., to Shell Development Co. Reducing entrainment from fluidized beds. 2,874,480, 2-24-59, Cl. 34—10.

Toensmeier, Patrick A., to The New Haven Board & Carton Co. Can carrier. 2,874,833, 2-24-59, Cl. 206—65.

Tokheim Corp.: *See*—
Markoff, Nicholas. 2,874,874.
Markoff, Nicholas. 2,874,875.

Tokyo Juki Kogyo Kabushiki Kaisha: *See*—
Terayama, Denzaburo, Matsubara, Hayashi, and Hirakawa. 2,874,665.

Tompkins, Edward R., to United States of America, Atomic Energy Commission. Separation of barium values from uranyl nitrate solutions. 2,875,024, 2-24-59, Cl. 23—14.5.

Toulon, Pierre M. G., to Westinghouse Electric Corp. Display systems. 2,875,380, 2-24-59, Cl. 313—109.

Tour, Sam, to Metallizing Engineering Co. Inc. Spray-weld alloys of the boron-silicon-nickel type. 2,875,043, 2-24-59, Cl. 75—134.

Tower Iron Works Inc.: *See*—
Fain, Morton E., and Copley. 2,874,845.

Townsend Engineered Products Inc.: *See*—
Sola, Samuel L., and Crocker. 2,875,010.

Townsend, Mark A., to Bell Telephone Laboratories, Inc. Telephone ringing system. 2,875,281, 2-24-59, Cl. 179—86.

Townsend, Merlyn T. Milk straining device. 2,874,843, 2-24-59, Cl. 210—120.

Tracy, Glen M., to Glenton Industries, Inc. Thermal fuse. 2,875,298, 2-24-59, Cl. 200—142.

Trademan, Leo, M. A. Malina, and L. P. Wilks, to Velsicol Chemical Corp. Insecticide formulations. 2,875,119, 2-24-59, Cl. 167—30.

Trademan, Leo, M. A. Malina, and L. P. Wilks, to Velsicol Chemical Corp. Insecticide formulations. 2,875,120, 2-24-59, Cl. 167—30.

Trademan, Leo, M. A. Malina, and L. P. Wilks, to Velsicol Chemical Corp. Insecticide formulations. 2,875,121, 2-24-59, Cl. 167—30.

Trainer, James E., to The Firestone Tire & Rubber Co. Tubeless tires. 2,874,744, 2-24-59, Cl. 152—342.

Triebeneck, Kurt: *See*—
Seibert, Heinrich, Triebeneck, Biemert, and Baumann. 2,875,211.

Tripp, Robert W., to Inductosyn Corp. Automatic machine control system. 2,875,390, 2-24-59, Cl. 318—39.

Troberg, Bolge: *See*—
Bergh, Sven S., Troberg, and Ericsson. 2,875,104.

Troester, Fred W., to Minnesota Mining and Mfg. Co. Inks for marking condensation polymers. 2,875,105, 2-24-59, Cl. 117—218.

Trompeter, William: *See*—
Benis, Isak, and Trompeter. 2,875,442.

Turner, George O., to The Dow Chemical Co. Method and composition for the treatment of soil. 2,875,118, 2-24-59, Cl. 167—22.

Tweit, Robert C.: *See*—
Dodson, Raymond M., and Tweit. 2,875,215.

Twining, Ralph H., to L. H. Lincoln & Son, Inc. Gels and process for making them. 2,874,545, 2-24-59, Cl. 61—36.

Twomey, Dermot: *See*—
Barry, Vincent C., Belton, Comalty, and Twomey. 2,875,204.

Tyler, Stanley R., to Dowty Fuel Systems Ltd. Liquid fuel supply systems for gas turbine engines. 2,874,768, 2-24-59, Cl. 158—36.4.

Tyler, W. S., Co., The: *See*—
Pomeroy, Sawyer M. 2,874,730.

Udylite Corp., The: *See*—
Rabut, Eugene W. 2,874,820.

Ullery, Lee R.: *See*—
Orthuber, Richard K., and Ullery. 2,875,350.

Ulvild, George B., and J. S. MacKenzie, to Celanese Corp. of America. Recovery of gamma-butyrolactone. 2,875,213, 2-24-59, Cl. 260—343.6.

Unger, Harold W., and D. H. Zipper, to White Cap Co. Controlled torque gasket compositions. 2,874,863, 2-24-59, Cl. 215—40.

Union Carbide Corp.: *See*—
Canty, John M., and Riede. 2,874,865.
Lanham, William M. 2,875,233.
Sealer, Robert W., Baldwin, and Sprouse. 2,874,733.
Stansbury, Harry A., Jr., and Guest. 2,875,249.

Union Oil Co. of California: *See*—
Gertsen, Richard J. 2,874,780.
Lieffers, William C., and Switzer. 2,875,137.
Switzer, Robert L. 2,874,544.

Union Special Machine Co.: *See*—
Hale, Arthur N. 2,875,006.

United Aircraft Corp.: *See*—
Esmeier, Edward F., and Brown. 2,874,340.
Gunberg, Harry W. 2,874,803.

United Can & Glass Co.: *See*—
Jeremiah, Earl. 2,874,856.

United Shoe Machinery Corp.: *See*—
Gookin, Sylvester L. 2,874,864.
Wakefield, Gordon C. J. 2,874,875.

United States of America
Agriculture: *See*—
Rockland, Louis B., and Atkinson. 2,875,070.
Air Force: *See*—
Miller, Robert O., and O'Toole. 2,875,001.
Army: *See*—
Miner, Francis W., and Schwartz. 2,875,167.
Musser, C Walton. 2,874,614.
Atomic Energy Commission: *See*—
Birkhoff, Robert D., Hubbell, and Johnson. 2,875,343.
Brobeck, William M. 2,875,339.
Brown, Harrison S., and Sealorg. 2,875,021.
Duffield, Robert B. 2,875,026.
Faris, Burt F. 2,875,022.
Frederick, Herbert S., and Kinsella. 2,874,852.
Froman, Darol K. 2,875,143.
Galvanek, Paul, Jr. 2,875,023.
Garner, Clifford S. 2,875,025.
Haldeman, George W. 2,874,459.
Hightower, Earle D. 2,875,285.
King, David W. 2,874,860.
Monk, George S. 2,875,346.
Nicoll, David. 2,875,345.
Runnalls, Oliver J. C. 2,875,041.
Tompkins, Edward R. 2,875,024.
Navy: *See*—
Griffith, Ben H., Jr. 2,875,417.
Hare, Donald G. C., and Skifter. 2,875,828.
Knighton, Daniel J., Haser, and Fiedler. 2,874,921.
Richards, James R. 2,874,470.
Saholt, Orville J. 2,875,292.
Williamson, Donald E. 2,874,605.

United States Rubber Co.: *See*—
Burnett, Peter P. A. 2,874,416.
Nichols, Parks M. 2,874,746.
Standish, William C., Jr. 2,874,472.

United States Steel Corp.: *See*—
Ailes, Warren, George, and Tarby. 2,874,451.
Magna, Peter S., and McCormick. 2,874,737.

United Steel Fabricators, Inc.: *See*—
Henderson, Thomas W. 2,874,420.

Universal Dental Co.: *See*—
Bloom, Eli H., and Wiener. 2,874,487.

University of Minnesota: *See*—
Holman, Ralph T. 2,875,060.

Unruh, Cornelius C., and D. A. Smith, to Eastman Kodak Co. Photographic emulsions containing polyamides having ether oxygen and extralinear hydroxyl groups. 2,875,059, 2–24–59, Cl. 96—114.

Unthank, Douglas G., ½ to H. A. J. Silley. Apparatus for separating oil and water. 2,874,850, 2–24–59, Cl. 210—519.

Upjohn Co., The: *See*—
Hogg, John A., and Lincoln. 2,875,200.
Kolloff, Harold G., and Seay. 2,875,246.
Schneider, William P. 2,875,217.
Wright, John B., and Lincoln. 2,875,248.

VEB Carl Zeiss Jena: *See*—
Leiterer, Lothar. 2,874,606.

Vahs, William A., to Parker-Hannifin Corp. Valve assembly. 2,874,720, 2–24–59, Cl. 137—622.5.

Valente, Ernesto. Apparatus to make coffee in large quantities to be adapted on the boiler of a common coffee percolator for bars, specially fit for hotels and the like. 2,874,630, 2–24–59, Cl. 99—307.

Valenteyn, Johannes: *See*—
Stiehl, Karl, Frans, and Valenteyn. 2,875,088.

Vance, Philip R.: *See*—
Morrill, Charles D., Hosterman, and Vance. 2,875,389.

Vander Kaay, Henry A., to The New York Air Brake Co. Hydraulic follow-up control for bulldozers and the like. 2,874,681, 2–24–59, Cl. 121—41.

Vander Kaay, Henry A., to The New York Air Brake Co. Position-responsive servo-control unit. 2,874,682, 2–24–59, Cl. 121—41.

Van der Kolk, Hendrik, to Bureau van Tongeren N. V. Cyclones. 2,874,799, 2–24–59, Cl. 183—34.

Van der Kolk, Hendrik, to Bureau van Tongeren N. V. Devices for removing from gas or vapor solid or liquid particles suspended therein. 2,874,800, 2–24–59, Cl. 183—44.

Van der Kolk, Hendrik, to Bureau van Tongeren N. V. Dust-separators consisting of a set of cyclones connected in parallel and having each at least one tangential inlet opening. 2,874,801, 2–24–59, Cl. 183—83.

Van der Lely, Ary: *See*—
Van der Lely, Cornelis and A. 2,874,529.

Van der Lely, C., N. V.: *See*—
Van der Lely, Cornelis and Ary. 2,874,529.

Van der Lely, Cornelis and Ary, to C. van der Lely, N. V. Rotary raking wheel. 2,874,529, 2–24–59, Cl. 56—400.

Van Engineering, Hermetic Terminal Division: *See*—
Skony, Sigmund J. 2,875,426.

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126: 2,875,423
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340— [illegible]: 2,875,427
174: 2,875,429
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316: 2,875,431
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343— 14: 2,875,434
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915: 2,875,444
348— [illegible]: 2,875,017

CLASSIFICATION OF DESIGNS

D 2— 3: 184,482
184,483
D 5— 5: 184,497
D10— 7: 184,489
D13— 4: 184,475
D14— [illegible]: 184,472

D14— 6: 184,478
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18: 184,471
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184,492

D20— 1: 184,479
184,498
D20— 1: 184,476
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D34— 5: 184,495
14: 184,499

D42— 7: 184,491
D56— 4: 184,502
D57— 1: 184,487
D58— 8: 184,474
12: 184,473
13: 184,484

D64— 11: 184,496
D71— 1: 184,501
D79— 2: 184,494
D80— 10: 184,500
D81— 4: 184,488
10: 184,480

D81— 10: 184,481
D87— 3: 184,493

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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
February 24, 1959 Volume 739 Number 4

TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 155,002 (CANADA DRY "PALE GINGER ALE" AND DESIGN), J. J. McLaughlin, Limited, Ginger ale; **Reg. No. 187,710**, same, Canada Dry Ginger Ale, Inc., same; **Reg. No. 312,662** (CANADA DRY'S "SPARKLING WATER" AND DESIGN), same, Carbonated water; **Reg. No. 363,356** (CANADRY COLA AND DESIGN), same; **Reg. No. 391,753** (CANADA DRY), same, Nonalcoholic, maltless beverages, including ginger ales, carbonated water, etc.; **Reg. No. 391,756**, (CANADA DRY AND DESIGN), same; **Reg. No. 392,150**, same; **Reg. No. 412,222**, same; **Reg. No. 413,707** (CANADA DRY "SPUR" AND DESIGN), same; **Reg. No. 513,120** (CANADA DRY), same; **Reg. No. 527,108** (CANADA DRY AND DESIGN), same, Ginger ale; **Reg. No. 527,210**, same, Carbonated water, filed Nov. 21, 1958, D. C., S. D. N. Y., Doc. 140/153, *Canada Dry Corp. v. Canadian Club Ginger Ale Co.* Final consent decree; defendants enjoined Jan. 14, 1959.

Reg. No. 187,710. (See Reg. No. 155,002.)

Reg. No. 312,662. (See Reg. No. 155,002.)

Reg. No. 363,356. (See Reg. No. 155,002.)

Reg. No. 366,484 (NEATRO), Vanadium-Alloys Steel Co., High speed tool steel; **Reg. No. 384,380** (E. V. M.), same, Tool steel in the form of billets, bars, etc.; **Reg. No. 530,125** (VASCO SUPREME), same; **Reg. No. 534,711** (RED STAR), same; **Reg. No. 571,635** (O-HI-O DIE), same; **Reg. No. 571,636** (SIL-MAN), same; **Reg. No. 632,625** (CROCAR), same; **Reg. No. 650,215** (PAR-EXC), same, filed Aug. 4, 1958, D. C., E. D. Mich. (Detroit), Doc. 18277, *Vanadium Alloys Steel Co. v. Waimet Alloys Co.* Order of dismissal without prejudice Jan. 15, 1959.

Reg. No. 391,753. (See Reg. No. 155,002.)

Reg. No. 391,756. (See Reg. No. 155,002.)

Reg. No. 392,150. (See Reg. No. 155,002.)

Reg. No. 412,222. (See Reg. No. 155,002.)

Reg. No. 413,707. (See Reg. No. 155,002.)

Reg. No. 513,120. (See Reg. No. 155,002.)

Reg. No. 524,100. (See Reg. No. 366,484.)

Reg. No. 527,108. (See Reg. No. 155,002.)

Reg. No. 527,210. (See Reg. No. 155,002.)

Reg. No. 530,125. (See Reg. No. 366,484.)

Reg. No. 534,711. (See Reg. No. 366,484.)

Reg. No. 571,635. (See Reg. No. 366,484.)

Reg. No. 571,636. (See Reg. No. 366,484.)

Reg. No. 632,625. (See Reg. No. 366,484.)

Reg. No. 648,291 (REIMOLOG), Jules E. Jenkins, Earth vibrater measuring and recording device, filed Jan. 14, 1959, D. C., M. D. Pa. (Scranton), Doc. 6522, *Vibration Measurement Engineers, Inc. v. The Vibration Engineering Co., Inc.*

Reg. No. 650,215. (See Reg. No. 366,484.)

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	10,603
Date of oldest new application	June 11, 1958
Date of oldest amended application	Sept. 4, 1958

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION

	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 38, 39	6-19-58	9-15-58
(II) R. F. SHRYOCK, Classes 6, 18, 27, 29, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	6-11-58	9-8-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 14, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	7-3-58	9-4-58
Renewals (All Classes)	11-28-58	12-26-58
Sec. 12 (c) Publications (All Classes)	11-28-58	12-26-58

Applications Filed During the Month of December 1958—1,825

Registrations Issued	414—No. 674,361 to No. 674,774
Renewals Issued	25

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $3.75 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 2.101 to 2.105.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 682,370. Mutation Mink Breeders Association, Racine, Wis. Filed Mar. 8, 1955. COLLECTIVE MARK.

JASMINE

For Mink Fur Pelts.
First use Dec. 15, 1952.

SN 682,371. Mutation Mink Breeders Association, Racine, Wis. Filed Mar. 8, 1955. COLLECTIVE MARK.

CERULEAN

For Mink Fur Pelts.
First use Dec. 15, 1952.

SN 682,373. Mutation Mink Breeders Association, Racine, Wis. Filed Mar. 8, 1955. COLLECTIVE MARK.

LUTETIA

For Mink Fur Pelts.
First use Dec. 15, 1952.

SN 24,462. Trojan Seed Company, Olivia, Minn. Filed Feb. 14, 1957.



For Hybrid Seed Corn.
First use Jan. 2, 1948.

SN 29,368. Kimber Farms, Inc., Niles, Calif. Filed May 3, 1957.

KIMBERCHIKS



The representation of a baby chick per se is disclaimed. Owner of Reg. No. 616,704.

For Live Baby Chicks.

First use Jan. 14, 1957; in December 1938 as to "Kimberchiks."

SN 48,664. Wm. G. Scarlett & Co., Baltimore, Md. Filed Mar. 28, 1958.

Scarlet

The drawing is lined for yellow.
For Farm Seeds and Lawn Seeds.
First use in 1894.

SN 51,345. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed May 9, 1958.

STRATA-CREPE

For Shoe Soling.
First use Nov. 22, 1957.

SN 53,223. The National Plastic Products Company, Odenton, Md. Filed May 29, 1958.

NEVAMAR

Owner of Reg. Nos. 524,071 and 664,882.

For Plastic Laminated Sheets and Panels and Composite Laminated Sheets and Panels of Thermosetting Plastics and Fibrous Materials for General Use in the Industrial Arts.
First use Sept. 4, 1947.

SN 53,357. Perlstein Leather Co., Inc., New York, N. Y. Filed June 11, 1958.



Without waiving its common law rights, and for purposes of this registration only, applicant makes no claim to the word "Oak" apart from the mark as shown. Owner of Reg. No. 291,184.

For Sole Leather.
First use Aug. 1, 1927.

SN 53,344. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed June 13, 1958.

McNamee

For Clay Used in the Manufacture of Ceramics and as a Filler in the Manufacture of Paper and Rubber Products.
First use Oct. 8, 1924.

SN 54,314. Kingsford Company, Iron Mountain, Mich. Filed June 26, 1958.

BAR-B-PAK

For Combined Fuel Briquets and Lighting Fluid.
First use May 5, 1958

SN 54,492. Cesalpinia S. p. A., Milan, Italy. Filed June 30, 1958.

FLOCAL

Owner of Italian Reg. No. 135,003, dated Mar. 4, 1958.
For Flocculants Made From Natural or Synthetic Colloidal Hydrophilic Substances for Use in Mining Industry, in Purification of Town Waters and in Purification of Soiled Waste Waters of Industries.

SN 54,736. British Cellophane Limited, Bridgwater, Somerset, England. Filed July 8, 1958.

LUBRITHENE

Owner of British Reg. No. 769,868, dated Oct. 7, 1957.
For Polyethylene in Sheet Form for Use as Concrete Underlayers, Roof Linings and Other Purposes in Building Construction.

Class 2—Receptacles

SN 42,411. United States Rubber Company, New York, N. Y. Filed Dec. 13, 1957.

SEALDTANK

For Rubber Coated Fabric Bags for Transporting and Storing Liquids.
First use June 28, 1957.

SN 43,145. Container Corporation of America, Chicago, Ill. Filed Dec. 30, 1957.

CCA | CONE CASE

The words "Cone Case" are disclaimed apart from the mark as shown. Owner of Reg. Nos. 228,345 and 687,885.
For Paperboard Shipping Containers.
First use Aug. 6, 1957.

SN 46,706. China Fashions Inc., New York, N. Y. Filed Feb. 27, 1958.

MELDALE

For Plastic Tableware—Namely, Plates, Cups, Saucers, Soup Bowls, Fruit Saucers, Pitchers, Sugar Bowls, Platters, Vegetable Dishes, Salad Bowls, Divided Dishes, Spoons, Forks, Tureens, and Tumblers.
First use Dec. 6, 1957.

SN 50,408. Sears, Roebuck and Co., Chicago, Ill. Filed Apr. 25, 1958.

DB DAVID BRADLEY

For Silos, Grain Storage Bins, Tanks, Feed Bins, Feed Troughs, Fuel Cans, Egg Crates, Shipping Crates, Dairy Wash Tanks, Hog Bath Troughs, Wire Reels (Fence), Sprayer Tanks (Pressure and Non-Pressure), Water Tanks, Feed Pans, Pails, Egg Cartons, Baskets; Tanks, Sprinkling (Pressure and Non-Pressure); Milk Cans, Cream Cans.
First use on or about July 23, 1956.

SN 53,147. Gessner Manufacturing Co., Ambler, Pa. Filed June 9, 1958.

THIRSTY

For Plastic Coasters.
First use in February 1958.

SN 54,303. Eastern Container Corporation, Springfield, Mass. Filed S. R. June 26, 1958. Am. P. R. Jan. 9, 1959.



For Corrugated Cartons and Containers.
First use Feb. 24, 1956.

SN 54,614. The Greif Bros. Cooperage Corporation, Delaware, Ohio. Filed July 1, 1958.

RO-CON

For Fibre Drums.
First use on or about May 26, 1958.

SN 54,781. Plastic Productions Company, Redwood City, Calif. Filed July 8, 1958.

PARALON

For Molded Plastic Products—Namely, Serving Forks and Spoons, Dishes, Platters, Plates, Trays, Bowls, and Planters.
First use May 12, 1958.

SN 55,054. Diamond Gardner Corporation, New York, N. Y. Filed July 10, 1958.

JUBILEE

For Plates Made of Molded Pulp or Paper.
First use Apr. 28, 1958.

SN 55,873. A. O. Reynolds, d. b. a. A. O. Reynolds Company, Lebanon, Ind. Filed July 23, 1958.



Applicant makes no claim to any exclusive right in the word "Pot" except in the expression "Jack Pot."
For Plant Containers Which May Be Made Primarily of Peat Moss or Other Fibrous Material.
First use Mar. 11, 1958.

SN 55,878. A. O. Reynolds, d. b. a. A. O. Reynolds Company, Lebanon, Ind. Filed July 23, 1958.

JACK POT

Applicant makes no claim to any exclusive right in the word "Pot" except in the expression "Jack Pot."
For Plant Containers Which May Be Made Primarily of Peat Moss or Other Fibrous Material.
First use Mar. 11, 1958.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 50,359. Fin 'n Feather Farm, Inc., d. b. a. Fin 'n Feather Club, Dundee, Ill. Filed Apr. 25, 1958.

FIN 'N FEATHER

For Dog Equipment—Namely, Leashes, Harnesses, Chokes, Blankets, Brushes, and Combs.
First use in the year 1948.

SN 53,949. Pioneer Industries, Inc., Darby, Pa. Filed June 20, 1958.

PAY MATES

For Leather Accessories—Namely, Wallets, Billfolds, Pocketbooks, Key-Containers, and Card-Holders.
First use Apr. 8, 1958.

SN 53,956. A. J. Siris Products Corp., New York, N. Y. Filed June 20, 1958.

EASY PICK'N

For Purses.
First use June 12, 1958.

SN 57,340. Bernard Cahn Co., Inc., New York, N. Y. Filed Aug. 18, 1958.

KEE HANDEE

For Combined Change Purses and Key Rings, Combined Billfolds and Key Rings, and Combined Photo-Albums and Key Rings.
First use Mar. 4, 1946.

SN 57,695. Wallace M. L. Johnson, d. b. a. Johnson Sales & Mfg. Co., St. Paul, Minn. Filed Aug. 22, 1958.

"KENNEL-AIRE"

For Animal Cage.
First use July 15, 1958.

Class 4—Abrasives and Polishing Materials

SN 54,153. William P. Dunn, Milwaukee, Wis. Filed June 24, 1958.



For Combined Cleaning and Polishing Preparation, and Paste Wax for Polishing.
First use Feb. 2, 1958.

SN 58,136. Abrado Finish Corporation, Grand Rapids, Mich. Filed Sept. 2, 1958.

ABRADO

For Tumbling Compounds and Other Materials for Abrading, Polishing, Burnishing, Descaling, and Finishing of Articles.
First use about July 1, 1958.

SN 58,386. Abrado Finish Corporation, Grand Rapids, Mich. Filed Sept. 5, 1958.



For Tumbling Compounds and Other Materials for Abrading, Polishing, Burnishing, Descaling, and Finishing of Articles.
First use about July 1, 1958.

SN 59,221. Sandpaper Incorporated, Rockland, Mass. Filed Sept. 19, 1958.

SANDISK

Owner of Reg. No. 364,327.
For Abrasive Disks.
First use May 8, 1935.

Class 6—Chemicals and Chemical Compositions

SN 36,367. Fort Dodge Laboratories, Inc., Fort Dodge, Iowa. Filed Aug. 28, 1957.

MALINGO

For Parasiticide for Veterinary Use.
First use Mar. 29, 1957.

SN 39,105. Van Products Company, Erie, Pa. Filed Oct. 17, 1957.

DRY-O-LITE

For Chemical Pellets for Use in Compressed Air and Gas Driers.
First use Aug. 15, 1957.

SN 41,125. Witco Chemical Company, New York, N. Y. Filed Nov. 21, 1957.

WITCOLITE

Owner of Reg. No. 660,490.
For Hydrocarbons for Use in Insulation and Protection Against Corrosion.
First use 1945.

SN 41,129. Allyn Chemical Co., Cleveland, Ohio. Filed Nov. 22, 1957.

CLARON

For Clarifier, Coagulant, and Purifier for Water.
First use Oct. 25, 1957.

SN 41,810. The B. F. Goodrich Company, Akron, Ohio. Filed Dec. 5, 1957.

SUPERLITE

For Non-Staining Anti-Oxidants for Rubber and Other Oxidizable Organic Substances.
First use Nov. 29, 1956.

SN 42,384. Klenzade Products, Incorporated, Beloit, Wis. Filed Dec. 18, 1957.

Q-BAC

Owner of Reg. No. 549,178.
For Liquid Sanitizing Concentrate.
First use Oct. 28, 1957.

SN 42,770. E-Vap Corporation, Muskegon, Mich. Filed Dec. 20, 1957.

E-VAP

For Bacterial Culture for Activating Septic Tanks and Destroying Garbage.
First use Feb. 16, 1955.

SN 47,311. Ajem Laboratories, Inc., Livonia, Mich. Filed Mar. 10, 1958.

JEM NEUT

Owner of Reg. Nos. 641,141 and 655,961.
For Chemical Compounds for Use in Treating Industrial Waste Materials—Namely, Preparations Which Are Added to Water Containing Industrial Waste Materials for Making the Waste Materials More Suitable for Subsequent Utilization or Subsequent Disposal.
First use Aug. 28, 1956.

SN 49,123. Chipman Chemical Company, Inc., Bound Brook, N. J. Filed Apr. 7, 1958.

CHIPCOTE

For Fungicidal Seed Dressing.
First use Mar. 5, 1958.

SN 49,350. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed Apr. 9, 1958.

ZELCON

For Fabric Conditioners.
First use Oct. 4, 1957.

SN 49,709. Sandoz, Inc., New York, N. Y. Filed Apr. 15, 1958.

RELCA

For Pigment Finishes for Coloring Leather.
First use Apr. 2, 1958.

SN 49,791. Sinclair Oil & Gas Company, Tulsa, Okla. Filed Apr. 16, 1958.

TRUFLAME

For Liquefied Petroleum Gas.
First use Apr. 3, 1958.

SN 49,930. Hayes-Sammons Chemical Co., Mission, Tex. Filed Apr. 18, 1958.

CHLOR BAN

For Insecticide and Agricultural Fungicide.
First use Feb. 12, 1958.

SN 50,180. Opotow Dental Manufacturing Corp., Brooklyn, N. Y. Filed Apr. 22, 1958.

AQUA-SOLV

For Anti-Fogging Solution Used on Glass Surfaces.
First use Mar. 26, 1958.

SN 50,309. Merck & Co., Inc., Rahway, N. J. Filed Apr. 24, 1958.

MAXIDE

For Chemical Compound for Use as a Filler in the Manufacture of Rubber.
First use Feb. 27, 1958.

SN 50,786. General Aniline & Film Corporation, New York, N. Y. Filed May 1, 1958.

POLYCLAR

For Water-Soluble Clarification Assistant and Haze Preventative for Treatment of Beverages and Other Aqueous Liquid Food Products, Such as Beer, Wine, Vinegar, Fruit Juices, Tea, Coffee, Whiskey, Brandy and Other Distilled Alcoholic Beverages.
First use on or about Apr. 23, 1958.

SN 50,929. O. M. Scott and Sons Company, Marysville, Ohio. Filed May 2, 1958.

HALTS

For Chemical Weed Killer.
First use Apr. 24, 1958.

SN 52,224. International Lubricant Corporation, New Orleans, La. Filed May 23, 1958.

OIL-I-CIDE

For Insecticides.
First use May 12, 1958.

SN 52,249. Empire Manufacturing Company, Kansas City, Mo. Filed June 10, 1958.

PATTY-O-CANDLE

For Insect Repellent.
First use June 25, 1951.

SN 55,275. Scripto, Inc., Atlanta, Ga. Filed July 14, 1958.

KINGSMARK

For Fuel for Cigar and Cigarette Lighters.
First use Mar. 13, 1958.

SN 55,393. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed July 16, 1958.

COREPHEN

Owner of German Reg. No. 632,263, dated Jan. 9, 1953.
For Synthetic Resinous Materials for Use in the Production of Lacquers, Electrical Insulation and Cast, Molded or Laminated Articles.

Class 7 — Cordage

SN 33,426. Plymouth Cordage Company, Plymouth, Mass. Filed July 9, 1957.

PLYMOUTH SURGE LINE

Owner of Reg. No. 64,721.
For Nautical Cordage and Hawsers.
First use Jan. 19, 1956.

SN 51,854. Broderick & Bascom Rope Company, St. Louis, Mo. Filed May 19, 1958.

THRIF-T-LIFT

For Wire Rope Slings.
First use Feb. 11, 1958.

SN 56,865. Milton L. Mintzer, New York, N. Y. Filed Aug. 8, 1958.

ROB-BEN

Fof Baler and Binder Twine.
First use Mar. 1, 1956.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 45,018. Colt's Patent Fire Arms Manufacturing Company, Incorporated, Hartford, Conn. Filed Jan. 31, 1958.

"THE COLTEER 1-22"

No claim is made to the exclusive use of the numbers "1—22." Owner of Reg. Nos. 58,249 and 163,464.
For 22 Caliber Rifles.
First use Dec. 10, 1957.

SN 48,733. Gevelot Société Anonyme, Paris, France. Filed Mar. 31, 1958.

GEVARM

For Rifles and Ammunition Therefor.
First use May 14, 1954.

SN 48,734. Gevelot Société Anonyme, Paris, France. Filed Mar. 31, 1958.

GEVELOT

For Rifles and Ammunition Therefor.
First use Feb. 18, 1933; in commerce Jan. 10, 1953.

SN 57,523. Amron Corporation, Waukesha, Wis. Filed Aug. 20, 1958.

AMRON

For Cartridge Cases, Gun Feeders, and Cartridge and Spring Mechanism for Discharging a Pilot Seat and Pilot From Aircraft.
First use July 28, 1958.

SN 61,979. Amron Corporation, Waukesha, Wis. Filed Nov. 5, 1958.

amron

For Cartridge Cases, Gun Feeders, and Cartridge and Spring Mechanism for Discharging a Pilot Seat and Pilot From Aircraft.
First use Aug. 29, 1958, on July 28, 1958, as to "Amron."

Class 11 — Inks and Inking Materials

SN 43,254. The Fulton Marking Equipment Company, Inc., Elizabeth, N. J. Filed Dec. 31, 1957.

STAMPMATE

For Stamp Pads and Stamp Pad Inks.
First use Dec. 18, 1957.

SN 55,277. Scripto, Inc., Atlanta, Ga. Filed July 14, 1958.

LONGLINE

For Ink.
First use Mar. 13, 1958.

Class 12 — Construction Materials

SN 23,293. Clopay Corporation, Cincinnati, Ohio. Filed Jan. 28, 1957.

CLOPAY Space-saver door

No claim is made to the exclusive right to the use of the words "Space-Saver Door" apart from the mark as shown. Owner of Reg. No. 650,769.
For Accordion Folding Doors Formed of Reinforced Plastic Sheets and Sold Knocked Down and Packaged, for Assembly by the Purchaser.
First use July 27, 1956.

SN 37,567. Fiber Glass Industries, Inc., Amsterdam, N. Y. Filed Sept. 20, 1957.

POLYPLY

For Glass Fiber Reinforced Plastic Sheets—Namely, Skylight Panels and Polyester Glass Mat Laminates.
First use Aug. 7, 1957.

SN 44,898. Granux Corporation, Chicago, Ill. Filed Jan. 29, 1958.

GRANIDUR

Owner of Reg. No. 350,102.
For Polished Manufactured Granite Slabs and Building Facings.
First use Feb. 25, 1937.

SN 45,926. The Texas Company, New York, N. Y. Filed Feb. 14, 1958.

TEXACO

The drawing is lined to represent the colors red and green. Owner of Reg. Nos. 99,180, 140,227, and 165,370.
For Slow, Medium, and Rapid Curing Asphalt-Containing Road Surfacing Materials, Asphaltic Metal Preservative, Waterproofing Asphalts, Asphalt-Containing Insulating Com-

pounds, Asphalt-Containing Pipe Coatings, Solid Roofing Asphalts, and Asphalt-Containing Saturants for Impregnating Roof Felt.

First use about January 1907 on waterproofing asphalts.

SN 49,267. Gagne Enterprises, Inc., Franklin Park, Ill. Filed Apr. 8, 1958.

CONDEX

For Multi-Duct Concrete Conduit.

First use on or about July 1, 1957.

SN 49,499. The Kinsey Chemical Corporation, d. b. a. Kinsey Chemical Corporation, New Haven, Conn. Filed Apr. 11, 1958.

Chem-BOND

For Patching Plaster and Filler Compound Having a Putty-Like Consistency and Used as a Repair and Filler Material on Various Surfaces.

First use Jan. 25, 1958.

SN 55,301. American Art Metals Company, Atlanta, Ga. Filed July 15, 1958.

AMARLITE

LOOKS BETTER... Lasts!

Owner of Reg. No. 543,004.

For Metallic Entrances (Doors and Frames) and Trim and Hardware Therefor.

First use June 4, 1958.

SN 55,626. American Cement Corporation, d. b. a. Riverside Cement Co., Los Angeles, Calif. Filed July 21, 1958.

BEAR BRAND PORTLAND CEMENT

No claim is made to the words "Portland Cement."

For Cement.

First use May 15, 1943.

SN 55,628. American Cement Corporation, d. b. a. Riverside Cement Co., Los Angeles, Calif. Filed July 21, 1958.

RIVERSIDE PORTLAND CEMENT

No claim is made to the words "Portland Cement."

For Cement.

First use June 1, 1928.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 44,975. Parker-Hannifin Corporation, Cleveland, Ohio. Filed Jan. 30, 1958.

PARKO-LOK

For Quick Disconnect Couplings.

First use Oct. 31, 1957.

SN 58,462. Speakman Company, Wilmington, Del. Filed Sept. 5, 1958.

SPEAKMAN

For Plumbing Fixtures and Valves for Lavatories, Sinks, Showers, Baths, and Toilets.

First use in 1911 on plumbing fixtures for baths and lavatories.

Class 14—Metals and Metal Castings and Forgings

SN 30,533. Vereinigte Oesterreichische Eisen- und Stahlwerke Aktiengesellschaft, Linz (Donau), Austria. Filed May 22, 1957.

ALZEN 305

Owner of Austrian Reg. No. 30,852, dated May 31, 1954.

For Zinc-Aluminum-Copper Alloy Ingots, Cored and Solid Bars, Castings and Forgings.

First use January 1954; in commerce January 1957.

SN 35,925. Harry D. Fruehauf, Jr., d. b. a. Automatic Machinery Division of Tool Engineering Service, Birmingham, Ala. Filed Aug. 21, 1957.

IMPOUND

For Metal Bodies of Various Shapes and Sizes Formed by Cold Working Slugs of Predetermined Quantities of Metal for General Use in the Industrial Arts.

First use July 8, 1957.

SN 40,019. E. W. Bliss Company, Pittsburgh, Pa. Filed Nov. 4, 1957.

MACKINTOSH-HEMPHILL DIVISION · PITTSBURGH · U.S.A. · BLISS

The drawing is lined for black and red. No claim is made to the words "Pittsburgh U. S. A." Owner of Reg. Nos. 654,972 and 651,385.

For Slag and Cinder Pots, Machine Beds, Housings and Other Massive Castings of Iron and Steel.

First use on or about 1952.

Class 15—Oils and Greases

SN 42,582. Farmers Union Central Exchange, Incorporated, South St. Paul, Minn. Filed Dec. 17, 1957.

QWIKLIFT

For Hydraulic Oil.
First use on or about Mar. 21, 1956.

SN 47,806. Alox Corporation, Niagara Falls, N. Y. Filed Mar. 17, 1958.

ALOX

Owner of Reg. Nos. 411,327 and 415,610.
For Additives for Lubricating Oils, and Greases.
First use Jan. 2, 1930.

SN 51,009. General Motors Corporation, Detroit, Mich. Filed May 5, 1958.

SPRAY-A-SQUEAK

For Silicone Lubricants.
First use Apr. 4, 1958.

SN 57,931. The Standard Oil Company, Cleveland, Ohio. Filed Aug. 26, 1958.



The drawing is lined for red and blue, but no claim is made for color.
For Gasoline.
First use July 20, 1958.

SN 58,151. The Atlantic Refining Company, Philadelphia, Pa. Filed Sept. 2, 1958.



For Motor Oils.
First use Jan. 18, 1890.

Class 16—Protective and Decorative Coatings

SN 44,109. Nu-Enamel Company, Chicago, Ill. Filed Jan. 16, 1958.

WATER-CHEK

For Paint.
First use in August 1957.

SN 51,280. Minwax Company, Inc., New York, N. Y. Filed May 8, 1958.

BLEND-FIL

For Preparations for Concealing Holes, Imperfections, and Blemishes in Wood and Similar Materials.
First use May 5, 1958.

SN 61,542. M. A. Bruder & Sons, Incorporated, Philadelphia, Pa. Filed Oct. 29, 1958.



For Aerosol Spray Enamel.
First use June 3, 1958.

SN 61,597. Union Wallpaper and Paint Company, Inc., Washington, D. C. Filed Oct. 29, 1958.

UNILITE

For Paints, Enamels, and Enamel Undercoater.
First use in 1938.

Class 17—Tobacco Products

SN 45,701. Parodi Cigar Company of New York, Inc., Scranton, Pa. Filed Feb. 11, 1958.

PARODI

Owner of Reg. Nos. 113,423 and 567,281.
For Cigars.
First use 1915.

SN 46,565. Por Larranaga, Fabrica de Tabacos, S. A., Havana, Cuba. Filed Feb. 25, 1958.

CUATRO VEGAS

For Cigars.
First use Dec. 1, 1956; in commerce Mar. 6, 1957.

SN 55,723. Rembrandt Tobacco Corporation (Overseas) Limited, Stellenbosch, Union of South Africa. Filed July 21, 1958.

Peter
Stuyvesant



Owner of U. S. Reg. Nos. 609,422 and 667,539.
For Cigarettes.
First use Aug. 16, 1954; in commerce Apr. 6, 1956.

SN 56,270. Stephano Brothers, Philadelphia, Pa. Filed July 29, 1958.

TREND

For Cigars.
First use July 14, 1958.

SN 58,017. Douwe Egberts Koninklijke Tabakfabriek-Koffiebranderijen-Theehandel N. V., Joure, Netherlands. Filed Aug. 28, 1958.

PRESTIGE

Owner of Dutch Reg. No. 131,467, dated July 19, 1956.
For Pipe-Tobacco.

Class 18—Medicines and Pharmaceutical Preparations

SN 40,725. Herman C. Falk, d. b. a. The Falk Company, Wayzata, Minn. Filed Nov. 15, 1957.

falk's

For Pharmaceutical Preparation—Namely, a Camphorated Skin Cream for Treating Rough Skin, Sunburn, Cracked Lips, Insect Stings and Sore, Tired Feet.
First use July 1923.

SN 42,511. Medice Chemisch-Pharmaceutische Fabrik G. m. b. H., Iserlohn, Westphalia, Germany. Filed Dec. 16, 1957.

MEDICE

Owner of German Reg. No. 613,835, dated Nov. 13, 1951.
For Preparation for the Treatment of Liver-Diseases, Preparation for the Treatment of Acne, Local Anesthesia Composition, Preparation for Treatment of Kidney and Bladder Diseases.

SN 42,512. Medice Chemisch-Pharmaceutische Fabrik G. m. b. H., Iserlohn, Westphalia, Germany. Filed Dec. 16, 1957.

Medice

Owner of German Reg. No. 692,108, dated June 26, 1956.
For Preparations for the Treatment of Liver-Diseases, Preparation for the Treatment of Acne, Local Anesthesia Composition, Preparation for Treatment of Kidney and Bladder Diseases.

SN 42,687. American Home Products Corporation, New York, N. Y. Filed Dec. 19, 1957.

SYNTUSSIN

For Preparation for the Treatment of Respiratory Infections.
First use Nov. 22, 1957.

SN 42,791. United Co-Operatives, Inc., Alliance, Ohio. Filed Dec. 20, 1957.

UNICO

For Medical Preparations for Animals—Namely, Therapeutic Compounds for Treatment of Poultry and Livestock Diseases.
First use June 26, 1957.

SN 48,820. Rowa-Wagner K. G. Arzneimittelfabrik, Bensberg, near Koln, Germany. Filed Mar. 19, 1958.

ROWACHOL

Owner of German Reg. No. 693,250, dated July 28, 1956.
For Pharmaceutical Preparation for the Treatment of Hepatobiliary Diseases.

SN 53,354. Natcon Chemical Co. Incorporated, Bethpage, N. Y. Filed June 11, 1958.

DEX

For Antiseptic Wound Dressing, Massage Unguent and Skin Lubricant.
First use Apr. 18, 1958.

SN 56,022. Eli Lilly and Company, Indianapolis, Ind. Filed July 25, 1958.

LILLY

Owner of Reg. Nos. 61,924, 230,331, and others.
For Medicines and Pharmaceutical Preparations, Drugs, and Veterinary Preparations.
First use Feb. 1, 1895.

SN 56,826. Wilbur Royster Adams, d. b. a. Carolina Beach Drug Store, Carolina Beach, N. C. Filed Aug. 8, 1958. Sec. 2(f).

VITAMIN SPEED TAN

The word "Vitamin" is disclaimed apart from the mark.
For Medicinal Preparation for Promoting and Treating Sun Tan.
First use 1948.

Class 19—Vehicles

SN 45,850. The Bassick Company, Bridgeport, Conn. Filed Feb. 14, 1958. Sec. 2(f).

FLOATING HUB

Owner of Reg. No. 396,348.
For Wheel Mountings for Trailers, Service Trucks, and Other Vehicles.
First use on or about Jan. 15, 1940.

SN 46,463. Laber Spring & Tire Corporation, Oakland, Calif. Filed Feb. 24, 1958.

AIR-VAC

For Springs and Suspension Systems for Vehicles.
First use Feb. 10, 1958.

SN 47,371. General Motors Corporation, Detroit, Mich. Filed Mar. 10, 1958.

PARKWOOD

For Automobiles.
First use Feb. 10, 1958.

SN 49,559. Deere & Company (Delaware corporation), Moline, Ill., assignee of Deere & Company (Illinois corporation), Moline, Ill. Filed Apr. 14, 1958.

CHUCK WAGON

The word "Wagon" is disclaimed apart from the mark.
For Self-Unloading Wagons and Truck Bodies.
First use Aug. 28, 1957.

SN 52,945. Duracraft Boats, Inc., Monticello, Ark. Filed June 5, 1958.

DuraGlas

Owner of Reg. No. 579,472.
For Boats.
First use Apr. 14, 1958.

SN 56,273. Riverside Trailer Mfg. Co. Inc., Brownwood, Tex. Filed July 29, 1958.

Maverick

For House Trailers.
First use Mar. 10, 1958.

SN 37,471. Fuji Seimitsu Kogyo Kabushiki Kaisha, d. b. a. Fuji Precision Machinery Co., Ltd., Suginami-ku, Tokyo-to, Japan. Filed Aug. 19, 1958.

PRINCE

Owner of Japanese Reg. No. 525,095, dated Aug. 11, 1958.
For Automobiles, Motor Buses, Auto-Trucks, Delivery Trucks, Aeroplanes and Parts Thereof.

SN 58,175. H. B. Egan Manufacturing Company, Muskogee, Okla. Filed Sept. 2, 1958.

Cooolie

For Automobile Seat Cushions.
First use Sept. 4, 1957.

SN 58,233. John L. Overton, d. b. a. J. L. Overton, Seattle, Wash. Filed Sept. 2, 1958.

RECORDA-MIRROR

For Automobile Mirrors.
First use on or about Aug. 14, 1958.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 40,414. AMP Incorporated, Harrisburg, Pa. Filed Nov. 12, 1957.

AMPLITE-END

For Electrical Connectors.
First use Nov. 1, 1957.

SN 42,057. Radio Shack Corporation, Boston, Mass. Filed Dec. 9, 1957.

REALISTIC

Owner of Reg. No. 405,950.
For Radio Receiving Apparatus, Microphones, Switches, Cathode Follower Amplifiers, Radios and Tuners, Amplifiers, Loudspeakers, Hi-Fi Cabinets, Radio-Phonograph Systems (Consoles and Parts Thereof), Ham Receivers and Ham Transmitters.
First use Apr. 10, 1941.

SN 43,345. Scientific Electric Inc., Garfield, N. J. Filed Jan. 2, 1958.

SCIENTIFIC ELECTRIC

For Induction and Dielectric Heating Equipment, Electric Power Supply Units, and Spot Welders.
First use in July 1942 on induction and dielectric heating equipment.

SN 45,326. Edythe Kendall, Inc., New York, N. Y. Filed Feb. 5, 1958.

EVER-GLO LIGHT BULBS
UNCONDITIONALLY GUARANTEED FOR 5 YEARS!

Applicant disclaims the representation of the light bulb and all verbiage, except "Ever-Glo."
For Electric Light Bulbs.
First use Jan. 10, 1958.

SN 46,304. The Electromark Corp., Cleveland, Ohio. Filed Feb. 21, 1958.

electromark

For Electrical Apparatus for the Electrolytic Marking of Metallic Surfaces, Parts and Supplies Therefor, and Power Supply Units Therefor.
First use Oct. 31, 1955.

SN 47,686. Silvray Lighting, Inc., New York, N. Y. Filed Mar. 13, 1958.

LUMI-POST

For Outdoor Electric Lighting Units, Consisting of a Post Having a Lighting Bowl Mounted Thereon.
First use Mar. 7, 1958.

SN 47,687. Silvray Lighting, Inc., New York, N. Y. Filed Mar. 13, 1958.

LUMI-PEND

For Outdoor Electric Lighting Units, Consisting of a Post Having a Lighting Bowl Mounted Thereon.
First use Mar. 7, 1958.

SN 48,172. Francis C. R. Green, San Mateo, Calif. Filed Mar. 21, 1958.

EVER-LITE

For Fluorescent and Incandescent Electric Lights.
First use Jan. 25, 1958.

SN 49,565. Ferry Manufacturing Co., Inc., Philadelphia, Pa. Filed Apr. 14, 1958.

FERRY

For Electrical Parts—Namely, Sockets, Switches, Cords, Plug Fuses, Pull Chains, and Bulbs.
First use February 1946.

SN 50,270. Johnsen Design Service, Hanover, N. J. Filed Apr. 28, 1958.

jettron

Owner of Reg. No. 667,966.
For Electronic Components—Namely, Sockets for Micro-Miniature Ceramic Tubes, Test Sockets, Input Connectors and HV Cable Assemblies for C-R Tubes.
First use Jan. 21, 1957.

SN 51,980. Cornell-Dubilier Electric Corporation, South Plainfield, N. J. Filed May 20, 1958.

SOLITAN

For Electrical Capacitors.
First use Mar. 25, 1958.

SN 57,395. Motorlight Incorporated, Kansas City, Mo. Filed Aug. 18, 1958.

ALTERNAC

For Alternating Current Generators for Vehicles.
First use July 3, 1958.

Class 22—Games, Toys, and Sporting Goods

SN 36,602. Loblaw, Inc., Buffalo, N. Y. Filed Sept. 3, 1957.

FAMILY FAIR

For Baseballs, Dig and Build Toys, China Piggy Banks, and Boards, Playing Markers, and Dice for Playing Bingo, Word and Similar Type Games.
First use June 27, 1957.

SN 43,055. Harmon G. Stanton, Arlington Heights, Ill. Filed Dec. 26, 1957.

KUIT

For Game Apparatus—Namely, a Stick, a Game Piece, and a Target.
First use Sept. 9, 1957.

SN 45,767. United States Rubber Company, New York, N. Y. Filed Feb. 12, 1958.

U. S. ROYAL SENIORS

Owner of Reg. Nos. 149,273 and 149,533.
For Golf Balls.
First use Feb. 11, 1957.

SN 48,213. Hillman W. Taylor, Chicago, Ill. Filed Mar. 21, 1958.

CAST-HOPPER

For Artificial Fishing Lure.
First use Feb. 4, 1958.

SN 53,955. Sawyer's Inc., d. b. a. Tru-Vue Company, Portland, Oreg. Filed June 20, 1958.

QUALITOY

For Vehicle Pull Toys.
First use Mar. 3, 1958.

SN 54,464. Charles R. Dailey, d. b. a. Decoy Mfg., Co., Brantford, Ontario, Canada. Filed June 27, 1958.

"DIZZY DECOY"

Applicant disclaims any exclusive right to the word "Decoy" apart from the mark.
For Artificial Fish Lures.
First use Sept. 27, 1957.

SN 54,912. Varney, Incorporated, Miami, Fla. Filed July 7, 1958.

LI'L RASKAL

For Toy Train Sets.
First use June 4, 1958.

SN 55,464. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed July 17, 1958.

STREN

For Fishing Line and Leader.
First use July 10, 1958.

SN 55,574. Colt Ranch, Incorporated, Mendota, Calif. Filed July 18, 1958.

FLEX-RITE

For Fishing Rods.
First use June 24, 1958.

SN 56,078. Bacon & Edwards Tackle Division, Incorporated, Shreveport, La. Filed July 28, 1958.

Ridge Runner

For Artificial Fish Lures.
First use Mar. 13, 1958.

SN 56,116. James T. Fukuhara, d. b. a. Columbine Import Co., Englewood, Colo. Filed July 28, 1958.



For Swivels for Use With Fishing Tackles.
First use Apr. 18, 1958.

SN 56,546. The Enterprise Manufacturing Company, Akron, Ohio. Filed Aug. 4, 1958.

PFLUEGER MARS

Owner of Reg. Nos. 71,940 and 663,746.
For Spinning Reels.
First use July 24, 1958.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

SN 40,032. Curtis Automotive Devices, Inc., Bedford, Ind. Filed Nov. 4, 1957.

DYNA-JET

For Pulse Jet Engines.
First use in or about December 1946.

SN 41,073. Bonewitz Chemicals, Inc., Burlington, Iowa. Filed Nov. 21, 1957.

VAC-SPRAY

For Vacuum Spraying Systems for Cleaning Dairy Equipment.
First use Aug. 23, 1954.

SN 42,470. Gestetner Limited, London, England. Filed Dec. 16, 1957.

GESTELITH

Owner of British Reg. No. 768,783, dated Mar. 21, 1957.
For Duplicating Apparatus and Duplicating Machines, All for Office Use, and Parts and Fittings for These Goods.

SN 43,313. Ionic Electrostatic Corporation, Garfield, N. J. Filed Jan. 2, 1958.

IONIC

Owner of Reg. No. 584,600.
For Sprayers for Atomizing and Spraying Paint and Similar Liquids.
First use Sept. 4, 1952.

SN 44,430. Edsbyns Industri Aktiebolag, Edsbyn, Sweden. Filed Jan. 22, 1958.

TYPHOON

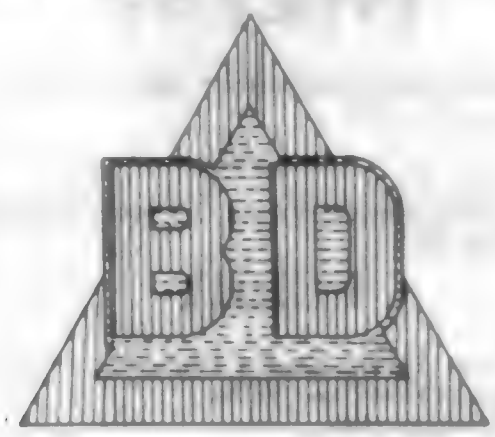
Owner of Swedish Reg. No. 78,667, dated Aug. 5, 1955.
For Motor Saws.

SN 44,640. The National Supply Company (Ohio corporation), Pittsburgh, Pa., assignee of The National Supply Company (Pennsylvania corporation), Pittsburgh, Pa. Filed Jan. 24, 1958.

NATIONAL

For Well Drilling Equipment.
First use at least as early as Sept. 7, 1939.

SN 44,797. Berkeley-Davis, Incorporated, Danville, Ill. Filed Jan. 28, 1958.



The drawing is lined for silver and red, but no claim is made to these colors.
For Machinery, Tools and Parts Thereof—Namely, Grinders, Jigs, and Fixtures, Standard and Special Arc Welding Positioning Equipment, Special Automatic High Production Welding Machinery, Automatic Transfer Units, Hydraulic Presses, and Coil Feeding and Splicing Machinery.
First use in or about February 1956.

SN 45,254. Hub Tool Manufacturing & Machine Company, Reading, Pa. Filed Feb. 4, 1958.



For Tools, Dies, Jigs, Fixtures, and Special Machines.
First use Sept. 25, 1945.

SN 45,522. Bissell Carpet Sweeper Company, Grand Rapids, Mich. Filed Feb. 10, 1958.

Capri

For Carpet Sweepers.
First use Dec. 23, 1957.

SN 45,683. Imperial Knife Associated Companies, Inc., Providence, R. I. Filed Feb. 11, 1958.

SILVERY MOON

For Stainless Steel Flatware—Namely, Knives, Forks, and Spoons of All Kinds.
First use Jan. 31, 1958.

SN 48,918. Jacques M. Hymans, d. b. a. Blackalloy Company of America, New York, N. Y. Filed Apr. 2, 1958.

BLACKALLOY

For Metal Cutting Tools.
First use Nov. 24, 1941.

SN 51,621. Deff-Norton Company, Pittsburgh, Pa. Filed May 14, 1958.

QUIK-LIFT

For Electric Hoists.
First use June 2, 1930.

SN 52,031. J. S. Ballantine, d. b. a. Ballantine Industries, Absecon, N. J. Filed May 21, 1958.

BALLANTINE bi INDUSTRIES

For Industrial Machinery Such as Wood Planers, Marine and Industrial Gasoline and Diesel Engines, Clutches and Engine Transmissions, Water and Oil Pumps, Air Compressors and Associated Parts.
First use on or about Jan. 1, 1932.

SN 54,103. Rund Manufacturing Company, Kalamazoo, Mich. Filed June 23, 1958.

SANI-FAX

Owner of Reg. No. 624,060.
For Dishwashing System Consisting Essentially of a Combination Faucet and Dish Cleaner Unit, a Dish Dryer and Accessories and Parts Thereof.
First use Apr. 17, 1958.

SN 54,849. Flambeau Plastics Corporation, Baraboo, Wis. Filed July 7, 1958.

PAN CARE

For Scrapers for Household Utensils.
First use Apr. 16, 1958.

SN 55,950. World Wide, Inc., Minneapolis, Minn. Filed July 24, 1958.



The colors on the drawing represent red, black, and yellow.
For Lawn Mowers.
First use Mar. 1, 1958.

SN 56,103. Economy Auto Stores, Inc., Atlanta, Ga. Filed July 28, 1958.



Owner of Reg. Nos. 395,756 and 396,142.
For Fuel Pumps, Carburetors, and Mufflers.
First use Sept. 16, 1957.

SN 56,627. Clyde A. Davies, d. b. a. Factory Direct Buyers Cooperative, Salt Lake City, Utah. Filed Aug. 5, 1958.

ABC *Lifetime*

For Sewing Machines.
First use Apr. 28, 1958.

SN 56,710. Herbert Harris, d. b. a. Tickiton Co., New York, N. Y. Filed Aug. 6, 1958.

TICKITON

For Stapling Devices.
First use July 8, 1958.

SN 56,864. Midas, Inc., Chicago, Ill. Filed Aug. 8, 1958. Owner of Reg. Nos. 620,322, 657,604, and others.

MIGHTY

For Mufflers for Internal Combustion Engines and Parts Thereof—Namely, Tail Pipes, Exhaust Pipes, and Muffler Clamps.
First use June 12, 1958.

SN 56,952. Flavor Bar, Inc., New York, N. Y. Filed Aug. 11, 1958.

FLAVOR-BAR

For Coin Operated Syrup Vending Machines.
First use Aug. 4, 1958.

SN 57,062. Exchange Parts Company of Fort Worth, Fort Worth, Tex. Filed Aug. 12, 1958.

EPCO

For Automobile Parts—Namely, Clutch Plates, Pressure Assemblies, Carburetors, Fuel Pumps, and Water Pumps.
First use Jan. 2, 1949.

SN 57,063. Exchange Parts Company of Fort Worth, Fort Worth, Tex. Filed Aug. 12, 1958.

EPCO

For Automobile Parts—Namely, Clutch Plates, Pressure Assemblies, Carburetors, Fuel Pumps, and Water Pumps.
First use Jan. 1, 1949.

SN 57,273. R. Hoe & Co., Inc., New York, N. Y. Filed Aug. 15, 1958.

BLUE SHOULDERS

For Saw Bits.
First use Oct. 16, 1957.

SN 60,131. Dwight A. Garrett, d. b. a. Garrett Implement Company, Shamrock, Wash. Filed Oct. 6, 1958.

TREE FARMER

For Tractors.
First use on or about Feb. 15, 1958.

SN 60,746. Cadwallader W. Kelsey, Troy, N. Y. Filed Oct. 16, 1958.

FILEALL

The drawing is lined for red.
For Two-Piece Abrasive Files.
First use Sept. 2, 1958.

SN 61,440. Robison Textile Company, West New York, N. J. Filed Oct. 27, 1958.

"CY"

For Controlled Yardage Bobbins.
First use Feb. 1, 1958.

SN 61,553. Dodge Manufacturing Corporation, Mishawaka, Ind. Filed Oct. 29, 1958.

DynaV

Owner of Reg. No. 281,207.
For V-Belt Industrial Machinery Drives Comprised of Belting and Driving and Driven Sheaves, and Parts Therefor.
First use on or about Oct. 15, 1958.

SN 61,708. Reinold Hagen, Hangelar Ueber Siegburg, Germany. Filed Oct. 31, 1958.

Kautex

For Machines, Apparatus, and Appurtenances for Forming Articles From Plastics, Especially Machines, Apparatus, and Appurtenances for the Manufacture of Bottles, Containers, Tubes, Ampules, Toys, and Hollow Bodies of Any Shape and Serving Any Purpose, Component and Spare Parts Thereof.
First use in June 1950; in commerce in the fall of 1956.

SN 61,726. F. H. Maloney Company, Houston, Tex. Filed Oct. 31, 1958.

F. H. MALONEY

The mark contains the initials "F. H." and the word "Maloney," being respectively the first initials and surname of a living individual whose written consent to the use thereof in this manner has been obtained, an executed copy of which accompanies this application.

For Pipeline Centering Cradles, Tapping Machines, Thermometer Wells, Valve Plates, and Discs.
First use Jan. 1, 1940.

SN 61,748. Tramco Industries, Inc., New York, N. Y. Filed Oct. 31, 1958.

TRAMCO

For Automatic Transmission Parts Separately, and in Kits.
First use Mar. 1, 1952.

SN 61,830. A. Y. McDonald Manufacturing Company, Dubuque, Iowa. Filed Nov. 3, 1958.

ADAPTO-JET

For Pumps.
First use in April 1955.

Class 24—Laundry Appliances and Machines

SN 54,871. David Lehrman, d. b. a. The Ironees Company, Philadelphia, Pa. Filed July 7, 1958.

KANGAROO POUCH

For Ironing Board Cover With Pad.
First use June 26, 1958.

SN 55,133. John B. Delander, d. b. a. Torette Cloth Specialties Co., St. Paul, Minn. Filed July 11, 1958.

STRAP

For Ironing Board Covers.
First use Feb. 26, 1958.

Class 25—Locks and Safes

SN 46,039. August Winkhaus, Muenster, Westphalia, Germany. Filed Feb. 17, 1958.

TOK

Owner of German Reg. No. 707,861, dated Oct. 30, 1957.
For Locks, Especially Padlocks and Cylinder-Locks.

Class 26—Measuring and Scientific Appliances

SN 24,001. Polaroid Corporation, Cambridge, Mass. Filed Feb. 7, 1957.

COPYMAKER

For Photographic Accessory Comprising a Stand With an Illuminated Platform for Use as a Camera Holder in Photographing Papers and Documents.
First use on or about Oct. 1, 1951.

SN 29,365. Albert Hauser, d. b. a. "Mesako" Albert Hauser, Oberursel (Taunus), Germany. Filed May 2, 1957.

MESAKO HAUSER

Owner of German Reg. No. 472,430, dated Jan. 18, 1935.
For Weighing and Control Apparatus, Instruments and Devices, and Measuring Instruments.

SN 42,278. A. W. Faber-Castell Pencil Co., Inc., Newark, N. J. Filed Dec. 12, 1957.

BIPLEX

Owner of Reg. No. 301,698.

For Slide Rules, Drawing and Drafting Instruments—Namely, Card Scales for Geometer Readings, T-Squares and Triangles, Competing Rules, and Compasses.

First use June 12, 1957.

SN 44,748. Pacific Scientific Company, San Francisco, Calif. Filed Jan. 27, 1958.

SAF-T-MATIC

For Restraint Systems and Harness Reels Used as Safety Devices in Moving Vehicles for Retaining a Person in His Seat.

First use Sept. 2, 1957.

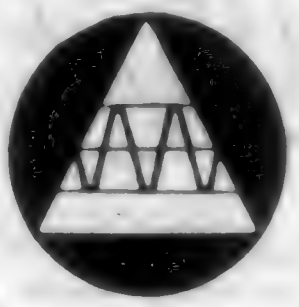
SN 44,861. American Machine & Foundry Company, New York, N. Y. Filed Jan. 29, 1958.



For Missile Testing and Recording Equipment Consisting of a Strip Chart Recorder.

First use at least as early as May 6, 1957.

SN 47,966. Northrop Aircraft, Inc., Beverly Hills, Calif. Filed Mar. 18, 1958.



For Electronic Products Comprising: Missile Guidance Systems, Aircraft Flight Control Systems, Testing Systems and Supporting Equipment of the Electronic Type, and Parts Thereof and Therefor.

First use Dec. 19, 1957.

SN 49,636. Visumatic Timer Company, Cincinnati, Ohio. Filed Apr. 14, 1958.

Visumatic Timer

No claim is made to the word "Timer" apart from the mark.

For Electronically Operated Board and Device Used To Time Horse Races and To Flash Such Information to the Spectators.

First use July 14, 1948.

SN 49,846. Harvey-Wells Electronics, Inc., Southbridge, Mass. Filed Apr. 17, 1958.

DATA BLOC

For Building Digital Equipment for Testing the Digital Logic Necessary in the Performance of a Digital Computer.

First use Apr. 4, 1958.

SN 49,847. Harvey-Wells Electronics, Inc., Southbridge, Mass. Filed Apr. 17, 1958.

DATA-PAC

For Building Digital Equipment Consisting of Digital Logic Units for Prototype and Finished Digital Data Handling Systems.

First use Apr. 4, 1958.

SN 52,150. The Partlow Corporation, New Hartford, N. Y. Filed May 22, 1958.



For Temperature, Humidity, and Time Measuring, Indicating, Recording and Control Instruments.

First use Dec. 12, 1930.

SN 52,740. Living Lens, Inc., Boston, Mass. Filed June 2, 1958.

living lens

Applicant disclaims the word "Lens" apart from the mark as shown.

For Contact Lens.

First use Apr. 22, 1958.

SN 53,804. Kwik-Arc, Inc., Maple Heights, Ohio. Filed June 18, 1958.

MELTIME

For Electric Time Recorders To Be Used for Recording Elapsed Time During the Flow of Electric Current Having a Voltage Within a Determinable Range.

First use Feb. 14, 1952.

SN 56,429. The Univis Lens Company, Dayton, Ohio. Filed July 31, 1958.

ULCO

For Ophthalmic Lenses, Spectacle Frames and Mountings, and Eyeglasses.

First use June 19, 1958.

SN 56,909. American Optical Company, Southbridge, Mass. Filed Aug. 11, 1958.

WELD-COOL

For Welding Helmets.

First use in March 1957.

SN 57,058. The Cooper-Bessemer Corporation, Mount Vernon, Ohio. Filed Aug. 12, 1958.

EN-TRONIC

For Pneumatic and Hydraulic Devices Combined in Systems for the Automatic Sequential Control of Internal Combustion Engines, Combustion Gas Turbines, Steam Engines, Expansion Engines, Reciprocating and Centrifugal Compressors.
First use Sept. 26, 1954.

Class 27—Horological Instruments

SN 42,420. Alfred Glarden, d. b. a. Glarden Importing Company, New York, N. Y. Filed Nov. 27, 1957.

JUSTRITE

Owner of Reg. No. 356,303.
For Watches and Parts Thereof.
First use Mar. 1, 1937.

Class 28—Jewelry and Precious-Metal Ware

SN 34,496. Artel Jewelry Mfg. Co., Inc., Providence, R. I. Filed July 29, 1957.

ARTEL

For Finger Rings, Pins, Earrings, Necklaces, Tie Clips, Bracelets, and Cuff Links.
First use Jan. 1, 1931.

Class 29—Brooms, Brushes, and Dusters

SN 42,809. American-Marietta Company (O'Cedar Division), Chicago, Ill. Filed Dec. 23, 1957.

A-M

For Mops and Refill Heads Therefor, Brooms, Whisk Brooms, and Brushes.
First use in July 1952.

SN 44,678. American-Marietta Company (O'Cedar Division), Chicago, Ill. Filed Jan. 27, 1958.

O cedar

Owner of Reg. Nos. 87,162, 656,811, and 656,812.
For Brooms.
First use on or about Aug. 1, 1957.

SN 49,380. Nu-Way Products Mfg. Co., Cleveland, Ohio. Filed Apr. 9, 1958.

TWIST-O-MATIC

For Hand Manipulated Automatic Liquid Wax Applicators for Floors.
First use July 1, 1957.

SN 56,358. Simoniz Company, Chicago, Ill. Filed July 30, 1958.

SIMONIZ

Owner of Reg. No. 628,491.
For Synthetic Sponges.
First use June 13, 1958.

Class 31—Filters and Refrigerators

SN 44,842. Safety Industries, Inc., New Haven, Conn. Filed Jan. 28, 1958.



For Refrigerating, Air Conditioning, and Water Cooling Apparatus, and Controls and Components Therefor.
First use June 10, 1957.

SN 61,408. Kwik-Kold of America, Inc., Las Vegas, Nev. Filed Oct. 27, 1958.



Owner of Reg. No. 661,650.
For Plastic Cooling Packages Having an Inner Compartment Containing Water and an Outer Bag Originally Isolated From the Water-Containing Bag Containing a Dry Chemical, the Water-Containing Bag Being Rupturable by Manual Pressure so as to Effect Mixing of the Water With the Dry Chemical To Produce an Exothermic Reaction.
First use May 30, 1958.

SN 61,697. The Cuno Engineering Corporation, Meriden, Conn. Filed Oct. 31, 1958.

MICRO-SCREEN

For Filter Assemblies and Cartridges Therefor for Filtering and Purifying Fluids.
First use Oct. 29, 1958; Oct. 22, 1957, in another display.

Class 32—Furniture and Upholstery

SN 59,066. Turner Mfg. Co., Chicago, Ill. Filed Sept. 17, 1958.

TURNERTILE

For Tables, Wall Mirrors, Curio Cabinets, and Planters.
First use Mar. 1, 1958.

SN 59,078. Turner Mfg. Co., Chicago, Ill. Filed Sept. 17, 1958.

FIESTA MOSAICS

For Tables, Wall Mirrors, Curio Cabinets, and Planters.
First use Jan. 6, 1958.

SN 63,145. Sanford M. Zimet, d. b. a. Zimet Company, Brooklyn, N. Y. Filed Nov. 24, 1958.

ZIMETS

The drawing is lined for shading only.
For Bedsprings and Mattresses.
First use July 29, 1958.

SN 63,375. F. W. Woolworth Co., New York, N. Y. Filed Nov. 28, 1958.

RELAX-O-MATIC

For Upholstered Reclining Chairs.
First use on or about Oct. 15, 1958.

SN 63,609. Berman Steel Inc., New York, N. Y. Filed Dec. 3, 1958.

Lazi-Ann
DREAMBED

For Folding Chairs, Cots, Leisure Beach Chairs.
First use June 1, 1958.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 43,394. O'Keefe & Merritt Company, Los Angeles, Calif. Filed Jan. 3, 1958.

STARLINE

For Gas Ranges.
First use on or about January 1958.

SN 47,127. Morrison Steel Products, Inc., Buffalo, N. Y. Filed Mar. 5, 1958.

PACKAGED COMFORT HEAT • PACKAGED HEATING SYSTEMS • P.C.H.

The words "Packaged Comfort Heat" and "Packaged Heating Systems" are disclaimed apart from the mark as shown.
For Heating Systems.
First use July 18, 1956.

SN 50,638. Levey Distributing Company, d. b. a. General Appliance Company, Omaha, Nebr. Filed Apr. 29, 1958.

GENERALAIRE

For Fans, Air Conditioners, Barbecue Braziers, or the Like.
First use on or about Mar. 29, 1958.

SN 54,617. Heil-Quaker Corporation, Nashville, Tenn. Filed July 1, 1958.

HEIL

Owner of Reg. No. 374,522.
For Oil and Gas Fired Furnaces and Boilers; Oil and Gas Burners for Domestic Heating Appliances; and Domestic Air Conditioning Apparatuses.
First use in 1931.

SN 54,886. N. V. Koninklijke Kamper Emaillefabrieken Voorheen H. Berk & Zoon, Kampen, Netherlands. Filed July 7, 1958.

SAF-E-FIRE

Owner of Dutch Reg. No. 130,674, dated Apr. 23, 1958.
For Kerosene Burning Heating and Lighting Appliances.

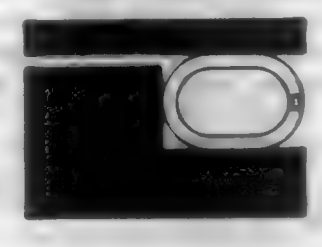
Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 45,401. Minnesota Rubber Company, Minneapolis, Minn. Filed Feb. 6, 1958.

KAPSEAL

For Sealing Rings.
First use Dec. 6, 1957.

SN 45,635. United Aircraft Products, Inc., Dayton, Ohio. Filed Feb. 10, 1958.



No claim is made to the representation of the goods apart from the mark as shown and used.
For Hollow Rings Serving as Gaskets.
First use in July 1954.

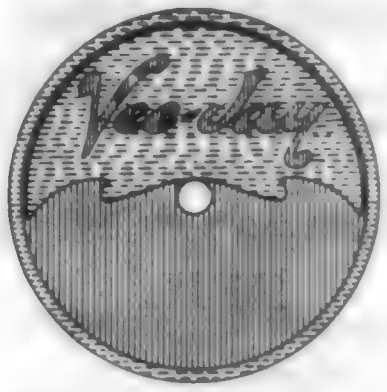
Class 36—Musical Instruments and Supplies

SN 11,705. Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed July 6, 1956.

AGA

Owner of Swedish Reg. Nos. 28,880 and 43,632, dated Aug. 26, 1924, and June 11, 1934.
For Dictating Machines and Phonographs.

SN 18,208. Vee-Jay Records, Inc., Chicago, Ill. Filed Oct. 25, 1956.



The drawing is lined to indicate the colors silver and maroon.

For Mechanically Grooved Phonograph Records and Needles, Albums and Envelopes Therefor.

First use June 1, 1953, on mechanically grooved phonograph records.

SN 39,262. The Nortronics Company, Inc., Minneapolis, Minn. Filed Oct. 21, 1957.

NORTRONICS

For Sound Reproducing and Recording Apparatus, Parts Thereof and Accessories Thereto—Namely, Magnetic Recording Heads, Tape Recording and Playback Instruments and Magnetic Pickup Head Test Equipment.

First use on or about Nov. 1, 1954.

SN 43,197. Nippon Gakki Seizo Kabushiki Kaisha, Hamamatsu City, Shizuoka Prefecture, Japan. Filed Dec. 30, 1957.

YAMAHA

Owner of Japanese Reg. Nos. 85,594 and 85,597, both dated May 16, 1917, and 203,151, dated Nov. 19, 1928.

For Pianos, Reed and Pipe Organs, Electronic Organs, Accordions, Saxophones, Clarinets, Bugles, Trumpets, Cornets, Trombones, French Horns, Oboes, Flutes, Piccolos, Tubas, Violins, Violas, Harps, Cellos, Guitars, Ukuleles, Mandolins, Banjos, Drums, Cymbals, Triangles, Harmonicas, Xylophones, Metronomes, and All Parts and Accessories Therefor.

SN 44,611. Envoy Recording Company Limited, London, England. Filed Jan. 24, 1958.

ENVOY

Owner of British Reg. No. 762,472, dated Feb. 14, 1957.

For Gramophone Grooved Records.

SN 47,446. Societe Anonyme: Editions et Instruments Paul Beuscher, Paris, France. Filed Mar. 10, 1958.

CLAVIETTA

Owner of French Reg. No. 464,512, dated Apr. 26, 1957 (Seine); Natl. Inst. No. 89,377.

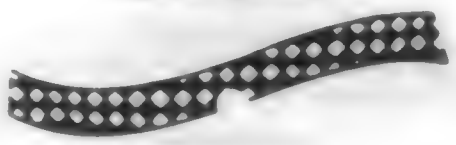
For Chromatic Musical Instruments of the Reed Type—Namely, Chromatic Mouth Harmonicon of the Reed Type and Chromatic Mouth Organ of the Reed Type, All Controlled by a Hand Operated Key-Board.

SN 49,869. Panama Artists, Inc., Coral Gables, Fla. Filed Apr. 17, 1958.



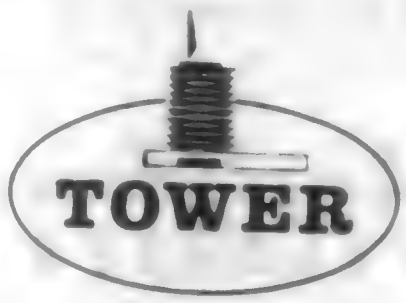
For Grooved Phonograph Records.
First use November 1956.

SN 53,208. Swan Record Corporation, Philadelphia, Pa. Filed June 9, 1958.



For Grooved Phonograph Records.
First use in November 1957.

SN 56,623. Capitol Records, Inc., Los Angeles, Calif. Filed Aug. 5, 1958.



For Phonograph Records.
First use June 13, 1958.

SN 56,712. Herald Music Corp., New York, N. Y. Filed Aug. 6, 1958.



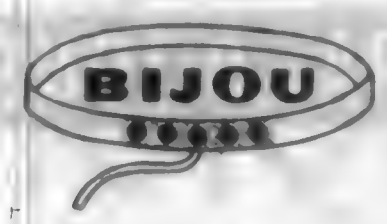
For Grooved Phonograph Records.
First use in or about June 1956.

SN 56,714. Herald Music Corp., New York, N. Y. Filed Aug. 6, 1958.



For Grooved Phonograph Records.
First use in or about June 1952.

SN 56,913. Bijou Records, Inc., New York, N. Y. Filed Aug. 11, 1958.



For Phonograph Records.
First use Aug. 4, 1958.

SN 57,495. Melodigrand Corporation, New York, N. Y. Filed Aug. 19, 1958.

Melodigrand

For Pianos.
First use Sept. 3, 1947.

Class 37—Paper and Stationery

SN 34,255. Robert R. Pitcairn, d. b. a. Helicord Development Company, Huntingdon Valley, Pa. Filed July 28, 1957.

Microbrush

For Chalk Board Erasers.
First use in January 1957.

SN 38,807. Crown Zellerbach Corporation, San Francisco, Calif. Filed Oct. 14, 1957.



For Waxed Paper Sandwich Bags.
First use Nov. 25, 1955.

SN 40,516. United Paper Company, Tampa, Fla. Filed Nov. 12, 1957.

KIP

For Paper Napkins.
First use April 1950.

SN 43,403. Southwest Tablet Manufacturing Company, Dallas, Tex. Filed Jan. 3, 1958.



Owner of Reg. No. 201,337.
For Typewriter and Writing Paper and Tablets, Correspondence and Visiting Cards, Mailing Envelopes and Score Pads.
First use in 1937.

SN 44,964. David Kahn, Inc., North Bergen, N. J. Filed Jan. 30, 1958.

VISCOUNT

For Writing Pens and Pencils.
First use Jan. 20, 1958.

SN 50,493. Koh-I-Noor, Pencil Factory L. & C. Hardtmuth, National Corporation, Ceske Budejovice, Czechoslovakia. Filed Apr. 28, 1958.



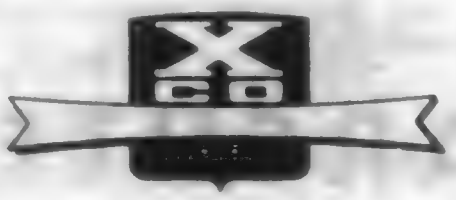
The expression "Toison-d'Or" when translated means "Golden Fleece." Owner of Czechoslovakian Reg. No. 150,873, dated Jan. 15, 1952.
For Pencils, Pencil Leads, Chalk, Mechanical Pencil Holders, Extensions, Protectors, and Erasers.

SN 51,203. Ludlow Papers, Inc., Needham Heights, Mass. Filed May 7, 1958.

ELEET

For Gummed Paper.
First use Apr. 11, 1958.

SN 53,237. Consolidated Cover Co., San Francisco, Calif. Filed June 10, 1958.



For Paper Toilet Seat Covers.
First use Apr. 10, 1958.

SN 54,767. Kalamazoo Vegetable Parchment Company, d. b. a. The KVP Company, Kalamazoo, Mich. Filed July 3, 1958.

K
50

For Polyethylene Coated Wrapping Paper.
First use June 4, 1958.

SN 56,190. W. A. Sheaffer Pen Company, Fort Madison, Iowa. Filed July 28, 1958.

SKRIPRITER

Owner of Reg. Nos. 142,760 and 537,955.
For Ball Point Pens and Writing Fluid Cartridges Therefor.
First use Jan. 24, 1958.

SN 56,233. American Escraft, Inc., Rockville Centre, N. Y. Filed July 29, 1958.

SAVODRAFT

For Financial Forms.
First use June 1, 1958.

SN 56,524. Byron Weston Company, Dalton, Mass. Filed Aug. 4, 1958.

Rase-Rite

For Writing Paper.
First use Jan. 10, 1958.

SN 56,723. Inspirational Art Services, Glendale, Calif. Filed Aug. 6, 1958.

REALIFE

For Church Bulletin Covers.
First use Feb. 10, 1958.

SN 56,955. Friedberg-Grunauer Co., Inc., San Francisco, Calif. Filed Aug. 11, 1958.

DEB'S

For Ring Binder for Loose-Leaf Paper.
First use on or about Nov. 1, 1955.

SN 57,170. The Sorg Paper Company, Middletown, Ohio. Filed Aug. 13, 1958.

PARCHTEX

For Simulated Parchment Paper.
First use Mar. 19, 1958.

SN 57,301. United Crayon Co., Inc., Brooklyn, N. Y. Filed Aug. 15, 1958.

CRAY-O-TONE

For Crayons.
First use Aug. 7, 1958.

SN 57,613. General Binding Corporation, Northbrook, Ill. Filed Aug. 21, 1958.

SURE-LOX

For Plastic Binding Elements.
First use in April 1958.

SN 60,114. Crown Zellerbach Corporation, San Francisco, Calif. Filed Oct. 6, 1958.

Linensoft

Owner of Reg. Nos. 409,202 and 565,825.
For Paper Towels, Paper Napkins, and Toilet Tissue.
First use in June 1935 on paper towels.

Class 38 — Prints and Publications

SN 37,917. Sutton Publishing Company, Inc., White Plains, N. Y. Filed Sept. 26, 1957.

ELECTRONIC EQUIPMENT ENGINEERING

Owner of Reg. Nos. 596,793 and 431,304.
For Periodicals Published From Time to Time.
First use Sept. 23, 1957; in 1943 as to "Electronic Equipment."

SN 46,312. Great Moments of the Dance, Inc., Palm Beach, Fla. Filed Feb. 21, 1958.

GREAT MOMENTS OF THE DANCE

For Motion Picture Films With Accompanying Sound Track.
First use Nov. 9, 1957.

SN 49,002. March of Toys, Inc., New York, N. Y. Filed Apr. 3, 1958.



For Toy Catalogs Issued Annually.
First use in 1951.

SN 51,302. Super Market Publishing Co., Inc., New York, N. Y. Filed May 8, 1958.



The lining on the drawing is for shading only.
For Monthly Publication—Namely, a Trade Journal; and Also Weekly News Digest Bulletins of Interest to Those Concerned With or Engaged in Super Market Merchandising.
First use Mar. 13, 1958.

SN 51,847. Gus Becker, Beaumont, Tex. Filed May 19, 1958.

ADvantage

For Advertising Placards.
First use Apr. 25, 1958.

SN 52,637. Rose-Martin Company, Tulsa, Okla. Filed May 26, 1958.

systemation

For Newsletter on System Trends and Techniques Issued Semi-Monthly.
First use Apr. 1, 1958.

SN 53,476. Center for Information on America, Incorporated, Washington, Conn. Filed June 13, 1958.

VITAL ISSUES

For Periodically Issued Pamphlets.
First use Feb. 1, 1955.

SN 53,674. Unicam Instruments Limited, Cambridge, England. Filed June 16, 1958.

SPECTROVISION

Owner of British Reg. No. B.736,341, dated Nov. 19, 1954.
For Printed Periodicals.

SN 54,052. Harris A. Maas, Forest Hills, N. Y. Filed June 23, 1958.

A PHOTOLAUGHIC BY HARRIS MAAS

For Photographs.
First use June 10, 1958.

SN 56,126. Nelson M. Griggs, d. b. a. The Science League, Boyds, Md. Filed July 28, 1958.

AMATEUR SCIENTIST

For Magazine.
First use June 16, 1958.

SN 57,374. The Hopp Press, Inc., New York, N. Y. Filed Aug. 18, 1958.

MULTIPLE UNIT

Owner of Reg. No. 575,300.
For Printed Price Cards and Printed Price Tags.
First use on or about Mar. 16, 1949.

SN 57,826. Nebraska Tractor & Equipment Company, Omaha, Nebr. Filed Aug. 25, 1958.

PAYDIRT

For Periodical Publication.
First use Jan. 31, 1958.

SN 57,859. American Water Works Association, Inc., New York, N. Y. Filed Aug. 25, 1958.

WILLING WATER

Owner of Reg. Nos. 540,035 and 559,989.
For Cartoon Strip Representing an Animated Drop of Water Illustrating Various Activities of Interest to Persons Engaged in the Design, Construction, Operation and Management of Water Works and the Production, Use and Conservation of Water.
First use Aug. 14, 1958.

Class 39 — Clothing

SN 7,072. Clearasite Headwear, Inc., New York, N. Y. Filed Apr. 25, 1956.

THERMO-FOAM

For Men's, Women's, and Boys' Caps and Sport Caps.
First use Mar. 2, 1956.

SN 31,649. Fit-Rite Pants Company, Inc., New York, N. Y. Filed June 10, 1957.

DOE-GOLD

Owner of Reg. No. 628,303.
For Men's and Boys' Trousers and Slacks.
First use May 20, 1955.

SN 33,573. Chester H. Roth Co., Inc., d. b. a. Mojud Hosiery Division of Chester H. Roth Co., Inc., New York, N. Y. Filed July 11, 1957.

ANGEL CUFFS

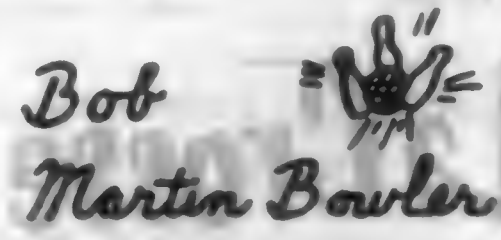
For Men's, Women's, and Children's Hosiery.
First use June 25, 1957.

SN 42,992. Société Anonyme du Gant Jouquet, Millau, Aveyron, France. Filed Dec. 24, 1957.

"MONGREL GLACE"

"Glace" is disclaimed apart from the mark as shown.
Owner of French Reg. No. 686, dated July 2, 1957 (Millau, Aveyron); Natl. Inst. No. 93,068.
For Leather Gloves.

SN 43,652. The Bob Martin Bowling Shirt Co., Detroit, Mich. Filed Jan. 6, 1958.



For Men's and Women's Bowling Shirts.
First use June 26, 1957.

SN 44,129. Superba Cravats, Inc., Rochester, N. Y. Filed Jan. 16, 1958.

TIE-NEL

Owner of Reg. No. 398,590.
For Neckwear.
First use Dec. 12, 1957.

SN 44,310. Radcliffe Shoes, Inc., d. b. a. Promette, Brockton, Mass. Filed Jan. 20, 1958.

VIVE PROMETTE

Owner of Reg. No. 550,941.
For Shoes.
First use May 4, 1957.

SN 44,462. The B. F. Goodrich Company, Akron, Ohio. Filed Jan. 22, 1958.

SUB ZERO

For Boots and Shoes Made Wholly or Partly of Rubber or Plastic.
First use Aug. 17, 1955.

SN 46,914. Dato Hosiery Co. Inc., Philadelphia, Pa. Filed Mar. 3, 1958.

DREEM-TOTS

For Knit Bedroom Slippers.
First use Feb. 1, 1958.

SN 46,915. Dato Hosiery Co. Inc., Philadelphia, Pa. Filed Mar. 3, 1958.

DREEM-TOES

For Knit Bedroom Slippers.
First use Feb. 1, 1958.

SN 47,454. Tam O'Shanter, Inc., Manchester, N. H. Filed Mar. 10, 1958.

HAWTHORNE

For Infants', Children's, Boys', and Girls' Knit Polo Shirts, Socks, Cardigans, Pajamas, Woven Shorts, Longies, Cabana Sets, Swimwear.
First use Jan. 3, 1958.

SN 48,599. A. Zerkowitz & Co., Inc., New York, N. Y. Filed Mar. 27, 1958.

AIZEE

For Canvas Shoes.
First use Mar. 1, 1957.

SN 49,977. Rockford Textile Mills, Inc., McMinnville, Tenn. Filed Apr. 18, 1958.

La Crosse

For Woolen and Cotton Socks.
First use on or about June 24, 1950.

SN 50,450. Charleston Hosiery Mills, Cleveland, Tenn. Filed Apr. 28, 1958.

MEDOS

The drawing is lined for green but no claim is made to color.
For Socks.
First use Apr. 11, 1958.

SN 50,592. Max H. and D. M. Kessler Company, Atlanta, Ga. Filed Apr. 24, 1958.

Sir Sands

For Men's, Ladies', Boys', Girls', and Juvenile Underwear, Outerwear and Sportswear—Namely, T-Shirts, Polo Shirts, Sport Shirts, Play Togs (Shorts and Longies), Sweaters, Jackets, Sweat Shirts, Cardigans, and Swim Trunks.
First use Mar. 13, 1958.

SN 52,777. Sterling Hosiery Co., Chicago, Ill. Filed June 2, 1958.

Jingle Sox by Sterling

The term "Sox" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 362,206 and 398,284.
For Men's, Ladies', and Children's Hosiery.
First use on or about Jan. 1, 1939.

SN 54,299. D'Antonio Shoe Corporation, New York, N. Y. Filed June 26, 1958.

CEVANNE

For Shoes.
First use Aug. 14, 1956.

SN 54,322. The Middlebade Company, Inc., Philadelphia, Pa. Filed June 26, 1958.

SKELETRIM

For Men's and Young Men's Coats, Vests, and Trousers.
First use Aug. 19, 1957.

SN 54,467. B. Rosenberg & Sons, New Orleans, La. Filed June 24, 1958.

Pillow Peds

For Shoes.
First use Jan. 5, 1956.

SN 54,527. Heth-James Shoe, Inc., Milwaukee, Wis. Filed June 30, 1958.

GAME WARDEN

For Men's and Boys' Boots and Shoes of Leather, Rubber or Plastic Materials or Combinations Thereof.
First use during May 1953.

SN 54,594. Schwartz & Benjamin, Inc., New York, N. Y. Filed July 7, 1958.

Rinaldi

Owner of Reg. No. 532,598.
For Women's Shoes.
First use Jan. 5, 1949.

SN 55,046. Arnold Shoe Products Company, Inc., North Boston, Mass. Filed July 10, 1958.

STRETCH-EMS

For Men's, Women's, and Children's Slipper Socks.
First use Jan. 23, 1958.

SN 55,615. United States Rubber Company, New York, N. Y. Filed July 18, 1958.

WELD-O-SEALD

For Waterproof Garments.
First use June 23, 1958.

SN 55,743. Syndicate Clothing Company, Cedar Rapids, Iowa. Filed July 21, 1958.

LONGTIMER

Owner of Reg. No. 363,721.
For Men's and Boys' Suits.
First use Aug. 9, 1938.

SN 56,080. G. H. Bass & Co., Wilton, Maine. Filed July 28, 1958.

QUAIL HUNTER

For Moccasin Boots.
First use Jan. 1, 1935.

SN 56,388. Colonial Frocks, Incorporated, Aurora, Ill. Filed July 31, 1958.

Junior Time

For Ladies' Dresses, Skirts, and Blouses.
First use May 19, 1958.

SN 57,205. Haims & Ettinger Inc., New York, N. Y. Filed Aug. 14, 1958.

Debra Dean
Debutites

Owner of Reg. Nos. 618,699 and 658,823.
For Leotards in the Nature of Tights.
First use Aug. 1, 1958.

SN 57,248. Cooper's, Incorporated, Kenosha, Wis. Filed Aug. 15, 1958.

Le Petit Jockey

Owner of Reg. Nos. 391,692, 509,864, and others.
For Men's and Boys' Underwear.
First use Aug. 3, 1958.

SN 57,449. Ralph Winett & Co., Inc., Chicago, Ill. Filed Aug. 18, 1958.

PLEATLOCK

For Men's and Boys' Trousers and Slacks.
First use Aug. 4, 1958.

SN 57,476. The H. W. Gossard Co., Chicago, Ill. Filed Aug. 19, 1958.

MANEUVER

For Combination Garment Comprising a Combination Corset and Brassiere.
First use May 7, 1958.

SN 57,597. Joseph Brody & Bros., Inc., Chicago, Ill. Filed Aug. 21, 1958.

WEATHER WHIPPER

For Women's Storm Coats.
First use July 22, 1958.

SN 57,630. Samuel Miller & Company, Chicago, Ill. Filed Aug. 21, 1958.

DO'GIES

Owner of Reg. No. 586,702.
For Trousers for Men, Women, and Children.
First use on or about Oct. 1, 1952.

SN 57,838. Louis Rait, Inc., New York, N. Y. Filed Aug. 25, 1958.

Flapper Skant

For Women's and Misses' Skirts, Blouses, Separates, and Dresses.
First use July 1, 1958.

Class 40—Fancy Goods, Furnishings, and Notions

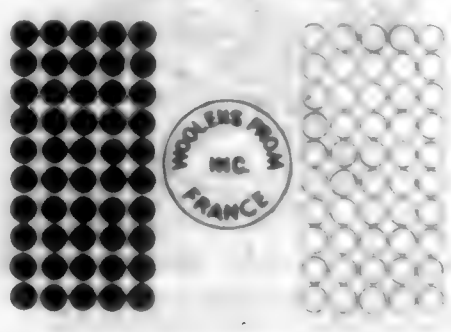
SN 54,732. Emile Bernat & Sons Company, Jamaica Plain, Mass. Filed July 3, 1958.

BERNAT QUICKPOINT

For Kits for Making Needlepoint.
First use June 16, 1958.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 33,019. Woolens From France, Inc., New York, N. Y. Filed July 1, 1957.



No claim of right of exclusive use is made to the words "Woolens from France" as applied to woolens from France.
For Piece Goods Made Wholly of Wool or in Substantial Part of Wool.
First use December 1955.

SN 36,421. Boreva Sportswear Company, Chicago, Ill. Filed Aug. 29, 1957.

SKORT

For Fabrics for Making Sportswear, Including Skirts.
First use Aug. 14, 1957.

SN 44,212. Societa Rhodiatoce S. p. A., Milan, Italy. Filed Jan. 17, 1958.

LANTERY

Priority is claimed under Sec. 44(d) on Italian provisional application No. 1,660, filed Aug. 1, 1957, Reg. No. 133,956, dated Dec. 7, 1957.
For Fabrics Made of High-Polymers of Polymethylene Terephthalate Mixed With Wool.

SN 48,081. Burlington Industries, Inc., Greensboro, N. C. Filed Mar. 20, 1958.

DATRIQUE

For Textile Fabrics in the Piece Suitable for Lingerie, Blouses, Slips, Nightgowns, Bed Jackets, and Other Like Items of Women's Wearing Apparel.
First use July 29, 1952.

SN 48,410. Fabrex Corporation, New York, N. Y. Filed Mar. 25, 1958.

COUPE DE VILLE

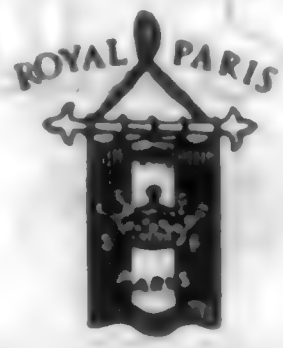
For Piece Goods of Cotton, Rayon or Rayon Combined With Cotton, Wool, Silk, Nylon and Other Fibers.
First use Nov. 28, 1955.

SN 49,740. Isaac Carr & Company Limited, New Mill, near Huddersfield, England. Filed Apr. 16, 1958.

CELESTIA

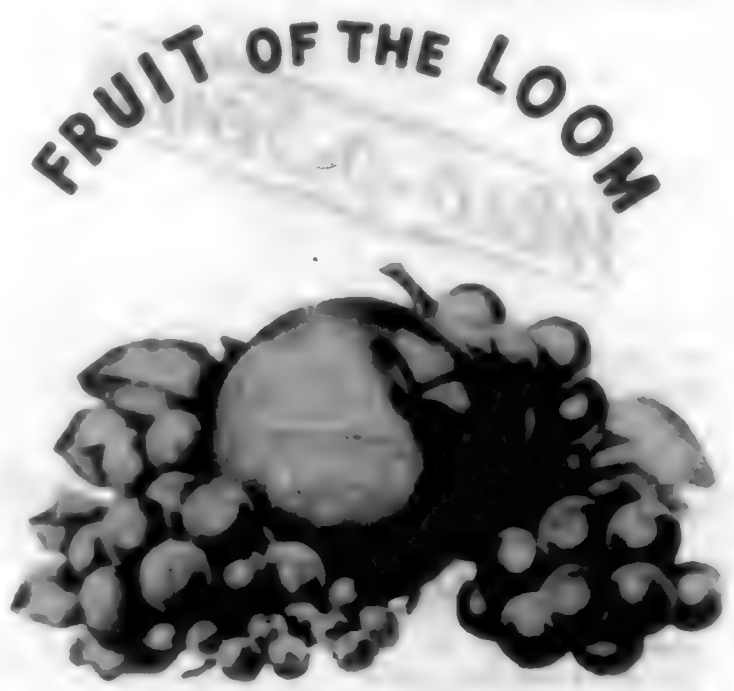
Owner of British Reg. No. 544,047, dated Aug. 25, 1933.
For Men's Woolen Overcoating Cloths in the Piece.

SN 52,289. Etablissements Steiner Freres Societe Anonyme, Paris, France. Filed May 26, 1958.



No claim is made to the word "Paris" apart from the mark as shown. Owner of French Reg. No. 470,954, dated Mar. 13, 1958 (Paris); Natl. Inst. No. 104,488.
For Canvas in the Piece Used for Embroidering.

SN 53,774. Fruit of the Loom, Inc., Providence, R. I. Filed July 23, 1958.



Owner of Reg. Nos. 124,730 and 175,314.
For Textile Piece Goods of Natural, Synthetic and Blended Yarns; Sheets and Pillow Cases; Quilted Pads; Mattress Protectors and Pads; Blanket Covers, Spreads; Quilts and Covers Therefor; Curtains and Draperies; Textile Rugs; Bath Mats; Seat Covers; Ironing Board Covers; Utensil Covers for Kitchen Use; Shoe Shine Cloths.
First use in 1877.

SN 55,923. Imperial Chemical Industries Limited, London, England. Filed July 24, 1958.

TERON

Owner of British Reg. No. 648,401, dated June 3, 1946.
For Knitted, Netted, and Textile Fabrics for Clothing, Upholstery, Wall-Hangings, Bedding, Table Covers, Towelling and Other Household Uses; Parachute and Balloon Cloth.

SN 58,087. F. & H. Southern Agency Limited, London, England. Filed Aug. 29, 1958.

VENTOPLAS

Owner of British Reg. No. 739,226, dated Feb. 11, 1955.
For Piece Goods of Plastics for Use in Making Articles Commonly Made of Fibrous Textile Materials.

SN 58,156. Bemis Bro. Bag Company, St. Louis, Mo. Filed Sept. 2, 1958.

PROTECT-O-NET

For Open Mesh Fabric.
First use Aug. 6, 1958.

SN 60,457. Ludlow Manufacturing & Sales Co., Needham Heights, Mass. Filed Nov. 1, 1957.

JUTE-BAK

For Woven Jute Fabric.
First use in December 1951.

Class 43—Thread and Yarn

SN 32,833. Miss Mary Maxim Ltd., Dauphin, Manitoba, Canada. Filed June 28, 1957.

MARY MAXIM
CLOUDSPUN

Owner of U. S. Reg. Nos. 648,304, 649,251, and 649,383.
For Spun Knitting Yarns.
First use Sept. 1, 1955; in commerce Sept. 1, 1955.

SN 51,237. United States Rubber Company, New York, N. Y. Filed May 7, 1958.

ROYALENE

For Yarns.
First use Mar. 26, 1958.

Class 44—Dental, Medical, and Surgical Appliances

SN 11,810. Svenska Aktiebolaget Gasaccumulator, Stockholm-Lidingo, Sweden. Filed July 9, 1956.

AGA

Owner of Swedish Reg. Nos. 19,247, dated July 18, 1916; 28,880, dated Aug. 28, 1924; and 43,632, dated June 11, 1934.

For Apparatus for the Administration of Anesthetic Gases; Respiratory Apparatus for the Administration of Oxygen, Including Incubators for Humans, Oxygen Hoods and Tents, Respiratory Apparatus for Producing and Maintaining a Breathing Action in Patients, and Oxygen Apparatus To Be Worn or Carried by the User for Fire-Fighters, Life-Saving Corps, Frogmen, and Other Divers; Prosthetic Appliances and Parts for the Same.

SN 39,172. Modern Aids, Inc., New York, N. Y., assignee of Allegheny Pharmacal Corp., New York, N. Y. Filed Oct. 21, 1957.

VIBRA-SLIM

For Vibrating Device for Reducing Purposes.
First use Sept. 14, 1957.

SN 48,539. James Holland, d. b. a. Fas-Trac, Los Angeles, Calif. Filed Jan. 7, 1958.

FAS-TRAC

For Traction Strip Bandages.
First use Apr. 24, 1957.

SN 48,845. Johnson & Johnson, New Brunswick, N. J. Filed Apr. 1, 1958.

JOHNSON & JOHNSON

Owner of Reg. Nos. 568,161, 599,058, and 635,813.
For Dental Floss Dispensers.
First use in 1925.

SN 54,416. John L. Marco, d. b. a. Marco & Son, New York, N. Y. Filed June 27, 1958.

FERTILO-PAKS

For Vaginal Tampons.
First use January 1957.

SN 54,626. Medical Fabrics Co., Inc., Paterson, N. J. Filed July 1, 1958.

FLEX-MASTER

For Bandages.
First use Sept. 9, 1955.

SN 55,077. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed July 10, 1958.

SCOTCH

Owner of Reg. No. 551,728.
For Adhesive Discs for Attaching and Sealing Surgical Appliances to the Skin.
First use Oct. 3, 1951.

Class 45—Soft Drinks and Carbonated Waters

SN 43,382. The Frostie Company, Baltimore, Md. Filed Jan. 3, 1958.

Mr. Frostie

Owner of Reg. Nos. 639,770, 662,052, and others.
For Root Beer.
First use during June 1948.

SN 53,611. The Grapico Company of America, Birmingham, Ala. Filed June 16, 1958.

ORANGICO

For Flavoring for Compounding Carbonated, Non-Alcoholic, Non-Cereal, Maltless Beverages Sold as Soft Drinks.
First use in September 1954.

Class 46 — Foods and Ingredients of Foods

SN 608,013. Nebraska Consolidated Mills Company, Omaha, Nebr. Filed Dec. 22, 1950.

Mother's Best

For Wheat Flour.
First use June 12, 1911.

SN 691,331. James T. Spinos, d. b. a. James T. Spinos Company, Somerville, Mass. Filed July 14, 1955.

TEMPTIZE

For Frozen, Prepared Beef, Pork, and Veal Products Sold as Steaks, Patties, and Cutlets.
First use Mar. 13, 1955.

SN 6,449. City Products Corporation, Chicago, Ill., by merger from Midwest Dairy Products Corporation, Chicago, Ill. Filed Apr. 16, 1956.

DARI-PRIDE

For Low Fat Mix Base for Use With Milk Products and Sugar To Make a Low Fat Soft Serve Mix.
First use Mar. 13, 1953.

SN 11,370. Henry & Henry, Inc., Buffalo, N. Y. Filed July 2, 1956.

FUDGICE

Owner of Reg. No. 575,716.
For Icing Base.
First use on or about Mar. 10, 1930.

SN 20,485. Jack's Cookie Company, Charlotte, N. C. Filed Dec. 5, 1956.

ROCK 'N ROLL

For Stageplanks (Coated Ginger Cakes).
First use Nov. 23, 1956.

SN 23,251. Refrigerated Dough Products Co., Inc., Jeffersonville, Ind. Filed Jan. 25, 1957.

DIXIE'S Pride

For Refrigerated Dough for Making Biscuits.
First use Dec. 11, 1956.

SN 25,132. Trugman-Nash, Inc., New York, N. Y. Filed Feb. 26, 1957.

SUPREEM CHEF

For Oleomargarine, Frozen and Canned Poultry.
First use Jan. 8, 1957.

SN 26,290. Martha White Mills, Inc., Nashville, Tenn. Filed Mar. 15, 1957.

MARTHA WHITE Hot Rize



Owner of Reg. Nos. 192,721, 634,918, and others.
For Bread.
First use Feb. 1, 1957.

SN 26,300. Schneithorst Catering Company, d. b. a. Schneithorst Catering Corp., Kirkwood, Mo. Filed Mar. 15, 1957.

BIG BEVO

For Sandwiches.
First use Mar. 16, 1956.

SN 28,687. Delicia, Inc., Bronx, N. Y. Filed Apr. 23, 1957.

COFFEE BREAK

For Cookies.
First use Apr. 2, 1956.

SN 29,500. Campbell Taggart Associated Bakeries, Inc., Dallas, Tex. Filed May 8, 1957.

Contour

For Bread.
First use Apr. 29, 1957.

SN 30,145. Louis Burk Company, Philadelphia, Pa. Filed May 16, 1957.

Burk's

Owner of Reg. No. 230,488.
For Cured Pork Roll, Composed of Boiled Hams and Shoulders.
First use Jan. 7, 1907.

SN 30,838. Sarah D's Sprout Co., Glendale, Calif. Filed May 27, 1957.

Sally's

For Alfalfa Sprouts.
First use May 1, 1954.

SN 31,366. Wilrick, Inc., Greenwich, Conn. Filed June 4, 1957.

WILRICK'S

Owner of Reg. No. 583,175.
For Canned Combination Fruit Juices and Concentrates for Food Purposes.
First use June 1953.

SN 31,553. Franzenburg Wolf Creek Smokehouse, Conrad, Iowa. Filed June 7, 1957.

Franzenburg
WOLF CREEK

For Prepared and Cooked Meats—Namely, Smoked Turkey, Bacon, Baked and Smoked Ham.
First use about February 1947.

SN 32,688. International Packers Limited, Chicago, Ill. Filed June 26, 1957.

INTPACK

For Fresh, Canned, Frozen, Cured, and Dried Beef, Mutton and Lamb, and Cured Casings, Dried Bones, Corned Beef, and Meat Extracts.
First use Dec. 4, 1956.

SN 32,771. Penick & Ford, Ltd., Incorporated, New York, N. Y. Filed June 27, 1957.

VEL-BRU

For Corn Adjunct for Use in Brewing Malt Beverages.
First use June 3, 1957.

SN 32,782. Spice Magic Corporation, Philadelphia, Pa. Filed June 27, 1957.

SPICE MAGIC

For Foods—Namely, Fruit Cake, Prepared Mustard, Charcoal Seasoning, Hickory Smoke Salt, Peppercorns, Shrimp Seasoning, Charcoal Tenderizer, Fried Chicken Seasoning, Salad Seasoning, Hamburger Seasoning, Smokey Garlic Seasoning, Spaghetti Sauce Seasoning, Roast Meat Seasoning, Sea Food Seasoning, Vegetable Seasoning, Black Pepper Seasoning, All Purpose Seasoning, Low Sodium Seasoning, Prepared Cole Slaw, Salad Dressing, Snack Dips.
First use Sept. 1, 1952.

SN 34,012. Rugard Kemperdick & Co., Pors, near Cologne, Rhine, Germany. Filed July 18, 1957.

RUGARDONUM

Owner of German Reg. No. 697,761, dated Nov. 29, 1956.
For Dietetic Foods Containing Vitamins and Albumin.

SN 34,080. Pinder Products Company, Chicago, Ill. Filed July 19, 1957.

PARK ROW

For Dates.
First use July 1938.

SN 35,199. Naamloze Maatschappij Levensmiddelenbedrijf Zwan—Société Anonyme les Produits Alimentaires Zwan, Schoten-near-Antwerp, Belgium. Filed Aug. 8, 1957.

ANTWERP TOWER

Owner of Belgian Reg. No. 16830/Antwerp, dated Mar. 23, 1957.
For Preserves of Meats, Vegetables, Fruits, and Shell Fish; Fresh, Salted, Smoked, and Canned Meats; Sausages; Meat Extracts; Fowl and Meat Pies; Canned and Frozen Dinners Consisting of Meats and Vegetables; Canned Soups; and Meat Sauces.

SN 35,664. Melvin D. Lovelace, Dinuba, Calif. Filed Aug. 16, 1957.

Lovelace

For Dressed Turkeys.
First use September 1951.

SN 37,711. H. C. Baxter & Bro., d. b. a. Baxter Bros. Co., Snowflake Canning Company, and Augusta Canning Company, Brunswick, Maine. Filed Aug. 15, 1957.

MORNING SUN

For Peas, Shelled Beans, Green Beans, Succotash, Potatoes, and Carrots, All Canned.
First use Oct. 8, 1929.

SN 37,744. Patio Foods, Inc., San Antonio, Tex. Filed Sept. 24, 1957.

PATIO

For Frozen and Canned Prepared Foods—Namely, Fried Beans, Beef Enchiladas With Chili Gravy, Tamales With

Chili Gravy, Barbecue Beef, Chili With Beans, Chili, Cocktail Tamales, Mexican Style Beans; Mexican Style Dinner Composed of Tamales and Gravy, Rice, Beans, Beef Enchilada and Chili; Italian Style Dinner Composed of Spaghetti, Meatballs in Sauce, and Pizza Pie; Beef Steak Dinner Composed of Breaded, Chopped Beef Steak, Corn, Peas and Potatoes; Barbecue Beef Dinner Composed of Barbecue Beef and Sauce, Corn, Beans, and Potatoes; Enchilada Dinner Composed of Enchiladas With Chili Gravy, Beans, and Tacos; Chicken Tamales; Tamales, Tortillas, Spaghetti, and Meatballs, Sliced Beef With Barbecue Sauce, and Tacos.

First use 1947.

SN 39,092. Redi-Foods, Inc., d. b. a. Redi Foods, Columbus, Ohio. Filed Oct. 17, 1957.

REDI-CHEF

Owner of Reg. Nos. 611,594 and 629,589.

For Foods—Specifically, Desserts Consisting of Gelatins, Puddings, and Pie Fillings, Soup Bases, Canned Tomatoes, Catsup, Tomato Puree, Canned Fruit Cocktails, Chili Sauce, Canned Mushrooms.

First use Sept. 1, 1955.

SN 39,793. Douwe Egberts Koninklijke Tabaksfabriek-Koffiebranderijen-Theehandel N. V., Joure, Netherlands. Filed Oct. 30, 1957.



Owner of Dutch Reg. No. 118,537, dated May 14, 1954.

For Coffee and Tea.

SN 40,765. Laurel State Fruit Growers Packing Association, Inc., Southington, Conn. Filed Nov. 15, 1957. COLLECTIVE MARK.

DEW CRISP

For Fresh Apples.

First use on or about Oct. 1, 1955.

SN 42,282. Fritzsche Brothers, Inc., New York, N. Y. Filed Dec. 12, 1957.

TRU-VAL

For Various Flavoring Oils for Food Purposes.

First use Nov. 19, 1957.

SN 42,432. J. C. Arthur, Jr., d. b. a. Arthur Farms, Glendale, Ariz. Filed Dec. 16, 1957.



For Fresh Yams.

First use July 17, 1957.

SN 43,904. Whitelawn Dairies, Inc., Brooklyn, N. Y. Filed Jan. 13, 1958.

MINI-CAL

For Ice Cream and Sherbet.

First use Dec. 20, 1957.

SN 44,003. The Creamette Company, Minneapolis, Minn. Filed Jan. 15, 1958.

EGGONETTES

Owner of Reg. Nos. 90,907, 603,367, and others.

For Alimentary Paste Products, Such as Egg Noodles.

First use July 10, 1952.

SN 44,139. Waimanalo Ko-Ko Co., Hilo, Territory of Hawaii. Filed S. R. Jan. 16, 1958. Am. P. R. Sept. 19, 1958.

HAWAIIAN CHEF

For French Dressing and Meat Tenderizer.

First use Nov. 1, 1955.

SN 45,277. Realemon-Puritan Co., Chicago, Ill. Filed Feb. 4, 1958.

ZEPHYR

Owner of Reg. No. 349,615.

For Maraschino Cherries, Olives, and Prune Juice.

First use in or about 1942.

SN 45,800. Green Giant Company, d. b. a. Cokato Canning Company, Le Sueur, Minn. Filed Feb. 13, 1958.

LITTLE
CROW

For Canned Vegetables.

First use Apr. 11, 1912.

SN 45,847. Anthony Barlotta, d. b. a. Colonial Macaroni Mfg. Co., New Orleans, La. Filed Feb. 14, 1958.



No claim is made to the words "Brand 100% Pure."

For Macaroni and Spaghetti.

First use October 1934.

SN 46,481. William Macdonald & Sons (Biscuits) Limited, Glasgow, Scotland. Filed Feb. 24, 1958.



KILTIE

For Chocolate Coated Biscuits.
First use August 1957; in commerce August 1957.

SN 47,039. Zanella Corporation, Chicago, Ill. Filed Mar. 3, 1958.

ZANELLA'S

For Corned Beef.
First use Feb. 17, 1958.

SN 47,243. Delmonico Foods, Inc., Louisville, Ky. Filed Mar. 7, 1958.

SPECIAL D

For Spaghetti.
First use Feb. 20, 1958.

SN 48,691. Arden Candies, Inc., Brooklyn, N. Y. Filed Apr. 2, 1958.

BABY FACE

For Candy.
First use 1946.

SN 48,958. D. E. Winebrenner Company, Inc., Hanover, Pa. Filed Apr. 2, 1958.

BN BREAKFAST NECTAR

No claim of exclusive right is made to "Nectar" as used on a canned blend of fruit juices. Owner of Reg. Nos. 355,887, 641,840, and 641,841.

For Canned Blend of Fruit Juices.
First use Feb. 25, 1958.

SN 49,494. J. T. Gibbons, Inc., New Orleans, La. Filed Apr. 11, 1958.

CARIBE

For Live Stock and Poultry Feeds.
First use August 1956.

SN 50,068. Samuel Klein, d. b. a. S. Klein, Sc. D., Newark, N. J. Filed Apr. 21, 1958.

FLAVORIST

For Chemical Preparation Used Primarily as a Processing and Preserving Agent for Edible Products.
First use Mar. 1, 1958.

SN 50,190. Matlow Bros., Ltd., d. b. a. Matlow's, New Mills, near Stockport, Derbyshire, England. Filed Apr. 22, 1958.

CLIMPIES

For Confectionery Products—Namely, Candies.
First use on or about Apr. 7, 1958; in commerce on or about Apr. 7, 1958.

SN 50,214. Berko Malted Milk Co., Inc., Brooklyn, N. Y. Filed Apr. 23, 1958.

VIGORTONE

For Chocolate Flavored Syrup.
First use 1934.

SN 50,963. Borneo Sumatra Trading Company of California, Inc., d. b. a. Borsumy Trading Company of California, Inc., San Francisco, Calif. Filed May 5, 1958.

PIMPINIA

For Canned Fruits and Dried Fruits, Canned Vegetables and Dried Vegetables.
First use Aug. 28, 1957.

SN 51,540. Sesa-Kraft, Inc., Paris, Tex., by change of name from American Sesame Products, Incorporated, Paris, Tex. Filed May 13, 1958.

SESATEEZ

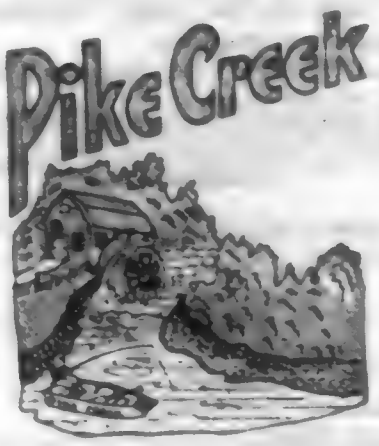
For Snack Food Containing Sesame Seed—Namely, Sesame Chips.
First use on or about Jan. 28, 1958.

SN 51,848. Anthony A. Bianco, Inc., Fresno, Calif. Filed May 19, 1958.

TARPEY VINEYARDS

The word "Vineyards" is disclaimed apart from its use in the mark as a whole.
For Fresh Grapes.
First use 1883.

SN 52,446. Wilbur A. Tillman, d. b. a. Pike Creek Milling Co., Adel, Ga. Filed May 27, 1958.



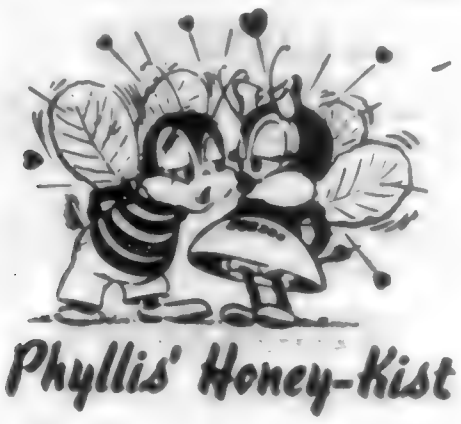
The drawing is lined for green, red, yellow, and blue.
For Corn Meal and Grits.
First use Oct. 15, 1956.

SN 53,091. Wilbur-Ellis Company, San Francisco, Calif. Filed June 6, 1958.

EMERALD SEA

For Canned Fish.
First use Jan. 15, 1948.

SN 53,333. Honey-Kist Fruits, Inc., Chicago, Ill. Filed June 11, 1958.



For Candied Fruits.
First use May 20, 1958.

SN 53,348. The Miami Margarine Company, Cincinnati, Ohio. Filed June 11, 1958.



Owner of Reg. Nos. 574,699 and 590,090.
For Margarine.
First use May 14, 1952.

SN 53,788. Farmers Cooperative Exchange, Inc., Raleigh, N. C. Filed June 18, 1958.



No claim is made to the words "Purchasing Marketing Cooperative" apart from the mark.
For Dairy Feed, Poultry Feed, Dog Feed, Stock Feed, Self-Rising Flour and Wheat Flour.
First use June 1934.

SN 53,839. Standard Brands Incorporated, New York, N. Y. Filed June 18, 1958.

TOP-O

Owner of Reg. No. 409,748.
For Oleomargarine.
First use May 20, 1942.

SN 53,931. E. F. Drew & Co., Inc., New York, N. Y. Filed June 20, 1958.

N R G

For Livestock, Dairy, and Poultry Feeds.
First use Sept. 28, 1955.

SN 54,584. Wesson Oil & Snowdrift Sales Company, New Orleans, La. Filed June 30, 1958.

Cristal

For Cottonseed Oil.
First use May 23, 1958.

SN 54,585. Wesson Oil & Snowdrift Sales Company, New Orleans, La. Filed June 30, 1958.

Crystal

For Cottonseed Oil.
First use May 23, 1958.

SN 54,990. Hillcrest Poultry, Inc., Lewiston, Maine. Filed July 9, 1958.

Country Cousin

For Frozen Poultry.
First use Nov. 1, 1957.

SN 55,388. Devonsheer Melba Corporation, West New York, N. J. Filed July 16, 1958.

Q'BITS

For Croutons.
First use Dec. 4, 1956.

SN 55,441. The Great Atlantic & Pacific Tea Company, New York, N. Y. Filed July 17, 1958.



Owner of Reg. Nos. 270,967 and 503,022.
For Instant Coffee.
First use June 24, 1958.

SN 55,536. Southeastern Foods, Inc., Brundidge, Ala. Filed July 17, 1958.

SMOOTHIE

For Peanut Butter.
First use Apr. 25, 1958.

Class 47 — Wines

SN 57,777. E. & J. Gallo Winery, Modesto, Calif. Filed Aug. 25, 1958.

ARAQUILA

For Wines.
First use July 22, 1958.

Class 48 — Malt Beverages and Liquors

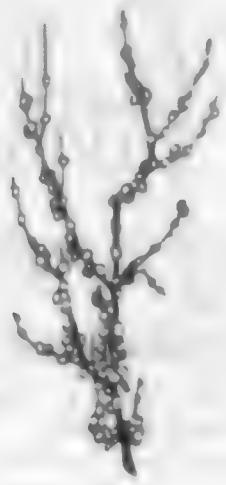
SN 57,480. Independent Milwaukee Brewery, Milwaukee, Wis. Filed Aug. 19, 1958.

EISEN STARK

A literal translation of the German words "Eisen Stark" is "iron strong."
For Beer.
First use July 20, 1958.

Class 49 — Distilled Alcoholic Liquors

SN 45,695. Millefiori Cucchi S. p. A., Milan, Italy. Filed Feb. 11, 1958.



Owner of Italian Reg. No. 139,619, dated Nov. 18, 1958.
For Liqueurs.

SN 54,672. James Burrough Limited, London, England. Filed July 2, 1958.

BEEFEATER

Owner of U. S. Reg. No. 308,053.
For Gin.
First use Nov. 11, 1909; in commerce Nov. 21, 1933.

SN 54,938. Joseph S. Finch and Company, New York, N. Y. Filed July 8, 1958.

HENRY WATTERSON

For Whiskey.
First use Dec. 14, 1923.

SN 55,114. James Burrough Limited, London, England. Filed July 11, 1958.



Owner of U. S. Reg. No. 308,053.
For Gin.
First use Nov. 11, 1909; in commerce Nov. 21, 1933.

SN 57,987. Van Munching Imports, Inc., New York, N. Y. Filed Aug. 27, 1958.

MAC AUSLAND'S

Owner of Reg. No. 608,509.
For Whiskey.
First use June 23, 1953.

Class 50 — Merchandise Not Otherwise Classified

SN 33,216. B. T. Crump Company, Inc., Richmond, Va. Filed July 5, 1957.

PLASTIK-PLY

For Advertising Signs.
First use Feb. 8, 1950.

SN 40,394. T & S Equipment Company, Albion, Mich. Filed Nov. 8, 1957.

DOCKLEVLER

For Automatic Dockboards.
First use Jan. 2, 1951.

SN 43,537. The General Tire & Rubber Company, Akron, Ohio. Filed Feb. 10, 1958.



Owner of Reg. Nos. 281,466, 126,600, and others.
For Plastic Reinforced Book Binding Material.
First use Jan. 6, 1958.

SN 45,730. The General Tire & Rubber Company, Akron, Ohio. Filed Feb. 12, 1958.

keratol

Owner of Reg. Nos. 281,466, 126,600, and others.
For Plastic Reinforced Book Binding Material.
First use Feb. 5, 1958.

SN 46,130. The General Tire & Rubber Company, Akron, Ohio. Filed Feb. 19, 1938.

keralith

Owner of Reg. Nos. 281,466, 126,600, and others.
For Plastic Reinforced Book Binding Material.
First use Feb. 5, 1958.

Class 51 — Cosmetics and Toilet Preparations

SN 10,548. Parfums Corday, Inc., also known as Corday, New York, N. Y. Filed June 19, 1956.

Trapèze

For Perfume, Eau de Parfum, and Eau de Cologne.
First use May 28, 1956.

SN 10,884. Houbigant, Inc., New York, N. Y. Filed June 25, 1956.

QUELQUES FLEURS
REFRESHENCE

Owner of Reg. No. 141,390.
For Cologne.
First use Oct. 21, 1955.

SN 29,831. Joseph E. Seagram & Sons, Inc., New York, N. Y. Filed May 10, 1957.

Fresh
READY ROLL-ON

No claim is made to the words "Ready Roll-On" apart from the mark as shown. Owner of Reg. Nos. 164,478, 621,438, and others.
For Deodorant and Nonperspirant.
First use Sept. 13, 1956; in 1930 as to "Fresh."

SN 32,032. Aloe Creme Laboratories, Inc., Fort Lauderdale, Fla. Filed June 17, 1957.

wind~swept

For Hand Lotion.
First use Nov. 23, 1956.

SN 36,422. John H. Breck, Inc., Springfield, Mass. Filed Aug. 29, 1957.

ENDURING

For Lotion Used in the Permanent Waving of Hair.
First use Mar. 10, 1957.

SN 40,041. Samuel Bonat & Bro. Inc., d. b. a. S. Bonat & Bro., West Paterson, N. J. Filed Nov. 4, 1957.

BONAT

flash

Owner of Reg. Nos. 505,768, 643,987, and others.
For Permanent Wave Lotion for Professional Use.
First use Aug. 13, 1957.

SN 40,683. Lobco, Inc., d. b. a. Alberto Culver Company, Chicago, Ill. Filed Nov. 14, 1957.

COMMAND

Owner of Reg. Nos. 374,871, 658,904, and others.
For Man's Hair Conditioning and Dressing Spray.
First use Sept. 16, 1957.

SN 43,900. Weco Products Company, Chicago, Ill. Filed Jan. 13, 1958.

INSTA-GRIP

For Adhesive Preparation for Holding Dentures in Place.
First use Nov. 26, 1957.

SN 45,890. The Andrew Jergens Company, Cincinnati, Ohio. Filed Feb. 14, 1958.

DREAM DAZE

Owner of Reg. Nos. 116,050, 659,138, and others.
For Liquid Foundation Make-Up.
First use Oct. 8, 1957.

SN 46,055. Lawrence Goldfaber, d. b. a. Lawrence Cosmetics, Chicago, Ill. Filed Feb. 18, 1958.

STRATAWAY

For Hair Preparations—Namely, Cold Wave Hair Straightening Preparations, Hair Shampoos, Hair Rinse Neutralizers.
First use Feb. 15, 1958.

SN 46,279. Bristol-Myers Company, New York, N. Y. Filed Feb. 21, 1958.

TOUCH'N BRUSH

For Dentifrice.
First use Jan. 20, 1958.

SN 46,806. Chesebrough-Pond's Inc., New York, N. Y. Filed Feb. 28, 1958.

ANGEL BLUSH

Owner of Reg. Nos. 209,287, 587,555, and 659,911.
For Cologne, Cold Cream, Hand Lotion, Lipstick, Rouge, Face Powder (Loose and Compressed), Facial Lotions and Liquids Used as a Foundation Base and Also Powder Substitutes, and Hair Tonic.
First use Apr. 2, 1956.

SN 54,179. The Princess Marcella Borghese, Inc., New York, N. Y. Filed June 24, 1958.

PRINCESS

For Nail Enamel.
First use Apr. 3, 1958.

Class 52—Detergents and Soaps

SN 566,770. Publicker Industries Inc., Philadelphia, Pa. Filed Oct. 9, 1948.

THERMO-FOAM

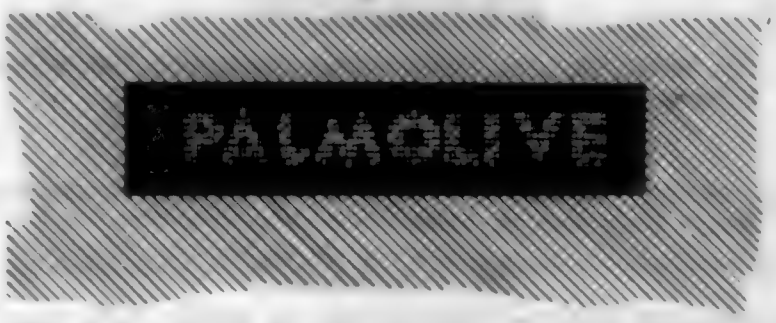
Owner of Reg. Nos. 219,698 and 300,026.
For Detergent Composition in Powder Form To Be Used in Aqueous Solution for Washing Automobiles and Similar Surfaces.
First use Sept. 15, 1948.

SN 677,121. Proxite Products, Inc., Brooklyn, N. Y. Filed Dec. 2, 1954.

BONNIE

Owner of Reg. No. 562,280.
For Cleaning Preparations for Metals Including Sterling, Silverplate, Costume Jewelry, and Articles of Copper, Gold, and Brass.
First use in April 1953.

SN 37,862. Colgate-Palmolive Company, New York, N. Y. Filed Oct. 3, 1957.



The lining outside the black panel represents a portion of the green background of the label wrapper, but no claim is made to said color. The lining within the black panel is for the color yellow. Owner of Reg. Nos. 113,591, 435,225, and others.
For Toilet Soap.
First use Oct. 30, 1956; on Jan. 1, 1900, as to "Palmolive."

SN 40,662. Curriculum Materials Corporation, Jackson, Miss. Filed Nov. 14, 1957.

MIRACLE

For Impregnated Wiping Cloths for Cleaning and Protecting Photographic and Sound Records.
First use Oct. 10, 1957.

SN 41,866. United States Aviex Company, Niles, Mich. Filed Dec. 5, 1957.

AVIEX

Owner of Reg. No. 360,760.
For Metal Cleaner, i. e., a Cleaning Composition for Metal Surfaces.
First use August 1943.

SN 43,480. The Pyramid Rubber Company, Ravenna, Ohio. Filed Jan. 6, 1958.

EVENFLO

For Detergent Nursing Bottle Cleansers.
First use on or about July 20, 1948.

SN 44,142. West Chemical Products, Inc., Long Island City, N. Y. Filed Jan. 16, 1958.

IDENE

For Liquid and Powdered Detergent Sanitizer.
First use Jan. 1, 1958.

SN 44,772. Texise Chemicals, Inc., Greenville, S. C. Filed Jan. 27, 1958.

LOVE

For Liquid Detergent for Dishwashing and Laundry Use.
First use Dec. 17, 1957.

SN 46,872. American Home Products Corporation, d. b. a. Boyle-Midway, New York, N. Y. Filed Mar. 3, 1958.

SANO-LAVA

In Spanish "Sano" means "healthy" and "Lava" means the third person of the verb "to wash."
For Cleaning Powder for Water-Closet Bowls and Automobile Radiators.
First use in 1913.

SN 47,233. Cleanite Products, Cornwells Heights, Pa. Filed Mar. 7, 1958.

CLEANITE

For Metal Cleaning Compositions Containing Detergents.
First use Dec. 6, 1955.

SN 48,123. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Mar. 20, 1958.

MAXAMP

For Solid Alkaline Cleanser Used in Liquid Form in the Electrolytic Cleaning of Metals.
First use Dec. 23, 1957.

SN 48,391. B. T. Babbitt, Inc., Albany, N. Y. Filed Mar. 25, 1958.

So·kleen

Owner of Reg. Nos. 410,418 and 508,421.
For Sanitizing Detergent.
First use Dec. 5, 1957.

SN 50,508. Ferdinand Mülhens, d. b. a. Eau de Cologne- & Parfümerie-Fabrik Glockengasse No. 4711 Gegenüber der Pferdepost von F. d. Mülhens, Cologne (Rhine), Germany. Filed Apr. 28, 1958.

TOSCARA

Owner of German Reg. No. 710,821, dated Feb. 7, 1958; and U. S. Reg. No. 239,526.
For Soap.

SN 51,551. The Chemithon Corporation, Seattle, Wash. Filed May 13, 1958.

CHEMITHON

For Household and Industrial Detergents and Soaps and Pads Impregnated With Household and Industrial Detergents and Pads.
First use Aug. 2, 1954.

SN 51,663. The Pure Oil Company, Chicago, Ill. Filed May 14, 1958.

PURE-SURE FAST FLUSH

No claim is made to the words "Fast Flush" apart from the entire mark as shown. Owner of Reg. Nos. 414,071, 387,492, and others.
For Liquid Composition for Cleaning the Cooling System of Internal Combustion Engines.
First use Mar. 27, 1958.

SN 52,054. Ferdinand Mülhens, d. b. a. Eau de Cologne- & Parfümerie-Fabrik Glockengasse No. 4711, Gegenüber der Pferdepost von Ferd. Mülhens, Cologne (Rhine), Germany. Filed May 21, 1958.

WHITE ROSE

For Soap—Namely, Glycerine Toilet Soap.
First use Nov. 21, 1882; in commerce Nov. 21, 1882.

SN 52,475. Collinite Chemical Company, Utica, N. Y. Filed May 28, 1958.

COLLINITE

For Cleaning Compositions.
First use June 30, 1939.

SERVICE MARKS

Class 100—Miscellaneous

SN 30,060. Gus Bittner, Sewell, N. J. Filed May 15, 1957.

YOUR TRASH IS OUR CASH

For Garbage Collection and Garbage Treatment Service.
First use August 1937.

SN 46,648. Shayne Bros., Inc., Washington, D. C. Filed Feb. 26, 1958.



For Trash Removal Service.
First use Nov. 30, 1956.

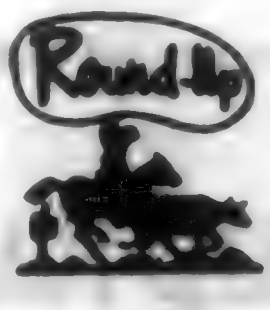
SN 55,387. Design and Production, Inc., Alexandria, Va. Filed July 16, 1958.



For Consulting and Advisory Services to Government and Private Enterprise in Connection With the Planning and Production of Educational and Training Programs.
First use August 1956.

Class 101—Advertising and Business

SN 49,904. Central Texas Enterprises, Incorporated, Hamilton, Tex. Filed Apr. 18, 1958.



For Promoting the Sale of Goods and Services of Others by Means of Trading Stamps Which Are Redeemable in Premiums.
First use Feb. 18, 1958.

SN 53,437. The Standard Oil Company, Cleveland, Ohio. Filed June 12, 1958.

SOHIO·MATIC

For Customer Record-Keeping Service Facilitating Applicant's Accounting and Billing Service, Rendered to Filling Station Operators Which Sell Its Products and to Customers Which Buy Its Products.
First use February 1955.

Class 102—Insurance and Financial

SN 46,388. Worcester Mutual Fire Insurance Company, Worcester, Mass. Filed Feb. 21, 1958.



"MISTER WORCESTER"

Applicant specifically disclaims the word "Protection" save as used in conjunction with the mark as claimed.

For Underwriting Insurance.

First use May 31, 1957.

Class 103—Construction and Repair

SN 40,443. Elco Products Company, Chicago, Ill. Filed Nov. 12, 1957.

PROMO-LIFE

For Cleaning and Coating of Commercial Baking Pans of Others.

First use July 1, 1957.

SN 43,667. Continental Boiler and Sheet Iron Works, St. Louis, Mo. Filed Jan. 9, 1958.



Owner of Reg. Nos. 616,429 and 633,036.

For Designing, Engineering, and Fabricating of Industrial Equipment in Accordance With the Designs and Specifications of Others.

First use December 1953; 1903 as to "Continental."

Class 104—Communication

SN 45,576. KXOK Broadcasting, Inc., St. Louis, Mo. Filed Feb. 10, 1958.

EARS AHEAD

For Radio Broadcasting Services.

First use Jan. 21, 1958.

Class 105—Transportation and Storage

SN 3,110. Nationwide Trailer Rental System, Inc., Wichita, Kans. Filed Feb. 21, 1956.

NATIONWIDE

For Providing, to Independent Operators of Trailer Rental Stations Affiliated With Applicant, Promotional and Advertising Material and Information Such as Directories To Facilitate Transfer of Trailers Among Affiliated Stations.

First use Dec. 10, 1950.

Class 106—Material Treatment

SN 37,423. Etched Products Corporation, Long Island City, N. Y. Filed Sept. 18, 1957.

Etchrite

For Fabricating Etched Metals Panels or the Like, to the Order of Customers.

First use Aug. 1, 1956.

Class 107—Education and Entertainment

SN 46,214. Episcopal Radio-TV Foundation, Inc., Atlanta, Ga. Filed Feb. 20, 1958.

ANOTHER CHANCE

For Title of a Radio and Television Program.

First use Oct. 1, 1954.

CERTIFICATION MARKS

Class B—Services

SN 44,175. Grade Association, Inc., New York, N. Y. Filed Jan. 17, 1958.

GRADE

The mark certifies that the services rendered by the establishments which display the mark meet standards established by applicant as to sanitary conditions, cuisine, service, and courtesy.

For Restaurant Services.

First use Jan. 6, 1958.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

674,361. DIADEM. Mutation Mink Breeders Association. SN 693,386. COLLECTIVE MARK. Pub. 12–9–58. Filed 8–19–55.

674,362. HHH. Triple H Ranch. SN 26,898. Pub. 12–9–58. Filed 3–25–57.

674,363. ENSOLEX. United States Rubber Company. SN 37,695. Pub. 12–9–58. Filed 9–23–57.

674,364. PLYMCORD. Plymouth Cordage Company. SN 39,565. Pub. 12–9–58. Filed 10–25–57.

674,365. HI-LO ETC. AND DESIGN. High Splint Coal Company. SN 43,613. Pub. 12–9–58. Filed 1–8–58.

674,366. CELLFLO. American Colloid Company. SN 47,625. Pub. 12–9–58. Filed 3–13–58.

674,367. SILBEAU. Armour and Company. SN 50,669. Pub. 12–9–58. Filed 4–30–58.

Class 2—Receptacles

674,368. SNAPTOP. Diamond Gardner Corporation, assignee of The Gardner Board and Carton Co. SN 17,633. Pub. 12–9–58. Filed 10–17–56.

674,369. DIPEE-CHIP. Pic-Ko Products Company. SN 38,848. Pub. 12–9–58. Filed 10–14–57.

674,370. K-W AND DESIGN. Atlantic Stamping Company. SN 41,348. Pub. 12–9–58. Filed 11–26–57.

674,371. QUIK-LOX. Rheem Manufacturing Company. SN 44,841. Pub. 12–9–58. Filed 1–28–58.

674,372. EASYHOLD. Georgia R. Liebendorfer, d. b. a. Gee Lee Products. SN 47,266. Pub. 12–9–58. Filed 4–9–58.

674,373. REPRESENTATION OF 3 CONCENTRIC C's. Continental Can Company, Inc. SN 49,487. Pub. 12–9–58. Filed 4–11–58.

674,374. TRAVEL-BEST. Leo D. Collins, d. b. a. Collins Paper Company. SN 49,667. Pub. 12–9–58. Filed 4–14–58.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

674,375. AMERICAN GIRL. Hartmann Luggage Company. SN 44,463. Pub. 12–9–58. Filed 1–22–58.

674,376. AMERICAN BEAUTY. Hartmann Luggage Company. SN 44,464. Pub. 12–9–58. Filed 1–22–58.

674,377. BOND STREET AND DESIGN. Bond Street Ltd. SN 49,902. Pub. 11–4–58. Filed 4–18–58.

674,378. "CAPETTO." Licht & Kaplan, Inc. SN 52,505. Pub. 12–9–58. Filed 5–28–58.

Class 4—Abrasives and Polishing Materials

674,379. NUBA-WAX. Ralph A. Burke. SN 38,193. Pub. 12–9–58. Filed 10–2–57.

674,380. FAST REE-NOO. Wonder Products Mfg. Co. SN 43,905. Pub. 12–9–58. Filed 1–13–58.

Class 6—Chemicals and Chemical Compositions

674,381. SOLAR AND DESIGN. Solar Salt Company. SN 32,998. Pub. 8–5–58. Filed 7–1–57.

674,382. RESOLAKE. General Aniline & Film Corporation. SN 35,572. Pub. 12–9–58. Filed 8–15–57.

674,383. PHENAMINE. General Aniline & Film Corporation. SN 35,574. Pub. 12–9–58. Filed 8–15–57.

674,384. SULPHOFLAVINE. General Aniline & Film Corporation. SN 35,579. Pub. 12–9–58. Filed 8–15–57.

674,385. CELLINEROL. General Aniline & Film Corporation. SN 35,581. Pub. 12–9–58. Filed 8–15–57.

674,386. INDOCYANINE. General Aniline & Film Corporation. SN 35,585. Pub. 12–9–58. Filed 8–15–57.

674,387. AVON. Avon Products, Inc. SN 36,947 Pub. 12–9–58. Filed 9–10–57.

674,388. HEYDEN NEWPORT AND DESIGN Heyden Newport Chemical Corporation. SN 39,067. Pub. 12–9–58 Filed 10–17–57.

674,389. FREESCRIPTION. Ames Company, Inc. SN 45,513. Pub. 12–9–58. Filed 2–10–58.

674,390. FAB-COTE. Collingwood Laboratories. SN 45,531. Pub. 11–25–58. Filed 2–10–58.

674,391. NORLIG. American Can Company SN 46,687. Pub. 12–9–58. Filed 2–27–58.

674,392. PENTIONE. Hoffmann-La Roche Inc SN 46,832 Pub. 12–9–58. Filed 2–28–58.

674,393. HEATOLITE. Beckwith-Arden Inc. SN 47,717 Pub. 12–9–58. Filed 3–14–58.

674,394. FRIGITOL. The Firestone Tire & Rubber Company. SN 49,493. Pub. 12–9–58. Filed 4–11–58

674,395. PYROLOY. Raybestos-Manhattan, Inc. SN 53,858. Pub. 12–9–58. Filed 6–11–58.

674,396. LANCAST-A. Lancaster Chemical Corporation SN 54,534. Pub. 12–9–58. Filed 6–30–58

Class 9—Explosives, Firearms, Equipments, and Projectiles

674,397. AJAX. American Cyanamid Company. SN 52,024 .Pub. 12–9–58. Filed 5–21–58.

674,398. POWERTOL. American Cyanamid Company. SN 52,026. Pub. 12–9–58. Filed 5–21–58

674,399. GIANITE. Atlas Powder Company. SN 52,353. Pub. 12–9–58. Filed 5–29–58.

674,400. CLIPPER KING AND DESIGN. The Marlin Firearms Company. SN 58,740. Pub. 12–9–58. Filed 9–10–58.

Class 10—Fertilizers

674,401. REPRESENTATION OF TEEPEE WITHIN 2 CIRCLES. Thomas H. Plummer, Jr., d. b. a. T. P. Laboratories. SN 59,640. Pub. 12–9–58. Filed 9–26–58.

Class 11—Inks and Inking Materials

674,402. BETTER BICKING COPY COMPANY. The Henry Bicking Company, Inc. SN 39,444. Pub. 12–9–58. Filed 10–24–57.

674,402. STAMPRITE. Goldsmith Bros. SN 51,344. Pub. 12–9–58. Filed 5–9–58.

674,404. KRAFTONE. Claremont Pigment Dispersion Corporation. SN 53,015. Pub. 12–9–58. Filed 6–6–58.

674,405. KINGSMARK. Scripto, Inc. SN 53,537. Pub. 12–9–58. Filed 6–13–58.

674,406. SI-RO-MARK. Commonwealth Scientific and Industrial Research Organization. SN 54,145. Pub. 12–9–58. Filed 6–24–58.

Class 12 — Construction Materials

674,407. GRAVER EXPANSION ROOF AND DESIGN. Graver Tank & Mfg. Co., Inc. SN 28,224. Pub. 12–9–58. Filed 4–8–57.

674,408. STANPART. The Standard Motor Company Limited. SN 30,846. Pub. 11–4–58. Filed 5–27–57.

674,409. GMcB AND DESIGN. Gladding, McBean & Company. SN 36,880. Pub. 12–9–58. Filed 9–9–57.

674,410. COLORSTONE. Tile Roofing Company, Inc. SN 37,305. Pub. 12–9–58. Filed 9–16–57.

674,411. MOSAIC BYZANTILE. The Mosaic Tile Company. SN 38,839. Pub. 12–9–58. Filed 10–14–57.

674,412. VINYLUX. Sealview Plastics, Inc. SN 39,413. Pub. 12–9–58. Filed 10–23–57.

674,413. RICHLITE. Rainier Plywood Company. SN 43,114. Pub. 12–9–58. Filed 12–27–57.

674,414. SUNMASTER. Sunmaster Aluminum Awning Company. SN 43,351. Pub. 12–9–58. Filed 1–2–58.

674,415. DESIGN OF SPHINX. Giant Portland Cement Company. SN 46,823. Pub. 12–9–58. Filed 2–28–58.

674,416. ROOT-SEAL. Gulf States Asphalt Company, Inc. SN 46,827. Pub. 12–9–58. Filed 2–28–58.

674,417. FORMTEX. United States Plywood Corporation. SN 47,160. Pub. 12–9–58. Filed 3–5–58.

674,418. GRIDTONE. Armstrong Cork Company. SN 47,818. Pub. 12–9–58. Filed 3–17–58.

674,419. ACCRO-DOME. Raymond E. Kon and Raider E. Nelson, d. b. a. Accro Plastics. SN 47,871. Pub. 12–9–58. Filed 3–17–58.

674,420. ANCHOR-PLANK. Anchor Sales Corporation. SN 47,927. Pub. 12–9–58. Filed 3–18–58.

674,421. AQUAPATCH. Johns-Manville Corporation. SN 48,175. Pub. 12–9–58. Filed 3–21–58.

674,422. PEN-PLANK. Splicedwood Corporation. SN 48,258. Pub. 12–9–58. Filed 3–24–58.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

674,423. STANDARD. The Shelby Metal Products Company. SN 15,494. Pub. 12–9–58. Filed 9–11–56.

674,424. CHEK-LOK. The Bastian-Blessing Company. SN 38,971. Pub. 12–9–58. Filed 10–16–57.

674,425. RR. Rheem Manufacturing Company. SN 45,201. Pub. 12–9–58. Filed 2–3–58.

674,426. SEL-PAC. Selwyn-Pacific Company. SN 47,008. Pub. 12–9–58. Filed 3–3–58.

Class 14 — Metals and Metal Castings and Forgings

674,427. VASCO M-2. Vanadium-Alloys Steel Company. SN 28,904. Pub. 12–9–58. Filed 4–25–57.

674,428. C. M. TAP STEEL. Vanadium-Alloys Steel Company. SN 31,433. Pub. 12–9–58. Filed 6–5–57.

674,429. SKODA. Zavody V. I. Lenina Plzen Narodni Podnik. SN 45,856. Pub. 12–9–58. Filed 2–5–58.

674,430. NADA. Nasaan Smelting and Refining Company, Inc. SN 46,528. Pub. 12–9–58. Filed 2–26–58.

674,431. BARTEMP. Associated Spring Corporation. SN 47,554. Pub. 12–9–58. Filed 3–12–58.

674,432. ANCOR. Hoeganaes Sponge Iron Corporation. SN 48,096. Pub. 12–9–58. Filed 3–20–58.

674,433. HEDERVAN. Latrobe Steel Company. SN 49,500. Pub. 12–9–58. Filed 4–11–58.

674,434. KEM-WELD AND DESIGN. The Sherwin-Williams Company. SN 49,625. Pub. 12–9–58. Filed 4–14–58.

Class 15 — Oils and Greases

674,435. CROMWELL X3 AND DESIGN. Cromwell and Company, Inc., d. b. a. Cromwell Oil Company. SN 24,403. Pub. 12–9–58. Filed 2–14–57.

674,436. ARMOLAD. Armour and Company. SN 38,968. Pub. 12–9–58. Filed 10–16–57.

674,437. FINA AND DESIGN. American Petrofina, Incorporated. SN 41,790. Pub. 8–12–58. Filed 12–5–57.

674,438. WAHL. Wahl Clipper Corporation. SN 47,479. Pub. 12–9–58. Filed 3–10–58.

674,439. RAMOL. Continental Oil Company. SN 48,463. Pub. 12–9–58. Filed 3–26–58.

Class 16 — Protective and Decorative Coatings

674,440. REGATTA AND DESIGN. Oliver Reeder & Son, Incorporated, d. b. a. Baltimore Copper Paint Company. SN 12,666. Pub. 12–9–58. Filed 7–23–56.

674,441. TK–33. Tile Roofing Company, Inc. SN 37,311. Pub. 12–9–58. Filed 9–16–57.

674,442. BC. Admixtures, Inc. SN 39,117. Pub. 12–9–58. Filed 10–18–57.

674,443. DIXIELITE. American Can Company. SN 39,936. Pub. 12–9–58. Filed 11–1–57.

674,444. P. A. R. Protection Products Manufacturing Company. SN 40,497. Pub. 12–9–58. Filed 11–12–57.

674,445. LEPAGE'S. Johnson & Johnson, assignee of Le Page's Inc. SN 46,959. Pub. 12–9–58. Filed 3–3–58.

674,446. TSP MIL-KIL AND DESIGN. Tom Sawyer Paints, Inc. SN 57,718. Pub. 12–9–58. Filed 8–22–58.

Class 18 — Medicines and Pharmaceutical Preparations

674,447. AGOSAN. Ions Exchange & Chemical Corp. SN 699,970. Pub. 11–11–58. Filed 12–14–55.

674,448. SCHWARZKOPF. Hans Schwarzkopf. SN 23,517. Pub. 12–9–58. Filed 1–30–57.

674,449. MACPRIN. Macleans Limited. SN 27,703. Pub. 12–9–58. Filed 4–8–57.

674,450. VIATRIC. Pasadena Research Laboratories, Inc. SN 36,913. Pub. 12–9–58. Filed 9–9–57.

674,451. OMBRE AND DESIGN. Edward J. Moore Sons, Inc. SN 37,032. Pub. 12–9–58. Filed 9–11–57.

674,452. BOVIDOTE. Curtis Laboratories, Inc. SN 37,869. Pub. 12–9–58. Filed 9–26–57.

674,453. DESIGN OF MAN AND SHIELD. Salus-Haus Dr. Med. Otto Greither G. m. b. H. SN 38,768. Pub. 12–9–58. Filed 10–11–57.

674,454. VI-CHLORO-MINT MIST. Norman Dartell, d. b. a. Dartell Laboratories. SN 39,598. Pub. 12–9–58. Filed 10–28–57.

674,455. SCRATCHEX. Brookfield Laboratories. SN 40,625. Pub. 12–9–58. Filed 11–4–57.

674,456. GEIMARONE. Geigy Chemical Corporation. SN 40,045. Pub. 12–9–58. Filed 11–4–57.

674,457. GIVALEX. Nergine Laboratories, Inc. SN 40,692. Pub. 12–9–58. Filed 11–14–57.

674,459. ISCASON. C. H. Boehringer Sohn. SN 40,738. Pub. 12–9–58. Filed 11–15–57.

674,459. CERUMENEX. The Purdue Frederick Company, assignee of Blair Laboratories, Inc. SN 41,233. Pub. 12–9–58. Filed 11–25–57.

674,460. ROLLEY. Botany Mills, Inc. SN 43,425. Pub 12–9–58. Filed 1–6–58.

674,461. SAVLON. Imperial Chemical Industries Limited. SN 43,510. Pub. 12–9–58. Filed 1–2–58.

674,462. CLINITAB G. F. AND DESIGN. John V. Knight, d. b. a. Clinic Vitamins. SN 44,027. Pub. 12–9–58. Filed 1–15–58.

674,463. GYNOVULES. Rougier Inc. SN 45,209. Pub. 12–9–58. Filed 2–3–58.

674,464. COSA-TETRACYN. Chas. Pfizer & Co., Inc. SN 45,407. Pub. 12–9–58. Filed 2–6–58.

674,465. STATOMYCIN. Corn States Laboratories, Inc. SN 45,533. Pub. 12–9–58. Filed 2–10–58.

674,466. DECA-VI-TABS. Mead Johnson & Company. SN 45,744. Pub. 11–11–58. Filed 2–12–58.

674,467. SINOGAN. Societe des Usines Chimiques Rhone-Poulenc. SN 46,367. Pub. 12–9–58. Filed 2–21–58.

674,468. UROMYCIN. Chas. Pfizer & Co., Inc. SN 46,756. Pub. 12–9–58. Filed 2–27–58.

674,469. VERATON. Pharmacrest, Inc. SN 47,675. Pub. 12–9–58. Filed 3–13–58.

674,470. CURISONE. Chesebrough-Pond's Inc. SN 47,729. Pub. 12–9–58. Filed 3–14–58.

674,471. ACRIZANE. Abbott Laboratories. SN 47,803. Pub. 12–9–58. Filed 3–17–58.

674,472. LAMBARENE. Usines Chimiques d'Ivry-la Bataille dite U. C. I. B., Société à Responsabilité Limitée. SN 48,371. Pub. 12–9–58. Filed 3–24–58.

674,473. SERU-CHOL. Rexall Drug Company. SN 48,661. Pub. 12–9–58. Filed 3–28–58.

674,474. MELLS. Pharmacrest, Inc. SN 48,929. Pub. 12–9–58. Filed 4–2–58.

674,475. MENTHOLATUM CHAPROL. The Mentholatum Company. SN 49,289. Pub. 12–9–58. Filed 4–8–58.

674,476. PULVAPIX. Aveeno Corporation. SN 49,998. Pub. 12–9–58. Filed 4–18–58.

674,477. TAO. Chas. Pfizer & Co., Inc. SN 50,101. Pub. 12–9–58. Filed 4–21–58.

674,478. VENUS. V-M Nutri-Food, Inc. SN 50,263. Pub. 12–9–58. Filed 4–23–58.

674,479. TROPI-CURE. General Developments Corporation. SN 50,361. Pub. 12–9–58. Filed 4–25–58.

674,480. ACNE-MINS. Lucille K. de Vries, d. b. a. L. de Vries Co. SN 50,460. Pub. 12–9–58. Filed 4–28–58.

674,481. WHITE SHIELD. White Shield Corporation. SN 50,569. Pub. 10–7–58. Filed 4–28–58.

674,482. STIGMONENE. Warner-Lambert Pharmaceutical Company. SN 50,947. Pub. 12–9–58. Filed 5–2–58.

674,483. DETRAINE. Etablissements Clin-Byla, Société Anonyme. SN 51,117. Pub. 12–9–58. Filed 5–6–58.

674,484. CEES. The Norwich Pharmacal Company. SN 51,487. Pub. 12–9–58. Filed 5–12–58.

674,485. ARISTOMOL. American Cyanamid Company. SN 51,605. Pub. 12–9–58. Filed 5–14–58.

674,486. ARISTOGUENT. American Cyanamid Company. SN 51,609. Pub. 12–9–58. Filed 5–14–58.

674,487. ARISTOMYCIN. American Cyanamid Company. SN 51,610. Pub. 12–9–58. Filed 5–14–58.

674,488. SILICARE. Revlon, Inc. SN 51,817. Pub. 12–9–58. Filed 5–16–58.

674,489. FERRO-STETRIC. The Wander Company, d. b. a. Smith-Dorsey. SN 53,214. Pub. 12–9–58. Filed 6–9–58.

674,490. JANDREX. Drug Research Corporation. SN 53,244. Pub. 12–9–58. Filed 6–10–58.

674,491. ANTICOR. SchenLabs Pharmaceuticals, Inc. SN 53,293. Pub. 12–9–58. Filed 6–10–58.

674,492. SURFAMOL. SchenLabs Pharmaceuticals, Inc. SN 53,294. Pub. 12–9–58. Filed 6–10–58.

674,493. CORT-DOME AND DESIGN. Dome Chemicals, Inc. SN 53,396. Pub. 12–9–58. Filed 6–12–58.

674,494. VIM VITE. John H. Andrews. SN 53,763. Pub. 12–9–58. Filed 6–18–58.

674,495. HAR-DROX. National Chemical Company. SN 53,944. Pub. 12–9–58. Filed 6–20–58.

674,496. ACNE-DOME. Dome Chemicals, Inc. SN 54,019. Pub. 12–9–58. Filed 6–23–58.

674,497. SOYBORO. Dome Chemicals, Inc. SN 54,020. Pub. 12–9–58. Filed 6–23–58.

674,498. TRI-HISTAPACQ. Horton & Converse. SN 54,043. Pub. 12–9–58. Filed 6–23–58.

674,499. VANESIA. Horton & Converse. SN 54,044. Pub. 12–9–58. Filed 6–23–58.

674,500. STAMS. Standard Brands Incorporated. SN 54,108. Pub. 12–9–58. Filed 6–23–58.

674,501. ANILERIN. Merck & Co., Inc. SN 54,172. Pub. 12–9–58. Filed 6–24–58.

674,502. SUITRATE. The E. L. Patch Company. SN 54,177. Pub. 12–9–58. Filed 6–24–58.

674,503. LACTOLAXINE. The Chemdrug Corporation. SN 54,206. Pub. 12–9–58. Filed 6–25–58.

674,504. THERACIN. Vick Chemical Company. SN 54,273. Pub. 12–9–58. Filed 6–25–58.

674,505. PURGICIN. Curtis Laboratories, Inc. SN 54,291. Pub. 12–9–58. Filed 6–26–58.

674,506. PYRINISTOL. Curtis Laboratories, Inc. SN 54,292. Pub. 12–9–58. Filed 6–26–58.

674,507. HEXADIN. Curtis Laboratories, Inc. SN 54,293. Pub. 12–9–58. Filed 6–26–58.

674,508. MINERON. Curtis Laboratories, Inc. SN 54,296. Pub. 12–9–58. Filed 6–26–58.

674,509. MASTYN. Curtis Laboratories, Inc. SN 54,297. Pub. 12–9–58. Filed 6–26–58.

674,510. CELEVAC. Harker Stagg Limited. SN 54,521. Pub. 12–9–58. Filed 6–30–58.

674,511. ENDOCIDIN. Endo Laboratories Inc. SN 54,611. Pub. 12–9–58. Filed 7–1–58.

674,512. HYBOGAINE. The Purdue Frederick Company. SN 54,632. Pub. 12–9–58. Filed 7–1–58.

674,513. IBOGOID. The Purdue Frederick Company. SN 54,634. Pub. 12–9–58. Filed 7–1–58.

674,514. AUTRIN. American Cyanamid Company. SN 54,661. Pub. 12–9–58. Filed 7–2–58.

674,515. PF AND DESIGN. The Purdue Frederick Company. SN 54,888. Pub. 12–9–58. Filed 7–7–58.

Class 19 — Vehicles

674,516. MICRO PRECISION AND DESIGN. The Bada Company, assignee of Bada Manufacturing Company, d. b. a. Bada Company. SN 25,811. Pub. 12–9–58. Filed 3–11–57.

674,517. VANDERBILT. Vanderbilt Tire & Rubber Corp. SN 37,317. Pub. 12–9–58. Filed 9–16–57.

674,518. PAT. Pullman-Standard Car Manufacturing Company. SN 46,991. Pub. 12–9–58. Filed 3–3–58.

Class 21 — Electrical Apparatus, Machines, and Supplies

674,519. LIQUI-THERM. Sunbeam Corporation. SN 383. Pub. 12–9–58. Filed 1–9–56.

674,520. PEERLESS. Peerless Manufacturing Division of Dover Corporation. SN 30,188. Pub. 12–9–58. Filed 5–16–57.

674,521. AUTO-BED. The Brown-Brockmeyer Company. SN 38,975. Pub. 12–9–58. Filed 10–16–57.

674,522. TENNA ROTOR. The Alliance Manufacturing Company, Division of Consolidated Electronics Industries Corporation. SN 39,174. Pub. 12–9–58. Filed 10–21–57.

674,523. BRILLANTA. Naamlooze Vennootschap "Splendor" Gloeilampenfabrieken. SN 40,689. Pub. 12–9–58. Filed 11–14–57.

674,524. PSI AND DESIGN. Pacific Semiconductors, Inc. SN 40,772. Pub. 12–9–58. Filed 11–15–57.

674,525. INDUCTRON. The Cincinnati Milling Machine Co. SN 41,148. Pub. 12–9–58. Filed 11–22–57.

674,526. ELDORADO. Nic-L-Silver Battery Co. SN 41,300. Pub. 12–9–58. Filed 11–25–57.

674,527. MR AND DESIGN. Morphy-Richards Limited. SN 43,330. Pub. 12–9–58. Filed 1–2–58.

674,528. VANTRON. Van Norman Industries, Inc. SN 44,051. Pub. 12–9–58. Filed 1–15–58.

674,529. KSM. KSM Products, Inc. SN 47,117. Pub. 12–9–58. Filed 3–5–58.

674,530. PENN AND DESIGN. Solar Electric Corporation. SN 49,464. Pub. 12–9–58. Filed 4–10–58.

674,531. BRAINIAC. Berkeley Enterprises, Inc. SN 49,814. Pub. 12–9–58. Filed 4–17–58.

674,532. VULCAN. Globe American Corporation, d. b. a. Vulcan-Hart Manufacturing Company. SN 49,921. Pub. 12–9–58. Filed 4–18–58.

674,533. TWINSISTOR. General Transistor Corp. SN 50,618. Pub. 12–9–58. Filed 4–29–58.

674,534. VARMAT THE PEAK OF QUALITY AND DESIGN. New Jersey Wood Finishing Company. SN 51,045. Pub. 12–9–58. Filed 5–5–58.

674,535. ASTRO-POWER. International Rectifier Corporation. SN 51,276. Pub. 12–9–58. Filed 5–6–58.

Class 22 — Games, Toys, and Sporting Goods

674,536. FAVENTIA AND DESIGN. Vicente Llinares Castelar. SN 8,625. Pub. 12–9–58. Filed 5–21–56.

674,537. ZIPEES AND DESIGN. Manning Manufacturing Corporation. SN 28,530. Pub. 12–9–58. Filed 4–19–57.

674,538. DOLL SKORT. Boreva Sportswear Company. SN 37,130. Pub. 12–9–58. Filed 9–13–57.

674,539. ULTRA-GLAS. Fortin Plastics, Inc. SN 45,384. Pub. 12–9–58. Filed 3–11–58.

674,540. BLUE SEAL AND DESIGN. Claude J. Newman, d. b. a. Blue Seal Archery Products. SN 49,768. Pub. 12–9–58. Filed 4–16–58

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

674,541. ALPINE MIKROPLEX. Alpine Aktiengesellschaft Maschinenfabrik und Eisengiesserei. SN 17,146. Pub. 12–9–58. Filed 10–9–56.

674,542. SATIN CLOUD. P. R. Myers & Company. SN 23,564. Pub. 12–9–58. Filed 1–31–57.

674,543. TURN-A-BOX AND DESIGN. A. W. Threaber & Son. SN 30,373. Pub. 12–9–58. Filed 5–20–57.

674,544. J&B AND DESIGN. James S. Baker (Imports) Co., Inc. SN 37,622. Pub. 12–9–58. Filed 9–23–57.

674,545. REACTRON. Peter Willems. SN 37,703. Pub. 12–9–58. Filed 9–23–57.

674,546. FIBROTOM. Peter Willems. SN 37,704. Pub. 12–9–58. Filed 9–23–57.

674,547. PALLASTRON. Peter Willems. SN 37,705. Pub. 12–9–58. Filed 9–23–57.

674,548. RIDE-N-CUT. Ride-A-Mower Company. SN 37,813. Pub. 12–9–58. Filed 9–25–57.

674,549. RIDE-A-MOWER. Ride-A-Mower Company. SN 37,814. Pub. 12–9–58. Filed 9–25–57.

674,550. SPRAYMIST. Bijur Lubricating Corporation. SN 37,856. Pub. 12–9–58. Filed 9–26–57.

674,551. SWEEP STRAK. Albert L. Harman, d. b. a. The Twistick Co. SN 39,621. Pub. 12–9–58. Filed 10–28–57.

674,552. HYPERCYCLE. Continental Meters Corporation. SN 41,245. Pub. 12–9–58. Filed 11–25–57.

674,553. SHUT-L-KLEEN. Consolidated Sewing Machine Corp. SN 51,173. Pub. 12–9–58. Filed 5–7–58.

674,554. FLUO-MATIC. Little Beaver Industries, Inc. SN 51,572. Pub. 12–9–58. Filed 5–13–58.

674,555. ALDEN8. Aldens, Inc. SN 52,547. Pub. 12–9–58. Filed 5–29–58.

674,556. LUB-RE-TEN. Gillett & Eaton, Inc. SN 52,628. Pub. 12–9–58. Filed 5–21–58.

674,557. PENEX. Universal Oil Products Company. SN 52,631. Pub. 12–9–58. Filed 5–21–58.

674,558. SABRE-TOOTH. Web Wilson Oil Tools, Inc. SN 57,309. Pub. 12–9–58. Filed 8–15–58.

674,559. SUP-R. Guibert Steel Company. SN 57,369. Pub. 12–9–58. Filed 8–18–58.

674,560. VENUS. Wallace Silversmiths, Inc. SN 57,520. Pub. 12–9–58. Filed 8–19–58.

674,561. COOK OUT AND DESIGN. The Delsam Co. SN 57,679. Pub. 12–9–58. Filed 8–22–58.

674,562. KENO. John W. Wallace. SN 57,728. Pub. 12–9–58. Filed 8–22–58.

674,563. BS AND DESIGN. Brown & Sharpe Manufacturing Company. SN 57,763. Pub. 12–9–58. Filed 8–25–58.

674,564. O AND REPRESENTATION OF A BEAR. W. F. Obear & Son, Inc. SN 57,828. Pub. 12–9–58. Filed 8–25–58.

674,565. SHELDON. Sheldon Machine Company, Inc. SN 57,846. Pub. 12–9–58. Filed 8–25–58.

674,566. HUGGAMOLD. General Foundry Service Corporation. SN 57,896. Pub. 12–9–58. Filed 8–26–58.

Class 26 — Measuring and Scientific Appliances

674,567. MINITHERM AND DESIGN. Bobrich Products Corp. SN 36,992. Pub. 12–9–58. Filed 9–11–57.

674,568. OMNIDEX. Superior Machine and Engineering Company. SN 39,677. Pub. 12–9–58. Filed 10–28–57.

674,569. MULTIPODE. Andre Victor Leon Clement Debrie. SN 41,442. Pub. 12–9–58. Filed 11–27–57.

674,570. VARIO-DIALYT. M. Hensoldt & Söhne, Optische Werke A.-G. SN 42,218. Pub. 12–9–58. Filed 12–11–57.

674,571. SCHAUER. Schauer Manufacturing Corporation. SN 46,490. Pub. 12–9–58. Filed 2–24–58.

674,572. VDL AND DESIGN. J. M. Developments, Inc. SN 46,916. Pub. 12–9–58. Filed 3–3–58.

674,573. BA BAIRD ATOMIC AND DESIGN. Baird-Atomic, Inc. SN 47,175. Pub. 12–9–58. Filed 3–6–58.

674,574. BUSY BOY. Petlin Corporation. SN 47,419. Pub. 12–9–58. Filed 3–10–58.

674,575. EYE-TRONIC. Electronic Instrument Co., Inc. SN 47,846. Pub. 12–9–58. Filed 3–17–58.

674,576. FW AND DESIGN. Foster Wheeler Corporation. SN 47,947. Pub. 12–9–58. Filed 3–18–58.

674,577. NORSTAT. Norwalk Thermostat Company. SN 49,868. Pub. 12–9–58. Filed 4–17–58.

674,578. RECTI/RITE AND DESIGN. Texas Instruments Incorporated. SN 50,548. Pub. 12–9–58. Filed 4–28–58.

Class 28 — Jewelry and Precious-Metal Ware

674,579. VINERS LTD. AND DESIGN. Viners Limited. SN 33,309. Pub. 12–9–58. Filed 7–5–57.

674,580. EYECESSORIES. The Hilsinger Corporation. SN 41,814. Pub. 12–9–58. Filed 12–5–57.

674,581. TEEN-O-GRAMS. Coro, Inc. SN 46,293. Pub. 12–9–58. Filed 2–21–58.

674,582. CHAINDEARS. Kaspar & Esh, Inc. SN 46,322. Pub. 12–9–58. Filed 2–21–58.

674,583. FOBULOUS-FOB. Eddie Jacobs, Ltd. SN 47,951. Pub. 12–9–58. Filed 3–18–58.

674,584. BLUE RIBBON AND DESIGN. Weidlich, Inc. SN 48,818. Pub. 12–9–58. Filed 3–31–58.

674,585. LOVE SET. Creative Rings, Inc. SN 49,489. Pub. 12–9–58. Filed 4–11–58.

674,586. MAHARANI. Coro, Inc. SN 55,455. Pub. 12–9–58. Filed 7–17–58.

Class 29—Brooms, Brushes, and Dusters

674,587. DUO-WAY. The Wooster Brush Company. SN 49,023 Pub. 12–9–58 Filed 4–3–58.

Class 31—Filters and Refrigerators

674,588. FSP. Whirlpool Corporation. SN 37,534. Pub. 12–9–58. Filed 9–19–57.

674,589. HCR-W. National Aluminate Corporation. SN 57,404. Pub. 12–9–58. Filed 8–18–58.

674,590. ULTRA-MITE. Swimquip, Inc. SN 57,441. Pub. 12–9–58. Filed 8–18–58.

674,591. EXPANDURE AND DESIGN. Flanders Filters, Inc. SN 57,895. Pub. 12–9–58. Filed 8–26–58.

Class 32—Furniture and Upholstery

674,592. CONTROL-A-MATIC. Le Febure Corporation. SN 43,686. Pub. 12–9–58. Filed 1–9–58.

674,593. MASTER-MADE. B. T. Crump Company, Inc. SN 56,699. Pub. 12–9–58. Filed 8–6–58.

674,594. DATA-SKED. Charles H. Storrs, d. b. a. C. H. Storrs and Associates. SN 57,026. Pub. 12–9–58. Filed 8–11–58.

674,595. MULTI-STOP. Joanna Western Mills Company. SN 57,213. Pub. 12–9–58. Filed 8–14–58.

Class 34—Heating, Lighting, and Ventilating Apparatus

674,596. AIRVEC. Edwards Engineering Corporation. SN 38,033. Pub. 12–9–58. Filed 9–30–57.

674,597. SRF AND DESIGN. Spi-Rol-Fin Corporation. SN 38,095. Pub. 12–9–58. Filed 9–30–57.

674,598. RR. Rheem Manufacturing Company. SN 46,358. Pub. 12–9–58. Filed 2–21–58.

674,599. VULCAN-HART AND DESIGN. Globe American Corporation, d. b. a. Vulcan-Hart Manufacturing Company. SN 49,922. Pub. 12–9–58. Filed 4–18–58.

674,600. SUNLAN. L. P. G. Equipment Company, Inc. SN 51,639. Pub. 12–9–58. Filed 5–14–58.

674,601. TEC SPOT AND DESIGN. Tec Torch Company, Inc. SN 51,830. Pub. 12–9–58. Filed 5–16–58.

674,602. DAZL-LITE AND DESIGN. Dazl-Lite Products. SN 52,866. Pub. 12–9–58. Filed 6–4–58.

Class 36—Musical Instruments and Supplies

674,603. DIGITAPE. Benson-Lehner Corporation. SN 30,554. Pub. 11–4–58. Filed 5–23–57.

674,604. WESTERN AND DESIGN. Robert Edward Lawrence, d. b. a. Western Records. SN 38,756. Pub. 12–9–58. Filed 10–11–57.

674,605. DUBL-REED-KLEEN. McLean's Band Shop, Inc. SN 50,501. Pub. 12–9–58. Filed 4–28–58.

674,606. EMIFILM. Electric & Musical Industries Limited. SN 51,116. Pub. 12–9–58. Filed 5–6–58.

Class 37—Paper and Stationery

674,607. CHEMIRAC. Takaji Funabashi. SN 21,688. Pub. 12–9–58. Filed 12–27–56.

674,608. "SAFTAG." L. G. Lenkoff, d. b. a. Stry-Lenkoff Co. SN 28,612. Pub. 12–9–58. Filed 4–22–57.

674,609. FRANKLIN. Union Bag-Camp Paper Corporation. SN 28,663. Pub. 12–9–58. Filed 4–22–57.

674,610. POUCH-FLEX. Riegel Paper Corporation. SN 37,592. Pub. 12–9–58. Filed 9–20–57.

674,611. HOMELINE. United States Envelope Company. SN 38,107. Pub. 12–9–58. Filed 9–30–57.

674,612. PEST-GUARD. Pest-Guard Products, Inc. SN 39,491. Pub. 12–9–58. Filed 10–24–57.

674,613. VISITAB. Visirecord, Inc. SN 44,941. Pub. 12–9–58. Filed 1–29–58.

674,614. CLOVERETTE. Clover Farm Stores Corporation. SN 47,101. Pub. 12–9–58. Filed 3–5–58.

674,615. TRACINK. A. W. Faber-Castell Pencil Co., Inc. SN 47,747. Pub. 12–9–58. Filed 3–14–58.

674,616. PIC-A-PACK. Imperial Methods Co. SN 48,414. Pub. 12–9–58. Filed 3–25–58.

674,617. SWINGLINE. Swingline, Inc. SN 49,531. Pub. 12–9–58. Filed 4–11–58.

674,618. SANI SHIELD. Bagcraft Corporation of America. SN 50,444. Pub. 12–9–58. Filed 4–28–58.

674,619. CORPORAID. Blackstone Stationers Inc. SN 50,679. Pub. 12–9–58. Filed 4–30–58.

674,620. CONVAN. Continental Can Company, Inc. SN 50,874. Pub. 12–9–58. Filed 5–2–58.

674,621. SHUR-SEAL. Bemis Bro. Bag Company. SN 51,257. Pub. 12–9–58. Filed 5–8–58.

674,622. CONOWRAP. Continental Can Company, Inc. SN 51,693. Pub. 12–9–58. Filed 5–15–58.

Class 38—Prints and Publications

674,623. LAUREL. Dell Publishing Company, Inc. SN 30,747. Pub. 12–9–58. Filed 5–27–57.

674,624. "WHEN YOU CARE ENOUGH TO SEND THE VERY BEST." Hallmark Cards, Incorporated. SN 38,458. Pub. 12–9–58. Filed 10–7–57.

674,625. TELE-SELLER. Insurance Company of North America. SN 45,334. Pub. 12–9–58. Filed 2–5–58.

674,626. THE KIP CLUB. New Business, Incorporated, d. b. a. The Kip Club. SN 46,849. Pub. 12–9–58. Filed 2–28–58.

674,627. MECHANICAL TOPICS. The International Nickel Company, Inc. SN 51,457. Pub. 12–9–58. Filed 5–12–58.

674,628. JOSEPHINE. General Features Corporation. SN 51,786. Pub. 12–9–58. Filed 5–16–58.

Class 39—Clothing

674,629. OLD HICKORY. Industrial Gloves Company. SN 17,568. Pub. 11–26–57. Filed 10–16–56.

674,630. RAYNETTE. Cambridge Rubber Company. SN 25,683. Pub. 12–9–58. Filed 3–7–57.

674,631. TALL X. Peter Pan Foundations, Inc. SN 26,198. Pub. 12–9–58. Filed 3–14–57.

674,632. BERGDORF GOODMAN. Bergdorf & Goodman Company. SN 28,482. Pub. 12–9–58. Filed 4–19–57.

674,633. SPRINGEASE. George B. Swarts, d. b. a. Springease Shoe. SN 34,746. Pub. 10–7–58. Filed 7–31–57.

674,634. QUILTEX AND DESIGN. The Quiltex Company. SN 38,710. Pub. 12–9–58. Filed 10–10–57.

674,635. CARDA-JAC. Jacob Finkelstein & Sons, Inc. SN 38,755. Pub. 12–9–58. Filed 10–11–57.

674,636. CUVVER-UPS. H. H. Cutler Company. SN 39,048. Pub. 12–9–58. Filed 10–17–57.

674,637. BEL-JAMBS. Ridgemoor, Inc. SN 39,158. Pub. 12–9–58. Filed 10–18–57.

674,638. LADY X. Peter Pan Foundations, Inc. SN 44,558. Pub. 12–9–58. Filed 1–23–58.

674,639. MAGI-CONE. Lester Pincus Shoe Corporation. SN 44,646. Pub. 12–9–58. Filed 1–24–58.

674,640. KNOLL'S TINY TOT TOGS AND DESIGN. Knoll and Company. SN 44,829. Pub. 12–9–58. Filed 1–28–58.

674,641. CEZANNE FURS. Robert Schechner Fur Co., Inc. SN 45,832. Pub. 12–9–58. Filed 2–13–58.

674,642. BACK TALK. Peter Pan Foundations, Inc. SN 47,277. Pub. 12–9–58. Filed 3–7–58.

674,643. "STRAP NEWS." Charles Komar & Sons, Inc. SN 47,666. Pub. 12–9–58. Filed 3–13–58.

674,644. ALUMIHAT. Air Reduction Company, Incorporated. SN 47,706. Pub. 12–9–58. Filed 3–14–58.

674,645. GOODI-MADE. Goodheim Glove Co., Inc. SN 48,276. Pub. 12–9–58. Filed 3–24–58.

674,646. CUSTOM COMFORT. J. Schoeneman, Incorporated. SN 49,199. Pub. 12–9–58. Filed 4–7–58.

674,647. SEATON HALL. Young Juniors, Inc. SN 50,659. Pub. 12–9–58. Filed 4–29–58.

674,648. MONOFOB. Marx & Haas-Korrekt Company. SN 51,481. Pub. 12–9–58. Filed 5–12–58.

674,649. LADY BUCKNELL. Jay Bucknell, Inc. SN 51,615. Pub. 12–9–58. Filed 5–14–58.

674,650. SUN 'N SNOW. Sun 'n Snow Sportswear, Incorporated. SN 51,672. Pub. 12–9–58. Filed 5–14–58.

674,651. SHAPEMAKER. Sea B's, Inc. SN 51,747. Pub. 12–9–58. Filed 5–15–58.

674,652. SHIRLBEE. Pearl Isenberg, d. b. a. Shirlbee Co. SN 51,796. Pub. 12–9–58. Filed 5–16–58.

674,653. SKEE-SIS. Southland Sportswear, Inc. SN 51,948. Pub. 12–9–58. Filed 5–19–58.

674,654. 2 FISTED. Anvil Brand, Incorporated. SN 52,087. Pub. 12–9–58. Filed 5–22–58.

674,655. HAPPY BABY. Fitts Cotton Goods Company. SN 52,213. Pub. 12–9–58. Filed 5–23–58.

674,656. SOLARION. L. Gretf & Bro. Inc. SN 52,216. Pub. 12–9–58. Filed 5–23–58.

674,657. LETTERMAN. Huth-James Shoe, Inc. SN 52,415. Pub. 12–9–58. Filed 5–27–58.

674,658. TOPSALL. F. W. Woolworth Co. SN 52,595. Pub. 12–9–58. Filed 5–29–58.

674,659. CAREER GIRL. Huntington Mfg. Co., Inc. SN 52,533. Pub. 12–2–58. Filed 5–19–58.

674,660. TOPSALL. F. W. Woolworth Co. SN 55,433. Pub. 12–9–58. Filed 7–16–58.

674,661. COLORWEB. Chester H. Roth Co., Inc. SN 60,370. Pub. 12–9–58. Filed 10–9–58.

Class 40—Fancy Goods, Furnishings, and Notions

674,662. SWEETHEART. Missouri Valley Plastics, Inc. SN 38,066. Pub. 12–9–58. Filed 9–30–57.

674,663. ELIZABETH POST. The Lauder Co. Inc., d. b. a. Elizabeth Post. SN 51,721. Pub. 12–9–58. Filed 5–15–58.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

674,664. PRECIOUS PEARL. Carol Modes Coat & Suit Co. SN 30,280. Pub. 12–9–58. Filed 5–21–57.

674,665. RAEFORD 2/60's. Raeford Worsted Corporation. SN 32,210. Pub. 12–9–58. Filed 6–18–57.

674,666. U. M. FENO. United Merchants and Manufacturers, Inc. SN 42,177. Pub. 12–9–58. Filed 12–10–57.

674,667. HIGH TIDE. United Merchants and Manufacturers, Inc. SN 42,671. Pub. 12–9–58. Filed 12–18–57.

674,668. PUSH BUTTON. United Merchants and Manufacturers, Inc. SN 42,952. Pub. 12–9–58. Filed 12–23–57.

Class 44—Dental, Medical, and Surgical Appliances

674,669. STIKIT. The American White Cross Laboratories Inc. SN 24,905. Pub. 12–9–58. Filed 2–25–57.

674,670. COMFY PAD AND DESIGN. Herman J. Windolph. SN 38,575. Pub. 12–9–58. Filed 10–8–57.

674,671. SILENT PANDA AND DESIGN. Fastel Corporation, Inc. SN 43,149. Pub. 12–9–58. Filed 12–30–57.

674,672. TENACIN AND DESIGN. The L. D. Caulk Company. SN 45,857. Pub. 12–9–58. Filed 2–14–58.

674,673. MICRODRIP. Abbott Laboratories. SN 46,086. Pub. 12–9–58. Filed 2–19–58.

674,674. BABY JOY. Louis A. Boettiger Co., Inc. SN 48,005. Pub. 12–9–58. Filed 3–19–58.

674,675. VESSA. Vessa Ltd. SN 48,214. Pub. 12–9–58. Filed 3–21–58.

674,676. SURG-A-MATIC. Shampaine Company. SN 49,201. Pub. 12–9–58. Filed 4–7–58.

Class 46—Foods and Ingredients of Foods

674,677. CHICO AND DESIGN. Dolly Fruit Products Corp., from I. Lefkowitz & Sons, Inc. SN 627,889. Pub. 11–27–56. Filed 4–10–52.

674,678. EL-REY AND DESIGN. General Meat Co. SN 9,856. Pub. 8–11–58. Filed 6–8–56.

674,679. ROYAL ROGUE PLUMS. Harry and David. SN 13,534. Pub. 12–9–58. Filed 6–7–56.

674,680. FARMER BROWN'S. H. L. Brown & Son, Inc. SN 15,014. Pub. 4–1–58. Filed 9–4–56.

674,681. BAK-A-PIE. Monroe Boston Strause. SN 24,735. Pub. 12–9–58. Filed 2–19–57.

674,682. KING QUALITY AND DESIGN. Quality Dairy Company. SN 32,413. Pub. 11–4–58. Filed 6–21–57.

674,683. RENNETENA "TENA" AND DESIGN. Salada-Shirriff-Horsey, Inc., assignee of Chr. Hansen's Laboratory, Inc. SN 35,648. Pub. 12–9–58. Filed 8–16–57.

674,684. PIZZARELLA. L. D. Schreiber & Co., Inc., d. b. a. Stella Cheese Company, Division of L. D. Schreiber & Co. Inc. SN 35,816. Pub. 12–9–58. Filed 8–19–57.

674,685. VIGO AND DESIGN. Viggo Ostergaard A/S. SN 36,638. Pub. 12–9–58. Filed 9–3–57.

674,686. STEPHANSON'S. Stephanson's. SN 36,751. Pub. 12–9–58. Filed 9–5–57.

674,687. MAPCO. Maplewood Packing Co. SN 39,479. Pub. 12–9–58. Filed 10–24–57.

674,688. SMOKIE TREATS. Patrick Cudahy Inc. SN 41,293. Pub. 8–26–58. Filed 11–26–57.

674,689. WRIGHT'S BEST. John N. Wright, Jr. SN 46,389. Pub. 12–9–58. Filed 2–21–58.

674,690. W WATKINS. The J. R. Watkins Company. SN 47,982. Pub. 12–9–58. Filed 3–18–58.

674,691. SPICENT. Spicene Company of America, Inc. SN 48,357. Pub. 12–9–58. Filed 3–24–58.

674,692. DRAGON. Comet Rice Mills. SN 48,462. Pub. 12–9–58. Filed 3–26–58.

674,693. BIXOL. Pearson Pharmacal Company, Inc. SN 49,510. Pub. 12–9–58. Filed 4–11–58.

674,694. LSM AND DESIGN. Lo-Sodium Dairy Products Corp., d. b. a. Lo-Sodium Dairy Products Corporation. SN 49,594. Pub. 12–9–58. Filed 4–14–58.

674,695. PERLITA. M. S. Cowen Company. SN 50,875. Pub. 12–9–58. Filed 5–2–58.

674,696. REPRESENTATION OF A DOG'S HEAD AND TONGUE. Standard Brands Incorporated. SN 50,937. Pub. 12–9–58. Filed 5–2–58.

674,697. TRIM-EZE. Dundas Associates. SN 52,396. Pub. 12–9–58. Filed 5–27–58.

674,698. DIET CLUB. Continental Specialties Co., Inc. SN 53,481. Pub. 12–9–58. Filed 6–13–58.

674,699. MT. TALLAC. Morse & Skinner. SN 53,720. Pub. 12–9–58. Filed 6–17–58.

674,700. LANCO. Lanco Products Corporation. SN 54,049. Pub. 12–9–58. Filed 6–23–58.

674,701. TEA HOUSE. McCormick & Company, Incorporated. SN 54,421. Pub. 12–9–58. Filed 6–27–58.

674,702. SUNSET. Westgate-California Corporation. SN 54,434. Pub. 12–9–58. Filed 6–27–58.

674,703. VANARINE. Fritzsche Brothers, Inc. SN 54,754. Pub. 12–9–58. Filed 7–3–58.

674,704. VANATONE. Fritzsche Brothers, Inc. SN 54,755. Pub. 12–9–58. Filed 7–3–58.

674,705. PAISANA. Louisiana State Rice Milling Company, Inc. SN 54,770. Pub. 12–9–58. Filed 7–3–58.

674,706. CRYSTAVAN. Fritzsche Brothers, Inc. SN 54,939. Pub. 12–9–58. Filed 7–8–58.

674,707. DI-FRASOL. Fritzsche Brothers, Inc. SN 54,940. Pub. 12–9–58. Filed 7–8–58.

674,708. FRASOL. Fritzsche Brothers, Inc. SN 54,941. Pub. 12–9–58. Filed 7–8–58.

Class 50—Merchandise Not Otherwise Classified

674,709. "POP-STOP." Burnham Industries. SN 46,416. Pub. 12–9–58. Filed 2–24–58.

674,710. MILADY. Chetley Products, Inc. SN 49,045. Pub. 12–9–58. Filed 4–4–58.

674,711. EMPRESS. Chetley Products, Inc. SN 49,046. Pub. 12–9–58. Filed 4–4–58.

Class 51—Cosmetics and Toilet Preparations

674,712. POISE. Louis Bender, d. b. a. Elbee Sales. SN 27,078. Pub. 12–9–58. Filed 3–28–57.

674,713. MAGIC WAND. Better Brushes, Inc. SN 29,516. Pub. 12–9–58. Filed 5–7–57.

674,714. DR. N. G. PAYOT AND DESIGN. Societe Anonyme Laboratoires du Dr. N. G. Payot. SN 31,033. Pub. 12–9–58. Filed 5–29–57.

674,715. DR. N. G. PAYOT AND DESIGN. Societe Anonyme Laboratoires du Dr. N. G. Payot. SN 31,035. Pub. 12–9–58. Filed 5–29–57.

674,716. GOTAS D'OR. Carlos Blasini. SN 34,842. Pub 12–9–58. Filed 8–2–57.

674,717. MATINEE. The House of Stuart, Inc. SN 41,386. Pub. 12–9–58. Filed 11–26–57.

674,718. AMAZING AND DESIGN. Amazing Products, Inc. SN 43,725. Pub. 12–9–58. Filed 1–10–58.

674,719. WONDERFUL WORLD. Gabrieleen Co., Inc. SN 44,074. Pub. 12–9–58. Filed 1–16–58.

674,720. BABY SEA AND SKI. Botany Mills, Inc., d. b. a. Rolley Co. SN 45,854. Pub. 12–9–58. Filed 2–14–58.

674,721. XYRENE. F. Hoffmann-La Roche & Co. Aktiengesellschaft. SN 47,115. Pub. 12–9–58. Filed 3–5–58.

674,722. W WATKINS. The J. R. Watkins Company. SN 47,987. Pub. 12–9–58. Filed 3–18–58.

674,723. SI-BELLA. Luzier Incorporated. SN 49,949. Pub. 12–9–58. Filed 4–18–58.

674,724. SILILAN. The House of Stuart, Inc. SN 50,701. Pub. 12–9–58. Filed 4–30–58.

674,725. CADDENZA. The House of Stuart, Inc. SN 50,703. Pub. 12–9–58. Filed 4–30–58.

674,726. GLO-GENT. The House of Stuart, Inc. SN 50,704. Pub. 12–9–58. Filed 4–30–58.

674,727. PERSTOP. Carter Products, Inc. SN 50,770. Pub. 12–9–58. Filed 5–1–58.

674,728. K. I. K. Emanuel Nathanson, d. b. a. K. I. K. Co. SN 50,824. Pub. 12–9–58. Filed 5–1–58.

Class 52—Detergents and Soaps

674,729. SEVEN WINDS. Richard Hudnut. SN 12,810. Pub. 2–5–57. Filed 7–25–56.

674,730. DIPAK. The Diversey Corporation. SN 18,234. Pub. 7–2–57. Filed 10–26–56.

674,731. ALCOTABS. Alconox, Inc. SN 51,683. Pub. 12–9–58. Filed 5–15–58.

674,732. FOCUS. Hyrol Chemical Co. SN 52,416. Pub. 12–9–58. Filed 5–27–58.

Service Marks

Class 100—Miscellaneous

674,733. TOWER OF PIZZA AND DESIGN. Tower of Pizza. SN 4,405. Pub. 12–9–58 Filed 3–12–56

Class 101—Advertising and Business

674,734. COLLEGE LINEN SUPPLY INC. AND DESIGN. College Linen Supply, Inc. SN 10,756. Pub. 12–9–58. Filed 6–22–56.

674,735. D AND DESIGN. Decision, Inc. SN 22,165. Pub. 12–9–58. Filed 1–7–57.

674,736. BUCCANEER. Buccaneer Stamp Company. SN 26,767. Pub. 12–9–58. Filed 3–25–57.

674,737. STEADI-SAVE. Trust Company of Georgia. SN 43,721. Pub. 12–9–58. Filed 1–8–58.

674,738. IT'S IN THE NAME. Claster Enterprises, Inc. SN 44,801. Pub. 12–9–58. Filed 1–28–58.

Class 102—Insurance and Financial

674,739. AMERICAN CREDIT INSURANCE. American Credit Indemnity Company of New York. SN 21,494. Pub. 12–9–58. Filed 12–24–56.

674,740. SECURITY BANK AND DESIGN. Security Bank. SN 49,874. Pub. 12–9–58. Filed 4–17–58.

Class 103—Construction and Repair

674,741. MANSELL AND DESIGN. J. C. Robinson Company. SN 31,509. Pub. 12–9–58. Filed 6–6–57.

674,742. THE WOMEN'S HOUSING CONGRESS AND DESIGN. The Women's Housing Congress, Inc. SN 33,593. Pub. 12–9–58. Filed 7–11–57.

Class 104—Communication

674,743. REPRESENTATION OF LITTLE BOY. Westinghouse Broadcasting Company, Inc. SN 35,960. Pub. 12–9–58. Filed 8–21–57.

Class 105—Transportation and Storage

674,744. ILLINOIS-CALIFORNIA EXPRESS. Illinois-California Express, Inc. SN 39,231. Pub. 12–9–58. Filed 10–21–57.

674,745. MAGICRUISE. Nametra, Inc. SN 45,061. Pub. 12–9–58. Filed 1–31–58.

Class 106—Material Treatment

674,746. BRADPERMA CMI AND DESIGN. Bradford Dyeing Association (U. S. A.). SN 43,735. Pub. 12–9–58. Filed 1–10–58.

Class 107—Education and Entertainment

674,747. TELEMISSIONS. Telemissions, Inc. SN 15,240. Pub. 12–9–58. Filed 9–6–56.

674,748. RUMPUS ROOM. Albert F. Rucker, Jr. SN 28,286. Pub. 12–9–58. Filed 4–16–57.

674,749. KIN KINSMEN AND DESIGN. The Association of Kinsmen Clubs. SN 37,613. Pub. 12–9–58. Filed 9–23–57.

674,750. HALLMARK HALL OF FAME. Hallmark Cards, Incorporated. SN 38,450. Pub. 12–9–58. Filed 10–7–57.

Collective Membership Mark

Class 200

674,751. ASSE AND REPRESENTATION OF CROSS AND DESIGN EMBLEM. American Society of Safety Engineers. SN 60,456. Pub. 12–9–58. Filed 10–15–58.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 2—Receptacles

674,752. Plastic Artisans, Inc., Port Chester, N. Y. SN 36,532. Filed P. R. 8–30–57. Am. S. R. 10–24–58.

NEED-L-PAK

For Synthetic Resinous Packaging Material of Friable Type for Hypodermic Syringe Needles.
First use Aug. 27, 1957.

Class 12—Construction Materials

674,753. Rolscreen Company, Pella, Iowa. SN 39,672. Filed P. R. 10–28–57. Am. S. R. 12–15–58.

TWINLITE

For Windows.
First use Sept. 10, 1957.

Class 22—Games, Toys, and Sporting Goods

674,754. Innovation Industries, Inc., Chicago, Ill. SN 13,765. Filed P. R. 8–10–56. Am. S. R. 6–26–58.

RUMPUS ROOM GAMES

For Board and Throwing Darts for Playing a Number Dart Game.
First use in January 1956.

674,755. South Bend Tackle Company, Inc., South Bend, Ind. SN 42,993. Filed P. R. 12–24–57. Am. S. R. 12–22–58.

COPPER-GLO

For Artificial Fishing Lures.
First use Nov. 21, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

674,756. Curtiss-Wright Corporation, Cleveland, Ohio. SN 31,387. Filed P. R. 6–5–57. Am. S. R. 12–29–58.

Precisionspring

For Coil or Spring Clutch and Brake Mechanism Units and Components Thereof.
First use on about Mar. 1, 1956.

674,757. Rockwell-Standard Corporation, Coraopolis, Pa., by change of name from Rockwell Spring and Axle Company, Coraopolis, Pa. SN 43,965. Filed 1–14–58.

ROCKWELL

For Axles, and Axle Assemblies, Including Drive Axles, Trailer Axles, and Dirigible Axles and Parts Thereof; Brakes and Parts Thereof; Transmission Mechanisms and Parts Thereof; Universal Joints; Springs Including Leaf Springs and Other Mechanical Springs; Spring Clips; and Bumpers Including Face Bars and Brackets.
First use about June 13, 1956, on axle and axle assemblies.

Class 26—Measuring and Scientific Appliances

674,758. Korector Sales Company, Minneapolis, Minn. SN 22,115. Filed P. R. 1–4–57. Am. S. R. 12–12–58.

ARNESON KORECTOR

For Orthoptic Instruments.
First use Mar. 21, 1946.

Class 34—Heating, Lighting, and Ventilating Apparatus

674,759. American Air Filter Company, Inc., Louisville, Ky. SN 14,115. Filed P. R. 8–17–56. Am. S. R. 1–3–59.

DRAFT/STOP

For Forced Draft Unit Ventilators of the Cabinet Type.
First use Feb. 28, 1956.

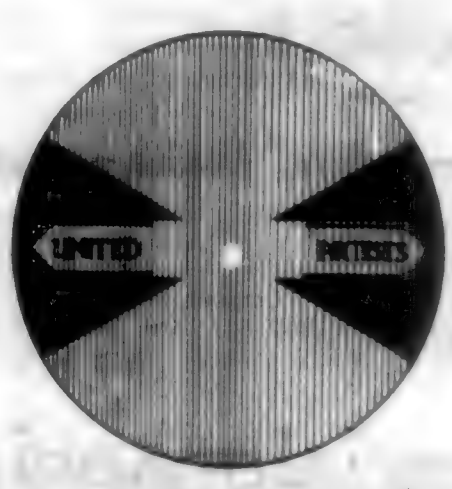
Class 36 — Musical Instruments and Supplies

674,760. Theodore Stillman, Los Angeles, Calif. SN 19,535. Filed P. R. 11–19–56. Am. S. R. 12–22–58.

THE SPINNING SPELLER

For Educational Mechanically Grooved Phonograph Records.
First use Mar. 21, 1956.

674,761. United Artists Records, Inc., New York, N. Y. SN 42,088. Filed P. R. 12–9–57. Am. S. R. 12–18–58.



The drawing is lined for red.
For Mechanically Grooved Phonograph Records.
First use Dec. 6, 1957.

Class 37 — Paper and Stationery

674,762. Thomson Paper Mills, Inc., New York, N. Y. SN 40,158. Filed P. R. 11–6–57. Am. S. R. 11–6–58.

NUSOFT

For Facial Tissues.
First use October 1957.

Class 38 — Prints and Publications

674,763. United Newspapers Magazine Corporation, New York, N. Y. SN 39,299. Filed P. R. 10–21–57. Am. S. R. 12–18–58.

CLUEWORD PUZZLE

For Syndicated Magazine or Newspaper Feature.
First use Oct. 6, 1957.

674,764. Instruments Publishing Company, Inc., Pittsburgh, Pa. SN 48,484. Filed P. R. 3–26–58. Am. S. R. 11–6–58.

MEDICAL ELECTRONICS NEWS

For Trade Publication.
First use Sept. 9, 1957.

Class 39 — Clothing

674,765. Joseph M. Klein, Inc., New York, N. Y. SN 11,685. Filed P. R. 7–6–56. Am. S. R. 12–29–58.



For Men's Bathrobes, Cabana Sets, Formal Wear, Gloves, Hosiery, Jackets, Overcoats, Pajamas, Raincoats, Shirts, Shoes, Shorts, Slacks, Suits, Surcoats, Sweaters, Ties, Topcoats, and Underwear.
First use 1942.

674,766. The Cleveland Overall Company, Cleveland, Ohio. SN 26,158. Filed P. R. 3–14–57. Am. S. R. 1–5–59.

"Sta-down"

For Overalls, Coveralls, and Washable Work Pants.
First use Jan. 1, 1957.

674,767. Old Colony Knitting Mills, Inc., Newton Centre, Mass. SN 30,261. Filed P. R. 5–17–57. Am. S. R. 12–16–58.

"IVIES"

For Ladies' Sweaters.
First use Dec. 1, 1956.

674,768. Regal Knitwear Co., Inc., New York, N. Y. SN 35,061. Filed P. R. 8–6–57. Am. S. R. 1–9–59.

YOUNG COUTURE

For Sweaters, Bathing Suits, and Polo Shirts.
First use in November 1956.

674,769. Countess Mara, Inc., New York, N. Y. SN 35,498. Filed P. R. 8–14–57. Am. S. R. 11–7–58.

'BAS-RELIEF' MINIATURES

For Neckties.
First use Apr. 10, 1957.

Class 40 — Fancy Goods, Furnishings, and Notions

674,770. Shear-Prins Associates, Chicago, Ill. SN 37,820. Filed P. R. 9–25–57. Am. S. R. 9–24–58.

REDY-TYD

For Decorative Ribbons for Gift Packages.
First use Dec. 15, 1955.

Class 46—Foods and Ingredients of Foods

674,771. Acerola Processing Corporation, Toa Baja, Puerto Rico, assignee of The Bib Corporation, Lakeland, Fla. SN 37,624. Filed P. R. 9–23–57. Am. S. R. 10–24–58.

"THE VITAMIN C THAT GROWS ON A TREE"

For Canned Pineapple Juice Blended With Acerola Juice, Especially Prepared for Babies.
First use Sept. 16, 1957.

674,772. Acerola Processing Corporation, Toa Baja, Puerto Rico, assignee of The Bib Corporation, Lakeland, Fla. SN 37,625. Filed P. R. 9–23–57. Am. S. R. 10–24–58.

"THE C THAT GROWS ON A TREE"

For Canned Pineapple Juice Blended With Acerola Juice, Especially Prepared for Babies.
First use Sept. 16, 1957.

Class 52—Detergents and Soaps

674,772. Fred E. Hummel, d. b. a. "Easy Clean," Ventura, Calif. SN 33,152. Filed 7–3–57.

EASY-CLEAN

For Detergent Adapted To Be Mixed With Water and a Solvent To Clean Metallic or Painted Surfaces of Oil, Mud, and the Like.
First use July 16, 1953.

674,774. Yadro Chemical Company, Milwaukee, Wis. SN 50,582. Filed P. R. 4–28–58. Am. S. R. 12–8–58.

No Streke

For Household Cleaner for Windows, Walls, and Woodwork.
First use Aug. 23, 1957.

TRADEMARK REGISTRATIONS RENEWED

125,604. ACME. Cl. 32. 8–27–19.
125,713. GENERAL ARTHUR AND DESIGN. Cl. 17. 6–3–19.
362,329. TRIP-L-DUTY. Cl. 46. 11–15–38.
362,749. COUPE ROUGE AND DESIGN. Cl. 47. 11–29–38.
362,751. POUILLY RESERVE AND DESIGN. Cl. 47. 11–29–38.
362,752. BLANCS VILLAGES AND DESIGN. Cl. 47. 11–29–38.
363,181. PANORAL. Cl. 18. 12–13–38.
363,662. CLEARSOL. Cl. 6. 1–3–39.
363,717. BREER RABBIT. Cl. 46. 1–3–39.
363,718. REPRESENTATION OF TWO RABBITS AND PANEL DESIGN. Cl. 46. 1–3–39.
363,889. MAYON. Cl. 35. 1–10–39.
364,189. SOUTHLAND AND LABEL DESIGN. Cl. 17. 1–24–39.
364,220. TENDER TREAT. Cl. 46. 1–24–39.
364,226. BON-TON. Cl. 46. 1–24–39.
364,527. VITAGOLD. Cl. 46. 2–14–39.
364,938. CONVOY. Cl. 35. 2–21–39.
365,225. PROKRAFT ETC. AND DESIGN. Cl. 16. 2–28–39.
365,570. MAISON FONDEE BOUCHARD AINE & FILS AND DESIGN. Cl. 47. 3–14–39.
366,553. BUCK. Cl. 22. 5–2–39.
367,042. SKIFF. Cl. 39. 5–9–39.
367,716. COLONY CLUB. Cl. 39. 5–30–39.
367,739. EMBASSY ROW. Cl. 39. 5–30–39.
367,991. DELISO DEBS. Cl. 39. 6–6–39.
367,992. DELISO YOUTHFULS. Cl. 39. 6–6–39.
367,993. PALTER DELISO DEBS. Cl. 39. 6–6–39.

TRADEMARK REGISTRATIONS CANCELED

Section 8

236,602. INTEGRITY AND DESIGN. Cl. 46. 12–20–27.
276,150. THE ARISTOCRAT AND DESIGN. Cl. 45. 10–7–30.
291,197. "OUR INTEGRITY IS IN THE CAN." Cl. 46. 2–2–32.
296,681. KOLLEGIATE. Cl. 26. 8–16–32.
298,226. YARDLEY'S. Cl. 51. 10–18–32.
298,376. REPRESENTATION OF LADY WITH BASKET. Cl. 32. 10–25–32.
321,157. CHARLEMAGNE. Cl. 47. 1–22–35.
418,514. HIGGINS. Cl. 12. 1–1–46.
435,665. DELIVR-ALL. Cl. 23. 4–20–48.
543,442. MAID DE FRANCE. Cl. 42. 6–5–51.
545,462. PERMA-PORE. Cl. 18. 7–24–51.
558,560. STYLE-WIDES BY COWARD. Cl. 39. 5–6–52.
559,013. MILADY AND DESIGN. Cl. 46. 5–20–52.
560,791. SULFOX-CIDE. Cl. 6. 7–1–52.
561,349. YOU ROBERTS TAMPA CUBA AND MAP DESIGN. Cl. 17. 7–15–52.
564,233. THERMOOVEN. Cl. 34. 9–16–52.

The following registrations issued Jan. 6, 1953

565,634. R & R RIGHT & READY 4 PURPOSE. Cl. 46.
568,689. UNITOOL. Cl. 23.
568,690. ANTIQUE BOX AND DESIGN. Cl. 46.
568,691. WHITMAN'S ANTIQUE BOX AND DESIGN. Cl. 46.
568,699. UPZEE DAZEE. Cl. 24.
568,714. WEBB AND DESIGN. Cl. 15.
568,719. CLEAR STONE AND DESIGN. Cl. 49.
568,728. THREE R. Cl. 18.
568,731. FERN. Cl. 37.
568,744. YOTANA FOR THE HAIR AND DESIGN. Cl. 18.
568,751. TEDDIE AND DESIGN. Cl. 46.
568,752. ANOLITE AND DESIGN. Cl. 21.
568,757. NEOPAXAN. Cl. 18.
568,758. FLAGSTAFF. Cl. 47.
568,765. TRUSCON AND DESIGN. Cl. 2.
568,766. "YELLO JACQUET." Cl. 24.
568,777. PEPPY BITS. Cl. 46.
568,780. BEACH BOY ETC. AND DESIGN. Cl. 51.
568,781. TO THE CITY FROM THE FARM V AND DESIGN. Cl. 46.
568,786. HOECHST 1863 AND DESIGN. Cl. 18.
568,789. DAIRYETTE AND DESIGN. Cl. 12.
568,795. KORWELD. Cl. 12.
568,808. TROPICAL TEXTURE. Cl. 37.
568,810. WONDER WAX. Cl. 15.
568,812. BEDMAKER. Cl. 42.
568,814. MAXAPHENE. Cl. 6.
568,815. ECONOMATIC AND DESIGN. Cl. 2.
568,818. SEA-CAL AND DESIGN. Cl. 6.
568,819. REPRESENTATION OF WEIGHT LIFTER, TWO LITTLE MEN AND SCREEN DOOR. Cl. 12.
568,823. MERMAID AND DESIGN. Cl. 28.
568,826. PURISSIMA EST DR. SANFORD LAXATIVE AND DESIGN. Cl. 18.

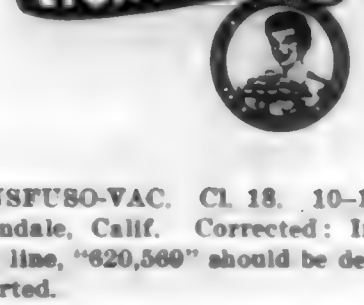
568,828. SUTTAMODE. Cl. 42.
568,830. DESIGN OF GREEK LETTERS. Cl. 28.
568,832. GERIPEUTIC. Cl. 18.
568,839. WHITE FLASH. Cl. 15.
568,841. POP'S. Cl. 51.
568,843. SOLACTHYL. Cl. 18.
568,845. DIARY-DO AND DIARY-DID. Cl. 37.
568,848. ODET. Cl. 49.
568,852. RELION ETC. AND DESIGN. Cl. 3.
568,858. VIOR. Cl. 45.
568,859. FLAMINGO AND DESIGN. Cl. 5.
568,861. BEENIES. Cl. 46.
568,863. SNOOKY A NOOK FOR EVERY NEED. Cl. 3.
568,864. SNOOKY. Cl. 3.
568,868. GAY LADY. Cl. 28.
568,877. HALIX. Cl. 42.
568,879. VITRACON. Cl. 12.
568,884. VOIELLO. Cl. 46.
568,885. JOT. Cl. 18.
568,886. BLACK KNIGHT. Cl. 25.
568,892. DAYSTROM. Cl. 21.
568,893. TEXTRON. Cl. 21.
568,894. CF. Cl. 6.
568,895. VERIBILE. Cl. 18.
568,906. PARSLETTE. Cl. 46.
568,912. FLIKS. Cl. 42.
568,913. ATESH AND DESIGN. Cl. 42.
568,915. AQUACILLIAN-A. S./600. Cl. 18.
568,917. TETRACILINA AND DESIGN. Cl. 18.
568,924. PENRODS. Cl. 18.
568,926. ZENGA. Cl. 18.
568,929. BEL-GEL. Cl. 18.
568,935. BENTROFENE. Cl. 18.
568,936. CILAG 61. Cl. 18.
568,938. EMEX. Cl. 18.
568,941. ENTUSSAMINE. Cl. 18.
568,942. ESOMID. Cl. 18.
568,943. THE CONTAINER IS "PART OF THE PRODUCT." Cl. 106.
568,950. DON-DIXON. Cl. 104.
568,951. "14 PLUS." Cl. 23.
568,953. BALTIC. Cl. 26.
568,954. SPEC-CHAIN. Cl. 26.
568,957. STAPLE BOUND AND DESIGN. Cl. 13.
568,960. GRIP-TIPS. Cl. 41.
568,962. BEST-SEAL. Cl. 4.
568,963. E-Z CUPL. Cl. 21.
568,965. PARALLEL FLEXIBLE GLASS MIRRORS. Cl. 33.
568,969. VALLEY FORGE. Cl. 44.
568,973. HOLLYWOOD SCREEN TEST AND DESIGN. Cl. 107.
568,974. IF IT'S MOIRE—IT'S PROGRESSIVE! Cl. 106.

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568,204. DYNA-JET. Cl. 23. 12-23-52.

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509,538. LIGHT CRUST. Cl. 46. 5-10-49. Tex-O-Kan Mills Co., doing business as Burrus Mill and Elevator Co., Dallas and Fort Worth, Tex. Amended to appear:



580,932. TRANSFUSO-VAC. Cl. 18. 10-13-53. Don Baxter, Inc., Glendale, Calif. Corrected: In the statement, column 2, last line, "620,560" should be deleted and *630,579* should be inserted.

664,382. VANDERCOOK. Cl. 28. 7-15-58. Vandercook & Sons, Inc., Chicago, Ill. Corrected: In column 1, line 1, "Illinois" should be deleted and *Delaware* should be inserted.

665,379. KARPEN KONVERTABLE AND DESIGN. Cl. 32. 8-5-58. Schnadig Corporation, now by merger from International Furniture Company, Chicago, Ill. Corrected: In the statement, column 1, line 3 should be deleted and *Chicago 41, Ill., by merger from* should be inserted and in column 2, line 2, after "specifically" *davenports* should be inserted.

666,845. USI AND DESIGN. Cl. 26. 9-9-58. U. S. Industries, Inc., Goleta, Calif. Corrected: In column 1, line 1, "Western" should be deleted.

669,604. STANDATROL. Cl. 26. 11-11-58. Bailey Meter Company, Cleveland, Ohio. Corrected: In column 2, line 6, "1956" should be deleted and *1936* should be inserted.

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Huth-James Shoe, Inc., Milwaukee, Wis. 674,657, pub. 12–9–58. Cl. 39.
Hyrel Chemical Co., Chicago, Ill. 674,732, pub. 12–9–58. Cl. 52.
Illinois-California Express, Inc., Denver, Colo. 674,744, pub. 12–9–58. Cl. 105.
Imperial Chemical Industries Ltd., London, England. 674,461, pub. 12–9–58. Cl. 18.
Imperial Lighting Products Co., Inc., Greensburg, Pa. 568,752, canc. Cl. 21.
Imperial Methods Co., Forest Park, Ill. 674,616, pub. 12–9–58. Cl. 27.
Independent Lock Co., Fitchburg, Mass. 568,886, canc. Cl. 23.
Industrial Gloves Co., Danville, Ill. 674,629, pub. 11–26–57. Cl. 39.
Innovation Industries, Inc., Chicago, Ill. 674,754. Cl. 22.
Instruments Publishing Co., Inc., Pittsburgh, Pa. 674,764. Cl. 38.
Insurance Co. of North America, Philadelphia, Pa. 674,625, pub. 12–9–58. Cl. 38.
International Furniture Co.: *See*—
Schnadig Corp.
International Nickel Co., Inc., The, New York, N. Y. 674,627, pub. 12–9–58. Cl. 38.
International Rectifier Corp., El Segundo, Calif. 674,535, pub. 12–9–58. Cl. 21.
Ions Exchange & Chemical Corp., New York, N. Y. 674,447, pub. 11–11–58. Cl. 18.
Isenberg, Pearl, d. b. a. Shirlbee Co., New York, N. Y. 674,652, pub. 12–9–58. Cl. 39.
J. M. Developments, Inc., New York, N. Y. 674,572, pub. 12–9–58. Cl. 26.
Jacobs, David, Lincoln, Nebr. 568,868, canc. Cl. 28.
Jacobs, Eddie, Ltd., Baltimore, Md. 674,583, pub. 12–9–58. Cl. 28.
Jeral Products, Inc., Chicago, Ill. 568,938, canc. Cl. 18.
Joanna Western Mills Co., Chicago, Ill. 674,595, pub. 12–9–58. Cl. 32.
Johns-Manville Corp., New York, N. Y. 674,421, pub. 12–9–58. Cl. 12.
Johnson & Johnson, New Brunswick, N. J., from Le Page's Inc., Gloucester, Mass. 674,445, pub. 12–9–58. Cl. 16.
K. I. K. Co.: *See*—
Nathanson, Emanuel.
K & M Products, Inc., Merchantville, N. J. 674,529, pub. 12–9–58. Cl. 21.
Kasner & Rah, Inc., New York, N. Y. 674,582, pub. 12–9–58. Cl. 28.
Kenedy Building Products: *See*—
Kenedy, Frank J.
Kenedy, Frank J., d. b. a. Kenedy Building Products, Plymouth, Mich. 568,879, canc. Cl. 12.
Kimble Glass Co., Vineland, N. J. 296,681, canc. Cl. 26.
Kip Club, The: *See*—
New Business, Inc.
Klein, Joseph M., Inc., New York, N. Y. 674,765. Cl. 39.
Knight, John V., d. b. a. Clinic Vitamins, Rochester, Minn. 674,462, pub. 12–9–58. Cl. 18.
Knoll and Co., Three Oaks, Mich. 674,640, pub. 12–9–58. Cl. 39.
Komar, Charles, & Sons, Inc., New York, N. Y. 674,642, pub. 12–9–58. Cl. 39.
Kon, Raymond E., and Raider E. Nelson, d. b. a. Accro Plastics, Chicago, Ill. 674,419, pub. 12–9–58. Cl. 12.
Korecter Sales Co., Minneapolis, Minn. 674,758. Cl. 26.
L. P. G. Equipment Co., Inc., Orlando, Fla. 674,600, pub. 12–9–58. Cl. 34.
Lancaster Chemical Corp., Carlstadt, N. J. 674,396, pub. 12–9–58. Cl. 6.
Lance Products Corp., New York, N. Y. 674,700, pub. 12–9–58. Cl. 46.
Lander Co. Inc., The, d. b. a. Elizabeth Post, New York, N. Y. 674,663, pub. 12–9–58. Cl. 40.
La Poff, Harry S., Paterson, N. J. 568,906, canc. Cl. 46.
Latrobe Steel Co., Latrobe, Pa. 674,433, pub. 12–9–58. Cl. 14.
Laura & Brother Co., Richmond, Va. 364,189, ren. 1–24–59.
Lawrence, Robert E., d. b. a. Western Records, Sunburst, Mont. 674,604, pub. 12–9–58. Cl. 36.
Leavitt, John W., Co., Boston, Mass. 568,751, canc. Cl. 46.
Le Febure Corp., Cedar Rapids, Iowa. 674,592, pub. 12–9–58. Cl. 32.
Lefkowitz & Sons, Inc.: *See*—
Dolly Fruit Products Corp.
Lenkoff, L. G., d. b. a. Stry-Lenkoff Co., Louisville, Ky. 674,608, pub. 12–9–58. Cl. 37.
Le Page's Inc.: *See*—
Johnson & Johnson.
Lewis Lester, Associates, New York, N. Y. 568,973, canc. Cl. 107.
Licht & Kaplan, Inc., Newburgh, N. Y. 674,378, pub. 12–9–58. Cl. 3.
Liebendorfer, Georgia R., d. b. a. Gee Lee Products, Portola Valley, Calif. 674,372, pub. 12–9–58. Cl. 2.
Lilly, Eli, and Co., Indianapolis, Ind. 363,181, ren. 12–13–58. Cl. 18.
Little Beaver Industries, Inc., Willoughby, Ohio. 674,554, pub. 12–9–58. Cl. 23.
Lo-Sodium Dairy Products Corp., Venice, Calif. 674,694, pub. 12–9–58. Cl. 46.
Louisiana State Rice Milling Co., Inc., Abbeville, La. 674,705, pub. 12–9–58. Cl. 46.
Luzier Inc., Kansas City, Mo. 674,723, pub. 12–9–58. Cl. 51.
Lyon, A., & Sons, Beverly Hills, Calif. 568,848, canc. Cl. 49.
Macleans Ltd., Brentford, England. 674,449, pub. 12–9–58. Cl. 18.
Magnolia Pharmaceuticals, Inc., Jackson, Miss. 568,926, canc. Cl. 18.
Manning Mfg. Corp., Chicago, Ill. 674,537, pub. 12–9–58. Cl. 22.
Maplewood Packing Co., Belfast, Maine. 674,687, pub. 12–9–58. Cl. 46.
Mara Laboratories, Inc., The, Harrison, N. J. 568,832, canc. Cl. 18.
Markwell Mfg. Co., Inc., New York, N. Y. 568,957, canc. Cl. 13.
Marlin Firearms Co., The, New Haven, Conn. 674,409, pub. 12–9–58. Cl. 9.
Marmon-Herrington Co., Inc., Indianapolis, Ind. 438,468, canc. Cl. 23.
Marx, Jean, Los Angeles, Calif. 568,858, canc. Cl. 45.
Marx & Haas-Korrekt Co., St. Louis, Mo. 674,648, pub. 12–9–58. Cl. 39.
Maui Pineapple Co., Ltd., Maui, Hawaii. 364,827, ren. 2–14–59. Cl. 46.
McCormick & Co., Inc., Baltimore, Md. 674,701, pub. 12–9–58. Cl. 46.
McLean's Band Shop, Inc., Kansas City, Mo. 674,605, pub. 12–9–58. Cl. 36.
Mead Johnson & Co., Evansville, Ind. 674,466, pub. 11–11–58. Cl. 18.
Meb Export Co. Inc., New York, N. Y. 568,912, canc. Cl. 42.
Melin Industries: *See*—
Melin, Sten S.
Melin, Sten S., d. b. a. Melin Industries, Cleveland, Ohio. 568,669, canc. Cl. 23.
Mentholatum Co., The, Buffalo, N. Y. 674,475, pub. 12–9–58. Cl. 18.
Merck & Co., Inc., Rahway, N. J. 674,501, pub. 12–9–58. Cl. 18.
Merkel Inc., Jamaica, N. Y. 364,220, ren. 1–24–59. Cl. 46.
Missouri Valley Plastics, Inc., Kansas City, Mo. 674,662, pub. 12–9–58. Cl. 40.
Modes, Carol, Coat & Suit Co., New York, N. Y. 674,664, pub. 12–9–58. Cl. 42.
Moore, Edward J., Sons, Inc., Long Island City, N. Y. 674,451, pub. 12–9–58. Cl. 18.
Morphy-Richards Ltd., St. Mary Cray, Kent, England. 674,527, pub. 12–9–58. Cl. 21.
Morse & Skinner, Lodi, Calif. 674,690, pub. 12–9–58. Cl. 46.
Morton, Rose H., New York, N. Y. 568,960, canc. Cl. 41.
Morton Salt Co., from Ruggles & Rademaker Salt Co., Chicago, Ill. 568,684, canc. Cl. 46.
Mosaic Tile Co., The, Zanesville, Ohio. 674,411, pub. 12–9–58. Cl. 12.
Mutation Mink Breeders Association, Racine, Wis. 674,361, pub. 12–9–58. Cl. 1.

Myers, P. R., & Co., Mamaroneck, N. Y. 674,542, pub. 12–9–58. Cl. 23.
Naamloose Vennootschap "Splendor" Gloeilampenfabrieken, Nijmegen, Netherlands. 674,523, pub. 12–9–58. Cl. 21.
Nametra, Inc., New York, N. Y. 674,745, pub. 12–9–58. Cl. 103.
Nassau Smelting and Refining Co., Inc., Tottenville, N. Y. 674,430, pub. 12–9–58. Cl. 14.
Nathanson, Emanuel, d. b. a. K. I. K. Co., Bethlehem, Pa. 674,728, pub. 12–9–58. Cl. 51.
National Aluminate Corp, Chicago, Ill. 674,589, pub. 12–9–58. Cl. 31.
National Chemical Co., Paterson, N. J. 674,495, pub. 12–9–58. Cl. 18.
Nelson, Raider E.: *See*—
Kon, Raymond E., and Raider E. Nelson.
New Business, Inc., d. b. a. The Kip Club, Greenwich, Conn. 674,626, pub. 12–9–58. Cl. 38.
New Jersey Wood Finishing Co., Woodbridge, N. J. 674,534, pub. 12–9–58. Cl. 21.
Newman, Claude J., d. b. a. Blue Seal Archery Products, Minneapolis, Minn. 674,540, pub. 12–9–58. Cl. 22.
Nic-L-Silver Battery Co., Santa Ana, Calif. 674,526, pub. 12–9–58. Cl. 21.
Norgine Laboratories, Inc., New York, N. Y. 674,457, pub. 12–9–58. Cl. 18.
Norwalk Thermostat Co., Norwalk, Ohio. 674,577, pub. 12–9–58. Cl. 26.
Norwich Pharmacal Co., The, Norwich, N. Y. 674,484, pub. 12–9–58. Cl. 18.
Novik & Co., New York, N. Y. 543,442, canc. Cl. 42.
Obear, W. F., & Son, Inc., Inglewood, Calif. 674,564, pub. 12–9–58. Cl. 23.
Old Colony Knitting Mills, Inc., Newton, Mass. 367,716, ren. 5–30–59. Cl. 39.
Old Colony Knitting Mills, Inc., Newton Centre, Mass. 674,767. Cl. 39.
Pacific Semiconductors, Inc., Culver City, Calif. 674,524, pub. 12–9–58. Cl. 21.
Packard Mfg. Co., Jacksonville, Fla. 545,462, canc. Cl. 13.
Paley & Thomas, Inc., New York, N. Y. 568,825, canc. Cl. 28.
Palter, Dan, New York, N. Y., to Samuels Shoe Co., St. Louis, Mo. 367,991, ren. 6–6–59. Cl. 39.
Palter, Dan, New York, N. Y., to Samuels Shoe Co., St. Louis, Mo. 367,992, ren. 6–6–59. Cl. 39.
Palter, Dan, New York, N. Y., to Samuels Shoe Co., St. Louis, Mo. 367,993, ren. 6–6–59. Cl. 39.
Parallel Mfg. Corp., New York, N. Y. 568,965, canc. Cl. 33.
Pasadena Research Laboratories, Inc., Pasadena, Calif. 674,450, pub. 12–9–58. Cl. 18.
Patch, E. L., Co., The, Stoneham, Mass. 674,502, pub. 12–9–58. Cl. 18.
Pearson Pharmacal Co., Miami, Fla. 674,693, pub. 12–9–58. Cl. 46.
Peerless Mfg. Division of Dover Corp., Louisville, Ky. 674,520, pub. 12–9–58. Cl. 21.
Pendleton, Penny, Inc., Clayton, Mo. 568,954, canc. Cl. 26.
Penick & Ford, Ltd. Inc., New York, N. Y. 363,662, ren. 1–3–59. Cl. 6.
Penick & Ford, Ltd. Inc., New York, N. Y. 363,717, ren. 1–3–59. Cl. 46.
Penick & Ford, Ltd. Inc., New York, N. Y. 363,718, ren. 1–3–59. Cl. 46.
Penick, S. B., & Co., New York, N. Y. 560,791, canc. Cl. 6.
Peppy Bits: *See*—
Downey, Joseph B.
Pest-Guard Products, Inc., Dallas, Tex. 674,612, pub. 12–9–58. Cl. 37.
Peter Pan Foundations, Inc., New York, N. Y. 674,631, pub. 12–9–58. Cl. 39.
Peter Pan Foundations, Inc., New York, N. Y. 674,638, pub. 12–9–58. Cl. 39.
Peter Pan Foundations, Inc., New York, N. Y. 674,642, pub. 12–9–58. Cl. 39.
Petlin Corp., Temple City, Calif. 674,574, pub. 12–9–58. Cl. 26.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 674,464, pub. 12–9–58. Cl. 18.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 674,468, pub. 12–9–58. Cl. 18.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 674,477, pub. 12–9–58. Cl. 18.
Pharmacrest, Inc., Dawson, Ga. 674,469, pub. 12–9–58. Cl. 18.
Pharmacrest, Inc., Dawson, Ga. 674,474, pub. 12–9–58. Cl. 18.
Philadelphia Brief Case Co., Philadelphia, Pa. 568,852, canc. Cl. 3.
Pic-Ko Products Co., Speedway City, Ind. 674,369, pub. 12–9–58. Cl. 2.
Pincus, Lester, Shoe Corp., New York, N. Y. 674,639, pub. 12–9–58. Cl. 39.
Plastic Artisans, Inc., Portchester, N. Y. 674,752. Cl. 2.
Plummer, Thomas H., Jr., d. b. a. T. P. Laboratories, Cleveland, Ohio. 674,401, pub. 12–9–58. Cl. 10.
Plymouth Cordage Co, Plymouth, Mass. 674,364, pub. 12–9–58. Cl. 1.
Popelowsky, Israel A., d. b. a. Pop's Chemical Laboratory, Brooklyn, N. Y. 568,841, canc. Cl. 51.
Pop's Chemical Laboratory: *See*—
Popelowsky, Israel A.
Post, Elizabeth: *See*—
Lander Co. Inc., The.
Progressive Silk Finishing Co., Hoboken, N. J. 568,974, canc. Cl. 106.
Protection Products Mfg. Co., Kalamazoo, Mich. 674,444, pub. 12–9–58. Cl. 16.
Pullman-Standard Car Mfg. Co., Chicago, Ill. 674,518, pub. 12–9–58. Cl. 19.
Purdue Frederick Co., The, New York, N. Y. 674,512–13, pub. 12–9–58. Cl. 18.
Purdue Frederick Co., The, New York, N. Y. 674,515, pub. 12–9–58. Cl. 18.
Purdue Frederick Co., The, New York, N. Y., from Blair Laboratories, Inc., Short Hills, N. J. 674,459, pub. 12–9–58. Cl. 18.
Quality Dairy Co., St. Louis, Mo. 674,682, pub. 11–4–58. Cl. 46.
Quiltex Co., The, New York, N. Y. 674,634, pub. 12–9–58. Cl. 39.
Raeford Worsted Corp., New York, N. Y. 674,665, pub. 12–9–58. Cl. 42.
Rainier Plywood Co., Tacoma, Wash. 674,413, pub. 12–9–58. Cl. 12.
Raybestos-Manhattan, Inc., Passaic, N. J. 674,395, pub. 12–9–58. Cl. 6.
Reeder, Oliver, & Son, Inc., d. b. a. Baltimore Copper Paint Co., Baltimore, Md. 674,440, pub. 12–9–58. Cl. 16.
Regal Knitwear Co., Inc., New York, N. Y. 674,768. Cl. 39.
Republic Steel Corp.: *See*—
Truscon Steel Co.
Revlon, Inc., New York, N. Y. 674,488, pub. 12–9–58. Cl. 18.
Rexall Drug Co., Los Angeles, Calif. 674,473, pub. 12–9–58. Cl. 18.
Rheem Mfg. Co., Richmond, Calif. 674,371, pub. 12–9–58. Cl. 2.
Rheem Mfg. Co., Richmond, Calif. 674,425, pub. 12–9–58. Cl. 13.
Rheem Mfg. Co., Richmond, Calif. 674,598, pub. 12–9–58. Cl. 34.
Rhodes Pharmacal Co., Inc., Cleveland, Ohio. 568,941, canc. Cl. 18.
Ride-a-Mower Co., Hannibal, Mo. 674,548–9, pub. 12–9–58. Cl. 23.
Ridgemoor, Inc., St. Louis, Mo. 674,637, pub. 12–9–58. Cl. 39.
Riegel Paper Corp., New York, N. Y. 674,610, pub. 12–9–58. Cl. 37.
Roberts, J. W., & Son Inc., Tampa, Fla. 561,349, canc. Cl. 17.
Robinson, J. C., Co., Detroit, Mich. 674,741, pub. 12–9–58. Cl. 103.
Rockwell Spring and Axle Co.: *See*—
Rockwell Standard Corp.
Rockwell Standard Corp., by change of name from Rockwell Spring and Axle Co., Carnopolis, Pa. 674,737. Cl. 23.
Rolly Co.: *See*—
Botany Mills, Inc.
Rolscreen Co., Pella, Iowa. 674,753. Cl. 12.
Roth, Chester H., Co., Inc., New York, N. Y. 674,661, pub. 12–9–58. Cl. 39.
Rougier Inc., Montreal, Quebec, Canada. 674,463, pub. 12–9–58. Cl. 18.
Rucker, Albert F., Jr., Hubbard, Ohio. 674,748, pub. 12–9–58. Cl. 107.
Ruggles & Rademaker Salt Co.: *See*
Morton Salt Co.
Saegertown Mineral Water Co., The, Saegertown, Pa. 276,150, canc. Cl. 46.
Salada-Shirriff-Horsey, Inc., Boston, Mass., from Chr. Hansen's Laboratory, Inc., Little Falls, N. Y. 674,683, pub. 12–9–58. Cl. 46.
Salus-Haus Dr. Med. Otto Greither G. m. b. H., Munich, Germany. 674,453, pub. 12–9–58. Cl. 18.
Samuels Shoe Co.: *See*
Palter, Dan.
Sanford Sales Corp., New York, N. Y. 568,826, canc. Cl. 18.
Schauer Mfg. Corp., Cincinnati, Ohio. 674,571, pub. 12–9–58 Cl. 26.
Schechner, Robert, Fur Co., Inc., New York, N. Y. 674,641, pub. 12–9–58. Cl. 39
SchenLabs Pharmaceuticals, Inc., New York, N. Y. 674,491–2, pub. 12–9–58. Cl. 18
Schenley Laboratories, Inc., New York, N. Y. 568,915, canc Cl. 18.
Schenley Laboratories, Inc., New York, N. Y. 568,917, canc Cl. 18.
Schering Corp., Bloomfield, N. J. 568,757, canc. Cl. 18
Schnadig Corp., now by merger from International Furniture Co., Chicago, Ill. 665,379, cor. Cl. 32.
Schoeneman, J., Inc., Baltimore, Md. 674,646, pub. 12–9–58. Cl. 39.
Schreiber, L. D., & Co., Inc., d. b. a. Stella Cheese Co., Division of L. D. Schreiber & Co. Inc., Chicago, Ill. 674,684, pub. 12–9–58. Cl. 46.
Schwarzkopf, Hans, Hamburg-Altona, Germany. 674,448, pub. 12–9–58. Cl. 18.
Screentite Door Co., Oakland Calif. 568,819, canc. Cl. 12
Scripto, Inc., Atlanta, Ga. 674,405, pub. 12–9–58. Cl. 11
Sea B's, Inc., New York, N. Y. 674,651, pub. 12–9–58. Cl. 39.
Sealview Plastics, Inc., West Conshohocken, Pa. 674,412, 12–9–58. Cl. 12.
Security Bank, Lincoln Park, Mich. 674,740, pub. 12–9–58. Cl. 102.
Seeman Brothers, Inc., New York, N. Y. 568,894, canc. Cl. 6.
Selwyn-Pacific Co., Gardena, Calif. 674,426, pub. 12–9–58 Cl. 13.
Shampaine Co., St. Louis, Mo. 674,676, pub. 12–9–58. Cl. 44.
Sharp & Dohme, Inc., Philadelphia, Pa. 568,895, canc. Cl. 18.
Shear-Prins Associates, Chicago, Ill. 674,770. Cl. 40.
Shelby Metal Products Co., The, Shelby, Ohio. 674,423, pub. 12–9–58. Cl. 13.

Sheldon Machine Co., Inc., Chicago, Ill. 674,565, pub. 12–9–58. Cl. 23.
Sherwin-Williams Co., The, Cleveland, Ohio. 674,434, pub. 12–9–58. Cl. 14.
Shiribee Co.: *See*—
Isenberg, Pearl.
Smith-Dorsey: *See*—
Wander Co., The.
Smith, Mathew, d. b. a. Flamingo, Kearny, N. J. 568,859, canc. Cl. 5.
Societe Anonyme Laboratoires du Dr. N. G. Payot, Bois Colombes, Seine, France. 674,714–15, pub. 12–9–58. Cl. 51.
Societe des Usines Chimiques Rhone-Poulenc, Paris, France. 674,467, pub. 12–9–58. Cl. 18.
Solar Electric Corp., Warren, Pa. 674,530, pub. 12–9–58. Cl. 21.
Solar Salt Co., Salt Lake City, Utah. 674,381, pub. 8–5–58. Cl. 6.
South Bend Tackle Co., Inc., South Bend, Ind. 674,755. Cl. 22.
South Shore Broadcasting Co., Quincy, Mass. 568,950, canc. Cl. 104.
Southland Sportswear, Inc., Birmingham, Ala. 674,653, pub. 12–9–58. Cl. 39.
Spicene Co. of America, Inc., North Bergen, N. J. 674,691, pub. 12–9–58. Cl. 46.
Spi-rol-fin Corp., Pequannock, N. J. 674,597, pub. 12–9–58. Cl. 34.
Splicedwood Corp., Mellen, Wis. 674,422, pub. 12–9–58. Cl. 12.
Springease Shoe: *See*—
Swartz, George B.
Squibb, E. R., & Sons, New York, N. Y. 568,843, canc. Cl. 18.
Standard Brands Inc., New York, N. Y. 674,500, pub. 12–9–58. Cl. 18.
Standard Brands Inc., New York, N. Y. 674,696, pub. 12–9–58. Cl. 46.
Standard Motor Co. Ltd., The, Coventry, England. 674,408, pub. 11–4–58. Cl. 12.
Stella Cheese Co., Division of L. D. Schreiber & Co. Inc.: *See*—
Schreiber, L. D., & Co., Inc.
Stephanson's, Washington, D. C. 674,686, pub. 12–9–58. Cl. 46.
Stillman, Theodore, Los Angeles, Calif. 674,760. Cl. 36.
Storrs, C. H., and Associates: *See*—
Storrs, Charles H.
Storrs, Charles H., d. b. a. C. H. Storrs and Associates, Pittsburgh, Pa. 674,594, pub. 12–9–58. Cl. 32.
Strause, Monroe B., San Diego, Calif. 674,681, pub. 12–9–58. Cl. 46.
Stry-Lenkoff Co.: *See*—
Lenkoff, L. G.
Sun 'N Snow Sportswear, Inc., Elizabeth, N. J. 674,650, pub. 12–9–58. Cl. 39.
Sunbeam Corp., Chicago, Ill. 674,519, pub. 12–9–58. Cl. 21.
Sunmaster Aluminum Awning Co., Haskell, N. J. 674,414, pub. 12–9–58. Cl. 12.
Superior Machine and Engineering Co., Detroit, Mich. 674,568, pub. 12–9–58. Cl. 26.
Swartz, George B., d. b. a. Springease Shoe, St. Louis Park, Minn. 674,633, pub. 10–7–58. Cl. 39.
Swimquip, Inc., El Monte, Calif. 674,590, pub. 12–9–58. Cl. 31.
Swingline, Inc., Long Island City, N. Y. 674,617, pub. 12–9–58. Cl. 37.
T. P. Laboratories: *See*—
Plummer, Thomas H., Jr.
Tee Torch Co., Inc., Carlstadt, N. J. 674,601, pub. 12–9–58. Cl. 34.
Telemissions, Inc., Chagrin Falls, Ohio. 674,747, pub. 12–9–58. Cl. 107.
Telrex Inc., Asbury Park, N. J. 568,963, canc. Cl. 21.
Texas Instruments Inc., Dallas, Tex. 674,578, pub. 12–9–58. Cl. 26.
Tex-O-Kan Mills Co., d. b. a. Burrus Mill and Elevator Co., Dallas and Fort Worth, Tex. 509,538. Am. 7(d). Cl. 46.
Textron Inc., Providence, R. I. 568,893, canc. Cl. 21.
Theta Sigma Upsilon Sorority, Denver, Colo. 568,830, canc. Cl. 28.
Thomson Paper Mills, Inc., New York, N. Y. 674,762. Cl. 37.
Three R Co., Passaic, N. J. 568,728, canc. Cl. 18.
Thresher, A. W., & Son, Gridley, Calif. 674,543, pub. 12–9–58. Cl. 23.
Tilo Roofing Co., Inc., Stratford, Conn. 674,410, pub. 12–9–58. Cl. 12.
Tilo Roofing Co., Inc., Stratford, Conn. 674,441, pub. 12–9–58. Cl. 16.
Tom Sawyer Paints, Inc., Brunswick, Ga. 674,446, pub. 12–9–58. Cl. 16.
Tower of Pizza, Jersey City, N. J. 674,733, pub. 12–9–58. Cl. 100.
Triple H Ranch, Burlington, Iowa. 674,362, pub. 12–9–58. Cl. 1.
Truscon Steel Co., Youngstown, to Republic Steel Corp., Cleveland, Ohio. 568,765, canc. Cl. 2.
Trust Co. of Georgia, Atlanta, Ga. 674,737, pub. 12–9–58. Cl. 101.
Twistick Co., The: *See*—
Harman, Albert L.
Union Bag-Camp Paper Corp., New York, N. Y. 674,609, pub. 12–9–58. Cl. 37.
Union Fork & Hoe Co., The, Columbus, Ohio. 366,883, ren. 5–2–59. Cl. 23.
United Artists Records, Inc., New York, N. Y. 674,761. Cl. 36.
United Cigar Manufacturers Co., to General Cigar Co., Inc., New York, N. Y. 125,713, ren. 6–3–59. Cl. 17.
United Merchants and Manufacturers, Inc., New York, N. Y. 674,666–8, pub. 12–9–58. Cl. 42.
United Newspapers Magazine Corp., New York, N. Y. 674,763. Cl. 38.
United Wallpaper, Inc., Chicago, Ill. 568,808, canc. Cl. 37.
United States Envelope Co., Springfield, Mass. 674,611, pub. 12–9–58. Cl. 37.
United States Hoffman Machinery Corp., Syracuse and New York, N. Y. 568,766, canc. Cl. 24.
U. S. Industries, Inc., Goleta, Calif. 666,845, cor. Cl. 26.
United States Plywood Corp., New York, N. Y. 674,417, pub. 12–9–58. Cl. 12.
United States Rubber Co., New York, N. Y. 674,363, pub. 12–9–58. Cl. 1.
Universal Oil Products Co., Des Plaines, Ill. 674,557, pub. 12–9–58. Cl. 23.
Usines Chimiques d'Ivry la Bataille Dite U. C. I. B., Societe a Responsabilite Limitee, Ivry-la-Bataille (Eure), France. 674,472, pub. 12–9–58. Cl. 18.
V-M Nutri-Food, Inc., Evanston, Ill. 674,478, pub. 12–9–58. Cl. 18.
Van Norman Industries, Inc., Manchester, N. H. 674,528, pub. 12–9–58. Cl. 21.
Van Pels, Max, New York, N. Y. 568,814, canc. Cl. 6.
Vanadium-Alloys Steel Co., Latrobe, Pa. 674,427–8, pub. 12–9–58. Cl. 14.
Vanderbilt Tire & Rubber Corp., New York, N. Y. 674,517, pub. 12–9–58. Cl. 19.
Vesse Ltd., Guildford, England. 674,675, pub. 12–9–58. Cl. 44.
Vick Chemical Co., New York, N. Y. 674,504, pub. 12–9–58. Cl. 18.
Viggo Ostergaard A/S, Aarhus, Denmark. 674,685, pub. 12–9–58. Cl. 46.
Viners Ltd., Sheffield, England. 674,579, pub. 12–9–58. Cl. 28.
Visirecord, Inc., Copiague, N. Y. 674,613, pub. 12–9–58. Cl. 37.
Voiello, Frank, Brooklyn, N. Y. 568,884, canc. Cl. 46.
Vollmer's Food Specialties, Inc., Ardmore, Pa. 568,783, canc. Cl. 46.
Votana Co., The, Portsmouth, Ohio. 568,744, canc. Cl. 18.
Vulcan-Hart Mfg. Co.: *See*—
Globe American Corp.
Wahl Clipper Corp., Sterling, Ill. 674,438, pub. 12–9–58. Cl. 15.
Wallace, John W., Wichita, Kans. 674,562, pub. 12–9–58. Cl. 23.
Wallace Silversmiths, Inc., Wallingford, Conn. 674,560, pub. 12–9–58. Cl. 23.
Waller & Hartley Ltd., Blackpool, England. 559,013, canc. Cl. 46.
Wamsutta Mills, New Bedford, Mass. 568,812, canc. Cl. 42.
Wamsutta Mills, New Bedford, Mass. 568,828, canc. Cl. 42.
Wander Co., The, d. b. a. Smith-Dorsey, Chicago, Ill. 674,489, pub. 12–9–58. Cl. 18.
Wandercook & Sons, Inc., Chicago, Ill. 664,382, cor. Cl. 23.
Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 674,482, pub. 12–9–58. Cl. 18.
Watkins, J. R., Co., The, Winona, Minn. 674,690, pub. 12–9–58. Cl. 46.
Watkins, J. R., Co., The, Winona, Minn. 674,722, pub. 12–9–58. Cl. 51.
Web Wilson Oil Tools, Inc., Gardena, Calif. 674,558, pub. 12–9–58. Cl. 23.
Webb, Harry K., Alexandria, Minn. 568,714, canc. Cl. 15.
Weidlich, Inc., Bridgeport, Conn. 674,584, pub. 12–9–58. Cl. 28.
Western Records: *See*—
Lawrence, Robert E.
Westgate-California Corp., San Diego, Calif. 674,702, pub. 12–9–58. Cl. 46.
Westinghouse Broadcasting Co., Inc., New York, N. Y. 673,743, pub. 12–9–58. Cl. 104.
Whirlpool Corp., St. Joseph, Mich. 674,588, pub. 12–9–58. Cl. 31.
White Shield Corp., New York, N. Y. 674,481, pub. 10–7–58. Cl. 18.
Whitman, Stephen F., & Son, Inc., Philadelphia, Pa. 568,690, canc. Cl. 46.
Whitman, Stephen F., & Son, Inc., Philadelphia, Pa. 568,691, canc. Cl. 46.
Willems, Peter, Lucerne, Switzerland. 674,545–7, pub. 12–9–58. Cl. 23.
Williamson, Fred E., d. b. a. The Aerocrafters, Chicago, Ill. 568,204, canc. Cl. 23.
Windolph, Herman J., Portland, Oreg. 674,670, pub. 12–9–58. Cl. 44.
Women's Housing Congress, Inc., The, Washington, D. C. 674,742, pub. 12–9–58. Cl. 103.
Wonder Products Mfg. Co., Bellflower, Calif. 674,380, pub. 12–9–58. Cl. 4.
Wonder Wax Co., Fresno, Calif. 568,810, canc. Cl. 15.
Woolworth, F. W., Co., New York, N. Y. 674,658, pub. 12–9–58. Cl. 39.
Woolworth, F. W., Co., New York, N. Y. 674,660, pub. 12–9–58. Cl. 39.
Wooster Brush Co., The, Wooster, Ohio. 674,587, pub. 12–9–58. Cl. 29.
Wright, John N., Jr., Federalsburg, Md. 674,689, pub. 12–9–58. Cl. 46.
Yadro Chemical Co., Milwaukee, Wis. 674,774. Cl. 52.
Yardley & Co., Ltd., London, England. 298,226, canc. Cl. 51.
Yardley & Co., Ltd., London, England. 298,376, canc. Cl. 52
Young Juniors, Inc., Boston, Mass. 674,647, pub. 12–9–58 Cl. 39.
Zavody V. I. Lenina Plzen Narodni Podnik, Plzen, Czechoslovakia. 674,429, pub. 12–9–58. Cl. 14.

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